

Volume 1

DES MOINES MEMORIAL DRIVE **Corridor Management Plan**

With Rehabilitation and Enhancement Guidelines



WWI Living Road of Remembrance Washington State

King County
City of Burien
City of Des Moines
City of Normandy Park
City of SeaTac



LANDSCAPE
ARCHITECTS



TITLE PAGE AND ACKNOWLEDGEMENTS

Volume I - Corridor Management Plan for Des Moines Memorial Drive

With Memorial Rehabilitation and Corridor Enhancement Guidelines

July 2004

Prepared for:

King County, Washington

City of Burien, Washington

City of Des Moines, Washington

City of Normandy Park, Washington

City of SeaTac, Washington

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TABLE OF CONTENTS

Executive Summary

Page No.

Plan Background and Purpose	ES-1
Memorial Significance	ES-2
Corridor management Plan Organization	ES-3
Corridor Management Plan Issues	ES-4
Plan Recommendations	ES-7
Schedule	ES-9
Costs	ES-9
Implementation Strategy	ES-16
Summary of Findings	ES-16

Chapter 1 Introduction

Resource and Origins	1-1
Plan Purpose	1-3
Corridor Management Plan Organization	1-3
Planning Corridor and Limits	1-5
Corridor Analysis and Establishment of Corridor Segments	1-5
Historic Significance	1-6
Project Background	1-7
Planning Steps and Process	1-7
Key Issues	1-12
Goals, Objectives and Recommendations	1-12
Implementation Strategies, Guidelines and Recommendations	1-12
Schedule and Costs	1-12

Chapter 2 Heritage Resource Inventory, Intrinsic Qualities Assessment and Statement of Significance

Introduction	2-1
Heritage Resource Inventory	2-1
Historic Character and Features	2-3
Remaining Questions	2-3
DMMD Timeline	2-4
Intrinsic Qualities Assessment	2-10
- Intrinsic Qualities	2-10
- Historic Resources and Qualities	2-10



TABLE OF CONTENTS

Chapter 2 (Continued)

Page No.

- Cultural Resources and Qualities ----- 2-12
- Scenic Resources and Qualities ----- 2-15
- Natural, Open Space and Recreation Resources and Qualities ----- 2-18
- Archeological Resources and Qualities ----- 2-18

Statement of Significance According to Criteria of the National Register ----- 2-18

- Criteria A ----- 2-18
- Criteria B ----- 2-19
- Criteria C ----- 2-19

Chapter 3 Corridor Issues and Analysis

- Introduction ----- 3-1**
- Corridor Inventory and Analysis by Segment ----- 3-1**
- Memorial Elm Trees ----- 3-3**
- Overhead Utilities ----- 3-8**
- Review of the Roadway Design and Maintenance (CMP 7,13) ----- 3-9**
- DMMD Corridor Capacity to Support Memorial Rehabilitation ----- 3-13**
- Transportation and Circulation System Linkages ----- 3-13**
- Other Public Facility Partnering Opportunities ----- 3-13**

Chapter 4 Plan Recommendations Memorial Rehabilitation and Corridor Enhancement Guidelines

- Introduction ----- 4-1**
- Overall Memorial Rehabilitation Recommendations ----- 4-2**
- Memorial Rehabilitation Guidelines ----- 4-3**
- Corridor Enhancement Guidelines ----- 4-13**
- Interpretative Plan Recommendations ----- 4-18**

Chapter 5 Memorial Rehabilitation and Corridor Enhancement Recommendations for Each DMMD Segment

- Introduction ----- 5-1**
- Application of Recommendations by Segment ----- 5-1**
- South Park Segment Recommendations ----- 5-4**
- Military Road Segment Recommendations ----- 5-11**
- North SeaTac Segment Recommendations ----- 5-18**
- Sunnydale Segment Recommendations ----- 5-27**



TABLE OF CONTENTS

Chapter 5 (Continued)

Page No.

Wetland Segment Recommendations	5-36
Confluence segment Recommendations	5-41
Des Moines Segment Recommendations	5-47

Chapter 6 Plan Implementation and Management Strategy Recommendations

Introduction	6-1
1. Interlocal Agency/Community Plan Approvals (CMP #4)	6-2
2. Management/Oversight Entity and Organization (CMP #4)	6-3
3. Obtain Landmark, Heritage Tour Route and other Heritage Designations (CMP #3)	6-3
4. Existing and New Development: Enhancement and Management (CMP #5)	6-7
5. Marketing, Promotions and Outreach Program (CMP #9, #12)	6-8
6. Capitol Funding Strategies and Campaign (Overall CMP outcome and CMP #3)	6-8
7. Schedule and Responsibilities; Implementation Actions Schedule and Assignments Plan (CMP #4)	6-13
8. Maintenance Program (CMP #3, #4)	6-13
9. Ongoing Public Participation (CMP #6 - Chapter 4 Plan Recommendations)	6-14
10. DMMD Roadway Design Standards, Operations, and Commerce (CMP #7, #8 and #13 - Chapter 3 Corridor Analysis)	6-14
11. Visitor Experience and DMMD Interpretive Plan (CMP #9 and #14 - Chapter 4 Plan Recommendations)	6-14
12. DMMD Corridor Signage and Outdoor Advertising (CMP #10 and #11 - Chapter 5 Implementation)	6-15
13. Transportation and Commerce Strategy (CMP #8)	6-16
14. Budgeting	6-17
15. Schedule - Timeline and Centennial Milestone	6-17



TABLE OF CONTENTS

<u>Figures</u>	<u>Page No.</u>
Figure ES-1. Historic Photo -----	ES-1
Figure ES-2. Historic Photo -----	ES-1
Figure ES-3. DMMD Today -----	ES-2
Figure ES-4. Project Corridor and Jurisdiction Map -----	ES-3
Figure ES-5. Elm Trees Today -----	ES-4
Figure ES-6. American Elm Trees -----	ES-5
Figure ES-7. New SeaTac DMMD Image -----	ES-5
Figure ES-8. Tall Elms -----	ES-6
Figure ES-9. Corridor Plan -----	ES-7
Figure ES-10. Implementation and Management Schedule -----	ES-10
Figure ES-11. Summary Cost Estimate -----	ES-11
Figure ES-12. Detailed Cost Estimate -----	ES-13
Figure 1-1. First Elm Planting 1921 -----	1-1
Figure 1-2. Seattle Garden Club Ledger -----	1-1
Figure 1-3. 1920s Map -----	1-2
Figure 1-4. American Elm Trees -----	1-2
Figure 1-5. Poppy Wreath -----	1-2
Figure 1-6. Memorial Plaques -----	1-3
Figure 1-7. Regional Context -----	1-5
Figure 1-8. Project Corridor and Jurisdiction Map -----	1-5
Figure 1-9. Segments and Jurisdiction Map -----	1-6
Figure 2-1. Historic and Heritage Resources Map -----	2-2
Figure 2-2. Des Moines Memorial Drive History -----	2-9
Figure 2-3. Original Tree Planting Pattern -----	2-11
Figure 2-4. Existing Elm Tree Inventory Map -----	2-13
Figure 2-5. Historic and Heritage Map -----	2-14
Figure 2-6. Character and Views Map -----	2-16
Figure 2-7. Natural and Open Spaces Resources Map -----	2-17
Figure 3-1. Corridor Segments and Jurisdictions -----	3-2
Figure 3-2. Leaf Size and Shape Comparison Chart -----	3-6
Figure 3-3. Circulation Map -----	3-14
Figure 3-4. Development Initiatives Map -----	3-15



TABLE OF CONTENTS

Figures (Continued)

Page No.

Figure 4-1. Ulmus American “Princeton”	4-3
Figure 4-2. Typical Road Segment	4-5
Figure 4-3. Typical Memorial and Roadway Layout: Plan View	4-6
Figure 4-7. Sunnydale Memorial Rehabilitation Roadway Illustrative Drawing ----	4-8
Figure 4-8. Sunnydale Memorial Rehabilitation Segment Plan	4-9
Figure 4-9. Sunnydale Memorial Plaza Redevelopment Illustrative Drawing	4-10
Figure 4-10. Sunnydale Memorial Plaza Redevelopment Plan View	4-11
Figure 4-10. Light Pole Section	4-14
Figure 5-1. DMMD Corridor Plan	5-3
Figure 5-2. Corridor Plan South Park Segment	5-7
Figure 5-3. South Park - Plan Alternative	5-8
Figure 5-4. South Park - Roadway Alternative	5-9
Figure 5-5. South Park - Roadway and Memorial Alternative	5-10
Figure 5-6. Corridor Plan Military Road Segment	5-14
Figure 5-7. Military Road - Memorial Plan	5-15
Figure 5-8. Military Road - Roadway and Memorial Alternative	5-16
Figure 5-9. Military Road - Roadway and Memorial Alternative	5-17
Figure 5-10. Corridor Plan North SeaTac Segment	5-22
Figure 5-11. North SeaTac - Memorial Alternative	5-23
Figure 5-12. North SeaTac - Roadway and Memorial Alternative	5-24
Figure 5-13. North SeaTac - Roadway and Memorial Alternative	5-25
Figure 5-14. North SeaTac - Commercial Node: Roadway and Memorial Alternative	5-26
Figure 5-15. Corridor Plan Sunnydale Segment	5-31
Figure 5-16. Sunnydale - Memorial Alternative	5-32
Figure 5-17. Sunnydale Perspective	5-33
Figure 5-18. Sunnydale - Roadway and Memorial Alternative	5-34
Figure 5-19. Sunnydale - Roadway and Memorial Alternative	5-35
Figure 5-20. Corridor Plan Wetland Segment	5-38
Figure 5-21. Wetland - Memorial Alternative	5-39
Figure 5-22. Wetland - Roadway and Memorial Alternative	5-40
Figure 5-23. Corridor Plan Confluence Segment	5-44
Figure 5-24. Confluence - Roadway and Memorial Alternative	5-45



TABLE OF CONTENTS

Figures (Continued)

Page No.

Figure 5-25. Confluence - Roadway and Memorial Alternative -----	5-46
Figure 5-26. Corridor Plan Des Moines Segment -----	5-51
Figure 5-27. Des Moines - Memorial Plan -----	5-52
Figure 5-28. Des Moines - Roadway and Memorial Alternative -----	5-53
Figure 5-29. Des Moines - Roadway and Memorial Alternative -----	5-54
Figure 6-1. Implementation and Management Schedule -----	6-19

Tables

Table 1-1. National Scenic Byway/FHWA CMP Location in DMMD CMP Chapters -----	1-4
Table 3-1. Elm Tree Facts -----	3-3
Table 3-2. Street Tree and Streetscape Standards by Jurisdiction -----	3-7
Table 3-3. Utility Provider, Location, Alignment and Length by DMMD Segment -	3-8
Table 3-4. Summary of Corridor ROW Ownership and Frontage -----	3-11
Table 3-5. Summary of Existing ROW Ownership, Frontage, Widths and Conditions -----	3-12

Bibliography

EXECUTIVE SUMMARY

Plan Background and Purpose

In 1919, one year after the end of World War I, a young woman by the name of Lillian Gustine McEwan, 21, and The Seattle Garden Club, set out to develop a “Living Road of Remembrance”, a memorial for World War I fallen from the State of Washington. With assistance from King County, the University of Washington’s Forestry Department, residents from the Highline area, and veteran organizations and family members from around Washington State - The Seattle Garden Club planted at least 1208 American Elm from South Park in Seattle to areas south of Des Moines, along the Highline Road. Each tree was planted for a soldier lost in the war. Wildflowers were seeded under the trees to make the Highline road - then a two-lane red brick corridor - resemble the tree-lined roads of France. Two French World War I Generals journeyed to Seattle to participate in the planting of this unique and visionary memorial.

In the 84 years since it was planted, the Memorial has been courageously stewarded by veterans, neighbors, scout troops, jurisdictions and respectful community citizens. Over time this "Living Road of Remembrance" became Des Moines Memorial Drive. In 1962, when disease, development and road and utility improvements threatened the trees, a memorial plaza was constructed at the Sunnysdale School, midway on the length of the Drive. In 2000, an interlocal agreement brought all stakeholders together for the purposes of planning the rehabilitation of the memorial. Over a period of two years, a group of sixteen members - of five jurisdictions and several veterans groups, historic societies, neighborhoods and utilities - met monthly to craft this Corridor Management Plan.



Figure ES-1. One of the first Lillian McEwan planting of over 1200 memorial elms, 1921 - 1922.



Figure ES-2. Des Moines Memorial Drive in the 1940s.

This plan makes recommendations for the rehabilitation of the "Living Road of Remembrance" honoring the World War I fallen. It includes research into the history and character of the memorial and the communities surrounding it, an assessment of the significance of the memorial for landmark status and rehabilitation funds and development of interpretational story lines for the extended history of the memorial and of the five Des Moines Memorial Drive corridor communities. Over the course of the project, public meetings and heritage inventory surveys have brought many residents and community leaders to a new appreciation of the significance of the corridor and the immediate need for memorial renewal - for Des Moines Memorial Drive rehabilitation.



Figure ES-3. Des Moines Memorial Drive Today.

Memorial Significance

The true significance of this memorial is, of course, that it was conceived and developed to honor, in the most meaningful and heartfelt way, those who serve and fall in the line-of-duty for their country, family, community and way-of-life. In this way, the Des Moines Memorial Drive Corridor Management Plan effort is very much a part of contemporary discussions, initiatives and actions to fully recognize, to respectively honor, all veterans of America's Armed Forces who served and sacrificed through war and peace.

Des Moines Memorial Drive is also significant from several historic landmark, heritage and cultural landscape points of view and value, Des Moines Memorial Drive is:

- One of the very **first** "Living Road of Remembrance" projects in the country – promoted by national organizations and by President Harding.
- One of the **longest** "Living Road of Remembrance" projects remaining today in the nation.
- The **only** WWI "Living Road of Remembrance" **in Washington**.
- The only known WWI "Living Road of Remembrance" in nation to designate an **individual tree to an individual fallen**.
- The only known WWI "Living Road of Remembrance" to designate the **elm** as its memorial tree.
- One of the few "Living Road of Remembrance" projects designed to present **multiple layers of design and meaning**; the battlefields of Europe/France through tree lined road corridors, poppy and laurel wreaths, and wildflower plantings.

Corridor Management Plan Organization

Goals, Documentation, and Corridor Segments

The Des Moines Memorial Drive Corridor Management Plan is directed to achieve three goals: 1) *the comprehensive rehabilitation and promotion of this WWI “Living Road of Remembrance” memorial;* 2) *the identification and incorporation of other Des Moines Memorial Drive corridor community enhancements;* and 3) *the establishment and commencement of an effective memorial rehabilitation and corridor enhancement implementation and management plan.*

The Corridor Management Plan’s inventory, analysis and rehabilitation recommendations and guidelines are organized to meet specific documentation requirements for national and State of Washington *Scenic Byway* and *Heritage Tour Route* designation and for local and national landmark designation. Documentation must precisely address the corridor’s “intrinsic qualities”, 14 specific points of corridor description, action and both short-term and long-term implementation and management, and the corridors’ significant historic resource character defining elements. By organizing the Corridor Management Plan in this manner, the plan comprehensively addresses all critical planning points while enabling, through key designations, the **best opportunities for rehabilitation funding**.

In order to understand and illustrate how these recommendations and guidelines apply to the various characteristics, conditions and jurisdictional patterns along the corridor, (7) seven distinct geographical segments of Des Moines Memorial Drive were established: South Park Segment (King County/City of Seattle), Military Road Segment (King County), North SeaTac (SeaTac/Burien), Sunnysdale Segment (SeaTac/Burien), Wetlands Segment (Burien), Confluence Segment (Burien/SeaTac), and Des Moines Segment (Des Moines/Normandy Park). These segment distinctions are used in the Corridor Management Plan document for organizing corridor inventories and analysis and application of rehabilitation recommendations and guidelines to specific corridor sites, cost estimation and implementation and management strategies.

Planning Corridor and Limits

The Corridor Management Plan inventory, analysis and planning limits extend from the South Park Bridge and Duwamish River in King County to South 227th Street in the City of Des Moines – a length of nearly 10 miles, see ES-4 -- *Project Corridor and Jurisdictions Map*. Although memorial elm trees are known to have been planted south of Des Moines to the King County/Pierce County Line, no specific tree planting site evidence or remaining elm trees have been identified. The planning project corridor carefully examined resources, intrinsic qualities and

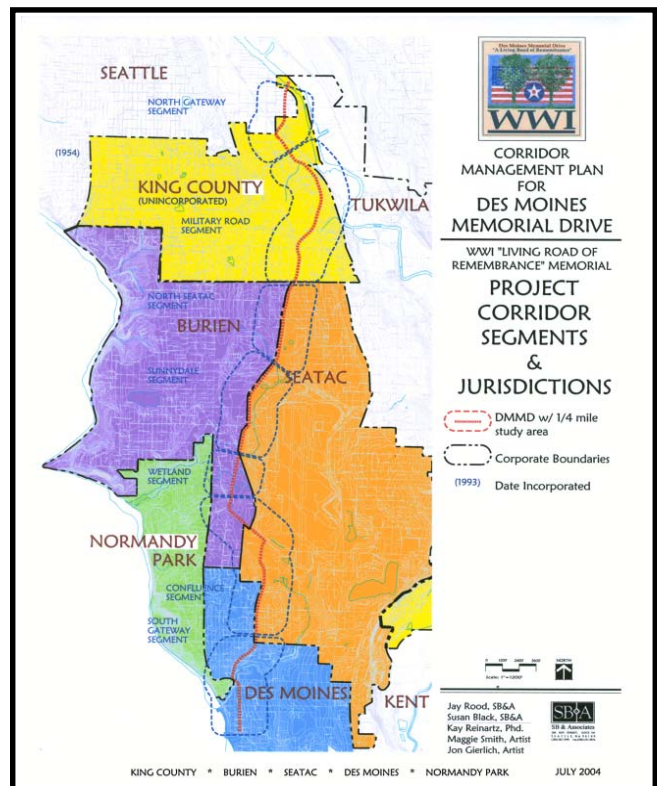


Figure ES-4. Project Corridor and Jurisdiction Map.

Des Moines Memorial Drive communities within a 1/4-mile area along each side of the corridor. Historic and contemporary regional influences were also examined, including transportation systems and linkages, community growth patterns and other public development initiatives affecting the corridor.

Recommended Designations and Nomination

After an extensive analysis of potential heritage and landmark designation options under existing local, state and national programs, two primary designations are recommended for the Memorial: designation under the **National Scenic Byways Program Heritage Tour Route**, and nomination to the **National Register of Historic Places**. The research and findings conducted under this study have verified the qualification of the corridor for each of these designations. These designations also qualify the corridor for various types of funding.

Making Changes to the Corridor

The Secretary of the Interior's **Standards for the Treatment of Historic Properties and the Guidelines for the Treatment of Cultural Landscapes** provides guidance to cultural landscape owners, stewards and managers, landscape architects, preservation planners, architects, engineers, contractors and project reviewers prior to and during the planning and implementation of treatment projects. A project such as Des Moines Memorial Drive requires specific rehabilitation and restoration actions under these guidelines. One such action is the preparation of a plan to define the significance of the resource and outline steps for its rehabilitation. This plan fulfills these application and approval standards.

Corridor Management Plan Issues

230 of the 808 elms visible on a 1930s aerial photograph remain on the corridor today. (Note: 1208 trees are recorded in the Seattle Garden Club's, *Ledger of Trees Sold*). It is known that the original planting area was from the South Park community to the Pierce County Line. Some trees were planted south of Des Moines in unrecorded locations; others have died or were removed for land use changes, roadway improvements, utility installation, driveways and disease. Other key Des Moines Memorial Drive Corridor Management Plan issues include:

Remaining Elms: Although some of the existing elms along the corridor appear to represent the best of this stately tree – the truth is that they are over 85-90 years old (depending on age of tree when planted in 1921) and are weakened due to disease, damage and poor maintenance. From 1989, when 362 memorial elm trees were counted, to the present, some 130 elms have been removed. Over the 2003/2004 winter another 5 elms were either cut or blown down. It's clear that, although preservation and protection of these remaining memorial elms should be continued in the near term, new memorial elms need to replace not only the existing elms but also the other elms lost over time.

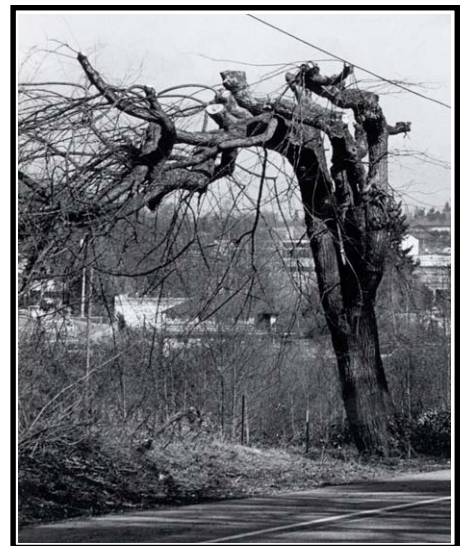


Figure ES-5. Elm trees are over 85 - 90 years old and are weakened due to disease, damage, poor maintenance, and utility line conflicts.

Elm Selection, Replacement, Protection and Care: Historic preservation rehabilitation standards require, first and foremost, the replacement of the character defining features of any cultural landscape. In the case of Des Moines Memorial Drive Rehabilitation it is the American elm tree, its character, scale, symbolic meaning and planting layout along a roadway – that was the original intent of this unique undertaking of statewide and national significance. The issues are, then, selecting a disease resistant variety, identifying and securing as many locations for elm tree planting as is possible, and providing for the long-term protection and care of each planted tree. This is not any easy task when considering the potential for preemption that exist along the corridor, including: major highway overpasses, driveways, utilities and retaining structure barriers; roadway improvement and vehicle movement conflicts; and street maintenance and operations impacts.

Existing and Planned Roadway Section: The roadway section is likely to vary along the corridor as Des Moines Memorial Drive is redesigned and updated in the coming 10 years – the section will most certainly be wider than it is today in many sections of the corridor. The original longitudinal spacing of 80 feet along the roadway margins and lateral distance of elms 44 feet apart and across the road was established when the road was 26 feet wide. Now the pavement varies in width from 34 to 44 feet in many sections. A critical questions is, *“How is it possible to establish a rehabilitated memorial with a consistent pattern and image when the roadway section and associated transportation and circulation facilities vary from one jurisdiction or corridor area to the other?”*

Right of Way (ROW) Width and Sustaining Memorial Capacity: In those areas where the ROW width is less than 66 feet (approximately 55% of the corridor length), there may not be enough area available to replant trees on both sides of the ROW. This dual or partnered tree-planting layout is needed to maintain the rhythm and canopy of the original memorial. Again, much of the “ROW capacity” required to develop and sustain memorial trees will depend on roadway, sidewalk and bike lane configuration and design.

Overhead Utilities: For 70% of the length of the corridor, major overhead utilities (power and communication lines) are in service on one side of the ROW or the other. These overhead utilities will preempt the planting of memorial elms proposed for ROW areas under or adjacent to them – effectively for one side of the ROW. The area of preemption this represents is nearly 40%



Figure ES-6. It is the American elm tree, its character, scale, symbolic meaning and planting layout along a roadway – that was the original intent of this unique undertaking of statewide and national significance.



Figure ES-7. This is a new portion of DMMD within SeaTac -- Roadway sections and associated transportation and circulation facilities will potentially vary from one jurisdiction or corridor area to the other.

of the ROW margins/frontage of the corridor. As can be seen by dramatic impacts on the original elms due to pruning of those trees under utility lines, without undergrounding or realignment, elms and overhead utilities can not coexist. This does represent another balancing of memorial rehabilitation goals and corridor benefits with the high cost and complexities of utility undergrounding and realignment.

Ownership and Responsibility: Five separate public jurisdictions/agencies own virtually all of the Des Moines Memorial Drive Right of Way: King County in the north, the City of Des Moines on the South, Burien and SeaTac in the middle, and WSDOT in separate ROW's throughout the corridor. This creates a challenge for coordination of consistent memorial rehabilitation and enhancement implementation leading to a consistent elm tree lined and memorial corridor.

Timing of Improvements: Major changes to the Des Moines Memorial Drive corridor is already occurring that directly impact memorial planning: One small portion of the new Des Moines Memorial Drive roadway is already constructed (SeaTac, S.188th Street to S. 192nd Street) and another 2 mile section is in construction (King County); 2 Bridges are being replaced or rebuilt essentially at either end of the corridor (South Park and Des Moines Creek/Marine View Drive Bridges), the planning and development of regional trail system linkages (SeaTac's' West Side Trail and associated WSDOT 509 extension trails) and the expansion of SeaTac Airport and associated city/neighborhood planning. There are other sections of the Drive that have no scheduled CIP or TIP upgrades. With these current and pending corridor changes in mind, *“what is the best time to implement memorial rehabilitation and corridor enhancements – given elm tree replacement availability, required coordination with roadway improvements; preparation and approvals for designations and funding; and the memorial centennial in 2021?”*

These issues and variables have been addressed in the Corridor Management Plan with resulting recommendations and guidelines developed for the rehabilitation Des Moines Memorial Drive.

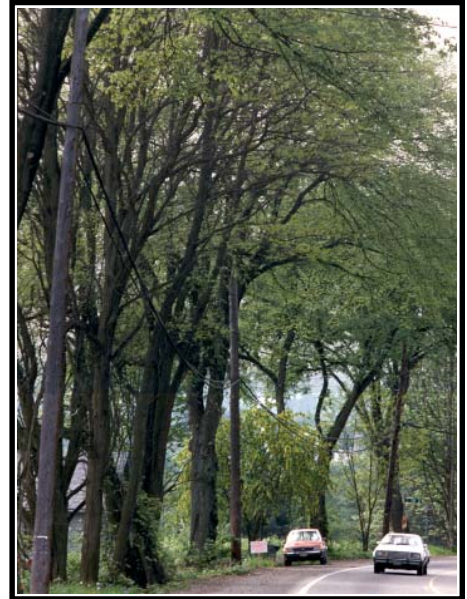


Figure ES-8. Without undergrounding or realignment, elms and overhead utilities can not coexist.

Plan Recommendations

There are two sets of recommendations, those that are associated with **Memorial Rehabilitation** and those that are **Corridor Enhancements**. Memorial rehabilitation recommendations relate directly to the preservation and rehabilitation of memorial elms and understory plantings and those other companion Des Moines Memorial Drive memorial features, elements, and sites that were developed to further memorialize or mark the memorial.

Corridor Enhancement recommendations are associated with those existing or potential features of the corridor that generate a positive benefit or compliment, in the form of “enhancements”, to Des Moines Memorial Drive and the surrounding communities. Although valuable contributions to corridor character, corridor enhancements are not directly supportive of memorial preservation or rehabilitation goals or standards and should, in this respect, be subordinate to the rehabilitation of memorial features and outcomes.

Key Strategic Plan Recommendations:

- Plan and restore Des Moines Memorial Drive as a single memorial; establish consistent set of memorial elements and support through the jurisdictions, time frames, budgets and design.
- Designate DMMD as landmark at local, county, state and national levels -- developing DMMD as a Heritage Tour Route, the first in the State of Washington.
- Prioritize funding and implementation of Memorial rehabilitation first. Funding and implementing other corridor enhancements as funding allows but fully coordinated with memorial rehabilitation and corridor enhancement guidelines.
- Prepare, by jurisdiction, land use and transportation planning that supports, through regulation and agreement, the goals, recommendations and guidelines of the DMMD Corridor Management Plan.

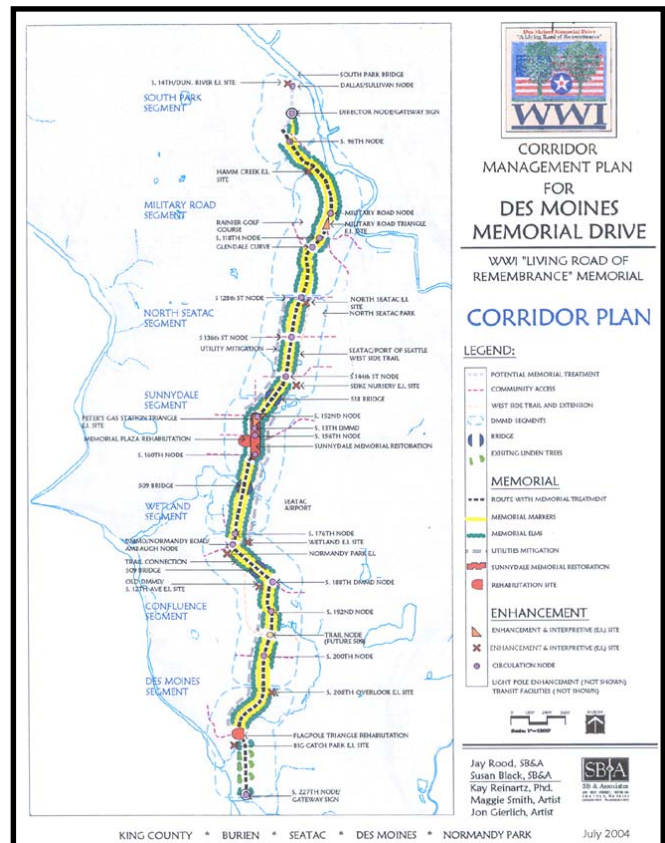
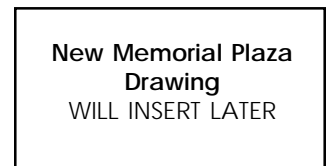
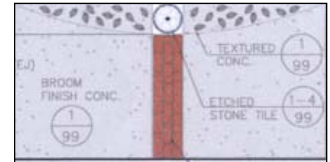


Figure ES-9. Corridor Plan.

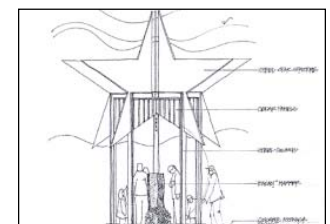
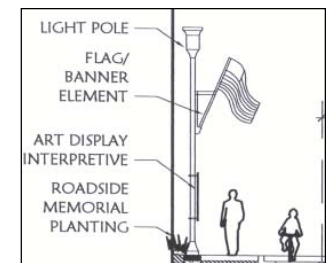
Key Memorial Rehabilitation Recommendations:

- Select, locate and plant disease resistant American Elm (*Ulmus americana*) a minimum of 8 feet behind the face of the designated (permanent) DMMD curb-line and 80 feet on center on each side of the DMMD ROW (in close proximity and pattern to original elm tree locations). Easements and property purchases should be undertaken when ROW area is insufficient and utilities realigned or placed underground when elm tree locations conflict with utilities.
- Place a memorial marker at the ground plane in front of each planted elm, and where an elm cannot be planted due to overhead wires or other conflicts.
- Seed wildflowers in the verge of the roadway.
- Fully redevelop the Sunnydale Segment as the primary focal memorial rehabilitation section of Des Moines memorial Drive, including: redevelop the roadway in this area to approximate the original brick roadway section and application of memorial elm trees guidelines; redesign and redevelopment the original 1962 Memorial Plaza at Sunnydale School to better accommodate visitors and celebrations; Underground or realign utilities in an 8-block segment, from South 152nd Street to South 162nd Street in order to support this full rehabilitation effort.
- Redevelop Flagpole Triangle in Des Moines.
- Provide interpretation, orientation and education for the Memorial.
- Integrate art into memorial improvements, and artists into the design process.
- Provide plan for long-term monitoring and care maintenance of memorial trees and improvements.



Key Corridor Enhancement Recommendations

- Provide lighting, banners/flag holders, displays, and interpretive displays to enhance the DMMD and community corridor.
- Provide additional memorial gateway, gathering and access sites along the corridor. Many enhancements sites have been identified for acquisition and/or development within each segment of the corridor.
- Integrate art elements focused on highlighting and promoting DMMD values and symbols.
- Highlight intersecting street and transportation nodes.





Schedule

There are many variables in scheduling improvements to a roadway that crosses four jurisdictions, intersects a state highway undergoing improvement, and lies adjacent to many sensitive areas. Fortunately and appropriately, Des Moines Memorial Drive has a centennial anniversary coming in 2021 that provides a perfect goal for achievement of the replanting of the memorial elm trees along the way, placement of the markers, redevelopment of the Sunnydale Memorial Plaza and seeding of the wildflowers that could be celebrated while veterans are honoring the fallen of World War I and other wars. This 17-year journey is already in motion with the development and approval of this Corridor Management Plan - providing a reasonable margin of time for implementation and completion of corridor memorial and enhancement features in accordance with rehabilitation recommendations and guidelines. Some rehabilitation elements are being implemented immediately, are being incorporated into associated public development projects, and could be activated as “early action projects” when DMMD roadway projects are implemented by each jurisdiction.

A recommended timeline of Des Moines Memorial Drive rehabilitation is shown in Figure ES-10 on page ES-10, illustrating the various stages and steps of this journey.

Costs

The plan contains recommendations for the Memorial Rehabilitation and recommendations for community-related Corridor Enhancements. The Memorial Rehabilitation recommendations are anticipated to cost approximately \$14.5 million, including \$4.5 million for utility undergrounding at specific sites along the DMMD. The Corridor Enhancement recommendations are anticipated to cost approximately \$29.25 million. This includes approximately \$15 million in pedestrian scale lighting. These estimated design and construction costs do not include or fully account for the roadway and other utility infrastructure improvement projects these memorial rehabilitation elements and corridor enhancements would be a component of or follow.

Summary of Des Moines Memorial Drive rehabilitation costs are shown in Figures ES-11 and ES-12 on pages ES-11 to 15.

Figure ES-10. Des Moines Memorial Drive Corridor Management Plan

Implementation and Management Schedule

Implementation Task	Early Implementation					Implementation		Centennial				
	2004	2005	2006	2007	2008	2009 to 2011	2012 to 2018	2019 to 2020	2021	2022	2023 - 2073	
Plan Completion and Approvals	<ul style="list-style-type: none"> Burien Des Moines Normandy Park SeaTac King County 											
Establish DMMD Management and Maintenance Organization	Establish Organization for Plan Implementation and DMMD Management - Maintenance											
Implementation Designations	<ul style="list-style-type: none"> Blue Star City King County State/FHWA National Other 	Additional Research and significance verification conducted. Applications submitted and approved										
Implementation Funding:	<ul style="list-style-type: none"> City County Community Partners Grants Federal/State programs 	Initiate funding strategies and grant applications – tied to designations (completion)	Ongoing	Funding for King County/Military Road , SeaTac Confluence, and South Des Moines Segments (for roadway sections completed)	Funding Secured and Coordinated with City TIPs and Roadway/Utility projects			Centennial Event Funding		Reconfirm/Secure Maintenance Funding		
Memorial Development												
South Park Segment							Complete Memorial Implementation					
Military Road Segment	King County Roadway & Memorial Markers		Tree Planting				Complete Memorial Implementation					
North SeaTac Segment							Complete Memorial Implementation					
Sunnydale Segment			Roadway, Memorial Markers & Trees				Complete Memorial Implementation					
Wetland Segment							Complete Memorial Implementation					
Confluence Segment			Tree Planting on Existing Built Roads				Complete Memorial Implementation					
Des Moines Segment			Gateway Tree Planting				Complete Memorial Implementation					
Memorial Maintenance	Arborist Evaluation of existing Elms Maintain trees per recommendations	Ongoing Memorial Tree maintenance	Ongoing Memorial tree maintenance	Ongoing Memorial Tree maintenance	Original Trees replaced	Ongoing Memorial maintenance	Ongoing Memorial maintenance	Ongoing Memorial maintenance	Ongoing Memorial maintenance	Ongoing Memorial maintenance	Ongoing Memorial maintenance	
Memorial Programming and Marketing		Develop a Marketing Plan. Develop and promote DMMD Corridor and communities calendar.						Centennial Event Planning – French Involvement Sought	Centennial DMMD Celebration	Centennial DMMD Celebration		

Figure ES-11. Corridor Management Plan for Des Moines Memorial Drive
 Memorial Rehabilitation and Corridor Enhancement Implementation Cost Estimates-SUMMARY

SB & Associates, Inc. - July 2004		Whole Corridor		Corridor Segment										Totals				
Unit	Unit Cost	Quantity	Cost	South Park		Military Road		North SeaTac		Sunnydale		Wetland		Confluence		Des Moines		
				Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
MEMORIAL DESIGNATIONS																		
<i>Designation Action</i>																		
<i>Designation Totals</i>																		
			\$ 49,000.00		\$ 7,000.00		\$ 7,000.00		\$ 7,000.00		\$ 7,000.00		\$ 7,000.00		\$ 7,000.00		\$ 7,000.00	\$ 49,000.00
MEMORIAL RESTORATION AND PROTECTION																		
<i>Acquisitions or Entitlements</i>																		
<i>Subtotal</i>																		
			\$ 1,574,500.00		\$ 84,500.00		\$ 366,000.00		\$ 231,000.00		\$ 200,000.00		\$ 99,000.00		\$ 379,500.00		\$ 214,500.00	\$ 1,574,500.00
<i>Existing Original Elm Tree Protection, Monitoring</i>																		
<i>Subtotal</i>																		
			\$ 87,600.00		\$ 1,800.00		\$ 2,200.00		\$ 26,800.00		\$ 15,600.00		\$ 6,000.00		\$ 18,200.00		\$ 17,000.00	\$ 87,600.00
<i>Elm Tree</i>																		
<i>Subtotal</i>																		
			\$ 650,275.00		\$ 16,650.00		\$ 96,200.00		\$ 119,325.00		\$ 88,800.00		\$ 71,225.00		\$ 198,875.00		\$ 59,200.00	\$ 650,275.00
<i>Marker</i>																		
<i>Subtotal</i>																		
			\$ 423,600.00		\$ 7,200.00		\$ 114,000.00		\$ 68,000.00		\$ 57,200.00		\$ 30,800.00		\$ 108,800.00		\$ 37,600.00	\$ 423,600.00
<i>Ground Plain Memorial Landscape</i>																		
<i>Subtotal</i>																		
			\$ 243,500.00		\$ 8,500.00		\$ 56,500.00		\$ 36,250.00		\$ 36,250.00		\$ 19,000.00		\$ 56,500.00		\$ 30,500.00	\$ 243,500.00
<i>Undergrounding Utilities Mitigation</i>																		
<i>Subtotal</i>																		
			\$ 3,703,000.00		\$ 18,000.00		\$ 104,000.00		\$ 129,000.00		\$ 3,096,000.00		\$ 77,000.00		\$ 215,000.00		\$ 64,000.00	\$ 3,703,000.00
<i>Signage and Interpretation</i>																		
<i>Subtotal</i>																		
			\$ 35,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00	\$ 35,000.00
<i>Signage and Interpretive Installation</i>																		
<i>Subtotal</i>																		
			\$ 352,000.00		\$ 47,000.00		\$ 53,000.00		\$ 53,000.00		\$ 53,000.00		\$ 46,000.00		\$ 53,000.00		\$ 47,000.00	\$ 352,000.00
<i>Memorial Plaza Redevelopment/Rehabilitation</i>																		
<i>Subtotal</i>																		
			\$ 425,000.00		\$ -		\$ -		\$ -		\$ 425,000.00		\$ -		\$ -		\$ -	\$ 425,000.00
<i>Flagpole Triangle Rehabilitation</i>																		
<i>Subtotal</i>																		
			\$ 21,500.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		\$ 21,500.00	\$ 21,500.00
<i>Memorial Elements and Facilities Maintenance</i>																		
<i>Subtotal</i>																		
			\$ 460,800.00		\$ 24,000.00		\$ 110,400.00		\$ 67,200.00		\$ 57,600.00		\$ 28,800.00		\$ 110,400.00		\$ 62,400.00	\$ 460,800.00
<i>Subtotal Memorial</i>																		
			\$ 8,025,775.00		\$ 219,650.00		\$ 914,300.00		\$ 742,575.00		\$ 4,041,450.00		\$ 389,825.00		\$ 1,152,275.00		\$ 565,700.00	\$ 8,025,775.00
<i>Implementation/Construction Totals (- acquisition and maintenance)</i>																		
			\$ 5,906,475.00		\$ 99,150.00		\$ 425,900.00		\$ 432,375.00		\$ 3,771,850.00		\$ 250,025.00		\$ 650,375.00		\$ 276,800.00	\$ 5,906,475.00
<i>Contingency 20%</i>																		
			\$ 1,181,295.00		\$ 19,830.00		\$ 85,180.00		\$ 86,475.00		\$ 754,370.00		\$ 50,005.00		\$ 130,075.00		\$ 55,360.00	\$ 1,181,295.00
<i>Taxes 8.8 % (note: may be exempt as roadway project)</i>																		
			\$ 623,723.76		\$ 10,470.24		\$ 44,975.04		\$ 45,658.80		\$ 398,307.36		\$ 26,402.64		\$ 68,679.60		\$ 29,230.08	\$ 623,723.76
<i>Design, Administration, Permitting 40%</i>																		
			\$ 2,835,108.00		\$ 47,592.00		\$ 204,432.00		\$ 207,540.00		\$ 1,810,488.00		\$ 120,012.00		\$ 312,180.00		\$ 132,864.00	\$ 2,835,108.00
<i>Total Memorial - Construction</i>																		
			\$ 10,546,601.76		\$ 177,042.24		\$ 760,487.04		\$ 772,048.80		\$ 6,735,015.36		\$ 446,444.64		\$ 1,161,309.60		\$ 494,254.08	\$ 10,546,601.76
<i>Acquisitions and Entitlements</i>																		
			\$ 1,574,500.00		\$ 84,500.00		\$ 366,000.00		\$ 231,000.00		\$ 200,000.00		\$ 99,000.00		\$ 379,500.00		\$ 214,500.00	\$ 1,574,500.00
<i>Memorial Research and Planning Total</i>																		
			\$ 84,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00	\$ 84,000.00
<i>Memorial Maintenance Total</i>																		
			\$ 460,800.00		\$ 24,000.00		\$ 110,400.00		\$ 67,200.00		\$ 57,600.00		\$ 28,800.00		\$ 110,400.00		\$ 62,400.00	\$ 460,800.00
Grand Total																		
			\$ 12,665,901.76		\$ 297,542.24		\$ 1,248,887.04		\$ 1,082,248.80		\$ 7,004,615.36		\$ 586,244.64		\$ 1,663,209.60		\$ 783,154.08	\$ 12,665,901.76

Figure ES-11. Corridor Management Plan for Des Moines Memorial Drive (Continued)
 Memorial Rehabilitation and Corridor Enhancement Implementation Cost Estimates-SUMMARY

MEMORIAL ENHANCEMENTS			Whole Corridor		Corridor Segment		Milit. Road		N. SeaTac		Sunnydale		Wetland		Confluence		Des Moines		Totals
	Unit	Unit Cost	Quantity	Cost	S. Park Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Acquisitions or Entitlements																			
Subtotal				\$ 862,000.00		\$ 7,000.00		\$ 35,000.00		\$ 12,000.00		\$ 729,000.00		\$ 28,000.00		\$ 36,000.00		\$ 15,000.00	\$ 862,000.00
Lighting																			
Subtotal				\$ 10,960,000.00		\$ 580,000.00		\$ 2,890,000.00		\$ 1,730,000.00		\$ 1,460,000.00		\$ 700,000.00		\$ 2,600,000.00		\$ 1,020,000.00	\$ 10,980,000.00
Memorial Banner/Flag Holders on Light Poles																			
Subtotal				\$ 1,168,500.00		\$ 58,300.00		\$ 303,400.00		\$ 181,600.00		\$ 153,400.00		\$ 73,600.00		\$ 286,000.00		\$ 112,200.00	\$ 1,168,500.00
Interpretive Displays on Light Poles																			
Subtotal				\$ 1,194,600.00		\$ 50,600.00		\$ 316,800.00		\$ 189,200.00		\$ 162,800.00		\$ 79,200.00		\$ 286,000.00		\$ 110,000.00	\$ 1,194,600.00
Corridor Furniture																			
Subtotal				\$ 1,283,000.00		\$ 62,000.00		\$ 327,000.00		\$ 210,000.00		\$ 174,000.00		\$ 85,000.00		\$ 309,000.00		\$ 116,000.00	\$ 1,283,000.00
Enhancement Area Development																			
Subtotal				\$ 1,160,000.00		\$ 100,000.00		\$ 375,000.00		\$ 175,000.00		\$ 250,000.00		\$ 25,000.00		\$ 150,000.00		\$ 85,000.00	\$ 1,160,000.00
Enhancements Maintenance																			
Subtotal				\$ 230,400.00		\$ 12,000.00		\$ 55,200.00		\$ 33,600.00		\$ 28,800.00		\$ 14,400.00		\$ 55,200.00		\$ 31,200.00	\$ 230,400.00
Enhancements Construction Totals																			
Contingency 20%				\$ 15,766,100.00		\$ 850,900.00		\$ 4,212,200.00		\$ 2,485,800.00		\$ 2,200,200.00		\$ 962,800.00		\$ 3,631,000.00		\$ 1,443,200.00	\$ 15,786,100.00
Taxes 8.8 % (may be exempted with roadway project)				\$ 3,153,220.00		\$ 170,180.00		\$ 842,440.00		\$ 497,160.00		\$ 440,040.00		\$ 192,560.00		\$ 726,200.00		\$ 288,640.00	\$ 3,157,220.00
Design, Administration, Permitting 40%				\$ 1,664,900.16		\$ 89,855.04		\$ 444,808.32		\$ 262,500.48		\$ 232,341.12		\$ 101,671.68		\$ 383,433.60		\$ 152,401.92	\$ 1,667,012.16
Total Enhancements - Construction				\$ 7,567,728.00		\$ 408,432.00		\$ 2,021,856.00		\$ 1,193,184.00		\$ 1,056,096.00		\$ 462,144.00		\$ 1,742,880.00		\$ 692,736.00	\$ 7,577,328.00
Memorial Maintenance Total				\$ 28,151,948.16		\$ 1,519,367.04		\$ 7,521,304.32		\$ 4,438,644.48		\$ 3,928,677.12		\$ 1,719,175.68		\$ 6,483,513.60		\$ 2,576,977.92	\$ 28,187,660.16
Acquisitions and Entitlements				\$ 862,000.00		\$ 7,000.00		\$ 35,000.00		\$ 12,000.00		\$ 729,000.00		\$ 28,000.00		\$ 36,000.00		\$ 15,000.00	\$ 862,000.00
Memorial Maintenance Total				\$ 230,400.00		\$ 12,000.00		\$ 55,200.00		\$ 33,600.00		\$ 28,800.00		\$ 14,400.00		\$ 55,200.00		\$ 31,200.00	\$ 230,400.00
Grand Total				\$ 29,244,348.16		\$ 1,538,367.04		\$ 7,611,504.32		\$ 4,484,244.48		\$ 4,686,477.12		\$ 1,761,575.68		\$ 6,574,713.60		\$ 2,623,177.92	\$ 29,280,060.16
MEMORIAL AND ENHANCEMENTS																			
Total - Construction				\$ 38,698,549.92		\$ 1,696,409.28		\$ 8,281,791.36		\$ 5,210,693.28		\$ 10,663,692.48		\$ 2,165,620.32		\$ 7,644,823.20		\$ 3,071,232.00	\$ 38,734,261.92
Acquisitions and Entitlements				\$ 2,436,500.00		\$ 91,500.00		\$ 401,000.00		\$ 243,000.00		\$ 929,000.00		\$ 127,000.00		\$ 415,500.00		\$ 229,500.00	\$ 2,436,500.00
Memorial Research and Planning Total				\$ 84,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00	\$ 84,000.00
Memorial Maintenance Total				\$ 691,200.00		\$ 36,000.00		\$ 165,600.00		\$ 100,800.00		\$ 86,400.00		\$ 43,200.00		\$ 165,600.00		\$ 93,600.00	\$ 691,200.00
Memorial and Enhancement Total				\$ 41,910,249.92		\$ 1,835,909.28		\$ 8,860,391.36		\$ 5,566,493.28		\$ 11,691,092.48		\$ 2,347,820.32		\$ 8,237,923.20		\$ 3,406,332.00	\$ 41,945,961.92
DMMD Marketing and Promotions Program																			
Marketing and Promotions - 6 Years	each year	\$ 75,000.00	6	\$ 450,000.00															
Total				\$ 450,000.00															
Grand Total				\$ 42,360,249.92															
Sales Tax Exemption				\$ 2,288,623.92															

Figure ES-12. Corridor Management Plan for Des Moines Memorial Drive
Memorial Rehabilitation and Corridor Enhancement Implementation Cost Estimates-Detailed

SB & Associates, Inc. - July 2004		Whole Corridor		Corridor Segment										Totals					
Unit	Unit Cost	Quantity	Cost	South Park		Military Road		North SeaTac		Sunnydale		Wetland		Confluence		Des Moines			
				Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost		
MEMORIAL DESIGNATIONS																			
<i>Designation Action</i>																			
Extended Designations Research (consultant assistance)	LS	\$ 21,000.00	1	\$ 21,000.00	0	\$ 3,000.00	0	\$ 3,000.00	0	\$ 3,000.00		\$ 3,000.00	\$ 3,000.00		\$ 3,000.00		\$ 3,000.00	\$ 21,000.00	
Applications and submittals (consultant assistance)	each	\$ 4,000.00	7	\$ 28,000.00	0	\$ 4,000.00	0	\$ 4,000.00	0	\$ 4,000.00		\$ 4,000.00	\$ 4,000.00		\$ 4,000.00		\$ 4,000.00	\$ 28,000.00	
Designation Totals				\$ 49,000.00		\$ 7,000.00		\$ 7,000.00		\$ 7,000.00		\$ 7,000.00	\$ 7,000.00		\$ 7,000.00		\$ 7,000.00	\$ 49,000.00	
MEMORIAL RESTORATION AND PROTECTION																			
<i>Acquisitions or Entitlements</i>																			
Memorial Plaza/School District Easement (legal, Recording)	LS	\$ 2,000.00	1	\$ 2,000.00	0	\$ -	0	\$ -		\$ -	1	\$ 2,000.00	\$ -		\$ -		\$ -	\$ 2,000.00	
Existing memorial trees in WSDOT ROW - S. 14th	LS	\$ 2,000.00	1	\$ 2,000.00	1	\$ 2,000.00	0	\$ -		\$ -		\$ -	\$ -		\$ -		\$ -	\$ 2,000.00	
WSDOT, S. 96th ROW easement/use agreements	LS	\$ 2,000.00	1	\$ 2,000.00	0	\$ -	1	\$ 2,000.00		\$ -		\$ -	\$ -		\$ -		\$ -	\$ 2,000.00	
Existing memorial trees in KC ROW? Verify and respond	LS	\$ 1,000.00	1	\$ 1,000.00	0	\$ -	1	\$ 1,000.00		\$ -		\$ -	\$ -		\$ -		\$ -	\$ 1,000.00	
DMMD Drive ROW acquisitions (2' to 5' strips), portion /mile	LS	\$ 150,000.00	9.5	\$ 1,425,000.00	0.5	\$ 75,000.00	2.2	\$ 330,000.00	1.4	\$ 210,000.00	1.2	\$ 180,000.00	0.6	\$ 90,000.00	2.3	\$ 345,000.00	1.3	\$ 195,000.00	\$ 1,425,000.00
DMMD/Private Property Access/Drive Utility easements/use +	LS	\$ 150,000.00	0.95	\$ 142,500.00	0.05	\$ 7,500.00	0.22	\$ 33,000.00	0.14	\$ 21,000.00	0.12	\$ 18,000.00	0.06	\$ 9,000.00	0.23	\$ 34,500.00	0.13	\$ 19,500.00	\$ 142,500.00
Subtotal				\$ 1,574,500.00		\$ 84,500.00		\$ 366,000.00		\$ 231,000.00		\$ 200,000.00	\$ 99,000.00		\$ 379,500.00		\$ 214,500.00	\$ 1,574,500.00	
<i>Existing Original Elm Tree Protection, Monitoring</i>																			
Monitor and Maintain - 6 years	each tree	\$ 200.00	246	\$ 49,200.00	3	\$ 600.00	5	\$ 1,000.00	74	\$ 14,800.00	48	\$ 9,600.00	20	\$ 4,000.00	51	\$ 10,200.00	45	\$ 9,000.00	\$ 49,200.00
Tree Removal, when necessary -5% per year/6 years	each tree	\$ 400.00	96	\$ 38,400.00	3	\$ 1,200.00	3	\$ 1,200.00	30	\$ 12,000.00	15	\$ 6,000.00	5	\$ 2,000.00	20	\$ 8,000.00	20	\$ 8,000.00	\$ 38,400.00
Subtotal				\$ 87,600.00		\$ 1,800.00		\$ 2,200.00		\$ 26,800.00		\$ 15,600.00	\$ 6,000.00		\$ 18,200.00		\$ 17,000.00	\$ 87,600.00	
<i>Elm Tree</i>																			
Elm Tree (2 1/2" caliper, 10'-12"+, American Elm)	each tree	\$ 300.00	703	\$ 210,900.00	18	\$ 5,400.00	104	\$ 31,200.00	129	\$ 38,700.00	96	\$ 28,800.00	77	\$ 23,100.00	215	\$ 64,500.00	64	\$ 19,200.00	\$ 210,900.00
Tree, Stake, Soil, Drainage, Root Barrier	each tree	\$ 400.00	703	\$ 281,200.00	18	\$ 7,200.00	104	\$ 41,600.00	129	\$ 51,600.00	96	\$ 38,400.00	77	\$ 30,800.00	215	\$ 86,000.00	64	\$ 25,600.00	\$ 281,200.00
Plant Establishment Maintenance (3 years)	each tree	\$ 225.00	703	\$ 158,175.00	18	\$ 4,050.00	104	\$ 23,400.00	129	\$ 29,025.00	96	\$ 21,600.00	77	\$ 17,325.00	215	\$ 48,375.00	64	\$ 14,400.00	\$ 158,175.00
Subtotal				\$ 650,275.00		\$ 16,650.00		\$ 96,200.00		\$ 119,325.00		\$ 88,800.00	\$ 71,225.00		\$ 198,875.00		\$ 59,200.00	\$ 650,275.00	
<i>Marker</i>																			
10x5 Concrete, 1x1 Arc, Brick Band	each marker	\$ 300.00	1059	\$ 317,700.00	18	\$ 5,400.00	285	\$ 85,500.00	170	\$ 51,000.00	143	\$ 42,900.00	77	\$ 23,100.00	272	\$ 81,600.00	94	\$ 28,200.00	\$ 317,700.00
Art Integration, Elm Marker	each marker	\$ 100.00	1059	\$ 105,900.00	18	\$ 1,800.00	285	\$ 28,500.00	170	\$ 17,000.00	143	\$ 14,300.00	77	\$ 7,700.00	272	\$ 27,200.00	94	\$ 9,400.00	\$ 105,900.00
Subtotal				\$ 423,600.00		\$ 7,200.00		\$ 114,000.00		\$ 68,000.00		\$ 57,200.00	\$ 30,800.00		\$ 108,800.00		\$ 37,600.00	\$ 423,600.00	
<i>Ground Plain Memorial Landscape/Paving</i>																			
Soil and Seeding - Native/Memorial Wildflowers	SF	\$ 1.00	93000	\$ 93,000.00	5000	\$ 5,000.00	20000	\$ 20,000.00	15000	\$ 15,000.00	15000	\$ 15,000.00	8000	\$ 8,000.00	20000	\$ 20,000.00	10000	\$ 10,000.00	\$ 93,000.00
Groundcovers	SF	\$ 2.00	57000	\$ 114,000.00	1000	\$ 2,000.00	14000	\$ 28,000.00	8000	\$ 16,000.00	8000	\$ 16,000.00	4000	\$ 8,000.00	14000	\$ 28,000.00	8000	\$ 16,000.00	\$ 114,000.00
Roadway brick patterning	SF	\$ 8.00	129,600	\$ 1,036,800.00							129,600	\$ 1,036,800.00							
Plant Establishment Maintenance (3 years)	SF	\$ 0.25	146000	\$ 36,500.00	6000	\$ 1,500.00	34000	\$ 8,500.00	21000	\$ 5,250.00	21000	\$ 5,250.00	12000	\$ 3,000.00	34000	\$ 8,500.00	18000	\$ 4,500.00	\$ 36,500.00
Subtotal				\$ 1,280,300.00		\$ 8,500.00		\$ 56,500.00		\$ 36,250.00		\$ 1,073,050.00	\$ 19,000.00		\$ 56,500.00		\$ 30,500.00	\$ 1,280,300.00	
<i>Undergrounding Utilities Mitigation</i>																			
Utility realignment, protection, barriers, vaulting	each tree	\$ 1,000.00	703	\$ 703,000.00	18	\$ 18,000.00	104	\$ 104,000.00	129	\$ 129,000.00	96	\$ 96,000.00	77	\$ 77,000.00	215	\$ 215,000.00	64	\$ 64,000.00	\$ 703,000.00
Sunnydale Segment Undergrounding 152nd to 160th	LS	\$ 3,000,000.00	1	\$ 3,000,000.00								\$ 3,000,000.00						\$ 3,000,000.00	
Subtotal				\$ 3,703,000.00		\$ 18,000.00		\$ 104,000.00		\$ 129,000.00		\$ 3,096,000.00	\$ 77,000.00		\$ 215,000.00		\$ 64,000.00	\$ 3,703,000.00	
<i>Signage and Interpretation</i>																			
Signage and Interpretive Plan and Design	LS	\$ 35,000.00	1	\$ 35,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00	\$ 35,000.00
Subtotal				\$ 35,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00		\$ 5,000.00	\$ 35,000.00
<i>Signage and Interpretive Installation</i>																			
Signage	each	\$ 500.00	34	\$ 17,000.00	4	\$ 2,000.00	6	\$ 3,000.00	6	\$ 3,000.00	6	\$ 3,000.00	2	\$ 1,000.00	6	\$ 3,000.00	4	\$ 2,000.00	\$ 17,000.00
Interpretive Displays	each	\$ 5,000.00	7	\$ 35,000.00	1	\$ 5,000.00	1	\$ 5,000.00	1	\$ 5,000.00	1	\$ 5,000.00	1	\$ 5,000.00	1	\$ 5,000.00	1	\$ 5,000.00	\$ 35,000.00
Honor Sentinel Archive Displays	each	\$ 35,000.00	7	\$ 245,000.00	1	\$ 35,000.00	1	\$ 35,000.00	1	\$ 35,000.00	1	\$ 35,000.00	1	\$ 35,000.00	1	\$ 35,000.00	1	\$ 35,000.00	\$ 245,000.00
Art Integration	each element	\$ 500.00	110	\$ 55,000.00	10	\$ 5,000.00	20	\$ 10,000.00	20	\$ 10,000.00	20	\$ 10,000.00	10	\$ 5,000.00	20	\$ 10,000.00	10	\$ 5,000.00	\$ 55,000.00
Subtotal				\$ 352,000.00		\$ 47,000.00		\$ 53,000.00		\$ 53,000.00		\$ 53,000.00	\$ 46,000.00		\$ 53,000.00		\$ 47,000.00	\$ 352,000.00	
<i>Memorial Plaza Redevelopment/Rehabilitation</i>																			
(from 156th to Old Stone Wall)																			
Property entitlement (see above)																			
Detach and store stone panels, vaults, plaques	LS	\$ 20,000.00	1	\$ 20,000.00		\$ -		\$ -		\$ -	1	\$ 20,000.00		\$ -		\$ -		\$ -	\$ 20,000.00
Demolish and remove materials	LS	\$ 20,000.00	1	\$ 20,000.00		\$ -		\$ -		\$ -	1	\$ 20,000.00		\$ -		\$ -		\$ -	\$ 20,000.00
Excavate and remove materials	LS	\$ 20,000.00	1	\$ 20,000.00		\$ -		\$ -		\$ -	1	\$ 20,000.00		\$ -		\$ -		\$ -	\$ 20,000.00
Relocate Cherry Trees toward school	LS	\$ 5,000.00	1	\$ 5,000.00		\$ -		\$ -		\$ -	1	\$ 5,000.00		\$ -		\$ -		\$ -	\$ 5,000.00
New walls, and memorial elements reattached	LS	\$ 150,000.00	1	\$ 150,000.00		\$ -		\$ -		\$ -	1	\$ 150,000.00		\$ -		\$ -		\$ -	\$ 150,000.00
Stairways, ramps and hardware	LS	\$ 50,000.00	1	\$ 50,000.00		\$ -		\$ -		\$ -	1	\$ 50,000.00		\$ -		\$ -		\$ -	\$ 50,000.00
Flagpoles	each	\$ 4,000.00	3	\$ 12,000.00		\$ -		\$ -		\$ -	3	\$ 12,000.00		\$ -		\$ -		\$ -	\$ 12,000.00
Paving: mix special with standard frame	SF	\$ 8.00	8000	\$ 64,000.00		\$ -		\$ -		\$ -	8000	\$ 64,000.00		\$ -		\$ -		\$ -	\$ 64,000.00
Site furniture: benches, refuse	LS	\$ 30,000.00	1	\$ 30,000.00		\$ -		\$ -		\$ -	1	\$ 30,000.00		\$ -		\$ -		\$ -	\$ 30,000.00
Interpretive/educational display	LS	\$ 10,000.00	1	\$ 10,000.00		\$ -		\$ -		\$ -	1	\$ 10,000.00		\$ -		\$ -		\$ -	\$ 10,000.00
Lighting: wall and area	LS	\$ 20,000.00	1	\$ 20,000.00		\$ -		\$ -		\$ -	1	\$ 20,000.00		\$ -		\$ -		\$ -	\$ 20,000.00
Plant material and irrigation	SF	\$ 4.00	6000	\$ 24,000.00		\$ -		\$ -		\$ -	6000	\$ 24,000.00		\$ -		\$ -		\$ -	\$ 24,000.00
Elm trees (see Sunnydale Segment)											0	\$ -		\$ -		\$ -		\$ -	\$ -
Subtotal				\$ 425,000.00		\$ -		\$ -		\$ -		\$ 425,000.00	\$ -		\$ -		\$ -	\$ 425,000.00	

