

APPLICATION FOR OHIO EPA  
SECTION 401 WATER QUALITY CERTIFICATION

RECEIVED

Effective October 1, 1996  
Revised August, 1998

FEB 22 2003

OHIO E.P.A.

N.W.D.O.

This application must be completed whenever a proposed activity requires an individual Clean Water Act Section 401 Water Quality Certification (Section 401 certification) from Ohio EPA. A Section 401 certification from the State is required to obtain a federal Clean Water Act Section 404 permit from the U.S. Army Corps Engineers, or any other federal permits or licenses for projects that will result in a discharge of dredged or fill material to any waters of the State. To determine whether you need to submit this application to Ohio EPA, contact the U.S. Army Corps of Engineers District Office with jurisdiction over your project, or other federal agencies reviewing your application for a federal permit to discharge dredged or fill material to waters of the State, or an Ohio EPA Section 401 Coordinator at (614) 644-2001.

The Ohio EPA Section 401 Water Quality Certification Program is authorized by Section 401 of the Clean Water Act (33 U.S.C. 1251) and the Ohio Revised Code Section 6111.03(P). Ohio Administrative Code (OAC) Chapter 3745-32 outlines the application process and criteria for decision by the Director of Ohio EPA. In order for Ohio EPA to issue a Section 401 certification, the project must comply with Ohio's Water Quality Standards (OAC 3745-1) and not potentially result in an adverse long-term or short-term impact on water quality. Included in the Water Quality Standards is the Antidegradation Rule (OAC Rule 3745-1-05), effective October 1, 1996, revised October, 1997 and May, 1998. The Rule includes additional application requirements and public participation procedures. **Because there is a lowering of water quality associated with every project being reviewed for Section 401 certification, every Section 401 certification applicant must provide the information required in Part 10 (pages 3 and 4) of this application.** In addition, applications for projects that will result in discharges of dredged or fill material to wetlands must include a wetland delineation report approved by the Corps of Engineers, a wetland assessment with a proposed assignment of wetland category (ies), official documentation on evaluation of the wetland for threatened or endangered species, and appropriate avoidance, minimization, and mitigation as prescribed in OAC 3745-1-50 to 3745-1-54. Ohio EPA will evaluate the applicant's proposed wetland category assignment and make the final assignment.

Information provided with the application will be used to evaluate the project for certification and is a matter of public record. If the Director determines that the application lacks information necessary to determine whether the applicant has demonstrated the criteria set forth in OAC Rule 3745-32-05(A) and OAC Chapter 3745-1, Ohio EPA will inform the applicant in writing of the additional information that must be submitted. The application will not be accepted until the application is considered complete by the Section 401 Coordinator. An Ohio EPA Section 401 Coordinator will inform you in writing when your application is determined to be complete.

Please submit the following to "Section 401 Supervisor, Ohio EPA/DSW, P.O. Box 1049, Columbus, Ohio 43216-1049:

- Four (4) sets of the completed application form, including the location of the project (preferably on a USGS quadrangle) and 8-1/2 x 11" scaled plan drawings and sections.
- One (1) set of original scaled plan drawings and cross-sections (or good reproducible copies).

(See Application Primer for detailed instructions)

1. The federal permitting agency has determined this project: (check appropriate box and fill in blanks)

- requires an individual 404 permit/401 certification- Public Notice # (if known) \_\_\_\_\_
- requires a Section 401 certification to be authorized by Nationwide Permit # \_\_\_\_\_
- requires a modified 404 permit/401 certification for original Public Notice # \_\_\_\_\_
- requires a federal permit under \_\_\_\_\_ jurisdiction identified by # \_\_\_\_\_
- requires a modified federal permit under \_\_\_\_\_ jurisdiction identified by # \_\_\_\_\_

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Click to clear all entered information (on all 4 pages of this form)

CLEAR

MSO 2013 FEB 14 AM 10:58

2. Application number (to be assigned by Ohio EPA): 134096

3. Name and address of applicant: JEFFREY L. & PAMELA A. BARKER  
8979 WOODSTONE DRIVE  
BRECKSVILLE, OHIO 44141  
Telephone number during business hours:  
( ) (Residence)  
( 216 ) 469-2093 (Office)

3a. Signature of Applicant: X Jeffrey L. Barker  
X Pamela A. Barker Date: 2-10-13

4. Name, address and title of authorized agent: MATRIX ENGINEERING INC.  
12815 DETROIT AVENUE  
LAKEWOOD, OHIO 44107  
Telephone number during business hours:  
( ) (Residence)  
( 216 ) 226-6520 (Office)

4a. Statement of Authorization: I hereby designate and authorize the above-named agent to act in my behalf in the processing of this permit application, and to furnish, upon request, supplemental information in support of the application.  
Signature of Applicant: X Jeffrey L. Barker  
X Pamela A. Barker Date: 2-10-13

5. Location on land where activity exists or is proposed. Indicate coordinates of a fixed reference point at the impact site (if known) and the coordinate system and datum used.  
Address: 27238 LAKE ROAD  
Street, Road, Route, and Coordinates, or other descriptive location  
Amount \$ 515 - Date 2/11/13  
Check # 587 Date 2/14/13  
PAID  
LAKESIDE 624976  
LAKE ERIE CUYAHOGA BAY VILLAGE OHIO 44140  
Watershed County Township City State Zip Code

6. Is any portion of the activity for which authorization is sought complete?  Yes  No  
If answer is "yes," give reasons, month and year activity was completed. Indicate the existing work on the drawings.

7. List all approvals or certifications and denials received from other federal, interstate, state or local agencies for any structures, construction, discharge or other activities described in this application.

Issuing Agency	Type of Approval	Identification No.	Date of Application	Date of Approval	Date of Denial
CORPS OF ENGINEERS	PERMIT		01-09-13		
ODNR	PERMIT & LEASE		01-09-13		

8. DESCRIPTION OF THE ACTIVITY (fill in information in the following four blocks - 8a, 8b, 8c & 9)

8a. Activity: Describe the Overall Activity:  
MINIMAL DEGRADATION ALTERNATIVE:  
TO CONSTRUCT A NEW CANTILEVER STEEL BEAM AND WOOD DECK ALONG THE TOP OF THE BLUFF WITH STEEL ACCESS STAIRS DOWN TO A 12' WIDE x 40' LONG STEEL CRIB PARALLEL TO THE SHORELINE FILLED WITH ODOT "B" STONE AND A 12" THICK TOP CONCRETE SLAB AND A 10' WIDE x 25' LONG STEEL CRIB PERPENDICULAR TO THE SHORELINE FILLED WITH ODOT "B" STONE AND A 12" THICK TOP CONCRETE SLAB CONNECTED TO THE PARALLEL CRIB BY A 10' WIDE x 5' LONG STEEL BRIDGE.

PERSON ID: \_\_\_\_\_  
PLACE ID: \_\_\_\_\_  
DOCUMENT ID: 24408  
ORGANIZATION ID: 106521  
REVENUE ID: 922805

8b. Purpose: Describe the purpose, need and intended use of the activity:

TO PROVIDE PEDESTRIAN LAKE ACCESS AND TO PROVIDE TRANSIENT DOCKAGE FOR TWO 30' BOATS & JET SKIS.

8c. Discharge of dredged or fill material: Describe type, quantity of dredged material (in cubic yards), and quantity of fill material (in cubic yards). (OAC 3745-1-05(B)(2)(a))

MINIMAL DEGRADATION ALTERNATIVE:

CONCRETE: 27 CY ABOVE OHW

ODOT "B" STONE: 133 CY (90 CY BELOW OHW)

PARALLEL CRIB - 480 SF

PERPENDICULAR CRIB - 250 SF

9. Waterbody and location of waterbody or upland where activity exists or is proposed, or location in relation to a stream, lake, wetland, wellhead or water intake (if known). Indicate the distance to, and the name of any receiving stream, if appropriate.

