



**CITIZEN
OVERSIGHT
PANEL**

Citizen Oversight Panel Report

**Sound Transit Year 16:
Cumulative Review 2005-2013**

November 7, 2013

*The Sound Transit Citizen Oversight Panel
is a 15-member volunteer body appointed by the Sound Transit Board to
oversee and monitor the implementation of Sound Move and ST2.*

*Previous Citizen Oversight Panel reports are available upon request and
on the Sound Transit website at www.soundtransit.org.
Brief biographical summaries of COP members are provided in the
attachment to this report.*

*Panel members welcome comments and input to their work and may be
contacted by calling Kathy Albert at Sound Transit at 206-398-5456, by
email at kathy.albert@soundtransit.org or by writing to:*

*Citizen Oversight Panel
Union Station
401 South Jackson Street
Seattle, WA 98104*



Hon. Pat McCarthy
Chair, Board of Directors
Sound Transit
401 South Jackson Street
Seattle, WA 98104

November 7, 2013

CHAIR

Josh Benaloh

VICE CHAIR

Phil Lovell

Dear Chair McCarthy and Boardmembers,

Fred Auch

This cumulative review of Sound Transit's last eight years presents what we believe is a very positive report of a regional capital program expanding productively, transit services being provided to over 100,000 riders every day, a satisfied public, and an agency maturing and continuously improving.

Annette Bailes

David Berger

Despite the severe recession that was beginning just as ST2 was approved, ridership has rebounded strongly and the capital program continues to progress in planned stages of design and construction. Sound Transit is well-respected regionally and nationally, among stakeholders, the public, and riders.

Michael Garrity

Bob Goldstein

The Citizen Oversight Panel issued a previous eight-year review in 2005, covering Sound Transit's first eight years. Then, we were describing a young organization that had emerged from its start-up years with many lessons learned. Today, reporting on the years 2005 to 2013, COP found a successful capital program and transit operation, nationally recognized leadership, and a thriving organization.

Matthew Jarvis

Dave Russell

Stuart Scheuerman

Overall, the state of Sound Transit at year 16 is very good.

Bruce Seiber

While we believe the agency is performing exceptionally well, there is always room for improvement and we also highlight in the report areas in which we believe Sound Transit can continue to improve, including regional coordination among transit providers and responding promptly to service demand. COP understands that these areas are not easy ones to address. But they are important long-term problems in search of solutions nevertheless.

Vic Sood

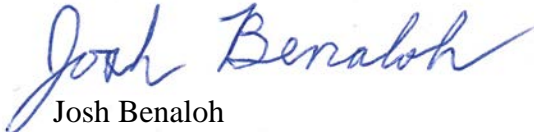
Harold Wirch

We urge the Sound Transit Board and management to focus attention on them in the coming years. The region needs excellence in policy and practice in

Hon. Pat McCarthy
November 7, 2013
Page 2

these areas, along with the many other areas in which Sound Transit is already a leader.

Sincerely,

A handwritten signature in blue ink that reads "Josh Benaloh". The signature is fluid and cursive, with the first name "Josh" and last name "Benaloh" clearly legible.

Josh Benaloh
COP Chair

cc: Board members
Joni Earl, Chief Executive Officer

**Sound Transit Year 16:
Cumulative Review 2005-2013**

Table of Contents

Executive Summary	i
Introduction	1
The Citizen Oversight Panel	1
Purpose and Approach of this Review	2
I Sound Transit and the Region: A Brief Recap	3
The Ballot Measures—Sound Move and ST2.....	3
Regional Trends and Changes in Public Transportation	3
II Lessons Learned from the Early Years—What Has Changed? What Has Stayed the Same?	5
III Public Perceptions of Sound Transit.....	9
IV Delivering the Program—Transit Services	11
V Delivering the Program—Agency Operations	15
VI Delivering the Program—Capital Projects	16
VII Going Forward	23
System Access.....	23
Evaluating Performance	24
Financial Sustainability	24
Regional Transportation Governance	24
Planning for ST3 and Beyond.....	25
Attachment A—Sound Transit 16-Year Chronology 1997-2013	A-1
Attachment B—Transit Operations.....	B-1
Attachment C—Capital Projects.....	C-1
Attachment D—Staff Operating Expenses	D-1
Attachment E—Citizen Oversight Panel Members	E-1

Sound Transit Year 16: Cumulative Review 2005-2013

Executive Summary

It has now been 16 years since voters first approved Sound Move and Sound Transit began to operate. This report by the Citizen Oversight Panel is a look back at the most recent eight years. We previously published *Sound Move Year 8* in April 2005, a review of the start-up years.

The State of Sound Transit in 2013

Regional Role. Sound Transit's enabling legislation established it as having a regional role to connect urban areas in three counties. We believe Sound Transit continues to meet this responsibility, as evidenced for example by implementation and governance of ORCA--the regional fare and pass system.

Subarea Equity. Sound Transit has established and tracked subarea equity as promised in Sound Move and ST2. Each of the five geographic subareas has received benefits in proportion to the revenues generated within its boundaries according to policies adopted by the Board. Recent economic circumstances have also illustrated clearly how what looks equitable at one point in time may not seem equitable a few years later. In 2005 we expressed confidence that the spirit and intent of the subarea equity policy have been met. In 2013 we do so again, while acknowledging that as the regional system expands further away from the urban core, the concept of subareas may need revisiting.

Strong financial policies. In Sound Move and again in ST2, key financial policies were adopted. Subarea equity and subarea reporting and monitoring have been maintained since Sound Transit's inception. Strong language relating to debt management is included in the financial policies and represents a check on the agency's potential inclination to borrow its way out of revenue shortfalls or cost overruns. COP monitors adherence to the financial policies and is satisfied that controls are in place to ensure compliance.

Public Accountability. ST's accountability includes conducting annual independent financial audits and the implementation of a performance audit program, all of which have been carried out with consistently positive results. COP has been attentive to continuously monitoring adherence to these policies since 1997 and is able to assure the public that Sound Transit is fully compliant with the financial policy commitments made to voters.

Sound Transit Management Skills. The agency is doing a good job growing its skills in managing its large and complex program. What began as a predominantly capital projects delivery driven agency became one with an equal focus on daily and longer term operation, maintenance and sustainability. In addition to the very large capital program, the agency today

manages daily transit services on three modes and a growing asset base valued at \$6.5 billion at year-end 2012.

ST's culture has increasingly grown to support and encourage learning and improvement. In capital project delivery Sound Transit has begun to employ innovative contracting approaches like design-build and GC/CM when they help achieve efficiencies. Management structure and tools are being constantly upgraded to gain tighter control over risks and cost factors associated with both capital projects and operations. Departments and managers use multi-year business planning and goal setting to hold themselves accountable and scorecards to measure themselves against. The agency as a whole, and the sustainability program in particular, issue annual reports that show agency progress toward achieving goals. Transit performance metrics are routinely published and reported to the Board. The annual Service Implementation Plan is particularly useful in tracking detailed route and mode performance.

Delivering Transit Services. During the recent great recession, ridership dipped along with employment losses, however, today, ridership on all modes has rebounded and ST is serving some 100,000 average weekday riders on its three modes. On the few corridors where high-demand routes have been chronically overloaded, COP felt that Sound Transit has had limited systems for monitoring overloads and been slow to add service hours to address them.

A highlight of the period under review was the launch of Central Link in 2009 and, since launch, ridership growth has been steady. Sounder commuter rail showed a healthy growth in ridership and in operating metrics during the period since 2005, however, the picture is skewed by one-sidedly strong performance on Sounder South Line and continuing weak performance on Sounder North Line, a situation that drew special COP attention in our *North Shore Alternatives* report in September 2012.

Delivering Capital Projects. As COP discussed extensively in its *Year 8* report, some Sound Move estimates proved unreliable for many reasons. The estimating process was considerably strengthened by the time of ST2, as was project management through the project controls and Phase Gate programs. Sound Transit now uses a more reliable process that increases schedule and budget predictability once project baselines are established at the 60% design stage.

Notwithstanding these accomplishments, Sound Transit has experienced setbacks and challenges. Most notably, many Sound Move projects took years longer to complete than the original ten year plan, ridership has grown more slowly than projected, and the economic recession that caused the loss of some 30% of the revenues forecast in ST2 led to a painful program realignment in 2010 that left some communities feeling shortchanged. We believe it is vital that conceptual cost estimates be as accurate as possible so that voters can make informed decisions. We believe that the estimating process in the early planning stages should be as rigorous as it can be and encourage ST to improve practice in this area, as it has in others.

Public Perceptions of Sound Transit

Sound Transit enjoys a strong reputation among taxpayers, riders express satisfaction with their commutes, and communities are benefitting from the capital projects that are being planned and

built in all parts of the region. In a random-dial survey of the public conducted in spring 2012, 65% of respondents had a strongly favorable or somewhat favorable opinion of Sound Transit. Overall satisfaction among Sound Transit riders has been consistently high. In 2012, the overwhelming majority of riders (87%) gave ST a grade of A or B for overall satisfaction.

In COP's stakeholder interviews conducted in May-June 2013 for this report, we heard throughout the region that Sound Transit is highly-regarded and its staff is viewed as competent, responsive, and easy to work with. The agency participates in leadership roles in the national transit arena and has garnered a variety of awards for its work. Sound Transit senior management is consistently well-respected, and CEO Joni Earl is held in high esteem and often called on as a speaker in regional and national settings. Sound Transit's partnerships with city, county, and state governments, local transit agencies and third parties are generally very good. The agency has cultivated and maintained strong relationships with the Federal Transit Administration and Congress.

Going Forward

COP is highlighting five areas where we believe attention should be focused: **system access, continuous performance evaluation, financial sustainability, regional transit governance, and ST3 planning.**

System Access. In 2010, COP issued its *Report of the System Access Task Force* which made recommendations in several areas, urging ST to design and manage its facilities to maximize rider ability to access services, make efficient use of facilities, improve connectivity and transfers across modes, and to develop new ways to target potential future riders. The agency has been adopting many of these recommendations and we encourage it to continue to do so.

Evaluating Performance. Sound Transit already has an ongoing organizational practice of measuring its performance in many areas. One area in which we have encouraged measurement that ST has not yet initiated grew out of our 2012 *North Shore Alternatives* Task Force report. COP recommended that the agency set targets for ridership growth on the Sounder North Line and, if they are not met, consider reallocating some of the resources from that service to high-demand bus routes in the Snohomish corridor instead. We continue to believe that if a service is not performing to expectations, an assessment of long-term viability should be made.

Financial Sustainability. As a regional agency by design, Sound Transit is heavily dependent on third parties to achieve its goals. This has often tended to drive ST's operating costs and permitting and mitigation requirements. COP has written several times over the years in its annual reports of the unsustainably high rate of growth in operating costs. The agency's long-term Financial Plan has been very substantially stressed by the great recession and controlling operating costs, for both transit and agency operations, is a significant challenge. COP strongly encourages Sound Transit to further its efforts to control its operating costs.

Regional Transit Governance. When third parties such as cities or business groups ask ST and the region's local transit agencies why they are not doing more to coordinate their services, the transit agencies regularly respond with extensive lists of coordinating and "partnering" activities

that they engage in, begging the question of why there is still so much lack of coordination. In our interview with transit providers, we heard that service coordination among agencies is ongoing and works well. However, many stakeholders we spoke with said they feel the coordination and integration of transit services are inadequate. COP members in 2013 conclude that Sound Transit and the other transit agencies should do more to address big picture governance questions, such as how the region's services can be operated most efficiently and without duplication of efforts, and how the region's resources should best be allocated between capital projects and operations.

Planning for ST3 and Beyond. In November 2012, the Sound Transit Board held an ST3 planning workshop which directed staff to begin the required planning studies to be in position for a possible 2016 vote. During COP's stakeholder interviews, we heard consistently from communities throughout the region that people in all three corridors are excited that Link is coming.

However, some cities that are not on the Link corridors feel shortchanged by Sound Move and ST2. COP heard from some communities disappointment that previously promised projects could not be delivered because funding was insufficient. We believe that the estimating process in the early planning stages should be an area of continuing attention so that voters can be confident that projects promised on the ballot can actually be delivered. We also heard that as the system is expanding outside of the urban core, subarea equity is becoming a drag on progress in some places. Less well-off subareas sometimes feel that the benefits are taking too long to reach them because ST cash flows are limited by subarea equity. Given the continuing development and expansion of Sound Transit's program as a regional system, we urge the Sound Transit Board to reevaluate the value and benefits of subarea allocations and tracking.

Sound Transit Year 16: Cumulative Review 2005-2013

Introduction

In November 1996 the citizens of the central Puget Sound region approved Sound Move, a ten-year plan for a regional high-capacity transit system. Subsequently in November 2008, voters authorized ST2, an expansion and continuation of the system. The two plans included regional light rail, commuter rail, express bus routes and a variety of HOV freeway ramps, transit centers and park and ride lots throughout the urbanized areas of Snohomish, King and Pierce Counties.

Both plans incorporated strong elements to ensure accountability to voters. One of these mechanisms was the appointment of a citizen oversight panel to monitor the delivery of promises made. Other accountability tools included strong financial policies and a geographic equity concept based on five subareas within the region.

It has now been 16 years since those promises were made and Sound Transit began to operate. This report by the Citizen Oversight Panel is a look back at the most recent eight years. We previously published *Sound Move Year 8* in April 2005, a review of the start-up years. Today light rail is operating from SeaTac Airport to downtown Seattle, and in downtown Tacoma. Commuter rail operates on two lines, one in South King and Pierce County and the other in Snohomish/North King County, both terminating in Seattle. ST Express bus routes operate throughout the region. All together, the transit services today carry some 100,000 riders on an average weekday. Sound Transit has also built transit centers, park and ride facilities, arterial improvements, and helped implement, and administer ORCA--the regional electronic fare payment system.

Despite the severe recession that was beginning just as ST2 was approved, much of its program is either in planning, environmental review, design, or under construction today. Sound Transit is working to extend light rail to the north, east, and south as well as to continue to build out the commuter rail program. Ridership on all three modes has rebounded strongly with the improving economy. Sound Transit has begun to consider expansions of its program for a future ST3 ballot to be presented to the voters, possibly by 2016.

The Citizen Oversight Panel

The Sound Transit Citizen Oversight Panel (COP) is a volunteer body appointed by the Sound Transit Board to oversee and monitor the implementation of Sound Move and ST2. The Panel consists of fifteen members who represent the Sound Transit district and include a wide array of skills and experiences (see biographical information on Panel members in Attachment D.) COP met for the first time in April 1997 and has been meeting monthly or twice monthly since then. Since the beginning, it has issued comprehensive performance reports on Sound Transit

annually, along with preparing in-depth letters and task force reports on specific topics. The reports are available at www.soundtransit.org.

It is the mission of the Citizen Oversight Panel to help ensure that Sound Transit succeeds in meeting its commitments to the public, by monitoring its performance, reporting to the Board on potential areas for improvement, and evaluating the response in making change. The COP is independent of Sound Transit management and has its own independently appointed staff assistant. The Panel's work on behalf of the citizenry of the urbanized Central Puget Sound region is intended to help ensure the success of the plans and investments in improving regional transit through vigilance, continuous feedback, and constructive suggestions.

