

NOTES:
THESE ARE FINISHED DIMENSIONS READY FOR THE LINER.
2. DIMENSIONS ARE FROM INSIDE POOL PANELS
3. ROPE AND FLOAT ASSEMBLY SHOULD BE INSTALLED IN ACCORDANCE WITH CURRENT ANSIIASPSIICC REGULATIONS
hYDRA LINER TRACK FOR STEPS IS INSTALLED WITH THE BARB FACING THE RISER WALL ON THE STEP. EXCAVATION NOTES:
5. ROUGH EXCAVATION SHOULD BE 2" DEEPER IN EACH INSTANCE.
6. SOIL TO HAVE MINMUM BEARING CAPACITY OF 1500 PSF

LOCATE TOP OF POOL AT LEAST 6" ABOVE THE SURROUNDING LAND ELEVATION
SEE "OVER DIG DETALL", IN INSTALLATION MANUAL, FOR EXCAVATION AROUND POOL. FIL VOIDS UNDER BASE OF PANELS AND TAMP WELL.
10. BACK FILL WITH NON-EXPANSIVE MATERIAL.

FOLLOW ALL CURRENT ANSI / APSP / ICC GUIDELINES FOR RESIDENTIAL POOLS IMPORTANT NOTES

THIS DOCUMENT IS FOR ILLUSTRATIVE PURPOSES ONLY. THE DEALER OR CONTRACTOR WHO SELLS OR INSTALLS YOUR POOL IS AN INDEPENDENT CONTRACTOR AND IS NOT AN AGENT OF THE MANUFACTURER. THE CONSTRUCTION METHODS ILLUSTRATED HERE ARE SUGGESTIONS AND APPLY ONLY TO NORMAL GROUND CONDITIONS. THERE MAY BE ADDITIONAL PRECAUTIONS AND/OR METHODS OF CONSTRUCTION. PROPER INSTALLATION IS THE RESPONSIBLLITY OF THE DEALER/BUILDER/CONTRACTOR.



| AREA | PERIMETER | VOLUME |
| :---: | :---: | :---: |
| SQ. FT. | FT. | U.S. GALLONS |
| 489.49 | 88.55 | 15256.70 |



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UNLESS OTHERWISE SPECIFIED DESIGNED BY:


| DESIGNED BY: MWILLIAMS | $\begin{aligned} & \text { CREATION DATE:: } \\ & 01 / 03 / 12 \end{aligned}$ | SAMSON STE |
| :---: | :---: | :---: |
| DETALLED BY MWILLIAMS | DETALLED DATE: 06/19/23 |  |
| LAST REVISED BY: mwilliams mwilliams | $\begin{aligned} & \text { LAST REVISED DATE: } \\ & 01 / 30 / 23 \end{aligned}$ | TTIE: LAYOUT, $16^{\prime}$ X 34', LAGOON, HS51 |
| MATERAL: |  |  |
|  |  | PART NUMBER: |
|  |  | $1004321$ |



|  | onal | 5 to 7 | 5' 10-3/8" | 11 to 28 | $8^{\prime} 0$ " | 14 to 9 | 14' 5-1/4" | 16 to 30 | 18' 9-1/4" | 20 to 3 | 15' 8-1/2" | 23 to 30 | 8' 0-1/4" | 29 to 8 | 22' 6-5/8" |  |  | enterline |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 to 2 | 3'11-1/2" | 5 to 8 | $9^{\prime} 4-3 / 8{ }^{\prime \prime}$ | 11 to 29 | 23' 5-3/8" | 14 to 15 | 3' 11-1/2" | 17 to 2 | 22' 6 " | 20 to 4 | 15' 11-7/8" | 24 to 3 | 7' 12" | 29 to 9 | 22' 6-3/8" |  |  |  |