APPROXIMATELY 200 FT. EAST OF CAHOON PARK

LATITUDE: 41 DEGREES 29'24" N

LONGITUDE: 81 DEGREES 55'18" W

**10. To address the requirements of the Antidegradation Rule, your application must include a report evaluating the:**

- Preferred Design (your project) and Mitigative Techniques
- Minimal Degradation Alternative(s) (scaled-down version(s) of your project) and Mitigative Techniques
- Non-Degradation Alternative(s) (project resulting in avoidance of all waters of the state)

At a minimum, item a) below must be completed for the Preferred Design, the Minimal Degradation Alternative(s), and the Non-Degradation Alternative(s), followed by completion of item b) for each alternative, and so on, until all items have been discussed for each alternative (see Primer for specific instructions). (Application and review requirements appear at OAC 3745-1-05(B)(2), OAC 3745-1-05(C)(6), OAC 3745-1-05(C)(1) and OAC 3745-1-54).

10a) Provide a detailed description of any construction work, fill or other structures to occur or to be placed in or near the surface water. Identify all substances to be discharged, including the cubic yardage of dredged or fill material to be discharged to the surface water. (OAC 3745-1-05(B)(2)(b))

10b) Describe the magnitude of the proposed lowering of water quality. Include the anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, including threatened and endangered species (include written comments from Ohio Department of Natural Resources and U.S. Fish and Wildlife Service), important commercial or recreational sport fish species, other individual species, and the overall aquatic community structure and function. Include a Corps of Engineers approved wetland delineation. (OAC 3745-1-05(C)(6)(a, b) and OAC 3745-1-54)

- 10c) Include a discussion of the technical feasibility, cost effectiveness, and availability. In addition, the reliability of each alternative shall be addressed (including potential recurring operational and maintenance difficulties that could lead to increased surface water degradation.) (OAC 3745-1-05(C)(6)(h, j-k) and OAC 3745-1-54)
- 10d) For regional sewage collection and treatment facilities, include a discussion of the technical feasibility, cost effectiveness and availability, and long-range plans outlined in state or local water quality management planning documents and applicable facility planning documents. (OAC 3745-1-05(C)(6)(i))
- 10e) To the extent that information is available, list and describe any government and/or privately sponsored conservation projects that exist or may have been formed to specifically target improvement of water quality or enhancement of recreational opportunities on the affected water resource. (OAC 3745-1-05(B)(2)(g))
- 10f) Provide an outline of the costs of water pollution controls associated with the proposed activity. This may include the cost of best management practices to be used during construction and operation of the project. (OAC 3745-01-05(C)(6)(g))
- 10g) Describe any impacts on human health and the overall quality and value of the water resource. (OAC 3745-1-05(C)(6)(c) and OAC 3745-1-54)
- 10h) Describe and provide an estimate of the important social and economic benefits to be realized through this project. Include the number and types of jobs created and tax revenues generated and a brief discussion on the condition of the local economy. (OAC 3745-1-5(B)(2)(e), and OAC 3745-1-05(C)(6)(i))
- 10i) Describe and provide an estimate of the important social and economic benefits that may be lost as a result of this project. Include the effect on commercial and recreational use of the water resource, including effects of lower water quality on recreation, tourism, aesthetics, or other use and enjoyment by humans. (OAC 3745-1-05(B)(2)(e,f), and OAC 3745-1-05(C)(6)(e))
- 10j) Describe environmental benefits, including water quality, lost and gained as a result of this project. Include the effects on the aquatic life, wildlife, threatened or endangered species. (OAC 3745-1-05 (B)(2)(e,f), OAC 3745-1-05 (C)(6)(b) and OAC 3745-1-54)
- 10k) Describe mitigation techniques proposed (except for the Non-Degradation Alternative):
  - o Describe proposed Wetland Mitigation (see OAC 3745-1-54 and Primer)
  - o Describe proposed Stream, Lake, Pond Mitigation (see Primer)

11. Application is hereby made for a Section 401 Water Quality Certification. I certify that I am familiar with the information contained in this application and, to the best of my knowledge and belief, such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities or I am acting as the duly authorized agent of the applicant.

X Jeffrey L. Barker  
 X Pamela A. Barker  
 Signature of Applicant  
 Jeffrey L. & Pamela A. Barker

2-10-13  
 Date

John S. Matricardi  
 Signature of Agent  
 John S. Matricardi, P.E.  
 Matrix Engineering Inc.

*The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in Block 3 has been filled out and signed.*

RESPONSE TO QUESTION 10 FOR APPLICATION FOR OHIO EPA SECTION 401 WATER  
QUALITY CERTIFICATION

10. A) Preferred Design Alternative: Construction of a new steel and wood deck along the top of the bluff with a steel access stairway from the top of the bluff down to a 12' wide by 40' long steel crib parallel to the shoreline filled with ODOT "B" stone and a 12" top concrete slab and a 10' wide by 35' long steel crib perpendicular to the shoreline filled with ODOT "B" stone and a 12" top concrete slab connected to the parallel crib by a 10' wide by 5' long steel bridge.

Fill Materials:

12'X40' Crib : Concrete - 18 CY Above OHW, ODOT "B" Stone- 80 CY (52 CY Below OHW)  
10'X35' Crib : Concrete - 13 CY Above OHW, ODOT "B" Stone - 74 CY (53 CY Below OHW)  
12'X40' Crib = 480 SF, 10'X35' Crib = 350 SF filled below OHW.

Minimal Degradation Alternative: Construction of a new steel and wood deck along the top of the bluff with a steel access stairway from the top of the bluff down to a 12' wide by 40' long steel crib parallel to the shoreline filled with ODOT "B" stone and a 12" top concrete slab and a 10' wide by 25' long steel crib perpendicular to the shoreline filled with ODOT "B" stone and a 12" top concrete slab connected to the parallel crib by a 10' wide by 5' long steel bridge.

Fill Materials:

12'X40' Crib : Concrete - 18 CY Above OHW, ODOT "B" Stone - 80 CY (52 CY Below OHW)  
10'X25' Crib : Concrete - 9 CY Above OHW, ODOT "B" Stone - 53 CY (38 CY Below OHW)  
12'X40' Crib = 480 SF, 10'X25' Crib = 250 SF filled below OHW.

Non-Degradation Alternative: The project would not be constructed and the Owner would not have pedestrian lake access and dockage for transient boats and jet skis.

10. B.) There is no known medium or long term lowering of water quality due to the placement of steel and stone in the waters of Lake Erie. There will be a temporary but short lived increase in turbidity levels during construction of the steel cribs for the Preferred and Minimal Degradation Alternatives. Fish habitat will be greatly increased with the new steel cribs.

10. C.) Preferred & Minimal Degradation Alternatives: These alternatives are technically feasible and materials are readily available. It is the most cost effective method to provide pedestrian lake access and transient boat and jet ski dockage. This alternative is estimated to have a project lifetime of thirty (30) years before significant maintenance repairs will be required.

The construction of the Preferred Alternative is \$ 200,000 and the Minimal Degradation Alternative is \$185,000. The total OEPA review fee is based on the Preferred Alternative with (52 CY + 53 CY) = 105 CY below OHW. The total fee is 105 CY X \$3.00/CY + \$ 200 review fee = \$ 515.00 and is enclosed with the application.

Non-Degradation Alternative: The elimination of the project is technically feasible and no materials are required but the increase in property taxes and submerged land lease fees will not be created and no increase in fish habitat.

10. D.) Question does not apply to the proposed project.

10. E.) There are no known environmental or recreational projects planned for the local region.

10. F) No water pollution controls are planned for either the Preferred or Minimal Degradation Alternatives since the relevant fill materials do not pollute the water resource. The Non-Degradation Alternative will be no change.

