SKAGIT COUNTY DEPARTMENT OF PUBLIC WORKS

2016 ANNUAL BRIDGE REPORT

Burlington Northern Overpass Groundbreaking, January 31, 2017

SUBMITTED MARCH 2017

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SUBMITTED: APRIL 2017

This bridge report is prepared annually by the Transportation Section of Skagit County Public Works Engineering Division to fulfill the requirements of the Washington Administrative Code (WAC) 136-20-060 which requires the County Engineer to report on the bridge inspections as follows:

"Each county engineer shall furnish the county legislative authority with a written resume of the findings of the bridge inspection effort. This resume shall be made available to said authority and shall be consulted during the preparation of the proposed six-year transportation program revision. The resume shall include the county engineer's recommendations as to replacement, repair or load restriction for each deficient bridge. The resolution of adoption of the six-year transportation program shall include assurances to the effect that the county engineer's report with respect to deficient bridges was available to said authority during the preparation of the program."

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ACRONYMS

The following are a list of common acronyms widely used in the Bridge Inspection field:

ADT	Average Daily Traffic
BRAC	Bridge Replacement Advisory Committee
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FO	Functionally Obsolete
HBRRP	Highway Bridge Replacement and Rehabilitation Program
NBIS	National Bridge Inspection Standards
SHV	Specialized Haul Vehicle
SD	Structurally Deficient
SID	Structure Identification Number
SR	Sufficiency Rating
UBIT	Under Bridge Inspection Truck
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation
TIP	Transportation Improvement Program

EXECUTIVE SUMMARY

The 2016 Annual Bridge Report is in compliance with WAC 136-20-060, which requires that each County Road Engineer furnish a written resume of the findings of the previous year's inspection effort. This report summarizes Skagit County's 2016 bridge inspection program, focusing on the Engineer's recommendations as to replacement, rehabilitation, repair, and load restrictions on the County's deficient bridges. This makes the Annual Bridge Report a very important resource in the preparation of the Six Year TIP and other short and long term planning tools. Bridge replacement, rehabilitation, and repair projects are prioritized by a rating system that's based on a combination of factors including, but not limited to, structural deficiency, functional obsolescence, sufficiency rating, ADT, safety factors, accident history, and funding availability.

To qualify as a Structurally Deficient (SD) bridge, an element of the bridge must have a condition rating of 4 (Poor Condition) in one of the following elements: deck, superstructure, substructure, culvert and retaining walls, or have an appraisal rating of 2 or less of the structural evaluation or waterway adequacy.

To qualify as a Functionally Obsolete (FO) bridge, an appraisal rating of 3 or less must be given for deck geometry, under clearance, approach roadway alignment, structural evaluation, or waterway adequacy.

There are four goals the report strives to attain:

1. Provide inspection findings ensuring safe use by the public.
2. Present proactive maintenance recommendations for maximizing the life of County assets.
3. Identify bridges that may need to be replaced or rehabilitated.
4. Satisfy the reporting requirements set forth by other government agencies.

HIGHLIGHTS from this bridge inspection season include:

- 49 routine inspections of Skagit County bridges
- 10 Fracture Critical and UBIT inspections performed by the State
- 2 interim inspections of the Burlington Northern Overpass
- 1 routine inspection of local agency (City) bridges.
- Currently, Skagit County has 8 structurally deficient bridges:
    - Burlington Northern Overpass sufficiency rating - 3.00
        - Deck, Superstructure, Substructure – Rated Poor
    - Anacortes Ferry Dock sufficiency rating – 22.86
        - Superstructure – Rated Poor
    - Guemes Island Ferry Dock sufficiency rating – 22.86
        - Superstructure – Rated Poor
    - Friday Creek Bridge sufficiency rating - 60.88
        - Deck – Rated Poor

- Thomas Creek Bridge sufficiency rating - 62.85
  - Deck – Rated Poor
- Samish River Bridge sufficiency rating - 63.18
  - Deck – Rated Serious
- Bay View-Edison at Joe Leary sufficiency rating – 84.62
  - Deck – Rated Poor
- South Skagit Hwy at Finney Creek sufficiency rating – 87.19
  - Deck – Rated Poor

· Currently, Skagit County has 15 Functionally Obsolete bridges – these are bridges that no longer meet the standard for either road users or waterway clearance.

· Burlington Northern Overpass Replacement Project on Old Hwy 99 has commenced and is scheduled for completion in September of 2018.

· We received funds from the Bridge Replacement Advisory Committee to rehabilitate three of our structurally deficient bridges with poor deck ratings:
  - The South Skagit Highway at Finney Creek Bridge on is scheduled for deck rehab this summer, 2017.
  - Friday Creek Bridge on Old Hwy 99 is scheduled for deck rehab in 2018.
  - Samish River Bridge on Old Hwy 99 is scheduled for deck rehab in 2019.

· The Hard Creek Bridge Rehabilitation Project was completed last year and opened for use in May. The entire bridge was demolished down to its abutments which were strengthened before reconstruction of the new superstructure and road approaches.

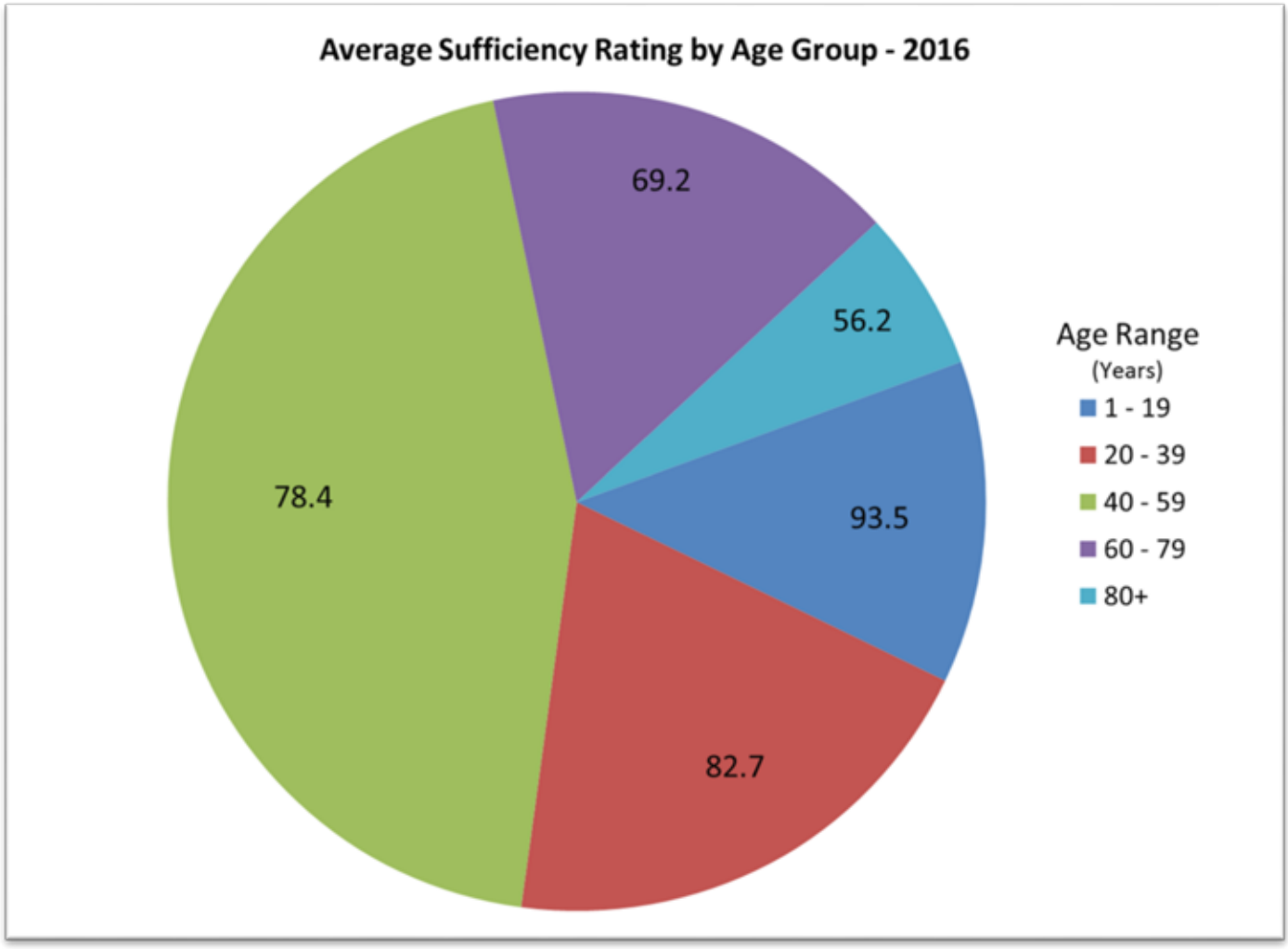
BRIDGE INVENTORY

Skagit County Road Bridges:
As of December 31, 2016, Skagit County has 110 bridges that are in the National Bridge Inventory and are required to inspect. The current inventory includes:

- 4 predominately made of timber
- 13 predominately made of steel
- 93 predominately made of concrete
- 11 of the 110 bridges are “High Cost Inspection” Bridges requiring a UBIT
- 6 of 11 “High Cost Inspection” bridges are fracture critical bridges

To see a full listing of the Skagit County Bridge Inventory and their statistics, please refer to “Appendix A – Bridge Inventory”.

Skagit County has 49 bridges that are 40-59 years old, 18 are 60-79 years old and 7 are over 80 years old. The chart below shows the age distribution of our bridge inventory and the average sufficiency rating of that age category. Note the steady decline in the average sufficiency rating and the majority of bridges in the 40-59 range. Overall, we are pleased with the durability and longevity of our older concrete bridges.



High Cost and Fracture Critical Bridges:
If the underside of the bridge deck cannot be given close or adequate inspection from the ground (the bridge crosses a deep ravine, for example) or from the shore (the bridge crosses a wide body of water), then a special inspection using a boat or an **U**nder-**B**ridge **I**nspection **T**ruck (UBIT) is required.

Skagit County had the State perform 10 high cost inspections in 2016 including two specialty boat inspections for the Guemes Ferry Docks. 2017 will require three underwater inspections (Anacortes Ferry Dock, Guemes Island Ferry Dock and North Fork Bridge and one UBIT Inspection for the Upper Finney Creek Bridge. (See "Appendix B – Routine & Special Inspection Schedule" for details on inspection frequencies and schedules for all of our UBIT and special bridge inspections).

State UBIT Crew on Old Highway 99 Bridge over the Samish River

Parks Department Bridges:
The County Parks and Recreation Department has approached Public Works and requested assistance with a growing inventory of pedestrian bridges (24 total). These have been acquired either through new trail construction or by acquisition of abandoned railroad rights-of-way. Due to staffing issues and work load, Public Works has not been able to provide inspection services at this time. Public Works will continue to work with the Parks and Recreation Department to inventory and inspect them when staffing and work load allows.

Short Span Bridges:
Short span bridges are defined as spans that are less than 20-feet long. They are not required to be reported to the National Bridge Inventory (NBI) and consequently they are not eligible for federal replacement funding. However, there still remains concern about their deterioration and performance just like any other critical infrastructure. Just recently, an update to the Washington State Bridge Inspection Manual was released and now provides guidance on defining short span bridges. Public Works staff will begin using this information to identify short spans throughout the County and incorporating them into the bridge inspection schedule.

Other Local Agency Bridges:
Public Works provides inspection services to cities upon request. The County works under agreements with cities within the conditions set forth in RCW Chapter 39.34, the Interlocal Cooperation Act. The County's services are provided primarily to cities that lack resources and expertise to inspect and maintain their bridge inventory. The County provided inspection services on only one city bridge in 2016 but have thirteen scheduled for 2017 including two high cost inspections.

No. of Local Agency Bridges Served by Skagit County:
1. City of Burlington – 2
2. Town of Concrete – 1
3. City of Mount Vernon – 12

Load Restricted Bridges:
In 2012, a load rating was performed on the Burlington Northern Overpass due to deteriorating pile caps. The load rating indicated that in its current state, the bridge should be load rated at 8 tons. Due to the importance of this route for freight and goods and the nearby quarries, Skagit County crews installed temporary shoring at the deteriorating pile cap locations. This allowed the overpass to remain open to handle legal loads; no overweight loads are permitted at this time. In addition, this bridge is inspected on a 6 month interim cycle to ensure the temporary shoring is in good condition. (However, this bridge is currently under construction for replacement)

The North Fork Bridge is a viable route for legal limit loads. However, due to fracture critical status, like the County's other pin and hanger and steel truss structures, overweight load permits are reviewed on a case by case basis. County staff (and at times contracted consultants) review axle loading, number of axles, and how the load is distributed among those axles to determine if the load is safe to cross the bridge. New software was acquired this season to help evaluate superloads and reduce the need for outside consultant help.

An unpermitted overweight load that was ticketed after crossing the North Fork Bridge

In the Town of Concrete, the Baker River Bridge is restricted to loads based on the AASHTO Vehicle Types ranging from 10 tons to 28 tons.

