

GENERAL NOTES

- 1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING, PENNSYLVANIA, LLC (HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH THE ENGINEER OF RECORD OR BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST VERIFY ALL EXISTING UTILITIES AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING BUT NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE), THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND ENGINEER OF RECORD AND BOHLER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT RELATE TO THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.

- 29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. ENGINEER OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.

DEMOLITION NOTES

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.

- 2. THE CONTRACTOR MUST CONDUCT DEMOLITION REMOVALS IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPLICABLE GOVERNING AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.

ACCESSIBILITY DESIGN GUIDELINES

- 1. ALL ACCESSIBLE (A.K.A ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MOST STRINGENT OF: (A) THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C § 12101 ET SEQ. AND 42 U.S.C § 4151 ET SEQ.), AND (B) ANY APPLICABLE LOCAL, AND STATE GUIDELINES, AND ANY AND ALL AMENDMENTS TO BOTH, WHICH ARE IN EFFECT WHEN THESE PLANS WERE COMPLETED.

DRAINAGE AND UTILITY NOTES

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.

SANITARY SEWER PIPE

- 1. SANITARY SEWER SERVICE SHALL BE PROVIDED BY THE MUNICIPAL AUTHORITY OF THE UPPER SAUCON TOWNSHIP AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MUNICIPAL AUTHORITY OF THE UPPER SAUCON TOWNSHIP'S STANDARD SPECIFICATIONS.

WATER

- 1. THE WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER AUTHORITY. ABSENT SPECIFIC REVISIONS, WATER MAIN PIPING SHALL BE INSTALLED TO THE STANDARD SPECIFICATIONS OF ALL APPROVED PIPES.

SITE LAYOUT NOTES

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.

GRADING NOTES

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.

SITE SPECIFIC NOTES

- 1. EXISTING PROPERTY INFORMATION: LOT 21 AND LOT 22 ARE SHOWN ON THE MAP OF PENNSYLVANIA COUNTY, PA ZONED R-1.

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERPETUAL MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT FACILITIES. NO CHANGES SHALL BE MADE TO THE STORM SEWER AND STORMWATER MANAGEMENT FACILITIES OR FINISH GRADING WITHOUT PRIOR WRITTEN APPROVAL FROM THE BOROUGH. A BLANKET EASEMENT IS HEREBY GRANTED BY FINISH GRADING COOPERBSBURG BOROUGH FOR THE RIGHT, BUT NOT THE OBLIGATION, TO ENTER THE BOROUGH ENGINEERING OFFICE AT ALL REASONABLE TIMES TO VERIFY THE ACCURACY OF ALL INFORMATION.

- 1. SURVEY CONTROL POINT ASSOCIATES, INC. 1600 MANOR DRIVE, SUITE 200, CHALFONT, PA 18914

REFERENCES AND CONTACT INFORMATION

- 1. SURVEY CONTROL POINT ASSOCIATES, INC. 1600 MANOR DRIVE, SUITE 200, CHALFONT, PA 18914



REVISIONS

Table with columns: REV, DATE, COMMENT, DRAWN BY. Contains 7 revision entries.

811 logo with text: Know what's below. Call before you dig. PENNSYLVANIA 811 BEFORE YOU EXCAVATE. YOU'LL GET AN EXACT LOCATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.

PROJECT: WEST STATE STREET COOPERBSBURG BOROUGH LEHIGH COUNTY, PA ZONED R-1

REYNOLDS ACQUISITIONS, L.P. PROPOSED RESIDENTIAL DEVELOPMENT "ASHFORD PRESERVE" WEST STATE STREET COOPERBSBURG BOROUGH LEHIGH COUNTY PENNSYLVANIA 18036

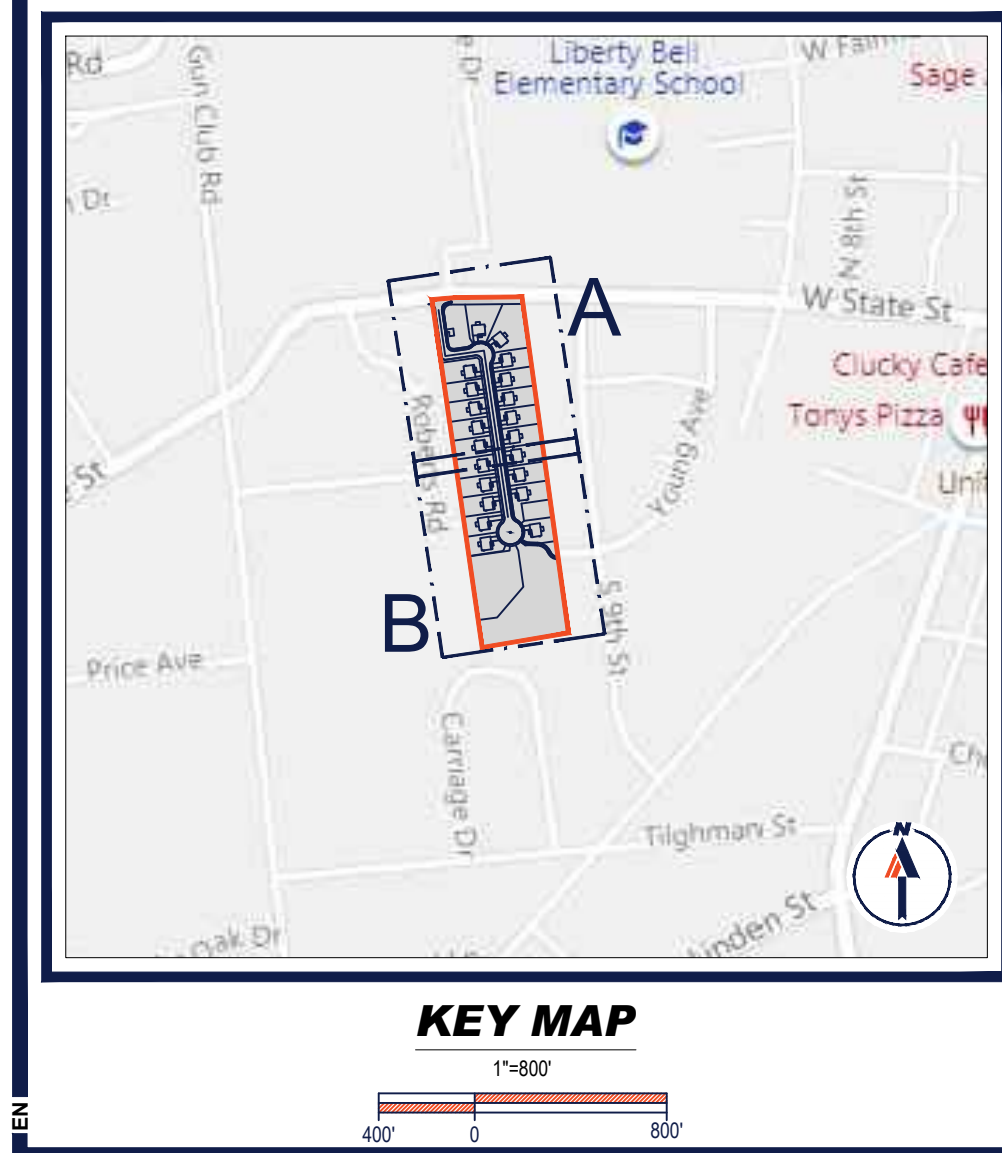
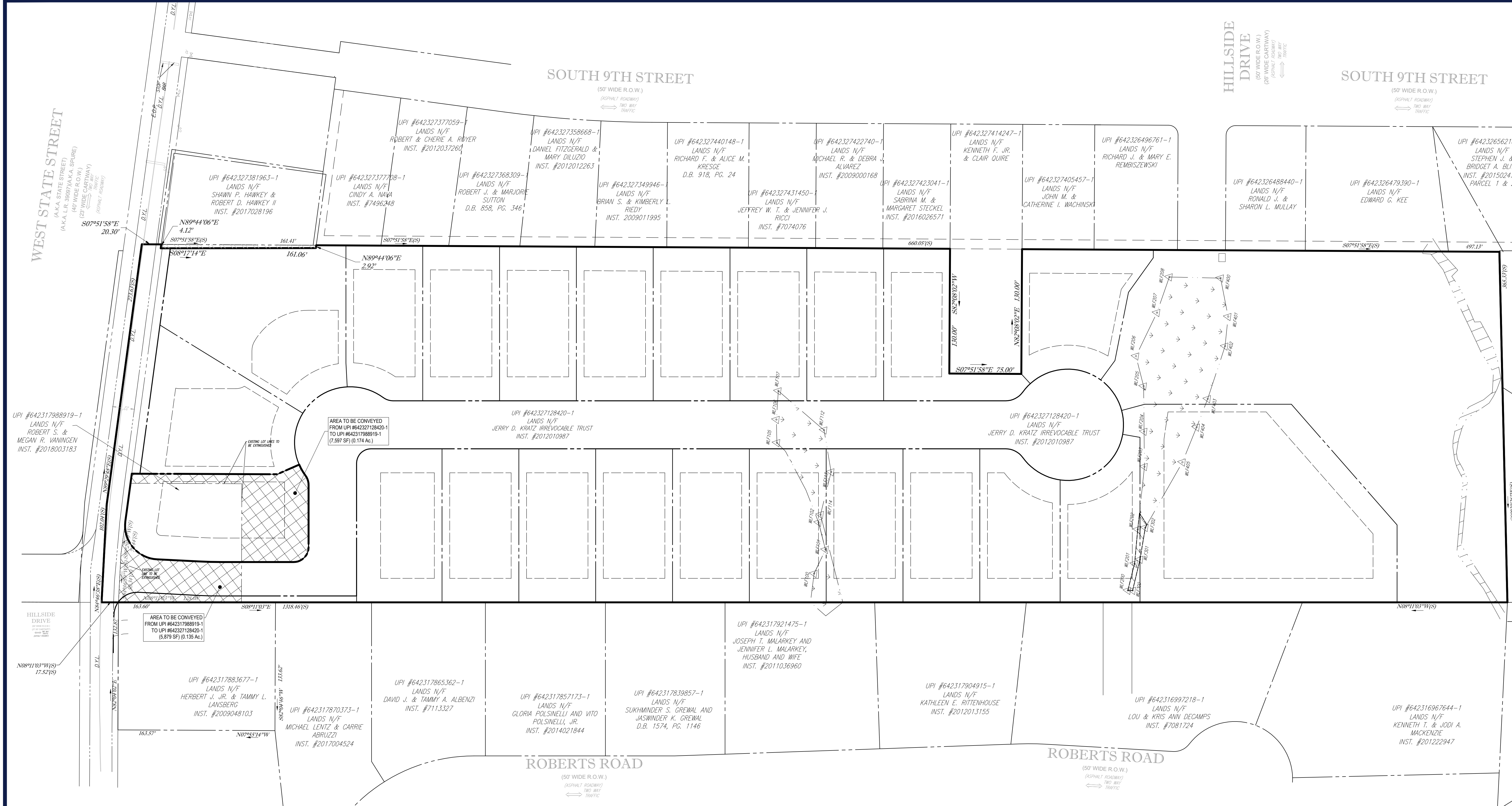
BOHLER

1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914 Phone: (215) 996-9100 Fax: (215) 996-9102 www.bohler-engineering.com

R.E. KLOS, JR. PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE NO. PE045746 NEW JERSEY LICENSE NO. 246024502900

NOTES SHEET SHEET NUMBER: 2 OF 48

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS. HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.



LEGEND	
EXISTING	
PROPERTY LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
WETLANDS	▾ ▾ ▾
WATERS	▨ ▨ ▨
LEGEND	
TO BE REMOVED	
PROPERTY LINE	---
CONVEYED AREA	▨ ▨ ▨

LEGEND	
PROPOSED	
R.O.W. LINE	---
PROPERTY LINE	---
SETBACK LINE	---

ZONING REQUIREMENTS

REQUIREMENTS TAKEN FROM:
- BOROUGH OF COOPERSBURG ZONING ORDINANCE (12-17-2019)

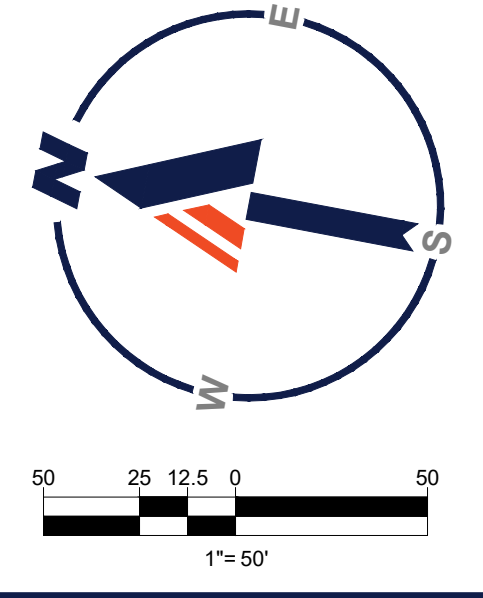
ADDRESS:
WEST STATE STREET
UPI #64232128420-1
COOPERSBURG BOROUGH
LEHIGH COUNTY, PENNSYLVANIA

SITE AREA CALCS:
GROSS TRACT AREA: 11.636 Ac.
- W. STATE ROAD ULTIMATE R.O.W.: -0.227 Ac.
NET TRACT AREA: 11.409 Ac.

EXISTING ZONING: R-1 LOW DENSITY RESIDENTIAL DISTRICT
PROPOSED USE: SINGLE-FAMILY DETACHED DWELLING (PERMITTED BY RIGHT)

	REQUIRED	PROPOSED
MIN. LOT AREA:	12,000 S.F.	12,086 S.F.
MIN. LOT WIDTH AT BLDG. SETBACK LINE:		
AT BLDG. SETBACK LINE:	80 FT.	80 FT.
CORNER LOT:	100 FT.	160 FT.
MIN. YARD SETBACKS:		
FRONT:	25 FT.	25 FT.
FRONT (CORNER):	15 FT.	25 FT.
SIDE YARD (EA):	8 FT.	8 FT.
REAR:	25 FT.	25 FT.
MAX. BUILDING HEIGHT:	40 FT. (3 STORIES)	< 40 FT. (2 STORIES)
MAX. BUILDING COVERAGE:	30%	19.6%
MAX. IMPERVIOUS COVERAGE:	40%	40%

NOTE:
A BREAKDOWN OF LOT AREA, LOT WIDTH, BUILDING COVERAGE, AND IMPERVIOUS COVERAGE PER LOT HAS BEEN PROVIDED ON THE TABLES SHEET.



BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP
5	03/16/2023	REV. PER LCDD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP

811

Know what's below.
Call before you dig.

PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-486-1776
www.pa.gov/811

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/06/2024
CAD ID: PC191160-SPP-0

**PRELIMINARY / FINAL
LAND DEVELOPMENT
PLANS**

FOR

**REYNOLDS
ACQUISITIONS, L.P.**

PROPOSED RESIDENTIAL
DEVELOPMENT
'ASHFORD PRESERVE'

WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER

1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

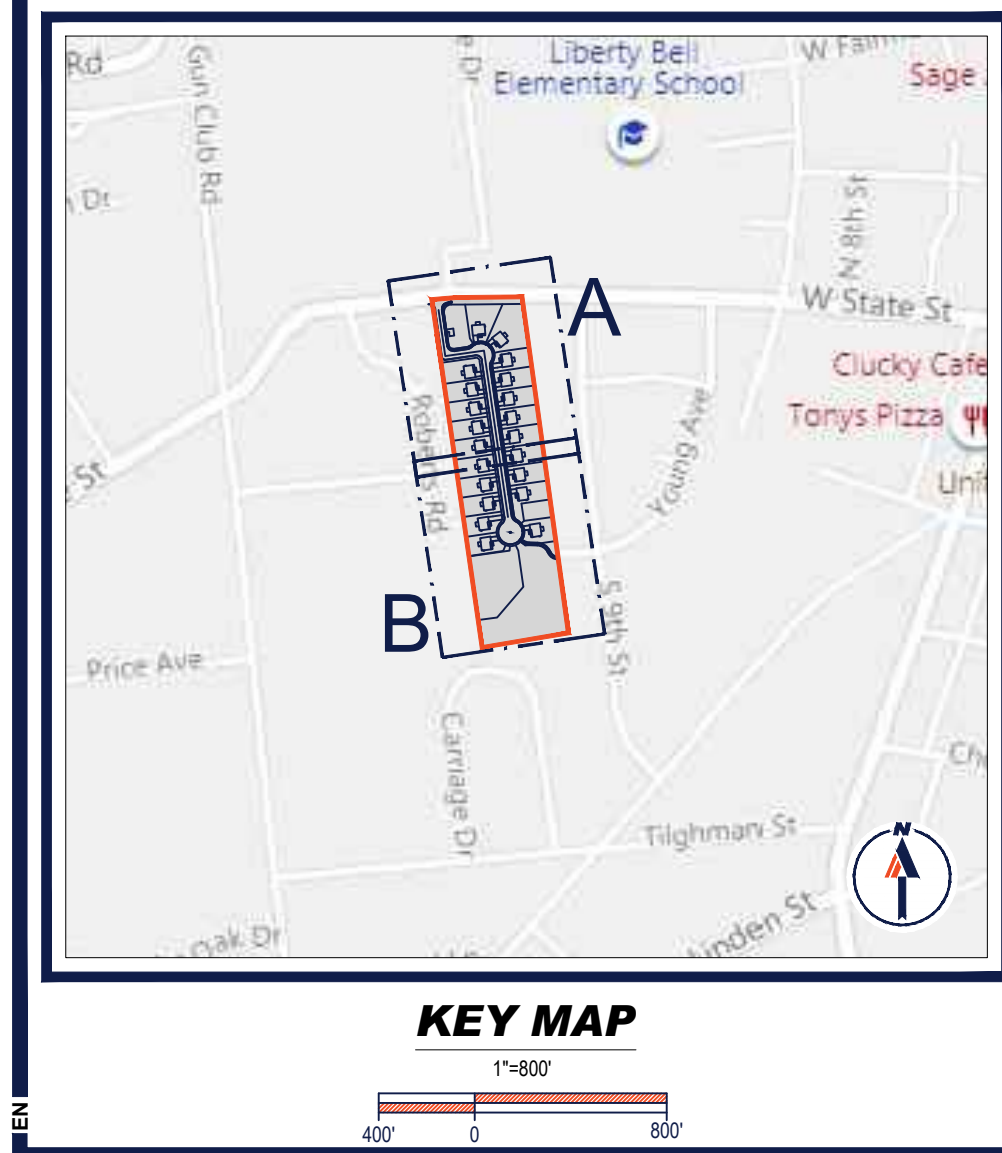
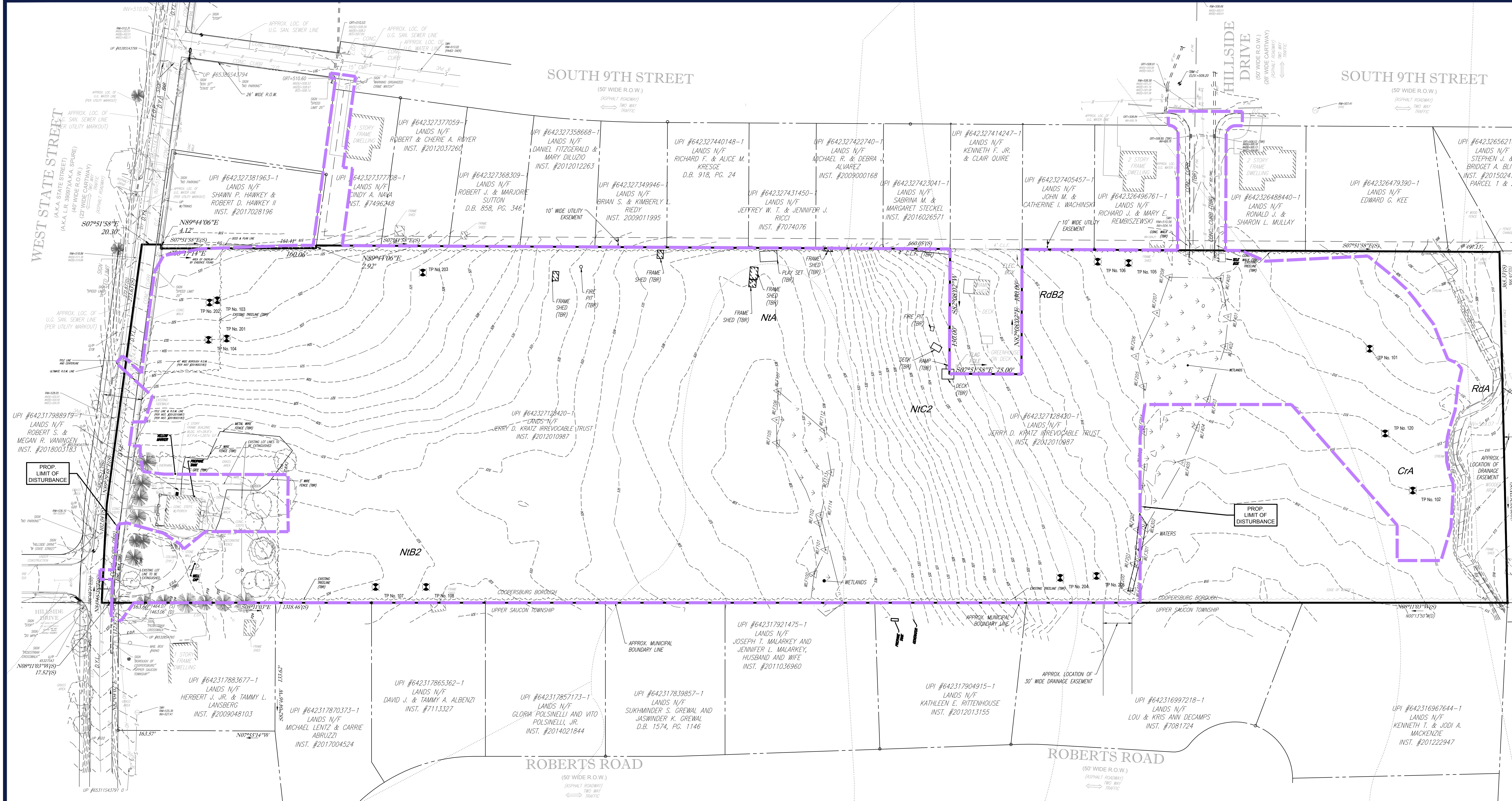
R.E. KLOS, JR.

PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045479E
NEW JERSEY LICENSE No. 24GE04502900

SHEET TITLE:
**LOT LINE
ADJUSTMENT
PLAN**

SHEET NUMBER:
4
OF 48

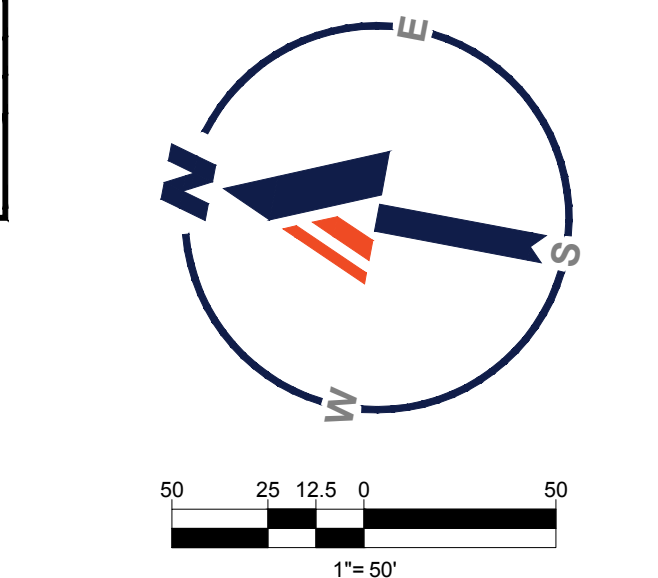
REVISION 7 - 01/19/2024



LEGEND	
EXISTING	
PROPERTY LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
WETLANDS	W
WATERS	W
TREELINE	T
OVERHEAD UTILITY WIRES	U
ELECTRIC LINE	E
TELEPHONE LINE	T
GAS LINE	G
WATER LINE	W
SANITARY SEWER	S
STORM PIPE	ST
LIMIT OF DISTURBANCE	---
SOIL DELINEATION LINE	---
SOIL LABELS	UXB
RIGHT-OF-WAY LINE	---
CONCRETE CURB	C
EDGE OF PAVEMENT	---
TEST PIT	TP No. 103

LEGEND	
EXISTING	
EXISTING CONTOUR / MAJOR	SP
EXISTING CONTOUR / MINOR	SP
CONCRETE MONUMENT / IRON PIN	□ ○
TREE	T
DRAINAGE INLET	D
STORM/SANITARY MANHOLE	M
WATER/GAS VALVES	V
UTILITY POLE	U
UTILITY POLE W/ LIGHT	U
ROOF DRAIN/CLEANOUT	RO
BUILDING	B

LEGEND	
TO BE REMOVED	
BUILDING	B
CONCRETE CURB	C
FENCE	F
TREELINE	T
GRAVEL PAVEMENT	G
PROPERTY LINE	P
SAWCUT LINE	S



SOIL DESCRIPTIONS

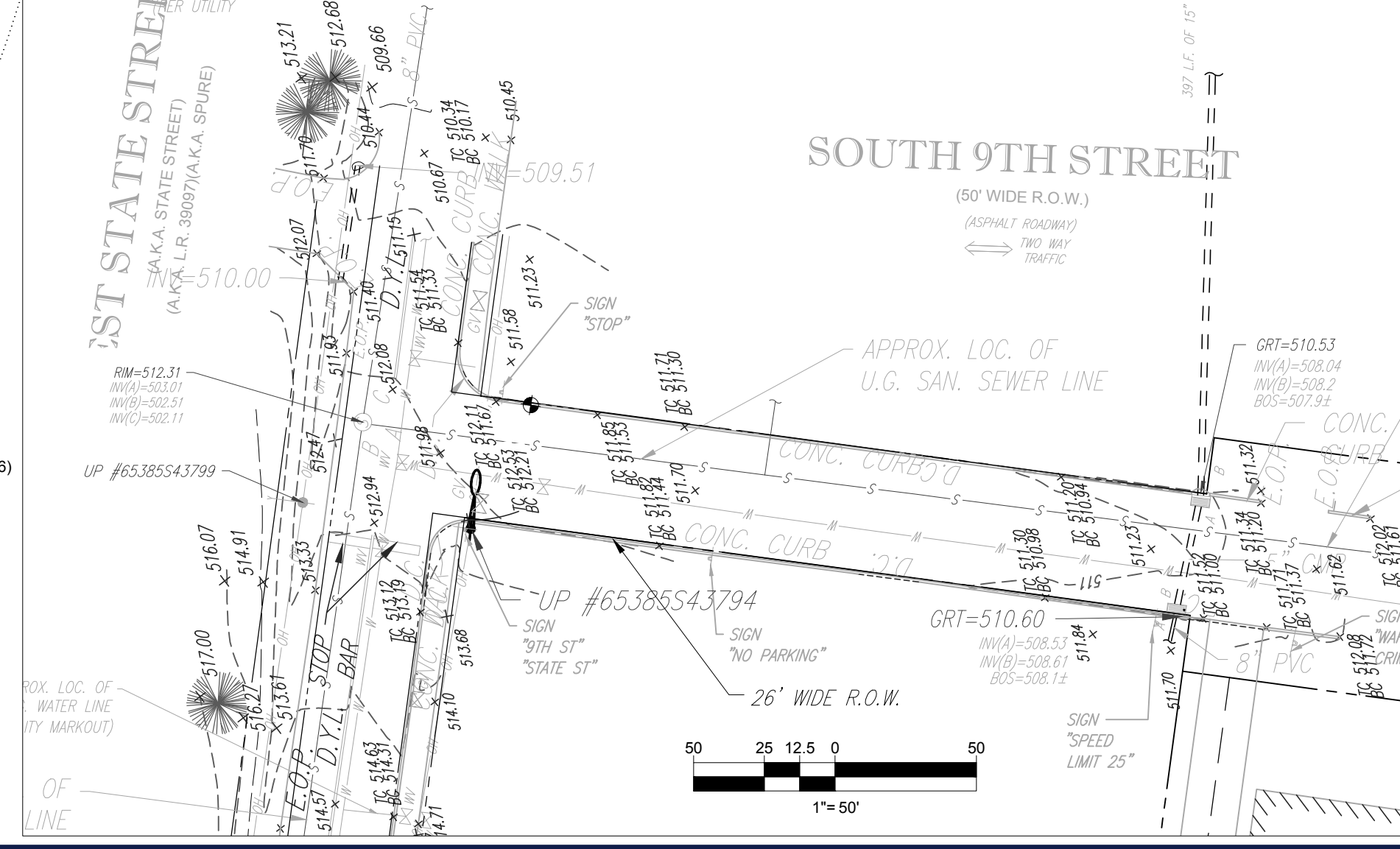
SOIL	DESCRIPTION	SOIL GROUP
CrA	- CROTON SILT LOAM, 0 TO 3 PERCENT SLOPES	D
NA	- NORTON SILT LOAM, 0 TO 3 PERCENT SLOPES	C
NB2	- NORTON SILT LOAM, 3 TO 8 PERCENT SLOPES	C
NC2	- NORTON SILT LOAM, 8 TO 15 PERCENT SLOPES	C
RdA	- READINGTON SILT LOAM, 0 TO 3 PERCENT SLOPES	C
RdB2	- READINGTON SILT LOAM, 3 TO 8 PERCENT SLOPES	C

UTILITIES

THE FOLLOWING COMPANIES WERE NOTIFIED BY THE PENNSYLVANIA ONE-CALL SYSTEM (1-800-242-1776) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST.

SERIAL NUMBER: 20191704041 & 20191704042

UTILITY COMPANY	PHONE NUMBER
BUCKEYE PIPELINE CORP.	800-441-2375
UPPER SAUCON TOWNSHIP	610-282-1171
UPPER SAUCON TOWNSHIP ROADS & PROP.	610-282-1171 ext. 1240
PENNSYLVANIA POWER & LIGHT	610-774-5019
BETHLEHEM D WATER SEWER	610-865-7083
FRONTIER COMMUNICATIONS	1-866-901-7366
SERVICE ELECTRIC CABLEVISION (SVC)	610-944-7801
RCN CABLE (FORMERLY C-Tech)	610-366-2000
UGI	610-866-0951
UPPER SAUCON TOWNSHIP WATER & SEW.	610-694-8680
COOPERSBURG BOROUGH	610-282-3307



BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCDD COMMENTS	EAJ
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAJ

811

Know what's below.
 Call before you dig.

PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-342-1776
 www.pa.gov/811

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID: PC191160-SPP-0

**PRELIMINARY / FINAL
 LAND DEVELOPMENT
 PLANS**

FOR

**REYNOLDS
 ACQUISITIONS, L.P.**

PROPOSED RESIDENTIAL
 DEVELOPMENT
 'ASHFORD PRESERVE'

WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER

1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

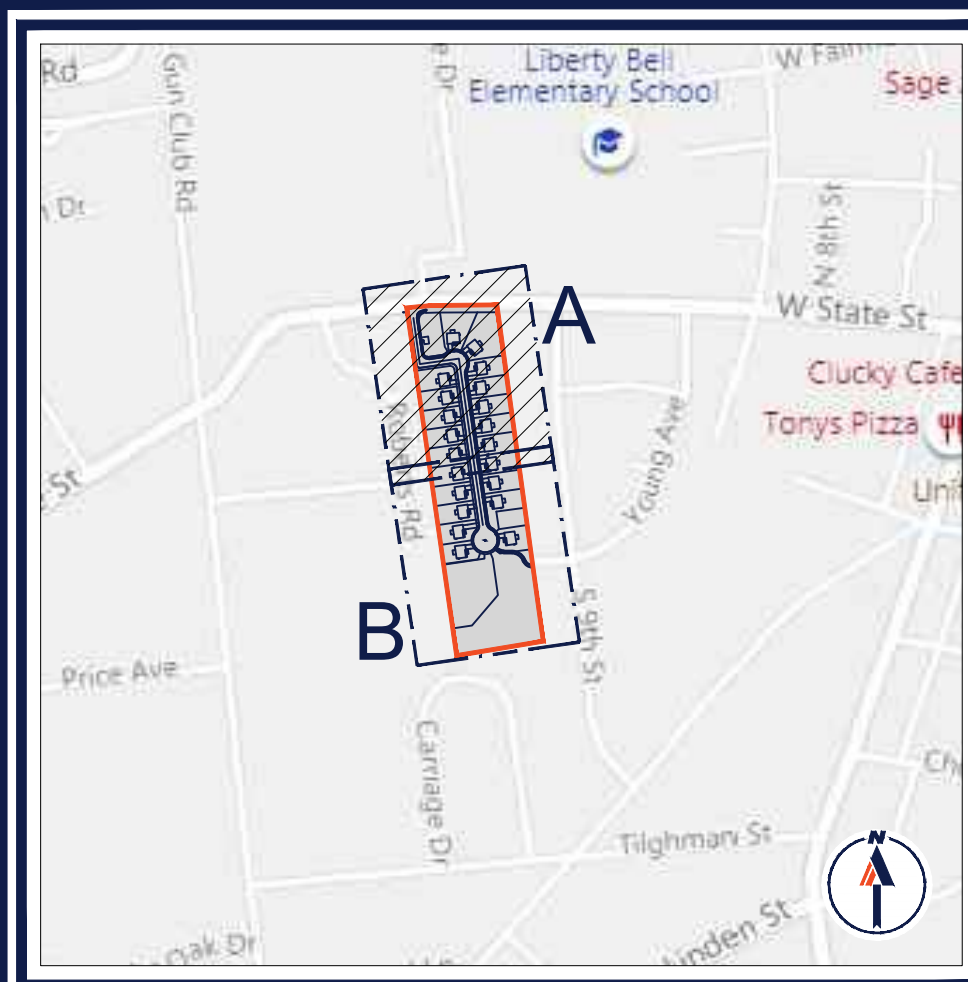
R.E. KLOS, JR.

PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE NO. PE045476E
 NEW JERSEY LICENSE NO. 24GE0450900

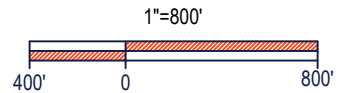
SHEET TITLE:
**OVERALL
 EXISTING
 CONDITIONS /
 DEMOLITION PLAN**

SHEET NUMBER:
5
 OF 48

REVISION 7 - 01/19/2024

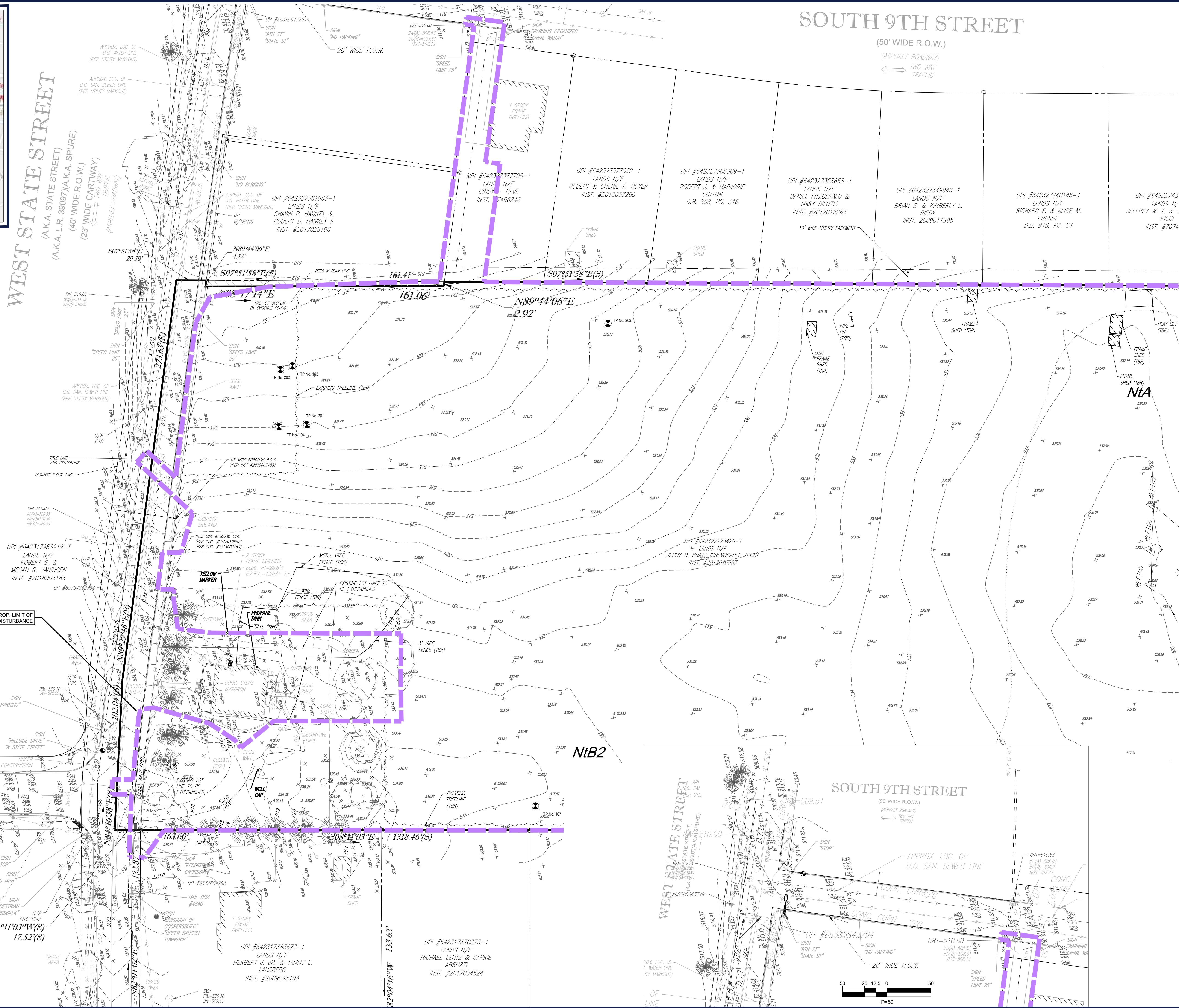


KEY MAP

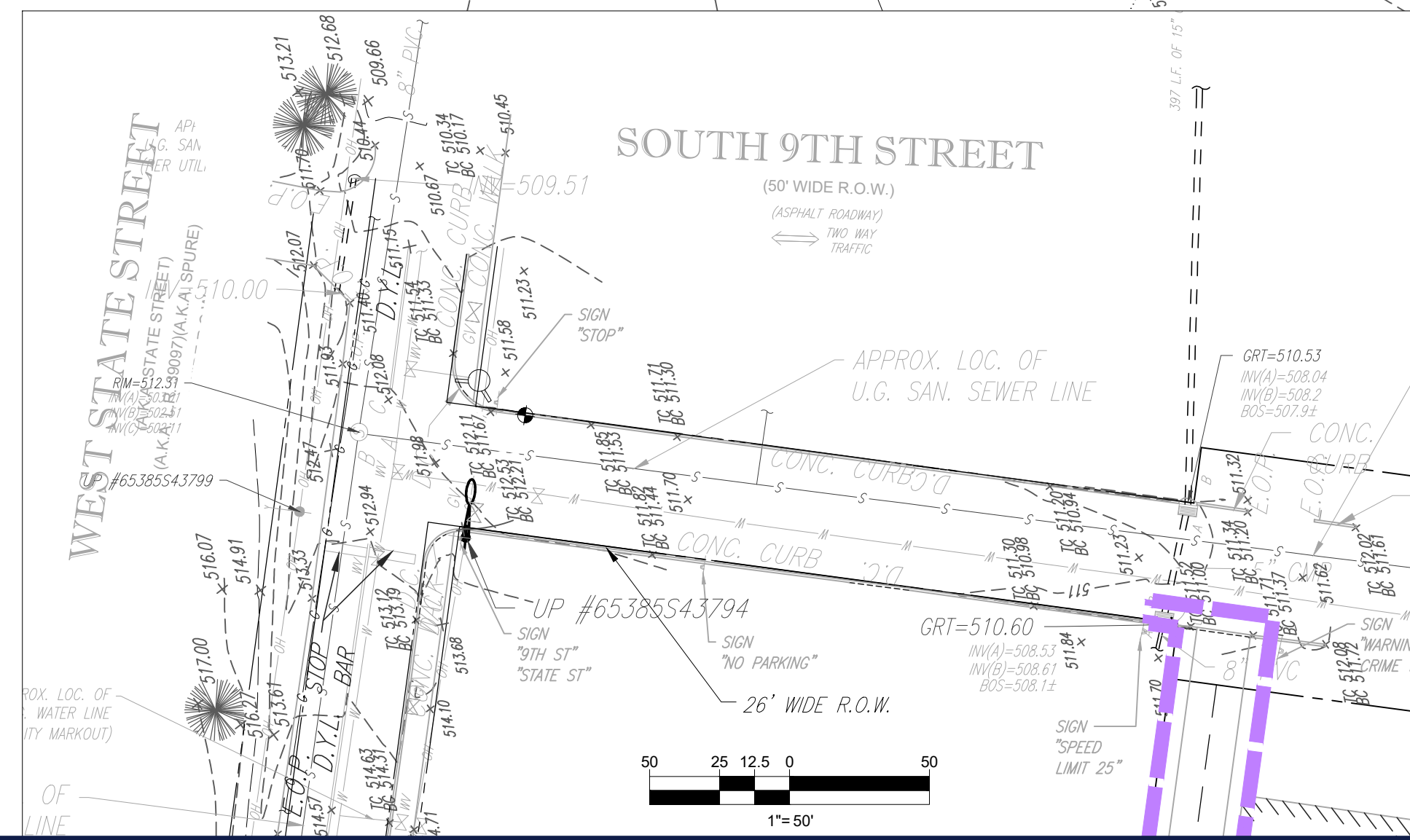
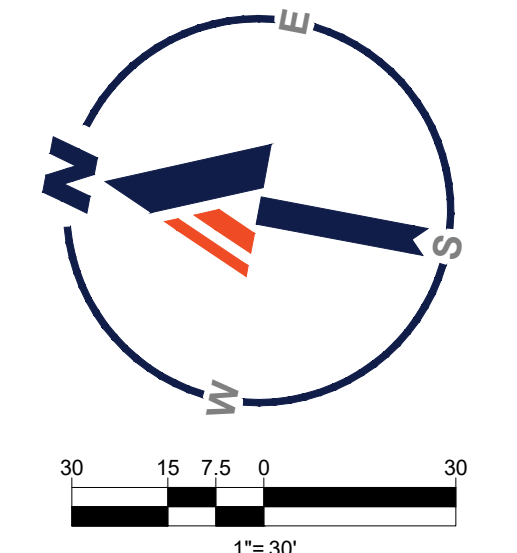


LEGEND	
EXISTING	
PROPERTY LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
WETLANDS	
WATERS	
TREELINE	---
OVERHEAD UTILITY WIRES	---
ELECTRIC LINE	---
TELEPHONE LINE	---
GAS LINE	---
WATER LINE	---
SANITARY SEWER	---
STORM PIPE	---
LIMIT OF DISTURBANCE	---
SOIL DELINEATION LINE	---
SOIL LABEL	UxB
RIGHT-OF-WAY LINE	---
CONCRETE CURB	---
EDGE OF PAVEMENT	---
EXISTING CONTOUR / MAJOR	---
EXISTING CONTOUR / MINOR	---
SPOT ELEVATION	+ 59.8
CONCRETE MONUMENT / IRON PIN	○
TREE	○
DRAINAGE INLET	○
STORM/SANITARY MANHOLE	○
WATER/GAS VALVES	○
UTILITY POLE	○
UTILITY POLE W/ LIGHT	○
ROOF DRAIN/CLEANOUT	○
BUILDING	
TEST PIT	⊗ TP No. 103

LEGEND	
TO BE REMOVED	
BUILDING	
CONCRETE CURB	---
FENCE	---
TREELINE	---
GRAVEL PAVEMENT	---
PROPERTY LINE	---
SAWCUT LINE	---



HILLSIDE DRIVE
(50' WIDE R.O.W.)
(27.50' CARTWAY)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	JP	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP	SR
5	03/18/2023	REV. PER LCDD COMMENTS	JP	EAN
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	EAN

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-348-7179
www.pa.gov/811
20191704041 & 20191704042

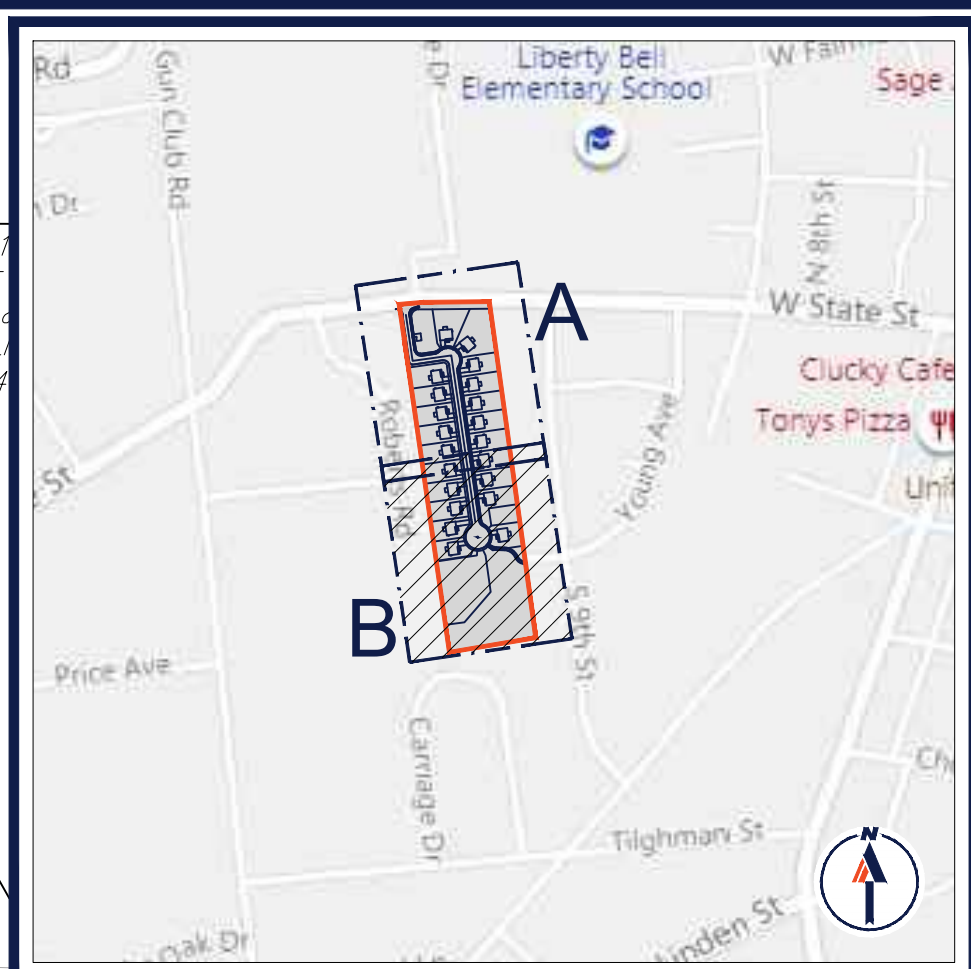
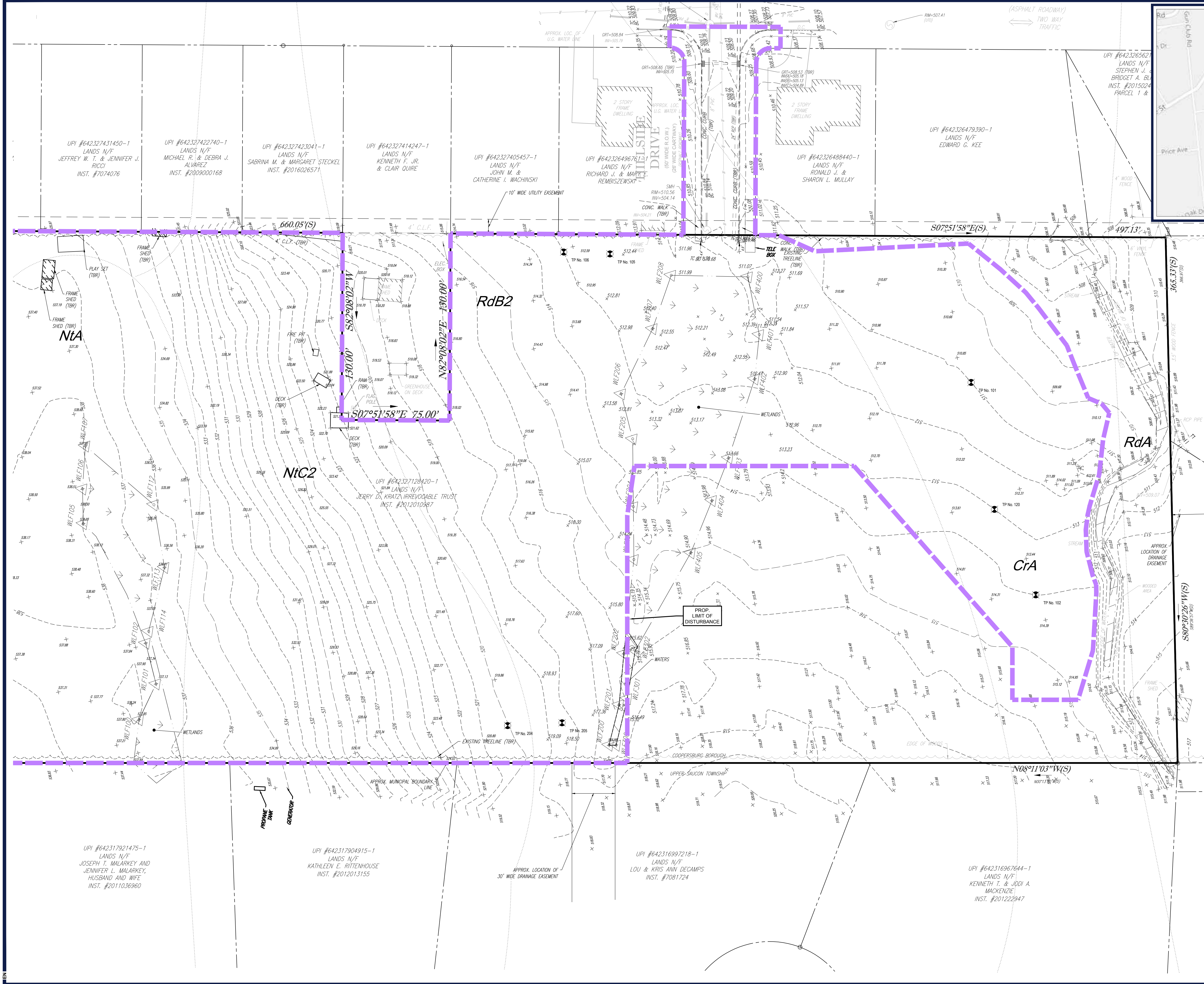
PROJECT No.:	PC191160
DRAWN BY:	AMT
CHECKED BY:	REK
DATE:	08/09/2024
CAD ID.:	PC191160-SPP-0

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT
'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

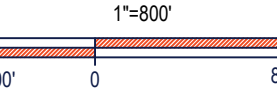
BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE0454796
NEW JERSEY LICENSE No. 24GE04502900

SHEET TITLE:
EXISTING CONDITIONS / DEMOLITION PLAN A
SHEET NUMBER:
6
OF 48
REVISION 7 - 01/19/2024



KEY MAP



LEGEND

EXISTING	
PROPERTY LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
WETLANDS	Wetland symbol
WATERS	Water symbol
TREELINE	Treeline symbol
OVERHEAD UTILITY WIRES	Overhead utility symbol
ELECTRIC LINE	Electric line symbol
TELEPHONE LINE	Telephone line symbol
GAS LINE	Gas line symbol
WATER LINE	Water line symbol
SANITARY SEWER	Sanitary sewer symbol
STORM PIPE	Storm pipe symbol
LIMIT OF DISTURBANCE	Prop. limit of disturbance symbol
SOIL DELINEATION LINE	Soil delineation symbol
SOIL LABEL	UxB
RIGHT-OF-WAY LINE	Right-of-way symbol
CONCRETE CURB	Concrete curb symbol
EDGE OF PAVEMENT	Edge of pavement symbol
EXISTING CONTOUR / MAJOR	Existing contour symbol
EXISTING CONTOUR / MINOR	Existing contour symbol
SPOT ELEVATION	Spot elevation symbol
CONCRETE MONUMENT / IRON PIN	Concrete monument symbol
TREE	Tree symbol
DRAINAGE INLET	Drainage inlet symbol
STORM/SANITARY MANHOLE	Storm/sanitary manhole symbol
WATER/GAS VALVES	Water/gas valves symbol
UTILITY POLE	Utility pole symbol
UTILITY POLE W/ LIGHT	Utility pole w/ light symbol
ROOF DRAIN/CLEANOUT	Roof drain/cleanout symbol
BUILDING	Building symbol
TEST PIT	Test pit symbol

LEGEND

TO BE REMOVED	
BUILDING	Building symbol
CONCRETE CURB	Concrete curb symbol
FENCE	Fence symbol
TREELINE	Treeline symbol
GRAVEL PAVEMENT	Gravel pavement symbol
PROPERTY LINE	Property line symbol
SAWCUT LINE	Sawcut line symbol

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP
5	03/16/2023	REV. PER LCDD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 www.pa811.org
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID: PC191160-SPP-0

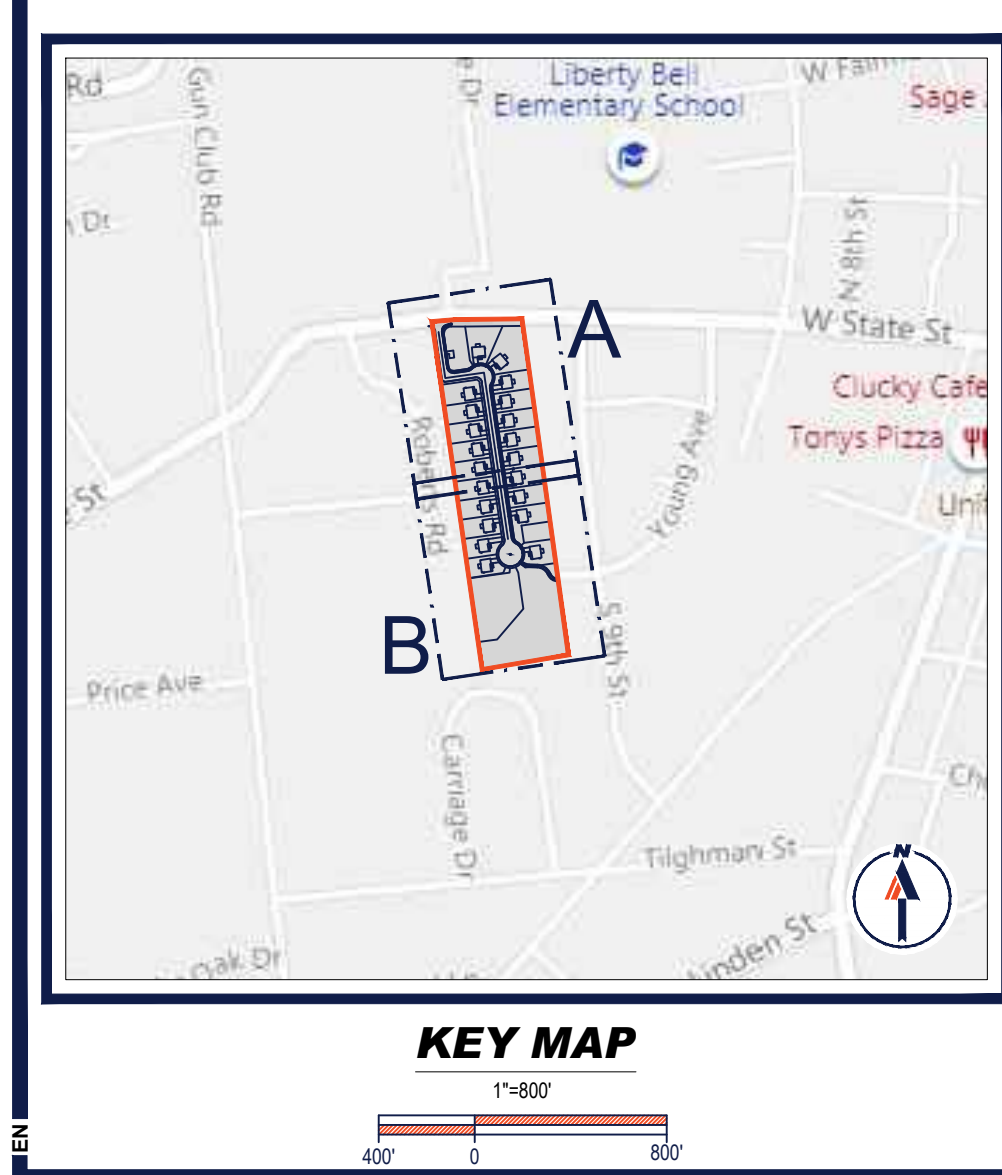
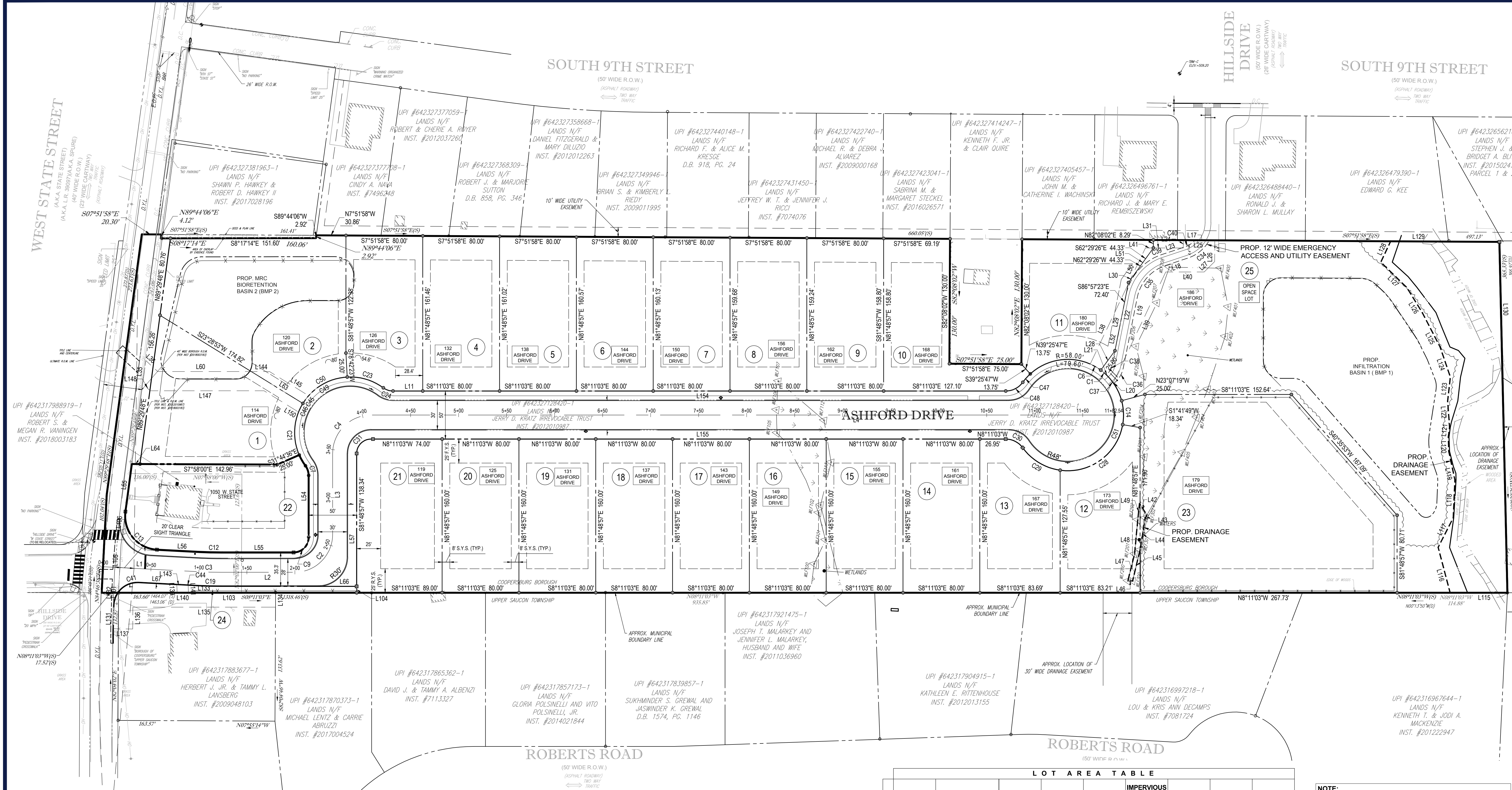
**PRELIMINARY / FINAL
 LAND DEVELOPMENT
 PLANS**
 FOR
**REYNOLDS
 ACQUISITIONS, L.P.**
 PROPOSED RESIDENTIAL
 DEVELOPMENT
 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE NO. PE045479E
 NEW JERSEY LICENSE NO. 24GE04059000

SHEET TITLE:
**EXISTING
 CONDITIONS /
 DEMOLITION
 PLAN B**
 SHEET NUMBER:
7
 OF 48
 REVISION 7 - 01/19/2024

R:\191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT REV\7\FINAL\18036-SPP-0-PLAN\OUT_07-EAST.B



LEGEND

EXISTING

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- FLOODWAY LINE
- WETLANDS
- WATERS
- TREE

LEGEND

TO BE REMOVED

- PROPERTY LINE

LEGEND

PROPOSED

- BUILDING
- CONCRETE CURB
- FLUSH CURB
- FENCE
- R.O.W. LINE
- PROPERTY LINE
- SETBACK LINE
- PROPOSED ROAD CENTERLINE
- SIDEWALK
- SIGN
- FIRE HYDRANT
- UTILITY POLE
- IRON PIN
- CONCRETE MONUMENT

ZONING REQUIREMENTS

REQUIREMENTS TAKEN FROM:
- BOROUGH OF COOPERSBURG ZONING ORDINANCE (12-17-2019)

ADDRESS:
WEST STATE STREET
UPI #64232128420-1
COOPERSBURG BOROUGH
LEHIGH COUNTY, PENNSYLVANIA

SITE AREA CALCS:
GROSS TRACT AREA: 11.636 Ac.
- W. STATE ROAD ULTIMATE R.O.W.: -0.227 Ac.
NET TRACT AREA: 11.409 Ac.

