Application for Section 401 Water Quality Certification

Project: Shoreline Improvements at 13474 Edgewater Drive, Lakewood, Ohio
Applicant: Michael G. & Stacey L. Semaan
Site Address: 13474 Edgewater Drive, Lakewood, Ohio 44107
KS Project No: 14145

Item 6
Project Mapping

Section 1

1.1 Topographic Map
1.2 Aerial Photograph
1.3 Vicinity Map
1.4 Floodplain Map
1.5 Existing Site Plan

Section 2

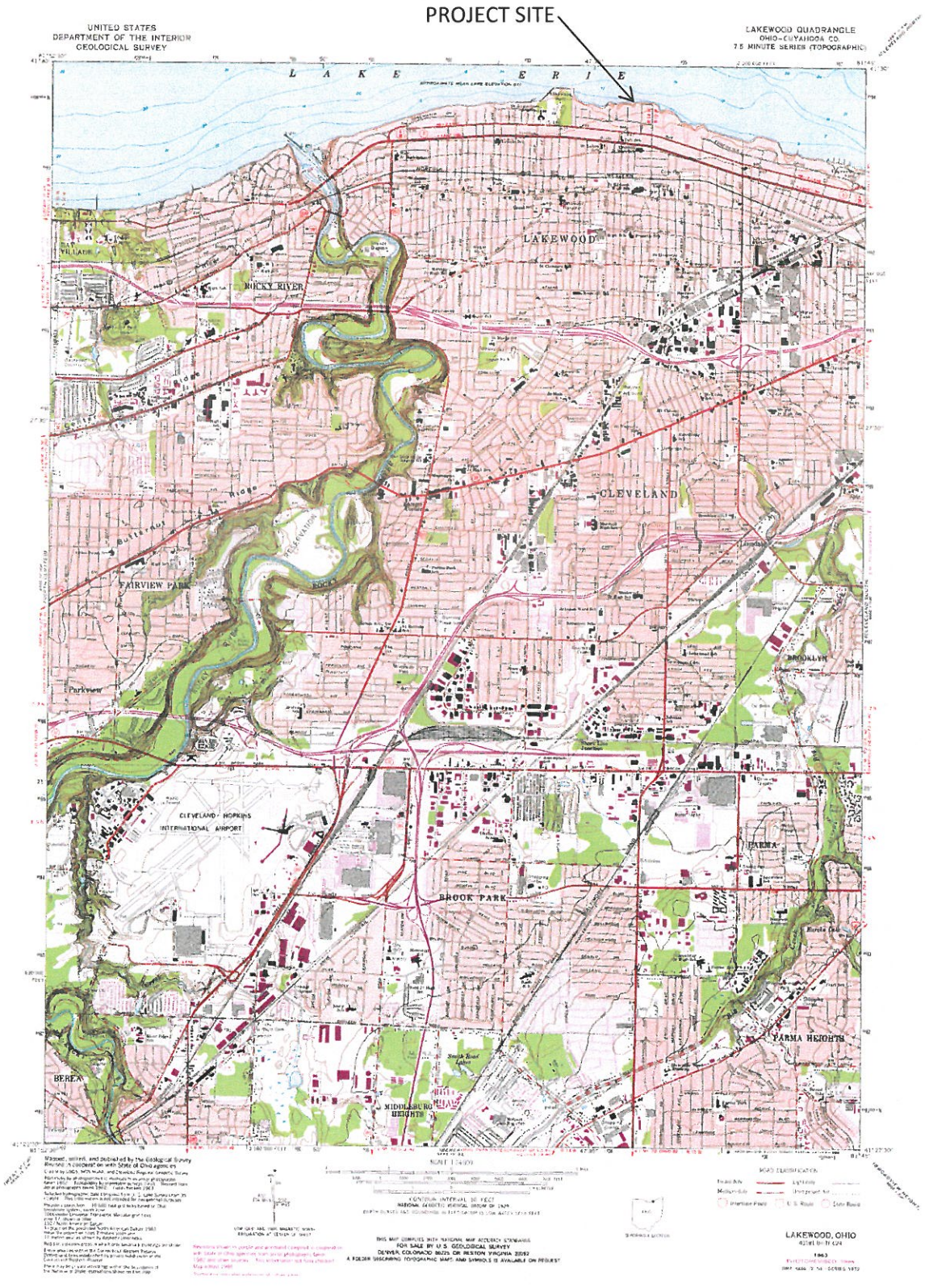
2.1 Preferred Site Plan
Section A-A (1 of 2), Preferred Alternative
Section A-A (2 of 2), Preferred Alternative
Section B-B, Preferred Alternative
2.2 Minimal Degradation Site Plan
Section A-A (1 of 2), Minimal Degradation Alternative
Section A-A (2 of 2), Minimal Degradation Alternative
Section B-B, Minimal Degradation Alternative
2.3 Non-Degradation Alternative Site Plan

Application for Section 401 Water Quality Certification

Project: Shoreline Improvements at 13474 Edgewater Drive, Lakewood, Ohio
Applicant: Michael G. & Stacey L. Semaan
Site Address: 13474 Edgewater Drive, Lakewood, Ohio 44107
KS Project No: 14145

