



NOTES:
 1. Isohyets from NOAA Atlas
 Volume XI - California, 1973.

RCFC & WCD
 HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONTROL
 AND
 WATER CONSERVATION DISTRICT
**2-YEAR — 24-HOUR
 PRECIPITATION**

APPROVED:	DATE:	CHIEF ENGINEER R.E. NO. 8822	DRAWN BY:	<i>P.A.S.</i>
			CHECKED BY:	
			DATE DRAWN:	



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 Volume XI - California, 1973.

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 HYDROLOGY MANUAL

**RIVERSIDE COUNTY FLOOD CONTROL
 AND
 WATER CONSERVATION DISTRICT
 100-YEAR — 24-HOUR
 PRECIPITATION**

APPROVED	DATE	CHIEF ENGINEER R.E. NO. 882	DRAWN BY	DATE DRAWN

10-YEAR ONSITE HYDROLOGY (RATIONAL METHOD)

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2004 Version 7.0
Rational Hydrology Study Date: 11/16/22 File:PROP10EAST.out

21-0235 - PERRIS AIRPORT LOGISTICS CENTER
ONSITE RATIONAL METHOD HYDROLOGY
10 YEAR STORM EVENT
FN: PROP10EAST.OUT ABE

***** Hydrology Study Control Information *****

English (in-lb) Units used in input data file

Program License Serial Number 4010

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 10.00 Antecedent Moisture Condition = 2

Standard intensity-duration curves data (Plate D-4.1)
For the [Perris Valley] area used.
10 year storm 10 minute intensity = 1.880(In/Hr)
10 year storm 60 minute intensity = 0.780(In/Hr)
100 year storm 10 minute intensity = 2.690(In/Hr)
100 year storm 60 minute intensity = 1.120(In/Hr)

Storm event year = 10.0
Calculated rainfall intensity data:
1 hour intensity = 0.780(In/Hr)
Slope of intensity duration curve = 0.4900

Process from Point/Station 401.000 to Point/Station 402.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 227.000(Ft.)
Top (of initial area) elevation = 1421.000(Ft.)
Bottom (of initial area) elevation = 1418.600(Ft.)
Difference in elevation = 2.400(Ft.)
Slope = 0.01057 s(percent)= 1.06
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 6.527 min.
Rainfall intensity = 2.313(In/Hr) for a 10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.881
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Initial subarea runoff = 3.058(CFS)
Total initial stream area = 1.500(Ac.)
Pervious area fraction = 0.100

Process from Point/Station 402.000 to Point/Station 403.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1413.600(Ft.)
Downstream point/station elevation = 1412.900(Ft.)
Pipe length = 230.00(Ft.) Manning's N = 0.013

No. of pipes = 1 Required pipe flow = 3.058(CFS)
Nearest computed pipe diameter = 15.00(In.)
Calculated individual pipe flow = 3.058(CFS)
Normal flow depth in pipe = 10.71(In.)
Flow top width inside pipe = 13.56(In.)
Critical Depth = 8.45(In.)
Pipe flow velocity = 3.27(Ft/s)
Travel time through pipe = 1.17 min.
Time of concentration (TC) = 7.70 min.

Process from Point/Station 402.000 to Point/Station 403.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.880
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 7.70 min.
Rainfall intensity = 2.133(In/Hr) for a 10.0 year storm
Subarea runoff = 1.502(CFS) for 0.800(Ac.)
Total runoff = 4.560(CFS) Total area = 2.300(Ac.)

Process from Point/Station 403.000 to Point/Station 404.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1412.900(Ft.)
Downstream point/station elevation = 1412.300(Ft.)
Pipe length = 220.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 4.560(CFS)
Nearest computed pipe diameter = 18.00(In.)
Calculated individual pipe flow = 4.560(CFS)
Normal flow depth in pipe = 12.54(In.)
Flow top width inside pipe = 16.55(In.)
Critical Depth = 9.83(In.)
Pipe flow velocity = 3.47(Ft/s)
Travel time through pipe = 1.06 min.
Time of concentration (TC) = 8.76 min.

Process from Point/Station 403.000 to Point/Station 404.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.879
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 8.76 min.
Rainfall intensity = 2.003(In/Hr) for a 10.0 year storm
Subarea runoff = 4.403(CFS) for 2.500(Ac.)
Total runoff = 8.963(CFS) Total area = 4.800(Ac.)

Process from Point/Station 404.000 to Point/Station 405.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1412.300(Ft.)
Downstream point/station elevation = 1411.400(Ft.)
Pipe length = 300.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 8.963(CFS)
Nearest computed pipe diameter = 21.00(In.)
Calculated individual pipe flow = 8.963(CFS)

Normal flow depth in pipe = 17.91(In.)
Flow top width inside pipe = 14.89(In.)
Critical Depth = 13.35(In.)
Pipe flow velocity = 4.10(Ft/s)
Travel time through pipe = 1.22 min.
Time of concentration (TC) = 9.98 min.

++++
Process from Point/Station 404.000 to Point/Station 405.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.878
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 9.98 min.
Rainfall intensity = 1.879(In/Hr) for a 10.0 year storm
Subarea runoff = 4.290(CFS) for 2.600(Ac.)
Total runoff = 13.253(CFS) Total area = 7.400(Ac.)

++++
Process from Point/Station 405.000 to Point/Station 406.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1411.400(Ft.)
Downstream point/station elevation = 1411.000(Ft.)
Pipe length = 120.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 13.253(CFS)
Nearest computed pipe diameter = 24.00(In.)
Calculated individual pipe flow = 13.253(CFS)
Normal flow depth in pipe = 20.02(In.)
Flow top width inside pipe = 17.86(In.)
Critical Depth = 15.73(In.)
Pipe flow velocity = 4.74(Ft/s)
Travel time through pipe = 0.42 min.
Time of concentration (TC) = 10.40 min.

++++
Process from Point/Station 406.000 to Point/Station 415.000
**** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 1
Stream flow area = 7.400(Ac.)
Runoff from this stream = 13.253(CFS)
Time of concentration = 10.40 min.
Rainfall intensity = 1.841(In/Hr)

++++
Process from Point/Station 407.000 to Point/Station 408.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 237.000(Ft.)
Top (of initial area) elevation = 1421.000(Ft.)
Bottom (of initial area) elevation = 1418.600(Ft.)
Difference in elevation = 2.400(Ft.)
Slope = 0.01013 s(percent)= 1.01
TC = $k(0.300)*[(\text{length}^3)/(\text{elevation change})]^{0.2}$
Initial area time of concentration = 6.698 min.
Rainfall intensity = 2.284(In/Hr) for a 10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.881
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900

Initial subarea runoff = 2.214(CFS)
Total initial stream area = 1.100(Ac.)
Pervious area fraction = 0.100

Process from Point/Station 408.000 to Point/Station 409.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1413.600(Ft.)
Downstream point/station elevation = 1412.000(Ft.)
Pipe length = 370.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 2.214(CFS)
Nearest computed pipe diameter = 12.00(In.)
Calculated individual pipe flow = 2.214(CFS)
Normal flow depth in pipe = 9.29(In.)
Flow top width inside pipe = 10.03(In.)
Critical Depth = 7.64(In.)
Pipe flow velocity = 3.39(Ft/s)
Travel time through pipe = 1.82 min.
Time of concentration (TC) = 8.52 min.

Process from Point/Station 408.000 to Point/Station 409.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.879
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 8.52 min.
Rainfall intensity = 2.030(In/Hr) for a 10.0 year storm
Subarea runoff = 3.393(CFS) for 1.900(Ac.)
Total runoff = 5.607(CFS) Total area = 3.000(Ac.)

Process from Point/Station 409.000 to Point/Station 410.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1412.000(Ft.)
Downstream point/station elevation = 1411.700(Ft.)
Pipe length = 70.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 5.607(CFS)
Nearest computed pipe diameter = 18.00(In.)
Calculated individual pipe flow = 5.607(CFS)
Normal flow depth in pipe = 12.35(In.)
Flow top width inside pipe = 16.71(In.)
Critical Depth = 10.95(In.)
Pipe flow velocity = 4.34(Ft/s)
Travel time through pipe = 0.27 min.
Time of concentration (TC) = 8.78 min.

Process from Point/Station 409.000 to Point/Station 410.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.879
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 8.78 min.
Rainfall intensity = 2.000(In/Hr) for a 10.0 year storm
Subarea runoff = 2.637(CFS) for 1.500(Ac.)
Total runoff = 8.245(CFS) Total area = 4.500(Ac.)

Process from Point/Station 410.000 to Point/Station 411.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1411.700(Ft.)
Downstream point/station elevation = 1411.000(Ft.)
Pipe length = 180.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 8.245(CFS)
Nearest computed pipe diameter = 21.00(In.)
Calculated individual pipe flow = 8.245(CFS)
Normal flow depth in pipe = 14.67(In.)
Flow top width inside pipe = 19.27(In.)
Critical Depth = 12.78(In.)
Pipe flow velocity = 4.60(Ft/s)
Travel time through pipe = 0.65 min.
Time of concentration (TC) = 9.44 min.

Process from Point/Station 411.000 to Point/Station 415.000
**** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
Stream flow area = 4.500(Ac.)
Runoff from this stream = 8.245(CFS)
Time of concentration = 9.44 min.
Rainfall intensity = 1.931(In/Hr)

Process from Point/Station 412.000 to Point/Station 413.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 212.000(Ft.)
Top (of initial area) elevation = 1421.000(Ft.)
Bottom (of initial area) elevation = 1418.600(Ft.)
Difference in elevation = 2.400(Ft.)
Slope = 0.01132 s(percent)= 1.13
TC = $k(0.300)*[(\text{length}^3)/(\text{elevation change})]^{0.2}$
Initial area time of concentration = 6.264 min.
Rainfall intensity = 2.360(In/Hr) for a 10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.882
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Initial subarea runoff = 2.705(CFS)
Total initial stream area = 1.300(Ac.)
Pervious area fraction = 0.100

Process from Point/Station 413.000 to Point/Station 414.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1413.600(Ft.)
Downstream point/station elevation = 1411.000(Ft.)
Pipe length = 330.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 2.705(CFS)
Nearest computed pipe diameter = 12.00(In.)
Calculated individual pipe flow = 2.705(CFS)
Normal flow depth in pipe = 8.54(In.)
Flow top width inside pipe = 10.87(In.)
Critical Depth = 8.47(In.)
Pipe flow velocity = 4.52(Ft/s)
Travel time through pipe = 1.22 min.
Time of concentration (TC) = 7.48 min.

Process from Point/Station 414.000 to Point/Station 415.000
 **** SUBAREA FLOW ADDITION ****

USER INPUT of soil data for subarea
 Runoff Coefficient = 0.705
 Decimal fraction soil group A = 0.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 1.000
 Decimal fraction soil group D = 0.000
 RI index for soil(AMC 2) = 69.00
 Pervious area fraction = 1.000; Impervious fraction = 0.000
 Time of concentration = 7.48 min.
 Rainfall intensity = 2.164(In/Hr) for a 10.0 year storm
 Subarea runoff = 3.355(CFS) for 2.200(Ac.)
 Total runoff = 6.060(CFS) Total area = 3.500(Ac.)

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 Process from Point/Station 414.000 to Point/Station 415.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 3
 Stream flow area = 3.500(Ac.)
 Runoff from this stream = 6.060(CFS)
 Time of concentration = 7.48 min.
 Rainfall intensity = 2.164(In/Hr)
 Summary of stream data:

Stream No.	Flow rate (CFS)	TC (min)	Rainfall Intensity (In/Hr)
1	13.253	10.40	1.841
2	8.245	9.44	1.931
3	6.060	7.48	2.164

Largest stream flow has longer time of concentration
 $Q_p = 13.253 + \text{sum of}$
 $Q_b \cdot \frac{I_a}{I_b}$
 $8.245 * 0.954 = 7.862$
 $Q_b \cdot \frac{I_a}{I_b}$
 $6.060 * 0.851 = 5.157$
 $Q_p = 26.272$

Total of 3 streams to confluence:
 Flow rates before confluence point:
 13.253 8.245 6.060
 Area of streams before confluence:
 7.400 4.500 3.500
 Results of confluence:
 Total flow rate = 26.272(CFS)
 Time of concentration = 10.398 min.
 Effective stream area after confluence = 15.400(Ac.)
 End of computations, total study area = 15.40 (Ac.)
 The following figures may
 be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(A_p) = 0.229
 Area averaged RI index number = 69.0

100-YEAR ONSITE HYDROLOGY (RATIONAL METHOD)

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100 YEAR STORM EVENT
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English (in-lb) Units used in input data file

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Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 100.00 Antecedent Moisture Condition = 2

Standard intensity-duration curves data (Plate D-4.1)
For the [Perris Valley] area used.
10 year storm 10 minute intensity = 1.880(In/Hr)
10 year storm 60 minute intensity = 0.780(In/Hr)
100 year storm 10 minute intensity = 2.690(In/Hr)
100 year storm 60 minute intensity = 1.120(In/Hr)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity = 1.120(In/Hr)
Slope of intensity duration curve = 0.4900

Process from Point/Station 401.000 to Point/Station 402.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 227.000(Ft.)
Top (of initial area) elevation = 1421.000(Ft.)
Bottom (of initial area) elevation = 1418.600(Ft.)
Difference in elevation = 2.400(Ft.)
Slope = 0.01057 s(percent)= 1.06
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 6.527 min.
Rainfall intensity = 3.321(In/Hr) for a 100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.886
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Initial subarea runoff = 4.415(CFS)
Total initial stream area = 1.500(Ac.)
Pervious area fraction = 0.100

Process from Point/Station 402.000 to Point/Station 403.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1413.600(Ft.)
Downstream point/station elevation = 1412.900(Ft.)
Pipe length = 230.00(Ft.) Manning's N = 0.013

No. of pipes = 1 Required pipe flow = 4.415(CFS)
Nearest computed pipe diameter = 18.00(In.)
Calculated individual pipe flow = 4.415(CFS)
Normal flow depth in pipe = 11.77(In.)
Flow top width inside pipe = 17.13(In.)
Critical Depth = 9.66(In.)
Pipe flow velocity = 3.61(Ft/s)
Travel time through pipe = 1.06 min.
Time of concentration (TC) = 7.59 min.

Process from Point/Station 402.000 to Point/Station 403.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.885
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 7.59 min.
Rainfall intensity = 3.085(In/Hr) for a 100.0 year storm
Subarea runoff = 2.185(CFS) for 0.800(Ac.)
Total runoff = 6.600(CFS) Total area = 2.300(Ac.)

Process from Point/Station 403.000 to Point/Station 404.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1412.900(Ft.)
Downstream point/station elevation = 1412.300(Ft.)
Pipe length = 220.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 6.600(CFS)
Nearest computed pipe diameter = 21.00(In.)
Calculated individual pipe flow = 6.600(CFS)
Normal flow depth in pipe = 14.18(In.)
Flow top width inside pipe = 19.67(In.)
Critical Depth = 11.37(In.)
Pipe flow velocity = 3.82(Ft/s)
Travel time through pipe = 0.96 min.
Time of concentration (TC) = 8.55 min.

Process from Point/Station 403.000 to Point/Station 404.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.885
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 8.55 min.
Rainfall intensity = 2.910(In/Hr) for a 100.0 year storm
Subarea runoff = 6.436(CFS) for 2.500(Ac.)
Total runoff = 13.036(CFS) Total area = 4.800(Ac.)

Process from Point/Station 404.000 to Point/Station 405.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1412.300(Ft.)
Downstream point/station elevation = 1411.400(Ft.)
Pipe length = 300.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 13.036(CFS)
Nearest computed pipe diameter = 27.00(In.)
Calculated individual pipe flow = 13.036(CFS)

Normal flow depth in pipe = 17.74(In.)
Flow top width inside pipe = 25.63(In.)
Critical Depth = 15.04(In.)
Pipe flow velocity = 4.70(Ft/s)
Travel time through pipe = 1.06 min.
Time of concentration (TC) = 9.61 min.

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Process from Point/Station 404.000 to Point/Station 405.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.884
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 9.61 min.
Rainfall intensity = 2.748(In/Hr) for a 100.0 year storm
Subarea runoff = 6.314(CFS) for 2.600(Ac.)
Total runoff = 19.350(CFS) Total area = 7.400(Ac.)

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Process from Point/Station 405.000 to Point/Station 406.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1411.400(Ft.)
Downstream point/station elevation = 1411.000(Ft.)
Pipe length = 120.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 19.350(CFS)
Nearest computed pipe diameter = 30.00(In.)
Calculated individual pipe flow = 19.350(CFS)
Normal flow depth in pipe = 20.63(In.)
Flow top width inside pipe = 27.81(In.)
Critical Depth = 17.91(In.)
Pipe flow velocity = 5.38(Ft/s)
Travel time through pipe = 0.37 min.
Time of concentration (TC) = 9.98 min.

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Process from Point/Station 406.000 to Point/Station 415.000
**** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 1
Stream flow area = 7.400(Ac.)
Runoff from this stream = 19.350(CFS)
Time of concentration = 9.98 min.
Rainfall intensity = 2.697(In/Hr)

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Process from Point/Station 407.000 to Point/Station 408.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 237.000(Ft.)
Top (of initial area) elevation = 1421.000(Ft.)
Bottom (of initial area) elevation = 1418.600(Ft.)
Difference in elevation = 2.400(Ft.)
Slope = 0.01013 s(percent)= 1.01
TC = $k(0.300)*[(\text{length}^3)/(\text{elevation change})]^{0.2}$
Initial area time of concentration = 6.698 min.
Rainfall intensity = 3.279(In/Hr) for a 100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.886
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900

Initial subarea runoff = 3.197(CFS)
Total initial stream area = 1.100(Ac.)
Pervious area fraction = 0.100

Process from Point/Station 408.000 to Point/Station 409.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1413.600(Ft.)
Downstream point/station elevation = 1412.000(Ft.)
Pipe length = 370.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 3.197(CFS)
Nearest computed pipe diameter = 15.00(In.)
Calculated individual pipe flow = 3.197(CFS)
Normal flow depth in pipe = 9.71(In.)
Flow top width inside pipe = 14.33(In.)
Critical Depth = 8.64(In.)
Pipe flow velocity = 3.80(Ft/s)
Travel time through pipe = 1.62 min.
Time of concentration (TC) = 8.32 min.

Process from Point/Station 408.000 to Point/Station 409.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.885
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 8.32 min.
Rainfall intensity = 2.949(In/Hr) for a 100.0 year storm
Subarea runoff = 4.957(CFS) for 1.900(Ac.)
Total runoff = 8.154(CFS) Total area = 3.000(Ac.)

Process from Point/Station 409.000 to Point/Station 410.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1412.000(Ft.)
Downstream point/station elevation = 1411.700(Ft.)
Pipe length = 70.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 8.154(CFS)
Nearest computed pipe diameter = 21.00(In.)
Calculated individual pipe flow = 8.154(CFS)
Normal flow depth in pipe = 14.03(In.)
Flow top width inside pipe = 19.78(In.)
Critical Depth = 12.71(In.)
Pipe flow velocity = 4.78(Ft/s)
Travel time through pipe = 0.24 min.
Time of concentration (TC) = 8.56 min.

Process from Point/Station 409.000 to Point/Station 410.000
**** SUBAREA FLOW ADDITION ****

COMMERCIAL subarea type
Runoff Coefficient = 0.885
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Time of concentration = 8.56 min.
Rainfall intensity = 2.907(In/Hr) for a 100.0 year storm
Subarea runoff = 3.858(CFS) for 1.500(Ac.)
Total runoff = 12.012(CFS) Total area = 4.500(Ac.)

Process from Point/Station 410.000 to Point/Station 411.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1411.700(Ft.)
Downstream point/station elevation = 1411.000(Ft.)
Pipe length = 180.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 12.012(CFS)
Nearest computed pipe diameter = 24.00(In.)
Calculated individual pipe flow = 12.012(CFS)
Normal flow depth in pipe = 17.02(In.)
Flow top width inside pipe = 21.80(In.)
Critical Depth = 14.94(In.)
Pipe flow velocity = 5.04(Ft/s)
Travel time through pipe = 0.60 min.
Time of concentration (TC) = 9.16 min.

Process from Point/Station 411.000 to Point/Station 415.000
**** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 2
Stream flow area = 4.500(Ac.)
Runoff from this stream = 12.012(CFS)
Time of concentration = 9.16 min.
Rainfall intensity = 2.813(In/Hr)

Process from Point/Station 412.000 to Point/Station 413.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 212.000(Ft.)
Top (of initial area) elevation = 1421.000(Ft.)
Bottom (of initial area) elevation = 1418.600(Ft.)
Difference in elevation = 2.400(Ft.)
Slope = 0.01132 s(percent)= 1.13
TC = $k(0.300)*[(\text{length}^3)/(\text{elevation change})]^{0.2}$
Initial area time of concentration = 6.264 min.
Rainfall intensity = 3.389(In/Hr) for a 100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.886
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 1.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 69.00
Pervious area fraction = 0.100; Impervious fraction = 0.900
Initial subarea runoff = 3.905(CFS)
Total initial stream area = 1.300(Ac.)
Pervious area fraction = 0.100

Process from Point/Station 413.000 to Point/Station 414.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****

Upstream point/station elevation = 1413.600(Ft.)
Downstream point/station elevation = 1411.000(Ft.)
Pipe length = 330.00(Ft.) Manning's N = 0.013
No. of pipes = 1 Required pipe flow = 3.905(CFS)
Nearest computed pipe diameter = 15.00(In.)
Calculated individual pipe flow = 3.905(CFS)
Normal flow depth in pipe = 9.08(In.)
Flow top width inside pipe = 14.66(In.)
Critical Depth = 9.60(In.)
Pipe flow velocity = 5.03(Ft/s)
Travel time through pipe = 1.09 min.
Time of concentration (TC) = 7.36 min.

Process from Point/Station 414.000 to Point/Station 415.000
 **** SUBAREA FLOW ADDITION ****

USER INPUT of soil data for subarea
 Runoff Coefficient = 0.755
 Decimal fraction soil group A = 0.000
 Decimal fraction soil group B = 0.000
 Decimal fraction soil group C = 1.000
 Decimal fraction soil group D = 0.000
 RI index for soil(AMC 2) = 69.00
 Pervious area fraction = 1.000; Impervious fraction = 0.000
 Time of concentration = 7.36 min.
 Rainfall intensity = 3.132(In/Hr) for a 100.0 year storm
 Subarea runoff = 5.205(CFS) for 2.200(Ac.)
 Total runoff = 9.110(CFS) Total area = 3.500(Ac.)

+++++
 Process from Point/Station 414.000 to Point/Station 415.000
 **** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 1 in normal stream number 3
 Stream flow area = 3.500(Ac.)
 Runoff from this stream = 9.110(CFS)
 Time of concentration = 7.36 min.
 Rainfall intensity = 3.132(In/Hr)
 Summary of stream data:

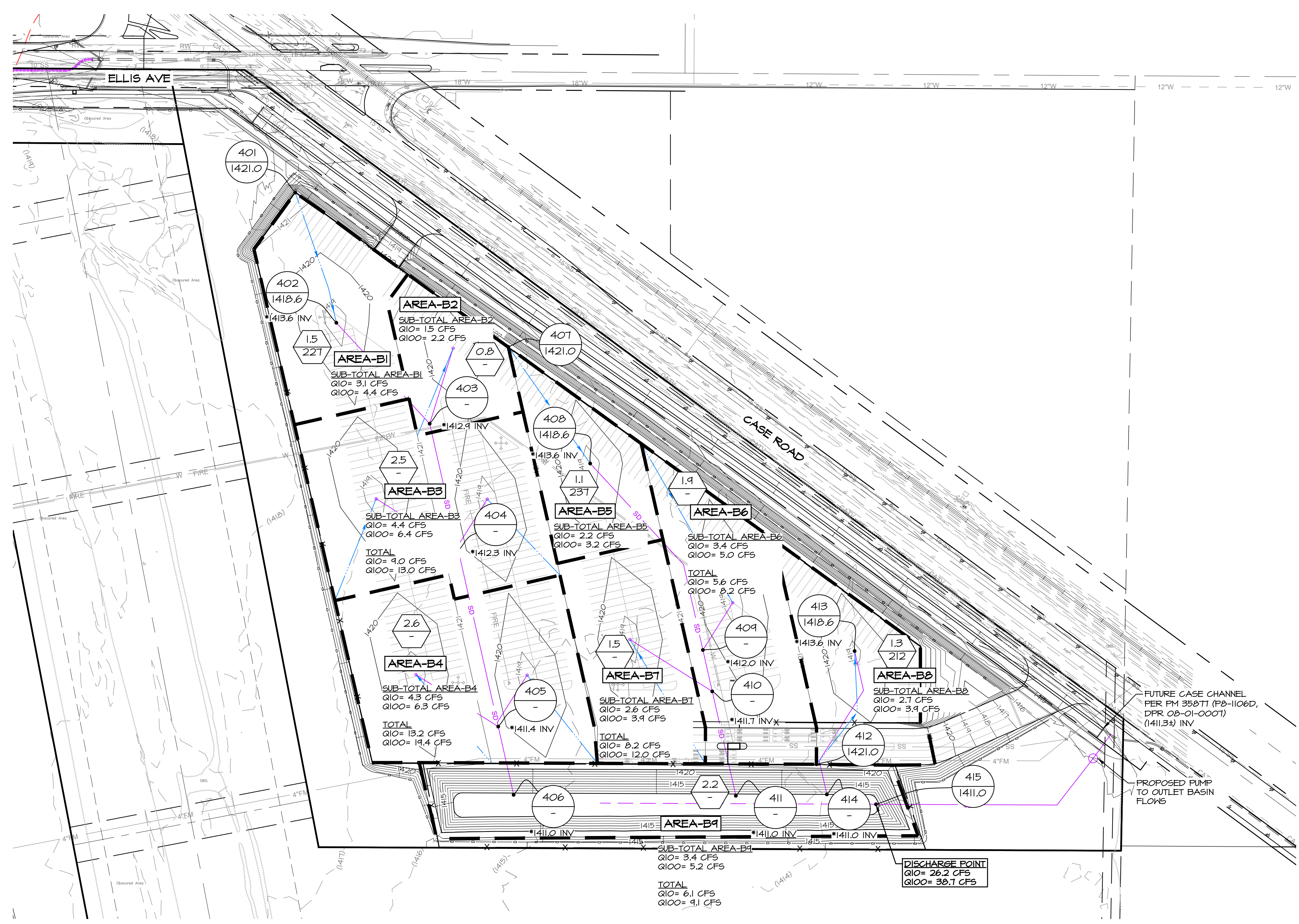
Stream No.	Flow rate (CFS)	TC (min)	Rainfall Intensity (In/Hr)
1	19.350	9.98	2.697
2	12.012	9.16	2.813
3	9.110	7.36	3.132

Largest stream flow has longer time of concentration
 $Q_p = 19.350 + \text{sum of}$
 $\frac{Q_b}{I_a/I_b}$
 $12.012 * 0.959 = 11.516$
 $\frac{Q_b}{I_a/I_b}$
 $9.110 * 0.861 = 7.846$
 $Q_p = 38.712$

Total of 3 streams to confluence:
 Flow rates before confluence point:
 19.350 12.012 9.110
 Area of streams before confluence:
 7.400 4.500 3.500
 Results of confluence:
 Total flow rate = 38.712(CFS)
 Time of concentration = 9.983 min.
 Effective stream area after confluence = 15.400(Ac.)
 End of computations, total study area = 15.40 (Ac.)
 The following figures may be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(A_p) = 0.229
 Area averaged RI index number = 69.0

RATIONAL METHOD HYDROLOGY MAPS



- LEGEND**
- DRAINAGE MANAGEMENT BOUNDARY
 - FLOW DIRECTION
 - LANDSCAPING
 - NODE DESIGNATION
NODE ELEVATION
 - *INVERT ELEVATION
 - WATERSHED AREA (ACRES)
LONGEST WATER PATH (FT)

BASIS OF BEARINGS

THE BASIS OF BEARINGS IS THE CALIFORNIA STATE PLAN COORDINATE SYSTEM, CGS83, ZONE 6, BASED LOCALLY ON CONTROL STATIONS "MLFP" AND "PPBF" NAD 83(NGRS2007)

BENCHMARK DATA

NGS DESIGNATION: 435
PID: DX5442

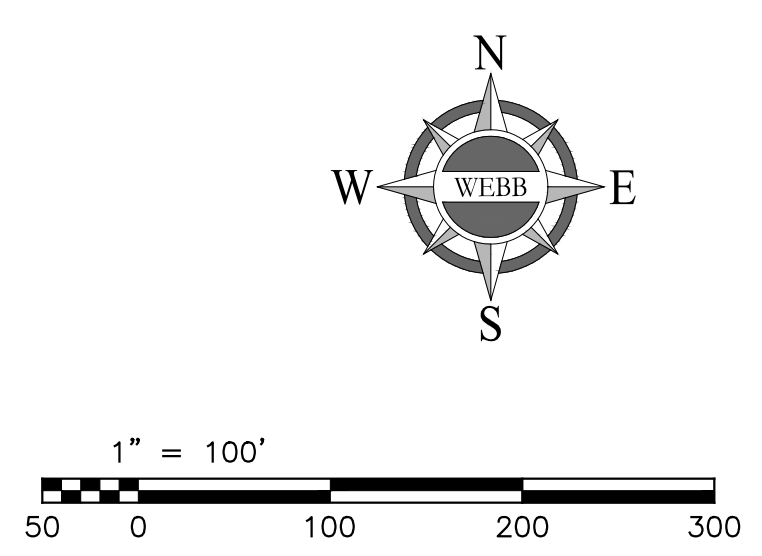
DESCRIBED BY METRO WATER DIST. SO, CALIFORNIA 1992 FERRIS, 1300 FEET (396.2 M) WEST OF ATSF RAILROAD ALONG RIDER ST, ON TOP OF NORTH CURB FACE OF RIDER ST, 28 FEET (8.5 M) NORTH OF RIDER ST, 6 FEET (1.8 M) SOUTH OF A 6TE TELEPHONE BOX (DAMAGED). A STANDARD 3-1/4 INCH ALUMINUM DIST SET FLUSH IN TOP OF CURB.

ELEVATION = 1515.12' (NAVD88)

FROM CITY OF SUN CITY BM Z 10984 (RCFC & WCD)
FS: 2-1/4 INCH BRASS DISK FLUSH STAMPED "CAL DOT 9/10/16/15 REPL. GR. STONE FD. 1950" ON ETHANAC AC BRIDGE DECK OVER I-215 FREEWAY

ELEVATION = 1450.319' (NAVD88)

(CONVERSION FACTO TO NGVD 29 15 -2.63' PER RCFC & WCD)



CITY OF PERRIS

PRELIMINARY REPORT (CUP 23-05107)
RATIONAL METHOD HYDROLOGY
PROPOSED CONDITION HYDROLOGY MAP, EAST PERRIS AIRPORT LOGISTICS CENTER

SCALE: 1" = 100'	ALBERTA	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 21-0235 SHEET 1 OF 1 SHEETS DWG. NO.
DATE: 2023-06-20	WEBB ASSOCIATES		
DESIGNED: ABE			
CHECKED: SKK			
PLN CK REF:			
F.B.			

PRELIMINARY

H:\2021\21-0235\DRAINAGE\HYD\DWG FOLDER\21-0235-PHYD-RATIONAL.DWG 6/20/2023 2:47:58 PM

APPENDIX B – HYDRAULIC ANALYSIS

LINE B

Hydraulic Analysis Report

Project Data

Project Title: 21-0235 MC Blackacre - Perris Airport Site

Designer:

Project Date: Wednesday, January 26, 2022

Project Units: U.S. Customary Units

Notes:

Channel Analysis: Area B, Node 406

Notes:

Input Parameters

Channel Type: Circular

Pipe Diameter: 2.5000 ft

Longitudinal Slope: 0.0030 ft/ft

Manning's n: 0.0120

Flow: 19.3000 cfs

Result Parameters

Depth: 1.6806 ft

Area of Flow: 3.5093 ft²

Wetted Perimeter: 4.8063 ft

Hydraulic Radius: 0.7301 ft

Average Velocity: 5.4997 ft/s

Top Width: 2.3470 ft

Froude Number: 0.7926

Critical Depth: 1.4893 ft

Critical Velocity: 6.3303 ft/s

Critical Slope: 0.0043 ft/ft

Critical Top Width: 2.45 ft

Calculated Max Shear Stress: 0.3146 lb/ft²

Calculated Avg Shear Stress: 0.1367 lb/ft²

Channel Analysis: Area B, Node 411

Notes:

Input Parameters

Channel Type: Circular

Pipe Diameter: 2.0000 ft

Longitudinal Slope: 0.0030 ft/ft

Manning's n: 0.0120

Flow: 12.3000 cfs

Result Parameters

Depth: 1.5063 ft

Area of Flow: 2.5383 ft²

Wetted Perimeter: 4.2033 ft

Hydraulic Radius: 0.6039 ft

Average Velocity: 4.8458 ft/s

Top Width: 1.7247 ft

Froude Number: 0.7039

Critical Depth: 1.2598 ft

Critical Velocity: 5.9009 ft/s

Critical Slope: 0.0048 ft/ft

Critical Top Width: 1.93 ft

Calculated Max Shear Stress: 0.2820 lb/ft²

Calculated Avg Shear Stress: 0.1130 lb/ft²

Channel Analysis: Area B, Node 415

Notes:

Input Parameters

Channel Type: Circular

Pipe Diameter: 2.0000 ft

Longitudinal Slope: 0.0030 ft/ft

Manning's n: 0.0120

Flow: 11.8000 cfs

Result Parameters

Depth: 1.4548 ft

Area of Flow: 2.4479 ft²

Wetted Perimeter: 4.0858 ft

Hydraulic Radius: 0.5991 ft

Average Velocity: 4.8204 ft/s

Top Width: 1.7812 ft

Froude Number: 0.7246

Critical Depth: 1.2334 ft

Critical Velocity: 5.8033 ft/s

Critical Slope: 0.0047 ft/ft

Critical Top Width: 1.94 ft

Calculated Max Shear Stress: 0.2723 lb/ft²

Calculated Avg Shear Stress: 0.1122 lb/ft²

Channel Analysis: Area B, Node 415, Basin Outflow

Notes:

Input Parameters

Channel Type: Circular

Pipe Diameter: 3.0000 ft

Longitudinal Slope: 0.0030 ft/ft

Manning's n: 0.0120

Flow: 41.3000 cfs

Result Parameters

Depth: 2.5963 ft

Area of Flow: 6.5008 ft²

Wetted Perimeter: 7.1712 ft

Hydraulic Radius: 0.9065 ft

Average Velocity: 6.3531 ft/s

Top Width: 2.0475 ft

Froude Number: 0.6283

Critical Depth: 2.0918 ft

Critical Velocity: 7.8480 ft/s

Critical Slope: 0.0047 ft/ft

Critical Top Width: 2.76 ft

Calculated Max Shear Stress: 0.4860 lb/ft²

Calculated Avg Shear Stress: 0.1697 lb/ft²

APPENDIX C – BASIN ANALYSIS

EXISTING CONDITION UNIT HYDROGRAPHS

EXISTING CONDITION
2-YEAR, 24-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 01/25/22 File: ONSITEEEXEAST242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
EXISTING CONDITION, 2 YEAR
FN: ONSITEEEXEAST, ABE, 2022-01-25

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1593.00(Ft.)
Length along longest watercourse measured to centroid = 962.00(Ft.)
Length along longest watercourse = 0.302 Mi.
Length along longest watercourse measured to centroid = 0.182 Mi.
Difference in elevation = 5.00(Ft.)
Slope along watercourse = 16.5725 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.140 Hr.
Lag time = 8.41 Min.
25% of lag time = 2.10 Min.
40% of lag time = 3.37 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.80	41.22

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	5.00	114.50

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 1.800(In)
Area Averaged 100-Year Rainfall = 5.000(In)

Point rain (area averaged) = 1.800(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 1.800(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	91.00	0.000
Total Area Entered = 22.90(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

91.0 91.0 0.117 0.000 0.117 1.000 0.117
 Sum (F) = 0.117
 Area averaged mean soil loss (F) (In/Hr) = 0.117
 Minimum soil loss rate ((In/Hr)) = 0.059
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.900

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	59.419	8.084
2	0.167	118.837	33.555
3	0.250	178.256	26.770
4	0.333	237.675	10.409
5	0.417	297.094	6.131
6	0.500	356.512	4.153
7	0.583	415.931	2.967
8	0.667	475.350	2.082
9	0.750	534.768	1.721
10	0.833	594.187	1.282
11	0.917	653.606	0.980
12	1.000	713.025	0.700
13	1.083	772.443	0.594
14	1.167	831.862	0.573
Sum = 100.000			Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max Low	Effective (In/Hr)
1	0.08	0.07	(0.207)	0.013
2	0.17	0.07	(0.207)	0.013
3	0.25	0.07	(0.206)	0.013
4	0.33	0.10	(0.205)	0.019
5	0.42	0.10	(0.204)	0.019
6	0.50	0.10	(0.203)	0.019
7	0.58	0.10	(0.203)	0.019
8	0.67	0.10	(0.202)	0.019
9	0.75	0.10	(0.201)	0.019
10	0.83	0.13	(0.200)	0.026
11	0.92	0.13	(0.199)	0.026
12	1.00	0.13	(0.199)	0.026
13	1.08	0.10	(0.198)	0.019
14	1.17	0.10	(0.197)	0.019
15	1.25	0.10	(0.196)	0.019
16	1.33	0.10	(0.196)	0.019
17	1.42	0.10	(0.195)	0.019
18	1.50	0.10	(0.194)	0.019
19	1.58	0.10	(0.193)	0.019
20	1.67	0.10	(0.192)	0.019
21	1.75	0.10	(0.192)	0.019
22	1.83	0.13	(0.191)	0.026
23	1.92	0.13	(0.190)	0.026
24	2.00	0.13	(0.189)	0.026
25	2.08	0.13	(0.189)	0.026
26	2.17	0.13	(0.188)	0.026
27	2.25	0.13	(0.187)	0.026
28	2.33	0.13	(0.186)	0.026
29	2.42	0.13	(0.186)	0.026
30	2.50	0.13	(0.185)	0.026
31	2.58	0.17	(0.184)	0.032
32	2.67	0.17	(0.183)	0.032
33	2.75	0.17	(0.183)	0.032
34	2.83	0.17	(0.182)	0.032
35	2.92	0.17	(0.181)	0.032
36	3.00	0.17	(0.180)	0.032

37	3.08	0.17	0.036	(0.180)	0.032	0.004
38	3.17	0.17	0.036	(0.179)	0.032	0.004
39	3.25	0.17	0.036	(0.178)	0.032	0.004
40	3.33	0.17	0.036	(0.177)	0.032	0.004
41	3.42	0.17	0.036	(0.177)	0.032	0.004
42	3.50	0.17	0.036	(0.176)	0.032	0.004
43	3.58	0.17	0.036	(0.175)	0.032	0.004
44	3.67	0.17	0.036	(0.174)	0.032	0.004
45	3.75	0.17	0.036	(0.174)	0.032	0.004
46	3.83	0.20	0.043	(0.173)	0.039	0.004
47	3.92	0.20	0.043	(0.172)	0.039	0.004
48	4.00	0.20	0.043	(0.171)	0.039	0.004
49	4.08	0.20	0.043	(0.171)	0.039	0.004
50	4.17	0.20	0.043	(0.170)	0.039	0.004
51	4.25	0.20	0.043	(0.169)	0.039	0.004
52	4.33	0.23	0.050	(0.169)	0.045	0.005
53	4.42	0.23	0.050	(0.168)	0.045	0.005
54	4.50	0.23	0.050	(0.167)	0.045	0.005
55	4.58	0.23	0.050	(0.166)	0.045	0.005
56	4.67	0.23	0.050	(0.166)	0.045	0.005
57	4.75	0.23	0.050	(0.165)	0.045	0.005
58	4.83	0.27	0.058	(0.164)	0.052	0.006
59	4.92	0.27	0.058	(0.164)	0.052	0.006
60	5.00	0.27	0.058	(0.163)	0.052	0.006
61	5.08	0.20	0.043	(0.162)	0.039	0.004
62	5.17	0.20	0.043	(0.161)	0.039	0.004
63	5.25	0.20	0.043	(0.161)	0.039	0.004
64	5.33	0.23	0.050	(0.160)	0.045	0.005
65	5.42	0.23	0.050	(0.159)	0.045	0.005
66	5.50	0.23	0.050	(0.159)	0.045	0.005
67	5.58	0.27	0.058	(0.158)	0.052	0.006
68	5.67	0.27	0.058	(0.157)	0.052	0.006
69	5.75	0.27	0.058	(0.157)	0.052	0.006
70	5.83	0.27	0.058	(0.156)	0.052	0.006
71	5.92	0.27	0.058	(0.155)	0.052	0.006
72	6.00	0.27	0.058	(0.154)	0.052	0.006
73	6.08	0.30	0.065	(0.154)	0.058	0.006
74	6.17	0.30	0.065	(0.153)	0.058	0.006
75	6.25	0.30	0.065	(0.152)	0.058	0.006
76	6.33	0.30	0.065	(0.152)	0.058	0.006
77	6.42	0.30	0.065	(0.151)	0.058	0.006
78	6.50	0.30	0.065	(0.150)	0.058	0.006
79	6.58	0.33	0.072	(0.150)	0.065	0.007
80	6.67	0.33	0.072	(0.149)	0.065	0.007
81	6.75	0.33	0.072	(0.148)	0.065	0.007
82	6.83	0.33	0.072	(0.148)	0.065	0.007
83	6.92	0.33	0.072	(0.147)	0.065	0.007
84	7.00	0.33	0.072	(0.146)	0.065	0.007
85	7.08	0.33	0.072	(0.146)	0.065	0.007
86	7.17	0.33	0.072	(0.145)	0.065	0.007
87	7.25	0.33	0.072	(0.144)	0.065	0.007
88	7.33	0.37	0.079	(0.144)	0.071	0.008
89	7.42	0.37	0.079	(0.143)	0.071	0.008
90	7.50	0.37	0.079	(0.142)	0.071	0.008
91	7.58	0.40	0.086	(0.142)	0.078	0.009
92	7.67	0.40	0.086	(0.141)	0.078	0.009
93	7.75	0.40	0.086	(0.140)	0.078	0.009
94	7.83	0.43	0.094	(0.140)	0.084	0.009
95	7.92	0.43	0.094	(0.139)	0.084	0.009
96	8.00	0.43	0.094	(0.138)	0.084	0.009
97	8.08	0.50	0.108	(0.138)	0.097	0.011
98	8.17	0.50	0.108	(0.137)	0.097	0.011
99	8.25	0.50	0.108	(0.137)	0.097	0.011
100	8.33	0.50	0.108	(0.136)	0.097	0.011
101	8.42	0.50	0.108	(0.135)	0.097	0.011
102	8.50	0.50	0.108	(0.135)	0.097	0.011
103	8.58	0.53	0.115	(0.134)	0.104	0.012
104	8.67	0.53	0.115	(0.133)	0.104	0.012
105	8.75	0.53	0.115	(0.133)	0.104	0.012
106	8.83	0.57	0.122	(0.132)	0.110	0.012
107	8.92	0.57	0.122	(0.131)	0.110	0.012
108	9.00	0.57	0.122	(0.131)	0.110	0.012
109	9.08	0.63	0.137	(0.130)	0.123	0.014
110	9.17	0.63	0.137	(0.130)	0.123	0.014
111	9.25	0.63	0.137	(0.129)	0.123	0.014

112	9.33	0.67	0.144	0.128	(0.130)	0.016
113	9.42	0.67	0.144	0.128	(0.130)	0.016
114	9.50	0.67	0.144	0.127	(0.130)	0.017
115	9.58	0.70	0.151	0.127	(0.136)	0.025
116	9.67	0.70	0.151	0.126	(0.136)	0.025
117	9.75	0.70	0.151	0.125	(0.136)	0.026
118	9.83	0.73	0.158	0.125	(0.143)	0.034
119	9.92	0.73	0.158	0.124	(0.143)	0.034
120	10.00	0.73	0.158	0.124	(0.143)	0.035
121	10.08	0.50	0.108	(0.123)	0.097	0.011
122	10.17	0.50	0.108	(0.122)	0.097	0.011
123	10.25	0.50	0.108	(0.122)	0.097	0.011
124	10.33	0.50	0.108	(0.121)	0.097	0.011
125	10.42	0.50	0.108	(0.121)	0.097	0.011
126	10.50	0.50	0.108	(0.120)	0.097	0.011
127	10.58	0.67	0.144	0.119	(0.130)	0.025
128	10.67	0.67	0.144	0.119	(0.130)	0.025
129	10.75	0.67	0.144	0.118	(0.130)	0.026
130	10.83	0.67	0.144	0.118	(0.130)	0.026
131	10.92	0.67	0.144	0.117	(0.130)	0.027
132	11.00	0.67	0.144	0.117	(0.130)	0.027
133	11.08	0.63	0.137	0.116	(0.123)	0.021
134	11.17	0.63	0.137	0.115	(0.123)	0.021
135	11.25	0.63	0.137	0.115	(0.123)	0.022
136	11.33	0.63	0.137	0.114	(0.123)	0.023
137	11.42	0.63	0.137	0.114	(0.123)	0.023
138	11.50	0.63	0.137	0.113	(0.123)	0.024
139	11.58	0.57	0.122	(0.113)	0.110	0.012
140	11.67	0.57	0.122	(0.112)	0.110	0.012
141	11.75	0.57	0.122	(0.111)	0.110	0.012
142	11.83	0.60	0.130	0.111	(0.117)	0.019
143	11.92	0.60	0.130	0.110	(0.117)	0.019
144	12.00	0.60	0.130	0.110	(0.117)	0.020
145	12.08	0.83	0.180	0.109	(0.162)	0.071
146	12.17	0.83	0.180	0.109	(0.162)	0.071
147	12.25	0.83	0.180	0.108	(0.162)	0.072
148	12.33	0.87	0.187	0.108	(0.168)	0.080
149	12.42	0.87	0.187	0.107	(0.168)	0.080
150	12.50	0.87	0.187	0.107	(0.168)	0.081
151	12.58	0.93	0.202	0.106	(0.181)	0.096
152	12.67	0.93	0.202	0.105	(0.181)	0.096
153	12.75	0.93	0.202	0.105	(0.181)	0.097
154	12.83	0.97	0.209	0.104	(0.188)	0.104
155	12.92	0.97	0.209	0.104	(0.188)	0.105
156	13.00	0.97	0.209	0.103	(0.188)	0.105
157	13.08	1.13	0.245	0.103	(0.220)	0.142
158	13.17	1.13	0.245	0.102	(0.220)	0.143
159	13.25	1.13	0.245	0.102	(0.220)	0.143
160	13.33	1.13	0.245	0.101	(0.220)	0.144
161	13.42	1.13	0.245	0.101	(0.220)	0.144
162	13.50	1.13	0.245	0.100	(0.220)	0.145
163	13.58	0.77	0.166	0.100	(0.149)	0.066
164	13.67	0.77	0.166	0.099	(0.149)	0.066
165	13.75	0.77	0.166	0.099	(0.149)	0.067
166	13.83	0.77	0.166	0.098	(0.149)	0.067
167	13.92	0.77	0.166	0.098	(0.149)	0.068
168	14.00	0.77	0.166	0.097	(0.149)	0.068
169	14.08	0.90	0.194	0.097	(0.175)	0.098
170	14.17	0.90	0.194	0.096	(0.175)	0.098
171	14.25	0.90	0.194	0.096	(0.175)	0.099
172	14.33	0.87	0.187	0.095	(0.168)	0.092
173	14.42	0.87	0.187	0.095	(0.168)	0.092
174	14.50	0.87	0.187	0.094	(0.168)	0.093
175	14.58	0.87	0.187	0.094	(0.168)	0.093
176	14.67	0.87	0.187	0.093	(0.168)	0.094
177	14.75	0.87	0.187	0.093	(0.168)	0.094
178	14.83	0.83	0.180	0.092	(0.162)	0.088
179	14.92	0.83	0.180	0.092	(0.162)	0.088
180	15.00	0.83	0.180	0.091	(0.162)	0.089
181	15.08	0.80	0.173	0.091	(0.156)	0.082
182	15.17	0.80	0.173	0.090	(0.156)	0.082
183	15.25	0.80	0.173	0.090	(0.156)	0.083
184	15.33	0.77	0.166	0.090	(0.149)	0.076
185	15.42	0.77	0.166	0.089	(0.149)	0.077
186	15.50	0.77	0.166	0.089	(0.149)	0.077