| 1 to 3 | 5' 10-3/8" | 5 to 9 | 13' 9-1/4" | 11 to 30 | 24' 1-5/8" | 14 to 16 | $7{ }^{\prime} 8$ " | 17 to 3 | 21' 10-1/2" | 20 to 5 | 17' 8-3/8" | 24 to 4 | 7' 12" | 29 to 30 | $15^{\prime \prime} 6^{\prime \prime}$ |  | 3 | $6^{\prime} 111-718^{\prime \prime}$ |
| 1 to 4 | $9^{\prime} 4-3 / 8^{\prime \prime}$ | 6 to 7 | 3'11-1/2" | 12 to 2 | 31' 2-1/2" | 14 to 17 | 10' 10-7/8" | 17 to 4 | 19'8-7/8" | 20 to 6 | 19' 0-3/8" | 24 to 5 | 10' 4-1/8" | 30 to 4 | 8' 0 " |  | 4 | ${ }^{7}{ }^{\prime \prime 1} 2^{\prime \prime}$ |
| 1 to 5 | 13' 9-1/4" | 6 to 8 | 7' 8" | 12 to 3 | 29' 9-1/8" | 14 to 18 | 15' 1-7/8" | 17 to 5 | $18^{\prime \prime} 4^{\prime \prime}$ | 20 to 7 | 20' 10-5/8" | 24 to 6 | $12^{\prime \prime} 0^{\prime \prime}$ | 30 to 5 | 10' 4-1/8" |  |  | $10^{\prime} 4-1 / 2^{\prime \prime}$ |
| 1 to 6 | 15' 9-1/4" | 6 to 9 | 12' 2-1/8" | 12 to 4 | 26' 2-1/8" | 14 to 19 | 19'6-5/8" | 17 to 6 | 18' 4-7/8" | 20 to 8 | 21' 6-3/8" | 24 to 7 | 14' 8-7/8" | 30 to 6 | $12^{\prime \prime} 0^{\prime \prime}$ |  | 8 | $\frac{10^{\prime} 10-3 / 8{ }^{\prime \prime}}{9^{\prime \prime} 5}$ |
| 1 to 7 | 19'5-5/8" | 7 to 8 | 3'11-1/2" | 12 to 5 | 22' 4-3/8" | 14 to 20 | 23' 4-1/2" | 17 to 7 | 17' 8-5/8" | 20 to 9 | 23' 4-1/4" | 24 to 8 | $16^{\prime \prime} 7{ }^{\prime \prime}$ | 30 to 7 | 14'8-7/8" |  | 8 |  |
| 1 to 8 | 22' 4-3/8" | 7 to 9 | 8' 6-1/4" | 12 to 6 | 21' 0-1/2" | 14 to 21 | 27' 2-5/8" | 17 to 8 | 15' 11-1/2" | 20 to 21 | 3'11-1/2" | 24 to 9 | 19' 8-1/8" | 30 to 8 | $16^{\prime \prime} 7^{\prime \prime}$ |  | 10 | ' 8-717 ${ }^{\prime \prime}$ |
| 1 to 9 | 26' 2-1/8" | 8 to 9 | 4' 6-3/4" | 12 to 7 | 17' 8-3/8" | 14 to 22 | 30' 3-3/4" | 17 to 9 | 15' 3-1/8" | 20 to 22 | $7{ }^{\prime} 8$ " | 24 to 25 | $15^{\prime} 6^{\prime \prime}$ | 30 to 9 | 19'8-1/8" |  |  |  |
| 1 to 10 | 28' 0-3/4" | 10 to 2 | 25' 6-1/4" | 12 to 8 | 13' 9-1/4" | 14 to 23 | $31^{\prime \prime}{ }^{\prime \prime}$ | 17 to 18 | 4' 6-3/4" | 20 to 23 | $9^{\prime} 4-3 / 8{ }^{\prime \prime}$ | 24 to 26 | 9' 5-1/8" |  |  |  |  |  |
| 1 to 11 | 31' 2-1/2" | 10 to 3 | 23' 10-1/4" | 12 to 9 | $9^{\prime} 4-3 / 8{ }^{\prime \prime}$ | 14 to 24 | 24' 7-3/4" | 17 to 19 | 8' 8-3/8" | 20 to 24 | 8' 0-1/8" | 24 to 27 | 23' 9-3/8" |  |  |  |  | $\frac{5^{\prime \prime} 0-3 / 4^{\prime \prime \prime}}{7^{\prime \prime} 5^{\prime \prime}}$ |
