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Messages for audible information devices

Audible information devices are intended to provide information to pedestrians with visual disabilities that is equivalent to visual signing for notification of sidewalk closures and to indicate a temporary path around a construction area, using a speech message. Ullman, Brewer, Fitzpatrick, and Ullman (2008) completed research in Texas on pedestrians and temporary traffic control areas, sometimes called construction areas or work zones. The full report can be found at http://tti.tamu.edu/documents/0-5237-1.pdf. Researchers tested nine messages to identify key components or phrases that should be used within audio messages to provide visually impaired pedestrians with information regarding work zones that would affect their travel. The example messages provided here are based on that research, with some modifications and additional suggestions by Accessible Design for the Blind.

Directions to negotiate an alternate route on sidewalk on the opposite side of the street Should be provided from audible information device located within in the sidewalk area before the pedestrian reaches the corner where crossing the street is required

Message format:

"Attention [direction] [street name] pedestrians. Sidewalk closed ahead for [number] blocks. Alternate path on opposite side of road. Cross to the other side at next intersection and continue [number] blocks."

Sample message:

"Attention westbound University Drive pedestrians. Sidewalk closed ahead for 2 blocks. Alternate path on opposite side of road. Cross to the other side at next intersection and continue 2 blocks."

Directions to negotiate an alternate route in the roadway

Message format:

"Attention [direction] [street name] pedestrians. Sidewalk construction ahead. Temporary fenced path in street is open. Rejoins original sidewalk after [number] feet"

Sample message:

"Attention westbound University Drive pedestrians. Sidewalk construction ahead. Temporary fenced path in street is open. Rejoins original sidewalk after 100 feet"

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IF path is ramped down to the street, additional information may be helpful:

Message format:

"Attention [direction] [street name] pedestrians. Sidewalk construction ahead. Ramp slopes down. Temporary fenced path in street is open. Rejoins original sidewalk after [number] feet"

Sample message:

"Attention westbound University Drive pedestrians. Sidewalk construction ahead. Ramp slopes down. Temporary fenced path in street is open. Rejoins original sidewalk after 100 feet."

Warning only of events (the pedestrian can continue on route)

Message format:

"Attention [direction] [street name] pedestrians. Construction ahead; sidewalk is open [event/caution] in area."

Sample messages:

"Attention eastbound University Drive pedestrians. Construction ahead; sidewalk is open. Loud noises expected in area."

"Attention eastbound University Drive pedestrians. Construction ahead; sidewalk is open but uneven in area."

Additional recommendations:

The individual who records the messages should speak clearly, and messages should be recorded in a quiet area, not on the street in a construction area. Bentzen, Barlow, and Franck in *Determining Recommended Language for Speech Messages used by Accessible Pedestrian Signals: Final Report (2002)* recommend that: "messages must be recorded very carefully, in a clear, moderately pitched voice, with excellent diction and moderate pacing. For persons with unimpaired hearing, a female voice will be understood somewhat better than a male voice because the frequency spectrum of the male voice is closer to that of traffic. However, for the large number of people who are visually impaired who also have age-related or other hearing loss, a female voice may not be as easy to understand as a male voice." (page 23)

References

- Bentzen, B.L., Barlow, J.M. & Franck, L. (2002) Determining Recommended Language for Speech Messages used by Accessible Pedestrian Signals: Final Report. Berlin, MA: Accessible Design for the Blind.
- Ullman, B.R., Brewer, M. A., Fitzpatrick, K., & Ullman, G.L. (2008) *Investigating pedestrian components in temporary traffic control*. College Station, Texas: Texas Transportation Institute. FHWA/TX-08/0-5237-1