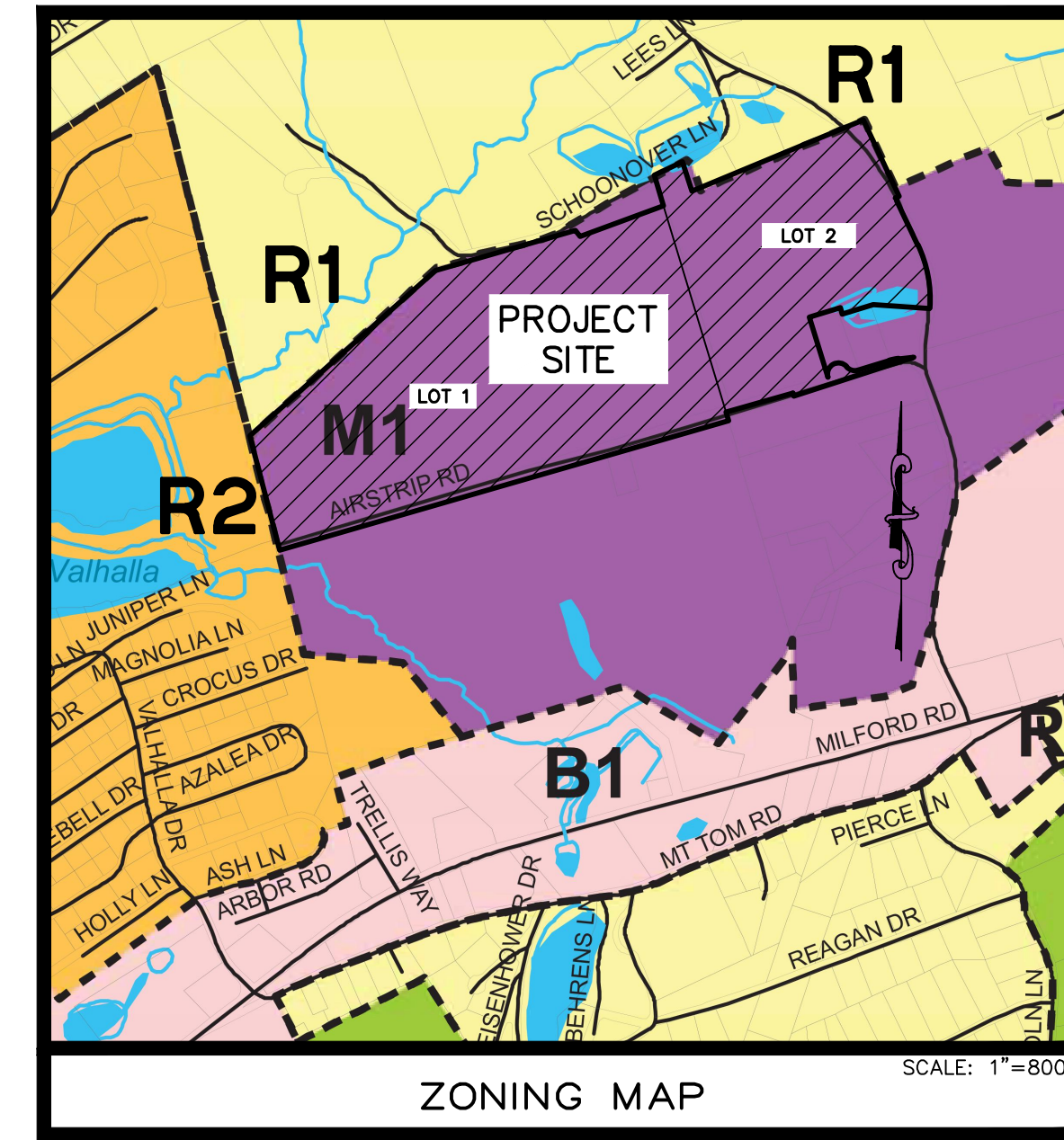
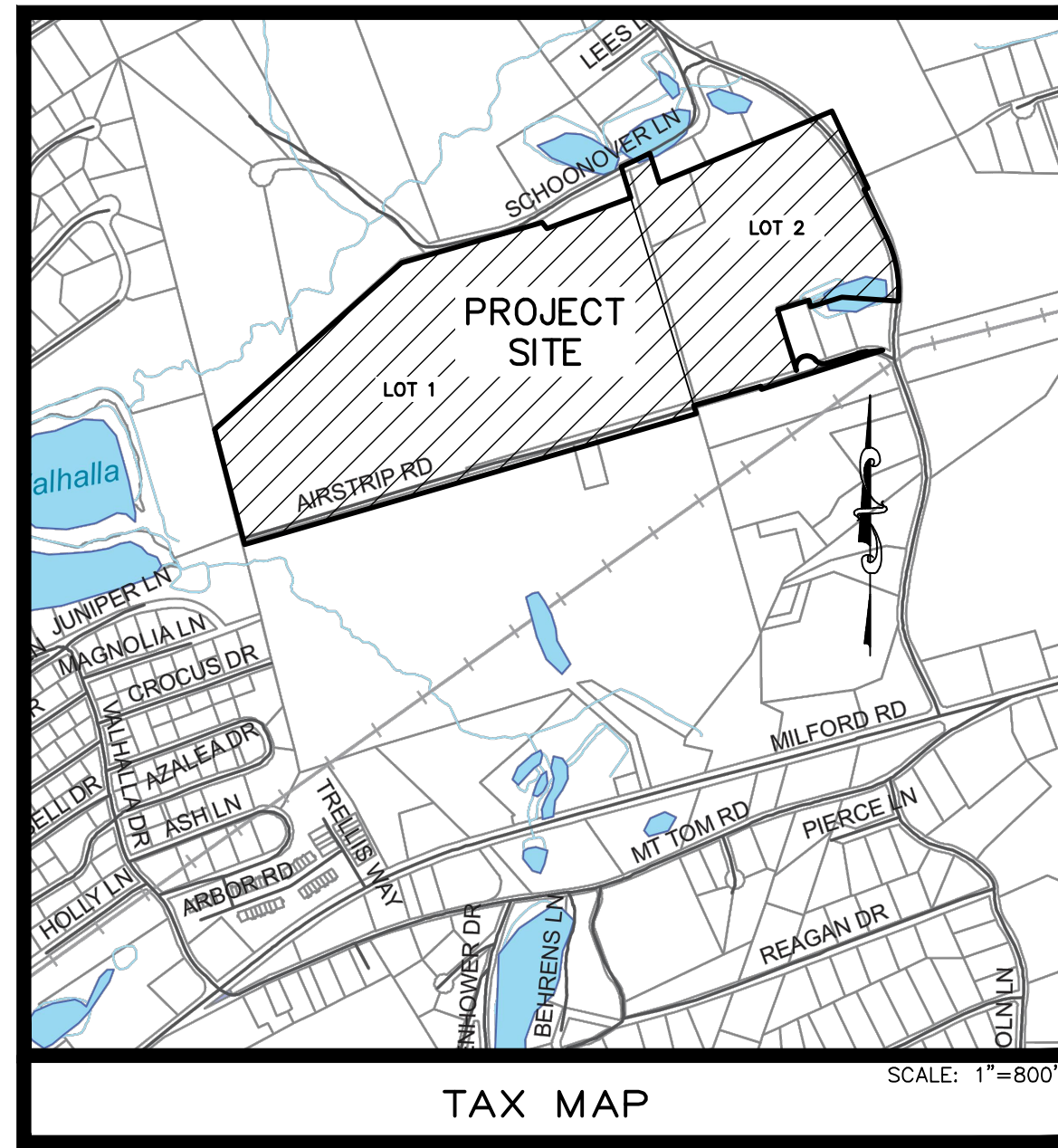
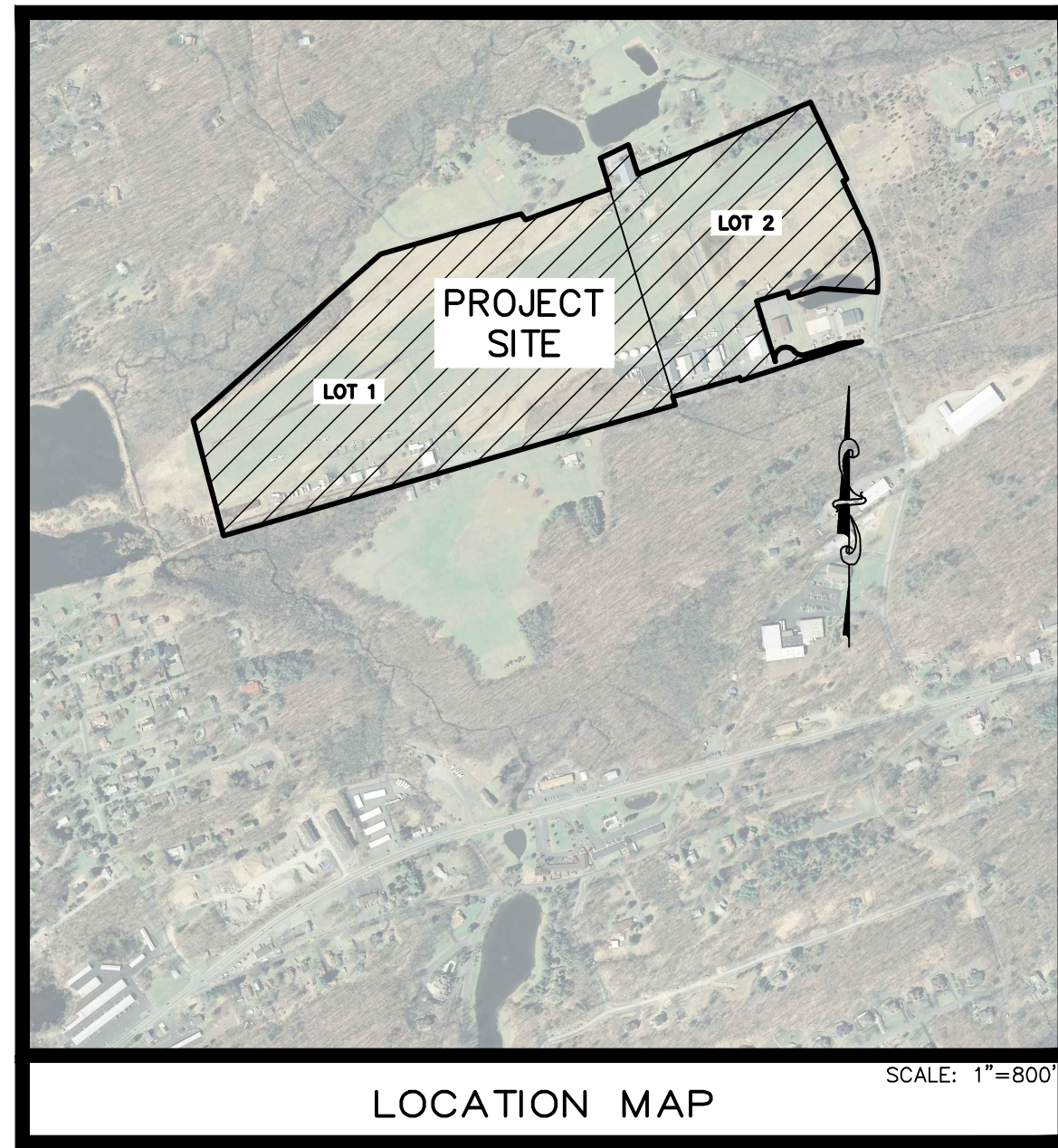


# PRELIMINARY/FINAL LAND DEVELOPMENT FOR BLACK BUFFALO NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY

SMITHFIELD TOWNSHIP, MONROE COUNTY PENNSYLVANIA



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SITE & ADJACENT PROPERTY OWNER'S LIST					
PARCEL No.	OWNER OF RECORD	DEED BK, PG	PARCEL No.	OWNER OF RECORD	DEED BK, PG
16-7312-00-37-9122	BLACK BUFFALO LAND ACQUISITION LLC	BK. 2598, PG. 8299	16-7312-00-57-2601	BLACK BUFFALO LAND ACQUISITION LLC	BK. 2598, PG. 8299
16-7312-00-36-3126	SOSA, RICHARD CAPORALE	BK. 2507, PG. 6910	16-7312-00-47-8054	STROUDSBURG POCONO AIRPARK LLC	BK. 2507, PG. 8891
16-7312-01-26-7122	SHEHROZ, AHMED	BK. 2574, PG. 8503	16-7312-00-48-9208	DONNELLY, THOMAS JOHN	BK. 2579, PG. 955
16-7312-01-26-4568	STRENZ, CHERIE C	BK. 2080, PG. 6415	16-7312-00-58-4566	POCONO STROUDSBURG AIRPORT, INC	BK. 2056, PG. 8526
16-7312-01-27-2186	STRENZ, CHERIE C	BK. 2080, PG. 6415	16-7312-00-27-6682	EPPLEY, DANIEL J & DEBRA K	BK. 2110, PG. 2457
16-7312-00-57-7331	WAYNE BANK TRUSTEE OF THE MARVIN PAPILLON RESIDUARY CHARITABLE REMAINDER	BK. 2584, PG. 6485	16-7312-00-57-4226	WAYNE BANK TRUSTEE OF THE MARVIN PAPILLON RESIDUARY CHARITABLE REMAINDER	BK. 2584, PG. 6501
16-7312-00-38-2275	BAUMAN, LUKE	BK. 2495, PG. 4439	16-7312-00-57-5268	Y NOT TONY'S CO.	BK. 2441, PG. 4077
16-7312-00-38-7593	SCHOONOVER, JOHN S JR & SHIRLEY	BK. 1097, PG. 75	16-7312-00-67-3603	POCONO STROUDSBURG AIRPORT INC.	BK. 2076, PG. 7639
16-7312-00-46-4614	SLATER HOLDINGS LLC	BK. 2605, PG. 8081	16-7312-02-56-3962	GREYFOX HOLDING LLC	BK. 2567, PG. 4010
16-7312-00-46-3097	SLATER HOLDINGS LLC	BK. 2605, PG. 8081	16-7312-02-67-2293	POCONO STROUDSBURG AIRPORT INC.	BK. 2070, PG. 161
16-7312-00-48-2025	CRUZ, JESSE CARNES, JUSTYNE	BK. 2575, PG. 8783			

SITE & ADJACENT ZONING DISTRICTS	
DESIGNATION	ZONING CLASSIFICATION
M1	INDUSTRIAL
B1	PLANNED BLVD COMMERCIAL
R2	MEDIUM DENSITY RESIDENTIAL
R1	LOW DENSITY RESIDENTIAL

UTILITY USER LIST ACT NUMBER 287 OF 1974 AS AMENDED	
<b>VERIZON PENNSYLVANIA LLC</b> ADDRESS: 1026 HAY ST PITTSBURGH, PA. 15221 CONTACT: DEBORAH BARUM EMAIL: deborah.d.delo@verizon.com	<b>BRODHEAD CREEK REGIONAL AUTHORITY</b> ADDRESS: 410 MILL CREEK RD EAST STROUDSBURG, PA. 18301 CONTACT: CHRIS A. BORGER EMAIL: cborger@bcrwa.net
<b>FIRST ENERGY PENELEC</b> ADDRESS: 21 S MAIN ST AKRON, OH. 44308 CONTACT: CARA WARREN EMAIL: RAWWARREN@FIRSTENERGYCORP.COM	<b>SMITHFIELD TOWNSHIP</b> ADDRESS: 1155 RED FOX RD EAST STROUDSBURG, PA. 18301 CONTACT: ED MCCORMACK EMAIL: ed@smithfieldtownship.com
<b>PENCOR SERVICES / BLUE RIDGE COMMUNICATION</b> ADDRESS: 475 DELAWARE AVE PALMERTON, PA. 18071 CONTACT: JOE BUCCIERI EMAIL: jbuccieri@brctv.com	<b>UGI UTILITIES INC</b> ADDRESS: 1 UGI DRIVE DENVER, PA. 17517 CONTACT: ANA LIZ RIVERA EMAIL: arivera1@ugi.com
<b>SMITHFIELD SEWER AUTHORITY</b> ADDRESS: 1155 RED FOX RD EAST STROUDSBURG, PA. 18301 CONTACT: TERRI TIMKO EMAIL: ssaauthority@smithfieldtownship.com	

**APPLICANT:**

BLACK BUFFALO 3D CORPORATION  
124 AIRSTRIP ROAD  
EAST STROUDSBURG, PA 18301  
PHONE: 913-915-3722

**OWNER OF RECORD:**

BLACK BUFFALO LAND ACQUISITION LLC  
MAILING ADDRESS:  
124 AIRSTRIP ROAD  
EAST STROUDSBURG, PA 18301  
APN: 16.7.1.8-1 (LOT 1) & 16.7.1.6 (LOT 2)  
TRACT ADDRESS:  
140 (LOT 1) & 136 (LOT 2) AIRSTRIP ROAD  
EAST STROUDSBURG, PA 18301

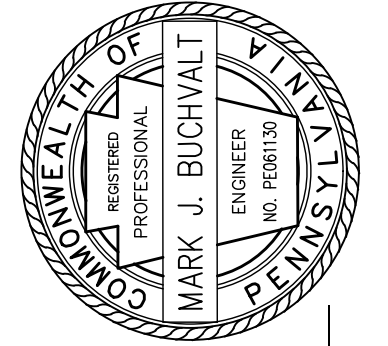


ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 121 OF 2008. CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK. SERIAL NO. 20221232247 WAS PLACED FOR DESIGN PURPOSES.



NOT FOR  
CONSTRUCTION

NO.	BY	REVISIONS	DATE
2	dmh, mhb, cde	REVISED PER TWP REVIEW LETTER DATED 06/07/2022	06/29/22
1	mhb	SUBMITTAL TO MCO	05/27/22



MARK BUCHVALT, P.E.  
LICENSED PROFESSIONAL ENGINEER

PRELIMINARY/FINAL LAND DEVELOPMENT  
BLACK BUFFALO  
NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY  
SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

COVER SHEET



YOUR GOALS. OUR MISSION.  
74 WEST BROAD STREET,  
SUITE 530  
BETHLEHEM, PA 18018  
TEL 610-625-2999  
FAX 610-625-2969  
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DESIGNED BY	MEB, DCH	DRAWING	1-cover
CHECKED BY	MJB	SHEET	1
DRAWN BY	DCH, MEB	OF	23
DATE	04/29/2022		
SCALE	AS NOTED		
PROJ. NO.	JGPT00022		

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EXISTING FEATURES/SURVEY NOTES AND INFORMATION

GENERAL NOTES:

- 1. FLOODPLAIN LINE PROVIDED FROM FIRM INSURANCE RATE MAP NUMBER 42089C0293E AND 42089C0292E...
2. EXISTING FEATURES DEPICTED ON THE PLAN WERE OBTAINED FROM A FIELD SURVEY...
3. WETLANDS DELINEATED ON SITE BY C&H ENVIRONMENTAL AND SHOWN ON A PLAN TITLED 'WETLANDS JURISDICTIONAL DELINEATION PLAN'...

OWNER OF RECORD: EQUOTABLE OWNER:

RECORD OWNER: BLACK BUFFALO LAND ACQUISITION LLC
EQUOTABLE OWNER: BLACK BUFFALO LAND ACQUISITION LLC
124 AIRSTRIP ROAD, EAST STROUBURG, PA 18301

SITE DATA:

TOTAL LOT 1 AREA: 45.326 ACRES
TOTAL LOT 2 AREA: 23.117 ACRES

PROPERTY ADDRESS: 140 (LOT 1) & 136 (LOT 2)
AIRSTRIP ROAD, EAST STROUBURG, PA 18301

PARCEL ID: LOT 1: 16.718-1 (16731200379122)
LOT 2: 16.716 (16731200372601)

DEED: DBV 2598 PAGE 8299

NOTE: WETLANDS ARE PRESENT ON-SITE AND HAVE BEEN DELINEATED BY C & H ENVIRONMENTAL AS SHOWN ON A PLAN PREPARED BY FRANK J. SMITH JR. INC. TITLED 'WETLANDS JURISDICTIONAL DELINEATION PLAN DATED 5/13/2020, LAST REVISED 07/20/2020.'

ZONING DATA:

ZONING DISTRICT: M-1 INDUSTRIAL DISTRICT
MINIMUM YARD REQUIREMENTS:

FRONT YARD - 20'
SIDE YARD - 50'
REAR YARD - 20'

\*\*ADD 25 FEET WHERE ABUTTING A RESIDENTIAL DISTRICT
\*\*\*ADD FEET WHERE ABUTTING A RESIDENTIAL DISTRICT
\*\*\*\*BASED UPON CENTRAL SEWER ONLY

REQUIRED\*\* EXISTING LOT 1 EXISTING LOT 2
40,000 SF 45,326 ACRES 23,117 ACRES

MIN. LOT AREA: 40,000 SF
MIN. LOT WIDTH: 150' @ SETBACK
MAX. BLDG. HEIGHT: 35'

MIN. ALLOWABLE SETBACK: 15'
MAX. IMPERVIOUS COVERAGE: 70%

\*\*\*MEASURED 50' FROM THE R/W TO BE DEDICATED FOR AIRSTRIP ROAD AS SHOWN ON THE OVERALL SITE PLAN ALONG WITH THE FRONT YARD SETBACK (50') IF NO WETLANDS, WETLAND BUFFER AND MARGIN AREAS WERE PRESENT.

NOTES:

- 1. EXISTING FEATURES DEPICTED ON THESE PLANS WERE OBTAINED FROM A FIELD SURVEY PREPARED BY PANTY AND LEITZ ENGINEERING COMPANY AS SHOWN ON A PLAN TITLED 'ALTA SURVEY - OVERALL PLAN DATED 10/15/2021 AND LAST REVISED 10/28/2021'...
2. THE LAND DESCRIBED IN THE TITLE COMMITMENT NOTED ON THE ABOVE MENTIONED PLAN IS THE SAME AS DESCRIBED ON THIS SURVEY AND LEGAL DESCRIPTION NOTED THEREON.

BENCHMARKS:

- BM-1 SAN. MH RM EL. 472.59
BM-2 SAN. MH RM EL. 475.34
BM-3 MAC NAIL EL. 473.28

UTILITIES:

SEWER: PUBLIC
WATER: PUBLIC
ELECTRIC: METROPOLITAN EDISON COMPANY/PLANT ENERGY
GAS: UTILITY, INC
PHONE: VERIZON

GENERAL DEMOLITION NOTES:

- 1. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS...
2. THE FIRM OR ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION...
3. PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR:
A. ENSURE COPIES OF ALL PERMITS AND APPROVALS ARE ON SITE FOR REVIEW.