10. G.) The Preferred and Minimal Degradation Alternatives do not impact human health or the medium or long term quality of the Lake Erie water resource. The Non-Degradation Alternative will not provide pedestrian lake access and transient boat and jet ski dockage for the Owner. The project will also increase property taxes for the City of Bay Village and submerged land lease fees for ODNR.

10. H.) The Preferred and Minimal Degradation Alternatives will create eight (4) jobs during construction for a period of 2 months and provide \$ 2,0000 in local taxes. The submerged land lease will provide additional funds to ODNR to fund other projects and continue regulation of shoreline projects.

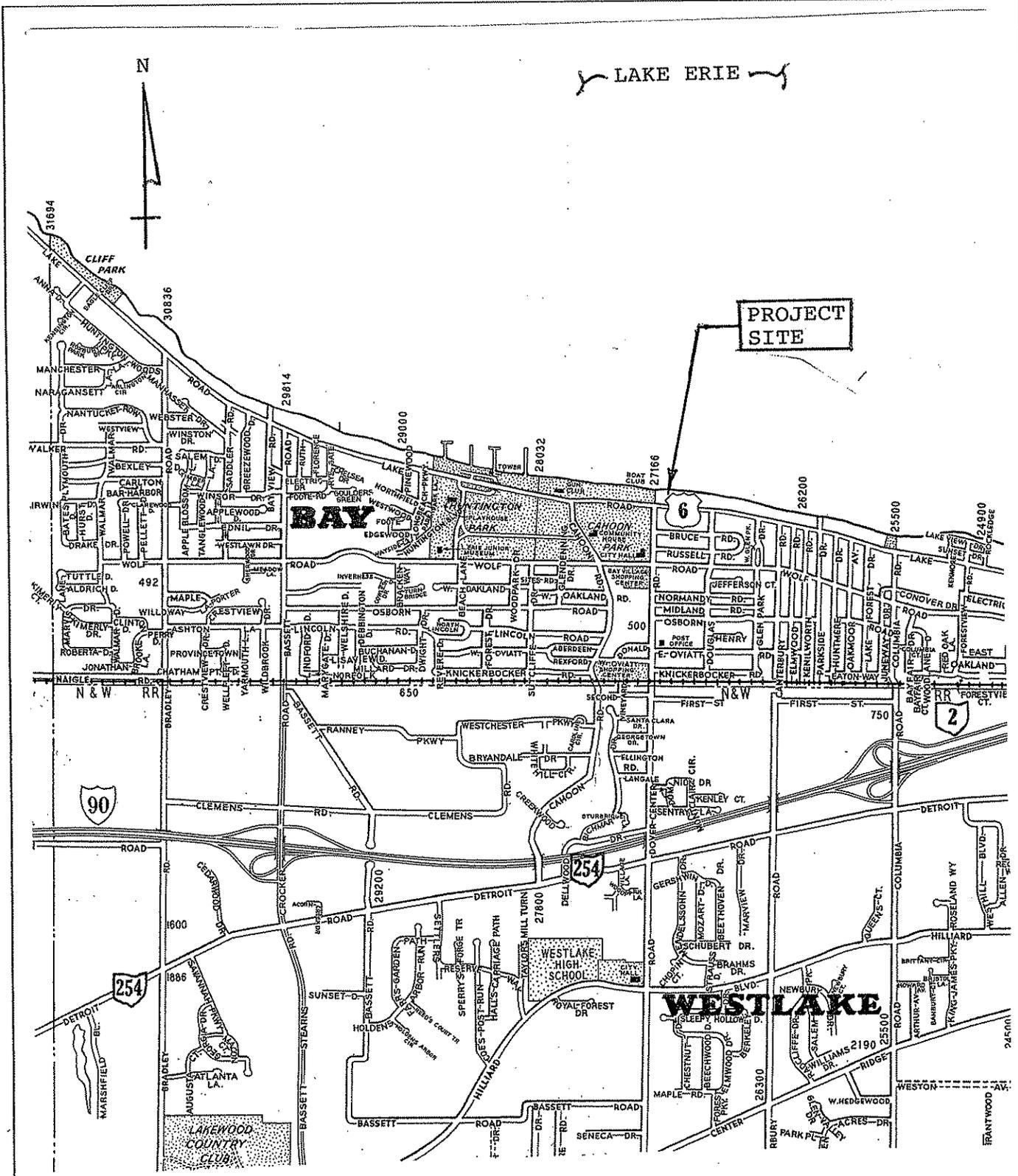
The project will also increase the property value which will provide additional property taxes to the City of Bay Village.

The Non-Degradation Alternative will create nothing. The local economy is in a recession recovery.

10. I.) There are no anticipated social benefits to be lost as a result of either the Preferred or the Minimal Degradation Alternatives. The increase in property values, property taxes, and submerged land lease fees will not occur, thereby reducing the availability of these funds to the various Governmental Agencies for all the alternatives.

10. J.) There are no known medium or long term negative affectsa to water quality, aquatic life, wildlife, threatened or endangered species due to either the Preferred or Minimal Degradation Alternatives and fish habitat will be greatly increased with either of the two alternatives.

10. K.) The Preferred and Minimal Degradation Alternatives will provide a Native Ohio Vegetation Area which is 24' long by 10' wide or 240 SF along the top of the bluff East of the new deck..



