



## National Committee on Uniform Traffic Control Devices

12615 West Keystone Drive \* Sun City West, AZ, 85375  
Telephone (623)680-9592 \* e-mail: ncutcd@aol.com

**NOTE: This is a recommendation to FHWA on changes to the MUTCD by the National Committee on Uniform Traffic Control Devices (NCUTCD). This recommendation is not a revision to the MUTCD and does not constitute official standards, guidance, or options. No proposed revision to the MUTCD is effective unless and until approved by FHWA through an Interim Approval or through the Federal rulemaking process.**

<b>TECHNICAL COMMITTEE:</b>	<b>Bicycle Technical Committee and Signals Technical Committee</b>
<b>TOPIC:</b>	<b>Recommendation – Bicycle Signal Faces</b>
<b>STATUS/DATE OF ACTION:</b>	Recommended to send to sponsors following the January 2014 NCUTCD meeting
<b>Technical Committee Vote:</b>	BTC –19-1-0 STC – 35-0-0
<b>Transmitted to Sponsors:</b>	March 2014
<b>Council Approval:</b>	June 28, 2014
<b>ORIGIN OF REQUEST:</b>	Various
<b>AFFECTED SECTIONS OF MUTCD:</b>	<b>Various portions of Parts 1, 4, &amp; 9</b>

### **SUMMARY:**

An Interim Approval has been issued for the optional use of a bicycle signal face (IA-16). This joint technical committee recommendation provides proposed MUTCD language to update the existing MUTCD standards, guidance, and options to add provisions for bicycle signal faces to control certain bicycle movements. This recommendation is based on the Interim Approval.

### **DISCUSSION:**

The concept of providing separate signal faces to control bicycle movements at traffic control signals has been a topic of discussion in recent years. Informal working group sessions have been held at National Committee meetings to discuss this topic and work toward the development of proposed MUTCD language. However, following the June 2013 NCUTCD meeting, FHWA indicated their intent to issue an Interim Approval by the end of 2013 to allow

43 the optional use of bicycle signal faces. There was insufficient time for the NCUTCD technical  
44 committees to develop proposed language, submit it to the sponsoring organizations for review,  
45 and refine and present it to the NC Council for a vote prior to the time FHWA needed a  
46 response. Therefore, the Bicycle Technical Committee (BTC) and the Signals Technical  
47 Committee (STC) worked jointly to develop a joint technical committee recommendation that  
48 was submitted to FHWA in November 2013. That joint technical committee recommendation  
49 was sent to sponsors as an information item at the time it was submitted to FHWA. The  
50 Interim Approval was issued December 24, 2013.

51

52 At the January 2014 NCUTCD meeting, the BTC and STC held a special joint session to  
53 discuss the Interim Approval and develop proposed language for inclusion in the Notice of  
54 Proposed Amendment (NPA) for the next MUTCD. The following is presented as a joint  
55 technical committee recommendation to add provisions for the use of bicycle signal faces to the  
56 MUTCD. Most of the language is new and is proposed to be in a new MUTCD chapter.  
57 However, there are some minor changes needed to existing MUTCD sections to incorporate the  
58 new chapter.