GENERAL NOTES:

- 1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS, SPECIFICATIONS, AND REFERENCED DOCUMENTS ASSOCIATED WITH THE PROJECT WORK SCOPE...
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION...
3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED...
4. ALL MATERIALS, PLANS, SPECIFICATIONS, AND REPORTS REFERENCED ARE TO BE CONSIDERED PART OF THE DESIGN DOCUMENTS.

GRADING NOTES:

- 1. VERTICAL DATUM IS NAVD 1988 AND ESTABLISHED BY OBSERVATIONS REFERENCED TO THE NGCS CORS NETWORK.
2. THE MINIMUM SLOPE IN GRASSED AREAS SHALL NOT BE LESS THAN 2% AND THE MINIMUM IN PAVED AREAS SHOULD NOT BE LESS THAN 1%.
3. RUNOFF FROM IMPERVIOUS AREAS SHALL NOT BE DIRECTED INTO THE SANITARY SEWER OR INTO ANY OTHER UTILITY TILES OR CONDUITS...
4. WALLS (IF ANY) IN EXCESS OF 30" IN HEIGHT REQUIRE A SAFETY FENCE A MINIMUM OF 42" IN HEIGHT, REFER TO DETAIL SHEETS.

PLACEMENT OF FILL NOTES:

- 1. BACKFILL, TO THE SUBGRADE ELEVATION, SHALL BE DONE IN LAYERS OF SIX (6) TO EIGHT (8) INCHES AND EACH LAYER SHALL BE THOROUGHLY TAMPED BY AN APPROVED MECHANICAL TAMPER...
2. THE FILL MATERIAL SHALL CONTAIN THE PROPER MOISTURE CONTENT TO OBTAIN THE REQUIRED COMPACTION...
3. SUITABLE BACKFILL MATERIAL IS MATERIAL CONTAINING NO DEBRIS, ORGANIC MATTER, FROZEN MATERIAL OR LARGE ROCKS OR STONES WITH A DIAMETER OF GREATER THAN ONE-HALF THE THICKNESS OF THE COMPACTED LAYERS BEING PLACED.

STORM SEWER NOTES:

- 1. ROOF LEADERS SHALL BE CONNECTED DIRECTLY TO THE PROPOSED STORMWATER MANAGEMENT SYSTEM.
2. ALL STORM CONVEYANCE PIPE SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE WITH A MINIMUM INSULATION OF 1" POLYURETHANE INSULATION...
3. STORM SEWER OUTLET PIPES THROUGH THE BASIN EMBANKMENT SHALL BE REINFORCED CONCRETE PIPE WITH WATERLOG JOINTS.

PUBLIC UTILITIES NOTES:

- 1. ALL PUBLIC UTILITIES REQUIRED TO SERVICE THIS LAND DEVELOPMENT SHALL BE PLACED UNDERGROUND AND SHALL BE IN ACCORDANCE WITH THE SMITHFIELD SEWER AND WATER SERVICE DISTRICT'S REQUIREMENTS, STANDARDS, AND SPECIFICATIONS...
2. UTILITY CONNECTIONS:
EXISTING - PUBLIC AVAILABLE
PROPOSED - PUBLIC AVAILABLE
EXISTING - NONE

SANITARY SEWER NOTES:

- 1. SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SMITHFIELD SEWER AND WATER SERVICE DISTRICT'S REQUIREMENTS, STANDARDS, AND SPECIFICATIONS...
2. SHOP DRAWINGS FOR ALL SANITARY SEWER APPURTENANCES WILL BE REQUIRED TO BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION...
3. A LIST OF THE PROPOSED SUPPLIERS FOR ALL MATERIALS TO BE USED IN CONNECTION WITH THE SEWER CONSTRUCTION.

WATER LINE NOTES:

- 1. ALL WATER LINE CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH THE LATEST BCRA REQUIREMENTS, STANDARDS AND SPECIFICATIONS AND IS SUBJECT TO INSPECTION BY THE BCRA AND THE ENGINEER...
2. ALL WATER MAINS SHALL BE CONSTRUCTED WITH DOUBLE CEMENT LINER, THICKNESS CLASS 52 DUCTILE IRON PIPE WITH TYTON JOINTS AND WITH AN INTERNAL SEAL COAT AND EXTERNAL ASPHALT SEAL COAT...
3. ALL WATER LINES ARE TO BE PRESSURE TESTED TO 1.5 TIMES THE WORKING PRESSURE OR 150 P.S.I., WHICHEVER IS GREATER.

ZONING VARIANCE REQUESTS:

- 1. VARIANCE REQUESTED FROM ZONING ORDINANCE SCHEDULE D DISTRICT REGULATIONS, WHICH STATES THE MAXIMUM PERMITTED BUILDING HEIGHT IS 35 FEET IN THE M-1 ZONING DISTRICT...
2. A ZONING VARIANCE AND/OR INTERPRETATION RELATED TO Z.O. SECTION 402, SCHEDULE II, WHICH STATES ONE (1) PARKING SPACE SHALL BE PROVIDED FOR EVERY 3 EMPLOYEES PLUS ONE (1) PARKING SPACE FOR EACH 1,000 GROSS SQUARE FEET, BUT NOT LESS THAN 25% OF THE GROSS FLOOR AREA...

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Professional Engineer Seal for Mark J. Buchvalt, License No. PE66130, Commonwealth of Pennsylvania.

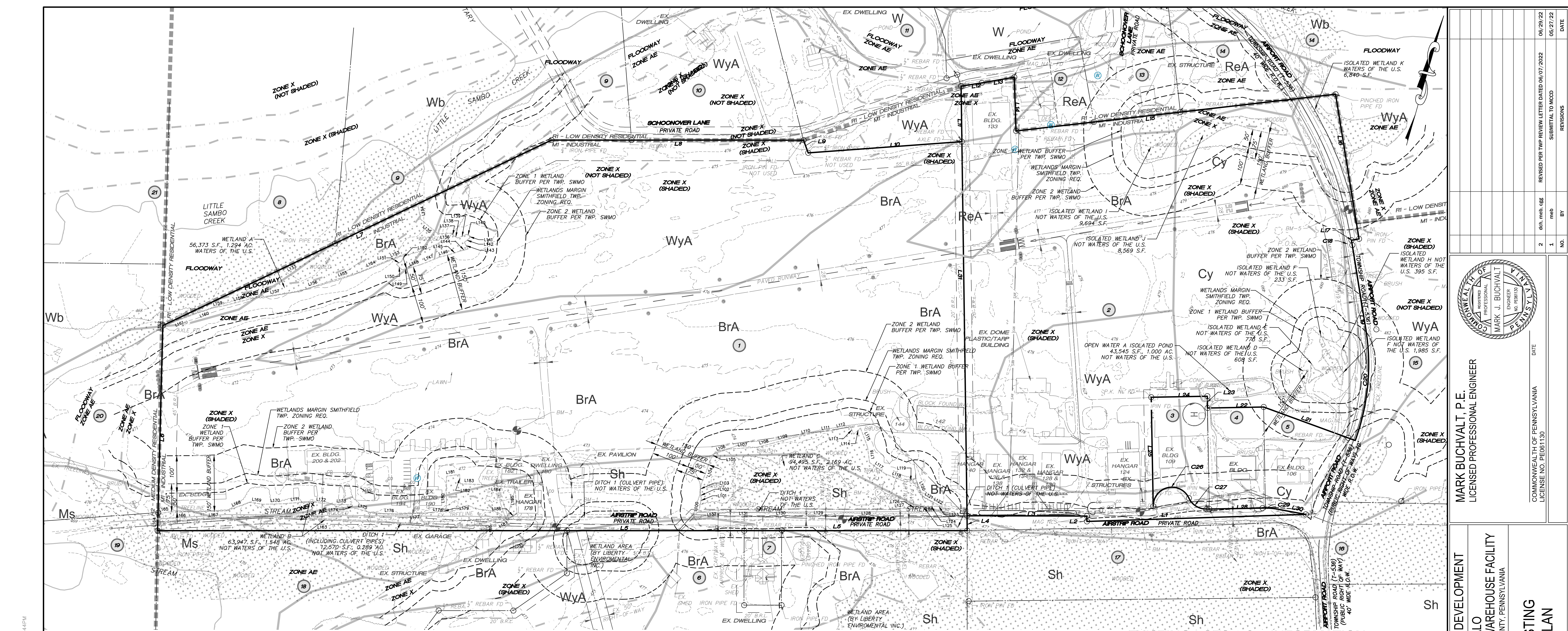
MARK BUCHVALT, P.E. LICENSED PROFESSIONAL ENGINEER

PRELIMINARY/FINAL LAND DEVELOPMENT BLACK BUFFALO NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA



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**EXISTING FEATURES LEGEND**

PROPERTY LINE	---	PROPERTY MONUMENTATION	○
RIGHT-OF-WAY LINE	---	FOUND AS NOTED	○
UTILITY EASEMENT LINE	---	WV4	○
PHYSICAL CENTER LINE	---	WV6	○
5' CONTOUR LINE	---	HYD	○
1" CONTOUR LINE	---	OV	○
EDGE OF DRIVEWAY	---	CO	○
FENCE LINE	---	INLET	○
EDGE OF DITCH	---	ST MH	○
UNDERGROUND ELECTRIC	---	SA MH	○
UNDERGROUND TELEPHONE	---	E MH	○
OVERHEAD UTILITY	---	OT MH	○
UNDERGROUND UTILITY	---	MH	○
UNDERGROUND CABLE	---	LL	○
WATER LINE	---	LP	○
GAS LINE	---	UP	○
FEMA FLOOD ZONE LINE	---	AS	○
WETLAND FLAG SURVEYED	---	MB	○
WETLAND FLAG SHOWN FROM LIBERTY ENVIRONMENTAL PLAN (NOT SURVEYED)	---	170.8 x	○
		TO 256.92	○
		BC 256.42	○
		44.4	○
		44.3	○
		15.0	○
		10.0	○
		5.0	○
		0.0	○
		BRUSH	○

**LOTS 1 & 2**

**LINE / CURVE TABLE**

LINE / CURVE	BEARING / DELTA	LENGTH	RADIUS
L1	S72°02'31"W	585.23'	
L2	N16°04'29"W	14.41'	
L3	S74°05'30"W	320.61'	
L4	S16°53'30"E	40.00'	
L5	S73°53'46"W	2164.38'	
L6	N14°38'33"W	547.97'	
L7	N48°24'01"E	1151.44'	
L8	N73°54'45"E	673.74'	
L9	S35°45'12"E	35.97'	
L10	N69°45'35"E	412.04'	
L11	N16°53'30"W	148.43'	
L12	N65°10'14"E	55.90'	
L13	N63°51'29"E	88.38'	
L14	S17°52'18"E	143.70'	
L15	N67°21'08"E	859.90'	
L16	S25°20'04"E	391.51'	
L17	S64°01'38"W	20.65'	
L18	0°43'07"	13.35'	1064.29'
L19	S25°15'29"E	227.93'	
C20	29°14'19"	301.36'	590.55'
L21	N86°01'08"W	260.70'	
L22	S72°52'05"W	150.00'	
L23	N17°07'55"W	31.50'	
L24	S72°52'05"W	150.00'	
L25	S17°07'55"E	291.50'	
C26	156°25'05"	136.50'	50.00'
C27	66°25'07"	57.96'	50.00'
L28	N72°52'35"E	150.44'	
L29	N11°24'59"	43.84'	220.00'
C30	N84°17'34"E	73.26'	
L31	S16°53'30"E	999.18'	

**PROPERTY OWNER LIST**

NO	OWNER	LOCATION	BOOK	PAGE	PIN NO
1	BLACK BUFFALO LAND ACQUISITION LLC	140 AIRSTRIP RD	2598	8299	16-7312-00-37-9122
2	BLACK BUFFALO LAND ACQUISITION LLC	136 AIRSTRIP RD	2598	8299	16-7312-00-57-2601
3	WAYNE BANK TRUSTEE OF THE MARYN PAPILLON RESIDUARY CHARITABLE REMAINDER	116 AIRSTRIP RD	2584	6501	16-7312-00-57-4226
4	Y NOT TOMYS CO.	AIRPORT RD	2441	4077	16-7312-00-57-5268
5	WAYNE BANK TRUSTEE OF THE MARYN PAPILLON RESIDUARY CHARITABLE REMAINDER	106 AIRSTRIP RD	2584	6485	16-7312-00-57-7331
6	SLATER HOLDINGS LLC	179 AIRSTRIP RD	2605	8081	16-7312-00-46-3097
7	SLATER HOLDINGS LLC	159 AIRSTRIP RD	2605	8081	16-7312-00-46-4614
8	EPPLEY DANIEL J + DEBRA K	SCHOONOVER LN	2110	2457	16-7312-00-27-6682
9	BAUMAN LUKE	196 SCHOONOVER LN	2495	4439	16-7312-00-38-2275
10	SCHOONOVER JOHN S JR + SHIRLEY	156 SCHOONOVER LN	1097	75	16-7312-00-38-7593
11	CRUZ JESSE + CARNES JUSTINE	148 SCHOONOVER LN	2575	8783	16-7312-00-48-2025
12	STROUDSBURG POCONO AIRPARK LLC	133 SCHOONOVER LN	2507	8891	16-7312-00-47-8054
13	DONNELLY THOMAS JOHN	121 SCHOONOVER LN	2579	955	16-7312-00-48-9208
14	POCONO STROUDSBURG AIRPORT INC	T 536	2056	8526	16-7312-00-58-4586
15	POCONO STROUDSBURG AIRPORT INC	AIRPORT RD	2076	7639	16-7312-00-67-3603
16	POCONO STROUDSBURG AIRPORT INC	AIRPORT RD	2070	161	16-7312-02-67-2293
17	GREYFOX HOLDING LLC	T 536	2567	4010	16-7312-02-58-9982
18	RICHARD CAPORALE SOSA	179 AIRSTRIP RD	2507	6910	16-7312-00-36-3126
19	AHMED SHEHROZ	JUNIPER LN	2574	8503	16-7312-01-26-7122
20	CHERIE C STRENZ	E OF LK	2080	6415	16-7312-01-26-4588
21	CHERIE C STRENZ	BEAVER DR	2080	6415	16-7312-01-27-2180

**BENCHMARKS**

1 NORTH AMERICAN VERTICAL DATUM 1988

BM-1 SAN, MH RIM EL. 472.59 N 326832.0534 E 2682460.9730	BM-4 SAN, MH RIM EL. 479.38 N 327105.3407 E 2683949.0694	BM-2 SAN, MH RIM EL. 475.93 N 326864.8674 E 2683190.3876	BM-5 MAG NAIL EL. 481.34 N 328035.0472 E 2684260.3715
--	--	--	---

**UTILITIES**

SEWER: PUBLIC  
WATER: PUBLIC  
ELECTRIC: METROPOLITAN EDISON COMPANY / FIRST ENERGY  
GAS: UGI UTILITIES, INC.  
PHONE: VERIZON

**EXISTING LOTS 1 & 2 INFORMATION**

**OWNER OF RECORD:** BLACK BUFFALO LAND ACQUISITION LLC  
124 AIRSTRIP ROAD  
EAST STROUDSBURG, PA 18301

**EQUITABLE OWNER:** BLACK BUFFALO 3D CORPORATION  
124 AIRSTRIP ROAD  
EAST STROUDSBURG, PA 18301

**SITE DATA**

TOTAL LOT 1 AREA: 45.326 ACRES  
TOTAL LOT 2 AREA: 23.117 ACRES

PROPERTY ADDRESS: 140 (LOT 1) & 136 (LOT 2)  
AIRSTRIP ROAD, EAST STROUDSBURG, PA 18301

PARCEL ID: LOT 1: 16.7.1.8-1 (16731200379122)  
LOT 2: 16.7.1.6 (16731200572601)

DEED: DBV 2598 PAGE 8299

NOTE: WETLANDS ARE PRESENT ON-SITE AND HAVE BEEN DELINEATED BY C & H ENVIRONMENTAL AS SHOWN ON A PLAN PREPARED BY FRANK J. SMITH JR., INC. TITLED WETLANDS JURISDICTIONAL DELINEATION PLAN DATED 5/13/2020, LAST REVISED 07/20/2020.

**ZONING DATA**

ZONING DISTRICT: M-1 INDUSTRIAL DISTRICT

MINIMUM YARD REQUIREMENTS:

FRONT YARD - 50' FROM R/W LINE  
SIDE YARD - 20'  
REAR YARD - 20'  
\*\*ADD 25 FEET WHERE ABUTTING A RESIDENTIAL DISTRICT  
\*\*\*ADD 35 FEET WHERE ABUTTING A RESIDENTIAL DISTRICT  
\*\*\*\*BASED UPON CENTRAL SEWAGE ONLY

REQUIRED	EXISTING LOT 1	EXISTING LOT 2
MIN. LOT AREA:	40,000 SQ FT	23,117 ACRES
MIN. LOT WIDTH:	40.00' SETBACK	1,056.1' (****)
MAX. BLDG. HEIGHT:	35'	919.4' (AIRPORT ROAD)
MAX. ALLOWABLE BLDG. COVERAGE:	35%	28.5%
MAX. IMPERVIOUS COVERAGE:	35%	4.5%
	70%	23%

\*\*\*\*MEASURED 50' FROM THE R/W TO BE DEDICATED FOR AIRSTRIP ROAD AS SHOWN ON THE OVERALL SITE PLAN ALONG WITH WHAT WOULD BE THE FRONT YARD SETBACK (50') IF NO WETLANDS, WETLAND BUFFER AND MARGIN AREAS WERE PRESENT.

**NOTES**

- EXISTING FEATURES DEPICTED ON THESE PLANS WERE OBTAINED FROM A FIELD SURVEY PREPARED BY PANY AND LENTZ ENGINEERING COMPANY AS SHOWN ON A PLAN TITLED ALTA SURVEY - OVERALL PLAN DATED 10/15/2021 AND LAST REVISED 10/28/2021.
- THE LAND DESCRIBED IN THE TITLE COMMITMENT NOTED ON THE ABOVE MENTIONED PLAN IS THE SAME AS DEPICTED ON THIS SURVEY AND LEGAL DESCRIPTION NOTED THEREON.
- THE PROPERTY HAS DIRECT ACCESS TO AIRPORT ROAD, BEING A PUBLIC RIGHT-OF-WAY.

\* = PROPERTIES THAT ARE THE SUBJECT OF THIS PLAN

**NOTE:**

- REFER TO THE GENERAL INFORMATION SHEET FOR ADDITIONAL NOTES AND INFORMATION.
- AIRSTRIP ROAD IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH PLANS TITLED AIRSTRIP ROAD IMPROVEMENTS PREPARED BY LINDER ENGINEERING, INC. DATED JANUARY 2018 AND LAST REVISED 05/18/2020.

**NOT FOR CONSTRUCTION**

GRAPHIC SCALE

120 0 60 120 240

(IN FEET)

1 inch = 120 ft.

DESIGNED BY: MEB, DCH  
CHECKED BY: MJB  
DRAWN BY: DCH, MEB  
DATE: 04/29/2022  
SCALE: 1"=120'  
PROJ. NO.: JGPT00022

DRAWING SHEET  
3 OF 23

DATE: 06/29/22  
REVISIONS: 05/27/22

2 dch, mjb, cse  
1 mjb  
BY: NO.  
SUBMITTAL TO MCO

REVISIONS: 06/07/2022  
DATE: 06/07/2022

COMMONWEALTH OF PENNSYLVANIA  
LICENSE NO. PE011930

DATE: 06/29/22

MARK BUCHVAULT, P.E.  
LICENSED PROFESSIONAL ENGINEER

PRELIMINARY/FINAL LAND DEVELOPMENT  
BLACK BUFFALO  
NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY  
SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

OVERALL EXISTING FEATURES PLAN

YOUR GOALS. OUR MISSION.  
74 WEST BROAD STREET,  
SUITE 530  
BETHLEHEM, PA 18018  
TEL 610-625-2999  
FAX 610-625-2969  
www.landmassassociates.com

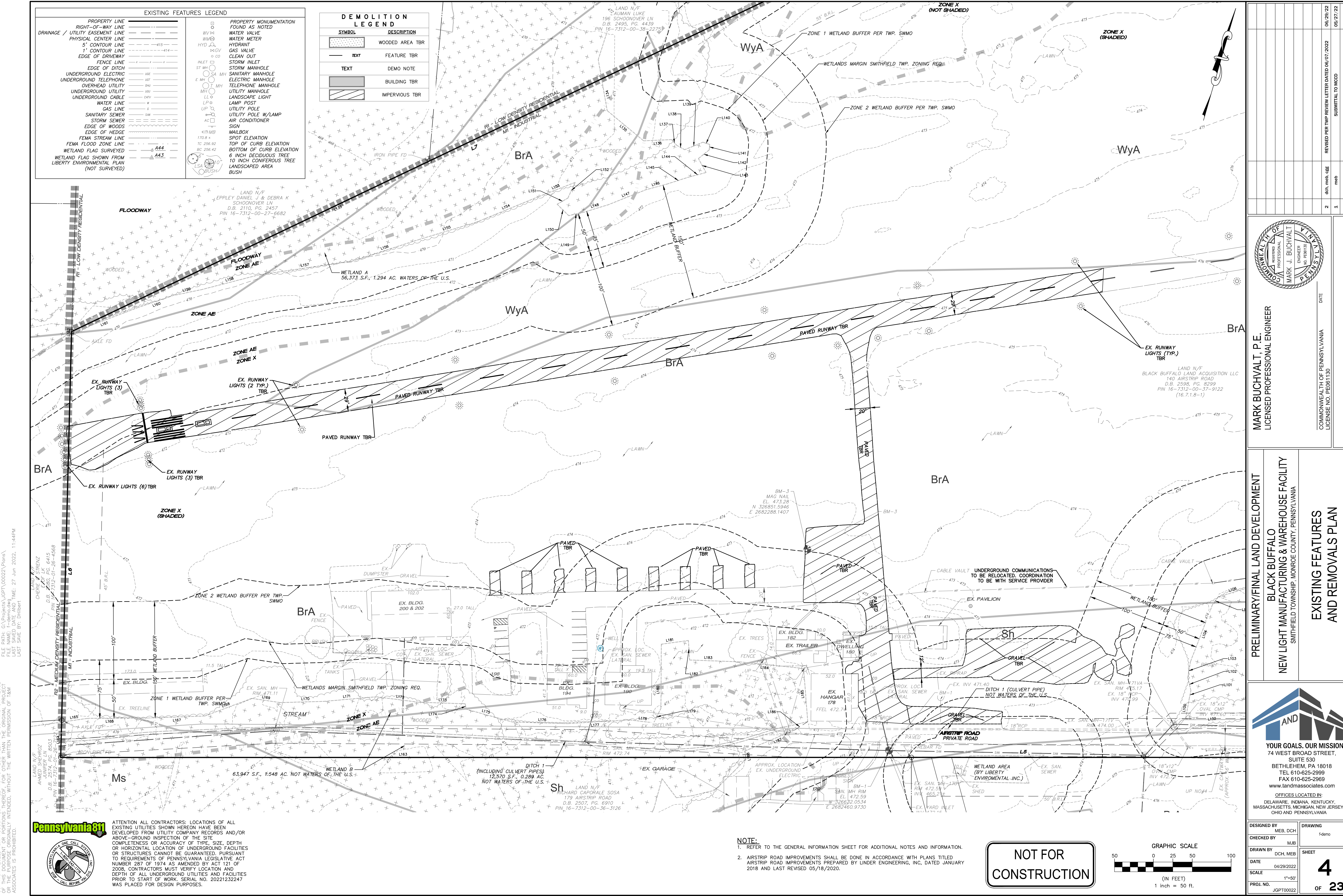
OFFICES LOCATED IN:  
DELAWARE, INDIANA, KENTUCKY,  
MASSACHUSETTS, MICHIGAN, NEW JERSEY,  
OHIO AND PENNSYLVANIA



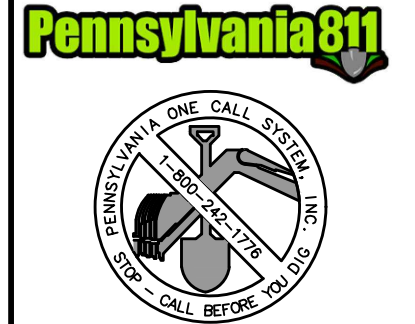
ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 121 OF 2008, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK. SERIAL NO. 20221232247 WAS PLACED FOR DESIGN PURPOSES.

