

LANDSCAPE DEVELOPMENT PLAN

FORT LEWIS, WASHINGTON

Volume II

MARCH 30, 1996

**TECHNICAL CENTER OF EXPERTISE FOR HISTORIC STRUCTURES
AND BUILDINGS**

**U.S. ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT
SEATTLE, WASHINGTON**

TABLE OF CONTENTS

INTRODUCTION.....	v
INTRODUCTION.....	vii
PURPOSE OF REPORT.....	viii
METHODOLOGY.....	ix
EXECUTIVE SUMMARY.....	x
PART C: ANALYSIS AND EVALUATION.....	1
INTRODUCTION.....	3
HISTORIC CHARACTER-DEFINING FEATURES.....	7
RESPONSE TO NATURAL FEATURES.....	7
OVERALL ORGANIZATION.....	9
CIRCULATION.....	14
LAND USE.....	18
STRUCTURES.....	21
VEGETATION.....	24
VIEWS AND VISTAS.....	28
SMALL-SCALE FEATURES.....	29
HISTORIC CHARACTER AREAS.....	33
HISTORIC PRESERVATION MANAGEMENT ZONES.....	39
PART D: DESIGN DEVELOPMENT.....	45
INTRODUCTION.....	47
GENERAL PRESERVATION TREATMENTS.....	51
RESPONSE TO NATURAL FEATURES.....	51
OVERALL ORGANIZATION AND LAND USE.....	52
CIRCULATION:.....	53
STRUCTURES:.....	55
VEGETATION:.....	56
VIEWS AND VISTAS.....	59
SMALL-SCALE FEATURES:.....	60
ZONE I: HOUSING AND ADMINISTRATION AREA PRESERVATION TREATMENTS.....	67
RESPONSE TO NATURAL FEATURES.....	67
OVERALL ORGANIZATION AND LAND USE.....	68
CIRCULATION:.....	69
STRUCTURES:.....	72
VEGETATION:.....	73
VEGETATION PRESERVATION TREATMENT.....	75
HISTORIC VEGETATION REPLACEMENT GUIDELINES.....	77
STREET TREE RECOMMENDATIONS:.....	79
VIEWS AND VISTAS.....	82
SMALL-SCALE FEATURES:.....	83

ZONE II: OPERATION AREAS:	99
RESPONSE TO NATURAL FEATURES	99
OVERALL ORGANIZATION AND LAND USE	100
CIRCULATION:.....	101
STRUCTURES:.....	103
VEGETATION.....	104
VIEWS AND VISTAS.....	104
SMALL-SCALE FEATURES	104
PART E: HISTORIC LANDSCAPE PRESERVATION GUIDE.....	113
INTRODUCTION.....	115
IMPLEMENTATION AND RECORD KEEPING.....	119
INTRODUCTION:.....	119
WORK CALENDARS:.....	119
CONDITION ASSESSMENT:.....	131
MAINTENANCE ZONES FOR VEGETATION	141
INTRODUCTION:.....	141
TREES AND SHRUBS	142
TURF.....	145
MAINTENANCE PRACTICES	153
VEGETATION.....	153
INTRODUCTION	153
GENERAL LONG-TERM MAINTENANCE PRACTICES	153
PLANTING.....	155
PRUNING:.....	157
FERTILIZING:	170
WEED CONTROL:.....	174
INSECTS AND INSECT-RELATED PESTS:.....	177
PLANT DISEASES:.....	189
CIRCULATION FEATURES.....	199
BIBLIOGRAPHY	205
APPENDICES.....	207
APPENDIX A: U.S. ARMY STANDARD PLANS	209
APPENDIX B: COMMON PLANTS USED HISTORICALLY	219
APPENDIX C: RESTORATION PLAN FOR BLDG. 2012.....	229
APPENDIX D: TREES, SIDEWALKS, AND CONSTRUCTION.....	235
APPENDIX E: SHRUBS PRUNED FOR SPECIAL EFFECTS	261
APPENDIX F: PRUNING TREES	263
APPENDIX G: SPECIFICATIONS FOR RESTORATION OF CONCRETE IN HISTORIC STRUCTURES	281
APPENDIX H: MISCELLANEOUS MAINTENANCE INFORMATION	313

LIST OF DRAWINGS

1. GENERAL PRESERVATION TREATMENTS, SHEETS L.1-L.2.....	61, 63
2. ZONE I PRESERVATION TREATMENTS, SHEET L.3.....	85
3. VEGETATION: GENERAL PLANTING DESIGN RECOMMENDATIONS, SHEET L.4.....	87
4. VEGETATION: TYPICAL PLANTING PLANS: FOUNDATION PLANTING AND SPATIAL DEFINITION, SHEETS L.5-L.6.....	89, 91
5. VEGETATION: TYPICAL PLANTING PLANS: OPEN SPACE AND STREET TREES, SHEET L.7-L.8.....	93, 95
6. ZONE II PRESERVATION TREATMENTS, SHEET L.9.....	105
7. LANDSCAPE DETAILS, SHEETS L.10-L.11.....	109, 111
8. HISTORIC VEGETATION MAINTENANCE ZONES, SHEET L.12.....	149