Item 6
Project Mapping

1.1 Topographic Map

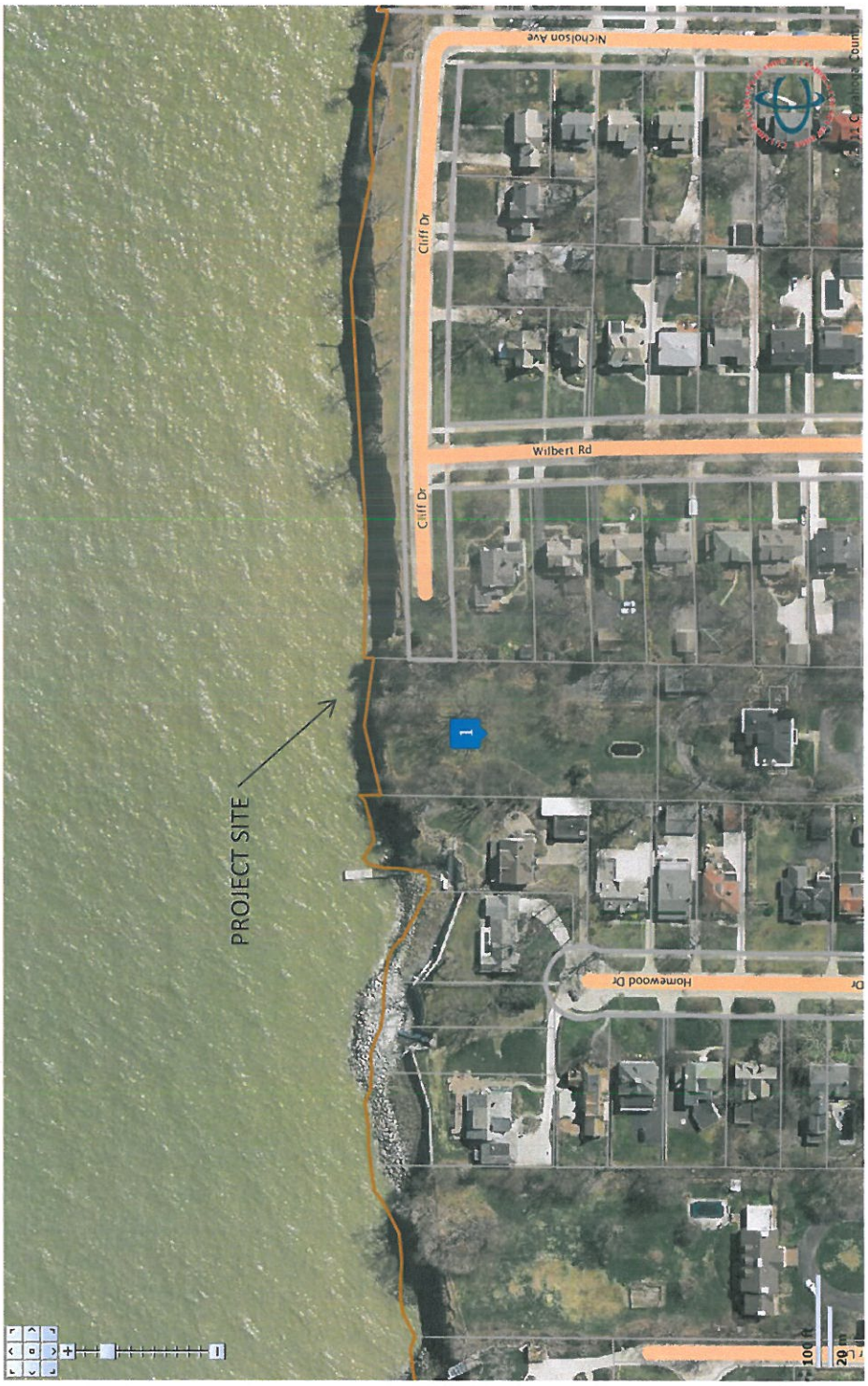


Application for Section 401 Water Quality Certification

Project: Shoreline Improvements at 13474 Edgewater Drive, Lakewood, Ohio
Applicant: Michael G. & Stacey L. Semaan
Site Address: 13474 Edgewater Drive, Lakewood, Ohio 44107
KS Project No: 14145

Item 6
Project Mapping

1.2 Aerial Photograph



Application for Section 401 Water Quality Certification

Project: Shoreline Improvements at 13474 Edgewater Drive, Lakewood, Ohio
Applicant: Michael G. & Stacey L. Semaan
Site Address: 13474 Edgewater Drive, Lakewood, Ohio 44107
KS Project No: 14145

Item 6
Project Mapping

1.3 Vicinity Map

Application for Section 401 Water Quality Certification

Project: Shoreline Improvements at 13474 Edgewater Drive, Lakewood, Ohio
Applicant: Michael G. & Stacey L. Semaan
Site Address: 13474 Edgewater Drive, Lakewood, Ohio 44107
KS Project No: 14145

Item 6
Project Mapping

1.4 Floodplain Map is not applicable. The project site includes an approximately 45 to 50-foot vertical shale bluff and is not located in a floodplain.

Application for Section 401 Water Quality Certification

Project: Shoreline Improvements at 13474 Edgewater Drive, Lakewood, Ohio
Applicant: Michael G. & Stacey L. Semaan
Site Address: 13474 Edgewater Drive, Lakewood, Ohio 44107
KS Project No: 14145

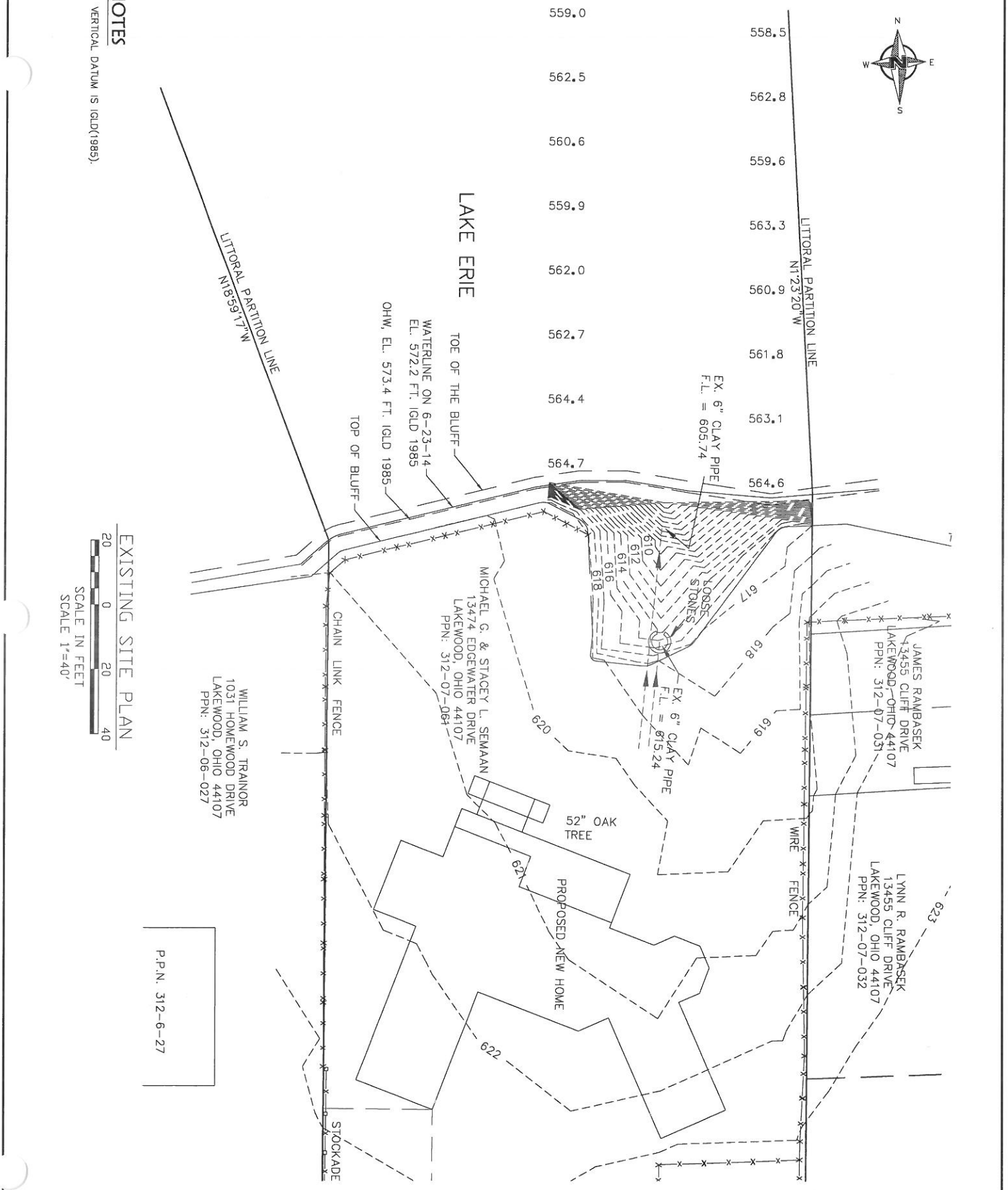
Item 6
Project Mapping

1.5 Existing Site Plan

R:\14000\14145\DRAWINGS\2014-10-14 OEPA DRAWINGS\14145-1 EXISTING SITE PLAN 101414.DWG plotted 10/15/2014 1:21 PM

NOTES

1. VERTICAL DATUM IS IGLD(1985).



EXISTING SITE PLAN
SCALE 1"=40'
SCALE IN FEET
20 0 20 40

EXISTING SITE PLAN
SHORELINE IMPROVEMENTS
13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

SHEET 1 OF 1
JOB NO. 14145

KS ASSOCIATES
KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

DATE: 10-14-14
DRAWN BY: MPC
CH'D BY: JSM
DWG. NAME: 14145-2
PATH:
F.B.

