Secretary of State

State of Oregon

OREGON DEPARTMENT OF TRANSPORTATION

Statewide Transportation Improvement Program
Project Delivery

Audits Division

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Statewide Transportation Improvement Program Project Delivery

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Auditing for a Better Oregon

Senator Gene Timms and
Representative Jim Welsh, Co-Chairs
Legislative Audit Committee

Dear Committee Members:

At the September 1997 and November 1997 meetings of the Legislative Audit Committee, the Oregon Audits Division presented the results of its audit survey at the Oregon Department of Transportation (ODOT). The survey summarized the views of ODOT stakeholders and identified audit work in 12 areas to address the main areas of concern. Based on input from committee members, the Audits Division began work on five of the proposed projects.

This report, the fifth in the series, provides information on the Statewide Transportation Improvement Program (STIP) and summarizes ODOT's success in starting highway projects shown in STIP documents. Our report focuses on ODOT's delivery of state highway modernization and pavement preservation projects included in the 1993-98 and the 1996-98 STIP documents. The results show that ODOT started 77 percent of the 1996-98 STIP projects, a notable improvement over its delivery of 1993-98 STIP projects. That level of project delivery was generally on par with other states that measure project delivery. We also found that most project cost estimates shown in STIP documents reliably predict actual total costs.

We received the full cooperation of ODOT management and staff in compiling this report.

OREGON AUDITS DIVISION

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TABLE OF CONTENTS

Page

WHAT ARE THE OBJECTIVES OF THIS REPORT? 1

WHAT IS THE STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)? 1

WHAT PROJECTS ARE IN THE STIP? 2

WHAT IS THE OREGON TRANSPORTATION COMMISSION'S ROLE IN THE STIP? 3

WHO PROPOSES THE PROJECTS INCLUDED IN THE STIP? 3

WHY DOESN'T THE STIP SHOW EVERY PROJECT THAT NEEDS TO BE DONE? 4

HOW OFTEN CAN THE STIP BE AMENDED? 5

WHAT IS IN THE MOST RECENT STIP? 5

HOW DOES OREGON'S FUNDING OF STIP PROJECT CATEGORIES COMPARE TO OTHER STATES? 7

HOW MANY STATE PROJECTS WERE STARTED RECENTLY? 8

HOW MANY OF THE PROJECTS STARTED WERE IN THE STIP? 8

HOW LONG HAD THE PROJECTS STARTED BEEN IN THE STIP BEFORE CONTRACTS WERE LET? 9

IS ODOT'S DELIVERY OF STIP PROJECTS GETTING BETTER OR WORSE? 9

HOW DOES ODOT'S PERFORMANCE IN STARTING STIP PROJECTS COMPARE TO OTHER STATES? 10

ARE STIP PROJECTS BEING STARTED AS SCHEDULED? 11

WHAT GOES INTO A STIP PROJECT COST ESTIMATE? 12

HOW RELIABLE ARE THE STIP COST ESTIMATES? 14

SUPPLEMENT 17

AGENCY'S RESPONSE TO THE INFORMATIONAL REPORT 21

What are the Objectives of This Report?

This informational report is in response to questions raised by legislators, public employees, transportation stakeholders, and others. It presents information on the Oregon Department of Transportation's (ODOT) success in delivering state highway construction projects that are shown in the Statewide Transportation Improvement Program (STIP). The main objectives of our study were to:

- Review ODOT's performance in starting state modernization and pavement preservation (preservation) projects in the scheduled year shown in the STIP.
- Review ODOT's performance in completing state modernization and preservation projects near the estimated cost reported in the STIP.
- Determine the time taken to start construction on state modernization and preservation projects once they appear in the STIP.

To obtain information, we interviewed ODOT management and staff, reviewed minutes of Oregon Transportation Commission (OTC) meetings held between 1986 and 1997, and reviewed documents the Commission approved during that period. To obtain information on projects, we reviewed information in ODOT's automated Project Control System and in a separate database of construction contracts. For some projects, we reviewed ODOT construction files. To obtain information on project expenditures, we accessed transaction data from ODOT's automated financial information system. The documents reviewed, which we refer to as STIP documents, included:

- Statewide Transportation Improvement Program, 1998-2001
- Statewide Transportation Improvement Program, 1996-1998
- Statewide Transportation Improvement Program, 1995-1998
- 1993-1998 Six-Year Transportation Improvement Program
- 1991-1996 Six-Year Highway Improvement Program
- Six-Year Highway Improvement Program, 1989-1994
- Six-Year Highway Improvement Program, 1987-1992
- Six-Year Highway Improvement Program, 1984-1989
- Six-Year Highway Improvement Program, 1982-1987

What is the Statewide Transportation Improvement Program (STIP)?

