



SOUTH PARK BRIDGE REPLACEMENT PROJECT SPECIAL PROVISION OUTLINE (DRAFT)

July 2nd, 2009

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**SOUTH PARK BRIDGE – FINAL DESIGN
INTERMEDIATE DESIGN SUBMITTAL**

**SPECIAL PROVISIONS OUTLINE
July 2, 2009**

Provided below is list of special provisions identified during the Intermediate Design phase. Identified below are the bid items, what is included in that particular bid item and how the item is being measured and paid for.

The final special provisions will be written and submitted during the 95% Final Design submittal.

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This document lists the special provisions that will be required for the South Park Bridge Replacement Project. The King County GSPs, WSDOT GSPS and BSPs will be incorporated in the overall Special Provision document.

1.0 GENERAL REQUIREMENTS

1-10 Temporary Traffic Control

Other temporary traffic control – SI

Item includes:

- Traffic safety drums
- Type II barricades

Measurement & Payment:

Per Lump Sum (Covered in SI)

Traffic control supervisor - GSP

Item includes:

- Inspection of traffic control devices
- Attendance to traffic control/construction meetings
- Fill daily log book
- Be present during flagging operations

Measurement & Payment:

Lump Sum (covered in GSP)

Pedestrian control and protection - GSP

Item includes:

- Pedestrian signing
- Type III barricades
- Labor to install, maintain and remove the signing and barricades

Measurement & Payment:

Per Lump Sum (Covered in GSP)

2.0 EARTHWORK

2-02 Removal of Structures and Obstruction

Removal of Structures and Obstruction - GSP

Item includes:

- Removing Mailbox
- Removing Signs
- Removing of all other misc. removals.
- Removing , abandoning, and capping of Boeing utilities such as fire protection, chemical line (industrial waste), air, gas, telephone
- Removing riprap and debris within the tidal zone of the shoreline

Measurement & Payment:

Per Lump Sum

Removing Manhole - SP

Item includes:

- Removing Manholes
- Standard Bid Item that requires special provision

Measurement:

Per Each

Payment:

Per Each

Removing Drainage Structures - SP

Item includes:

- Removing catch basins and other drainage structures
- Standard Bid Item that requires special provision

Measurement:

Per Each

Payment:

Per Each

Removing Portions of Existing Structure – Fender GSP

Item includes:

- Removal of existing fender system
- Staged removal if required
- Westerly to be removed prior to construction of new bridge
- Easterly to be removed prior to demolition of existing bridge

Measurement:

Percent complete prorated on the linear feet of the existing fender system that has been removed and properly disposed of.

Payment:

Per Lump Sum

Removing Existing Structure – Parcel No. _____ - GSP

Item includes:

- Removing of 10 existing buildings

Measurement: & Payment: Lump Sum

Removing Existing Bridge - GSP

Item includes:

- Removal of existing bridge superstructure
- Removal of existing bridge substructure to the Contract Drawing specified elevations
- Construction and removal of cofferdams necessary for demolition
- Sealing of cofferdams sheeting interlocks
- Dewatering of cofferdam as necessary
- Disposal of material in proper manner

Measurement:

35% of lump sum for removal of superstructure prorated on percent of square feet of deck removed, 45% of lump sum for removal of all substructure units to the Contract Drawing specified elevations, 20% of lump sum upon completion of all removal activities including removal of cofferdams and debris from the waterway.

Payment:

Per Lump Sum

2-03 Roadway Excavation and Embankment

Removal and Disposal of Asbestos Material - GSP

Item to include:

- Remove from existing upland building
- Remove from existing bridge and tender house

Measurement:

Payment:

Lump Sum

Hazardous Material Handling and Disposal – GSP

Includes upland soils – Subtitle D

Measurement & Payment:

Will need to be estimated once we determine the hazmat material to be disposed.