REVISIONS	DATE	BY
	-	

ADJACENT PROPERTY OWNERS
WILLIAM S. TRAINOR
1301 HOMEWOOD DR., LAKEWOOD, OH 44107
JAMES RAMBASEK
13455 CLIFF DRIVE, LAKEWOOD, OH 44107

DATUM: 0.0 LWD = 569.2 FEET IGLD 1985

Application for Section 401 Water Quality Certification

Project: Shoreline Improvements at 13474 Edgewater Drive, Lakewood, Ohio
Applicant: Michael G. & Stacey L. Semaan
Site Address: 13474 Edgewater Drive, Lakewood, Ohio 44107
KS Project No: 14145

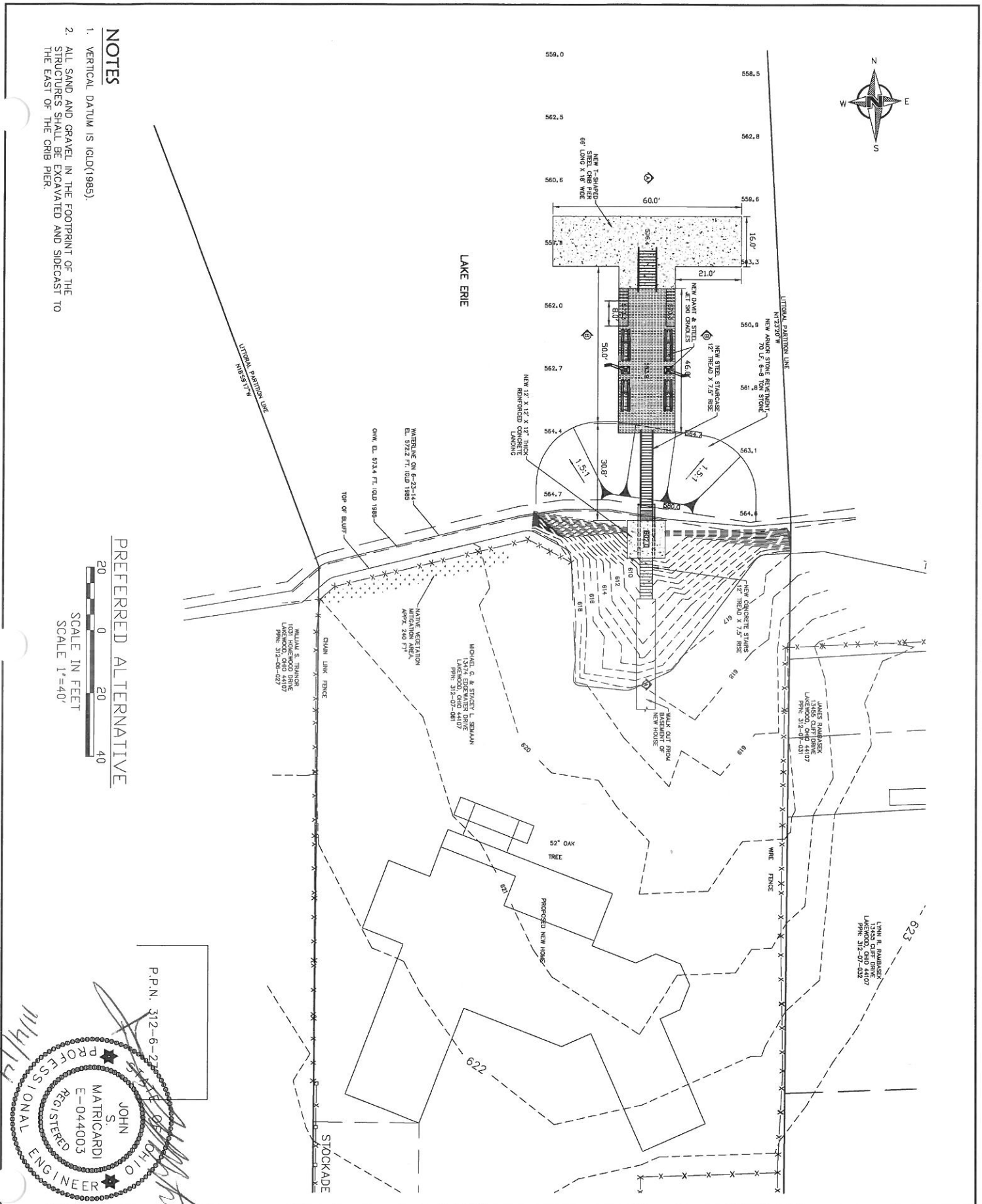
Item 6
Project Mapping

2.1 Preferred Alternative

R:\14000\14145\DRAWINGS\2014-10-14 OEPA DRAWINGS\14145-2 PREFERRED ALTERNATIVE SITE PLAN 101414.DWG plotted 10/15/2014 1:30 PM

NOTES

1. VERTICAL DATUM IS IGLD(1985).
2. ALL SAND AND GRAVEL IN THE FOOTPRINT OF THE STRUCTURES SHALL BE EXCAVATED AND SIDECAST TO THE EAST OF THE CRIB PIER.



PREFERRED ALTERNATIVE

SCALE IN FEET
SCALE 1"=40'
20 0 20 40

P.P.N. 312-6-23

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

SITE PLAN, PREFERRED ALTERNATIVE

SHORELINE IMPROVEMENTS

13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

KS ASSOCIATES

KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

DATE: 10-14-14
DRAWN BY: MPC
CH'D BY: JSM
DWG. NAME: 14145-2
PATH: 14145
F.B.

