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Title: Design Criteria		

1.0 PURPOSE:

The purpose of this document is to define the procedure by which project design criteria are identified, approved and reviewed with design section engineers prior to design efforts. It also defines a monitoring process by which all design plans will be reviewed for compliance with these criteria. It provides parameters to help preserve, maintain, or improve NTTA assets so they are long-lasting and valuable to customers.

All projects shall comply with the design criteria and guidelines established by AASHTO, TxDOT, NTTA specific criteria, and the procedures established herein. Any design criteria exceptions outside these requirements must be approved by the Director of Project Delivery.

2.0 RESPONSIBILITIES:

- 2.1 Director of Project Delivery (DPD) – The DPD shall review and approve or reject any design criteria exceptions outside NTTA, AASHTO, TxDOT, or other applicable requirements.
- 2.2 NTTA Design Manager – The NTTA Design Manager shall be responsible for assisting CM/Project Managers in developing design criteria and guidelines, and recommending the criteria for approval.
- 2.3 Corridor Manager(CM)/Project Manager – The CM/Project Manager shall be responsible for developing design criteria and guidelines for each project, and ensuring that the DSEs understand and implement these guidelines.
- 2.4 Design Section Engineer (DSE) – The DSE shall prepare designs in accordance with NTTA PS&E Preparations Manual, TxDOT and NTTA Design Guidelines, and Design Checklists, etc. The DSE shall be responsible for considering and providing designs that address the life-cycle costs of an asset, given the design guides.

3.0 SCOPE/APPLICABILITY:

This procedure shall apply to all NTTA projects and corridors within the Project Delivery Department.

4.0 REFERENCES:

- [NTTA Design Guidelines](#)
 - [NTTA PS&E Preparations Manual](#)
 - [NTTA Maintenance Design Guidelines Manual](#)
 - [NTTA Pavement Manual](#)
 - [NTTA Roadway Electrical System Manual](#)
 - [NTTA Sign Policy Manual](#)
 - [NTTA Sign and Traffic Control Device Guidelines Manual](#)
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- NTTA and TxDOT Standard Details
- TxDOT Roadway Design Manual

5.0 DEFINITIONS & ACRONYMS

6.0 PROCEDURES:

- 6.1 Preparation of Design Criteria** – Prior to project kickoff, the CM/Project Manager shall identify all the design criteria and guidelines with which the DSE must comply, inclusive of roadway alignment requirements at approaches to toll gantries to maximize motorist safety. Additionally, consideration shall be given to any necessary coordination with or approval by federal, state, local agencies or railway companies.
- 6.2 Approval from CM/Project Manger** – The CM/Project Manager shall review the proposed project design criteria with the NTTA Design Manager, and other departments as necessary, to seek input, gain concurrence and approval of the project design criteria.
- 6.3 Concurrence with DSE** –The CM/Project Manager shall perform a detailed review of the established design criteria with the DSE and shall ensure that the DSE understands all design criteria and guidelines including any necessary coordination with or approval by federal, state, local agencies or railway companies. Any deviations from the established project design criteria and guidelines shall be presented by the DSE and must be approved by the DPD prior to any design efforts.
- 6.4 Verification During Design** – The CM/Project Manager and project engineers shall monitor compliance with the project design criteria and guidelines on each plan the DSE submits. Any variation from the design criteria and guidelines not already approved by the NTTA shall be rejected. Plans must then be redesigned at no additional cost to the NTTA.

7.0 REGULATORY REQUIREMENTS:

Design of all NTTA facilities shall comply with the design requirements of AASHTO, TxDOT, and the NTTA guidelines. Local, state, and federal agency, as well as private railroad company coordination and approval may be required on certain elements.

8.0 RELATED BOARD POLICY:

N/A

9.0 COMPONENT DOCUMENTS:

N/A

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10.0 FLOWCHART:

N/A

11.0 REVISION HISTORY:

Revision	Revised by:	Date Issued	DRN NO.	Reason for Revision
0	Dave Clarke	06/05/2008		Original Issue
1	Micki Ellis	09/19/2008		Added reference requirements to other NTTA Manuals
1	Eddie Adams	5/29/2009	10007	Admin change – Correct Manual Title
2	Darla Payberah	04/28/2011	10284	Updated roles new/replaced roles and provided minor revisions for clarity