| 1 to 12 | 33' 1-3/4" | 10 to 4 | 20' 0-1/8" | 12 to 13 | $3^{\prime} 11-1 / 2^{\prime \prime}$ | 14 to 25 | 31' 9-3/8" | 17 to 20 | 12' 5-5/8" | 20 to 25 | 23' 5-3/4" | 24 to 28 | 17' 11-1/8' |  |  |  |  | $\frac{7^{\prime} 5^{\prime \prime}}{7^{\prime \prime} 11-31 / 8^{\prime \prime}}$ |
| 1 to 13 | 33' 7-5/8" | 10 to 5 | 15' 9-1/4" | 12 to 14 | $7{ }^{\prime} 8{ }^{\prime \prime}$ | 14 to 26 | 17' 1-5/8" | 17 to 21 | $16^{\prime \prime} 4^{\prime \prime}$ | 20 to 26 | 13' 6-3/8" | 24 to 29 | $15^{\prime} 6{ }^{\prime \prime}$ |  |  |  |  | $6^{\prime} 6-3 / 8^{\prime \prime}$ $5^{\prime} 1-3 / 4$ |
| 1 to 14 | 32' 7-3/8" | 10 to 6 | 14' 2-1/8" | 12 to 15 | 10' 10-7/8" | 14 to 27 | 21' 5-3/8" | 17 to 22 | 19'6-5/8" | 20 to 27 | 29' 0-3/8" | 24 to 30 | $0^{\prime} 0$ " |  |  |  |  | ${ }^{5} 6^{1} 6-3 / 4^{\prime \prime}$ |
| 1 to 15 | 30' 2-3/8" | 10 to 7 | 10' 5-3/4" | 12 to 16 | 13' 5-1/2" | 14 to 28 | $8^{\prime} 0$ " | 17 to 23 | 20' 9-5/8" | 20 to 28 | 18' 9-1/4" | 25 to 3 | $9^{\prime} 3-5 / 8^{\prime \prime}$ |  |  |  |  | 71 |
| 1 to 16 | 26' 8-3/4" | 10 to 8 | 6' 6-3/8" | 12 to 17 | 15' 2-1/4" | 14 to 29 | 16' 11-3/8" | 17 to 24 | 14'9-7/8" | 20 to 29 | 9' $3-5 / 8{ }^{\prime \prime}$ | 25 to 4 | 7' $6^{\prime \prime}$ |  |  |  |  | $\frac{7^{\prime} 5-1 / 4^{\prime}}{5^{\prime} 1-1 / 8}$ |
| 1 to 17 | 22' 9-1/4" | 10 to 9 | $1^{\prime} 12$ " | 12 to 18 | 18' 2-7/8" | 14 to 30 | 24' 7-3/4" | 17 to 25 | 25' 9-1/2" | 20 to 30 | 8' 0-1/8" | 25 to 5 | 7' 6" |  |  |  |  |  |
| 1 to 18 | 18' 2-7/8" | 10 to 11 | 3'11-1/2" | 12 to 19 | 22' 9-1/4" | 15 to 2 | 29' 6-5/8" | 17 to 26 | 10' 5" | 21 to 3 | 14' 5-1/2" | 25 to 6 | 7' 12" |  |  |  |  | 0 |
| 1 to 19 | 15' 2-1/4" | 10 to 12 | 7' 8" | 12 to 20 | 26' 8-3/4" | 15 to 3 | 28' $8-3 / 8^{\prime \prime}$ | 17 to 27 | 22' 6-3/8" | 21 to 4 | $15^{\prime} 8-5 / 8^{\prime \prime}$ | 25 to 7 | 11' 1" |  |  |  |  | $\frac{15^{\prime \prime}}{} 2^{\prime 111-1 / 8^{\prime \prime}}$ |
| 1 to 20 | 13' 5-5/8" | 10 to 13 | 10' 10-7/8" | 12 to 21 | 30' 2-1/2" | 15 to 4 | 26' 0-1/2" | 17 to 28 | $8^{\prime} 0^{\prime \prime}$ | 21 to 5 | 18' 4-1/4" | 25 to 8 | 15' 0-3/8" |  |  |  |  |  |