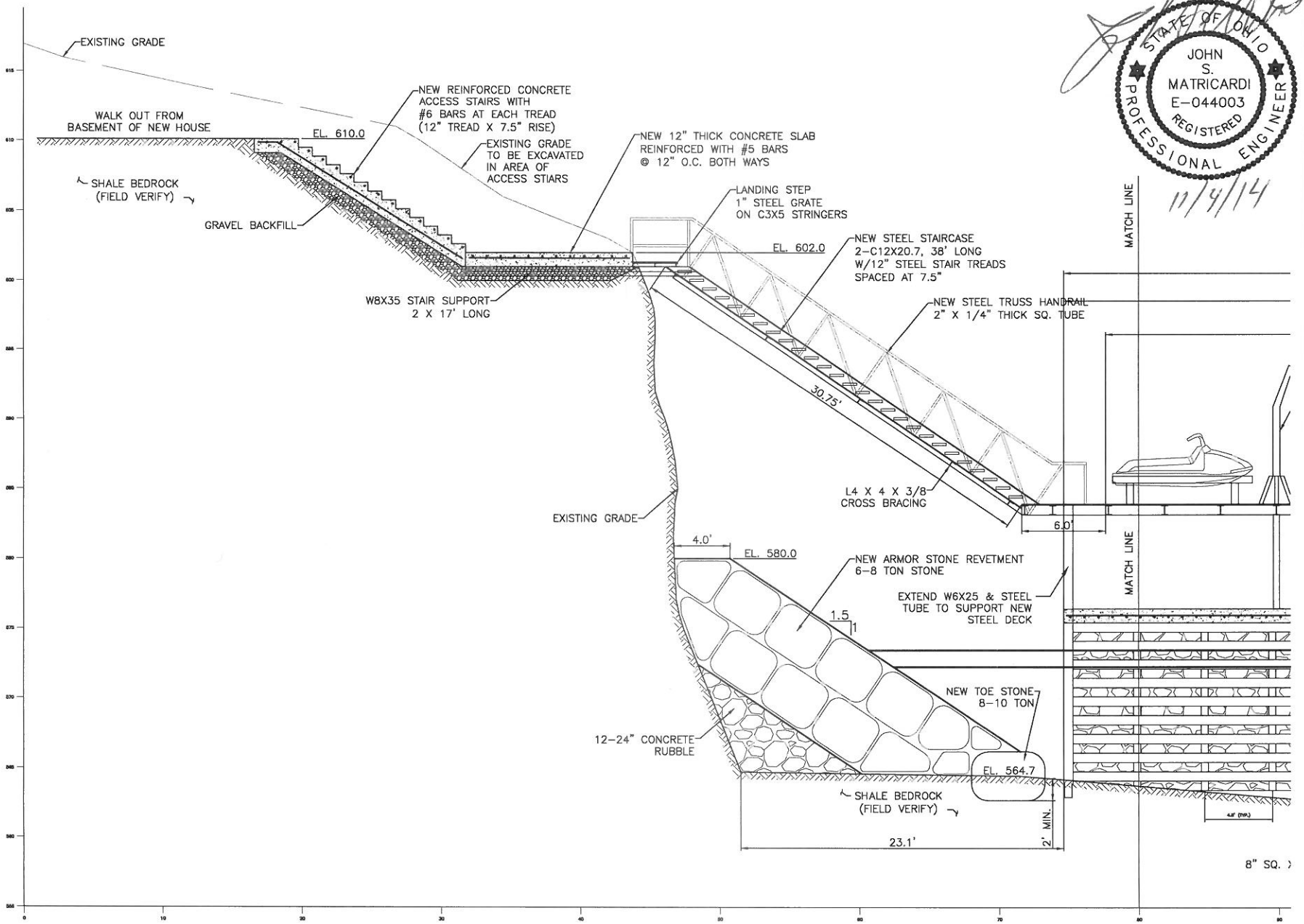
REVISIONS

DATE	BY
–	

ADJACENT PROPERTY OWNERS
WILLIAM S. TRAINOR
1301 HOMEWOOD DR., LAKEWOOD, OH 44107
JAMES RAMBASEK
13455 CLIFF DRIVE, LAKEWOOD, OH 44107

DATUM: 0.0 LWD = 569.2 FEET IGLD 1985

SHEET 1 OF 4
JOB NO. 14145



STATE OF OHIO
JOHN S. MATRICARDI
E-044003
REGISTERED
PROFESSIONAL ENGINEER
11/4/14

NOTES

1. VERTICAL DATUM IS IGLD(1985).
2. ALL EXISTING SAND AND GRAVEL IN THE FOOTPRINT OF THE NEW STRUCTURES SHALL BE EXCAVATED AND SIDECAST LAKEWARD IN LESS THAN 4 FEET OF WATER.

SECTION A-A (1 OF 2)

5 0 5 10

SCALE IN FEET
SCALE 1"=10'

DATE	BY	REVISIONS
-		

ADJACENT PROPERTY OWNERS
WILLIAM S. TRAINOR
1301 HOMEWOOD DR., LAKEWOOD, OH 44107
JAMES RAMBASEK
13455 CLIFF DRIVE, LAKEWOOD, OH 44107
DATUM: 0.0 LWD = 569.2 FEET IGLD 1985

DATE: 10-14-14
DRAWN BY: MPC
CH'D BY: JSM
DWG. NAME: 14145-4
PATH: 14145
F.B.

KS ASSOCIATES
KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

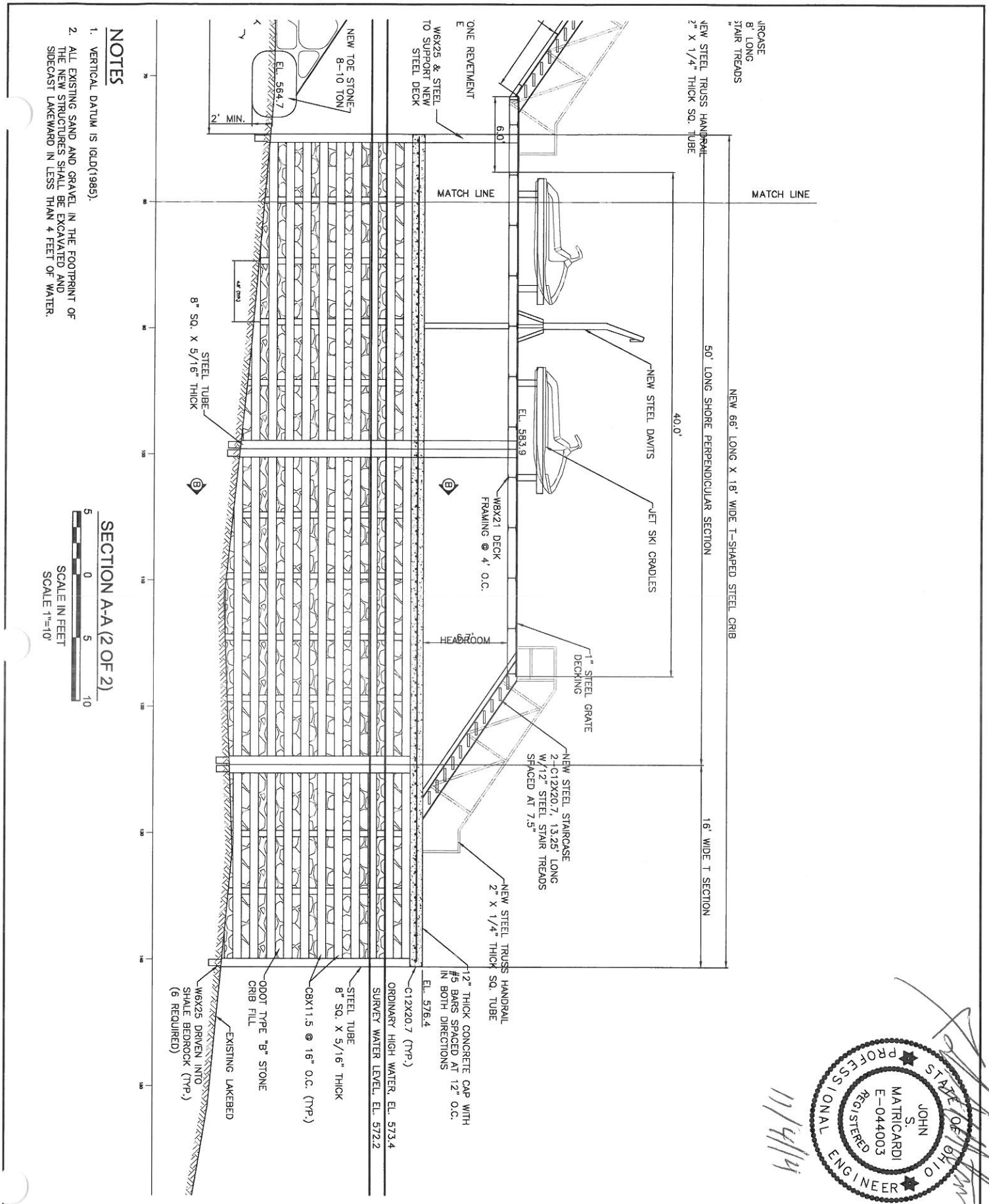
SECTION A-A (1 OF 2), PREFERRED ALT.
SHORELINE IMPROVEMENTS
13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