Hazardous Material Excavation Incl. Haul - GSP

Includes upland soils – Subtitle D

Measurement:

Per Cubic Yard

Payment:

Per Cubic Yard

Earthquake Drains System:

Item includes:

This work consists of furnishing and placing vertical drains (Earthquake Drains) to a minimum depth of XX-feet below grade in accordance with this Section or as directed by the Engineer. The Earthquake Drain System, including spacing and size of drains, shall be designed by the Contractor

Measurement:

Payment:

"Earthquake Drains System", per lump sum.

The Bid item price for "Earthquake Drains System" shall include full compensation for the cost of furnishing the full length of drain material, installing the drain including excavation, backfilling, coordination, testing, cleanup, and permit fees, altering equipment and methods of installation in order produce the required end result in accordance with the Contract Drawings and as described in this Section, and shall also include the cost of furnishing all tools, materials, labor, and all other costs necessary to complete the work. No payment will be made for unacceptable drains or for any delays or expenses incurred through changes necessitated by improper or unacceptable material or equipment

6.0 STRUCTURES

6-01 General Requirements for Structures

Work Access and Temporary Structures - BSP

Item includes:

- Temporary Construction Trestle
- Temporary Demolition Trestles
- Air bubble curtain for pile driving
- Site access by marine vessels

Measurement & Payment:

Lump Sum

Trench Safety Systems – SP

Item includes:

- Intended to pay for costs of support of excavation for trenches over 6 feet deep.
- Includes stormwater vault, pipes/manholes below 6 feet.
- For drilled shaft construction.
- Shoring or extra excavation for both Class A and B

Measurement & Payment:

Per Lump Sum

6-02 Concrete Structures

Bridge Approach Slab Anchor

Measurement:

Per Each

Payment:

Per Each

Furnishing & Placing Temp. Casing For _____ Dia. Shaft

Measurement:

Furnishing and placing temporary casing will be measured by the number of linear feet of required temporary casing, as specified in subsection 3.03.B of this Special Provision, installed within the limits shown in the Plans, plus additional length approved by the Engineer for temporary casing required to address field conditions as encountered.

Payment:

Per Linear Foot

CSL Access Tube for _____ Dia. Shaft

Includes cross-hole sonic logging

Measurement:

CSL access tube will be measured by the linear foot of tube furnished and installed.

Payment:

By the Linear foot

Soil Excavation for _____ diam. Shaft inc. Haul

Item for approach span

Measurement and Payment:

Per Cubic Yard

Superstructure – South Approach Span

Item includes: south approach span including girder (WF74G), deck, intermediate and end diaphragms, sidewalks, bearing pads, steel fascia girders on approach structures, expansion joints at the abutments, expansion joints at the bascule piers, (structural items above the bearing pads).

Measurement:

40% of lump sum based on placement of girders on substructure units, 40% of lump sum based on percent of structural concrete deck completed and accepted, and 5% of lump sum based on placement of the steel fascia girders, 15% of lump based on the completion and acceptance of the approach superstructure.

Payment:

Lump Sum

Superstructure – North Approach Span

Item includes: north approach span including girder (WF74G), deck, intermediate and end diaphragms, sidewalks, bearing pads, steel fascia girders on approach structures, expansion joints at the abutments, expansion joints at the bascule piers, (structural items above the bearing pads).

Measurement:

40% of lump sum based on placement of girders on substructure units, 40% of lump sum based on percent of structural concrete deck completed and accepted, and 5% of lump sum based on placement of the steel fascia girders, 15% of lump based on the completion and acceptance of the approach superstructure.

Payment:

Lump Sum

Special Excavation

Item includes:

Excavation, testing, removal and disposal of contaminated soil generated by caisson construction activities, protection of workers. Limits of contaminated soils will be characterized during final design.

Measurement:

Cubic Yards of excavated material, material tested and determined that it is contaminated.

Payment:

Per Cubic Yard

Excavation for Caisson

Item includes:

Shoring, excavation, removal and disposal of soil generated by caisson construction activities. Also includes all operations necessary for sinking the caissons. Includes all BMP's required to be followed such as spill aprons, containment booms, etc.