| 1 to 21 | 10' 11-1/8" | 10 to 14 | 13' 5-1/2" | 12 to 22 | 32' 7-3/8" | 15 to 5 | 23' 8-1/8" | 17 to 29 | $7^{\prime} 6^{\prime \prime}$ | 21 to 6 | 19' 11-5/8" | 25 to 9 | $19^{\prime} 7{ }^{\prime \prime}$ |  |  |  |  |  |
| 1 to 22 | 7' 8-3/8" | 10 to 15 | 15' 2-1/4" | 12 to 23 | 33' $3-3 / 4^{\prime \prime}$ | 15 to 6 | 23' 2-3/8" | 17 to 30 | 14'9-7/8" | 21 to 7 | 22'5-1/8" | 25 to 26 | $15^{\prime} 6{ }^{\prime \prime}$ |  |  |  |  | ${ }^{0} 0^{\prime \prime}$ |
| 1 to 23 | 5' 10-5/8" | 10 to 16 | 15' 11-1/2" | 12 to 24 | 25' 7-7/8" | 15 to 7 | 21'3-7/8" | 18 to 2 | 18' 1-3/4" | 21 to 8 | 23' 8-1/4" | 25 to 27 | 18' 1-5/8" |  |  |  |  |  |
| 1 to 24 | $8^{\prime} 0^{\prime \prime}$ | 10 to 17 | 15' 8-7/8" | 12 to 25 | 28' 9-1/8" | 15 to 8 | $18^{\prime} 4-1 / 8^{\prime \prime}$ | 18 to 3 | 17' 8-1/8" ${ }^{\prime \prime}$ | 21 to 9 | 26' 0-5/8" | 25 to 28 | 23' 9-3/8" |  |  |  |  |  |
| 1 to 25 | 15' 0-3/8" | 10 to 18 | 16' 11-1/4" | 12 to 26 | $16^{\prime} 7{ }^{\prime \prime}$ | 15 to 9 | 15' 8-3/8" | 18 to 4 | 15' 11-1/4" | 21 to 22 | 3'11-1/2" | 25 to 29 | 29' 6-7/8" |  |  |  |  |  |
| 1 to 26 | $16^{\prime \prime} 7{ }^{\prime \prime}$ | 10 to 19 | 20' 11-1/2" | 12 to 27 | 15' 0-3/8" | 15 to 16 | 3' 11-1/2" | 18 to 5 | 15' 3-1/2" | 21 to 23 | $5^{\prime} 10-3 / 8^{\prime \prime}$ | 25 to 30 | $15^{\prime \prime} 6^{\prime \prime}$ |  |  |  |  |  |
| 1 to 27 | 28' 9-1/8" | 10 to 20 | 24'8-1/8" | 12 to 28 | $8^{\prime} 0$ " | 15 to 17 | 7' 8" | 18 to 6 | 15' 9-1/2" | 21 to 24 | 8' 0-1/4" | 26 to 3 | 13' 5-3/4" |  |  |  |  |  |
| 1 to 28 | 25' 7-7/8" | 10 to 21 | 27' 6-1/4" | 12 to 29 | 22' 5-1/8" | 15 to 18 | 12' 2-1/8" | 18 to 7 | 16' 0-1/2" | 21 to 25 | 23' 1-3/8" | 26 to 4 | 10' 4-1/8" |  |  |  |  |  |
| 1 to 29 | 22'5-1/8" | 10 to 22 | 29'1-5/8" | 12 to 30 | 25' 7-7/8" | 15 to 19 | $16^{\prime \prime} 4^{\prime \prime}$ | 18 to 8 | 15' 3-1/2" | 21 to 26 | 15' 10" | 26 to 5 | $8^{\prime} 0$ " |  |  |  |  |  |
| 1 to 30 | $8^{\prime} 0$ | 10 to 23 | 29'4-7/8" | 13 to 2 | 32' 1-1/2" | 15 to 20 | 20' 0-1/8" | 18 to 9 | 15' 11-1/4" | 21 to 27 | 31' 1-3/8" | 26 to 6 | $8^{\prime} 0$ " |  |  |  |  |  |
| 2 to 3 | 1'12" | 10 to 24 | 21'4-7/8" | 13 to 3 | 30' 10-1/4" | 15 to 21 | $23^{\prime} 11-1 / 8^{\prime \prime}$ | 18 to 19 | 4' 6-3/4" | 21 to 28 | 22' 2-1/2" | 26 to 7 | $8^{\prime} 0$ " |  |  |  |  |  |
