

Washington State Joint Transportation Committee

Capital Program Staffing and Administration Cost Draft Report: Appendices Washington State Department of Transportation Ferries Division Financing Study II



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Joint Transportation Committee
Washington State Legislature

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Appendix A. Terminal Engineering

This Appendix reviews the Terminal Engineering Division's capital program staffing and administration. Terminal Engineering supported a \$102.0 million terminal capital program in the 2005-07 biennium and incurred \$21.4 million in administrative expenses, representing 21 percent of the total terminal capital expenditures.

**Table A-1
Summary
Terminal Engineering Division Capital Staff and Administration Expenses
2005-07 Biennium**
(\$ millions)

Staff and Administration Expense Categories	\$	% of Total Terminal capital
Staff Overhead Charges	1.4	1%
Staff Project Charges	7.0	7%
On Site Consultants	8.7	9%
Project Control Projects	1.5	1%
Other Services & Charges	2.8	3%
Total Terminal Engineering Staff & Admin. Expenses	21.4	
Terminal Capital Expenditures	102.0	
% Terminal Engineering Staff and Admin.	21%	21%

1. 2005-07 Biennium Terminal Capital Program

In the 2005-07 biennium, Ferries expended \$102.0 million for terminal projects (see table below). Fifty percent (50%) of the terminal capital expenditures were for projects at the Bainbridge Island, Mukilteo and Anacortes terminals, and the Eagle Harbor Repair and Maintenance Facility. An additional 20 percent of expenditures were for 18 systemwide projects, and 8 percent of expenditures were for Catch-Up Preservation projects at the Lopez and Anacortes terminals.

As discussed in more detail in the *Ferry Financing Study Technical Appendix 3: Capital Program Prioritization and Terminal and Repair Facility Capital Projects Review*, January 2007, major terminal improvement projects were anticipated at Anacortes, Bainbridge, Edmonds, Keystone, Mukilteo, Port Townsend and Seattle, with expenditures in the 2005-07 biennium on planning and design of these projects.

Table A-2
2005-07 Terminal Project Expenditures
(\$ millions)

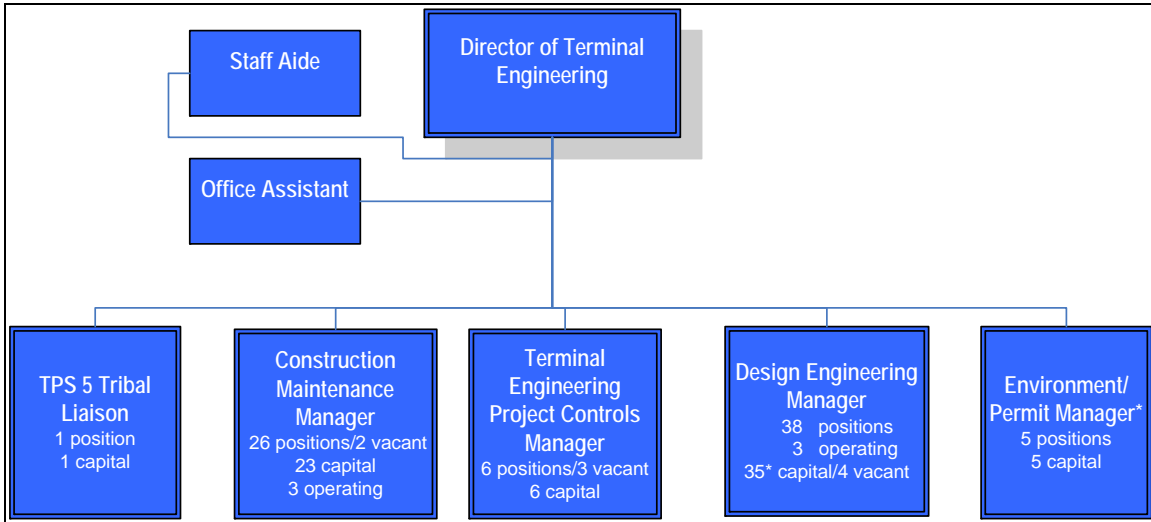
PIN	Project Title	\$	%
<i>Bainbridge</i>			
930513B	Bainbridge Island Terminal Preservation	10.7	
930513A	Bainbridge Island Trestle Improvement	5.1	
930513D	Bainbridge Terminal Food Service Improvements	0.1	
	<i>Bainbridge Total</i>	15.9	16%
<i>Eagle Harbor</i>			
900040N	Eagle Harbor Maintenance Facility Preservation	11.9	12%
<i>Mukilteo</i>			
952515K	Mukilteo Multimodal Terminal 03 MultiM	9.9	
952515J	Mukilteo Multimodal Terminal	1.5	
952515L	Mukilteo Terminal Preservation	0.0	
	<i>Mukilteo Total</i>	11.4	11%
<i>Anacortes</i>			
902019U	Anacortes Multimodal Terminal 03 Nickel	10.9	
902019Z	Anacortes Terminal Improvements	0.0	
902019V	Anacortes Terminal Preservation	0.0	
902019X	Anacortes Upland Parking Improvement	0.1	
	<i>Anacortes Total</i>	11.0	11%
<i>Catch-up Preservation</i>			
999940D	Catch-Up Preservation 03 Nickel	8.1	8%
<i>Friday Harbor</i>			
900028R	Friday Harbor Master Plan	0.1	
900028Q	Friday Harbor Terminal Preservation	7.4	
	<i>Friday Harbor Total</i>	7.5	7%
<i>Seattle</i>			
900010H	Colman Dock Interim Retail Development	1.1	
900010I	Seattle South Trestle Expansion	2.0	
900010G	Seattle Terminal Building Replacement - New Retail Space	0.1	
900010A	Seattle Terminal Preservation	1.9	
	<i>Seattle Total</i>	5.1	5%
<i>Keystone</i>			
902017J	Keystone Alternative	2.3	2%
<i>Point Townsend</i>			
900012D	Port Townsend Terminal Preservation	2.3	2%
<i>Southworth</i>			
916008N	Southworth Terminal Preservation	1.2	1%
<i>Fauntleroy</i>			
900005L	Fauntleroy Terminal Preservation	1.0	1%
<i>Kingston</i>			
910414N	Kingston Terminal Preservation	1.0	1%
<i>Vashon</i>			
900006N	Vashon Terminal Preservation	0.9	1%

PIN	Project Title	\$	%
<i>Edmonds</i>			
910413M	Edmonds Multimodal Terminal	0.6	1%
<i>Orcas</i>			
900026L	Orcas Terminal Preservation	0.6	1%
<i>Point Defiance</i>			
900001F	Point Defiance Terminal Preservation	0.3	0%
<i>Clinton</i>			
952516H	Clinton Terminal Preservation	0.2	0%
<i>Tahlequah</i>			
900002E	Tahlequah Terminal Preservation	0.2	0%
Total Terminal Projects and Eagle Harbor		81.6	
<i>Systemwide</i>			
989920X	Systemwide Miscellaneous Terminal Projects	5.7	
989930B	Systemwide Terminal Physical Security Infrastructure	4.8	
966640Q	Systemwide Pt of Sale Repl/Regional Fare	4.4	
966620E	Systemwide Operations Construction Support	1.7	
977730A	Systemwide Planning And Special Studies	1.5	
966640I	Systemwide Revenue Control System	0.3	
966640F	Systemwide Terminal Design Standards	0.3	
966650B	Systemwide Ferries Staff Relocation	0.3	
999976T	Systemwide Tml Work Orders By Auditors	0.2	
966650A	Systemwide Terminal Phone System Replacement	0.2	
989920M	X5 Terminal Reimbursable Contracts Using Caps	0.2	
989930E	Systemwide Emergency Management Communications	0.2	
989920K	Systemwide Movable Bridge Modifications	0.1	
989930J	WSDOT Project Controls Terminals	0.1	
900030C	Sidney Terminal Cruise Ship Dock Improvements	0.1	
966620D	Systemwide ADA Support	0.1	
999940C	Systemwide Terminal Planning/Design	0.1	
989930F	Systemwide Customer Travel Inquiry	0.1	
<i>Systemwide Total</i>		20.4	20%
TOTAL		102.0	

2. Terminal Engineering Organizational Structure

The Ferries organizational chart shows that Terminal Engineering had 79 authorized positions in the 2005-07 biennium. Terminal Engineering is divided into four major sections: Construction Maintenance, Terminal Engineering Project Controls, Design Engineering, and Environment/Permit (see Figure below). Of the 79 authorized positions, 74 are supported by the capital program (four in the capital budget and 70 project positions) and five positions by the operating program (three in the operating budget and two project positions). In the 2005-07 biennium, nine of the 74 positions (12%) supported by the capital program were vacant for the entire biennium. All of the positions supported by the operating budget were filled.

**Figure A-1
Terminal Engineering Division
2005-07 Biennium**



* Two FTE of the capital project positions charge to the operating budget. In FY 2005-07 terminal engineering project positions charged \$0.5 million to the operating budget.

Total labor expenses charged to the capital budget were \$8.4 million¹ in the 2005-07 biennium. Five hundred thousand dollars (\$0.5 million) were charged by project positions to the operating budget. The table below provides a summary of these charges.

**Table A-3
Summary 2005-07 Terminal Engineering
Staff Expense
(\$ millions)**

Program	\$	% Capital	% Total
Capital			
Administrative Work Order	1.4	17%	
Project	7.0	83%	
Total Capital	8.4		94%
Operating	0.5		6%
Total Charges Capital and Operating	8.9		

3. Staff Charges

a. Staff Charges to Administrative Work Order

Capital administrative work order charges from terminal engineering staff in the 2005-07 biennium were incurred by 41 of the 65 capital funded positions that were filled in the biennium, or by 63 percent of the staff. Ten (10) positions charged 90 percent or more of their time to the work order, eight (8) positions charged between 20 and 58 percent, six

¹ The object code report shows total terminal engineering labor expenses of \$8.6 million. The systems used to determine administrative work order and project totals do not correlate exactly with the object code report.

(6) positions between 11 and 16 percent, and 17 positions charged 9 percent or less of their time to this work order. Total administrative work order charges from Terminal Engineering were \$1.4 million, representing 17 percent of Terminal Engineering's total staff charges of \$8.4 million to the capital program.

Table A-4
Terminal Engineering Positions Charges
Capital Administrative Work Order
2005-07 Biennium

Position	Title	Section	Admin Amount	% charged to Admin
9W003	Director Terminal Engineering*	Office of the Director of TE	\$219,587	100%
9W031	Construction Maint/Mgr	Construction Maintenance Man	\$201,121	100%
A0403	Staff Aide*	Office of the Director of TE	\$134,500	100%
90800	Transportation Tech 1	Design Engineering	\$37,410	100%
90806	Library & Arch Prof 1	Construction Maintenance Man	\$8,605	100%
9W029	Design Engineering Manager	Design Engineering	\$184,086	99%
A0106	Secretary*	Construction Maintenance Man	\$49,187	98%
90156	Transportation Eng 3	Construction Maintenance Man	\$57,269	94%
A0214	Office Assistant*	Office of the Director of TE	\$38,934	93%
90803	Transportation Tech 1	Project Controls	\$47,808	90%
90055	Transportation Tech 1 Work Orders	Project Controls	\$53,446	58%
90035	Bridge Eng 4	Design Engineering	\$58,939	36%
9W032	Environment/Permit Manager	Environment/Permit	\$67,330	36%
90250	Transportation Planning Specialist 2	Environment/Permit	\$13,513	27%
90190	Marine Eng	Design Engineering	\$11,207	25%
90235	Transportation Eng 3	Project Controls	\$4,694	21%
90273	Marine Eng	Design Engineering	\$13,524	21%
90001	Bridge Eng 6	Design Engineering	\$51,933	20%
90063	Lead Plan Spec TPS4	Design Engineering	\$3,303	16%
90253	Marine Project Eng	Construction Maintenance Man	\$28,507	15%
90214	Asst Marine Eng	Design Engineering	\$10,592	14%
90060	Tribal Liaison	Office of the Director of TE	\$1,550	13%
90046	Tech 4 CADD Lead	Design Engineering	\$11,452	13%
90155	Transportation Tech 1	Construction Maintenance Man	\$528	11%
	17 positions		\$91,927	9% or less
TOTAL	41 Positions		\$1,400,952	17%
Total Terminal Engineering Capital Project Charges			\$6,957,461	83%
Total Terminal Engineering Admin and Project Charges			\$8,358,413	

*Position identified as a capital budget position. All others are project positions.

b. Staff Charges to Projects and Operating Budget

Terminal Engineering had 61 positions that were filled as project positions, two FTE of which are identified as supported by operating budget projects. Of the 59 capital funded project positions, six had 90 percent or more of their time charged to administration and did not charge, except in small amounts, directly to projects. The two operating budget project positions both charged to capital projects, while some of the capital budget project positions also charged time to the operating budget.

Table A-4 below shows the project and operating budget charges for 52 capital project positions that charged 42 percent or more of their time to capital projects and/or the operating budget, and for the two operating budget project positions.²

Terminal Engineering staff charged \$0.5 million or 7 percent of their time to the operating budget.

Of the \$7.0 million in project position charges to capital projects, \$3.5 million or 50 percent were for major projects at Mukilteo, Bainbridge, Anacortes, Keystone, Port Townsend, Edmonds and Seattle; \$1.0 million or 15 percent for systemwide projects; \$0.7 million (10 percent) for the Eagle Harbor Repair Facility; and \$0.7 million (9 percent) for the Catch-up Preservation project.

**Table A-5
Terminal Engineering Project Position Charges
2005-07 Biennium**

PIN	Project Name	\$	Sub-Total	% Total	% Capital
Terminal Projects					
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$1,012,615			
952515L	Mukilteo Terminal Preservation	\$27,081			
	<i>Mukilteo Total</i>		\$1,039,696	14%	15%
930513B	Bainbridge Island Terminal Preservation	\$508,394			
930513A	Bainbridge Island Trestle Improvement	\$459,391			
930513D	Bainbridge Terminal Food Service Improvements	\$1,659			
	<i>Bainbridge Total</i>		\$969,443	13%	14%
900040N	Eagle Harbor Maintenance Facility Preservation	\$722,446		10%	10%
999940D	Catch-Up Preservation 03 Nickel	\$656,256		9%	9%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$649,661			
902019X	Anacortes Upland Parking Improvement	\$3,878			
	<i>Anacortes Total</i>		\$653,539	9%	9%
902017J	Keystone Alternative	\$304,558			
	Keystone Terminal Preservation / Relocation	\$13,695			
	<i>Keystone Total</i>		\$318,253	4%	5%
900028R	Friday Harbor Master Plan	\$32,360			
900028Q	Friday Harbor Terminal Preservation	\$284,046			
	<i>Friday Harbor Total</i>		\$316,407	4%	5%
900012D	Port Townsend Terminal Preservation	\$227,090		3%	3%
900006N	Vashon Terminal Preservation	\$203,953		3%	3%
910413M	Edmonds Multimodal Terminal	\$164,986		2%	2%

² Ferries is not able to distinguish between charges to overhead in the project charges and time charged directly to projects, so Table A-4 eliminates all direct project charges for the positions that charged 90 percent or more of their time to administration. The table double counts the administrative overhead charges distributed to projects for those positions that charged 58 percent or less of their time to administration.

