



SKAGIT COUNTY DEPARTMENT OF PUBLIC WORKS

2018 ANNUAL BRIDGE REPORT



The new Burlington Northern Overpass, a grade separated railroad crossing located on Old Highway 99 North.

SUBMITTED MARCH 2019

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Submitted: March 2019

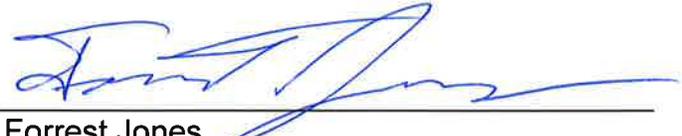
This bridge report is prepared annually by the Transportation Section of Skagit County Public Works' Engineering Division to fulfill requirements of the Washington Administrative Code (WAC) 136-20-060. The WAC requires the County Engineer's report of bridge inspections as follows:

"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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TABLE OF CONTENTS

ACRONYMS.....	4
EXECUTIVE SUMMARY.....	5
BRIDGE INVENTORY SUMMARY.....	7
BRIDGE INSPECTION PROGRAM, FINDINGS AND RECOMMENDATIONS.....	10
REPLACEMENT & REHABILITATION.....	11
MAINTENANCE & REPAIR.....	12
BRIDGE TERMINOLOGY.....	13
ELEMENTS OF A BRIDGE.....	15
SKAGIT COUNTY BRIDGE LOCATION MAP.....	16
APPENDIX A – BRIDGE INVENTORY.....	17
APPENDIX B – ROUTINE & SPECIAL INSPECTION SCHEDULE.....	21
APPENDIX C – BRIDGE MAINTENANCE LIST.....	25

ACRONYMS

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

ADT	Average Daily Traffic
BIRM	Bridge Inspection Reference Manual
BRAC	Bridge Replacement Advisory Committee
CFR	Code of Federal Regulations
FHWA	Federal Highway Administration
FO	Functionally Obsolete
HBRRP	Highway Bridge Replacement and Rehabilitation Program
NBIS	National Bridge Inventory System
RCW	Revised Code of Washington
SHV	Specialized Haul Vehicle
SD	Structurally Deficient
SID	Structure Identification Number
SR	Sufficiency Rating
UBIT	Under-Bridge Inspection Truck
WAC	Washington Administrative Code
WSBIM	Washington State Bridge Inspection Manual
WSBIS	Washington State Bridge Inventory System
WSDOT	Washington State Department of Transportation
TIP	Transportation Improvement Program



North Fork Bridge (Best Road)

EXECUTIVE SUMMARY

The 2018 Annual Bridge Report complies 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 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 an 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 is 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) or less 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 worse must be given for deck geometry, under clearance, approach roadway alignment, structural evaluation, or waterway adequacy. FO is a legacy classification and FHWA is no longer tracking this measure.

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.



Elevation view of the newly constructed Burlington Northern Overpass located along Old Hwy 99 North

HIGHLIGHTS from this bridge inspection season include:

- Skagit County currently has 110 structures in the National Bridge Inventory
- 71 bridge inspections were performed in Skagit County.
 - 51 routine inspections performed by Skagit County Public Works
 - 1 performed for Local Agency
 - 20 inspections performed by the State on 11 different bridges
 - 10 Routine: 8 UBIT, 2 boat
 - 10 Special: 8 Fracture Critical¹, 2 Underwater
- Three new bridges were constructed in 2018 and added to the National Bridge Inventory:
 - **Burlington Northern Overpass:** located on Old Hwy 99 North
 - **Ryan Crossing:** located on Rockport-Cascade Road
 - **Hollow Cedar:** located on Rockport-Cascade Road



Hollow Cedar Bridge looking downstream

- Skagit County has 6 structurally deficient bridges:

BRIDGE NUMBER	BRIDGE NAME	DEFICIENCY	FUNDING STATUS
40152	ANACORTES FERRY DOCK	Girder Condition	Fully funded, Ferry Prog/local match - Construction in 2020
40153	GUEMES FERRY DOCK	Apron/Gusset Plate	Fully funded, local funds Construction in 2019
40114	SAMISH RIVER BRIDGE	Deck/Bearings	Fully funded, Fed Bridge Program - Construction in 2019
40115	FRIDAY CREEK BRIDGE	Deck	Fully funded, Fed Bridge Program Construction in 2019
40029	BAY VIEW-EDISON at JOE LEARY	Deck	Not eligible for grant funding
40013	F&S GRADE at SAMISH RIVER	Deck	Not eligible for grant funding.

- Currently, Skagit County has 16 Functionally Obsolete bridges – these bridges no longer meet the standard for either roadway design or waterway adequacy.

¹ Fracture Critical – A steel load path member in tension, or with a tension element, whose failure would probably cause a portion or the entire bridge to collapse.

BRIDGE INVENTORY

Skagit County Road Bridges:

As of December 31, 2018, Skagit County has 110 bridges in the National Bridge Inventory System (NBIS). The current inventory includes:

- 5 culverts (2 corrugated metal, 3 concrete)
- 2 predominately made of timber
- 11 predominately made of steel
- 92 predominately made of concrete
- 12 of the 110 bridges are “High Cost Inspections” requiring special inspection needs
- 6 of the 12 “High Cost Inspection” bridges are fracture critical

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

High Cost and Fracture Critical Bridges:

Skagit County currently has 12 structures that require specific access assistance, equipment and professional services during the inspection process. We refer to these inspections as “high cost inspections” that typically involve three types of special inspection: (1) **Under-Bridge Inspection Truck (UBIT)** is required for bridges that cannot be given an adequate visual inspection from the ground. (2) Steel bridges with Fracture Critical Members (FCM) may require special inspection equipment. (3) Underwater inspections involve divers for bridges with piers that extend below ordinary low-water levels. See “Appendix B – Routine & Special Inspection Schedule” for details on inspection frequencies and schedules for all of our UBIT and special bridge inspections).

Skagit County contracted with the State Bridge Preservation Office to perform twenty high cost inspections in 2018 including eight fracture critical inspections and two underwater inspections.



UBIT inspection on South Fork Bridge

Local Agency Bridges:

Skagit County 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 routine inspection services on 1 city bridge in 2018 and no high cost inspections were needed.

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

Short Span Bridges:

Short span bridges are defined as spans that are 20-feet or less in length and over 6-feet for timber structures and over 8-feet for steel and concrete structures. Even though inspection reports and bridge information for short span bridges are not reported to WSDOT or FHWA, Skagit County currently has two short span structures inventoried with plans to add more crossings that meet the short span definition, like Gilligan Creek pictured to the right. Once inventoried, Skagit County can schedule routine inspections and operate these crossings the same as the larger, federally reported bridges in our inventory.



Gilligan Creek crossing (short span) under South Skagit Hwy



Cascade Trail Bridge over Jones Creek

Parks Department Bridges:

Skagit 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 as staffing and work load allows.

Load Restricted Bridges:

The North Fork Bridge is a viable route for legal limit loads. However, due to fracture critical status, overweight load permits are reviewed on a case by case basis. County staff (along with contracted consultants) review axle loading, number of axles, and spacing, and how the load is distributed among those axles to determine if the load is safe to cross any bridges located along the route.



Example of a superload that requires bridge loading analysis.

In 2018, Public Works approved 65 Oversized/Overweight Permit applications; 20 of those required review of a load over our bridges. New software was acquired in 2016 to help evaluate overweight loads and reduce the need for outside consultant help.

The Upper Finney Creek Bridge was damaged in 2012 due to a suspected overweight load crossing the bridge. A shear crack was found in one of the two girders at the mid-span of the bridge. The bridge girder was repaired and re-opened to traffic but remains restricted to loads of no greater than 60,000 LBS or 30 tons. Efforts to acquire funding, including Federal Lands Access Program and HBRRP, are being made to modify the bridge to increase its service life and load carrying capacity.



Example of a specialized hauling vehicle

In 2017, WSDOT introduced new load posting requirements issued by FHWA regarding the load rating and posting of Specialized Hauling Vehicles (SHV) and Emergency Vehicles for bridges contained in the National Bridge Inventory. SHVs, also known as Single Unit Vehicles (SUV), are trucks without trailer with multi-closely spaced axles such as dump trucks, construction vehicles, and hauling trucks introduced during the last decade. There are four SHV trucks, SU4 to SU7 (Single Unit 4 axles to Single Unit 7 axles).

FHWA determined that two emergency vehicle configurations, EV2 and EV3, produce load effects in bridges that envelop the effects resulting from typical emergency vehicles that are covered by the Fixing America's Surface Transportation Act (FAST Act) (Pub. L. 114-94). Due to all these new vehicle configurations, FHWA has mandated that all NBI bridges be load rated again to include these vehicle types. Depending on the current load capacity, NBI bridges were divided into two categories: Category 1 consists of bridges that have a Type 3 Vehicle Rating Factor of less than 1.3. Skagit County identified 28 bridges that required immediate rerating, which have been completed. 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 4 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 salmon restoration project that will also increase conveyance and provide flood relief to nearby residents. The Engineering Division is the contract administrator for the Washington State Recreation Conservation Office funding. The design is complete, and Salmon Recovery Funding Board money will be sought out for construction.

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 24 months (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 will 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) and Washington division bridge engineers to 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 a multitude of 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 other factors. Only structurally deficient (SD) bridges with a sufficiency rating of less than 40 are eligible for replacement funding. SD bridges with a sufficiency rating of less than 80 are eligible for rehabilitation funding. As of December 31, 2018, the County has four bridges that meet these criteria (previously mentioned on Pg 6).

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 20-feet in length or less, 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 documents projects that have been completed, those that are in the current Six Year Transportation Improvement Program, and those bridges that are candidates for future replacement/rehabilitation.