187	15.58	0.63	0.137	0.088	(0.123)	0.049
188	15.67	0.63	0.137	0.088	(0.123)	0.049
189	15.75	0.63	0.137	0.087	(0.123)	0.050
190	15.83	0.63	0.137	0.087	(0.123)	0.050
191	15.92	0.63	0.137	0.086	(0.123)	0.050
192	16.00	0.63	0.137	0.086	(0.123)	0.051
193	16.08	0.13	0.029	(0.085)	0.026	0.003
194	16.17	0.13	0.029	(0.085)	0.026	0.003
195	16.25	0.13	0.029	(0.085)	0.026	0.003
196	16.33	0.13	0.029	(0.084)	0.026	0.003
197	16.42	0.13	0.029	(0.084)	0.026	0.003
198	16.50	0.13	0.029	(0.083)	0.026	0.003
199	16.58	0.10	0.022	(0.083)	0.019	0.002
200	16.67	0.10	0.022	(0.082)	0.019	0.002
201	16.75	0.10	0.022	(0.082)	0.019	0.002
202	16.83	0.10	0.022	(0.082)	0.019	0.002
203	16.92	0.10	0.022	(0.081)	0.019	0.002
204	17.00	0.10	0.022	(0.081)	0.019	0.002
205	17.08	0.17	0.036	(0.080)	0.032	0.004
206	17.17	0.17	0.036	(0.080)	0.032	0.004
207	17.25	0.17	0.036	(0.080)	0.032	0.004
208	17.33	0.17	0.036	(0.079)	0.032	0.004
209	17.42	0.17	0.036	(0.079)	0.032	0.004
210	17.50	0.17	0.036	(0.078)	0.032	0.004
211	17.58	0.17	0.036	(0.078)	0.032	0.004
212	17.67	0.17	0.036	(0.078)	0.032	0.004
213	17.75	0.17	0.036	(0.077)	0.032	0.004
214	17.83	0.13	0.029	(0.077)	0.026	0.003
215	17.92	0.13	0.029	(0.076)	0.026	0.003
216	18.00	0.13	0.029	(0.076)	0.026	0.003
217	18.08	0.13	0.029	(0.076)	0.026	0.003
218	18.17	0.13	0.029	(0.075)	0.026	0.003
219	18.25	0.13	0.029	(0.075)	0.026	0.003
220	18.33	0.13	0.029	(0.075)	0.026	0.003
221	18.42	0.13	0.029	(0.074)	0.026	0.003
222	18.50	0.13	0.029	(0.074)	0.026	0.003
223	18.58	0.10	0.022	(0.074)	0.019	0.002
224	18.67	0.10	0.022	(0.073)	0.019	0.002
225	18.75	0.10	0.022	(0.073)	0.019	0.002
226	18.83	0.07	0.014	(0.072)	0.013	0.001
227	18.92	0.07	0.014	(0.072)	0.013	0.001
228	19.00	0.07	0.014	(0.072)	0.013	0.001
229	19.08	0.10	0.022	(0.071)	0.019	0.002
230	19.17	0.10	0.022	(0.071)	0.019	0.002
231	19.25	0.10	0.022	(0.071)	0.019	0.002
232	19.33	0.13	0.029	(0.070)	0.026	0.003
233	19.42	0.13	0.029	(0.070)	0.026	0.003
234	19.50	0.13	0.029	(0.070)	0.026	0.003
235	19.58	0.10	0.022	(0.069)	0.019	0.002
236	19.67	0.10	0.022	(0.069)	0.019	0.002
237	19.75	0.10	0.022	(0.069)	0.019	0.002
238	19.83	0.07	0.014	(0.069)	0.013	0.001
239	19.92	0.07	0.014	(0.068)	0.013	0.001
240	20.00	0.07	0.014	(0.068)	0.013	0.001
241	20.08	0.10	0.022	(0.068)	0.019	0.002
242	20.17	0.10	0.022	(0.067)	0.019	0.002
243	20.25	0.10	0.022	(0.067)	0.019	0.002
244	20.33	0.10	0.022	(0.067)	0.019	0.002
245	20.42	0.10	0.022	(0.066)	0.019	0.002
246	20.50	0.10	0.022	(0.066)	0.019	0.002
247	20.58	0.10	0.022	(0.066)	0.019	0.002
248	20.67	0.10	0.022	(0.066)	0.019	0.002
249	20.75	0.10	0.022	(0.065)	0.019	0.002
250	20.83	0.07	0.014	(0.065)	0.013	0.001
251	20.92	0.07	0.014	(0.065)	0.013	0.001
252	21.00	0.07	0.014	(0.065)	0.013	0.001
253	21.08	0.10	0.022	(0.064)	0.019	0.002
254	21.17	0.10	0.022	(0.064)	0.019	0.002
255	21.25	0.10	0.022	(0.064)	0.019	0.002
256	21.33	0.07	0.014	(0.064)	0.013	0.001
257	21.42	0.07	0.014	(0.063)	0.013	0.001
258	21.50	0.07	0.014	(0.063)	0.013	0.001
259	21.58	0.10	0.022	(0.063)	0.019	0.002
260	21.67	0.10	0.022	(0.063)	0.019	0.002
261	21.75	0.10	0.022	(0.062)	0.019	0.002

2+20	0.0093	0.07	Q
2+25	0.0097	0.07	Q
2+30	0.0102	0.07	Q
2+35	0.0106	0.07	Q
2+40	0.0111	0.07	Q
2+45	0.0117	0.08	Q
2+50	0.0122	0.08	Q
2+55	0.0128	0.08	Q
3+ 0	0.0133	0.08	Q
3+ 5	0.0139	0.08	Q
3+10	0.0145	0.08	Q
3+15	0.0150	0.08	Q
3+20	0.0156	0.08	Q
3+25	0.0162	0.08	Q
3+30	0.0168	0.08	Q
3+35	0.0173	0.08	Q
3+40	0.0179	0.08	Q
3+45	0.0185	0.08	Q
3+50	0.0191	0.08	Q
3+55	0.0197	0.09	Q
4+ 0	0.0203	0.09	Q
4+ 5	0.0210	0.10	Q
4+10	0.0217	0.10	Q
4+15	0.0223	0.10	Q
4+20	0.0230	0.10	QV
4+25	0.0237	0.11	QV
4+30	0.0245	0.11	QV
4+35	0.0253	0.11	QV
4+40	0.0261	0.11	QV
4+45	0.0269	0.11	QV
4+50	0.0277	0.12	QV
4+55	0.0285	0.12	QV
5+ 0	0.0294	0.13	QV
5+ 5	0.0302	0.13	QV
5+10	0.0310	0.12	QV
5+15	0.0318	0.11	QV
5+20	0.0325	0.11	QV
5+25	0.0333	0.11	QV
5+30	0.0341	0.11	QV
5+35	0.0349	0.12	QV
5+40	0.0357	0.12	QV
5+45	0.0366	0.13	QV
5+50	0.0375	0.13	QV
5+55	0.0384	0.13	QV
6+ 0	0.0393	0.13	QV
6+ 5	0.0402	0.13	QV
6+10	0.0411	0.14	QV
6+15	0.0421	0.14	QV
6+20	0.0431	0.15	QV
6+25	0.0441	0.15	QV
6+30	0.0452	0.15	QV
6+35	0.0462	0.15	Q V
6+40	0.0473	0.16	Q V
6+45	0.0484	0.16	Q V
6+50	0.0495	0.16	Q V
6+55	0.0506	0.16	Q V
7+ 0	0.0517	0.16	Q V
7+ 5	0.0529	0.16	Q V
7+10	0.0540	0.17	Q V
7+15	0.0552	0.17	Q V
7+20	0.0563	0.17	Q V
7+25	0.0575	0.17	Q V
7+30	0.0587	0.18	Q V
7+35	0.0600	0.18	Q V
7+40	0.0613	0.19	Q V
7+45	0.0626	0.19	Q V
7+50	0.0639	0.20	Q V
7+55	0.0653	0.20	Q V
8+ 0	0.0668	0.21	Q V
8+ 5	0.0682	0.21	Q V
8+10	0.0698	0.23	Q V
8+15	0.0714	0.24	Q V
8+20	0.0731	0.24	Q V
8+25	0.0747	0.24	Q V
8+30	0.0764	0.24	Q V

8+35	0.0781	0.25	Q	V				
8+40	0.0799	0.25	Q	Q	V			
8+45	0.0817	0.26	Q	Q	V			
8+50	0.0835	0.26	Q	Q	V			
8+55	0.0853	0.27	Q	Q	V			
9+ 0	0.0872	0.28	Q	Q	V			
9+ 5	0.0892	0.28	Q	Q	V			
9+10	0.0912	0.29	Q	Q	V			
9+15	0.0933	0.30	Q	Q	V			
9+20	0.0954	0.31	Q	Q	V			
9+25	0.0977	0.33	Q	Q	V			
9+30	0.1001	0.35	Q	Q	V			
9+35	0.1027	0.38	Q	Q	V			
9+40	0.1058	0.45	Q	Q	V			
9+45	0.1093	0.51	Q	Q	V			
9+50	0.1131	0.55	Q	Q	V			
9+55	0.1174	0.63	Q	Q	V			
10+ 0	0.1222	0.70	Q	Q	V			
10+ 5	0.1270	0.69	Q	Q	V			
10+10	0.1306	0.52	Q	Q	V			
10+15	0.1332	0.39	Q	Q	V			
10+20	0.1356	0.34	Q	Q	V			
10+25	0.1378	0.32	Q	Q	V			
10+30	0.1398	0.30	Q	Q	V			
10+35	0.1420	0.31	Q	Q	V			
10+40	0.1448	0.41	Q	Q	V			
10+45	0.1482	0.49	Q	Q	V			
10+50	0.1519	0.53	Q	Q	V			
10+55	0.1557	0.56	Q	Q	V			
11+ 0	0.1597	0.58	Q	Q	V			
11+ 5	0.1637	0.58	Q	Q	V			
11+10	0.1674	0.54	Q	Q	V			
11+15	0.1709	0.52	Q	Q	V			
11+20	0.1745	0.51	Q	Q	V			
11+25	0.1781	0.52	Q	Q	V			
11+30	0.1817	0.53	Q	Q	V			
11+35	0.1853	0.52	Q	Q	V			
11+40	0.1882	0.43	Q	Q	V			
11+45	0.1908	0.36	Q	Q	V			
11+50	0.1932	0.35	Q	Q	V			
11+55	0.1958	0.38	Q	Q	V			
12+ 0	0.1987	0.42	Q	Q	V			
12+ 5	0.2023	0.53	Q	Q	V			
12+10	0.2088	0.93	Q	Q	V			
12+15	0.2174	1.26	Q	Q	V			
12+20	0.2271	1.41	Q	Q	V			
12+25	0.2377	1.54	Q	Q	V			
12+30	0.2491	1.65	Q	Q	V			
12+35	0.2611	1.74	Q	Q	V			
12+40	0.2742	1.90	Q	Q	V			
12+45	0.2882	2.03	Q	Q	V			
12+50	0.3027	2.11	Q	Q	V			
12+55	0.3179	2.21	Q	Q	V			
13+ 0	0.3337	2.30	Q	Q	V			
13+ 5	0.3503	2.41	Q	Q	V			
13+10	0.3691	2.73	Q	Q	V			
13+15	0.3896	2.98	Q	Q	V			
13+20	0.4109	3.08	Q	Q	V			
13+25	0.4326	3.16	Q	Q	V			
13+30	0.4547	3.21	Q	Q	V			
13+35	0.4760	3.10	Q	Q	V			
13+40	0.4934	2.52	Q	Q	V			
13+45	0.5075	2.06	Q	Q	V			
13+50	0.5205	1.89	Q	Q	V			
13+55	0.5329	1.80	Q	Q	V			
14+ 0	0.5449	1.74	Q	Q	V			
14+ 5	0.5570	1.76	Q	Q	V			
14+10	0.5705	1.96	Q	Q	V			
14+15	0.5850	2.12	Q	Q	V			
14+20	0.5999	2.16	Q	Q	V			
14+25	0.6146	2.14	Q	Q	V			
14+30	0.6292	2.12	Q	Q	V			
14+35	0.6438	2.12	Q	Q	V			
14+40	0.6585	2.13	Q	Q	V			
14+45	0.6732	2.14	Q	Q	V			

14+50	0.6880	2.14			V
14+55	0.7025	2.10			V
15+ 0	0.7167	2.07			V
15+ 5	0.7309	2.05			V
15+10	0.7446	2.00			V
15+15	0.7581	1.96			V
15+20	0.7714	1.93			V
15+25	0.7843	1.87			V
15+30	0.7969	1.83			V
15+35	0.8090	1.76			V
15+40	0.8196	1.53			V
15+45	0.8289	1.35			V
15+50	0.8378	1.29			V
15+55	0.8464	1.25			V
16+ 0	0.8549	1.23			V
16+ 5	0.8626	1.13			V
16+10	0.8678	0.74			V
16+15	0.8708	0.44	Q		V
16+20	0.8729	0.32	Q		V
16+25	0.8746	0.24	Q		V
16+30	0.8759	0.19	Q		V
16+35	0.8770	0.16	Q		V
16+40	0.8779	0.12	Q		V
16+45	0.8786	0.10	Q		V
16+50	0.8791	0.08	Q		V
16+55	0.8796	0.07	Q		V
17+ 0	0.8801	0.06	Q		V
17+ 5	0.8805	0.06	Q		V
17+10	0.8809	0.06	Q		V
17+15	0.8814	0.07	Q		V
17+20	0.8820	0.08	Q		V
17+25	0.8825	0.08	Q		V
17+30	0.8831	0.08	Q		V
17+35	0.8836	0.08	Q		V
17+40	0.8842	0.08	Q		V
17+45	0.8847	0.08	Q		V
17+50	0.8853	0.08	Q		V
17+55	0.8858	0.08	Q		V
18+ 0	0.8863	0.07	Q		V
18+ 5	0.8868	0.07	Q		V
18+10	0.8873	0.07	Q		V
18+15	0.8877	0.07	Q		V
18+20	0.8882	0.07	Q		V
18+25	0.8887	0.07	Q		V
18+30	0.8891	0.07	Q		V
18+35	0.8896	0.07	Q		V
18+40	0.8900	0.06	Q		V
18+45	0.8904	0.06	Q		V
18+50	0.8907	0.05	Q		V
18+55	0.8910	0.05	Q		V
19+ 0	0.8913	0.04	Q		V
19+ 5	0.8916	0.04	Q		V
19+10	0.8919	0.04	Q		V
19+15	0.8922	0.05	Q		V
19+20	0.8926	0.05	Q		V
19+25	0.8929	0.06	Q		V
19+30	0.8934	0.06	Q		V
19+35	0.8938	0.06	Q		V
19+40	0.8942	0.06	Q		V
19+45	0.8945	0.05	Q		V
19+50	0.8949	0.05	Q		V
19+55	0.8952	0.04	Q		V
20+ 0	0.8955	0.04	Q		V
20+ 5	0.8957	0.04	Q		V
20+10	0.8960	0.04	Q		V
20+15	0.8963	0.05	Q		V
20+20	0.8967	0.05	Q		V
20+25	0.8970	0.05	Q		V
20+30	0.8973	0.05	Q		V
20+35	0.8977	0.05	Q		V
20+40	0.8980	0.05	Q		V
20+45	0.8984	0.05	Q		V
20+50	0.8987	0.05	Q		V
20+55	0.8990	0.04	Q		V
21+ 0	0.8993	0.04	Q		V

21+ 5	0.8995	0.04	Q			V
21+10	0.8998	0.04	Q			V
21+15	0.9001	0.05	Q			V
21+20	0.9004	0.05	Q			V
21+25	0.9007	0.04	Q			V
21+30	0.9010	0.04	Q			V
21+35	0.9012	0.04	Q			V
21+40	0.9015	0.04	Q			V
21+45	0.9019	0.05	Q			V
21+50	0.9022	0.05	Q			V
21+55	0.9025	0.04	Q			V
22+ 0	0.9027	0.04	Q			V
22+ 5	0.9030	0.04	Q			V
22+10	0.9033	0.04	Q			V
22+15	0.9036	0.05	Q			V
22+20	0.9039	0.05	Q			V
22+25	0.9042	0.04	Q			V
22+30	0.9044	0.04	Q			V
22+35	0.9047	0.04	Q			V
22+40	0.9049	0.04	Q			V
22+45	0.9052	0.03	Q			V
22+50	0.9054	0.03	Q			V
22+55	0.9056	0.03	Q			V
23+ 0	0.9059	0.03	Q			V
23+ 5	0.9061	0.03	Q			V
23+10	0.9063	0.03	Q			V
23+15	0.9065	0.03	Q			V
23+20	0.9068	0.03	Q			V
23+25	0.9070	0.03	Q			V
23+30	0.9072	0.03	Q			V
23+35	0.9075	0.03	Q			V
23+40	0.9077	0.03	Q			V
23+45	0.9079	0.03	Q			V
23+50	0.9081	0.03	Q			V
23+55	0.9084	0.03	Q			V
24+ 0	0.9086	0.03	Q			V
24+ 5	0.9088	0.03	Q			V
24+10	0.9090	0.02	Q			V
24+15	0.9090	0.01	Q			V
24+20	0.9091	0.01	Q			V
24+25	0.9091	0.01	Q			V
24+30	0.9091	0.00	Q			V
24+35	0.9091	0.00	Q			V
24+40	0.9092	0.00	Q			V
24+45	0.9092	0.00	Q			V
24+50	0.9092	0.00	Q			V
24+55	0.9092	0.00	Q			V
25+ 0	0.9092	0.00	Q			V
25+ 5	0.9092	0.00	Q			V

EXISTING CONDITION
100-YEAR, 1-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

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Study date 01/11/22 File: ONSITEEXEAST1100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
EXISTING CONDITION, 100 YEAR
FN: ONSITEEXEAST, ABE, 2022-01-11

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1593.00(Ft.)
Length along longest watercourse measured to centroid = 962.00(Ft.)
Length along longest watercourse = 0.302 Mi.
Length along longest watercourse measured to centroid = 0.182 Mi.
Difference in elevation = 5.00(Ft.)
Slope along watercourse = 16.5725 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.140 Hr.
Lag time = 8.41 Min.
25% of lag time = 2.10 Min.
40% of lag time = 3.37 Min.
Unit time = 5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	0.48	10.99

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.25	28.63

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.480(In)
Area Averaged 100-Year Rainfall = 1.250(In)

Point rain (area averaged) = 1.250(In)
Areal adjustment factor = 99.98 %
Adjusted average point rain = 1.250(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	91.00	0.000
Total Area Entered = 22.90(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

91.0 91.0 0.117 0.000 0.117 1.000 0.117
 Sum (F) = 0.117

Area averaged mean soil loss (F) (In/Hr) = 0.117
 Minimum soil loss rate ((In/Hr)) = 0.059
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.900

Slope of intensity-duration curve for a 1 hour storm =0.4800

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	59.419	8.084
2	0.167	118.837	33.555
3	0.250	178.256	26.770
4	0.333	237.675	10.409
5	0.417	297.094	6.131
6	0.500	356.512	4.153
7	0.583	415.931	2.967
8	0.667	475.350	2.082
9	0.750	534.768	1.721
10	0.833	594.187	1.282
11	0.917	653.606	0.980
12	1.000	713.025	0.700
13	1.083	772.443	0.594
14	1.167	831.862	0.573
Sum = 100.000			Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max Low	Effective (In/Hr)
1	0.08	4.40	0.117 (0.594)	0.543
2	0.17	4.50	0.117 (0.607)	0.558
3	0.25	5.40	0.117 (0.729)	0.693
4	0.33	5.40	0.117 (0.729)	0.693
5	0.42	5.70	0.117 (0.769)	0.738
6	0.50	6.40	0.117 (0.864)	0.843
7	0.58	7.90	0.117 (1.066)	1.068
8	0.67	9.10	0.117 (1.228)	1.248
9	0.75	12.80	0.117 (1.728)	1.803
10	0.83	25.60	0.117 (3.455)	3.722
11	0.92	7.90	0.117 (1.066)	1.068
12	1.00	4.90	0.117 (0.661)	0.618

Sum = 100.0 (Loss Rate Not Used) Sum = 13.6

Flood volume = Effective rainfall 1.13(In)
 times area 22.9(Ac.)/[In]/(Ft.) = 2.2(Ac.Ft)
 Total soil loss = 0.12(In)
 Total soil loss = 0.223(Ac.Ft)
 Total rainfall = 1.25(In)
 Flood volume = 94161.3 Cubic Feet
 Total soil loss = 9725.9 Cubic Feet

Peak flow rate of this hydrograph = 48.696(CFS)

1 - H O U R S T O R M
 R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	12.5	25.0	37.5	50.0
0+ 5	0.0070	1.01	Q				

0+10	0.0431	5.25	v	Q				
0+15	0.1049	8.97	v		Q			
0+20	0.1835	11.41		v		Q		
0+25	0.2740	13.14			v		Q	
0+30	0.3742	14.55				v		Q
0+35	0.4888	16.64					v	Q
0+40	0.6256	19.87						v
0+45	0.7932	24.33						
0+50	1.0293	34.28						Q
0+55	1.3647	48.70					v	Q
1+ 0	1.6483	41.18						
1+ 5	1.8276	26.04						Q
1+10	1.9359	15.72						
1+15	2.0015	9.52						
1+20	2.0471	6.62						
1+25	2.0799	4.77						
1+30	2.1049	3.62						
1+35	2.1234	2.69						
1+40	2.1372	2.01						
1+45	2.1471	1.44						
1+50	2.1544	1.06						
1+55	2.1595	0.74						
2+ 0	2.1611	0.23						
2+ 5	2.1616	0.08						

EXISTING CONDITION
100-YEAR, 3-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

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Study date 01/11/22 File: ONSITEEXEAST3100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
EXISTING CONDITION, 100 YEAR
FN: ONSITEEXEAST, ABE, 2022-01-11

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1593.00(Ft.)
Length along longest watercourse measured to centroid = 962.00(Ft.)
Length along longest watercourse = 0.302 Mi.
Length along longest watercourse measured to centroid = 0.182 Mi.
Difference in elevation = 5.00(Ft.)
Slope along watercourse = 16.5725 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.140 Hr.
Lag time = 8.41 Min.
25% of lag time = 2.10 Min.
40% of lag time = 3.37 Min.
Unit time = 5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	0.80	18.32

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.90	43.51

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.800(In)
Area Averaged 100-Year Rainfall = 1.900(In)

Point rain (area averaged) = 1.900(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 1.900(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	91.00	0.000
Total Area Entered = 22.90(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

91.0 91.0 0.117 0.000 0.117 1.000 0.117
 Sum (F) = 0.117
 Area averaged mean soil loss (F) (In/Hr) = 0.117
 Minimum soil loss rate ((In/Hr)) = 0.059
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.900

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	59.419	8.084
2	0.167	118.837	33.555
3	0.250	178.256	26.770
4	0.333	237.675	10.409
5	0.417	297.094	6.131
6	0.500	356.512	4.153
7	0.583	415.931	2.967
8	0.667	475.350	2.082
9	0.750	534.768	1.721
10	0.833	594.187	1.282
11	0.917	653.606	0.980
12	1.000	713.025	0.700
13	1.083	772.443	0.594
14	1.167	831.862	0.573
Sum = 100.000			Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr)		Effective (In/Hr)
			Max	Low	
1	0.08	1.30	0.296	(0.117)	0.179
2	0.17	1.30	0.296	(0.267)	0.179
3	0.25	1.10	0.251	(0.226)	0.134
4	0.33	1.50	0.342	(0.308)	0.225
5	0.42	1.50	0.342	(0.308)	0.225
6	0.50	1.80	0.410	(0.369)	0.293
7	0.58	1.50	0.342	(0.308)	0.225
8	0.67	1.80	0.410	(0.369)	0.293
9	0.75	1.80	0.410	(0.369)	0.293
10	0.83	1.50	0.342	(0.308)	0.225
11	0.92	1.60	0.365	(0.328)	0.248
12	1.00	1.80	0.410	(0.369)	0.293
13	1.08	2.20	0.502	(0.451)	0.385
14	1.17	2.20	0.502	(0.451)	0.385
15	1.25	2.20	0.502	(0.451)	0.385
16	1.33	2.00	0.456	(0.410)	0.339
17	1.42	2.60	0.593	(0.533)	0.476
18	1.50	2.70	0.616	(0.554)	0.499
19	1.58	2.40	0.547	(0.492)	0.430
20	1.67	2.70	0.616	(0.554)	0.499
21	1.75	3.30	0.752	(0.677)	0.635
22	1.83	3.10	0.707	(0.636)	0.590
23	1.92	2.90	0.661	(0.595)	0.544
24	2.00	3.00	0.684	(0.616)	0.567
25	2.08	3.10	0.707	(0.636)	0.590
26	2.17	4.20	0.958	(0.862)	0.841
27	2.25	5.00	1.140	(1.026)	1.023
28	2.33	3.50	0.798	(0.718)	0.681
29	2.42	6.80	1.550	(1.395)	1.433
30	2.50	7.30	1.664	(1.498)	1.547
31	2.58	8.20	1.869	(1.682)	1.752
32	2.67	5.90	1.345	(1.211)	1.228
33	2.75	2.00	0.456	(0.410)	0.339
34	2.83	1.80	0.410	(0.369)	0.293
35	2.92	1.80	0.410	(0.369)	0.293
36	3.00	0.60	0.137	(0.123)	0.020

(Loss Rate Not Used)
 Sum = 100.0 Sum = 18.6
 Flood volume = Effective rainfall 1.55(In)
 times area 22.9(Ac.)/[In]/(Ft.) = 3.0(Ac.Ft)
 Total soil loss = 0.35(In)
 Total soil loss = 0.670(Ac.Ft)
 Total rainfall = 1.90(In)
 Flood volume = 128747.9 Cubic Feet
 Total soil loss = 29177.6 Cubic Feet

 Peak flow rate of this hydrograph = 32.431(CFS)

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 3 - H O U R S T O R M
 R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	10.0	20.0	30.0	40.0
0+ 5	0.0023	0.33	Q				
0+10	0.0142	1.72	VQ				
0+15	0.0331	2.75	V Q				
0+20	0.0537	3.00	V Q				
0+25	0.0791	3.67	V Q				
0+30	0.1096	4.43	V Q				
0+35	0.1447	5.11	V Q				
0+40	0.1812	5.30	V Q				
0+45	0.2205	5.70	V Q				
0+50	0.2620	6.02	V Q				
0+55	0.3014	5.73	VQ				
1+ 0	0.3407	5.70	VQ				
1+ 5	0.3841	6.29	VQ				
1+10	0.4345	7.32	V Q				
1+15	0.4895	7.99	VQ				
1+20	0.5460	8.20	VQ				
1+25	0.6030	8.28	Q				
1+30	0.6665	9.22	Q				
1+35	0.7360	10.09	VQ				
1+40	0.8058	10.14	Q				
1+45	0.8800	10.76	QV				
1+50	0.9637	12.16	QV				
1+55	1.0515	12.75	Q V				
2+ 0	1.1383	12.61	Q V				
2+ 5	1.2259	12.72	Q V				
2+10	1.3191	13.52	Q V				
2+15	1.4294	16.02	Q V				
2+20	1.5565	18.46	Q V				
2+25	1.6875	19.02	Q V				
2+30	1.8514	23.80	Q V				
2+35	2.0541	29.43	Q V				
2+40	2.2774	32.43	Q V				
2+45	2.4790	29.26	Q V				
2+50	2.6194	20.39	Q				
2+55	2.7170	14.17	Q				
3+ 0	2.7935	11.11	Q				
3+ 5	2.8457	7.57	Q				
3+10	2.8787	4.80	Q				
3+15	2.9022	3.41	Q				
3+20	2.9194	2.49	Q				
3+25	2.9317	1.79	Q				
3+30	2.9409	1.33	Q				
3+35	2.9473	0.93	Q				
3+40	2.9516	0.62	Q				
3+45	2.9538	0.33	Q				
3+50	2.9548	0.14	Q				
3+55	2.9553	0.08	Q				
4+ 0	2.9556	0.04	Q				
4+ 5	2.9556	0.00	Q				

EXISTING CONDITION
100-YEAR, 6-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

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Study date 01/11/22 File: ONSITEEEXEAST6100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
EXISTING CONDITION, 100 YEAR
FN: ONSITEEEXEAST, ABE, 2022-01-11

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1593.00(Ft.)
Length along longest watercourse measured to centroid = 962.00(Ft.)
Length along longest watercourse = 0.302 Mi.
Length along longest watercourse measured to centroid = 0.182 Mi.
Difference in elevation = 5.00(Ft.)
Slope along watercourse = 16.5725 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.140 Hr.
Lag time = 8.41 Min.
25% of lag time = 2.10 Min.
40% of lag time = 3.37 Min.
Unit time = 5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.10	25.19

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	2.50	57.25

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 1.100(In)
Area Averaged 100-Year Rainfall = 2.500(In)

Point rain (area averaged) = 2.500(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 2.500(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	91.00	0.000

Total Area Entered = 22.90(Ac.)

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

91.0 91.0 0.117 0.000 0.117 1.000 0.117
 Sum (F) = 0.117
 Area averaged mean soil loss (F) (In/Hr) = 0.117
 Minimum soil loss rate ((In/Hr)) = 0.059
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.900

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	59.419	8.084
2	0.167	118.837	33.555
3	0.250	178.256	26.770
4	0.333	237.675	10.409
5	0.417	297.094	6.131
6	0.500	356.512	4.153
7	0.583	415.931	2.967
8	0.667	475.350	2.082
9	0.750	534.768	1.721
10	0.833	594.187	1.282
11	0.917	653.606	0.980
12	1.000	713.025	0.700
13	1.083	772.443	0.594
14	1.167	831.862	0.573
Sum = 100.000			Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr)		Effective (In/Hr)
			Max	Low	
1	0.50	0.150	0.117	(0.135)	0.033
2	0.60	0.180	0.117	(0.162)	0.063
3	0.60	0.180	0.117	(0.162)	0.063
4	0.60	0.180	0.117	(0.162)	0.063
5	0.60	0.180	0.117	(0.162)	0.063
6	0.70	0.210	0.117	(0.189)	0.093
7	0.70	0.210	0.117	(0.189)	0.093
8	0.70	0.210	0.117	(0.189)	0.093
9	0.70	0.210	0.117	(0.189)	0.093
10	0.70	0.210	0.117	(0.189)	0.093
11	0.70	0.210	0.117	(0.189)	0.093
12	0.80	0.240	0.117	(0.216)	0.123
13	0.80	0.240	0.117	(0.216)	0.123
14	0.80	0.240	0.117	(0.216)	0.123
15	0.80	0.240	0.117	(0.216)	0.123
16	0.80	0.240	0.117	(0.216)	0.123
17	0.80	0.240	0.117	(0.216)	0.123
18	0.80	0.240	0.117	(0.216)	0.123
19	0.80	0.240	0.117	(0.216)	0.123
20	0.80	0.240	0.117	(0.216)	0.123
21	0.80	0.240	0.117	(0.216)	0.123
22	0.80	0.240	0.117	(0.216)	0.123
23	0.80	0.240	0.117	(0.216)	0.123
24	0.90	0.270	0.117	(0.243)	0.153
25	0.80	0.240	0.117	(0.216)	0.123
26	0.90	0.270	0.117	(0.243)	0.153
27	0.90	0.270	0.117	(0.243)	0.153
28	0.90	0.270	0.117	(0.243)	0.153
29	0.90	0.270	0.117	(0.243)	0.153
30	0.90	0.270	0.117	(0.243)	0.153
31	0.90	0.270	0.117	(0.243)	0.153
32	0.90	0.270	0.117	(0.243)	0.153
33	1.00	0.300	0.117	(0.270)	0.183
34	1.00	0.300	0.117	(0.270)	0.183
35	1.00	0.300	0.117	(0.270)	0.183
36	1.00	0.300	0.117	(0.270)	0.183

1+35	0.2414	2.80	VQ			
1+40	0.2608	2.81	Q			
1+45	0.2802	2.82	Q			
1+50	0.2997	2.83	Q			
1+55	0.3192	2.83	Q			
2+ 0	0.3391	2.89	Q			
2+ 5	0.3603	3.07	Q			
2+10	0.3815	3.08	Q			
2+15	0.4035	3.20	Q			
2+20	0.4266	3.36	Q			
2+25	0.4502	3.41	QV			
2+30	0.4739	3.45	QV			
2+35	0.4978	3.47	QV			
2+40	0.5219	3.49	Q V			
2+45	0.5463	3.56	Q V			
2+50	0.5725	3.80	QV			
2+55	0.6000	3.99	QV			
3+ 0	0.6280	4.07	Q V			
3+ 5	0.6564	4.12	Q V			
3+10	0.6853	4.20	Q V			
3+15	0.7160	4.46	Q V			
3+20	0.7481	4.66	Q V			
3+25	0.7812	4.80	Q V			
3+30	0.8165	5.14	Q V			
3+35	0.8554	5.65	Q V			
3+40	0.8979	6.16	Q V			
3+45	0.9429	6.54	Q V			
3+50	0.9906	6.93	Q V			
3+55	1.0407	7.27	Q V			
4+ 0	1.0934	7.65	Q V			
4+ 5	1.1483	7.98	Q V			
4+10	1.2063	8.41	Q V			
4+15	1.2681	8.98	Q V			
4+20	1.3341	9.59	Q V			
4+25	1.4046	10.23	Q V			
4+30	1.4791	10.82	Q V			
4+35	1.5566	11.25	Q V			
4+40	1.6374	11.74	Q V			
4+45	1.7224	12.34	Q V			
4+50	1.8115	12.93	Q V			
4+55	1.9034	13.35	Q V			
5+ 0	1.9986	13.83	Q V			
5+ 5	2.0996	14.66	Q V			
5+10	2.2129	16.45	Q V			
5+15	2.3429	18.89	Q V			
5+20	2.4887	21.16	Q V			
5+25	2.6495	23.35	Q V			
5+30	2.8300	26.21	Q V			
5+35	3.0213	27.78	Q V			
5+40	3.1665	21.08	Q			
5+45	3.2552	12.89	Q			
5+50	3.3128	8.36	Q			
5+55	3.3525	5.77	Q			
6+ 0	3.3806	4.07	Q			
6+ 5	3.4007	2.92	Q			
6+10	3.4156	2.16	Q			
6+15	3.4264	1.57	Q			
6+20	3.4341	1.12	Q			
6+25	3.4395	0.78	Q			
6+30	3.4432	0.53	Q			
6+35	3.4454	0.32	Q			
6+40	3.4461	0.10	Q			
6+45	3.4464	0.04	Q			
6+50	3.4465	0.02	Q			
6+55	3.4465	0.01	Q			
7+ 0	3.4465	0.00	Q			
7+ 5	3.4466	0.00	Q			

EXISTING CONDITION
100-YEAR, 24-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 01/11/22 File: ONSITEEXEAST24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
EXISTING CONDITION, 100 YEAR
FN: ONSITEEXEAST, ABE, 2022-01-11

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1593.00(Ft.)
Length along longest watercourse measured to centroid = 962.00(Ft.)
Length along longest watercourse = 0.302 Mi.
Length along longest watercourse measured to centroid = 0.182 Mi.
Difference in elevation = 5.00(Ft.)
Slope along watercourse = 16.5725 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.140 Hr.
Lag time = 8.41 Min.
25% of lag time = 2.10 Min.
40% of lag time = 3.37 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.80	41.22

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	5.00	114.50

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 1.800(In)
Area Averaged 100-Year Rainfall = 5.000(In)

Point rain (area averaged) = 5.000(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 5.000(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	91.00	0.000
Total Area Entered = 22.90(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

91.0 91.0 0.117 0.000 0.117 1.000 0.117
 Sum (F) = 0.117
 Area averaged mean soil loss (F) (In/Hr) = 0.117
 Minimum soil loss rate ((In/Hr)) = 0.059
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.900

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	59.419	8.084
2	0.167	118.837	33.555
3	0.250	178.256	26.770
4	0.333	237.675	10.409
5	0.417	297.094	6.131
6	0.500	356.512	4.153
7	0.583	415.931	2.967
8	0.667	475.350	2.082
9	0.750	534.768	1.721
10	0.833	594.187	1.282
11	0.917	653.606	0.980
12	1.000	713.025	0.700
13	1.083	772.443	0.594
14	1.167	831.862	0.573
Sum = 100.000			Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max Low	Effective (In/Hr)
1	0.08	0.07	(0.207)	0.036
2	0.17	0.07	(0.207)	0.036
3	0.25	0.07	(0.206)	0.036
4	0.33	0.10	(0.205)	0.054
5	0.42	0.10	(0.204)	0.054
6	0.50	0.10	(0.203)	0.054
7	0.58	0.10	(0.203)	0.054
8	0.67	0.10	(0.202)	0.054
9	0.75	0.10	(0.201)	0.054
10	0.83	0.13	(0.200)	0.072
11	0.92	0.13	(0.199)	0.072
12	1.00	0.13	(0.199)	0.072
13	1.08	0.10	(0.198)	0.054
14	1.17	0.10	(0.197)	0.054
15	1.25	0.10	(0.196)	0.054
16	1.33	0.10	(0.196)	0.054
17	1.42	0.10	(0.195)	0.054
18	1.50	0.10	(0.194)	0.054
19	1.58	0.10	(0.193)	0.054
20	1.67	0.10	(0.192)	0.054
21	1.75	0.10	(0.192)	0.054
22	1.83	0.13	(0.191)	0.072
23	1.92	0.13	(0.190)	0.072
24	2.00	0.13	(0.189)	0.072
25	2.08	0.13	(0.189)	0.072
26	2.17	0.13	(0.188)	0.072
27	2.25	0.13	(0.187)	0.072
28	2.33	0.13	(0.186)	0.072
29	2.42	0.13	(0.186)	0.072
30	2.50	0.13	(0.185)	0.072
31	2.58	0.17	(0.184)	0.090
32	2.67	0.17	(0.183)	0.090
33	2.75	0.17	(0.183)	0.090
34	2.83	0.17	(0.182)	0.090
35	2.92	0.17	(0.181)	0.090
36	3.00	0.17	(0.180)	0.090

37	3.08	0.17	0.100	(0.180)	0.090	0.010
38	3.17	0.17	0.100	(0.179)	0.090	0.010
39	3.25	0.17	0.100	(0.178)	0.090	0.010
40	3.33	0.17	0.100	(0.177)	0.090	0.010
41	3.42	0.17	0.100	(0.177)	0.090	0.010
42	3.50	0.17	0.100	(0.176)	0.090	0.010
43	3.58	0.17	0.100	(0.175)	0.090	0.010
44	3.67	0.17	0.100	(0.174)	0.090	0.010
45	3.75	0.17	0.100	(0.174)	0.090	0.010
46	3.83	0.20	0.120	(0.173)	0.108	0.012
47	3.92	0.20	0.120	(0.172)	0.108	0.012
48	4.00	0.20	0.120	(0.171)	0.108	0.012
49	4.08	0.20	0.120	(0.171)	0.108	0.012
50	4.17	0.20	0.120	(0.170)	0.108	0.012
51	4.25	0.20	0.120	(0.169)	0.108	0.012
52	4.33	0.23	0.140	(0.169)	0.126	0.014
53	4.42	0.23	0.140	(0.168)	0.126	0.014
54	4.50	0.23	0.140	(0.167)	0.126	0.014
55	4.58	0.23	0.140	(0.166)	0.126	0.014
56	4.67	0.23	0.140	(0.166)	0.126	0.014
57	4.75	0.23	0.140	(0.165)	0.126	0.014
58	4.83	0.27	0.160	(0.164)	0.144	0.016
59	4.92	0.27	0.160	(0.164)	0.144	0.016
60	5.00	0.27	0.160	(0.163)	0.144	0.016
61	5.08	0.20	0.120	(0.162)	0.108	0.012
62	5.17	0.20	0.120	(0.161)	0.108	0.012
63	5.25	0.20	0.120	(0.161)	0.108	0.012
64	5.33	0.23	0.140	(0.160)	0.126	0.014
65	5.42	0.23	0.140	(0.159)	0.126	0.014
66	5.50	0.23	0.140	(0.159)	0.126	0.014
67	5.58	0.27	0.160	(0.158)	0.144	0.016
68	5.67	0.27	0.160	(0.157)	0.144	0.016
69	5.75	0.27	0.160	(0.157)	0.144	0.016
70	5.83	0.27	0.160	(0.156)	0.144	0.016
71	5.92	0.27	0.160	(0.155)	0.144	0.016
72	6.00	0.27	0.160	(0.154)	0.144	0.016
73	6.08	0.30	0.180	0.154 (0.162)		0.026
74	6.17	0.30	0.180	0.153 (0.162)		0.027
75	6.25	0.30	0.180	0.152 (0.162)		0.028
76	6.33	0.30	0.180	0.152 (0.162)		0.028
77	6.42	0.30	0.180	0.151 (0.162)		0.029
78	6.50	0.30	0.180	0.150 (0.162)		0.030
79	6.58	0.33	0.200	0.150 (0.180)		0.050
80	6.67	0.33	0.200	0.149 (0.180)		0.051
81	6.75	0.33	0.200	0.148 (0.180)		0.052
82	6.83	0.33	0.200	0.148 (0.180)		0.052
83	6.92	0.33	0.200	0.147 (0.180)		0.053
84	7.00	0.33	0.200	0.146 (0.180)		0.054
85	7.08	0.33	0.200	0.146 (0.180)		0.054
86	7.17	0.33	0.200	0.145 (0.180)		0.055
87	7.25	0.33	0.200	0.144 (0.180)		0.056
88	7.33	0.37	0.220	0.144 (0.198)		0.076
89	7.42	0.37	0.220	0.143 (0.198)		0.077
90	7.50	0.37	0.220	0.142 (0.198)		0.078
91	7.58	0.40	0.240	0.142 (0.216)		0.098
92	7.67	0.40	0.240	0.141 (0.216)		0.099
93	7.75	0.40	0.240	0.140 (0.216)		0.100
94	7.83	0.43	0.260	0.140 (0.234)		0.120
95	7.92	0.43	0.260	0.139 (0.234)		0.121
96	8.00	0.43	0.260	0.138 (0.234)		0.122
97	8.08	0.50	0.300	0.138 (0.270)		0.162
98	8.17	0.50	0.300	0.137 (0.270)		0.163
99	8.25	0.50	0.300	0.137 (0.270)		0.163
100	8.33	0.50	0.300	0.136 (0.270)		0.164
101	8.42	0.50	0.300	0.135 (0.270)		0.165
102	8.50	0.50	0.300	0.135 (0.270)		0.165
103	8.58	0.53	0.320	0.134 (0.288)		0.186
104	8.67	0.53	0.320	0.133 (0.288)		0.187
105	8.75	0.53	0.320	0.133 (0.288)		0.187
106	8.83	0.57	0.340	0.132 (0.306)		0.208
107	8.92	0.57	0.340	0.131 (0.306)		0.208
108	9.00	0.57	0.340	0.131 (0.306)		0.209
109	9.08	0.63	0.380	0.130 (0.342)		0.250
110	9.17	0.63	0.380	0.130 (0.342)		0.250
111	9.25	0.63	0.380	0.129 (0.342)		0.251

112	9.33	0.67	0.400	0.128	(0.360)	0.272
113	9.42	0.67	0.400	0.128	(0.360)	0.272
114	9.50	0.67	0.400	0.127	(0.360)	0.273
115	9.58	0.70	0.420	0.127	(0.378)	0.293
116	9.67	0.70	0.420	0.126	(0.378)	0.294
117	9.75	0.70	0.420	0.125	(0.378)	0.295
118	9.83	0.73	0.440	0.125	(0.396)	0.315
119	9.92	0.73	0.440	0.124	(0.396)	0.316
120	10.00	0.73	0.440	0.124	(0.396)	0.316
121	10.08	0.50	0.300	0.123	(0.270)	0.177
122	10.17	0.50	0.300	0.122	(0.270)	0.178
123	10.25	0.50	0.300	0.122	(0.270)	0.178
124	10.33	0.50	0.300	0.121	(0.270)	0.179
125	10.42	0.50	0.300	0.121	(0.270)	0.179
126	10.50	0.50	0.300	0.120	(0.270)	0.180
127	10.58	0.67	0.400	0.119	(0.360)	0.281
128	10.67	0.67	0.400	0.119	(0.360)	0.281
129	10.75	0.67	0.400	0.118	(0.360)	0.282
130	10.83	0.67	0.400	0.118	(0.360)	0.282
131	10.92	0.67	0.400	0.117	(0.360)	0.283
132	11.00	0.67	0.400	0.117	(0.360)	0.283
133	11.08	0.63	0.380	0.116	(0.342)	0.264
134	11.17	0.63	0.380	0.115	(0.342)	0.265
135	11.25	0.63	0.380	0.115	(0.342)	0.265
136	11.33	0.63	0.380	0.114	(0.342)	0.266
137	11.42	0.63	0.380	0.114	(0.342)	0.266
138	11.50	0.63	0.380	0.113	(0.342)	0.267
139	11.58	0.57	0.340	0.113	(0.306)	0.227
140	11.67	0.57	0.340	0.112	(0.306)	0.228
141	11.75	0.57	0.340	0.111	(0.306)	0.229
142	11.83	0.60	0.360	0.111	(0.324)	0.249
143	11.92	0.60	0.360	0.110	(0.324)	0.250
144	12.00	0.60	0.360	0.110	(0.324)	0.250
145	12.08	0.83	0.500	0.109	(0.450)	0.391
146	12.17	0.83	0.500	0.109	(0.450)	0.391
147	12.25	0.83	0.500	0.108	(0.450)	0.392
148	12.33	0.87	0.520	0.108	(0.468)	0.412
149	12.42	0.87	0.520	0.107	(0.468)	0.413
150	12.50	0.87	0.520	0.107	(0.468)	0.413
151	12.58	0.93	0.560	0.106	(0.504)	0.454
152	12.67	0.93	0.560	0.105	(0.504)	0.455
153	12.75	0.93	0.560	0.105	(0.504)	0.455
154	12.83	0.97	0.580	0.104	(0.522)	0.476
155	12.92	0.97	0.580	0.104	(0.522)	0.476
156	13.00	0.97	0.580	0.103	(0.522)	0.477
157	13.08	1.13	0.680	0.103	(0.612)	0.577
158	13.17	1.13	0.680	0.102	(0.612)	0.578
159	13.25	1.13	0.680	0.102	(0.612)	0.578
160	13.33	1.13	0.680	0.101	(0.612)	0.579
161	13.42	1.13	0.680	0.101	(0.612)	0.579
162	13.50	1.13	0.680	0.100	(0.612)	0.580
163	13.58	0.77	0.460	0.100	(0.414)	0.360
164	13.67	0.77	0.460	0.099	(0.414)	0.361
165	13.75	0.77	0.460	0.099	(0.414)	0.361
166	13.83	0.77	0.460	0.098	(0.414)	0.362
167	13.92	0.77	0.460	0.098	(0.414)	0.362
168	14.00	0.77	0.460	0.097	(0.414)	0.363
169	14.08	0.90	0.540	0.097	(0.486)	0.443
170	14.17	0.90	0.540	0.096	(0.486)	0.444
171	14.25	0.90	0.540	0.096	(0.486)	0.444
172	14.33	0.87	0.520	0.095	(0.468)	0.425
173	14.42	0.87	0.520	0.095	(0.468)	0.425
174	14.50	0.87	0.520	0.094	(0.468)	0.426
175	14.58	0.87	0.520	0.094	(0.468)	0.426
176	14.67	0.87	0.520	0.093	(0.468)	0.427
177	14.75	0.87	0.520	0.093	(0.468)	0.427
178	14.83	0.83	0.500	0.092	(0.450)	0.408
179	14.92	0.83	0.500	0.092	(0.450)	0.408
180	15.00	0.83	0.500	0.091	(0.450)	0.409
181	15.08	0.80	0.480	0.091	(0.432)	0.389
182	15.17	0.80	0.480	0.090	(0.432)	0.390
183	15.25	0.80	0.480	0.090	(0.432)	0.390
184	15.33	0.77	0.460	0.090	(0.414)	0.370
185	15.42	0.77	0.460	0.089	(0.414)	0.371
186	15.50	0.77	0.460	0.089	(0.414)	0.371