59

60 There are some items that should be considered when reviewing this recommendation.

- 61 1. While the current MUTCD does not specifically address bicycle signal faces, Section  
62 4D.07 references “circular indications in a signal face installed for the sole purpose of  
63 controlling a bikeway or a bicycle movement”. Although no similar reference exists for  
64 the use of arrow indications to control a bikeway or a bicycle movement, there is also  
65 nothing prohibiting arrow indications for that application. Therefore, the use of bicycle  
66 signal faces with all circular indications or all arrow indications have been included in the  
67 recommendation. Since straight through yellow arrows and red arrows are not permitted,  
68 the use of bicycle signal faces with all arrow indications has been limited to all left or all  
69 right arrows.
- 70 2. A new definition has been included for a “bicycle symbol signal indication”. This  
71 definition is for a red, yellow, or green signal indication that displays a bicycle symbol  
72 rather than a circular indication. It is important to note the difference and distinction  
73 between a “bicycle symbol signal indication” and a “bicycle signal indication”. A “bicycle  
74 signal indication” simply refers to an indication in a bicycle signal face. This could be a  
75 circular indication, an arrow indication, or a bicycle symbol signal indication. However, a  
76 “bicycle symbol signal indication” refers specifically to an indication that displays a red,  
77 yellow, or green bicycle symbol.
- 78 3. The two illustrations from the Interim Approval were included as figures in the joint  
79 Technical Committee Recommendation that was sent to sponsors. However, during the  
80 joint BTC/STC session at the meeting, the committees felt that combinations of arrow  
81 indications and bicycle symbol indications in the same signal face should not be allowed.  
82 The recommendation language was therefore revised to delete references to such  
83 combinations of indications in a bicycle signal face and Attachment 1A-16-2 from the IA  
84 that included sign signal faces was deleted from the recommendation. Attachment 1A-16-  
85 1 was revised to show bicycle signal faces that include only circular indications, only  
86 bicycle symbol indications, only left arrow indications, or only right arrow indications.
- 87 4. The following concerning the use of bicycle signal faces is included as #1 in the Interim  
88 Approval:

89

90

*However, if an agency opts to use bicycle signal faces under this Interim  
Approval, such use shall be limited to situations where bicycles moving on a*

91 *green or yellow signal indication in a bicycle signal face are not in conflict*  
92 *with any simultaneous motor vehicle movement at the signalized location,*  
93 *including right (or left) turns on red.*

94 The BTC & STC felt this is unnecessarily restrictive and included less restrictive language.  
95 When sent to Sponsors, the second Guidance paragraph in Section xx.02 was listed as a  
96 Standard. This was changed to Guidance during the joint BTC/STC session. It was felt  
97 that an agency may desire to provide a bicycle signal face at each signalized location along  
98 a route with a bicycle lane or separate bicycle facility to provide consistency indications  
99 provided to control the bicycle movements at successive signalized locations.

100 5. Several revisions considered editorial were made based on Sponsor comments. In  
101 addition, the following modifications were presented to and approved by National  
102 Committee in the final recommendation:

- 103 • Added an Option to specifically allow the use of a bicycle signal face at a mid-block  
104 signal that does not have a motor vehicle movement parallel to the bicycle crossing.
- 105 • Added an Option to specifically allow the use of a BICYCLE SIGNAL sign with a  
106 bicycle signal face that contains only bicycle symbol indications. This sign is required  
107 for a bicycle signal face that does not contain all bicycle symbol indications and the  
108 technical committees felt it was important to note that, while not required, a sign is  
109 allowed when all of the indications on a bicycle signal face are bicycle symbol  
110 indications.
- 111 • Included sign sizes other than those included in the Interim Approval in order to  
112 improve visibility and layout.
- 113 • Included a Standard that prohibits exclusive and simultaneous bicycle movements from  
114 perpendicular directions rather than using the language included in the IA. This is to  
115 allow an exclusive diagonal bicycle movement through an intersection, but not a  
116 “scramble” phase that could have conflicting perpendicular bicycle movements.
- 117 • Included Guidance that a bicycle signal face should not be used with a hybrid beacon.  
118 This was included as a Standard in the IA. It was felt that bicycle faces could be used  
119 with a hybrid beacon as long as the requirements of the hybrid beacon are satisfied,  
120 primarily the required sequence of indications.

## 123 **RECOMMENDED CHANGES TO THE MUTCD:**

124  
125 Other than minor changes in Section 4D.06, there is no existing MUTCD language proposed  
126 for deletion as part of this recommendation. The deletions in 4D.06 are shown in red  
127 strikethrough (~~red strikethrough~~). Proposed additions are shown using red underline (red  
128 underline). Some text in the draft recommendation is in yellow highlight. Yellow highlighting  
129 indicates text that is providing supplemental information related to the recommendation, but is  
130 not part of the recommended text.

131  
132  
133 **Add the following two new definitions (Standards) in Section 1A.13 following definition**  
134 **23 Bicycle Lane:**

### 136 **Section 1A.13 Definitions**

137 **Standard:**

138 xx. Bicycle Signal Face - a signal face, consisting of three or more  
139 signal sections, that exclusively controls a bicycle movement from  
140 a designated bicycle lane or from a separate facility such as a  
141 shared use path, and that displays signal indications that are  
142 applicable only to the bicycle movement.