The Upper Finney Creek Bridge was damaged in 2012 due to a suspected overweight load crossing the bridge. A shear crack was found in the upstream girder in the mid-span of the bridge. The bridge girder was repaired and re-opened to traffic. However, the bridge remains restricted to loads of no greater than 60,000 LBS or 30 tons. This bridge was originally constructed to handle minimal loads and with the previous damage it is recommended by the Structural Engineer to limit loads crossing this bridge. Efforts are being made to modify the bridge that will improve the load rating and better serve the logging industry beyond it.

Federal guidelines on Bridge Load Ratings have added Specialized Hauling Vehicles (SHV) to the list of vehicles that need to be evaluated. There is a transition phase to help the local agencies prioritize and update all of the load ratings. All bridges are required to be put into two categories. Category 1 shall consist of bridges that have a Type 3 Vehicle Rating Factor of less than 1.3. Skagit County has identified 28 bridges that will

Example of a specialized hauling vehicle

require their load rating to be rerated and are required to be completed by the end of the year. This work has been contracted out and is currently underway. Category 2 bridges include all bridges not in Category 1 and are required to be rerated by the end of 2022. These will be prioritized by the load rating factor from lowest to highest and spread out over the next 5 years to minimize cost impacts to the budget.

Future Skagit County Bridges

Minkler Road at Hansen Creek Bridge Project - Located on Minkler Road, a new 70' long single span will replace two existing culverts that convey Hansen Creek. This is a stream channel restoration project that will provide flood relief to nearby residents. The Engineering Division is the contract administrator for the Recreation Conservation Office funding received. Once the design is completed, Public Works will seek Salmon Recovery Funding Board money for construction.

Rockport Cascade Road at Illabot Creek – This project consists of constructing two new bridges, in addition to the current bridge over Illabot Creek, and channel work. The County is close to beginning phase 2B which will bring the design to 100% and take it through construction. This project is being funded by the Salmon Recovery Funding Board via the Skagit River Systems Cooperative with the goal of it being restored to the natural process of an alluvial fan setting rather than the constructed straightened and steepened main channel that exists now. Total project cost is estimated at over $3 Million.

INSPECTION PROGRAM, FINDINGS & RECOMMENDATIONS

Bridge inspections are performed in accordance with the National Bridge Inspection Standards (NBIS) and with 23 CFR 650.3. All bridges inspected to the NBIS in the United States are issued a structure identification number (SID). The standards mandate that all public agencies with a bridge inventory inspect and report the findings at a minimum of once every two years (routine inspection). The inspector uses these standards to document the current condition of each bridge element listed. The deficiencies are coded to the NBIS and show degree of deterioration in various elements. The three primary elements are the deck, superstructure, and substructure. As deterioration accelerates, the coding values drop. Work orders for repairs may be issued. In the case where the coding factors are extremely low, recommendations are made for replacement or rehabilitation. Bridges with identified deficiencies may be inspected or monitored at more frequent intervals.

The results of our inspection program are forwarded on to the Washington State Department of Transportation (WSDOT) for review. Once the report has been accepted by WSDOT it is available for the Federal Highway Administration (FHWA), Washington division bridge engineers use. A copy of all final inspection reports are kept on file with Skagit County Public Works.

There are other factors that go into developing the overall health of a bridge. Sufficiency Rating (SR) is a score calculated based on the number of all the factors that are reviewed by the inspector. The SR is a number from *0* to *100,* with *100* being an entirely sufficient bridge, and *0* being an entirely insufficient or deficient bridge, as defined by FHWA. Items that go into the determination of the SR include load bearing capacity, average daily traffic, availability and length of detour, the geometry of the bridge, and the scour action of bridges passing over a waterway, among others. Bridges that show certain percentages of a failing area (deck, superstructure, substructure) are eligible for federal rehabilitation funding. Bridges with a SR less than *40 and are listed as* Structurally Deficient (SD) were eligible for federal replacement funds. As of December 31, 2016 the County has only three bridges that meet these criteria including the Burlington Northern Overpass, which will soon be replaced.

The bridge inspection program recognizes that with limited funding, it is important to identify trends that are affecting the deficiencies of our bridge structures, such as age and materials used in construction. Skagit County Public Works will continue to apply for available funds to assist with deficient bridges that are eligible for Federal Highways Bridge Program funds and Surface Transportation Program funds. County bridges not eligible for Federal funds, such as short-span bridges (less than 20-feet in length), will have their replacement/rehabilitation needs prioritized by Public Works staff, based on structural deficiency, resource availability, and the Board of Skagit County Commissioners authorization to fund the project in the Annual Construction Program. Similarly, for maintenance, repair, and minor rehabilitation work, prioritization is based on County bridge maintenance funds and staff availabilities.

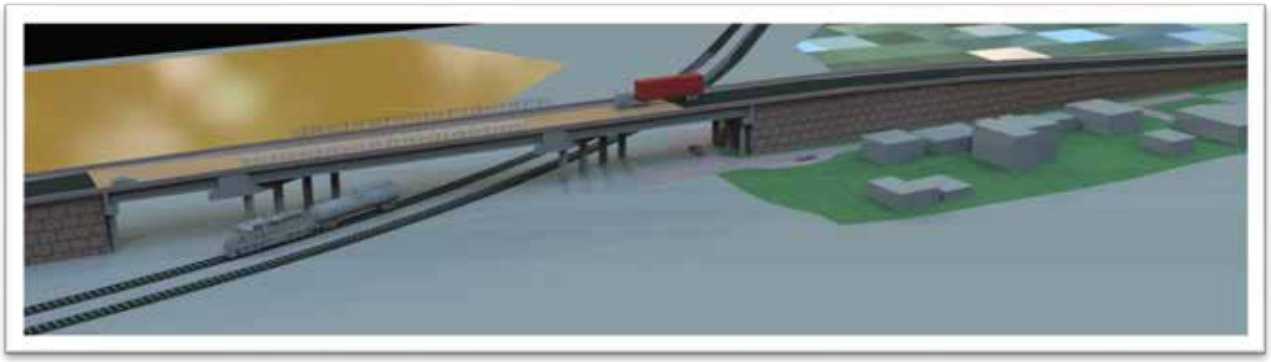
This report also points out projects that have been completed, those that are in the current Six Year TIP, and those bridges that are candidates for future replacement/rehabilitation.

REPLACEMENT, & REHABILITATION PLAN
FOR DEFICIENT BRIDGES

The County's current focus is to replace or rehabilitate bridges that are classified as Structurally Deficient or Functionally Obsolete per NBIS. Public Works staff received or currently seeking funding for a number of bridges that are in need of replacement, rehabilitation and/or resurfacing including, but not limited to:

Replacement

- Burlington Northern Overpass #40111
  - Structurally deficient, timber structure is deteriorating.
  - Functionally obsolete, does not meet the geometry standard of the road system.
  - Skagit County completed design and hired Cascade Bridge to construct the new 3-span concrete bridge with MSE walls.
  - Demolition of the old bridge is scheduled to begin late March.



Rehabilitation

- The Hard Crk. Bridge #40076 Project
  - Completed last year and opened for use in May '16.
  - The bridge was removed down to its abutments and then reconstructed with new girders and rails.
  - The new bridge deck is not as wide as the previous. This was done to increase the distance between the bridge and the hillside and reduce the likelihood of damage from rockslides.
  - Because of the low traffic volumes and good site distance, going from two lanes to one will not adversely impact level of service or road safety.

Hard Creek Bridge Rehabilitation - Completed

- Samish River Bridge on Old Hwy 99 #40114
  - Due to frozen rocker bearings, the bridge deck experiences compression stress which results in cracks and popouts in the concrete deck.
  - BRAC awarded Skagit County $824,000 in Federal funding to replace the bearings, expansion joints, and resurface the deck/driving surface.
  - Work is scheduled to begin in summer of 2019.

- Friday Creek Bridge on Old Hwy 99 #40115
  - The bridge deck is deteriorating due to age and wear resulting in spalling and exposed rebar.
  - BRAC awarded Skagit County $360,000 in Federal funding to resurface the deck and level the approaches.
  - Work is scheduled to begin in summer of 2018.

Deck patching on South Skagit Highway's Finney Creek Bridge

- Lower Finney Creek Bridge on South Skagit Highway #40089
  - The bridge deck is deteriorating due to age and wear resulting in spalling and exposed rebar
  - BRAC awarded Skagit County $342,000 in Federal funding to resurface the deck and level the approaches.
  - Work is scheduled to begin this summer of 2017.

2016 Highway Bridge Program Applications – Due April 3rd

- Upper Finney Creek Bridge on Finney Creek Road #40093
  - County Staff are planning to submit an HBRRP Application for funds to modify the bridge to increase its load carrying capacity and seismic retro-fit it to guard against earthquakes . An increased load capacity could open the forest lands to heavier logging trucks and large equipment loads.

- Bay View-Edison at Joe Leary Slough Bridge #40029
  - The superstructure of the bridge is in excellent condition but the deck is deteriorating from age and wear.
  - Due to all the spalling and exposed rebar that has occurred, the deck is rated “Poor” and eligible for rehabilitation funds.
  - The south bridge abutment has also suffered some scour from poor drainage so that will also be improved and the scour repaired.

MAINTENANCE AND REPAIRS

The majority of bridge repair and maintenance work is done by County crews. This includes cleaning, minor painting, deck repairs, and rehabilitation of bridges. The major maintenance projects being worked on now include:

Conveyance at Lyman Hamilton Highway at Childs Creek:

Lyman Hamilton Highway at Childs Creek

County staff is pursuing both immediate and long-term solutions to sediment aggradation at the Lyman Hamilton Highway Bridge over Childs Creek. The County removed 50 cubic yards of sediment removal during the 2014, 2015, and 2016 allowable work windows but this did little in the way of increasing conveyance. For the 2017 allowable work window, the County has submitted permits for a larger in-stream sediment removal to increase conveyance and reduce flood risk to properties impacted by backwatering. The goal of the 2017 project is to return the channel's bed elevation to a level similar to when the bridge was first constructed in 1947. For the longer term solution, the County acquired 3.43 acres of land adjacent to Childs Creek that could serve as a future sediment management site. The structures on that property are targeted for demolition in 2017.

In addition to the above mentioned repairs, Skagit County's Bridge Crew preforms various minor repairs and maintenance throughout the year.
These repairs and maintenance include, but are not limited to:

- Patching the deck due to spalling or material loss
- Replacing the loss of armor/rock around the abutments
- Relocating debris for conveyance
- Repairing bridge rail and guardrail
- Leveling approaches
- Spot painting
- Removal of vegetation encroaching or blocking access to the bridge for inspection purposes
- Replacing damaged or worn signage

2016 has been a productive period for our bridge crew in regards to maintenance and deserve a lot of credit for the continued longevity and high sufficiency ratings of our bridges. Please refer to "Appendix C – Bridge Maintenance List" for a full listing of outstanding and recently completed repairs.

GLOSSARY OF BRIDGE TERMINOLOGY

Abutment—a substructure supporting the end of a single span, or the extreme end of a multi-span super-structure and, in general, retaining or supporting the approach fill.

Backwall—the top-most portion of an abutment functioning *primarily* as a retaining wall to contain approach roadway fill.

Bent—a supporting unit of the beams of a span made up of one or more column or column -like members connected at their top-most ends by a cap, strut, or other horizontal member.

Bracing—a system of tension or compression members, or a combination of these, connected to the parts to be supported or strengthened by a *truss* or frame, It transfers wind, dynamic, impact, and vibratory stresses to the substructure and gives rigidity throughout the complete assemblage. Can also refer to diagonal members that tie two or more columns of a bent together.

Cap—the horizontally-oriented, top-most piece or member of a bent sewing to distribute the beam loads upon the columns and to hold the beams in their proper relative positions.

Chord—in a truss, the upper-most and the lower-most longitudinal members, extending the full length of the truss.

Compression—a type of stress involving pressing together; tends to shorten a member; opposite of tension.

Culvert—a pipe or small structure used for drainage under a road, railroad or other embankment. A culvert with a span length greater than 20-feet is included in the National Bridge Inventory and receives a rating using the NBI scale.

Deck—portion of a bridge that provides direct support for vehicular and pedestrian traffic.

Elastomeric pads—rectangular pads made of neoprene, found between the substructures and superstructure, that bears the entire weight of the superstructure. Elastomeric pads can deform to allow for thermal movements of the superstructure.

Endwall—the wall located directly under each end of a bridge that holds back approach roadway fill. The endwall is part of the abutment.

Fracture critical member—a member in tension or with a tension element whose failure would probably cause a portion of or the entire bridge to collapse.

Pier—a structure comprised of stone, concrete, brick, steel, or wood that supports the ends of the spans of a multi-span superstructure at an intermediate location between abutments. A pier is usually a solid structure as opposed to a bent, which is usually made up of columns.

Pile—a rod or shaft-like linear member of timber, steel, concrete, or composite materials driven into the earth to carry structure loads into the soil.