187	15.58	0.63	0.380	0.088	(0.342)	0.292
188	15.67	0.63	0.380	0.088	(0.342)	0.292
189	15.75	0.63	0.380	0.087	(0.342)	0.293
190	15.83	0.63	0.380	0.087	(0.342)	0.293
191	15.92	0.63	0.380	0.086	(0.342)	0.294
192	16.00	0.63	0.380	0.086	(0.342)	0.294
193	16.08	0.13	0.080	(0.085)	0.072	0.008
194	16.17	0.13	0.080	(0.085)	0.072	0.008
195	16.25	0.13	0.080	(0.085)	0.072	0.008
196	16.33	0.13	0.080	(0.084)	0.072	0.008
197	16.42	0.13	0.080	(0.084)	0.072	0.008
198	16.50	0.13	0.080	(0.083)	0.072	0.008
199	16.58	0.10	0.060	(0.083)	0.054	0.006
200	16.67	0.10	0.060	(0.082)	0.054	0.006
201	16.75	0.10	0.060	(0.082)	0.054	0.006
202	16.83	0.10	0.060	(0.082)	0.054	0.006
203	16.92	0.10	0.060	(0.081)	0.054	0.006
204	17.00	0.10	0.060	(0.081)	0.054	0.006
205	17.08	0.17	0.100	0.080	(0.090)	0.020
206	17.17	0.17	0.100	0.080	(0.090)	0.020
207	17.25	0.17	0.100	0.080	(0.090)	0.020
208	17.33	0.17	0.100	0.079	(0.090)	0.021
209	17.42	0.17	0.100	0.079	(0.090)	0.021
210	17.50	0.17	0.100	0.078	(0.090)	0.022
211	17.58	0.17	0.100	0.078	(0.090)	0.022
212	17.67	0.17	0.100	0.078	(0.090)	0.022
213	17.75	0.17	0.100	0.077	(0.090)	0.023
214	17.83	0.13	0.080	(0.077)	0.072	0.008
215	17.92	0.13	0.080	(0.076)	0.072	0.008
216	18.00	0.13	0.080	(0.076)	0.072	0.008
217	18.08	0.13	0.080	(0.076)	0.072	0.008
218	18.17	0.13	0.080	(0.075)	0.072	0.008
219	18.25	0.13	0.080	(0.075)	0.072	0.008
220	18.33	0.13	0.080	(0.075)	0.072	0.008
221	18.42	0.13	0.080	(0.074)	0.072	0.008
222	18.50	0.13	0.080	(0.074)	0.072	0.008
223	18.58	0.10	0.060	(0.074)	0.054	0.006
224	18.67	0.10	0.060	(0.073)	0.054	0.006
225	18.75	0.10	0.060	(0.073)	0.054	0.006
226	18.83	0.07	0.040	(0.072)	0.036	0.004
227	18.92	0.07	0.040	(0.072)	0.036	0.004
228	19.00	0.07	0.040	(0.072)	0.036	0.004
229	19.08	0.10	0.060	(0.071)	0.054	0.006
230	19.17	0.10	0.060	(0.071)	0.054	0.006
231	19.25	0.10	0.060	(0.071)	0.054	0.006
232	19.33	0.13	0.080	0.070	(0.072)	0.010
233	19.42	0.13	0.080	0.070	(0.072)	0.010
234	19.50	0.13	0.080	0.070	(0.072)	0.010
235	19.58	0.10	0.060	(0.069)	0.054	0.006
236	19.67	0.10	0.060	(0.069)	0.054	0.006
237	19.75	0.10	0.060	(0.069)	0.054	0.006
238	19.83	0.07	0.040	(0.069)	0.036	0.004
239	19.92	0.07	0.040	(0.068)	0.036	0.004
240	20.00	0.07	0.040	(0.068)	0.036	0.004
241	20.08	0.10	0.060	(0.068)	0.054	0.006
242	20.17	0.10	0.060	(0.067)	0.054	0.006
243	20.25	0.10	0.060	(0.067)	0.054	0.006
244	20.33	0.10	0.060	(0.067)	0.054	0.006
245	20.42	0.10	0.060	(0.066)	0.054	0.006
246	20.50	0.10	0.060	(0.066)	0.054	0.006
247	20.58	0.10	0.060	(0.066)	0.054	0.006
248	20.67	0.10	0.060	(0.066)	0.054	0.006
249	20.75	0.10	0.060	(0.065)	0.054	0.006
250	20.83	0.07	0.040	(0.065)	0.036	0.004
251	20.92	0.07	0.040	(0.065)	0.036	0.004
252	21.00	0.07	0.040	(0.065)	0.036	0.004
253	21.08	0.10	0.060	(0.064)	0.054	0.006
254	21.17	0.10	0.060	(0.064)	0.054	0.006
255	21.25	0.10	0.060	(0.064)	0.054	0.006
256	21.33	0.07	0.040	(0.064)	0.036	0.004
257	21.42	0.07	0.040	(0.063)	0.036	0.004
258	21.50	0.07	0.040	(0.063)	0.036	0.004
259	21.58	0.10	0.060	(0.063)	0.054	0.006
260	21.67	0.10	0.060	(0.063)	0.054	0.006
261	21.75	0.10	0.060	(0.062)	0.054	0.006

2+20	0.0258	0.18	Q				
2+25	0.0270	0.18	Q				
2+30	0.0283	0.18	Q				
2+35	0.0296	0.19	Q				
2+40	0.0310	0.20	Q				
2+45	0.0325	0.22	Q				
2+50	0.0340	0.22	Q				
2+55	0.0355	0.22	Q				
3+ 0	0.0371	0.23	Q				
3+ 5	0.0386	0.23	Q				
3+10	0.0402	0.23	Q				
3+15	0.0418	0.23	Q				
3+20	0.0434	0.23	Q				
3+25	0.0450	0.23	Q				
3+30	0.0465	0.23	Q				
3+35	0.0481	0.23	Q				
3+40	0.0497	0.23	Q				
3+45	0.0513	0.23	Q				
3+50	0.0529	0.23	Q				
3+55	0.0546	0.25	Q				
4+ 0	0.0565	0.26	Q				
4+ 5	0.0583	0.27	Q				
4+10	0.0602	0.27	Q				
4+15	0.0620	0.27	Q				
4+20	0.0639	0.28	Q				
4+25	0.0660	0.29	Q				
4+30	0.0681	0.31	Q				
4+35	0.0702	0.31	Q				
4+40	0.0724	0.32	Q				
4+45	0.0746	0.32	Q				
4+50	0.0768	0.32	Q				
4+55	0.0792	0.34	Q				
5+ 0	0.0816	0.35	Q				
5+ 5	0.0840	0.35	Q				
5+10	0.0862	0.32	Q				
5+15	0.0883	0.30	Q				
5+20	0.0903	0.30	Q				
5+25	0.0925	0.31	Q				
5+30	0.0946	0.32	Q				
5+35	0.0969	0.32	Q				
5+40	0.0992	0.34	Q				
5+45	0.1016	0.35	Q				
5+50	0.1041	0.36	Q				
5+55	0.1066	0.36	Q				
6+ 0	0.1091	0.36	Q				
6+ 5	0.1117	0.38	Q				
6+10	0.1149	0.47	Q				
6+15	0.1186	0.54	VQ				
6+20	0.1226	0.57	VQ				
6+25	0.1267	0.60	VQ				
6+30	0.1310	0.62	VQ				
6+35	0.1357	0.68	VQ				
6+40	0.1416	0.86	Q				
6+45	0.1485	1.00	Q				
6+50	0.1558	1.07	VQ				
6+55	0.1635	1.11	VQ				
7+ 0	0.1714	1.15	VQ				
7+ 5	0.1795	1.18	VQ				
7+10	0.1878	1.20	VQ				
7+15	0.1963	1.23	VQ				
7+20	0.2051	1.29	VQ				
7+25	0.2152	1.46	VQ				
7+30	0.2262	1.60	V Q				
7+35	0.2380	1.71	V Q				
7+40	0.2511	1.91	V Q				
7+45	0.2653	2.07	V Q				
7+50	0.2803	2.18	V Q				
7+55	0.2968	2.39	V Q				
8+ 0	0.3143	2.55	V Q				
8+ 5	0.3330	2.71	V Q				
8+10	0.3542	3.08	V Q				
8+15	0.3774	3.37	V Q				
8+20	0.4015	3.50	V Q				
8+25	0.4263	3.59	V Q				
8+30	0.4515	3.66	V Q				

8+35	0.4772	3.74	V	Q			
8+40	0.5044	3.94	V	Q			
8+45	0.5326	4.10	V	Q			
8+50	0.5616	4.21	V	Q			
8+55	0.5920	4.42	V	Q			
9+ 0	0.6236	4.58	V	Q			
9+ 5	0.6563	4.74	V	Q			
9+10	0.6915	5.11	V	Q			
9+15	0.7286	5.40	V	Q			
9+20	0.7670	5.56	V	Q			
9+25	0.8069	5.80	V	Q			
9+30	0.8482	5.99	V	Q			
9+35	0.8904	6.13	V	Q			
9+40	0.9342	6.35	V	Q			
9+45	0.9791	6.53	V	Q			
9+50	1.0249	6.66	V	Q			
9+55	1.0723	6.87	V	Q			
10+ 0	1.1208	7.05	V	Q			
10+ 5	1.1681	6.87	V	Q			
10+10	1.2084	5.85	V	Q			
10+15	1.2430	5.03	V	Q			
10+20	1.2756	4.73	V	Q			
10+25	1.3070	4.56	V	Q			
10+30	1.3376	4.45	V	Q			
10+35	1.3690	4.56	V	Q			
10+40	1.4055	5.29	V	Q			
10+45	1.4459	5.87	V	Q			
10+50	1.4878	6.09	V	Q			
10+55	1.5306	6.21	V	Q			
11+ 0	1.5740	6.30	V	Q			
11+ 5	1.6175	6.32	V	Q			
11+10	1.6603	6.21	V	Q			
11+15	1.7026	6.14	V	Q			
11+20	1.7448	6.14	V	Q			
11+25	1.7871	6.14	V	Q			
11+30	1.8295	6.15	V	Q			
11+35	1.8714	6.09	V	Q			
11+40	1.9114	5.80	V	Q			
11+45	1.9496	5.56	V	Q			
11+50	1.9875	5.50	V	Q			
11+55	2.0262	5.61	V	Q			
12+ 0	2.0655	5.71	V	Q			
12+ 5	2.1068	6.00	V	Q			
12+10	2.1557	7.10	V	Q			
12+15	2.2107	7.98	V	Q			
12+20	2.2683	8.37	V	Q			
12+25	2.3285	8.74	V	Q			
12+30	2.3905	9.01	V	Q			
12+35	2.4542	9.24	V	Q			
12+40	2.5207	9.66	V	Q			
12+45	2.5895	10.00	V	Q			
12+50	2.6598	10.20	V	Q			
12+55	2.7319	10.47	V	Q			
13+ 0	2.8054	10.67	V	Q			
13+ 5	2.8809	10.97	V	Q			
13+10	2.9624	11.83	V	Q			
13+15	3.0485	12.50	V	Q			
13+20	3.1365	12.78	V	Q			
13+25	3.2257	12.95	V	Q			
13+30	3.3157	13.08	V	Q			
13+35	3.4036	12.76	V	Q			
13+40	3.4802	11.12	V	Q			
13+45	3.5478	9.82	V	Q			
13+50	3.6121	9.33	V	Q			
13+55	3.6744	9.06	V	Q			
14+ 0	3.7356	8.87	V	Q			
14+ 5	3.7968	8.90	V	Q			
14+10	3.8618	9.44	V	Q			
14+15	3.9297	9.86	V	Q			
14+20	3.9983	9.96	V	Q			
14+25	4.0663	9.88	V	Q			
14+30	4.1338	9.81	V	Q			
14+35	4.2013	9.79	V	Q			
14+40	4.2687	9.79	V	Q			
14+45	4.3363	9.81	V	Q			

14+50	4.4037	9.79				V
14+55	4.4702	9.66				V
15+ 0	4.5360	9.55				V
15+ 5	4.6013	9.48				V
15+10	4.6654	9.31				V
15+15	4.7287	9.18				V
15+20	4.7913	9.09				V
15+25	4.8526	8.90				V
15+30	4.9129	8.76				V
15+35	4.9719	8.56				V
15+40	5.0263	7.91				V
15+45	5.0772	7.39				V
15+50	5.1267	7.19				V
15+55	5.1754	7.07				V
16+ 0	5.2235	6.99				V
16+ 5	5.2676	6.40				V
16+10	5.2962	4.15				V
16+15	5.3123	2.35				V
16+20	5.3236	1.63				V
16+25	5.3319	1.21				V
16+30	5.3383	0.92				V
16+35	5.3432	0.71				V
16+40	5.3470	0.55				V
16+45	5.3499	0.43				V
16+50	5.3522	0.34				V
16+55	5.3541	0.27				V
17+ 0	5.3556	0.22				V
17+ 5	5.3570	0.21				V
17+10	5.3589	0.27				V
17+15	5.3614	0.36				V
17+20	5.3641	0.40				V
17+25	5.3670	0.42				V
17+30	5.3701	0.44				V
17+35	5.3733	0.46				V
17+40	5.3765	0.48				V
17+45	5.3799	0.49				V
17+50	5.3832	0.47				V
17+55	5.3857	0.37				V
18+ 0	5.3877	0.28				V
18+ 5	5.3894	0.25				V
18+10	5.3910	0.23				V
18+15	5.3925	0.22				V
18+20	5.3940	0.21				V
18+25	5.3954	0.20				V
18+30	5.3967	0.20				V
18+35	5.3980	0.19				V
18+40	5.3992	0.17				V
18+45	5.4003	0.16				V
18+50	5.4013	0.15				V
18+55	5.4022	0.13				V
19+ 0	5.4030	0.11				V
19+ 5	5.4037	0.11				V
19+10	5.4046	0.12				V
19+15	5.4055	0.13				V
19+20	5.4064	0.14				V
19+25	5.4076	0.17				V
19+30	5.4089	0.20				V
19+35	5.4103	0.20				V
19+40	5.4115	0.18				V
19+45	5.4126	0.16				V
19+50	5.4136	0.15				V
19+55	5.4145	0.13				V
20+ 0	5.4153	0.11				V
20+ 5	5.4160	0.11				V
20+10	5.4169	0.12				V
20+15	5.4178	0.13				V
20+20	5.4187	0.13				V
20+25	5.4196	0.14				V
20+30	5.4206	0.14				V
20+35	5.4215	0.14				V
20+40	5.4225	0.14				V
20+45	5.4234	0.14				V
20+50	5.4243	0.13				V
20+55	5.4251	0.12				V
21+ 0	5.4259	0.11				V

21+ 5	5.4266	0.11	Q				V	
21+10	5.4274	0.12	Q				V	
21+15	5.4283	0.13	Q				V	
21+20	5.4292	0.13	Q				V	
21+25	5.4300	0.12	Q				V	
21+30	5.4307	0.10	Q				V	
21+35	5.4314	0.10	Q				V	
21+40	5.4322	0.12	Q				V	
21+45	5.4331	0.13	Q				V	
21+50	5.4340	0.13	Q				V	
21+55	5.4348	0.11	Q				V	
22+ 0	5.4355	0.10	Q				V	
22+ 5	5.4362	0.10	Q				V	
22+10	5.4370	0.12	Q				V	
22+15	5.4379	0.13	Q				V	
22+20	5.4387	0.13	Q				V	
22+25	5.4395	0.11	Q				V	
22+30	5.4402	0.10	Q				V	
22+35	5.4409	0.10	Q				V	
22+40	5.4416	0.10	Q				V	
22+45	5.4423	0.10	Q				V	
22+50	5.4429	0.09	Q				V	
22+55	5.4436	0.09	Q				V	
23+ 0	5.4442	0.09	Q				V	
23+ 5	5.4449	0.09	Q				V	
23+10	5.4455	0.09	Q				V	
23+15	5.4461	0.09	Q				V	
23+20	5.4468	0.09	Q				V	
23+25	5.4474	0.09	Q				V	
23+30	5.4480	0.09	Q				V	
23+35	5.4487	0.09	Q				V	
23+40	5.4493	0.09	Q				V	
23+45	5.4500	0.09	Q				V	
23+50	5.4506	0.09	Q				V	
23+55	5.4512	0.09	Q				V	
24+ 0	5.4519	0.09	Q				V	
24+ 5	5.4524	0.08	Q				V	
24+10	5.4528	0.05	Q				V	
24+15	5.4530	0.03	Q				V	
24+20	5.4532	0.02	Q				V	
24+25	5.4533	0.01	Q				V	
24+30	5.4533	0.01	Q				V	
24+35	5.4534	0.01	Q				V	
24+40	5.4534	0.01	Q				V	
24+45	5.4534	0.00	Q				V	
24+50	5.4535	0.00	Q				V	
24+55	5.4535	0.00	Q				V	
25+ 0	5.4535	0.00	Q				V	
25+ 5	5.4535	0.00	Q				V	

PROPOSED CONDITION UNIT HYDROGRAPHS

PROPOSED CONDITION
2-YEAR, 24-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 01/25/22 File: ONSITEPROPEAST242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
PROPOSED CONDITION, 2-YEAR
FN: ONSITEPROPEAST, ABE, 2022-01-25

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1113.00(Ft.)
Length along longest watercourse measured to centroid = 480.00(Ft.)
Length along longest watercourse = 0.211 Mi.
Length along longest watercourse measured to centroid = 0.091 Mi.
Difference in elevation = 10.00(Ft.)
Slope along watercourse = 47.4394 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.038 Hr.
Lag time = 2.31 Min.
25% of lag time = 0.58 Min.
40% of lag time = 0.92 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.80	41.22

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	5.00	114.50

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 1.800(In)
Area Averaged 100-Year Rainfall = 5.000(In)

Point rain (area averaged) = 1.800(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 1.800(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	69.00	0.900
Total Area Entered = 22.90(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

69.0 69.0 0.373 0.900 0.071 1.000 0.071
 Sum (F) = 0.071
 Area averaged mean soil loss (F) (In/Hr) = 0.071
 Minimum soil loss rate ((In/Hr)) = 0.035
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.200

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	216.593	46.128
2	0.167	433.186	42.226
3	0.250	649.779	8.160
4	0.333	866.372	3.486
Sum = 100.000			Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr)		Effective (In/Hr)
				Max	Low	
1	0.08	0.07	0.014	(0.126)	0.003	0.012
2	0.17	0.07	0.014	(0.125)	0.003	0.012
3	0.25	0.07	0.014	(0.125)	0.003	0.012
4	0.33	0.10	0.022	(0.124)	0.004	0.017
5	0.42	0.10	0.022	(0.124)	0.004	0.017
6	0.50	0.10	0.022	(0.123)	0.004	0.017
7	0.58	0.10	0.022	(0.123)	0.004	0.017
8	0.67	0.10	0.022	(0.122)	0.004	0.017
9	0.75	0.10	0.022	(0.122)	0.004	0.017
10	0.83	0.13	0.029	(0.121)	0.006	0.023
11	0.92	0.13	0.029	(0.121)	0.006	0.023
12	1.00	0.13	0.029	(0.120)	0.006	0.023
13	1.08	0.10	0.022	(0.120)	0.004	0.017
14	1.17	0.10	0.022	(0.119)	0.004	0.017
15	1.25	0.10	0.022	(0.119)	0.004	0.017
16	1.33	0.10	0.022	(0.118)	0.004	0.017
17	1.42	0.10	0.022	(0.118)	0.004	0.017
18	1.50	0.10	0.022	(0.117)	0.004	0.017
19	1.58	0.10	0.022	(0.117)	0.004	0.017
20	1.67	0.10	0.022	(0.117)	0.004	0.017
21	1.75	0.10	0.022	(0.116)	0.004	0.017
22	1.83	0.13	0.029	(0.116)	0.006	0.023
23	1.92	0.13	0.029	(0.115)	0.006	0.023
24	2.00	0.13	0.029	(0.115)	0.006	0.023
25	2.08	0.13	0.029	(0.114)	0.006	0.023
26	2.17	0.13	0.029	(0.114)	0.006	0.023
27	2.25	0.13	0.029	(0.113)	0.006	0.023
28	2.33	0.13	0.029	(0.113)	0.006	0.023
29	2.42	0.13	0.029	(0.112)	0.006	0.023
30	2.50	0.13	0.029	(0.112)	0.006	0.023
31	2.58	0.17	0.036	(0.111)	0.007	0.029
32	2.67	0.17	0.036	(0.111)	0.007	0.029
33	2.75	0.17	0.036	(0.110)	0.007	0.029
34	2.83	0.17	0.036	(0.110)	0.007	0.029
35	2.92	0.17	0.036	(0.110)	0.007	0.029
36	3.00	0.17	0.036	(0.109)	0.007	0.029
37	3.08	0.17	0.036	(0.109)	0.007	0.029
38	3.17	0.17	0.036	(0.108)	0.007	0.029
39	3.25	0.17	0.036	(0.108)	0.007	0.029
40	3.33	0.17	0.036	(0.107)	0.007	0.029
41	3.42	0.17	0.036	(0.107)	0.007	0.029
42	3.50	0.17	0.036	(0.106)	0.007	0.029
43	3.58	0.17	0.036	(0.106)	0.007	0.029
44	3.67	0.17	0.036	(0.106)	0.007	0.029
45	3.75	0.17	0.036	(0.105)	0.007	0.029
46	3.83	0.20	0.043	(0.105)	0.009	0.035

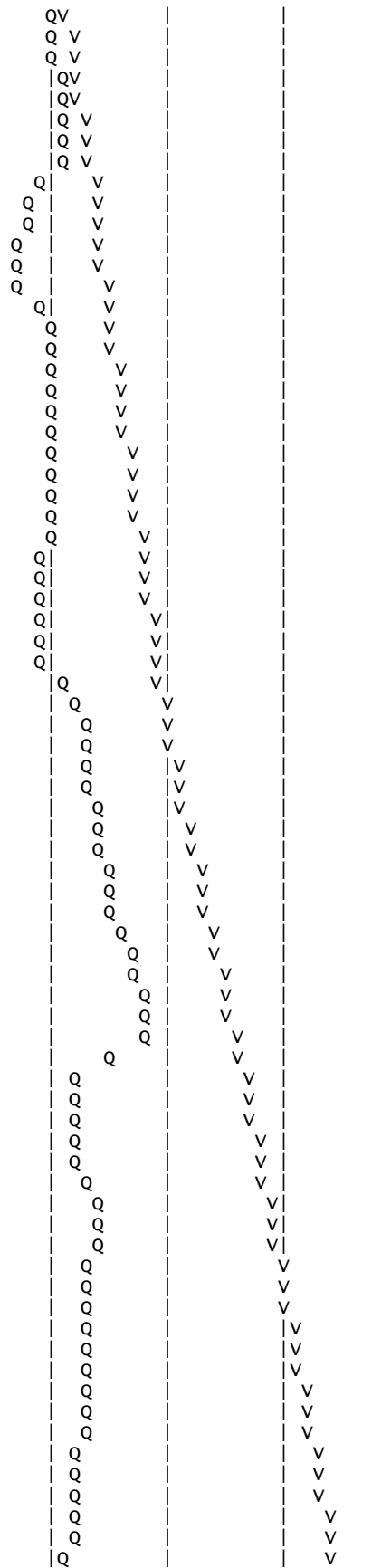
47	3.92	0.20	0.043	(0.104)	0.009	0.035
48	4.00	0.20	0.043	(0.104)	0.009	0.035
49	4.08	0.20	0.043	(0.103)	0.009	0.035
50	4.17	0.20	0.043	(0.103)	0.009	0.035
51	4.25	0.20	0.043	(0.102)	0.009	0.035
52	4.33	0.23	0.050	(0.102)	0.010	0.040
53	4.42	0.23	0.050	(0.102)	0.010	0.040
54	4.50	0.23	0.050	(0.101)	0.010	0.040
55	4.58	0.23	0.050	(0.101)	0.010	0.040
56	4.67	0.23	0.050	(0.100)	0.010	0.040
57	4.75	0.23	0.050	(0.100)	0.010	0.040
58	4.83	0.27	0.058	(0.099)	0.012	0.046
59	4.92	0.27	0.058	(0.099)	0.012	0.046
60	5.00	0.27	0.058	(0.099)	0.012	0.046
61	5.08	0.20	0.043	(0.098)	0.009	0.035
62	5.17	0.20	0.043	(0.098)	0.009	0.035
63	5.25	0.20	0.043	(0.097)	0.009	0.035
64	5.33	0.23	0.050	(0.097)	0.010	0.040
65	5.42	0.23	0.050	(0.096)	0.010	0.040
66	5.50	0.23	0.050	(0.096)	0.010	0.040
67	5.58	0.27	0.058	(0.096)	0.012	0.046
68	5.67	0.27	0.058	(0.095)	0.012	0.046
69	5.75	0.27	0.058	(0.095)	0.012	0.046
70	5.83	0.27	0.058	(0.094)	0.012	0.046
71	5.92	0.27	0.058	(0.094)	0.012	0.046
72	6.00	0.27	0.058	(0.093)	0.012	0.046
73	6.08	0.30	0.065	(0.093)	0.013	0.052
74	6.17	0.30	0.065	(0.093)	0.013	0.052
75	6.25	0.30	0.065	(0.092)	0.013	0.052
76	6.33	0.30	0.065	(0.092)	0.013	0.052
77	6.42	0.30	0.065	(0.091)	0.013	0.052
78	6.50	0.30	0.065	(0.091)	0.013	0.052
79	6.58	0.33	0.072	(0.091)	0.014	0.058
80	6.67	0.33	0.072	(0.090)	0.014	0.058
81	6.75	0.33	0.072	(0.090)	0.014	0.058
82	6.83	0.33	0.072	(0.089)	0.014	0.058
83	6.92	0.33	0.072	(0.089)	0.014	0.058
84	7.00	0.33	0.072	(0.089)	0.014	0.058
85	7.08	0.33	0.072	(0.088)	0.014	0.058
86	7.17	0.33	0.072	(0.088)	0.014	0.058
87	7.25	0.33	0.072	(0.087)	0.014	0.058
88	7.33	0.37	0.079	(0.087)	0.016	0.063
89	7.42	0.37	0.079	(0.087)	0.016	0.063
90	7.50	0.37	0.079	(0.086)	0.016	0.063
91	7.58	0.40	0.086	(0.086)	0.017	0.069
92	7.67	0.40	0.086	(0.085)	0.017	0.069
93	7.75	0.40	0.086	(0.085)	0.017	0.069
94	7.83	0.43	0.094	(0.085)	0.019	0.075
95	7.92	0.43	0.094	(0.084)	0.019	0.075
96	8.00	0.43	0.094	(0.084)	0.019	0.075
97	8.08	0.50	0.108	(0.083)	0.022	0.086
98	8.17	0.50	0.108	(0.083)	0.022	0.086
99	8.25	0.50	0.108	(0.083)	0.022	0.086
100	8.33	0.50	0.108	(0.082)	0.022	0.086
101	8.42	0.50	0.108	(0.082)	0.022	0.086
102	8.50	0.50	0.108	(0.082)	0.022	0.086
103	8.58	0.53	0.115	(0.081)	0.023	0.092
104	8.67	0.53	0.115	(0.081)	0.023	0.092
105	8.75	0.53	0.115	(0.080)	0.023	0.092
106	8.83	0.57	0.122	(0.080)	0.024	0.098
107	8.92	0.57	0.122	(0.080)	0.024	0.098
108	9.00	0.57	0.122	(0.079)	0.024	0.098
109	9.08	0.63	0.137	(0.079)	0.027	0.109
110	9.17	0.63	0.137	(0.078)	0.027	0.109
111	9.25	0.63	0.137	(0.078)	0.027	0.109
112	9.33	0.67	0.144	(0.078)	0.029	0.115
113	9.42	0.67	0.144	(0.077)	0.029	0.115
114	9.50	0.67	0.144	(0.077)	0.029	0.115
115	9.58	0.70	0.151	(0.077)	0.030	0.121
116	9.67	0.70	0.151	(0.076)	0.030	0.121
117	9.75	0.70	0.151	(0.076)	0.030	0.121
118	9.83	0.73	0.158	(0.076)	0.032	0.127
119	9.92	0.73	0.158	(0.075)	0.032	0.127
120	10.00	0.73	0.158	(0.075)	0.032	0.127
121	10.08	0.50	0.108	(0.074)	0.022	0.086

122	10.17	0.50	0.108	(0.074)	0.022	0.086
123	10.25	0.50	0.108	(0.074)	0.022	0.086
124	10.33	0.50	0.108	(0.073)	0.022	0.086
125	10.42	0.50	0.108	(0.073)	0.022	0.086
126	10.50	0.50	0.108	(0.073)	0.022	0.086
127	10.58	0.67	0.144	(0.072)	0.029	0.115
128	10.67	0.67	0.144	(0.072)	0.029	0.115
129	10.75	0.67	0.144	(0.072)	0.029	0.115
130	10.83	0.67	0.144	(0.071)	0.029	0.115
131	10.92	0.67	0.144	(0.071)	0.029	0.115
132	11.00	0.67	0.144	(0.071)	0.029	0.115
133	11.08	0.63	0.137	(0.070)	0.027	0.109
134	11.17	0.63	0.137	(0.070)	0.027	0.109
135	11.25	0.63	0.137	(0.069)	0.027	0.109
136	11.33	0.63	0.137	(0.069)	0.027	0.109
137	11.42	0.63	0.137	(0.069)	0.027	0.109
138	11.50	0.63	0.137	(0.068)	0.027	0.109
139	11.58	0.57	0.122	(0.068)	0.024	0.098
140	11.67	0.57	0.122	(0.068)	0.024	0.098
141	11.75	0.57	0.122	(0.067)	0.024	0.098
142	11.83	0.60	0.130	(0.067)	0.026	0.104
143	11.92	0.60	0.130	(0.067)	0.026	0.104
144	12.00	0.60	0.130	(0.066)	0.026	0.104
145	12.08	0.83	0.180	(0.066)	0.036	0.144
146	12.17	0.83	0.180	(0.066)	0.036	0.144
147	12.25	0.83	0.180	(0.065)	0.036	0.144
148	12.33	0.87	0.187	(0.065)	0.037	0.150
149	12.42	0.87	0.187	(0.065)	0.037	0.150
150	12.50	0.87	0.187	(0.064)	0.037	0.150
151	12.58	0.93	0.202	(0.064)	0.040	0.161
152	12.67	0.93	0.202	(0.064)	0.040	0.161
153	12.75	0.93	0.202	(0.064)	0.040	0.161
154	12.83	0.97	0.209	(0.063)	0.042	0.167
155	12.92	0.97	0.209	(0.063)	0.042	0.167
156	13.00	0.97	0.209	(0.063)	0.042	0.167
157	13.08	1.13	0.245	(0.062)	0.049	0.196
158	13.17	1.13	0.245	(0.062)	0.049	0.196
159	13.25	1.13	0.245	(0.062)	0.049	0.196
160	13.33	1.13	0.245	(0.061)	0.049	0.196
161	13.42	1.13	0.245	(0.061)	0.049	0.196
162	13.50	1.13	0.245	(0.061)	0.049	0.196
163	13.58	0.77	0.166	(0.060)	0.033	0.132
164	13.67	0.77	0.166	(0.060)	0.033	0.132
165	13.75	0.77	0.166	(0.060)	0.033	0.132
166	13.83	0.77	0.166	(0.059)	0.033	0.132
167	13.92	0.77	0.166	(0.059)	0.033	0.132
168	14.00	0.77	0.166	(0.059)	0.033	0.132
169	14.08	0.90	0.194	(0.059)	0.039	0.156
170	14.17	0.90	0.194	(0.058)	0.039	0.156
171	14.25	0.90	0.194	(0.058)	0.039	0.156
172	14.33	0.87	0.187	(0.058)	0.037	0.150
173	14.42	0.87	0.187	(0.057)	0.037	0.150
174	14.50	0.87	0.187	(0.057)	0.037	0.150
175	14.58	0.87	0.187	(0.057)	0.037	0.150
176	14.67	0.87	0.187	(0.056)	0.037	0.150
177	14.75	0.87	0.187	(0.056)	0.037	0.150
178	14.83	0.83	0.180	(0.056)	0.036	0.144
179	14.92	0.83	0.180	(0.056)	0.036	0.144
180	15.00	0.83	0.180	(0.055)	0.036	0.144
181	15.08	0.80	0.173	(0.055)	0.035	0.138
182	15.17	0.80	0.173	(0.055)	0.035	0.138
183	15.25	0.80	0.173	(0.054)	0.035	0.138
184	15.33	0.77	0.166	(0.054)	0.033	0.132
185	15.42	0.77	0.166	(0.054)	0.033	0.132
186	15.50	0.77	0.166	(0.054)	0.033	0.132
187	15.58	0.63	0.137	(0.053)	0.027	0.109
188	15.67	0.63	0.137	(0.053)	0.027	0.109
189	15.75	0.63	0.137	(0.053)	0.027	0.109
190	15.83	0.63	0.137	(0.053)	0.027	0.109
191	15.92	0.63	0.137	(0.052)	0.027	0.109
192	16.00	0.63	0.137	(0.052)	0.027	0.109
193	16.08	0.13	0.029	(0.052)	0.006	0.023
194	16.17	0.13	0.029	(0.051)	0.006	0.023
195	16.25	0.13	0.029	(0.051)	0.006	0.023
196	16.33	0.13	0.029	(0.051)	0.006	0.023

197	16.42	0.13	0.029	(0.051)	0.006	0.023
198	16.50	0.13	0.029	(0.050)	0.006	0.023
199	16.58	0.10	0.022	(0.050)	0.004	0.017
200	16.67	0.10	0.022	(0.050)	0.004	0.017
201	16.75	0.10	0.022	(0.050)	0.004	0.017
202	16.83	0.10	0.022	(0.049)	0.004	0.017
203	16.92	0.10	0.022	(0.049)	0.004	0.017
204	17.00	0.10	0.022	(0.049)	0.004	0.017
205	17.08	0.17	0.036	(0.049)	0.007	0.029
206	17.17	0.17	0.036	(0.048)	0.007	0.029
207	17.25	0.17	0.036	(0.048)	0.007	0.029
208	17.33	0.17	0.036	(0.048)	0.007	0.029
209	17.42	0.17	0.036	(0.048)	0.007	0.029
210	17.50	0.17	0.036	(0.047)	0.007	0.029
211	17.58	0.17	0.036	(0.047)	0.007	0.029
212	17.67	0.17	0.036	(0.047)	0.007	0.029
213	17.75	0.17	0.036	(0.047)	0.007	0.029
214	17.83	0.13	0.029	(0.047)	0.006	0.023
215	17.92	0.13	0.029	(0.046)	0.006	0.023
216	18.00	0.13	0.029	(0.046)	0.006	0.023
217	18.08	0.13	0.029	(0.046)	0.006	0.023
218	18.17	0.13	0.029	(0.046)	0.006	0.023
219	18.25	0.13	0.029	(0.045)	0.006	0.023
220	18.33	0.13	0.029	(0.045)	0.006	0.023
221	18.42	0.13	0.029	(0.045)	0.006	0.023
222	18.50	0.13	0.029	(0.045)	0.006	0.023
223	18.58	0.10	0.022	(0.045)	0.004	0.017
224	18.67	0.10	0.022	(0.044)	0.004	0.017
225	18.75	0.10	0.022	(0.044)	0.004	0.017
226	18.83	0.07	0.014	(0.044)	0.003	0.012
227	18.92	0.07	0.014	(0.044)	0.003	0.012
228	19.00	0.07	0.014	(0.043)	0.003	0.012
229	19.08	0.10	0.022	(0.043)	0.004	0.017
230	19.17	0.10	0.022	(0.043)	0.004	0.017
231	19.25	0.10	0.022	(0.043)	0.004	0.017
232	19.33	0.13	0.029	(0.043)	0.006	0.023
233	19.42	0.13	0.029	(0.042)	0.006	0.023
234	19.50	0.13	0.029	(0.042)	0.006	0.023
235	19.58	0.10	0.022	(0.042)	0.004	0.017
236	19.67	0.10	0.022	(0.042)	0.004	0.017
237	19.75	0.10	0.022	(0.042)	0.004	0.017
238	19.83	0.07	0.014	(0.041)	0.003	0.012
239	19.92	0.07	0.014	(0.041)	0.003	0.012
240	20.00	0.07	0.014	(0.041)	0.003	0.012
241	20.08	0.10	0.022	(0.041)	0.004	0.017
242	20.17	0.10	0.022	(0.041)	0.004	0.017
243	20.25	0.10	0.022	(0.041)	0.004	0.017
244	20.33	0.10	0.022	(0.040)	0.004	0.017
245	20.42	0.10	0.022	(0.040)	0.004	0.017
246	20.50	0.10	0.022	(0.040)	0.004	0.017
247	20.58	0.10	0.022	(0.040)	0.004	0.017
248	20.67	0.10	0.022	(0.040)	0.004	0.017
249	20.75	0.10	0.022	(0.040)	0.004	0.017
250	20.83	0.07	0.014	(0.039)	0.003	0.012
251	20.92	0.07	0.014	(0.039)	0.003	0.012
252	21.00	0.07	0.014	(0.039)	0.003	0.012
253	21.08	0.10	0.022	(0.039)	0.004	0.017
254	21.17	0.10	0.022	(0.039)	0.004	0.017
255	21.25	0.10	0.022	(0.039)	0.004	0.017
256	21.33	0.07	0.014	(0.038)	0.003	0.012
257	21.42	0.07	0.014	(0.038)	0.003	0.012
258	21.50	0.07	0.014	(0.038)	0.003	0.012
259	21.58	0.10	0.022	(0.038)	0.004	0.017
260	21.67	0.10	0.022	(0.038)	0.004	0.017
261	21.75	0.10	0.022	(0.038)	0.004	0.017
262	21.83	0.07	0.014	(0.038)	0.003	0.012
263	21.92	0.07	0.014	(0.038)	0.003	0.012
264	22.00	0.07	0.014	(0.037)	0.003	0.012
265	22.08	0.10	0.022	(0.037)	0.004	0.017
266	22.17	0.10	0.022	(0.037)	0.004	0.017
267	22.25	0.10	0.022	(0.037)	0.004	0.017
268	22.33	0.07	0.014	(0.037)	0.003	0.012
269	22.42	0.07	0.014	(0.037)	0.003	0.012
270	22.50	0.07	0.014	(0.037)	0.003	0.012
271	22.58	0.07	0.014	(0.037)	0.003	0.012

3+10	0.1242	0.66	VQ
3+15	0.1287	0.66	VQ
3+20	0.1333	0.66	VQ
3+25	0.1379	0.66	Q
3+30	0.1425	0.66	Q
3+35	0.1471	0.66	Q
3+40	0.1516	0.66	Q
3+45	0.1562	0.66	Q
3+50	0.1612	0.73	Q
3+55	0.1666	0.78	VQ
4+ 0	0.1721	0.79	VQ
4+ 5	0.1776	0.80	VQ
4+10	0.1831	0.80	VQ
4+15	0.1886	0.80	VQ
4+20	0.1945	0.86	VQ
4+25	0.2008	0.92	VQ
4+30	0.2072	0.93	Q
4+35	0.2136	0.93	Q
4+40	0.2200	0.93	Q
4+45	0.2264	0.93	Q
4+50	0.2332	0.99	Q
4+55	0.2405	1.05	VQ
5+ 0	0.2477	1.06	VQ
5+ 5	0.2542	0.94	Q
5+10	0.2599	0.83	Q
5+15	0.2655	0.81	Q
5+20	0.2714	0.86	Q
5+25	0.2777	0.92	QV
5+30	0.2841	0.93	QV
5+35	0.2909	0.99	QV
5+40	0.2982	1.05	Q
5+45	0.3055	1.06	Q
5+50	0.3128	1.06	Q
5+55	0.3201	1.06	Q
6+ 0	0.3274	1.06	Q
6+ 5	0.3352	1.13	Q
6+10	0.3433	1.18	Q
6+15	0.3515	1.19	QV
6+20	0.3598	1.20	QV
6+25	0.3680	1.20	QV
6+30	0.3763	1.20	QV
6+35	0.3849	1.26	Q
6+40	0.3940	1.31	Q
6+45	0.4031	1.33	Q
6+50	0.4123	1.33	QV
6+55	0.4214	1.33	QV
7+ 0	0.4306	1.33	QV
7+ 5	0.4398	1.33	QV
7+10	0.4489	1.33	QV
7+15	0.4581	1.33	QV
7+20	0.4677	1.39	QV
7+25	0.4776	1.45	QV
7+30	0.4877	1.46	Q V
7+35	0.4982	1.52	QV
7+40	0.5090	1.58	QV
7+45	0.5200	1.59	QV
7+50	0.5314	1.66	QV
7+55	0.5432	1.71	QV
8+ 0	0.5551	1.72	Q V
8+ 5	0.5679	1.85	QV
8+10	0.5814	1.96	QV
8+15	0.5951	1.99	QV
8+20	0.6088	1.99	QV
8+25	0.6225	1.99	Q V
8+30	0.6363	1.99	Q V
8+35	0.6504	2.06	QV
8+40	0.6650	2.11	QV
8+45	0.6796	2.12	QV
8+50	0.6947	2.19	Q V
8+55	0.7101	2.25	Q V
9+ 0	0.7257	2.26	QV
9+ 5	0.7421	2.38	QV
9+10	0.7593	2.50	Q V
9+15	0.7766	2.52	QV
9+20	0.7945	2.59	QV

9+25	0.8127	2.64
9+30	0.8310	2.66
9+35	0.8497	2.72
9+40	0.8688	2.78
9+45	0.8880	2.79
9+50	0.9077	2.85
9+55	0.9277	2.91
10+ 0	0.9479	2.92
10+ 5	0.9650	2.50
10+10	0.9795	2.10
10+15	0.9935	2.03
10+20	1.0072	1.99
10+25	1.0210	1.99
10+30	1.0347	1.99
10+35	1.0506	2.30
10+40	1.0684	2.58
10+45	1.0865	2.64
10+50	1.1048	2.66
10+55	1.1231	2.66
11+ 0	1.1415	2.66
11+ 5	1.1594	2.60
11+10	1.1769	2.54
11+15	1.1943	2.53
11+20	1.2117	2.53
11+25	1.2291	2.53
11+30	1.2465	2.53
11+35	1.2631	2.40
11+40	1.2789	2.29
11+45	1.2945	2.27
11+50	1.3105	2.32
11+55	1.3269	2.38
12+ 0	1.3433	2.39
12+ 5	1.3628	2.82
12+10	1.3849	3.22
12+15	1.4076	3.29
12+20	1.4309	3.39
12+25	1.4546	3.44
12+30	1.4784	3.45
12+35	1.5031	3.58
12+40	1.5285	3.69
12+45	1.5541	3.71
12+50	1.5802	3.79
12+55	1.6066	3.84
13+ 0	1.6331	3.85
13+ 5	1.6618	4.16
13+10	1.6924	4.44
13+15	1.7234	4.50
13+20	1.7546	4.52
13+25	1.7857	4.52
13+30	1.8168	4.52
13+35	1.8433	3.85
13+40	1.8656	3.23
13+45	1.8870	3.11
13+50	1.9081	3.06
13+55	1.9291	3.06
14+ 0	1.9502	3.06
14+ 5	1.9730	3.30
14+10	1.9973	3.53
14+15	2.0219	3.57
14+20	2.0462	3.53
14+25	2.0701	3.47
14+30	2.0939	3.46
14+35	2.1178	3.46
14+40	2.1416	3.46
14+45	2.1654	3.46
14+50	2.1888	3.40
14+55	2.2118	3.34
15+ 0	2.2347	3.33
15+ 5	2.2572	3.26
15+10	2.2793	3.21
15+15	2.3013	3.20
15+20	2.3229	3.13
15+25	2.3440	3.07
15+30	2.3651	3.06
15+35	2.3845	2.81



15+40	2.4023	2.59				V
15+45	2.4199	2.55				V
15+50	2.4373	2.53				V
15+55	2.4547	2.53				V
16+ 0	2.4721	2.53				V
16+ 5	2.4831	1.61				V
16+10	2.4884	0.76				V
16+15	2.4925	0.60				V
16+20	2.4962	0.53				V
16+25	2.4999	0.53				V
16+30	2.5035	0.53				V
16+35	2.5068	0.47				V
16+40	2.5096	0.41				V
16+45	2.5124	0.40				V
16+50	2.5152	0.40				V
16+55	2.5179	0.40				V
17+ 0	2.5207	0.40				V
17+ 5	2.5242	0.52				V
17+10	2.5286	0.63				V
17+15	2.5331	0.66				V
17+20	2.5377	0.66				V
17+25	2.5423	0.66				V
17+30	2.5469	0.66				V
17+35	2.5514	0.66				V
17+40	2.5560	0.66				V
17+45	2.5606	0.66				V
17+50	2.5648	0.60				V
17+55	2.5685	0.55				V
18+ 0	2.5722	0.54				V
18+ 5	2.5759	0.53				V
18+10	2.5796	0.53				V
18+15	2.5832	0.53				V
18+20	2.5869	0.53				V
18+25	2.5906	0.53				V
18+30	2.5942	0.53				V
18+35	2.5975	0.47				V
18+40	2.6003	0.41				V
18+45	2.6031	0.40				V
18+50	2.6054	0.34				V
18+55	2.6074	0.28				V
19+ 0	2.6092	0.27				V
19+ 5	2.6115	0.33				V
19+10	2.6141	0.38				V
19+15	2.6168	0.39				V
19+20	2.6200	0.46				V
19+25	2.6236	0.52				V
19+30	2.6272	0.53				V
19+35	2.6304	0.47				V
19+40	2.6333	0.41				V
19+45	2.6361	0.40				V
19+50	2.6384	0.34				V
19+55	2.6403	0.28				V
20+ 0	2.6422	0.27				V
20+ 5	2.6444	0.33				V
20+10	2.6471	0.38				V
20+15	2.6498	0.39				V
20+20	2.6526	0.40				V
20+25	2.6553	0.40				V
20+30	2.6580	0.40				V
20+35	2.6608	0.40				V
20+40	2.6635	0.40				V
20+45	2.6663	0.40				V
20+50	2.6686	0.34				V
20+55	2.6706	0.28				V
21+ 0	2.6724	0.27				V
21+ 5	2.6747	0.33				V
21+10	2.6773	0.38				V
21+15	2.6800	0.39				V
21+20	2.6824	0.34				V
21+25	2.6843	0.28				V
21+30	2.6862	0.27				V
21+35	2.6884	0.33				V
21+40	2.6911	0.38				V
21+45	2.6938	0.39				V
21+50	2.6961	0.34				V

21+55	2.6980	0.28	Q			V
22+ 0	2.6999	0.27	Q			V
22+ 5	2.7022	0.33	Q			V
22+10	2.7048	0.38	Q			V
22+15	2.7075	0.39	Q			V
22+20	2.7098	0.34	Q			V
22+25	2.7118	0.28	Q			V
22+30	2.7136	0.27	Q			V
22+35	2.7155	0.27	Q			V
22+40	2.7173	0.27	Q			V
22+45	2.7191	0.27	Q			V
22+50	2.7210	0.27	Q			V
22+55	2.7228	0.27	Q			V
23+ 0	2.7246	0.27	Q			V
23+ 5	2.7265	0.27	Q			V
23+10	2.7283	0.27	Q			V
23+15	2.7301	0.27	Q			V
23+20	2.7320	0.27	Q			V
23+25	2.7338	0.27	Q			V
23+30	2.7356	0.27	Q			V
23+35	2.7375	0.27	Q			V
23+40	2.7393	0.27	Q			V
23+45	2.7411	0.27	Q			V
23+50	2.7429	0.27	Q			V
23+55	2.7448	0.27	Q			V
24+ 0	2.7466	0.27	Q			V
24+ 5	2.7476	0.14	Q			V
24+10	2.7478	0.03	Q			V
24+15	2.7479	0.01	Q			V

PROPOSED CONDITION
100-YEAR, 1-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

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Study date 01/11/22 File: ONSITEPROPEAST1100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
PROPOSED CONDITION, 100-YEAR
FN: ONSITEPROPEAST, ABE, 2022-01-11

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1113.00(Ft.)
Length along longest watercourse measured to centroid = 480.00(Ft.)
Length along longest watercourse = 0.211 Mi.
Length along longest watercourse measured to centroid = 0.091 Mi.
Difference in elevation = 10.00(Ft.)
Slope along watercourse = 47.4394 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.038 Hr.
Lag time = 2.31 Min.
25% of lag time = 0.58 Min.
40% of lag time = 0.92 Min.
Unit time = 5.00 Min.
Duration of storm = 1 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	0.48	10.99

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.25	28.63

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.480(In)
Area Averaged 100-Year Rainfall = 1.250(In)

Point rain (area averaged) = 1.250(In)
Areal adjustment factor = 99.98 %
Adjusted average point rain = 1.250(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	69.00	0.900
Total Area Entered = 22.90(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

69.0 69.0 0.373 0.900 0.071 1.000 0.071
 Sum (F) = 0.071

Area averaged mean soil loss (F) (In/Hr) = 0.071
 Minimum soil loss rate ((In/Hr)) = 0.035
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.200

Slope of intensity-duration curve for a 1 hour storm =0.4800

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	216.593	46.128
2	0.167	433.186	42.226
3	0.250	649.779	8.160
4	0.333	866.372	3.486
		Sum = 100.000	Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)	
1	0.08	4.40	0.660	0.071	(0.132)	0.589
2	0.17	4.50	0.675	0.071	(0.135)	0.604
3	0.25	5.40	0.810	0.071	(0.162)	0.739
4	0.33	5.40	0.810	0.071	(0.162)	0.739
5	0.42	5.70	0.855	0.071	(0.171)	0.784
6	0.50	6.40	0.960	0.071	(0.192)	0.889
7	0.58	7.90	1.185	0.071	(0.237)	1.114
8	0.67	9.10	1.365	0.071	(0.273)	1.294
9	0.75	12.80	1.920	0.071	(0.384)	1.849
10	0.83	25.60	3.839	0.071	(0.768)	3.768
11	0.92	7.90	1.185	0.071	(0.237)	1.114
12	1.00	4.90	0.735	0.071	(0.147)	0.664

(Loss Rate Not Used)
 Sum = 100.0 Sum = 14.1

Flood volume = Effective rainfall 1.18(In)
 times area 22.9(Ac.)/[In]/(Ft.)] = 2.2(Ac.Ft)
 Total soil loss = 0.07(In)
 Total soil loss = 0.135(Ac.Ft)
 Total rainfall = 1.25(In)
 Flood volume = 97999.1 Cubic Feet
 Total soil loss = 5888.1 Cubic Feet

Peak flow rate of this hydrograph = 61.499(CFS)

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1 - H O U R S T O R M
 R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	17.5	35.0	52.5	70.0
0+ 5	0.0432	6.27	V	Q			
0+10	0.1271	12.18		V	Q		
0+15	0.2295	14.87			V	Q	
0+20	0.3444	16.69				V	Q
0+25	0.4645	17.43					VQ
0+30	0.5960	19.10					Q
0+35	0.7517	22.60					QV
0+40	0.9373	26.95					QV
0+45	1.1792	35.12					Q
0+50	1.6028	61.50					V
0+55	1.9687	53.13					Q

1+ 0	2.1513	26.52				Q						V	
1+ 5	2.2313	11.61				Q						V	
1+10	2.2461	2.15		Q								V	
1+15	2.2498	0.53		Q								V	

PROPOSED CONDITION
100-YEAR, 3-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

