

Date: June 29, 2026

TO: Dr. Michael Olsen, CH2M HILL Professor, OSU Civil Engineering
Dr. Yelda Turkan, Associate Professor, OSU Civil Engineering
Mr. Brian Sien, Senior Manager – ASCE Center for Technical Advancement
Dr. Daniel Gillins, Past President UESI
Dr. Marian Westley, Acting Director, NGS
Dr. Darcee Killpack, Acting Executive Director - FGDC

FROM: Earl F. Burkholder, PS, PE, F.ASCE
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RE: Brief Summary – Meeting at Oregon State University, June 22, 2026

I was in Oregon last week for personal reasons but took advantage of that opportunity to visit Oregon State University (OSU) and become more informed about their geomatics program. Drs. Olsen, Turkan, and others were gracious hosts and my time there was well spent. In particular. . .

- Last fall Brian Sien funneled my inquiry about ASCE addressing the “elephant in the room” (use of 3D digital spatial data) to the ASCE Computing Division EXCOM. I was subsequently invited to make a (Zoom) presentation to a meeting of the Division EXCOM on December 4, 2025. I did and was graciously received. As a member (and Past Chair) of that committee, Dr. Turkan expressed follow up interest.
- I have known Dr. Olsen for many years and was delighted to learn that Dr. Turkan was on the faculty at OSU. Since being in Oregon anyway, that “doubled” my reasons for visiting OSU. Oh yes, I taught surveying in the 4-year program at the Oregon Institute of Technology (OIT) 1980 to 1993 and I have other professional friends in Oregon as well.
- Since leaving OIT, I have been promoting “use of a 3D model for 3D data” even suggesting to ASCE leadership that avoiding the difference between true 3D and pseudo 3D (<http://tru3d.xyz>) is likened to “ignoring the elephant in the room.” The algorithmic integrity of AI remains critical.
- As described in <http://www.globalcogo.com/GSDM-Alternative.pdf> I’ve been successful in getting two papers published in the Journal of Geographic Information Systems (JGIS). These papers identify simple rigorous procedures for computing local distances and directions from ECEF values that obviate the need for conformal mapping. **This is a significant game changer.**
- I agreed with Olsen, Turkan, and Sien before my visit that I would not promote 3D while there but would use the opportunity to learn more about their program, efforts, and activities. I am happy to report that the visit was quite beneficial and that I was very much impressed by. . .
 - The number and quality of faculty.
 - The level of research being conducted.
 - The facilities and institutional commitment to geomatics.
 - The impact of their program throughout the professional community.
 - Their efforts to arrange a meaningful (busy) day for me on campus. It was great!
- Two upcoming papers are on “Practical Applications of the GSDM” and a more theoretical paper on performing computations in 3D space based on the NSRS – e.g., see [2011 ECEF adjustment](#).