EXISTING ZONING: R-1 LOW DENSITY RESIDENTIAL DISTRICT
PROPOSED USE: SINGLE-FAMILY DETACHED DWELLING (PERMITTED BY RIGHT)

MIN. LOT AREA:	REQUIRED 12,000 S.F.	PROPOSED 12,086 S.F.
MIN. LOT WIDTH AT BLDG. SETBACK LINE:	80 FT.	80 FT.
AT BLDG. SETBACK LINE:	80 FT.	80 FT.
CORNER LOT:	100 FT.	160 FT.
MIN. YARD SETBACKS		
FRONT:	25 FT.	25 FT.
FRONT (CORNER):	15 FT.	25 FT.
SIDE YARD (EA):	8 FT.	8 FT.
REAR:	25 FT.	25 FT.
MAX. BUILDING HEIGHT:	40 FT. (3 STORIES)	< 40 FT. (2 STORE)
MAX. BUILDING COVERAGE:	30%	19.6%
MAX. IMPERVIOUS COVERAGE:	40%	40%

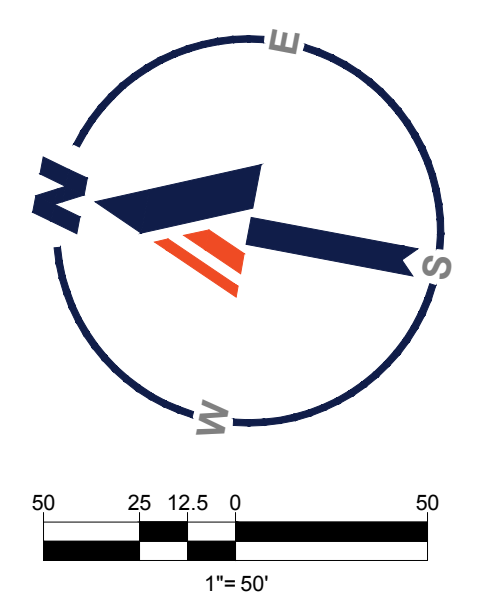
NOTE:
A BREAKDOWN OF LOT AREA, LOT WIDTH, BUILDING COVERAGE, AND IMPERVIOUS COVERAGE PER LOT HAS BEEN PROVIDED ON THE TABLES SHEET.

LOT AREA TABLE

LOT #	GROSS AREA	LOT WIDTH*	BUILDING COVERAGE	BUILDING COVERAGE %	IMPERVIOUS (AS SHOWN ON LD PLANS)	ADDITIONAL AVAILABLE IMPERVIOUS	TOTAL IMPERVIOUS	TOTAL IMPERVIOUS %
LOT 1	17,390 SF (0.399 Ac.)	80.0 LF	2,367 SF	13.61%	3,197 SF	2,178 SF	5,375 SF	30.91%
LOT 2	25,833 SF (0.593 Ac.)	80.0 LF	2,367 SF	9.16%	3,197 SF	2,178 SF	5,375 SF	20.81%
LOT 3	12,461 SF (0.286 Ac.)	83.0 LF	2,367 SF	19.00%	3,414 SF	1,570 SF	4,984 SF	40.00%
LOT 4	12,899 SF (0.296 Ac.)	80.0 LF	2,367 SF	18.35%	3,160 SF	1,995 SF	5,155 SF	39.96%
LOT 5	12,863 SF (0.295 Ac.)	80.0 LF	2,367 SF	18.40%	3,160 SF	1,985 SF	5,145 SF	40.00%
LOT 6	12,828 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.45%	3,160 SF	1,970 SF	5,130 SF	39.99%
LOT 7	12,792 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.50%	3,160 SF	1,950 SF	5,110 SF	39.95%
LOT 8	12,757 SF (0.293 Ac.)	80.0 LF	2,367 SF	18.55%	3,160 SF	1,940 SF	5,100 SF	39.98%
LOT 9	12,721 SF (0.292 Ac.)	80.0 LF	2,367 SF	18.61%	3,160 SF	1,925 SF	5,085 SF	39.97%
LOT 10	13,077 SF (0.300 Ac.)	142.2 LF	2,014 SF	15.40%	2,785 SF	1,900 SF	4,685 SF	35.83%
LOT 11	14,335 SF (0.329 Ac.)	104 LF	2,367 SF	16.51%	3,128 SF	144 SF	3,272 SF	22.83%
LOT 12	12,086 SF (0.277 Ac.)	102.0 LF	2,367 SF	19.61%	3,261 SF	1,570 SF	4,831 SF	39.98%
LOT 13	12,392 SF (0.284 Ac.)	94.0 LF	2,367 SF	19.10%	3,718 SF	1,230 SF	4,948 SF	39.93%
LOT 14	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 15	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 16	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 17	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 18	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 19	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 20	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 21	14,192 SF (0.326 Ac.)	90.0 LF, 160.0 LF	2,367 SF	16.68%	3,160 SF	2,178 SF	5,338 SF	37.61%
LOT 22	16,985 SF (0.390 Ac.)	87.0 LF, 183.0 LF	1,207 SF	7.41%	2,599 SF	-	2,599 SF	15.96%
LOT 23	48,854 SF (1.122 Ac.)	86.0 LF	-	-	-	-	-	-

*LOT WIDTH IS MEASURED AT FRONT YARD BUILDING SETBACK LINE.
*FUTURE CONSTRUCTION OF ANY POOLS, SHEDS, PATIOS, ETC. WILL CONTRIBUTE TO THE OVERALL IMPERVIOUS AREA.
*IMPERVIOUS (AS SHOWN ON LD PLANS) INCLUDES DECKS AT THE REAR OF HOUSES.

NOTE: ALL PROPOSED BASEMENTS WILL BE WATERPROOFED AND CONTAIN A PERIMETER DRAIN.



BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP

811

Know what's below. Call before you dig.

PENNSYLVANIA
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
www.pa.gov/811
20191704041 & 20191704042

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/06/2024
CAD ID.: PC191160-SPF-0

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

REYNOLDS ACQUISITIONS, L.P.

PROPOSED RESIDENTIAL DEVELOPMENT
'ASHFORD PRESERVE'

WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER

1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.

PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE054576
NEW JERSEY LICENSE NO. 24GE0450900

SHEET TITLE:

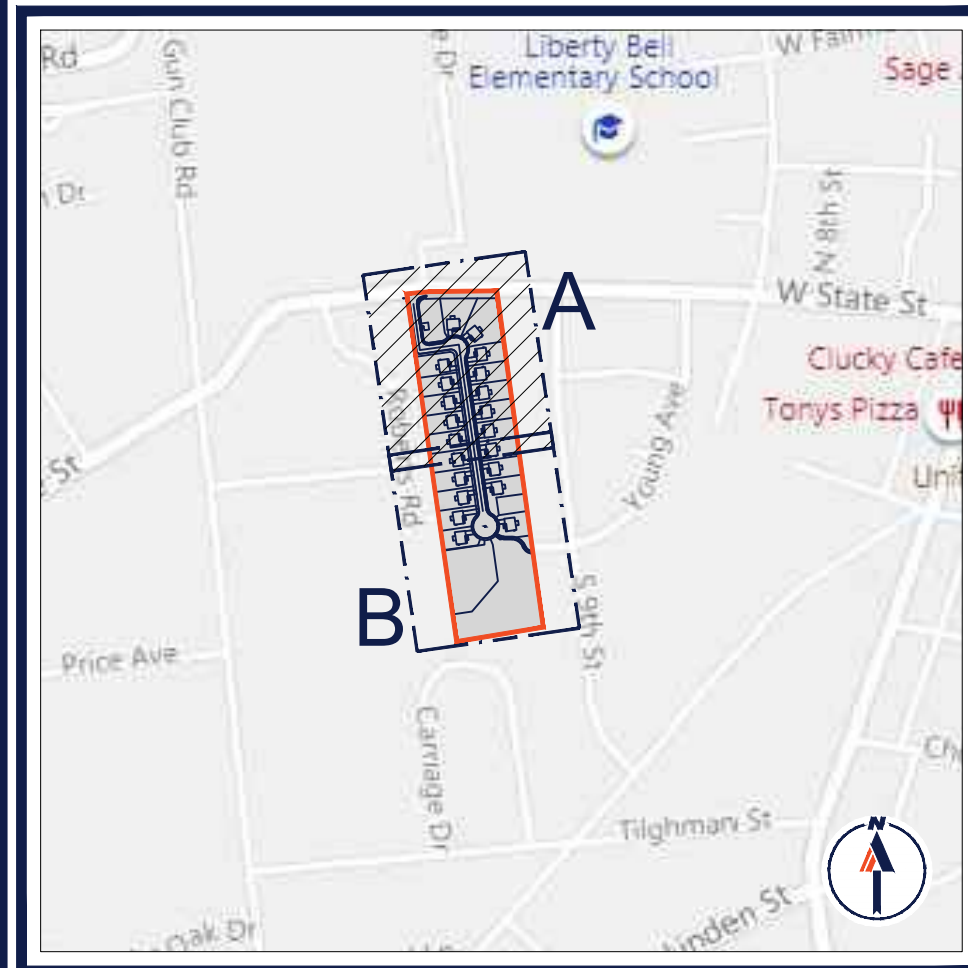
OVERALL SITE PLAN

SHEET NUMBER:

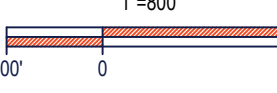
8

OF 48

REVISION 7 - 01/19/2024



KEY MAP



LEGEND

EXISTING	
PROPERTY LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
FLOODWAY LINE	---
WETLANDS	▨
WATERS	▨
TREE	○

LEGEND

TO BE REMOVED	
PROPERTY LINE	---

LEGEND

PROPOSED	
BUILDING	▭
CONCRETE CURB	---
FLUSH CURB	---
FENCE	---
R.O.W. LINE	---
PROPERTY LINE	---
SETBACK LINE	---
PROPOSED ROAD CENTERLINE	---
SIDEWALK	▨
SIGN	○
FIRE HYDRANT	○
UTILITY POLE	○
IRON PIN	○
CONCRETE MONUMENT	▭

HILLSIDE DRIVE
 (50' WIDE R.O.W.)
 (27.50' CARTWAY)
 TWO WAY TRAFFIC
 (ASPHALT ROADWAY)

PROPOSED SIGNAGE SYMBOL LEGEND

- Ⓐ PROPOSED 'STOP' SIGN (R1-1)
- Ⓑ PROPOSED STREET NAME SIGN (D3-1)
- Ⓒ PROPOSED NO PARKING SIGN (R8-3)
- Ⓓ PROPOSED NO OUTLET SIGN (W14-2)
- Ⓔ PROPOSED SPEED LIMIT SIGN (R2-1)



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT REK
2	08/18/2022	REV. PER LCCD COMMENTS	ENIMS JP
3	01/06/2023	REV. PER LCCD COMMENTS	BG/EN JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR JP
5	03/16/2023	REV. PER LCCD COMMENTS	EAN JP
6	10/06/2023	REV. PER CLIENT COMMENTS	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN JRP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-486-1776
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID: PC191160-SPP-0

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

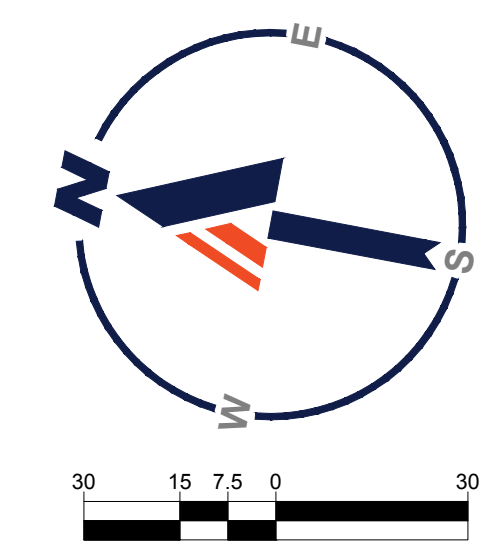
FOR
REYNOLDS ACQUISITIONS, L.P.

PROPOSED RESIDENTIAL DEVELOPMENT
 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

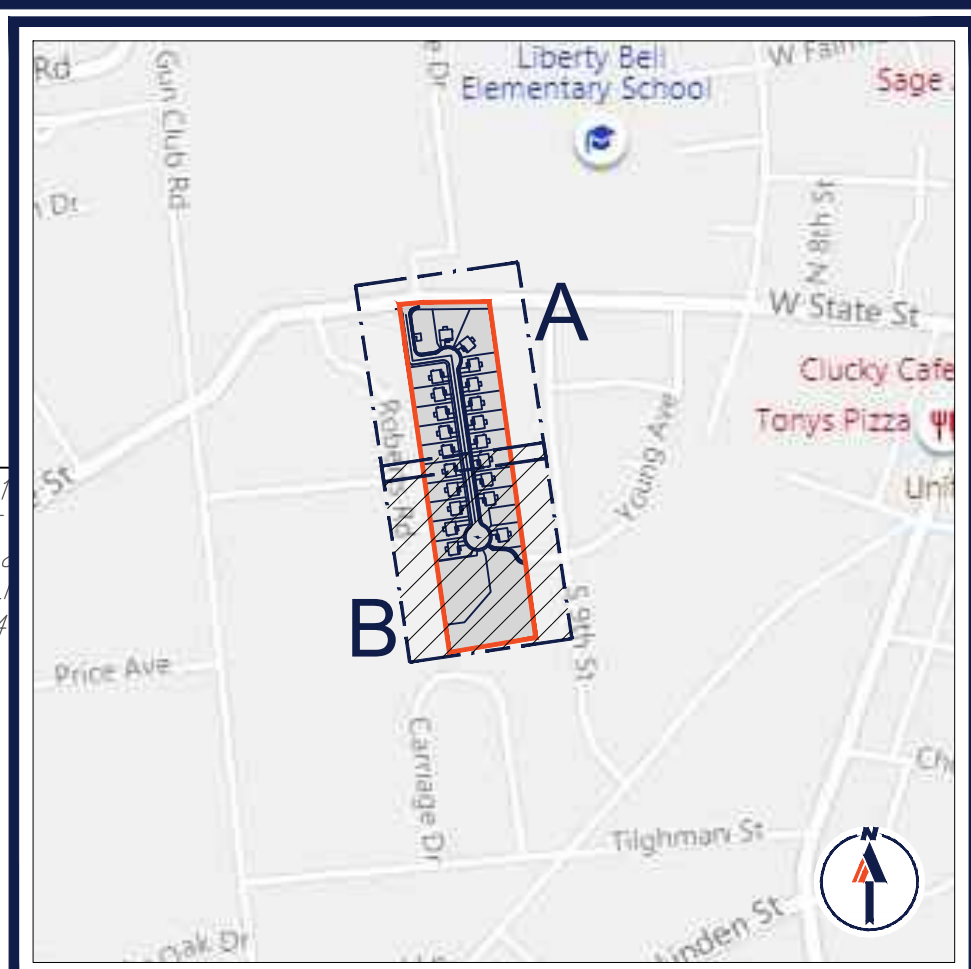
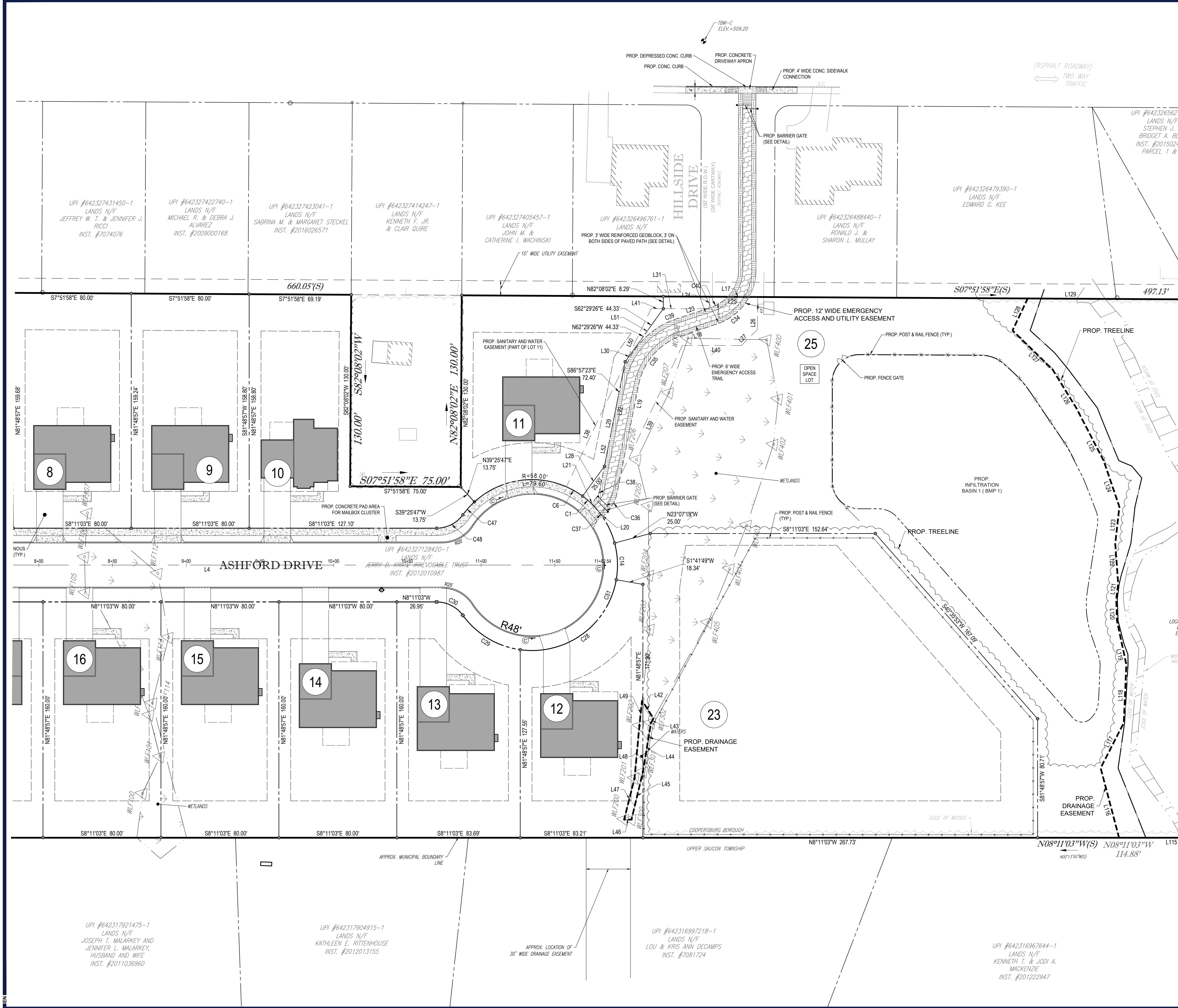
BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE NO. PE045476
 NEW JERSEY LICENSE NO. 24604502900

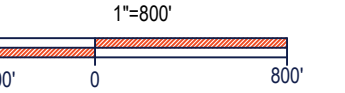
SHEET TITLE:
SITE PLAN A
 SHEET NUMBER:
9
 OF 48
 REVISION 7 - 01/19/2024



R:\PROJECTS\1600MANOR\1600MANOR_SPP\1600MANOR_SPP.dwg - LA\OUT\08 SITE A



KEY MAP



LEGEND

EXISTING	
PROPERTY LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
FLOODWAY LINE	---
WETLANDS	[Symbol]
WATERS	[Symbol]
TREE	[Symbol]

LEGEND

TO BE REMOVED	
PROPERTY LINE	---

LEGEND

PROPOSED	
BUILDING	[Symbol]
CONCRETE CURB	---
FLUSH CURB	---
FENCE	---
R.O.W. LINE	---
PROPERTY LINE	---
SETBACK LINE	---
PROPOSED ROAD CENTERLINE	---
SIDEWALK	---
SIGN	[Symbol]
FIRE HYDRANT	[Symbol]
UTILITY POLE	[Symbol]
IRON PIN	[Symbol]
CONCRETE MONUMENT	[Symbol]

PROPOSED SIGNAGE SYMBOL LEGEND

- (A) PROPOSED 'STOP' SIGN (R1-1)
- (B) PROPOSED STREET NAME SIGN (D3-1)
- (C) PROPOSED NO PARKING SIGN (R8-3)
- (D) PROPOSED NO OUTLET SIGN (W14-2)
- (E) PROPOSED SPEED LIMIT SIGN (R2-1)

PROPOSED SIGNAGE SYMBOL LEGEND

- (A) PROPOSED 'STOP' SIGN (R1-1)
- (B) PROPOSED STREET NAME SIGN (D3-1)
- (C) PROPOSED NO PARKING SIGN (R8-3)
- (D) PROPOSED NO OUTLET SIGN (W14-2)
- (E) PROPOSED SPEED LIMIT SIGN (R2-1)

PROPOSED SIGNAGE SYMBOL LEGEND

- (A) PROPOSED 'STOP' SIGN (R1-1)
- (B) PROPOSED STREET NAME SIGN (D3-1)
- (C) PROPOSED NO PARKING SIGN (R8-3)
- (D) PROPOSED NO OUTLET SIGN (W14-2)
- (E) PROPOSED SPEED LIMIT SIGN (R2-1)

PROPOSED SIGNAGE SYMBOL LEGEND

- (A) PROPOSED 'STOP' SIGN (R1-1)
- (B) PROPOSED STREET NAME SIGN (D3-1)
- (C) PROPOSED NO PARKING SIGN (R8-3)
- (D) PROPOSED NO OUTLET SIGN (W14-2)
- (E) PROPOSED SPEED LIMIT SIGN (R2-1)

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENIMS
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-345-7779
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/02/2024
 CAD LID: PC191160-SPP-0

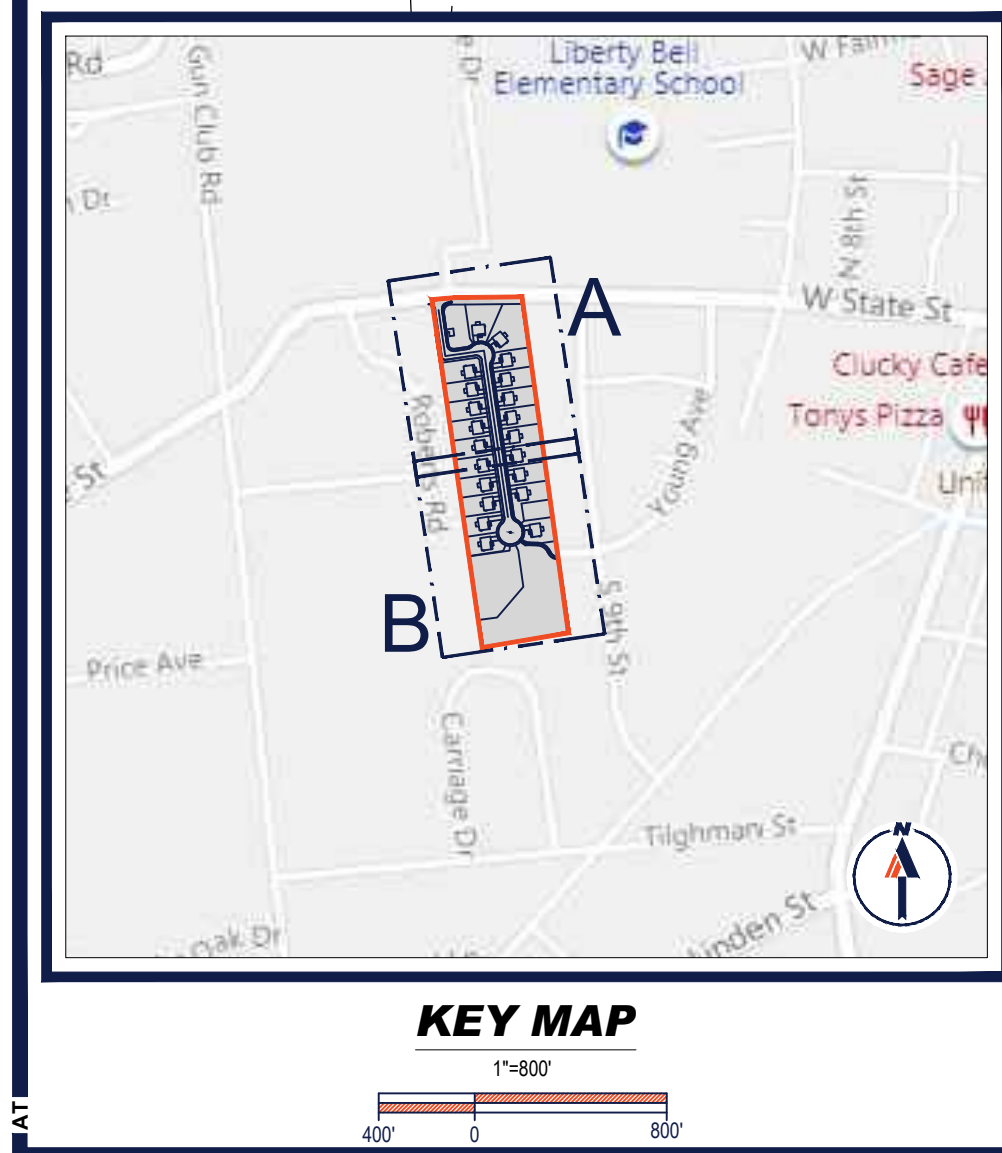
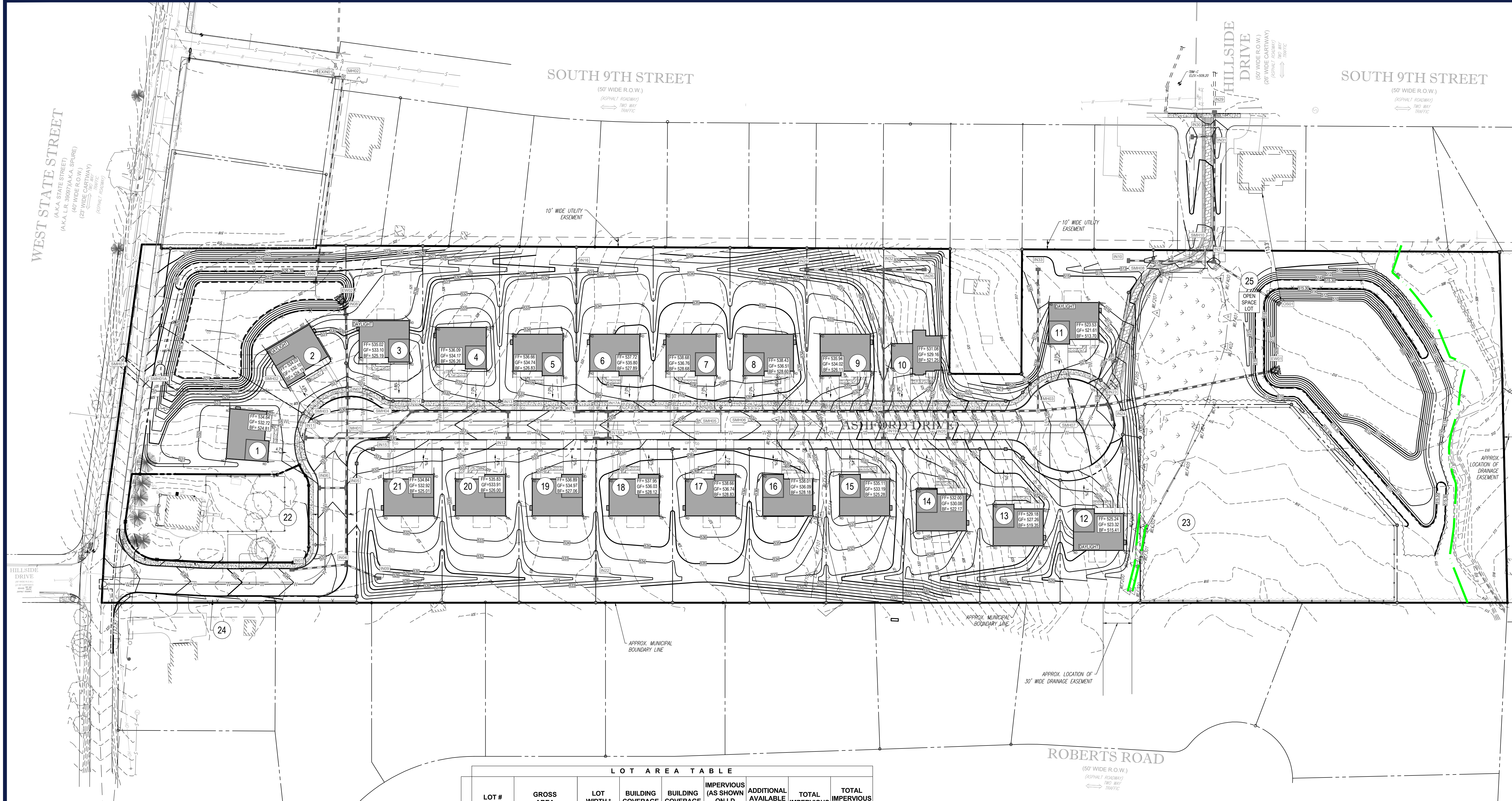
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
 FOR
REYNOLDS ACQUISITIONS, L.P.
 PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE NO. PE045479E
 NEW JERSEY LICENSE NO. 24GE04507900

SHEET TITLE:
SITE PLAN B
 SHEET NUMBER:
10
 OF 48
 REVISION 7 - 01/19/2024

R:\191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT (REV)7\PC191160-SPP-0.dwg - LAYOUT: 10 SITE B



LEGEND

EXISTING

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- EXISTING CONTOUR / MAJOR
- EXISTING CONTOUR / MINOR

LEGEND

PROPOSED

- PROPOSED ROAD CENTERLINE
- CONCRETE CURB
- FLUSH CURB
- PROPOSED CONTOUR / MAJOR
- PROPOSED CONTOUR / MINOR
- CALCULATED FLOODWAY

LOT AREA TABLE

LOT #	GROSS AREA	LOT WIDTH *	BUILDING COVERAGE	BUILDING COVERAGE %	IMPERVIOUS (AS SHOWN ON LD PLANS)	ADDITIONAL AVAILABLE IMPERVIOUS	TOTAL IMPERVIOUS	TOTAL IMPERVIOUS %
LOT 1	17,390 SF (0.399 Ac.)	80.0 LF	2,367 SF	13.61 %	3,197 SF	2,178 SF	5,375 SF	30.91 %
LOT 2	25,833 SF (0.593 Ac.)	80.0 LF	2,367 SF	9.16 %	3,197 SF	2,178 SF	5,375 SF	20.81 %
LOT 3	12,461 SF (0.286 Ac.)	83.0 LF	2,367 SF	19.00 %	3,414 SF	1,570 SF	4,984 SF	40.00 %
LOT 4	12,899 SF (0.296 Ac.)	80.0 LF	2,367 SF	18.35 %	3,160 SF	1,995 SF	5,155 SF	39.96 %
LOT 5	12,863 SF (0.295 Ac.)	80.0 LF	2,367 SF	18.40 %	3,160 SF	1,985 SF	5,145 SF	40.00 %
LOT 6	12,828 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.45 %	3,160 SF	1,970 SF	5,130 SF	39.99 %
LOT 7	12,792 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.50 %	3,160 SF	1,950 SF	5,110 SF	39.95 %
LOT 8	12,757 SF (0.293 Ac.)	80.0 LF	2,367 SF	18.55 %	3,160 SF	1,940 SF	5,100 SF	39.98 %
LOT 9	12,721 SF (0.292 Ac.)	80.0 LF	2,367 SF	18.61 %	3,160 SF	1,925 SF	5,085 SF	39.97 %
LOT 10	13,077 SF (0.300 Ac.)	142.2 LF	2,014 SF	15.40 %	2,785 SF	1,900 SF	4,685 SF	35.83 %
LOT 11	14,335 SF (0.329 Ac.)	104 LF	2,367 SF	16.51 %	3,128 SF	144 SF	3,272 SF	22.83 %
LOT 12	12,086 SF (0.277 Ac.)	102.0 LF	2,367 SF	19.61 %	3,261 SF	1,570 SF	4,831 SF	39.98 %
LOT 13	12,392 SF (0.284 Ac.)	94.0 LF	2,367 SF	19.10 %	3,718 SF	1,230 SF	4,948 SF	39.93 %
LOT 14	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49 %	3,160 SF	1,815 SF	4,975 SF	38.87 %
LOT 15	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49 %	3,160 SF	1,815 SF	4,975 SF	38.87 %
LOT 16	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49 %	3,160 SF	1,815 SF	4,975 SF	38.87 %
LOT 17	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49 %	3,160 SF	1,815 SF	4,975 SF	38.87 %
LOT 18	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49 %	3,160 SF	1,960 SF	5,120 SF	40.00 %
LOT 19	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49 %	3,160 SF	1,960 SF	5,120 SF	40.00 %
LOT 20	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49 %	3,160 SF	1,960 SF	5,120 SF	40.00 %
LOT 21	14,192 SF (0.326 Ac.)	90.0 LF, 160.0 LF	2,367 SF	16.68 %	3,160 SF	2,178 SF	5,338 SF	37.61 %
LOT 22	16,985 SF (0.390 Ac.)	87.0 LF, 183.0 LF	1,207 SF	7.41 %	2,599 SF	-	2,599 SF	15.96 %
LOT 23	48,854 SF (1.122 Ac.)	86.0 LF	-	-	-	-	-	-

NOTE:
ALL PROPOSED BASEMENTS WILL BE WATERPROOFED AND CONTAIN A PERIMETER DRAIN.

*LOT WIDTH IS MEASURED AT FRONT YARD BUILDING SETBACK LINE.
*FUTURE CONSTRUCTION OF ANY POOLS, SHEDS, PATIOS, ETC. WILL CONTRIBUTE TO THE OVERALL IMPERVIOUS AREA.
*IMPERVIOUS (AS SHOWN ON LD PLANS) INCLUDES DECKS AT THE REAR OF HOUSES.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS	JRP
3	01/06/2023	REV. PER LCDD COMMENTS	JRP	JRP
4	01/27/2023	REV. PER BOROUGH COMMENTS	JRP	JRP
5	03/16/2023	REV. PER LCDD COMMENTS	JRP	JRP
6	10/06/2023	REV. PER CLIENT COMMENTS	JRP	JRP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JRP	JRP

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-242-1776
www.pa.gov/call811
20191704041 & 20191704042

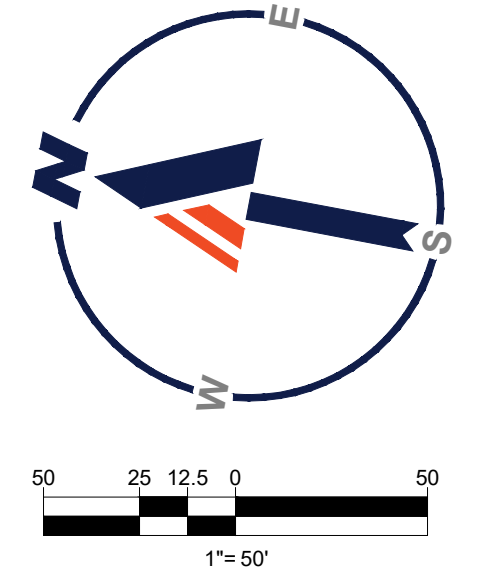
PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/06/2024
CAD ID: PC191160-SPP-0

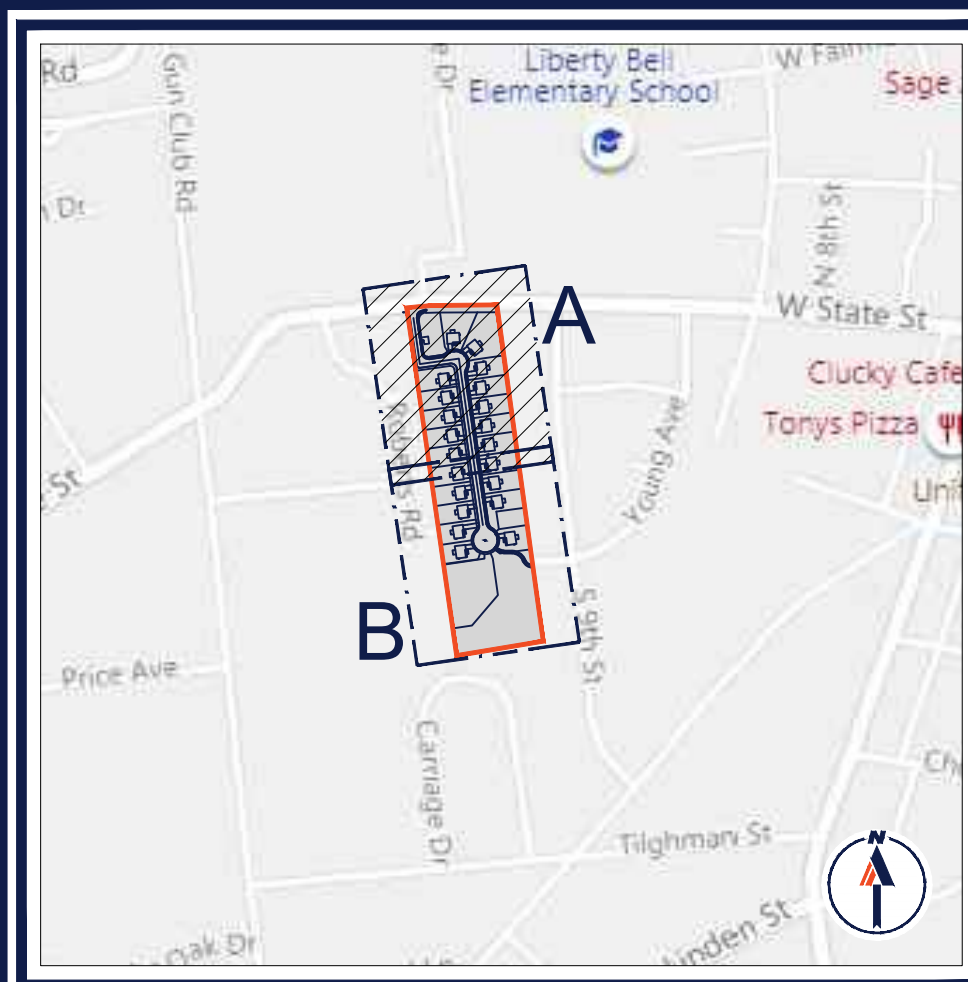
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT
'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

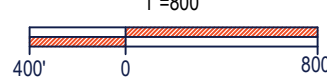
R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045476E
NEW JERSEY LICENSE No. 24GE04507900

SHEET TITLE:
OVERALL GRADING PLAN
SHEET NUMBER:
11
OF 48
REVISION 7 - 01/19/2024





KEY MAP



LEGEND

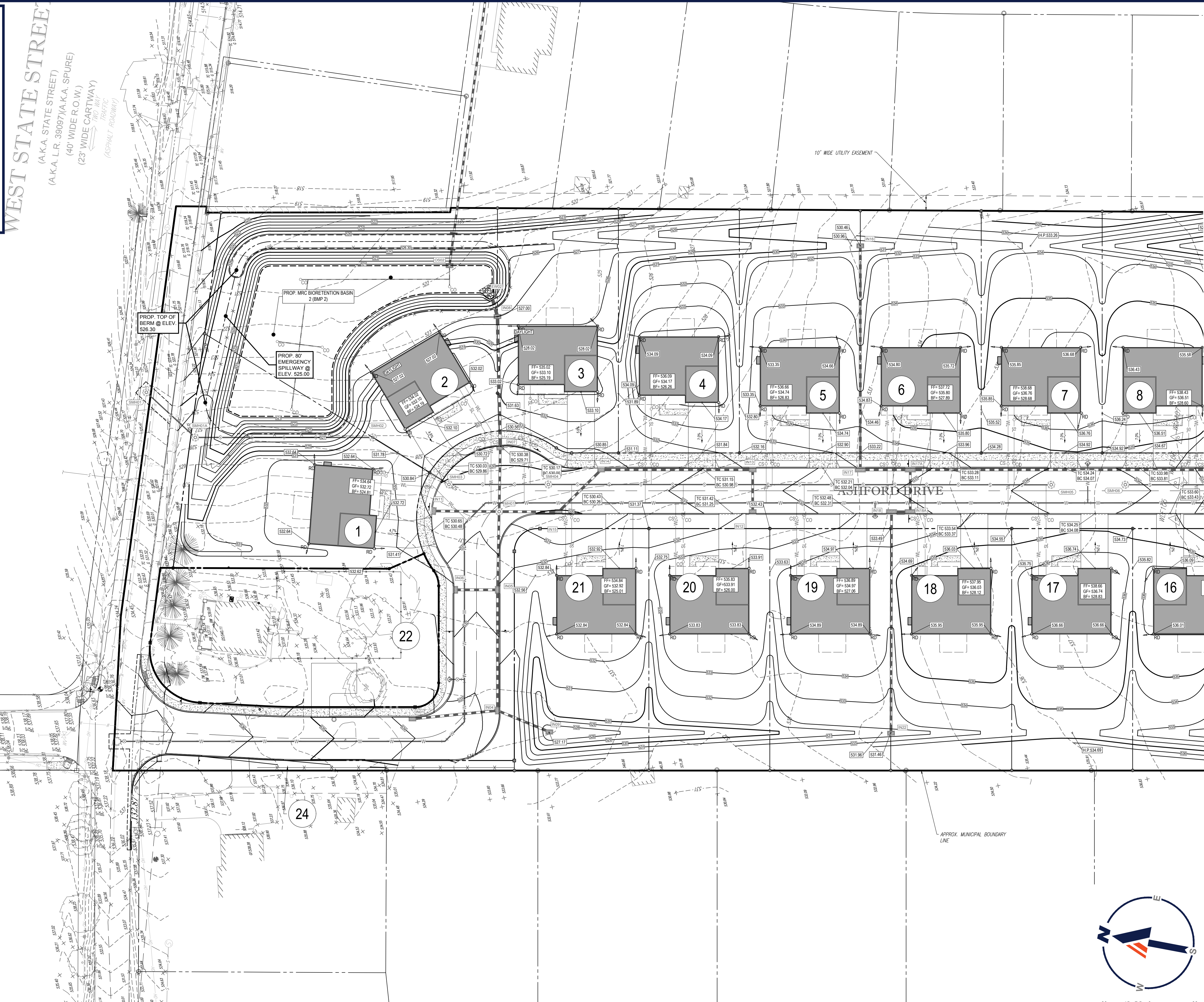
EXISTING

PROPERTY LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
EXISTING CONTOUR / MAJOR	---
EXISTING CONTOUR / MINOR	---

LEGEND

PROPOSED

PROPOSED ROAD CENTERLINE	---
CONCRETE CURB	---
FLUSH CURB	---
PROPOSED CONTOUR / MAJOR	---
PROPOSED CONTOUR / MINOR	---
PROPOSED SPOT ELEVATION	---
PROPOSED SLOPE	---
CALCULATED FLOODWAY	---
SAWCUT LINE	---



HILLSIDE DRIVE
(50' WIDE R.O.W.)
(27.50' CARTWAY)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	JP	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP	EAN
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	EAN

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-486-1779
www.pa.gov/811
20191704041 & 20191704042

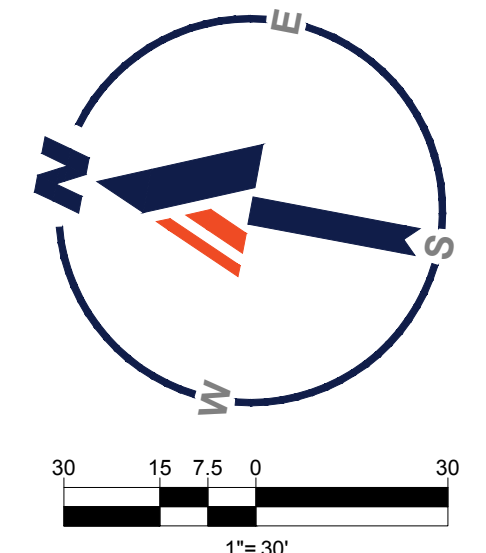
PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/09/2024
CAD ID.: PC191160-SPP-0

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT
'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

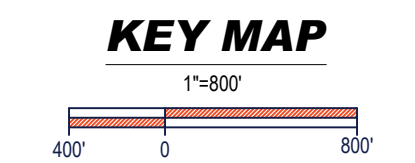
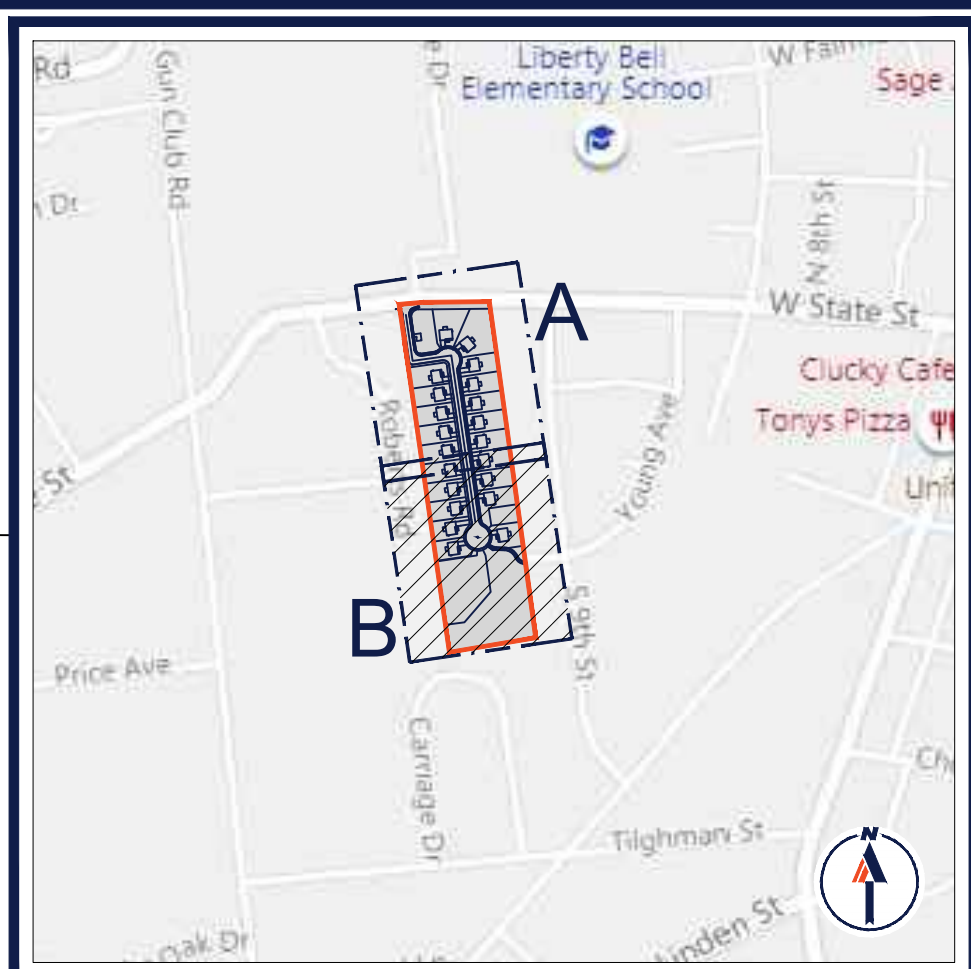
BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045476E
NEW JERSEY LICENSE No. 240E04502900

SHEET TITLE:
GRADING PLAN A
SHEET NUMBER:
12
OF 48
REVISION 7 - 01/19/2024



R:\BPC191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT (REV)7\F0191160-SPP-0.dwg - LAYOUT: 12 - GRADE A



LEGEND

EXISTING

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- EXISTING CONTOUR / MAJOR
- EXISTING CONTOUR / MINOR

LEGEND

PROPOSED

- PROPOSED ROAD CENTERLINE
- CONCRETE CURB
- FLUSH CURB
- PROPOSED CONTOUR / MAJOR
- PROPOSED CONTOUR / MINOR
- PROPOSED SPOT ELEVATION
- PROPOSED SLOPE
- CALCULATED FLOODWAY
- SAWCUT LINE

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT REK
2	08/18/2022	REV. PER LCDD COMMENTS	ENIMS JP
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR JP
5	03/16/2023	REV. PER LCDD COMMENTS	EAJ JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN JRP

811

Know what's below.
Call before you dig.

PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-345-1717
www.pa.gov/811
20191704041 & 20191704042

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/06/2024
CAD ID: PC191160-SPP-0

**PRELIMINARY / FINAL
LAND DEVELOPMENT
PLANS**

FOR

**REYNOLDS
ACQUISITIONS, L.P.**

PROPOSED RESIDENTIAL
DEVELOPMENT
'ASHFORD PRESERVE'

WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER

1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

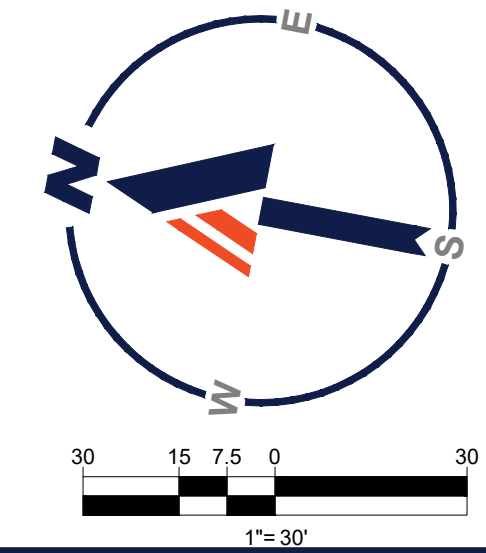
R.E. KLOS, JR.

PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045479E
NEW JERSEY LICENSE No. 24GE04502900

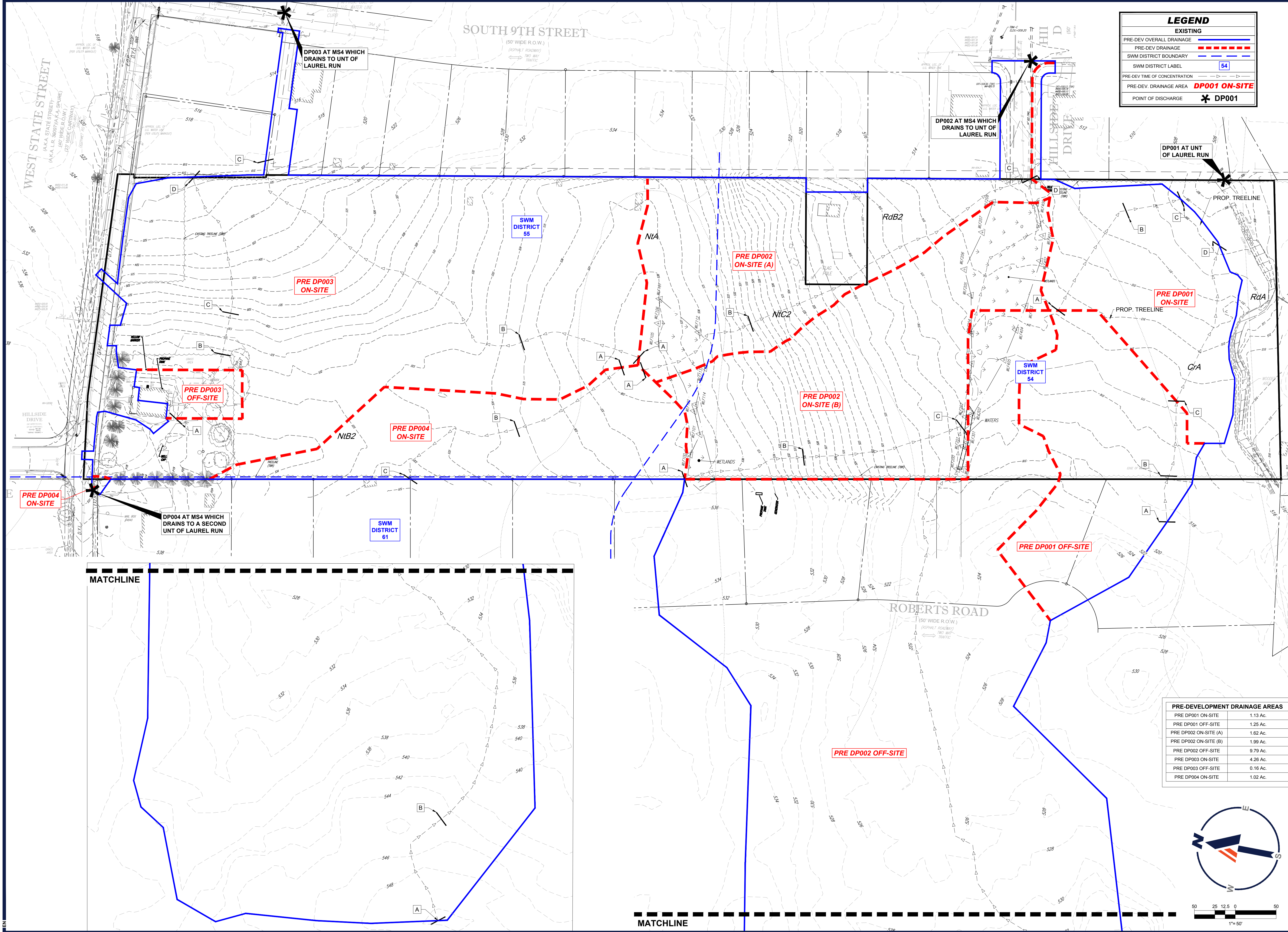
SHEET TITLE:
**GRADING PLAN
B**

SHEET NUMBER:
13
OF 48

REVISION 7 - 01/19/2024



R:\BPC\191160\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT REV\7\PC191160-SPP-0.dwg - LAYOUT: 13 - GRADE B



LEGEND

EXISTING

- PRE-DEV OVERALL DRAINAGE
- PRE-DEV DRAINAGE
- SWM DISTRICT BOUNDARY
- SWM DISTRICT LABEL
- PRE-DEV TIME OF CONCENTRATION
- PRE-DEV DRAINAGE AREA
- POINT OF DISCHARGE

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS	JP
3	01/06/2023	REV. PER LCDD COMMENTS	BGIEN	JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR	JP
5	03/16/2023	REV. PER LCDD COMMENTS	EAN	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN	JRP

811

Know what's below.
 Call before you dig.

PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-482-1779
 www.pa.gov/811

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/09/2024
 CAD ID: PC191160-SPP-0

FINAL LAND DEVELOPMENT PLANS

FOR

REYNOLDS ACQUISITIONS, L.P.

PROPOSED RESIDENTIAL DEVELOPMENT
 'ASHFORD PRESERVE'

WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER

1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.

PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE045479E
 NEW JERSEY LICENSE No. 24GE04502900

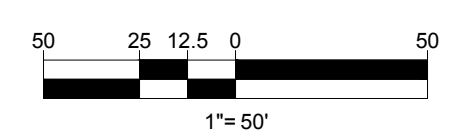
SHEET TITLE:
PRE-DEVELOPMENT DRAINAGE AREA PLAN

SHEET NUMBER:
14
 OF 48

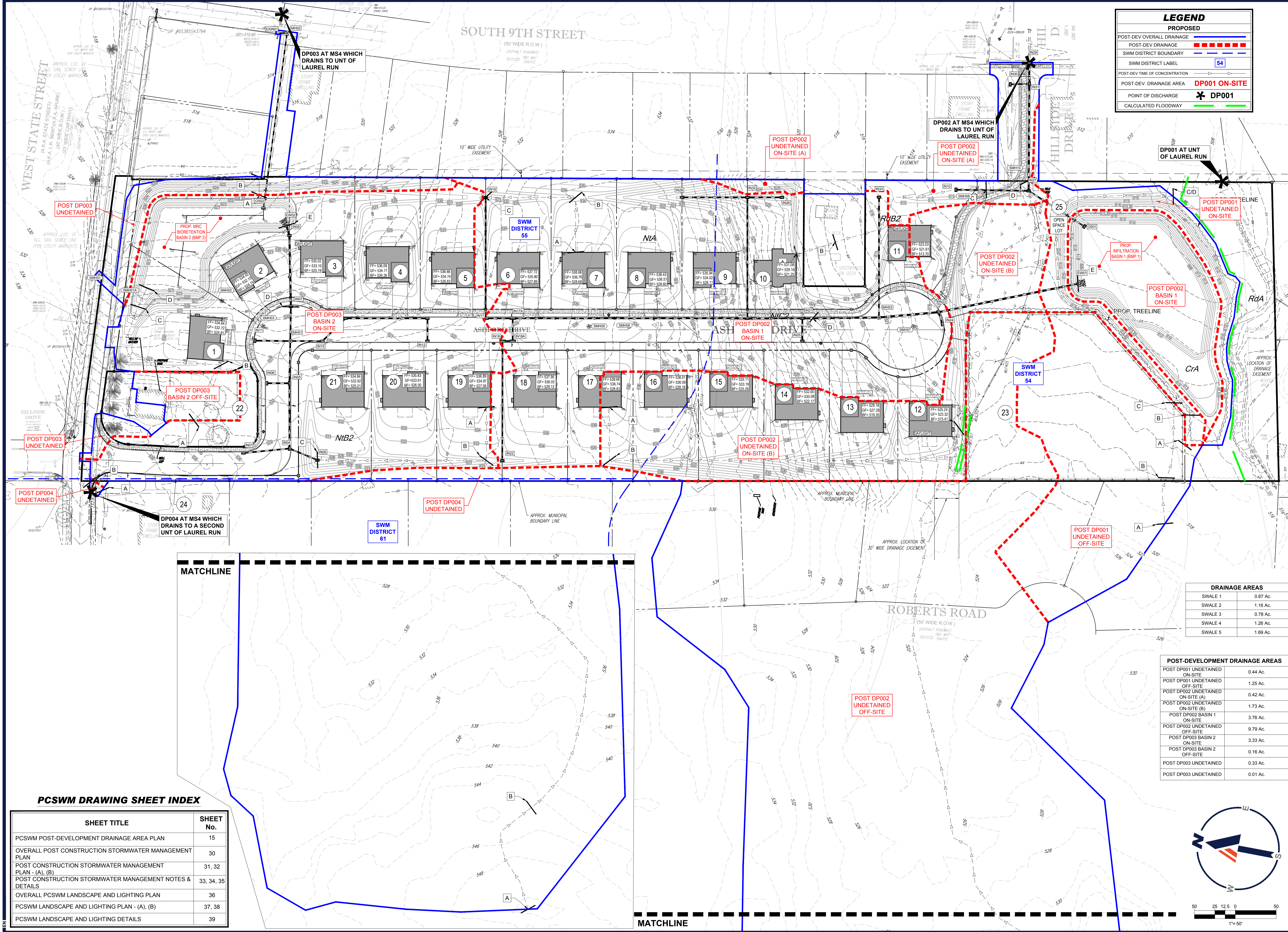
REVISION 7 - 01/19/2024

PRE-DEVELOPMENT DRAINAGE AREAS

PRE DP001 ON-SITE	1.13 Ac.
PRE DP001 OFF-SITE	1.25 Ac.
PRE DP002 ON-SITE (A)	1.62 Ac.
PRE DP002 ON-SITE (B)	1.99 Ac.
PRE DP002 OFF-SITE	9.79 Ac.
PRE DP003 ON-SITE	4.26 Ac.
PRE DP003 OFF-SITE	0.16 Ac.
PRE DP004 ON-SITE	1.02 Ac.



R:\191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT REV\7\FINAL\191160-SPP-0-14-LAYOUT-14- PRE DRAINAGE



LEGEND

PROPOSED

- POST-DEV OVERALL DRAINAGE
- POST-DEV DRAINAGE
- SWM DISTRICT BOUNDARY
- SWM DISTRICT LABEL
- POST-DEV TIME OF CONCENTRATION
- POST-DEV. DRAINAGE AREA
- POINT OF DISCHARGE
- CALCULATED FLOODWAY

DP001 ON-SITE

DP001

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BJEN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCDD COMMENTS	EAJ
6	10/06/2023	REV. PER CLIENT COMMENTS	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAJ

811

Know what's below. Call before you dig.

PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-342-1772
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC1911660
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID: PC1911660-SPP-0

FINAL LAND DEVELOPMENT PLANS

FOR

REYNOLDS ACQUISITIONS, L.P.

PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'

WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER

1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.

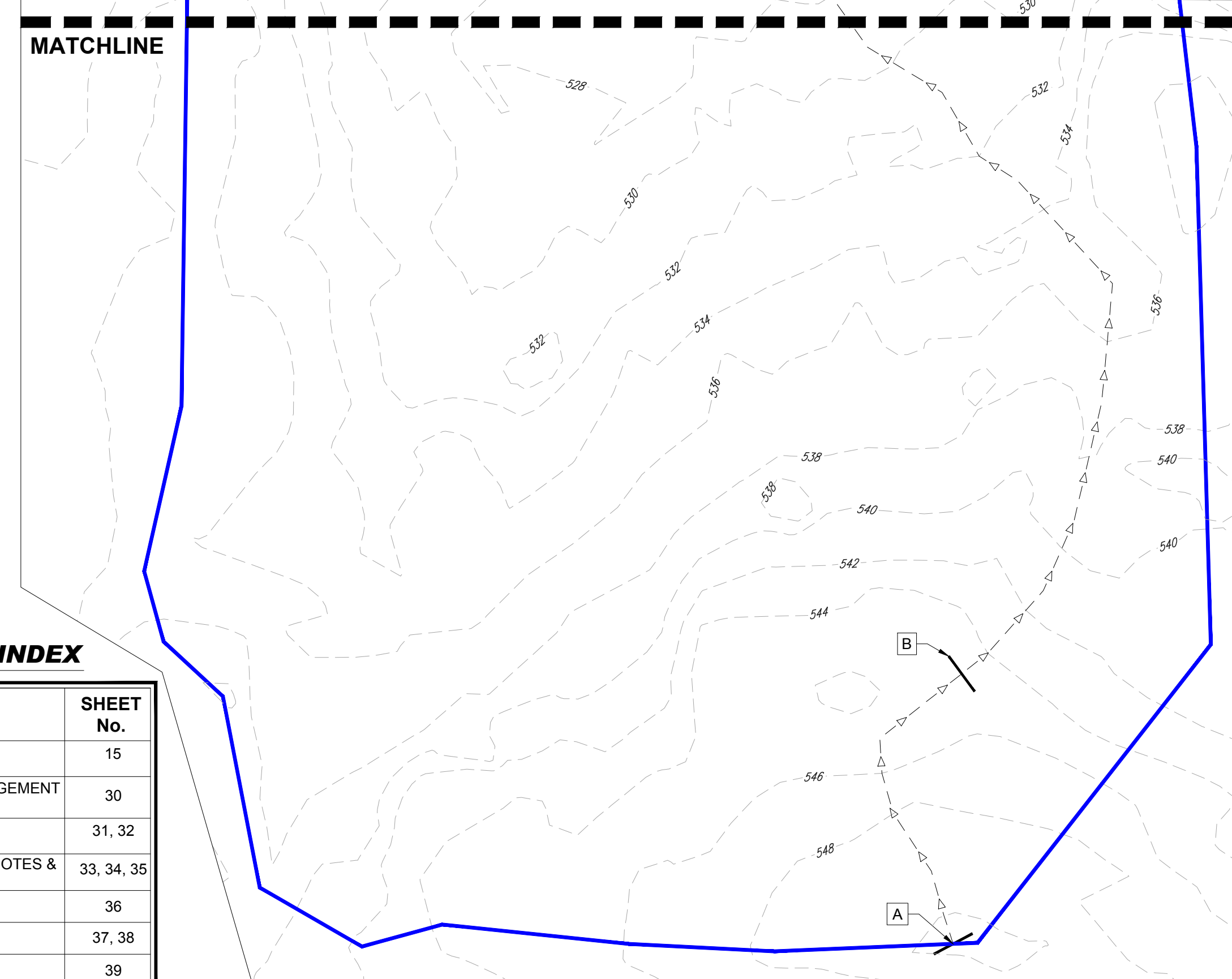
PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE045476E
 NEW JERSEY LICENSE No. 24GE04502900

SHEET TITLE: **PCSWM POST-DEVELOPMENT DRAINAGE AREA PLAN**

SHEET NUMBER: **15**

OF 48

REVISION 7 - 01/19/2024

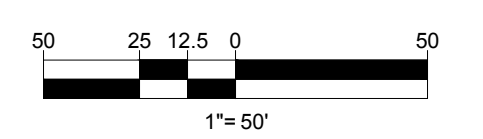
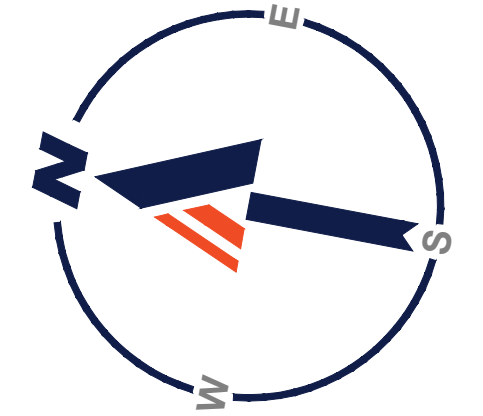


DRAINAGE AREAS

SWALE	Area
SWALE 1	0.87 Ac.
SWALE 2	1.16 Ac.
SWALE 3	0.78 Ac.
SWALE 4	1.26 Ac.
SWALE 5	1.69 Ac.

POST-DEVELOPMENT DRAINAGE AREAS

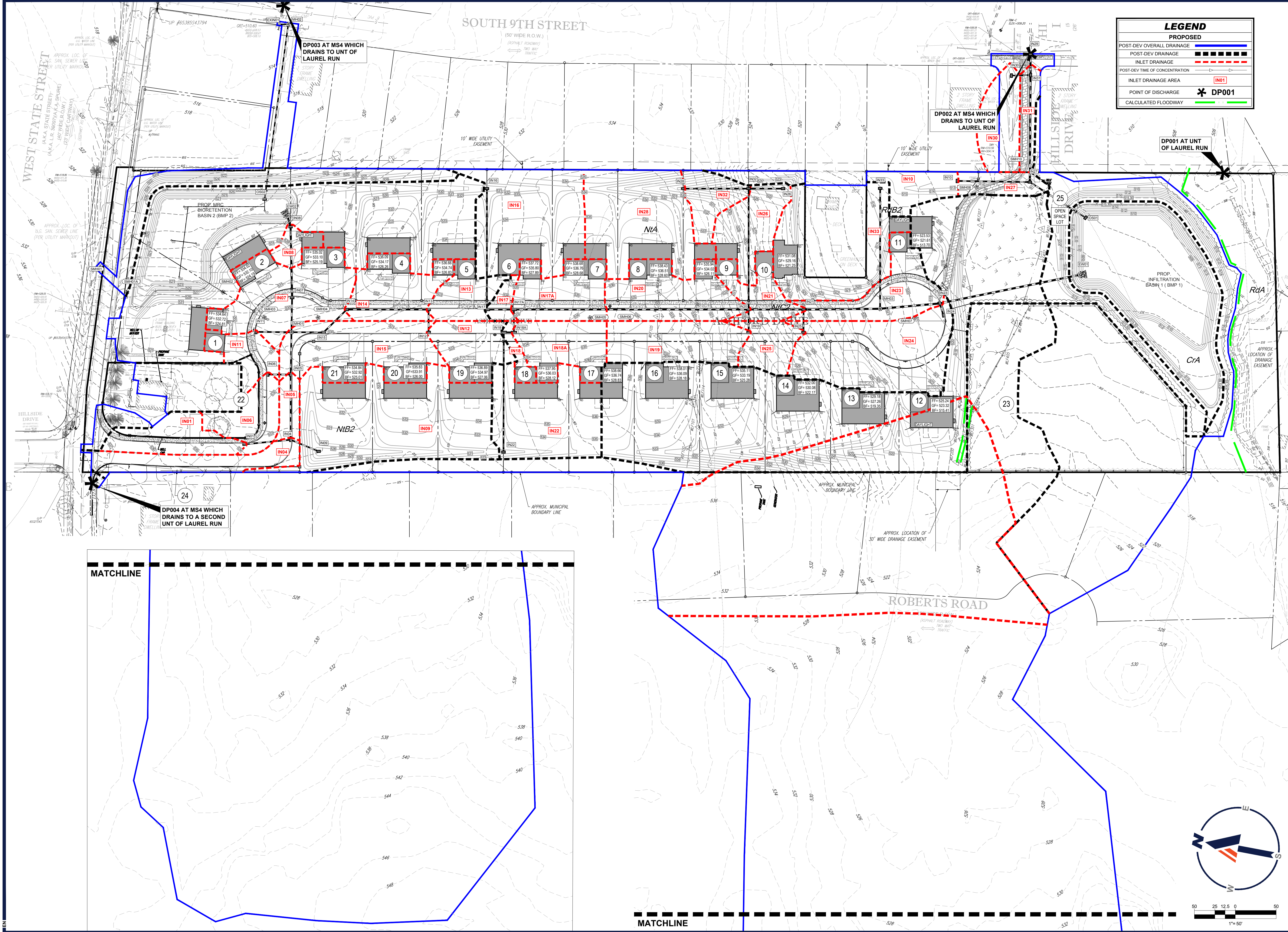
POST DP001 UNDETAINED ON-SITE	0.44 Ac.
POST DP001 UNDETAINED OFF-SITE	1.25 Ac.
POST DP002 UNDETAINED ON-SITE (A)	0.42 Ac.
POST DP002 UNDETAINED ON-SITE (B)	1.73 Ac.
POST DP002 BASIN 1 ON-SITE	3.76 Ac.
POST DP002 UNDETAINED OFF-SITE	9.79 Ac.
POST DP003 BASIN 2 ON-SITE	3.33 Ac.
POST DP003 BASIN 2 OFF-SITE	0.16 Ac.
POST DP003 UNDETAINED	0.33 Ac.
POST DP003 UNDETAINED	0.01 Ac.



PCSWM DRAWING SHEET INDEX

SHEET TITLE	SHEET No.
PCSWM POST-DEVELOPMENT DRAINAGE AREA PLAN	15
OVERALL POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	30
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN - (A), (B)	31, 32
POST CONSTRUCTION STORMWATER MANAGEMENT NOTES & DETAILS	33, 34, 35
OVERALL PCSWM LANDSCAPE AND LIGHTING PLAN	36
PCSWM LANDSCAPE AND LIGHTING PLAN - (A), (B)	37, 38
PCSWM LANDSCAPE AND LIGHTING DETAILS	39

R:\PC191166\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT REV\7\PC191166-SPP-0-LA-D011-14-POST DRAINAGE



LEGEND

PROPOSED

- POST-DEV OVERALL DRAINAGE
- POST-DEV DRAINAGE
- INLET DRAINAGE
- POST-DEV TIME OF CONCENTRATION
- INLET DRAINAGE AREA
- POINT OF DISCHARGE
- CALCULATED FLOODWAY

DP001

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCCD COMMENTS	ENMS	JP
3	01/06/2023	REV. PER LCCD COMMENTS	BIGEN	JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR	JP
5	03/16/2023	REV. PER LCCD COMMENTS	EAN	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BIG/LB	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN	JRP

811

Know what's below.
 Call before you dig.

PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-487-1719
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID: PC191160-SPP-0

FINAL LAND DEVELOPMENT PLANS

FOR

REYNOLDS ACQUISITIONS, L.P.

PROPOSED RESIDENTIAL DEVELOPMENT
 'ASHFORD PRESERVE'

WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER

1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.

PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE045476E
 NEW JERSEY LICENSE No. 24GE04507900

SHEET TITLE:

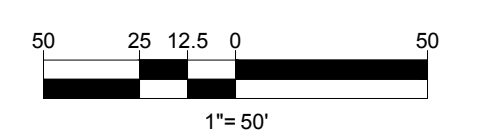
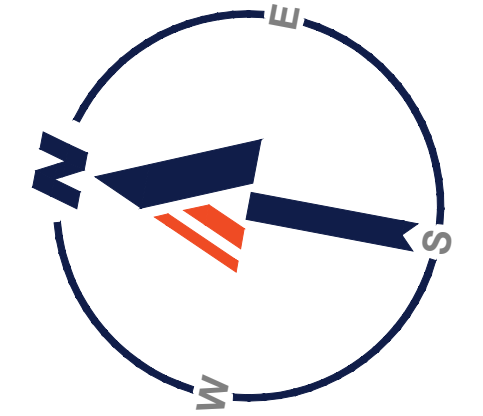
INLET DRAINAGE AREA PLAN

SHEET NUMBER:

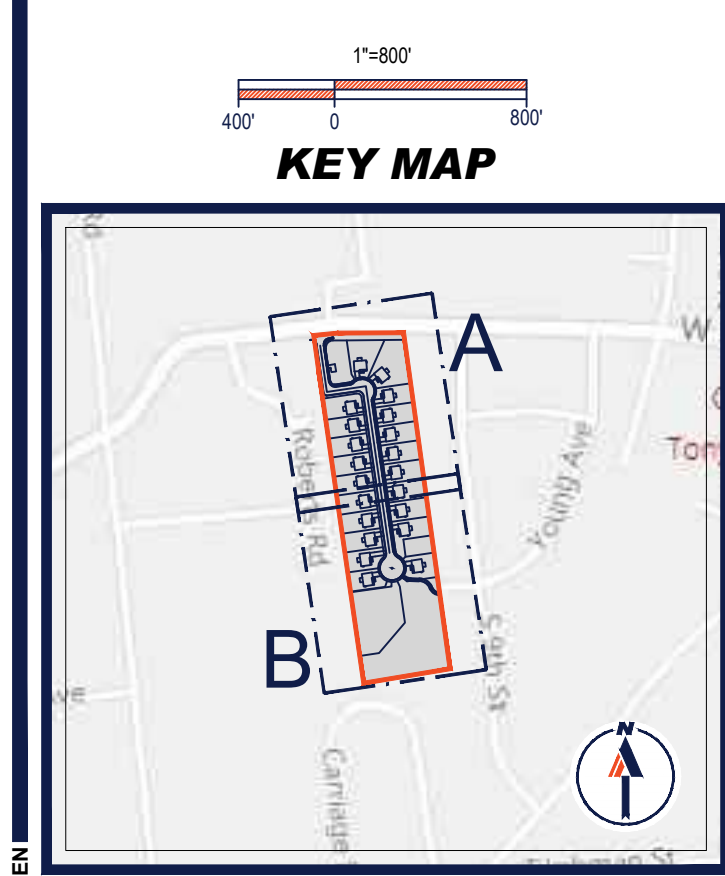
16

OF 48

REVISION 7 - 01/19/2024



R:\191160\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT (REV)7\F01161160-SPP-0-LAYOUT-1-INLET DRAINAGE



R:\BPC19160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT REV\7\FIC19160-SPP.dwg - LAYOUT: 17 - OVERALL UTILITY

LEGEND

EXISTING

- PROPERTY LINE
- R.O.W. LINE
- OVERHEAD UTILITY WIRES
- ELECTRIC LINE
- TELEPHONE LINE
- GAS LINE
- WATER LINE
- SANITARY SEWER
- STORM PIPE
- EXISTING CONTOUR / MAJOR
- EXISTING CONTOUR / MINOR

LEGEND

PROPOSED

- WATER LINE
- WATER LATERAL
- SANITARY SEWER
- SANITARY SEWER LATERAL
- STORM PIPE
- PROPOSED CONTOUR / MAJOR
- PROPOSED CONTOUR / MINOR
- DRAINAGE INLET
- MANHOLE
- CURB STOP
- CLEANOUT
- FIRE HYDRANT
- UTILITY POLE
- SAWCUT LINE
- CALCULATED FLOODWAY

STORM SEWER PIPE SCHEDULE

FROM	TO	SIZE (IN.)	TYPE	LENGTH (FT.)	SLOPE(%)
IN01	IN04	18"	HDPE	57	1.84%
IN04	IN05	18"	HDPE	80	0.50%
IN05	MH01	18"	HDPE	52	0.50%
IN06	IN05	18"	HDPE	28	0.50%
IN07	IN08	24"	HDPE	87	0.51%
IN08	EW02	24"	HDPE	13	0.56%
IN09	IN04	18"	HDPE	37	0.51%
IN10	IN27	18"	RCP	89	0.50%
IN11	MH01	18"	HDPE	43	0.51%
IN12	IN13	18"	HDPE	28	0.50%
IN13	IN14	18"	HDPE	100	1.01%
IN14	IN15	18"	HDPE	40	0.51%
IN15	MH01	18"	HDPE	39	0.51%
IN16	IN17	18"	HDPE	148	0.50%
IN17	IN17A	18"	HDPE	33	0.51%
IN17A	IN20	18"	HDPE	287	0.50%
IN18	IN18A	18"	HDPE	12	0.57%
IN18A	IN17A	18"	HDPE	28	0.50%
IN19	IN20	18"	HDPE	28	0.50%
IN20	IN21	18"	HDPE	67	0.51%
IN21	MH03	24"	HDPE	94	4.28%
IN22	IN18	18"	HDPE	146	0.51%
IN23	EW01	24"	HDPE	174	0.51%
IN24	IN23	18"	HDPE	15	2.36%
IN25	IN21	18"	HDPE	28	0.50%
IN26	IN32	18"	HDPE	42	0.50%
IN27	IN31	24"	RCP	131	0.96%
IN28	IN32	18"	HDPE	80	4.96%
IN30	IN31	15"	RCP	23	0.73%
IN31	IN29	24"	RCP	25	0.51%
IN32	IN29	18"	HDPE	148	0.50%
IN33	MH03	18"	HDPE	147	0.50%
MH01	IN07	18"	HDPE	42	0.50%
MH02	EXIN01	15"	RCP	9	0.56%
MH03	IN23	24"	HDPE	73	1.15%
OS01	IN27	18"	RCP	81	1.29%
OS02	MH02	15"	RCP	216	3.13%

STORM STRUCTURE SCHEDULE

NAME	GR/TIRM ELEV. (FT.)	INVERTS
EW01	511.28'	INV IN = 509.00'
EW02	522.78'	INV IN = 520.50'
EXIN01	510.60'	INV IN = 508.53'
IN01	533.74'	INV OUT = 530.24'
IN04	532.70'	INV IN = 529.20' INV IN = 523.48' INV OUT = 523.31'
IN05	531.44'	INV IN = 522.91' INV IN = 527.75' INV OUT = 522.74'
IN06	531.44'	INV OUT = 527.92'
IN07	529.74'	INV IN = 522.10' INV OUT = 521.53'
IN08	527.00'	INV IN = 521.09' INV OUT = 520.57'
IN09	527.17'	INV IN = 522.48' INV IN = 525.89' INV IN = 526.53' INV OUT = 522.31'
IN10	512.24'	INV IN = 507.71'
IN11	530.28'	INV OUT = 526.75'
IN12	531.45'	INV OUT = 527.95'
IN13	531.45'	INV IN = 527.81' INV OUT = 527.64'
IN14	530.13'	INV IN = 526.63' INV OUT = 526.46'
IN15	529.98'	INV IN = 526.26' INV OUT = 526.09'
IN16	530.46'	INV IN = 526.96'
IN17	532.39'	INV IN = 526.22' INV OUT = 526.05'
IN17A	532.83'	INV IN = 526.67' INV IN = 525.88' INV OUT = 525.71'
IN18	532.66'	INV IN = 527.22' INV OUT = 527.05'
IN18A	532.83'	INV IN = 526.98' INV OUT = 526.81'
IN19	528.60'	INV OUT = 525.10'
IN20	528.60'	INV IN = 524.27' INV IN = 524.96' INV IN = 518.38' INV OUT = 518.21'
IN21	525.24'	INV IN = 517.87' INV IN = 520.98' INV OUT = 517.70'
IN22	531.46'	INV OUT = 527.95'
IN23	518.45'	INV IN = 510.05' INV IN = 514.88' INV OUT = 526.88'

STORM STRUCTURE SCHEDULE

IN24	518.79'	INV OUT = 515.22'
IN25	525.24'	INV OUT = 521.10'
IN26	523.00'	INV OUT = 519.50'
IN27	510.49'	INV IN = 507.27' INV IN = 506.82' INV OUT = 506.32'
IN28	527.80'	INV OUT = 524.63'
IN29	508.20'	INV IN = 504.76'
IN30	508.65'	INV IN = 505.23'
IN31	508.53'	INV IN = 505.06' INV IN = 505.05' INV OUT = 504.89'
IN32	523.86'	INV IN = 519.29' INV OUT = 519.12'
IN33	515.30'	INV OUT = 511.80'
MH01	530.57'	INV IN = 522.48' INV IN = 525.89' INV IN = 526.53' INV OUT = 522.31'
MH02	511.13'	INV IN = 508.75' INV IN = 508.58'
MH03	521.26'	INV IN = 513.69' INV IN = 511.06' INV OUT = 510.89'
OS01	513.50'	INV OUT = 507.86'
OS02	521.42'	INV OUT = 515.50'

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	JP	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP	EAJ
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	EAJ

811

Know what's below.
Call before you dig.

PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-488-7777
www.pa.gov/811

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/06/2024
CAD I.D.: PC191160-SPP-0

**PRELIMINARY / FINAL
LAND DEVELOPMENT
PLANS**

FOR

**REYNOLDS
ACQUISITIONS, L.P.**

PROPOSED RESIDENTIAL
DEVELOPMENT
'ASHFORD PRESERVE'

WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER

1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

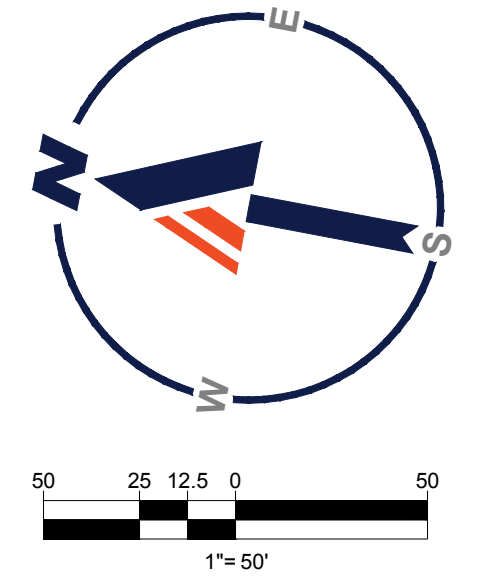
R.E. KLOS, JR.

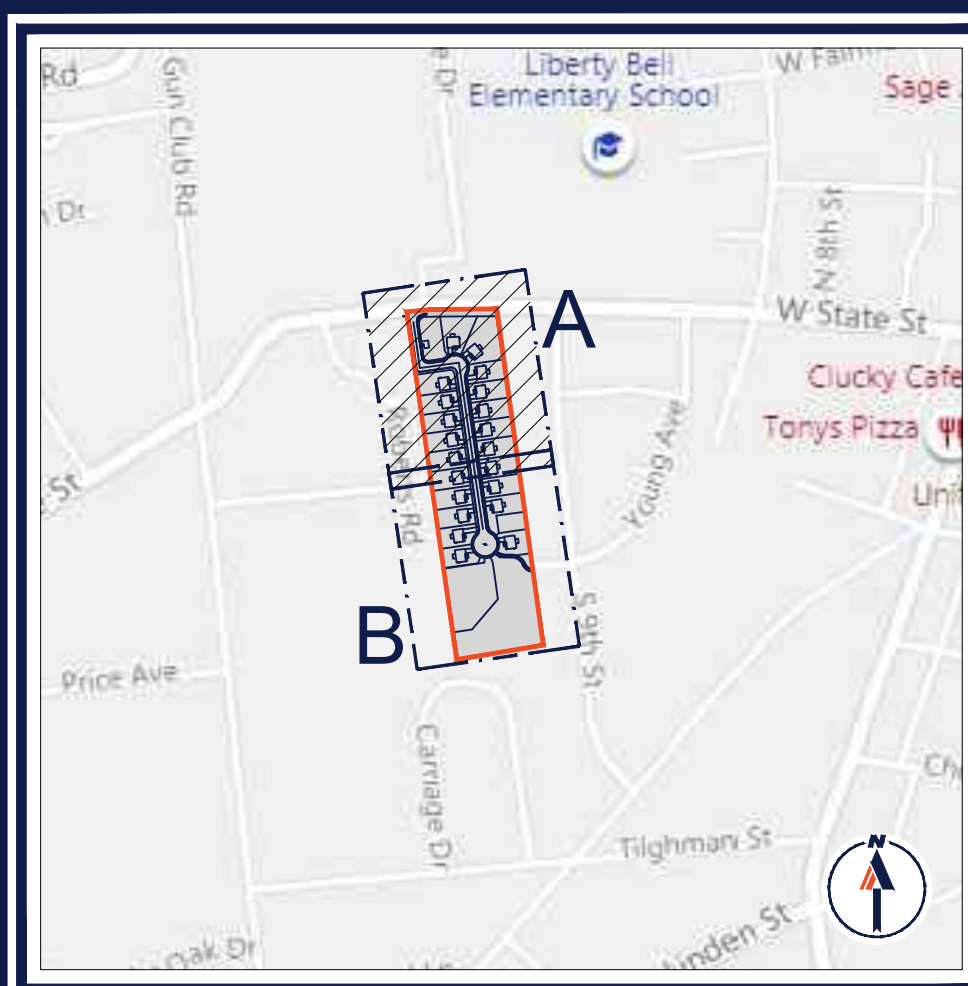
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE045476E
NEW JERSEY LICENSE NO. 24GE04507900

SHEET TITLE:
**OVERALL
UTILITY PLAN**

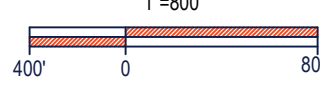
SHEET NUMBER:
17
OF 48

REVISION 7 - 01/19/2024





KEY MAP



LEGEND	
EXISTING	
PROPERTY LINE	---
R.O.W. LINE	---
OVERHEAD UTILITY WIRES	---(O)---
ELECTRIC LINE	---
TELEPHONE LINE	---
GAS LINE	---
WATER LINE	---
SANITARY SEWER	---
STORM PIPE	---
EXISTING CONTOUR / MAJOR	---(M)---
EXISTING CONTOUR / MINOR	---(M)---

LEGEND	
PROPOSED	
WATER LINE	---
WATER LATERAL	WL---
SANITARY SEWER	---
SANITARY SEWER LATERAL	SL---
STORM PIPE	---
PROPOSED CONTOUR / MAJOR	---(M)---
PROPOSED CONTOUR / MINOR	---(M)---
DRAINAGE INLET	DI
MANHOLE	MI
CURB STOP	CS
CLEANOUT	CO
FIRE HYDRANT	HF
UTILITY POLE	UP
ROOF DRAIN	RD
CALCULATED FLOODWAY	---
SAWCUT LINE	---

HILLSIDE DRIVE
(50' WIDE R.O.W.)
(27.50' CARTWAY)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	JP	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP	EAN
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	EAN

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
www.pa.gov/811
20191704041 & 20191704042

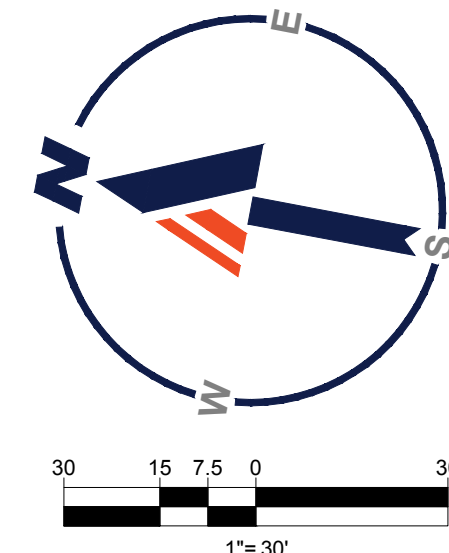
PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/09/2024
CAD ID.: PC191160-SPP-0

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT
'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

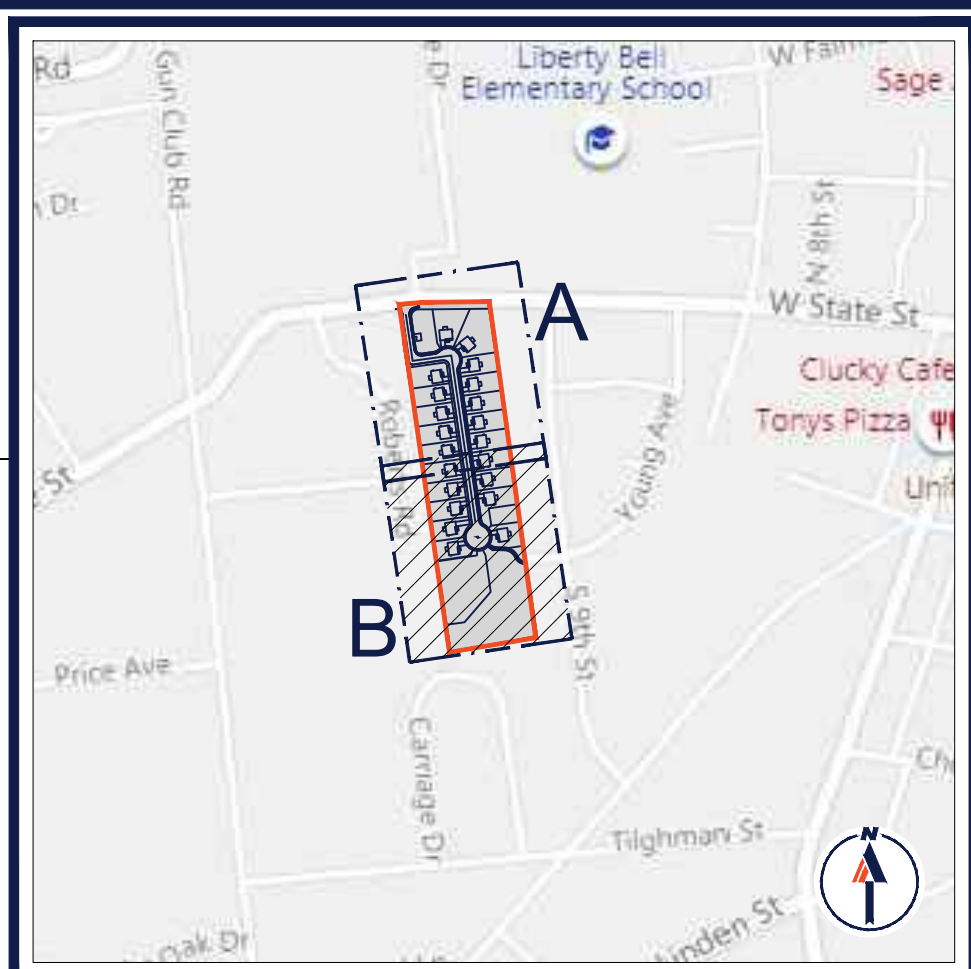
BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045476E
NEW JERSEY LICENSE No. 24GE04507900

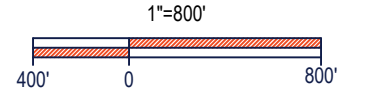
SHEET TITLE:
UTILITY PLAN A
SHEET NUMBER:
18
OF 48
REVISION 7 - 01/19/2024



R:\BPC\191160\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT (REV)7\FIC191160-SPP-0.dwg - LAYOUT: 18 - UTILITY A



KEY MAP



LEGEND
EXISTING

PROPERTY LINE	---
R.O.W. LINE	---
OVERHEAD UTILITY WIRES	---o---
ELECTRIC LINE	---
TELEPHONE LINE	---
GAS LINE	---
WATER LINE	---
SANITARY SEWER	---
STORM PIPE	---
EXISTING CONTOUR / MAJOR	---
EXISTING CONTOUR / MINOR	---

LEGEND
PROPOSED

WATER LINE	---
WATER LATERAL	---
SANITARY SEWER	---
SANITARY SEWER LATERAL	---
STORM PIPE	---
PROPOSED CONTOUR / MAJOR	---
PROPOSED CONTOUR / MINOR	---
DRAINAGE INLET	---
MANHOLE	---
CURB STOP	---
CLEANOUT	---
FIRE HYDRANT	---
UTILITY POLE	---
ROOF DRAIN	---
CALCULATED FLOODWAY	---
SAWCUT LINE	---

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS	JP
3	01/06/2023	REV. PER LCDD COMMENTS	BGIEN	JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR	JP
5	03/16/2023	REV. PER LCDD COMMENTS	EAN	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN	JRP

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-442-7776
www.pa.gov/811
20191704041 & 20191704042

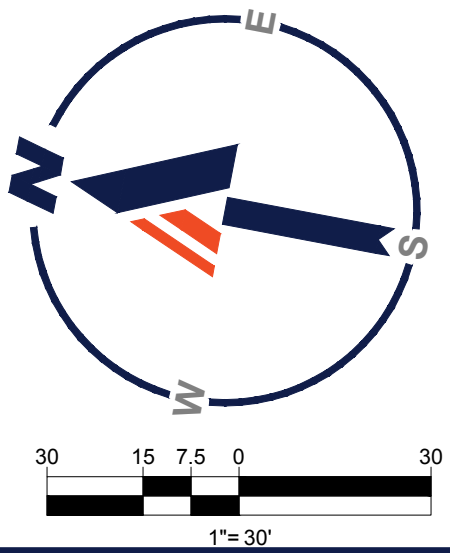
PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/09/2024
CAD ID: PC191160-SPP-0

PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT
'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

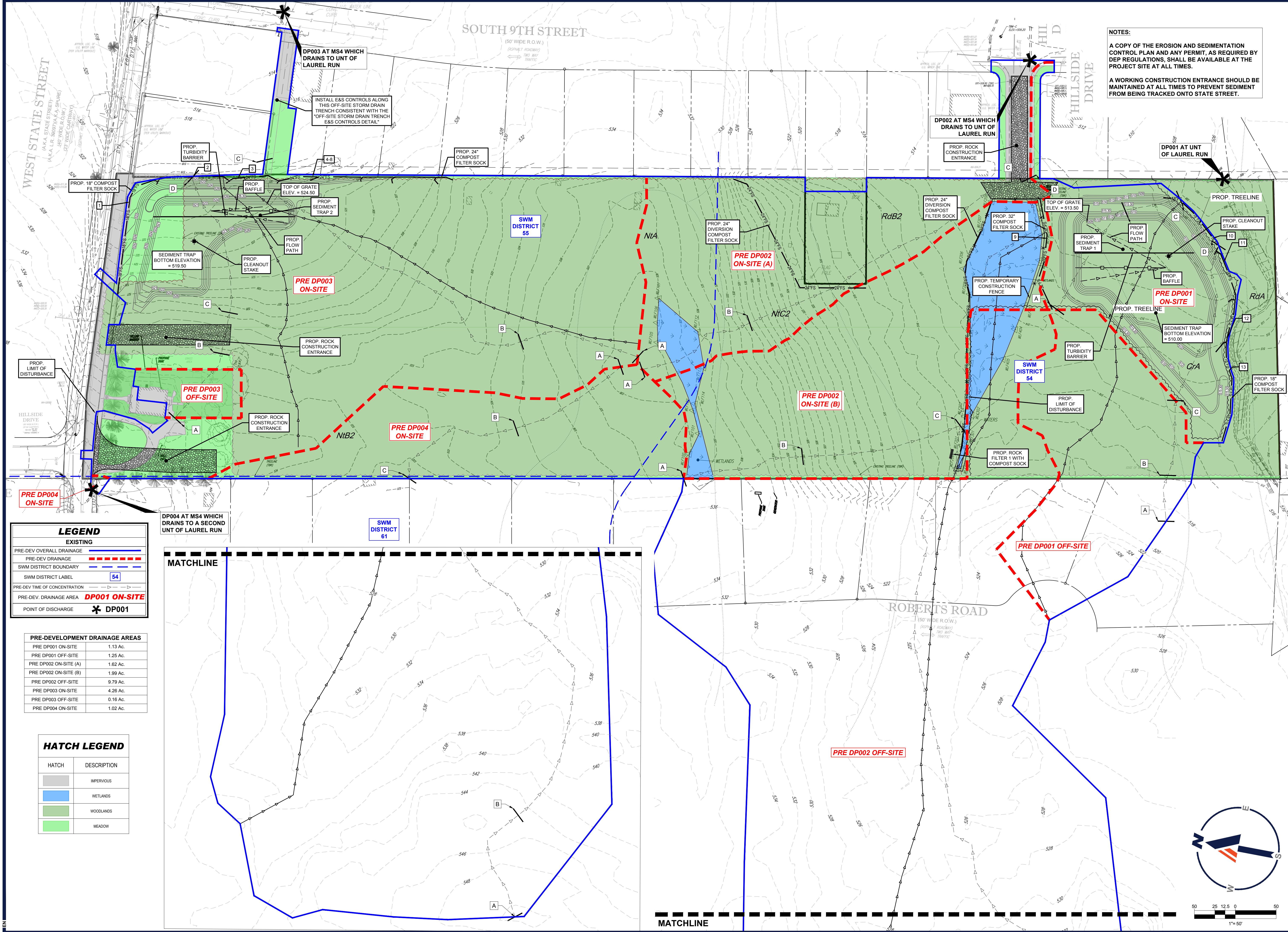
BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045476E
NEW JERSEY LICENSE No. 24GE0450900

SHEET TITLE:
UTILITY PLAN B
SHEET NUMBER:
19
OF 48
REVISION 7 - 01/19/2024



R:\BPC\191160\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT REV\7\FIC191160-SPP-0.dwg - LAYOUT: 19 - UTILITY B



NOTES:
 A COPY OF THE EROSION AND SEDIMENTATION CONTROL PLAN AND ANY PERMIT, AS REQUIRED BY DEP REGULATIONS, SHALL BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
 A WORKING CONSTRUCTION ENTRANCE SHOULD BE MAINTAINED AT ALL TIMES TO PREVENT SEDIMENT FROM BEING TRACKED ONTO STATE STREET.

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCCD COMMENTS	ENIMS	JP
3	01/06/2023	REV. PER LCCD COMMENTS	BGEN	JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR	JP
5	03/16/2023	REV. PER LCCD COMMENTS	EAJ	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAJ	JRP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-482-1772
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/02/2024
 CAD ID: PC191160-SPP-0

FINAL LAND DEVELOPMENT PLANS
 FOR
REYNOLDS ACQUISITIONS, L.P.
 PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE0454796
 NEW JERSEY LICENSE No. 24GE04502900

SHEET TITLE:
OVERALL EXISTING CONDITIONS SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN
 SHEET NUMBER:
20
 OF 48
 REVISION 7 - 01/19/2024

LEGEND

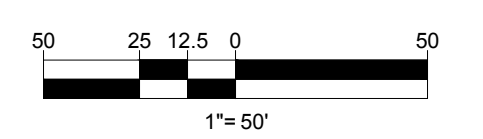
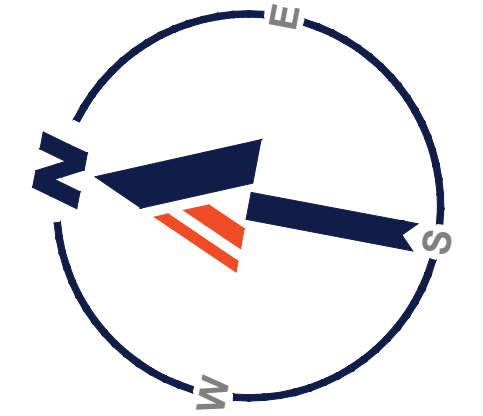
EXISTING
 PRE-DEV OVERALL DRAINAGE
 PRE-DEV DRAINAGE
 SWM DISTRICT BOUNDARY
 SWM DISTRICT LABEL
 PRE-DEV TIME OF CONCENTRATION
 PRE-DEV. DRAINAGE AREA
 POINT OF DISCHARGE

PRE-DEVELOPMENT DRAINAGE AREAS

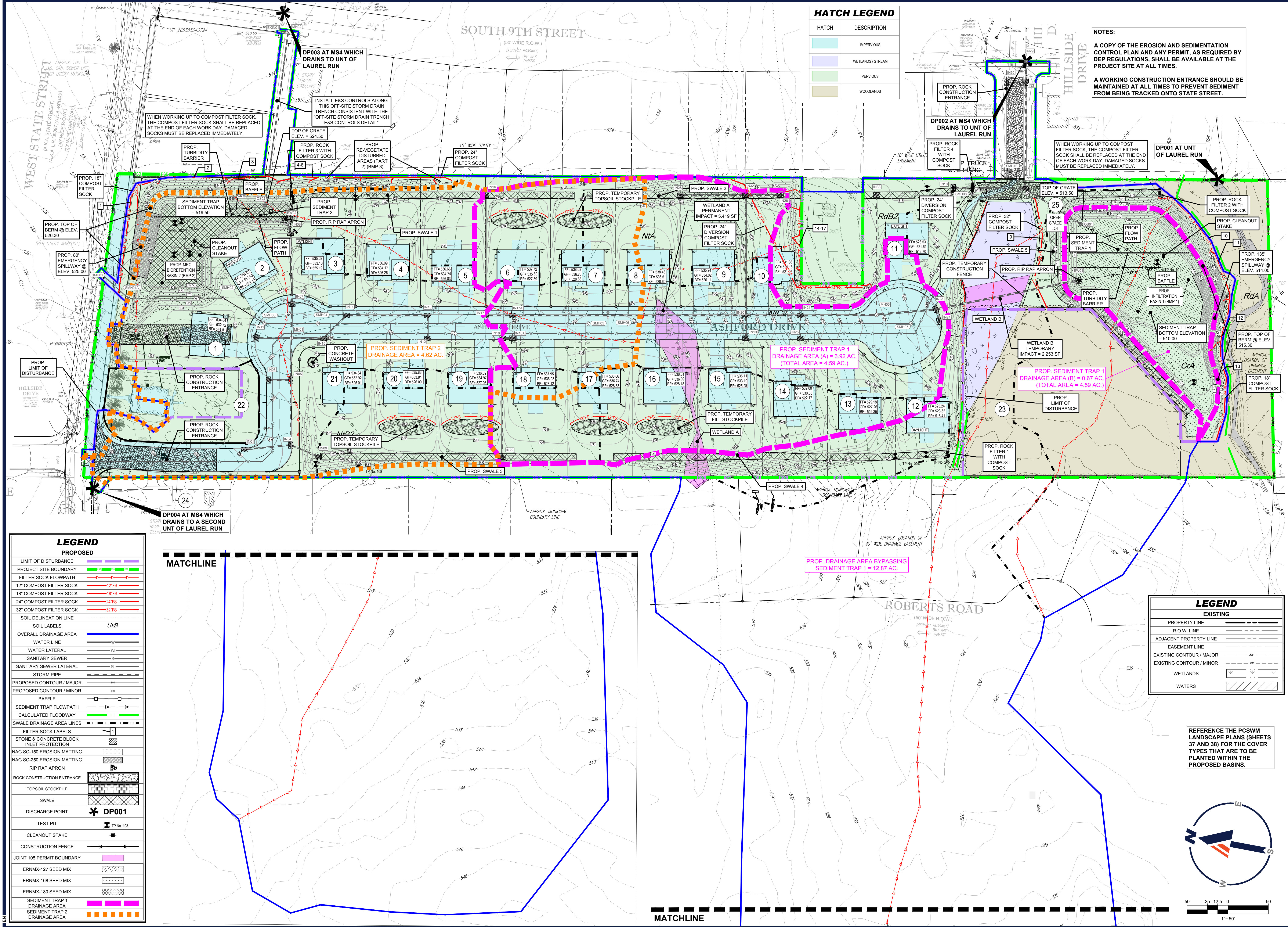
PRE DP001 ON-SITE	1.13 Ac.
PRE DP001 OFF-SITE	1.25 Ac.
PRE DP002 ON-SITE (A)	1.62 Ac.
PRE DP002 ON-SITE (B)	1.99 Ac.
PRE DP002 OFF-SITE	9.79 Ac.
PRE DP003 ON-SITE	4.26 Ac.
PRE DP003 OFF-SITE	0.16 Ac.
PRE DP004 ON-SITE	1.02 Ac.

HATCH LEGEND

HATCH	DESCRIPTION
[Grey Hatch]	IMPERVIOUS
[Blue Hatch]	WETLANDS
[Green Hatch]	WOODLANDS
[Light Green Hatch]	MEADOW



R:\BPC\191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT REV\7\FINAL\191160-SPP-0.dwg - LAYOUT: 20 - OVERALL EXISTING E&S



HATCH LEGEND

HATCH	DESCRIPTION
[Blue Hatched]	IMPERVIOUS
[Green Hatched]	WETLANDS / STREAM
[Light Green Hatched]	PERVIOUS
[Brown Hatched]	WOODLANDS

NOTES:
 A COPY OF THE EROSION AND SEDIMENTATION CONTROL PLAN AND ANY PERMIT, AS REQUIRED BY DEP REGULATIONS, SHALL BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
 A WORKING CONSTRUCTION ENTRANCE SHOULD BE MAINTAINED AT ALL TIMES TO PREVENT SEDIMENT FROM BEING TRACKED ONTO STATE STREET.

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	BY	CHKD
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	JP	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP	EAJ
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	EAJ

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-345-1719
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID.: PC191160-SPP-0

FINAL LAND DEVELOPMENT PLANS
 FOR
REYNOLDS ACQUISITIONS, L.P.
 PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE NO. PE045476E
 NEW JERSEY LICENSE NO. 24060450900

SHEET TITLE:
OVERALL SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN
 SHEET NUMBER:
21
 OF 48
 REVISION 7 - 01/19/2024

LEGEND

PROPOSED

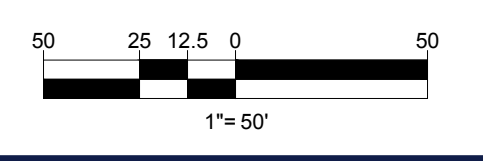
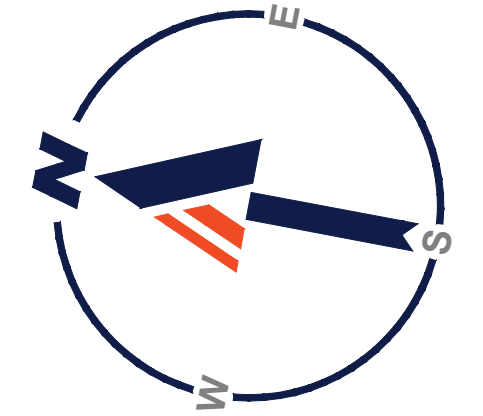
- LIMIT OF DISTURBANCE
- PROJECT SITE BOUNDARY
- FILTER SOCK FLOWPATH
- 12" COMPOST FILTER SOCK
- 18" COMPOST FILTER SOCK
- 24" COMPOST FILTER SOCK
- 32" COMPOST FILTER SOCK
- SOIL DELINEATION LINE
- SOIL LABELS
- OVERALL DRAINAGE AREA
- WATER LINE
- WATER LATERAL
- SANITARY SEWER
- SANITARY SEWER LATERAL
- STORM PIPE
- PROPOSED CONTOUR / MAJOR
- PROPOSED CONTOUR / MINOR
- BAFFLE
- SEDIMENT TRAP FLOWPATH
- CALCULATED FLOODWAY
- SWALE DRAINAGE AREA LINES
- FILTER SOCK LABELS
- STONE & CONCRETE BLOCK INLET PROTECTION
- NAG SC-150 EROSION MATTING
- NAG SC-250 EROSION MATTING
- RIP RAP APRON
- ROCK CONSTRUCTION ENTRANCE
- TOPSOIL STOCKPILE
- SWALE
- DISCHARGE POINT
- TEST PIT
- CLEANOUT STAKE
- CONSTRUCTION FENCE
- JOINT 105 PERMIT BOUNDARY
- ERNMX-127 SEED MIX
- ERNMX-168 SEED MIX
- ERNMX-180 SEED MIX
- SEDIMENT TRAP 1 DRAINAGE AREA
- SEDIMENT TRAP 2 DRAINAGE AREA

LEGEND

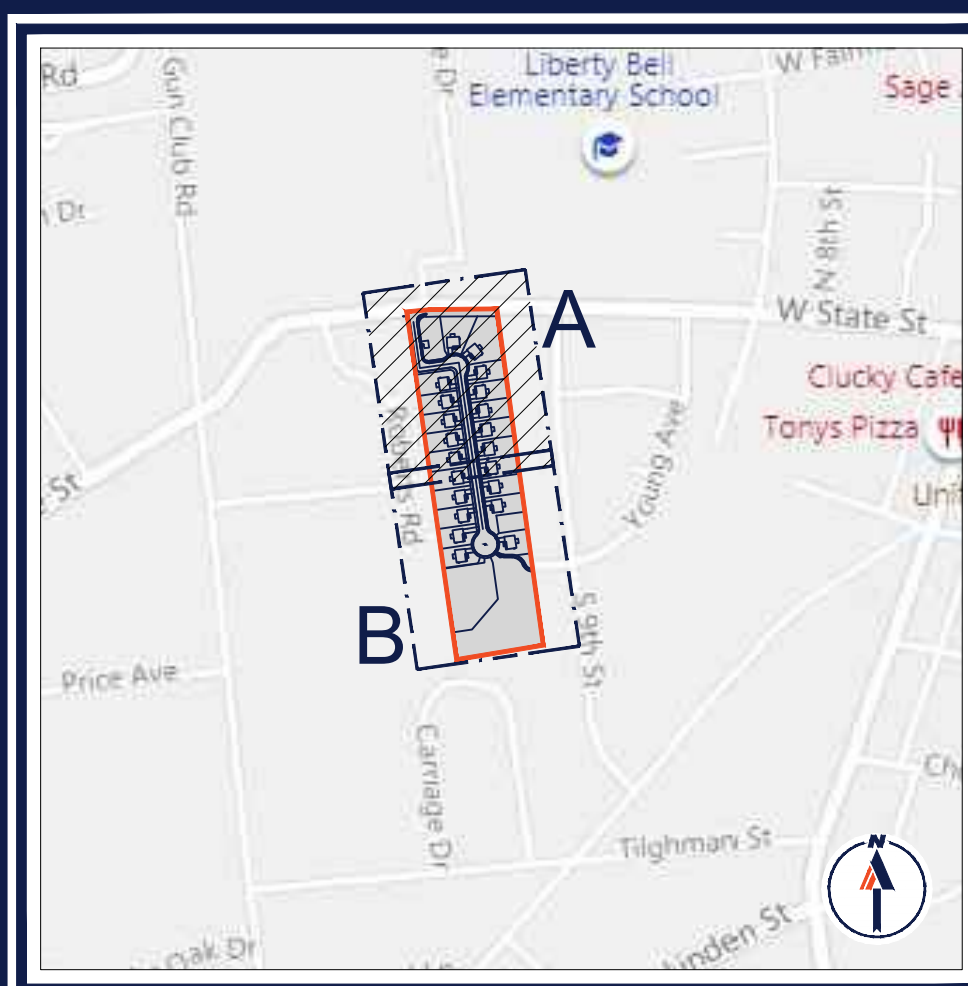
EXISTING

- PROPERTY LINE
- R.O.W. LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- EXISTING CONTOUR / MAJOR
- EXISTING CONTOUR / MINOR
- WETLANDS
- WATERS

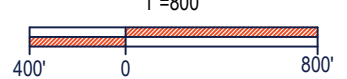
REFERENCE THE PCSWM LANDSCAPE PLANS (SHEETS 37 AND 38) FOR THE COVER TYPES THAT ARE TO BE PLANTED WITHIN THE PROPOSED BASINS.