Purpose and Approach of this Review

The purpose of this report is to inform the public and report to the Sound Transit Board the cumulative progress toward the Sound Move and ST2 commitments. Additionally we are including herewith key elements of feedback gained from a citizens' assessment of the state of the agency 16 years after the agency began operations.

In preparation for conducting this cumulative review, COP met with and interviewed citizens and Sound Transit stakeholders, in person and by telephone, in all five subareas. These included representatives of local governments and transit agencies, non-profit organizations, community groups, and businesses affected by Sound Transit projects. We spoke with representatives of the cities of Bellevue, Des Moines, Everett, Federal Way, Kent, Lynnwood, Mountlake Terrace, Puyallup, Redmond, Renton, SeaTac, Seattle, Shoreline, Sumner, and Tacoma; with the Economic Alliance of Snohomish County, Tacoma's Downtown on the Go, Snohomish County Citizens for Improved Transportation, and the Surrey Downs neighborhood; with Snohomish County, Washington State Department of Transportation, Community Transit, Everett Transit, King County Metro, Pierce Transit; and with BETS Consulting, Granite Construction, Highline Community College, Hopelink, and Microsoft. The findings and conclusions from these conversations are discussed throughout this report.

We wish to emphasize the statement that this is a citizens' assessment. Our members are highly qualified, knowledgeable, and engaged volunteers. While individual members bring expertise in engineering, finance, public policy, or construction management, as a body we attempt to make observations and reach conclusions that are not those of professional peer reviewers or auditors, but rather those of well-informed lay people representing the public and voters.

This report is based on information from a variety of sources. The Citizen Oversight Panel's members receive regular briefings by Sound Transit staff and outside speakers. We conduct our own reviews and research into Sound Transit documents including budgets, finance plans, agency progress reports, staff reports prepared for the Board, environmental impact statements and numerous other agency publications. Our members have built up a strong base of knowledge by attending Board and committee meetings and community open houses, and by having discussions amongst ourselves and with others about Sound Transit's projects and services. Over its 16-year existence, the Panel has developed its own process for evaluating the

agency's progress, and it has brought that cumulative experience and knowledge to bear in this report.

The task force that guided this Year 16 review was chaired by COP Vice Chair Phil Lovell. In addition to Chair Lovell, task force members included Josh Benaloh, Stuart Scheuerman, Vic Sood, and Harold Wirch.

I Sound Transit—A Brief Recap

The Ballot Measures—Sound Move and ST2

In 1996, voters in the Sound Transit district approved the Sound Move plan to build regional high capacity public transit in the urbanized Puget Sound area. Since that time, Sound Transit has built and is operating 75 miles of Sounder commuter rail, 19 ST Express bus routes and 16 miles of Link light rail. The last few Sound Move projects are still being completed today-- notably the extension of light rail from downtown Seattle to the University of Washington.

In 2008, ST2, the next phase of system expansion was approved by voters. This proposal was to add 36 miles of light rail to the system, increase Sounder commuter rail capacity between Seattle and Tacoma by 65%, and increase ST Express bus service by 17% and 100,000 hours. ST2 planned to invest \$17.8 billion (in inflated dollars) over 15 years, including capital costs, O&M costs, reserves and debt service. The plan was paid for by an addition of 0.5% sales tax and continuation of the existing Sound Move taxes (0.4% sales tax and 0.3% vehicle license tax).

However, the 2008-2009 great recession and ensuing lowered economic productivity caused Sound Transit to lose 30% of the revenues that had been projected in ST2. As a result there are insufficient funds to complete all of the elements of the ST2 program by 2023 as had been planned. In December 2010 the Board adopted a program realignment that reduced or suspended parts of the proposed expansion. Additional details of Sound Transit's 16-year history are provided in Attachment A.

Regional Trends and Changes in Public Transportation

In the past decade the Puget Sound region's population continued to grow strongly, even through the years of the great recession, 2008-2009. Sound Transit provided 11 million passenger boardings in 2005 and 28 million in 2012, growth of 155%. These trends were strongly supportive of the high capacity transit plans that were designed to connect urban centers and make work trips more convenient for growing numbers of citizens. Transit would become increasingly effective as the growth patterns continued and ridership trends have borne this pattern out.

Puget Sound Population and Employment Changes				
		2000	2010	Change
King County Population		1,737,000	1,931,200	11.2%
Employment		1,276,100	1,194,800	-6.4%
Pierce County Population		700,800	795,200	13.5%
Employment		278,300	315,600	13.4%
Snohomish County Population		606,000	713,300	17.7%
Employment		231,000	254,400	10.1%
Source: Puget Sound Regional Council, <i>Regional Data Profile</i>				

While 8.8% of the jobs in the Puget Sound urban area were lost in the recession, 82% of those have since been recovered. Following the bottoming out of the job market in early 2010, the Seattle Metropolitan Statistical Area enjoyed a much more rapid rate of population growth. From 1.5% estimated population growth in 2011, Seattle's population growth accelerated to 1.7% in 2012.¹

Before job losses began to escalate sharply, transit ridership in the region was at an all-time high and reached a peak in August 2008 when the cost of gasoline exceeded \$4 a gallon. All of the local and regional transit modes began to lose riders, but ST's services recovered rapidly and were growing strongly again in 2012. Pierce and Community Transit were especially hard hit with revenue losses and cuts in service hours. King County Metro was able to avoid substantial service cuts for a few years but still experienced ridership losses.

Regional Annual Transit Ridership								
	ST Express Bus	Sounder Commuter Rail	Tacoma Link	Central Link*	King County Metro	Pierce Transit	Community Transit	Total
2008	12,528,824	2,668,623	930,605		118,824,795	15,449,274	10,406,950	160,809,071
2012	15,430,663	2,808,891	1,024,053	8,699,821	115,357,787	10,585,629	8,173,046	162,079,890
	23.2%	5.3%	10.0%		-2.9%	-31.5%	-21.5%	0.8%
* Central Link service began in 2009.								
Source: Puget Sound Regional Council, <i>Puget Sound Trends T16</i> , May 2013								

Overall, since the recession began, ridership growth at Sound Transit offset the losses at King County Metro, Pierce Transit and Community Transit. Sound Transit saw a strong year of recovery in 2012, with average weekday ridership increases of 13% on ST Express, 8% on Sounder, and 9% on Central Link. Only Tacoma Link saw a ridership decline (-5%).

¹ WA Employment Security Department, *Employment Recovery in Urban Areas following the Great Recession*, June 2013. <https://fortress.wa.gov/esd/employmentdata/docs/special-reports/employment-recovery-in-urban-areas-following-the-great-recession.pdf>

The overall supply of transit service has increased dramatically in the Puget Sound region since Sound Transit began operation. In 2000 the region's transit agencies provided 4.2 million hours of service, all by bus. By 2012, that figure was up to 5.3 million hours, a 26% increase, and included commuter rail and light rail as well as bus service. Despite the recent economic recession and the loss of revenues at the sales tax-dependent transit agencies, the longer term trend for transit in the region has been positive.

II Lessons Learned from the Early Years—What Has Changed? What Has Stayed the Same?

Since 2005 when this Panel prepared its review of Sound Transit's first eight years, the fundamental principles established in Sound Move have remained solid while the agency has become continuously stronger in its management practices.

Regional Role. Sound Transit's enabling legislation established it as having a regional role to connect urban areas in three counties and encompassing some fifty individual cities. Sound Move recognized local as well as regional needs throughout the district. The plan created five subareas and designated certain projects as benefiting particular subareas, while also recognizing that investments in any subarea yielded shared benefits throughout the region. Especially since the passage of ST2 with its extension of light rail into four of the five subareas, the regional nature has become even more apparent, and the ST Board has appropriately broadened its interpretation of subarea benefits.

Sound Transit has played a leadership role in convening the Transit Integration Group which meets regularly and works to address coordination issues across transit agencies and jurisdictions. ST has also played a key regional role in the governance and implementation of ORCA--the regional fare and pass system-- and has taken steps towards addressing some early security concerns that it inherited. The regional coordination issues are among the most challenging and thorny ST deals with and there have been calls over the years to merge Sound Transit and the local transit providers or to merge Sound Transit with the Puget Sound Regional Council.

Most observers that Panel members spoke to feel, however, that there are distinct roles for a regional transit agency and for local transit providers. They generally believe the current governance structure meets these differing roles. Stakeholders did suggest that there continue to be larger regional coordination and resource allocation issues that Sound Transit should take the lead in addressing. This topic is discussed in greater detail in section VII later in this report.

Subarea Equity. Sound Transit has established and tracked subarea equity as promised in Sound Move and ST2. Each of the five geographic subareas has received benefits in proportion to the revenues generated within its boundaries according to policies adopted by the Board. COP has previously drawn attention to the dual regional and local nature of subarea equity in the context of regional planning and to the trade-offs inherent in this policy. The public transportation plan drew lines to connect origins and destinations throughout the region and across jurisdictional

boundaries. Yet it also created subareas to give voice to local transit choices while maintaining the regional scope.

Recent economic circumstances have also illustrated clearly how what looks equitable at one point in time may not seem equitable a few years later. ST2 projected revenues for each subarea in 2008 only to have the great recession force cuts in those projections, cuts which hit some subareas proportionately much harder than others. As economic circumstances change, planning projections change, community needs change and project scopes often change. Subarea allocation choices and decisions can be a complex balancing act, and flexibility in managing change and uncertainty have proven to be essential for the large multi-year capital programs developed by Sound Transit.

This Panel has provided monitoring of subarea equity since its inception. Each year COP reviews the procedures conducted by the agency's public accountants to ensure that the subarea monitoring system is in place. COP has also grappled with the subarea policy principles and the ways the Board has chosen to respond to changing circumstances. In 2005 we expressed confidence that the spirit and intent of the subarea equity policy have been met. In 2013 we do so again, while acknowledging that as the regional system expands further away from the urban core, the concept of subareas may need revisiting.

Strong financial policies. In Sound Move and again in ST2, key financial policies were adopted. Subarea equity, described above, and subarea reporting and monitoring have been maintained since ST's inception. Another policy recognizes that not all of the regional agency's expenditures can be directly allocated to a subarea and that system-wide expenditures will exist. These are enumerated in the policies and include agency administration, research and technology programs, and regional fare integration.

Strong language relating to debt management is included in the financial policies and represents a check on the agency's potential inclination to borrow its way out of revenue shortfalls or cost overruns. ST's legal financing capacity is 1.5% of the value of taxable property within its boundaries, or 5% with a supermajority of voters within the district boundaries. Board policy further sets a net debt coverage ratio of at least 1.5 in any single year. (Debt coverage is defined as the total annual revenues minus operating expenses divided by debt service—the higher the number, the less debt is issued.) The policies also spell out the uses of debt financing and the allocation of debt to subareas.

The policies establish that each year Sound Transit will publish an annual operating and capital budget and update its long-term financial plan. Sound Move and ST2 also promised voters that any second or subsequent phase capital program that continued local taxes would require approval by voters. If voters decided not to extend the system, the tax rate would be rolled back to a level sufficient to pay off the bonds and operate and maintain the services already in place.

Public Accountability. Since its inception ST has had a commitment to being publicly accountable and it has made good faith efforts to meet this commitment. This Citizen Oversight Panel is a key element of that public accountability. The Panel's work is supported by a budget and independent staff support, and by ongoing access to management and project staff as needed

for briefings on projects and operations. Other elements of ST's accountability are to conduct annual independent financial audits and to implement a performance audit program, all of which have been carried out with consistently positive results.

COP has been attentive to continuously monitoring adherence to these policies since 1997 and is able to assure the public that Sound Transit is fully compliant with the financial policy commitments made to voters. While the fundamental policies have stayed the same, the agency had adapted and innovated and introduced new management practices over time.

Organizational structure. As the agency grew from 23 employees to over 600 in 2013, it reorganized several times at both the staff and Board levels and shifted from a modal to a functional structure. What began as a predominantly capital projects delivery-driven agency became one with an equal focus on daily and longer term operation, maintenance and sustainability. The agency today manages daily transit services for 100,000 riders and a growing asset base valued at \$6.5 billion at year-end 2012. In addition to the agency's administrative functions, it is organized into three broad functional groups: Planning, Environment and Project Delivery (PEPD); Design, Engineering and Construction Management (DECM); and Operations. This structure has succeeded in overcoming what had become a somewhat silo-based organization with inconsistent practices and procedures across modal groups.

Similarly, the Board reorganized itself into the Capital Committee, the Operations and Administration Committee, and the Executive Committee. This structure deepened engagement and depth of knowledge among the members. The agency also established the Board Audit and Reporting Committee which meets quarterly to focus on and monitor financial and audit results.

Continuous learning. ST's culture has increasingly grown to support and encourage learning and improvement within the organization. Formal staff training and development are available to all employees and a practice of promoting from within retains knowledge and maintains strong morale. Business practice improvement and Lean management initiatives have shined the spotlight on improving specific functions within the agency. A formal performance audit program was instituted and is now ongoing with a staff of three and a budget for outside consulting resources. Sound Transit has begun to employ innovative contracting approaches like design-build and GC/CM. Agency staff participate nationally and regionally in industry associations and conferences where they learn about best practices from other agencies and where ST is considered an industry leader in its own right.

Sustainability focus. Sound Transit has developed a leading edge program in environmentally sustainable business practices that has earned it ISO 14001 certification. The program has focused its attention on everything from recycling demolition materials at construction sites to designing facilities for ease of maintenance to reducing energy use and eliminating bottled water from employee meetings. The agency adopted a Sustainability Strategic Plan and sets and tracks goals each year related to increasing transit use, conserving natural resources and improving operating efficiency.

Lessons Learned from the Early Years

Sound Transit had to learn to manage “scope creep.” In the early days, the agency sometimes allowed scopes to get out of hand with amenities and betterments added onto projects. Some project scopes were inflated by local jurisdictions’ requests for additional parking, street and sidewalk improvements, and design amenities. Once one jurisdiction got such betterments, others were encouraged to insist on similar add-ons. Some third parties realized they had significant leverage to insist on expansive demands or to stop a project and had every incentive to delay giving the necessary approvals to sell right-of-way and approve permits. In the beginning, the agency did not have adequate methods for tracking such additions to scope. Today, ST has an adopted Board policy to control scope changes and it has introduced innovative ways of partnering with third parties to control costs.

Sound Transit had to learn to manage risk. Early on, the agency had no systematic way of assessing and tracking risks associated with scope changes, budget increases and schedule delays. Cumulatively, when several risks coincided, changes sometimes took managers by surprise. Today, Sound Transit has tools and methods for assessing risk, allocating contingencies and continuously monitoring potential risk factors--all of which allow it to manage projects and communicate with the Board more effectively.

Sound Transit matured and its capacity to manage its program grew enormously. In 1996, Sound Transit was a start-up agency with 23 loaned staff. The agency learned from its early mistakes and had good success in adapting its policies and developing its project management, project control, and risk assessment systems. Sound Transit learned to balance program elements and some projects were reduced in scope to accommodate those that had expanded. It developed strong management policies and procedures, and instituted systems to track changing estimates, scope changes, contingencies, and cash flows. Over time, Sound Transit as an agency gained the discipline and the skills to manage its large and complex program.