DATUM: 0.0 L.W.D. = 569.2 1GLD 1985

**VICINITY MAP**

PREPARED BY:  
**MATRIX ENGINEERING, INC.**

- ADJACENT PROPERTY OWNERS:
- 1.) ROBERT M. BENSMAN
  - 2.) MARY BADDOUR

JEFFREY L. & PAMELA A. BARKER  
8979 WOODSTONE DRIVE  
BRECKSVILLE, OHIO 44141

SHORELINE IMPROVEMENTS AT  
27238 LAKE ROAD  
BAY VILLAGE, OHIO

SHEET 1 OF 7      01-08-13

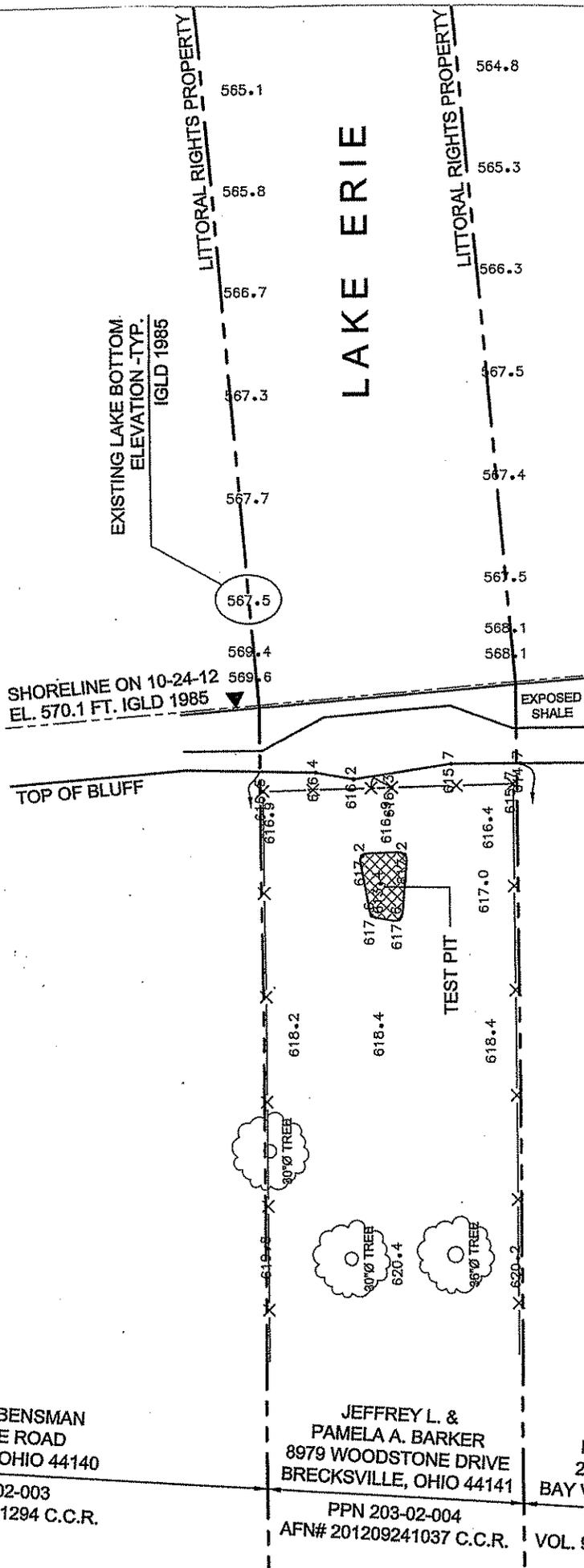




ROBERT M. BENSMAN  
27308 LAKE ROAD  
BAY VILLAGE, OHIO 44140  
PPN 203-02-003  
AFN# 199903261294 C.C.R.

JEFFREY L. & PAMELA A. BARKER  
8979 WOODSTONE DRIVE  
BRECKSVILLE, OHIO 44141  
PPN 203-02-004  
AFN# 201209241037 C.C.R.

MARY BADDOUR  
27236 LAKE ROAD  
BAY VILLAGE, OHIO 44140  
PPN 203-02-005  
VOL. 98-12900, P. 17 C.C.R.



SCALE IN FEET

SCALE: 1"=30'



PREPARED BY: **MATRIX ENGINEERING INC.**

SHORELINE IMPROVEMENTS AT  
27238 LAKE ROAD  
BAY VILLAGE, OHIO  
DATE: 01-08-13  
SHEET 2A OF 7

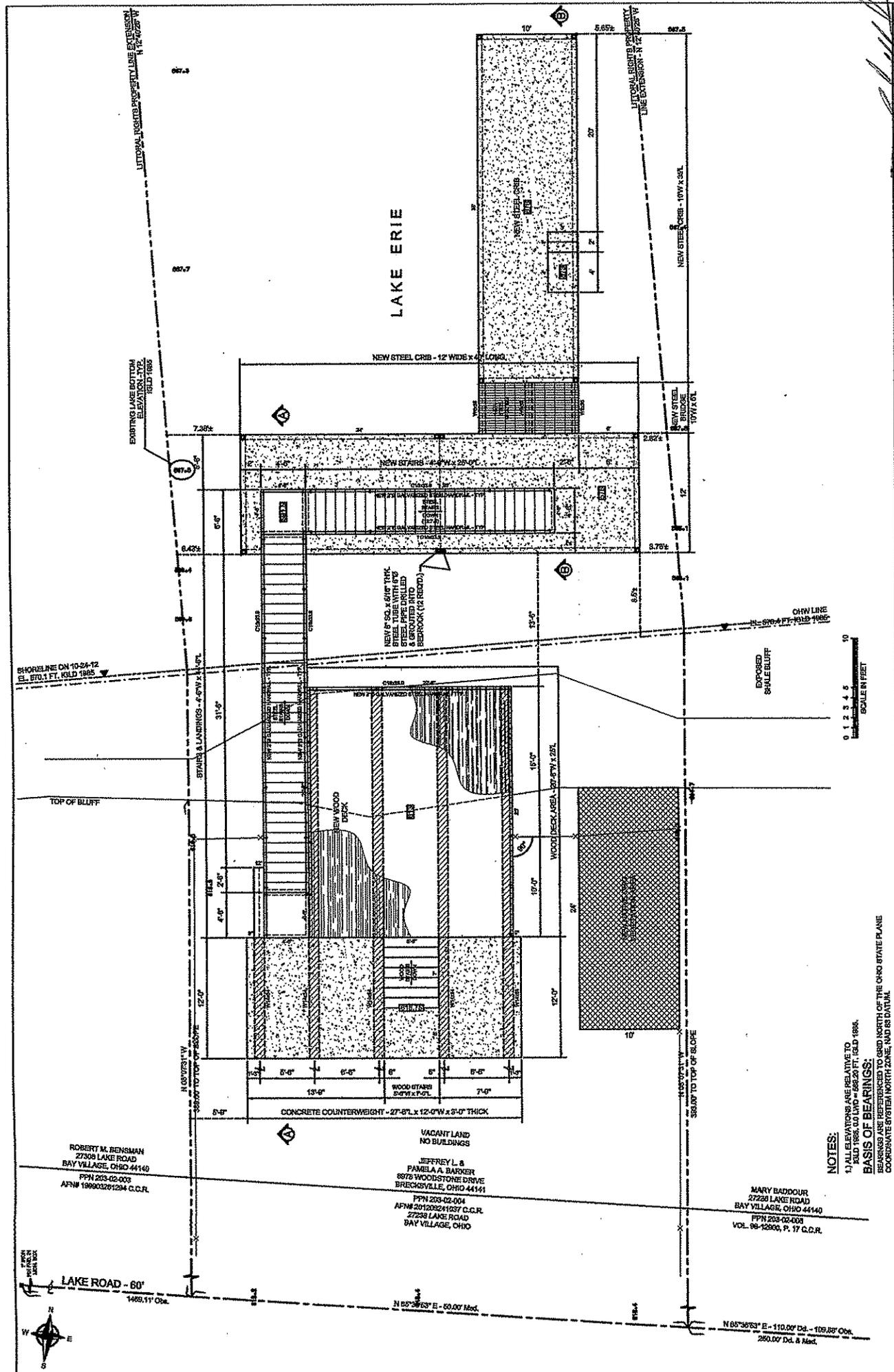
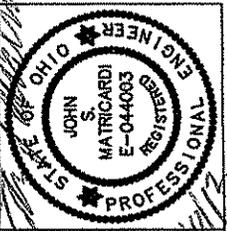
**EXISTING SITE PLAN**

DATUM: 0.0 L.W.D. = 569.2 IGLD 1985

JEFFREY L. & PAMELA A. BARKER  
8979 WOODSTONE DRIVE  
BRECKSVILLE, OHIO 44141

1.) ROBERT M. BENSMAN  
2.) MARY BADDOUR

OWNER PROPERTY OWNERS



**NOTES:**  
 1) ALL ELEVATIONS ARE RELATIVE TO FLD TERS. UO LVD = 569.20 FT. IGLD 1985.  
**BASIS OF BEARINGS:**  
 BEARINGS ARE REFERENCED TO GRID NORTH OF THE OHIO STATE PLANE COORDINATE SYSTEM NORTH ZONE, NAD 83 DATUM.

PREPARED BY: **MATRIX ENGINEERING INC.**

**SHORELINE IMPROVEMENTS AT**  
 27238 LAKE ROAD  
 BAY VILLAGE, OHIO

**SHEET 3 OF 7**

**PREFERRED ALTERNATIVE SITE PLAN**

**JEFFREY L. & PAMELA A. BARKER**  
 8979 WOODSTONE DRIVE  
 BRECKSVILLE, OHIO 44141

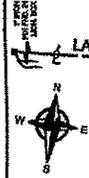
**DATUM: 0.0 L.W.D. = 569.2 IGLD 1985**

**CLIENT PROPERTY OWNER:**  
 1.) ROBERT M. BENSMAN  
 2.) MARY BADDOUR

ROBERT M. BENSMAN  
 27308 LAKE ROAD  
 BAY VILLAGE, OHIO 44140  
 PPN 203-02-003  
 AFN 199603291294 C.C.R.