REPLACEMENT, & REHABILITATION PLAN FOR DEFICIENT BRIDGES

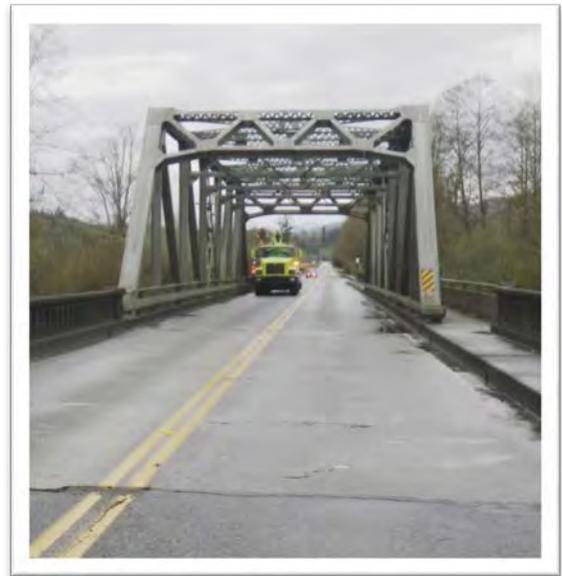
The County's current focus is to replace or rehabilitate bridges that are classified as Structurally Deficient or Functionally Obsolete per NBIS. Public Works staff received or are currently seeking funding for a number of bridges that are in need of replacement, rehabilitation and/or resurfacing, including,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

Replacement

- Currently, staff have not identified any bridges that are eligible and/or in need of replacement.

Rehabilitation

- Upper Finney Creek Bridge #40093
 - Public Works repaired a damaged girder on the Upper Finney Creek Bridge but it still does not have the load carrying capability to handle today's logging industry vehicles
 - Applied to Federal Lands Access Program (FLAP) and Highway Bridge Replacement/Rehabilitation Program (HBRRP) to add a third girder that would strengthen the superstructure and increase the load carrying capabilities. Funding has not been awarded but staff will continue to apply.
- Samish River Bridge on Old Hwy 99 #40114
 - Due to frozen rocker bearings, the bridge deck experiences compression stress which results in failing joint headers, cracks, and spalling with exposed rebar 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 2019



Samish River Bridge deck during inspection

MAINTENANCE AND REPAIRS

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

Bridge Maintenance Projects:

This past year, the Public Works Department accomplished the cleared debris that was impeding conveyance and causing scour around several culverts and bridges including:

- **South Skagit Hwy at Mill Creek** – Due to lack of conveyance under the bridge, combined with a large rain event, Mill Creek began scouring the subgrade underneath and behind the west bridge abutment. The Environmental Services Team, with help from the Road District #3 crew, were able to quickly permit, excavate out the approach roadway behind the abutment, re-armor around the abutment, backfill the scoured out area, and asphalt patch the disturbed area.
- 
- The Environmental Services Team secured 5-year programmatic Hydraulic Project Approvals for the removal of debris around certain bridges that continually experience debris accumulation. This, along with a contract with WSDOT for debris removal services, will significantly improve our ability to clear debris blockages before scour damage can occur on the bridge piers and adjacent banks.

General Maintenance:

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

- Patching decks due to spalling or material loss
- Replacing the loss of armor/rock around the abutments
- 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

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.

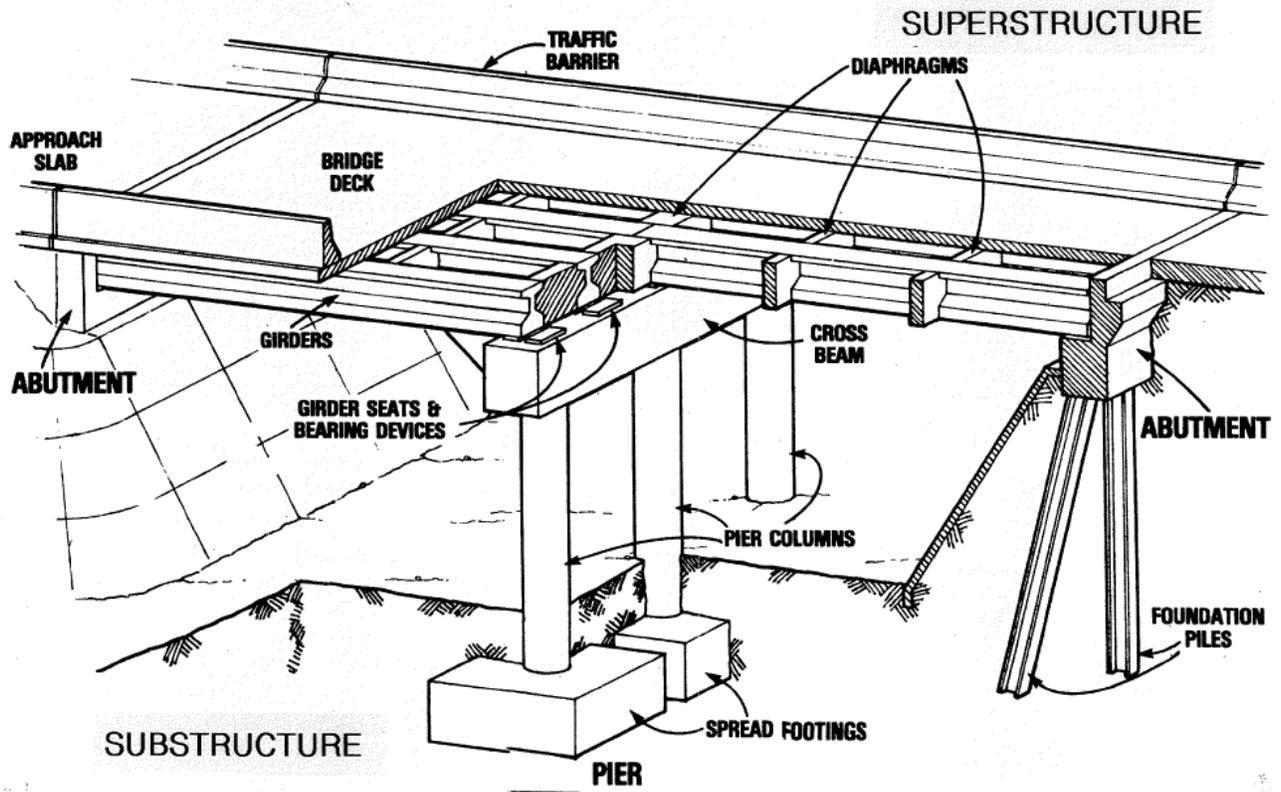
Trestle—a bridge structure consisting of beam spans supported upon bents. Trestles are usually made of timber and have numerous diagonal braces, both within each bent and from bent to bent.

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

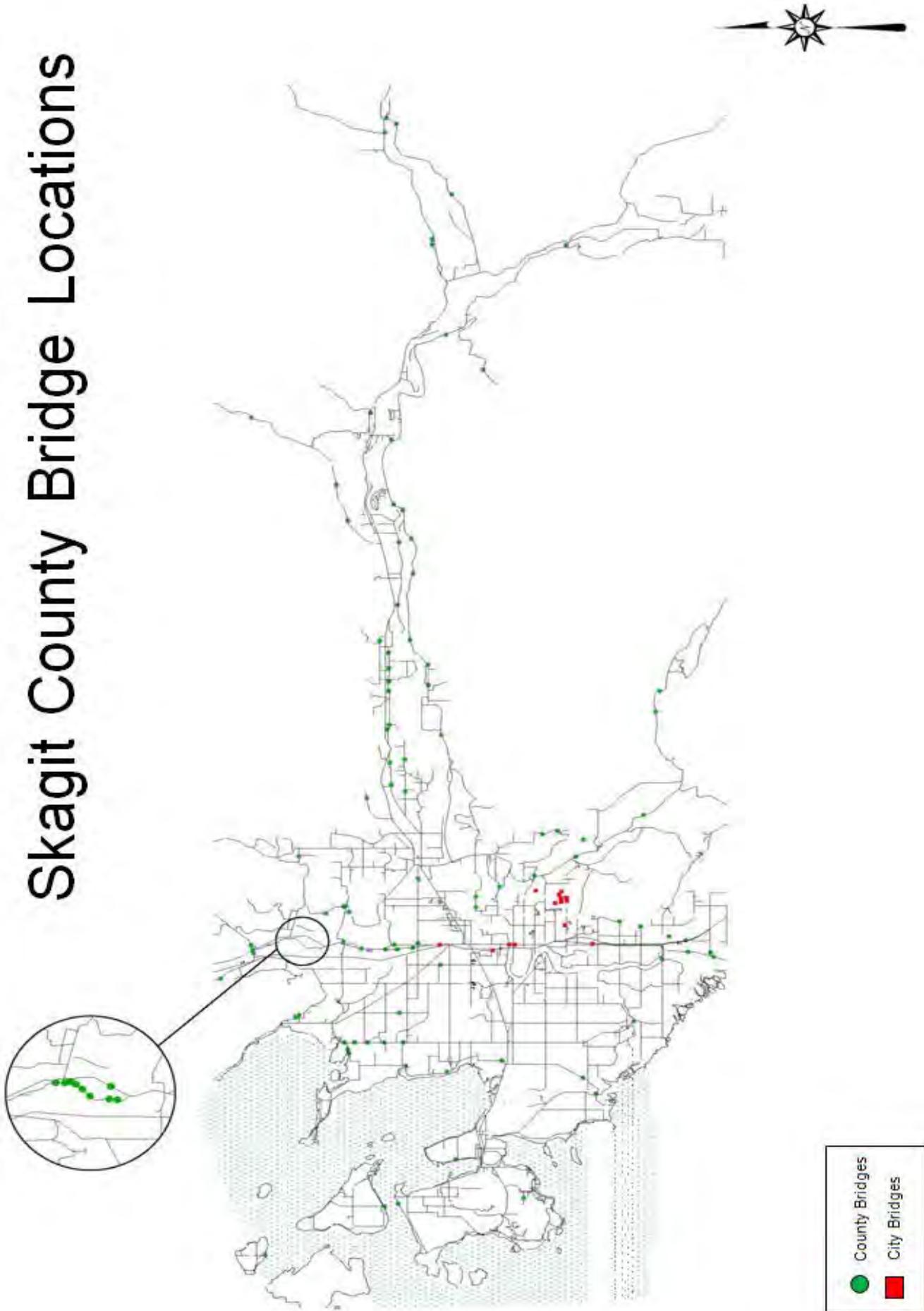
Wingwall—walls that slant outward from the corners of the overall bridge that support roadway fill of the approach.