Figure ES-12. Corridor Management Plan for Des Moines Memorial Drive
Memorial Rehabilitation and Corridor Enhancement Implementation Cost Estimates-Detailed

		Whole Corridor		Corridor Segment		S. Park		Milit. Road		N. SeaTac		Sunnydale		Wetland		Confluence		Des Moines		Totals
Unit	Unit Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Flagpole Triangle Rehabilitation																				
Flag pole restoration - clean and paint	Per flagpole	\$ 5,000.00	1	\$ 5,000.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		1	\$ 5,000.00	\$ 5,000.00
Replant per DMMD restoration standard (see M. Lands.)	SF	\$ 1.00	4000	\$ 4,000.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		4000	\$ 4,000.00	\$ 4,000.00
Plant for enhancement memorial restoration	SF	\$ 3.00	4000	\$ 12,000.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		4000	\$ 12,000.00	\$ 12,000.00
	LS	\$ 500.00	1	\$ 500.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -		1	\$ 500.00	\$ 500.00
Subtotal				\$ 21,500.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -			\$ 21,500.00	\$ 21,500.00
Memorial Elements and Facilities Maintenance																				
6 years corridor maintenance and repair, replacement	mile	\$ 48,000.00	9.6	\$ 460,800.00	0.5	\$ 24,000.00	2.3	\$ 110,400.00	1.4	\$ 67,200.00	1.2	\$ 57,600.00	0.6	\$ 28,800.00	2.3	\$ 110,400.00	1.3	\$ 62,400.00	\$ 460,800.00	\$ 460,800.00
Subtotal				\$ 460,800.00		\$ 24,000.00		\$ 110,400.00		\$ 67,200.00		\$ 57,600.00		\$ 28,800.00		\$ 110,400.00			\$ 62,400.00	\$ 460,800.00
Subtotal Memorial				\$ 9,062,575.00		\$ 219,650.00		\$ 914,300.00		\$ 742,575.00		\$ 5,078,250.00		\$ 389,825.00		\$ 1,152,275.00			\$ 565,700.00	\$ 9,062,575.00
Implementation/Construction Totals (- acquisition and maintenance)																				
				\$ 6,943,275.00		\$ 99,150.00		\$ 425,900.00		\$ 432,375.00		\$ 4,808,650.00		\$ 250,025.00		\$ 650,375.00			\$ 276,800.00	\$ 6,943,275.00
Contingency 20%				\$ 1,388,655.00		\$ 19,830.00		\$ 85,180.00		\$ 86,475.00		\$ 961,730.00		\$ 50,005.00		\$ 130,075.00			\$ 55,360.00	\$ 1,388,655.00
Taxes 8.8 % (note: may be exempt with roadway project)				\$ 733,209.84		\$ 10,470.24		\$ 44,975.04		\$ 45,658.80		\$ 507,793.44		\$ 26,402.64		\$ 68,679.60			\$ 29,230.08	\$ 733,209.84
Design, Administration, Permitting 40%				\$ 3,332,772.00		\$ 47,592.00		\$ 204,432.00		\$ 207,540.00		\$ 2,308,152.00		\$ 120,012.00		\$ 312,180.00			\$ 132,864.00	\$ 3,332,772.00
Total Memorial - Construction				\$ 12,397,911.84		\$ 177,042.24		\$ 760,487.04		\$ 772,048.80		\$ 8,586,325.44		\$ 446,444.64		\$ 1,161,309.60			\$ 494,254.08	\$ 12,397,911.84
Acquisitions and Entitlements				\$ 1,574,500.00		\$ 84,500.00		\$ 366,000.00		\$ 231,000.00		\$ 200,000.00		\$ 99,000.00		\$ 379,500.00			\$ 214,500.00	\$ 1,574,500.00
Memorial Research and Planning Total				\$ 84,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00			\$ 12,000.00	\$ 84,000.00
Memorial Maintenance Total				\$ 460,800.00		\$ 24,000.00		\$ 110,400.00		\$ 67,200.00		\$ 57,600.00		\$ 28,800.00		\$ 110,400.00			\$ 62,400.00	\$ 460,800.00
Grand Total				\$ 14,517,211.84		\$ 297,542.24		\$ 1,248,887.04		\$ 1,082,248.80		\$ 8,855,925.44		\$ 586,244.64		\$ 1,663,209.60			\$ 783,154.08	\$ 14,517,211.84
MEMORIAL ENHANCEMENTS																				
Acquisitions or Entitlements																				
S. 14th and Duwamish River Overlook (easement)	LS	\$ 4,000.00	1	\$ 4,000.00	1	\$ 4,000.00		\$ -		\$ -		\$ -		\$ -		\$ -			\$ -	\$ 4,000.00
Hamm Creek Wayside (acquire)	LS	\$ 22,000.00	1	\$ 22,000.00		\$ -	1	\$ 22,000.00		\$ -		\$ -		\$ -		\$ -			\$ -	\$ 22,000.00
King County Military Road Triangle (use)	LS	\$ 1,000.00	1	\$ 1,000.00		\$ -	1	\$ 1,000.00		\$ -		\$ -		\$ -		\$ -			\$ -	\$ 1,000.00
North SeaTac Park (NW Park Entry, 136th, 144th)	LS	\$ 1,000.00	1	\$ 1,000.00		\$ -		\$ -	1	\$ 1,000.00		\$ -		\$ -		\$ -			\$ -	\$ 1,000.00
Seike Interpretive Site/Port of Seattle (easement)	LS	\$ 2,000.00	1	\$ 2,000.00		\$ -		\$ -	1	\$ 2,000.00		\$ -		\$ -		\$ -			\$ -	\$ 2,000.00
Peters Triangle (DMMD, 152nd, 8th) (acquire)	LS	\$ 720,000.00	1	\$ 720,000.00		\$ -		\$ -		\$ -	1	\$ 720,000.00		\$ -		\$ -			\$ -	\$ 720,000.00
Wetland Interpretive Site (acquire)	LS	\$ 22,000.00	1	\$ 22,000.00		\$ -		\$ -		\$ -		\$ -	1	\$ 22,000.00		\$ -			\$ -	\$ 22,000.00
DMMD Ambaugh/Normandy Road Sign, Intep. (acquire)	LS	\$ 22,000.00	1	\$ 22,000.00		\$ -		\$ -		\$ -		\$ -		\$ -	1	\$ 22,000.00			\$ -	\$ 22,000.00
DMMD/188th Southwest Corner (easement)	LS	\$ 2,000.00	1	\$ 2,000.00		\$ -		\$ -		\$ -		\$ -		\$ -	1	\$ 2,000.00			\$ -	\$ 2,000.00
208 th/Des Moines Creek Valley Overlook/Interp	LS	\$ 4,000.00	1	\$ 4,000.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	1	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00
Big Catch Park use (tree/Sentinel, Interp)	LS	\$ 2,000.00	1	\$ 2,000.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	1	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00
DMMD Node development (20 sites - use and acquire)	LS	\$ 3,000.00	20	\$ 60,000.00	1	\$ 3,000.00	4	\$ 12,000.00	3	\$ 9,000.00	3	\$ 9,000.00	2	\$ 6,000.00	4	\$ 12,000.00	3	\$ 9,000.00	\$ 9,000.00	\$ 60,000.00
Subtotal				\$ 862,000.00		\$ 7,000.00		\$ 35,000.00		\$ 12,000.00		\$ 729,000.00		\$ 28,000.00		\$ 36,000.00			\$ 15,000.00	\$ 862,000.00
Lighting																				
20 foot light poles, conc., footing/base, electrical	each	\$ 10,000.00	1096	\$ 10,960,000.00	56	\$ 560,000.00	289	\$ 2,890,000.00	173	\$ 1,730,000.00	146	\$ 1,460,000.00	70	\$ 700,000.00	260	\$ 2,600,000.00	102	\$ 1,020,000.00	\$ 10,960,000.00	\$ 10,960,000.00
Subtotal				\$ 10,960,000.00		\$ 560,000.00		\$ 2,890,000.00		\$ 1,730,000.00		\$ 1,460,000.00		\$ 700,000.00		\$ 2,600,000.00			\$ 1,020,000.00	\$ 10,960,000.00
Memorial Banner/Flag Holders on Light Poles																				
Holders/Brackets	each	\$ 1,000.00	1096	\$ 1,096,000.00	56	\$ 56,000.00	289	\$ 289,000.00	173	\$ 173,000.00	146	\$ 146,000.00	70	\$ 70,000.00	260	\$ 260,000.00	102	\$ 102,000.00	\$ 1,096,000.00	\$ 1,096,000.00
Art Integration	each element	\$ 100.00	725	\$ 72,500.00	23	\$ 2,300.00	144	\$ 14,400.00	86	\$ 8,600.00	74	\$ 7,400.00	36	\$ 3,600.00	260	\$ 26,000.00	102	\$ 10,200.00	\$ 72,500.00	\$ 72,500.00
Subtotal				\$ 1,168,500.00		\$ 58,300.00		\$ 303,400.00		\$ 181,600.00		\$ 153,400.00		\$ 73,600.00		\$ 286,000.00			\$ 112,200.00	\$ 1,168,500.00
Interpretive Displays on Light Poles																				
Display	each	\$ 2,000.00	543	\$ 1,086,000.00	23	\$ 46,000.00	144	\$ 288,000.00	86	\$ 172,000.00	74	\$ 148,000.00	36	\$ 72,000.00	130	\$ 260,000.00	50	\$ 100,000.00	\$ 1,086,000.00	\$ 1,086,000.00
Art integration	each display	\$ 200.00	543	\$ 108,600.00	23	\$ 4,600.00	144	\$ 28,800.00	86	\$ 17,200.00	74	\$ 14,800.00	36	\$ 7,200.00	130	\$ 26,000.00	50	\$ 10,000.00	\$ 108,600.00	\$ 108,600.00
Subtotal				\$ 1,194,600.00		\$ 50,600.00		\$ 316,800.00		\$ 189,200.00		\$ 162,800.00		\$ 79,200.00		\$ 286,000.00			\$ 110,000.00	\$ 1,194,600.00
Corridor Furniture																				
Benches	each	\$ 3,500.00	270	\$ 945,000.00	12	\$ 42,000.00	70	\$ 245,000.00	44	\$ 154,000.00	36	\$ 126,000.00	18	\$ 63,000.00	66	\$ 231,000.00	24	\$ 84,000.00	\$ 945,000.00	\$ 945,000.00
Refuse Container	each	\$ 1,000.00	270	\$ 270,000.00	12	\$ 12,000.00	70	\$ 70,000.00	44	\$ 44,000.00	36	\$ 36,000.00	18	\$ 18,000.00	66	\$ 66,000.00	24	\$ 24,000.00	\$ 270,000.00	\$ 270,000.00
Water Fountain	each	\$ 2,000.00	34	\$ 68,000.00	4	\$ 8,000.00	6	\$ 12,000.00	6	\$ 12,000.00	6	\$ 12,000.00	2	\$ 4,000.00	6	\$ 12,000.00	4	\$ 8,000.00	\$ 68,000.00	\$ 68,000.00
Subtotal				\$ 1,283,000.00		\$ 62,000.00		\$ 327,000.00		\$ 210,000.00		\$ 174,000.00		\$ 85,000.00		\$ 309,000.00			\$ 116,000.00	\$ 1,283,000.00
Enhancement Area Development																				
S. 14th and Duwamish River Overlook	LS	\$ 100,000.00	1	\$ 100,000.00	1	\$ 100,000.00		\$ -		\$ -		\$ -		\$ -		\$ -			\$ -	\$ 100,000.00
Hamm Creek Wayside (acquire)	LS	\$ 25,000.00	1	\$ 25,000.00		\$ -	1	\$ 25,000.00		\$ -		\$ -		\$ -		\$ -			\$ -	\$ 25,000.00
King County Military Road Triangle (use)	LS	\$ 350,000.00	1	\$ 350,000.00		\$ -	1	\$ 350,000.00		\$ -		\$ -		\$ -		\$ -			\$ -	\$ 350,000.00
North SeaTac Park (NW Park Entry, 136th, 144th)	LS	\$ 150,000.00	1	\$ 150,000.00		\$ -		\$ -	1	\$ 150,000.00		\$ -		\$ -		\$ -			\$ -	\$ 150,000.00
Seike Interpretive Site/Port of Seattle (easement)	LS	\$ 25,000.00	1	\$ 25,000.00		\$ -		\$ -	1	\$ 25,000.00		\$ -		\$ -		\$ -			\$ -	\$ 25,000.00
Peters Triangle (DMMD, 152nd, 8th) (acquire)	LS	\$ 250,000.00	1	\$ 250,000.00		\$ -		\$ -		\$ -	1	\$ 250,000.00		\$ -		\$ -			\$ -	\$ 250,000.00
Wetland Interpretive Site (acquire)	LS	\$ 25,000.00	1	\$ 25,000.00		\$ -		\$ -		\$ -		\$ -	1	\$ 25,000.00		\$ -			\$ -	\$ 25,000.00
DMMD Ambaugh/Normandy Road Sign, Intep. (acquire)	LS	\$ 75,000.00	1	\$ 75,000.00		\$ -		\$ -		\$ -		\$ -		\$ -	1	\$ 75,000.00			\$ -	\$ 75,000.00
DMMD/188th Southwest Corner (easement)	LS	\$ 75,000.00	1	\$ 75,000.00		\$ -		\$ -		\$ -		\$ -		\$ -	1	\$ 75,000.00			\$ -	\$ 75,000.00
208 th/Des Moines Creek Valley Overlook/Interp	LS	\$																		

Figure ES-12. Corridor Management Plan for Des Moines Memorial Drive
 Memorial Rehabilitation and Corridor Enhancement Implementation Cost Estimates-Detailed

	Unit	Unit Cost	Whole Corridor		Corridor Segment		Milit. Road		N. SeaTac		Sunnydale		Wetland		Confluence		Des Moines		Totals
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Enhancements Maintenance																			
6 years corridor maintenance and repair, replacement	mile	\$ 24,000.00	9.6	\$ 230,400.00	0.5	\$ 12,000.00	2.3	\$ 55,200.00	1.4	\$ 33,600.00	1.2	\$ 28,800.00	0.6	\$ 14,400.00	2.3	\$ 55,200.00	1.3	\$ 31,200.00	\$ 230,400.00
<i>Subtotal</i>				\$ 230,400.00		\$ 12,000.00		\$ 55,200.00		\$ 33,600.00		\$ 28,800.00		\$ 14,400.00		\$ 55,200.00		\$ 31,200.00	\$ 230,400.00
Enhancements Construction Totals																			
				\$ 15,766,100.00		\$ 830,900.00		\$ 4,212,200.00		\$ 2,485,800.00		\$ 2,200,200.00		\$ 962,800.00		\$ 3,631,000.00		\$ 1,443,200.00	\$ 15,766,100.00
<i>Contingency 20%</i>				\$ 3,153,220.00		\$ 166,180.00		\$ 842,440.00		\$ 497,160.00		\$ 440,040.00		\$ 192,560.00		\$ 726,200.00		\$ 288,640.00	\$ 3,153,220.00
<i>Taxes 8.8 % (may be exempt as part of roadway project)</i>				\$ 1,664,900.16		\$ 87,743.04		\$ 444,808.32		\$ 262,500.48		\$ 232,341.12		\$ 101,671.68		\$ 383,433.60		\$ 152,401.92	\$ 1,664,900.16
<i>Design, Administration, Permitting 40%</i>				\$ 7,567,728.00		\$ 398,832.00		\$ 2,021,856.00		\$ 1,193,184.00		\$ 1,056,096.00		\$ 462,144.00		\$ 1,742,880.00		\$ 692,736.00	\$ 7,567,728.00
Total Enhancements - Construction				\$ 28,151,948.16		\$ 1,483,655.04		\$ 7,521,304.32		\$ 4,438,644.48		\$ 3,928,677.12		\$ 1,719,175.68		\$ 6,483,513.60		\$ 2,576,977.92	\$ 28,151,948.16
Acquisitions and Entitlements				\$ 862,000.00		\$ 7,000.00		\$ 35,000.00		\$ 12,000.00		\$ 729,000.00		\$ 28,000.00		\$ 36,000.00		\$ 15,000.00	\$ 862,000.00
Memorial Maintenance Total				\$ 230,400.00		\$ 12,000.00		\$ 55,200.00		\$ 33,600.00		\$ 28,800.00		\$ 14,400.00		\$ 55,200.00		\$ 31,200.00	\$ 230,400.00
Grand Total				\$ 29,244,348.16		\$ 1,502,655.04		\$ 7,611,504.32		\$ 4,484,244.48		\$ 4,686,477.12		\$ 1,761,575.68		\$ 6,574,713.60		\$ 2,623,177.92	\$ 29,244,348.16
MEMORIAL AND ENHANCEMENTS																			
Total - Construction				\$ 40,549,860.00		\$ 1,660,697.28		\$ 8,281,791.36		\$ 5,210,693.28		\$ 12,515,002.56		\$ 2,165,620.32		\$ 7,644,823.20		\$ 3,071,232.00	\$ 40,549,860.00
Acquisitions and Entitlements				\$ 2,436,500.00		\$ 91,500.00		\$ 401,000.00		\$ 243,000.00		\$ 929,000.00		\$ 127,000.00		\$ 415,500.00		\$ 229,500.00	\$ 2,436,500.00
Memorial Research and Planning Total				\$ 84,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00		\$ 12,000.00	\$ 84,000.00
Memorial Maintenance Total				\$ 691,200.00		\$ 36,000.00		\$ 165,600.00		\$ 100,800.00		\$ 86,400.00		\$ 43,200.00		\$ 165,600.00		\$ 93,600.00	\$ 691,200.00
Memorial and Enhancement Total				\$ 43,761,560.00		\$ 1,800,197.28		\$ 8,860,391.36		\$ 5,566,493.28		\$ 13,542,402.56		\$ 2,347,820.32		\$ 8,237,923.20		\$ 3,406,332.00	\$ 43,761,560.00
DMMD Marketing and Promotions Program																			
Marketing and Promotions - 6 Years	each year	\$ 75,000.00	6	\$ 450,000.00															
Total				\$ 450,000.00															
Grand Total				\$ 44,211,560.00															
Sales Tax Exemption (maximum exemption)				\$ 2,398,110.00															

Implementation Strategy

Coordinated steps will be necessary to make the Centennial celebration a reality and to fully realize this Corridor Management Plan for DMMD.

- Obtain **approval by all jurisdictions** who are signatory to the Interlocal Agreement for the rehabilitation of DMMD.
- Establish and sustain a DMMD **corridor management or oversight entity** and organization committed and authorized to implement the CMP in all of its dimensions.
- Pursue and receive **landmark, heritage and other designations** for DMMD at all key local, county, state and national levels.
- Identify comprehensive **planning and zoning ordinance provisions** that, with development and adoption, will further protect and support DMMD CMP goals and planning policies.
- Establish and sustain a DMMD **marketing, promotions and outreach program** aimed at continuing and building community interest, education and support.
- Develop and activate a **capitol funding strategy** and campaign directed at developing priority memorial reconstruction elements and supporting enhancements.
- Coordinate with **other development projects** along the corridor (South Park Bridge Replacement, S. 14th Street improvements, West Side Trail, Port of Seattle airport expansion, State Route 509 extension, Hamm Creek restoration, and Des Moines Creek/Marine View Drive Bridge) to leverage dollars for community enhancements.
- Develop and activate a **coordinated schedule and actions assignment** plan to implement DMMD programs, development and elements.
- Establish and sustain a DMMD **memorial and enhancements maintenance program** involving all of the corridor jurisdictions and communities.

Summary of Findings

Underpinning the development of the Des Moines Memorial Drive Corridor Management Plan and guiding the hand of all those participating in the rehabilitation of this Washington State WWI “Living Road of Remembrance” are several key findings, these are summarized as:

- The plan, when implemented, reaffirms the honoring of those that fell, during WWI, in the line of duty and service to the United States of America, from Washington State. By extension, DMMD will also serve as an event and celebration venue and point of reference for honoring all of Americas’ fallen and its many veterans and active duty service men and women.
- The plan verifies, through research and evidence, that DMMD is a truly significant and unique “Living Road of Remembrance” – one of only a few remaining in the United States and one of the few envisioned and established.
- The plan recognizes that, with the remaining Memorial Elm Trees over 85 years in age, the original memorial, diminished, damaged and rapidly deteriorating, requires rehabilitation — rehabilitation that is respectful and honoring of its original intent and character.
- The plan sets memorial rehabilitation as its top priority while also presenting corridor enhancement opportunities.

- The plan rehabilitates a locally, regionally, statewide and nationally significant and uniquely distinctive cultural and historic resource.
- The plan provides for enhancement of and reinforcement of community image and identity along the entire DMMD corridor.
- The plan, through the creation of a regional attraction and reinforcing transportation and circulation linkages, furthers community and economic development in SeaTac, Burien, Des Moines, Normandy Park, South Park, Boulevard Park and South and West Seattle.
- The plan provides for the partnering of several coincident public infrastructure development and planning initiatives, including SeaTac's West Side Trail, 509 extension, South Park Bridge Replacement, and Des Moines Creek Bridge projects.
- The plan allows each jurisdiction to direct the design and development of its roadway and utility infrastructure in keeping with specific corridor conditions and qualities while adhering to memorial and enhancement guidelines.
- The plan is one critically important milestone in the long cooperative effort accomplished by leaders, residents, property owners, businesses, utilities and stewards from King County, City of Burien, City of SeaTac, City of Des Moines, City of Normandy Park, and State of Washington. This inter-jurisdiction and agency cooperation has the capability to generate multiple benefit outcomes for memorial rehabilitation as well as community redevelopment and public facility and service expansion.
- The plan has a clear and accountable budget and realistic timeframe for implementation with the establishment of a renewed, fully rehabilitated and enhanced DMMD, by its centennial year in 2021.
- The plan endorses a set of proactive action steps for memorial rehabilitation within a high use and important urban transportation corridor. The plan balances the strict requirements for "designation sensitive" and honoring rehabilitation with the equally important standards for roadway and infrastructure design, operation and maintenance.

CHAPTER 1

Introduction

In the 84 years since it was planted, the Memorial has been courageously stewarded by veterans, neighbors, scout troops, jurisdictions and respectful community citizens. Over time this “Living Road of Remembrance” became Des Moines Memorial Drive. In the early 1960’s, when disease, development and road and utility improvements threatened the trees, a memorial plaza and monument was constructed at the Sunnydale School, midway on the length of the Drive. The monument is composed of stone panels bearing the names of those for which the original Elm Trees were dedicated. In 2000, an inter-local agreement brought all stakeholders together for the purposes of planning the rehabilitation of the memorial. Over a period of two years, a group of sixteen members - of five jurisdictions and several veterans groups, historic societies, neighborhoods and utilities - met monthly to craft this Corridor Management Plan.

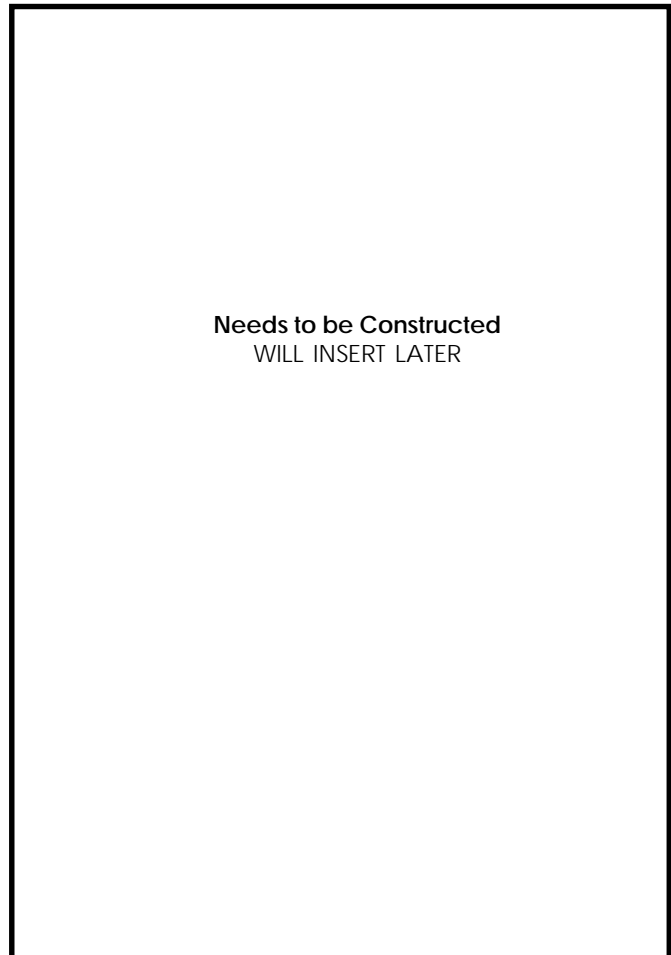


Figure 1-3. 1920's map showing entire planting corridor.



Figure 1-4. American Elm trees (*Ulmus americana*).



Figure 1-5. A wreath of poppy flowers in honor of a fallen soldier.

Plan Purpose

The purpose of the Corridor Management Plan was to inventory resource and intrinsic quality components of the memorial as it exists today and develop a rehabilitation strategy for it that would accomplish a number of objectives:

- Prepare a plan for to protect and preserve a unique resource and “living” memorial that is rapidly deteriorating.
- Develop information that would assist with National Historic Register Nomination (if appropriate)
- Develop information that would assist in gaining a Historic Tour Route Designation (if appropriate) as well as other designations.
- Develop information that would re-inspire local interest in the memorial aspect of the Drive and build private as well as public support for memorial rehabilitation
- Continue active public involvement in order to gain resource and issue information and develop a long-term base of support for memorial rehabilitation.
- Prepare for rehabilitation of the memorial as new roadway improvements are built by the various jurisdictions along its corridor
- Promote memorial rehabilitation for planners and designers of a number of other public development initiatives in the immediate area.

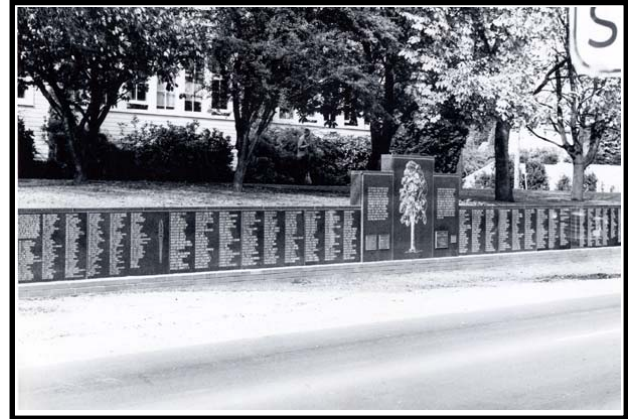


Figure 1-6. Memorial plaques lists WWI veterans lost in battle.

Corridor Management Plan Organization

The Corridor Management Plan’s inventory, analysis and rehabilitation recommendations and guidelines are organized to meet specific documentation requirements for national and State of Washington *Scenic Byway* and *Heritage Tour Route* designation and for local and national landmark designation. Documentation must precisely address the corridor’s “intrinsic qualities”, 14 specific points of corridor description, action and both short-term and long-term implementation and management, and the corridors’ significant historic resource character defining elements. By organizing the Corridor Management Plan in this manner, the plan comprehensively addresses all critical planning points while enabling, through key designations, the best opportunities for rehabilitation funding. *Table 1-1, on the following page, presents where each of the Intrinsic Qualities and 14 CMP points are addressed in the document.*

Table 1-1. National Scenic Byway/FHWA CMP Document Points and Intrinsic Qualities – Location in DMMD CMP Chapters

NSB/FHWA Point No. *	Washington State CMP Point No. Correlated **	NSB/FHWA CMP Point Description	DMMD CMP Document Location and Use***
1	1	A map identifying the corridor	Chapter 1: Introduction
2	2	Intrinsic Qualities Assessment: 1) Scenic 2) Natural 3) Historic 4) Cultural 5) Archeological 6) Recreational	Chapter 2: Heritage Resource Inventory, Intrinsic Qualities Assessment & Statement of Significance
3	3	Strategy for Maintaining and Enhancing Intrinsic Qualities	The CMP Document
4	6	A Responsibility Schedule for implementation, review, monitoring and evaluation	Chapter 6. Implementation and Management Strategies
5	7	A strategy for managing and enhancing existing and new development to preserve intrinsic qualities	Chapter 6. Implementation and Management Strategies
6	4	A plan for public participation in CMP implementation	Chapter 4. Plan Recommendations & Memorial Rehabilitation and Enhancement Guidelines Chapter 6. Implementation and Management Strategies
7	12	General review of Roadway design, maintenance, operation and safety.	Chapter 3. DMMD Corridor Analysis Chapter 6. Implementation and Management Strategies
8	9	A plan to accommodate commerce while implementing CMP	Chapter 6. Implementation and Management Strategies
9	11	A plan to enhance visitor experience	Chapter 6. Implementation and Management Strategies
10	8	Outdoor Advertising Compliance	Chapter 6. Implementation and Management Strategies
11	10	A signage plan supportive of visitor experience	Chapter 6. Implementation and Management Strategies
12	13	A description of marketing and promotion plans for the corridor	Chapter 6. Implementation and Management Strategies
13	5	A discussion of design standards for modifications to the roadway	Chapter 3. DMMD Corridor Analysis Chapter 6. Implementation and Management Strategies
14	14	Interpretive Plan linked to marketing and promotion, tourism, and multi-lingual populations	Chapter 6. Implementation and Management Strategies

* National Scenic Byway/FHWA CMP Points required to be addressed in plan, source: Federal Register / Volume 60, No. 96 / 1995 / Notices. These CMP Planning Points will be used to organize the DMMD CMP Document.

** Washington State Department of Transportation, NSB Adapted, Heritage Corridors Program CMP planning points organization, 1996

*** The DMMD CMP is focused on a local 10-mile long urban arterial corridor and not on a State or Federal Highway corridor (for which the Scenic Byway CMP criteria were written). The DMMD document is adapted each CMP point to the scales and characteristics of this Memorial Drive.



Figure 1-7. Regional Context Map.

Planning Corridor and Limits

The Corridor Management Plan inventory, analysis and planning limits extend from the South Park Bridge and Duwamish River in King County to South 227th Street in the City of Des Moines – a length of nearly 10 miles, see figure 1-8, Project Corridor and Jurisdictions Map. Although memorial elm trees are known to have been planted south of Des Moines to the King County/Pierce County Line, no specific tree planting site evidence or remaining elm trees have been identified. The planning project corridor carefully examined resources, intrinsic qualities and Des Moines Memorial Drive communities within a 1/4 mile area along each side of the corridor. Historic and contemporary regional influences were also examined, including transportation systems and linkages, community growth patterns and other public development initiatives affecting the corridor

Corridor Analysis and Establishment of Corridor Segments

The DMMD corridor was inventoried block by block along its entire length (from South Park/Duwamish River to Des Moines/S. 227th) with an assessment, by jurisdiction and location, of corridor length, ROW widths from centerline, the disposition of overhead utility lines, intersecting streets and trails, existing sidewalk length and other infrastructure improvements. An extensive inventory was prepared and documented. (See Chapter 3)

In order to understand and illustrate how corridor analysis, findings, recommendations and guidelines apply to the various characteristics, conditions and jurisdictional patterns along the corridor, (7) seven distinct geographical segments of Des Moines Memorial Drive were established: South Park Segment (King County/City of Seattle), Military Road Segment (King County), North SeaTac (SeaTac/Burien), Sunnydale Segment (SeaTac/Burien), Wetlands Segment (Burien), Confluence Segment (Burien/SeaTac), and Des Moines Segment (Des Moines/Normandy Park). These segment distinctions are used in the Corridor Management Plan document for organizing corridor inventories and analysis and application of rehabilitation

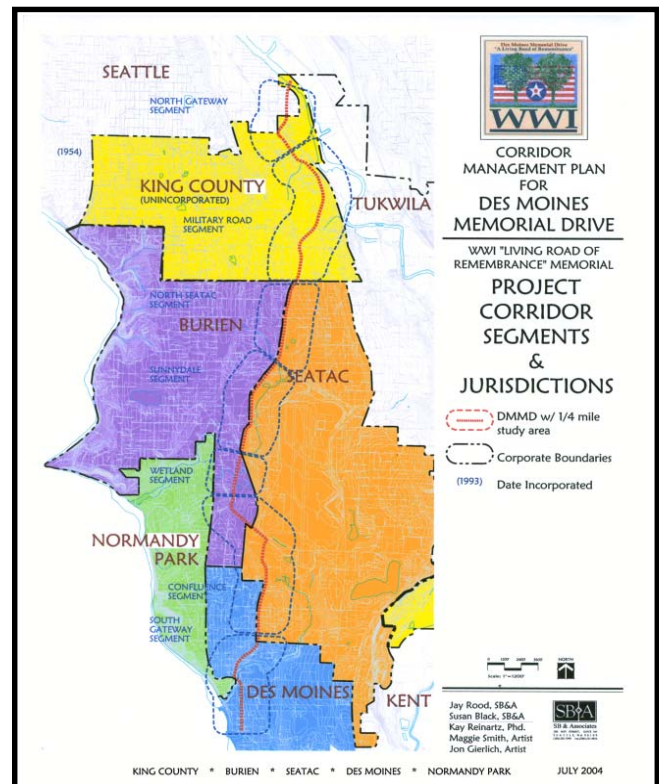


Figure 1-8. Project Corridor and Jurisdiction Map.

recommendations and guidelines to specific corridor sites, cost estimation and implementation and management strategies.

Historic Significance

The Des Moines Memorial Drive World War I Memorial “Living Road of Remembrance” was unique in the Country, representative of a style of memorializing war dead, honoring veteran service and very ambitious for the State and the Country. It was a contemporary of other significant local WWI memorials such as at UW and the Plane Tree Boulevard, Washelli Cemetery and the “Dough Boy” monument, State Capitol Campus and the “Winged Victory” monument, and the Veterans National Cemetery. Its uniqueness and significance is documented in *Chapter 2 - Heritage Resources, Intrinsic Qualities and Statement of Significance*.

But the Drive involves many other unique and important “stories”, including: individuals, settlement, community historic events and environmental change that have occurred along the corridor over the past 150 years - much longer than the Memorial has been present. This broader, cultural history includes such stories as:

- Pre-settlement peoples and patterns of water travel, trade and food gathering
- Military Road (1800s)
- Puget Sound/King County community development history and patterns
- Duwamish River to Puget Sound travel and transportation systems
- Bridge to Bridge (South Park Bridge to Des Moines Creek Bridge)
- Over the Highline on the Red Brick Road (Farm to Market)
- Memorial Way Road and Sunnysdale Crossroads
- Hamilton’s Folly – road building thought to have gone awry
- Toonerville Trolley
- First gas station in South King County
- Scenic travel ways
- Plane crash site of returning Korean War veterans
- Regional transportation hub (SeaTac Airport and interstate highways)

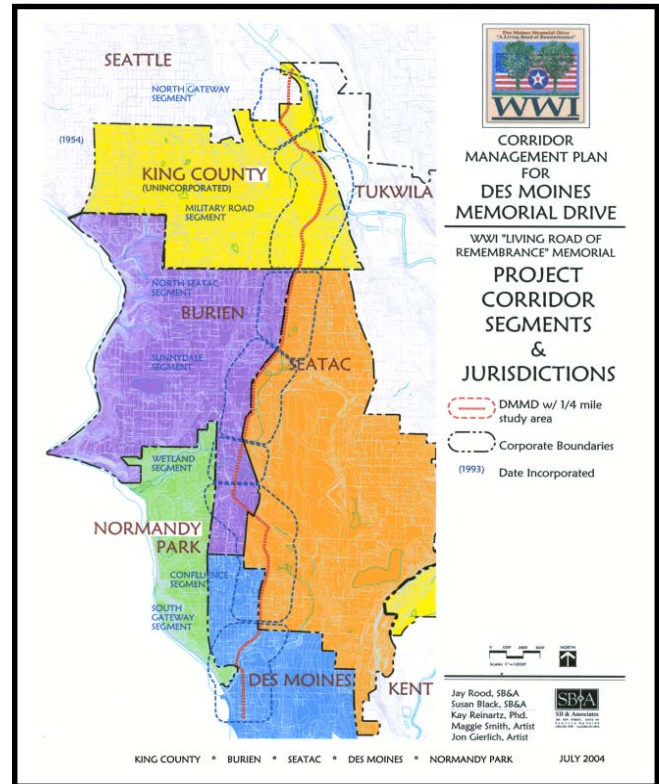


Figure 1-9. Segments and Jurisdiction Map.

Project Background

On February 1, 2000 an Interlocal Agreement was initiated between King County and the Cities of Burien, Des Moines, Normandy Park and SeaTac. This Interlocal Agreement, *see appendices*, established the current effort at stewardship and cooperation to rehabilitate and restore the memorial, including establishing a DMMD Advisory Committee. All of the parties to the agreement are to:

1. Cooperate in developing street design, landscape and commemorative standards;
2. Cooperate in grant applications for planning and improvements in the right-of-way and along Des Moines Memorial Drive;
3. Provide maintenance as needed to in order to preserve the trees and landscaping elements in their respective jurisdictions along the drive;
4. Routinely coordinate with the Des Moines Memorial Drive Committee, established and designated to advocate for preservation of the drive as a World War I memorial. The duties of the Des Moines Memorial Drive Advisory Committee, hereby created by this agreement, are described in Addendum A and are a part of this agreement;
5. Coordinate with utilities using the right-of-way along Des Moines Memorial Drive to assure preservation and replacement of trees due to impacts from construction and use of the right-of-way.

The Des Moines Memorial Drive Advisory Committee (*see appendices and acknowledgements*), established by the Interlocal Agreement, is composed of the key jurisdictions; agencies, advocacy groups and citizens organized to work on achieving memorial rehabilitation and restoration goals, with the following purpose and duties:

1. The DMMD Committee will be an advisory body to represent the concerned stakeholders' interest. It will provide oversight, advocacy and advice to the cities and King County on the development and implementation of a plan for the street design, trees, and other commemorative improvements and features along DMMD. The plan will be submitted to each agency for approval and formal adoption.
2. The committee will act as coordination body with all members or interested veterans groups to assure a quality World War memorial.
3. The committee will develop and provide public information, producing educational and memorial events to commemorate the sacrifice of members of the American military for the cause of freedom.
4. I requested, the committee might assist other organizations in finding locations for war memorials in the Highline area as necessary.
5. The committee may seek public or private funds to finance commemorative improvements to the drive. Funds received for this purpose will be held by one of the cities in a trust account designated for Memorial Drive commemorative improvements.

Planning Steps and Process

The King County Department of Transportation, Road Services Division, managed the project and the consultant team for the Interlocal partners and DMMD Advisory Committee. King County personnel assigned were Mat Nolan, P.E., Supervising Engineer and Robert Eichelsdoerfer, P.E., Project manager. Aiding the Road Services Division is Julie Koler, Director of Landmarks for King County and Ruth Harvey, Heritage Corridor Coordinator with the Road Services Division.

King County provided the funding to launch the Corridor Management Plan for DMMD. Many King County representatives have been involved in the DMMD since its inception, including: County Engineer, Major Beaman (1922), County Executive Ron Sims (since 1999), Council Member Chris Vance (provided monies for traveling exhibit in 1990 and some initial startup funding for Memorial Plaza rehabilitation, memorial tree planting) and Council Member Julia Patterson (CMP grant support and 2004 potential funding for Flagpole Triangle rehabilitation).

The Des Moines Memorial Drive Advisory Committee was established as the plan steering and coordination group.

In November of 2002, the DMMD Advisory Committee, with a grant from King County, selected and contracted with a heritage corridor planning and design team led by the Landscape Architecture firm SB & Associates, Inc. The SB&A Team included a PhD Historian (Kay Reinartz) and two artists (Maggie Smith and Jon Gierlich) with experience in heritage and memorial sites. The scope of work included:

- Heritage Data Gathering and Documentation
- DMMD Corridor Resource Inventory and Intrinsic Qualities Analysis (including Artist Studies)
- DMMD Corridor Enhancement Planning
- DMMD Corridor Management Planning
- Public Outreach and community involvement

Using the corridor inventory and analysis information, a draft plan was prepared. The plan included schematic elements and options, experiential sequences and physical and programmatic concepts. In addition, implementation costs, scheduling, action responsibilities, and funding strategies were also prepared for the corridor.

The consultant team presented a report of plan progress and status at each of the monthly committee meetings held. In addition the Committee meetings have been a venue to bring in key representatives of associated or linked projects influencing the DMMD corridor, such as the State of Washington Department of Transportation SR 509 Extension planning team and landscape industry elm tree and street tree growing/installation experts.

The DMMD Committee examined each of the plan issues and policy recommendations brought before them. Due to the multiple jurisdictions involved in the plan, it was important to have the committee build and retain a mutually understood and agreed upon vision and road map for development of the “whole” corridor and not just by jurisdictional boundaries.

As described more fully in Chapter 5, the 10-mile corridor presents itself in segments that are defined as lengths having similar characteristics. Seven segments were identified along the corridor, which correspond roughly to jurisdiction ownership and management. The plan was developed according to these segments, which provided a useful framework for analysis and evaluation of memorial rehabilitation and corridor planning recommendations and guidelines.

Communications and Outreach Plan

A communications and public outreach plan was prepared for DMMD Committee approval. This plan coordinated not only the baseline public outreach materials, such as the website, traveling kiosks, and newsletters, but also the public meetings and extensive heritage data gathering workshops and informant surveying.

Communications during the Des Moines Memorial Drive Cultural Enhancement Plan covered a broad spectrum of communications tools. A Master Communications Plan arranged around

monthly meetings with the Des Moines Memorial Drive Committee gave the framework for the parties to the Interlocal agreement. Communications with history buffs, neighbors and those interested in the story of the Drive was another aspect. Public meetings were held for general information and input to the process. Private and individual meetings were held for people to have specific input into the fact-finding of the plan. The Seattle Garden Club provided information and archival data, and will provide a forum for communications in the near future in the form of a presentation to their board of directors. Information Kiosks were developed and placed in all four communities giving news of the project and requesting feedback in the form of comments. News articles appeared in the Highline Times and several city Bulletins on the progress of the plan. A website was developed and updated with information on the history being gathered and the community timeline of significant events.

Coordination of communications was a support service to the project, and enabled others to focus on their primary tasks with input to the communications aspects of their work but without primary responsibility for it. Coordination occurred among consultants at a monthly meeting held prior to the regularly scheduled Committee Meetings.

A Master Database was compiled and maintained by SB&A in a format suited to mailings and sorting, by various techniques, for mailing purposes (appended). The Database was compiled from information supplied by the Cities, AL Posts/VFWs, the Historical Society and residents along the corridor of people interested in participating in or keeping abreast of the activities of the Committee. It was supplemented by:

- Information from Inventory Workshops
- Information from Public meetings
- Information from calls and letters received by the team or the Committee
- Media and Newsletters

A second database associated with the Historical Inventories and Survey forms was developed by the surveyors, though not in electronic format. This data is in a notebook for use for the historic nomination of the plan at a future time (King County Landmarks Archives).

Public Outreach and Community Participation

Two articles (appended), one by Rose Clark and one by Jay Rood, were circulated through various outlets for publication, including the Daily Journal of Commerce. Both were used by jurisdictions to include in their very local “newsletters”. Both were also copied and enhanced in the local newspaper, the Highline Times.

The Communications Plan Schedule called for two public meetings. The first was held, January 29th, 2003, at the Burien Community Center and attended predominantly by the team and very interested members of the community. Feedback was in the form of verbal comments to various staff and consultants.

A second public meeting held June 11, 2003, was well attended at the King County/Burien Library. At this meeting, Enhancement Plan proposals were discussed including features that would celebrate the elms and the “Living Memorial”, lighting with other memorial and community history elements, and other markers. A survey was taken during the meeting as well as written questionnaires (appended).

A website was attached to the prime consultant’s website pending relocation to the King County website. Its purpose was to communicate general information about the project, provide contact names, announcements of schedule, history timelines and generally inform people of the project’s progress.

The website was updated one time, but never attached to the King County website. George Hadley, Normandy Park Council, organized the use of a web service site for distribution of DMMD Advisory Committee proceedings and communication, project reports and project updates.

In 1990, a sophisticated kiosk system was developed to display the Des Moines Memorial Drive project. For this project, selected images were duplicated from that display (housed, then, at Highline Historical Society and owned by King County). These images were compiled with new graphics for this project, schedule and timeline materials and a call for input and action from the public.

Over a nine-month period, three new display kiosks were circulated around the community to libraries, community centers, fire stations, and other locations for informing people of the project. A response and materials distribution box was attached to the displays so people could respond or comment on the project.

Heritage and Intrinsic Qualities Data Gathering and Documentation

Heritage data gathering and documentation was lead by Dr. Kay Reinartz, PhD. A very extensive heritage and cultural resources inventory, survey and documents search was completed in accordance with King County, State of Washington and Federal heritage, historic and landmark resource survey standards, including intrinsic qualities identification and description. As mentioned previously, the consultant held a series of survey workshops, individual interviews, survey parties, and conducted numerous searches in local libraries, historic societies, archives and institutional files. This effort has documented, through cataloging, mapping and multiple survey formats, several thousand pieces of data linked to the DMMD, corridor communities and region. The effort involved stakeholders throughout the community who will stay involved in the project for many years.

The inventory, survey and all data collections were conducted methodically and retrievably – enabling use of all materials beyond the Corridor Management Plan. A Historic Context Statement, DMMD Timeline, Statement of Historic Significance, Heritage Designation, Historic Overview and Communities Narrative and Heritage Survey Notebook(s) have been prepared and are incorporated in both the Cultural Enhancement Plan and Corridor Management Plan documents or appended to these document. In addition and importantly, an Interpretative Plan was developed largely from this effort, which focused on the WWI/DMMD “story” while making connections to the heritage findings and other resource findings of the surrounding neighborhoods and communities.

This was, for the plan, a priority scope of work task with consultants, committee members, stakeholders, citizen informants logging hundreds and hundreds of hours – one of the many indicators of the high value people have for DMMD. Key contributors were: Highline Historic Society, Des Moines Historic Society, Seattle Garden Club, King County Libraries and record archives, City managers, City department staff, and American Legion Post 134.

Corridor Inventory and Analysis

A very Comprehensive inventory and analysis of the DMMD corridor was conducted along with identification and delineation of DMMD corridor planning and development issues. The inventory involved many hours in the field, through interviews and data searches. This analysis effort was documented through narrative, photographic recording and mapping. Furthermore, analysis and

documentation was prepared in anticipation of Corridor Management Plan mapping and planning documentation frameworks:

- Base Topography and Street/Roadway Right-of-Way
- Corridor Planning Area and Jurisdictions
- Corridor Natural and Open Space Resources
- Corridor Recreational Resources
- Corridor Historic and Cultural Resources (including archeological resources)
- Historic Mapping and Aerial Photographic Mosaics
- Corridor Memorial Trees and Elements
- Corridor Land Use and Major Ownership/Public lands
- Transportation Nodes and Circulation (motorized and non-motorized)
- Related Active and Proposed Development Initiatives
- Corridor Character and Views
- Archeological

Key findings included data on significant resources, analysis of the capacity of the existing ROW to support memorial rehabilitation and enhancements development, parameters of other development initiatives, critical community enhancement nodes, and transportation linkages/connections. Other analysis outcomes provided information on opportunities for joint or overlapping public infrastructure development on or near DMMD. Data was gathered with the assistance of each jurisdiction's City Managers and City departments of parks and public works. The electrical utility providers for this area, Seattle City Light and Puget Sound Energy also provided information of utility routes, tree maintenance standards and experience, tree condition surveys, DMMD history and utility under-grounding.

Artist Discovery

Team artists Maggie Smith and Jon Geirlich participated in all stages and tasks of the planning effort, including committee meetings, team and public workshops, heritage surveys and the development of enhancement planning and design policies and standards. The artists were instrumental in identifying the underlying value and life patterns as manifest in DMMD, memorial and day-to-day, symbols, systems and connections – such as the elm, star (gold), poppy, first gas station, heritage trees, and red brick road.

Other Related Public Development

Several restoration, development or improvement initiatives are occurring concurrently in the vicinity of the Des Moines Memorial Drive corridor. These include the King County, City of Seattle and City of Tukwila South Park Bridge Replacement, City of Seattle's South 14th Street Improvements, King County's DMMD Road improvements, Multi-jurisdiction Hamm Creek rehabilitation program, Port of Seattle/City of SeaTac's West Side Trail Planning process, City of SeaTac's North SeaTac Park Improvements, Port of Seattle's SeaTac Airport Expansion, City of Burien's 152nd/Townsquare development and Northeast Area Plan, WSDOT's SR 509 extension to Interstate 5, City of Des Moines's Des Moines Creek bridge and trail development, and other transportation linkage and circulation projects.

Key issues

Several DMMD restoration, rehabilitation and enhancement issues were identified through public meetings, committee meetings and interviews with jurisdiction agencies and service departments. Principal issues were:

- Remaining original elm trees – health, condition, and preservation (both short and long term)
- Should additional war/civic memorials other than WWI be incorporated?
- What is appropriate tree replacement for original elms from point of view of historic preservation standards, designation as landmark, potential funding sources, long-term maintenance and perpetual care responsibilities?
- What are the costs and benefits associated with undergrounding of utilities to allow for memorial tree planting and the reduction of long-term impacts on trees as well as utilities?
- What are the most appropriate tree selection and planting standards with regard to urban roadway conditions and design and maintenance impacts?
- Does the existing right of way have sufficient width to support new design section(s) and memorial tree restoration? If not should use easements or land purchases be sought to achieve full rehabilitation goals?
- Where it is not possible to replant a memorial tree is here another means to honor and memorialize the tree locations and associated meaning?
- Is it possible to further enhance DMMD through joint/collaborative use of public properties, parks, rights of way and utility corridors?

Goals, Objectives and Recommendations

The Committee identified goals and objectives early in the planning process. These are presented in *Chapter 4 - Plan Recommendations, Memorial Rehabilitation, and Enhancement Guidelines*. In addition, specific plan recommendations and guidelines were developed. Priority recommendations relate directly to the rehabilitation of the WWI Memorial. Other recommendations dealt with Corridor Enhancements .

Implementation Strategies, Guidelines and Recommendations

A series of implementation strategies were developed and mapped that describe the various courses of action needed to successfully restore, rehabilitate and enhance Des Moines Memorial Drive. These action recommendations, described in *Chapter 6 - Implementation and Management Strategies*, range from interlocal coordination to specific projects that will be required by the five jurisdictions to work together and separately toward the same goals.

Throughout the process, the Des Moines Memorial Drive Committee commented on drafts and actively participated to shape the final recommendations.

Schedule and Costs

A cost estimate was prepared for improvements to each segment based on plan-level information. This is presented in *Chapter 5 - Memorial Rehabilitation and Corridor Enhancement Recommendations for Each DMMD Segment*. A schedule, *Chapter 6 - Implementation and Management Strategies*, was prepared that anticipates that the Centennial Celebration for the Memorial (2021) is a good target date for having all segments of the Memorial installed and growing.

