

To the U.S. Architectural and Transportation Barriers Compliance Board (Access Board):

This email contains my comments on the refresh of the standards implementing Section 508 of the Rehabilitation Act, and the guidelines implementing Section 255 of the Telecommunications Act. First, some general thoughts.

It is imperative that the Access Board publish final rules implementing Sections 508 and 255 as soon as possible. Technology is changing at a rapid pace. We have waited over 15 years for the refresh of these standards and guidelines. During that time, numerous advances have been made which changes how we use technology, and the telecommunications equipment landscape. The current standards in no way can keep pace with current technology. For example, there is nothing mentioned in the current Section 508 standards regarding accessibility of mobile devices. This is understandable because very few if any accessible mobile devices were around 15 years ago, and mobile devices were not nearly used as widely as they are today.

I and many others provided comments on the Access Board's Advanced Notices of Proposed Rulemaking, leading up to the Sections 508 and 255 refresh. However, that was 2 to 4 years ago. We don't have that kind of time to wait for the final rules to be published. Government agencies, people with disabilities who interact with or work for them, and others need clear guidance as they grapple with technology acquisition decisions. A clear rule is needed and it must be published as soon as possible.

My below comments are based on both my personal experience as a person with a disability interacting with technology, as well as my work auditing websites and other things to evaluate Section 508 compliance. My comments are as follows:

Comment 1: Section E202.2 states: **E202.2 National Security Systems.** The 508 standards do not apply to ICT operated by agencies as part of a national security system, as defined by 40 U.S.C. 11103(a). The board should consider amending this section by adding language which makes it clear that if such entities employ individuals with disabilities who as part of their work must interact with ICT that is part of the national security system, such ICT shall comply with the Section 508 standards to the maximum extent possible.

Comment 2: Section E202.3 states: **E202.3 Federal Contracts.** ICT acquired by a contractor incidental to a contract shall not be required to conform to the 508 Standards. This appears to run contrary to Section 503 of the Rehabilitation Act as well as recent actions designed to encourage more Federal contractors to employ up to 7% workers with disabilities. The board should change this standard to make it clear that if employees with disabilities are required to use equipment provided by a contractor for a deliverable, said equipment must comply with Section 508 standards.

Comment 3: Section E203.2 states: **E203.2 Agency Business Needs.** When agencies procure, develop, maintain or use ICT they shall identify the

business needs of users with disabilities affecting vision, hearing, color perception, speech, dexterity, strength, or reach to determine:

a. How users with disabilities will perform the functions supported by the ICT; and

b. How the ICT will be installed, configured, and maintained to support users with disabilities. The board should make it clear in the language of this subsection, not just as an advisory, that training must be offered to individuals with disabilities on how to use ICT, either with or without Assistive Technology to accomplish agency business needs. Too often, individuals are provided with technology but not with adequate training on how to efficiently use it. The board should also state that evaluation, installation, configuration and training in the use of ICT with or without assistive technology shall be provided at no cost to an individual with a disability.

Comment 4, answer to Question 4 on the eight categories of non-public facing information in Section 205.3. These categories are adequate to meet the needs of employees with disabilities in Federal agencies. The board has clearly stated that these categories do not impact on the duty of agencies to provide reasonable accommodations under Sections 501 and 504 of the Rehabilitation Act. It would be helpful for the board to indicate that agencies are encouraged to make all documents available where readily achievable, to insure that employees with disabilities are not unintentionally excluded from receiving the same information as their non-disabled colleagues. I am concerned that by prescribing what needs to comply, those charged with compliance will think that is the maximum, not minimum they need to do in order to accommodate someone.

Comment 5, answer to Question 6. Question 6 by the board asks: The Board seeks comment on the extent that the proposed incorporation of WCAG 2.0 Level A and Level AA Success Criteria would result in new costs or benefits. We have characterized the majority of success criteria as "substantially equivalent" to requirements under the existing 508 Standards and 255 Guidelines and request comment as to the accuracy of this characterization. The board has accurately characterized a majority of the WCAG 2.0 Level A and AA criteria as equivalent to the Section 508 standards. There should be very little additional cost and greater benefits from including WCAG 2.0 for documents over and above websites. It makes it clear that documents, especially PDF documents, need to be written such that they are accessible to people with disabilities. Also, it will help to clarify that mobile apps and their content must also be accessible per WCAG 2.0. This is readily achievable, particularly on mobile devices which have assistive technology included such as Apple iDevices and the Android platform. In my

experience, those preparing documents, especially using PDF, do not realize that a P

DF that is scanned in cannot be made accessible. That document is a picture, with no text for assistive technology devices or software to interact with. The other issue with PDFs is that they are often not tagged properly so that an individual can interact with them. This is problematic, especially in those cases where individuals need to fill out electronic PDF forms. Even the IRS does poorly in this area.

The board should also state that as WCAG evolves, items required to currently comply with WCAG 2.0 should also be made to comply with any future guidelines when they are substantially updated. Technology is evolving quickly, and as the referenced guidelines are revised, Federal agencies need to revise those items without having a new NPRM issued so people with disabilities are not left behind.

Comment 6, answer to Question 7. In Question 7, the board asks: A Web page can conform to WCAG 2.0 either by satisfying all success criteria under one of the levels of conformance or by providing a conforming alternate version. WCAG 2.0 always permits the use of conforming alternate versions. Are there any concerns that unrestricted use of conforming alternate versions of Web pages may lead to the unnecessary development of separate Web sites or unequal services for individuals with disabilities? Should the Board restrict the use of conforming alternate versions beyond the explicit requirements of WCAG 2.0? The board is right in its decision to delete Section 1194.22K. If content is developed to WCAG 2.0 Level A and AA, there should never be the need for an alternate version. Furthermore, we do not believe there should be concerns about development of unequal services.. Developing to WCAG 2.0 Level A or AA will also allow for access by people with disabilities using mobile devices such as Apple's iDevices or the Android platform.