ELEMENTS OF A BRIDGE

BASIC BRIDGE PARTS



Skagit County Bridge Locations



APPENDIX A - BRIDGE INVENTORY

BRIDGE NUMBER	BRIDGE NAME	LENGTH (Feet)	WIDTH (Feet)	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	YEAR BUILT/ REBUILT	SUFFICIENCY RATING
40153	GUEMES ISLAND FERRY DOCK	165	15	502	10	Steel	1981	24.10 (SD)
40152	ANACORTES FERRY DOCK	205	15	502	10	Steel	1976	24.62 (SD)
40093	UPPER FINNEY CREEK BRIDGE	217	14.9	38	10	Concrete	1952	48.6 (FO)
40113	OLD HWY 99 at THOMAS CK	52	30	4976	8	Timber	1934	54.9
40070	SKAGIT RIVER MARBLEMOUNT	662	20	556	6	Steel	1930	55.89 (FO)
40039	RAINBOW BRIDGE	797	24	4967	3	Steel	1957	56.76 (FO)
40063	LYMAN HAMILTON HWY at CHILDS CK	32	24	726	7	Concrete	1948	58.78
40031	PULVER ROAD at JOE LEARY	39	24	840	10	Concrete	1955	59.15
40037	NORTH FORK BRIDGE	726	24	4276	7	Steel	1959	59.31 (FO)
40156	CEDARDALE RD at CARPENTER	83	36	584	13	Timber	1934	60.81
40047	LK CAVANAUGH RD at PILCHUCK	56	28	493	11	Concrete	1970	61.34
40018	FRIDAY CREEK 1ST BRIDGE	61	20	134	9	Concrete	1962	61.83
40055	PRAIRIE RD E at SAMISH R	75	24.4	823	8	Concrete	1956	62.05
40131	LYMAN HAMILTON HWY at MANNSE	52	26	254	5	Concrete	1954	62.81
40020	FRIDAY CREEK 3RD BRIDGE	61	20	134	9	Concrete	1961	62.83
40021	FRIDAY CREEK 4TH BRIDGE	61	20	134	9	Concrete	1961	62.83
40114	SAMISH RIVER BRIDGE	385	24	3700	13	Steel	1934	63.49 (SD)
40072	CASCADE R RD at MONOGRAM	22	26	280	11	Concrete	1979	63.78
40001	LAKE VIEW BLVD at NOOKACHAMPS	77	25.5	643	7	Concrete	1954	64.21
40151	NICHOLSON RD at CHILDS CR	29	15	40	5	Concrete	1979	64.39
40115	FRIDAY CREEK BRIDGE	122	26	1974	9	Concrete	1956	64.6 (SD)
40090	DALLES BRIDGE	506	26	2633	6	Steel	1952	64.69 (FO)
40084	S SKAGIT HWY at O'TOOLE	66	24	631	9	Concrete	1959	65.37
40142	CAMPBELL LAKE OUTLET	19	20	78	4	Timber	1962	66.37
40008	SOUTH FORK BRIDGE	908	28	5294	8	Steel	1972	66.38
40004	FRANCIS RD at SLOUGH	50	24	4395	5	Concrete	1958	68.38 (FO)
40099	GOVERNMENT BR	304	14	140	5	Steel	1930	69.35 (FO)
40077	CASCADE R RD at MINERAL	71	18	280	11	Concrete	1986	71.35 (FO)
40075	CASCADE R RD at SIBLEY	23	24	280	11	Concrete	1997	71.53
40076	CASCADE R RD at HARD CR	46	17.7	280	11	Concrete	2016	72.64 (FO)
40060	BURMASTER RD at COAL CK	26	24	229	5	Concrete	1958	72.81
40023	FRIDAY CREEK 6TH BRIDGE	61	24	170	4	Concrete	1963	72.83
40024	FRIDAY CREEK 7TH BRIDGE	61	24	170	4	Concrete	1964	72.83
40101	BAKER LAKE RD at BEAR CK	85	26	430	13	Concrete	1966	73.5
40109	LAKE SAMISH RD at FRIDAY CK	53	26	5132	7	Concrete	1965	73.83 (FO)
40082	S SKAGIT HWY at LORETTA	85	24	631	5	Concrete	1961	74.46
40130	LYMAN HAMILTON HWY at RED CABIN	22	26	250	9	Concrete	1954	74.93
40132	LYMAN HAMILTON HWY at JONES CK	52	26	250	9	Concrete	1955	75.93
40003	FRANCIS at NOOKACHAMPS	130	28	4395	5	Concrete	1979	76.75
40116	OLD HWY 99 at SILVER CK	38	25	1974	9	Concrete	1934	76.99
40038	LACONNER WHITNEY at SL	68	26	5084	5	Concrete	1962	77.01 (FO)
40036	FARM-TO-MARKET JOE LEARY	72	26	1760	8	Concrete	1950	79.31
40028	BAY VIEW-EDISON at SAMISH R	223	26	784	6	Concrete	1965	79.6
40043	CONWAY HILL @ CARPENTER	58	14	77	9	Concrete	1980	79.94
40088	S SKAGIT HWY at PRESSENTIN	85	27	631	5	Concrete	1966	80.74
40081	S SKAGIT HWY at DAY CR	160	24	631	5	Concrete	1961	80.76
40083	S SKAGIT HWY at CUMBERLAND	50	24	631	5	Concrete	1961	80.76
40026	FARM-TO-MARKET N DITCH	32	26	1206	8	Concrete	1951	81.12
40141	BAYVIEW STATE PARK	62	26	686	7	Concrete	1969	81.61 (FO)
40052	TAYLOR RD at WALKER CK	42	16	52	13	Concrete	1985	81.94 (FO)
40140	BAKER LAKE RD at E GRANDY	41	28	694	12	Concrete	1968	82.02
40034	FARM-TO-MARKET SAMISH R	158	26	1189	8	Concrete	1963	82.16
40106	LAKE SAMISH RD at BEAR CK	50	24	306	6	Concrete	1959	82.49

BRIDGE NUMBER	BRIDGE NAME	LENGTH (Feet)	WIDTH (Feet)	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	YEAR BUILT/ REBUILT	SUFFICIENCY RATING
40066	HAMILTON CEMETERY at MUDDY CK	50	26	258	9	Concrete	1965	84.25
40002	SWAN ROAD BRIDGE	126	28	1011	9	Concrete	1976	84.32
40046	LK CAVANAUGH RD at BEAR	51	28.5	493	11	Concrete	1967	84.6
40042	MILLTOWN at BIG DITCH	50	24.2	408	9	Concrete	1957	84.78
40029	BAY VIEW-EDISON J.LEARY	101	30	496	8	Concrete	1955	84.9 (SD)
40017	PRAIRIE RD FRIDAY CK	78	28	2406	9	Concrete	1975	85.65
40032	FARM-TO-MARKET S DITCH	21	26	1331	6	Concrete	1950	86.16
40033	FARM-TO-MARKET at NEUMAN	60	26	1189	8	Concrete	1950	86.22
40065	CONRAD RD at SUTTER CK	73	15.7	91	3	Concrete	2011	86.23
40157	BENSON RIDGE LN	52	30	46	4	Timber	1983	86.3
40027	BAY VIEW-EDISON at SAMISH SL	38	26.8	784	6	Concrete	1965	86.47
40074	CASCADE R RD at MARBLE	120	26	280	11	Concrete	1982	86.71
40086	S SKAGIT HWY at MILL CR	41	28	631	9	Concrete	1969	86.99 (FO)
40061	MINKLER RD at WISEMAN CK	40	28	891	7	Concrete	1967	87.35 (FO)
40126	MARCHS POINT PIPELINE	44	28	1134	15	Concrete	1960	87.49
40161	FLINN ROAD BRIDGE	48	19.5	20	0	Concrete	2006	87.8
40073	CASCADE R RD at LOOKOUT	191	28	125	5	Steel	1981	87.9
40016	PRAIRIE RD W at SAMISH R	104	28	1559	9	Concrete	1975	89.04
40015	PRAIRIE RD S at SAMISH R	83	28	1559	9	Concrete	1974	89.16
40117	ALGER CAIN LK at SILVER CK	102	34.2	5113	6	Concrete	1992	89.33
40035	BAY VIEW-EDISON (Indian)	71	34.1	1155	8	Concrete	1992	89.68
40062	UTOPIA RD at BLACK SL	141	28	89	14	Concrete	1984	90.13 (FO)
40120	BAKER LK RD at W GRANDY	61	28	694	12	Concrete	1968	90.23
40067	CAPE HORN RD at ALDER CK	41	28	187	5	Concrete	1972	90.26
40011	GREEN RD at THOMAS CK	51	24	124	4	Concrete	1958	90.48
40089	S SKAGIT HWY at FINNEY	120	26	631	5	Steel	1954	90.61
40041	E PETER JOHNSON RD	54	24	58	8	Concrete	1981	92.46
40005	NOOKACHAMP HILLS CULVERT	30	0	220	4	Steel	2008	92.95
40163	HELMICK RD at RED CK	150	36	759	7	Concrete	2007	93.47
40080	S SKAGIT HWY at PARKER	26	-	1584	11	Concrete	1996	93.74
40044	PIONEER HWY at BIG DITCH	81	37	8445	8	Concrete	1987	93.76
40045	PIONEER HWY at FISHER SL	114	37.2	8445	8	Concrete	1987	93.95
40013	F&S GRADE SAMISH RIVER	102	28	500	9	Concrete	1974	94.3 (SD)
40009	COOK RD at DD14 DITCH	38	40	12296	9	Concrete	2000	94.33
40112	NEFFS CROSSING	108	41	4384	11	Concrete	2006	94.34
40012	COOK RD at BRICKYARD CK	54	44	10863	8	Concrete	2000	94.4
40094A	ROCKPORT CASCADE at ILLABOT	93	28	197	7	Concrete	1970	94.49
40129	LYMAN HAMILTON HWY at MUDDY	65	30	194	9	Concrete	1997	95.07
40068	CAPE HORN RD at GRANDY	51	28	342	7	Concrete	1967	95.22
40159	MINKLER RD at COAL CK	29	36	933	11	Concrete	1984	95.78
40030	THOMAS RD at SAMISH R	91	28	221	15	Concrete	1973	96.29
40092	CONCRETE-SAUK VALLEY at MILLER	25	-	1036	13	Concrete	1999	96.98
40071	CASCADE RIVER BRIDGE	180	26	241	10	Concrete	1967	97.6
40025	FRIDAY CREEK 8TH BRIDGE	59	28	170	4	Concrete	1977	97.61
40019	FRIDAY CREEK 2ND BRIDGE	74	28	134	9	Concrete	1979	97.63
40085	S SKAGIT HWY at DAVIS SL	63	34.9	524	9	Concrete	2014	97.71
40054	KNAPP RD at NOOKACHAMPS	73	28	340	9	Concrete	1977	97.72
40051	BEAVER LAKE RD at NOOKACHAMPS	73	28.6	144	9	Concrete	1977	97.73
40095	ROCKPORT CASCADE at JORDAN	56	28	297	10	Concrete	1969	98.21
40014	GRIPP RD at SAMISH R	84	28	664	6	Concrete	1976	98.24
40022	FRIDAY CREEK 5TH BRIDGE	69	28	134	9	Concrete	1977	98.28
40048	LK CAVANAUGH RD CULVERT	21	30	609	15	Steel	1998	98.84
40069	CONRAD RD at SWIFT	38	24	91	2	Concrete	1981	98.96