| 2 to 4 | $5^{\prime} 10-3 / 8{ }^{\prime \prime}$ | 10 to 25 | 21'6-1/8" | 13 to 4 | 27' 6-3/8" | 15 to 22 | 27' 2-5/8" | 18 to 20 | 8' 6-1/4" | 21 to 29 | $13^{\prime} 0-5 / 8^{\prime \prime}$ | 26 to 8 | 8'0" |  |  |  |  |  |
| 2 to 5 | $10^{\prime \prime}{ }^{\prime \prime}$ | 10 to 26 | $12^{\prime} 0{ }^{\prime \prime}$ | 13 to 5 | 24' 1-3/8" | 15 to 23 | 28' 5-5/8" | 18 to 21 | 12' 2-1/8" | 21 to 30 | 8' 0-1/4" | 26 to 9 | 10' 4-1/8" |  |  |  |  |  |
| 2 to 6 | 12'4-3/4" | 10 to 27 | $7{ }^{\prime \prime} 12$ | 13 to 6 | 23' 0-1/2" | 15 to 24 | 22' 2-1/2" | 18 to 22 | 15' 1-7/8" | 22 to 3 | 12' 3-3/4" | 26 to 27 | $15^{\prime} 6$ " |  |  |  |  |  |
| 2 to 7 | 16' 3-1/8" | 10 to 28 | $8^{\prime} 0{ }^{\prime \prime}$ | 13 to 7 | 20' 0-7/8" | 15 to 25 | 31' 1-1/4" | 18 to 23 | 16' 3-3/4" | 22 to 4 | 14' 5-1/2" | 26 to 28 | 9' 5-1/8" |  |  |  |  |  |
| 2 to 8 | 19'5-5/8" | 10 to 29 | 23' 1-7/8" | 13 to 8 | 16' 3-3/4" | 15 to 26 | 15' 9-7/8" | 18 to 24 | $10^{\prime} 4^{\prime \prime}$ | 22 to 5 | 17' 10-3/4" | 26 to 29 | 15' 6-7/8" |  |  |  |  |  |
| 2 to 9 | 23' 6-7/8" | 10 to 30 | 21'4-7/8" | 13 to 9 | 12' 3-3/8" | 15 to 27 | 23' 1-1/8" | 18 to 25 | 22' 6-5/8" | 22 to 6 | 19' 8-5/8" | 26 to 30 | $9^{\prime} 5-1 / 8^{\prime \prime}$ |  |  |  |  |  |
| 2 to 20 | 15' 2-3/8" | 11 to 2 | 28' 11" | 13 to 14 | $3^{\prime} 11-1 / 2^{\prime \prime}$ | 15 to 28 | $8^{\prime} 0$ " | 18 to 26 | 8' 0-7/8" | 22 to 7 | 22' 8-1/2" | 27 to 3 | 23' 6-1/8" |  |  |  |  |  |
| 2 to 21 | 13' 5-3/4" | 11 to 3 | 27'4" | 13 to 15 | $7{ }^{\prime} 8{ }^{\prime \prime}$ | 15 to 29 | 13' 0-3/4" | 18 to 27 | 22' 6-5/8" | 22 to 8 | 24'7" | 27 to 4 | $19^{\prime} 7{ }^{\prime \prime}$ |  | $3^{\prime}{ }^{\text {A }} 3-1 / 2^{\prime \prime}$ | 11' $11-3 / 8{ }^{\prime \prime}$ | 38' 11 -1/4" | 13' 10-3/4" |
| 2 to 22 | 10' 11-1/4" | 11 to 4 | 23'6-7/8" | 13 to 16 | 10' 10-7/8" | 15 to 30 | 22' 2-1/2" | 18 to 28 | $10^{\prime} 4^{\prime \prime}$ | 22 to 9 | 27' 5-7/8" | 27 to 5 | 15' 0-3/8" |  | $\frac{355^{\prime} 4-3 / 8^{\prime \prime}}{33^{\prime}} 6$ | $\mathrm{g}^{\prime \prime}{ }^{\prime}$ 9-5/8" ${ }^{\prime \prime}$ |  | 17' 8-3/8" ${ }^{\text {c }}$ |
| 2 to 23 | 9'4-3/4" | 11 to 5 | 19'5-5/8" | 13 to 17 | 13' 5-1/2" | 16 to 2 | 26' 4-1/2" | 18 to 29 | $7^{\prime} 6^{\prime \prime}$ | 22 to 23 | 1'12" | 27 to 6 | 13' 0-5/8" |  |  | $9^{9^{\prime} 111-1 / 4^{\prime \prime}} 1{ }^{\prime \prime}$ | 347' ${ }^{\prime \prime}$ |  |
