



ACEC-NH/NHDOT Highway Design Sub-Committee



**Zoom Hybrid Meeting
June 6, 2023
8:00 am – 9:00 am**

Meeting Minutes

Attendees:

Jim Marshall, NHDOT (Chair)	Brian Colburn, McFarland Johnson (Vice Chair)
Corey Spetelunas, NHDOT	Mark Debowski, GPI
Jonathan Hebert, NHDOT	Bill Ashford, Kleinfelder
Cassandra Burns, NHDOT	Benjamin Martin, VHB
Curtis Morrill, NHDOT	Phil Kendall, HNTB (scribe)
Ronald Grandmaison, NHDOT (Virtual)	Clint Mercer, Jacobs
Bill Caswell, NHDOT	
Eric Milliken, NHDOT	

These meeting minutes are from the June 6, 2023, ACEC-NH/NHDOT Highway Design Sub-Committee Meeting.

1. Introductory Remarks

Phil volunteered to be the scribe for the meeting.

2. Review and Approve Minutes

The May 2, 2023, committee meeting minutes were reviewed and approved.

3. NHDOT CAD/D Update

Bill Caswell provided the committee with an update on where NHDOT is in the process of transitioning to MicroStation Connect and ORD. The PowerPoint presentation shared with the committee includes a lot of great information and is provided as an attachment to these minutes.

Bill noted that NHDOT chose to rebuild its outdated library files from the bottom up to take advantage of functionality added in recent software versions. Bill also noted that NHDOT has developed macros to convert files from v8i versions to the Connect Edition and ORD and that NHDOT is willing to convert files for consultants when asked.

Bill shared some of the challenges the Department had to overcome, including:

- The initial versions were not stable, partially due to the software and partially due to the hardware not having enough memory,
- Tools to develop cut sheets were not ready,

- Cross sections did not recognize crossing features,
- The NHDOT workspace was not fully developed when it was first being used, and
- Large Projects overwhelmed computers (memory).

After the PowerPoint presentation, Bill explained that NHDOT updates/releases are posted on NHDOT's website and shared with the consultants via email based on who has downloaded the information in the past. There was a brief discussion of potentially using the general consultant notification list, the one used to notify of Projects Soliciting for Interest. Bill noted he would look into that suggestion.

Bill shared with the group that NHDOT is considering starting a user group and holding meetings as they have done in the past. Several members of the committee supported this effort and offered to help. Ben offered to help with the planning and scheduling of the meeting. A consultant could lead the group. Jim and Bill were both in support of this.

Following the presentation, the following questions were asked:

Jim asked for an update about how to show drainage for projects. Jim also indicated that there has been discussion internally about using drainage profiles instead of having the information on cross sections. Erik noted that there are challenges with ORD's limited ability to project information on cross sections, which requires cutting cross-sections at specific stations. Jim noted that the consultant should ask the project's PM for direction.

NHDOT is working on sample plans as part of the highway design manual update with the Highway Design Manual Subcommittee.

NHDOT has a recurring monthly meeting with Bentley to check on the status of issues NHDOT is raising. Jim asked if there was a way to keep and share this list of challenges NHDOT has encountered and resolved with Bentley to help the consultants transition. Bill stated that they keep a list and can add it to NHDOT's CAD website.

Jim asked the consultants how the transitions were going for their firms. Ben shared that the modeling and annotation are better than it was initially, though plan production and annotation continue to be inefficient in ORD. There is a lot of effort in getting all the cross sections and plans clean, especially for annotation. Ben suggested an approach of minimizing labeling so that things are only labeled in the plan set once.

Ben asked about the possibility of a model space deliverable. Clint indicated that some contractors they have worked with do not want a model and prefer cross-sections. Ben noted that Florida DOT does not require cross-sections for its projects. Ben also asked if NHDOT has talked to the contractors to see what they need to construct the projects. Jim stated that NHDOT had started the conversation but stopped at the start of the transition to ORD. Further discussion with contractors is needed. Jim does not foresee getting rid of paper for NHDOT projects.

Much of the work for the plan sets with ORD is getting the cross-sections to look good. How much needs to be modeled versus manual work in the cross sections? There is not a consensus. Jim stated that curb ramps do not need to be modeled. NHDOT is currently exporting cross-sections from ORD into 2-D files and modifying them. Brian informed the group about requests from Design Services to model cross sections to a high level at utility crossings by slope and drain.

The group discussed how slope lines are displayed. NHDOT is currently exporting slope lines from the ORD model into a separate file and modifying them as needed.

Ben noted that using 3D modeling for quantity take-offs may eliminate the quantity summary tables altogether. Eric stated that NHDOT is talking/working with Bentley on getting reports out of the model to help with quantities. It is still a work in progress.

Jim asked the consultant group to ask their staff what challenges they are facing and what they would like to improve. Jim suggested that this committee could have future discussions about what needs to be shown on the plans and what the final product should look like.

4. Roundtable Discussion

Due to time constraints, there was no additional roundtable discussion.

Next Meeting – August 8, 2023, 8:00-9:00 am. This meeting will be face-to-face with a virtual option. **Jim will arrange for a room.**