143  
144 xx. Bicycle Symbol Signal Indication - a red, yellow, or green signal  
145 indication that displays a bicycle symbol rather than a circular or  
146 arrow indication.

147  
148 Add the following new Section 4D.04 following existing Section 4D.03 and renumber  
149 later sections in Chapter 4D. Note: Any references to 4D in this document refer to the  
150 existing 4D section numbers, not renumbered section numbers.

#### 151 152 **Section 4D.04 Provisions for Bicyclists**

153 Option:

154 Where it is desired to provide separate signal indications to control bicycle  
155 movements at a traffic control signal, bicycle signal faces may be used (see Chapter  
156 XX).

157  
158 Modify Paragraph 01 in Section 4D.06 to not require circular or arrow indications for  
159 bicycle symbol signal indications.

#### 160 161 **Section 4D.06 Signal Indications – Design, Illumination, Color, and Shape**

162 **Standard:**

163 **01 Each signal indication, shall be circular or arrow except those used for**  
164 **pedestrian signal heads, ~~and lane-use control signals,~~ and bicycle symbol signal**  
165 **indications ~~shall be circular or arrow.~~**

166  
167 Add the following new Section 9D.03.

#### 168 169 **Section 9D.03 Provisions for Bicyclists**

170 Option:

171 Where it is desired to provide separate signal indications to control bicycle  
172 movements at a traffic control signal, bicycle signal faces may be used (see Chapter  
173 XX).

174  
175 Add the following new chapter for bicycle signal faces. NOTE: All of the following is  
176 new.

### 177 178 **CHAPTER XX. BICYCLE SIGNAL FACES**

#### 179 180 **Section XX.01 General**

181 Support:

182 See Section 1A.13 for the definitions of bicycle signal face and bicycle symbol  
183 signal indication.

#### 184 185 **Section XX.02 Use of Bicycle Signal Faces**

186 Support:  
187 The use of a bicycle signal face is optional.

188  
189 A bicycle signal face can be used to provide separate control of the bicycle  
190 movement for various situations such as the following:

- 191 A. Bicyclist non-compliance with the previous traffic control.
- 192 B. Provide a leading or lagging bicycle interval.
- 193 C. Continue the bicycle lane on the right-hand side of an exclusive turn lane that  
194 would otherwise be in non-compliance with Paragraph 6 of Section 9C.04.
- 195 D. Augment the design of a contra-flow bicycle facility.
- 196 E. Provide for unusual or unexpected arrangements of the bicycle movement  
197 through complex intersections, conflict areas, or signal control.

198  
199 Guidance:  
200 Agencies should exercise consistency with the decision to introduce bicycle signal  
201 faces to a roadway or bikeway network and use caution with any non-systematic policy  
202 to use bicycle signal faces.

203  
204 Support:  
205 The use of bicycle traffic signal faces containing bicycle symbol indications and bicycle  
206 signal faces containing circular indications in the same corridor or jurisdiction could  
207 create comprehension issues by the roadway user or violate bicyclist expectation.

208  
209 Guidance:  
210 A bicycle signal face should only be used to control bicycle movements from a  
211 designated bicycle lane or from a separate facility such as a shared use path,  
212 and, other than as provided in the Option below, only where the bicycle movement  
213 controlled by the bicycle signal face is sometimes allowed to proceed or sometimes  
214 required to stop at times when other traffic, making the same movement, and  
215 controlled by other vehicular signal faces, is required to stop or allowed to proceed  
216 respectively.

217  
218 Option:  
219 A bicycle signal face may be used at a mid-block traffic control signal where there are  
220 no motor vehicle movements parallel to the bicycle crossing.

### 222 **Section XX.03 Warrants for Bicycle Signal Faces**

223 Support:  
224 No new traffic signal warrant(s) specific to bicycle signal faces or in addition to  
225 those already provided in Chapter 4C are established. Retrofitting existing traffic  
226 signals with bicycle signal faces is analogous to retrofitting existing traffic signals with  
227 pedestrian signals where such a determination is not required through an engineering  
228 study.

