EDG EROS DESIGN GROUP
ARCHITECTS ENGINEERS PLANNERS/P.O. BOX 1123/SIOUX FALLS, SOUTH DAKOTA 57101

June 30, 1971 / Re: EROS Data Center
Sioux Falls, South Dakota

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Mr. Glenn Landis
Geological Survey
GSA Building
18th and F Street, N.W.
Washington, D. C. 20242

JUL 6 1971

GLENN H LANDIS

Dear Glenn:

Enclosed are two prints of Sheet #2 of the DHB diagrammatic floor plan. We have shown four areas each outlined in different colors for purposes of this letter. We have reviewed the Aerospace reports and minutes of our meetings to firmly define the special floor condition areas. We are asking your concurrence or comments on our following conclusions and/or recommendations:

A. (Orange) Depressed structural floor 18" to be filled in with removable panel computer flooring system set flush with surrounding floor. No need to provide drains in bottom of the depressed area since there is no plumbing required in this area.

B. (Blue) Depressed structural floor 18" to be filled in with removable panel computer type flooring system set flush with surrounding floor. Floor drains provided in bottom of depressed area. Processors are to be supported on removable floor system. We see no reason to enlarge this area into the sort-check-collate.

C. (Brown) We are uncertain on the degree of isolation. We propose the structural floor be depressed 5" to permit the use of a 4" thick concrete "floating" slab over cork or similar resilient material. This floating slab is to be isolated at the brown line from surrounding floor area.

D. (Yellow) This area to have structural slab depressed 5" to permit the use of 4" thick "floating" slabs and equipment bases for the sensitive equipment set onto resilient material. The structural floor area defined by the yellow line will also be structurally isolated along the yellow line from the surrounding area. Each "floating" base will be isolated from adjacent "floating" slab with the yellow area. The above will provide dampening both vertically and horizontally of each equipment base but allow bases to be relocated within the yellow area always with the same degree of isolation.

At one of the meetings we discussed the possibility of extending the depressed B area into the D area. We are skeptical of being able to satisfactorily provide the isolation needed in D if the B construction is superimposed. What is your reaction to the necessity of this? We've discussed the needs of the C area again with Carmichael and Smith by phone. They are not sure that our proposal for C is necessary. What is your reaction on the sensitivity of the printers?

We did get a redefinition of the word "seismic" from Carmichael, who clarified that their reports' intent was to use this word to represent all man or machine made vibrations. Since we have received no specific tolerance or limits of acceptable vibration in the critical areas, we are proposing construction to keep it near vibration-free. We feel, however, that we could do a better job if we were given some criteria on these limits.

We would appreciate your looking over these areas and phoning us at your earliest convenience.

Sincerely,

Duane P. Paulson, P. E.

DPP*cas

Enclosures

cc: Mr. William Schmidt