R:\PROJECTS\1600\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT REV\7\PC191160-SPP-0.dwg - LAYOUT: 21 - OVERALL E&S



KEY MAP



LEGEND

EXISTING

PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
EXISTING CONTOUR / MAJOR	---
EXISTING CONTOUR / MINOR	---
EXISTING SPOT ELEVATION	X
WETLANDS	W
WATERS	W
TREELINE	T

LEGEND

TO BE REMOVED

TREELINE	T
----------	---

LEGEND

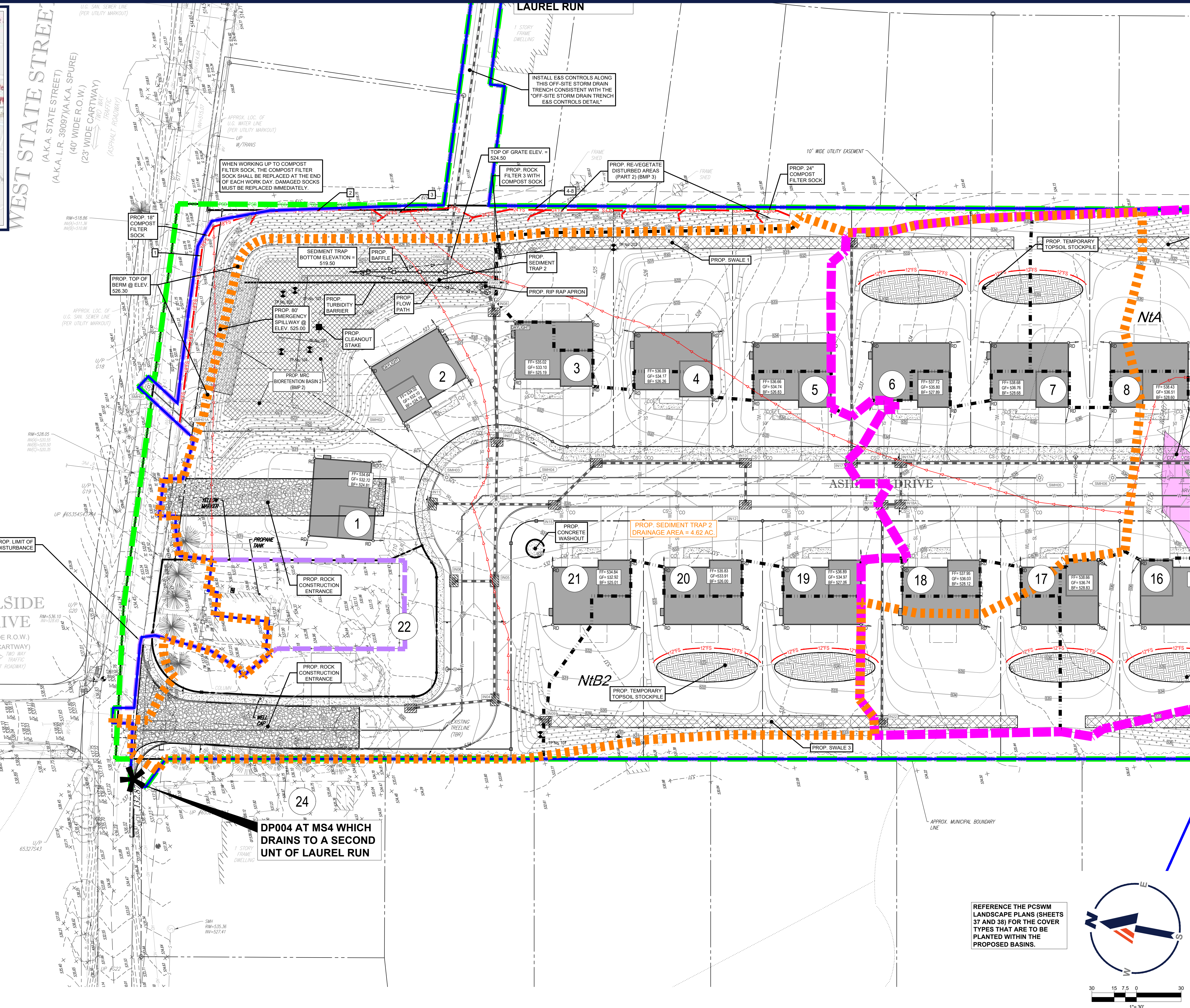
PROPOSED

LIMIT OF DISTURBANCE	---
PROJECT SITE AREA	---
FILTER SOCK FLOWPATH	---
12" COMPOST FILTER SOCK	---
18" COMPOST FILTER SOCK	---
24" COMPOST FILTER SOCK	---
32" COMPOST FILTER SOCK	---
SOIL DELINEATION LINE	---
SOIL LABEL	UxB
OVERALL DRAINAGE AREA	---
WATER LINE	---
WATER LATERAL	---
SANITARY SEWER	---
SANITARY SEWER LATERAL	---
STORM PIPE	---
PROPOSED CONTOUR / MAJOR	---
PROPOSED CONTOUR / MINOR	---
BAFFLE	---
SEDIMENT TRAP FLOW PATH	---
CALCULATED FLOODWAY	---
SWALE DRAINAGE AREA LINES	---
FILTER SOCK LABELS	---
STONE & CONCRETE BLOCK INLET PROTECTION	---
NAG SC-150 EROSION MATTING	---
NAG SC-250 EROSION MATTING	---
RIP RAP APRON	---
ROCK CONSTRUCTION ENTRANCE	---
TOPSOIL STOCKPILE	---
SWALE	---
DISCHARGE POINT	DP001
TEST PIT	TP No. 103
CLEANOUT STAKE	---
CONSTRUCTION FENCE	---
TREELINE	---
JOINT 105 PERMIT BOUNDARY	---
ERNMX-127 SEED MIX	---
ERNMX-168 SEED MIX	---
ERNMX-180 SEED MIX	---
SEDIMENT TRAP 1 DRAINAGE AREA	---
SEDIMENT TRAP 2 DRAINAGE AREA	---

NOTES:

A COPY OF THE EROSION AND SEDIMENTATION CONTROL PLAN AND ANY PERMIT, AS REQUIRED BY DEP REGULATIONS, SHALL BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.

A WORKING CONSTRUCTION ENTRANCE SHOULD BE MAINTAINED AT ALL TIMES TO PREVENT SEDIMENT FROM BEING TRACKED ONTO STATE STREET.

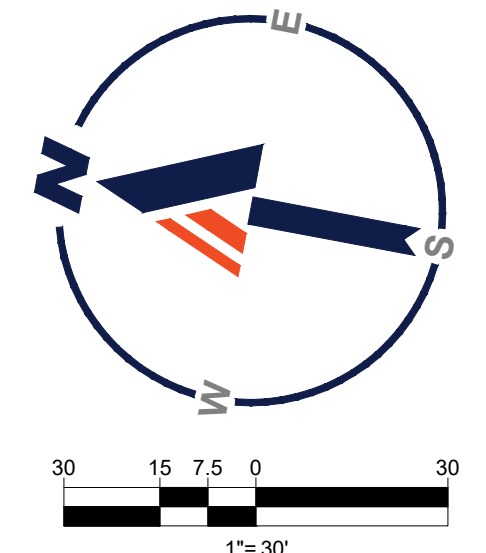


HILLSIDE DRIVE
(50' WIDE R.O.W.)
(27.50' CARTWAY)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)

DP004 AT MS4 WHICH DRAINS TO A SECOND UNIT OF LAUREL RUN

PROP. SEDIMENT TRAP 2 DRAINAGE AREA = 4.62 AC.

REFERENCE THE PCSWM LANDSCAPE PLANS (SHEETS 37 AND 38) FOR THE COVER TYPES THAT ARE TO BE PLANTED WITHIN THE PROPOSED BASINS.



BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCCD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCCD COMMENTS	BG/EN	JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR	JP
5	03/16/2023	REV. PER LCCD COMMENTS	JP	EN
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	EN

811

Know what's below.
Call before you dig.

PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
www.pa.gov/811
20191704041 & 20191704042

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/06/2024
CAD ID.: PC191160-SPP-0

FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.

PROPOSED RESIDENTIAL DEVELOPMENT
'ASHFORD PRESERVE'

WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER

1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

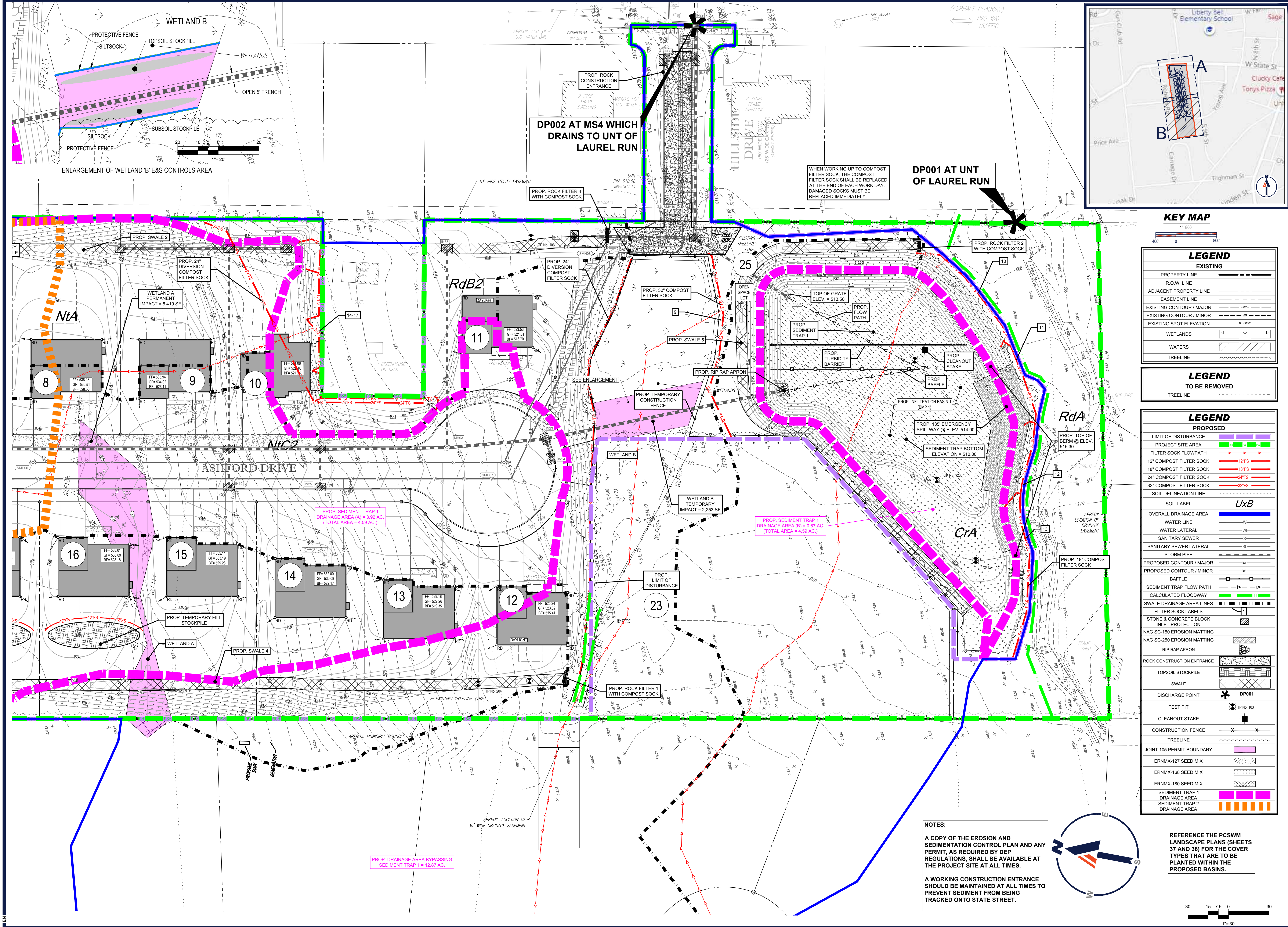
R.E. KLOS, JR.

PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE045476E
NEW JERSEY LICENSE NO. 24GE04502900

SHEET TITLE:
SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN - A

SHEET NUMBER:
22
OF 48

REVISION 7 - 01/19/2024



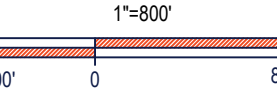
ENLARGEMENT OF WETLAND 'B' E&S CONTROLS AREA

DP002 AT MS4 WHICH DRAINS TO UNT OF LAUREL RUN

DP001 AT UNT OF LAUREL RUN

WHEN WORKING UP TO COMPOST FILTER SOCK, THE COMPOST FILTER SOCK SHALL BE REPLACED AT THE END OF EACH WORK DAY. DAMAGED SOCKS MUST BE REPLACED IMMEDIATELY.

KEY MAP



LEGEND

EXISTING

PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
EXISTING CONTOUR / MAJOR	---
EXISTING CONTOUR / MINOR	---
EXISTING SPOT ELEVATION	X 28.39
WETLANDS	▨
WATERS	▨
TREELINE	---

LEGEND

TO BE REMOVED

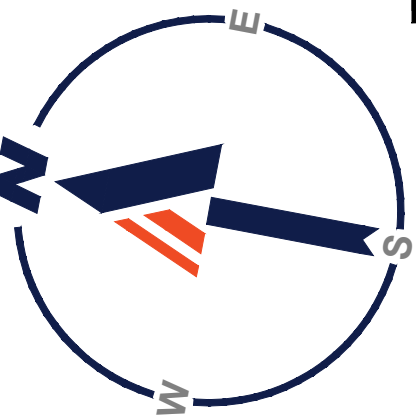
TREELINE	---
----------	-----

LEGEND

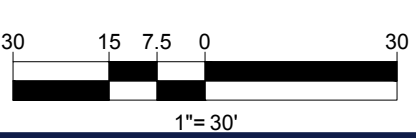
PROPOSED

LIMIT OF DISTURBANCE	---
PROJECT SITE AREA	---
FILTER SOCK FLOW PATH	---
12" COMPOST FILTER SOCK	---
18" COMPOST FILTER SOCK	---
24" COMPOST FILTER SOCK	---
32" COMPOST FILTER SOCK	---
SOIL DELINEATION LINE	---
SOIL LABEL	UxB
OVERALL DRAINAGE AREA	---
WATER LINE	---
WATER LATERAL	---
SANITARY SEWER	---
SANITARY SEWER LATERAL	---
STORM PIPE	---
PROPOSED CONTOUR / MAJOR	---
PROPOSED CONTOUR / MINOR	---
BAFFLE	---
SEDIMENT TRAP FLOW PATH	---
CALCULATED FLOODWAY	---
SWALE DRAINAGE AREA LINES	---
FILTER SOCK LABELS	---
STONE & CONCRETE BLOCK INLET PROTECTION	---
NAG SC-150 EROSION MATTING	---
NAG SC-250 EROSION MATTING	---
RIPP RAP APRON	---
ROCK CONSTRUCTION ENTRANCE	---
TOPSOIL STOCKPILE	---
SWALE	---
DISCHARGE POINT	DP001
TEST PIT	TP No. 103
CLEANOUT STAKE	---
CONSTRUCTION FENCE	---
TREELINE	---
JOINT 105 PERMIT BOUNDARY	---
ERNMX-127 SEED MIX	---
ERNMX-168 SEED MIX	---
ERNMX-180 SEED MIX	---
SEDIMENT TRAP 1 DRAINAGE AREA	---
SEDIMENT TRAP 2 DRAINAGE AREA	---

NOTES:
A COPY OF THE EROSION AND SEDIMENTATION CONTROL PLAN AND ANY PERMIT, AS REQUIRED BY DEP REGULATIONS, SHALL BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
A WORKING CONSTRUCTION ENTRANCE SHOULD BE MAINTAINED AT ALL TIMES TO PREVENT SEDIMENT FROM BEING TRACKED ONTO STATE STREET.



REFERENCE THE PCSWM LANDSCAPE PLANS (SHEETS 37 AND 38) FOR THE COVER TYPES THAT ARE TO BE PLANTED WITHIN THE PROPOSED BASINS.



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCCD COMMENTS	ENMS
3	01/06/2023	REV. PER LCCD COMMENTS	JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCCD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JRP

811
Know what's below. Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-345-1779
www.pa.gov/811
20191704041 & 20191704042

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/06/2024
CAD ID.: PC191160-SPP-0

FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

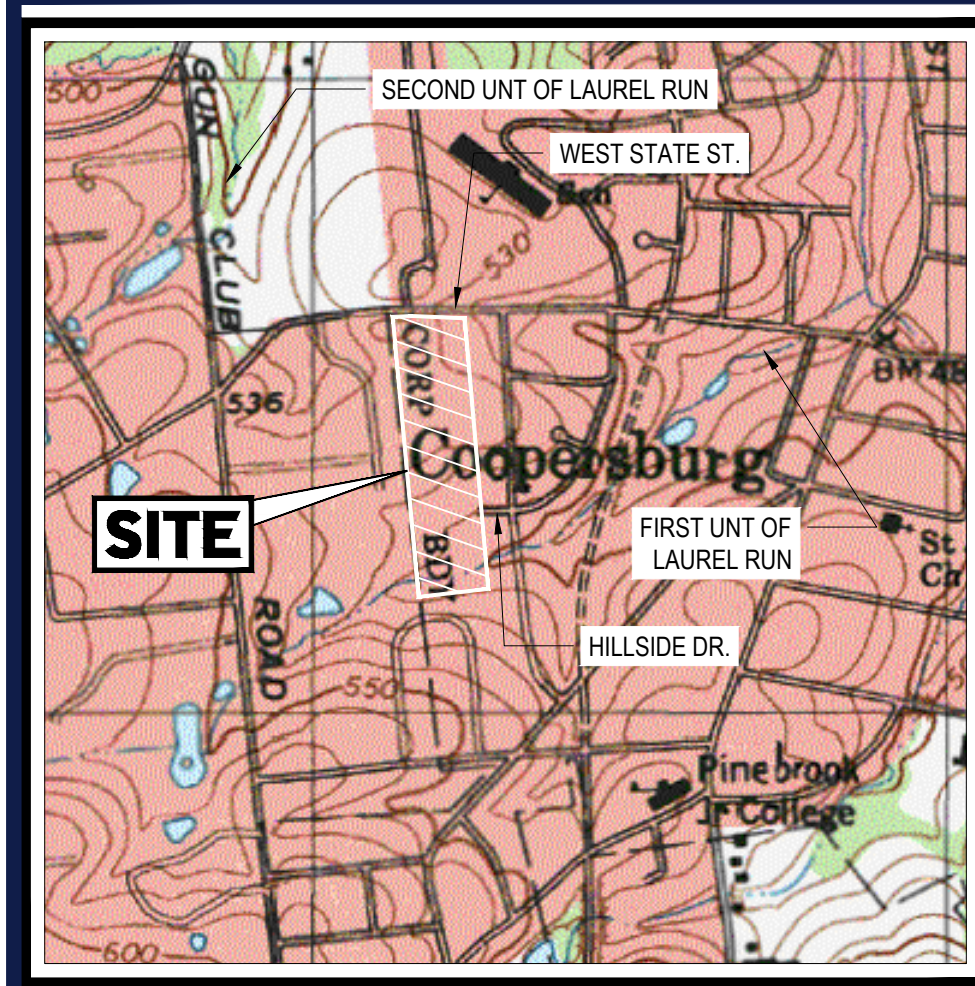
BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045476E
NEW JERSEY LICENSE No. 24604502900

SHEET TITLE:
SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN - B

SHEET NUMBER:
23
OF 48
REVISION 7 - 01/19/2024

R:\191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT REV\7\PC191160-SPP-0.dwg - LAYOUT: 23: E&S B



USGS MAP SCALE: 1" = 1,000'



SOIL MAP SCALE: 1" = 400'



SWM DISTRICT MAP SCALE: 1" = 1,500'

LOCATION OF ALL SURFACE WATERS AND THEIR CLASSIFICATION UNDER CHAPTER 93 §102.4(b)(5)(v)

DP001, DP002, AND DP003 DRAIN TO AN UNNAMED TRIBUTARY OF LAUREL RUN, WHICH HAS A CWF (COLD WATER FISHES) AND MF (MIGRATORY FISHES) CHAPTER 93 CLASSIFICATION.

RECYCLING OR DISPOSAL OF MATERIALS §102.4(d)(5)(xi)

THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE: CONCRETE CURBS AND SIDEWALK ASPHALT

ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET SEQ.

GEOLOGIC FORMATIONS/SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION §102.4(b)(5)(xii)

- 1.) DUST CONTROL - CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE CARRIED OFF-SITE BY CONSTRUCTION TRAFFIC.

POTENTIAL THERMAL IMPACTS TO SURFACE WATERS §102.4(b)(5)(xiii)

A POTENTIAL FOR THERMAL IMPACTS UPON RECEIVING WATERS ARE BEING AVOIDED DURING THE E&S PHASE BY SEQUENCING CONSTRUCTION SO THAT ASPHALT PAVEMENT IS INSTALLED AFTER THE STORM SEWER SYSTEM AND SEDIMENT TRAPS HAVE BEEN CONSTRUCTED.

TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS §102.4(b)(5)(ii)

Table with columns: SOIL DESCRIPTION, SOIL, DESCRIPTION, SOIL GROUP. Rows include CROTON, NA, NB2, NC2, RA, RB2.

Table with columns: SOIL NAME, CUTBANKS CAVE, CORROSION TO CONCRETE/STEEL, DROUGHTY, EASILY ERODIBLE, FLOODING, HYDRIC/CHYDRIC INCLUSIONS, SLOW PERCOLATION, PIPING, POOR SOURCE OF FERTILIZER, SHRINK SWELL, SHRIKING, PONDING, WETNESS. Rows include CROTON, READINGTON.

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

- 1. CUTBANKS CAVE RESOLUTIONS: CUT SLOPES SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS FOUND ON THE E&S PLANS.

Part 2 Revegetate and Reforest. To receive credit for planting trees, the following criteria must be met: Trees must be native species (see Appendix), minimum 2" caliper. Minimum tree height is 6 feet.

SEQUENCE OF BMP INSTALLATION AND REMOVAL §102.4(b)(5)(vii)

- A. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED.

UPON CONSTRUCTION OF EACH FACILITY, NOTE THE FOLLOWING:

- A. SITE AREAS PROPOSED FOR INFILTRATION SHALL BE DELINEATED IN THE FIELD AND PROTECTED FROM DISTURBANCE AND COMPACTION EXCEPT AS NECESSARY FOR CONSTRUCTION OF INFILTRATION BMPs.

CONSTRUCTION OF THE SEDIMENT TRAPS SHALL INCLUDE THE FOLLOWING:

- I. THE NECESSARY CLEARING, GRUBBING, AND EARTHWORK NECESSARY TO CONSTRUCT THE FACILITY WHEN WORKING UP TO COMPOST FILTER SOCK, THE COMPOST FILTER SOCK SHALL BE REPLACED AT THE END OF EACH WORK DAY.

MAINTENANCE PROGRAM §102.4(b)(5)(x)

THE FOLLOWING MAINTENANCE PROGRAM HAS BEEN DEVELOPED TO PROVIDE FOR THE INSPECTION OF BMPs ON A WEEKLY BASIS AND AFTER EACH MEASURABLE RUNOFF EVENT, AND TO INCLUDE THE REPAIR OF THE BMPs TO ENSURE THEIR EFFECTIVE AND EFFICIENT OPERATION.

CONSTRUCTION ENTRANCES - LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. A STABILIZED CONSTRUCTION EXIT SHALL BE CONSTRUCTED WHERE VEHICLES ENTER AND EXIT.

SEDIMENT BARRIERS AND TRAPS MUST BE INSPECTED AND THEY MUST BE CLEANED OUT AT SUCH TIME AS THEIR ORIGINAL CAPACITY HAS BEEN REDUCED BY 50 PERCENT. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS OR IN BASINS AND TRAPS SHALL BE INCORPORATED INTO SITE SOILS OR SPREAD OUT ON AN UPLAND PORTION OF THE SITE AND STABILIZED.

INSPECTIONS SHALL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM OR DISCHARGING FROM THE SITE.

E+S - MONITORING, INSPECTION AND REPORTING REQUIREMENTS

THE PERMITTEE AND CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RAINFALL EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

NONCOMPLIANCE REPORTING WHERE E&S, PCSM OR PPC BMPs ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE PERMITTEE AND CO-PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

TERMINATION OF COVERAGE NOT UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPs IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED.

CRITICAL STAGE - CONVERT SEDIMENT TRAP #1 TO INFILTRATION BASIN #1 AND SEDIMENT TRAP #2 TO MRC BIORETENTION BASIN #2. THIS CRITICAL STAGE OF THE INFILTRATION BASIN #1 AND MRC BIORETENTION BASIN #2 WILL BE FROM SUBGRADE PREPARATION TO COMPLETION.

CRITICAL STAGES THE FOLLOWING ARE CRITICAL STAGES OF CONSTRUCTION: CONSTRUCTION OF SEDIMENT TRAPS INSTALLATION OF MRC BIORETENTION BASIN (FROM SUBGRADE PREPARATION TO COMPLETION)

BOHLER logo and text: SITE CIVIL AND CONSULTING ENGINEERING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES

REVISIONS table with columns: REV, DATE, COMMENT, DRAWN BY, CHECKED BY. Lists several revisions with dates from 06/07/2022 to 01/19/2024.

811 logo and text: Know what's below. Call before you dig. PENNSYLVANIA YOU MUST CALL BEFORE ANY EXCAVATION WHETHER ITS ON PRIVATE OR PUBLIC LAND.

PROJECT No.: PC191160 DRAWN BY: AMT CHECKED BY: REK DATE: 08/02/2022 CAD ID: PC191160-CND-0

FINAL LAND DEVELOPMENT PLANS FOR REYNOLDS ACQUISITIONS, L.P. PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE' WEST STATE STREET COOPERSBURG BOROUGH LEHIGH COUNTY PENNSYLVANIA 18036

BOHLER logo and address: 1600 MANOR DRIVE, SUITE 200 CHALFONT, PA 18914 Phone: (215) 996-9100 Fax: (215) 996-9102 www.BohlerEngineering.com

R.E. KLOS, JR. PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE NO. PE054576 NEW JERSEY LICENSE NO. 24GE04502900

SHEET TITLE: SOIL EROSION & SEDIMENT POLLUTION CONTROL NOTES SHEET NUMBER: 24 OF 48

REVISION 7 - 01/19/2024

RI:\PC191160\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT\REV7\PC191160-CND-0.dwg - LA\YOUTH_24 - E&S NOTES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCCD COMMENTS	ENIMS	JP
3	01/06/2023	REV. PER LCCD COMMENTS	BG/EN	JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR	JP
5	03/16/2023	REV. PER LCCD COMMENTS	EAN	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG / LB	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN	JRP



Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-348-7779
 www.pa.gov/811

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID: PC191160-CND-0

PROJECT:
FINAL LAND DEVELOPMENT PLANS
 FOR
REYNOLDS ACQUISITIONS, L.P.
 PROPOSED RESIDENTIAL DEVELOPMENT
 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

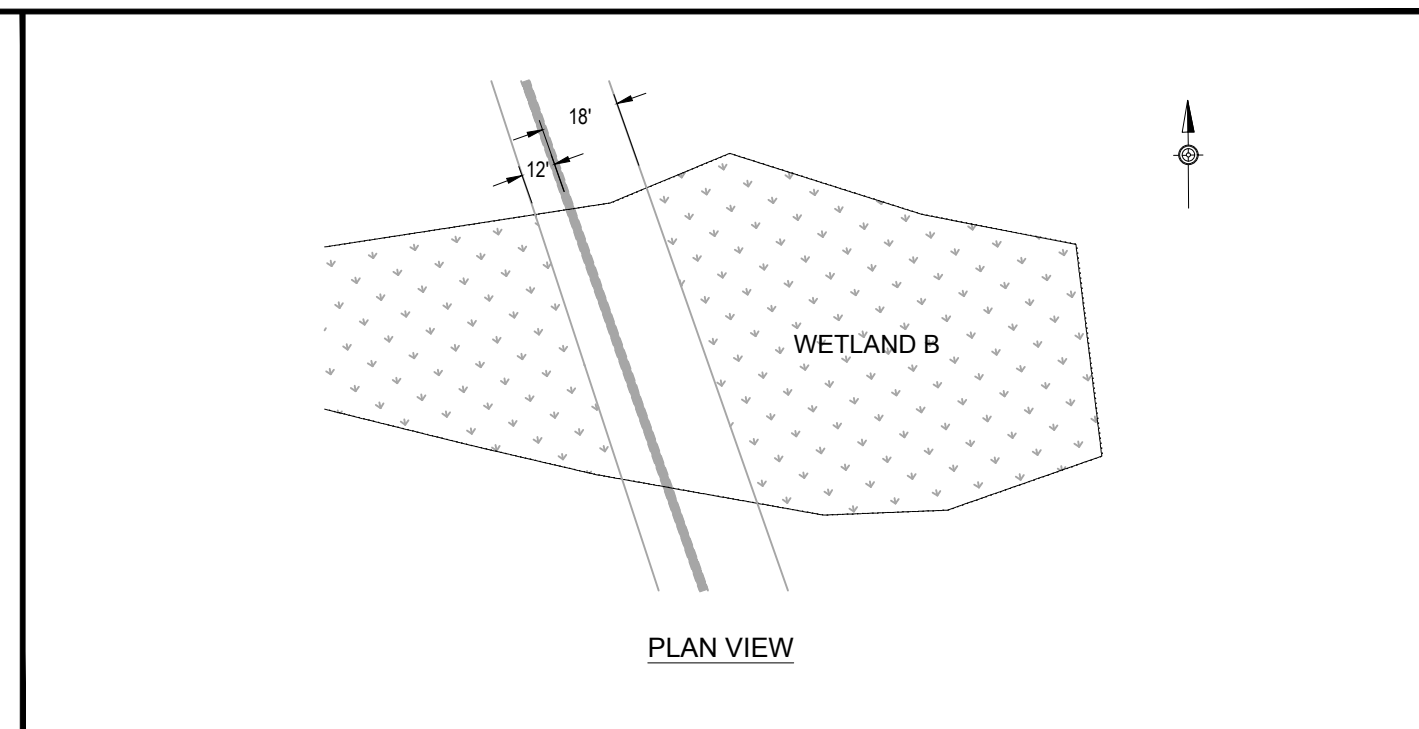
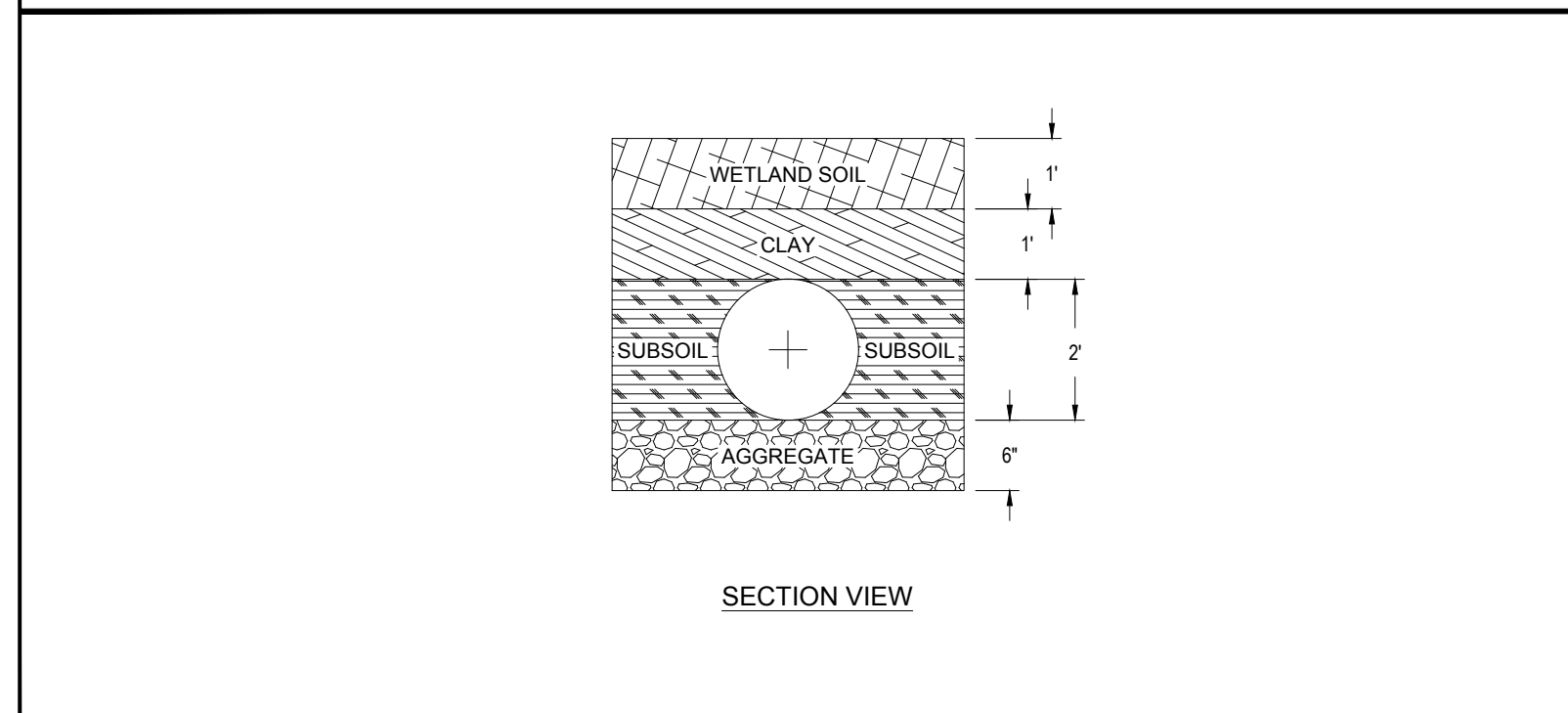
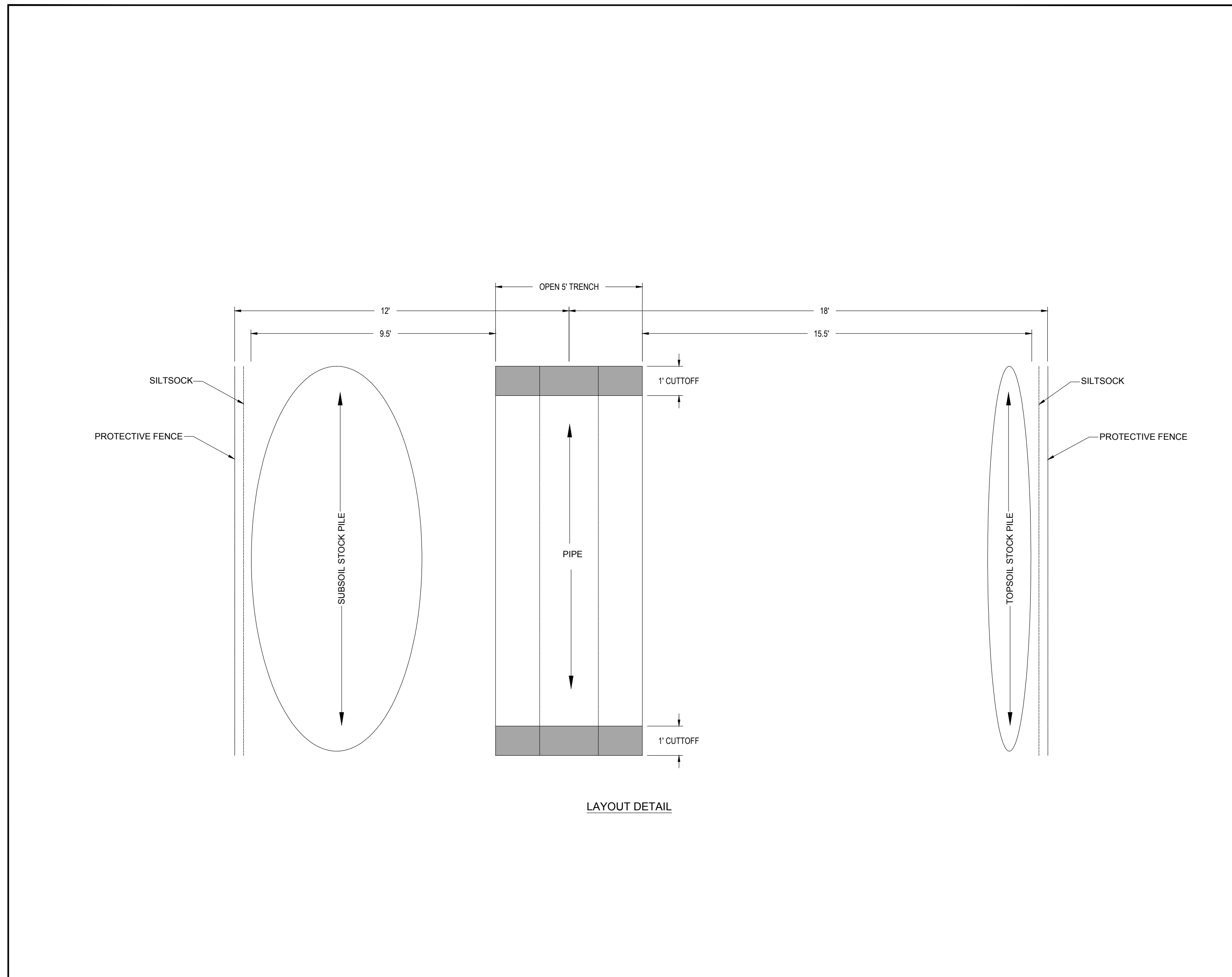
BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE0454796
 NEW JERSEY LICENSE No. 24GE04507900

SHEET TITLE:
SOIL EROSION & SEDIMENT POLLUTION CONTROL DETAILS

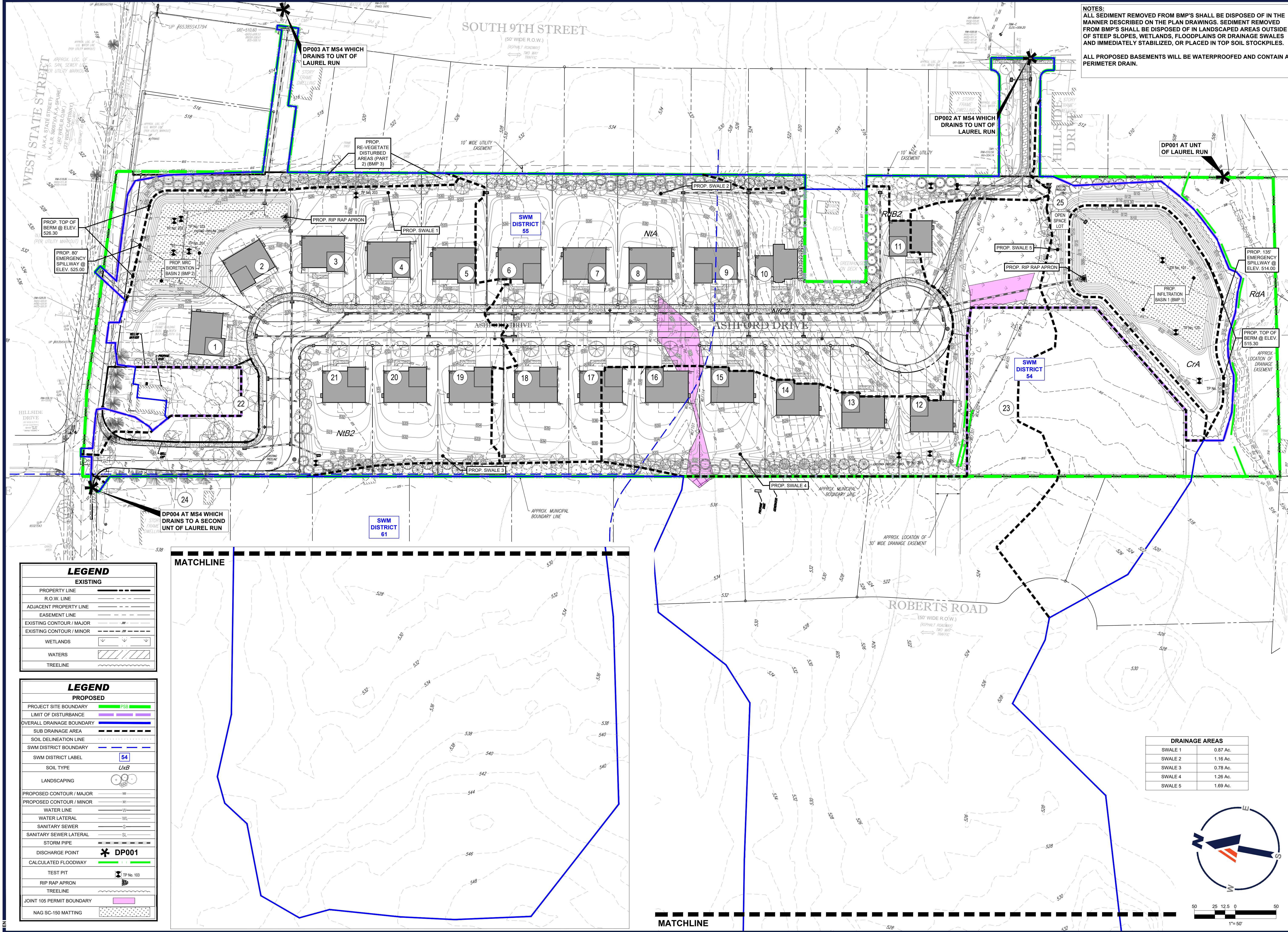
SHEET NUMBER:
29
 OF 48

REVISION 7 - 01/19/2024



JOINT PERMIT WETLAND IMPACT DETAIL
 NOT TO SCALE

X-10



NOTES:
 ALL SEDIMENT REMOVED FROM BMP'S SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. SEDIMENT REMOVED FROM BMP'S SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOP SOIL STOCKPILES.
 ALL PROPOSED BASEMENTS WILL BE WATERPROOFED AND CONTAIN A PERIMETER DRAIN.

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCCD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCCD COMMENTS	JP	BGLEN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR	JP
5	03/16/2023	REV. PER LCCD COMMENTS	JP	EAN
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN	JRP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-482-7779
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID: PC191160-SPP-0

FINAL LAND DEVELOPMENT PLANS
 FOR
REYNOLDS ACQUISITIONS, L.P.
 PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE045479E
 NEW JERSEY LICENSE No. 24GE04503900

SHEET TITLE:
OVERALL POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
 SHEET NUMBER:
30
 OF 48
 REVISION 7 - 01/19/2024

LEGEND

EXISTING

PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
EXISTING CONTOUR / MAJOR	---
EXISTING CONTOUR / MINOR	---
WETLANDS	W
WATERS	W
TREELINE	---

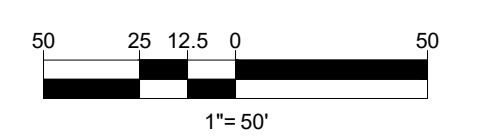
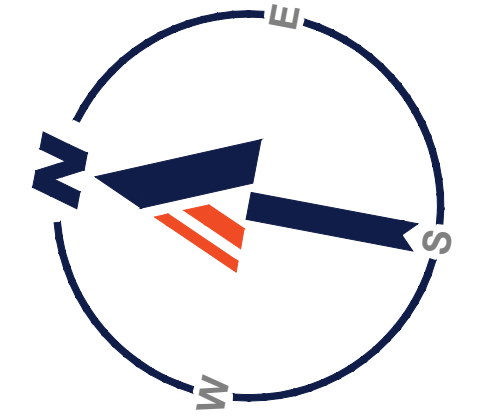
LEGEND

PROPOSED

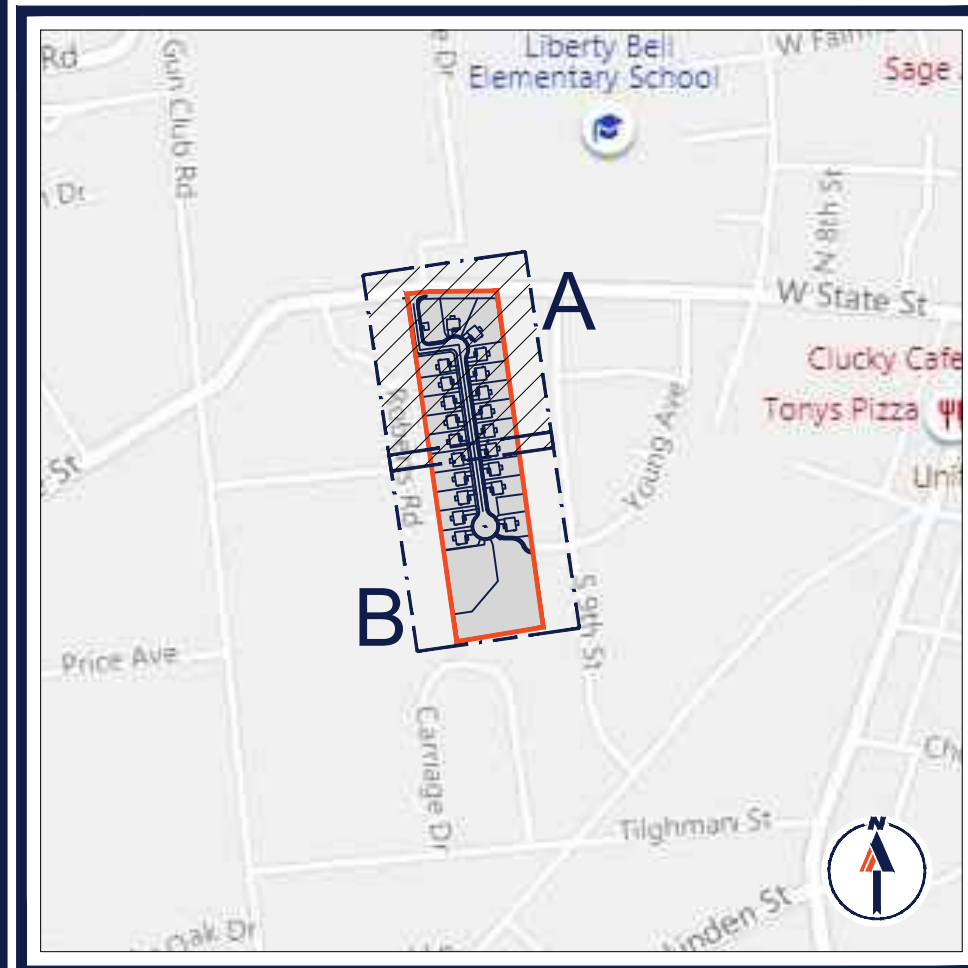
PROJECT SITE BOUNDARY	PSB
LIMIT OF DISTURBANCE	LD
OVERALL DRAINAGE BOUNDARY	OD
SUB DRAINAGE AREA	SDA
SOIL DELINEATION LINE	SDL
SWM DISTRICT BOUNDARY	SD
SWM DISTRICT LABEL	54
SOIL TYPE	UxB
LANDSCAPING	L
PROPOSED CONTOUR / MAJOR	---
PROPOSED CONTOUR / MINOR	---
WATER LINE	W
WATER LATERAL	WL
SANITARY SEWER	S
SANITARY SEWER LATERAL	SL
STORM PIPE	SP
DISCHARGE POINT	DP001
CALCULATED FLOODWAY	CF
TEST PIT	TP No. 103
RIP RAP APRON	RA
TREELINE	---
JOINT 105 PERMIT BOUNDARY	---
NAG SC-150 MATTING	---

DRAINAGE AREAS

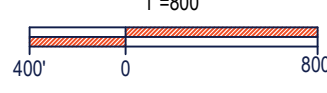
SWALE 1	0.87 Ac.
SWALE 2	1.16 Ac.
SWALE 3	0.78 Ac.
SWALE 4	1.26 Ac.
SWALE 5	1.69 Ac.



R:\191160\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT REV\7\FINAL\191160-SPP-0.dwg - LAYOUT: 30 - OVERALL - PC191160



KEY MAP



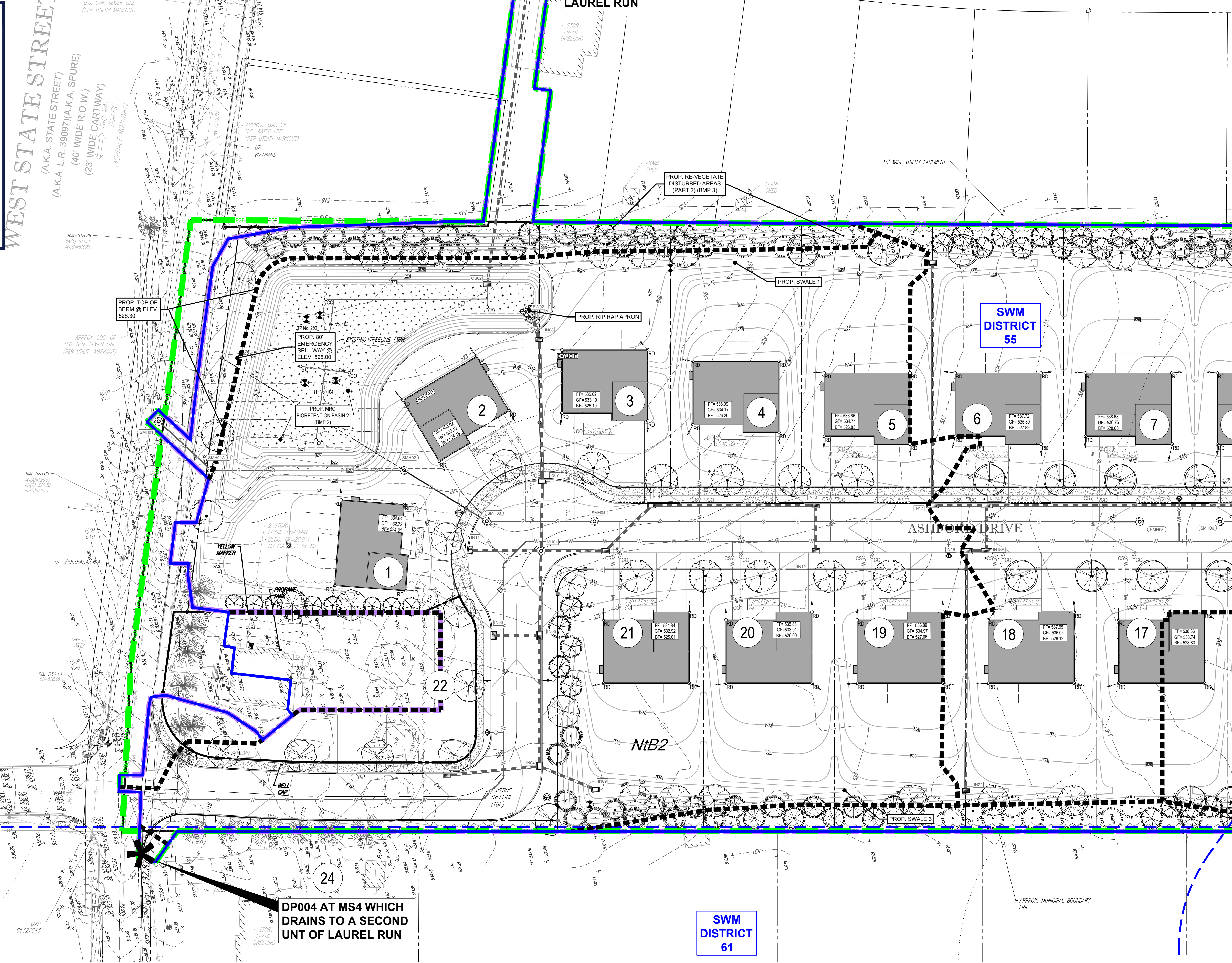
LEGEND
EXISTING

PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
EXISTING CONTOUR / MAJOR	---
EXISTING CONTOUR / MINOR	---
EXISTING SPOT ELEVATION	X
WETLANDS	Wavy pattern
WATERS	Blue hatched
TREELINE	Wavy line with circles

LEGEND
PROPOSED

PROJECT SITE BOUNDARY	PSB
LIMIT OF DISTURBANCE	---
OVERALL DRAINAGE BOUNDARY	---
SUB DRAINAGE AREA	---
SOIL DELINEATION LINE	---
SWM DISTRICT BOUNDARY	---
SWM DISTRICT LABEL	54
SOIL TYPE	UxB
LANDSCAPING	Circle with cross
PROPOSED CONTOUR / MAJOR	---
PROPOSED CONTOUR / MINOR	---
WATER LINE	---
WATER LATERAL	---
SANITARY SEWER	---
SANITARY SEWER LATERAL	---
STORM PIPE	---
DISCHARGE POINT	DP001
CALCULATED FLOODWAY	---
TEST PIT	TP No. 103
RIP RAP APRON	---
TREELINE	---
JOINT 105 PERMIT BOUNDARY	---
NAG SC-150 MATTING	---

HILLSIDE DRIVE
(50' WIDE R.O.W.)
(27.50' CARTWAY)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)



LOT AREA TABLE

LOT #	GROSS AREA	LOT WIDTH*	BUILDING COVERAGE	BUILDING COVERAGE %	IMPERVIOUS ON LD PLANS	ADDITIONAL AVAILABLE IMPERVIOUS	TOTAL IMPERVIOUS	TOTAL IMPERVIOUS %
LOT 1	17,390 SF (0.399 Ac.)	80.0 LF	2,367 SF	13.61%	3,197 SF	2,178 SF	5,375 SF	30.91%
LOT 2	25,833 SF (0.593 Ac.)	80.0 LF	2,367 SF	9.16%	3,197 SF	2,178 SF	5,375 SF	20.81%
LOT 3	12,461 SF (0.286 Ac.)	83.0 LF	2,367 SF	19.00%	3,414 SF	1,570 SF	4,984 SF	40.00%
LOT 4	12,899 SF (0.296 Ac.)	80.0 LF	2,367 SF	18.35%	3,160 SF	1,995 SF	5,155 SF	39.96%
LOT 5	12,863 SF (0.295 Ac.)	80.0 LF	2,367 SF	18.40%	3,160 SF	1,985 SF	5,145 SF	40.00%
LOT 6	12,828 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.45%	3,160 SF	1,970 SF	5,130 SF	39.99%
LOT 7	12,792 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.50%	3,160 SF	1,950 SF	5,110 SF	39.95%
LOT 8	12,757 SF (0.293 Ac.)	80.0 LF	2,367 SF	18.55%	3,160 SF	1,940 SF	5,100 SF	39.98%

*LOT WIDTH IS MEASURED AT FRONT YARD BUILDING SETBACK LINE.

LOT AREA TABLE

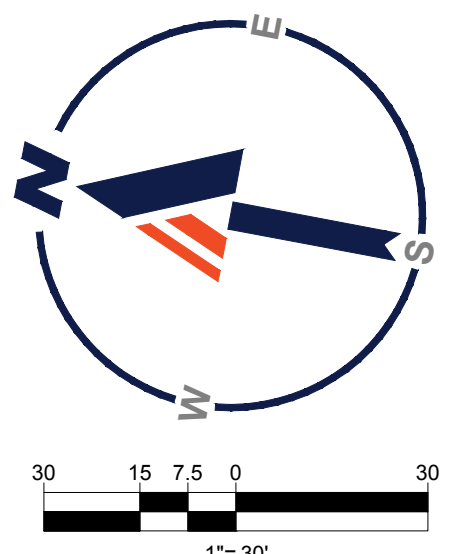
LOT #	GROSS AREA	LOT WIDTH*	BUILDING COVERAGE	BUILDING COVERAGE %	IMPERVIOUS ON LD PLANS	ADDITIONAL AVAILABLE IMPERVIOUS	TOTAL IMPERVIOUS	TOTAL IMPERVIOUS %
LOT 9	12,721 SF (0.292 Ac.)	80.0 LF	2,367 SF	18.61%	3,160 SF	1,925 SF	5,085 SF	39.97%
LOT 10	13,077 SF (0.300 Ac.)	142.2 LF	2,014 SF	15.40%	2,785 SF	1,900 SF	4,685 SF	35.83%
LOT 11	14,335 SF (0.329 Ac.)	104 LF	2,367 SF	16.51%	3,120 SF	144 SF	3,272 SF	22.93%
LOT 12	12,086 SF (0.277 Ac.)	102.0 LF	2,367 SF	19.61%	3,261 SF	1,570 SF	4,831 SF	39.98%
LOT 13	12,392 SF (0.284 Ac.)	94.0 LF	2,367 SF	19.10%	3,718 SF	1,230 SF	4,948 SF	39.93%
LOT 14	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 15	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 16	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%

*FUTURE CONSTRUCTION OF ANY POOLS, SHEDS, PATIOS, ETC. WILL CONTRIBUTE TO THE OVERALL IMPERVIOUS AREA.

LOT AREA TABLE

LOT #	GROSS AREA	LOT WIDTH*	BUILDING COVERAGE	BUILDING COVERAGE %	IMPERVIOUS ON LD PLANS	ADDITIONAL AVAILABLE IMPERVIOUS	TOTAL IMPERVIOUS	TOTAL IMPERVIOUS %
LOT 17	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 18	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,960 SF	5,120 SF	40.00%
LOT 19	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,960 SF	5,120 SF	40.00%
LOT 20	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,960 SF	5,120 SF	40.00%
LOT 21	14,192 SF (0.326 Ac.)	90.0 LF, 160.0 LF	2,367 SF	16.68%	3,160 SF	2,178 SF	5,338 SF	37.61%
LOT 22	16,985 SF (0.390 Ac.)	87.0 LF, 183.0 LF	1,207 SF	7.41%	2,599 SF	-	2,599 SF	15.96%
LOT 23	48,854 SF (1.122 Ac.)	86.0 LF	-	-	-	-	-	-

*IMPERVIOUS (AS SHOWN ON LD PLANS) INCLUDES DECKS AT THE REAR OF HOUSES.



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	JP	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP	EAJ
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	EAJ

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-242-1779
www.pa811.org
20191704041 & 20191704042

PROJECT No.: PC191160
DRAWN BY: AMT
DATE: 08/06/2024
CAD ID.: PC191160-SPP-0

FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.

