



National Committee on Uniform Traffic Control Devices

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National Committee on Uniform Traffic Control Devices (NCUTCD) Recommended Changes to Proposed Text for 11th Edition of the MUTCD Docket Number: FHWA-2020-0001

6 **Federal Register Item Number:** 419-424 (see listing below)

7 **NPA MUTCD Section Number:** Chapter 4I

8 **Legend:** Base text shown in proposal is the NPA “clean” proposed text.

- 9
- 10 • [NCUTCD recommendation for text to be added in final rule.](#)
 - 11 • ~~NCUTCD recommendation for text to be deleted in final rule.~~
 - 12 • [NCUTCD recommendation for text to be moved/relocated in final rule.](#)
 - 13 • NPA text that was not previously approved by NCUTCD but is now approved.
 - 14 • Explanatory note: [\[Note that explains purpose of recommended change.\]](#)

15 The following pages present NCUTCD recommendations for changes to the MUTCD NPA
16 proposed text, tables, and figures for Chapter 4I. Below is a short summary of the NCUTCD
17 position for each section of this chapter. A more detailed summary is provided at the beginning
18 of each section.

- 19
- 20 • NPA #419, Section 4I.01: Changes recommended based on Council action in spring 2021.
 - 21 • NPA #420, Section 4I.02: NCUTCD agrees with NPA content.
 - 22 • NPA #421, Section 4I.03: NCUTCD agrees with NPA content.
 - 23 • NPA #422, Section 4I.04: NCUTCD agrees with NPA content.
 - 24 • NPA #423, Section 4I.05: Recommend changes to text and figure.
 - 25 • NPA #424, Section 4I.06: NCUTCD agrees with NPA content.

26

27 **Section 4I.01 Comments:** NCUTCD recommends changing Guidance language to improve
28 clarity and align with the ADA.

29 **Section 4I.01 Pedestrian Signal Heads**

30 Support:

31 Pedestrian signal heads provide special types of traffic signal indications exclusively
32 intended for controlling pedestrian traffic. These signal indications consist of the illuminated
33 symbols of a WALKING PERSON (symbolizing WALK) and an UPRAISED HAND
34 (symbolizing DONT WALK).

35 See Section 4D.02 for information on when to use pedestrian signal heads.

36 *Guidance:*

37 *[Accessible pedestrian signals \(see Chapter 4K\) that provide information in non-visual](#)*
38 *[formats \(such as audible tones, speech messages, and/or vibrating surfaces\) should be provided](#)*
39 *[based on the results of an engineering study considering the factors listed in Section 4K.01.](#)*

40
41 *Accessible pedestrian signals (see Chapter 4K) that provide information in non-visual formats*
42 *(such as audible tones, speech messages, and vibrating surfaces) should be provided as*
43 *discussed in Section 4K.01.*

44 Support:

45 Chapter 4J contains information regarding the use of pedestrian hybrid beacons and Chapter
46 4U contains information regarding the use of In-Roadway Warning Lights at unsignalized
47 marked crosswalks.
48

49
50 **Section 4I.02 Comments: NCUTCD agrees with 4I.02 as presented in the NPA.**

51 **Section 4I.02 Size, Design, and Illumination of Pedestrian Signal Head Indications**

52 **Standard:**

53 All new pedestrian signal head indications shall be displayed within a rectangular background
54 and shall consist of symbolized messages (see Figure 4I-1), except that existing pedestrian signal
55 head indications with lettered or outline style symbol messages shall be permitted to be retained for
56 the remainder of their useful service life. The symbol designs that are set forth in the “Standard
57 Highway Signs and Markings” book (see Section 1A.05) shall be used. Each pedestrian signal head
58 indication shall be independently displayed and emit a single color.
59

60
61 **Figure 4I-1 Comments: NCUTCD agrees with Figure 4I-1 as presented in the NPA.**

62 **Figure 4I-1. Typical Pedestrian Signal Indications**
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65 If a two-section pedestrian signal head is used, the UPRAISED HAND (symbolizing DONT
66 WALK) signal section shall be mounted directly above the WALKING PERSON (symbolizing
67 WALK) signal section. If a one-section pedestrian signal head is used, the symbols shall be either
68 overlaid upon each other or arranged side-by-side with the UPRAISED HAND symbol to the left of
69 the WALKING PERSON symbol, and a light source that can display each symbol independently
70 shall be used.

71 The WALKING PERSON (symbolizing WALK) signal indication shall be white, with all except
72 the symbol obscured by an opaque material for signal optical units that use incandescent lamps
73 within optical assemblies that include lenses. The UPRAISED HAND (symbolizing DONT WALK)
74 signal indication shall be Portland orange, with all except the symbol obscured by an opaque
75 material for signal optical units that use incandescent lamps within optical assemblies that include
76 lenses.

