Public Notice

U.S. Army Corps of Engineers
Pittsburgh District

In Reply Refer to
Notice No. below

US Army Corps of Engineers, Pittsburgh District
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Application No. 2012-1234 Date: April 23, 2013

Notice No. 13-19 Closing Date: May 22, 2013

1. TO ALL WHOM IT MAY CONCERN: The following application has been submitted for a Department of the Army Permit under the provisions of Section 404 of the Clean Water Act.

2. APPLICANT: Georgetown Marine, Inc.
67705 Friends Church Road
St. Clairsville, Ohio 43950

3. LOCATION: Unnamed tributaries to Wheeling Creek and adjacent wetlands in Pease and Pultney Townships, Belmont County, Ohio

4. PURPOSE AND DESCRIPTION OF WORK: The applicant is proposing an industrial minerals surface mine for limestone and sandstone on 156 acres of the Georgetown Marine site. Approximately 6,600,000 tons of limestone and 947,000 tons of sandstone is proposed to be extracted. After surface mining the land will be returned to its original contours. Aquatic resource impacts from mining are proposed in the amount of 3,753 linear feet of unnamed tributaries to Wheeling Creek and 1.05 acres of Category I and II wetlands. Mitigation is being proposed for streams through stream construction and riparian zone establishment at a 1:1 ratio and 1.58 acres of mitigation wetland will be constructed to offset wetland impacts. Perpetual protection of mitigation resources is being proposed through an environmental covenant. Drawings of the proposed industrial minerals surface mine are attached to this notice.

5. WATER QUALITY CERTIFICATION: A Permit will not be granted until Water Quality Certification is received or waived from:

Ohio Environmental Protection Agency (Ohio EPA)
Section 401 Coordinator
PO Box 1049
Columbus, Ohio 43266-0149
Telephone Number: 614-644-2001

6. IMPACT ON NATURAL RESOURCES: The District Engineer has consulted the most recently available information and has determined that the project may affect, but is not likely to adversely affect endangered species or threatened species, or result in destruction or adverse

modification of habitat of such species which has been determined to be critical through adherence to a seasonal tree clearing restriction to protect Indiana bats. A special condition would be included in a positive permit decision which requires tree clearing from the October 1 to March 31 timeframe. This Public Notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended). If the U.S. Fish and Wildlife Service concurs with the may affect, not likely to adversely affect determination please respond with written concurrence.

7. IMPACT ON CULTURAL RESOURCES: The National Register of Historic Places has been consulted, and it has been determined that there are no properties currently listed on the register which would be directly affected by the proposed work. If we are made aware, as a result of comments received in response to this notice, or by other means, of specific archeological, scientific, prehistorical, or historical sites or structures which might be affected by the proposed work, the District Engineer will immediately take the appropriate action necessary pursuant to the National Historic Preservation Act of 1966 - Public Law 89-665 as amended (including Public Law 96-515).

8. PUBLIC INVOLVEMENT: Any person may request, in writing, within the comment period specified in the paragraph below entitled "RESPONSES," that a public hearing be held to consider this application. The requests for public hearing shall state, with particularity, the reasons for holding a public hearing.

9. EVALUATION: Interested parties are invited to state any objections they may have to the proposed work. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposals must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the

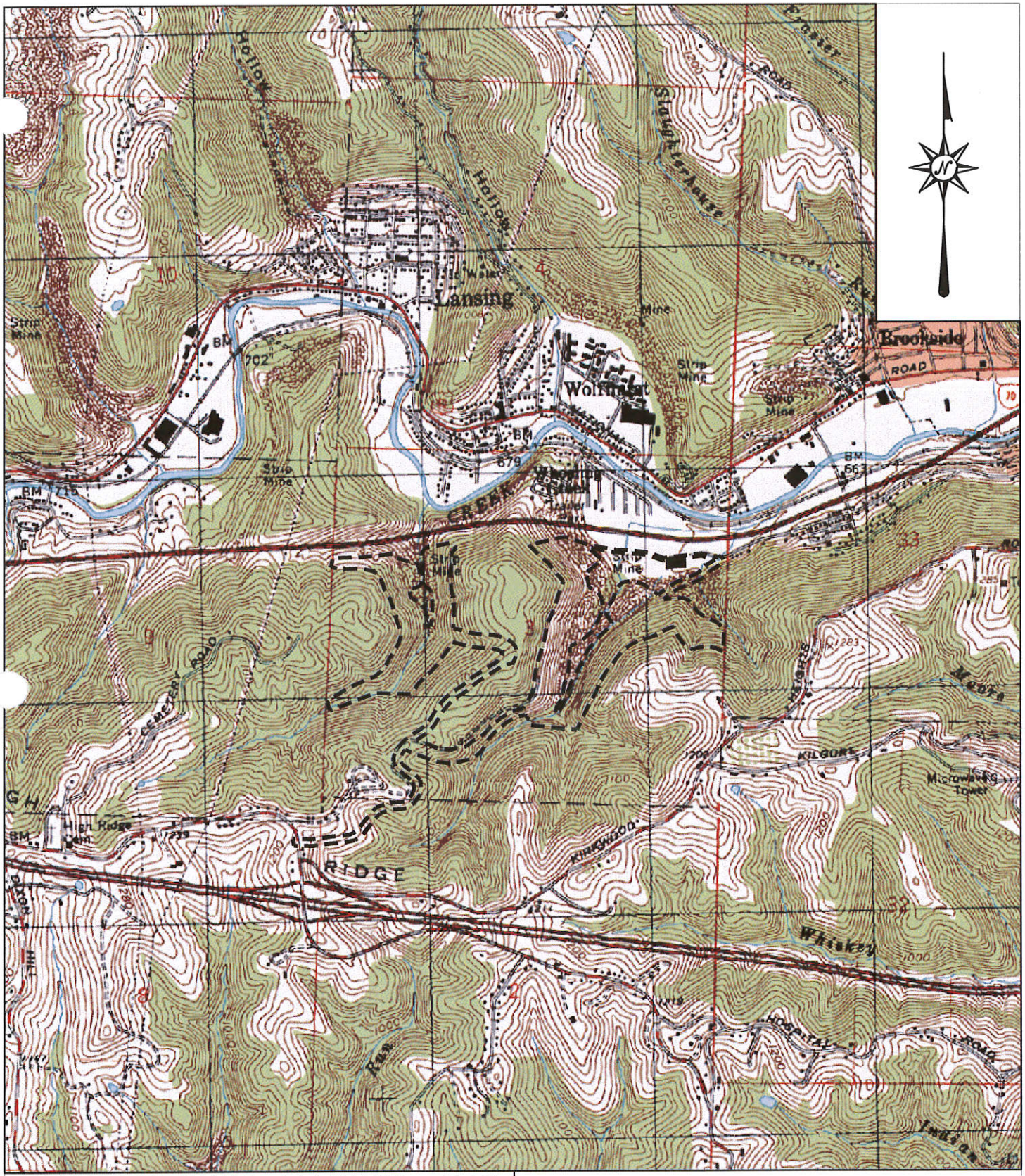
overall public interest of the proposed activity. The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act (40 CFR Part 230).