EXISTING FEATURES LEGEND	
PROPERTY LINE	RIGHT-OF-WAY LINE
DRAINAGE / UTILITY EASEMENT LINE	PHYSICAL CENTER LINE
5' CONTOUR LINE	1' CONTOUR LINE
EDGE OF DRIVEWAY	FENCE LINE
EDGE OF DITCH	UNDERGROUND ELECTRIC
UNDERGROUND TELEPHONE	OVERHEAD UTILITY
UNDERGROUND UTILITY	UNDERGROUND CABLE
WATER LINE	GAS LINE
SANITARY SEWER	STORM SEWER
EDGE OF WOODS	EDGE OF HEDGE
FEMA STREAM LINE	FEMA FLOOD ZONE LINE
WETLAND FLAG SURVEYED	WETLAND FLAG SHOWN FROM LIBERTY ENVIRONMENTAL PLAN (NOT SURVEYED)
PROPERTY MONUMENTATION FOUND AS NOTED	WATER VALVE
HYDRANT	CLEAN OUT
STORM INLET	STORM MANHOLE
SANITARY MANHOLE	ELECTRIC MANHOLE
TELEPHONE MANHOLE	UTILITY MANHOLE
LANDSCAPE LIGHT	LAMP POST
UTILITY POLE	UTILITY POLE W/LAMP
AIR CONDITIONER	SIGN
MAILBOX	SPOT ELEVATION
TOP OF CURB ELEVATION	BOTTOM OF CURB ELEVATION
6 INCH DECIDUOUS TREE	10 INCH CONIFEROUS TREE
LANDSCAPED AREA	BUSH

DEMOLITION LEGEND	
WOODED AREA TBR	FEATURE TBR
DEMNOTE	DEMNOTE
BUILDING TBR	BUILDING TBR
IMPERVIOUS TBR	IMPERVIOUS TBR



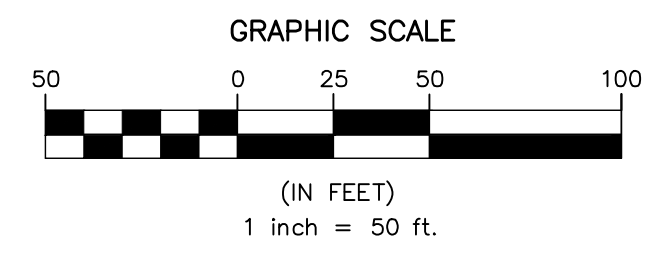
PROJECT INFORMATION: ALL RIGHTS RESERVED. THE COPYING OR REUSE OF THIS DOCUMENT OR PORTIONS THEREOF, FOR OTHER THAN THE ORIGINAL PROJECT LAST SAVED DATE AND TIME: 27 Jun 2022, 11:44PM. LAST SAVE BY: Dhhbert



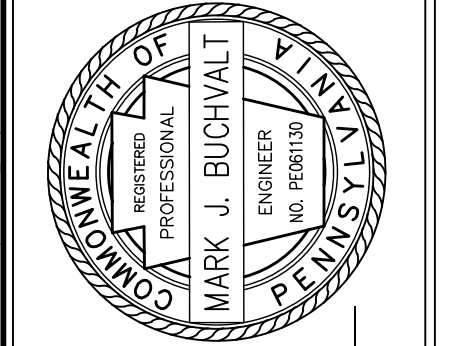
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**NOTE:**  
 1. REFER TO THE GENERAL INFORMATION SHEET FOR ADDITIONAL NOTES AND INFORMATION.  
 2. AIRSTRIP ROAD IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH PLANS TITLED AIRSTRIP ROAD IMPROVEMENTS PREPARED BY UNDER ENGINEERING, INC, DATED JANUARY 2018 AND LAST REVISED 05/18/2020.

**NOT FOR CONSTRUCTION**



NO.	BY	REVISIONS	DATE
2	dch, mmb, cbe	REVISED PER TWP REVIEW LETTER DATED 06/07/2022	06/29/22
1	mmb	SUBMITTAL TO MCOCD	05/27/22



**MARK BUCHVALT, P.E.**  
 LICENSED PROFESSIONAL ENGINEER

**PRELIMINARY/FINAL LAND DEVELOPMENT**  
**BLACK BUFFALO**  
**NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY**  
 SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

**EXISTING FEATURES AND REMOVALS PLAN**

**AND**  
 YOUR GOALS. OUR MISSION.  
 74 WEST BROAD STREET, SUITE 530  
 BETHLEHEM, PA 18018  
 TEL 610-625-2999  
 FAX 610-625-2969  
 www.landmassociates.com

DESIGNED BY	MEB, DCH	DRAWING	1-demo
CHECKED BY	MJB	SHEET	4
DRAWN BY	DCH, MEB	OF	23
DATE	04/29/2022		
SCALE	1"=50'		
PROJ. NO.	JGPT00022		

PROJECT INFORMATION:  
 FILE PATH: G:\Projects\06170022\Drawings\06170022.dwg  
 LAST SAVED DATE AND TIME: 28 Jun 2022, 4:33PM  
 LAST SAVE BY: Dhhbert



PROPERTY OWNER LIST

NO	OWNER	LOCATION	BOOK	PAGE	PARCEL ID
1	BLACK BUFFALO LAND ACQUISITION LLC	140 AIRSTRIP RD	2588	8289	16-7312-00-37-9122
2	BLACK BUFFALO LAND ACQUISITION LLC	136 AIRSTRIP RD	2588	8289	16-7312-00-57-2801
3	WAYNE BANK TRUSTEE OF THE MARVIN PAPILLON RESIDUARY CHARITABLE REMAINDER	116 AIRSTRIP RD	2584	6501	16-7312-00-57-4226
4	Y NOT TOMYS CO.	AIRPORT RD	2441	4077	16-7312-00-57-5268
5	WAYNE BANK TRUSTEE OF THE MARVIN PAPILLON RESIDUARY CHARITABLE REMAINDER	106 AIRSTRIP RD	2584	6485	16-7312-00-57-7331
6	SLATER HOLDINGS LLC	179 AIRSTRIP RD	2605	8081	16-7312-00-46-3097
7	SLATER HOLDINGS LLC	159 AIRSTRIP RD	2605	8081	16-7312-00-46-4814
8	EPPLEY DANIEL J + DEBRA K	SCHOONOVER LN	210	2457	16-7312-00-27-6882
9	BAUMAN LUKE	196 SCHOONOVER LN	2495	4439	16-7312-00-38-2275
10	SCHOONOVER JOHN S JR + SHIRLEY	156 SCHOONOVER LN	1097	75	16-7312-00-38-7593
11	CRUZ JESSE + CARNES JUSTINE	148 SCHOONOVER LN	2575	8783	16-7312-00-48-2025
12	STROUDSBURG POCONO AIRPARK LLC	133 SCHOONOVER LN	2507	8891	16-7312-00-47-8054
13	DONNELLY THOMAS JOHN	121 SCHOONOVER LN	2579	955	16-7312-00-48-9208
14	POCONO STROUDSBURG AIRPORT INC	T 536	2056	8526	16-7312-00-58-4566
15	POCONO STROUDSBURG AIRPORT INC	AIRPORT RD	2076	7639	16-7312-00-67-3603
16	POCONO STROUDSBURG AIRPORT INC	AIRPORT RD	2070	161	16-7312-02-67-2293
17	GREYFOX HOLDING LLC	T 536	2567	4010	16-7312-02-56-3962
18	RICHARD CARORALE BOSIA	179 AIRSTRIP RD	2507	8910	16-7312-00-38-3126
19	AHMED SHEHROZ	JUNIPER LN	2574	8503	16-7312-01-26-7122
20	CHERE C STRENZ	E OF LK	2080	6415	16-7312-01-26-4568
21	CHERE C STRENZ	BEAVER DR	2080	6415	16-7312-01-27-2186

\* = PROPERTIES THAT ARE THE SUBJECT OF THIS PLAN

PROPERTY OWNER LIST

NO	OWNER	LOCATION	BOOK	PAGE	PARCEL ID
22	POCONO STROUDSBURG AIRPORT INC	AIRPORT RD/T-536	2070	161	16-7312-02-56-3683
23	STRAN BLAIR A BEDO MATTHEW J	145 AIRPORT RD	2534	1461	16-7312-02-56-4330
24	CLARK ADAM C ETUX	147 AIRPORT RD	2409	3270	16-7312-02-56-2260
25	FR2 AIRPORT ROAD LLC	139 AIRPORT RD	2277	7280	16-7312-02-56-8305
26	FR2 AIRPORT ROAD LLC	127 AIRPORT RD	2522	1593	16-7312-02-56-7166
27	FR2 AIRPORT ROAD LLC	W OF T 536	2052	4210	16-7312-02-56-3030
28	FR2 AIRPORT ROAD LLC	W OF T 536	2052	4210	16-7312-02-55-3984
29	FR2 AIRPORT ROAD LLC	119 AIRPORT RD	2487	6812	16-7312-02-55-5822
30	MICHAEL + JOANNE KONDRATICK	134 AZALEA DR	-	-	16/10/2/11-15
31	EDWARD L + MARY B WALSH III	136 AZALEA DR	-	-	16/10/2/11-20
32	MARY ANNE BENENATO	532 CROCUS DR	-	-	16/10/2/7
33	ANN L NORAN	-	-	-	16/10/2/9-9
34	ALICIA KLEIN	-	-	-	16/10/2/11-12
35	PETER J CULLEN JR	AIRSTRIP RD	2907	7587	16-7312-00-35-2593
36	ANTONIO SANJUAN	140 AZALEA DR	-	-	16/10/2/11-11
37	RUBEN FERRER	135 AZALEA DR	-	-	16/10/2/9-12
38	NINA T + WILLIAM M MARANO	AZALEA DR	-	-	16/10/2/9-8
39	NINA T + WILLIAM M MARANO	AZALEA DR	-	-	16/10/2/9-9
40	MARGARET J OLIVER	146 AZALEA DR	-	-	16/10/2/11-18
41	SLOWAMR BOGUMILA KLEIN	527 CROCUS DR	-	-	16/10/2/11-19
42	STEPHEN + CAROL ANN DAVIDSON	CROCUS DR	-	-	16/10/2/11-13
43	JAMES T LAWLOR	AZALEA DR	-	-	16/10/2/6
44	JAMES T LAWLOR	CROCUS DR	-	-	16/10/2/6-4
45	ALICIA A KLEIN	120 N MAGNOLIA LN	-	-	16/10/2/6-2

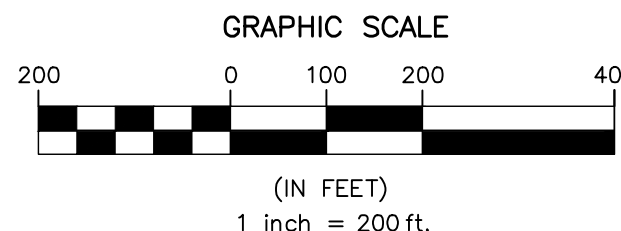
PROPERTY OWNER LIST

NO	OWNER	LOCATION	BOOK	PAGE	PARCEL ID
46	SERKAN + FRIRYE OZGUN	121 MAGNOLIA LN	-	-	16/10/2/2
47	KEVIN LEAMY	117 MAGNOLIA LN	-	-	16/10/2/2-2
48	RICHARD SHIVELY + RICHARD SHIVELY JR	119 MAGNOLIA LN	-	-	16/10/2/6-1
49	DARLENE M RAY	514 CROCUS DR	-	-	16/10/2/6-8
50	ILDEFONSO R + OLGA L TORRES	515 CROCUS DR	-	-	16/10/2/11-10
51	JULIA B WESTOVER	151 AZALEA DR	-	-	16/10/2/9-5
52	ALEK LISKOV	154 AZALEA DR	-	-	16/10/2/11-17
53	GENEVIEVE MAROTTA	513 CROCUS DR	-	-	16/10/2/11-2
54	ISTVAN UJVARI	112 MAGNOLIA LN	-	-	16/10/2/6-3
55	SABOTIN KESKINEV	113 MAGNOLIA LN	-	-	16/10/2/3
56	MICHAEL W CARR	109 JUNIPER LN	-	-	16/11/2/8
57	LUCITA CABBARDO	106 MAGNOLIA LN	-	-	16/10/2/2-3
58	THOMAS C CLARKE	108 MAGNOLIA LN	-	-	16/10/2/4
59	MAGALY RAMOS	507 CROCUS DR	-	-	16/10/2/11-1
60	KENNETH + KATHLEEN ROBBINS	102 MAGNOLIA LN	-	-	16/10/2/5
61	JAMES G + SHARON M MILLER	102 JUNIPER LN	-	-	16/10/2/2-1
62	RODERICK MACADAEG	103 JUNIPER LN	-	-	16/11/2/7
63	CHRISTIAN JEONG	253 BEAVER DR	-	-	16/10/8/1/85
64	PETER + JOAN GLUSEC	BEAVER DR	-	-	16/10/8/1/58
65	PETER + JOAN GLUSEC	149 HOGLAND TE	-	-	16/10/11/49
66	NATASHA HENDERSON	213 SCHOONOVER LN	-	-	16/7/11/1
67	JOHN E BEAULIEU	212 SCHOONOVER LN	-	-	16/11/102
68	NORMAN L JR + TAMMY L FISH	2205 CAMPANILE CT	-	-	16/6/3/10
69	KATHRYN CALCATERRA	2201 CAMPANILE CT	-	-	16/6/3/11

PROPERTY OWNER LIST

NO	OWNER	LOCATION	BOOK	PAGE	PARCEL ID
70	DONNA MILLER LEE	112 LEES LN	-	-	16/7/11/2-1
71	ROBERT A STRENZ	AIRPORT RD	-	-	16/11/889
72	SETH + BONNIE PUTNEY	104 LEES LN	-	-	16/7/11/2-2
73	ERNST DEJOE	CAMPANILE CT	-	-	16/6/3/12
74	WILLIAM PITTARO JR	252 AIRPORT RD	-	-	16/7/11/3
75	KEYVIN J + JANCIE D MCCRAITH	274 CRAIGS MEADOW RD	-	-	16/9/11/35
76	FRANK F ANCO	344 SARAH WAY	-	-	16/90572
77	PETER J + ANNA LADLER	340 SARAH WAY	-	-	16/90573
78	EMILIO A + SANDRA M MEDINA	338 SARAH WAY	-	-	16/90574
79	ROGELIO MENDEZ	343 SARAH WAY	-	-	16/90571
80	DAISY M BROWN	341 SARAH WAY	-	-	16/90570
81	VIVIAN ETVIR PONS	339 SARAH WAY	-	-	16/90569
82	SEAN C SOLOMON	333 SARAH WAY	-	-	16/90568
83	PANGELINE J EDWARDS	331 SARAH WAY	-	-	16/90567
84	NINA GALLOTTA ETAL	272 LINDA ST	-	-	16/7C/11/81
85	SR SQUARED LLC	PA ROUTE 209	-	-	16/7/11/48
86	FR 2 AIRPORT ROAD LLC	146 AIRPORT RD	-	-	16/9307
87	SR SQUARED LLC	2335 MILFORD RD	-	-	16/7/11/39-1
88	ROBERT N + VIOLET H SHAMP	151 AIRPORT RD	-	-	16/7/11/5-2
89	RICHARD E PITTALA	T-536	-	-	16/7/11/5-5

NOT FOR CONSTRUCTION



PRELIMINARY/FINAL LAND DEVELOPMENT  
 BLACK BUFFALO  
 NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY  
 SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

DATE: 04/29/2022  
 SHEET: 5 OF 23

MARK BUCHVALT, P.E.  
 LICENSED PROFESSIONAL ENGINEER

COMMONWEALTH OF PENNSYLVANIA  
 LICENSE NO. PE011130

DESIGNED BY: MEB, DCH  
 CHECKED BY: MJB  
 DRAWN BY: DCH, MEB  
 DATE: 04/29/2022  
 SCALE: 1"=200'  
 PROJ. NO.: JGPT00022

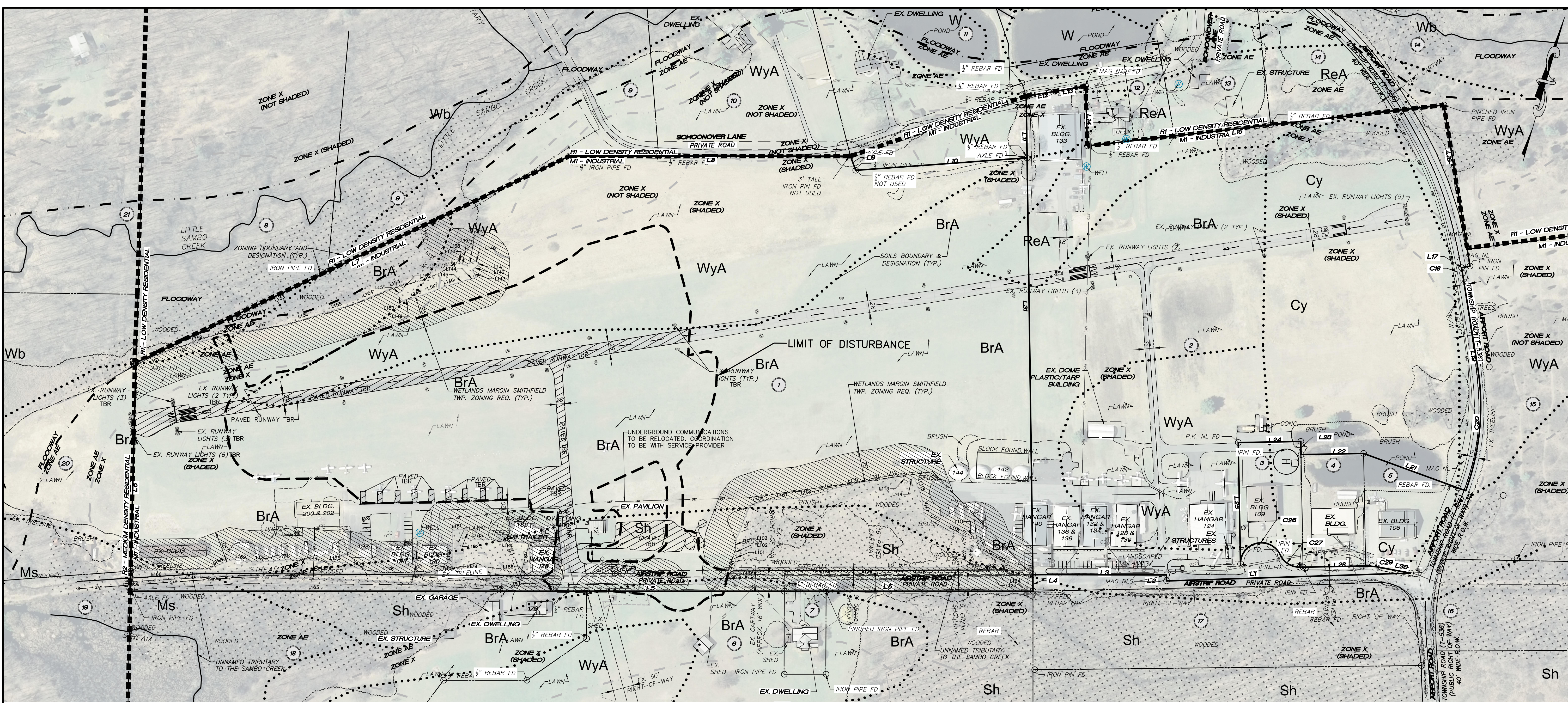
DRAWING: fcbart  
 SHEET: 5  
 OF: 23

REVISIONS

NO.	BY	DATE	REVISIONS
2	dmh, mmb, cge	06/29/22	REVISED PER TWP REVIEW LETTER DATED 06/07/2022
1	mmb	05/27/22	SUBMITTAL TO MCO

PROJECT INFORMATION: T&M ASSOCIATES, INC. 1515 21st Street, Suite 200, Harrisburg, PA 17104  
DATE: 06/29/22  
FILE PATH: C:\Projects\2022\062922\1515\1515\_21st\1515\_21st.dwg  
LAST SAVED DATE AND TIME: 28 Jun 2022, 11:15 AM  
LAST SAVE BY: Dhhbert

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**DEMOLITION LEGEND**

SYMBOL	DESCRIPTION
[Pattern]	WOODED AREA TBR
[Pattern]	TEXT FEATURE TBR
[Pattern]	TEXT DEMO NOTE
[Pattern]	BUILDING TBR
[Pattern]	IMPERVIOUS TBR

**EXISTING FEATURES LEGEND**

PROPERTY LINE	RIGHT-OF-WAY LINE	DRAINAGE / UTILITY EASEMENT LINE	PHYSICAL CENTER LINE	5' CONTOUR LINE	1' CONTOUR LINE	EDGE OF DRIVEWAY	FENCE LINE	EDGE OF DITCH	UNDERGROUND ELECTRIC	UNDERGROUND TELEPHONE	OVERHEAD UTILITY	UNDERGROUND UTILITY	UNDERGROUND CABLE	WATER LINE	GAS LINE	SANITARY SEWER	STORM SEWER	EDGE OF WOODS	FEMA STREAM LINE	FEMA FLOOD ZONE LINE	WETLAND FLAG SURVEYED	WETLAND FLAG SHOWN FROM LIBERTY ENVIRONMENTAL PLAN (NOT SURVEYED)	
[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]	[Symbol]

**PLANNING INFORMATION:**

- AERIAL PHOTOGRAPH OBTAINED FROM THE 2008 DCONR MAP PROGRAM.
- SOILS INFORMATION OBTAINED FROM THE NRCS WEB SOIL SURVEY.

