

# Appendix C

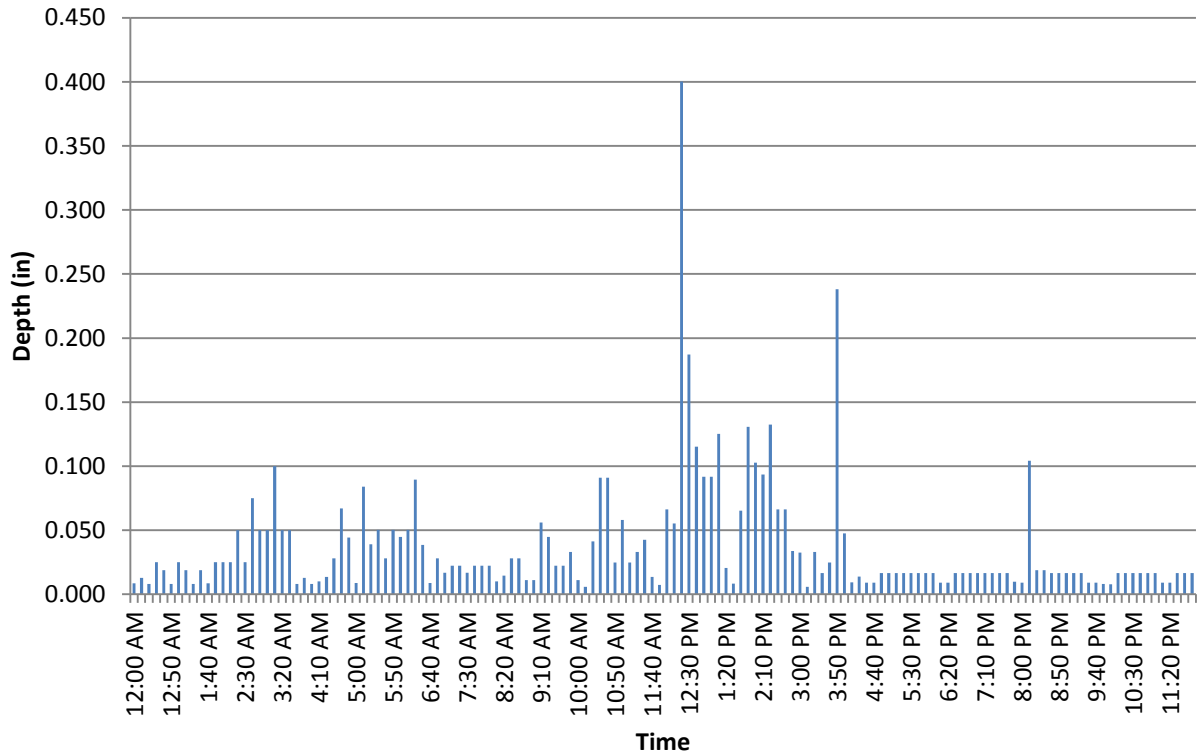
## 24-Hour Rainfall Design Pattern

- 10-Year
- 25-Year
- 50-Year
- 100-Year

## 10-Year Design Storm

Total Rainfall Depth: 5.30 inches  
Source: NOAA Atlas 14

### 10-Year Design Storm



Time	Base Storm Pattern	Design Storm (inches)
12:00 AM	0.00163	0.009
12:10 AM	0.00241	0.013
12:20 AM	0.00155	0.008
12:30 AM	0.00473	0.025
12:40 AM	0.00357	0.019
12:50 AM	0.00155	0.008
1:00 AM	0.00473	0.025
1:10 AM	0.00357	0.019
1:20 AM	0.00155	0.008
1:30 AM	0.00357	0.019
1:40 AM	0.00163	0.009
1:50 AM	0.00473	0.025
2:00 AM	0.00473	0.025
2:10 AM	0.00473	0.025
2:20 AM	0.00945	0.050