Pinpile—a series of two-inch-diameter pipes driven in a line into the ground to support the timber planks of a small retaining wall, typically used to prevent erosion under a bridge abutment.

Post or column—a member resisting compressive stresses, in a vertical or near vertical position.

Scour—erosive action of removing streambed material around bridge substructure due to water flow. Scour is of particular concern during high-water events.

Short span bridge—these bridges span less than 20 feet, have a single span and are typically supported by timber piles or shallow concrete footings.

Soffit—the underside of the bridge deck or sidewalk.

Spall—a concrete deficiency wherein a portion of the concrete surface is popped off from the main structure due to the expansive forces of corroding steel rebar underneath. This is especially common on older concrete bridges.

Stringer—a longitudinal beam (less than 30’ long) supporting the bridge deck, and in large bridges, framed into or upon the floor beams.

Sufficiency rating—the sufficiency rating is a numeric value from 100 (a bridge in new condition) to 0 (a bridge incapable of carrying traffic). The sufficiency rating is the summation of four calculated values: Structural Adequacy and Safety, Serviceability and Functional Obsolescence, Essentiality for Public Use, and Special Reductions.

Substructure—the abutment, piers, grillage, or other structure built to support the span or spans of a bridge superstructure, and distributes all bridge loads to the ground surface. Includes abutments, piers, bents, and bearings

Superstructure—the entire portion of a bridge structure which primarily receives and supports traffic loads and in turn transfers the reactions to the bridge substructure; usually consists of the deck and beams or, in the case of a truss bridge, the entire truss.

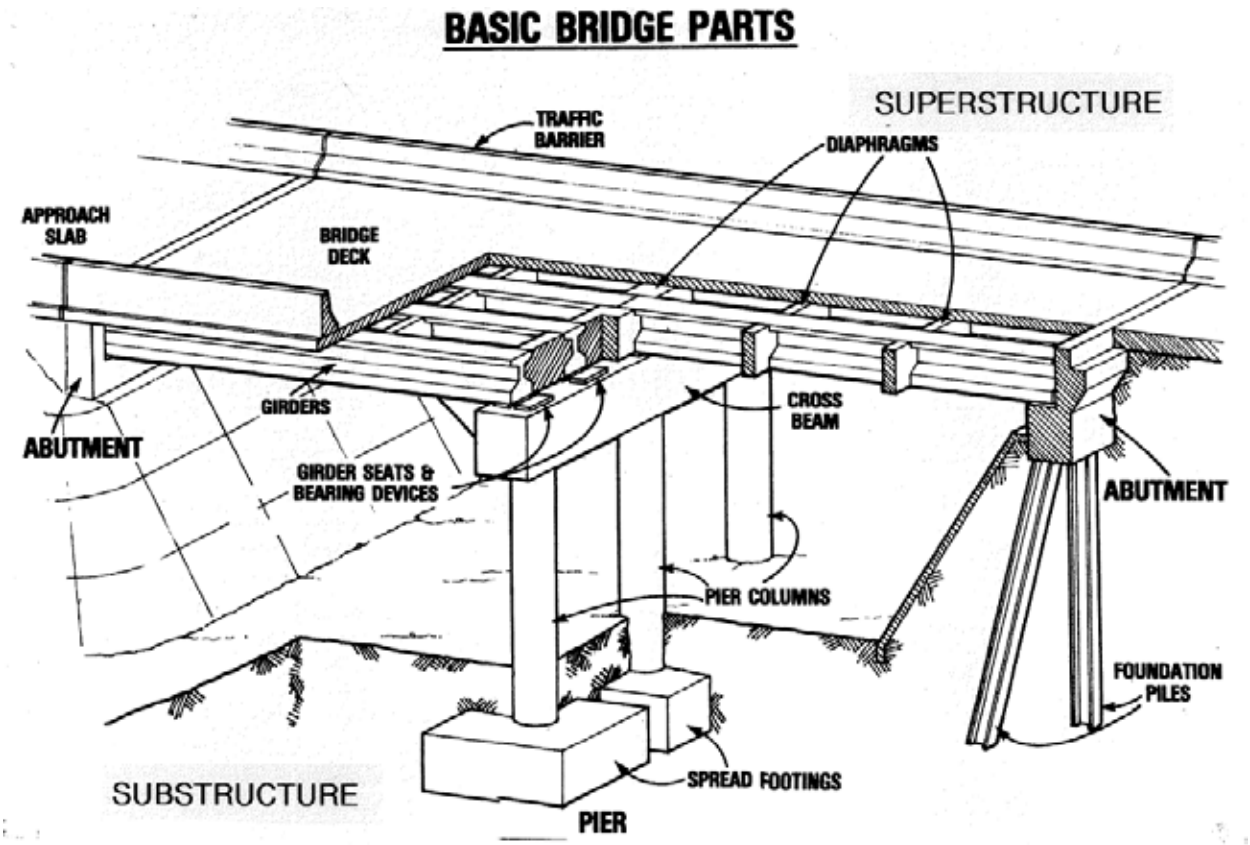
Tension—type of stress involving an action which pulls apart.

Trestle—a bridge structure consisting of beam spans supported upon bents. Trestles are usually made of timber and have numerous diagonal braces, both within each bent and from bent to bent.

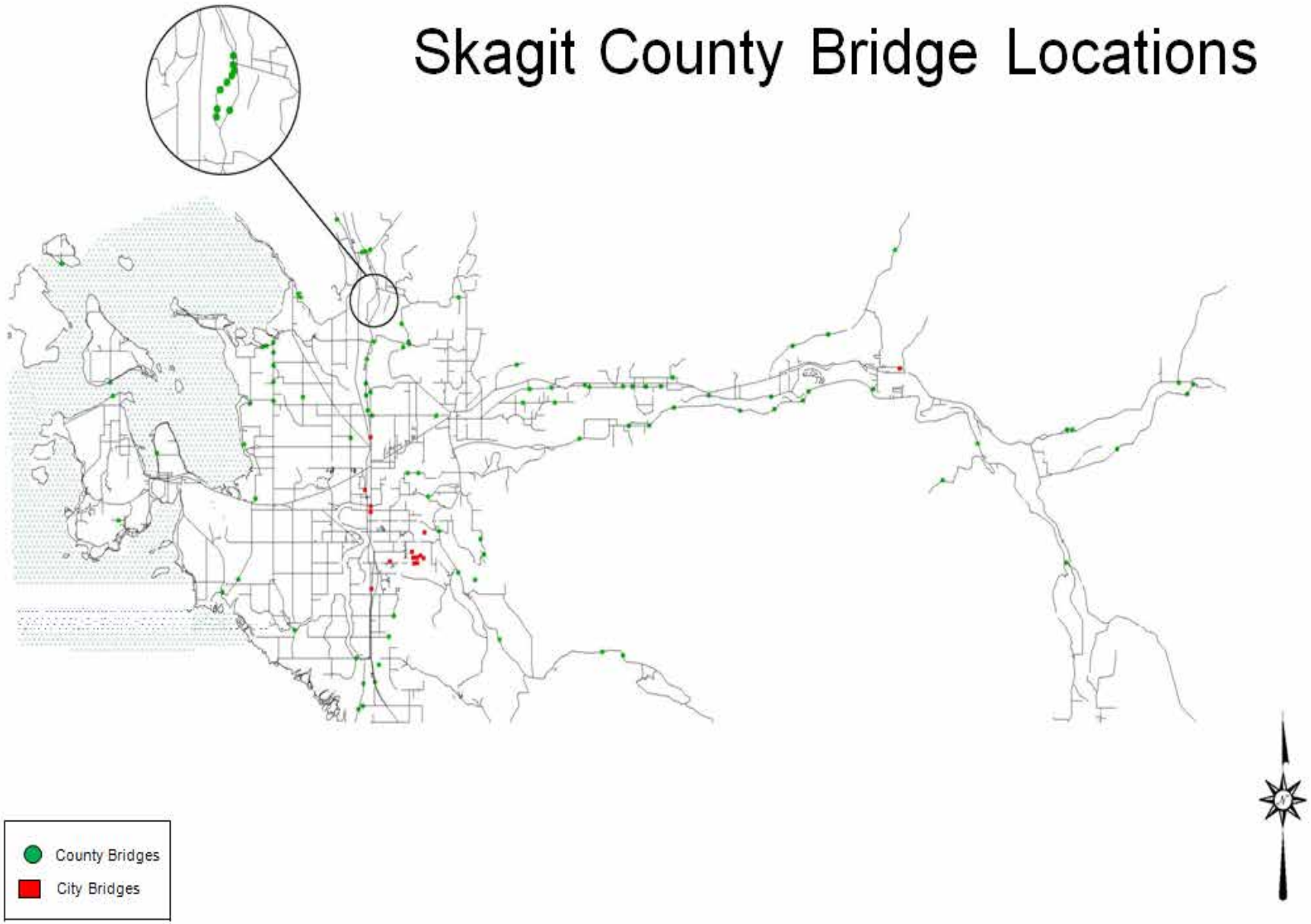
Wheelrail—a timber curb fastened directly to the deck, most commonly found on all-timber bridges.

Wingwall—walls that slant outward from the corners of the overall bridge that support roadway fill of the approach.

ELEMENTS OF A BRIDGE



Skagit County Bridge Locations



APPENDIX A - BRIDGE INVENTORY

BRIDGE NUMBER	BRIDGE NAME	BRIDGE LENGTH	BRIDGE WIDTH	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	YEAR BUILT / REBUILT	SUFFICIENCY RATING
40111	BURL NORTHERN OVERPASS	1,182	24.0	5,700	15	Timber	1936	3 (SD)
40152	ANACORTES FERRY DOCK	205	15.0	502	10	Steel	1976	22.86 (SD)
40153	GUEMES ISLAND FERRY DOCK	165	15.0	502	10	Steel	1981	22.86 (SD)
40093	UPPER FINNEY CREEK BR.	217	14.9	38	10	Concrete	1952	48.27 (FO)
40070	SKAGIT RIVER MARBLEMOUNT	662	20.0	585	5	Steel	1930	55.65 (FO)
40142	CAMPBELL LAKE OUTLET	19	20.0	78	4	Concrete	1962	56
40039	RAINBOW BRIDGE	797	24.0	4,967	3	Steel	1957	56.42 (FO)
40063	LYMAN HWY at CHILDS CK	32	24.0	557	7	Concrete	1948	57.88
40037	NORTH FORK BRIDGE	726	24.0	4,645	10	Steel	1959	58.29 (FO)
40031	PULVER ROAD at JOE LEARY	39	24.0	840	10	Concrete	1955	58.86
40047	LK CAVANAUGH at PILCHUCK	56	28.0	522	14	Concrete	1970	59.77
40156	CEDARDALE RD at CARPENTR	83	36.0	533	8	Timber	1934	60.65
40115	FRIDAY CREEK BRIDGE	122	26.0	2,593	10	Concrete	1956	60.88 (SD)
40018	FRIDAY CREEK 1ST BRIDGE	61	20.0	134	9	Concrete	1962	60.92
40131	LYMAN HWY at MANNSER CK	52	26.0	254	5	Concrete	1954	61.83
40055	PRAIRIE RD E at SAMISH R	75	24.4	844	7	Concrete	1956	61.88
40021	FRIDAY CREEK 4TH BRIDGE	61	20.0	134	9	Concrete	1961	61.92
40020	FRIDAY CREEK 3RD BRIDGE	61	20.0	134	9	Concrete	1961	61.92
40114	SAMISH RIVER BRIDGE	385	24.0	3,894	12	Steel	1934	63.18 (SD)
40001	LAKE VIEW BLVD at NCHMPS	77	25.5	643	7	Concrete	1954	63.89
40151	NICHOLSON at CHILDS CR	29	15.0	33	5	Concrete	1979	64.23
40113	OLD HWY 99 at THOMAS CK	52	30.0	4,976	8	Timber	1934	65.08 (SD)
40090	DALLES BRIDGE	506	26.0	2,365	6	Steel	1952	65.73 (FO)
40084	S SKAGIT HWY at O'TOOLE	66	24.0	524	9	Concrete	1959	66.09
40042	MILLTOWN at BIG DITCH	50	24.2	327	9	Concrete	1957	67
40060	BURMASTER RD at COAL CK	26	24.0	265	5	Concrete	1958	67.37
40008	SOUTH FORK BRIDGE	908	28.0	4,385	8	Steel	1972	67.96
40004	FRANCIS RD at SLOUGH	50	24.0	3,970	6	Concrete	1958	68.4 (FO)
40099	GOVERNMENT BR	304	14.0	135	5	Steel	1930	69.37 (FO)
40130	LYMAN HWY at RED CABIN	22	26.0	274	6	Concrete	1954	69.47
40072	CASCADE R RD at MONOGRAM	22	26.0	120	5	Concrete	1979	69.55
40132	LYMAN HWY at JONES CK	52	26.0	274	6	Concrete	1955	70.47
40011	GREEN RD at THOMAS CK	51	24.0	124	4	Concrete	1958	70.96
40082	S SKAGIT HWY at LORETTA	85	24.0	962	9	Concrete	1961	71.43
40024	FRIDAY CREEK 7TH BRIDGE	61	24.0	170	4	Concrete	1964	71.92
40023	FRIDAY CREEK 6TH BRIDGE	61	24.0	170	4	Concrete	1963	71.92
40076	CASCADE R RD at HARD CR	46	17.7	280	11	Concrete	2016	72.64 (FO)
40077	CASCADE R RD at MINERAL	71	18.0	120	1	Concrete	1986	72.97 (FO)
40109	LAKE SAMISH RD at FRIDAY	53	26.0	4,925	6	Concrete	1965	73.86 (FO)
40101	BAKER LK RD at BEAR CK	85	26.0	289	21	Concrete	1966	74.07
40116	OLD HWY 99 at SILVER CK	38	25.0	1,862	11	Concrete	1934	76.79
40038	LACONNER WHITNEY at SL	68	26.0	5,084	5	Concrete	1962	77.01 (FO)
40075	CASCADE R RD at SIBLEY	23	24.0	120	1	Concrete	1997	77.13
40003	FRANCIS at NOOKACHAMPS	130	28.0	3,970	6	Concrete	1979	77.16
40081	S SKAGIT HWY at DAY CR	160	24.0	962	9	Concrete	1961	78.17
40036	FARM-TO-MARKET JOE LEARY	72	26.0	1,760	8	Concrete	1950	78.39
40028	BAYVIEW ED at SAMISH R	223	26.0	789	10	Concrete	1965	79.4
40043	CONWAY HILL at CARPENTER	58	14.0	61	2	Concrete	1980	79.78

