

From: Commissioner Jerdonek
Date: December 7, 2022

SUBJECT: Feedback on Dominion BMD during November 8, 2022 Election

The purpose of this memo is to share feedback on the Dominion ImageCast X accessible ballot-marking device (BMD) and the Department's deployment of it in City Hall, based on my use of it during the November 8, 2022 election at the City Hall Voting Center.

This was my third use of the Dominion BMD. I first used the Dominion BMD at a precinct polling place during the April 19, 2022 election. I did this to better understand the process of voting for voters with disabilities. The April election only had one contest on the ballot, so I also used the BMD during the June 7, 2022 election. In the June election, I went further and used the BMD's audio (headphone) interface, as well as the keypad (arrow) interface. After my use during the June election, I included a 3-page memo of my comments in the agenda packet of the July 20, 2022 Commission meeting under agenda item #7:

<https://sfgov.org/electionscommission/commission-agenda-packet-july-20-2022>

During the November election, I decided to do something different and try using the BMD at the City Hall Voting Center. My feedback below is divided into sections. You will notice that some of my observations are the same as observations I made in my July memo. When an observation is the same, I note this when making the observation.

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1. Room Layout



I was directed to the BMD located in front of the Department's front desk (see picture above). While voting, it felt like I lacked privacy because the screen is large and faces directly towards the front desk. It felt like people behind the front desk or waiting to use the front desk could potentially see how I was voting if they looked. It also wasn't clear if the room had any video cameras pointed in certain directions. Thus, I would suggest changing the setup so the BMD screen faces towards a wall, for example. This way, voters don't feel like they have to look over their shoulder to make sure no one is watching

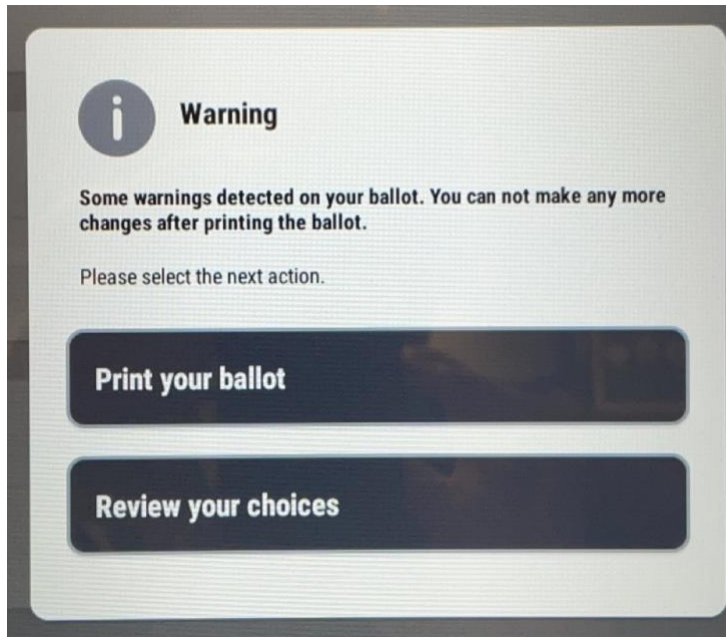
2. Requesting Ballot Audio



After starting my BMD voting session, I couldn't enable the audio because the audio button was grayed out (see picture above). When I contacted the poll worker, they said that in order to use the audio feature, they would need to restart the voting session and I would need to start over.

The same thing happened to me during the June election. In my July memo, I had suggested making it easier to activate the audio. Alternatively, the poll worker could make a point to ask the voter if they might want to use the audio before activating the BMD voting session.

3. Print / Review Dialog Box



When I was done making my selections, the BMD showed the dialog box above. It had the text—

