

North Tarrant Express

Proposal for the CDA for Segments 2-4

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A. PROJECT MANAGEMENT PLAN

A.1 Project Management Plan

A.1.1 Introduction

A.1.1.1 Executive Summary

This proposal-level version of the Project Management Plan (PMP) defines the process and procedures for developing NTE Segments 2-4 for the corridor users and TxDOT at a minimum cost to taxpayers and local users. We have structured our team and resources to deliver NTE Segments 2-4 on a fast-track schedule that is based on innovation and the flexibility to respond to a changing environment. The PMP will serve as the principal component of NTE Mobility Partners' Integrated Management System for the entire Project and will enable NTEMP to perform with speed and accountability. The PMP discusses NTEMP's organizational structure, team member responsibilities and accountability, timetables for the Initial Scope of Work (ISOW) and management procedures and method statements for major activities during all phases of work. The PMP addresses communication, both internal and external, including interaction with the public, media and governmental entities. The PMP also includes performance requirements, measurement procedures and the preliminary Quality Management Plan (QMP).

We have structured our team and resources to deliver NTE Segments 2-4 on a fast-track schedule that is based on innovation and the flexibility to respond to a changing environment.

Upon execution of the Concession CDA, this initial PMP (and integrated QMP) will serve as the backbone upon which Milestone 1 of the ISOW (development of the final PMP) will be based. Elements of the PMP will also be drawn upon during the preparation of the Milestone 2 deliverables, which include the detailed work plan and work breakdown structure, and the schedule and progress reporting standards for the life of the Project performance period. Section A.1.1.5 of this document provides details of the Milestones defined in the CDA and the deliverables to be produced at each Milestone.

The PMP focuses on the ISOW and Facility Implementation Plan (FIP) and also describes the management of the actual delivery of Segments 2-4. This PMP is written from the perspective that NTEMP will deliver, operate and maintain Segments 2-4 under future partnership agreements with TxDOT. The primary development goal will be to deliver all Segments as quickly as possible to improve the movement of people and goods throughout the area while eliminating the use of public funds. To realize such a schedule, each Segment will be configurationally optimized utilizing engineering and construction cost analyses, and innovative financing tools and Segment packaging

The Master Development and Financial Plans that will be created during the ISOW period will expand upon the concepts that will be outlined in this document. The culmination is a streamlined preliminary Segment delivery schedule in which *all Segments are opened prior to the respective periods in which public subsidy will be available*. The summary of proposed key Segment dates follow in **Table A.1-1**.

Table A.1-1: Summary of Key Segment Dates

| Facility | Financial Close | Beginning of Operations | End of Concession |
|----------------------|-----------------|---|-------------------|
| Segment 2E | 1/1/2011 | 1/1/2016 | 12/31/2062 |
| Segment 3A, 3B and 4 | 1/1/2013 | 1/1/2018 (Segment 4 begins construction in this year and is completed by 12/31/2024) | 12/31/2064 |
| Segment 3C | 1/1/2015 | 1/1/2020 | 12/31/2066 |

NTEMP has developed and organized this Proposal based on its partners' decades of previous experience with design-build and PPP transportation projects as well as previous experience developing TxDOT toll highways. This organizational acumen and depth of knowledge and experience will enable NTEMP to deliver NTE Segments 2-4 effectively, and on a fast-track basis. NTEMP believes its fast-track approach to Segment delivery will be of tremendous benefit to the citizens currently experiencing congestion and delay in northern Tarrant County and that this private investment in infrastructure will stimulate the local economy, attracting businesses and creating new jobs. Improving the efficiency of the network will correspondingly improve air quality in the region.

A.1.1.2 Purpose

The ultimate goal of the PMP is to establish guidelines by which NTE Mobility Partners, with all key team members, will guide NTE Segments 2-4 to successful completion. The PMP's management organization and structure are geared toward reaching NTP3, Close of Finance, and then constructing, operating and maintaining the completed Segments.

The PMP benefits TxDOT and NTE roadway users by optimizing four key items: Scope, Schedule, Budget, Risk and Quality. These five components are optimized when NTEMP maintains close control over its subconsultants, subcontractors and advisors and communicates well with TxDOT, the Independent Engineer, the public and the full range of stakeholders. The PMP defines:

- ⊙ reporting requirements and accountability of each team member;
- ⊙ management methodology;
- ⊙ lines of communication, both internal and external;
- ⊙ a timeframe for delivering the Project; and
- ⊙ a plan for utilizing resources for the Project.

As previously stated, the PMP will be an amendable document that NTEMP will update and modify as necessary, including when required under Section 6.2 and other relevant provisions of the CDA.

A.1.1.3 Confidentiality Statement

Due to the Project's size, scope, political and economic implications and the sensitive market environment, it is important to NTEMP that work performed and work products developed during the course of the Project remain strictly confidential. Such information should be available only to NTEMP's partners, subconsultants and subcontractors, except to the extent otherwise required under the CDA or by applicable law, including but not limited to the Texas Public Information Act (TPIA).

NTEMP-Related Entities, Major Participants, the Guarantor, and the employees, officers and directors of the foregoing shall be subject to the following confidentiality requirements, unless NTEMP imposes stricter requirements on an individual basis:

- a) Each such NTEMP Member or Affiliated Entity will make available to the other NTEMP Member or Affiliated Entities in this group (NTEMP-Related Entities, Major Participants, the Guarantor, and the employees, officers and directors of the foregoing) all information acquired by it in connection with the performance by it of its obligations under the Contract Documents.
- b) All information exchanged between these NTEMP Members or Affiliated Entities is confidential to them and may not be disclosed to any Persons or Entities outside of such group (as defined above) except (i) to employees, legal advisors, auditors and other consultants of any such Persons or Entities or their corporate affiliates demonstrating clear need for the information; or (ii) with the consent of the NTEMP Member or Affiliated Entity who supplied the information; or (iii) if required under the CDA, by applicable Law, including the Public Information Act; or (iv) if the information is generally and publicly available other than as a result of breach of confidence by the NTEMP Member or Affiliated Entity receiving the information.
- c) In the event such NTEMP Member or Affiliated Entity receives a subpoena or other validly issued administrative or judicial process requesting or purportedly compelling the production of confidential information, the receiving NTEMP Member or Affiliated Entity will use reasonable efforts to give the other NTEMP Member or Affiliated Entity who furnished the confidential information notice of such mandate immediately, and will not take any action to interfere with any efforts by other Persons to pursue legal remedies preventing or limiting the disclosure.
- d) No such NTEMP Member or Affiliated Entity will publish or publicly disseminate any information or data derived, or obtained from, or in connection with the Project or any Contract Document without the prior written consent of the Developer, whose consent shall be given or withheld by the Developer in a manner consistent with the CDA.
- e) No such NTEMP Member or Affiliated Entity shall disclose to third parties information obtained from the State under the CDA and designated by the State as confidential without the express written consent of the State.

No such restriction or requirement shall be imposed on TxDOT or its advisors except as prescribed under the CDA.

A.1.1.4 Scope of Work

This proposal-level version of the PMP covers all phases of Segment 2-4 development. The ISOW requires the development of the final PMP, including the QMP, and two additional documents – the Master Development Plan (MDP), and Master Financial Plan (MFP). CDA Exhibit F specifies the requirements for the PMP and its QMP component, summarized as follows:

- ⊙ **Project Management Plan** – Description of NTEMP's managerial approach and strategy. The PMP will present details on how the Developer plans to fast-track the delivery of Segments 2-4 and exceed the Project requirements. This initial version of the PMP addresses how NTEMP's organization and Key Personnel will individually and collectively manage the Project in the areas required under the ISOW and further into individual Segment development.
- ⊙ **Quality Management Plan** – Description of NTEMP's quality management system and procedures for the Project, including preparation of the MDP, MFP and Facility Implementation Plans (FIPs). The QMP will describe the interrelation between NTEMP's quality management system and other elements of its organization and its Subcontractors, as well as the integration of TxDOT and key stakeholders, including the public, into the quality management system.

CDA Exhibits D and E specify the requirements for the MDP and its MFP component, summarized as follows:

- ⊙ **Master Development Plan** – Final report of all development work through completion of Developer Milestone 6, including detailed development and financial plans that will prepare Segments to the point where they are Ready for Development. The MDP will further define each Segment, set forth Segment phasing plans and establish development milestones within a Project Schedule, focusing on fast-track delivery of each Segment. The MDP will include Traffic and Revenue studies; a revenue generation technology plan; preliminary design and engineering plans; maintenance of traffic plans; safety policies and procedures; operation and maintenance management plans; specific warranties and guarantees; specific risk management, mitigation and allocation plans; system supply plans; anticipated third-party agreements; financial pro-forma analyses; and steps for reaching Close of Finance.
- ⊙ **Master Financial Plan** – Final report of all financial work through completion of Developer Milestone 6. The MFP will include, on a Segment-by-Segment basis, conceptual capital cost estimates; sources and amounts of revenues over time; revenue generation opportunities including value capture (in which the private sector compensates a public agency for the cost of a facility that generates economic value); sources and amounts of funds; costs of funds; O&M costs; replacement and renewal costs; risk analyses and management; and assumptions (with justifications supporting the reasonableness of those assumptions). The focus of the MFP will be to fast-track development, while delivering value to the roadway users and TxDOT.

A.1.1.5 Deliverables

Deliverables are defined in the CDA as the MDP, MFP, PMP, and such other plans, drawings, samples, lists, manuals, schedules, surveys, reports, programs, data, and other documents, information and items, whether in draft, revised or final form, required under the terms of the Agreement or other Contract Documents to be submitted to TxDOT in accomplishing the Work. Deliverables for the ISOW are those required for each Developer Milestones 1 through 7 as defined in CDA Exhibit J.

The provisions of CDA Section 9: "Developer Deliverables" shall apply to all draft documents and, upon NTEMP's request, TxDOT shall provide comments upon draft documents within 28 calendar days after TxDOT's receipt thereof. TxDOT shall have 28 calendar days to approve and return to NTEMP each proposed final Deliverable for the ISOW. The Development Quality Manager, Finance Quality Manager or Design Quality Manager, as applicable, will review Deliverables prior to submittal to TxDOT for compliance with CDA and other requirements.

A preliminary ISOW schedule detailing the proposed ISOW Milestone deliverables has been prepared by NTEMP and is included in Section A.1.8 of this proposal. Each Milestone delivery date is summarized as follows, assuming a CDA execution date of March 31, 2009:

Milestone 1 – Deadline: June 5, 2009

- ⊙ Project Management Plan, including the Quality Management Plan component
- ⊙ Schedule for the Initial Scope of Work

Milestone 2 – Deadline: August 5, 2009

- ⊙ Parameters and Assumptions Report
- ⊙ Work Plan
- ⊙ Financial Management Policies and Procedures Report

Milestone 3 – Deadline: October 2, 2009

- ⊙ Draft List of Facilities for Project
- ⊙ Draft Project Financial Plan

Milestone 4 – Deadline: April 29, 2010

- ⊙ Draft Facilities Report

Milestone 5 – Deadline: June 23, 2010

- ⊙ Phasing and Sequencing Report

Milestone 6 – Deadline: August 30, 2010

- ⊙ Master Development Plan
- ⊙ Master Financial Plan

Milestone 7 – Deadline: September 24, 2010

- ⊙ Master Development Plan and Master Financial Plan Update Methodology Report

This leads to delivery of:

Segment 2E – Deadline: January 2016**Segments 3A and 3B – Deadline: January 2018****Segment 3C – Deadline: January 2020****Segment 4 – Deadline: January 2025****A.1.2 Proposed Organizational Structure**

The Proposer/Developer is Cintra, Concesiones de Infraestructuras de Transporte S.A. and Meridiam Infrastructure Finance, as Equity Owners of a Proposer yet to be formed with the reserved name of “NTE Mobility Partners” hereinafter referred to as “NTEMP”, “Developer” or “Proposer”.

- ⊙ **Cintra, Concesiones de Infraestructuras de Transporte, S.A. (Cintra)** is a global leader in developing transportation infrastructure with nearly 40 years of experience in toll road development, 23 concessions in eight countries and 1,531 miles of toll roads under its management.
- ⊙ **Meridiam Infrastructure Finance (Meridiam)** is a private equity investment fund with a maturity of 25 years, designed for investment purely within public-private partnership (PPP) infrastructure assets. Meridiam has access to approximately \$900M of direct equity and enjoys co-investment interests from many of its key investors. Meridiam has two Concession toll roads under construction and is in the process of closing on an active toll road. Meridiam also has assets in the healthcare sector.

NTEMP has established a NTE Corridor Development Team that is ready to fast-track the delivery of NTE Segments 2-4 and the final PMP and QMP. Following approval of these documents, NTEMP will submit all deliverables associated with the Master Development Plan and Master Financial Plan. The NTE Corridor Development Team consists of team members with the experience necessary to complete the required planning documents. NTEMP is largely composed of firms that created the Master Development Plan for the Trans-Texas Corridor 35 (TTC-35). Utilizing significant portions of the team that created the first plan of this type in Texas presents a significant advantage for the efficient and effective development of the NTE corridor. The addition of Meridiam will provide a further benefit through Meridiam’s experience in the development and asset management of similar infrastructure projects. Team members have on previous occasions exceeded TxDOT’s expectations and those of its advisors, and will be prepared to work hand-in-hand with each to deliver the NTE corridor with efficiency that competing teams will not be able to match. There will be no learning curve for NTEMP.

A.1.2.1 Financial Advisors

J.P. Morgan Securities, Inc. (J.P. Morgan) will serve as Chief Financial Advisor. J.P. Morgan is a leading provider of advisory and infrastructure underwriting services across tax-exempt and taxable markets.

Through its Infrastructure Advisory Group, J.P. Morgan advises private and government clients on asset classes such as toll roads, airports, ports, healthcare facilities, power facilities, and real estate. The firm actively extends credit and underwrites debt, hybrid and equity across each asset class. J.P. Morgan is a leader in both: (a) tax exempt debt structures and government funding alternatives such as the TIFIA and Private Equity Bonds (PABs) programs) and (b) concession structures – traditional, availability payment, and securitizations. As one of the largest underwriters in the world, J.P. Morgan has strong relationships with key global buyers, an understanding of investor preferences/constraints and an intimate knowledge of buyer approach to valuation and financing. J.P. Morgan will assist NTEMP in optimizing the financial feasibility of proposed facilities, preparing financing plans and securing project financing to fast-track the delivery of the entire NTE corridor.

A.1.2.2 Legal Advisors

White & Case LLP (White & Case) will serve as Project Counsel / Legal Advisor. White & Case LLP is a leading global law firm with more than 2,300 lawyers in 36 offices in 24 countries (in the U.S., Latin America, Europe, the Middle East, Africa and Asia). Staff resources will come from the worldwide Energy, Infrastructure and Project Finance Practice that comprises a network of more than 200 lawyers in offices located around the globe. The firm recently has been representing the following TX clients: Cintra in the financing for SH 121 in Dallas and a consortium bidding on the IH 635 (LBJ Freeway) Managed Lanes project in Dallas. In addition, White & Case LLP worked on the following domestic infrastructure transactions outside of Texas: Representing Cintra and Macquarie Infrastructure Group consortium in respect of the bid process and the approximately \$4B financing of the Indiana Toll Road. Representing Cintra on a 99-year concession for the Chicago Skyway, a 7.8-mile limited access toll bridge and highway system privatized by the City of Chicago.

Bracewell & Giuliani LLP (Bracewell & Giuliani) will serve as Local Counsel / Legal Advisor. Bracewell & Giuliani's attorneys draft and negotiate construction, engineering and procurement contracts for a wide variety of projects, analyzing and advising on issues such as performance and schedule guarantees, liquidated damages, indemnity provisions and insurance requirements. Bracewell & Giuliani is lead counsel to Cintra and its partner in connection with the CDA for the TTC-35 High Priority Corridor between. Bracewell & Giuliani is also lead counsel to SH 130 Concession Company, LLC in connection with the Facility Concession Agreement for the SH 130, Segments 5 and 6.

A.1.2.3 Utility Coordination

CSJ Engineering Associates (CSJ), a Texas-based company, will provide utility coordination consultation for the Project. CSJ is recognized with extensive experience in managing the Utility Coordination Process for TxDOT transportation projects, including those regulated by CDAs. CSJ's staff of licensed engineers and real estate professionals has been recognized by numerous governmental agencies for providing innovative and economic solutions to the regulatory challenges of the transportation and utility industries.

A.1.2.4 Revenue Collection Management

AECOM Enterprises (AEI) is an operating company of AECOM Technology Corp. AEI will serve as the Traffic & Revenue advisor supporting the revenue collection management team. (AECOM Enterprises is AECOM's vehicle for the delivery of services to private sector clients in the PPP market in the North America. These services were formerly done under the Maunsell AECOM banner).

Focusing on the PPP market, AECOM Enterprises is experienced in advising clients on the operation and maintenance associated with state of the art Toll road facilities including the implementation of Open Road Tolling (ORT) and dynamic tolling.

In addition to the Traffic & Revenue advisory role, AEI will also provide Technical advisory services for the Project's Electronic Toll Collection System (ETCS) and the Intelligent Transportation System (ITS) components.

A.1.2.5 Toll Facilities Management

Earth Tech, an operating company of AECOM Technology Corp, will serve as the O&M Advisor for the Civil portion of the project and the Lead Planning & Engineering consultant for Segments 2-4. With established transportation practices in Dallas and Austin, Earth Tech has significant experience in the planning and design of TxDOT highways. Earth Tech played a key role in the development of the TTC-35 Master Development Plan and the development of SH 130, Segments 5 and 6. Earth Tech will perform most of its services for NTE from its Dallas office and will subcontract with qualified local businesses and DBEs.

A.1.3 Anticipated Contractual Arrangements

NTEMP will manage and oversee all its team members performing work during the ISOW. The entities listed below, and their subcontractors, will be the primary parties responsible for creation of the NTE MDP and MFP, and for subsequent development prior to Facility NTP 3 (authorization of the close of Finance for a Segment). These entities are described in more detail in Section A.1.2.

Figure A.1-1 illustrates the organizational structure and the lines of communication within the team itself and between the team and the key stakeholders including TxDOT, the Texas Turnpike Authority (TTA) Division and the IE during the ISOW.

- ⊙ **Cintra** – Equity Partner: Project Management
- ⊙ **Meridiam** – Equity Partner: Project Management
- ⊙ **Earth Tech** – Major Participant: O&M Advisor for civil work / Lead Planning & Engineering consultant
- ⊙ **AECOM Enterprises** – Major Participant: Traffic & Revenue, Electronic Toll Collection System and Intelligent Transportation System Advisor
- ⊙ **J.P. Morgan** – Major Participant: Chief Financial Advisor
- ⊙ **Ferrovial Agroman / W.W. Webber** – Major Participant: Construction cost verification during ISOW
- ⊙ **White & Case LLP** – Advisor: Project Counsel / Legal Advisor
- ⊙ **Bracewell & Giuliani LLP** – Advisor: Local Counsel / Legal Advisor

After a Segment is planned, determined Ready for Development, and a Facility Agreement has been signed, the contractual structure will change. It may follow a very similar approach as that for the Concession Facility in which:

- ⊙ The Equity Owners (or affiliates) of NTEMP will create and fund a Special Purpose Vehicle (Segment Developer) that will sign a CDA with TxDOT.
- ⊙ The Segment Developer will assume the majority of the risks associated with the development of the NTE project including, but not limited to design, construction, traffic and revenue, finance, operation and maintenance.
- ⊙ Design and construction will be undertaken by a Design-Build Joint Venture Team (DBJV) under a lump-sum fixed price and schedule contract with the Developer.

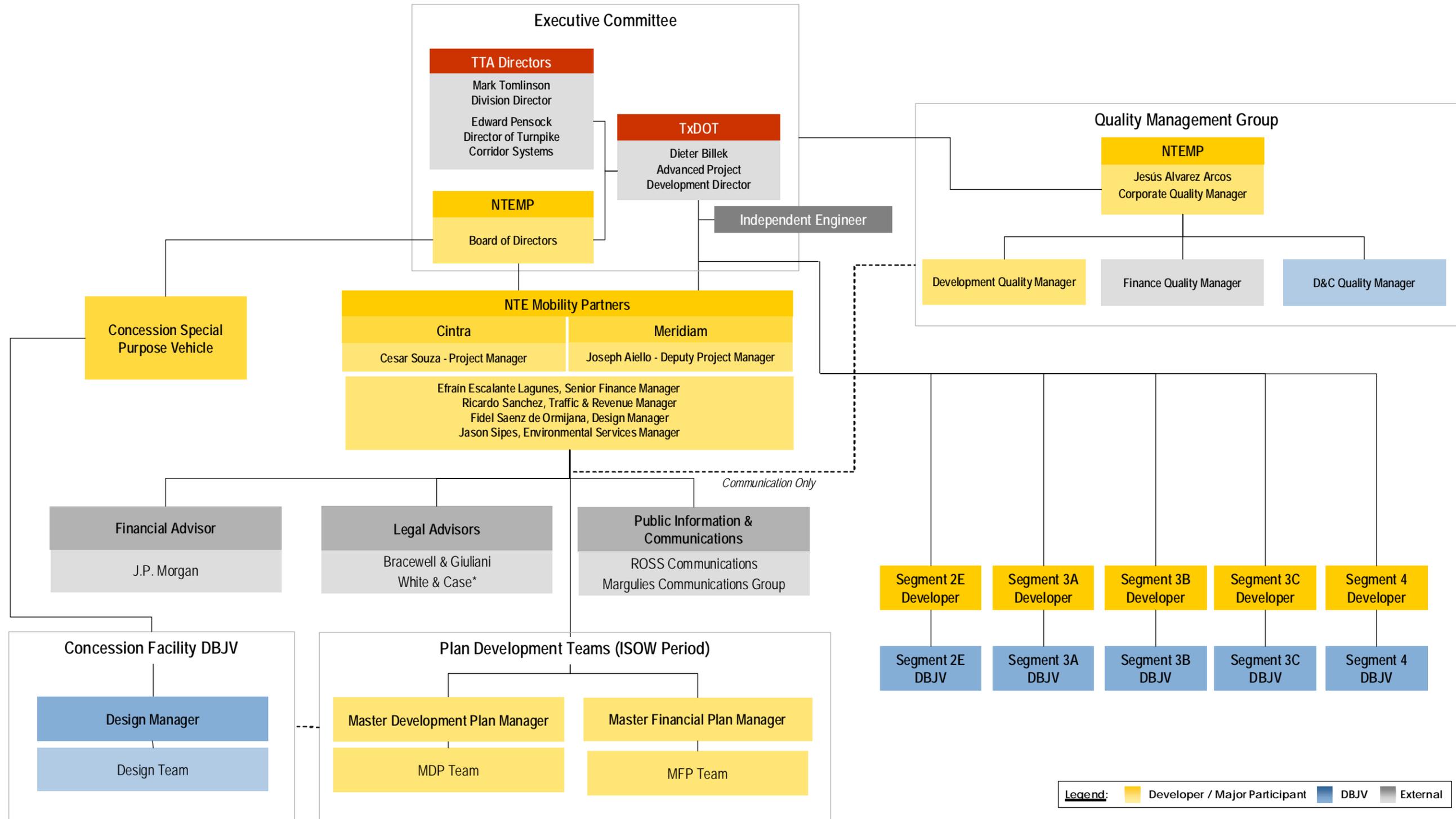
The DBJV is anticipated to be a partnership of two construction companies, Ferrovial Agroman and W.W. Webber.

- ⊙ **Ferrovial Agroman** is one of Europe's leading construction companies with a 70-year history and more than 40 years of expertise developing projects in international markets. Ferrovial Agroman applies the highest safety and quality standards and the latest technology to both the design and construction of its projects.
- ⊙ **W.W. Webber, LLC (W.W. Webber)** a leading Texas construction company with more than 40 years of experience in the U.S. market. W.W. Webber became part of Grupo Ferrovial in 2005.

The Developer and DBJV will work together to achieve fast-track Segment delivery, remaining in constant communication to share experience and data that benefit the development of NTE Segments 2-4.

It is also possible that, as a result of the analysis performed during the MDP, a Segment deemed Ready for Development may be procured in any number of different contracting structures. Each delivery methodology will be analyzed separately under the MDP with the goal to fast-track the delivery of all Segments as well as to optimize the cost and benefit (value for money) and risk management to TxDOT, the taxpayer and the users of the corridor, while creating business opportunities for all shareholders. Potential alternative delivery methods geared to maximize value are presented in Section B.4 of the Conceptual Development Plan.

Figure A.1-1: Integrated Segment 2-4 Organizational Structure



A.1.4 Responsibilities of Subcontractors and Affiliates

Planning

- ⊙ Earth Tech (Major Participant)

Traffic and Revenue / Electronic Toll Collection / Intelligent Transportation Systems

- ⊙ AECOM Enterprises (Major Participant)

Permitting

- ⊙ Cox | McLain Environmental Consulting (subconsultant to Earth Tech) – Texas-based, woman-owned business

Financing

- ⊙ J.P. Morgan Securities, Inc. (Major Participant)

ROW Acquisition

- ⊙ NTEMP. Subconsultants / subcontractors to be determined.

Design

- ⊙ Earth Tech (Major Participant)
- ⊙ Aguirre & Fields, LP (subconsultant to Earth Tech) – Texas-based, DBE

Construction

- ⊙ Ferrovial Agroman (DBJV)
- ⊙ W.W. Webber (DBJV)
- ⊙ Subcontractors to be determined

Operation

- ⊙ NTEMP. Subconsultants / subcontractors to be determined.

Maintenance

- ⊙ NTEMP. Subconsultants / subcontractors to be determined.

Equipment and Systems Procurement

- ⊙ NTEMP. Subconsultants / subcontractors to be determined.

Public Liaison and Community Relations

- ⊙ ROSS Communications (subconsultant to Developer)
- ⊙ Margulies Communications Group (subconsultant to Developer)

Government Relations

- ⊙ ROSS Communications (subconsultant to Developer)
- ⊙ Margulies Communications Group (subconsultant to Developer)

Coordinating with Utility Owners

- ⊙ CSJ Engineering Associates (subconsultant to Developer)

Geotechnical Investigations

- ⊙ Fugro Consultants, Inc. (subconsultant to Developer)

Environmental Compliance

- ⊙ NTEMP (Developer will provide Environmental Services Manager)
- ⊙ Cox | McLain Environmental Consulting (subconsultant to Earth Tech)

Contract Administration

- ⊙ NTEMP and DBJV. Subconsultants / subcontractors to be determined.

TxDOT and OSHA Health and Safety Compliance

- ⊙ NTEMP and DBJV. Subconsultants / subcontractors to be determined.

Quality Management

- ⊙ NTEMP and DBJV. Subconsultants / subcontractors to be determined.

Reaching Close of Finance/Facility Implementation

- ⊙ NTEMP and J.P. Morgan (Major Participant). Subconsultants / subcontractors to be determined.

NTEMP is committed to providing opportunities for qualified DBEs, meeting or exceeding TxDOT's requirements for DBE participation. NTEMP will also offer a mentoring program for small and disadvantaged businesses that will include individual job training, business mentoring and training specific to project delivery. Details of NTEMP's approach to DBE participation and mentoring are located in Section C.1.5 of the Concession Facility Development Plan.

A.1.5 Key Personnel Roles and Experience

Below are the roles and responsibilities for Key Personnel on the Project, as well as the qualifications and experience required for each position. Full résumés for each of the named individuals are included in Appendix E.1.

Project Manager (Overall Management of the Segment 2-4 Facilities)

Named Individual: Cesar Souza (NTEMP)

Roles and Responsibilities:

- ⦿ Serve as the direct point of contact with TxDOT's Advanced Project Development Director
- ⦿ Interface with the Public Information Coordinator to provide timely and accurate information to key stakeholders, including the traveling public
- ⦿ Represent NTEMP at public meetings and other events
- ⦿ Manage operative day-to-day decision-making for the Project
- ⦿ Develop overall Project strategy in coordination with Developer Board of Directors, Deputy Project Manager and TxDOT's Advanced Project Development Director
- ⦿ Communicate and provide guidance on Project strategy to the Developer team, DBJV, consultants and subcontractors
- ⦿ Approve progress payments for design work performed during each period by the DBJV
- ⦿ Supervise the work of the financial and engineering advisors related to the MDP and the MFP
- ⦿ Oversee contract administration
- ⦿ Monitor project schedules

Qualifications and Experience:

- ⦿ 11 years of experience in management of large-scale transportation and infrastructure projects
- ⦿ MBA, ESADE Business School, Barcelona, Spain
- ⦿ BS, Civil Engineering, Tri-State University, Indiana

Deputy Project Manager (Overall Management of the Segment 2-4 Facilities)

Named Individual: Joseph Aiello (NTEMP)

Roles and Responsibilities:

- ⦿ Coordinate with Project Manager in managing day-to-day decision-making
- ⦿ Interface with the Public Information Coordinator to provide timely and accurate information to key stakeholders, including the traveling public
- ⦿ Represent NTEMP at public meetings and other events

- ⊙ Help to develop overall Project strategy and risk management approach in coordination with the Project Director, the Project Manager, and TxDOT's Advanced Project Development Director
- ⊙ Assist Project Manager in communicating and providing strategic guidance to the Developer team, DBJV, consultants and subcontractors
- ⊙ Communicate with TxDOT's Advanced Project Development Director
- ⊙ Update the PMP as necessary
- ⊙ Monitor project schedules

Qualifications and Experience:

- ⊙ More than 25 years of experience in business and technical aspects of development of major infrastructure projects
- ⊙ MS, City and Regional Planning, Harvard University
- ⊙ BA, Psychology, University of Massachusetts, Amherst

Design Manager (Preliminary Design of the Segment 2-4 Facilities)

Named Individual: Fidel Saenz de Ormijana (NTEMP)

Roles and Responsibilities:

- ⊙ Supervise and coordinate the MDP Manager and engineering advisors under the guidance of the Project Manager
- ⊙ Assist Project Manager in communicating and providing guidance on Project strategy to design team
- ⊙ Communicate directly with TxDOT's Advanced Project Development Director
- ⊙ Advise the Project Manager on the progress of the design work carried out by the design team
- ⊙ Supervise the design team to ensure that best efforts are made to achieve all scheduled completion dates and ensuring that all work carried out is in full compliance with the CDA
- ⊙ Approve all quality and environmental documents that may impact design and build issues
- ⊙ Meet with the Quality Management personnel to coordinate internal audits and manage implementation any corrective actions to design
- ⊙ Attend Management Reviews to assess the effectiveness of the Quality Management System
- ⊙ Approve progress payments for design work performed during each period by the DBJV
- ⊙ Review proposed design variations for compliance with TxDOT standards

Qualifications and Experience:

- ⊙ More than 25 years of experience in civil engineering design, design management and project management

- ⊙ Ph.D., Civil Engineering, University of Texas at Austin
- ⊙ MS., Civil Engineering, University of Texas at Austin
- ⊙ BS, Civil Engineering, Polytechnic University of Madrid, Spain

Senior Finance Manager (Finance of the Segment 2-4 Facilities)

Named Individual: Efraín Escalante Lagunes (NTEMP)

Roles and Responsibilities:

- ⊙ Establish the finance function and ensure that the resources and skills are present to provide the set of necessary services
- ⊙ Oversee Human Resources and general office administration functions
- ⊙ Advise the CEO on any financial issues that might affect roadway operations
- ⊙ Control the finances of the Developer
- ⊙ Ensure optimization of working capital and operating cash flow
- ⊙ Manage compilation and review of annual budgets and forecasts
- ⊙ Manage contracts with financial, legal and tax advisors and consultants and approve payments for services provided
- ⊙ Approve all quality and environmental documents that may impact financial issues and

Qualifications and Experience:

- ⊙ Over five years of experience in project financing for major highway and other infrastructure projects
- ⊙ International MBA, EOI Business School, Madrid, Spain
- ⊙ BS, Business Administration, IPN Mexico

Traffic and Revenue Manager (Traffic and Revenue Services of the Segment 2-4 Facilities)

Named Individual: Ricardo Sanchez (NTEMP)

Roles and Responsibilities:

- ⊙ Oversee consultants preparing T&R forecasts and perform QA/QC checks on consultants' forecasts
- ⊙ Present T&R forecasts to Developer board, TxDOT, lenders, advisors and rating agencies
- ⊙ Advise Developer management (Project Manager, Senior Finance Manager, etc.) in interpreting and applying T&R forecast results
- ⊙ Take part in Management Reviews to assess the effectiveness of the Quality Management System
- ⊙ Oversee the development of all cost estimates for the Project

Qualifications and Experience:

- ⊙ Over 10 years of experience in transportation planning and traffic studies for highways, rail, subways and municipal bus systems
- ⊙ MS, Transportation, Imperial College of London
- ⊙ BS, Civil Engineering, Polytechnic University of Madrid, Spain

Environmental Services Manager (Environmental Services of the Segment 2-4 Facilities)

Named Individual: Jason Sipes (NTEMP)

Roles and Responsibilities:

- ⊙ Oversee consultants preparing environmental studies and documentation, and perform QA/QC checks consultants' work
- ⊙ Manage environmental commitments and required mitigation for each Facility
- ⊙ Maintain environmental records as required
- ⊙ Audit environmental issues as they pertain to the Project
- ⊙ Ensure that environmental considerations are emphasized and implemented for each Facility
- ⊙ Work with the MDP Manager to incorporate environmental considerations into the MDP

Experience:

- ⊙ 16 years of diversified experience in project and construction management and associated environmental oversight
- ⊙ MS, Business Administration, University of South Carolina, 1999
- ⊙ BS, Construction Engineering and Management, Purdue University, 1992

Corporate Quality Manager (Control of Quality of the Segment 2-4 Facilities)

Named Individual: Jesús Alvarez Arcos (NTEMP)

Roles and Responsibilities:

- ⊙ Establish QA/QC goals and objectives
- ⊙ Establish and approve QA/QC implementation methodologies, procedures and acceptance criteria
- ⊙ Review and approve quality program implementation by Subcontractors/Consultants
- ⊙ Supervise Development, Finance, and Design & Construction Quality Managers
- ⊙ Perform QA duties to ensure the QC Program is being properly implemented
- ⊙ Implement QA/QC recordkeeping system
- ⊙ Review and approve changes to the QMP

- ⊙ Exercise authority to stop work as necessary when conditions exist that are detrimental to quality
- ⊙ Undertake/supervise periodic audits for compliance with the requirements of the QMP

Experience:

- ⊙ MS, Environmental Engineering, EOI, Madrid, Spain
- ⊙ BS, Civil Engineering, Polytechnic University of Madrid, Spain
- ⊙ 12 years of experience in implementing quality management systems and environmental management systems for major concession projects

A.1.6 Key Personnel for Equity Participants and Major Non-Equity Team Members

Table A.1-2 contains the names and contact details of Key Personnel for Equity Participants and non-equity team members.

Table A.1-2: Key Personnel Names and Contact Details

| Company | Name/Role | Address | Tel./Fax/E-Mail |
|---------------------------------------|--|---|--|
| Equity Participants: | | | |
| Cintra | Cesar Souza Project Manager | 7700 Chevy Chase Dr., Suite 500C Austin, TX 78752 | Tel: 512.637.8545 Fax: 512.637.1431 csouza@cintra.us.com |
| Meridiam | Joseph C. Aiello Deputy Project Manager | 66 Long Wharf Boston, MA 02110 | Tel: 617.371.4401 Fax: 617.723.6856 j.aiello@meridiam.com |
| Cintra | Efraín Escalante Lagunes Senior Finance Manager | 7700 Chevy Chase Dr., Suite 500C Austin, TX 78752 | Tel: 512.637.8545 Fax: 512.637.1431 efrain.escalante@cintra.us.com |
| Cintra | Ricardo Sanchez Traffic and Revenue Manager | 7700 Chevy Chase Dr., Suite 500C Austin, TX 78752 | Tel: 512.637.8545 Fax: 512.637.1431 rsanchez@cintra.us.com |
| Cintra | Jason Sipes Environmental Services Manager | 7700 Chevy Chase Dr., Suite 500C Austin, TX 78752 | Tel: 512.637.8545 Fax: 512.637.1431 jsipes@cintra.us.com |
| Cintra | Jesús Alvarez Arcos Corporate Design Quality Manager | 7700 Chevy Chase Dr., Suite 500C Austin, TX 78752 | Tel: 512.637.8545 Fax: 512.637.1431 jalvarez@cintra.es |
| Major Non-Equity Team Members: | | | |
| Ferrovial Agroman | Ignacio Vivancos Lead Individual for Ferrovial Agroman / Member of DBJV Board of Directors | 7700 Chevy Chase Dr., Suite 500A Austin, TX 78752 | Tel: 512.637.8599 Fax: 512.637.1499 ivivancos@ferrovial.es |

| Company | Name/Role | Address | Tel./Fax/E-Mail |
|-------------------|--|---|--|
| W.W. Webber | Charles Burnett Lead Individual for W.W. Webber / Member of DBJV Board of Directors | 14333 Chrisman Houston, Texas 77039 | Tel: 281.987.8787 Fax: 281.449.6658 cburnett@webber.com |
| Earth Tech | Jon Engelke, P.E. Lead Individual for Earth Tech / MDP Manager | 1420 W. Mockingbird Ln., Suite 300 Dallas, TX 75247 | Tel: 214.630.8867 Fax: 214.631.8428 jon.engelke@aecom.com |
| J.P. Morgan | Paul Jack Lead Individual for J.P. Morgan | 221 W 6th St., 1st Floor Austin, TX 78701 | Tel: 512.479.2534 Fax: 512.479.2715 paul.w.jack@jpmorgan.com |
| AECOM Enterprises | Joe Fazio Lead Individual for AECOM Enterprises | 605 Third Avenue New York, NY 10158 | Tel: 212.651.6904 Fax: 212.973.3188 joseph.fazio@aecom.com |
| Ferrovial Agroman | Fidel Saenz de Ormijana Design Manager | 7700 Chevy Chase Dr., Suite 500A Austin, TX 78752 | Tel: 512.637.8597 Fax: 512.637.1499 fsormijana@ferrovial.es |

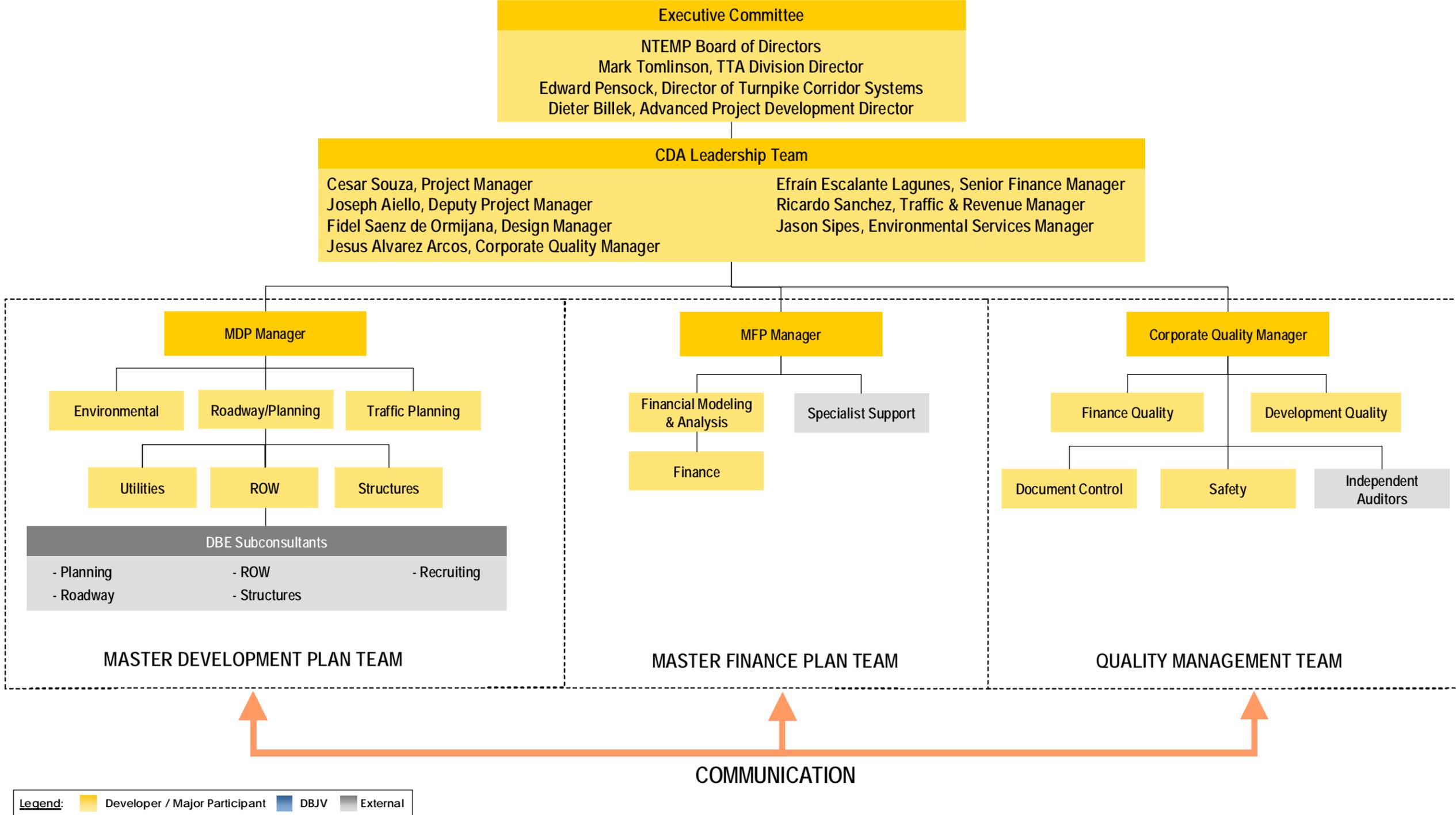
A.1.7 Method Statements for Major Activities

A.1.7.1 General Approach to Management

NTEMP's general approach to the management of its team is based on clearly communicating our goals and values and then empowering those at all levels of the organization to make decisions and implement processes and procedures consistent with those goals and values. Upper management will provide the strategic direction, guidance, quality and other controls, and resources necessary for these personnel to make effective decisions and carry out their responsibilities. Strategic development will be coordinated with TxDOT and is the responsibility of the Project Manager and Deputy Project Manager. These individuals are accountable to provide a "road map" that integrates timing, regulatory, financial and other considerations into an understandable game plan for the Project and communicate this strategic direction to other Key Personnel, task leaders and team leaders. These individuals are then, in turn, responsible for ensuring that their teams understand the appropriate context and requirements for making decisions in their day-to-day activities. To benchmark and improve upon the implementation of specific strategies, the MDP and MFP team members will have internal reporting requirements to the plan managers (the MDP Manager or MFP Manager), established by discipline. In turn, the MDP Manager and MFP Manager will report to NTEMP's Project Manager for Pre-Development.

The NTE Corridor Development Team will oversee the development of deliverables by the MDP Team and MFP Team. Figure A.1-2 displays the organizational structure and the lines of communication within each respective team.

Figure A.1-2: NTE Corridor Development Team Organization



The MDP Team will begin with the TxDOT-developed environmental process schematics and will ensure they meet the CDA requirements and are consistent with the requirements for the managed and general purpose lane configurations. Segment configuration will be optimized based on safety, cost, operations, revenue and schedule factors. The MDP manager will coordinate engineering subconsultants during this process and liaise directly with the Project and Deputy Project Managers. The Development Quality Manager will be responsible for establishing the reporting procedures within the teaming structure and provide organizational assurance that all development work is performed per CDA standards through the process outlined in the QMP. Where required, NTEMP will assist in the environmental process where requested. Upon completion of the configuration analysis, The MDP Team will develop revenue and cost projections for analysis by the MFP Team.

The MFP Team will develop the MFP with input from other Master Plan participants, TxDOT and local stakeholders. The MFP Team will evaluate the initial financial feasibility of the components of the Project, with particular emphasis on eliminating the need for public financing. The Team will identify available sources of finance for the Project during the MFP development period as well as the structuring appropriate to Facility and corridor financing using such sources. The MFP Manager will coordinate the efforts of the financial advisors and consultants in developing the MFP, communicate regularly with the Project Manager regarding progress of and strategic direction for the MFP and manage overall MFP project oversight and direction. The Finance Quality Manager will ensure that each firm on the MFP Team complies with the QMP through regular communication with the Development Quality Manager and other members of the team. He will supervise the quality of the MFP through regular communication with the MFP Manager; and will assist the Quality Manager in establishing a joint Developer/TxDOT Quality Management Review Committee to consult on procedural necessities related to submittal of drafts and Deliverables and performance measurement. The Specialist Support and Financial Modeling and Analysis teams will provide the MFP Team with knowledge and expertise of issues including innovative finance techniques and instruments, any evolving public programs of relevance, structuring alternatives and procurement options. These teams will assist the MFP Manager with the technical aspects of development of the MFP through numerical analysis and alternative financing analyses, creation and refinement of financial models and optimization of financing structures.

NTEMP's management philosophy is based on implementing methodologies to guide the timely submittal of Deliverables and collaborating with TxDOT to facilitate the early review of these Deliverables. This collaborative effort will provide for efficient input from and communication to interested third parties. NTEMP personnel will interact with TxDOT beginning with the first activity, the establishment and chartering of the CDA Leadership Team.

The CDA Leadership Team is the collection of NTEMP Project Principals that will:

- ⦿ identify the most relevant stakeholders to the North Tarrant Express Project;
- ⦿ ensure the collection of appropriate input from these stakeholders;
- ⦿ analyze input from the stakeholders and provide appropriate direction to TxDOT, the MDP Team and MFP team; and
- ⦿ provide feedback to affected stakeholders.

A.1.7.2 Work Breakdown Structure and Schedule

Our goal is to optimize the schedule to fast-track the delivery of the MDP and future Segments. NTEMP's proposed Work Breakdown Structure (WBS) will follow the basic requirements and flow identified in CDA Exhibit G, Section 3. The WBS will be delivered under Developer Milestone 2. The WBS will be Deliverable-oriented, breaking down the various components of the Project into uniquely identified WBS elements with distinct schedule/scope characteristics. WBS Levels 1 to 3 are Deliverable-oriented. Level 4 is payment-centric and Level 5 is a blend of product and process. The flow of work and processes will be captured at the work package level and in the detailed schedules for each package. A preliminary WBS to Level 4 is provided in Section B.3 of the Conceptual Development Plan.