The bumpy early years of Sound Transit’s life as a start-up organization were characterized by weak project management practices, and lack of controls and consistency across projects. This has since become an area of agency strength. Discussion of specific projects below in section VI indicates that especially once baselined and moved into final design and construction, ST has excelled at meeting schedules and budgets.

The agency introduced the Phase Gate process and began applying it consistently to all projects in ST2. Phase Gate is ST’s oversight method for managing the capital program. Phases represent groups of activities within a project. Between phases, gates represent key transition or decision points as the project progresses. At each gate, there is a comprehensive internal review meeting to confirm scope, financial feasibility, and agreement to advance to the next phase.

A strong project control function has been established that monitors and tracks every aspect of project schedules and budgets, and operates independently from the project management team. Changes to schedules and budgets are authorized by change control boards comprised of specialists from across disciplines within the agency. Other elements of the agency’s project management and oversight include a scope control policy and a lessons learned program that

shield project staff from undue pressures to expand project scopes and help support communication across projects.

All of these management practices, introduced incrementally over recent years, have been designed to support Sound Transit's mission and strengthen it as an agency delivering its capital program and its services in a high-risk environment.

III Public Perceptions of Sound Transit

Overall, Sound Transit has been delivering on its commitments to build the region's high-capacity transit system and to provide regional transit service on bus, commuter rail, and light rail. Sound Transit enjoys a strong reputation among taxpayers, the nearly 100,000 daily riders express satisfaction with their commutes, and communities are benefitting from the capital projects that are being planned and built in all parts of the region. In a random-dial survey of the public conducted in April-May 2012, 65% of respondents had a strongly favorable or somewhat favorable opinion of Sound Transit.²

Riders Appreciate ST Service

Since 2005 Sound Transit has conducted annual customer satisfaction surveys. The most recent survey was conducted on ST Express buses, Sounder trains, Central Link, and Tacoma Link light rail in November-December 2012.³ Over 1,500 interviews were conducted based on the size and frequency of routes. Data were weighted to reflect actual distribution of ST's riders: in 2012 the distribution was 33% bus, 31% Central Link light rail, 10% Sounder, and 4% Tacoma Link.

Overall satisfaction among Sound Transit riders has been consistently high since ST began conducting annual customer satisfaction surveys. The mean grade has fluctuated from 3.2 to 3.4 (where A=4 and F=0). The A grade responses have declined slightly from a high of 53% to 46% last year. However, in 2012, the overwhelming majority of riders (87%) gave ST a grade of A or B for overall satisfaction. The high mean satisfaction ratings were generally consistent across all five subareas of the region, although the frequency of A grades was highest in Pierce (53%) and lowest in Snohomish (36%) County. Compared to other major transit agencies, Sound Transit has very high overall customer satisfaction ratings.

Customer grades from Central Link, Sounder, and Tacoma Link riders were either the same or higher than the previous year. Express Bus riders, however, gave lower ratings in 2012 (40% A) compared to 2011 (47% A). For these bus riders, decreasing delays (8%) and increasing bus frequency (13%) were the two most mentioned suggestions for what would improve their grade of ST. Overall grades among South Sounder riders (53% A) were significantly higher than among North Sounder riders (37% A).

² EMC Research, Sound Transit Market Share and Transit Mindshare Survey, April-May 2012.

³ EMC Research: *2012 Customer Satisfaction Survey: Intercept survey of Sound Transit riders.* EMC #12-4773.

Sound Transit is Well-Respected Regionally and Nationally

In COP's stakeholder interviews conducted in May-June 2013 for this report, we heard throughout the region that Sound Transit is generally highly-regarded and its staff are viewed as competent, responsive, and easy to work with, even though sometimes overly focused on a project's goals and parameters, and less on a community's needs. The agency participates in leadership roles in the national transit arena and has garnered a variety of awards for its work. Sound Transit senior management is respected. The agency's outreach efforts in particular were frequently cited as very good, with ST staff often visible in the community and always available to make presentations when asked. Only a few jurisdictions we spoke to were unhappy with Sound Transit due to revenue losses having curtailed projects that had been promised to voters.

In every COP annual performance report between 2005 and 2012, COP members have expressed admiration for ST's management and employees. We have noted that management practices and organizational culture are strong and innovative, employees enjoy high morale, and relations with peer agencies are generally positive⁴.

From the *Citizen's Year-End 2005 Performance Report* on Sound Transit:

Two broad themes are embodied in the observations and conclusions that COP has drawn for this review of the activities of 2005:

- *Sound policy-making and strong execution of programs characterized the year.*
- *Improving regionalism and effective partnerships with local communities served as the underlying foundation upon which accomplishments were built.*

From the *Citizen's Year-End 2009 Performance Report* on Sound Transit:

There are a great many challenges ahead for Sound Transit, but the leadership team at the agency inspires confidence. Management at Sound Transit is dynamic and forward-looking and has done a masterful job leading the agency toward ST2 implementation in the face of the economic slump and sharp drop in revenues.

From the *Citizen's Year-End 2012 Performance Report* on Sound Transit:

Overall, in 2012 we found a very good agency management, using best practices, and continuously learning and evolving to meet the ever changing and uncertain environment.

Sound Transit's partnerships with city, county and state governments, local transit agencies and with third parties such as the Port of Seattle and the University of Washington are generally very good. The agency has cultivated and maintained good relationships with the Federal Transit Administration in planning and construction and is viewed by the FTA as a model of best practices in many areas. Congressional authorization of federal New Starts funds is vital to many ST projects, and here too, Sound Transit has been successful in its relationship-building.

⁴ All of the cited COP reports are available at [www.soundtransit.org/about-sound-transit/accountability/citizen-oversight-panel-\(cop\)](http://www.soundtransit.org/about-sound-transit/accountability/citizen-oversight-panel-(cop))

In our *Year 8* report in 2005 we wrote, “The Citizen Oversight Panel is able to state that most of Sound Move’s goals and principles are being met today.” Since then, the agency has grown in its capacity to deliver projects, to operate transit services, and to work well with local jurisdictions and communities. Skeptics have correctly argued that many capital projects have been over budget and behind schedule, and that some original planning assumptions were overly optimistic. However, it is also true that ST capital projects, once baselined, have mostly come in at or under budget and on schedule, and that thousands of citizens enjoy new transit options today. As the previous section described, many economic, demographic and political events intervened since 1996 that could not have been anticipated. Mistakes were made and missteps occurred. COP has concluded that on balance, however, as the next sections will show, Sound Transit is delivering the programs it committed to and the public and peers recognize that.

IV Delivering the Program—Transit Services

This section outlines the transit services promised since 2005 and in ST2. Sound Move and ST2 made commitments for new commuter rail and light rail services and new express bus service hours to connect population and employment centers in the region.

- Regional Express bus routes began service in 1999 and were phased in, with 19 routes in operation by 2002.
- Sounder commuter rail service between Tacoma and Seattle began in 2000.
- Sounder commuter rail service between Everett and Seattle began in 2003.
- Link light rail service in Tacoma began in 2003.
- Central Link light rail service between Seattle and the Airport, originally projected to open for service in 2006, began service in 2009.
- Sounder service to Lakewood, projected to open for service in 2008, began service four years late in 2012.

In 2005, Sound Transit was providing travel options for tens of thousands of riders each day that were not available before the passage of Sound Move. Commuters in Everett and Tacoma were able to choose between rail and express bus service for their daily trip to work. Increasingly over the next several years, as population and employment in the region grew, so did ridership on all of ST’s services. By August 2008 when ridership reached its pre-recession peak, many of the ST Express routes on major corridors were experiencing overcrowded conditions.

ST2 projected continuing increases in ridership and, with the planned Link extensions and the addition of Sounder trips, significant growth in transit service hours on these two modes. ST2 also projected 100,000 additional ST Express service hours—29,000 hours in the Snohomish County subarea, 49,000 in East King, 7,000 in South King and 15,000 in Pierce. The great recession intervened, however, and in the 2010 program realignment a share of the new promised service hours had to be cut and stringent productivity screens applied to lower-demand routes. As a result, while 81% of the 100,000 new ST2 bus hours were implemented, offsetting reductions on other routes yielded a net addition of only 50,000 new hours.

Since ridership dropped in parallel with losses in employment, the overcrowding eased somewhat, but as the recovery began to pick up in 2011 and 2012, riders again began to report overcrowding, standees on buses and passengers left behind. COP has written repeatedly of these overload conditions and has queried staff about how ST monitors standee levels and passengers left waiting at bus stops. While the September 2013 service change finally saw trips added to several of the most crowded routes, COP felt that Sound Transit has had limited systems for monitoring overloads and been slow to add service hours to address them.

A highlight of the period under review was the launch of Central Link in 2009. It was accompanied by restructuring of certain Metro bus routes that Link was intended to replace, but there was also community resistance to elimination of popular bus routes and, as declines in sales tax receipts began to become more pronounced, not all of the planned feeder service to the light rail spine was implemented. As a result, initial Link ridership was somewhat lower than projected. Since launch, however, ridership growth has been steady and strong.

Sounder commuter rail showed a healthy growth in ridership and in operating metrics during the period since 2005, however, the picture is skewed by one-sidedly strong performance on Sounder South Line and continuing weak performance on Sounder North Line, a situation that drew special COP attention and resulted in the issuance of our *North Shore Alternatives* report in September 2012. Sounder North is discussed in greater detail below.

Transit Ridership and Operating Performance

Sound Move and ST2 forecasted average weekday ridership for 2010 and 2030 respectively. Actual boardings in mid-year 2013 are approaching the 2010 forecast for Sounder, exceeding it for ST Express, but are well below projection for Link which has yet to begin service on the strongest north corridor segments to the University of Washington and to Northgate.

	Sound Move 2010 Projection	ST2 2030 Projection
Link light rail*	107,000	280,000
Sounder commuter rail	12,600	24,000
ST Express bus	54,000	48,000 ⁵

	Actual Average Weekday Riders 2010 Q4	Actual Average Weekday Riders 2013 Q2
Link light rail*	21,600	28,700
Sounder commuter rail	8,000	11,600
ST Express bus	42,500	60,000

⁵ ST Express bus ridership is projected to be smaller in 2030 because Link extensions north, east and south will have absorbed some of the previous bus riders.

* Sound Move and ST2 projections included Link to the UW and beyond, while actuals are Central Link only.

The Sound Move 2010 forecasts assumed that the system would be fully built and operating by 2006. As we noted in our *Year 8* report, the slower-than-planned implementation, especially of Sounder and Link, explained the much lower actual ridership. However, ridership growth has been consistently strong, often growing at double digit rates annually, and except for the great recession ridership slump that bottomed in 2010, actual daily boardings have rebounded on all modes.

In addition to ridership trends, we discuss below ST’s financial metrics in farebox recovery, cost per boarding and cost per hour for each of the four modes. Detailed figures for these metrics can be found in Attachment B to the report.

ST Express. Average weekday ridership grew from 30,400 in 2005 to 56,560 at mid-year 2013, an 86% increase. This very healthy growth represents double digit rates in six of the eight years in the period. Only 2010, the worst year of employment decline in the region, saw a decline in ridership, -4%.

The operating cost per revenue hour grew from \$137 in 2005 to \$184 in 2012, a 35% increase. While Sound Transit has a goal to keep the operating cost growing at the rate of inflation, this actual growth is faster than inflation and is heavily dependent on the growth of partner agency costs and ST allocated overhead. The cost per boarding on ST Express has been flat over the eight-year period, \$6.49 in 2005 and \$6.51 in 2012. Farebox recovery has exceeded its 20% target and was 31% in 2012.

There was a significant benefit for bus operating efficiency as a result of the 2010 realignment and focus on productivity management: the important boardings per hour metric improved substantially between 2005 and 2013. ST Express bus service saw 15.58 boardings per hour in 2005, peaking in 2008, dipping for several years and then jumping to an all-time high of 23.41 at mid-year 2013.

ST Express Boardings per Hour	
2005	15.58
2006	16.62
2007	17.54
2008	19.86
2009	19.60
2010	18.01
2011	19.77
2012	22.30
2013	23.41

Sounder. Sounder overall average weekday ridership growth has been the largest of the ST modes at 108%, from 4,560 in 2005 to 11,950 in mid-2013. It reached a high of 10,600 in 2012 after the opening of the Lakewood segment last September and continued to grow strongly in 2013. Sounder financials have been positive too, with cost per boarding and cost per hour

declining steadily over the eight-year period. The cost per boarding has declined from \$16.60 in 2005 to \$12.24 in 2012 (-26%) and the cost per revenue vehicle hour has gone from \$1,482 to \$853 (-42%). Farebox recovery stood at 28% in 2012, well above the target of 23%.

Sounder metrics overall appear to be strong but are weighed down by poor performance on the north corridor. In COP's *North Shore Alternatives* report, we wrote, "The 1996 projection for 2010 North line average weekday ridership was 2,400 to 3,200 daily boardings. Ridership has never exceeded 1,200 boarding per day (achieved in June 2008) and reached a recent low of 699 in December 2010." Also, the original Sound Move operating cost-per-rider target was \$11.97. The actual for the system in 2012 was \$12.24. The operating cost per rider on the North line in 2012 was \$22.86 on the North Line, compared to \$10.80 for the South Line. North Line daily average ridership in June 2013 was 1,177 boardings, virtually unchanged from the same month in 2012.

COP also noted that the overall Everett to Seattle transit corridor was healthy and growing and that ST Express routes along the corridor were at capacity. We stated that in COP's view, accepting the status quo of low ridership and high costs on North Sounder was not acceptable, and we challenged the Sound Transit Board to set explicit targets together with actions to be taken if targets are not met.

Central Link. The light rail service ridership has been improving steadily since launch in July 2009, both the weekday boardings and the annual boardings are growing at double digit rates. Connecting SeaTac Airport with downtown Seattle, and points in between, Link provides service to both daily commuters and visitors to the region who generate ridership spikes especially in the summer tourist season. Average daily boardings in the first full year of service in 2010 were at 21,050 and at mid-year 2013 at 27,160, a 29% increase in three and a half years.

The cost per hour has grown from \$354 in 2009 to \$379 in 2012, a relatively modest growth rate of just 7%, and the cost per boarding has declined from \$8.56 in 2009 to \$6.07 in 2012. We noted with interest that the cost per boarding on Link has been below the cost per boarding on ST Express for each of the last three years, validating the case made by light rail proponents that once the initial capital investment is made, the long term benefit to the region will lie in the much greater capacity and operating efficiency of the rail mode. Farebox recovery on Link was at 29% in 2012, healthy but still well below the target of 53% projected in Sound Move for the fully built-out light rail system.

Tacoma Link. The smaller light rail system in Tacoma celebrated its 10th anniversary in August 2013. It experienced generally flat daily ridership for most of those years although there were occasional spikes in total ridership due to special events. Since 2011, average weekday boardings have been growing at a faster rate, attributable to the new Commerce Street Station and to the rising economy. Weekday boardings were at 2,880 in 2005 and at 3,560 in mid-2013, an overall increase of 24%.