| 2 to 24 | $8^{\prime} 0^{\prime \prime}$ | 11 to 6 | 17' 11-3/4" | 13 to 18 | 17' 2-5/8" | 16 to 3 | 25' 8-1/4" | 18 to 30 | $10^{\prime \prime} 4^{\prime \prime}$ | 22 to 24 | 8' 0-1/4" | 27 to 7 | 9'3-5/8" |  | $5{ }^{5} 55^{5} 0-5 / 8^{\prime \prime}$ | 15' 11-1/4" | ${ }^{34} 32^{\prime} 0^{\prime \prime}$ | 251-6" |
| 2 to 25 | 11'1" | 11 to 7 | 14'4-1/2" | 13 to 19 | 21' 9-1/4" | 16 to 4 | 23' 4-1/4" | 19 to 2 | 15' 11-1/2" | 22 to 25 | 21' 5-3/4" | 27 to 8 | $7{ }^{7} 6^{\prime \prime}$ |  | ${ }^{6}{ }^{\text {c }}$ | 17' 4-3/4" ${ }^{\prime \prime}$ | 31' $3-7 / 8^{\prime \prime}$ | 20 $27^{\prime \prime} 4^{\prime \prime}{ }^{\prime \prime}$ |
| 2 to 26 | 14'8-7/8" | 11 to 8 | $10^{\prime \prime} 5^{\prime \prime}$ | 13 to 20 | 25' 8-3/8" | 16 to 5 | 21' 6-3/8" | 19 to 3 | 15' 11-3/4" | 22 to 26 | 17' 1-3/4" | 27 to 9 | $7{ }^{\prime} 6^{\prime \prime}$ |  | $\frac{15^{\prime}}{15^{\prime} 11-1 / 2-1 /{ }^{\prime \prime}}$ | $25^{2} 5^{\prime} 0-5 / 8^{\prime \prime}$ | 28 $25^{\prime \prime} 6^{\prime \prime}$ | 30 $32^{\prime 2} 0^{\prime \prime}$ |
| 2 to 27 | 25' 5-1/4" | 11 to 9 | 5' 10-3/8" | 13 to 21 | 29' 4-3/4" | 16 to 6 | 21'4-1/4" | 19 to 4 | 15' 3-1/8" | 22 to 27 | 31' 9-1/2" | 27 to 28 | $15^{\prime \prime} 6^{\prime \prime}$ |  | $12^{\prime} 5-3 / 8^{\prime \prime}$ | 29'7 ${ }^{\text {2 }}$ | 21' $111-1 / 8^{\prime \prime}$ | $34^{\prime} 7-7 / 18^{\prime \prime}$ |
| 2 to 28 | 24' 1-5/8" | 11 to 12 | 3'11-1/2" | 13 to 22 | 32' 2-1/4" | 16 to 7 | 20' 1-1/8" | 19 to 5 | 15' 11-1/2" | 22 to 28 | 24' 7-7/8' | 27 to 29 | 29' 6-7/8" |  | 10' $10-3 / 4^{\prime \prime}$ | $31^{\prime}$ ' $677 / 8^{\prime \prime}$ $35^{\prime}-3-38^{\prime \prime}$ | 20' ${ }^{\text {' }}$-1/4" ${ }^{\prime \prime}$ | $36^{\prime} 2-1 / 4^{\prime \prime}$ $38^{\prime}-3 / 4{ }^{\prime \prime}$ |
| 2 to 29 | 23' 5-3/8" | 11 to 13 | 7' 8" | 13 to 23 | 33' 1-1/4" | 16 to 8 | 17' 8-1/4" | 19 to 6 | 16' 11-5/8" | 22 to 29 | 16' 11-1/4" | 27 to 30 | 23' 9-3/8" |  | 11'111-3/8" | ${ }^{35} 8^{\prime} 4-3-1 / 2^{\prime \prime}$ | $13^{\prime} 10-3 / 8^{\prime \prime}$ | 38' $311-1 / 4^{\prime \prime}$ |