The STIP is a multi-year schedule of highway and transit projects for which the state plans to request federal funding, or that have statewide or regional significance. The STIP has gone by various names. Prior to 1993, it was called the 6-Year Highway Improvement Program. To obtain federal transportation funds, a STIP document must be formally updated at least once every two years and submitted to the federal government for approval.

What Projects are in the STIP?

The STIP includes highway-related and transit-related projects and programs. The projects and programs in the STIP are categorized according to the entity requesting their consideration: the state, local governments, or the federal government. In recent years, the STIP has not included aeronautics, rail freight, or passenger (non-transit) rail projects and programs. Planning and programming for these other modes is done separately.

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Transit-related project and program categories include pubic transit district operations, transportation programs for persons with special needs, transit facility and light rail system construction, vehicle purchases, and transit planning.

Major highway-related projects and programs include:

- **Modernization**: major new highway construction projects such as roadway reconstruction, road widening, and the construction of interchanges, overpasses, and ramps.
- **Preservation**: pavement resurfacing and repair projects.
- **Safety**: various safety improvements, such as guardrail and barrier replacement, exit-lane and turn-lane construction, access management, and illumination.
- **Operations**: rideshare programs, park-and-ride lots, landslide repairs, signals, signs, and slow-moving vehicle pullouts.
- **Bridge**: various improvements such as bridge replacement, overpass screening deck repair, seismic retrofitting, drainage systems, and painting.
- **Bike and Pedestrian**: various projects to improve or construct bicycle and pedestrian facilities, including bike paths, sidewalks, signs, and pavement striping.
- **Statewide Programs**: various ODOT programs and services that are generally implemented throughout the state. Examples include

the Immediate Opportunity Fund (economic development projects), funds for state planning and research programs, the Rail/Highway Crossing Program (safety improvements), the Local Bridge Inspection Program, and the High Speed Rail Program (transit).

The STIP also includes categories for various other types of highway-related projects, including facility enhancements and congestion relief programs. Examples include the Transportation Enhancement Program, the Congestion Mitigation/Air Quality (CMAQ) Program, a federal Indian Reservation Road program, funds for local transportation planning, and funds for scenic outlooks and culvert retrofits.

What is the Oregon Transportation Commission's Role in the STIP?

The OTC makes the final decision on which projects and programs are included in a STIP document and approves amendments. The commission consists of five members appointed by the governor and confirmed by the state senate, and has general supervision over matters pertaining to the operation and administration of state highways. Its primary duty, assigned by statute, is the development and maintenance of state transportation policy including a comprehensive, long-range plan for a multimodal transportation system. The plan, referred to as the Oregon Transportation Plan, sets policy for highways, roads, and bridges; transit; rail; bicycle and pedestrian facilities; ports and marine transportation; airports; and pipelines.

In updating the STIP, OTC commissioners consider proposals for projects and programs that are submitted by ODOT, Metropolitan Planning Organizations (MPOs), Area Commissions on Transportation, and federal agencies. The OTC and ODOT also hold public hearings throughout the state to gather information and recommendations from individuals, local governments, and other organizations. The public input process provides one of several bases for prioritizing (scheduling) projects.
ODOT provides staff support to the OTC, and is responsible for carrying out the policies adopted by the OTC and all duties and responsibilities vested in it by law. The statutes designate ODOT as the recipient of all federal transportation funds paid to the state to enable the state to provide the programs and services assigned to ODOT.

Who Proposes the Projects Included in a STIP Document?

Oregon's four MPOs do almost all of the highway planning on behalf of ODOT in their respective urban regions. MPOs function as a part of councils of governments headquartered in Eugene, Medford, Portland, and Salem. ODOT participates in MPO planning processes and usually abides by MPO proposals for the STIP.

