

Guidance on Preparation of Partial Payments

This attachment provides guidance to Structure Construction (SC) staff on how to prepare quantity sheets for partial payments.

Bid items include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing the work. Significant expenses may occur prior to the completion of a final pay for a bid item. Partial payments compensate the Contractor as work progresses. The *Construction Manual*, Chapter 3, *General Provisions*, [Section 3-906A](#), *Payment – Progress Payments – Bid Items*, establishes the policy concerning partial payments. This attachment provides guidelines and establishes uniform practice for partial payments to compensate the Contractor for work done in advance of the completed work.

1 – Partial Payment of Unit Price and Lump Sum Bid Items

Both unit price and lump sum bid items are appropriate candidates for partial payments.

1.1 Prestressing Cast-In-Place Concrete – Lump Sum

If there are multiple structures included in the bid item for prestressing cast-in-place concrete, use a ratio of the deck area of each structure to the total deck area of all cast-in-place prestressed structures on the contract to obtain the appropriate fraction of the lump sum bid item for each structure. Other logical and equitable methods of determining this proportion may be used with approval of the SC Supervisor.

Make partial payments using the percentages detailed in Table 1.

Table 1. Percentage Breakdown of Partial Payments for Prestressing Cast-In-Place Concrete

Operation	Partial Payment
Ducts: Complete in place with distribution plates and required vents, for all tendons in the structure	30%
Prestressing Steel: Complete in place in all ducts; free and unbonded; protected from corrosion if required; and acceptable	50%
Prestressing: Including the work on stressing (jacking) and anchoring all tendons in the structure; with ends trimmed and ready for grouting	10%
Grouting: Including grouting all tendons in the structure, and completing all work required by the bid item	10%

1.2 Tieback and Tiedown Tendons – Unit Price

Make partial payments for tieback and tiedown tendons which are a unit price bid item using the percentages detailed in Table 2.

Table 2. Percentage Breakdown of Partial Payments for Tiebacks and Tiedown Tendons

Operation	Partial Payment
After completion of drilling, installing the tendon and initial grouting	60%
After satisfactory completion of the testing and if the Contractor provides temporary corrosion protection for the tendon and anchorage assembly on any anchor where final grouting is not completed	30%
After completion of final grouting	10%

1.3 Column Casings – Unit Price

Make partial payments for column casings which are a unit price bid item using the percentages detailed in Table 3.

Table 3. Percentage Breakdown of Partial Payments for Column Casing

Operation	Partial Payment
When casing is erected and fully welded	70%
When the casing is fully grouted	15%
When the casing is fully painted and has met all other contract requirements	15%

1.4 Building Construction – Lump Sum

The *Contract Specifications* require the Contractor to submit a schedule of values for each lump sum bid item.

Make partial payments according to the approved schedule of values.

1.5 Structural Concrete, Bridge – Unit Price

Few bid items on a Caltrans project require the extent of effort and time to produce a unit of the contract bid item, as does STRUCTURAL CONCRETE, BRIDGE. Analysis has shown falsework costs can easily be 35 – 50% of the STRUCTURAL CONCRETE, BRIDGE bid item.

When supported on falsework, make partial payments as outlined in the *Construction Manual*, Chapter 3, *General Provisions*, [Section 3-906A](#), *Payment – Progress Payments – Bid Items*, and as detailed in Table 4.

Table 4. Percentage Breakdown of Partial Payments for Structural Concrete, Bridge

Operation	Partial Payment
Falsework erection – soffit plywood is in place	35%
Placement of concrete	60%
Removal of falsework materials and final finishing of concrete	5%

1.5.1 Structural Concrete, Bridge – Partial Payment Example:

Consider the following for determining a partial pay quantity of the STRUCTURAL CONCRETE, BRIDGE bid item for falsework.

Given:

- Two span box girder bridge
- The bridge is constructed over a four-month period
- Distance between abutment faces = 187.1 feet
- Distance abutment face to face of bent = 89.55 feet
- Width of deck = 41.9 feet

Calculate:

- Volume of concrete in various elements as illustrated in Figure 1 below:

Element	Volume		Length	
soffit/stems	225.9	CY	1.26	CY/ft
bent cap	34.4	CY	4.30	CY/ft
Total	260.3	CY		
Deck	200.8	CY	1.07	CY/ft
Total	461.1	CY		

Figure 1. Calculations for Partial Payment for Structural Concrete, Bridge

For simplicity, the concrete previously placed for abutments and columns is not included in this example.

Month X estimate: Falsework is erected and soffit plywood is in place full width for 48 linear feet (26.8%) of the soffit/stems. Paid as detailed in Figure 2 below.

Soffit/stems: (1.26 CY/ft)(48 ft)(35%)	=	21.2	CY
Deck: (1.07 CY/ft)(48 ft)(35%)	=	18.0	CY
	Pay this estimate:	39.2	CY
	Previously paid	0.0	CY
	Total to date:	39.2	CY

Figure 2. Calculations for Month X Estimate

Month X+1 estimate: All soffit plywood in place and stem/soffit concrete is complete. Paid as detailed in Figure 3 below.

Total concrete for soffit/stems/bent cap:	260.3	CY
Remaining deck: (200.8)(35%)	70.3	CY
Less amount paid previously:	-39.2	CY
Less removal and finishing: (260.3)(5%)	-13.0	CY
	Pay this estimate:	278.4
	Previously paid	39.2
	Total to date:	317.6

Figure 3. Calculations for Month X+1 Estimate

Month X+2 estimate: Deck concrete poured. Paid as detailed in Figure 4 below.

Deck:	200.8	CY
Less amount previously paid for deck FW	-70.3	CY
Less removal and finishing: (200.8)(5%)	-10.0	CY
	Pay this estimate:	120.5
	Previously paid	317.6
	Total to date:	438.1

Figure 4. Calculations for Month X+2 Estimate

Month X+3 estimate: Final finish is applied to all concrete surfaces and falsework is removed. Paid as illustrated in Figure 5 below.

Pay this estimate:	23.0	CY
Previously paid	438.1	CY
Total to date:	461.1	CY

Figure 5. Calculations for Month X+3 Estimate

1.6 Bridge Painting – Lump Sum

Table 5 and Table 6 below details the suggested partial payment breakdown amounts for each phase of a typical bridge painting operation for paint systems.

Should the phases of work differ from what is shown below, partner with the Contractor to determine and agree on a schedule of values.

1.6.1 Shop Blast with Inorganic Zinc Water-borne Finish

Table 5. Calculations for Partial Payment for Shop Blast with Inorganic Zinc Water-Borne Finish

Operation	Partial Payment
Blast Clean	40%
Shop undercoats	30%
Spot clean and undercoats in field	12%
First finish coat	9%
Final finish coat	9%

1.6.2 100% Repaint with Water-borne Paint

Table 6. Calculations for Partial Payment for 100% Repaint with Water-borne Paint

Operation	Partial Payment
Blast Clean	60%
First undercoat	10%
Second undercoat	10%
First finish coat	10%
Second finish coat	10%