Measurement:

Cubic Yards of excavated material

Payment:

Per Cubic Yard

Str. Carbon Stl - Caisson Cutting Edge

Item includes:

Supplying material, fabrication, delivery and installation of structural steel for cutting edge of caissons. Item does not include: caisson reinforcement or concrete

Measurement:

Per pound of steel

Payment:

Per pound

Concrete Class 4000P for Caisson

Item includes:

Supplying material, delivery and construction of concrete for caissons, cutting edge and distribution cap.

Item does not include:

- Reinforcement
- Sinking operations
- Work Trestle

Measurement:

Concrete Class 4000P for Caisson will be measured by the cubic yards of concrete in place.

Payment:

Per cubic yard

Concrete Class 4000P for _____ Diam. Shaft

Item includes:

Supplying material, delivery and construction of concrete shaft

Measurement:

Concrete Class 4000P for shaft will be measured by the cubic yards of concrete in place.

Payment:

Per cubic yard

6-03 Steel Structures

Traffic Barrier – Bascule

Item includes the Minnesota barrier along the bascule span.

Pedestrian Railing

Item include:

- Pedestrian railing from end of structure to end of structure.
- Preparation and placement of individual gears and historic railing panels incorporated into the railing
- Degreasing, blast cleaning, drill and tapping to receive mounting hardware, galvanizing and painting of individual gears and historic railing panels.
- Concrete embedments to fasten the railing to the structure.
- Placement of the salvaged gears in the pedestrian railing after initial erection of the pedestrian railing.
- Galvanizing and painting of the pedestrian railing.
- All stainless steel hardware associated with the pedestrian railing.
- Salvaging the gears and historic railing panels is paid for elsewhere

Measurement:

Per linear foot

Payment:

Per linear foot

Superstructure – Bascule Pier

Item includes:

Walls, slabs, roofs, decks, doors, windows and architectural finishes and furnishings for the Footing level, Machine level, Equipment level, Roadway level, Operator Level, and Roof of the Bascule Piers 3 and 4 and associated control towers. Also includes stairs and stairways, walkways, catwalks, access platforms, and access hatches, sump pit.

Item does not include:

- Distribution Slab
- Movable Bascule Span
- Counterweight Span
- Trunnion Column and Trunnion Column Bracing
- Tail Locks, Live Load Shoe
- Machinery required for movement of the span, tail locks, and center locks
- Bascule Electrical System
- Operating Machinery
- Traffic barrier
- Pedestrian railing
- Navigation lights

Measurement & Payment:

Lump Sum

Superstructure – Bascule Span

Item includes:

- Movable bascule span
- Fixed span over the counterweight including associated bearing assemblies
- Fabrication, painting (where applicable), transportation, and erection of steel components including, but not limited to, girders, floorbeams, overhang brackets, deck grating, joint assemblies, bracing, bearings, maintenance walkways and machinery supports, as well as all necessary connections and fasteners
- Furnishing structural light-weight concrete for the bascule span roadway and sidewalks
- Furnishing normal-weight reinforced concrete for the counterweight span roadway
- Furnishing structural heavy-weight concrete for the counterweight
- Balance blocks
- Bascule span heel and toe joints
- Bascule span supported access walkways
- Procurement and installation of miscellaneous items related to those described

Item does not include:

- Machinery required for movement of the span, tail locks, and center locks
- Traffic barrier

- Pedestrian railing
- Navigation lights

Measurement & Payment:

Lump Sum

Fender System

Items include:

- Furnishing steel piling – 24” diameter
- Driving steel pile
- Furnishing Steel Pile Tip or Shoe
- Structural Carbon Steel
- Plastic lumber
- To be constructed in 2 stages
 - Easterly – constructed after the existing bridge is removed
 - Westerly – construction after new bridge is built

Measurement:

The fender system contains the following approximate quantities of material:

• Item	Approximate Quantity
• Furnishing Steel Piling -24" Diameter	14,222 linear foot
• Driving Steel Pile	161 each
• Furnishing Steel Pile Tip or Shoe	161 each.
• Structural Carbon Steel	71,000 lbs
• Plastic Lumber	70 MBM

The quantities are listed for the convenience of the Contractor in determining the work involved and are not guaranteed to be accurate. The prospective bidders shall verify these quantities before submitting a bid. No adjustments other than approved changes will be made in the lump sum contract price for the Fender System even though the actual quantities required may deviate from those listed.