BRIDGE NUMBER	BRIDGE NAME	BRIDGE LENGTH	BRIDGE WIDTH	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	YEAR BUILT / REBUILT	SUFFICIENCY RATING
40141	BAYVIEW STATE PARK	62	26.0	707	6	Concrete	1969	80.72 (FO)
40088	S SKAGIT HWY at PRESSENT	85	27.0	524	9	Concrete	1966	80.97
40026	FARM-TO-MARKET N DITCH	32	26.0	1,206	8	Concrete	1951	80.99
40083	S SKAGIT HWY at CUMBERLA	50	24.0	524	9	Concrete	1961	81.26
40106	LAKE SAMISH at BEAR CK	50	24.0	328	5	Concrete	1959	81.42
40052	TAYLOR RD at WALKER CK	42	16.0	64	13	Concrete	1985	81.81 (FO)
40034	FARM-TO-MARKET SAMISH R	158	26.0	963	12	Concrete	1963	82.47
40140	BAKER LK RD at E GRANDY	41	28.0	324	13	Concrete	1968	83.55
40002	SWAN ROAD BRIDGE	126	28.0	1,011	9	Concrete	1976	84.32
40046	LK CAVANAUGH RD at BEAR	51	28.5	522	14	Concrete	1967	84.32
40029	BAY VIEW-EDISON J.LEARY	101	30.0	475	8	Concrete	1955	84.62 (SD)
40120	BAKER LK RD at W GRANDY	61	28.0	324	13	Concrete	1968	84.73
40017	PRAIRIE RD FRIDAY CK	78	28.0	2,047	9	Concrete	1975	85.16
40032	FARM-TO-MARKET S DITCH	21	26.0	1,028	9	Concrete	1950	85.66
40033	FARM-TO-MARKET at NEUMAN	60	26.0	1,028	9	Concrete	1950	85.66
40065	CONRAD RD at SUTTER CK	73	15.7	91	3	Concrete	2011	86.23
40027	BAYVIEW ED at SAMISH SL	38	26.8	847	8	Concrete	1965	86.27
40086	S SKAGIT HWY at MILL CR	41	28.0	524	9	Concrete	1969	86.68 (FO)
40126	MARCHS POINT PIPELINE	44	28.0	1,313	18	Concrete	1960	86.68
40061	MINKLER RD at WISEMAN CK	40	28.0	891	7	Concrete	1967	86.73 (FO)
40157	BENSON RIDGE LN	52	30.0	33	17	Timber	1983	87.15
40089	S SKAGIT HWY at FINNEY	120	26.0	524	9	Steel	1954	87.19 (SD)
40066	HAMILTON CEM at MUDDY CK	50	26.0	145	16	Concrete	1965	87.72
40161	FLINN ROAD BRIDGE	48	19.5	15	0	Concrete	2006	87.85
40016	PRAIRIE RD W at SAMISH R	104	28.0	1,414	10	Concrete	1975	88.38
40015	PRAIRIE RD S at SAMISH R	83	28.0	1,414	10	Concrete	1974	88.54
40035	BAY VIEW-EDISON (Indian)	71	34.1	1,069	8	Concrete	1992	89.42
40062	UTOPIA RD at BLACK SL	141	28.0	89	14	Concrete	1984	90.13 (FO)
40067	CAPE HORN RD at ALDER CK	41	28.0	186	4	Concrete	1972	90.26
40117	ALGER CAIN LK at SILVER	102	34.2	4,710	5	Concrete	1992	90.31
40073	LOOKOUT CRK BRIDGE	191	28.0	120	5	Steel	1981	90.88
40041	E PETER JOHNSON RD	54	24.0	58	8	Concrete	1981	92.46
40074	CASCADE R RD at MARBLE	120	26.0	120	1	Concrete	1982	92.87
40005	NOOKACHAMPS HILL CULVERT	30	0.0	220	4	Steel Culvert	2008	92.95
40163	HELMICK RD at RED CK	150	36.0	609	7	Concrete	2007	93.38
40045	PIONEER HWY at FISHER SL	114	37.2	8,383	8	Concrete	1987	93.98
40009	COOK RD at DD14 DITCH	38	40.0	12,296	9	Concrete	2000	94.33
40112	NEFFS CROSSING	108	41.0	4,377	10	Concrete	2006	94.35
40080	S SKAGIT HWY at PARKER	26	0.0	1,418	8	Concrete	1996	94.36
40012	COOK RD at BRICKYARD CK	54	44.0	10,863	8	Concrete	2000	94.4
40094	ROCKPORT CASC at ILLABOT	93	28.0	210	11	Concrete	1970	94.63
40044	PIONEER HWY at BIG DITCH	81	37.0	8,383	7	Concrete	1987	94.78
40129	LYMAN HWY at MUDDY CK	65	30.0	194	9	Concrete	1997	94.88
40068	CAPE HORN RD at GRANDY	51	28.0	338	7	Concrete	1967	95.34
40013	F&S GRADE SAMISH RIVER	102	28.0	532	8	Concrete	1974	95.4
40030	THOMAS RD at SAMISH R	91	28.0	220	10	Concrete	1973	96.16
40071	CASCADE RIVER BRIDGE	180	26.0	241	10	Concrete	1967	96.84
40054	KNAPP RD at NOOKACHAMPS	73	28.0	340	9	Concrete	1977	96.88

BRIDGE NUMBER	BRIDGE NAME	BRIDGE LENGTH	BRIDGE WIDTH	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	YEAR BUILT / REBUILT	SUFFICIENCY RATING
40092	CONC-SAUK VLY at MILLER	25	0.0	975	7	Concrete	1999	97.16
40014	GRIPP RD at SAMISH R	84	28.0	547	8	Concrete	1976	97.48
40025	FRIDAY CREEK 8TH BRIDGE	59	28.0	170	4	Concrete	1977	97.48
40019	FRIDAY CREEK 2ND BRIDGE	74	28.0	134	9	Concrete	1979	97.5
40085	S SKAGIT HWY at DAVIS SL	63	34.9	524	9	Concrete	2014	97.71
40051	BEAVER LK RD at NOOKACHM	73	28.6	167	11	Concrete	1977	97.72
40159	MINKLER RD at COAL CK	29	36.0	891	7	Concrete	1984	97.79
40095	ROCKPORT CASC at JORDAN	56	28.0	198	7	Concrete	1969	98.24
40048	LK CAVANAUGH RD CULVERT	21	30.0	614	13	Steel Culvert	1998	98.83
40069	CONRAD RD at SWIFT	38	24.0	91	2	Concrete	1981	98.96
40022	FRIDAY CREEK 5TH BRIDGE	69	28.0	134	9	Concrete	1977	99.15
MV-12	LAVENTURE RD CULVERT	30	44.0	7,327	5	Concrete	2010	99.31
40164	S LAVENTURE RD	80	50.0	3,500	12	Concrete	2013	99.51
40162	MCELROY SLOUGH CULVERTS	28	26.0	40	1	Concrete	2007	99.99
LOCAL AGENCY BRIDGES								
BRIDGE NUMBER	BRIDGE NAME	BRIDGE LENGTH	BRIDGE WIDTH	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	YEAR BUILT / REBUILT	SUFFICIENCY RATING
CITY OF MOUNT VERNON								
000000010	Olympic Lane	67	22.0	300	5	Concrete	2004	80.96
000000003	Eleanor Lane A	32	30.0	400	7	Concrete	2006	82.69
000000002	Hoag Steward Overpass	60	65.0	21,172	7	Concrete	2003	89.73 (FO)
000000001	RIVERSIDE BRIDGE	850	60.0	21,172	6	Concrete	2004	92.98
000000007	J off Beaver Pond Dr. S.	32	24.0	50	1	Steel Culvert	2006	94.53
000000006	Eaglemont Drive	20	0.0	500	5	Steel Culvert	1995	94.95
000000004	Skagit Highlands Parkway	37	0.0	400	5	Concrete	2003	96.94
000000008	Beaver Pond Dr South	29	28.0	300	5	Concrete	2004	97.22
000000009	Beaver Pond Dr North B	54	28.0	300	5	Concrete	2002	97.22
000000005	Landmark Drive	51	28.0	300	5	Concrete	1994	97.22
000000011	Beaver Pond Dr North A	42	30.0	300	5	Concrete	2001	97.97
CITY OF BURLINGTON								
BURLINN-2	NORTH BURLINGTON BLVD	26	34.0	4,119	11	Concrete	1970	97.02
BURLINN-3	GOLDENROD BRIDGE	116	40.0	4,338	10	Concrete	2005	98.78
TOWN OF CONCRETE								
CONCRETE1	BAKER RIVER	269	18.0	125	5	Concrete	2004	20.67 (FO)