Tacoma Link operating costs started at \$292 per hour in 2005 and were at \$393 in 2012, while the cost per boarding was at \$3.17 in 2005 and at \$3.94 in 2012. There is no farebox recovery to

report as the service has been fare-free to date. The ST Board has adopted a plan to introduce fares for the first time in 2014.

V Delivering the Program—Agency Operations

Since 2005 Sound Transit has grown substantially as an organization, in size and in capacity to manage the increasingly complex mission and portfolio of responsibilities. In 2005, ST was an agency with an annual operating budget of \$48 million and in 2012 it had grown to \$80 million. In 2005 ST had 332 employees and in 2012 it had over 500. On the programmatic side, transit operations grew from \$81 M to \$194 M and the capital budget fluctuated during this period from under \$700 M to \$890 M in the last peak construction year of 2007. Clearly, this eight-year period has seen Sound Transit grow from a young but maturing organization to a much larger, more sophisticated and expert agency capable of handling large programs in multiple areas.

COP has focused attention during these years on the growth of operating costs. Sound Transit's Financial Plan uses an assumption that operating costs will grow at CPI plus 1% annually. However, because the agency has grown so significantly in its programs, especially since the passage of ST2, it has not been easy to separate cost growth attributed to base employment and services from new programs and services that are being added each year. Attachment C to this report lays out annual expenses for the years 2005 to 2012 and shows that total annual operating expenses grew 67% (or 7.7% per year).

Salaries and benefits per filled FTE position have grown at about 5% per year, from an average of \$96,137 in 2005 to \$115,258 in 2012, a rate that incorporates inflation, medical insurance, contributions to employee retirement plans, and merit increases (although ST does not explicitly grant cost of living increases). The relatively high per FTE average salary and benefit package is due to the fact that ST has a highly skilled and educated workforce with a large number of engineers, project managers, and information technology professionals on staff—while most operations staff are contracted through other agencies. In its early years, ST had tried to maintain a minimal in-house workforce and hire mostly consultants and contractors for its projects, but over time it learned that it needed to retain certain core competencies in-house and not lose essential skills and knowledge each time a contract was awarded or changed.

Attachment D shows that the annual capital budgets have remained in a relatively narrow range between \$700 M and \$800 M a year even though many new projects were added during this eight-year period. At the same time, agency staffing has grown over 50% in these years. The agency explains this by saying that during the early planning and project development phases of the project life cycle, most of the preliminary engineering and environmental work is done by contractors and consultants. As projects then progress into design and into construction, more specialized staff are needed in-house to perform essential functions such as risk assessments, value engineering, constructability reviews, estimating, scheduling, project controls, right-of-way acquisition and project management. For these reasons, planned staffing has grown to 600 in 2013 as many of the Link extensions are progressing into the later stages of the life cycle.

COP has expressed concern about the growth of ST operating costs numerous times. That concern initially focused on increases in hourly rates of transit services, and especially on the rates being charged by ST's local transit agency providers to operate ST Express bus service. In 2009 COP convened its Operating Cost Task Force and looked more broadly at cost control systems, budgeting practices, financial metrics and management reporting. We found that as the organization was growing and evolving, departmental functions were reconfigured repeatedly, but that budgets and management reporting were not keeping pace with the changes. In our August 20, 2009 *Operating Cost Task Force Report*, we wrote, "We have noted instances where organization charts, budgets and financial reports have not been aligned, leading to confusion about which positions and functional units were being tracked in which departments." This made it difficult to track the growth of departments and agency functions across time.

Today, in 2013, the agency is still unable to readily provide such tracking data, citing the many reorganizations over the years that made it difficult to compare functions from year to year. COP is curious to understand how certain agency functions such as communications and marketing, public outreach, finance and information technology, facilities maintenance, or transit security have grown over the years. We believe it is essential to understand the overall rate of growth and percent of agency resources that are allocated to such different functions, and to be able to compare them to the size and scope of the capital program and services delivered.

Sound Transit is making strong efforts to control costs in all areas of the organization. Especially in light of the great recession-induced revenue losses, we have seen many areas of restraint and frugality in the agency. COP members continue to be concerned, however, that management reporting on longer term department-level staff expenditure trends is weak. We believe that this is an area that doesn't yet meet ST's own standards of best practice.

VI Delivering the Program—Capital Projects

Attachment C details the capital projects underway since 2005, both ongoing Sound Move projects and ST2 projects added in 2008. The tables show the planned start of service dates in 2005 and the actual dates, or if still underway, the current estimated year of service start; and four columns of cost information: the project budget in 2005 (for Sound Move projects), the ST2 cost estimate (for new projects added in ST2), the baseline budget and the current actual or cost to complete amount.

As COP discussed extensively in its *Year 8* report, the original Sound Move estimates proved unreliable for many reasons. While the estimating process was considerably strengthened by the time of ST2, the more recent 2007 capital project estimates have also encountered many unanticipated circumstances that required adjustments, most notably the great recession and the 2010 program realignment that reduced scopes and delayed schedules on many projects. Through its project controls and Phase Gate programs, Sound Transit now uses a rigorous baselining process that considerably reduces schedule and budget uncertainty once project baselines are established at the 60% design stage. But ST still needs to develop more accurate early estimates during the conceptual stage of a new initiative (ST3) so taxpayers can have confidence that project estimates that are on the ballot are reasonably accurate. The many

changes that are identified during the planning and project development stages are still an area that creates significant project uncertainty, however, and COP believes that ST can apply its skills to reducing this uncertainty.

A brief recap of the history of estimating errors at ST may be helpful to readers who are not familiar with the earlier years of the agency. Sound Move estimates developed in the early to mid 1990s did not consider specific local conditions but were largely based on projects in other regions; they did not include our region's unique topography of hills and water, and the strong culture of public process. Economic volatility during the years of rapid regional growth punctuated by the dot.com bust, the 9/11 recession, and then the real estate boom played havoc with real estate values, labor costs and the construction markets. Project schedules proved unrealistic and the original 10 years assumed for Sound Move had to be extended to 13 years, significantly increasing inflation impacts.

As a regional agency, ST learned quickly that it was very heavily dependent on the cooperation and partnership of local jurisdictions and the state and federal governments and regulatory agencies. ST had to learn through difficult times of conflict and legal challenges to manage its relationships and build trust with stakeholders and communities.

The Attachment C tables show that once 2005 budgets reached an advanced stage of engineering and once the baselining process was established for all projects, most projects were able to be completed within those budgets. Sound Transit now has consistent and regular practices of early risk assessment, value engineering, constructability reviews, and independent reviews by outside experts on its major projects. While many assumptions still change over time as project scopes evolve, regulations change, and new community needs and issues emerge, COP is confident that Sound Transit's project estimating and management practices are strong and continually improving by learning from best practices, from internal training and development, from outside reviews, and from the agency's own lessons learned.

Link Program

Today, tens of thousands of commuters and visitors enjoy riding light rail in downtown Tacoma and in Seattle from downtown to the Airport. The process that got the region to this point began with the failed Forward Thrust ballot measure in 1968. From the early skepticism about the need, the mode choice and the cost, the region is now overwhelmingly supportive of light rail. Since the passage of ST2, Sound Transit is on the way to expanding the light rail spine in all directions—north to Lynnwood, east to Redmond, and south to Federal Way. Communities in the outlying parts of the region are eagerly anticipating the day when light rail reaches them. Extensions to the University of Washington and to Northgate are under construction and budgets are trending below baseline, and construction recently began on the South 200th Link extension south of the Airport. The other extensions are in various stages of planning and design and have not yet been baselined. Schedules for many of these extensions have been delayed or suspended due to the great recession and ST's loss of projected revenue.

Central Link. Sound Move envisioned a 21-mile Central Link light rail system, extending from the University District to SeaTac Airport (South 200th) by 2006. That scope and schedule soon

proved to be overly optimistic and infeasible. In June 2001, the Board elected to design and construct a shorter initial segment from downtown Seattle to the Airport. At 14 miles, 12 stations, and a projected 42,500 daily riders, it was less than had been promised but was financially feasible, and by November 2003, Sound Transit was able to celebrate the ground-breaking for Central Link.

By 2005, the Central Link Initial Segment had a new realistic baseline budget of \$2.4 billion and all of the segments between downtown Seattle and the Airport were under construction. In July 2009, accompanied by great community jubilation, service began. Four years later, ridership is still improving in double-digit annual increases and in the second quarter of 2013 reached average weekday boardings of 28,700.

University Link Extension. The Link segment from downtown Seattle to the University of Washington is baselined at \$1.95 billion (including financing and contingency) and service is scheduled to begin in September 2016. The project is under construction and completed the highest-risk tunnel boring phase in mid-2012. In 2013, project activity is focused on the station finishes and systems work. Overall, the project is physically at around 75% complete. Of the original 172 days of schedule float, 169 remain. The current estimated project cost trend at completion is \$100 million below the baseline.

Based on many lessons learned from the Initial Segment construction, U Link has experienced a smoother construction process. Sound Transit chose to use the General Contractor/Construction Manager (GC/CM) contracting approach which led to better design, better pre-construction planning and good production rates during construction. Advanced technology for monitoring tunnel boring pressures and modeling the integrated building systems were employed. The working relationships with the contractors were also much improved, to Sound Transit's credit as a growing and learning organization. The station sites at Capitol Hill and at the UW have both had to manage multiple contractor interfaces in very narrow spaces. Capitol Hill Station is in a very highly developed urban location and the UW site is immediately adjacent to renovation work at Husky Stadium.

Extensive planning for transit-oriented development near the Capitol Hill Station has been conducted with the City of Seattle and the community, and a term sheet was signed with the City this year. A new emphasis on station access led to the development of the Montlake Triangle project which is jointly funded by the University of Washington, Washington State Department of Transportation, and Sound Transit to build a pedestrian and bicycle bridge from the station across Montlake Boulevard to the UW campus.

Northgate Link Extension. The scope, schedule, and budget for the extension from the UW to Northgate were baselined in June 2012, and the segment broke ground on its first demolition contracts in August 2012. The baseline budget is \$2.1 B and ST in mid-2013 awarded the single largest contract, the tunnel boring contract, at a highly favorable bid price--well below the engineer's estimate. The adopted schedule has service beginning in September 2021, nine months later than the ST2 plan had projected. As at the UW Station, the Northgate Station is benefiting from much improved system access planning that includes a dedicated bikeway and a potential pedestrian bridge across I-5 to North Seattle Community College. There has also been

extensive work with King County Metro to design the bus access and circulation through the adjacent transit center.

At the U District and Roosevelt station sites various transit-oriented developments are planned with community support. Together with Metro, ST is also making plans for TOD on four parcels near the Northgate station site. Both U Link and Northgate Link traverse parts of Seattle that are designated urban growth centers and very supportive of transit-oriented development. The entire corridor is expected to have very strong ridership.

South 200th Link Extension. Extending light rail from the Airport to South 200 Street on an elevated guideway, the South Link project is being developed using a design-build approach to accelerate completion by 2016. This project completed its PE and DEIS phases and is now in final design, with construction of the aerial guideway supporting columns having also begun. The design-build contract was successfully procured in 2012, approximately 20% below the engineer's estimate. The Angle Lake Station at South 200th is being designed to have an adjacent public plaza with retail shops, a parking garage and transit-oriented development on the property once construction is complete. The project is on track to be delivered within its \$383 M baseline budget.

East Link Extension. In 2013, the East Link extension from Seattle to Overlake Transit Center is in final design. After several years of contention over the alignment and the cost of the project, in November 2011 a memorandum of understanding with the City of Bellevue for cost sharing and collaborative design paved the way for East Link and a light rail tunnel under downtown Bellevue. In June 2012 the ST Board and Bellevue City Council endorsed a cost savings work plan and in April 2013 approved project changes resulting from the collaborative design process. The next phase of engineering design, and impact and mitigation analysis consistent with environmental requirements, is underway. The project budget is projected to be baselined in late 2014. Debate over the alignment through Bellevue caused the schedule to slip from service beginning in 2021 to 2023.

In addition to the resolution of alignment and design issues with the City of Bellevue, Sound Transit continues to work on technical issues associated with the light rail crossing of the I-90 floating bridge identified by a legislatively appointed Independent Review Team. Principal among these issues is rail crossing of the floating bridge expansion joints. The crossing, or track bridge, is currently in prototype testing. Another technical issue is the retrofitting and upgrading of the I-90 Mount Baker and Mercer Island tunnels which is discussed below under the I-90 Two-Way Transit project. Similar to the efforts on the north corridor in Seattle, the East Link design process also includes very extensive station area planning, community outreach, local jurisdiction coordination, and planning for future transit-oriented developments.

Lynnwood Link Extension. This segment will extend light rail from Northgate to Lynnwood with a target service date of 2023. ST completed the alternatives analysis and, in July 2013 published the draft environmental impact statement for public comment. Various potential station sites and configurations at-grade and elevated are being considered. The DEIS estimates for the various configurations range from \$1.2 B for the lowest cost alternative to \$1.5 B for the

highest. Any alternative will require between 125 and 250 property acquisitions, mostly single family homes.

The Lynnwood extension is highly dependent on federal funding and there is strong competition for New Starts funding nationally. TOD is becoming more important in the New Starts funding process, and also consistent with ST's new transit-oriented development policy, an early TOD assessment was conducted. Strongest development potential was found to exist at Lynnwood, Mountlake Terrace Transit Center, and at Northgate. However, the TOD assessment only considered current land use, and COP learned during its stakeholder interviews that the City of Shoreline is actively engaged in station-area planning and its citizens are interested in potential land use changes.

Federal Way Link Extension. The extension of light rail from South 200th Street to Kent Des Moines and to Federal Way was severely affected by the great recession which hit South King County revenues harder than other subareas. Sound Transit is proceeding with environmental review and conceptual design from South 200th to the Federal Way Transit Center sufficient to obtain a federal record of decision for the entire corridor. Preliminary engineering will be conducted as far as Kent Des Moines to prepare for subsequent final design and construction. If revenues become available, the agency may exercise options to extend preliminary engineering to South 272nd Street or to the Federal Way Transit Center.

Tacoma Link Expansion. The project completed two rounds of alternatives analysis and, in May 2013, the Board selected the E1 corridor encompassing extension to the Stadium District and the Martin Luther King corridor north of downtown Tacoma as the preferred alternative. The project is now moving to the environmental review and preliminary engineering phase. The ST2 project estimate was limited to \$75 M (in 2007 dollars) under the assumption that project completion would require an equivalent amount from other partners. That equivalent amount has not yet been identified.

Regional Express Program

The REX program was very extensive under Sound Move and built numerous projects in Snohomish County, East and South King County, and in Pierce County. These were HOV ramps, transit centers, parking garages and park and ride lots, and other improvements intended to add access capacity and improve the speed and reliability of buses travelling on the region's highways and arterials. These projects were also intended to meet the requirements of subarea equity to provide benefits in each subarea. REX projects were intended to provide benefits in those parts of the region that were not immediately being served by light rail or commuter rail and they did add substantial infrastructure to the region's bus systems.