SHEET 2 OF 4

JOB NO. 14145

R:\14000\14145\DRAWINGS\2014-10-14 OEPA DRAWINGS\14145-5 PREFERRED ALTERNATIVE SECTIONS 101414.DWG plotted 10/15/2014 1:26 PM

R:\14000\14145\DRAWINGS\2014-10-14 OEPA DRAWINGS\14145-5 PREFERRED ALTERNATIVE SECTIONS 101414.DWG plotted 10/15/2014 1:27 PM



NOTES

1. VERTICAL DATUM IS IGLD(1985).
2. ALL EXISTING SAND AND GRAVEL IN THE FOOTPRINT OF THE NEW STRUCTURES SHALL BE EXCAVATED AND SIDECAST LAKEWARD IN LESS THAN 4 FEET OF WATER.

SECTION A-A (2 OF 2)

SCALE IN FEET
SCALE 1"=10'

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

11/4/14

SECTION A-A (2 OF 2), PREFERRED ALT.

SHORELINE IMPROVEMENTS

13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

KS ASSOCIATES

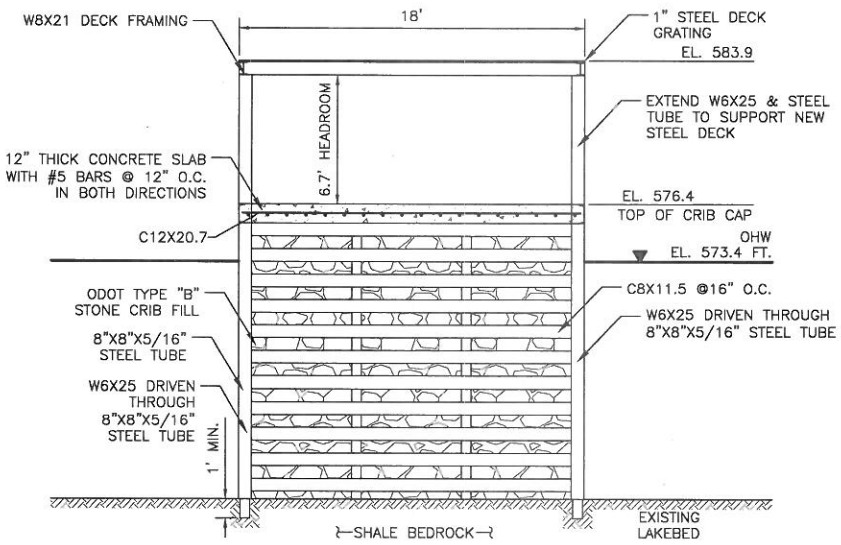
KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

DATE: 10-14-14
DRAWN BY: MPC
CHK'D BY: JSM
DWG. NAME: 14145-4
PATH: 14145
F.B.

REVISIONS

DATE	BY	ADJACENT PROPERTY OWNERS
-		WILLIAM S. TRAINOR 1301 HOMEWOOD DR., LAKEWOOD, OH 44107
		JAMES RAMBASEK 13455 CLIFF DRIVE, LAKEWOOD, OH 44107
		DATUM: 0.0 LWD = 569.2 FEET IGLD 1985

SHEET 3 OF 4
JOB NO. 14145



SECTION B-B

5 0 5 10

SCALE IN FEET
SCALE 1"=10'

NOTES

1. VERTICAL DATUM IS IGLD(1985).
2. ALL EXISTING SAND AND GRAVEL IN THE FOOTPRINT OF THE NEW STRUCTURES SHALL BE EXCAVATED AND SIDECAST LAKEWARD IN LESS THAN 4 FEET OF WATER.

STATE OF OHIO
JOHN S. MATRICARDI
E-044003
REGISTERED
PROFESSIONAL ENGINEER
11/4/14

REVISIONS		
DATE	BY	ADJACENT PROPERTY OWNERS
-		WILLIAM S. TRAINOR 1301 HOMEWOOD DR., LAKEWOOD, OH 44107 JAMES RAMBASEK 13455 CLIFF DRIVE, LAKEWOOD, OH 44107 DATUM: 0.0 LWD = 569.2 FEET IGLD 1985

DATE: 10-14-14
DRAWN BY: MPS
CHD BY: JSM
DWG. NAME: 14145-4
PATH: 14145
F.B.

KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com
KS ASSOCIATES

SECTION B-B, PREFERRED ALT.
SHORELINE IMPROVEMENTS
13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

SHEET 4 OF 4

JOB NO. 14145

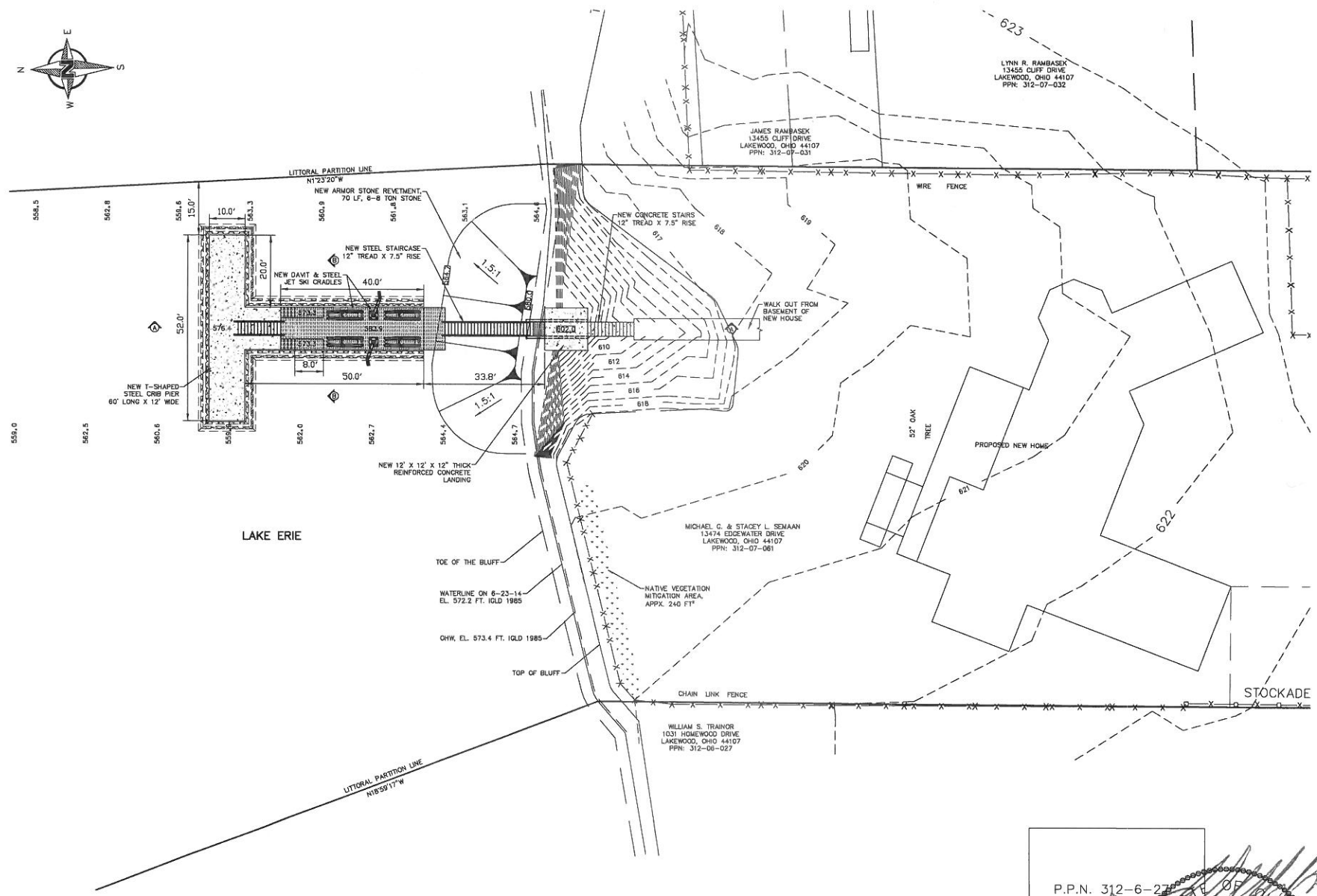
R:\14000\14145\DRAWINGS\2014-10-14 OEPA DRAWINGS\14145-5 PREFERRED ALTERNATIVE SECTIONS 101414.DWG plotted 10/15/2014 1:27 PM

Application for Section 401 Water Quality Certification

Project: Shoreline Improvements at 13474 Edgewater Drive, Lakewood, Ohio
Applicant: Michael G. & Stacey L. Semaan
Site Address: 13474 Edgewater Drive, Lakewood, Ohio 44107
KS Project No: 14145

Item 6
Project Mapping

2.2 Minimum Degradation Alternative



MINIMAL DEGRADATION ALTERNATIVE

20 0 20 40

SCALE IN FEET
SCALE 1"=40'

NOTES

1. VERTICAL DATUM IS IGLD(1985).
2. ALL SAND AND GRAVEL IN THE FOOTPRINT OF THE STRUCTURES SHALL BE EXCAVATED AND SIDECAST TO THE EAST OF THE CRIB PIER.

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

11/4/14

DATE	BY	REVISIONS
-		

ADJACENT PROPERTY OWNERS
WILLIAM S. TRAINOR
1301 HOMEWOOD DR., LAKEWOOD, OH 44107
JAMES RAMBASEK
13455 CLIFF DRIVE, LAKEWOOD, OH 44107
DATUM: 0.0 LWD = 569.2 FEET IGLD 1985

DATE: 10-14-14
DRAWN BY: MPC
CH'D BY: JSM
DWG. NAME: 14145-3
PATH: 14145
F.B.