BRIDGE NUMBER	BRIDGE NAME	LENGTH (Feet)	WIDTH (Feet)	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	YEAR BUILT/REBUILT	SUFFICIENCY RATING	
40164	S LAVENTURE RD	80	50	6973	12	Concrete	2013	99.02	
40094B	RYAN CROSSING	106	28	197	7	Concrete	2018	99.68	
40094C	HOLLOW CEDAR	106	28	197	7	Concrete	2018	99.68	
40162	MCELROY SLOUGH CULVERTS	28	26	40	1	Concrete	2007	99.99	
40110	BURLINGTON NORTHERN OVERPASS	COMING SOON						2018	100
LOCAL AGENCY BRIDGES									
BRIDGE NUMBER	BRIDGE NAME	BRIDGE LENGTH (Feet)	BRIDGE WIDTH (Feet)	AVG DAILY TRAFFIC	TRUCK %	MAIN MATERIAL	YEAR BUILT/REBUILT	SUFFICIENCY RATING	
CITY OF MOUNT VERNON									
MV-10	OLYMPIC LANE	67	22	300	5	Concrete	2004	82.47	
MV-03	ELEANOR LANE A	32	30	400	7	Concrete	2006	82.96	
MV-02	HOAG STEWARD OVERPASS	60	65	21172	7	Concrete	2003	89.73 (FO)	
MV-01	RIVERSIDE BRIDGE	850	60	21172	6	Concrete	2004	90.86	
MV-07	J OFF BEAVER POND DR S	32	24	50	1	Aluminum	2006	94.53	
MV-12	LAVENTURE RD CULVERT	30	44	7327	5	Concrete	2010	99.31	
MV-04	SKAGIT HIGHLANDS PARKWAY	37	0	400	5	Concrete	2003	99.94	
MV-06	EAGLEMONT DRIVE	20	0	500	5	Steel	1995	99.95	
MV-05	LANDMARK DRIVE	51	28	300	5	Concrete	1994	99.97	
MV-08	BEAVER POND DR SOUTH	29	28	300	5	Concrete	2004	99.97	
MV-09	BEAVER POND DR NORTH B	54	28	300	5	Concrete	2002	99.97	
MV-11	BEAVER POND DR NORTH A	42	30	300	5	Concrete	2001	99.97	
CITY OF BURLINGTON									
BURLINN-2	NORTH BURLINGTON BLVD	26	34	5147	10	Concrete	1970	94.76	
BURLINN-3	GOLDENROD BRIDGE	116	40	2346	10	Concrete	2005	99.34	
TOWN OF CONCRETE									
CONCRETE1	BAKER RIVER	269	18	125	5	Concrete	2004	20.9 (FO)	

APPENDIX B - ROUTINE & SPECIAL INSPECTION SCHEDULE

BRIDGE NAME	BRIDGE No.	LOCATION	LAST INSP	INSP FREQ (months)	NEXT INSP	INSP TYPE
FRIDAY CREEK 1ST BRIDGE	40018	.45 MI N OLD HWY 99 N	05/03/2017	24	05/01/2019	Routine
FRIDAY CREEK 2ND BRIDGE	40019	0.59 Miles N. of Old 99	05/03/2017	24	05/01/2019	Routine
FRIDAY CREEK 3RD BRIDGE	40020	0.3 N. of JCT w/ Old 99	05/17/2017	24	05/01/2019	Routine
FRIDAY CREEK 5TH BRIDGE	40022	1.55 Mi N of Old 99 Jct	05/17/2017	24	05/01/2019	Routine
FRIDAY CREEK 6TH BRIDGE	40023	.6 N JCT BURL ALG	05/17/2017	24	05/08/2019	Routine
FRIDAY CREEK 4TH BRIDGE	40021	.4 N JCT BURL ALG	05/18/2017	24	05/01/2019	Routine
FRIDAY CREEK 7TH BRIDGE	40024	2.16 MI N JCT OLD 99 N	05/24/2017	24	05/08/2019	Routine
FRIDAY CREEK 8TH BRIDGE	40025	2.24 MI N JCT OLD 99 N	05/24/2017	24	05/08/2019	Routine
FRIDAY CREEK BRIDGE	40115	4.3 N JCT COOK RD.	05/24/2017	24	05/08/2019	Routine
LAKE SAMISH RD at BEAR CK	40106	2.0 MI NW JCT I-5	05/26/2017	24	05/15/2019	Routine
LAKE SAMISH RD at FRIDAY CK	40109	0.25 E JCT INTER 5	05/26/2017	24	05/15/2019	Routine
OLD HWY 99 at SILVER CK	40116	0.1 Mi South of Alger	05/26/2017	24	05/15/2019	Routine
ALGER CAIN LK at SILVER CK	40117	0.3 MI East of Alger	05/26/2017	24	05/15/2019	Routine
CASCADE RIVER BRIDGE	40071	.04 S JCT CASC.RD	06/07/2017	24	06/05/2019	Routine
S SKAGIT HWY at DAVIS SL	40085	13.9 MI E OF SR-9 JCT	06/07/2017	24	06/05/2019	Routine
CONRAD RD at SUTTER CK	40065	0.59 E JCT SR20	07/26/2017	24	06/05/2019	Routine
MCELROY SLOUGH CULVERTS	40162	MP 2.5 BLANCHARD RD	06/07/2017	24	06/12/2019	Routine
FLINN ROAD BRIDGE	40161	300 Ft E Blanchard Rd	06/08/2017	24	06/12/2019	Routine
THOMAS RD at SAMISH R	40030	0.3 N ALLEN WEST	06/29/2017	24	06/12/2019	Routine
FARM-TO-MARKET JOE LEARY	40036	5.0 N JCT SR 20	06/30/2017	24	06/12/2019	Routine
FARM-TO-MARKET N DITCH	40026	7.7 N JCT SR 20	06/14/2017	24	06/19/2019	Routine
FARM-TO-MARKET S DITCH	40032	7.5 N JCT SR 20	06/14/2017	24	06/19/2019	Routine
FARM-TO-MARKET at NEUMAN	40033	6.1 N JCT SR20	06/14/2017	24	06/19/2019	Routine
FARM-TO-MARKET SAMISH R	40034	5.9 N JCT SR 20	06/14/2017	24	06/19/2019	Routine
PULVER ROAD at JOE LEARY	40031	.6 S JCT SR 11	07/26/2017	24	07/10/2019	Routine
BAYVIEW STATE PARK	40141	3.5 N JCT SR 20	07/26/2017	24	07/10/2019	Routine
BAY VIEW-EDISON J.LEARY	40029	5.8 MI N OF SR-20 JCT	07/27/2017	24	07/10/2019	Routine
BAY VIEW-EDISON (Indian)	40035	0.4 MI N OF SR20	07/27/2017	24	07/10/2019	Routine
UTOPIA RD at BLACK SL	40062	Utopia Rd 0.5 E of Hoehn	07/19/2017	24	07/17/2019	Routine
HELMICK RD at RED CK	40163	1.1 MI N OF SR 20	07/26/2017	24	07/17/2019	Routine
RIVERSIDE BRIDGE	MV-01	0.7 N JCT SR 538	08/01/2017	24	08/07/2019	Routine
BAKER RIVER	CONCRETE1	0.1 N MAIN ST	08/02/2017	24	08/07/2019	Routine
LAKE VIEW BLVD at NOOKACHAMPS	40001	.25 S JCT SR9	08/10/2017	24	08/14/2019	Routine
NOOKACHAMP HILLS CULVERT	40005	.752 ml east of SR 9	08/10/2017	24	08/14/2019	Routine
KNAPP RD at NOOKACHAMPS	40054	0.1 E JCT SR 9	08/10/2017	24	08/14/2019	Routine
COOK RD at DD14 DITCH	40009	0.5 E JUNCTION INTER 5	08/16/2017	24	08/21/2019	Routine
COOK RD at BRICKYARD CK	40012	MP 5.38 COOK RD	08/16/2017	24	08/21/2019	Routine
NEFFS CROSSING	40112	1.0 N JCT COOK RD.	08/16/2017	24	08/21/2019	Routine
OLD HWY 99 at THOMAS CK	40113	1.4 N JCT COOK RD.	08/16/2017	24	08/21/2019	Routine
LACONNER WHITNEY at SL	40038	3.83 S JCT SR 20	09/06/2017	24	09/04/2019	Routine
MARCHS POINT PIPELINE	40126	1.6 N JCT SR 20	09/06/2017	24	09/04/2019	Routine
PRAIRIE RD S at SAMISH R	40015	2.21 Mi E of Old Hwy 99	09/13/2017	24	09/11/2019	Routine
PRAIRIE RD W at SAMISH R	40016	3.8 Mi E of Old Hwy 99	09/13/2017	24	09/11/2019	Routine
PRAIRIE RD E at SAMISH R	40055	0.5 Mi W of SR 9	09/13/2017	24	09/11/2019	Routine
F&S GRADE SAMISH RIVER	40013	0.14 Mi S of PRAIRIE RD	09/20/2017	24	09/18/2019	Routine
GRIPP RD at SAMISH R	40014	0.1 Mi E of Prairie Rd	09/20/2017	24	09/18/2019	Routine
PRAIRIE RD FRIDAY CK	40017	0.17 Mi E of OLD HWY 99	09/20/2017	24	09/18/2019	Routine
E PETER JOHNSON RD	40041	1.0 Miles E. of Cedardale	09/28/2017	24	09/25/2019	Routine
NORTH BURLINGTON BLVD	BURLINN-2	1.02 MI SO OF COOK RD	09/28/2017	24	09/25/2019	Routine
GOLDENROD BRIDGE	BURLINN-3	.3 N. of W. MCCORQUEDALE	09/28/2017	24	09/25/2019	Routine
S LAVENTURE RD	40164	0.5 Miles East of I-5	10/04/2017	24	10/02/2019	Routine
ELEANOR LANE A	MV-03	0.1 E JCT OLD HIGHWAY 99	10/04/2017	24	10/02/2019	Routine
SKAGIT HIGHLANDS PARKWAY	MV-04	0.4 N JCT E DIVISION ST	10/04/2017	24	10/02/2019	Routine