**EXISTING LOTS 1 & 2 INFORMATION**

**OWNER OF RECORD:** BLACK BUFFALO LAND ACQUISITION LLC  
124 AIRSTRIP ROAD  
EAST STROUDSBURG, PA 18301

**EQUITABLE OWNER:** BLACK BUFFALO 3D CORPORATION  
124 AIRSTRIP ROAD  
EAST STROUDSBURG, PA 18301

**RECORD OWNER:** BLACK BUFFALO LAND ACQUISITION LLC  
124 AIRSTRIP ROAD  
EAST STROUDSBURG, PA 18301

**APPLICANT:** BLACK BUFFALO 3D CORPORATION  
124 AIRSTRIP ROAD  
EAST STROUDSBURG, PA 18301

**SITE DATA**

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TOTAL LOT 2 AREA: 23.117 ACRES

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PARCEL ID: LOT 1: 16.7.1.8-1 (16731200379122)  
LOT 2: 16.7.1.6 (16731200572601)

DEED: DBV 2598 PAGE 8299

NOTE: WETLANDS ARE PRESENT ON-SITE AND HAVE BEEN DELINEATED BY C & H ENVIRONMENTAL AS SHOWN ON A PLAN PREPARED BY FRANK J. SMITH JR., INC. TITLED WETLANDS JURISDICTIONAL DELINEATION PLAN DATED 5/13/2020, LAST REVISED 07/20/2020.

**ZONING DATA**

ZONING DISTRICT: M-1 INDUSTRIAL DISTRICT

MINIMUM YARD REQUIREMENTS:

- FRONT YARD - 50' FROM R/W LINE
- SIDE YARD - 20'
- REAR YARD - 20'
- \*\*ADD 25 FEET WHERE ABUTTING A RESIDENTIAL DISTRICT
- \*\*ADD 35 FEET WHERE ABUTTING A RESIDENTIAL DISTRICT
- \*\*BASED UPON CENTRAL SEWAGE ONLY

**REQUIRED\*\*\***

MIN. LOT AREA:	40,000 SF	45.326 ACRES	23.117 ACRES
MIN. LOT WIDTH:	150' @ SETBACK	1,056.1' (****)	919.4' (AIRPORT ROAD)
MAX. BLDG. HEIGHT:	35'	28.5'	28.5'
MAX. ALLOWABLE BLDG. COVERAGE:	35%	1.3%	4.5%
MAX. IMPERVIOUS COVERAGE:	70%	12.5%	23%

\*\*\*\*MEASURED 50' FROM THE R/W TO BE DEDICATED FOR AIRSTRIP ROAD AS SHOWN ON THE OVERALL SITE PLAN ALONG WHAT WOULD BE THE FRONT YARD SETBACK (50') IF NO WETLANDS, WETLAND BUFFER AND MARGIN AREAS WERE PRESENT.

**NOTES**

- EXISTING FEATURES DEPICTED ON THESE PLANS WERE OBTAINED FROM A FIELD SURVEY PREPARED BY PANY AND LENTZ ENGINEERING COMPANY AS SHOWN ON A PLAN TITLED ALTA SURVEY - OVERALL PLAN DATED 10/15/2021 AND LAST REVISED 10/28/2021.
- THE LAND DESCRIBED IN THE TITLE COMMITMENT NOTED ON THE ABOVE MENTIONED PLAN IS THE SAME AS DEPICTED ON THIS SURVEY AND LEGAL DESCRIPTION NOTED THEREON.
- THE PROPERTY HAS DIRECT ACCESS TO AIRPORT ROAD, BEING A PUBLIC RIGHT-OF-WAY.

**SOIL DATA**

SYMBOL	HYDROLOGIC SOIL GROUP	FULL NAME	SLOPE (PERCENT)	HYDRC SOIL
Bra	C	BRACEVILLE GRAVELLY LOAM	0-3%	NO
Cy	-	CUT AND FILL LAND	-	YES
Ms	B/D	MUSKY PEAT, SHALLOW	-	NO
Rea	D	REXFORD GRAVELLY SILT LOAM	0-3%	NO
Sh	D	SHIELDSFIELD SILT LOAM	-	YES
Wya	C/D	WYOMING SILTY CLAY LOAM	-	YES
Wya	A	WYOMING GRAVELLY SANDY LOAM	0-3%	NO

**SOIL TYPES, LIMITATIONS, & RESOLUTIONS**

TABLE E-1 LIMITATIONS OF PENNSYLVANIA SOILS PERTAINING TO EARTHMOVING PROJECTS (Absence of an 'x' does not mean "No Potential Limitation")

NOTE: THIS IS NOT NECESSARILY AN ALL-INCLUSIVE LIST.

SOIL NAME	Out Bank	Core	Low	High	Very High	Extremely High	Shrink	Swell	Potential Shrinkage	Watering	Restrictions
Braceville	X	X	X	X	X	X	X	X	X	X	X
Musky Peat	X	X	X	X	X	X	X	X	X	X	X
Rexford	X	X	X	X	X	X	X	X	X	X	X
Shieldsfield	X	X	X	X	X	X	X	X	X	X	X
Wyoming	X	X	X	X	X	X	X	X	X	X	X
Wyoming	X	X	X	X	X	X	X	X	X	X	X

**RESOLUTIONS FOLLOW:**

CUT BANKS CAVE - EXCAVATIONS SHALL BE STEPPED OR SHORED CORROSE TO CONCRETE - PRECAUTIONS SHALL BE TAKEN TO PROTECT UNDERGROUND PIPES, CONDUITS AND STORAGE TANKS

DROUGHT - SOILS TESTS ARE RECOMMENDED TO DETERMINE THE PROPER APPLICATION OF SOIL AMENDMENTS TO PROMOTE GROWTH OF DESIRED VEGETATION

EASILY DROBBLE - AGRICULTURE SHOULD BE IMPLEMENTED TO REDUCE/ELIMINATE EROSION AND COLLECT AND FILTER SEDIMENT LOADS

FLOODING - CLOSED DEPRESSIONS SHOULD BE AVOIDED. GRADE FOR DRAINAGE, PUMP WATER FILTER BAGS SHOULD BE UTILIZED FOR DRAINAGE WHERE PONDING OCCURS

DEPTH TO SATURATED ZONE / SEASONAL HIGH WATER TABLE - PUMP WATER FILTER BAGS SHOULD BE UTILIZED FOR DRAINAGE WHERE PONDING OCCURS

HYDROLOGIC INCLUSIONS - WETLANDS DELINEATION MAY BE APPROPRIATE. DISTURBANCE OF WETLANDS SHOULD BE AVOIDED

LOW STRENGTH/LANDSLIDE PRONE - EXCAVATIONS SHALL BE STEPPED OR SHORED

PIPING - JAIL-DEEP COLLARS SHOULD BE DESIGNED AND PROVIDED ALONG POND/BASIN

SOIL BARRIERS

POOR SOURCE OF TOPSOIL - SOILS TESTS ARE RECOMMENDED TO DETERMINE PROPER APPLICATION OF SOIL AMENDMENTS TO PROMOTE GROWTH OF DESIRED VEGETATION

SHRINK - PRECAUTIONS SHOULD BE TAKEN TO PREVENT DAMAGE, ESPECIALLY TO ROADWAYS

SHRINK - SWELL - PRECAUTIONS SHOULD BE TAKEN TO ENSURE PROPER COMPACTION

POTENTIAL SWELL - PONDING OF WATER SHOULD BE AVOIDED. PUMP WATER FILTER BAGS SHOULD BE UTILIZED FOR DRAINAGE WHERE PONDING OCCURS. SIGNHOLES SHOULD BE REPAIRED IN ACCORDANCE WITH PLAN SPECIFICATIONS

PONDING - PUMP WATER FILTER BAGS SHOULD BE UTILIZED FOR DRAINAGE WHERE PONDING OCCURS

WETLANDS - SOILS TESTS ARE RECOMMENDED TO DETERMINE THE PROPER APPLICATION OF SOIL AMENDMENTS TO PROMOTE THE GROWTH OF DESIRED VEGETATION.

ANY WATER ENCOUNTERED DURING EXCAVATION IN AREAS OF HIGH WATER TABLE OR AS A RESULT OF POOR INFILTRATION SHALL BE REMOVED BY PUMPING THROUGH A PUMPED WATER FILTER BAG. DRAINING SHOULD BE LIMITED DURING PERIODS PRONE TO FROST.

**LOT 1 & 2 LINE / CURVE TABLE**

LINE / CURVE	BEARING / DELTA	LENGTH	RADIUS
L1	S72°02'31"W	585.23'	
L2	N16°04'29"W	14.41'	
L3	S74°05'30"W	320.61'	
L4	S16°53'30"E	40.00'	
L5	S73°53'46"W	2164.38'	
L6	N14°38'33"W	547.97'	
L7	N48°24'01"E	1151.44'	
L8	N73°54'45"E	73.74'	
L9	S35°45'12"E	35.97'	
L10	N69°45'35"E	412.04'	
L11	N16°53'30"W	148.43'	
L12	N65°10'14"E	55.90'	
L13	N63°51'29"E	88.38'	
L14	S17°52'18"E	143.70'	
L15	N67°21'08"E	859.90'	
L16	S25°20'04"E	391.51'	

LINE / CURVE	BEARING / DELTA	LENGTH	RADIUS
L17	S64°01'38"W	20.65'	
L18	0°43'07"	13.35'	1064.29'
L19	S25°15'29"E	227.93'	
C20	29°14'19"	301.36'	590.55'
L21	N86°01'08"W	260.70'	
L22	S72°52'05"W	150.00'	
L23	N17°07'55"W	31.50'	
L24	S72°52'05"W	150.00'	
L25	S17°07'55"E	291.50'	
C26	156°25'05"	136.50'	50.00'
C27	66°25'07"	57.96'	50.00'
L28	N72°52'35"E	150.44'	
C29	11°24'59"	43.84'	220.00'
L30	N84°17'34"E	73.26'	
L31	S16°53'30"E	999.18'	

**GENERAL NOTES:**

- FLOODPLAIN LINE PROVIDED FROM FIRM INSURANCE RATE MAP NUMBER 42089C0293E AND 42089C0291E. PROJECT SITE IS LOCATED IN ZONE "X" AREAS OF 0.2 PCT ANNUAL FLOOD HAZARD AND MINIMAL FLOOD HAZARD.
- EXISTING FEATURES DEPICTED ON THE PLAN WERE OBTAINED FROM A FIELD SURVEY PREPARED BY PANY AND LENTZ ENGINEERING COMPANY AS SHOWN ON A PLAN TITLED ALTA SURVEY - OVERALL PLAN DATED 10/15/2021 AND LAST REVISED 10/28/2021.
- WETLANDS DELINEATED ON SITE BY C&H ENVIRONMENTAL AND SHOWN ON A PLAN TITLED WETLANDS JURISDICTIONAL DELINEATION PLAN PREPARED BY FRANK J. SMITH JR., INC. - PROFESSIONAL LAND SURVEYORS, DATED 05/13/2020 AND LAST REVISED 07/20/2020. ADDITIONAL OFF-SITE WETLAND AREAS WERE DELINEATED BY LIBERTY ENVIRONMENTAL, INC. AND ARE SHOWN BASED ON PLANS OF RECORD AND/OR ON-LINE PASDA INFORMATION.
- AN APPROVED JURISDICTIONAL DETERMINATION, DATED JULY 30, 2020 WAS RECEIVED FROM THE ARMY CORPS OF ENGINEERS FOR DELINEATION OF WETLANDS ON THE SITE.
- THE PROPERTY WAS PREVIOUSLY SUBJECT TO AIRPORT ZONING REQUIREMENTS. THE PROPERTY HAS BEEN APPROVED FOR AIRPORT DEACTIVATION BY THE FAA PER THEIR LETTER DATED 02/25/2022.

**NATURAL RESOURCES TABLE**

RESOURCE	TOTAL RESOURCE AREA (AC)	ALLOWABLE DISTURBANCE (%)	ALLOWABLE AREA (AC)	PROPOSED DISTURBANCE AREA (AC)	TOTAL DISTURBANCE (%)
FLOODWAY	0.89	0	0	0	0
FLOODPLAINS (100 YR.)	3.36	0 *	0 *	0.08	2.4
WETLANDS	5.40	0 **	0 **	0	0
WETLANDS MARGINS	7.45	40	2.98	2.06	27.7
MODERATELY STEEP SLOPES: 15 - 25%	0	60	0	0	0
VERY STEEP SLOPES: 25%+	0	10	0	0	0
WOODLANDS	3.75	***	***	0	0

\* 0% ALLOWABLE DISTURBANCE UNLESS THE USE, ACTIVITY OR DEVELOPMENT OCCURRING IN THE FLOODPLAIN IS IN STRICT COMPLIANCE WITH THE SMITHFIELD TOWNSHIP FLOODPLAIN ORDINANCE [CHAPTER 8]

\*\* 0% ALLOWABLE DISTURBANCE EXCEPT FOR ROAD OR UTILITY CROSSINGS APPROVED BY THE TOWNSHIP, WHERE FEDERAL PERMITS HAVE BEEN OBTAINED. THE DESIGN REPRESENTS THE LEAST POSSIBLE DISTURBANCE AND NO OTHER ACCESS IS AVAILABLE.

\*\*\* HEALTHY WOODLANDS EXCEEDING 1 ACRE SHALL BE PRESERVED AND DESIGNATED AS CONSERVATION OPEN SPACE AREAS, TO THE MAXIMUM EXTENT POSSIBLE. PROPOSED SITE IMPROVEMENTS HAVE BEEN LOCATED, DESIGNED AND SHALL BE CONSTRUCTED TO MINIMIZE THE LOSS OR DEGRADATION OF WOODLAND AREAS.

**NOT FOR CONSTRUCTION**

GRAPHIC SCALE  
120 0 60 120 240  
(IN FEET)  
1 inch = 120 ft.

06/29/22 06/29/22  
09/27/22  
SUBMITTAL TO ICCCD  
REVISIONS  
NO. BY DATE

2	dhb	mhb	cge	06/29/22
1				09/27/22

COMMONWEALTH OF PENNSYLVANIA  
LICENSE NO. PE019130

MARK BUCHVALT, P.E.  
LICENSED PROFESSIONAL ENGINEER

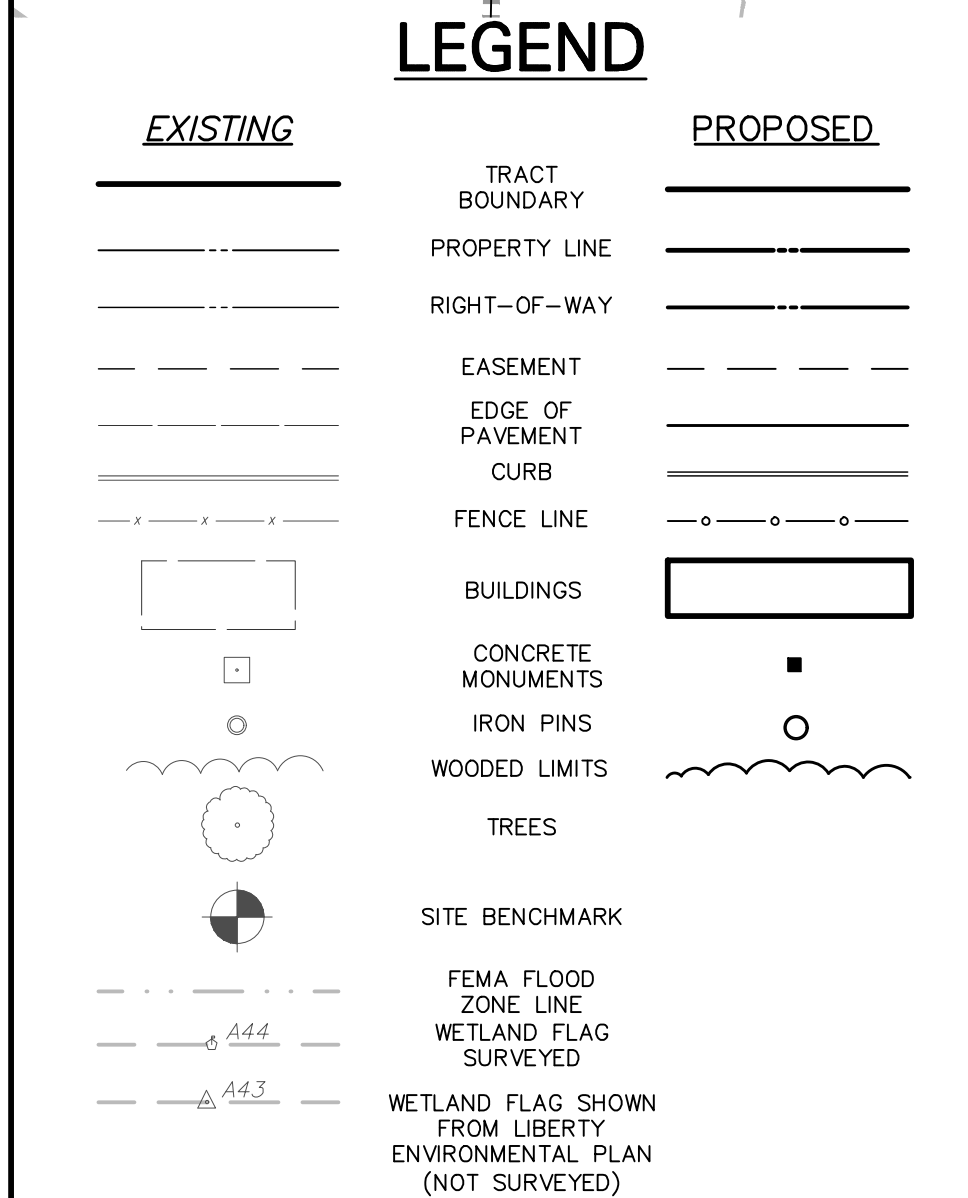
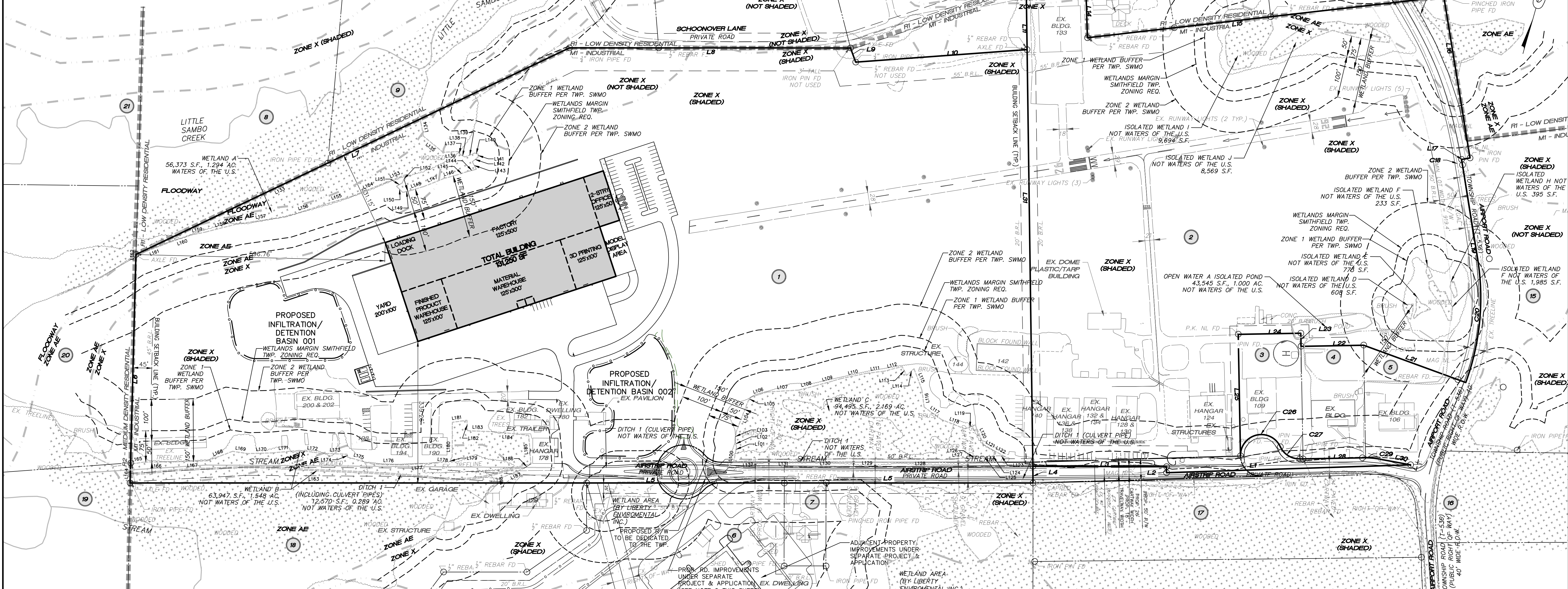
PRELIMINARY/FINAL LAND DEVELOPMENT  
BLACK BUFFALO  
NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY  
SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

EXISTING RESOURCES  
AND SITE ANALYSIS PLAN

DESIGNED BY: MEB, DCH  
CHECKED BY: MJB  
DRAWN BY: DCH, MEB  
DATE: 04/29/2022  
SCALE: 1"=120'  
PROJ. NO.: JGPT00022

DRAWING SHEET  
6  
OF 23

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE...



NOTE: 1. REFER TO THE GENERAL INFORMATION SHEET FOR ADDITIONAL NOTES AND INFORMATION. 2. AIRSTRIP ROAD IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH PLANS TITLED AIRSTRIP ROAD IMPROVEMENTS PREPARED BY LINDER ENGINEERING, INC. DATED JANUARY 2018 AND LAST REVISED 05/18/2020.

PROPERTY OWNER LIST table with columns for NO, OWNER, LOCATION, BOOK, PAGE, PIN NO. listing various land parcels and their owners.

PROPERTY OWNER LIST table with columns for NO, OWNER, LOCATION, BOOK, PAGE, PIN NO. listing various land parcels and their owners.

PROPERTY OWNER LIST table with columns for NO, OWNER, LOCATION, BOOK, PAGE, PIN NO. listing various land parcels and their owners.

