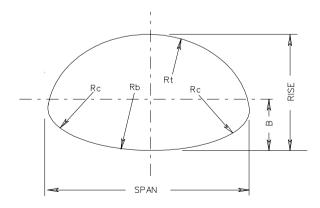
SPAN   RISE   CORNER   RADIUS   CORNER   RADIUS   CORNER   RADIUS   CORNER   RADIUS   CORNER   RESSURE   IN INCHES   NOTE   CORNER   RADIUS   CORNER   RESSURE   IN INCHES   CORNER   RADIUS	STRUCTURAL PLATE ALUMINUM ALLOY PIPE ARCHES 9' x 21/2" CORRUGATIONS											
Note												
Name		RISE		MINIMUM SHEET THICKNESS IN INCHES								
RADIUS	CDAN										AREA	
	SPAN											
NOTE 4) NOTE 4) NOTE 6) NOTE							4000				SQ.FT.	
6'-7'				(SEE	(SEE	(SEE	(SEE	(SEE	(SEE	(SEE		
6'-7" 5'-8" 31.8 23 26 34 26 40 26 40 29.6 6'-11" 5'-9" 31.8 22 25 32 25 38 25 38 31.9 7'-3" 5'-11" 31.8 21 24 31 24 36 24 36 34 36.8 8'-1" 6'-1" 31.8 19 21 28 21 32 21 32 39.3 8'-5" 6'-6" 31.8 19 21 28 21 32 21 32 39.3 8'-5" 6'-6" 31.8 19 21 28 21 32 21 32 39.3 8'-5" 6'-6" 31.8 19 21 28 21 32 21 32 39.3 8'-5" 6'-6" 31.8 16 20 27 20 31 20 31 41.9 8'-10" 6'-4" 31.8 17 20 25 20 30 20 30 44.5 9'-7" 6'-6" 31.8 16 19 24 19 28 19 28 45.1 9'-7" 6'-6" 31.8 16 18 23 18 27 18 27 49.9 9'-11" 6'-8" 31.8 15 17 22 17 26 17 26 52.7 10'-3" 6'-9" 31.8 15 17 22 17 25 17 25 55.5 10'-9" 31.8 14 16 21 16 24 16 24 16 24 58.4 11'-1" 7'-0" 31.8 14 15 20 15 23 15 23 61.4 11'-5" 7'-1" 31.8 13 15 19 15 23 15 23 61.4 11'-9" 7'-2" 31.8 13 15 19 15 22 15 22 67.5 12'-3" 7'-5" 31.8 12 14 18 14 21 14 21 70.5 12'-7" 7'-5" 31.8 12 14 18 14 21 14 21 70.5 12'-7" 7'-6" 31.8 11 13 17 13 20 13 20 77.0 13'-1" 8'-2" 31.8 11 13 17 13 20 13 20 83.0 13'-11" 8'-2" 31.8 11 12 16 12 19 12 19 90.3 14'-0" 8'-7" 31.8 11 12 16 12 19 12 19 90.3 14'-0" 8'-7" 31.8 11 12 16 12 19 12 19 90.3 14'-0" 8'-7" 31.8 11 12 16 12 19 12 19 90.3 14'-1" 9'-5" 31.8 11 12 16 12 19 12 19 90.3 14'-1" 9'-5" 31.8 11 12 16 12 19 12 19 10.5 14'-8" 9'-8" 31.8 11 11 13 11 16 11 17 114.2 15'-4" 10'-0" 31.8 11 11 11 11 11 11 11 11 11 11 11 11 11	6'-2''	5'-0''	31.8	25	28	36	28	42	28	42	24.7	
6'-11"         5'-9"         31.8         22         25         32         25         38         25         38         31.9           7'-3"         5'-11"         31.8         21         24         31         24         36         24         36         34.3           7'-9"         6'-0"         31.8         20         22         29         22         34         22         34         36.8           8'-1"         6'-1"         31.8         19         21         28         21         32         21         32         39.3           8'-5"         6'-3"         31.8         18         20         27         20         31         20         31         41.9           8'-10"         6'-6"         31.8         16         19         24         19         28         19         28         45.1           9'-7"         6'-6"         31.8         16         18         23         18         27         49.9           9'-1"         6'-6"         31.8         15         17         22         17         26         17         26         55.5           10'-3"         6'-9"         31.8 <td< td=""><td>6'-7'</td><td>4'-11'</td><td>31.8</td><td>23</td><td>26</td><td>34</td><td>26</td><td>40</td><td>26</td><td>40</td><td>26.6</td></td<>	6'-7'	4'-11'	31.8	23	26	34	26	40	26	40	26.6	
7'-3"   5'-1"   31.8   21   24   31   24   36   24   36   34.3     7'-9"   6'-0"   31.8   20   22   29   22   34   22   34   36.8     8'-1"   6'-1"   31.8   19   21   28   21   32   21   32   39.3     8'-5"   6'-3"   31.8   18   20   27   20   31   20   31   41.9     8'-10"   6'-4"   31.8   17   20   25   20   30   20   30   44.5     9'-3"   6'-5"   31.8   16   19   24   19   28   19   28   45.1     9'-7"   6'-6"   31.8   16   18   23   18   27   18   27   49.9     9'-11"   6'-6"   31.8   15   17   22   17   26   17   26   52.7     10'-3"   6'-9"   31.8   15   17   22   17   25   17   25   55.5     10'-9"   6'-10"   31.8   14   16   21   16   24   16   24   68   44     11'-1"   7'-0"   31.8   13   15   19   15   23   15   23   61.4     11'-9"   7'-2"   31.8   13   15   19   15   22   15   22   67.5     