10. RESPONSES: A permit will be granted unless its issuance is found to be contrary to the public interest. Written statements concerning the proposed activity should be received in this office on or before the closing date of this Public Notice in order to become a part of the record and to be considered in the final determination. Any objections which are received during this period may be forwarded to the applicant for possible resolution before the determination is made whether to issue or deny the requested DA Permit. All responses to this notice should be directed to the Regulatory Branch, attn Tyler Bintrim at the above address, by telephoning (412) 395-7115, or by e-mail at tyler.j.bintrim@usace.army.mil. Please refer to CELRP-OP-F 2012-1234 in all responses.

FOR THE DISTRICT ENGINEER:

//SIGNED//
By Nancy Mullen for

Scott A. Hans
Chief, Regulatory Branch



GEORGETOWN MARINE, INC

GEORGETOWN MARINE

LOCATED IN

SECTION 3, T-6-N, R-3-W PEASE TOWNSHIP

SECTIONS 2 & 8, T-6-N, R-3-W PULTNEY TOWNSHIP

BELMONT COUNTY, OHIO

LANSING QUADRANGLE

SCALE: 1" = 2000'

DATE PREPARED: 10/19/12

PERMIT LIMITS - - - -

PREPARED BY:

BAIR, GOODIE AND ASSOCIATES, INC.

153 NORTH BROADWAY

NEW PHILADELPHIA, OHIO 44663

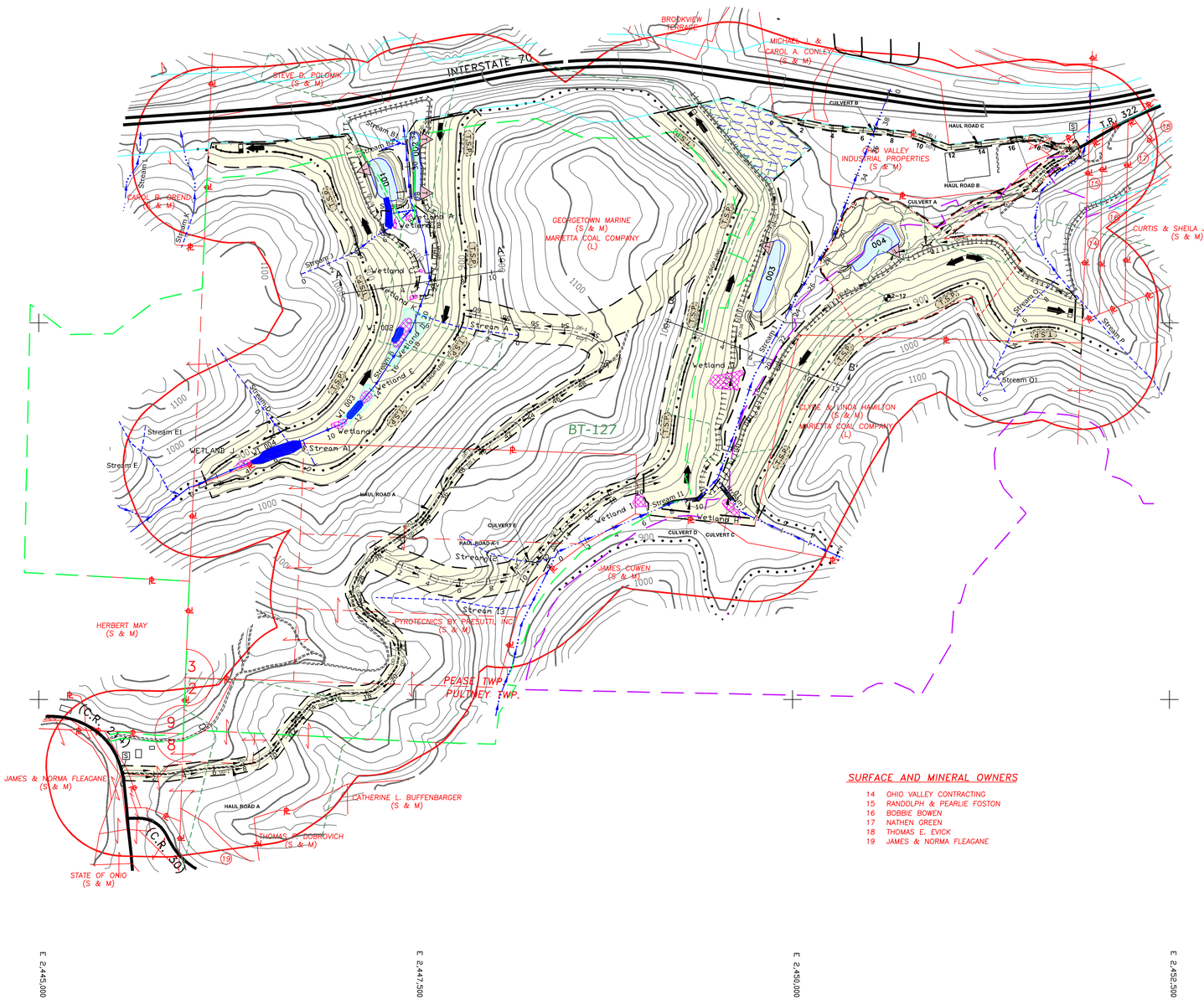
PHONE (330) 343-3499

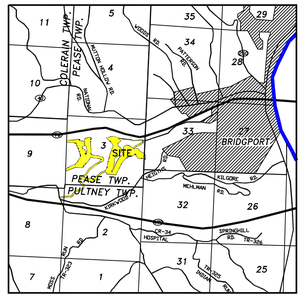
EMAIL: bairgoodie@bairgoodie.com

MARGM116

PONDS	
POND No.	SURFACE AREA
001	0.82 ACRES
002	0.45 ACRES
003	0.94 ACRES
004	0.94 ACRES

TEST HOLES	
T.H. NO.	GROUND ELEV
2-12	870





LOCATION MAP
SCALE: 1" = 1 MILE

LANSING QUADRANGLE

LEGEND

- PERMIT LIMITS – 156 ACRES
- PREVIOUSLY AFFECTED AREA
- 2-12 TEST HOLE
- DD-18A DIVERSION DITCH
- NATURAL OR PUMPED DRAINAGE
- DEEP MINE ENTRY
- T.S.P. TOP SOIL STOCK PILES
- COAL OUTCROP LINE
- PERENNIAL STREAM
- INTERMITTENT STREAM
- EPHEMERAL STREAM
- —E—T—G— UTILITY e.g. gas(G), electric(E), telephone(T)
- I-70 RIGHT-OF-WAY
- EXISTING IMPOUNDMENT
- TREATMENT FACILITY
- 001 SEDIMENT POND
- x x x x x EXISTING HIGHWALL
- FINAL HIGHWALL
- 10° SLOPE MEASUREMENT
- S ENTRANCE SIGN
- (S) INDICATES SURFACE OWNER
- (M) INDICATES MINERAL OWNER
- (L) INDICATES LEASEE
- (C) INDICATES COAL OWNER
- OCCUPIED AND UNOCCUPIED STRUCTURE
- COMMERCIAL BUILDING
- BEGIN MINING
- END MINING
- PROPERTY LINE
- ROAD
- PUBLIC WATER LINE
- ABANDONED OIL/GAS WELL
- ACTIVE OIL/GAS WELL
- SEEP, SEEPAGE ZONE, SWAMP
- SUMP
- 500' HYDRO BOUNDARY
- WETLANDS
  - A = 0.01 ACRES
  - B = 0.02 ACRES
  - C = 0.01 ACRES
  - D = 0.18 ACRES
  - E = 0.09 ACRES
  - F = 0.10 ACRES
  - G = 0.43 ACRES
  - H = 0.14 ACRES
  - I = 0.13 ACRES
  - J = 0.08 ACRES
  - K = 0.03 ACRES
- BT-178
- BT-127
- SADE (SMALL AREA DRAINAGE EXEMPTION 4.1AC)
- D-1138
- D-0597
- WETLAND MITIGATION SITE (1.58AC.)