GENERAL NOTES: 1. FLOODPLAIN LINE PROVIDED FROM FIRM INSURANCE RATE MAP NUMBER 42089C0293E AND 42089C0291E. PROJECT SITE IS LOCATED IN ZONE "X" AREAS OF 0.2 PCT ANNUAL FLOOD HAZARD AND MINIMAL FLOOD HAZARD.

REQUIRED\*\*\* PROPOSED (LOT 1) 40,000 SF 45,326 ACRES 150 FT 1056.1 FT \*\*\*\* 200 FT 1,034 FT 32% 7.9% 35 FT 50 FT MAX. (VARIANCE REQ'D) 70% 23.6%

RECORDING ACKNOWLEDGEMENTS

OWNER'S CERTIFICATION COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONROE: SS

ON THIS DAY OF BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, PERSONALLY APPEARED [Name] WHO ACKNOWLEDGED HIMSELF TO BE THE REPRESENTATIVE OF THE FOREGOING PLAN BY SIGNING THAT SAID ENTITY IS THE OWNER OF THE DESIGNATED LAND...

OWNER IN WITNESS WHEREOF, I HERUNTO SET MY HAND AND NOTARIAL SEAL.

NOTARY PUBLIC MY COMMISSION EXPIRES: (SEAL)

DESIGN ENGINEER CERTIFICATION TO THE BEST OF MY KNOWLEDGE, THE PLANS ARE IN CONFORMITY WITH ENGINEERING, ZONING, BUILDING, SANITATION, AND OTHER APPLICABLE SMITHFIELD TOWNSHIP ORDINANCES AND REGULATIONS OTHER THAN VARIANCES LISTED AS GRANTED.

DESIGN ENGINEER SIGNATURE DATE

TOWNSHIP ENGINEER REVIEW

TOWNSHIP ENGINEER SIGNATURE DATE

TOWNSHIP PLANNING COMMISSION RECOMMENDATION FOR APPROVAL

RECOMMENDED FOR APPROVAL BY THE SMITHFIELD TOWNSHIP PLANNING COMMISSION ON THIS DAY OF 20

TOWNSHIP BOARD OF SUPERVISORS APPROVAL

APPROVED BY THE SMITHFIELD TOWNSHIP BOARD OF SUPERVISORS ON THIS DAY OF 20

MONROE COUNTY PLANNING COMMISSION REVIEW

CERTIFIED BY THE EXECUTIVE DIRECTOR OF THE MONROE COUNTY PLANNING COMMISSION ON THIS DAY OF 20

PLAN RECORDING NOTE

SHEETS 2, 7 AND 8 ARE TO BE RECORDED AND CONSIDERED AS PART OF THE RECORD PLAN SET.

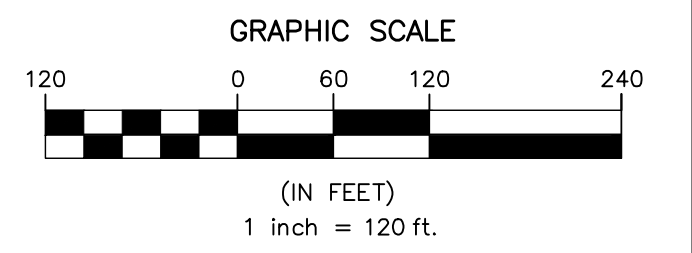
RECORDER OF DEEDS OFFICE

RECORDED IN THE OFFICE FOR RECORDING OF DEEDS, IN AND FOR THE COUNTY OF MONROE, PENNSYLVANIA IN PLAN BOOK NUMBER PAGE NUMBER ON THIS DAY OF 20 RECORDER OF DEEDS

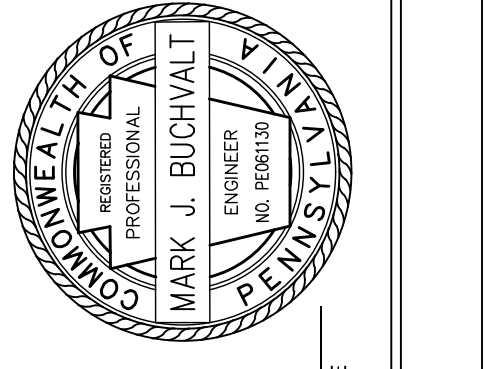
SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT I (NAME) AM A REGISTERED PROFESSIONAL LAND SURVEYOR, LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA...

NOT FOR CONSTRUCTION



REVISIONS table with columns for NO., DATE, BY, and DESCRIPTION.



MARK BUCHVALT, P.E. LICENSED PROFESSIONAL ENGINEER COMMONWEALTH OF PENNSYLVANIA LICENSE NO. PE011930

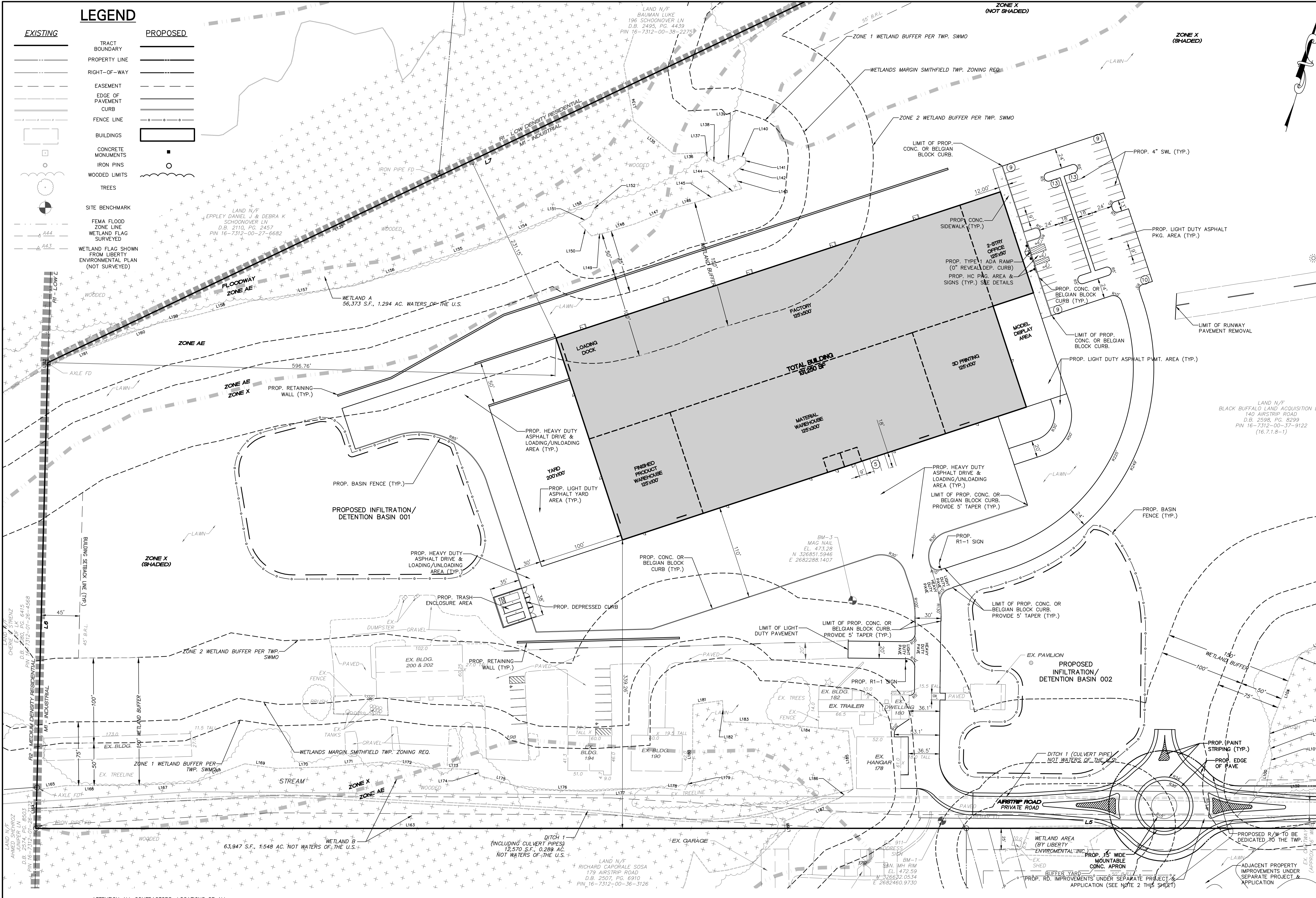
PRELIMINARY/FINAL LAND DEVELOPMENT BLACK BUFFALO NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA OVERALL SITE RECORD PLAN



DESIGNED BY MEB, DCH CHECKED BY MUB DRAWN BY DCH, MEB DATE 04/29/2022 SCALE 1"=120' PROJ. NO. JGPT00022 DRAWING SHEET 7 OF 23

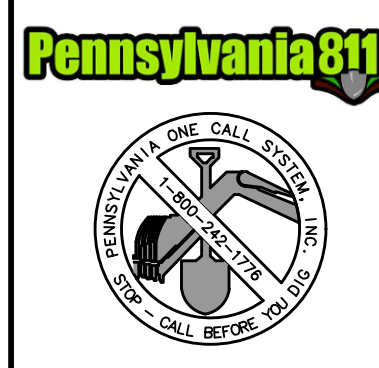
**LEGEND**

EXISTING	PROPOSED
TRACT BOUNDARY	TRACT BOUNDARY
PROPERTY LINE	PROPERTY LINE
RIGHT-OF-WAY	RIGHT-OF-WAY
EASEMENT	EASEMENT
EDGE OF PAVEMENT	EDGE OF PAVEMENT
CURB	CURB
FENCE LINE	FENCE LINE
BUILDINGS	BUILDINGS
CONCRETE MONUMENTS	CONCRETE MONUMENTS
IRON PINS	IRON PINS
WOODED LIMITS	WOODED LIMITS
TREES	TREES
SITE BENCHMARK	SITE BENCHMARK
FEMA FLOOD ZONE LINE	FEMA FLOOD ZONE LINE
WETLAND FLAG SURVEYED	WETLAND FLAG SURVEYED
WETLAND FLAG SHOWN FROM LIBERTY ENVIRONMENTAL PLAN (NOT SURVEYED)	WETLAND FLAG SHOWN FROM LIBERTY ENVIRONMENTAL PLAN (NOT SURVEYED)



PROJECT INFORMATION:  
 FILE PATH: C:\Projects\001\00022\Plans\  
 LAST SAVED DATE AND TIME: 28 Jun 2022, 5:15PM  
 LAST SAVE BY: Dhhbert

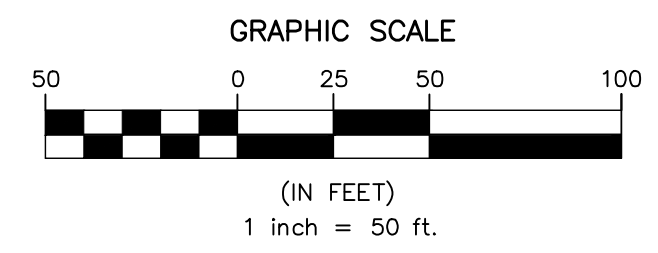
COPYRIGHT 2022, T&M ASSOCIATES - ALL RIGHTS RESERVED. THE COPYING OR REUSE OF THIS DOCUMENT OR PORTIONS THEREOF, FOR OTHER THAN THE ORIGINAL PROJECT, IS STRICTLY INTENDED, WITHOUT THE WRITTEN PERMISSION OF T&M ASSOCIATES IS PROHIBITED.



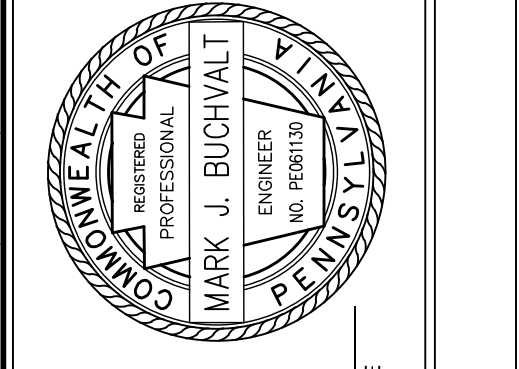
ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 121 OF 2008, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK. SERIAL NO. 20221232247 WAS PLACED FOR DESIGN PURPOSES.

**NOTE:**  
 1. REFER TO THE GENERAL INFORMATION SHEET FOR ADDITIONAL NOTES AND INFORMATION.  
 2. AIRSTRIP ROAD IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH PLANS TITLED AIRSTRIP ROAD IMPROVEMENTS PREPARED BY UNDER ENGINEERING, INC. DATED JANUARY 2018 AND LAST REVISED 05/18/2020.

**NOT FOR CONSTRUCTION**



NO.	BY	REVISIONS	DATE
2	dch, mmb, cgg	REVISED PER TWP REVIEW LETTER DATED 06/07/2022	06/29/22
1	mmb	SUBMITTAL TO MCOCD	05/27/22



**MARK BUCHVALT, P.E.**  
 LICENSED PROFESSIONAL ENGINEER  
 COMMONWEALTH OF PENNSYLVANIA  
 LICENSE NO. PE091130

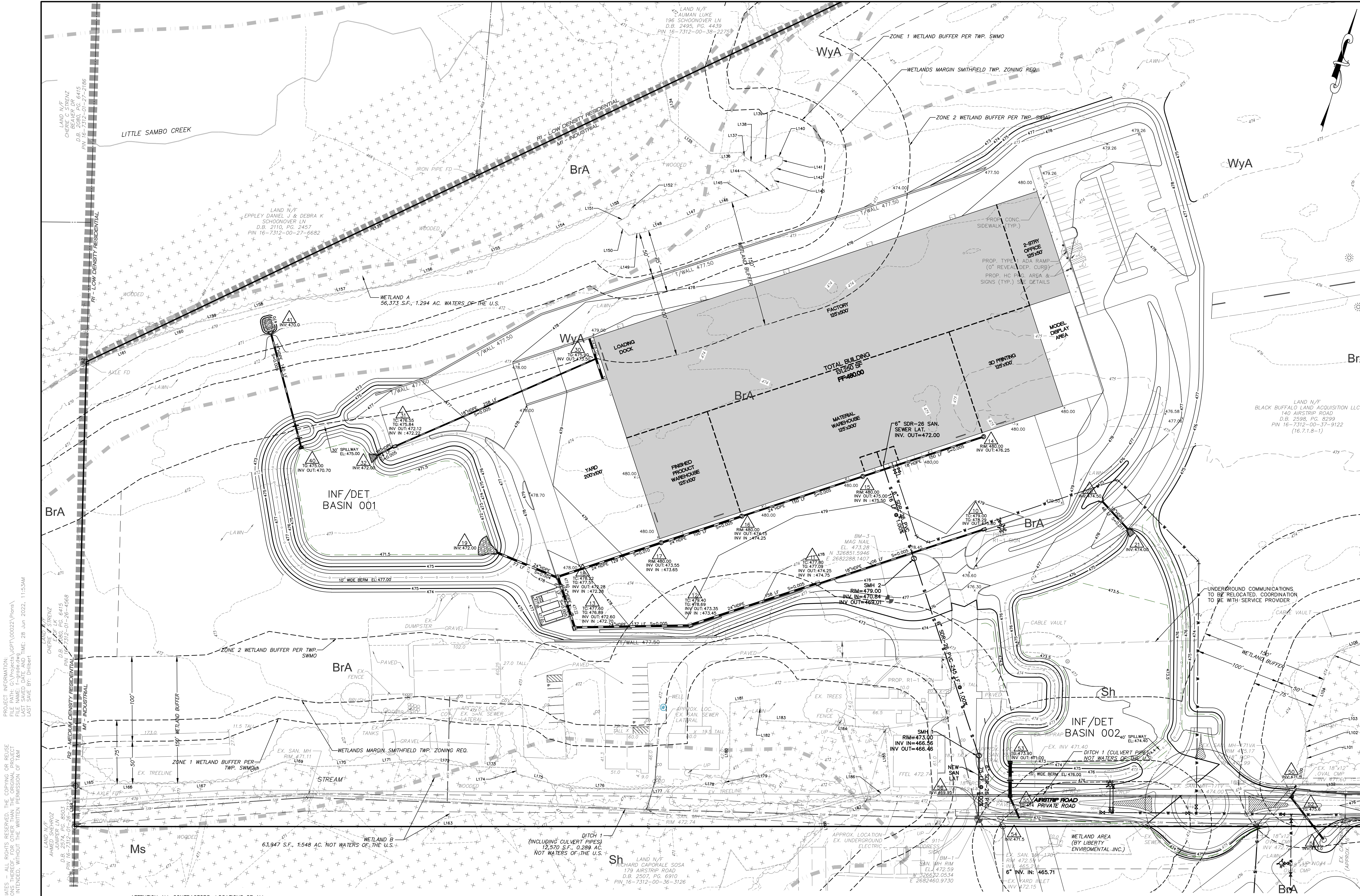
**PRELIMINARY/FINAL LAND DEVELOPMENT**  
**BLACK BUFFALO**  
**NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY**  
 SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

**AND**  
 YOUR GOALS. OUR MISSION.  
 74 WEST BROAD STREET, SUITE 530  
 BETHLEHEM, PA 18018  
 TEL 610-625-2999  
 FAX 610-625-2969  
 www.landmassociates.com

DESIGNED BY: MEB, DCH  
 CHECKED BY: MJB  
 DRAWN BY: DCH, MEB  
 DATE: 04/29/2022  
 SCALE: 1"=50'  
 PROJ. NO.: JGPT00022

**8**  
 OF **23**





**NOTE:**  
 1. REFER TO THE GENERAL INFORMATION SHEET FOR ADDITIONAL NOTES AND INFORMATION.  
 2. AIRSTRIP ROAD IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH PLANS TITLED AIRSTRIP ROAD IMPROVEMENTS PREPARED BY UNDER ENGINEERS, INC. DATED JANUARY 2018 AND LAST REVISED 05/18/2020.

**OWNER'S CERTIFICATION**  
 I, AS OWNER OF THIS PROPERTY HEREBY ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY THE TOWNSHIP AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE CONSERVATION DISTRICT FOR DETERMINATION OF ADEQUACY.

**DESIGN ENGINEER CERTIFICATION**  
 ON THIS DATE \_\_\_\_\_ HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE BROADHEAD-MICHAELS WATERSHED ACT 167 STORMWATER MANAGEMENT PLAN AND SMITHFIELD TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

OWNER SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 DESIGN ENGINEER SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**NOT FOR CONSTRUCTION**

GRAPHIC SCALE  
 0 25 50 100  
 (IN FEET)  
 1 inch = 50 ft.



**PRELIMINARY/FINAL LAND DEVELOPMENT**  
**BLACK BUFFALO**  
**NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY**  
 SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

**GRADING, DRAINAGE AND UTILITY PLAN**

MARK BUCHVALT, P.E.  
 LICENSED PROFESSIONAL ENGINEER

DATE: 06/29/22  
 SUBMITTED TO MCO: 05/27/22

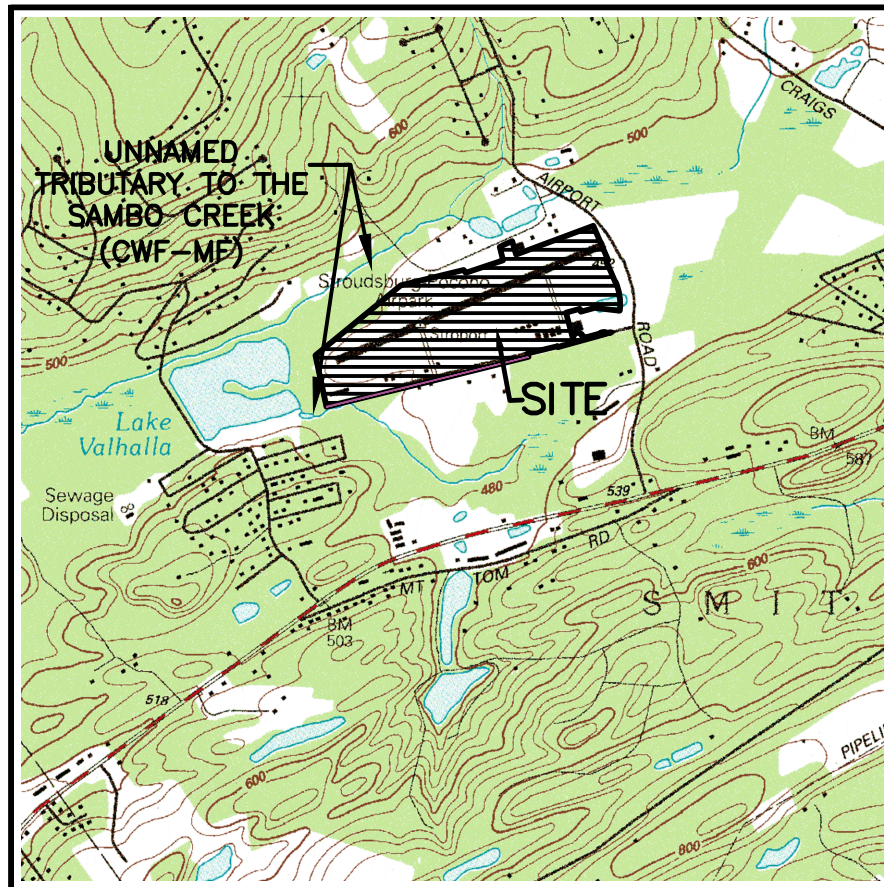
REVISIONS:

NO.	BY	DATE
1	mmb	05/27/22
2	dch, mmb, cgg	REVISOR PER TWP REVIEW LETTER DATED 06/07/2022

