January 16, 2020

Ms. Sandra Armenta, City of Rosemead, President
Mr. Gustavo Camacho, City of Pico Rivera, Legislative Chair
California Contract Cities Association
17315 Studebaker Road, Suite 210
Cerritos, California 90703

Dear Ms. Armenta and Mr. Camacho:

This responds to your letter of January 9, 2020 in which you expressed concerns and offered recommendations for modification to the County’s Voting Solutions for All People (VSAP) voting system that will be used in the March 3, 2020 Presidential Primary Election to which the Cities have consolidated the General Municipal Election.

Specifically, you addressed your comments to the contest layout format, functionality of various buttons used to view all candidates in a contest and "visual aids" or navigation features on the new VSAP Ballot Marking Device (BMD). Further, you expressed concern that the layout would disadvantage candidates based on ballot order and cited past election margins in City contests as a basis for that concern.

We take concerns regarding the fairness and integrity of the County’s voting system seriously. The very nature of the VSAP initiative has been about inclusion, usability, accessibility and security in modernizing the voting systems and options in Los Angeles County.

To that end, we engaged with recognized experts in human-centered design, usability and accessibility during the design and development phases of the project and throughout the project. The ballot layout features have been subjected to significant review by both a stakeholder advisory committee and a technical advisory committee and unprecedented public engagement through user testing, a mock election and a pilot election.

Moreover, in response to concerns and recommendations, the following features were added to enhance the "MORE" button: (i) addition of a pulsating yellow ring to the "MORE" button which already includes an arrow; (ii) addition of a gradient effect to provide visible indication that the contest continues; and (iii) orienting voters to the "MORE" button navigation through Election Worker training and informational displays at Vote Centers. These enhanced features also work together with other usability features such as prompts to notify the voter of the choices marked and any remaining voting options that may have been missed, and multiple prompts for voters to review selections prior to printing and again after printing, but before casting the ballot.
Prior pilot election results and findings further indicate that users were able to recognize and use the "MORE" button to navigate past the initial screen to view the names of all candidates on the BMD, and that the candidates receiving the fewest votes were consistent across all three ballot types (BMD, vote by mail, and Inkavote).

Taken altogether, we believe there is strong evidence to show that voters can recognize and use the "MORE" button as currently designed to scroll to the remaining candidates before making his or her desired election in a contest. There are also other factors and timing issues limiting our ability to modify the VSAP system, as further addressed below.

Background
Ballot layout specifications for voting equipment are subject to California Voting System Standards (CVSS) adopted by the Secretary of State. There are specific requirements related to accessibility, navigation, font size and usability. These requirements are part of the independent testing and certification required of all voting systems used in California.

Examples include:
- presenting the ballot in compliance with minimum font sizes identified in the Elections Code, but also so it allows the voter to adjust the font size throughout the voting session;
- disabling scrolling functionality that could cause accidental activation or voting; and
- providing unambiguous feedback regarding the voter's selection, such as displaying a checkmark beside the selected option and/or conspicuously changing appearance on the screen.

Determining the order of candidates' names on the ballot is conducted by the Secretary of State. Pursuant to California Elections Code section 13112, on the 82nd day before an election, the Secretary of State conducts a randomized drawing of letters of the alphabet. The resulting order of letters constitutes the "randomized alphabet" to be used for listing the candidates' names on the ballot.

VSAP Design
In the original design of the BMD layout, contests with over four candidates/selections were listed with the first four candidates on a screen with a circular "MORE" button with an up/down arrow to navigate to the remaining candidates/selections. The design and navigation configuration are similar and consistent to State certified BMD ballot layouts offered by other vendors and used in other California counties.

While the format complied with CVSS specifications, validated through stakeholder and technical advisory reviews and functioned well in user testing, concerns were raised about the visibility of the "MORE" button and potential impact for candidates/selections not listed on the initial/first appearance of the contest.

No changes were made before the BMD ballot was used for the Mock Election; although the issue was logged, and refinements were proposed for consideration and testing. The issue was raised again by voters and observers in the Mock Election; although data in the multiple selection contests that appeared on the Mock Election ballot, of which there were several, consistently demonstrated that voters navigated the ballot using the "MORE" button to review all selections.
Recommendations
Suggestions offered in feedback before and from the Mock Election included adding color to the "MORE" button, reducing the font size on contests with over four candidates/selections to fit on a single screen/view, and/or adding "pop-up" screens to alert voters to the continuation of the contest.