VACANT LAND  
 NO BUILDINGS  
 JEFFREY L. & PAMELA A. BARKER  
 8979 WOODSTONE DRIVE  
 BRECKSVILLE, OHIO 44141  
 PPN 203-02-004  
 AFN 201202410297 C.C.R.  
 27238 LAKE ROAD  
 BAY VILLAGE, OHIO

MARY BADDOUR  
 27238 LAKE ROAD  
 BAY VILLAGE, OHIO 44140  
 PPN 203-02-003  
 VOL. 98-12903, P. 17 C.C.R.

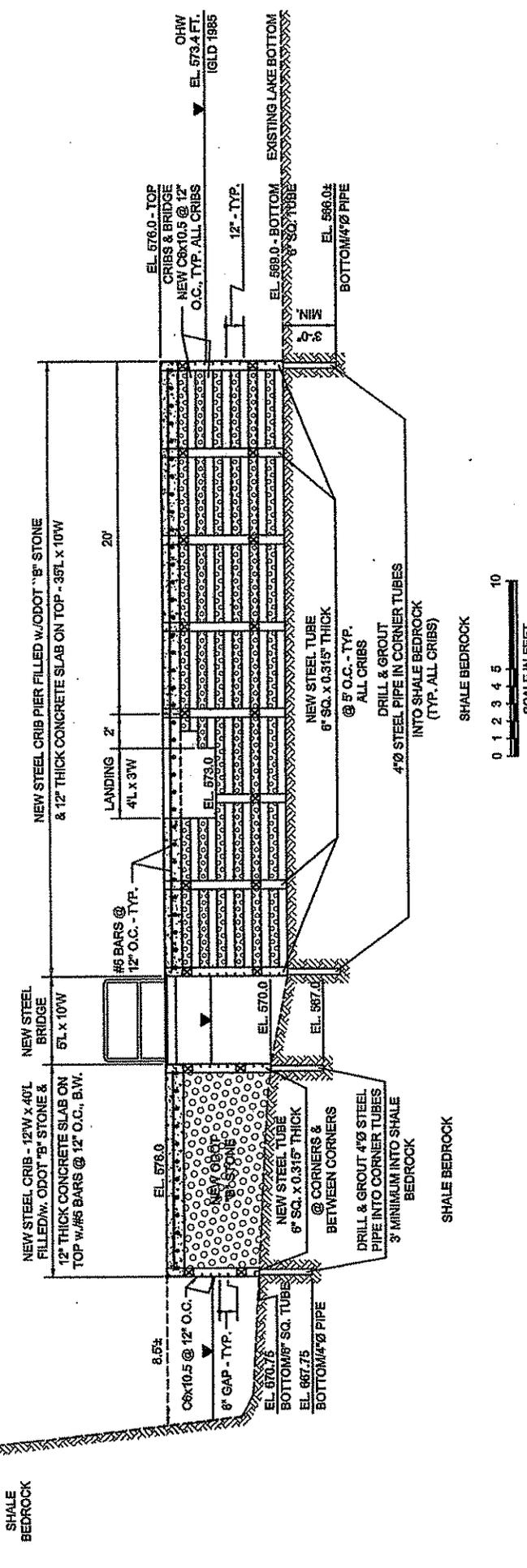


LAKE ROAD - 60'  
 1489.11' Obs.

N 85° 36' 53" E - 60.00' Meas.

N 65° 36' 53" E - 110.00' Dd. - 109.88' Obs.  
 260.00' Dd. & Meas.





**NOTES:**

1.) ALL ELEVATIONS ARE RELATIVE TO IGLD 1985. 0.0 LWD = 669.20 FT. IGLD 1985.

DATE: 0.0 L.W.D. = 569.2 IGLD 1985

PROJECT: SHORELINE IMPROVEMENTS AT 27238 LAKE ROAD BAY VILLAGE, OHIO

PROPOSED BY: MATRIX ENGINEERING INC.

SCALE IN FEET: 0 1 2 3 4 5 10

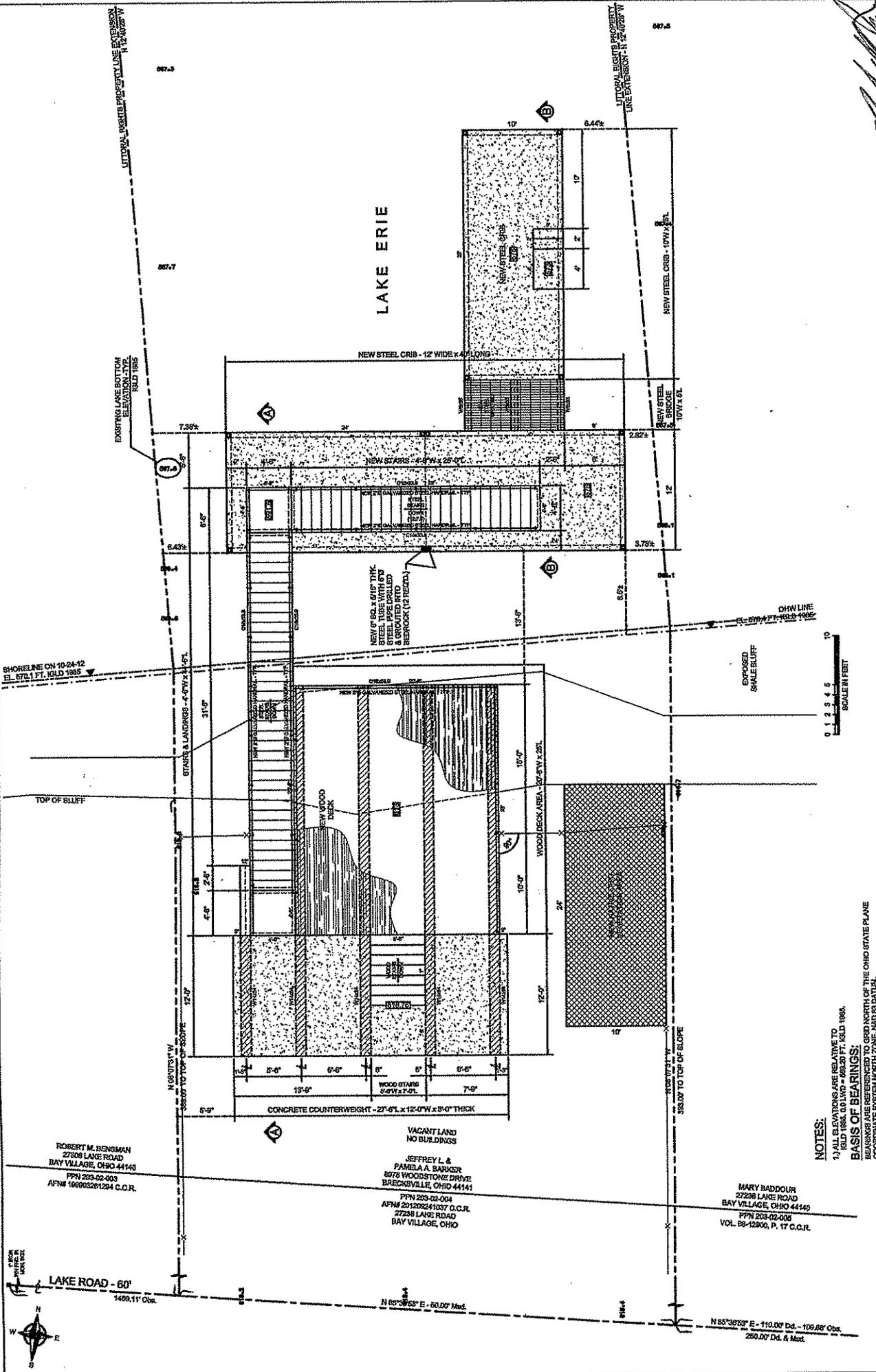
PREFERRED ALTERNATIVE SECTION B-B

JEFFREY L. & PAMELA A. BARKER  
8979 WOODSTONE DRIVE  
BRECKSVILLE, OHIO 44141

ROBERT M. BENSMAN  
MARY BADDOUR

PROFESSIONAL ENGINEER  
STATE OF OHIO  
JOHN S. MATRICARDI  
E-044003

SHEET 5 OF 7



DATE: 0.0 L.W.D. = 569.2 IGLD 1985

MINIMAL DEGRADATION SITE PLAN

DATUM: 0.0 L.W.D. = 569.2 IGLD 1985

OWNER PROPERTY OWNER:  
 1.) ROBERT M. BENSMAN  
 2.) MARY BADDOUR

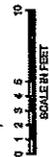
JEFFREY L. & PAMELA A. BARKER  
 8979 WOODSTONE DRIVE  
 BRECKSVILLE, OHIO 44141

