CITY OF NAPOLEON - ENGINEERING DEPARTMENT
255 W. Riverview Avenue, PO Box 151, Napoleon, OH 43545
Phone: 419-592-4010 - Fax: 419-599-8393

Fax Transmission

To: George Meyers

Company Name: Ohio Department Of Natural Resources

Fax Number: (614) 447-9503

Number of Pages (including cover page): 9

From: Mark Spiess

Date: 1-26-04

Operator: Jaclyn Franz

Comments: The folowing has been sent to F.E.M.A.

City of NAPOLEON, OHIO

255 West Riverview Avenue - P.O. Box 151
Napoleon, Ohio 43545
Telephone: 419/592-4010 Fax: 419/599-8393
www.napoleonohio.com

Fax Transmission

TO: SCOTT HEATH

COMPANY NAME: F.E.M.A.

FAX NUMBER: 301-210-5157 PHONE: 1-800-697-7275 Ext. 496

NUMBER OF PAGES (INCLUDING COVER PAGE): 9

FROM: JOSEPH R. KLEINER, P.E. CITY ENGINEER

DATE: 1-19-04 TIME: 4:15

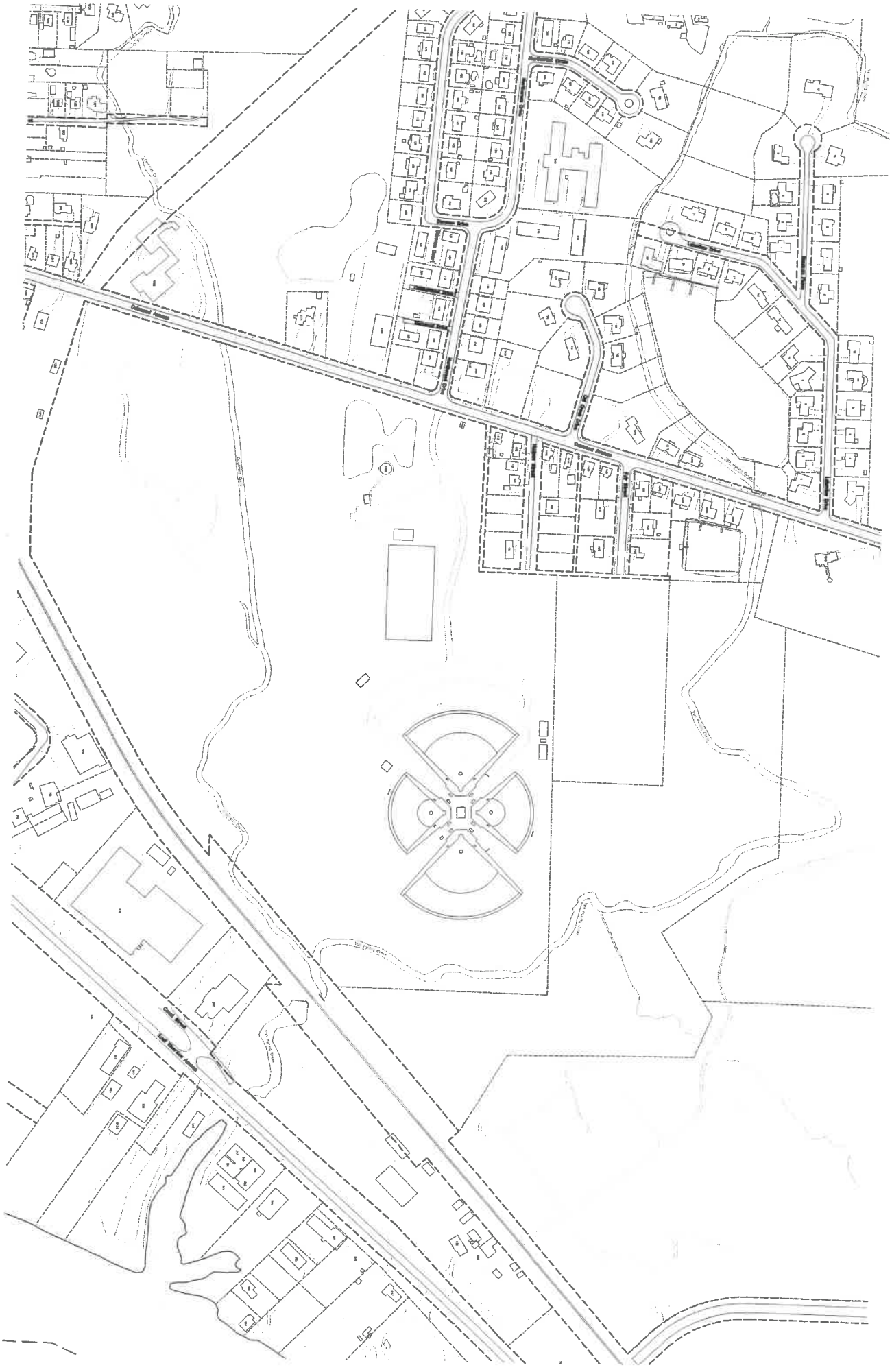
OPERATOR: MARK B. SPIESS, SEN. ENG. TECH.