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Study date 01/11/22 File: ONSITEPROPEAST3100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
PROPOSED CONDITION, 100-YEAR
FN: ONSITEPROPEAST, ABE, 2022-01-11

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1113.00(Ft.)
Length along longest watercourse measured to centroid = 480.00(Ft.)
Length along longest watercourse = 0.211 Mi.
Length along longest watercourse measured to centroid = 0.091 Mi.
Difference in elevation = 10.00(Ft.)
Slope along watercourse = 47.4394 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.038 Hr.
Lag time = 2.31 Min.
25% of lag time = 0.58 Min.
40% of lag time = 0.92 Min.
Unit time = 5.00 Min.
Duration of storm = 3 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	0.80	18.32

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.90	43.51

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.800(In)
Area Averaged 100-Year Rainfall = 1.900(In)

Point rain (area averaged) = 1.900(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 1.900(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	69.00	0.900
Total Area Entered = 22.90(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

69.0 69.0 0.373 0.900 0.071 1.000 0.071
 Sum (F) = 0.071
 Area averaged mean soil loss (F) (In/Hr) = 0.071
 Minimum soil loss rate ((In/Hr)) = 0.035
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.200

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	216.593	10.646
2	0.167	433.186	9.745
3	0.250	649.779	1.883
4	0.333	866.372	0.805
		Sum = 100.000	Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr)		Effective (In/Hr)
			Max	Low	
1	0.08	1.30	(0.071)	0.059	0.237
2	0.17	1.30	(0.071)	0.059	0.237
3	0.25	1.10	(0.071)	0.050	0.201
4	0.33	1.50	(0.071)	0.068	0.274
5	0.42	1.50	(0.071)	0.068	0.274
6	0.50	1.80	0.071	(0.082)	0.340
7	0.58	1.50	(0.071)	0.068	0.274
8	0.67	1.80	0.071	(0.082)	0.340
9	0.75	1.80	0.071	(0.082)	0.340
10	0.83	1.50	(0.071)	0.068	0.274
11	0.92	1.60	0.071	(0.073)	0.294
12	1.00	1.80	0.071	(0.082)	0.340
13	1.08	2.20	0.071	(0.100)	0.431
14	1.17	2.20	0.071	(0.100)	0.431
15	1.25	2.20	0.071	(0.100)	0.431
16	1.33	2.00	0.071	(0.091)	0.385
17	1.42	2.60	0.071	(0.119)	0.522
18	1.50	2.70	0.071	(0.123)	0.545
19	1.58	2.40	0.071	(0.109)	0.476
20	1.67	2.70	0.071	(0.123)	0.545
21	1.75	3.30	0.071	(0.150)	0.681
22	1.83	3.10	0.071	(0.141)	0.636
23	1.92	2.90	0.071	(0.132)	0.590
24	2.00	3.00	0.071	(0.137)	0.613
25	2.08	3.10	0.071	(0.141)	0.636
26	2.17	4.20	0.071	(0.192)	0.887
27	2.25	5.00	0.071	(0.228)	1.069
28	2.33	3.50	0.071	(0.160)	0.727
29	2.42	6.80	0.071	(0.310)	1.479
30	2.50	7.30	0.071	(0.333)	1.593
31	2.58	8.20	0.071	(0.374)	1.799
32	2.67	5.90	0.071	(0.269)	1.274
33	2.75	2.00	0.071	(0.091)	0.385
34	2.83	1.80	0.071	(0.082)	0.340
35	2.92	1.80	0.071	(0.082)	0.340
36	3.00	0.60	(0.071)	0.027	0.109

(Loss Rate Not Used)
 Sum = 100.0 Sum = 20.3
 Flood volume = Effective rainfall 1.70(In)
 times area 22.9(Ac.)/[(In)/(Ft.)] = 3.2(Ac.Ft)
 Total soil loss = 0.20(In)
 Total soil loss = 0.390(Ac.Ft)
 Total rainfall = 1.90(In)
 Flood volume = 140933.4 Cubic Feet
 Total soil loss = 16992.1 Cubic Feet

Peak flow rate of this hydrograph = 38.066(CFS)

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3 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	10.0	20.0	30.0	40.0
0+ 5	0.0174	2.53	V Q				
0+10	0.0507	4.84	V Q				
0+15	0.0844	4.90	V Q				
0+20	0.1224	5.51	V Q				
0+25	0.1647	6.15	V Q				
0+30	0.2126	6.96	V Q				
0+35	0.2606	6.96	V Q				
0+40	0.3098	7.14	V Q				
0+45	0.3629	7.72	V Q				
0+50	0.4117	7.08	V Q				
0+55	0.4579	6.71	VQ				
1+ 0	0.5080	7.27	VQ				
1+ 5	0.5677	8.67	VQ				
1+10	0.6343	9.66	V Q				
1+15	0.7023	9.87	VQ				
1+20	0.7674	9.46	Q				
1+25	0.8396	10.47	Q				
1+30	0.9219	11.96	Q				
1+35	1.0024	11.68	QV				
1+40	1.0843	11.89	Q V				
1+45	1.1800	13.91	QV				
1+50	1.2822	14.83	Q V				
1+55	1.3800	14.21	Q V				
2+ 0	1.4767	14.03	Q V				
2+ 5	1.5757	14.38	Q V				
2+10	1.6947	17.27	Q V				
2+15	1.8443	21.72	Q V				
2+20	1.9844	20.35	Q V				
2+25	2.1606	25.58	Q V				
2+30	2.3921	33.63	Q V				
2+35	2.6543	38.07	Q V				
2+40	2.8974	35.30	Q V				
2+45	3.0434	21.20	Q V				
2+50	3.1207	11.22	Q				
2+55	3.1805	8.68	Q				
3+ 0	3.2178	5.43	Q				
3+ 5	3.2315	1.98	Q				
3+10	3.2348	0.48	Q				
3+15	3.2354	0.09	Q				

PROPOSED CONDITION
100-YEAR, 6-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

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Study date 01/11/22 File: ONSITEPROPEAST6100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
PROPOSED CONDITION, 100-YEAR
FN: ONSITEPROPEAST, ABE, 2022-01-11

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1113.00(Ft.)
Length along longest watercourse measured to centroid = 480.00(Ft.)
Length along longest watercourse = 0.211 Mi.
Length along longest watercourse measured to centroid = 0.091 Mi.
Difference in elevation = 10.00(Ft.)
Slope along watercourse = 47.4394 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.038 Hr.
Lag time = 2.31 Min.
25% of lag time = 0.58 Min.
40% of lag time = 0.92 Min.
Unit time = 5.00 Min.
Duration of storm = 6 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.10	25.19

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	2.50	57.25

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 1.100(In)
Area Averaged 100-Year Rainfall = 2.500(In)

Point rain (area averaged) = 2.500(In)
Areal adjustment factor = 99.99 %
Adjusted average point rain = 2.500(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	69.00	0.900
Total Area Entered = 22.90(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

69.0 69.0 0.373 0.900 0.071 1.000 0.071
 Sum (F) = 0.071
 Area averaged mean soil loss (F) (In/Hr) = 0.071
 Minimum soil loss rate ((In/Hr)) = 0.035
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.200

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	216.593	10.646
2	0.167	433.186	9.745
3	0.250	649.779	1.883
4	0.333	866.372	0.805
		Sum = 100.000	Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr)		Effective (In/Hr)
				Max	Low	
1	0.08	0.50	0.150	(0.071)	0.030	0.120
2	0.17	0.60	0.180	(0.071)	0.036	0.144
3	0.25	0.60	0.180	(0.071)	0.036	0.144
4	0.33	0.60	0.180	(0.071)	0.036	0.144
5	0.42	0.60	0.180	(0.071)	0.036	0.144
6	0.50	0.70	0.210	(0.071)	0.042	0.168
7	0.58	0.70	0.210	(0.071)	0.042	0.168
8	0.67	0.70	0.210	(0.071)	0.042	0.168
9	0.75	0.70	0.210	(0.071)	0.042	0.168
10	0.83	0.70	0.210	(0.071)	0.042	0.168
11	0.92	0.70	0.210	(0.071)	0.042	0.168
12	1.00	0.80	0.240	(0.071)	0.048	0.192
13	1.08	0.80	0.240	(0.071)	0.048	0.192
14	1.17	0.80	0.240	(0.071)	0.048	0.192
15	1.25	0.80	0.240	(0.071)	0.048	0.192
16	1.33	0.80	0.240	(0.071)	0.048	0.192
17	1.42	0.80	0.240	(0.071)	0.048	0.192
18	1.50	0.80	0.240	(0.071)	0.048	0.192
19	1.58	0.80	0.240	(0.071)	0.048	0.192
20	1.67	0.80	0.240	(0.071)	0.048	0.192
21	1.75	0.80	0.240	(0.071)	0.048	0.192
22	1.83	0.80	0.240	(0.071)	0.048	0.192
23	1.92	0.80	0.240	(0.071)	0.048	0.192
24	2.00	0.90	0.270	(0.071)	0.054	0.216
25	2.08	0.80	0.240	(0.071)	0.048	0.192
26	2.17	0.90	0.270	(0.071)	0.054	0.216
27	2.25	0.90	0.270	(0.071)	0.054	0.216
28	2.33	0.90	0.270	(0.071)	0.054	0.216
29	2.42	0.90	0.270	(0.071)	0.054	0.216
30	2.50	0.90	0.270	(0.071)	0.054	0.216
31	2.58	0.90	0.270	(0.071)	0.054	0.216
32	2.67	0.90	0.270	(0.071)	0.054	0.216
33	2.75	1.00	0.300	(0.071)	0.060	0.240
34	2.83	1.00	0.300	(0.071)	0.060	0.240
35	2.92	1.00	0.300	(0.071)	0.060	0.240
36	3.00	1.00	0.300	(0.071)	0.060	0.240
37	3.08	1.00	0.300	(0.071)	0.060	0.240
38	3.17	1.10	0.330	(0.071)	0.066	0.264
39	3.25	1.10	0.330	(0.071)	0.066	0.264
40	3.33	1.10	0.330	(0.071)	0.066	0.264
41	3.42	1.20	0.360	(0.071)	(0.072)	0.289
42	3.50	1.30	0.390	0.071	(0.078)	0.319
43	3.58	1.40	0.420	0.071	(0.084)	0.349
44	3.67	1.40	0.420	0.071	(0.084)	0.349
45	3.75	1.50	0.450	0.071	(0.090)	0.379
46	3.83	1.50	0.450	0.071	(0.090)	0.379

2+25	0.8159	4.99	Q	V				
2+30	0.8502	4.99	Q	V				
2+35	0.8846	4.99	Q	V				
2+40	0.9189	4.99	Q	V				
2+45	0.9550	5.24	Q	V				
2+50	0.9928	5.48	Q	V				
2+55	1.0308	5.52	Q	V				
3+ 0	1.0690	5.54	Q	V				
3+ 5	1.1071	5.54	Q	V				
3+10	1.1471	5.80	Q	V				
3+15	1.1886	6.03	Q	V				
3+20	1.2304	6.08	Q	V				
3+25	1.2743	6.36	Q	V				
3+30	1.3220	6.93	Q	V				
3+35	1.3742	7.59	Q	V				
3+40	1.4290	7.96	Q	V				
3+45	1.4866	8.36	Q	V				
3+50	1.5463	8.67	Q	V				
3+55	1.6087	9.05	Q	V				
4+ 0	1.6732	9.37	Q	V				
4+ 5	1.7403	9.74	Q	V				
4+10	1.8117	10.38	Q	V				
4+15	1.8878	11.05	Q	V				
4+20	1.9687	11.74	Q	V				
4+25	2.0543	12.43	Q	V				
4+30	2.1425	12.81	Q	V				
4+35	2.2334	13.21	Q	V				
4+40	2.3288	13.84	Q	V				
4+45	2.4287	14.51	Q	V				
4+50	2.5312	14.88	Q	V				
4+55	2.6365	15.28	Q	V				
5+ 0	2.7461	15.92	Q	V				
5+ 5	2.8692	17.87	Q	V				
5+10	3.0138	21.01	Q	V				
5+15	3.1773	23.74	Q	V				
5+20	3.3562	25.97	Q	V				
5+25	3.5541	28.74	Q	V				
5+30	3.7836	33.32	Q	V				
5+35	3.9522	24.49	Q	V				
5+40	4.0299	11.28	Q	V				
5+45	4.0704	5.88	Q	V				
5+50	4.0944	3.49	Q	V				
5+55	4.1108	2.38	Q	V				
6+ 0	4.1215	1.56	Q	V				
6+ 5	4.1263	0.70	Q	V				
6+10	4.1274	0.15	Q	V				
6+15	4.1276	0.04	Q	V				

PROPOSED CONDITION
100-YEAR, 24-HOUR UNIT HYDROGRAPH

Unit Hydrograph Analysis

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Study date 01/11/22 File: ONSITEPROPEAST24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 4010

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

21-0235 - MC BLACKACRE PERRIS AIRPORT SITE
ONSITE UNIT HYDROGRAPH ANALYSIS
PROPOSED CONDITION, 100-YEAR
FN: ONSITEPROPEAST, ABE, 2022-01-11

Drainage Area = 22.90(Ac.) = 0.036 Sq. Mi.
Drainage Area for Depth-Area Area Adjustment = 22.90(Ac.) = 0.036 Sq. Mi.
Length along longest watercourse = 1113.00(Ft.)
Length along longest watercourse measured to centroid = 480.00(Ft.)
Length along longest watercourse = 0.211 Mi.
Length along longest watercourse measured to centroid = 0.091 Mi.
Difference in elevation = 10.00(Ft.)
Slope along watercourse = 47.4394 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.038 Hr.
Lag time = 2.31 Min.
25% of lag time = 0.58 Min.
40% of lag time = 0.92 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	1.80	41.22

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	weighting[1*2]
22.90	5.00	114.50

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 1.800(In)
Area Averaged 100-Year Rainfall = 5.000(In)

Point rain (area averaged) = 5.000(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 5.000(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
22.900	69.00	0.900
Total Area Entered = 22.90(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-2	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)

69.0 69.0 0.373 0.900 0.071 1.000 0.071
 Sum (F) = 0.071
 Area averaged mean soil loss (F) (In/Hr) = 0.071
 Minimum soil loss rate ((In/Hr)) = 0.035
 (for 24 hour storm duration)
 Soil low loss rate (decimal) = 0.200

Unit Hydrograph
 VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	216.593	46.128
2	0.167	433.186	42.226
3	0.250	649.779	8.160
4	0.333	866.372	3.486
		Sum = 100.000	Sum= 23.079

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr)		Effective (In/Hr)
			Max	Low	
1	0.08	0.07	(0.126)	0.008	0.032
2	0.17	0.07	(0.125)	0.008	0.032
3	0.25	0.07	(0.125)	0.008	0.032
4	0.33	0.10	(0.124)	0.012	0.048
5	0.42	0.10	(0.124)	0.012	0.048
6	0.50	0.10	(0.123)	0.012	0.048
7	0.58	0.10	(0.123)	0.012	0.048
8	0.67	0.10	(0.122)	0.012	0.048
9	0.75	0.10	(0.122)	0.012	0.048
10	0.83	0.13	(0.121)	0.016	0.064
11	0.92	0.13	(0.121)	0.016	0.064
12	1.00	0.13	(0.120)	0.016	0.064
13	1.08	0.10	(0.120)	0.012	0.048
14	1.17	0.10	(0.119)	0.012	0.048
15	1.25	0.10	(0.119)	0.012	0.048
16	1.33	0.10	(0.118)	0.012	0.048
17	1.42	0.10	(0.118)	0.012	0.048
18	1.50	0.10	(0.117)	0.012	0.048
19	1.58	0.10	(0.117)	0.012	0.048
20	1.67	0.10	(0.117)	0.012	0.048
21	1.75	0.10	(0.116)	0.012	0.048
22	1.83	0.13	(0.116)	0.016	0.064
23	1.92	0.13	(0.115)	0.016	0.064
24	2.00	0.13	(0.115)	0.016	0.064
25	2.08	0.13	(0.114)	0.016	0.064
26	2.17	0.13	(0.114)	0.016	0.064
27	2.25	0.13	(0.113)	0.016	0.064
28	2.33	0.13	(0.113)	0.016	0.064
29	2.42	0.13	(0.112)	0.016	0.064
30	2.50	0.13	(0.112)	0.016	0.064
31	2.58	0.17	(0.111)	0.020	0.080
32	2.67	0.17	(0.111)	0.020	0.080
33	2.75	0.17	(0.110)	0.020	0.080
34	2.83	0.17	(0.110)	0.020	0.080
35	2.92	0.17	(0.110)	0.020	0.080
36	3.00	0.17	(0.109)	0.020	0.080
37	3.08	0.17	(0.109)	0.020	0.080
38	3.17	0.17	(0.108)	0.020	0.080
39	3.25	0.17	(0.108)	0.020	0.080
40	3.33	0.17	(0.107)	0.020	0.080
41	3.42	0.17	(0.107)	0.020	0.080
42	3.50	0.17	(0.106)	0.020	0.080
43	3.58	0.17	(0.106)	0.020	0.080
44	3.67	0.17	(0.106)	0.020	0.080
45	3.75	0.17	(0.105)	0.020	0.080
46	3.83	0.20	(0.105)	0.024	0.096

47	3.92	0.20	0.120	(0.104)	0.024	0.096
48	4.00	0.20	0.120	(0.104)	0.024	0.096
49	4.08	0.20	0.120	(0.103)	0.024	0.096
50	4.17	0.20	0.120	(0.103)	0.024	0.096
51	4.25	0.20	0.120	(0.102)	0.024	0.096
52	4.33	0.23	0.140	(0.102)	0.028	0.112
53	4.42	0.23	0.140	(0.102)	0.028	0.112
54	4.50	0.23	0.140	(0.101)	0.028	0.112
55	4.58	0.23	0.140	(0.101)	0.028	0.112
56	4.67	0.23	0.140	(0.100)	0.028	0.112
57	4.75	0.23	0.140	(0.100)	0.028	0.112
58	4.83	0.27	0.160	(0.099)	0.032	0.128
59	4.92	0.27	0.160	(0.099)	0.032	0.128
60	5.00	0.27	0.160	(0.099)	0.032	0.128
61	5.08	0.20	0.120	(0.098)	0.024	0.096
62	5.17	0.20	0.120	(0.098)	0.024	0.096
63	5.25	0.20	0.120	(0.097)	0.024	0.096
64	5.33	0.23	0.140	(0.097)	0.028	0.112
65	5.42	0.23	0.140	(0.096)	0.028	0.112
66	5.50	0.23	0.140	(0.096)	0.028	0.112
67	5.58	0.27	0.160	(0.096)	0.032	0.128
68	5.67	0.27	0.160	(0.095)	0.032	0.128
69	5.75	0.27	0.160	(0.095)	0.032	0.128
70	5.83	0.27	0.160	(0.094)	0.032	0.128
71	5.92	0.27	0.160	(0.094)	0.032	0.128
72	6.00	0.27	0.160	(0.093)	0.032	0.128
73	6.08	0.30	0.180	(0.093)	0.036	0.144
74	6.17	0.30	0.180	(0.093)	0.036	0.144
75	6.25	0.30	0.180	(0.092)	0.036	0.144
76	6.33	0.30	0.180	(0.092)	0.036	0.144
77	6.42	0.30	0.180	(0.091)	0.036	0.144
78	6.50	0.30	0.180	(0.091)	0.036	0.144
79	6.58	0.33	0.200	(0.091)	0.040	0.160
80	6.67	0.33	0.200	(0.090)	0.040	0.160
81	6.75	0.33	0.200	(0.090)	0.040	0.160
82	6.83	0.33	0.200	(0.089)	0.040	0.160
83	6.92	0.33	0.200	(0.089)	0.040	0.160
84	7.00	0.33	0.200	(0.089)	0.040	0.160
85	7.08	0.33	0.200	(0.088)	0.040	0.160
86	7.17	0.33	0.200	(0.088)	0.040	0.160
87	7.25	0.33	0.200	(0.087)	0.040	0.160
88	7.33	0.37	0.220	(0.087)	0.044	0.176
89	7.42	0.37	0.220	(0.087)	0.044	0.176
90	7.50	0.37	0.220	(0.086)	0.044	0.176
91	7.58	0.40	0.240	(0.086)	0.048	0.192
92	7.67	0.40	0.240	(0.085)	0.048	0.192
93	7.75	0.40	0.240	(0.085)	0.048	0.192
94	7.83	0.43	0.260	(0.085)	0.052	0.208
95	7.92	0.43	0.260	(0.084)	0.052	0.208
96	8.00	0.43	0.260	(0.084)	0.052	0.208
97	8.08	0.50	0.300	(0.083)	0.060	0.240
98	8.17	0.50	0.300	(0.083)	0.060	0.240
99	8.25	0.50	0.300	(0.083)	0.060	0.240
100	8.33	0.50	0.300	(0.082)	0.060	0.240
101	8.42	0.50	0.300	(0.082)	0.060	0.240
102	8.50	0.50	0.300	(0.082)	0.060	0.240
103	8.58	0.53	0.320	(0.081)	0.064	0.256
104	8.67	0.53	0.320	(0.081)	0.064	0.256
105	8.75	0.53	0.320	(0.080)	0.064	0.256
106	8.83	0.57	0.340	(0.080)	0.068	0.272
107	8.92	0.57	0.340	(0.080)	0.068	0.272
108	9.00	0.57	0.340	(0.079)	0.068	0.272
109	9.08	0.63	0.380	(0.079)	0.076	0.304
110	9.17	0.63	0.380	(0.078)	0.076	0.304
111	9.25	0.63	0.380	(0.078)	0.076	0.304
112	9.33	0.67	0.400	0.078 (0.080)		0.322
113	9.42	0.67	0.400	0.077 (0.080)		0.323
114	9.50	0.67	0.400	0.077 (0.080)		0.323
115	9.58	0.70	0.420	0.077 (0.084)		0.343
116	9.67	0.70	0.420	0.076 (0.084)		0.344
117	9.75	0.70	0.420	0.076 (0.084)		0.344
118	9.83	0.73	0.440	0.076 (0.088)		0.364
119	9.92	0.73	0.440	0.075 (0.088)		0.365
120	10.00	0.73	0.440	0.075 (0.088)		0.365
121	10.08	0.50	0.300	(0.074)	0.060	0.240

122	10.17	0.50	0.300	(0.074)	0.060	0.240
123	10.25	0.50	0.300	(0.074)	0.060	0.240
124	10.33	0.50	0.300	(0.073)	0.060	0.240
125	10.42	0.50	0.300	(0.073)	0.060	0.240
126	10.50	0.50	0.300	(0.073)	0.060	0.240
127	10.58	0.67	0.400	0.072	(0.080)	0.328
128	10.67	0.67	0.400	0.072	(0.080)	0.328
129	10.75	0.67	0.400	0.072	(0.080)	0.328
130	10.83	0.67	0.400	0.071	(0.080)	0.329
131	10.92	0.67	0.400	0.071	(0.080)	0.329
132	11.00	0.67	0.400	0.071	(0.080)	0.329
133	11.08	0.63	0.380	0.070	(0.076)	0.310
134	11.17	0.63	0.380	0.070	(0.076)	0.310
135	11.25	0.63	0.380	0.069	(0.076)	0.310
136	11.33	0.63	0.380	0.069	(0.076)	0.311
137	11.42	0.63	0.380	0.069	(0.076)	0.311
138	11.50	0.63	0.380	0.068	(0.076)	0.312
139	11.58	0.57	0.340	(0.068)	0.068	0.272
140	11.67	0.57	0.340	0.068	(0.068)	0.272
141	11.75	0.57	0.340	0.067	(0.068)	0.273
142	11.83	0.60	0.360	0.067	(0.072)	0.293
143	11.92	0.60	0.360	0.067	(0.072)	0.293
144	12.00	0.60	0.360	0.066	(0.072)	0.294
145	12.08	0.83	0.500	0.066	(0.100)	0.434
146	12.17	0.83	0.500	0.066	(0.100)	0.434
147	12.25	0.83	0.500	0.065	(0.100)	0.435
148	12.33	0.87	0.520	0.065	(0.104)	0.455
149	12.42	0.87	0.520	0.065	(0.104)	0.455
150	12.50	0.87	0.520	0.064	(0.104)	0.455
151	12.58	0.93	0.560	0.064	(0.112)	0.496
152	12.67	0.93	0.560	0.064	(0.112)	0.496
153	12.75	0.93	0.560	0.064	(0.112)	0.496
154	12.83	0.97	0.580	0.063	(0.116)	0.517
155	12.92	0.97	0.580	0.063	(0.116)	0.517
156	13.00	0.97	0.580	0.063	(0.116)	0.517
157	13.08	1.13	0.680	0.062	(0.136)	0.618
158	13.17	1.13	0.680	0.062	(0.136)	0.618
159	13.25	1.13	0.680	0.062	(0.136)	0.618
160	13.33	1.13	0.680	0.061	(0.136)	0.619
161	13.42	1.13	0.680	0.061	(0.136)	0.619
162	13.50	1.13	0.680	0.061	(0.136)	0.619
163	13.58	0.77	0.460	0.060	(0.092)	0.400
164	13.67	0.77	0.460	0.060	(0.092)	0.400
165	13.75	0.77	0.460	0.060	(0.092)	0.400
166	13.83	0.77	0.460	0.059	(0.092)	0.401
167	13.92	0.77	0.460	0.059	(0.092)	0.401
168	14.00	0.77	0.460	0.059	(0.092)	0.401
169	14.08	0.90	0.540	0.059	(0.108)	0.481
170	14.17	0.90	0.540	0.058	(0.108)	0.482
171	14.25	0.90	0.540	0.058	(0.108)	0.482
172	14.33	0.87	0.520	0.058	(0.104)	0.462
173	14.42	0.87	0.520	0.057	(0.104)	0.463
174	14.50	0.87	0.520	0.057	(0.104)	0.463
175	14.58	0.87	0.520	0.057	(0.104)	0.463
176	14.67	0.87	0.520	0.056	(0.104)	0.464
177	14.75	0.87	0.520	0.056	(0.104)	0.464
178	14.83	0.83	0.500	0.056	(0.100)	0.444
179	14.92	0.83	0.500	0.056	(0.100)	0.444
180	15.00	0.83	0.500	0.055	(0.100)	0.445
181	15.08	0.80	0.480	0.055	(0.096)	0.425
182	15.17	0.80	0.480	0.055	(0.096)	0.425
183	15.25	0.80	0.480	0.054	(0.096)	0.426
184	15.33	0.77	0.460	0.054	(0.092)	0.406
185	15.42	0.77	0.460	0.054	(0.092)	0.406
186	15.50	0.77	0.460	0.054	(0.092)	0.406
187	15.58	0.63	0.380	0.053	(0.076)	0.327
188	15.67	0.63	0.380	0.053	(0.076)	0.327
189	15.75	0.63	0.380	0.053	(0.076)	0.327
190	15.83	0.63	0.380	0.053	(0.076)	0.327
191	15.92	0.63	0.380	0.052	(0.076)	0.328
192	16.00	0.63	0.380	0.052	(0.076)	0.328
193	16.08	0.13	0.080	(0.052)	0.016	0.064
194	16.17	0.13	0.080	(0.051)	0.016	0.064
195	16.25	0.13	0.080	(0.051)	0.016	0.064
196	16.33	0.13	0.080	(0.051)	0.016	0.064

197	16.42	0.13	0.080	(0.051)	0.016	0.064
198	16.50	0.13	0.080	(0.050)	0.016	0.064
199	16.58	0.10	0.060	(0.050)	0.012	0.048
200	16.67	0.10	0.060	(0.050)	0.012	0.048
201	16.75	0.10	0.060	(0.050)	0.012	0.048
202	16.83	0.10	0.060	(0.049)	0.012	0.048
203	16.92	0.10	0.060	(0.049)	0.012	0.048
204	17.00	0.10	0.060	(0.049)	0.012	0.048
205	17.08	0.17	0.100	(0.049)	0.020	0.080
206	17.17	0.17	0.100	(0.048)	0.020	0.080
207	17.25	0.17	0.100	(0.048)	0.020	0.080
208	17.33	0.17	0.100	(0.048)	0.020	0.080
209	17.42	0.17	0.100	(0.048)	0.020	0.080
210	17.50	0.17	0.100	(0.047)	0.020	0.080
211	17.58	0.17	0.100	(0.047)	0.020	0.080
212	17.67	0.17	0.100	(0.047)	0.020	0.080
213	17.75	0.17	0.100	(0.047)	0.020	0.080
214	17.83	0.13	0.080	(0.047)	0.016	0.064
215	17.92	0.13	0.080	(0.046)	0.016	0.064
216	18.00	0.13	0.080	(0.046)	0.016	0.064
217	18.08	0.13	0.080	(0.046)	0.016	0.064
218	18.17	0.13	0.080	(0.046)	0.016	0.064
219	18.25	0.13	0.080	(0.045)	0.016	0.064
220	18.33	0.13	0.080	(0.045)	0.016	0.064
221	18.42	0.13	0.080	(0.045)	0.016	0.064
222	18.50	0.13	0.080	(0.045)	0.016	0.064
223	18.58	0.10	0.060	(0.045)	0.012	0.048
224	18.67	0.10	0.060	(0.044)	0.012	0.048
225	18.75	0.10	0.060	(0.044)	0.012	0.048
226	18.83	0.07	0.040	(0.044)	0.008	0.032
227	18.92	0.07	0.040	(0.044)	0.008	0.032
228	19.00	0.07	0.040	(0.043)	0.008	0.032
229	19.08	0.10	0.060	(0.043)	0.012	0.048
230	19.17	0.10	0.060	(0.043)	0.012	0.048
231	19.25	0.10	0.060	(0.043)	0.012	0.048
232	19.33	0.13	0.080	(0.043)	0.016	0.064
233	19.42	0.13	0.080	(0.042)	0.016	0.064
234	19.50	0.13	0.080	(0.042)	0.016	0.064
235	19.58	0.10	0.060	(0.042)	0.012	0.048
236	19.67	0.10	0.060	(0.042)	0.012	0.048
237	19.75	0.10	0.060	(0.042)	0.012	0.048
238	19.83	0.07	0.040	(0.041)	0.008	0.032
239	19.92	0.07	0.040	(0.041)	0.008	0.032
240	20.00	0.07	0.040	(0.041)	0.008	0.032
241	20.08	0.10	0.060	(0.041)	0.012	0.048
242	20.17	0.10	0.060	(0.041)	0.012	0.048
243	20.25	0.10	0.060	(0.041)	0.012	0.048
244	20.33	0.10	0.060	(0.040)	0.012	0.048
245	20.42	0.10	0.060	(0.040)	0.012	0.048
246	20.50	0.10	0.060	(0.040)	0.012	0.048
247	20.58	0.10	0.060	(0.040)	0.012	0.048
248	20.67	0.10	0.060	(0.040)	0.012	0.048
249	20.75	0.10	0.060	(0.040)	0.012	0.048
250	20.83	0.07	0.040	(0.039)	0.008	0.032
251	20.92	0.07	0.040	(0.039)	0.008	0.032
252	21.00	0.07	0.040	(0.039)	0.008	0.032
253	21.08	0.10	0.060	(0.039)	0.012	0.048
254	21.17	0.10	0.060	(0.039)	0.012	0.048
255	21.25	0.10	0.060	(0.039)	0.012	0.048
256	21.33	0.07	0.040	(0.038)	0.008	0.032
257	21.42	0.07	0.040	(0.038)	0.008	0.032
258	21.50	0.07	0.040	(0.038)	0.008	0.032
259	21.58	0.10	0.060	(0.038)	0.012	0.048
260	21.67	0.10	0.060	(0.038)	0.012	0.048
261	21.75	0.10	0.060	(0.038)	0.012	0.048
262	21.83	0.07	0.040	(0.038)	0.008	0.032
263	21.92	0.07	0.040	(0.038)	0.008	0.032
264	22.00	0.07	0.040	(0.037)	0.008	0.032
265	22.08	0.10	0.060	(0.037)	0.012	0.048
266	22.17	0.10	0.060	(0.037)	0.012	0.048
267	22.25	0.10	0.060	(0.037)	0.012	0.048
268	22.33	0.07	0.040	(0.037)	0.008	0.032
269	22.42	0.07	0.040	(0.037)	0.008	0.032
270	22.50	0.07	0.040	(0.037)	0.008	0.032
271	22.58	0.07	0.040	(0.037)	0.008	0.032

272	22.67	0.07	0.040	(0.036)	0.008	0.032
273	22.75	0.07	0.040	(0.036)	0.008	0.032
274	22.83	0.07	0.040	(0.036)	0.008	0.032
275	22.92	0.07	0.040	(0.036)	0.008	0.032
276	23.00	0.07	0.040	(0.036)	0.008	0.032
277	23.08	0.07	0.040	(0.036)	0.008	0.032
278	23.17	0.07	0.040	(0.036)	0.008	0.032
279	23.25	0.07	0.040	(0.036)	0.008	0.032
280	23.33	0.07	0.040	(0.036)	0.008	0.032
281	23.42	0.07	0.040	(0.036)	0.008	0.032
282	23.50	0.07	0.040	(0.036)	0.008	0.032
283	23.58	0.07	0.040	(0.036)	0.008	0.032
284	23.67	0.07	0.040	(0.036)	0.008	0.032
285	23.75	0.07	0.040	(0.036)	0.008	0.032
286	23.83	0.07	0.040	(0.035)	0.008	0.032
287	23.92	0.07	0.040	(0.035)	0.008	0.032
288	24.00	0.07	0.040	(0.035)	0.008	0.032

(Loss Rate Not Used)

Sum = 100.0 Sum = 50.3

Flood volume = Effective rainfall 4.19(In)
times area 22.9(Ac.)/[(In)/(Ft.)] = 8.0(Ac.Ft)
Total soil loss = 0.81(In)
Total soil loss = 1.545(Ac.Ft)
Total rainfall = 5.00(In)
Flood volume = 348328.6 Cubic Feet
Total soil loss = 67287.8 Cubic Feet

Peak flow rate of this hydrograph = 14.295(CFS)

+++++

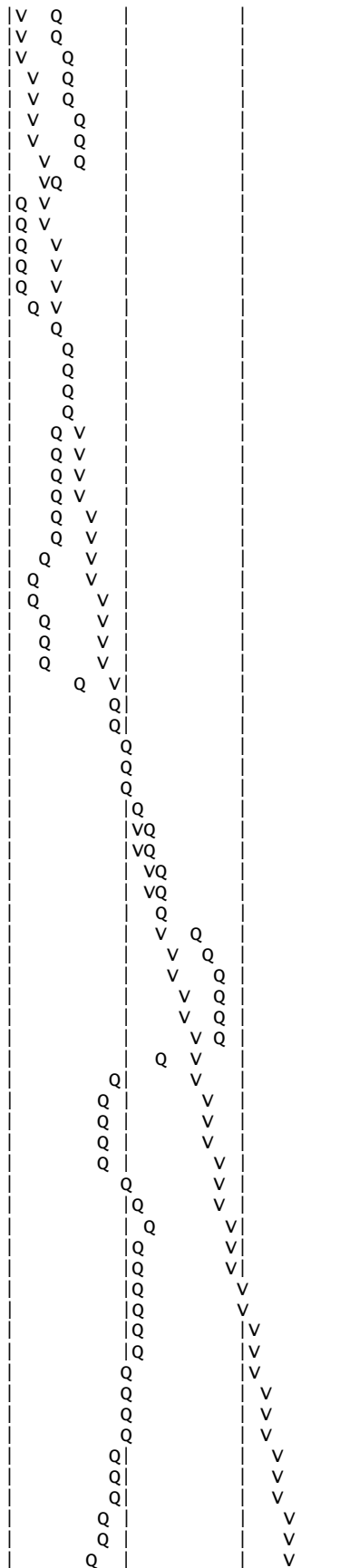
24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	5.0	10.0	15.0	20.0
0+ 5	0.0023	0.34	Q				
0+10	0.0068	0.65	VQ				
0+15	0.0118	0.71	VQ				
0+20	0.0180	0.91	VQ				
0+25	0.0254	1.07	V Q				
0+30	0.0329	1.10	V Q				
0+35	0.0405	1.11	V Q				
0+40	0.0482	1.11	V Q				
0+45	0.0558	1.11	V Q				
0+50	0.0646	1.28	V Q				
0+55	0.0745	1.43	V Q				
1+ 0	0.0846	1.46	V Q				
1+ 5	0.0936	1.31	V Q				
1+10	0.1015	1.15	V Q				
1+15	0.1092	1.12	V Q				
1+20	0.1169	1.11	V Q				
1+25	0.1245	1.11	V Q				
1+30	0.1321	1.11	V Q				
1+35	0.1398	1.11	V Q				
1+40	0.1474	1.11	V Q				
1+45	0.1550	1.11	V Q				
1+50	0.1638	1.28	V Q				
1+55	0.1737	1.43	V Q				
2+ 0	0.1838	1.46	V Q				
2+ 5	0.1940	1.48	V Q				
2+10	0.2042	1.48	VQ				
2+15	0.2143	1.48	VQ				
2+20	0.2245	1.48	VQ				
2+25	0.2347	1.48	VQ				
2+30	0.2449	1.48	VQ				
2+35	0.2562	1.65	V Q				
2+40	0.2686	1.80	V Q				
2+45	0.2813	1.83	V Q				
2+50	0.2940	1.85	V Q				
2+55	0.3067	1.85	V Q				
3+ 0	0.3194	1.85	V Q				
3+ 5	0.3322	1.85	V Q				

3+10	0.3449	1.85	V Q
3+15	0.3576	1.85	V Q
3+20	0.3703	1.85	V Q
3+25	0.3830	1.85	V Q
3+30	0.3958	1.85	V Q
3+35	0.4085	1.85	VQ
3+40	0.4212	1.85	VQ
3+45	0.4339	1.85	VQ
3+50	0.4478	2.02	V Q
3+55	0.4628	2.17	V Q
4+ 0	0.4780	2.20	V Q
4+ 5	0.4932	2.22	V Q
4+10	0.5085	2.22	V Q
4+15	0.5238	2.22	V Q
4+20	0.5402	2.39	V Q
4+25	0.5577	2.54	V Q
4+30	0.5755	2.57	V Q
4+35	0.5933	2.59	V Q
4+40	0.6111	2.59	V Q
4+45	0.6289	2.59	V Q
4+50	0.6479	2.76	V Q
4+55	0.6679	2.91	V Q
5+ 0	0.6882	2.94	V Q
5+ 5	0.7062	2.61	V Q
5+10	0.7221	2.30	VQ
5+15	0.7375	2.24	VQ
5+20	0.7539	2.39	VQ
5+25	0.7715	2.54	V Q
5+30	0.7892	2.57	V Q
5+35	0.8082	2.76	VQ
5+40	0.8282	2.91	VQ
5+45	0.8485	2.94	VQ
5+50	0.8688	2.96	VQ
5+55	0.8892	2.96	VQ
6+ 0	0.9095	2.96	VQ
6+ 5	0.9311	3.13	V Q
6+10	0.9537	3.28	V Q
6+15	0.9765	3.31	V Q
6+20	0.9994	3.32	V Q
6+25	1.0223	3.32	VQ
6+30	1.0452	3.32	VQ
6+35	1.0693	3.50	VQ
6+40	1.0944	3.65	V Q
6+45	1.1198	3.68	V Q
6+50	1.1452	3.69	V Q
6+55	1.1706	3.69	V Q
7+ 0	1.1961	3.69	V Q
7+ 5	1.2215	3.69	VQ
7+10	1.2470	3.69	VQ
7+15	1.2724	3.69	VQ
7+20	1.2990	3.86	VQ
7+25	1.3267	4.02	V Q
7+30	1.3546	4.05	V Q
7+35	1.3838	4.23	V Q
7+40	1.4140	4.39	VQ
7+45	1.4445	4.42	VQ
7+50	1.4762	4.60	V Q
7+55	1.5090	4.76	V Q
8+ 0	1.5419	4.79	V Q
8+ 5	1.5774	5.14	V Q
8+10	1.6149	5.46	V Q
8+15	1.6529	5.52	V Q
8+20	1.6911	5.54	V Q
8+25	1.7293	5.54	V Q
8+30	1.7674	5.54	V Q
8+35	1.8068	5.71	V Q
8+40	1.8472	5.87	V Q
8+45	1.8878	5.90	V Q
8+50	1.9297	6.08	V Q
8+55	1.9726	6.24	V Q
9+ 0	2.0158	6.27	V Q
9+ 5	2.0614	6.62	V Q
9+10	2.1091	6.93	V Q
9+15	2.1573	6.99	V Q
9+20	2.2070	7.21	V Q

9+25	2.2579	7.40
9+30	2.3092	7.44
9+35	2.3620	7.67
9+40	2.4163	7.88
9+45	2.4708	7.92
9+50	2.5270	8.16
9+55	2.5846	8.36
10+ 0	2.6426	8.41
10+ 5	2.6914	7.10
10+10	2.7319	5.88
10+15	2.7708	5.64
10+20	2.8089	5.54
10+25	2.8471	5.54
10+30	2.8853	5.54
10+35	2.9299	6.48
10+40	2.9804	7.33
10+45	3.0321	7.51
10+50	3.0843	7.59
10+55	3.1366	7.59
11+ 0	3.1890	7.60
11+ 5	3.2399	7.40
11+10	3.2896	7.21
11+15	3.3390	7.18
11+20	3.3884	7.17
11+25	3.4379	7.18
11+30	3.4874	7.19
11+35	3.5340	6.77
11+40	3.5780	6.39
11+45	3.6215	6.32
11+50	3.6663	6.51
11+55	3.7126	6.71
12+ 0	3.7591	6.76
12+ 5	3.8161	8.27
12+10	3.8825	9.64
12+15	3.9508	9.92
12+20	4.0213	10.25
12+25	4.0933	10.45
12+30	4.1656	10.50
12+35	4.2410	10.95
12+40	4.3191	11.34
12+45	4.3978	11.43
12+50	4.4783	11.68
12+55	4.5601	11.88
13+ 0	4.6422	11.93
13+ 5	4.7319	13.02
13+10	4.8283	14.00
13+15	4.9260	14.19
13+20	5.0244	14.28
13+25	5.1228	14.29
13+30	5.2212	14.30
13+35	5.3036	11.96
13+40	5.3712	9.82
13+45	5.4361	9.41
13+50	5.4997	9.24
13+55	5.5634	9.25
14+ 0	5.6272	9.26
14+ 5	5.6969	10.12
14+10	5.7720	10.90
14+15	5.8481	11.06
14+20	5.9233	10.92
14+25	5.9973	10.73
14+30	6.0710	10.70
14+35	6.1446	10.69
14+40	6.2183	10.70
14+45	6.2920	10.70
14+50	6.3643	10.50
14+55	6.4353	10.31
15+ 0	6.5061	10.28
15+ 5	6.5753	10.06
15+10	6.6433	9.87
15+15	6.7111	9.84
15+20	6.7773	9.61
15+25	6.8422	9.43
15+30	6.9069	9.39
15+35	6.9656	8.53



15+40	7.0191	7.76				V
15+45	7.0715	7.61				V
15+50	7.1236	7.56				V
15+55	7.1756	7.56				V
16+ 0	7.2278	7.57				V
16+ 5	7.2606	4.76				V
16+10	7.2756	2.19				V
16+15	7.2873	1.69				V
16+20	7.2974	1.48				V
16+25	7.3076	1.48				V
16+30	7.3178	1.48				V
16+35	7.3268	1.31				V
16+40	7.3347	1.15				V
16+45	7.3425	1.12				V
16+50	7.3501	1.11				V
16+55	7.3577	1.11				V
17+ 0	7.3654	1.11				V
17+ 5	7.3753	1.45				V
17+10	7.3875	1.76				V
17+15	7.4000	1.82				V
17+20	7.4127	1.85				V
17+25	7.4254	1.85				V
17+30	7.4382	1.85				V
17+35	7.4509	1.85				V
17+40	7.4636	1.85				V
17+45	7.4763	1.85				V
17+50	7.4879	1.68				V
17+55	7.4984	1.52				V
18+ 0	7.5086	1.49				V
18+ 5	7.5188	1.48				V
18+10	7.5290	1.48				V
18+15	7.5392	1.48				V
18+20	7.5493	1.48				V
18+25	7.5595	1.48				V
18+30	7.5697	1.48				V
18+35	7.5787	1.31				V
18+40	7.5866	1.15				V
18+45	7.5943	1.12				V
18+50	7.6008	0.94				V
18+55	7.6062	0.78				V
19+ 0	7.6114	0.75				V
19+ 5	7.6176	0.91				V
19+10	7.6250	1.07				V
19+15	7.6325	1.10				V
19+20	7.6413	1.28				V
19+25	7.6512	1.43				V
19+30	7.6613	1.46				V
19+35	7.6703	1.31				V
19+40	7.6782	1.15				V
19+45	7.6859	1.12				V
19+50	7.6924	0.94				V
19+55	7.6978	0.78				V
20+ 0	7.7030	0.75				V
20+ 5	7.7092	0.91				V
20+10	7.7166	1.07				V
20+15	7.7241	1.10				V
20+20	7.7317	1.11				V
20+25	7.7394	1.11				V
20+30	7.7470	1.11				V
20+35	7.7546	1.11				V
20+40	7.7623	1.11				V
20+45	7.7699	1.11				V
20+50	7.7764	0.94				V
20+55	7.7817	0.78				V
21+ 0	7.7869	0.75				V
21+ 5	7.7932	0.91				V
21+10	7.8005	1.07				V
21+15	7.8081	1.10				V
21+20	7.8145	0.94				V
21+25	7.8199	0.78				V
21+30	7.8251	0.75				V
21+35	7.8314	0.91				V
21+40	7.8387	1.07				V
21+45	7.8462	1.10				V
21+50	7.8527	0.94				V

21+55	7.8581	0.78	Q			V
22+ 0	7.8633	0.75	Q			V
22+ 5	7.8695	0.91	Q			V
22+10	7.8769	1.07	Q			V
22+15	7.8844	1.10	Q			V
22+20	7.8909	0.94	Q			V
22+25	7.8962	0.78	Q			V
22+30	7.9014	0.75	Q			V
22+35	7.9065	0.74	Q			V
22+40	7.9116	0.74	Q			V
22+45	7.9167	0.74	Q			V
22+50	7.9218	0.74	Q			V
22+55	7.9269	0.74	Q			V
23+ 0	7.9319	0.74	Q			V
23+ 5	7.9370	0.74	Q			V
23+10	7.9421	0.74	Q			V
23+15	7.9472	0.74	Q			V
23+20	7.9523	0.74	Q			V
23+25	7.9574	0.74	Q			V
23+30	7.9625	0.74	Q			V
23+35	7.9676	0.74	Q			V
23+40	7.9727	0.74	Q			V
23+45	7.9777	0.74	Q			V
23+50	7.9828	0.74	Q			V
23+55	7.9879	0.74	Q			V
24+ 0	7.9930	0.74	Q			V
24+ 5	7.9958	0.40	Q			V
24+10	7.9963	0.09	Q			V
24+15	7.9965	0.03	Q			V

STAGE-STORAGE/OUTFLOW TABLE

BASIN ROUTING
2-YEAR, 24-HOUR STORM EVENT

FLOOD HYDROGRAPH ROUTING PROGRAM
 Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
 Study date: 06/30/22

21-0235 PERRIS AIRPORT LOGISTICS CENTER
 BASIN ROUTING CALCULATIONS
 2-YEAR, 24-HOUR STORM EVENT
 FN: BMPE.OUT ABE

Program License Serial Number 4010

***** HYDROGRAPH INFORMATION *****

From study/file name: ONSITEPROPEAST242.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 291
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 4.522 (CFS)
 Total volume = 2.748 (Ac.Ft)
 Status of hydrographs being held in storage
 Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
 Peak (CFS) 0.000 0.000 0.000 0.000 0.000
 Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

+++++
 Process from Point/Station 201.000 to Point/Station 202.000
 **** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 291
 Hydrograph time unit = 5.000 (Min.)
 Initial depth in storage basin = 0.00 (Ft.)