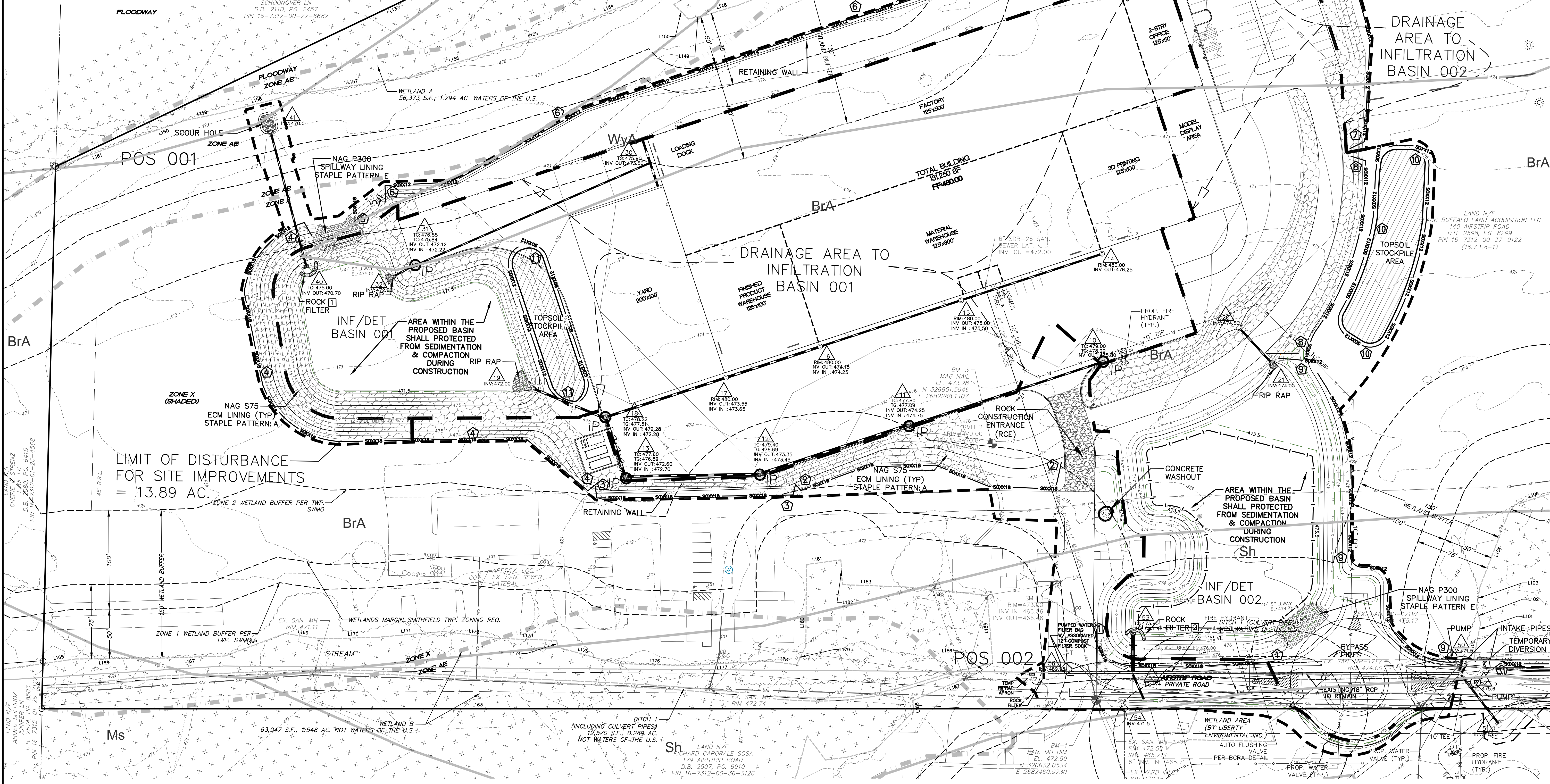
DESIGNED BY: MEB, DCH  
 CHECKED BY: MJB  
 DRAWN BY: DCH, MEB  
 DATE: 04/29/2022  
 SCALE: 1"=50'  
 PROJ. NO.: JGPT00022

DESIGNED BY: MEB, DCH  
 CHECKED BY: MJB  
 DRAWN BY: DCH, MEB  
 DATE: 04/29/2022  
 SCALE: 1"=50'  
 PROJ. NO.: JGPT00022

9 OF 23



LOCATION MAP  
EAST STROUDSBURG USGS QUAD  
SCALE: 1"=2000'



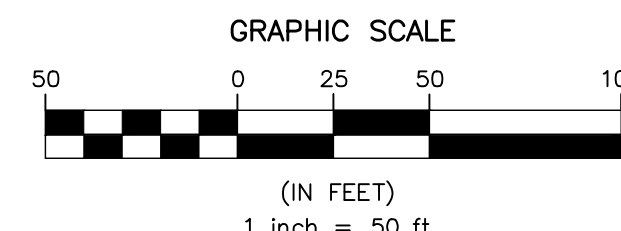
LIMIT OF DISTURBANCE FOR SITE IMPROVEMENTS = 13.89 AC.

LIMIT OF DISTURBANCE FOR SITE IMPROVEMENTS = 13.89 AC.

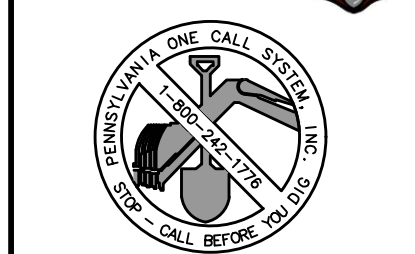
DRAINAGE AREA TO INFILTRATION BASIN 002

DRAINAGE AREA TO INFILTRATION BASIN 001

- NOTES:**
- SEE THE EROSION AND SEDIMENT CONTROL NOTES AND DETAILS SHEET FOR ADDITIONAL INFORMATION AND PLAN LEGEND.
  - ALL BMPs SHALL BE INSTALLED PER ABACT REQUIREMENTS.

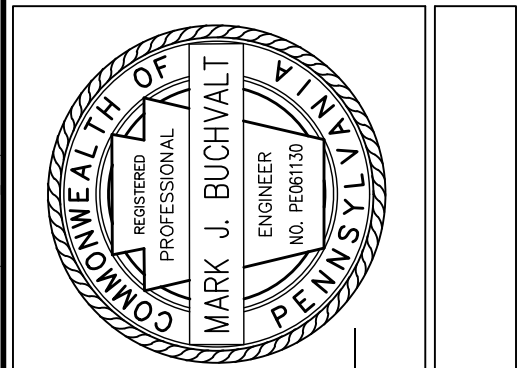


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ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. DEPTH COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 121 OF 2008, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK. SERIAL NO. 20221232247 WAS PLACED FOR DESIGN PURPOSES.

NO.	BY	REVISIONS	DATE
2	dch, mmb, cgg	REVISED PER TWP REVIEW LETTER DATED 06/07/2022	06/29/22
1	mmb	SUBMITTAL TO MDCD	05/27/22



**MARK BUCHVALT, P.E.**  
 LICENSED PROFESSIONAL ENGINEER  
 COMMONWEALTH OF PENNSYLVANIA  
 LICENSE NO. PE011190

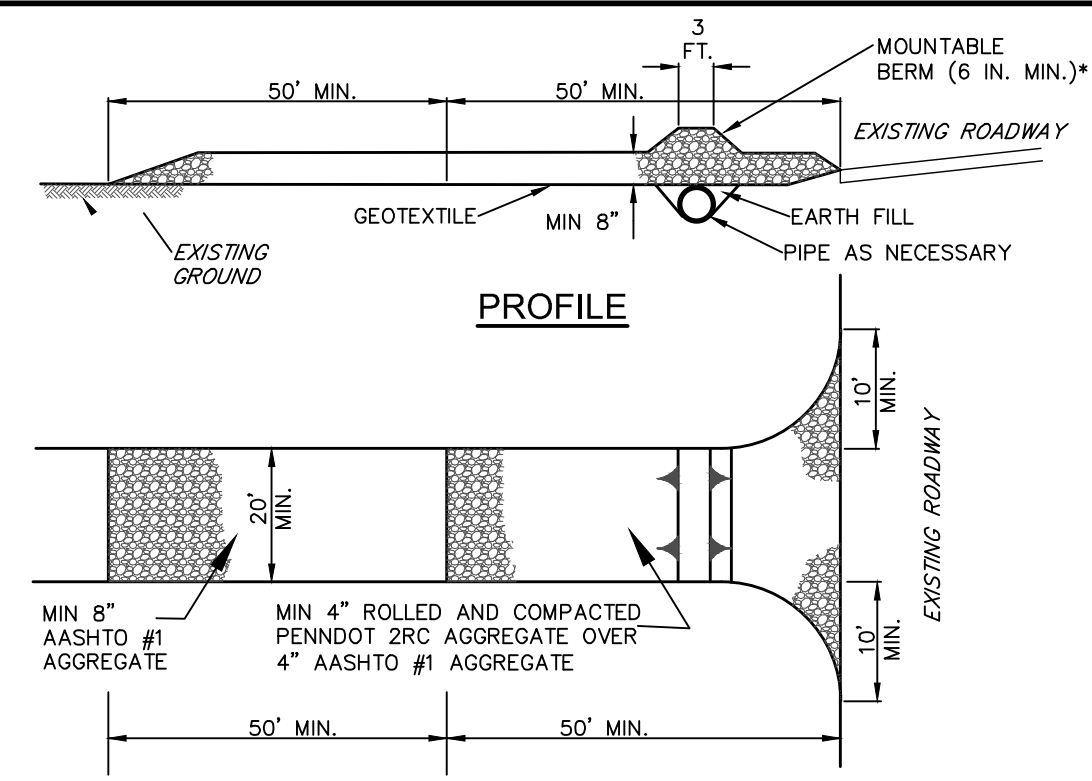
**FINAL LAND DEVELOPMENT**  
**BLACK BUFFALO**  
**NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY**  
 SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA  
**EROSION AND SEDIMENT CONTROL PLAN**

**AND**  
 YOUR GOALS. OUR MISSION.  
 74 WEST BROAD STREET, SUITE 530  
 BETHLEHEM, PA 18018  
 TEL 610-625-2999  
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DESIGNED BY	MEB, DCH	DRAWING	F-ENS
CHECKED BY	MJB		
DRAWN BY	DCH, MJB	SHEET	
DATE	04/29/2022		
SCALE	1"=50'		
PROJ. NO.	JGPT00022		

10 OF 23



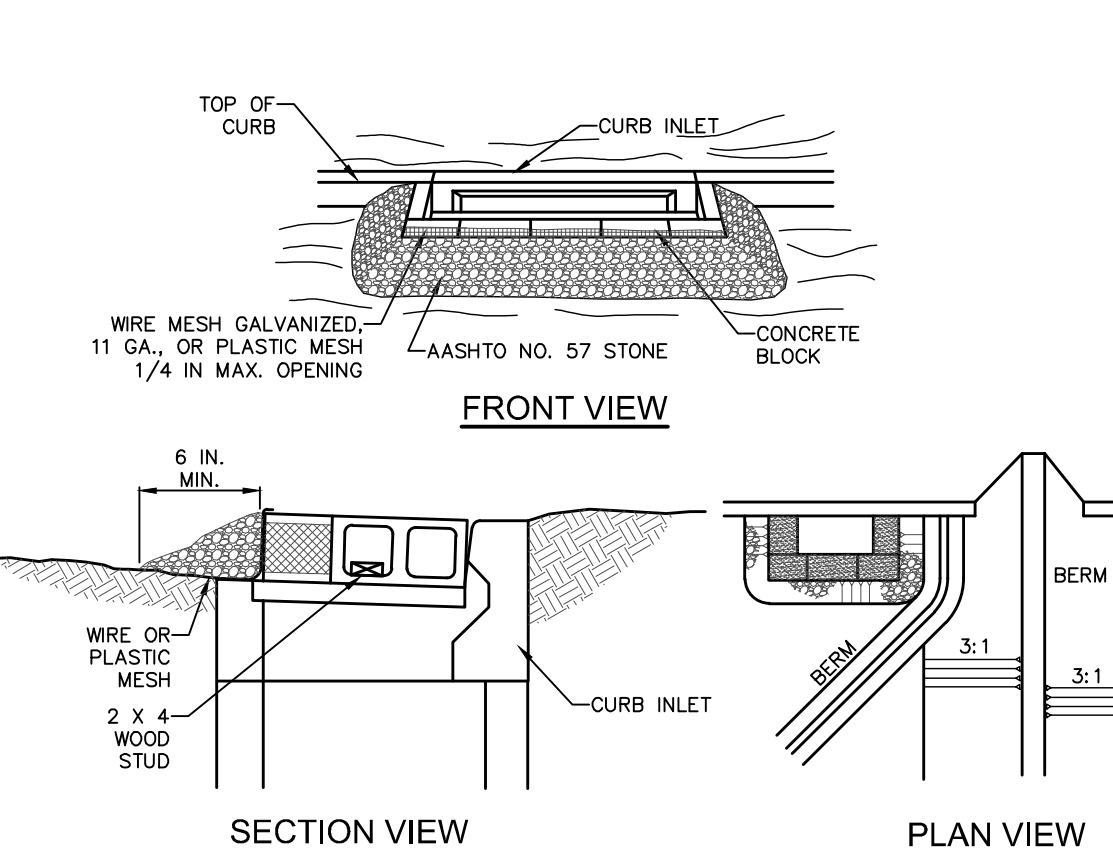


\* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

- NOTES:**
- REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
  - RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
  - MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
  - MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

**ALTERNATE CONSTRUCTION DETAIL #3-1  
ROCK CONSTRUCTION ENTRANCE**

NOT TO SCALE

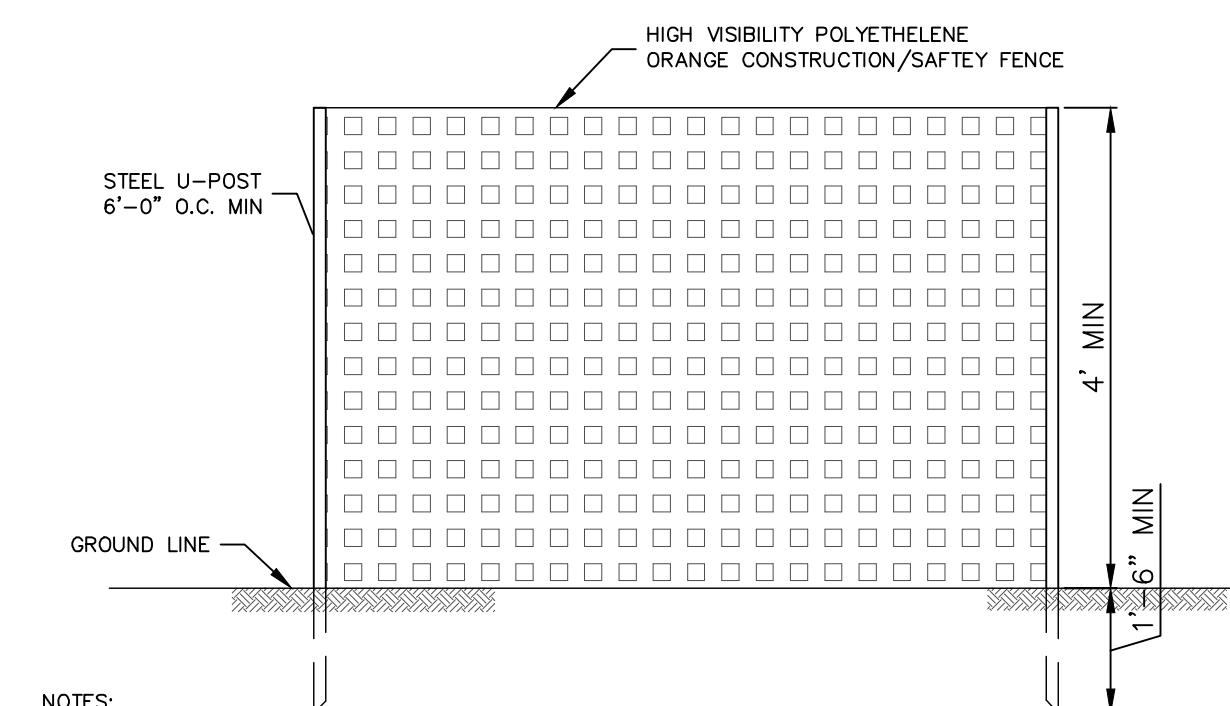


- NOTES:**
- MAXIMUM DRAINAGE AREA = 1 ACRE.
  - INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
  - ROLLED EARTHEN BERM SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
  - SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.
  - FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE.
  - DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

**STANDARD CONSTRUCTION DETAIL #4-17  
STONE AND CONCRETE BLOCK INLET PROTECTION - TYPE C INLET**

NOT TO SCALE

A 6" THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE FOR ALL APPLICATIONS OF THIS DETAIL ON THE PROJECT SITE.



- NOTES:**
- CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCE ALONG LIMIT OF DISTURBANCE BOUNDARY PRIOR TO THE START OF ANY EARTHMOVING.
  - CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN FENCE THROUGHOUT ENTIRE DURATION OF THE PROJECT.

**ORANGE CONSTRUCTION FENCE  
TREE PROTECTION FENCE**

NOT TO SCALE

**TABLE 11.6  
Mulch Application Rates**

Mulch Type	Application Rate (Min.)			Notes
	Per Acre	Per 1,000 sq. ft.	Per 1,000 sq. yd.	
Straw	3 tons	140 lb.	1,240 lb.	Either wheat or oat straw, free of weeds, not chopped or finely broken
Hay	3 tons	140 lb.	1,240 lb.	Timothy, mixed clover and timothy or other native forage grasses
Wood Chips	4 - 6 tons	185 - 275 lb.	1,650 - 2,500 lb.	May prevent germination of grasses and legumes
Hydromulch	1 ton	47 lb.	415	See limitations above

Mulch on slopes of 8% or steeper should be held in place with netting. Lightweight plastic, fiber, or paper nets may be stapled over the mulch according to manufacturer's recommendations.

Shredded paper hydromulch should not be used on slopes steeper than 5%. Wood fiber hydromulch may be applied on steeper slopes provided a tackifier is used. The application rate for any hydromulch should be 2,000 lbs/acre at a minimum.

**TABLE 11.2  
Soil Amendment Application Rate Equivalents**

Soil Amendment	Permanent Seeding Application Rate			Notes
	Per Acre	Per 1,000 sq. ft.	Per 1,000 sq. yd.	
Agricultural lime	6 tons	240 lb.	2,480 lb.	Or as per soil test, may not be required in agricultural fields
10-10-20 fertilizer	1,000 lb.	25 lb.	210 lb.	Or as per soil test, may not be required in agricultural fields
<b>Temporary Seeding Application Rate</b>				
Agricultural lime	1 ton	40 lb.	410 lb.	Typically not required for topsoil stockpiles
10-10-10 fertilizer	500 lb.	12.5 lb.	100 lb.	Typically not required for topsoil stockpiles

Adapted from Penn State, "Erosion Control and Conservation Plantings on Noncropland"

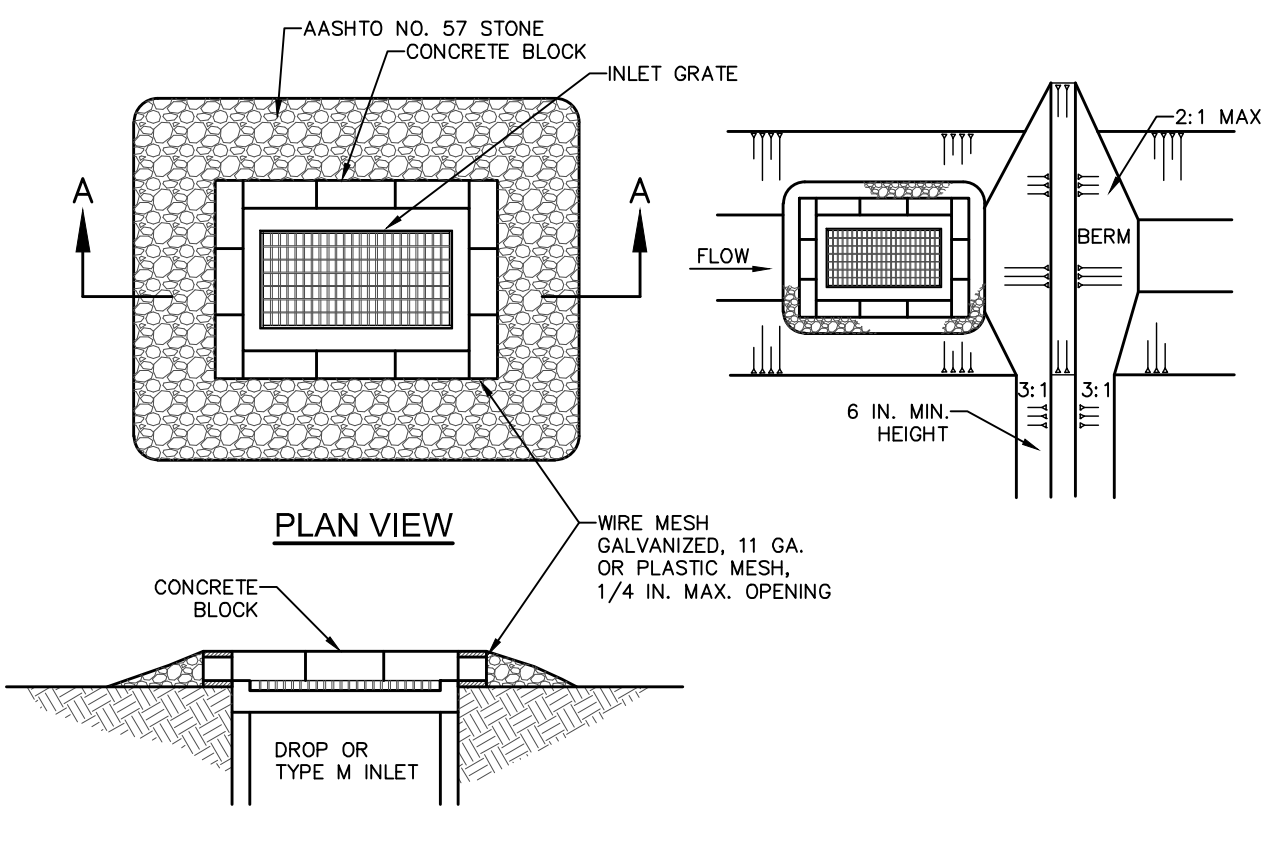
**TABLE 11.4  
Recommended Seed Mixtures**

Mixture Number	Species	Seeding Rate - Pure Live Seed	
		Most Sites	Adverse Sites
1 <sup>a</sup>	Spring oats (spring), or Annual ryegrass (spring or fall), or Winter wheat (fall), or Winter rye (fall)	65	96
		10	15
		60	120
2 <sup>b</sup>	Tall fescue, or Fine fescue, or Kentucky bluegrass, plus Redtop <sup>c</sup> , or Perennial ryegrass	60	75
		35	40
		25	30
3	Birdsfoot trefoil, plus Tall fescue	6	10
		30	36
4	Birdsfoot trefoil, plus Annual ryegrass	6	10
		10	15
5 <sup>d</sup>	Crownvetch, plus Tall fescue, or Perennial ryegrass	10	15
		20	25
6 <sup>a,b</sup>	Crownvetch, plus Annual ryegrass	10	15
		20	25
7 <sup>a</sup>	Crownvetch, plus Tall fescue	6	10
		10	15
8	Flatpea, plus Tall fescue, or Perennial ryegrass	20	30
		20	30
9 <sup>a</sup>	Serecia lespedeza, plus Tall fescue, plus Redtop <sup>c</sup>	10	20
		3	3
10	Tall fescue, plus Fine fescue	40	60
		10	15
11	Dewberry, plus Birdsfoot trefoil	15	20
		6	10
12 <sup>a</sup>	Switchgrass, or Big Bluestem, plus Birdsfoot trefoil	15	20
		6	10
13	Orchardgrass, or Smooth bromegrass, plus Birdsfoot trefoil	20	30
		6	10

Penn State, "Erosion Control and Conservation Plantings on Noncropland"

- PLS is the product of the percentage of pure seed times percentage germination divided by 100. For example, to secure the actual planting rate for switchgrass, divide 12 pounds PLS shown on the seed tag. Thus, if the PLS content of a given seed lot is 35%, divide 12 PLS by 0.35 to obtain 34.3 pounds of seed required to plant one acre. All mixtures in this table are shown in terms of PLS.
- If high-quality seed is used, for most sites seed spring oats at a rate of 2 bushels per acre, winter wheat at 11.5 bushels per acre, and winter rye at 1 bushel per acre. If germination is below 90%, increase these suggested seeding rates by 0.5 bushel per acre.
- This mixture is suitable for frequent mowing. Do not cut shorter than 4 inches.
- Keep seeding rate to that recommended in table. These species have many seeds per pound and are very competitive. To seed small quantities of small seeds such as weeping lovegrass and reedtop, dilute with dry sawdust, sand, non-hull, buckwheat hulls, etc.
- Use for highway slopes and similar sites where the desired species after establishment is crownvetch.
- Use only in extreme southeastern or extreme southwestern Pennsylvania. Serecia lespedeza is not well adapted to most of PA.
- Do not mow shorter than 9 to 10 inches.
- Seed mixtures containing crown vetch should not be used in areas adjacent to wetlands or stream channels due to the invasive nature of this species.

