



**I. Introduction (2 Screens)**

- A. Project / Self (1 screen)
- B. Presentation Outline (1 screen)

**II: Project Background (4 screens)**

- A. Owner (1 screen)
- B. Location (1 screen)
- C. General Building Information (2 screens)
  - a. Function
  - b. Project Cost
  - c. Construction Dates
  - d. Delivery Method

**III: Introduction of Analyses (1 screen)**

- A. List all 3 Analyses
- B. Discuss Breadths & what will be covered in presentation

**IV: Analysis I: Foundation Re-design (10 screens)**

- A. Problem Identification/Research Goals (1 screen)
- B. Geotechnical Report Review/Initial Settlements (1 screen)
  - a. Mention Part of Structural Breadth (See Report)
- C. Foundation Design with Geopiers (2 screen)
- D. Addition of Column Line (1 screen)
- E. Lateral Loads (1 screen)
- F. Schedule & Site Impact (2 screens)
- G. Estimated Costs & Savings (1 screen)
- H. Recommendations & Conclusion (1 screen)

**V: Analysis II: Roofing Type Comparison & Elimination of Offset Roof (10 Screens)**

- A. Problem Identification/Research Goals (1 screen)
- B. Part 1: Roofing Material Comparison (4 screens)
  - a. Pros & Cons Comparison (1 screen)
  - b. Roofpoint Comparison (1 screen)
  - c. Schedule & Cost Comparison (1 screen)
    - i. Cost Savings if TPO were Chosen
  - d. Recommendation (1 screen)
- C. Part 2: Elimination of Offset Roof (5 screens)
  - a. Line of Sight Study (2 screens)
  - b. Estimated Cost & Schedule Savings (2 screens)
  - c. Recommendation & Conclusion (1 screen)

**VI: Analysis III: Design Study to Increase Sustainable Features Using Renewable Resources (18 Screens)**

- A. Problem Identification/Research Goals (1 screen)
- B. Part 1: Preliminary Design of Geothermal System (2 screens, 1 just images)
  - a. Estimated Cost of System (If want more, see Report)
- C. Part 2: Installation of PV Array (14 screens)
  - a. Sun Angles (1 screen)
  - b. Shading Analysis (2 screens)



- c. Module Orientation & Tilt (2 screens, 1 just images)
  - d. Sting Sizes & Final Array Design (2 screens, 1 just images)
  - e. Structural Impact (Structural Breadth) (1 screen)
  - f. Inverter/Load Side Connection (Electrical Breadth) (2 screens)
  - g. Wire Sizing (Electrical Breadth) (2 screens)
  - h. Estimated Costs of System (1 screen)
  - i. Total Energy Savings/Year (1 screen)
- D. Recommendations & Conclusion (1 screen)

**VII: Summary of Conclusions (1 screen)**

**VIII: Acknowledgements (1 screen)**

**Presentation Summary:**

- 47 screens, however at least 10 screens are just images to support text/ calculations, and to help clarify point.
- Screen count may increase if additional images are required to clarify point
- Electrical Breath to be presented (mention of structural Breadth in both analysis I & III, possibly incorporate, time permitting)