CHAPTER 2

Heritage Resource Inventory, Intrinsic Qualities Assessment,
and Statement of Significance

Introduction

With the Des Moines Memorial Drive WWI "Living Road of Remembrance" as our focus several historic, heritage and cultural and natural landscape research and analytical tasks were undertaken. These included a heritage resource inventory, an intrinsic qualities assessment and a formal Statement of Significance. Much of the data gathered for these and the other research efforts can be found, in some form, in all of the documents. Each documentation effort has a specific set of outcomes and formats required for designation applications, tracking resources, and determining resource value and credibility.

Heritage Resource Inventory

A first step in developing the Corridor Management Plan was the identification, recording and documentation of the history and development of the "Washington State WWI Living Road of Remembrance" that is Des Moines Memorial Drive and the history of the communities and the cultural and natural environment that sustains the Des Moines Memorial Drive.

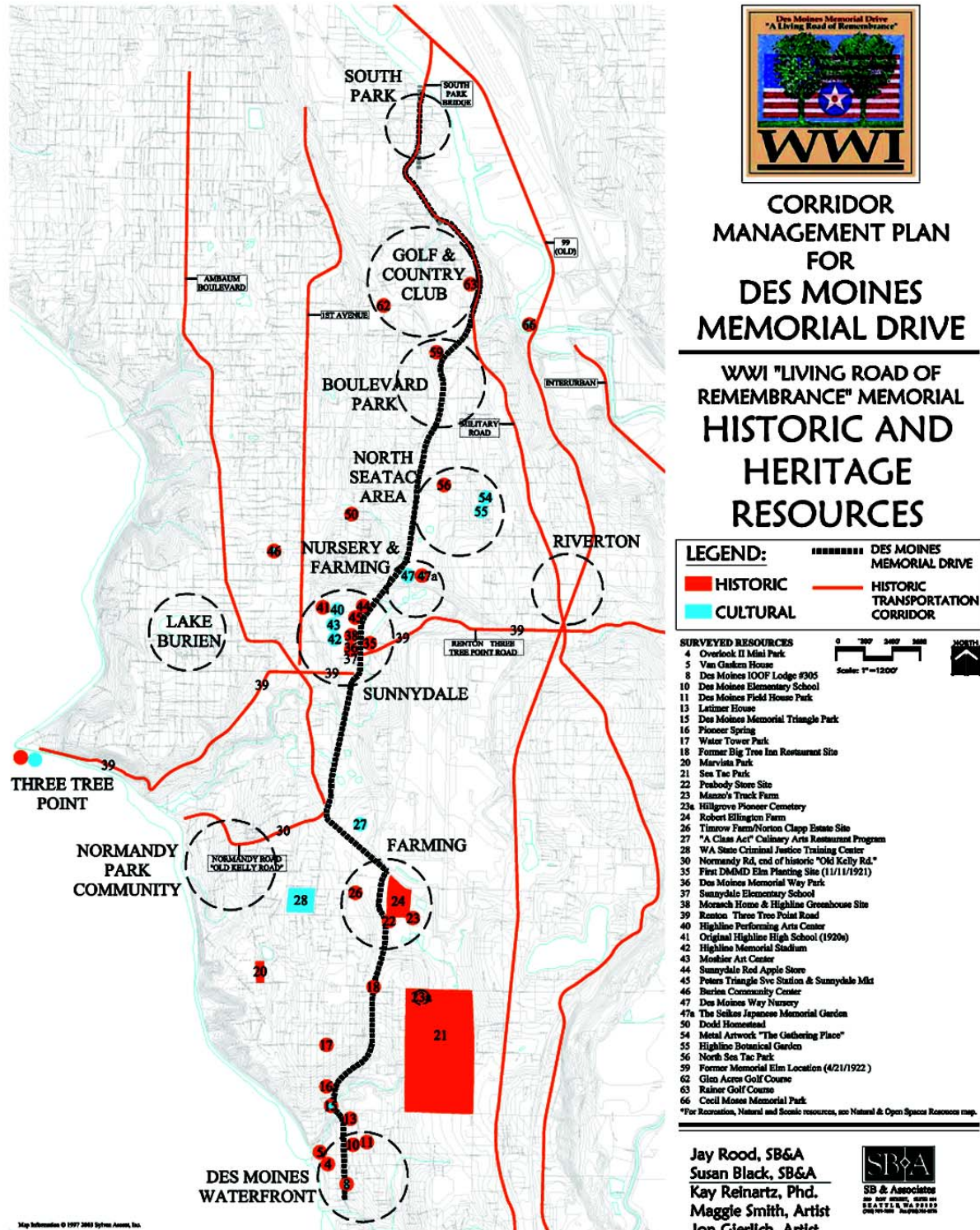
The heritage inventory was assembled by surveying and mapping the resources of DMMD, developing a history and timeline for the corridor, writing a statement of Significance following National Register criteria, writing an historical context statement of the Highline communities, surveying the corridor for Corridor Management Plan criteria and inventory of heritage resources with a project notebook, conducting a King County historic property records survey, and locating, accessing and reading the archives of the Seattle Garden Club*. The inventory and analysis resulted in several new findings about the Memorial and the region's cultural landscape as well. The inventory is rich and comprehensive and will be useful well beyond the bounds of this planning effort.

** A record of each of these data materials and documents can be found in the Appendices or in the King County Landmarks Office archives*

Acknowledgements

Maggie Smith, John Gierlich, Jay Rood, and Susan Black augmented, with additional research, this comprehensive heritage data gathering and documentation effort prepared and authored by Dr. Kay Reinartz. Many others were actively involved and assisted the heritage data gathering effort enormously: Highline Historic Society, Des Moines Historic Society, American Legion Post 134, Seattle Garden Club, King County Department of Cultural Resources and Landmarks, Richard Kennedy, Bill Rudberg, Kevin Hall, Kevin Hall, Helen Kludt, Jordan Perrine, Cindy Upthegrove, Rose Clark, Guy Spencer, and the project representatives from Puget Sound Energy, Stan Haralson, and Seattle City Light, Betsy Searing, and the departments and staff of the Cities of Burien, Des Moines, Normandy Park, and SeaTac.

Figure 2-1. Historic and Heritage Resources Map



Historic Character and Features

The heritage inventory and analysis confirmed the defining historic character and features of DMMD:

- Memorial elm tree species, *Ulmus americana*, number, size, scale, location/planting pattern and combined qualities.
 - ◆ Between 1,100 to 1,500 elm trees purchased over three-year period to be planted as memorial trees to individual soldiers.
 - ◆ Approximately 800 to 1,000 trees planted within the 10-mile corridor planning area. The balance of the 1208, on the Seattle Garden Club ledger, and additional trees incrementally purchased are presumed to be planted south of the City of Des Moines toward the Pierce/King County line.
 - ◆ Along 98% of the corridor the elms are planted evenly, 80 feet on center, on both sides of the corridor and 44 feet across from one another over a red brick roadway
- Wildflowers were seeded under elm trees on the roadway shoulder. Species included foxglove, poppies and forget-me-nots and wake robin (trillium).
- The roadway corridor is, in itself, a historic/heritage resource. The roadway, although modified and rerouted in small sections, has been in use since the late 19th century.
- Memorial Plaza and Des Moines Memorial Park at Sunnydale School is a very important feature of the DMMD corridor. Etched stone panels bearing the names of the fallen as found on the original Seattle Garden Club tree list and a silhouette of an elm tree line the roadway in this location. There are other historic elements here as well; dedication plaques, a time capsule, a number of other memorial trees from different wars. This place is the site of the first tree dedication ceremonies.
- The plaza was developed in 1963 to provide a means to continue honoring the DMMD mission while recognizing the demise of the original elm trees.
- The Sunnydale School and its grounds have been a landmark and crossroads of the Highline area for over 116 years.
- Flagpole Triangle, at the intersection of DMMD and Marine View Drive, is dedicated to honoring all veterans. The triangle encompasses a single tall flagpole, plaque and plantings.

Remaining Questions

Though the heritage survey and documentation was very comprehensive, it was not possible to complete documentation of some key questions:

- How were the trees assigned? Did the number in the register of sales assign a tree? Where did the planting begin?
- What are the specifics regarding Seattle Garden Club, American Legion, King County and other individual's and organization's role and involvement in the visioning, development and stewardship of DMMD?
- Were individual American Forest Association certificates provided to all those who purchased memorial trees in 1923-25 as was supposed to happen? Where are these today? (Note: The American Forest Association still exists today, though fire destroyed many key records at the headquarters in the 1950s.)
- What was the exact number and who were the WWI Washington fallen? The scope of this

effort did not include the verification of each of the names either present on the SGC register, etched on the granite panels of the Sunnydale School Memorial or in dispute by the community.

Des Moines Memorial Drive Timeline

- 1890-1910** ▶ County Road No. 88, known as the Pierce-King County Road and the Joseph Quinn Road, is built section-by-section beginning at 14th Ave. South working south to the Pierce County line.
- 1910** ▶ Pilings are driven for the Des Moines Dock. Eventually this becomes the southernmost terminus of Des Moines Memorial Drive.
- 1914** ▶ Germany invades France and war breaks out in Europe. War news dominates American newspapers and debate begins regarding possible active participation of America in the war.
- 1916** ▶ The Section of Joseph Quinn Road from 14th Ave. South to the Des Moines Dock is realigned. The road width is built with a 60-foot standard. The Highline portion of the road is called the High Line Road. A series of road improvements are undertaken in the coming decades working from north to south. The road is rough, muddy and difficult in the rainy season.
- 1916** ▶ High Line Road is designated Permanent County Highway No. 14 from Des Moines Dock to the Seattle City limit. Largely through the efforts of King County Commissioner Laif Hamilton, who owns and lives on the Kelly pioneer homestead in Sunnydale, improvements are funded for the northern 9.6 miles at a cost of \$222,691; rate is \$23,200/mile, inexpensive by standards of the day. Improvements include bricking the road. This work drags on for years with substantial cost overruns. Hamilton's project becomes the object of considerable citizen criticism and becomes known locally as "Hamilton's Folly." The road is locally known as "the brick road" and Des Moines Boulevard although the road is never officially designated "boulevard".
- 1917** ▶ The United States declares war on Germany and plunges into activities preparing for entering the action in Europe.
- 1918** ▶ In June the first American Expeditionary Forces (AEF) are sent to Europe and America enters the fighting.
- 1918** ▶ November 11th Germany surrenders and the war ends. The AEF were ultimately responsible for turning back the German offensive.
- 1919** ▶ Permit issued by King County to the Seattle Garden Club to plant American Elms along the High Line Road, a.k.a. Des Moines Way.
- 1921** ▶ November 11, Armistice Day, commemorating the end of World War I, marks the dedication of the High Line Road as a Living Road of Remembrance honoring those who gave their lives in World War I. The Lillian Gustin McEwan, President of the Seattle Garden Club, guides the project. The first 25 American Elms are planted along the High Line Road. The majority of those commemorated with Memorial Elms were Washingtonians; however, people from other states and Europe are also remembered with trees. The road begins to be referred to as "Memorial Way"

although this is never its "official" name. The terminus is at South 227th on the south end and the South Park Bridge, 14th Ave. South, on the north end.

- 1921** ▶ December, Lillian Gustin McEwan meets with Hugo Winkenwerder, Chairman of the University of Washington School of Forestry, to discuss the Memorial Way tree planting plan.
- 1922** ▶ January 14, Marshall Ferdinand Foche, Commander of all Allied Armies in France during World War I, joins Mrs. McEwan, and Brig Gen. McAlexander of Camp Lewis and other dignitaries in planting memorial American Elms along Memorial Way near the Sunnydale School. He also plants a tree near the northern terminus at South 120th and Glendale Ave. South Many people participate in a mass planting effort and majority of the elms is planted at this time.
- 1922** ▶ King County issues permit to the Seattle Garden Club to plant additional American Elms on the High Line Road, a.k.a. Des Moines Way.
- 1922** ▶ April 21st French Marshall Joffre, Victor of the Marne, plants a Memorial Elm opposite the Sunnydale School in a ceremony organized by the Seattle Chapter of Disabled Veterans of the World War (WWI) and the Seattle Garden Club. Many special elms are planted that day by French and American military dignitaries including trees for the "Blue Devils" of France and the English sailors who gave their lives during the war. Small American flags placed by Camp Fire Girls and Boy Scouts, flutter along the road marking each of the Memorial Elms. The Garden Club members plant flowers around many of the newly planted elms. Floral varieties include red Flanders poppies, forget-me-nots and native Pacific Northwest foxglove.
- 1922** ▶ Boy Scout Troop 375, the first in the Highline Scout District at Sunnydale Elementary School, assumes responsibility for maintaining the trees and the Seattle Garden Club agrees to replace any Gold Star Mother's elms that die.
- 1928** ▶ With the completion of Pacific Highway South (SR 99) traffic on the Des Moines Road (a.k.a. High Line Road) is reduced, as 99 becomes the primary Seattle-Tacoma route.
- 1932** ▶ Boy Scout Troop 375 turns over maintenance responsibility for the Memorial Elms to American Legion, Seattle Post No. 1 and Glendale (later Burien) Post No. 134. Jud Colburn, World War I veteran first serves on the Legion's Elm Committee and quickly becomes the committee chairman. He gained great community respect for working tirelessly for 32 years maintaining and caring for the elms as a sacred charge.
- 1936** ▶ Aerial photo of Des Moines Way South shows 808 Memorial Elms still growing.
- 1948** ▶ With "federal aid secondary project" funding the road is improved from Des Moines (South 216th St.) north four miles to the Sunnydale School (South 156 St.); work includes asphalt overlaying, ditching, expanding paving width to 20 feet and widening shoulders to four to seven feet.
- 1950-53** ▶ County funds completion of 1948 improvements to the Seattle City limits.
- 1962-63** ▶ The American Elms on Des Moines Way South are deemed by King County Roads and the utility companies to be inhibiting progress. The concerned parties meet many times to discuss "what should be done about Memorial Way." The Highline

communities are not included in these discussions, however the American Legion Post 134, Burien, is included. The final consensus is to create an alternate memorial in granite as a replacement for the original Memorial Elms and move forward with destroying Memorial Elms growing along the road as required by various projects.

- 1963** ▶ Jud Colburn, chairman of the Memorial Elms Committee of American Legion Post 134, Burien, designs and oversees the installation of a granite memorial slab marker that is installed on the at the Sunnydale School site, Des Moines Way South at South 156 St. The \$17,000 cost of the memorial is supplied by Seattle City Light, Seattle City Water, Washington Natural Gas Puget Power and Light, and King County Roads and Parks departments. There is considerable public criticism of this move that continues in the coming years.
- 1966** ▶ Road improvements made from Seattle city limits to Military Road: road widened to 44-feet, curb-to-curb sidewalks and underground storm drainage installed. Dangerous two-lane bridge near 16th Ave. South and South 100th St. removed and filled.
- 1967- 68** ▶ Lewis-Redford Transportation Study of SEA-TAC International Airport area funded by the State Dept. of Highways, Port of Seattle and King County recommends 48-foot pavement width for Des Moines Way South
- 1968-69** ▶ Section of road from Military Road to South 128th St. improvements: road widened to 44 feet, sidewalks and storm drainage installed.
- 1969-71** ▶ The Allison Report, funded by King County, recommends a number of major changes to Des Moines Way South Urban Arterial Board (UAB) approves matching funds for work on the section South 128th to So 152nd St. The project is included in 1970 Capital Improvement budget and Arvid Grant and Assoc., Consulting Engineers, are selected by King County Design Commission and prepare a survey and design for the modifications.
- 1971-72** ▶ The Arvid Grant proposal calling for widening Memorial Way to four lanes, requiring the removal of all of the remaining Memorial Elms, arouses public outcry of opposition from Highline residents. In response to public objections to removing the trees the County orders an Environmental Impact Statement (EIS) assessing the impacts of the project. Numerous agencies comment on the failure of the plan to consider alternatives to destroying the Memorial Elms. The County puts the project up for bids. Community objection to the project intensifies.
- 1972** ▶ August - In a compromise action the King County Council temporarily halts the Des Moines Way South widening project and County Public Works schedules a series of public community meetings discussing modifications to the project plans, taking into consideration the width, beauty and historical significance of the Des Moines Way South The results of the meetings are reported back to the County Commissioners.
- 1973** ▶ August 31st UAB funds for road improvements on Des Moines Way South are cancelled.

- 1974** ▶ February 26th, representatives from Highline Community Council call for a citizens' Des Moines Memorial Way Study Committee. April 2nd the SEA-TAC Communities Plan Policy Advisory Committee endorses the committee and the committee meeting is held April 4th. Burien activist Dottie Harper chairs the committee that focuses on issues surrounding salvaging existing sound Memorial Elms, replacing dead trees, and maintaining the road as a two-lane road with bicycle and pedestrian paths. The plan as a whole is not acted upon, however, Memorial Way is designated a bicycle route.
- 1977-78** ▶ Ola Mae Crawford, Highline activist writes and circulates a petition to revive the Des Moines Way South improvement effort. At a public meeting in November of 1979, convened to discuss the Capital Improvement Program for Highline, citizens challenge the County's proceeding with planning without community input. Community spokespeople insist that the Highline communities have a right to participate in planning changes for the road to assure that any changes are appropriate in design to maintain the original "Living Memorial" vision of the Road of Remembrance.
- 1978** ▶ In response to Highline citizen request for a voice County Councilman Paul Barden appoints a citizen's committee to discuss alternatives regarding the future of the Memorial Way in the section lying between South 128th and South 188th. After months of meetings the committee produces a list of recommendations for the King County Highline Communities Plan including safety elements, pull-outs, planting strips, pathways, sidewalks for bicyclists and pedestrians. The route would add to the existing bicycle path system. The recommendations are not acted upon.
- 1982** ▶ King County Public Works Dept. makes a commitment to planting 61 flowering crabapples and three blossoming cherries between South 130th and South 160th. The trees are planted.
- 1983** ▶ The Southwest King County Arts Council nominates Des Moines Way South for King County Landmark status. The nomination is unsuccessful.
- 1984** ▶ December 3rd the King County Council passes Ordinance #7041 renaming Des Moines Way South "Des Moines Memorial Drive." The name change was a part of the 1979 Highline Des Moines Way Improvements Citizen's Committee recommendations. However, Jud Colburn, the "Keeper of the Elms" and American Legion Post # 134, Burien, are credited with this significant accomplishment.
- 1985** ▶ October, Jud Colburn, 32-year leader of the American Legion Post 134, dies at age 91. In his obituary he is heralded as "the Keeper of the Elms," and commended for his untiring devotion to maintaining the Memorial Elms as well as bringing about numerous community improvements over a half a century as a community activist.
- 1988** ▶ SR 509 is extended thereby alleviating traffic congestion on Des Memorial Drive and reducing the pressure to widen the Memorial Drive to four lanes.
- 1988** ▶ City of Des Moines undertakes major renovation of its business district that lies on either side of Marine Drive, a part of the historic Memorial Way. A Memorial Elms Study Committee is formed to investigate the future of the Memorial Elms located along the street. The After much discussion and public input the

committee agrees to endorse the Marine View Drive Improvement Plan that requires the removing of the remaining Memorial Elms in the district in the interest of upgrading upgrade urban amenities, e.g. replacing and widening sidewalks, siting art works and gardens.

- 1989** ▶ July 26th a flag pole and plaque commemorating all veterans of all American wars is installed in a triangular park at the intersection of Des Moines Memorial Drive and Marine View Drive just north of Des Moines business district.
- 1989** ▶ Concerned about the serious deterioration of Des Moines Memorial Way as a "living road of remembrance" the King County Landmarks and Heritage Commission funds the creation of the exhibit, "Des Moines Memorial Drive, Landmark Vision and Elusive Reality". The exhibit opens at the Sunnydale School Museum November 11th with a gala Veterans Day-State Centennial event. In subsequent years the exhibit is frequently displayed in various places in Highline and is effective in focusing community attention on the memorial road.
- 1998** ▶ At the 1963 stone memorial site on Des Moines Memorial Drive Memorial Elms are removed and new plantings substituted by Braden Searing as an Eagle Scout project. American Legion Post 134 functioning as the stewards of the memorial road approves the project. The Veterans acknowledge completion of the project with a dedication ceremony and placement of a bronze plaque.
- 1999** ▶ June 22nd a ceremony is held at Memorial Drive Park (Sunnydale) to launch the beginning of a major project to restore Des Moines Memorial Drive. King County Councilman Chris Vance, who played a major role in securing financial support for the project from the County said at the occasion, "When it was created after World War I, it was considered one of the most historic landmarks in our state. Preserving something like is critical to passing down our history to the next generation."
- 2000** ▶ Interlocal Agreement formalizing the DMMD Restoration Committee is signed by the Cities of Des Monies, Normandy Park, SeaTac, Burien, King County and Port of Seattle. In addition to representatives from the Interlocal Agreement, the Des Moines Memorial Drive Restoration Committee includes representatives from American Legion Posts, VFW, the utility companies, community historical societies and interested citizens. The committee's focus is restoring the memorial aspects of the historic Memorial Way as well as technical improvements required by the roadway.
- 2001** ▶ Des Moines Memorial Drive Cultural Enhancement Plan receives funding from King County Roads and SB & Associates, Landscape Architects, are contracted to research and produce a Corridor Management Plan for the historic "Memorial Way".

Intrinsic Qualities Assessment

Intrinsic Qualities

Intrinsic Qualities are scenic, historic, recreational, cultural, archeological or natural features that are considered representative, unique, irreplaceable or distinctly characteristic of an area. A property or project must possess one of the above 6 intrinsic qualities to qualify for the National Scenic Byways Program. An All American Road is the best of the National Scenic Byways. To qualify for this designation, the property or project must possess two of the above intrinsic qualities.

Intrinsic Qualities, as defined by the National Scenic Byways Program and the National Historic Landmarks Program, were described and assessed to determine the likelihood of qualification for one or both of these programs. The definition of an intrinsic quality "representative, unique, irreplaceable or distinctly characteristic of an area" provides the structure and framework for the resource inventory conducted as part of this study. A finding of significance in only one of the six types of intrinsic qualities (historic, scenic, recreational, cultural, archaeological or natural features) qualifies a project for nomination to either program. ***For Des Moines Memorial Drive, two qualities are very strong; the historic and the recreational.*** Application for designation for either the Byways program or the Landmarks Program opens doors at the local, county, state and federal levels for funding support.

The Secretary of the Interior has developed a vocabulary for discussion and planning of historic resources. Anytime a resource of potential national significance is reviewed, it is to be approached as though it is already on the National Register of Historic Places. In addition, the [Guidelines for the Treatment of Cultural Landscapes](#) defines terms for use in historic preservation work. There are four "treatments" recognized by the Secretary for treatment of cultural landscapes: Preservation, Rehabilitation, Restoration and Reconstruction. No other terms have meaning when addressing the treatment of an historical resource.

The terms that apply to the WWI Living Road of Remembrance on DMMD are Preservation, Rehabilitation and Reconstruction. Other terms used in this document such as enhancement and rejuvenation are less technical and to be more globally applied.

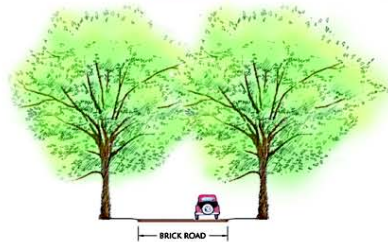
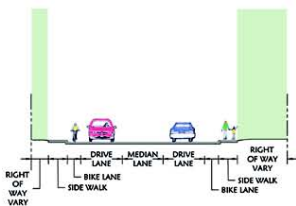
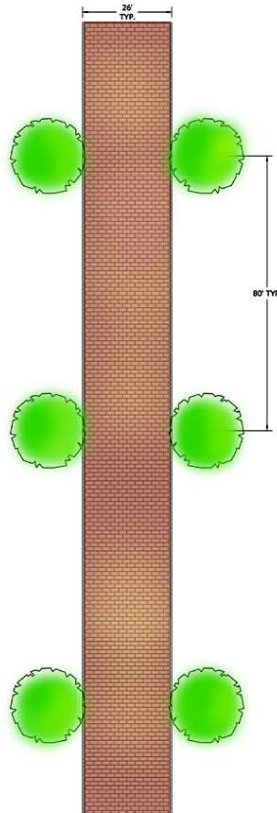
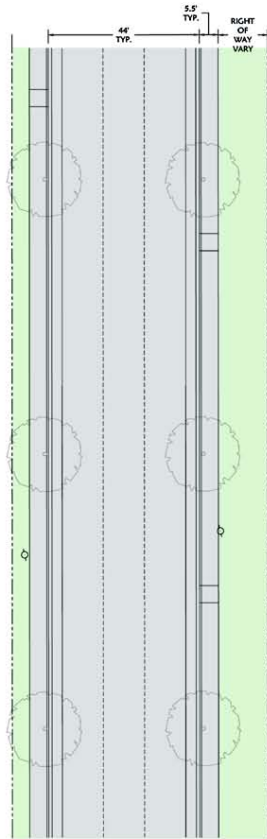
Historic Resources and Qualities

Minutes and archived materials from the Seattle Garden Club, 1917 to 1924, were examined to verify the number and type of trees originally planted. (See Figure 2-3 for Tree Comparisons) Field surveys were made and aerial photographs from 1932 and the Des Moines Memorial Drive Tree Inventory, August 23, 1989 were examined and interpreted to identify the original and remaining locations and patterns of the memorial trees.

After much discussion and study, the Seattle Garden Club, in consultation with the University of Washington's Dean of Forestry, Hugo Winkenwerder, selected the American Elm, (*Ulmus americana*), as the WWI Living Road of Remembrance memorial tree. The trees were planted 80 feet on center along the margins of the roadway and 44 feet across from one another. The road was red brick and 26 feet wide at the time. (See the illustrative graphic in the following figure showing this tree-planting pattern.)

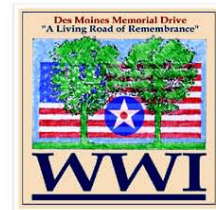
Between 1100 to 1500 trees were planted from what is now South Director Street, South Park, Seattle to the King County/Pierce County Border. The King County Engineer, Major Beaman, secured a special permit from the County Commissioners allowing for the planting and maintenance of the memorial trees within County right-of-way. Additional memorial trees were

Figure 2-3. Original Tree Planting Pattern Drawing



CURRENT PROPOSED ROAD WAY
SCALE: 1"=10'

1920 MEMORIAL ROAD/TREE
SCALE: 1"=10'



**CORRIDOR
MANAGEMENT PLAN
FOR
DES MOINES
MEMORIAL DRIVE**
WWI VETERANS "LIVING ROAD
OF REMEMBRANCE" MEMORIAL

MEMORIAL ROAD / TREE
COMPARISON WITH
CURRENT ROAD WAY
DESIGN SECTION

SB & Associates
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist



planned from Tacoma to this point, however these plans were never implemented. The Seattle Garden Club also planted seed of ragged robin, foxglove, poppies, and forget-me-not along the road shoulders as part of the memorial.

Other types of trees planted were within the right of way include Horse chestnut (4), Linden (65), Cherry (16), Red Maple (8), Hornbeam (20) and Crab Apple (66) trees. The Horse chestnut trees, at the eastern edge of DMMD and S. 156th Street appear to be planted at or near the same time period as the elms (possibly a plant selection error or quick infill fix). Lindens, on Marine View Drive in Des Moines, were planted in the late 1990's as replacements for memorial elms. Cherries, along the eastern edge of the drive, were planted some 5-10 years ago and are in poor condition due to lack of maintenance. Hornbeam (Japanese and European) and Crab Apple trees, located along both sides of DMMD in the SeaTac industrial area south of S. 188th Street, were planted 3-4 years ago. These were planted as replacement trees for memorial elms - with emphasis on yellow fall color and yellow fruit as honoring symbols. These trees also suffer from poor maintenance and establishment watering. Many are dead or are performing quite poorly.

Within the planning corridor, 808 to 883 trees can be confirmed as having been planted along the roadway. An accurate accounting of the trees was interpreted from 1932 aerial photographs of the corridor; see selected aerial photographs showing South Park, Sunnydale and the 5-corner/S.188th St. areas. We know that by 1936, 75 trees needed replacement and were replaced.

Today, 230 memorial elms remain along the corridor. The Existing Elm Tree Map, Figure 2-4 on following page, illustrates the location and distribution of the DMMD memorial trees remaining today. Of the 230 remaining elm, over 60% have suffered significant loss of branching and character due to severe pruning by utility providers (as overhead utilities have been installed over/through these elms over many years (*See Chapter 3 for utilities description and mapping*)). Many others suffer from disease and damage to trunks, branches and root areas. Agencies and utilities are conducting pathogen surveys and ordering more removals or severe pruning each year. See Chapter 3 for discussion of Elm disease.

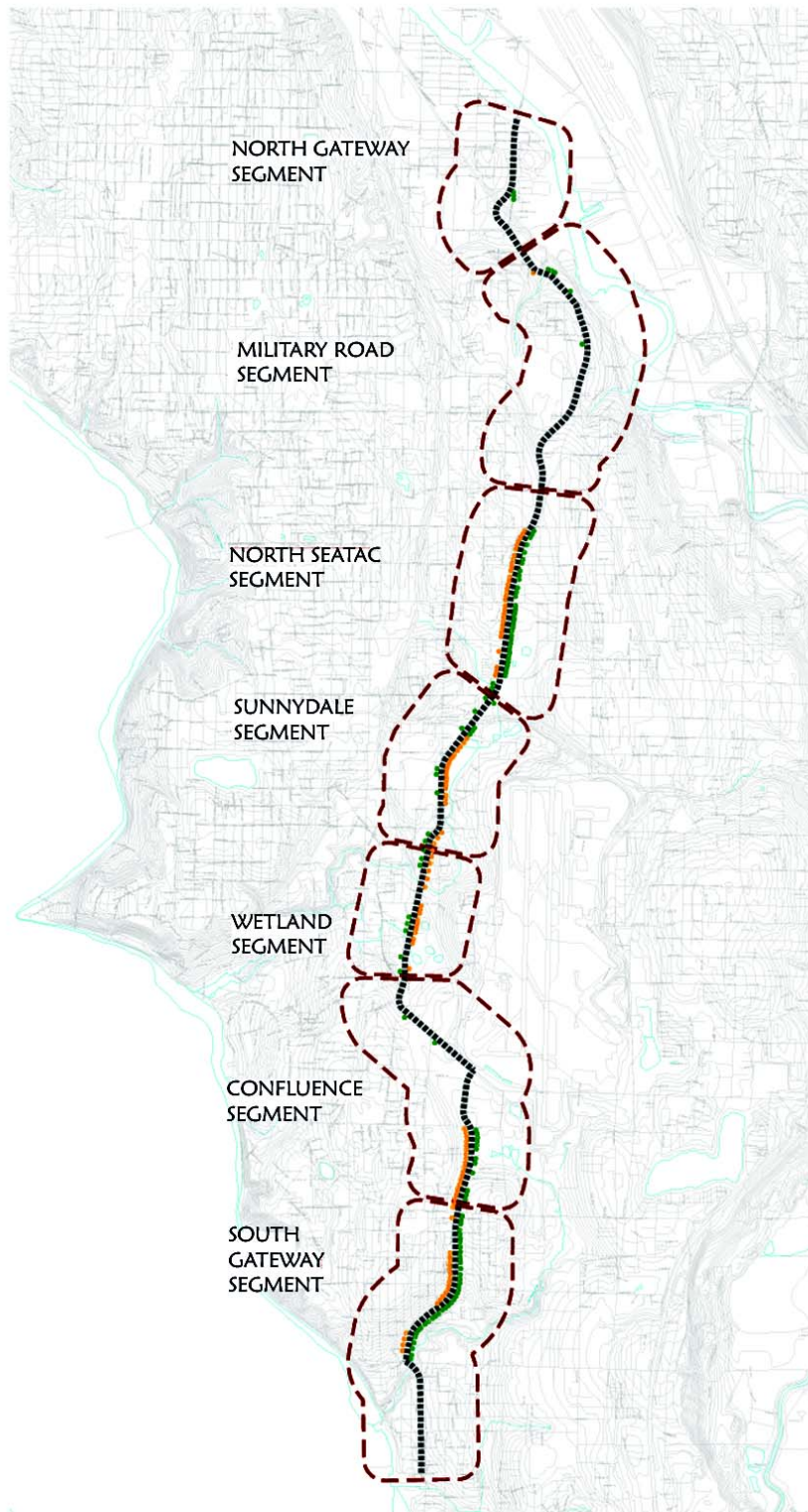
The remaining original Elms are over 85 years in age and have an expected longevity of 10-15 more years. In 1989, there were 362 memorial elms counted, and "only a small percentage of the group could be considered healthy or vigorous", according to DMMD Tree Inventory summary.

Cultural Resources and Qualities

DMMD is composed of a number of other historic and cultural features within a rich environmental context. Cultural landscape features that shaped the character and qualities of DMMD include:

- South Park Community, Bridge and Duwamish River
- 1920s Golf Course and Country Club (Rainier)
- Boulevard Park Community
- Military Road (early 1900's)
- North SeaTac Park and Neighborhood
- Seike Nursery and Farming Area
- Sunnydale Area, School, and Crossroads (first gas station in South King County)
- Upper Des Moines Creek Farming Area

Figure 2-4. Existing Elm Tree Inventory Map



**CORRIDOR
MANAGEMENT PLAN
FOR
DES MOINES
MEMORIAL DRIVE**

WWI "LIVING ROAD OF
REMEMBRANCE" MEMORIAL

**MEMORIAL ELMS
INVENTORY**

LEGEND:

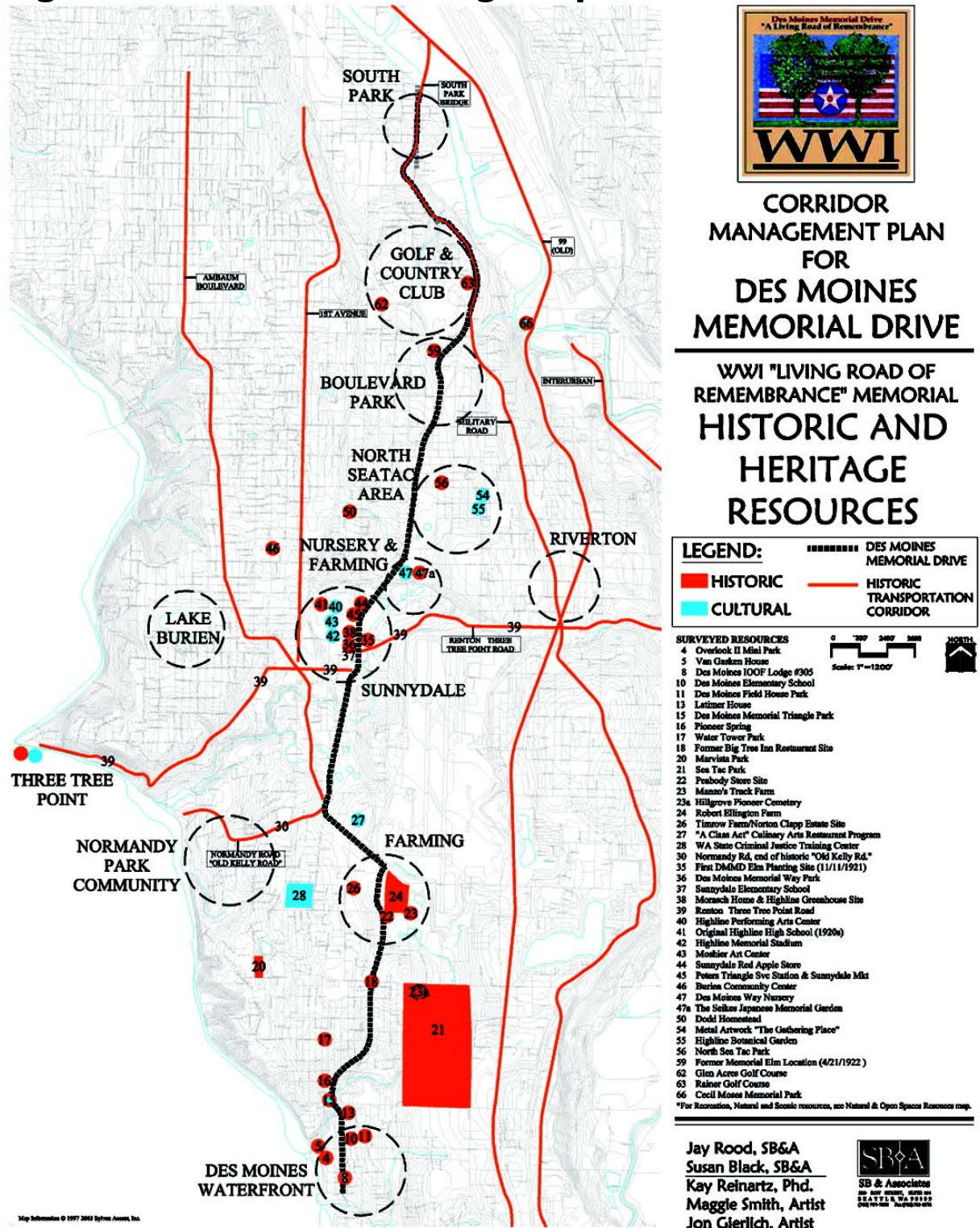
- MEMORIAL ELMS
- ELMS UNDER UTILITIES



Jay Rood, SB&A
Susan Black, SB&A
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist



Figure 2-5. Historic & Heritage Map



- Normandy Park Residential Community
- Des Moines Creek, City Center and Puget Sound Waterfront
- Major Transportation Facilities - SeaTac Airport, SR 518 and 509

Figure 2-5 illustrates the location, distribution and pattern of these significant cultural features. Each of the resources delineated has been surveyed and a record made of its principal heritage characteristics and qualities.

The "patterning" of these elements was also found to be important. In many cases these elements are rhythmically positioned - by accident or design - and together create an experience of the Drive that is a feature of its intrinsic quality.

A number of cultural sites lie adjacent to Des Moines Memorial Drive. The most significant for this Plan is the Sunnydale School Memorial Plaza and area, created in 1963. The Memorial Plaza features granite panels etched with the names of the fallen for whom each tree was dedicated. The central panel of the memorial is etched with an American elm. Several trees on the grounds of Sunnydale School surrounding the Memorial are also dedicated to the fallen of various wars. Across DMMD is the site of one the first tree planting ceremonies.

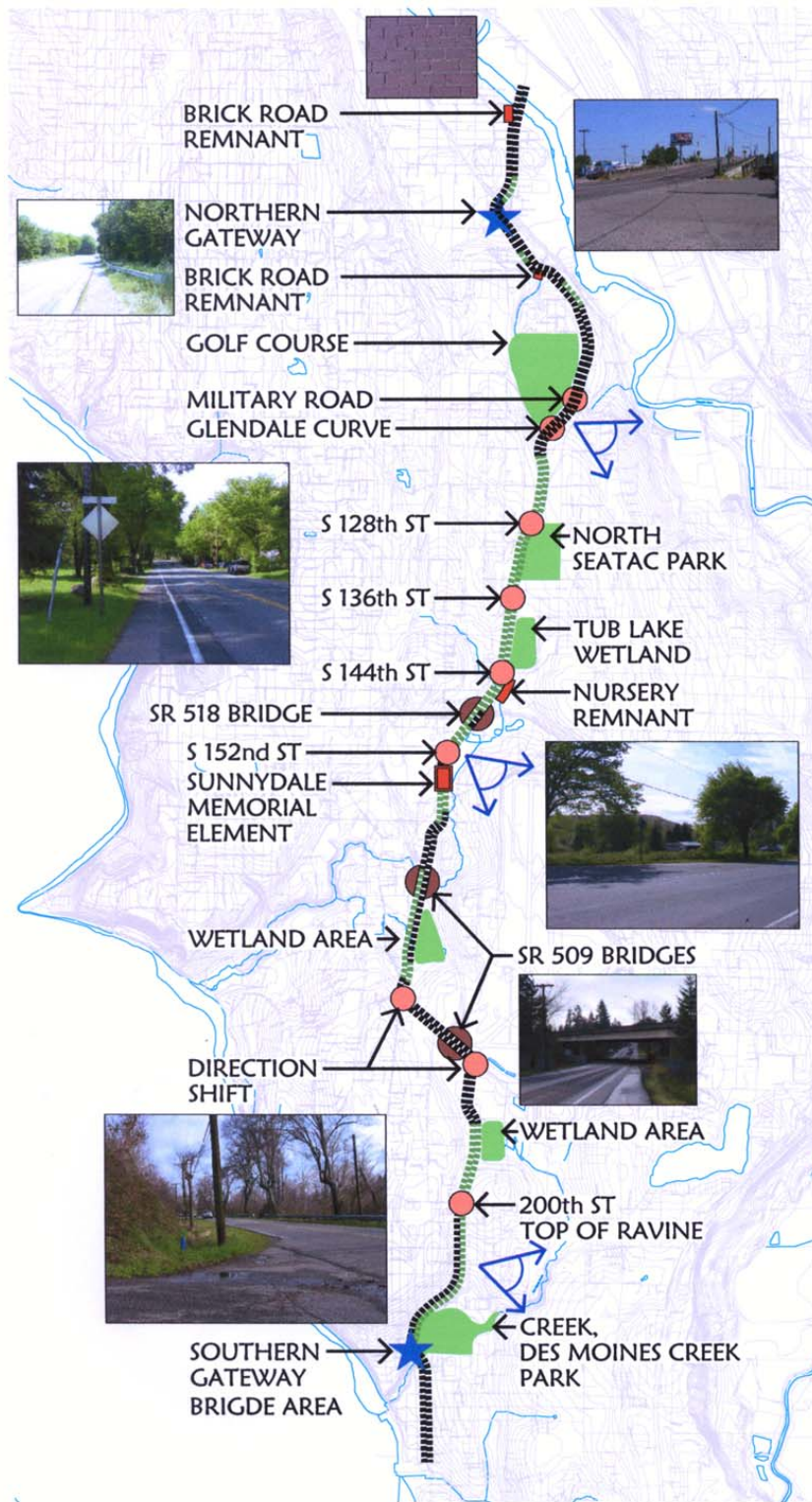
Sunnydale Elementary School is undoubtedly alive in the memories of many thousands of graduates from over the decades. The first log school building in Highline, the Sunnydale School, near Miller's creek, has been continuously occupied since 1882.

The Port of Seattle SeaTac Airport in the City of SeaTac has been growing since its first flight in 1942. As a symbol of regional prosperity and industry, this facility has had an enormous impact on the Des Moines Memorial Drive context. Due to the airport expansion over 70 years, the Drive has been realigned in a small segment; many blocks of homes have been removed (now North SeaTac Park, an area of much recreation but no habitation due to safety considerations of the Airport). Current expansion plans will impact Des Moines Memorial Drive in the future as the Port Authority has been asked to participate as a member of the Advisory Committee in the alignment and development of the restoration of the Memorial.

Scenic Resources and Qualities

As shown on the Character Map, Figure 2-6, the scenic and visual qualities and overall character of the DMMD corridor are a composition of its natural open space and parks with its urban community and corridor nodes and regional transportation landscapes. Views to note include the view eastward from the DMMD/Military Road Intersection over the Duwamish Valley to distant Cascade Mountain range; the view from Sunnydale School looking eastward to the high manmade "bluffs" of the SeaTac Airport and the views eastward over the Des Moines Creek open space from 208th street overlooks. Views of Puget Sound are abundant from the Drive in the City of Des Moines.

Figure 2-6. Character and Views Map



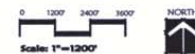
**CORRIDOR
MANAGEMENT PLAN
FOR
DES MOINES
MEMORIAL DRIVE**

WWI "LIVING ROAD OF
REMEMBRANCE" MEMORIAL

CHARACTER

LEGEND:

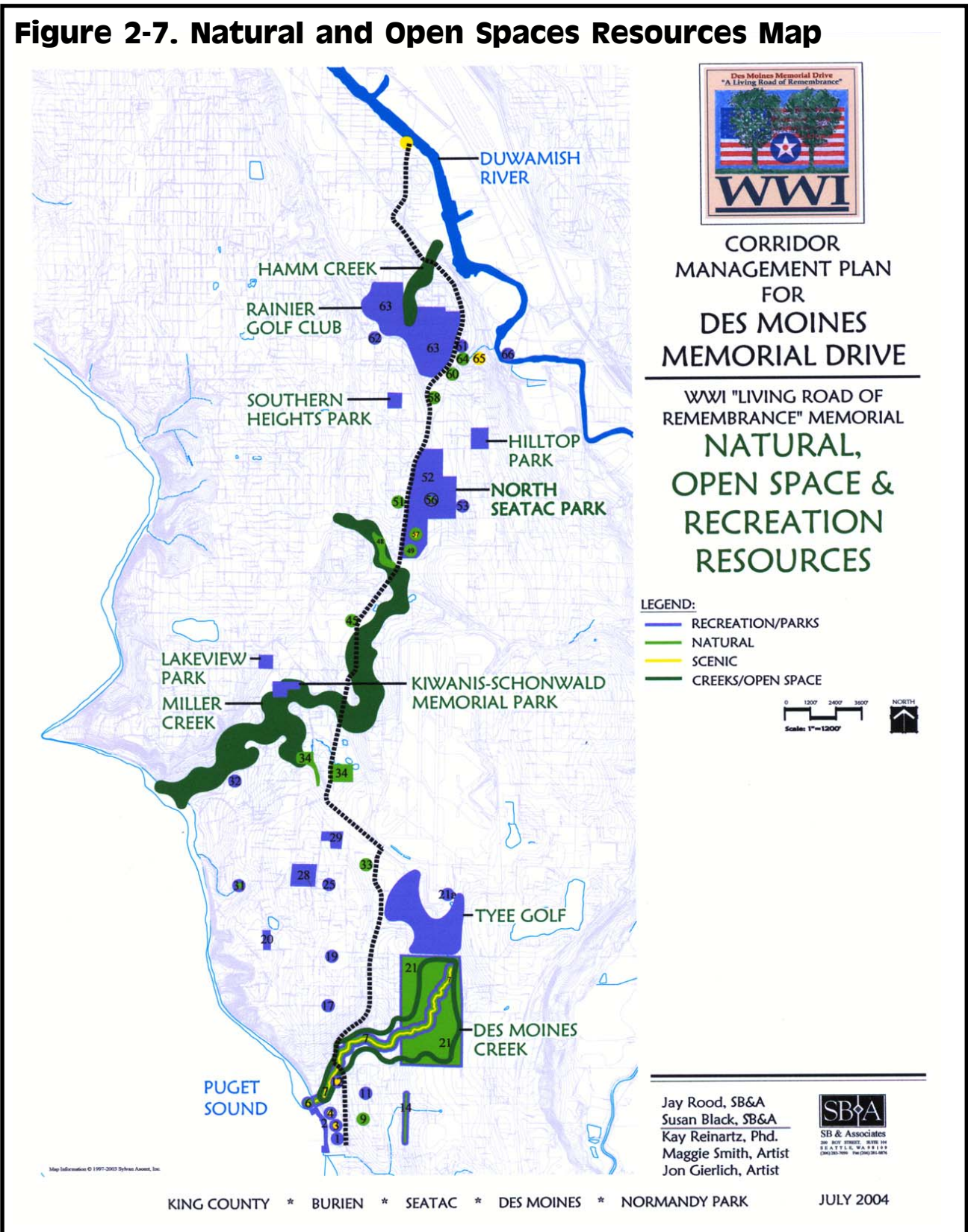
- ELMS ALONG DRIVE
- NO ELMS ON DRIVE
- GREENSPACE
- MEMORIAL ELEMENT
- ★ DMMD GATEWAY
- CIRCULATION NODE
- OVERHEAD BRIDGE
- △ SCENIC VIEW



Jay Rood, SB&A
Susan Black, SB&A
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist



Figure 2-7. Natural and Open Spaces Resources Map



Natural, Open Space and Recreation Resource Qualities

As the Natural, Open Space and Recreation Resources Map, Figure 2-7, illustrates, uniquely northwest natural and scenic resources shape the DMMD corridor. Nearly 50% of the corridor is collectively composed of these landscapes. The key natural, open space and recreation features are:

- Duwamish River
- Hamm Creek Basin
- Rainier Golf Course
- North SeaTac Park/Open Space
- Miller/Walker Creeks Basin, With Associated Wetlands
- Tyee Golf Course
- Des Moines Creek basin and ravines
- Puget Sound/Des Moines Waterfront Park

The river and Sound are at the gateways. The 3 creek basins occupy north, central and southern corridor locations respectively. The two golf courses and North SeaTac Park also participate in the patterning of open space that provides a rhythm to the experience of Des Moines Memorial Drive. The open space areas can also assist in building identity for the Memorial.

Archaeological Resources and Qualities

There is not much data documented or available for examination within this study area related to archeological resources and qualities. It is generally known that native peoples used the Duwamish River and Puget Sound as transportation ways and fishing/gathering. The three major creek systems that meander through the DMMD corridor, Des Moines, Miller/Walker, and Hamm Creeks will have been likely points for these fishing and hunting activities- especially at points where they spilled into the river and sound. There is also evidence of use of shore and riparian edges and nearby forests for fishing/gathering, hunting, and materials sources (such as cedar). Three Tree Point was a known landing site from which trails were made and used along overland routes crossing east/west over the "highline" ridges - to and from river valley and Puget Sound shore. A sloth was also excavated from ancient peat bogs (during the construction of SeaTac airport). These peat bogs/deposits still remain in several areas near the DMMD corridor.

King County maintains, along with tribal governments, more detailed, but preferential, information regarding the archeological resources of this area.

Statement of Significance (according to criteria of the National Register) for Designation as Landmark

National Register "historical significance" criteria

Criteria A - Des Moines Memorial Drive meets the National Register qualifications as historically significant under Criteria A in that it is more than 50 years old. The Memorial Way was established as a "Living Road of Remembrance" honoring the fallen in World War I in 1921, 83years ago (2004).

Seattle Garden Club Project

Immediately following World War I, the Seattle Garden Club, under the leadership of President Lillian Gustin McEwan, undertook transforming the Highline Road, also known as the Des Moines Road, into an American Elm tree-lined road. When the Garden Club launched its Memorial Way project it had already successfully completed another local arboreal road project--planting trees along three and one-half mile stretch of road, from 85th Street No. to the Seattle Golf and Country Club.

The Garden Club's decision to dedicate a road and convert it to a tree-lined avenue reminiscent of those of France arose from the desire to create a "Living Road of Remembrance" that would both honor and memorialize men and women from Washington who gave their lives in the recent war. In addition, they wished to demonstrate community commitment to work for peace throughout the world.

Criteria B - The Memorial Way is associated with an event that has made a significant contribution to the broad pattern of American history: World War I, known as "The Great War".

Up to the time the United States entered the active war in Europe in June of 1918, America had pursued a policy of international isolation. The American Expeditionary Force's (AEF) participation in combat on foreign soil fighting in defense of democratic principles brought to an end the U.S. position of political isolationism in regard to international disputes. It also set a precedent for American world leadership that steadily expanded throughout the twentieth century with the U.S. playing decisive roles in World War II, the Cold War and other international disputes.

The war also had cultural and social impacts, the most dramatic being the creation of a new national holiday, Armistice Day, observed on November 11th, the day World War I ended. In 1954 Congress changed the holiday to "Veteran's Day" to honor those who served in all U. S. wars. Other familiar institutions originating from World War I include several war veteran's organizations, e.g. the Veterans of Foreign Wars (VFW) and the American Legion, and military poster art and the annual Veteran's Red Poppy drive.

Criteria C - Des Moines Memorial Drive, an eight-mile "Road of Remembrance" qualifies under criteria C in that it embodies the "distinctive characteristics of a type of construction," that being a "living war memorial." Although Des Moines Memorial Drive is primarily commemorative in nature, it qualifies under National Register criteria considerations "f". Memorial Way is of exceptional significance as an early expression of the now well-established American tradition of creating "living memorials" for war dead. This war memorial concept was introduced in the United States following World War I.

Des Moines Memorial Drive is unique among Post World War I Living Memorials

In the decade following the war arboreal memorials literally sprang up all over America. Many more such memorials were planned than were actually realized. The Des Moines Drive (DMMD) memorial is distinguished on several accounts.

- It is one of the earliest planned "Living Roads of Remembrance" and the first in the nation to be full implemented. This was accomplished in three short years, 1920-22.
- It was the sole "Living Road of Remembrance" following World War I to select American Elms for the memorial.
- Eight miles in length, DMMD was one of the longest "Living Roads of Remembrance" created in the 1920s.
- It is the only living memorial designed to commemorate an individual with each tree planted.

- It is unique in that both top French generals in World War I, Foch and Joffre traveled to King County to personally participate in dedication and tree-planting ceremonies. Other post World War I living memorials were not so honored.
- In addition to over 1,100 memorial American Elms, the living road of remembrance included floral plantings below the trees that commemorated the fallen including red poppies, reference to the French Flanders Fields military burial ground, and blue forget-me-nots.

It is historically significant that from the beginning Des Moines Memorial Drive has had a local community stewardship organization deeply committed to the original goals of the memorial. The stewardship organization has changed several times in 80 plus years, but the Memorial Way in Highline has never been abandoned, as has been the fate of the numerous living war memorials established in the 1920s. Under the firm and committed guidance of the Des Moines Memorial Drive Preservation Committee, the Memorial Way is well along in the preservation and restoration planning process in 2003.

Living Memorials Historical Context:

Arboreal Memorials in the Post World War I Era

Following the end of World War I there was a strong desire across America to commemorate the fallen. Many communities acted on this desire by creating local memorials. While traditional memorials, such as statues and fountains, remained popular a new memorial form was introduced—the living memorial—consisting of tree plantings. The introduction of the arboreal memorial was a reflection of the "nature conservation" movement sweeping America at the time. Thus, arboreal memorials were energetically promoted by many ranging from the American Forest Association (now American Forests) to President Warren G. Harding. Tree-lined boulevards reminiscent of those that the American soldiers marched along in France, were favorite designs.

An influential spokesperson for living memorials in the post-war period was Charles Lathrop Pack, Chairman of the American Forest Association. He declares in his 1923 book, *Trees as Good Citizens*, that "the people of the United States [have] adopted the tree, as their token of tribute" to the war dead. His book combines a conservation message urging environmental improvement, with the idea of creating living memorials to honor the fallen. Pack eloquently expresses the importance of arboreal memorials:

Tree planting to honor the heroic dead of the Great War, or others, has given the world a new form of monument -- the memorial that lives. The memorial tree is clothed in the finest of human sentiment. In its ever-renewing growth it stands forth as a thing alive, a simple symbol to keep forever green the memory of those in whose honor it is planted. For today and for generations yet unborn, the message of the memorial tree is the message of life. One of the most appealing features of the tree as a memorial is that this form of expression is possible to everyone. The memorial tree is suited to the requirements of the city as a whole or to the needs of one person. It may express the reverence of a community, of a group or an individual. In either form it is ideal.

President Harding quickly endorsed the idea of arboreal memorials for the war dead and energetically encouraged the idea with the following words:

A general adoption of this plan [to plant memorial trees along public roadways] would, in coming years, be noted as one of the useful and beautiful ideas that our soldiers' brought back from France. The splendid avenues of France have been among the great delights

and attractions to travelers there and a similar development would equally add to the beauty and attraction of our country. I am pleased to know that the idea has already been taken up quite extensively and that considerable progress has been made.

Examples of other arboreal memorials from the post World War I era are San Francisco's Grove of Heroes in Golden Gate Park and the 400 linden trees planted along a major street in Portland, Maine. In Ohio a statewide effort was undertaken to plant an oak tree for each Ohioan who died in the war with each city responsible for identifying the fallen and planting the memorial trees. While many Ohio cities implemented the plan, other cities were not successful in generating sufficient support for implementation. In Washington D.C. Georgetown University students planted a lombardy poplar for each of the 54 students who died in the war and veterans planted 507 maple trees on the grounds of Walter Reed Hospital commemorating the men and women from the District of Columbia who gave their lives.

The Tradition of Living Memorials to Honor the Fallen

The concept of the arboreal memorial caught the American imagination and following each war since World War I living memorials have been planted honoring the fallen. Blue Star Memorial Highways, found across America, is an expression of the "living memorial" concept. The state chapter of National Council of State Garden Clubs usually initiates these highway memorial projects. Through the combined efforts of the state garden club and the state highway departments many designated Blue Star Highways have been transformed into tree-lined avenues. In some cases the trees have not been maintained over the years because of high maintenance costs.

Since the 1920s the tree memorial concept has taken many forms including memorial forests, bird sanctuaries and horticultural study areas. A wide variety of tree species have been selected as living memorials, for example, Porterville, California, a city that lost more citizens in the Vietnam War than any other American city planted 28 Memorial Giant Sequoias to honor their war dead in the 1970s.