2:30 AM	0.00473	0.025
2:40 AM	0.01416	0.075
2:50 AM	0.00945	0.050
3:00 AM	0.00945	0.050
3:10 AM	0.01889	0.100
3:20 AM	0.00944	0.050
3:30 AM	0.00945	0.050
3:40 AM	0.00155	0.008
3:50 AM	0.00241	0.013
4:00 AM	0.00155	0.008
4:10 AM	0.00189	0.010
4:20 AM	0.00256	0.014
4:30 AM	0.00528	0.028
4:40 AM	0.01267	0.067
4:50 AM	0.00835	0.044
5:00 AM	0.00169	0.009
5:10 AM	0.01584	0.084
5:20 AM	0.00739	0.039
5:30 AM	0.00951	0.050
5:40 AM	0.00528	0.028
5:50 AM	0.00951	0.050
6:00 AM	0.00845	0.045
6:10 AM	0.00951	0.050
6:20 AM	0.01689	0.090
6:30 AM	0.00729	0.039
6:40 AM	0.00169	0.009
6:50 AM	0.00528	0.028
7:00 AM	0.00317	0.017
7:10 AM	0.00423	0.022
7:20 AM	0.00423	0.022
7:30 AM	0.00317	0.017
7:40 AM	0.00423	0.022
7:50 AM	0.00423	0.022
8:00 AM	0.00423	0.022
8:10 AM	0.00192	0.010
8:20 AM	0.00274	0.015
8:30 AM	0.00528	0.028
8:40 AM	0.00528	0.028
8:50 AM	0.00211	0.011
9:00 AM	0.00211	0.011
9:10 AM	0.01056	0.056
9:20 AM	0.00845	0.045

9:30 AM	0.00423	0.022
9:40 AM	0.00423	0.022
9:50 AM	0.00624	0.033
10:00 AM	0.00210	0.011
10:10 AM	0.00110	0.006
10:20 AM	0.00781	0.041
10:30 AM	0.01718	0.091
10:40 AM	0.01718	0.091
10:50 AM	0.00469	0.025
11:00 AM	0.01094	0.058
11:10 AM	0.00469	0.025
11:20 AM	0.00626	0.033
11:30 AM	0.00803	0.043
11:40 AM	0.00259	0.014
11:50 AM	0.00140	0.007
12:00 PM	0.01250	0.066
12:10 PM	0.01042	0.055
12:20 PM	0.07551	0.400
12:30 PM	0.03530	0.187
12:40 PM	0.02173	0.115
12:50 PM	0.01733	0.092
1:00 PM	0.01733	0.092
1:10 PM	0.02365	0.125
1:20 PM	0.00388	0.021
1:30 PM	0.00158	0.008
1:40 PM	0.01234	0.065
1:50 PM	0.02469	0.131
2:00 PM	0.01941	0.103
2:10 PM	0.01764	0.093
2:20 PM	0.02501	0.133
2:30 PM	0.01250	0.066
2:40 PM	0.01250	0.066
2:50 PM	0.00640	0.034
3:00 PM	0.00613	0.033
3:10 PM	0.00110	0.006
3:20 PM	0.00626	0.033
3:30 PM	0.00312	0.017
3:40 PM	0.00469	0.025
3:50 PM	0.04495	0.238
4:00 PM	0.00899	0.048
4:10 PM	0.00176	0.009
4:20 PM	0.00260	0.014

4:30 PM	0.00173	0.009
4:40 PM	0.00173	0.009
4:50 PM	0.00315	0.017
5:00 PM	0.00315	0.017
5:10 PM	0.00315	0.017
5:20 PM	0.00315	0.017
5:30 PM	0.00315	0.017
5:40 PM	0.00315	0.017
5:50 PM	0.00315	0.017
6:00 PM	0.00315	0.017
6:10 PM	0.00173	0.009
6:20 PM	0.00173	0.009
6:30 PM	0.00315	0.017
6:40 PM	0.00315	0.017
6:50 PM	0.00315	0.017
7:00 PM	0.00315	0.017
7:10 PM	0.00315	0.017
7:20 PM	0.00315	0.017
7:30 PM	0.00315	0.017
7:40 PM	0.00315	0.017
7:50 PM	0.00185	0.010
8:00 PM	0.00173	0.009
8:10 PM	0.01967	0.104
8:20 PM	0.00355	0.019
8:30 PM	0.00355	0.019
8:40 PM	0.00315	0.017
8:50 PM	0.00315	0.017
9:00 PM	0.00315	0.017
9:10 PM	0.00315	0.017
9:20 PM	0.00315	0.017
9:30 PM	0.00173	0.009
9:40 PM	0.00173	0.009
9:50 PM	0.00151	0.008
10:00 PM	0.00150	0.008
10:10 PM	0.00315	0.017
10:20 PM	0.00315	0.017
10:30 PM	0.00315	0.017
10:40 PM	0.00315	0.017
10:50 PM	0.00315	0.017
11:00 PM	0.00315	0.017
11:10 PM	0.00173	0.009
11:20 PM	0.00173	0.009