| 2 to 30 | $8^{\prime} 0{ }^{\prime \prime}$ | 11 to 14 | 10' 10-7/8" | 13 to 24 | 25' 10" | 16 to 9 | 15' 11-3/4" | 19 to 7 | 18' $2-3 / 8{ }^{\prime \prime}$ | 22 to 30 | 8' 0-1/4" | 28 to 3 | 22' 10-7/8" |  | $15^{\prime} 8-3 / 4^{\prime \prime}$ | 39' $10-5 / 8^{\prime \prime}$ | $10^{\prime} 0-1 / 4^{\prime \prime}$ | ${ }^{381}$ |
| 3 to 4 | 3'11-1/2" | 11 to 15 | 13' 5-1/2" | 13 to 25 | 30' 11-5/8" | 16 to 17 | 3' 11-1/2" | 19 to 8 | $18^{\prime \prime} 4^{\prime \prime}$ | 23 to 3 | 10' 11-1/4" | 28 to 4 | 19' 8-1/8" |  | $19^{\prime} 7-1 / 8^{\prime \prime}$ | 39' 11-1/8" | $7^{7} 7-5 / 8^{\prime \prime}$ | 35' $7-3 / 8^{\prime \prime}$ |
| 3 to 5 | 8' 6-1/4" | 11 to 16 | 15' 2-1/4" | 13 to 26 | 17' 4-3/4" | 16 to 18 | 8' 6-1/4" | 19 to 9 | 19'8-7/8" | 23 to 4 | 13' 5-7/8" | 28 to 5 | $16^{\prime \prime} 7^{\prime \prime}$ |  | 22 ${ }^{\text {c }}$ | 38'4-1/1/' | ${ }^{12} 12-18-5 / 8^{\prime \prime \prime}$ | 32 $8^{\prime} 2-1-18^{\prime \prime}$ |
| 3 to 6 | 10' 5-3/4" | 11 to 17 | 15' 11-1/2" | 13 to 27 | $18^{\prime \prime} 8^{\prime \prime}$ | 16 to 19 | 12' 5-5/8" | 19 to 20 | 3'11-1/2" | 23 to 5 | $17^{\prime} 3^{\prime \prime}$ | 28 to 6 | 15' 9-3/8" |  | $\frac{25}{} 5^{\prime} 8-7 / 18^{\prime \prime}$ | $\frac{31^{1} 9-3 / 88^{\prime \prime}}{}$ | ${ }^{16} 6^{2} 2-778^{\prime \prime \prime}$ |  |
| 3 to 7 | 14'4-1/2" | 11 to 18 | 18' 1-3/4" | 13 to 28 | $8^{\prime} 01$ | 16 to 20 | $16^{\prime \prime} 1^{\prime \prime}$ | 19 to 21 | 7' 8" | 23 to 6 | 19' 1-3/4" | 28 to 7 | 13' 5-3/4" |  | ${ }^{27^{\prime} 7-3 / 8^{\prime \prime}} 3$ | ${ }^{27^{\prime} 7-3 / 8^{\prime \prime}}$ | 20' 9-5/8" | 20' 9-5/8"' ${ }^{\prime}$ 2-7/8" |
| 3 to 8 | 17' 8-3/8" | 11 to 19 | 22'6" | 13 to 29 | 20' $2-3 / 8{ }^{\prime \prime}$ | 16 to 21 | 20' 0-1/8" | 19 to 22 | 10' 10-7/8" | 23 to 7 | 22' 4-3/8" | 28 to 8 | 10' 4-1/8" |  | 35' $6-1 / 2^{\prime \prime}$ | 24' 11-1/8" | 28' $2^{\prime \prime}$ | 12' ${ }^{1}-5 / 8^{\prime \prime}$ |
| 3 to 9 | 21' 10-5/8" | 11 to 20 | 26' 4-1/2" | 13 to 30 | 25' 10" | 16 to 22 | 23' 4-1/2" | 19 to 23 | 12' 3-3/8" | 23 to 8 | 24' 6-1/4" | 28 to 9 | $8^{\prime} 0$ " |  |  | 22' 9-3/4 | $\frac{32^{\prime} 1-1-1 / 2^{\prime \prime}}{}$ | $8^{1}$-1/8" |