12'-3"   7'-3"   31.8   12   14   18   14   21   14   21   70.5     12'-1"   7'-6"   31.8   11   13   17   13   20   13   20   83.0     13'-1"   8'-2"   31.8   11   13   17   13   20   13   20   86.8     13'-11"   9'-5"   31.8   11   12   16   12   19   12   19   10.5     14'-3"   9'-7"   31.8   11   12   16   12   19   12   19   10.5     14'-3"   9'-7"   31.8   11   12   16   12   19   12   19   10.5     14'-1"   9'-0"   31.8   11   11   11   14   11   16   12.3     16'-1"   10'-4"   31.8   11   11   11   14   11   16   12.3     16'-1"   10'-4"   31.8   11   11   11   11   14   11   16   12.3     16'-9"   10'-8"   31.8   11   11   11   11   14   11   16   12.3     16'-9"   10'-9"   31.8   31.8   10   10   10   12   10   14   13.3     17'-3"   11'-0"   31.8	6'-7''	5'-8"	31.8		26	34	26	40	26	40	29.6	
7'-9"   6'-0"   31.8   20   22   29   22   34   22   34   36.8     8'-1"   6'-1"   31.8   19   21   28   21   32   21   32   39.3     8'-5"   6'-3"   31.8   18   20   27   20   31   20   31   41.9     8'-10"   6'-4"   31.8   17   20   25   20   30   20   30   44.5     9'-5"   6'-5"   31.8   16   19   24   19   28   19   28   45.1     9'-7"   6'-6"   31.8   16   18   23   18   27   18   27   49.9     9'-11"   6'-8"   31.8   15   17   22   17   26   17   26   52.7     10'-3"   6'-9"   31.8   15   17   22   17   26   17   26   52.7     10'-9"   6'-10"   31.8   14   16   21   16   24   16   24   58.4     11'-1"   7'-0"   31.8   14   15   20   15   23   15   23   64.4     11'-9"   7'-2"   31.8   13   15   19   15   23   15   23   64.4     11'-9"   7'-2"   31.8   13   15   19   15   22   15   22   67.5     12'-3"   7'-5"   31.8   12   14   18   14   21   14   21   70.5     12'-1"   7'-6"   31.8   12   14   18   14   21   14   21   73.7     12'-11"   7'-6"   31.8   12   13   17   13   20   13   20   83.0     13'-1"   8'-2"   31.8   11   13   17   13   20   13   20   86.8     13'-11"   8'-5"   31.8   11   12   16   12   19   12   19   90.3     14'-6"   9'-8"   31.8   11   12   16   12   19   12   19   101.5    14'-8"   9'-8"   31.8   11   11   11   14   11   16   123.1     16'-1"   10'-4"   31.8   11   11   11   11   14   11   16   123.1     16'-1"   10'-6"   31.8   10   10   10   12   14.8     17'-3"   11'-0"   31.8   31.8   10   10   10   10   12   14.8    17'-3"   11'-0"   31.8	6'-11''	5'-9"	31.8		25		25	38	25	38	31.9	
8'-1"         6'-1"         31.8         19         21         28         21         32         21         39.3           8'-5"         6'-3"         31.8         18         20         27         20         31         20         31         41.9           8'-10"         6'-4"         31.8         17         20         25         20         30         20         30         44.5           9'-3"         6'-5"         31.8         16         19         24         19         28         19         28         45.1           9'-11"         6'-6"         31.8         16         18         23         18         27         18         27         49.9           9'-11"         6'-8"         31.8         15         17         22         17         26         17         26         52.7           10'-3"         6'-9"         31.8         14         16         21         16         24         16         24         58.4           11'-1"         7'-0"         31.8         14         15         20         15         23         15         23         61.4           11'-1"         7'-0" <th< td=""><td>7'-3''</td><td>5'-11''</td><td>31.8</td><td>21</td><td>24</td><td></td><td>24</td><td>36</td><td>24</td><td>36</td><td>34.3</td></th<>	7'-3''	5'-11''	31.8	21	24		24	36	24	36	34.3	