Initial basin depth = 0.00 (Ft.)
 Initial basin storage = 0.00 (Ac.Ft)
 Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.352	0.948	0.349	0.355
1.500	1.161	1.015	1.158	1.164
1.900	1.525	1.040	1.521	1.529
2.500	2.115	20.240	2.045	2.185
3.500	3.214	71.164	2.969	3.459
4.500	4.464	141.968	3.975	4.953
5.500	5.868	228.091	5.083	6.653

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	1.1	2.26	3.39	4.52	Depth (Ft.)
0.083	0.12	0.00	0.000	O					0.00
0.167	0.24	0.00	0.002	OI					0.00
0.250	0.26	0.01	0.003	OI					0.00

0.333	0.33	0.01	0.005	O I				0.01
0.417	0.38	0.02	0.008	O I				0.01
0.500	0.39	0.03	0.010	O I				0.01
0.583	0.40	0.03	0.013	O I				0.02
0.667	0.40	0.04	0.015	O I				0.02
0.750	0.40	0.05	0.018	O I				0.02
0.833	0.46	0.05	0.020	O I				0.03
0.917	0.52	0.06	0.023	O I				0.03
1.000	0.53	0.07	0.026	O I				0.04
1.083	0.47	0.08	0.029	O I				0.04
1.167	0.41	0.09	0.032	O I				0.04
1.250	0.40	0.09	0.034	O I				0.05
1.333	0.40	0.10	0.036	O I				0.05
1.417	0.40	0.10	0.038	O I				0.05
1.500	0.40	0.11	0.040	O I				0.06
1.583	0.40	0.11	0.042	O I				0.06
1.667	0.40	0.12	0.044	O I				0.06
1.750	0.40	0.12	0.046	O I				0.07
1.833	0.46	0.13	0.048	O I				0.07
1.917	0.52	0.14	0.050	O I				0.07
2.000	0.53	0.14	0.053	O I				0.08
2.083	0.53	0.15	0.056	O I				0.08
2.167	0.53	0.16	0.058	O I				0.08
2.250	0.53	0.16	0.061	O I				0.09
2.333	0.53	0.17	0.063	O I				0.09
2.417	0.53	0.18	0.066	O I				0.09
2.500	0.53	0.18	0.068	O I				0.10
2.583	0.59	0.19	0.071	O I				0.10
2.667	0.65	0.20	0.074	O I				0.10
2.750	0.66	0.21	0.077	O I				0.11
2.833	0.66	0.22	0.080	O I				0.11
2.917	0.66	0.22	0.083	O I				0.12
3.000	0.66	0.23	0.086	O I				0.12
3.083	0.66	0.24	0.089	O I				0.13
3.167	0.66	0.25	0.092	O I				0.13
3.250	0.66	0.26	0.095	O I				0.13
3.333	0.66	0.26	0.098	O I				0.14
3.417	0.66	0.27	0.100	O I				0.14
3.500	0.66	0.28	0.103	O I				0.15
3.583	0.66	0.28	0.106	O I				0.15
3.667	0.66	0.29	0.108	O I				0.15
3.750	0.66	0.30	0.111	O I				0.16
3.833	0.73	0.31	0.114	O I				0.16
3.917	0.78	0.31	0.117	O I				0.17
4.000	0.79	0.32	0.120	O I				0.17
4.083	0.80	0.33	0.123	O I				0.17
4.167	0.80	0.34	0.126	O I				0.18
4.250	0.80	0.35	0.129	O I				0.18
4.333	0.86	0.36	0.133	O I				0.19
4.417	0.92	0.37	0.136	O I				0.19
4.500	0.93	0.38	0.140	O I				0.20
4.583	0.93	0.39	0.144	O I				0.20
4.667	0.93	0.40	0.148	O I				0.21
4.750	0.93	0.41	0.151	O I				0.21
4.833	0.99	0.42	0.155	O I				0.22
4.917	1.05	0.43	0.159	O I				0.23
5.000	1.06	0.44	0.163	O I				0.23
5.083	0.94	0.45	0.167	O I				0.24
5.167	0.83	0.46	0.170	O I				0.24
5.250	0.81	0.46	0.173	O I				0.25
5.333	0.86	0.47	0.175	O I				0.25
5.417	0.92	0.48	0.178	O I				0.25
5.500	0.93	0.49	0.181	O I				0.26
5.583	0.99	0.50	0.184	O I				0.26
5.667	1.05	0.51	0.188	O I				0.27
5.750	1.06	0.52	0.191	O I				0.27
5.833	1.06	0.53	0.195	O I				0.28
5.917	1.06	0.54	0.199	O I				0.28
6.000	1.06	0.55	0.202	O I				0.29
6.083	1.13	0.56	0.206	O I				0.29
6.167	1.18	0.57	0.210	O I				0.30
6.250	1.19	0.58	0.215	O I				0.30
6.333	1.20	0.59	0.219	O I				0.31
6.417	1.20	0.60	0.223	O I				0.32
6.500	1.20	0.61	0.227	O I				0.32

6.583	1.26	0.62	0.231	0	I					0.33
6.667	1.31	0.63	0.236	0	I					0.33
6.750	1.33	0.65	0.240	0	I					0.34
6.833	1.33	0.66	0.245	0	I					0.35
6.917	1.33	0.67	0.250	0	I					0.35
7.000	1.33	0.68	0.254	0	I					0.36
7.083	1.33	0.70	0.258	0	I					0.37
7.167	1.33	0.71	0.263	0	I					0.37
7.250	1.33	0.72	0.267	0	I					0.38
7.333	1.39	0.73	0.271	0	I					0.39
7.417	1.45	0.74	0.276	0	I					0.39
7.500	1.46	0.76	0.281	0	I					0.40
7.583	1.52	0.77	0.286	0	I					0.41
7.667	1.58	0.78	0.291	0	I					0.41
7.750	1.59	0.80	0.297	0	I					0.42
7.833	1.66	0.81	0.302	0	I					0.43
7.917	1.71	0.83	0.308	0	I					0.44
8.000	1.72	0.85	0.314	0	I					0.45
8.083	1.85	0.86	0.321	0	I					0.46
8.167	1.96	0.88	0.328	0	I					0.47
8.250	1.99	0.90	0.335	0	I					0.48
8.333	1.99	0.92	0.343	0	I					0.49
8.417	1.99	0.94	0.350	0	I					0.50
8.500	1.99	0.95	0.357	0	I					0.51
8.583	2.06	0.95	0.365	0	I					0.52
8.667	2.11	0.95	0.373	0	I					0.53
8.750	2.12	0.95	0.381	0	I					0.54
8.833	2.19	0.95	0.389	0	I					0.55
8.917	2.25	0.95	0.398	0	I					0.56
9.000	2.26	0.95	0.407	0	I					0.57
9.083	2.38	0.95	0.416	0	I					0.58
9.167	2.50	0.95	0.426	0	I					0.59
9.250	2.52	0.96	0.437	0	I					0.61
9.333	2.59	0.96	0.448	0	I					0.62
9.417	2.64	0.96	0.459	0	I					0.63
9.500	2.66	0.96	0.471	0	I					0.65
9.583	2.72	0.96	0.483	0	I					0.66
9.667	2.78	0.96	0.495	0	I					0.68
9.750	2.79	0.96	0.508	0	I					0.69
9.833	2.85	0.96	0.521	0	I					0.71
9.917	2.91	0.96	0.534	0	I					0.72
10.000	2.92	0.96	0.547	0	I					0.74
10.083	2.50	0.97	0.559	0	I					0.76
10.167	2.10	0.97	0.569	0	I					0.77
10.250	2.03	0.97	0.576	0	I					0.78
10.333	1.99	0.97	0.583	0	I					0.79
10.417	1.99	0.97	0.590	0	I					0.79
10.500	1.99	0.97	0.597	0	I					0.80
10.583	2.30	0.97	0.606	0	I					0.81
10.667	2.58	0.97	0.616	0	I					0.83
10.750	2.64	0.97	0.627	0	I					0.84
10.833	2.66	0.97	0.639	0	I					0.85
10.917	2.66	0.97	0.650	0	I					0.87
11.000	2.66	0.97	0.662	0	I					0.88
11.083	2.60	0.97	0.673	0	I					0.90
11.167	2.54	0.98	0.684	0	I					0.91
11.250	2.53	0.98	0.695	0	I					0.92
11.333	2.53	0.98	0.706	0	I					0.94
11.417	2.53	0.98	0.716	0	I					0.95
11.500	2.53	0.98	0.727	0	I					0.96
11.583	2.40	0.98	0.737	0	I					0.98
11.667	2.29	0.98	0.747	0	I					0.99
11.750	2.27	0.98	0.756	0	I					1.00
11.833	2.32	0.98	0.765	0	I					1.01
11.917	2.38	0.98	0.774	0	I					1.02
12.000	2.39	0.98	0.784	0	I					1.03
12.083	2.82	0.98	0.795	0	I		I			1.05
12.167	3.22	0.99	0.809	0	I		I			1.06
12.250	3.29	0.99	0.824	0	I		I			1.08
12.333	3.39	0.99	0.841	0	I		I			1.10
12.417	3.44	0.99	0.857	0	I		I			1.12
12.500	3.45	0.99	0.874	0	I		I			1.15
12.583	3.58	0.99	0.892	0	I		I			1.17
12.667	3.69	0.99	0.910	0	I		I			1.19
12.750	3.71	1.00	0.929	0	I		I			1.21

12.833	3.79	1.00	0.948	O				I		1.24
12.917	3.84	1.00	0.967	O				I		1.26
13.000	3.85	1.00	0.987	O				I		1.28
13.083	4.16	1.00	1.007	O				I		1.31
13.167	4.44	1.00	1.030	O				I		1.34
13.250	4.50	1.01	1.054	O				I		1.37
13.333	4.52	1.01	1.078	O				I		1.40
13.417	4.52	1.01	1.102	O				I		1.43
13.500	4.52	1.01	1.126	O				I		1.46
13.583	3.85	1.01	1.148	O				I		1.48
13.667	3.23	1.02	1.166	O				I		1.50
13.750	3.11	1.02	1.180	O				I		1.52
13.833	3.06	1.02	1.195	O				I		1.54
13.917	3.06	1.02	1.209	O				I		1.55
14.000	3.06	1.02	1.223	O				I		1.57
14.083	3.30	1.02	1.238	O				I		1.58
14.167	3.53	1.02	1.254	O				I		1.60
14.250	3.57	1.02	1.272	O				I		1.62
14.333	3.53	1.02	1.289	O				I		1.64
14.417	3.47	1.02	1.306	O				I		1.66
14.500	3.46	1.03	1.323	O				I		1.68
14.583	3.46	1.03	1.340	O				I		1.70
14.667	3.46	1.03	1.356	O				I		1.71
14.750	3.46	1.03	1.373	O				I		1.73
14.833	3.40	1.03	1.390	O				I		1.75
14.917	3.34	1.03	1.406	O				I		1.77
15.000	3.33	1.03	1.422	O				I		1.79
15.083	3.26	1.03	1.437	O				I		1.80
15.167	3.21	1.04	1.452	O				I		1.82
15.250	3.20	1.04	1.467	O				I		1.84
15.333	3.13	1.04	1.482	O				I		1.85
15.417	3.07	1.04	1.496	O				I		1.87
15.500	3.06	1.04	1.510	O				I		1.88
15.583	2.81	1.04	1.523	O				I		1.90
15.667	2.59	1.32	1.534	O	O			I		1.91
15.750	2.55	1.57	1.541	O	O			I		1.92
15.833	2.53	1.77	1.547	O	O			I		1.92
15.917	2.53	1.92	1.552	O	O			I		1.93
16.000	2.53	2.04	1.556	O	O			I		1.93
16.083	1.61	2.05	1.556	O	O			I		1.93
16.167	0.76	1.87	1.551	O				I		1.93
16.250	0.60	1.63	1.543	O				I		1.92
16.333	0.53	1.42	1.537	O				I		1.91
16.417	0.53	1.24	1.531	O				I		1.91
16.500	0.53	1.10	1.527	O				I		1.90
16.583	0.47	1.04	1.523	O				I		1.90
16.667	0.41	1.04	1.519	O				I		1.89
16.750	0.40	1.04	1.514	O				I		1.89
16.833	0.40	1.04	1.510	O				I		1.88
16.917	0.40	1.04	1.506	O				I		1.88
17.000	0.40	1.04	1.501	O				I		1.87
17.083	0.52	1.04	1.497	O				I		1.87
17.167	0.63	1.04	1.494	O				I		1.87
17.250	0.66	1.04	1.491	O				I		1.86
17.333	0.66	1.04	1.489	O				I		1.86
17.417	0.66	1.04	1.486	O				I		1.86
17.500	0.66	1.04	1.484	O				I		1.85
17.583	0.66	1.04	1.481	O				I		1.85
17.667	0.66	1.04	1.478	O				I		1.85
17.750	0.66	1.04	1.476	O				I		1.85
17.833	0.60	1.04	1.473	O				I		1.84
17.917	0.55	1.04	1.470	O				I		1.84
18.000	0.54	1.04	1.467	O				I		1.84
18.083	0.53	1.04	1.463	O				I		1.83
18.167	0.53	1.04	1.460	O				I		1.83
18.250	0.53	1.04	1.456	O				I		1.82
18.333	0.53	1.04	1.453	O				I		1.82
18.417	0.53	1.03	1.449	O				I		1.82
18.500	0.53	1.03	1.446	O				I		1.81
18.583	0.47	1.03	1.442	O				I		1.81
18.667	0.41	1.03	1.438	O				I		1.80
18.750	0.40	1.03	1.434	O				I		1.80
18.833	0.34	1.03	1.429	O				I		1.79
18.917	0.28	1.03	1.424	O				I		1.79
19.000	0.27	1.03	1.419	O				I		1.78

19.083	0.33	1.03	1.414	I	O	1.78
19.167	0.38	1.03	1.409	I	O	1.77
19.250	0.39	1.03	1.405	I	O	1.77
19.333	0.46	1.03	1.401	I	O	1.76
19.417	0.52	1.03	1.397	I	O	1.76
19.500	0.53	1.03	1.393	I	O	1.76
19.583	0.47	1.03	1.390	I	O	1.75
19.667	0.41	1.03	1.386	I	O	1.75
19.750	0.40	1.03	1.381	I	O	1.74
19.833	0.34	1.03	1.377	I	O	1.74
19.917	0.28	1.03	1.372	I	O	1.73
20.000	0.27	1.03	1.367	I	O	1.73
20.083	0.33	1.03	1.362	I	O	1.72
20.167	0.38	1.03	1.357	I	O	1.72
20.250	0.39	1.03	1.353	I	O	1.71
20.333	0.40	1.03	1.348	I	O	1.71
20.417	0.40	1.03	1.344	I	O	1.70
20.500	0.40	1.03	1.340	I	O	1.70
20.583	0.40	1.03	1.335	I	O	1.69
20.667	0.40	1.03	1.331	I	O	1.69
20.750	0.40	1.03	1.327	I	O	1.68
20.833	0.34	1.03	1.322	I	O	1.68
20.917	0.28	1.03	1.317	I	O	1.67
21.000	0.27	1.03	1.312	I	O	1.67
21.083	0.33	1.03	1.307	I	O	1.66
21.167	0.38	1.02	1.302	I	O	1.66
21.250	0.39	1.02	1.298	I	O	1.65
21.333	0.34	1.02	1.294	I	O	1.65
21.417	0.28	1.02	1.289	I	O	1.64
21.500	0.27	1.02	1.283	I	O	1.63
21.583	0.33	1.02	1.279	I	O	1.63
21.667	0.38	1.02	1.274	I	O	1.62
21.750	0.39	1.02	1.270	I	O	1.62
21.833	0.34	1.02	1.265	I	O	1.61
21.917	0.28	1.02	1.260	I	O	1.61
22.000	0.27	1.02	1.255	I	O	1.60
22.083	0.33	1.02	1.250	I	O	1.60
22.167	0.38	1.02	1.245	I	O	1.59
22.250	0.39	1.02	1.241	I	O	1.59
22.333	0.34	1.02	1.237	I	O	1.58
22.417	0.28	1.02	1.232	I	O	1.58
22.500	0.27	1.02	1.227	I	O	1.57
22.583	0.27	1.02	1.221	I	O	1.57
22.667	0.27	1.02	1.216	I	O	1.56
22.750	0.27	1.02	1.211	I	O	1.55
22.833	0.27	1.02	1.206	I	O	1.55
22.917	0.27	1.02	1.201	I	O	1.54
23.000	0.27	1.02	1.195	I	O	1.54
23.083	0.27	1.02	1.190	I	O	1.53
23.167	0.27	1.02	1.185	I	O	1.53
23.250	0.27	1.02	1.180	I	O	1.52
23.333	0.27	1.02	1.175	I	O	1.52
23.417	0.27	1.02	1.170	I	O	1.51
23.500	0.27	1.02	1.164	I	O	1.50
23.583	0.27	1.01	1.159	I	O	1.50
23.667	0.27	1.01	1.154	I	O	1.49
23.750	0.27	1.01	1.149	I	O	1.49
23.833	0.27	1.01	1.144	I	O	1.48
23.917	0.27	1.01	1.139	I	O	1.47
24.000	0.27	1.01	1.134	I	O	1.47
24.083	0.14	1.01	1.128	I	O	1.46
24.167	0.03	1.01	1.122	I	O	1.45
24.250	0.01	1.01	1.115	I	O	1.44
24.333	0.00	1.01	1.108	I	O	1.43
24.417	0.00	1.01	1.101	I	O	1.43
24.500	0.00	1.01	1.094	I	O	1.42
24.583	0.00	1.01	1.087	I	O	1.41
24.667	0.00	1.01	1.080	I	O	1.40
24.750	0.00	1.01	1.073	I	O	1.39
24.833	0.00	1.01	1.066	I	O	1.38
24.917	0.00	1.01	1.059	I	O	1.37
25.000	0.00	1.01	1.052	I	O	1.37
25.083	0.00	1.01	1.045	I	O	1.36
25.167	0.00	1.00	1.038	I	O	1.35
25.250	0.00	1.00	1.032	I	O	1.34

25.333	0.00	1.00	1.025	I	0	1.33
25.417	0.00	1.00	1.018	I	0	1.32
25.500	0.00	1.00	1.011	I	0	1.31
25.583	0.00	1.00	1.004	I	0	1.31
25.667	0.00	1.00	0.997	I	0	1.30
25.750	0.00	1.00	0.990	I	0	1.29
25.833	0.00	1.00	0.983	I	0	1.28
25.917	0.00	1.00	0.976	I	0	1.27
26.000	0.00	1.00	0.969	I	0	1.26
26.083	0.00	1.00	0.963	I	0	1.25
26.167	0.00	1.00	0.956	I	0	1.25
26.250	0.00	1.00	0.949	I	0	1.24
26.333	0.00	1.00	0.942	I	0	1.23
26.417	0.00	1.00	0.935	I	0	1.22
26.500	0.00	1.00	0.928	I	0	1.21
26.583	0.00	1.00	0.921	I	0	1.20
26.667	0.00	0.99	0.915	I	0	1.20
26.750	0.00	0.99	0.908	I	0	1.19
26.833	0.00	0.99	0.901	I	0	1.18
26.917	0.00	0.99	0.894	I	0	1.17
27.000	0.00	0.99	0.887	I	0	1.16
27.083	0.00	0.99	0.880	I	0	1.15
27.167	0.00	0.99	0.874	I	0	1.14
27.250	0.00	0.99	0.867	I	0	1.14
27.333	0.00	0.99	0.860	I	0	1.13
27.417	0.00	0.99	0.853	I	0	1.12
27.500	0.00	0.99	0.846	I	0	1.11
27.583	0.00	0.99	0.839	I	0	1.10
27.667	0.00	0.99	0.833	I	0	1.09
27.750	0.00	0.99	0.826	I	0	1.09
27.833	0.00	0.99	0.819	I	0	1.08
27.917	0.00	0.99	0.812	I	0	1.07
28.000	0.00	0.99	0.805	I	0	1.06
28.083	0.00	0.98	0.799	I	0	1.05
28.167	0.00	0.98	0.792	I	0	1.04
28.250	0.00	0.98	0.785	I	0	1.04
28.333	0.00	0.98	0.778	I	0	1.03
28.417	0.00	0.98	0.772	I	0	1.02
28.500	0.00	0.98	0.765	I	0	1.01
28.583	0.00	0.98	0.758	I	0	1.00
28.667	0.00	0.98	0.751	I	0	0.99
28.750	0.00	0.98	0.745	I	0	0.99
28.833	0.00	0.98	0.738	I	0	0.98
28.917	0.00	0.98	0.731	I	0	0.97
29.000	0.00	0.98	0.724	I	0	0.96
29.083	0.00	0.98	0.718	I	0	0.95
29.167	0.00	0.98	0.711	I	0	0.94
29.250	0.00	0.98	0.704	I	0	0.94
29.333	0.00	0.98	0.697	I	0	0.93
29.417	0.00	0.98	0.691	I	0	0.92
29.500	0.00	0.98	0.684	I	0	0.91
29.583	0.00	0.97	0.677	I	0	0.90
29.667	0.00	0.97	0.670	I	0	0.89
29.750	0.00	0.97	0.664	I	0	0.89
29.833	0.00	0.97	0.657	I	0	0.88
29.917	0.00	0.97	0.650	I	0	0.87
30.000	0.00	0.97	0.644	I	0	0.86
30.083	0.00	0.97	0.637	I	0	0.85
30.167	0.00	0.97	0.630	I	0	0.84
30.250	0.00	0.97	0.624	I	0	0.84
30.333	0.00	0.97	0.617	I	0	0.83
30.417	0.00	0.97	0.610	I	0	0.82
30.500	0.00	0.97	0.604	I	0	0.81
30.583	0.00	0.97	0.597	I	0	0.80
30.667	0.00	0.97	0.590	I	0	0.79
30.750	0.00	0.97	0.584	I	0	0.79
30.833	0.00	0.97	0.577	I	0	0.78
30.917	0.00	0.97	0.570	I	0	0.77
31.000	0.00	0.97	0.564	I	0	0.76
31.083	0.00	0.96	0.557	I	0	0.75
31.167	0.00	0.96	0.550	I	0	0.75
31.250	0.00	0.96	0.544	I	0	0.74
31.333	0.00	0.96	0.537	I	0	0.73
31.417	0.00	0.96	0.530	I	0	0.72
31.500	0.00	0.96	0.524	I	0	0.71

31.583	0.00	0.96	0.517	I	0	0.70
31.667	0.00	0.96	0.511	I	0	0.70
31.750	0.00	0.96	0.504	I	0	0.69
31.833	0.00	0.96	0.497	I	0	0.68
31.917	0.00	0.96	0.491	I	0	0.67
32.000	0.00	0.96	0.484	I	0	0.66
32.083	0.00	0.96	0.477	I	0	0.66
32.167	0.00	0.96	0.471	I	0	0.65
32.250	0.00	0.96	0.464	I	0	0.64
32.333	0.00	0.96	0.458	I	0	0.63
32.417	0.00	0.96	0.451	I	0	0.62
32.500	0.00	0.96	0.445	I	0	0.61
32.583	0.00	0.96	0.438	I	0	0.61
32.667	0.00	0.95	0.431	I	0	0.60
32.750	0.00	0.95	0.425	I	0	0.59
32.833	0.00	0.95	0.418	I	0	0.58
32.917	0.00	0.95	0.412	I	0	0.57
33.000	0.00	0.95	0.405	I	0	0.57
33.083	0.00	0.95	0.399	I	0	0.56
33.167	0.00	0.95	0.392	I	0	0.55
33.250	0.00	0.95	0.385	I	0	0.54
33.333	0.00	0.95	0.379	I	0	0.53
33.417	0.00	0.95	0.372	I	0	0.53
33.500	0.00	0.95	0.366	I	0	0.52
33.583	0.00	0.95	0.359	I	0	0.51
33.667	0.00	0.95	0.353	I	0	0.50
33.750	0.00	0.93	0.346	I	0	0.49
33.833	0.00	0.92	0.340	I	0	0.48
33.917	0.00	0.90	0.334	I	0	0.47
34.000	0.00	0.88	0.328	I	0	0.47
34.083	0.00	0.87	0.321	I	0	0.46
34.167	0.00	0.85	0.316	I	0	0.45
34.250	0.00	0.83	0.310	I	0	0.44
34.333	0.00	0.82	0.304	I	0	0.43
34.417	0.00	0.80	0.298	I	0	0.42
34.500	0.00	0.79	0.293	I	0	0.42
34.583	0.00	0.77	0.288	I	0	0.41
34.667	0.00	0.76	0.282	I	0	0.40
34.750	0.00	0.75	0.277	I	0	0.39
34.833	0.00	0.73	0.272	I	0	0.39
34.917	0.00	0.72	0.267	I	0	0.38
35.000	0.00	0.71	0.262	I	0	0.37
35.083	0.00	0.69	0.257	I	0	0.37
35.167	0.00	0.68	0.253	I	0	0.36
35.250	0.00	0.67	0.248	I	0	0.35
35.333	0.00	0.66	0.243	I	0	0.35
35.417	0.00	0.64	0.239	I	0	0.34
35.500	0.00	0.63	0.235	I	0	0.33
35.583	0.00	0.62	0.230	I	0	0.33
35.667	0.00	0.61	0.226	I	0	0.32
35.750	0.00	0.60	0.222	I	0	0.32
35.833	0.00	0.59	0.218	I	0	0.31
35.917	0.00	0.58	0.214	I	0	0.30
36.000	0.00	0.57	0.210	I	0	0.30
36.083	0.00	0.55	0.206	I	0	0.29
36.167	0.00	0.54	0.202	I	0	0.29
36.250	0.00	0.53	0.198	I	0	0.28
36.333	0.00	0.52	0.195	I	0	0.28
36.417	0.00	0.52	0.191	I	0	0.27
36.500	0.00	0.51	0.188	I	0	0.27
36.583	0.00	0.50	0.184	I	0	0.26
36.667	0.00	0.49	0.181	I	0	0.26
36.750	0.00	0.48	0.178	I	0	0.25
36.833	0.00	0.47	0.174	I	0	0.25
36.917	0.00	0.46	0.171	I	0	0.24
37.000	0.00	0.45	0.168	I	0	0.24
37.083	0.00	0.44	0.165	I	0	0.23
37.167	0.00	0.44	0.162	I	0	0.23
37.250	0.00	0.43	0.159	I	0	0.23
37.333	0.00	0.42	0.156	I	0	0.22
37.417	0.00	0.41	0.153	I	0	0.22
37.500	0.00	0.40	0.150	I	0	0.21
37.583	0.00	0.40	0.148	I	0	0.21
37.667	0.00	0.39	0.145	I	0	0.21
37.750	0.00	0.38	0.142	I	0	0.20

37.833	0.00	0.38	0.140	I O				0.20
37.917	0.00	0.37	0.137	I O				0.19
38.000	0.00	0.36	0.134	I O				0.19
38.083	0.00	0.36	0.132	I O				0.19
38.167	0.00	0.35	0.130	I O				0.18
38.250	0.00	0.34	0.127	I O				0.18
38.333	0.00	0.34	0.125	I O				0.18
38.417	0.00	0.33	0.123	I O				0.17
38.500	0.00	0.32	0.120	I O				0.17
38.583	0.00	0.32	0.118	I O				0.17
38.667	0.00	0.31	0.116	I O				0.16
38.750	0.00	0.31	0.114	I O				0.16
38.833	0.00	0.30	0.112	I O				0.16
38.917	0.00	0.30	0.110	I O				0.16
39.000	0.00	0.29	0.108	I O				0.15
39.083	0.00	0.28	0.106	I O				0.15
39.167	0.00	0.28	0.104	IO				0.15
39.250	0.00	0.27	0.102	IO				0.14
39.333	0.00	0.27	0.100	IO				0.14
39.417	0.00	0.26	0.098	IO				0.14
39.500	0.00	0.26	0.096	IO				0.14
39.583	0.00	0.25	0.095	IO				0.13
39.667	0.00	0.25	0.093	IO				0.13
39.750	0.00	0.25	0.091	IO				0.13
39.833	0.00	0.24	0.089	IO				0.13
39.917	0.00	0.24	0.088	IO				0.12
40.000	0.00	0.23	0.086	IO				0.12
40.083	0.00	0.23	0.085	IO				0.12
40.167	0.00	0.22	0.083	IO				0.12
40.250	0.00	0.22	0.081	IO				0.12
40.333	0.00	0.22	0.080	IO				0.11
40.417	0.00	0.21	0.079	IO				0.11
40.500	0.00	0.21	0.077	IO				0.11
40.583	0.00	0.20	0.076	IO				0.11
40.667	0.00	0.20	0.074	IO				0.11
40.750	0.00	0.20	0.073	IO				0.10
40.833	0.00	0.19	0.072	IO				0.10
40.917	0.00	0.19	0.070	IO				0.10
41.000	0.00	0.19	0.069	IO				0.10
41.083	0.00	0.18	0.068	IO				0.10
41.167	0.00	0.18	0.066	IO				0.09
41.250	0.00	0.18	0.065	IO				0.09
41.333	0.00	0.17	0.064	IO				0.09
41.417	0.00	0.17	0.063	IO				0.09
41.500	0.00	0.17	0.062	IO				0.09
41.583	0.00	0.16	0.061	IO				0.09
41.667	0.00	0.16	0.059	IO				0.08
41.750	0.00	0.16	0.058	IO				0.08
41.833	0.00	0.15	0.057	IO				0.08
41.917	0.00	0.15	0.056	IO				0.08
42.000	0.00	0.15	0.055	IO				0.08
42.083	0.00	0.15	0.054	IO				0.08
42.167	0.00	0.14	0.053	IO				0.08
42.250	0.00	0.14	0.052	O				0.07
42.333	0.00	0.14	0.051	O				0.07
42.417	0.00	0.14	0.050	O				0.07
42.500	0.00	0.13	0.049	O				0.07
42.583	0.00	0.13	0.048	O				0.07
42.667	0.00	0.13	0.048	O				0.07
42.750	0.00	0.13	0.047	O				0.07
42.833	0.00	0.12	0.046	O				0.07
42.917	0.00	0.12	0.045	O				0.06
43.000	0.00	0.12	0.044	O				0.06
43.083	0.00	0.12	0.043	O				0.06
43.167	0.00	0.11	0.043	O				0.06
43.250	0.00	0.11	0.042	O				0.06
43.333	0.00	0.11	0.041	O				0.06
43.417	0.00	0.11	0.040	O				0.06
43.500	0.00	0.11	0.040	O				0.06
43.583	0.00	0.10	0.039	O				0.06
43.667	0.00	0.10	0.038	O				0.05
43.750	0.00	0.10	0.037	O				0.05
43.833	0.00	0.10	0.037	O				0.05
43.917	0.00	0.10	0.036	O				0.05
44.000	0.00	0.10	0.035	O				0.05

44.083	0.00	0.09	0.035	0					0.05
44.167	0.00	0.09	0.034	0					0.05
44.250	0.00	0.09	0.033	0					0.05
44.333	0.00	0.09	0.033	0					0.05
44.417	0.00	0.09	0.032	0					0.05
44.500	0.00	0.09	0.032	0					0.04
44.583	0.00	0.08	0.031	0					0.04
44.667	0.00	0.08	0.030	0					0.04
44.750	0.00	0.08	0.030	0					0.04
44.833	0.00	0.08	0.029	0					0.04
44.917	0.00	0.08	0.029	0					0.04
45.000	0.00	0.08	0.028	0					0.04
45.083	0.00	0.07	0.028	0					0.04
45.167	0.00	0.07	0.027	0					0.04
45.250	0.00	0.07	0.027	0					0.04
45.333	0.00	0.07	0.026	0					0.04
45.417	0.00	0.07	0.026	0					0.04
45.500	0.00	0.07	0.025	0					0.04
45.583	0.00	0.07	0.025	0					0.04
45.667	0.00	0.07	0.024	0					0.03
45.750	0.00	0.06	0.024	0					0.03
45.833	0.00	0.06	0.024	0					0.03
45.917	0.00	0.06	0.023	0					0.03
46.000	0.00	0.06	0.023	0					0.03
46.083	0.00	0.06	0.022	0					0.03
46.167	0.00	0.06	0.022	0					0.03
46.250	0.00	0.06	0.021	0					0.03
46.333	0.00	0.06	0.021	0					0.03
46.417	0.00	0.06	0.021	0					0.03
46.500	0.00	0.05	0.020	0					0.03
46.583	0.00	0.05	0.020	0					0.03
46.667	0.00	0.05	0.020	0					0.03
46.750	0.00	0.05	0.019	0					0.03
46.833	0.00	0.05	0.019	0					0.03
46.917	0.00	0.05	0.018	0					0.03
47.000	0.00	0.05	0.018	0					0.03
47.083	0.00	0.05	0.018	0					0.03
47.167	0.00	0.05	0.017	0					0.02
47.250	0.00	0.05	0.017	0					0.02
47.333	0.00	0.05	0.017	0					0.02
47.417	0.00	0.04	0.017	0					0.02
47.500	0.00	0.04	0.016	0					0.02
47.583	0.00	0.04	0.016	0					0.02
47.667	0.00	0.04	0.016	0					0.02
47.750	0.00	0.04	0.015	0					0.02
47.833	0.00	0.04	0.015	0					0.02
47.917	0.00	0.04	0.015	0					0.02
48.000	0.00	0.04	0.015	0					0.02
48.083	0.00	0.04	0.014	0					0.02
48.167	0.00	0.04	0.014	0					0.02
48.250	0.00	0.04	0.014	0					0.02
48.333	0.00	0.04	0.013	0					0.02
48.417	0.00	0.04	0.013	0					0.02
48.500	0.00	0.03	0.013	0					0.02
48.583	0.00	0.03	0.013	0					0.02
48.667	0.00	0.03	0.013	0					0.02
48.750	0.00	0.03	0.012	0					0.02
48.833	0.00	0.03	0.012	0					0.02
48.917	0.00	0.03	0.012	0					0.02
49.000	0.00	0.03	0.012	0					0.02
49.083	0.00	0.03	0.011	0					0.02
49.167	0.00	0.03	0.011	0					0.02
49.250	0.00	0.03	0.011	0					0.02
49.333	0.00	0.03	0.011	0					0.02
49.417	0.00	0.03	0.011	0					0.02
49.500	0.00	0.03	0.010	0					0.01
49.583	0.00	0.03	0.010	0					0.01
49.667	0.00	0.03	0.010	0					0.01
49.750	0.00	0.03	0.010	0					0.01
49.833	0.00	0.03	0.010	0					0.01
49.917	0.00	0.03	0.009	0					0.01
50.000	0.00	0.03	0.009	0					0.01
50.083	0.00	0.02	0.009	0					0.01
50.167	0.00	0.02	0.009	0					0.01
50.250	0.00	0.02	0.009	0					0.01

50.333	0.00	0.02	0.009	0					0.01
50.417	0.00	0.02	0.008	0					0.01
50.500	0.00	0.02	0.008	0					0.01
50.583	0.00	0.02	0.008	0					0.01
50.667	0.00	0.02	0.008	0					0.01
50.750	0.00	0.02	0.008	0					0.01
50.833	0.00	0.02	0.008	0					0.01
50.917	0.00	0.02	0.008	0					0.01
51.000	0.00	0.02	0.007	0					0.01
51.083	0.00	0.02	0.007	0					0.01
51.167	0.00	0.02	0.007	0					0.01
51.250	0.00	0.02	0.007	0					0.01
51.333	0.00	0.02	0.007	0					0.01
51.417	0.00	0.02	0.007	0					0.01
51.500	0.00	0.02	0.007	0					0.01
51.583	0.00	0.02	0.007	0					0.01
51.667	0.00	0.02	0.006	0					0.01
51.750	0.00	0.02	0.006	0					0.01
51.833	0.00	0.02	0.006	0					0.01
51.917	0.00	0.02	0.006	0					0.01
52.000	0.00	0.02	0.006	0					0.01
52.083	0.00	0.02	0.006	0					0.01
52.167	0.00	0.02	0.006	0					0.01
52.250	0.00	0.02	0.006	0					0.01
52.333	0.00	0.01	0.006	0					0.01
52.417	0.00	0.01	0.005	0					0.01
52.500	0.00	0.01	0.005	0					0.01
52.583	0.00	0.01	0.005	0					0.01
52.667	0.00	0.01	0.005	0					0.01
52.750	0.00	0.01	0.005	0					0.01
52.833	0.00	0.01	0.005	0					0.01
52.917	0.00	0.01	0.005	0					0.01
53.000	0.00	0.01	0.005	0					0.01
53.083	0.00	0.01	0.005	0					0.01
53.167	0.00	0.01	0.005	0					0.01
53.250	0.00	0.01	0.005	0					0.01
53.333	0.00	0.01	0.004	0					0.01
53.417	0.00	0.01	0.004	0					0.01
53.500	0.00	0.01	0.004	0					0.01
53.583	0.00	0.01	0.004	0					0.01
53.667	0.00	0.01	0.004	0					0.01
53.750	0.00	0.01	0.004	0					0.01
53.833	0.00	0.01	0.004	0					0.01
53.917	0.00	0.01	0.004	0					0.01
54.000	0.00	0.01	0.004	0					0.01
54.083	0.00	0.01	0.004	0					0.01
54.167	0.00	0.01	0.004	0					0.01
54.250	0.00	0.01	0.004	0					0.01
54.333	0.00	0.01	0.004	0					0.01
54.417	0.00	0.01	0.003	0					0.00
54.500	0.00	0.01	0.003	0					0.00
54.583	0.00	0.01	0.003	0					0.00
54.667	0.00	0.01	0.003	0					0.00
54.750	0.00	0.01	0.003	0					0.00
54.833	0.00	0.01	0.003	0					0.00
54.917	0.00	0.01	0.003	0					0.00
55.000	0.00	0.01	0.003	0					0.00
55.083	0.00	0.01	0.003	0					0.00
55.167	0.00	0.01	0.003	0					0.00
55.250	0.00	0.01	0.003	0					0.00
55.333	0.00	0.01	0.003	0					0.00
55.417	0.00	0.01	0.003	0					0.00
55.500	0.00	0.01	0.003	0					0.00
55.583	0.00	0.01	0.003	0					0.00
55.667	0.00	0.01	0.003	0					0.00
55.750	0.00	0.01	0.003	0					0.00
55.833	0.00	0.01	0.003	0					0.00
55.917	0.00	0.01	0.002	0					0.00
56.000	0.00	0.01	0.002	0					0.00
56.083	0.00	0.01	0.002	0					0.00
56.167	0.00	0.01	0.002	0					0.00
56.250	0.00	0.01	0.002	0					0.00
56.333	0.00	0.01	0.002	0					0.00
56.417	0.00	0.01	0.002	0					0.00
56.500	0.00	0.01	0.002	0					0.00

56.583	0.00	0.01	0.002	0					0.00
56.667	0.00	0.01	0.002	0					0.00
56.750	0.00	0.01	0.002	0					0.00
56.833	0.00	0.01	0.002	0					0.00
56.917	0.00	0.01	0.002	0					0.00
57.000	0.00	0.01	0.002	0					0.00
57.083	0.00	0.01	0.002	0					0.00
57.167	0.00	0.01	0.002	0					0.00
57.250	0.00	0.00	0.002	0					0.00
57.333	0.00	0.00	0.002	0					0.00
57.417	0.00	0.00	0.002	0					0.00
57.500	0.00	0.00	0.002	0					0.00
57.583	0.00	0.00	0.002	0					0.00
57.667	0.00	0.00	0.002	0					0.00
57.750	0.00	0.00	0.002	0					0.00
57.833	0.00	0.00	0.002	0					0.00
57.917	0.00	0.00	0.002	0					0.00
58.000	0.00	0.00	0.002	0					0.00
58.083	0.00	0.00	0.002	0					0.00
58.167	0.00	0.00	0.002	0					0.00
58.250	0.00	0.00	0.001	0					0.00
58.333	0.00	0.00	0.001	0					0.00
58.417	0.00	0.00	0.001	0					0.00
58.500	0.00	0.00	0.001	0					0.00
58.583	0.00	0.00	0.001	0					0.00
58.667	0.00	0.00	0.001	0					0.00
58.750	0.00	0.00	0.001	0					0.00
58.833	0.00	0.00	0.001	0					0.00
58.917	0.00	0.00	0.001	0					0.00
59.000	0.00	0.00	0.001	0					0.00
59.083	0.00	0.00	0.001	0					0.00
59.167	0.00	0.00	0.001	0					0.00
59.250	0.00	0.00	0.001	0					0.00
59.333	0.00	0.00	0.001	0					0.00
59.417	0.00	0.00	0.001	0					0.00
59.500	0.00	0.00	0.001	0					0.00
59.583	0.00	0.00	0.001	0					0.00
59.667	0.00	0.00	0.001	0					0.00
59.750	0.00	0.00	0.001	0					0.00
59.833	0.00	0.00	0.001	0					0.00
59.917	0.00	0.00	0.001	0					0.00
60.000	0.00	0.00	0.001	0					0.00
60.083	0.00	0.00	0.001	0					0.00
60.167	0.00	0.00	0.001	0					0.00
60.250	0.00	0.00	0.001	0					0.00
60.333	0.00	0.00	0.001	0					0.00
60.417	0.00	0.00	0.001	0					0.00
60.500	0.00	0.00	0.001	0					0.00
60.583	0.00	0.00	0.001	0					0.00
60.667	0.00	0.00	0.001	0					0.00
60.750	0.00	0.00	0.001	0					0.00
60.833	0.00	0.00	0.001	0					0.00
60.917	0.00	0.00	0.001	0					0.00
61.000	0.00	0.00	0.001	0					0.00
61.083	0.00	0.00	0.001	0					0.00
61.167	0.00	0.00	0.001	0					0.00
61.250	0.00	0.00	0.001	0					0.00
61.333	0.00	0.00	0.001	0					0.00
61.417	0.00	0.00	0.001	0					0.00
61.500	0.00	0.00	0.001	0					0.00
61.583	0.00	0.00	0.001	0					0.00
61.667	0.00	0.00	0.001	0					0.00

*****HYDROGRAPH DATA*****
Number of intervals = 740
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 2.047 (CFS)
Total volume = 2.747 (Ac.Ft)
Status of hydrographs being held in storage
Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
Peak (CFS) 0.000 0.000 0.000 0.000 0.000
Vol (Ac. Ft) 0.000 0.000 0.000 0.000 0.000

BASIN ROUTING
100-YEAR, 1-HOUR STORM EVENT

FLOOD HYDROGRAPH ROUTING PROGRAM
 Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
 Study date: 06/30/22

21-0235 PERRIS AIRPORT LOGISTICS CENTER
 BASIN ROUTING CALCULATIONS
 100-YEAR, 1-HOUR STORM EVENT
 FN: BMPE1100.OUT ABE

Program License Serial Number 4010

***** HYDROGRAPH INFORMATION *****

From study/file name: ONSITEPROPEAST1100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 15
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 61.499 (CFS)
 Total volume = 2.250 (Ac.Ft)
 Status of hydrographs being held in storage
 Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
 Peak (CFS) 0.000 0.000 0.000 0.000 0.000
 Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

+++++
 Process from Point/Station 201.000 to Point/Station 202.000
 **** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 15
 Hydrograph time unit = 5.000 (Min.)
 Initial depth in storage basin = 0.00 (Ft.)

Initial basin depth = 0.00 (Ft.)
 Initial basin storage = 0.00 (Ac.Ft)
 Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.352	0.948	0.349	0.355
1.500	1.161	1.015	1.158	1.164
1.900	1.525	1.040	1.521	1.529
2.500	2.115	20.240	2.045	2.185
3.500	3.214	71.164	2.969	3.459
4.500	4.464	141.968	3.975	4.953
5.500	5.868	228.091	5.083	6.653

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	0	15.4	30.75	46.12	61.50	Depth (Ft.)
0.083	6.27	0.06	0.021	o	I				0.03
0.167	12.18	0.23	0.084	o	I				0.12
0.250	14.87	0.47	0.175	o	I				0.25

0.333	16.69	0.75	0.279	o	I					0.40
0.417	17.43	0.95	0.391	o	I					0.55
0.500	19.10	0.96	0.510	o	I					0.70
0.583	22.60	0.97	0.647	o	I					0.86
0.667	26.95	0.99	0.811	o		I				1.07
0.750	35.12	1.00	1.018	o			I			1.32
0.833	61.50	1.03	1.344	o				I		1.70
0.917	53.13	7.07	1.710	o	o			I		2.09
1.000	26.52	13.67	1.913	o	o	I				2.29
1.083	11.61	14.76	1.947	o	o	I				2.33
1.167	2.15	13.17	1.898	I	o					2.28
1.250	0.53	10.79	1.825	I	o					2.20
1.333	0.00	8.67	1.759	I	o					2.14
1.417	0.00	6.92	1.706	I	o					2.08
1.500	0.00	5.53	1.663	I	o					2.04
1.583	0.00	4.41	1.629	I	o					2.01
1.667	0.00	3.52	1.601	IO						1.98
1.750	0.00	2.81	1.579	IO						1.96
1.833	0.00	2.25	1.562	IO						1.94
1.917	0.00	1.79	1.548	o						1.92
2.000	0.00	1.43	1.537	o						1.91
2.083	0.00	1.14	1.528	o						1.90
2.167	0.00	1.04	1.521	o						1.90
2.250	0.00	1.04	1.513	o						1.89
2.333	0.00	1.04	1.506	o						1.88
2.417	0.00	1.04	1.499	o						1.87
2.500	0.00	1.04	1.492	o						1.86
2.583	0.00	1.04	1.485	o						1.86
2.667	0.00	1.04	1.478	o						1.85
2.750	0.00	1.04	1.471	o						1.84
2.833	0.00	1.04	1.463	o						1.83
2.917	0.00	1.04	1.456	o						1.82
3.000	0.00	1.03	1.449	o						1.82
3.083	0.00	1.03	1.442	o						1.81
3.167	0.00	1.03	1.435	o						1.80
3.250	0.00	1.03	1.428	o						1.79
3.333	0.00	1.03	1.421	o						1.79
3.417	0.00	1.03	1.414	o						1.78
3.500	0.00	1.03	1.407	o						1.77
3.583	0.00	1.03	1.399	o						1.76
3.667	0.00	1.03	1.392	o						1.75
3.750	0.00	1.03	1.385	o						1.75
3.833	0.00	1.03	1.378	o						1.74
3.917	0.00	1.03	1.371	o						1.73
4.000	0.00	1.03	1.364	o						1.72
4.083	0.00	1.03	1.357	o						1.72
4.167	0.00	1.03	1.350	o						1.71
4.250	0.00	1.03	1.343	o						1.70
4.333	0.00	1.03	1.336	o						1.69
4.417	0.00	1.03	1.329	o						1.68
4.500	0.00	1.03	1.321	o						1.68
4.583	0.00	1.03	1.314	o						1.67
4.667	0.00	1.03	1.307	o						1.66
4.750	0.00	1.02	1.300	o						1.65
4.833	0.00	1.02	1.293	o						1.65
4.917	0.00	1.02	1.286	o						1.64
5.000	0.00	1.02	1.279	o						1.63
5.083	0.00	1.02	1.272	o						1.62
5.167	0.00	1.02	1.265	o						1.61
5.250	0.00	1.02	1.258	o						1.61
5.333	0.00	1.02	1.251	o						1.60
5.417	0.00	1.02	1.244	o						1.59
5.500	0.00	1.02	1.237	o						1.58
5.583	0.00	1.02	1.230	o						1.58
5.667	0.00	1.02	1.223	o						1.57
5.750	0.00	1.02	1.216	o						1.56
5.833	0.00	1.02	1.209	o						1.55
5.917	0.00	1.02	1.202	o						1.54
6.000	0.00	1.02	1.195	o						1.54
6.083	0.00	1.02	1.188	o						1.53
6.167	0.00	1.02	1.181	o						1.52
6.250	0.00	1.02	1.174	o						1.51
6.333	0.00	1.02	1.167	o						1.51
6.417	0.00	1.01	1.160	o						1.50
6.500	0.00	1.01	1.153	o						1.49

6.583	0.00	1.01	1.146	0	1.48
6.667	0.00	1.01	1.139	0	1.47
6.750	0.00	1.01	1.132	0	1.46
6.833	0.00	1.01	1.125	0	1.46
6.917	0.00	1.01	1.118	0	1.45
7.000	0.00	1.01	1.111	0	1.44
7.083	0.00	1.01	1.104	0	1.43
7.167	0.00	1.01	1.097	0	1.42
7.250	0.00	1.01	1.090	0	1.41
7.333	0.00	1.01	1.083	0	1.40
7.417	0.00	1.01	1.076	0	1.40
7.500	0.00	1.01	1.069	0	1.39
7.583	0.00	1.01	1.062	0	1.38
7.667	0.00	1.01	1.055	0	1.37
7.750	0.00	1.01	1.049	0	1.36
7.833	0.00	1.01	1.042	0	1.35
7.917	0.00	1.00	1.035	0	1.34
8.000	0.00	1.00	1.028	0	1.34
8.083	0.00	1.00	1.021	0	1.33
8.167	0.00	1.00	1.014	0	1.32
8.250	0.00	1.00	1.007	0	1.31
8.333	0.00	1.00	1.000	0	1.30
8.417	0.00	1.00	0.993	0	1.29
8.500	0.00	1.00	0.986	0	1.28
8.583	0.00	1.00	0.979	0	1.28
8.667	0.00	1.00	0.973	0	1.27
8.750	0.00	1.00	0.966	0	1.26
8.833	0.00	1.00	0.959	0	1.25
8.917	0.00	1.00	0.952	0	1.24
9.000	0.00	1.00	0.945	0	1.23
9.083	0.00	1.00	0.938	0	1.22
9.167	0.00	1.00	0.931	0	1.22
9.250	0.00	1.00	0.924	0	1.21
9.333	0.00	0.99	0.918	0	1.20
9.417	0.00	0.99	0.911	0	1.19
9.500	0.00	0.99	0.904	0	1.18
9.583	0.00	0.99	0.897	0	1.17
9.667	0.00	0.99	0.890	0	1.17
9.750	0.00	0.99	0.883	0	1.16
9.833	0.00	0.99	0.877	0	1.15
9.917	0.00	0.99	0.870	0	1.14
10.000	0.00	0.99	0.863	0	1.13
10.083	0.00	0.99	0.856	0	1.12
10.167	0.00	0.99	0.849	0	1.11
10.250	0.00	0.99	0.842	0	1.11
10.333	0.00	0.99	0.836	0	1.10
10.417	0.00	0.99	0.829	0	1.09
10.500	0.00	0.99	0.822	0	1.08
10.583	0.00	0.99	0.815	0	1.07
10.667	0.00	0.99	0.809	0	1.06
10.750	0.00	0.99	0.802	0	1.06
10.833	0.00	0.98	0.795	0	1.05
10.917	0.00	0.98	0.788	0	1.04
11.000	0.00	0.98	0.781	0	1.03
11.083	0.00	0.98	0.775	0	1.02
11.167	0.00	0.98	0.768	0	1.01
11.250	0.00	0.98	0.761	0	1.01
11.333	0.00	0.98	0.754	0	1.00
11.417	0.00	0.98	0.748	0	0.99
11.500	0.00	0.98	0.741	0	0.98
11.583	0.00	0.98	0.734	0	0.97
11.667	0.00	0.98	0.727	0	0.96
11.750	0.00	0.98	0.721	0	0.96
11.833	0.00	0.98	0.714	0	0.95
11.917	0.00	0.98	0.707	0	0.94
12.000	0.00	0.98	0.700	0	0.93
12.083	0.00	0.98	0.694	0	0.92
12.167	0.00	0.98	0.687	0	0.91
12.250	0.00	0.98	0.680	0	0.91
12.333	0.00	0.97	0.673	0	0.90
12.417	0.00	0.97	0.667	0	0.89
12.500	0.00	0.97	0.660	0	0.88
12.583	0.00	0.97	0.653	0	0.87
12.667	0.00	0.97	0.647	0	0.86
12.750	0.00	0.97	0.640	0	0.86