77 Except as provided in Paragraph 5, the requirements of Chapter 3 of the publication entitled
78 “Equipment and Materials Standards of the Institute of Transportation Engineers” (see Section
79 1A.05) that pertain to the aspects of the pedestrian signal head design that affect the display of the
80 signal indications shall be met for signal optical units that use incandescent lamps within optical
81 assemblies that include lenses. Except as provided in Paragraph 5, the requirements of the
82 publication entitled “Pedestrian Traffic Control Signal Indicators – Light Emitting Diode (LED)
83 Signal Modules” (see Section 1A.05) that pertain to the aspects of the signal head design that affect

84 **the display of the signal indications shall be met for light emitting diode (LED) pedestrian signal**
85 **head modules.**

86 *Guidance:*

87 *The intensity and distribution of light from each illuminated pedestrian signal lens or LED pedestrian*
88 *signal head module should comply with the publications specified in Paragraph 4, as appropriate.*

89 *When not illuminated, the WALKING PERSON (symbolizing WALK) and UPRAISED HAND*
90 *(symbolizing DONT WALK) symbols should not be visible to pedestrians at the far end of the crosswalk*
91 *that the pedestrian signal head indications control.*

92 **Standard:**

93 **For pedestrian signal head indications, the symbols shall be at least 6 inches high.**

94 **The light source of a flashing UPRAISED HAND (symbolizing DONT WALK) signal indication**
95 **shall be flashed continuously at a rate of not less than 50 or more than 60 times per minute. The**
96 **displayed period of each flash shall be a minimum of 1/2 and a maximum of 2/3 of the total flash**
97 **cycle.**

98 *Guidance:*

99 *Pedestrian signal head indications should be conspicuous and recognizable to pedestrians at all*
100 *distances from the beginning of the controlled crosswalk to a point 10 feet from the end of the controlled*
101 *crosswalk during both day and night.*

102 *For crosswalks where the pedestrian enters the crosswalk more than 100 feet from the pedestrian*
103 *signal head indications, the symbols should be at least 9 inches high.*

104 *If the pedestrian signal indication is so bright that it causes excessive glare in nighttime conditions,*
105 *some form of automatic dimming should be used to reduce the brilliance of the signal indication.*

106 *Option:*

107 *An animated eyes symbol may be added to a pedestrian signal head in order to prompt pedestrians to*
108 *look for vehicles in the intersection during the time that the WALKING PERSON (symbolizing WALK)*
109 *signal indication is displayed.*

110 **Standard:**

111 **If used, the animated eyes symbol shall consist of an outline of a pair of white steadily-**
112 **illuminated eyes with white eyeballs that scan from side to side at a rate of approximately once per**
113 **second. The animated eyes symbol shall be at least 12 inches wide with each eye having a width of**
114 **at least 5 inches and a height of at least 2.5 inches. The animated eyes symbol shall be illuminated**
115 **at the start of the walk interval and shall terminate at the end of the walk interval.**

116

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118 **Section 4I.03 Comments: NCUTCD agrees with 4I.03 as presented in the NPA.**

119 **Section 4I.03 Location and Height of Pedestrian Signal Heads**

120 **Standard:**

121 **Pedestrian signal heads shall be mounted with the bottom of the signal housing including**
122 **brackets not less than 7 feet or more than 10 feet above sidewalk level, and shall be positioned and**
123 **adjusted to provide maximum visibility at the beginning of the controlled sidewalk.**

124 *Guidance:*

125 *If pedestrian signal heads are mounted on the same support as vehicular signal heads, there should*
126 *be a physical separation between them.*

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129 **Section 4I.04 Comments: NCUTCD agrees with 4I.04 as presented in the NPA.**

130 **Section 4I.04 Countdown Pedestrian Signals**

131 **Standard:**

132 All pedestrian signal heads used at crosswalks where the pedestrian change interval is more
133 than 7 seconds shall include a pedestrian change interval countdown display in order to inform
134 pedestrians of the number of seconds remaining in the pedestrian change interval.

135 **Option:**

136 Pedestrian signal heads used at crosswalks where the pedestrian change interval is 7 seconds or less
137 may include a pedestrian change interval countdown display in order to inform pedestrians of the number
138 of seconds remaining in the pedestrian change interval.

139 **Standard:**

140 Where countdown pedestrian signals are used, the countdown shall always be displayed
141 simultaneously with the flashing UPRAISED HAND (symbolizing DONT WALK) signal indication
142 displayed for that crosswalk.