INTRODUCTION

INTRODUCTION

The following report includes products from the second phase of work undertaken for the Landscape Development Plan: Fort Lewis. The work was completed between April, 1995 and March, 1996. This report, Volume II, is organized in accordance with the Scope of Work, (April 6, 1995) as: PART C: Analysis and Evaluation, Tasks 1-2; Part D: Design Development, Tasks 3-7; and Part E: Historic Landscape Preservation Guide, Tasks 8-9. Phase II was completed by the Army Corps of Engineers, Seattle District, Technical Center for Expertise for Preservation of Structures and Buildings (TCX); Horace H. Foxall-TCX manager, Terri A. Taylor-project historical landscape architect, and Florence V. McQueen, CADD technician. The project was reviewed and coordinated by Paul McGuff, Cultural Resource Manager, Fort Lewis.

The first phase of the project, Volume I, was completed October, 1990 and consisted of PART A: Historic District Work (landscape history) and PART B: Hazard Tree Survey. Phase I was prepared by the National Park Service, Pacific Northwest Regional Office, Cultural Resource Division; Cathy A. Gilbert-project manager, Jane Merritt-project historian, and Terri A. Taylor-project landscape architect. The Hazard Tree Survey was prepared by the University of Washington's College of Forest Resources through the NPS Cooperative Park Studies Unit; James K. Agee and Robert L. Edmonds-principal investigators, and David Shaw and Judith Greenleaf.

Based on historic landscape resources documented and evaluated in the report, the boundaries for the Fort Lewis Historic District were revised to incorporate significant landscape features. This resulted in a 1996 amendment to the National Register of Historic Places Nomination, prepared by TCX architectural historian Paul W. Chattey.

PURPOSE OF REPORT

In the absence of the Landscape Development Plan for the Fort Lewis Historic District, inconsistent, temporary, and improper design and maintenance solutions have often been used to remedy buildings and grounds maintenance problems, and to construct new projects. The purpose of the Landscape Development Plan (LDP) is to provide a comprehensive landscape design guide to: 1) preserve and restore significant features in the historic district; 2) integrate new construction into the Fort Lewis Historic District in an historically appropriate manner; 3) create a long-term landscape maintenance program which will allow Ft. Lewis staff to identify short-term and long-term historic landscape design and maintenance requirements; and 4) promote sound historic preservation practices.

METHODOLOGY

Work associated with Phase II was organized into three primary sections: Part C: Analysis and Evaluation; Part D: Design Development; and Part E: Historic Landscape Preservation Guide. The analysis and evaluation was based on historical research and existing conditions inventories conducted in Phase I. The purpose of this section was to identify the significant character-defining landscape features which define the Fort Lewis historic landscape. Based on these features, the Fort Lewis Historic District was organized into character areas and management zones which served as the foundation for the next stage of work, design development.

The design development section consisted of determining appropriate historic preservation treatments for the historic management zones that were based on the *Secretary of Interior's Standards for Historic Preservation Projects*. In addition to general treatments, detailed design recommendations were prepared for historic vegetation. The final section, the Historic Landscape Preservation Guide, was developed to provide Fort Lewis staff with guidelines and strategies for maintaining the vegetation and circulation features in the Historic District. This section included maintenance calendars, condition assessment inventory sheets, vegetation maintenance zones, and specific maintenance practices to be applied in the Historic District.

EXECUTIVE SUMMARY

To comply with federal laws, avoid repeating costly piece-meal maintenance, and enhance the integrity of the historic district, implement the following maintenance and restoration actions identified in the Landscape Development Plan.

Maintenance Actions: A maturing landscape and a history of deferred maintenance have created a number of extreme maintenance problems which may require extra initial funding to solve. Over the long-run, routine maintenance will be able to sustain a healthy environment at a reduced cost.

- a. Maintain a certified arborist on staff to oversee the historic district vegetation maintenance program. Provide job training as needed to meet this requirement.
- b. Implement the 1990 Hazard Tree Survey monitoring schedule and cyclic maintenance recommendations. Require all contract work be performed by qualified professionals such as certified arborists, horticulturists, or urban foresters.
- c. Implement the Historic Landscape Preservation Guide, including the following tasks:
 - Establish a vegetation maintenance program consisting of;
 - A cyclic maintenance program based on work calendars and vegetation maintenance zones provided in the report.
 - A Dutch elm disease program based on recommendations provided in the report.
 - An integrated plant management plan.
 - Conduct condition assessment inventories for vegetation and create a database for the inventories. The database is a necessary compliance tool to used to guide and document changes made to the historic vegetation
 - Conduct a street tree/sidewalk repair project to address existing maintenance problems associated with tree root damage.

Historic Restoration Actions:

- a. Restore foundation plantings in non-residential areas.
- b. Restore missing historic street trees throughout the district.
- c. Initiate a foundation planting restoration effort for family housing areas in conjunction with housing staff, Ft. Lewis grounds and maintenance staff, 'neighborhood mayors' and residents. Provide and implement prototypical foundation planting plans for one or more houses in each of the family housing areas to serve as examples.
- d. Create a vegetation maintenance assistance program for residents through the Self-Help program.