NOTES:

1. EASEMENT FOR ROADWAY ON OHIO VALLEY INDUSTRIAL PROPERTY AND MICHAEL J. & CAROL A. CONLEY PROPERTIES.
2. HIGHWALL WILL BE 50' FROM PROPERTY OF JAMES COWEN AND OHIO VALLEY CONTRACTING

SURFACE AND MINERAL OWNERS

14 OHIO VALLEY CONTRACTING
15 RANDOLPH & PEARLIE FOSTON
16 BOBBIE BOWEN
17 NATHEN GREEN
18 THOMAS E. EVICK
19 JAMES & NORMA FLEAGANE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS MAP IS CORRECT, AND SHOWS TO THE BEST OF MY KNOWLEDGE AND BELIEF ALL THE INFORMATION REQUIRED BY CHAPTER 1514 OF THE REVISED CODE AND RULES ADOPTED THEREUNDER. ALL PROPOSED HAUL ROADS, CULVERTS, PONDS, AND DIVERSIONS ARE TRANSPOSED FROM THE SIGNED/SEALED ENGINEERING WORK IN THE APPLICATION TO THE APPLICATION MAP WITHIN REASONABLE AND PRACTICAL ACCURACY.

FRANK E. BAIR, P.S.#5918 — DATE

ACKNOWLEDGED BEFORE ME, A NOTARY PUBLIC, THIS
_____ DAY OF _____ , ____
_____NOTARY PUBLIC

0' 400' 800' 1200'

WHEELING CREEK DRAINAGE BASIN

- ☒ PREFERRED ALTERNATIVE
- ☐ ANNUAL MAP
- ☐ FINAL MAP

PERMIT NO._____
(GEORGETOWN MARINE)

GEORGETOWN MARINE, INC.

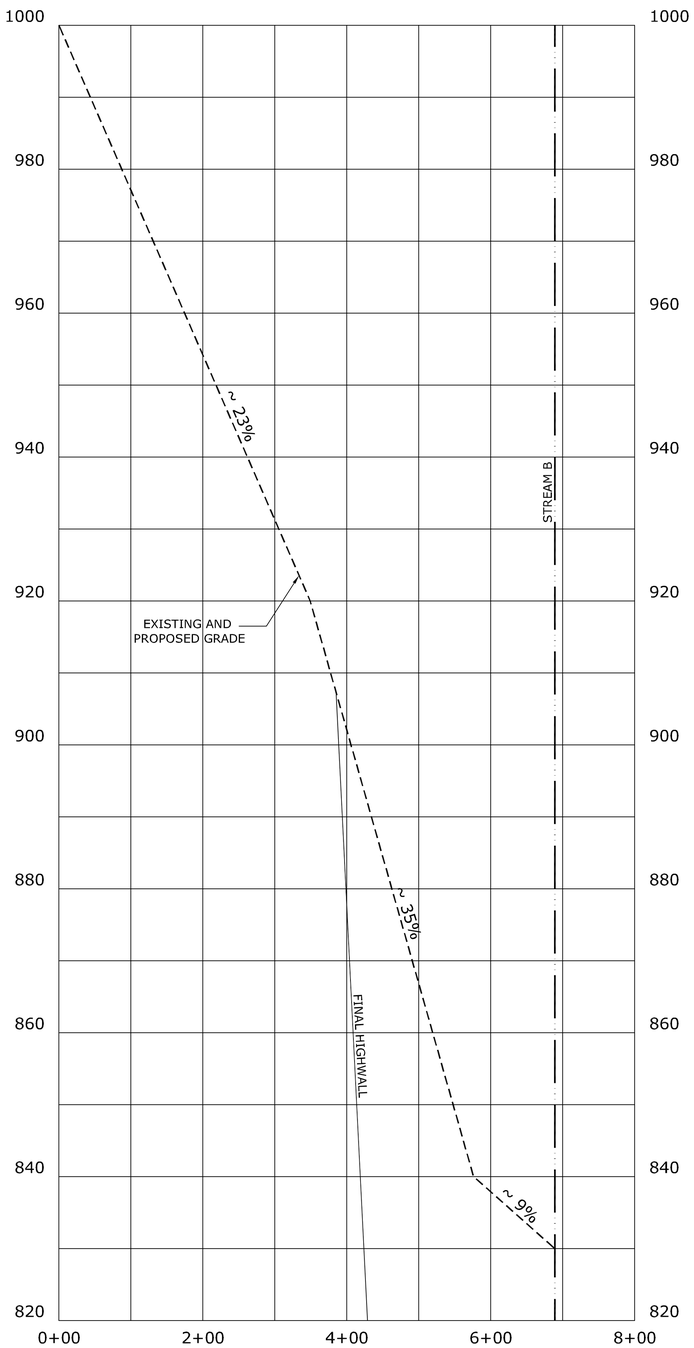
LOCATED IN
SECTION 3, T-6-N, R-3-W
PEASE TOWNSHIP
SECTIONS 8 & 2, T-6-N, R-3-W
PULTNEY TOWNSHIP
BELMONT COUNTY, OHIO

SCALE: 1" = 400'
CONTOUR INTERVAL = 20'
DATE PREPARED: JANUARY 16, 2013
DATE REVISED: _____

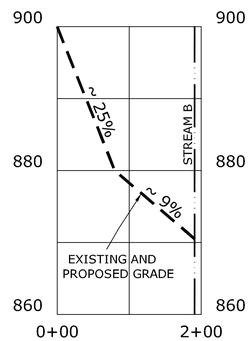
PREPARED BY:
BAIR, GOODIE AND ASSOCIATES, INC.
153 NORTH BROADWAY
NEW PHILADELPHIA, OHIO 44663
PHONE (330) 343-3499
FAX (330) 343-9505 E-MAIL: fbair@bairgoodie.com

FILE ID: MARGM119

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE



PROFILE OF STREAM A
Scale 1" = 100'H, 1" = 10'V



PROFILE OF STREAM A1
Scale 1" = 100'H, 1" = 10'V

CHART FOR CHANNELS OF 2-4%

Stream	Station	Watershed	SCS 6 hour Peak Flow Q(1.5yr)	Q(100yr)	Grade	W_{bf} typ.	A_{bf} typ.	F(ft) typ.	D(ft) typ.	d_{fp} (ft)	d (ft)	b (ft)	T (ft)	z (ft)	z_{fp} (ft)	MEANDERING CHANNEL PATTERN w(ft) typ.	w(ft) min.	w(ft) max.	L(ft) typ.	L(ft) min.	L(ft) max.	R(ft) typ.	R(ft) min.	R(ft) max.	S typ.	S min.	S max.	V_{100yr} (fps)	D_{50} (in.)
B	3+30 to 14+67	288.3Ac.	53.4cfs	466.1cfs	2%	15.7	16.5	25.2	1.5	1.7	1.3	10.8	32.0	2	3	43	31	63	126	94	157	39	31	47	1.20	1.10	1.30	5.74	6"
B	15+67 to 20+38	288.3Ac.	53.4cfs	466.1cfs	2%	15.7	16.5	25.2	1.5	1.7	1.3	10.8	32.0	2	3	43	31	63	126	94	157	39	31	47	1.20	1.10	1.30	5.74	6"
I	36+90 to 37+31	451.6Ac.	67.8cfs	668.1cfs	3%	17.2	19.8	27.5	1.6	1.9	1.4	11.8	36.8	2	3	46	34	69	138	103	172	43	34	52	1.20	1.10	1.30	6.18	6"