**NOTE:** UTILIZE MIXTURES 1 AND 3 FOR TEMPORARY AND PERMANENT STABILIZATION OF LAWN AREAS. UTILIZE SEED MIXES ON THE LANDSCAPE PLAN FOR BASIN PLANTINGS.

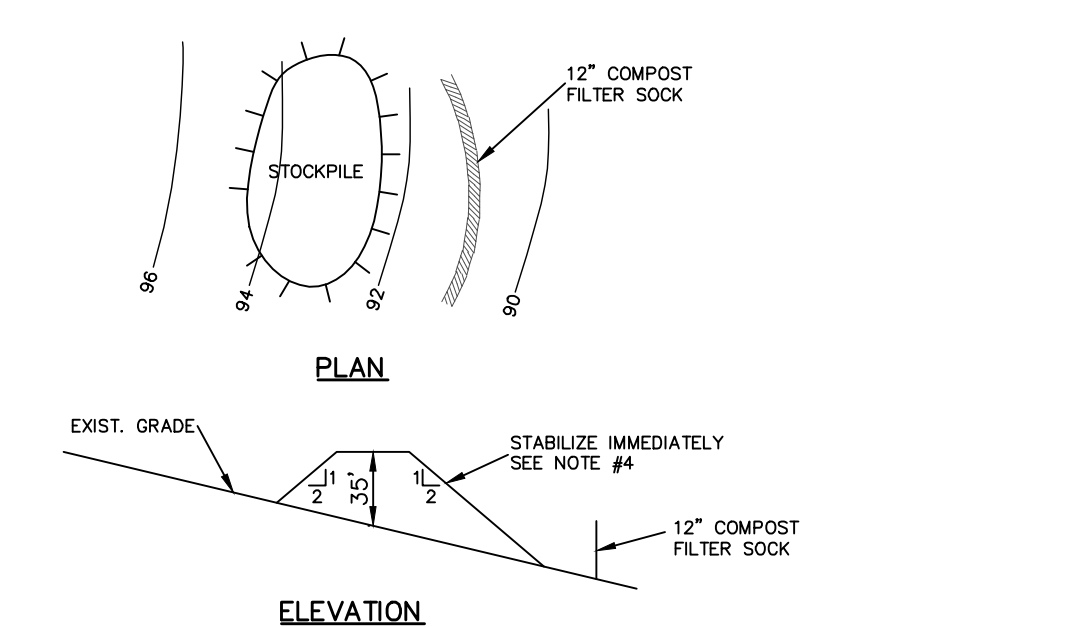


- NOTES:**
- MAXIMUM DRAINAGE AREA = 1 ACRE.
  - INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT A LOW POINT.
  - ROLLED EARTHEN BERM ON ROADWAY SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR TO REMAIN PERMANENTLY.
  - TOP OF BLOCK SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDING WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
  - SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.
  - FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

**STANDARD CONSTRUCTION DETAIL #4-18  
STONE AND CONCRETE BLOCK INLET PROTECTION - TYPE M INLET**

NOT TO SCALE

A 6" THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE FOR ALL APPLICATIONS OF THIS DETAIL ON THE PROJECT SITE.



- NOTES:**
- INSTALL 12" COMPOST FILTER SOCK DOWN SLOPE OF AREA OF STOCKPILE.
  - PLACE STOCKPILE IN AREAS SHOWN ON EROSION CONTROL PLAN WITHOUT BLOCKING NATURAL DRAINAGE PATTERNS.
  - FOLLOW DIMENSIONS SHOWN ABOVE. HEIGHT SHOULD NOT EXCEED 35 FT. SIDE SLOPES SHOULD NOT BE STEEPER THAN 2H:1V.
  - SEED IMMEDIATELY WITH TEMPORARY SEEDING PENNODT FORMULA "D" OR "E". IF MATERIAL IS NOT TO BE USED WITHIN 20 DAYS, FOLLOW "PERMANENT SEEDING, FERTILIZATION SCHEDULE & SPECIFICATIONS."

**MATERIAL STOCKPILE AND MAINTENANCE**

NOT TO SCALE

**TABLE 11.5  
Recommended Seed Mixtures**

Mixture Number	Species	Seeding Rate - Pure Live Seed	
		Most Sites	Adverse Sites
1 <sup>a</sup>	Spring oats (spring), or Annual ryegrass (spring or fall), or Winter wheat (fall), or Winter rye (fall)	65	96
		10	15
		60	120
2 <sup>b</sup>	Tall fescue, or Fine fescue, or Kentucky bluegrass, plus Redtop <sup>c</sup> , or Perennial ryegrass	60	75
		35	40
		25	30
3	Birdsfoot trefoil, plus Tall fescue	6	10
		30	36
4	Birdsfoot trefoil, plus Annual ryegrass	6	10
		10	15
5 <sup>d</sup>	Crownvetch, plus Tall fescue, or Perennial ryegrass	10	15
		20	25
6 <sup>a,b</sup>	Crownvetch, plus Annual ryegrass	10	15
		20	25
7 <sup>a</sup>	Crownvetch, plus Tall fescue	6	10
		10	15
8	Flatpea, plus Tall fescue, or Perennial ryegrass	20	30
		20	30
9 <sup>a</sup>	Serecia lespedeza, plus Tall fescue, plus Redtop <sup>c</sup>	10	20
		3	3
10	Tall fescue, plus Fine fescue	40	60
		10	15
11	Dewberry, plus Birdsfoot trefoil	15	20
		6	10
12 <sup>a</sup>	Switchgrass, or Big Bluestem, plus Birdsfoot trefoil	15	20
		6	10
13	Orchardgrass, or Smooth bromegrass, plus Birdsfoot trefoil	20	30
		6	10

Penn State, "Erosion Control and Conservation Plantings on Noncropland"

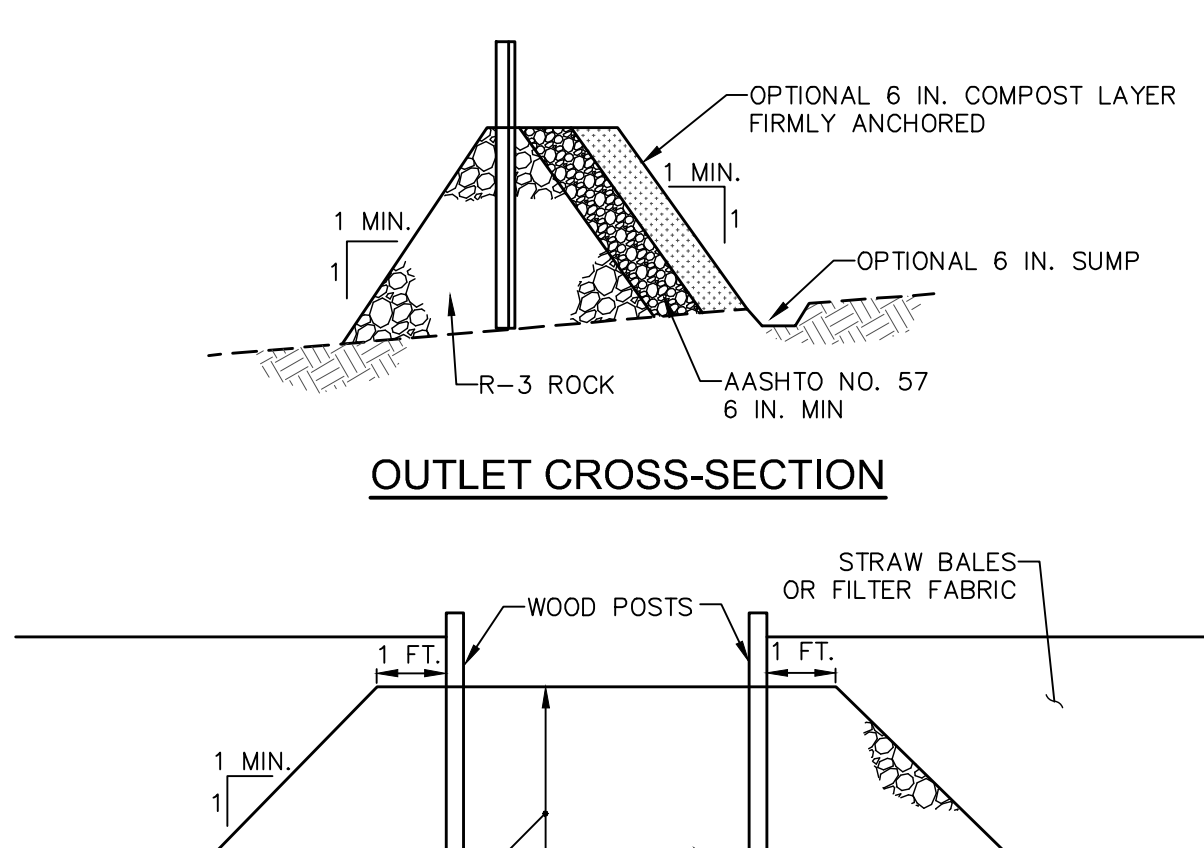
- For seed mixtures 1 and 12, only use spring oats or weeping lovegrass (included in mix) as nurse crop.
- Consult the Pennsylvania Department of Transportation district roadside specialist for specific suggestions on treatment techniques and management practices.
- Seed mixtures containing crown vetch should not be used in areas adjacent to wetlands or stream channels due to the invasive nature of this species.

**TABLE 11.5  
Recommended Seed Mixtures for Stabilizing Disturbed Areas**

Site Condition	Nurse Crop	Seed Mixture (Select one mixture)
Slopes and Banks (not mowed)	1 plus	3, 5, 8, or 12 <sup>a</sup>
Well-drained	1 plus	3 or 7
Variable drainage	1 plus	3 or 7
Slopes and Banks (mowed)	1 plus	2 or 10
Well-drained	1 plus	2, 3, or 13
Slopes and Banks (grazed/hay)	1 plus	3, 5, 7, or 12 <sup>a</sup>
Well-drained	1 plus	3, 5, 7, or 12 <sup>a</sup>
Gullies and Eroded Areas	1 plus	2, 3, or 4
Erosion Control Facilities (BMPs)	1 plus	2, 3, or 4
Sod waterways, spillways, frequent water flow areas	1 plus	2, 3, or 4
Drainage ditches	1 plus	2, 3, or 4
Shallow, less than 3 feet deep	1 plus	5 or 7
Deep, not mowed	1 plus	5 or 7
Pond banks, dikes, levees, dams, diversion channels, and occasional water flow areas	1 plus	2 or 3
Mowed areas	1 plus	5 or 7
New-mowed areas	1 plus	5 or 7
For hay or silage on diversion channels and occasional water flow areas	1 plus	3 or 13
Highways <sup>a</sup>		
Non-mowed areas	1 plus	5 or 6
Well-drained	1 plus	5, 7, 8, 9, or 10
Variable drainage	1 plus	3 or 7
Poorly drained	1 plus	3 or 4
Areas mowed several times per year	1 plus	2, 3, or 10
Utility Right-of-way		
Well-drained	1 plus	5, 8, or 12 <sup>a</sup>
Variable drainage	1 plus	3 or 7
Well-drained areas for grazing/hay	1 plus	2, 3, or 13
Effluent Disposal Areas	1 plus	3 or 4
Sanitary Landfills	1 plus	3, 5, 7, 11, or 12 <sup>a</sup>
Surface mines		
Spills, mine wastes, fly ash, slag, settling basin Residues and other severely disturbed areas (lime to soil test)	1 plus	3, 4, 5, 7, 8, 9, 11, or 12 <sup>a</sup>
Severely disturbed areas for grazing/hay	1 plus	3 or 13

Penn State, "Erosion Control and Conservation Plantings on Noncropland"

- For seed mixtures 1 and 12, only use spring oats or weeping lovegrass (included in mix) as nurse crop.
- Consult the Pennsylvania Department of Transportation district roadside specialist for specific suggestions on treatment techniques and management practices.
- Seed mixtures containing crown vetch should not be used in areas adjacent to wetlands or stream channels due to the invasive nature of this species.

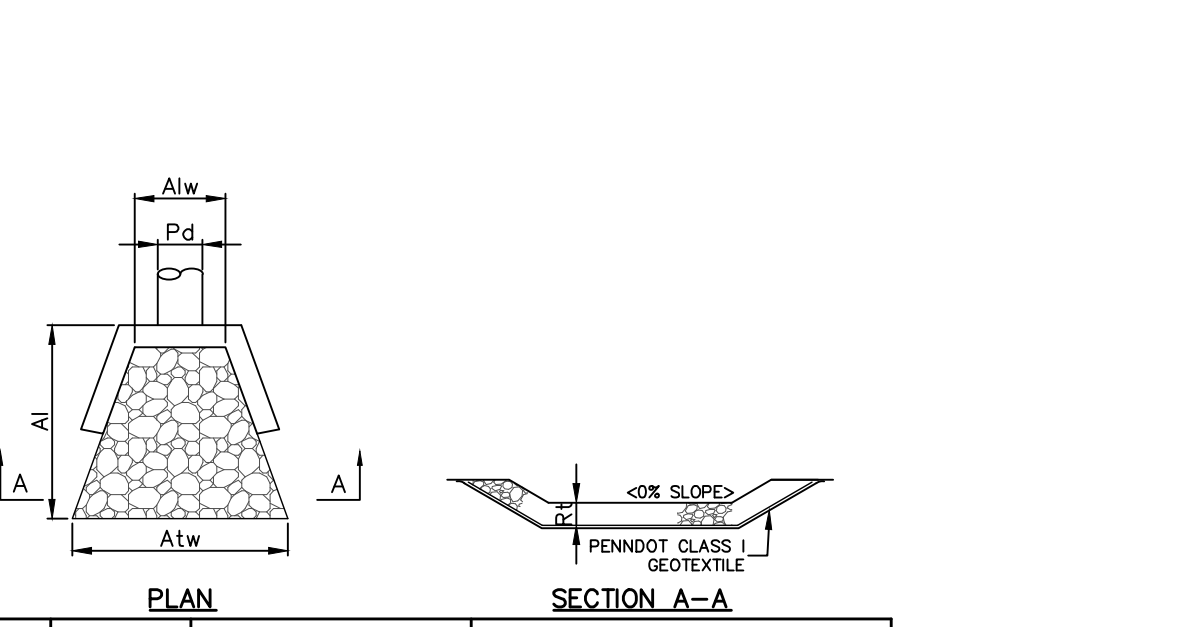


- NOTES:**
- A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.
  - SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

**STANDARD CONSTRUCTION DETAIL #4-6  
ROCK FILTER OUTLET**

NOT TO SCALE

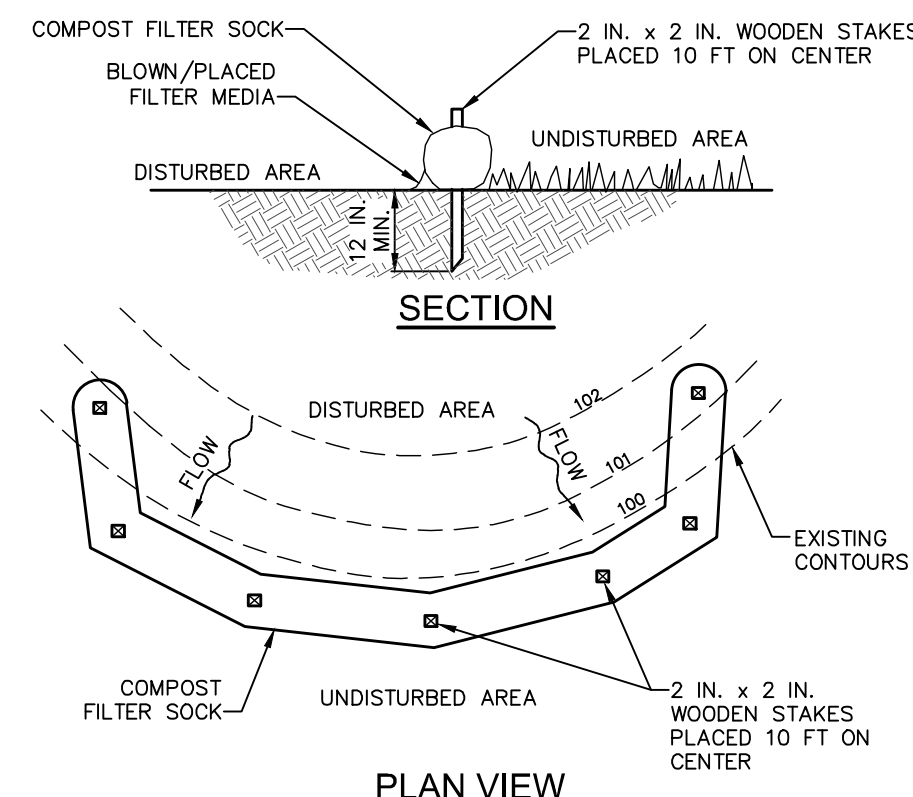
ANCHORED COMPOST LAYER SHALL BE USED FOR ALL APPLICATIONS OF THIS DETAIL ON THE PROJECT SITE.



OUTLET NUMBER	PIPE DIAMETER Pd (IN.)	RIPRAP SIZE (R-)	THICK. Rt (IN.)	LENGTH A1 (FT.)	INITIAL WIDTH A1w (FT.)	TERMINAL WIDTH A2w (FT.)
19	24	R-6	36	20	6	14
21	18	R-5	27	7	5	8
32	18	R-5	27	7	5	8

**RIPRAP APRONS AT PIPE OUTLETS WITH ENDWALL**

NOT TO SCALE



- NOTES:**
- SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.
  - COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
  - TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
  - ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
  - COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
  - BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  - UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

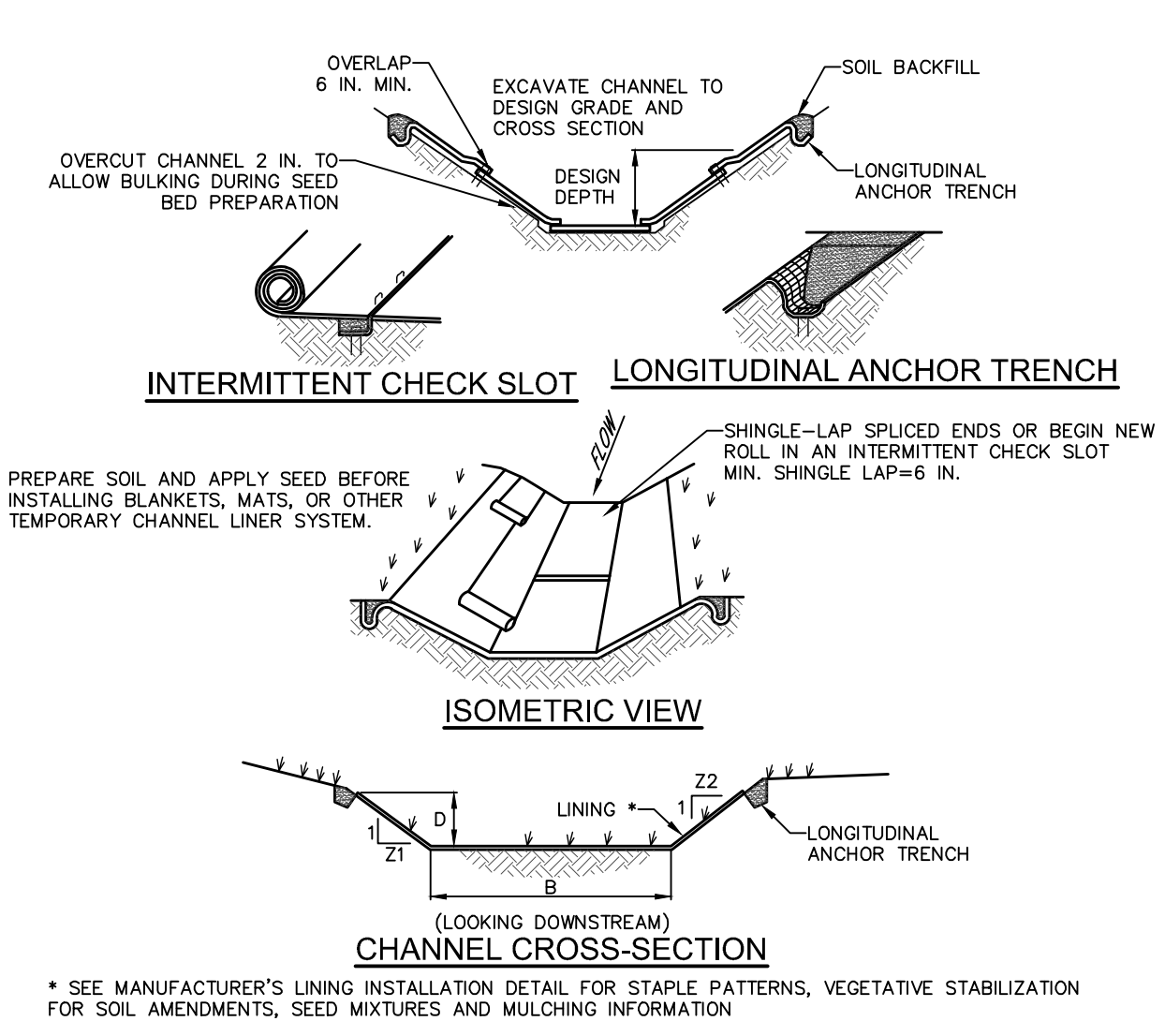
**STANDARD CONSTRUCTION DETAIL #4-1  
COMPOST FILTER SOCK**

NOT TO SCALE

NOTE: COMPOST FILTER SOCK MAY BE SUBSTITUTED FOR SILT FENCE WITH DESIGN ENGINEER/ CONSERVATION DISTRICT APPROVAL.