PIN	Project Name	\$	Sub-Total	% Total	% Capital
910414N	Kingston Terminal Preservation	\$129,529		2%	2%
900026L	Orcas Terminal Preservation	\$129,942		2%	2%
900010H	Colman Dock Interim Retail Development	\$57,991			
151902F	Seattle SR 519 P52 Access Improvement	\$1,563			
900010A	Seattle Terminal Preservation	\$69,227			
	<i>Seattle Total</i>		\$128,781	2%	2%
916008N	Southworth Terminal Preservation	\$164,723		2%	2%
900005L	Fauntleroy Terminal Preservation	\$69,504		1%	1%
930410R	Bremerton Terminal Preservation	\$2,680		0%	0%
952516H	Clinton Terminal Preservation	\$1,957		0%	0%
900002E	Tahlequah Terminal Preservation	\$2,345		0%	0%
	Systemwide Projects				
989920X	Systemwide Miscellaneous Terminal Projects	\$640,332			
989920K	Systemwide Movable Bridge Modifications	\$26,836			
966620E	Systemwide Operations Construction Support	\$1,193			
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$50,532			
966640I	Systemwide Revenue Control System	\$9,253			
999920A	Systemwide Steel Piling Inventory Account	\$14,951			
966640F	Systemwide Terminal Design Standards	\$52,391			
989930B	Systemwide Terminal Physical Security Infrastructure	\$127,619			
999940C	Systemwide Terminal Planning/Design	\$14,737			
999976T	Systemwide Tml Work Orders By Auditors	\$17,388			
989920M	X5 Terminal Reimbursable Contracts Using Caps	\$73,680			
	Systemwide Total	\$1,042,693		14%	15%
999910K	Systemwide Emergency Repairs 2005-2023	\$13,238			
	Operating Budget	\$536,998		7%	
	TOTAL Operating and Capital Project Charges	\$7,494,459			
	Total Capital Only Project Charges	\$6,957,461			

4. On-Site Consultants

In the 2005-07 biennium, Terminal Engineering spent \$8.7 million on on-site consultants who provided project management, project controls and other services (see Table A-below). Of the \$8.7 million in expenditures, \$6.7 million or 77 percent were in the Engineering Design section, \$1.7 million or 20 percent in the Project Controls section, and \$0.3 million or 3 percent in the Construction Maintenance Engineering section.

Table A-6
Terminal Engineering On-Site Consultants
(\$ millions)

Contractor	Project/Task	Section	\$	%
KPFF	Bainbridge -Project Management/Master Plan/Overhead Loading Design	Design	1.5	17%
Berger/Abam	Eagle Harbor Maintenance & Repair Facility - Design	Design	1.1	13%
Jacobs	Eagle Harbor Maintenance & Repair Facility - Phase II Report	Design	1.0	11%
CH2MHill	Project Controls Support	Project Controls	0.9	10%
KPFF	Program Management & Project Controls Support	Project Controls	0.7	8%
DCMS, Inc.	Colman Dock Long Range Plan - Project Management	Design	0.5	6%
Jacobs	Management and Engineering Services	Design	0.3	3%
Jacobs	Electrical Engineering Support	Design	0.3	3%
KPFF	Anacortes Project Management	Design	0.3	3%
SRI*	Anacortes Project Management	Design	0.3	3%
CH2MHill	Terminal Design Standards	Design	0.3	3%
SRI	Electrical Engineering Support	Design	0.2	2%
	4 small contracts	Design	0.2	2%
SRI	Operations Design and Construction Support	Design	0.2	2%
SRI	On-Site Personnel	Design	0.1	1%
SRI	Engineering Services	Construction	0.1	1%
SRI	Project Controls Support	Project Controls	0.1	1%
	2 small contracts	Construction	0.1	1%
KPFF	Electrical Engineering	Design	0.1	1%
KPFF	Seattle Project Management Services	Design	0.1	1%
SRI	Project Management	Design	0.1	1%
SRI	Systemwide Point of Sale	Design	0.1	1%
SRI	Construction Support	Construction	0.1	1%
	Total		8.7	

* SRI is a temporary employment service.

5. Project Administrative Expenses

a. Project Controls

Terminal Engineering expended \$2.3 million in 2005-07 to acquire a Primavera scheduling system³ and an additional \$0.1 million for Terminal Engineering's share of a WSDOT project control project. Of this \$2.4 million, \$1.2 million are expenses that are not duplicated in the on-site consultants and staff expenses noted above.

³ Primavera is a project scheduling system that was selected by FERRIES to manage its terminal projects. The system has been recommended for wider use with WSDOT.

Table A-7
Terminal Engineering Project Controls Expenses
2005-07 Biennium
(\$ millions)

Expense	\$
KPFF & CH2Hill On-Site Project Control Support*	1.2
Program Navigators Project Support	0.3
SRI - Project Controls	0.3
State Engineering	0.1
SRI- On-site Project Management	0.1
Scoping: Independent term contract	0.1
CH2M Hill - Program Scoping Documents	0.1
On Site Support Services	0.1
Total Terminal Primavera System	2.3
WSDOT Project Controls	0.1
Total Project Controls	2.4

* On-site consultant costs

b. Staff Relocation

In the 2005-07 biennium Terminal Engineering incurred \$0.3 million in design and furniture charges for the Ferries administrative staff relocation to a new headquarters. The bulk of expenditures on this project were in the preceding biennium.

6. Other Administrative Capital Services and Charges

Terminal Engineering incurred \$2.8 million in other capital program administrative services and charges, the largest of which was \$2.4 million for rent and lease of property (see Table A-7 below). Other administrative services and charges included telephone, office and information technology equipment, training courses and materials, and staff travel.

Table A-8
Terminal Engineering Other Services & Charges
2005-07 Biennium
(\$ millions)

Other Services and Charges	\$
Rent & Leases - Property	2.4
Telephone, data lines	0.1
Office machinery/IT Equipment/Furnishings	0.1
Training	0.1
Travel	0.1
Total	2.8

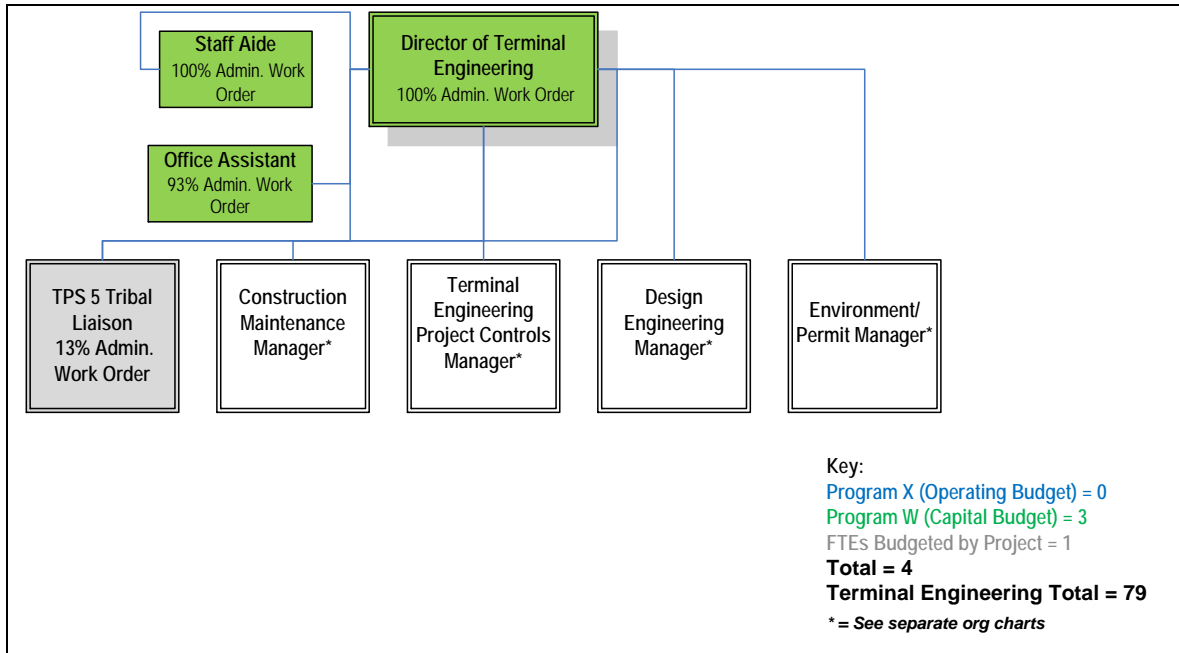
7. Office of the Director of Terminal Engineering

a. Administrative Work Order Charges

The Office of the Director includes four positions, three of which (the Director, Staff Aide and Office Assistant) are budgeted in the capital budget and charged 100 percent of their time (93 percent in the case of the Office Assistant) to the overhead work order in

the 2005-07 biennium. The fourth position, the Tribal Liaison, is a capital supported project position that charged 13 percent of its time to the Administrative Work Order.

**Figure A-2
Office of the Director of Terminal Engineering**



b. Project Charges

Total project charges from the Office of the Director were \$89,007 (see table below). Eighty percent (80%) of the Tribal Liaison’s time charged to projects was for new or expanded terminals at Mukilteo, Port Townsend, Bainbridge Island, Seattle, Keystone and Edmonds.

**Table A-9
Office of the Director of Terminal Engineering
Project Charges 2005-07 Biennium**

Pin	PIN Name	2005-2007 Exp	%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$19,051	21%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$13,566	15%
989920X	Systemwide Miscellaneous Terminal Projects	\$10,918	13%
900012D	Port Townsend Terminal Preservation	\$10,633	12%
930513A	Bainbridge Island Trestle Improvement	\$9,298	10%
900010A	Seattle Terminal Preservation	\$8,159	9%
902017J	Keystone Alternative	\$7,296	8%
910413M	Edmonds Multimodal Terminal	\$5,967	7%
900040N	Eagle Harbor Maintenance Facility Pres.	\$2,387	3%
930513B	Bainbridge Island Terminal Preservation	\$1,322	2%
999940D	** Catch-Up Preservation 03 Nickel **	\$273	0%
900010I	Seattle South Trestle Expansion	\$137	0%
Total		\$89,007	

8. Construction Maintenance Section of Terminal Engineering

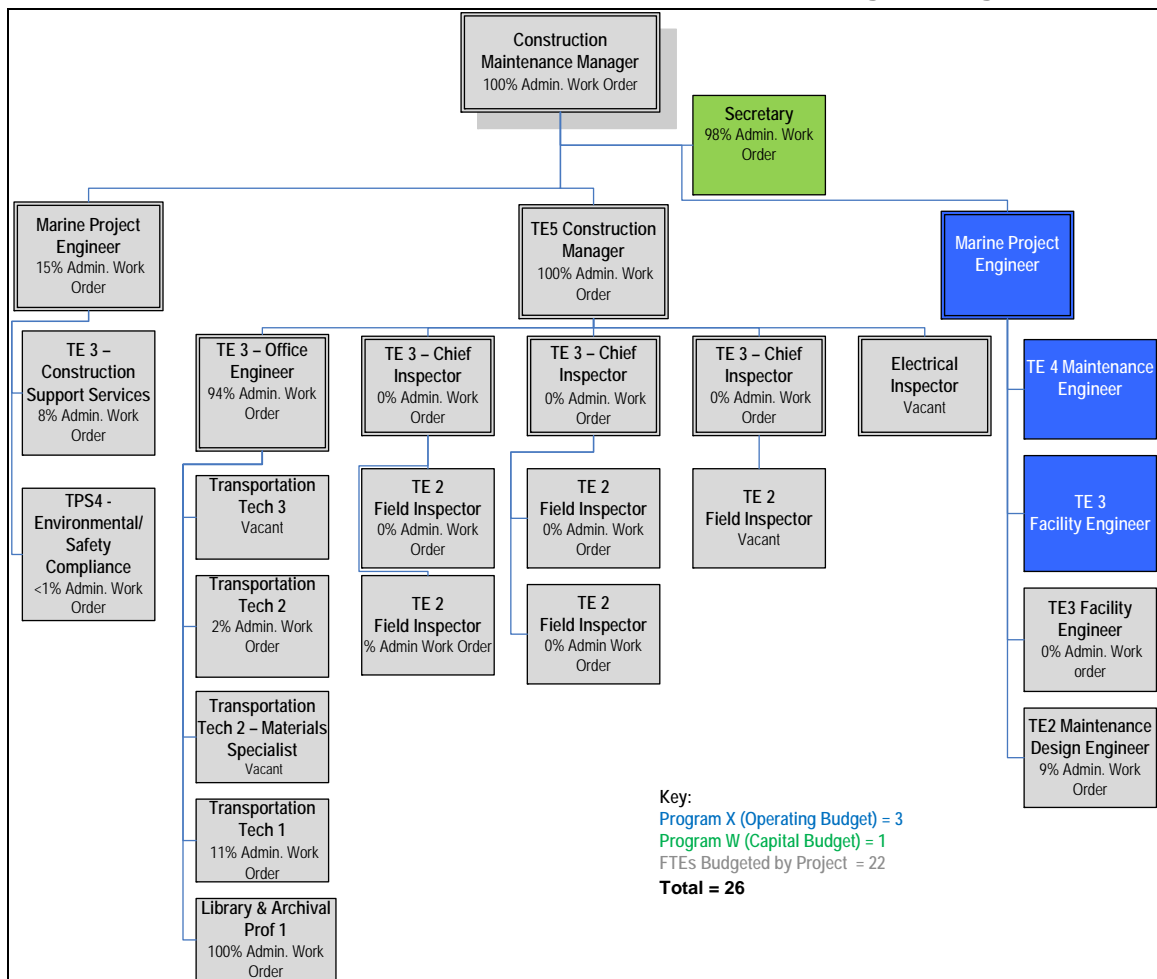
a. Overview

The Construction Maintenance Section includes 26 positions in three units: Construction Management, Construction Support, and Maintenance. Of the 26 positions, three (3) are supported by the operating budget, one (1) by the capital budget, and the remainder are project positions. Fourteen (14) of the 26 positions are in the Construction Management Section, which includes seven (7) inspector positions. Two Inspector positions were vacant throughout the 2005-07 biennium.

b. Administrative Work Order

Five (5) of the Section's positions—the Construction Maintenance Manager, Secretary, Office Engineer, Construction Manager and Librarian—charged 90 percent or more of their time to the administrative work order. The other positions charged 15 percent or less of their time to the administrative work order.