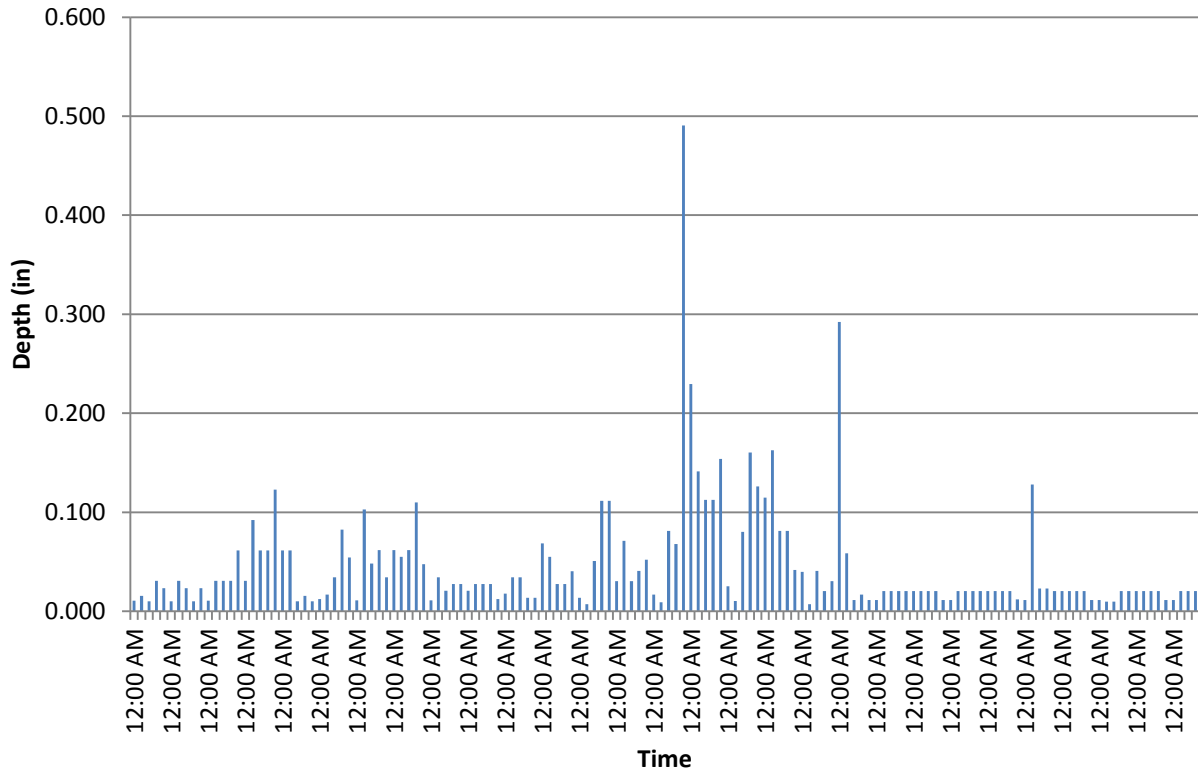
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11:30 PM	0.00315	0.017
11:40 PM	0.00315	0.017
11:50 PM	0.00315	0.017
	<b>Total:</b>	<b>5.30</b>

## 25-Year Design Storm

Total Rainfall Depth: 6.50 inches  
Source: NOAA Atlas 14

### 25-Year Design Storm



Time	Base Storm Pattern	Design Storm (inches)
12:00 AM	0.00163	0.011
12:10 AM	0.00241	0.016
12:20 AM	0.00155	0.010
12:30 AM	0.00473	0.031
12:40 AM	0.00357	0.023
12:50 AM	0.00155	0.010
1:00 AM	0.00473	0.031
1:10 AM	0.00357	0.023
1:20 AM	0.00155	0.010
1:30 AM	0.00357	0.023
1:40 AM	0.00163	0.011
1:50 AM	0.00473	0.031
2:00 AM	0.00473	0.031