CHART FOR CHANNELS OF >4%

Stream	Station	Watershed	SCS 6 hour Peak Flow Q(1.5yr)	Q(100yr)	Grade	W_{bf} typ.	A_{bf} typ.	F(ft) typ.	D(ft) typ.	d_{fp} (ft)	d (ft)	b (ft)	T (ft)	z (ft)	z_{fp} (ft)	POOL DIMENSIONS P_w typ.	P_w min.	P_w max.	P_d typ.	P_d min.	P_d max.	P_l typ.	P_l min.	P_l max.	S typ.	S min.	S max.	V_{100yr} (fps)	D_{50} (in.)
A	3+85 to 5+76	18.6Ac.	16.7cfs	66.7cfs	35%	6.7	5.7	8.8	1.4	1.1	1.6	0.3	7.2	2	3	8	7	9	3	2	3	11	7	13	1.05	1.00	1.10	10.84	12"
A	5+76 to 6+89	18.6Ac.	16.7cfs	66.7cfs	9%	9.4	8.8	12.2	1.5	1.7	1.3	4.2	10.4	2	3	11	9	13	3	2	3	21	16	25	1.10	1.00	1.20	6.42	6"
A-1	0+00 to 0+80	15.1Ac.	13.5cfs	54.0cfs	25%	6.6	5.5	8.6	1.3	1.1	1.6	0.3	7.1	2	3	8	7	9	2	2	3	11	7	13	1.05	1.00	1.10	9.05	12"
A-1	0+80 to 1+91	15.1Ac.	13.5cfs	54.0cfs	9%	8.7	7.5	11.3	1.4	1.6	1.2	3.9	9.6	2	3	11	9	12	3	2	3	19	15	23	1.10	1.00	1.20	6.07	6"
B	1+19 to 3+30	288.3Ac.	53.4cfs	466.1cfs	8%	14.9	22.0	19.3	2.4	2.7	2.1	6.6	22.1	2	3	18	15	21	4	4	5	33	25	40	1.10	1.00	1.20	10.50	12"
B	14+67 to 15+67	288.3Ac.	53.4cfs	466.1cfs	20%	11.6	16.8	15.1	2.3	1.8	2.8	0.3	17.5	2	3	14	12	16	4	4	5	20	12	23	1.05	1.00	1.10	15.05	12"
B	20+38 to 20+90	288.3Ac.	53.4cfs	466.1cfs	38%	10.3	13.2	13.3	2.1	1.6	2.5	0.3	15.5	2	3	12	10	14	4	3	4	17	10	14	1.05	1.00	1.10	19.13	15"
B	20+90 to 21+21	288.3Ac.	53.4cfs	466.1cfs	5%	16.2	26.3	21.1	2.6	3.0	2.2	7.3	24.1	2	3	19	16	23	5	4	6	36	28	44	1.10	1.00	1.20	8.81	9"
D	0+97 to 2+50	17.0Ac.	6.7cfs	46.4cfs	17%	5.5	3.8	7.1	1.1	0.9	1.3	0.3	7.4	2	3	7	5	8	2	2	2	9	5	11	1.05	1.00	1.10	5.81	6"
D	2+50 to 2+82	17.0Ac.	6.7cfs	46.4cfs	8%	6.8	4.6	8.9	1.1	1.2	0.9	3.0	9.2	2	3	8	7	10	2	2	2	15	12	18	1.10	1.00	1.20	5.91	6"
I	10+14 to 10+74	79.7Ac.	31.3cfs	217.4cfs	37%	8.5	8.9	11.0	1.7	1.3	2.1	0.3	11.5	2	3	10	8	12	3	3	4	14	8	17	1.05	1.00	1.10	15.65	12"
I1	9+29 to 9+89	243.6Ac.	45.7cfs	421.9cfs	21%	10.8	14.7	14.1	2.2	1.7	2.6	0.3	16.8	2	3	13	11	15	4	3	5	18	11	22	1.05	1.00	1.10	14.91	12"
I2	2+68 to 3+28	8.6Ac.	7.7cfs	30.7cfs	33%	5.1	3.2	6.6	1.0	0.8	1.2	0.3	5.4	2	3	6	5	7	2	2	2	9	5	10	1.05	1.00	1.10	8.76	9"
J	3+17 to 4+96	5.9Ac.	2.6cfs	16.7cfs	39%	3.3	1.4	4.3	0.7	0.6	0.8	0.3	4.3	2	3	4	3	5	1	1	1	6	3	7	1.05	1.00	1.10	8.39	9"
J	4+96 to 6+17	5.9Ac.	2.6cfs	16.7cfs	50%	3.1	1.2	4.1	0.6	0.5	0.7	0.3	4.1	2	3	4	3	4	1	1	1	5	3	6	1.05	1.00	1.10	9.26	9"
J	6+17 to 6+30	5.9Ac.	2.6cfs	16.7cfs	29%	3.5	1.5	4.5	0.7	0.6	0.8	0.3	4.6	2	3	4	3	5	1	1	2	6	3	7	1.05	1.00	1.10	7.50	9"
O	3+78 to 5+11	16.3Ac.	7.1cfs	45.9cfs	30%	5.0	3.2	6.6	1.0	0.8	1.2	0.3	6.6	2	3	5	5	7	2	2	2	9	5	10	1.05	1.00	1.10	9.80	12"
O	5+11 to 7+67	16.3Ac.	7.1cfs	45.9cfs	23%	5.3	3.5	6.9	1.1	0.9	1.3	0.3	6.9	2	3	6	5	7	2	2	2	9	5	11	1.05	1.00	1.10	8.91	9"
O	7+67 to 8+93	16.3Ac.	7.1cfs	45.9cfs	32%	5.0	3.1	6.5	1.0	0.8	1.2	0.3	6.5	2	3	6	5	7	2	2	2	8	5	10	1.05	1.00	1.10	10.0	12"
O	8+93 to 9+15	16.3Ac.	7.1cfs	45.9cfs	21%	5.4	3.6	7.0	1.1	0.9	1.3	0.3	7.0	2	3	6	5	8	2	2	2	9	5	11	1.05	1.00	1.10	8.67	9"

W_{bf} – BANKFULL WIDTH – THE SURFACE WIDTH OF THE STREAM MEASURED AT THE STAGE OF THE BANKFULL DISCHARGE.

A_{bf} – BANKFULL AREA – THE CROSS-SECTIONAL AREA OF THE STREAM MEASURED AT THE STAGE OF THE BANKFULL DISCHARGE.