Payment:

“Fender System”, per lump sum.

All costs in connection with furnishing and installing steel piles, steel pile tip or shoe, structural carbon steel, plastic lumber, and items as shown and noted in the Plans and as outlined in these specifications and in the Standard Specification shall be included in the “Fender System”, lump sum.

6-10 Concrete Barrier

Traffic Barrier

This item include Minnesota barrier on the approach spans

Measurement:

Per linear foot of barrier

Payment:

Per Linear foot

Traffic Barrier – SEW

This item includes Minnesota barrier with moment slab on the SE wall.

Measurement:

Per linear foot of barrier

Payment:

Per Linear foot

Type 410C Curb

Item includes the City of Seattle curb standard detail; no gutter but cold joint between curb and sidewalk.

Measurement:

Per linear foot of barrier

Payment:

Per Linear foot

7.0 DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS

7-04 Storm Sewers

Ductile Iron Storm Sewer Pipe 18 In. Diam

Item Includes:

Ductile Iron Storm Sewer pipe matching the spec for the sanitary sewer pipe.

Payment:

Per Linear Foot

Stormwater Vault

This item includes:

- Large concrete vault for stormwater treatment.
- Temporary Sediment Vault.
- Includes de-watering during vault construction.

Measurement:

Per Each

Payment:

Per Each

Debris Cage0

Includes providing a debris cage over the outfall

Measurement and Payment:

Per Each

Trash Rack 12-in Diam.

Includes providing a trash rack over the outfall

Measurement and Payment:

Per Each

Polyethylene Drain Pipe ____ In Diam

Includes PE drain pipe, install and furnish, relocate.

Measurement and Payment:

Per Linear Foot

7-05 Manholes, Inlets, Catch Basins, and Drywells

Catch Basin Type 2 ____ IN. Diam. Control Structure

Item includes:

- Furnishing and installing Catch Basin Type 2 60 In. Diam. Control Structure
- Furnishing and installing Catch Basin Type 2 96 In. Diam. Control Structure

Measured: (already in spec)

Payment: "Catch Basin Type 2 _____ In Diam. Control Structure", per Each

Locking Solid Metal Cover and Frame for Manhole, Catch basin

Item includes providing a locking lid

Measurement and Payment:

Per Each

7-09 Water Mains

Fire Protection Wet Standpipe System

Includes 8" waterline, fittings, joints, thrust blocks, valves, vaults, hose bib

Payment:

By Lump Sum

Water Lines

This item currently shows up as LS but it will be a standard specification during final design.

Includes 2" water line, fittings, blow off assembly, connection to existing, valves, thrust blocks, joints.

Payment:

By Lump Sum

8.0 MISCELLANEOUS CONSTRUCTION

8-01 Erosion Control and Water Pollution Control

Chitosan Enhanced Sand Filtration

This item includes:

- Providing and operating the portable chitosan enhanced sand filtration system
- Pumps
- media
- Flow and water quality monitoring
- Operator training
- Documentation
- Treatment system operation plan

Measurement:

Per each installation

Payment:

Per lump sum

Contaminated Groundwater Treatment

Includes treatment of removed groundwater from soils.

Measurement:

Per million gallons of groundwater treated.

Payment:

Per MGAL

Spill Protection Net

Includes a net under the bridge construction work above the water way.

Measurement:

Per square yard

Payment:

Per square yard

Interceptor Ditch

Item includes a ditch to intercept water during construction. Ditch to include any check dams.