2:10 AM	0.00473	0.031
2:20 AM	0.00945	0.061
2:30 AM	0.00473	0.031
2:40 AM	0.01416	0.092
2:50 AM	0.00945	0.061
3:00 AM	0.00945	0.061
3:10 AM	0.01889	0.123
3:20 AM	0.00944	0.061
3:30 AM	0.00945	0.061
3:40 AM	0.00155	0.010
3:50 AM	0.00241	0.016
4:00 AM	0.00155	0.010
4:10 AM	0.00189	0.012
4:20 AM	0.00256	0.017
4:30 AM	0.00528	0.034
4:40 AM	0.01267	0.082
4:50 AM	0.00835	0.054
5:00 AM	0.00169	0.011
5:10 AM	0.01584	0.103
5:20 AM	0.00739	0.048
5:30 AM	0.00951	0.062
5:40 AM	0.00528	0.034
5:50 AM	0.00951	0.062
6:00 AM	0.00845	0.055
6:10 AM	0.00951	0.062
6:20 AM	0.01689	0.110
6:30 AM	0.00729	0.047
6:40 AM	0.00169	0.011
6:50 AM	0.00528	0.034
7:00 AM	0.00317	0.021
7:10 AM	0.00423	0.027
7:20 AM	0.00423	0.027
7:30 AM	0.00317	0.021
7:40 AM	0.00423	0.027
7:50 AM	0.00423	0.027
8:00 AM	0.00423	0.027
8:10 AM	0.00192	0.012
8:20 AM	0.00274	0.018
8:30 AM	0.00528	0.034
8:40 AM	0.00528	0.034
8:50 AM	0.00211	0.014
9:00 AM	0.00211	0.014



9:10 AM	0.01056	0.069
9:20 AM	0.00845	0.055
9:30 AM	0.00423	0.027
9:40 AM	0.00423	0.027
9:50 AM	0.00624	0.041
10:00 AM	0.00210	0.014
10:10 AM	0.00110	0.007
10:20 AM	0.00781	0.051
10:30 AM	0.01718	0.112
10:40 AM	0.01718	0.112
10:50 AM	0.00469	0.030
11:00 AM	0.01094	0.071
11:10 AM	0.00469	0.030
11:20 AM	0.00626	0.041
11:30 AM	0.00803	0.052
11:40 AM	0.00259	0.017
11:50 AM	0.00140	0.009
12:00 PM	0.01250	0.081
12:10 PM	0.01042	0.068
12:20 PM	0.07551	0.491
12:30 PM	0.03530	0.229
12:40 PM	0.02173	0.141
12:50 PM	0.01733	0.113
1:00 PM	0.01733	0.113
1:10 PM	0.02365	0.154
1:20 PM	0.00388	0.025
1:30 PM	0.00158	0.010
1:40 PM	0.01234	0.080
1:50 PM	0.02469	0.160
2:00 PM	0.01941	0.126
2:10 PM	0.01764	0.115
2:20 PM	0.02501	0.163
2:30 PM	0.01250	0.081
2:40 PM	0.01250	0.081
2:50 PM	0.00640	0.042
3:00 PM	0.00613	0.040
3:10 PM	0.00110	0.007
3:20 PM	0.00626	0.041
3:30 PM	0.00312	0.020
3:40 PM	0.00469	0.030
3:50 PM	0.04495	0.292
4:00 PM	0.00899	0.058

4:10 PM	0.00176	0.011
4:20 PM	0.00260	0.017
4:30 PM	0.00173	0.011
4:40 PM	0.00173	0.011
4:50 PM	0.00315	0.021
5:00 PM	0.00315	0.021
5:10 PM	0.00315	0.021
5:20 PM	0.00315	0.021
5:30 PM	0.00315	0.021
5:40 PM	0.00315	0.021
5:50 PM	0.00315	0.021
6:00 PM	0.00315	0.021
6:10 PM	0.00173	0.011
6:20 PM	0.00173	0.011
6:30 PM	0.00315	0.021
6:40 PM	0.00315	0.021
6:50 PM	0.00315	0.021
7:00 PM	0.00315	0.021
7:10 PM	0.00315	0.021
7:20 PM	0.00315	0.021
7:30 PM	0.00315	0.021
7:40 PM	0.00315	0.021
7:50 PM	0.00185	0.012
8:00 PM	0.00173	0.011
8:10 PM	0.01967	0.128
8:20 PM	0.00355	0.023
8:30 PM	0.00355	0.023
8:40 PM	0.00315	0.021
8:50 PM	0.00315	0.021
9:00 PM	0.00315	0.021
9:10 PM	0.00315	0.021
9:20 PM	0.00315	0.021
9:30 PM	0.00173	0.011
9:40 PM	0.00173	0.011
9:50 PM	0.00151	0.010
10:00 PM	0.00150	0.010
10:10 PM	0.00315	0.021
10:20 PM	0.00315	0.021
10:30 PM	0.00315	0.021
10:40 PM	0.00315	0.021
10:50 PM	0.00315	0.021
11:00 PM	0.00315	0.021