MATRIX ENGINEERING INC.  
 SHORELINE IMPROVEMENTS AT  
 27238 LAKE ROAD  
 BAY VILLAGE, OHIO

SHEET 6 OF 7

01-08-13

NOTES:  
 1.) ALL ELEVATIONS ARE RELATIVE TO  
 (IGLD 1985) D.D. L.W.D. = 569.2 FT. IGLD 1985.  
 BASIS OF BEARINGS:  
 BEARINGS ARE REFERENCED TO GRID NORTH OF THE OHIO STATE PLANE  
 COORDINATE SYSTEM NORTH ZONE, NAD 83 DATUM.



MARY BADDOUR  
 27238 LAKE ROAD  
 BAY VILLAGE, OHIO 44140  
 PPN 203-02-006  
 VOL. 88-12900, P. 17 C.C.R.

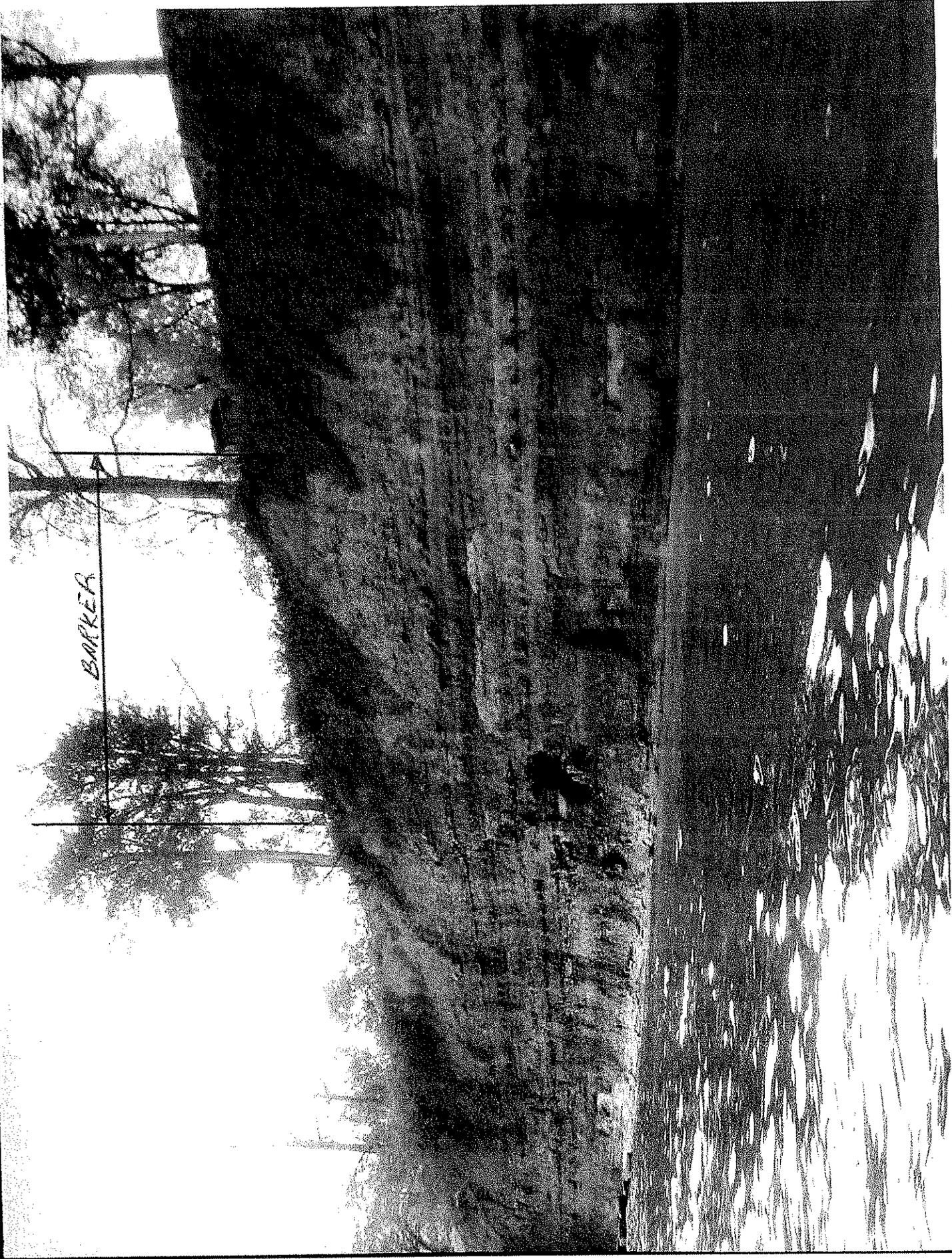
VACANT LAND  
 NO BUILDINGS  
 JEFFREY L. & PAMELA A. BARKER  
 8979 WOODSTONE DRIVE  
 BRECKSVILLE, OHIO 44141  
 PPN 203-02-004  
 APN# 20120241037 C.C.R.  
 27238 LAKE ROAD  
 BAY VILLAGE, OHIO

ROBERT M. BENSMAN  
 27238 LAKE ROAD  
 BAY VILLAGE, OHIO 44140  
 PPN 203-02-003  
 APN# 196903261294 C.C.R.

LAKE ROAD - 60'  
 1469.11' Obs.