BRIDGE NAME	BRIDGE No.	LOCATION	LAST INSP	INSP FREQ (months)	NEXT INSP	INSP TYPE
HOAG STEWARD OVERPASS	MV-02	RIVERSIDE DR JCT HOAG ST	10/25/2017	24	10/02/2019	Routine
LANDMARK DRIVE	MV-05	EAST OF JCT S WAUGH RD	10/12/2017	24	10/09/2019	Routine
J OFF BEAVER POND DR S	MV-07	0.07 SE JCT PARKVEIW LN	10/12/2017	24	10/09/2019	Routine
OLYMPIC LANE	MV-10	0.02 JCT BEAVER POND DR N	10/12/2017	24	10/09/2019	Routine
BEAVER POND DR NORTH A	MV-11	0.2 N JCT EAGLEMONT DR	10/12/2017	24	10/09/2019	Routine
BEAVER POND DR SOUTH	MV-08	0.5 N JCT EAGLEMONT DR	10/25/2017	24	10/09/2019	Routine
BEAVER POND DR NORTH B	MV-09	AT JCT PARKVEIW LN	10/25/2017	24	10/09/2019	Routine
ANACORTES FERRY DOCK	40152	ANACORTES	10/30/2017	24	10/16/2019	Interim (Girders)
SOUTH FORK BRIDGE	40008	1. W JCT INTER 5	03/19/2018	24	Mar-20	Routine
NORTH FORK BRIDGE	40037	5.5 W JCT INTER 5	03/19/2018	24	Mar-20	Routine
NORTH FORK BRIDGE	40037	5.5 W JCT INTER 5	03/19/2018	24	Mar-20	Fracture Critical
SAMISH RIVER BRIDGE	40114	2.6 N JCT COOK RD.	03/20/2018	24	Mar-20	Routine
SAMISH RIVER BRIDGE	40114	2.6 N JCT COOK RD.	03/20/2018	24	Mar-20	Fracture Critical
CASCADE R RD at LOOKOUT	40073	7.04 E JCT SR 20	03/21/2016	48	Mar-20	Routine/UBIT
GOVERNMENT BR	40099	7.5 N SNO CO BDRY	03/21/2018	24	Mar-20	Routine
GOVERNMENT BR	40099	7.5 N SNO CO BDRY	03/21/2018	24	Mar-20	Fracture Critical
SKAGIT RIVER MARBLEMOUNT	40070	.03 E JCT SR 20	03/26/2018	24	Mar-20	Routine
SKAGIT RIVER MARBLEMOUNT	40070	.03 E JCT SR 20	03/26/2018	24	Mar-20	Fracture Critical
DALLES BRIDGE	40090	1.5 S JCT SR 20	03/28/2018	24	Mar-20	Routine
DALLES BRIDGE	40090	1.5 S JCT SR 20	03/28/2018	24	Mar-20	Fracture Critical
UPPER FINNEY CREEK BRIDGE	40093	04.6 W CONC SAUK RD	04/02/2018	24	Apr-20	Routine
RAINBOW BRIDGE	40039	SWIN SL @ LACONNER	04/04/2018	24	Apr-20	Routine
RAINBOW BRIDGE	40039	SWIN SL @ LACONNER	04/04/2018	24	Apr-20	Fracture Critical
BURMASTER RD at COAL CK	40060	1.2 E JCT MINKLER	05/02/2018	24	May-20	Routine
MINKLER RD at WISEMAN CK	40061	.5 W JCT SR 20	05/02/2018	24	May-20	Routine
MINKLER RD at COAL CK	40159	00.1 MI E SIMS ROAD	05/02/2018	24	May-20	Routine
LYMAN HAMILTON HWY at CHILDS CK	40063	0.8 E JCT SR 20	05/16/2018	24	May-20	Routine
LYMAN HAMILTON HWY at RED CABIN	40130	1.0 W HAMILTON	05/16/2018	24	May-20	Routine
LYMAN HAMILTON HWY at MANNSE	40131	1.7 W HAMILTON	05/16/2018	24	May-20	Routine
LYMAN HAMILTON HWY at JONES CK	40132	2.3 W HAMILTON	05/16/2018	24	May-20	Routine
NICHOLSON RD at CHILDS CR	40151	.1 S JCT SR 20	05/16/2018	24	May-20	Routine
HAMILTON CEMETERY at MUDDY CK	40066	.5 W JCT SR 20	05/23/2018	24	May-20	Routine
CAPE HORN RD at ALDER CK	40067	0.75 E JCT SR 20	05/23/2018	24	May-20	Routine
CAPE HORN RD at GRANDY	40068	2.25 W JCT SR 20	05/23/2018	24	May-20	Routine
LYMAN HAMILTON HWY at MUDDY	40129	0.3 M W HAMILTON	05/23/2018	24	May-20	Routine
BAY VIEW-EDISON at SAMISH SL	40027	0.4 W JCT SR 537	06/13/2018	24	Jun-20	Routine
BAY VIEW-EDISON at SAMISH R	40028	0.5 W JCT SR 537	06/13/2018	24	Jun-20	Routine
CONCRETE-SAUK VALLEY at MILLER	40092	9 MI S of SR 20	06/14/2018	24	Jun-20	Routine
ROCKPORT CASCADE at JORDAN	40095	0.71 SW JCT CASC.	06/14/2018	24	Jun-20	Routine
ROCKPORT CASCADE at ILLABOT	40094A	4.0 E JCT SR 530	06/14/2018	24	Jun-20	Routine
CONRAD RD at SWIFT	40069	0.2 E JCT SR 20	06/20/2018	24	Jun-20	Routine
CASCADE R RD at MONOGRAM	40072	7.37 E JCT SR 20	06/20/2018	24	Jun-20	Routine
CASCADE R RD at MARBLE	40074	8.3 E JCT SR 20	06/20/2018	24	Jun-20	Routine
CASCADE R RD at SIBLEY	40075	10 MI E MARBLEMOUNT	06/20/2018	24	Jun-20	Routine
CASCADE R RD at HARD CR	40076	MP 12.7	06/20/2018	24	Jun-20	Routine
CASCADE R RD at MINERAL	40077	16.02 E JCT SR 20	06/20/2018	24	Jun-20	Routine
S SKAGIT HWY at PARKER	40080	7.5 MI E OF SR-9	07/13/2018	24	Jul-20	Routine
S SKAGIT HWY at DAY CR	40081	9. E JCT SR 9	07/13/2018	24	Jul-20	Routine
S SKAGIT HWY at LORETTA	40082	10. E JCT SR 9	07/13/2018	24	Jul-20	Routine
S SKAGIT HWY at CUMBERLAND	40083	11.5 E JCT SR 9	07/13/2018	24	Jul-20	Routine
S SKAGIT HWY at O'TOOLE	40084	15. E JCT SR 9	07/13/2018	24	Jul-20	Routine
S SKAGIT HWY at MILL CR	40086	17. E JCT SR9	07/13/2018	24	Jul-20	Routine
S SKAGIT HWY at PRESENTIN	40088	18.5 E JCT SR9	07/13/2018	24	Jul-20	Routine