D – MAX RIFFLE DEPTH – THE MAXIMUM DEPTH OF A CHANNEL AT A RIFFLE. THE RIFFLE IS THE SHALLOW AND STEEP FACET OF THE CHANNEL

d_{fp} – FLOOD PRONE DEPTH

R – RADIUS OF CURVATURE – THE RADIUS OF THE BENDS IN THE BANKFULL CHANNEL.

d – BANKFULL DEPTH

b – CHANNEL BOTTOM WIDTH

T – TOP WIDTH OF CHANNEL

W – MEANDER WIDTH – THE LATERAL EXTENT OF THE BANKFULL CHANNEL MEASURED PERPENDICULAR TO THE VERTICAL FALL OF THE CHANNEL.

L – MEANDER LENGTH – THE STRAIGHT LINE DISTANCE THROUGH ONE WAVELENGTH OF THE CHANNEL.

F – FLOOD PRONE WIDTH.

S – SINUOSITY – THE RATIO OF STREAM LENGTH TO VALLEY DISTANCE. IT INDICATES THE DEGREE OF SERPENTINE OR WAVY FORM OF THE CHANNEL.

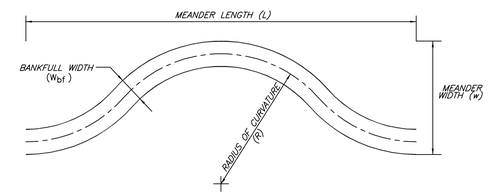
P_w – POOL WIDTH – WIDTH OF BANKFULL CHANNEL AT POOL.

P_d – MAXIMUM POOL DEPTH – THE MAXIMUM DEPTH OF THE CHANNEL AT A POOL. A POOL IS THE DEEP AND FLAT FACET OF THE CHANNEL.

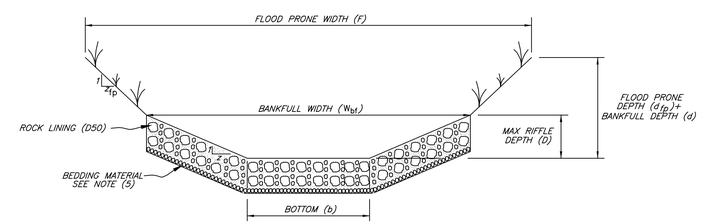
P_l – POOL TO POOL LENGTH – HORIZONTAL DISTANCE BETWEEN TWO POOLS IN A CHANNEL PROFILE.

z – SIDE SLOPES, BANKFULL WIDTH

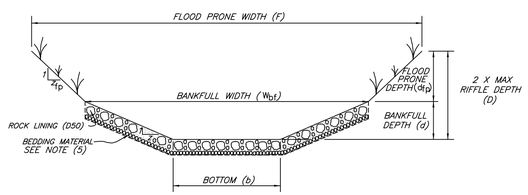
z_{fp} – SIDE SLOPES, FLOOD PRONE WIDTH



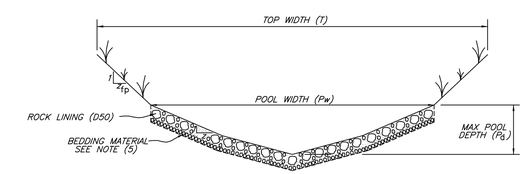
CHANNEL PATTERN



4%+ RIFFLE CROSS SECTION



CHANNEL CROSS SECTION



4%+ POOL CROSS SECTION

NOTES:

(1) DESIGN CRITERIA IS BASED ON "A NATURAL CHANNEL DESIGN PROCEDURE FOR STEEP AND MODERATELY STEEP STREAMS" ISSUED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINES AND RECLAMATION AND DIVISION OF SOIL AND WATER CONSERVATION DATED NOVEMBER 15, 1999.

(2) THESE NATURAL CHANNELS ARE DESIGNED TO ACCOMMODATE THE 1.5YEAR, 6HOUR STORM WITHIN THE BANKFULL DUMPED ROCK LIMITS. THE ENTIRE CHANNEL WILL ACCOMODATE THE 100YEAR, 6HOUR STORM. THE CHANNEL SIDE SLOPES ABOVE THE "BANKFULL" CHANNEL SHALL BE WELL VEGETATED.

(3) MINIMUM AND MAXIMUM VALUES ARE TO BE UTILIZED TO FIT THE PROPOSED CHANNEL INTO THE EXISTING LANDSCAPE. TYPICAL VALUES SHALL BE UTILIZED WHEREVER POSSIBLE.

(4) ALL ROCK SHALL BE OF DURABLE MATERIAL.

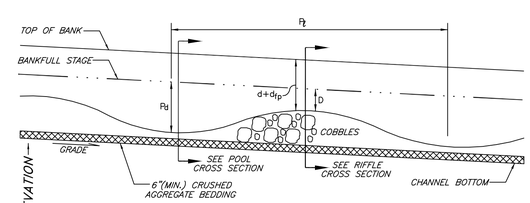
(5) 50% OF THE ROCK, BY VOLUME, SHALL BE IN SIZES SLIGHTLY LARGER THAN THE D50 AND THE REMAINING 50% SHALL BE SMALLER, INCLUDING SUFFICIENT SAND AND GRAVEL TO FILL THE VOIDS AROUND THE LARGER ROCK. THE ROCK SHALL BE PLACED IN THE "BANKFULL" CHANNEL PORTION OF THE CHANNEL BY OVEREXCAVATING AND PLACING IT AT A DEPTH OF 1.5 TIMES THE D50 SIZE. PROPERLY SIZED BEDDING MATERIAL SHALL BE PLACED TO A THICKNESS APPROXIMATELY ONE HALF THE D50, BUT TYPICALLY NOT LESS THAN SIX INCHES. ADDITIONAL "TOP DRESSING" WITH SAND AND GRAVEL MAY BE NECESSARY TO FILL THE VOIDS AROUND THE LARGER ROCK.

FOR SLOPES GREATER THAN 10% :

(6) A STRUCTURAL FUNCTION IS REQUIRED OF THE BED MATERIAL OF CASCADE-POOL CHANNELS WHERE THE STEPS FORM A NEAR-VERTICAL DROP FROM THE TOP OF THE STEP TO THE BOTTOM OF THE POOL. TO PREVENT THE LARGE ROCKS FROM BECOMING UNDERMINED, FOOTER ROCKS MUST BE PLACED BELOW AND DOWNSTREAM FROM THE LARGE ROCKS. LOGS CAN ALSO BE USED TO CONSTRUCT THE NEAR-VERTICAL DROPS. AS WITH LOWER GRADIENT CHANNELS, SMALLER ROCK, GRAVEL AND SAND CAN BE USED TO FILL THE VOIDS AROUND THE LARGER ROCK.

(7) THE PROPOSED BOTTOM WIDTHS OF THE RECONSTRUCTED STREAM CHANNELS WILL BE GRADUALLY TAPERED DOWN TO MEET THE EXISTING STREAM CHANNELS, WHICH ARE NOT AS WIDE, TO HELP PREVENT EROSION. ALSO, D50=9" RIP-RAP WILL BE USED, AS NECESSARY, TO LINE THIS TRANSITION TO HELP DISSIPATE THE STREAM ENERGY. THE RIP-RAP WILL ALSO BE PLACED IN THE EXISTING STREAM CHANNEL A MINIMUM OF 10 FT DOWNSTREAM FROM THE END OF THE RECONSTRUCTED STREAM CHANNEL.

(8) IN INSTANCES WHERE THE FLOOD PRONE WIDTH (F) IS GREATER THAN THE TOP WIDTH (T), THE CHANNEL SHALL BE CONSTRUCTED WITH A TOP WIDTH EQUAL TO THE FLOOD PRONE WIDTH.