State highway system projects involving pavement preservation, bridge rehabilitation, and safety and operational improvements are usually developed by ODOT staff based on internal technical studies.

For non-metropolitan areas, ODOT staff in region offices does most of the state highway system planning. Recently, ODOT and local governments have formally coordinated efforts through corridor planning and growth management planning. A corridor plan is a 20-year plan showing specific improvement needs and projects along a segment of highway. Corridor plans are jointed adopted by the OTC and the affected local government. With growth management planning, state funds are provided to local governments for upgrading their local transportation system plans to meet statewide planning goals and to ensure consistency with state transportation plans.

Why Doesn't the STIP Show Every Project That Needs to be Done?

Under federal rules, the STIP must be fiscally constrained: projects and programs may be listed for implementation in the first three years of a STIP only if full funding has already been identified, or can reasonably be expected to become available. STIP projects and programs are funded with federal, state, local, or other resources, or from a combination of these sources.

Before 1994, the federal government did not require the STIP to be fiscally constrained. These earlier STIP documents scheduled many projects for construction still in preliminary planning stages, and full funding had not been identified. The 1993-98 STIP was not fiscally constrained. To comply with the federal requirements, in developing the 1995-98 STIP document, the MPOs, ODOT, and the OTC were required to cancel or delay many projects that had been shown for construction in previous STIP documents. They further scaled back the number of scheduled projects in developing the 1996-98 STIP document. In deciding what to keep, priority was given to projects that preserved rather than expanded existing highways.

Before 1994, the federal government did not require the STIP to be fiscally constrained. These earlier STIP documents scheduled many projects for construction that were still in preliminary planning stages and full funding had not been identified. The 1993-98 STIP was not fiscally constrained. To comply with the federal requirements, in developing the 1995-98 STIP document, the MPOs, ODOT, and the OTC were required to cancel or delay many projects that had been shown for construction in previous STIP documents. They further scaled back the number of scheduled projects in developing the 1996-98 STIP document. In deciding what to keep, priority was given to projects that preserved rather than expanded existing highways.

Projects and programs included in the STIP must be consistent with the Oregon Transportation Plan and MPO-approved area transportation improvement programs. In addition, STIP projects within certain air basins must conform to the state Clean Air Act implementation plan.

How Often Can the STIP be Amended?

Under federal rules, the STIP must be formally updated at least once every two years. The OTC can amend the STIP as it deems necessary. Approval by the Federal government must be obtained if federal funds are involved. The OTC amends the STIP at its regular scheduled public meetings. Our review of the meeting minutes showed that the OTC amended the STIP periodically by adding, advancing, substituting, or amending projects. The changes were based on information and recommendations made by ODOT management and staff. We noted that many of the amendments were for emergency repairs in response to the statewide flooding that began in early 1996. The OTC has granted the ODOT director and deputy director authority to approve emergency repairs to damaged highways, bridges, and structures.

According to ODOT management, because the STIP is subject to amendment, the listing and scheduling of projects in a STIP document should not be strictly construed as an obligation of the OTC or ODOT.

What is in the Most Recent STIP?

The most recent STIP document, approved in December 1997, shows projects scheduled from 1998 through 2001. It includes 843 local, state, and federal transportation projects and programs. The total estimated cost of all projects is approximately $1.98 billion.

The total amount includes preliminary engineering and right-of-way costs incurred prior to the approval date of the STIP document.

State law requires funds for modernization projects to be equitably distributed around the state. To comply with the law, ODOT has used a formula to distribute funds by ODOT region; the formula factors in population, gas tax revenues, truck ton-miles traveled, average daily travel, and lane miles.

Table 1 shows how state, local, and federal funds were distributed by project category and ODOT region. Of the $1.98 billion in projects, state projects that ODOT is responsible for implementing amount to approximately $1 billion.