BRIDGE NAME	BRIDGE No.	LOCATION	LAST INSP	INSP FREQ (months)	NEXT INSP	INSP TYPE
S SKAGIT HWY at FINNEY	40089	19. E JCT SR 9	07/13/2018	24	Jul-20	Routine
BAKER LAKE RD at BEAR CK	40101	9.5 NE JCT SR 20	07/24/2018	24	Jul-20	Routine
BAKER LK RD at W GRANDY	40120	2. NE JCT SR 20	07/24/2018	24	Jul-20	Routine
BAKER LAKE RD at E GRANDY	40140	4. NE JCT SR 20	07/24/2018	24	Jul-20	Routine
LK CAVANAUGH RD at BEAR	40046	8.0 E JCT SR 9	07/26/2018	24	Jul-20	Routine
LK CAVANAUGH RD at PILCHUCK	40047	8.7 E JCT SR 9	07/26/2018	24	Jul-20	Routine
LK CAVANAUGH RD CULVERT	40048	MP 0.96 LK CAVANAUGH RD	07/26/2018	24	Jul-20	Routine
MILLTOWN at BIG DITCH	40042	.02 E JCT SR 530	07/30/2018	24	Jul-20	Routine
CONWAY HILL @ CARPENTER	40043	0.5 E JCT INTER 5	07/30/2018	24	Jul-20	Routine
PIONEER HWY at BIG DITCH	40044	2.8 EAST JCT. SR 5	07/30/2018	24	Jul-20	Routine
PIONEER HWY at FISHER SL	40045	1.5 EAST JCT. SR 5	07/30/2018	24	Jul-20	Routine
FRANCIS at NOOKACHAMPS	40003	2.8 W JCT SR9	08/08/2018	24	Aug-20	Routine
BEAVER LAKE RD at NOOKACHAMPS	40051	3.0 SE JCT SR 9	08/15/2018	24	Aug-20	Routine
TAYLOR RD at WALKER CK	40052	4.3 E JCT SR 9	08/15/2018	24	Aug-20	Routine
CEDARDALE RD at CARPENTER	40156	0.75 S JCT SR534	08/15/2018	24	Aug-20	Routine
SWAN ROAD BRIDGE	40002	NOOKACHAMPS	08/29/2018	24	Aug-20	Routine
FRANCIS RD at SLOUGH	40004	2.0 W JCT SR9	08/29/2018	24	Aug-20	Routine
GREEN RD at THOMAS CK	40011	.01 S KELLEHER RD	09/19/2018	24	Sep-20	Routine
BENSON RIDGE LN	40157	1.2 E I-5	09/19/2018	24	Sep-20	Routine
LAVENTURE RD CULVERT	MV-12	NORTH OF BLACKBURN	09/26/2018	24	Sep-20	Routine
RYAN CROSSING	40094B	4.2 Miles east of SR-530	09/27/2018	24	Sep-20	Routine
HOLLOW CEDAR	40094C	4.2 miles east of SR-530	09/27/2018	24	Sep-20	Routine
ANACORTES FERRY DOCK	40152	ANACORTES	10/09/2018	24	Oct-20	Routine/Boat
ANACORTES FERRY DOCK	40152	ANACORTES	10/09/2018	24	Oct-20	Fracture Critical
GUEMES ISLAND FERRY DOCK	40153	GUEMES ISLAND	10/09/2018	24	Oct-20	Routine/Boat
GUEMES ISLAND FERRY DOCK	40153	GUEMES ISLAND	10/09/2018	24	Oct-20	Fracture Critical
CAMPBELL LAKE OUTLET	40142	.39 miles W of SR 20	09/06/2017	48	Sep-21	Routine
EAGLEMONT DRIVE	MV-06	0.1 S JCT BEAVER POND N	10/12/2017	48	Oct-21	Routine
GUEMES ISLAND FERRY DOCK	40153	GUEMES ISLAND	05/15/2017	60	May-22	Underwater
ANACORTES FERRY DOCK	40152	ANACORTES	05/16/2017	60	May-22	Underwater
NORTH FORK BRIDGE	40037	5.5 W JCT INTER 5	09/25/2017	60	Sep-22	Underwater
RIVERSIDE BRIDGE	MV-01	0.7 N JCT SR 538	09/25/2017	60	Sep-22	Underwater
BAY VIEW-EDISON at SAMISH R	40028	0.5 W JCT SR 537	09/24/2018	60	Sep-23	Underwater
SOUTH FORK BRIDGE	40008	1. W JCT INTER 5	09/25/2018	60	Sep-23	Underwater
UPPER FINNEY CREEK BRIDGE	40093	04.6 W CONC SAUK RD	04/02/2018	72	Mar-24	UBIT

APPENDIX C - BRIDGE MAINTENANCE LIST

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
40001	LAKE VIEW BLVD at NOOKACHAMPS	2 2 3 3	Bank protection: armor missing upstream end on the right bank. Sidewalk: Repair sidewalk approach where rebar is exposed (north end). Upgrade rails to meet current standards. Clear debris from submerged columns	
40002	SWAN ROAD BRIDGE	1 2 2 2 3 3 3 M M	Raise approach rail to minimum height. Remove beaver dam and relocate A/C level approaches, big dip in eastbound lane. Approach Rail - Post #8 NE quadrant needs replaced, suffering from termites Missing nut on bridge rail post, NW corner. Sweep deck - vegetation growing along concrete curb. Paint steel diaphragm / cross bracing. Two large trees fallen upstream of bridge. MONITOR Depression in deck over upstream pile. Monitor for settlement	08/29/2018 08/29/2018
40003	FRANCIS at NOOKACHAMPS	1 1 2 3 3	Repair: level approach roads and patch potholes. Level approaches at both ends of bridge. Remove vegetation from ends of bridge Remove BST overspray Remove sand and rat droppings from abutments and pier caps	08/29/2018 08/29/2018
40004	FRANCIS RD at SLOUGH	1 2 3 3 3	Remove grass and sod from between edge of pavement and rail. Backfill with HMA. Shoulder/pavement edge drops off between edge of road and guardrail. - needs to be brought up to grade -currently full of earthen material. Crack seal transverse cracks at the joints. Rotten spacer block - 13th post from bridge, NW quadrant. Paint rail posts	08/29/2018
40008	SOUTH FORK BRIDGE	0 0 2 2 2	Notify utility owner of leak at the east abutment. Ramp/feather patch east approach roadway with ACP to provide a smooth transition on and off the bridge. Remove loose concrete from girder ends, clean exposed reinforcement/strands and coat with a rust inhibitor and epoxy sealant at the following locations. Update Load Rating tab codes to reflect values from the most recent Load Rating Report. Clean bird guano from lateral gusset plates and girder bottom flanges in steel Spans 1, 2 and 3.	03/19/2018
40009	COOK RD at DD14 DITCH	3 3	Crack seal transverse cracks at both ends of bridge SE guardrail is not fastened to 7th and 8th posts	
40011	GREEN RD at THOMAS CK	1 2	Guardrail: Post 1, downstream end missing bolt and nut. Currently hanging on one bolt. Northern approach in need of A/C leveling, Southern approach could use more.	09/28/2018
40012	COOK RD at BRICKYARD CK	2 3	Sweep sidewalk and clean out joints. Clear vegetation from abutment ends	
40013	F&S GRADE SAMISH RIVER	1 3	Continue to patch deck while search for grant funds to rehabilitate the deck A/C level roadway / shoulder approaches	
40014	GRIPP RD at SAMISH R	1 2 3	MONITOR: Bridge is bypassable, right upstream channel protection is starting to slump into river and needs to be monitored after high water events. Repair: patch spall in the wingwall. A/C level approaches	
40015	PRAIRIE RD S at SAMISH R	1 2 3	Missing armoring on south abutment which experiences higher velocities. Tighten cable on NW ET guardrail. Add additional fill and armoring to north bank, piles exposed.	
40016	PRAIRIE RD W at SAMISH R	2 M	NW section of guardrail damaged and post leaning. Scour protection damaged during high water event - Monitor stability	
40017	PRAIRIE RD FRIDAY CK	2	Spalls on upstream curb.	
40018	FRIDAY CREEK 1ST BRIDGE	1 2 3 3 3 3	East drain pipe too long causing it to clog. Cut off approximately 8" Patch exposed rebar in girders #1 #2 #3 & #4 and Soffits. Upgrade bridge rails to current standards. Pressure wash conc. rails & girders Remove BST overspary Paint rail posts	
40019	FRIDAY CREEK 2ND BRIDGE	1 2	NW section of guardrail, 1st post needs replacing. NW Type 3 Obj. marker has a broken post and is leaning. Sign is reusable.	
40020	FRIDAY CREEK 3RD BRIDGE	2 2 2 3	Pressure wash moss off girders Drain: repair drain on bridge, has broken off. Brush and paint guardrail posts Upgrade guardrail to current standards	
40021	FRIDAY CREEK 4TH BRIDGE	2 3 3	Exposed rebar: wire brush and patch exposed rusty rebar on girders 1, 2, and 4. Patch and level approach SE drain pipe needs repairs	

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		3 M	Remove overspary (chipseal) on deck. bank erosion 30' upstream	
40022	FRIDAY CREEK 5TH BRIDGE	2 3	Abutments: replace fill material under abutment #2 Diaphragms rusty - need steel brushing and paint	
40023	FRIDAY CREEK 6TH BRIDGE	2 3 3 3	Patch pot hole at beginning of bridge (3' x 2") Bridge curbing, girders and soffits need pressure washed. Replace missing down spout on drain Remove ivy from abutment wall.	
40024	FRIDAY CREEK 7TH BRIDGE	3	Pressure wash curbs and girders	
40026	FARM-TO-MARKET N DITCH	3 M	Patch spall on outside of rail at connection (8th post from North) Monitor settlement on the road approaches.	
40027	BAY VIEW-EDISON at SAMISH SL	2 2 3 3	Repair - paint posts Sweep shoulders between bridge rail and BST Missing a guardrail post on SE transition and the NW transition. Remove vegetation around bridge	06/13/2018 06/13/2018
40028	BAY VIEW-EDISON at SAMISH R	2 3 3 3 M	remove dirt and poor rubber seal at both joints Repair joint seals. Grind BST from deck at both ends Paint guardrail posts Monitor undermining of gabion wall at Pier 1.	06/13/2018 06/13/2018 06/13/2018
40029	BAY VIEW-EDISON J.LEARY	1 1 2 2 3	Backfill scour hole under slumping SW gabion Repair drainage structure in southwest corner. Guardrail - 1st post on NE quadrant and SE quadrant rotten and needs replaced. Level approaches to bridge before next road seal Guardrail - block out missing in southwest leg.	
40030	THOMAS RD at SAMISH R	2 3 M	Rails need to be upgraded. Remove barb wire fence from under bridge. Restricting access. Repair material loss at right abutment	
40031	PULVER ROAD at JOE LEARY	1 1 3 3 M	Paint bridge rails and posts. See photo. Seal deck with a membrane, to prevent further spalling and corrosion of the rebar. See photo. Repair Bridge Rail on southeast corner of bridge, it appears to have been struck. Sweep deck Monitor the south abutment soil migration, there is a gap between the abutment cap and the ground. Piles are showing.	
40032	FARM-TO-MARKET S DITCH	2	Previous asphalt patch at joint in the northbound lane has failed. May require epoxy.	
40034	FARM-TO-MARKET SAMISH R	1 2 2 3	Some woody debris still needs removed at bent# 5 Rails: Upgrade transition rails to meet current stds. Guardrail has come detached from post - NE transition Repair object marker post - NE corner.	
40035	BAY VIEW-EDISON (Indian)	2 2 3	brush and patch exposed rebar and spalls in girders SE guardrail missing 4 nuts and 1 bolt. Sweep deck	
40036	FARM-TO-MARKET JOE LEARY	2 2 3	Sweep deck/unplug drains. Vegetation needs to be cut around the ends of the bridge. Brush and patch spall in soffit	
40037	NORTH FORK BRIDGE	1 1 1 2 2 2 M	Remove delaminated/spalled areas in deck and along steel sliding joints at the locations listed below. Remove timber debris on the west side of Pier 3 and upstream nose of Piers 4 and 5. Extend Pier 8 bearing base plates with steel plate extensions. Approximately 40% of the bearing area has been lost. Repair channel markers to restore them to a functional state. Update Load Rating tab to reflect values from most recent Load Rating Report. Repair damaged north thriebeam in Span 2. Repair or replace east abutment slope drains to prevent further erosion. Monitor the movement of the piers at the east end of the structure (Pier 7, 8 and 9) including the tipping of Pier 8 to the east.	03/19/2018 03/19/2018
40038	LACONNER WHITNEY at SL	1 1 2	Remove vegetation from the bridge ends. Deck needs sweeping Paint the bridge rail posts, are peeling and rusty.	
40039	RAINBOW BRIDGE	1 1	At the following locations, drill out the broken or missing rivets and replace with a an A325 bolt: Clean all the open panel joints over the floor beams and re-seal them with poured rubber or other flexible joint compound.	