12.833	0.00	0.97	0.633	0					0.85
12.917	0.00	0.97	0.627	0					0.84
13.000	0.00	0.97	0.620	0					0.83
13.083	0.00	0.97	0.613	0					0.82
13.167	0.00	0.97	0.607	0					0.81
13.250	0.00	0.97	0.600	0					0.81
13.333	0.00	0.97	0.593	0					0.80
13.417	0.00	0.97	0.587	0					0.79
13.500	0.00	0.97	0.580	0					0.78
13.583	0.00	0.97	0.573	0					0.77
13.667	0.00	0.97	0.567	0					0.77
13.750	0.00	0.97	0.560	0					0.76
13.833	0.00	0.96	0.553	0					0.75
13.917	0.00	0.96	0.547	0					0.74
14.000	0.00	0.96	0.540	0					0.73
14.083	0.00	0.96	0.533	0					0.72
14.167	0.00	0.96	0.527	0					0.72
14.250	0.00	0.96	0.520	0					0.71
14.333	0.00	0.96	0.513	0					0.70
14.417	0.00	0.96	0.507	0					0.69
14.500	0.00	0.96	0.500	0					0.68
14.583	0.00	0.96	0.494	0					0.68
14.667	0.00	0.96	0.487	0					0.67
14.750	0.00	0.96	0.480	0					0.66
14.833	0.00	0.96	0.474	0					0.65
14.917	0.00	0.96	0.467	0					0.64
15.000	0.00	0.96	0.461	0					0.63
15.083	0.00	0.96	0.454	0					0.63
15.167	0.00	0.96	0.447	0					0.62
15.250	0.00	0.96	0.441	0					0.61
15.333	0.00	0.95	0.434	0					0.60
15.417	0.00	0.95	0.428	0					0.59
15.500	0.00	0.95	0.421	0					0.59
15.583	0.00	0.95	0.415	0					0.58
15.667	0.00	0.95	0.408	0					0.57
15.750	0.00	0.95	0.401	0					0.56
15.833	0.00	0.95	0.395	0					0.55
15.917	0.00	0.95	0.388	0					0.54
16.000	0.00	0.95	0.382	0					0.54
16.083	0.00	0.95	0.375	0					0.53
16.167	0.00	0.95	0.369	0					0.52
16.250	0.00	0.95	0.362	0					0.51
16.333	0.00	0.95	0.356	0					0.50
16.417	0.00	0.94	0.349	0					0.50
16.500	0.00	0.92	0.343	0					0.49
16.583	0.00	0.91	0.336	0					0.48
16.667	0.00	0.89	0.330	0					0.47
16.750	0.00	0.87	0.324	0					0.46
16.833	0.00	0.86	0.318	0					0.45
16.917	0.00	0.84	0.312	0					0.44
17.000	0.00	0.83	0.307	0					0.44
17.083	0.00	0.81	0.301	0					0.43
17.167	0.00	0.80	0.295	0					0.42
17.250	0.00	0.78	0.290	0					0.41
17.333	0.00	0.77	0.285	0					0.40
17.417	0.00	0.75	0.279	0					0.40
17.500	0.00	0.74	0.274	0					0.39
17.583	0.00	0.73	0.269	0					0.38
17.667	0.00	0.71	0.264	0					0.38
17.750	0.00	0.70	0.260	0					0.37
17.833	0.00	0.69	0.255	0					0.36
17.917	0.00	0.67	0.250	0					0.36
18.000	0.00	0.66	0.245	0					0.35
18.083	0.00	0.65	0.241	0					0.34
18.167	0.00	0.64	0.237	0					0.34
18.250	0.00	0.63	0.232	0					0.33
18.333	0.00	0.61	0.228	0					0.32
18.417	0.00	0.60	0.224	0					0.32
18.500	0.00	0.59	0.220	0					0.31
18.583	0.00	0.58	0.216	0					0.31
18.667	0.00	0.57	0.212	0					0.30
18.750	0.00	0.56	0.208	0					0.30
18.833	0.00	0.55	0.204	0					0.29
18.917	0.00	0.54	0.200	0					0.28
19.000	0.00	0.53	0.196	0					0.28

19.083	0.00	0.52	0.193	0				0.27
19.167	0.00	0.51	0.189	0				0.27
19.250	0.00	0.50	0.186	0				0.26
19.333	0.00	0.49	0.182	0				0.26
19.417	0.00	0.48	0.179	0				0.25
19.500	0.00	0.47	0.176	0				0.25
19.583	0.00	0.46	0.173	0				0.25
19.667	0.00	0.46	0.169	0				0.24
19.750	0.00	0.45	0.166	0				0.24
19.833	0.00	0.44	0.163	0				0.23
19.917	0.00	0.43	0.160	0				0.23
20.000	0.00	0.42	0.157	0				0.22
20.083	0.00	0.42	0.154	0				0.22
20.167	0.00	0.41	0.152	0				0.22
20.250	0.00	0.40	0.149	0				0.21
20.333	0.00	0.39	0.146	0				0.21
20.417	0.00	0.39	0.143	0				0.20
20.500	0.00	0.38	0.141	0				0.20
20.583	0.00	0.37	0.138	0				0.20
20.667	0.00	0.37	0.136	0				0.19
20.750	0.00	0.36	0.133	0				0.19
20.833	0.00	0.35	0.131	0				0.19
20.917	0.00	0.35	0.128	0				0.18
21.000	0.00	0.34	0.126	0				0.18
21.083	0.00	0.33	0.124	0				0.18
21.167	0.00	0.33	0.121	0				0.17
21.250	0.00	0.32	0.119	0				0.17
21.333	0.00	0.31	0.117	0				0.17
21.417	0.00	0.31	0.115	0				0.16
21.500	0.00	0.30	0.113	0				0.16
21.583	0.00	0.30	0.111	0				0.16
21.667	0.00	0.29	0.109	0				0.15
21.750	0.00	0.29	0.107	0				0.15
21.833	0.00	0.28	0.105	0				0.15
21.917	0.00	0.28	0.103	0				0.15
22.000	0.00	0.27	0.101	0				0.14
22.083	0.00	0.27	0.099	0				0.14
22.167	0.00	0.26	0.097	0				0.14
22.250	0.00	0.26	0.095	0				0.14
22.333	0.00	0.25	0.094	0				0.13
22.417	0.00	0.25	0.092	0				0.13
22.500	0.00	0.24	0.090	0				0.13
22.583	0.00	0.24	0.088	0				0.13
22.667	0.00	0.23	0.087	0				0.12
22.750	0.00	0.23	0.085	0				0.12
22.833	0.00	0.23	0.084	0				0.12
22.917	0.00	0.22	0.082	0				0.12
23.000	0.00	0.22	0.081	0				0.11
23.083	0.00	0.21	0.079	0				0.11
23.167	0.00	0.21	0.078	0				0.11
23.250	0.00	0.21	0.076	0				0.11
23.333	0.00	0.20	0.075	0				0.11
23.417	0.00	0.20	0.074	0				0.10
23.500	0.00	0.19	0.072	0				0.10
23.583	0.00	0.19	0.071	0				0.10
23.667	0.00	0.19	0.070	0				0.10
23.750	0.00	0.18	0.068	0				0.10
23.833	0.00	0.18	0.067	0				0.10
23.917	0.00	0.18	0.066	0				0.09
24.000	0.00	0.17	0.065	0				0.09
24.083	0.00	0.17	0.063	0				0.09
24.167	0.00	0.17	0.062	0				0.09
24.250	0.00	0.16	0.061	0				0.09
24.333	0.00	0.16	0.060	0				0.09
24.417	0.00	0.16	0.059	0				0.08
24.500	0.00	0.16	0.058	0				0.08
24.583	0.00	0.15	0.057	0				0.08
24.667	0.00	0.15	0.056	0				0.08
24.750	0.00	0.15	0.055	0				0.08
24.833	0.00	0.14	0.054	0				0.08
24.917	0.00	0.14	0.053	0				0.07
25.000	0.00	0.14	0.052	0				0.07
25.083	0.00	0.14	0.051	0				0.07
25.167	0.00	0.13	0.050	0				0.07
25.250	0.00	0.13	0.049	0				0.07

25.333	0.00	0.13	0.048	0					0.07
25.417	0.00	0.13	0.047	0					0.07
25.500	0.00	0.12	0.046	0					0.07
25.583	0.00	0.12	0.045	0					0.06
25.667	0.00	0.12	0.045	0					0.06
25.750	0.00	0.12	0.044	0					0.06
25.833	0.00	0.12	0.043	0					0.06
25.917	0.00	0.11	0.042	0					0.06
26.000	0.00	0.11	0.041	0					0.06
26.083	0.00	0.11	0.041	0					0.06
26.167	0.00	0.11	0.040	0					0.06
26.250	0.00	0.11	0.039	0					0.06
26.333	0.00	0.10	0.038	0					0.05
26.417	0.00	0.10	0.038	0					0.05
26.500	0.00	0.10	0.037	0					0.05
26.583	0.00	0.10	0.036	0					0.05
26.667	0.00	0.10	0.036	0					0.05
26.750	0.00	0.09	0.035	0					0.05
26.833	0.00	0.09	0.034	0					0.05
26.917	0.00	0.09	0.034	0					0.05
27.000	0.00	0.09	0.033	0					0.05
27.083	0.00	0.09	0.033	0					0.05
27.167	0.00	0.09	0.032	0					0.05
27.250	0.00	0.08	0.031	0					0.04
27.333	0.00	0.08	0.031	0					0.04
27.417	0.00	0.08	0.030	0					0.04
27.500	0.00	0.08	0.030	0					0.04
27.583	0.00	0.08	0.029	0					0.04
27.667	0.00	0.08	0.029	0					0.04
27.750	0.00	0.08	0.028	0					0.04
27.833	0.00	0.07	0.028	0					0.04
27.917	0.00	0.07	0.027	0					0.04
28.000	0.00	0.07	0.027	0					0.04
28.083	0.00	0.07	0.026	0					0.04
28.167	0.00	0.07	0.026	0					0.04
28.250	0.00	0.07	0.025	0					0.04
28.333	0.00	0.07	0.025	0					0.03
28.417	0.00	0.07	0.024	0					0.03
28.500	0.00	0.06	0.024	0					0.03
28.583	0.00	0.06	0.023	0					0.03
28.667	0.00	0.06	0.023	0					0.03
28.750	0.00	0.06	0.022	0					0.03
28.833	0.00	0.06	0.022	0					0.03
28.917	0.00	0.06	0.022	0					0.03
29.000	0.00	0.06	0.021	0					0.03
29.083	0.00	0.06	0.021	0					0.03
29.167	0.00	0.06	0.020	0					0.03
29.250	0.00	0.05	0.020	0					0.03
29.333	0.00	0.05	0.020	0					0.03
29.417	0.00	0.05	0.019	0					0.03
29.500	0.00	0.05	0.019	0					0.03
29.583	0.00	0.05	0.019	0					0.03
29.667	0.00	0.05	0.018	0					0.03
29.750	0.00	0.05	0.018	0					0.03
29.833	0.00	0.05	0.018	0					0.03
29.917	0.00	0.05	0.017	0					0.02
30.000	0.00	0.05	0.017	0					0.02
30.083	0.00	0.04	0.017	0					0.02
30.167	0.00	0.04	0.016	0					0.02
30.250	0.00	0.04	0.016	0					0.02
30.333	0.00	0.04	0.016	0					0.02
30.417	0.00	0.04	0.015	0					0.02
30.500	0.00	0.04	0.015	0					0.02
30.583	0.00	0.04	0.015	0					0.02
30.667	0.00	0.04	0.015	0					0.02
30.750	0.00	0.04	0.014	0					0.02
30.833	0.00	0.04	0.014	0					0.02
30.917	0.00	0.04	0.014	0					0.02
31.000	0.00	0.04	0.014	0					0.02
31.083	0.00	0.04	0.013	0					0.02
31.167	0.00	0.04	0.013	0					0.02
31.250	0.00	0.03	0.013	0					0.02
31.333	0.00	0.03	0.013	0					0.02
31.417	0.00	0.03	0.012	0					0.02
31.500	0.00	0.03	0.012	0					0.02

31.583	0.00	0.03	0.012	0					0.02
31.667	0.00	0.03	0.012	0					0.02
31.750	0.00	0.03	0.012	0					0.02
31.833	0.00	0.03	0.011	0					0.02
31.917	0.00	0.03	0.011	0					0.02
32.000	0.00	0.03	0.011	0					0.02
32.083	0.00	0.03	0.011	0					0.02
32.167	0.00	0.03	0.010	0					0.01
32.250	0.00	0.03	0.010	0					0.01
32.333	0.00	0.03	0.010	0					0.01
32.417	0.00	0.03	0.010	0					0.01
32.500	0.00	0.03	0.010	0					0.01
32.583	0.00	0.03	0.010	0					0.01
32.667	0.00	0.03	0.009	0					0.01
32.750	0.00	0.02	0.009	0					0.01
32.833	0.00	0.02	0.009	0					0.01
32.917	0.00	0.02	0.009	0					0.01
33.000	0.00	0.02	0.009	0					0.01
33.083	0.00	0.02	0.009	0					0.01
33.167	0.00	0.02	0.008	0					0.01
33.250	0.00	0.02	0.008	0					0.01
33.333	0.00	0.02	0.008	0					0.01
33.417	0.00	0.02	0.008	0					0.01
33.500	0.00	0.02	0.008	0					0.01
33.583	0.00	0.02	0.008	0					0.01
33.667	0.00	0.02	0.008	0					0.01
33.750	0.00	0.02	0.007	0					0.01
33.833	0.00	0.02	0.007	0					0.01
33.917	0.00	0.02	0.007	0					0.01
34.000	0.00	0.02	0.007	0					0.01
34.083	0.00	0.02	0.007	0					0.01
34.167	0.00	0.02	0.007	0					0.01
34.250	0.00	0.02	0.007	0					0.01
34.333	0.00	0.02	0.006	0					0.01
34.417	0.00	0.02	0.006	0					0.01
34.500	0.00	0.02	0.006	0					0.01
34.583	0.00	0.02	0.006	0					0.01
34.667	0.00	0.02	0.006	0					0.01
34.750	0.00	0.02	0.006	0					0.01
34.833	0.00	0.02	0.006	0					0.01
34.917	0.00	0.02	0.006	0					0.01
35.000	0.00	0.02	0.006	0					0.01
35.083	0.00	0.01	0.005	0					0.01
35.167	0.00	0.01	0.005	0					0.01
35.250	0.00	0.01	0.005	0					0.01
35.333	0.00	0.01	0.005	0					0.01
35.417	0.00	0.01	0.005	0					0.01
35.500	0.00	0.01	0.005	0					0.01
35.583	0.00	0.01	0.005	0					0.01
35.667	0.00	0.01	0.005	0					0.01
35.750	0.00	0.01	0.005	0					0.01
35.833	0.00	0.01	0.005	0					0.01
35.917	0.00	0.01	0.005	0					0.01
36.000	0.00	0.01	0.004	0					0.01
36.083	0.00	0.01	0.004	0					0.01
36.167	0.00	0.01	0.004	0					0.01
36.250	0.00	0.01	0.004	0					0.01
36.333	0.00	0.01	0.004	0					0.01
36.417	0.00	0.01	0.004	0					0.01
36.500	0.00	0.01	0.004	0					0.01
36.583	0.00	0.01	0.004	0					0.01
36.667	0.00	0.01	0.004	0					0.01
36.750	0.00	0.01	0.004	0					0.01
36.833	0.00	0.01	0.004	0					0.01
36.917	0.00	0.01	0.004	0					0.01
37.000	0.00	0.01	0.004	0					0.01
37.083	0.00	0.01	0.004	0					0.00
37.167	0.00	0.01	0.003	0					0.00
37.250	0.00	0.01	0.003	0					0.00
37.333	0.00	0.01	0.003	0					0.00
37.417	0.00	0.01	0.003	0					0.00
37.500	0.00	0.01	0.003	0					0.00
37.583	0.00	0.01	0.003	0					0.00
37.667	0.00	0.01	0.003	0					0.00
37.750	0.00	0.01	0.003	0					0.00

37.833	0.00	0.01	0.003	0					0.00
37.917	0.00	0.01	0.003	0					0.00
38.000	0.00	0.01	0.003	0					0.00
38.083	0.00	0.01	0.003	0					0.00
38.167	0.00	0.01	0.003	0					0.00
38.250	0.00	0.01	0.003	0					0.00
38.333	0.00	0.01	0.003	0					0.00
38.417	0.00	0.01	0.003	0					0.00
38.500	0.00	0.01	0.003	0					0.00
38.583	0.00	0.01	0.003	0					0.00
38.667	0.00	0.01	0.002	0					0.00
38.750	0.00	0.01	0.002	0					0.00
38.833	0.00	0.01	0.002	0					0.00
38.917	0.00	0.01	0.002	0					0.00
39.000	0.00	0.01	0.002	0					0.00
39.083	0.00	0.01	0.002	0					0.00
39.167	0.00	0.01	0.002	0					0.00
39.250	0.00	0.01	0.002	0					0.00
39.333	0.00	0.01	0.002	0					0.00
39.417	0.00	0.01	0.002	0					0.00
39.500	0.00	0.01	0.002	0					0.00
39.583	0.00	0.01	0.002	0					0.00
39.667	0.00	0.01	0.002	0					0.00
39.750	0.00	0.01	0.002	0					0.00
39.833	0.00	0.01	0.002	0					0.00
39.917	0.00	0.01	0.002	0					0.00
40.000	0.00	0.00	0.002	0					0.00
40.083	0.00	0.00	0.002	0					0.00
40.167	0.00	0.00	0.002	0					0.00
40.250	0.00	0.00	0.002	0					0.00
40.333	0.00	0.00	0.002	0					0.00
40.417	0.00	0.00	0.002	0					0.00
40.500	0.00	0.00	0.002	0					0.00
40.583	0.00	0.00	0.002	0					0.00
40.667	0.00	0.00	0.002	0					0.00
40.750	0.00	0.00	0.002	0					0.00
40.833	0.00	0.00	0.002	0					0.00
40.917	0.00	0.00	0.001	0					0.00
41.000	0.00	0.00	0.001	0					0.00
41.083	0.00	0.00	0.001	0					0.00
41.167	0.00	0.00	0.001	0					0.00
41.250	0.00	0.00	0.001	0					0.00
41.333	0.00	0.00	0.001	0					0.00
41.417	0.00	0.00	0.001	0					0.00
41.500	0.00	0.00	0.001	0					0.00
41.583	0.00	0.00	0.001	0					0.00
41.667	0.00	0.00	0.001	0					0.00
41.750	0.00	0.00	0.001	0					0.00
41.833	0.00	0.00	0.001	0					0.00
41.917	0.00	0.00	0.001	0					0.00
42.000	0.00	0.00	0.001	0					0.00
42.083	0.00	0.00	0.001	0					0.00
42.167	0.00	0.00	0.001	0					0.00
42.250	0.00	0.00	0.001	0					0.00
42.333	0.00	0.00	0.001	0					0.00
42.417	0.00	0.00	0.001	0					0.00
42.500	0.00	0.00	0.001	0					0.00
42.583	0.00	0.00	0.001	0					0.00
42.667	0.00	0.00	0.001	0					0.00
42.750	0.00	0.00	0.001	0					0.00
42.833	0.00	0.00	0.001	0					0.00
42.917	0.00	0.00	0.001	0					0.00
43.000	0.00	0.00	0.001	0					0.00
43.083	0.00	0.00	0.001	0					0.00
43.167	0.00	0.00	0.001	0					0.00
43.250	0.00	0.00	0.001	0					0.00
43.333	0.00	0.00	0.001	0					0.00
43.417	0.00	0.00	0.001	0					0.00
43.500	0.00	0.00	0.001	0					0.00
43.583	0.00	0.00	0.001	0					0.00
43.667	0.00	0.00	0.001	0					0.00
43.750	0.00	0.00	0.001	0					0.00
43.833	0.00	0.00	0.001	0					0.00
43.917	0.00	0.00	0.001	0					0.00
44.000	0.00	0.00	0.001	0					0.00

44.083	0.00	0.00	0.001	o					0.00
44.167	0.00	0.00	0.001	o					0.00
44.250	0.00	0.00	0.001	o					0.00
44.333	0.00	0.00	0.001	o					0.00

*****HYDROGRAPH DATA*****

Number of intervals = 532
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 14.760 (CFS)
 Total volume = 2.249 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

BASIN ROUTING
100-YEAR, 3-HOUR STORM EVENT

FLOOD HYDROGRAPH ROUTING PROGRAM
 Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
 Study date: 06/30/22

21-0235 PERRIS AIRPORT LOGISTICS CENTER
 BASIN ROUTING CALCULATIONS
 100-YEAR, 3-HOUR STORM EVENT
 FN: BMPE3100.OUT ABE

Program License Serial Number 4010

***** HYDROGRAPH INFORMATION *****

From study/file name: ONSITEPROPEAST3100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 39
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 38.066 (CFS)
 Total volume = 3.235 (Ac.Ft)
 Status of hydrographs being held in storage
 Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
 Peak (CFS) 0.000 0.000 0.000 0.000 0.000
 Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

+++++
 Process from Point/Station 201.000 to Point/Station 202.000
 **** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 39
 Hydrograph time unit = 5.000 (Min.)
 Initial depth in storage basin = 0.00 (Ft.)

Initial basin depth = 0.00 (Ft.)
 Initial basin storage = 0.00 (Ac.Ft)
 Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.352	0.948	0.349	0.355
1.500	1.161	1.015	1.158	1.164
1.900	1.525	1.040	1.521	1.529
2.500	2.115	20.240	2.045	2.185
3.500	3.214	71.164	2.969	3.459
4.500	4.464	141.968	3.975	4.953
5.500	5.868	228.091	5.083	6.653

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	9.5	19.03	28.55	38.07	Depth (Ft.)
0.083	2.53	0.02	0.009	0 I					0.01
0.167	4.84	0.09	0.034	0 I					0.05
0.250	4.90	0.18	0.066	0 I					0.09

0.333	5.51	0.27	0.100	0	I							0.14
0.417	6.15	0.37	0.138	0	I							0.20
0.500	6.96	0.49	0.181	0	I							0.26
0.583	6.96	0.61	0.225	0	I							0.32
0.667	7.14	0.72	0.269	0	I							0.38
0.750	7.72	0.85	0.314	0	I							0.45
0.833	7.08	0.95	0.359	0	I							0.51
0.917	6.71	0.95	0.400	0	I							0.56
1.000	7.27	0.96	0.442	0	I							0.61
1.083	8.67	0.96	0.490	0	I							0.67
1.167	9.66	0.96	0.547	0	I							0.74
1.250	9.87	0.97	0.607	0	I							0.82
1.333	9.46	0.97	0.667	0	I							0.89
1.417	10.47	0.98	0.729	0	I							0.97
1.500	11.96	0.99	0.800	0		I						1.05
1.583	11.68	0.99	0.874	0		I						1.15
1.667	11.89	1.00	0.948	0		I						1.24
1.750	13.91	1.00	1.030	0			I					1.34
1.833	14.83	1.01	1.122	0			I					1.45
1.917	14.21	1.02	1.215	0			I					1.56
2.000	14.03	1.02	1.306	0			I					1.66
2.083	14.38	1.03	1.396	0			I					1.76
2.167	17.27	1.04	1.498	0				I				1.87
2.250	21.72	3.98	1.615		O				I			1.99
2.333	20.35	7.42	1.721			O			I			2.10
2.417	25.58	10.55	1.817				O			I		2.20
2.500	33.63	14.39	1.935					O			I	2.32
2.583	38.07	18.71	2.068						O			2.45
2.667	35.30	23.10	2.177							O		2.56
2.750	21.20	24.52	2.207						I	O		2.58
2.833	11.22	22.23	2.158						I		O	2.54
2.917	8.68	19.22	2.084						I		O	2.47
3.000	5.43	16.77	2.008			I				O		2.39
3.083	1.98	14.14	1.927			I				O		2.31
3.167	0.48	11.54	1.848			I				O		2.23
3.250	0.09	9.27	1.778			I				O		2.16
3.333	0.00	7.41	1.721			I				O		2.10
3.417	0.00	5.92	1.675			I				O		2.05
3.500	0.00	4.72	1.638			I				O		2.02
3.583	0.00	3.77	1.609			I				O		1.99
3.667	0.00	3.01	1.586			I				O		1.96
3.750	0.00	2.40	1.567			I				O		1.94
3.833	0.00	1.92	1.552			IO						1.93
3.917	0.00	1.53	1.540			IO						1.92
4.000	0.00	1.22	1.531			IO						1.91
4.083	0.00	1.04	1.523			IO						1.90
4.167	0.00	1.04	1.516			O						1.89
4.250	0.00	1.04	1.509			O						1.88
4.333	0.00	1.04	1.501			O						1.87
4.417	0.00	1.04	1.494			O						1.87
4.500	0.00	1.04	1.487			O						1.86
4.583	0.00	1.04	1.480			O						1.85
4.667	0.00	1.04	1.473			O						1.84
4.750	0.00	1.04	1.466			O						1.83
4.833	0.00	1.04	1.459			O						1.83
4.917	0.00	1.03	1.451			O						1.82
5.000	0.00	1.03	1.444			O						1.81
5.083	0.00	1.03	1.437			O						1.80
5.167	0.00	1.03	1.430			O						1.80
5.250	0.00	1.03	1.423			O						1.79
5.333	0.00	1.03	1.416			O						1.78
5.417	0.00	1.03	1.409			O						1.77
5.500	0.00	1.03	1.402			O						1.76
5.583	0.00	1.03	1.394			O						1.76
5.667	0.00	1.03	1.387			O						1.75
5.750	0.00	1.03	1.380			O						1.74
5.833	0.00	1.03	1.373			O						1.73
5.917	0.00	1.03	1.366			O						1.73
6.000	0.00	1.03	1.359			O						1.72
6.083	0.00	1.03	1.352			O						1.71
6.167	0.00	1.03	1.345			O						1.70
6.250	0.00	1.03	1.338			O						1.69
6.333	0.00	1.03	1.331			O						1.69
6.417	0.00	1.03	1.324			O						1.68
6.500	0.00	1.03	1.317			O						1.67

6.583	0.00	1.03	1.310	0	1.66
6.667	0.00	1.02	1.302	0	1.66
6.750	0.00	1.02	1.295	0	1.65
6.833	0.00	1.02	1.288	0	1.64
6.917	0.00	1.02	1.281	0	1.63
7.000	0.00	1.02	1.274	0	1.62
7.083	0.00	1.02	1.267	0	1.62
7.167	0.00	1.02	1.260	0	1.61
7.250	0.00	1.02	1.253	0	1.60
7.333	0.00	1.02	1.246	0	1.59
7.417	0.00	1.02	1.239	0	1.59
7.500	0.00	1.02	1.232	0	1.58
7.583	0.00	1.02	1.225	0	1.57
7.667	0.00	1.02	1.218	0	1.56
7.750	0.00	1.02	1.211	0	1.55
7.833	0.00	1.02	1.204	0	1.55
7.917	0.00	1.02	1.197	0	1.54
8.000	0.00	1.02	1.190	0	1.53
8.083	0.00	1.02	1.183	0	1.52
8.167	0.00	1.02	1.176	0	1.52
8.250	0.00	1.02	1.169	0	1.51
8.333	0.00	1.02	1.162	0	1.50
8.417	0.00	1.01	1.155	0	1.49
8.500	0.00	1.01	1.148	0	1.48
8.583	0.00	1.01	1.141	0	1.48
8.667	0.00	1.01	1.134	0	1.47
8.750	0.00	1.01	1.127	0	1.46
8.833	0.00	1.01	1.120	0	1.45
8.917	0.00	1.01	1.113	0	1.44
9.000	0.00	1.01	1.106	0	1.43
9.083	0.00	1.01	1.099	0	1.42
9.167	0.00	1.01	1.092	0	1.42
9.250	0.00	1.01	1.085	0	1.41
9.333	0.00	1.01	1.078	0	1.40
9.417	0.00	1.01	1.071	0	1.39
9.500	0.00	1.01	1.065	0	1.38
9.583	0.00	1.01	1.058	0	1.37
9.667	0.00	1.01	1.051	0	1.36
9.750	0.00	1.01	1.044	0	1.36
9.833	0.00	1.00	1.037	0	1.35
9.917	0.00	1.00	1.030	0	1.34
10.000	0.00	1.00	1.023	0	1.33
10.083	0.00	1.00	1.016	0	1.32
10.167	0.00	1.00	1.009	0	1.31
10.250	0.00	1.00	1.002	0	1.30
10.333	0.00	1.00	0.995	0	1.30
10.417	0.00	1.00	0.988	0	1.29
10.500	0.00	1.00	0.982	0	1.28
10.583	0.00	1.00	0.975	0	1.27
10.667	0.00	1.00	0.968	0	1.26
10.750	0.00	1.00	0.961	0	1.25
10.833	0.00	1.00	0.954	0	1.24
10.917	0.00	1.00	0.947	0	1.24
11.000	0.00	1.00	0.940	0	1.23
11.083	0.00	1.00	0.933	0	1.22
11.167	0.00	1.00	0.927	0	1.21
11.250	0.00	1.00	0.920	0	1.20
11.333	0.00	0.99	0.913	0	1.19
11.417	0.00	0.99	0.906	0	1.18
11.500	0.00	0.99	0.899	0	1.18
11.583	0.00	0.99	0.892	0	1.17
11.667	0.00	0.99	0.886	0	1.16
11.750	0.00	0.99	0.879	0	1.15
11.833	0.00	0.99	0.872	0	1.14
11.917	0.00	0.99	0.865	0	1.13
12.000	0.00	0.99	0.858	0	1.13
12.083	0.00	0.99	0.851	0	1.12
12.167	0.00	0.99	0.845	0	1.11
12.250	0.00	0.99	0.838	0	1.10
12.333	0.00	0.99	0.831	0	1.09
12.417	0.00	0.99	0.824	0	1.08
12.500	0.00	0.99	0.817	0	1.08
12.583	0.00	0.99	0.811	0	1.07
12.667	0.00	0.99	0.804	0	1.06
12.750	0.00	0.98	0.797	0	1.05

12.833	0.00	0.98	0.790	0	1.04
12.917	0.00	0.98	0.783	0	1.03
13.000	0.00	0.98	0.777	0	1.02
13.083	0.00	0.98	0.770	0	1.02
13.167	0.00	0.98	0.763	0	1.01
13.250	0.00	0.98	0.756	0	1.00
13.333	0.00	0.98	0.750	0	0.99
13.417	0.00	0.98	0.743	0	0.98
13.500	0.00	0.98	0.736	0	0.97
13.583	0.00	0.98	0.729	0	0.97
13.667	0.00	0.98	0.723	0	0.96
13.750	0.00	0.98	0.716	0	0.95
13.833	0.00	0.98	0.709	0	0.94
13.917	0.00	0.98	0.702	0	0.93
14.000	0.00	0.98	0.696	0	0.92
14.083	0.00	0.98	0.689	0	0.92
14.167	0.00	0.98	0.682	0	0.91
14.250	0.00	0.97	0.676	0	0.90
14.333	0.00	0.97	0.669	0	0.89
14.417	0.00	0.97	0.662	0	0.88
14.500	0.00	0.97	0.655	0	0.88
14.583	0.00	0.97	0.649	0	0.87
14.667	0.00	0.97	0.642	0	0.86
14.750	0.00	0.97	0.635	0	0.85
14.833	0.00	0.97	0.629	0	0.84
14.917	0.00	0.97	0.622	0	0.83
15.000	0.00	0.97	0.615	0	0.83
15.083	0.00	0.97	0.609	0	0.82
15.167	0.00	0.97	0.602	0	0.81
15.250	0.00	0.97	0.595	0	0.80
15.333	0.00	0.97	0.589	0	0.79
15.417	0.00	0.97	0.582	0	0.78
15.500	0.00	0.97	0.575	0	0.78
15.583	0.00	0.97	0.569	0	0.77
15.667	0.00	0.97	0.562	0	0.76
15.750	0.00	0.96	0.555	0	0.75
15.833	0.00	0.96	0.549	0	0.74
15.917	0.00	0.96	0.542	0	0.73
16.000	0.00	0.96	0.535	0	0.73
16.083	0.00	0.96	0.529	0	0.72
16.167	0.00	0.96	0.522	0	0.71
16.250	0.00	0.96	0.516	0	0.70
16.333	0.00	0.96	0.509	0	0.69
16.417	0.00	0.96	0.502	0	0.69
16.500	0.00	0.96	0.496	0	0.68
16.583	0.00	0.96	0.489	0	0.67
16.667	0.00	0.96	0.482	0	0.66
16.750	0.00	0.96	0.476	0	0.65
16.833	0.00	0.96	0.469	0	0.64
16.917	0.00	0.96	0.463	0	0.64
17.000	0.00	0.96	0.456	0	0.63
17.083	0.00	0.96	0.449	0	0.62
17.167	0.00	0.96	0.443	0	0.61
17.250	0.00	0.95	0.436	0	0.60
17.333	0.00	0.95	0.430	0	0.60
17.417	0.00	0.95	0.423	0	0.59
17.500	0.00	0.95	0.417	0	0.58
17.583	0.00	0.95	0.410	0	0.57
17.667	0.00	0.95	0.403	0	0.56
17.750	0.00	0.95	0.397	0	0.56
17.833	0.00	0.95	0.390	0	0.55
17.917	0.00	0.95	0.384	0	0.54
18.000	0.00	0.95	0.377	0	0.53
18.083	0.00	0.95	0.371	0	0.52
18.167	0.00	0.95	0.364	0	0.52
18.250	0.00	0.95	0.358	0	0.51
18.333	0.00	0.95	0.351	0	0.50
18.417	0.00	0.93	0.345	0	0.49
18.500	0.00	0.91	0.338	0	0.48
18.583	0.00	0.89	0.332	0	0.47
18.667	0.00	0.88	0.326	0	0.46
18.750	0.00	0.86	0.320	0	0.45
18.833	0.00	0.85	0.314	0	0.45
18.917	0.00	0.83	0.308	0	0.44
19.000	0.00	0.82	0.303	0	0.43

19.083	0.00	0.80	0.297	0				0.42
19.167	0.00	0.79	0.292	0				0.41
19.250	0.00	0.77	0.286	0				0.41
19.333	0.00	0.76	0.281	0				0.40
19.417	0.00	0.74	0.276	0				0.39
19.500	0.00	0.73	0.271	0				0.38
19.583	0.00	0.72	0.266	0				0.38
19.667	0.00	0.70	0.261	0				0.37
19.750	0.00	0.69	0.256	0				0.36
19.833	0.00	0.68	0.251	0				0.36
19.917	0.00	0.66	0.247	0				0.35
20.000	0.00	0.65	0.242	0				0.34
20.083	0.00	0.64	0.238	0				0.34
20.167	0.00	0.63	0.233	0				0.33
20.250	0.00	0.62	0.229	0				0.33
20.333	0.00	0.61	0.225	0				0.32
20.417	0.00	0.59	0.221	0				0.31
20.500	0.00	0.58	0.217	0				0.31
20.583	0.00	0.57	0.213	0				0.30
20.667	0.00	0.56	0.209	0				0.30
20.750	0.00	0.55	0.205	0				0.29
20.833	0.00	0.54	0.201	0				0.29
20.917	0.00	0.53	0.198	0				0.28
21.000	0.00	0.52	0.194	0				0.28
21.083	0.00	0.51	0.190	0				0.27
21.167	0.00	0.50	0.187	0				0.27
21.250	0.00	0.49	0.183	0				0.26
21.333	0.00	0.49	0.180	0				0.26
21.417	0.00	0.48	0.177	0				0.25
21.500	0.00	0.47	0.174	0				0.25
21.583	0.00	0.46	0.170	0				0.24
21.667	0.00	0.45	0.167	0				0.24
21.750	0.00	0.44	0.164	0				0.23
21.833	0.00	0.43	0.161	0				0.23
21.917	0.00	0.43	0.158	0				0.22
22.000	0.00	0.42	0.155	0				0.22
22.083	0.00	0.41	0.152	0				0.22
22.167	0.00	0.40	0.150	0				0.21
22.250	0.00	0.40	0.147	0				0.21
22.333	0.00	0.39	0.144	0				0.20
22.417	0.00	0.38	0.142	0				0.20
22.500	0.00	0.37	0.139	0				0.20
22.583	0.00	0.37	0.136	0				0.19
22.667	0.00	0.36	0.134	0				0.19
22.750	0.00	0.35	0.131	0				0.19
22.833	0.00	0.35	0.129	0				0.18
22.917	0.00	0.34	0.127	0				0.18
23.000	0.00	0.33	0.124	0				0.18
23.083	0.00	0.33	0.122	0				0.17
23.167	0.00	0.32	0.120	0				0.17
23.250	0.00	0.32	0.118	0				0.17
23.333	0.00	0.31	0.115	0				0.16
23.417	0.00	0.31	0.113	0				0.16
23.500	0.00	0.30	0.111	0				0.16
23.583	0.00	0.29	0.109	0				0.16
23.667	0.00	0.29	0.107	0				0.15
23.750	0.00	0.28	0.105	0				0.15
23.833	0.00	0.28	0.103	0				0.15
23.917	0.00	0.27	0.101	0				0.14
24.000	0.00	0.27	0.099	0				0.14
24.083	0.00	0.26	0.098	0				0.14
24.167	0.00	0.26	0.096	0				0.14
24.250	0.00	0.25	0.094	0				0.13
24.333	0.00	0.25	0.092	0				0.13
24.417	0.00	0.24	0.091	0				0.13
24.500	0.00	0.24	0.089	0				0.13
24.583	0.00	0.24	0.087	0				0.12
24.667	0.00	0.23	0.086	0				0.12
24.750	0.00	0.23	0.084	0				0.12
24.833	0.00	0.22	0.083	0				0.12
24.917	0.00	0.22	0.081	0				0.12
25.000	0.00	0.21	0.080	0				0.11
25.083	0.00	0.21	0.078	0				0.11
25.167	0.00	0.21	0.077	0				0.11
25.250	0.00	0.20	0.075	0				0.11

25.333	0.00	0.20	0.074	0					0.11
25.417	0.00	0.20	0.073	0					0.10
25.500	0.00	0.19	0.071	0					0.10
25.583	0.00	0.19	0.070	0					0.10
25.667	0.00	0.18	0.069	0					0.10
25.750	0.00	0.18	0.067	0					0.10
25.833	0.00	0.18	0.066	0					0.09
25.917	0.00	0.17	0.065	0					0.09
26.000	0.00	0.17	0.064	0					0.09
26.083	0.00	0.17	0.063	0					0.09
26.167	0.00	0.17	0.061	0					0.09
26.250	0.00	0.16	0.060	0					0.09
26.333	0.00	0.16	0.059	0					0.08
26.417	0.00	0.16	0.058	0					0.08
26.500	0.00	0.15	0.057	0					0.08
26.583	0.00	0.15	0.056	0					0.08
26.667	0.00	0.15	0.055	0					0.08
26.750	0.00	0.15	0.054	0					0.08
26.833	0.00	0.14	0.053	0					0.08
26.917	0.00	0.14	0.052	0					0.07
27.000	0.00	0.14	0.051	0					0.07
27.083	0.00	0.13	0.050	0					0.07
27.167	0.00	0.13	0.049	0					0.07
27.250	0.00	0.13	0.048	0					0.07
27.333	0.00	0.13	0.047	0					0.07
27.417	0.00	0.13	0.046	0					0.07
27.500	0.00	0.12	0.046	0					0.06
27.583	0.00	0.12	0.045	0					0.06
27.667	0.00	0.12	0.044	0					0.06
27.750	0.00	0.12	0.043	0					0.06
27.833	0.00	0.11	0.042	0					0.06
27.917	0.00	0.11	0.042	0					0.06
28.000	0.00	0.11	0.041	0					0.06
28.083	0.00	0.11	0.040	0					0.06
28.167	0.00	0.11	0.039	0					0.06
28.250	0.00	0.10	0.039	0					0.05
28.333	0.00	0.10	0.038	0					0.05
28.417	0.00	0.10	0.037	0					0.05
28.500	0.00	0.10	0.037	0					0.05
28.583	0.00	0.10	0.036	0					0.05
28.667	0.00	0.09	0.035	0					0.05
28.750	0.00	0.09	0.035	0					0.05
28.833	0.00	0.09	0.034	0					0.05
28.917	0.00	0.09	0.033	0					0.05
29.000	0.00	0.09	0.033	0					0.05
29.083	0.00	0.09	0.032	0					0.05
29.167	0.00	0.08	0.031	0					0.04
29.250	0.00	0.08	0.031	0					0.04
29.333	0.00	0.08	0.030	0					0.04
29.417	0.00	0.08	0.030	0					0.04
29.500	0.00	0.08	0.029	0					0.04
29.583	0.00	0.08	0.029	0					0.04
29.667	0.00	0.08	0.028	0					0.04
29.750	0.00	0.07	0.028	0					0.04
29.833	0.00	0.07	0.027	0					0.04
29.917	0.00	0.07	0.027	0					0.04
30.000	0.00	0.07	0.026	0					0.04
30.083	0.00	0.07	0.026	0					0.04
30.167	0.00	0.07	0.025	0					0.04
30.250	0.00	0.07	0.025	0					0.04
30.333	0.00	0.07	0.024	0					0.03
30.417	0.00	0.06	0.024	0					0.03
30.500	0.00	0.06	0.023	0					0.03
30.583	0.00	0.06	0.023	0					0.03
30.667	0.00	0.06	0.023	0					0.03
30.750	0.00	0.06	0.022	0					0.03
30.833	0.00	0.06	0.022	0					0.03
30.917	0.00	0.06	0.021	0					0.03
31.000	0.00	0.06	0.021	0					0.03
31.083	0.00	0.06	0.021	0					0.03
31.167	0.00	0.05	0.020	0					0.03
31.250	0.00	0.05	0.020	0					0.03
31.333	0.00	0.05	0.019	0					0.03
31.417	0.00	0.05	0.019	0					0.03
31.500	0.00	0.05	0.019	0					0.03

31.583	0.00	0.05	0.018	0					0.03
31.667	0.00	0.05	0.018	0					0.03
31.750	0.00	0.05	0.018	0					0.03
31.833	0.00	0.05	0.017	0					0.02
31.917	0.00	0.05	0.017	0					0.02
32.000	0.00	0.05	0.017	0					0.02
32.083	0.00	0.04	0.016	0					0.02
32.167	0.00	0.04	0.016	0					0.02
32.250	0.00	0.04	0.016	0					0.02
32.333	0.00	0.04	0.016	0					0.02
32.417	0.00	0.04	0.015	0					0.02
32.500	0.00	0.04	0.015	0					0.02
32.583	0.00	0.04	0.015	0					0.02
32.667	0.00	0.04	0.014	0					0.02
32.750	0.00	0.04	0.014	0					0.02
32.833	0.00	0.04	0.014	0					0.02
32.917	0.00	0.04	0.014	0					0.02
33.000	0.00	0.04	0.013	0					0.02
33.083	0.00	0.04	0.013	0					0.02
33.167	0.00	0.03	0.013	0					0.02
33.250	0.00	0.03	0.013	0					0.02
33.333	0.00	0.03	0.012	0					0.02
33.417	0.00	0.03	0.012	0					0.02
33.500	0.00	0.03	0.012	0					0.02
33.583	0.00	0.03	0.012	0					0.02
33.667	0.00	0.03	0.012	0					0.02
33.750	0.00	0.03	0.011	0					0.02
33.833	0.00	0.03	0.011	0					0.02
33.917	0.00	0.03	0.011	0					0.02
34.000	0.00	0.03	0.011	0					0.02
34.083	0.00	0.03	0.011	0					0.01
34.167	0.00	0.03	0.010	0					0.01
34.250	0.00	0.03	0.010	0					0.01
34.333	0.00	0.03	0.010	0					0.01
34.417	0.00	0.03	0.010	0					0.01
34.500	0.00	0.03	0.010	0					0.01
34.583	0.00	0.03	0.009	0					0.01
34.667	0.00	0.02	0.009	0					0.01
34.750	0.00	0.02	0.009	0					0.01
34.833	0.00	0.02	0.009	0					0.01
34.917	0.00	0.02	0.009	0					0.01
35.000	0.00	0.02	0.009	0					0.01
35.083	0.00	0.02	0.008	0					0.01
35.167	0.00	0.02	0.008	0					0.01
35.250	0.00	0.02	0.008	0					0.01
35.333	0.00	0.02	0.008	0					0.01
35.417	0.00	0.02	0.008	0					0.01
35.500	0.00	0.02	0.008	0					0.01
35.583	0.00	0.02	0.008	0					0.01
35.667	0.00	0.02	0.007	0					0.01
35.750	0.00	0.02	0.007	0					0.01
35.833	0.00	0.02	0.007	0					0.01
35.917	0.00	0.02	0.007	0					0.01
36.000	0.00	0.02	0.007	0					0.01
36.083	0.00	0.02	0.007	0					0.01
36.167	0.00	0.02	0.007	0					0.01
36.250	0.00	0.02	0.007	0					0.01
36.333	0.00	0.02	0.006	0					0.01
36.417	0.00	0.02	0.006	0					0.01
36.500	0.00	0.02	0.006	0					0.01
36.583	0.00	0.02	0.006	0					0.01
36.667	0.00	0.02	0.006	0					0.01
36.750	0.00	0.02	0.006	0					0.01
36.833	0.00	0.02	0.006	0					0.01
36.917	0.00	0.02	0.006	0					0.01
37.000	0.00	0.01	0.006	0					0.01
37.083	0.00	0.01	0.005	0					0.01
37.167	0.00	0.01	0.005	0					0.01
37.250	0.00	0.01	0.005	0					0.01
37.333	0.00	0.01	0.005	0					0.01
37.417	0.00	0.01	0.005	0					0.01
37.500	0.00	0.01	0.005	0					0.01
37.583	0.00	0.01	0.005	0					0.01
37.667	0.00	0.01	0.005	0					0.01
37.750	0.00	0.01	0.005	0					0.01

44.083	0.00	0.00	0.001	o					0.00
44.167	0.00	0.00	0.001	o					0.00
44.250	0.00	0.00	0.001	o					0.00
44.333	0.00	0.00	0.001	o					0.00
44.417	0.00	0.00	0.001	o					0.00
44.500	0.00	0.00	0.001	o					0.00
44.583	0.00	0.00	0.001	o					0.00
44.667	0.00	0.00	0.001	o					0.00
44.750	0.00	0.00	0.001	o					0.00
44.833	0.00	0.00	0.001	o					0.00
44.917	0.00	0.00	0.001	o					0.00
45.000	0.00	0.00	0.001	o					0.00
45.083	0.00	0.00	0.001	o					0.00
45.167	0.00	0.00	0.001	o					0.00
45.250	0.00	0.00	0.001	o					0.00
45.333	0.00	0.00	0.001	o					0.00
45.417	0.00	0.00	0.001	o					0.00
45.500	0.00	0.00	0.001	o					0.00
45.583	0.00	0.00	0.001	o					0.00
45.667	0.00	0.00	0.001	o					0.00
45.750	0.00	0.00	0.001	o					0.00
45.833	0.00	0.00	0.001	o					0.00
45.917	0.00	0.00	0.001	o					0.00
46.000	0.00	0.00	0.001	o					0.00
46.083	0.00	0.00	0.001	o					0.00
46.167	0.00	0.00	0.001	o					0.00
46.250	0.00	0.00	0.001	o					0.00

*****HYDROGRAPH DATA*****

Number of intervals = 555
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 24.518 (CFS)
Total volume = 3.235 (Ac.Ft)
Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

BASIN ROUTING
100-YEAR, 6-HOUR STORM EVENT

FLOOD HYDROGRAPH ROUTING PROGRAM
 Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
 Study date: 06/30/22

21-0235 PERRIS AIRPORT LOGISTICS CENTER
 BASIN ROUTING CALCULATIONS
 100-YEAR, 6-HOUR STORM EVENT
 FN: BMPE6100.OUT ABE

Program License Serial Number 4010

***** HYDROGRAPH INFORMATION *****

From study/file name: ONSITEPROPEAST6100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 75
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 33.320 (CFS)
 Total volume = 4.128 (Ac.Ft)
 Status of hydrographs being held in storage
 Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
 Peak (CFS) 0.000 0.000 0.000 0.000 0.000
 Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

+++++
 Process from Point/Station 201.000 to Point/Station 202.000
 **** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 75
 Hydrograph time unit = 5.000 (Min.)
 Initial depth in storage basin = 0.00 (Ft.)