Comment 7, answer to Question 14. In question 14, the board asks: Is the scope of public facing content covered by proposed E205.2 sufficiently clear? Are there other issues the Board should consider in defining the scope of the term "public facing"? While the board has broadly covered what is public facing, it should also urge that if an agency is unclear whether something is covered by this section, it should assume it is and do what is required to make sure it is accessible to and usable by people with disabilities. AS I stated previously, the board should be careful and not appear to prescribe too much. We want people in Federal agencies to go for maximum compliance, not do just the bear minimum.

Comment 8: Section E206, Hardware. The board should make it clear that hardware includes mobile devices such as cell phones and tablets, as these are used heavily in both the Government and private sectors to conduct business. This comment applies to Section C204, hardware under the Section 255 guidelines as well. A variety of mobile devices include accessibility features which make them usable by individuals with disabilities. These include Apple iDevices which include VoiceOver and Zoom, and Android devices which incorporate TalkBack and BrailleBack. The board needs to make it clear that hardware needs to be procured which either includes accessibility features, or, can work with assistive technology used by people with disabilities.

Comment 9: Section E207, software. The board needs to make it clear that these requirements apply to apps on mobile devices which are necessary to conduct agency business. Specifically, the board should clarify that apps designed to allow agency employees to conduct business or provide information to the public shall be designed, developed and tested to work with accessibility features found on mobile devices, such as Zoom and VoiceOver on iDevices or TalkBack, BrailleBack and magnification found on Android devices. This comment applies to Section C205, software under the 255 guidelines as well.

Comment 10: Section 302.1, Without Vision. Currently states: **302.1 Without Vision.** Where a visual mode of operation is provided, ICT shall provide at least one mode of operation that does not require user vision. We are concerned that agencies could meet this requirement by providing just audio output, which may not work for individuals who have no usable vision, plus hearing loss or individuals who are deaf blind as defined using definitions provided by the Helen Keller National Center for Deafblind Youths and Adults. The board should add the following language to the end of this subsection: "Where audio output is used, ICT shall support the use of auxiliary aids such as Refreshable Braille devices in order to insure that all potential users without usable vision will be able to access all features and functions of the ICT."

Comment 11: Section 402.2 states: **402.2 Speech-Output Enabled.** ICT with a display screen shall be speech-output enabled. Operating instructions and orientation, visible transaction prompts, user input verification, error messages, and all displayed information for full use shall be accessible to, and independently usable by, individuals with vision impairments. Speech output shall be delivered through a mechanism that is readily available to all users, including, but not limited to, an industry standard connector or a telephone handset. Speech shall be recorded or digitized human, or

synthesized. Speech output shall be coordinated with information displayed on the screen. Again, this could exclude use of such equipment by individuals who are deaf blind using refreshable Braille devices. The board should add the following language to the end of this subsection, just before discussing exceptions: "Where readily achievable, such ICT shall support the use of refreshable Braille devices to provide the same access as that provided using speech output."

Comment 12, Answer to Question 19: In Question 19, the board asks: Does the proposed exception to the requirement for tactilely discernible input controls strike the appropriate balance so that it permits innovative accessibility approaches for individuals with visual impairments without being overbroad? Should there be additional requirements for touchscreens? For example, should the Board require touchscreens to be compatible with prosthetic devices? We are concerned about the board providing this exemption because it assumes that any individual with a visual impairment can operate a touch screen using the types of gestures and audio cues provided by Apple IOS devices using VoiceOver. First, individuals who also have hearing loss in addition to visual impairment may not be able to easily operate such devices unless they support the attachment of refreshable Braille devices. Secondly, some individuals with visual impairments who have conditions such as diabetes also experience neuropathy in their hands, which causes shaking and can make it difficult to impossible to perform the gestures and movements needed to control touch screen devices. Therefore, the board should require that tactilely discernible controls be provided.

Comment 13, Section 413.1.2. While we agree with the board's approach to requiring that controls for audio description must be placed in a prominent location to other program selection controls, the board should also go farther and require that such controls be tactilely discernible.

Comment 14, Section 603.2: This section currently states: **603.2 Information on Accessibility and Compatibility Features.** ICT support services shall include information on the accessibility and compatibility features required by 602.2. The board should expand this section in two ways. First, require that those providing support services such as help desk personnel undergo ongoing training on how to enable and use product accessibility features. Too often, when personnel turn over in a help desk setting, they are trained on the product but not on the accessibility features. In other words, what we're saying is that training on accessibility needs to be an essential part of ongoing training on the product.

Secondly, those providing support services shall be trained such that they can describe to an individual how to enable accessibility features without requiring that said individuals provide to them information which their disability precludes them from providing. For example, a help desk person should not ask a person who is blind what lights or visual indicators are active prior to helping them to either enable accessibility features or troubleshoot product issues. The classic example of where this happens is when a person who is blind calls an internet service provider to get help with a service issue, and when they are unable to tell the support person what lights are on, they are refused help.

Comment 15: The board should require that where signage, information kiosks or other systems which provide information either to the public and/or to employees with disabilities must provide this information in at least an audio and visual format. This requirement should apply even if the device in question may be viewed as a closed system. Systems providing real time information can and have been made accessible. For example, The Metra Commuter Rail system in Chicago, Illinois has installed systems in its downtown Chicago stations which provide real time train and track information, with such systems providing audio and visual output.

Thank you again to the board for at long last, publishing this refresh of standards and guidelines for implementing Section 508 of the Rehabilitation Act, and Section 255 of the Telecommunications Act, respectively. Please move quickly, once all comments are received to publish a final rule.

Ray Campbell]