143 Countdown pedestrian signals shall consist of Portland orange numbers that are at least 6
144 inches in height on a black opaque background. The countdown pedestrian signal shall be located
145 immediately adjacent to the associated UPRAISED HAND (symbolizing DONT WALK) pedestrian
146 signal head indication (see Figure 4I-1).

147 The display of the number of remaining seconds shall begin only at the beginning of the
148 pedestrian change interval (flashing UPRAISED HAND). After the countdown displays zero, the
149 display shall remain dark until the beginning of the next countdown.

150 The countdown pedestrian signal shall display the number of seconds remaining until the
151 termination of the pedestrian change interval (flashing UPRAISED HAND). Countdown displays
152 shall not be used during the walk interval. Countdown displays shall not be used during the red
153 clearance interval of a concurrent vehicular phase that is ending simultaneously with or after the
154 end of the pedestrian phase.

155 **Guidance:**

156 *If used with a pedestrian signal head that does not have a concurrent vehicular phase, the pedestrian
157 change interval (flashing UPRAISED HAND) should be set to be approximately 4 seconds less than the
158 required pedestrian clearance time (see Section 4I.07) and an additional clearance interval (during
159 which a steady UPRAISED HAND is displayed) should be provided prior to the start of the conflicting
160 vehicular phase.*

161 *For crosswalks where the pedestrian enters the crosswalk more than 100 feet from the countdown
162 pedestrian signal display, the numbers should be at least 9 inches in height.*

163 *Because some technology includes the countdown pedestrian signal logic in a separate timing device
164 that is independent of the timing in the traffic signal controller, care should be exercised by the engineer
165 when timing changes are made to pedestrian change intervals.*

166 *If the pedestrian change interval is interrupted or shortened as a part of a transition into a
167 preemption sequence (see Section 4F.19), the countdown pedestrian signal display should be
168 discontinued and go dark immediately upon activation of the preemption transition.*

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171 **Section 4I.05 Comments:** NCUTCD recommends adding Guidance and Support language in
172 accordance with NCUTCD recommendation 20B-SIG-01 to Guidance in 4I.05.

173 **Section 4I.05 Pedestrian Detectors**

174 Option:

175 Pedestrian detectors may be push buttons or passive detection devices. Pedestrian detectors may
176 include features that allow touch-free activation in addition to all other push button features required in
177 this section.

178 Support:

179 Passive detection devices register the presence of a pedestrian in a position indicative of a desire to
180 cross, without requiring the pedestrian to push a button. Some passive detection devices are capable of
181 tracking the progress of a pedestrian as the pedestrian crosses the roadway for the purpose of extending or
182 shortening the duration of certain pedestrian timing intervals.

183 The provisions in this Section place pedestrian push buttons within easy reach of pedestrians who are
184 intending to cross each crosswalk and make it obvious which push button is associated with each
185 crosswalk. These provisions also position push button poles in optimal locations for installation of
186 accessible pedestrian signals (see Chapter 4K). Information regarding reach ranges can be found in the
187 U.S. Department of Justice 2010 ADA Standards for Accessible Design, September 15, 2010 and Code of
188 Federal Regulations, Title 28, Parts 35 and 36. Americans with Disabilities Act of 1990 (see Section
189 1A.05).

190 *Guidance:*

191 *If pedestrian push buttons are used, they should be capable of easy activation requiring no more than*
192 *5 pounds of force, not require tight grasping, pinching, or twisting of the wrist, and be conveniently*
193 *located near each end of the crosswalks. Except as provided in Paragraphs 5 and 6, pedestrian push*
194 *buttons should be located to meet all of the following criteria (see Figure 4I-2):*

- 195 *A. Unobstructed and accessible within one or more of the reach ranges specified in Section 308, and*
196 *from a clear ground clearance as specified in Section 305, of the 2010 ADA Standards for*
197 *Accessible Design;*
- 198 *B. To provide a wheelchair accessible route from the push button to the ramp;*
- 199 *C. On the side of the curb ramp which is farthest from the center of the intersection;*
- 200 *D. Not greater than 10 feet from the edge of the associated curb ramp which is farther from the*
201 *center of the intersection;*
- 202 *E. Not greater than 5 feet from the outside edge of the marked crosswalk farthest from the center of*
203 *the intersection;*
- 204 *F. Not farther from the crosswalk than the stop line is, if present;*
- 205 *G. Between 1.5 and 6 feet from the face of the curb or from the outside edge of the shoulder (or if no*
206 *shoulder exists, from the edge of the pavement);*
- 207 *H. With the face of the push button parallel to the crosswalk to be used;*
- 208 *I. At a mounting height of approximately 3.5 feet, but no more than 4 feet, above the sidewalk;*
- 209 *J. Allowing a minimum 4-foot continuous clear width for a pedestrian access route; and*
- 210 *K. Outside the flared side of the curb ramp, if present.*
- 211 *L. 2.5 feet minimum from the side of the ramp wing and 1 foot minimum from the top of the*
212 *ramp. (add Guidance paragraph per 20B-SIG-01)*

216 **Figure 4I-2 Comments:** NCUTCD recommends deleting NPA Figure 4I-2 and replacing it with
217 two new figures.