In the spring of 2003 the American Forests organization published the findings of a survey it conducted of "living tree memorials" established in the twentieth century. The survey revealed a nation wide revival of interest in the historic arboreal memorials particularly those created following World War I. Most importantly, local organizations, such as the Des Moines Memorial Drive Restoration Committee, have formed across the United States in the late 1990s and early twenty-first century for the purpose of restoring historic "living memorials," many of which have suffered "death and destruction" over the decades.

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CHAPTER 3

Corridor Analysis

Introduction

Additional study of the DMMD corridor was conducted to augment the work and outcomes of Chapter 2 - Heritage Resources Inventory, Intrinsic Qualities Assessment and Statement of Significance. Other corridor resources, qualities, issues and sustaining rehabilitation opportunities required examination, including:

- Corridor Inventory and Analysis Segments
- Memorial Elm Trees (Resource, Selection, Location, ROW/Service Impacts)
- Overhead Utilities (Existing Condition, Impact on Memorial Rehabilitation)
- Review of Roadway Design and Maintenance
- Right-of-Way Ownership and Distribution (ROW and Frontage on ROW)
- DMMD Corridor Capacity to Support Memorial Rehabilitation
- Transportation and Circulation System/Linkages
- Other Public Facility Partnering Opportunities
- Adjacent Land Use (Memorial Rehabilitation Opportunities and Impediments)

Corridor Inventory and Analysis by Corridor Segment

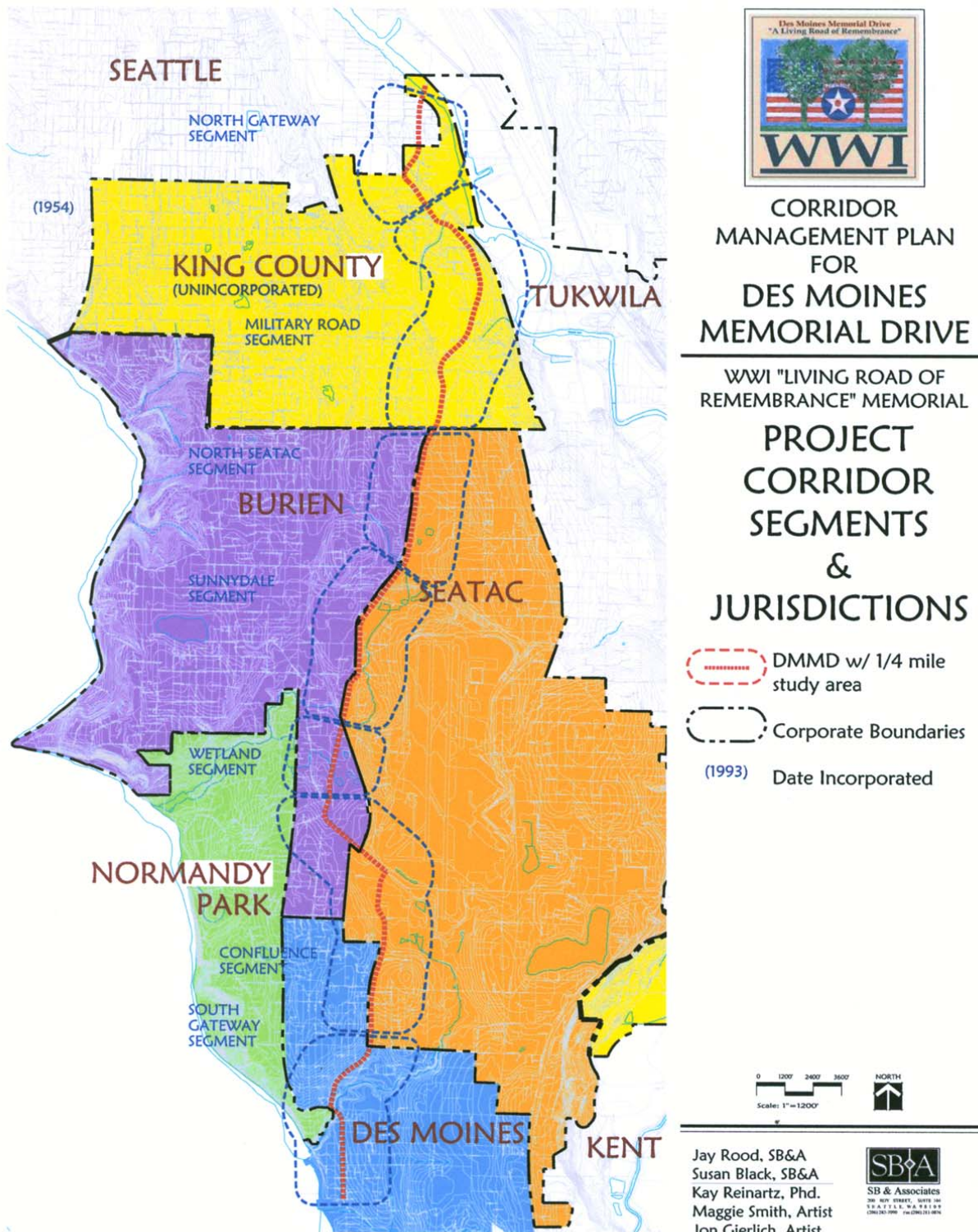
Working with varying corridor roadway design sections and environments and anticipating recommendations and implementation actions that will vary by jurisdiction, corridor inventory and analysis was examined and documented within each of the (7) DMMD corridor "segments". Early on, planners recognized that similar or like right of way conditions should be defined. These became known as "segments". The segment became a planning tool to enable the team to describe Memorial Rehabilitation and Corridor Enhancements more clearly along the 10-mile corridor. Seven segments were identified, delineated and mapped - *See Figure 5-1 -- Corridor Segments and Jurisdictions*. They are South Park, Military Road, North SeaTac Park, Sunnydale, Wetland, Confluence and Des Moines Segments.

Six (6) jurisdictions/agencies have ownership of the seven segments: South Park and Military Road segments fall within King County, City of Seattle and WSDOT ROW; North SeaTac Park, Sunnydale and Wetland segments fall within City SeaTac and WSDOT ROW - with City of Burien fronting continuously on both North SeaTac and Sunnydale segments ROW; Wetland segment ROW is City of Burien exclusively; the Confluence segment ROW is City Burien, City of SeaTac and WSDOT; and the Des Moines segment ROW belongs to the City of Des Moines.

Recommendations for memorial rehabilitation guidelines and elements of the World War I Road of Remembrance are consistent across all jurisdictions and segments. However other corridor enhancements are likely to vary by jurisdiction, and documenting corridor analysis findings by segment addresses this variable ownership, roadway design and community development condition.

Defining the boundaries of a segment took into consideration several aspects of the corridor conditions: ROW ownership, adjacent land use, memorial history and remaining memorial elms, sidewalk width and location, curb and gutter development, width of the right of way in that segment, overhead utility line height and location, and roadway design and operational section (two or four lanes in the existing condition.)

Figure 3-1. Corridor Segments and Jurisdictions



KING COUNTY * BURIEN * SEATAC * DES MOINES * NORMANDY PARK JULY 2004

Jay Rood, SB&A
Susan Black, SB&A
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist



Memorial Elm Trees (Resource, Selection, Location, ROW/ Service Impacts)

Resource

It is very clear and unequivocal, from Chapter 2 - Heritage Resource Inventory, Intrinsic Qualities Assessment and Statement of Significance findings, that the American elm tree was carefully and purposefully selected for the WWI memorial project, to represent and symbolize the honoring of fallen Washington State soldiers. Not only does this validate for designation purposes the central/primary role and significance of the memorial elm tree, but defines an obligation for preservation and rehabilitation planning to renew the connection between an individual soldier and an individual tree.

Table 3-1. Elm Tree Facts

Elm Tree Fact Source	Date	Elm Tree Fact	Location
Seattle Garden Club (SGC) 1919 to 1923 Minutes	1919 to 1923	315 Contributors to Elm Tree planting	From South Park to North Pierce County Line
SGC M Minutes and letters	January, 1922	A "thousand" (1000) trees planted, with help from King County Engineer, UW, Boy scouts and Seattle Taxi Co.	From South Park to North Pierce County Line There are notes which indicate plantings south of Des Moines
Typed Tree Purchase List from SGC tree purchase ledger	1960's inventory	1208 trees purchased – planting not confirmed, but assumed	From South Park at What is now S. Director Street – how far south is unknown
SGC M. Minutes	March 1923	75 trees need to be replaced due to roadway/vehicle impacts	Locations are not known
Aerial Photograph	1936	808 trees counted	From South Park to S 227 th street in Des Moines
DMMD Tree Inventory, James R. Clark Ph.D. and Jeffery Taylor	August 23, 1989	362 Elms Counted	From S. 128 th Street (at N SeaTac Park) and S. 227 th Street
DMMD CMP Inventory and Analysis	2003 - 2004	235 – counted in 2003 5 lost in 2003/2004 winter – 230 remaining	From South Park to S 227th street in Des Moines
Newspaper reports	1920's to 1990's	1200 to 1800 trees reported	Locations beyond Des Moines are unknown or unidentified

Selection

Extensive research of the American elm has uncovered a range of opinions about the most appropriate cultivars of Elms to be planted in the landscape. There are two categories of American Elms, those that are Dutch Elm Disease (DED) resistant and those that are DED tolerant. DED resistance is defined as a tree that will not acquire the disease. DED tolerance means that the tree can survive with the disease present. When looking at the recommended cultivars we have mentioned, 'Princeton Elm' (*Ulmus Americana* 'Princeton') is the most resistant to DED, as well as to Elm Leaf Miner, another significant pest for Elms. Valley Forge Elm (*Ulmus Americana* 'Valley Forge') is another DED resistant cultivar. Both the Princeton and the Valley Forge are cultivars that are reproduced by natural fertilization, resulting in genetic variety. This genetic variety is essential for preventing a stand of trees from being wiped out due to a disease

or pest. Another variety called the American Liberty Elm (*Ulmus Americana* 'Liberty') is a collection of six cultivars of cloned specimens, including *Ulmus Americana* 'Independence' which is patented by the Elm Research Institute (ERI) until 2005, that have shown DED tolerance. Because these trees are cloned, they will not provide as much genetic diversity as naturally occurs in other varieties. (Dirr, 2003)

New American elm (*Ulmus Americana*) cultivars and clones share/display the same characteristics as their parent tree, including non-invasive roots, and are visually strong and stately. These new trees are available from multiple nurseries, even within the Pacific Northwest, and other sources (especially with pre-purchase and/or lead time).

The US National Arboretum and ERI are continuously working to add more DED-resistant cultivars to those already available. Given that DED spreads more easily in a monoculture. SB&A recommends that we plant DMMD memorial trees to include a mix of the most resistant varieties of American elms. These would include newer DED-resistant cultivars as they become available at a later date.

Location

Spacing of these new elms along DMMD shall be 80-feet, as was the original plan for the memorial. As older trees require replacement, new trees shall be located and planted according to the 80-foot scheme. Where there is a sidewalk along DMMD, the elms shall be located on the side farther from the road. Memorial markers will be located where it is not feasible to replace an elm at an 80-foot location. The final tree count, once trees are protected, replaced, or newly added, should remain at 1,208, the number of trees originally intended for this memorial. Most nurseries providing DED-resistant strains of American elm guarantee replacement trees if one of their elms falls due to disease.

Impact

The American elm is an expansive tree, which is one of its greatest appeals and one of the key reasons for choice as the memorial tree for DMMD. Fortunately, these elms have less invasive surface roots than many street trees, making it a sidewalk-friendly tree that is fairly easy to transplant. They can, in the Pacific Northwest, grow 60- to 100-feet high and 30- to 50-feet wide in a memorable vase-like shape. The height of these trees calls for long-term measures to protect them from utility wires, preferably by under-grounding all wires. Regulation and ordinances may be required to keep these trees alive and healthy in their natural shape. If left to grow freely upward and outward on both sides of DMMD, these elms will eventually form a rich, green arch across the corridor.

Memorial Tree/Roadway Design and Maintenance Issues

What are the critical street tree and streetscape design and maintenance issues impacting memorial tree implementation?

Vehicle Conflicts with Tree Branching

Keeping street tree branches above the travel way envelope of passing vehicles is very important for a safe and non-impacting (vehicle and tree) street/memorial tree program. As currently proposed the roadway design section and memorial tree are very compatible with this objective. The proposed memorial tree placement at 8' from curb-line and at the back of the sidewalk helps to protect the tree, provides an increased curb setback distance, eliminates pedestrian barriers within the sidewalk (as would be the case with curb-side planters or tree wells) and the tree branching and leaves are well out of the vehicle travel impact envelope. When bike lanes are

positioned along the curb-line, even more space for avoiding vehicle/tree branching conflicts is created.

Root Impacts on Adjacent Roadway Facilities and Utilities

As mentioned previously the elm is less aggressive than many street trees of its type and stature. Coupled with root barriers, use of structural soils, and extended lateral planter areas elms will be a very friendly addition, if not a special memorial replacement, to the DMMD corridor and street environment.

Leaf Size and Drop

Large leaves from street trees and adjacent to ROW trees will quickly clog storm drains and catch basins during the fall season. This, of course, generates intensive maintenance. Fortunately, the elm leaf is medium in size and overall leaf area and is similar in size to the other street trees planted or planned for DMMD jurisdiction's streets (*See Figure 3-2 -- The Leaf Size and Shape Comparison Chart on following page*). Elm trees will of course generate leaf drop in the fall as do other street trees. The size of the elm tree and associated leaf drop is comparable to other street trees in another way, as the DMMD elms are planted at 80-feet on-center and the street trees are set at between 20- to 30-feet on-center, thus 1 - 2 more street trees adding to the seasonally leaf drop dynamic. Elm trees represent a small portion of the total leaf source material generated along the corridor when considering the abundance of bordering forested open space, wetlands and parklands.

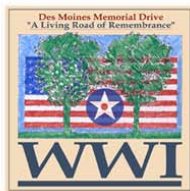
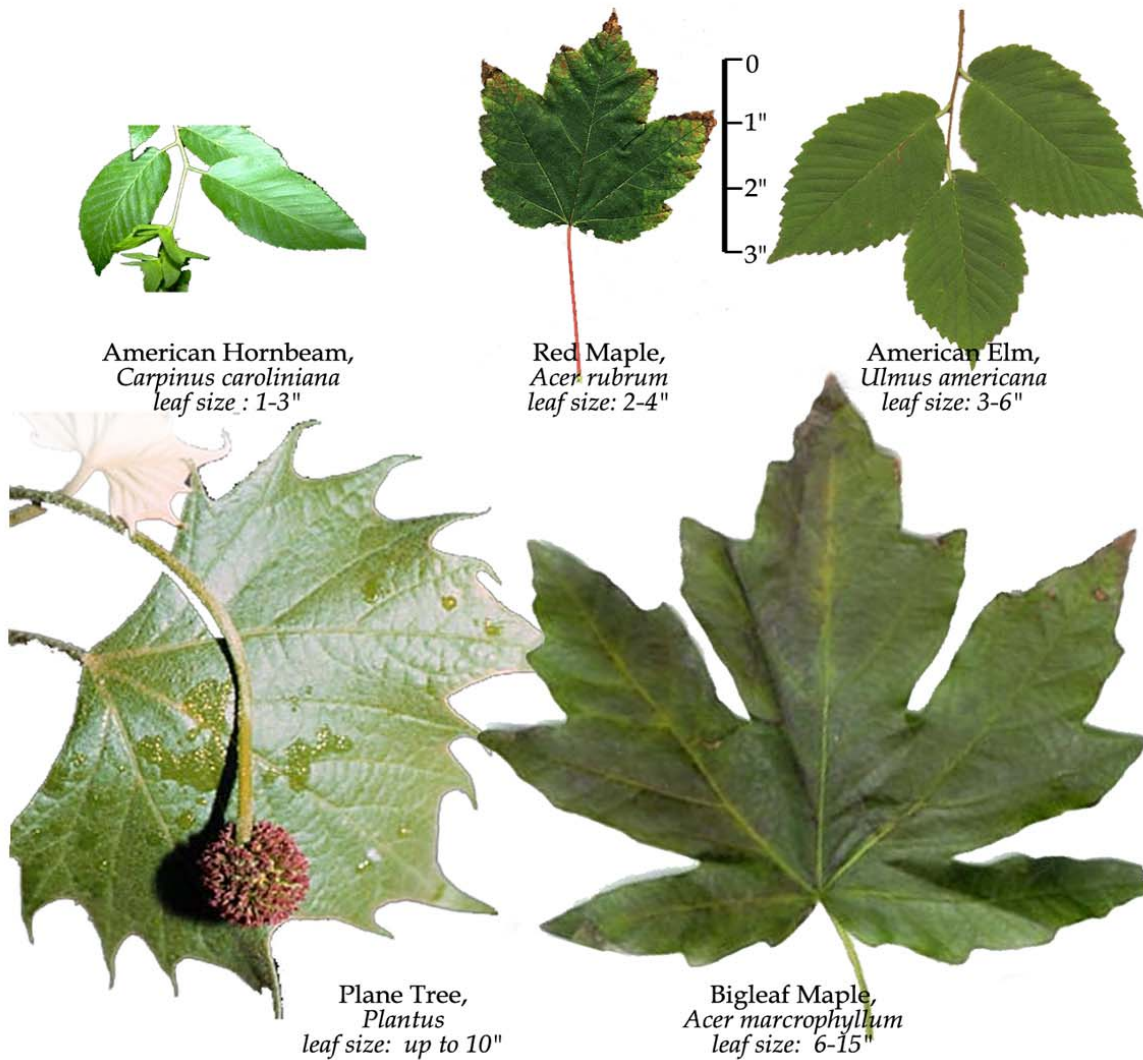
Maintenance

These trees will require maintenance equal to and greater than the typical street tree. This extra care is needed because they are not just trees planted along a street but are MEMORIAL trees. This doesn't mean an extraordinary amount of additional care but focused and expert care that monitors and responds to tree issues quickly and decisively.

Street Tree Standards For DMMD Memorial Trees

Elm trees, due to size and history of disease impacts, are not often considered an appropriate plant choice for urban street environments. In order to establish the memorial elm tree it will be necessary to exceed the street tree standards as set forth in *Table 3-2 -- Street Tree and Streetscape Standards by Jurisdiction*. However, where there are conflicts with these standards or others as defined by jurisdictional review, the memorial elm tree must be viewed in the context as a priority and valuable memorial feature and not as a typical street tree.

Figure 3-2. The Leaf Size and Shape Comparison Chart



SELECTED TREE LEAVES
SIZE COMPARISON
DES MOINES MEMORIAL DRIVE

Reference: *Western Garden Book*

Table 3-2. Street Tree and Streetscape Standards by Jurisdiction

Jurisdiction	Street Tree/Plantings Standards	Large Trees & Elm Listed	Setbacks from curb/travel way and sidewalk	Setbacks from Utilities	Special Considerations
King County	<p>Safety and maintenance are priority issues:</p> <p>Sight distance, traffic safety, pedestrian conflicts, and sustainable plant health with limited irrigation after plant establishment</p> <p>Trees to be planted, generally, behind sidewalk</p>	<p>Yes, Mature tree to 12" diameter,</p> <p>Tree selection approved on project basis – policy is for regionally adapted/native species,</p> <p>Elms <u>not</u> prohibited</p>	<p>2 feet from back of curb, (10 feet if evergreen)</p> <p>2 feet from sidewalk</p> <p>50 feet from intersection curb</p> <p>20 feet from signs</p> <p>15 feet from bus shelters</p> <p>10 feet from driveways</p>	<p>5 feet typical for utility lines, 10 feet from vaults, 20 feet from light and utility poles, 5 feet from hydrants and above ground utility boxes</p> <p>Approved root barrier at curbs, walks and utilities unless waived</p>	<p>Specify “street tree” grown trees w/high lower-limb branching heights</p> <p>Soil Depth to 12”</p> <p>Well drained planting pit or planter</p> <p>Structural soil is acceptable with specification</p> <p>Root barriers</p>
City of Seattle		Yes, Liberty Elm			
Burien	<i>Not available at this time</i>				
SeaTac	30" on center maximum	Sycamore and Maple are approved street trees (medium to large trees)	3 feet from curb		
Normandy Park	Not available at this time				
Des Moines	Not available at this time				
WSDOT	Several planning and design standards applied specifically to each proposed ROW improvement				
Seattle City Light	Base criteria on clearances from lines (10 foot to 16.5 foot clearances)	From SCL “The Right Tee Book” a list of both deciduous and evergreen trees is given mostly for small to medium sizes			
Puget Sound Energy	Safety of customers and users and protect utility investments and operations	Does not list trees above 20 to 35 feet (deciduous) and 30 feet (conifer)	3 feet (side) and 10 feet (front) from transformers		Policy is for regionally adapted/native species,

Overhead Utilities (Existing Condition, Impact on Memorial Rehabilitation)

Seattle City Light and Puget Sound Energy provide energy utility services for the DMMD corridor communities. Data from these utility providers and DMMD corridor inventories generated *Table 3-3 -- Utility provider, Location, Alignment and Length by DMMD Segment*. Findings from this investigation conclude:

- Overhead utility lines are aligned along approximately 37,900 LF of the DMMD corridor length or 70% of corridor length.
- Utility lines have been installed underground for the remaining 30% of corridor length.
- Overhead utility lines impact 40% of the existing (or available) ROW potentially open for memorial tree replacement.
- Overhead utilities, that is main power distribution and communication lines, when present are on one side of the corridor only.

Table 3-3. Utility Provider, Location, Alignment and Length by DMMD Segment

DMMD Segment	Seattle City Light		Detail Notes	Puget Sound Energy		Detail Notes
	Overhead Utility LF	Total ROW LF/Segment		Overhead Utility LF	Total ROW LF/Segment	
	<u>Location West Side DMMD</u>	<u>Location East Side DMMD</u>		<u>Location West Side DMMD</u>	<u>Location East Side DMMD</u>	
South Park	2,420 LF 4,620 LF		2,200 LF Underground at Marginal Way WSDOT interchange			
Military Road	10,730 LF 12,080 LF	1,350 LF 12,080 LF	East side from S. 96 th to 16 th Ave. S.			
North SeaTac	6,585 LF 7,335 LF		750 LF Underground at SR 518 WSDOT Overpass			
Sunnydale	1,540 LF 6,050 LF	4,110 LF 6,050 LF	400 LF Underground at SR 509 WSDOT Overpass			
Wetland					3,070 LF 3,070 LF	
Confluence				5,330 LF 12,160 LF	2,710 LF 12,160 LF	1,500 LF Underground SR 509 WSDOT Overpasses 2620 LF Underground at 188 th and DMMD to S.192 nd St.
Des Moines				3,499 LF 7,430 LF		4,030 LF Underground from Flagpole to S. 227 th St.
Totals	21,275 LF 38,235 LF 56% on west	5,460 LF 18,130 LF 30% on east	3,350 LF UG	5,330 LF 19,590 LF 27% on west	5,780 LF 15,230 LF 38% On east	8,150 LF UG

- City of SeaTac and Des Moines have under-grounding policy associated with new roadway construction (these policies are under annual review).
- Franchise agreements certified by The State of Washington establish the utilities responsibilities regarding developing, operating and maintaining service through each community.

Review of Roadway, Design and Maintenance (CMP #7, #13)

Proposed Roadway Section

A 35 MPH three lane roadway (two travel lanes and one two-way left turn lane) with shoulder and curbside bike lanes on each side of the roadway is proposed for the corridor wherever feasible. This roadway design section also includes 5-foot wide sidewalks on each side of the roadway. The total design section is 55-feet, with 44-foot curb to curb (5 foot bike lanes, 11 foot travel lanes and 12 foot center turn lane) and 11-feet of combined sidewalk and curb.

The City of SeaTac has already built a portion of this new DMMD roadway section from South 188th Street to South 196th Street. King County is also designing to this standard for its current DMMD Roadway Improvements Project from South 96th Street to South 128th Street. King County will construct improvements consistent with this design section in 2004/2005.

Other variations on this section may be developed by the other jurisdictions. One known variation will occur in the City of SeaTac, where North SeaTac Park lies adjacent to DMMD on the east. At this point the bike lanes will leave the roadway section and enter the park on a multi-purpose trail.

Impact of Proposed Section on Memorial Rehabilitation

The 55-foot-wide design section will impact all existing elm trees as they are planted at 44-feet apart, laterally, across what was then a two-lane brick roadway. As DMMD is improved, all original elm trees will be removed and replaced. New, disease resistant elm will be replanted at new lateral spacing determined by the new roadway width in that segment.

It is recommended in the CMP that the centerline of each new tree be placed eight feet from the face of the new curb. Tree placement at back of the sidewalk helps to protect the tree by increasing curb setback distance, eliminates pedestrian barriers within the sidewalk (as would be the case with curb-side planters or tree wells) and removes tree branches and leaves from the vehicle travel impact envelope.

The new elm will require a planting area of 3- to 3.5-feet on each side of the roadway. This planting area is typical of street tree planters in urban corridors. In fact, with the tree set at the back of sidewalk along the edge of ROW, the available tree root zone is optimized.

Easement acquisition for trees will be required, however, wherever there is less than 65 feet of ROW available.

Functional Classification

In the King County Road Standards, DMMD is defined as a Minor Arterial - Urban route with a posted speed of 35 MPH and an Average Daily Trip volume of 15,000 in the King County segment. (Can't just address the county segment. Is this same/similar for the cities too or do we need to get some more info from the cities?)

Connecting Highways

There are no connecting State Highways in the CMP area. However, SR 518 crosses over it and SR 509 also crosses over it.

Channelization/Signalization

The recommended design section for the road includes three-lanes; two through lanes and a center turn lane. In addition, Class II bike lanes are recommended to be added within the curbs of the roadway.

Signalization is not addressed in this plan, but rather will be addressed by each jurisdiction (using accepted traffic engineering criteria) as they identify and implement needed road improvements.

Vehicle Pullouts (widened shoulder area, vehicle turn outs and view points)

Vehicle pullouts are widened areas of the roadway prism - either paved or unpaved - that allow slow-moving vehicles to leave the traveled lanes, allowing faster traffic to pass. On a heritage route, they can also provide short-term parking for travelers to access a nearby point of interest. Because DMMD is an urban arterial road, some points of interest may be more appropriately accessed by parking at another location (such as a lot or side street) and walking to the site. Consideration will be given to parking issues and/or pullouts, specifically where significant interpretive elements are located.

Speed Limits

DMMD is currently 35 MPH and is proposed to remain at that speed.

Airports

SeaTac International Airport is adjacent to the Des Moines Memorial Drive corridor, however there are no access points to the airport from the Drive. Airport property lies adjacent to DMMD to the east from approximately S. 142nd Place to the SR509 overpass (approximately 8th Place S.)

Non-Motorized Transportation Facilities

Safe facilities are needed for bicycle and pedestrian travel. Current and future renovation of the corridor includes bike lanes and sidewalks on each side of the travel lanes along DMMD or adjacent to DMMD as a multipurpose trail. The City of SeaTac is currently planning its West Side Trail, much of which will be adjacent to the corridor or within it.

Public Transportation

Metro bus route 132 services DMMD between South 120th Street and South 96th Street. There are 18 Metro transit stops on this segment with some stops having concrete pads for handicap loading. The busses are on a 30-minute schedule during peak hours and 60-minute schedule during non-peak hours. (Does the plan recommend any changes to location of bus stops? If so should mention here. I thought I heard that some changes were desirable.)

ROW Ownership and Distribution

The DMMD corridor was inventoried block by block along its entire length assessing: jurisdictional/agency ownership, existing memorial elms and roadway condition, adjacent land use, corridor length, ROW widths from centerline, the disposition of overhead utility lines, intersecting streets and trails, existing sidewalk length and other infrastructure improvements.

This assessment was conducted from the South Park Bridge in Seattle to S. 227th Street in Des Moines (See Volume II: Appendices, for complete inventory record). A summary of key data from this inventory is documented in *Table 3-4 -- Summary of Corridor ROW and Frontage by Jurisdiction/ Agency/ Major Land Use* and *Table 3-5 -- Summary of Existing ROW Widths and Conditions by Corridor Segment*. This information is summarized as follows:

- The DMMD is 9.98 miles in length (52,745 LF along its centerline).
- The minimum ROW width is 60-feet
- The maximum ROW width is 110-feet, exclusive of WSDOT ROW widths that are from 95- to 140-feet
- 28,224 LF of corridor is greater than 60 feet in width or 52.7 % of total DMMD length, exclusive of 4,850 LF or 9.8% of WSDOT ROW portions of the corridor
- 25,321 LF of the corridor is 60 feet in width, or 47.3% of total DMMD length
- There is approximately 33, 500 LF of existing sidewalk or approximately 16,750 LF on each side of corridor roadway
- Right-of-Way Ownership and Distribution (ROW ownership and frontage): The City of SeaTac has by far the most DMMD ROW ownership, on a centerline LF basis (44.1%), with 16.5 % more coverage than the nearest jurisdiction, King County at 27.6% coverage. An interesting note is that on a DMMD frontage basis, coverage's begin to even out between jurisdictions- perhaps indicating or suggesting a means to allocate implementation responsibilities.

Table 3-4. Summary of Corridor ROW Ownership and Frontage

Jurisdiction/Agency	ROW Owned - LF	Percent of ROW per Total DMMD	Frontage on ROW - LF	Percent of Frontage per Total DMMD
King County	14,780	27.6%	29,560	28.8%
City of Seattle	1,920	3.6%	3,840	3.8%
City of SeaTac	23,635	44.1%	29,345	28.7%
City of Burien	5,780	10.8%	24,945	24.4%
City of Normandy Park	200	0.4%	200	0.2%
City of Des Moines	7,230	13.5%	14,460	14.1%
Totals	53,545	100%	102,350	100%
WSDOT	5,000	9.8%	-	
North SeaTac Park			3,100 LF	3%
Port of Seattle			9,400 LF	9.2%

Table 3-5. Summary of Existing ROW Ownership, Frontage, Widths and Conditions

DMMD Segment and Location	Jurisdiction City/County Total Length at Centerline, Linear Feet	LF Frontage	Right of Way Width Total LF 60' & >60'	Sidewalk Length West/East
<u>South Park</u>	King County (2700LF)/ Seattle (1920LF) 4,620LF/ .875miles	KC 5400LF Seattle 3840LF	1770/2800	4040 LF
<u>Military Road</u>	King County (12,080LF) 12,080LF/ 2.287 miles	KC 24,160LF	8370/3710	22,250 LF (20,000lf built)
<u>North SeaTac</u>	SeaTac (7335LF) 7,335LF/ 1.389 miles	SeaTac 7,335LF Burien 7,335LF	3860/3475	14,100 LF
<u>Sunnydale</u>	SeaTac (6,050LF) 6,050 LF/ 1.145 miles	SeaTac 6,050LF Burien 6050LF	2860/3190	11,720 LF
<u>Wetland</u>	Burien (3070LF) 3070LF/ .581 miles	Burien 6,140LF	3070/0	6080 LF
<u>Confluence</u>	Burien (2710LF) SeaTac (10,250LF) 12,960LF/ 2.3miles	Burien 5420LF SeaTac 15,970LF DesMoines 4530LF	2290/10,670	22,930 LF (2,400 built)
<u>Des Moines</u>	Des Moines (7,430LF) 7430 LF/ 1.288 miles	DesMoines 14,660LF N.Park 200LF	3101/4329	13,960 LF (6480 built)
Total	52,745 LF/ 9.98 miles	102,350 LF	Greater than 60': 28,224 LF @ 52.7% 23,374 LF @ 43.7% (with out WSDOT @ 4,850LF) 60' ROW: 25,321 LF @ 47.3%	95,080 LF/ 468,150 SF (30,000 LF/150,000SF existing)

DMMD Corridor Capacity to Support Memorial Rehabilitation

What is the DMMD corridor's capacity to support memorial rehabilitation and restoration, given available right of way, adjacent public properties and built land use, development of the agreed-to roadway design section, intersecting transportation systems, overhead utilities, and intersecting/associated development initiatives?

Existing and Potential Future Roadway Design Section

The 35 MPH three-lane roadway (two travel lanes and one central turn lane) with shoulder/curb-side bike lanes on each side of the roadway was planned and reviewed by each of the Interlocal agency partners and community groups in 2000. This roadway design section also includes 5-foot wide sidewalks on each side of the roadway. The total design section is 55-feet, with 44-foot curb to curb (5-foot bike lanes, 11-foot travel lanes and 12-foot center turn lane) and 11-feet of combined sidewalk and curb. The City of SeaTac has already built a portion of this new DMMD roadway section from S 188th Street to S 196th Street and King County is designing to this standard for its current DMMD Roadway Improvements Project from S 96th Street to S. 128th Street. This 55-foot design section will impact existing memorial elm trees as they are planted 44-feet apart.

Transportation and Circulation System/Linkages

Regional Transportation and Circulation System Linkages and Connections

As shown on the Circulation Map, Figure 3-3, DMMD is a key part of the transportation system serving these "highline" and corridor communities. Whereas SR 509 supports high volume regional transportation needs, DMMD serves local needs and connections. It also is the only designated north/south corridor for non-motorized transportation in this area.

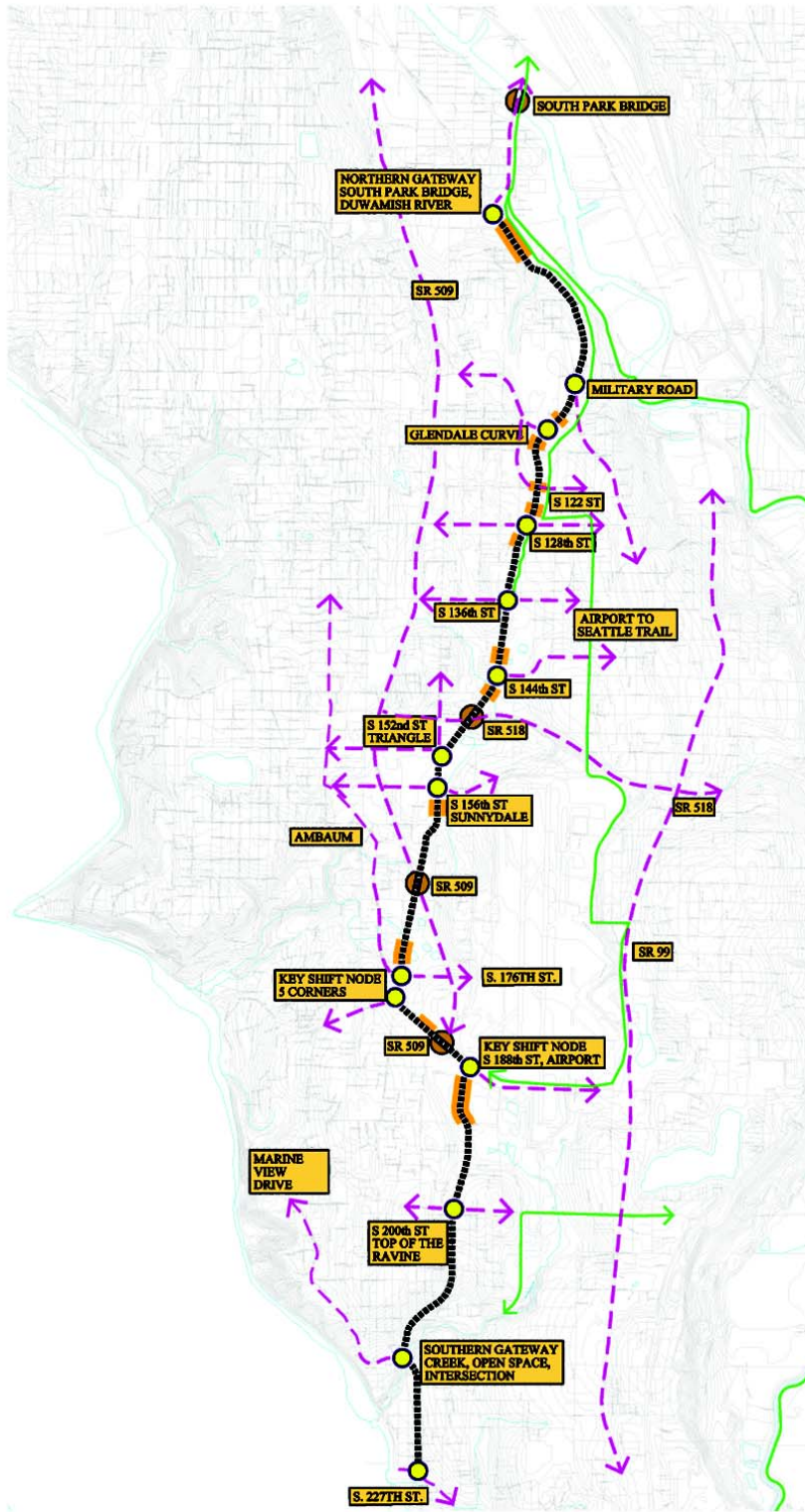
There are 15 circulation nodes along the DMMD corridor that offer prime opportunities for building community identity, promoting DMMD values and orientation while enhancing area wide circulation. There are 2 bridge crossings (South park and Des Moines Creek), 3 WSDOT overpasses (SR 518 and SR 509), and the Duwamish Regional Trail connection at West Marginal Way/ 14th Avenue South (*See Figure 3-3 -- Corridor Circulation Map*).

Other Public Facility Partnering Opportunities

10 important community and corridor development projects and/or programs, (*See Active and Current Development Initiatives Map, Figure 3-4*) offer opportunities for meeting plan goals and building implementation partnerships.

- South Park Bridge Replacement Project
- 14th Avenue South Street Improvements Project
- Duwamish River Trail development
- Hamm Creek Restoration
- King County DMMD Roadway Improvement Project
- Intersecting Street Improvement Projects
- SeaTac/Port of Seattle West Side Trail Planning Process
- Port of Seattle Expansion

Figure 3-3. Circulation Map



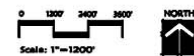
**CORRIDOR
MANAGEMENT PLAN
FOR
DES MOINES
MEMORIAL DRIVE**

WWI "LIVING ROAD OF
REMEMBRANCE" MEMORIAL

CIRCULATION

LEGEND:

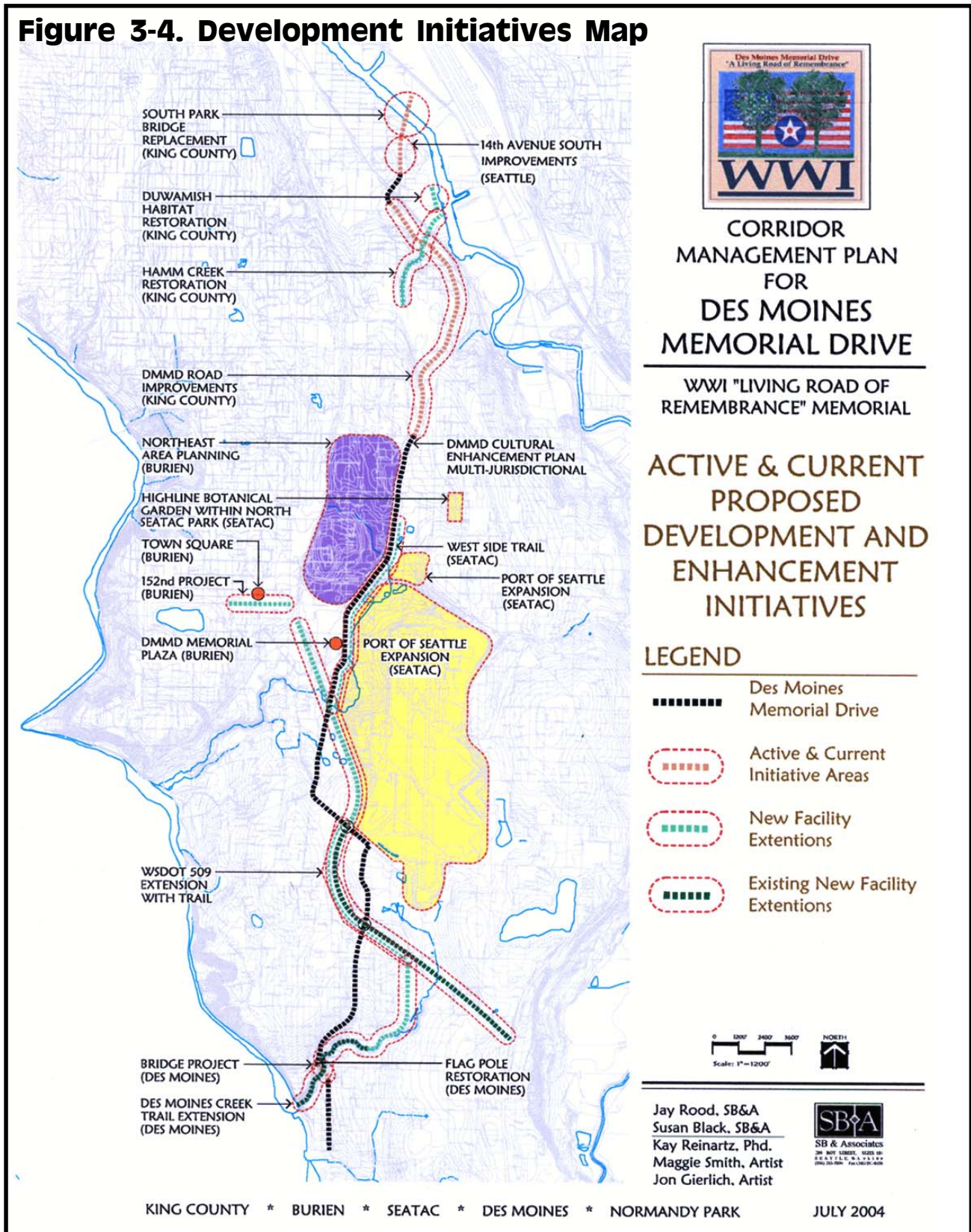
- DMMD ROUTE
- - - - - CROSS STREET
- NODE
- ◐ OVERHEAD BRIDGE
- COMMERCIAL/INDUSTRIAL USE
- REGIONAL TRAIL



Jay Rood, SB&A
Susan Black, SB&A
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist



Figure 3-4. Development Initiatives Map



South Park Bridge

King County, City of Tukwila and City of Seattle

In the 2001 Nisqually earthquake, existing bridge and bridge span structural stability problems were exacerbated. The decision was made to replace this 73-year-old structure. Both historically and functionally important to this part of King County, Seattle and the DMMD corridor, the new bridge will need to respond to the unique conditions of the South Park community, the Duwamish River and 14th Avenue South transportation system conditions and needs. An EIS is currently being prepared with ultimate bridge construction being completed in 2009.

14 Avenue South Street Improvements Project

City of Seattle

The City of Seattle just selected an engineering consultant to begin design work on 14th Avenue South Street improvements, including roadway and lighting elements. In addition the South Park community is working with an artist to develop an arts plan for the corridor. Coordination between this project and the DMMD corridor plan is a prime opportunity to leverage multiple benefits, insights and reference points for both projects.

Duwamish River Trail

King County and Participating Cities

The Regional Duwamish River Trail is not yet fully developed as it merges with the South Park community and 14th Avenue South/West Marginal Way Place. This an important linkage point not only for South Park and Seattle but also for DMMD communities and SeaTac Airport as well. The DMMD corridor plan should promote the further development of this key non-motorized vehicle link to this important regional trail system.

Hamm Creek Restoration

Restoration Groups

Over the past 10 years volunteer organizations have worked successfully to restore the Hamm Creek habitat to levels with the capability to support fish, especially salmon. This is an important basin helping to restore and sustain the larger Duwamish River watershed. DMMD crosses Hamm Creek near 17th Place South -where a small remnant of the old red brick road can be seen.

King County DMMD Roadway Improvement Project

King County

King County is currently (2004) designing roadway improvements for its portion of DMMD - from South 96th Street to South 128th Street (just north of North SeaTac Park). The County has directed its design engineering and landscape architectural team to develop plans consistent with the memorial and enhancement standards as set forth in this document. In this way roadway improvements can proceed in such a way as to not preempt DMMD memorial and enhancement goals and allow for, with budgetary constraints, the development of some of these elements.

Intersecting Street Improvement Projects

County and Cities

Several street improvement projects that intersect with DMMD have recently been completed, such as at South 120th Street. These intersecting street projects represent important nodes of contact and connection with DMMD and the surrounding communities.

SeaTac West Side Trail

City of SeaTac and Port of Seattle

As part of City SeaTac's long range open space and circulation planning (comprehensive plan and parks plan) a continuation of and filling in/connecting of four sections of trail along the western perimeter of North SeaTac Park (128th to 136th), planned DMMD and SR 509 Extension trail development, and the Des Moines Creek Trail (trail head at 200th) are proposed to complete the "West Side Trail" system. Many off and on-street trails merge at North SeaTac Park especially at 128th and continue northward on DMMD to Seattle across the South Park Bridge or connect to Duwamish Regional trails. There is also a planned trail from North SeaTac Park eastward through Tukwila. This is joint project between the Port of Seattle and City of SeaTac.

The SeaTac trail is planned to be multiple use and aligned on the east side of DMMD. However, in some cases the trail may need to utilize DMMD bike lanes and/or DMMD ROW -- this is especially true for SR 518 and SR 509 roadway crossings and intersections with DMMD, such as at S. 136th, S. 144th, SR 518 overpass and on-off ramps, S 152nd, S 156th (airport access road intersection), S. 160th and the SR 509 overpass. DMMD ROW, bike lanes and sidewalks may need to substitute when there are no Port of Seattle or SeaTac properties to advance the trail through.

The West Side Trail planning is scheduled for 2004, with trail implementation to follow in 2005-2006.

SeaTac Airport Expansion

Port of Seattle

The Port of Seattle is proceeding with airport expansion plans, including the Third Runway, TRACON Facility and Security Fencing. As part of facility expansion the Port of Seattle has purchased several properties along DMMD, both in SeaTac and Burien. It will be critical to work with the Port to explore opportunities for implementing not only DMMD goals but also the West Side trail and other City of SeaTac and Port partnered projects.

SR 509 Extension and Highway Approaches, Bridges/Overpasses and Trails

WSDOT

WSDOT is currently conducting preliminary design for extension of SR 509 from its terminus at DMMD and S. 188th to I-5. A trail is also planned to extend from the existing S. 200th Des Moines Creek trail along the western edge of the SR 509 ROW to DMMD and S.188th , with a crossing at about S. 198th. WSDOT project representatives have addressed the DMMD Advisory Committee and have been working closely with each of the affected city governments.

Des Moines Creek Bridge and Open Space/Trail Improvements

City of Des Moines

The City of Des Moines is planning to replace the current Marine View Drive Bridge over Des Moines Creek. This would enable the extension of the Des Moines Creek trail to the shore and waterfront park. This project is important to the valued DMMD resources as well, including Flag Pole Triangle and Big Catch Park. A connection from DMMD to the Des Moines Creek trail at this point would be an important addition to both systems.

Adjacent Land Use (Memorial Rehabilitation Opportunities and Impediments)

Lands that are adjacent to or near the Memorial and that are in public ownership can be viewed as providing opportunities to develop a more multi-purpose and comprehensive Heritage Tour Route corridor. For example, a land use adjacent to the right of way that is a local or regional park may provide parking for visitors to the Memorial. The following is a review of potential contributing properties to the Memorial rehabilitation and to the Corridor Enhancement effort as well.

- King County property (such as at Military road)
- North SeaTac Park
- North SeaTac Park/Port of Seattle
- Port of Seattle/SeaTac Airport
- School District (such as at Sunnydale School)
- Des Moines Creek open space and trails
- Des Moines plazas and parks

Similarly, adjacent built land uses, whether in public or private ownership also provide opportunities for memorial development, as well as preemptions for elm tree sites.

- Commercial retail land use (buildings and parking facilities) built to ROW line
- Intersections and highway facilities (see below)
- Steep slopes and requirement for retaining structures
- Adjacent sensitive areas
- Port facilities and security fencing

CHAPTER 4

Plan Recommendations, Memorial Rehabilitation,
and Corridor Enhancement Guidelines

Introduction

The following Corridor Management Plan recommendations and memorial rehabilitation and corridor enhancement guidelines address all of the DMMD resources and issues identified by the Advisory Committee, agencies and departments and consultant team.

Goals and Objectives

Goals and objectives were identified and adopted by the DMMD Committee early in the planning process to guide discovery and organize discussion of the various findings. These goals remain in place as the plan is finalized:

1. Restore and enhance WWI Memorial

- Enhance and further celebrate the DMMD WWI Veterans Memorial: 1921-22 memorial, Living Road of Remembrance (along the entire length/corridor), veterans and families, 1960's memorial, and WWI Washington State.
- Plan, design and implement DMMD WWI Memorial elements, features and programs for entire length of the corridor.

2. Further identify, strengthen and enhance the other natural, cultural and heritage resources of the DMMD corridor communities

- Establish and enhance the full range of historic and heritage values associated with the partner communities.
- Through implementation of the CMP
 - ◆ Increase corridor identity and attractiveness through signature corridor portals, gateways and thresholds
 - ◆ Develop quality memorial features (memorial plaza, living elements, etc.)
 - ◆ Develop unique corridor enhancements and programs (event lighting, flags, banners, celebrations and parades)
 - ◆ Provide accessible pathways, trails and places
 - ◆ Develop educational and interpretive displays and programs.

3. Establish an effective Implementation Plan

- Preserve, restore, rehabilitate and/or reconstruct the historic and heritage resources identified for the corridor.

Note: This is a key goal as it presents best case for implementing and restoring the original Living Memorial vision and other supporting corridor heritage values (historic transportation routes and roadway(s), early settlement patterns and structures, events and land use changes).

- Prepare plan that guides DMMD corridor implementation through many phases and anticipates corridor development

Note: Including linkage to DMMD roadway improvement schedule, intersecting transportation improvement project schedules and plans, and zoning and land use standards (significant tree and historic resource identification and protection policies).

- Identify the impacts and opportunities associated with DMMD roadway design section and plans and related utilities implementation along entire length of corridor.

Note: The goal here is understand the true capacity of the corridor and available right of way to support memorial restoration and corridor enhancements.

- Prepare plan that provides a strategy, materials and means to fully support ongoing implementation and funding efforts.
- Prepare qualification statements and gain heritage and other designations at Local, State and National levels.

Strategic Plan Recommendations

- Plan and restore Des Moines Memorial Drive as a single Memorial; establish consistent set of memorial elements and support through the jurisdictions, time frames, budgets and design.
- Designate DMMD as landmark at local, county, state and national levels- developing DMMD as a Heritage Tour Route, the first in the State of Washington.
- Prioritize funding and implementation of Memorial rehabilitation first. - funding and implementing other corridor enhancements as funding allows but fully coordinated with memorial rehabilitation and corridor enhancement guidelines.
- Prepare, by jurisdiction, land use and transportation planning that supports, through regulation and agreement, the goals, recommendations and guidelines of the DMMD Corridor Management Plan.

Overall Memorial Rehabilitation Recommendations

- Wherever possible, restore the original 1921-22 Elm tree planting sequence of eighty feet on center longitudinally along the sides of the drive.
- Replant using American Elm (disease resistant variety).
- Install sidewalk "Markers" at the historic spacing (80'.) whether or not it is possible today to plant a tree at this location.
- Reconfigure and rehabilitate Sunnydale Memorial Plaza .
- Improve DMMD between 152nd and 160th to approximate the original "look" of the drive. Reprioritize road section at Sunnydale so that 8th Avenue South is through road and DMMD is paved with red brick.
- Rehabilitate Flagpole Triangle
- Restore original DMMD under story of "wildflower" plantings along roadway shoulder.
- Provide interpretation focused on WWI and DMMD.
- Provide orientation and educational signage at key entryways/gateways and circulation nodes.
- Provide Art integration in all elements focused on highlighting and promoting DMMD values and symbols.
- Protect, monitor and maintain existing memorial elms until such time as removal is required for life/safety or improvement actions.
- Provide for perpetual DMMD monitoring and maintenance.
- Establish gateways at South Park and Des Moines.
- Highlight intersecting street transportation nodes.

- Coordinate and leverage overlapping or interconnected development projects for the benefit of the Memorial and corridor enhancements.
- Prepare design standards for DMMD as it crosses WSDOT Right-of-Way.
- Integrate, wherever possible, professional artists as members of planning and design teams for every aspect of the Drive. Artists should be involved in planning for the memorial rehabilitation and corridor enhancements. They should also be involved in developing implementation elements.
- Follow the general plan and arts recommendations throughout artists' work, while allowing for new creative input from the artists on design teams.
- Schedule: Target the Centennial of DMMD's memorial installation, in 2021, for completion of the improvements described in this plan. This gives the jurisdictions enough time to complete design and improvements, major initiatives will be concluded, and the elms that are planted to replace the existing elms will have as much as 15 years to grow and become like those envisioned in the original.

Memorial Rehabilitation Guidelines

Elm Tree Selection

Select *Ulmus americana* species that are cultivars - resistant to Dutch Elm Disease. Select plants that are a minimum 2 1/2" caliper for installation within the DMMD memorial rehabilitation corridor. Select trees that have been grown and pruned for installation within street/roadway corridors. (Known DED resistant cultivars, at this time, are *Ulmus americana* "Princeton" and *Ulmus americana* "Valley Forge"). Select at least 2 different elm cultivars in order to establish some protective diversity along the corridor.

Locating Memorial Elm Trees

Locating the memorial elm trees is the first priority for memorial rehabilitation design. Identify sites of original memorial elms using remaining trees, historic aerial, aerial oblique and other photographs, recorded site data and typical planting pattern. Provide elm tree sites as close to these original sites as is possible.

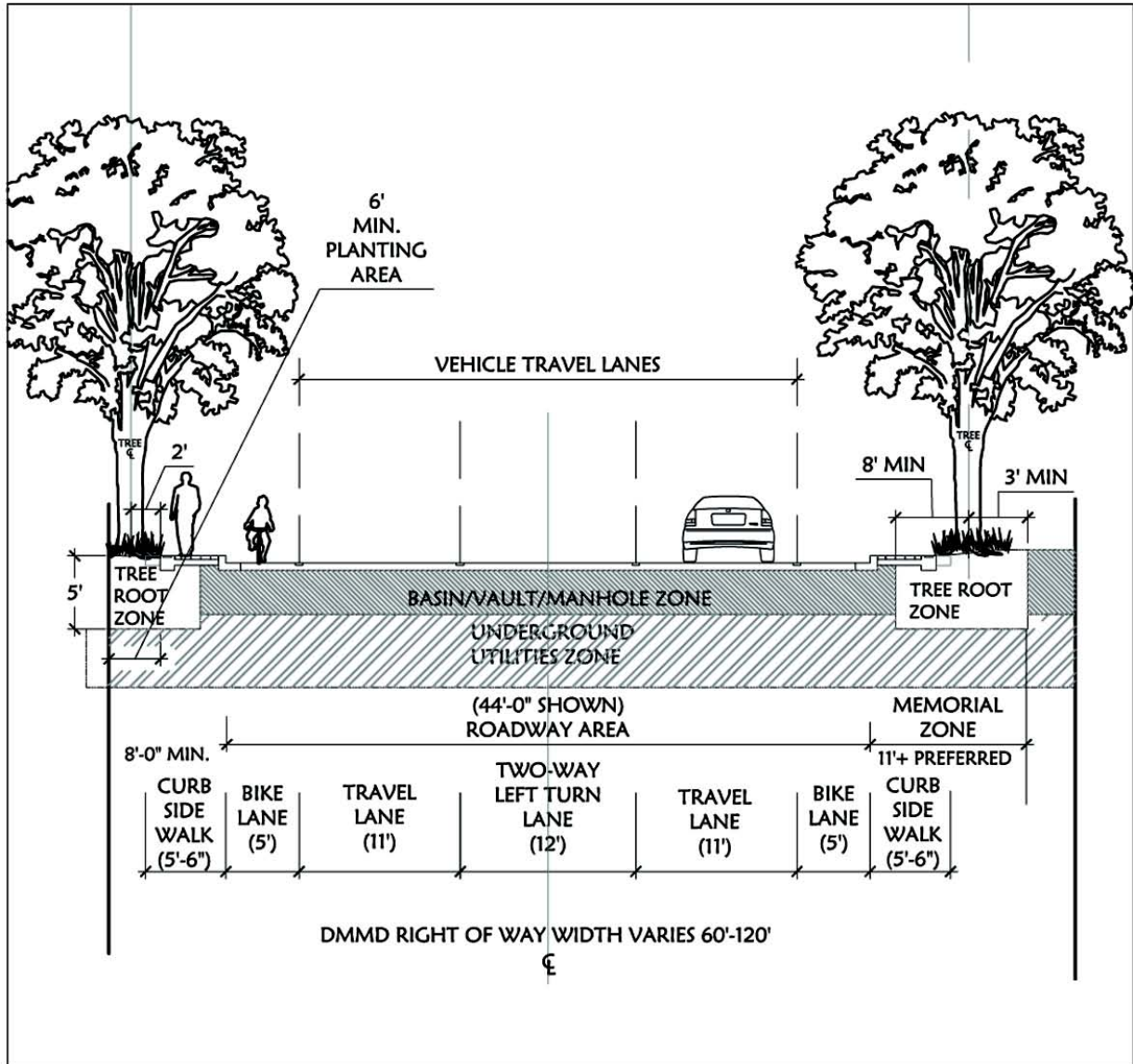
- Site elms approximately 80-feet on center along the margins of the new roadway and within the available ROW. This may vary four feet one way or the other.
- Site elms directly across from one another along the right-of-way. Some variation, from 4- to 8-feet offset is permitted.
- Locate elm trees 8 feet behind curb (measure face of curb to centerline of tree This distance will allow for installation of a 5' sidewalk (if desired), and minimizes potential moving vehicle conflicts. In no case should this setback be less than 3 feet.
- Provide a minimum of 48 square feet of root growth area for each elm. Root zone obstructions shall be no closer than 3 feet from the centerline of elm tree. Follow King County Standard Planting Detail as guideline.