BRIDGE NAME	BRIDGE No.	LOCATION	LAST INSP	INSP FREQ (months)	NEXT INSP	INSP TYPE
BURL NORTHERN OVERPASS	40111	0.2 North of Jct w/ Cook	7/27/16	24	Jan-17	Interim
ANACORTES FERRY DOCK	40152	ANACORTES	5/2/12	60	May-17	Underwater
GUEMES ISLAND FERRY DOCK	40153	GUEMES ISLAND	5/3/12	60	May-17	Underwater
FRIDAY CREEK 1ST BRIDGE	40018	.45 MI N OLD HWY 99 N	5/6/15	24	May-17	Routine
FRIDAY CREEK 2ND BRIDGE	40019	0.59 Miles N. of Old 99	5/6/15	24	May-17	Routine
FRIDAY CREEK 3RD BRIDGE	40020	0.3 N. of JCT w/ Old 99	5/6/15	24	May-17	Routine
FRIDAY CREEK 4TH BRIDGE	40021	.4 N JCT BURL ALG	5/6/15	24	May-17	Routine
FRIDAY CREEK 5TH BRIDGE	40022	1.55 Mi N of Old 99 Jct	5/13/15	24	May-17	Routine
FRIDAY CREEK 6TH BRIDGE	40023	.6 N JCT BURL ALG	5/13/15	24	May-17	Routine
FRIDAY CREEK 7TH BRIDGE	40024	2.16 MI N JCT OLD 99 N	5/13/15	24	May-17	Routine
FRIDAY CREEK 8TH BRIDGE	40025	2.24 MI N JCT OLD 99 N	5/13/15	24	May-17	Routine
LAKE SAMISH at BEAR CK	40106	2.0 MI NW JCT I-5	5/20/15	24	May-17	Routine
ALGER CAIN LK at SILVER	40117	0.3 MI East of Alger	5/20/15	24	May-17	Routine
LAKE SAMISH RD at FRIDAY	40109	0.25 E JCT INTER 5	5/20/15	24	May-17	Routine
OLD HWY 99 at SILVER CK	40116	0.1 Mi South of Alger	5/20/15	24	May-17	Routine
FRIDAY CREEK BRIDGE	40115	4.3 N JCT COOK RD.	5/28/15	24	May-17	Routine
CASCADE RIVER BRIDGE	40071	.04 S JCT CASC.RD	6/3/15	24	Jun-17	Routine
S SKAGIT HWY at DAVIS SL	40085	13.9 MI E OF SR-9 JCT	6/3/15	24	Jun-17	Routine
FARM-TO-MARKET N DITCH	40026	7.7 N JCT SR 20	6/9/15	24	Jun-17	Routine
FARM-TO-MARKET at NEUMAN	40033	6.1 N JCT SR20	6/10/15	24	Jun-17	Routine
FARM-TO-MARKET S DITCH	40032	7.5 N JCT SR 20	6/10/15	24	Jun-17	Routine
FARM-TO-MARKET SAMISH R	40034	5.9 N JCT SR 20	6/10/15	24	Jun-17	Routine
FARM-TO-MARKET JOE LEARY	40036	5.0 N JCT SR 20	6/17/15	24	Jun-17	Routine
FLINN ROAD BRIDGE	40161	300 Ft E Blanchard Rd	6/17/15	24	Jun-17	Routine
MCELROY SLOUGH CULVERTS	40162	MP 2.5 BLANCHARD RD	6/17/15	24	Jun-17	Routine
THOMAS RD at SAMISH R	40030	0.3 N ALLEN WEST	6/17/15	24	Jun-17	Routine
BAY VIEW-EDISON (Indian)	40035	0.4 MI N OF SR20	7/8/15	24	Jul-17	Routine
BAY VIEW-EDISON J.LEARY	40029	5.8 MI N of SR-20 JCT	7/8/15	24	Jul-17	Routine
BAYVIEW STATE PARK	40141	3.5 N JCT SR 20	7/8/15	24	Jul-17	Routine
BURL NORTHERN OVERPASS	40111	0.2 North of Jct w/ Cook	7/13/15	24	Jul-17	Contractor
CONRAD RD at SUTTER CK	40065	0.59 E JCT SR20	7/22/15	24	Jul-17	Routine
HELMICK RD at RED CK	40163	1.1 MI N of SR 20	7/22/15	24	Jul-17	Routine
UTOPIA RD at BLACK SL	40062	Utopia Rd 0.5 E of Hoehn	7/22/15	24	Jul-17	Routine
KNAPP RD at NOOKACHAMPS	40054	0.1 E JCT SR 9	8/5/15	24	Aug-17	Routine
LAKE VIEW BLVD at NCHMPS	40001	.25 S JCT SR9	8/5/15	24	Aug-17	Routine
NOOKACHAMPS HILL CULVERT	40005	.752 ml east of SR 9	8/5/15	24	Aug-17	Routine
COOK RD at BRICKYARD CK	40012	MP 5.38 COOK RD	8/12/15	24	Aug-17	Routine
COOK RD at DD14 DITCH	40009	0.5 E JUNCTION INTER 5	8/12/15	24	Aug-17	Routine
NEFFS CROSSING	40112	1.0 N JCT COOK RD.	8/12/15	24	Aug-17	Routine
OLD HWY 99 at THOMAS CK	40113	1.4 N JCT COOK RD.	8/12/15	24	Aug-17	Routine
BAKER RIVER	CONCRETE1	0.1 N MAIN ST	8/26/15	24	Aug-17	Routine - UBIT
RIVERSIDE BRIDGE	000000001	0.7 N JCT SR 538	8/26/15	24	Aug-17	Routine - UBIT
CAMPBELL LAKE OUTLET	40142	.39 miles W of SR 20	9/3/15	24	Sep-17	Routine
LACONNER WHITNEY at SL	40038	3.83 S JCT SR 20	9/3/15	24	Sep-17	Routine
MARCHS POINT PIPELINE	40126	1.6 N JCT SR 20	9/3/15	24	Sep-17	Routine
F&S GRADE SAMISH RIVER	40013	0.14 Mi S of PRAIRIE RD	9/9/15	24	Sep-17	Routine
PRAIRIE RD E at SAMISH R	40055	0.5 Mi W of SR 9	9/9/15	24	Sep-17	Routine
PRAIRIE RD FRIDAY CK	40017	0.17 Mi E of OLD HWY 99	9/9/15	24	Sep-17	Routine
GOLDENROD BRIDGE	BURLINN-3	.3 N. of W. MCCORQUEDALE	9/23/15	24	Sep-17	Routine
GRIPP RD at SAMISH R	40014	0.1 Mi E of Prairie Rd	9/23/15	24	Sep-17	Routine
NORTH BURLINGTON BLVD	BURLINN-2	1.02 MI SO OF COOK RD	9/23/15	24	Sep-17	Routine
PRAIRIE RD S at SAMISH R	40015	2.21 Mi E of Old Hwy 99	9/23/15	24	Sep-17	Routine
PRAIRIE RD W at SAMISH R	40016	3.8 Mi E of Old Hwy 99	9/23/15	24	Sep-17	Routine

BRIDGE NAME	BRIDGE No.	LOCATION	LAST INSP	INSP FREQ (months)	NEXT INSP	INSP TYPE
E PETER JOHNSON RD	40041	1.0 Miles E. of Cedardale	9/30/15	24	Sep-17	Routine
NORTH FORK BRIDGE	40037	5.5 W JCT INTER 5	9/24/12	60	Sep-17	Underwater
RIVERSIDE BRIDGE	000000001	0.7 N JCT SR 538	9/24/12	60	Sep-17	Underwater
Eleanor Lane A	000000003	0.1 E Jct Old Highway 99	10/7/15	24	Oct-17	Routine
Hoag Steward Overpass	000000002	Riverside Dr Jct. Hoag St	10/7/15	24	Oct-17	Routine
S LAVENTURE RD	40164	0.5 Miles East of I-5	10/7/15	24	Oct-17	Routine
Skagit Highlands Parkway	000000004	0.4 N Jct. E Division St.	10/7/15	24	Oct-17	Routine
Beaver Pond Dr North A	000000011	0.2 N Jct. Englemont Dr	10/14/15	24	Oct-17	Routine
Beaver Pond Dr North B	000000009	0.4 N Jct. Englemont Dr	10/14/15	24	Oct-17	Routine
Beaver Pond Dr South	000000008	0.5 N Jct. Englemont Dr	10/14/15	24	Oct-17	Routine
Eaglemont Drive	000000006	0.1 S Jct Beaver Pond N	10/14/15	24	Oct-17	Routine
J off Beaver Pond Dr. S.	000000007	Off Beaver Pond Dr. S.	10/14/15	24	Oct-17	Routine
Landmark Drive	000000005	Off S Waugh Rd	10/14/15	24	Oct-17	Routine
Olympic Lane	000000010	Off Beaver Pond Dr North	10/14/15	24	Oct-17	Routine
PULVER ROAD @ JOE LEARY	40031	.6 S JCT SR 11	1/21/16	24	Jan-18	Routine
LOOKOUT CRK BRIDGE	40073	7.04 E JCT SR 20	3/21/16	24	Mar-18	Routine - UBIT
NORTH FORK BRIDGE	40037	5.5 W JCT INTER 5	3/22/16	24	Mar-18	Routine - UBIT
NORTH FORK BRIDGE	40037	5.5 W JCT INTER 5	3/22/16	24	Mar-18	Fracture Critical
SOUTH FORK BRIDGE	40008	1. W JCT INTER 5	3/22/16	24	Mar-18	Routine - UBIT
SAMISH RIVER BRIDGE	40114	2.6 N JCT COOK RD.	3/23/16	24	Mar-18	Routine - UBIT
SAMISH RIVER BRIDGE	40114	2.6 N JCT COOK RD.	3/23/16	24	Mar-18	Fracture Critical
GOVERNMENT BR	40099	7.5 N SNO CO BDRY	3/24/16	24	Mar-18	Routine - UBIT
GOVERNMENT BR	40099	7.5 N SNO CO BDRY	3/24/16	24	Mar-18	Fracture Critical
DALLES BRIDGE	40090	1.5 S JCT SR 20	3/28/16	24	Mar-18	Routine - UBIT
DALLES BRIDGE	40090	1.5 S JCT SR 20	3/28/16	24	Mar-18	Fracture Critical
SKAGIT RIVER MARBLEMOUNT	40070	.03 E JCT SR 20	3/29/16	24	Mar-18	Routine - UBIT
SKAGIT RIVER MARBLEMOUNT	40070	.03 E JCT SR 20	3/29/16	24	Mar-18	Fracture Critical
RAINBOW BRIDGE	40039	SWIN SL @ LACONNER	4/26/16	24	Apr-18	Routine - UBIT
RAINBOW BRIDGE	40039	SWIN SL @ LACONNER	4/26/16	24	Apr-18	Fracture Critical
UPPER FINNEY CREEK BR.	40093	04.6 W CONC SAUK RD	4/29/16	24	Apr-18	Routine - UBIT
BURMASTER RD at COAL CK	40060	1.2 E JCT MINKLER	5/12/16	24	May-18	Routine
MINKLER RD at COAL CK	40159	00.1 MI E SIMS ROAD	5/12/16	24	May-18	Routine
MINKLER RD at WISEMAN CK	40061	.5 W JCT SR 20	5/12/16	24	May-18	Routine
LYMAN HWY at CHILDS CK	40063	0.8 E JCT SR 20	5/17/16	24	May-18	Routine
LYMAN HWY at JONES CK	40132	2.3 W HAMILTON	5/17/16	24	May-18	Routine
LYMAN HWY at MANNSER CK	40131	1.7 W HAMILTON	5/17/16	24	May-18	Routine
LYMAN HWY at RED CABIN	40130	1.0 W HAMILTON	5/17/16	24	May-18	Routine
NICHOLSON at CHILDS CR	40151	.1 S JCT SR 20	5/17/16	24	May-18	Routine
CAPE HORN RD at ALDER CK	40067	0.75 E JCT SR 20	5/27/16	24	May-18	Routine
CAPE HORN RD at GRANDY	40068	2.25 W JCT SR 20	5/27/16	24	May-18	Routine
HAMILTON CEM at MUDDY CK	40066	.5 W JCT SR 20	5/27/16	24	May-18	Routine
LYMAN HWY at MUDDY CK	40129	0.3 M W HAMILTON	5/27/16	24	May-18	Routine
CONC-SAUK VLY at MILLER	40092	MP 9.00	6/2/16	24	Jun-18	Routine
CONRAD RD at SWIFT	40069	0.2 E JCT SR 20	6/2/16	24	Jun-18	Routine
ROCKPORT CASC at ILLABOT	40094	4.0 E JCT SR 530	6/2/16	24	Jun-18	Routine
ROCKPORT CASC at JORDAN	40095	0.71 SW JCT CASC.	6/2/16	24	Jun-18	Routine
BAYVIEW ED at SAMISH R	40028	0.5 W JCT SR 537	6/9/16	24	Jun-18	Routine
BAYVIEW ED at SAMISH SL	40027	0.4 W JCT SR 537	6/9/16	24	Jun-18	Routine
CASCADE R RD at HARD CR	40076	MP 12.7	6/21/16	24	Jun-18	Routine
CASCADE R RD at MARBLE	40074	8.3 E JCT SR 20	6/21/16	24	Jun-18	Routine
CASCADE R RD at MINERAL	40077	16.02 E JCT SR 20	6/21/16	24	Jun-18	Routine
CASCADE R RD at MONOGRAM	40072	7.37 E JCT SR 20	6/21/16	24	Jun-18	Routine
CASCADE R RD at SIBLEY	40075	10 MI E MARBLEMOUNT	6/21/16	24	Jun-18	Routine

BRIDGE NAME	BRIDGE No.	LOCATION	LAST INSP	INSP FREQ (months)	NEXT INSP	INSP TYPE
BAKER LK RD at BEAR CK	40101	9.5 NE JCT SR 20	7/8/16	24	Jul-18	Routine
BAKER LK RD at E GRANDY	40140	4. NE JCT SR 20	7/8/16	24	Jul-18	Routine
BAKER LK RD at W GRANDY	40120	2. NE JCT SR 20	7/8/16	24	Jul-18	Routine
CONWAY HILL at CARPENTER	40043	0.5 E JCT INTER 5	7/13/16	24	Jul-18	Routine
MILLTOWN at BIG DITCH	40042	.02 E JCT SR 530	7/13/16	24	Jul-18	Routine
PIONEER HWY at BIG DITCH	40044	2.8 EAST JCT. SR 5	7/13/16	24	Jul-18	Routine
PIONEER HWY at FISHER SL	40045	1.5 EAST JCT. SR 5	7/13/16	24	Jul-18	Routine
S SKAGIT HWY at FINNEY	40089	19. E JCT SR 9	7/20/16	24	Jul-18	Routine
S SKAGIT HWY at MILL CR	40086	17. E JCT SR9	7/20/16	24	Jul-18	Routine
S SKAGIT HWY at O'TOOLE	40084	15. E JCT SR 9	7/20/16	24	Jul-18	Routine
S SKAGIT HWY at PRESSENT	40088	18.5 E JCT SR9	7/20/16	24	Jul-18	Routine
S SKAGIT HWY at CUMBERLA	40083	11.5 E JCT SR 9	7/22/16	24	Jul-18	Routine
S SKAGIT HWY at DAY CR	40081	9. E JCT SR 9	7/22/16	24	Jul-18	Routine
S SKAGIT HWY at LORETTA	40082	10. E JCT SR 9	7/22/16	24	Jul-18	Routine
S SKAGIT HWY at PARKER	40080	7.5 MI E OF SR-9	7/22/16	24	Jul-18	Routine
LK CAVANAUGH at PILCHUCK	40047	8.7 E JCT SR 9	7/27/16	24	Jul-18	Routine
LK CAVANAUGH RD at BEAR	40046	8.0 E JCT SR 9	7/27/16	24	Jul-18	Routine
LK CAVANAUGH RD CULVERT	40048	MP 0.96	7/27/16	24	Jul-18	Routine
FRANCIS at NOOKACHAMPS	40003	2.8 W JCT SR9	8/17/16	24	Aug-18	Routine
FRANCIS RD at SLOUGH	40004	2.0 W JCT SR9	8/17/16	24	Aug-18	Routine
SWAN ROAD BRIDGE	40002	NOOKACHAMPS	8/17/16	24	Aug-18	Routine
BEAVER LK RD at NOOKACHM	40051	3.0 SE JCT SR 9	8/26/16	24	Aug-18	Routine
CEDARDALE RD at CARPENTR	40156	0.75 S JCT SR534	8/26/16	24	Aug-18	Routine
TAYLOR RD at WALKER CK	40052	4.3 E JCT SR 9	8/26/16	24	Aug-18	Routine
BENSON RIDGE LN	40157	1.2 E I-5	9/16/16	24	Sep-18	Routine
GREEN RD at THOMAS CK	40011	.01 S KELLEHER RD	9/16/16	24	Sep-18	Routine
LAVENTURE RD CULVERT	MV-12	NORTH OF BLACKBURN	9/16/16	24	Sep-18	Routine
BAYVIEW ED at SAMISH R	40028	0.5 W JCT SR 537	9/24/13	60	Sep-18	Underwater
SOUTH FORK BRIDGE	40008	1. W JCT INTER 5	9/24/13	60	Sep-18	Underwater
ANACORTES FERRY DOCK	40152	ANACORTES	10/24/16	24	Oct-18	Routine - Boat
ANACORTES FERRY DOCK	40152	ANACORTES	10/24/16	24	Oct-18	Fracture Critical
GUEMES ISLAND FERRY DOCK	40153	GUEMES ISLAND	10/24/16	24	Oct-18	Routine - Boat
GUEMES ISLAND FERRY DOCK	40153	GUEMES ISLAND	10/24/16	24	Oct-18	Fracture Critical