8'-5"         6'-3"         31.8         18         20         27         20         31         20         31         41.9           8'-10"         6'-4"         31.8         17         20         25         20         30         20         30         44.5           9'-3"         6'-5"         31.8         16         19         24         19         28         19         28         45.1           9'-7"         6'-6"         31.8         16         18         23         18         27         18         27         49.9           9'-1"         6'-6"         31.8         15         17         22         17         26         17         26         52.7           10'-3"         6'-9"         31.8         15         17         22         17         25         17         25         55.5           10'-9"         6'-10"         31.8         14         16         21         16         24         16         24         58.4           11'-1"         7'-0"         31.8         13         15         19         15         23         15         23         61.4           11'-9"         7'	7'-9''		31.8	20	22		22		22	34	36.8	
8'-10"         6'-4"         31.8         17         20         25         20         30         20         30         44.5           9'-3"         6'-5"         31.8         16         19         24         19         28         19         28         45.1           9'-7"         6'-6"         31.8         16         18         23         18         27         18         27         49.9           9'-11"         6'-6"         31.8         15         17         22         17         26         17         26         52.7           10'-3"         6'-9"         31.8         15         17         22         17         25         17         25         55.5           10'-3"         6'-9"         31.8         14         16         21         16         24         16         24         58.4           11'-1"         7'-0"         31.8         14         15         20         15         23         15         23         61.4           11'-5"         7'-1"         31.8         13         15         19         15         23         15         23         64.4           11'-9"         7	8'-1"	6'-1''	31.8	19	21	28	21	32	21	32	39.3	
9'-3" 6'-6" 31.8 16 19 24 19 28 19 28 45.1 9'-7" 6'-6" 31.8 16 18 23 18 27 18 27 49.9 9'-11" 6'-8" 31.8 15 17 22 17 26 17 26 52.7 10'-3" 6'-9" 31.8 15 17 22 17 25 17 25 55.5 10'-9" 6'-10" 31.8 14 16 21 16 24 16 24 58.4 11'-1" 7'-0" 31.8 13 15 19 15 23 15 23 61.4 11'-9" 7'-2" 31.8 13 15 19 15 23 15 23 64.4 11'-9" 7'-2" 31.8 13 15 19 15 22 15 22 67.5 12'-3" 7'-3" 31.8 12 14 18 14 21 14 21 70.5 12'-7" 7'-5" 31.8 12 14 18 14 21 14 21 73.7 12'-11" 7'-6" 31.8 12 13 17 13 20 13 20 83.0 13'-1" 8'-2" 31.8 11 13 17 13 20 13 20 83.0 13'-1" 8'-4" 31.8 11 13 17 13 20 13 20 83.0 13'-1" 8'-5" 31.8 11 12 16 12 19 12 19 90.3 14'-0" 8'-7" 31.8 11 12 16 12 19 12 19 90.3 14'-11" 9'-5" 31.8 11 12 16 12 19 12 19 10.5 14'-3" 9'-7" 31.8 11 12 16 12 19 12 19 10.5 14'-3" 9'-7" 31.8 11 13 11 14 11 16 11 17 114.2 15'-4" 10'-0" 31.8 11 13 11 14 11 16 11 17 114.2 15'-4" 10'-0" 31.8 11 11 12 16 12 19 12 19 10.5 14'-11" 9'-10" 31.8 11 11 12 16 12 19 12 19 10.5 14'-11" 9'-10" 31.8 11 11 12 16 12 19 12 19 10.5 14'-11" 9'-10" 31.8 11 12 16 12 19 12 19 10.5 14'-11" 9'-10" 31.8 11 12 16 12 19 12 19 10.5 14'-4" 10'-0" 31.8 11 11 12 16 12 19 12 19 10.5 14'-4" 10'-0" 31.8 11 11 12 16 12 19 12 19 10.5 14'-4" 10'-0" 31.8 11 11 12 11 14 11 17 114.2 15'-4" 10'-0" 31.8 11 11 12 11 14 11 17 114.2 15'-4" 10'-0" 31.8 11 11 12 11 14 11 17 114.2 15'-4" 10'-0" 31.8 11 11 11 11 11 11 14 11 16 123.1 16'-9" 10'-8" 31.8 11 11 12 11 11 14 11 17 114.2 16'-9" 10'-8" 31.8 11 11 12 11 11 14 11 16 123.1 16'-9" 10'-8" 31.8 11 10 10 11 10 12 141.8	8'-5''	6'-3''	31.8	18	20	27	20	31	20	31	41.9	