A.1.7.3 Resource Allocation by Task

Since most of NTEMP's team members have extensive experience in working with TxDOT and working together on other CDAs, NTEMP has significant depth of resources available for this Project. The key is to have the correct personnel working in their respective areas of expertise. Team management personnel will work continuously in a central location, and an additional team of specialists will work from their own locations in support of the Project. This additional staff may include any of the disciplines required for the Project, from schematic design, to ROW services, to environmental mitigation. The engineering and planning firms on this Team include more than 40,000 employees – a vast array of experience that can be brought to bear on this Project.

A.1.7.4 Contract Administration System and Procurement Procedures

NTEMP will utilize contract administration and procurement procedures to be as efficient as possible in working with subconsultants and procuring additional services and products under the framework of the CDA. NTEMP will plan and control the procurement of services and purchased items to ensure that quality is documented and that quality standards are met.

Procurement and Coordination of Subconsultants

Principal subconsultants have been identified (see Section A.1.4: Responsibilities of Subcontractors and Affiliates) and preliminary agreements have been negotiated. NTEMP will select additional subconsultants as required based on their qualifications and the following checklist:

Subconsultant Selection Checklist

- ⊙ Has the consultant worked for TxDOT before? With what results?
- ⊙ Have team members worked with the consultant before? If so, what were the results?
- ⊙ How is the consultant generally regarded by the team? By others?
- ⊙ Is the consultant a small business, or DBE? Would the business benefit from participation in NTEMP's mentoring program?
- ⊙ Who are the individuals that the consultant proposes to assign to this project? How are these individuals regarded within the Team?
- ⊙ What is the consultant's record of accomplishment with regard to meeting its commitments?

- ⦿ What types of logistical problems might be encountered – for instance, distance, differences in accounting procedures, QC procedures, CAD, communications and organizational structure?

Team members will manage their own contract administration and subcontracting procedures under their internal management systems.

Subconsultant coordination is an integral part of the producing the desired deliverables. The appropriate managers, such as the MDP Manager and MFP Manager, are responsible for coordinating the efforts of all team members, including subconsultants. Following is a list of the manager's responsibilities relating to subconsultants:

- ⦿ Identify the need for a subconsultant
- ⦿ Identify potential subconsultants
- ⦿ Participate in selecting subconsultants
- ⦿ Obtain documentation from the subconsultant, as required by the contract. Documentation may include items such as insurance certificates, bonds and hold harmless agreements
- ⦿ Review the Project schedule with the subconsultant
- ⦿ Introduce the subconsultant to the Project team
- ⦿ Promote effective communication between the subconsultant and the rest of the Project team regarding issues such as scope and schedule changes
- ⦿ Communicate any information that would affect the subconsultant's work on the project
- ⦿ Review and approve the subconsultant's invoices
- ⦿ Monitor the subconsultant's financial performance compared to schedule and budget

Managers' general responsibilities when coordinating work with subconsultants include:

- ⦿ Define tasks assigned to Subconsultants clearly in a letter of authorization, subcontract or other communication sent to the Subconsultant
- ⦿ Redefine tasks by issuing a supplement to the original letter or contract
- ⦿ A letter of authorization will list those QA/QC requirements that have been determined to be applicable as assigned tasks
- ⦿ Provide Subconsultants with information necessary to perform their assigned tasks
- ⦿ Information provided will include all applicable regulatory requirements, planning bases and parameters, and other appropriate planning requirements
- ⦿ Identify for the subconsultants any records to be prepared, maintained, submitted or made available for review, such as reports, drawings, specifications and procedures
- ⦿ Provide project schedule, including milestone dates and QA/QC review date.
- ⦿ Review the scope of work specified and coordinate the establishment of QA requirements in consultation with the QM team members

- ⦿ Review all interim and final data, such as reports, studies and drawings to determine that all tasks were performed and conformed to contractual requirements and accepted professional practice

Procurement of Equipment and Services During Development

To procure equipment and services during the development phase, NTEMP will solicit enough competitive bids to perform a detailed analysis of the market for the needed product or service. Procurement documents such as purchase orders and services agreements will contain information clearly describing the item or service needed and the associated technical and quality requirements, and how the supplier's conformance to the requirements will be verified.

NTEMP procurement staff will assess each bidder's capability to supply the required good or service according to the required specifications and levels of quality. Each supplier must have a demonstrated capability to furnish items and services that meet all requirements specified in the procurement documents. Manufacturers' QC processes will be reviewed to ensure that products of the optimal quality are delivered. Procurement staff will analyze offers from suppliers using a comparative sheet as a tool to facilitate negotiations and help NTEMP get the best possible terms and conditions when procuring goods and services. NTEMP will maintain these comparative sheets in the document control system for future reference.

A.1.7.5 Location of Work

Although it is likely that key management personnel will share a project office with the Concession CDA management team, TxDOT representatives and the general engineering team; some of the ISOW work will be accomplished by the team member firms working in locations that are most effective and efficient from a technical perspective. In most cases, subcontractor work will occur at that respective firm's office location. The Team will coordinate tasks through conference or video conference calls, regular email communication and face-to-face meetings. Document-sharing will be accomplished using a secure, Internet-based system. Further detail on general document control programs will be provided in the final Project Management Plan and task-specific document control will be developed as that task's work plan and instructions are produced.

The Health and Safety Plans that cover the team members performing the ISOW will be dictated by the individual member firm's location-specific policy. An Emergency Procedures Manual for the co-located Project Office will be provided in the final Project Management Plan.

A.1.7.6 Liaison With TxDOT, its Consultants and Other Public or Private Entities

NTEMP personnel will meet with TxDOT on a regular basis. NTEMP will conduct weekly one-hour meetings (or more frequently, as agreed to by the attendees) of the "Leadership Working Group", which will include the Project Manager and Deputy Project Manager for Pre-Development, the Design Manager, the MDP and MFP Managers to discuss the status of the Project. Recurring meetings (interval to be determined as needed) with task leaders and their team members may be scheduled to ensure information is disseminated effectively to TxDOT. Deliverables will follow a Draft / Revised / Final format and will follow guidelines outlined in Section 7 of the CDA.

Meeting Procedures, Protocol and Frequency

The following outlines the process for preparing for, conducting and documenting meetings. These procedures apply only to NTEMP-initiated meetings. Meetings called by others will follow their procedures and NTEMP will not be responsible for preparing meeting notes or minutes. The term “Team Manager” below refers to any NTEMP manager, from the Project Manager to a Task Leader.

- ⊙ Team Manager develops agenda that includes as many of the following items as applicable:
 - Name of group or team to meet
 - Meeting name
 - Date
 - Start and end times
 - Desired outcomes and agenda items. Each agenda item will probably fit into one of the following categories:
 - Identification of relevant issues
 - Problem-Solving: When change is needed, or to attack a problem
 - Planning: Future-oriented problem prevention or goal-setting
 - Reporting and Presenting: Information-sharing. The Developer will use alternatives to this type of meeting when possible to improve efficiency. Alternatives include one-to-one briefings and written notices.
 - Feedback or Input: Many people expressing opinions or suggestions to one or several individuals. A facilitator is helpful and a recorder is particularly important.
 - Decision-Making: To choose between previously or currently developed alternatives. Must include the ultimate decision-makers.
- ⊙ Team Manager invites appropriate participants and distributes the agenda.
- ⊙ All Developer-initiated meetings will take place in the Developer’s project office conference room, unless otherwise noted by the Team Manager.
- ⊙ The Team Manager will facilitate the meeting and will have full control of the meeting. The following items will be part of the facilitation as appropriate:
 - Briefly review the agenda at the beginning of the meeting. Tell people the purpose and expectation for each item on the agenda. If appropriate, ask if any other items need to be added to the agenda.
 - For each agenda item that needs discussion, ensure focus and closure with the following process:
 - State: Briefly state the issue or item of discussion including what type of agenda item it is.
 - Describe: Explain the issues that surround that item and the reason for it being on the agenda.

- Discuss: Openly discuss the item, listening to all input about the subject (set a time parameter if necessary).
- Close: Come to closure by making a decision or setting a clear next step that involves an accountability trail: “What, by whom, by when?”
- The Team Manager may utilize a “parking lot” (a flip chart, white board space, etc.) to list new items brought up that need further discussion. The “parking lot” is also a good space to list action items as they are identified.
- ⊙ Administrative personnel or designee will take meeting notes and prepare official minutes.
- ⊙ Meeting minutes will be distributed by e-mail to all attendees within two business days. They will include the meeting purpose, meeting date, list of attendees, a summary of the discussion and a list of action items identifying tasks, responsible parties, and approximate completion dates.
- ⊙ Requests for meeting note revisions must be received within one business day after distribution. Revisions approved by the Team Manager will be distributed within one business day.

The frequencies for the various Developer meetings are as follows.

- ⊙ Leadership Team Meeting – Monthly
- ⊙ Leadership Working Group – Weekly
- ⊙ MDP, MFP, Risk, & QM Teams – Every other week
- ⊙ Internal team manager meetings – Weekly (at a minimum)

A.1.8 Timetable for Initial Scope of Work

The schedule of the ISOW is to complete all deliverables within the 18-month period after NTP2 as identified in the CDA. Progress during the ISOW will be measured by TxDOT’s review, comment and approval of the Deliverables identified in the CDA, Exhibit J. NTEMP has prepared a Preliminary ISOW Schedule and the Deliverables are identified clearly in schedule. They are also summarized for convenience in Section A.1.1.5 – Deliverables. The schedule summary presented in Section B.3 is NTEMP’s vision of the Preliminary ISOW Schedule. A preliminary Work Breakdown Structure is provided in this section as well, and is reflected within the schedule.

A.1.9 External and Internal Communications Procedures

A.1.9.1 Controlling and Coordinating Subcontractors, Advisors, Team Members and Affiliates

NTEMP is confident in its ability to manage multiple team members, subcontractors and advisors effectively using approaches that have proved successful on other projects around the world. To ensure that work progresses efficiently and on schedule, NTEMP management personnel will:

- ⊙ assign each team member, subcontractor and advisor under their management clear roles and responsibilities;

- ⊙ ensure that subcontractor/advisor personnel receive appropriate training (including job-specific training, technical workshops and training on health, safety and environmental protection) to promote best practices, consistency across the Team and continuous improvement;
- ⊙ subject subcontractor/advisor work to the same schedule, cost and document control requirements as Developer work and make appropriate software and other tools available to these entities;
- ⊙ enforce the requirement for subcontractors to perform internal quality control reviews on their products, certify them as meeting the requirements of the applicable Developer Quality Management Plan and Project specifications, and professionally seal them, if applicable;
- ⊙ review all work performed by subcontractors and advisors to ensure that it conforms to CDA requirements and that will integrate appropriately with other elements of the Project; and
- ⊙ work with the Project Controls Group to monitor progress of subcontractor / advisor work and implement corrective action as needed.

The Project Controls Group will constantly monitor the progress of subcontractors and advisors, with status measured against the established schedule and cost baselines on a monthly basis. Commitments to date and incurred costs will be captured and estimates of cost and schedule to Project completion given monthly. If an activity starts to fall behind, the Project Controls Group will carry out an analysis to understand the potential impact to the schedule.

Managers will undertake corrective actions for adverse schedule and cost variations, with the focus on resolving significant deviations. These actions might include increasing the available workforce, working during the weekends, working overtime, reallocating personnel from less critical activities to ones that are more critical and negotiating incentives for timely completion.

Upon completion of a subcontractor's work, the appropriate manager will complete a Subcontractor Performance Survey with input from the Procurement Manager (who will be identified following NTP2). The Subcontractor Performance Survey will then be entered into a subcontractor database for future reference.

A.1.9.2 Interfacing and Collaborating with TxDOT and its Consultants

The success of the Project depends on NTEMP's ability to work with TxDOT toward common goals. NTEMP's relationship with TxDOT will thrive on consistent, proactive and clear communications on Project issues and solutions. NTEMP's proposed approach is a further refinement of the approach used effectively in the past to interface with TxDOT on such projects as TTC-35 and SH 130. TxDOT's involvement in these key issues will be facilitated through project meetings, monthly reports, written updates, immediate notification on high-priority issues and a review process on public communications and participation as a member of the complaint resolution team. NTEMP will define high-priority issues and publications review procedures in consultation with TxDOT.

TxDOT's involvement in communication issues will be facilitated on a monthly basis through project meetings, monthly reports, the Project extranet and through participation as a member of the Complaint Resolution Team.

TxDOT's Project Manager and NTEMP's Public Information Coordinator will be the central points of contact, coordination and communication for the project, although direct communication between the

respective TxDOT and NTEMP communications task leaders will also occur. Communications task leaders will keep Project Managers informed of the results of these communications through regular interaction.

NTEMP will prepare and agree to a task-specific consultation and liaison strategy with the TxDOT Project Manager and will use an audience and stakeholder database to ensure that effective communication and consultation occur at the appropriate time, and in a systematic and consistent manner. The liaison strategy that NTEMP intends to establish with TxDOT, its Authorized Representative (AR) and the Independent Engineer will include the following concepts:

- ⦿ TxDOT, AR or IE Requests for Information (RFI): TxDOT, the AR or the Independent Engineer may issue RFIs to NTEMP to request further information on an issue and NTEMP will respond promptly.
- ⦿ Meetings with TxDOT, the AR and the Independent Engineer:
 - Periodic progress meetings: attendees will include TxDOT, the Developer or DBJV, as applicable, the AR and the Independent Engineer. Subcontractor representatives may also attend these meetings as necessary.
 - The Developer's representative will arrange other meetings as necessary, on topics such as traffic control and public relations matters. Attendees at these ad hoc meetings may include relevant governmental entities, road users, public transportation operators, resident associations, public representatives, landowners and other interested parties.

The secure Project extranet site will enable authorized team members to access and store project data, progress meeting minutes, draft text and drawings. It will contain an e-mail list server to notify Project personnel of significant upcoming events and emergencies. The extranet will also allow serve as a clearinghouse to request information from other team members. The Developer will regularly post project-related documents on the Project Extranet for review by TxDOT and other stakeholders.

A.1.9.3 Interfacing with Third Parties and Supporting Public Involvement and Marketing

ISOW Phase

During the ISOW, TxDOT and its Authorized Representatives will be continuing with the environmental clearance process for Segments 2-4. To remove any appearance of a conflict of interest, NTEMP will hold no special standing in the environmental process. NTEMP will support TxDOT as requested in regard to interfacing with Third Parties.

The NTE Segments 2-4 Project affects a broad range of constituencies that can help provide input during the ISOW tasks. The Project is important to community leaders, landowners, business owners adjacent to the project corridor, other transportation providers, utility providers and a host of other specific groups and individuals. TxDOT, as owner of the Project, is a critical stakeholder. The Developer team will continue identifying interested and affected Customer Groups, include them in a project database and use a variety of communication strategies to keep these stakeholders informed of activities, solicit their questions and concerns and resolve project-related issues in a proactive manner. Sample constituency groups will include, among others:

- ⦿ The North Central Texas Council of Governments

- ⊙ The Regional Transportation Council
- ⊙ Dallas-Fort Worth Area Partners in Mobility
- ⊙ The Tarrant Regional Transportation Coalition
- ⊙ Affected landowners and business owners
- ⊙ Surrounding neighborhoods
- ⊙ Potential NTE Facility customers
- ⊙ Chambers of Commerce
- ⊙ Elected officials (state, county, city)
- ⊙ NTTA
- ⊙ Local mass transit authorities (the T, DART)
- ⊙ Union Pacific Railroad
- ⊙ Utility providers
- ⊙ Local counties and cities

Customer Groups will be more likely to support the Project if NTEMP provides them with timely information. Our approach to working collaboratively with Customer Groups to solve problems is not only wise, but also necessary to keeping the project on time and within budget.

Delivery Phase

Because of Cintra and Meridiam's experience in operating toll roads from design and construction through handback to the owner, NTEMP is uniquely aware of the importance of communicating effectively with third parties and engaging and informing the public throughout the life of the project. When the traveling public pays for each trip taken on a roadway, its expectations of the level of service increase accordingly – they truly become customers. Having successfully served millions of customers around the world, the Developer will continue its program to provide exceptional customer service throughout the life of the concession. This commitment includes use of state-of-the-art communication technology such as real-time traffic condition reports and a user-friendly website. Because there is no substitute for direct interaction, technology will accompany face-to-face interaction such as ongoing involvement of civic leaders, surrounding neighborhoods and customers. This ongoing involvement ensures that the Developer both knows about and adequately considers changing conditions in the Dallas-Fort Worth area during the operation of the NTE Segments 2-4 Project.

Section C.1.4 of the Concession Facility Development Plan describes NTEMP's public communication for the delivery of the Concession Facility. The ISOW phase will be concurrent with that delivery; as such there will be a separate, but coordinated public involvement task related to the ISOW for Segments 2-4.

NTEMP believes its fast-track Segment 2-4 delivery approach greatly benefits the local community by reducing area congestion quickly. NTEMP's plan is to execute agreements with TxDOT to deliver Segments 2-4 as quickly as financially feasible. In that light, what follows is NTEMP's public involvement plan during Delivery, Operation and Maintenance of Segments 2-4.

Public Meetings

NTEMP considers meetings with Customer Groups to be a crucial part of a successful PICP. These meetings will take the form of neighborhood-specific meetings, large community-wide gatherings, or meetings to discuss a specific topic, such as noise walls. During the Delivery phase, NTEMP will adhere to TxDOT requirements regarding public meetings, such as prior notification of Developer-initiated meetings. NTEMP will exceed expectations of a typical public meeting by providing high-quality displays and state-of-the-art visuals such as an animated “virtual tour” of the Project alignment. NTEMP will be prepared to respond to issues raised at meetings and through other channels. Topics will include design and construction issues affecting adjacent residential areas and businesses, such as frontage road configuration and noise and retaining walls.

Meeting Minutes

An effective project means conducting meetings and activities that solicit public input and document input and response. The Developer will use an electronic comment management system or specific methods such as a complaint and inquiry form, made available to any citizen, governmental entity, or other Customer Group upon request. Comment cards will be available at all meetings. The Developer will carefully document questions and complaints and distribute them to appropriate personnel for thorough review and effective resolution.

Capturing and Resolving Public Complaints, Concerns and Questions

The Developer proposes a multi-pronged approach to capturing, resolving and documenting questions and concerns from the public. We will implement an Audience & Stakeholder Database, an interactive system proven to simplify and improve the public interface on projects. It will define audiences and stakeholders, including their contact details and agreed-upon liaison protocols. It provides an auditable trail of contacts made, minutes of meetings and details of concerns and issues as well as a register of inquiries and complaints. The database will contain an Electronic Comment Management System, which will record actions taken and correspondence with complainants.

The general methodology includes:

- ⊙ maintaining an audience and stakeholder database of all citizen communications (calls, e-mails, letters, etc.) and responses to these communications;
- ⊙ routing questions and complaints to the appropriate person, or group, for resolution;
- ⊙ distributing comment cards at meetings, briefings and at the Public Information Office;
- ⊙ capturing, logging and responding to questions or concerns raised but not answered at public meetings;
- ⊙ documenting resolution of all inquiries and complaints in the project records; and
- ⊙ distributing a monthly report summarizing the communications and outcomes to TxDOT and all other relevant parties.

Prior to its initiation, the Developer will seek TxDOT’s review and approval of its proposed methodology.

Public Information Office

NTEMP will maintain a Public Information Office for the Term of Agreement, in accordance with TxDOT specifications. In addition to providing maps and other needed information, designated NTEMP team members will be available to answer questions and help resolve customers' concerns. Office hours and conference room availability will meet or exceed TxDOT's specifications.

Media

NTEMP will establish a working relationship with the news media. The Developer will provide accurate and timely information to the media. In turn, The Developer will utilize the media to disseminate Project news to interested audiences.

The Developer is committed to providing the media with immediate and ongoing access. The Public Information Coordinator will enter appropriate local, state and national media contacts into the project database, and will send these contacts a media kit that includes a press release announcing formation of the Public Information Office, plus daytime and after-hours contact information. The Public Information Coordinator will serve as the Developer's media liaison, facilitating media access to needed Project information. The Public Information Coordinator will send news releases concerning closures and detours to television, radio and print media for use during early morning newscasts, afternoon drive-time broadcasting and newspaper publication.

The Public Information Coordinator will proactively arrange interviews and editorial board meetings and suggest photo opportunities and story ideas that will keep the Project in a positive public light. The Developer will work cooperatively with TxDOT and obtain TxDOT approval on media materials, as requested.

Group Tours and Public Events

NTEMP will invite the media and the public to tour the Project at important milestones, such as the "halfway complete" mark. The Developer will provide exhibits and media kits to make the tours as informative as possible. Individuals participating in walking tours will be provided with safety training and equipment. The Developer will also host special events to foster public goodwill, such as "Meet the Contractor" receptions, block parties, Kids' Day events and groundbreaking events.

Emergency Event Communications

The Public Information Coordinator will inform TxDOT, local authorities and the relevant Customer Groups within one hour after an emergency occurs and will continue communicating with these entities until the situation has ended. To communicate with Segment users during emergencies, the Developer will use a combination of the following methods, as appropriate:

- ⦿ Dynamic Message Signs
- ⦿ Highway Advisory Radio
- ⦿ Emergency bulletins on Project website
- ⦿ E-mail / text message alerts

- ⦿ News releases to television, radio and print media
- ⦿ Public Information Office and Project Hotline

Lane Closures

The Maintenance Manager and the Roadway Public Information Representative will ensure promotion of advanced notification of closures and traffic restrictions through media and the Project website. Real-time information on incident closures, delays, diversions and anticipated clearance timescales will also appear on the Project website to facilitate travel decision-making and mitigate incident-related congestion and delays.

Disseminating Public Information

Because a great strategy is meaningless without sound execution, NTEMP's approach uses diverse strategies to communicate with diverse Customer Groups. Regularly scheduled briefings and written updates provide elected officials and leaders of public agencies with information at anticipated junctures and puts this information at their fingertips. Public and community meetings afford those adjacent to the project, and those with an interest, the opportunity to meet with project staff to discuss the project and address common goals. The project website and media advisories will provide the driving public with the latest information on construction and travel impacts. Immediate access to project personnel is possible using the project hotline, e-mail, or a visit to the Public Information Office. In addition, for those wanting to celebrate project milestones, the Developer will plan block parties and open house events.

The Developer will use the following strategies to communicate successfully with Customer Groups:

Project Website

Within 45 days of the issuance of Facility NTP3 for Segment delivery, the Developer will establish a project website that is visually appealing and written in a customer-friendly manner. The Developer establishes this aggressive schedule because of the importance to the public of immediate, accurate information. The website will offer an option to sign up for e-mail alerts, which will automatically notify users of upcoming traffic issues and important project information. Additionally, we are pursuing the possibility of setting up the website with remote access to onsite cameras (Live Cams) to allow the public to view the construction of their new Facility.

As information becomes available, the Developer will post content including:

- ⦿ Project maps;
- ⦿ Information on design, construction, maintenance and operations;
- ⦿ Schedule of street and ramp closures and openings and recommended route alternatives during closures;
- ⦿ Frequently asked questions;
- ⦿ A list of public meetings, briefings and other opportunities to meet with project staff;
- ⦿ Information on toll transponders and a toll calculator;

- ⊙ Location of the Project Information Office;
- ⊙ Job opportunities;
- ⊙ Links to the TxDOT Statewide Road Conditions site and other websites deemed appropriate by TxDOT;
- ⊙ A real-time travel speed map;
- ⊙ Traffic accident, flooding and special event information;
- ⊙ Closed Circuit Television images;
- ⊙ Dynamic Message Sign messages;
- ⊙ Incident notification (via fax, e-mail or pager) subscription service;
- ⊙ Dynamic routing application; and
- ⊙ Project Extranet (secure, password-protected).

The website will also allow visitors to e-mail questions directly to the Public Involvement Coordinator. The Developer will provide materials in Spanish as needs warrant and will assess with TxDOT the need for communications in other languages or other demographic adaptations where appropriate.

Briefings and Updates

NTEMP acknowledges its responsibility to keep elected officials and public agencies updated on project developments. Briefings will occur on a quarterly basis or whenever pertinent developments warrant. Briefings will also take place with appropriate entities such as the North Central Texas Council of Governments (NCTCOG). Because there are several members of the Legislature from the North Texas region in critical positions regarding transportation policy, the Developer (in conjunction with TxDOT) will make a concerted effort keep these elected officials informed at all critical junctures. This will help ensure that they remain supportive of not only the NTE Segments 2-4 project, but also of the CDA model used to implement the project. Quarterly written updates will also be prepared and provided to these same elected officials and any public agencies requesting them.

Project Hotline

The Developer will establish a 24-hour live project hotline to allow customers to call with questions or to register complaints during the Design-Build phase. During the O&M phase, operators will answer the hotline during normal business hours and a voice mailbox will allow callers to relay after-hours inquiries and complaints. The Developer's designated on-call manager will respond to emergency inquiries received after hours. Operators will return non-emergency calls received after hours the next business day.

Other Communications Strategies

Other tools for communicating with the public during construction and other phases include, but are not limited to, construction updates, door hangers, signage, newsletters, videos, public service announcements, advisory groups and e-mail notifications.

A Regional Partner - NTTA

Both because of its long-term and respected presence in the Dallas-Fort Worth area and because of its commitment to provide tolling services for NTE customers, NTTA will be a critical partner to NTEMP. As such, NTEMP's Chief Information Officer (who will be designated following NTP2) will be responsible for carrying out effective communication with NTTA. The Chief Information Officer will ensure that all systems are operational and that information to be transferred to NTTA and customers is ready and accurate. NTEMP is committed to providing NTTA with accurate data from the pertinent field systems and Video Exception Processing system as well as working with NTTA to resolve customer service issues brought to our attention by their customer service management.

Adjustments to Construction and O&M Activities in Response to Community Concerns

NTEMP will receive and review community concerns and, to the degree possible, resolve or mitigate problems and positively respond to community requests. To support these efforts, NTEMP proposes to appoint a Complaint Resolution Team consisting of the Developer Roadway Public Information Representative, the Public Information Coordinator and the TxDOT PIO. The team will review complaints and seek ways to respond positively to suggestions made by impacted neighborhoods and residents, public officials, landowners and other Customer Groups. The final decision on adjustments to construction, operations and maintenance activities rests with NTEMP's Concession Facility Project Manager, in consultation with TxDOT.

Proposed Approach to Project Marketing and Advertising

NTEMP's marketing push will precede milestones such as portions of the Project opening to traffic. The Developer will implement six- to eight-week advertising campaigns including television, radio, Internet and newspaper ads placed in media vehicles with high circulation and viewers. The Public Information Coordinator will also send information to neighborhood associations for their websites and newsletters. The Public Information Coordinator will be persistent in seeking "target audience" publications such as community newspapers and transportation-related magazines.

NTEMP will set and adhere to professional presentation and communication standards. High-quality graphics, a project logo and accompanying materials are important to the credibility and branding of the project. NTEMP will establish project design standards in consultation with TxDOT, and will produce all materials in line with these standards. NTEMP will coordinate marketing messages with TxDOT to promote the Project as part of the statewide congestion relief system.

A.1.10 Other Measures for Meeting Project Management Obligations

A.1.10.1 Controlling Costs and Supporting Timely Project Implementation

NTEMP will create a Project Controls Group, overseen by the Controls Manager, responsible for managing planning and scheduling, estimating, cost control, document control, project accounting and reporting. The Project Controls Group will monitor the schedule and cost baselines to ensure compliance with the overall Project objectives and conduct forecasting, trending, change control and mitigation planning to ensure that ongoing activities comply with the schedule and cost baseline.

To ensure the achievement of all schedule- and cost-related objectives, NTEMP will adopt the following basic control principles:

- ⊙ utilize Project coding structures that support project definition, execution and TxDOT reporting requirements;
- ⊙ set aggressive schedule targets with appropriate float to meet the construction execution strategy;
- ⊙ define discrete packages of work with single-point responsibility;
- ⊙ clearly define interfaces between participants;
- ⊙ adopt a proactive style of cost awareness;
- ⊙ identify critical issues and mitigation plans;
- ⊙ identify opportunities save time and funds with out negatively impacting the Project; and
- ⊙ issue timely and concise status reports with emphasis on variances to plan.

Key Steps in the Project Control Process

- ⊙ Plan: Establish schedule and cost baselines in sufficient detail to account for the full definition of the Project scope, with acceptance and “buy-in” of all team members.
- ⊙ Measure: Monitor progress on a regular basis, measuring the status against established schedule and cost baselines. On a monthly basis, capture commitments to-date and costs incurred and predict the cost and schedule through to project completion.
- ⊙ Report: Report variances to schedule and cost baselines on a regular basis with potential impacts on the Project highlighted. Carry out regular risk analysis to confirm the adequacy of contingencies and probability of meeting the schedule.
- ⊙ Mitigate: Take corrective actions for adverse schedule and cost variations, focusing on resolving significant deviations.

The Project Control Group will develop, monitor and update the integrated CPM Project Schedules for engineering, procurement and construction. It will also monitor Project progress, recommend corrective action if required and compile all information into a Monthly Progress Report.

To provide further detail, listed below are the schedules and reports that the Planning and Scheduling Section will develop and maintain (most of which will be maintained internally):

- ⊙ Project Baseline Schedule;
- ⊙ 60-day look-ahead schedules and project schedule update;
- ⊙ detailed CPM schedules for design, procurement, environmental, utilities and construction;
- ⊙ manpower histograms;
- ⊙ progress curves;
- ⊙ monthly progress reports;
- ⊙ evaluation and monitoring reports for Subcontractors' schedules;

- ⦿ schedule requirements for Procurement Tender Packages; and
- ⦿ schedule analyses for adverse variances.

A.1.10.2 Complying with Applicable Laws and Regulations

NTEMP recognizes the importance of complying with TxDOT policies and obeying all applicable Federal and State laws, rules and regulations relating to the development of NTE Segments 2-4. Written working procedures will take into account compliance with laws related to CDAs, managed lane operation, roadway design, ROW acquisition, public information, the environment, safety and working conditions and EEO compliance, among other considerations.

We understand that air quality, traffic noise, safety, light intrusion, dust control and habitat mitigation, among other considerations, fall under the purview of environmental compliance. During operation and maintenance of the Project, NTEMP will implement all TxDOT-required mitigation measures in these areas.

During the delivery phase of Segments 2-4, NTEMP will be responsible for environmental monitoring, with the support of a recognized external environmental firm. NTEMP's Environmental Services Manager will be in charge of the coordination with this firm and will be responsible for any environmental issues that may arise. Table A.1-3 lists the major environmental regulations and permits that could be encountered during Segment 2-4 delivery.

Table A.1-3: Environmental Regulations and Permits - North Tarrant Express

| Resource Category/Issue | Applicable Regulation(s) | Agency Involved | Project Action/Permit Required |
|--|---|--|---|
| General | National Environmental Policy Act (NEPA) | <ul style="list-style-type: none"> TxDOT FHWA | <ul style="list-style-type: none"> Prepare NEPA document reevaluation(s) as necessary to assess changes in the approved document and schematic based on refined design, ATCs, etc. Comprehensive review of environmental permits, issues and commitments required for modifications to project design. Prepare Environmental Permits, Issues and Commitments (EPIC) sheets for inclusion in construction plan sets. Continuing public involvement activities may be required in order to inform the public of the project status to ensure that community sensitivities are recognized and addressed, and that commitments are fulfilled. Develop process and procedures for handling public involvement requirements. |
| Socioeconomic/ Environmental Justice | E.O. 12898 Environmental Justice/E.O. 13166 Limited English Proficiency | <ul style="list-style-type: none"> TxDOT FHWA | <ul style="list-style-type: none"> Ensure that any reevaluations address socioeconomic and environmental justice issues. |
| Indirect and Cumulative Effects | TxDOT's Guidance for Indirect and Cumulative Impacts (ICI) | <ul style="list-style-type: none"> TxDOT FHWA | <ul style="list-style-type: none"> Ensure any reevaluations address indirect and cumulative effects if changes from environmental clearance document would be substantially different. |
| Noise | FHWA Noise Abatement Criteria | <ul style="list-style-type: none"> TxDOT FHWA | <ul style="list-style-type: none"> Determine whether or not noise walls would be reasonable and feasible. Review noise wall commitments to ensure that design is compatible. Coordination with construction crews to ensure that noise issues are minimized in the vicinity of sensitive receivers. Respond to comments or complaints from the public in an appropriate manner (could include on-site monitoring, meetings with affected residents). |
| Air Quality | Clean Air Act (CAA) and amendments | <ul style="list-style-type: none"> TxDOT FHWA USEPA | <ul style="list-style-type: none"> DFW is a non-attainment area with regard to air quality. Air quality issues and compliance requirements would be addressed in reevaluation document, as appropriate. |
| Cultural Resources | National Historic Preservation Act (NHPA)/Texas Antiquities Code (TAC) | <ul style="list-style-type: none"> TxDOT FHWA Texas Historical Commission (THC) State Historical Preservation Officer (SHPO) Advisory Council on Historic Preservation (ACHP) | <ul style="list-style-type: none"> Determine need for additional survey work on additional properties, Project Specific Locations (PSLs). Coordinate with THC/SHPO under terms of Programmatic Agreement regarding any accidental discoveries. Establish project protocols for issue resolution associated with accidental discoveries. Follow through on any NEPA document commitments related to NRHP-eligible properties, SALs, historical markers, et cetera Perform any necessary cultural resource surveys, evaluations, testing, and mitigation in those areas outside the footprint of the Project ROW shown on the schematics as defined in the original NEPA Approval and within the area of potential effects. NTEMP would coordinate all necessary Antiquities Permits through TxDOT. Antiquities Permits would be obtained from THC for archeological surveys, testing, monitoring, and data recovery, as necessary. Pursue historic Section 4(f) clearances for issues that arise during design phase. |
| Cultural Resources | Native American Grave Protection and Repatriation Act (NAGPRA) | <ul style="list-style-type: none"> THC SHPO various tribal officers | <ul style="list-style-type: none"> Provides framework for dealing with accidental discovery during construction of burial remains. |
| Wildlife | Migratory Bird Treaty Act (MBTA) | <ul style="list-style-type: none"> U.S. Fish and Wildlife Service (USFWS) | <ul style="list-style-type: none"> Requires efforts to avoid impacts to migratory birds or nests during the nesting season (March-August). May require pre-construction surveys, relocation of nests or fledglings to an approved wildlife rehabilitator. |
| Historical and Recreational Resources/Section 4(f) Properties | Section 4(f) of the Department of Transportation Act as amended | <ul style="list-style-type: none"> FHWA U.S. Dept. of the Interior | <ul style="list-style-type: none"> Comply with Section 4(f) mitigation commitments determined through Section 4(f) coordination. Perform any additional coordination required to address potential impacts from design changes. |

| Resource Category/Issue | Applicable Regulation(s) | Agency Involved | Project Action/Permit Required |
|-----------------------------------|---|---|--|
| Threatened/ Endangered Species | Endangered Species Act (ESA) | <ul style="list-style-type: none"> USFWS | <ul style="list-style-type: none"> Determine from NEPA process whether T&E habitat exists in project area; Develop procedures for dealing with accidental discovery during construction. |
| Vegetation | Executive Order on Invasive Species (EO 13112) | <ul style="list-style-type: none"> TxDOT FHWA | <ul style="list-style-type: none"> Review landscape and aesthetics plan to ensure compliance. |
| | Executive Memorandum on Beneficial Landscaping | <ul style="list-style-type: none"> TxDOT FHWA | <ul style="list-style-type: none"> Review landscaping plan—focus on use of native and locally adapted species. |
| | State Endangered Species Act; TxDOT-Texas Parks and Wildlife Department (TPWD) MOU on Replacement of Unregulated Habitat | <ul style="list-style-type: none"> TxDOT TPWD | <ul style="list-style-type: none"> Review commitments regarding replacement of non-regulated habitat. Update reevaluation based on current TPWD state-listed species, MOU requirements as appropriate. |
| Water Resources | Federal Clean Water Act (CWA); Sections 9 and 10 of the Rivers and Harbors Act (RHA) | <ul style="list-style-type: none"> U.S. Army Corps of Engineers (USACE) Texas Commission for Environmental Quality (TCEQ) | <ul style="list-style-type: none"> Review CWA Section 404 permit requirements. Coordinate with USACE and TCEQ as appropriate. Assess and address additional permit needs if required due to any design modifications; Review mitigation requirements and implement as appropriate. CWA Section 401 (state water quality certification) compliance evaluated by TCEQ; monitor temporary and permanent BMPs. Prepare and review Storm Water Pollution Prevention Plan (SW3P) to comply with Section 402 of CWA. Establish protocols to communicate SW3P requirements to construction personnel. Submit Notice of Intent to TCEQ. No crossings of navigable waterways (Sections 9 and 10 of RHA) anticipated. |
| Groundwater/Water Wells | TxDOT Standard Specifications-Item 103-Disposal of Wells | <ul style="list-style-type: none"> TxDOT | <ul style="list-style-type: none"> Review plans to ensure that plan is in place to plug and abandon any well in the ROW consistent with TxDOT standards. |
| Floodplains | Local floodplain ordinances | <ul style="list-style-type: none"> Local floodplain administrators | <ul style="list-style-type: none"> Coordinate with local floodplain administrators, as necessary, regarding detention requirements and impacts to identified flood elevations and Flood Insurance Rate Maps (FIRMs). |
| Hazardous Materials | Comprehensive Environmental Response Compensation and Liability Act (CERCLA); Resource Conservation and Recovery Act; general due diligence to ASTM standards | <ul style="list-style-type: none"> TxDOT FHWA TCEQ | <ul style="list-style-type: none"> Complete Phase 1 ASTM site assessment for properties to be acquired. Establish protocols to deal with discovery during construction. |
| Airway-Highway Coordination | Federal Aviation Administration (FAA) guidance | <ul style="list-style-type: none"> TxDOT FHWA FAA | <ul style="list-style-type: none"> Continue coordination regarding construction of elevated project features in the vicinity of DFW Airport. |

A.1.10.3 Providing Personnel, Offices, Equipment, Systems and Controls

NTEMP ensures that the most qualified individuals and resources available at the time will be devoted to this Project. Team members include some of the most experienced companies in the industry in all areas, from finance to design and construction, necessary for a successful outcome.

ISOW Personnel – Cintra, Earth Tech and J.P. Morgan all played leading roles in the development of the TTC-35 Master Development Plan (MDP). These same entities—many the same individuals who created the TTC-35 MDP—will perform the NTE ISOW tasks. The recent, relevant experience of creating a Master Development Plan with essentially the same components as required for the NTE MDP will ensure no learning curve for NTEMP to quickly develop a document in concert with TxDOT’s project goals.

Concession Personnel – Cintra, with North American headquarters in Austin, currently employs more than 2,900 people and operates 23 concessions around the world (including four in North America). NTEMP will draw upon this base of skilled personnel to staff the Project. Already identified Cintra managers will build a team combining local hires with a group of workers skilled in concession management. This approach of combining local and globally trained managers and operators has proven critical to Cintra’s long-term success.

Design-Build Personnel – The two co-contractors within the anticipated DBJV have the combined resources to provide the project with access to an extensive combination of local and international workforces, equipment, material and subcontracting capabilities. Ferrovia Agroman and W.W. Webber already have the core personnel in place to begin implementation of the Project when it is deemed Ready for Development. W.W. Webber has several teams located in the Dallas-Fort Worth area that can transition available personnel to the NTE project. W.W. Webber has more than 1,000 full-time employees throughout Texas. Ferrovia Agroman employs nearly 13,000 construction personnel worldwide. Earth Tech has offices in both Dallas and Austin. Significant design personnel in both offices have already worked on this project during the proposal stage, and stand ready to transition to the project full-time. Furthermore, Earth Tech has sister-company offices in Plano and Fort Worth to provide assistance to the subcontracted local companies that will be sharing a significant amount of the work.

Equipment – Because of a long-standing commitment to developing Texas’ transportation infrastructure, DBJV members already own extensive equipment fleets, consisting of more than 390 vehicles and 1,100 pieces of construction equipment. The DBJV also has a combined total of 16 mobile concrete batch plants, six asphalt mixing plants, a fixed portable concrete traffic barrier production facility, and several slip-form paving machines. In addition to the appropriate deployment of this existing fleet, the DBJV will purchase new equipment for the project. The DBJV has longstanding relationships with major equipment suppliers and has the resources necessary to acquire additional equipment immediately.

Facilities – Prior to setting up the project office, the DBJV will use the existing NTEMP facilities to conduct coordination meetings and to perform preliminary work. Project work will continue seamlessly upon conditional award, allowing the team to meet a very aggressive schedule.

A.2 Quality Management Plan

The Quality Management Plan (QMP) sets forth general quality control (QC) and quality assurance (QA) policies and procedures for all work to be conducted or supervised by the NTEMP Team. The QMP is predicated on the premise that the quality for all activities is achieved by those responsible for performing the work and that the work is confirmed by management and verified by those assigned to quality functions. It provides general guidelines for providing quality on all deliverables, including investigations, engineering analysis, design and construction. What follows is a conceptual QMP that outlines the contents of what eventually will be a much larger document. At the onset of Project NTP1, this outline will serve as the base for the creation of the overall NTE Project QMP.

A.2.1 Quality Management Approach and Procedures

Purpose

The QMP provides quality management policies and procedures for the team to ensure quality products and services during the execution of the ISOW under the CDA. In short, the purpose of the QMP is to ensure that all team work will satisfy the requirements established for each specific milestone within the ISOW. The QMP, in conjunction with the PMP, provides requirements for general controls, supervision, inspections and tests to achieve specified and targeted quality for Project development. These basic quality procedures will apply to all milestone deliverables and be expanded upon for subsequent segment development. QMP elements for detailed engineering, design, construction, operations and maintenance for specific segments included in the Project will be developed during the development of specific Facility Implementation Plans (FIPs). Thereby, the detailed QMP for any individual segment is not included in the ISOW, however these will be essentially the same, much more thorough, procedures outlined for the concession facility.

Scope

The QMP will serve as the overall quality document for all work to be accomplished by NTEMP on NTE Segments 2-4, with necessary customization to meet specific requirements. Thus, the document serves as guidance and reference for the development of more specific Quality Plans. The QMP includes all activities that determine the quality policy, standards and responsibilities, and implements them through quality planning, control, assurance and improvement. The final QMP will ultimately be applicable to all elements of project development including:

- Preliminary facility planning and feasibility analysis
- Traffic and revenue studies
- NEPA support
- Major permitting
- Preliminary and final engineering
- Financial plans
- ROW acquisition services
- Document control
- Environmental mitigation
- Construction
- Operation and maintenance

Preparing the Master Development Plan, Master Financial Plan and Facility Implementation Plans

NTEMP will appoint a MDP Manager, Development Quality Manager, MFP Manager and Finance Quality Manager to ensure that the MDP, MFP and Facility Implementation Plans (FIPs) conform to CDA standards and that Segment configurations are consistent with the requirements for the managed and general purpose lanes.

Procedures

During Milestone 2, a Work Plan, a component of which is its Quality Plan, for each deliverable identified in the CDA for Segments 2-4 will be developed. These will define the proposed method of executing a specific element of work, taking into account the particular requirements of the Project. Each of these Quality Plans will have the following characteristics:

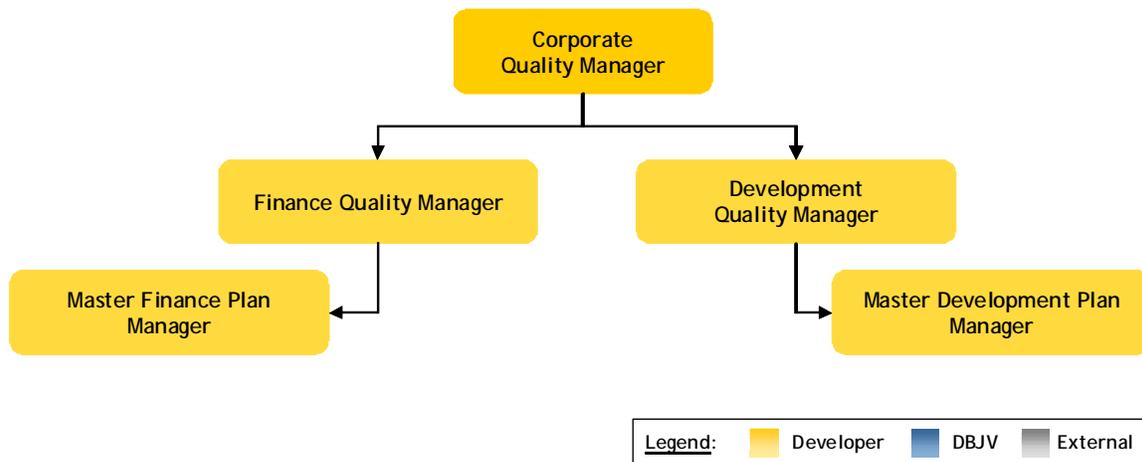
- ⊙ QA/QC goals and objectives;
- ⊙ approval of QA/QC implementation methodologies, procedures and acceptance criteria;
- ⊙ QA duties to ensure the QC Program is being properly implemented;
- ⊙ QA/QC record keeping system;
- ⊙ QC procedures, methodologies, acceptance criteria;
- ⊙ proposed changes to the Quality Management Plan;
- ⊙ procedures to stop work if deemed necessary when conditions exist that are detrimental to quality;
- ⊙ assurance that the Quality Management Plan is implemented according to applicable contract requirements;
- ⊙ assurance that deliverables meet all contract requirements; and
- ⊙ Review and approval of quality program implementation by sub-tiered firms.

The MDP, MFP and FIP deliverable documents will be subject to the quality control procedures produced in these Plans. The process in which they are implemented follows.

Design Quality - NTEMP will provide (and subcontract) deliverable production services to qualified designers and analysts. The Project's Design Manager will coordinate and control the technical performance of design work and oversee the overall design prepared by the Lead Design Consultant, Earth Tech, to ensure compliance with CDA requirements and, ultimately, the Design and Build Agreement.