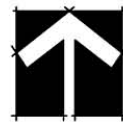
Figure 4-1. *Ulmus americana* "Princeton".

- Although every attempt should be made to locate and accommodate an elm tree along both sides of the ROW corridor, there will be some elm tree site preemptions:
 - ◆ Driveways that cannot be consolidated to form an elm tree site.
 - ◆ Utility conflicts that cannot be moved (existing) or aligned (new) to accommodate an elm tree.
 - ◆ Retaining walls that cannot be moved (existing) or aligned (new) to accommodate an elm tree.
 - ◆ Constructed buildings that cannot be moved to accommodate an elm tree, such as at commercial nodes.
- Locate elms away from overhead power lines and at standard setbacks from underground and at-grade utilities. Where utilities will not be relocated or aligned, planting shall be limited to one side of ROW. This will allow for more viable elm trees along the corridor even though no trees are planted under the power line side. .
- Undergrounding overhead power lines and alignment of other utilities to provide for elm Tree planting on both sides of DMMD is highly recommended.
- Where ROW is not wide enough to accommodate memorial Elms and no overhead power lines are anticipated, additional ROW should be purchased or permanent use easement obtained for the root zone of an Elm.

Figures 4-2. Typical Road Segment

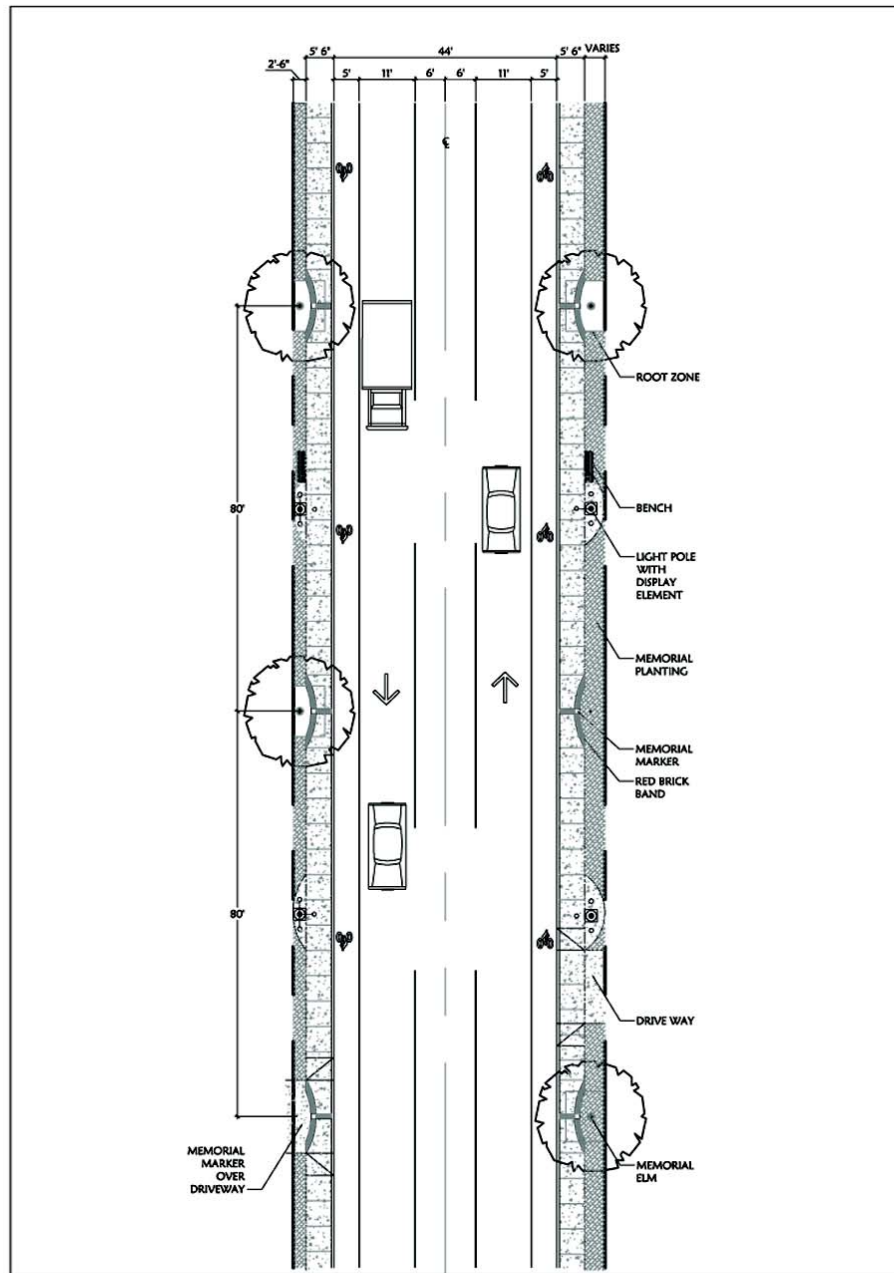


TYPICAL ROAD SEGMENT
DES MOINES MEMORIAL DRIVE
CORRIDOR MANAGEMENT PLAN



SCALE:
1"=10'

Figures 4-3. Typical Memorial & Roadway Layout: Plan View



**TYPICAL MEMORIAL & ROADWAY
LAYOUT: PLAN VIEW
ALL SEGMENTS
DES MOINES MEMORIAL DRIVE
CORRIDOR MANAGEMENT PLAN**



SCALE:
1"=30'

Memorial Markers

As not all original elm tree sites can be replanted, a permanent marking system is to be installed 80' on center whether or not an elm can also be planted at this site. Thus the site of memorial markers will follow the site of the memorial elm trees, and where there is no tree, will still mark the site of honor of each individual fallen. This recommendation fulfills the original intention of the Seattle Garden Club to "mark" or tag each tree and place an American Forest Association honoring plaque at each tree. Together, these memorial markers provide a highly experiential and educational reinforcement of the memorial elm tree planting pattern and extent - without taking away from the original intent of the scale and character of a living road of remembrance.

Memorial markers can be placed in a variety of sidewalk locations and can be adapted to stand-alone without being installed in a sidewalk.

Wildflower Seeding

Install wildflower seed continuously under all memorial elm tree plantings and along remaining margins of the ROW corridor. Original memorial wildflower seed consisted of foxglove, ragged robin, poppies and forget-me-not.

Sunnydale Memorial Rehabilitation and Redevelopment

The Sunnydale area is the historic crossroads, and traditional site for events surrounding the Memorial. It is also the location of the etched granite wall containing the names of the fallen as recorded in the original register. This existing plaza and the 8 blocks surrounding it from 152nd to 160th streets is proposed for redevelopment to accommodate the highest level of rehabilitation and enhancement activity relative to the Memorial Corridor.

Memorial Trees and Red Brick Roadway

- Develop the portion of the Sunnydale Segment from South 152nd Street to South 160th Street, in layout and texture, as a reconstruction and rehabilitation of the 1921 memorial tree and wildflower plantings around the red brick roadway.
- Underground utilities in this 8-block segment of the corridor (Approximately 3,000-Linear-Feet).

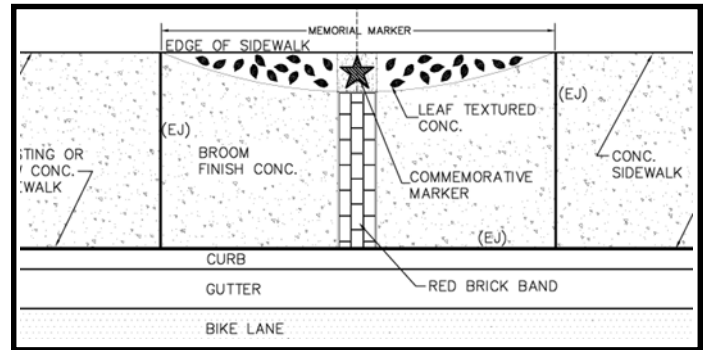


Figure 4-4. Standard Marker.

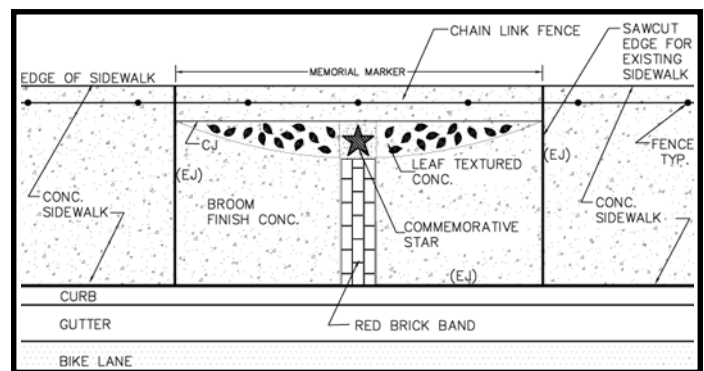


Figure 4-5. Marker at fence or railing.

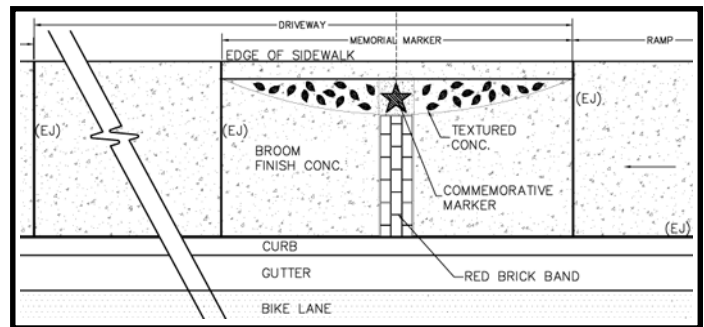


Figure 4-6. Marker at a driveway and ramps.

Figure 4-7. Sunnydale Memorial Rehabilitation Roadway Illustrative Drawing

Needs to be Constructed
WILL INSERT LATER

Figure 4-8. Sunnydale Memorial Rehabilitation Segment Plan

Needs to be Constructed
WILL INSERT LATER

Figure 4-9. Sunnydale Memorial Plaza Redevelopment Illustrative Drawing

Needs to be Constructed
WILL INSERT LATER

Figure 4-10. Sunnydale Memorial Plaza Redevelopment Planview

Needs to be Constructed
WILL INSERT LATER

- Install a red brick or red brick patterned roadway surface between the curb-lines or from bike lane edge to bike lane edge.
- Locate and install memorial elms on both sides of the ROW corridor without interruption.
- Locate and install memorial elms as close to original crossroad spacing (44 feet) as is feasible.
- Install memorial markers at each elm site.
- Install wildflower seeding beneath trees continuously along the margins of the corridor.
- This Sunnydale Segment redevelopment should be coordinated closely with City of SeaTac planning and development of the West Side Trail which will likely be within or immediately adjacent to the DMMD ROW in this segment.

Memorial Plaza

- Redevelop the Des Moines Memorial Park at Sunnydale School into a Memorial Plaza. Relocate the memorial wall of etched granite panels to a position 25 to 35 feet farther back from the right of way and onto Sunnydale School property. This will create more area for gathering, examining the wall and conducting ceremonies to honor the fallen.
- Relocate existing Memorial Cherry trees to sites between the new wall location and school building. Identify new sites for other memorials and honoring elements within the plaza. Add flagpole(s). Consider other amenities such as special paving, seating, other retaining walls, accessible ramps, bike racks, benches, lighting, irrigation and new plantings in the memorial plaza redevelopment design.
- Include art elements in the redesign of the Plaza.
- Incorporate signage and an interpretive display and integrate educational elements into the plaza.

Flagpole Triangle

The flagpole Triangle, at the intersection of Des Moines Memorial Drive and Marine View Drive, is to have its flagpole rehabilitated and memorial elements restored. Existing planters and lawn areas should be redesigned to provide for low shrubs and groundcovers with vibrant seasonal color and texture. Light should be provided at the flagpole.

Signage and Interpretation

The signage should be designed and installed at DMMD corridor entry/gateway points as well as at intersecting circulation nodes. Signage should direct and orient people to key memorial sites along the corridor such as the memorial plaza, flagpole triangle, and military road site. Design a signage program to be integrated and coordinated with interpretive sites, displays and elements. (See art integration plan). Coordinate graphic and informational content, scale and size of signs, displays, and their locations with the interpretive plan and the arts integration plan.

Memorial Tree/Plant Rehabilitation Installation and Maintenance

Elm trees will be planted according to best management practices for large tree installation in ROW corridor. Each location will be reviewed for specification of planting, soil, root barriers, staking, water tubes and other necessary protection to ensure the health of the tree.

- Specify a 3-year plant establishment maintenance period to ensure that the elm transition well to their new sites..

- Provide on going monitoring, repair and maintenance of landscape elements, including monitoring protection and repair of any remaining memorial elms.

Corridor Enhancements Guidelines

Corridor Enhancement elements include recommendations for both continuous improvements that accompany the memorial the entire 10 miles, and segment-specific and site-specific recommendations that may be applied by the jurisdiction at the time corridor improvements are made in that area. Elements to be continuous with the Memorial are light standards, interpretive signage and banners. Segment-specific and site-specific corridor enhancements are plazas, node development, other memorials and recreation and scenic opportunities along the way. It is important to note that although the segments delineate specific portions of the DMMD corridor, they are still parts of the whole

A great deal of community history was retold, rediscovered and recorded over the course of this discovery process. Much is presented as part of the timeline in Chapter 2 - Plan Implementation Strategies. A more extensive version is included in the appendix to this document.

As each jurisdiction prepares designs for the improvements to DMMD, it may consider incorporating some of this rich community history into other elements along the corridor. Elements recommended by this plan are pedestrian scale lighting, banners, interpretive program elements at bus stops and shelters, utility hatch covers, benches, etc. It is the belief of the planning team that these more localized, community based events create a rich fabric of experiences and potentially rich imagery that supplement and augment the memorial corridor and the Heritage Tour Route experience of the visitor.

Pedestrian Lighting

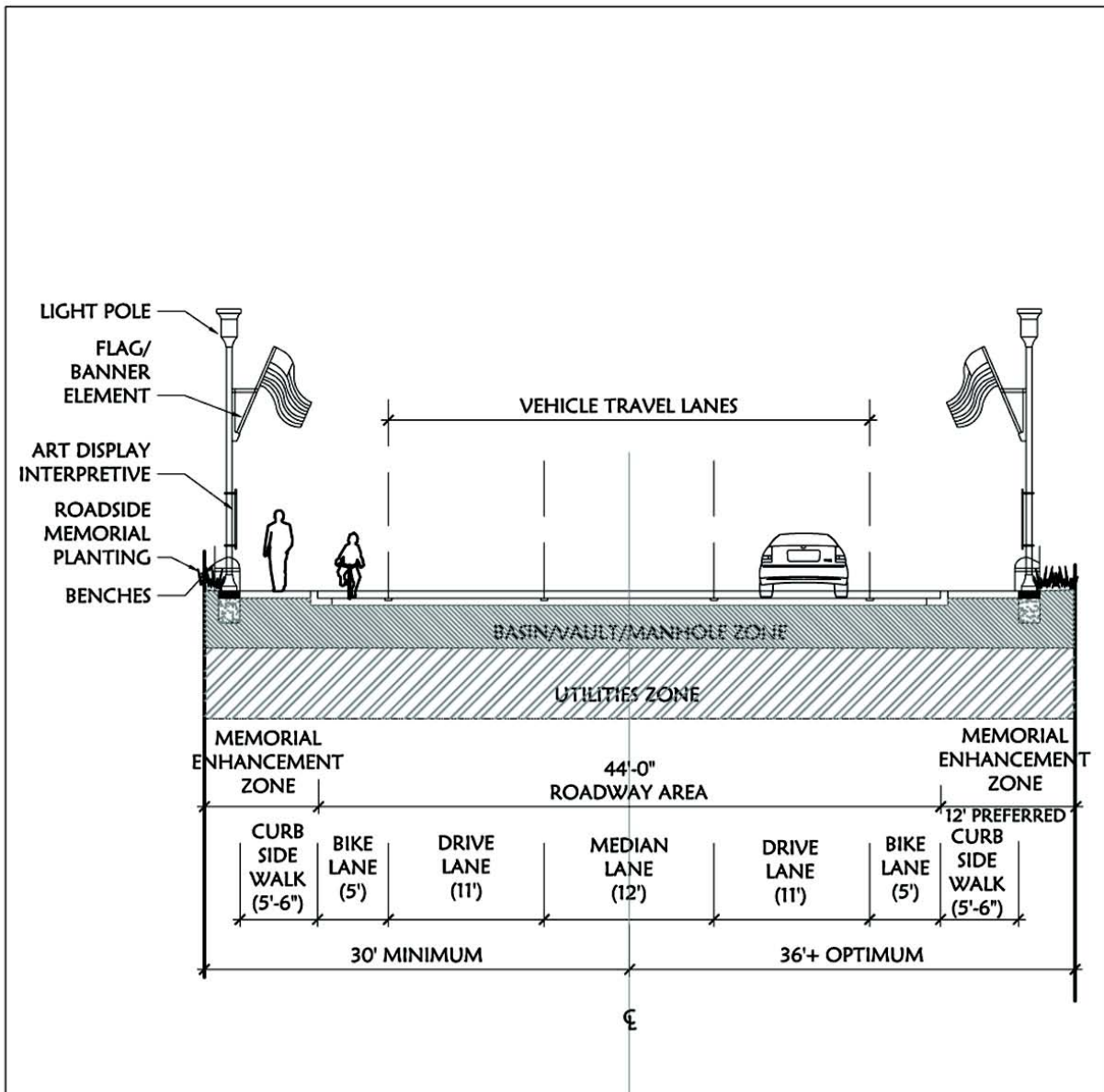
Install pedestrian scale lighting along the corridor. This type of lighting is typically pole-mounted and between 18- and 24-feet overhead (unlike the intersection and traffic lighting that is typically 40-feet overhead and on "cobra-shape" standards). There are several types of light standards and fixtures, such as those used by Seattle City Light, that provide energy efficiency, continuity and interpretive opportunities for the corridor.

- Light poles should be located to back of sidewalk and/or in line with elm trees. This position will not detract from the Elms and potentially up-light them at night.
- Light poles should be contemporary, have simple detailing, but not be reflective of early period lighting as this may diminish the original elm tree historical value.
- Light poles should be dark in color: such as: dark red/rust, dark blue, dark green or black.
- Light poles also should be able to support display flags, banners, signage and art/interpretive elements, flower baskets, etc.

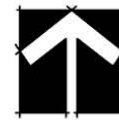
Bus stop seating and shelters

Currently the corridor has approximately 60 bus stops (an average of seven stops per mile), and three bus shelters. Seating could be provided at bus stops and unique bus shelters could be customized throughout the corridor to support the heritage tour theme and inform bus riders. Bus shelters might include enameled panels with historic photos, text from letters home by soldiers, letters to soldiers from their loved ones, and replicas of documents such as receipts for memorial trees.

Figure 4-10. Light pole section



**TYPICAL CORRIDOR ENHANCEMENT
ELEMENTS: SECTION VIEW
DES MOINES MEMORIAL DRIVE
CORRIDOR MANAGEMENT PLAN**



SCALE:
1"=10'

Flagpole Fixtures

Fixtures would be installed on pedestrian scale light poles to display the flag on national holidays, creating a festive lane that connects the commuter with a sense of shared history within the communities.

Utility Hatch Covers

Where utility hatch covers appear in the sidewalks, unique covers could be developed to mark the corridor. The hatch covers should be designed to include messages of ecological importance, which in turn reinforce awareness for preserving the corridor's natural as well as its cultural heritage. For example an Elm log cross-section with around 80 growth rings would make a nice hatch cover impression.

Corridor Furniture

Provide furniture for corridor enhancement such as benches, refuse containers, bike racks, and water fountains. Select designs that complement the light poles, and designs that are durable and maintenance friendly. Consider commissioning artist to utilize elm wood from elms removed for the corridor widening for special elements.

Corridor Enhancement Sites

12 sites are identified in the plan as potential "Corridor Enhancement Sites". Each site has some quality or character that, if developed, will amplify the Heritage Tour Route experience and deepen the visitor experience in non-memorial related intrinsic qualities such as recreation, events of cultural interest, regional natural qualities, etc. These are described in Chapter 5, Implementation.

Included in each segment description and site opportunities definition is also an example of interpretive themes/stories/program, artist notes and suggestions for coordination with other known projects in the area.

A general guideline for addressing the individual sites as future corridor enhancement opportunities is for each jurisdiction to initiate property acquisition and/or easements and develop design and implementation plans that take advantage of the opportunities described.

For each site, initiate property acquisition and/or easements and develop design and implementation plans that take advantage of the opportunities described below.

Corridor Enhancements at Nodes

At important intersecting nodes with DMMD, signage, displays and street furniture will be important additions to the DMMD corridor.

Corridor Signage and Interpretive Displays and Elements

Augment signage and interpretive elements of memorial rehabilitation and provide orientation and educational signage and displays for corridor enhancement areas and nodes, elements include:

- Gateway Sign and DMMD Map
- Node Signs and mini orientation maps
- Interpretive Displays:

- Shelter display panel(s)
- Kiosk panel(s)
- Railing panel(s)
- Light pole panel(s)
- Node panel(s)

Corridor Enhancement Maintenance

- Provide for the on going monitoring, repair and maintenance of landscape elements.
- Provide for the on going monitoring, maintenance and repair of memorial elements and corridor enhancement elements and facilities for the whole of the corridor. Coordinate with Memorial Rehabilitation maintenance program and schedule.

Rehabilitation and Enhancement Design Principals and Reference Points

The original conception of Des Moines Memorial Drive is a grand one. Its founders were emphasizing the memorial by making the drive unlike any other road in the area. By planting a species native to the eastern United States, they were able to differentiate the canopied corridor from all others in the west. The dignity of their idea is embodied in the impressive vertical scale of the trees and the ten-mile length of the drive. The vision and enterprise of those citizens who conceived this singular memorial demand our respect today. The Elm, in this case, is the tree of honor.

"We had rather walk beneath an avenue of Elms than inspect the noblest cathedral that art ever accomplished." - Henry Ward Beecher

Citizen-financed works of the human heart such as the Des Moines Memorial Drive are rare in this country. The scale of the drive is grand, and it needs to be reclaimed for the lofty ideals it once stood for. This plan's mission is: through the arts as communication, retell the story of the Des Moines Memorial Drive, as it scrolls over its ten-mile path.

"Because of its fundamental architectural form, this is the ideal street tree; its branches meet across the road in a vaulted arch."
- Donald Culross Peattie,
A Natural History of Western Trees

Des Moines Memorial Drive was conceived as a *living memorial*. The planners' intention was to

move an honored memory through the seasons into the future. Now the future is here. The notion that each Elm tree was planted to represent a fallen soldier is a powerful argument to start a renewed journey toward the next century. The elms that have been lost over the past eighty years should be replanted. Where it is not possible to replant trees in the places they were, marking those places is important.

The image of the elm tree is central to the drive and to the integration of arts. Space for the elms and their maintenance requires a spirit of commitment from all the jurisdictions along the drive. Without the sanctity of the Elm trees the memorial loses its meaning. Without the Elm, Des Moines Memorial Drive does not remain a *living memorial*.

Red Brick Road

The image of the brick road that existed when the memorial was conceived is also important. Since two sections of the brick paving still exist (14th Avenue South at the Duwamish River, and just off the drive at Hamm Creek), and others may be discovered, the brick should be preserved in place, or salvaged and reused in the Memorial. Important sections of the drive, such as the

north and south portals (South Park Bridge and the Flagpole Triangle) and the intersection of the Drive with South 156th Street at the Sunnydale School should be paved with brick in the roadway.

Wildflowers

Originally, the founders of the drive planted wildflowers to accompany the Elms. The wildflowers provide a poetic image, and should be revived. The Flanders Poppy ties the memorial to the fields of France, which was the founders' original intention. The other flowers-Forget-me-not, Foxglove and Trillium-mark the change of seasons in different ways than do the Elm trees, and also commemorate the dead. They are an important metaphor for the fleeting character of life.

*"Dear Mother: June 18, 1918
Even the trenches can be beautiful when they are trimmed with flowers, and the barbed wire forms a trellis for rambling vines....At the base of one of the birches is a flourishing wild rose bush, literally covered with blossoms, some of which I sneaked up and picked-keeping not only head but also the rest of me carefully DOWN during the process....Here are some of them for you, and also some daisies and yellow asters from the edge of one of my trenches."*

Naming

The original intent of the founders was to remember each person who died in World War I. The names, with the Elms, are the resource, and deserve to be researched further. The Seattle Garden Club hand written ledger, showing the donor name, the honored soldier and the amount (\$1.75) is another kind of living history - the mother or father's sorrow, tied to a (once) living physical manifestation of life. Names on the granite memorial plaques at the Sunnydale School, names in the ledger, all should be preserved.

The Star

The star is an enduring symbol in American society. Its power to reference the flag of the United States reminds the citizen that something of national importance has happened here.

The Wreath of Poppies or Elm Leaves

There is much discussion of a wreath, a specific symbol of honor, in the Garden Club notes. As far as we know, that wreath was never created. If a wreath is created for the centennial, both the Elm leaf and the poppy should be included-the Elm leaf for its resemblance to the Laurel leaf, the ancient symbol of honor, and the Flanders Poppy because it reminds us of the losses we endured in the aid of an ally overseas.

*"Dear Mother: June 26, 1918
The poppies are the most wonderful flowers I have seen here. They grow in such profusion as to make you wonder whether the French, with their irrepressible love of the artistic, sow the seeds broadcast just as they plant every row of trees with a view to delighting the eye. Much love, Quincy"*

These images and symbols could find many uses in the revitalization of the memorial, as rhythmic markers throughout the corridor, or as part of the design of the memorial plaza and memorial places described below.

Recommendations for Artist Involvement

Memorial rehabilitation, corridor enhancement and interpretive aspects of the revitalization of the drive require artists who are experienced in working with communities and with memorials and other public spaces.

Artists should be involved in all of the design aspects of the rehabilitation of the memorial, from developing the markers for the elms to the design of the Memorial Plaza. Special design/art projects include design and placement of symbols such as the Flanders Poppy and Elm wreaths. As corridor enhancements are selected by jurisdictions, artists may be involved with the design aspects of the various elements that express consistent memorialization or community uniqueness. Pedestrian lighting, flags, plazas, interpretive elements, benches, kiosks and bus stops are a few opportunities for artists to participate in the creation and extension of the memorial corridor.

Artists may also participate in the development of partnerships and funding strategies. The inclusion of artists in the planning and design work opens funding possibilities, such as assistance from the National Endowment for the Arts and the Washington State Arts Commission.

The creation of an ongoing record of the memorial revitalization process may be an artwork in itself. A professional photographer, for example, might work with the Committee and the jurisdictions to make a permanent artistic record of the rebuilding process. A videographer, filmmaker or writer could also maintain a living record of the process.

The establishment of a program for the use of salvaged Elm wood would provide a source for artist materials. A policy for dealing with the resource of wood from Elms that must be taken down should create opportunities for artists and artisans to use the resource. Some of the products might be incorporated in the Drive, or distributed to public places where they can become interpretive materials for public awareness of the Drive.

Interpretive Plan Recommendations

Suggested approach to Interpretation for Memorial elements and corridor enhancements.

- Interpretation will take a variety of forms including, but not limited to, art works, signage and plantings.
- Major thematic threads will be woven through the various interpretive forms used, thereby maintaining continuity throughout the memorial road.
- Interpretation of the theme of remembrance as well history of the memorial way will be presented at multiple locations on the DMMD corridor. Exact location of the interpretive sites will be made following study and analysis of key road factors, e.g. safety, predominant mode of travel in the vicinity of a given site, e. g. Pedestrian, automobile (parking availability) etc.
- Special sites will be larger and provide opportunities for major interpretation. The presence of such elements as benches, fountains, sculpture and plantings will encourage visitors to linger.
- Peterson Triangle at 156th (Confirm cross street) Interpretive signage will share features in design and layout to visually link them and signal to the traveler that the "station" is a part of the Road of Remembrance aspect of DMMD. Design a memorial road logo that is used throughout all interpretive materials, e.g. signage, leaflets for visitor "memorial recognition".
- Design interpretive signage in such a way that the story told at each station will be interesting and meaningful to not only those driving the complete route, but others who are visiting only a few of the interpretive sites or enter the road from one of the many crossroad.

- Select and design interpretation for each site after careful consideration of how the route will be traveled and by whom, e.g. walkers, bicyclists, rapidly moving motorists.
- Interpretation of the theme of remembrance as well history of the memorial way will be presented at multiple locations on the DMMD corridor. Exact location of the interpretive sites will be made following study and analysis of key road factors, e.g. safety, predominant mode of travel in the vicinity of a given site, e. g. Pedestrian, automobile (parking availability) etc.
- Special sites will be larger and provide opportunities for major interpretation. The presence of such elements as benches, fountains, sculpture, and plantings will encourage visitors to linger. Potential major interpretive sites include:

Themes

The major theme is World War I and the concept of "Road of Remembrance".

- Tell the human story of the war overseas and at home, with primary focus on the people who were commemorated in the original 1921-22 memorial and secondary focus on all fallen Washingtonians.
- The personal story of the fallen: Integrate memories, letters, poetry, photos and other graphic materials that express the experience of local people.
- Tell the story of the Memorial Way from 1921 to the present.

Secondary themes:

- Highline community history.
- Commemoration of the fallen from post World War I wars.

Other Story Opportunities

- The idealization of World War I, rhetoric, e.g. the "Great War," "the war to end all wars", etc.
- War poster art, original to World War I.
- America's first involvement in a major foreign war in Europe.
- Profile of the "typical doughboy," i.e. average age, factors prompting men and women to enlist in this war.
- Expression motivations for men enlisting for service in the American Expeditionary Force. Reactions and feelings of family and friends to the decision to enlist. Insights into the "personal" war experience e.g. interrupted schooling, jobs, delayed marriages etc. Draw on letters, poems, memories etc. e.g. story of Darris Chalk of Des Moines a young enlisted man that died in the line of conscientious duty at the front.
- Focus on life in the war zone and war related places, e.g. training camps, hospitals and military establishments both in the U.S. and in Europe. Life in the trenches. Enlisted women's part in the war in the battle zone and behind the lines. The participation of civilians in the war arena.
- Washington State's participation in the war effort including building war equipment, e.g. ships and airplanes.
- Number of people participating in the war effort both as civilians and enlisted military personnel.
- Number of Washington people to die in the war effort, both stateside and in Europe. Draw on 1921 list information to tell this story.

- Volunteer effort by civilians in support of the war. Personal efforts, e.g. pen pals for soldiers, shipping boxes of cookies etc. to the front, etc.
- Era following the end of the war; impact on American culture. Outpouring of sentiment following the war, e.g. war memorials, living memorials, "roads of remembrance", institution of Armistice Day in 1921 (later changed to Veteran's Day), FVW poppies, annual rituals in the Highline community and King County.
- Volunteer effort by civilians in support of the war. Personal efforts, e.g. pen pals for soldiers, shipping boxes of cookies etc. to the front, etc.
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CHAPTER 5

Memorial Rehabilitation and
Corridor Enhancement Recommendations for Each DMMD Segment

Introduction

It became clear during the planning process that the organization of the elements for the roadway section is likely to be change or altered along the 10-mile length of the DMMD corridor as jurisdictions build it out. Each jurisdiction, responding to engineering design studies, traffic and pedestrian safety criteria and projected use at the time, will establish the roadway curb-to-curb width, bicycle and pedestrian amenities and trail alignments most suited for that segment of DMMD at the time of roadway improvements. As a result, implementation guidelines address memorial rehabilitation and corridor enhancements consistent with the best design for these elements, regardless of the roadway section to which they are adjacent, and assuming that the section will vary according to jurisdiction and segment.

Overall DMMD Corridor Management Plan recommendations and guidelines for memorial rehabilitation and corridor enhancement have been described in *Chapter 4, Plan Recommendations and Memorial Rehabilitation and Corridor Enhancement Guidelines*. Here, they are applied to unique the characteristics, resources and patterns of each DMMD Corridor Management Plan segment (see *Chapter 3, Corridor Analysis by Segment and Figure 5-1 -- DMMD Corridor Plan*). Estimates of probable implementation cost are also prepared and presented in this chapter.

Application of Recommendations by Segment

For each of the seven (7) DMMD corridor segments, the following applications of *Chapter 4, Plan Recommendations and Memorial Rehabilitation and Corridor Enhancement Guidelines*, are described:

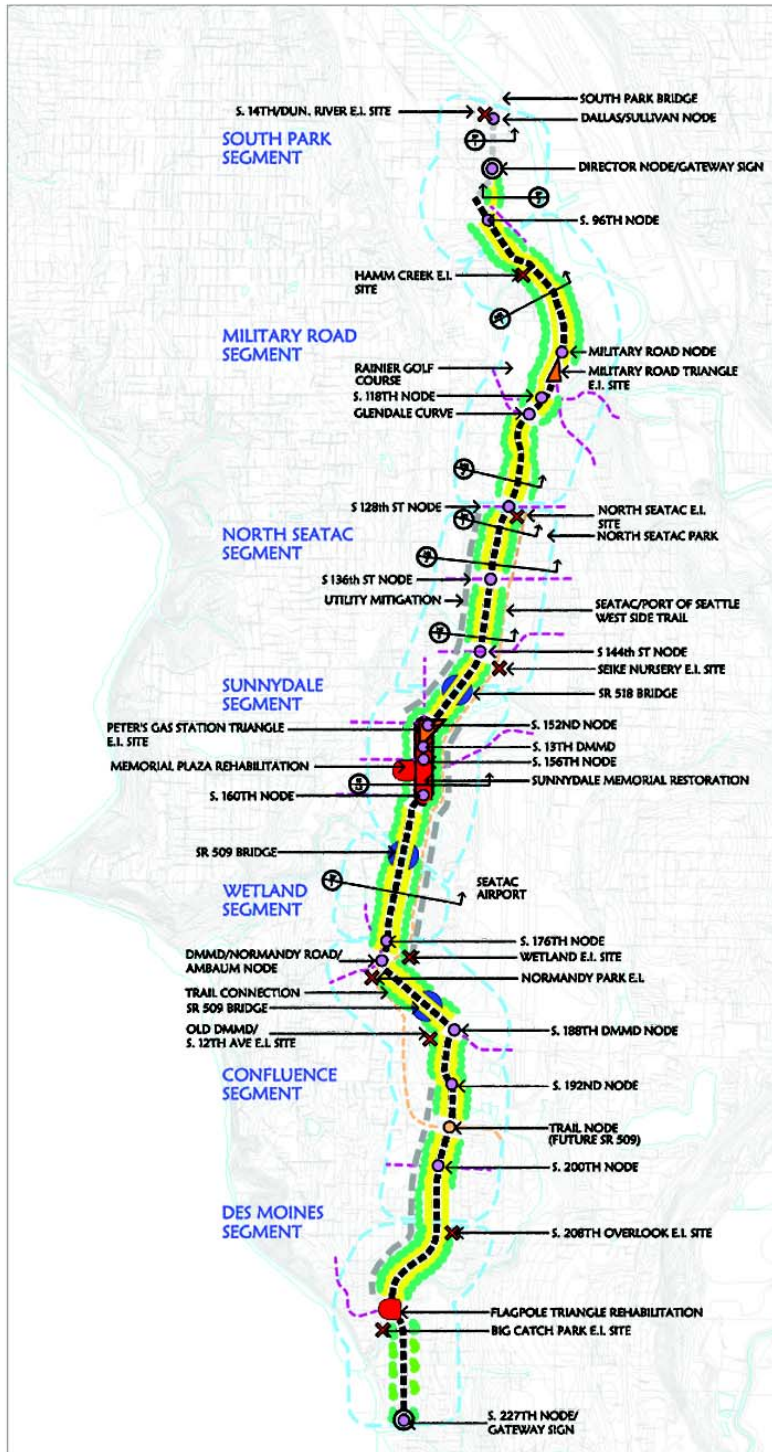
- Segment Character Summary
Description of the unique characteristics of this segment of the DMMD Corridor
- Memorial Elements/Guidelines Outline
Description of each of the memorial elements and guidelines applied to each DMMD corridor segment
- Enhancement Elements/Guidelines Outline
Description of each of the enhancement elements and guidelines applied to each DMMD corridor segment
- Enhancement Site(s) within Segment
Description of each of the enhancement sites/areas recommended for each DMMD corridor segment
- Utility Undergrounding and Realignment
Description of the recommended utility undergrounding and utility realignment and/or redevelopment due to memorial tree replacement within each DMMD Corridor segment
- Property Acquisitions or Use Easements
Description of recommended property acquisition or use easement required to provide ROW locations for replacement of memorial trees within each DMMD corridor segment
- Interpretive Themes, Stories and Program Concept
Description of the recommended interpretive concept for each DMMD corridor segment
- Art Notes
Description of artist thoughts and "notes" regarding each DMMD corridor segment
- Coordination and Partnering Opportunities



For the whole of corridor coordination and partnership, the Seattle Garden Club, Veteran groups, Historic Societies (Local, regional and state), arts organizations (local, regional and state) and Puget Sound Regional Council will be crucial to the successful implementation of these memorial and enhancement improvements.

The plan, section and illustrative drawings shown for each segment are best guess alternatives as to how the memorial and enhancement elements/guidelines would be applied to each jurisdiction's roadway improvement approaches (travel and turn lanes, bike lanes, sidewalks, support facilities and utilities for that segment).

Figure 5-1. DMMD Corridor Plan



**CORRIDOR
MANAGEMENT PLAN
FOR
DES MOINES
MEMORIAL DRIVE**

WWI "LIVING ROAD OF
REMEMBRANCE" MEMORIAL
CORRIDOR PLAN
Context Map

LEGEND:

- POTENTIAL MEMORIAL TREATMENT
- COMMUNITY ACCESS
- WEST SIDE TRAIL AND EXTENSION
- DMMD SEGMENTS
- BRIDGE
- EXISTING LINDEN TREES
- MEMORIAL**
- ROUTE WITH MEMORIAL TREATMENT
- MEMORIAL MARKERS
- MEMORIAL ELMS
- UTILITIES MITIGATION
- SUNNYDALE MEMORIAL RESTORATION
- REHABILITATION SITE
- ENHANCEMENT**
- ENHANCEMENT & INTERPRETIVE (E.I.) SITE
- ENHANCEMENT & INTERPRETIVE (E.I.) SITE
- CIRCULATION NODE
- LIGHT POLE ENHANCEMENT (NOT SHOWN)
- TRANSIT FACILITIES (NOT SHOWN)



Jay Rood, SB&A
Susan Black, SB&A
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist



South Park Segment Recommendations

Character Summary

The .88 mile South Park Segment frames the northern gateway to DMMD. The South Park Bridge over the Duwamish River leads the traveler into the South Park Neighborhood along 14th Avenue South up and over the WSDOT interchange (over West Marginal Way). South Park was the terminus of the DMMD at South Director Street, where 3 remaining memorial elms can still be seen - on the east side of "old" 14th Ave. S. (connecting to West marginal Way Place and the regional Duwamish Trail). The small piece of roadway between the South Park Bridge and S. Dallas/Sullivan Streets are in King County, from here to S. Director Street is within the City of Seattle, and then back to King County again. This segment is the northern "Bridge, River and South Park Community" gateway to DMMD.

Jurisdictional/Agency Ownership: King County, City of Seattle, and WSDOT

Memorial and Enhancement Elements (King County Portion Only)

Memorial Elements (Per Guidelines)

Existing Elms Protection until Replacement

- (3) Elm trees along "old Road" 14th Avenue South

Replacement Elms

- (18) Elm trees (From S. Director Street southward only using "Old Roadway alignment on 14th Avenue South over to South 96th Street)
- No Undergrounding but some allowance for utility realignment/redevelopment.

Elm Markers

- (From S. Director Street southward only using "Old Roadway alignment on 14th Avenue South over to South 96th Street)

Shoulder Seeding

- Under elms only

Signage

- At S. Dallas/Sullivan Street
- At S. Director
- At S. 96th Street

Interpretive

- At Bridge /River
- At S. Dallas/Sullivan Street
- At S. Director
- At S. 96th Street/Old Roadway

Corridor Enhancements (King County, City of Seattle, and WSDOT (Old Roadway - 14th Ave. S.)

Enhancement Sites

- S. 14th/Duwamish River

Nodes Development

- Dallas Ave. S./S Sullivan St
- S. Director St.

Crossings

- South Park Bridge
- SR 99/Marginal Way

Light/Display Poles

- (56) including 36 within City of Seattle ROW

Enhancement Furniture

- (12) Benches
- (12) Refuse containers

Art Integration

Corridor Enhancement Site

14th Avenue South and Duwamish River Overlook

This site represents an opportunity to provide an interesting riverside overlook and multifaceted interpretive display of the historic ferry crossing, the historic South Park Bridge, the visible remains of the original red brick road, the Duwamish River and the gateway to the DMMD. This site should be developed in coordination with the South park bridge rebuilding project and the South Park community improvement planning, 14h Street improvements project and the Duwamish River habitat enhancement efforts. Elements might include:

- Access connections to 14th
- Overlook platform or edge
- Interpretive display(s)
- Lighting

Permitting and use easements will likely be required in this sensitive zone adjacent to the river.

Utility Undergrounding

No utility Undergrounding is envisioned for this segment - though Undergrounding of overhead utilities would greatly improve the street environment space through this segment. A \$1,000/per tree utility realignment and redevelopment budget is recommended to provide implementation assistance for tree placement impacts on water and gas lines, vaults, meters, and drainage facilities.

Property Acquisitions or Use Easements

A use easement is required to replant trees on WSDOT's S. 14th Street ROW. Also coordination and right -of-way use permits with City of Seattle will be required to install any of the enhancements proposed.

Interpretive Concept

DMMD interpretive feature: remaining section of original DMMD brick road surface adjacent to South Park Bridge.

Visitor orientation to the Road of Remembrance:

- Interpretation - signage with introduction and overview of key highlights along DMMD.
- Map locating historical, cultural and recreational resources and natural features found within the corridor.
- Location of traveler services, e.g. public restrooms, traveler information, business centers.

DMMD history theme - Des Moines Road, a.k.a. High Line Road focus on the road at the time of creation of the memorial, e.g. main north-south road between Seattle - Tacoma, brick surface, story of "Hamilton's Folly", favorite Sunday Drive route.

Community Themes

- Duwamish River zone: historic use of the river, South Park neighborhood and adjacent communities of Riverton Heights, Tukwila, Seattle; influence of the Duwamish River on the district, river ferries.
- Early Euro-American homesteaders, e.g. Mike Kelly and Jane Fenton Kelly (founders of Sunnysdale), interconnection of early Duwamish Valley communities, i.e. South Park, Riverton, Allentown, Foster, Tukwila.
- Influence of nearby presence of Boeing plant on neighborhood, 1940s forward.

Art Notes

Art Notes: North Portal

The north entrance to the corridor at the South Park Bridge, which will be rebuilt in the near future, is the north gateway to DMMD. The South Portal is the south entrance at Flagpole Triangle/Big Catch Plaza/Des Moines Creek Bridge on Marine View Drive in Des Moines. Both of these sites need to be effectively marked, so that travelers who enter the corridor have a strong sense of coming into a significant place. They should each be marked first with a pair of Elms in a prominent location. Brick paving, referring to the old brick road that lies under the present one, should be included at the portals.

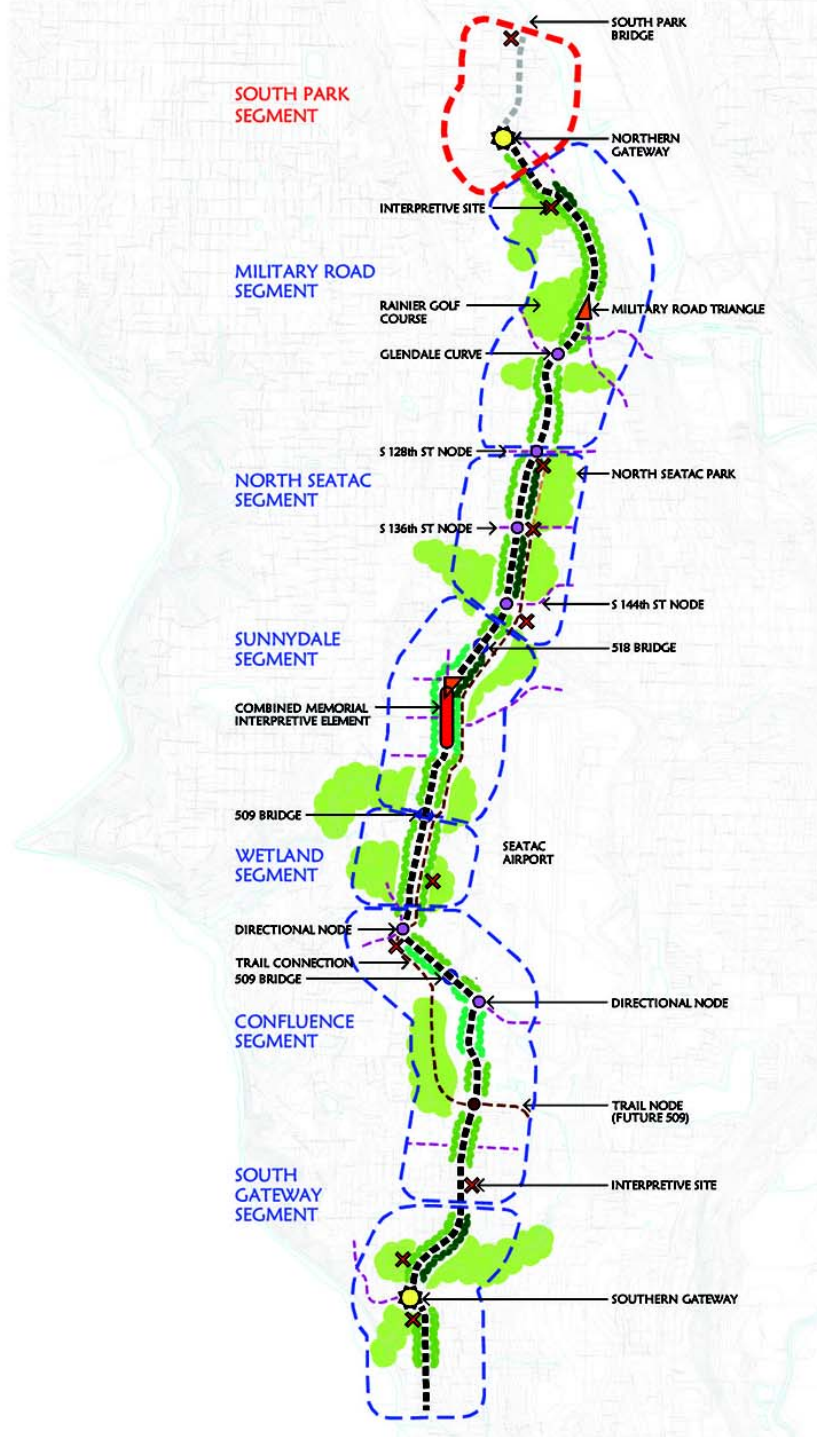
Lanterns at the two portals could serve as symbolic and literal light and wayfinding. The design of the South Park Bridge itself is a significant landmark for the corridor, and the new bridge should incorporate memorial elements such as red paving brick, lanterns and other imagery pertaining to the memorial.

The South Portal, Flagpole Triangle/Big Catch Plaza/Des Moines Creek Bridge on Marine View Drive in Des Moines, should incorporate red paving brick (which could also extend over the roadway), lanterns and other imagery. This site should be planted with one or more Elms. At the Flagpole Triangle, emphasize the layering of history as a means of intensifying the memorial enhancements on the site. Find ways to keep the "original" layer (that is, the early 20th century layer) distinctive.

Coordination and Partnering Opportunities

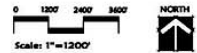
Project should coordinate with South Park Bridge rebuilding project, City of Seattle's South Park Community Improvement Planning, 14th Street Improvements project and Duwamish River habitat enhancement efforts, South Park Neighborhood and with WSDOT for use and development of DMMD improvements along 14th Avenue South.

**Figure 5-2. Corridor Plan
South Park Segment**



FOR
**DES MOINES
MEMORIAL DRIVE**
WWI "LIVING ROAD OF
REMEMBRANCE" MEMORIAL
CORRIDOR PLAN

- LEGEND:**
- ■ ■ ROUTE WITH MEMORIAL TREATMENT
 - □ □ POTENTIAL MEMORIAL TREATMENT
 - - - COMMUNITY ACCESS
 - - - WEST SIDE TRAIL AND EXTENSION
 - () DMMD SEGMENTS
 - GREENSPACE
 - ~ LANDSCAPE IMPROVEMENTS
 - ~ ELMS & LANDSCAPE ENHANCEMENT
 - ~ HISTORIC ELM PROTECTION
 - ☼ GATEWAY
 - CIRCULATION NODE
 - () BRIDGE
 - ▲ TRIANGLE PLAZA
 - ✕ INTERPRETIVE SITE



Jay Rood, SB&A
Susan Black, SB&A
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist



KING COUNTY * BURIEEN * SEATAC * DES MOINES * NORMANDY PARK

Figure 5-3. South Park - Plan Alternative

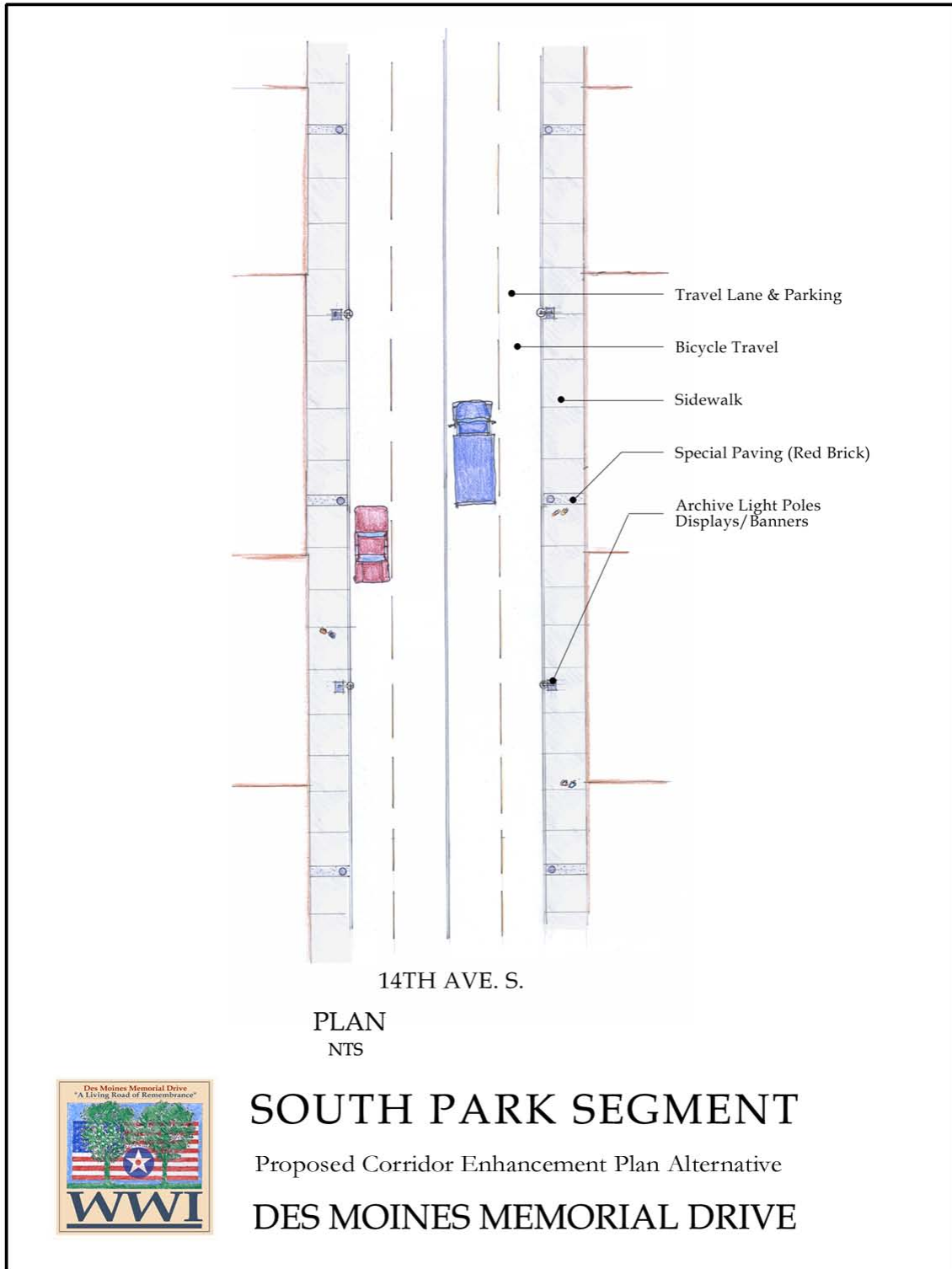


Figure 5-4. South Park - Roadway Alternative

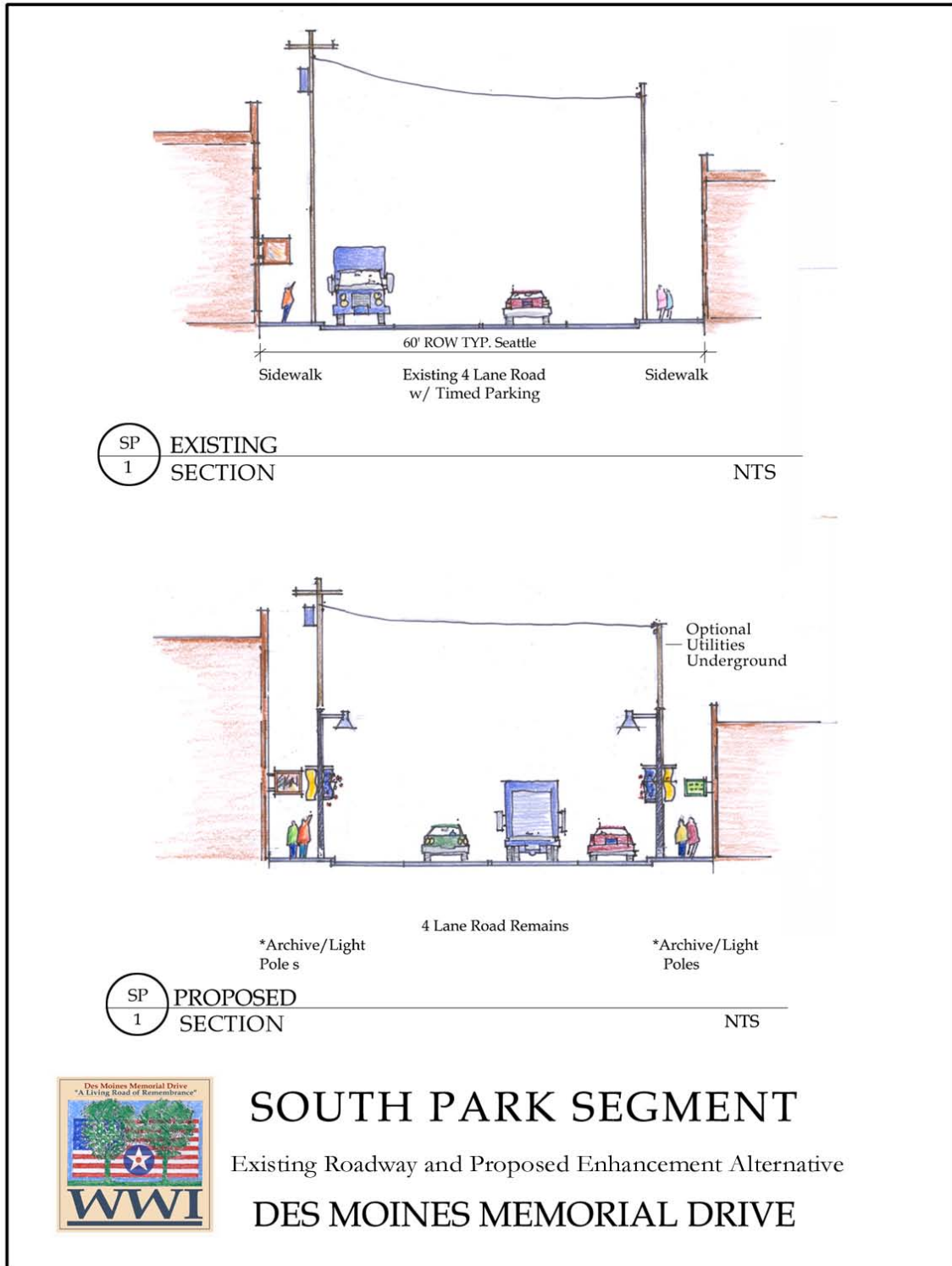
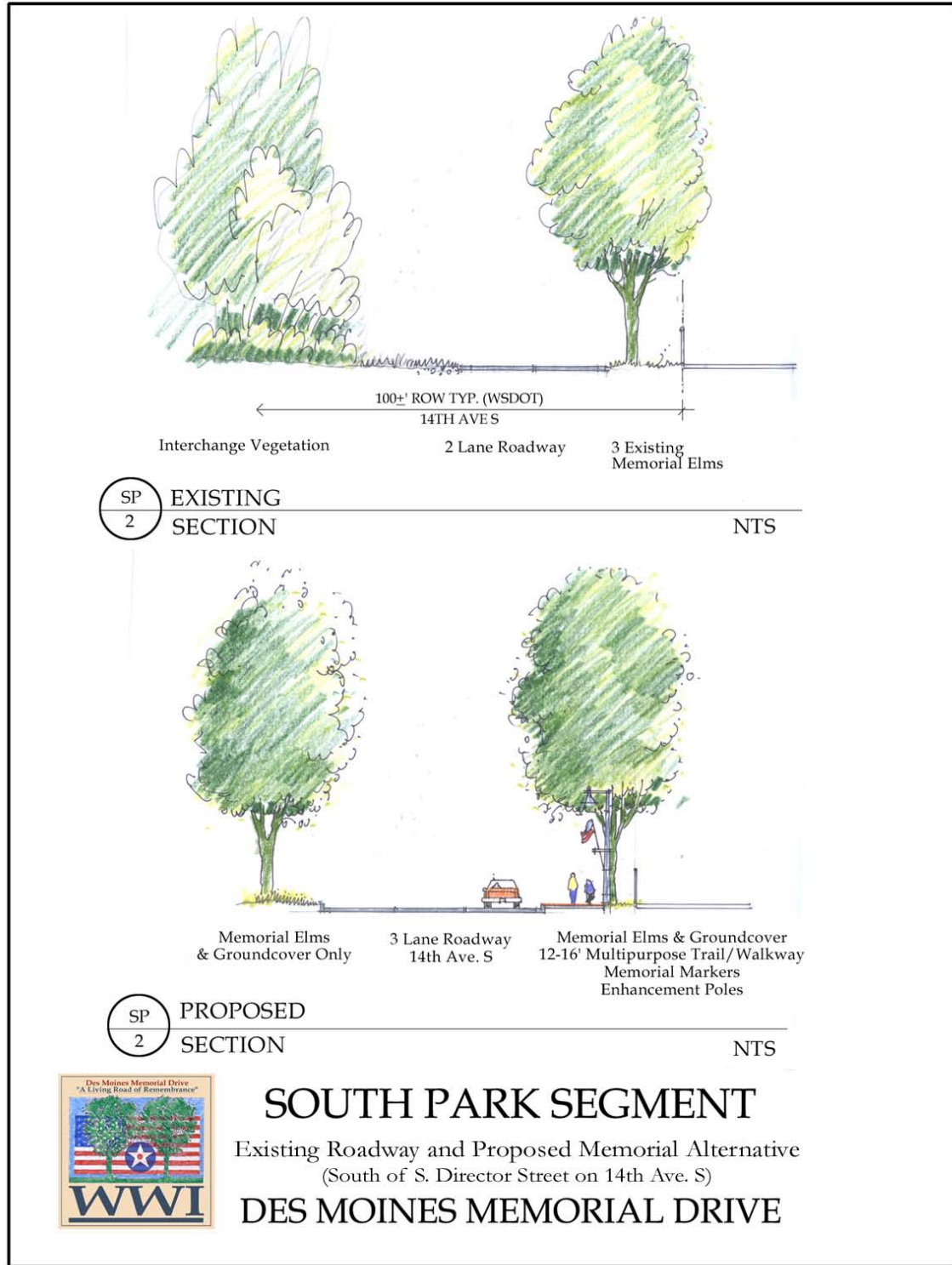


Figure 5-5. South Park - Roadway and Memorial Alternative



Military Road Segment Recommendations

Character Summary

The 2.29-mile Military Road Segment frames the portion of DMMD through King County and the Boulevard Park neighborhood, running from South 96th Street to South 128th Street. This segment gets its name from the historic Military Road that intersects DMMD within this segment. In fact, DMMD claims about 1 mile of the original Military Road alignment within its ROW. Hamm Creek basin and a large Golf Course cross or adjoin DMMD in this segment as well.