By 2005, some two dozen Sound Move REX projects had not yet been completed, but the scoping and design of the projects had advanced to the point that fairly accurate cost estimates had been developed. Attachment C lists these projects and shows that most of them were completed between 2006 and 2008 and were brought in at or below the budget established in 2005. Sound Transit had by then learned much from its start-up years about scope control, project management, community outreach, and negotiating with third parties.

By the time of ST2, few new REX projects were proposed. The Burien Transit Center parking expansion project was already underway as a Metro project and ST contributed a capped amount. Projects in Renton and Bothell were proposed but then had to be suspended in 2010 as significant revenue losses hit the agency. One internal REX project, a new bus base, is still being reconsidered, and a fleet expansion program and a capital reserve had to be suspended. The only major REX project underway today with ST2 funding is the I-90 Two-Way Transit Stage 3 project, originally a small Sound Move project that grew from a few million dollars to approaching \$280 M when all three stages are considered.

I-90 Two Way Transit. Related to and integral to East Link is the I-90 Two-Way Transit project which will add outer roadway HOV lanes between Mercer Island and Seattle to mitigate traffic impacts when the center roadway is converted for dedicated light rail use for the East Link Extension. The I-90 project has been phased over time. Stage 1 included the westbound HOV lane from Bellevue to Mercer Island and was completed in 2008. Stage 2 included the eastbound HOV lane from Mercer Island to Bellevue and was completed in 2012. Stage 3 consists of the east and westbound HOV lanes between Seattle and Mercer Island and is in final design now.

This project has been plagued by a great many technical challenges and other obstacles not necessarily of Sound Transit's making. After very significant cost increases and schedule delays in the past, the project cost is increasing again and WSDOT and ST staff are proposing a schedule revision that will extend the timeline by another year to allow more time to continue to address extensive tunnel fire and life safety (FLS) design technical issues.

Sound Move called for a relatively simple \$16.8 million project that would take the two existing center lanes of the I-90 bridge between Seattle and Bellevue and convert them to two-way transit use, initially for buses and eventually for a fixed guideway service. Eventually, in August 2004, the Board approved a new project configuration called R8A that placed HOV lanes on the outer roadways at an estimated cost of \$128 million (for all three stages). Subsequently the project was split into its three stages and in 2005 the Stage 3 budget was \$64 million. The original Stage 3 cost estimate in 2007 was \$114 million. An updated estimate in June 2012 at 60% design was up to \$190 M, primarily due to very extensive increases in FLS requirements. Adding in the ST administrative costs, contingency and the ramp to Bellevue Way, the total project cost is now estimated at \$229 M.

The 60% design approval was achieved in May 2013, with a letter of concurrence on the fire life safety design from the Federal Highway Administration and the Seattle and Mercer Island Fire Departments. The 90% design is scheduled to be complete later this year, with project baselining in January 2014 and completion in 2016. After long and very extensive negotiations and design refinements with the regulatory agencies, staff believe the Mount Baker and Mercer Island tunnels will be among the safest in the nation.

Souder Program

Souder service began on the south corridor from Tacoma to Seattle in 2000 and on the north corridor from Everett to Seattle in 2003. However, the extension to Lakewood, originally

planned to start service in 2006 did not begin serving riders until 2012 and several station and other projects that were originally part of Sound Move were opened late or are still underway following additions of ST2 funding. Again, as with Link and REX projects, once agreements could be reached with third parties and with regulatory agencies on project scope, the projects generally were brought in at or under budget.

The Everett-Seattle Track and Signal project, estimated at \$304 M in 2005, came in at \$299 M. The Tacoma-Seattle Track and Signal project, estimated at \$462 M in 2005, came in at \$412 M. These numbers were much higher than the early Sound Move estimates, and as we described in our *Year 8* report, the discrepancies were largely due to the agency's failure to understand the degree to which BNSF had capacity constraints on its aging track for its own freight transport and the full costs of upgrading the facilities. Once negotiations for the use of the track and facilities began in 1997 and 1998, it became clear that significant investments would be needed to upgrade the system to modern passenger safety standards and to add capacity. In addition to the cost of using BNSF-owned track, Sound Transit discovered that it needed to build system-wide facilities that had not been adequately anticipated and scoped, including a layover yard for overnight storage of trains.

The Lakewood extension beyond Tacoma incurred its own set of issues that ended up costing ST an additional \$100 M that had to be partially funded from ST2.

Lakewood Corridor. Because of engineering and safety issues related to the grade of the D Street to M Street segment in Tacoma, the Lakewood corridor was split into two projects, D to M and M to Lakewood. In 2005, they were estimated at \$76 M and \$74 M respectively. D to M alone ended up costing \$161 M after the decision was made to build a grade-separated alignment, not the at-grade alignment that had been anticipated. Then additional challenges arose as the City of Tacoma, the community and adjacent property owners became aware of the impacts of the elevated Pacific Avenue crossing and berm that had to be built. Negotiations with the third parties and mitigation required years to resolve. The right-of-way costs and protracted delays also contributed to the ultimate project cost.

Sounder Stations. Several stations were put on hold or put into service as temporary stations while full design and build-out were delayed due to various circumstances. In Mukilteo, the north platform was put into service but the south platform could not be built because the property transfer was held up due to environmental cleanup issues. The Mukilteo Station South Platform project is finally underway and expected to be completed in 2015. The scope has changed considerably and includes a pedestrian overpass over the tracks and acquisition of property that was assumed to be leased long term, changes not anticipated in Sound Move. The cost of the project has doubled from \$9.4 M to \$18 M. In Edmonds the old Amtrak station near the ferry terminal in downtown Edmonds was originally viewed as temporary pending the relocation to Edmonds Crossing about a mile to the south. The station relocation was stymied by the recession and lack of funding but a permanent Edmonds Station at the old location was finally completed in 2011 and brought in below the baseline budget.

The Tukwila Station was also on hold for ten years as a temporary facility while the City of Renton pursued a related Strander Boulevard project. Eventually the station site was relocated

and the project redesigned from \$16 M in 2005 to a \$49 M baseline, with additional ST2 funding included, and completion is now expected in 2014. Other station access and demand projects envisioned in ST2 at Mukilteo, Kent, Auburn, and Tacoma Dome stations were deferred in the realignment.

New ST2 Projects. Four additional permanent easements were acquired from BNSF on the Sounder south corridor at a cost of \$185 M. Access improvements are planned at Sumner, Puyallup and Lakewood stations, all at reduced amounts after the 2010 realignment. The scope and schedule of these improvements are still being considered. A new project called Tacoma Trestle Replacement will replace the old single-track wooden Tacoma Rail trestle with a new double-track concrete and steel structure. Timing and cost remain to be determined.

A new positive train control system is being built throughout the entire Sounder corridor. This safety mechanism creates a remotely activated operator override in case of emergency and was an unexpected mandate of the federal government several years after ST2 passed. A Sounder yard and maintenance shop facility is planned and is being funded incrementally as the agency determines over time whether the need and the funding are still as projected at the time of ST2.

VII Going Forward

COP is highlighting five areas where we believe attention should be focused as Sound Transit continues to develop the regional system and expand its services: system access, continuous performance evaluation, financial sustainability, regional transit governance, and ST3 planning.

System Access. In 2010, COP issued its *Report of the System Access Task Force* which made recommendations in several areas, urging ST to design and manage its facilities to maximize rider ability to access services, make efficient use of facilities, improve connectivity and transfers across modes, and to develop new ways to target potential future riders. The agency has been adopting many of these recommendations and we encourage it to continue to do so.

This year, the ST Board adopted a new system access policy that includes authority to manage parking at Sound Transit stations and transit centers for transit priority use and authority for future pay-for-parking pilot projects. Recently, the Board also adopted a new transit-oriented development policy that supports early TOD assessment in the project planning process. These new policies give staff direction to be more proactive in managing facilities to improve the rider experience and to spur development along the major transit corridors. Multi-modal access strategies are being designed at station areas such as Northgate, and are under consideration at Sumner and Puyallup.

A need for better feeder service connections and easier transfers were frequently mentioned by stakeholders during our interviews. While the region's transit agencies prefer to highlight the coordination and collaboration they engage in, riders and local communities speak of a desire for improved connectivity. Especially as the ST2 light rail extensions come into service during the coming years, feeder services and seamless access will be important and we challenge ST to make these a priority.

Evaluating Performance. Sound Transit already has an ongoing organizational practice of measuring its performance in many areas. Departments and managers use multi-year business planning and goal setting to hold themselves accountable and scorecards to measure themselves against. The agency as a whole and the sustainability program in particular issue annual reports that show agency progress toward achieving goals. Transit performance metrics are routinely published and reported to the Board. The annual Service Implementation Plan is particularly useful in tracking detailed route and mode performance. We applaud these practices and encourage Sound Transit to continue them.

One area in which we have encouraged measurement that ST has not yet initiated grew out of our 2012 *North Shore Alternatives* Task Force report. COP recommended that the agency set targets for ridership growth on the Sounder North Line and, if they are not met, consider reallocating some of the resource from that service to high-demand bus routes in the corridor instead. We continue to believe that if a service is not performing to expectations, an assessment of long-term viability should be made.

Financial Sustainability. As a regional agency by design, Sound Transit is heavily dependent on third parties to achieve its goals. Local transit agencies, cities, counties, state agencies, and private parties all are essential in delivering ST's projects and services and many have sole-source negotiating leverage over Sound Transit. This has often tended to drive ST's operating costs and permitting and mitigation requirements. COP has written several times over the years in its annual reports of the unsustainably high rate of growth in operating costs. ST itself has set a target of growing its operating costs at a rate of inflation but has almost never been able to meet that target. The agency's long-term Financial Plan has been very substantially stressed by the great recession and controlling operating costs, for both transit and agency operations, is a significant challenge. COP again strongly encourages Sound Transit to further its efforts to control its costs.

Regional Transit Governance. In 2006, the region convened a high-level task force to study the issue of regional transportation governance and concluded that a new regional governance entity was needed. At the time, COP members agreed with that conclusion and wrote, "We favor an appointed board and a strong citizen accountability mechanism."⁶ The proposal to create a new entity that might merge Sound Transit into other organizations did not succeed and, since then, COP has not pursued the matter. It has, however, noted that the seamless coordination of regional spine and local services has yet to be achieved. The region's transit agencies continue to compete for riders and routes. Long-haul multi-county and multi-center routes which by legislative authority were intended to be Sound Transit regional routes are still being operated by local transit agencies and the feeder services to the spine were never implemented in many places. As Link is expanded to more suburban parts of the region, it will become even more important to ensure that light rail and long-haul bus routes do not duplicate service, but that bus hours can be redirected to feeding the core rail system.

⁶ COP Letter dated November 28, 2006 to Regional Transportation Commission Co-Chairs Norm Rice and John Stanton.

When third parties such as cities or business groups ask the transit agencies why they are not doing more to coordinate their services, the transit agencies regularly respond with extensive lists of coordinating and “partnering” activities that they engage in, begging the question of why there is still so much lack of coordination. In our interview with transit providers, we heard that service coordination among agencies is ongoing and works well. They enumerated ORCA passes, fare coordination, service scheduling, and planning and integration of service with capital facilities as areas where interagency coordination has been effective.

However, many stakeholders we spoke to said they feel the coordination and integration of transit services are inadequate. We heard stakeholder comments that were scathing about why the transit agencies can’t agree on what bus types to purchase, on a single fare scheme, and on feeder service to rail stations. Stakeholders characterized some service allocation decisions as inflexible. We also heard comments about public confusion about which agency provides which services and why some long-haul regional routes are provided by local providers, e.g. Swift and RapidRide. This leads to public confusion about the roles of individual agencies.

Nevertheless, most observers felt that there are distinct roles for a regional transit agency and for local transit providers. They said the current governance structure meets these differing roles. COP members in 2013 conclude that Sound Transit and the other transit agencies should do more to address big picture governance and coordination questions, such as how the region’s services can be operated most efficiently and without duplication of efforts, and how the region’s resources should best be allocated between capital projects and operations.

Planning for ST3 and Beyond. In November 2012, the Sound Transit Board held an ST3 planning workshop which directed staff to begin the required high-capacity transit corridor studies and the long-range plan update to be in position for a possible 2016 vote. Sound Transit is at its 0.9% sales tax authority and has no more current financial capacity until 2023 when some of the agency’s outstanding bonds will be paid off. Thus legislative authorization of additional funding authority would be needed to go to voters for additional program expansions.

During COP’s stakeholder interviews, we heard consistently from communities throughout the region that people in all three corridors are excited that Link is coming. Many local jurisdictions have been active in the PSRC’s Growing Transit Communities project and share the vision of urban centers growing around stations. Many cities on the Link corridors support the concept of transit-oriented development and wish ST would do more to be proactive as a TOD partner. There is enthusiasm about expanding high capacity transit throughout the region and many places are looking forward to ST3 and the continuing build-out of the system.

However, some cities that are not on the Link corridors feel shortchanged by Sound Move and ST2. Even if situated to benefit from REX or Sounder projects and transit services, they tend to feel that the benefits of ST have been under-allocated in their communities. COP heard from some communities about anger and disappointment that previously promised projects could not be delivered because funding was insufficient. While we understand that as capital projects are developed, many issues cannot be identified until well into the engineering process, we believe it is vital that conceptual cost estimates be as accurate as possible so that voters can make informed

decisions. We believe that the estimating process in the early planning stages should be as rigorous as it can be and encourage ST to improve practices in this area, as it has in others.

We heard that several smaller cities want their downtowns to maintain their existing characters and do not want transit centers, parking, or TOD to interfere with the local sense of community character and livability, although we also heard from the upcoming generation that they are more receptive to transit centers and TOD. We also heard that as the system is expanding outside of the urban core, subarea equity is becoming a drag on progress in some places. Less well-off subareas sometimes feel that the benefits are taking too long to reach them because ST cash flows are limited by subarea equity. We urge the Sound Transit Board to reevaluate the value and benefits of subarea equity as it exists today.

There is also growing demand to expand the RTA district to the north to the Marysville area and to the south to Olympia, but COP members heard concerns that a necessary big tax increase all at once in those annexed areas might cause voter refusal.

Attachment A

Sound Transit 16-Year Chronology 1997-2013

In 1996, Sound Transit was created as a new agency. The first eight years were characterized by start-up activities as the brand-new agency hired staff, found a permanent headquarters location, developed its early policies and procedures, and began to deliver the programs and services of Sound Move. In the first several years, bumps in the road became apparent. These were fueled by enormous pressure to show quick results and by emerging evidence that some project costs had been underestimated (mostly because projects were not yet scoped, but in part also because the economy was booming and costs of labor, real estate, and professional services were rising fast). Increasingly, doubts were expressed about Sound Transit's ability to deliver on its promises.