229  
230 Standard:  
231 New designs or installations for any traffic control signal shall be based on  
232 an engineering study in accordance with Paragraph 1 of Section 4C.01. For the

233 purposes of an engineering study, the appropriate warrant(s) provided in  
234 Chapter 4C shall be followed.

235  
236 Guidance

237 The need to incorporate bicycle signal faces into a new location or design should  
238 be established through the engineering study performed in accordance with Paragraph  
239 1 of Section 4C.01 to determine that the installation of a traffic control signal is  
240 justified.

241 Engineering judgment should be exercised in determining whether or not it would  
242 be advantageous or beneficial to install a bicycle signal face(s) or pedestrian signals at  
243 an existing traffic control signal.

244  
245 Support:

246 For the purpose of warrant analyses, provisions for classifying bicycles are  
247 provided in Paragraph 15 of Section 4C.01 and Paragraph 2 of Section 9D.01.

248  
249 Section XX.04 BICYCLE SIGNAL Sign

250 Support:

251 The purpose of the BICYCLE SIGNAL (R10-10b) sign is to inform road users that  
252 the signal indications in the bicycle signal face are intended only for bicyclists.

253  
254 Standard:

255 A BICYCLE SIGNAL (R10-10b) sign shall be installed adjacent to (including  
256 above or below) a bicycle signal face unless all indications in that face are  
257 bicycle symbol signal indications.

258  
259 Option:

260 A BICYCLE SIGNAL sign may be installed, based on engineering judgment,  
261 adjacent to a bicycle signal face consisting of all bicycle symbol indications.

262  
263 Standard:

264 Except when used with a supplemental near side bicycle signal face containing  
265 4-inch indications, the BICYCLE SIGNAL sign shall be a minimum size of 18  
266 inches x 24inches as shown in Figure [XX](#).

267  
268 Option:

269 A BICYCLE SIGNAL sign that is a minimum size of [xx](#)inches x [xx](#)inches may be used  
270 with a supplemental near-side bicycle signal face containing 4-inch indications.

271  
272 Section XX.05 Meaning of Bicycle Signal Indications

273 Standard:

274 Steady and flashing RED BICYCLE and YELLOW BICYCLE signal indications  
275 and steady GREEN BICYCLE signal indications shall have the same meanings  
276 as described in Paragraph 3 of Section 4D.04 for steady and flashing CIRCULAR  
277 RED and CIRCULAR YELLOW indications and steady CIRCULAR GREEN signal  
278 indications except that the bicycle signal indications shall only be applicable to  
279 bicyclists within the designated bicycle facility.

280

281 **Section XX.06 Application of Bicycle Signal Indications**

282 **Standard:**

283 **Steady bicycle signal indications shall be applied as follows:**

284 **A. A steady RED BICYCLE signal indication shall be displayed when it is**  
285 **intended to prohibit bicycle traffic from entering the intersection or other**  
286 **controlled area. Turning after stopping shall be permitted as stated in**  
287 **Item C.1 in Paragraph 3 of Section 4D.04.**

288 **B. A steady YELLOW BICYCLE signal indication shall be displayed**  
289 **following a GREEN BICYCLE signal indication in the same signal face. A**  
290 **YELLOW BICYCLE signal indication or a steady YELLOW ARROW**  
291 **indication shall be displayed following a GREEN ARROW in the same**  
292 **signal face. A yellow indication shall not be displayed in conjunction**  
293 **with the change from the RED BICYCLE signal indication to a green**  
294 **signal indication. The YELLOW BICYCLE indication shall be followed by**  
295 **a RED BICYCLE signal indication.**

296 **C. A steady GREEN BICYCLE signal indication shall be displayed only**  
297 **when it is intended to permit bicyclists to proceed in any direction that is**  
298 **lawful and practical.**

299

300 **Section XX.07 Layout of Bicycle Signal Faces**

301 **Option:**

302 **Bicycle signal faces may be oriented vertically or horizontally.**

303

304 **Support:**

305 **See Figures XX-1 and XX-2 for typical arrangements of signal sections in bicycle**  
306 **signal faces.**

307

308 **Standard:**

309 **Bicycle signal faces shall consist of one of the following:**

310 **A. All bicycle symbol signal indications,**

311 **B. All circular indications, or**

312 **C. All left arrow or all right arrow indications.**

313

314 **The layouts and arrangements of the bicycle signal face shall be in**  
315 **accordance with the following provisions:**