Jurisdiction/Agency Ownership: King County

Memorial and Enhancements Elements

Memorial Elements

Existing Elms

- (4) Four existing elms

Replacement Elms

- (104) Locate and plant per guidelines, primarily on the east side/non overhead utility side. Will require some shoulder easements or purchases to fully implement.
- New overhead utilities have been installed on west side of ROW, undergrounding remains a recommendation - but is unlikely to occur in the short term

Elm Markers

- (252) Are designed and will be constructed in 2005

Shoulder seeding

- To be included in construction of roadway, 2005

Signage sites

- At all nodes per guidelines

Interpretive sites

- At all nodes per guidelines

Corridor Enhancements

Enhancement Sites

- Hamm Creek Wayside
- King County's Military Road Triangle

Nodes Development (develop per guidelines)

S. 96th

Military Road

Glendale Way S

S. 120th

S. 128th

Crossings

No highway overpasses/interchanges in this segment

Light/Display Poles

(289) per guidelines

Enhancement Furniture

- (70) Benches
- (70) Refuse containers

Corridor Enhancement Sites

Remaining Red Brick Road at Hamm Creek "Wayside"

There is an approximately 600 square foot remnant of the original brick paving of Des Moines Memorial Drive across from 17th Pl. South. It is now in private ownership and partially developed as a driveway, carport and yard to a residence. Nevertheless, an interpretive kiosk is recommended here in association with a rest area and Hamm Creek overlook. Elements should include:

- Cleanup and restoration of red brick road
- Access paving from sidewalk to this area
- Interpretive Kiosk
- Benches
- Railing

King County Military Road Triangle Site

This ½ acre recommended interpretive site is a large triangular property formed by the intersection of Military Road with DMMD. It is publicly owned by King County. The site is currently wooded with moderate to steep slopes. DMMD rises above Military Road from 5 to 30 feet at this site. With some clearing, there will be views to the east over the Duwamish Valley.

Military Road is an historical thoroughway for defense in the early periods of development of the Puget Sound region. This intersection offers a tremendous set of enhancement and interpretive opportunities, including:

- Interpretive facilities
- Rest area and overlook
- Boulevard Park Community Park
- DMMD/Military Road Commemorative Sculpture or Flagpole
Transit Stop(s)
- Trails and accessible connections to neighborhood streets
- Benches, lighting and landscape

Utility Undergrounding

No utility Undergrounding is envisioned for this segment - though Undergrounding of overhead utilities would provide for the planting of memorial elms on the west side of the ROW and greatly improve the street environment space through this segment. A \$1,000/per tree utility realignment and redevelopment budget is recommended to provide implementation assistance for tree placement impacts on water and gas lines, vaults, meters, and drainage facilities.

Property Acquisitions or Use Easements

Some property acquisition and use easements are required to implement elm tree planting and to develop enhancement sites within this segment. In the case of land for trees it is a matter of from 2 to 6 feet of area needed.

Interpretive Concept

1. Road of Remembrance and history of the memorial:
 - Highlights of original establishment of the Memorial Way by Seattle Garden Club, 1921-22

- "Road of Remembrance" stories, i.e. Washington Doughboys on the European front and connection with people living in the Highline communities.
 - Memorial Way historical events that took place in this section of the route, e.g. Marshall Foche planted a Memorial Elm in December 1921, at the intersection of So. 120th and So. Glendale Way; elm removed circa 1965.
 - Story of other memorials and plaques placed on Memorial Way over the years, e.g. 1955 crash of plane carrying Korean War soldiers returning home, 1998 Eagle Scout project, etc.
2. Additional corridor intrinsic qualities: Boulevard Park district
- Historic - scenic 16th Avenue So. Bridge.
 - Recreation - Links to scenic areas, hiking, biking, Duwamish Valley attractions, e.g. Cecil Moses Park, salmon interpretive area, Salish art walk, picnicking, and Duwamish River trail (Tukwila to Renton).
 - Environmental - Hamm Creek greenbelt project; small section of the original 1910s DMMD brick road (currently on private property).
3. Community history themes:
- Early King County history, 19th century, first territorial road in Western Washington, also first King County road.
 - Early Boulevard Park development as an exclusive neighborhood with excellent views of the Duwamish River Valley, fine homes, exclusive country clubs--Glendale Jewish Golf Club and Rainier Golf Club, and first branch King County Library system.
 - Impacts of World War II and aftermath on Boulevard Park neighborhood; influx of Boeing wartime workers and after the war.

Art Notes

The Memorial at the Hamm Creek brick road

On the west side of Des Moines Memorial Drive, on the north edge of the Hamm Creek ravine, a vestige of the brick road still remains. This section of paving is a good location for memorial interpretation, and seating-a small rest stop.

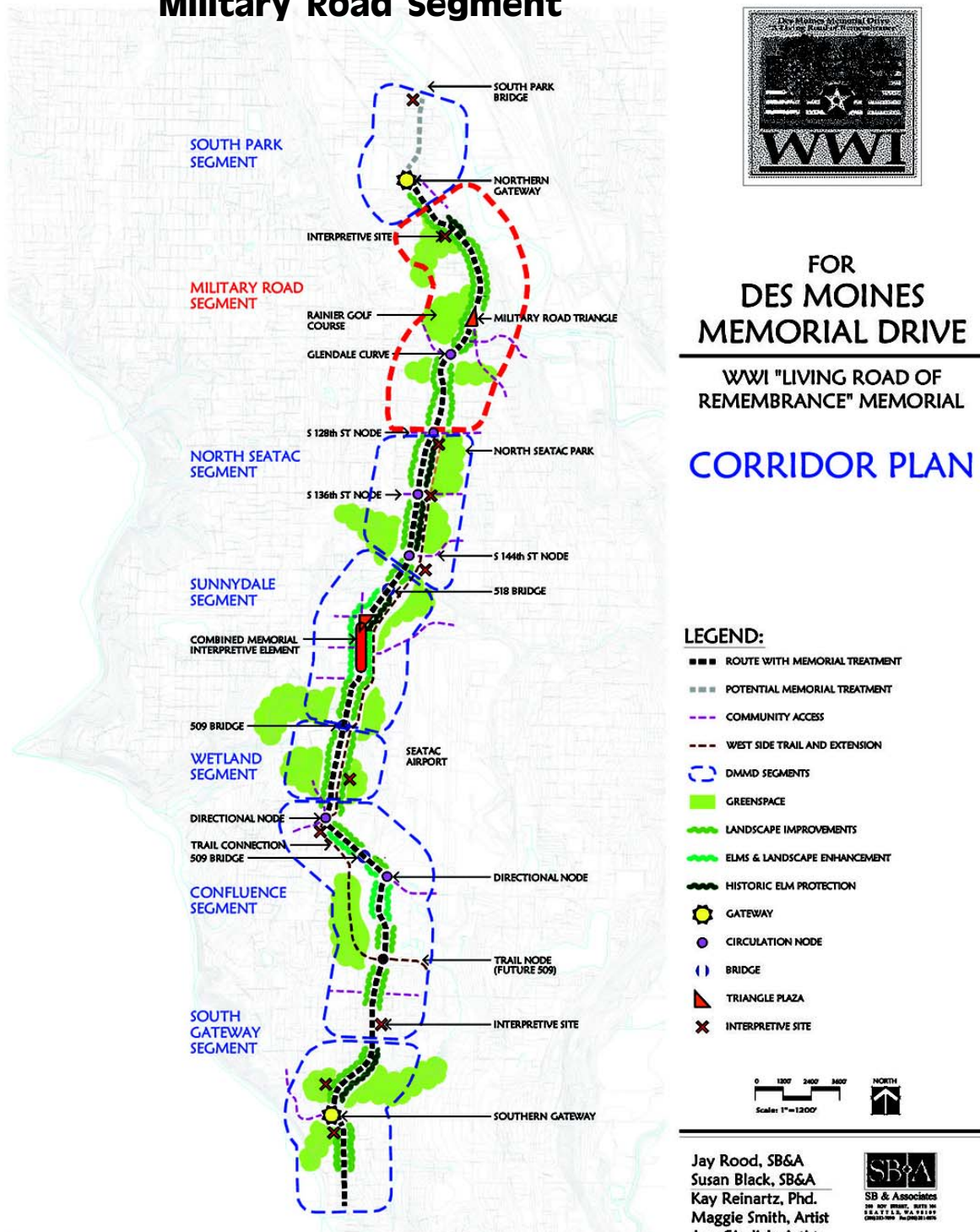
Memorial at the Military Road Triangle

This confluence of the drive and the old Military Road is significant both historically and symbolically. The Military Road Triangle could be shaped in a sculptural way. The landform should be strong enough to be perceived by motorists, and an environment and visual context should be created for a specimen Elm.

Coordination and Partnering

Hamm Creek open space preservation groups, Rainier Golf Club, King County (for use of Military Road Site), and Boulevard Park Neighborhood.

Figure 5-6. Corridor Plan Military Road Segment



KING COUNTY * BURIEN * SEATAC * DES MOINES * NORMANDY PARK

Figure 5-7. Military Road - Memorial Plan

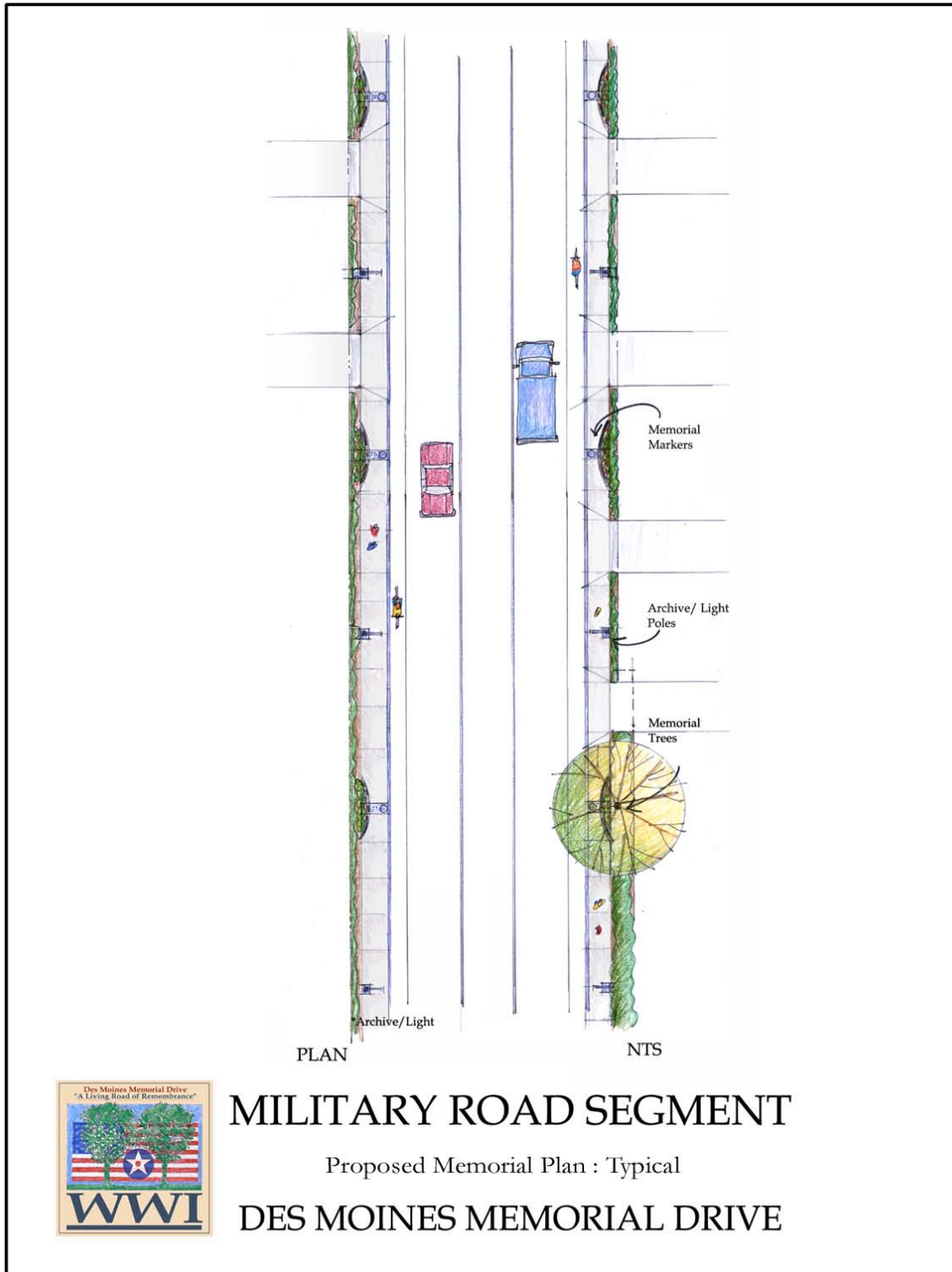


Figure 5-8. Military Road - Roadway and Memorial Alternative

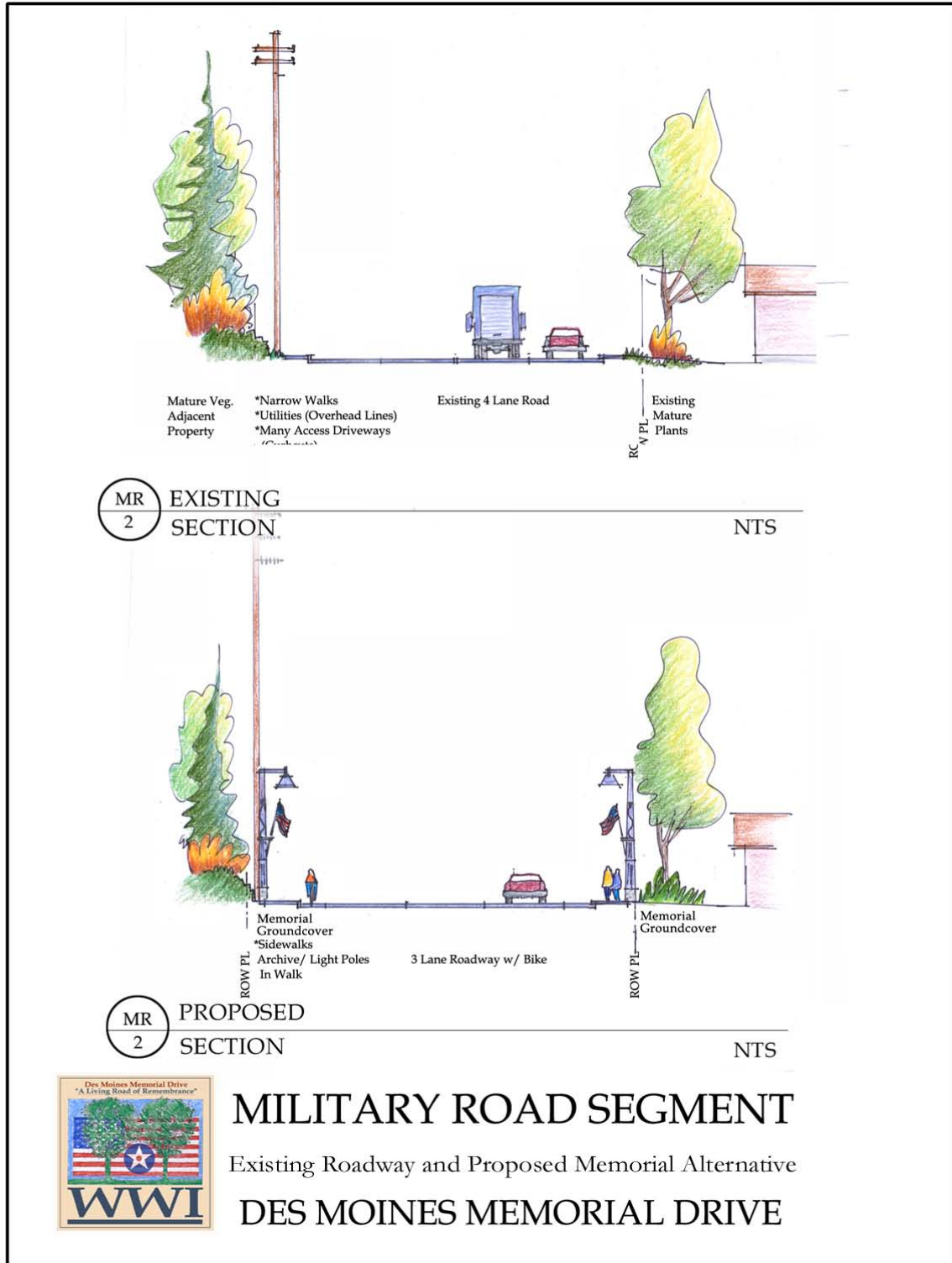
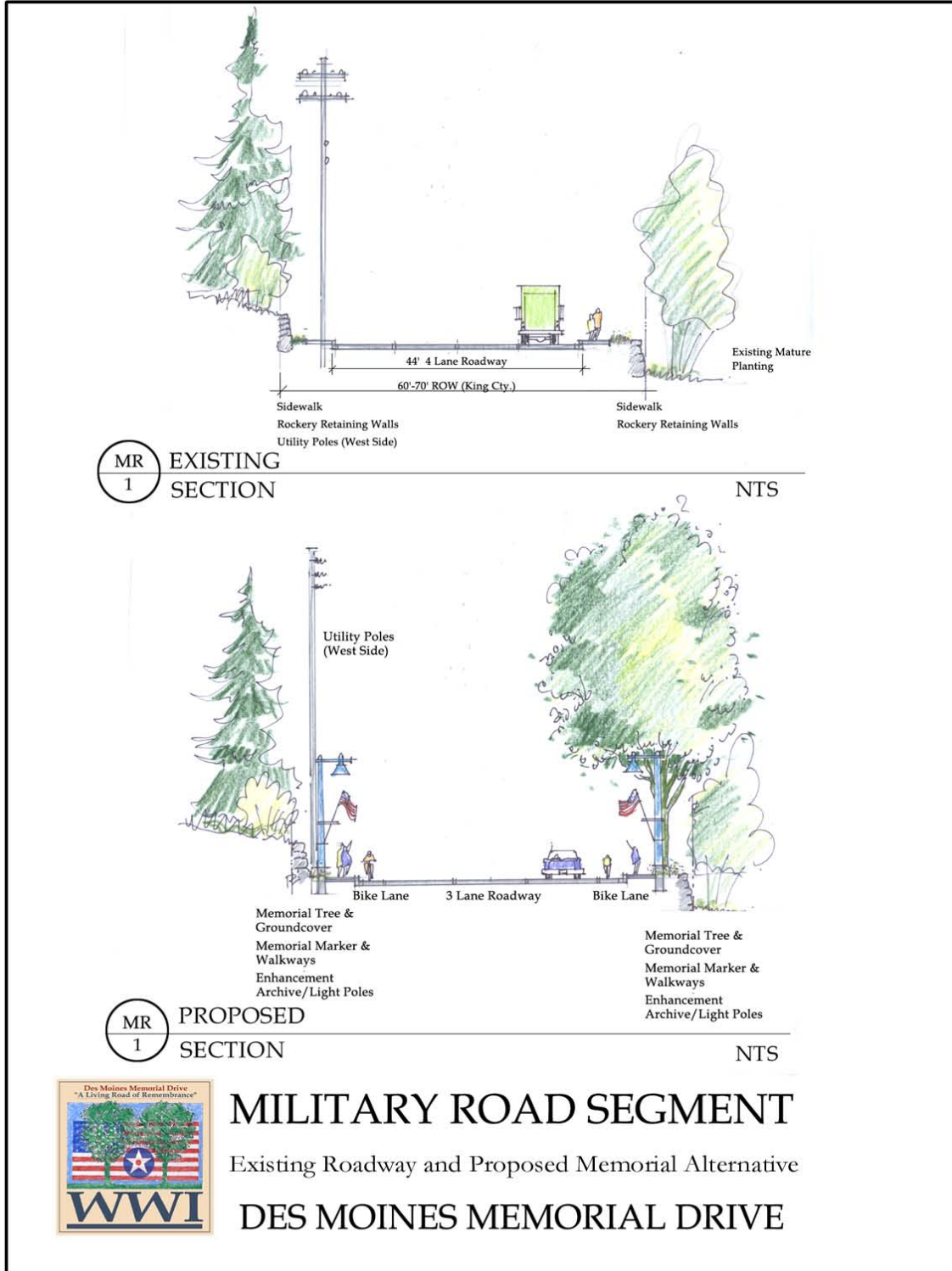


Figure 5-9. Military Road - Roadway and Memorial Alternative



North SeaTac Segment Recommendations

Character Summary

The 1.39 mile North SeaTac Segment frames DMMD through the City of SeaTac, from South 128th to the SR 518 overpass. Although the DMMD ROW is wholly within the SeaTac's city limits, Burien neighborhoods front on the drive along its entire western edge. The segment name is derived from the large forested and recreational municipal park, North SeaTac Park, fronting DMMD along the northern half of the segment's eastern ROW margin. Several original memorial elms also remain along this segments' roadway margins.

Jurisdiction/Agency Ownership: City of SeaTac with City of Burien Frontage (West side of ROW)

Memorial and Enhancement Elements

Memorial Elements

Existing Elms Protection and Monitoring until replacement

- (74) Original elm trees

Replacement Elms

- (129) Replacement elms

Elm Markers

- (170) Memorial markers

Shoulder seeding

- Along all open shoulder areas under elms

Signage sites

- At all nodes

Interpretive sites

- At all nodes and enhancement sites

Corridor Enhancements

Enhancement Sites

- North SeaTac Park (NW entry) Interpretive Site
- Seike Nursery Interpretive Site

Nodes Development

- S. 128th
- S. 136th
- S. 144th

Crossings

- SR 518 - Overhead and interchange

Light/Display Poles

- (289) Light poles with display/banner capability

Enhancement Furniture

- (70) Benches
- (70) Refuse containers

Art Integration

Corridor Enhancement Site

Northwest North SeaTac Park Entry Interpretive Site

Existing parking lot and park trailhead at this location make it a good site for orienting and educating people about the DMMD corridor and communities. Elements include:

- Interpretive Kiosk or Shelter
- Wayfinding Display
- Benches
- Lighting

Seike Nursery Interpretive Overlook/Site

Although a Port of Seattle mitigation site, there may remain remnants of this long-standing nursery business. This site would offer the opportunity to provide an interpretive kiosk or railing display adjoining the DMMD sidewalk or West Side Trail. Elements include:

- Interpretive Kiosk or Display Railing
- Railing combined with barrier
- Paving connection to sidewalk/trail

Utility Undergrounding

No utility Undergrounding is envisioned for this segment - though Undergrounding of overhead utilities would provide for the planting of memorial elms on the west side of the ROW and greatly improve the street environment space through this segment. A \$1,000/per tree utility realignment and redevelopment budget is recommended to provide implementation assistance for tree placement impacts on water and gas lines, vaults, meters, and drainage facilities.

Property Acquisitions or Use Easements

Some property acquisition and use easements are required to implement elm tree planting and to develop enhancement sites within this segment. In the case of land for trees it is a matter of from 2 to 6 feet of area needed. City of SeaTac ownership of North SeaTac Park and DMMD ROW may provide for an opportunity to avoid purchases or easements through this segment.

Interpretive Concept

Northwest North SeaTac Park Entry Interpretive Site

1. Focus on the "Living Road of Remembrance" aspect of DMMD
 - Original arboreal plan for Memorial Way, i.e. American Elms, 80 foot spacing, etc.
 - History of the Memorial Elms trees since 1922.
 - Story of the on-going commitment of Judd Colburn, American Legion Post 134, and Burien and Highline citizens to maintaining and preserving the memorial road; highlights of efforts to restore and preserve the original memorial down to the present.
 - Historical perspective on 20th century arboreal memorials across America and uniqueness of the DMMD memorial.
2. Community history themes:
 - Impact of World War II and post war dynamics on community development, e.g. rapid population growth, building boom, and loss of rural livelihoods and suburban style development.
 - The development of SEA-TAC Airport and impacts on the Highline communities, 1930 - present.
 - Ethnic population themes: Des Moines Nursery, Seike family home and Memorial Gardens dedicated to the memory of son killed in action in World War II; ethnic factors in

the Highline community history, Japanese, Italian (late 19th early 20th century); Southeast Asian, Mexican-American, Somali and others in the late 20th century.

3. Corridor recreational resources

- Resources located at North SeaTac Park, including the former King County Ball Fields site. Multitude of facilities: public rest rooms, drinking water, picnicking, biking and equestrian trails, children's play center, ball fields, and ample parking.
- Focal point for hiking, biking; links to regional hiking/biking systems, King County Regional Trail system, SeaTac to Seattle route; Duwamish-Green River Trail and the Cedar River Trail.
- Corridor cultural resources including cluster adjacent to North SeaTac Community Center including Highline Botanical Gardens, art works and strolling paths.
- Traveler amenities including information, public restrooms, telephones and other amenities.

Seike Nursery Interpretive Concept

1. Memorial Plaza adjacent the Sunnydale School, Des Moines Memorial Drive & South 156th

- Focus on honoring the World War I fallen.
- Historic perspective on World War I, concise main event timeline focusing on American involvement in the war.
- The "French connection" i.e. gratitude to America for joining the war effort and playing major role in winning the war; participation by French Marshals Foche and Joffre in dedicating DMMD, 1921-22; Foche and Joffre plantings adjacent to Sunnydale School logical sites.
- Creation of 1963 Memorial Way Park and the granite memorial in stone; the 1963 list of those commemorated.
- Tribute to Jud Colburn, "Keeper of the Elms" and historic stewardship organizations: American Legion posts # 1 and #134, Burien.

2. Community history themes:

- Early Euro-American settlement, Kelly homestead, Sunnydale, Kelly Road, Lake Burien and formation of early communities, historic intrinsic quality, and the historic Dodd's house.
- Important role of early trolley public transportation; the building of the Burien Railway, a.k.a. "Toonerville Trolley", community actively participate in maintaining rail service up to the Depression.
- Three Tree Road connecting Three Tree Point to Renton Road; Three Tree Service Station (1920s), an early automobile service station.
- Post World War II transformation of area from rural/agricultural to suburban living, e.g. John Mingo farm, present-day location of the Burien Community Center.
- Repeated expansion of SEA-TAC Airport, the volume of air traffic and parallel increases in automobile traffic produce spiraling damage to the quality of life for the Highline communities in the latter decades of the 20th century.



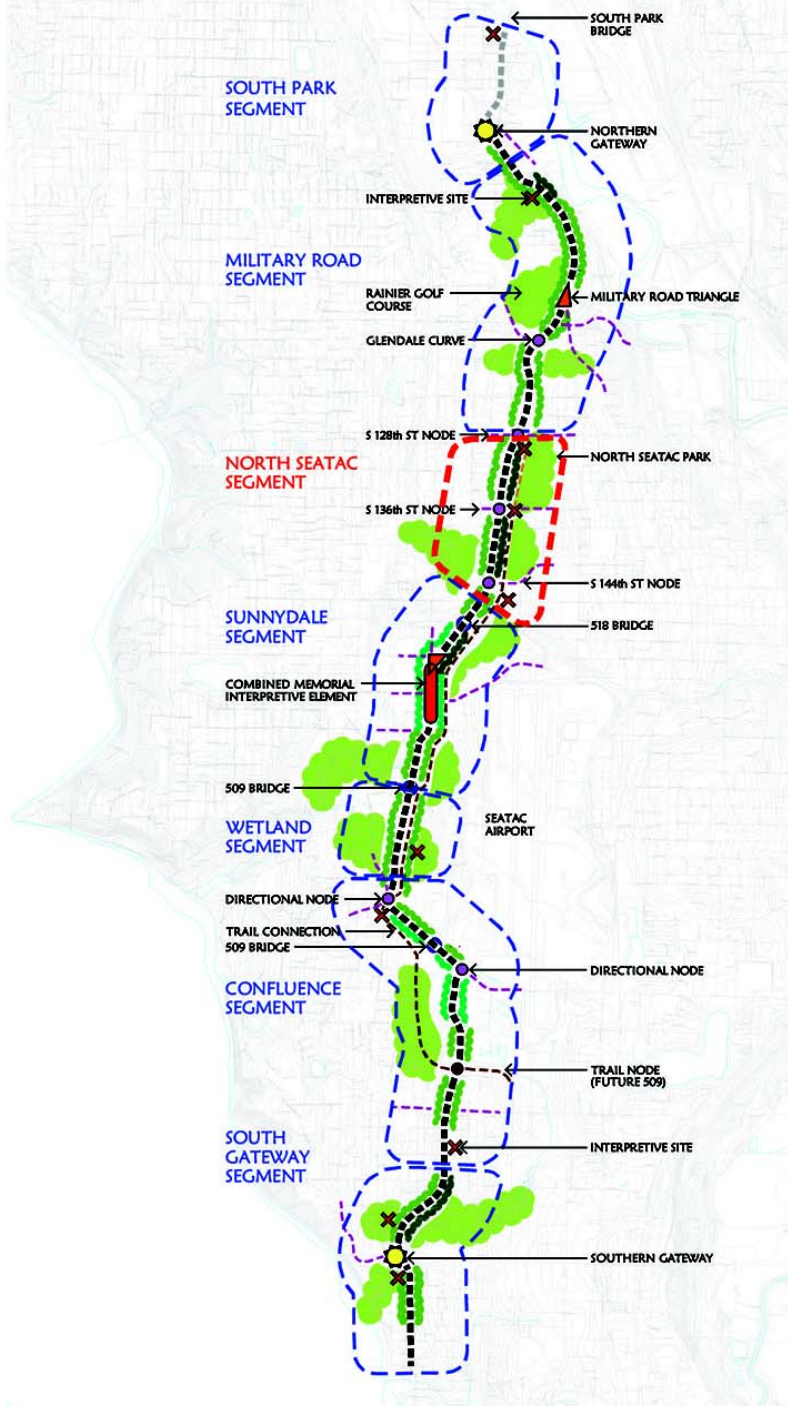
Art Notes

Photographically record the existing elm tree roadway and incorporate into art/interpretive displays in this segment.

Coordination and Partnering Opportunities

City of SeaTac's West Side Trail Study/Development and North SeaTac Park along with Port of Seattle will provide opportunities to enrich this segment and allow for funding opportunities.

**Figure 5-10. Corridor Plan
North SeaTac Segment**



FOR
DES MOINES
MEMORIAL DRIVE
WWI "LIVING ROAD OF
REMEMBRANCE" MEMORIAL
CORRIDOR PLAN

LEGEND:

- ■ ■ ROUTE WITH MEMORIAL TREATMENT
- □ □ POTENTIAL MEMORIAL TREATMENT
- - - COMMUNITY ACCESS
- - - WEST SIDE TRAIL AND EXTENSION
- ○ ○ DMMD SEGMENTS
- GREENSPACE
- ~ LANDSCAPE IMPROVEMENTS
- ~ ELMS & LANDSCAPE ENHANCEMENT
- ~ HISTORIC ELM PROTECTION
- ☀ GATEWAY
- CIRCULATION NODE
- () BRIDGE
- ▲ TRIANGLE PLAZA
- ✕ INTERPRETIVE SITE

0 1200' 2400' 3600'
Scale: 1"=1200'

NORTH

Jay Rood, SB&A
Susan Black, SB&A
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist

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2000 WEST 42ND ST
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Figure 5-11. North SeaTac - Memorial Alternative

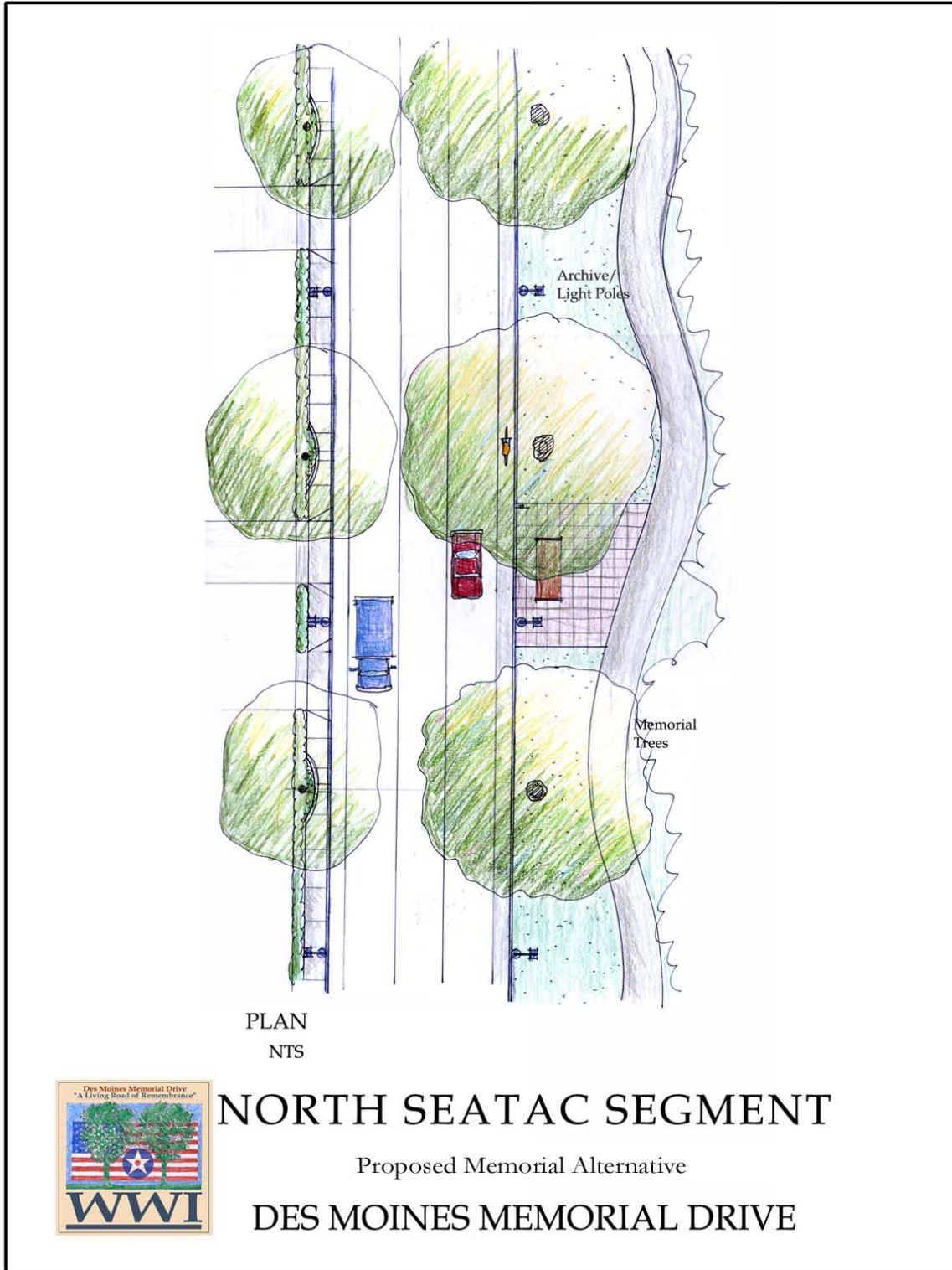


Figure 5-12. North SeaTac - Roadway and Memorial Alternative

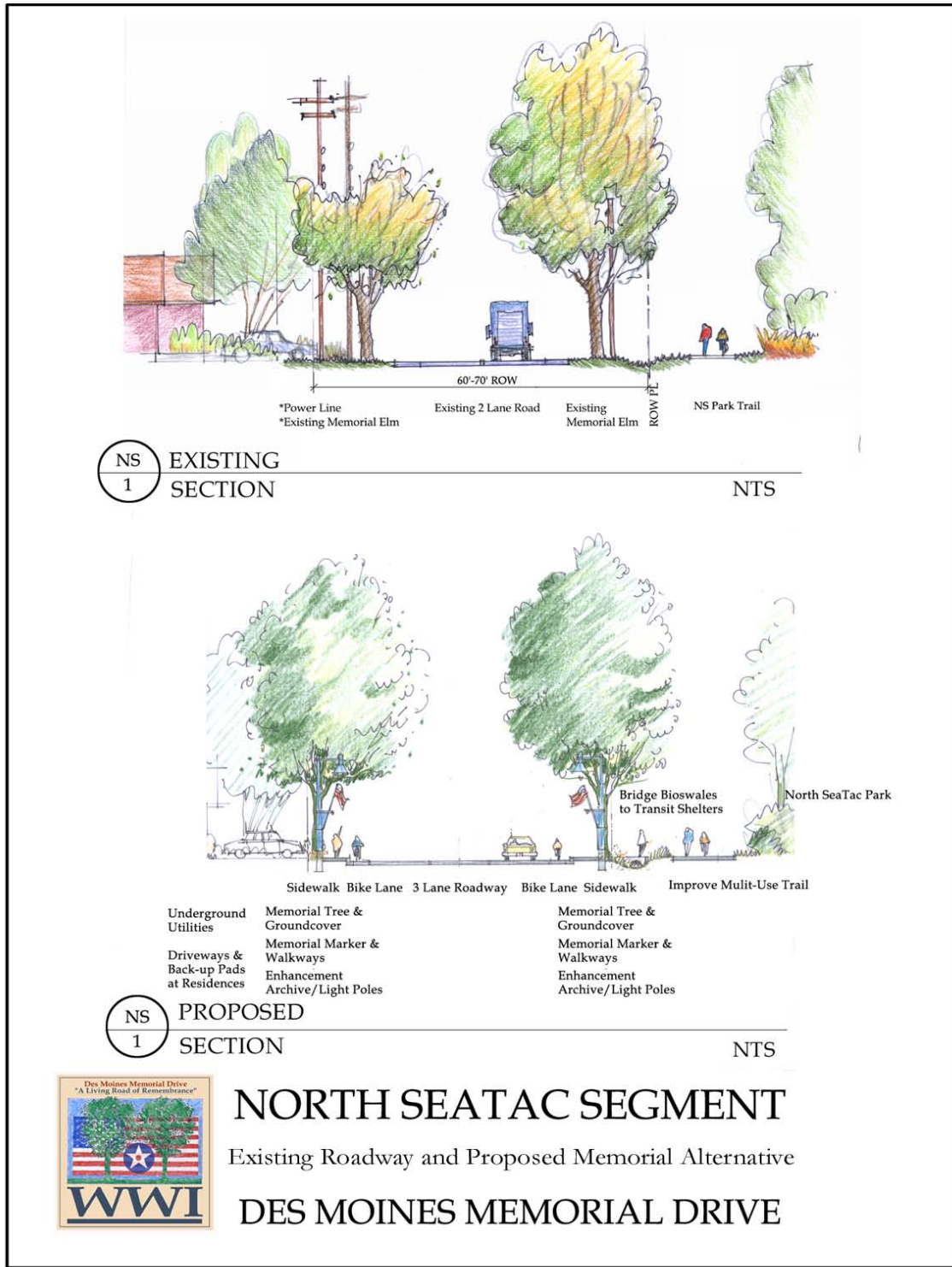


Figure 5-13. North SeaTac - Roadway and Memorial Alternative

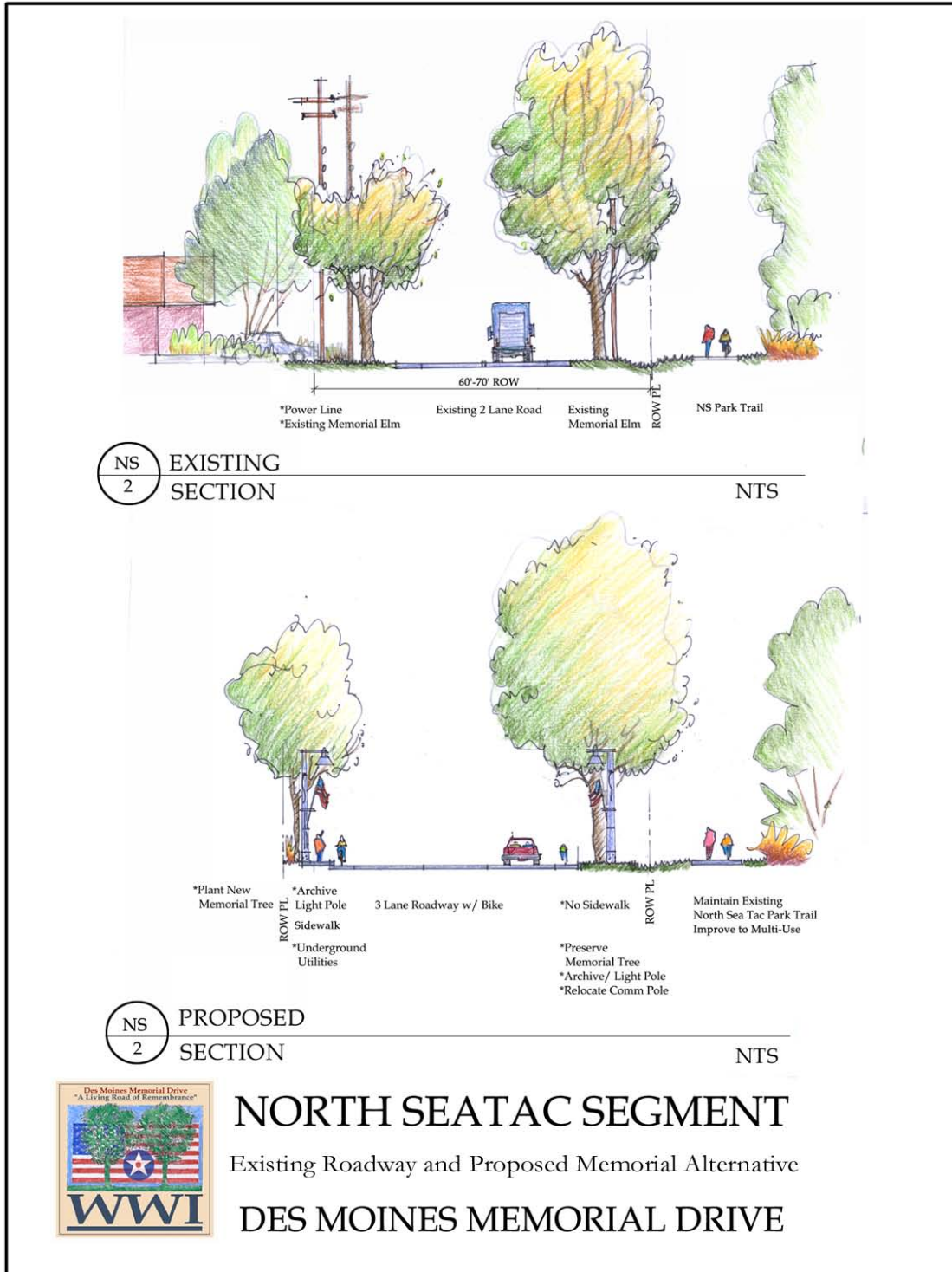
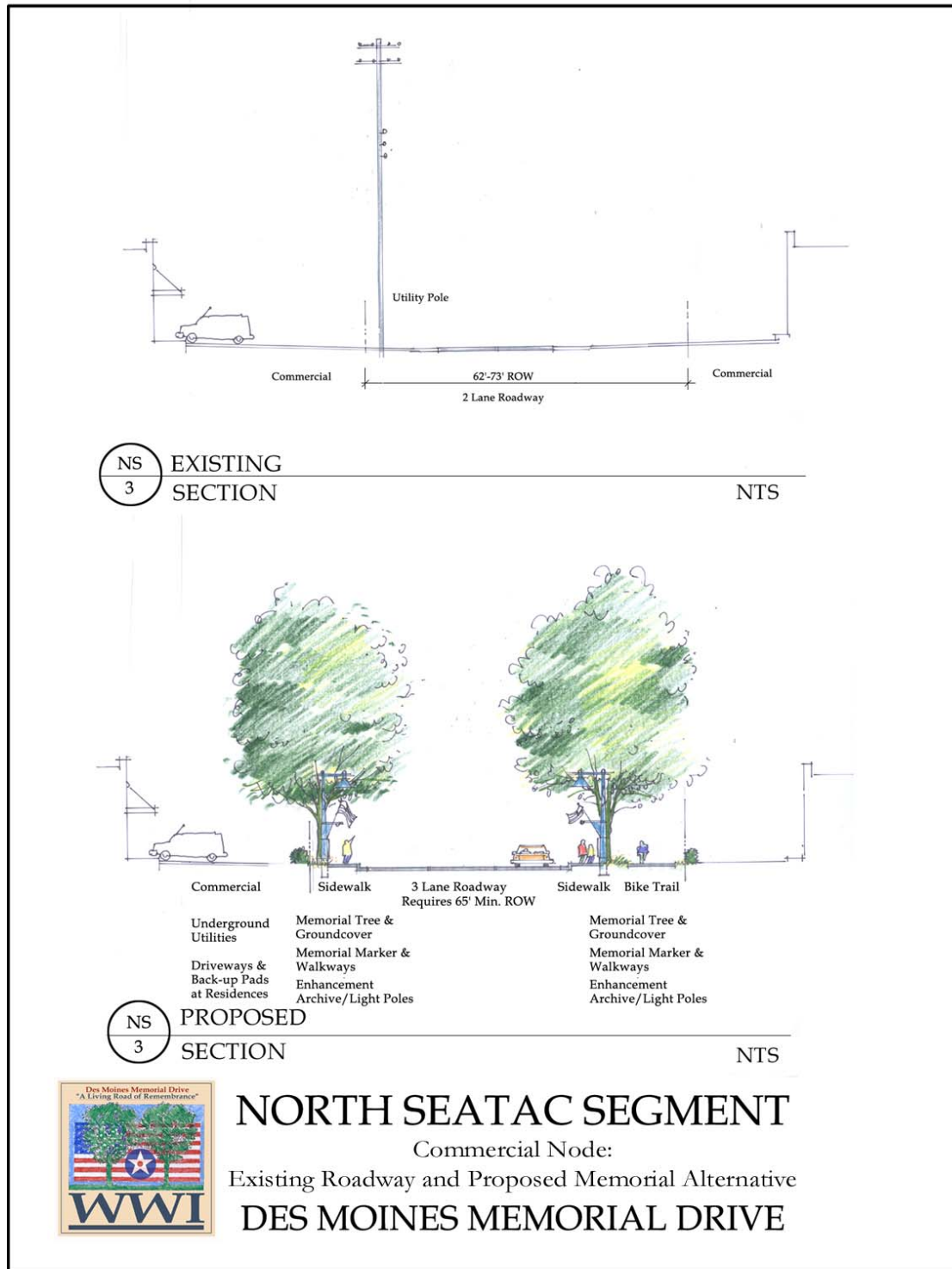


Figure 5-14. North SeaTac - Commercial Node: Roadway and Memorial Alternative



Sunnydale Segment Recommendations

Character Summary

The Sunnydale Segment frames 1.15 miles of this very important DMMD segment, between the SR 518 and SR 509 overpasses. Sunnydale has been the areas heritage highpoint and crossroads from the earliest periods of settlement in the area. This is the site of the Memorial Park with its stone memorial panels, historic school, first gas stations, and key east/west travel routes.

Jurisdiction/Agency Ownership: City of SeaTac with City of Burien Frontage (West side of ROW). Port of Seattle owns approximately 70% of the property on the eastside of DMMD ROW in this segment.

Memorial and Enhancement Elements

Memorial Elements

The Sunnydale Segment Memorial Rehabilitation improvements are described in the Memorial section, page 4 of this chapter. Sunnydale segment is the priority rehabilitation and redevelopment area of the DMMD Corridor Plan.

The Sunnydale area is the historic crossroads, and traditional site for events surrounding the Memorial. It is also the location of the etched granite wall containing the names of the fallen as recorded in the original register. This existing plaza and the 8 blocks surrounding it from 152nd to 160th streets is proposed for redevelopment to accommodate the highest level of activity relative to the Memorial.

Memorial Trees and Red Brick Roadway

Develop the portion of the Sunnydale Segment from South 152nd Street to South 160th Street, in layout and texture, as a reconstruction and rehabilitation of the 1921 memorial tree and wildflower plantings around the red brick roadway. See typical design section options, figures .

- Underground utilities in this 8-block segment of the corridor (approximately 3,000 LF)
- Install a red brick or red brick patterned roadway surface between the curb-lines or from bike lane edge to bike lane edge.
- Locate and install memorial elms on both sides of the ROW corridor without interruption
- Locate and install memorial elms as close to original crossroad spacing (44 feet) as is feasible.
- Install memorial markers at each elm site
- Install wildflower seeding beneath trees continuously along the margins of the corridor.

This Sunnydale Segment redevelopment should be coordinated closely with City of SeaTac planning and development of the West Side Trail which will likely be within or immediately adjacent to the DMMD ROW in this segment.

Memorial Plaza

Redevelop the Des Moines Memorial Park at Sunnydale School into a Memorial Plaza. (See illustrative plan and drawings, figures .) Relocate the memorial wall of etched granite panels to a position 25 to 35 feet farther back from the right of way and onto Sunnydale School property. This will create more area for gathering, examining the wall and conducting ceremonies to honor the fallen.

Relocate existing Memorial Cherry trees to sites between the new wall location and school building. Identify new sites for other memorials and honoring elements within the plaza. Add flagpole(s). Consider other amenities such as special paving, seating, other retaining walls,

accessible ramps, bike racks, benches, lighting, irrigation and new plantings in the memorial plaza redevelopment design. Include art elements in the redesign of the Plaza. Incorporate signage and an interpretive display and integrate educational elements into the plaza.

Existing Elms

- (48) Existing memorial elms

Replacement Elms

- (96) Replacement elms per guidelines

Memorial Markers

- (143) Memorial markers per guidelines
- Coordinate with WSDOT to place in walkways under SR 518 and SR 509 overpass

Shoulder seeding

- In all open shoulder areas under elms

Signage sites

- At all nodes and enhancement sites

Interpretive sites

- Per interpretive plan

Memorial plaza

- Redevelop allowing for additional gathering space

Roadway paving

- Red brick patterned paving across all travel and turn lanes

Corridor Enhancements

Enhancement Site

- Peters Triangle Interpretive Site
- 156th Rest Stop and Memorial Plaza Parking Area

Nodes Development

- 152nd
- 156th
- 160th

Crossings

- 518 - Overhead and interchange
- 509/(164th) - Overhead

Light/Display Poles

- (173) Light poles with display and banner capability

Enhancement Furniture

- (44) Benches
- (44) Refuse containers

Memorial Rehabilitation that occurs in this segment is the most extensive proposed. It will focus attention on the redeveloped plaza, the area of the school, reconstruct a roadway similar to the original, underground overhead utilities in order to plant the Living memorial on near-original spacing. See discussion of this improvement in Chapter 4, Plan Recommendations and Memorial Rehabilitation and Corridor Enhancement Guidelines.

Corridor Enhancement Site

Peters Triangle/First Gas Station Interpretive and Community Space Site

The Peters Triangle site offers the opportunity to anchor the north end of the Sunnydale Memorial Plaza and roadway improvements. It is a half-acre triangular shaped property formed by the intersection of 8th, South 152nd and DMMD. Historically it was the site of the first gas station in south King County. Established in the early 1930's, this was a key node in the north south and east west movement of people in this area.

