DEFORMED WIRE / WELDED DEFORMED WIRE REINFORCEMENT LAP SPLICE SCHEDULE (ACI 318-19)

WIRE SIZE	CONCRETE STRENGTH IN PSI (f 'c)						CONCRETE STRENGTH IN PSI (f 'c)						CONCRETE STRENGTH IN PSI (f 'c)						
	3,000	3,500	4,000	4,500	5,000	6,000	3,000	3,500	4,000	4,500	5,000	6,000	3,000	3,500	4,000	4,500	5,000	6,000	
D4.0 - D8.0	**21.8** **16.8**	**20.2** **15.5**	**18.9** **14.5**	**17.8** **13.7**	**16.9** **13.0**	**15.4** **12.0**	**16.6** **12.8**	**15.4** **12.0**	**14.4** **12.0**	**13.6** **12.0**	**12.9** **12.0**	**12.0** **12.0**	**14.2** **12.0**	**13.2** **12.0**	**12.3** **12.0**	**12.0** **12.0**	**12.0** **12.0**	**12.0** **12.0**	← TOP WIRES, TYP. ← OTHER WIRES, TYP.
D8.1 - D11.0	**25.5** **19.6**	**23.6** **18.2**	**22.1** **17.0**	**20.9** **16.1**	**19.8** **15.2**	**18.1** **13.9**	**19.4** **15.0**	**18.0** **13.9**	**16.8** **13.0**	**15.9** **12.2**	**15.1** **12.0**	**13.8** **12.0**	**16.7** **12.8**	**15.4** **12.0**	**14.4** **12.0**	**13.6** **12.0**	**12.9** **12.0**	**12.0** **12.0**	
D11.1 - D14.0	**28.8** **22.2**	**26.7** **20.5**	**24.9** **19.2**	**23.5** **18.1**	**22.3** **17.2**	**20.4** **15.7**	**21.9** **16.9**	**20.3** **15.6**	**19.0** **14.6**	**17.9** **13.8**	**17.0** **13.1**	**15.5** **12.0**	**18.8** **14.5**	**17.4** **13.4**	**16.3** **12.5**	**15.4** **12.0**	**14.6** **12.0**	**13.3** **12.0**	
D14.1 - D17.0	**31.7** **24.4**	**29.4** **22.6**	**27.5** **21.2**	**25.9** **19.9**	**24.6** **18.9**	**22.5** **17.3**	**24.2** **18.6**	**22.4** **17.2**	**20.9** **16.1**	**19.7** **15.2**	**18.9** **14.4**	**17.1** **13.2**	**20.7** **15.9**	**19.2** **14.8**	**17.9** **13.8**	**16.9** **13.0**	**16.1** **12.4**	**14.7** **12.0**	
D17.1 - D20.0	**34.7** **26.5**	**32.2** **24.6**	**30.1** **23.0**	**28.4** **21.7**	**26.9** **20.5**	**24.6** **18.8**	**26.4** **20.2**	**24.5** **18.7**	**22.9** **17.5**	**21.6** **16.5**	**20.5** **15.6**	**18.7** **14.3**	**22.7** **17.3**	**21.0** **16.0**	**19.6** **15.0**	**18.5** **14.1**	**17.6** **13.4**	**16.0** **12.3**	
D20.1 - D23.0	**39.3** **28.4**	**36.4** **26.3**	**34.0** **24.6**	**32.1** **23.2**	**30.4** **22.0**	**27.8** **20.1**	**29.9** **21.6**	**27.7** **20.0**	**25.9** **18.7**	**24.4** **17.7**	**23.2** **16.8**	**21.2** **15.3**	**25.6** **18.5**	**23.7** **17.2**	**22.2** **16.1**	**20.9** **15.1**	**19.9** **14.4**	**18.1** **13.1**	
D23.1 - D26.0	**43.8** **30.2**	**40.5** **27.9**	**37.9** **26.1**	**35.8** **24.7**	**33.9** **23.4**	**31.0** **21.4**	**33.3** **23.0**	**30.9** **21.3**	**28.9** **19.9**	**27.2** **18.8**	**25.8** **17.8**	**23.6** **16.3**	**28.6** **19.7**	**26.5** **18.2**	**24.8** **17.1**	**23.3** **16.1**	**22.1** **15.3**	**20.2** **13.9**	
D26.1 - D28.0	**46.8** **31.3**	**43.3** **29.0**	**40.5** **27.1**	**38.2** **25.6**	**36.3** **24.3**	**33.1** **22.2**	**35.6** **23.9**	**33.0** **22.1**	**30.9** **20.7**	**29.1** **19.5**	**27.6** **18.5**	**25.2** **16.9**	**30.5** **20.5**	**28.3** **18.9**	**26.5** **17.7**	**24.9** **16.7**	**23.7** **15.9**	**21.6** **14.5**	
D28.1 - D29.0	**48.3** **31.9**	**44.8** **29.5**	**41.9** **27.6**	**39.5** **26.1**	**37.4** **24.7**	**34.2** **22.6**	**36.8** **24.3**	**34.1** **22.5**	**31.9** **21.0**	**30.0** **19.8**	**28.5** **18.9**	**26.0** **17.2**	**31.5** **20.8**	**29.2** **19.3**	**27.3** **18.0**	**25.8** **17.0**	**24.4** **16.1**	**22.3** **14.7**	
D29.1 - D30.0	**49.7** **32.4**	**46.1** **30.0**	**43.1** **28.1**	**40.6** **26.5**	**38.5** **25.1**	**35.2** **23.0**	**37.9** **24.7**	**35.1** **22.9**	**32.8** **21.4**	**30.9** **20.2**	**29.3** **19.1**	**26.8** **17.5**	**32.5** **21.2**	**30.1** **19.6**	**28.1** **18.3**	**26.5** **17.3**	**25.2** **16.4**	**23.0** **15.0**	
D30.1 - D31.0	**51.2** **33.0**	**47.4** **30.5**	**44.3** **28.6**	**41.8** **26.9**	**39.6** **25.5**	**36.2** **23.3**	**38.9** **25.1**	**36.1** **23.2**	**33.7** **21.7**	**31.8** **20.5**	**30.2** **19.4**	**27.6** **17.8**	**33.4** **21.5**	**30.9** **19.9**	**28.9** **18.6**	**27.3** **17.6**	**25.9** **16.7**	**23.6** **15.2**	
	f_y = 80 ksi						f_y = 70 ksi						f_y = 60 ksi						