9'-7"         6'-6"         31.8         16         18         23         18         27         18         27         49.9           9'-11"         6'-8"         31.8         15         17         22         17         26         17         26         52.7           10'-3"         6'-9"         31.8         15         17         22         17         25         17         25         55.5           10'-9"         6'-10"         31.8         14         16         21         16         24         16         24         58.4           11'-1"         7'-0"         31.8         14         15         20         15         23         15         23         61.4           11'-5"         7'-1"         31.8         13         15         19         15         23         15         23         61.4           11'-5"         7'-1"         31.8         13         15         19         15         22         15         22         67.5           12'-3"         7'-2"         31.8         12         14         18         14         21         14         21         14         21         70.5	8'-10''	6'-4''	31.8	17	20	25	20	30	20	30	44.5	
9'-11"         6'-8"         31.8         15         17         22         17         26         17         26         52.7           10'-3"         6'-9"         31.8         15         17         22         17         25         17         25         55.5           10'-9"         6'-10"         31.8         14         16         21         16         24         16         24         58.4           11'-1"         7'-0"         31.8         14         15         20         15         23         15         23         61.4           11'-5"         7'-1"         31.8         13         15         19         15         23         15         23         64.4           11'-9"         7'-2"         31.8         13         15         19         15         22         15         22         67.5           12'-3"         7'-3"         31.8         12         14         18         14         21         14         21         14         21         77.0           12'-7"         7'-6"         31.8         12         13         17         13         20         13         20         77.0	9'-3''	6'-5"	31.8	16	19	24	19	28	19	28	45.1	
10'-3"   6'-9"   31.8   15   17   22   17   25   17   25   55.5   10'-9"   6'-10"   31.8   14   16   21   16   24   16   24   58.4   11'-1"   7'-0"   31.8   14   15   20   15   23   15   23   61.4   11'-5"   7'-1"   31.8   13   15   19   15   23   15   23   64.4   11'-9"   7'-2"   31.8   13   15   19   15   22   15   22   67.5   12'-3"   7'-3"   31.8   12   14   18   14   21   14   21   70.5   12'-7"   7'-5"   31.8   12   14   18   14   21   14   21   73.7   12'-11"   7'-6"   31.8   12   13   17   13   20   13   20   77.0   13'-1"   8'-2"   31.8   11   13   17   13   20   13   20   83.0   13'-1"   8'-4"   31.8   11   13   17   13   20   13   20   86.8   13'-11"   8'-5"   31.8   11   12   16   12   19   12   19   90.3   14'-0"   8'-7"   31.8   11   12   16   12   19   12   19   90.3   14'-3"   9'-7"   31.8   10   12   15   12   18   12   18   105.7   14'-8"   9'-8"   31.8   11   13   11   14   11   17   114.6   15'-7"   10'-2"   31.8   11   11   11   11   14   11   17   118.6   15'-7"   10'-2"   31.8   11   11   11   11   11   11   11	9'-7''	6'-6''	31.8	16	18	23	18	27	18	27	49.9	
10'-9"   6'-10"   31.8	9'-11''	6'-8''	31.8	15	17	22	17	26	17	26	52.7	
11'-1''   7'-0''   31.8	10'-3''	6'-9"	31.8	15	17	22	17	25	17	25	55.5	
11'-5''   7'-1''   31.8   13   15   19   15   23   15   23   64.4     11'-9''   7'-2''   31.8   13   15   19   15   22   15   22   67.5     12'-3''   7'-3''   31.8   12   14   18   14   21   14   21   70.5     12'-7''   7'-5''   31.8   12   14   18   14   21   14   21   73.7     12'-11''   7'-6''   31.8   12   13   17   13   20   13   20   77.0     13'-1''   8'-2''   31.8   11   13   17   13   20   13   20   83.0     13'-1''   8'-4''   31.8   11   13   17   13   20   13   20   86.8     13'-11''   8'-5''   31.8   11   12   16   12   19   12   19   90.3     14'-0''   8'-7''   31.8   11   12   16   12   18   12   18   94.2     13'-11''   9'-5''   31.8   11   12   16   12   19   12   19   101.5     14'-3''   9'-7''   31.8   10   12   15   12   18   12   18   105.7     14'-8''   9'-8''   31.8   11   13   11   16   11   17   114.2     15'-4''   10'-0''   31.8   11   12   11   14   11   17   114.2     15'-4''   10'-0''   31.8   11   11   11   11   14   11   17   118.6     15'-7''   10'-2''   31.8   10   10   10   12   10   15   127.6     16'-4''   10'-6''   31.8   10   10   11   10   13   136.9     17'-0''   10'-10''   31.8   10   10   10   10   12   141.8     17'-3''   11'-0''   31.8   31.8   10   10   10   10   12   141.8     17'-3''   11'-0''   31.8   31.8   10   10   10   10   12   141.8     17'-3''   11'-0''   31.8   31.8   10   10   10   10   12   141.8     17'-3''   11'-0''   31.8   3	10'-9''	6'-10''	31.8	14	16	21	16	24	16	24	58.4	