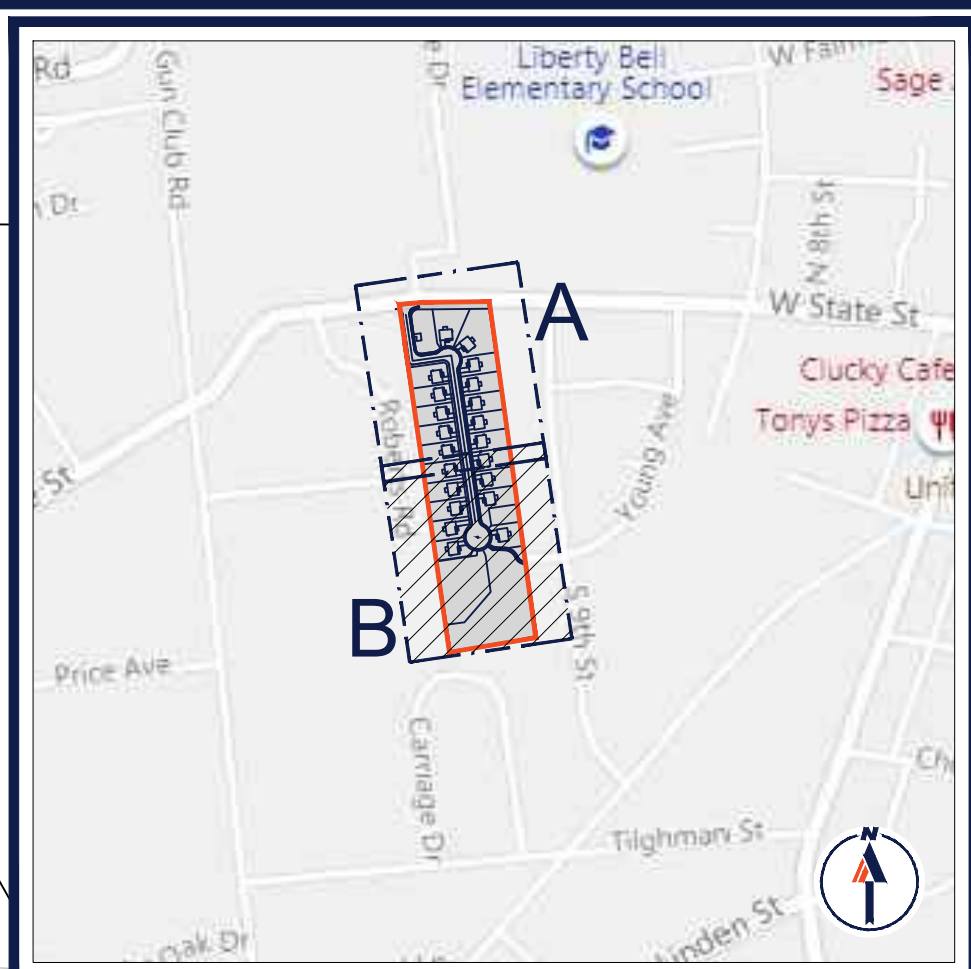
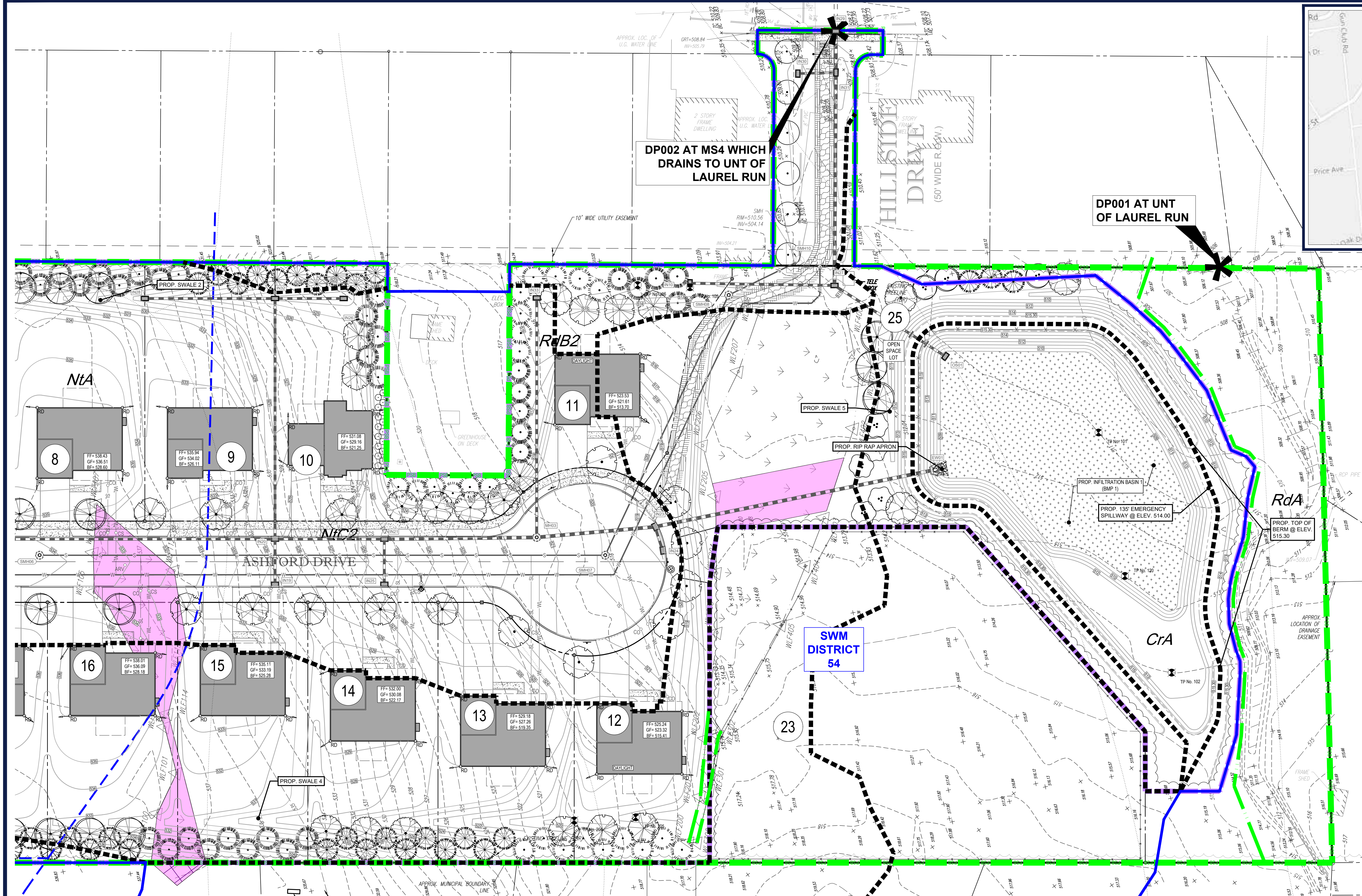
PROPOSED RESIDENTIAL DEVELOPMENT
'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045479E
NEW JERSEY LICENSE No. 24604503900

SHEET TITLE: **POST CONSTRUCTION STORMWATER MANAGEMENT PLAN - A**
SHEET NUMBER: **31**
OF 48
REVISION 7 - 01/19/2024

R:\PC191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT REV\7\PC191160-SPP-0.dwg - LAYOUT 31 - PC31W.A



KEY MAP
1"=800'

LEGEND
EXISTING

PROPERTY LINE	---
R.O.W. LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
EXISTING CONTOUR / MAJOR	---
EXISTING CONTOUR / MINOR	---
EXISTING SPOT ELEVATION	x 511.25
WETLANDS	WETLANDS
WATERS	WATERS
TREELINE	TREELINE

LEGEND
PROPOSED

PROJECT SITE BOUNDARY	---
LIMIT OF DISTURBANCE	---
OVERALL DRAINAGE BOUNDARY	---
SUB DRAINAGE AREA	---
SOIL DELINEATION LINE	---
SWM DISTRICT BOUNDARY	---
SWM DISTRICT LABEL	54
SOIL TYPE	UxB
LANDSCAPING	LANDSCAPING
PROPOSED CONTOUR / MAJOR	---
PROPOSED CONTOUR / MINOR	---
WATER LINE	---
WATER LATERAL	---
SANITARY SEWER	---
SANITARY SEWER LATERAL	---
STORM PIPE	---
DISCHARGE POINT	DP001
CALCULATED FLOODWAY	---
TEST PIT	TP No. 103
RIP RAP APRON	---
TREELINE	---
JOINT 105 PERMIT BOUNDARY	---
NAG SC-150 MATTING	---

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BGIEN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-345-1779
www.pa.gov/811
20191704041 & 20191704042

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/06/2024
CAD ID.: PC191160-SPP-0

FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT
'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045476E
NEW JERSEY LICENSE No. 24C04502900

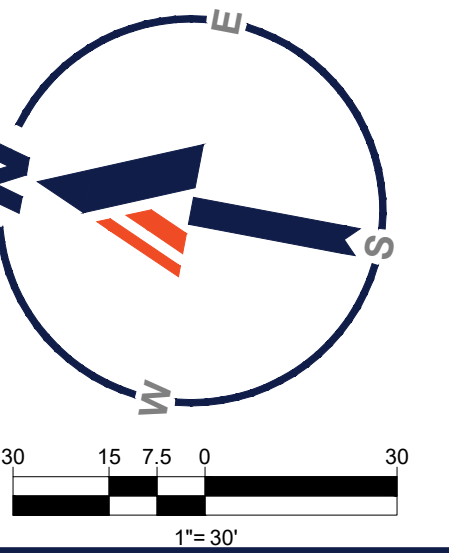
SHEET TITLE: **POST CONSTRUCTION STORMWATER MANAGEMENT PLAN - B**
SHEET NUMBER: **32**
OF 48
REVISION 7 - 01/19/2024

LOT AREA TABLE

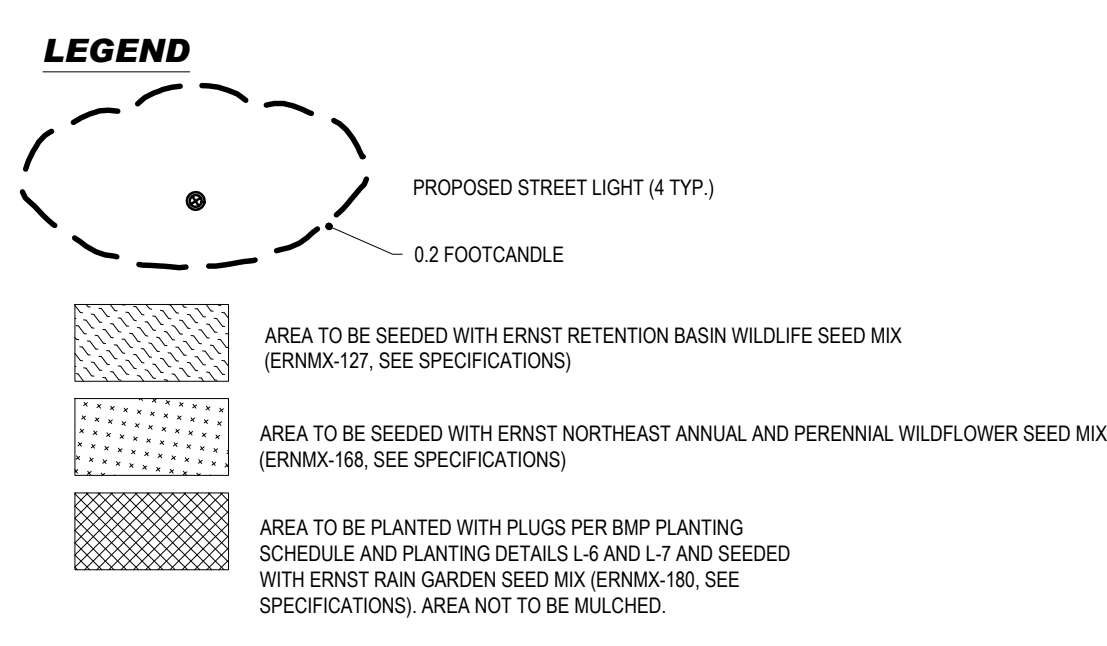
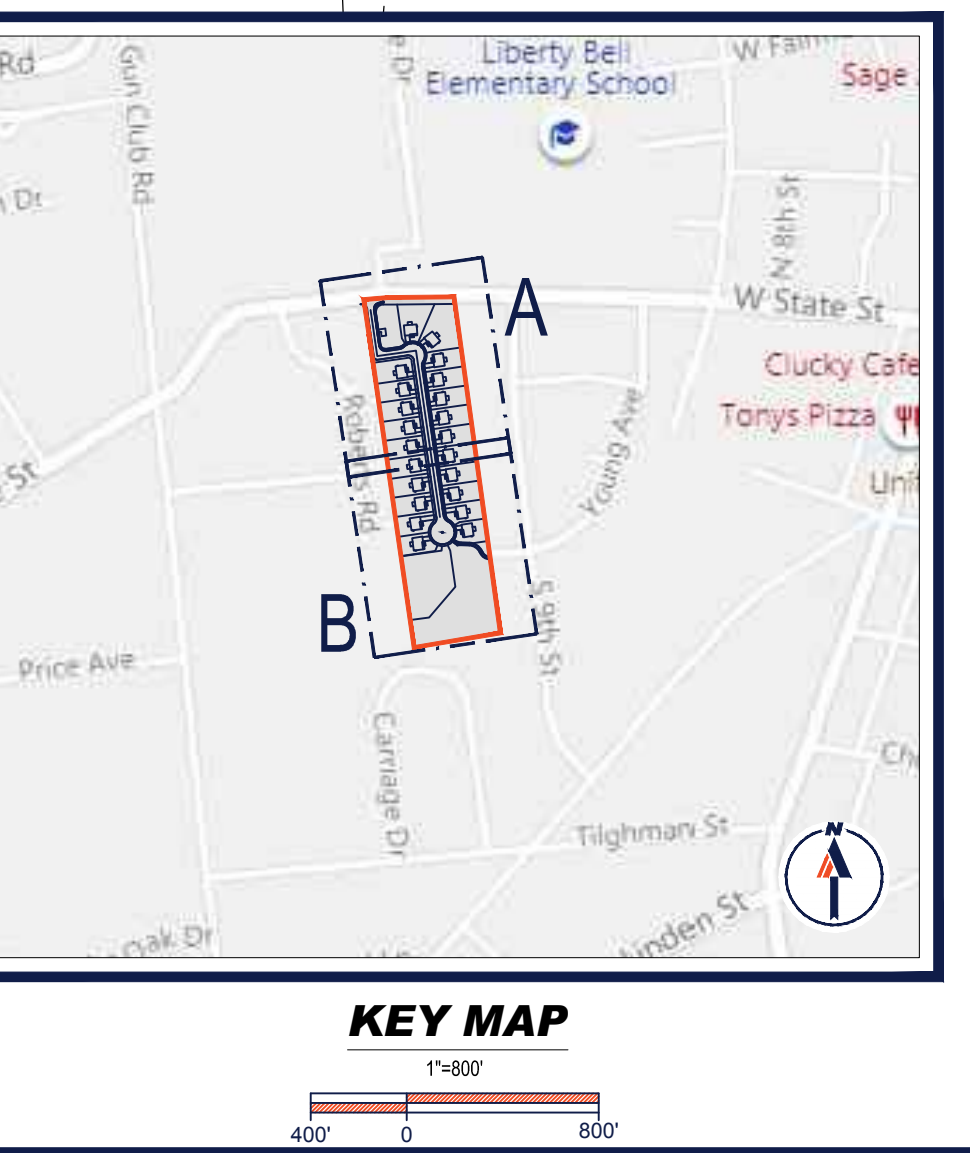
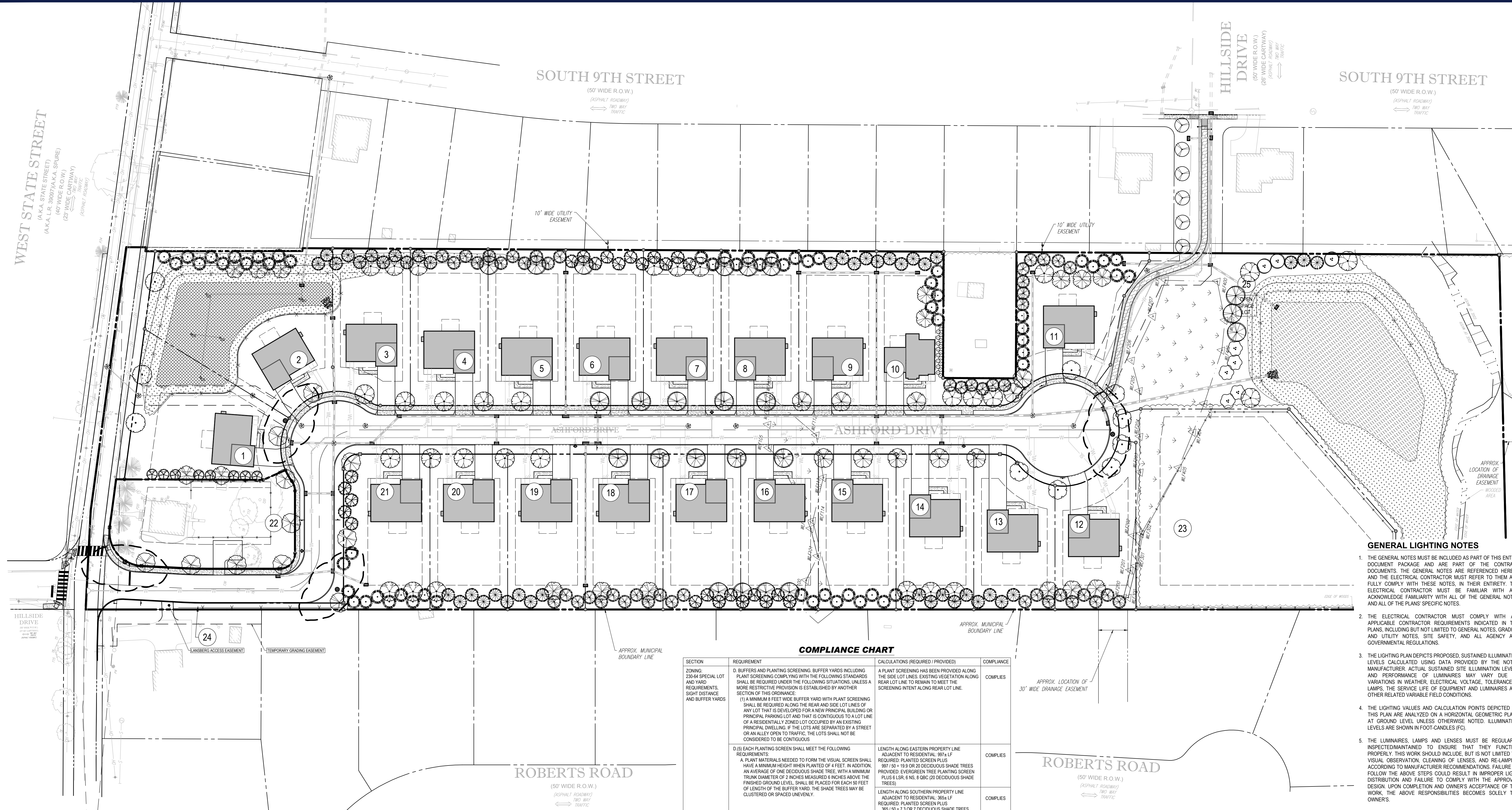
LOT #	GROSS AREA	LOT WIDTH*	BUILDING COVERAGE	BUILDING COVERAGE %	IMPERVIOUS (AS SHOWN ON LD PLANS)	ADDITIONAL AVAILABLE IMPERVIOUS	TOTAL IMPERVIOUS	TOTAL IMPERVIOUS %
LOT 1	17,390 SF (0.399 Ac.)	80.0 LF	2,367 SF	13.61%	3,197 SF	2,178 SF	5,375 SF	30.91%
LOT 2	25,833 SF (0.593 Ac.)	80.0 LF	2,367 SF	9.16%	3,197 SF	2,178 SF	5,375 SF	20.81%
LOT 3	12,461 SF (0.286 Ac.)	83.0 LF	2,367 SF	19.00%	3,414 SF	1,570 SF	4,984 SF	40.00%
LOT 4	12,899 SF (0.296 Ac.)	80.0 LF	2,367 SF	18.35%	3,160 SF	1,995 SF	5,155 SF	39.96%
LOT 5	12,863 SF (0.295 Ac.)	80.0 LF	2,367 SF	18.40%	3,160 SF	1,985 SF	5,145 SF	40.00%
LOT 6	12,828 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.45%	3,160 SF	1,970 SF	5,130 SF	39.99%
LOT 7	12,792 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.50%	3,160 SF	1,950 SF	5,110 SF	39.95%
LOT 8	12,757 SF (0.293 Ac.)	80.0 LF	2,367 SF	18.55%	3,160 SF	1,940 SF	5,100 SF	39.98%
LOT 9	12,721 SF (0.292 Ac.)	80.0 LF	2,367 SF	18.61%	3,160 SF	1,925 SF	5,085 SF	39.97%
LOT 10	13,077 SF (0.300 Ac.)	142.2 LF	2,014 SF	15.40%	2,785 SF	1,900 SF	4,685 SF	35.83%
LOT 11	14,335 SF (0.329 Ac.)	104 LF	2,367 SF	16.51%	3,128 SF	144 SF	3,272 SF	22.83%
LOT 12	12,086 SF (0.277 Ac.)	102.0 LF	2,367 SF	19.61%	3,261 SF	1,570 SF	4,831 SF	39.98%

LOT AREA TABLE

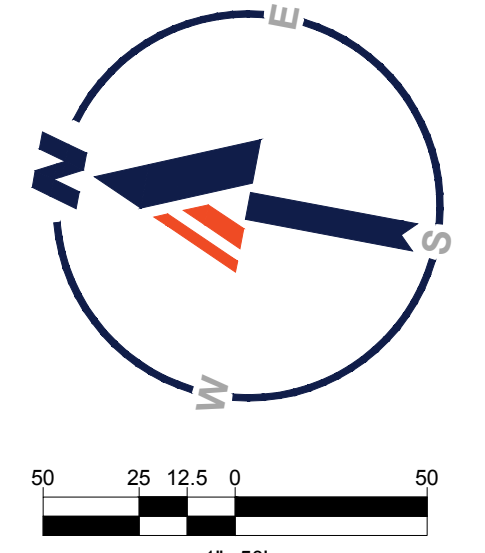
LOT #	GROSS AREA	LOT WIDTH*	BUILDING COVERAGE	BUILDING COVERAGE %	IMPERVIOUS (AS SHOWN ON LD PLANS)	ADDITIONAL AVAILABLE IMPERVIOUS	TOTAL IMPERVIOUS	TOTAL IMPERVIOUS %
LOT 12	12,086 SF (0.277 Ac.)	102.0 LF	2,367 SF	19.61%	3,261 SF	1,570 SF	4,831 SF	39.98%
LOT 13	12,392 SF (0.284 Ac.)	94.0 LF	2,367 SF	19.10%	3,718 SF	1,230 SF	4,948 SF	39.93%
LOT 14	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 15	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 16	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 17	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,815 SF	4,975 SF	38.87%
LOT 18	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,960 SF	5,120 SF	40.00%
LOT 19	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,960 SF	5,120 SF	40.00%
LOT 20	12,800 SF (0.294 Ac.)	80.0 LF	2,367 SF	18.49%	3,160 SF	1,960 SF	5,120 SF	40.00%
LOT 21	14,192 SF (0.326 Ac.)	90.0 LF, 160.0 LF	2,367 SF	16.68%	3,160 SF	2,178 SF	5,338 SF	37.61%
LOT 22	16,985 SF (0.390 Ac.)	87.0 LF, 183.0 LF	1,207 SF	7.41%	2,599 SF	-	2,599 SF	15.96%
LOT 23	48,854 SF (1.122 Ac.)	86.0 LF	-	-	-	-	-	-



R:\191160\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT REV\7\F01160-SPP-0-LA\DOT 32-PC32WB.B



SECTION	REQUIREMENT	CALCULATIONS (REQUIRED / PROVIDED)	COMPLIANCE
ZONING: 230-64 SPECIAL LOT AND YARD REQUIREMENTS, SIGHT DISTANCE AND BUFFER YARDS	D. BUFFERS AND PLANTING SCREENING. BUFFER YARDS INCLUDING PLANT SCREENING COMPLYING WITH THE FOLLOWING STANDARDS SHALL BE REQUIRED UNDER THE FOLLOWING SITUATIONS, UNLESS A MORE RESTRICTIVE PROVISION IS ESTABLISHED BY ANOTHER SECTION OF THIS ORDINANCE. (1) A MINIMUM 8 FEET WIDE BUFFER YARD WITH PLANT SCREENING SHALL BE REQUIRED ALONG THE REAR AND SIDE LOT LINES OF ANY LOT THAT IS DEVELOPED FOR A NEW PRINCIPAL BUILDING OR PRINCIPAL PARKING LOT AND THAT IS CONTIGUOUS TO A LOT LINE OF A RESIDENTIALLY ZONED LOT OCCUPIED BY AN EXISTING PRINCIPAL DWELLING. IF THE LOTS ARE SEPARATED BY A STREET OR AN ALLEY OPEN TO TRAFFIC, THE LOTS SHALL NOT BE CONSIDERED TO BE CONTIGUOUS.	A PLANT SCREENING HAS BEEN PROVIDED ALONG THE SIDE LOT LINES. EXISTING VEGETATION ALONG REAR LOT LINE TO REMAIN TO MEET THE SCREENING INTENT ALONG REAR LOT LINE.	COMPLIES
D. (5) EACH PLANTING SCREEN SHALL MEET THE FOLLOWING REQUIREMENTS: A. PLANT MATERIALS NEEDED TO FORM THE VISUAL SCREEN SHALL HAVE A MINIMUM HEIGHT WHEN PLANTED OF 4 FEET. IN ADDITION, AN AVERAGE OF ONE DECIDUOUS SHADE TREE, WITH A MINIMUM TRUNK DIAMETER OF 2 INCHES MEASURED 6 INCHES ABOVE THE FINISHED GROUND LEVEL, SHALL BE PLACED FOR EACH 50 FEET OF LENGTH OF THE BUFFER YARD. THE SHADE TREES MAY BE CLUSTERED OR SPACED UNEVENLY.		LENGTH ALONG EASTERN PROPERTY LINE ADJACENT TO RESIDENTIAL: 997 LF REQUIRED: PLANTED SCREEN PLUS 997' 50" 19.9 OR 20 DECIDUOUS SHADE TREES PROVIDED: EVERGREEN TREE PLANTING SCREEN PLUS 5 LSR, 6 NS, 8 OBC, 20 DECIDUOUS SHADE TREES	COMPLIES
		LENGTH ALONG SOUTHERN PROPERTY LINE ADJACENT TO RESIDENTIAL: 366 LF REQUIRED: PLANTED SCREEN PLUS 366' 10" 7.3 OR 7 DECIDUOUS SHADE TREES PROVIDED: EXISTING VEGETATION TO REMAIN TO MEET THE INTENT OF THIS REQUIREMENT.	COMPLIES
		LENGTH ALONG WESTERN PROPERTY LINE ADJACENT TO RESIDENTIAL: 816 LF REQUIRED: PLANTED SCREEN PLUS 816' 10" 15.3 OR 16 DECIDUOUS SHADE TREES PROVIDED: EVERGREEN TREE PLANTING SCREEN PLUS 5 LSR, 4 NS, 6 OBC, 16 DECIDUOUS SHADE TREES	COMPLIES
D. (5) B. PLANTS NEEDED TO FORM THE VISUAL SCREEN SHALL BE OF SUCH SPECIES, SPACING AND SIZE AS CAN REASONABLY BE EXPECTED TO PRODUCE WITHIN 3 YEARS A MOSTLY SOLID YEAR-ROUND VISUAL SCREEN AT LEAST 4 FEET IN HEIGHT, EXCEPT WHERE VIEWS INTO A SITE FROM A STREET ARE NEEDED FOR SECURITY PURPOSES, IN WHICH CASE, THE SCREEN SHOULD HAVE A TRIMMED HEIGHT OF LESS THAN 4 FEET.		PROPOSED LANDSCAPING IS EXPECTED TO MEET THE INTENT OF THIS REQUIREMENT.	COMPLIES
D. STREET TREES. STREET TREES SHALL BE REQUIRED WHEN A NEW PRINCIPAL NON-RESIDENTIAL OR MULTI-FAMILY APARTMENT BUILDING IS PROPOSED, OR ALONG A NEW STREET OR AN EXTENSION OF AN EXISTING STREET. STREET TREES ARE NOT REQUIRED WHERE THE BOROUGH DETERMINES THAT EXISTING HEALTHY TREES PROPOSED TO BE PRESERVED WILL SERVE THE SAME FUNCTION.		STREET TREES HAVE BEEN PROVIDED.	COMPLIES
D. (2) IF MORE THAN 10 TREES ARE REQUIRED TO BE PLANTED, THEN NO MORE THAN 50 PERCENT SHALL BE OF ONE SPECIES.		NO MORE THAN 50% OF ANY ONE SPECIES HAVE BEEN PROPOSED AS STREET TREES.	COMPLIES
D. (7) REQUIRED NUMBER AND SPACING OF STREET TREES, WHERE REQUIRED: AN AVERAGE OF ONE STREET TREE SHALL BE PLANTED FOR EVERY 50 FEET OF DISTANCE ALONG THE STREET RIGHT-OF-WAY LINE ON EACH AFFECTED SIDE OF THE STREET. TREES SHALL BE DISTRIBUTED ALONG THE LENGTH OF THE STREET, BUT ARE NOT REQUIRED TO BE EVENLY SPACED.		LENGTH ALONG STATE STREET: 325a LF (EXCLUDING DRIVEWAY WIDTH) REQUIRED: 120' 150' ± 6.0 OR 7 STREET TREES PROVIDED: 3 CCA PLUS 4 EXISTING TREES (7 STREET TREES)	COMPLIES
		LENGTH ALONG BOTH SIDES OF PROPOSED STREET: 2,200a LF REQUIRED: 2,390' 50" ± 47.8 OR 48 STREET TREES PROVIDED: 10 ASGM, 10 CO, 10 OPH, 17A, 11 UV (48 STREET TREES)	COMPLIES



GENERAL LIGHTING NOTES

- THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE ELECTRICAL CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY, THE ELECTRICAL CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS SPECIFIC NOTES.
- THE ELECTRICAL CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
- THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER. ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
- THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
- THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-LAMPING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNER'S.
- THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEER'S AND/OR ELECTRICAL CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
- THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES TO THE ENGINEER OF RECORD'S ATTENTION, PRIOR TO THE START OF CONSTRUCTION.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND/OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.
- UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
- THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING ILM-80/88 TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
- WITHOUT EXCEPTION, WEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY BMP FACILITY. BMP FACILITIES INCLUDE RAINGARDENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.

GENERAL NOTES:

- THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
- ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH LANDSCAPE SPECIFICATION #2.C, UNLESS OTHERWISE STATED ON THIS PLAN.
- SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.
- IF IRRIGATION IS REQUIRED BY THE OWNER OR APPROVING MUNICIPALITY, THE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM MEETING THE SPECIFICATIONS OF THE CHOSEN PRODUCTS MANUFACTURER. THE IRRIGATION DESIGN SHALL ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.
- PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BORLER ENGINEERING AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT ARE TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.
- WITHOUT EXCEPTION, WEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY BMP FACILITY. BMP FACILITIES INCLUDE RAINGARDENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	BY	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	JP	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP	EAJ
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	BG / LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	EAJ

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-488-1778
www.pa.gov/call811
20191704041 & 20191704042

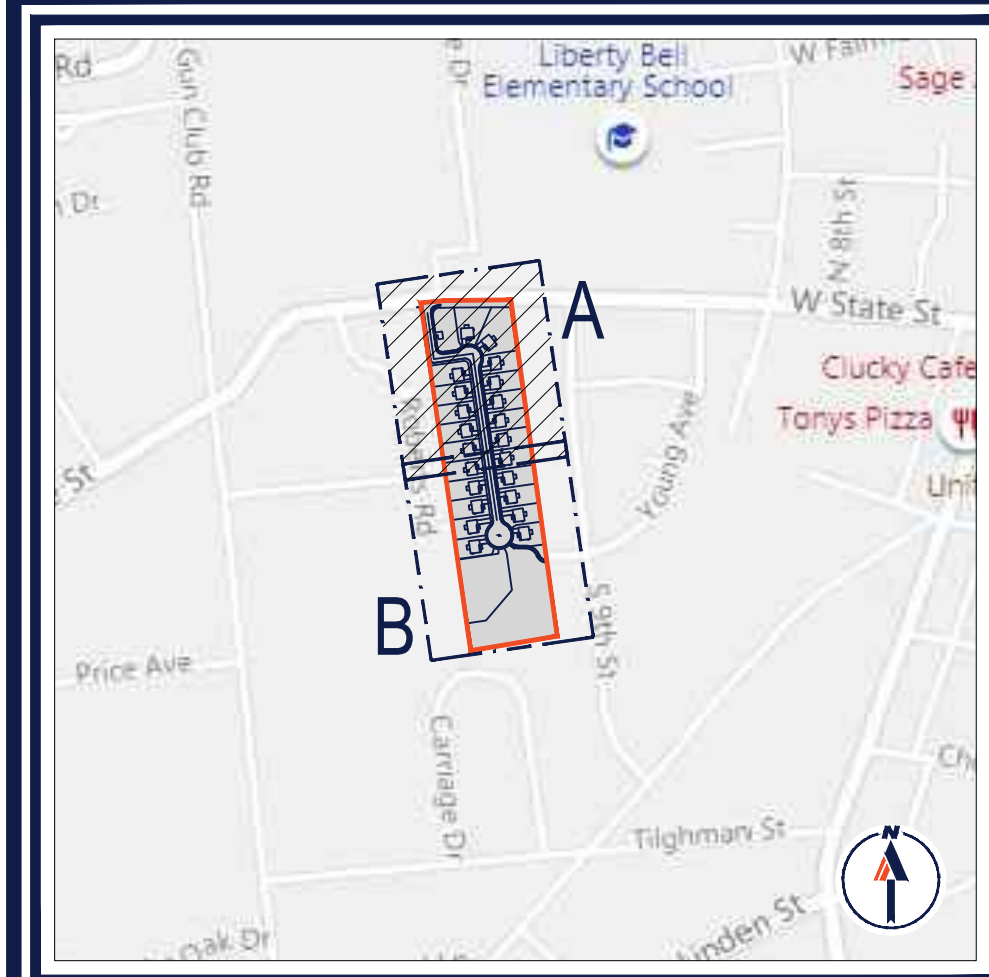
PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/02/2024
CAD ID.: PC191160-LND-0

FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

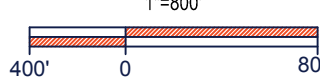
BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

D.T. NORTH
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002729

SHEET TITLE:
OVERALL PCSWM LANDSCAPE AND LIGHTING PLAN
SHEET NUMBER:
36
OF 48
REVISION 7 - 01/19/2024



KEY MAP



GENERAL NOTES:

- THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
- ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH LANDSCAPE SPECIFICATION #2.C. UNLESS OTHERWISE STATED ON THIS PLAN.
- SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.
- IF IRRIGATION IS REQUIRED BY THE OWNER OR APPROVING MUNICIPALITY, THE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM MEETING THE SPECIFICATIONS OF THE CHOSEN PRODUCT'S MANUFACTURER. THE IRRIGATION DESIGN SHALL ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.
- PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER ENGINEERING AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT ARE TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.
- WITHOUT EXCEPTION, WEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY BMP FACILITY. BMP FACILITIES INCLUDE FRANGIENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.

GENERAL LIGHTING NOTES

- THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN AND THE ELECTRICAL CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE ELECTRICAL CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
- THE ELECTRICAL CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
- THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER. ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
- THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
- THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RELAMPING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BELONG SOLELY TO THE OWNER.
- THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEERS AND/OR ELECTRICAL CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
- THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY, IN WRITINGS, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES TO THE ARCHITECT'S ATTENTION PRIOR TO THE START OF CONSTRUCTION.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.
- UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
- THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-08 TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER (BOHLER) FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE LUMINAIRES IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.

HILLSIDE DRIVE
(50' WIDE R.O.W.)
(27.50' CARTWAY)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)

WEST STATE STREET
(A.K.A. STATE STREET)
(40' WIDE R.O.W.)
(23' WIDE CARTWAY)
TWO WAY TRAFFIC
(ASPHALT ROADWAY)

AREA TO BE SEEDDED WITH ERNST NORTHEAST ANNUAL AND PERENNIAL WILDFLOWER SEED MIX (ERNM-188, SEE SPECIFICATIONS)

AREA TO BE SEEDDED WITH ERNST NORTHEAST ANNUAL AND PERENNIAL WILDFLOWER SEED MIX (ERNM-188, SEE SPECIFICATIONS)

BMP SEED & PLUG MIX - AREA TO BE PLANTED WITH PLUGS PER BMP PLANTING SCHEDULE AND PLANTING DETAILS L-6 AND L-7 AND SEEDDED WITH ERNST RAIN GARDEN SEED MIX (ERNM-180, SEE SPECIFICATIONS). AREA NOT TO BE MULCHED.

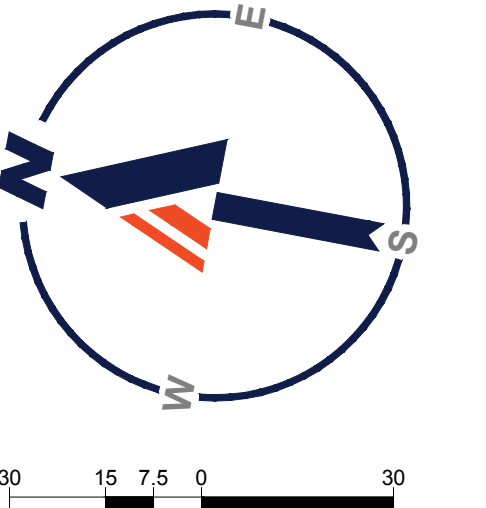
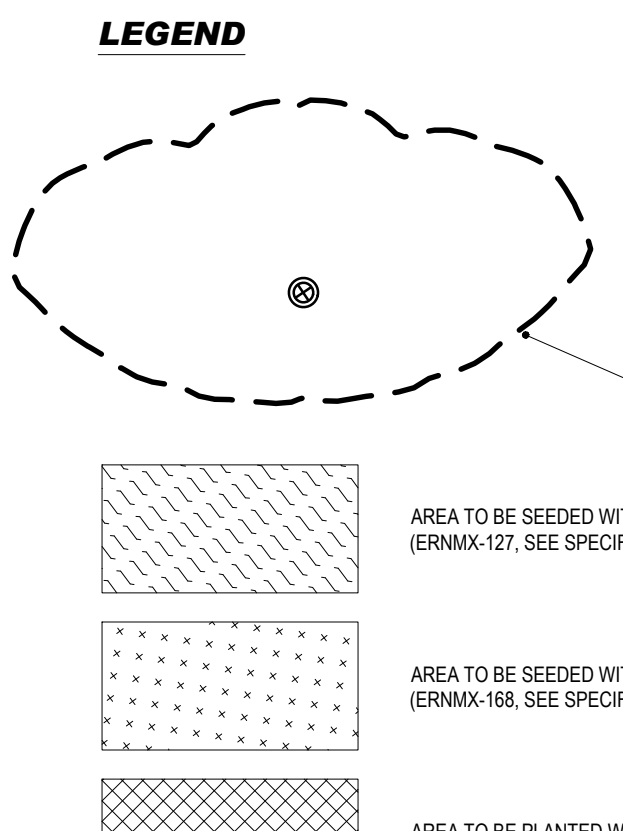
BMP PLANT SCHEDULE

GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
[Hatched Pattern]		10,000 SF	BMP SEED & PLUG MIX				
[Dotted Pattern]	AI	602	ASOCLEPIS INCARNATA	SWAMP MILKWEED	4"	PLUG	13% @ 18" o.c.
[Dotted Pattern]	AN	556	ASTER NOVAE-ANGIAE	NEW ENGLAND ASTER	4"	PLUG	12% @ 18" o.c.
[Dotted Pattern]	BA	556	BAPTISIA AUSTRALIS	BLUE WILD INDIGO	4"	PLUG	12% @ 18" o.c.
[Dotted Pattern]	CV	556	CAREX VILPINOIDEA	FOX SEDGE	4"	PLUG	12% @ 18" o.c.
[Dotted Pattern]	EP	602	ECHINACEA PURPUREA	PURPLE CONEFLOWER	4"	PLUG	13% @ 18" o.c.
[Dotted Pattern]	EV	556	ELYMUS VIRGINICUS	VIRGINIA WILD RYE	4"	PLUG	12% @ 18" o.c.
[Dotted Pattern]	EC	602	EUPATORIUM COELESTINUM	BLUE MISTFLOWER	4"	PLUG	13% @ 18" o.c.
[Dotted Pattern]	RH	602	RUDECKIA HIRTA	BLACK-EYED SUSAN	4"	PLUG	13% @ 18" o.c.

PLANT SCHEDULE

CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
ASGM	10	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2.5" CAL.	B&B
CCA	3	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2.5" CAL.	B&B
CO	10	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2.5" CAL.	B&B
LSR	16	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	ROUND-LOBED SEEDLESS SWEET GUM	2.5" CAL.	B&B
NS	13	NYSSA SYLVATICA	SOUR GUM	2.5" CAL.	B&B
QBC	19	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5" CAL.	B&B
QPH	10	QUERCUS PHELLLOS	WILLOW OAK	2.5" CAL.	B&B
TA	7	TILIA AMERICANA	AMERICAN LINDEN	2.5" CAL.	B&B
LV	11	ULMUS AMERICANA 'VALLEY FORGE'	AMERICAN ELM	2.5" CAL.	B&B
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
PGL	46	PICEA GLAUCA	WHITE SPRUCE	6-8"	B&B
PMB	59	PICEA ABIES	NORWICH SPRUCE	6-8"	B&B
PO	25	PICEA OMORICA	SERBIAN SPRUCE	6-8"	B&B
PP	43	PICEA PUNGENS	COLORADO SPRUCE	6-8"	B&B
TOG	8	THUJA OCCIDENTALIS 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6-8"	B&B
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
AC	3	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	8-10"	B&B
MA	6	MALLUS X INDORONACK	ADRONDACX CRABAPPLE	2.5" CAL.	B&B
MV	5	MAGNOLIA VIRGINIANA	SWEET BAY	8-10"	B&B
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
TOE	17	THUJA OCCIDENTALIS 'EMERALD'	EMERALD ARBORVITAE	5-6"	B&B

* TREES INDICATED AS NATIVE ABOVE SHALL BE COUNTED TOWARDS THE RE-VEGETATE DISTURBED AREAS BMP VOLUME CREDIT



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT REK
2	08/18/2022	REV. PER LCCD COMMENTS	ENMS JP
3	01/06/2023	REV. PER LCCD COMMENTS	BGIEN JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR JP
5	03/16/2023	REV. PER LCCD COMMENTS	EAJ JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAJ JRP

811
Know what's below. Call before you dig.
PENNSYLVANIA YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-942-1779
www.pa.gov/call-811
20191704641 & 20191704642

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: 08/06/2021
DATE: 08/06/2021
CAD ID.: PC191160-LND-0

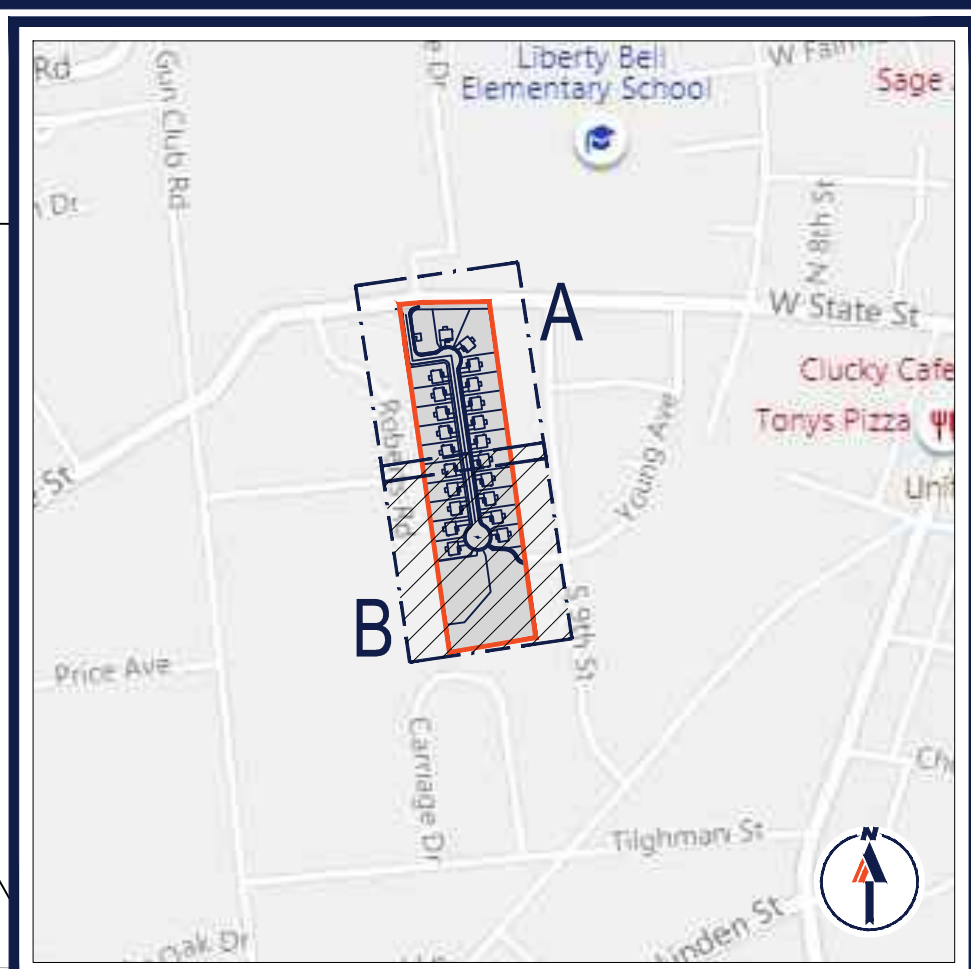
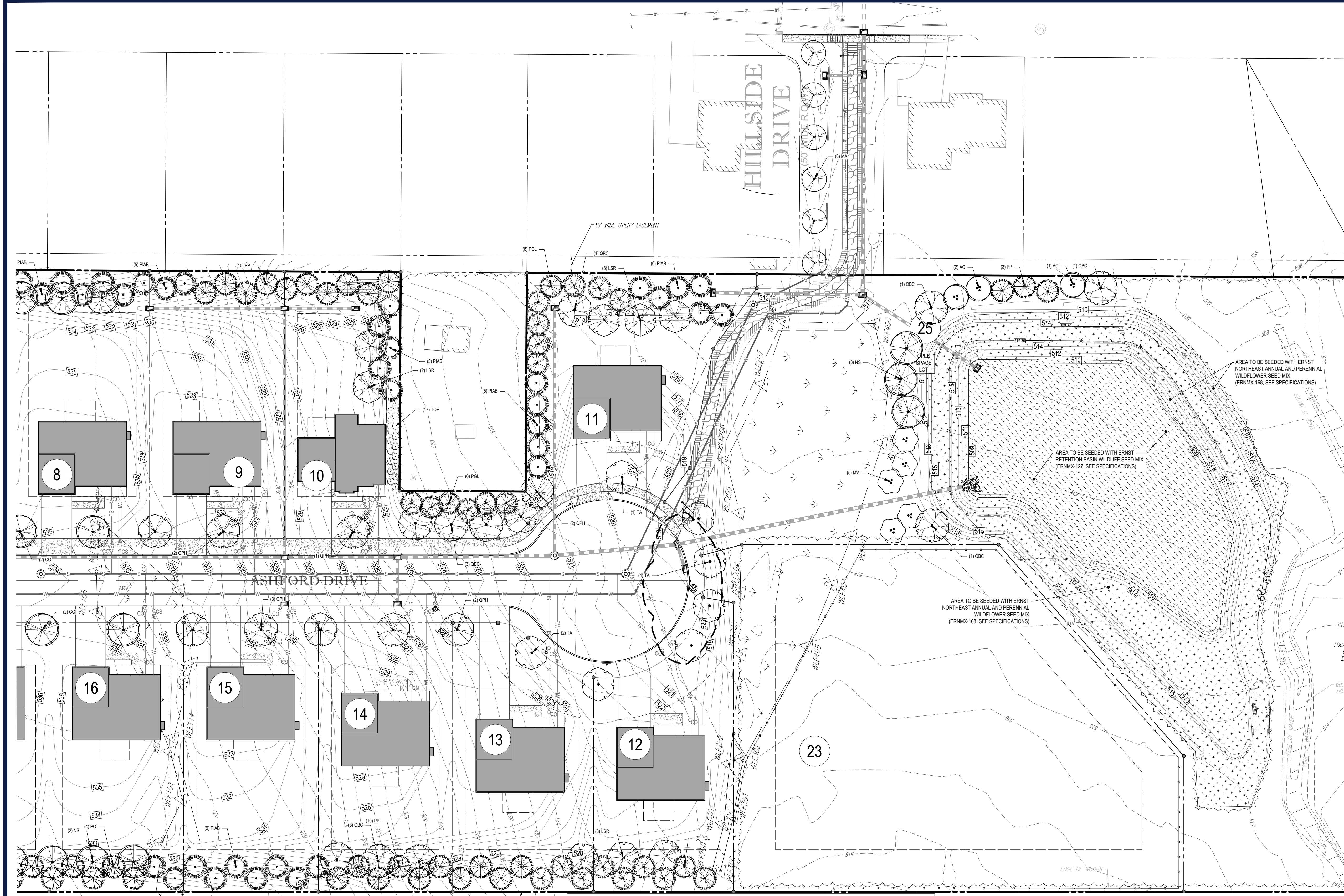
FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

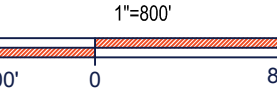
D.T. NORTH
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE NO. LA002729

SHEET TITLE:
PCSWM LANDSCAPE AND LIGHTING PLAN A

SHEET NUMBER:
37
OF 48
REVISION 7 - 01/19/2024



KEY MAP



GENERAL NOTES:

- THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
- ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH LANDSCAPE SPECIFICATION #2.C, UNLESS OTHERWISE STATED ON THIS PLAN.
- SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.
- IF IRRIGATION IS REQUIRED BY THE OWNER OR APPROVING MUNICIPALITY, THE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM MEETING THE SPECIFICATIONS OF THE CHOSEN PRODUCTS MANUFACTURER. THE IRRIGATION DESIGN SHALL ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.
- PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER ENGINEERING AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT ARE TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.
- WITHOUT EXCEPTION, WEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY BMP FACILITY. BMP FACILITIES INCLUDE RAINGARDENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.

GENERAL LIGHTING NOTES

- THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE GENERAL NOTES. THE ELECTRICAL CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY, THE ELECTRICAL CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS SPECIFIC NOTES.
- THE ELECTRICAL CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
- THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER. ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
- THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDELS (FC).
- THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-LAMPING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNERS.
- THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEER'S AND/OR ELECTRICAL CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
- THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURE(S) TO THE ENGINEER OF RECORD'S ATTENTION, PRIOR TO THE START OF CONSTRUCTION.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATOR OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.
- UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
- THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING US LAMBDA TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER (BOHLER) FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE LUMINAIRES IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.

BMP PLANT SCHEDULE

GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
[Pattern]		10,020 SF	BMP SEED & PLUG MIX BMP SEED & PLUG MIX AREA TO BE PLANTED WITH PLUGS PER PLANTING DETAILS L-6 AND L-7 AND SEEDED WITH ERNST RAIN GARDEN SEED MIX/ERNMX-180. SEE SPECIFICATIONS. AREA NOT TO BE MULCHED.				
[Pattern]	AI	602	ASCLEPIAS INCARNATA	SWAMP MILKWEED	4"	PLUG	13" @ 18" o.c.
[Pattern]	AN	556	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	4"	PLUG	12" @ 18" o.c.
[Pattern]	BA	556	BAPTISIA AUSTRALIS	BLUE WILD INDIGO	4"	PLUG	12" @ 18" o.c.
[Pattern]	CV	556	CAREX VULPINODEA	FOX SEDGE	4"	PLUG	12" @ 18" o.c.
[Pattern]	EP	602	ECHINACEA PURPUREA	PURPLE CONEFLOWER	4"	PLUG	13" @ 18" o.c.
[Pattern]	EV	556	ELYMUS VIRGINICUS	VIRGINIA WILD RYE	4"	PLUG	12" @ 18" o.c.
[Pattern]	EC	602	EUPATORIUM COELESTINUM	BLUE MISTFLOWER	4"	PLUG	13" @ 18" o.c.
[Pattern]	RH	602	RUDBECKIA HIRTA	BLACK-EYED SUSAN	4"	PLUG	13" @ 18" o.c.