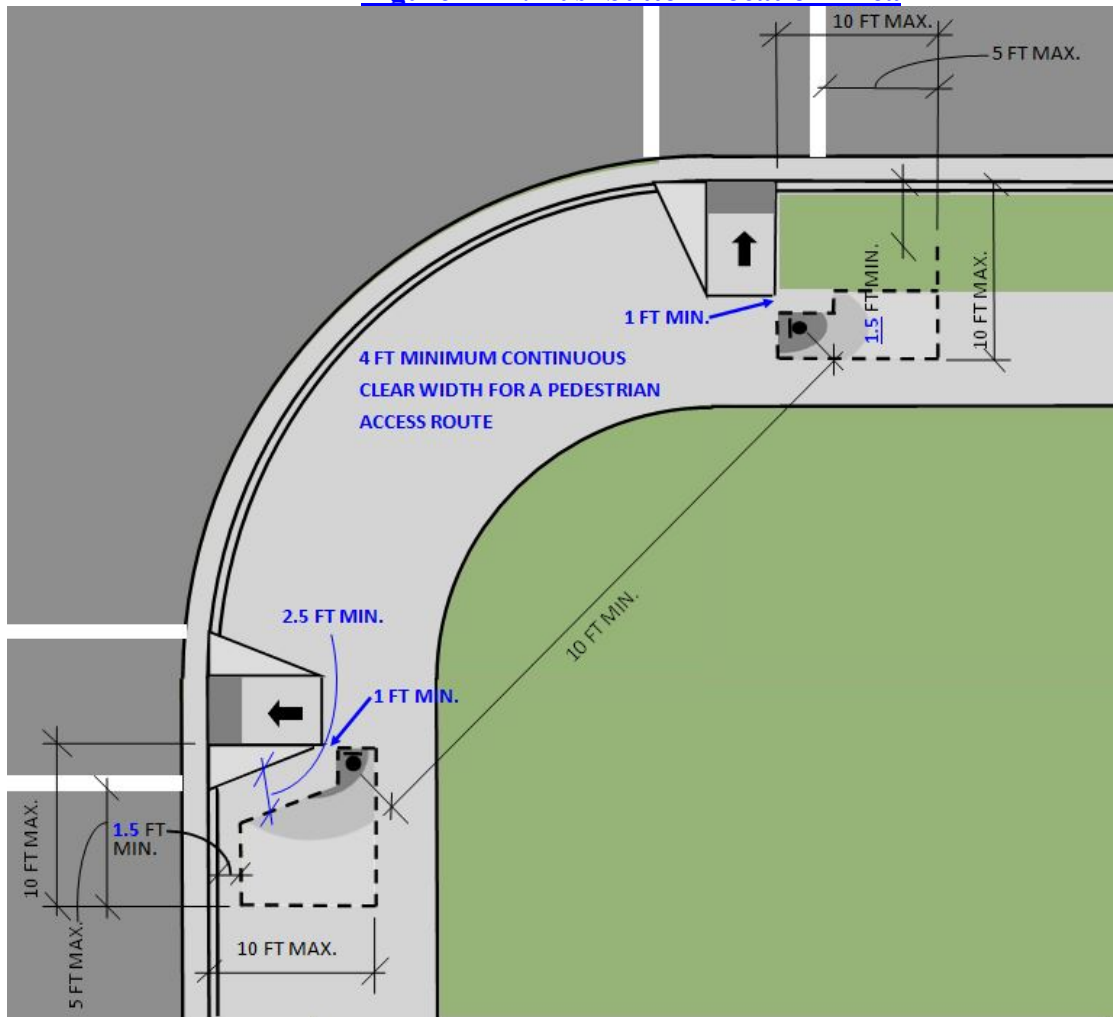
218 **Figure 4I-2. Pushbutton Location Area**

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221 **Figure 4I-X Comments:** NCUTCD recommends adding a new Figure 4I-X to depict preferred
222 placement of pedestrian detection on street corners with a pedestrian access ramp for each
223 crosswalk to be consistent with existing MUTCD text and AASHTO clear zone requirements in
224 accordance with NCUTCD recommendation 20B-SIG-01.