Refinement and Modification
Responsive to the concerns and recommendations, we again consulted with design and usability experts and with our development/manufacturing team to make refinements and modifications. These include:

- adding a pulsating yellow ring to the "MORE" button;
- adding a gradient effect to visibly indicate that the contest continues vs hard page stops that appear that all options are visible in a single view; and
- orienting voters to the "MORE" button navigation through Election Worker training and informational displays at Vote Centers

Reducing the font size to list all candidates in a single view would not be compliant with the CVSS specifications and would cause variation of layout from one contest to another. Adding “pop-up” screens was discouraged by design and usability consultants/experts based on concerns for consistent design and navigation associated with the full user experience.

Pilot Election Results and Findings
The above referenced refinements and modifications were made before the November Pilot election in which voters were given the option to vote on the BMD or to use the traditional InkaVote ballot. While the Pilot Election was limited, the contest for Long Beach City Council, First District included eight candidates and thus provided a good test and comparison of ballots cast on the old system all listed on a single page to ballots cast using the BMD where the "MORE" button navigation was required to view all selections.

From the pilot election, we analyzed three ballot types – vote by mail, BMD and InkaVote. The results revealed minimal differences between the ballot types. Similarly, the candidates receiving the fewest votes were consistent across all three ballot types and appeared on both the initial and continuation screens on BMD ballots.

Related Feature Enhancements
Related usability features embedded in the BMD design include prompts to review screens that notify the voter of the choices marked and any remaining voting options that may have been missed (i.e. remaining selections for a vote for multiple contests where the voter only initially selected one choice) and multiple prompts for voters to review selections before printing and again after printing, but before casting the ballot.

Of note, these features were non-existent on the County’s legacy InkaVote Voting System. Instead, in contests with a large number of candidates (examples include Governor and US Senate in 2018), because candidate names extended to additional ballot pages the data showed that many voters made selections on each page resulting in an overvote that canceled their selection. This is improved on the BMD where overvoting cannot occur.
Similarly, the InkaVote Voting System had limited capacity to accommodate consolidation of municipal and district elections with the County’s even-year, state election cycles. The VSAP system extends the capacity for compliance with new laws requiring municipalities and districts to consolidate their elections and allows for significant improvements in language services and accessibility.

Summary
We recognize this is an important issue for CVSS compliance and for public acceptance of the new voting devices. The refinements and modifications made enhance the visibility of the “MORE” button from the initial design. The user testing, consulting advice from usability and design experts and stakeholders, and the data from the Mock and Pilot Elections are compelling evidence that voters recognize and respond to the “MORE” button utility.

Additionally, we believe voter orientation and onsite signage at Vote Centers around the “MORE” button is prudent and will further enhance voters’ understanding and effective use of the BMD ballot format. As a result, those elements will be incorporated into our Vote Center training program and display resources.

Additional modifications, like the first suggestion made in your letter, to the layout would require coding changes that would require resubmission of the system for testing and certification. Those actions cannot occur before the March 2020 election. Even if that was feasible, the BMD layout would remain subject to compliance with the CVSS requirements previously cited.

Regarding the second suggestion made in your letter, as previously mentioned, the randomization of the order of all candidates is done by the Secretary of State as prescribed in Elections Code and cannot be randomized for each ballot absent legislative change.

Again, we appreciate you contacting us regarding the California Contract Cities Association’s concerns and recommendations. We have a long established, collaborative working relationship with cities in the County and we have appreciated the spirit of partnership city participants have offered throughout the VSAP initiative. We are confident that, continuing to work together, we can ensure compliance with State voting system requirements and provide voters with an improved voting experience.

Respectfully,

DEAN C. LOGAN
Registrar-Recorder/County Clerk

c: All Members, Los Angeles County Board of Supervisors
   Nicole Davis Tinkham, Assistant County Counsel, Los Angeles County
   Alex Padilla, Secretary of State