PLANT SCHEDULE

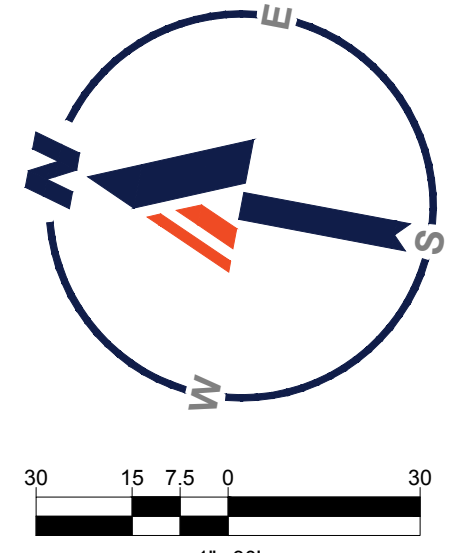
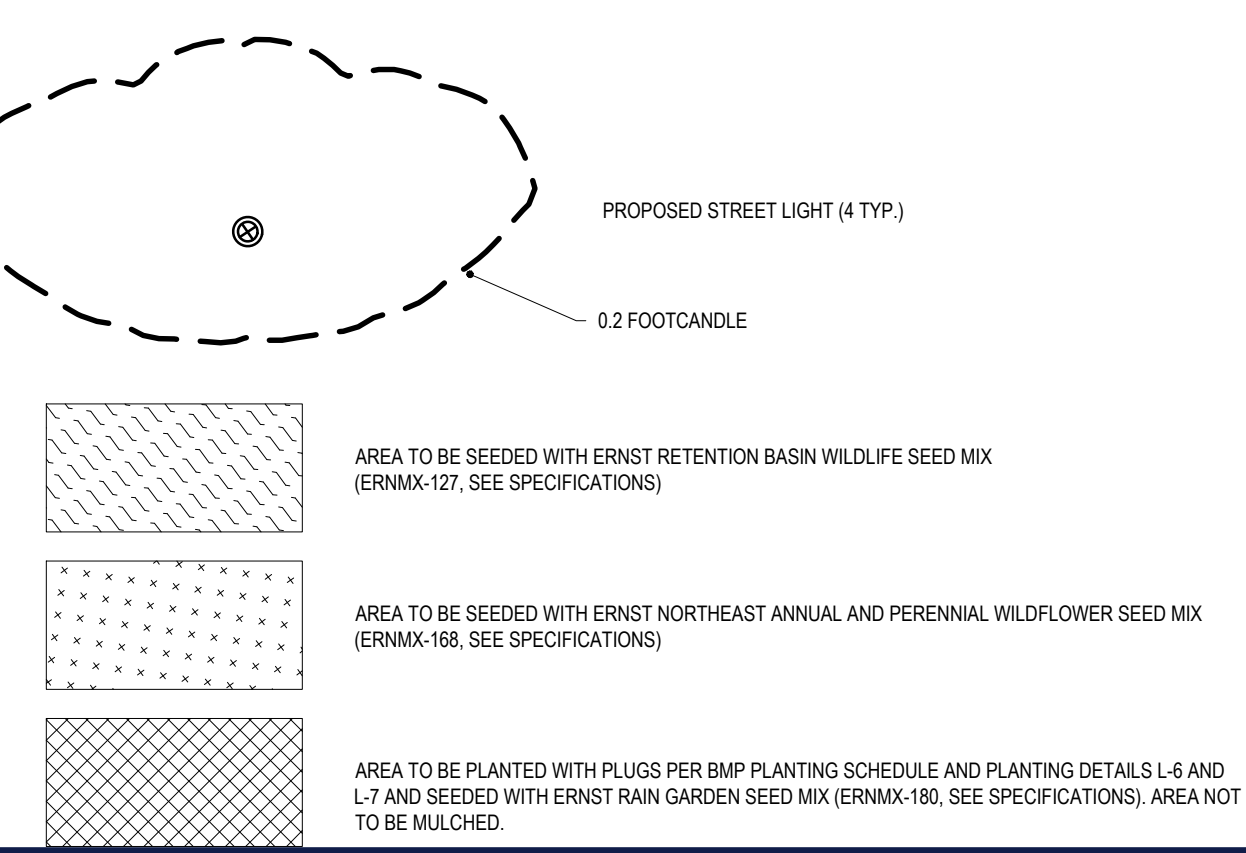
CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
ASGM	10	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2.5" CAL	B&B
CCA	3	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2.5" CAL	B&B
CO	10	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2.5" CAL	B&B
LSR	16	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	ROUND-LOBED SEEDLESS SWEET GUM	2.5" CAL	B&B
NS	13	NYSSA SYLVATICA	SOUR GUM	2.5" CAL	B&B
QBC	19	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5" CAL	B&B
QPH	10	QUERCUS PHELLOS	WILLOW OAK	2.5" CAL	B&B
TA	7	TILIA AMERICANA	AMERICAN LINDEN	2.5" CAL	B&B
UV	11	ULMUS AMERICANA 'VALLEY FORGE'	AMERICAN ELM	2.5" CAL	B&B

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
PGL	46	PICEA GLAUCA	WHITE SPRUCE	6-8"	B&B
PIAB	59	PICEA ABIES	NORWAY SPRUCE	6-8"	B&B
PO	25	PICEA OMORIKA	SERBIAN SPRUCE	6-8"	B&B
PP	43	PICEA PUNGENS	COLORADO SPRUCE	6-8"	B&B
TG	8	THUJA OCCIDENTALIS 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6-8"	B&B

ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
AC	3	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	8-10"	B&B
MA	6	MALUS X ADIRONDACK	ADIRONDACK CRABAPPLE	2.5" CAL	B&B
MV	5	MAGNOLIA VIRGINIANA	SWEET BAY	8-10"	B&B

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
TOE	17	THUJA OCCIDENTALIS 'EMERALD'	EMERALD ARBORVITAE	5-6"	B&B

LEGEND



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCCD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCCD COMMENTS	JP	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR	JP
5	03/16/2023	REV. PER LCCD COMMENTS	JP	EN
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	EN
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	JRP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-488-1779
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/02/2024
 CAD ID.: PC191160-LND-0

FINAL LAND DEVELOPMENT PLANS
 FOR
REYNOLDS ACQUISITIONS, L.P.
 PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

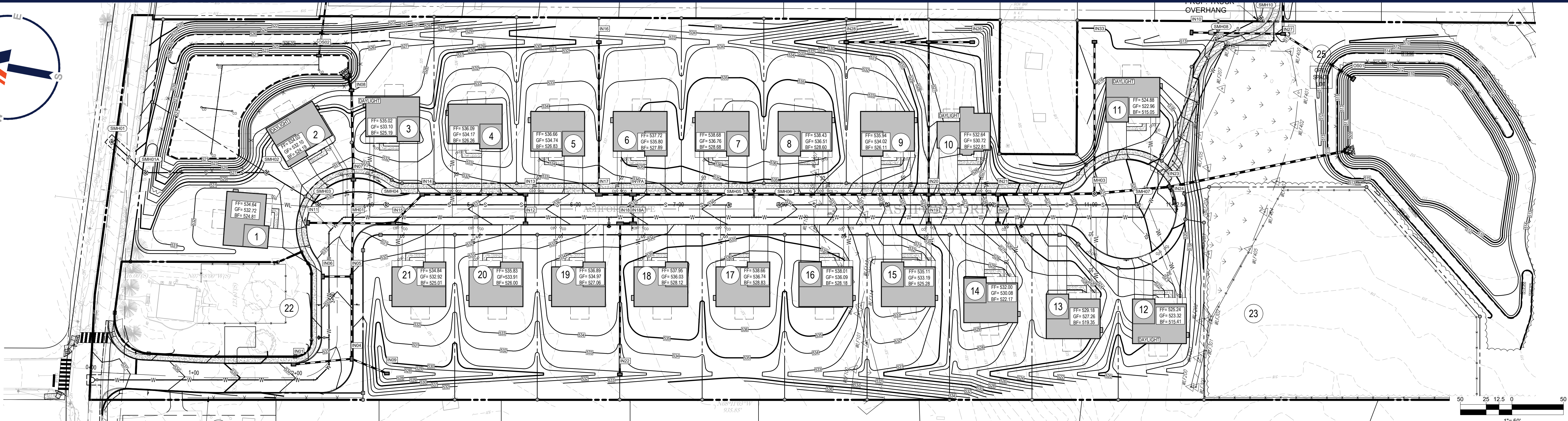
BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

D.T. NORTH
 REGISTERED LANDSCAPE ARCHITECT
 PENNSYLVANIA LICENSE NO. LA002729

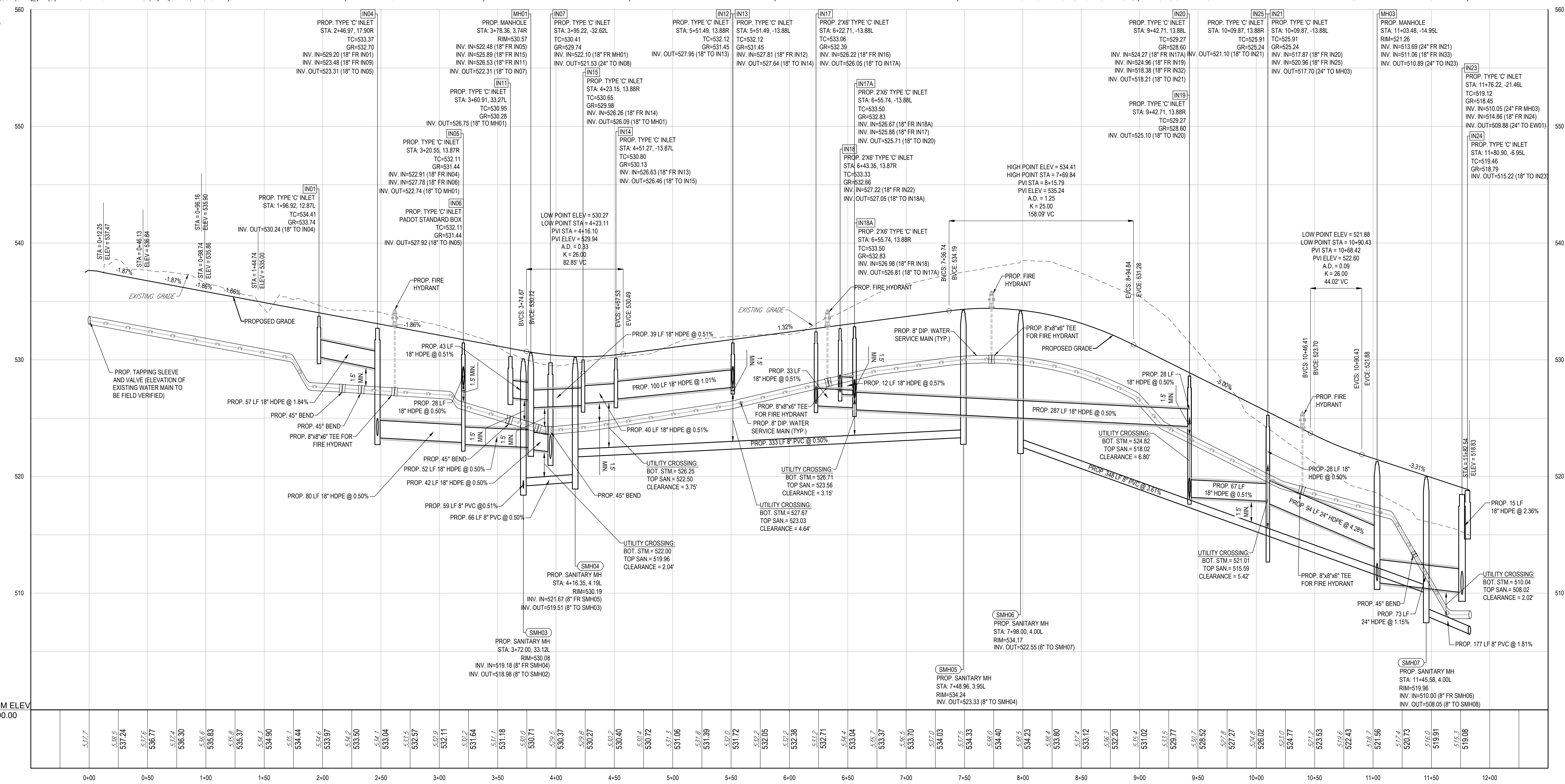
SHEET TITLE:
PCSWM LANDSCAPE AND LIGHTING PLAN B

SHEET NUMBER:
38
 OF 48
 REVISION 7 - 01/19/2024

R:\19PC191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT (REV)7\PC191160-LND-0.dwg - LAYOUT: 38_LSP.B



HILLSIDE DRIVE



ASHFORD DRIVE PROFILE

SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENIMS
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCDD COMMENTS	EAN
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-488-1779
www.pa.gov/call811
20191704041 & 20191704042

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/09/2024
CAD LID: PC191160-CSD-0

PROJECT:
**PRELIMINARY / FINAL
LAND DEVELOPMENT
PLANS**
FOR
**REYNOLDS
ACQUISITIONS, L.P.**
PROPOSED RESIDENTIAL
DEVELOPMENT
'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

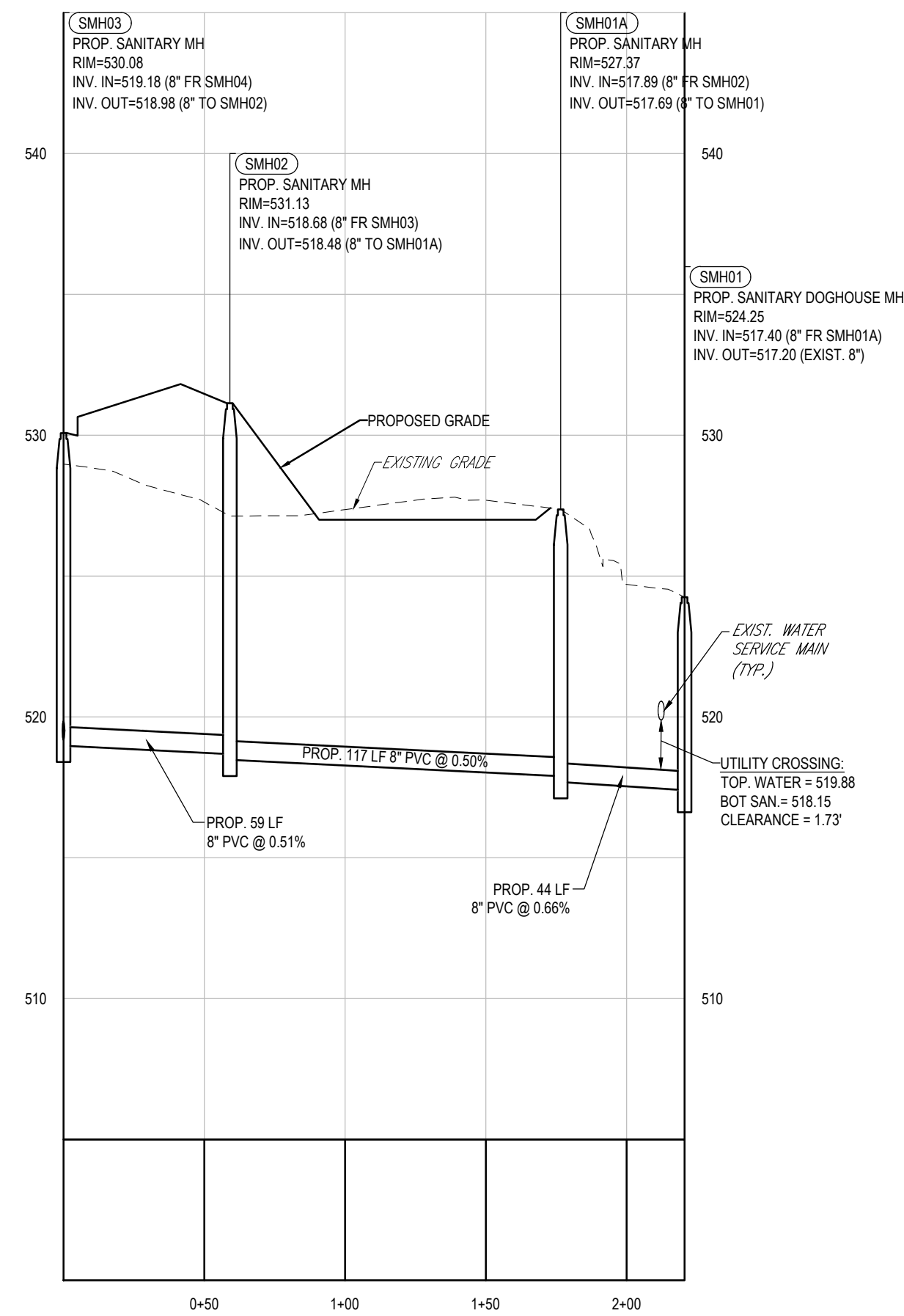
R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045479E
NEW JERSEY LICENSE No. 24GE0405900

SHEET TITLE:
**ROADWAY
PLAN AND
PROFILE**

SHEET NUMBER:
40
OF 48
REVISION 7 - 01/19/2024

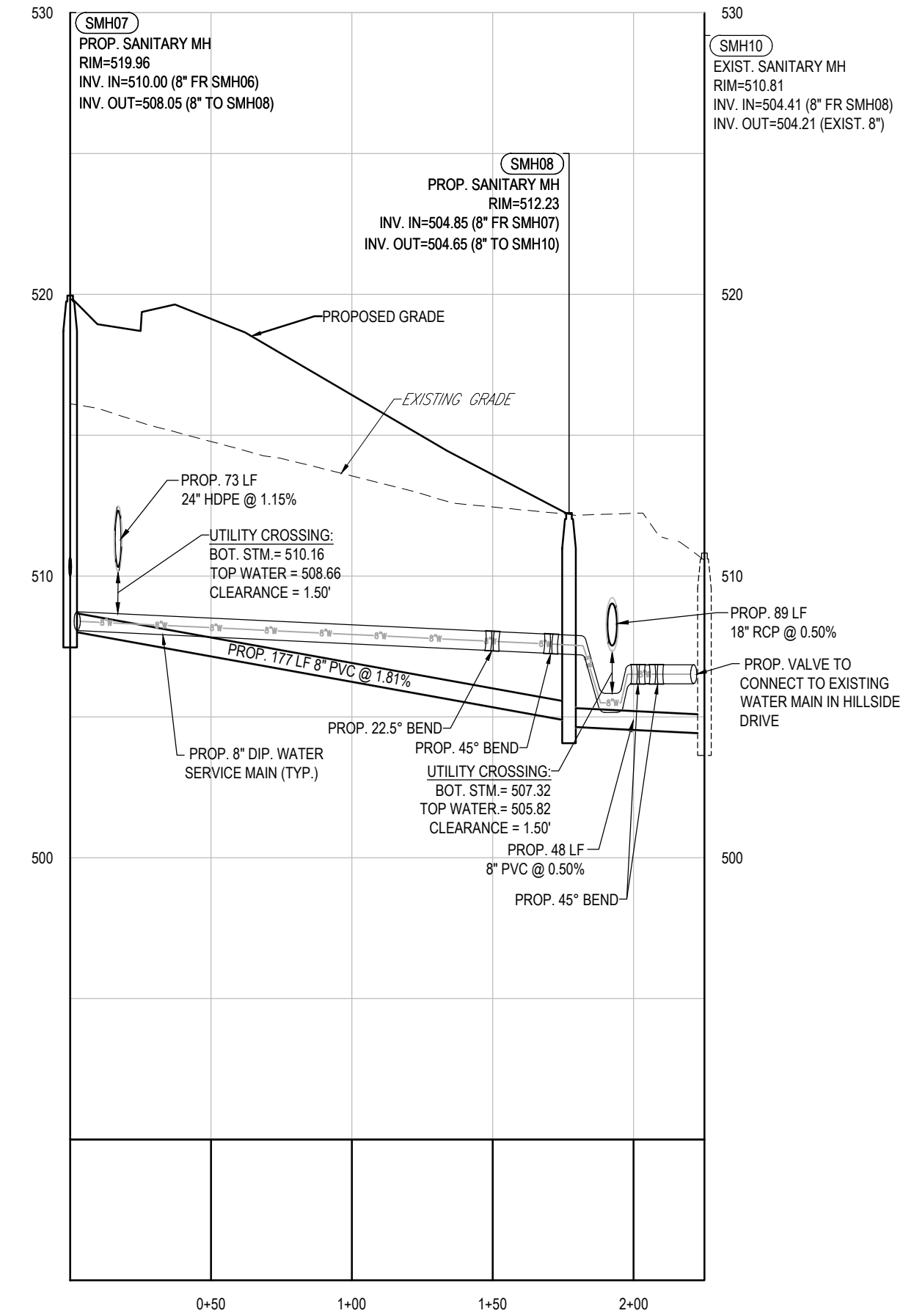
R:\PROJECTS\1604\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT REV\PC191160-CSD-0.dwg - LAYOUT: 40 - ROADWAY PROFILE

R:\191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT (REV)7\PC191160-C3P-0.dwg - LA\OUT - 41 - SANITARY PROFILES



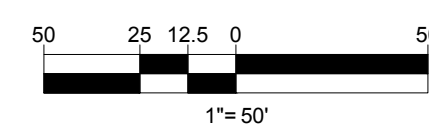
SAN. SMH03 TO SMH01

SCALE: 1"= 50' HORIZONTAL
1"= 5' VERTICAL



PIPE EXTENSIONS TO HILLSIDE DRIVE

SCALE: 1"= 50' HORIZONTAL
1"= 5' VERTICAL



REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCCD COMMENTS	ENIMS
3	01/06/2023	REV. PER LCCD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP
5	03/16/2023	REV. PER LCCD COMMENTS	SR
6	10/06/2023	REV. PER CLIENT COMMENTS	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	BG / LB
			JP
			JRP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-348-1719
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID.: PC191160-C3P-0

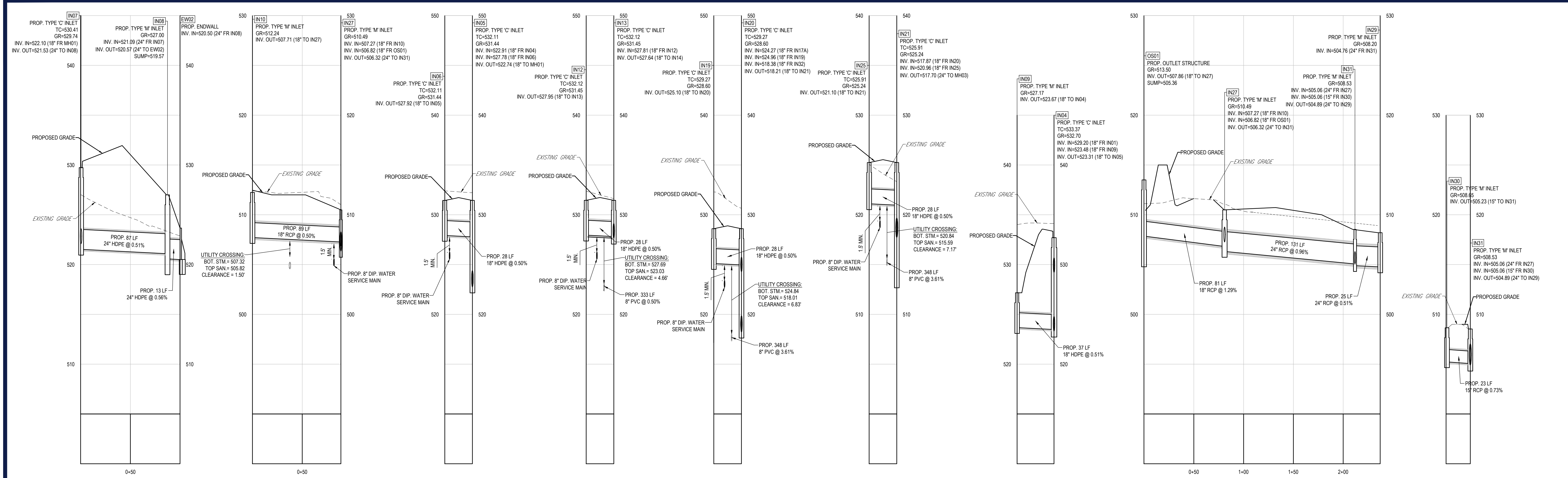
PROJECT:
**PRELIMINARY / FINAL
 LAND DEVELOPMENT
 PLANS**
 FOR
**REYNOLDS
 ACQUISITIONS, L.P.**
 PROPOSED RESIDENTIAL
 DEVELOPMENT
 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE0454796
 NEW JERSEY LICENSE No. 24CE04502900

SHEET TITLE:
**SANITARY AND
 WATERLINE
 PROFILES**

SHEET NUMBER:
41
 OF 48
 REVISION 7 - 01/19/2024



STM. IN07 TO EW02
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. IN10 TO IN27
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. IN06 TO IN05
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. IN12 TO IN13
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

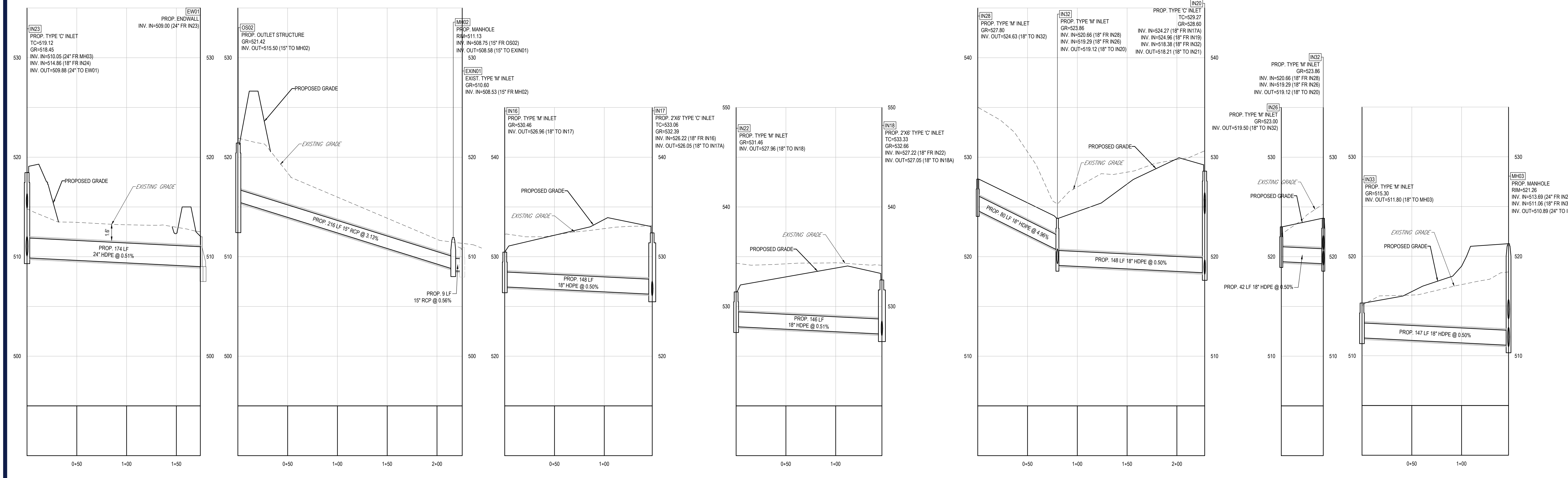
STM. IN19 TO IN20
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. IN25 TO IN21
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. IN09 TO IN04
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. OS01 TO IN29
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

IN30 TO IN31
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL



STM. IN23 TO EW01
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. OS02 TO EXIN01
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

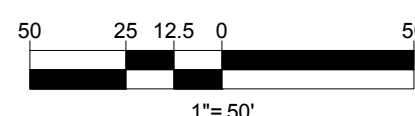
STM. IN16 TO IN17
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. IN22 TO IN18
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. IN28 TO IN20
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. IN26 TO IN32
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

STM. IN33 TO MH03
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG / LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-348-1776
www.pa.gov/811

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/06/2024
CALLED BY: PC191160-C3P-0

**PRELIMINARY / FINAL
LAND DEVELOPMENT
PLANS**
FOR
**REYNOLDS
ACQUISITIONS, L.P.**
PROPOSED RESIDENTIAL
DEVELOPMENT
'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE045479E
NEW JERSEY LICENSE No. 24GE04507900

SHEET TITLE:
**STORMWATER
PROFILES**
SHEET NUMBER:
42
OF 48
REVISION 7 - 01/19/2024

R:\BPC\191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT (REV. 7/2024)\PC191160-C3P-0.dwg - LA OUT - 42 - STORMWATER PROFILES



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-955-8779
 www.pa.gov/811
 20191704041 & 20191704042

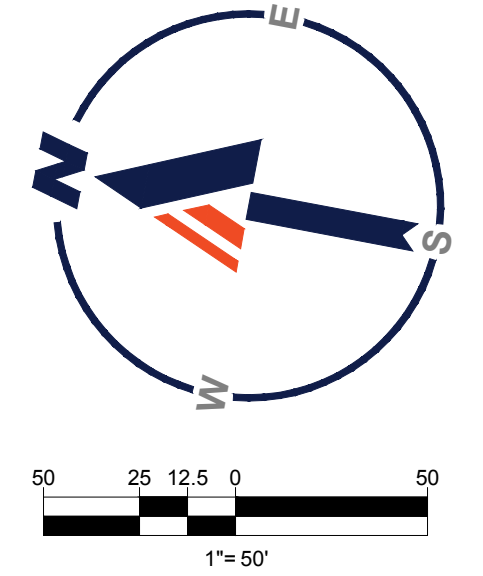
PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID: PC191160-SPP-0

**PRELIMINARY / FINAL
 LAND DEVELOPMENT
 PLANS**
 FOR
**REYNOLDS
 ACQUISITIONS, L.P.**
 PROPOSED RESIDENTIAL
 DEVELOPMENT
 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

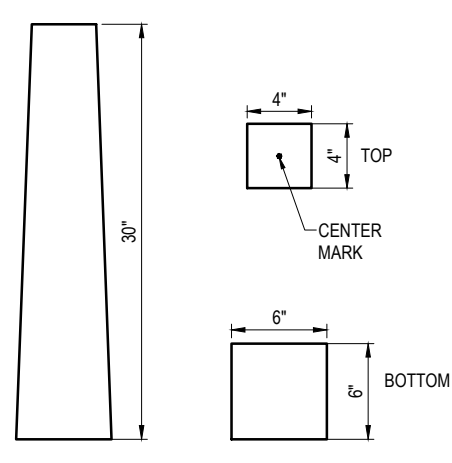
BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE045479E
 NEW JERSEY LICENSE No. 24GE0450900

SHEET TITLE:
**AERIAL
 PLAN**
 SHEET NUMBER:
43
 OF 48
 REVISION 7 - 01/19/2024

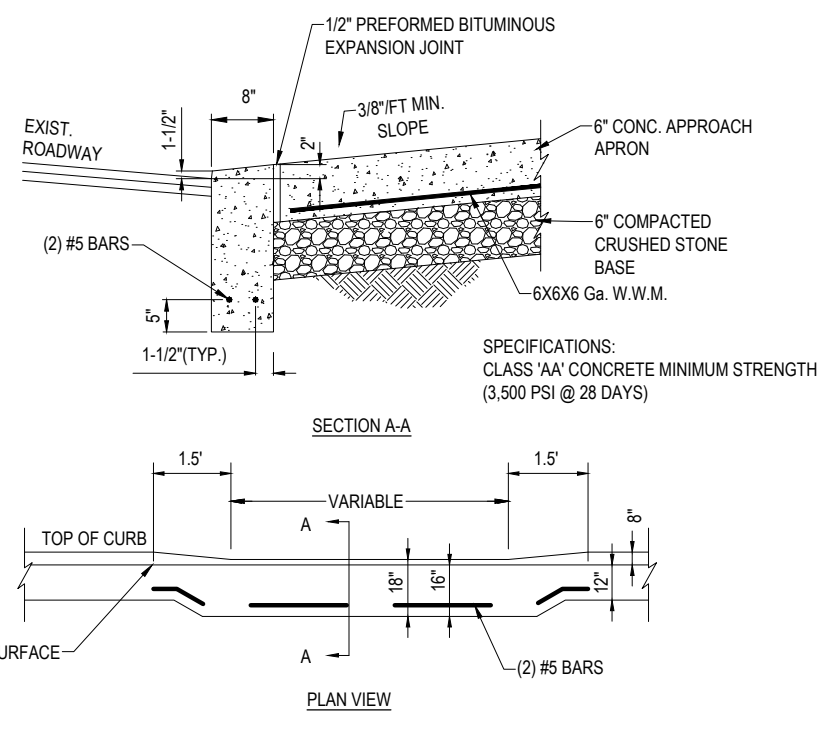


R:\PROJECTS\1600DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT REV\PC191160-SPP-0.dwg - LAYOUT - 43 - AERIAL

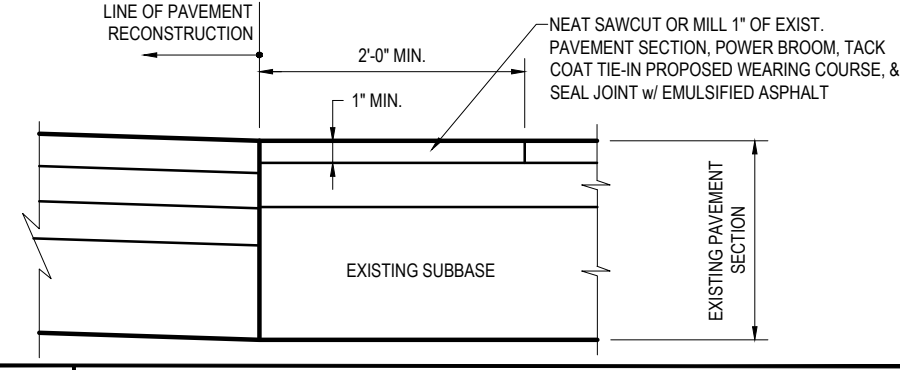


1) SPECIFICATIONS:
 - CLASS 'A' CONCRETE: MINIMUM STRENGTH (3,000 PSI @ 28 DAYS)
 - STEEL REINFORCEMENT (#4 REBAR)

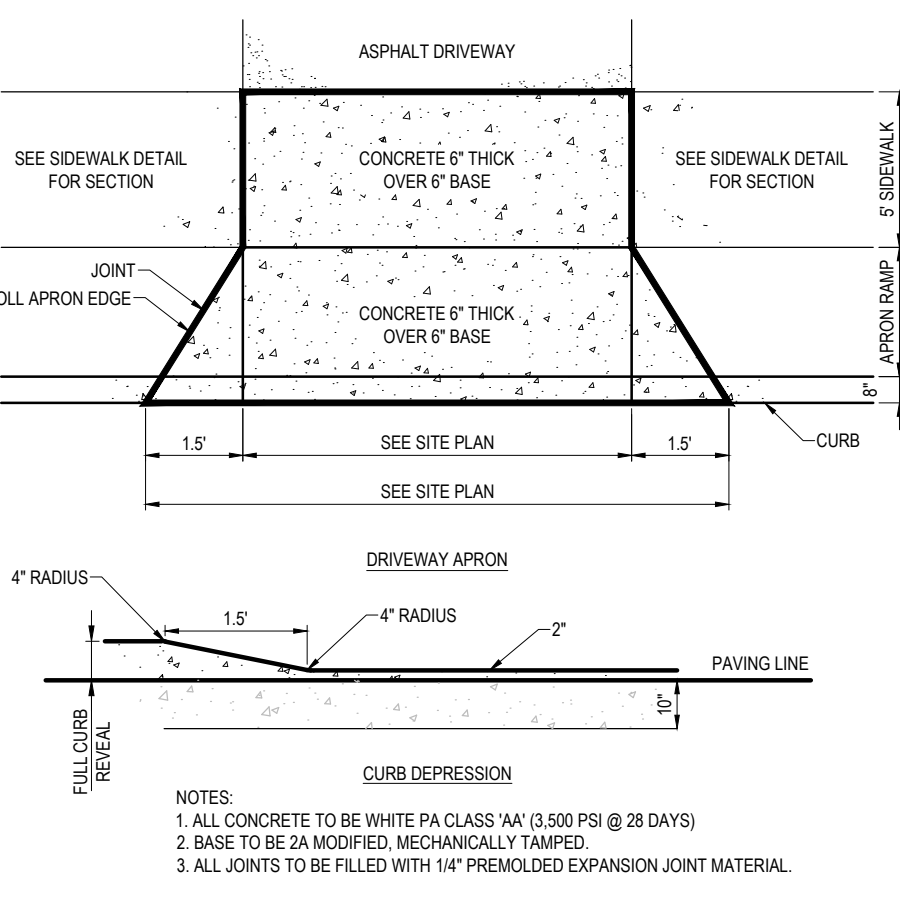
A-2 SURVEYOR'S MONUMENT DETAIL
 NOT TO SCALE



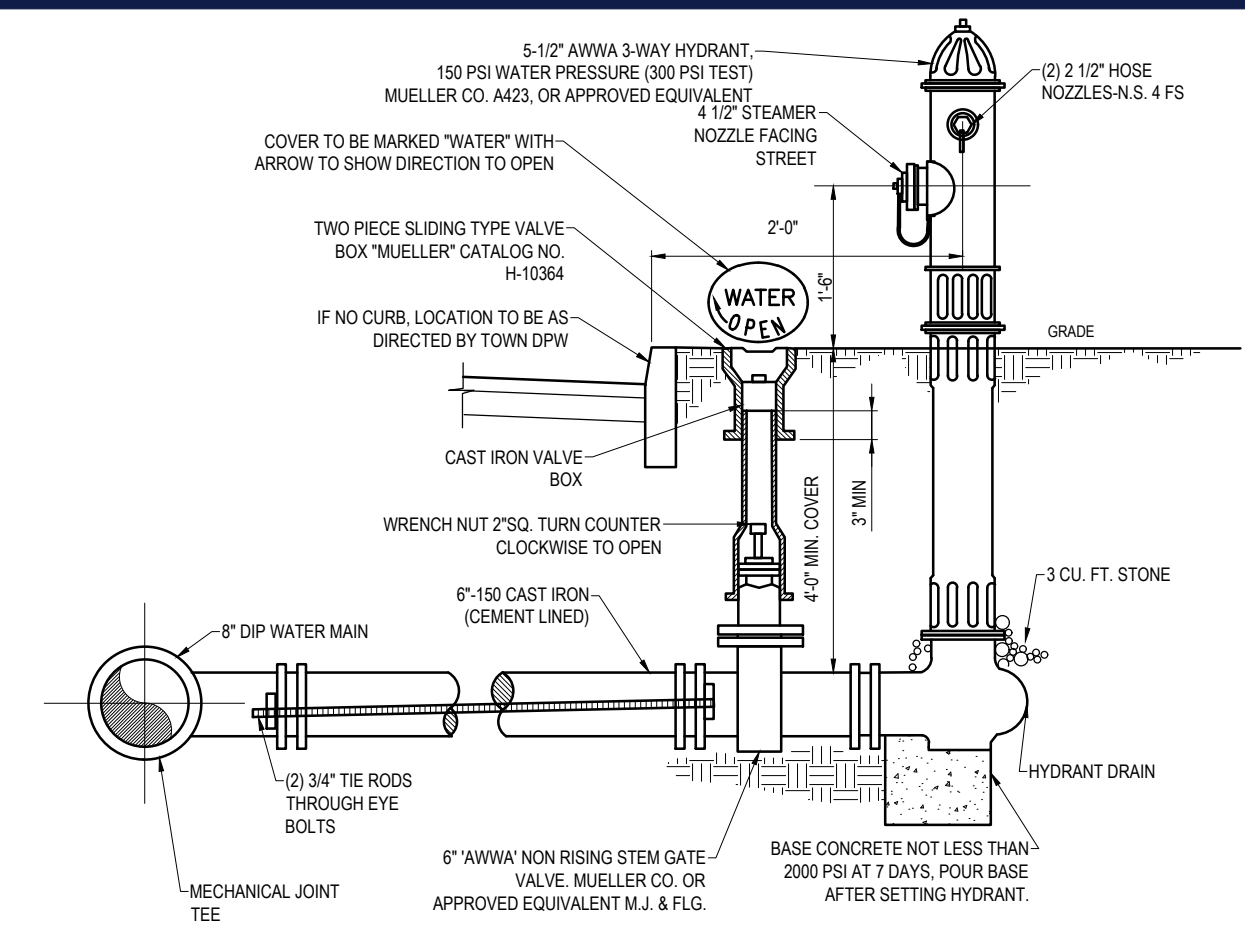
P-7 DEPRESSED CURB WITH CONCRETE APPROACH APRON DETAIL
 NOT TO SCALE



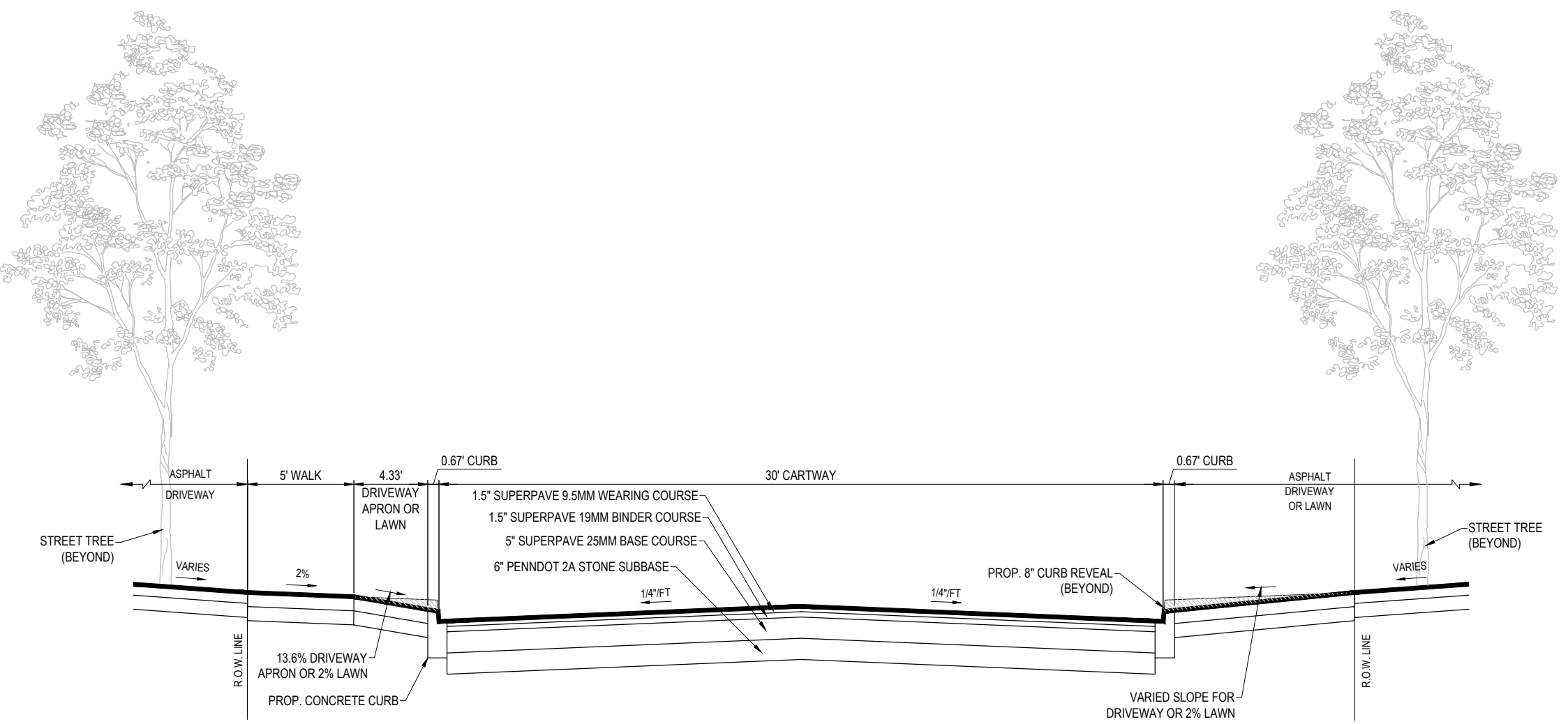
P-13 PAVEMENT TIE-IN DETAIL
 NOT TO SCALE



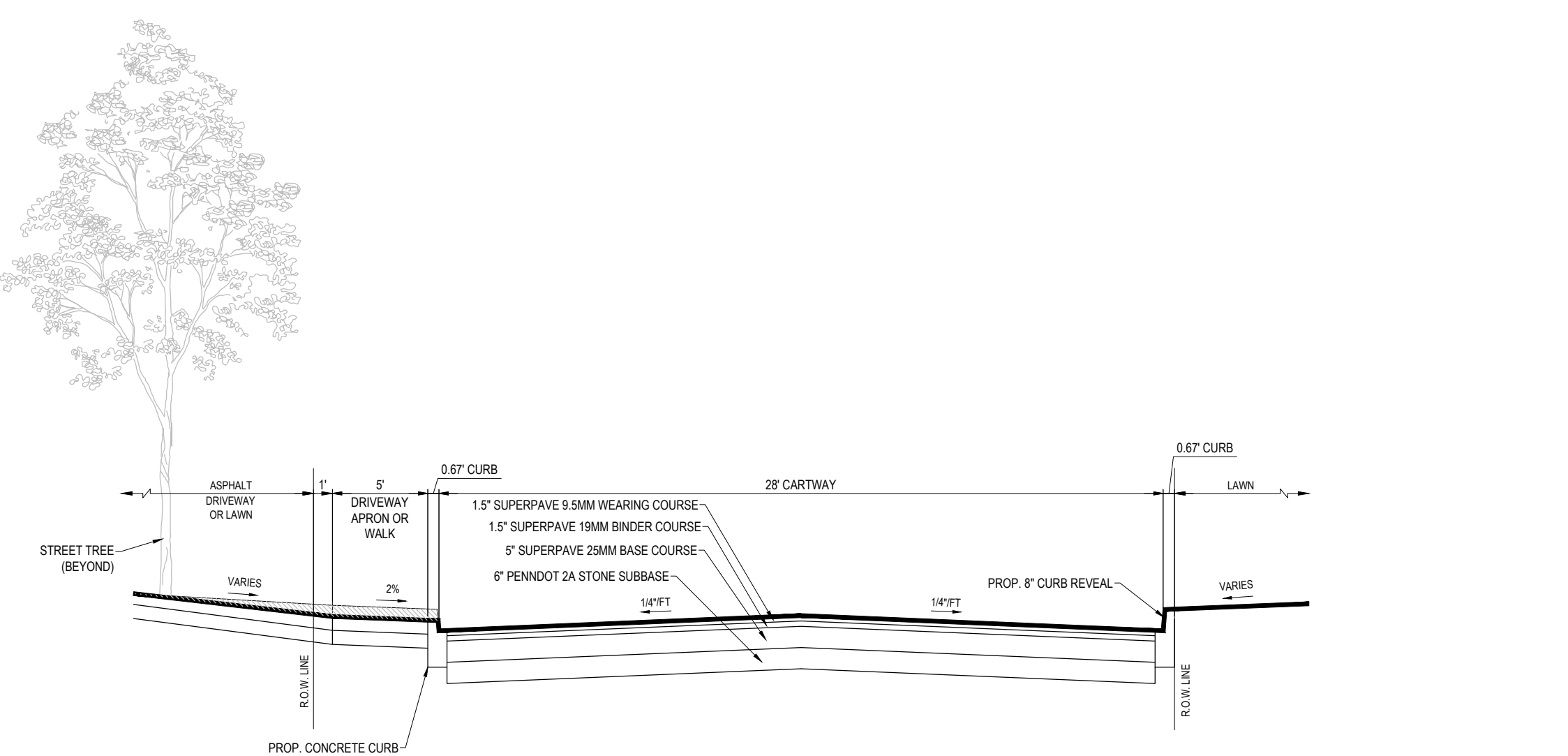
P-8 CONCRETE DRIVEWAY APRON DETAIL
 NOT TO SCALE



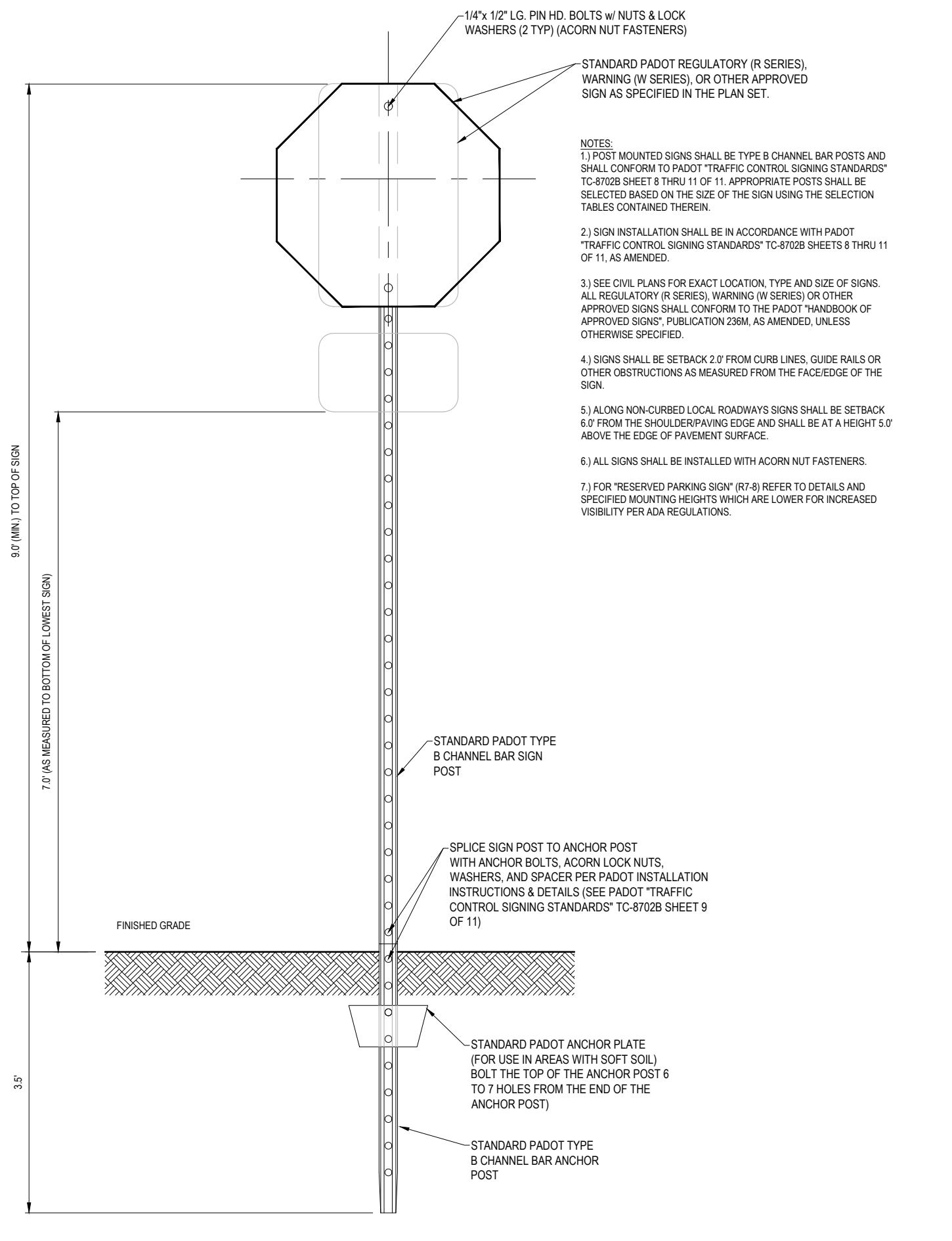
W-3 TYPICAL HYDRANT & VALVE INSTALLATION
 NOT TO SCALE



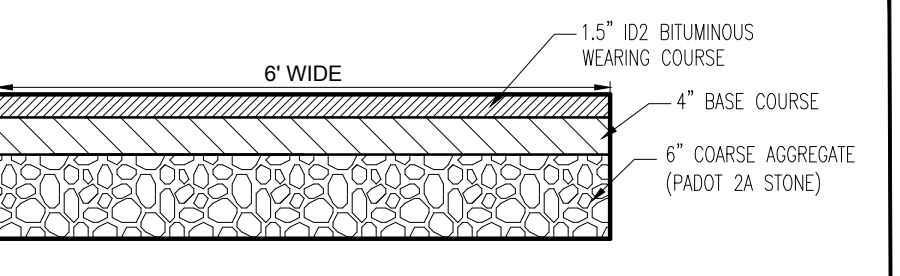
T-1 TYPICAL ROADWAY CROSS-SECTION & PAVING DETAIL (30' WIDE SECTION)
 NOT TO SCALE



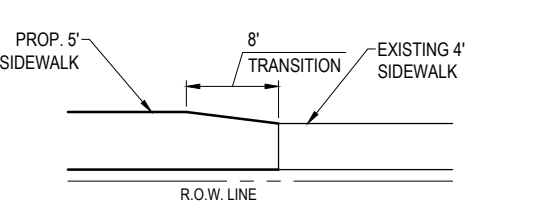
T-1 TYPICAL ROADWAY CROSS-SECTION & PAVING DETAIL (28' WIDE SECTION)
 NOT TO SCALE



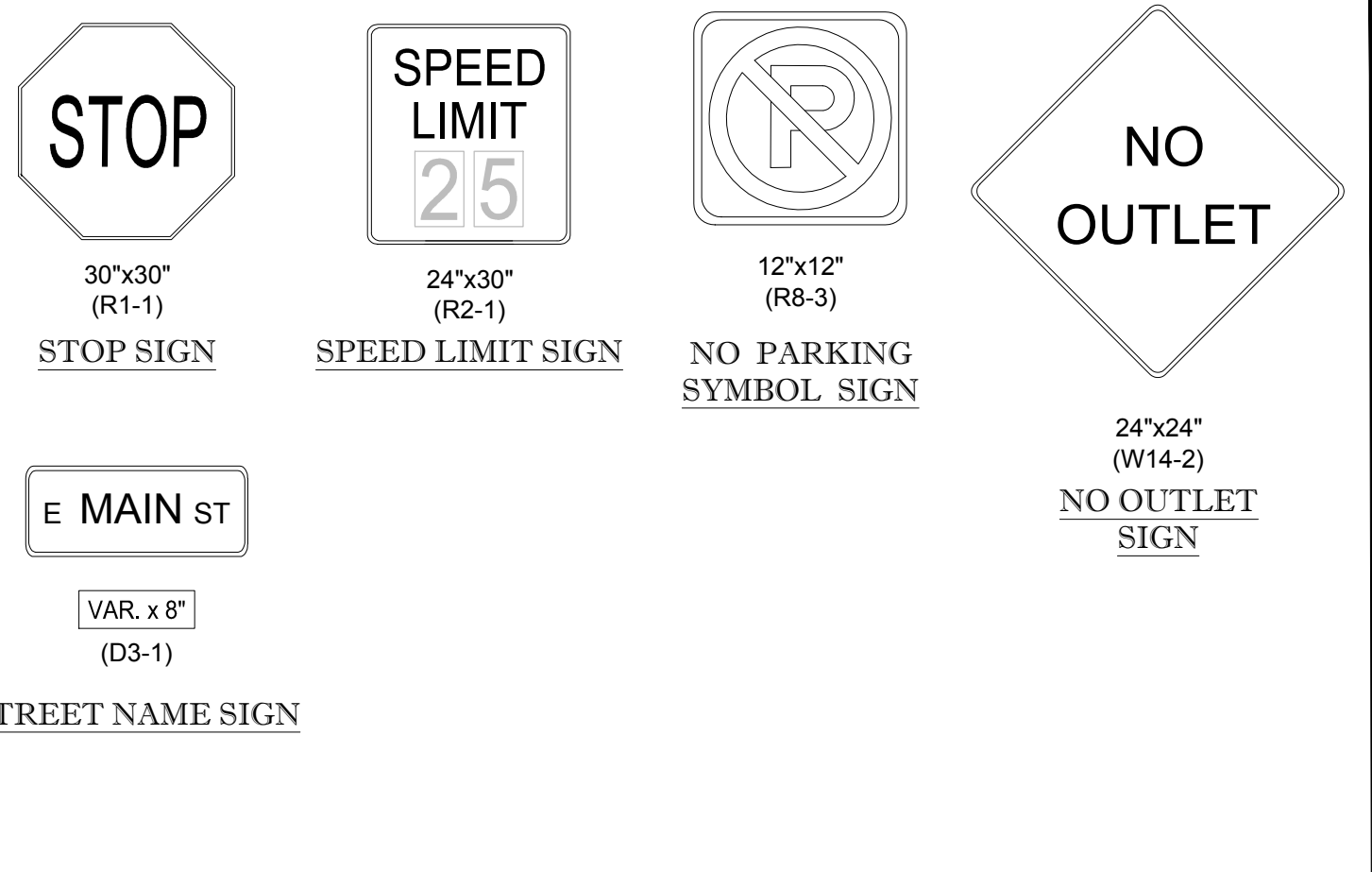
T-11 STANDARD POLE MOUNTED SIGN INSTALLATION DETAIL
 NOT TO SCALE



EMERGENCY ACCESS TRAIL
 NOT TO SCALE



P-22 SIDEWALK TIE-IN DETAIL
 NOT TO SCALE



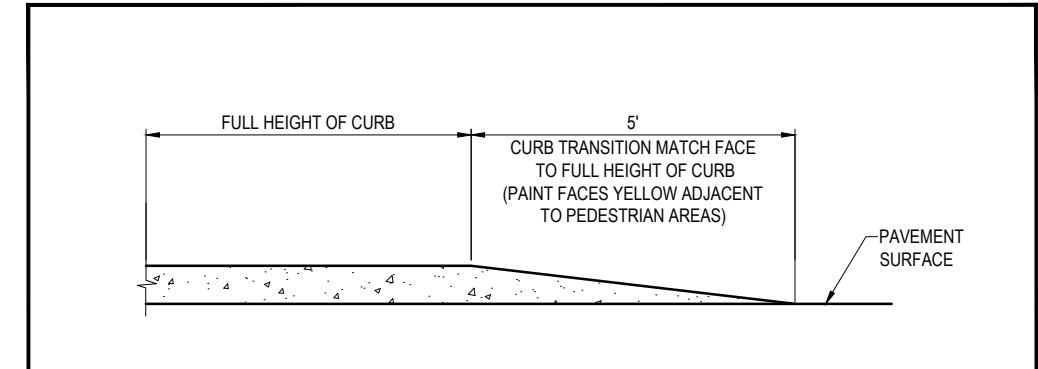
T-S25 TYPICAL SIGN DETAIL
 NOT TO SCALE

LIST OF APPLICABLE PADOT DETAILS

SIGNAGE: PA, D.O.T. PUBLICATION 236
 (ftp://ftp.dot.state.pa.us/public/pubs/forms/Publications/PUB%20236M/Sign%20index%20for%20Change%201%20%2011-13%20(nomenclature).pdf)
 "STOP" SIGN - R1-1
 STREET NAME SIGN - D3-1
 "NO PARKING" SYMBOL SIGN - R8-3
 "NO OUTLET" SIGN - W14-2
 "SPEED LIMIT" SIGN - R2-1

ADDITIONAL DETAILS ASSOCIATED WITH PADOT ROAD IMPROVEMENTS ARE ON THE FOLLOWING STANDARD DETAILS FROM PennDOT PUBLICATION 72M
 (ftp://ftp.dot.state.pa.us/public/Bureaus/design/PUB72M/PUB72COV.pdf)
 (THE PERMITTEE IS REQUIRED TO PROVIDE THE CONTRACTOR WITH COPIES OF THE MOST CURRENT APPLICABLE RC DRAWINGS FROM THE PennDOT PUBLICATION 72M)

STANDARD DRAWING NUMBER	DRAWING DATE	DESCRIPTION
RC - 39M	SEPTEMBER 15, 2016	STORMWATER MANHOLES, INLET TOPS, GRATES, AND FRAMES
RC - 45M	SEPTEMBER 15, 2016	INLET TOPS, GRATES, AND FRAMES
RC - 46M	SEPTEMBER 15, 2016	INLET BOXES
RC - 67M	JUNE 10, 2013	RAMPS
RC - 64M	JUNE 1, 2010	CURBS AND GUTTERS



P-3 TAPERED CURB DETAIL
 NOT TO SCALE

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT REK
2	08/18/2022	REV. PER LCDD COMMENTS	ENIMS JP
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR JP
5	03/16/2023	REV. PER LCDD COMMENTS	EAN JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN JRP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-348-7779
 www.pa.gov/811
 20191704041 & 20191704042

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/02/2024
 CAD ID.: PC191160-CND-0

