PROJECT COST CONTROL FORMULA SHEET

EARNED VALUE MANAGEMENT (EVM) & COST VALUE RECONCILIATION (CVR)

BUDGET AT COMPLETION (BAC)

The original total approved budget for the entire project.

BAC = Total Approved Project Budget

PLANNED VALUE (PV)

The budgeted cost of the work that should be complete by this point in the schedule.

PV = Planned % Physical Progress × BAC

EARNED VALUE (EV)

The budgeted cost of the work actually completed at this point in time.

EV = Actual % Physical Progress × BAC

ACTUAL COST (AC)

What has genuinely been spent to reach that point.

AC = Actual Cost Incurred

2 · VARIANCES — what is actually happening?

COST VARIANCE (CV)

CV = EV − AC

A negative result means the project is spending more than the value it has delivered.

SCHEDULE VARIANCE (SV)

SV = EV − PV

A negative result means the project's progress is behind where it should be.

3 · PERFORMANCE INDICES — how well are we performing?

COST PERFORMANCE INDEX (CPI)

CPI = EV ÷ AC

1.0 On budget
<1.0 Over budget
>1.0 Under budget

SCHEDULE PERFORMANCE INDEX (SPI)

SPI = EV ÷ PV

1.0 On schedule
<1.0 Behind schedule
>1.0 Ahead of schedule

4 · FORECASTING — where is the project heading?

ESTIMATE AT COMPLETION (EAC)

EAC = AC + (BAC − EV) ÷ (CPI × SPI)

The revised total cost forecast, based on performance to date.

ESTIMATE TO COMPLETE (ETC)

ETC = EAC − AC

What it will cost to finish the remaining scope.

VARIANCE AT COMPLETION (VAC)

VAC = BAC − EAC

The gap between the original budget and the current forecast.

5 · COST VALUE RECONCILIATION (CVR) -

The commercial reality check

Compares actual value certified / invoiced with actual cost incurred.

- ✓ Run monthly, not just at milestone or final account.
- ✓ Confirms real margin, not assumed margin.
- ✓ Detects margin erosion early.
- ✓ Enables corrective action while the project is live.

6 · AT A GLANCE — quick interpretation guide

	GOOD (FAVORABLE)	WARNING	POOR (UNFAVORABLE)
CPI	**>1.0** Under budget	**=1.0** On budget	**<1.0** Over budget
SPI	**>1.0** Ahead of schedule	**=1.0** On schedule	**<1.0** Behind schedule
CV	**>0** Under budget	**=0** On budget	**<0** Over budget
SV	**>0** Ahead of schedule	**=0** On schedule	**<0** Behind schedule

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