| 3 to 30 | $8^{\prime} 0$ | 11 to 21 | 29' 6-3/4" | 14 to 2 | 31' 6-5/8" | 16 to 23 | 24'8-1/4" | 19 to 24 | $8^{\prime \prime} 0^{\prime \prime}$ | 23 to 9 | 27' 8-3/8" | 28 to 29 | $15^{\prime} 6^{\prime \prime}$ |  | ${ }^{39^{\prime} 11-1 / 4^{\prime \prime}}$ | 717-718" | ${ }^{355^{\prime} 7-3 / 8^{\prime \prime}} 3$ | $8^{\prime} 5-5 / 8^{\prime \prime}$ |
| 4 to 5 | 4' 6-3/4" | 11 to 22 | 31' 6-3/4" | 14 to 3 | 30' 5-7/8" | 16 to 24 | 18' 9-1/4" | 19 to 25 | 22' 6-3/8" | 23 to 24 | $8^{\prime} 0-1 / 4^{\prime \prime}$ | 28 to 30 | 17' 11-1/8" |  | 32' $1-1 / 4^{\prime \prime}$ | $17^{17}{ }^{10}$ | 30'11-3/8" | 15'6-5/8" |
| 4 to 6 | $6^{1} 6-3 / 8{ }^{\prime \prime}$ | 11 to 23 | 32' 0-3/8" | 14 to 4 | 27' 5-3/4" | 16 to 25 | 29' 0-3/8" | 19 to 26 | $10^{\prime \prime} 5^{\prime \prime}$ | 23 to 25 | 20' 2-5/8" | 29 to 3 | 23' 5-5/8" |  | ${ }^{\prime \prime}$ | 0-1/8" | 39' 3 -3/3/4" | $28^{1} 7-7 / 78^{\prime \prime}$ |
| 4 to 7 | 10'5" | 11 to 24 | 24'1-5/8" | 14 to 5 | 24' 6-3/4" | 16 to 26 | $13^{\prime} 6-3 / 8^{\prime \prime}$ | 19 to 27 | 25' 9-1/2" | 23 to 26 | 17' 5" | 29 to 4 | 22' 6-3/8" |  | $\frac{22^{\prime} 9-1 / 2^{\prime \prime}}{11^{\prime}} 0$ | 22' $2^{\prime}$ 9-1/2" ${ }^{\prime \prime}$ | ${ }^{24^{\prime} 4-1 / 8^{\prime \prime}}$ | 年 $4-1 / 8^{\prime \prime}$ |
| 4 to 8 | 13' 9-1/4" | 11 to 25 | 25' 5-1/4" | 14 to 6 | 23' 9-3/8" | 16 to 27 | 23' 5-5/8" | 19 to 28 | 14'9-7/8" | 23 to 27 | 31' 6-7/8" | 29 to 5 | 22' 6-5/8" |  | $17^{10}$ | 32' $1-1 / 4^{\prime \prime}$ | ${ }^{2} 5^{\prime} 6-5 / 8^{\prime \prime}$ | 30'11-3/8" |
| 4 to 9 | 18' 0-3/8" | 11 to 26 | 14' 8-7/8" | 14 to 7 | 21' 3-3/4" | 16 to 28 | $8^{\prime} 0$ " | 19 to 29 | $7{ }^{\prime} 6^{\prime \prime}$ | 23 to 28 | $25^{\prime \prime} 5^{\prime \prime}$ | 29 to 6 | 23' 2-1/2" |  | $\frac{33^{\prime} 2-7 / 8^{\prime \prime}}{32^{\prime \prime} 1-144^{\prime \prime}}$ | $\frac{33^{\prime} 2-7 / 8^{\prime \prime}}{17{ }^{\prime \prime}{ }^{\prime \prime}}$ | $20^{\prime} 0-3 / 8^{\prime \prime}$ | 5/8" |
| 5 to 6 | 1'12" | 11 to 27 | 11' 1" | 14 to 8 | 17' 10-1/2" | 16 to 29 | $9^{\prime} 3-3 / 4^{\prime \prime}$ | 19 to 30 | $8^{\prime} 0$ " | 23 to 29 | $18^{\prime \prime} 8^{\prime \prime}$ | 29 to 7 | 23' 6-3/8" |  | 32'1-1/4" |  | $\frac{30^{\prime} 11-3 / 8^{\prime \prime}}{24^{\prime \prime} 11-1 / 8^{\prime \prime}}$ | $\frac{15}{47^{\prime} 0-5-7 / 8^{\prime \prime}}$ |