4%+ TYPICAL CHANNEL PROFILE

DESIGN STORMS: SCS TYPE II
1.5 year, 6 hour rainfall = 1.6"
100 year, 6 hour rainfall = 4.0"

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS COMPLIES WITH THE REQUIREMENTS OF RULE 1501:13-9-04 OF THE OHIO ADMINISTRATIVE CODE.

JOHN M. PELTZ, P.E.#63829 DATE

ADDENDUM ITEM 26

NATURAL STREAM RESTORATION

PERMIT NO._____ (GEORGETOWN MARINE)

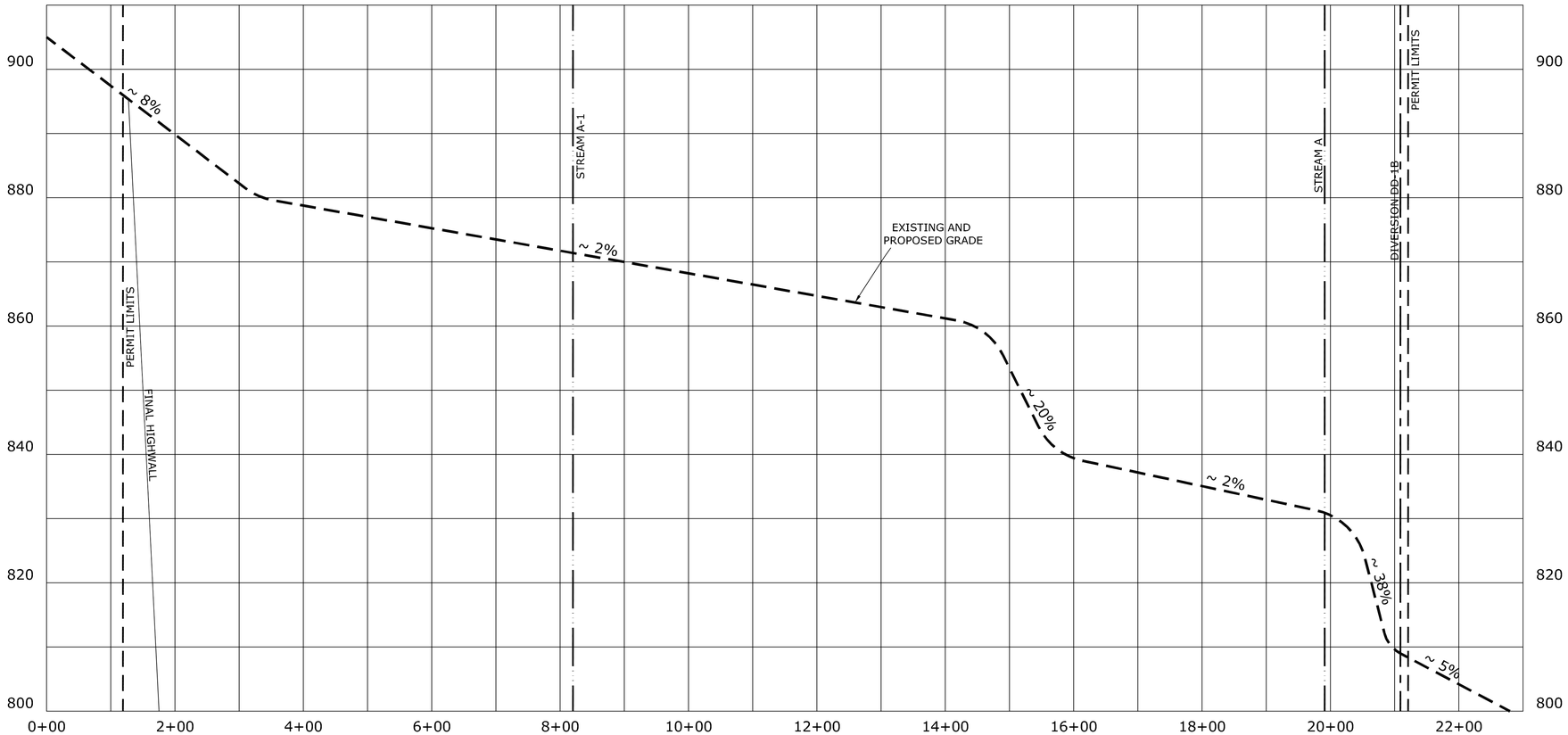
GEORGETOWN MARINE, INC.

LOCATED IN
SECTIONS 3 & 9
T-6-N, R-3-W
PEASE TOWNSHIP
BELMONT COUNTY

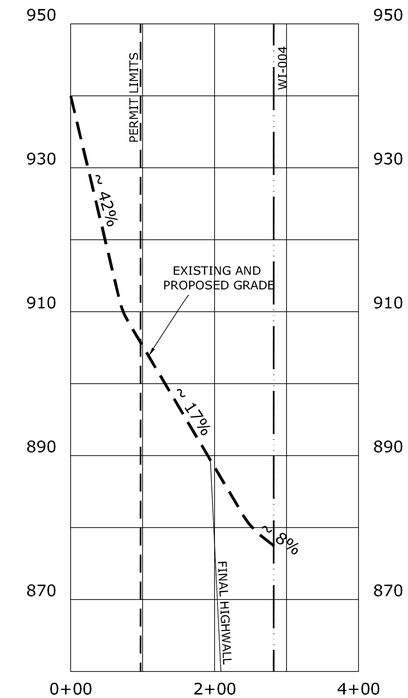
SCALE: AS NOTED
CONTOUR INTERVAL: N/A
DATE PREPARED: OCTOBER 6, 2012
DATE REVISED: JANUARY 21, 2013

PREPARED BY:
BAIR, GOODIE AND ASSOCIATES, INC.
153 NORTH BROADWAY
NEW PHILADELPHIA, OHIO 44663
PHONE (330) 343-3499
FAX (330) 343-9505 E-MAIL: fbair@bairgoodie.com

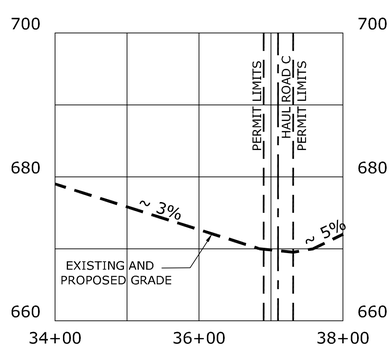
FILE ID: MARGM122



PROFILE OF STREAM B
Scale 1" = 100'H, 1" = 10'V



PROFILE OF STREAM D
Scale 1" = 100'H, 1" = 10'V



PROFILE OF STREAM I
Sta 34+00 - 38+00
Scale 1" = 100'H, 1" = 10'V

EPHEMERAL STREAM CHANNEL

INTERMITTENT STREAM CHANNEL

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JOHN M. PELTZ, P.E.#63829 DATE

ADDENDUM ITEM 26

NATURAL STREAM RESTORATION

PERMIT NO._____ (GEORGETOWN MARINE)

GEORGETOWN MARINE, INC.