11'-9''   7'-2''   31.8	11' - 1''	7'-0''	31.8	14	15	20	15	23	15	23	61.4	
12'-3"   7'-3"   31.8   12	11'-5''	7'-1''	31.8	13	15	19	15	23	15	23	64.4	
12'-7"   7'-5"   31.8   12   14   18   14   21   14   21   73.7     12'-11"   7'-6"   31.8   12   13   17   13   20   13   20   77.0     13'-1"   8'-2"   31.8   11   13   17   13   20   13   20   83.0     13'-1"   8'-4"   31.8   11   13   17   13   20   13   20   86.8     13'-11"   8'-5"   31.8   11   12   16   12   19   12   19   90.3     14'-0"   8'-7"   31.8   11   12   16   12   18   12   18   94.2     13'-11"   9'-5"   31.8   11   12   16   12   19   12   19   101.5     14'-3"   9'-7"   31.8   10   12   15   12   18   12   18   105.7     14'-8"   9'-8"   31.8   10   12   15   12   18   12   18   109.9     14'-11"   9'-10"   31.8   11   13   11   16   11   17   114.2     15'-4"   10'-0"   31.8   11   12   11   14   11   17   118.6     15'-7"   10'-2"   31.8   11   11   11   14   11   16   123.1     16'-1"   10'-4"   31.8   10   10   12   10   14   132.3     16'-9"   10'-8"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   10   10   10   10     18'-3"   11'-4"   11'-4"   11.8   10   10   10   10   10   10     18'-3"   11'-3"   11'-0"   31.8   10   10   10   10   10   10     18'-3"   11'-3"   1	11'-9''	7'-2''	31.8	13	15	19	15	22	15	22	67.5	
12'-11''   7'-6''   31.8   12   13   17   13   20   13   20   77.0     13'-1''   8'-2''   31.8   11   13   17   13   20   13   20   83.0     13'-1''   8'-4''   31.8   11   13   17   13   20   13   20   86.8     13'-11''   8'-5''   31.8   11   12   16   12   19   12   19   90.3     14'-0''   8'-7''   31.8   11   12   16   12   18   12   18   94.2     13'-11''   9'-5''   31.8   11   12   16   12   19   12   19   101.5     14'-3''   9'-7''   31.8   10   12   15   12   18   12   18   105.7     14'-8''   9'-8''   31.8   10   12   15   12   18   12   18   109.9     14'-11''   9'-10''   31.8   11   13   11   16   11   17   114.2     15'-4''   10'-0''   31.8   11   12   11   14   11   17   118.6     15'-7''   10'-2''   31.8   11   11   11   14   11   16   123.1     16'-1''   10'-6''   31.8   10   10   12   10   14   132.3     16'-9''   10'-8''   31.8   10   10   11   10   13   136.9     17'-0''   10'-10''   31.8   10   10   10   12   141.8     17'-3''   11'-0''   31.8   10   10   10   12   141.8     17'-3''   11'-0''   31.8   10   10   10   12   141.8     17'-3''   11'-0''   31.8   10   10   10   12   141.8     17'-3''   11'-0''   31.8   10   10   10   12   141.8     17'-3''   11'-0''   31.8   10   10   10   12   141.8     17'-3''   11'-0''   31.8   10   10   10   12   141.8     17'-3''   11'-0''   31.8   10   10   10   10   12	12'-3''	7'-3''	31.8	12	14	18	14	21	14	21	70.5	
13'-1"   8'-2"   31.8   11   13   17   13   20   13   20   83.0     13'-1"   8'-4"   31.8   11   13   17   13   20   13   20   86.8     13'-11"   8'-5"   31.8   11   12   16   12   19   12   19   90.3     14'-0"   8'-7"   31.8   11   12   16   12   18   12   18   94.2     13'-11"   9'-5"   31.8   11   12   16   12   19   12   19   101.5     14'-3"   9'-7"   31.8   10   12   15   12   18   12   18   105.7     14'-8"   9'-8"   31.8   10   12   15   12   18   12   18   109.9     14'-11"   9'-10"   31.8   11   13   11   16   11   17   114.2     15'-4"   10'-0"   31.8   11   12   11   14   11   17   118.6     15'-7"   10'-2"   31.8   11   11   11   14   11   16   123.1     16'-1"   