Figure A-3
Construction Maintenance Section of Terminal Engineering



c. Project Charges

Total project charges for the biennium from the Construction Maintenance Section were \$2.2 million in the 2005-07 Biennium, of which 42 percent was for construction projects including Catch-up Preservation, and preservation projects at Friday Harbor, Bainbridge Island and the Eagle Harbor Maintenance Facility. Fifteen percent (15%) of project charges were to the operating budget. (Note: Charges do not include expenses of the two operating budget supported positions in this section.)

Table A-10
Construction Maintenance Section Project Charges
2005-07 Biennium

PIN	PIN Name	\$	%
999940D	Catch-Up Preservation 03 Nickel	\$363,613	16%
No PIN	Program X	\$338,566	15%
900028Q	Friday Harbor Terminal Preservation	\$197,760	9%
930513B	Bainbridge Island Terminal Preservation	\$191,589	9%
900040N	Eagle Harbor Maintenance Facility Preservation	\$186,182	8%
989920X	Systemwide Miscellaneous Terminal Projects	\$177,011	8%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$127,255	6%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$100,371	4%
989930B	Systemwide Terminal Physical Security Infrastructure	\$100,034	4%
916008N	Southworth Terminal Preservation	\$84,607	4%
910414N	Kingston Terminal Preservation	\$61,713	3%
900010H	Colman Dock Interim Retail Development	\$50,431	2%
900006N	Vashon Terminal Preservation	\$45,863	2%
966640F	Systemwide Terminal Design Standards	\$30,969	1%
900026L	Orcas Terminal Preservation	\$29,323	1%
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$24,414	1%
900028R	Friday Harbor Master Plan	\$22,596	1%
900005L	Fauntleroy Terminal Preservation	\$21,028	1%
930513A	Bainbridge Island Trestle Improvement	\$18,869	1%
989920M	X5 Terminal Reimbursable Contracts Using Caps	\$12,051	1%
966640I	Systemwide Revenue Control System	\$8,385	0%
900010A	Seattle Terminal Preservation	\$7,214	0%
999920A	Systemwide Steel Piling Inventory Account	\$6,188	0%
999910K	Systemwide Emergency Repairs 2005-2023	\$5,253	0%
910413M	Edmonds Multimodal Terminal	\$5,077	0%
952515L	Mukilteo Terminal Preservation	\$4,766	0%
900012D	Port Townsend Terminal Preservation	\$3,656	0%
902019X	Anacortes Upland Parking Improvement	\$2,775	0%
989920K	Systemwide Movable Bridge Modifications	\$2,350	0%
900002E	Tahlequah Terminal Preservation	\$2,333	0%
952516H	Clinton Terminal Preservation	\$1,910	0%
902017J	Keystone Alternative	\$1,691	0%
999940C	Systemwide Terminal Planning/Design	\$974	0%
999976T	Systemwide Tml Work Orders By Auditors	\$915	0%
977740A	Capital Program Development for Ferries Business Initiatives	\$822	0%

PIN	PIN Name	\$	%
151902F	Seattle SR 519 P52 Access Improvement	\$546	0%
989930G	Systemwide Terminal Physical Security Planning	\$369	0%
989930D	Systemwide SMS Enhancements	\$114	0%
Total		\$2,239,583	

9. Design Engineering Section of Terminal Engineering

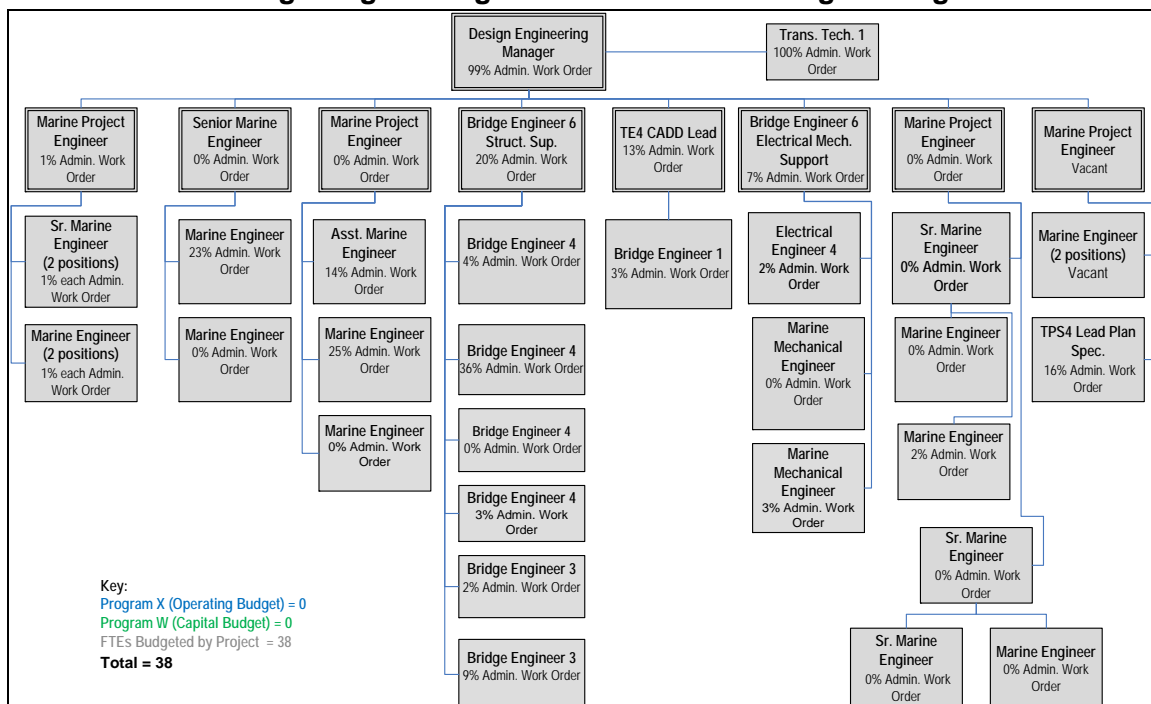
a. Overview

The Design Engineering section is the largest section of Terminal Engineering with 38 positions divided into eight (8) units, including four (4) project units, Structural Support, CADD and an Electrical Mechanical unit. Four (4) of the 38 positions were vacant throughout the biennium, including three out of four positions in one project management unit.

b. Administrative Work Order

Two (2) positions, the Design Engineering Manager and the Transportation Tech 1 assisting the Manager, charged more than 99 percent of their time to overhead. The remainder of the staff charged 36 percent or less of their to the administrative work order.

Figure A-4
Design Engineering Section of Terminal Engineering



c. Project Charges

Total biennium projects for the Design Engineering Section were \$4.4 million, of which \$2.1 million or 48 percent was for major improvements or new terminals at Mukilteo, Anacortes, Bainbridge, Keystone, Port Townsend and Edmonds. An additional \$0.5 million or 11 percent of the project charges were to the Eagle Harbor Maintenance Facility project and \$0.2 million or 5 percent of project charges were to the operating budget.

Table A-11
Design Engineering Section Project Charges
2005-07 Biennium

PIN	PIN Name	\$	%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$801,791	18%
900040N	Eagle Harbor Maintenance Facility Preservation	\$476,665	11%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$402,287	9%
930513A	Bainbridge Island Trestle Improvement	\$349,038	8%
930513B	Bainbridge Island Terminal Preservation	\$282,205	6%
999940D	Catch-Up Preservation 03 Nickel	\$267,810	6%
989920X	Systemwide Miscellaneous Terminal Projects	\$262,628	6%
902017J	Keystone Alternative	\$247,612	6%
	Program X-Operating Budget	\$178,707	4%
900012D	Port Townsend Terminal Preservation	\$172,190	4%
900006N	Vashon Terminal Preservation	\$152,289	3%
910413M	Edmonds Multimodal Terminal	\$141,809	3%
900026L	Orcas Terminal Preservation	\$98,099	2%
900028Q	Friday Harbor Terminal Preservation	\$82,032	2%
916008N	Southworth Terminal Preservation	\$76,946	2%
910414N	Kingston Terminal Preservation	\$65,875	1%
989920M	X5 Terminal Reimbursable Contracts Using Caps	\$61,284	1%
900005L	Fauntleroy Terminal Preservation	\$47,034	1%
900010A	Seattle Terminal Preservation	\$41,168	1%
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$23,636	1%
989930B	Systemwide Terminal Physical Security Infrastructure	\$22,630	1%
989920K	Systemwide Movable Bridge Modifications	\$21,515	0%
966640F	Systemwide Terminal Design Standards	\$20,800	0%
999976T	Systemwide Tml Work Orders By Auditors	\$16,085	0%
902017F	Keystone Terminal Preservation / Relocation	\$13,572	0%
999940C	Systemwide Terminal Planning/Design	\$13,410	0%
977740A	Capital Program Development for Ferries Business Initiatives	\$12,784	0%
900028R	Friday Harbor Master Plan	\$9,207	0%
999920A	Systemwide Steel Piling Inventory Account	\$8,480	0%
999910K	Systemwide Emergency Repairs 2005-2023	\$7,365	0%
900010H	Colman Dock Interim Retail Development	\$6,558	0%
952515L	Mukilteo Terminal Preservation	\$3,091	0%
930410R	Bremerton Terminal Preservation	\$1,308	0%
930513D	Bainbridge Terminal Food Service Improvements	\$1,265	0%
966620E	Systemwide Operations Construction Support	\$1,155	0%
900010I	Seattle South Trestle Expansion	\$1,017	0%

PIN	PIN Name	\$	%
902019X	Anacortes Upland Parking Improvement	\$1,015	0%
No PIN	System Redistribution-No Direct Charges	\$1,008	0%
966640I	Systemwide Revenue Control System	\$744	0%
955540H	Systemwide Vessel Planning/Design	\$715	0%
Total		\$4,394,829	

10. Environmental Permits Section of Terminal Engineering

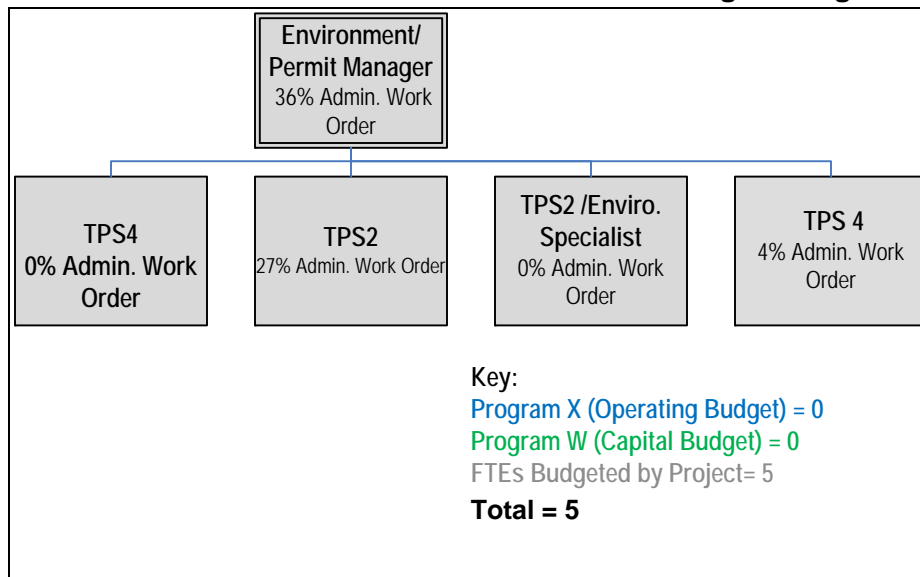
a. Overview

The Environmental Permits section includes five (5) positions, with one manager supervising four (4) Transportation Planning Specialists.

b. Administrative Work Order

None of the five positions in the Environmental Permits Section billed more than 36 percent of their time to the administrative work order.

**Figure A-5
Environmental/Permit Section of Terminal Engineering**



c. Project Charges

The Environmental Permits staff charged \$0.6 million to projects in the 2005-07 biennium, of which \$0.4 million or 57 percent was for major new or improved terminals at Anacortes, Mukilteo, Bainbridge, Keystone, Port Townsend, Seattle and Edmonds and \$0.1 million or 23 percent was to the Systemwide Miscellaneous Terminal Projects project, which includes scour monitoring. The Environmental/Permits section charged 3 percent (\$19,000) to the operating budget in the 2005-07 biennium.

**Table A-12
Environmental/Permit Section Project Charges
2005-07 Biennium**

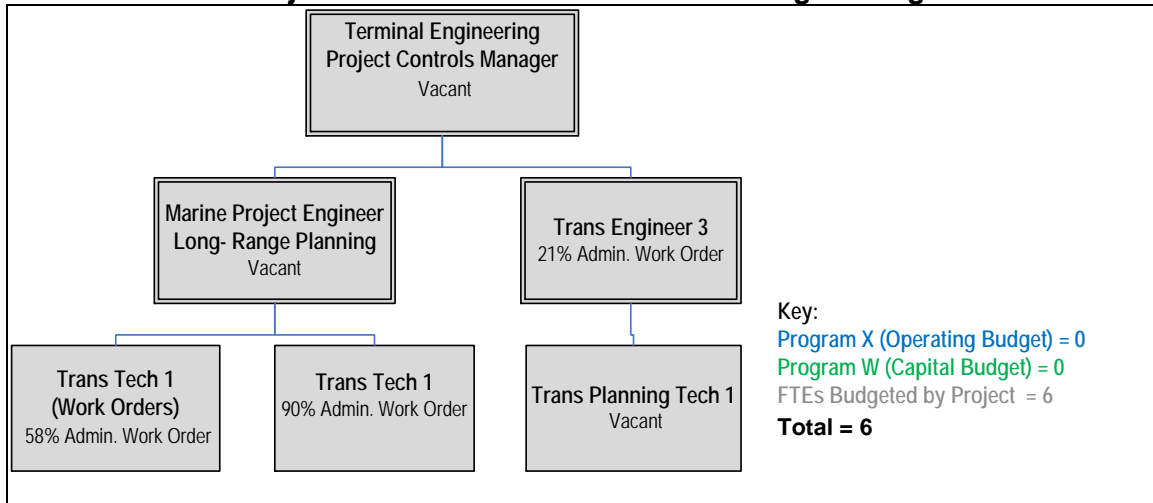
PIN	PIN Title	\$	%
989920X	Systemwide Miscellaneous Terminal Projects	\$145,635	23%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$117,820	18%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$72,060	11%
930513A	Bainbridge Island Trestle Improvement	\$71,771	11%
900040N	Eagle Harbor Maintenance Facility Preservation	\$50,331	8%
902017J	Keystone Alternative	\$45,195	7%
900012D	Port Townsend Terminal Preservation	\$38,731	6%
930513B	Bainbridge Island Terminal Preservation	\$25,877	4%
No PIN	Program X – Operating Budget	\$19,317	3%
999940D	Catch-Up Preservation 03 Nickel	\$17,104	3%
900010A	Seattle Terminal Preservation	\$12,120	2%
910413M	Edmonds Multimodal Terminal	\$5,684	1%
900006N	Vashon Terminal Preservation	\$4,132	1%
989930B	Systemwide Terminal Physical Security Infrastructure	\$2,906	0%
989920K	Systemwide Movable Bridge Modifications	\$2,502	0%
916008N	Southworth Terminal Preservation	\$2,072	0%
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$1,903	0%
900028Q	Friday Harbor Terminal Preservation	\$1,720	0%
900026L	Orcas Terminal Preservation	\$1,688	0%
910414N	Kingston Terminal Preservation	\$1,253	0%
900005L	Fauntleroy Terminal Preservation	\$723	0%
966640F	Systemwide Terminal Design Standards	\$293	0%
955540I	Life Cycle Cost Model Update	\$249	0%
900028R	Friday Harbor Master Plan	\$219	0%
999910K	Systemwide Emergency Repairs 2005-2023	\$204	0%
999940C	Systemwide Terminal Planning/Design	\$160	0%
977740A	Capital Program Development for Ferries Business Initiatives	\$160	0%
999920A	Systemwide Steel Piling Inventory Account	\$138	0%
902017F	Keystone Terminal Preservation / Relocation	\$123	0%
930513D	Bainbridge Terminal Food Service Improvements	\$102	0%
	Total	\$642,190	

11. Project Controls Section

a. Administrative Work Order Charges

The Project Controls Section includes six (6) positions, three of which were vacant for the entire 2005-07 biennium: the Project Controls Manager, Transportation Planning Technician 1 and the Marine Project Engineer Long-Range Planning. One of the three filled positions, the Transportation Technician 1, charged 90 percent of its time to the administrative work order in the 2005-07 biennium.