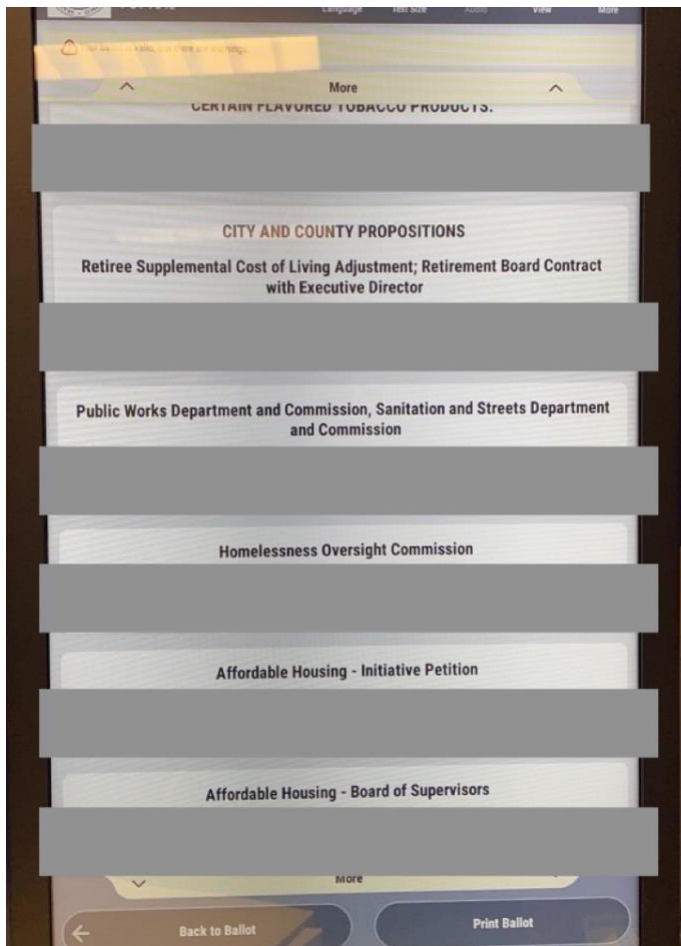
Some warnings detected on your ballot. You can not (sic) make any more changes after printing the ballot.

I have two comments on this text:

First, it would be good if the BMD tells the voter to carefully check the selections on their paper ballot after printing. One of the known vulnerabilities / attack vectors with BMD's is the BMD printing selections different from what the voter selected, and the main protection against this is the voter checking their selections on the printed paper. Thus, it would be good to reinforce this behavior with instructions on the screen.

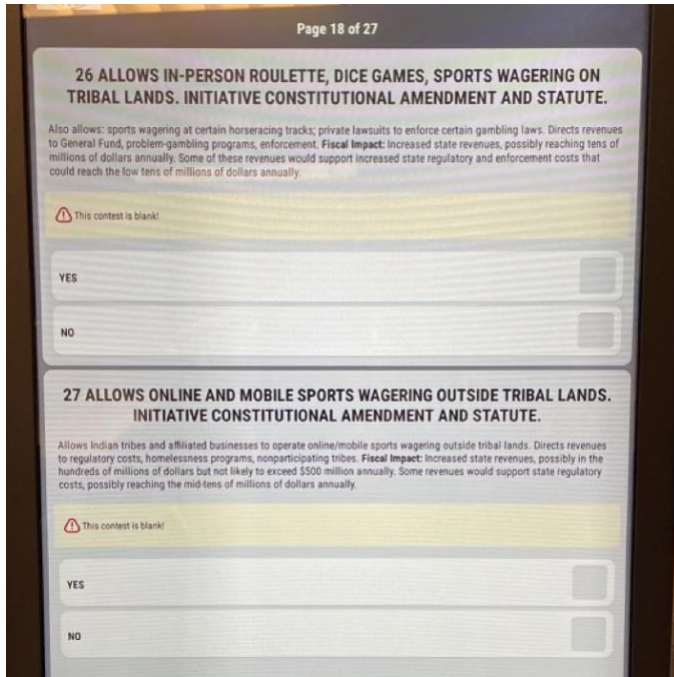
Secondly, the text makes it seem like the voter can't change their ballot after printing the ballot. However, if the voter finds a mistake when reviewing their printed ballot, the voter should be able to vote a new ballot. Thus, the text should acknowledge the possibility that voters could vote a new ballot if they need to and even let the voter know they have this option.

4. Reviewing City and County Propositions



When reviewing your choices for local propositions, the BMD doesn't show the proposition letter. This makes it much harder to review your selections since in some cases voters are more likely to be familiar with the proposition letter than the title text. I also made this same observation in my July memo.

5. Voting on State Propositions



When voting on state propositions, I think it would help to have the word “Proposition” (or “Prop”) before the number. With the way it’s shown above and with the number having the same font as the title text, etc, it’s not as obvious as it could be that the number is the Proposition number.

6. Version Screen

Below is a picture of the version screen. This way, readers of this memo will know what version of the software the BMD was running.

