



Appendix A

Breadth Topics



BREADTH TOPICS

The following topics involve a more detailed analysis in distinct technical disciplines within the major. Each topic contributes to the previously mentioned analyses, which are identified accordingly.

STRUCTURAL BREADTH: Contributes to both Technical Analysis #2 and Technical Analysis #4

There are two areas where the structural system can be analyzed. As proposed in Technical Analysis #2, the addition of photovoltaic panels on the roof will require a structural analysis to determine loading and support requirements. The substitution of a prefabricated curtain wall system, as proposed in Technical Analysis #4, will be analyzed to determine the effects on the existing structure. Any additional support and connections that are determined to be required for both the photovoltaic panels and prefabricated curtain wall will be designed and evaluated for cost and schedule impacts.

ELECTRICAL BREADTH: Contributes to Technical Analysis #2

Integrating renewable energy from a photovoltaic array into the existing energy system will be analyzed to determine the electrical equipment and connection requirements. Additionally, the feasibility of whether or not the photovoltaic system can be incorporated with the SmartGrid will be determined.