During the ISOW, NTEMP's Master Development Plan Manager will serve as the design consultant project manager for that phase of work and will direct the design team - ensuring timely delivery of all documents and serving as the QC lead to ensure proper completion of QA/QC processes, including obtaining approval from the Development Quality Manager (DQM). Similarly, the Master Finance Plan Manager will serve as the project manager for all finance-related tasks and obtain approval from the Finance Quality Manager. These Plan managers, in concert with their respective Quality Managers, comprise the Design Quality Management Team (DQMT).

Figure A.2-1: Design Quality Management Team



Tasks will be delegated by discipline. Discipline managers will report directly to the Plan Managers and function as the QC technicians for that particular discipline. Each discipline manager will have the authority to affect changes needed while working in step with their direct report. Each discipline design team will be staffed as required to accomplish the milestones set by the ISOW Project Baseline Schedule.

NTEMP will enact the Design Quality Policy through three established levels of quality control, always under DQMT coordination and supervision, as described below:

Quality Level 1: Each Plan Manager will provide each discipline manager with a copy of the pertinent deliverable's quality plan. Internal checklist review will occur at the discipline manager level. Quality control tasks will include, but will not be limited to, regular review of designs, drawings, reports, calculations and constructability issues.

Each discipline manager will set up an internal team committee to review schedule-driven design packages prior to submittal to the next QC level. The quality of work produced by all design teams will be checked by discipline utilizing checklists created for that particular deliverable. Discipline examples are:

- ⊙ Roadway/Maintenance of Traffic
- ⊙ Bridges/Structural
- ⊙ Drainage
- ⊙ Lighting/Signalization / Signing
- ⊙ Environmental / Landscaping
- ⊙ Utilities / Geotechnical
- ⊙ Finance

The DQMT controls the next two levels of QA/QC.

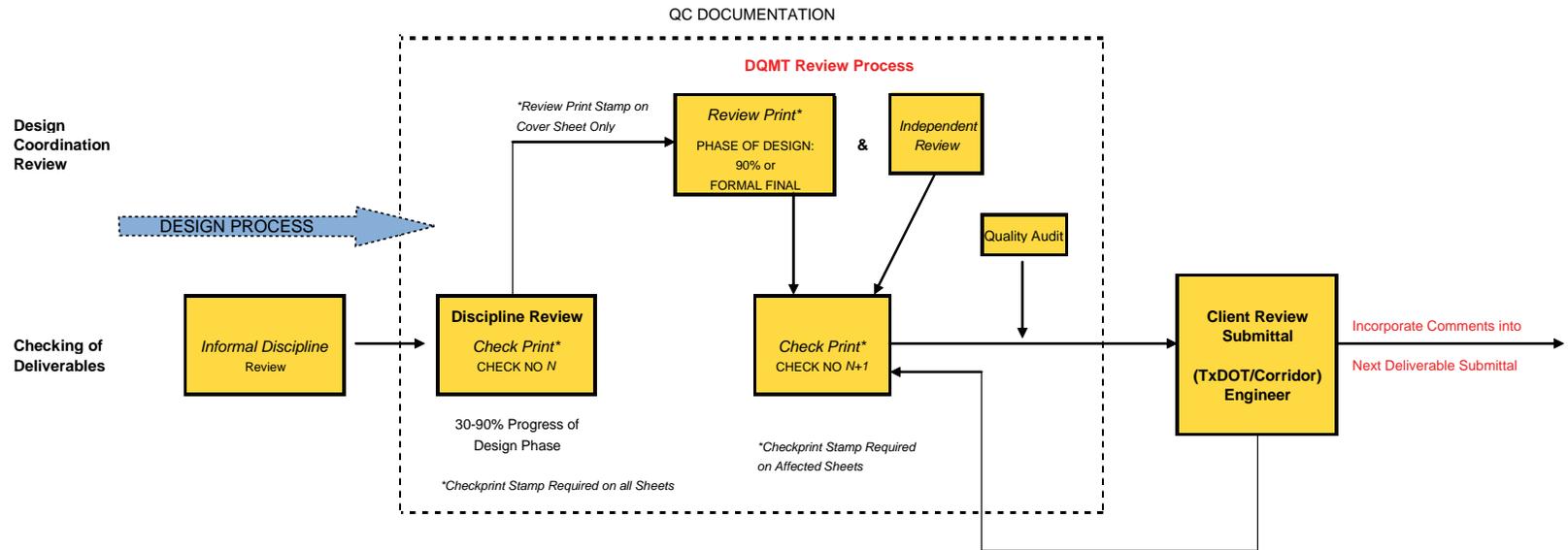
Quality Level 2: This is accomplished by the DQMT and will be obtained by providing reviews of all design packages produced by the design teams in accordance with the design schedule. The DQMT will receive a completed design package per discipline to review for quality assurance review and to ascertain conformity with TxDOT and CDA regulations. The DQM will provide final review/acceptance before returning to discipline managers for final edits. Final edits are performed, documented and grouped into a deliverable submittal.

Quality Level 3: The DQMT distributes the deliverable to TxDOT and their representatives to conduct a final review of these deliverable packages. All communications will follow procedures outlined in the final QMP. Both the DQMT and the TxDOT will adhere strictly to the timeframe allowed in the schedule for their reviews of the design packages. A matrix of comments/corrections will be maintained for each deliverable produced that will serve as the quality document of record.

All documents generated under the three levels of quality will be recorded on forms created in the final QMP. The procedure to be used by the DQMT will conform to Project Work Plan guidelines and will require documentation of all comments and recommended actions in strict compliance with the format specified in the Work Plan. This process developed for the planning phases of the CDA is an abridged version of the Concession Facility Quality Management plan. As Segments are developed, the plan will evolve to mimic that which is provided for the Concession Facility.

A descriptive chart of the preceding ISOW quality process is provided as Figure A.2-2.

Figure A.2-2: Design Quality Flowchart



NTEMP will conduct monthly design management meetings with TxDOT, as defined in the CDA, to discuss the design work progress and coordinate the auditing of the design products. This will allow the Plan Managers to identify any patterns that may appear and address the root cause of any particular problem. A complete log will be kept that tracks the resolution of issues from inception until final approval and implementation.

Independent Reviews and Audits

The DQMT will be fully responsible for all aspects of design quality control, including the work of subconsultants. To maintain deliverable quality, the Finance and Development Quality Managers will coordinate periodic independent Quality Control and Technical Reviews. In this process, a documented, comprehensive and systematic examination of the design will be carried out at appropriate stages of the design. The procedure will occur in parallel to the Quality Level 2 review. Comments will be distributed with that set, as needed.

The Corporate Quality Manager will also establish and maintain a system of periodic internal audits and will train and supervise all internal auditors. Qualified personnel, independent of those having direct responsibility for the activity being audited, will perform internal quality audits. Internal audits will take place after all design quality control and independent design reviews. Quality audits will also occur prior to release of “final deliverable” documents.

The Corporate Quality Manager will ensure that audit results are recorded and brought to the attention of appropriate personnel. Managers responsible for the activity being audited will take prudent and timely corrective action to resolve all identified deficiencies. Follow-up audits will verify the corrective action taken and its effectiveness. Any recurring problems will be brought to the Project Manager’s attention. Quality audit results will also serve as a tool to review and implement continuous improvement to the QMP and design activities.

A.2.2 Integrating All Parts of the Organization into the Quality Management System

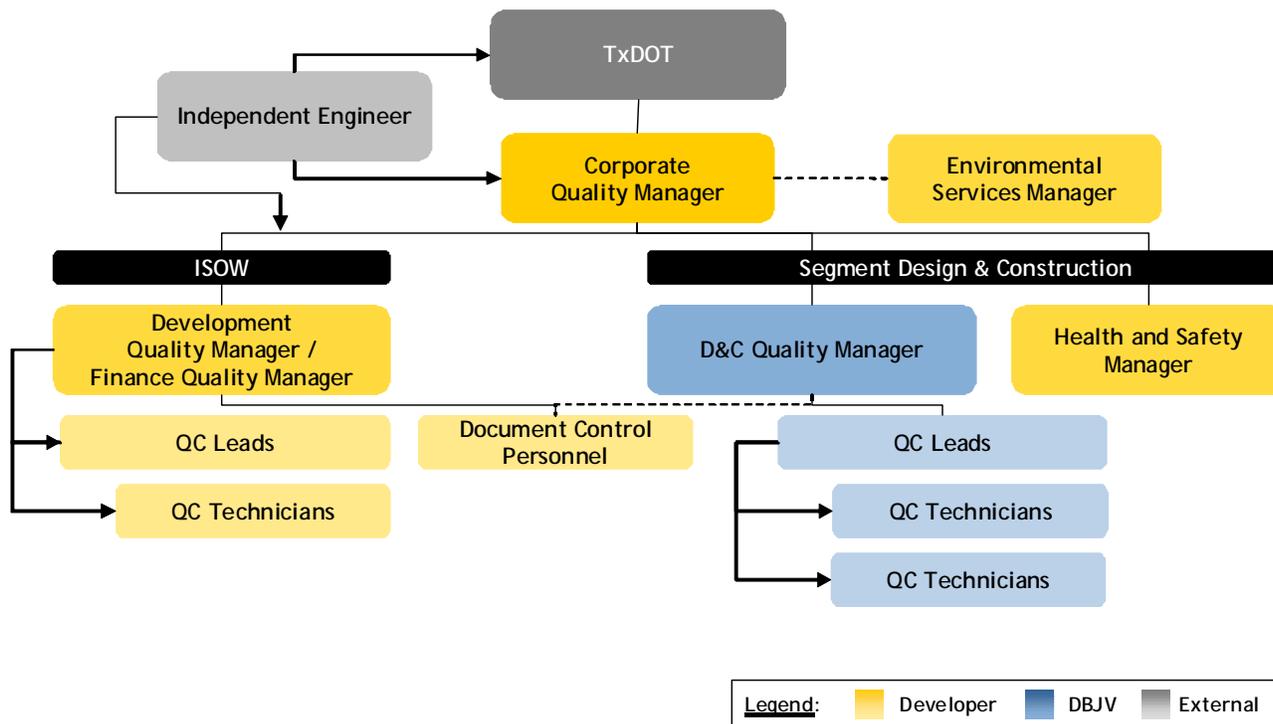
The Quality Assurance System describes the obligations with which NTEMP must comply in terms of planning and analysis, design, construction, final product and testing inspection as well as explicit client satisfaction and continuous improvement, allowing for no exceptions.

Each deliverable to be completed for the CDA has a quality component. It is anticipated that most activities of the CDA will be completed on a “fast-track” or expedited schedule. Therefore, it is imperative that a detailed quality control process is in place for each task. This quality control process need not add excessive time to the activity duration when the activity is properly planned and scheduled. All involved must “buy in” to the process, and allow sufficient time for the work production and QC to be successful.

Personnel with appropriate training and authority will develop, refine and implement NTEMP’s quality systems. Senior management emphasizes its commitment to quality, the responsibilities and authorities inherent in all positions throughout the NTEMP Team, and the importance of quality to the success of the CDA. To show interaction amongst all levels of the NTE Project, the ISOW, Design Quality and Construction Quality Teams consist of the following personnel, as illustrated in Figure A.2-3.

- ⊙ **Corporate Quality Manager** – QA/QC Professional with recognized experience in similar projects with oversight of both branches of NTE Project development.
- ⊙ **Finance Quality and Development Quality Managers** - QA/QC managers that are clearly focused on the deliverables associated with that Plan component with recognized experience in the field.
- ⊙ **Quality Control Leads** – For ISOW activities, plan management personnel. For design and construction, one lead will provide QA/QC for design/laboratory processes and deliverables; the other will provide QA/QC for fieldwork. Both leads will be either senior engineers or junior engineers with QA/QC experience.
- ⊙ **Quality Control Technicians** – Senior technicians with experience in QA/QC. In the ISOW, these will be identified by discipline internal to the particular deliverable to be produced.
- ⊙ **Laboratory Technicians** – Lab technicians will be proficient in TxDOT laboratory procedures and possess the required TxDOT certifications. This level of QC is expected primarily during the design and construction phase, but will also occur during the ISOW geotechnical investigations.
- ⊙ **Document Control Personnel** – Control distribution, filing, retention, revision tracking and indexing of Project-related documents for all phases.

Figure A.2-3: Design and Construction Quality Organization Chart



Cintra and Meridiam, as the equity partners, will be ultimately responsible for the quality of NTE Segments 2-4. As such, Corporate Quality Manager, Jesús Alvarez Arcos, is employed by Cintra. Mr. Alvarez and supporting Quality Management staff will be responsible for:

- ⊙ establishment of QA/QC goals and objectives;
- ⊙ establishment and approval of QA/QC implementation methodologies, procedures and acceptance criteria;
- ⊙ performance of QA duties to ensure the QC Program is being properly implemented;
- ⊙ implementation of a QA/QC record keeping system;
- ⊙ approval of QC procedures, methodologies, acceptance criteria;
- ⊙ review/approval of proposed changes to the Quality Management Plan;
- ⊙ authority to stop work if deemed necessary when conditions exist that are detrimental to quality;
- ⊙ certification that the Quality Management Plan is established and implemented according to applicable contract requirements;
- ⊙ certification that deliverables meet all contract requirements;
- ⊙ review and approval of quality program implementation by sub-tiered firms; and
- ⊙ delegation of responsibilities to qualified personnel.

Interrelationships Between Phases of Work

Since 1994, the companies belonging to the Ferrovial Group have encouraged continuous improvement through effective quality policies and procedures. Top management promotes this commitment to quality and transmits it to all levels of the company.

Commitment from employees is the key factor for success in reaching demanding quality objectives. For that reason, motivation, participation, training and development will be encouraged for all members of the organization. The quality planning, control, and assurance procedures permeate to all aspects of NTE Segments 2-4. Table A.2-1 gives several examples of how quality management relates to the major tasks over the life of the CDA.

Table A.2-1: Quality Management Interrelationships

| CDA Task | Quality Planning | Quality Control | Quality Assurance |
|--------------------|--|---|---|
| ISOW / FIP | | | |
| Project Management | <ul style="list-style-type: none"> ▪ Establish requirements for invoices, meeting notes and progress reports ▪ Create checklists for the above items | <ul style="list-style-type: none"> ▪ Monitor deliverables to determine if project management items are meeting the established quality standards | <ul style="list-style-type: none"> ▪ Senior management review of Project Manager performance as related to quality |

| CDA Task | Quality Planning | Quality Control | Quality Assurance |
|--|---|--|---|
| Planning | <ul style="list-style-type: none"> Verify criteria for Segment optimization Identify data sources to be used Verify preliminary design criteria Create checklists for traffic and revenue analysis and schematic submittals | <ul style="list-style-type: none"> Monitor specific submittals to determine if they are meeting the standards Ensure checklists are utilized | <ul style="list-style-type: none"> Evaluation of quality control issues to ensure planning tasks are fulfilling identified needs |
| Finance | <ul style="list-style-type: none"> Establish required documentation for any potential funding Create checklists for required financial reporting | <ul style="list-style-type: none"> Ensure checklists are completed prior to submittal of documents | <ul style="list-style-type: none"> Senior management review of performance to provide required financing |
| Segment Design and Construction | | | |
| Design | <ul style="list-style-type: none"> Verify detailed design criteria Establish components of design submittals Establish design file structure Create checklists for each submittal type | <ul style="list-style-type: none"> Complete all checklists for each submittal Ensure checklists are returned to the producer | <ul style="list-style-type: none"> Executive review and analysis of design quality, based on checklists and TxDOT comments |
| Public Involvement | <ul style="list-style-type: none"> Establish requirements for documents to be produced by the NTEMP Team in support of TxDOT's public involvement process Create checklists for each type submittal (e.g. schematics for public meetings) | <ul style="list-style-type: none"> Complete all checklists for each submittal | <ul style="list-style-type: none"> Review quality/acceptance of submittals by the public Verify/revise quality standards utilized |
| Environmental Compliance | <ul style="list-style-type: none"> Establish documentation required for environmental mitigation tracking Create checklists for environmental compliance documentation | <ul style="list-style-type: none"> Ensure documents are permanently filed with environmental documentation | <ul style="list-style-type: none"> Oversight of environmental commitments, successes and failures Develop lessons learned |

| CDA Task | Quality Planning | Quality Control | Quality Assurance |
|-------------------------|--|---|--|
| Construction | <ul style="list-style-type: none"> Verify all construction specifications Verify inspection procedures Establish pre-inspection checklists | <ul style="list-style-type: none"> Ensure field personnel are utilizing the established checklists Identify ways to mitigate risk | <ul style="list-style-type: none"> Review and reporting of construction success and failures Develop lessons learned |
| Safety | <ul style="list-style-type: none"> Verify roadway design criteria Develop emergency procedures Establish frequency of Segment safety checks during operation Create checklists of safety issues for field personnel | <ul style="list-style-type: none"> Fill out all design checklists Review emergency responses During operation, complete and appropriately file each safety check | <ul style="list-style-type: none"> Report on emergency actions Evaluation and presentation of safety record of Facilities |
| Operation & Maintenance | <ul style="list-style-type: none"> Establish maintenance criteria Establish acceptable user quality of service criteria Develop emergency procedures Create roadway maintenance checklists Create toll collection system checklists | <ul style="list-style-type: none"> Review checklists for patterns of poor service Establish ways to eliminate causes of poor service Review emergency responses | <ul style="list-style-type: none"> Evaluation of operation and maintenance results analysis Report on emergency actions Develop improvement reports |

Subcontractor and Third-Party Key Personnel

The QMP covers all activities accomplished both on- and off-site by the NTEMP Team and subcontractors. Where appropriate for large subcontracted scopes, subcontractors will be required to submit a Quality Plan with in-house staff responsibilities and qualifications for review by NTEMP. These plans will be incorporated into the Work Plan and will be included as addenda to the final QMP.

Each firm within the NTEMP Team will be responsible for its own QC process. Each firm will submit a discipline-specific signed checklist, along with their deliverable, to the responsible NTEMP Plan Manager. The person who completes the checklist will be a peer, or higher, to those who produce the product, and will not have been involved with the preparation of the product. The firm’s internal quality manager, who will have reviewed any previously disseminated comments and dispositions for the work product, will also sign the checklist. The DQMT will complete the deliverable reviews and periodically review the performance of the subcontractor and produce any necessary quality assurance and improvement reports.

Table A.2-2 lists the key subcontractor and third-party personnel anticipated to work on NTE Segments 2-4.

Table A.2-2: Subcontractor and Third-Party Key Personnel

| Company / Role | Lead Individual | Contact Information |
|---|-----------------------|--|
| AECOM Enterprises <i>Traffic and Revenue, Tolling Systems and ITS Advisor</i> | Joseph Fazio | 605 3rd Avenue New York, NY 10158 212-651-6904 joseph.fazio@aecom.com |
| Aguirre & Fields, LP <i>Structural and General Civil Design</i> | Richard Fields, P.E. | 4800 Sugar Grove Suite 600 Stafford, TX 77477 281-340-8900 richard.fields@aguirre-fields.com |
| Cox McLain Environmental Consultants <i>Environmental Compliance / Permitting</i> | Ashley McLain, AICP | 4131 Spicewood Springs, Suite A-4 Austin, Texas 78759 512-338 2223 ashley@coxmcclain.com |
| Earth Tech <i>Lead Planning and Design</i> | Jon Engelke, P.E. | 1420 W. Mockingbird Lane, Suite 300 Dallas, TX 75247 214-630-8867 jon.engelke@aecom.com |
| Coleman & Associates <i>Landscaping/Aesthetics</i> | Brian Sweat | 9890 Silver Mountain Drive Austin, Texas 78737 512-476-2090 brian@colemanandassoc.com |
| Fugro Consultants, Inc. <i>Geotechnical and Construction Materials Engineering Services</i> | Saad M. Hineidi, P.E. | 2880 Virgo Lane Dallas, TX 75229 972-484-8301 shineidi@fugro.com |
| MACTEC Engineering and Consulting, Inc. <i>Drainage and Utilities</i> | Mike Midkiff, P.E. | 3520 Executive Center Drive Suite 200 Austin, TX 78731 512-795-0360 mwmidkiff@mactec.com |

| Company / Role | Lead Individual | Contact Information |
|---|-------------------------|--|
| <p>Othon, Inc. <i>Planning and Design</i></p> | <p>F. William Othon</p> | <p>11111 Wilcrest Green Suite 128 Houston, TX 77042 713-975-8555 fwothon@othon.com</p> |

A.2.3 Integrating TxDOT into the Quality Management System

NTEMP welcomes TxDOT’s continuous involvement in managing quality throughout design, construction, operation and maintenance. NTEMP recognizes that TxDOT and its Authorized Representative or IE will have the right at all times to monitor, inspect, sample, measure, attend, observe or conduct tests and investigations, and conduct other oversight respecting any part or aspect of the Segment or the Work. NTEMP will work collaboratively with TxDOT in its oversight activities, coordinating these activities through NTEMP’s Project Manager.

During the ISOW, this integration will be relatively seamless in that there will be weekly Development Plan Management Meetings and full integration of reporting of the development progress with TxDOT. In the design and construction phase, NTEMP will provide TxDOT and the IE with safe and prompt access to the Segment and its related office facilities and documents in accordance with the CDA and Independent Engineer Agreement. The Project Manager will facilitate the IE’s involvement during the O&M phase, which will include audit inspections, Owner Verification Tests, input on the Renewal Work Schedule, review of submittals to TxDOT, attendance at tests and inspections, auditing books of Key Contractors, investigating safety compliance and other oversight and auditing activities.

NTEMP’s Corporate Quality Manager will periodically review the quality control results, checklists, comments and their disposition, and summarize the results for use by NTEMP and TxDOT. The Corporate Quality Manager will help develop lessons learned for use by TxDOT and the NTEMP Team to modify procedures during the current and future Segment’s development work.

A Quality Assurance Report will be produced on a quarterly, or as required, basis. This report will discuss the following:

- Progress report
- Schedule analysis
- Tasks at risk
- Risk resolution strategy
- Previous risks resolved

A.2.4 Setting Standards for Management Plan Preparation

NTEMP will develop additional management plans in accordance with the standards set forth in the Technical Provisions, applicable laws and best industry practice. These plans will be considered supplements to the Facility Management Plan (FMP), and will be subject to the same document control procedures as the FMP. Read-only copies of the FMP and supplemental plans will be available through the Developer’s electronic document management system. These plans will include, but will not be limited to:

- ⊙ Facility Implementation Plans;
- ⊙ Aesthetics and Landscaping Plan;
- ⊙ Traffic Management Plan;
- ⊙ Safety Plan;
- ⊙ Acceptance Test Plan;
- ⊙ Emergency Response Plan;
- ⊙ Incident Management Plan;
- ⊙ Electronic Toll Collection System Plan;
- ⊙ Maintenance Management Plan (MMP);
- ⊙ Haul Route Plan;
- ⊙ ITS Implementation Plan;
- ⊙ Comprehensive Environmental Protection Program and its component plans (Environmental Compliance and Mitigation Plan, Compliance Action Plan, Environmental Protection Training Plan, SWPPP, etc.);
- ⊙ Segment-Specific Quality Management Plan (QMP);
- ⊙ Operations Management Plan (OMP);
- ⊙ Handback Plan; and
- ⊙ Residual Life Methodology Plan.

Additional standards by which NTEMP will be measured include TxDOT and roadway user satisfaction. NTEMP will carry out interviews and surveys to measure satisfaction and provide feedback for continuous improvement.

Construction Quality

The DBJV's Construction Quality Manager will have the authority to affect changes when any failure occurs in the internal QA/QC and design review process. The Construction Quality Manager will be responsible for resolving any event of failure and will write up, modify, validate and deliver any document related to the Quality Assurance System, in agreement with the Developer. The Construction Quality Manager will be responsible for acceptance testing and inspection during the construction phase, and will interact with the IE. The QA/QC will inform the Quality Corporate Manager, if required.

The DBJV will submit procedures, inspection and test results and all documents related to the construction phase to the Developer who will, in turn, deliver them to the IE and TxDOT/Governmental Agencies as defined in the CDA. Document Control personnel will control the transmittal of these documents. Appendix D.4, Chapter 2B, Construction Quality Management, describes general procedures for construction quality management.

Quality control includes management and monitoring of construction inputs and outputs at all levels and progress reporting to the Developer. The DBJV will prepare a monthly Progress Report and submit it to the

Developer no later than five working days after the end of each calendar month. The report will detail the progress achieved in the previous month and will compare actual progress to planned progress.

Inspection and Testing: The Inspection and Test Plans identify specific “Hold Points” for each activity, where required. The issued procedures describe the process of inspection, testing, reporting, and the control of non-conformances. Product conformity certificates and external test results are acceptable. The DBJV will retain all inspection and test records for verification and release of Hold Points, as required.

Amendments to the Quality Plan: The Corporate Quality Manager will keep the various Quality plans under review, and will incorporate revisions and issue revised Quality plans, as appropriate. The DBJV will forward a record of such revisions to the General Manager. A significant number of professionals will be dedicated to integrating design activities with construction activities, including TxDOT oversight, quality-related activities and conformance with federal oversight requirements.

Long-Term Durability and Maintenance

Effective interface and coordination between the Developer and DBJV is vital for the success of the Project. Since Cintra (Developer Equity Partner), Ferrovial Agroman and W.W. Webber (DBJV General Contractors) belong to the same parent company (Grupo Ferrovial), communications between these three entities are extremely fluent, which undoubtedly brings additional value to the project. During the proposal stage, the three companies have worked together, even sharing the same building to facilitate communication and interaction. For that reason, these key Developer and DBJV members have been able to exchange and discuss ideas for the Project on a daily basis, ensuring that the final proposal will guarantee superior constructability, high-quality design and low maintenance cost.

Cintra and Ferrovial Agroman have learned many lessons from shared experience over the past decades. The companies have improved their interface methods and renovated their work techniques for each new project, allowing them to propose aggressive work schedules with total confidence. They have implemented new strategies for construction over the years, enabling them to identify critical issues in each project with the opportunity to improve performance. The companies have learned by direct experience how decisions made at the design stage affect the life cycle cost of the project. They have tested many different technical solutions at the design and construction stages and have checked each other's performance over the years during O&M. For those reasons, the Developer and DBJV have incomparable experience and design procedures that minimize the overall cost of a project. The concept of low maintenance and durability of the work executed is optimal and it is one of the most important factors considered in each project.

A good example of this interface during the development stage is pavement design, where the MDP team and the DBJV have worked together to produce life-cycle optimized design that provides a high-quality pavement over the term of the concession and optimizes maintenance costs. Based on past experience, the Developer has developed its quality standards, which in many occasions are stricter than the Owner's (for instance, in terms of ride quality). O&M staff will be involved in the preliminary design and in the identification, development, programming and detailed design. To this end, the Roadway Operations Director and staff will undertake regular discussions with the DBJV throughout the design phase.

A.2.5 Management Approach / TxDOT Oversight

A significant number of professionals will be dedicated to integrating design activities with construction activities, including TxDOT oversight, quality-related activities and conformance with federal oversight requirements.

Environmental Services

For Segments 2-4, NTEMP will develop and implement a Comprehensive Environmental Protection Program (CEPP) to establish the approach, requirements and procedures to be employed to protect the environment. All components of the CEPP will reflect impact avoidance, minimization and last resort mitigation as the priorities for environmental management.

Each of the components of the CEPP will be crafted in a manner intended to provide multiple layers of oversight so that all environmental commitments are addressed and any appropriate mitigation is carried out in a manner that will not affect the construction schedule. The environmental compliance team will draw from a multi-disciplinary group of environmental professionals in order to ensure that any issue encountered—whether noise, cultural resources, hazardous materials or migratory birds— will be addressed in a comprehensive and timely manner.

Traffic Data Collection and Verification

Thorough Traffic and Revenue collection sources reporting will be required as a component of Milestone 4 of the ISOW. All processes, references and methodology required for this critical component of corridor analysis will be subject to the QA/QC procedures outlined for the MDP/MFP preparation. Weekly Development Plan Management meetings with TxDOT and their representatives will ensure continual involvement in the deliverable.

Coordination with Project Stakeholders

The key elements of scope, schedule, budget and quality are optimized when NTEMP communicates well with TxDOT, their representatives and the Independent Engineer, the public and the full range of stakeholders.

NTEMP will submit a complete Public Information and Communications Plan (PICP) to TxDOT that identifies all customer groups, tailors the specific communication measures to their issues and ensures full compliance with all requirements of the CDA. This is further described in the Concession Facility Management Plan. The advanced stage of the plans will allow for a more comprehensive review and enhanced input from TxDOT. NTEMP will coordinate its PICP with ongoing TxDOT public information efforts to ensure that the regional customer base receives a consistent message.

File Management and Document Control

Quality Records are objective evidence that the specified quality control procedures and quality assurance processes were performed. NTEMP will maintain quality records at the NTEMP offices in Tarrant County until five years after conclusion of the CDA, at which time the records will be turned over to TxDOT. NTEMP will notify TxDOT of the location of the quality records; make all quality records immediately

available to TxDOT and the IE for review; and provide a copy of such records to TxDOT or the IE upon request.

Quality records to be retained until five years after conclusion of the CDA include:

- ⦿ QMP revisions
- ⦿ personnel training records for QA/QC system training;
- ⦿ project drawings and reports, originals and copies marked up by QA/QC reviewers;
- ⦿ design control checklists;
- ⦿ design review reports;
- ⦿ audit checklists and reports; and
- ⦿ meeting minutes for design reviews, audit meetings, Management Review meetings and other meetings related to quality management.

The Corporate Quality Manager will keep the various Quality plans under review, and will incorporate revisions and issue revised Quality plans, as appropriate. The DBJV will forward a record of such revisions to the Project Manager.

Responsibilities

A Document Control Manager will be responsible for ensuring the proper control of documents and submittals to TxDOT and other government agencies in the execution of the CDA. However, the Corporate Quality Manager will have ultimate sign-off authority for the QC Reports.

Basic Requirements

There are three main requirements of the QMP: preparatory, execution and recording. NTEMP and TxDOT will jointly establish and maintain procedures for identifying, preparing, reviewing, approving, revising, collecting, indexing, filing, storing, maintaining, retrieving, distributing, and disposing of pertinent quality documentation and records. Such procedures will be applicable to all forms of documents and records, including print and electronic media.

Documents requiring control will be identified in the ISOW QMP and each Segment-specific QC Plan. Documents, including revisions, will be reviewed by the Corporate Quality Manager for conformance with technical requirements and quality process requirements. Approved documents are released by authorized personnel. Documents used to perform design work (e.g., design manuals and software) will be identified and kept current for use by personnel performing the work. Measures will be taken to ensure that users understand the documents to be used. Obsolete or superseded documents will be identified and not used. The Corporate Quality Manager will ensure users remove these documents from the official document repositories.

The Corporate Quality Manager will specify, prepare, review, authenticate and maintain sufficient records to reflect the achievement of the required quality for completed work and to fulfill statutory requirements. The maintenance of records will include provisions for retention, protection, preservation, traceability and retrievability.

Submittals

QC procedures for certifying submittals to TxDOT for any phase of work will be instituted as part of the final QMP development process. This process includes the initial phase of deliverables and the follow-up phase. The QC activities will cover all submittals from NTEMP as well as submittals for subcontractors, suppliers and off-site fabricators. The Corporate Quality Manager (or one of the subordinate quality managers) will submit a QC report form to the designated TxDOT representative. The submittals may include reports, drawings, shop drawings and material, equipment and testing plans. Procedures will specify QC checks and reviews necessary to assure conformance with CDA requirements. The QC checks will be performed by the discipline managers and reviews will be performed by the DQMT. Scheduling and review of submittals will be coordinated between project and plan management and quality management personnel. A document register will be prepared for each technical discipline. Information sufficient to clearly portray contents, author, purpose and date will be included.

Request for Information/Clarification

If NTEMP requires additional information or clarification from TxDOT, a Request for Information / Clarification form will be submitted to TxDOT. A Request for Information/Clarification log will be used to track information requests.

Change Orders

A Change Order will be submitted to TxDOT via serial letter when a change to the contract is required.

Serial Letters

Serial letters are to be used for correspondence between NTEMP and TxDOT when appropriate. The project manager will log all serial letters and track their responses.

Procurement of Materials and Services

The procurement of purchased items and services that directly affect the quality of project activities will be planned and controlled to ensure that the quality of the items and services is known, documented, and meets the technical requirements and acceptance criteria.

Procurement documents (e.g., purchase orders, services agreements) will contain information clearly describing the item or service needed and the associated technical and quality requirements, and how the supplier's conformance to the requirements will be verified. Each supplier will have a demonstrated capability to furnish items and services that meet all requirements specified in the procurement documents. Manufacturer's QC processes will be reviewed by the QCM to ensure optimum quality products are delivered for use on NTE Segments 2-4.

NTEMP's Corporate Quality Manager will periodically review the quality control results, checklists, comments and their disposition, and summarize the results for use by NTEMP and TxDOT. The Corporate Quality Manager will help develop lessons learned for use by TxDOT and the NTEMP Team to modify procedures during the CDA.

Meeting Construction Schedules and Fulfilling Bondholder's Obligations

NTEMP's Project Controls Group will monitor schedule and cost baselines to ensure compliance with the overall Project objectives and conduct forecasting, trending, change control and mitigation planning to ensure that ongoing activities comply with the schedule and cost baseline. More information on methods of meeting schedule and cost baselines can be found in the Concession Facility Management Plan.

Compliance with State, Federal and Local Laws

NTEMP recognizes the importance of complying with TxDOT policies and obeying all applicable Federal and State laws, rules and regulations relating to the development of NTE Segments 2-4. Written working procedures will take into account compliance with laws related to CDAs, managed lane operation, roadway design, ROW acquisition, public information, the environment, safety and working conditions and EEO compliance, among other considerations.

B. CONCEPTUAL DEVELOPMENT PLAN

The Conceptual Development Plan (CDP) contains preliminary elements of the Master Development Plan (MDP) that NTEMP will produce during the Initial Scope of Work (ISOW) for Segments 2-4. Expediting Segment delivery will be the goal of all ISOW activities.

Assuming a CDA execution date of March 31, 2009, ISOW Milestone 1 is scheduled for completion in June 2009 and the entire ISOW is projected to be complete in September 2010.

A very aggressive delivery schedule is proposed so that congestion relief can be provided uniformly across the entire NTE Corridor as quickly as possible. This plan attempts to mitigate negative effects of merely shifting bottlenecks within a congested system. To realize such a schedule, each Segment will be optimized so that public funds are not required. This will be accomplished using engineering and construction cost optimization, and innovative financing tools and Segment packaging. The Conceptual Development and Financial Plans that follow merely provide the backbone of these concepts that will be expanded on considerably during the MDP creation process within the ISOW.

The culmination of the preliminary Segment analyses creates a very attractive scenario in which all Segments are opened prior to the periods in which public subsidy will be available. The summary of key Segment dates that are proposed follows in Table B-1.

Table B-1 : Summary of Key Segment Dates

| Facility | Financial Close | Beginning of Operations | End of Concession |
|----------------------|-----------------|--|-------------------|
| Segment 2E | 1/1/2011 | 1/1/2016 | 12/31/2062 |
| Segment 3A, 3B and 4 | 1/1/2013 | 1/1/2018 (Segment 4 begins construction in 2020 and is completed by 12/31/2024) | 12/31/2064 |
| Segment 3C | 1/1/2015 | 1/1/2020 | 12/31/2066 |

NTEMP's analysis of the TxDOT-provided Reference Information Document (RID) schematics for Segments 2-4 suggests that, for the most part, the proposed overall configurations are satisfactory to allow for this aggressive schedule, except that capacity expansions for general purpose lanes must be restricted for the managed lane system to support the system financially (so that development can occur with no

additional public funds). Thorough analysis during the ISOW will dictate the optimal capacity improvements for these Segments and potential Segment expansion methodologies that may be included in a particular Segment Facility Agreement.

The only significant design reconfiguration that NTEMP has preliminarily identified consists of replacing the currently contemplated reversible managed lanes on Segment 4 with two concurrent-flow managed lanes in each direction. This will enhance the financial attractiveness of Segment 4 and expand capacity. More detail on this modification is provided in Sections B.5.2 and B.5.4.

The MDP will detail all facets associated with the delivery of Segments 2-4 of the North Tarrant Express Project. One component of this effort is a gauge of the overall economic health and demographics of the DFW Metroplex. It will provide a background for the calculations of traffic, revenue and cost projections for each Segment. The summation of this critical data will ultimately provide justification for the phasing and sequencing of the delivery and future expansions of Segments 2-4. The delivery methodology itself will also be dependent on similar demographic information. These components, including the financial and risk mitigation information provided in the Master Financial Plan (MFP, ultimately, a component of the MDP), will provide the planning information necessary for NTEMP and TxDOT to determine when NTE Segments 2-4 will be deemed Ready for Development.

The MDP will include much more interaction with TxDOT and major stakeholders than is feasible during the procurement process. This interaction is extremely important to ensure that the NTE Segments are delivered in a manner acceptable to the local communities. The approved meetings with leaders of adjoining cities and Tarrant County have demonstrated local enthusiasm for constructing the NTE Project as soon as possible. Many members of the NTEMP Team have resided in the DFW area for many years and bring their local knowledge to facilitate the planning and delivery of NTE.

Delivery Options

NTEMP's plan is to fast-track the delivery of Segments 2-4 as quickly as possible. NTEMP believes that partnering with TxDOT to deliver, operate and maintain Segments 2-4 will produce tangible benefits to the citizens of Texas through congestion relief and travel time savings.

The following discussion is written from the perspective that NTEMP will partner with TxDOT to jointly determine the optimum delivery method for Segments 2-4, thereby minimizing the financial impact.

To manage the spiraling cost escalation effects of materials increase and project delays, NTEMP will create Segment-specific delivery procedures geared toward optimization of both. Each Segment's Facility Implementation Plan will further define these delivery procedures. The options utilized for these decisions will be comprised of the following delivery methods, either in stand-alone form or in some combination:

- ⊙ Design-Bid-Build (DBB);
- ⊙ Design-Build (DB);
- ⊙ Design-Build-Operate-Maintain (DBOM); and
- ⊙ Design-Build-Finance-Operate Maintain (DBFOM).

The traditional project delivery method TxDOT utilizes is the DBB process where the design and construction of the facility are conducted separately and sequentially. As a result, the DBB process is divided into a two-step delivery process involving separate phases for design and construction. TxDOT (or a Developer entity in this particular case), not the construction contractor, is solely responsible for the financing, operation, and maintenance of the facility and assumes all design risks. The design is performed by an engineering consultant and the procurement process is based on negotiated terms (typically, in a public procurement, the most qualified engineering firm). Award of the construction contract is based on the lowest responsible bid price.

The DB form of project delivery is a system of contracting whereby one entity performs both engineering and construction under a single contract. Under this arrangement, the design-builder warrants to TxDOT that it will produce design documents that are complete and free from error (design-builder takes the risk). The selection process under DB contracting can be in the form of a negotiated process, or a competitive process based on some combination of price, duration, and technical proposal.

Under the DBOM form of project delivery the contract team is responsible for design, construction, operation, and maintenance of the facility for a specified period of time. Payment beyond project completion is predicated on meeting certain prescribed performance standards relating to physical condition, capacity, congestion, and/or ride quality.

Adding a project finance component to the DBOM form of delivery creates the DBFOM method (or, concession, as the Concession Facility is being procured). All characteristics of the DBOM delivery method are maintained. Additionally, the responsibility to locate and allocate project finance sources is assigned to the Developer with some assistance from TxDOT when there is application of public funds. The Developer is then reimbursed by project toll revenues and/or by availability payment based on contractual performance standards. The added risk placed on the Developer is offset by potential project profit incentives if the facility is efficiently managed and has wide public acceptance through ridership.

All types of contracts (DB, DBB, DBOM and DBFOM) can be awarded through competitive procurement or through negotiated process between TxDOT and the private sector. In DBOM or DBFOM it is possible that competitive procurement could be a part of the contract.

Each of these delivery methods has benefits and drawbacks and they are not appropriate for all types of projects. Each would be evaluated against a mutually defined list of key Project factors. Weight can be added or subtracted from the factors for each Segment, as the individualized Segments may themselves all have the same implementation goals. In very general terms, key project factors are described below:

Asset Factors – Factors directly attributable to the transportation asset delivered

- ⊙ Time Savings – A measurement from project inception to Segment opening date
- ⊙ Cost Savings – Based on the project design and construction cost
- ⊙ Quality – Factors such as ride quality and longevity of constructed elements

Business Factors – Factors relevant to the financial performance and potential self-sustainability of the Project

- ⊙ Usage of Private Funds – The potential for non-traditional / innovative funding sources is factored.

- ⊙ Synergies – Developers have a longer term view that allows optimization of the overall process, as opposed to that from independent design and build contracts. Also, large Developer entities may have subsidiaries that enhance overall project development with individualized expertise focused on a long term view of the asset.
- ⊙ Private Sector Innovation and Efficiencies – Private companies are incentivized to create value through asset management and project performance generating profits and desired return on investment.
- ⊙ Risk Transfer Capability – Shift of major risk elements (e.g. construction cost/schedule, traffic, financing, operations and maintenance) to the private sector can significantly incentivize a public entity to consider alternate delivery methods.

Contractual Factors – Factors solely based on the agreement between contracting partners

- ⊙ Contractual Complexity – Increased risk by the private sector generates the need for a more complex contractual structure to address the various public and private business terms.
- ⊙ Short Term Contractual Flexibility – Shorter terms allow flexibility to the public sector to modify their transportation or contracting policies on a more frequent basis.
- ⊙ Long Term Contractual Stability – Longer-term contracts allow for optimization of a whole life commitment to design, finance, operate and maintain an asset.

Ultimately, a much more detailed matrix evaluating the aforementioned delivery methods against the characteristics of each Segment will be created during the ISOW. Specific prioritization concepts that are envisioned to be the most important driving factors of Segment development are described in more detail in Section B.5.

The Developer has a tremendous amount of flexibility in the structure of the payouts generated from a potential Segment DBFOM lease. Payouts would be contractually stipulated to best fit the long-term needs of TxDOT. The options can vary from a large upfront payment to long-term payments based on revenue sharing, or a combination of both. A large upfront payment is typically beneficial if an existing infrastructure debt or perpetually under-funded transportation budget are becoming a burden. The exact destination of the funds, however, could possibly be made available to for use on other transportation projects. Each situation is completely unique in the way a lump-sum payment is disseminated. This would likely not be a solution utilized on the NTE Segments as it will be the intention to keep available funds within the corridor. Each Segment's FIP will ultimately detail the nature of concession payment usage (if deemed feasible).

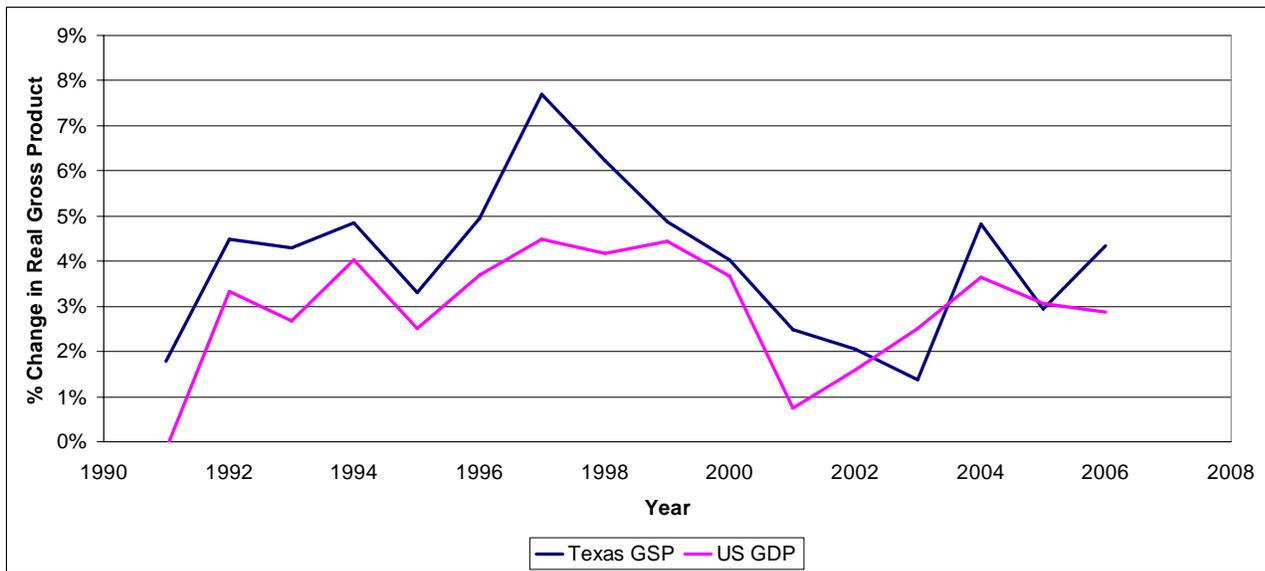
Revenue sharing could also be a portion of a particular Segment's contractual agreement. The Developer could potentially utilize this financing toward the development of other Segments.