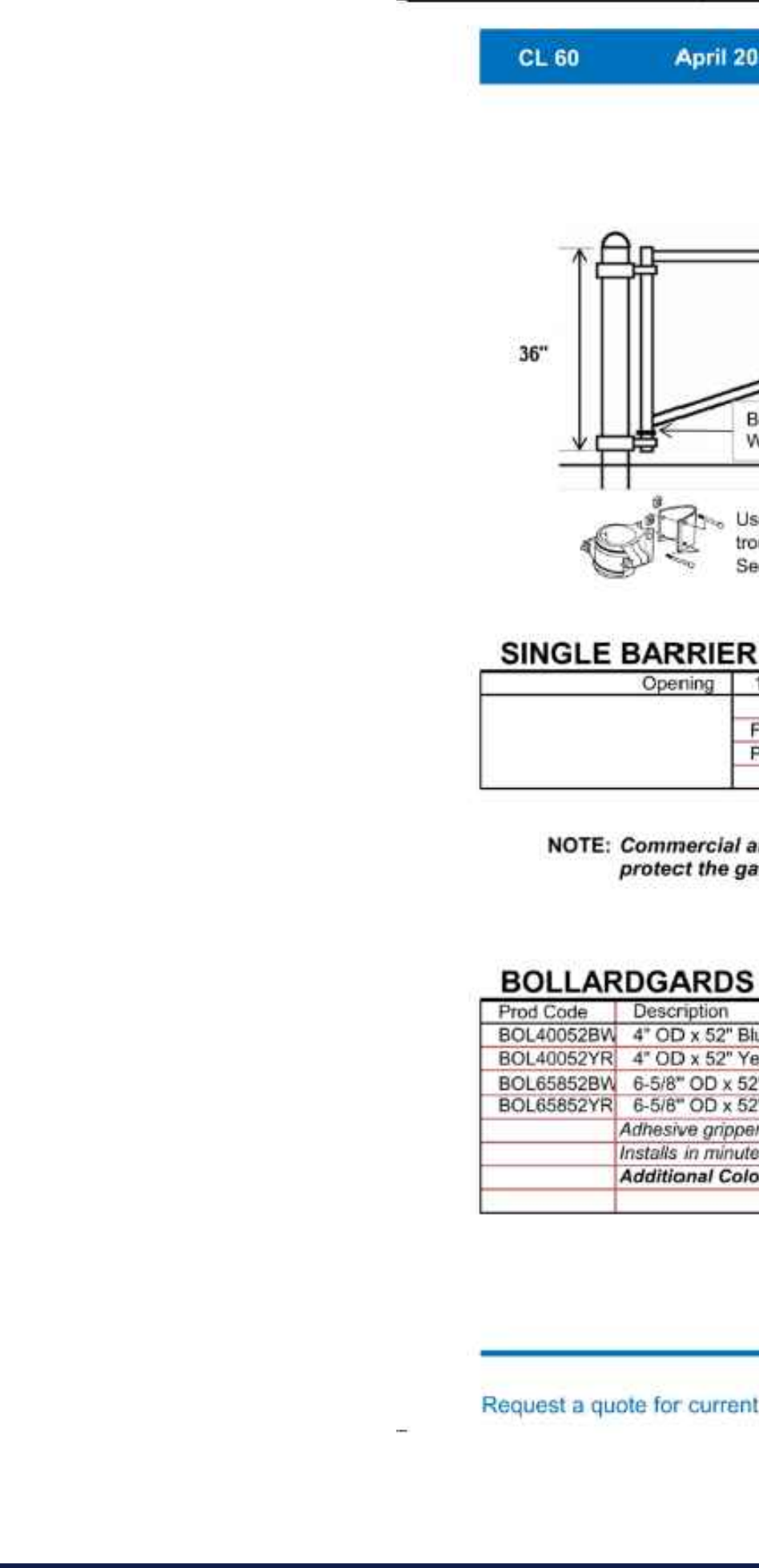
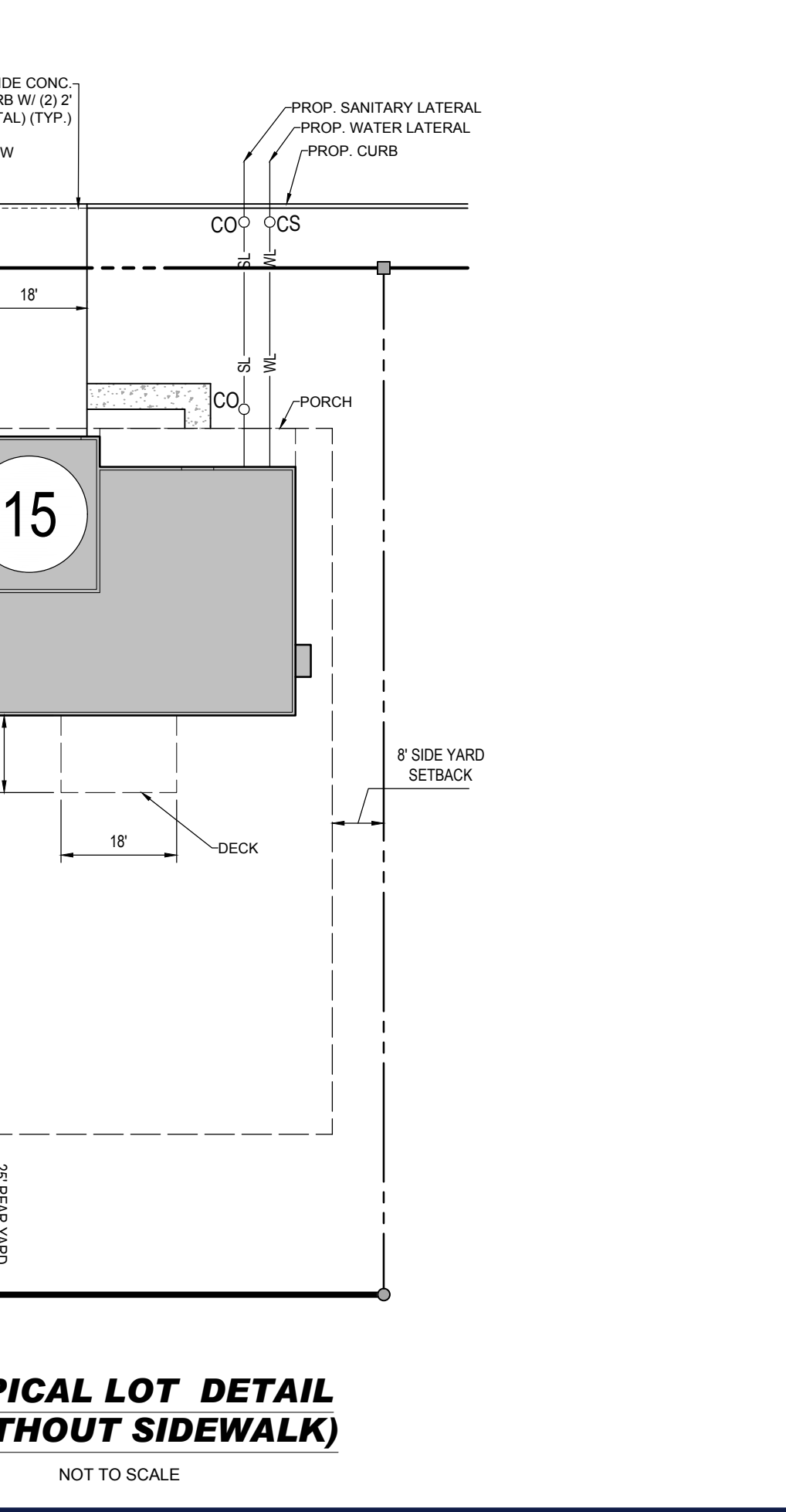
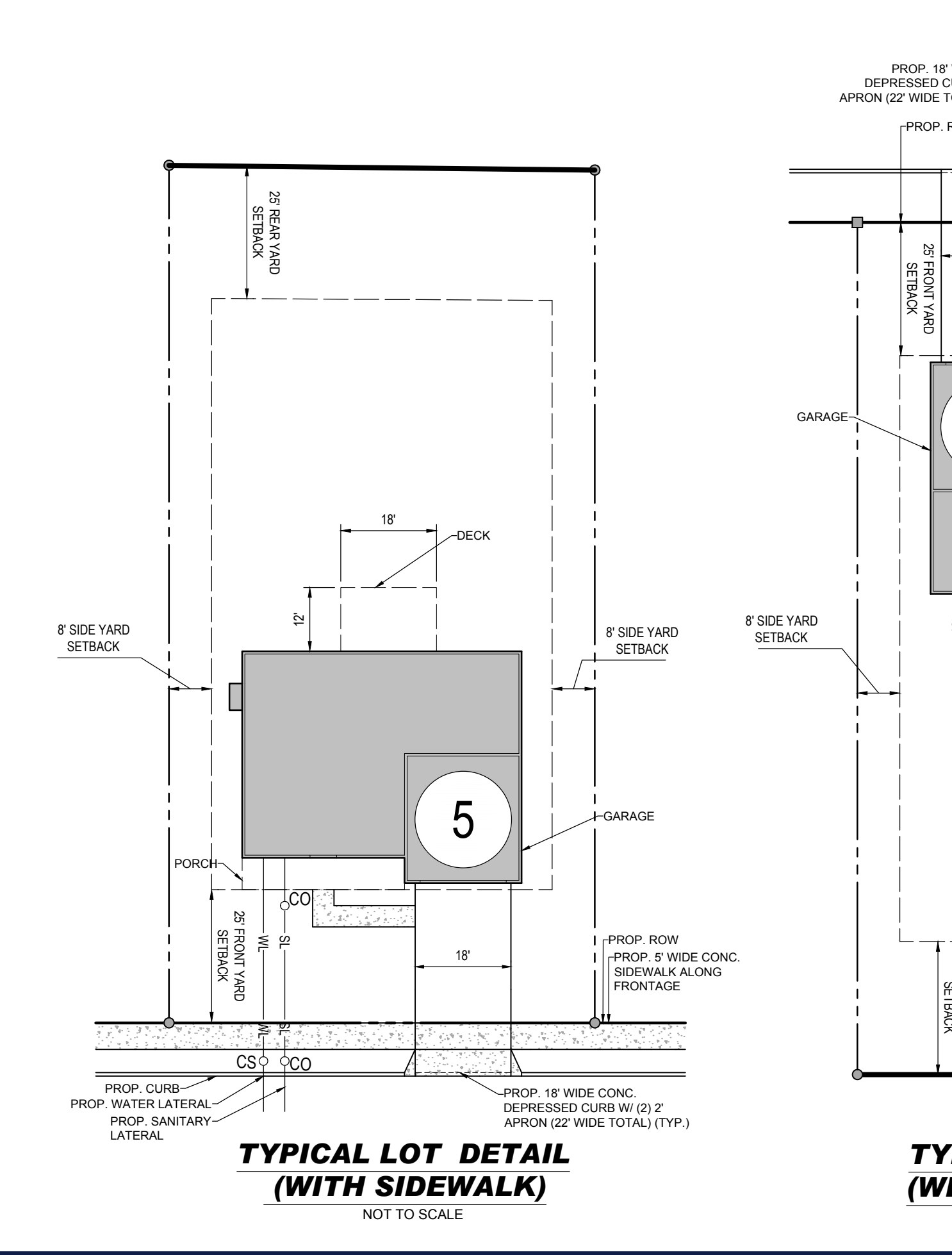
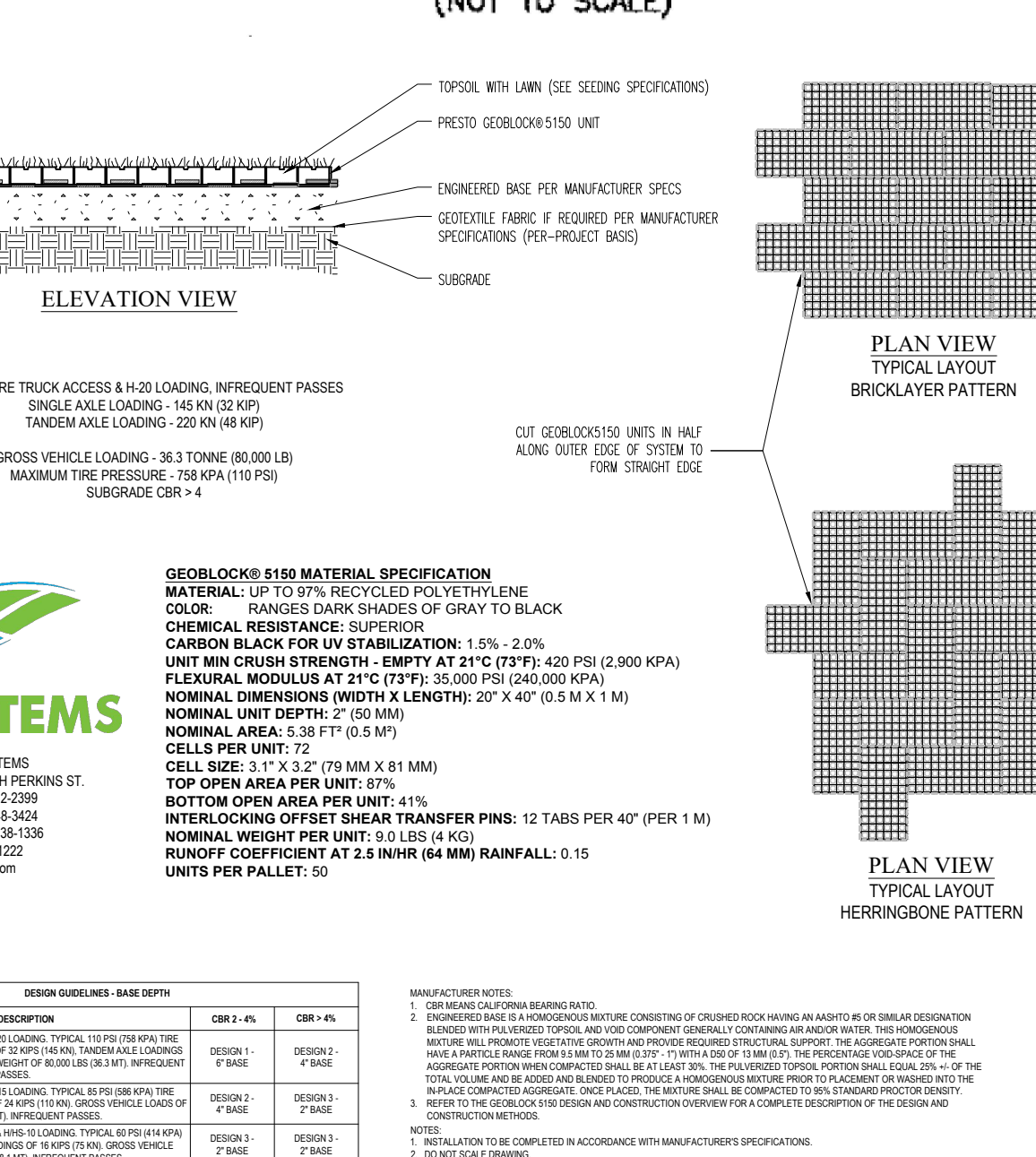
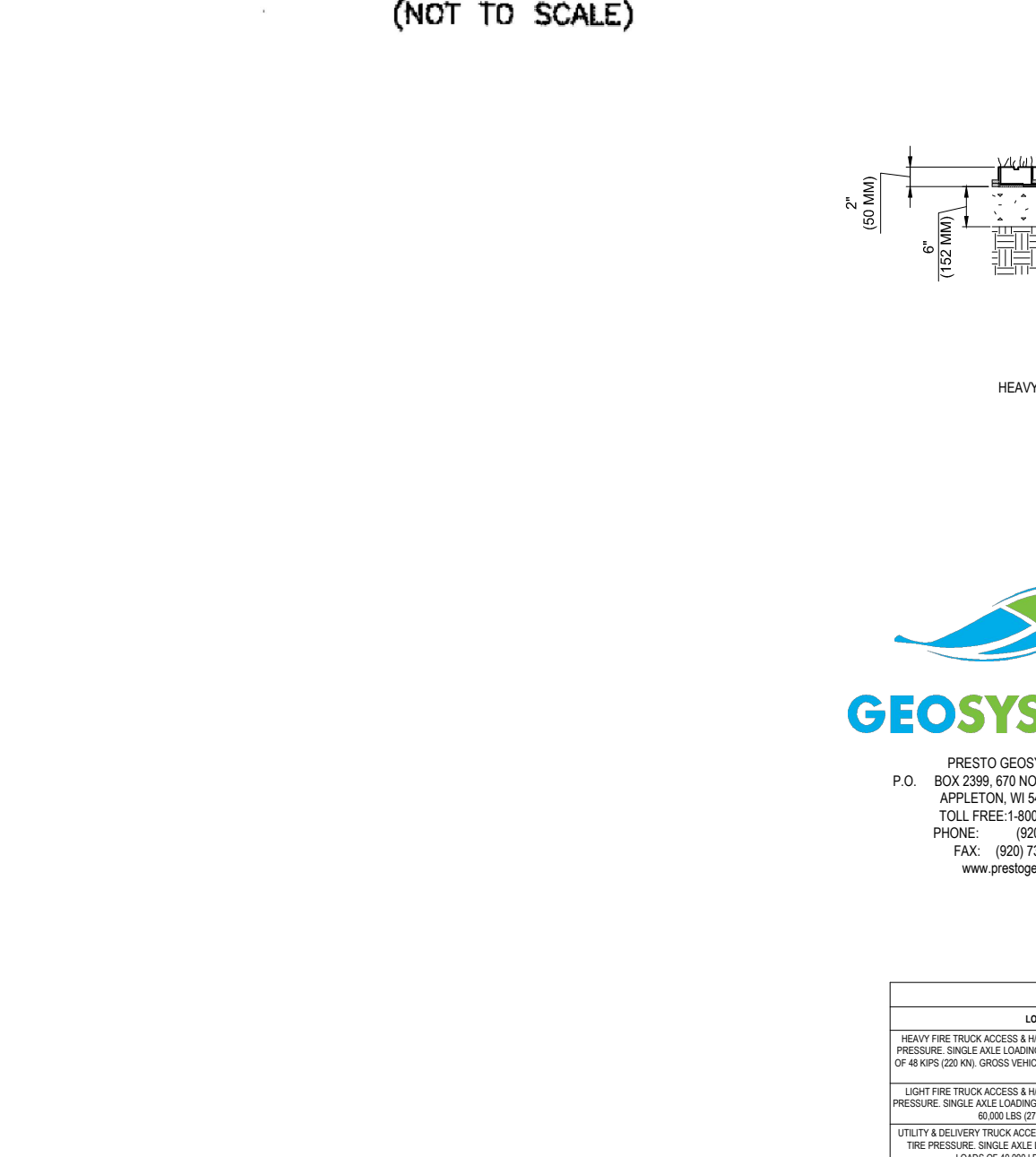
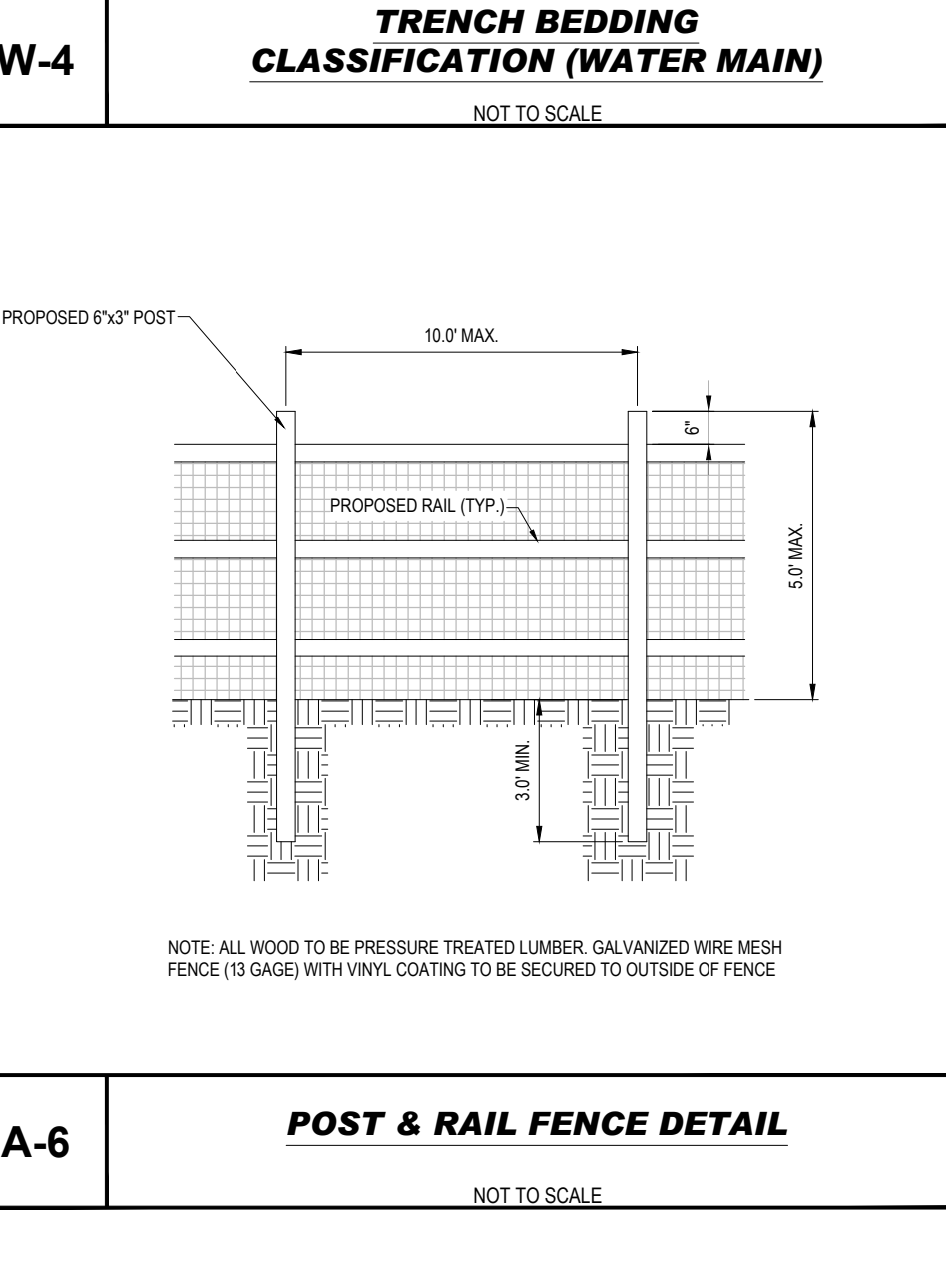
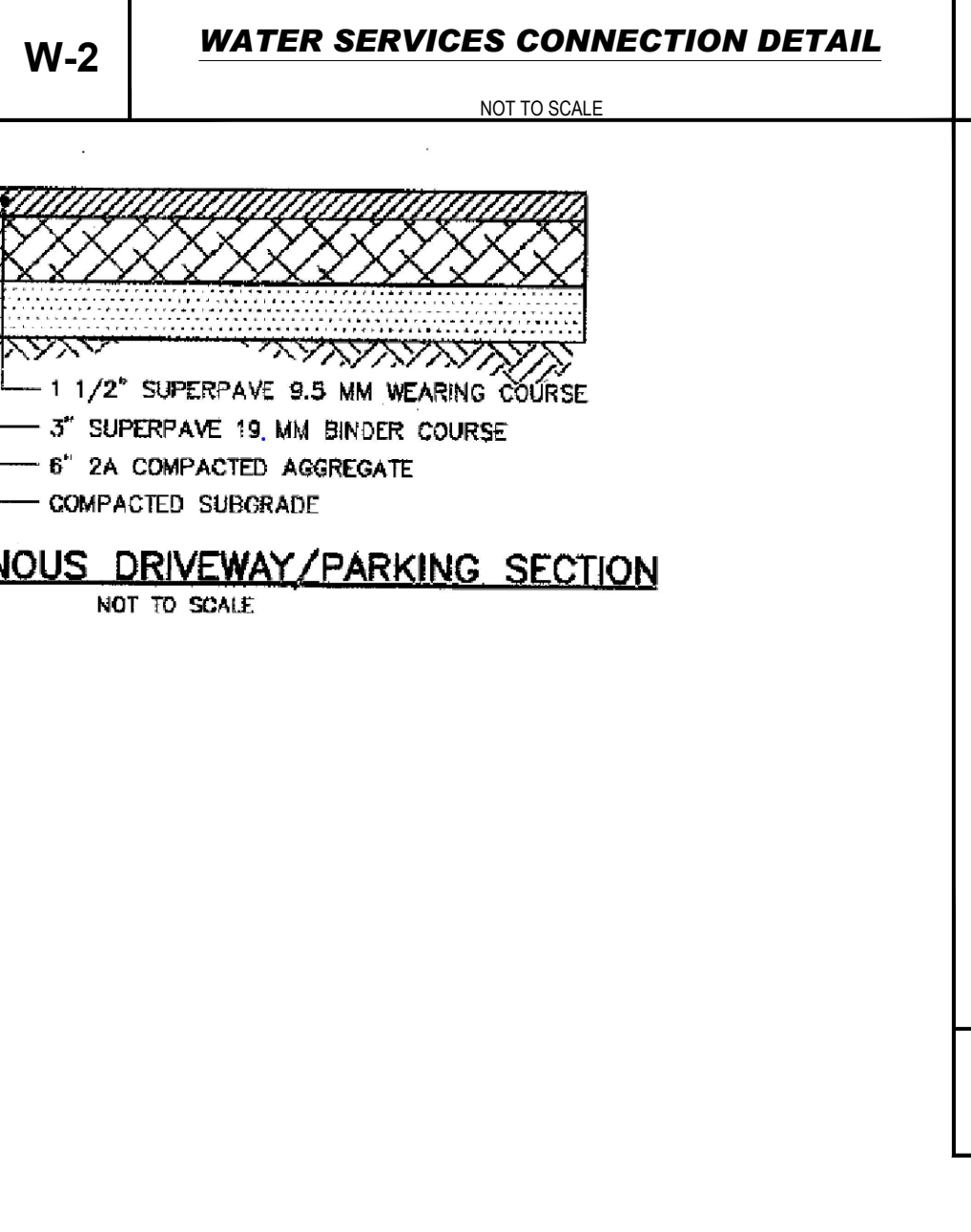
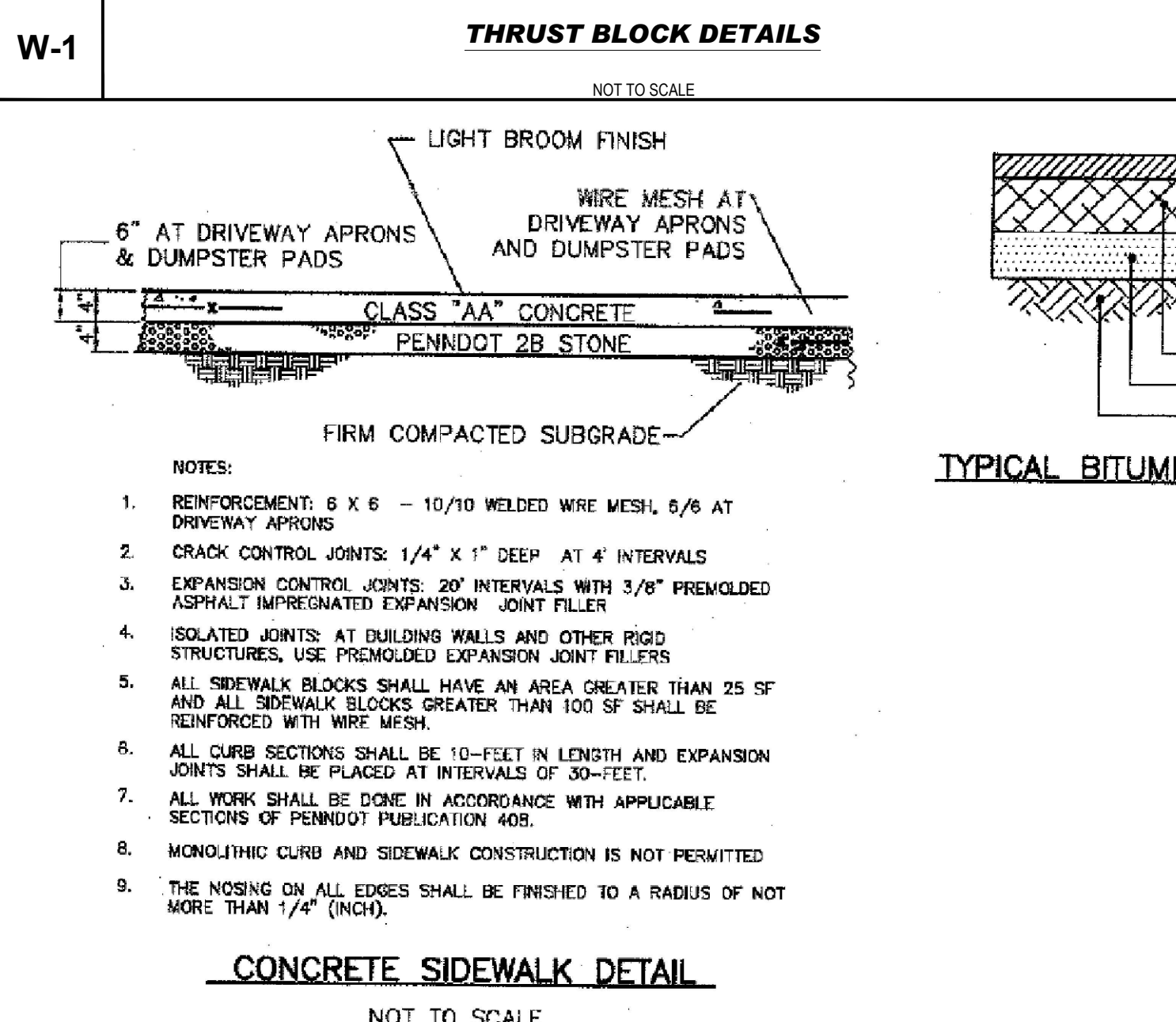
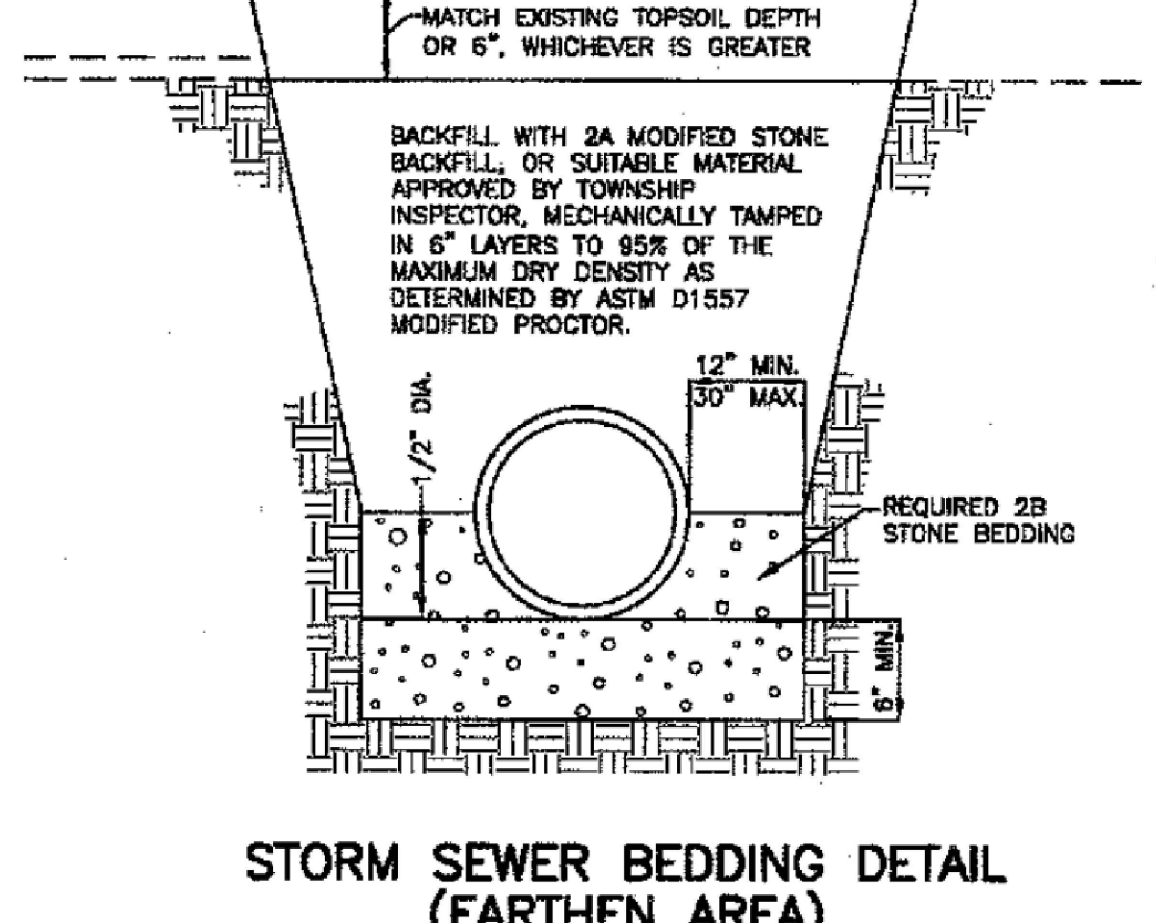
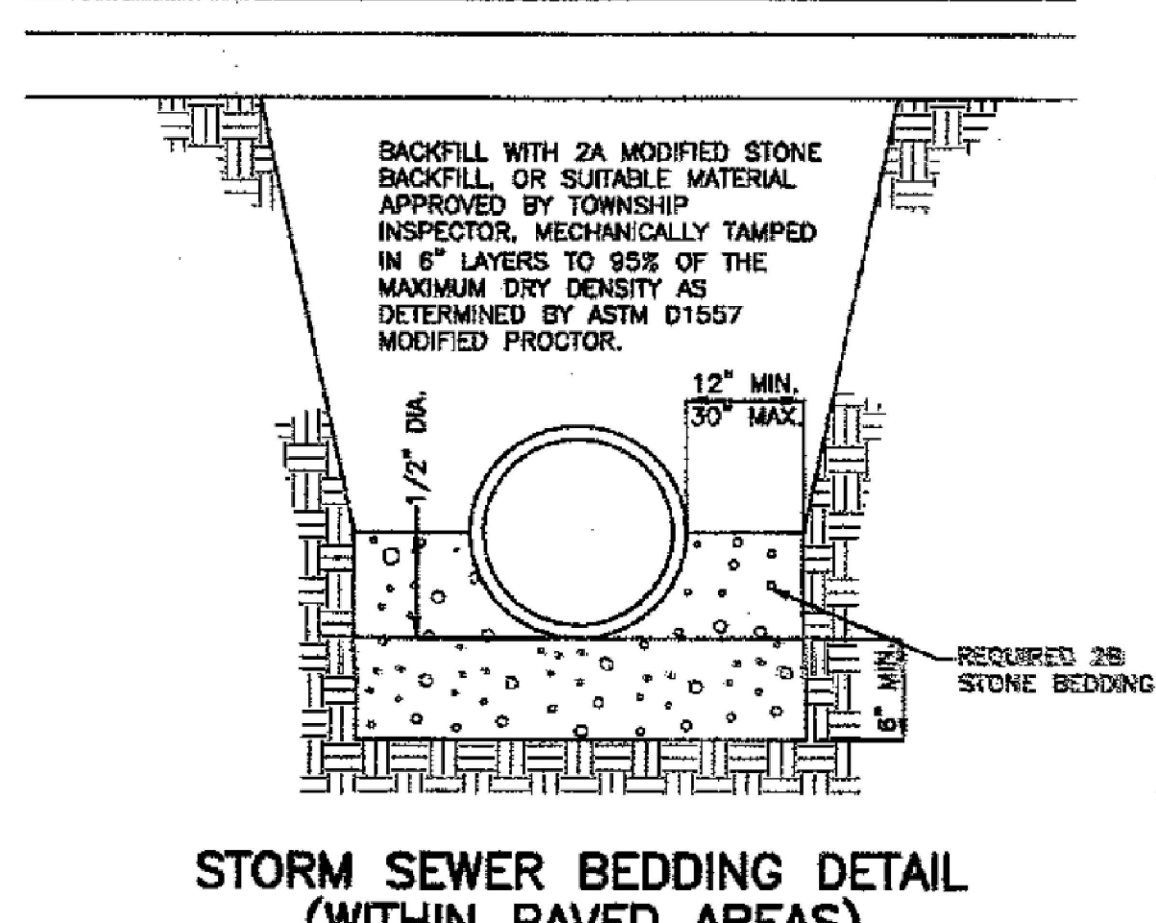
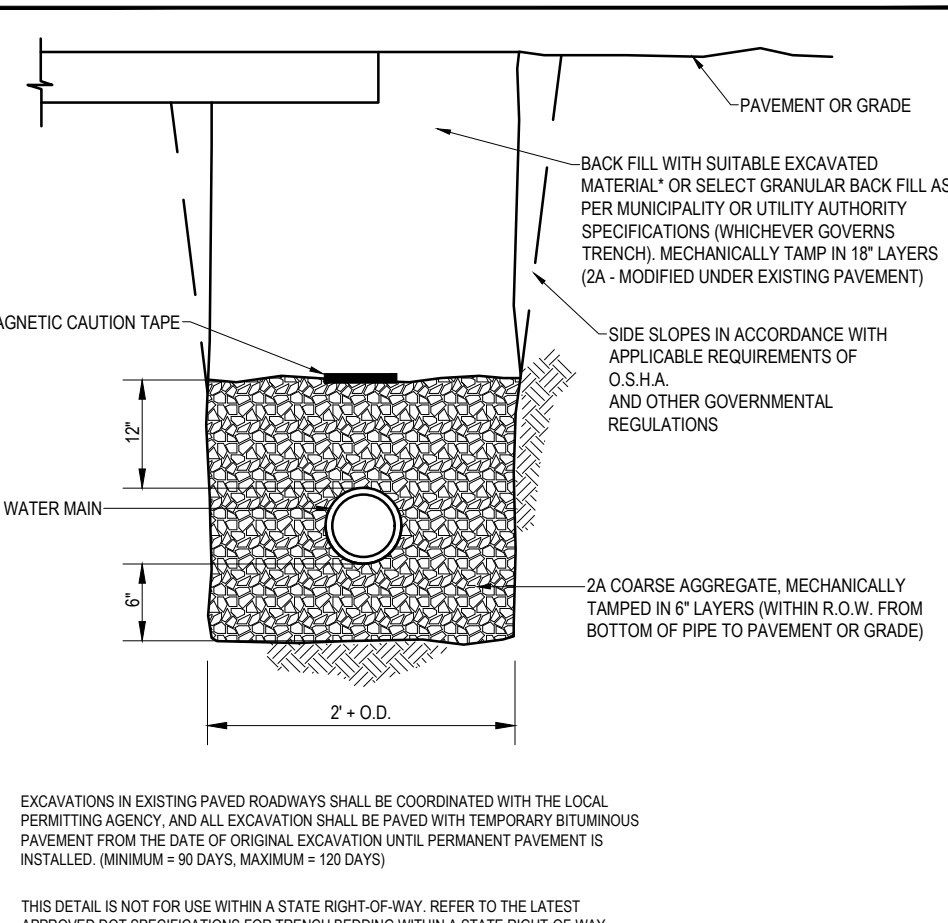
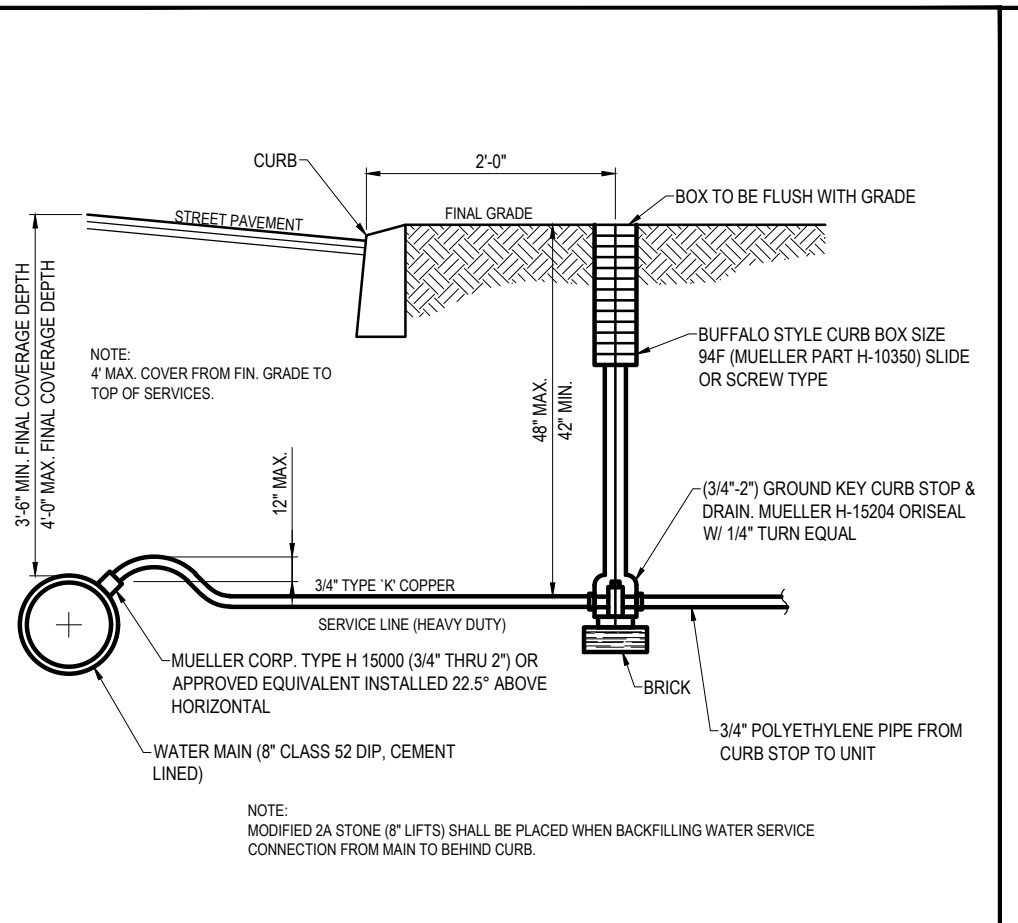
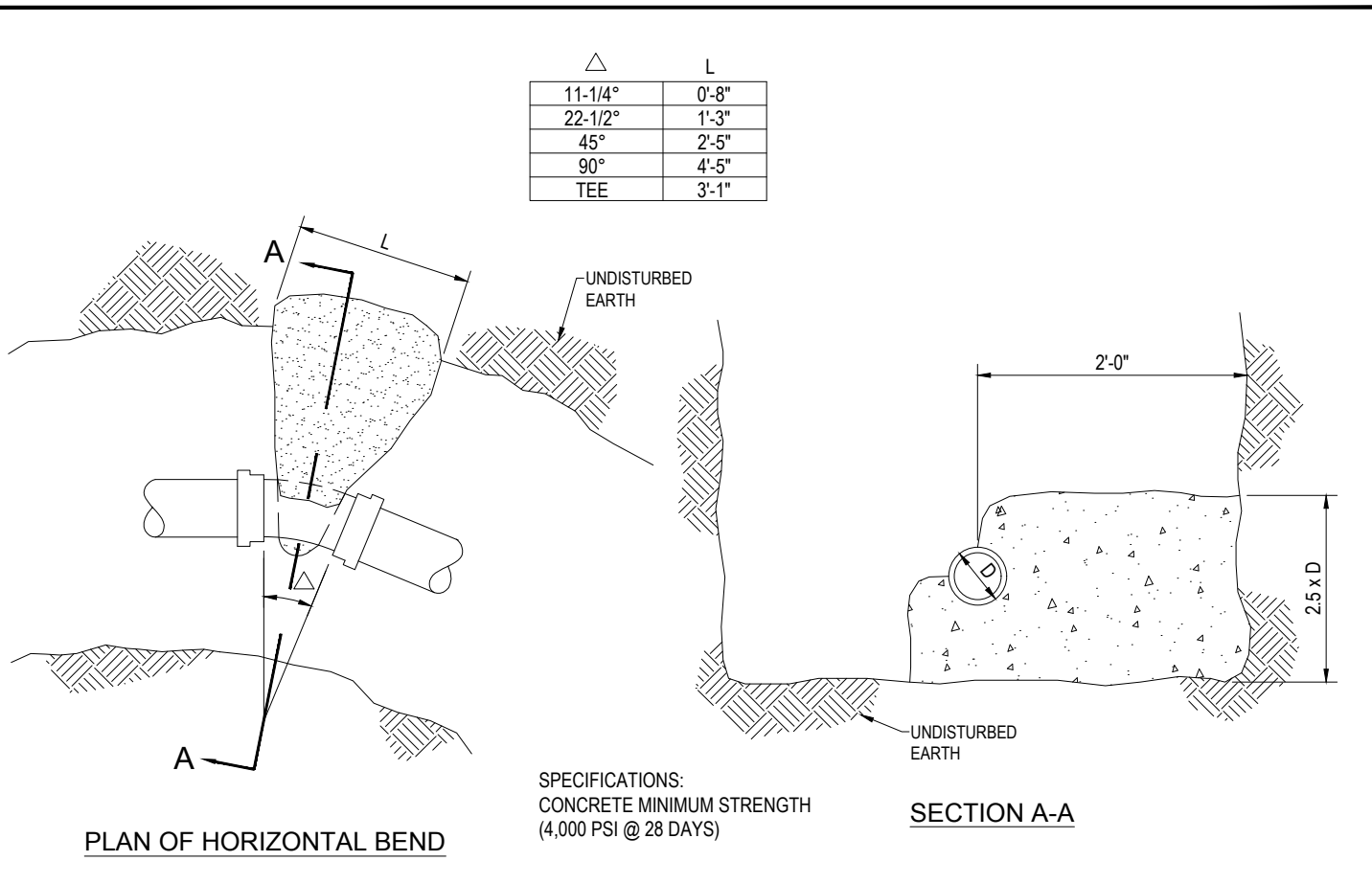
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
 FOR
REYNOLDS ACQUISITIONS, L.P.
 PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE NO. PE045479E
 NEW JERSEY LICENSE NO. 24G04502900

SHEET TITLE:
DETAILS
 SHEET NUMBER:
44
 OF 48
 REVISION 7 - 01/19/2024

R:\BPC\191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT (REV)\PC191160-CND-000-04-LAYOUT-44.DWG



CL 60 April 2015 LINK CATALOG SCIW Fence Products

BARRIER GATES
Notched and MIG welded 2" SC-20 Pipe

Use Box Hinges for the n trouble-free installation. See page CL46

Recommended Hinge Post
Min. 4" OD Sch 40 x 36" in ground
6-5/8" Sch 40 for 12", 16" singles
8-5/8" Sch 40 for singles over 16"

SINGLE BARRIER GATES

Opening	10' wide	12' wide	14' wide	16' wide	18' wide	20' wide
	212	222	284	294	379	389

For Double Barrier Gates, use the price of two singles plus appropriate latches.
Prices do not include posts, hinges, or latches.

BOLLARDGARDS

Prod Code	Description	STOCK	Price/Ea.
BOL40052BW	4" OD x 52" Blue w/ White Tape	STOCK	
BOL40052YR	4" OD x 52" Yellow w/ Red Tape	STOCK	
BOL65852BW	6-5/8" OD x 52" Blue w/ White Tape	STOCK	
BOL65852YR	6-5/8" OD x 52" Yellow w/ Red Tape	STOCK	

Adhesive gripper tabs are included for easy installation.
Installs in minutes over new and existing pipe bollards.
Additional Colors Available: Red, Gray, White, Black, Orange

GEOLBLOCK 5150 POROUS PAVEMENT SYSTEM FOR EMERGENCY ACCESS
SCALE: N.T.S. REV: 2019.04.11

REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE0454796
NEW JERSEY LICENSE NO. 246E04507900

DETAILS

SHEET NUMBER: 45 OF 48
REVISION 7 - 01/19/2024

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS	JP
3	01/06/2023	REV. PER LCDD COMMENTS	BGEN	JP
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR	JP
5	03/16/2023	REV. PER LCDD COMMENTS	EAN	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	EAN	JRP

811
Know what's below.
Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-486-1779
www.pa.gov/811
20191704041 & 20191704042