225 **Figure 4I-X. Pushbutton Location Area**



NOTES:

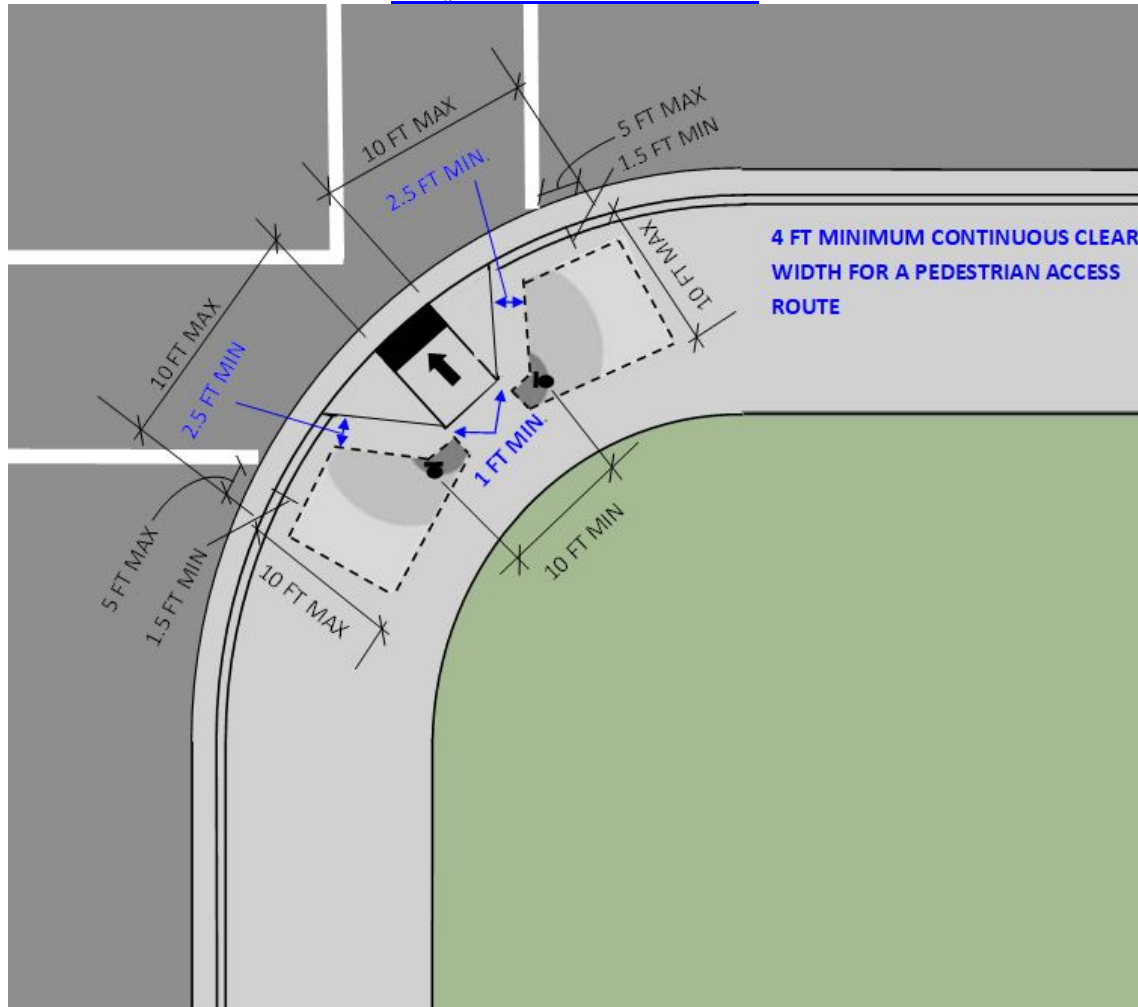
1. [No greater than 5 feet from the outside edge of the marked crosswalk farthest from the center of the intersection.](#)
2. [Not farther from the crosswalk than the stop line, if present.](#)
3. Any maximum (MAX) or minimum (MIN) dimensions shown are based on Guidance Statements.
4. Two pedestrian pushbuttons on a corner should be separated by [a minimum of 10 feet](#). The 10-foot dimension shown in this figure is in reference to the [placement of the pushbuttons within their respective areas \(see 4I.05\)](#).
5. [All dimensions referencing the curb are measured from the face of curb.](#)
6. Figure [4I-4](#) shows typical pushbutton locations.

