SOP: Forecasting Raw Material Prices (Cement, Steel, Gravel)

1. Purpose

To establish a standardized process for forecasting average monthly prices for key construction materials (Cement, Steel, Gravel) with Excel FORECAST.ETS function and create line charts to show trend.

2. Scope

This SOP is applicable to the forecasting part of the procurement analytics project. The process. is to be used by supply chain analysts and procurement planners issued with responsibility for forecasting prices of materials each month.

3. Tools Required
- ❖ Microsoft Excel (desktop version)
- ❖ Historical price data for minimum of 7 months Basic.
- ❖ knowledge of formulas and graphs/functions in Excel.

4. Process

Follow the steps below for each material:

Step 1: Data Preparation

- ❖ Column A Month (e.g., 01/01/2025 - 01/12/2025)
- ❖ Column B Average Market Price (historical July)
- ❖ Column C Company Spend Price (optional)
- ❖ Column D Forecast Price (to make)

Step 2: Forecast Formula

- ❖ Use the function =FORECAST.ETS (A9, B2:B8, A2:A8)
- ❖ Drag down to fill the future months (Aug to Dec)
- ❖ Make sure only the coverage date reference is changed (A9 to A10 etc.)

Step 3: The Chart

- ❖ Select the highlighted data area of columns A, B, and D
- ❖ Include a Line Chart with Markers
- ❖ Modify chart title, legend, colour, etc.

4. Outputs

- ❖ One line chart each for the materials (Cement, Steel, Gravel)
- ❖ One forecasted value for each remaining month in 2025
- ❖ Marker to indicate forecast start point for visual feedback; User can also utilize a Text Box to annotate 'Forecast Starts'

5. Notes

- ❖ Do not adjust the historical range unless you change the whole data set
- ❖ The forecasted marker should be as close as you can get to the average price in height for visual visibility- No need to repeat.
- ❖ The values forecasted should need to be checked again and completed (updated) after the next months' data done has come in.