The City of Burien has developed S. 152nd Street as a major community corridor connecting DMMD to Burien's downtown, schools, art center, and sports complexes. Elements suggested for development at this site include

- Interpretive Signage
- Directional Signage
- Benches
- Drinking fountain
- Shade trees

156th Rest Stop and Memorial Plaza Parking Area

The Port of Seattle owns a 2.6-acre, triangular shaped property just across DMMD from Sunnydale School Memorial Plaza. The property is formed by the intersection of DMMD with South 156th Way and South 157th Place. It is an accessible open space and would be an excellent rest stop and short term parking area for visitors to the Memorial Plaza.

- Trail/Sidewalk connections
- Vehicle parking and tour bus pullouts
- Rest Facilities, including restrooms, water fountains and benches
- Interpretive Display kiosk
- Orientation signage and maps

Utility Undergrounding

Undergrounding of all overhead utilities is recommended for the Sunnydale segment. This is one segment where this full action is to be undertaken - as it is the one segment where full rehabilitation is being prioritized. In addition, a \$1,000/per tree utility realignment and redevelopment budget is recommended to provide implementation assistance for tree placement impacts on water and gas lines, vaults, meters, and drainage facilities.

Property Acquisitions or Use Easements

Some property acquisition or use easements are required in this segment, including: Some limited ROW area needs are anticipated (especially for the 60 foot existing ROW width sections - fortunately between S. 152nd St. and S. 162nd Street there is 70-74 foot ROW widths available); Sunnydale School property (Highline School District) to allow for Memorial Plaza Redevelopment, and Peters Triangle Gas Station enhancement site at DMMD, 8th Avenue S. and S. 152nd Street.

Interpretive Concept

Peters Triangle Interpretive Concept

"The Peters Triangle" is an historic community crossroads and location of key long-term community businesses. Peters Triangle Service Station was the first gas station in South King County, truck farming era, roadside green produce stands, e.g. Vacca's Pumpkin Patch, private enterprise response to community needs, e.g. Raffo Disposal and others.

Art Notes

Art at Peters Triangle

Peters Triangle is a prominent site in corridor history—one of the first gas stations in south King County was located here. It is a part of early automotive history (as is the drive itself) in the Highline area.

Peters Triangle is located just four blocks north of Memorial Plaza, near the heart of the drive. It would be an optimum location for a park and interpretive center. This relationship would be reinforced by red brick paving in the drive between Peters Triangle and the Memorial Plaza, creating a striking sense of place.

This proposed Peters Triangle Park should be paved with red brick, provided with ample seating, and planted with several Elms. A closer cluster of Elms could add an interesting punctuation to the eighty-foot spacing in the corridor. This place is an opportunity for interpretive materials presented in innovative ways—for example, on plaques in the pavement or set into or carved directly into the benches.

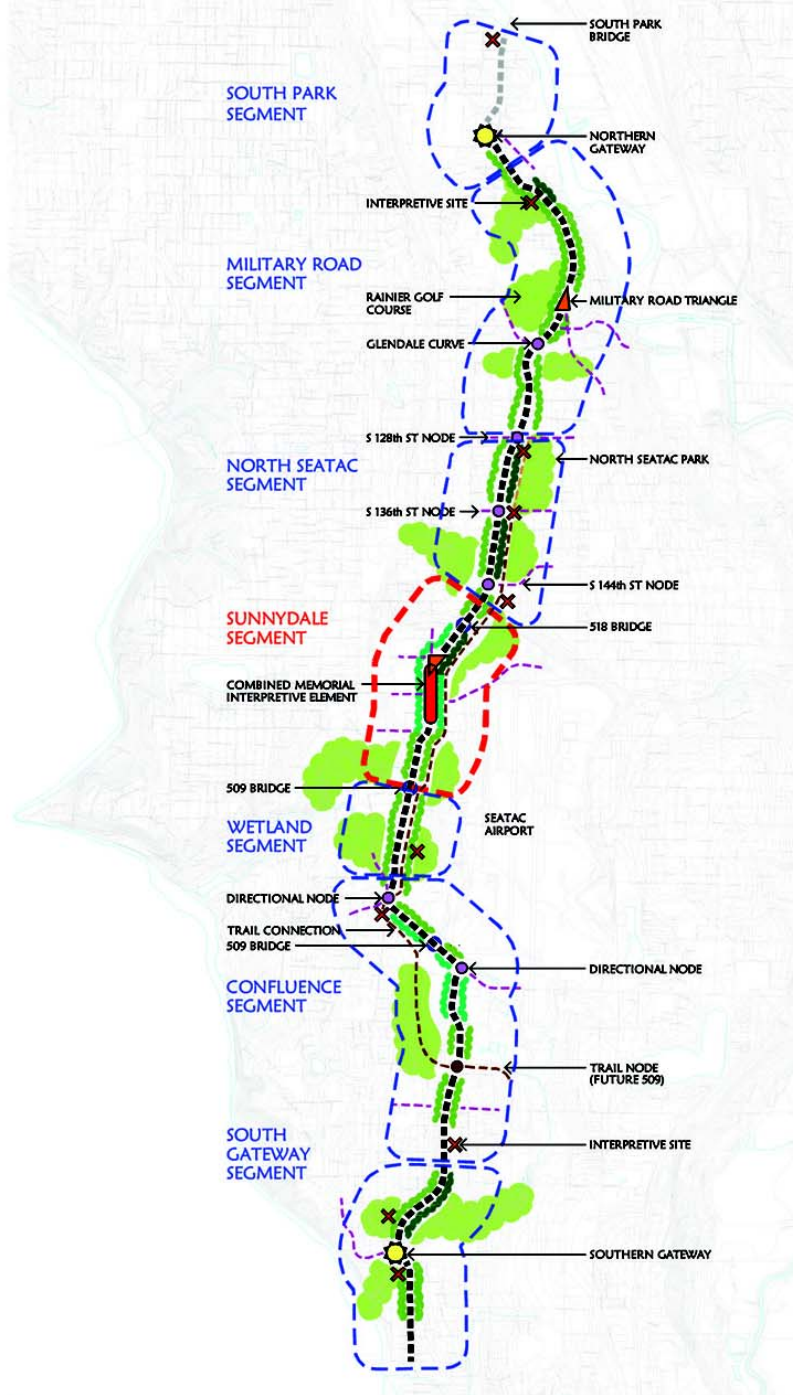
Art at Memorial Plaza

Art at Memorial Plaza should be carefully engaged so as not to overpower the stone memorial panels and space.

Coordination and Partnering Opportunities

West Side Trail planning and development, Port of Seattle, Highline School District (Sunnydale School and memorial plaza land/easement), and Seattle City Light (Undergrounding).

**Figure 5-15. Corridor Plan
Sunnydale Segment**



FOR
DES MOINES
MEMORIAL DRIVE

WWI "LIVING ROAD OF
REMEMBRANCE" MEMORIAL

CORRIDOR PLAN

- LEGEND:**
- ■ ■ ROUTE WITH MEMORIAL TREATMENT
 - — — POTENTIAL MEMORIAL TREATMENT
 - - - COMMUNITY ACCESS
 - - - WEST SIDE TRAIL AND EXTENSION
 - ○ ○ DMMD SEGMENTS
 - GREENSPACE
 - LANDSCAPE IMPROVEMENTS
 - ELMS & LANDSCAPE ENHANCEMENT
 - HISTORIC ELM PROTECTION
 - ☀ GATEWAY
 - CIRCULATION NODE
 - ⌋ BRIDGE
 - ▲ TRIANGLE PLAZA
 - ✕ INTERPRETIVE SITE



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Maggie Smith, Artist
Jon Gierlich, Artist



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Figure 5-16. Sunnydale - Memorial Alternative

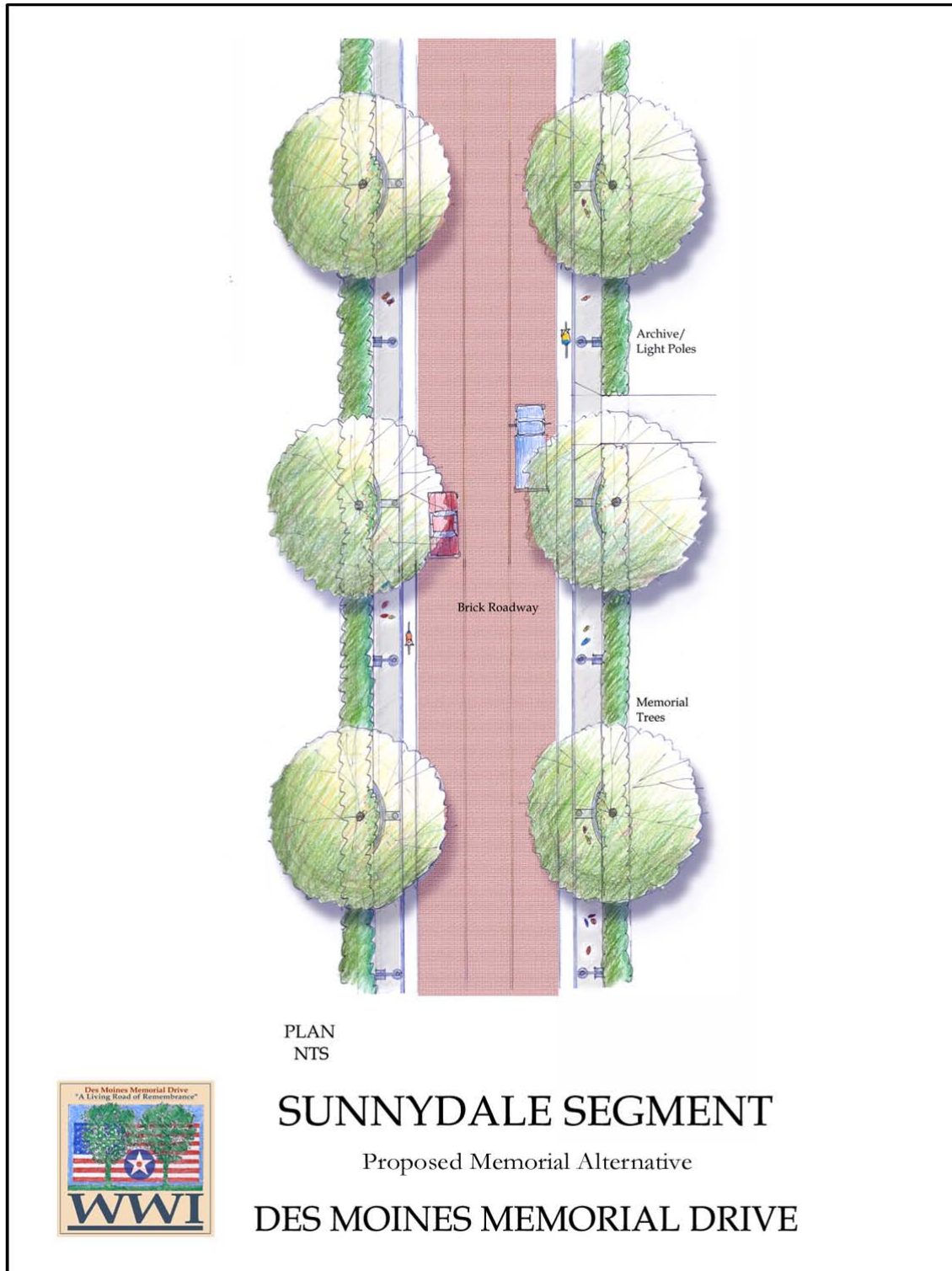


Figure 5-17. Sunnydale - Perspective



SUNNYDALE
PERSPECTIVE
DES MOINES MEMORIAL DRIVE

Figure 5-18. Sunnydale - Roadway and Memorial Alternative

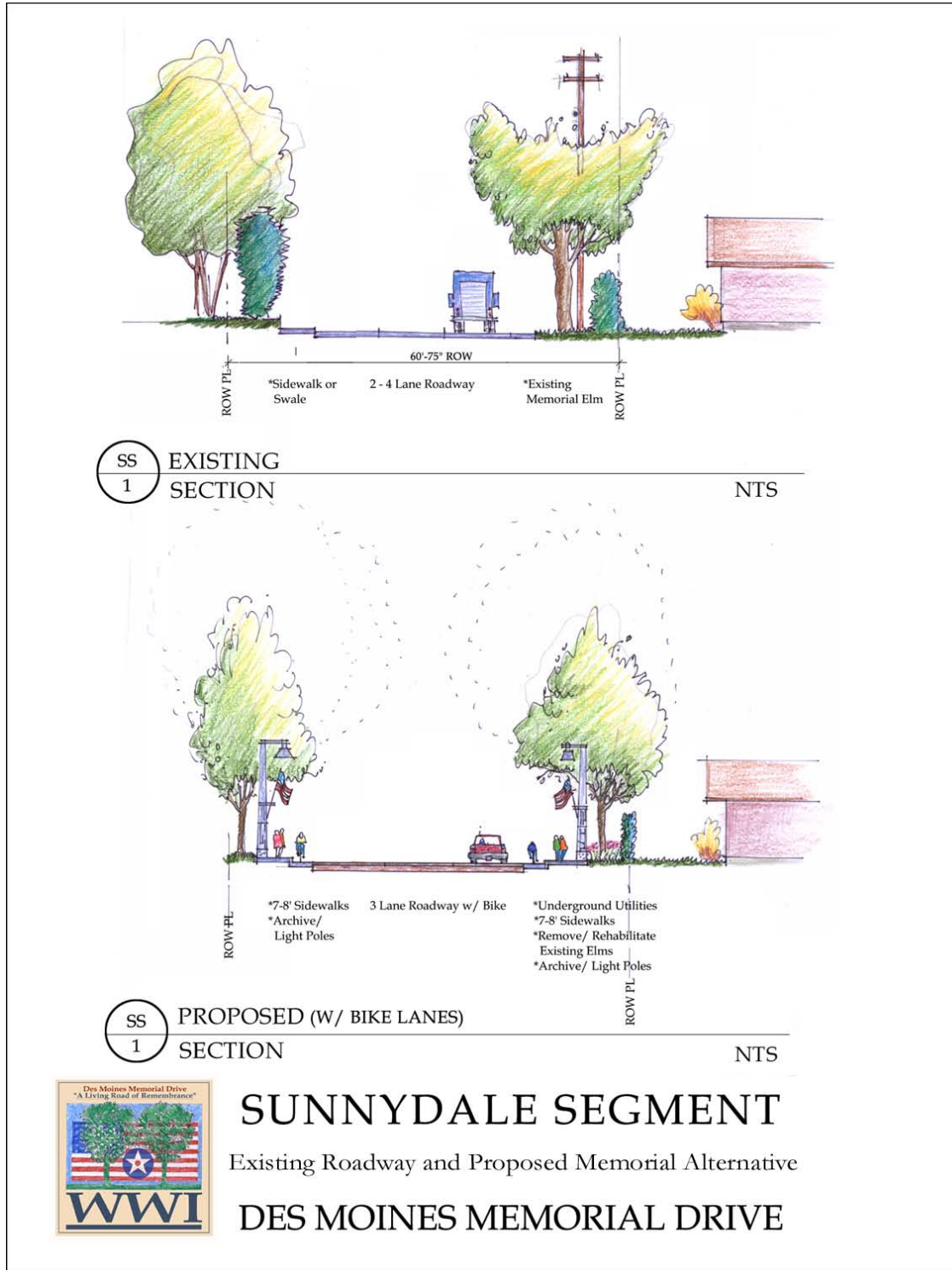
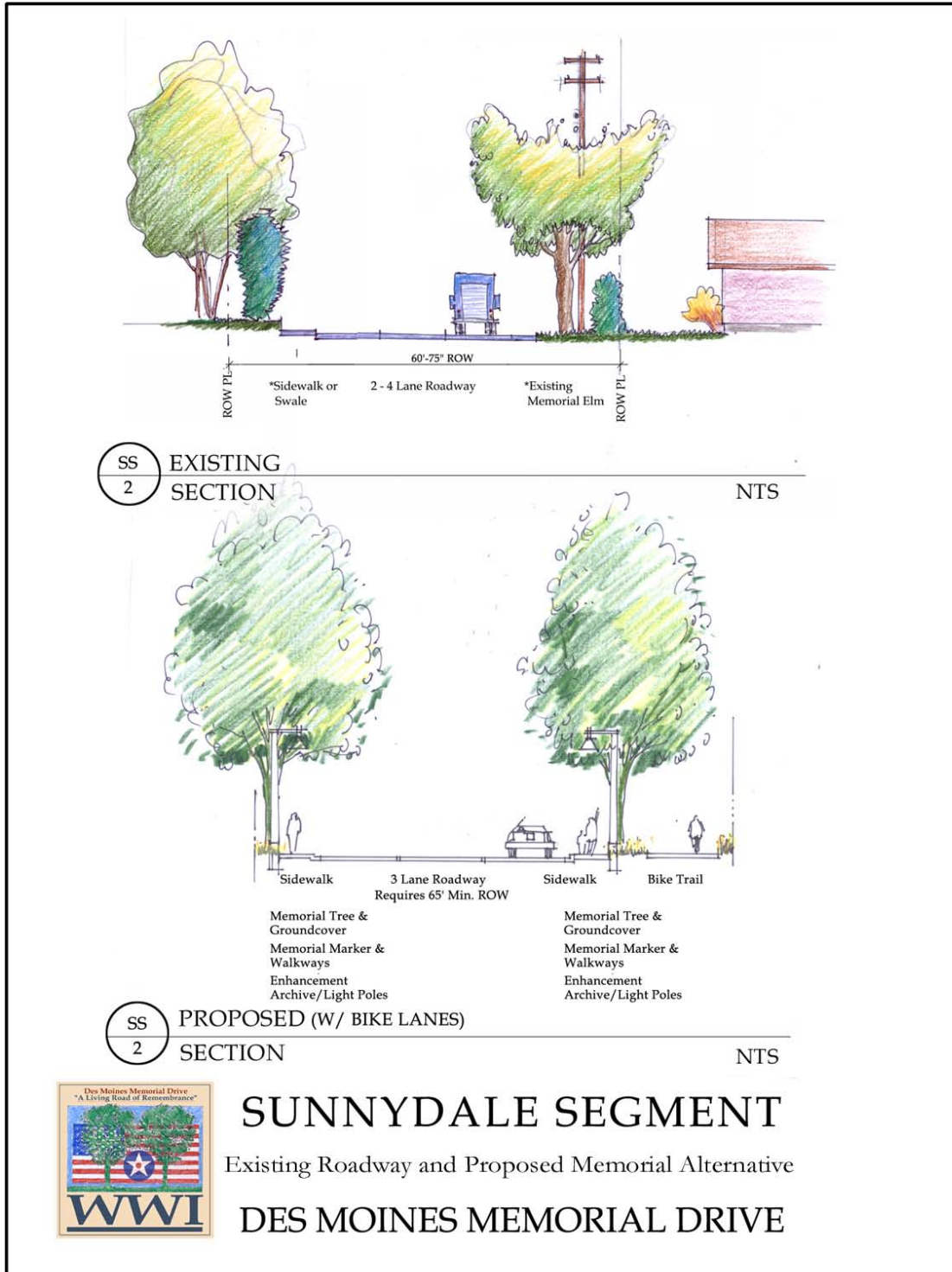


Figure 5-19. Sunnydale - Roadway and Memorial Alternative



Wetland Segment Recommendations

Character Summary

The Wetland Segment frames .58 miles of DMMD within the City of Burien, between the SR 509 Overpass and 216th Street. A large forested wetland area associated with the Miller/Walker Creeks basin dominates this segment.

Jurisdiction/Agency Ownership: City of Burien and WSDOT (SR 509 Overpass)

Memorial and Enhancement Elements

Memorial Elements

Existing Elms

- (20) Existing elms per guidelines

Replacement Elms

- (77) Elms per guidelines

Elm Markers

- (77) Memorial markers per guidelines

Shoulder seeding

- In all open shoulder areas under elms

Signage sites

- At all nodes

Interpretive sites

- At all nodes and enhancement sites

Corridor Enhancements

Enhancement Site

- Wetland Interpretive Site

Nodes Development

- 176th

Crossings

- 509 north (160th) -

Overhead Light/Display Poles

Enhancement Furniture

Corridor Enhancement Site

Wetland Overlook/Interpretive Site

A site located within DMMD ROW between 170th and 178th could be purchased and developed as a wetland overlook and interpretive display site. Although the wetland is on private property, its sensitive area status is likely to preempt development that would alter its vegetation and habitat values. This site would offer the opportunity to provide an interpretive kiosk or railing display adjoining the DMMD sidewalk at this location. Elements include:

- Interpretive Kiosk or Display Railing
- Railing combined with barrier
- Paving connection to sidewalk/trail

Utility Undergrounding

No utility Undergrounding is envisioned for this segment - though Undergrounding of overhead utilities would provide for the planting of memorial elms on the west side of the ROW and greatly improve the street environment space through this segment. A \$1,000/per tree utility realignment and redevelopment budget is recommended to provide implementation assistance for tree placement impacts on water and gas lines, vaults, meters, and drainage facilities.

Property Acquisitions or Use Easements

Some property acquisition and use easements are required to implement elm tree planting and to develop enhancement sites within this segment. In the case of land for trees it is a matter of from 2 to 6 feet of area needed.

Interpretive Concept

Wetland Overlook Interpretive Concept

Proposed interpretive focus: Highline natural history

- Highline area geology, e.g. floating island, Mount Rainier, Osseola Mudflow etc.
- Natural flora and fauna, e.g. discovery of Giant Sloth in peat bog during SeaTac expansion work.
- Wetlands

Art Notes

The qualities of this rich natural area and surroundings should be celebrated.

Coordination and Partnering Opportunities

Coordination with City of Burien and DMMD adjacent property owners will be required to fully implement the memorial and enhancement improvements recommended for this section.

**Figure 5-20. Corridor Plan -
Wetland Segment**

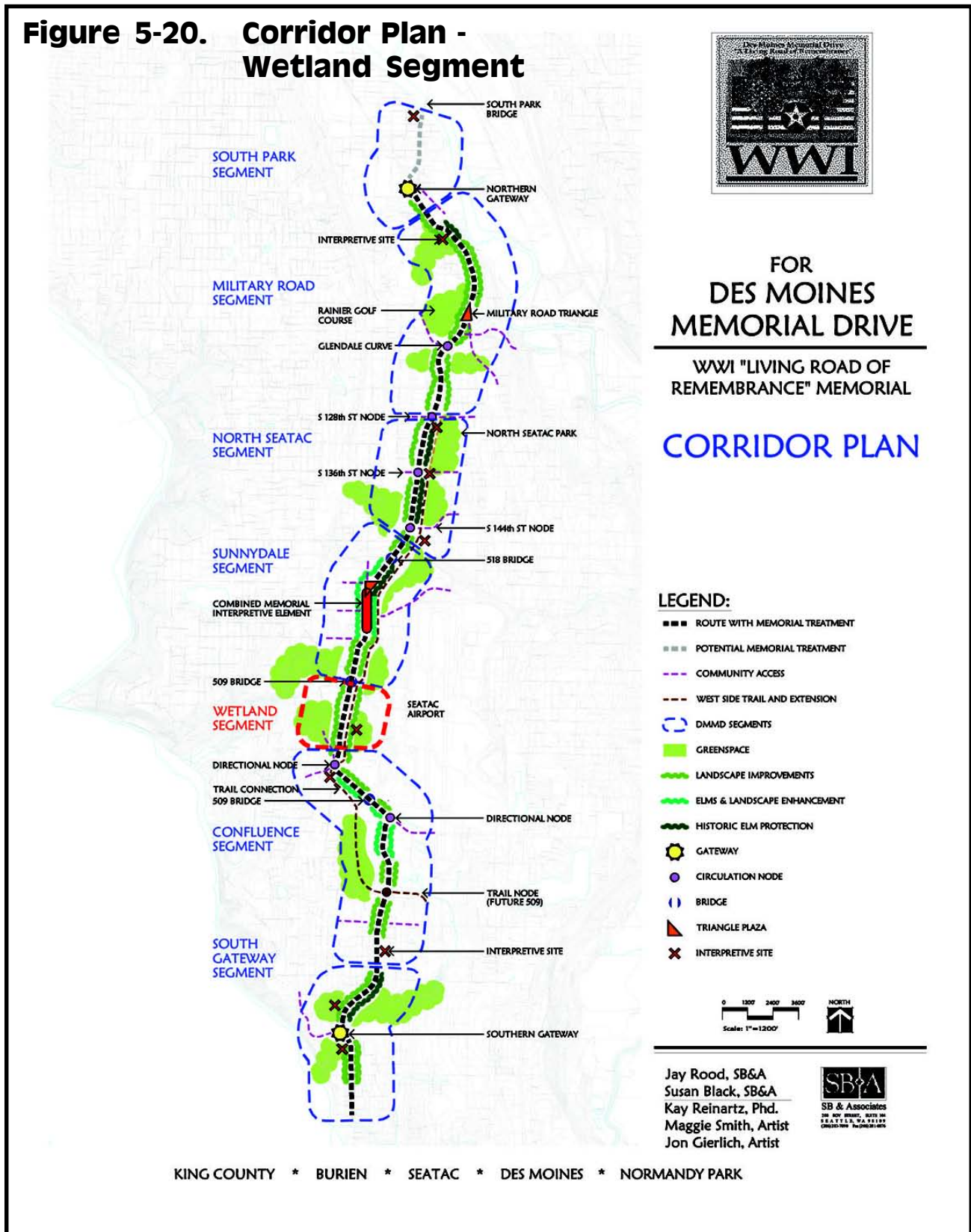


Figure 5-21. Wetland - Memorial Alternative

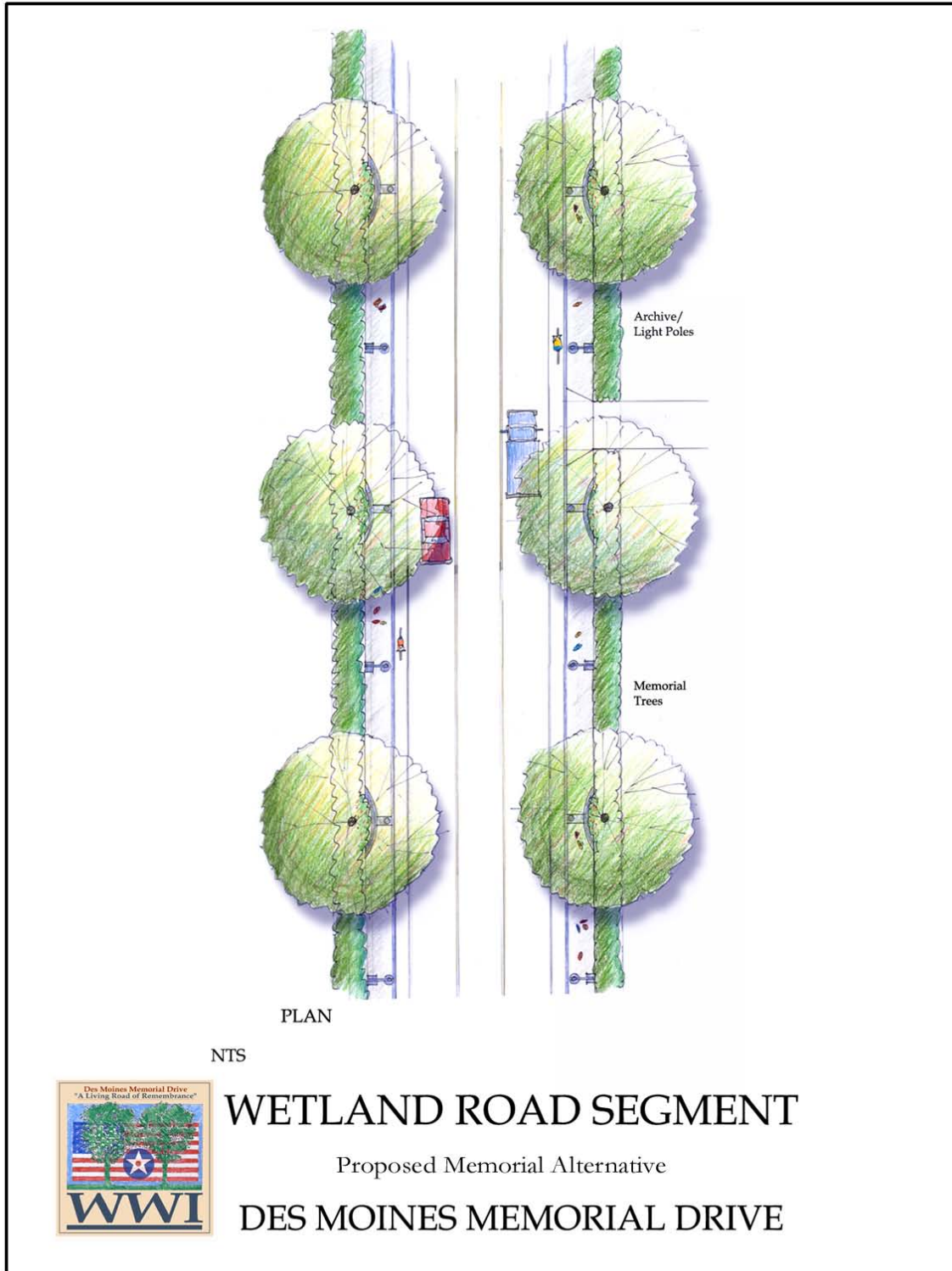
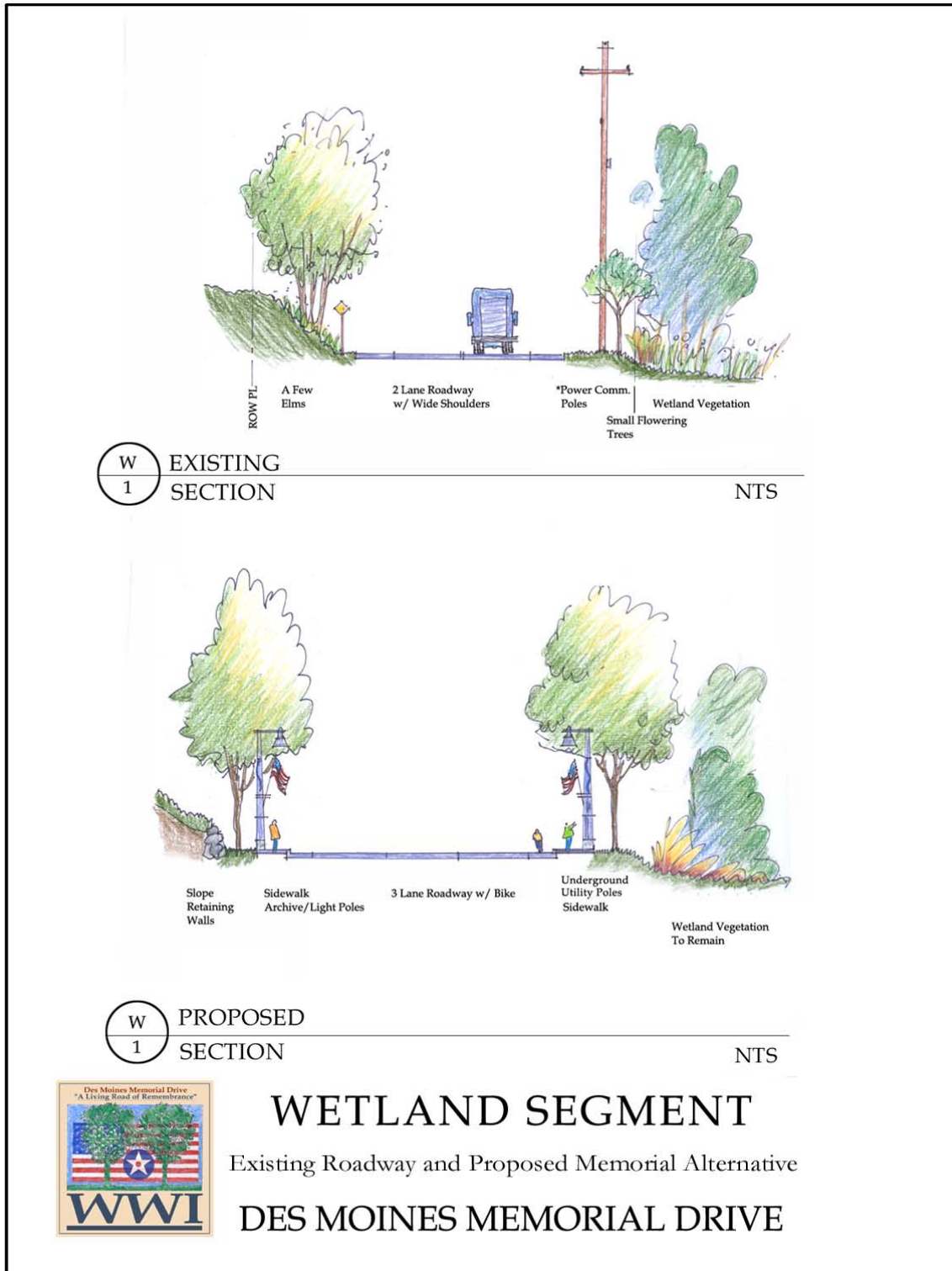


Figure 5-22. Wetland - Roadway and Memorial Alternative



Confluence Segment Recommendations

Character Summary

The Confluence Segment frames 2.3 miles of DMMD's "big jog", incorporating the 5 Corner intersection of DMMD, Normandy Road and Ambaum Boulevard, the stretch of DMMD over to under the SR 509 interchange, the DMMD/188th intersection/turn and southward to South 208th Street. DMMD wiggled its way through here since the 1910's and was planted with memorial elms along its entire length through this area.

Jurisdiction/Agency Ownership: City of Burien, City of SeaTac and WSDOT ROW (SR 509 Overpass and interchange)

Memorial and Enhancement Elements

Memorial Elements per guidelines

Existing Elms

- (51) Remaining elms requiring monitoring and maintenance until replacement

Replacement Elms

- (215) Memorial elm trees
- (Number includes replacing Japanese crab apple and hornbeam in newly constructed SeaTac roadway section).

Elm Markers

- (272) Memorial markers per guidelines

Shoulder seeding

- In all open shoulder areas under elm trees

Signage sites

- At all nodes

Interpretive sites

- At all nodes and enhancement sites

Corridor Enhancements

Enhancement Areas

- DMMD/Ambaugh/Normandy Park Road
- DMMD/188th (node)
- 208th Overlook Site

Nodes Development

- 176th
- DMMD/Normandy Road
- DMMD/188th
- S 192nd
- 208th

Crossings

- 509 mid (DMMD/188th) Overhead and interchange
- 509 south (194thish)
- Proposed on existing ROW /Trail

Light/Display Poles

- (260) light poles with display and banner capability

Enhancement Furniture

- (66) Benches
- (66) Refuse containers

Corridor Enhancement Sites

5 Corners Interpretive Site: DMMD/Ambaum and Normandy Park Road

This site is the node where DMMD joins 188th and the Normandy Park entrance is located. An enhancement site here, on a small purchased parcel adjoining the ROW, would mark this important "turning point" in the DMMD alignment and the entry to Normandy Park. An interpretive kiosk or railing display adjoining the DMMD sidewalk would be appropriate at this location.

- Interpretive Kiosk or Display Railing
- Railing combined with barrier
- Paving connection to sidewalk/trail

DMMD/188th Site

This 1/4-acre site is a triangle formed by the intersection of South 188th Street, DMMD and 12th Avenue So. The site was the home of a tavern until recently, and is now undeveloped with a few trees and scattered parking off of 12th Avenue South. DMMD leaves 188th at this junction heading south to Des Moines. This is a good site for:

- Interpretive facilities
- Rest area and viewing area
- DMMD Commemorative Sculpture or Flagpole
- Trails and accessible connections to 188th and proposed 509 extension trails
- Benches, lighting and landscape

Utility Undergrounding

No utility Undergrounding is envisioned for this segment - though Undergrounding of overhead utilities would provide for the planting of memorial elms on the west side of the ROW and greatly improve the street environment space through this segment. A \$1,000/per tree utility realignment and redevelopment budget is recommended to provide implementation assistance for tree placement impacts on water and gas lines, vaults, meters, and drainage facilities.

Property Acquisitions or Use Easements

Some property acquisition and use easements are required to implement elm tree planting and to develop enhancement sites within this segment. In the case of land for trees it is a matter of from 2 to 6 feet of area needed.

Interpretive Concept

Five Corners Interpretive Concept

Proposed interpretive focus: 1) Native American presence in area, 2) early exploration, 3) Early community development.

- Native American presence and traditional uses of the area, e.g. seasonal clam-gathering, native trails throughout the area, e.g. up and over the ridge from Three Tree Point connecting to the Duwamish River. Native trails used by pioneer settlers. Discovery of Indian canoes buried in Angle Lake.

- Early exploration and mapping by Euro-Americans. Three Tree Point, visits ashore by early explorers, Capt. Vancouver, agents of the Hudson's Bay Co., and others.
- 19th century orientation to Puget Sound, dependency on water transportation, the Mosquito Fleet.
- Early development of Highline beaches as summer resorts, Three Tree Point, Angle Lake Plunge and a 1920s developer's unrealized plan to develop a "Luna Park" style amusement park.
- The Normandy Park subdivision vision and story.

Art Notes

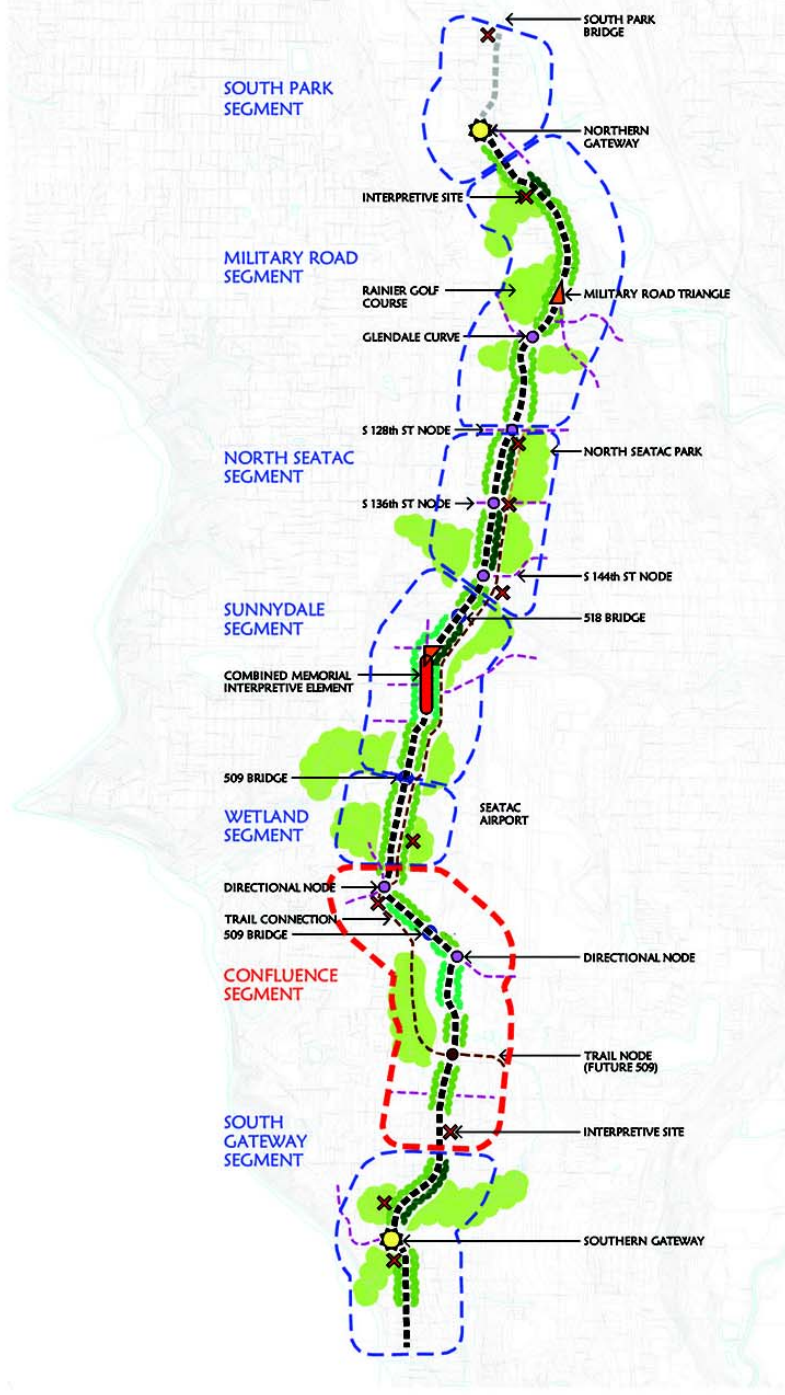
Art at Memorial at Normandy Park Road to 188th & Des Moines Memorial Drive

Mark either end of the discontinuity at Five Point Intersection and 188th with brick paving set across the road and with Elms and other markers. Leave the area in between untreated, as an interruption in the corridor.

Coordination and Partnering Opportunities

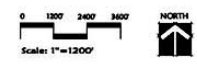
Coordination with City of Burien, City of SeaTac, WSDOT (SR 509 expansion - trail and interchanges).

**Figure 5-23. Corridor Plan
Confluence Segment**



FOR
**DES MOINES
MEMORIAL DRIVE**
WWI "LIVING ROAD OF
REMEMBRANCE" MEMORIAL
CORRIDOR PLAN

- LEGEND:**
- ■ ■ ROUTE WITH MEMORIAL TREATMENT
 - □ □ POTENTIAL MEMORIAL TREATMENT
 - - - COMMUNITY ACCESS
 - - - WEST SIDE TRAIL AND EXTENSION
 - ○ ○ DMMD SEGMENTS
 - GREENSPACE
 - LANDSCAPE IMPROVEMENTS
 - ELMS & LANDSCAPE ENHANCEMENT
 - HISTORIC ELM PROTECTION
 - ☼ GATEWAY
 - CIRCULATION NODE
 - () BRIDGE
 - ▲ TRIANGLE PLAZA
 - ✕ INTERPRETIVE SITE



Jay Rood, SB&A
Susan Black, SB&A
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist



KING COUNTY * BURIEN * SEATAC * DES MOINES * NORMANDY PARK

Figure 5-24. Confluence - Roadway and Memorial Alternative

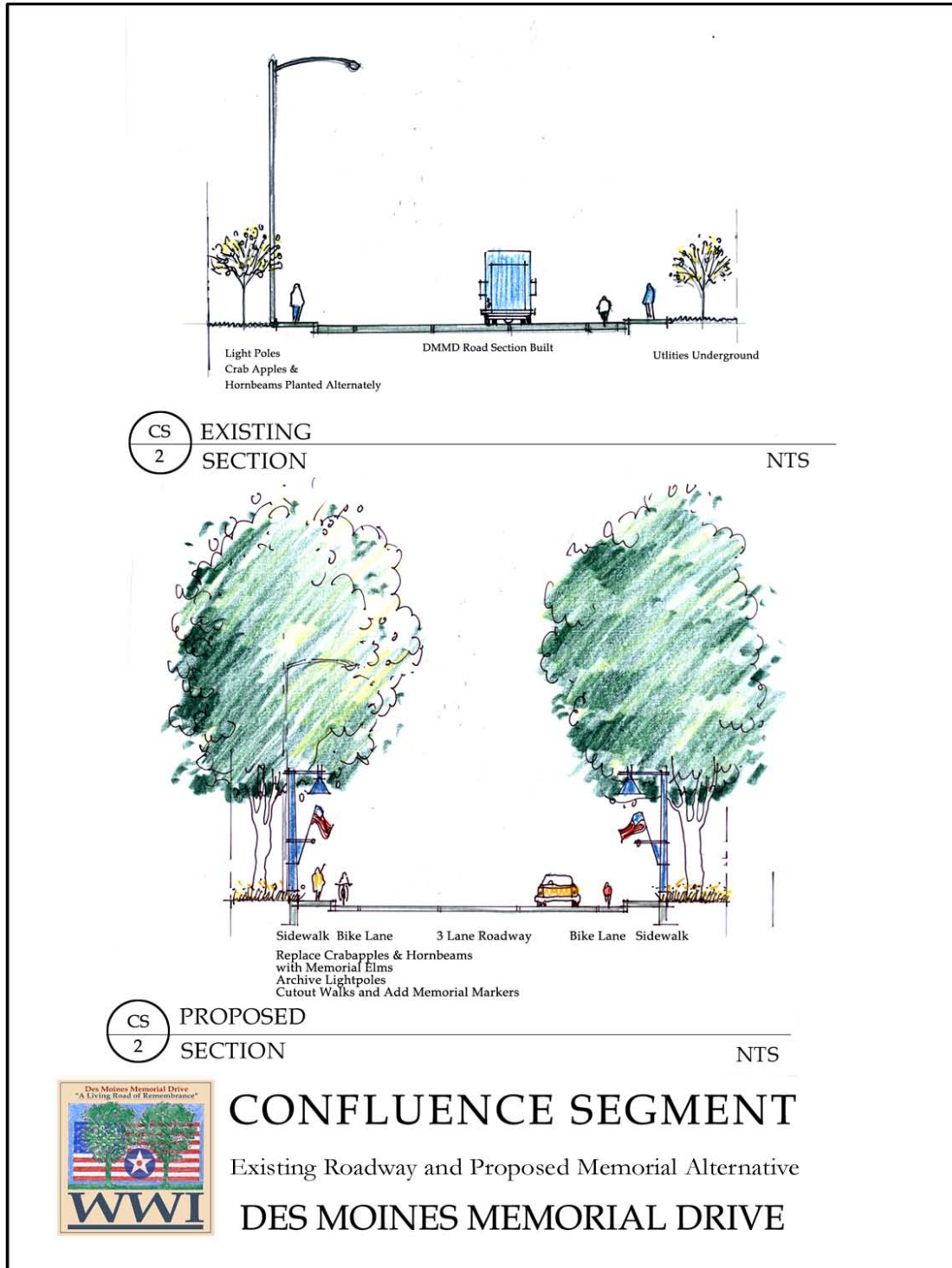
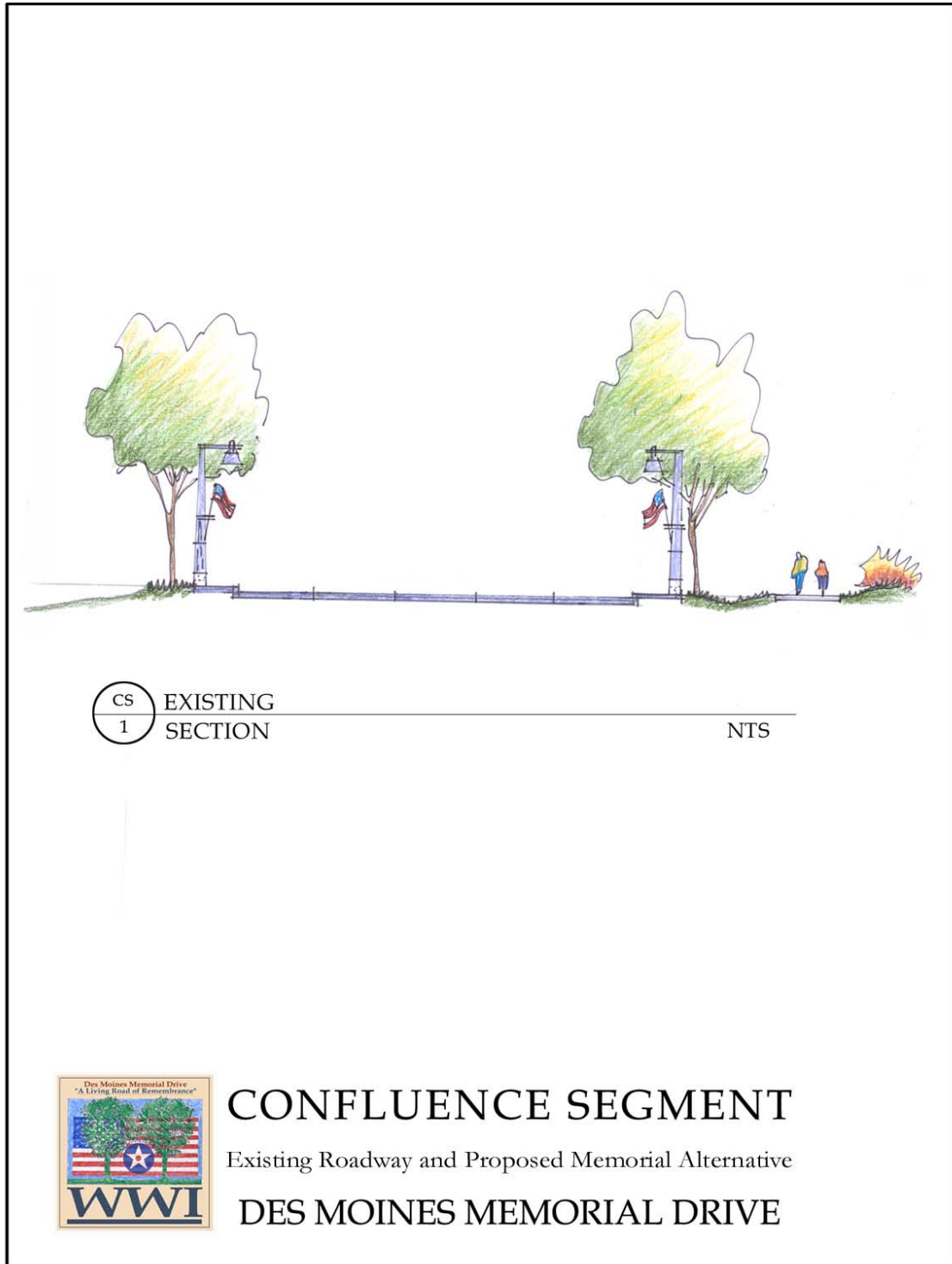


Figure 5-25. Confluence - Roadway and Memorial Alternative



Des Moines Segment

Character Summary

The Des Moines Segment frames 1.29 miles of DMMD from South 208th street to South 227th Street at the Des Moines Marina entry. This segment is entirely within City of Des Moines city limits, running along the western slopes Des Moines Creek open space, turning at Flagpole Triangle, over Des Moines Creek, past "Big Catch" Park and through the civic and commercial center of Des Moines. Much of this civic portion of DMMD has had elms replaced with Linden trees. This segment is the southern "bridge and sound" gateway to DMMD.

Jurisdiction/Agency Ownership: City of Des Moines

Memorial and Enhancement Elements

Memorial Elements

Existing Elms

- (45) Existing elms requiring monitoring and maintenance until replacement
- (Other existing linden trees will require maintenance and monitoring)

Replacement Elms

- (64) Elms

Elm Markers

- (150) Memorial markers
(Includes 60 markers inserted within existing City of Des Moines sidewalk)

Shoulder seeding

- In all open shoulder areas under elms

Signage sites

- At all nodes

Interpretive sites

- At all nodes and enhancement sites

Flagpole triangle

- Rehabilitation of Flagpole Triangle with existing markers cleaned and repaired, new plantings for whole of triangle, flagpole repaired and painted. Consider redesign of access in coordination with bridge project work.

Corridor Enhancements

Enhancement Sites

- 208th Overlook Site
- Big Catch Park

Nodes Development

- 208th
- Marine View/Flagpole
- 8th Avenue E. /218th
- 227th

Crossings

- Des Moines Creek Bridge

Light/Display Poles

- (102) Light poles with display/banner capability

Enhancement Furniture

- (24) Benches
- (24) Refuse containers

Art Integration

- At Big Catch Park

Corridor Enhancement Sites

208th Overlook/Interpretive Site

This site would be located within DMMD ROW or within a small purchased parcel adjoining the DMMD or 208th ROW. It offers the opportunity to overlook Des Moines Creek. An interpretive kiosk or railing display would be very appropriate here. Also, if a big enough site were acquired, this would be an excellent vehicle/tour bus pullout along DMMD and the Des Moines Creek watershed. Elements include:

- Interpretive Kiosk or Display Railing
- Railing combined with barrier
- Paving connection to sidewalk/trail
- Vehicle pullout

Big Catch Park Interpretive/Gateway Site

This existing park provides an important DMMD gateway and interpretive opportunity.

Enhancement elements here include:

- Elm Tree Planting (On both sides of ROW at this point)
- Gateway commemorative sculpture
- Interpretive kiosk or display panels
- DMMD Sign and maps

Utility Undergrounding

No utility Undergrounding is envisioned for this segment - though Undergrounding of overhead utilities would provide for the planting of memorial elms on the west side of the ROW and greatly improve the street environment space through this segment. A \$1,000/per tree utility realignment and redevelopment budget is recommended to provide implementation assistance for tree placement impacts on water and gas lines, vaults, meters, and drainage facilities.

Property Acquisitions or Use Easements

Some property acquisition and use easements are required to implement elm tree planting and to develop enhancement sites within this segment. In the case of land for trees it is a matter of from 2 to 6 feet of area needed.

Interpretive Concept

Early era of "motoring", early Des Moines settlement.

1. Orientation, similar to North Portal:

- Interpretation - signage with introduction and overview of highlights along DMMD.
- Map highlighting historical, cultural and recreational resources, and natural features found in the corridor, and location of major interpretive sites.
- Location of traveler services, e.g. public restrooms, traveler information, business centers.

2. Memorial Way themes:

- Early motoring, cultural/social/technical history, the tradition of the "Sunday Drive and DMMD; Big Tree Inn as a historical expression of early motoring culture.
- Flagpole triangle - 1998 memorial honoring veterans from all wars; potential further enhancements.
- Des Moines Marina scenic and recreational facilities.

3. Community themes:

- Native American presence and myth sites at Des Moines Marina.
- Early development of Des Moines area, pioneer spring site, Latimer House. .
- Favorable conditions at shoreline promote early water transportation and development; later local interests develop public transportation links to north Highline and Seattle.
- Lumber milling era, Van Gasken House;
- Public land transportation, motor stage from Des Moines to Seattle through Highline plays critical role in determining development in the Highline area, Neal Bros. Stage service connecting Highline to Seattle.
- Draper Children's Home; Depression Era/WPA, Des Moines Field house
- Community life, IOOF Lodge Hall. Current location of the Des Moines Historical Society Museum.

Art Notes: South Gateway

The south entrance at Flagpole Triangle/Big Catch Plaza/Des Moines Creek Bridge on Marine View Drive in Des Moines is the south gateway of DMMD. This site needs to be effectively marked, so that travelers who enter the corridor have a strong sense of coming into a significant place. They should each be marked first with a pair of Elms in a prominent location. Brick paving, referring to the old brick road that lies under the present one, should be included at the gateways.

Lanterns at the gateways could serve as symbolic and literal light and way-finding. The South Gateway, Flagpole Triangle/Big Catch Plaza/Des Moines Creek Bridge on Marine View Drive in Des Moines, should incorporate red paving brick (which could also extend over the roadway), lanterns and other imagery. This site should be planted with one or more Elms. At the Flagpole Triangle, emphasize the layering of history as a means of intensifying the memorial enhancements on the site. Find ways to keep the "original" layer (that is, the early 20th century layer) distinctive.

Coordination and Partnering Opportunities

Estimate of Probable Implementation Cost (2004)

An estimate of probable implementation cost has been prepared and is presented here. Both a summary and detailed estimate of costs are shown for year 2004 cost values. Probable costs are organized around overall and ongoing corridor planning, designation and management costs and by priority memorial rehabilitation and secondary corridor enhancement elements.

If it was just a matter of replacing memorial trees, the implementation costs extend to (1) one million dollars -with an additional (1/2) one half million dollars for replacement memorial trees located where overhead utilities have been placed underground. However undergrounding utilities is very costly - running approximately (5) five million dollars per mile. The benefits in this case are equally important.