APPENDIX C - BRIDGE REPAIRS LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	DESCRIPTION OF REPAIR	COMPLETED & VERIFIED
40117	ALGER CAIN LK at SILVER	3	Repair 3 guardrail sections damaged from impact	
		3	Patch eastern approach settlement.	
		3	Remove BST overspray at end of bridge	
		2	Remove small trees underneath and from around bridge.	
40152	ANACORTES FERRY DOCK	1	Girder 1G has cracks and delaminations in the bottom chord on most of the shore side half. Girders 1 H and 1 I (eastern most girders) also have some narrow cracking. Two options: Continue with the bulb T replacement of the three easternmost girders.	
		2	There is no hand rail on the apron and the lift span. These become difficult to navigate for some of the less mobile pedestrians when either lift span or apron are placed at low tide.	
		2	Transfer span framing has scattered rust blooms in the floorbeams, stringer clip angles, and bottom diagonals. Steel headframe has bolt heads and nuts with rust blooms. Clean to bright steel, prime, and spot paint. 2014 JHL added photo and ver	
		1	Right side live load hanger pin bracket has a corrosion hole in the shore side channel, 1" x 3" - Replace channel and paint.	10/3/2012
		3	Lift motor gear box leaks oil. Repair leaks.	
40101	BAKER LK RD at BEAR CK	M	Large tree fallen upstream across channel...monitor for channel movement and backup.	
40140	BAKER LK RD at E GRANDY	2	Previous patches are failing. Patch failed locations and new spalls.	
		3	The SW rail and end treatment need to be raised. Currently top of rail is at 17"	
		1	Replace upstream top rail - section loss and corrosion.	
40120	BAKER LK RD at W GRANDY	2	Replace failed armoring below south abutment.	
		3	Upgrade transition rails to standard.	
40035	BAY VIEW-EDISON (Indian)	3	brush and patch exposed rebar and spalls in girders	
40029	BAY VIEW-EDISON JOE LEARY	1	brush and patch exposed rebar in deck	06-Jul-15
		3	Guardrail - block out missing in soutwest leg.	
		1	Repair drainage structure in southwest corner.	
		2	Level approaches to bridge before next road seal	
40028	BAY VIEW-EDISON SAMISH R	2	End treatment @ NE section is damaged. Needs repair or replacement	09-Jun-16
		3	Grind BST from deck at both ends	
		3	Repair joint seals.	
		M	Monitor undermining of gabion wall at Pier 1.	
		2	Remove debris hung up on bank and pier 6	09-Jun-16
		2	remove dirt and poor rubber seal at both joints	
		3	Paint guardrail posts	
40027	BAY VIEW-EDISON SAMISH SL	2	Sweep shoulders between bridge rail and BST	
		3	Remove vegetation around bridge	
		3	Missing a guardrail post on SE transition and the NW transition.	
		2	Repair - paint posts	
40141	BAYVIEW STATE PARK	3	Repair: Patch cracks in ends of beams.	
		M	Rails: upgrade to meet current standards.	
		2	Paint bridge rails and posts.	
40051	BEAVER LK RD at NOOKACHM	2	Settlement at western approach. AC level	
		M	Losing material behind Abut #2	
		2	Patch exposed rebar on deck.	26-Aug-16
		M	Channel migrating to the east upstream of bridge.	
		3	Brush and paint rusting "connection braces" at the girder/abutment joint.	
40157	BENSON RIDGE LN	2	Nuts are loose again on bolts that hold deck in place. These were recently tightened in 2010 so perhaps need to look at replacing nuts with locking nuts.	
		3	Section loss in deck. Replace board but can probably wait until more boards fail.	
40111	BURL NORTHERN OVERPASS	1	Pack Rust has formed/forming on steel stringers at the ends of all of the stringers causing section loss. In addition, pack rust has formed along the upper top leg of the channel on the western most stringer. Rust should be removed and painted.	
		1	Replace rotted or broken sway braces and tighten nuts/bolts. ·Bent #07 Loose middle bolt & nut on pile 2 and pile 3. ·Bent #08 Missing nut on lowest way brace. ·Bent #11 on pile 4 missing nut on sway brace. ·Bent #30 RED tagged the upper sway brace bet	
		M	Bent #55 - Monitor migrating shim on SW pile, out 8/10"	
		M	Monitor shims on temporary shoring - slight movement when struck: Bent #61 - NW pile, Bent #67 east pile.	
		2	Deck: patch spalls in the deck.	

APPENDIX C - BRIDGE REPAIRS LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	DESCRIPTION OF REPAIR	COMPLETED & VERIFIED
		2	BENT 61 Replace missing nut temporary shoring on sway brace.	
		1	Deck Soffits: Wire brush/paint exposed rebar and patch spalls throughout bridge soffits.	
		2	Bridge Rail has been impacted at various areas of the bridge. Straighten and repair where needed	
40060	BURMASTER RD at COAL CK	M	Left bank erosion downstream of bridge.	
		3	Repair spalls in concrete railing, approx. 2'.	
		3	Paint rail posts	
		2	Remove 3 Man Rock in middle of stream - collecting debris	
		3	Utility line casing (PVC pipe) is broken.	
40142	CAMPBELL LAKE OUTLET	M	S.S. screen upstream of bridge	
40067	CAPE HORN RD at ALDER CK	2	Potholing on deck and at deck joints	
		3	Pressure wash moss off of bridge	
		3	Upgrade guardrail to current standards.	
		M	Upstream channel migration to the west. Stream approaching bridge at angle now with higher velocities at Abutment #2	
40068	CAPE HORN RD at GRANDY	3	4 new spalls but might be to shallow to patch	
		2	Patch the 6 spalls in deck with exposed rebar.	27-May-16
		3	Upgrade guardrail to current standards	
		M	Monitor the bank protection, check after high water.	
40076	CASCADE R RD at HARD CR	1	Extend temporary jersey barrier out to road and get everything off damaged girder.	21-Jun-16
		2	Repair Joint - armor angle on west end.	21-Jun-16
		3	Sweep deck	21-Jun-16
		M	Monitor Southwest retaining wall - slightly out of plum	
40074	CASCADE R RD at MARBLE	2	NE End treatment isn't up to standard	
		3	Patch potholes on West approach	
		2	Wingwall: Joint seal is missing, gap between bridge and walls. Fill gap btw retainting walls and the abutments.	
		2	Repair: fourth rail post from right D corner is bent from impact, base plate is still in place.	
		2	SE Wrap around end treatment is damaged	
40077	CASCADE R RD at MINERAL	1	Fill potholes in bridge approach.	
		2	Sweep debris off deck, a lot of gravel	
		2	Repair abutment #1 armor.	
40072	CASCADE R RD at MONOGRAM	2	Concrete repair: patch left and right wingwalls; and abutment #2.	
		1	Debris removal: remove boulders form under bridge.	
		M	Waterway: monitor bridge at high water, stream overtops the bridge and bypasses on the left end.	
		2	Repair: deck has spall on R downstream edge.	
40075	CASCADE R RD at SIBLEY	2	Panel 16 has loose bolt - 1 1/8" socket	
		2	Pressure wash deck and remove material between panels	
		1	Repair: 8 delineators missing (4 on each side of bridge)	
		1	Install jersey barrier to keep live loads off damaged Girder B	28-May-15
40071	CASCADE RIVER BRIDGE	2	Patch exposed rebar in deck.	
		2	Clean drains - plugged with debris	
		2	Sweep deck and shoulders	
		2	Repair thrie beam transition at nw corner. Damaged from fallen tree.	
		1	Asphalt cracking and settling at both approaches. A/C level.	
40156	CEDARDALE RD at CARPENTR	3	Sweep deck	26-Aug-16
		2	Replace block outs with 6" blocks on rails - see Ele. 330	
		1	Re patch the deck	26-Aug-16
		2	Upgrade bridge rails / transition / guardrail / end treatments	
40069	CONRAD RD at SWIFT	2	Sweep Deck	
		M	Monitor the channel protection.	
		M	Appears to be bridge movement causing abutments to rotate. This would explain the crushing occuring on the elastomeric bearings.	
		2	Remove the BST overspray patches from the bridge deck.	
		2	Replace all 4 Type 3 Object Markers -	
40043	CONWAY HILL at CARPENTER	3	Guardrail posts need replaced - 2nd from east bank, downstream side. 4th post from west bank, upstream side.	
		3	Clear vegetation from deck curb and joints.	
40012	COOK RD at BRICKYARD CK	2	Approach road: west upstream shoulder needs to be graded to drain standing water.	12-Aug-15
		2	Deck needs to be swept and drains cleaned	12-Aug-15
		3	Clear vegetation from abutment ends	
		2	Recomend sawcutting @ bridge seat and joint filling.	12-Aug-15
		3	Sweep sidewalk.	