LOCATED IN
SECTIONS 3 & 9
T-6-N, R-3-W
PEASE TOWNSHIP
BELMONT COUNTY

SCALE: AS NOTED
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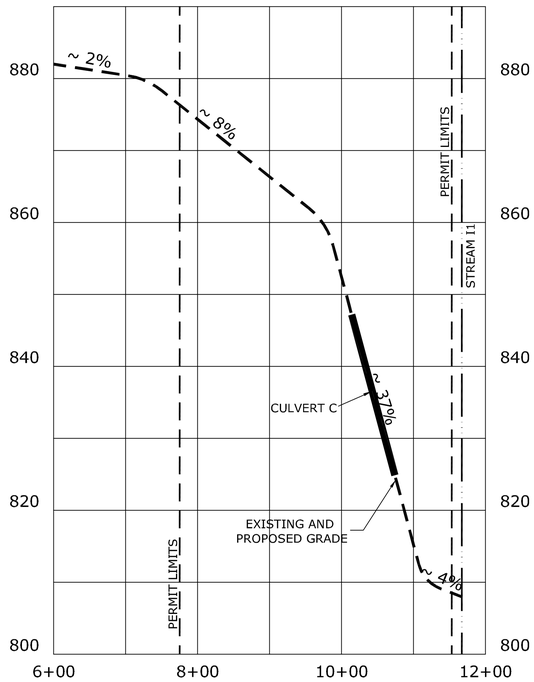
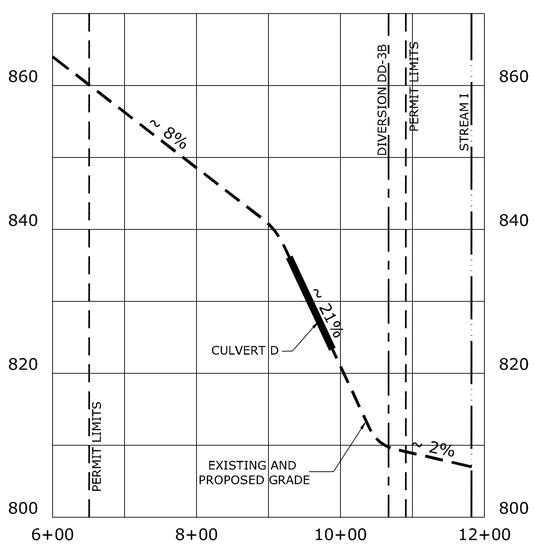
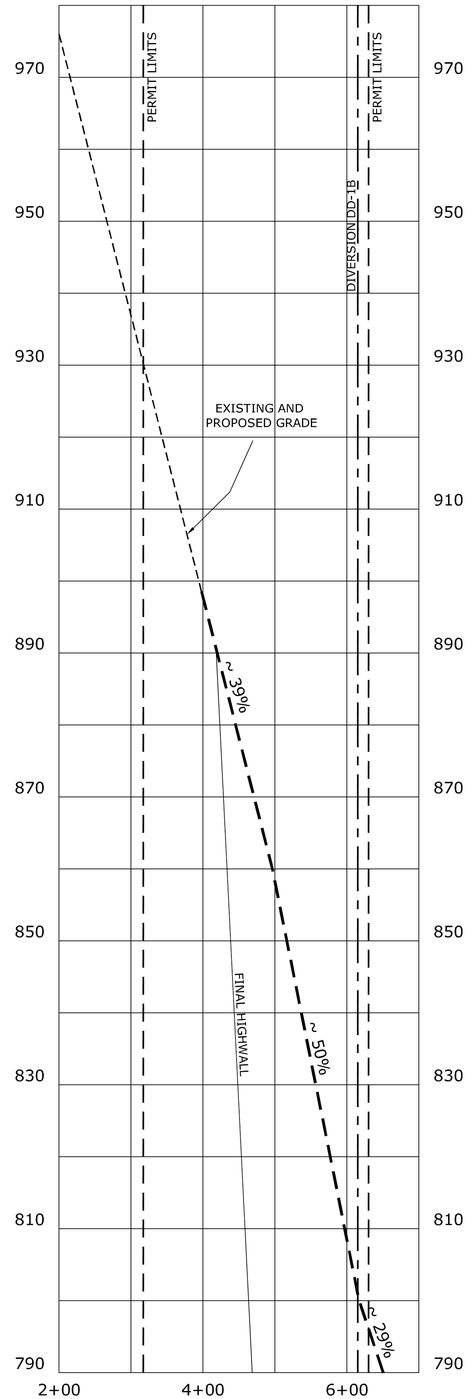


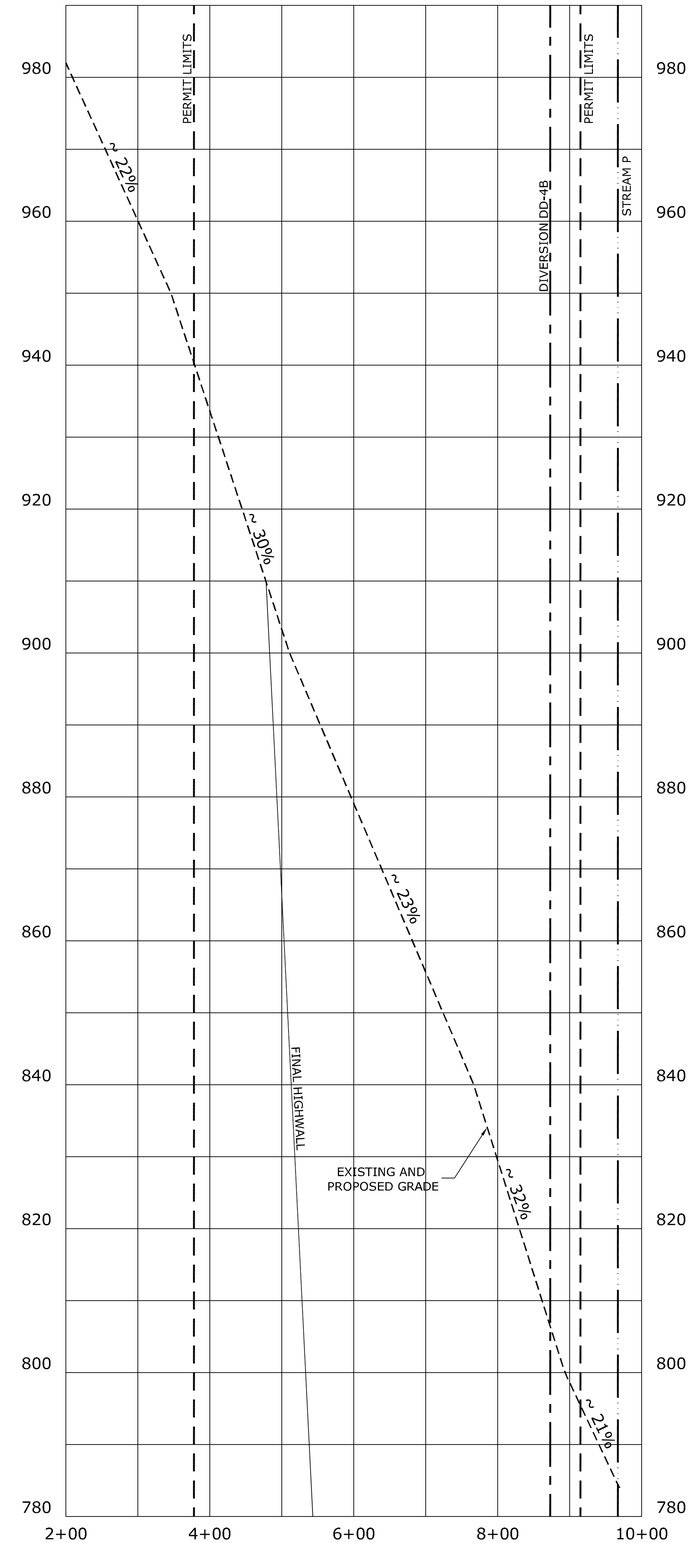
PROFILE OF STREAM I
Sta 6+00 - 12+00
Scale 1" = 100'H, 1" = 10'V