B.1 Key Parameters and Assumptions Report

B.1.1 Texas' Role in the National Economy and Global Markets

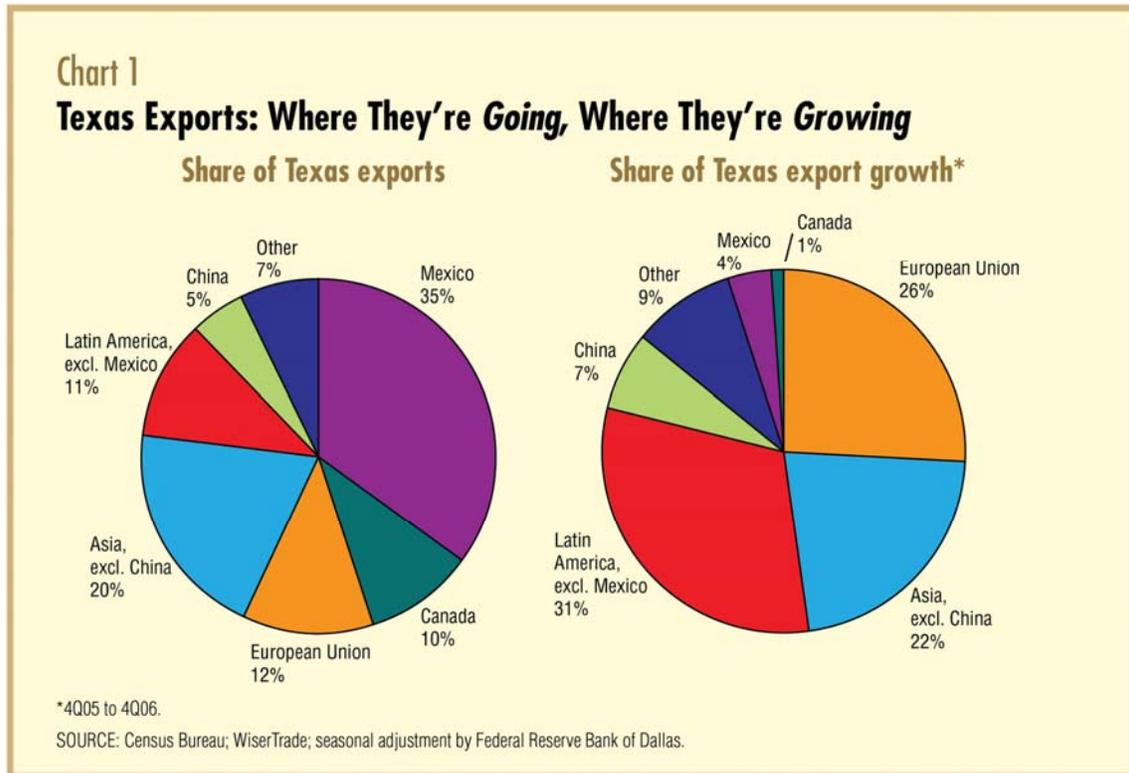
Overall, Texas' role in the global marketplace will only grow over time, as the economy continues to move toward higher value-added production and services. The transformation of Texas from a center of commodity production to a place that emphasizes adding value through the application of knowledge and technology is virtually complete. Until recently, basic products such as food and energy were the primary goods produced in Texas, and purchases tended to be the more sophisticated manufactured goods. That trend has been turned upside-down in recent years, as Texas has become a center of research and advanced technology manufacturing. With this shift in the State's economy, Texas has been able to grow faster than most states. Figure B-1 illustrates this growth of the Texas economy, showing GSP for Texas nearly outperforming the GDP of the U.S. since the early 1990s.

Figure B-1: Texas and U.S. Real Growth in Gross Product



In the process, Texas' economic linkages with the rest of the world have grown stronger, both in terms of integrated production on the Texas-Mexico border and through international trade. For example, most estimates suggest that about 80 percent of NAFTA-related traffic flows through the state and Texas exports of goods overseas during 2007 totaled more than \$150B, the highest level in the U.S.

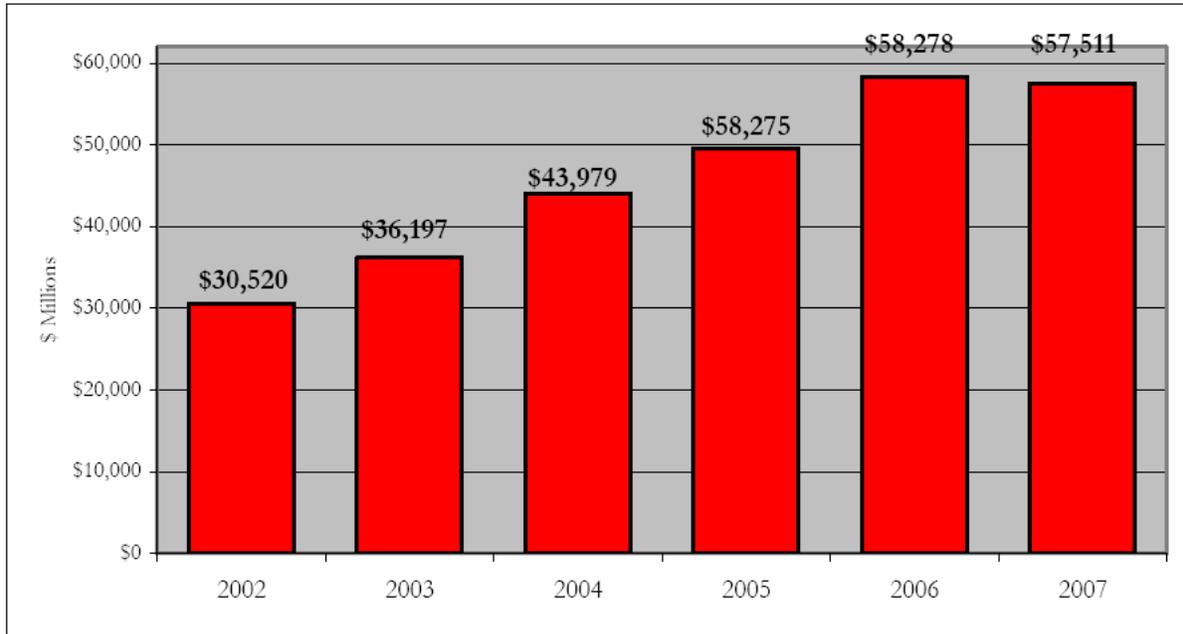
Figure B-2: Texas Exports



Texas' top value-added exports are computer and electronic products, chemicals, industrial machinery, and transportation equipment. Texas' NAFTA trading partners, Mexico and Canada, account for approximately 45 percent of the total. However, as shown in Figure B-2, roughly 60 percent of Texas' expected export growth is to Latin America and Asia.

The DFW Metroplex alone accounted for \$1.3B in trade with NAFTA countries and more than \$57B in overall trade in 2007, as shown in Figure B-3. In fact, the gross product of DFW was \$315B in 2007 – 12th largest among metro economies around the world.

Figure B-3: DFW International Trade - 2002-2007



Source: U.S. Trade Online

The need for highly efficient movement of goods and people is consistent with the nature and scope of Texas' (and, correspondingly, the DFW Metroplex's) role in the modern economy. As both continue to build their export base with non-NAFTA countries such as China, the ability to send and receive goods will be a critical factor in expanding trade and generating new business opportunities.

B.1.2 Demographics

Over the next 35 years the population will age, as the current one in ten Texans over the age of 64 will climb to 16.4 percent. Despite the absolute aging of the population, Texas will become younger than the nation as a whole, as the U.S. population is expected to age even more rapidly. At the same time, the forecasted purchasing power and disposable income is expected to grow.

Additionally, the DFW Metroplex is growing even more rapidly than Texas as a whole. The most relevant population cores of Dallas and Tarrant County have had very strong and consistent historical population growth. Also, Denton County, located north of Fort Worth, has shown strong growth from a relatively small base. This county is expected to contribute significantly to north-south travel demand in the NTE corridor between Denton and Fort Worth.

U.S. Census Data

Between 1970 and 2007, population in the nine counties within the DFW Metroplex region has grown at an average of 2.6 percent per annum according to U.S. Census Bureau 2007 data. The overall population is expected to top nine million by 2030.

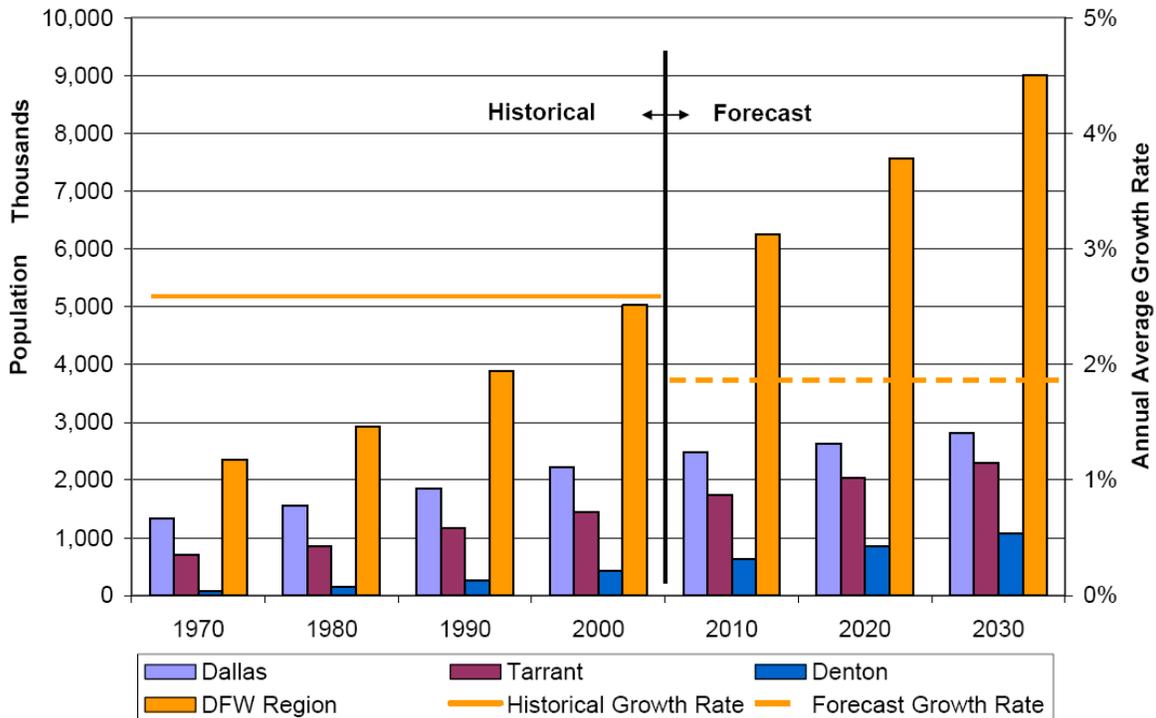
The 2007 population of Tarrant County was 1.7 million people (based on July 2007 U.S. Census Bureau estimates); Dallas County boasted a population approaching 2.4 million people; and Denton County had an estimated population of around 0.6 million; The remaining counties comprising the Metroplex area—including Collin, Parker, Johnson, Kaufman, Rockwall and Ellis—had a combined population of just under 1.3 million. As such, the NTE Project provides a critical connection to roughly 78 percent of the population of the rapidly expanding population base.

NCTCOG Data

Several institutions and organizations within the Texas area publish population forecasts. The North Central Texas Council of Governments (NCTCOG) is considered the most relevant set of forecasts for the study area in relation to developing traffic forecast projections. NCTCOG utilizes the Texas State Data Center (TSDC) county-level forecasts, in conjunction with other information sources and forecasts—including local decision-makers such as city and county authorities, transportation and transit providers—to develop forecasts to the MPO (Metropolitan Planning Organization) level.

The NCTCOG population trends and forecasts for population growth in the relevant nine DFW Metroplex counties in the vicinity of NTE are shown in Figure B-4.

Figure B-4: Projected DFW Population Growth

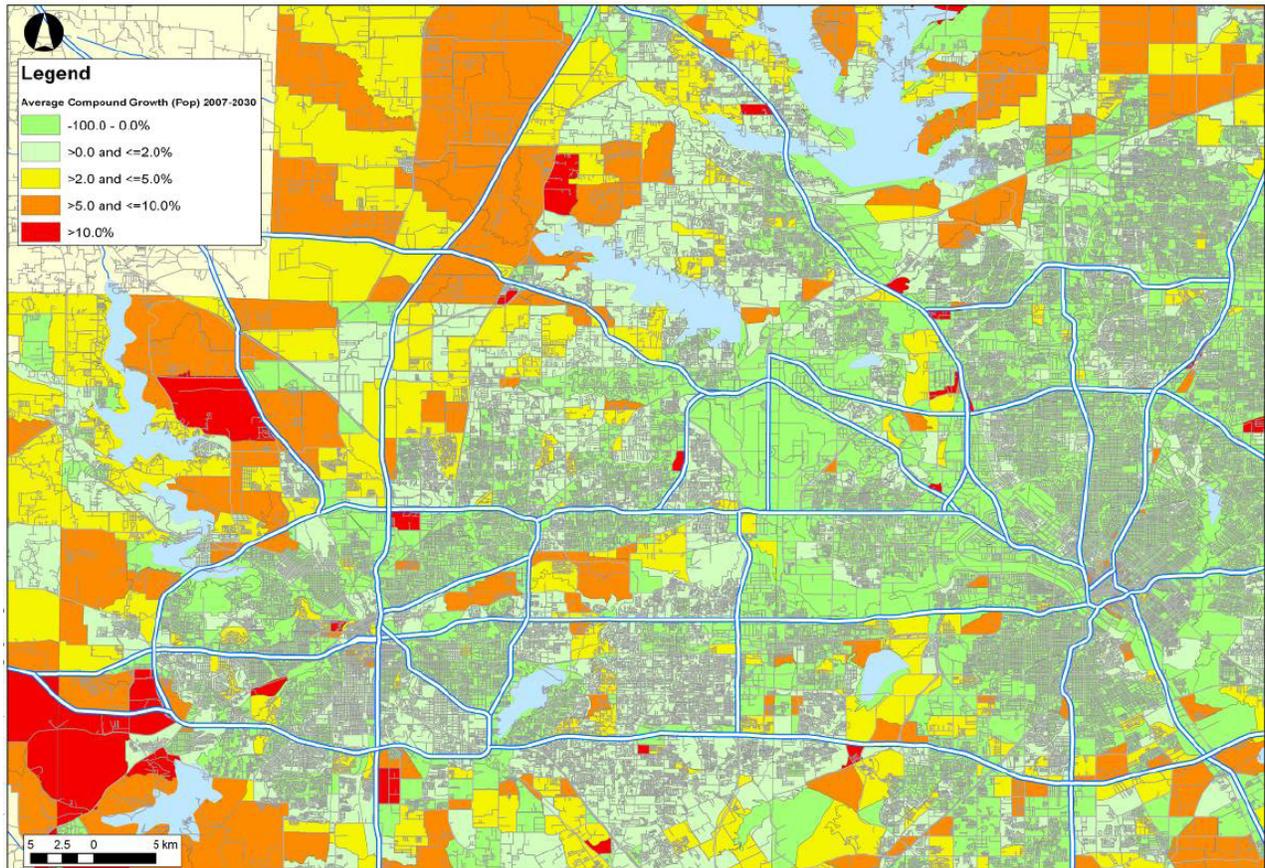


Source: Historical: U.S. Census Bureau; Forecast: NCTCOG (DFW Region = 9 counties)

The NCTCOG forecasts for population growth are shown by Traffic Analysis Zone (TAZ) in Figure B-5. The figure highlights the relevant growth pockets that are anticipated to grow significantly over the next 25

years. As can be easily seen from the yellow and orange shading in the northern portion of Tarrant and southern portion of Denton Counties, a significant share of overall growth is immediately adjacent to the IH 35W portions of Segments 2-4.

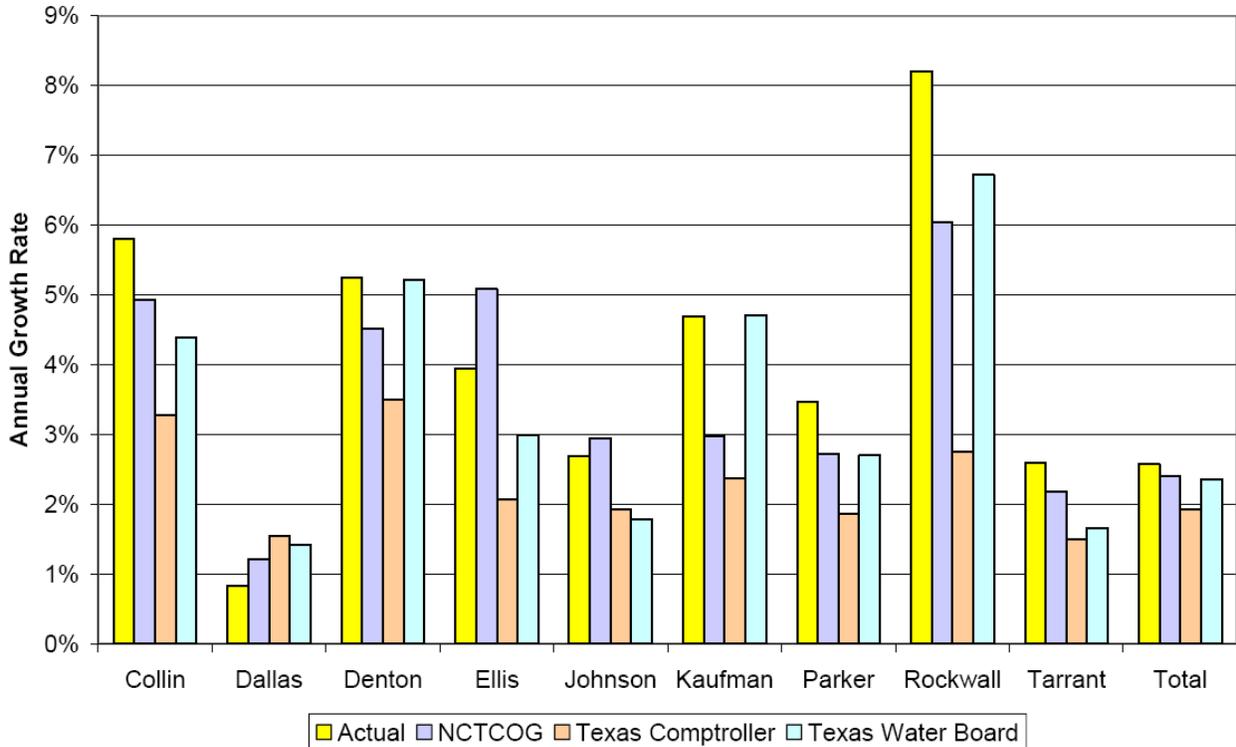
Figure B-5: DFW Population Growth Forecasts by TAZ 2007 - 2030



U.S. Census population estimates have been compared to an interpolated value between the 2005 and 2010 NCTCOG forecasts to determine whether the forecasts are in line with the observed data available. This comparison is summarized as Figure B-6 and further details are provided in the Traffic and Revenue Forecasts in Appendix E.2.

The comparison highlights that the NCTCOG forecasts represent the best estimate between 2000 and 2007 of the observed population growth rates for the nine counties. The comparison also demonstrates that the observed (actual) population growth has generally outstripped all forecasts (including NCTCOG) and that the population forecasts produced by NCTCOG may already be conservative compared to observed growth for some counties.

Figure B-6: DFW Growth Rate Comparisons 2000 - 2007



These sources, along with the TSDC, The Statewide Analysis Model (SAM), the Office of the State Demographer and the Texas Water Development Board, will be utilized as sources of crucial information to track and project Texas’ population demographics for NTE over the duration of the CDA.

Special Trip Generators

Some key developments leading to the forecast growth in population and employment in the immediate vicinity of NTE are discussed as follows:

Dallas Fort Worth (DFW) International Airport – DFW International Airport is a major traffic generator within the study area. In 2007, it accommodated more than 685,000 aircraft movements (operations), 59.8 million passengers and carried nearly 800,000 tons of cargo.

The airport has a significant amount of land available and zoned for development. These development opportunities include:

- ⦿ **Bear Creek Office Park:** 1,800 acres located on the southwest side of SH 183 and SH 360. There are large corporate campus sites available for development, incorporating recreational facilities including two 18-hole championship golf courses.
- ⦿ **Passport Park:** a 600-acre mixed-use development area. It is a hybrid development located near the airport’s south entrance. Mixed-use development is planned to accommodate multiple

- "big box" retail anchors, junior anchors, specialty retail and restaurants. Industrial/warehouse and garden office development opportunities are also envisioned. Approximately 125 acres is available for development, located on the corner of Valley View Lane, with good access to SH 183.
- ⊙ **Southgate Plaza:** a 32-acre mixed-use zone on the southeast side of the airport located in front of the Consolidated Rental Car Center. The 30,000 square foot development will provide a mix of commercial, retail and office space, a four-story office complex, limited-use hotel and dine-in and fast food restaurants.
 - ⊙ **Belt Line Station:** A future DART light rail line stop, this 23-acre mixed-use commercial development is located on the southeast corner of Belt Line Road and Valley View Lane. This will be a transit-oriented development with retail and office use located near the high-density, pedestrian-oriented intermodal station.

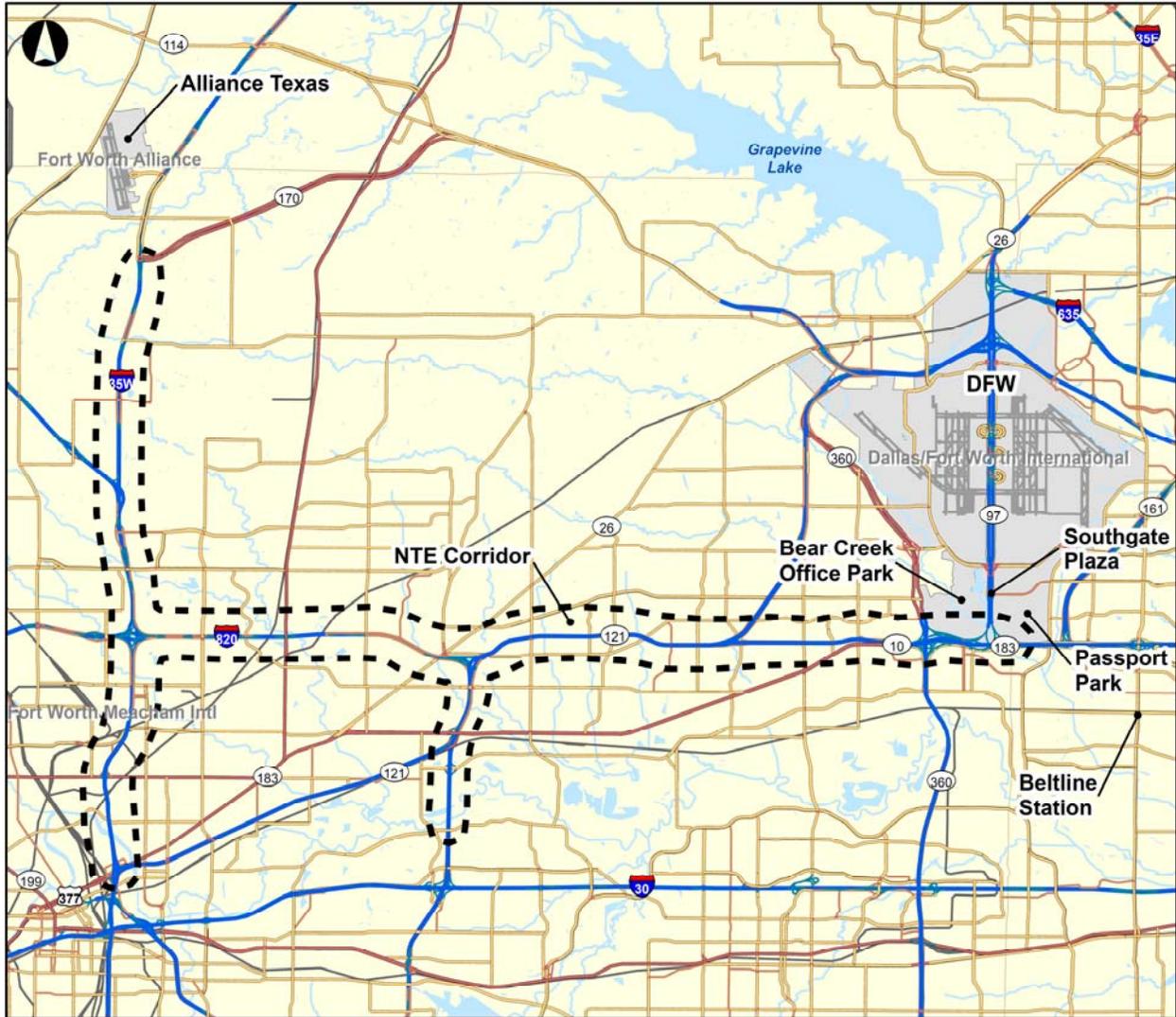
AllianceTexas Development – AllianceTexas is a 17,000-acre master-planned, mixed-use community located north of Fort Worth. The AllianceTexas development is one of the major economic drivers in North Texas. The development is multi-jurisdictional with boundaries that fall within four cities (Fort Worth, Haslet, Roanoke and Westlake), two counties (Denton and Tarrant) and two school districts (Northwest Independent School District and Keller Independent School District).

AllianceTexas developers report that the community now houses more than 170 companies. These firms have invested more than \$5B in the development. The anchor of the AllianceTexas community is the Fort Worth Alliance Airport, the world's first purely industrial airport. Since its establishment in 1989, AllianceTexas has grown into one of the nation's preeminent logistics and transportation hubs.

With the industrial and commercial base now well established, future growth in the community is focused on destination retail and entertainment development, combined with strong residential growth. The overall scale of the AllianceTexas community and the anticipated buildout of this new residential / retail / entertainment initiative represent important factors in considering both the level and distribution of future demand along NTE. Since 1990, the development has added 27,000 jobs in 25 million square feet of commercial space. By contrast, residential construction in AllianceTexas is reported to just 6,700 homes. With commercial / industrial development disproportionately greater than residential development, and a roster of well-paid jobs, AllianceTexas has been drawing labor from the surrounding area and supporting residential growth in the neighboring communities with good proximity to Alliance.

With greater residential development now slated for AllianceTexas, there will be a growing residential base north of Fort Worth with a possible interest in traveling to downtown for shopping and entertainment. Dual-income households with one worker in Fort Worth and one in AllianceTexas may select a household location along NTE to minimize the joint commuting time.

Figure B-7: NTE Special Trip Generators



B.1.3 Federal and State Fiscal Status and Budget Trends

The role of the public sector in funding basic infrastructure is changing, with a greater emphasis on user fees, public-private partnerships, and alternative financing mechanisms. Public sector funding of basic infrastructure—including the transportation network—has been declining for some time, as the State of Texas spends proportionately less today on highways than it did 20 years ago. For example, the Comptroller’s Office reports that highway, maintenance and construction as a single line item accounted for 11.2 percent of State expenditures during fiscal 1983. By fiscal 2003, highway maintenance and construction had fallen to 8.2 percent; and in 2007 another percentage point was lost with expenditures totaling only 7.2 percent.

These are indicative trends to what is happening throughout the country. The situation has gotten so precarious that the solvency of the federal Highway Trust Fund is now threatened. The Fund, primarily sourced through federal gas tax receipts, collected \$31 billion in revenue between October 2007 and September 2008. This is \$3 billion less than it collected the previous year. Meanwhile, federal transportation spending increased by \$2 billion.

A bill was recently passed to temporarily curtail the federal funding gap when an \$8B transfer from the general fund to the Highway Trust Fund was signed. This infusion will keep the Fund solvent through the end of the 2009 federal fiscal year, but it is not a long term solution. More funding sources and more efficient project development must be components of the next federal surface transportation policy reauthorization to maintain an adequate level of transportation development in this country.

As these public funds have become more and more scarce for highway maintenance and construction, the focus has shifted toward alternatives to traditional general obligation debt financing of basic infrastructure, with a greater emphasis on tolls, tax-increment financing, development fees, and other alternative financing structures.

The implication for NTE is obvious, as a variety of financing mechanisms and sources will likely be employed. With the recent funding and budgetary challenges at both the State and Federal levels, utilizing every type of project delivery that the private sector offers becomes an extremely important component of building and maintaining transportation infrastructure in Texas.

B.1.4 Social and Urbanization Trends

The physical character of Texas communities continues to evolve. The traditional model of community development is changing. Urban areas in Texas have long been characterized by relatively low density, as abundant land fostered spread-out cities that relied almost exclusively on the automobile. In recent years, the rate of population and traffic growth has outstripped the road system in many areas, leading to increased congestion. This has consequences. The *2007 Urban Mobility Report* by the Texas Transportation Institute (TTI) showed that Texans in major metropolitan areas wasted \$6.2B during 2005 because of traffic congestion. Therefore, congestion relief must remain an integral component as urban areas expand and density continues to grow.

In the past decade, many communities have been revitalizing Central Business Districts (CBDs) with more dense dwelling units, new high-rise condominiums, warehouse loft developments and townhomes. Both Dallas and Tarrant Counties have made significant effort toward increasing population density with urban revitalization projects. From Sundance Square to the proposed developments along the Trinity River in both counties, considerable strides are being made. Even with these changes in urbanization to help combat commute times, the sheer volume of population and employment growth continues to increase urban congestion. With the urbanized areas further expanding geographically, the limits of congestion expand as well.

With this increased congestion, acceptance of user charges increases. This includes individuals in their daily commutes, as well as commercial and freight users whose time value of money is a key component to their business model. As trade from NAFTA and inland multimodal hubs in the Metroplex increases, the

amount of freight traffic is expected to increase by an average of 3.5 to 4 percent per year, likely increasing the use of managed lanes as a viable means of avoiding delay and loss of efficiency.

B.1.5 Economic Development in the Corridor

Localized Impacts to Facility Implementation: The economic development impacts are implicit in the trends discussed in the previous sections. The opportunity and need for Texas to leverage the continued upgrade of its network infrastructure is crucial to the future success of the State's economy. In general, these effects fall into two broad categories:

- ⦿ More efficient movement of people and products, which have positive effects on costs and,
- ⦿ An improved "asset base", helping to attract more companies and people, further enhancing economic development.

Existing Urbanized Areas in the Corridor: When NTE Segments are developed in urbanized areas, the additional capacity will help reduce congestion and improve trip reliability, especially through the use of congestion pricing. These are two key issues to the business community. This helps shift wasted private resources due to congestion to productive uses and will allow for the development of manufacturing and distribution centers adjacent to NTE.

Potential for Increased Demand in the Corridor: As more users are attracted to NTE, the demand for ancillary facilities will also increase. Businesses such as service stations, restaurants and shopping centers will see increased demand, thus improving the economy of the cities surrounding the Segments. NTEMP firmly believes that the local private sector developers should participate in these improvements to the local economy, and will not monopolize the economic generator that NTE will become.

Potential for Revenue-Sharing Partnerships: As all of the above aspects lead to an improved economy, there is more opportunity for revenue-sharing between the private sector and the State. "All boats rise" as the State's goals for NTE are realized. Specifically, the additional business identified from corridor development will deliver new tax revenue to the State.

B.1.6 Utility of Data

As discussed previously, the economic and demographic data will be utilized to help verify NCTCOG-forecasted modeling along the NTE Corridor. NCTCOG has decades of experience in projecting the future of the DFW Metroplex. NTEMP will draw upon this expertise to the maximum extent possible. NTEMP will use all compiled data to support the demand projections developed in the MDP. This entire process will assure both TxDOT and NTEMP that when Segments are determined Ready for Development they can easily make it through all tasks required to achieve financial close and delivery.

B.2 Level and Scope of Participation with TxDOT in Coordination with Other Agencies

The key to advancing the Project is based on the simple philosophy of early and continuous involvement of those entities affected by the Project (including TxDOT itself). NTEMP recommends that the first step in accomplishing this is to identify the key stakeholders. NTEMP will take TxDOT's lead on the level and scope of participation between NTEMP and third party entities identified as key stakeholders. These entities include, at a minimum:

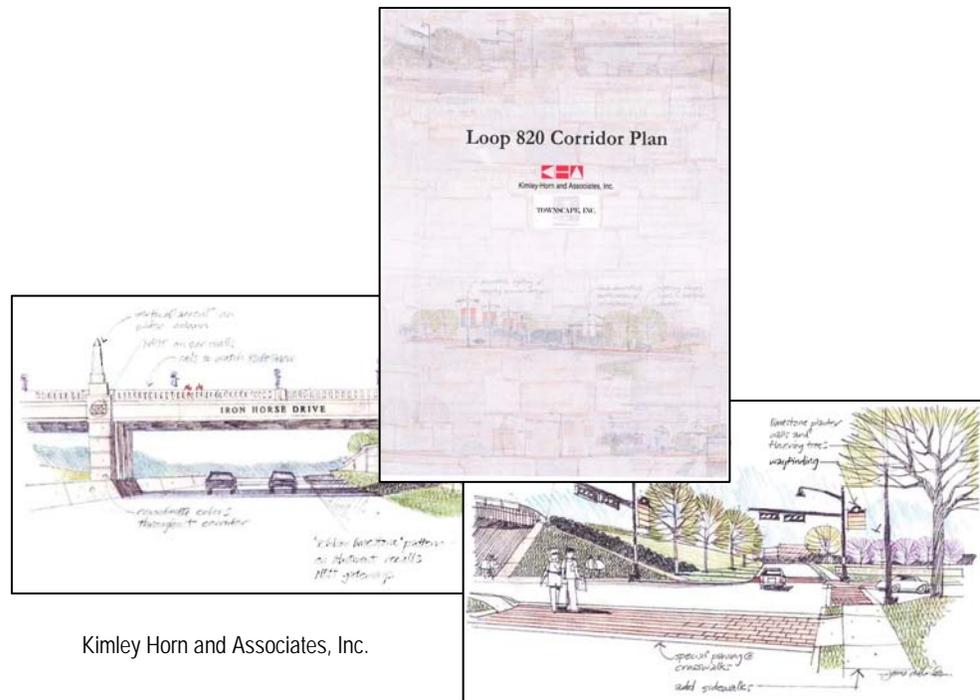
- ⊙ Local Government:
 - City of Fort Worth
 - City of Blue Mound
 - City of Haslet
 - Haltom City
 - City of North Richland Hills
 - City of Richland Hills
 - City of Hurst
 - City of Bedford
 - City of Euless
 - Tarrant County
 - Dallas County
- ⊙ Dallas/Fort Worth International Airport
- ⊙ AllianceTexas
- ⊙ Union Pacific Railroad
- ⊙ Federal and State Regulatory:
 - U.S. Department of Transportation (US DOT)
 - Federal Highway Administration (FHWA)
 - Federal Railroad Administration (FRA)
 - Federal Transit Administration (FTA)
 - Federal Emergency Management Agency (FEMA)
 - U.S. Environmental Protection Agency (US EPA)
 - Texas Parks and Wildlife Department (TPWD)
 - Public Utility Commission of Texas (PUC)
- ⊙ Utility providers
- ⊙ North Texas Tollway Authority (NTTA)
- ⊙ Regional Planning
 - North Central Texas Council of Government (NCTCOG)
 - Dallas-Fort Worth Regional Transportation Council (RTC)
- ⊙ Local Transit Providers:
 - The T
 - DART
- ⊙ Hillwood and Other Private Development Entities
- ⊙ Surrounding neighborhoods / neighborhood associations
- ⊙ Affected landowners and business owners
- ⊙ Potential NTE customers
- ⊙ Advocacy Groups:
 - Dallas-Fort Worth Area Partners in Mobility
 - The Tarrant Regional Transportation Coalition

Over the past few months, NTEMP has spoken with TxDOT-approved local stakeholders along the Facility. These discussions have fostered great understanding regarding local needs and considerations for improving quality of life along the corridor. NTEMP stands ready to lead the necessary interaction with these and other Third Parties. The Team also understands the sensitivity of private roadway development in Texas and in particular within the DFW Metroplex.

Each entity will be contacted to inform them of the development of NTE. Although there has been a great deal of recent attention drawn to CDA projects through public meetings and press releases, all will be contacted initially to make sure that they are aware of the Project and to determine the appropriate key contact and decision-makers. This will be done through written communications with response cards and follow-up telephone calls.

NTEMP has met with the leaders of cities along the NTE Corridor and staff from Tarrant County. In addition to working with these cities adjoining the Concession Facility on their vision for developing the Corridor, NTEMP will work closely with the cities along Segments 2, 3 and 4 to help fulfill their desires for the “look and feel” of the final delivered Segments.

To date, there has only been limited interaction between private roadway developers and the entities along the NTE Corridor. The public media coverage has been dominated by perceived negative aspects of roadway development by the private sector. The MDP process for NTE allows a viable conduit for discussion between NTEMP and the public and private entities with vested interest in the Corridor. These discussions will be focused on a singular theme:



Kimley Horn and Associates, Inc.

Delivering improved mobility on the NTE Corridor as quickly as possible. It is just that simple.

There are two components to expediting delivery of NTE Segments:

- ① First is identifying and removing any “roadblocks” to delivering the Corridor. This includes NTEMP working with all parties on items such as regulatory issues or long lead-time items to compress the

potential delivery schedule as much as possible. Potential additional environmental studies, such as archeological studies, are an example of tasks that the State could undertake in advance to help clear the processes early.

- ⊙ Second is working with those who deal with the NTE Corridor on daily basis to identify and quantify potential partners that would help pull the project along. For example, if large subdivisions or significant new employers not contemplated in previous traffic demand modeling are moving into the area, it is possible to recognize their positive impact to the revenue stream of the Corridor and accelerate delivery.

B.3 Schedule and Progress Reporting Standards

NTEMP will create a Project Baseline Schedule for all ISOW activities within 60 days of NTP1 (immediately following the execution of the concession CDA). The final ISOW Project Baseline Schedule will be modified from the Preliminary ISOW Schedule (presented as Figure B-9) beginning at Project NTP1. It will be further developed from this preliminary version and will be both cost and resource loaded. All activities will be logically linked and none shall operate independently. The preliminary Work Breakdown Structure (WBS) dictionary shown as Figure B-8 establishes the work categories envisioned for the Project Baseline Schedule activities. The preliminary schedule was developed based on the level of information known at the time of this proposal and the traffic, revenue and cost studies performed to date. The schedule provides for continuous informal “over-the-shoulder” reviews during draft document preparation, shorter formal TxDOT reviews for revised deliverables, and full CDA-stipulated 20 working day reviews for the Milestone Deliverables. This three-pronged review allows for schedule compression during the longer review periods. Overlap in these stages (typically at the end of each Milestone) will facilitate a timely total ISOW period; while the redundancy of review will mitigate the potential for significant revisions to Milestone deliverables. Adhering to the draft, revised, final format of deliverables will be paramount to maintaining a consistent ISOW schedule.

The WBS dictionary has been provided without the repetitive submittal and review tasks to streamline and better highlight the primary Milestone deliverables. The WBS is currently provided to four levels. It will be expanded to five levels during Milestone 2.

During the CDA-estimated 18-month life of the ISOW, the Project Baseline Schedule will be monitored monthly to insure that milestones (both project and developer) are properly progressing. NTEMP Major Participant’s Cintra and Earth Tech prepared and updated the monthly TTC-35 schedule according to requirements very similar to NTE Segments 2-4 Exhibit G in the TTC-35 CDA.

It is anticipated that the schedule will be monitored with a plan similar to that which was utilized on TTC-35.

A status component of the Project Baseline Schedule, the Project Schedule Update (PSU), will likely be utilized to monitor ISOW progress. This schedule is a copy of the Project Baseline Schedule created when it is accepted and before the first reporting cycle ends. Initially it will cover only the ISOW period. It will be subsequently expand to include all Segments as the Segment Implementation Schedules are developed in the MDP process. The PSU schedule data date moves forward to keep with the passage of time. Planned activities are given actual starts and remaining durations, percentages complete and actual finishes as they

occur. The data date will always be the first day of the month with progress status through the end of the previous day (the last day of the just ended month). Also, any activities that are important for visibility to management that were not included in the Project Baseline Schedule can be added to the PSU. A determination will then be made as to whether or not they should be added to a revised Project Baseline Schedule.

A Primavera Project Manager 4.0 for Engineering and Construction (P4 e/c) file (.xer extension) electronic copy of the monthly PSU file will be included with a schedule commentary Microsoft Word file in a Monthly Status Report (MSR). The MSR may have other informational sections in addition to the commentary itself, as needed. The schedule commentary is used to apprise Project Principals (both NTEMP and TxDOT) of the project schedule status, potential and actual schedule impacts, and key schedule-related decisions. To be useful as a management report it will be timely, accurate, and succinct, and it will include clear discussion of required actions to resolve any schedule-related issue. Since the same text will usually be included in internal and external reports, it will be factual without offering gratuitous opinions and abstractions open to unreasonable interpretation. A third component of a monthly schedule reporting package is a Schedule Impact Report (SIR). The SIR is a succinct report that lists schedule activities that have become, or have the clear potential to become, critical. The SIR will have the following columns:

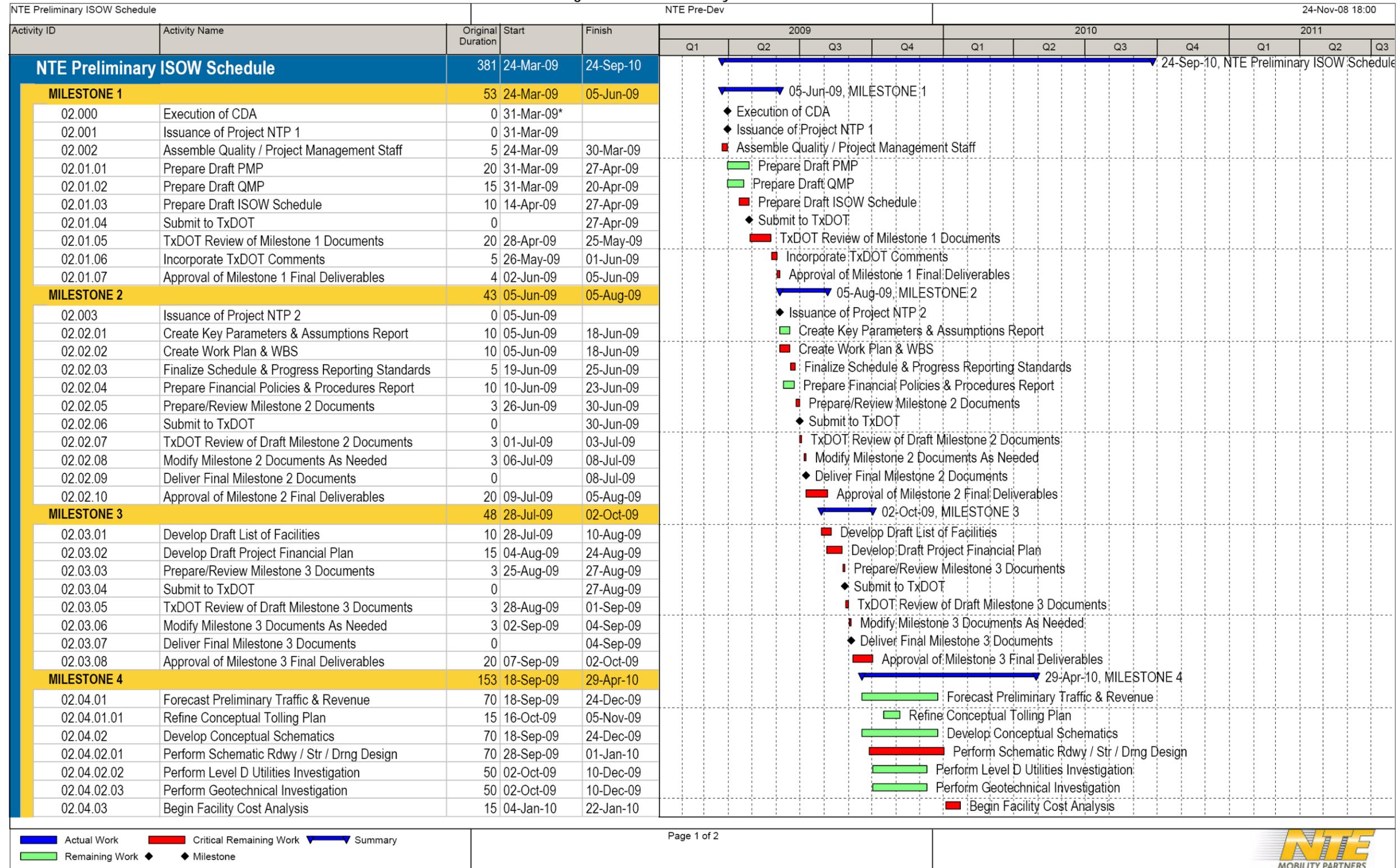
- ⊙ Impact ID
- ⊙ Impacted work/activity description, cause and effect
- ⊙ Weeks impacted
- ⊙ Actions
- ⊙ Dates including planned and actual
- ⊙ Action by (responsible party)

The Segment Implementation Schedule will be a deliverable component of the MDP. Upon TxDOT acceptance of the MDP, NTEMP will carry out project scheduling and reporting in accordance with CDA Exhibit G. The schedules will be based on the Critical Path Method; clearly displaying progress for ongoing and projected activities; and relay actual start/finish dates, percentage complete and days remaining. This schedule will be monitored quarterly; all changes will be submitted for written approval from TxDOT.

