

H Street Bridge NE Replacement

Environmental Assessment

Table of Contents

EXECUTIVE SUMMARY	I
ABBREVIATIONS AND ACRONYMS	XXI
1.0 PURPOSE AND NEED OF ACTION.....	1
1.1 Purpose of Action.....	1
1.2 Need of Action	1
1.3 Description of the Project Corridor.....	3
2.0 ALTERNATIVES	9
2.1 No Build Alternative.....	9
2.2 Other Alternatives Evaluated.....	9
2.3 Build Alternative	21
2.4 Rights-of-Way and Easements	26
2.5 Required Standards for Construction	29
3.0 AFFECTED ENVIRONMENT.....	31
3.1 Resource Topics Eliminated from Further Analysis	31
3.2 Land Use.....	32
3.3 Social	36
3.4 Economic.....	41
3.5 Considerations Relating to Traffic and Transportation.....	43
3.6 Considerations Relating to Pedestrian and Bicyclists	51
3.7 Utilities	55
3.8 Air Quality	58
3.9 Noise	62
3.10 Vibration	64
3.11 Water Quality.....	65
3.12 Water Body Modification and Wildlife Impacts.....	66
3.13 Threatened or Endangered Species	66

3.14	Historic and Archaeological Preservation	68
3.15	Hazardous Waste Sites.....	70
3.16	Visual.....	73
3.17	Section 4(f) of the Department of Transportation Act	74
4.0	ENVIRONMENTAL CONSEQUENCES	77
4.1	Land Use Impacts	77
4.2	Social Impacts	78
4.3	Economic Impacts.....	78
4.4	Considerations Relating to Traffic and Transportation.....	79
4.5	Considerations Relating to Pedestrian and Bicyclists	80
4.6	Utilities Impacts	80
4.7	Air Quality Impacts.....	81
4.8	Noise Impacts.....	82
4.9	Vibration Impacts.....	84
4.10	Water Quality Impacts	84
4.11	Water Body Modification and Wildlife Impacts.....	86
4.12	Threatened or Endangered Species	86
4.13	Historic and Archaeological Preservation	86
4.14	Hazardous Waste Sites.....	89
4.15	Visual Impacts	89
4.16	Energy	90
4.17	Construction Impacts.....	90
4.18	Section 4(f) of the U.S. Department of Transportation Act.....	128
4.19	Relationship of Local Short-term Uses vs. Long-term Productivity	130
4.20	Irreversible and Irretrievable Commitment of Resources	130
4.21	Environmental Commitments.....	130
4.22	Permits and Authorizations	136
5.0	LIST OF PREPARERS	139
6.0	DISTRIBUTION LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS	141
7.0	PUBLIC AND AGENCY INVOLVEMENT	145
7.1	Public Involvement.....	145
7.2	Agency and Stakeholder Coordination	146

8.0 REFERENCES147

9.0 GLOSSARY151

List of Tables

Table ES-1 Summary of Impacts.....	v
Table ES-2 Environmental Commitments	viii
Table 2-1 Alternatives Evaluation	11
Table 2-2 Weighted Evaluation Matrix	20
Table 3-1 Existing ADT and Threshold Capacity	44
Table 3-2 Level of Service.....	45
Table 3-3 National Ambient Air Quality Standards	58
Table 3-4 Monitored Pollutant Concentrations in the Washington, DC Area	62
Table 3-5 Phase I Environmental Site Assessment Results Summary.....	71
Table 3-6 Properties of Concern	72
Table 4-1 Detailed Analysis Construction Noise Criteria.....	111
Table 4-2 Detailed Assessment of Construction Noise Impacts.....	114
Table 4-3 Vibration Source Levels for Construction Equipment	118
Table 4-4 FTA Construction Vibration Damage Criteria	118
Table 4-5 Maximum Allowable PPV for Each Building	119
Table 4-6 Land Use Categories for Vibration Assessment	120
Table 4-7 Indoor Ground-borne Vibration Impact Criteria for General Vibration Assessment.....	121
Table 4-8 Ground-borne Vibration Annoyance Evaluation.....	123
Table 4-9 Environmental Commitments	130
Table 5-1 List of Preparers	139
Table 6-1 Summary of the Notice of Availability Distribution List	143

List of Figures

Figure 1-1 Project Location	4
Figure 1-2 Project Corridor.....	5
Figure 1-3 Existing Bridge Plan, Profile, and Typical Sections.....	6
Figure 1-4 Historical Photos of H Street Underpass beneath the Railyard.....	7
Figure 2-1 Proposed Bridge Plan, Profile, and Typical Section	22
Figure 2-2 Bridge Approach Fencing.....	24
Figure 2-3 Right-of-Way Sketch	27
Figure 3-1 Existing and Future Land Uses in the Project Area	33
Figure 3-2 2016 Zoning.....	34
Figure 3-3 Building Uses in the Project Area.....	35
Figure 3-4 Demographics for Adjacent Census Block Groups.....	37
Figure 3-5 Fire Stations in Ward 6 Adjacent to Project Area	38
Figure 3-6 Access Points and Fire Control in the Project Area.....	40
Figure 3-7 Vehicle Access Points in the Project Area	42
Figure 3-8 Transportation Analysis Study Area.....	44
Figure 3-9 Existing AM Peak-Hour Intersection LOS	46
Figure 3-10 Existing PM Peak-Hour Intersection LOS	47
Figure 3-11 Bus and Truck Restricted Routes within Study Area.....	48
Figure 3-12 Transit Lines and Stops in the Project Area	49
Figure 3-13 Pedestrian Access Points in the Project Area	52
Figure 3-14 Bicycle Facilities in the Project Area	54
Figure 3-15 Vegetation in the Project Area.....	67
Figure 3-16 Historic Properties within the Project Area of Potential Effect	69
Figure 3-17 The Capitol seen from H Street Bridge NE along First Street NE	73
Figure 4-1 Overall Construction Schedule.....	92
Figure 4-2 Pedestrian Access from Both Bus Station Ramps (Existing).....	102
Figure 4-3 Pedestrian Access from the East Bus Station Ramp	102
Figure 4-4 Pedestrian Access from the West Bus Station Ramp.....	103
Figure 4-5 Locations of Adjacent Buildings	110
Figure 4-6 Example Construction Scenarios.....	112
Figure 4-7 Example Noise Abatement.....	113
Figure 6-1 Notice of Availability	142

List of Appendices

- Appendix A. | Bridge Inspection Reports
- Appendix B. | Photographs of Project Study Area
- Appendix C. | Transportation Analysis Technical Report
- Appendix D. | Cultural Resources Report and Memorandum of Agreement
- Appendix E. | Phase I Environmental Site Assessment
- Appendix F. | Construction Noise Analysis
- Appendix G. | Construction Vibration Analysis
- Appendix H. | Public Meeting Report
- Appendix I. | Adjacent Property Information
- Appendix J. | Agency and Stakeholder Coordination