Initial basin depth = 0.00 (Ft.)
 Initial basin storage = 0.00 (Ac.Ft)
 Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.352	0.948	0.349	0.355
1.500	1.161	1.015	1.158	1.164
1.900	1.525	1.040	1.521	1.529
2.500	2.115	20.240	2.045	2.185
3.500	3.214	71.164	2.969	3.459
4.500	4.464	141.968	3.975	4.953
5.500	5.868	228.091	5.083	6.653

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	8.3	16.66	24.99	33.32	Depth (Ft.)
0.083	1.28	0.01	0.004	O I					0.01
0.167	2.70	0.05	0.018	O I					0.03
0.250	3.16	0.10	0.038	O I					0.05

6.583	0.00	2.42	1.567	I O	1.94
6.667	0.00	1.93	1.552	IO	1.93
6.750	0.00	1.54	1.540	IO	1.92
6.833	0.00	1.23	1.531	IO	1.91
6.917	0.00	1.04	1.523	O	1.90
7.000	0.00	1.04	1.516	O	1.89
7.083	0.00	1.04	1.509	O	1.88
7.167	0.00	1.04	1.502	O	1.87
7.250	0.00	1.04	1.494	O	1.87
7.333	0.00	1.04	1.487	O	1.86
7.417	0.00	1.04	1.480	O	1.85
7.500	0.00	1.04	1.473	O	1.84
7.583	0.00	1.04	1.466	O	1.84
7.667	0.00	1.04	1.459	O	1.83
7.750	0.00	1.03	1.452	O	1.82
7.833	0.00	1.03	1.445	O	1.81
7.917	0.00	1.03	1.437	O	1.80
8.000	0.00	1.03	1.430	O	1.80
8.083	0.00	1.03	1.423	O	1.79
8.167	0.00	1.03	1.416	O	1.78
8.250	0.00	1.03	1.409	O	1.77
8.333	0.00	1.03	1.402	O	1.76
8.417	0.00	1.03	1.395	O	1.76
8.500	0.00	1.03	1.388	O	1.75
8.583	0.00	1.03	1.381	O	1.74
8.667	0.00	1.03	1.373	O	1.73
8.750	0.00	1.03	1.366	O	1.73
8.833	0.00	1.03	1.359	O	1.72
8.917	0.00	1.03	1.352	O	1.71
9.000	0.00	1.03	1.345	O	1.70
9.083	0.00	1.03	1.338	O	1.69
9.167	0.00	1.03	1.331	O	1.69
9.250	0.00	1.03	1.324	O	1.68
9.333	0.00	1.03	1.317	O	1.67
9.417	0.00	1.03	1.310	O	1.66
9.500	0.00	1.02	1.303	O	1.66
9.583	0.00	1.02	1.296	O	1.65
9.667	0.00	1.02	1.289	O	1.64
9.750	0.00	1.02	1.282	O	1.63
9.833	0.00	1.02	1.274	O	1.62
9.917	0.00	1.02	1.267	O	1.62
10.000	0.00	1.02	1.260	O	1.61
10.083	0.00	1.02	1.253	O	1.60
10.167	0.00	1.02	1.246	O	1.59
10.250	0.00	1.02	1.239	O	1.59
10.333	0.00	1.02	1.232	O	1.58
10.417	0.00	1.02	1.225	O	1.57
10.500	0.00	1.02	1.218	O	1.56
10.583	0.00	1.02	1.211	O	1.56
10.667	0.00	1.02	1.204	O	1.55
10.750	0.00	1.02	1.197	O	1.54
10.833	0.00	1.02	1.190	O	1.53
10.917	0.00	1.02	1.183	O	1.52
11.000	0.00	1.02	1.176	O	1.52
11.083	0.00	1.02	1.169	O	1.51
11.167	0.00	1.02	1.162	O	1.50
11.250	0.00	1.01	1.155	O	1.49
11.333	0.00	1.01	1.148	O	1.48
11.417	0.00	1.01	1.141	O	1.48
11.500	0.00	1.01	1.134	O	1.47
11.583	0.00	1.01	1.127	O	1.46
11.667	0.00	1.01	1.120	O	1.45
11.750	0.00	1.01	1.113	O	1.44
11.833	0.00	1.01	1.106	O	1.43
11.917	0.00	1.01	1.099	O	1.42
12.000	0.00	1.01	1.093	O	1.42
12.083	0.00	1.01	1.086	O	1.41
12.167	0.00	1.01	1.079	O	1.40
12.250	0.00	1.01	1.072	O	1.39
12.333	0.00	1.01	1.065	O	1.38
12.417	0.00	1.01	1.058	O	1.37
12.500	0.00	1.01	1.051	O	1.36
12.583	0.00	1.01	1.044	O	1.36
12.667	0.00	1.00	1.037	O	1.35
12.750	0.00	1.00	1.030	O	1.34

12.833	0.00	1.00	1.023	0	1.33
12.917	0.00	1.00	1.016	0	1.32
13.000	0.00	1.00	1.009	0	1.31
13.083	0.00	1.00	1.002	0	1.30
13.167	0.00	1.00	0.996	0	1.30
13.250	0.00	1.00	0.989	0	1.29
13.333	0.00	1.00	0.982	0	1.28
13.417	0.00	1.00	0.975	0	1.27
13.500	0.00	1.00	0.968	0	1.26
13.583	0.00	1.00	0.961	0	1.25
13.667	0.00	1.00	0.954	0	1.24
13.750	0.00	1.00	0.947	0	1.24
13.833	0.00	1.00	0.941	0	1.23
13.917	0.00	1.00	0.934	0	1.22
14.000	0.00	1.00	0.927	0	1.21
14.083	0.00	1.00	0.920	0	1.20
14.167	0.00	0.99	0.913	0	1.19
14.250	0.00	0.99	0.906	0	1.19
14.333	0.00	0.99	0.899	0	1.18
14.417	0.00	0.99	0.893	0	1.17
14.500	0.00	0.99	0.886	0	1.16
14.583	0.00	0.99	0.879	0	1.15
14.667	0.00	0.99	0.872	0	1.14
14.750	0.00	0.99	0.865	0	1.13
14.833	0.00	0.99	0.858	0	1.13
14.917	0.00	0.99	0.852	0	1.12
15.000	0.00	0.99	0.845	0	1.11
15.083	0.00	0.99	0.838	0	1.10
15.167	0.00	0.99	0.831	0	1.09
15.250	0.00	0.99	0.824	0	1.08
15.333	0.00	0.99	0.818	0	1.08
15.417	0.00	0.99	0.811	0	1.07
15.500	0.00	0.99	0.804	0	1.06
15.583	0.00	0.98	0.797	0	1.05
15.667	0.00	0.98	0.790	0	1.04
15.750	0.00	0.98	0.784	0	1.03
15.833	0.00	0.98	0.777	0	1.03
15.917	0.00	0.98	0.770	0	1.02
16.000	0.00	0.98	0.763	0	1.01
16.083	0.00	0.98	0.757	0	1.00
16.167	0.00	0.98	0.750	0	0.99
16.250	0.00	0.98	0.743	0	0.98
16.333	0.00	0.98	0.736	0	0.98
16.417	0.00	0.98	0.730	0	0.97
16.500	0.00	0.98	0.723	0	0.96
16.583	0.00	0.98	0.716	0	0.95
16.667	0.00	0.98	0.709	0	0.94
16.750	0.00	0.98	0.703	0	0.93
16.833	0.00	0.98	0.696	0	0.93
16.917	0.00	0.98	0.689	0	0.92
17.000	0.00	0.98	0.682	0	0.91
17.083	0.00	0.97	0.676	0	0.90
17.167	0.00	0.97	0.669	0	0.89
17.250	0.00	0.97	0.662	0	0.88
17.333	0.00	0.97	0.656	0	0.88
17.417	0.00	0.97	0.649	0	0.87
17.500	0.00	0.97	0.642	0	0.86
17.583	0.00	0.97	0.636	0	0.85
17.667	0.00	0.97	0.629	0	0.84
17.750	0.00	0.97	0.622	0	0.83
17.833	0.00	0.97	0.616	0	0.83
17.917	0.00	0.97	0.609	0	0.82
18.000	0.00	0.97	0.602	0	0.81
18.083	0.00	0.97	0.595	0	0.80
18.167	0.00	0.97	0.589	0	0.79
18.250	0.00	0.97	0.582	0	0.78
18.333	0.00	0.97	0.575	0	0.78
18.417	0.00	0.97	0.569	0	0.77
18.500	0.00	0.97	0.562	0	0.76
18.583	0.00	0.96	0.556	0	0.75
18.667	0.00	0.96	0.549	0	0.74
18.750	0.00	0.96	0.542	0	0.74
18.833	0.00	0.96	0.536	0	0.73
18.917	0.00	0.96	0.529	0	0.72
19.000	0.00	0.96	0.522	0	0.71

19.083	0.00	0.96	0.516	0				0.70
19.167	0.00	0.96	0.509	0				0.69
19.250	0.00	0.96	0.503	0				0.69
19.333	0.00	0.96	0.496	0				0.68
19.417	0.00	0.96	0.489	0				0.67
19.500	0.00	0.96	0.483	0				0.66
19.583	0.00	0.96	0.476	0				0.65
19.667	0.00	0.96	0.469	0				0.65
19.750	0.00	0.96	0.463	0				0.64
19.833	0.00	0.96	0.456	0				0.63
19.917	0.00	0.96	0.450	0				0.62
20.000	0.00	0.96	0.443	0				0.61
20.083	0.00	0.96	0.437	0				0.60
20.167	0.00	0.95	0.430	0				0.60
20.250	0.00	0.95	0.423	0				0.59
20.333	0.00	0.95	0.417	0				0.58
20.417	0.00	0.95	0.410	0				0.57
20.500	0.00	0.95	0.404	0				0.56
20.583	0.00	0.95	0.397	0				0.56
20.667	0.00	0.95	0.391	0				0.55
20.750	0.00	0.95	0.384	0				0.54
20.833	0.00	0.95	0.378	0				0.53
20.917	0.00	0.95	0.371	0				0.52
21.000	0.00	0.95	0.364	0				0.52
21.083	0.00	0.95	0.358	0				0.51
21.167	0.00	0.95	0.351	0				0.50
21.250	0.00	0.93	0.345	0				0.49
21.333	0.00	0.91	0.339	0				0.48
21.417	0.00	0.90	0.332	0				0.47
21.500	0.00	0.88	0.326	0				0.46
21.583	0.00	0.86	0.320	0				0.45
21.667	0.00	0.85	0.314	0				0.45
21.750	0.00	0.83	0.309	0				0.44
21.833	0.00	0.82	0.303	0				0.43
21.917	0.00	0.80	0.297	0				0.42
22.000	0.00	0.79	0.292	0				0.41
22.083	0.00	0.77	0.287	0				0.41
22.167	0.00	0.76	0.281	0				0.40
22.250	0.00	0.74	0.276	0				0.39
22.333	0.00	0.73	0.271	0				0.38
22.417	0.00	0.72	0.266	0				0.38
22.500	0.00	0.70	0.261	0				0.37
22.583	0.00	0.69	0.256	0				0.36
22.667	0.00	0.68	0.252	0				0.36
22.750	0.00	0.67	0.247	0				0.35
22.833	0.00	0.65	0.242	0				0.34
22.917	0.00	0.64	0.238	0				0.34
23.000	0.00	0.63	0.234	0				0.33
23.083	0.00	0.62	0.229	0				0.33
23.167	0.00	0.61	0.225	0				0.32
23.250	0.00	0.60	0.221	0				0.31
23.333	0.00	0.58	0.217	0				0.31
23.417	0.00	0.57	0.213	0				0.30
23.500	0.00	0.56	0.209	0				0.30
23.583	0.00	0.55	0.205	0				0.29
23.667	0.00	0.54	0.201	0				0.29
23.750	0.00	0.53	0.198	0				0.28
23.833	0.00	0.52	0.194	0				0.28
23.917	0.00	0.51	0.191	0				0.27
24.000	0.00	0.50	0.187	0				0.27
24.083	0.00	0.49	0.184	0				0.26
24.167	0.00	0.49	0.180	0				0.26
24.250	0.00	0.48	0.177	0				0.25
24.333	0.00	0.47	0.174	0				0.25
24.417	0.00	0.46	0.170	0				0.24
24.500	0.00	0.45	0.167	0				0.24
24.583	0.00	0.44	0.164	0				0.23
24.667	0.00	0.43	0.161	0				0.23
24.750	0.00	0.43	0.158	0				0.22
24.833	0.00	0.42	0.155	0				0.22
24.917	0.00	0.41	0.152	0				0.22
25.000	0.00	0.40	0.150	0				0.21
25.083	0.00	0.40	0.147	0				0.21
25.167	0.00	0.39	0.144	0				0.20
25.250	0.00	0.38	0.142	0				0.20

25.333	0.00	0.37	0.139	0					0.20
25.417	0.00	0.37	0.136	0					0.19
25.500	0.00	0.36	0.134	0					0.19
25.583	0.00	0.35	0.131	0					0.19
25.667	0.00	0.35	0.129	0					0.18
25.750	0.00	0.34	0.127	0					0.18
25.833	0.00	0.33	0.124	0					0.18
25.917	0.00	0.33	0.122	0					0.17
26.000	0.00	0.32	0.120	0					0.17
26.083	0.00	0.32	0.118	0					0.17
26.167	0.00	0.31	0.115	0					0.16
26.250	0.00	0.31	0.113	0					0.16
26.333	0.00	0.30	0.111	0					0.16
26.417	0.00	0.29	0.109	0					0.16
26.500	0.00	0.29	0.107	0					0.15
26.583	0.00	0.28	0.105	0					0.15
26.667	0.00	0.28	0.103	0					0.15
26.750	0.00	0.27	0.101	0					0.14
26.833	0.00	0.27	0.100	0					0.14
26.917	0.00	0.26	0.098	0					0.14
27.000	0.00	0.26	0.096	0					0.14
27.083	0.00	0.25	0.094	0					0.13
27.167	0.00	0.25	0.092	0					0.13
27.250	0.00	0.24	0.091	0					0.13
27.333	0.00	0.24	0.089	0					0.13
27.417	0.00	0.24	0.087	0					0.12
27.500	0.00	0.23	0.086	0					0.12
27.583	0.00	0.23	0.084	0					0.12
27.667	0.00	0.22	0.083	0					0.12
27.750	0.00	0.22	0.081	0					0.12
27.833	0.00	0.21	0.080	0					0.11
27.917	0.00	0.21	0.078	0					0.11
28.000	0.00	0.21	0.077	0					0.11
28.083	0.00	0.20	0.075	0					0.11
28.167	0.00	0.20	0.074	0					0.11
28.250	0.00	0.20	0.073	0					0.10
28.333	0.00	0.19	0.071	0					0.10
28.417	0.00	0.19	0.070	0					0.10
28.500	0.00	0.18	0.069	0					0.10
28.583	0.00	0.18	0.067	0					0.10
28.667	0.00	0.18	0.066	0					0.09
28.750	0.00	0.17	0.065	0					0.09
28.833	0.00	0.17	0.064	0					0.09
28.917	0.00	0.17	0.063	0					0.09
29.000	0.00	0.17	0.061	0					0.09
29.083	0.00	0.16	0.060	0					0.09
29.167	0.00	0.16	0.059	0					0.08
29.250	0.00	0.16	0.058	0					0.08
29.333	0.00	0.15	0.057	0					0.08
29.417	0.00	0.15	0.056	0					0.08
29.500	0.00	0.15	0.055	0					0.08
29.583	0.00	0.15	0.054	0					0.08
29.667	0.00	0.14	0.053	0					0.08
29.750	0.00	0.14	0.052	0					0.07
29.833	0.00	0.14	0.051	0					0.07
29.917	0.00	0.13	0.050	0					0.07
30.000	0.00	0.13	0.049	0					0.07
30.083	0.00	0.13	0.048	0					0.07
30.167	0.00	0.13	0.047	0					0.07
30.250	0.00	0.13	0.047	0					0.07
30.333	0.00	0.12	0.046	0					0.06
30.417	0.00	0.12	0.045	0					0.06
30.500	0.00	0.12	0.044	0					0.06
30.583	0.00	0.12	0.043	0					0.06
30.667	0.00	0.11	0.042	0					0.06
30.750	0.00	0.11	0.042	0					0.06
30.833	0.00	0.11	0.041	0					0.06
30.917	0.00	0.11	0.040	0					0.06
31.000	0.00	0.11	0.039	0					0.06
31.083	0.00	0.10	0.039	0					0.05
31.167	0.00	0.10	0.038	0					0.05
31.250	0.00	0.10	0.037	0					0.05
31.333	0.00	0.10	0.037	0					0.05
31.417	0.00	0.10	0.036	0					0.05
31.500	0.00	0.09	0.035	0					0.05

31.583	0.00	0.09	0.035	0				0.05
31.667	0.00	0.09	0.034	0				0.05
31.750	0.00	0.09	0.033	0				0.05
31.833	0.00	0.09	0.033	0				0.05
31.917	0.00	0.09	0.032	0				0.05
32.000	0.00	0.08	0.032	0				0.04
32.083	0.00	0.08	0.031	0				0.04
32.167	0.00	0.08	0.030	0				0.04
32.250	0.00	0.08	0.030	0				0.04
32.333	0.00	0.08	0.029	0				0.04
32.417	0.00	0.08	0.029	0				0.04
32.500	0.00	0.08	0.028	0				0.04
32.583	0.00	0.07	0.028	0				0.04
32.667	0.00	0.07	0.027	0				0.04
32.750	0.00	0.07	0.027	0				0.04
32.833	0.00	0.07	0.026	0				0.04
32.917	0.00	0.07	0.026	0				0.04
33.000	0.00	0.07	0.025	0				0.04
33.083	0.00	0.07	0.025	0				0.04
33.167	0.00	0.07	0.024	0				0.03
33.250	0.00	0.06	0.024	0				0.03
33.333	0.00	0.06	0.023	0				0.03
33.417	0.00	0.06	0.023	0				0.03
33.500	0.00	0.06	0.023	0				0.03
33.583	0.00	0.06	0.022	0				0.03
33.667	0.00	0.06	0.022	0				0.03
33.750	0.00	0.06	0.021	0				0.03
33.833	0.00	0.06	0.021	0				0.03
33.917	0.00	0.06	0.021	0				0.03
34.000	0.00	0.05	0.020	0				0.03
34.083	0.00	0.05	0.020	0				0.03
34.167	0.00	0.05	0.019	0				0.03
34.250	0.00	0.05	0.019	0				0.03
34.333	0.00	0.05	0.019	0				0.03
34.417	0.00	0.05	0.018	0				0.03
34.500	0.00	0.05	0.018	0				0.03
34.583	0.00	0.05	0.018	0				0.03
34.667	0.00	0.05	0.017	0				0.02
34.750	0.00	0.05	0.017	0				0.02
34.833	0.00	0.05	0.017	0				0.02
34.917	0.00	0.04	0.016	0				0.02
35.000	0.00	0.04	0.016	0				0.02
35.083	0.00	0.04	0.016	0				0.02
35.167	0.00	0.04	0.016	0				0.02
35.250	0.00	0.04	0.015	0				0.02
35.333	0.00	0.04	0.015	0				0.02
35.417	0.00	0.04	0.015	0				0.02
35.500	0.00	0.04	0.014	0				0.02
35.583	0.00	0.04	0.014	0				0.02
35.667	0.00	0.04	0.014	0				0.02
35.750	0.00	0.04	0.014	0				0.02
35.833	0.00	0.04	0.013	0				0.02
35.917	0.00	0.04	0.013	0				0.02
36.000	0.00	0.03	0.013	0				0.02
36.083	0.00	0.03	0.013	0				0.02
36.167	0.00	0.03	0.012	0				0.02
36.250	0.00	0.03	0.012	0				0.02
36.333	0.00	0.03	0.012	0				0.02
36.417	0.00	0.03	0.012	0				0.02
36.500	0.00	0.03	0.012	0				0.02
36.583	0.00	0.03	0.011	0				0.02
36.667	0.00	0.03	0.011	0				0.02
36.750	0.00	0.03	0.011	0				0.02
36.833	0.00	0.03	0.011	0				0.02
36.917	0.00	0.03	0.011	0				0.01
37.000	0.00	0.03	0.010	0				0.01
37.083	0.00	0.03	0.010	0				0.01
37.167	0.00	0.03	0.010	0				0.01
37.250	0.00	0.03	0.010	0				0.01
37.333	0.00	0.03	0.010	0				0.01
37.417	0.00	0.03	0.009	0				0.01
37.500	0.00	0.02	0.009	0				0.01
37.583	0.00	0.02	0.009	0				0.01
37.667	0.00	0.02	0.009	0				0.01
37.750	0.00	0.02	0.009	0				0.01

37.833	0.00	0.02	0.009	0					0.01
37.917	0.00	0.02	0.008	0					0.01
38.000	0.00	0.02	0.008	0					0.01
38.083	0.00	0.02	0.008	0					0.01
38.167	0.00	0.02	0.008	0					0.01
38.250	0.00	0.02	0.008	0					0.01
38.333	0.00	0.02	0.008	0					0.01
38.417	0.00	0.02	0.008	0					0.01
38.500	0.00	0.02	0.007	0					0.01
38.583	0.00	0.02	0.007	0					0.01
38.667	0.00	0.02	0.007	0					0.01
38.750	0.00	0.02	0.007	0					0.01
38.833	0.00	0.02	0.007	0					0.01
38.917	0.00	0.02	0.007	0					0.01
39.000	0.00	0.02	0.007	0					0.01
39.083	0.00	0.02	0.007	0					0.01
39.167	0.00	0.02	0.006	0					0.01
39.250	0.00	0.02	0.006	0					0.01
39.333	0.00	0.02	0.006	0					0.01
39.417	0.00	0.02	0.006	0					0.01
39.500	0.00	0.02	0.006	0					0.01
39.583	0.00	0.02	0.006	0					0.01
39.667	0.00	0.02	0.006	0					0.01
39.750	0.00	0.02	0.006	0					0.01
39.833	0.00	0.01	0.006	0					0.01
39.917	0.00	0.01	0.005	0					0.01
40.000	0.00	0.01	0.005	0					0.01
40.083	0.00	0.01	0.005	0					0.01
40.167	0.00	0.01	0.005	0					0.01
40.250	0.00	0.01	0.005	0					0.01
40.333	0.00	0.01	0.005	0					0.01
40.417	0.00	0.01	0.005	0					0.01
40.500	0.00	0.01	0.005	0					0.01
40.583	0.00	0.01	0.005	0					0.01
40.667	0.00	0.01	0.005	0					0.01
40.750	0.00	0.01	0.004	0					0.01
40.833	0.00	0.01	0.004	0					0.01
40.917	0.00	0.01	0.004	0					0.01
41.000	0.00	0.01	0.004	0					0.01
41.083	0.00	0.01	0.004	0					0.01
41.167	0.00	0.01	0.004	0					0.01
41.250	0.00	0.01	0.004	0					0.01
41.333	0.00	0.01	0.004	0					0.01
41.417	0.00	0.01	0.004	0					0.01
41.500	0.00	0.01	0.004	0					0.01
41.583	0.00	0.01	0.004	0					0.01
41.667	0.00	0.01	0.004	0					0.01
41.750	0.00	0.01	0.004	0					0.01
41.833	0.00	0.01	0.004	0					0.01
41.917	0.00	0.01	0.003	0					0.00
42.000	0.00	0.01	0.003	0					0.00
42.083	0.00	0.01	0.003	0					0.00
42.167	0.00	0.01	0.003	0					0.00
42.250	0.00	0.01	0.003	0					0.00
42.333	0.00	0.01	0.003	0					0.00
42.417	0.00	0.01	0.003	0					0.00
42.500	0.00	0.01	0.003	0					0.00
42.583	0.00	0.01	0.003	0					0.00
42.667	0.00	0.01	0.003	0					0.00
42.750	0.00	0.01	0.003	0					0.00
42.833	0.00	0.01	0.003	0					0.00
42.917	0.00	0.01	0.003	0					0.00
43.000	0.00	0.01	0.003	0					0.00
43.083	0.00	0.01	0.003	0					0.00
43.167	0.00	0.01	0.003	0					0.00
43.250	0.00	0.01	0.003	0					0.00
43.333	0.00	0.01	0.003	0					0.00
43.417	0.00	0.01	0.002	0					0.00
43.500	0.00	0.01	0.002	0					0.00
43.583	0.00	0.01	0.002	0					0.00
43.667	0.00	0.01	0.002	0					0.00
43.750	0.00	0.01	0.002	0					0.00
43.833	0.00	0.01	0.002	0					0.00
43.917	0.00	0.01	0.002	0					0.00
44.000	0.00	0.01	0.002	0					0.00

44.083	0.00	0.01	0.002	0					0.00
44.167	0.00	0.01	0.002	0					0.00
44.250	0.00	0.01	0.002	0					0.00
44.333	0.00	0.01	0.002	0					0.00
44.417	0.00	0.01	0.002	0					0.00
44.500	0.00	0.01	0.002	0					0.00
44.583	0.00	0.01	0.002	0					0.00
44.667	0.00	0.01	0.002	0					0.00
44.750	0.00	0.00	0.002	0					0.00
44.833	0.00	0.00	0.002	0					0.00
44.917	0.00	0.00	0.002	0					0.00
45.000	0.00	0.00	0.002	0					0.00
45.083	0.00	0.00	0.002	0					0.00
45.167	0.00	0.00	0.002	0					0.00
45.250	0.00	0.00	0.002	0					0.00
45.333	0.00	0.00	0.002	0					0.00
45.417	0.00	0.00	0.002	0					0.00
45.500	0.00	0.00	0.002	0					0.00
45.583	0.00	0.00	0.002	0					0.00
45.667	0.00	0.00	0.002	0					0.00
45.750	0.00	0.00	0.001	0					0.00
45.833	0.00	0.00	0.001	0					0.00
45.917	0.00	0.00	0.001	0					0.00
46.000	0.00	0.00	0.001	0					0.00
46.083	0.00	0.00	0.001	0					0.00
46.167	0.00	0.00	0.001	0					0.00
46.250	0.00	0.00	0.001	0					0.00
46.333	0.00	0.00	0.001	0					0.00
46.417	0.00	0.00	0.001	0					0.00
46.500	0.00	0.00	0.001	0					0.00
46.583	0.00	0.00	0.001	0					0.00
46.667	0.00	0.00	0.001	0					0.00
46.750	0.00	0.00	0.001	0					0.00
46.833	0.00	0.00	0.001	0					0.00
46.917	0.00	0.00	0.001	0					0.00
47.000	0.00	0.00	0.001	0					0.00
47.083	0.00	0.00	0.001	0					0.00
47.167	0.00	0.00	0.001	0					0.00
47.250	0.00	0.00	0.001	0					0.00
47.333	0.00	0.00	0.001	0					0.00
47.417	0.00	0.00	0.001	0					0.00
47.500	0.00	0.00	0.001	0					0.00
47.583	0.00	0.00	0.001	0					0.00
47.667	0.00	0.00	0.001	0					0.00
47.750	0.00	0.00	0.001	0					0.00
47.833	0.00	0.00	0.001	0					0.00
47.917	0.00	0.00	0.001	0					0.00
48.000	0.00	0.00	0.001	0					0.00
48.083	0.00	0.00	0.001	0					0.00
48.167	0.00	0.00	0.001	0					0.00
48.250	0.00	0.00	0.001	0					0.00
48.333	0.00	0.00	0.001	0					0.00
48.417	0.00	0.00	0.001	0					0.00
48.500	0.00	0.00	0.001	0					0.00
48.583	0.00	0.00	0.001	0					0.00
48.667	0.00	0.00	0.001	0					0.00
48.750	0.00	0.00	0.001	0					0.00
48.833	0.00	0.00	0.001	0					0.00
48.917	0.00	0.00	0.001	0					0.00
49.000	0.00	0.00	0.001	0					0.00
49.083	0.00	0.00	0.001	0					0.00

*****HYDROGRAPH DATA*****
Number of intervals = 589
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 24.500 (CFS)
Total volume = 4.127 (Ac.Ft)
Status of hydrographs being held in storage
Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
Peak (CFS) 0.000 0.000 0.000 0.000 0.000
Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

BASIN ROUTING
100-YEAR, 24-HOUR STORM EVENT

FLOOD HYDROGRAPH ROUTING PROGRAM
 Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
 Study date: 06/30/22

21-0235 PERRIS AIRPORT LOGISTICS CENTER
 BASIN ROUTING CALCULATIONS
 100-YEAR, 24-HOUR STORM EVENT
 FN: BMPE24100.OUT ABE

Program License Serial Number 4010

***** HYDROGRAPH INFORMATION *****

From study/file name: ONSITEPROPEAST24100.rte
 *****HYDROGRAPH DATA*****
 Number of intervals = 291
 Time interval = 5.0 (Min.)
 Maximum/Peak flow rate = 14.295 (CFS)
 Total volume = 7.997 (Ac.Ft)
 Status of hydrographs being held in storage
 Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
 Peak (CFS) 0.000 0.000 0.000 0.000 0.000
 Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

+++++
 Process from Point/Station 201.000 to Point/Station 202.000
 **** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 291
 Hydrograph time unit = 5.000 (Min.)
 Initial depth in storage basin = 0.00 (Ft.)

Initial basin depth = 0.00 (Ft.)
 Initial basin storage = 0.00 (Ac.Ft)
 Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.352	0.948	0.349	0.355
1.500	1.161	1.015	1.158	1.164
1.900	1.525	1.040	1.521	1.529
2.500	2.115	20.240	2.045	2.185
3.500	3.214	71.164	2.969	3.459
4.500	4.464	141.968	3.975	4.953
5.500	5.868	228.091	5.083	6.653

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	3.6	7.15	10.72	14.30	Depth (Ft.)
0.083	0.34	0.00	0.001	o					0.00
0.167	0.65	0.01	0.005	OI					0.01
0.250	0.71	0.02	0.009	OI					0.01

0.333	0.91	0.04	0.014	O I				0.02
0.417	1.07	0.06	0.021	O I				0.03
0.500	1.10	0.08	0.028	O I				0.04
0.583	1.11	0.09	0.035	O I				0.05
0.667	1.11	0.11	0.042	O I				0.06
0.750	1.11	0.13	0.049	O I				0.07
0.833	1.28	0.15	0.056	O I				0.08
0.917	1.43	0.17	0.064	O I				0.09
1.000	1.46	0.20	0.073	O I				0.10
1.083	1.31	0.22	0.081	O I				0.12
1.167	1.15	0.24	0.088	O I				0.12
1.250	1.12	0.25	0.094	O I				0.13
1.333	1.11	0.27	0.100	O I				0.14
1.417	1.11	0.28	0.106	O I				0.15
1.500	1.11	0.30	0.111	O I				0.16
1.583	1.11	0.31	0.117	O I				0.17
1.667	1.11	0.33	0.122	O I				0.17
1.750	1.11	0.34	0.127	O I				0.18
1.833	1.28	0.36	0.133	O I				0.19
1.917	1.43	0.38	0.140	O I				0.20
2.000	1.46	0.40	0.147	O I				0.21
2.083	1.48	0.42	0.155	O I				0.22
2.167	1.48	0.44	0.162	O I				0.23
2.250	1.48	0.46	0.169	O I				0.24
2.333	1.48	0.47	0.176	O I				0.25
2.417	1.48	0.49	0.183	O I				0.26
2.500	1.48	0.51	0.190	O I				0.27
2.583	1.65	0.53	0.197	O I				0.28
2.667	1.80	0.55	0.205	O I				0.29
2.750	1.83	0.58	0.214	O I				0.30
2.833	1.85	0.60	0.222	O I				0.32
2.917	1.85	0.62	0.231	O I				0.33
3.000	1.85	0.64	0.239	O I				0.34
3.083	1.85	0.67	0.247	O I				0.35
3.167	1.85	0.69	0.255	O I				0.36
3.250	1.85	0.71	0.263	O I				0.37
3.333	1.85	0.73	0.271	O I				0.39
3.417	1.85	0.75	0.279	O I				0.40
3.500	1.85	0.77	0.286	O I				0.41
3.583	1.85	0.79	0.294	O I				0.42
3.667	1.85	0.81	0.301	O I				0.43
3.750	1.85	0.83	0.308	O I				0.44
3.833	2.02	0.85	0.315	O I				0.45
3.917	2.17	0.87	0.324	O I				0.46
4.000	2.20	0.90	0.333	O I				0.47
4.083	2.22	0.92	0.342	O I				0.49
4.167	2.22	0.94	0.351	O I				0.50
4.250	2.22	0.95	0.359	O I				0.51
4.333	2.39	0.95	0.369	O I				0.52
4.417	2.54	0.95	0.379	O I				0.53
4.500	2.57	0.95	0.390	O I				0.55
4.583	2.59	0.95	0.401	O I				0.56
4.667	2.59	0.95	0.413	O I				0.58
4.750	2.59	0.95	0.424	O I				0.59
4.833	2.76	0.95	0.436	O I				0.60
4.917	2.91	0.96	0.449	O I				0.62
5.000	2.94	0.96	0.462	O I				0.64
5.083	2.61	0.96	0.475	O I				0.65
5.167	2.30	0.96	0.485	O I				0.66
5.250	2.24	0.96	0.494	O I				0.68
5.333	2.39	0.96	0.504	O I				0.69
5.417	2.54	0.96	0.514	O I				0.70
5.500	2.57	0.96	0.525	O I				0.71
5.583	2.76	0.96	0.537	O I				0.73
5.667	2.91	0.96	0.549	O I				0.74
5.750	2.94	0.97	0.563	O I				0.76
5.833	2.96	0.97	0.577	O I				0.78
5.917	2.96	0.97	0.590	O I				0.79
6.000	2.96	0.97	0.604	O I				0.81
6.083	3.13	0.97	0.618	O I				0.83
6.167	3.28	0.97	0.634	O I				0.85
6.250	3.31	0.97	0.650	O I				0.87
6.333	3.32	0.97	0.666	O I				0.89
6.417	3.32	0.98	0.682	O I				0.91
6.500	3.32	0.98	0.698	O I				0.93

12.833	11.68	10.37	1.812						O	I		2.19
12.917	11.88	10.66	1.820						O	I		2.20
13.000	11.93	10.91	1.828						O	I		2.21
13.083	13.02	11.22	1.838						O	I		2.22
13.167	14.00	11.68	1.852						O	I		2.23
13.250	14.19	12.17	1.867						O	I		2.25
13.333	14.28	12.59	1.880						O	O	I	2.26
13.417	14.29	12.93	1.890						O	O	I	2.27
13.500	14.30	13.20	1.899						O	O	I	2.28
13.583	11.96	13.19	1.898						I	O		2.28
13.667	9.82	12.72	1.884						I	O		2.27
13.750	9.41	12.10	1.865						I	O		2.25
13.833	9.24	11.54	1.848						I	O		2.23
13.917	9.25	11.08	1.833						I	O		2.21
14.000	9.26	10.71	1.822						I	O		2.20
14.083	10.12	10.50	1.816						IO			2.20
14.167	10.90	10.51	1.816						OI			2.20
14.250	11.06	10.60	1.819						OI			2.20
14.333	10.92	10.68	1.821						OI			2.20
14.417	10.73	10.71	1.822						OI			2.20
14.500	10.70	10.71	1.822						O			2.20
14.583	10.69	10.71	1.822						O			2.20
14.667	10.70	10.71	1.822						O			2.20
14.750	10.70	10.70	1.822						O			2.20
14.833	10.50	10.68	1.821						O			2.20
14.917	10.31	10.63	1.820						O			2.20
15.000	10.28	10.56	1.818						O			2.20
15.083	10.06	10.48	1.815						IO			2.20
15.167	9.87	10.38	1.812						IO			2.19
15.250	9.84	10.27	1.809						O			2.19
15.333	9.61	10.16	1.805						IO			2.19
15.417	9.43	10.03	1.801						IO			2.18
15.500	9.39	9.91	1.797						IO			2.18
15.583	8.53	9.72	1.792						I	O		2.17
15.667	7.76	9.40	1.782						I	O		2.16
15.750	7.61	9.05	1.771						I	O		2.15
15.833	7.56	8.76	1.762						I	O		2.14
15.917	7.56	8.52	1.755						I	O		2.13
16.000	7.57	8.33	1.749						I	O		2.13
16.083	4.76	7.89	1.735				I		O			2.11
16.167	2.19	7.00	1.708				I		O			2.09
16.250	1.69	5.98	1.677				I		O			2.05
16.333	1.48	5.09	1.650				I		O			2.03
16.417	1.48	4.37	1.627				I		O			2.00
16.500	1.48	3.78	1.609				I		O			1.99
16.583	1.31	3.30	1.594				I		O			1.97
16.667	1.15	2.88	1.582				I		O			1.96
16.750	1.12	2.53	1.571				I		O			1.95
16.833	1.11	2.25	1.562				I		O			1.94
16.917	1.11	2.02	1.555				I		O			1.93
17.000	1.11	1.83	1.549				I		O			1.92
17.083	1.45	1.72	1.546				O					1.92
17.167	1.76	1.70	1.545				O					1.92
17.250	1.82	1.72	1.546				OI					1.92
17.333	1.85	1.74	1.547				OI					1.92
17.417	1.85	1.76	1.547				OI					1.92
17.500	1.85	1.78	1.548				OI					1.92
17.583	1.85	1.79	1.548				O					1.92
17.667	1.85	1.80	1.548				O					1.92
17.750	1.85	1.81	1.549				O					1.92
17.833	1.68	1.80	1.548				IO					1.92
17.917	1.52	1.76	1.547				O					1.92
18.000	1.49	1.71	1.546				O					1.92
18.083	1.48	1.66	1.544				O					1.92
18.167	1.48	1.63	1.543				O					1.92
18.250	1.48	1.60	1.542				O					1.92
18.333	1.48	1.57	1.541				O					1.92
18.417	1.48	1.55	1.541				O					1.92
18.500	1.48	1.54	1.540				O					1.92
18.583	1.31	1.51	1.539				IO					1.91
18.667	1.15	1.45	1.538				IO					1.91
18.750	1.12	1.39	1.536				IO					1.91
18.833	0.94	1.32	1.533				O					1.91
18.917	0.78	1.22	1.531				IO					1.91
19.000	0.75	1.13	1.528				IO					1.90

19.083	0.91	1.07	1.526	O					1.90
19.167	1.07	1.05	1.525	O					1.90
19.250	1.10	1.06	1.526	O					1.90
19.333	1.28	1.09	1.526	O					1.90
19.417	1.43	1.14	1.528	OI					1.90
19.500	1.46	1.20	1.530	OI					1.91
19.583	1.31	1.24	1.531	O					1.91
19.667	1.15	1.24	1.531	O					1.91
19.750	1.12	1.22	1.530	O					1.91
19.833	0.94	1.18	1.529	O					1.90
19.917	0.78	1.11	1.527	IO					1.90
20.000	0.75	1.04	1.525	IO					1.90
20.083	0.91	1.04	1.524	O					1.90
20.167	1.07	1.04	1.523	O					1.90
20.250	1.10	1.04	1.524	O					1.90
20.333	1.11	1.04	1.524	O					1.90
20.417	1.11	1.04	1.525	O					1.90
20.500	1.11	1.04	1.525	O					1.90
20.583	1.11	1.05	1.525	O					1.90
20.667	1.11	1.06	1.526	O					1.90
20.750	1.11	1.07	1.526	O					1.90
20.833	0.94	1.06	1.526	O					1.90
20.917	0.78	1.04	1.524	IO					1.90
21.000	0.75	1.04	1.523	IO					1.90
21.083	0.91	1.04	1.521	O					1.90
21.167	1.07	1.04	1.521	O					1.90
21.250	1.10	1.04	1.521	O					1.90
21.333	0.94	1.04	1.521	O					1.90
21.417	0.78	1.04	1.520	IO					1.89
21.500	0.75	1.04	1.518	IO					1.89
21.583	0.91	1.04	1.516	O					1.89
21.667	1.07	1.04	1.516	O					1.89
21.750	1.10	1.04	1.516	O					1.89
21.833	0.94	1.04	1.516	O					1.89
21.917	0.78	1.04	1.515	IO					1.89
22.000	0.75	1.04	1.513	IO					1.89
22.083	0.91	1.04	1.511	O					1.89
22.167	1.07	1.04	1.511	O					1.88
22.250	1.10	1.04	1.511	O					1.89
22.333	0.94	1.04	1.511	O					1.88
22.417	0.78	1.04	1.510	IO					1.88
22.500	0.75	1.04	1.508	IO					1.88
22.583	0.74	1.04	1.506	IO					1.88
22.667	0.74	1.04	1.504	IO					1.88
22.750	0.74	1.04	1.502	IO					1.87
22.833	0.74	1.04	1.500	IO					1.87
22.917	0.74	1.04	1.498	IO					1.87
23.000	0.74	1.04	1.496	IO					1.87
23.083	0.74	1.04	1.494	IO					1.87
23.167	0.74	1.04	1.492	IO					1.86
23.250	0.74	1.04	1.490	IO					1.86
23.333	0.74	1.04	1.488	IO					1.86
23.417	0.74	1.04	1.486	IO					1.86
23.500	0.74	1.04	1.483	IO					1.85
23.583	0.74	1.04	1.481	IO					1.85
23.667	0.74	1.04	1.479	IO					1.85
23.750	0.74	1.04	1.477	IO					1.85
23.833	0.74	1.04	1.475	IO					1.85
23.917	0.74	1.04	1.473	IO					1.84
24.000	0.74	1.04	1.471	IO					1.84
24.083	0.40	1.04	1.468	I O					1.84
24.167	0.09	1.04	1.462	I O					1.83
24.250	0.03	1.04	1.456	I O					1.82
24.333	0.00	1.03	1.449	I O					1.82
24.417	0.00	1.03	1.442	I O					1.81
24.500	0.00	1.03	1.434	I O					1.80
24.583	0.00	1.03	1.427	I O					1.79
24.667	0.00	1.03	1.420	I O					1.78
24.750	0.00	1.03	1.413	I O					1.78
24.833	0.00	1.03	1.406	I O					1.77
24.917	0.00	1.03	1.399	I O					1.76
25.000	0.00	1.03	1.392	I O					1.75
25.083	0.00	1.03	1.385	I O					1.75
25.167	0.00	1.03	1.378	I O					1.74
25.250	0.00	1.03	1.371	I O					1.73

25.333	0.00	1.03	1.363	I O	1.72
25.417	0.00	1.03	1.356	I O	1.71
25.500	0.00	1.03	1.349	I O	1.71
25.583	0.00	1.03	1.342	I O	1.70
25.667	0.00	1.03	1.335	I O	1.69
25.750	0.00	1.03	1.328	I O	1.68
25.833	0.00	1.03	1.321	I O	1.68
25.917	0.00	1.03	1.314	I O	1.67
26.000	0.00	1.03	1.307	I O	1.66
26.083	0.00	1.02	1.300	I O	1.65
26.167	0.00	1.02	1.293	I O	1.64
26.250	0.00	1.02	1.286	I O	1.64
26.333	0.00	1.02	1.279	I O	1.63
26.417	0.00	1.02	1.272	I O	1.62
26.500	0.00	1.02	1.265	I O	1.61
26.583	0.00	1.02	1.258	I O	1.61
26.667	0.00	1.02	1.250	I O	1.60
26.750	0.00	1.02	1.243	I O	1.59
26.833	0.00	1.02	1.236	I O	1.58
26.917	0.00	1.02	1.229	I O	1.58
27.000	0.00	1.02	1.222	I O	1.57
27.083	0.00	1.02	1.215	I O	1.56
27.167	0.00	1.02	1.208	I O	1.55
27.250	0.00	1.02	1.201	I O	1.54
27.333	0.00	1.02	1.194	I O	1.54
27.417	0.00	1.02	1.187	I O	1.53
27.500	0.00	1.02	1.180	I O	1.52
27.583	0.00	1.02	1.173	I O	1.51
27.667	0.00	1.02	1.166	I O	1.51
27.750	0.00	1.01	1.159	I O	1.50
27.833	0.00	1.01	1.152	I O	1.49
27.917	0.00	1.01	1.145	I O	1.48
28.000	0.00	1.01	1.138	I O	1.47
28.083	0.00	1.01	1.131	I O	1.46
28.167	0.00	1.01	1.124	I O	1.45
28.250	0.00	1.01	1.117	I O	1.45
28.333	0.00	1.01	1.110	I O	1.44
28.417	0.00	1.01	1.104	I O	1.43
28.500	0.00	1.01	1.097	I O	1.42
28.583	0.00	1.01	1.090	I O	1.41
28.667	0.00	1.01	1.083	I O	1.40
28.750	0.00	1.01	1.076	I O	1.39
28.833	0.00	1.01	1.069	I O	1.39
28.917	0.00	1.01	1.062	I O	1.38
29.000	0.00	1.01	1.055	I O	1.37
29.083	0.00	1.01	1.048	I O	1.36
29.167	0.00	1.01	1.041	I O	1.35
29.250	0.00	1.00	1.034	I O	1.34
29.333	0.00	1.00	1.027	I O	1.33
29.417	0.00	1.00	1.020	I O	1.33
29.500	0.00	1.00	1.013	I O	1.32
29.583	0.00	1.00	1.007	I O	1.31
29.667	0.00	1.00	1.000	I O	1.30
29.750	0.00	1.00	0.993	I O	1.29
29.833	0.00	1.00	0.986	I O	1.28
29.917	0.00	1.00	0.979	I O	1.27
30.000	0.00	1.00	0.972	I O	1.27
30.083	0.00	1.00	0.965	I O	1.26
30.167	0.00	1.00	0.958	I O	1.25
30.250	0.00	1.00	0.951	I O	1.24
30.333	0.00	1.00	0.945	I O	1.23
30.417	0.00	1.00	0.938	I O	1.22
30.500	0.00	1.00	0.931	I O	1.22
30.583	0.00	1.00	0.924	I O	1.21
30.667	0.00	0.99	0.917	I O	1.20
30.750	0.00	0.99	0.910	I O	1.19
30.833	0.00	0.99	0.903	I O	1.18
30.917	0.00	0.99	0.897	I O	1.17
31.000	0.00	0.99	0.890	I O	1.16
31.083	0.00	0.99	0.883	I O	1.16
31.167	0.00	0.99	0.876	I O	1.15
31.250	0.00	0.99	0.869	I O	1.14
31.333	0.00	0.99	0.862	I O	1.13
31.417	0.00	0.99	0.856	I O	1.12
31.500	0.00	0.99	0.849	I O	1.11

31.583	0.00	0.99	0.842	I O					1.11
31.667	0.00	0.99	0.835	I O					1.10
31.750	0.00	0.99	0.828	I O					1.09
31.833	0.00	0.99	0.822	I O					1.08
31.917	0.00	0.99	0.815	I O					1.07
32.000	0.00	0.99	0.808	I O					1.06
32.083	0.00	0.99	0.801	I O					1.06
32.167	0.00	0.98	0.794	I O					1.05
32.250	0.00	0.98	0.788	I O					1.04
32.333	0.00	0.98	0.781	I O					1.03
32.417	0.00	0.98	0.774	I O					1.02
32.500	0.00	0.98	0.767	I O					1.01
32.583	0.00	0.98	0.761	I O					1.01
32.667	0.00	0.98	0.754	I O					1.00
32.750	0.00	0.98	0.747	I O					0.99
32.833	0.00	0.98	0.740	I O					0.98
32.917	0.00	0.98	0.734	I O					0.97
33.000	0.00	0.98	0.727	I O					0.96
33.083	0.00	0.98	0.720	I O					0.95
33.167	0.00	0.98	0.713	I O					0.95
33.250	0.00	0.98	0.707	I O					0.94
33.333	0.00	0.98	0.700	I O					0.93
33.417	0.00	0.98	0.693	I O					0.92
33.500	0.00	0.98	0.686	I O					0.91
33.583	0.00	0.98	0.680	I O					0.91
33.667	0.00	0.97	0.673	I O					0.90
33.750	0.00	0.97	0.666	I O					0.89
33.833	0.00	0.97	0.660	I O					0.88
33.917	0.00	0.97	0.653	I O					0.87
34.000	0.00	0.97	0.646	I O					0.86
34.083	0.00	0.97	0.639	I O					0.86
34.167	0.00	0.97	0.633	I O					0.85
34.250	0.00	0.97	0.626	I O					0.84
34.333	0.00	0.97	0.619	I O					0.83
34.417	0.00	0.97	0.613	I O					0.82
34.500	0.00	0.97	0.606	I O					0.81
34.583	0.00	0.97	0.599	I O					0.81
34.667	0.00	0.97	0.593	I O					0.80
34.750	0.00	0.97	0.586	I O					0.79
34.833	0.00	0.97	0.579	I O					0.78
34.917	0.00	0.97	0.573	I O					0.77
35.000	0.00	0.97	0.566	I O					0.76
35.083	0.00	0.97	0.559	I O					0.76
35.167	0.00	0.96	0.553	I O					0.75
35.250	0.00	0.96	0.546	I O					0.74
35.333	0.00	0.96	0.540	I O					0.73
35.417	0.00	0.96	0.533	I O					0.72
35.500	0.00	0.96	0.526	I O					0.72
35.583	0.00	0.96	0.520	I O					0.71
35.667	0.00	0.96	0.513	I O					0.70
35.750	0.00	0.96	0.506	I O					0.69
35.833	0.00	0.96	0.500	I O					0.68
35.917	0.00	0.96	0.493	I O					0.67
36.000	0.00	0.96	0.487	I O					0.67
36.083	0.00	0.96	0.480	I O					0.66
36.167	0.00	0.96	0.473	I O					0.65
36.250	0.00	0.96	0.467	I O					0.64
36.333	0.00	0.96	0.460	I O					0.63
36.417	0.00	0.96	0.454	I O					0.63
36.500	0.00	0.96	0.447	I O					0.62
36.583	0.00	0.96	0.440	I O					0.61
36.667	0.00	0.95	0.434	I O					0.60
36.750	0.00	0.95	0.427	I O					0.59
36.833	0.00	0.95	0.421	I O					0.58
36.917	0.00	0.95	0.414	I O					0.58
37.000	0.00	0.95	0.408	I O					0.57
37.083	0.00	0.95	0.401	I O					0.56
37.167	0.00	0.95	0.394	I O					0.55
37.250	0.00	0.95	0.388	I O					0.54
37.333	0.00	0.95	0.381	I O					0.54
37.417	0.00	0.95	0.375	I O					0.53
37.500	0.00	0.95	0.368	I O					0.52
37.583	0.00	0.95	0.362	I O					0.51
37.667	0.00	0.95	0.355	I O					0.50
37.750	0.00	0.94	0.349	I O					0.50