**Figure A-6
Project Controls Section of Terminal Engineering**



b. Project Charges

This Project Controls section charged \$0.1 million to projects in the 2005-07 biennium, of which \$49,000 or 37 percent was for new or improved terminals planned for Anacortes, Mukilteo, Bainbridge Island, Edmonds, Keystone and Port Townsend, and \$44,000 or 33 percent was charged to the Systemwide Miscellaneous Terminal Projects project, which included the expenditures for the Primavera scheduling system.

**Table A-13
Project Controls Section Project Charges
2005-07 Biennium**

PIN	PIN Title	\$	%
989920X	Systemwide Miscellaneous Terminal Projects	\$44,141	33%
902019U	Anacortes Multimodal Terminal 03 Nickel	\$15,618	12%
952515K	Mukilteo Multimodal Terminal 03 Multi Modal	\$11,509	9%
930513A	Bainbridge Island Trestle Improvement	\$10,416	8%
930513B	Bainbridge Island Terminal Preservation	\$8,723	7%
999940D	Catch-Up Preservation 03 Nickel	\$7,133	5%
900040N	Eagle Harbor Maintenance Facility Preservation	\$6,880	5%
910413M	Edmonds Multimodal Terminal	\$6,448	5%
902017J	Keystone Alternative	\$2,764	2%
900028Q	Friday Harbor Terminal Preservation	\$2,534	2%
989930B	Terminal Physical Security Infrastructure	\$2,049	2%
900012D	Port Townsend Terminal Preservation	\$1,881	1%
No PIN	Program X Operating Budget	\$1,673	1%
900006N	Vashon Terminal Preservation	\$1,668	1%
916008N	Southworth Terminal Preservation	\$1,099	1%
900010H	Colman Dock Interim Retail Development	\$907	1%
900026L	Orcas Terminal Preservation	\$832	1%
900005L	Fauntleroy Terminal Preservation	\$719	1%
910414N	Kingston Terminal Preservation	\$688	1%

PIN	PIN Title	\$	%
966640Q	Systemwide Pt of Sale Repl/Regional Fare	\$580	0%
900010A	Seattle Terminal Preservation	\$566	0%
989920K	Systemwide Movable Bridge Modifications	\$468	0%
999910K	Systemwide Emergency Repairs 2005-2023	\$416	0%
900028R	Friday Harbor Master Plan	\$339	0%
966640F	Systemwide Terminal Design Standards	\$328	0%
989920M	X5 Terminal Reimbursable Contracts Using Caps	\$316	0%
999976T	Systemwide Tml Work Orders By Auditors	\$316	0%
930513D	Bainbridge Terminal Food Service Improvements	\$229	0%
999940D	** Catch-Up Preservation 03 Nickel **	\$220	0%
999940C	Systemwide Terminal Planning/Design	\$193	0%
952515L	Mukilteo Terminal Preservation	\$146	0%
999920A	Systemwide Steel Piling Inventory Account	\$145	0%
966640I	Systemwide Revenue Control System	\$118	0%
Total		\$132,059	

Appendix B. Vessel Engineering/Vessel Maintenance & Preservation

This Appendix reviews the vessel capital program, the Vessel Engineering Division, and the Vessel Maintenance & Preservation Division. These two divisions are responsible for the preservation of Ferries' fleet, and for the design and construction of new vessels.

These divisions supported a \$76.0 million vessel capital program in the 2005-07 biennium and incurred \$10.9 million in administrative expenses, representing 14 percent of the total vessel capital expenditures.

**Table B-1
Summary
Vessel Engineering and Vessel Maintenance & Preservation Divisions
Capital Staff and Administration Expenses, 2005-07 Biennium
(\$ millions)**

Expense	\$	% of Total Vessel Capital
Capital staff charges to admin. work order	0.9	1%
Capital staff charges to project work orders	5.5	8%
Operating staff charges to capital	1.1	1%
On-site consultants	2.3	3%
Other administrative services & charges	1.1	1%
Total Vessel Engineering/Vessel M&P Admin. Expenses	10.9	
Terminal Capital Expenditures	76.0	
% Vessel Engineering/Vessel M&P Administration	14%	14%

1. 2005-07 Biennium

In the 2005-07 biennium, Ferries expended \$183.1 million in capital funds from the Puget Sound Capital Construction Account, of which \$76.0 million or 41 percent was for vessel projects. Of the \$76.0 million expended on vessel projects, \$33.1 million or 43 percent was for vessel preservation projects, \$24.3 million or 32 percent was for new vessel acquisition, and \$18.6 million or 25 percent was for systemwide projects.

The table below shows the 2005-07 biennium vessel capital project expenditures.

Table B-2
2005-07 Vessel Project Expenditures
(\$ millions)

PIN	Project Title	\$	%
New Vessel Construction			
944460U	Four 144-Car Replacement Ferries	24.3	32%
Preservation Projects			
<i>Steel Electric Class Built in 1920s</i>			
944421B	Illahee	0.4	
944424B	Klickitat	0.2	
944422B	Nisqually	0.1	
944423B	Quinault		
Sub-Total		0.7	
<i>Misc. Built in 1940s</i>			
944452B	Rhododendron	0.5	
<i>Evergreen State Class Built in 1950s</i>			
944412C	Klahowya	0.9	
944413B	Tillikum	0.9	
Sub-total		1.8	
<i>Super Class Built in 1960s</i>			
944432G	Elwha	6.2	
944431D	Hyak	6.5	
944433D	Kaleetan	2.8	
944434D	Yakima	0.4	
Sub-total		15.9	
<i>Jumbo Mark I Class Built in 1970s</i>			
944442B	Spokane	0.2	
944441B	Walla Walla	6.4	
Sub-total		6.6	
<i>Issaquah Class Built in 1980s</i>			
944404D	Cathlamet	0.2	
944405D	Chelan	0.3	
944401D	Issaquah	1.0	
944403D	Kitsap	0.7	
944402D	Kittitas	0.2	
944406D	Sealth	4.6	
Sub-total		7.0	
<i>Jumbo Mark II Class Built in 1990s</i>			
944499D	Tacoma	0.4	
Sub-total		0.4	
<i>Passenger Only Ferries</i>		.2	
Total Vessel Preservation Projects		33.1	43%
Systemwide Projects			
955570B	Vessel Physical Security Infrastructure	7.2	
955560K	Commo/Navigation/Life Saving	3.3	
955560M	Vessel Communications (IT)	1.6	

PIN	Project Title	\$	%
985550B	Vessel Projects	1.6	
955540H	Vessel Planning/Design	1.0	
955540K	Vessel As-built Drawings Updates	0.6	
955560N	Wireless Over Water	0.5	
985550E	Vessel Contracts Using CAPS	0.5	
999976W	Vessel Noise Control (Abatement)	0.5	
955570A	Accessibility Modifications	0.5	
955570D	Vessel Physical Security Planning	0.3	
955560L	Wireless Connections	0.2	
955540M	Vessel Electrical Special Projects	0.2	
955540I	Vessel Life Cycle Cost Model Update	0.1	
955570C	Vessel Safety Mgmt Enhancements	0.1	
955560P	Wireless/Ferry Customers	0.1	
999976V	Vessel Work Orders by Auditor	0.1	
955540L	Vessel Environmental Studies	0.1	
Total Systemwide		18.6	25%
Total		76.0	

2. Vessel Maintenance & Preservation Organizational Structure

The Vessel Maintenance & Preservation Division's organizational structure is discussed in detail in the *Washington State Ferries Financing Study II: Auto-Passenger Vessel Preservation and Replacement Final Report*, January 2008.

The Division has six (6) positions supported by the capital budget: a Port Engineer for Vessel Preservation, three (3) Vessel Project Engineer positions, a Capital Project Engineer/Estimator and an Inventory Agent. As shown in the table below, total staff charges to the capital program in the 2005-07 biennium (including charges by Chief Engineers to the administration work order) totaled \$1.1 million.

Table B-3
Summary 2005-07 Vessel Maintenance & Preservation
Staff Expense
(\$ millions)

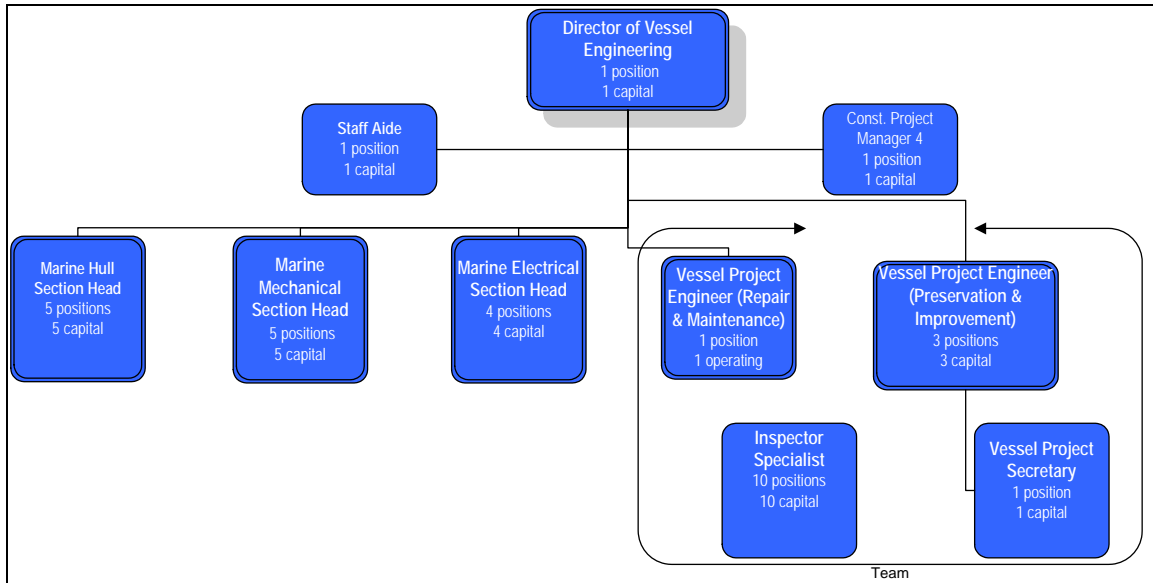
Expense	\$	% Capital
Administrative Work Order	0.3	27%
Project	0.8	73%
Total Capital	1.1	

3. Vessel Engineering Organizational Structure

The Vessel Engineering Division has 32 authorized positions (see Figure B-1 below). The division is divided into four sections: Marine Hull; Marine Mechanical; Marine Electrical; and a fourth section that includes four (4) Vessel Project Engineers and 10 vessel inspector positions for the vessel preservation program.

Of the 32 authorized positions, 28 are shown in the Ferries organization chart as supported by the capital program (six in the capital budget and 22 project positions), and four (4) positions by the operating program (one in the operating budget and three FTE project positions). In the 2005-07 biennium, all of the Vessel Engineering positions were filled for at least part of the biennium.

**Figure B-1
Vessel Engineering Division
2005-07 Biennium**



* Ferries's organization chart shows three (3) FTE of the capital organization chart supported by the operating budget. In the 2005-07 biennium, Vessel Engineering project staff charged \$0.7 million to the operating budget.

Total labor expenses charged to the capital budget were \$5.4 million in the 2005-07 biennium. Seven hundred thousand dollars (\$0.7 million) were charged by project positions to the operating budget. The table below provides a summary of these charges:

**Table B-4
Summary 2005-07 Vessel Engineering
Staff Expense
(\$ millions)**

Program	\$	% Capital	% Total
<i>Capital</i>			
Administrative Work Order	0.6	11%	
Project	4.8	89%	
Total Capital	5.4		94%
Operating	0.7		6%
Total Charges Capital and Operating	6.1		

4. Staff Charges

a. Staff Charges to Administrative Work Order

Capital overhead expenditures from the Vessel Maintenance & Preservation and Vessel Engineering divisions totaled \$0.9 million in the 2005-07 biennium, of which \$0.6 million or 67 percent was from Vessel Engineering, and \$0.3 million or 33 percent was from Vessel Maintenance & Preservation.

i. Vessel Engineering

In the 2005-07 biennium, administrative charges of \$0.6 million were incurred by 31 Vessel Engineering positions, with most charges a small percentage of total position costs. The Director charged 100 percent of time to overhead; the Vessel Project Secretary and Staff Aide charged 69 percent and 52 percent of their time to overhead; and the three section heads charged 22 percent, 21 percent and 10 percent, respectively, of their time to overhead. Administrative overhead charges represent 13 percent of the time Vessel Engineering charged to the capital program.

ii. Vessel Maintenance & Preservation

The Vessel Maintenance & Preservation Division charged \$0.3 million to the administrative overhead work order, of which \$0.2 million was for Chief Engineers not counted in the administrative positions.⁴ Administrative overhead charges represent 16 percent of the time Vessel Maintenance and Engineering charged to the capital program.