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		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.	
		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 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.	
		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.	
		1	Clear brush away from bridge at Pier 4 to make room for UBIT access.	
		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	Replace the missing bird screens at the following locations: U5W, U8W, U9W, U13W, U6E, U7E, U8E, U11E, U12E, U13E, and U15E (U13E, U15E added 4/21/2014, GAS/PFK)	
		2	Remove material accumulated on bridge. Where corrosion is found, clean to bare steel and paint.	
		M	Monitor cracking of welds for connection of the lateral cross-bracing to the bottom flanges of the stringers in Panel 5. If cracks propagate into base metal, take corrective action to stop further propagation.	
		M	Monitor cracking around welded access holes in top rib of arch.	
40041	E PETER JOHNSON RD	2	Clean out deposited sediment on top of pier cap.	
40042	MILLTOWN at BIG DITCH	3	Clean girders and pier caps of bird guano	
40043	CONWAY HILL at CARPENTER	3	Clear vegetation from deck curb and joints.	
		3	Guardrail posts need replaced - 2nd from east bank, downstream side.	
40044	PIONEER HWY at BIG DITCH	1	Deck needs vegetation removal and sweep.	
		2	Replace rotten guardrail posts, seen Elem 1686 note	
		3	Crack seal overlay	
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.	
		3	Guardrail - Post 1 in SE and SW quads needs replaced.	
40046	LK CAVANAUGH RD at BEAR	3	Brush and patch rust exposed rebar in girders.	
		3	Sweep deck	
		3	Upgrade bridge rails	
40047	LK CAVANAUGH RD at PILCHUCK	3	Upgrade Bridge Rails	
40048	LK CAVANAUGH RD CULVERT	2	Remove vegetation to create a path for inspection.	
		2	Clear log jam at downstream end. Debris beginning to build up into culvert.	
40051	BEAVER LAKE RD at NOOKACHAMPS	2	Settlement at western approach. AC level	08/15/2018
		3	Brush and paint rusting "connection braces" at the girder/abutment joint.	
		M	Losing material behind Abut #2	
		M	Channel migrating to the east upstream of bridge.	
40052	TAYLOR RD at WALKER CK	2	Repair scour hole upstream of bridge.	08/15/2018
		2	Repair rip rap under bridge - gabion basket has been undermined	08/15/2018
		M	Monitor bridge after high water event.	
40054	KNAPP RD at NOOKACHAMPS	1	Brush and patch spalls on deck.	
		2	Remove vegetation from SE corner of bridge deck. Grass us limiting drainage.	
		3	Remove moss and overgrowth on abutment ends.	
		M	Erosion in the NW corner under abutment.	
40055	PRAIRIE RD E at SAMISH R	1	Clear debris from intermediate piers	
		M	Monitor east abutment during high flows.	
40060	BURMASTER RD at COAL CK	2	Remove 3 Man Rock in middle of stream - collecting debris	05/02/2018
		2	Sweep deck. Lots of loose gravel and debris.	
		3	Utility line casing (PVC pipe) is broken.	05/02/2018
		3	Cover exposed rebar of damaged curbing at abutment #1.	
		3	Paint rail posts	
		3	Repair spalls in concrete railing, approx. 2'.	
		M	Left bank erosion downstream of bridge.	
40061	MINKLER RD at WISEMAN CK	1	Remove (dredge) material and debris under the bridge.	
		2	Clean and patch spall in Beam #5.	
		2	Remove Fence from downstream headwalls	
		3	Patch the damaged areas on the curb.	
		3	NW End Treatment has minor damage but appears to be still functioning properly	
40062	UTOPIA RD at BLACK SL	2	Patch spalling occuring at the outside girder joints over middle pier	

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		3	Replace rotten blackout along guardrail in NW quadrant	
40063	LYMAN HAMILTON HWY at CHILDS CK	2 3 3 3 M M M	Brush rebar and patch spall at NW abutment/girder joint. Guardrail post rotten: 3rd post from southwest end. Missing nut on guardrail post: 2nd post from the west end, downstream side. Pressure wash balluster rails and sides. Scour hole on backside of guardrail at southwest end Channel migrating west in the NW corner of bridge - MONITOR Spacer blocks on bridge rail retrofit are showing signs of rot.	
40066	HAMILTON CEMETERY at MUDDY CK	3 3	Vegetation management needed around bridge abutments. Pressure wash curbs.	
40067	CAPE HORN RD at ALDER CK	1 2 2 3 3 M	Patch potholes located at bridge joint. Potholing on deck and at deck joints Brush and patch exposed rebar in girders (60 linear feet) Pressure wash moss off of bridge Upgrade guardrail to current standards. Upstream channel migration to the west. Stream approaching bridge at angle now with higher velocities at Abutment #2	05/23/2018
40068	CAPE HORN RD at GRANDY	3 3 M	4 new spalls but might be to shallow to patch Upgrade guardrail to current standards Monitor the bank protection, check after high water.	05/23/2018
40069	CONRAD RD at SWIFT	2 2 2 M M	Remove the BST overspray patches from the bridge deck. Replace all 4 Type 3 Object Markers - Sweep Deck Appears to be bridge movement causing abutments to rotate. Monitor the channel protection.	06/20/2018 06/20/2018
40070	SKAGIT RIVER MARBLEMOUNT	0 1 1 1	Replace split spacer block at NE corner. 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. Remove debris from upstream face of Pier 4. This is a recurrent problem. Consider the installation of a shark or debris deflector. Repair or replace the 20 ft length of damaged guardrail at the NW corner	
40071	CASCADE RIVER BRIDGE	2 2 2 2 M	Repair thrie beam transition at nw corner. Damaged from fallen tree. Sweep deck and shoulders Clean drains - plugged with debris Patch exposed rebar in deck. River mainstem appears to be shifting South, upstream of bridge - MONITOR	
40072	CASCADE R RD at MONOGRAM	1 2 2 M	Debris removal: remove boulders form under bridge. Repair: deck has spall on R downstream edge. Concrete repair: patch left and right wingwalls; and abutment #2. Waterway: monitor bridge at high water, stream overtops the bridge and bypasses on the left end.	06/20/2018
40073	CASCADE R RD at LOOKOUT	M	Drain flow path has eroded bank and become very steep. Currently stable. MONITOR	
40074	CASCADE R RD at MARBLE	2 2 2 2 3 3	Wingwall: Joint seal is missing, gap between bridge and walls. Fill gap btw retaining walls and the abutments. SE Wrap around end treatment is damaged NE End treatment isn't up to standard Repair: fourth rail post from right D corner is bent from impact, base plate is still in place. Patch potholes on West approach Improve drainage at SE corner, routing water away from wingwall.	06/20/2018 06/20/2018
40075	CASCADE R RD at SIBLEY	1 2 2	Repair: 8 delineators missing (4 on each side of bridge) Panel 16 has loose bolt - 1 1/8" socket Pressure wash deck and remove material between panels	06/20/2018
40076	CASCADE R RD at HARD CR	M M	Scour hole located under shotcrete Abut#2 side. MONITOR Monitor Southwest retaining wall - slightly out of plum	
40077	CASCADE R RD at MINERAL	1 2 2	Fill potholes in bridge approach. Sweep debris off deck, a lot of gravel Repair abutment #1 armor.	
40080	S SKAGIT HWY at PARKER	2 M	Vegetation : remove sapling trees at left upstream wingwall, see photos. Small scour hole forming - MONITOR	07/13/2018
40081	S SKAGIT HWY at DAY CR	1 2 2 3 M	Patch exposed rebar in deck - 2' Repair failing deck patches. Remove vegetation from around abutments Wire brush and patch exposed rusty rebar in the girders Some debris under span 3 - Monitor	07/13/2018 07/13/2018 07/13/2018
40082	S SKAGIT HWY at LORETTA	1 2 3 3	Guardrail - replace 1st transition post in SE Quad Wire brush and patch or paint rusty rebar on girders. Guardrail - 2nd transition post in NE Quad is beginning to rot. Paint rail posts	