Figure B-8: Preliminary ISOW and Typical Segment WBS

| NTE PROJECT WBS DIRECTORY | | |
|---------------------------|--|--|
| WBS Element | Title | Description |
| 02 | NTE ISOW | This Project is comprised of the Initial Scope of Work Required to create the Master Development and Master Financial Plans (MDP and MFP) to detail the development strategy of North Tarrant Express Segments 2-4 |
| 02.01 | Milestone 1 | |
| 02.01.01 | Project Management Plan (PMP) | This element includes the plan to manage, develop and implement the Project and achieve the Project requirements |
| 02.01.02 | Quality Management Plan (QMP) | This element includes the plan to manage quality control and quality assurance while delivering the Project |
| 02.01.03 | ISOW Schedule | This element includes a set of standards for reporting schedule and progress for the entire Project performance period in accordance with CDA Exhibit G |
| 02.02 | Milestone 2 | |
| 02.02.01 | Key Parameters and Assumptions Report | This element details all segment functional and connectivity requirements and provides the key assumptions aiding in the development of the MDP. Parameters and assumptions will be both technical in nature and overall corridor broad concepts |
| 02.02.02 | Work Plan and Work Breakdown Structure | This element details all procedures for coordination between the MDP team and other project stakeholders |
| 02.02.03 | Schedule and Progress Reporting Standards | This procedure defines the steps, methods, and format by which the Project will develop and maintains periodic updates to the ISOW and Project Baseline Schedule |
| 02.02.04 | Financial Management Policies and Procedures Report | This report defines the financial policies and reporting procedures necessary to maintain a successful MDP/MFP. |
| 02.03 | Milestone 3 | |
| 02.03.01 | Draft List of Facilities for Project | This element includes determination of all details and characteristics of each segment |
| 02.03.02 | Draft Project Financial Plan | This element includes refinement of all finance sources and revenue generation opportunities from the Conceptual Financial Plan |
| 02.04 | Milestone 4 | |
| 02.04.01 | Preliminary Project Traffic and Revenue | This element includes preparation of Traffic and Revenue (T&R) forecasts using the best available regional modeling information per Exhibit D Task F of the CDA |
| 02.04.01.01 | Refine Conceptual Tolling Plan | This element includes adding more detail to the Proposal Tolling Plan. |
| 02.04.02 | Conceptual Schematics, Plans and Layouts of Facilities | This element includes preparation of diagrammatics suitable for segment cost quantification including roadway elements, ROW, utilities and access management |
| 02.04.02.01 | Schematic Roadway, Structural & Drainage Design | This element includes preparation of roadway, structural and drainage design schematics. |
| 02.04.02.02 | Level D Utilities Investigation | This element includes the CDA-required utility investigation. |
| 02.04.02.03 | Geotechnical Investigation | This element includes the CDA-required geotechnical investigation. |
| 02.04.03 | Facility Cost Analysis | This element includes a per-segment breakdown by type and source of cost distributed over applicable development period per Exhibit D Task H and Exhibit H, Task B of the CDA |
| 02.04.03.01 | O&M Management Plan | This element includes adding more detail to the proposal O&M Management Plan. |
| 02.04.04 | Project Risk Analysis | This element includes a segment-specific analysis including probability, quantification of magnitude, allocation and strategies to mitigate risk per Exhibit D Task Q of the CDA |
| 02.04.05 | ROW Chapter | This element includes an Updated Facility Proforma Analysis as an Attachment to Chapter 14 of the Pre-Complete MDP as identified in CDA Exhibit D |
| 02.04.06 | Facility Proforma Analysis | This element includes excel spreadsheets reflective of all funding sources, costs and revenues determined to date. Incorporating both risk management and ROW costs |
| 02.04.07 | Facility Integration Plan | This element includes a Facility Integration Plan as with projects identified in the STIP |
| 02.04.08 | Draft Facility Funding Sources and Uses | This element includes a comprehensive financial analysis report summarizing the financial characteristics of each segment including the integrated pro-forma analyses (per Exhibit E Task B of the CDA) performed prior to this deliverable |
| 02.04.09 | Draft Facilities Report | This element is a comprehensive report summarizing Milestone 4 |
| 02.05 | Milestone 5 | |
| 02.05.01 | Phasing & Sequencing Report | This element includes a Phasing and Sequencing Report based on the financial sustainability of each segment and segment-specific market conditions that attribute to each implementation schedule |
| 02.05.01.01 | Phasing and Sequencing Prioritization | This element includes the investigation of delivering Segments 2-4 in a prioritized method. |
| 02.05.01.02 | Steps to Close of Finance | This element includes fully articulating all steps required to reach Close of Finance. |
| 02.06 | Milestone 6 | |
| 02.06.01 | Master Financial Plan | This element includes development of the Complete Master Financial Plan (MFP) as the Report with Exhibits as identified in CDA Exhibit E |
| 02.06.02 | Master Development Plan | This element includes development of the Complete Master Development Plan (MDP) as the Report with Exhibits as identified in CDA Exhibit D with the MFP included within |
| 02.07 | Milestone 7 | |
| 02.07.01 | MDP Update Procedure | This element includes the document which describes the integration of modifications to the MDP based on due diligence analyses and achievement of update triggers in accordance with the CDA Exhibit D |
| 02.07.02 | MFP Update Procedure | This element includes the document which describes the integration of modifications to the MFP based on due diligence analyses and achievement of update triggers in accordance with the CDA Exhibit E |
| 03 | Update Work | This element includes the work established in ISOW Milestone 7 for updating the MDP and MFP as determined by update trigger |

Figure B-9: Preliminary ISOW Schedule



| NTE Preliminary ISOW Schedule | | | NTE Pre-Dev | | | | | | | | | | | | 24-Nov-08 18:00 | | | | | | | | | | |
|-------------------------------|---|-------------------|------------------|------------------|------|----|----|----|------|----|----|----|------|----|-----------------|--|--|---|--|--|--|--|--|--|--|
| Activity ID | Activity Name | Original Duration | Start | Finish | 2009 | | | | 2010 | | | | 2011 | | | | | | | | | | | | |
| | | | | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | | | | | | | | | |
| 02.04.04 | Prepare Project Risk Analysis | 5 | 04-Jan-10 | 08-Jan-10 | | | | | █ | | | | | | | | | █ | | | | | | | |
| 02.04.05 | Develop ROW Acquisition Plan | 15 | 27-Nov-09 | 17-Dec-09 | | | | | █ | | | | | | | | | █ | | | | | | | |
| 02.04.06 | Begin Facility Proforma Analysis | 20 | 25-Jan-10 | 19-Feb-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.04.07 | Develop Facility Integration Plan | 15 | 22-Feb-10 | 12-Mar-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.04.08 | Identify Draft Facility Funding | 15 | 22-Feb-10 | 12-Mar-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.04.09 | Create Draft Facilities Report | 5 | 15-Mar-10 | 19-Mar-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.04.10 | Prepare/Review Milestone 4 Documents | 3 | 22-Mar-10 | 24-Mar-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.04.11 | Submit to TxDOT | 0 | | 24-Mar-10 | | | | | | | | | | | | | | ◆ | | | | | | | |
| 02.04.12 | TxDOT Review of Draft Milestone 4 Documents | 3 | 25-Mar-10 | 29-Mar-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.04.13 | Modify Milestone 4 Documents As Needed | 3 | 30-Mar-10 | 01-Apr-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.04.14 | Deliver Final Milestone 4 Documents | 0 | | 01-Apr-10 | | | | | | | | | | | | | | ◆ | | | | | | | |
| 02.04.15 | Approval of Milestone 4 Final Deliverables | 20 | 02-Apr-10 | 29-Apr-10 | | | | | | | | | | | | | | █ | | | | | | | |
| MILESTONE 5 | | 48 | 16-Apr-10 | 23-Jun-10 | | | | | | | | | | | | | | ▶ | | | | | | | |
| 02.05.01 | Develop Phasing & Sequencing Report | 20 | 16-Apr-10 | 13-May-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.05.01.01 | Determine Phasing and Sequencing Prioritization | 5 | 07-May-10 | 13-May-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.05.01.02 | Identify Steps to Close of Finance | 10 | 30-Apr-10 | 13-May-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.05.02 | Prepare/Review Milestone 5 Documents | 3 | 14-May-10 | 18-May-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.05.03 | Submit to TxDOT | 0 | | 18-May-10 | | | | | | | | | | | | | | ◆ | | | | | | | |
| 02.05.04 | TxDOT Review of Draft Milestone 5 Documents | 3 | 19-May-10 | 21-May-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.05.05 | Modify Milestone 5 Documents As Needed | 3 | 24-May-10 | 26-May-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.05.06 | Deliver Final Milestone 5 Documents | 0 | | 26-May-10 | | | | | | | | | | | | | | ◆ | | | | | | | |
| 02.05.07 | Approval of Milestone 5 Final Deliverables | 20 | 27-May-10 | 23-Jun-10 | | | | | | | | | | | | | | █ | | | | | | | |
| MILESTONE 6 | | 58 | 09-Jun-10 | 30-Aug-10 | | | | | | | | | | | | | | ▶ | | | | | | | |
| 02.06.01 | Develop Master Finance Plan | 20 | 09-Jun-10 | 06-Jul-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.06.02 | Develop Master Development Plan | 20 | 23-Jun-10 | 20-Jul-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.06.03 | Prepare/Review Milestone 6 Documents | 3 | 21-Jul-10 | 23-Jul-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.06.04 | Submit to TxDOT | 0 | | 23-Jul-10 | | | | | | | | | | | | | | ◆ | | | | | | | |
| 02.06.05 | TxDOT Review of Draft Milestone 6 Documents | 3 | 26-Jul-10 | 28-Jul-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.06.06 | Modify Milestone 6 Documents As Needed | 3 | 29-Jul-10 | 02-Aug-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.06.07 | Deliver Final Milestone 6 Documents | 0 | | 02-Aug-10 | | | | | | | | | | | | | | ◆ | | | | | | | |
| 02.06.08 | Approval of Milestone 6 Final Deliverables | 20 | 03-Aug-10 | 30-Aug-10 | | | | | | | | | | | | | | █ | | | | | | | |
| MILESTONE 7 | | 33 | 10-Aug-10 | 24-Sep-10 | | | | | | | | | | | | | | ▶ | | | | | | | |
| 02.07.01 | Create MDP Update Procedure | 3 | 10-Aug-10 | 12-Aug-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.07.02 | Create MFP Update Procedure | 3 | 10-Aug-10 | 12-Aug-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.07.03 | Prepare/Review Milestone 7 Documents | 3 | 13-Aug-10 | 17-Aug-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.07.04 | Submit to TxDOT | 0 | | 17-Aug-10 | | | | | | | | | | | | | | ◆ | | | | | | | |
| 02.07.05 | TxDOT Review of Draft Milestone 7 Documents | 5 | 18-Aug-10 | 24-Aug-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.07.06 | Modify Milestone 7 Documents As Needed | 3 | 25-Aug-10 | 27-Aug-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.07.07 | Deliver Final Milestone 7 Documents | 0 | | 27-Aug-10 | | | | | | | | | | | | | | ◆ | | | | | | | |
| 02.07.08 | Approval of Milestone 7 Final Deliverables | 20 | 30-Aug-10 | 24-Sep-10 | | | | | | | | | | | | | | █ | | | | | | | |
| 02.100 | END of NTE ISOW Period | 0 | | 24-Sep-10 | | | | | | | | | | | | | | ◆ | | | | | | | |

█ Actual Work
 █ Critical Remaining Work
 ▶ Summary
█ Remaining Work
 ◆ Milestone

B.4 Financial Management Policies and Procedures

The accounting department responsible for the financial management of the NTE Project will likely have multiple branches dealing with the varied contractual structures that will be signed over the life of the CDA. It will utilize SAP (or similar software tool) as the main accounting tool to process and organize all incoming and outgoing financial information.

SAP, a powerful ERP solution, is an international standard which integrates all accounting and controlling tools necessary for NTEMP's initial master planning activities and, ultimately, concession management. Specifically, the Special Purpose Vehicle established for the management of a concession for a particular Segment will run SAP Fidelio (or another very similar software tool), an improved version of SAP specifically adapted by Cintra S.A. for infrastructure concession companies.

SAP (or similar software tool) provides the possibility to obtain the following accounting and controlling information reports in multiple formats:

- ⊙ Monthly, yearly or accumulated Financial Statements
- ⊙ Monthly, yearly or accumulated Budget
- ⊙ Monthly, yearly or accumulated P&L compared with previous year
- ⊙ Monthly, yearly or accumulated P&L compared with budget
- ⊙ Detailed list of assets and cumulative depreciation
- ⊙ Cash flow forecast reports
- ⊙ List of open items (vendors, customers, employees)
- ⊙ Cost centers expenses details compared with budget/previous year
- ⊙ Bank statement and reconciliation accounts

All reports will be used as tools to maintain financial control of the ISOW, development and implementation activities.

Relevant financial information is usually received by mail or email and is submitted to the accounting department. Under this system all documents are coded in numerical order with a special document number and archived in secure cabinets.

By a significant margin, the largest financial burden on projects of this type is the cost of construction materials during the Segment implementation. Financial management of planning activities with a defined date-certain are relatively easy to manage in comparison. Largely, the schedule management procedures described in Section B.3 will be sufficient in that regard. Also, the Project Controls Group will be monitoring overall Project efficiency using the methods described in the Project Management Plan.

B.5 Draft Facilities Report

NTEMP will develop the NTE Segments 2-4 Master Development Plan holding firm the tenets clearly provided by the Texas Transportation Commission:

- ⊙ Reduce congestion;
- ⊙ Enhance safety;
- ⊙ Expand economic opportunity;
- ⊙ Improve air quality;
- ⊙ Preserve the value of transportation assets.

In short, the overriding development goal will be to deliver all Segments as quickly as possible to improve the movement of people and goods throughout the area while minimizing the use of public funds. Correspondingly, improvements in the efficiency of the network will improve air quality.

To achieve these goals, NTEMP will leverage its collective experience to expedite the development process so that benefits from these facilities can be achieved quickly. Besides NTEMP team members' worldwide experience, their local experience includes Cintra's 85 percent equity share of the TTC-35 Project, the development of SH 130, Segments 5 and 6, and Earth Tech's extensive Texas experience and role as the Lead Planner and Engineer for the Developer on TTC-35. NTEMP staff reviewed the TxDOT RID transportation plans, investigated aerial mapping, performed site visits along the corridor and met with local officials to create the Conceptual Development Plan included in this Proposal.

Following analysis of TxDOT RID Schematics, NTEMP concluded that most of the configurations provided are satisfactory to provide connectivity between each Segment and the overall adjacent transportation network. There is only one proposed conceptual modification of the overall connectivity plan. This involves modifying Segment 4 from two reversible managed lanes (HOV/HOT) to a 2+2 managed toll lane configuration. The changes are intended to optimize the financial attractiveness of Segment 4. More detail on this proposed modification is provided in Section B.5.2 and B.5.4.

Although no other significant changes are proposed, the implementation plan outlined in this conceptual proposal—the plan that will best fast-track delivery of the Project as a whole—is contingent on the optimization of the managed lanes and minimization of additional general purpose capacity. This will allow the revenue feasibility necessary to expedite Segment delivery. As such, it will be a guiding principal in the evaluation of all Segments.

Through the environmental process, TxDOT has already established the purpose and, more importantly, the need for each NTE Segment. The NEPA process is either complete or well advanced for Segments 1-3C. Even the environmental process for Segment 4 will be complete during the MDP phase of the ISOW, so environmental clearance should not be on the critical path for delivering any one Segment of NTE. Thereby, one of the most critical (and potentially lengthy) development factors will not stand in the way of progress. TxDOT's desire to deliver the NTE Project while minimizing the use of public funds (potentially very significantly minimized for Segments 2-4) drives the two most important factors of phasing and sequencing the NTE Segments: the potential revenue and the cost of each Segment. Although public

safety and user benefit will remain paramount, and other factors will certainly play a role, these cost and revenue components will be the economic engine that powers the development schedule.

In very general terms, a Segment's development value relative to others can be measured by asking a series of five questions. By iteratively evaluating each Segment against this simple criterion throughout the MDP process the ultimate implementation schedule will be established, and the Segment phasing plan will be optimized.

- ⊙ Does the proposed Segment configuration accelerate regional economic growth to the level that it is initially perceived more important than another?
- ⊙ Does the Segment significantly enhance safety (i.e. are at-grade rail crossings or significant accident risks addressed)?
- ⊙ In its current proposed configuration, does this Segment have the local and/or regional backing and environmental clearance to support an accelerated development process?
- ⊙ In its current proposed configuration, have construction costs been sufficiently estimated?
- ⊙ Under this configuration is this Segment financially self-sustainable?

A series of "Yes" answers to these questions will likely accelerate the development of this respective Segment. Failure at one or more of the criteria will initiate a re-evaluation of some sort. This process will become significantly more varied based on the actual results obtained – ranging from more detailed cost and/or traffic analyses to innovative construction cost optimization, financing partnerships, potential cross-financing packages of Segments, or potential Segment reconfiguration.

Admittedly, the simple criteria provided are a combination of objective and subjective factors, and political will and public support are not always measurable characteristics. However, many subjective elements are too significant to ignore, and will be accounted for during the process. Nevertheless, the economic and safety impacts of improvements to the region will remain the most important driving factors and shall always be the basis for the prioritization and implementation of NTE Segments.

This evaluation process is the thrust of the MDP and MFP. The ISOW will be dedicated to optimizing all relevant factors and providing a clear and concise development plan that phases the Segments based on true measurable value to the people of Texas. The remainder of this Conceptual Development Plan outlines the preliminary approach to Segment optimization against the parameters discussed.

Table B-2 outlines basic information about each Segment, plus development factors that will be thoroughly analyzed in the MDP, such as overall corridor benefit, political support, viability, construction cost and environmental progress. At this stage, this table provides a brief comparison of the factors concerning development of each Segment, allowing the user to weigh these factors and consider steps that could be taken to improve the feasibility of each Segment. For example, Segment 2E has almost completed the environmental clearance process, as opposed to Segment 4, which will require more time to achieve clearance. This makes Segment 4 less feasible for immediate development. During the ISOW the quantitative factors in the table will be replaced with values that allow more exact comparison. Essentially, these will form the thematic backbone of the cost-benefit estimation that will create the overall Segment phasing plan.

Table B-2: Segments 2-4 Summary and Development Factors

| FACILITY (SEGMENT) | | | | | | | | | | | | |
|--------------------|-------------------------|-------------------------|--|----------------------------|---|---------------------------------|--|--------------------------|-------------------|--------------------------------|-------------|-------------------|
| Segment ID | Geographical Limits | | General Description | Length of Facility (miles) | General Purpose Capacity (By Direction) | Interconnections | | Development Factor | | | | |
| | | | | | | Major (Multi-level interchange) | Minor (Minor Interchange or Grade Separation) | Overall Corridor Benefit | Political Support | Viable / Minimize Public Funds | Const. Cost | Environ. Progress |
| 2E | NTE Segment 1C (SH 121) | SH 161 | 3 - 12' GP Lanes 3 - 12' Managed-Lanes | 5.6 | 3 lanes | SH 360, DFW INTL PKWY | Industrial Blvd (FM 157), N Ector Dr, Euless Main, American Blvd/ Bear Creek Pkwy, Amon Carter Blvd | ★ | ★ | ★ | ● | ★ |
| 3A | NTE Segment 1 (IH 820) | IH 30 | 3 - 12' GP Lanes 2 - 12' Managed-Lanes | 6.5 | 3 lanes | SH 121 / Spur 280 | Meacham Blvd, SH 183/ 28TH ST, FW&Western RR, BNSF RR, UPRR, Yucca/Northside Dr, West Fork Trinity River | ★ | ★ | ★ | ● | ● |
| 3B | NTE Segment 1 (IH 820) | NTE Segment 3C (US 287) | 3 - 12' GP Lanes 2 - 12' Managed-Lanes | 3.3 | 3 lanes | US 81 / 287 | Basswood Blvd, Big Fossil Creek, Western Center Blvd | ★ | ★ | ★ | ★ | ● |
| 3C | NTE Segment 2 (US 287) | SH 170 | 3 - 12' GP Lanes 2 - 12' Managed-Lanes | 5.0 | 3 lanes | SH 170 | N Tarrant Pkwy, Heritage Trace Pkwy, Golden Triangle Blvd, Keller-Hicks Rd | ● | ★ | ● | ★ | ● |
| 4 | NTE Segment 1B (SH 183) | Randol Mill Road | 3 to 4 - 12' GP Lanes 2 - 12' Managed-Lanes | 3.7 | 3-4 lanes | SH 121, SEGMENT 1 | Randol Mill Rd, Trinity Blvd, Handley-Ederville Rd, SH 10 (Hurst Blvd) | ● | ● | ○ | ● | ○ |

Notes:

All improvements are proposed as mixed-use

Lengths shown are approximate and may not reflect the length of all elements within each segment

- ★ - Positive Influencing Factor
- - Neutral Influencing Factor
- - Negative Influencing Factor

B.5.1 Preliminary Project Traffic and Revenue

The rate of delivery of each of Segments 2-4 is directly related to each Segment's traffic demand versus optimum capacity. To minimize the use of public funds, revenue must be generated through the optimization of tolls. For drivers to be willing to pay a premium, they must receive a benefit from using the managed lanes. Additionally, general purpose lane capacity must be considered. There must be sufficient capacity to carry non-peak flows. However, if excess general purpose lanes are available fewer users will be willing to pay to use the managed lanes, and the feasibility of any corridor improvement becomes a question. With the exception of Segment 4, the proposed TxDOT RID schematics were analyzed in current configuration and traffic and revenue projections were developed for each Segment.

Segment 4 was conceptually modeled as a two-lane reversible HOT system. It is assumed that Segment 4 could be further optimized as a four managed-lane scenario between the Segment 1B and SH 121 interchanges and a split single managed lane scenario maintaining connectivity through both legs of the SH 121 interchange. This will be further modeled during Milestone 4 of the ISOW. The following preliminary traffic and revenue data will be further refined during development of the NTE MDP in parallel with any potential configurational efficiencies that may be determined through this process.

The Managed Lanes

NTEMP team members prepared preliminary Traffic and Revenue forecasts for Segments 2 (subtracting the portions accepted into the Concession Facility Proposal), 3A, 3B, 3C and 4 of the NTE Managed Lanes. These Segments, in combination with the Concession Facility, comprise a collective length of highway Segments of approximately 36.2 centerline miles—with additional Segment lengths required to fully connect to the existing grid at major interchanges. These Segments are collectively located on the following highways in northern Tarrant County and southern Denton County:

- ⊙ IH 820
- ⊙ SH 183
- ⊙ IH 35W

Based on an iterative process of evaluating Project feasibility, the timing for construction of the relevant NTE Segments is summarized as follows:

- ⊙ **Segment 1A, 1B and 1C opened by 2014** – timing determined by Concession Facility Development and Construction schedule
- ⊙ **Segment 2E opened by 2016** – timing determined by Segment feasibility analyses and mobilization savings considerations from the adjacent construction of the Concession Facility
- ⊙ **Segment 3A opened by 2018** – timing determined by Segment feasibility analyses
- ⊙ **Segment 3B opened by 2018** – timing determined by Segment feasibility analyses
- ⊙ **Segment 3C opened by 2020** – timing determined by Segment feasibility analyses
- ⊙ **Segment 4 opened by 2025** – timing determined by Segment feasibility analyses and consideration of the environmental re-evaluation process

The managed lanes will be constructed alongside general purpose lanes and will therefore compete for market share with these lanes. Managed lanes are lanes within a freeway set aside specifically aimed to

move traffic more efficiently in those lanes. Thereby travelers have an option of using the general purpose “congested” lanes, or the free-flowing managed lanes. The free-flowing conditions are maintained by systematically adjusting the toll rate to manage the travel demand.

The modeled layout configuration and lengths of Segments 2-4 are described in Table B-3. Modeled lengths are those provided in the RFP; these may not necessarily reflect that which is measured in an optimized schematic configuration.

Table B-3: Segments 2-4 Modeled Layout Configuration

| Segment | Managed Lanes Length | No Lanes By Direction | |
|---------|----------------------|--|-----------------|
| | | Managed Lanes | General Purpose |
| 2E | 4.44 miles | 3 | 3 |
| 3A | 6.35 miles | 2 | 2-3 |
| 3B | 3.30 miles | 2 | 2-3 |
| 3C | 5.00 miles | 2 | 3 |
| 4 | 3.70 miles | 2 reversible (2 in peaks, 0 all other times) | |

Note: Segment 4 peak direction = northbound 6-9am, southbound 4-7pm

The Methodology

The Traffic and Revenue forecasts were developed using detailed traffic modeling based on designated toll rate caps, and toll rate cap adjustments which were specified by TxDOT for the Concession Facility. TxDOT has also specified that a speed of 50 miles per hour must be maintained on the managed lanes. High-occupancy vehicles are expected to receive a discounted toll rate during peak periods for using the managed lanes until 2025. This discount will be subsidized by TxDOT. Trucks will pay a higher toll rate, based on the number of axles.

The preliminary Traffic and Revenue forecasts are based on an Optimum Tolling Scenario. The traffic modeling was undertaken for base year (2006, with revenues projected forward to 2008) and forecast years 2015, 2025 and 2030. The future year traffic matrices used in the modeling were refined to reflect the forecast population and employment growth in Tarrant and Denton Counties which are forecast to grow by around 1.4% and 2.8% respectively to 2030. The traffic modeling was split into seven time periods to represent the different congestion levels experienced throughout the day – which are critical to generating higher toll rates during period of high travel demand. Intermediate year forecasts were interpolated, and forecasts after 2030 were extrapolated based on long-term growth rates with capacity constraints applied.

The forecasts were produced by Segment, by direction, by vehicle type and by time period, based on the optimized tolling scenario.

Toll Rate Optimization

Revenue optimization was carried out using a two-step process. Step one involved running the initial base toll rates and incrementally changing these rates to develop a series of revenue curves. From these curves, the optimal toll rate in terms of revenue for the NTE Segments was derived. A final run was then

undertaken applying in combination the optimized toll rates for each of the Segments by seven time intervals during 24 hour period. A secondary optimization is to evaluate both general purpose and managed lane volumes so that throughput can be maximized across all roadways in each Segment. This will be the criterion that determines where the toll caps will be set and how much modification can be allowed to occur. The adjustment of toll rate caps is further discussed in the tolling section of the Section B.6 – Facility Integration Plan.

The optimized toll rates (in 2008 dollars) for Segments 2E to 4 by direction have been summarized in **Table B-4** to **Table B-8**.

Table B-4: Segment 2E Toll Rates (\$ per Mile - \$ 2008 Dollars)

| Year | Eastbound | | | | | | | Westbound | | | | | | |
|------|-----------|-------|----------------|-------|-------|----------|-------------|-----------|-------|----------------|-------|-------|----------|-------------|
| | AM | AM | OP Day | PM | PM | OP Night | OP Night | AM | AM | OP Day | PM | PM | OP Night | OP Night |
| | 6-7am | 7-9am | 9am-4pm, 7-8pm | 4-5pm | 5-7pm | 8pm-10pm | 10pm to 6am | 6-7am | 7-9am | 9am-4pm, 7-8pm | 4-5pm | 5-7pm | 8pm-10pm | 10pm to 6am |
| 2016 | 1.58 | 2.38 | 1.19 | 1.95 | 1.37 | 0.57 | 0.47 | 0.93 | 1.30 | 1.53 | 2.89 | 2.13 | 0.74 | 0.47 |
| 2017 | 1.67 | 2.54 | 1.25 | 2.04 | 1.44 | 0.59 | 0.47 | 0.94 | 1.31 | 1.58 | 3.01 | 2.22 | 0.73 | 0.47 |
| 2018 | 1.76 | 2.69 | 1.32 | 2.20 | 1.51 | 0.60 | 0.48 | 0.94 | 1.32 | 1.64 | 3.19 | 2.32 | 0.73 | 0.47 |
| 2019 | 1.85 | 2.85 | 1.39 | 2.31 | 1.58 | 0.61 | 0.48 | 0.95 | 1.33 | 1.69 | 3.33 | 2.41 | 0.72 | 0.48 |
| 2020 | 1.94 | 3.09 | 1.46 | 2.42 | 1.64 | 0.63 | 0.48 | 0.96 | 1.25 | 1.74 | 3.47 | 2.51 | 0.72 | 0.48 |
| 2025 | 1.99 | 3.19 | 1.80 | 2.39 | 1.80 | 0.70 | 0.50 | 0.80 | 1.40 | 1.99 | 3.99 | 2.79 | 0.70 | 0.50 |
| 2030 | 2.39 | 3.99 | 2.19 | 2.99 | 2.19 | 0.90 | 0.50 | 1.00 | 1.79 | 2.39 | 4.19 | 3.19 | 0.90 | 0.50 |
| 2035 | 2.79 | 4.79 | 2.59 | 3.59 | 2.59 | 1.10 | 0.50 | 1.20 | 2.19 | 2.79 | 4.39 | 3.59 | 1.10 | 0.50 |
| 2040 | 3.19 | 5.59 | 2.99 | 4.19 | 2.99 | 1.30 | 0.50 | 1.40 | 2.59 | 3.19 | 4.59 | 3.99 | 1.30 | 0.50 |
| 2045 | 3.59 | 6.38 | 3.39 | 4.79 | 3.39 | 1.50 | 0.50 | 1.60 | 2.99 | 3.59 | 4.79 | 4.39 | 1.50 | 0.50 |
| 2050 | 3.99 | 7.18 | 3.79 | 5.39 | 3.79 | 1.70 | 0.50 | 1.79 | 3.39 | 3.99 | 4.99 | 4.79 | 1.70 | 0.50 |
| 2055 | 4.39 | 7.98 | 4.19 | 5.98 | 4.19 | 1.89 | 0.50 | 1.99 | 3.79 | 4.39 | 5.19 | 5.19 | 1.89 | 0.50 |
| 2060 | 4.79 | 8.78 | 4.59 | 6.58 | 4.59 | 2.09 | 0.50 | 2.19 | 4.19 | 4.79 | 5.39 | 5.58 | 2.09 | 0.50 |
| 2065 | 5.19 | 9.57 | 4.99 | 7.18 | 4.99 | 2.29 | 0.50 | 2.39 | 4.59 | 5.19 | 5.58 | 5.98 | 2.29 | 0.50 |

Table B-5: Segment 3A Toll Rates (\$ per Mile - \$ 2008 Dollars)

| Year | Northbound | | | | | | | Southbound | | | | | | |
|------|------------|-------|----------------|-------|-------|----------|-------------|------------|-------|----------------|-------|-------|----------|-------------|
| | AM | AM | OP Day | PM | PM | OP Night | OP Night | AM | AM | OP Day | PM | PM | OP Night | OP Night |
| | 6-7am | 7-9am | 9am-4pm, 7-8pm | 4-5pm | 5-7pm | 8pm-10pm | 10pm to 6am | 6-7am | 7-9am | 9am-4pm, 7-8pm | 4-5pm | 5-7pm | 8pm-10pm | 10pm to 6am |
| 2018 | 1.25 | 1.96 | 2.11 | 2.20 | 2.00 | 0.57 | 0.36 | 1.99 | 2.51 | 2.09 | 2.20 | 1.70 | 0.63 | 0.37 |
| 2019 | 1.37 | 2.09 | 2.24 | 2.32 | 2.15 | 0.64 | 0.36 | 2.15 | 2.60 | 2.24 | 2.33 | 1.82 | 0.69 | 0.37 |
| 2020 | 1.57 | 2.29 | 2.22 | 2.43 | 2.15 | 0.72 | 0.36 | 2.32 | 2.69 | 2.17 | 2.39 | 1.94 | 0.75 | 0.37 |
| 2025 | 2.01 | 2.72 | 2.87 | 3.01 | 2.72 | 1.07 | 0.36 | 2.99 | 3.14 | 2.69 | 3.14 | 2.69 | 1.05 | 0.37 |
| 2030 | 2.87 | 3.01 | 3.01 | 3.01 | 3.01 | 1.50 | 0.36 | 3.14 | 3.14 | 3.14 | 3.14 | 3.14 | 1.57 | 0.37 |
| 2035 | 3.73 | 3.30 | 3.15 | 3.01 | 3.30 | 1.93 | 0.36 | 3.29 | 3.14 | 3.59 | 3.14 | 3.59 | 2.09 | 0.37 |
| 2040 | 4.58 | 3.58 | 3.30 | 3.01 | 3.58 | 2.36 | 0.36 | 3.44 | 3.14 | 4.04 | 3.14 | 4.04 | 2.62 | 0.37 |
| 2045 | 5.44 | 3.87 | 3.44 | 3.01 | 3.87 | 2.79 | 0.36 | 3.59 | 3.14 | 4.49 | 3.14 | 4.49 | 3.14 | 0.37 |
| 2050 | 6.30 | 4.15 | 3.58 | 3.01 | 4.15 | 3.22 | 0.36 | 3.74 | 3.14 | 4.94 | 3.14 | 4.94 | 3.67 | 0.37 |
| 2055 | 7.16 | 4.44 | 3.73 | 3.01 | 4.44 | 3.65 | 0.36 | 3.89 | 3.14 | 5.39 | 3.14 | 5.39 | 4.19 | 0.37 |
| 2060 | 8.02 | 4.73 | 3.87 | 3.01 | 4.73 | 4.08 | 0.36 | 4.04 | 3.14 | 5.84 | 3.14 | 5.83 | 4.71 | 0.37 |
| 2065 | 8.88 | 5.01 | 4.01 | 3.01 | 5.01 | 4.51 | 0.36 | 4.19 | 3.14 | 6.28 | 3.14 | 6.28 | 5.24 | 0.37 |

Table B-6: Segment 3B Toll Rates (\$ per Mile - \$ 2008 Dollars)

| Year | Northbound | | | | | | | Southbound | | | | | | |
|------|------------|-------|----------------|-------|-------|----------|-------|------------|-------|-------|-------|-------|-------|-------|
| | AM | AM | OP Day | AM | AM | OP Night | AM | AM | AM | AM | PM | AM | AM | |
| | 6-7am | 7-9am | 9am-4pm, 7-8pm | 6-7am | 7-9am | 8pm-10pm | 6-7am | 7-9am | 7-9am | 6-7am | 7-9am | 5-7pm | 6-7am | 7-9am |
| 2018 | 0.36 | 0.53 | 0.56 | 0.94 | 0.66 | 0.22 | 0.20 | 0.58 | 0.87 | 0.47 | 0.68 | 0.49 | 0.21 | 0.18 |
| 2019 | 0.40 | 0.60 | 0.62 | 1.05 | 0.74 | 0.23 | 0.20 | 0.65 | 0.96 | 0.52 | 0.76 | 0.55 | 0.23 | 0.18 |
| 2020 | 0.48 | 0.83 | 0.67 | 1.11 | 0.83 | 0.26 | 0.20 | 0.76 | 0.95 | 0.58 | 0.87 | 0.58 | 0.24 | 0.18 |
| 2025 | 0.63 | 1.03 | 0.95 | 1.43 | 1.03 | 0.32 | 0.20 | 1.02 | 1.53 | 0.80 | 1.24 | 0.87 | 0.29 | 0.18 |
| 2030 | 0.95 | 1.43 | 1.35 | 1.67 | 1.35 | 0.44 | 0.20 | 1.31 | 1.53 | 1.09 | 1.53 | 1.24 | 0.40 | 0.18 |
| 2035 | 1.27 | 1.83 | 1.75 | 1.90 | 1.67 | 0.56 | 0.20 | 1.60 | 1.53 | 1.38 | 1.82 | 1.60 | 0.51 | 0.18 |
| 2040 | 1.59 | 2.22 | 2.14 | 2.14 | 1.98 | 0.67 | 0.20 | 1.89 | 1.53 | 1.67 | 2.11 | 1.97 | 0.62 | 0.18 |
| 2045 | 1.90 | 2.62 | 2.54 | 2.38 | 2.30 | 0.79 | 0.20 | 2.18 | 1.53 | 1.97 | 2.40 | 2.33 | 0.73 | 0.18 |
| 2050 | 2.22 | 3.02 | 2.94 | 2.62 | 2.62 | 0.91 | 0.20 | 2.48 | 1.53 | 2.26 | 2.69 | 2.69 | 0.84 | 0.18 |
| 2055 | 2.54 | 3.41 | 3.33 | 2.86 | 2.94 | 1.03 | 0.20 | 2.77 | 1.53 | 2.55 | 2.99 | 3.06 | 0.95 | 0.18 |
| 2060 | 2.86 | 3.81 | 3.73 | 3.10 | 3.25 | 1.15 | 0.20 | 3.06 | 1.53 | 2.84 | 3.28 | 3.42 | 1.06 | 0.18 |
| 2065 | 3.17 | 4.21 | 4.13 | 3.33 | 3.57 | 1.27 | 0.20 | 3.35 | 1.53 | 3.13 | 3.57 | 3.79 | 1.17 | 0.18 |

Table B-7: Segment 3C Toll Rates (\$ per Mile - \$ 2008 Dollars)

| Year | Northbound | | | | | | Southbound | | | | | | | |
|------|------------|-------|----------------|-------|-------|----------|------------|-------|-------|-------|-------|-------|-------|-------|
| | AM | AM | OP Day | AM | AM | OP Night | AM | AM | AM | AM | AM | PM | AM | AM |
| | 6-7am | 7-9am | 9am-4pm, 7-8pm | 6-7am | 7-9am | 8pm-10pm | 6-7am | 7-9am | 7-9am | 6-7am | 7-9am | 5-7pm | 6-7am | 7-9am |
| 2020 | 1.15 | 1.92 | 1.67 | 2.44 | 1.85 | 0.60 | 0.42 | 1.46 | 2.17 | 1.44 | 2.15 | 1.46 | 0.63 | 0.44 |
| 2025 | 1.65 | 2.76 | 2.57 | 3.31 | 2.39 | 0.83 | 0.46 | 2.28 | 3.43 | 2.09 | 3.23 | 2.28 | 0.86 | 0.48 |
| 2030 | 2.76 | 3.31 | 3.12 | 3.86 | 3.12 | 1.10 | 0.46 | 2.66 | 4.00 | 2.66 | 4.00 | 3.23 | 1.33 | 0.48 |
| 2035 | 3.86 | 3.86 | 3.68 | 4.41 | 3.86 | 1.38 | 0.46 | 3.04 | 4.57 | 3.23 | 4.76 | 4.19 | 1.81 | 0.48 |
| 2040 | 4.96 | 4.41 | 4.23 | 4.96 | 4.60 | 1.65 | 0.46 | 3.43 | 5.14 | 3.81 | 5.52 | 5.14 | 2.28 | 0.48 |
| 2045 | 6.07 | 4.96 | 4.78 | 5.51 | 5.33 | 1.93 | 0.46 | 3.81 | 5.71 | 4.38 | 6.28 | 6.09 | 2.76 | 0.48 |
| 2050 | 7.17 | 5.51 | 5.33 | 6.07 | 6.07 | 2.21 | 0.46 | 4.19 | 6.28 | 4.95 | 7.04 | 7.04 | 3.23 | 0.48 |
| 2055 | 8.27 | 6.07 | 5.88 | 6.62 | 6.80 | 2.48 | 0.46 | 4.57 | 6.85 | 5.52 | 7.80 | 7.99 | 3.71 | 0.48 |
| 2060 | 9.37 | 6.62 | 6.43 | 7.17 | 7.54 | 2.76 | 0.46 | 4.95 | 7.42 | 6.09 | 8.56 | 8.94 | 4.19 | 0.48 |
| 2065 | 10.48 | 7.17 | 6.98 | 7.72 | 8.27 | 3.03 | 0.46 | 5.33 | 7.99 | 6.66 | 9.32 | 9.90 | 4.66 | 0.48 |

Table B-8: Segment 4 Toll Rates (\$ per Mile - \$ 2008 Dollars)

| Year | Northbound | | | | | | | Southbound | | | | | | |
|------|------------|-------|----------------|-------|-------|----------|-------------|------------|-------|----------------|-------|-------|----------|-------------|
| | AM | AM | OP Day | PM | PM | OP Night | OP Night | AM | AM | OP Day | PM | PM | OP Night | OP Night |
| | 6-7am | 7-9am | 9am-4pm, 7-8pm | 4-5pm | 5-7pm | 8pm-10pm | 10pm to 6am | 6-7am | 7-9am | 9am-4pm, 7-8pm | 4-5pm | 5-7pm | 8pm-10pm | 10pm to 6am |
| 2025 | 0.54 | 0.93 | | | | | | | | | 0.93 | 0.72 | | |
| 2030 | 0.70 | 1.24 | | | | | | | | | 1.14 | 0.86 | | |
| 2035 | 0.85 | 1.55 | | | | | | | | | 1.36 | 1.00 | | |
| 2040 | 1.00 | 1.86 | | | | | | | | | 1.57 | 1.14 | | |
| 2045 | 1.16 | 2.16 | | | | | | | | | 1.79 | 1.29 | | |
| 2050 | 1.31 | 2.47 | | | | | | | | | 2.00 | 1.43 | | |
| 2055 | 1.47 | 2.78 | | | | | | | | | 2.22 | 1.57 | | |
| 2060 | 1.62 | 3.09 | | | | | | | | | 2.43 | 1.72 | | |
| 2065 | 1.78 | 3.40 | | | | | | | | | 2.65 | 1.86 | | |

The Forecasts

The Average Annual Daily Transactions (AADT) by Segment are provided in



Table B-9. The corresponding revenue forecasts by Segment by year are provided in Table B-10.

Table B-9: Average Annual Daily Transactions for Segments 2-4

| Year | AADT Transactions (000s) | | | | | |
|------|--------------------------|--------|--------|--------|-------|-------|
| | Seg 2E | Seg 3A | Seg 3B | Seg 3C | Seg 4 | Total |
| 2014 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2015 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2016 | 31.9 | 0.0 | 0.0 | 0.0 | 0.0 | 31.9 |
| 2017 | 31.5 | 0.0 | 0.0 | 0.0 | 0.0 | 31.5 |
| 2018 | 31.1 | 11.9 | 6.8 | 0.0 | 0.0 | 49.8 |
| 2019 | 30.7 | 12.3 | 7.3 | 0.0 | 0.0 | 50.3 |
| 2020 | 30.3 | 16.2 | 12.5 | 7.7 | 0.0 | 66.7 |
| 2021 | 29.9 | 16.8 | 13.1 | 7.9 | 0.0 | 67.8 |
| 2022 | 29.5 | 17.5 | 13.8 | 8.2 | 0.0 | 68.9 |
| 2023 | 29.1 | 18.1 | 14.4 | 8.4 | 0.0 | 70.0 |
| 2024 | 28.8 | 18.7 | 15.1 | 8.6 | 0.0 | 71.2 |
| 2025 | 28.1 | 18.6 | 15.2 | 8.4 | 1.1 | 71.4 |
| 2026 | 28.6 | 19.6 | 15.8 | 8.8 | 1.1 | 74.0 |
| 2027 | 29.2 | 20.5 | 16.4 | 9.3 | 1.1 | 76.5 |
| 2028 | 29.8 | 21.4 | 17.1 | 9.7 | 1.1 | 79.1 |
| 2029 | 30.4 | 22.4 | 17.7 | 10.1 | 1.1 | 81.6 |
| 2030 | 31.0 | 23.3 | 18.3 | 10.5 | 1.1 | 84.2 |
| 2031 | 31.3 | 24.2 | 18.8 | 10.8 | 1.1 | 86.3 |
| 2032 | 31.7 | 25.1 | 19.3 | 11.1 | 1.1 | 88.3 |
| 2033 | 32.0 | 26.0 | 19.7 | 11.5 | 1.1 | 90.3 |
| 2034 | 32.4 | 26.8 | 20.1 | 11.7 | 1.1 | 92.1 |
| 2035 | 32.7 | 27.7 | 20.5 | 12.0 | 1.1 | 94.0 |
| 2036 | 33.0 | 28.5 | 20.8 | 12.3 | 1.1 | 95.7 |
| 2037 | 33.3 | 29.3 | 21.2 | 12.6 | 1.1 | 97.5 |
| 2038 | 33.6 | 30.1 | 21.5 | 12.8 | 1.1 | 99.1 |
| 2039 | 33.9 | 30.9 | 21.9 | 13.0 | 1.1 | 100.8 |
| 2040 | 34.2 | 31.6 | 22.2 | 13.3 | 1.1 | 102.4 |
| 2041 | 34.5 | 32.4 | 22.5 | 13.5 | 1.1 | 103.9 |
| 2042 | 34.7 | 33.2 | 22.8 | 13.7 | 1.1 | 105.4 |
| 2043 | 35.0 | 33.9 | 23.1 | 13.9 | 1.1 | 106.9 |

| Year | AADT Transactions (000s) | | | | | |
|------|--------------------------|--------|--------|--------|-------|-------|
| | Seg 2E | Seg 3A | Seg 3B | Seg 3C | Seg 4 | Total |
| 2044 | 35.2 | 34.6 | 23.3 | 14.1 | 1.1 | 108.4 |
| 2045 | 35.5 | 35.3 | 23.6 | 14.3 | 1.1 | 109.8 |
| 2046 | 35.7 | 36.0 | 23.9 | 14.5 | 1.1 | 111.2 |
| 2047 | 36.0 | 36.8 | 24.1 | 14.7 | 1.1 | 112.6 |
| 2048 | 36.2 | 37.4 | 24.4 | 14.9 | 1.1 | 114.0 |
| 2049 | 36.4 | 38.1 | 24.7 | 15.0 | 1.1 | 115.3 |
| 2050 | 36.7 | 38.8 | 24.9 | 15.2 | 1.1 | 116.7 |
| 2051 | 36.9 | 39.5 | 25.1 | 15.4 | 1.1 | 118.0 |
| 2052 | 37.1 | 40.2 | 25.4 | 15.5 | 1.1 | 119.2 |
| 2053 | 37.3 | 40.8 | 25.6 | 15.7 | 1.1 | 120.5 |
| 2054 | 37.5 | 41.5 | 25.9 | 15.8 | 1.1 | 121.8 |
| 2055 | 37.7 | 42.1 | 26.1 | 16.0 | 1.1 | 123.0 |
| 2056 | 37.9 | 42.7 | 26.3 | 16.1 | 1.1 | 124.2 |
| 2057 | 38.1 | 43.4 | 26.5 | 16.3 | 1.1 | 125.4 |
| 2058 | 38.3 | 44.0 | 26.7 | 16.4 | 1.1 | 126.6 |
| 2059 | 38.5 | 44.6 | 27.0 | 16.6 | 1.1 | 127.8 |
| 2060 | 38.7 | 45.3 | 27.2 | 16.7 | 1.1 | 128.9 |
| 2061 | 38.9 | 45.9 | 27.4 | 16.8 | 1.1 | 130.1 |
| 2062 | 39.1 | 46.5 | 27.6 | 17.0 | 1.1 | 131.2 |
| 2063 | 39.3 | 47.1 | 27.8 | 17.1 | 1.1 | 132.4 |
| 2064 | 39.5 | 47.7 | 28.0 | 17.2 | 1.1 | 133.5 |
| 2065 | 39.7 | 48.3 | 28.2 | 17.4 | 1.1 | 134.6 |

Table B-10: Segments 2-4 Revenue Forecasts by Segment

| Year | Revenue (000s , 2008 Dollars) | | | | | |
|------|-------------------------------|--------|--------|--------|-------|-------|
| | Seg 2E | Seg 3A | Seg 3B | Seg 3C | Seg 4 | Total |
| 2014 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2015 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2016 | 28.2 | 0.0 | 0.0 | 0.0 | 0.0 | 28.2 |
| 2017 | 29.0 | 0.0 | 0.0 | 0.0 | 0.0 | 29.0 |

| Year | Revenue (000s , 2008 Dollars) | | | | | |
|------|-------------------------------|--------|--------|--------|-------|-------|
| | Seg 2E | Seg 3A | Seg 3B | Seg 3C | Seg 4 | Total |
| 2018 | 29.8 | 26.7 | 7.8 | 0.0 | 0.0 | 64.3 |
| 2019 | 30.6 | 29.5 | 9.1 | 0.0 | 0.0 | 69.2 |
| 2020 | 31.7 | 33.4 | 12.3 | 16.0 | 0.0 | 93.5 |
| 2021 | 32.6 | 36.3 | 13.8 | 18.0 | 0.0 | 100.6 |
| 2022 | 33.5 | 39.2 | 15.2 | 19.9 | 0.0 | 107.8 |
| 2023 | 34.3 | 42.2 | 16.7 | 21.8 | 0.0 | 114.9 |
| 2024 | 35.2 | 45.1 | 18.1 | 23.7 | 0.0 | 122.1 |
| 2025 | 34.0 | 46.1 | 18.8 | 24.0 | 1.0 | 123.9 |
| 2026 | 36.0 | 49.7 | 21.0 | 26.7 | 1.0 | 134.3 |
| 2027 | 38.0 | 53.3 | 23.1 | 29.3 | 1.1 | 144.7 |
| 2028 | 39.9 | 56.9 | 25.2 | 31.9 | 1.1 | 155.1 |
| 2029 | 41.9 | 60.5 | 27.4 | 34.5 | 1.2 | 165.4 |
| 2030 | 43.9 | 64.1 | 29.5 | 37.1 | 1.2 | 175.8 |
| 2031 | 45.9 | 67.7 | 31.6 | 39.7 | 1.2 | 186.2 |
| 2032 | 47.9 | 71.3 | 33.8 | 42.3 | 1.3 | 196.6 |
| 2033 | 49.9 | 74.8 | 35.9 | 45.0 | 1.3 | 206.9 |
| 2034 | 51.9 | 78.4 | 38.0 | 47.6 | 1.4 | 217.3 |
| 2035 | 53.9 | 82.0 | 40.2 | 50.2 | 1.4 | 227.7 |
| 2036 | 55.8 | 85.6 | 42.3 | 52.8 | 1.5 | 238.1 |
| 2037 | 57.8 | 89.2 | 44.4 | 55.4 | 1.5 | 248.4 |
| 2038 | 59.8 | 92.8 | 46.6 | 58.0 | 1.6 | 258.8 |
| 2039 | 61.8 | 96.4 | 48.7 | 60.6 | 1.6 | 269.2 |
| 2040 | 63.8 | 100.0 | 50.8 | 63.2 | 1.7 | 279.6 |
| 2041 | 65.8 | 103.6 | 53.0 | 65.9 | 1.7 | 289.9 |
| 2042 | 67.8 | 107.2 | 55.1 | 68.5 | 1.8 | 300.3 |
| 2043 | 69.8 | 110.8 | 57.2 | 71.1 | 1.8 | 310.7 |
| 2044 | 71.7 | 114.4 | 59.4 | 73.7 | 1.9 | 321.1 |
| 2045 | 73.7 | 118.0 | 61.5 | 76.3 | 1.9 | 331.5 |
| 2046 | 75.7 | 121.6 | 63.6 | 78.9 | 2.0 | 341.8 |
| 2047 | 77.7 | 125.2 | 65.8 | 81.5 | 2.0 | 352.2 |
| 2048 | 79.7 | 128.8 | 67.9 | 84.2 | 2.1 | 362.6 |

| Year | Revenue (000s , 2008 Dollars) | | | | | |
|------|-------------------------------|--------|--------|--------|-------|-------|
| | Seg 2E | Seg 3A | Seg 3B | Seg 3C | Seg 4 | Total |
| 2049 | 81.7 | 132.4 | 70.0 | 86.8 | 2.1 | 373.0 |
| 2050 | 83.7 | 135.9 | 72.2 | 89.4 | 2.2 | 383.3 |
| 2051 | 85.7 | 139.5 | 74.3 | 92.0 | 2.2 | 393.7 |
| 2052 | 87.6 | 143.1 | 76.4 | 94.6 | 2.3 | 404.1 |
| 2053 | 89.6 | 146.7 | 78.6 | 97.2 | 2.3 | 414.5 |
| 2054 | 91.6 | 150.3 | 80.7 | 99.8 | 2.4 | 424.8 |
| 2055 | 93.6 | 153.9 | 82.8 | 102.4 | 2.4 | 435.2 |
| 2056 | 95.6 | 157.5 | 85.0 | 105.1 | 2.5 | 445.6 |
| 2057 | 97.6 | 161.1 | 87.1 | 107.7 | 2.5 | 456.0 |
| 2058 | 99.6 | 164.7 | 89.2 | 110.3 | 2.6 | 466.4 |
| 2059 | 101.5 | 168.3 | 91.4 | 112.9 | 2.6 | 476.7 |
| 2060 | 103.5 | 171.9 | 93.5 | 115.5 | 2.7 | 487.1 |
| 2061 | 105.5 | 175.5 | 95.6 | 118.1 | 2.7 | 497.5 |
| 2062 | 107.5 | 179.1 | 97.8 | 120.7 | 2.8 | 507.9 |
| 2063 | 109.5 | 182.7 | 99.9 | 123.3 | 2.8 | 518.2 |
| 2064 | 111.5 | 186.3 | 102.0 | 126.0 | 2.8 | 528.6 |
| 2065 | 113.5 | 189.9 | 104.2 | 128.6 | 2.9 | 539.0 |

The preliminary forecasts for these Segments will be considerably further refined in Milestones 4 and 5 of the MDP process. The two primary sources of data will be the NCTCOG and the TxDOT Statewide Analysis Model. Also, all sources available (including State Water Board population projections) will be used to normalize the projected traffic data and to provide sensitivity analyses – in so doing, optimizing the model O-D inputs, toll diversion criteria, and individualized growth patterns, etc. The schematic development process will also further optimize the electronic tolling interface with the driver as technology expands and will refine the physical toll plaza/gantry locations. In short, the models will be tailored to best fit each Segment’s ability to effectively manage the projected congestion that necessitates a project of this scope. As a result, the risk profile (as discussed in detail later) of each Segment will be significantly reduced with the increased reliability of the traffic data and proposed toll collection hardware utilized.