Table 1
1998 – 2001 STIP Funding
State, Local, Federal Projects and Programs, by ODOT Region
Dollars in Millions

ODOT Region (Headquarters)	Modernization	Preservation	Bridge	Safety, Operations	Bike + Ped.	Transit	Other	Total	Percent
Region 1 (Portland)	$143.8	$76.4	$94.9	$41.2	$19.5	$371.1	$8.4	$755.3	38%
Region 2 (Salem)	$115.3	$99.4	$61.7	$47.9	$3.4	$97.2	$9.1	$434.0	22%
Region 3 (Roseburg)	$85.7	$77.8	$63.3	$20.3	$1.0	$10.6	$10.4	$269.1	14%
Region 4 (Bend)	$41.9	$99.4	$9.6	$5.8	$0.0	$3.8	$11.6	$172.1	9%
Region 5 (La Grande)	$41.9	$94.9	$15.3	$3.1	$0.2	$0.8	$1.5	$157.8	8%
Statewide Programs	$44.0	$3.1	$8.8	$29.3	$7.2	$13.7	$85.9	$192.0	10%
Total	$472.6	$451.0	$253.6	$147.6	$31.3	$497.2	$126.9	$1,980.3	
Percent	24%	23%	13%	7%	2%	25%	6%		

How Does Oregon's Funding of STIP Project Categories Compare to Other States?

It was not practical to attempt a category-by-category comparison because of differences in the way that state transportation agencies define and name project categories. However, we obtained STIP information from four states that allowed us to separate highway modernization projects from other types of highway projects and transit programs. Our comparison, shown in Table 2, indicates differences in funding priorities among the states.

Table 2
Funding Proportions for STIP Projects and Programs
Oregon and Four States
Dollars in Millions

STIP Documents	Modernization, Expansion, New Construction, Replacement	Preservation, Rehabilitation, Safety, Bridge, Enhancement, Bike/Pedestrian, Operations	Transit	Total of Project Categories
Georgia 1997-1999	$252 11%	$1,627 68%	$518 22%	$2,397
Illinois (est.) 1998-2000	$800 12%	$2,075 31%	$3,839 57%	$6,714
Minnesota 1997-1999	$842 41%	$816 40%	$394 19%	$2,052
Montana FY 1999	$151 42%	$204 57%	$3 1%	$357
Oregon 1998-2001	$473 24%	$1,010 51%	$497 25%	$1,980

How Many State Projects Have Been Started Recently?

Using ODOT records, we identified 369 state highway projects where contracts were let between January 1, 1996 and September 30, 1998. This time period was covered entirely by the 1996-98, 1995-98, and 1993-98 STIP documents. Table 3 shows the number of projects started in each ODOT region. The table does not include local projects. Also, due to ODOT data limitations, the table may not include all individual projects funded through statewide preservation program reserve accounts.

Table 3
State Highway Projects Started (Contracts Let)
January 1, 1996 to September 30, 1998

ODOT Region (Headquarters)	Modernization	Preservation	Bridge	Safety, Operations	Bike + Ped.	Other	Total
Region 1 (Portland)	15	25	10	36	3	8	97
Region 2 (Salem)	13	24	13	17		5	72
Region 3 (Roseburg)	6	34	12	17		6	75
Region 4 (Bend)	10	31	7	8	1	1	58
Region 5 (La Grande)	13	23	11	11			58
Statewide Programs		4		2		3	9
Total	57	141	53	91	4	23	369

How Many of the Projects Started Had Been in the STIP?

Of the 57 state modernization projects started between January 1, 1996 and September 30, 1998, 54 (97 percent) had been scheduled for construction in at least one STIP document. Of the three projects not shown in the STIP, two were flood-repair projects and one was an economic development project funded through the state's Immediate Opportunity Fund.

Of the 141 state preservation projects, 104 (74 percent) had been scheduled for construction in at least one STIP document. Projects not shown in the STIP included 25 (18 percent) for emergency repairs to damage caused by flooding or landslides. The remaining 12 preservation projects were OTC-approved additions to ODOT's workplan.

How Long Had the Projects Been in the STIP Before Contracts Were Let?

The state modernization projects had been scheduled for construction in STIP documents an average of approximately four years. The time between the approval date of the STIP document where the project was first scheduled, and the contract letting date, ranged from about two months to 14 years. Twenty-four (42 percent) of the 57 projects had been scheduled longer than four years.

The state preservation projects had been scheduled for construction in STIP documents an average of approximately two years. The time between the approval date of the STIP document where the project was first scheduled, and the contract letting date, ranged from about one month to 15 years. Thirty-one (22 percent) of the 141 projects had been shown longer than two years.