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
40083	S SKAGIT HWY at CUMBERLAND	2 2 M	Paint rail posts Level approach with A/C leveling and removal of BST Overspray Channel has been rerouted downstream of bridge - MONITOR	
40084	S SKAGIT HWY at O'TOOLE	2 2 M	Scour causing sloughing behind Abut #2. May be causing material loss and dips at the approaches. Replace fallen armoring along both abutments. Rails need painting Monitor right bank repair upstream of bridge. Large rootwad cabled to riprap was installed in 9/2003.	
40086	S SKAGIT HWY at MILL CR	1 1 1 2 2	West abutment needs additional fill and armoring to repair scour occurring. Remove woody debris from under bridge. Replace damaged wood guardrail posts on upstream side. Patch exposed rebar in the girders. Replace damaged guardrail - End Treatment, Southeast quadrant	10/17/2018 10/17/2018
40088	S SKAGIT HWY at PRESSENTIN	1 2 2 3 M	Resurface / rehabilitate bridge deck Replace Type III marker - NE quad Cut back vegetation at abut #1 Paint steel rail posts. Upstream channel migrated into east channel, west is filling with sediment - MONITOR	07/13/2018
40089	S SKAGIT HWY at FINNEY	M	Debris accumulating again at Span 1 & 3 - Monitor	
40090	DALLES BRIDGE	1 2	Truss members at both ends of the bridge have heavy moss growth that is blocking drainage, including the transverse member / restrainer block over Piers 3 and 4, (L3 and L15). Clean affected members and open drilled holes for drainage to prolong paint life. Replace poured joints over floorbeams with a Dow Corning pourable joint or equivalent.	
40093	UPPER FINNEY CREEK BRIDGE	3	Sweep deck / clear drains	04/02/2018
40094A	ROCKPORT CASCADE at ILLABOT	2 3 3	AC level eastern approach Pothole on west end of bridge WB lane Replace rubber joints	
40095	ROCKPORT CASCADE at JORDAN	3	Previous scour repair on east bank could use some additional rip-rap.	
40099	GOVERNMENT BR	0 1 1 2 2 M	Replace seventh guardrail post from east abutment. Secure or remove section of broken steel grid deck in Span 2, Panel 3. Replace steel sleeper channel in Span 3 (21st sleeper channel from the west end). Update Load Rating tab to reflect values from the most recent Load Rating Report. Repair or replace the blocking and support for the north side metal bridge railing, in Span 2 between Panel Points L1 and L2. 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.	03/21/2018
40101	BAKER LAKE RD at BEAR CK	2 M	Repair and patch driving surface. Large tree fallen upstream across channel...monitor for channel movement and backup	07/24/2018
40106	LAKE SAMISH RD at BEAR CK	3 3	Paint bridge rail posts Add material to shoulders at deck joint, 2" to 6" on both sides.	
40109	LAKE SAMISH RD at FRIDAY CK	2 2 2 M	Replace damaged transition rail on SW section. Repair loose Type III sign southwest corner. Repair: Posts need painting Armoring sloughing along Abut #1 - Monitor	
40112	NEFFS CROSSING	3	Sweep deck	
40113	OLD HWY 99 at THOMAS CK	1 2 2	Patch and crack seal transverse cracking occurring in A/C overlay. Replace rotten guardrail posts at the SW and NW corners of bridge Replace or reinforce rotted timber abutment planks along bottom of both abutments.	
40114	SAMISH RIVER BRIDGE	1 1 1 1 1 1	Remove trees at the southwest corner of bridge that obstruct UBIT operation. 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. Clean sand and debris from bottom chord. North half of bridge can probably be reached from below with a ladder. At the south abutment joint, remove all loose/deteriorated ACP and concrete, clean any coat any exposed reinforcement with a rust inhibitor and patch with an approved material. Reset or replace rocker bearings at Pier 3. Joint is closed and header is breaking up. Current vertical clearance posting signs are misleading.	03/20/2018 03/20/2018

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		2	At Pier 3 joint, remove loose/deteriorated concrete to sound concrete, clean and coat any exposed reinforcement with a rust inhibitor and patch with an approved material.	
		2	Update Load Rating tab to reflect values from the most recent Load Rating Report.	
		2	Repair cope cracks at the following locations:	
		2	At Pier 3 joint, repair the east sections of loose and missing steel header.	
		3	Replace broken northwest baluster on concrete bridge rail.	
40115	FRIDAY CREEK BRIDGE	1	Post 4, SE rail, needs replaced	
		2	Replace Post 1, NW rail - rotten	
		2	Replace failing patch in northbound lane near midspan.	
		2	Scrub and patch exposed rebar in deck.	
40116	OLD HWY 99 at SILVER CK	2	Mill and fill failing asphalt over utility cut north of bridge.	
		M	scour under abutment #2, downstream end.	
40117	ALGER CAIN LK at SILVER CK	2	Patch pothole on west end of bridge, westbound lane.	
40120	BAKER LK RD at W GRANDY	2	Replace failed armoring below west abutment.	
		2	Repair scoured shoulder and improve drainage.	
40126	MARCHS POINT PIPELINE	3	Patch or replace curb - cracked and spalling at north/west corner.	
40129	LYMAN HAMILTON HWY at MUDDY	1	Muddy Creek requires channel maintenance.	
		3	Sections of failed chip seal exposing bridge deck.	05/23/2018
		3	Clear vegetation growing in sandbar along bridge.	
40130	LYMAN HAMILTON HWY at RED CABIN	2	Repair: left bridge seat approach road has a D spall in pavement 1' x 9".	
		3	Westbound guardrail end treatment damaged (NE quadrant)	
		3	Backfill sloughing shoulder, NW corner.	
		M	Scour hole at downstream end of Abut #2 - Monitor	
40131	LYMAN HAMILTON HWY at MANNSEY CK	2	Upgrade Guardrails	
40132	LYMAN HAMILTON HWY at JONES CK	3	Pressure wash concrete bridge rails	
		M	Scour along Abutment 2, install new armoring and backfill.	
40140	BAKER LAKE RD at E GRANDY	1	Replace upstream top rail - section loss and corrosion.	
		2	Wire brush and patch exposed rusty rebar and failed patches.	
		3	The SW rail and end treatment need to be raised. Currently top of rail is at 17"	
40141	BAYVIEW STATE PARK	2	Paint bridge rails and posts.	
		3	Rails: upgrade to meet current standards.	
40142	CAMPBELL LAKE OUTLET	M	Watch for insect damage to piles and caps.	
		M	S.S. screen upstream of bridge	
40151	NICHOLSON RD at CHILDS CR	2	Patch potholes at southern approach at the joint.	
		3	Rotten block out posts #'s 1 2 & 5 on downstream side, 6 & 7 on upstream side.	
40152	ANACORTES FERRY DOCK	1	Girders 1H, 1I and 1J have cracks and delaminations and spalls in the bottom chord on most of the shore side half.	10/09/2018
		2	Right side live load hanger pin bracket has a corrosion hole in the shore side channel, 1" x 3". Replace channel and paint.	
		2	Transfer span framing has scattered rust blooms in the girders, floorbeams, stringer clip angles, and bottom diagonals. Steel headframe has bolt heads and nuts with rust blooms.	
		3	Lift motor gear box leaks oil.	
40153	GUEMES ISLAND FERRY DOCK	1	Replace the lower clevis bolt attachment to the hoisting block on the right girder. This bolt is yielding.	
		1	Clean and spot paint all steel areas which have corrosion.	
		1	Restore the design edge distance of the gusset hole for the apron lift beam.	
		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 section loss.	
		2	Replace upper clevis pin on right hoist platform. This pin has insufficient grip length causing threads in bearing.	
		3	Lift motor gear box leaks oil.	
40156	CEDARDALE RD at CARPENTER	1	Repair cable rail, sw quadrant.	
		2	Upgrade bridge rails / transition / guardrail / end treatments	
		2	Replace block outs with 6" blocks on rails - see Ele. 330	
40157	BENSON RIDGE LN	1	Settlement at both approaches - A/C level	
		2	Tighten cleats. Last performed in 2010	
		3	Section loss in deck. Replace 2' of failed board.	
40159	MINKLER RD at COAL CK	1	Remove material and debris from underneath bridge	
		2	Replace all rail posts that are damaged (6 upstream side, 2 downstream side)	
		2	Repair spalls upstream side of bridge (12)	
		2	Digout and rebuild west approach	
40160	SINCLAIR ISLAND DOCK	1	Ramp: pressure wash and treat with preservative.	

BRIDGE NUMBER	BRIDGE NAME	PRI-ORITY	REPAIR DESCRIPTION	CLOSED OUT
		1 1 1	Piers 1 and 2: replace piles and caps, they have reached life expectancy. Dock: pressure wash and treat with preservative. Float: pressure wash algae off of the concrete, is slippery. Patch spalls in surface. Weld or bolt new steel to edges to hold the panels together. The channel beam has significant section loss.	
40161	FLINN ROAD BRIDGE	3	Patch spall in deck at joint of Abut #2	
40162	MCELROY SLOUGH CULVERTS	2 3	Replace broken guardrail post on the NE end treatment. Replace grout in wingwall joints and around culverts.	
40163	HELMICK RD at RED CK	3 M	Sweep and patch low spot in shoulder along southbound lane Water flowing from abutment #2, below G5	
LOCAL AGENCY BRIDGE REPAIRS				
BURLINN-2	NORTH BURLINGTON BLVD	2 3	Repair: Guardrail terminal on the northwest corner of bridge, appears to have been hit, missing post. Tighten loose nuts on rail post bases located on underside of culvert.	
BURLINN-3	GOLDENROD BRIDGE	3 3	Tighten nuts on transition rails Clear brush and blackberry vines.	
CONCRETE1	BAKER RIVER	1 2 M	Trim trees at southwest corner (below Span 1) for UBIT access prior to next inspection in 8/2021. (UBIT must be deployed off the south side due to telephone lines on the north side). Remove ivy from pier wall at Pier 2. Monitor scour at Pier 2 which is undermined at the southeast and northeast corners.	
MV-01	RIVERSIDE BRIDGE	0 0 1 1 1 2 2 2	Utility bracket on the north side of Pier 5 between Girders 5G and 5H has slipped. Repair conduit casing that has separated in three locations between Girders 5C and 5D near Pier 6. Repair damaged east pedestrian rail south of Pier 3 (near overlook), approximately 12 ft. of damage. Shear key at Pier 5 was not built as designed. Provide full support to Girder H at Pier 5. Remove timber debris accumulating around piers in water. Remove debris around bearing pad under Girder 1A. Remove transient 'living area' constructed between Girders 11 and 1J approximately 15 ft. south of Pier 2, over ductile iron pipe. Remove material / debris from assembly joint seal.	
MV-02	HOAG STEWARD OVERPASS	1	Clean out debris from joints between bridge and slabs and replace joint fillers	
MV-04	SKAGIT HIGHLANDS PARKWAY	2	Remove trees / vegetation from retaining wall and on top of culvert, upstream and downstream sides.	
MV-05	LANDMARK DRIVE	3	Crack seal pavement at bridge and approach slab joints.	
MV-06	EAGLEMONT DRIVE	2 2 M M	Repair the settlement at South East corner at Roadway sidewalk (Photo SI-6) Repair uplifting of the sidewalk panels and spalls in curbing. (Photo SI-25) Monitor the shift of stream toward the South footing (Photo SI-5). Monitor the crushing and bulging of the gabions. (Photo SI-20)	
MV-08	BEAVER POND DR SOUTH	M	Utility Hangers on black sewer and water pipes are loose. Cable conduit is bowing.	
MV-10	OLYMPIC LANE	3	Crackseal roadway over abutment joints and approach slab joints.	
MV-12	LAVENTURE RD CULVERT	M	MONITOR - retaining wall settling leaving a 3" gap, downstream end, North side.	