COMMENTS:
THE 100 YR. BASE FLOOD ELEVATION IS 657.00
IF YOU NEED ANY FURTHER INFORMATION, PLEASE
CALL. THANKS!!

Please call (419) 592-4010 if you have any trouble receiving this Transmission or you did not receive the number of pages shown above.


Van Hyning Creek
655
660.5
57.5
655
670
660
681.9
658.4
660
670
679.9
10
681.6
679.4
680
675
681.3
8
680.2
58.1
12
679.1
681.1
681.5
681.2
655
657.2
655
681.1
681.6
665
675
670
658.1
656.7
681.4
656.9
657.4
657.3
7
680
656.6
660.5
661.5
673.8
675
660
657.5
656.6
659.2
659.5
665


Van Hyning Creek
Bauman Place
Lakeview Drive
Benchmak #34
Van Hyning Creek
Lakeview Drive
Van Hyning Creek
Fair Street



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

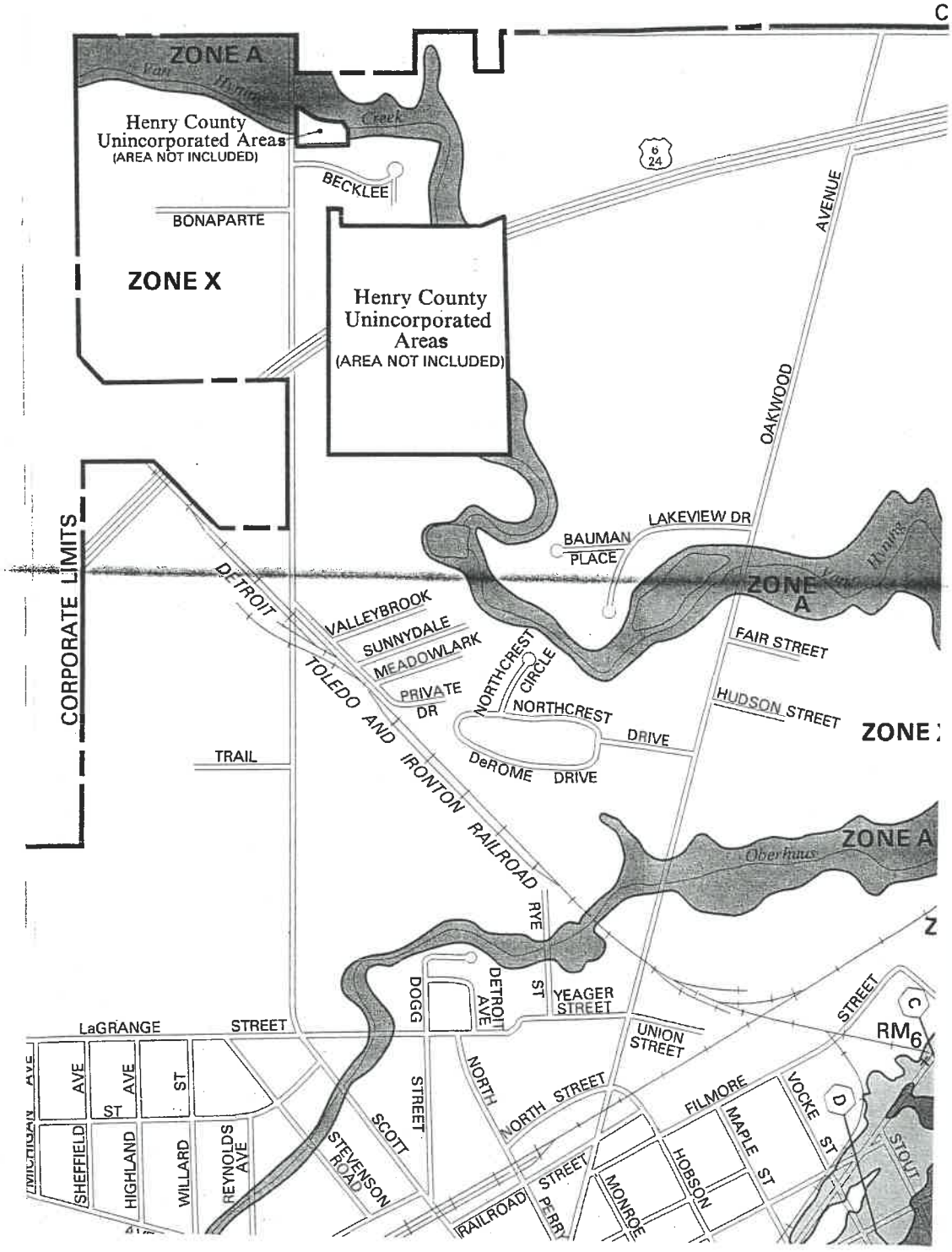
CITY OF
NAPOLEON,
OHIO
HENRY COUNTY

(ONLY PANEL PRINTED)

COMMUNITY-PANEL NUMBER
390266 0005 D

MAP REVISED:
NOVEMBER 2, 1995