Is ODOT's Delivery of STIP Projects Getting Better or Worse?

ODOT is delivering a higher proportion of the state modernization and preservation projects shown in STIP documents.

The 1993-98 STIP listed 206 state modernization and preservation projects to be started by the end of federal fiscal year 1998 (ending September 30, 1998). Of these projects, 124 (60 percent) were started (contracts let) by September 30, 1998.

The 1996-98 STIP listed 134 state modernization and preservation projects to be started by the end of federal fiscal year 1998. Of these projects, 103 (77 percent) had been started (contracts let) by September 30, 1998.

Approximately 40 percent of the modernization and preservation projects in the 1993-98 STIP were canceled or have been delayed for an indefinite period. This high percentage of inactive projects reflects the work of the MPOs, ODOT, and the OTC in scaling back the 1993-98 and 1995-98 STIPs to comply with the federal requirement that full funding be available for scheduled projects. Table 4 on page 10 shows that ODOT's delivery of projects improved considerably with the 1996-98 STIP that was fiscally constrained.

Table 4
ODOT Project Delivery Performance
Comparison of the 1993-98 STIP and the 1996-98 STIP
State Modernization and Preservation Projects

	1993 - 98 STIP Projects				1996 - 98 STIP Projects			
As of 9-30-98	**Modernization**	**Preservation**	**Sum**	**Percent Total**	**Modernization**	**Preservation**	**Sum**	**Percent Total**
Started: Contracts Let	55	69	124	60%	36	67	103	77%
Canceled	12	28	40	19%	2	1	3	2%
Not Started, In Current STIP	3	0	3	1%	8	12	20	15%
Not Started, Not In Current STIP	34	5	39	19%	3	5	8	6%
Total	104	102	206		49	85	134	

How Does ODOT's Performance in Starting STIP Projects Compare to Other States?

We obtained usable highway project delivery data from five other states. We compared ODOT's delivery of state modernization and preservation projects included in the 1996-98 STIP against the other states' data. Table 5 shows that, on a proportional basis, Oregon's performance exceeded California's during one year and was on par with Minnesota's and Ohio's.

Table 5
Comparison of Project Delivery Performance
Percent of Planned Projects Started
Oregon (Modernization and Preservation) and Five States

Highway Construction Projects	**Oregon 1996 - 98 state only**	**Arizona 1997 - 98 state & local**	**California 1994 - 95 state only**	**California 1996 - 97 state only**	**Florida 1997 - 98 state & local**	**Minnesota 1996 - 97 state only**	**Ohio 1997 - 98 state & local**
Projects Planned:	134	233	240	234	484	212	903
Number Started:	103	201	168	218	411	167	698
% Planned Projects Started:	77%	86%	70%	93%	85%	79%	77%

Are STIP Projects Being Started As Scheduled?

STIP highway projects are scheduled for construction to start during a specific federal fiscal year. ODOT's performance in starting projects in the scheduled year has improved considerably. Table 6 shows that ODOT let contracts in the scheduled year for 60 percent of the state modernization and preservation projects shown in the 1996-98 STIP, compared to 36 percent of the projects in the 1993-98 STIP. We found only one other state, California, that had measured its success in delivering STIP projects in the scheduled year. Table 7 indicates that Oregon's performance was on par with California's.

Table 6
STIP Projects Started In Scheduled Year

	1993 - 98 STIP Projects				1996 - 98 STIP Projects			
STIP Projects	**Modernization**	**Preservation**	**Sum**	**Percent**	**Modernization**	**Preservation**	**Sum**	**Percent**
Started In Planned Year	22	52	74	36%	23	58	81	60%
Started Before Planned Year	2	2	4	2%	1	1	2	2%
Started After Planned Year	31	15	46	22%	12	8	20	15%
Not Started or Canceled	49	33	82	40%	13	18	31	23%
Total	104	102	206		49	85	134	

Table 7
STIP Projects Started in Scheduled Year
Oregon (Modernization and Preservation) and California

STIP Projects	**Oregon 1996 - 98**	**California 1993 - 94**	**California 1994 - 95**	**California 1995 - 96**
Started In Planned Year	60%	65%	60%	57%

What Goes Into a STIP Project Cost Estimate?