REINFORCEMENT LAP SPLICE SCHEDULE NOTES:

1. DEFORMED WIRE / WELDED DEFORMED WIRE LAP SPLICE LENGTHS CORRESPONDING TO A SPECIFIED YIELD STRENGTH OF REINFORCEMENT ARE PRESENTED HERE.
2. TABLE SHOWS CLASS B LAP SPLICE LENGTHS PER ACI 318-19. TABULATED VALUES ARE BASED ON DEFORMED WIRE SURFACE CONTRIBUTION TO DEVELOPMENT/BOND BEHAVIOR. FOR WELDED DEFORMED WIRE REINFORCEMENT, NO CONTRIBUTION FROM WELDED INTERSECTIONS IS ASSUMED.
3. LAP SPLICE DIMENSIONS SHOWN ARE FOR UNCOATED WIRE / WWR.
4. TABULATED VALUES FOR "TOP" WIRES REPRESENT HORIZONTAL AND NEAR-HORIZONTAL WIRES PLACED WITH MORE THAN 12 VERTICAL INCHES OF FRESH CONCRETE BELOW THEM.
5. INCREASE TABULATED LAP LENGTHS 33% FOR LIGHTWEIGHT CONCRETE (<145 PCF).
6. TABULATED VALUES ARE BASED ON MINIMUM CLEAR COVER = 1.0 INCH FOR TOP WIRES AND 2.0 INCHES FOR OTHER WIRES. TABULATED VALUES ARE CONSERVATIVE FOR LARGER COVER DIMENSIONS.
7. TABULATED VALUES ARE BASED ON A 4-INCH MINIMUM CENTER-TO-CENTER WIRE SPACING AND MAY BE CONSERVATIVE FOR LARGER SPACING DIMENSIONS.
8. VALUES PRESENTED ARE FOR THE LARGEST WIRE SIZE SHOWN IN THE WIRE GROUPING. SMALLER WIRE SIZES WILL HAVE SHORTER LAP SPLICE LENGTHS THAN THOSE TABULATED HERE. FOR PRECISE LAP SPLICE LENGTHS SPECIFIC TO INCREMENTAL WIRE SIZES, REFER TO THE LAP SPLICE CALCULATOR ON WRI'S WEBSITE.
9. VALUES PRESENTED ARE FOR PREDETERMINED CRITERIA AS DEFINED IN NOTES OUTLINED ABOVE. FOR PRECISE LAP SPLICE LENGTHS SPECIFIC TO OTHER COMBINATIONS OF CRITERIA, REFER TO THE LAP SPLICE CALCULATOR ON WRI'S WEBSITE.

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WELDED DEFORMED WIRE REINFORCEMENT LAP SPLICE SCHEDULE

DRAWN BY: PA

DATE: 2021

SHEET NO.

WWR.6