

TABLE OF CONTENTS

1. Purpose
2. Objective
3. Asset Assessments
 - 3.1. Frequency and Responsibility
 - 3.2. Asset Assessment and Restoration
4. Assessment Process
5. Documentation and Reporting
 - 5.1. Civil – General
 - 5.2. Drainage
 - 5.3. Signs and Overhead Roadway Fixtures
 - 5.4. Pavement (Wearing Course and Subbase/Subgrade)
 - 5.5. Mechanical and Electrical Infrastructure
 - 5.6. Safety and Protection
 - 5.7. Structural (Bridges)

Attachment:

- A. Attachment 4.5 – Technical Requirements ARCA Exhibit N-3

The Baseline Report will contain as a minimum for each asset:

- a) Current overall assessment condition (incl. maintenance history).
- b) Date of assessment
- c) Assessed index rating as per an agreed industry scale.
- d) Age of asset at time of assessment.
- e) Estimated life cycle years.
- f) Residual life assessment.
- g) Replacement or rehabilitation recommendations.
- h) Identification of Assets being replaced as part of the HOT Lanes project
- i) Replacement or rehabilitation value.
- j) Digital photographs to illustrate assets or portions of assets that require rehabilitation.
- k) Checklists in accordance with National Bridge Inspection Standards
- l) Remaining VDOT assets to be replaced on new infrastructure

GUIDING PRINCIPLES FOR PREPARATION OF BASELINE CONDITION REPORT

1. Purpose

This document is to detail the guideline requirements associated with collecting data, measuring to recognized standards and reporting levels for the Baseline Asset Condition Report on the Capital Beltway – Route 495. As detailed in the ARCA, the Department and the Concessionaire shall agree upon baseline asset condition reports performed by the Department that evaluate the condition of the Capital Beltway – Route 495 and its assets in accordance with Section 8.06 of the ARCA. These reports will address the maintenance/repair requirements during the period preceding the Service Commencement Date. These reports will also be used to provide a basis for the ongoing assessment of the asset condition for which the Life Cycle Maintenance Plan will be developed.

2. Objective

The objective of the Baseline Report is to identify the overall condition of the Capital Beltway – Route 495 assets, identify those that have defects or outstanding maintenance issues and determine the appropriate course of action to remediate those assets.

The Baseline Report will map against the asset requirements as specified in the Technical Requirements. Assets should be identified to be rehabilitated and replaced to ensure compliance with the maintenance standards prior to substantial completion,

The Department will either rehabilitate those assets, or pay the Concessionaire the cost of rectification to perform such rehabilitation.

3. Asset Assessments

3.1 Frequency and Responsibility

This original Baseline Asset Condition Report (Baseline Report) will be revised to reflect any repairs or maintenance undertaken prior to Service Commencements. Every five years after the Service Commencement Date, the Concessionaire shall conduct a reassessment of the HOT Lane assets and compare that assessment against the original Baseline Report. The reassessment may be conducted jointly by the Department and the Concessionaire.

3.2 Asset Assessment and Restoration

If during the reassessment, any asset is deemed to have fallen below the agreed assessment rating in the Baseline Report, a rehabilitation plan will be developed within 90 days to address the identified deficiency. The results of these reassessments will be used as inputs to the “Life Cycle Maintenance Plan”.

Exhibit P - Baseline Report

4.0 Assessment Process

When performing the assessment process for the Baseline Report the standards and principles listed are to be followed:

1. The structure of the Baseline Report is to be similar in structure to the performance maintenance agreements (including: Performance criteria, outcomes and tolerances), see Technical Requirements, Attachment A;
2. Relevant statutory codes and standards, both State and Federal;
3. VDOT codes, procedures and standards;
4. Industry best practice asset management and condition assessment methods.

5. Documentation & Reporting

The Baseline Report will contain the following asset elements; will be inspected by an approved/licensed Engineer/Inspector and assessed to the standards contained in the ARCA, Exhibit N-3 Technical Requirements and the Performance Criteria outlined in Attachment 4.5 of the Technical Requirements.

Each asset category is to be measured and reported as per the requirements stated by the relevant FHWA, AASHTO & NBIS Standards and the VDOT BIMS - Performance criteria, outcomes and tolerances using the Maintenance Rating Program Manual assessment or equivalent inspection approach:

5.1 Civil – General

Asset areas to be addressed:

- a) Concrete Barriers
- b) Sound/Noise Walls & Barriers
- c) Embankment/Cut Fill Batters
- d) Fencing
- e) Cross-over & hard stand areas
- f) Retaining Walls

5.2 Drainage

Asset areas to be addressed:

- a) Culverts – Pipe & Box
- b) Ditches – Paved & Unpaved
- c) Under & Edge Drains
- d) Storm Drains & Drop Inlets
- e) Curb & Guttering
- f) Storm Water Ponds & Silt Basins

5.3 Signs & Overhead Roadway Fixtures

Also to be measured and reported as per the requirements stated in AASHTO Standards for Structural Support for Highway Signs, Luminaries and Traffic Signals

Asset areas to be addressed:

- a) Static Signs – Post Mounted
- b) Static Signs – Overhead Mounted
- c) Dynamic Message (DMS) Signs – Overhead Mounted

Exhibit P - Baseline Report

5.4 Pavement (Wearing Course and Subbase/Subgrade):

To be measured and reported Load-related Distress Rating (LDR), Non Load-related Distress Rating (NDR), Critical Condition Index (CCI), Sideway-force Coefficient Routine Investigation Machine (SCRIM) and International Roughness Index (IRI, in/mile) criteria, outcomes and or tolerances using the Maintenance Rating Program Manual assessment or equivalent inspection approach.

Asset areas to be addressed:

- a) Pavement Markings
- b) Pavement Markers
- c) Pavement Messages
- d) Pavement Surface & Sub Base – Asphalt
- e) Pavement Surface & Base – Concrete
- f) Paved & Unpaved Shoulders & Rumble Strips

5.5 Mechanical & Electrical Infrastructure

Asset areas to be addressed:

- a) Cables & Locating – Power & Communications
- b) Junction Boxes
- c) Lighting – Roadway, Signs, Under decks & Tunnels
- d) Lighting – (Warning) Navigation & Aviation

5.6 Safety & Protection

Asset areas to be addressed:

- a) Guardrail
- b) Impact Attenuators
- c) Object Markers, Mile Markers & Delineators
- d) Glare Screens (Foil)

5.7 Structural (Bridges)

Asset areas to be addressed:

- a) Deck
- b) Superstructure & Parapet Walls/fencing
- c) Sub Structure
- d) Slope Protection
- e) Weep Holes