Each highway project appearing in a STIP document has a total cost estimate that is usually revised when the STIP is updated. The total cost estimate includes three cost categories: preliminary engineering, right-of-way, and construction.

- Preliminary engineering includes expected costs for project planning, environmental review, citizen involvement, surveying, and design.

- Right-of-way includes expected costs for buying property for right-of-way, plus any relocation and demolition expenses.

- Construction costs are primarily expected payments to contractors. This cost category also covers ODOT construction engineering activities for project management, on-site inspections, and materials testing. It may also include expected costs for project-related maintenance work, management of detours, and the relocation of utility lines.

According to ODOT management, the reliability of a STIP cost estimate declines with the age of the estimate and with increasing project complexity. ODOT uses its most current cost estimate at the time it advertises construction projects for competitive bidding.

Table 8 on page 13 provides an example of the effects of time and project complexity on a STIP cost estimate. Costs were incurred for over 10 years for this interchange built on a congested portion of US 26 in urbanized Washington County. It was finished in 1996. The construction phase of this project was completed for $17.8 million; this significantly exceeded the estimate of $12 million shown in the 1989-94 STIP document.[1]

Table 9 on page 13 provides an example of how costs were incurred for a preservation project on US 101 in non-urbanized Tillamook County. This example shows how a less complex preservation project, compared to the example in Table 8, may have much shorter and less costly preliminary engineering, right-of-way, and construction phases. In this case, the project was finished for a total cost of $954,058; this was significantly less than the total cost estimate of $1.38 million shown in the 1995-98 STIP document.

[1] The 1989-94 STIP included construction cost estimates only. Beginning with the 1993-98 STIP documents, preliminary engineering and right-of-way cost estimates were also shown.

Table 8
Example of Modernization Project Expenditures
Cornell Road Interchange, US 26, Washington County

Calendar Year	Preliminary Engineering	Right-of-Way	Construction Engineering	Construction Contract	Construction Other Costs	Total Costs	Milestone
1985	$ 159,109	-	-	-	-	$ 159,109	
1986	$ 110,877	-	-	-	-	$ 110,877	Appears in 1987-92 STIP, 7/86,
1987	$ 194,928	-	-	-	-	$ 194,928	for Construction in FFY 1989
1988	$ 180,032	$ 1,264	-	-	-	$ 181,296	
1989	$ 184,977	$ 124,090	-	-	-	$ 309,067	
1990	$ 229,646	$ 2,130,571	-	-	$ 64,015	$ 2,424,232	Contract Let, 10/25/90
1991	$ (240)	$ 358,604	$ 196,878	$ 8,492,207	$ 451,186	$ 9,498,635	
1992	-	$ 58,076	$ 421,588	$ 5,686,765	$ 102,113	$ 6,268,542	
1993	-	$ 7,459	$ 287,867	$ 1,567,712	$ 75,109	$ 1,938,147	
1994	-	$ 120	$ 49,576	$ 177,304	$ 2,838	$ 229,838	Project Completed, 9/24/94
1995	-	$ 770	$ 38,500	$ 122,873	$ 1,646	$ 163,789	
1996	-	$ 10,720	$ 1,818	$ 18,819	-	$ 31,357	Final Payment, 3/96
Total	$ 1,059,329	$ 2,691,674	$ 996,227	$ 16,065,680	$ 696,907	$ 21,509,817	
%	4.9%	12.5%	4.6%	74.7%	3.2%		

Table 9
Example of Preservation Project Expenditures
US 101, Wheeler – Nedonna Beach Road, Tillamook County

Calendar Year	Preliminary Engineering	Right-of-Way	Construction Engineering	Construction Contract	Construction Other Costs	Total Costs	Milestone
1992	$ 354	-	-	-	-	$ 354	Appears in 1993-98 STIP, 7/92,
1993	$ 20,624	-	-	-	-	$ 20,624	for Construction in FFY 1995
1994	$ 36,243	-	-	-	-	$ 36,243	
1995	$ 26,810	-	$ 49,498	$ 665,685	$ 2,258	$ 744,251	Contract Let, 6/8/95
1996	-	-	$ 11,907	$ 137,089	$ 2,546	$ 151,542	Project Completed, 9/11/96
1997	-	-	$ 122	$ 922	$ -	$ 1,044	Final Payment, 3/97
Total	$ 84,031	$ -	$ 61,527	$ 803,696	$ 4,804	$ 954,058	
%	8.8%	0.0%	6.4%	84.2%	0.5%		

How Reliable are the STIP Cost Estimates?