KS ASSOCIATES
KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

SITE PLAN, MIN. DEG. ALT.
SHORELINE IMPROVEMENTS
13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

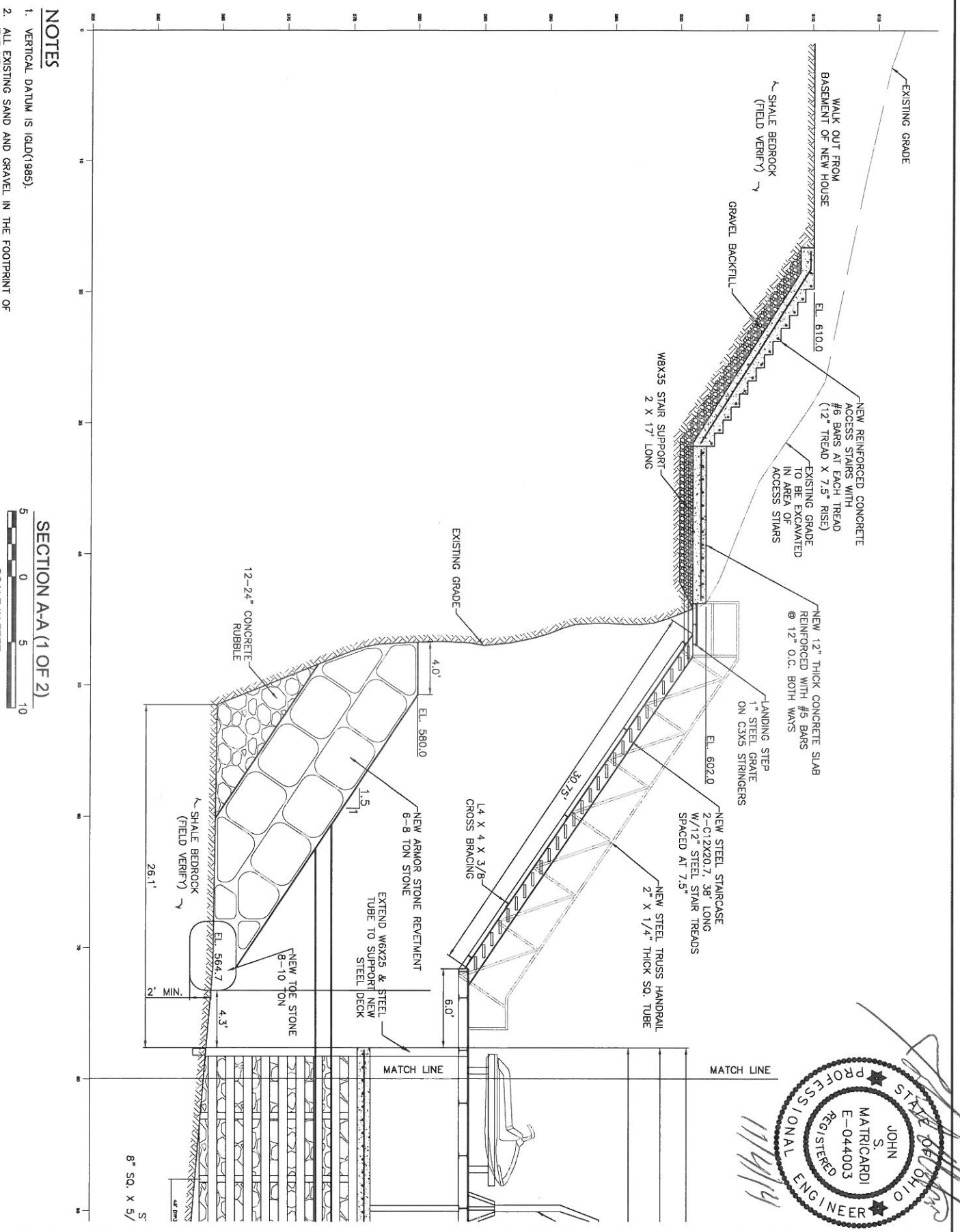
SHEET 1 OF 4
JOB NO. 14145

R:\14000\14145\DRAWINGS\2014-10-14 OEPA DRAWINGS\14145-3 MINIMUM DEGRADATION SITE PLAN 101414.DWG plotted 10/15/2014 1:29 PM

R:\14000\14145\DRAWINGS\2014-10-14 OEPA DRAWINGS\14145-4 MINIMUM DEGRADATION SECTIONS 101414.DWG plotted 10/15/2014 1:25 PM

NOTES

1. VERTICAL DATUM IS IGLD(1985).
2. ALL EXISTING SAND AND GRAVEL IN THE FOOTPRINT OF THE NEW STRUCTURES SHALL BE EXCAVATED AND SIDECAST LAKEWARD IN LESS THAN 4 FEET OF WATER.



SECTION A-A (1 OF 2)

SCALE IN FEET
SCALE 1"=10'

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

SECTION A-A (1 OF 2), MIN. DEG. ALT.

SHORELINE IMPROVEMENTS

13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

KS ASSOCIATES

KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

DATE: 10-14-14
DRAWN BY: MPC
CHK'D BY: JSM
DWG. NAME: 14145-4
PATH: 14145
F.B.

REVISIONS

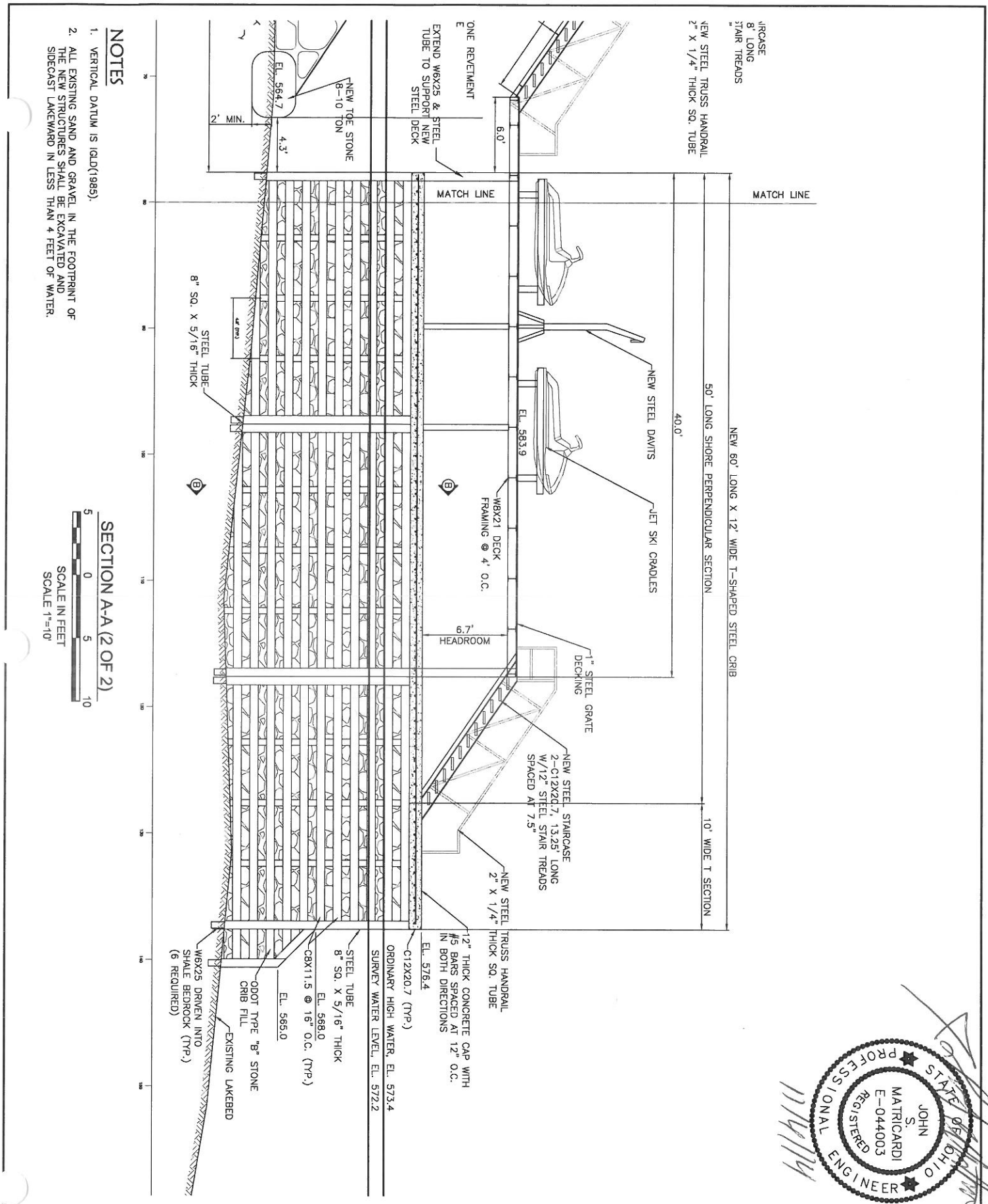
DATE	BY
-	

ADJACENT PROPERTY OWNERS
WILLIAM S. TRAINOR
1301 HOMEWOOD DR., LAKEWOOD, OH 44107
JAMES RAMBASEK
13455 CLIFF DRIVE, LAKEWOOD, OH 44107

DATUM: 0.0 LWD = 569.2 FEET IGLD 1985

SHEET 2 OF 4
JOB NO. 14145

R:\14000\14145\DRAWINGS\2014-10-14 OEPA DRAWINGS\14145-4 MINIMUM DEGRADATION SECTIONS 101414.DWG plotted 10/15/2014 1:27 PM



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

SECTION A-A (2 OF 2), MIN. DEG. ALT.
SHORELINE IMPROVEMENTS
13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

KS ASSOCIATES

KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

DATE: 10-14-14
DRAWN BY: MPC
CHK'D BY: JSM
DWG. NAME: 14145-4
PATH: 14145
F.B.