10'-6"   31.8   10   10   12   10   14   132.3     16'-9"   10'-8"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   10   12   141.8     17'-3"   11'-0"   31.8   10   10   10   10   10   10   10     18'-4"   10'-6"   31.8   10   10   10   10   10   10     18'-4"   10'-6"   31.8   10   10   10   10   10   10     18'-4"   10'-6"   31.8   10   10   10   10   10     18'-4"   10'-6"   31.8   10   10   10   10   10     18'-4"   10'-6"   31.8   10   10   10   10   10     19'-4"   10'-6"   31.8   10   10   10   10   10     19'-4"   10'-6"   31.8   10   10   10   10   10     19'-4"   10'-6"	12'-7''	7'-5"	31.8	12	14	18	14	21	14	21	73.7	
13'-1"         8'-4"         31.8         11         13         17         13         20         13         20         86.8           13'-11"         8'-5"         31.8         11         12         16         12         19         12         19         90.3           14'-0"         8'-7"         31.8         11         12         16         12         18         12         18         94.2           13'-11"         9'-5"         31.8         11         12         16         12         19         12         19         101.5           14'-3"         9'-7"         31.8         10         12         15         12         18         12         18         105.7           14'-8"         9'-8"         31.8         12         14         12         17         12         18         109.9           14'-11"         9'-10"         31.8         11         13         11         16         11         17         114.2           15'-4"         10'-0"         31.8         11         12         11         14         11         17         118.6           15'-7"         10'-2"         31.8         11<	12'-11"	7'-6''	31.8	12	13	17	13	20	13	20	77.0	
13'-11''   8'-5''   31.8   11   12   16   12   19   12   19   90.3	13'-1''	8'-2''	31.8	11	13	17	13	20	13	20	83.0	
14'-0"         8'-7"         31.8         11         12         16         12         18         12         18         94.2           13'-11"         9'-5"         31.8         11         12         16         12         19         12         19         101.5           14'-3"         9'-7"         31.8         10         12         15         12         18         12         18         105.7           14'-8"         9'-8"         31.8         12         14         12         17         12         18         109.9           14'-11"         9'-10"         31.8         11         13         11         16         11         17         114.2           15'-4"         10'-0"         31.8         11         12         11         14         11         17         118.6           15'-7"         10'-2"         31.8         11         11         11         14         11         16         123.1           16'-1"         10'-4"         31.8         10         10         12         10         15         127.6           16'-4"         10'-6"         31.8         10         11         10	13'-1''	8'-4"	31.8	11	13	17	13	20	13	20	86.8	
13'-11''         9'-5''         31.8         11         12         16         12         19         12         19         101.5           14'-3''         9'-7''         31.8         10         12         15         12         18         12         18         105.7           14'-8''         9'-8''         31.8         12         14         12         17         12         18         109.9           14'-11''         9'-10''         31.8         11         13         11         16         11         17         114.2           15'-4''         10'-0''         31.8         11         12         11         14         11         17         118.6           15'-7''         10'-2''         31.8         11         11         11         14         11         16         123.1           16'-1''         10'-4''         31.8         10         10         12         10         15         127.6           16'-4''         10'-6''         31.8         10         12         10         14         132.3           16'-9''         10'-8''         31.8         10         11         10         13         136.9	13'-11''	8'-5"	31.8	11	12	16	12	19	12	19	90.3	
