Schedule

Week	Description
Week of 1/9/06	• Meet with consultant to review proposal comments • Revise proposal • Post revised proposal • Post January work schedule
Week of 1/16/06	• Determine preliminary floor plan (keeping existing column locations, determine joist span, shearwall locations, column and beam placement, coordinate with architectural drawings, etc.) • Determine slab, joist, and beam limitations based off of ceiling height requirements and floor to floor height requirements • Determine economical balance between beam and floor system thickness • Determine trial pan size, depth, joist stem width and slab thickness • Determine trial beam and column sizes using CRSI Handbook and ACI 318-05 • Determine the superimposed dead loads based off of the building plans • Determine the self weight dead loads based off of the preliminary floor system design • Determine the live loads based off of IBC 2000 Table 1607.1 • Determine the roof live load and snow load based off of ASCE 7-02, Chapters 4 and 7 respectively • Determine the wind loads based off of ASCE 7-02, Chapter 6, Method 2: Analytical Procedure • Determine the seismic loads based off of ASCE 7-02, Chapter 9 • Determine construction live loads and dead loads
Week of 1/23/06	• Determine factored shear and moment requirements and deflection limits in a typical bay based off of the newly determined loads • Check initial joist and beam size members by calculating joist and beam capacities based off of ACI 318-05 and compare to factored shear and moments • Revise trial joist and beam sizes based off of the initial analysis (repeat until system design is adequate to carry the applied gravity loads)
Week of 1/30/06	• Complete initial lateral analysis of shearwalls by inputting initial shearwall sizes and locations and lateral loads into SAP 2000 and run analysis • Check computer results with quick hand calculations

	• Revise trial shearwall sizes and locations based off of the initial computer analysis (repeat until the system design is adequate to resist the applied lateral loads)
Week of 2/6/06	• Determine column loadings throughout the structure • Use PCACOL to check the adequacy of the trial column sizes and design the columns for the determined loadings • Check PCACOL results with hand calculated spot checks • Preliminarily redesign a spread footing based off of the new concrete design and loadings
Week of 2/13/06	• Complete cost analysis of the existing steel system and the new concrete system • Complete a schedule analysis of the existing steel system and the new concrete system
Week of 2/20/06	• Determine the effects on the mechanical system layout due to the change in floor structure • Determine the effect of the new structure with respect to spatial requirements • Determine the fire rating differences between the existing steel system and the new concrete system • Determine the acoustical differences between the existing steel floor system and the new concrete system
Week of 2/27/06	• System comparisons in cost, schedule, constructability, labor, floor to floor height, floor to ceiling height, lateral system performance (braced frames vs. shearwalls), self weight, and impact on the foundations
Week of 3/6/06	• SPRING BREAK • Make-up week or move onto report and presentation if on schedule
Week of 3/13/06	• Work on final thesis report
Week of 3/20/06	• Work on final thesis report
Week of 3/27/06	• Work on presentation
Week of 4/3/06	• **Final thesis report due posted to CPEP website on 4/3/06** • Print thesis report and get copies bound • **Final thesis report due by 12:00 PM on 4/7/06** • Finalize presentation
Week of 4/10/06	• Thesis presentations **PRESENTATION WEDNESDAY, APRIL 12, 2006** **TIME: 10:00 AM** **LOCATION: 107 ENG UNIT B**