Federal Emergency Management Agency


ZONE A
Van Horne
Creek
Henry County
Unincorporated Areas
(AREA NOT INCLUDED)
BECKLEE
BONAPARTE
ZONE X
Henry County
Unincorporated
Areas
(AREA NOT INCLUDED)
6
24
AVENUE
OAKWOOD
CORPORATE LIMITS
DETROIT
TOLEDO AND IRONTON RAILROAD
TRAIL
VALLEYBROOK
SUNNYDALE
MEADOWLARK
PRIVATE
DR
NORTHCREST
CIRCLE
NORTHCREST
DRIVE
DeROME
DRIVE
BAUMAN
PLACE
LAKEVIEW DR
ZONE A
FAIR STREET
HUDSON STREET
ZONE X
ZONE A
Oberhaus
RYE
DOGG
DETROIT
AVE
ST
YEAGER
STREET
UNION
STREET
STREET
RM6
LaGRANGE
STREET
NORTH
NORTH STREET
FILMORE
MAPLE ST
VOCKE ST
STOUT
SCOTT
STREET
STEVENSON
ROAD
SHEFFIELD
AVE
HIGHLAND
AVE
WILLARD
ST
REYNOLDS
AVE
RAILROAD
PERRY
STREET
MONROE
HOBSON

"WORKSHEET"

$$Q_{100} = (RC)(DA)^{0.652}$$

FROM TABLE 1 ENCLOSED:

RC = 240.5

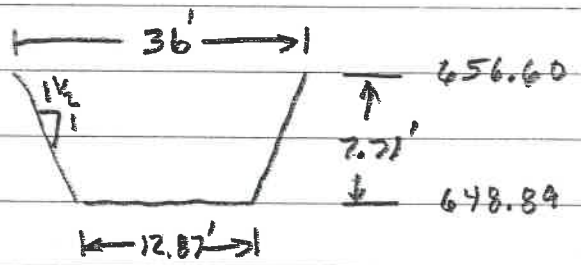
THE DRAINAGE AREA FROM COUNTY DITCH DRAWN MAP:

DA = 13.8 SQ MI

$$Q_{100} = (240.5)(13.8)$$
$$= 3318.9 \text{ CFS}$$

FROM THE FIELD SURVEY, THE DITCH CROSS-SECTION IS AS FOLLOWS:

OPEN CHANNEL FLOW



$Q = VA$ $\quad Q = 3318.9$ CFS

$A = (12.87')(7.71') + \frac{1}{2}[(23.13')(7.71')]$

$A = 188.39 \text{ ft}^2$

$$V = \frac{Q}{A} = \frac{3318.9 \text{ CFS}}{188.39 \text{ ft}^2}$$

$V = 17.62$ FT/SEC

$$\frac{d}{2} = \frac{V^2}{2g} \Rightarrow d = 2\left(\frac{V^2}{2g}\right) = \frac{V^2}{g} = \frac{(17.62)^2}{32.2}$$

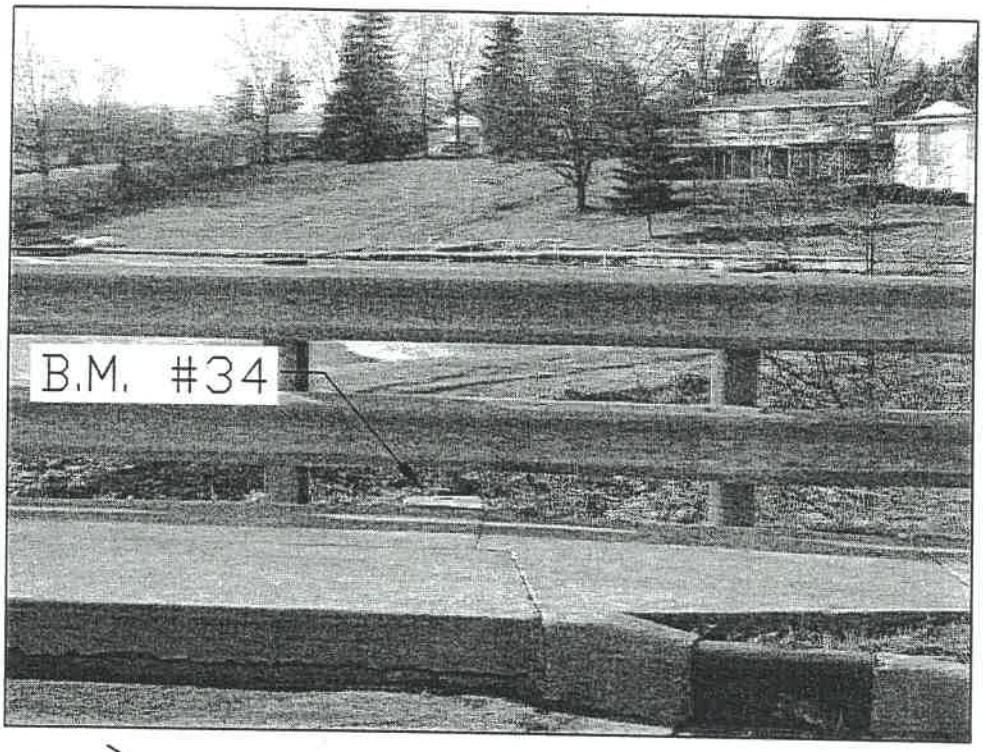
$d = 9.64$ FT

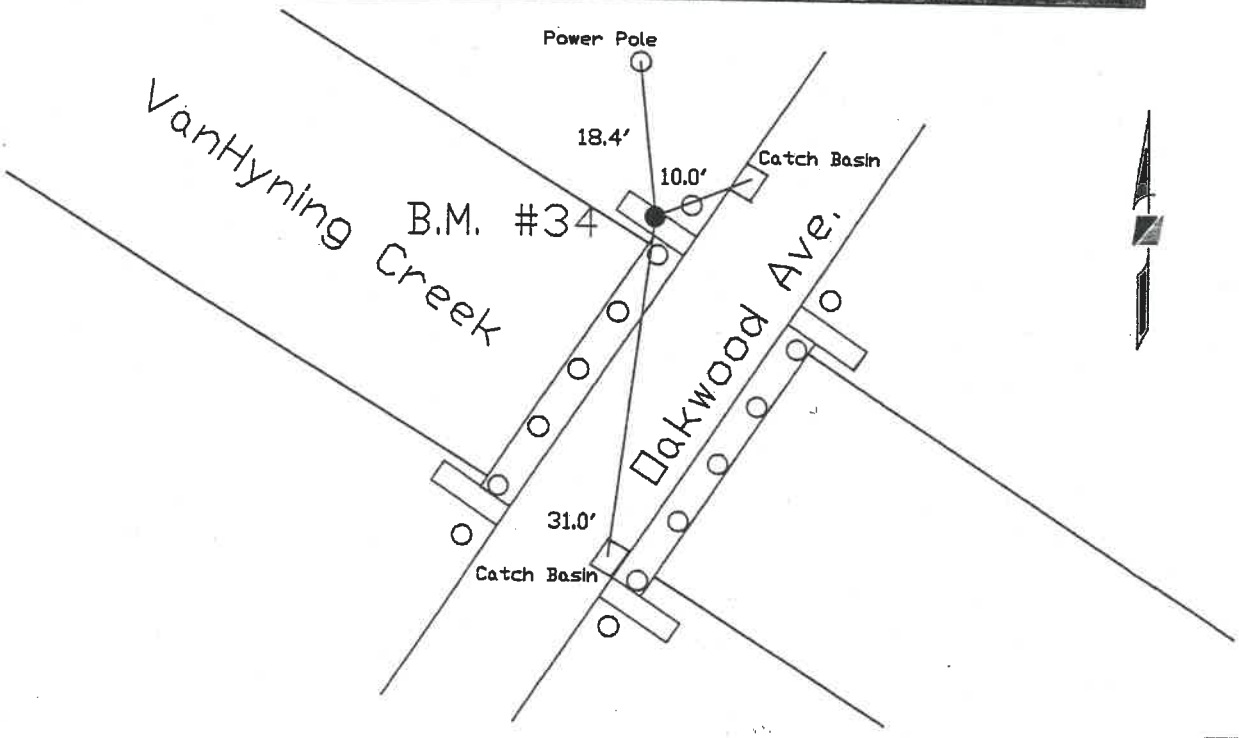
100 FLOOD ELEVATION = 648.89 + 9.64 = 658.53 FT

FINISH FLOOR ELEVATION OF THE BASEMENT IS : 673.05 THEREFORE THE 100 YEAR FLOOD ELEVATION IS 14.52 FT BELOW THE BASEMENT FINISH FLOOR.

CITY OF NAPOLEON BENCHMARK #34

Location: Oakwood Avenue bridge at VanHyning Creek in the Northwest headwall





ELEVATION = 664.37

PREPARED BY:
R.D.Zande & Associates
5555 Airport Highway Suite 210
Toledo, Ohio 43615
Phone (419) 867-6666
Fax (419) 867-6654

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A No base flood elevations determined.

ZONE AE Base flood elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding; velocities also determined.

ZONE A99 To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.

ZONE V Coastal flood with velocity hazard (wave action); no base flood elevations determined.

ZONE VE Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X Areas determined to be outside 500-year floodplain.

ZONE D Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS†

Identified 1983

Identified 1990 or later

Otherwise Protected Areas Identified 1991 Or Later

†Coastal barrier areas are normally located within or adjacent to special flood hazard areas.

Floodplain Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 — Base Flood Elevation Line; Elevation in Feet*

D — D — Cross Section Line

(EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*

RM 7x — Elevation Reference Mark

M1.5 — River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas. The community map repository should be consulted for possible updated flood hazard information prior to use of this map for property purchase or construction purposes.

