I. Topographic Survey

A. Aerial survey did not include building elevations and spot elevations at exterior doors, courtyards, plazas, etc.
B. BFGC to coordinate with consultants.

II. Water System

A. Water tank on hill. 1966 metal tank - welded.
B. Capacity of tank is adequate. (975,000 gallon tank)
C. Bulging from earthquake.
D. Areas of the tank are rusting.
E. The maintenance dept. currently looks at the location of the flag to determine when it needs to be filled.
F. Need to look at how it’s monitored, what the condition is and adequacy of the system is – present system is monitored manually/visual inspection & refilling.
G. BFGC is getting a budgetary proposal from consultant to replace the tank.
H. Will look at concrete tank in lieu of steel.
I. Will look at pump system from well and telemetry.
   a. Pump replaced about 3 years ago.
   b. Quality of water is good from well.
   c. Getting 75-100 psi at buildings - adequate pressure.
J. Meet with state/local fire marshall to determine requirements.
K. Landscape/irrigation.
   a. Use reclaimed water – talk to city.
L. Does concrete tank have to be above ground.
   a. Not necessarily but cost may be higher to excavate.
   b. May look better and help insulate tank.
   c. Consider tree shading with above-ground tank.
M. Need to take soil borings in area of tank.
N. May have to improve road access for concrete trucks, etc.
O. City tie-in is at north entrance to campus.
P. Looking at separate utility services for the golf course area.
   a. Student Housing
   b. Faculty Housing
   c. Active Adult Living
Q. Art said transite lines are okay.
   a. Two leaks in last five years.
   b. Only feeds irrigation and golf course.
   c. Could be tied into reclaim system.
R. Other water leaks were in boiler return and supply lines.
S. Locator service to field-check water lines to determine material/locations.
   a. Metallic will be able to locate.
   b. Locate valves.
   c. Replace metallic pipe laterals.
   d. Replace hot water piping – underground & overhead.

T. Sectionalize/zone valves to allow individual building isolation with new design.

U. Boilers are real problem – safety. Replace with 2 or 3 as part of the Infrastructure Project.
   a. Business boiler leaking today.
   b. Existing pool boiler is about 35% efficient.

V. Gym hot water storage tanks are in very poor condition – one could fail at anytime.
   a. Should be able to get by with one – temporarily.

W. Won’t have to run through DSA since will be replacing with like kind.

X. Use stand-alone boiler for on-demand system.

Y. All boilers are the same age. Kewanee boilers.

Z. Feed lines to new boiler systems – add meters to know if have leak.
   a. Could put in leak detection.
   b. Alfa Tech will look at 2-3 options available.

AA. Check pumps.

BB. Check chlorination system.

CC. Like to have a backup pump. Have it valved to isolate.

DD. Hot Water Piping (8-10 years ago, supposedly re-piped)
   a. Art said is steel pipe.
   b. Replaced a portion of return system.
   c. Alfa Tech recommends replacing entire piping for efficiency to help the pumps.
   d. Will reduce energy costs.

EE. Dave spoke to Joe Keeler prior to meeting.
   a. District said to proceed with investigations.

III. Sanitary Sewer System

   A. Problems with sewer lines by CJ500 and Theater - roots. Need to video existing lines to determine blockage.

   B. Dave spoke to Joe Keeler prior to meeting.
      a. District said to proceed with videoing the existing lines.

IV. Storm Drain System

   A. Art couldn’t think of any problems with the existing storm drain system other than capacity – may need more outlets with new design.

   B. Need to look at the west side of the tennis courts

   C. Dave spoke to Joe Keeler prior to meeting.
      a. District said to proceed with videoing the existing lines.

V. Electrical

   A. Electrical
      a. Existing condition is one meter at PG&E switchgear.
      b. Does District want sub-meter to monitor each building.
         i. Art said has one at library but don’t use.
         ii. Art said don’t have need for sub-metering.
         iii. Primary replaced recently

   B. May have problem with conductors - not getting 220V.

   C. Look at what the District is getting in terms of power into campus from PG&E
      a. Alfa Tech to contact PG&E (Art to provide contact name and number).

   D. First Portion of Site Lighting will be included in this infrastructure package.

   E. Solar
      a. For buildings, not feasible.
b. Swimming pools, ideal application.
c. Site lighting a good possibility.
   i. Not cheap.
   ii. Substantial savings on energy. Look at life cycle cost.
d. Alfa Tech to perform life cycle analysis.
e. Need minimum one foot-candle.
f. May do a pilot installation on site lighting.
g. Talk to PG&E for rebates. Savings by Design.
h. Look for payback within 3-5 years. Over 5 years not cost-effective.

VI. Gas

A. Replace campus wide.
B. Zone so can shut down areas/buildings.

VII. Telecommunications

A. Exiting fiber is in good condition – not old (about 5 years).
B. Need to provide loop.
C. Need to provide extra conduit (future pathways/capacity).
D. Need to identify location of Data Center – centralize. Library is an ideal location.
   a. Separate A/C.
   b. Generator.
E. Mimi to get drawings to BFGC.

End of Notes