37.833	0.00	0.92	0.342	I O					0.49
37.917	0.00	0.90	0.336	I O					0.48
38.000	0.00	0.89	0.330	IO					0.47
38.083	0.00	0.87	0.324	IO					0.46
38.167	0.00	0.86	0.318	IO					0.45
38.250	0.00	0.84	0.312	IO					0.44
38.333	0.00	0.82	0.306	IO					0.43
38.417	0.00	0.81	0.301	IO					0.43
38.500	0.00	0.79	0.295	IO					0.42
38.583	0.00	0.78	0.290	IO					0.41
38.667	0.00	0.77	0.284	IO					0.40
38.750	0.00	0.75	0.279	IO					0.40
38.833	0.00	0.74	0.274	IO					0.39
38.917	0.00	0.72	0.269	IO					0.38
39.000	0.00	0.71	0.264	IO					0.37
39.083	0.00	0.70	0.259	IO					0.37
39.167	0.00	0.69	0.254	IO					0.36
39.250	0.00	0.67	0.250	IO					0.35
39.333	0.00	0.66	0.245	IO					0.35
39.417	0.00	0.65	0.241	IO					0.34
39.500	0.00	0.64	0.236	IO					0.34
39.583	0.00	0.62	0.232	IO					0.33
39.667	0.00	0.61	0.228	IO					0.32
39.750	0.00	0.60	0.223	IO					0.32
39.833	0.00	0.59	0.219	IO					0.31
39.917	0.00	0.58	0.215	IO					0.31
40.000	0.00	0.57	0.211	IO					0.30
40.083	0.00	0.56	0.207	IO					0.29
40.167	0.00	0.55	0.204	IO					0.29
40.250	0.00	0.54	0.200	IO					0.28
40.333	0.00	0.53	0.196	IO					0.28
40.417	0.00	0.52	0.193	IO					0.27
40.500	0.00	0.51	0.189	IO					0.27
40.583	0.00	0.50	0.186	IO					0.26
40.667	0.00	0.49	0.182	IO					0.26
40.750	0.00	0.48	0.179	IO					0.25
40.833	0.00	0.47	0.176	IO					0.25
40.917	0.00	0.46	0.172	IO					0.24
41.000	0.00	0.46	0.169	IO					0.24
41.083	0.00	0.45	0.166	IO					0.24
41.167	0.00	0.44	0.163	O					0.23
41.250	0.00	0.43	0.160	O					0.23
41.333	0.00	0.42	0.157	O					0.22
41.417	0.00	0.42	0.154	O					0.22
41.500	0.00	0.41	0.151	O					0.21
41.583	0.00	0.40	0.149	O					0.21
41.667	0.00	0.39	0.146	O					0.21
41.750	0.00	0.39	0.143	O					0.20
41.833	0.00	0.38	0.141	O					0.20
41.917	0.00	0.37	0.138	O					0.20
42.000	0.00	0.36	0.135	O					0.19
42.083	0.00	0.36	0.133	O					0.19
42.167	0.00	0.35	0.130	O					0.19
42.250	0.00	0.34	0.128	O					0.18
42.333	0.00	0.34	0.126	O					0.18
42.417	0.00	0.33	0.123	O					0.18
42.500	0.00	0.33	0.121	O					0.17
42.583	0.00	0.32	0.119	O					0.17
42.667	0.00	0.31	0.117	O					0.17
42.750	0.00	0.31	0.115	O					0.16
42.833	0.00	0.30	0.112	O					0.16
42.917	0.00	0.30	0.110	O					0.16
43.000	0.00	0.29	0.108	O					0.15
43.083	0.00	0.29	0.106	O					0.15
43.167	0.00	0.28	0.104	O					0.15
43.250	0.00	0.28	0.103	O					0.15
43.333	0.00	0.27	0.101	O					0.14
43.417	0.00	0.27	0.099	O					0.14
43.500	0.00	0.26	0.097	O					0.14
43.583	0.00	0.26	0.095	O					0.14
43.667	0.00	0.25	0.093	O					0.13
43.750	0.00	0.25	0.092	O					0.13
43.833	0.00	0.24	0.090	O					0.13
43.917	0.00	0.24	0.088	O					0.13
44.000	0.00	0.23	0.087	O					0.12

44.083	0.00	0.23	0.085	0					0.12
44.167	0.00	0.23	0.084	0					0.12
44.250	0.00	0.22	0.082	0					0.12
44.333	0.00	0.22	0.081	0					0.11
44.417	0.00	0.21	0.079	0					0.11
44.500	0.00	0.21	0.078	0					0.11
44.583	0.00	0.21	0.076	0					0.11
44.667	0.00	0.20	0.075	0					0.11
44.750	0.00	0.20	0.073	0					0.10
44.833	0.00	0.19	0.072	0					0.10
44.917	0.00	0.19	0.071	0					0.10
45.000	0.00	0.19	0.069	0					0.10
45.083	0.00	0.18	0.068	0					0.10
45.167	0.00	0.18	0.067	0					0.10
45.250	0.00	0.18	0.066	0					0.09
45.333	0.00	0.17	0.064	0					0.09
45.417	0.00	0.17	0.063	0					0.09
45.500	0.00	0.17	0.062	0					0.09
45.583	0.00	0.16	0.061	0					0.09
45.667	0.00	0.16	0.060	0					0.09
45.750	0.00	0.16	0.059	0					0.08
45.833	0.00	0.16	0.058	0					0.08
45.917	0.00	0.15	0.057	0					0.08
46.000	0.00	0.15	0.056	0					0.08
46.083	0.00	0.15	0.055	0					0.08
46.167	0.00	0.14	0.054	0					0.08
46.250	0.00	0.14	0.053	0					0.07
46.333	0.00	0.14	0.052	0					0.07
46.417	0.00	0.14	0.051	0					0.07
46.500	0.00	0.13	0.050	0					0.07
46.583	0.00	0.13	0.049	0					0.07
46.667	0.00	0.13	0.048	0					0.07
46.750	0.00	0.13	0.047	0					0.07
46.833	0.00	0.12	0.046	0					0.07
46.917	0.00	0.12	0.045	0					0.06
47.000	0.00	0.12	0.044	0					0.06
47.083	0.00	0.12	0.044	0					0.06
47.167	0.00	0.12	0.043	0					0.06
47.250	0.00	0.11	0.042	0					0.06
47.333	0.00	0.11	0.041	0					0.06
47.417	0.00	0.11	0.041	0					0.06
47.500	0.00	0.11	0.040	0					0.06
47.583	0.00	0.11	0.039	0					0.06
47.667	0.00	0.10	0.038	0					0.05
47.750	0.00	0.10	0.038	0					0.05
47.833	0.00	0.10	0.037	0					0.05
47.917	0.00	0.10	0.036	0					0.05
48.000	0.00	0.10	0.036	0					0.05
48.083	0.00	0.09	0.035	0					0.05
48.167	0.00	0.09	0.034	0					0.05
48.250	0.00	0.09	0.034	0					0.05
48.333	0.00	0.09	0.033	0					0.05
48.417	0.00	0.09	0.032	0					0.05
48.500	0.00	0.09	0.032	0					0.05
48.583	0.00	0.08	0.031	0					0.04
48.667	0.00	0.08	0.031	0					0.04
48.750	0.00	0.08	0.030	0					0.04
48.833	0.00	0.08	0.030	0					0.04
48.917	0.00	0.08	0.029	0					0.04
49.000	0.00	0.08	0.029	0					0.04
49.083	0.00	0.08	0.028	0					0.04
49.167	0.00	0.07	0.027	0					0.04
49.250	0.00	0.07	0.027	0					0.04
49.333	0.00	0.07	0.026	0					0.04
49.417	0.00	0.07	0.026	0					0.04
49.500	0.00	0.07	0.026	0					0.04
49.583	0.00	0.07	0.025	0					0.04
49.667	0.00	0.07	0.025	0					0.03
49.750	0.00	0.06	0.024	0					0.03
49.833	0.00	0.06	0.024	0					0.03
49.917	0.00	0.06	0.023	0					0.03
50.000	0.00	0.06	0.023	0					0.03
50.083	0.00	0.06	0.022	0					0.03
50.167	0.00	0.06	0.022	0					0.03
50.250	0.00	0.06	0.022	0					0.03

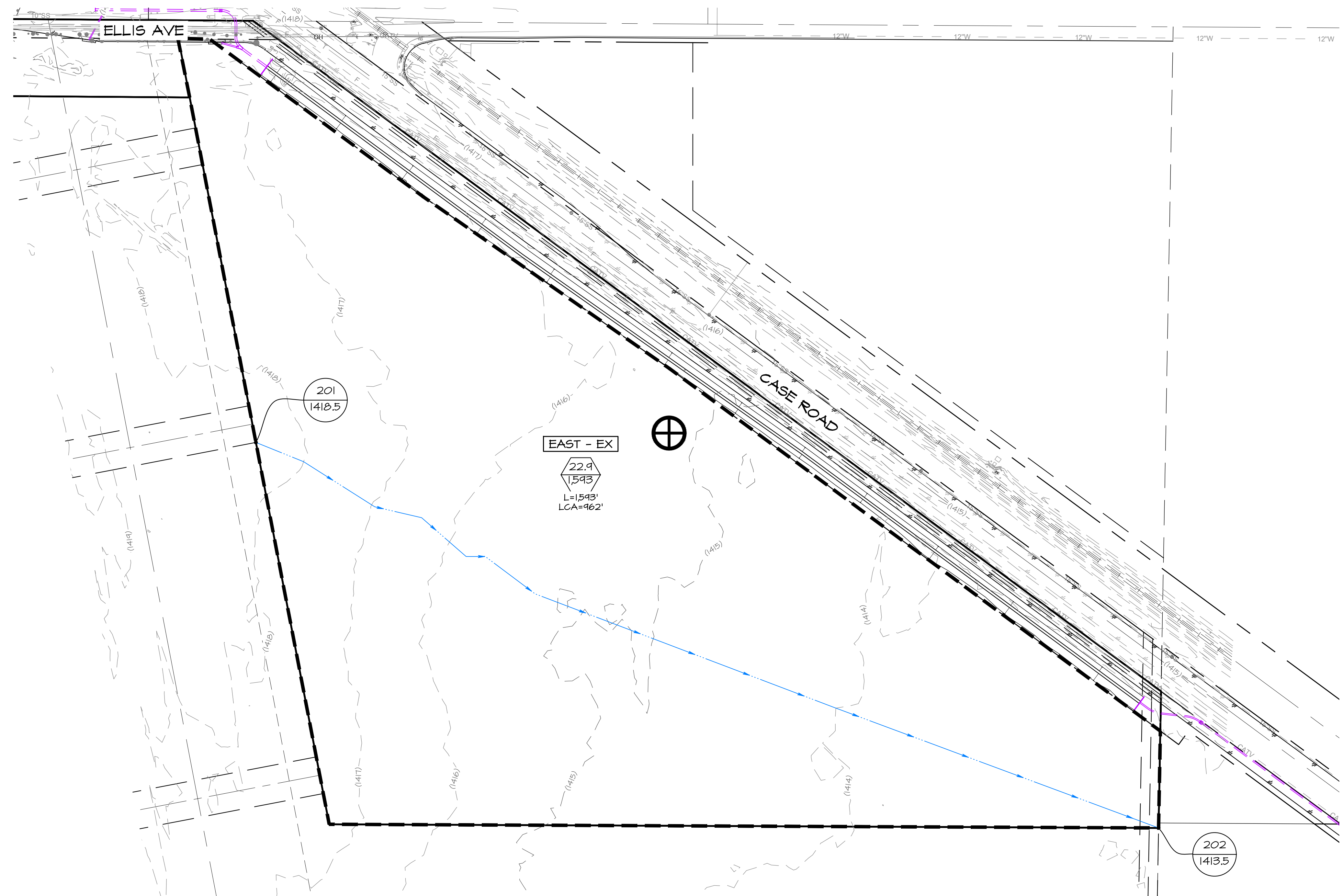
50.333	0.00	0.06	0.021	0					0.03
50.417	0.00	0.06	0.021	0					0.03
50.500	0.00	0.05	0.020	0					0.03
50.583	0.00	0.05	0.020	0					0.03
50.667	0.00	0.05	0.020	0					0.03
50.750	0.00	0.05	0.019	0					0.03
50.833	0.00	0.05	0.019	0					0.03
50.917	0.00	0.05	0.019	0					0.03
51.000	0.00	0.05	0.018	0					0.03
51.083	0.00	0.05	0.018	0					0.03
51.167	0.00	0.05	0.018	0					0.02
51.250	0.00	0.05	0.017	0					0.02
51.333	0.00	0.05	0.017	0					0.02
51.417	0.00	0.04	0.017	0					0.02
51.500	0.00	0.04	0.016	0					0.02
51.583	0.00	0.04	0.016	0					0.02
51.667	0.00	0.04	0.016	0					0.02
51.750	0.00	0.04	0.015	0					0.02
51.833	0.00	0.04	0.015	0					0.02
51.917	0.00	0.04	0.015	0					0.02
52.000	0.00	0.04	0.015	0					0.02
52.083	0.00	0.04	0.014	0					0.02
52.167	0.00	0.04	0.014	0					0.02
52.250	0.00	0.04	0.014	0					0.02
52.333	0.00	0.04	0.014	0					0.02
52.417	0.00	0.04	0.013	0					0.02
52.500	0.00	0.04	0.013	0					0.02
52.583	0.00	0.03	0.013	0					0.02
52.667	0.00	0.03	0.013	0					0.02
52.750	0.00	0.03	0.012	0					0.02
52.833	0.00	0.03	0.012	0					0.02
52.917	0.00	0.03	0.012	0					0.02
53.000	0.00	0.03	0.012	0					0.02
53.083	0.00	0.03	0.011	0					0.02
53.167	0.00	0.03	0.011	0					0.02
53.250	0.00	0.03	0.011	0					0.02
53.333	0.00	0.03	0.011	0					0.02
53.417	0.00	0.03	0.011	0					0.02
53.500	0.00	0.03	0.010	0					0.01
53.583	0.00	0.03	0.010	0					0.01
53.667	0.00	0.03	0.010	0					0.01
53.750	0.00	0.03	0.010	0					0.01
53.833	0.00	0.03	0.010	0					0.01
53.917	0.00	0.03	0.010	0					0.01
54.000	0.00	0.03	0.009	0					0.01
54.083	0.00	0.02	0.009	0					0.01
54.167	0.00	0.02	0.009	0					0.01
54.250	0.00	0.02	0.009	0					0.01
54.333	0.00	0.02	0.009	0					0.01
54.417	0.00	0.02	0.009	0					0.01
54.500	0.00	0.02	0.008	0					0.01
54.583	0.00	0.02	0.008	0					0.01
54.667	0.00	0.02	0.008	0					0.01
54.750	0.00	0.02	0.008	0					0.01
54.833	0.00	0.02	0.008	0					0.01
54.917	0.00	0.02	0.008	0					0.01
55.000	0.00	0.02	0.007	0					0.01
55.083	0.00	0.02	0.007	0					0.01
55.167	0.00	0.02	0.007	0					0.01
55.250	0.00	0.02	0.007	0					0.01
55.333	0.00	0.02	0.007	0					0.01
55.417	0.00	0.02	0.007	0					0.01
55.500	0.00	0.02	0.007	0					0.01
55.583	0.00	0.02	0.007	0					0.01
55.667	0.00	0.02	0.006	0					0.01
55.750	0.00	0.02	0.006	0					0.01
55.833	0.00	0.02	0.006	0					0.01
55.917	0.00	0.02	0.006	0					0.01
56.000	0.00	0.02	0.006	0					0.01
56.083	0.00	0.02	0.006	0					0.01
56.167	0.00	0.02	0.006	0					0.01
56.250	0.00	0.02	0.006	0					0.01
56.333	0.00	0.02	0.006	0					0.01
56.417	0.00	0.01	0.005	0					0.01
56.500	0.00	0.01	0.005	0					0.01

56.583	0.00	0.01	0.005	0					0.01
56.667	0.00	0.01	0.005	0					0.01
56.750	0.00	0.01	0.005	0					0.01
56.833	0.00	0.01	0.005	0					0.01
56.917	0.00	0.01	0.005	0					0.01
57.000	0.00	0.01	0.005	0					0.01
57.083	0.00	0.01	0.005	0					0.01
57.167	0.00	0.01	0.005	0					0.01
57.250	0.00	0.01	0.005	0					0.01
57.333	0.00	0.01	0.004	0					0.01
57.417	0.00	0.01	0.004	0					0.01
57.500	0.00	0.01	0.004	0					0.01
57.583	0.00	0.01	0.004	0					0.01
57.667	0.00	0.01	0.004	0					0.01
57.750	0.00	0.01	0.004	0					0.01
57.833	0.00	0.01	0.004	0					0.01
57.917	0.00	0.01	0.004	0					0.01
58.000	0.00	0.01	0.004	0					0.01
58.083	0.00	0.01	0.004	0					0.01
58.167	0.00	0.01	0.004	0					0.01
58.250	0.00	0.01	0.004	0					0.01
58.333	0.00	0.01	0.004	0					0.01
58.417	0.00	0.01	0.004	0					0.00
58.500	0.00	0.01	0.003	0					0.00
58.583	0.00	0.01	0.003	0					0.00
58.667	0.00	0.01	0.003	0					0.00
58.750	0.00	0.01	0.003	0					0.00
58.833	0.00	0.01	0.003	0					0.00
58.917	0.00	0.01	0.003	0					0.00
59.000	0.00	0.01	0.003	0					0.00
59.083	0.00	0.01	0.003	0					0.00
59.167	0.00	0.01	0.003	0					0.00
59.250	0.00	0.01	0.003	0					0.00
59.333	0.00	0.01	0.003	0					0.00
59.417	0.00	0.01	0.003	0					0.00
59.500	0.00	0.01	0.003	0					0.00
59.583	0.00	0.01	0.003	0					0.00
59.667	0.00	0.01	0.003	0					0.00
59.750	0.00	0.01	0.003	0					0.00
59.833	0.00	0.01	0.003	0					0.00
59.917	0.00	0.01	0.003	0					0.00
60.000	0.00	0.01	0.002	0					0.00
60.083	0.00	0.01	0.002	0					0.00
60.167	0.00	0.01	0.002	0					0.00
60.250	0.00	0.01	0.002	0					0.00
60.333	0.00	0.01	0.002	0					0.00
60.417	0.00	0.01	0.002	0					0.00
60.500	0.00	0.01	0.002	0					0.00
60.583	0.00	0.01	0.002	0					0.00
60.667	0.00	0.01	0.002	0					0.00
60.750	0.00	0.01	0.002	0					0.00
60.833	0.00	0.01	0.002	0					0.00
60.917	0.00	0.01	0.002	0					0.00
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61.083	0.00	0.01	0.002	0					0.00
61.167	0.00	0.01	0.002	0					0.00
61.250	0.00	0.01	0.002	0					0.00
61.333	0.00	0.00	0.002	0					0.00
61.417	0.00	0.00	0.002	0					0.00
61.500	0.00	0.00	0.002	0					0.00
61.583	0.00	0.00	0.002	0					0.00
61.667	0.00	0.00	0.002	0					0.00
61.750	0.00	0.00	0.002	0					0.00
61.833	0.00	0.00	0.002	0					0.00
61.917	0.00	0.00	0.002	0					0.00
62.000	0.00	0.00	0.002	0					0.00
62.083	0.00	0.00	0.002	0					0.00
62.167	0.00	0.00	0.002	0					0.00
62.250	0.00	0.00	0.001	0					0.00
62.333	0.00	0.00	0.001	0					0.00
62.417	0.00	0.00	0.001	0					0.00
62.500	0.00	0.00	0.001	0					0.00
62.583	0.00	0.00	0.001	0					0.00
62.667	0.00	0.00	0.001	0					0.00
62.750	0.00	0.00	0.001	0					0.00

62.833	0.00	0.00	0.001	0					0.00
62.917	0.00	0.00	0.001	0					0.00
63.000	0.00	0.00	0.001	0					0.00
63.083	0.00	0.00	0.001	0					0.00
63.167	0.00	0.00	0.001	0					0.00
63.250	0.00	0.00	0.001	0					0.00
63.333	0.00	0.00	0.001	0					0.00
63.417	0.00	0.00	0.001	0					0.00
63.500	0.00	0.00	0.001	0					0.00
63.583	0.00	0.00	0.001	0					0.00
63.667	0.00	0.00	0.001	0					0.00
63.750	0.00	0.00	0.001	0					0.00
63.833	0.00	0.00	0.001	0					0.00
63.917	0.00	0.00	0.001	0					0.00
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64.083	0.00	0.00	0.001	0					0.00
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64.250	0.00	0.00	0.001	0					0.00
64.333	0.00	0.00	0.001	0					0.00
64.417	0.00	0.00	0.001	0					0.00
64.500	0.00	0.00	0.001	0					0.00
64.583	0.00	0.00	0.001	0					0.00
64.667	0.00	0.00	0.001	0					0.00
64.750	0.00	0.00	0.001	0					0.00
64.833	0.00	0.00	0.001	0					0.00
64.917	0.00	0.00	0.001	0					0.00
65.000	0.00	0.00	0.001	0					0.00
65.083	0.00	0.00	0.001	0					0.00
65.167	0.00	0.00	0.001	0					0.00
65.250	0.00	0.00	0.001	0					0.00
65.333	0.00	0.00	0.001	0					0.00
65.417	0.00	0.00	0.001	0					0.00
65.500	0.00	0.00	0.001	0					0.00
65.583	0.00	0.00	0.001	0					0.00
65.667	0.00	0.00	0.001	0					0.00

*****HYDROGRAPH DATA*****
Number of intervals = 788
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 13.203 (CFS)
Total volume = 7.996 (Ac.Ft)
Status of hydrographs being held in storage
Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
Peak (CFS) 0.000 0.000 0.000 0.000 0.000
Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000

UNIT HYDROGRAPH HYDROLOGY MAPS



LEGEND

	DRAINAGE MANAGEMENT BOUNDARY
	FLOW DIRECTION
	LONGEST FLOW PATH CENTROIDAL LENGTH
	NODE DESIGNATION NODE ELEVATION
	*INVERT ELEVATION
	WATERSHED AREA (ACRES) LONGEST WATER PATH (FT)
	CENTROID

BASIS OF BEARINGS

THE BASIS OF BEARINGS IS THE CALIFORNIA STATE PLAN COORDINATE SYSTEM, CGS83, ZONE 6, BASED LOCALLY ON CONTROL STATIONS "MLFP" AND "PPBF" NAD 83(NGRS2007)

BENCHMARK DATA

NGS DESIGNATION: 435
PID: DX5442

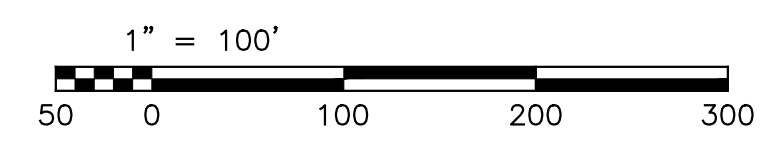
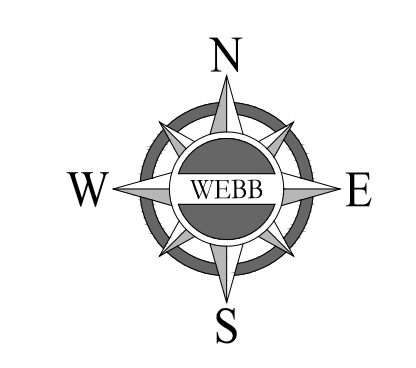
DESCRIBED BY METRO WATER DISTR. SO. CALIFORNIA 1992 PERRIS, 1300 FEET (396.2 M) WEST OF AT&T RAILROAD ALONG RIDER ST, ON TOP OF NORTH CURB FACE OF RIDER ST, 28 FEET (8.5 M) NORTH OF RIDER ST, 6 FEET (1.8 M) SOUTH OF A STE TELEPHONE BOX (DAMAGED). A STANDARD 3-1/4 INCH ALUMINUM DIST SET FLUSH IN TOP OF CURB.

ELEVATION = 1515.12' (NAVD88)

FROM CITY OF SUN CITY BM Z 10489 (RCFC & WCD)
FS, 2-1/4 INCH BRASS DISK FLUSH STAMPED "CAL DOT 9/10/16/15 REPL. GR. STONE FD. 1950" ON ETHANAC AC BRIDGE DECK OVER I-215 FREEWAY

ELEVATION = 1450.319' (NAVD88)

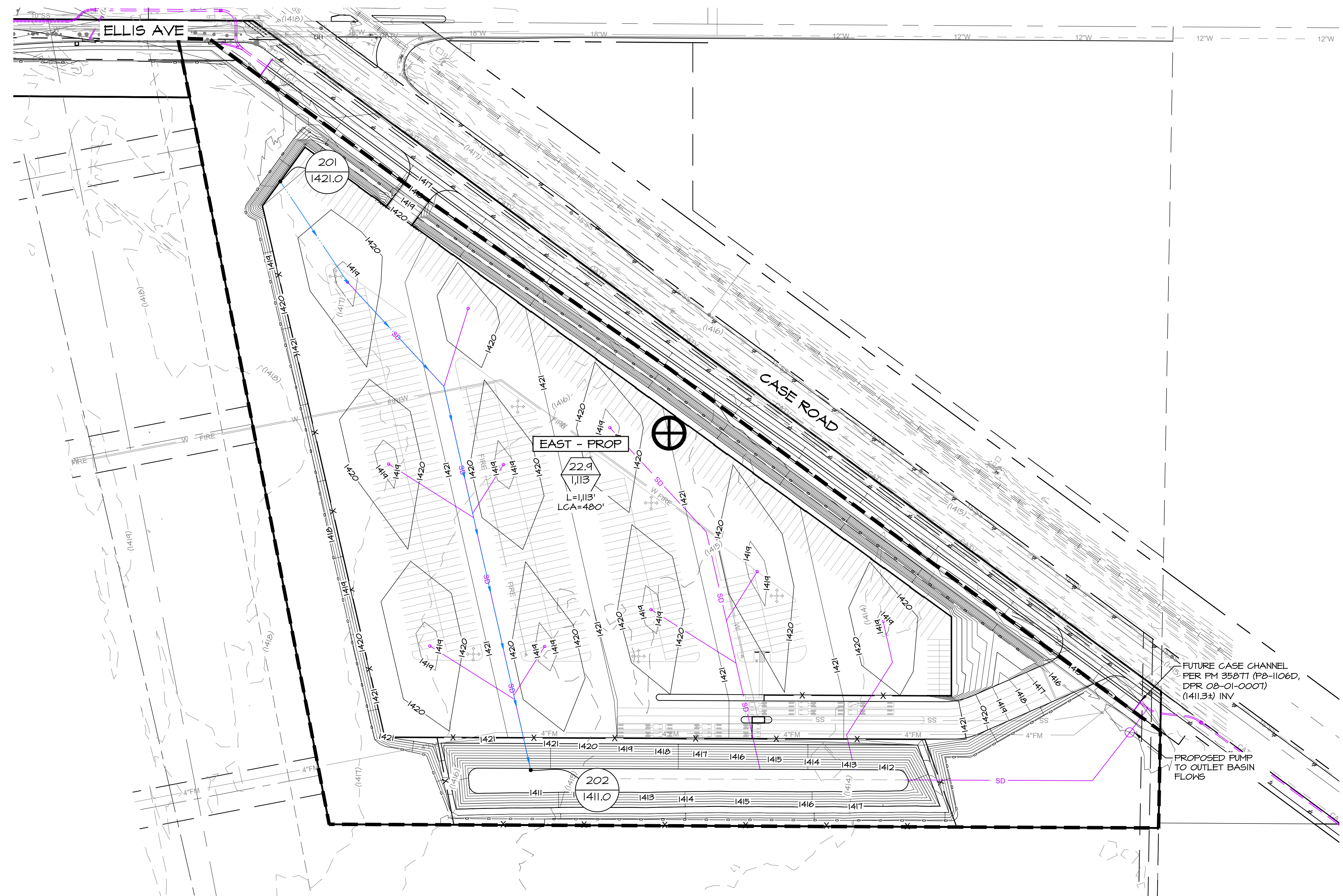
(CONVERSION FACTO TO NGVD 29 IS -2.63' PER RCFC & WCD)



CITY OF PERRIS			
PRELIMINARY REPORT (CUP 23-05107) UNIT HYDROGRAPH HYDROLOGY EXISTING UNIT HYDROGRAPH, EAST PERRIS AIRPORT LOGISTICS CENTER			
SCALE: 1" = 100'	DATE: 2023-06-20	DESIGNED: ABE	CHECKED: SKK
PLN CK REF:	F.B.	ALBERTA ENGINEERING CONSULTANTS 3788 MCCRAY STREET RIVERSIDE CA 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 21-0295 SHEET 1 OF 1 SHEETS DWG. NO.

PRELIMINARY

H:\2023\21-0295\DRAINAGE\HYD\DWG - FOLDER\21-0295-PHYO-UH.DWG 6/20/2023 1:47:48 PM



LEGEND

- DRAINAGE MANAGEMENT BOUNDARY
- FLOW DIRECTION
- LONGEST FLOW PATH
CENTROIDAL LENGTH
- NODE DESIGNATION
NODE ELEVATION
- *14XX
*INVERT ELEVATION
- WATERSHED AREA (ACRES)
LONGEST WATER PATH (FT)
- CENTROID

BASIS OF BEARINGS

THE BASIS OF BEARINGS IS THE CALIFORNIA STATE PLAN COORDINATE SYSTEM, CGS83, ZONE 6, BASED LOCALLY ON CONTROL STATIONS "MLFP" AND "PPBF" NAD 83(NGRS2007)

BENCHMARK DATA

NGS DESIGNATION: 435
PID: DX5442

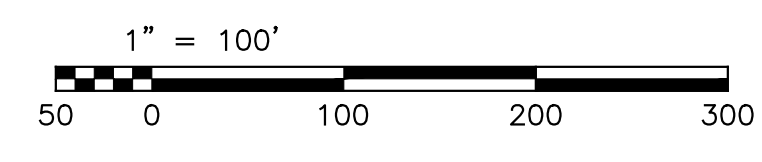
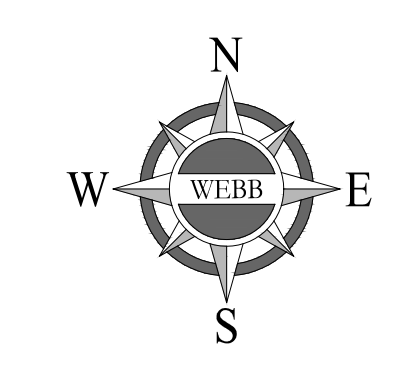
DESCRIBED BY METRO WATER DISTR. SO. CALIFORNIA 1942 PERRIS, 1300 FEET (396.2 M) WEST OF AT&T RAILROAD ALONG RIDER ST, ON TOP OF NORTH CURB FACE OF RIDER ST, 28 FEET (8.5 M) NORTH OF RIDER ST, 6 FEET (1.8 M) SOUTH OF A STE TELEPHONE BOX (DAMAGED). A STANDARD 3-1/4 INCH ALUMINUM DIST SET FLUSH IN TOP OF CURB.

ELEVATION = 1515.12' (NAVD88)

FROM CITY OF SUN CITY BM Z 10489 (RCFC # WCD)
FS. 2-1/4 INCH BRASS DISK FLUSH STAMPED "CAL DOT 9/10/16/15 REPL. GR. STONE FD. 1950" ON ETHANAC AC BRIDGE DECK OVER I-215 FREEWAY

ELEVATION = 1450.319' (NAVD88)

(CONVERSION FACTO TO NGVD 29 IS -2.63' PER RCFC # WCD)



CITY OF PERRIS			
PRELIMINARY REPORT (CUP 23-05107) UNIT HYDROGRAPH HYDROLOGY PROPOSED UNIT HYDROGRAPH, EAST PERRIS AIRPORT LOGISTICS CENTER			
SCALE: 1" = 100'	DATE: 2023-06-20	DESIGNED: ABE	CHECKED: SKK
PLN CK REF:	F.B.	WEBB ASSOCIATES ENGINEERING CONSULTANTS 3788 MCCRAY STREET RIVERSIDE CA 92506 PH. (951) 686-1070 FAX (951) 788-1256	
W.O. 21-0235	SHEET 1	OF 1 SHEETS	DWG. NO.

PRELIMINARY

H:\2021\21-0235\DRAINAGE\HYD\DWG FOLDER\21-0235-PHYO-UH.DWG 6/20/2023 1:47:48 PM

APPENDIX D – REFERENCES

PERRIS AIRPORT LOMR 2019



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	City of Perris Riverside County California	NO PROJECT	FLOODWAY HYDRAULIC ANALYSIS UPDATED TOPOGRAPHIC DATA
	COMMUNITY NO.: 060258		
IDENTIFIER	Tract 36988 - Green Valley CLOMR	APPROXIMATE LATITUDE & LONGITUDE: 33.745, -117.209 SOURCE: USGS QUADRANGLE DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM*	NO.: 06065C2055H DATE: August 18, 2014	DATE OF EFFECTIVE FLOOD INSURANCE STUDY: March 6, 2018	
TYPE: FIRM*	NO.: 06065C1440H DATE: August 18, 2014	FLOODWAY DATA TABLE: TABLE 24	

Enclosures reflect changes to flooding sources affected by this revision.

* FIRM - Flood Insurance Rate Map

FLOODING SOURCE(S) & REVISED REACH(ES)

San Jacinto River - from approximately 1,250 feet downstream of Goetz Road to approximately 1,310 feet downstream of Case Road

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
San Jacinto River	Floodway	Floodway	YES	YES

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency
Washington, D.C. 20472

**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance flood discharges computed in the FIS for your community without considering subsequent changes in watershed characteristics that could increase flood discharges. Future development of projects upstream could cause increased flood discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on flood discharges subsequent to the publication of the FIS report for your community and could, therefore, establish greater flood hazards in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency
Washington, D.C. 20472

**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Ms. Juliette Hayes
Director, Mitigation Division
Federal Emergency Management Agency, Region IX
1111 Broadway, Suite 1200
Oakland, CA 94607-4052
(510) 627-7211

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel(s) and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

A handwritten signature in black ink, appearing to read "Rick Sacbibit".

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency
Washington, D.C. 20472

**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

PUBLIC NOTIFICATION OF REVISION

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below, and through FEMA's Flood Hazard Mapping website at https://www.floodmaps.fema.gov/fhm/bfe_status/bfe_main.asp

LOCAL NEWSPAPER

Name: *The Perris Progress*

Dates: August 29, 2018 and September 5, 2018

Within 90 days of the second publication in the local newspaper, any interested party may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

A handwritten signature in black ink, appearing to read "Rick F. Sacibit".

Patrick "Rick" F. Sacibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
San Jacinto River (continued)								
AC	13,350 ¹	165	2,027	12.1	1,310.9	1,310.9	1,311.2	0.3
AD	58,831 ²	271	2,616	9.4	1,415.6	1,415.6	1,415.8	0.2
AE	59,821 ²	473	4,021	6.1	1,417.5	1,417.5	1,418.1	0.6
AF	60,821 ²	427	3,985	6.2	1,418.3	1,418.3	1,419.1	0.8
AG	61,820 ²	1,204	10,895	2.3	1,419.2	1,419.2	1,420.1	0.9
AH	63,818 ²	1,410	11,034	2.3	1,419.5	1,419.5	1,420.3	0.8
AI	65,817 ²	1,504	12,448	2.0	1,419.8	1,419.8	1,420.7	0.9
AJ	66,817 ²	2,078	17,092	1.5	1,419.9	1,419.9	1,420.8	0.9
AK	67,317 ²	2,296	18,345	1.5	1,420.0	1,420.0	1,420.9	0.9
AL	68,817 ²	4,317	33,590	0.8	1,420.0	1,420.0	1,420.9	0.9
AM	70,817 ²	6,280	43,971	0.6	1,420.0	1,420.0	1,421.0	1.0
AN	72,317 ²	6,729	44,919	0.6	1,420.1	1,420.1	1,421.0	0.9
AO	73,782 ²	5,770	42,603	0.6	1,420.1	1,420.1	1,420.9	0.8
AP	73,997 ²	5,941	39,822	0.7	1,420.1	1,420.1	1,420.9	0.8
AQ	75,318 ²	6,422	42,319	0.6	1,420.1	1,420.1	1,421.0	0.9
AR	77,494 ²	5,994	41,480	0.6	1,420.1	1,420.1	1,421.0	0.9
AS	77,828 ²	5,753	47,345	0.7	1,420.2	1,420.2	1,421.0	0.8
AT	79,828 ²	7,400	51,973	0.5	1,420.3	1,420.3	1,421.1	0.8
AU	81,828 ²	7,986	41,501	0.6	1,420.3	1,420.3	1,421.1	0.8
AV	83,828 ²	5,818	33,667	0.7	1,420.4	1,420.4	1,421.2	0.8
AW	85,828 ²	5,402	28,453	0.9	1,420.5	1,420.5	1,421.2	0.7
AX	87,328 ²	3,913	14,717	1.8	1,420.6	1,420.6	1,421.3	0.7

REVISED DATA

¹ Feet above Lake Elsinore Levee

² Feet above confluence with Lake Elsinore

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERSIDE COUNTY, CA
 AND INCORPORATED AREAS

FLOODWAY DATA

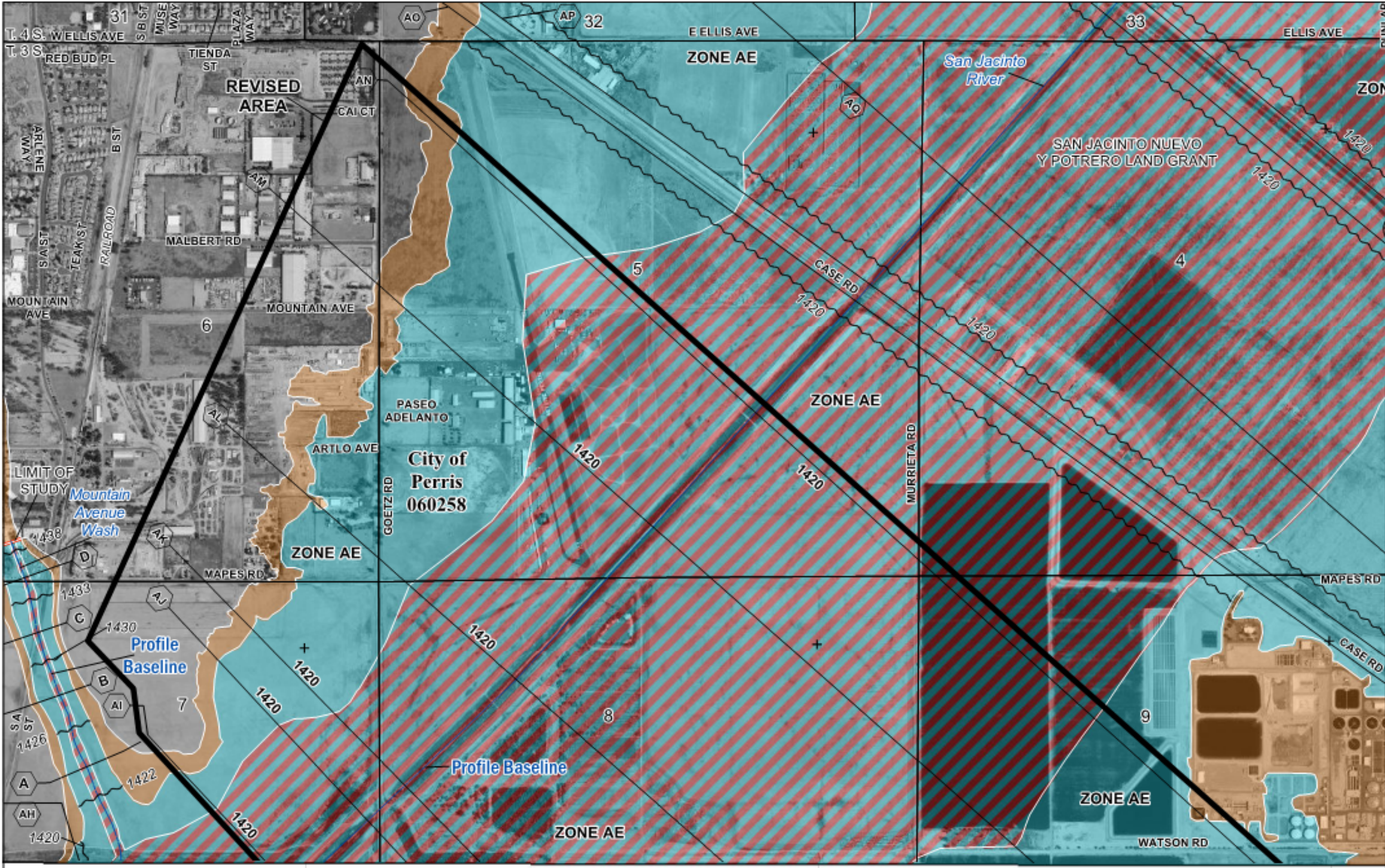
SAN JACINTO RIVER

REVISED TO
 REFLECT LOMR
 EFFECTIVE: January 3, 2019

**Riverside County
Unincorporated Areas
060245**

2225000 FT

JOINS PANEL 1445



SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) Zone A, X, A99
- With BFE or Depth Zone AE, AO, AH, VE, AF
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levees See Notes. Zone X
- Area of Undetermined Flood Hazard Zone D

SCALE

Map Projection:
NAD 1983 UTM Zone 11N
Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 500 1,000 2,000 Feet
0 150 300 600 Meters

**NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP**

RIVERSIDE COUNTY, CALIFORNIA
and Incorporated Areas

1440 of 3805

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MENIFEE, CITY OF	060176	1440	H
PERRIS, CITY OF	060258	1440	H
RIVERSIDE COUNTY	060245	1440	H

**REVISED TO
REFLECT LOMR
EFFECTIVE: January 3, 2019**

VERSION NUMBER
2.3.3.2

MAP NUMBER
06065C1440H

EFFECTIVE DATE
AUGUST 18, 2014

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 5 SOUTH, RANGE 3 WEST AND TOWNSHIP 5 SOUTH, RANGE 4 WEST.

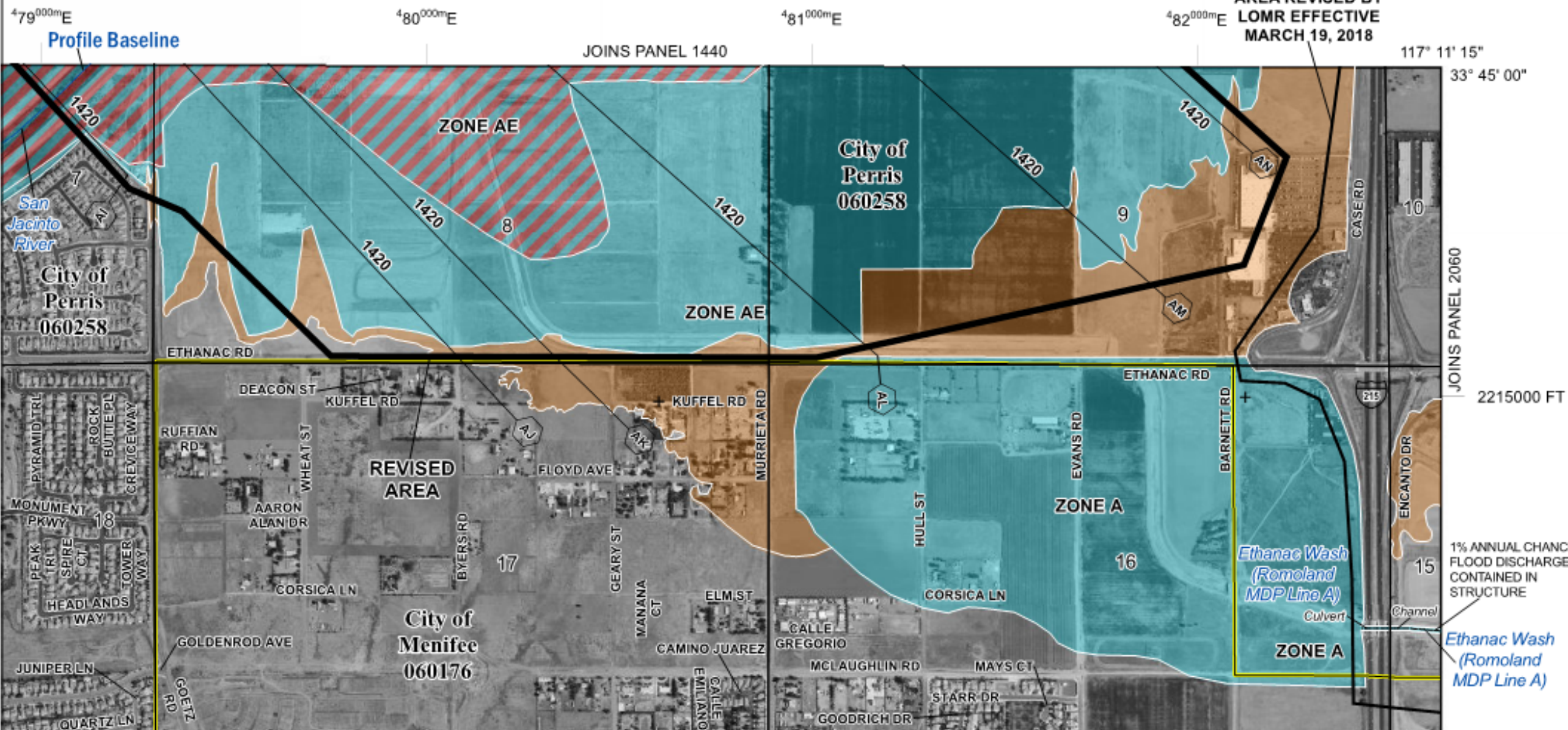
6265000 FT

6270000 FT

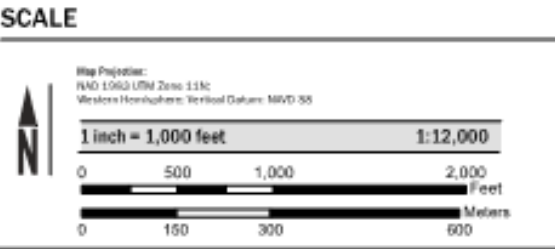
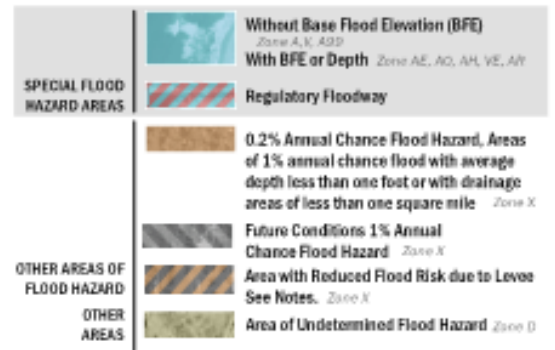
6275000 FT

JOINS PANEL 2055

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 5 SOUTH, RANGE 3 WEST AND TOWNSHIP 5 SOUTH, RANGE 4 WEST.



AREA REVISED BY LOMR EFFECTIVE MARCH 19, 2018



NATIONAL FLOOD INSURANCE PROGRAM
 FLOOD INSURANCE RATE MAP
 RIVERSIDE COUNTY, CALIFORNIA
 and Incorporated Areas

2055 of 3805

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
CANYON LAKE, CITY OF	060753	2055	H
MENIFEE, CITY OF	060178	2055	H
PERRIS, CITY OF	060268	2055	H
RIVERSIDE COUNTY	060245	2055	H

REVISED TO REFLECT LOMR EFFECTIVE: January 3, 2019

VERSION NUMBER: 2.3.3.2
 MAP NUMBER: 06065C2055H
 EFFECTIVE DATE: AUGUST 18, 2014