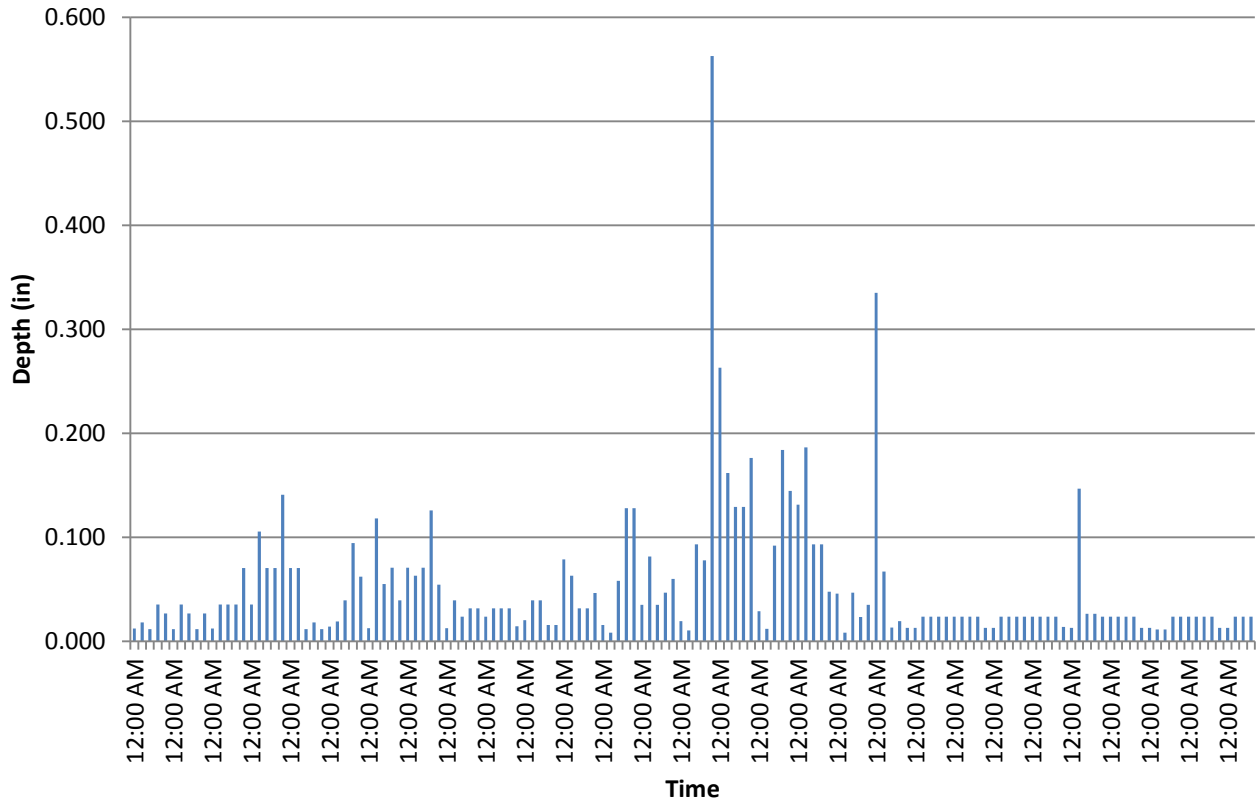
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11:10 PM	0.00173	0.011
11:20 PM	0.00173	0.011
11:30 PM	0.00315	0.021
11:40 PM	0.00315	0.021
11:50 PM	0.00315	0.021
	<b>Total:</b>	<b>6.50</b>

## 50-Year Design Storm

Total Rainfall Depth: 7.45 inches  
Source: NOAA Atlas 14

### 50-Year Design Storm



Time	Base Storm Pattern	Design Storm (inches)
12:00 AM	0.00163	0.012
12:10 AM	0.00241	0.018
12:20 AM	0.00155	0.012
12:30 AM	0.00473	0.035
12:40 AM	0.00357	0.027
12:50 AM	0.00155	0.012
1:00 AM	0.00473	0.035
1:10 AM	0.00357	0.027
1:20 AM	0.00155	0.012
1:30 AM	0.00357	0.027
1:40 AM	0.00163	0.012
1:50 AM	0.00473	0.035