316 **A. Only the bicycle symbol shown on Page 6-7 in the 2004 Standard**  
317 **Highway Signs book shall be used for bicycle symbol signal indications.**  
318 **The bicycle symbol shall only be positioned horizontally and shall face to**  
319 **the left.**

320 **B. The RED BICYCLE, YELLOW BICYCLE, and GREEN BICYCLE symbol**  
321 **signal indications shall be in the same relative position to each other as**  
322 **specified for the CIRCULAR RED, CIRCULAR YELLOW, and CIRCULAR**  
323 **GREEN signal indications respectively, in Sections 4D.09 and 4D.10.**

324 **C. Circular signal indications and bicycle symbol signal indications shall**  
325 **not be used in the same bicycle signal face.**

- 326 D. Bicycle symbol signal indications and arrow signal indications shall not  
327 be used in the same bicycle signal face.  
328 E. As a specific exception to Paragraph 5 of Section 4D.09, two  
329 YELLOWBICYCLE signal indications or two GREEN BICYCLE signal  
330 indications shall not be arranged horizontally adjacent to each other at  
331 right angles to the basic straight line arrangement to form a clustered  
332 signal face.  
333 F. Single sections for continuous movements that would implement the  
334 bicyclesymbol as illustrated in Group C of Figure 4D-2 shall not be used.  
335

### 336 Section XX.08 Size of Bicycle Signal Faces

#### 337 Standard:

338 The provisions of Section 4D.07 apply to the sizes of bicycle signal  
339 faces except as follows:

- 340 A. There shall be three nominal diameter sizes for bicycle signal  
341 indications: 4 inches, 8 inches, and 12 inches.  
342 B. The bicycle symbol used for bicycle symbol signal indications shall be  
343 proportioned to fit within the signal lens.  
344 C. All signal indications in a bicycle signal face shall be of the same size.  
345 D. Four-inch signal indications shall only be used in supplemental, post-  
346 mounted, near-side bicycle signal faces.

#### 347 Option:

348 As a specific exception to Paragraph 2 in Section 4D.07, 4-inch and 8-inch arrow  
349 signal indications may be used in bicycle signal faces.

350 If used, 4-inch signal indications may exclude the accompanying visor(s) and  
351 backplate.

352 Near-side bicycle signal faces may alternatively be either 8-inch or 12-inch.  
353

### 354 Section XX.09 Placement of Bicycle Signal Faces

#### 355 Standard:

356 The provisions of Sections 4D.13 through 4D.16 shall apply to the placement  
357 of the bicycle signal faces except as follows:

- 358 A. As a specific exception to Item A in Paragraph 1 of Section 4D.11, a  
359 minimum of one primary bicycle signal face shall be provided to  
360 control traffic for the bicycle movement, even if a bicycle through  
361 movement exists.  
362 B. The primary bicycle signal face shall have either 8-inch or 12-inch  
363 signal indications, even if it is located at the near side of the signal-  
364 controlled location.  
365 C. When the primary bicycle signal face is located more than 120 feet  
366 beyond the stop line, a supplemental near-side bicycle signal face shall  
367 be provided.

#### 368 Guidance:

369 When the primary bicycle signal face is located more than 80 feet and up to  
370 \_\_\_\_\_  
371



372 120 feet beyond the stop line, a supplemental near-side bicycle signal face should be  
373 provided.

374 Bicycle signal faces should be placed such that visibility is maximized for bicyclists  
375 and minimized for adjacent or conflicting vehicle movements not controlled by the  
376 bicycle signal face. In cases where drivers not controlled by the bicycle signal face  
377 might be confused by viewing the bicycle signal indications, such as when the start or  
378 end of a green bicycle signal indication occurs at a different time than the start or end  
379 of a green signal indication for a concurrent adjacent vehicle movement controlled by  
380 other than the bicycle signal face, considerations should be given to using visibility-  
381 limited bicycle signal faces.

382 A bicycle signal face should be separated vertically or horizontally from the nearest  
383 vehicular traffic signal face for the same approach by at least 3 feet.