Measurement:

Per Linear Foot

Payment:

Per Linear Foot

8-20 Illumination, Traffic Signal, and Electrical

Illumination System

Includes the performance specifications for the architectural lighting proposed.

Payment:

Lump Sum as specified in the Standard Specifications.

Bascule Span Electrical

Item Includes:

- Includes all Bascule electrical work.
- CCTV, motor control centers, generators and distributions system
- Control console, main PC cabinet, remote PC, Drives, Brakes, Position Monitoring
- Air horn, conduit and wire, cable trays, spare parts, J-boxes
- Heat detectors
- Marine radio
- Training of operators
- Operation of Bridge during construction until commissioning
- Electrical support for Traffic Gates
- Electrical support for Traffic Barrier
- Cantilevered movable bridge signs
- Microwave, refrigerator, control tower lighting, pier lighting

Payment:

- Bascule Electrical System Per Lump Sum

Submarine Conduit System

This item includes:

- Micro-tunneling and casing between caissons
- Fiber Reinforced Epoxy (FRE) ducts
- Steel sleeve through caisson cap
- Grouting of FRE ducts in the casing

Measurement:

Includes materials, equipment, labor, and operation. Also includes any risk

Payment:

Per Lump Sum

4 In. Diam. Fiber Optic Conduit

This item includes providing all the fiber optic conduits as shown in the plans outside the bascule/caissons. It includes the two 4-Inch diam. Conduits needed by King County and City of Seattle.

Item is currently incorrectly titled in the SOQ as "Utility Installation of 4-Inch Diam. Fiberglass Conduit".

Payment:

Per Lump Sum

8-26 Bascule Span Mechanical (NEW SECTION)

Control Bascule Plumbing and HVAC

Item includes:

- Bascule pier and control tower plumbing,
- HVAC and associated controls
- Hose bibs in bascule piers and at roadway level
- Sum pump and sum grating

Measurement & Payment:

Per Lump Sum

Operating Machinery

Item includes:

- Machinery and Castings for Central Span Locks,
- Tail Span Locks
- Trunnion Assemblies
- Weldments
- Drive Machinery
- Speed Reducers
- Drive Shafts
- Couplings
- Auxiliary Drive Clutch
- Open gears
- Keys and keyways
- Machinery supports
- Bearings
- Gear and coupling guards
- Stabilizing machinery
- Live Load Shoes

Measurement & Payment:

Per Lump Sum

8-27 Boeing Utilities (NEW SECTION)

Re-route Gas Line

Item includes providing a new gas line crossing from east to west side along the north end of the project. *This item might be done by Gas Company or Boeing in advance of the construction. There shall not be any lag time.*

Measurement & Payment:

Per Lump Sum

Re-route Telecommunication Line

Item includes providing a new telecommunication line (Boeing's primary telecom consisting of 1800 cables) crossing from east to west side along the north end of the project. *This item might be done by the Boeing Company in advance of the construction. There shall not be any lag time.*

Measurement & Payment:

Per Lump Sum

8-28 Salvage Materials and Architectural Elements (NEW SECTION)

Art Features

This item includes:

- Segmental girders (rockers) at four corners of the bridge.
- Degreasing, blast cleaning, edge dressing of cut metal edges and painting of new metal and salvaged segmental girders.
- Foundations for the rockers including excavation, concrete and reinforcement.
- Drilled shafts for rockers.

Measurement:

45% of lump sum amount upon completion of the drilled shafts and foundations, 45% of the lump sum amount re-finishing and placement of the metal portions of the art features, 10% of the lump sum amount upon completion and acceptance of four art features.

Payment:

Per Lump Sum.

Tree Grates

This section includes the following:

As indicated on Contract Drawings, the contractor shall install Tree Grates, including framing, hardware as indicated on drawings and subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work. Manufacturers: Iron Age Grates or approved equal

Model: 5'x5' 'Oblio' recycled cast iron product, raw finish.