**Table B-5
Vessel Engineering and Vessel Maintenance & Preservation Position Charges to
Administrative Work Order**

Position Title	Number	Section	Admin Amount	% charged to Admin
Director	9W033*	Director	\$252,815	100%
Staff Aide	A0102*	Director	\$55,067	52%
Const Proj Manager 4	90205	Director	\$20,428	11%
Marine Hull Head	9W046	Hull	\$44,879	22%
Naval Arch 2	90104	Hull	\$16,949	10%
Marine Hull Designer	90026	Hull	\$10,628	7%
Marine Hull Designer	90211	Hull	\$4,041	2%
Naval Arch 1	90154	Hull	\$1,053	1%
Mechanical Head	9W047	Mechanical	\$46,334	21%
Marine Mech Engineer	90264	Mechanical	\$17,929	7%
Marine Mech Engineer	90263	Mechanical	\$10,332	5%
Marine Designer	90027	Mechanical	\$2,996	2%
Marine Mech Engineer	90136	Mechanical	\$2,986	2%
Marine Electrical Section Head	9W048	Electrical	\$20,798	10%
Electrical Engineer 4	90260	Electrical	\$8,811	2%
Marine Electrical Designer	90201	Electrical	\$3,818	4%

⁴ Expenses charged for the Chief Engineers to the overhead administrative work order were for a special project that FERRIES indicates should have been charged to the operating budget.

Position Title	Number	Section	Admin Amount	% charged to Admin
Electrical Engineer 4	90258	Electrical	\$116	0%
Vessel Project Secretary	A0103*	Project Eng	\$31,707	69%
Vessel Project Engineer	90179*	Project Eng	\$27,682	12%
Vessel Project Engineer	90174*	Project Eng	\$2,033	1%
Vessel Project Engineer	90300*	Project Eng	\$813	0%
Inspector Specialist	90023	Inspection	\$24,740	11%
Inspector Specialist	90202	Inspection	\$12,546	9%
Inspector Specialist	90125	Inspection	\$2,903	4%
7 Inspector Positions			\$5,396	1% or <
Total Vessel Engineering Charges to Administrative Work Order			\$627,799	
Vessel Engineering Charges to Capital Projects			\$4,222,892	
Total Vessel Engineering Capital Charges			\$4,850,691	
<i>Vessel Maintenance & Preservation</i>				
Chief Engineer	LP461**	Eng Room Crew	\$173,463	95%
Chief Engineer	LP098**	Eng Room Crew	\$19,378	72%
Vessel Project Engineer	90200*	Vessel Preservation	\$29,496	17%
Vessel Project Engineer	90290*	MPET	\$29,096	15%
Vessel Project Engineer	90291*	Vessel Preservation	\$32,958	19%
Vessel Project Engineer	90300	Eagle Harbor	\$4,379	1%
Total Vessel Maintenance & Preservation Charges to Admin Wk Order			\$288,770	
Total Vessel Maintenance & Preservation Charges to Capital Projects			\$699,818	
Total Vessel Maintenance & Preservation Capital Charges			\$988,588	
Total Both Divisions Charges to Administrative Work Order			\$916,569	
Total Both Divisions Charges to Capital Projects			\$4,922,710	
Total Both Divisions Capital Charges			\$5,839,279	

*Position identified as a capital budget position. All others are project positions. ** Not administrative positions.

b. Staff Charges to Projects and Operating Budget

i. Vessel Engineering

Vessel Engineering had 30 of its 32 positions charge directly to capital projects in the 2005-07 biennium. (The Director charged 100 percent of time to the administrative overhead work order; one position is funded by the operating fund.) Table B-5 below shows by project the capital project (\$4.8 million) and operating budget charges (\$0.7 million) from these 30 positions.

Of the \$4.8 million Vessel Engineering staff charged to capital projects, \$2.2 million or 45 percent were to preservation projects, \$1.5 million or 31 percent to systemwide projects, \$.9 million or 20 percent to the new vessel construction program, and \$0.2 million or 4 percent to emergency repair and terminal projects. Of the time charged to projects, Vessel Engineering staff charged 12 percent to the operating budget.

ii. Vessel Maintenance & Preservation

The six capital funded positions in the Vessel Maintenance & Preservation budget all charged directly to capital projects in the 2005-07 biennium. Table B-5 below shows by

project the capital project (\$0.7 million) and operating budget charges (\$50,000) from these six positions.

Of the \$0.7 million Vessel Maintenance & Preservation charged to capital projects, 98 percent was for preservation projects and 2 percent for systemwide projects. Vessel Maintenance & Preservation staff charged 7 percent of their project charges to the operating budget.

**Table B-6
Vessel Engineering and Vessel Maintenance & Preservation
Project Position Charges
2005-07 Biennium**

Pin	PIN Name	Vessel Eng.				Vessel M&P			
		\$	Sub-Total	%	% Cap	\$	Sub-Total	%	% Cap
<i>New Vessel Construction</i>			\$948,034	17%	20%				
944460L	Four 144-Car Replacement Ferries	\$948,034							
<i>Vessel Preservation</i>			\$2,171,210	39%	45%	\$685,361	91%	98%	
944432G	MV Elwha Preservation	\$485,520			\$3,343				
944406D	MV Sealth Preservation	\$283,591			\$151,303				
944431D	MV Hyak Preservation	\$305,448							
944441B	MV Walla Walla Preservation	\$198,950			\$15,626				
944433D	MV Kaleetan Preservation	\$156,119			\$132,596				
944401D	MV Issaquah Preservation	\$154,241			\$142,216				
944403D	MV Kitsap Preservation	\$87,355							
944404D	MV Cathlamet Preservation	\$68,543							
944452B	MV Rhododendron Preservation	\$69,352							
944424B	MV Klickitat Preservation	\$48,267							
944421B	MV Illahee Preservation	\$49,003							
944413B	MV Tillikum Preservation	\$46,058			\$80,296				
944412C	MV Klahowya Preservation	\$53,973			\$151,543				
944402D	MV Kittitas Preservation	\$55,663							
944405D	MV Chelan Preservation	\$33,939							
944499D	MV Tacoma Preservation	\$19,640							
944434D	MV Yakima Preservation	\$9,987							
944442B	MV Spokane Preservation	\$13,494			\$8,438				
944499C	MV Puyallup Preservation	\$8,024							
944422B	MV Nisqually Preservation	\$7,601							
944499E	MV Wenatchee Preservation	\$7,219							
944461A	Passenger Only Preservation	\$6,203							
944405E	MV Chelan SOLAS Modifications	\$2,124							
944410F	MV Evergreen State Preservation	\$895							
<i>Systemwide Projects</i>			\$1,512,747	27%	31%	\$13,356	2%	2%	
955570B	Vessel Physical Security Infrast.	\$438,520							
955540H	Vessel Planning/Design	\$215,721							
955560M	Vessel Communications (IT)	\$151,261							
999910K	Emergency Repairs	\$147,781							

Pin	PIN Name	Vessel Eng.			Vessel M&P		
955540K	Vessels As Built Drawings	\$92,936					
955540I	Vessel Life Cycle Cost Model Update	\$76,782					
955560K	Vessel Commu/Navig Equipment	\$68,832					
955570A	Vsl Accessibility Modifications	\$86,089					
955540L	Vessels Environmental Studies	\$39,178					
985550E	Prog X Vsl Contracts Using CAPS	\$73,313					
955540M	Vessels Electrical Special Project	\$35,635					
955560P	Wireless/Ferry Customers	\$33,071					
955570D	Vessel Physical Security Planning	\$22,495					
999976W	Vessel Noise Control (Abatement)	\$19,840					
985550B	Miscellaneous Vessel Projects	\$8,563					
955550B	*PB* Vessel Projects	\$1,375					
955570C	Vessel Safety Mgmt Enhancements	\$939					
999976V	Vessel Work Orders By Auditor	\$417			\$13,356		
Terminal Projects			\$118,251	2%	2%	\$1,102	0% 0%
902017J	Keystone Terminal 2009-2023	\$53,622					
952515K	Mukilteo Multimodal Terminal	\$2,177					
902017F	Keystone Terminal	\$1,404					
900040N	Eagle Harbor Maintenance Facility	\$61,049			\$1,102		
Emergency Repairs			\$80,272	1%	2%		
999910K	Emergency Repairs	\$74,101					
999910J	Emergency Repairs 03-05	\$6,170					
Operating Budget			\$674,302	12%		\$50,311	7%
Program X		\$674,302			\$50,311		
Total Capital and Operating		\$5,504,816			\$750,129		
Total Capital		\$4,830,514			\$699,818		

Vessel Engineering Crews: Vessel Engineering crews charged an additional \$1.1 million of labor costs to the capital program. A breakdown of the charges by project is not available.⁵

5. On-Site Consultants

In the 2005-07 biennium, Vessel Engineering spent \$2.1 million on on-site consultants who provided engineering and management services. The Vessel Maintenance & Preservation Division spent \$0.2 million on on-site consultants for fuel conservation studies and staffing support.

⁵ The object code report shows total capital program charges of \$1.3 million for Vessel Engine Crews, of which \$.2 million is accounted for in overhead.

Table B-7
Vessel Divisions' On-Site Consultants
(\$ millions)

Contractor	Project/Task	\$	%
<i>Vessel Engineering</i>			
Elliot Bay Design	On-Site Personnel - Electrical & Mechanical	0.6	29%
SRI	On-Site Support Personnel – Vessel Engineering	0.6	29%
Cadco	On-Site Electrical Marine Engineer	0.5	24%
Art Anderson	On-Site Senior Designer - As Built Hull	0.2	10%
Jensen Maritime	On-Site Support - Senior Manager	0.2	10%
<i>Total Vessel Engineering</i>		2.1	
<i>Vessel Maintenance & Preservation</i>			
Vessel Maint	Fuel Conservation Study	0.1	50%
Vessel Maint	On-site Staffing Support	0.1	50%
<i>Total Vessel Maintenance & Preservation</i>		0.2	

6. Other Administrative Capital Services and Charges

a. Vessel Maintenance & Preservation

The Vessel Maintenance & Preservation Division had less than \$100,000 in other capital services and charges in the 2005-07 biennium.

b. Vessel Engineering

Vessel Engineering incurred \$1.1 million in other capital program administrative services and charges, the largest of which was \$0.7 million for rent and lease of property. Other administrative services and charges included staff travel, telephone, office and information technology equipment.

Table B-8
Vessel Engineering Other Services & Charges
2005-07 Biennium
(\$ millions)

Other Services and Charges	\$
Rent & Leases - Property	0.7
Travel	0.2
Office machinery/IT Equipment/Furnishings	0.1
Telephone, data lines	0.1
Total	1.1

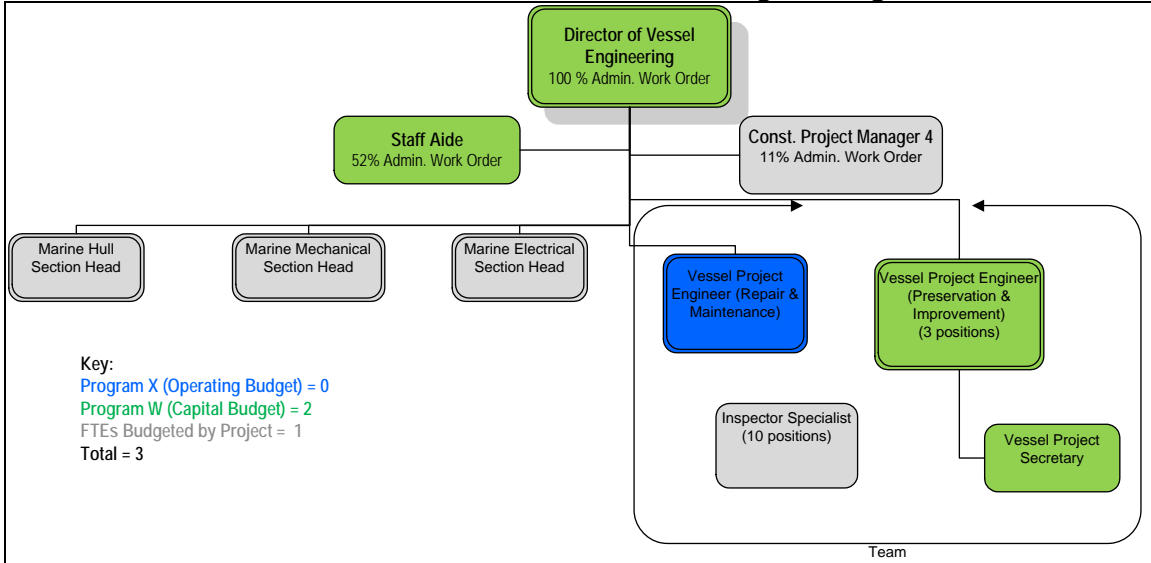
7. Office of the Director of Vessel Engineering

a. Administrative Work Order Charges

The Office of the Director includes two positions (the Director and Staff Aide), which are budgeted in the capital budget. A third position, a Construction Project Manager 4, is a capital supported project position that charged 11 percent of its time to the administrative

work order. The Director charged 100 percent of time to the administrative work order and the Staff Aide 52 percent.

Figure B-2
Office of the Director of Vessel Engineering



b. Project Charges

Total project charges from the Office of the Director were \$175,000 from the Construction Project Manager 4. (See Table B-8 below) Of these charges, \$97,000 or 55 percent were from vessel preservation projects, \$48,000 or 28 percent from the operating budget, and \$19,000 or 11 percent from the New 144-Car Vessel project.