384

### 385 Section XX.10 Mounting Height of Bicycle Signal Faces

#### 386 Standard:

387 The provisions of Section 4D.15 apply to the mounting height of bicycle  
388 signal faces except as follows:

389 A. The bottom of the signal housing (including brackets) of a bicycle signal  
390 face that is not located over a roadway shall be a minimum of 7 feet  
391 above the sidewalk or ground, except where a BICYCLE SIGNAL (R10-  
392 10b) sign is installed below the bicycle signal face. If a BICYCLE SIGNAL  
393 (R10-10b) sign is installed below the bicycle signal face, the minimum  
394 mounting height to the bottom of the sign shall be 6 feet. If the bottom of  
395 the sign is mounted less than 7 feet above a pedestrian sidewalk or  
396 pathway, the supplemental sign shall not project more than 4 inches into  
397 the pedestrian facility.

398 B. If 4-inch signal indications are used in a supplemental, post-mounted,  
399 near-side bicycle signal face, the bottom of the signal housing (including  
400 brackets) shall be a minimum of 4 feet and a maximum of 8 feet above  
401 the sidewalk or ground. Bicycle signal faces with 4" signal indications  
402 installed above a pedestrian sidewalk or pathway shall not project more  
403 than 4 inches into the pedestrian facility.

404

### 405 Section XX.11 Intensity and Light Distribution of Bicycle Signal Faces

#### 406 Guidance:

407 Except for the 4-inch nominal size of the lens diameter, the intensity and  
408 distribution of light from each illuminated bicycle signal face should be similar to that  
409 recommended for vehicular traffic signal faces in accordance with Paragraph 10 of  
410 Section 4D.06 to the extent practicable.

411

### 412 Section XX.12 Backplates for Bicycle Signal Faces

#### 413 Option:

414 Backplates may be used with bicycle signal faces.

415

#### 416 Standard:

417 If backplates are used, ancillary legends of any kind that identify the purpose  
418 or operation of the bicycle signal face shall not be placed on the backplate.

419

420 **Section XX.13 Operation of Bicycle Signal Faces**

421 **Standard:**

422 **If a bicycle signal face contains a green arrow that would otherwise be**  
423 **readily visible to drivers in the adjacent lane(s) controlled by other than the**  
424 **bicycle signal face, the bicycle signal face shall be visibility-limited.**

425 **The mode of operation of the bicycle signal faces at a traffic control signal**  
426 **shall be the same as the mode of operation of the other traffic signal faces.**  
427 **Bicycle signal faces shall operate in the steady (stop-and-go) mode when the**  
428 **other traffic signal faces are operating in the steady (stop-and-go) mode. Bicycle**  
429 **signal faces shall operate in the flashing mode when the other signal faces are**  
430 **operating in the flashing mode, whether programmed or due to a malfunction.**

431 **Bicycle signal faces shall not be placed in a dark mode when other vehicular**  
432 **traffic signal faces are operating in the flashing mode.**

433 **As a specific exception to Paragraph 10 of Section 4D.05, the**  
434 **simultaneous display of a straight-through GREEN ARROW signal indication in a**  
435 **bicycle signal face and a CIRCULAR RED signal indication in another vehicle**  
436 **signal face for the same approach shall be permitted.**

437

438 **Section XX.14 Yellow Change and Red Clearance Intervals for Bicycle Signal**  
439 **Faces**

440 **Standard:**

441 **The provisions of Section 4D.26 shall apply to the duration of the**  
442 **yellow change and the red clearance intervals of a bicycle signal phase except**  
443 **as follows:**

444 **A. The minimum duration of the yellow change interval shall be 3 seconds.**

445 **B. The exclusive function of the yellow change interval shall be to warn**  
446 **bicyclists approaching a signalized location that their permission to**  
447 **proceed is being terminated after which they will be directed to stop.**

448

449 **Support:**

450 **Providing clearance time for a bicyclist to travel through the intersection or conflict**  
451 **area is the purpose of the red clearance interval rather than the yellow change interval.**

452

453 **Guidance:**

454 **The maximum duration of the yellow change interval should be 6 seconds.**

455 **If discernible non-concurrent activations or terminations of phases for bicycles**  
456 **controlled by bicycle signal faces and other vehicular traffic controlled by other signal**  
457 **faces are necessary, visibility-limiting devices should be used on the bicycle signal**  
458 **face.**