B.5.2 Segment Cost Analysis

Construction Costs

Following a thorough review of the RID Schematics, NTEMP concluded that most of the provided configurations are generally sufficient to provide the connectivity and allow the revenue feasibility necessary to expedite Segment development.

A very detailed proposal-level quantification and cost estimate was developed for the Concession Facility. Details of this effort are included in the Concession Facility Development Plan component of this Proposal. The methodology behind these detailed cost analysis efforts formed the backbone for initial estimation activities for Segments 2-4. The reviews of the RID files determined the level of detail and number of quantifiable elements that would be available to sufficiently estimate the construction costs for each of the Segments. Macro-level features were identified and summarized for each Segment. Then, smaller cost items were estimated based on either a) unit price per length of Segment, or b) as a ratio of quantity based on the more detailed analysis from the Concession Facility. The estimated features were sorted into major design elements – essentially by discipline. This process is more easily understood by viewing the detailed spreadsheets in Appendix E.3 – Draft Facilities Report. This document provides summaries for quantities, costs and yearly distribution of expenditures.

All structure and pavement limits were measured and entered into master spreadsheets so that they could be modified based on optimized lane configuration for both the general purpose and managed lanes. Three construction elements deemed by the Team as the most significant were coded so that they could be proportionally adjusted based on lane reconfiguration: pavement material strata, earthwork and structure deck width. This is accomplished using a simple ratio of base case-to-test case pavement width (e.g. an additional 12-ft lane added to a previously 40-ft roadway footprint would initiate the application of a 1.3 adjustment factor in the x-axis). However, configurationally independent Segment elements and those providing connection to adjacent roadway features, such as longitudinal mainlane and direct connect bridge limits, were not modified. Unit costs were applied to the schematic-level quantification using TxDOT Low-Bid Unit Prices and verified by both engineering and DBJV partners of NTEMP. Quantities were evaluated for optimum efficiency in revenue generation, vehicle throughput and dollars expended.

One schematic modification is proposed from that which was provided in the RID, with the objective of enhancing the Segment's financial attractiveness:

- ④ Segment 4 has been modified within this proposal's conceptual estimates from two reversible managed-lane (HOV/HOT) lanes to a facility containing a 2+2 managed lane configuration.

At this proposal-level estimate, this does not create a large change in the overall development cost of the Segment. Many major items are based on overall centerline length and the grade separation requirements that would be inherent to this Segment in any type of managed-lane configuration. Also, proportionally, Segment 4's construction costs are heavily weighted toward the redesign of the SH 121/IH 820 interchange. The interchange configuration would not change significantly from a cost perspective. However, it is assumed that a redesign would necessitate additional ROW and require a slightly more expensive direct connector configuration. In addition, there would be, on average, an additional managed lane along the length of the Segment.

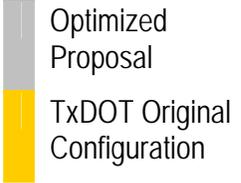
Section B.5.4 of this document provides illustrations of the revised configuration utilized for Segment 4. This will be a significant area of focus during Milestone 4 of the MDP, as it will require extensive schematic design to evaluate properly. Full schematic quantification of all Segments using the procedures and approximate teaming arrangements of that for the Concession Facility will be a component of Milestone 4.

For purposes of the construction cost estimates created in this section, the average lane configuration of each Segment is shown in Table B-11. An initial optimized configuration was assumed the most viable in

the Near Term. Expansions are not yet accounted for, although it is anticipated that these would be triggered by certain Segment performance factors as that which is established for the Concession Facility. Triggers and expansion methodology will be further explored in the MDP. It is anticipated these will be quantified at that time with the details for each Segment being further fine-tuned during the Facility Implementation Plan process.

Table B-11: Segments 2-4 Optimized Lane Configuration

| | MILE ¹ | GP LANES ² | MAN. LANES ² | FR. LANES ² |
|------------|-------------------|-----------------------|-------------------------|------------------------|
| Segment 2 | 6.49 | 3 | 3 | 2 |
| Segment 3A | 6.95 | 2-3 | 2 | 2 |
| Segment 3B | 2.59 | 2-3 | 2 | 2 |
| Segment 3C | 6.81 | 3 | 2 | 2 |
| Segment 4 | 5.10 | 2-4 | 2 | 2 |



Optimized Proposal

TxDOT Original Configuration

Notes:

1. Mileage is considered as length of Segment plus all ancillary connecting construction
2. All lane configurations are considered each way and are shown as avg. for quantification purposes

Assumptions have been made concerning each final Segment configuration
RID schematics are reflected in TxDOT Original Configuration

Table B-12 provides the construction cost summary for each NTE Segment by major design element, while the Table B-13 summarizes the estimated construction costs for each Segment of NTE including 5.0 percent contingency, overhead, insurance and profit. All costs are presented in 2008 dollars. In all, construction (and construction management) will be the largest cost of developing NTE Segments 2-4, at roughly 85 percent of the total.

Detailed summaries of the quantities gathered for the Segments, the unit pricing applied to them and the cost distribution over time are provided in Appendix E.3 – Draft Facilities Report.

Table B-12: Segments 2-4 Development Costs

| NTE ESTIMATED CONSTRUCTION COSTS 2008 Dollars (in thousands) | | | | | | |
|--|---|---------------------|------------|------------|------------|------------|
| ITEM | NTE WORK DESCRIPTION | NTE 2E ¹ | NTE 3A | NTE 3B | NTE 3C | NTE 4 |
| 1.01A | ROADWAY REMOVALS & PRELIMINARY WORK | \$ 6,171 | \$ 7,148 | \$ 2,038 | \$ 5,478 | \$ 4,012 |
| 1.01B | BRIDGE REMOVALS | \$ 2,880 | \$ 4,800 | \$ 160 | \$ 480 | \$ 1,600 |
| 1.02 | EARTHWORK | \$ 24,255 | \$ 37,541 | \$ 7,845 | \$ 24,739 | \$ 15,138 |
| 1.03 | LANDSCAPING | \$ 1,882 | \$ 2,613 | \$ 721 | \$ 3,327 | \$ 2,429 |
| 1.04 | SUBGRADE TREATMENTS AND BASE | \$ 20,369 | \$ 19,334 | \$ 10,507 | \$ 23,017 | \$ 14,415 |
| 1.05 | PAVEMENTS, DRIVEWAYS & CURBS | \$ 31,330 | \$ 29,727 | \$ 16,130 | \$ 35,732 | \$ 22,021 |
| 1.06 | RETAINING WALLS, SHORING & SHEET PILING | \$ 48,705 | \$ 69,151 | \$ 21,760 | \$ 56,000 | \$ 38,541 |
| 1.07A | BRIDGES - MAIN LANES & FRONTAGE ROADS | \$ 190,053 | \$ 134,323 | \$ 18,329 | \$ 31,169 | \$ 39,201 |
| 1.07B | BRIDGES - DIRECT CONNECTORS | \$ 15,953 | \$ 94,926 | \$ 8,959 | \$ 45,039 | \$ 57,766 |
| 1.08 | DRAINAGE AND RIPRAP | \$ 10,669 | \$ 11,393 | \$ 4,756 | \$ 14,717 | \$ 6,466 |
| 1.09 | TRAFFIC CONTROL, DETOURS & TEMPORARY WORK | \$ 4,320 | \$ 4,320 | \$ 4,320 | \$ 4,320 | \$ 4,320 |
| 1.10 | PERMANENT BARRIERS, GUARDRAIL & FENCING | \$ 1,713 | \$ 1,835 | \$ 684 | \$ 1,798 | \$ 1,346 |
| 1.11 | LIGHTING, ELECTRICAL AND TRAFFIC SIGNALS | \$ 5,232 | \$ 3,248 | \$ 1,888 | \$ 5,152 | \$ 2,752 |
| 1.12 | SIGNING & MARKINGS | \$ 1,885 | \$ 1,972 | \$ 1,155 | \$ 2,697 | \$ 1,558 |
| 1.13 | SPECIAL AESTHETIC TREATMENTS | \$ 1,785 | \$ 1,911 | \$ 712 | \$ 1,873 | \$ 1,403 |
| 1.14 | UTILITY RELOCATIONS | \$ 9,735 | \$ 15,638 | \$ 3,885 | \$ 10,215 | \$ 11,475 |
| 1.21 | NOISE WALLS | \$ 20,834 | \$ 22,311 | \$ 8,315 | \$ 7,287 | \$ 16,372 |
| 1.22 | DETENTION PONDS ² | | | | | |
| 1.42 | ITS DUCT BANK SYSTEM | \$ 9,540 | \$ 10,000 | \$ 5,640 | \$ 9,860 | \$ 8,150 |
| CONSTRUCTION TOTALS | | \$ 407,312 | \$ 472,190 | \$ 117,803 | \$ 282,901 | \$ 248,965 |
| ROW ACQUISITION | | \$ 34,720 | \$ 110,520 | \$ 37,320 | \$ 58,400 | \$ 61,200 |

ASSUMPTIONS

1. NTE Segment 2E begins at the eastern end of Segment 1C
2. Assumed as a subcomponent of Item 1.08 – Drainage and Riprap

Table B-13: Segments 2-4 Development Cost Summary

| | SEGMENT DEVELOPMENT TOTALS - 2008 DOLLARS (in thousands) | | | | |
|----------------------------------|--|-------------------|-------------------|-------------------|-------------------|
| | NTE 2E | NTE 3A | NTE 3B | NTE 3C | NTE 4 |
| Construction | \$ 407,312 | \$ 472,190 | \$ 117,803 | \$ 282,901 | \$ 248,965 |
| Right of Way | \$ 34,720 | \$ 110,520 | \$ 37,320 | \$ 58,400 | \$ 61,200 |
| Tolling Integration ^a | \$ 20,279 | \$ 27,212 | \$ 15,209 | \$ 23,698 | \$ 17,969 |
| Overhead ^b | \$ 18,329 | \$ 23,610 | \$ 5,890 | \$ 14,145 | \$ 12,448 |
| Design Services ^c | \$ 23,828 | \$ 42,497 | \$ 10,602 | \$ 25,461 | \$ 22,407 |
| Misc Advisors ^d | \$ 5,8618 | \$ 6,729 | \$ 1,679 | \$ 4,031 | \$ 3,548 |
| TOTAL | \$ 510,086 | \$ 682,758 | \$ 188,503 | \$ 408,637 | \$ 366,537 |

| ASSUMPTIONS | | |
|--|-------|---------------------|
| Overhead as a percentage of Const ^b | 5.00% | of const |
| Design Advisors as a percentage of Const ^c | 9.00% | of const |
| Misc Advisors as a percentage of Const + Design + OH Cost ^d | 1.25% | of const + overhead |

a. Tolling integration fee provided as a lump sum from the integration team member

b. Overheads, Insurances, Contingencies, Profit (10% overhead efficiency included for Segment 2E)

c. Preliminary and detailed design services. Design-Build delivery. (35% design efficiency for Segment 2E)

d. Miscellaneous advisory services throughout Segment development, including the Independent Engineer.

Development, Advisory and O&M Costs

Each Segment cost element that was determined primarily from assumptions, and/or a percentage of construction value, is detailed in the following text. The rates shown are created from NTEMP experience on a multitude of similar projects worldwide. With the exception of Segment 2E, in which there were efficiencies accounted for due to the adjacent relatively concurrent development of the Concession Facility, the percentages hold for all Segments. Efficiencies assumed for Segment 2E are a 10% reduction in overheads and a 35% reduction in design advisory services.

Planning and Facility Feasibility

It is assumed that some additional engineering will be required to fully detailed-quantify, price and package each Segment in advance of a Facility Development Agreement and through Close of Finance. There will also be several other advisory services involved. The following costs are assumed as the costs to prepare each Segment to Close of Finance:

- 2.00% of construction value for the preliminary schematic design
- 0.50% of construction value for remaining planning activities and feasibility studies to assist in the final stages of the environmental process
- 0.50% of construction value plus overhead for additional miscellaneous advisory services during the process

Environmental Mitigation and Re-evaluation

Environmental documents prepared for NTE Segments 2-4 will identify certain resources that will require mitigation prior to or during construction. These include stream and wetland impacts, protected species relocations, archaeological site investigations, historic structure evaluation and mitigation, park or recreation areas, wildlife crossings, hazardous waste site cleanup, cemetery relocation, noise walls, and other context-sensitive design commitments. Due to the wide variety of potential impacts and the unknowns for both their whereabouts and the extent to which the proposed Segment will affect them, environmental evaluation costs were estimated as a percentage of construction costs and rolled into the design advisory fees. It was assumed that as ROW impacts will be minimal, environmental impacts will follow suit.

- 0.90% of construction value for environmental mitigation
- 0.10% of construction value for any re-evaluations that may arise

It is assumed that a significant amount of time will not pass from the date of the NTE Segments 2-4 Finding of No Significant Impact (FONSI) or Record of Decision (ROD) to construction. Although, if it is required that the environmental document be re-visited, and updated, it is anticipated that TxDOT, or their representatives, will perform this work to avoid any appearance of conflict of interest. These costs will be fairly minor, generally less than \$75,000 to ensure the document is still valid, or to bring it up to date.

Design and Engineering

After a Facility Development Agreement is executed and Close of Finance approaches, final detailed engineering plans can be developed. This will include all plans required by TxDOT for review and approval for letting, or self-performance by NTEMP. Finally, funding for the Independent Engineer to review design activities will be split between NTEMP and TxDOT.

- 5.50% of construction value for the final detailed design
- 0.75% of construction value and overhead for half of the total costs of the Independent Engineer

The summation of the preceding three development categories is 10.25 percent of construction and overhead costs. This cost is applied to each Segment by the advisory and design service line items displayed in Table B-7. At the proposal stage of development, this is applied as overall percentages. These costs will be significantly fine-tuned in the detailed MDP process.

Right-of-Way

Costs included in acquiring real property for NTE Segments 2-4 are comprised of professional services provider fees for ROW and surveying and the actual property acquisition costs. ROW fees include monthly project administrative fees and the following services: title, initial appraisal and appraisal updates, initial appraisal review and appraisal review updates, negotiation, residential and business relocation, closing, condemnation support and disposal of property. Another variable would be the type that is to be performed: residential, small or large commercial, vacant or improved, damages to the improvements or remainders, land locked parcels, and purchase of access rights. The last factor to consider is the percentage of condemnations with the associated costs of obtaining updated appraisals and appraisal updates and updating title.

The cost per acre assumes that additional services may be needed for preparing and testifying at condemnation. These additional service unit costs such as; negotiators, expert witnesses, surveyors, land planners, reappraisals, were based on TxDOT historical costs. The amount of ROW required on NTE Segments 2-4 is quite variable in this stage of development (due to potential lane configuration changes). With the present number of unknowns, ROW acquisition is estimated as lump sum, per-acre rates based on results gathered on the Concession Facility (exact "all-in" ROW acquisition costs). The approximate values used for purposes of this proposal are shown in Table B-14.

Table B-14: Segments 2-4 ROW Acquisition Summary

| NTE SEGMENT | ROW REQUIRED (AC) | COST PER ACRE | TOTAL |
|-------------|-------------------|---------------|---------------|
| Seg 2E | 21.7 | \$1,600,000 | \$34,720,000 |
| Seg 3A | 92.1 | \$1,200,000 | \$110,520,000 |
| Seg 3B | 31.1 | \$1,200,000 | \$37,320,000 |
| Seg 3C | 73.0 | \$800,000 | \$58,400,000 |
| Seg 4 | 51.0 | \$1,200,000 | \$61,200,000 |

All acreages are measured footprint calculations from the TxDOT-provided RID schematics. It was assumed that any changes to the general purpose or managed lane configuration would be a net overall lane number impact of zero and would not significantly effect the position of the frontage roads along the Segment. Therefore, the overall Segment footprint would remain the same. The difference in rates between Segment 2 and the other Segments are due to a qualitatively measured factor of urbanization surrounding Segment 2 between SH 121 and SH 161. It is assumed that Segment 4 will require additional ROW in a configuration other than what was provided in the RID.

Operations

Annual tolling operations for NTE Segments 2-4 will cost approximately 3.75 percent of yearly toll revenue plus a fixed value of 4.5 cents per each toll transaction (vehicle-calculated) per year. The fixed value will increase every two years, starting on the anniversary of the facility's tolling commencement, based on an escalation rate equal to 2.0 percent. Insurance for each Segment will cost approximately 0.65 percent of the yearly Segment revenue plus 0.010 percent of the overall Segment asset value.

Maintenance

Routine Roadway Maintenance costs will be approximately \$13,500 per lane-mile per year for NTE Segments 2-4. Yearly Tolling System Maintenance costs will be approximately 2.60 percent of the installation costs for these systems.

Major maintenance activities will be required to maintain structures and potentially perform significant pavement overlay work. Every five years there will be a Roadway Asset Replacement activity that costs approximately \$13,000 per lane-mile per event. Every 10 years there will be a Pavement Major Maintenance activity that costs approximately \$95,000 per lane-mile per event. There will be a Structures Major Maintenance activity every 20 years that costs approximately \$7.10 per square footage of Segment structure per event.

ITS and TCS Major Maintenance will be performed every 10 years at the approximate rate of 25 percent of the initial tolling integration construction cost. This entails systems upgrades and major hardware replacement.

The aforementioned rates are average values gathered through decades of experience in operating roadway facilities worldwide. NTEMP can leverage this breadth of experience to optimize facility costs and allow for the most valuable Facility Agreement for each Segment. Table B-15 summarizes the operations and maintenance cost data and assumptions utilized for the financial analysis of Segments 2E, 3A, 3B, 3C and 4.

Appendix E.3 contains the operation and maintenance costs distributed yearly through the life of the CDA for each Segment.

Table B-15: NTE Operations and Maintenance Costs

| NTE OPERATIONS AND MAINTENANCE COSTS 2008 DOLLARS | NTE 2E | NTE 3A | NTE 3B | NTE 3C | NTE 4 |
|--|---|---|---|---|---|
| YEARLY OPERATIONS COSTS | | | | | |
| Routine Roadway Maintenance Costs | \$1,401,840 | \$1,313,550 | \$489,510 | \$1,287,090 | \$963,900 |
| Toll Collection Costs | 3.75% x Rev + 4.5 cents per Transaction | 3.75% x Rev + 4.5 cents per Transaction | 3.75% x Rev + 4.5 cents per Transaction | 3.75% x Rev + 4.5 cents per Transaction | 3.75% x Rev + 4.5 cents per Transaction |
| Tolling System and IT Maintenance | \$527,250 | \$707,515 | \$395,429 | \$616,158 | \$467,192 |
| Insurance | 0.65% of Rev + 0.01% of Const Total | 0.65% of Rev + 0.01% of Const Total | 0.65% of Rev + 0.01% of Const Total | 0.65% of Rev + 0.01% of Const Total | 0.65% of Rev + 0.01% of Const Total |
| MAINTENANCE COSTS | | | | | |
| Pavement Major Maintenance (Every 10 Years) | \$9,864,800 | \$9,243,500 | \$3,444,700 | \$9,057,300 | \$6,783,000 |
| Structures Major Maintenance (Every 20 Years) | \$25,833,208 | \$26,177,004 | \$3,193,843 | \$7,668,288 | \$10,485,500 |
| Road Asset Replacement (Every Five Years) | \$1,349,920 | \$1,264,900 | \$471,380 | \$1,239,420 | \$928,200 |
| ITS & TCS Major Maintenance (Every Ten Years) | \$5,069,708 | \$6,803,033 | \$3,802,205 | \$5,924,600 | \$4,492,235 |

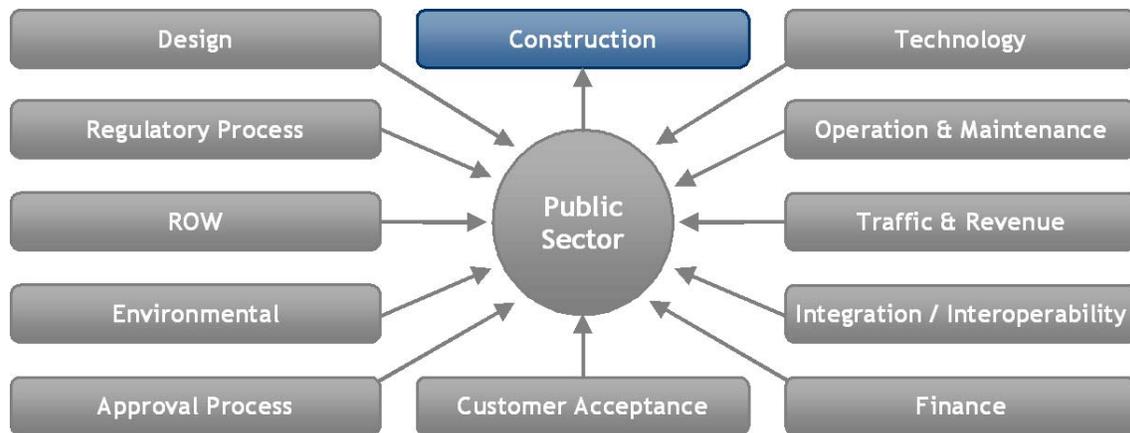
B.5.3 Project Risk Analysis

Proper risk management is of paramount importance to achieving successful implementation of all NTE Segments. A relatively simple three-phase procedure will be utilized to evaluate risks pertinent to each individual Segment.

- ⊙ **Risk Identification** – All reasonable risks that could impact cost, public funding, revenue, time or overall delivery of a Segment are identified and listed.
- ⊙ **Risk Analysis** – The potential risks identified are thoroughly analyzed to develop reasonable expected financial and/or schedule consequences, likelihood of occurrence and mitigation strategy.
- ⊙ **Risk Allocation** – Allocation shall be made to the party best financially or organizationally suited to carry such risks.

Figure B-10 below shows a traditional allocation of risks in a design-bid-build project delivery scenario. Customarily, the public sector assumes most risks.

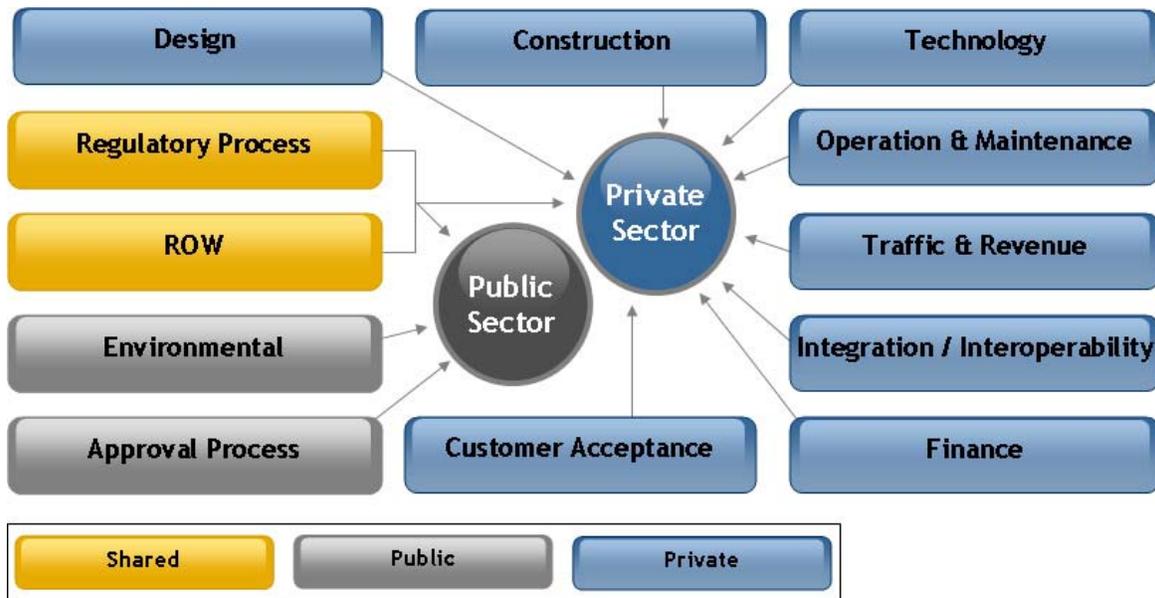
Figure B-10: Traditional Allocation of Risks



Misaligned interests between contractor and public sector

Figure B-11 illustrates a more efficient risk allocation under a Public-Private Partnership Design-Build-Finance-Operate-Maintain (DBFOM) project delivery scenario. In this type of project delivery, the majority of risk types are allocated to the private sector.

Figure B-11: Risk Allocation under a Public-Private Partnership



It is important to note that traffic and revenue risk is shifted to the private sector in this model. This risk is offset by a share in the benefit from a successfully managed Segment that is attractive to the driving public. Regardless of which project delivery method is utilized, it is important that all parties understand the assigned risks, how they will be managed, the consequences each of the risks have and how the risks can be mitigated.

NTEMP will approach overall project risk by monitoring four major groups of risks:

- ⦿ Design, construction and completion risk;
- ⦿ Operation, maintenance and environmental risk,
- ⦿ Financial and economic risk (details of which are provided in the Conceptual Financial Plan), and;
- ⦿ Political risk.

An extensive Risk Registry for Facility delivery will be finalized during the ISOW of the MDP. A preliminary Risk Registry is included as Table B-16. In the interest of focusing on the Segment development prior to detailed design-build, risks associated with the construction phase of project development have been removed from this registry. The risks associated with this phase will be largely the same as those shown for the concession facility. See the Design-Build Management and Technical Solutions section of the Concession Facility Development Plan for a discussion on these risks. Table B-17 quantifies the probability, impact and rating of several types of risks.

Table B-16: Preliminary Risk Registry

| During/After Segment NTP | Risk Description | Potential Consequences | Likelihood | Risk Allocation | Risk Mitigation Strategy | Risk Sensitivity Analysis |
|------------------------------------|--|--|------------|-----------------|---|---|
| Design / Construction Risks | | | | | | |
| During/After | Failure/Inadequate design and/or non compliance with Design Standards & Criteria | Damage to works, delays, design, construction and/or O&M additional costs; penalties | Low | Developer | Back-to-back contract with contractor; Design audit by an independent consultant; Professional indemnity cover | N/A |
| During | Overloaded design & engineering market capacity | Delays, additional costs. | Low | Developer/TxDOT | Rational sequencing and phasing of the facilities | N/A |
| During/After | Owner directed changes and design reviews | Delays, additional costs. | Low | Developer/TxDOT | Adequate analysis prior to Facility Agreement | N/A |
| During/After | Changes in Design Standards & Criteria | Delays, additional costs. | Medium | Developer/TxDOT | Compensation if changes occur after Execution of Facility Agreement | N/A |
| During/After | Identification, requirements and agreements with utility companies | Construction delay; additional costs | Low | Developer | Early coordination | Analysis of impact of different construction period lengths and different construction prices |
| Political / Legal Risks | | | | | | |
| During/After | Change in law (including taxes) | Additional cost | Medium | TxDOT/Developer | General changes in law are borne by the Developer. Discriminatory changes in law are likely borne by TxDOT. Compensation may be in the form of temporary relief from various obligations, time extension or compensation. | N/A |
| During/After | Change sales tax | Increased costs | Low | TxDOT | Compensation | Analysis with different sales tax rates |
| During/After | Breach of existing legislation | Penalties, delay, consequential losses, additional costs, loss of revenue | Low | Developer | Adequate legal advice; experienced management | N/A |
| During/After | Breach of obligations/agreements by private sector | Penalties, suspension of payment, suspension of performance, application of sums to credit of retention account, termination and costs | Low | Developer | Back-to-back contract with contractor; experienced management | N/A |
| During/After | Breach of obligations by public sector | Penalties/suspension/termination and costs | Low | TxDOT | Compensation; rights to termination | N/A |
| During/After | Breach of third party intellectual property rights | Penalties, damages | Low | Developer | Adequate legal advice | N/A |

| During/After Segment NTP | Risk Description | Potential Consequences | Likelihood | Risk Allocation | Risk Mitigation Strategy | Risk Sensitivity Analysis |
|------------------------------------|--|---|------------|-----------------|---|---|
| During/After | Force majeure (natural catastrophes, war, sabotage, terrorism) | Delay additional costs; Parties relieved from liabilities to the extent they are not able to perform their obligations under the agreement; termination; Cancellation; costs to date; damage/reinstatement/ rectification costs | Low | TxDOT | Typically borne by the public sector, the Developer is provided with adequate compensation; relief with respect to certain contractual obligations; time extension; rights to termination | N/A |
| After | Protestor action, Strikes/Labor disputes | Delay, additional costs, damage | Medium | TxDOT/Developer | Compensation; time extension; rights to termination | N/A |
| Planning and Approval Risks | | | | | | |
| During/After | Procurement and performance of Federal, State Agencies and Local Agencies permits and approvals (environmental and others) | Delay, increase costs; penalties; Cancellation; costs to date | Medium | Developer | Back-to-back contract with contractor | Analysis of impact of different construction period lengths |
| After | Planning approval overturned | Delay, increase costs, penalties Cancellation; costs to date | Low | Developer | Back-to-back contract with contractor | Analysis of impact of different construction period lengths |
| After | Planning approval not covering all works | Delay, increased costs; penalties; Cancellation; costs to date | Low | Developer | Back-to-back contract with contractor | Analysis of impact of different construction period lengths |
| Other Events | | | | | | |
| After | Identification and establishment of ROW limits (utility easements, temporary construction easements) | Delays, increased costs | Low | Developer | Adequate control during the design process | N/A |
| During/After | Cost of procuring sub-contractors | Increased costs | Medium | Developer | Back-to-back contract with contractor; Quality Procedures | N/A |

Table B-17: Risk Quantification

| Type of Risk | Probability | Impact | Rating |
|--|-------------|--------|--------|
| Design Risks | | | |
| Failure/Inadequate design and/or non compliance with Design Standards & Criteria | 1 | 1 | 1 |
| Overloaded design & engineering market capacity | 1 | 1 | 1 |
| Owner directed changes and design reviews | 1 | 2 | 2 |
| Changes in Design Standards and Criteria | 2 | 2 | 4 |
| Identification, requirements and agreements with utility companies | 1 | 1 | 1 |
| Political/Legal Risks | | | |
| Change in law | 2 | 3 | 6 |
| Change in taxes | 1 | 3 | 3 |
| Breach of existing legislation | 1 | 3 | 3 |
| Breach of obligations/agreements by private sector | 1 | 2 | 2 |
| Breach of obligations by public sector | 1 | 3 | 3 |
| Breach of third party intellectual property rights | 1 | 1 | 1 |
| Force majeure (natural catastrophes, war, sabotage, terrorism) | 1 | 3 | 3 |
| Protestor action, strikes/labor disputes | 2 | 1 | 2 |
| Planning and Approvals Risks | | | |
| Procurement and performance of federal, state, and local agencies permits and approvals (environmental and others) | 2 | 3 | 6 |
| Planning approval overturned | 1 | 3 | 3 |
| Planning approval not covering all works | 1 | 3 | 3 |
| Other Events Risks | | | |
| Identification and establishment of ROW limits (utility easements, temporary construction easements) | 1 | 3 | 3 |
| Cost of procuring subcontractors | 2 | 1 | 2 |

B.5.4 Conceptual Deviations from TxDOT Provided Schematics

NTEMP has reviewed the RID schematics for Segments 2-4. Initial investigation suggests that for Segments 2, 3A, 3B and 3C the overall configurations are satisfactory. This includes all interchange direct-connector arrangements, grade separation plans and ramp patterns. It is envisioned that these overall design concepts will remain throughout Segment development.

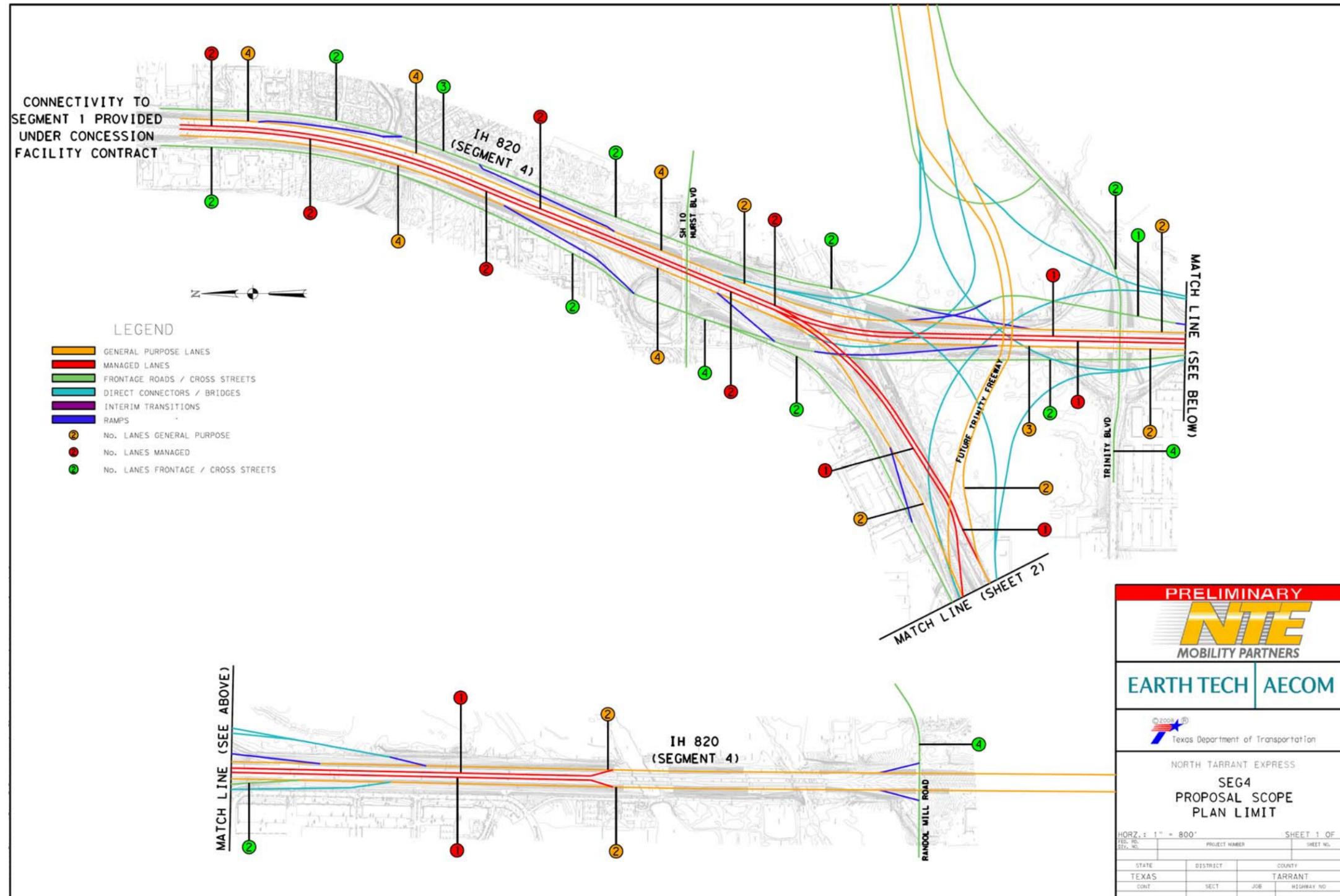
However, so that these Segments are financially feasible (and to allow for development with no additional public funds), NTEMP believes that general purpose capacity expansions must be restricted. Managed lanes will be provided to create the additional vehicle throughput on each of the Segments and general purpose lane expansion will be limited to areas necessary to serve the proposed interchange configuration – typically acceleration, deceleration and auxiliary lanes. As this proposed wholesale lane reduction concept is not a configurational change, no diagrammatic representations are provided as part of this proposal.

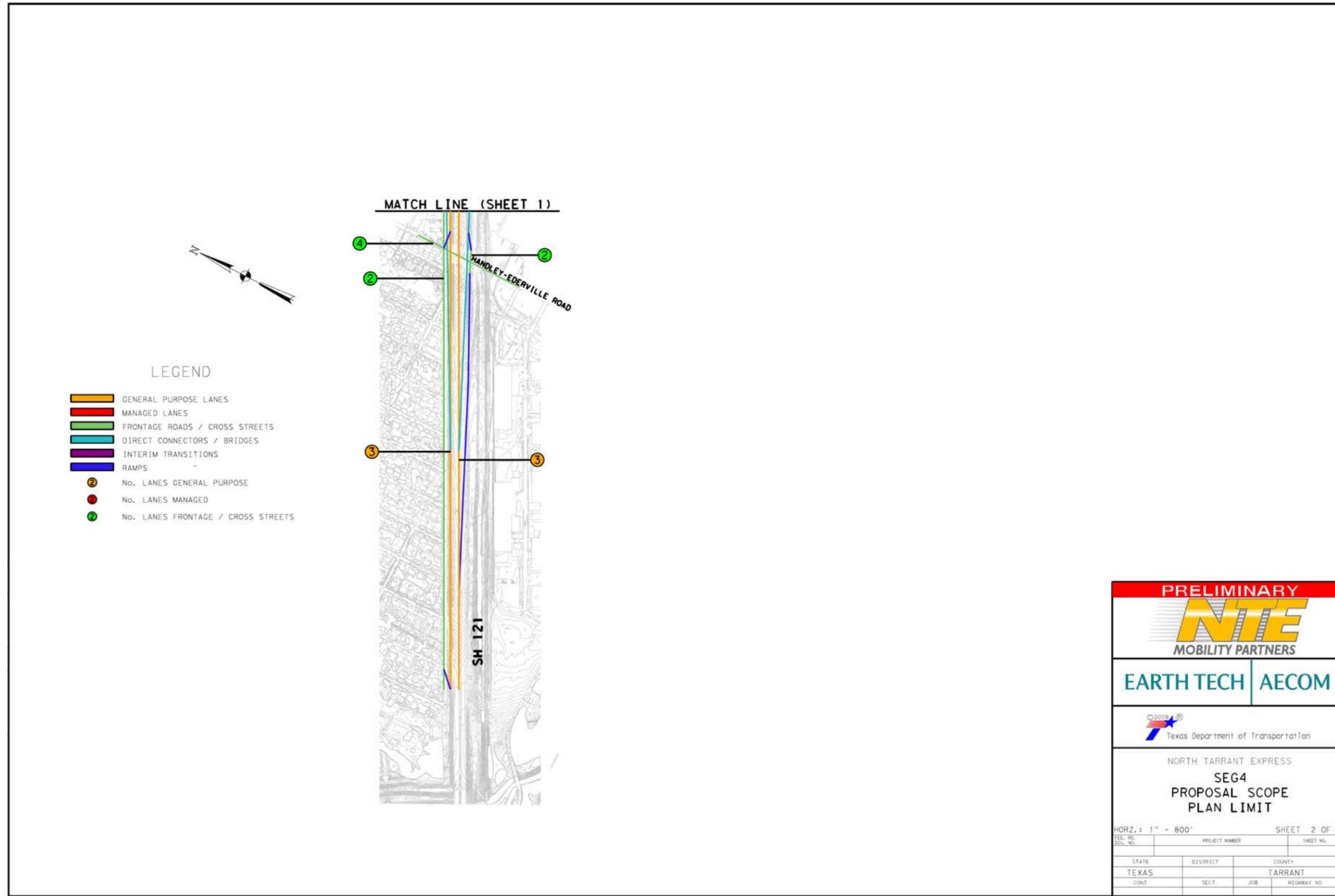
As previously noted, this is not intended to be an absolute long-term plan. Each Segment's Facility Agreement will likely contain general purpose expansion methodology just as that which is stipulated for the Concession Facility. Maintaining the RID schematic configurations of each of these Segments will allow for a relatively easy expansion scenario, if traffic volumes outperform expectations and provide the justification. Space for expansion will be provided in the general purpose center median. Ultimately, thorough analysis within the MDP will dictate the exact nature of capacity improvement scenarios that will be available to be included in a future Segment Facility Agreement.

The only significant deviation that NTEMP has preliminarily identified from the TxDOT RID schematics pertains to the reversible managed lanes along Segment 4. NTEMP is proposing to replace the currently contemplated reversible lanes with two concurrent-flow managed lanes in each direction. South of the interchange with the Concession Facility (Segment 1B) a pair of managed lanes in each direction will be constructed until the interchange at SH 121. At the interchange, a single lane is conceptualized to split off (each way) to provide direct managed-lane connectivity with SH 121. The remaining managed lanes will continue through the interchange maintaining a continuous flow along IH 820 to Randol Mill Rd where they will tie in to the recently constructed general purpose lanes. Figure B-12 provides a conceptual illustration of the reconfiguration of Segment 4 that NTEMP believes best fits the concept of the remaining NTE Segments and help optimize financial feasibility of Segment 4 so that its development can be accelerated.