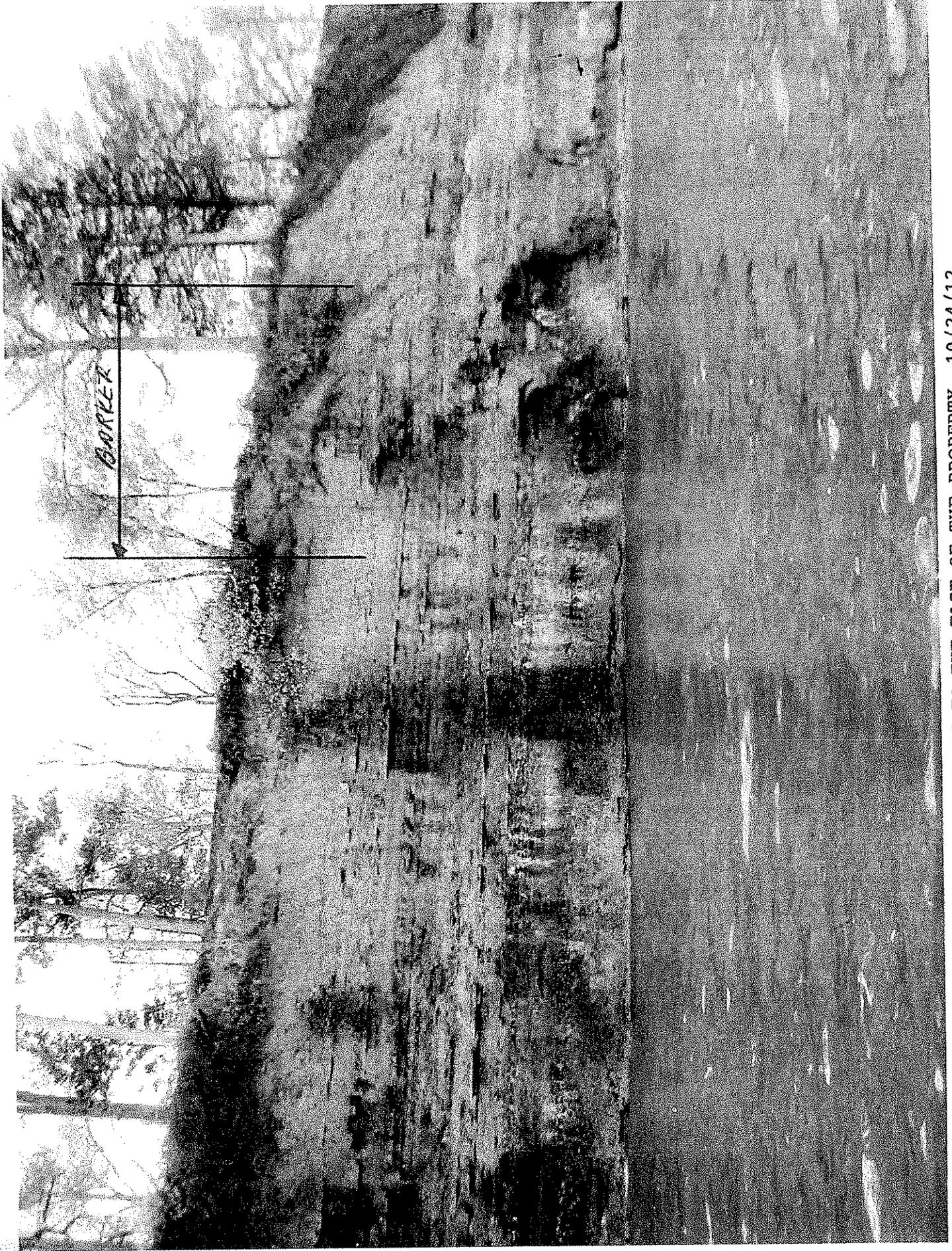






BARKEA

1. LOOKING AT BLUFF FROM OFFSHORE TO THE WEST OF THE PROPERTY. 10/24/12



2. LOOKING AT BLUFF FROM OFFSHORE TO THE EAST OF THE PROPERTY. 10/24/12

27238 Lake Road, Bay Village, OH  
January 9, 2013

**BLUFF VEGETATION PLANTING AND MAINTENANCE PLAN FOR 27238 LAKE ROAD  
BAY VILLAGE, OH**

**A. DESCRIPTION AND TIMING OF REQUIRED MITIGATION**

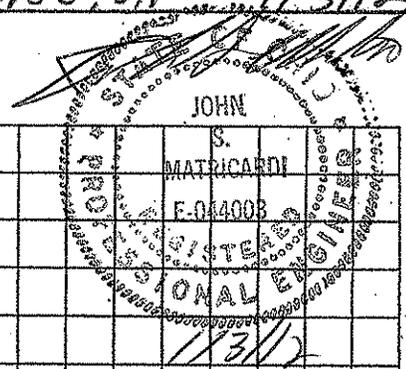
1. Mitigation construction shall be initiated concurrently with the start of Lake Erie impacts and shall be completed within 12 months of the initial impacts.
2. Mitigation shall consist of the establishment of native vegetation (Indian Grass) that will be planted in an area approximately 24 feet long by 10 feet wide along the top of the bluff East of the new deck.
3. Mitigation shall be completed as proposed in the Ohio EPA approved "Bluff Vegetation Planting and Maintenance Plan dated 1/09/13.
4. Upon completion of the slope construction, native vegetation shall be planted in accordance with the Ohio EPA approved "Bluff vegetation Planting and Maintenance Plan dated 1/09/13.
5. Vegetation shall be container grown Indian Grass and plants density shall be as recommended by the planter.
6. Temporary stabilization measures, such as matting, are required if the season does not permit vegetation growth.
7. A sign shall be placed within visual distance along the mitigation area that indicates that the area is a protected mitigation site and prohibiting vegetation removal, mowing, dumping or any other activity that would result in degradation of the planting area without prior authorization from Ohio EPA.

**B. PERFORMANCE CRITERIA**

1. Vegetation must be monitored for a period of 18 months after planting to document advanced growth.
2. If vegetation does not advance to indicate coverage within three weeks, then planting of mature vegetation is required.
3. If plant cover is patchy, then the cause of failure must be identified and corrective actions taken.

**C. REPORTING**

1. Photographs of the areas planted must be sent to the permit reviewer at month 9 and 18 of the monitoring period.



STEEL CRIB DESIGN

A. DESIGN WATER LEVEL

30 YR DESIGN WATER LEVEL = 574.9 FT IGLD(1985)  
REF: REVISED REPORT ON GREAT LAKES  
OPEN COAST FLOODING, USACE, 1988.

B. DESIGN WATER HEIGHT

CONSERVATIVE CASE IF TOE OF STRUCTURE  
IS SCURED.

TOE CRIB = 567.0 FT IGLD 1985  
STRUCTURE DEPTH = 574.9 - 567.0 = 7.9 FT  
BREAKING WAVE HEIGHT =  $H_B = 0.78(7.9) = 6.2$  FT  
REF: COASTAL ENGINEERING MANUAL, USACE,  
2006, PG. 11-4-3.

C. CRIB DESIGN

TOP OF CRIB / OVERTOPPING

WAVE CREST ELEV. = DWL + 0.7  $H_B$   
= 574.9 + 0.7(6.2) = 579.2 FT

SET TOP OF CRIB CONCRETE SLAB TO ELEV. 576.0  
FT IGLD 1985 TO PROVIDE ACCESS TO THE WATERS  
OF LAKE ERIE. THE INTENDED OF THE CRIB  
REQUIRES A LOW CREST ELEV. OVERTOPPING  
DURING STORM CONDITIONS IS ACCEPTABLE AS  
THE RECREATION INTENT OF THE STRUCTURE  
LIMITS ITS USE DURING SEVERE STORMS.

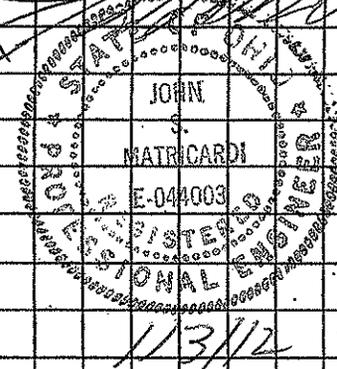
OVERTOPPING WAVES WILL HIT THE EXISTING  
SHALE BLUFF FACE.

MATRIX ENGINEERING, INC.  
12815 DETROIT AVENUE  
LAKEWOOD, OHIO 44107  
(216) 226-6520

NEW STEEL CRIBS AT 27238 LAKE  
ROAD, BAY VILLAGE, OH 11/3/12  
SHEET 2 OF 2

THE NEW CRIB STRUCTURAL DESIGN AND  
DOT "B" STONE FILL IS SIMILAR TO  
OTHER COMPLETED PROJECTS WHICH HAVE  
RESISTED THE WATER AND ICE FORCES  
ON LAKE ERIE FOR MANY YEARS IN VARYING  
WATER DEPTHS.

THE CRIBS WILL ALSO BE ANCHORED INTO  
THE SHALE BEDROCK LAKE BOTTOM WITH  
6" DIA. STEEL PIPES DRILLED AND GROUTED INTO  
THE SHALE AT THE CORNERS AND CENTER  
OF EACH CRIB.