459

460 **Section XX.15 Prohibited Use of Bicycle Signal Faces**

461 **Standard:**

462 **Bicycle signal faces shall not be used to control exclusive and simultaneous**  
463 **bicycle movements from perpendicular directions.**

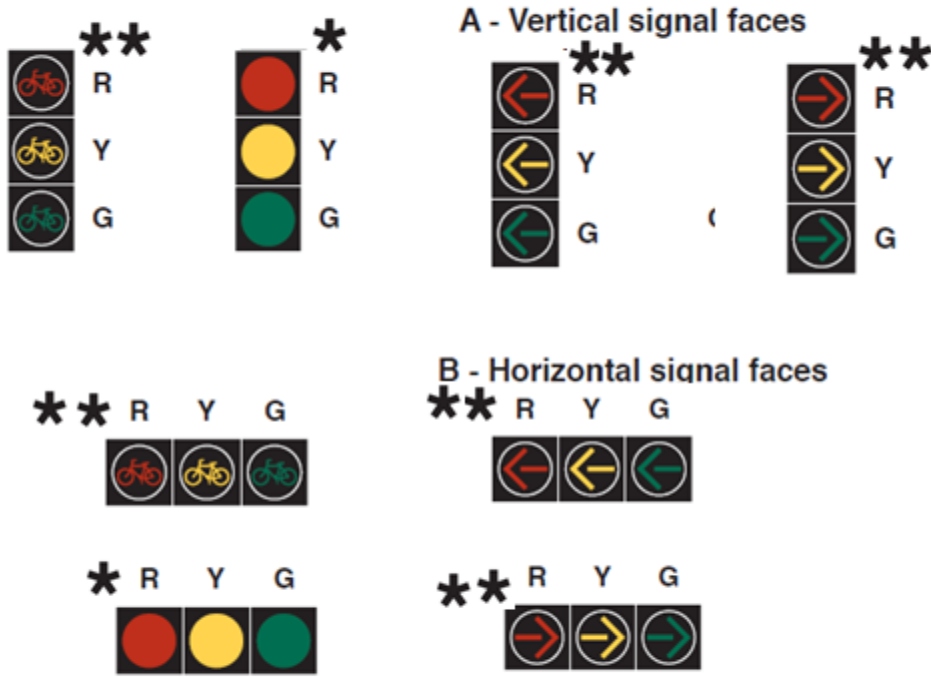
464

465 **Guidance:**

466 *Bicycle signal faces should not be used in any manner with respect to the design*  
467 *and operation of a hybrid beacon.*  
468