Table B-9
Office of the Director of Vessel Engineering
Project Charges 2005-07 Biennium

Pin	PIN Name	\$	%
No PIN	Program X – Operating Budget	\$48,494	28%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferry	\$19,467	11%
944431D	MV Hyak Preservation	\$15,766	9%
944406D	MV Sealth Preservation	\$12,609	7%
944432G	MV Elwha Preservation	\$10,186	6%
944433D	MV Kaleetan Preservation	\$7,770	4%
944401D	MV Issaquah Preservation	\$7,665	4%
944452B	MV Rhododendron Preservation	\$6,831	4%
944499C	MV Puyallup Preservation	\$6,823	4%
944441B	MV Walla Walla Preservation	\$4,502	3%
944499E	MV Wenatchee Preservation	\$4,448	3%
944403D	MV Kitsap Preservation	\$3,858	2%
955540H	Systemwide Vessel Planning/Design	\$2,904	2%
944442B	MV Spokane Preservation	\$2,678	2%
955570B	Systemwide Vessel Physical Security Infrastructure	\$2,622	1%

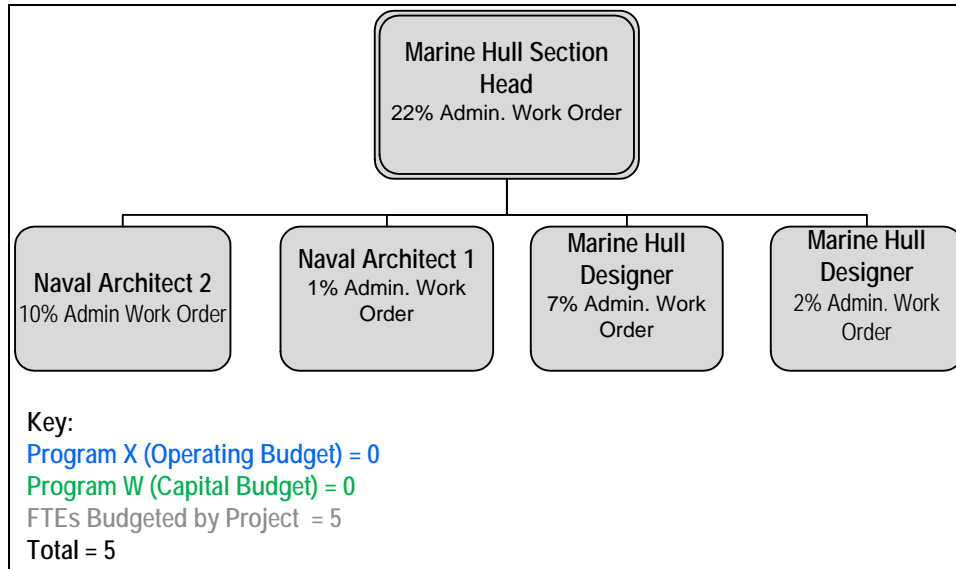
Pin	PIN Name	\$	%
944422B	MV Nisqually Preservation	\$2,365	1%
944434D	MV Yakima Preservation	\$2,253	1%
944404D	MV Cathlamet Preservation	\$2,252	1%
944405D	MV Chelan Preservation	\$1,991	1%
944413B	MV Tillikum Preservation	\$1,508	1%
999910K	Systemwide Emergency Repairs	\$1,272	1%
944424B	MV Klickitat Preservation	\$942	1%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$908	1%
944421B	MV Illahee Preservation	\$775	0%
944499D	MV Tacoma Preservation	\$726	0%
955560M	Systemwide Vessel Communications (IT)	\$527	0%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$516	0%
955560K	Systemwide Vessel Commu/Navig Equipment	\$317	0%
944412C	MV Klahowya Preservation	\$296	0%
999976W	Systemwide Vessel Noise Control (Abatement)	\$291	0%
955570A	Systemwide Vsl Accessibility Modifications	\$279	0%
999910K	Systemwide Emergency Repairs	\$276	0%
955560P	Systemwide Wireless/Ferry Customers	\$215	0%
900040N	Eagle Harbor Maintenance Facility Preservation	\$204	0%
955540M	Systemwide Vessels Electrical Special Project	\$112	0%
	Total	\$175,017	100%

8. Marine Hull Section of Vessel Engineering

a. Administrative Work Order

The Marine Hull Section's five positions all charged less than 25 percent of their time to the administrative work order, with the section head charging 22 percent of time to the administrative work order, and the other four positions charging 10 percent or less of their time to the administrative work order.

**Figure B-3
Marine Hull Section of Vessel Engineering**



b. Project Charges

Total project charges for the biennium from the Marine Hull Section were \$0.8 million in the 2005-07 biennium, of which \$225,000 or 29 percent were for vessel preservation projects, \$102,000 or 13 percent were for operating budget projects, and \$82,000 or 11 percent for physical security infrastructure projects. The section charged \$66,000 or 9 percent of their charges to the New 144-Car Vessel project.

**Table B-10
Marine Hull Section Project Charges
2005-07 Biennium**

PIN	Project	\$	%
No PIN	Program X-Operating Budget	\$102,219	13%
955570B	Systemwide Vessel Physical Security Infrastructure	\$82,189	11%
955540H	Systemwide Vessel Planning/Design	\$70,884	9%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferri	\$65,506	9%
955540K	Systemwide Vessels As Built Drawings	\$56,912	7%
944432G	MV Elwha Preservation	\$54,309	7%
902017J	Keystone Terminal 2009-2023	\$45,925	6%
955570A	Systemwide Vsl Accessibility Modifications	\$33,118	4%
955560K	Systemwide Vessel Commu/Navig Equipment	\$32,062	4%
944406D	MV Sealth Preservation	\$26,670	4%
944421B	MV Illahee Preservation	\$21,767	3%
944441B	MV Walla Walla Preservation	\$18,493	2%
955560M	Systemwide Vessel Communications (IT)	\$17,631	2%
944424B	MV Klickitat Preservation	\$17,323	2%
944401D	MV Issaquah Preservation	\$14,547	2%
944433D	MV Kaleetan Preservation	\$14,019	2%

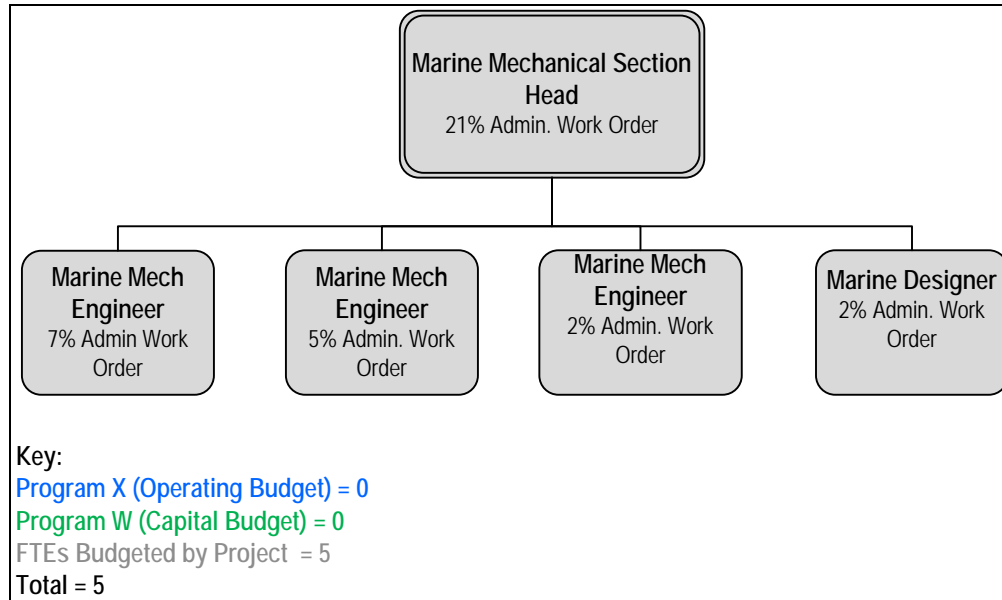
PIN	Project	\$	%
944431D	MV Hyak Preservation	\$11,063	1%
955540M	Systemwide Vessels Electrical Special Project	\$8,167	1%
944402D	MV Kittitas Preservation	\$8,120	1%
944452B	MV Rhododendron Preservation	\$7,242	1%
944412C	MV Klahowya Preservation	\$7,189	1%
944499D	MV Tacoma Preservation	\$5,152	1%
955560P	Systemwide Wireless/Ferry Customers	\$5,079	1%
944405D	MV Chelan Preservation	\$3,660	0%
944403D	MV Kitsap Preservation	\$3,453	0%
944413B	MV Tillikum Preservation	\$3,236	0%
999910K	Systemwide Emergency Repairs	\$3,034	0%
955540L	Systemwide Vessels Environmental Studies	\$2,540	0%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$2,225	0%
944499E	MV Wenatchee Preservation	\$2,174	0%
952515K	Mukilteo Multimodal Terminal	\$2,041	0%
944404D	MV Cathlamet Preservation	\$1,593	0%
955570D	Systemwide Vessel Physical Security Planning	\$1,522	0%
902017F	Keystone Terminal Preservation / Relocation	\$1,317	0%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$1,270	0%
999910K	Systemwide Emergency Repairs	\$1,225	0%
944499C	MV Puyallup Preservation	\$1,043	0%
999976W	Systemwide Vessel Noise Control (Abatement)	\$924	0%
955570C	Systemwide Vessel Safety Mgmt Enhancements	\$897	0%
944442B	MV Spokane Preservation	\$847	0%
944410F	MV Evergreen State Preservation	\$820	0%
944422B	MV Nisqually Preservation	\$775	0%
944405E	MV Chelan SOLAS Modifications	\$724	0%
985550B	Systemwide Miscellaneous Vessel Projects	\$391	0%
No PIN	System Redistribution-No Direct Charges	\$252	0%
944434D	MV Yakima Preservation	\$101	0%
Total		\$761,738	

9. Marine Mechanical Section of Vessel Engineering

a. Administrative Work Order

The Marine Mechanical Section's five positions all charged some time to the administrative work order, with the Section Head charging 21 percent of its time, the three Marine Mechanical Engineers charged 7 percent, 5 percent and 2 percent, and the Marine Designer 2 percent.

**Figure B-4
Marine Mechanical Section of Vessel Engineering**



b. Project Charges

Total project charges for the 2005-07 biennium from the Marine Mechanical Section were \$1.0 million, of which \$357,000 or 37 percent was for the New 144-Car Vessel project, \$274,000 or 28 percent was for vessel preservation projects, \$102,000 was for the Systemwide Vessel Planning/Design project which included vessel planning and management, Jumbo Mark II cavitation studies and fuel conservation studies, and 11 percent was for operating budget projects.⁶

**Table B-11
Marine Mechanical Section Project Charges
2005-07 Biennium**

PIN	Project	\$	%
944460L	Construct Four 144-Car Auto-Passenger Ferries	\$357,266	37%
955540H	Systemwide Vessel Planning/Design	\$102,284	11%
No PIN	Program X - Operating Budget	\$101,533	11%
944432G	MV Elwha Preservation	\$66,394	7%
944406D	MV Sealth Preservation	\$44,899	5%
955540L	Systemwide Vessels Environmental Studies	\$36,159	4%
944401D	MV Issaquah Preservation	\$32,727	3%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$32,674	3%
944433D	MV Kaleetan Preservation	\$31,613	3%
944431D	MV Hyak Preservation	\$23,435	2%
944403D	MV Kitsap Preservation	\$20,569	2%
944405D	MV Chelan Preservation	\$14,680	2%

⁶ See *Washington State Ferries Financing Study II: Auto-Passenger Vessel Preservation and Replacement Final Report*, January 2008, p. 52 for further information.

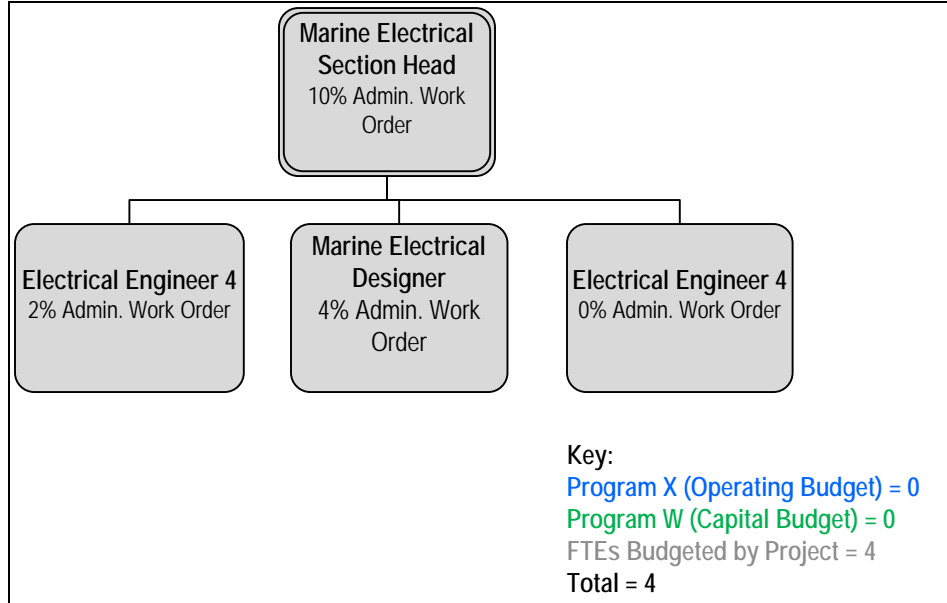
PIN	Project	\$	%
955570B	Systemwide Vessel Physical Security Infrastructure	\$13,230	1%
955560M	Systemwide Vessel Communications (IT)	\$12,456	1%
944441B	MV Walla Walla Preservation	\$10,234	1%
944404D	MV Cathlamet Preservation	\$8,418	1%
985550B	Systemwide Miscellaneous Vessel Projects	\$8,088	1%
944402D	MV Kittitas Preservation	\$8,005	1%
955540K	Systemwide Vessels As Built Drawings	\$7,345	1%
902017J	Keystone Terminal 2009-2023	\$6,538	1%
999910K	Systemwide Emergency Repairs	\$5,478	1%
944499D	MV Tacoma Preservation	\$3,887	0%
944434D	MV Yakima Preservation	\$3,319	0%
944421B	MV Illahee Preservation	\$2,997	0%
955560K	Systemwide Vessel Commu/Navig Equipment	\$1,969	0%
955570A	Systemwide Vsl Accessibility Modifications	\$1,487	0%
944424B	MV Klickitat Preservation	\$934	0%
955540M	Systemwide Vessels Electrical Special Project	\$785	0%
944413B	MV Tillikum Preservation	\$689	0%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$584	0%
955560P	Systemwide Wireless/Ferry Customers	\$568	0%
944412C	MV Klahowya Preservation	\$460	0%
No PIN	System Redistribution-No Direct Charges	\$426	0%
955570D	Systemwide Vessel Physical Security Planning	\$424	0%
944452B	MV Rhododendron Preservation	\$251	0%
944442B	MV Spokane Preservation	\$242	0%
944405E	MV Chelan SOLAS Modifications	\$130	0%
944499E	MV Wenatchee Preservation	\$113	0%
Total		\$963,837	

10. Marine Electrical Section of Vessel Engineering

a. Administrative Work Order

Three of the four Marine Electrical Section's positions charged some time to the administrative work order, with the Section Head charging 10 percent of its time, the Electrical Engineer 4 charging 2 percent and the Marine Electrical Designer charging 4 percent.

**Figure B-5
Marine Electrical Section of Vessel Engineering**



b. Project Charges

Total project charges for the 2005-07 biennium from the Marine Electrical Section were \$0.8 million, of which \$388,000 or 47 percent was for vessel preservation projects, \$122,000 was for the Systemwide Vessel Physical Security Infrastructure project, \$50,000 or 6 percent was for operating budget projects, and \$42,000 or 5 percent was for the New 144-Car Vessel project.

