



Province Government
Ministry of Physical Infrastructure Development
Koshi Province, Biratnagar

OUTLINE FOR STRUCTURAL ANALYSIS AND DESIGN REPORT

- **A. General Features of the Building**
 - A.1 General Information of the Project
- **B. Modeling of the Building**
 - B.1 Material Properties (Concrete, Re-bar, Structural Steel)
 - B.2 Stiffness Modifiers
 - B.3 Slab and Diaphragm
 - B.4 Accidental Eccentricity
 - B.5 Support Condition
 - B.6 Structural Analysis Software Used
- **C. Adequacy of Actions to the Buildings**
 - C.1 Load Patterns Considered
 - C.2 Load Cases Considered
 - C.3 Mass Source Considered for Seismic Weight
 - C.4 Detailed Load Calculations
 - C.5 Seismic Load Calculation
 - C.6 Load Combinations
- **D. Analysis of Building**
 - D.1 Modal Analysis Results
- **E. Design of Structural members**
 - E.1 Check for All Members Passed (for Element Design through Software)
 - E.2 Check for Column-Beam (C/B) Capacity Ratio
 - E.3 Check for Max. & Min. Percentage of Reinforcement Provided
 - E.4 Reinforcement Design of Slabs
 - E.5 Reinforcement Design of Beams
 - E.6 Reinforcement Design of Columns
 - E.7 Reinforcement Design of Foundations
 - E.8 Reinforcement Design of Staircases
 - E.9 Reinforcement Design of Other Members (Shear Wall etc.)
- **F. Performance of Building**
 - F.1 Storey Drift Ratio, Storey Displacement
 - F.2 Check for Structural Irregularity
 - F.2.1 Torsional Irregularity
 - F.2.2 Soft Storey



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- F.2.3 In-Plane Discontinuity
- F.2.4 Mass Irregularity
- F.2.5 Re-entrant Corner
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