As is shown in Table 10, on an aggregate statewide basis, the STIP estimates of total project costs were reliable. Preliminary engineering costs exceeded STIP estimates.

We obtained ODOT expenditure records for the 77 state modernization and preservation projects that were included in the 1993-98, 1995-98 and 1996-98 STIP documents, and were completed with final payments made between July 1, 1995 and June 30, 1997. We compared the total final project cost to the cost estimate shown in the STIP document approved prior to the start of construction. Table 10 shows that, on a statewide basis, total actual costs were within 1 percent of the STIP estimates. Construction phase actual costs were about 2 percent below the STIP estimates, and right-of-way costs were about 6 percent below estimates. Preliminary engineering actual costs were about 37 percent above STIP estimates.

On a regional basis, actual total costs and construction costs were higher than estimated in Region 1 (Portland metropolitan area) and lower than estimated in Region 2 (western Oregon) and Region 3 (southern Oregon).

Table 10
Actual Costs and Percent Above/Below STIP Estimated Amounts
77 Modernization and Preservation Projects Finished 7/1/95 to 6/30/97
Dollars in Millions

	Region 1 (Portland) 12 projects	Region 2 (Salem) 16 projects	Region 3 (Roseburg) 17 projects	Region 4 (Bend) 18 projects	Region 5 (La Grande) 14 projects	Total 77 projects
Preliminary Engineering	$1.80 + 50.2%	$2.40 + 47.6%	$3.06 + 7.4%	$5.06 + 82.5%	$2.03 - 1.5%	$14.35 + 36.6%
Right-of Way	$0.98 - 40.5%	$0.48 + 22.2%	$0.65 + 4.4%	$15.28 - 3.5%	$0.45 - 0.4%	$17.84 - 5.9%
Construction Phase	$18.36 + 18.5%	$35.81 - 16.0%	$49.69 - 16.0%	$61.61 + 11.6%	$35.21 + 10.3%	$200.68 - 1.8%
Total Costs	$21.14 + 15.3%	$38.69 - 13.3%	$53.4 - 14.7%	$81.95 + 11.0%	$37.69 + 9.4%	$232.9 - 0.4%

Table 11 shows that for the 77 projects, modernization projects had total actual costs averaging 12.5 percent above STIP estimates. Preservation projects had total actual costs averaging 8.6 percent below the estimates.

Table 11
Actual Costs and Percent Above/Below STIP Estimated Amounts
Modernization and Preservation Projects Finished 7/1/95 to 6/30/97
Dollars in Millions

	Modernization 13 projects	Preservation 64 projects
Preliminary Engineering	$7.79 + 41.9%	$6.56 + 30.8%
Right-of Way	$17.72 - 5.5%	$0.13 -39.9%
Construction Phase	$76.49 + 15.2%	$124.19 - 10.0%
Total Costs	$102.0 + 12.5%	$130.9 - 8.6%

We identified no other states that had measured and reported differences between STIP cost estimates and actual amounts.

SUPPLEMENT

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Auditing for a Better Oregon

Senator Gene Timms and
Representative Jim Welsh, Co-Chairs
Legislative Audit Committee

Dear Committee Members:

At the September 1, 1998 meeting of the Legislative Audit Committee we presented our audit report titled *Local Agencies' Use of Highway Funds*. Prepared by two private accounting firms under contract to the Audits Division, that audit reviewed State Highway Fund expenditures at 10 Oregon counties and 15 cities.

Following the release of the audit, the League of Oregon Cities requested our review of administrative and indirect (overhead) expenditures reported for the cities of Bend, Eugene, and Portland. Financial staff in these cities contended that the audit had incorrectly classified some direct expenditures into administrative or overhead categories. For example, one city considers vehicle and equipment maintenance costs to be direct expenditures, but the auditors considered these to be overhead expenditures. In another case, a city considers its costs to supervise street sweeping, drainage repair, and traffic signal repair operations to be direct expenses; however, the auditors considered these to be overhead expenditures.