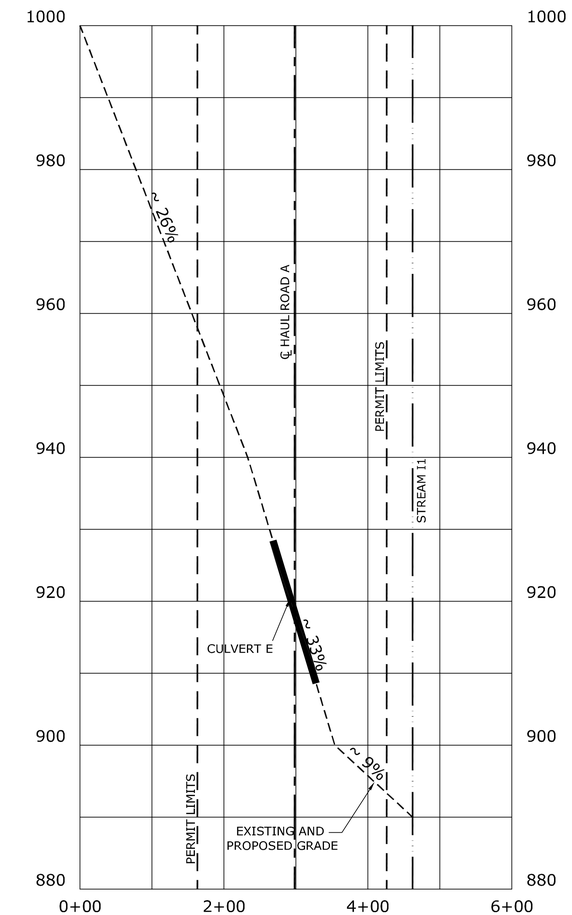
PROFILE OF STREAM I1
Scale 1" = 100'H, 1" = 10'V



PROFILE OF STREAM J
Scale 1" = 100'H, 1" = 10'V



PROFILE OF STREAM O
Scale 1" = 100'H, 1" = 10'V



PROFILE OF STREAM I2
Scale 1" = 100'H, 1" = 10'V

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS COMPLIES WITH THE REQUIREMENTS OF RULE 1501:13-9-04 OF THE OHIO ADMINISTRATIVE CODE.

JOHN M. PELTZ, P.E.#63829 DATE

- - - - - - - - EPHEMERAL STREAM CHANNEL

— — — — INTERMITTENT STREAM CHANNEL

ADDENDUM ITEM 26

NATURAL STREAM RESTORATION

PERMIT NO._____ (GEORGETOWN MARINE)

GEORGETOWN MARINE, INC.

LOCATED IN
SECTIONS 3 & 9
T-6-N, R-3-W
PEASE TOWNSHIP
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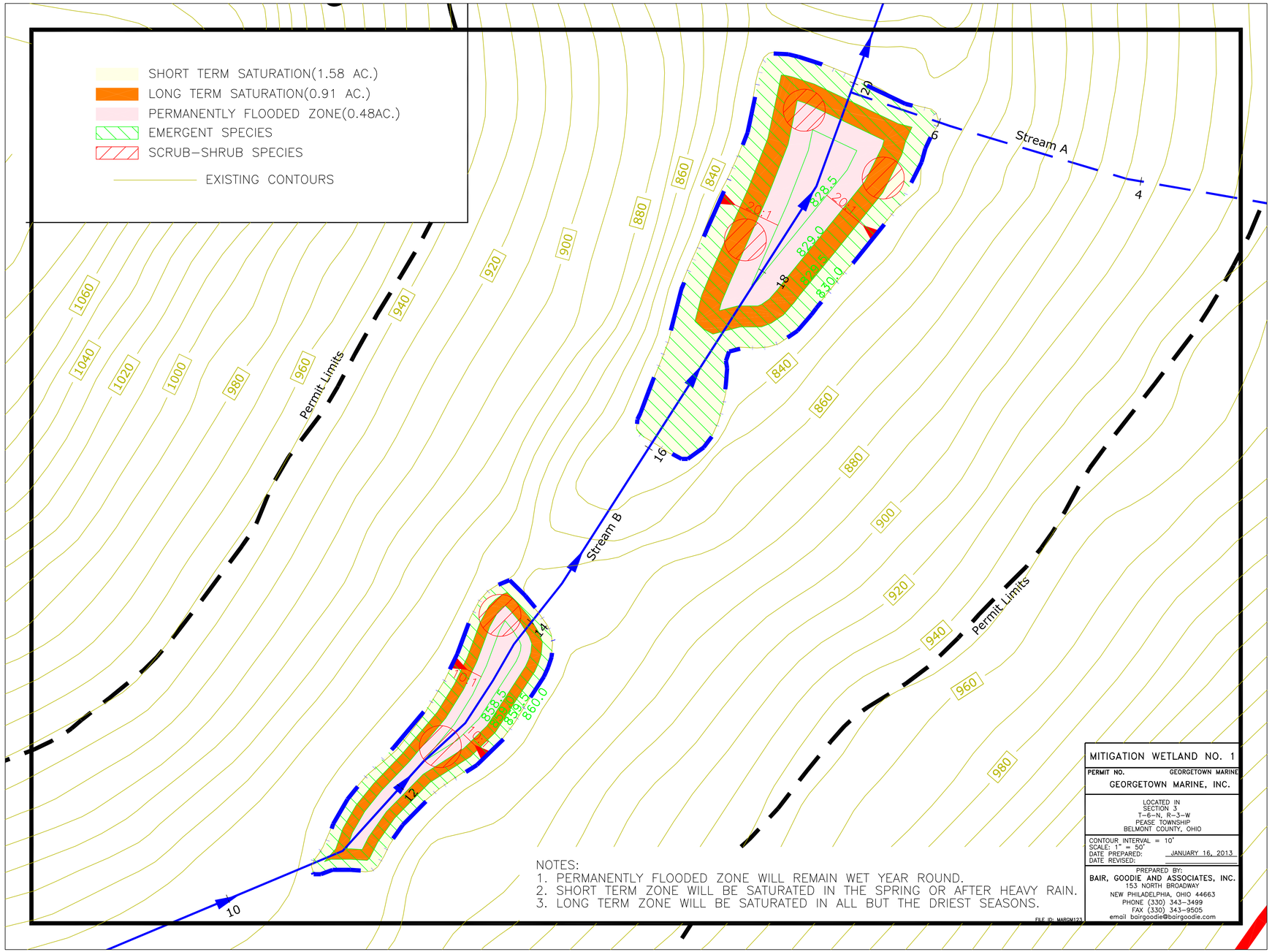

NOTES:
1. PERMANENTLY FLOODED ZONE WILL REMAIN WET YEAR ROUND.
2. SHORT TERM ZONE WILL BE SATURATED IN THE SPRING OR AFTER HEAVY RAIN.
3. LONG TERM ZONE WILL BE SATURATED IN ALL BUT THE DRIEST SEASONS.