14'-3"         9'-7"         31.8         10         12         15         12         18         12         18         105.7           14'-8"         9'-8"         31.8         12         14         12         17         12         18         109.9           14'-11"         9'-10"         31.8         11         13         11         16         11         17         114.2           15'-4"         10'-0"         31.8         11         12         11         14         11         17         118.6           15'-7"         10'-2"         31.8         11         11         11         14         11         16         123.1           16'-1"         10'-4"         31.8         10         10         12         10         15         127.6           16'-4"         10'-6"         31.8         10         12         10         14         132.3           16'-9"         10'-8"         31.8         10         11         10         13         136.9           17'-0"         10'-10"         31.8         10         10         10         12         141.8           17'-3"         11'-0"         31.8 <td>14'-0''</td> <td>8'-7"</td> <td>31.8</td> <td>11</td> <td>12</td> <td>16</td> <td>12</td> <td>18</td> <td>12</td> <td>18</td> <td>94.2</td>	14'-0''	8'-7"	31.8	11	12	16	12	18	12	18	94.2	
14'-8"         9'-8"         31.8         12         14         12         17         12         18         109.9           14'-11"         9'-10"         31.8         11         13         11         16         11         17         114.2           15'-4"         10'-0"         31.8         11         12         11         14         11         17         118.6           15'-7"         10'-2"         31.8         11         11         11         14         11         16         123.1           16'-1"         10'-4"         31.8         10         10         12         10         15         127.6           16'-4"         10'-6"         31.8         10         12         10         14         132.3           16'-9"         10'-8"         31.8         10         11         10         13         136.9           17'-0"         10'-10"         31.8         10         10         10         12         141.8           17'-3"         11'-0"         31.8         10         10         10         12	13'-11''	9'-5''	31.8	11	12	16	12	19	12	19	101.5	
14'-11"         9'-10"         31.8         11         13         11         16         11         17         114.2           15'-4"         10'-0"         31.8         11         12         11         14         11         17         118.6           15'-7"         10'-2"         31.8         11         11         11         14         11         16         123.1           16'-1"         10'-4"         31.8         10         10         12         10         15         127.6           16'-4"         10'-6"         31.8         10         12         10         14         132.3           16'-9"         10'-8"         31.8         10         11         10         13         136.9           17'-0"         10'-10"         31.8         10         10         12         141.8           17'-3"         11'-0"         31.8         10         10         12         141.8	14'-3''	9'-7''	31.8	10	12	15	12	18	12	18	105.7	
15'-4"         10'-0"         31.8         11         12         11         14         11         17         118.6           15'-7"         10'-2"         31.8         11         11         14         11         16         123.1           16'-1"         10'-4"         31.8         10         10         12         10         15         127.6           16'-4"         10'-6"         31.8         10         12         10         14         132.3           16'-9"         10'-8"         31.8         10         11         10         13         136.9           17'-0"         10'-10"         31.8         10         10         12         141.8           17'-3"         11'-0"         31.8         10         10         12         141.8	14'-8''	9'-8''	31.8		12	14	12	17	12	18	109.9	