First Eight Years Milestone Events	
November 1996	The region's voters approve Sound Move by 58% to 42%. The vote authorizes a local 0.4% sales tax and 0.3% motor vehicle excise tax.
September 1999	Sound Transit inaugurates express bus service, partnering with Community Transit, King County Metro and Pierce Transit to operate the first 9 of 18 planned new ST Express bus routes.
November 1999	The Sound Transit Board adopts the final route and station locations for Central Link light rail, from SeaTac Airport to the University District.
September 2000	Sounder commuter rail service begins between Tacoma and Seattle with two trains in each direction.
December 2000	Sound Transit staff suspend the Central Link project and concede that the budget would need to be increased by \$300 million and the schedule extended by three years. One year later, a shorter "initial segment" from downtown Seattle to South 180 th is approved.
July 2001	Tacoma Link construction begins.
April/May 2003	Major freeway HOV Access projects break ground at Ash Way, Lynnwood and Bellevue.
August 2003	Tacoma Link begins service.
November/December 2003	ST celebrates the groundbreaking for the construction of the Central Link Initial Segment. Sounder commuter rail trains begin regular service between Everett and Seattle.
September 2004	ST marks five years of successful bus and train service.

The agency made mistakes in two key areas in those early years: under enormous pressure to show quick results, it prioritized speed of delivery over scope and cost control; and it was slow to acknowledge evidence that some project costs had been severely underestimated. These mistakes turned into a crisis of confidence for Sound Transit as the federal government put its funding commitment on hold. Key senior management individuals were forced to resign and the agency had to discard and restart its development of affordable project budgets and schedules.

But by 2005 Sound Transit had righted itself and was on track, delivering transit services and managing large-scale construction projects. Between then and today, Sound Transit learned many lessons and incorporated them into its management practices. It has grown and marked numerous milestones and accomplishments.

Second Eight Years Milestone Events	
July 2005	The ST Board approves plans to extend Central Link to the Airport. The Board also approves a new Long-Range Plan, precursor to planning for ST2.
September 2005	The Downtown Seattle Transit Tunnel closes for two years for retrofitting to allow joint operation of light rail and buses.
January 2006	A tunnel boring machine is launched to drill mile-long twin tunnels through Beacon Hill.
February 2006	The new Federal Way Transit Center and HOV Access opens, adding 1,200 parking stalls. The Issaquah Highlands Park and Ride with 1,000 stalls of parking opens.
March 2006	The Washington State Legislature requires Sound Transit to participate in a joint Roads & Transit ballot.
April 2006	The ST Board approves an agreement with the Port of Seattle to get light rail to the Airport
November 2006	ST celebrates its first 10 years. The agency now carries more than 10 million passengers a year in its buses and trains.
May 2007	The Board adopts Sound Transit 2, the transit piece of the Roads & Transit package going to voters in November 2007. Construction begins on the Sounder Lakewood to Tacoma segment.
November 2007	The Roads & Transit measure fails at the ballot.
July 2008	The Sound Transit Board approves a new 15-year ST2 mass transit package for the November ballot.
October 2008	Totem Lake Transit Center at Evergreen Medical Center opens. New Bellevue-to-Mercer Island HOV lane opens on I-90.
November 2008	ST2 is approved by 57% to 43%, just as the great recession is beginning which will severely affect agency revenues.
March 2009	University Link breaks ground for construction.
May 2009	The ORCA card, a regional fare pass, is introduced.
July 2009	Amid community celebrations, Central Link opens for service.
September 2010	Program realignment proposed in response to 25% ST2 revenue losses.
October 2011	Memorandum of understanding and cost sharing agreement with City of Bellevue paves the way for East Link expansion and a light rail tunnel under downtown Bellevue.
March 2011	Mountlake Terrace Freeway Station, a Sound Move project, is completed, improving bus reliability in the high demand Snohomish County bus corridor.
May 2012	U Link tunnel boring machines complete Capitol Hill to Downtown and UW to Capitol Hill segments. Work begins on station finishes.

June/August 2012	Northgate Link extension is baselined and breaks ground for its first demolition contracts.
October 2012	Long-awaited Sounder service to Lakewood begins. The fall revenue forecast indicates that ST2 revenues are now down 30% from ST2 projections.
December 2012	ST transit services reach an all-time record at 100,000 weekday ridership. The ST Board holds a workshop to kick off planning for ST3.
April 2013	East Link cost savings design changes are adopted by the City of Bellevue and the ST Board.

As the brief chronology of the past eight years indicates, efforts are proceeding to design and build out the extensions of the light rail and commuter rail systems. Not highlighted are studies and processes underway to extend Link in Tacoma, extend Link to Federal Way in the south and to Lynnwood in the north, to complete the center roadway conversion for light rail on the I-90 floating bridge, as well as a variety of other projects designed to improve system access, add maintenance capacity, and make commuter trains safer. Sound Transit has grown to be a 600+ employee organization that is both an operating transit agency and an organization successfully delivering mega-size capital projects.

Attachment B

Transit Operating Metrics 2005-2013

ST Express 2005-2013 Key Operating Metrics									
	2005	2006	2007	2008	2009	2010	2011	2012	Mid-Year 2013
Average Weekday Boardings	30,400	33,460	36,730	43,000	44,160	42,520	47,080	53,140	53,140
Cost per Revenue Hour	\$137	\$137	\$144	\$161	\$158	\$174	\$175	\$184	
Cost per Boarding	\$6.49	\$6.46	\$6.52	\$6.31	\$6.58	\$7.48	\$7.04	\$6.51	

Source: Sound Transit

Sounder 2005-2013 Key Operating Metrics									
	2005	2006	2007	2008	2009	2010	2011	2012	
Average Weekday Boardings	4,560	6,310	8,030	9,910	9,300	8,780	9,500	10,600	
North Line	479	672	847	1069	1085	1027	950	1147	
South Line	4086	5638	7175	8845	8214	8197	8869	9437	
Cost per Revenue Hour*	\$1,482	\$1,410	\$1,289	\$1,159	\$949	\$848	\$831	\$853	
North Line	\$1,925	\$1,756	\$1,171	\$1,505	\$1,261	\$991	\$998	\$1,052	
South Line	\$1,465	\$1,342	\$1,331	\$1,019	\$993	\$839	\$814	\$844	
Cost per Boarding*	\$16.60	\$13.92	\$11.52	\$11.16	\$13.71	\$13.74	\$12.71	\$12.24	
North Line	\$37.37	\$26.80	\$24.89	\$27.50	\$34.74	\$22.79	\$23.06	\$22.86	
South Line	\$14.73	\$11.70	\$10.08	\$9.37	\$12.72	\$12.26	\$11.18	\$10.80	

Note: Costs exclude depreciation, donations, transfers from CIP, impairments and airspace leases.

Source: Sound Transit

Central Link 2005-2013 Key Operating Metrics									
	2005	2006	2007	2008	2009	2010	2011	2012	Mid-Year 2013
Average Weekday Boardings					15,550	21,050	23,620	25,990	27,160
Cost per Revenue Hour					\$354	\$322	\$371	\$379	
Cost per Boarding					\$8.56	\$6.78	\$6.29	\$6.07	
Source: Sound Transit									

Tacoma Link 2005-2013 Key Operating Metrics									
	2005	2006	2007	2008	2009	2010	2011	2012	Mid-Year 2013
Average Weekday Boardings	2,880	2,930	3,040	3,000	3,080	2,940	3,290	3,480	3,560
Cost per Revenue Hour	\$292	\$291	\$314	\$329	\$393	\$346	\$358	\$393	
Cost per Boarding	\$3.17	\$3.22	\$3.43	\$3.38	\$4.16	\$3.93	\$3.59	\$3.94	
Source: Sound Transit									

Attachment C

Capital Projects 2005-2013

Link Program Status 2005 - 2013							
	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
<i>Snohomish County</i>							
<i>Projects Proposed in ST2 - Ongoing</i>							
Lynnwood Link Extension		2023		\$1,256,000	TBD	TBD	Northgate to Lynnwood segment DEIS published, currently in environmental and PE. Project not yet baselined. Project completion hinges on receipt of federal funding.
<i>Pierce County</i>							
<i>Projects Proposed in ST2 - Ongoing</i>							
Tacoma Link Expansion	2015	TBD		\$74,900	TBD	TBD	Project completion hinges on local contribution not yet identified.
<i>North and South King County</i>							
<i>Projects Proposed in Sound Move - Completed</i>							
Initial Segment	2006	2009	\$2,070,000		\$2,434,000	\$2,298,000	Original Sound Move project budget and schedule found to be infeasible; project split into six elements: E-3 Busway, Beacon Hill Tunnel/Station, MLK Jr. S., Tukwila, Maintenance Base and Systems; open for service July 2009. Project FFGA \$500M
Initial Segment Follow-on							Funding originated from Initial Segment
Noise Abatement	2014	2014				\$13,200	
Beacon Paving	2013	2013				\$2,000	
Link Station Paver Replacement	2013	2013				\$500	
Airport Link	2006	2009	\$243,600		\$263,000	\$262,024	Tukwila to SeaTac Airport, open for service December 2009.

Link Program Status 2005 - 2013

	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
Projects Proposed in Sound Move - Ongoing							
University Link	2006	2016	N/A		\$1,947,700	\$1,947,700	Originally part of North Link project. In 2005, the project had two elements: PE for the segment from Northgate to 45th (\$9M) and final design and ROW acquisition from 45th to Capitol Hill (\$161M). Baseline established in 2007. Tunneling has been completed, construction continues for stations and systems. Project trending \$100M under baseline budget.
Projects Proposed in ST2 - Ongoing							
S 200th Extension	2020	2016		\$285,500	\$383,241	\$383,241	Project concluding final design; construction started in April 2013 under design-build contract. ST2 did not include vehicles (\$132M) and startup costs (\$17M) as part of the project cost.
Northgate Extension	2020	2021		\$1,350,900	\$2,131,400	\$2,131,400	ST2 estimate did not include vehicles (\$260M and start up and testing (\$13M). Early construction underway; tunnel contract awarded.
First Hill Street Car	2014	2014		\$120,000		\$132,780	Sound Transit providing funding for this City of Seattle led project
Federal Way Link Extension	2020 to Kent/Des Moines; 2023 to S. 272 nd	2023 to Kent/Des Moines		\$367,300 to Kent/Des Moines; plus \$400,000 to S 272 nd	TBD	TBD	ST2 authorized construction as far as S. 272 nd Street in Federal Way. Project suspended in 2010 realignment, and then restarted. Environmental review is underway from S. 200 th to the Federal Way Transit Center. Current financial plan includes funding to construct to Kent/Des Moines.

Link Program Status 2005 - 2013

	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
Projects Proposed in ST2 -Suspended/Modified							
Federal Way to Tacoma Right of Way Preservation	2017	Suspended		\$40,400			Project suspended in 2010 realignment.
South Federal Way to Tacoma Dome Preliminary Engineering	2023	Suspended		\$72,100			In lieu of completing this project ST established the South Corridor Alternatives Analysis, being performed to identify HCT alternatives in the corridor south of Federal Way. Alternatives will be evaluated for affordability.
East King County							
Projects Proposed in ST2 - Ongoing							
East Link	2021	2023		\$2,968,882	TBD	TBD	Project in final design. Startup delayed due to subarea financial capacity and disagreements about alignment.
System-wide Projects							
O&M Satellite Facility	2022	2020		\$730,200	TBD	TBD	Environmental review underway.
Link Fleet Expansion				\$558,877	N/A	N/A	Included in OMSF in ST2; now carried as part of projects when baseline is developed.
(1) If project was not tracked as a separate project in 2005, the schedule as of the date the project was identified is provided as a planned start of service.							
(2) Budget adopted by Board in 2005 (2005 YOE\$) for Sound Move projects.							
(3) ST2 cost estimates in 2007 constant \$. For reference only, not inflated to YOE\$.							
(4) Baseline budget is as of the time of Board adoption.							
(5) If project has not been completed, current estimate of the cost at completion is provided.							
<i>Source: All numbers provided by Sound Transit.</i>							

Regional Express Program Status 2005 - 2013

	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
<i>Snohomish County</i>							
<i>Projects Proposed in or Created from Sound Move - Completed</i>							
South Everett Freeway Station/112th SE	2008	2008	\$38,956		\$31,209	\$28,358	Originated when related Sound Move projects, I-5 at 112th Street and the 112th Street Park and Ride/Flyer Stop (Silver Lake), were determined to be infeasible. Project received \$2M FTA grant.
Mountlake Terrace Freeway Station/236th SW	2008	2011	\$25,545		\$40,869	\$29,000	Project was conceptualized in early 1990s by WSDOT as a flyer stop with elevator access from the 236th street overpass. Upon review of site conditions it was determined that flyer stop could not be constructed within the constraints of the location. Unanticipated engineering and geotechnical stabilization measures delayed the project and added costs. Project received \$14M in grant funding.
North Everett Transit Center - Everett Community College	2007	2007	\$1,698		\$1,641	\$1,641	Planned as a transit center in the vicinity of Everett Community College, the project was rescoped to accommodate stakeholder requirements. ST's role limited to financial support as capped contribution.
<i>Pierce County -</i>							
<i>No projects completed or pending completion since 2005</i>							
<i>South King County</i>							
<i>Projects Proposed in or Created from Sound Move - Completed</i>							
Federal Way HOV Access/S 317th	2007	2006	\$32,618		\$32,618	\$28,779	Completed concurrently with transit center to ensure transit center access; design and construction managed by WSDOT. Project received \$14M federal grant.
Federal Way Transit Center/S 317th	2006	2006	\$39,455		\$39,455	\$39,455	Project created using funds from Federal Way Transit Center; Federal Way HOV/S 317th, Star Lake Freeway Station and Redondo Heights Park and Ride. Civil contractor has appealed a dismissal judgment on a claim; with anticipated favorable judgment, remaining funds will not be expended. Project received \$26.3M federal grant funding.

Regional Express Program Status 2005 - 2013

	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
Star Lake Freeway Station	2007	N/A	\$4,113			\$3,094	Planned as part of larger I-5 improvement project (funded by others). Funds not available for those improvements. Project canceled.
Projects Proposed in ST2 - Completed							
Burien Transit Center Parking Expansion	2011	2011	\$15,175	\$13,400	\$15,175	\$14,732	Capped Contribution to King County.
East King County							
Projects Proposed in or Created from Sound Move - Completed							
Sammamish Park-and-Ride/228th SE	2006	2006	\$7,764		\$7,179	\$6,967	
Issaquah Highlands Park-and-Ride/Highlands Drive	2006	2006	\$8,116		\$8,116	\$7,181	Provided a contribution to King County Metro's project. Funded initially via transfers from the Mercer Island Park and Ride and SR-900 Park and Ride Arterial Improvements. Addition funding needed because of materials price increases evident at bid opening.
Bellevue Rider Services Building	2006	2006	\$3,501		\$3,501	\$2,760	Project funding derived from Bellevue Transit Center project that was completed in 2004.
Eastgate HOV Access/142nd SE	2007	2007	\$38,908		\$39,908	\$29,574	Project benefitted from favorable bidding climate and received \$1.5M in grant funding.
Totem Lake Freeway Station/NE 128th	2007	2008	\$85,875		\$85,875	\$73,596	Project designed by WSDOT; design error resulted in reconstruction of overpass elements and delayed project. WSDOT assumed responsibility and reimbursed Sound Transit. Received \$24.8M in grant funding.
Totem Lake Transit Center/Evergreen Medical Center	2007	2008	\$7,743		\$13,243	\$6,267	Scheduled service start delay attributed to rescoping to coordinate with Medical Center expansion. Contractor responsible for the expansion also performed the transit improvements, reducing Sound Transit's cost to procure and manage work.
East King County							
Projects Proposed in or Created from Sound Move - Completed (Continued)							
Yarrow Point Stop Improvements	2006	2006	\$150		\$150	\$108	Project rescoped and investment limited to coordinate with WSDOT's planned eastside access improvements to the Evergreen Point Floating Bridge.