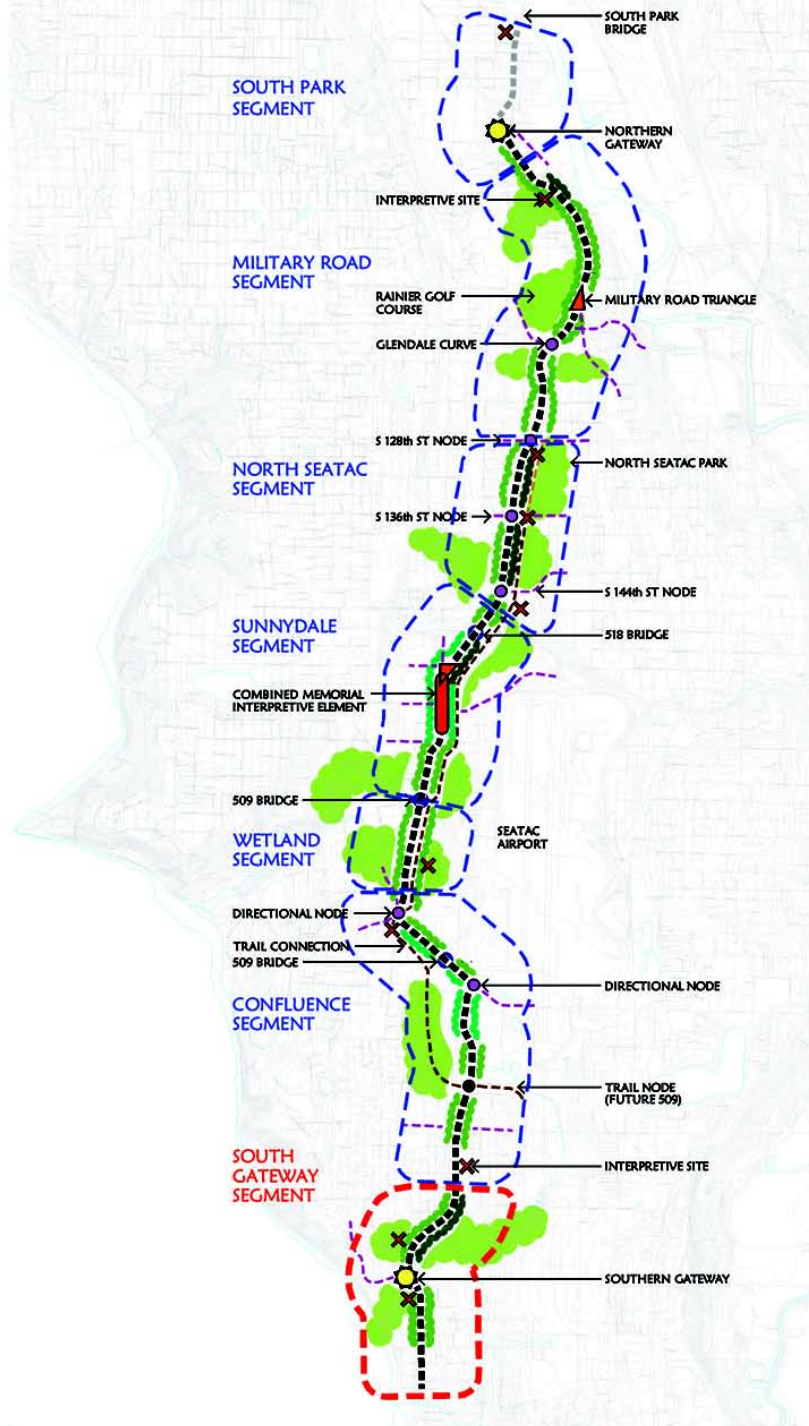
Memorial Rehabilitation implementation costs total (12.5) twelve point five million dollars - with (4.5) four point five million dollars going to undergrounding (4) four million dedicated to Sunnydale segment improvements.

Corridor Enhancement implementation costs total (29.25) twenty nine point twenty five million dollars - with Lighting at (15) fifteen million dollars.

Estimates of probable costs include a 20 % design contingency, 40% for design services, project administration, and permitting, and 8% for sales taxes (these could be exempt if accepted as part of roadway project).

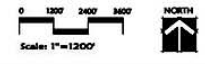
Please see Summary and Detailed Cost Estimate Spreadsheets in Chapter 6 -- Pages 6-11 to 15.

**Figure 5-26. Corridor Plan
Des Moines Segment**



FOR
DES MOINES
MEMORIAL DRIVE
WWI "LIVING ROAD OF
REMEMBRANCE" MEMORIAL
CORRIDOR PLAN

- LEGEND:**
- ■ ■ ROUTE WITH MEMORIAL TREATMENT
 - □ □ POTENTIAL MEMORIAL TREATMENT
 - - - COMMUNITY ACCESS
 - - - WEST SIDE TRAIL AND EXTENSION
 - ○ ○ DMMD SEGMENTS
 - GREENSPACE
 - LANDSCAPE IMPROVEMENTS
 - ELMS & LANDSCAPE ENHANCEMENT
 - HISTORIC ELM PROTECTION
 - ☼ GATEWAY
 - CIRCULATION NODE
 - ⌈ BRIDGE
 - ▲ TRIANGLE PLAZA
 - ✕ INTERPRETIVE SITE



Jay Road, SB&A
Susan Black, SB&A
Kay Reinartz, Phd.
Maggie Smith, Artist
Jon Gierlich, Artist



KING COUNTY * BURIEN * SEATAC * DES MOINES * NORMANDY PARK

Figure 5-27. Des Moines - Memorial Plan

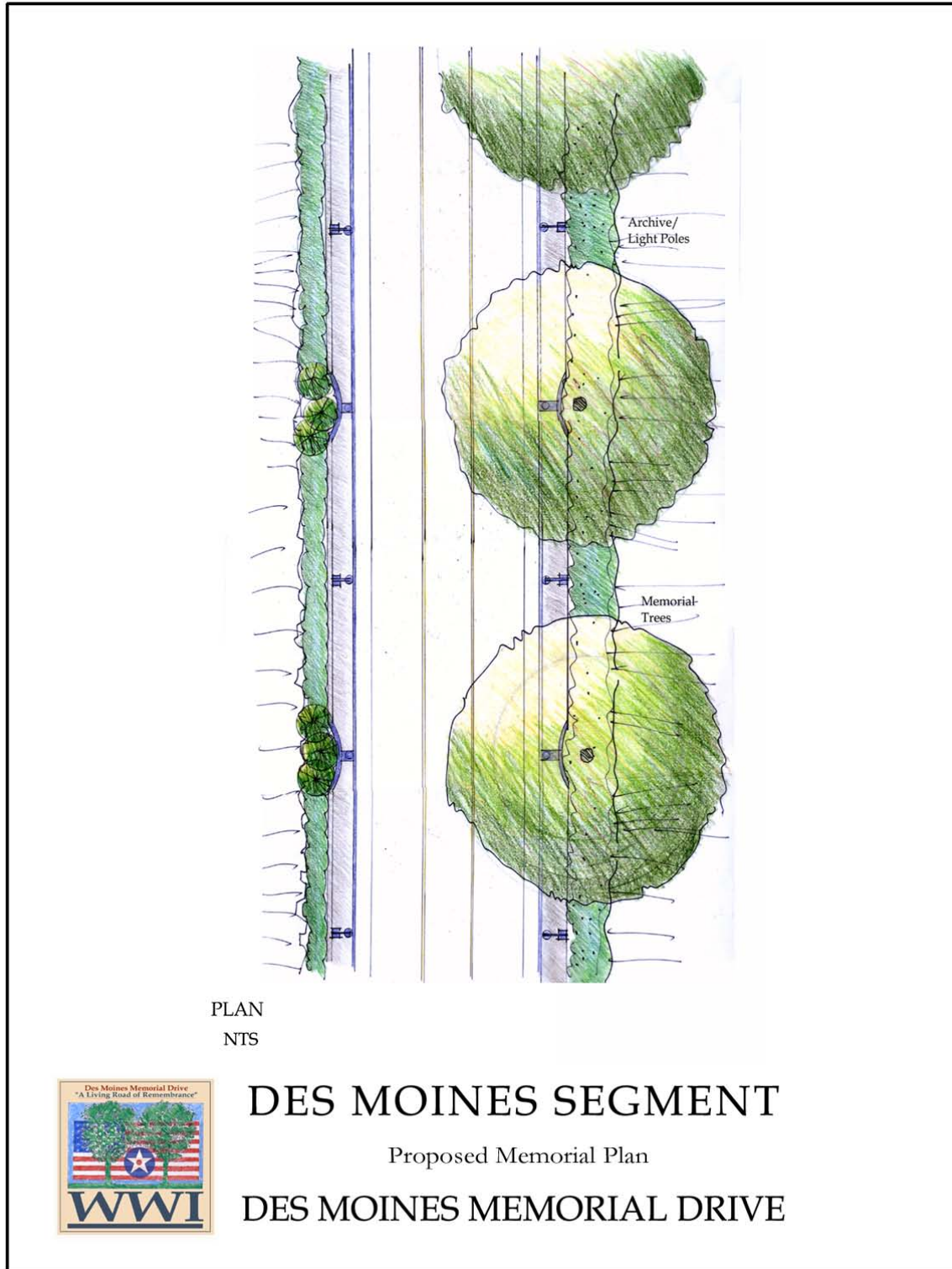


Figure 5-28. Des Moines - Roadway and Memorial Alternative

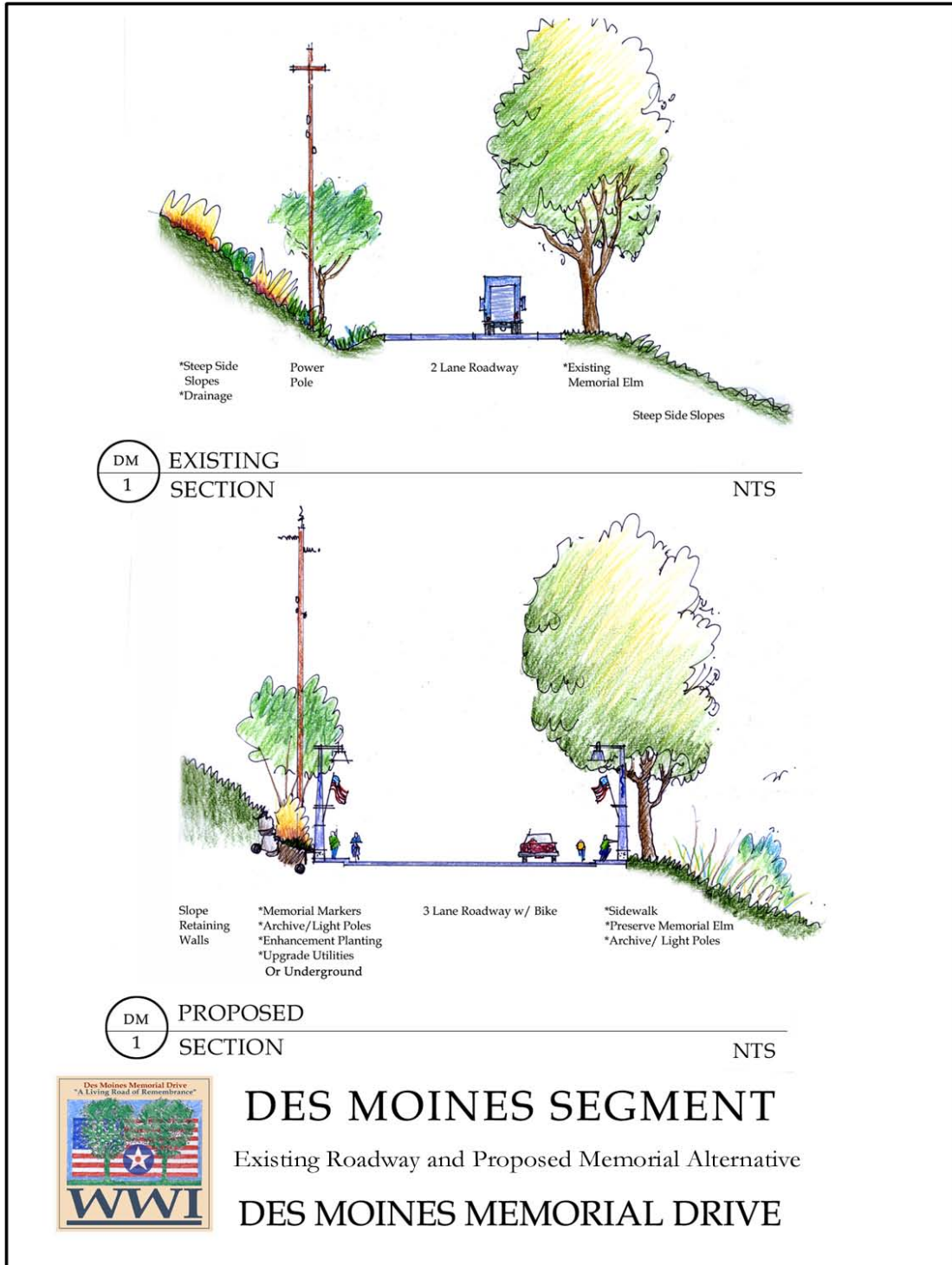
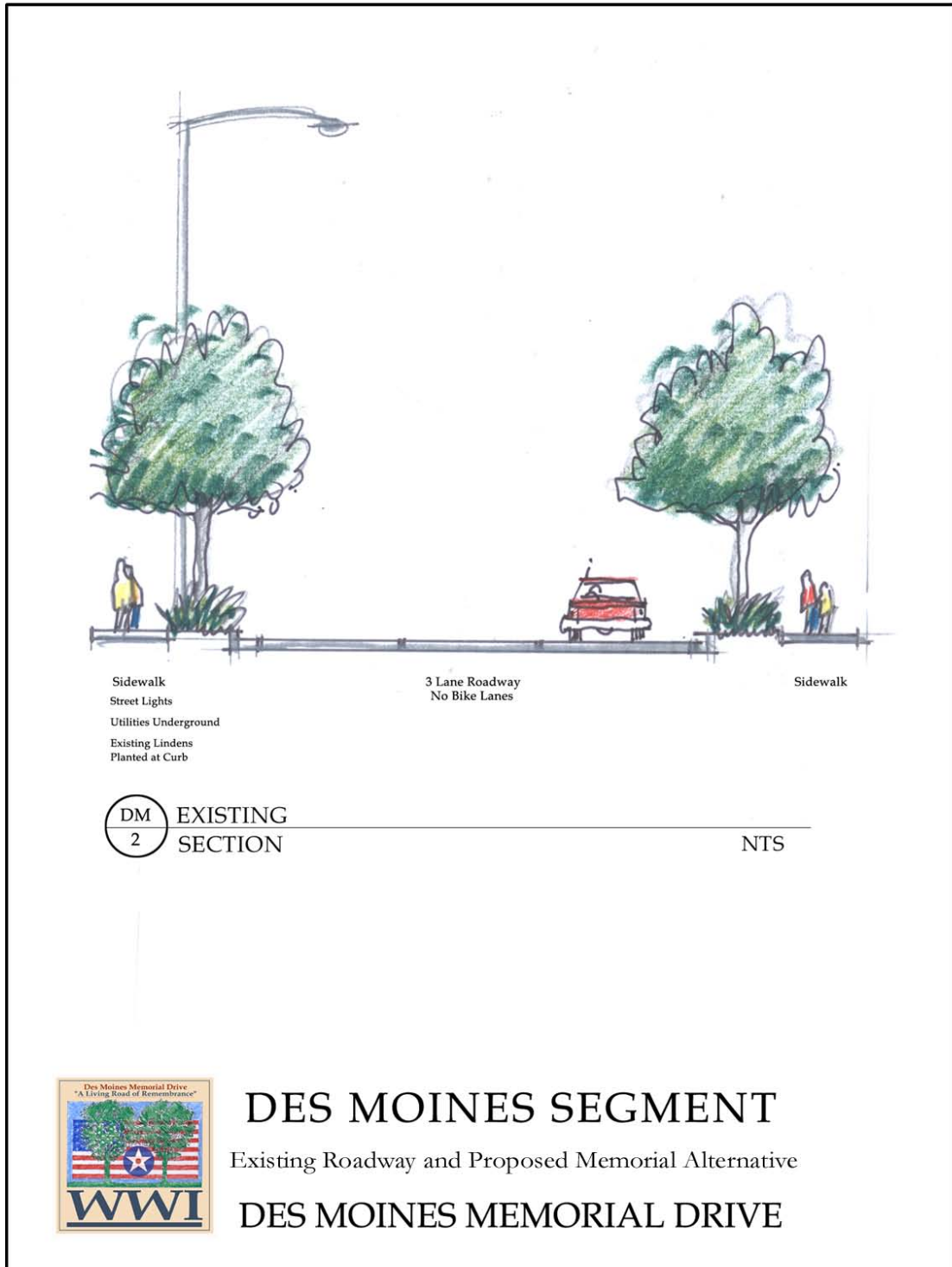


Figure 5-29. Des Moines - Roadway and Memorial Alternative



CHAPTER 6

Implementation and Management Strategy Recommendations

Introduction

In order to fully implement the Corridor Management Plan for DMMD it will be necessary to accomplish several strategic steps in a managed, coordinated and phased manner. Each strategic topic of the following list is elaborated on in this chapter:

1. Obtain approval consensus by all jurisdictions who are signatory to the Interlocal Agreement for the restoration of DMMD,
2. Establish and sustain a DMMD corridor management or oversight organization committed and authorized to implement the Cultural Enhancement Plan in all of its dimensions,
3. Pursue and receive landmark and other heritage designations for DMMD at all key local, county, state and national levels,
4. Identify comprehensive planning and zoning ordinance provisions that further protect and support DMMD goals and planning policies,
5. Establish and sustain a DMMD marketing, promotions and outreach program aimed at continuing and building community interest, education and support,
6. Develop and activate a capitol funding strategy and campaign directed at developing priority memorial reconstruction elements and supporting enhancements,
7. Develop and activate a coordinated schedule and actions assignment plan to implement DMMD programs, development and elements, and
8. Establish and sustain a DMMD memorial and enhancements maintenance program involving all of the corridor jurisdictions and communities

For each implementation and management strategy recommendation described, the corresponding Corridor Management Plan requirement (of the National Scenic Byway/FHWA 14 points) covered is noted. This chapter addresses CMP requirements 3 through 14 directly or by reference to other chapters. The following table helps to correlate CMP requirements and Intrinsic Qualities implementation and management planning within the chapters of this document.

Reference Table

National Scenic Byway/FHWA CMP Document Points and Intrinsic Qualities - Location in DMMD CMP Chapters

NSB/FHWA Point No. *	Washington State CMP Point No. Correlated **	NSB/FHWA CMP Point Description	DMMD CMP Document Location and Use***
1	1	A map identifying the corridor	Chapter 1: Introduction
2	2	Intrinsic Qualities Assessment: 1. Scenic 2. Natural 3. Historic 4. Cultural 5. Archeological 6. Recreational	Chapter 2: Heritage Resource Inventory, Intrinsic Qualities Assessment & Statement of Significance
3	3	Strategy for Maintaining and Enhancing Intrinsic Qualities	The CMP Document
4	6	A Responsibility Schedule for implementation, review, monitoring and evaluation	Chapter 6. Implementation and Management Strategies
5	7	A strategy for managing and enhancing existing and new development to preserve intrinsic qualities	Chapter 6. Implementation and Management Strategies
6	4	A plan for public participation in CMP implementation	Chapter 4. Plan Recommendations & Memorial Rehabilitation and Enhancement Guidelines Chapter 6. Implementation and Management Strategies
7	12	General review of Roadway design, maintenance, operation and safety.	Chapter 3. DMMD Corridor Analysis Chapter 6. Implementation and Management Strategies
8	9	A plan to accommodate commerce while implementing CMP	Chapter 6. Implementation and Management Strategies
9	11	A plan to enhance visitor experience	Chapter 6. Implementation and Management Strategies
10	8	Outdoor Advertising Compliance	Chapter 6. Implementation and Management Strategies
11	10	A signage plan supportive of visitor experience	Chapter 6. Implementation and Management Strategies
12	13	A description of marketing and promotion plans for the corridor	Chapter 6. Implementation and Management Strategies
13	5	A discussion of design standards for modifications to the roadway	Chapter 3. DMMD Corridor Analysis Chapter 6. Implementation and Management Strategies
14	14	Interpretive Plan linked to marketing and promotion, tourism, and multi-lingual populations	Chapter 6. Implementation and Management Strategies

* National Scenic Byway/FHWA CMP Points required to be addressed in plan, source: Federal Register / Volume 60, No. 96 / 1995 / Notices. These CMP Planning Points will be used to organize the DMMD CMP Document.

** Washington State Department of Transportation, NSB Adapted, Heritage Corridors Program CMP planning points organization, 1996

*** The DMMD CMP is focused on a local 10-mile long urban arterial corridor and not on a State or Federal Highway corridor (for which the Scenic Byway CMP criteria were written). The DMMD document is adapted each CMP point to the scales and characteristics of this Memorial Drive.

1. Interlocal Agency/Community Plan Approvals (CMP 4)

Five government organizations/jurisdictions - King County, Burien, SeaTac, Normandy Park and Des Moines - are responsible for developing and approving the plan. Each jurisdiction

must protect the interests and values of their constituents while cooperating with the other jurisdictions to achieve the whole of Des Moines Memorial Drive consistent with the goals and policies. Each jurisdiction also has varying levels of "ownership" and jurisdictional authority within the DMMD corridor with an accompanying or associated level of capitol cost and management responsibility (as prescribed by the Interlocal Agreement). The approved plan must allow for each jurisdiction to shoulder its share of the burden in implementing the DMMD plan and receiving its share of the benefits commensurate with its capabilities and contributions.

Plan approvals by each jurisdiction added together will become one organized effort at rehabilitating and reactivating this WWI Living Road of Remembrance for DMMD communities, residents and visitors for the next 84 years.

2. Management/Oversight Entity and Organization (Overall CMP and Component of CMP 4)

It is vital to the plan implementation effort to establish a management or oversight entity. The agencies of the Interlocal Agreement and associated DMMD Advisory Committee have accomplished much over the last 3 years and this stewardship must continue in some organizational form in order to fully implement the DMMD Plan, maintain continuity and sustain the planning momentum. Key responsibilities will be:

- 1) Implementation steering - funding and development
 - Initiate, coordinate, or direct funding programs
 - Coordinate municipal/jurisdictional capitol programs
 - Identify and build development partnerships, public and private
- 2) Coordinating approvals and designations
- 3) Coordinating or directing continued programming and outreach
 - DMMD Calendar
 - Marketing and Promotions
 - Community Outreach
- 4) Establishment and oversight of maintenance program

3. Obtain Landmark, Heritage Tour Route and other Heritage Designations (CMP 3)

Des Moines Memorial Drive potentially qualifies for heritage designation under a number of programs. Heritage designations appropriate for the Memorial Way fall into two categories: national and local landmark registers, and Washington Department of Transportation Scenic Byway Program. Achieving official "heritage designation" would benefit the memorial in several significant ways including:

- Give official recognition of the high heritage value of this "Living Road of Remembrance" locally, regionally and nationally.
- Focus public attention on the historic importance of the memorial.
- Justify and strengthen preservation and restoration work on the memorial.
- Qualify Des Moines Memorial Drive for grant funds for implementation of selected CMP elements available under selected designation programs.

A brief description of the various landmark register programs is found below, followed by a description of the Scenic Byway Program. The final section of this report focuses on the official designations that carry the financial advantage of qualifying Des Moines Memorial Drive for enhancement funds. The steps in the designation process for these programs will be presented in summary form.

Landmark Designations and Landmark Registers

(Definition of a landmark)

(The following landmark designation information is drawn from King County Historic Preservation Technical Paper No. 2.)

An officially designated landmark is a physical property that has been formally designated and listed on a register of historic places by a government agency. The laws, policies and procedures adopted by a particular governmental agency define the landmarking process. A landmark can be a building, a structure, a site (including an archaeological site), a district with a number of buildings, or an object, such as a ship or a railway locomotive. Achieving landmark status is a multi-step process involving historical research, a formal nomination and public input process, and a formal designation process. The information known about a property is evaluated following objective, official criteria. Not every property that is nominated to a landmark register meets the "tests" included in the designation criteria. Lists of landmarks designated by government agencies are often referred to as "landmark registers" "heritage registers", or "registers of historic places." Landmark designations by various governmental agencies may involve different criteria.

National Register of Historic Places: The National Register of Historic Places, a.k.a. the National Register, is an official listing of districts, sites, buildings, structures, landscapes and objects significant in American history, architecture, archaeology and culture. The National Register Program is administered at the federal level by the National Park Service, U.S. Department of the Interior, in conjunction with the National Advisory Council on Historic Preservation. Nominations to the National Register from Washington State are reviewed by the Washington State Advisory Council, a governor-appointed citizen board that is staffed by state employees of the Washington Office of Archaeology and Historic Preservation (OAHP). Nominations that receive a positive recommendation are forwarded to the National Advisory Council for final approval and listing by the Keeper of the National Register, Washington, D.C. There are several hundred Seattle and King County properties listed on the National Register, including a number of historic districts. Questions relating to National Register properties in Washington State should be referred to the OAHP at 420 Golf Club Road, Lacey or, P.O. Box 48343, Olympia, WA 98504-8343 or Tel. 360-407-0752. The OAHP maintains a list of National and State Register Properties in King County.

National Historic Landmark Register: Seven King County properties are listed on the National Historic Landmark Register, five vessels and two shoreside properties: the Georgetown Steam Plant; Pioneer Square and Pergola; the lightship Swiftsure (formerly: Relief); the tugboat Arthur Foss; the steamboat Virginia V; the schooner Adventuress; and the fireboat Duwamish. The process for nominating properties to this level of landmark designation is similar to those for the National Register described above.

Washington Heritage Register: The listing of a property on the Washington Heritage Register is intended to give recognition to and to encourage protection of places having historic significance in the State of Washington. It is largely an honorary designation; although some properties listed on the register may come under state environmental review

laws or qualify for limited financial incentives. In King County there are about 70 properties listed on the Washington Heritage Register. It is administered by the OAHF under Chapters of the Revised Code of Washington.

King County Register of Historic Places: The King County Landmarks Commission designates King County Landmarks, a nine-member citizen board appointed by the County Executive under Chapter 20.62 of the King County Code. Designated King County Landmark properties may be eligible for certain incentives and they are protected by certain design review processes. At present there are approximately 60 properties listed on the King County Landmarks Register. The King County Historic Preservation Program (KCHPP) of Business Relations and Economic Development provides staff support for the Commission. The Commission designates King County Landmarks only in unincorporated areas of the County. A complete list of all properties designated by the Commission, including those in cities having an interlocal agreement with King County for historic preservation services, is available from the Preservation Program as Technical Paper No.20, Register of King County Landmarks.

Interlocal Cities Municipal Landmarks Registers: The King County Landmarks Commission acts as municipal landmarks commission in those cities and towns that have entered into an interlocal agreement (ILA) with King County for historic preservation services. The Commission currently designates landmarks under ILA's in Auburn, Black Diamond, Carnation, Kenmore, Kirkland, Newcastle, North Bend, Shoreline, Skykomish and Snoqualmie. For information on municipally designated landmarks in these communities, contact the KCHPP at the above address.

Community Landmark Register (Unincorporated King County): The King County Landmarks Commission also designates "Community Landmarks" which are locally significant properties. Community Landmarks do not have to meet the stringent criteria of properties listed on the King County Landmarks Register, and are largely an honorary designation. For information, contact the KCHPP at the above address.

King County Landmark Designation: steps in the nomination process:

1. Applicant completes and files the standard registration form with the King County Historic Preservation Officer. Registration forms and guidelines are available from the Historic Preservation Program office.
2. Submitted forms are reviewed by the Historic Preservation Officer for completeness prior to being forwarded to the Landmarks Commission for consideration. Additional information may be requested to complete the application.
3. The Historic Preservation Officer schedules a public hearing for the Landmarks Commission to consider the nomination. The applicant, the owner, and any parties of interest are notified in writing of the meeting date at least 30 days and not more than 45 days before the meeting. Further details on the King County Landmark Designation Process are found in King County Historic Preservation Program Technical Paper No. 4, located in the report appendix.

The King County Historic Preservation Program grant cycle occurs twice a year. Information regarding this program may be obtained from the King County Cultural Development Authority. Contact Charles Payton, Manager,

charles.payton@culturaldevelopment.org. Information on grant cycles appears in The Heritage Advisor, heritage publication of the Cultural Development Authority of King County posted at www.culturaldevelopment.org/heritage/advisor/.

Interlocal (ILA) agreements with King County are required to qualify for County Landmark Designation in incorporated municipalities

Des Moines Memorial Drive is located largely within the boundaries of incorporated Highline municipalities. The Boulevard Park section is located in unincorporated King County. Since the King County Landmarks Commission designates King County Landmarks only in unincorporated areas of the County, it will be necessary for all of the municipalities through which Des Moines Memorial Drive runs to enter into a formal interlocal agreement with King County before the Memorial Drive can be designated a County Landmark. For information on how to enter into an ILA contact the King County Landmarks Commission or the Historic Preservation Program at 516 Third Avenue, Room 402, Seattle WA 98104-5002 206-296-8689.

Recommendation from King County Historic Preservation Officer Julie Koler

The County Historic Preservation Officer has clarified that each of the individual Highline municipalities will have to enter into their own ILA with the County to make Des Moines Memorial Drive eligible for designation as a King County Landmark. This process need not be lengthy. The basic steps are:

- Initiate ILA agreement process with the King County Historic Preservation Program.
- City review and approval, and passage of related ordinances, estimated time - one to two months.
- Processing through the Executive and County Council for approval and signatures estimated one to two months.
- A memo with further details provided by the King County Historic Preservation Officer is located in the report appendix.

Washington Scenic Byway Program, Washington Department of Transportation

In 1991 Congress, through the Intermodal Surface Transportation Efficiency Act (ISTEA), created the National Scenic Byways Program. In 1998 a bill known as T-21 extended many of ISTEA's mandates. In 2003, a bill known as C-3 extended it again.

Washington created its own Scenic Byway program in the late 1960s under the state Scenic and Recreational Highway Act. In the 1990s, Washington Department of Transportation (WSDOT), stimulated by funding made available through ISTEA, established a Scenic Byway Program, a.k.a. Heritage Corridors Program until 2000. The purpose of the state program is to provide technical assistance to local organizations across the state seeking Scenic Byway and/or financial assistance and technical expertise in developing Corridor Management Plans (CMP) for their local road. The grant cycle for project implementation funds through the National Scenic Byways Program is June for the following fiscal year. Grant information and technical assistance in completing the grant forms is available from the State Scenic Byway Program.

The Washington Scenic Byway program has developed a program for corridor stewardship organizations seeking official designation for their road. Roads may be designated under one of two categories: Washington Scenic Byway or Washington Heritage Tour Route. Des Moines Memorial Drive is appropriate for designation as a Heritage Tour Route.

State Scenic Byways are designated by the State Legislature through a formal nomination process that is administered by the Washington State Department of Transportation (WSDOT). For information and the nomination packet, contact the Paula Connelley, Washington Scenic Byway Designations Project manager, connelp@wsdot.wa.gov or mail PO. Box 47390, Olympia, WA 98504-7393.

Washington Heritage Tour Route Designation - Steps in the Nomination Process

1. Complete and file the form for "Pre-application and request for evaluation for Washington Scenic Byway and Heritage Tour Route designation". Registration forms and guidelines are available from the Scenic Byway Designations Project Manager.
2. The Scenic Byway Designations Project Manager for completeness reviews submitted forms. Additional information may be requested to complete the application.
3. Information regarding further steps has been requested from Paula Connelly (waiting, 10/7).

King County Historic Program Grant Cycle

King County Historic Preservation Program grant cycle occurs twice a year. Information regarding this program may be obtained from the King County Cultural Development Authority. Contact Charles Payton, Manager, charles.payton@culturaldevelopment.org. Information on grant cycles appears in The Heritage Advisor, heritage publication of the Cultural Development Authority of King County posted at www.culturaldevelopment.org/heritage/advisor/.

Blue Star Memorial Highway Program

The National Garden Club, Inc. has established the Blue Star Memorial Highway Program to honor all men and women who had served, were serving or would serve in the armed forces of the United States. "All to see, lest we forget, those who help to keep us free". Contact: National Garden Club, Inc., Blue Star Memorial Chairman, 1 Summit Street, New Milford, CT 06776 - (860) 355-5363

4. Existing and New Development: Enhancement and Management (CMP 5)

Adjacent DMMD Corridor conditions vary widely today. In addition to crossing into and through five separate jurisdictions, ownerships, zoning and land uses vary from public parks and schools to publicly owned but inaccessible land (airport), private commercial, residential and multifamily developments and private recreational uses. Commercial nodes and gateways to the various jurisdictions also dot the corridor, as do various sensitive natural areas and regional and local transportation corridors.

Each jurisdiction will determine the best way to incorporate the DMMD plan into the comprehensive planning, CIP/TIP programing, and associated zoning for their community. Likely land use and development control areas would be: community and economic development, transportation, utilities, parks, open space and recreation, and natural and cultural resources (landmarks, community heritage and arts).

Specific zoning areas would likely be: memorial tree recognition and protection, other corridor significant tree protection, signage and advertising, heritage protection, encroachments and other, more specific, DMMD resource protection land use controls.

5. Marketing, Promotions and Outreach Program (CMP 9 & 12)

A coordinated and comprehensive marketing, promotions and outreach program needs to be established in order to sustain the flow of information to DMMD communities, promote the qualities and promise of a developed corridor and to market the virtues of this corridor to the region, state and nation tourism industry. This is a fundamental step in attracting development funds, development partners, and securing long-term constituent and stakeholder support.

A marketing, promotions and outreach organization needs to be established as part of the DMMD oversight group or as a closely affiliated organization. Already established groups such as the Chamber of Commerce, business and civic groups, and municipal and community promotion vehicles and public relations departments would form the basis for such an organization. Among the many tasks the organization would initiate would be to establish and maintain an annual DMMD events calendar coordinated with other local celebrations and programs. The organization may also publish and distribute promotional materials, provide updated website information and links and assist with capitol fundraising campaigns and partnership building.

6. Capitol Funding Strategies and Campaign (Overall CMP outcome and CMP 3)

A strategy and campaign for identifying, securing and raising capitol and programming funds are required to support the DMMD organizations and improvements. Primary funding needs are:

- Designations, applications, and research
- Development capitol improvement program
- Marketing, promotions and outreach programs
- Maintenance program

Tied to designation approvals and building on municipal TIP and CIP programs, this capitol strategy recommendation is to identify potential development partners and funding in both private and public arenas. In addition, there are a number of grant programs that have excellent potential for providing implementation funds for heritage components of the DMMD enhancement/management plan.

King County Heritage Grants Programs

The King County Historic Preservation Program has maintained a heritage grant program that has made funds available for a wide variety of heritages projects, e.g. interpretive signage, leaflets and special events. The program has followed a biennial cycle with deadlines in June and December. The County grants program is being revised in 2004 with the definition of qualifying projects and applicants likely to change from the earlier program. When a specific implementation project is defined, the current grant program guidelines should be requested from King County staff. Contact information is provided below.

- Information on grant cycles appears in The Heritage Advisor, heritage publication of the Cultural Development Authority of King County posted at www.culturaldevelopment.org/heritage/advisor/.
- Information regarding this program may be obtained from the King County Cultural Development Authority. Contact Charles Payton, Manager, charles.payton@culturaldevelopment.org.

Cultural Development Authority of King County administers Hotel-Motel Tax Revenue based programs that include:

- Special Heritage Projects
- Landmark Rehabilitation
- Heritage Cultural Education
- Community Arts Initiative

For detailed information, annual grant cycle and application materials contact Flo Lentz, Historic Preservation Manager, Cultural Development Authority of King County, Smith Tower, 506 2nd Ave., Suite 200, Seattle, WA 98104, Tel. 206-296-8682, fax 206-296-8629, flo.lentz@culturaldevelopment.org, www.culturaldevelopment.org or Debra Twersky, 206-296-8558, debra.twersky@culturaldevelopment.org

The Puget Sound Regional Council has various programs that change each year. Current information is available on the website <http://www.psrc.org>

National Scenic Byway Grant Program/WSDOT Program

Beginning in 1991, Congress has passed a number of acts to provide funding for programs that enhance America's roads and travelers' experiences. Among the programs has been the Scenic Highway Program, formerly Heritage Corridors. WSDOT has participated in this program by providing technical assistance to local organizations across the state seeking Scenic Byway financial assistance and technical expertise in developing Corridor Management Plans and implementing completed plans. Since 2003, funding has been provided under the Safe, Accountable, Flexible and Efficient Transportation Act (SAFTEA).

The Scenic Byway grant cycle for project implementation funds deadline is June with funds made available in the following fiscal year. Grant information and technical assistance in completing the grant forms is available from the State Scenic Byway Coordinator.

The Scenic Byway Fund is an excellent source of funding for DMMD. Please note that to receive implementation funds, a road must be a designated Scenic Byway or Heritage Tour Route. For information on applying for Heritage Tour Route designation and the annual grant cycle contact For information and the nomination packet contact the Paula Connelly, Washington Scenic Byway Designations Project Manager, connelp@wsdot.wa.gov, Tel. 360 705-6822, or mail PO. Box 47390, Olympia, WA 98504-7390.

Potential Highline Municipal Sources

- Des Moines Legacy Foundation, Contact Corbitt Loch, City of Des Moines, Tel. 206-870-6568, City of Des Moines, 21630 11th Ave. S., Des Moines, WA 98198
- SeaTac does not, at this time, have programs dedicated to heritage or the arts. The City does have funding for tourist-oriented facilities through the Hotel-Motel Tax Revenue. Many of the non-transportation capital expenses, e.g. interpretive signage, may qualify. For more information, contact Craig Ward, 206-248-6130, City of SeaTac, 17900 International Blvd. #401, 98188.

Washington State Sources

Washington State Capital Funds for Heritage has a biennial grant cycle. Applications due in spring of a year have funds distributed in the following year. The program is administered by, and application materials are available from, the Washington Heritage Program office, Garry Schalliol, Manager, Washington State Historical Society, <http://wshs.org>.

City of Des Moines

Des Moines Legacy Foundation, contact Corbitt Loch, Assistant City Manager.

City of SeaTac

SeaTac does not at this time have programs dedicated to heritage or the arts. The City does have funding for tourist-oriented facilities through the Hotel-Motel Tax Revenue. Many of the non-transportation capital expenses, e.g. interpretive signage, may qualify. An important issue for the Hotel-Motel Tax Advisory Committee would be whether or not implementation of the DMMD Cultural Enhancement Plan is likely to generate additional stays in local hotels.

Private Foundations and other sources

The Secretary of State Office maintains a website -www.secstate.wa.gov - that lists private foundations and other sources and generally provides a wealth of information including a private foundation directory that can be ordered on-line.

The following websites list a wide variety of funding programs, some of which would be appropriate for implementation of specific components of the DMMD improvements. The best approach is to research the specific programs as a part of the planning component for implementation, as the amount of funding, criteria and other specifics of the grant programs change from year to year.

Foundation Center

<http://www.fdncenter.org/>

Humanities Washington

<http://www.humanities.org>

National Endowment for the Humanities

<http://www.neh.gov>

National Trust for Historic Preservation

<http://nationaltrust.org>

Preserve America

<http://www.preserveamerica.gov/>

Washington Trust for Historic Preservation

<http://www.wa-trust.org>.

The Office of the Interagency Committee Outdoor Recreation (IAC)

IAC offers several grant programs for recreation and habitat conservation purposes, including parks, trails, and public access/education projects at/on aquatic lands.

<http://www.iac.wa.gov/iac/grants.asp>

Potential development partners and funding sources: Private Foundations

The following websites list a wide variety of funding programs some of which would be appropriate for implementation for specific components of the DMMD improvements. The best approach is to research the specific programs as a part of the planning component for implementation as the amount of funding, criteria and other specifics of the grant programs change from year to year.

Foundation Center

<http://www.fdncenter.org/>

Humanities Washington

<http://www.humanities.org>

Institute of Museum & Library Services

<http://www.imls.gov>

National Endowment for the Arts

<http://arts.endow.gov>

National Endowment for the Humanities

<http://www.neh.gov>

National Historic Publications & Records Commission

<http://www.nara.gov/nara/nhprc>

National Trust for Historic Preservation

<http://nationaltrust.org>

Preserve America

<http://www.preserveamerica.gov/>

Puget Sound Regional Council

<http://www.psrc.org>

Seattle Department of Neighborhoods

<http://www.cityofseattle.net/don>

Washington Department of Community Trade & Economic Development

<http://www.cted.wa.gov>

Washington State Historical Society

<http://wshs.org>

Washington State Housing Finance Commission

<http://www.wshfc.org>

Washington Trust for Historic Preservation

<http://www.wa-trust.org>

Arts Funding Sources and Potential Development Partners

Seattle City Light, via the Seattle Office of Arts & Cultural Affairs Public Art Program, may generate some Seattle 1% for Art funds through their improvements in the corridor.

The King County Cultural Development Authority is a body that funds public art projects and has a strong interest in the corridor, especially with the securing of King County Register of Historic Places status. The King County Historic Preservation Program may offer management and maintenance assistance to art components of the Memorial. The King County Cultural Development Authority may be interested in funding a lead artist to work on an ongoing basis with the Committee, and with any design teams, to plan for the inclusion the contributions of an artist or artists in the corridor.

The Washington State Arts Commission may consider funding public art in the corridor when WSDOT projects are part of the general plan. Mitigation funding may be available with the development of highway crossings and intersections that impact the Memorial.

Individual cities have different programs for arts. For example, the City of SeaTac sponsors exhibitions through its Department of Parks & Recreation. Normandy Park has an Arts Commission but not a public art program. The City of Des Moines has no public art program or arts commission. The City of Burien has no public art program. King County Cultural Development Authority, however, sponsors projects in these areas.

The National Endowment for the Arts has contributed to memorial projects in the past, when artists were involved as designers.

The National Endowment for the Humanities funds artists' participation in projects that have historical and interpretive value.

Private funding may be available from local corporations and foundations with an interest in the corridor and in horticulture, such as Weyerhaeuser, Boeing, and a variety of private foundations supporting environment, education and historic preservation. Public/Private sector collaborations are possible between local developers, and municipalities.

Local Garden Clubs, Chambers of Commerce and Rotary Clubs are likely to be interested in sponsoring portions of the Memorial and Memorial Enhancement.

7. Schedule and Responsibilities: Implementation Actions Schedule and Assignments Plan (CMP 4)

Summary of Plan Implementation Actions/Tasks, Standards and Responsibilities

Implementation Task/Step	Responsible Parties	Action Responsibility
Plan Approvals by Jurisdictions	All jurisdictions	Coordinate through interagency working committee
Establishment of DMMD Management/Oversight Organization	DMMD Advisory Committee	Interagency working group building from transitional DMMD Advisory Committee
Preparation, submittal and approvals for DMMD Designations	Interagency Working Group	DMMD management/Oversight Organization King County Office of Historic Preservation
Incorporate DMMD policies into comprehensive planning and zoning	Each jurisdiction	By each jurisdiction as directed by plan approval
Marketing, promotions and Outreach program establishment	Interagency Working Group	DMMD management/Oversight Organization Cooperative public, business and civic groups
Secure Capitol Improvement Scheduling and Funds	Each jurisdiction DMMD management/Oversight Organization	Prepared as outcome of Plan Approvals by each jurisdiction: TIP/CIP budgets and schedules Utility budgets and schedules
Prepare Capitol Funding Strategies and Campaign	DMMD management/Oversight Organization	Overall Capitol Funding Case Statement and individual jurisdiction funding
Implementation Actions Schedule and Assignments Plan	DMMD management/Oversight Organization	Prepared as outcome of Plan Approvals
Gain approvals for extending some of the key DMMD memorial and enhancement elements under existing and planned WSDOT overpasses along the corridor.	DMMD management/Oversight Organization	Coordinate with WSDOT Planning
Maintenance Program for memorial and enhancement improvements Short term Memorial Term preservation and maintenance	DMMD management/Oversight Organization	Coordination with each jurisdictions public works and parks maintenance departments

8. Maintenance Program (CMP 3 and 4)

Establish both short and long term DMMD memorial and enhancement improvements maintenance program. Maintenance program would be built from existing jurisdictional maintenance programs in the short term while a long-term program would be developed as follow-on of post construction plant establishment maintenance contracts (usually from 2-3 years in length). The maintenance program would address:

- Protection, monitoring and removal of existing memorial trees over a 6 -8 year period depending on DMMD roadway and infrastructure development schedules.

- Maintenance and monitoring of constructed memorial improvements, including: trees, plantings, paving, markers, interpretive displays and signage and plazas.
- Maintenance and monitoring of constructed enhancement improvements, including: light poles, display/art elements, benches, water fountains, refuse and other corridor furniture.
- Each trees' condition and maintenance history to be tracked annually.
- Coordination with DMMD event and celebrations calendar and installation, mounting and dismounting of flags, banners and other materials.

9. Ongoing Public Participation (CMP 6 - Chapter 4 Plan Recommendations)

The stewardship of the Memorial has traditionally been a partnership of veterans, residents, local officials, local businesses and other interested parties. The Corridor Management Plan recommendations in Chapter 4, the proposed Interpretive Plan, designation as a landmark and implementation strategies for local jurisdictional funding and management - all support the need for a constituency of people who will carry on the banner into the future.

Two public meetings were hosted during the course of this study. The project historian conducted many private interviews on topics of memorial remembrances and community history specifically for the purpose of gaining public support for ongoing stewardship.

Resources are available for encouraging greater awareness of the resource even today. The Highline Historical Society has a display that was created in the early 1990s that shows the development of the Memorial in pictures and discusses the evolution of it through the 1980s. A display of the current project has been circulated around public facilities in Burien, SeaTac and Des Moines during this planning process as well. The more often these displays are showcased, the more awareness there is in the public of the Memorial and the more stewardship and community support there will be for its preservation and renewal.

10. DMMD Roadway Design Standards, Operations, and Commerce (CMP 7, 8 and 13 - Chapter 3 Corridor Analysis)

The Roadway Design Standards are discussed in Chapter 3, Corridor Analysis. While this is a Corridor Management Plan, it specifically addresses a heritage element adjacent to the road, not in it. As each jurisdiction will determine a roadway section that is best suited to safety and commerce for that location, it is understood that the Roadway Design Standards may change.

By locating the memorial behind the curb and potential sidewalk, this plan allows for its installation regardless of the chosen Design Section.

11. Visitor Experience and DMMD Interpretive Plan (CMP 9 and 14 - Chapter 4 Plan Recommendations)

A recommendation for developing the story line for a new Interpretive Plan is included in Chapter 4, Plan Recommendations. This is not a full interpretive plan, but substantial research went into determining story lines, emphasis, facts and the timeline for the memorial (Chapter 2). Implementation of an interpretive plan for the Corridor, and implementation of improvements for both the memorial features and the segments will make the visitor experience more focused, educational and interesting.

12. DMMD Corridor Signage and Outdoor Advertising (CMP 10 and 11 - Chapter 5 Implementation)

DMMD, to provide for visitors to the memorial and to highlight the memorial's continuity and significance, may benefit in the future from signage guidelines set out at the federal and state level for Scenic Byways and Heritage Corridor routes.

Signs are strictly regulated under Federal and state law, by the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD) and the Scenic Vistas Act, respectively for highways that seek to qualify for Scenic Byway standing.

Signing

In addition to regulatory and warning signs (e.g., "stop", speed limit, "curve" symbol, crossroad symbol), provisions for adequate destination signing are essential to help safely guide travelers unfamiliar with an area along their journey. WSDOT's Traffic Manual provides guidelines for selecting destinations for guide signs, based on the MUTCD and traveler needs, while offering insight into the priority of destinations considering the very limited sign space available at interchange and intersection approaches.

Recreational and Cultural Interest Area Signs

Recreational and cultural interest areas are attractions that are open to the general public for the purpose of play, amusement, or relaxation used to refresh the body or mind (RECREATION) or for the training and refining of the mind, emotions, manners, taste, etc., (CULTURAL INTEREST). Recreational attractions include such facilities as parks, racetracks, and ski areas, while examples of cultural attractions include museums, art galleries, and sites of particular historical importance.

Recreational, cultural, tourist information services, and byway logo signs can be grouped into five categories:

1. recreational and cultural signs (brown background),
2. visitor information signs (blue background),
3. gateway logo signs (green background),
4. trailblazer/marker logo signs, (see below), and
5. supplemental guide signs (green background).

Trailblazer/marker logo signs generally consist of an enlarged version of the logo alone, and therefore have no background color on which the pattern appears.

Scenic Byway Logo Signing Guidelines

Scenic Byway Logo Signing Guidelines were produced in January 1997 to provide standards for byway logo signing. These guidelines define the eligibility criteria for byway logo signing, and WSDOT's positions on key policy issues. There are three basic types of scenic byway logo signs that are defined in the guidelines:

1. Gateway Signs
2. Trail Blazer/Marker Signs
3. Supplemental Guide Signs

Gateway Signs mark the beginning of the scenic route at both termini of the route. The location and design of the sign should be determined jointly by the WSDOT region traffic offices. An Orientation Sign is a specialized version of a gateway sign, typically located at a roadside pullout. They include a map and sometimes include space for brochures and other tourist information materials.

Trail Blazer/Marker Signs are placed every 8 to 16 kilometers (5 to 10 miles) along the scenic byway for driver assurance. Trail markers are informational plaques or shields designed to provide the traveling public with route guidance of cultural, historical or educational significance. A good example is the distinctive Lewis-Clark Trail marker sign found in the southern part of the state.

The third sign type is the *Supplemental Guide Sign*. This type of signing can only be used at junctions of a state highway with a scenic highway with a scenic byway. WSDOT's *Scenic Byway Logo Signing Guidelines* discusses these signs in detail.

Consolidation of "Sign Clutter"

Preparing a cohesive scenic/heritage highway signing plan also has the added bonus of helping to reduce sign clutter. Over the years as sites develop, signs for these locations proliferate along the roadway, sometimes being tacked to existing signposts like an afterthought. Careful consideration in a signing plan can consolidate or eliminate some signs, making it easier for motorists to make decisions, as well as reducing the cluttered look along a given stretch of roadway.

Implementing a Proposed Signing Plan

Any proposed plan will provide travelers with informative supplementary signs along DMMD. The use of a byway logo on trailblazer signs will assure that motorists are aware that they are on DMMD. Appropriate signing to main attractions will enable visitors to find the attractions and understand their nature. Directions to less prominent attractions can be advertised through pamphlets available at visitor information points or through Heritage Tour advertising programs. Implementation of a signing plan will also help consolidate existing signs, both on DMMD and the crossroads. All agencies with jurisdiction should work together to assure consistency along the corridor.

Scenic Highway Funding

Scenic highway funding is available for those communities along a state scenic highway provided that local sign ordinances are at least as restrictive as the above-noted regulations. A community that enacts a signing ordinance that is less restrictive than the Scenic Vistas Act will not be eligible for scenic highway funds, although the jurisdiction can still apply for other grants associated with the scenic highway program. At present the jurisdictions within the corridor are eligible for scenic highway funds since the local ordinances either comply, or will comply with the Scenic Vistas Act.

13. Transportation and Commerce Strategy (CMP #8)

Des Moines Memorial Drive is an urban arterial with a wide range of uses. In addition to its function as a WWI memorial and heritage route, it must also fulfill several key transportation functions. These include the following:

- Safely and efficiently move people and goods.
- Offer a choice of transportation modes, including single-occupant-vehicle, transit, bicycle, and pedestrian.
- Provide safe facilities for all modes.
- Reduce conflict between commercial traffic, visitor traffic and non-motorized (pedestrians, bicyclists) users in the corridor.

- Provide travelers with safe and convenient opportunities to remove their vehicles from the main flow of traffic by providing pullouts, turn lanes, and parking, where feasible.
- Improve mobility by encouraging and accommodating public transit

The proposed road design section, which includes bike lanes and sidewalks, is intended to improve the transportation functioning of the corridor. The bike lanes and sidewalks help separate bicyclists and pedestrians from vehicular traffic, including truck traffic. The continuous center turn lane is intended to both improve safety and decrease congestion caused by left-turning vehicles. The turn lane also provides better access to driveways and commercial properties along the drive.

Objective: Improve mobility and safety by encouraging public or private transit that minimizes the number of vehicles on the highway.

14. Budgeting

Making budget decisions for implementation the Corridor Management Plan will require prioritization, jurisdictional coordination and projects/programs phasing. Recommendations for DMMD CMP budgeting are:

- Fund the initial heritage tour route, landmarks and other designation and associated/linked funding application efforts first.
- Fund the memorial rehabilitation elements first - as corridor complete and comprehensive as is feasible for consistent effect.
- If priority choices are required, fund the primary memorial rehabilitation corridor Sunnydale segment as soon as is feasible considering SeaTac and Burien CIP/TIP timetables.
- Fund and implement those memorial rehabilitation projects that are ready to be implemented.
- Develop joint or partnered roadway or utility improvement projects with memorial rehabilitation - leveraging matching funds programs where possible.
- Carefully assess alternate forms of funding utility under-grounding and realignment. The cost estimate designates monies for the complete under-grounding of utilities for the Sunnydale segment and puts forward a contribution for each tree planted for the remainder the corridor segments.
- Corridor enhancement funding is dependent on more traditional sources, such as TIP's, CIPs, and Improvement District programs -and therefore needs some advanced planning.

15. Schedule - Timeline and Centennial Milestone

There are many variables in scheduling improvements to a roadway that crosses four jurisdictions, intersects a state highway undergoing improvement, and lies adjacent to many sensitive areas. But a centennial anniversary will come in 2021 that provides a goal for achievement of the replanting of the memorial elm trees along the way, placement of the markers, redevelopment of the Sunnydale Memorial Plaza and seeding of the wildflowers that could be celebrated while veterans are honoring the fallen of World War I and other wars.

The year 2021 therefore sets a milestone for completion of improvements to the memorial, and a framework for developing a timeline for other activities.

Early-action items have been identified throughout the document in the form of other public projects happening in or around the corridor, partnering opportunities and future upgrades.



Each of these offer an opportunity to leverage memorial improvements, corridor enhancements, or other opportunities identified in this plan into reality.

Priorities

Prioritizing the elements of the plan was discussed at the DMMD Committee level on a number of occasions. It was agreed that prioritizing the memorial renovation - including the tree replacement, the markers, the wildflowers and the Sunnydale Memorial - was the highest priority. It was also voiced that this needed to occur as a single and coordinated action within a limited time frame rather than in bits and pieces over several decades.

The schedule on the following page lays out the ordering of the organizational support and approvals required for the rehabilitation of the Memorial, a rough timeline for designations, funding and a recommended timeframe for implementation of the Memorial improvements. This schedule is rough, as each jurisdiction will establish its own timeline, however completing installation of the trees by 2012 allows 8-10 years for growth and establishment before the centennial. In this period, elms may become 25 to 30 feet in height and begin to develop some presence along the road, a reminded to those who visit for the centennial that there is a bright future for the Memorial.

Figure 6-1. Des Moines Memorial Drive Corridor Management Plan
Implementation and Management Schedule

Implementation Task	Early Implementation					Implementation		Centennial			
	2004	2005	2006	2007	2008	2009 to 2011	2012 to 2018	2019 to 2020	2021	2022	2023 - 2073
Plan Completion and Approvals	<ul style="list-style-type: none"> Burien Des Moines Normandy Park SeaTac King County 										
Establish DMMD Management and Maintenance Organization	Establish Organization for Plan Implementation and DMMD Management - Maintenance										
Implementation Designations	<ul style="list-style-type: none"> Blue Star City King County State/FHWA National Other 	Additional Research and significance verification conducted. Applications submitted and approved									
Implementation Funding:	<ul style="list-style-type: none"> City County Community Partners Grants Federal/State programs 	Initiate funding strategies and grant applications – tied to designations (completion)	Ongoing	Funding Secured and Coordinated with City TIPs and Roadway/Utility projects					Centennial Event Funding	Reconfirm/Secure Maintenance Funding	
Memorial Development											
South Park Segment							Complete Memorial Implementation				
Military Road Segment	King County Roadway & Memorial Markers		Tree Planting				Complete Memorial Implementation				
North SeaTac Segment							Complete Memorial Implementation				
Sunnydale Segment			Roadway, Memorial Markers & Trees				Complete Memorial Implementation				
Wetland Segment							Complete Memorial Implementation				
Confluence Segment			Tree Planting on Existing Built Roads				Complete Memorial Implementation				
Des Moines Segment			Gateway Tree Planting				Complete Memorial Implementation				
Memorial Maintenance	Arborist Evaluation of existing Elms Maintain trees per recommendations	Ongoing Memorial Tree maintenance	Ongoing Memorial tree maintenance	Ongoing Memorial Tree maintenance	Original Trees replaced	Ongoing Memorial maintenance	Ongoing Memorial maintenance	Ongoing Memorial maintenance	Ongoing Memorial maintenance	Ongoing Memorial maintenance	Ongoing Memorial maintenance
Memorial Programming and Marketing		Develop a Marketing Plan. Develop and promote DMMD Corridor and communities calendar.							Centennial Event Planning – French Involvement Sought	Centennial DMMD Celebration	Centennial DMMD Celebration

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King County Code 21A.20 - Development standards - Signs
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