7. Allow a minimum 4-foot continuous clear width for a pedestrian access route.

8. 2.5 feet minimum from the side of the ramp wing and 1 foot minimum from the top of the ramp.

226 **Figure 4I-Y Comments:** NCUTCD recommends adding a new Figure 4I-Y to depict preferred
227 placement of pedestrian detection on street corners with a single pedestrian access ramp serving
228 two crosswalks in accordance with NCUTCD recommendation 20B-SIG-01.

229 **Figure 4I-Y. Pushbutton Location Area For Use Where A Single Ramp Exists Or Is The**
230 **Only Available Alternative**



231 **NOTES:**

1. This figure is shown for an existing ramp or when conditions preclude the installation of two ramps on a corner
2. No greater than 5 feet from the outside edge of a marked crosswalk farthest from the center of the intersection.
3. Not farther from the curb ramp than the stop line, if present.
4. Any maximum (MAX) or minimum (MIN) dimensions shown are based of Guidance Statements.
5. Two pedestrian pushbuttons on a corner should be separated by a minimum of 10 feet. The 10-foot dimension shown in this figure is in reference to the placement of the pushbuttons within their respective areas (see 4I.05).
6. All dimensions referencing the curb are measured from the face of curb.
7. Figure 4I-4 shows typical pushbutton locations.
8. Allow a minimum 4-foot continuous clear width for a pedestrian access route.

232 2.5 feet minimum from the side of the ramp wing and 1 foot minimum from the top of the ramp.

233

234

235 **Figure 4I-3 Comments: NCUTCD agrees with Figure 4I-3 as presented in the NPA.**

236 **Figure 4I-3. Typical Pushbutton Locations**

237
238
239 *Where there are physical constraints that make it impractical to place the pedestrian push button*
240 *adjacent to a level all-weather surface, the surface should be as level as feasible.*

241 *Where there are physical constraints that make it impractical to place the pedestrian push button*
242 *between 1.5 and 6 feet from the face of the curb or from the outside edge of the shoulder (or if no*
243 *shoulder exists, from the edge of the pavement), it should not be farther than 10 feet from the face of the*
244 *curb or from the outside edge of the shoulder (or if no shoulder exists, from the edge of the pavement).*

245 *Except as provided in Paragraph 8, where two pedestrian push buttons are provided on the same*
246 *corner of a signalized location, the push buttons should be separated by a distance of at least 10 feet.*

247 Option:

248 Where there are physical constraints on a particular corner that make it impractical to provide the 10-
249 foot separation between the two pedestrian push buttons, or when an exclusive pedestrian phase is used at
250 an intersection and the pedestrian signals controlling the crosswalks on a given corner of the intersection
251 both operate together such that the “Walk” indication is always simultaneous for both crosswalks, the
252 push buttons may be placed closer together or on the same pole.

253 Support:

254 Figure 4I-3 shows typical pedestrian push button locations for a variety of situations.

255 [Figure 4I-Y shows typical pedestrian pushbutton locations for use where a single ramp exists or is the](#)
256 [only available alternative.](#) (Add Support paragraph to address new Figure per 20B-SIG-01)

257 **Standard:**

258 **If a pedestrian push button is provided, a sign (see Section 2B.62) shall also be installed**
259 **explaining the purpose and use of the pedestrian push button detector.**

260 Option:

261 At certain locations, a supplemental sign in a more visible location may be used to call attention to the
262 pedestrian push button.

263 **Standard:**

264 **The positioning of pedestrian push buttons and the legends on the pedestrian push button signs**
265 **shall indicate which crosswalk signal is actuated by each pedestrian push button.**

266 **If the pedestrian clearance time is sufficient only to cross from the curb or shoulder to a median**
267 **of sufficient width for pedestrians to wait and the signals are pedestrian actuated, an additional**
268 **pedestrian detector shall be provided in the median.**

269 *Guidance:*

270 *The use of additional pedestrian detectors on islands or medians where a pedestrian might become*
271 *stranded should be considered.*

272 *If used, special purpose push buttons (to be operated only by authorized persons) should include a*
273 *housing capable of being locked to prevent access by the general public and do not need an instructional*
274 *sign.*

275 **Standard:**

276 **If used, a pilot light or other means of indication installed with a pedestrian push button shall**
277 **not be illuminated until actuation. Once it is actuated, the pilot light shall remain illuminated until**
278 **the pedestrian’s green or WALKING PERSON (symbolizing WALK) signal indication is displayed.**

279 Option:

280 At signalized locations with a demonstrated need and subject to equipment capabilities, pedestrians
281 with special needs may be provided with additional crossing time by means of an extended push button
282 press.