Coastal base flood elevations apply only landward of 0.0 NGVD, and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of special flood hazard (100-year flood) include Zones A, AE, AH, AO, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood

Table 1. Simple (drainage-area only) equations for estimating flood-peak discharges of rural, unregulated streams in Ohio

[Q_t, flood-peak discharge with a t-year recurrence interval, in cubic feet per second; DA, drainage area in square miles]

Equation number	Equation	Average standard error of prediction (percent)	Average equivalent years of record
1	$Q_2 = (RC)(DA)^{0.716}$	39.6	1.9
2	$Q_5 = (RC)(DA)^{0.686}$	39.0	2.6
3	$Q_{10} = (RC)(DA)^{0.674}$	39.5	3.4
4	$Q_{25} = (RC)(DA)^{0.663}$	41.1	4.4
5	$Q_{50} = (RC)(DA)^{0.657}$	42.7	5.1
6	$Q_{100} = (RC)(DA)^{0.652}$	44.4	5.7
7	$Q_{500} = (RC)(DA)^{0.644}$	49.0	6.6

where RC is the regression constant for a region taken from the following matrix:

Region	Q_2	Q_5	Q_{10}	Q_{25}	Q_{50}	Q_{100}	Q_{500}
A	106.3	186.1	244.4	321.0	379.6	439.1	582.3
B	69.1	114.9	146.1	184.9	213.0	240.5	302.5
C	188.6	322.7	417.5	539.3	630.6	721.9	936.9

MARK,

THIS IS Q100 DISCHARGE FORMULA WE USE - IT IS FROM USGS WATER-RESOURCES REPORT 03-4164 WHICH IS FOR RURAL STREAMS IN OHIO - WE ARE IN REGION B

ONCE Q IS DETERMINED YOU WOULD NEED TO CALCULATE A STREAM DEPTH OF FLOW FOR THIS 100 YR. Q. THE CALCULATED DEPTH OF FLOW CAN THEN BE TRANSLATED TO AN ELEVATION. YOU WILL NEED TO KNOW AVE. STREAM BOTTOM WIDTH, CHANNEL SLOPE AND "N" VALUE FOR STREAM IN QUESTION.

Post-it® Fax Note 7671	Date 1/28/04	# of pages ▶ 1
To MARK SPIESS	From KENNY SONNENBERG	
Co./Dept.	Co. CO. ENG'S. OFFICE	
Phone #	Phone #	
Fax # 419.599.8393	Fax #	

FEDERAL EMERGENCY MANAGEMENT AGENCY

ELEVATION FORM

O.M.B. NO. 3067-0147
Expires September 30, 2005

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1 hour per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (3067-0147). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. **Please do not send your completed survey to the above address.**

This form must be completed for requests and must be completed and signed by a registered professional engineer or licensed land surveyor. **A FEMA National Flood Insurance Program (NFIP) Elevation Certificate may be submitted in addition to this form for single structure requests.**

For requests to remove a structure on natural grade OR on engineered fill from the Special Flood Hazard Area (SFHA), submit the lowest adjacent grade (the lowest ground touching the structure), including an attached deck or garage. For requests to remove an entire parcel of land from the SFHA, provide the lowest lot elevation; or, if the request involves an area described by metes and bounds, provide the lowest elevation within the metes and bounds description.

1. NFIP Community Number: 390266 Property Name or Address: 12 Bauman Place, Napoleon, OH 43545

2. Are the elevations listed below based on ☒ existing or ☐ proposed conditions? (Check one)

3. What is the elevation datum? NGVD29 If any of the elevations listed below were computed using a datum different than the datum used for the effective Flood Insurance Rate Map (FIRM) (e.g., NGVD 29 or NAVD 88), what was the conversion factor?

Local Elevation +/- ft. = FIRM Datum

4. For the existing or proposed structures listed below, what are the types of construction? (check all that apply)
☐ crawl space ☒ slab on grade ☒ basement/enclosure ☐ other (explain)

5. Has FEMA identified this area as subject to land subsidence or uplift? (see instructions) ☐ Yes ☒ No
If yes, what is the date of the current releveling? / (month/year)

Lot Number	Block Number	Lowest Lot Elevation	Lowest Adjacent Grade To Structure	Base Flood Elevation	For FEMA Use Only
Pt. SW¼ Sec. 12, Napoleon Township, Henry Co. OH 10		648.9	672.80	None Est.	

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name:	License No.:	Expiration Date:
Company Name:	Telephone No.:	Fax No.:
Signature:	Date:	

Seal (optional)