**Table B-12
Marine Electrical Section Project Charges
2005-07 Biennium**

PIN	Project	\$	%
944432G	MV Elwha Preservation	\$130,404	16%
955570B	Systemwide Vessel Physical Security Infrastructure	\$122,266	15%
944406D	MV Sealth Preservation	\$64,442	8%
955560M	Systemwide Vessel Communications (IT)	\$59,933	7%
No PIN	Program X – Operating Budget	\$49,684	6%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferri	\$42,139	5%
944404D	MV Cathlamet Preservation	\$39,955	5%
944401D	MV Issaquah Preservation	\$39,871	5%
944431D	MV Hyak Preservation	\$36,327	4%
955540H	Systemwide Vessel Planning/Design	\$28,558	3%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$23,569	3%
999976W	Systemwide Vessel Noise Control (Abatement)	\$23,484	3%
955540K	Systemwide Vessels As Built Drawings	\$23,189	3%
944402D	MV Kittitas Preservation	\$20,663	3%
944433D	MV Kaleetan Preservation	\$19,646	2%

PIN	Project	\$	%
955570D	Systemwide Vessel Physical Security Planning	\$12,686	2%
944403D	MV Kitsap Preservation	\$12,583	2%
999910K	Systemwide Emergency Repairs	\$12,329	2%
955540M	Systemwide Vessels Electrical Special Project	\$11,890	1%
955560P	Systemwide Wireless/Ferry Customers	\$8,110	1%
955560K	Systemwide Vessel Commu/Navig Equipment	\$6,363	1%
944441B	MV Walla Walla Preservation	\$4,325	1%
944499D	MV Tacoma Preservation	\$3,658	0%
944424B	MV Klickitat Preservation	\$3,642	0%
944452B	MV Rhododendron Preservation	\$2,812	0%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$2,698	0%
944442B	MV Spokane Preservation	\$2,412	0%
955570A	Systemwide Vsl Accessibility Modifications	\$2,397	0%
944413B	MV Tillikum Preservation	\$2,258	0%
985550B	Systemwide Miscellaneous Vessel Projects	\$1,986	0%
944412C	MV Klahowya Preservation	\$1,655	0%
944405D	MV Chelan Preservation	\$1,567	0%
902017J	Keystone Terminal 2009-2023	\$1,077	0%
944421B	MV Illahee Preservation	\$788	0%
944434D	MV Yakima Preservation	\$614	0%
955540L	Systemwide Vessels Environmental Studies	\$478	0%
944499E	MV Wenatchee Preservation	\$319	0%
Total		\$821,110	

11. Project/Inspection Section of Vessel Engineering

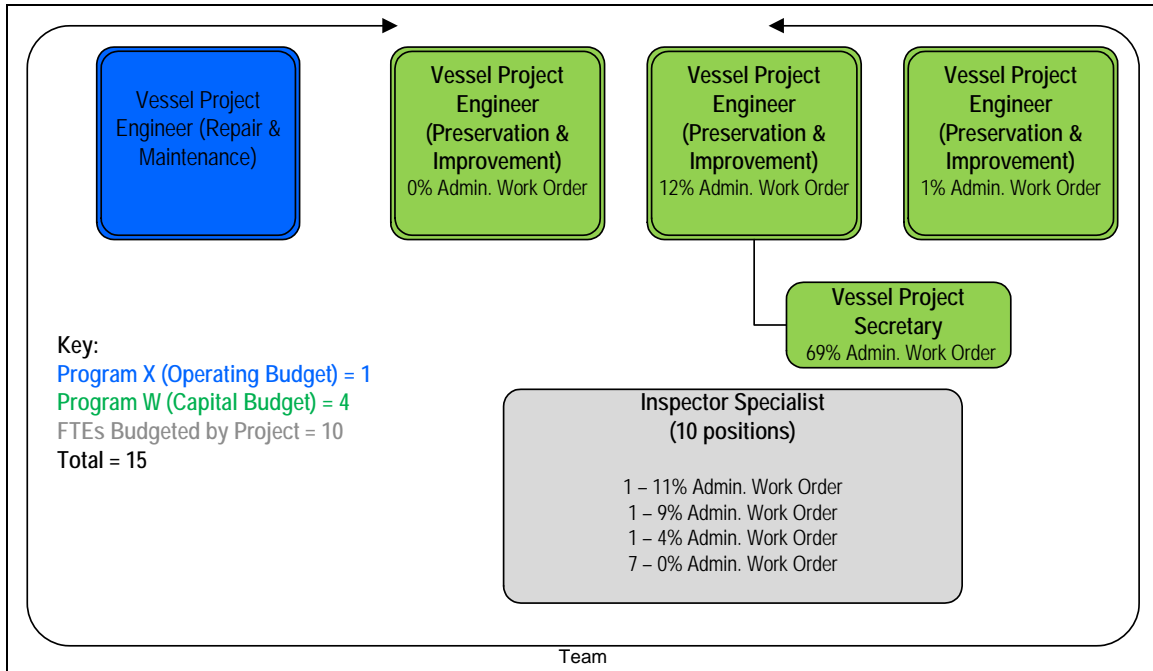
a. Overview

The Project/Inspection section of Vessel Engineering has 15 positions, including four (4) Vessel Project Engineers, one of which is funded by the Operating Budget and three funded by the capital budget, plus a Secretary funded by the capital budget, and 10 Inspector positions, which are funded through capital projects.

b. Administrative Work Order

Five (5) of the 14 Project/Inspection section positions charged more than 1 percent of their time to the administrative work order. The Vessel Project Secretary position charged 69 percent of its time to the administrative work order, one of the Vessel Project Engineers charged 12 percent and the one Vessel Project Engineer charge 1 percent. Seven of the Inspector Specialist positions charged none of their time to the administrative work order, one charged 11 percent of its time, one 9 percent and one 4 percent.

**Figure B-6
Project/Inspection Section of Vessel Engineering**



c. Project Charges

i. Overview

Total project charges for the 2005-07 biennium from the Project/Inspection Section were \$1.7 million, of which \$0.6 million or 33 percent was for the New 144-Car Vessel project, \$0.6 million or 33 percent was for vessel preservation projects, \$0.1 million was for the Systemwide Vessel Planning/Design project which included vessel planning and management, Jumbo Mark II cavitation studies and fuel conservation studies, and 15 percent was for operating budget projects.

ii. Inspectors

The 10 Inspector Specialist positions charged \$2.0 million to the vessel projects in the 2005-07 biennium of which \$0.9 million or 47 percent was to vessel preservation projects, \$0.3 million or 13 percent was to the New 144-Car Vessel project, and \$0.2 million or 9 percent to operating budget projects.

**Table B-13
Inspectors – Vessel Engineering Project Charges
2005-07 Biennium**

PIN	Project	\$	%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferri	\$260,151	13%
944432G	MV Elwha Preservation	\$191,077	10%
955570B	Systemwide Vessel Physical Security Infrastructure	\$184,803	9%
No PIN	Program X	\$175,330	9%
944431D	MV Hyak Preservation	\$163,161	8%
944441B	MV Walla Walla Preservation	\$155,539	8%
999910K	Systemwide Emergency Repairs	\$124,905	6%
944406D	MV Sealth Preservation	\$102,355	5%
944433D	MV Kaleetan Preservation	\$59,824	3%
955560M	Systemwide Vessel Communications (IT)	\$58,357	3%
999910K	Systemwide Emergency Repairs	\$48,187	2%
955540I	Systemwide Vessel Life Cycle Cost Model Update	\$41,783	2%
944403D	MV Kitsap Preservation	\$38,554	2%
944413B	MV Tillikum Preservation	\$38,367	2%
985550E	Systemwide Prog X Vsl Contracts Using CAPS	\$34,780	2%
944452B	MV Rhododendron Preservation	\$34,206	2%
944401D	MV Issaquah Preservation	\$32,818	2%
944412C	MV Klahowya Preservation	\$30,827	2%
955560K	Systemwide Vessel Commu/Navig Equipment	\$25,507	1%
944424B	MV Klickitat Preservation	\$25,426	1%
955570A	Systemwide Vsl Accessibility Modifications	\$25,166	1%
944421B	MV Illahee Preservation	\$21,343	1%
999976W	Systemwide Vessel Noise Control (Abatement)	\$18,049	1%
955560P	Systemwide Wireless/Ferry Customers	\$16,083	1%
955540M	Systemwide Vessels Electrical Special Project	\$13,674	1%
944405D	MV Chelan Preservation	\$12,040	1%
955540H	Systemwide Vessel Planning/Design	\$9,959	1%
944404D	MV Cathlamet Preservation	\$8,349	0%
944461A	Passenger Only Preservation	\$6,124	0%
944422B	MV Nisqually Preservation	\$4,390	0%
999910J	Systemwide Emergency Repairs 2003-2005	\$4,187	0%
944402D	MV Kittitas Preservation	\$3,414	0%
944442B	MV Spokane Preservation	\$2,614	0%
944499D	MV Tacoma Preservation	\$2,503	0%
944434D	MV Yakima Preservation	\$2,446	0%
944405E	MV Chelan SOLAS Modifications	\$1,239	0%
955550B	*PB* Systemwide Vessel Projects	\$1,238	0%
900040N	Eagle Harbor Maintenance Facility Preservation	\$325	0%
944499E	MV Wenatchee Preservation	\$165	0%
944499C	MV Puyallup Preservation	\$45	0%
902017J	Keystone Terminal 2009-2023	\$5	0%
Total		\$1,979,313	

3. Project Engineers

The three Project Engineers and the Secretary position supported by the capital budget charged \$0.8 million directly to projects in the 2005-07 biennium, of which \$251,000 or 32 percent was to vessel preservation projects, \$0.2 million or 26 percent was to the New 144-Car Vessel project, \$0.2 million or 23 percent to Operating Budget and Operating Budget X5 Reimbursable contracts projects, and \$61,000 or 8 percent to the Eagle Harbor Maintenance Facility Preservation project.

**Table B-14
Project Engineers – Vessel Engineering Project Charges
2005-07 Biennium**

PIN	Project	\$	%
944460L	Construct Four 144-Car Replacement Auto-Pass Ferries	\$203,567	26%
999999A	Program X	\$146,823	19%
900040N	Eagle Harbor Maintenance Facility Preservation	\$60,520	8%
944431D	MV Hyak Preservation	\$55,697	7%
985550E	X5 Vessel Reimbursable Contracts Using Caps	\$34,488	4%
944432G	MV Elwha Preservation	\$33,151	4%
944406D	MV Sealth Preservation	\$32,617	4%
602110F	Program P (WSDOT Project)	\$31,236	4%
944401D	MV Issaquah Preservation	\$26,613	3%
999910K	Systemwide Emergency Repairs 2005-2023	\$25,055	3%
955570A	Systemwide Accessibility Modifications	\$23,642	3%
944433D	MV Kaleetan Preservation	\$23,248	3%
944452B	MV Rhododendron Preservation	\$18,009	2%
944402D	MV Kittitas Preservation	\$15,383	2%
944412C	MV Klahowya Preservation	\$13,546	2%
944403D	MV Kitsap Preservation	\$8,339	1%
944404D	MV Cathlamet Preservation	\$7,975	1%
944441B	MV Walla Walla Preservation	\$5,856	1%
944442B	MV Spokane Preservation	\$4,781	1%
944499D	MV Tacoma Preservation	\$3,634	0%
955560P	Systemwide Wireless/Ferry Customers	\$3,018	0%
999910J	Systemwide Emergency Repairs 2003-2005	\$1,887	0%
955570B	Systemwide Vessel Physical Security Infrastructure	\$1,877	0%
944421B	MV Illahee Preservation	\$1,334	0%
944434D	MV Yakima Preservation	\$1,253	0%
955540M	Systemwide Vessel Electrical Special Projects	\$1,007	0%
955560K	Systemwide Commo/Navigation/Life Saving	\$713	0%
999976V	Systemwide Vessel Work Orders By Auditor	\$412	0%
Total		\$785,681	

Appendix C. Administrative Divisions

This appendix reviews capital program charges from the Ferries Finance and Administration Division, the Human Resources Division, and the Communications section of the Operations Division.

In the 2005-07 biennium these divisions incurred \$4.8 million in capital administration expenses, which is 3 percent of the total capital program cost in the biennium.

**Table C-1
Summary
Finance & Administration, Human Resources, and Communications
Capital Staff and Administration Expenses, 2005-07 Biennium**
(\$ millions)

Expense	\$	% of Total Capital Program
Capital staff charges to admin. work order	2.0	1%
Operating staff charges to capital	0.3	0%
On-site consultants	0.2	0%
Systemwide/administrative projects	1.2	1%
Other administrative services & charges	1.1	1%
Total Finance & Admin., HR, Comm. Expenses	4.8	
Terminal Capital Expenditures	183.1	
% Finance & Admin., HR, Comm. Administration	3%	3%

1. Organizational Structure

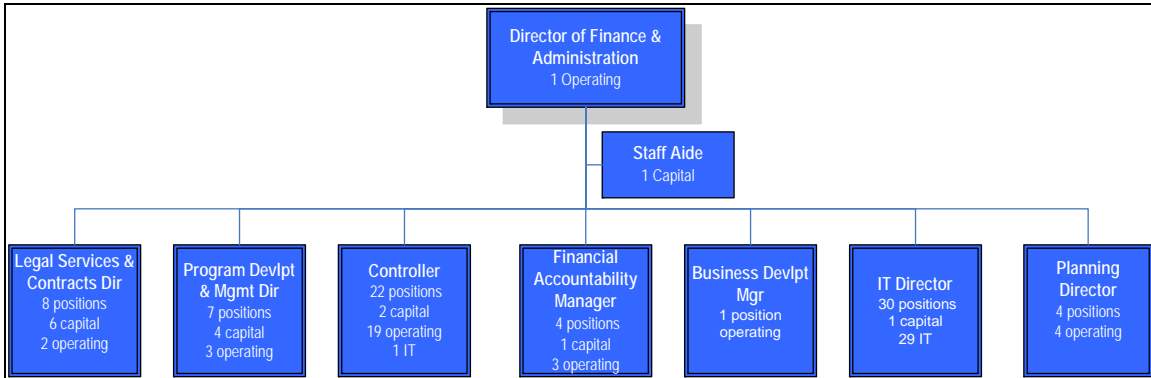
In the 2005-07 biennium Ferries had its administrative functions within three divisions: Finance & Administration, Human Resources, and Operations, which included the Communications Section.⁷

a. Finance & Administration

In the 2005-07 biennium, Finance & Administration had 78 FTE positions, of which 33 FTEs or 42 percent were supported by the operating budget, 30 FTEs or 38 percent by the information technology budget, and 15 FTEs or 20 percent by the capital budget.

⁷ In 2007 FERRIES re-organized these functions to place Planning, Program Development & Management, Legal Services & Contracts, Human Resources, and Communications under a newly created Deputy Director position, along with Safety Systems and Operations.