Regional Express Program Status 2005 - 2013

	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
Canyon Park Freeway Station/I-405	2007	2007	\$9,132		\$9,132	\$9,773	Pedestrian bridge over SR-405 features were undetermined at time of Sound Move. The bridge and its associated super structure were enhanced from initial design to provide weather protection. Project received \$0.75M federal grant.
Mercer Island Park-and-Ride/N Mercer Way	2007	2008	\$14,310		\$14,310	\$13,996	Project was bid at a time of significant construction cost escalation. In addition, a design error discovered during construction delayed project completion. The insurance carrier for the Engineer of Record compensated Sound Transit. Project received \$5.6M in grant funding.
I-90 Two-Way Transit and HOV Operations (Stage 1)	2007	2008	\$24,406		\$24,406	\$23,448	Originally scoped as one project to change the center roadway from one-way, two lane operation to two-way, one lane in each direction. The R8A decision which came out of the Record of Decision for the project significantly modified the scope to include outer roadway HOV lanes between S. Bellevue and Seattle and conversion of the center roadway for light rail use. The project was rescoped into three phases to include additional elements including automated traffic management, strengthening the concrete panels, reconstruction of a new configuration to improve safety and fire, life and safety system upgrades in the Mt. Baker tunnel. Funding derived from available Sound Move and WSDOT funds and the East King County financial capacity for Phases 1 and 2. For Phase 3, funding is also being derived from the East King County reserve and ST2. Phases 1 and 2 have been completed. Received \$1.5M grant for initial planning.
I-90 Two-Way Transit and HOV Operations (Stage 2)	2010	2012	\$19,372		\$31,683	\$22,828	See Phase 1 description. Contributors to delay and cost increase included a design error discovered during construction (negotiating settlement with design consultant and WSDOT) and the level of engineering did not consider all system requirements at the time the scope was developed.
Issaquah Transit Center/SR-900	2007	2008	\$29,482		\$29,482	\$29,000	Schedule delay attributable to contractor inefficiencies.

Regional Express Program Status 2005 - 2013

	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
Bothell Branch Campus Access	2006	2008	\$3,860		\$3,860	\$2,160	Project delayed to scope and design to college campus requirements.
SR-522 HOV Enhancements Kenmore	2008	2009	\$8,791		\$8,791	\$8,773	Because project spanned more than one jurisdiction and because of the timing of availability of local/state match funding, original project split into two projects in 2005 (Kenmore and Bothell). Kenmore's share was \$8.8M with the City of Kenmore taking the lead; ST's role was limited to financial support as a capped contribution to the City.
SR-522 HOV Enhancements Bothell	2008	2012	\$8,572		\$8,572	\$8,572	See description for Kenmore. Additional funding from the Bothell Branch Campus Access project was added to this project. Project lead by the City of Bothell; ST provided funding as a capped contribution to the City. Delay attributable to delay in Bothell's completion of the environmental documentation.
East King County							
Projects Proposed in or Created from Sound Move - Completed Continued							
Redmond Way, Redmond	2008	2008	\$2,438		\$2,438	\$1,979	Board elected to fund improvements to the 85th corridor between Redmond and Kirkland. Funding for the project (\$17.9M) originated from reallocation of Sound Move funding allocated to Totem Lake Freeway Station; as envisioned ST was to provide financial support as a capped contribution. Because the corridor spans two jurisdictions and because one jurisdiction was ready to proceed with scoped work in advance of the other, in 2007 the project was split into two projects, Redmond Way funded at \$2.5M and Kirkland Transit Improvements funded at \$14M. Project descope by Redmond due to lack of funding for local contribution.
Kirkland Transit Center/3rd Street	2010	2011	\$13,300		\$13,300	\$10,959	Project created by the Board in 2004 using funding (\$13.3M) from the East King County Reserve. Project delayed to coordinate construction with adjacent pump station upgrade by King County Wastewater. Remaining work elements to be completed in 2013.

Regional Express Program Status 2005 - 2013

	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
Redmond Transit Center	2007	2008	\$6,931		\$6,931	\$6,557	Willows Arterial project rescoped to create this project. Sound Transit's role was limited to financial support as a capped contribution to King County Metro.
Newcastle Transit Improvements	2006	2010	\$7,223		\$4,428	\$4,139	Project led by the City of Newcastle, scope and budget reduced to eliminate park and ride lot elements.
Renton HOV Access/N 8th	2010		\$67,075			\$4,505	Project dependent on widening of I-405 by WSDOT but no funding available. Project canceled in 2010 realignment. Funding (\$31M) reallocated from the I-405/Talbot Road HOV Access project which was determined to be unfeasible. Funding allocated to this project was returned to the East King County Reserve and used to establish the budgets for Stander Blvd. and Rainier Ave. projects.
East King County							
Projects Proposed in Sound Move - Ongoing Projects							
85th Corridor Improvements (Kirkland Transit Improvements)	2008	2013	\$8,453		\$6,015	\$7,994	See description for Redmond Way project. Project led by the City of Kirkland. Sound Transit's role limited to financial support as a capped contribution to the City.
Rainier Ave. Arterial Improvements	2008	2014	\$15,675		\$15,675	\$15,717	Project identified following determination that the I-405 HOV Access @ Talbot Road was infeasible. Funded through an allocation from the East King County Reserve. Renton has grant funding to complete number of roadway infrastructure improvements and requested ST's financial support for transit access improvements. Project lead by the City of Renton. Planned Hardie Ave. elements of the project were descoped. ST's role is limited to financial support as a capped contribution to the City. Delay attributable to coordination of project with planned rail line relocation and to secure grant funding. Rail line no longer being relocated.

Regional Express Program Status 2005 - 2013

	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
Strander Boulevard Extension	2009	2014	\$4,208		\$4,208	\$4,208	Similar to the Rainier Ave. project, this project was also identified following determination that the I-405 HOV Access @ Talbot Road was infeasible and funded through an allocation from the East King County Reserve. Project lead by the City of Renton. ST's role is capped contribution to the City. Delay attributable to coordination of project with a planned rail line relocation and to secure grant funding. Rail line no longer being relocated.
East King County							
Projects Proposed in Sound Move - Ongoing Projects (Continued)							
I-90 Two Way Transit and HOV Operations Stage 3							
Sound Move	TBD	2016	\$64,222			\$229,600	See I-90 Stage 1. Project only partially budgeted, cost to complete based on 60% design cost estimate. Funding to be derived from Sound Move (\$62M) WSDOT (\$10M) and ST2 (\$52M) and the balance from the East King County Reserve and available subarea financial capacity. Formal baseline will be prepared in early 2014. Construction needs to be completed to begin the I-90 segment of East Link. Received \$4.7M federal grant for this project.
ST 2		2016	\$51,597	\$51,597			
East King County Reserve	N/A	N/A			\$26,756		Established by the Board in 2002 as a reserve to provide funding for unanticipated issues during delivery of projects within East King County. Reserve has also been a repository for savings from projects completed under baseline budget. In the 2010 realignment the Pierce and Snohomish County reserves were defunded from Sound Move. The East King County reserve was maintained in anticipation of the higher cost of implementing I-90 Stage 3. It is currently earmarked for use on this project and will be transferred to the project when baselining occurs in 2014.

Regional Express Program Status 2005 - 2013

	Planned Start of Service in 2005 (1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000) (2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000) (5)	Notes
East King County – ST2							
Projects Proposed in ST2 - Suspended							
Bothell Parking Garage / Transit Center	2015	Suspended		\$5,300			Project suspended in 2010 realignment
System-wide Projects							
ST Express Bus Base	2014	TBD		\$174,100	TBD	TBD	Project need being reconsidered per 2010 realignment; proceeding incrementally; currently funded for PE only.
Midday Bus Storage	2013	2014		N/A	TBD	TBD	Funding originated from ST Express Bus Base project. Project being funded incrementally; currently only funded through final design. Baseline for construction is under development.
ST Express Fleet Expansion	2016	Suspended		\$39,304			Project suspended in 2010 realignment
Pierce and Snohomish County ST Express Capital Reserve Program				\$26,972			Reserves defunded in 2010 realignment.
(1) If project was not tracked as a separate project in 2005, the schedule as of the date the project was identified is provided as a planned start of service.							
(2) Budget adopted by Board in 2005 (2005 YOE\$) for Sound Move projects.							
(3) ST2 cost estimates in 2008 constant \$. For reference only, not inflated to YOE\$.							
(4) Baseline budget is as of the time of Board adoption. The following projects have not yet been baselined due to uncertainties in scope elements or timing of project: I-90 Stage 3 and all ST 2 projects.							
(5) If project has not been completed, current estimate of the cost at completion is provided							
<i>Source: All numbers provided by Sound Transit.</i>							

Souder Program Status 2005 to 2013

	Planned Start of Service in 2005(1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000)(2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000)(5)	
Everett-to-Seattle Corridor							
Projects Proposed in Sound Move							
Edmonds Station	2009	2011	\$12,909		\$12,929	\$11,549	Project was envisioned to be a component of a larger multi-modal facility (Edmonds Crossing). Planning process was protracted and with the economic recession, the project was suspended. At the request of the City of Edmonds, ST made improvements to the temporary station. Schedule delays due to coordination with third parties and the larger project.
Mukilteo Station	2007	2008	\$18,214		\$9,810	\$9,481	The original project included a two platform station and assumed construction of the platforms to occur concurrently. To mitigate safety risk of pedestrians crossing the active rail lines, additional scope and a pedestrian overpass were added to the project. Because of delays in acquiring the property for the south platform, the north platform was constructed and opened for service separately in 2008; the incurred cost represents the costs for the north platform only.
Mukilteo Station South Platform	2009	2014	\$9,371		\$18,313	\$18,313	See Mukilteo Station above. Originally part of Mukilteo Station project. Project split off the south platform because of property acquisition delays. Project currently under construction.
Everett - Seattle Track and Signal	2005	2007	\$304,326		\$303,258	\$298,921	The cost of acquiring operating rights on Burlington Northern's corridor between Everett and Tacoma was significantly higher than projected in Sound Move which assumed only track improvements to operate Souder service. Following the merger of Burlington Northern with Santa Fe Pacific, ST was asked to provide additional capacity for BNSF. ST agreed to procure easements and to perform environmental permitting and mitigation. Received \$53M in grant funding.

Sounder Program Status 2005 to 2013

	Planned Start of Service in 2005(1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000)(2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000)(5)	
Additional Projects or Those Created From Sound Move Projects							
Everett Station Phase 2	2006	2009	\$11,864		\$21,586	\$18,139	Sound Move included two stations in Everett: Bond Street Station (at that time the Amtrak Station) and the Everett Multimodal Station. After the corridor EIS was issued in 1999, the Board selected Everett Multimodal Station as the preferred station. In addition the Board approved scope for additional parking, platform enhancements, operator comfort facilities and pedestrian overpass in 2002. Project delays were incurred because of protracted negotiations to secure property.
Willow Creek Environmental Mitigation	2009	2010	\$1,000		\$1,056	\$854	Project created with transfer of \$1M from the Everett Track and Signal project to capture costs associated with daylighting a creek during the Edmonds Crossing project. Project separated due to uncertainty in development of Edmonds Crossing. Sound Transit contracted with BNSF to design and construct the mitigation.
Permitting and Environmental Mitigation	2008	2013	\$10,288		\$8,179	\$6,516	Created to capture cost elements associated with environmental mitigation which when this project was adopted in 2004, were estimated to cost \$10.3M. Sound Transit worked closely with environmental regulators and BNSF to refine and reduce the cost of mitigation and will complete this project below the adopted budget.
Layover	2008	2012	\$4,015		\$6,080	\$6,080	Three train layover facilities were planned in Sound Move and it was assumed they would be constructed as part of the Track and Signal projects. In 2004 ST elected to separate the facilities to provide visibility into project costs and allocate these system wide elements to subareas. Funding was transferred from Track and Signal to establish layover budgets. Delays in completing the Sounder Lakewood Extension and layover necessitated construction of an unplanned fourth layover facility at L Street in Tacoma. This facility was decommissioned when the Lakewood facility was completed in 2012.

Sounder Program Status 2005 to 2013

	Planned Start of Service in 2005(1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000)(2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000)(5)	
Projects Proposed in ST2							
Mukilteo Station Improvements	2023	Suspended		\$9,700			Project suspended in 2010 realignment.
Edmonds Station	2023	Suspended		\$23,600			Project suspended in 2010 realignment
Total Everett to Seattle			\$371,987	\$33,300	\$375,165	\$351,540	
Seattle-to-Tacoma Corridor							
Projects Proposed in Sound Move							
Seattle - Auburn Track and Signal	2005	2008	\$256,181		\$256,147	\$227,793	See Everett to Seattle Track and Signal. In addition Sound Move also assumed that WSDOT would provide funding for improvements to track configuration at King Street necessary to operate commuter rail. This funding was not included in Sound Move cost estimate as it was being provided by others. Because of the repeal of the MVET, this work was funded by ST which increased the budget. Service between Seattle and Tacoma started in 2000 with two round trips daily; infrastructure improvements continued until 2007 to support the current nine weekday round trips.
Auburn - Tacoma Track and Signal	2001	2008	\$205,718		\$206,965	\$183,783	See Everett to Seattle Track and Signal. The Board approved three major budget actions for this project. In 2000 the budget was reduced by \$62 million to partially fund the Tacoma to Lakewood project; in 2001 the budget was increased by \$47M to offset the loss of WSDOT funding. The third major action was approved in 2002 with the budget being increased by \$28M for road crossing improvements that were not anticipated in Sound Move. Within Seattle to Tacoma corridor received \$28.7M in grant funding.
Tukwila Station	Sound Move	2014	\$16,434			\$16,434	Sound Transit and the City of Renton agreed to defer construction of a permanent station at Tukwila for up

Sounder Program Status 2005 to 2013

		Planned Start of Service in 2005(1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000)(2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000)(5)	
	ST 2				\$32,700	\$32,700	\$32,700	to ten years while the city pursued grant funding for a related Strander Blvd. grade separation project. Scope assumptions were no longer valid and funding insufficient to complete design and construction when the Strander funding became available. In addition, the permanent station was relocated and redesigned to minimize the impact of the adjacent Strander Blvd. project. Additional funding to complete station was provided by ST2. Received \$12.5M in grant funding.
	Total			\$16,434		\$49,134	\$49,134	
Layover		2008	2012	\$8,655		\$12,660	\$12,660	See explanation for Layover Everett to Seattle
Projects Proposed in ST2								
Sounder South Expanded Service		2017			\$174,300	TBD	TBD	ST2 funding did not include environmental assessment and mitigation; budget increase provides funding for environmental; current budget \$193,968. Expended through 2012 - \$143,246 for first three easements and deposit for fourth.
Sumner Station Improvements		TBD	TBD		\$36,400	TBD	TBD	Access improvements under study. Schedule and cost to complete to be determined.
Puyallup Station Improvements		TBD	TBD		\$51,400	TBD	TBD	Access improvements under study. Schedule and cost to complete to be determined.
Platform Extensions South King/Pierce			Suspended		\$44,700			Project suspended in 2010 realignment.
Kent Station Improvements		2023	Suspended		\$27,500			Project suspended in 2010 realignment.
Auburn Station Improvements		2015	Suspended		\$28,900			Project suspended in 2010 realignment.
Total Seattle to Tacoma				\$486,988	\$399,600	\$781,053	\$701,163	
Tacoma to Lakewood Corridor								
Projects Proposed in Sound Move								