2:00 AM	0.00473	0.035
2:10 AM	0.00473	0.035
2:20 AM	0.00945	0.070
2:30 AM	0.00473	0.035
2:40 AM	0.01416	0.106
2:50 AM	0.00945	0.070
3:00 AM	0.00945	0.070
3:10 AM	0.01889	0.141
3:20 AM	0.00944	0.070
3:30 AM	0.00945	0.070
3:40 AM	0.00155	0.012
3:50 AM	0.00241	0.018
4:00 AM	0.00155	0.012
4:10 AM	0.00189	0.014
4:20 AM	0.00256	0.019
4:30 AM	0.00528	0.039
4:40 AM	0.01267	0.094
4:50 AM	0.00835	0.062
5:00 AM	0.00169	0.013
5:10 AM	0.01584	0.118
5:20 AM	0.00739	0.055
5:30 AM	0.00951	0.071
5:40 AM	0.00528	0.039
5:50 AM	0.00951	0.071
6:00 AM	0.00845	0.063
6:10 AM	0.00951	0.071
6:20 AM	0.01689	0.126
6:30 AM	0.00729	0.054
6:40 AM	0.00169	0.013
6:50 AM	0.00528	0.039
7:00 AM	0.00317	0.024
7:10 AM	0.00423	0.032
7:20 AM	0.00423	0.032
7:30 AM	0.00317	0.024
7:40 AM	0.00423	0.032
7:50 AM	0.00423	0.032
8:00 AM	0.00423	0.032
8:10 AM	0.00192	0.014
8:20 AM	0.00274	0.020
8:30 AM	0.00528	0.039
8:40 AM	0.00528	0.039
8:50 AM	0.00211	0.016

9:00 AM	0.00211	0.016
9:10 AM	0.01056	0.079
9:20 AM	0.00845	0.063
9:30 AM	0.00423	0.032
9:40 AM	0.00423	0.032
9:50 AM	0.00624	0.046
10:00 AM	0.00210	0.016
10:10 AM	0.00110	0.008
10:20 AM	0.00781	0.058
10:30 AM	0.01718	0.128
10:40 AM	0.01718	0.128
10:50 AM	0.00469	0.035
11:00 AM	0.01094	0.082
11:10 AM	0.00469	0.035
11:20 AM	0.00626	0.047
11:30 AM	0.00803	0.060
11:40 AM	0.00259	0.019
11:50 AM	0.00140	0.010
12:00 PM	0.01250	0.093
12:10 PM	0.01042	0.078
12:20 PM	0.07551	0.563
12:30 PM	0.03530	0.263
12:40 PM	0.02173	0.162
12:50 PM	0.01733	0.129
1:00 PM	0.01733	0.129
1:10 PM	0.02365	0.176
1:20 PM	0.00388	0.029
1:30 PM	0.00158	0.012
1:40 PM	0.01234	0.092
1:50 PM	0.02469	0.184
2:00 PM	0.01941	0.145
2:10 PM	0.01764	0.131
2:20 PM	0.02501	0.186
2:30 PM	0.01250	0.093
2:40 PM	0.01250	0.093
2:50 PM	0.00640	0.048
3:00 PM	0.00613	0.046
3:10 PM	0.00110	0.008
3:20 PM	0.00626	0.047
3:30 PM	0.00312	0.023
3:40 PM	0.00469	0.035
3:50 PM	0.04495	0.335

4:00 PM	0.00899	0.067
4:10 PM	0.00176	0.013
4:20 PM	0.00260	0.019
4:30 PM	0.00173	0.013
4:40 PM	0.00173	0.013
4:50 PM	0.00315	0.023
5:00 PM	0.00315	0.023
5:10 PM	0.00315	0.023
5:20 PM	0.00315	0.023
5:30 PM	0.00315	0.023
5:40 PM	0.00315	0.023
5:50 PM	0.00315	0.023
6:00 PM	0.00315	0.023
6:10 PM	0.00173	0.013
6:20 PM	0.00173	0.013
6:30 PM	0.00315	0.023
6:40 PM	0.00315	0.023
6:50 PM	0.00315	0.023
7:00 PM	0.00315	0.023
7:10 PM	0.00315	0.023
7:20 PM	0.00315	0.023
7:30 PM	0.00315	0.023
7:40 PM	0.00315	0.023
7:50 PM	0.00185	0.014
8:00 PM	0.00173	0.013
8:10 PM	0.01967	0.147
8:20 PM	0.00355	0.026
8:30 PM	0.00355	0.026
8:40 PM	0.00315	0.023
8:50 PM	0.00315	0.023
9:00 PM	0.00315	0.023
9:10 PM	0.00315	0.023
9:20 PM	0.00315	0.023
9:30 PM	0.00173	0.013
9:40 PM	0.00173	0.013
9:50 PM	0.00151	0.011
10:00 PM	0.00150	0.011
10:10 PM	0.00315	0.023
10:20 PM	0.00315	0.023
10:30 PM	0.00315	0.023
10:40 PM	0.00315	0.023
10:50 PM	0.00315	0.023