Figure xx-1

Typical Arrangements of Signal Sections in Bicycle Signal Faces



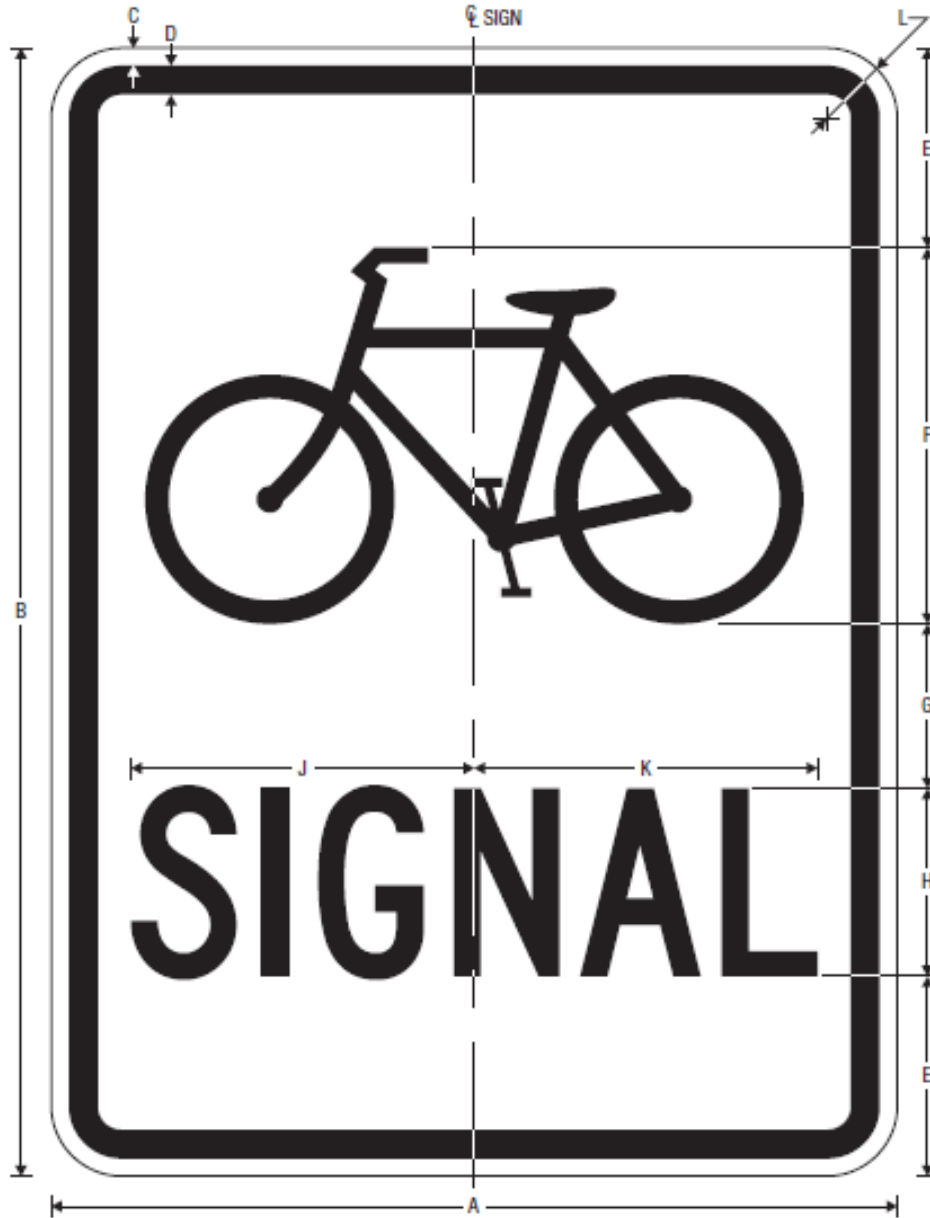
\* BICYCLE SIGNAL sign required

\*\* BICYCLE SIGNAL sign optional

469

470

**BICYCLE SIGNAL Sign Issued by FHWA**



**R10-10b**  
Bicycle SIGNAL

\* Reduce character spacing 20%.

A	B	C	D	E	F	G	H	J	K	L
12	18	0.375	0.375	4	5	2.5	2.5 C*	4.564	4.564	1.5
18	24	0.375	0.625	4.25	8	3.5	4 C*	7.303	7.302	1.5

COLORS: LEGEND, BORDER – BLACK  
BACKGROUND – WHITE (RETROREFLECTIVE)

472  
473  
474  
475

See following page for alternate design/size proposed to be used in place of this

476  
477  
478

Proposed alternate BICYCLE SIGNAL sign design/size



Bicycle Signal (R10-xx) sign - 24" x 24"  
10" symbol, 6" B text  
(design could also be used for a 6" x 6" size  
under 4" near-side indications with  
a 2.5" symbol and 1.5" B text)

Bicycle Signal (R10-xx) sign - 18" x 24"  
8" symbol, 4" B text

479  
480  
481  
482  
483  
484  
485  
486  
487  
488  
489  
490  
491

Note: The text includes an Option for the use of a smaller size BICYCLE SIGNAL sign with signal faces that have 4-inch indications. However, a size was not determined at the time this item was presented to the National Committee Council so the size is unspecified. Therefore, a sign design/size needs to be developed for the small size signal face.

This sign would be used with near-side supplemental bicycle signals with 4" indications and therefore the sign and signal face may be mounted relatively low. Considering possible impacts on pedestrian traffic and that the sign is intended for bicyclists that are at or near the signal face, it is anticipated that a relatively small minimum size would be acceptable. The use of a BICYCLE SIGNAL sign with a signal face with 4-inch indications would be optional unless the signal face contained something other than all bicycle symbol indications