Sounder Program Status 2005 to 2013

	Planned Start of Service in 2005(1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000)(2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000)(5)	
South Tacoma Station	2007	2009-2012	\$11,515	\$34,300	\$17,115	\$15,728	Project delayed due to the need to perform more extensive biological assessments required under the Endangered Species Act, decision to seek Federal New Start Funding, and acquisition of right-of-way from private land owners. Cost of right-of-way and protracted delays contributed to cost escalation.
Lakewood Station	2007	2009-2012	\$32,562		\$32,920	\$29,197	See South Tacoma Station. Project also delayed due to extensive third party coordination requirements and the need to coordinate design with the design of the track and signal project.
Additional Projects or Those Created From Sound Move Projects							
Layover	2008	2012	\$10,359		\$15,207	\$15,207	See explanation for Layover Everett to Seattle
D Street to M Street Track and Signal							Project was originally part of Seattle to Tacoma Track and Signal and then part of Tacoma to Lakewood project created in 2001. Because of engineering and safety challenges between the D Street to M Street segment, the Tacoma to Lakewood project was separated into two projects: D Street to M Street Track and Signal and the M Street to Lakewood Track and Signal. Initial budget developed in 2007 for the D Street to M Street segment was \$76M. Scope modified and budget increased to provide for elevated vs. at-grade crossing of Pacific Avenue. Project delayed due to need for more extensive biological assessments, decision to seek Federal New Start Funding, acquisition of right-of-way from BNSF and private land owners, and need to coordinate with the WSDOT Pt. Defiance Bypass project. Cost of right-of-way acquisition and protracted delays contributed to cost escalation.
Sound Move	2010	2012	\$76,025			\$101,025	
ST2	2010	2012		\$60,556	\$60,256	\$60,256	
Total D Street to M Street			\$76,025	\$60,556	\$161,581	\$161,281	
M Street to Lakewood Track and Signal	2008	2012	\$73,601		\$78,630	\$81,542	See D Street to M Street. Tacoma to Lakewood corridor received \$103M in grant funding

Souder Program Status 2005 to 2013

	Planned Start of Service in 2005(1)	Actual/ Estimated Start of Service	Budget in 2005 (YOE \$000)(2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000)(5)	
Lakewood to Nisqually Track and Signal	2007	2007	\$16,101		\$16,101	\$15,000	Purchase of BNSF ROW from Lakewood to Nisqually for future expansion.
Projects Proposed in ST2							
Lakewood Station Improvements	TBD	TBD		\$33,400	TBD	TBD	Improvements and schedule to be determined. Currently committed to \$1M financial contribution to the City of Lakewood's pedestrian overpass project at the Lakewood Station.
Reservation Junction Track and Signal	TBD	TBD		\$56,300	TBD	TBD	Funding (\$6,896M) has been obligated for acquisition of the ROW and initiation of preliminary engineering. Timing and cost to complete remain to be determined
South Tacoma Station Improvements	2023	TBD		\$34,600	TBD	TBD	Currently not funded in Agency financial plan
Tacoma Dome Station	2023	TBD		\$11,700	TBD	TBD	Currently not funded in Agency financial plan
Total Tacoma to Lakewood			\$296,188	\$230,856	\$321,554	\$317,955	

Souder Program Status 2005 to 2013

	Planned Start of Service in 2005(1)	Actual/Estimated Start of Service	Budget in 2005 (YOE \$000)(2)	ST2 Cost Estimate in 2007 \$000 (3)	Baseline Budget (YOE \$000) (4)	Cost to Complete (YOE \$000)(5)	
ST2 System-wide Project Elements							
Positive Train Control <i>(Budget established in 2011)</i>	2011	2015	\$10,673		TBD	\$53,054	Project created in response to new federal requirements established following passage of ST2; funded using locally available funds not programmed in ST2. Cost to complete represents current adopted budget.
Station Access Study	2012	2013		N/A	\$1,170	\$1,170	Preliminary study to develop model for future ridership forecasting and evaluate non-motorized station access improvements
Souder Yard and Shops ST2	TBD	TBD		\$151,200	TBD	TBD	Project under reconsideration per 2010 realignment. Funded incrementally - \$6.9M currently approved for environmental only.
Eastside Rail Partnership	2015	Suspended		\$52,700		\$1	Project suspended in 2010 realignment.
Total System-wide Elements			\$10,673	\$214,573	\$1,170	\$54,225	

(1) If project was not tracked as a separate project in 2005, the schedule as of the date the project was identified is provided as a planned start of service.

(2) Budget adopted by Board in 2005 (2005 YOE \$000) for Sound Move projects.

(3) ST2 cost estimates in 2007 constant \$. For reference only, not inflated to YOE\$.

(4) Baseline budget is as of the time of Board adoption.

(5) If project has not been completed, current 2013 estimate of the cost at completion is provided.

Source: All numbers provided by Sound Transit.

Attachment D

Agency Operating Expenses 2005-2012

Sound Transit Expenses 2005-2012									
	2005	2006	2007	2008	2009	2010	2011	2012	Change 2005-2013
501 - Salaries	21,108,660	21,032,154	21,933,776	23,896,098	27,360,227	30,349,618	33,672,497	38,565,647	82.7%
502 - Benefits	10,842,470	10,925,733	11,556,407	12,689,619	14,523,050	16,708,748	16,712,681	20,965,339	93.4%
Subtotal Salaries & Benefits	31,951,130	31,957,887	33,490,183	36,585,717	41,883,277	47,058,366	50,385,178	59,530,986	86.3%
FTEs - Filled Positions	332.35	318.00	323.35	337.85	384.1	413.1	473.75	516.5	55.4%
Salaries & Benefits per FTE	96,137	100,497	103,573	108,290	109,043	113,915	106,354	115,258	19.9%
503 - Services	7,581,294	7,166,549	7,828,976	8,352,237	9,496,517	9,098,620	10,231,084	10,251,212	
504 - Materials & Supplies	1,154,440	954,380	1,237,062	1,014,937	1,043,786	1,040,311	1,520,772	1,570,720	
505 - Utilities	460,385	397,399	433,087	489,142	583,441	498,935	615,032	585,309	
506 - Insurance	753,742	863,288	950,616	1,240,636	1,865,959	2,287,576	2,199,214	2,307,148	
507 - Taxes	4,864	3,841	1,418	3,073	31,932	2,340	1,517	5,028	
511 - Interest Expense	34,999	30,251	25,012	15,742	5,182	2,795	678	353	
512 - Operating Leases & Rentals	2,037,645	1,850,264	1,876,047	2,035,917	2,073,532	2,760,071	3,124,370	3,478,514	
Subtotal Other Expenses	15,955,314	14,190,31	16,473,36	16,136,81	17,041,85	17,716,37	20,119,05	20,466,07	28.3%
Total Annual Staff Operating Expenses	47,906,444	46,148,204	49,963,552	52,722,532	58,925,134	64,774,736	70,504,229	79,997,060	67.0%
Total Cost per FTE	144,145	145,120	154,518	156,053	140,348	159,521	157,786	159,728	10.8%
Total Annual Capital Budget (000)	707,583	756,208	890,220	775,317	714,595	697,346	764,769	767,453	8.5%
Total Annual Service Delivery Expenses (000)	81,103	92,299	100,753	116,748	144,903	178,646	182,126	194,160	140%
Source: Sound Transit									

Attachment E

Citizen Oversight Panel Members

Fred G. Auch. Mr. Auch is the recently retired Regional Vice President of PCL Construction Services where he worked on many complex transportation and commercial construction projects as a project manager, district manager and senior executive for over 30 years. He has expertise in managing the budgetary, schedule, personnel and regulatory challenges of large capital projects. Mr. Auch is also skilled in design-build, GC/CM and other contracting approaches. As a resident of Bellevue and an active member of the Bellevue Rotary Club, Mr. Auch has a strong connection to many Eastside constituencies.

Annette P. Bailes. Ms. Bailes has over 30 years experience as an office and facilities manager and currently works for the Washington Insurance Examining Bureau and Washington Surveying & Rating Bureau in Seattle. Her areas of expertise include project, budget and accounts management and she is a Certified Facility Manager. Among many other roles, she has served as her company's commute trip reduction specialist. Ms. Bailes is active in a number of charitable organizations in her community, is a board member and officer of the Rainier Chorale, and sings in her church chancel choir. She resides in Kent and is a regular Sounder commuter.

Josh Benaloh, COP Chair. Dr. Benaloh is Senior Cryptographer at Microsoft Research and an affiliate faculty member in Computer Science at the University of Washington. He holds degrees from the Massachusetts Institute of Technology and Yale University, and his research focuses on data security and election technologies—specifically, how individual voters can be empowered to verify that election results are correct. Dr. Benaloh resides in Redmond where he has served on the Overlake Neighborhood Citizen Advisory Committee and the Bellevue-Redmond RapidRide Advisory Panel.

David A. Berger. Mr. Berger has had a 35+ year management career in the public and private sectors, including oversight of numerous mega projects in the transportation, environmental clean-up and water infrastructure fields. After earning a Masters in Public Administration, he served as assistant city manager, economic development director, city manager and general manager in various California cities and special districts. He also served as Vice President and regional business manager for CH2M Hill in the greater San Francisco Bay unit. Mr. Berger has been active in the International City Management Association, League of California Cities, and the American Heart Association. He currently serves as a Board member of the Federal Way Rotary Club.

Michael Garrity. A resident of Tacoma, Mr. Garrity is the Washington State Conservation Director of American Rivers where he works on salmon, dam and water management issues. He is responsible for forming and executing policy and legislative strategies, as well as conducting outreach and fund development. Mr. Garrity also serves on the boards of the Save Our Wild Salmon coalition and the Pierce County Chapter of Washington Conservation Voters. Mr.

Garrity is a graduate of Leadership Tomorrow and he holds a JD from the UC Berkeley School of Law and a BA from the University of Washington.

Robert Miguel Goldstein. Mr. Goldstein brings financial and budget expertise to the Panel, having served as a chief financial officer, capital finance manager, budget manager and budget and policy analyst for the Seattle Public Library System, the Seattle School District, the City of Seattle and the California Legislature. Mr. Goldstein is also a published author and journalist having covered local, county and state government for the Bellevue Journal-American and the Walla-Walla Union-Bulletin. His policy areas have included transportation, K-12 education, capital project financial management, financial reporting and long-range planning. Mr. Goldstein is a resident of Seattle. He earned a MPA at the University of Washington's Evans School of Public Affairs.

Matthew Jarvis. Mr. Jarvis is a Certified Financial Planner™, managing a \$75 million portfolio of investments. A resident of Federal Way, Mr. Jarvis is active in his community having served on the board of the Federal Way Chamber of Commerce and Friends of the Hylebos Wetlands, as well as serving as chair of the Tacoma Yacht Club finance committee. He has executed various special assignments for the Superintendent of the Federal Way School District, including assisting in a multi-million dollar real estate purchase. Mr. Jarvis has a Bachelor of Science in Business Administration and Finance. He is also an avid outdoorsman, enjoying boating and cycling.

Philip B. Lovell, P.E., COP Vice Chair. Mr. Lovell retired in 2004 as Vice President and Operations Manager of Turner Construction's northwest region following a 37 year career with the company. His career in the industry involved a wide variety of projects and all phases of the design and building process. Mr. Lovell has been a manager and leader in all aspects of construction management and has been active with the Association of General Contractors and the UW Construction Industry Advisory Council. He has also been a member since its inception of the Project Review Committee under the Washington State Capital Projects Advisory Review Board (CPARB) and is an expert in the GC/CM delivery process. He is also a Registered Professional Engineer and member of ASCE. As a resident of Edmonds, he chaired the city's Planning Board and remains an active member.

David A. Russell, Ph.D. Mr. Russell is a retired professor and chair of the Department of Aeronautics and Astronautics at the University of Washington. He earned his Ph.D. at Caltech, worked in aircraft, energy and medical engineering, and co-founded a successful engineering research firm before his retirement in 2000. Mr. Russell is a former elected official, having served as mayor and council member of the City of Kirkland and as president of the Puget Sound Regional Council. He also served on the Sound Transit Board in its early years. Mr. Russell was named Public Official of the Year by the Municipal League of King County in 1996. His current civic involvement includes Futurewise and the Cascade Land Conservancy.

Stuart L. Scheuerman. Mr. Scheuerman is a resident of Sumner where he previously served six years as a city councilmember; he served on the city's Regional Transit Authority Task Force and Design Review Commission, along with serving as president of the Rainier Communication Commission and is currently on the Sumner Arts Festival Board of Directors. Mr. Scheuerman

is a civil engineering project manager, a licensed engineering geologist who worked with ESM Consulting Engineers in Federal Way for 19 years and is the president of BRS Development Company. Mr. Scheuerman has also served on Washington State's Joint Task Force on Green Buildings and is a current member of the APWA Stormwater Managers Committee. Mr. Scheuerman has degrees from Franklin Pierce University and Utah Technical College at Salt Lake.

Bruce W. Seiber. Mr. Seiber is a senior program manager with 25 years of experience in cost, schedule, and performance execution; logistical support; requirements analysis; and programming and budgeting, with the U.S. Air Force, the Department of Defense and most recently Northrop Grumman Corporation. Mr. Seiber is also a certified middle school teacher and taught algebra in the University Place School District. Mr. Seiber resides in University Place and works in Lakewood. He has degrees from the University of Puget Sound and the University of Southern California.

Virendra (Vic) K. Sood. Mr. Sood, a resident of Mountlake Terrace, has been involved with public transit services for thirty-two years. In Washington, he initiated the Public Transportation Benefit Area enabling legislation and served as first Executive Director of Community Transit in Snohomish County. He subsequently served as the first general manager of the newly formed Livermore/Amador Valley Transit Authority in the San Francisco Bay area. In retirement, Mr. Sood was active with the Board of Directors of the Snohomish County Committee for Improved Transportation, and the City of Mountlake Terrace's Planning Commission and Civic Facilities Task Force.

Harold R. Wirch. Mr. Wirch, a resident of Brier, recently retired from 32 years at Snohomish County Public Works where he held a variety of engineering roles including traffic signal operations engineer, design engineer, and project engineer. During his 38-year career he also worked in Springfield, Oregon, and Pullman, Washington. The focus of his work was signal design, intersection design and pedestrian facilities at roadway intersections. He has been involved with project identification, design and review of access improvements to transit centers and park and ride lots. Mr. Wirch earned a BS in civil engineering from Washington State University.