In past CDA projects, the NTEMP team has discovered minor issues with TxDOT RID schematics not fully complying with CDA technical requirements (e.g. stopping sight distance). This was also an initial issue in the IH 35W / IH 820 interchange within the Concession Facility schematic, but was subsequently addressed in an addendum to Book 2. If there were to be an issue during the development of the remaining NTE Segments, the NTEMP team has experience solving similar problems with simple solutions. Specifically, for a deficient SSD scenario, the most effective method is to merely flip inside and outside shoulders on direct connectors. This generally produces no change in construction cost. Otherwise, actions such as modifying radii, widening shoulders or documenting waivers from TxDOT at particular locations may become necessary to maintain a compliant schematic design. It should also be noted that these changes do not rise to the level of a full environmental re-evaluation. Therefore, this example scenario is not a situation that would typically impact the overall schedule.

Figure B-12: Segment 4 Proposal Scope Plan Limit





PRELIMINARY

EARTH TECH | AECOM

NORTH TARRANT EXPRESS
SEG4
PROPOSAL SCOPE
PLAN LIMIT

HORIZ.: 1" = 800' SHEET 2 OF 2

| | | |
|-------|----------|------------|
| STATE | DISTRICT | COUNTY |
| TEXAS | | TARRANT |
| CONT | SECT | JOB |
| | | HIGHWAY NO |

B.6 Facility Integration Plan

Integration with the Proposed Transportation Network

NTEMP has performed a thorough analysis of planned (or very recently let) transportation facilities in the general vicinity of the NTE Corridor so that their impact can be quantified. NCTCOG's *Mobility 2030 Plan* and TxDOT's Statewide Transportation Improvement Program (STIP) were sourced for the information. These projects are summarized in and shown graphically in Table B-18–Table B-20 and Figure B-13–Figure B-15. More details are available in the NTE Traffic and Revenue Forecasts in Appendix E.2.

Of particular note to NTEMP are the following major projects that fall adjacent to, or lie in a parallel corridor to, the Segments of NTE. Each of these improvements is deemed significant enough that it will need additional focus in the Facility Integration Plan. The construction periods must be considered to ensure efficient maintenance of traffic. Effects to financial feasibility of the Segments must be considered.

- ⊙ **SH 114/121 Funnel (DFW Connector)** – Improvement along this east-west corridor has the potential to provide a significant alternative for vehicles traveling to/from northern Tarrant / southern Denton and Dallas County / DFW Airport. Also, due to their close proximity, it will be very important to maintain a consistent public relations effort as this construction will certainly overlap that of the Concession Facility construction period and potentially Segment 2E.
- ⊙ **SH 170** – Adding tolled mainlanes to SH 170 at its junction with the northern terminus of the NTE will provide a potential for a direct connection into the NTE mainlanes—potentially providing a significant amount of traffic. These improvements are scheduled to occur prior to the construction of Segment 3B, so its design must be integrated into this Segment's planning process.
- ⊙ **IH 820** – Similar to SH 170, improvements to IH 820 at the western connection with the Concession Facility could enhance traffic volumes to multiple NTE Segments. This is not a short-term improvement plan, so it will be most important to keep the implementation schedule current in the Traffic and Revenue projections.
- ⊙ **IH 35W Managed Lanes** – Not included in the attached tables and figures is a long-range plan to include managed-lanes north of the NTE Corridor (Segment 3C) toward Denton. This is currently approximated at a 2025-2030 implementation horizon. Segment 3C will have been opened prior to this date, but, again, it will be important to recognize the impact this construction could have on volumes (both during and after construction)
- ⊙ **DFW Airport East-West Connection** – Also not included in the attached tables and figures is the current planning of a new-location route parallel to US 183 on DFW Airport property. This could potentially provide an airport connection competing with the existing International Pkwy / US 183 interchange that could draw a portion of overall traffic from the NTE corridor.

The preliminary Traffic and Revenue forecasts for Segments 2-4 have been performed to be reflective of much of these proposed changes to the surrounding transportation network. However, as adjacent plans are more clearly defined, so will be the revenue forecast. This impact could be a net positive or negative. It will be ultimately quantified as a component of the Milestone 4 Project Risk Analysis and be refined within the Preliminary Traffic and Revenue.

Table B-18: Planned Roadway Improvements 2007-2009

| ID | Road Name | Road Section | | MTP Projects | | Year |
|----|--------------------|-----------------------|-----------------------|--------------|-----------------------------|------|
| | | From | To | Previously | Upgraded Condition | |
| 1 | FM 156 | US 81/287 | Watauga Rd (McElroy) | 2 lanes | 4 lanes (TIP: LET: 9/2007) | 2007 |
| 2 | E 1st St | Beach St | Oakland Blvd | 2 lanes | 4 lanes (TIP: LET: 9/2007) | 2007 |
| 3 | SH 161 | IH 20 | Rock Island Road | | 6 frontage Roads | 2008 |
| 4 | Rosedale St | South Riverside Drive | US 287 | 4 lanes | 6 lanes (TIP: LET: 12/2007) | 2008 |
| 5 | BS 287 Rosedale St | IH 35W | South Riverside Drive | 4 lanes | 6 lanes (TIP: LET: 12/2007) | 2008 |
| 6 | Precinct Line Rd | SH 10 | Concho Trail | 2 lanes | 4 lanes (TIP: LET: 3/2008) | 2008 |
| 7 | SH 26 | Brumlow Rd | SH 114 | 4 lanes | 6 lanes (TIP: LET: 5/2009) | 2009 |

Source: Texas Department of Transportation (TxDOT) and North Central Texas Council of Governments (NCTCOG: Transport Improvement Programs and Mobility 2030)

Figure B-13: Planned Roadway Improvements 2007-2009

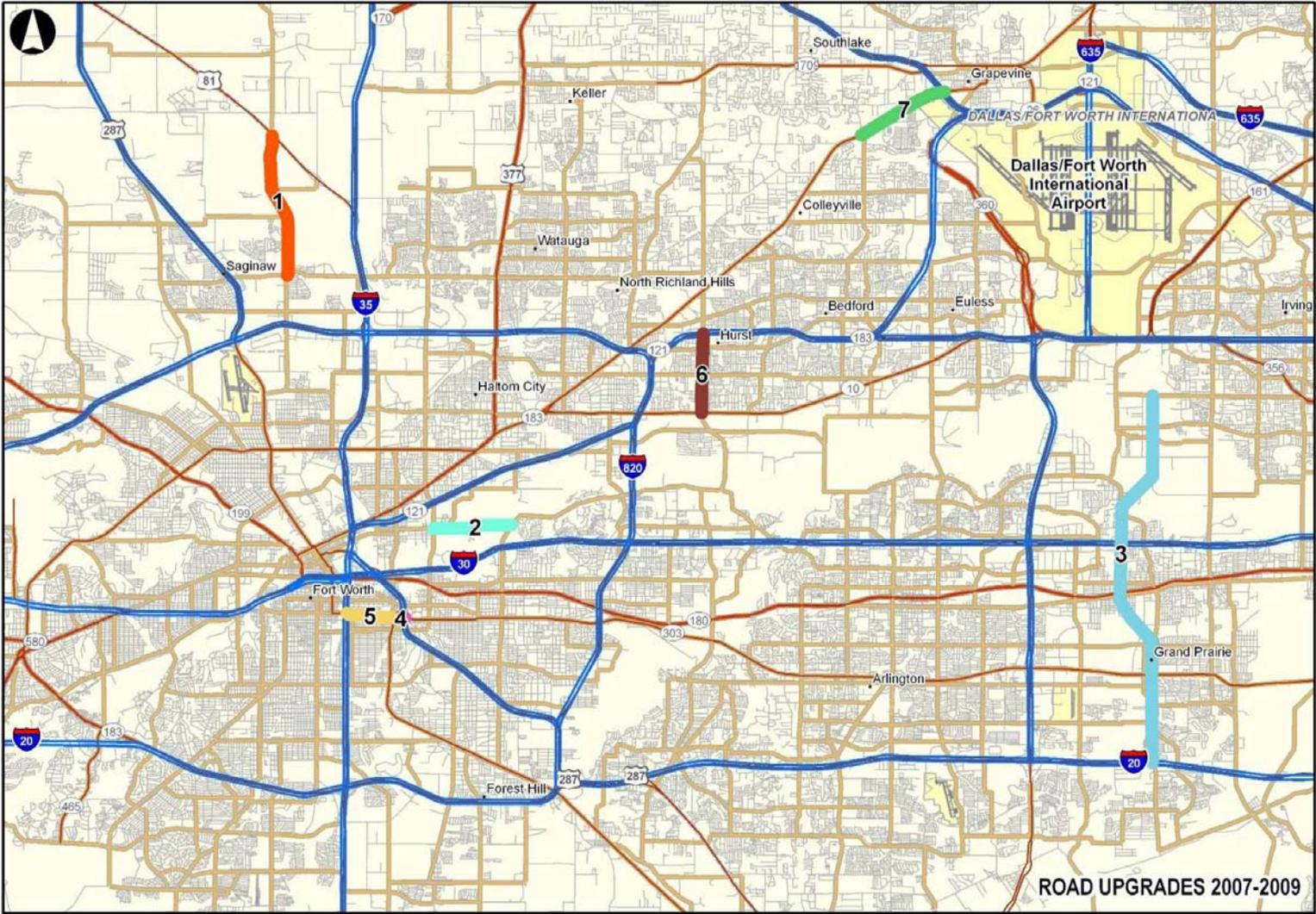


Table B-19: Planned Roadway Improvements 2009-2015

| ID | Project | Road Name | Road Section | | MTP Projects | | Year |
|-----|--|------------------------------|---------------------------------|---|--------------|---|------|
| | | | From | To | Previously | Upgraded Condition | |
| 1 | Dallas-Fort Worth Regional Outer Loop System | IH 20 (frontage roads) | Robinson Rd | FM 1382 | 0 lanes | 4/6 (FRTG) | 2015 |
| 2-1 | | IH 30 - Dallas County | SH 161 | East of MacArthur Blvd (frontage roads) | No Road | 4/6 (FRTG)) (TIP: LET: 2/2008) | 2015 |
| 2-2 | | IH 30 - Dallas County | SH 161 | Loop 12 | 6 lanes | 8 + 2/3 (HOV-R) | 2015 |
| 2-3 | | IH 30 - Dallas County | Loop 12 | IH 35E | 6 lanes | 8 + 2/3 (HOV-R) | 2015 |
| 3 | | IH 30 - Tarrant County | Cooper St | Ballpark Way | 6 lanes | 10 + 3 C-D (WB Only) + 2 (HOV-R) (8lanes tolled - TxDOT) | 2015 |
| 4 | Loop 12/IH 35E | Loop 12 | IH 35E | SH183 | 6 lanes | 8 + 2 (HOV-R) | 2015 |
| 5-1 | SH 114/SH 121 Funnel | SH 114 | Kimball Ave | SH 121 (W) | 4 lanes | 8 lanes separate managed freeway w/ 4 lanes - TxDOT) + 4 frontage roads email | 2015 |
| 5-2 | | SH 121 | IH 635 | SH 114 | 8 lanes | 10 + 9 C-D (TIP: 4 lane separate freeway LET: 8/2007) | 2015 |
| 5-3 | | SH 121 | SH 114 | SH 360 | 4 lanes | 6 + 7 C-D (TIP: 8/10 lane freeway, ramps & frontage LET: 9/2008) + 4 frontage rds email | 2015 |
| 5-4 | | SH 360 | SH 121 | Eules-Grapevine Rd | 4 lanes | 6 lanes | 2015 |
| 5-5 | | IH 635 | SH 121 | Royal Lane | 6 lanes | 10 lanes | 2015 |
| 6-1 | SH 121 Southwest Parkway | SH 121 | IH 30 | IH 20 | 0 lanes | 6 lanes toll | 2015 |
| 6-2 | | SH 121 | IH 20 | Altamesa Blvd | 0 lanes | 6 lanes toll | 2015 |
| 6-3 | | IH 30 | SH 121 | Henderson St | 6 lanes | 8 lanes | 2015 |
| 6-4 | | IH 30 | Henderson St | IH 35W | 8 lanes | 10 lanes | 2015 |
| 7-1 | | SH 161 | PGBT/Belt Line Rd | SH 183 | 4 lanes | 8 lanes | 2015 |
| 7-2 | | SH 161 | SH 183 | IH 30 | 0 lanes | 6 lanes toll | 2015 |
| 7-3 | | SH 161 | IH 30 | IH 20 | 0 lanes | 4 lanes toll | 2015 |
| 8-1 | | SH 161/SH 360 Toll Connector | SH 161 | Great Southwest Parkway (IH 20) | 8 lanes | 8 + 4 C-D toll | 2015 |
| 8-2 | | SH 161/SH 360 Toll Connector | Great Southwest Parkway (IH 20) | SH 360 (IH 20) | 8 lanes | 8 + 4 C-D toll | 2015 |
| 9-1 | | SH 170 | SH 114 | IH 35W | 6 (FRTG) | 4 lanes toll | 2015 |
| 9-2 | SH 170 | IH 35W | US 81/US 287 | | 6 lanes toll | 2015 | |

Source: Texas Department of Transportation (TxDOT) and North Central Texas Council of Governments (NCTCOG: Transport Improvement Programs and Mobility 2030)

Figure B-14: Planned Roadway Improvements 2009-2015

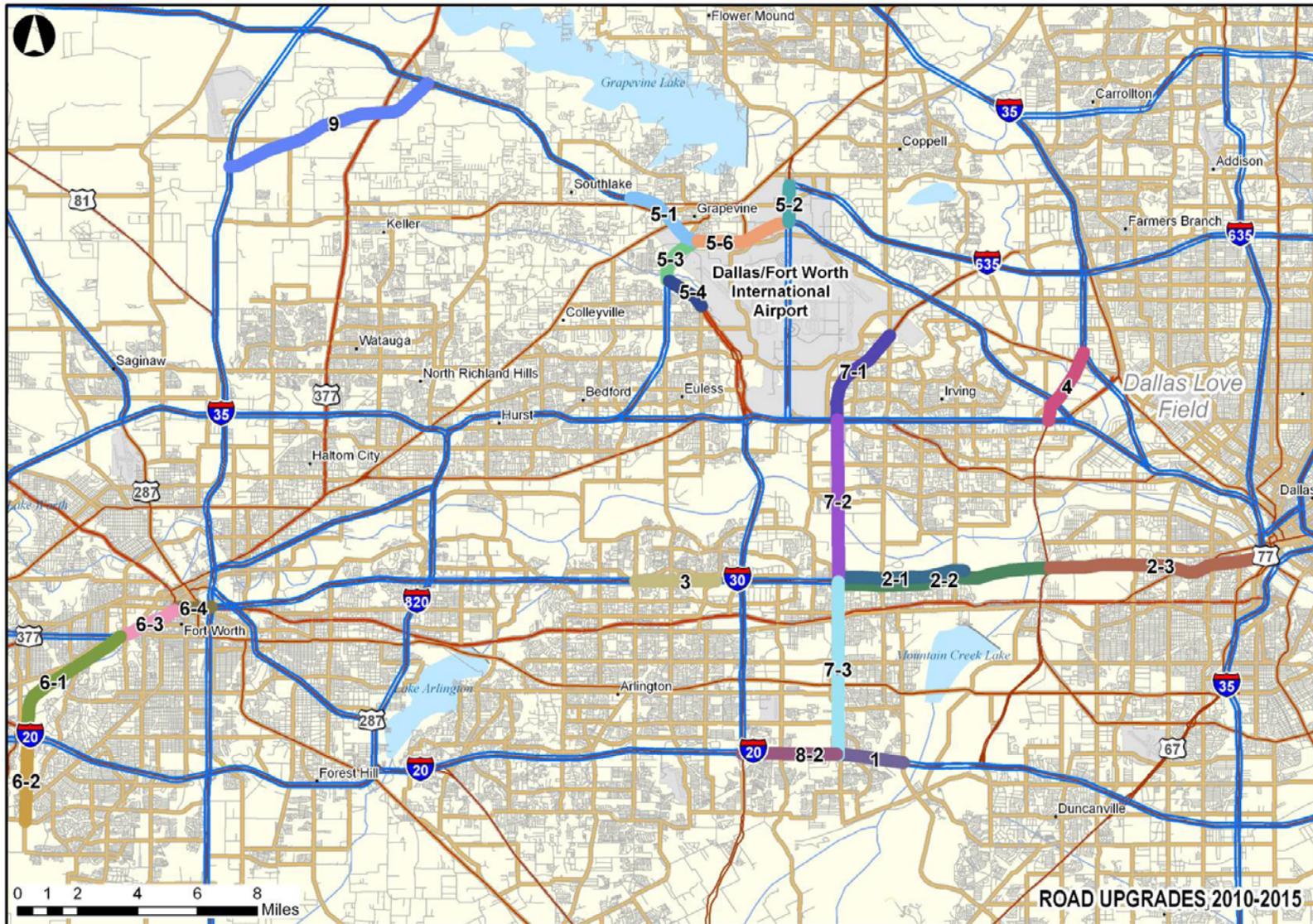
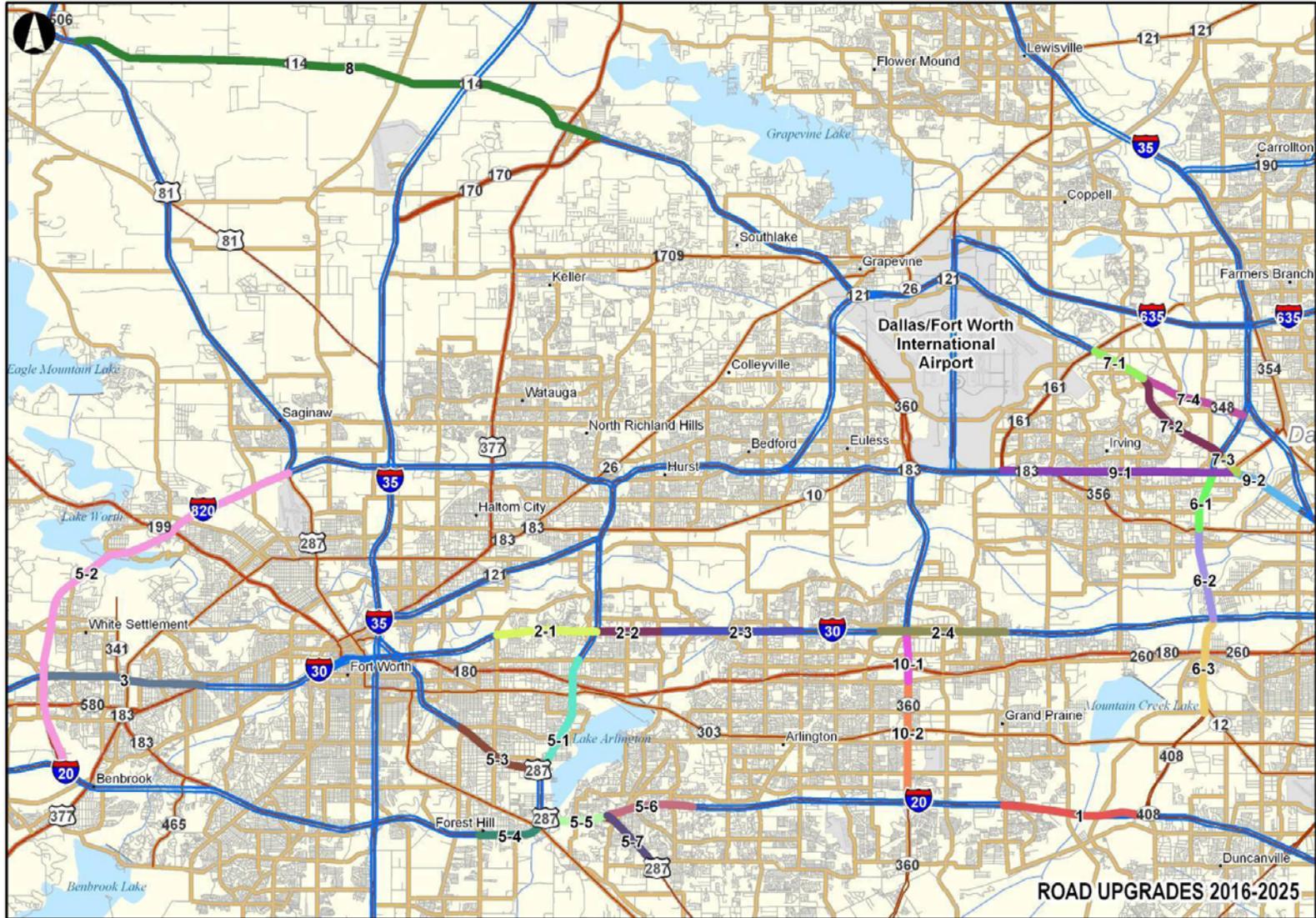


Table B-20: Planned Roadway Improvements 2016-2030

| ID | Project | Road Name | Road Section | | MTP Projects | | Year |
|------|--|--------------------------|-------------------|---------------------|---------------|---|------|
| | | | From | To | Previously | Upgraded Condition | |
| 1 | Dallas-Fort Worth Regional Outer Loop System | IH 20 - Dallas County | SH 161 | Spur 408 | 8 lanes | 10 lanes | 2025 |
| 2-1 | | IH 30 - Tarrant County | Oakland Blvd | IH 820 | 6 lanes | 8 lanes | 2025 |
| 2-2 | | IH 30 - Tarrant County | IH 820 | Cooks Lane | 6 lanes | 10 + 1 (HOV-R) | 2025 |
| 2-3 | | IH 30 - Tarrant County | Cooks Lane | Cooper St | 6 lanes | 10 + 2 (HOV-R) (8lanes tolled - TxDOT) | 2025 |
| 2-4 | | IH 30 - Tarrant County | Ballpark Way | SH 161 | 6 lanes | 10 + 2 (HOV-R) | 2025 |
| 3 | | IH 30 - West Freeway | Spur 580 | IH 820 (West) | 4 lanes | 6 lanes | 2025 |
| 4 | IH 30/US 80 East Corridor | IH 35E - "Northern Link" | PGBT | IH 635 | 6 + 2 (HOV-C) | 10 + 2 (HOV-R) + (2-3 frontage rds - TxDOT) | 2025 |
| 5-1 | IH 820 Southeast Corridor | IH 820/US 287 | Meadowbrook Drive | US 287 | 4 lanes | 8 lanes | 2025 |
| 5-2 | | IH 820/US 287 | US 287 | IH 20 | 8 lanes | 12 + 2 (HOV-R) | 2025 |
| 5-3 | | IH 820/US 287 | Berry St | IH 820 (US 287) | 6 lanes | 6 + 2 (HOV-R) | 2025 |
| 5-4 | | IH 20/US 287 | Forest Hill Drive | IH 820 | 8 lanes | 10 lanes | 2025 |
| 5-5 | | IH 20/US 287 | IH 820 | US 287 | 10 lanes | 14 + 2 (HOV-R) | 2025 |
| 5-6 | | IH 20/US 287 | US 287 | Park Springs Blvd | 8 lanes | 8 + 1 (HOV-R) | 2025 |
| 5-7 | | IH 20/US 287 | IH 20 | Sublett Rd (US 287) | 4 lanes | 4 + 1 (HOV-R) | 2025 |
| 6-1 | Loop 12/IH 35E | Loop 12 | SH183 | SH 356 | 6 lanes | 8 + 2 (HOV-R) | 2025 |
| 6-2 | | Loop 12 | SH 356 | IH 30 | 8 lanes | 8 + 2 (HOV-R) | 2025 |
| 6-3 | | Loop 12 | IH 30 | Spur 408 | 8 lanes | 8 + 1 (HOV-R) | 2025 |
| 7-1 | Project Pegasus | SH 114 - Dallas County | SH 121 | Spur 348 | 6 lanes | 8 + 4 (HOV-C) + 4 continuous frontage rd lanes | 2025 |
| 7-2 | | SH 114 - Dallas County | Spur 348 | Loop 12 | 4 lanes | 8 + 4 (HOV-C) + 4 continuous frontage rd lanes | 2025 |
| 7-3 | | SH 114 - Dallas County | Loop 12 | SH 183 | 4 lanes | 6 + 4 (HOV-C) + 4 continuous frontage rd lanes | 2025 |
| 7-4 | | SH 114 - Dallas County | SH 114 | Luna Rd (Spur 148) | 4 (ART) | 6 lanes | 2025 |
| 8 | | SH 114 - Denton County | IH 35W | SH 170 | 4 (FRTG) | 6 lanes | 2025 |
| 9-1 | SH 121 Southwest Parkway | SH 183 | SH 161 | SH 114 | 6 lanes | 8 + 4 (HOV-C) + (frontage - TxDOT) (TIP: LET: 1/2010) | 2025 |
| 9-2 | | SH 183 | SH 114 | Trinity Parkway | 8 lanes | 10 + 6 (HOV-C) | 2025 |
| 9-3 | | SH 183 | Trinity Parkway | IH 35E | 8 lanes | 6 + 2 C-D toll (3 concurrent managed lanes - TxDOT) | 2025 |
| 10-1 | | SH 360 | IH 30 | Abram St | 6 lanes | 8 lanes | 2025 |
| 10-2 | | SH 360 | Abram St | IH 20 | 6 lanes | 8 lanes | 2025 |

Source: Texas Department of Transportation (TxDOT) and North Central Texas Council of Governments (NCTCOG: Transport Improvement Programs and Mobility 2030)

Figure B-15: Planned Roadway Improvements 2016-2030



Tolling Integration

The NTE Segment Integration Plan will not be limited to just the physical characteristics of the surrounding transportation network. The tolling infrastructure must also be compatible with surrounding facilities. The toll collection system on NTE will be an all-electronic Toll Collection System (ETCS) that generates accurate toll transactions from either transponder or video transactions for all vehicles traveling through the Segments. Each Segment will be integrated into the information backbone provided in Concession Facility construction. The ETCS will be based on the vehicle classification and the mainlane and ramp tolling points and will not be designed or equipped to accept cash. Customers will be able to contact and conduct business with the NTTA Customer Service Center (CSC) in person, by phone or via the Internet. The ETCS hardware and software utilized will be the same at each toll zone on all Segments regardless of the location with only minor adjustments required due to site-specific geometrics.

The ETCS will be modular with an open architecture, composed of commercially available hardware components, so that as new technologies emerge and improved components come to market, they can be easily added or integrated into the system to improve performance and/or reliability. The ETCS will be designed with redundant components to minimize the risk of lost revenue due to system degradations or malfunctions and to meet or exceed industry, NEC, TxDOT and NTTA Standards and all CDA requirements. If there is a conflict between any of the standards and CDA requirements, the more stringent requirement will apply to the ETCS design. The ETCS shall be interoperable with all transponders issued by tolling authorities sanctioned by TxDOT. The ETCS host will be connected to and interface with the NTTA CSC host in accordance with the NTTA Interface Control Document (ICD).

The NTTA CSC and back office operations will receive and process all revenue transactions in accordance with the ICD and the Tolling Services Agreement. Services that NTTA will provide in accordance with the Tolling Services Agreement include:

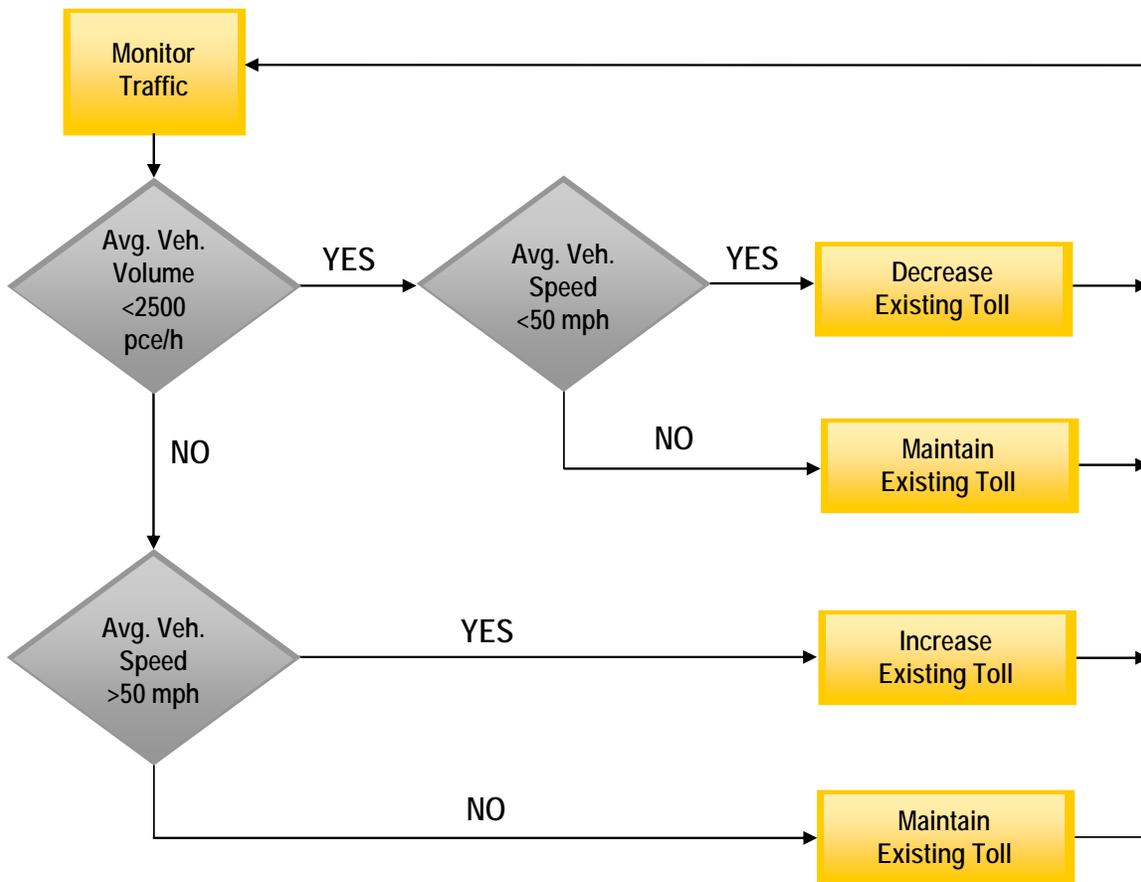
- ⊙ Utilizing and making available NTTA's existing CSC and handling customer inquiries and complaints.
- ⊙ Providing account management and other back office services.
- ⊙ Posting Toll Tag transactions to customer accounts.
- ⊙ Providing interoperability functions.
- ⊙ Processing video transactions.
- ⊙ Providing toll collection enforcement services, which shall include transmittal of violation notices, collection efforts (including, at NTTA's option, utilization of a third party collection agency) and other actions permitted by applicable Law (including court action) and in accordance with the Performance Standards and the practices and procedures that NTTA follows in respect of its own facilities.
- ⊙ Making payments to the developer for Video Transactions and Toll Tag Transactions

All services provided by NTTA shall be in accordance with the Toll Services Agreement between NTTA and the Developer and meet the service performance standards.

Managed Lane Operations – It is assumed that operations for the Segment 2-4 managed lane system will follow a very similar schedule to that which is provided for the Concession Facility. For the initial 180 days, the managed lanes will operate in schedule mode. Under this schedule mode, tolls will be static and will

only be adjusted every month in response to changes in demand on the managed lanes. After the initial period, congestion pricing will be implemented where the tolls on the managed lanes will be changed up or down dynamically, based on detected speeds and/or travel time differentials between the managed lanes and the adjacent general purpose lanes. The ITS Radar Traffic Management Sensors (RTMS) will monitor speed and volume. These will be integrated into the ETCS to determine speed and volume differential between the general purpose lanes and the tolled lanes. Tolls will be automatically adjusted based on established parameters. For example, if the managed lanes are operating at higher speeds and lower volumes than the general purpose lanes, the tolls will be progressively decreased to increase the attractiveness of the managed lanes and alleviate the burden on the general purpose lanes. A balance is eventually reached between travel time and cost of the trip on the managed lanes. Conversely, if the managed lane speeds are lower and the volumes are equal to or higher than the free lanes, then the tolls are progressively adjusted upward to maintain the same equilibrium. See Figure B-16 for a graphical depiction of the operational toll adjustment based on managed lane traffic characteristics.

Figure B-16: Tolling Operations Flowchart



B.7 Right-of-Way Process

Corridor Preservation Techniques

A “corridor” is defined as “the path of a transportation facility that already exists or may be built in the future.” The American Association of State Highway and Transportation Officials (AASHTO) defines corridor preservation as “a concept utilizing the coordinated application of various measures to obtain control of or otherwise protect the Right of Way for a planned transportation facility.” These techniques are described briefly below.

Options to Purchase

To preserve future potential NTE Facility locations, TxDOT may enter into an agreement with a willing landowner for an option to purchase the property at a future date. For this option, the landowner will be paid a fee and forgo additional development on the property. The option period is limited to a maximum of five years, but may be renewed. If TxDOT chooses to buy the land, the landowner would be paid an additional sum based on the fair market value of the property. The price of the land can be negotiated at the time of the purchase of the option and signing of the contract, or if the parties would rather wait, the price can be established by an appraisal methodology to be described in the option contract and utilized at the time the option is exercised and the property actually purchased. The State cannot use eminent domain to acquire options.

Access Management

Access management is a cooperative effort between TxDOT and local municipalities to effectively manage land use with transportation efficiency and safety along corridors on the State Highway system. Access management can be effectively applied to planned or existing transportation facilities. Access management is especially important in the preservation of capacity on existing transportation facilities.

There exists a definite opportunity to generate revenue dedicated specifically to NTE Corridor development. A portion of the tax revenue created from the incremental increase of property value at parcels adjoining the ROW of improved NTE Segments could be potentially apportioned to Corridor expansion and/or maintenance. The viability of this tax reinvestment zone concept will be highly dependent on the final financial profile of each Segment, the condition of the adjacent ROW and coordination with local municipalities. For example, if a Segment exhibits a self-sufficient revenue profile, it will not be necessary to explore such an option.

Although significant unknown factors certainly exist about a financing source of this type, this is an example of the kind of creative value capture opportunities that the NTEMP team plans to jointly explore and coordinate with TxDOT during the MDP and MFP process.

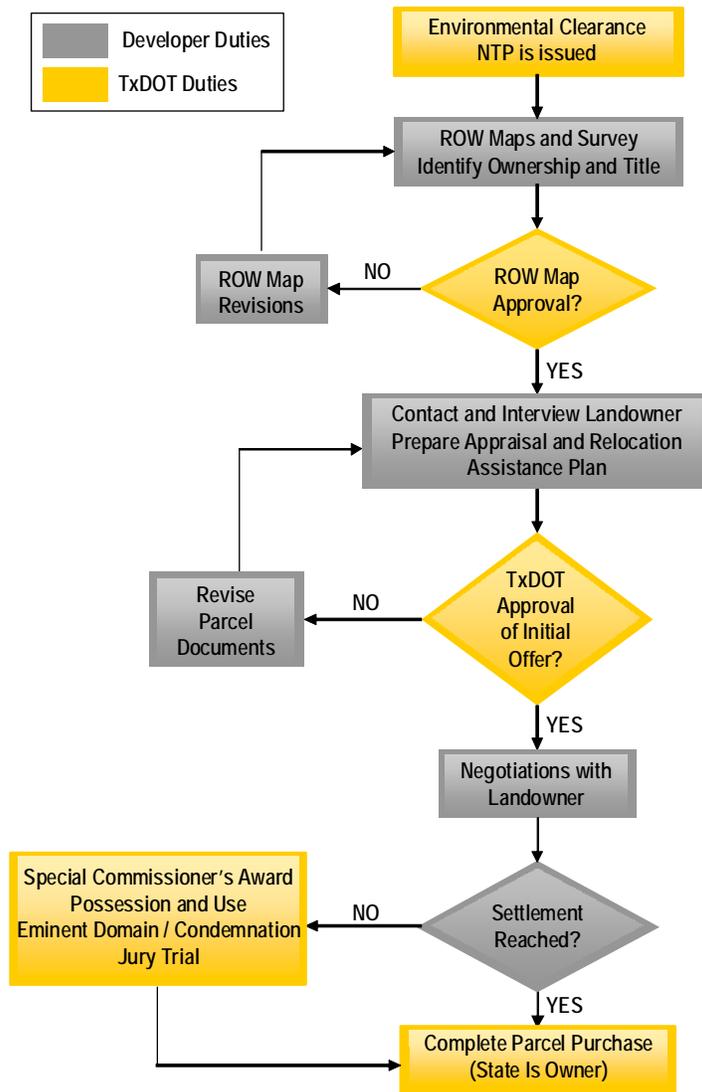
The ROW acquisition process

The ROW acquisition process for NTE Segments 2-4 must follow the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the Uniform Act or URA), and all current amendments to the Uniform Act. All current TxDOT regulations, policies and procedures, as set forth in its *Right of Way Manual*, and used in the acquisition process for all roadway and/or highway projects, will be

applicable. Other Federal and State laws, where applicable, will also be observed. Figure B-9 depicts this process.

TxDOT will oversee ROW acquisition procedures, and the State of Texas will be the record titleholder (owner) to all ROW acquired for a Facility. NTEMP may perform certain functions of the ROW acquisition process as a quasi-agent for TxDOT to complete the purchase of all real property or real property interests in a proposed Segment.

Figure B-9: ROW Acquisition Process



B.8 Phasing and Sequencing Report

The vision for the NTE Project is to deliver a new viable transportation network as soon as possible to help relieve existing congestion and improve safety. The main criterion for prioritizing the Segments is

minimizing the use of public funds and opening the facilities as soon as possible. An important component of Segment sequencing is a review of the potential month-by-month “burn rate” of activities as a check on overloading the local industry. Figure B-17 displays NTEMP’s proposed Segment development cost distribution in a graph over time. Resource leveling of the “peaks” within this graph will be an evaluation component of the sequencing report alongside the more traditional drivers of phased Segment development such as overall financial sustainability.

Figure B-17: Segment Development Cost Distribution

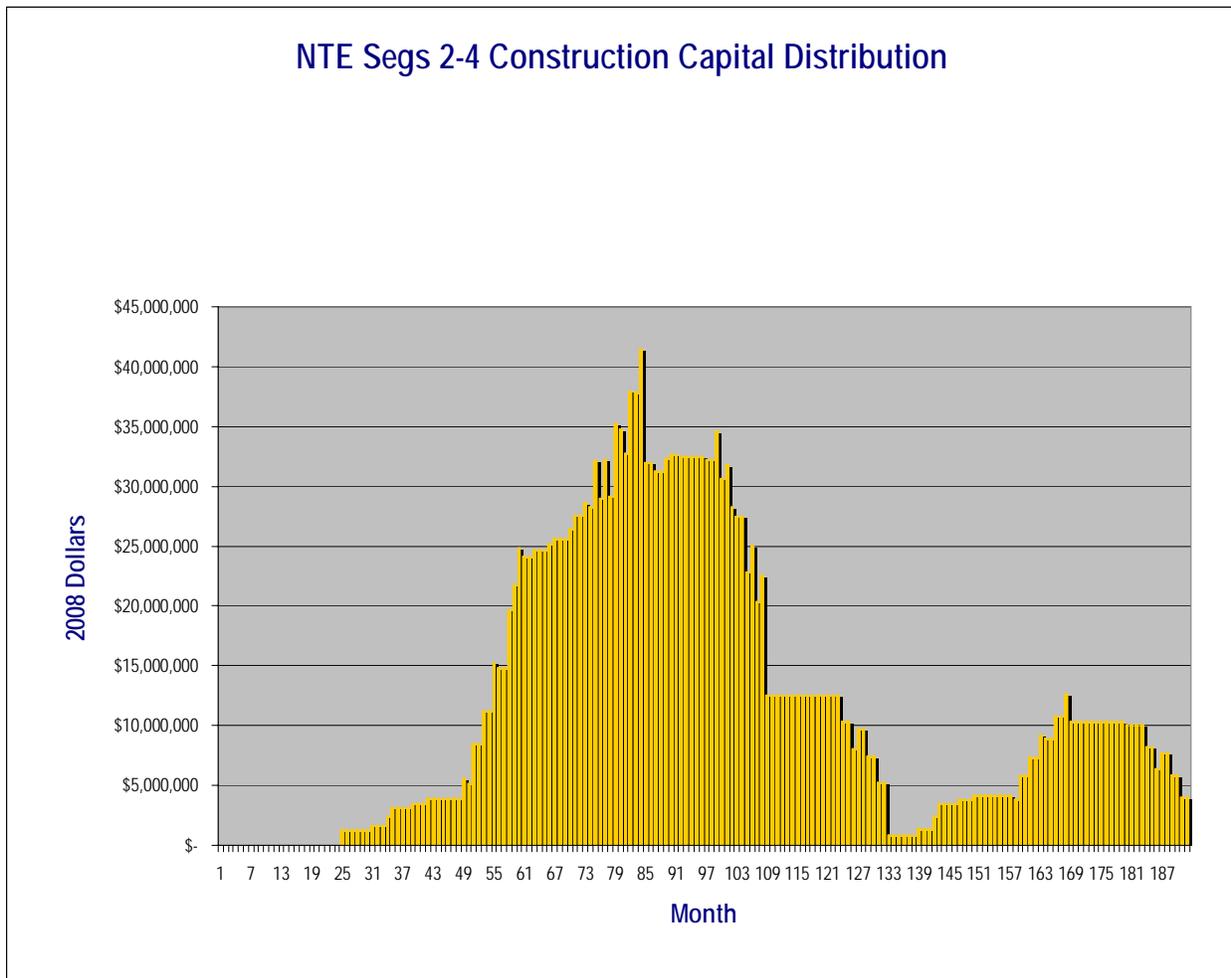


Table B-21 presents anticipated key dates for the ISOW period and the transition into development of the first of the Segments to be delivered.

Table B-21: Anticipated Key Project Dates

| NTE SEGMENTS 2-4 - INITIAL KEY PROJECT DATES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|---|---|------|---|---|------|---|---|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2009 | | | 2010 | | | 2011 | | | 2012 | | | | | | | | | | | | | | | | | | | | | |
| ISOW and Segment Development Milestones | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J |
| NTP 1 Segs 2-4 CDA | ★ March 31, 2009 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TxDOT Approval of Consolidation of PMP/QMP | ★ June 5, 2009 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TxDOT Approval of ISOW Schedule / Issuance of ISOW NTP 2 | ★ June 5, 2009 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Begin Segments 2-4 - ISOW Milestones 2-4 | ★ June 5, 2009 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FONSI Expected for 3A, 3B, 3C | ★ October 15, 2009 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| End of Environmental Challenge Period for 3A, 3B, 3C | ★ April 15, 2010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MDP Acceptance / End of ISOW | ★ September 24, 2010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Developer Issues Segment Ready for Development Letters | ★ October 1, 2010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TxDOT Approves Ready for Development Letters / Facility NTP 1 | ★ November 1, 2010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| First Facility FIP Prepared and Submitted (80 days assumed) | ★ January 1, 2011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIP Approval / Facility NTP 2 | ★ March 1, 2011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| End of Facility Development Work (120 days assumed) / Facility NTP 3 | ★ July 1, 2011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Financial Close (Facility NTP 3 + 45 days) | ★ September 15, 2011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

The flowchart in Figure B-18 shows the major milestones leading to Segment delivery following completion of the MDP.

Figure B-18: Key Tasks to Completion



When deemed Ready for Development, detailed activities for the individual segments will essentially follow the typical WBS activities provided in Figure B-19.