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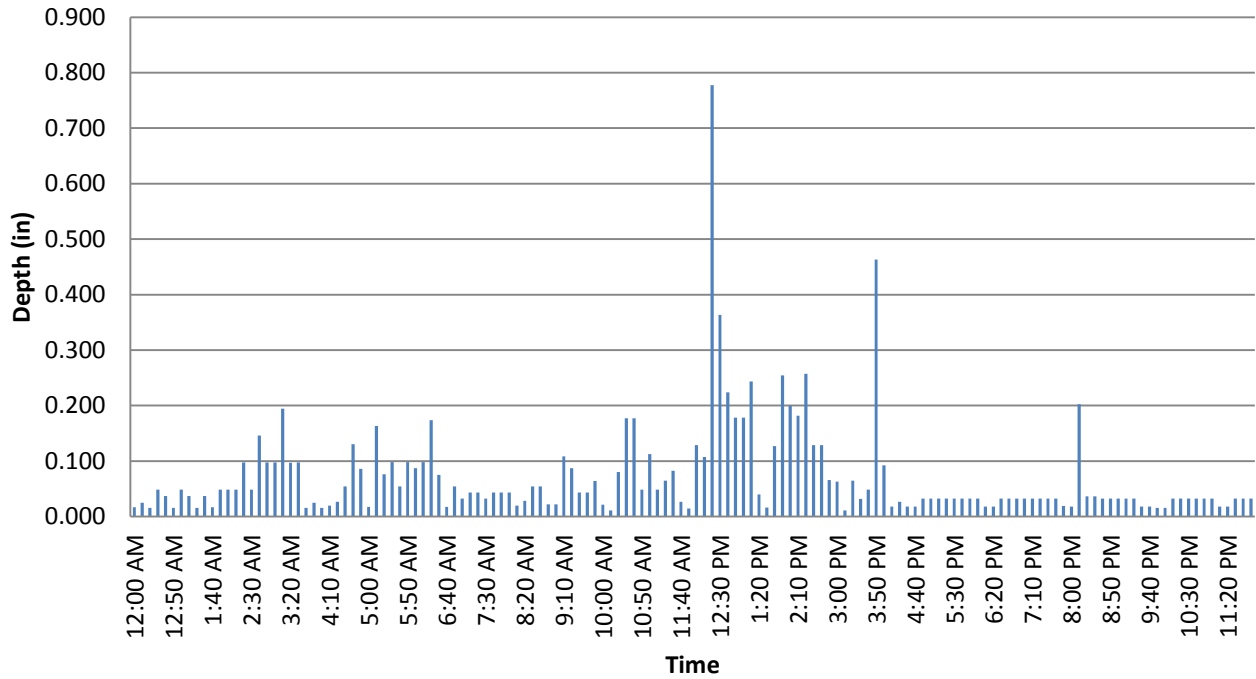
11:00 PM	0.00315	0.023
11:10 PM	0.00173	0.013
11:20 PM	0.00173	0.013
11:30 PM	0.00315	0.023
11:40 PM	0.00315	0.023
11:50 PM	0.00315	0.023
	<b>Total:</b>	<b>7.45</b>



## 100-Year Design Storm

Total Rainfall Depth: 10.30 inches  
Source: NOAA Atlas 14

### 100-Year Design Storm



Time	Base Storm Pattern	Design Storm (inches)
12:00 AM	0.00163	0.017
12:10 AM	0.00241	0.025
12:20 AM	0.00155	0.016
12:30 AM	0.00473	0.049
12:40 AM	0.00357	0.037
12:50 AM	0.00155	0.016
1:00 AM	0.00473	0.049
1:10 AM	0.00357	0.037
1:20 AM	0.00155	0.016
1:30 AM	0.00357	0.037
1:40 AM	0.00163	0.017
1:50 AM	0.00473	0.049
2:00 AM	0.00473	0.049
2:10 AM	0.00473	0.049
2:20 AM	0.00945	0.097
2:30 AM	0.00473	0.049