APPENDIX C - BRIDGE REPAIRS LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	DESCRIPTION OF REPAIR	COMPLETED & VERIFIED
40090	DALLES BRIDGE	1	Clean debris from lower truss panel points over piers. (Repair Priority changed to '1', 3/29/2010, GAS/TJN)	
		2	Replace poured joints over floorbeams with a Dow Corning pourable joint or equivalent. George Schultz has been provided phone numbers of suppliers.	
		1	At the transverse restrainer block details over Piers 3 and 4, (L3 and L15) clean any existing drain holes or provide drilled holes for drainage.	
40041	E PETER JOHNSON RD	2	Dig out asphalt patches on approach and rebuild	30-Sep-15
		2	Clean out deposited sediment on top of pier cap.	
		3	Westbound guardrail - minor impact damage on one section.	30-Sep-15
40013	F&S GRADE SAMISH RIVER	2	Left upstream approch rail end treatment need replaced	09-Sep-15
		M	Alder tree at right bank under bridge.	
		2	Patch spalls in deck and failing old patches.	
40036	FARM-TO-MARKET JOE LEARY	1	Vegetation needs to be cut around the ends of the bridge.	17-Jun-15
		3	Brush and patch spall in soffit	
40026	FARM-TO-MARKET N DITCH	3	Patch spall on outside of rail at connection (8th post from North)	
		M	Monitor settlement on the road approaches.	
40032	FARM-TO-MARKET S DITCH	3	A/C level approaches	
		2	Northbound approach needs asphalt patch.	
40034	FARM-TO-MARKET SAMISH R	2	Waterway: Remove woody debris at bent 4 & 5.	
		2	Rails: Upgrade approach rails to meet current stds.	
		2	Remove vegetation from ends of bridge	10-Jun-15
		1	Sand has accumulated, sweep deck.	10-Jun-15
		3	Repair object marker post - NE corner.	
		2	Remove moss from deck and rails.	10-Jun-15
40161	FLINN ROAD BRIDGE	3	Patch spall in deck at joint of Abut #1	
40003	FRANCIS at NOOKACHAMPS	2	Remove vegetation from ends of bridge	
		2	Repair: level approach roads and patch potholes.	
		3	Remove BST overspray	
40004	FRANCIS RD at SLOUGH	3	Paint rail posts	
		2	Shoulder/pavement edge drops off between edge of road and guardrail. - needs to be brought up to grade.	
		1	Remove grass and sod from between edge of pavement and rail. Backfill with HMA.	
		3	Crack seal transverse cracks at the joints.	
		2	Replace damaged guardrail at NE corner. Apprx 100' and 3 posts.	17-Aug-16
40018	FRIDAY CREEK 1ST BRIDGE	3	Upgrade bridge rails to current standards.	
		1	Patch exposed rebar in girders #1 #2 #3 & #4 and Soffits.	
		3	Pressure wash conc. rails & girders	
		3	Remove BST overspary	
		1	1" > approaches - Dig out and pre-level scheduled	06-May-15
40019	FRIDAY CREEK 2ND BRIDGE	2	Replace spacer blocks #4 and #12 of SE corner	06-May-15
		3	Approach roadways have settled 3+ inches. Road markings indicate future dig out and/or A/C leveling.	06-May-15
		2	Crack Seal north approach	06-May-15
		M	Monitor: erosion fo south abutment fill.	
		2	Replace spacer blocks #8 and #12 of NE corner	06-May-15
		M	Monitor: north approach	
		M	Abut #1 - erosion undermining the corner of abutment. Probably the cause of settling approaches.	
40020	FRIDAY CREEK 3RD BRIDGE	2	Pressure wash moss off girders	
		2	Brush and paint guardrail posts	
		2	Drain: repair drain on bridge, has broken off.	
		M	Waterway: monitor stream cutting on the right upstream bank, unstable slope - left bank.	
		3	Upgrade guardrail to current standards	
40021	FRIDAY CREEK 4TH BRIDGE	2	Exposed rebar: wire brush and patch exposed rusty rebar on girders 1, 2, and 4	
		M	bank erosion 30' upstream	
		3	Remove overspary (chipseal) on deck.	
40022	FRIDAY CREEK 5TH BRIDGE	3	Diaphragms rusty - need steel brushing and paint	
		2	Abutments: replace fill material under abutment #2	
40023	FRIDAY CREEK 6TH BRIDGE	3	Replace missing down spout on drain	
		2	Patch pot hole at beginning of bridge (3' x 2")	
		3	Bridge curbing, girders and soffits need pressure washed.	
40024	FRIDAY CREEK 7TH BRIDGE	1	Dig out and A/C level North approach.	13-May-15
		3	Pressure wash curbs and girders	
40025	FRIDAY CREEK 8TH BRIDGE	3	N approach settling. Dig out and level before next resurfacing.	

APPENDIX C - BRIDGE REPAIRS LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	DESCRIPTION OF REPAIR	COMPLETED & VERIFIED
		2	NE guardrail, Post 4 is rotted and needs replaced.	
		3	Repair: undermined riprap at D/S South abutment	
		2	Weed whack around abutments and approach guardrail	13-May-15
40115	FRIDAY CREEK BRIDGE	2	Unplug drains	28-May-15
		2	Replace failing patch in northbound lane near midspan.	
		2	Scrub and patch exposed rebar in deck.	
		1	Post 4, SE rail, needs replaced	
		M	Post 1, NW rail, soundy punky - check next inspection.	
40099	GOVERNMENT BR	2	Repair or replace the blocking and support for the north side metal bridge railing, in Span 2 between Panel Points L1 and L2.	
		1	Span 2, Panel 3 has a 6" broken piece of deck. Secure or remove section so it does not have potential to damage a tire.	
		M	Monitor the steel deck and sleeper channels in areas of cracked welds and laminar tears. Noted defects are in Span 1, Span 2 curb and grate to channel connections primarily within Panels 1 and 9, Span 3 sleeper channels. (Repair re-written to focus on c	
40011	GREEN RD at THOMAS CK	1	Guardrail: Post 1, downstream end missing bolt and nut. Currently hanging on one bolt.	
		2	Northern approach in need of A/C leveling, Southern approach could use more.	
		2	Approach Road: level approaches settled >2" on both ends	16-Sep-16
40014	GRIPP RD at SAMISH R	2	Repair: patch spall in the wingwall.	
		1	MONITOR: Bridge is bypassable,right upstream channel protection is starting to slump into river and needs to be monitored after high water events.	
		2	Repair: Thrie beams need to be painted, there is rust & the galvanized material is wearing off.	23-Sep-15
40153	GUEMES ISLAND FERRY DOCK	2	Unplug drain holes in pit area of counterweights.	
		1	Grease the upper and lower live load hanger pins.	
		M	Monitor deformed gusset holes for apron lift beam hydraulic ram clevis pin.	
		1	Clean and spot paint all steel areas which have corrosion.	
		1	Left live load hanger is bent inboard. Straighten left live load hanger.	
		N	Update WSBIS Fields 74-53 & 74-63 (ADT)	
		2	Replace upper clevis pin on right hoist platform. This pin has insufficient grip length causing threads in bearing.	
		1	Apron piano hinge type at end of transfer span has 1/2" of slop due to fretting . Per contract plans, double extra pipe inner diameter is 1.771", rod is 1.625" , this should have only a 1/8" gap. These need to be greased on a regular basis to reduce secti	
		2	There is no hand rail on the apron and the lift span. These become difficult to navigate for some of the less mobile pedestrians when either lift span or apron are placed at low tide	
		1	Restore the design edge distance of the gusset hole for the apron lift beam.	
		1	Apron lips have worn through since photo #33 was taken in 2006. They are rusted throuugh, knife edged and bent. Replace Apron lips.	
		1	Replace the lower clevis bolt attachment to the hoisting block on the right girder. This bolt is yielding.	
		2	Grease counterweight cables and hoist cables.	
		3	Lift motor gear box leaks oil. Repair leaks.	
40066	HAMILTON CEM at MUDDY CK	3	Pressure wash curbs.	
		2	Small pot hole forming at the right bridge/approach road. Monitor and patch.	27-May-16
40163	HELMICK RD at RED CK	M	Water flowing from abutment #2, below G5	
40054	KNAPP RD at NOOKACHAMPS	2	Bridge approaches need to be A/C leveled.	
		1	Sweep the bridge deck.	05-Aug-15
		3	Deck Repair : remove overspray BST on bridge deck.	
		2	Cut and remove brush around the abutments for access under the bridge.	05-Aug-15
		2	Remove vegetation from SE corner of bridge deck. Grass us limiting drainage.	
		1	Brush and patch spalls on deck.	
		M	Erosion in the NW corner under abutment.	
40038	LACONNER WHITNEY at SL	2	Paint the bridge rail posts, are peeling and rusty.	
		2	End terminals on both northern approach rails need repairs.	
		1	Remove vegetation from the bridge ends.	
40106	LAKE SAMISH at BEAR CK	3	Paint bridge rail posts	
		M	The banks have lost some armoring. Monitor	
40109	LAKE SAMISH RD at FRIDAY	2	Repair: Posts need painting	

APPENDIX C - BRIDGE REPAIRS LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	DESCRIPTION OF REPAIR	COMPLETED & VERIFIED
		M	Armoring sloughing along Abut #1 - Monitor	
		2	Remove vegetation from around ends of bridge	
		2	Crack seal approaches, bst pulled apart at joint.	
		2	Replace damaged transition rail on SW section.	
40001	LAKE VIEW BLVD at NCHMPS	3	Upgrade rails to meet current standards.	
		1	Deck: The deck has spalls showing through the sealer. Old patches are wearing off.	05-Aug-15
		2	Sidewalk: Repair sidewalk approach where rebar is exposed (north end).	
		2	Bank protection: armor missing upstream end on the right bank.	
		3	Clear debris from submerged piles.	
		1	Signs: delineator is bent at north end. Salmon stream sign needs replacing.	
		1	Sidewalk: Level and patch settled area, tripping hazard.	
40047	LK CAVANAUGH at PILCHUCK	2	Sweep deck	27-Jul-16
		3	Upgrade Bridge Rails	
		1	Repatch exposed rebar in the deck. Approximately 15' total.	27-Jul-16
		2	Material loss from behind abutment causing approach road to settle.	27-Jul-16
40046	LK CAVANAUGH RD at BEAR	3	Patch spalls in deck	27-Jul-16
		3	Upgrade bridge rails	
		2	Exisisting patches need additional material added	27-Jul-16
		3	Sweep deck	
40048	LK CAVANAUGH RD CULVERT	2	Clear log jam at downstream end. Debris beginning to build up into culvert.	
		2	Remove vegetation to create a path for inspection.	
40063	LYMAN HWY at CHILDS CK	3	Guardrail post rotten: 3rd post from southwest end.	
		1	Dredge project planned this summer.	
		3	Pressure wash concrete rails and sides.	
		M	Monitor: channel aggredation	
		3	Missing nut on guardrail post: 2nd post from the west end, downstream side.	
		M	Scour hole on backside of guardrail at southwest end	
		3	Repair thrie beam, southwest end	17-May-16
40132	LYMAN HWY at JONES CK	3	Pressure wash concrete bridge rails	
		M	Scour along Abutment 2	
		2	Approaches: Both approaches have pot holes and need repair.	17-May-16
40131	LYMAN HWY at MANNSER CK	2	Upgrade Guardrails	
40129	LYMAN HWY at MUDDY CK	1	Dredge the channel	
		3	Sections of failed chip seal exposing bridge deck.	
		3	Clear vegetation growing in sandbar along bridge.	
40130	LYMAN HWY at RED CABIN	M	Scour hole at downstream end of Abut #2 - Monitor	
		2	Repair: left bridge seat approach road has a D spall in pavement 1' x 9".	
		3	Westbound guardrail end treatment damaged (NE quadrant)	
40126	MARCHS POINT PIPELINE	2	Curb cracked and spalling at north/west corner.	
40162	MCELROY SLOUGH CULVERTS	3	Re grout areas where grout is missing.	
40042	MILLTOWN at BIG DITCH	3	Clean girders and pier caps of bird guano	
		2	Repair end treatment, west downstream end	13-Jul-16
		2	Previous patches in deck are wearing and need replacing	13-Jul-16
		2	sweep deck	13-Jul-16
		1	AC level approaches	13-Jul-16
40159	MINKLER RD at COAL CK	3	Fill deep pot hole in westbound lane.	12-May-16
		2	Replace all rail posts that are damaged	
		2	Repair spalls upstream side of bridge (12)	
		1	Remove material and debris from underneath bridge	
		1	Remove cattle guard from downstream wingwalls	12-May-16
40061	MINKLER RD at WISEMAN CK	1	Repair scour at Abutment #1, upstream end.	12-May-16
		3	Patch the damaged areas on the curb.	
		2	Remove Fence from downstream headwalls	
		1	Remove (dredge) material and debris under the bridge.	
		2	Clean and patch spall in Beam #5.	
40151	NICHOLSON at CHILDS CR	3	Rotten block out posts #'s 1 2 & 5 on downstream side, 6 & 7 on upstream side.	
40037	NORTH FORK BRIDGE	1	Deck and Joints have spalling at Pier 2 joint, Span 3 in-span hinge joints, Pier 8 joint, and Span 8. Remove loose / delaminated concrete, clean exposed rebar, and patch using Urefast or Set 45. (Locations added in 2014, ABK/BTP)	
		2	Repair damaged Span 2 north thriebeam	
		1	Add steel plate extensions to the bearing base plates at Pier 8. 40% of the bearing area has been lost due to the pier rotation.	