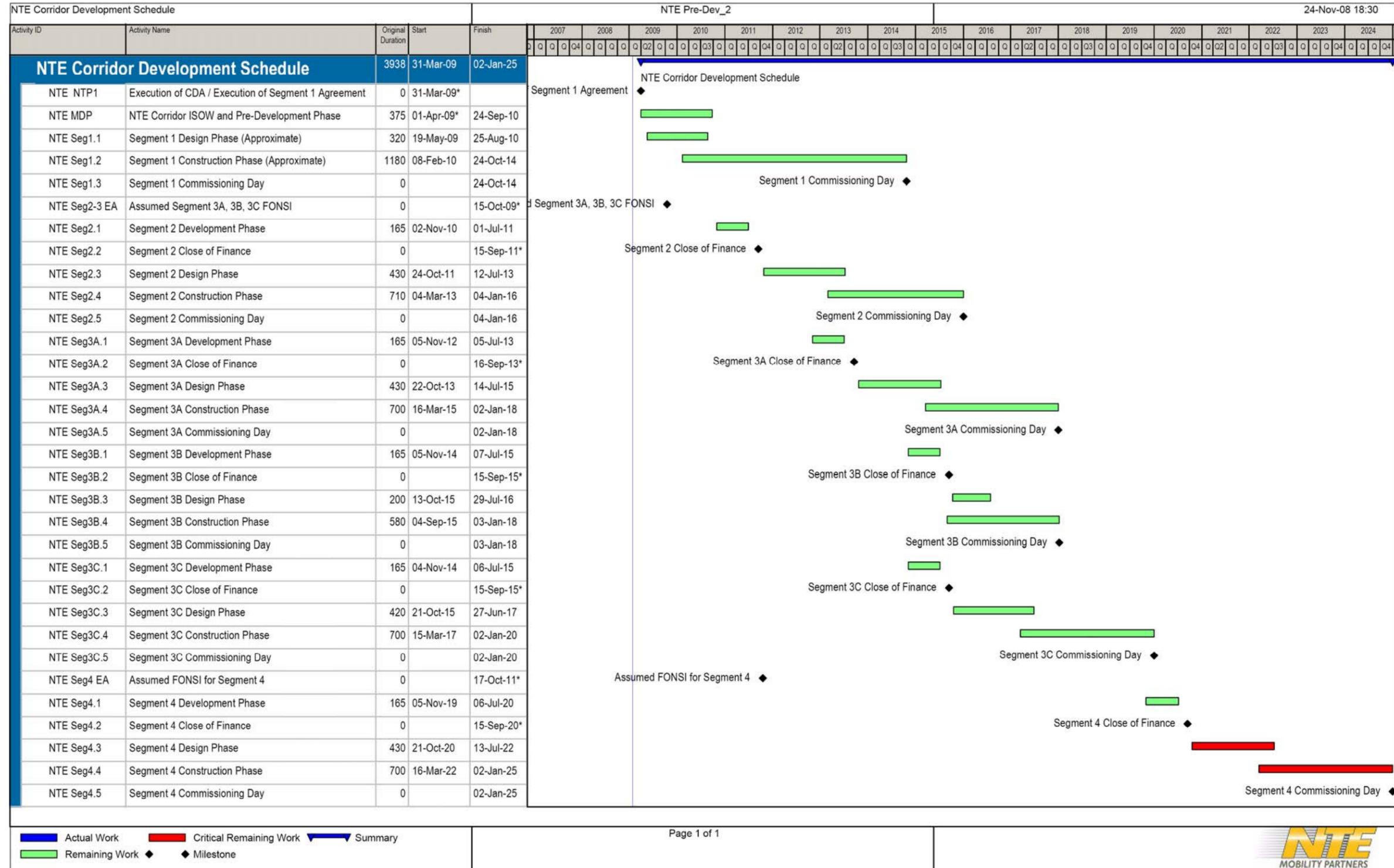
Summing the assumed tasks required for the overall development for each of the Segments and factoring in the preliminary perceived benefits to the overall corridor, NTEMP has created a Conceptual Phasing Schedule for the Project (Figure B-20) NTEMP believes this overall plan best delivers all NTE Segments in their entirety and in the most efficient manner – thereby providing the most benefit to the driver. This schedule assumes self-performance by NTEMP to deliver each Segment. Should certain Segments be delivered with other methods, the schedule could be significantly different. It is important to note that under this conceptual plan NTEMP expects that no additional public subsidy will be utilized for the development costs of Segments 2, 3A, 3B, 3C and 4.¹

¹ Per Section 4.2.2, Exhibit D of the Instructions to Proposers

Figure B-19: Conceptual Segment WBS

| | | |
|-------------|--------------------------------------|--|
| 04 | Segments 2-4 (Typical) | This element includes all items required for a prototype typical Segment that has been identified |
| 04.01 | Pre-Agreement | This element includes the work required from the agreement that a Segment is Ready for Development until a Facility Agreement has been reached |
| 04.01.01 | FIP Preparation | This element includes the development of the Facility Implementation Plan document. It identifies all work that will be accomplished during the FIP and will combine elements of T&R, schematic design, and financial analysis. |
| 04.01.02 | FIP Performance | This element includes the work that was identified in the FIP agreement |
| 04.01.03 | Traffic and Revenue | This element includes the work necessary to prepare traffic projections, and the associated revenue from that traffic |
| 04.01.03.01 | Traffic Modeling | This element includes the work necessary to develop traffic projections into the future for the expected life of the Segment under the CDA. For automobile and truck Facilities, the traffic projections will begin based on the Texas Statewide Analysis Model (SAM) or NCTCOG's regional model, and then be refined by a more detailed study by an independent T&R Engineers |
| 04.01.03.02 | Revenue Projections | This element includes the estimation of potential revenue stream from the users fees, pass-through tolling, lease or other source |
| 04.01.04 | Schematic Design | This element includes the work necessary to prepare segment schematic design plans to be Development-Ready. This includes potentially optimizing a configuration for financial feasibility or splitting into sub-segments for phased implementation. |
| 04.01.05 | Financial Analysis | This element includes the work to combine the Facility's costs and potential revenues with available funding sources |
| 04.01.05.01 | Financial Modeling | This element includes the combination of the Facility's costs and potential revenue over the life of the Facility to determine the basic balance sheet for the Facility |
| 04.01.05.02 | Funding Sources | This element includes the identification of all potential funding sources for the Segment |
| 04.01.06 | Facility Agreement | This element includes the work to develop and negotiate the Facility Agreement that will bind the State and the Developer together for a particular Facility |
| 04.02 | Segment Delivery | This element includes the work to design and construct the facility |
| 04.02.01 | Right-of-Way | This element includes the work necessary to acquire real property in the name of the State of Texas to be able to construct the Segment |
| 04.02.01.01 | ROW Determination | This element includes the work necessary to delineate the ROW required for the Segment. This will be based on the preliminary design schematics |
| 04.02.01.02 | ROW Documents | This element includes the development of the ROW Maps, Legal Descriptions and Parcel Exhibits necessary for ROW acquisition |
| 04.02.01.03 | ROW Acquisition | This element includes the work necessary to acquire the real property in the name of the State of Texas. This includes the appraisal of the property, offer, legal transfer, and potential required condemnation procedures |
| 04.02.02 | Design and Engineering | This element includes the engineering effort to fully design the Segment for construction |
| 04.02.02.01 | Utilities | This element includes the design work necessary to relocate utilities in conflict with the Segment and to design the utilities necessary to serve the Segment |
| 04.02.02.02 | Earthwork | This element includes the design of all earthwork and grading necessary for the Segment |
| 04.02.02.03 | Roadways | This element includes the design of all roadways including mainlanes, ramps, frontage roads and cross streets that are a part of the Segment |
| 04.02.02.04 | Drainage | This element includes the design of all drainage including culverts, open channels and closed pipe systems necessary for the Segment |
| 04.02.02.05 | Structures | This element includes the design of all structures including overpasses, underpasses, water crossing bridges and major interchanges required for the Segment |
| 04.02.02.06 | Signing/Striping | This element includes the design of traffic-related signing and striping required for the Segment |
| 04.02.02.07 | Signals and Illumination | This element includes the design of traffic signals, and illumination including safety lighting, overpass and underpass lighting and high mast lighting required for the Segment |
| 04.02.03 | Construction | This element includes the construction of the Segment |
| 04.02.03.01 | Utilities | This element includes the construction of all utilities in conflict with the Segment and the utilities necessary to serve the Segment |
| 04.02.03.02 | Earthwork | This element includes the earthwork and grading necessary for the Segment |
| 04.02.03.03 | Roadways | This element includes the construction of all roadways including mainlanes, ramps, frontage roads and cross streets that are a part of the Segment |
| 04.02.03.04 | Drainage | This element includes constructing all required drainage features including culverts, open channels and closed pipe systems necessary for the Segment |
| 04.02.03.05 | Structures | This element includes constructing all required structures including overpasses, underpasses, water crossing bridges and major interchanges for the Segment |
| 04.02.03.06 | Signing/Striping | This element includes constructing the traffic-related signing and striping required for the Segment |
| 04.02.03.07 | Signals and Illumination | This element includes constructing of traffic signals, and illumination including safety lighting, overpass and underpass lighting and high mast lighting required for the Segment |
| 04.02.04 | Testing and Commissioning | This element includes all testing and checkout for the Segment |
| 04.02.04.01 | Individual Systems Test / Checkout | This element includes the testing and checkout of individual systems on the Segment |
| 04.02.04.02 | Integrated Test / Checkout | This element includes the testing and checkout of all integrated systems on the Segment |
| 04.02.04.03 | Operational Checkout / Commissioning | This element includes the operational checkout and commissioning of the entire Segment immediately prior to opening |
| 04.02.05 | Operation and Maintenance | This element includes the work required after the Segment is constructed and commissioned |
| 04.02.05.01 | Administration | This element includes the day to day activities of administering the Segment. This includes any toll collection and cash control for the Segment |
| 04.02.05.02 | Operation | This element includes the operation of the physical Segment itself. This includes staffing toll collection lanes, call centers, safety response teams |
| 04.02.05.03 | Maintenance | This element includes the routine and emergency repair and maintenance during the life of the Segment |

Figure B-20: Conceptual Combined Schedule of Project Delivery



B.9 Complete Master Development and Update Plan

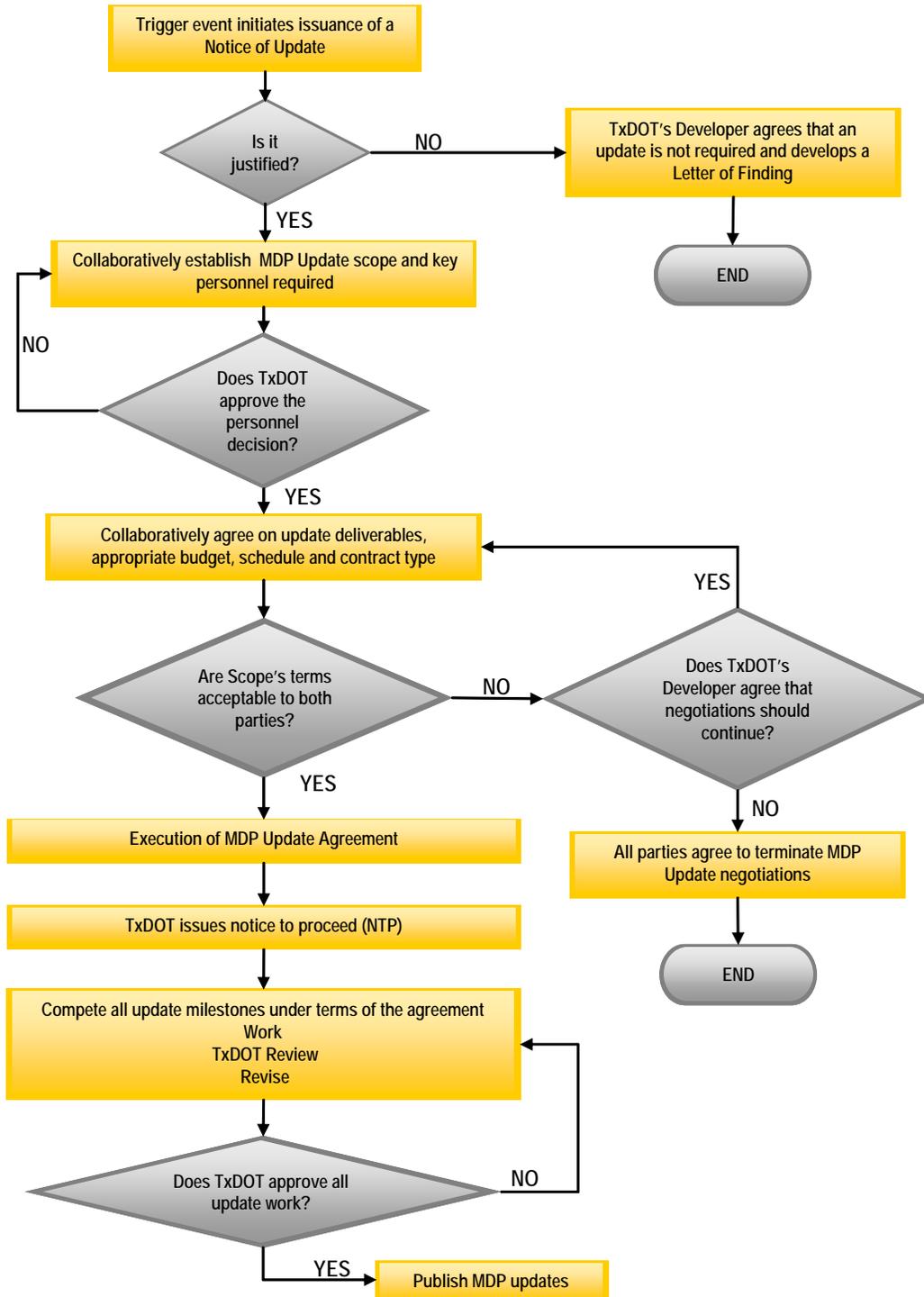
ISOW Milestones 2-6 will contain much more detailed analysis of the steps outlined in the preceding Conceptual Development Plan sections. The culmination of the ISOW findings will ultimately be the MDP and, a component of which, the MFP. The contents of each chapter will largely follow the major developer deliverables within each Milestone. However, this is not set in stone. The NTEMP MDP and MFP Managers will jointly determine with TxDOT the final configuration of these corridor planning documents (within the confines of the CDA). The ultimate goal of NTE Corridor development should not be lost sight of during the planning process. The result of the Master Development Plan must justify the means taken to achieve it.

As corridor conditions change (e.g. physical changes to the surrounding network, drastic market changes, etc) it is probable the MDP will require updates. NTEMP and TxDOT will determine under which circumstances the NTEMP will be updated. Likely, specific triggers will be identified, such as close of finance, and substantial completion of individual Segments, to revisit the edition or supplement, depending on the extent of changes. Potential update triggers may include:

- ⊙ Material changes in the financial analysis.
- ⊙ Material changes in highway and rail usage demand or other requirements.
- ⊙ Major environmental, planning or permitting approvals or changes.
- ⊙ Material changes to TxDOT's Unified Transportation Plan.
- ⊙ Material MPO information and STIP submissions.
- ⊙ Material changes in local government requirements and needs.
- ⊙ Material changes in the regional or national economy, demographic patterns and trends, and political concerns.
- ⊙ Material changes in the assumptions used to develop the current MDP.
- ⊙ Material changes or characteristics of a Facility.
- ⊙ One or more Segment(s) identified in the MDP, or newly identified by either party, to become Ready for Development.
- ⊙ Change in Texas law establishing a departure from the existing CDA process or prohibiting terms outlined in the current NTE MDP.
- ⊙ A significant change in US law pertaining to federal highway funding or public financing.
- ⊙ Changes in interest rate climate, inflation rates, tax regulation.
- ⊙ Changes in the climate for private investment.
- ⊙ Material changes in the assumptions used to develop the current financial analysis.

Figure B-21 is a flowchart illustrating the envisioned process for updating the MDP.

Figure B-21: MDP Update Process



C. CONCEPTUAL FINANCIAL PLAN

C.1 Conceptual Financial Plan

Introduction and Overview

NTE Mobility Partners is pleased to submit to TxDOT this Conceptual Financial Plan that supports a fast-track delivery of Segments 2-4 *without a request for additional State Funds*. The Plan was developed by a team with extensive experience in financing and developing similar infrastructure projects. Cintra, Meridiam, J.P. Morgan, Earth Tech and Maunsell are world leaders in their fields of expertise. These companies have combined forces to deliver a plan that efficiently combines debt and equity under an innovative financing scheme and allocates risk in a balanced way while maintaining internal consistency to other parts of the Master Financial Plan (MFP). NTE Mobility Partners understands that TxDOT is seeking a partner that can fast-track the construction of all the remaining Segments, maximize private participation and minimize the use of public funds. In this Conceptual Financial Plan, NTEMP presents a comprehensive financing and execution structure representing almost \$2.6 billion in capital expenditures, supported by a combination of senior bank debt, TIFIA loan and over \$829 million of private equity contributions.

NTEMP views this project as a long-term partnership with TxDOT, especially with respect to its development and financing objectives, namely:

- ⦿ maximizing competitive tension across all levels of debt structuring and procurement;
- ⦿ providing the lowest all-in cost of financing, resulting in the elimination of the public funding requirement;
- ⦿ streamlining project development, accelerating completion of all remaining Segments requested by TxDOT;
- ⦿ maximizing private commitment to the projects through the investment of substantial private equity;
- ⦿ ensuring achievement of financial close and minimizing exposure of the Project to market volatility while retaining the ability to maximize benefit to the public sector;
- ⦿ allocating risks to those best and most economically able to mitigate them to maximize value for money
- ⦿ providing flexibility of funding sources to react to market changes or changes in the Facilities; and
- ⦿ seeking the active participation of local stakeholders such as pension funds and local investors and local authorities in financing, development and operations of future Segments.

Based on preliminary corridor Traffic and Revenue analysis, capital investment requirements and operating and maintenance costs, NTE Mobility Partners has developed a conceptual financial plan that:

- ⦿ **Improves Facilities with No State Fund Contributions.** Through a combination of innovative technical solutions and a reliance on optimization of traffic flows developed by the initial CDA, this plan is fully feasible without further state funds contribution. This harmonized approach, by using a balanced

phasing of the facility Segments, progressively and unlimitedly enhances the original leverage of the already invested public funds. By delivering these improvements to the region at no cost to TxDOT or the State, NTEMP fully commits to supporting TxDOT’s vision and enabling policymakers to shift funding to other necessary developments in the region. The anticipated means of finance have weathered the recent credit crunch that has roiled global markets.

- ⊙ **Utilizes Established Financing Structures:** The Conceptual Financial Plan utilizes creative and sound financing structures that are highly utilized in the project development / finance. The combination of senior debt, bank loans, TIFIA Loan and private equity are balanced and robust.
- ⊙ **Provides a Sound Strategy for Long-Term Implementation:** The CFP contemplates a project delivery strategy that extends from 2010 through 2025. While project costs will be solidified over time and financing vehicles will vary depending on the market, NTEMP is confident that it can execute this plan over a long timeframe and manage its commitments prudently.
- ⊙ **Reflects NTEMP’s Industry Leading Financial Expertise:** The Cintra/Meridiam team and its partners bring unparalleled financing expertise that has delivered projects in Texas, around the U.S., and all over the world. Cintra and its affiliates are leading efforts for the Master Financial Plan for TTC-35 and constructing SH 130 Segments 5 and 6 in Texas. In addition to that, Cintra successfully closed the financing and currently operates the Chicago Skyway Bridge and the Indiana Toll Road. Meridiam is a leading infrastructure private equity firm with a footprint on two continents and a well-regarded management team. Assisting them are construction and engineering firms, financial institutions and other consultants that bring to bear leadership in public-private partnerships and their attendant financing structures.

Table C-1 summarizes all the Segments detailing the financing and delivery method, construction start date, initial construction costs and equity investment to be made.

Table C-1: Facility Financing and Delivery Methods

| Facility | Facility Financing | Delivery Method | Self-perform | Initial Construction Date | Initial Construction Costs | Equity Investment | Public Funds |
|--------------------|--------------------|-----------------|--------------|---------------------------|----------------------------|-------------------|--------------|
| Segment 2E | \$ 527.5 | CDA | Yes | 1/1/2011 | \$ 586.1 | \$ 212.1 | \$ 0 |
| Segments 3AB and 4 | \$ 1,427.3 | CDA | Yes | 1/1/2013 | \$ 1,574.2 | \$ 398.1 | \$ 0 |
| Segment 3C | \$ 415.3 | CDA | Yes | 1/1/2015 | \$ 516.3 | \$ 219.2 | \$ 0 |
| Total | \$ 2,370.1 | | | | \$ 2,676.6 | \$ 829.4 | \$ 0 |
| <i>Segment 3A</i> | <i>\$ 644.3</i> | <i>CDA</i> | <i>YES</i> | <i>1/1/2013</i> | <i>\$ 819.1</i> | <i>\$ 330.3</i> | <i>NA</i> |

| | | | | | | | |
|-------------------|-----------------|------------|------------|-----------------|-----------------|-----------------|-------------|
| <i>Segment 3B</i> | <i>\$ 206.4</i> | <i>CDA</i> | <i>Yes</i> | <i>1/1/2014</i> | <i>\$ 228.8</i> | <i>\$ 120.6</i> | <i>\$ 0</i> |
| <i>Segment 4</i> | <i>\$ 0.0*</i> | <i>CDA</i> | <i>YES</i> | <i>1/1/2020</i> | <i>\$ 526.4</i> | <i>\$ 550.9</i> | <i>NA</i> |

Note: Segments 3A, 3B and 4 are shown individual for reference only. CFP is to combine them as shown above.

* Segment 4 does not support financing as a stand alone project, though it has to be combined as propose to achieve financial sustainability.

C.1.1 Anticipated Funding for Segment 2-4 Facilities

NTEMP anticipates the funding plans for the Segments 2-4 Facilities to be similar to that developed for and the Concession Facility. The base funding plan includes a combination of Senior Bank Debt with cash-funded Debt Service Reserve Funds (“DSRF”) or Liquidity Facility, Subordinated TIFIA Loan, and Concessionaire Equity. Table C-2 summarizes the anticipated funding mix detailed by Segment.

Table C-2: Funding Mix by Segment

| Facility | Total Initial Facility Cost | Senior Bank Debt (\$ MM) | TIFIA Loan (\$ MM) | Concessionaire Equity (\$ MM) | Public Funds (\$ MM) |
|-----------------------|-----------------------------|--------------------------|--------------------|-------------------------------|----------------------|
| Segment 2E | \$ 586.1 | \$ 273.0 | \$ 238.0 | \$ 212.1 | \$ 0 |
| Segments 3A, 3B and 4 | \$ 1,574.2 | \$ 986.3 | \$ 411.0 | \$ 398.1 | \$ 0 |
| Segment 3C | \$ 516.3 | \$ 200.0 | \$ 200.0 | \$ 219.2 | \$ 0 |
| Total | \$ 2,676.6 | \$ 1,459.3 | \$ 849.0 | \$ 829.4 | \$ 0 |
| <i>Segment 3A</i> | <i>\$ 819.1</i> | <i>\$ 310.0</i> | <i>\$ 310.0</i> | <i>\$ 330.3</i> | <i>NA</i> |
| <i>Segment 3B</i> | <i>\$ 228.8</i> | <i>\$ 100.0</i> | <i>\$ 100.0</i> | <i>\$ 120.6</i> | <i>\$ 0</i> |
| <i>Segment 4</i> | <i>\$ 526.4</i> | <i>\$ 0.0</i> | <i>\$ 0.0</i> | <i>\$ 550.9</i> | <i>NA</i> |

Note: Segments 3A, 3B and 4 are shown individual for reference only. CFP is to combine them as shown above.

C.1.2 Rationale for Use of Funding Sources

Senior Bank Debt with Cash-funded Debt Service Reserve Funds or Liquidity Facilities

NTEMP is working with a group of commercial banks to provide direct bank financing for the NTE Financing Plan. These banks have extensive experience working on public-private partnerships of this nature, and have worked closely with team members of NTEMP in the past. It is assumed that these banks will also participate in the projects outlined in the CDP. Senior Bank Debt will be provided by international commercial banks, secured solely by a lien on net project revenues. General Bank Debt characteristics include:

- ⊙ Bullet Term Maturity subject to negotiated cash sweeps during operations;
- ⊙ Debt Service Reserve Fund or Liquidity Facility available during operations to cover operating shortfalls including Senior Bank Debt interest;
- ⊙ Major Maintenance Reserve Account of CAPEX Facility available during construction and early operations to meet capital expenditure;
- ⊙ Floating or Fixed interest rate options
- ⊙ Taxable interest rates
- ⊙ Prepayment / refinancing flexibility at any time

Table C-3 summarizes the assumed market terms for Senior Bank Debt Facility utilized for the Conceptual Financing Plan.

Table C-3: Assumed Market Terms for Senior Bank Debt Facility

| Instrument | Senior Bank Debt |
|-----------------------------|--|
| Gearing | Maximum (70%) |
| Final Maturity | 10 Years |
| Principal Grace Period | Up to five years after Construction Completion |
| Mandatory Repayment Profile | Principal repayment to produce level debt service in years 11 through 20 after initial loan term |
| Front-end fee to Arrangers: | 1.5% of loan amount |
| Commitment Fee: | 40% of applicable margin of daily amount of then available commitments under Multi-Purpose Facility, Capex Facility, and Liquidity Loan Facility |
| Interest Rate basis: | Floating LIBOR (swapped by commercial banks) SWAP margin: 0.10% |

| Instrument | Senior Bank Debt |
|---------------------------------|---|
| Margin (p.a.): | Construction Period 2.0% Years 8-9: 2.25% Year 10: 2.5% The applicable margin for a Liquidity Loan will be the same as the Construction Loan |
| Availability Period: | Multi-Purpose Facility will be available to be drawn from Financial Close until one year following the last Service Commencement Date. Capex Facility (if needed) will be available to be drawn on a revolving basis from Financial Close until the ten-year anniversary of Financial Close. A Liquidity Loan Facility (if needed) will be available to be drawn on a revolving basis from Substantial Completion until the ten-year anniversary of Financial Close. |
| Capitalization Period | 100% of interests capitalized during the Construction Period |
| Debt Service Reserve Facility | A reasonable cash funded reserve will be required in lieu of a Liquidity Facility. Reasonable reserve assumed to be one year of debt service on both senior and subordinate (TIFIA) debt. |
| Maintenance Reserve Account | Funded from cash flow to smooth capital expenditure post-completion |
| Restricted Payments | No distribution to Equity Participants while ADSCR below 1.30x |
| Mandatory Cash-Sweep | From the sixth year of the Operating Period, 100% of the Free Cash Flow available after mandatory TIFIA repayments will be applied to prepay Senior Loans |
| Annual Debt Service Cover Ratio | Minimum: 1.3 |
| Loan Life Cover Ratio | Minimum: 2.0 |
| Drawdown Schedule | Pari passu |
| Repayment Profile | In full at maturity |
| Security Required | Senior pledge of net project operating revenues |

TIFIA Loan

The Transportation Infrastructure Financing and Innovation Act of 1998 (TIFIA) established a federal credit program under which the U.S. Department of Transportation (USDOT) may provide credit assistance to major transportation investment of critical or national significance such as intermodal facilities, border crossing infrastructure, highway trade corridors and transit and passenger rail facilities with regional and national benefit. The TIFIA program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital and credit rather than grants.

The TIFIA debt bears interest at a fixed rate, calculated by adding one basis point (0.01%) to the rate of securities of a similar maturity as published on the execution date of the TIFIA debt in the U.S. Treasury Bureau of Public Debt's daily rate table for the State and Local Government Series (SLGS) securities.

Actual TIFIA loan terms are subject to negotiations with USDOT on a project-by-project basis. While there is the possibility for variances in the final terms of any TIFIA loan, Table C-4 summarizes what the Proposer believes are reasonable assumptions for TIFIA loan terms. These assumptions are based upon the Proposer's extensive experience in negotiating and securing TIFIA loans through USDOT.

Table C-4: TIFIA Credit Assistance Terms

| TIFIA Credit Assistance | Terms |
|-------------------------------|--|
| Purpose | Provide funds to cover up to 33% of Eligible Project Costs under TIFIA rules |
| Capitalized Interest Period | From financial close up to the fifth year of Operations |
| Availability Period | From financial close up to the end of the Construction Period |
| Maturity | Up to a maximum of 35 years post-construction completion |
| Base Rate | Rate of securities of a similar maturity as published on the execution date of the TIFIA debt in the United States Treasury Bureau of Public Debt's daily rate table for the State and Local Government Series (SLGS) securities. |
| Margin | 0.01% per annum |
| Repayment Profile | 100% of interest in years 6 through 20. In years 21 through 25, 100% of Interest and \$2 million principal per year. In years 26 through 35, principal repayments structured to produce level debt service payments through year 35. |
| Minimum ADSCR | Minimum Total ADSCR of 1.10x of all Senior and Subordinated Debt assuming scheduled TIFIA debt service payments. |
| Debt Service Reserve Facility | A reasonable cash funded reserve will be required in lieu of a Liquidity Facility. Reasonable reserve assumed to be 1 year of debt service on both senior and subordinate debt. |
| Drawdown Schedule | Pari passu |
| Restricted Payments | Permitted without restrictions after the capitalized interest period has ended and so long as Total ADSCR greater than 1.20x. |

| TIFIA Credit Assistance | Terms |
|-------------------------|---|
| Security required | <p>A second priority security interest in project revenues and liens and security interests in other project assets subordinate only to the lien of the Senior Obligations (including hedge obligations).</p> <p>A first priority security interest in Pledged Revenues (but no other project assets) on parity with the lien of the Senior Debt Obligations (including hedge obligations) upon the occurrence of a Bankruptcy-Related Event.</p> |

As mentioned above, the TIFIA Debt will elevate from subordinated status to pari passu with Senior Debt upon the occurrence of a “Bankruptcy-Related Event.” However, it is important to note that non-payment of the TIFIA Debt will not be considered in itself to be a Bankruptcy-Related Event. However, the Intercreditor Agreement establishes a series of restrictions on the actions to be taken by USDOT (or the “TIFIA Lender”) with respect to collateral and other matters prior to, and following, a bankruptcy-related event. It is also important to note that if the TIFIA Lender sells, assigns or transfers any TIFIA obligation, the assignee loses this pari passu entitlement. The Conceptual Financial Plan does assume that the TIFIA funding is available and that the Act is continually renewed.

Concessionaire Equity

NTEMP contemplates the use of private equity in this Conceptual Financial Plan. This funding source provides the highest level of risk for the Concessionaire; however, it also incentivizes NTEMP to complete and manage the project as efficiently as possible.

All Concessionaire Equity funding will be contributed during the funding period per parri pasu with the debt during the funding period. This structure provides the least expensive form of funding. Shareholder equity contributions are delayed as much as permitted by market standards so that the average cost of capital during the funding period is as low as possible, offering TxDOT the best economics.

C.1.3 Assumptions - Changes in Transportation Network

NTE Segments 2-4 will ultimately serve the population growth occurring throughout the Dallas / Fort Worth region. There are several factors that will enhance the financial viability of Segments 2-4. The Project is bound near its eastern and northern limits by two special traffic generators: DFW International Airport (DFW Airport) and the AllianceTexas Development at SH 170. While DFW Airport provides the greatest overall traffic, the AllianceTexas Development provides the most significant growth potential to add to the already steadily rising traffic associated with IH 35W.

Section B.6 of the Conceptual Development Plan provides a list of transportation improvement projects identified in DFW regional plans (NCTCOG Mobility 2030 and the TxDOT TIP) that may affect NTE Segments 2-4. As described in that section, the vast majority of projects listed are expected to enhance the attractiveness of Segments 2-4 to varying degrees. The NTEMP proposal-level Segment traffic and

revenue forecasts upon which this financial plan is based anticipate that these projects will be implemented as scheduled. However, changes will be inevitable. As the listed projects are of considerably different size, scope and distance from the NTE Segments, changes to the plan cannot yet be directly quantified. NTEMP believes that, while the Master Financial Plan is executed in the near-term, changes to these additional projects will not adversely affect its financial feasibility.

The financial plan outlined in this proposal **will not** be contingent on the aforementioned adjacent projects in terms of funding sources. Segments 2-4 will be configurationally optimized to be funded without public subsidy. It is assumed that nearby projects will be almost entirely funded using traditional roadway funding mechanisms. The facilities are simply are not competing for the same resources.

C.1.4 Assumptions - Merger, Conversion or Split of Segments 2-4

The underlying assumption to this Conceptual Financial Plan is that the Concession Facility is efficiently developed and constructed under the Concession Facility Base Proposal, and open for traffic in 2015. Segment 2E has a commissioning date that falls in January 2016. The financing allowing this aggressive initial Segment date to occur is based on the revenue accrued from the managed lane system that will be in place on the Base Facility. Without this base traffic source, the financial assumptions made in this proposal will not be viable. Similarly, but to a lesser degree, the feasibility of the IH 35W facilities (Segments 3A, 3B) will be contingent on efficient movements through the interchange at the Concession Facility's western limits.

After analyzing all Segments on an individual basis, it was determined that a more optimal financing scheme could be produced by aggregating Segments 3A,B and 4 into one project CDA and financing. As summarized in Tables C-1 and C-2, by grouping the Segments in this manner, a Conceptual Financial Plan was developed that allows all five segments to be financed without need for public subsidy.

C.1.5 Assumptions - Forecasted Project Economics

Project economics of Segments 2-4 hinge on optimization. The Segments will be advanced through the Facility Implementation and Development processes in a physical configuration and under financing terms that will optimize their effect on the public – measured both in overall regional benefit and in benefit to the individual driver. Initially, the measurement of benefit will be in the acceleration of roadway facilities that have not yet been allocated funds. A benefit of the acceleration itself will be better price certainty in construction bids and mitigated effects of widely escalating materials costs. To further facilitate Segment acceleration, all innovative finance techniques will be explored during the MDP and MFP.

Upon commissioning of the Segments, the primary benefit will be user travel speeds and volumes. NTEMP will manage each of the NTE Segments based on a detection system that will be fully integrated into the Electronic Toll Collection System. Tolls will be managed to maximize speeds, but volume must remain steady to maintain base toll rates. Yearly revenue effects have been built into the conceptual traffic and revenue models. A summary is provided in Section B.5.1.

Efficient day-to-day management will further optimize the user's interaction with the Segment. State-of-the-art systems for hazard identification and response will be a component of the Traffic Management System so that speeds and volumes are not impacted for a significant amount of time after an incident.

Furthermore, the Team's experience will allow efficiencies such as this to be built into the projected OPEX costs at the time of the Facility Agreement – lowering those overall costs and enhancing viability. For example, being able to share project facilities, such as administration and maintenance buildings, as well as benefiting from marginal additions to maintenance and operations crews can result in synergies with significant cost reductions on an annual basis.

C.1.6 Anticipated Phasing

Per Section B.8 of the Conceptual Development Plan, anticipated NTE Segments 2-4 opening dates are as follows:

- ⦿ Segment 2E – January 2016
- ⦿ Segments 3A and 3B – January 2018
- ⦿ Segment 3C – January 2020
- ⦿ Segment 4 – January 2025

Phasing has been conceptualized based on a perceived overall benefit-cost ratio and the results of the conceptual financial analysis. The pro-forma financial statement provided in Section C.1.8 provides the best indication of the effects to corridor phasing generated from the perceived revenue benefits measured against capital and operational expenditures.

For the Conceptual Financing Plan, the dates shown in Table C-5 were assumed for Financial Close, Beginning of Operations, and End of Concession.

Table C-5: Key Segment Dates

| Facility | Financial Close | Beginning of Operations | End of Concession |
|--------------------|-----------------|--|-------------------|
| Segment 2E | 1/1/2011 | 1/1/2016 | 12/31/2062 |
| Segments 3AB and 4 | 1/1/2013 | 1/1/2018 (Segment 4 begins construction in 2020 and is completed by 12/31/2024) | 12/31/2064 |
| Segment 3C | 1/1/2015 | 1/1/2020 | 12/31/2066 |

C.1.7 Potential Financial and Commercial Risks

To enable smooth execution of the projects outlined in the Conceptual Financial Plan, NTEMP created a table of potential financial and commercial risks they may encounter, shown in Table C-6 and Table C-7 below. While this list is not exhaustive, it describes the major risks and provides mitigants to limit problems.

Table C-6: Preliminary Risk Registry - Financing

| During/After Segment NTP | Risk Description | Potential Consequences | Likelihood | Risk Allocation | Risk Mitigation Strategy | Risk Sensitivity Analysis |
|--------------------------|---|------------------------------|------------|-----------------|--|---|
| Financing Risks | | | | | | |
| During/After | Traffic projections are not realized | Loss of revenue | Medium | Developer | Investment grade traffic studies are prepared and audited by an independent specialist consultant to provide enough comfort to lenders | Analysis with different traffic assumptions |
| During/After | Competing Facilities built | Loss of revenue | Low | TxDOT/Developer | Clarity in concession agreements regarding what constitutes a competing Facility and measures to address in one is developed | Traffic and revenue forecasts defining competing facility scenarios |
| During/After | Inflation | Increased costs | Medium | Developer | Fixed lump sum is part of Back-to-back contract with contractor. Operational costs are indexed being mostly covered through indexation of toll rates | Analysis carried out with different CPI Forecasts |
| During | Interest rates (pre financial close) | Increased costs | Low | TxDOT/Developer | Public sector typically bears this risk. Developers might also be able to take this risk depending on time period between bid submission and financial close | N/A |
| After | Interest rates (post financial close) | Increased costs | Low | Developer | Hedging plan will be established in accordance with lenders' request. The Developer will conclude a fixed interest rate swap for all/part of the loan term. Alternatively the Developer can borrow the funds using fixed rate instruments. | Analysis carried out with different interest rates |
| During/After | Insufficient TIFIA Funds available | Increased costs of financing | Medium | Developer | Confirm and maintain interest on Capitol Hill for TIFIA funds needed for NTE | Analysis carried out with alternative financing structures |
| During/After | Capital Markets Appetite insufficient for issues | Increased costs of financing | Low | Developer | During Facility analysis assessments of capital markets appetite for issues to be considered. Underwriter to share risk of full subscription. European bank debt financing options to also be considered | Analysis carried out with alternative financial structures and interest rates |
| During/After | Insufficient PABs available or delays in introducing them | Additional cost of financing | Medium | Developer | Confirm and maintain interest on Capitol Hill for PAB funds needed for NTE | Analysis carried out on alternative financing structures |

Table C-7: Financing Risk Quantification

| | | | |
|---|---|---|---|
| Traffic projections are not realized | 2 | 2 | 4 |
| Competing facilities built | 1 | 2 | 2 |
| Inflation | 2 | 3 | 6 |
| Interest rates (pre financial close) | 3 | 2 | 6 |
| Interest rates (post financial close) | 3 | 2 | 6 |
| Insufficient or no TIFIA funds available | 2 | 3 | 6 |
| Capital markets appetite insufficient for issues | 1 | 3 | 3 |
| Insufficient PABs available or delays in introducing them | 2 | 2 | 4 |

C.1.8 Pro-forma Annual Financial Statements

A complete set of requested Pro-forma Annual Financial Statements for all Segments is included as Appendix E.4. The Financial Statements are prepared using the optimal three project financing scheme previously described (Segment 2E, Segments 3A, 3B and 4, and Segment 3C). Each report packet contains a Sources and Uses of Funds, Cash Flow Statement, Balance Sheet, and Income Statement. A summary of the Sources and Uses for the three project financings is presented in Table C-8.

Table C-8: Sources and Uses Summary (\$ millions)

| | Segment 2E | Segments 3AB and 4 ² | Segment 3 | Totals | Segment 3A | Segment 3B | Segment 4 |
|----------------------------|---------------|---------------------------------|---------------|-----------------|--------------|--------------|--------------|
| Sources | | | | | | | |
| Government Subsidy | - | - | - | - | - | - | - |
| Sr (Bank) Facility | 273.00 | 986.31 | 200.00 | 1,459.31 | 310.0 | 100.0 | - |
| TIFIA Facility Draws | 238.00 | 411.00 | 200.00 | 849.00 | 310.0 | 100.0 | 0.0 |
| TIFIA Interest Capitalized | 16.46 | 29.97 | 15.29 | 61.72 | 24.3 | 6.4 | 0.0 |
| Equity | 212.11 | 398.12 | 219.21 | 829.44 | 330.3 | 120.6 | 550.9 |
| Total | 739.57 | 1,825.40 | 634.50 | 3,199.47 | 974.7 | 327.1 | 550.9 |
| Uses | | | | | | | |
| Initial Construction | 586.06 | 1,574.25 | 516.34 | 2,682.41 | 819.1 | 228.8 | 526.4 |
| Sponsor Fee/Bid Cost | 22.00 | 24.00 | 16.00 | 62.00 | 24.0 | 24.0 | 24.0 |
| Total Capitalized Interest | 43.20 | 76.65 | 36.75 | 156.60 | 59.8 | 15.9 | 0.0 |
| Total Fin Fees & Expenses | 13.30 | 43.00 | 10.41 | 60.95 | 14.6 | 5.2 | 0.5 |
| DSRF | 40.00 | 70.00 | 25.00 | 135.00 | 46.0 | 34.0 | - |
| Major Maintenance Reserve | 35.00 | 37.50 | 30.00 | 102.50 | 11.3 | 19.3 | - |

² Segment 3AB and 4 are modeled assuming Segments 3A and 3B are financed and completed during the initial construction period. Once Segments 3A and B begin operations, it is assumed Segment 4 is financed 100% with debt secured by the combined projects. The Senior Bank Facility, Initial Construction, and Finance Fees & Expenses include the future debt financing and expenditures for Segment 4.

Note: Segments 3A, 3B and 4 are shown individual for reference only. CFP is to combine them as shown above.



C. Conceptual Financial Plan

| | Segment 2E | Segments 3AB and 4 ² | Segment 3 | Totals | Segment 3A | Segment 3B | Segment 4 |
|-------|------------|---------------------------------|-----------|----------|------------|------------|-----------|
| Total | 739.57 | 1,825.40 | 634.50 | 3,199.47 | 974.7 | 327.1 | 550.9 |

C.1.9 Conceptual Financial Models Summary Table

Table C-9 summarizes the requested information for each Segment assuming an independent analysis for each Segment.

Table C-9: Conceptual Financial Models Summary Table

| Facility | Assumed Financial Close | Public Funds Request | Equity Contribution | Debt Funded | Capital Costs | Targeted IRR |
|-----------------------|-------------------------|----------------------|---------------------|-------------------|-------------------|------------------------------------|
| Segment 2E | 1/1/2011 | \$ 0 | \$ 212.1 | \$ 586.1 | \$ 586.1 | 12.0% |
| Segments 3A, 3B and 4 | 1/1/2013 | \$ 0 | \$ 398.1 | \$ 1,580.0 | \$ 1,574.2 | 12.0% |
| Segment 3C | 1/1/2015 | \$ 0 | \$ 219.2 | \$ 516.3 | \$ 516.3 | 12.0% |
| Total | | \$ 0 | \$ 829.4 | \$ 1,580.0 | \$ 2,676.6 | |
| Segment 3A | 1/1/2013 | NA | \$ 330.3 | \$ 644.3 | \$ 819.1 | 12.0% (Result is less at 11.94%) |
| Segment 3B | 1/1/2014 | \$ 0 | \$ 120.6 | \$ 206.4 | \$ 228.8 | 12.0% (Result is greater at 15.3%) |
| Segment 4 | 1/1/2020 | NA | \$ 550.9 | \$ 0.0 | \$ 526.4 | 12.0% (Result is negative) |

Note: Segments 3A, 3B and 4 are shown individual for reference only. CFP is to combine them as shown above.

C.2 Conceptual Financial Models

This section presents the financial structure, assumptions and performance of each of the remaining facilities (Segments 2E – 4) based on the available data and analysis. Financial model inputs for each of these facilities are found in Appendix E.3 – Draft Facilities Report following this document. Summations of

the financial assumptions common to these Segments are provided below and available for review in the Appendix A.3 and other pertinent referenced appendices.

C.2.1 Inputs/Assumptions:

C.2.1.1 Economic Factors

The capital costs, operating and maintenance costs, and revenue assumptions for each analysis were based in 2008 dollars. A 2.5% inflation factor was assumed uniformly for all inputs to generate nominal dollars.

C.2.1.2 Annual Traffic and Revenue Projections

Projections in 2008 dollars are provided in Appendix E.2 – Preliminary T&R Forecasts.

C.2.1.3 Estimates of Pre-Development Costs

Estimates of pre-development costs in 2008 dollars are described in Section B.5.2. Detailed summary sheets can be found in Appendix E.3 – Draft Facilities Report.

C.2.1.4 Annual Estimates of Capital Expenditures

Estimates of capital expenditures in 2008 dollars are described in Section B.5.2. Detailed summary sheets can be found in Appendix E.3 – Draft Facilities Report. The total capital expenditures per Segment are provided in Table C-10. This is the summary of all costs required for Segment development and construction. The summaries below contain an additional overhead cost component during the design-build period to approximate concessionaire overheads. This quantity is not present in Appendix E.3, but is accounted for in the pro-forma financial statements in Appendix E.4.

Table C-10: Capital Expenditures

| Facility | Capital Expenditures (000s) |
|--------------|-----------------------------|
| Segment 2E | \$ 512,821 |
| Segment 3A | \$ 685,284 |
| Segment 3B | \$ 189,927 |
| Segment 3C | \$ 411,135 |
| Segment 4 | \$ 370,623 |
| Total | \$ 2,169,790 |

C.2.1.5 Annual Estimates of Operating Expenses

Estimates of pre-development costs in 2008 dollars are described and summarized in Section B.5.2. Detailed summary sheets can be found in Appendix E.3 – Draft Facilities Report. The totals per Segment are provided in Table C-11.

Table C-11: Operating Expenses

| Facility | Operating Expenses (000s) |
|--------------|---------------------------|
| Segment 2E | \$ 273,214 |
| Segment 3A | \$ 360,730 |
| Segment 3B | \$ 189,544 |
| Segment 3C | \$ 261,738 |
| Segment 4 | \$ 77,244 |
| Total | \$ 1,162,470 |

C.2.1.6 Annual Routine Maintenance and Life Cycle Cost Estimations

Estimates of pre-development costs in 2008 dollars are described and summarized in Section B.5.2. Detailed summary sheets can be found in Appendix E.3 – Draft Facilities Report. The totals per Segment are provided in Table C-12.

Table C-12: Routine Maintenance and Life Cycle Costs

| Facility | Routine Maintenance and Life Cycle Costs (000s) |
|--------------|---|
| Segment 2E | \$ 123,554 |
| Segment 3A | \$ 127,924 |
| Segment 3B | \$ 39,618 |
| Segment 3C | \$ 86,419 |
| Segment 4 | \$ 74,426 |
| Total | \$ 451,941 |

C.2.1.7 Debt Financing Assumptions

Debt financing assumptions for both the Senior Bank Facility and TIFIA loan are provided in Section C.1.2.

Base interest rate assumptions (excluding margins) for the Senior Bank Facility were 4.16% and 4.28% for TIFIA.

C.2.1.8 Equity Financing Assumptions

Equity funding for each Segment is assumed to be pari passu with the debt funding. The debt funding component was maximized based upon the previously detailed coverage ratio limitations. Equity was then sized targeting a 12% post tax IRR. Equity is redeemed through surplus project revenues once eligible for release to the equity sponsor per the assumed debt terms.

C.2.1.9 Taxes

Table C-13 summarizes the tax rate assumptions used in the model.

Table C-13: Tax Rate Assumptions

| Tax | Base | Tax Rate |
|------------------------------|--|----------|
| State Business Tax | 70% of Gross Revenue | 1% |
| Federal Corporate Income Tax | Net Income | 35% |
| Dividend Tax | Net Income after equity redemptions | 10% |
| Capital Gain Tax | Available cash flow in excess of Net Income after equity redemptions | 0% |

C.2.1.10 Reserve Requirements

The models assume the use of a cash funded Debt Service Reserve Fund in Lieu of a Liquidity Facility. The DSRF is sized in amount approximately equal to one full year of Debt Service on both Senior and Subordinate Debt.

C.2.2 Pro-Forma Financial Statements

A complete set of requested Pro-forma Annual Financial Statements for each of the three project financings is included as Appendix E.4 – Pro-forma Financial Statements. Each report packet contains a Sources and Uses of Funds, Cash Flow Statement, Balance Sheet, and Income Statement.

C.2.3 Present Value of the Public Funds Request

As previously mentioned, based upon the Conceptual Plan of Finance, there will be no request for Public Funds for any of the Projects.

Table C-14: Present Value of Public Funds Request

| Facility | Present Value of Public Funds Request @ 5% as of 12/1/2008 |
|--------------|--|
| Segment 2E | \$ 0 |
| Segment 3A | \$ 0 |
| Segment 3B | \$ 0 |
| Segment 3C | \$ 0 |
| Segment 4 | \$ 0 |
| Total | \$ 0 |