**Figure C-1
Finance & Administration Organization Chart
2005-07 Biennium**

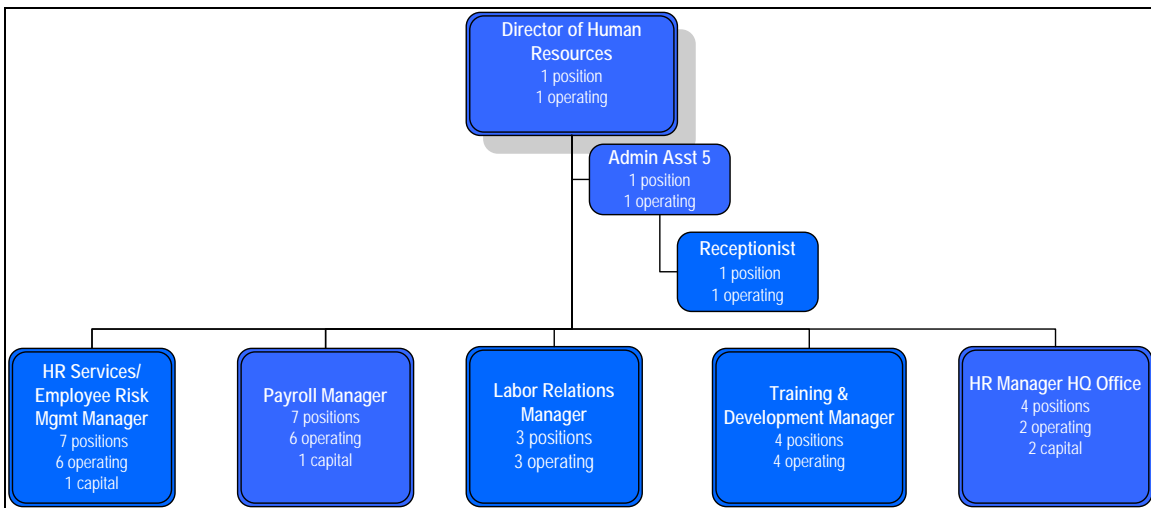


Labor charged to the capital budget from Finance & Administration in the 2005-07 biennium totaled \$1.6 million, all of which was charged to the administrative work order.

b. Human Resources

In the 2005-07 biennium, Human Resources had 28 FTE positions, of which 24 FTEs or 86 percent were supported by the operating budget, and 4 FTEs or 14 percent by the capital budget.

**Figure C-2
Human Resources Organization Chart
2005-07 Biennium**



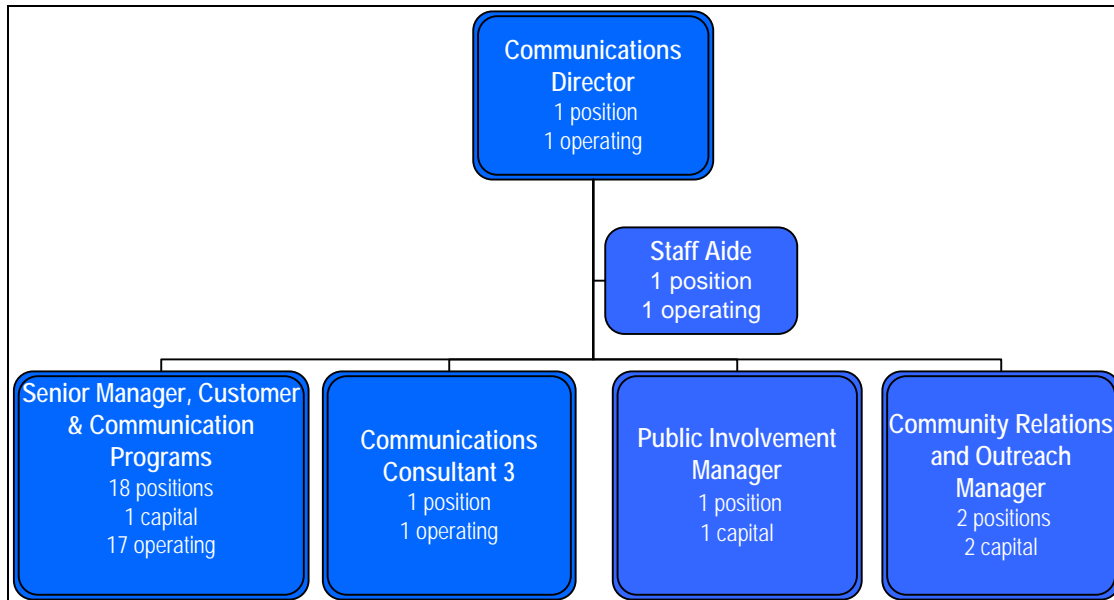
Labor charged to the capital budget from Human Resources in the 2005-07 biennium totaled \$0.3 million, all of which was charged to the administrative work order.

c. Communications

The Communications Section reported to the Operations Division in the 2005-07 biennium. In the 2005-07 biennium, Communications had 24 FTE positions, of which 20

FTEs or 83 percent were supported by the operating budget and 4 FTEs or 17 percent by the capital budget.

**Figure C-3
Communications Organization Chart
2005-07 Biennium**



Labor charged to the capital budget from Communications in the 2005-07 biennium totaled \$0.4 million, of which \$0.1 million was charged to the administrative work order. Additional project charges of \$0.3 million were made to projects by the Customer Information Agents.

2. Staff Charges

a. Staff Charges to Capital Administrative Work Order

Capital administrative overhead expenditures from Finance & Administration, Human Resources, and Communications totaled \$2.0 million in the 2005-07 biennium, of which \$1.6 million or 79 percent was from Finance & Administration, \$0.3 million or 15 percent from Human Resources, and \$0.1 million or 6 percent from Communications.

**Table C-2
Administrative Divisions Position Charges to
Administrative Work Order 2005-07**

Section	Position #	Title	Admin Amount	% Charged to Admin
Finance & Administration				
<i>Office of the Director</i>	A0215	Staff Aide	\$20,506	100%
Legal				
	9E148	EMS Band 1	\$168,410	100%
	A0334	Contract Coord. 1	\$90,377	100%

Section	Position #	Title	Admin Amount	% Charged to Admin
	A0341	Contract Coord. 2	\$132,431	100%
	A0338	Consultant Coord.	\$80,271	100%
	90017	Transp. Tech. 5	\$191,523	100%
	A0308	Acct. Asst. 3	\$2,741	100%
Sub-total Legal			\$665,753	
Program Development/Management				
	9W045	Washington Management Service Band 4	\$231,674	86%
	90142	Budget Analyst 3	\$18,888	100%
	90226	Budget Analyst 3	\$81,569	98%
	90244	Marine Engineer	\$133,572	99%
	9W044	Washington Management Service Band 2	\$174,031	94%
	9W043	Washington Management Service Band 2	\$4,611	100%
Sub-total Program Development/Management			\$644,346	
Controller				
	9W022	Washington Management Service Band 2	\$2,478	100%
	A0300	Accountant	\$117,307	100%
	A0311	Acct. Asst. 3	\$100,166	100%
	A0105	Secretary	\$31,291	52%
	A0403	Staff Aide	\$20,899	38%
Sub-total Controller			\$272,141	
Sub-Total Finance & Administration			\$1,602,747	
Human Resources				
	9W019	Washington Management Service Band 1	\$156,787	100%
	90275	Human Resources Consultant 3	\$36,837	95%
	A0319	Payroll Assistant 1	\$115,817	100%
	A0325	Inventory Agent	\$2,627	13%
Sub-total Human Resources			\$312,067	
Communications				
Public Affairs	A0301	Staff Aide	\$25,033	100%
Public Affairs	9W038	WMS Band 1 (Dir. Operations)	\$7,273	44%
Public Affairs	9W054	Washington Management Service Band 1	\$42,344	28%
Public Affairs	9W055	Washington Management Service Band 1	\$49,721	34%
Sub-Total Communications			\$124,371	
Total			\$2,039,185	

b. Staff Charges to Capital Projects

The only significant costs being charged directly to capital projects by the Administrative Division staff are for Customer Information Agent time totaling \$0.3 million in the 2005-07 biennium. A breakdown by project of these costs is not available.

3. On-Site Consultants

These divisions used one on-site consultant in the 2005-07 biennium in the Information Technology Division for electronic fare system training and supervision. The contract expense was \$0.2 million for the biennium.

4. Project Administrative Expenses

Ferries uses project budgets to retain consultants to perform legal and communications functions related to capital projects. These expenses in the 2005-07 biennium totaled \$1.2 million.

Table C-3
Project Administrative Expenses
(\$ millions)

Service	\$	Projects
Communications	1.1	Bainbridge, Anacortes, Colman Dock, Electronic Fare, New Vessel
Legal	0.1	New Vessel
Total	1.2	

5. Other Administration Capital Administrative Services and Charges

a. Ferries Expenses

The Administration Divisions incurred \$0.8 million in other capital program administrative services and charges, the largest of which was \$0.6 million for information technology, office machinery, and associated software and supplies.

b. Attorney General Expenses

Ferries incurred \$0.3 million in Attorney General capital expenses in the 2005-07 biennium.

Table C-4
Administration Other Services & Charges
2005-07 Biennium
(\$ millions)

Other Services and Charges	\$
Office machinery/IT/Equipment/Furnishings	0.6
Attorney General support	0.3
Telephone, data lines, supplies	0.1
Training & Travel	0.1
Total	1.1

Appendix D. Operations Division

This appendix reviews capital program administrative charges from the Ferries Operations Division. In the 2005-07 biennium the Operations Division incurred \$4.5 million in capital administrative expenses, which is 2 percent of the Ferries capital program expense in the biennium.

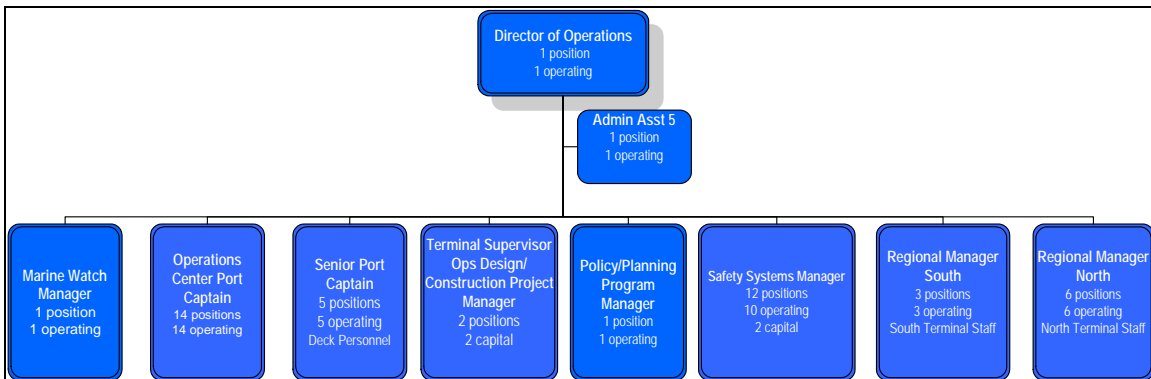
**Table D-1
Summary
Operations Capital Staff and Administration Expenses
2005-07 Biennium**
(\$ millions)

Expense	\$	% of Total Capital
Capital staff charges to admin. work order	0.5	0%
Operating staff charges to capital	2.9	2%
On-site consultants	1.0	0%
Other administrative services & charges	0.1	0%
Total Operations Expenses	4.5	
Terminal Capital Expenditures	183.1	
% Operations Administration	2%	2%

1. Organizational Structure

In the 2005-07 biennium, Ferries Operations Division, excluding Communications, included a total of 46 positions, of which 42 positions or 91 percent were supported by the operating budget, and four positions or 9 percent by the capital program.

**Figure D-1
Operations Division Organization Chart
2005-07 Biennium***



* Excluding Communications

Labor charged to capital from Operations in the 2005-07 biennium totaled \$3.4 million.

2. Staff Charges

a. Staff Charges to Administrative Work Order

None of the four positions supported by the capital program in the Operations Division charged time to the administrative work order.

b. Staff Charges to Capital Projects

i. Charges by Capital Positions

The four positions supported by the capital program in the Operations Division charged \$0.5 million to capital projects in the 2005-07 biennium.

Table D-2
Operations Division Administrative Staff Project Charges
2005-07 Biennium

PIN	Project Name	\$
966620E	Systemwide Operations Construction Support	\$317,442
989930D	Systemwide Terminal SMS Enhancements	\$54,704
989930B	Systemwide Terminal Physical Security Infrastructure	\$92,970
955570B	Systemwide Vessel Physical Security Infrastructure	\$65,930
	Total	\$531,046

c. Vessel Deck, Terminal and Regional Staff Charges to Capital

The Operations Division terminal staff and vessel deck staff charged \$2.9 million to the Systemwide Operations Construction Support project, the Point of Sale Replacement project and to other capital projects.

i. Systemwide Operations Construction Support Project: This project captures costs incurred by terminal and vessel deck staff working on capital projects. In the 2005-07 biennium the project expenses were \$1.7 million, of which \$0.8 million or 47 percent was for terminal staff, and \$0.2 million or 12 percent was for vessel staff.⁸ Expenses were incurred in support of projects at Anacortes, Bainbridge, Mukilteo, and for the Electronic Fare System (in addition to terminal staff time charged directly to the Point of Sale System Replacement project discussed below).

ii. Systemwide Point of Sale Replacement/Regional Fare Project: In the 2005-07 biennium Ferries implemented its new electronic fare system project and participated in a regional fare integration project. Terminal staff charges to these efforts totaled \$0.2 for terminal supervisors and staff.

⁸ An additional \$0.1 million or 7 percent was for management information system support. The remainder of the expenses were for the on-site consultants (\$0.3 million) to manage the operations support, \$0.1 million for a operations planning project manager state employee, and \$0.2 million in other expenses.

Table D-3
Operations Project Terminal, Vessel Deck and Regional Staff Charges
(\$ millions)

	Terminal	Vessel Deck	Regional Staff	Total
Operations Construction & Support	0.8	0.2		1.0
Point of Sale Replacement	0.2			0.2
Misc. Projects*	1.0	0.6	0.1	1.7
Total	2.0	0.8	0.1	2.9

* Object Code Expenditure Report Total Minus Operations Construction & Support/POS projects

3. On-Site Consultants

In the 2005-07 biennium, Operations spent \$1.0 million on on-site consultants who provided security, operations construction coordination, and grant and product development services.

Table D-4
Operations On-Site Consultants 2005-07 Biennium
(\$ millions)

Contractor	Project/Task	\$
On-Call Support	Security Office Manager/Credentialing	0.2
SRI	Operations Design & Construction Support (PIN 96620E*)	0.2
SRI	Environmental Program Manager (PIN 955570C**)	0.2
ATS Reliance	Operations Project Development - Project Manager	0.2
KPFF	Operations Design & Construction Support (PIN 96620E*)	0.1
Spectrum Design	Grants Planning, Administration and Management (PIN 97730A***)	0.1
Total		1.0

* Systemwide Operations Construction Support project

** Systemwide Vessel Safety Management Enhancements project

*** Systemwide Planning and Special Studies project

4. Operations Division Capital Other Services and Charges Expenses

The Operations Divisions incurred \$0.1 million in other services and charges capital expenses primarily for office equipment, training and telephone charges.