PROJECT No.: PC191160
DRAWN BY: AMT
CHECKED BY: REK
DATE: 08/02/2024
CAD LID: PC191160-CND-0

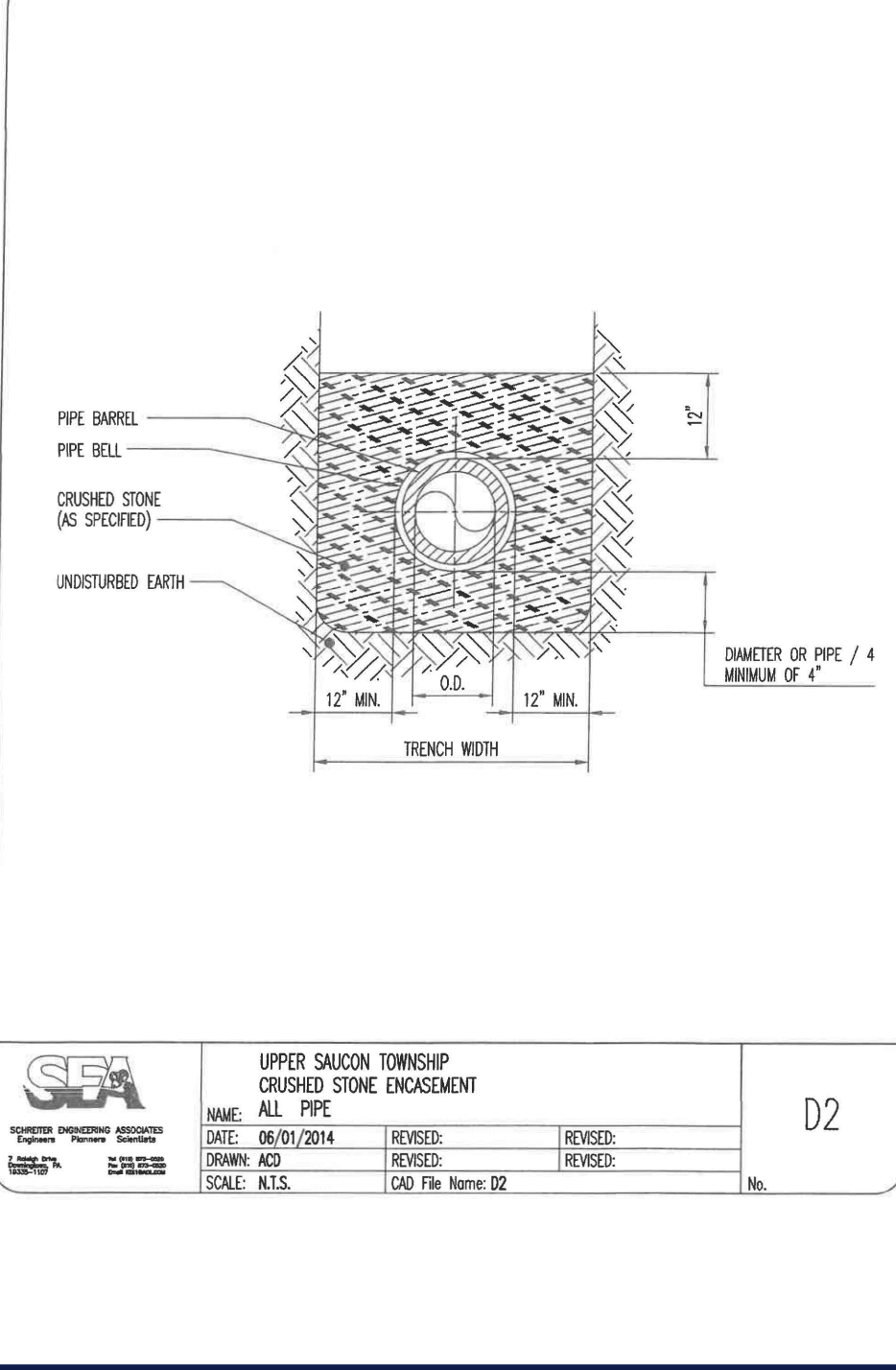
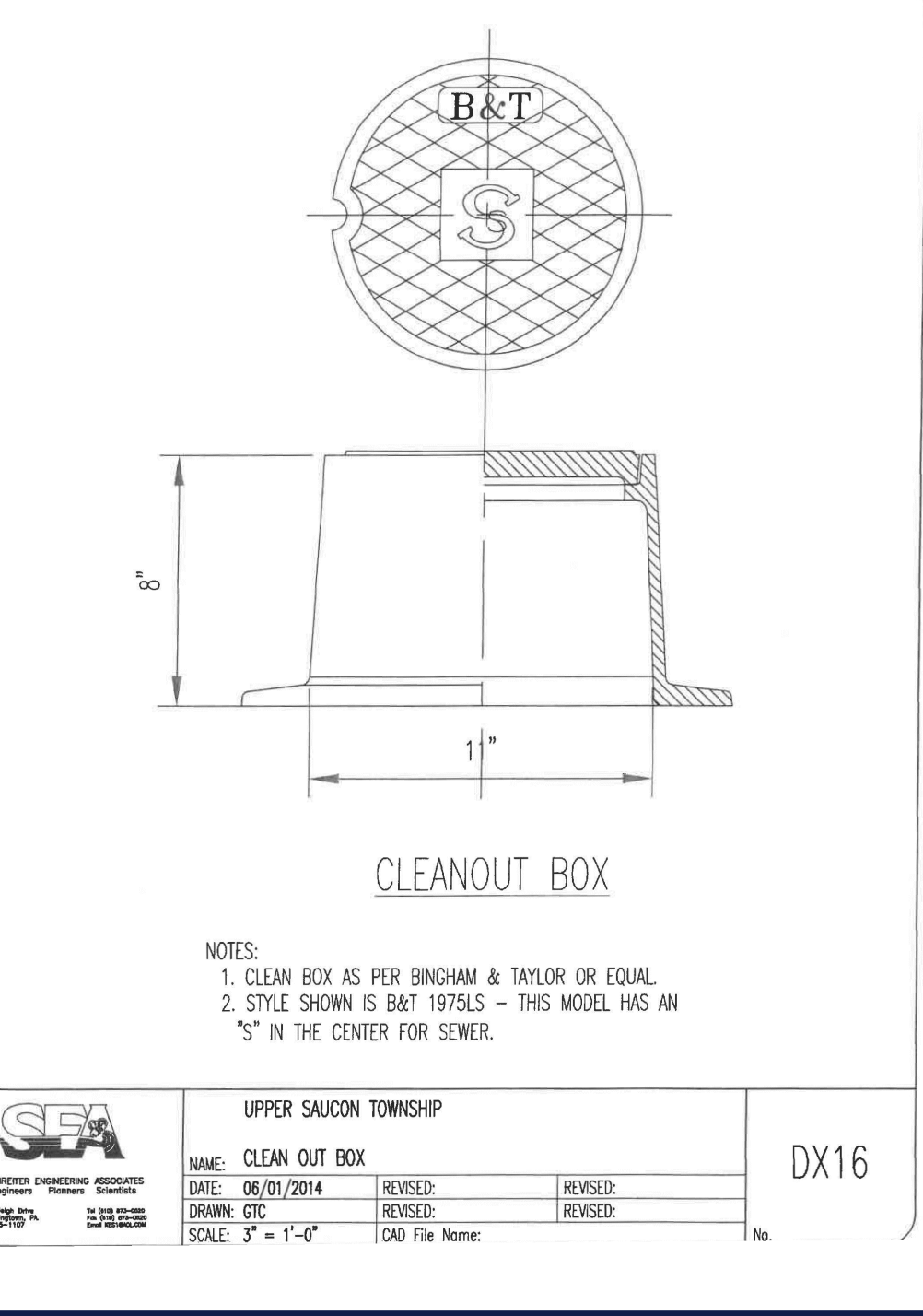
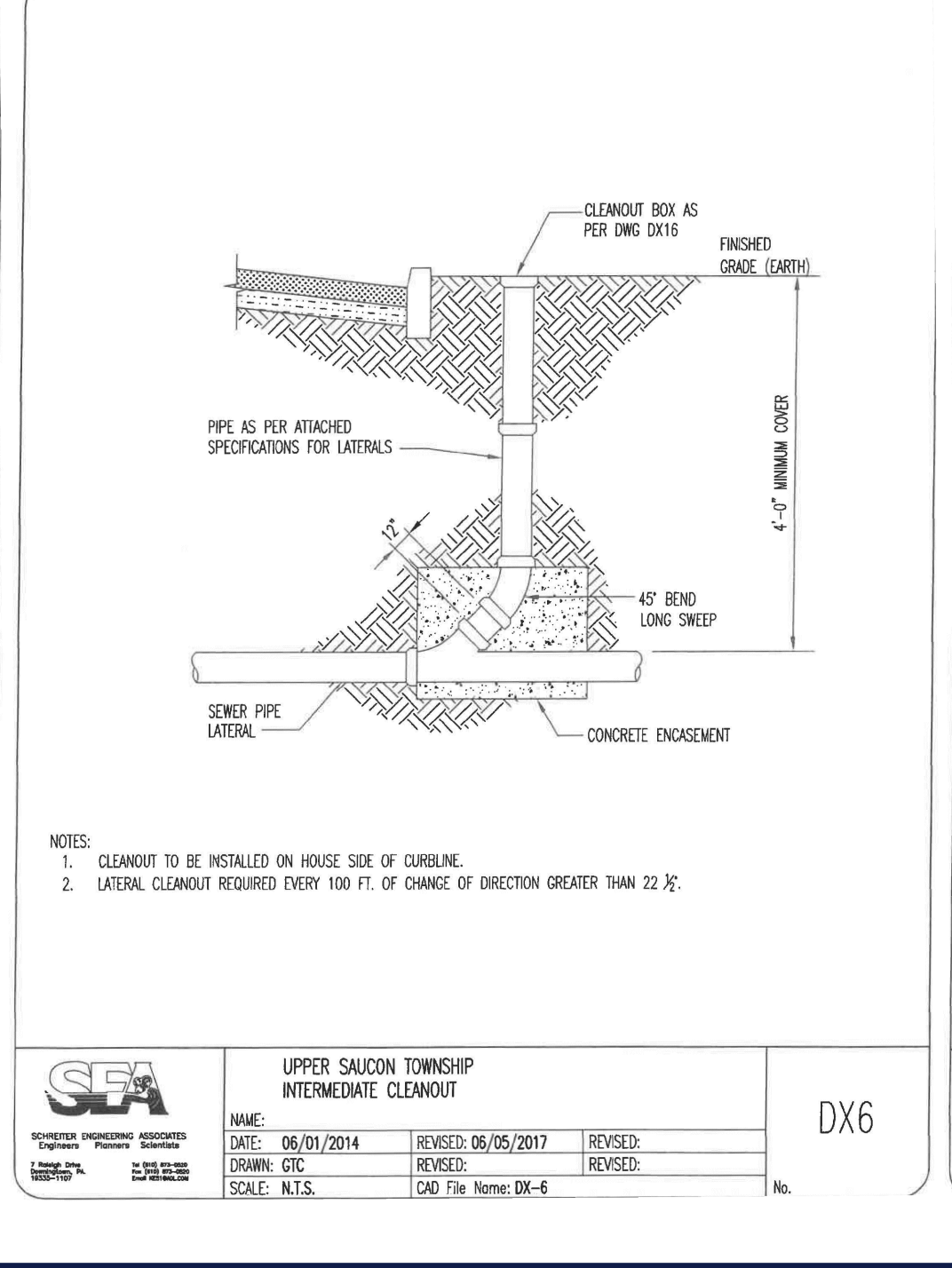
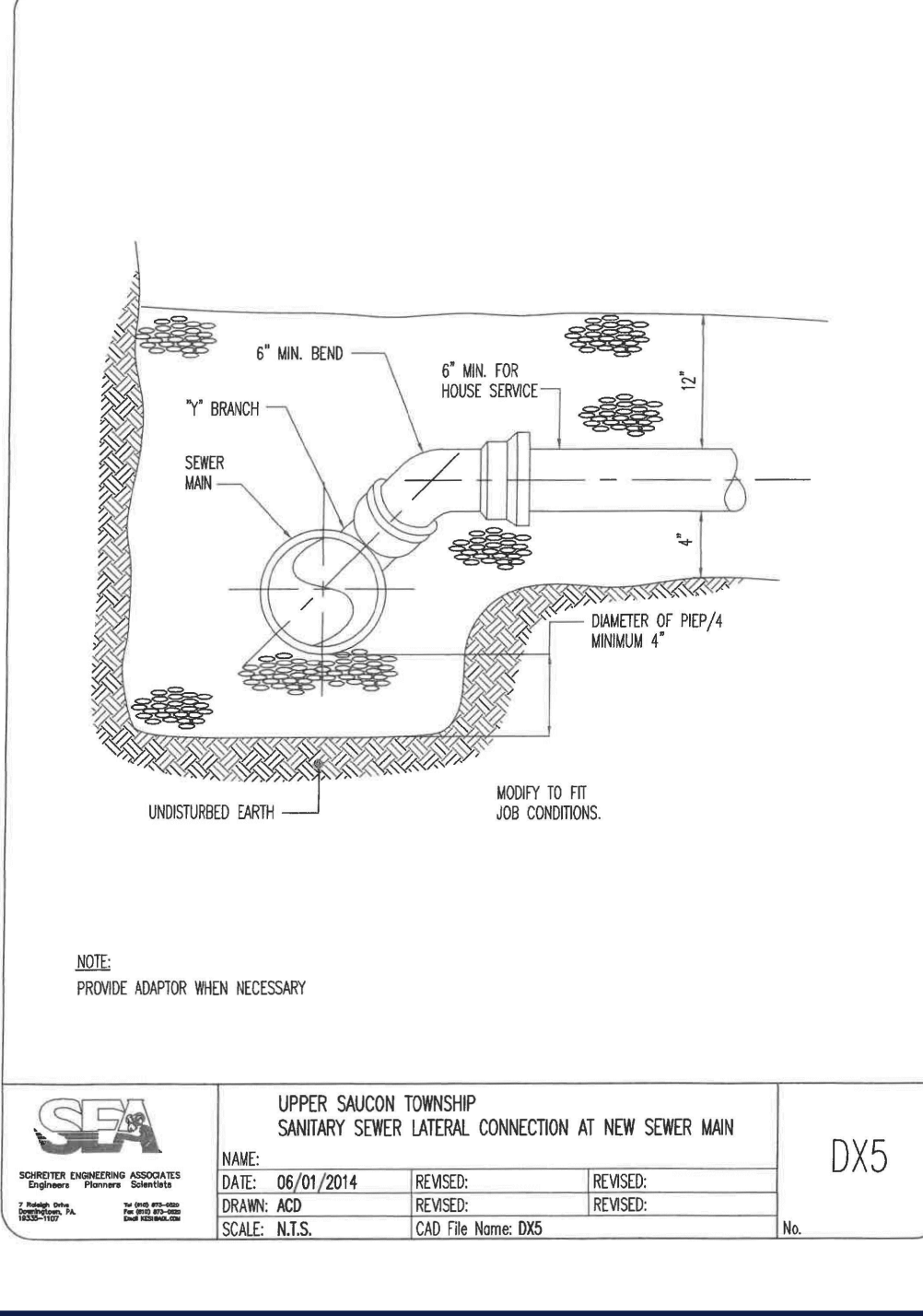
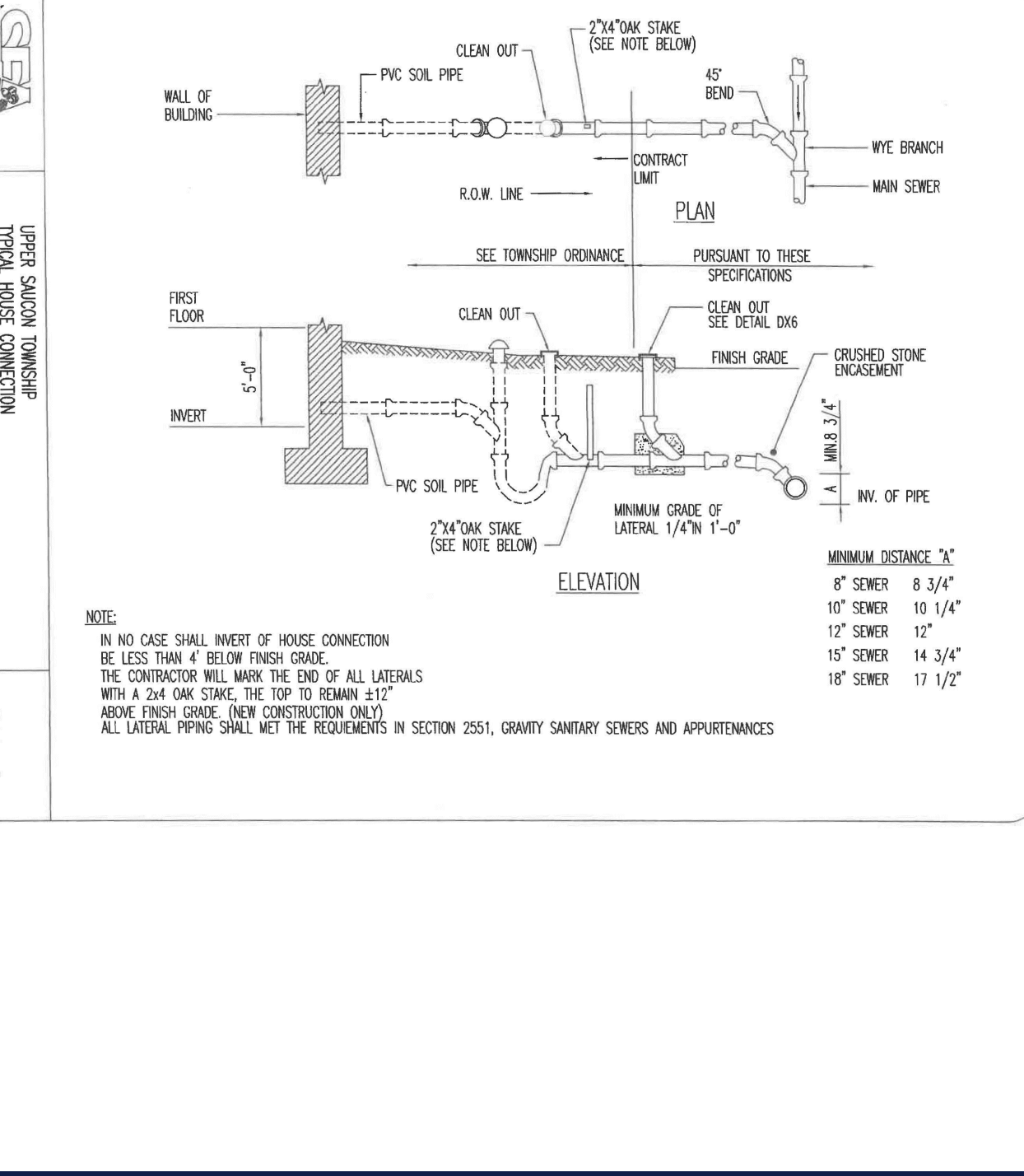
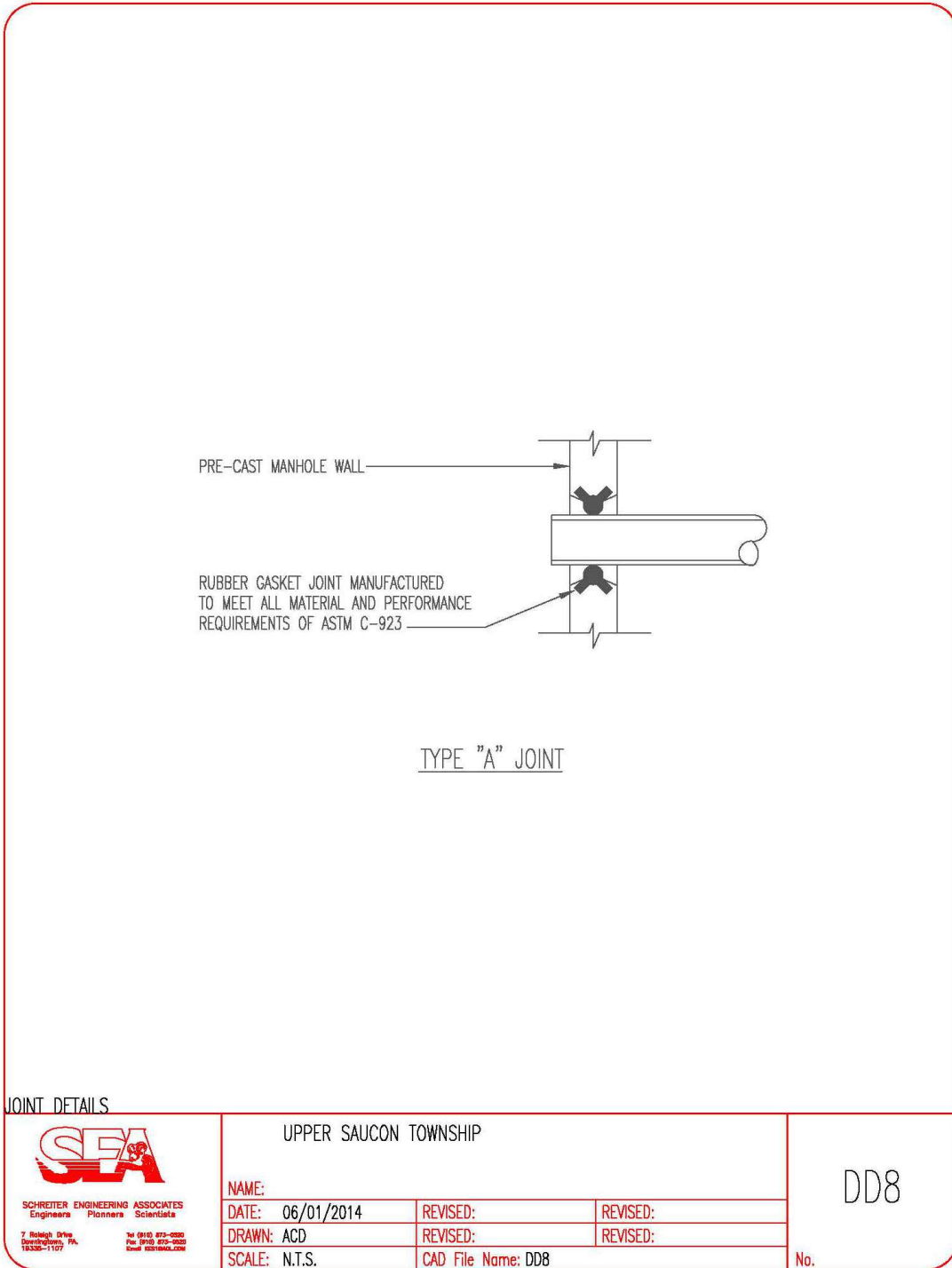
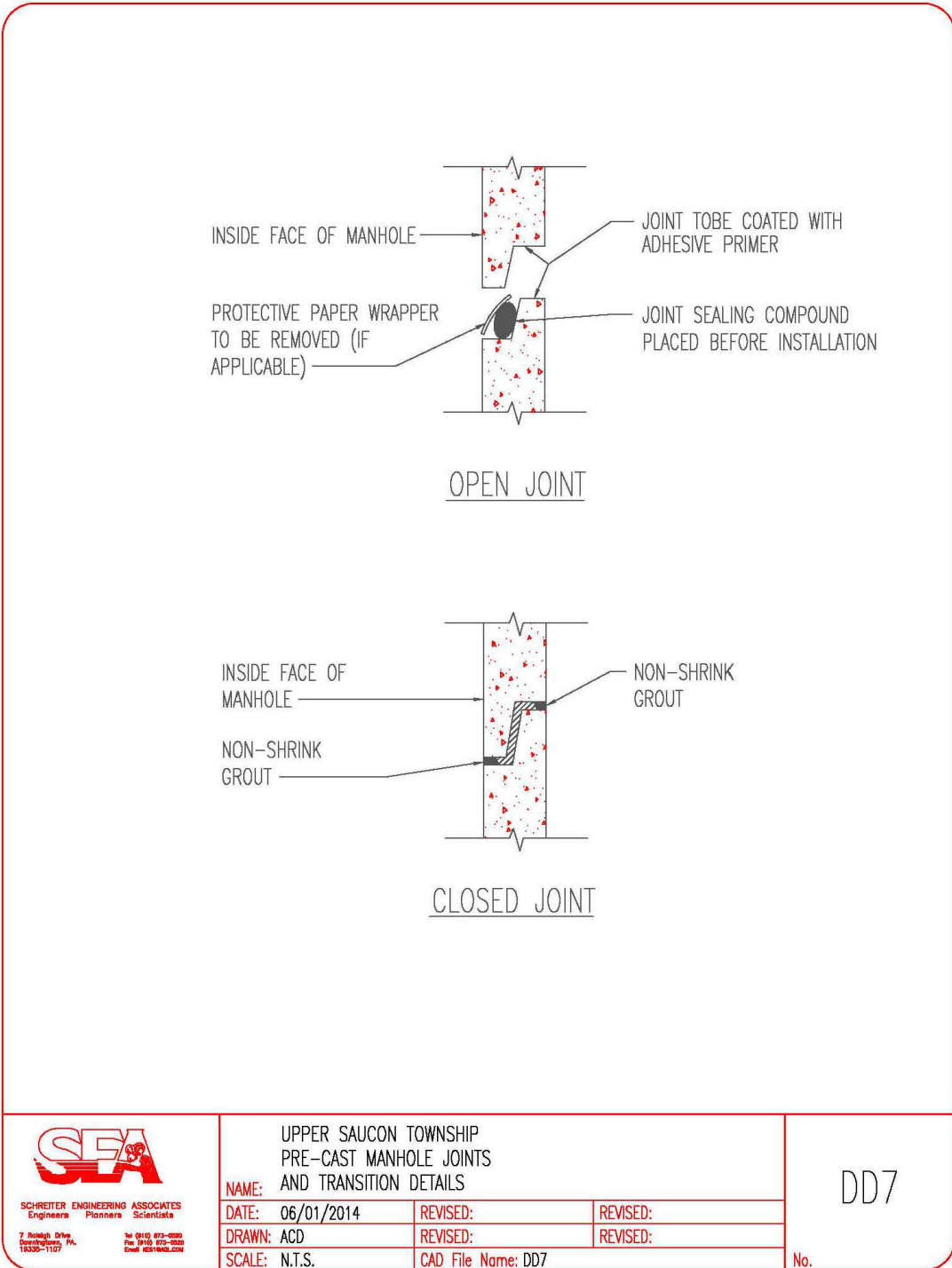
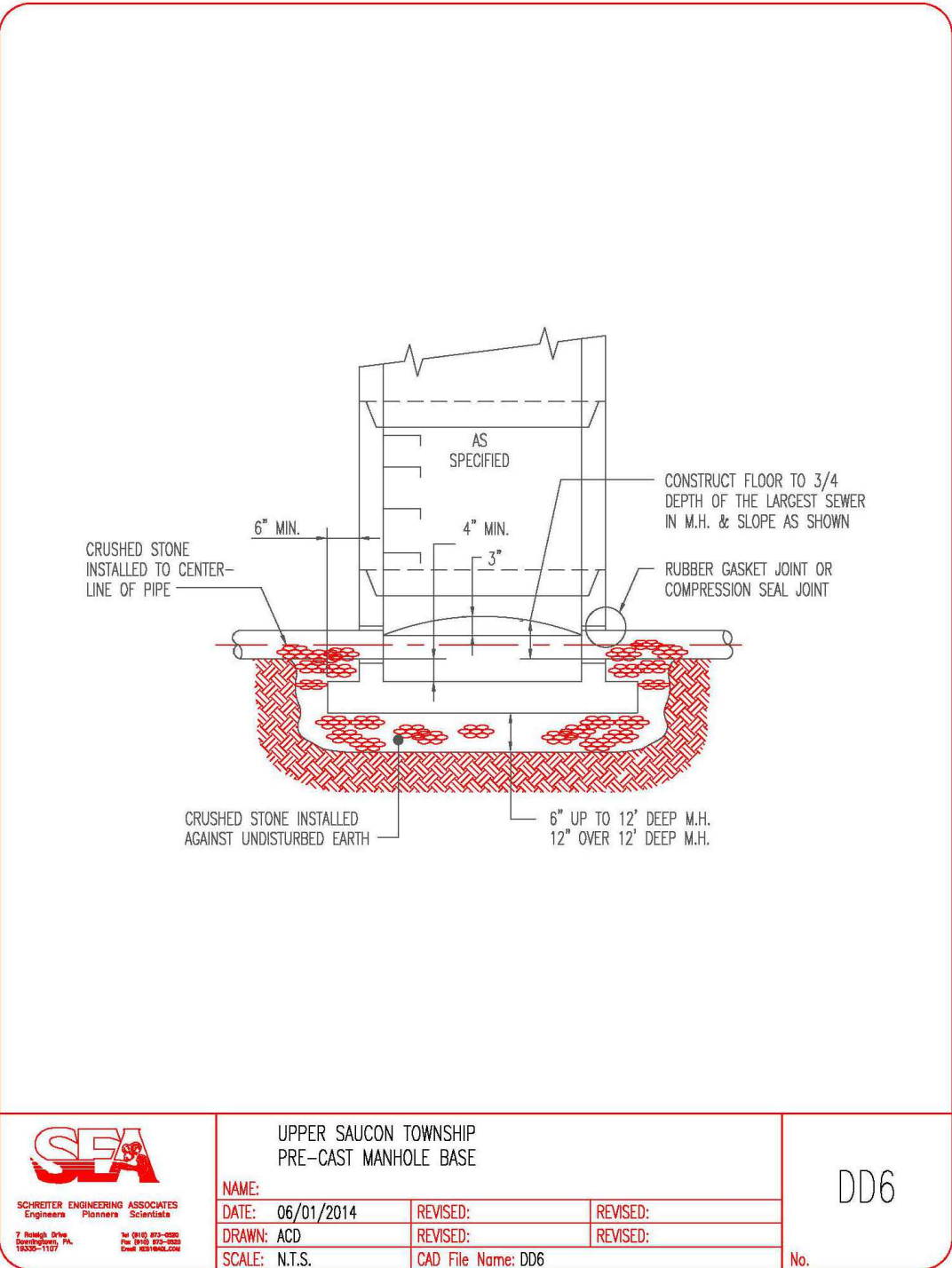
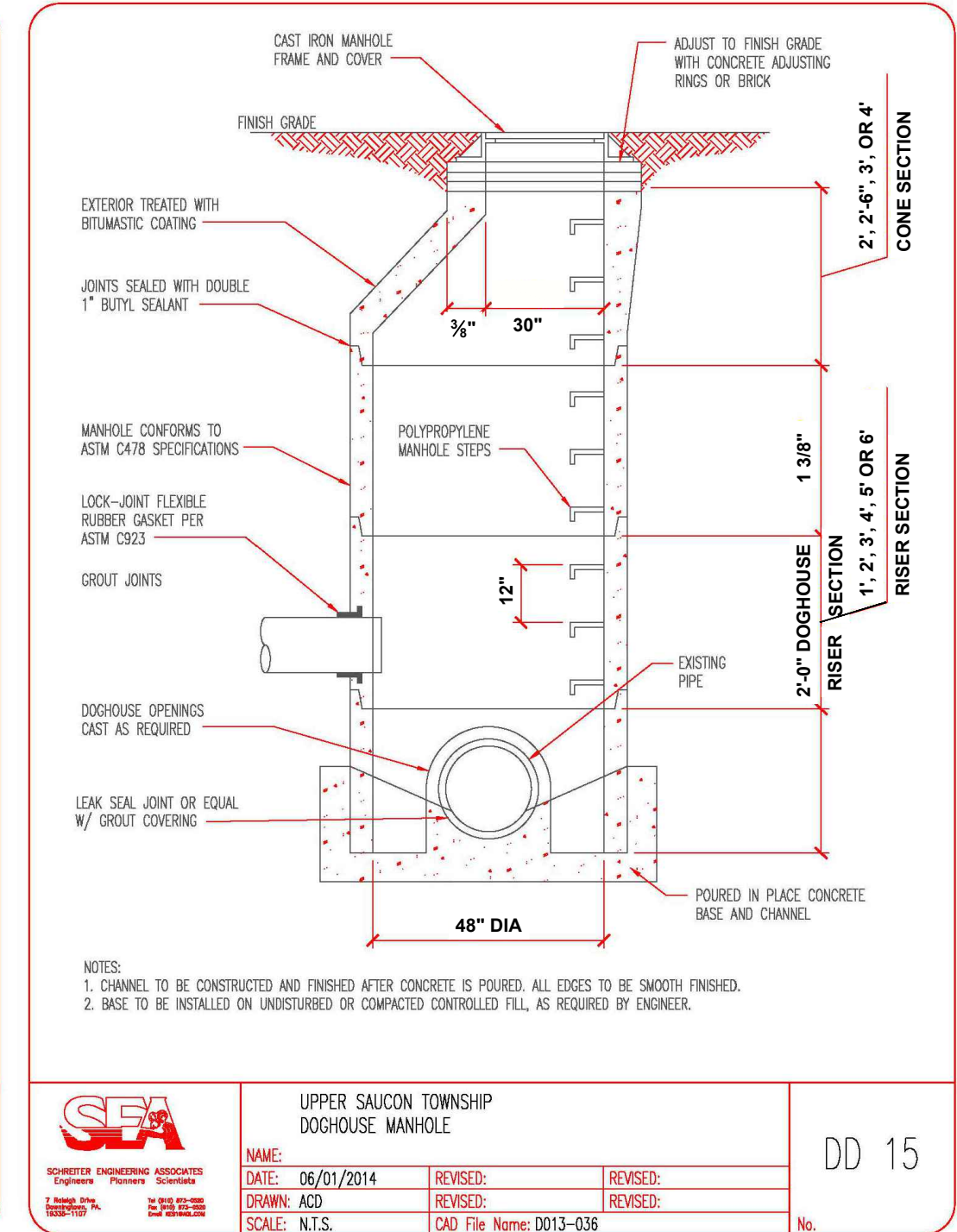
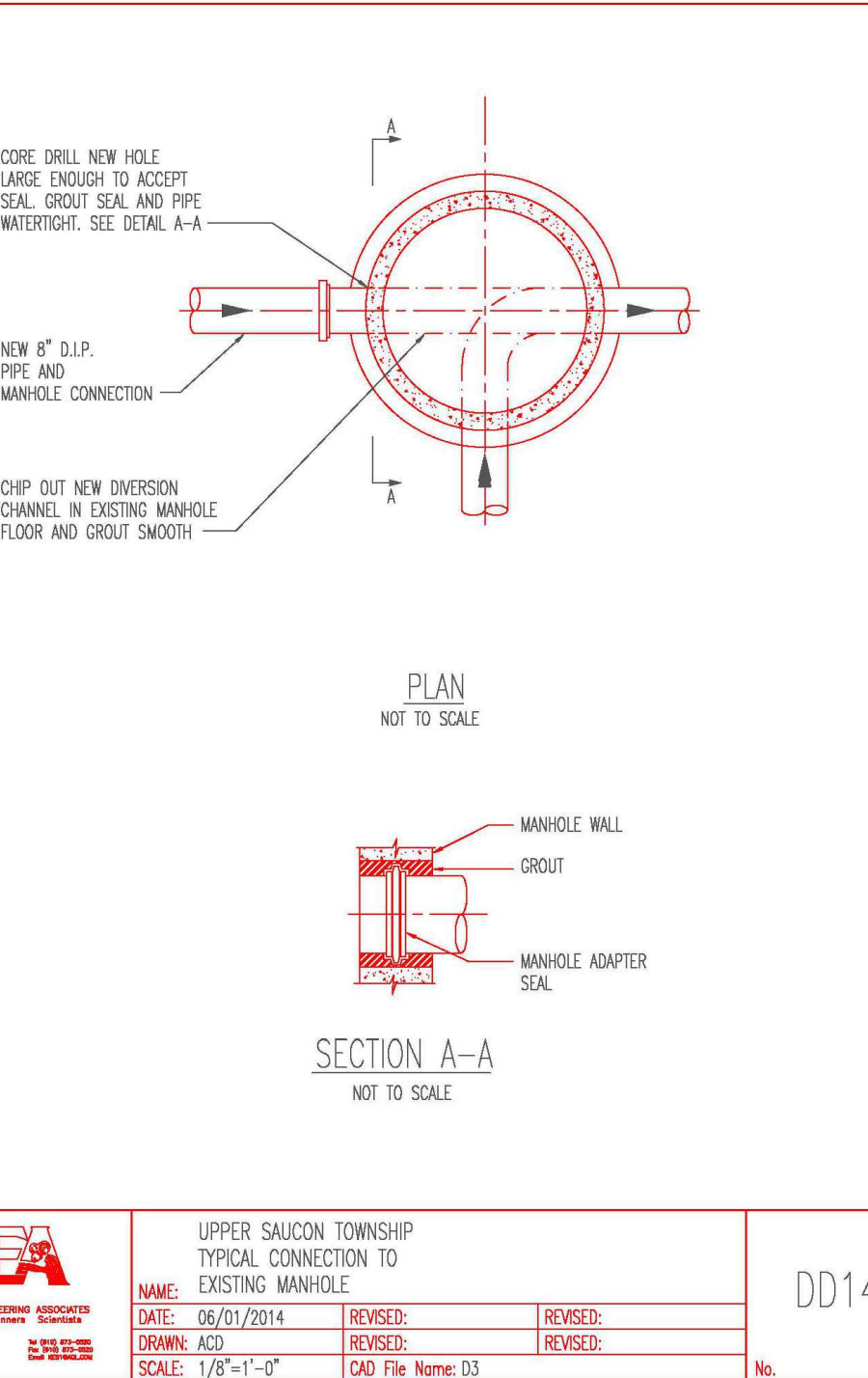
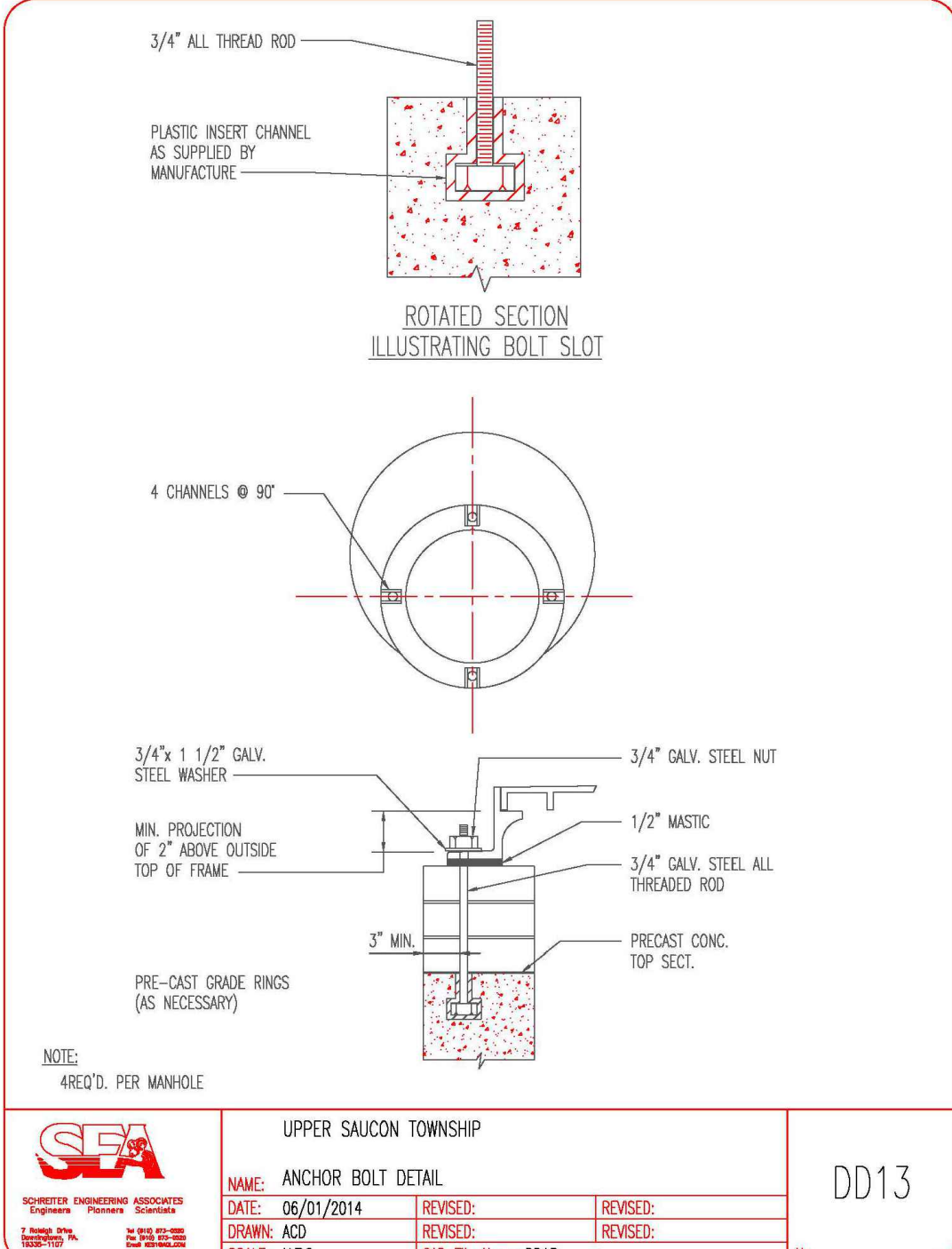
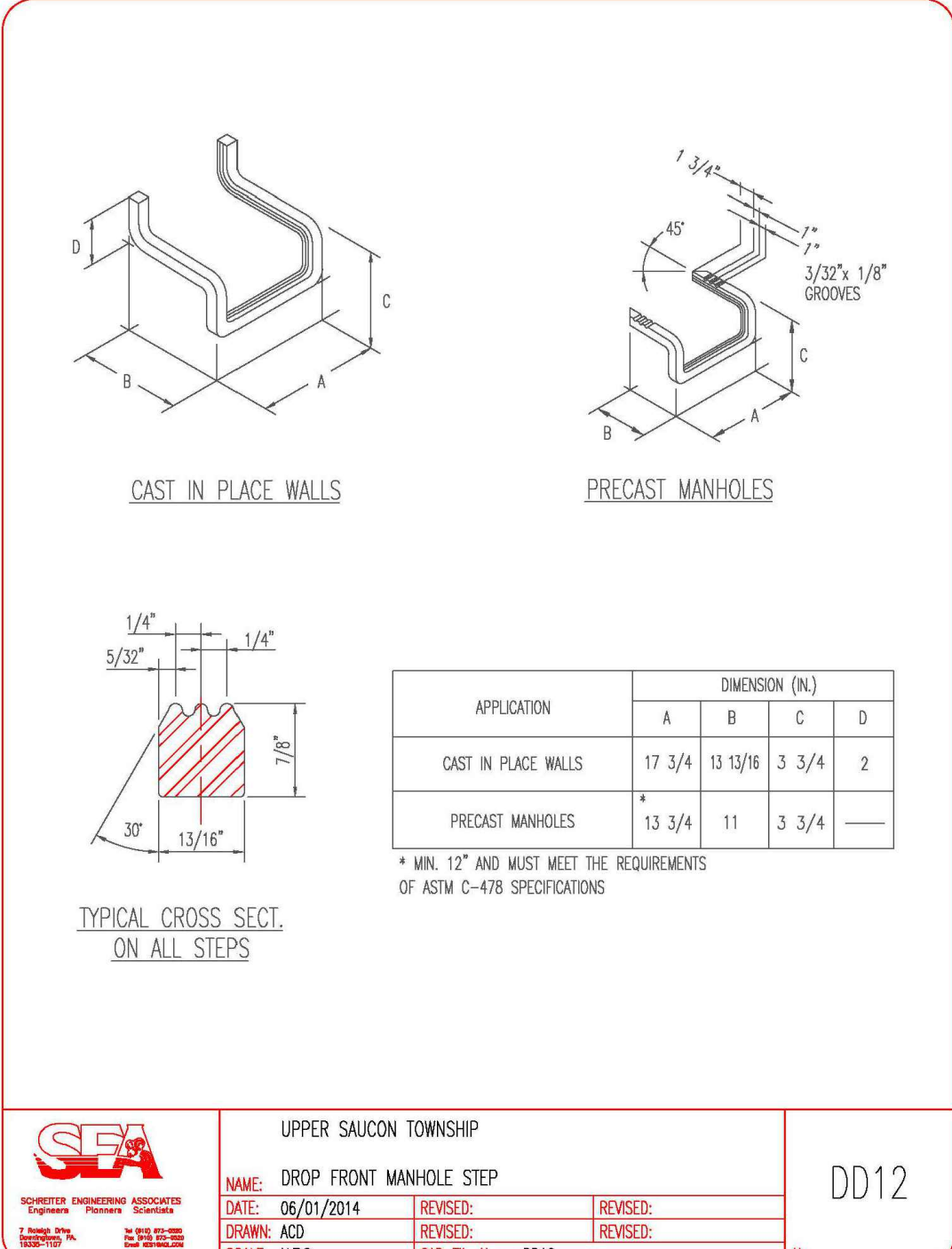
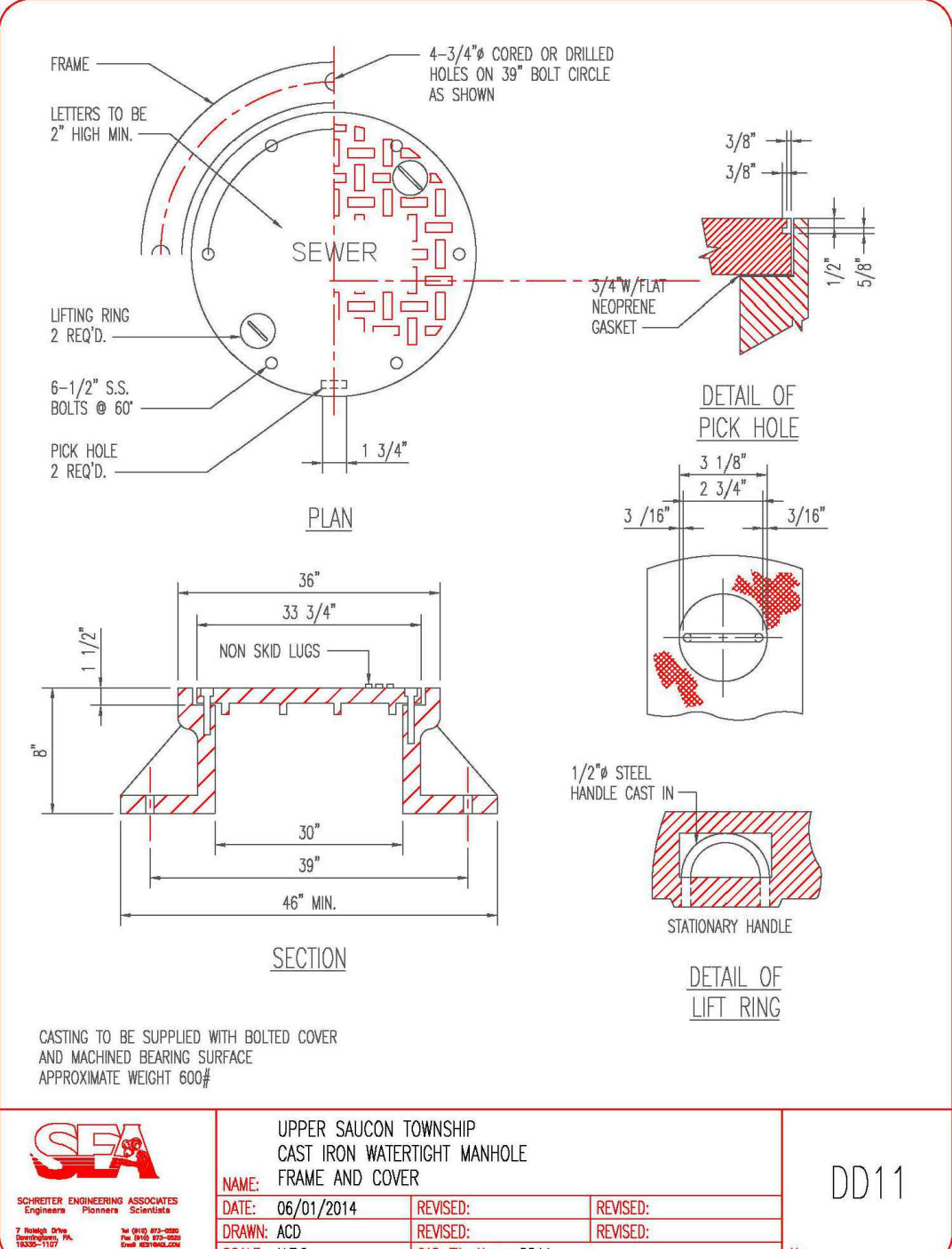
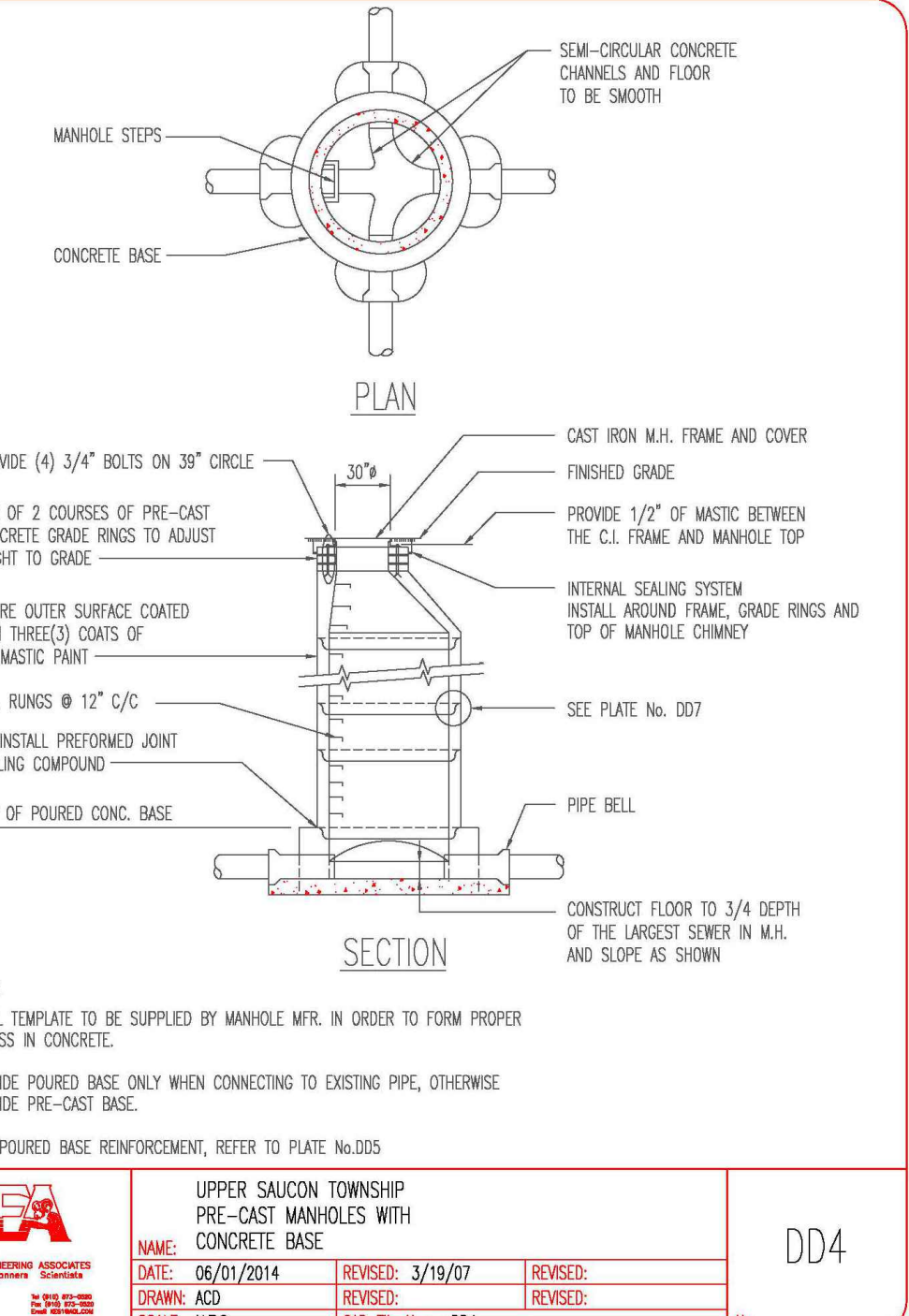
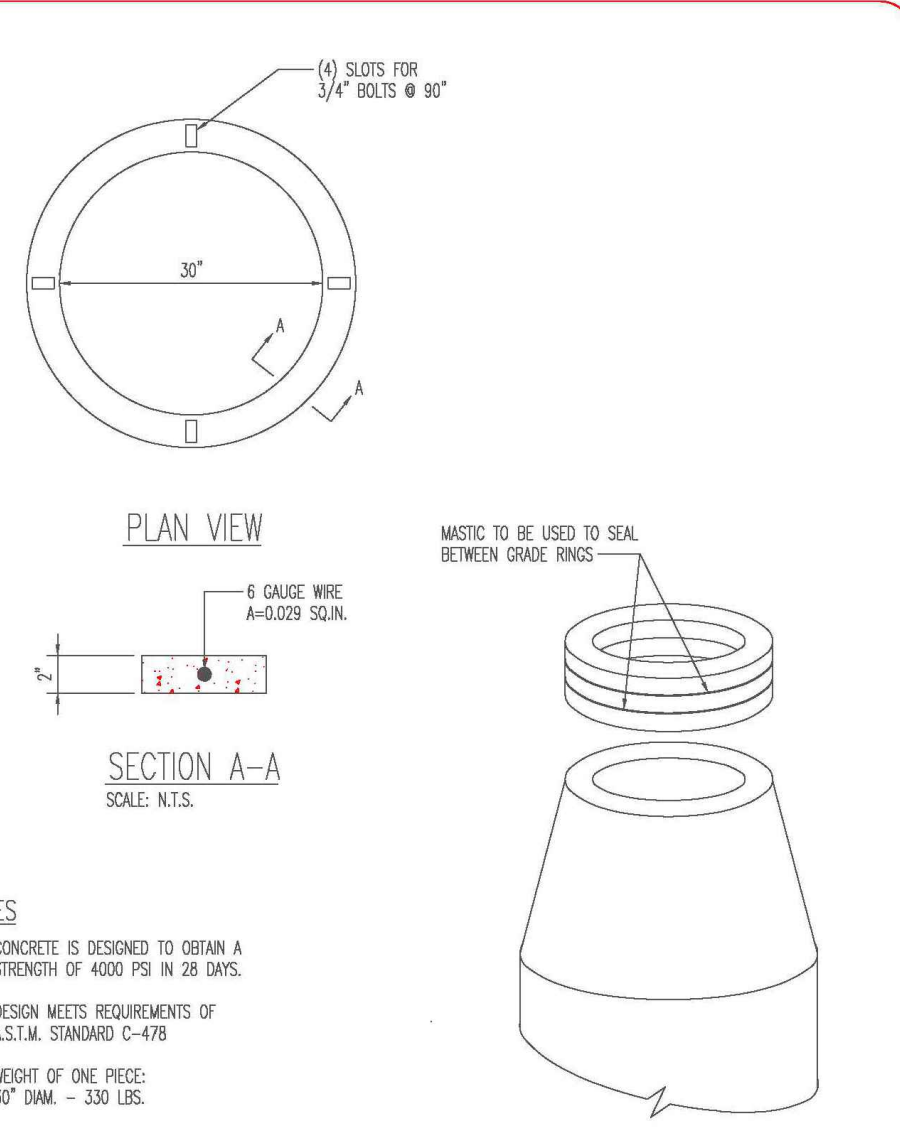
PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
FOR
REYNOLDS ACQUISITIONS, L.P.
PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
WEST STATE STREET
COOPERSBURG BOROUGH
LEHIGH COUNTY
PENNSYLVANIA
18036

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

R.E. KLOS, JR.
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE0454796
NEW JERSEY LICENSE NO. 246E04507900

SHEET TITLE:
DETAILS

SHEET NUMBER:
45
OF 48
REVISION 7 - 01/19/2024



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	08/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BGEN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/18/2023	REV. PER LCDD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	JP
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP

811
 Know what's below. Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-348-1779
 www.pa.gov/811

PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: 08/06/2024
 DATE: JRP
 CAD ID: PC191160-CND-0

PROJECT:
PRELIMINARY / FINAL LAND DEVELOPMENT PLANS
 FOR
REYNOLDS ACQUISITIONS, L.P.
 PROPOSED RESIDENTIAL DEVELOPMENT 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

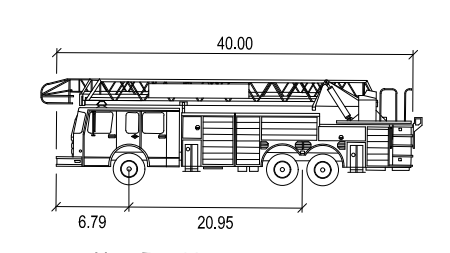
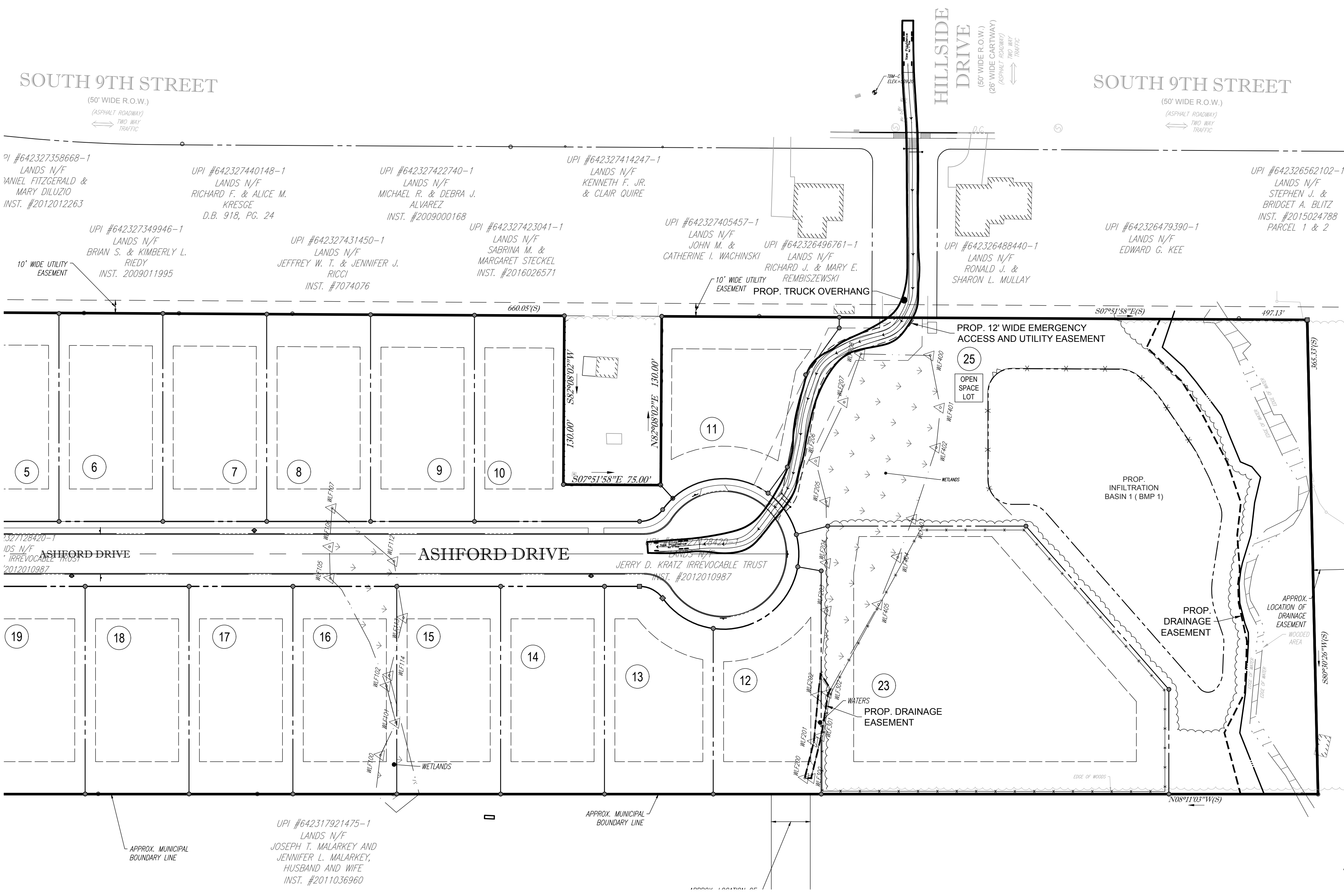
BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE045478E
 NEW JERSEY LICENSE No. 240604507900

SHEET TITLE:
DETAILS

SHEET NUMBER:
46
 OF 48

REVISION 7 - 01/19/2024



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT
2	08/18/2022	REV. PER LCDD COMMENTS	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	BG/EN
4	01/27/2023	REV. PER BOROUGH COMMENTS	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP
6	10/06/2023	REV. PER CLIENT COMMENTS	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP

811
 Know what's below.
 Call before you dig.
 PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-348-1772
 www.pa.gov/811

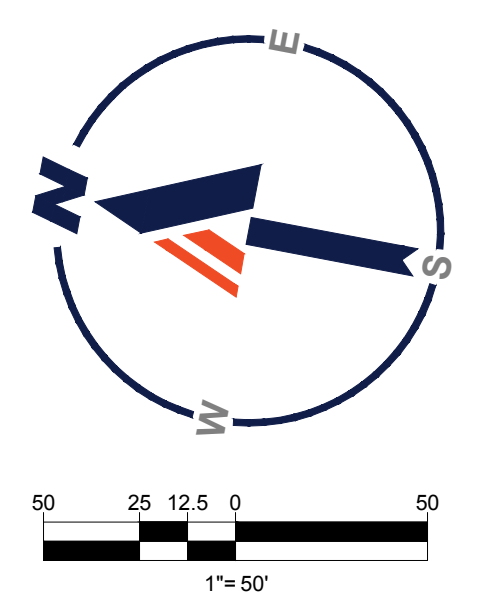
PROJECT No.: PC191160
 DRAWN BY: AMT
 CHECKED BY: REK
 DATE: 08/06/2024
 CAD ID: PC191160-SPP-0

**PRELIMINARY / FINAL
 LAND DEVELOPMENT
 PLANS**
 FOR
**REYNOLDS
 ACQUISITIONS, L.P.**
 PROPOSED RESIDENTIAL
 DEVELOPMENT
 'ASHFORD PRESERVE'
 WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER
 1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

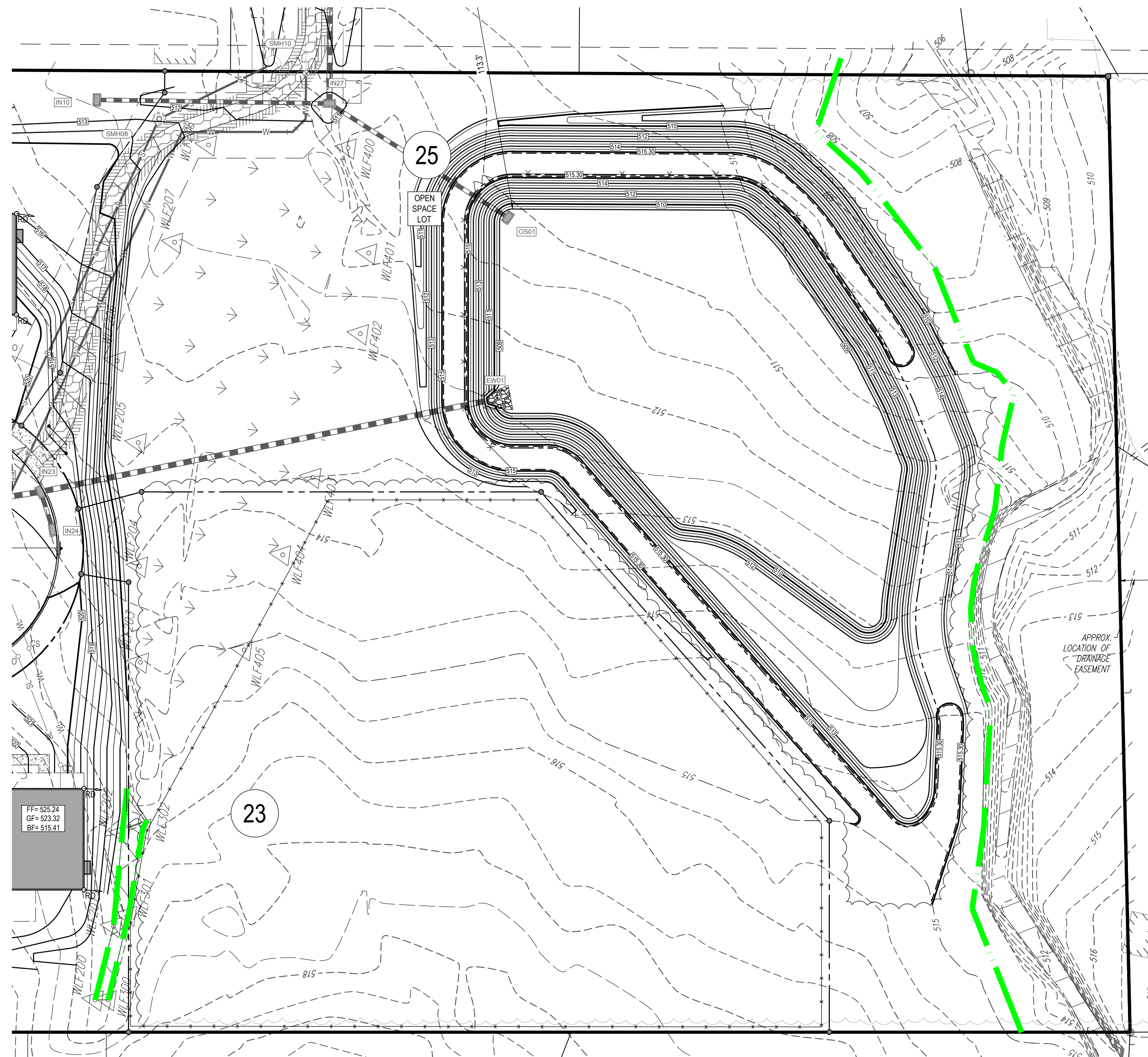
R.E. KLOS, JR.
 PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE0454796
 NEW JERSEY LICENSE No. 24GE04502900

SHEET TITLE:
**TRUCK
 TURN PLAN**
 SHEET NUMBER:
47
 OF 48
 REVISION 7 - 01/19/2024



R:\BPC\1916\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\CURRENT (REV7)\PC191160-SPP-0-LAYOUT-47-TRUCK

R:\191160\DRAWINGS\PLAN SET\LAND DEVELOPMENT\CURRENT (REV)\191160-SPP-0-48-ADDITIONAL GRADING



LEGEND

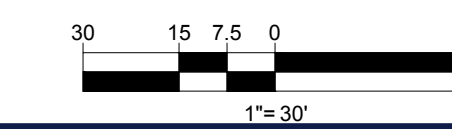
EXISTING

PROPERTY LINE	---
ADJACENT PROPERTY LINE	---
EASEMENT LINE	---
EXISTING CONTOUR / MAJOR	---SP---
EXISTING CONTOUR / MINOR	---SP---

LEGEND

PROPOSED

PROPOSED ROAD CENTERLINE	---
CONCRETE CURB	---
FLUSH CURB	---
PROPOSED CONTOUR / MAJOR	---
PROPOSED CONTOUR / MINOR	---
PROPOSED SPOT ELEVATION	527.00
PROPOSED SLOPE	3%
CALCULATED FLOODWAY	---
SAWCUT LINE	---



BOHLER™

SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED AND IS NOT CONTROLLED FOR RELEASE OR DISSEMINATION. IT IS THE POLICY OF BOHLER AND ASSOCIATES, INC. TO MAKE AVAILABLE TO THE PUBLIC ALL INFORMATION CONTAINED HEREIN, UNLESS INDICATED OTHERWISE.

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	06/07/2022	REV. PER BOROUGH COMMENTS	AMT	REK
2	08/18/2022	REV. PER LCDD COMMENTS	JP	ENMS
3	01/06/2023	REV. PER LCDD COMMENTS	JP	BGEN
4	01/27/2023	REV. PER BOROUGH COMMENTS	JP	SR
5	03/16/2023	REV. PER LCDD COMMENTS	JP	EAN
6	10/06/2023	REV. PER CLIENT COMMENTS	JP	BG/LB
7	01/19/2024	REV. PER BOROUGH / CLIENT COMMENTS	JP	EAN

811

Know what's below.
 Call before you dig.

PENNSYLVANIA
 YOU MUST CALL 811 BEFORE ANY EXCAVATION
 WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
 1-800-345-7778
 www.pa.gov/811

20191704041 & 20191704042

PROJECT No.:	PC191160
DRAWN BY:	AMT
CHECKED BY:	REK
DATE:	08/06/2024
CAD ID.:	PC191160-SPP-0

PROJECT:

**PRELIMINARY / FINAL
 LAND DEVELOPMENT
 PLANS**

FOR

**REYNOLDS
 ACQUISITIONS, L.P.**

PROPOSED RESIDENTIAL
 DEVELOPMENT
 'ASHFORD PRESERVE'

WEST STATE STREET
 COOPERSBURG BOROUGH
 LEHIGH COUNTY
 PENNSYLVANIA
 18036

BOHLER //

1600 MANOR DRIVE, SUITE 200
 CHALFONT, PA 18914
 Phone: (215) 996-9100
 Fax: (215) 996-9102
 www.BohlerEngineering.com

R.E. KLOS, JR.

PROFESSIONAL ENGINEER
 PENNSYLVANIA LICENSE No. PE045479E
 NEW JERSEY LICENSE No. 240E04507900

SHEET TITLE:

**ADDITIONAL
 GRADING PLAN**

SHEET NUMBER:

48
 OF 48

REVISION 7 - 01/19/2024