15'-7"         10'-2"         31.8         11         11         14         11         16         123.1           16'-1"         10'-4"         31.8         10         10         12         10         15         127.6           16'-4"         10'-6"         31.8         10         12         10         14         132.3           16'-9"         10'-8"         31.8         10         11         10         13         136.9           17'-0"         10'-10"         31.8         10         10         12         141.8           17'-3"         11'-0"         31.8         10         10         12	14'-11''	9'-10''	31.8		11	13	11	16	11	17	114.2	
16'-1"     10'-4"     31.8     10     10     12     10     15     127.6       16'-4"     10'-6"     31.8     10     12     10     14     132.3       16'-9"     10'-8"     31.8     10     11     10     13     136.9       17'-0"     10'-10"     31.8     10     10     12     141.8       17'-3"     11'-0"     31.8     10     10     12     141.8	15'-4''	10'-0''	31.8		11	12	11	14	11	17	118.6	
16'-4"     10'-6"     31.8     10     12     10     14     132.3       16'-9"     10'-8"     31.8     10     11     10     13     136.9       17'-0"     10'-10"     31.8     10     10     12     141.8       17'-3"     11'-0"     31.8     10     10     12     141.8	15'-7''	10'-2''	31.8		11	11	11	14	11	16	123.1	
16'-9"     10'-8"     31.8     10     11     10     13     136.9       17'-0"     10'-10"     31.8     10     10     12     141.8       17'-3"     11'-0"     31.8     10     10     12	16'-1''	10'-4''	31.8		10		10	12	10	15	127.6	
17'-0"     10'-10"     31.8     10     10     12     141.8       17'-3"     11'-0"     31.8     10     10     12	16'-4''	10'-6''	31.8				10	12	10	14	132.3	
17'-3" 11'-0" 31.8 10 10 12	16'-9"	10'-8''	31.8				10	11	10	13	136.9	
	17'-0"	10'-10''	31.8				10		10	12	141.8	
18'-0" 11'-4" 31.8 9 10	17'-3''	11'-0''	31.8				10		10	12		
	18'-0"	11'-4''	31.8						9	10		

## NOTES:

- 1. COVER HEIGHTS INDICATED IN TABLE ARE FOR FINISHED CONSTRUCTION.
- 2. TO PROTECT PIPE DURING CONSTRUCTION, MINIMUM HEIGHT OF COVER PRIOR TO ALLOWING CONSTRUCTION TRAFFIC TO CROSS INSTALLATION TO BE 1/2 SPAN. THE COVER SHALL EXTEND THE FULL LENGTH OF THE PIPE ARCH. THE APPROACH FILL RAMP IS TO EXTEND A MINIMUM OF TO(RISE + 1/2 SPAN) ON EACH SIDE OF THE PIPE, OR TO THE INTERSECTION WITH A CUT.
- 3. STANDARD MINIMUM FINISHED HEIGHT OF COVER FOR ALL PIPES SHALL BE 2.0' OR 1/4 SPAN, WHICHEVER IS GREATER. IN CASES IN WHICH THESE COVER HEIGHTS CANNOT BE ACHIEVED, AN ABSOLUTE MINIMUM FINISHED COVER HEIGHT OF 1.0' OR 1/8 SPAN, WHICHEVER IS GREATER, WILL BE ALLOWED ONLY IF ALL POSSIBLE MEANS TO OBTAIN THE STANDARD VALUE HAVE BEEN EXHAUSTED.
- 4. SEE STANDARD PB-1 FOR BEDDING AND BACKFILL REQUIREMENTS.
- 5. THE MAXIMUM HEIGHT OF COVER SHOWN IN THE TABLES IS BASED ON A SOIL MODULUS OF 700 PSI. ALL OTHER DESIGN CRITERIA ARE IN ACCORDANCE WITH THE AASHTO SPECIFICATIONS AND VDOT MODIFICATIONS FOR SOIL CORRUGATED METAL STRUCTURE INTERACTION SYSTEMS.
- 6. WHEN DESIGN HEIGHT OF COVER REQUIRES THE USE OF THIS CATEGORY OF PIPE, BEDDING AND BACKFILL MUST BE APPROVED BY THE ENGINEER.
- 7. BOLTS ARE 3/4" DIAMETER, HIGH STRENGTH TO MEET CURRENT A.S.T.M. DESIGNATION M-164 AND GALVANIZED TO MEET CURRENT A.S.T.M. DESIGNATION A-394. BOLTS ARE TO BE LOCATED IN THE VALLEY AND CREST OF EACH CORRUGATION IN DOUBLE ROWS SPACED 13/4" APART.
- 8. STRUCTURAL PLATE PIPE-ARCH DIMENSIONS ARE TO INSIDE CREST AND ARE SUBJECT TO MANUFACTURING TOLERANCES.



SHEET 12 OF 18

STRUCTURAL PLATE ALUMINUM ALLOY PIPE ARCH HEIGHT OF COVER TABLE FOR H-20 LIVE LOAD

232 302

SPECIFICATION

REFERENCE