Permanent 203-02-004  
Parcel #:

Type Instrument: Warranty Deed  
Tax District #: 3010  
Grantee: BARKER JEFFERY L & PAMEL  
Balance Assumed: \$ 0.00  
Total Consideration: \$ 320,000.00  
Conv. Fee Paid: \$ 1,280.00  
Transfer Fee Paid: \$ 0.50  
Fee Paid by: New Market Title  
Exempt Code:

Date: 9/24/2012 3:35:00 PM  
Tax List Year: 2012  
Land Use Code: 5100  
Land Value: 232,300  
Building Value: 128,300  
Total Value: 358,600  
Rcpt: c-09242012-10  
Inst #: 561567  
Check #: 8275

*Subject*

CUYAHOGA COUNTY  
OFFICE OF FISCAL OFFICER - 3  
DEED 9/24/2012 4:08:49 PM  
**201209241037**

*Wendy Hill*  
Cuyahoga County Fiscal Officer

WARRANTY DEED

New Market Title, LLC  
Order: UM-12845

KNOW ALL MEN BY THESE PRESENTS that I, ERIN M. BUTLER nbm ERIN M. HILL, MARRIED TO PATRICK HILL, the Grantor who claims title by or through instrument recorded at Document No. 2005702201177, Cuyahoga County Recorder's Office, for the consideration of Ten Dollars (\$10.00) received to my full satisfaction of JEFFERY L. BARKER and PAMELA A. BARKER, husband and wife, for their joint lives, remainder to the survivor of them, whose TAX MAILING ADDRESS will be 27238 Lake Road, Bay Village, Ohio, 44140, do give, grant, bargain, sell and convey unto the said Grantees, their heirs and assigns, the following REAL PROPERTY located at 27238 Lake Road, Bay Village, Ohio, 44140:

Situated in the City of Bay Village, County of Cuyahoga and State of Ohio: And known as being part of Original Dover Township Lot No. 95, and bounded and described as follows:

Beginning on the center line of West Lake Road, at a point 300 feet Westerly, measured along said center line, from its intersection with the Easterly line of Original Lot No. 95, said point being also the Southeasterly corner of land conveyed to Estella W. Betz by deed dated September 29, 1917, and recorded in Volume 2011, Page 146 of Cuyahoga County Records;

Thence Easterly along the center line of West Lake Road, a distance of 50 feet;

Thence Northerly parallel to the Easterly line of premises so conveyed to Estella W. Betz to the Southerly line of Lake Erie;

Thence Westerly along the Southerly line of Lake Erie to the Northeasterly corner of land conveyed to Estella W. Betz, as aforesaid;

Thence Southerly along the Easterly line of land so conveyed to Estella W. Betz, to the place of beginning, be the same more or less, but subject to all legal highways.

Excepting from the above described premises, any part thereof resulting through change in the course of the shore line of Lake Erie, occasioned by other than natural causes or by natural causes other than accretion.

Permanent Parcel No. 203-02-004

**TO HAVE AND TO HOLD** the above granted and bargained premises, with the appurtenances thereof unto the said Grantees, their heirs and assigns forever.

And I, ERIN M. BUTLER nbm ERIN M. HILL, the said Grantor do for myself and my heirs, executors and administrators covenant with the said Grantees, their heirs and assigns, that at and until the ensealing of these presents, I am well seized of the above described premises, as a good and indefeasible estate in FEE SIMPLE, and have good right to bargain and sell the same in manner and form as above written, and that the same are free and clear of all liens and encumbrances whatsoever except any mortgage assumed by purchaser, such restrictions, conditions, easements (however created) and encroachments as do not materially adversely affect the use or value of the property, zoning ordinances, if any, and taxes and assessments, both general and special, for the current half of the taxable years, and thereafter, and that I will WARRANT AND DEFEND said premises, with the appurtenances thereunto belonging to the said Grantees, their heirs and assigns, against all lawful claims and demands whatsoever except as stated above.

And for valuable consideration I, PATRICK HILL, do hereby remise, release and forever quit-claim unto the said Grantees, their heirs and assigns, all my right and expectancy of Dower in the above describe premises.

IN WITNESS WHEREOF, we have hereunto set our hands this 21<sup>st</sup> day of September, 2012.

Erin M. Butler nbm  
ERIN M. BUTLER nbm ERIN M. HILL

Patrick Hill  
PATRICK HILL

Erin M. Hill

# LETTER OF TRANSMITTAL

**MATRIX ENGINEERING, INC.**

12815 DETROIT AVENUE  
LAKEWOOD, OHIO 44107

(216) 226-6520 FAX (216) 226-1961

TO City of Bay Village  
350 Dover Center Road  
Bay Village, OH 44140

DATE	11/9/13	JOB NO.	
ATTENTION	Clerk of Council		
RE:	Resolution for Submerged Land Lease at 27238 Lake Road, Bay Village, OH		

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

- Shop drawings     Prints     Plans     Samples     Specifications  
 Copy of letter     Change order     \_\_\_\_\_

COPIES	DATE	NO.	DESCRIPTION
1	11/9/13	1828	ODNR Permit & Submerged Land Lease Application

THESE ARE TRANSMITTED as checked below:

- For approval     Approved as submitted     Resubmit \_\_\_\_\_ copies for approval  
 For your use     Approved as noted     Submit \_\_\_\_\_ copies for distribution  
 As requested     Returned for corrections     Return \_\_\_\_\_ corrected prints  
 For review and comment     \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_  PRINTS RETURNED AFTER LOAN TO US

REMARKS Please have City Council issue a resolution for submerged land for the attached proposed project at 27238 Lake Road, Bay Village, OH. Please call if you have any questions. Send original of resolution to ODNR and a copy to me. Thanks.

COPY TO ODNR

SIGNED: 

**MATRIX ENGINEERING INC.**

**CONSULTING ENGINEERS**

**12815 DETROIT AVENUE**

**LAKWOOD, OHIO 44107**

**Phone: (216) 226-6520**

**FAX: (216) 226-1961**

**e-mail: matrixlake@aol.com**

January 8, 2013

Dr. Mary Knapp/Megan Seymour  
U.S. Fish and Wildlife Service  
4625 Morse road, Suite 104  
Columbus, OH 43230

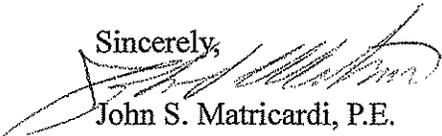
Subject: Request for Review of Endangered Species For 27238 Lake Road, Bay Village, OH

Dear Dr. Knapp/Ms. Seymour:

The OEPA requires that we submit the attached 401 permit application to you for your review of any Threatened or Endangered species in the project area. We have also already applied for a Corps of Engineers and ODNR permit.

No trees or shrubs will be disturbed during construction. Please call if you have any questions during your review.

Sincerely,



John S. Matricardi, P.E.

President

Matrix Engineering inc.

**MATRIX ENGINEERING INC.**

**CONSULTING ENGINEERS**

**12815 DETROIT AVENUE**

**LAKWOOD, OHIO 44107**

**Phone: (216) 226-6520**

**FAX: (216) 226-1961**

**e-mail: matrixlake@aol.com**

January 9, 2013

Greg Schneider  
Ohio Dept. of Natural Resources  
Division of Wildlife  
2045 Morse Road, Bldg. G-3  
Columbus, OH 43229-6693

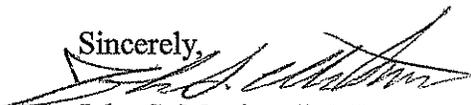
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Sincerely,



John S. Matricardi, P.E.  
President  
Matrix Engineering Inc.