2:40 AM	0.01416	0.146
2:50 AM	0.00945	0.097
3:00 AM	0.00945	0.097
3:10 AM	0.01889	0.195
3:20 AM	0.00944	0.097
3:30 AM	0.00945	0.097
3:40 AM	0.00155	0.016
3:50 AM	0.00241	0.025
4:00 AM	0.00155	0.016
4:10 AM	0.00189	0.020
4:20 AM	0.00256	0.026
4:30 AM	0.00528	0.054
4:40 AM	0.01267	0.131
4:50 AM	0.00835	0.086
5:00 AM	0.00169	0.017
5:10 AM	0.01584	0.163
5:20 AM	0.00739	0.076
5:30 AM	0.00951	0.098
5:40 AM	0.00528	0.054
5:50 AM	0.00951	0.098
6:00 AM	0.00845	0.087
6:10 AM	0.00951	0.098
6:20 AM	0.01689	0.174
6:30 AM	0.00729	0.075
6:40 AM	0.00169	0.017
6:50 AM	0.00528	0.054
7:00 AM	0.00317	0.033
7:10 AM	0.00423	0.044
7:20 AM	0.00423	0.044
7:30 AM	0.00317	0.033
7:40 AM	0.00423	0.044
7:50 AM	0.00423	0.044
8:00 AM	0.00423	0.044
8:10 AM	0.00192	0.020
8:20 AM	0.00274	0.028
8:30 AM	0.00528	0.054
8:40 AM	0.00528	0.054
8:50 AM	0.00211	0.022
9:00 AM	0.00211	0.022
9:10 AM	0.01056	0.109
9:20 AM	0.00845	0.087
9:30 AM	0.00423	0.044

9:40 AM	0.00423	0.044
9:50 AM	0.00624	0.064
10:00 AM	0.00210	0.022
10:10 AM	0.00110	0.011
10:20 AM	0.00781	0.080
10:30 AM	0.01718	0.177
10:40 AM	0.01718	0.177
10:50 AM	0.00469	0.048
11:00 AM	0.01094	0.113
11:10 AM	0.00469	0.048
11:20 AM	0.00626	0.064
11:30 AM	0.00803	0.083
11:40 AM	0.00259	0.027
11:50 AM	0.00140	0.014
12:00 PM	0.01250	0.129
12:10 PM	0.01042	0.107
12:20 PM	0.07551	0.778
12:30 PM	0.03530	0.364
12:40 PM	0.02173	0.224
12:50 PM	0.01733	0.178
1:00 PM	0.01733	0.178
1:10 PM	0.02365	0.244
1:20 PM	0.00388	0.040
1:30 PM	0.00158	0.016
1:40 PM	0.01234	0.127
1:50 PM	0.02469	0.254
2:00 PM	0.01941	0.200
2:10 PM	0.01764	0.182
2:20 PM	0.02501	0.258
2:30 PM	0.01250	0.129
2:40 PM	0.01250	0.129
2:50 PM	0.00640	0.066
3:00 PM	0.00613	0.063
3:10 PM	0.00110	0.011
3:20 PM	0.00626	0.064
3:30 PM	0.00312	0.032
3:40 PM	0.00469	0.048
3:50 PM	0.04495	0.463
4:00 PM	0.00899	0.093
4:10 PM	0.00176	0.018
4:20 PM	0.00260	0.027
4:30 PM	0.00173	0.018

4:40 PM	0.00173	0.018
4:50 PM	0.00315	0.032
5:00 PM	0.00315	0.032
5:10 PM	0.00315	0.032
5:20 PM	0.00315	0.032
5:30 PM	0.00315	0.032
5:40 PM	0.00315	0.032
5:50 PM	0.00315	0.032
6:00 PM	0.00315	0.032
6:10 PM	0.00173	0.018
6:20 PM	0.00173	0.018
6:30 PM	0.00315	0.032
6:40 PM	0.00315	0.032
6:50 PM	0.00315	0.032
7:00 PM	0.00315	0.032
7:10 PM	0.00315	0.032
7:20 PM	0.00315	0.032
7:30 PM	0.00315	0.032
7:40 PM	0.00315	0.032
7:50 PM	0.00185	0.019
8:00 PM	0.00173	0.018
8:10 PM	0.01967	0.203
8:20 PM	0.00355	0.037
8:30 PM	0.00355	0.037
8:40 PM	0.00315	0.032
8:50 PM	0.00315	0.032
9:00 PM	0.00315	0.032
9:10 PM	0.00315	0.032
9:20 PM	0.00315	0.032
9:30 PM	0.00173	0.018
9:40 PM	0.00173	0.018
9:50 PM	0.00151	0.016
10:00 PM	0.00150	0.015
10:10 PM	0.00315	0.032
10:20 PM	0.00315	0.032
10:30 PM	0.00315	0.032
10:40 PM	0.00315	0.032
10:50 PM	0.00315	0.032
11:00 PM	0.00315	0.032
11:10 PM	0.00173	0.018
11:20 PM	0.00173	0.018
11:30 PM	0.00315	0.032

11:40 PM	0.00315	0.032
11:50 PM	0.00315	0.032
	<b>Total:</b>	<b>10.30</b>