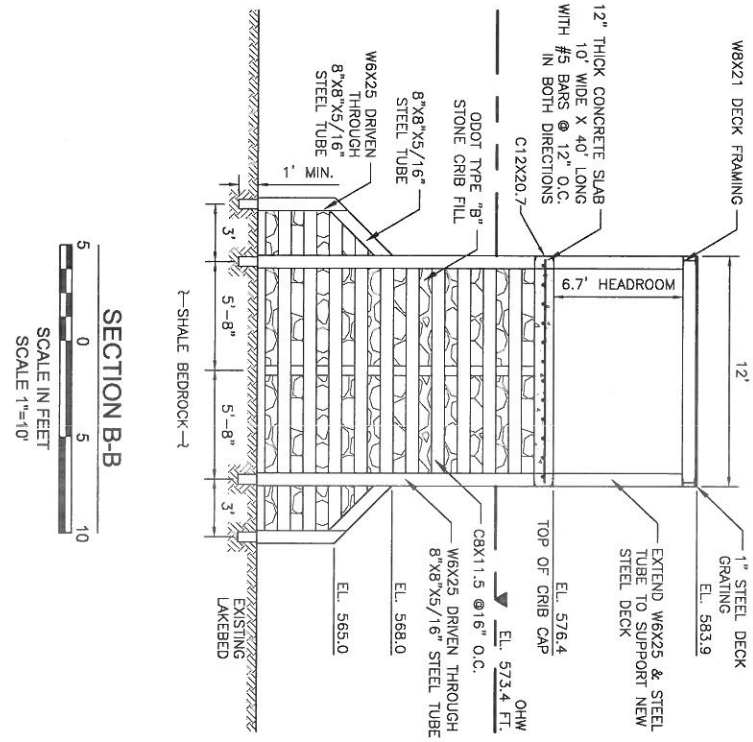
REVISIONS

DATE	BY	ADJACENT PROPERTY OWNERS
-		WILLIAM S. TRAINOR 1301 HOMEWOOD DR., LAKEWOOD, OH 44107
		JAMES RAMBASEK 13455 CLIFF DRIVE, LAKEWOOD, OH 44107
		DATUM: 0.0 LWD = 569.2 FEET IGLD 1985

SHEET 3 OF 4
JOB NO. 14145

NOTES

1. VERTICAL DATUM IS IGLD(1985).
2. ALL EXISTING SAND AND GRAVEL IN THE FOOTPRINT OF THE NEW STRUCTURES SHALL BE EXCAVATED AND SIDECAST LAKEWARD IN LESS THAN 4 FEET OF WATER.



SECTION B-B

SCALE IN FEET
SCALE 1"=10'

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

11/19/14

SECTION B-B, MIN. DEG. ALT.

SHORELINE IMPROVEMENTS

13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

KS ASSOCIATES

KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

DATE: 10-14-14
DRAWN BY: MPC
CH'D BY: JSM
DWG. NAME: 14145-4
PATH:
F.B.

SHEET 4 OF 4
JOB NO. 14145

REVISIONS

DATE	BY	ADJACENT PROPERTY OWNERS
–		WILLIAM S. TRAINOR 1301 HOMEWOOD DR., LAKEWOOD, OH 44107
		JAMES RAMBASEK 13455 CLIFF DRIVE, LAKEWOOD, OH 44107
		DATUM: 0.0 LWD = 569.2 FEET IGLD 1985

Application for Section 401 Water Quality Certification

Project: Shoreline Improvements at 13474 Edgewater Drive, Lakewood, Ohio
Applicant: Michael G. & Stacey L. Semaan
Site Address: 13474 Edgewater Drive, Lakewood, Ohio 44107
KS Project No: 14145

Item 6
Project Mapping

2.1 Non-Degradation Alternative

R:\14000\14145\DRAWINGS\2014-10-14 OEPA DRAWINGS\14145-6 NON DEGRADATION ALTERNATIVE 101414.DWG plotted 10/15/2014 1:29 PM

NOTES

1. VERTICAL DATUM IS IGLD(1985).

NON-DEGRADATION ALTERNATIVE

SCALE IN FEET
SCALE 1"=40'
20 0 20 40

LAKE ERIE

559.0 562.5 560.6 559.9 562.0 562.7 564.4 564.7

558.5 562.8 559.6 563.3 560.9 563.1 561.8 564.6

LITTORAL PARTITION LINE N18°59'17"W

LITTORAL PARTITION LINE N1°23'20"W

TOE OF THE BLUFF

TOP OF BLUFF

WATERLINE ON 6-23-14 EL. 572.2 FT. IGLD 1985

OHW, EL. 573.4 FT. IGLD 1985

EX. 6" CLAY PIPE F.L. = 605.74

EX. 6" CLAY PIPE F.L. = 615.24

LOOSE STONES

610 612 614 616 618 617 619 620 621 622 623

CHAIN LINK FENCE

WIRE FENCE

STOCKADE FENCE

52" OAK TREE

PROPOSED NEW HOME

MICHAEL G. & STACEY L. SEMAAN
13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107
PPN: 312-07-061

WILLIAM S. TRAINOR
1031 HOMEWOOD DRIVE
LAKEWOOD, OHIO 44107
PPN: 312-06-027

JAMES RAMBASEK
13455 CLIFF DRIVE
LAKEWOOD, OHIO 44107
PPN: 312-07-031

LYNN R. RAMBASEK
13455 CLIFF DRIVE
LAKEWOOD, OHIO 44107
PPN: 312-07-032

P.P.N. 312-6-2[illegible]

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

SHEET	1
OF	1
JOB NO.	14145

SITE PLAN, NON-DEGRADATION ALTERNATIVE
SHORELINE IMPROVEMENTS
13474 EDGEWATER DRIVE
LAKEWOOD, OHIO 44107

KS ASSOCIATES
KS Associates, Inc.
260 Burns Road, Suite 100
Elyria, OH 44035
P 440 365 4730
F 440 365 4790
www.ksassociates.com

DATE:	10-14-14
DRAWN BY:	MPC
CH'D BY:	JSM
DWG. NAME:	14145-2
PATH:	14145
F.B.	

REVISIONS

DATE	BY
-	

ADJACENT PROPERTY OWNERS
WILLIAM S. TRAINOR
1301 HOMEWOOD DR., LAKEWOOD, OH 44107
JAMES RAMBASEK
13455 CLIFF DRIVE, LAKEWOOD, OH 44107

DATUM: 0.0 LWD = 569.2 FEET IGLD 1985