In responding to the cities, we did not duplicate our contractors' work by attempting to verify the accuracy of the additional data, although the cities' data and conclusions appeared reasonable. We have found that differing opinions can be expected in these matters given the lack of state or other standards to assist governments in allocating and reporting administrative and overhead costs.

Tables 1 and 2, on the attached page, present the additional administrative and overhead expenditure information provided by the three cities, and the effect it would have on the reported audit costs. Because the data has not been audited, it is presented as informational only, and not as an amendment to the original audit report.

We appreciate the assistance provided by the League of Oregon Cities and the cities of Bend, Eugene, and Portland.

OREGON AUDITS DIVISION

John N. Lattimer
Director

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Requested Revisions to Audit Report No. 98-32
Local Agencies' Use of Highway Funds

Table 1
City Administrative and Overhead Expenditures
as a Percentage of Street/Road Funds Received, FY 1996-97

Cities	Administrative Expenditures (In Audit)	Administrative Expenditures (City Revision)	Admin. as % Funds Received (In Audit)	Admin. as % Funds Received (City Revision)	Admin. as % Expenditures (In Audit)	Admin. as % Expenditures (City Revision)
Bend	$ 125,949	$ 101,200	6%	5%	6%	5%
Eugene	$ 364,428	$ 364,428	4%	4%	6%	6%
Portland	$ 7,000,853	$ 3,600,000	9%	4%	9%	4%
All 15 Cities	$ 9,846,089	$ 6,420,487	7%	5%	9%	6%

Table 2
City Administrative and Overhead Expenditures
as a Percentage of Total Street/Road Fund Expenditures, FY 1996-97

Cities	Indirect (Overhead) Expenditures (In Audit)	Indirect (Overhead) Expenditures (City Revision)	Indirect as % Funds Received (In Audit)	Indirect as % Funds Received (City Revision)	Indirect as % Expenditures (In Audit)	Indirect as % Expenditures (City Revision)
Bend	$ 491,195	$ 108,335	23%	5%	22%	5%
Eugene	$ 1,723,198	$ 790,391	20%	9%	27%	13%
Portland	$ 11,990,555	$ 10,300,000	15%	13%	14%	12%
All 15 Cities	$ 15,160,477	$ 12,154,255	12%	9%	14%	11%

AGENCY'S RESPONSE TO THE INFORMATIONAL REPORT

Oregon
John A. Kitzhaber, M.D., Governor

Department of Transportation
Office of the Director
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Salem, OR 97310
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November 30, 1998

File Code:

Mr. John Lattimer
State Auditor
Secretary of State's Audits Division
255 Capitol Street NE, Suite 500
Salem, Oregon 97310

Dear Mr. Lattimer:

Thank you for your review of the Oregon Department of Transportation's success in delivering the department's State Transportation Improvement Programs (STIP). Your evaluation concentrated on a comparison of the 1993 - 1998 and 1996 - 1998 STIPs. I noted that you found major improvements in the percentage of projects that were contracted on time and that ODOT compares favorably with other states selected for comparison. Areas that need strengthening, such as preliminary engineering budgets, are being addressed in response to the earlier performance audit and management review work. As with your earlier reports, the data contained in the document will provide a baseline for our continued improvement.

Your report is an excellent resource for those interested in knowing more about how the State Transportation Improvement Program is developed and the many programs and projects ODOT is responsible for successfully implementing. This product will assist ODOT in its improvement efforts. Thank you for your work and that of your staff.

Sincerely,

Grace Crunican
Director

Form 731-0323 (7-97)

AUDITING TO PROTECT THE PUBLIC INTEREST AND IMPROVE OREGON GOVERNMENT

The Oregon Constitution provides that the Secretary of State shall be, by virtue of his office, Auditor of Public Accounts. The Audits Division exists to carry out this duty. The division reports to the elected Secretary of State and is independent of the Executive, Legislative, and Judicial branches of Oregon government. The division audits all state officers, agencies, boards, and commissions and oversees audits and financial reporting for local governments.

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Deputy Director	Catherine E. Pollino, CGFM
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This report is intended to promote the best possible management of public resources.

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