APPENDIX C - BRIDGE REPAIRS LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	DESCRIPTION OF REPAIR	COMPLETED & VERIFIED
		2	Trees in Span 5 hinder UBIT inspection of the bridge. Remove trees before inspection in March of 2016.	
		M	Monitor the movement of the piers at the east end of the structure including the tipping of Pier 8 to the east. DAG 2010 - no change.	
40116	OLD HWY 99 at SILVER CK	M	scour under abutment #2, downstream end.	
		2	Mill and fill failing asphalt over utility cut.	
40113	OLD HWY 99 at THOMAS CK	1	Remove and replace rotted abutment walls on both abutments.	
		1	Replace rotten wood bridge rail post at southwest corner of the bridge.	
		1	Multiple nuts loose along bridge rail	15-Sep-15
40044	PIONEER HWY at BIG DITCH	3	Crack seal overlay	
		1	Deck needs vegetation removal and sweep.	
		2	Repair: pressure wash barrier rail - has lots of lichen / moss. See photo.	13-Jul-16
40045	PIONEER HWY at FISHER SL	2	Seal transverse cracks in deck.	
		3	Fill and compact material around catch basin in northeast corner of bridge.	
		1	Remove vegetation along concrete railing.	13-Jul-16
40017	PRAIRIE RD FRIDAY CK	2	Spalls on upstream curb.	
		3	Minor settling in westerly approach. Dig out and/or patch.	09-Sep-15
		3	Brush cut around abutments	09-Sep-15
		M	Clear debris upstream	
40015	PRAIRIE RD S at SAMISH R	2	Tighten cable on NW ET guardrail.	
		2	Add additional rip rap to north bank, downstream 15'.	
		3	Clear vegetation around abutments. (watch out for bees!)	23-Sep-15
		3	Patch bridge deck	23-Sep-15
40016	PRAIRIE RD W at SAMISH R	2	NW section of guardrail damaged and post leaning.	
		2	Sweep Deck	23-Sep-15
		M	Scour protection damaged during high water event - Monitor stability	
40031	PULVER ROAD at JOE LEARY	1	Seal deck with a membrane, to prevent further spalling and corrosion of the rebar. See photo.	
		1	Paint bridge rails and posts. See photo.	
		M	Monitor the south abutment soil migration, there is a gap between the abutment cap and the ground. Piles are showing.	
		3	Repair Bridge Rail on southeast corner of bridge, it appears to have been struck.	
		M	Numerous vertical cracks in all girders. Continue to monitor for spreading.	
40039	RAINBOW BRIDGE	2	Replace the missing bird screens at the following locations: U5W, U8W, U9W, U13W, U6E, U8E, U11E, and U12E (U8W, U13W, U6E, U8E, and U11E added 4/13/2010, DAG/CRT).	
		1	Remove loose and delaminated concrete from deteriorating patching and spalled areas in the open concrete joints. Clean and paint exposed reinforcement, and patch with an epoxy based compound or other approved material. Do not use asphalt.	
		M	Monitor cracking of welds for connection of the lateral cross-bracing to the bottom flanges of the stringers in Panels 5, 8, and 15. If cracks propagate into base metal, take corrective action to stop further propagation. DAG 2012: No change.	
		1	Reposition the bronze bearing plates at Bearing 4-17C and Stringer Bearing 5A that extend beyond the bearing base plates. Add a keeper bar to the bearing plates to prevent the bronze plate from "walking out" after repositioning.	
		1	Remove debris from around the bearings at Piers 4 and 5 and at Span 4, Panel Points 4 and 17. Clean and remove laminar and pack rust down to solid steel and paint with a rust inhibitor.	
		2	Remove paint and dirt which is covering arch at the Pier 4 and 5 footings. Clean to bare steel and paint.	
		1	Remove loose and delaminated concrete from spalled areas in the deck. Clean and paint exposed reinforcement, and patch with an epoxy based compound or other approved material. Do not use asphalt Spalled areas are located in: Span 4, Panel 2 southbound lane.	
		1	At the following locations, drill out the broken or missing rivets and replace with a an A325 bolt: West arch south face of the Panel Point 3 strut connection. (Two rivets) West arch U10 to U11 south face splice. (Two rivets)	
		1	Clean all the open panel joints over the floor beams and re-seal them with poured rubber or other flexible joint compound. (Repair re-written, 4/21/14, GAS/PFK)	
		1	At the top rib of the east arch, between U6 and U7, locate the end of the crack that is extending into the rib with dye penetrant Stop drill a 13/16" diameter hole centered at the end of the crack. Provide a 3/4" A325 bolt.	
		M	Monitor cracking around welded access holes in top rib of arch. At the east arch between U6 and U7, the cracking has spread into the arch.	
40094	ROCKPORT CASC at ILLABOT	3	Pothole on west end of bridge WB lane	

APPENDIX C - BRIDGE REPAIRS LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	DESCRIPTION OF REPAIR	COMPLETED & VERIFIED
		2	AC level eastern approach	
		3	Replace rubber joints	
40095	ROCKPORT CASC at JORDAN	M	Rip-rap protection	
40083	S SKAGIT HWY at CUMBERLA	3	Guardrail - Replace missing blockout at NW quadrant transition section	22-Jul-16
		M	Channel has been rerouted downstream of bridge - MONITOR	
		2	Replace 2 missing object markers on south end of bridge	22-Jul-16
		2	Paint rail posts	
40081	S SKAGIT HWY at DAY CR	3	Remove debris from mid channel	22-Jul-16
		3	Wire brush and patch exposed rusty rebar in the girders	
		2	Remove vegetation from around abutments	
		M	Debris jam under span 3 - Monitor	
		2	Repair failing deck patches.	
		1	Patch exposed rebar in deck - 2'	
		2	Replace missing nuts on guardrail left upstream approach rail.	22-Jul-16
40089	S SKAGIT HWY at FINNEY	2	Pier Protection: repair slipped riprap armor on Piers 2 and 3.	20-Jul-16
		1	Remove woody debris blocking conveyance through span 1	20-Jul-16
		1	Remove woody debris around pier 2, scour damage.	20-Jul-16
		M	Monitor channel migration: stream is unstable, and has switched rapidly from the R bank to the L bank. Consider installing river training devices. REPAIR.	
40082	S SKAGIT HWY at LORETTA	3	Paint rail posts	
		2	Wire brush and patch or paint rusty rebar on girders.	
		3	Guardrail - 2nd transition post in NE Quad is beginning to rot.	
		1	Guardrail - replace 1st transition post in SE Quad	
40086	S SKAGIT HWY at MILL CR	1	Replace damaged wood guardrail posts on upstream side.	
		2	Replace damaged guardrail - End Treatment, Southeast quadrant	
		2	Patch exposed rebar in the girders.	
		3	Sweep deck	20-Jul-16
		1	Remove woody debris from under bridge.	
40084	S SKAGIT HWY at O'TOOLE	M	Monitor right bank repair upstream of bridge. Large rootwad cabled to riprap was installed in 9/2003.	
		2	Replace bridge sign/ missing.	20-Jul-16
		3	Level both approaches to bridge. 2012 - approaches marked for patching prior to chip sealing	20-Jul-16
		M	Scour causing sloughing behind Abut #2. May be causing material loss and dips at the approaches.	
		2	Rails need painting	
40080	S SKAGIT HWY at PARKER	3	Remove debris near the outlet	22-Jul-16
		2	Vegetation : remove sapling trees at left upstream wingwall, see photos.	
40088	S SKAGIT HWY at PRESSENT	2	Cut back vegetation at abut #1	
		1	Resurface / rehabilitate bridge deck	
		2	Replace Type III marker - NE quad	
		3	Paint steel rail posts.	
		M	Upstream channel migration to the east - MONITOR	
40114	SAMISH RIVER BRIDGE	3	Repair missing concrete balluster at NW corner of bridge. Recommend attaching additional rebar to top and bottom connection. Drill 5/8" diameter hole 6" deep for #4 rebar. Secure with epoxy resin. Lap splice #4 bars full height. (Rail designed with o	
		2	The south sliding joint is missing the top plate near the east curb line. There is approximately 5' of loose top plate adjacent to the missing section. Remove the loose section of top plate.	
		1	Span 7 has a shallow spall and exposed rebar. Remove loose or delaminated concrete. Clean exposed rebar, and patch.	
		1	Remove trees at the SW corner of the bridge. They obstruct UBIT operation.	
		1	Reset or replace rocker bearings at Pier 3. Joint is closed and spalling the header.	
		M	Repair cope cracks at the following locations (lengths observed 4/14/10): Stringer 2A at FB 2: 1/2" crack. Stringer 7A at FB 6: 1/4" crack. Recommended repair procedure: - Locate crack termination by dye penetrant testing - Install StopCrackEX bushing a	
		1	Wash sand and debris from bottom cord. Coordinate cleaning before 2016 inspection date.	

APPENDIX C - BRIDGE REPAIRS LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	DESCRIPTION OF REPAIR	COMPLETED & VERIFIED
		1	WSDOT uses the most limiting height within 2 ft of the fogline for posting vertical clearances. The clearance WSDOT posts is 3" less than the minimum clearance measured. Per WSDOT standards: Provide required minimum vertical clearance posting on the an	
40160	SINCLAIR ISLAND DOCK	1	Piers 1 and 2: replace piles and caps, they have reached life expectancy.	
		1	Dock: pressure wash and treat with preservative.	
		1	Float: pressure wash algae off of the concrete, is slippery. Patch spalls in surface. Weld or bolt new steel to edges to hold theh panels together. The channel beam has significant section loss.	
		1	Ramp: pressure wash and treat with preservative.	
40070	SKAGIT RIVER MARBLEMOUNT	1	Remove spalled and delaminated patching material from the spalled area at the south end over Panel Point 13. Patch back with an approved material.	
		0	Replace split spacer block at NE corner.	
		1	Repair or replace the 20 ft length of damaged guardrail at the NW corner	
		1	Remove debris from upstream face of Pier 4. This is a recurrent problem. Consider the installation of a shark or debris deflector.	
		1	Remove loose or spalled concrete from the spalled deck surface over Span 1. Clean and paint any exposed rebar and patch with an approved material.	
		2	Small trees and brush need to be cut back and maintained at the SW corner.	
		1	Remove debris and clean lower truss panel points prior to next inspection in 2016.	
40008	SOUTH FORK BRIDGE	1	Contact owner of utility and notify them of leak at east abutment	
		M	Monitor bolts at Girders 1C and 2A. Loose bolts in bottom laterals at Girder 2A were tightened, but not torqued. (No change in 2008 - RGP).	12-Apr-10
		M	Monitor movement of PCBs at diaphragms over Pier 4,Pier 5, Pier 7, Pier 8 and Pier 9.	01-May-08
		2	Girder 4C has delamination in the prestressing at Pier 4. Remove the loose concrete and apply a rust inhibitor to prevent further corrosion of prestressing strands.	
40002	SWAN ROAD BRIDGE	2	Remove beaver dam and relocate	
		1	Raise approach rail to minimun height.	
		2	Depression in deck over upstream pile. Monitor for settlement	
		3	Paint steel diaphragm / cross bracing.	
		M	Two large trees fallen upstream of bridge. MONITOR	
		2	A/C level approaches, big dip in eastbound lane.	
40052	TAYLOR RD at WALKER CK	2	Repair scour hole upstream of bridge.	
		M	Monitor bridge after high water event.	
		2	Repair rip rap under bridge - gabion basket has been undermined	
40030	THOMAS RD at SAMISH R	3	Remove barb wire fence from under bridge. Restricting access.	
		M	Repair material loss at right abutment	
		2	Rails need to be upgraded.	
40093	UPPER FINNEY CREEK BR.	3	Sweep deck / clear drains	
40062	UTOPIA RD at BLACK SL	3	Level the right approach in the east bound lane.	
		2	Patch spalling occuring at the outside girder joints over pier 2	
		1	Remove vegetation at end of bridge	22-Jul-15
			LOCAL AGENCY BRIDGES	
000000001	RIVERSIDE BRIDGE	0	Install access cover to luminaire in Span 4.	
		2	Remove transient living area from Pier 2.	
		2	Remove material / debris from assembly joint seal	
		2	Remove debris around bearing pad under Girder 1A	
		3	Repair utility casing between Girder 5E & 5F	
		0	A utility bracket on the north side of Pier 5, supporting the 24" waterline, has slipped.	
		1	Remove timber debris accumulating around piers in water.	
		1	Shear key at Pier 5 was not built as designed. Provide full support to Girder H at Pier 5.	
000000002	Hoag Steward Overpass	1	Clean out debris from joints between bridge and slabs and replace joint fillers	
		2	Pressure wash moss off sidewalks.	07-Oct-15
000000003	Eleanor Lane A	1	Pedestrian Rail on south side of bridge is damage and has come lose at the base due to broken welds in two places.	
000000005	Landmark Drive	3	Pressure wash sidewalks and remove weeds/vegetation	
000000006	Eaglemont Drive	M	Monitor the shift of stream toward the South footing (Photo SI-5).	
		2	Repair uplifting of the sidewalk panels and spalls in curbing. (Photo SI-25)	
		M	Monitor the crushing and bulging of the gabions. (Photo SI-20)	
		2	Repair the settlement at South East corner at Roadway sidewalk (Photo SI-6)	

APPENDIX C - BRIDGE REPAIRS LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	DESCRIPTION OF REPAIR	COMPLETED & VERIFIED
000000007	J off Beaver Pond Dr. S.	2	Trim vegetation back from inlet and outlet to allow for conveyance and inspection.	14-Oct-15
		2	Clean material from culvert	14-Oct-15
000000008	Beaver Pond Dr South	3	Tighten Utility Hangers on black sewer pipe and others.	
000000009	Beaver Pond Dr North B	2	Crack seal at deck/approach slab joints.	
000000010	Olympic Lane	3	Crackseal roadway over abutment joints and approach slab joints.	
000000011	Beaver Pond Dr North A	2	Crack seal at abutment joints and approach slabs.	
BURLINN-2	NORTH BURLINGTON BLVD	2	Repair: Guardrail terminal on the southeast corner of bridge, appears to have been hit.	
		2	Repair: Approach rail damage, rail posts tighten loose bolts that secure posts to box culvert on underside.	
BURLINN-3	GOLDENROD BRIDGE	3	Tighten nuts on transition rails	
		2	Sweep deck and clean compression seals of debris	23-Sep-15
		1	Repair Guardrail Terminal South east corner of rail, appears to have been hit.	23-Sep-15
CONCRETE1	BAKER RIVER	2	Remove ivy from pier wall at Pier 2.	
		M	Monitor scour at Pier 2 which is undermined at the NE corner. Minor change in 2013	
		3	Install timber rail board at the SE approach.	