283 **Standard:**

284 **If additional crossing time is provided by means of an extended push button press, a PUSH**
285 **BUTTON FOR 2 SECONDS FOR EXTRA CROSSING TIME (R10-32P) plaque (see Section**
286 **2B.62) shall be installed.**

287

288

289 **Section 4I.06 Comments:** NCUTCD recommends modifying the Guidance regarding the use of
290 Accessible Pedestrian Signals (APS) when Leading Pedestrian Intervals (LPI) are used at a
291 traffic signal, and recommends modifying the Standard to establish a minimum duration for the
292 display of a WALKING PERSON (symbolizing WALK) indication where LPIs are used.

293 **Section 4I.06 Pedestrian Intervals and Signal Phases**

294 **Standard:**

295 At intersections equipped with pedestrian signal heads, the pedestrian signal indications shall
296 be displayed except when the vehicular traffic control signal is being operated in the flashing mode.
297 At those times, the pedestrian signal indications shall not be displayed.

298 Except as provided in Paragraph 3, when the pedestrian signal heads associated with a
299 crosswalk are displaying either a steady WALKING PERSON (symbolizing WALK) or a flashing
300 UPRAISED HAND (symbolizing DONT WALK) signal indication, a steady red signal indication
301 shall be shown to any conflicting vehicular movement that is approaching the intersection or
302 midblock location perpendicular or nearly perpendicular to the crosswalk.

303 When the pedestrian signal heads at a pedestrian hybrid beacon (see Chapter 4J) location are
304 displaying a flashing UPRAISED HAND (symbolizing DONT WALK) signal indication, a flashing
305 red signal indication shall be shown to any conflicting vehicular movement that is approaching the
306 intersection or midblock location perpendicular or nearly perpendicular to the crosswalk.

307 When pedestrian signal heads are used, a WALKING PERSON (symbolizing WALK) signal
308 indication shall be displayed only when pedestrians are permitted to leave the curb or shoulder.

309 A pedestrian change interval consisting of a flashing UPRAISED HAND (symbolizing DONT
310 WALK) signal indication shall begin immediately following the WALKING PERSON (symbolizing
311 WALK) signal indication. Following the pedestrian change interval, a buffer interval consisting of
312 a steady UPRAISED HAND (symbolizing DONT WALK) signal indication shall be displayed for at
313 least 2 seconds prior to the release of any conflicting vehicular movement. The sum of the time of
314 the pedestrian change interval and the buffer interval shall not be less than the calculated
315 pedestrian clearance time (see Paragraphs 8 through 17). The buffer interval shall not begin later
316 than the beginning of the red clearance interval, if used.

317 Option:

318 During the yellow change interval, the UPRAISED HAND (symbolizing DON'T WALK) signal
319 indication may be displayed as either a flashing indication, a steady indication, or a flashing indication for
320 an initial portion of the yellow change interval and a steady indication for the remainder of the interval.

321 Support:

322 Figure 4I-4 illustrates the pedestrian intervals and their possible relationships with associated
323 vehicular signal phase intervals.

324

325 **Figure 4I-4 Comments: NCUTCD agrees with Figure 4I-4 as presented in the NPA.**

326 **Figure 4I-4. Pedestrian Intervals**

327

328

329 *Guidance:*

330 *Except as provided in Paragraph 9, the pedestrian clearance time should be sufficient to allow a*
331 *pedestrian crossing in the crosswalk who left the curb or edge of pavement at the end of the WALKING*
332 *PERSON (symbolizing WALK) signal indication to travel at a walking speed of 3.5 feet per second to at*
333 *least the far side of the traveled way or to a median of sufficient width for pedestrians to wait.*

334 *Option:*

335 A walking speed of up to 4 feet per second may be used to evaluate the sufficiency of the pedestrian
336 clearance time at locations where an extended push button press function has been installed to provide
337 slower pedestrians an opportunity to request and receive a longer pedestrian clearance time. Passive
338 pedestrian detection may also be used to automatically adjust the pedestrian clearance time based on the
339 pedestrian's actual walking speed or actual clearance of the crosswalk.

340 The additional time provided by an extended push button press to satisfy pedestrian clearance time
341 needs may be added to either the walk interval or the pedestrian change interval.

342 *Guidance:*

343 *Where pedestrians who walk slower than 3.5 feet per second, or pedestrians who use wheelchairs,*
344 *routinely use the crosswalk, a walking speed of less than 3.5 feet per second should be considered in*
345 *determining the pedestrian clearance time.*

346 *Except as provided in Paragraph 13, the walk interval should be at least 7 seconds in length so that*
347 *pedestrians will have adequate opportunity to leave the curb or shoulder before the pedestrian clearance*
348 *time begins.*

349 *Option:*

350 If pedestrian volumes and characteristics do not require a 7-second walk interval, walk intervals as
351 short as 4 seconds may be used.