Available through: Play Creation, contact: John Mullan at (206) 932-6366, info@play-creation.com

Ensure all products are protected against damage during delivery, storage, and handling, including tree grates, frames and hardware.

Measurement & Payment:

Per Each

Interpretive Signs, Panels, and Posts

This section includes the following:

Manufacturing and installation of non-illuminated, hollow box type post and panel interpretive signs as indicated on drawings.

Measurement:

Per each interpretive sign constructed in place

Payment:

Per Each

Concrete Walls and Footings for Gear Display

Measurement & Payment:

Per Cubic Yard

Railing for Landings

Item includes railing for the landing along pedestrian pathway.

Measurement & Payment:

Per Linear Foot

Salvage Rolling Girder Segments and Guide Tracks

Items include:

- Removal and salvaging of segmental girders (rockers) to be used for art features
- Transportation of salvaged segmental girder from the project site to the fabrication shop
- Construction of art features under separate pay item

Measurement & Payment:

Per Lump Sum

Salvage Individual Gears

This section includes the following:

Salvaging individual operating gears from the existing bridge.

Transportation of salvaged gears to fabrication shop.

Measurement & Payment:

Per Lump Sum

Salvage Iron Railing Panels

Item includes:

- Salvage Type 1 and II panels
- Total of 60 panels
- Placement of plywood blanks in the existing bridge railing to replace the salvaged historic panels

Measurement & Payment:

Per Lump Sum

Salvage Roadway Bricks

This section includes the following:

Removal, demolition and re-location of existing brick paving. Relocate and install as indicated on drawings.

Existing brick paving shall be pressure washed and cleaned prior to installation. Remove all existing mortar.

Measurement & Payment:

Per Square Foot

Salvage Steel Deck Grating

This section includes the following:

Removal, demolition and re-location of existing bascule roadway steel grating. Relocated and install as indicated on drawings.

Existing steel grating shall be cleaned and sand blasted to provide a raw steel finish.

Measurement & Payment:

Per Square Foot

Salvage Transverse Truss Elements

This section includes the following:

Removal, demolition and re-location of existing trusses. Relocate and install as indicated on drawings for railings at landings.

Existing trusses shall be stripped of existing paint, sand-blasted and cleaned prior to painting. Color to be determined.

Measurement & Payment:

Per Linear Foot

Salvage Gear/Shaft/Frame Set

Item includes salvaging and transportation to the fabrication shop of one complete gear/shaft and frame set.

Measurement & Payment:

Per Each

Salvage Light Pole and Balustrade

This section includes the following:

Removal, demolition and re-location of concrete balustrade and concrete lamp post. Relocate and install as indicated on drawings.

Existing balustrade and lamp post section shall be saw-cut as indicated on drawings. Concrete shall be lightly sand blasted and cleaned prior to installation.

Measurement & Payment:

Per Each

Salvage Railing Post Bollard

This section includes the following:

Removal, demolition and re-location of existing railing posts. Modify as indicated on drawings for re-use as bollards.

Existing railing posts shall be cleaned, stripped of existing paint, primed and re-painted. Color to be selected.

Measurement & Payment:

Per Each

Salvage Control Console

Item includes: Salvaging existing control panel – to be provided to King County

Measurement & Payment:

Per Lump Sum

Streambed Boulder

This section includes the following:

Furnish and install streambed boulders as indicated on drawings. Rock shall be indigenous and from a regional source. Rock shall be a High Cascade Granite. Size shall be 2-3 man sized boulders with natural occurring shapes.

Measurement & Payment:

Per Each

Streambed Cobbles

This section includes the following:

Furnish and install streambed cobbles as indicated on drawings. Rock shall be indigenous and from a regional source. Rock shall be Artic Blend, shall consists of an equal mix of greys, brown's and black colored rock. Sizes shall range from 4" -8" and shall consist of an equal mix of sizes.

Measurement: & Payment:

Per Cubic Yard