352 *Support:*

353 The walk interval is intended for pedestrians to start their crossing. The pedestrian clearance time is
354 intended to allow pedestrians who started crossing during the walk interval to complete their crossing.
355 Longer walk intervals are often used when the duration of the vehicular green phase associated with the
356 pedestrian crossing is long enough to allow it.

357 *Guidance:*

358 *The total of the walk interval and pedestrian clearance time should be sufficient to allow a pedestrian*
359 *crossing in the crosswalk who left the pedestrian detector (or, if no pedestrian detector is present, a*
360 *location 6 feet behind the face of the curb or 6 feet behind the edge of the pavement) at the beginning of*
361 *the WALKING PERSON (symbolizing WALK) signal indication to travel at a walking speed of 3 feet per*
362 *second to the far side of the traveled way being crossed or to the median if a two-stage pedestrian*
363 *crossing sequence is used. Any additional time that is required to satisfy the conditions of this paragraph*
364 *should be added to the walk interval.*

365 *Option:*

366 On a street with a median of sufficient width for pedestrians to wait, a pedestrian clearance time that
367 allows the pedestrian to cross only from the curb or shoulder to the median may be provided.

368 **Standard:**

369 **Where the pedestrian clearance time is sufficient only for crossing from the curb or shoulder to**
370 **a median of sufficient width for pedestrians to wait, median-mounted pedestrian signals, with**
371 **pedestrian detectors (see Sections 4I.06 and 4K.02) if actuated operation is used, shall be provided**
372 **and signing such as the R10-3d sign (see Section 2B.62) shall be provided to notify pedestrians to**
373 **cross only to the median to await the next WALKING PERSON (symbolizing WALK) signal**
374 **indication.**

375 *Guidance:*

376 *Where median-mounted pedestrian signals and detectors are provided, the use of accessible*
377 *pedestrian signals (see Chapter 4K) should be considered*

378 *Option:*

379 *During the transition into preemption, the walk interval and the pedestrian change interval may be*
380 *shortened or omitted as described in Section 4F.19.*

381 *At intersections with high pedestrian volumes and high conflicting turning vehicle volumes, a brief*
382 *leading pedestrian interval, during which an advance WALKING PERSON (symbolizing WALK)*
383 *indication is displayed for the crosswalk while red indications continue to be displayed to parallel through*
384 *and/or turning traffic, may be used to reduce conflicts between pedestrians and turning vehicles.*

385 *Guidance:*

386 *If a leading pedestrian interval is used, ~~the use of~~ accessible pedestrian signals (see Chapter 4K)*
387 *should be ~~considered~~ used. (revise per 20B-SIG-02)*

388 *Support:*

389 *If a leading pedestrian interval is used without accessible features, pedestrians with vision disabilities*
390 *can be expected to begin crossing at the onset of the vehicular movement when drivers are not expecting*
391 *them to begin crossing.*

392 *Guidance:*

393 *If a leading pedestrian interval is used, it should be at least 3 seconds in duration and should be*
394 *timed to allow pedestrians to cross at least one lane of traffic or, in the case of a large corner radius, to*
395 *travel far enough for pedestrians to establish their position ahead of the turning traffic before the turning*
396 *traffic is released.*

397 *If a leading pedestrian interval is used, consideration should be given to prohibiting turns across the*
398 *crosswalk during the leading pedestrian interval.*

399 **Standard:**

400 **At locations where a leading pedestrian interval is used ~~without accessible pedestrian signals,~~**
401 **the minimum ~~required~~ time for the ~~Walk Interval~~ WALKING PERSON (symbolizing WALK)**
402 **indication shall be ~~displayed in addition to~~ the time ~~provided~~ for the leading pedestrian interval**
403 **plus 7 seconds. (revise per 20B-SIG-02)**

404 *Support:*

405 *At intersections with pedestrian volumes that are so high that drivers have difficulty finding an*
406 *opportunity to turn across the crosswalk, the duration of the green interval for a parallel concurrent*
407 *vehicular movement is sometimes intentionally set to extend beyond the pedestrian clearance time to*
408 *provide turning drivers additional green time to make their turns while the pedestrian signal head is*
409 *displaying a steady UPRAISED HAND (symbolizing DONT WALK) signal indication after pedestrians*
410 *have had time to complete their crossings.*