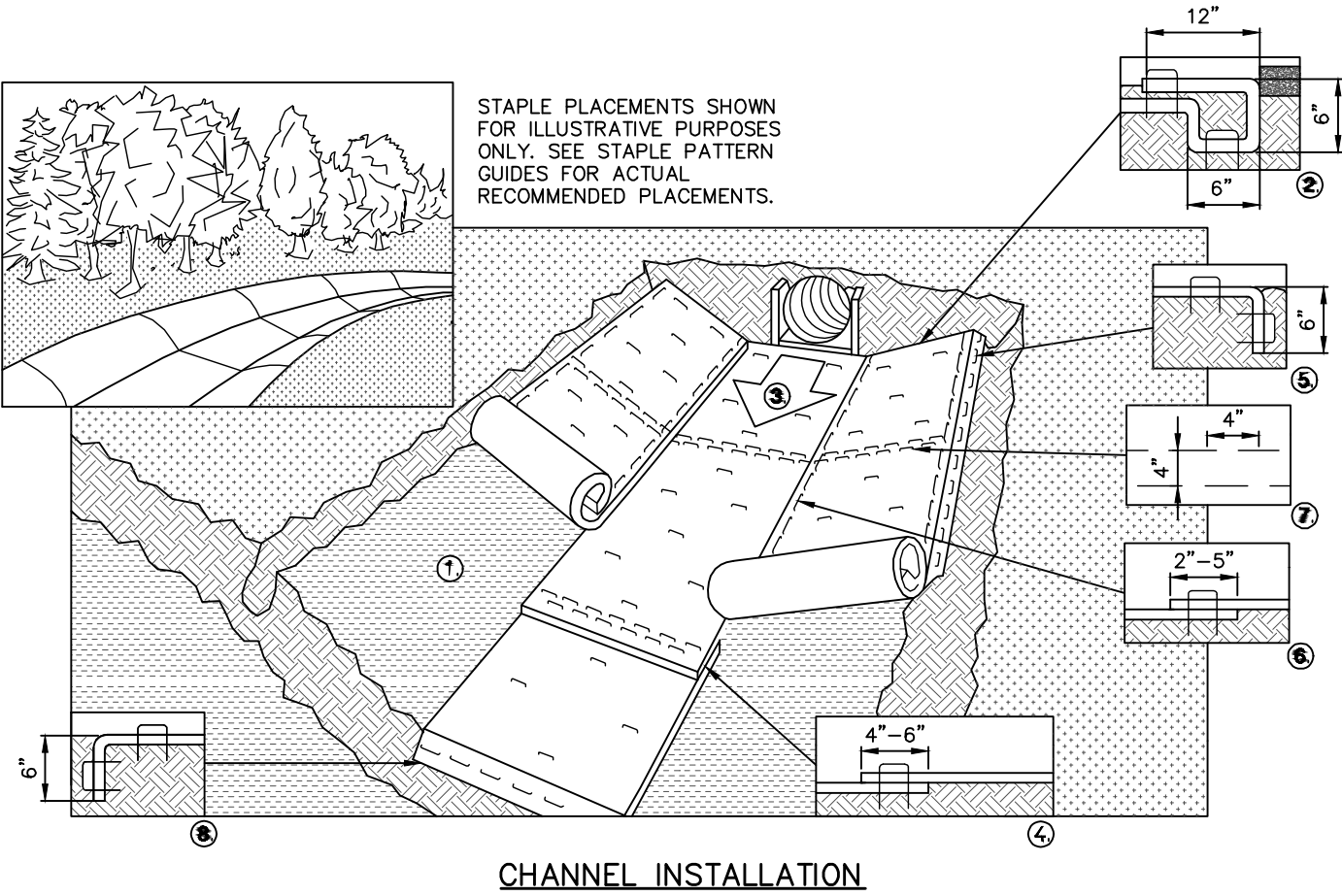
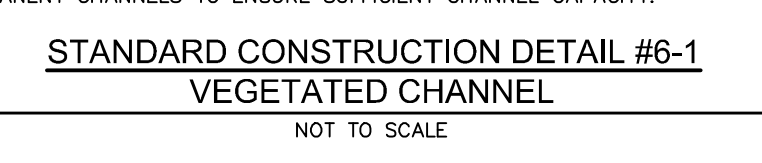
**COMPOST FILTER SOCK TABLE**

SOCK NO.	DIA. IN.	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE SOCK (FT.)
STKPL	12"	TOE OF STOCKPILES	50%	< 20'
1 (PRE)	18"	SOUTH TOE OF BERM BASIN 002	0.5%	525'
2 (PRE)	18"	TOE OF FILL SOUTH	0.9%	280'
3 (PRE)	18"	TOE OF FILL SOUTH	1.5%	110'
4 (PRE)	18"	TOE OF BERM BASIN 001	1.0%	110'
5 (POST)	18"	TOE OF BERM BASIN 001	25%	30'
6 (PRE)	12"	TOE OF FILL NORTH	0.5%	320'
7 (PRE)	12"	TOE OF FILL NORTH & EAST	25%	50'
8 (PRE)	12"	TOE OF FILL EAST	0.5%	240'
9 (PRE)	12"	EAST TOE OF BERM BASIN 001	0.5%	50'
3.1 (PRE)	12"	NORTH OF ROAD MAINTENANCE	1.0%	390'
3.2 (PRE)	12"	NORTH OF ROAD MAINTENANCE	0.8%	475'
3.2 (POST)	12"	NORTH OF ROAD MAINTENANCE	12.4%	25'
3.3 (PRE)	12"	NORTH OF ROAD MAINTENANCE	9.3%	25'
3.3 (POST)	12"	NORTH OF ROAD MAINTENANCE	16.0%	20'
3.4 (PRE)	12"	NORTH OF ROAD MAINTENANCE	7.4%	25'
3.4 (POST)	12"	NORTH OF ROAD MAINTENANCE	13.4%	20'
3.5 (PRE)	12"	NORTH OF ROAD MAINTENANCE	5.6%	30'
3.5 (POST)	12"	NORTH OF ROAD MAINTENANCE	12.8%	20'
3.6 (PRE)	12"	NORTH OF ROAD MAINTENANCE	6.3%	30'
3.6 (POST)	12"	NORTH OF ROAD MAINTENANCE	10.8%	25'
3.7 (PRE)	24"	NORTH OF ROAD MAINTENANCE	0.6%	890'
3.7 (POST)	24"	NORTH OF ROAD MAINTENANCE	0.6%	890'



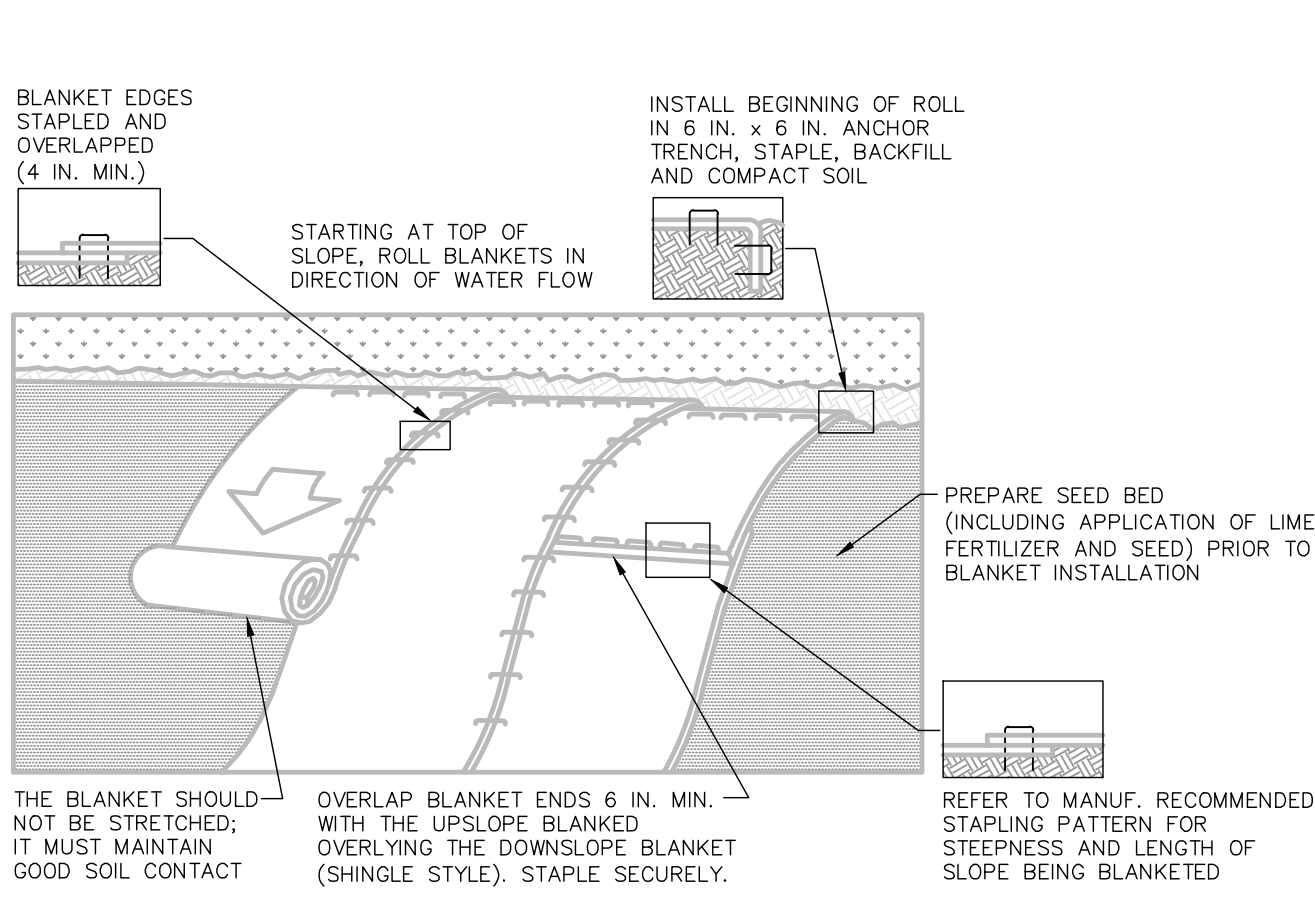
CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING	STAPLE PATTERN
VEGETATED SWALE S3.2	FULL LENGTH	3	1.25	9.5	3	3	NAG S75	D
VEGETATED SWALE BMP 3	FULL LENGTH	5	1.25	9.5	3	3	NAG S75	D

**NOTES:**  
ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.  
CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.  
SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.  
NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

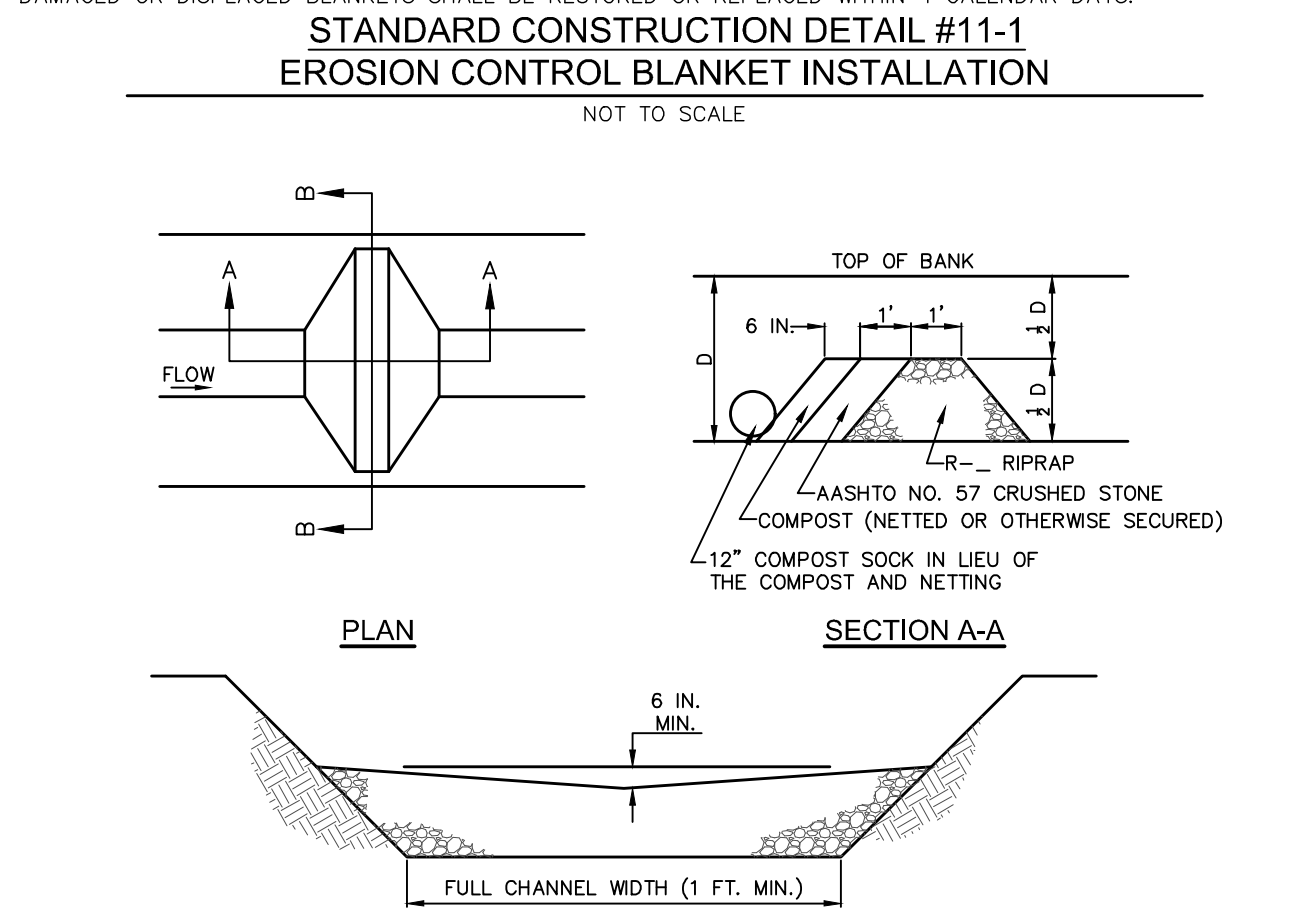


- NOTES:**  
1. NORTH AMERICAN GREEN OR APPROVED EQUAL.  
2. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.  
3. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UPSLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.  
4. ROLL THE RECP'S IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.  
5. PLACE CONSECUTIVE RECP'S END OVER END (SHINGLE STYLE) WITH A 4" - 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP'S.  
6. FULL LENGTH EDGE OF RECP'S AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.  
7. ADJACENT RECP'S MUST BE OVERLAPPED APPROXIMATELY 2" - 5" (DEPENDENT ON RECP'S TYPE) AND STAPLED. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL. THE TERMINAL END OF THE RECP'S MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.  
8. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.  
9. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.  
11. NORTH AMERICAN GREEN, 14849 HIGHWAY 41 NORTH, EVANSVILLE, INDIANA 47735. USA 1-800-772-2040, CANADA 1-800-448-2040. WWW.NAGREEN.COM

**CHANNEL STABILIZATION/INSTALLATION GUIDELINES**  
NOT TO SCALE



**NOTES:**  
SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.  
PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.  
SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.  
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.  
BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

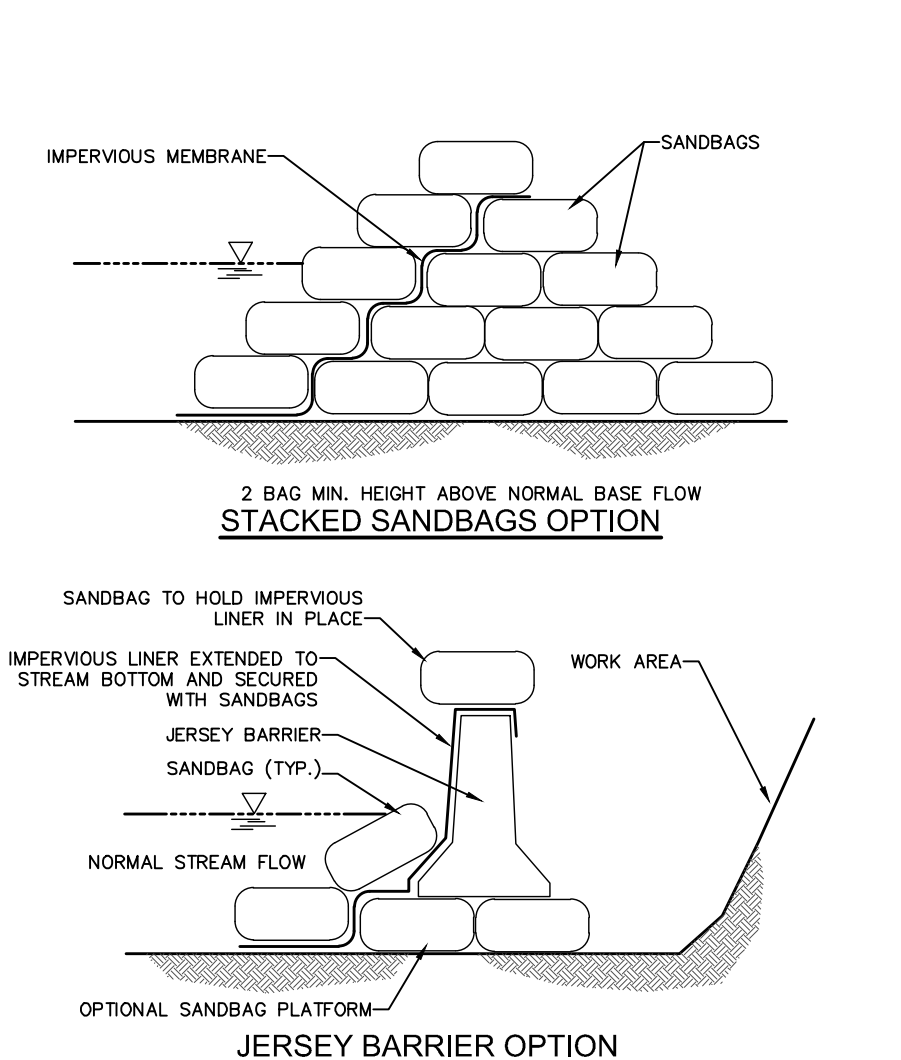


ROCK FILTER NO.	LOCATION	D (FT)	RIPRAP SIZE (R-#)
1	INFILTRATION BASIN 001 OUTLET	2	R-3
2	INFILTRATION BASIN 002 OUTLET	2	R-3

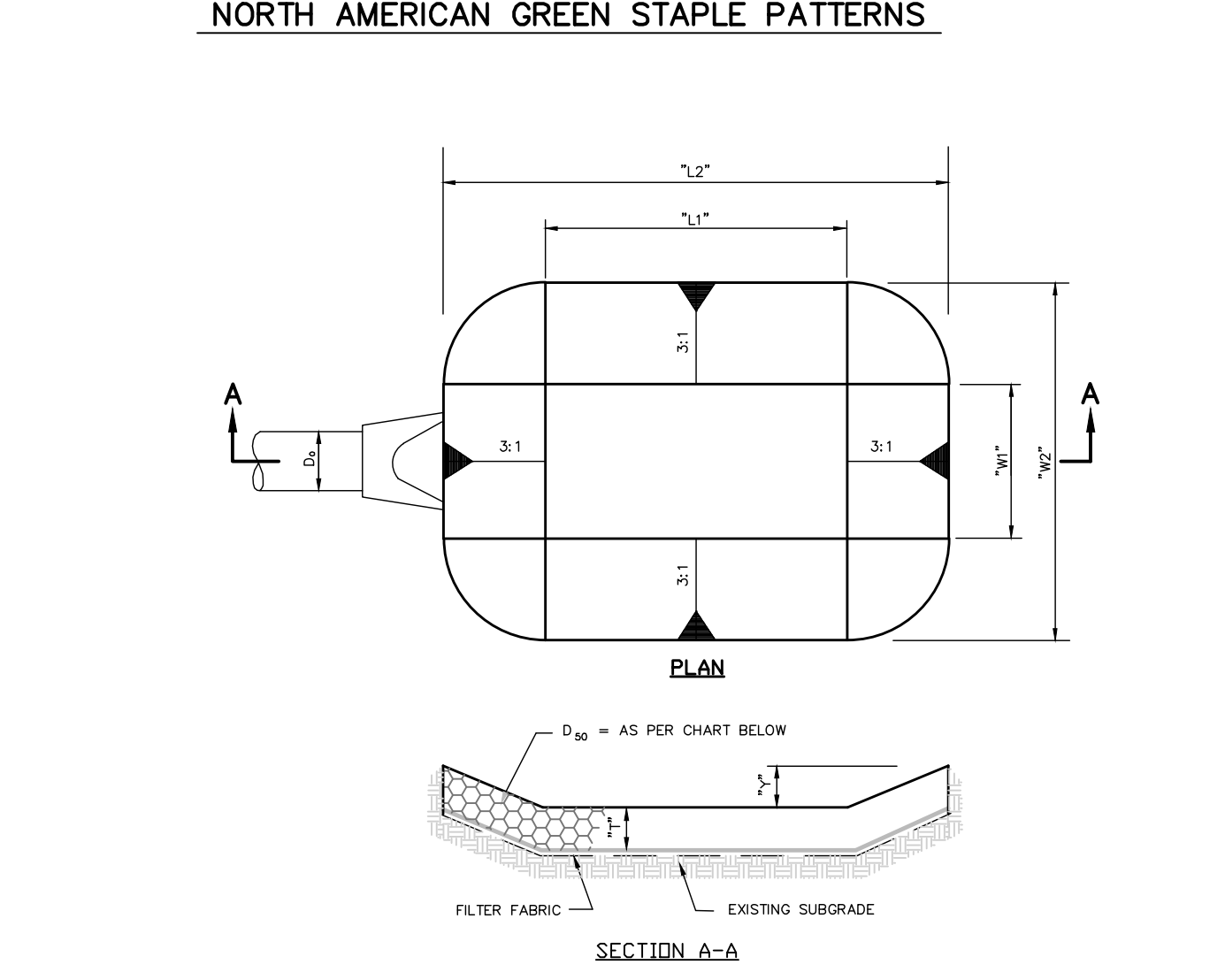
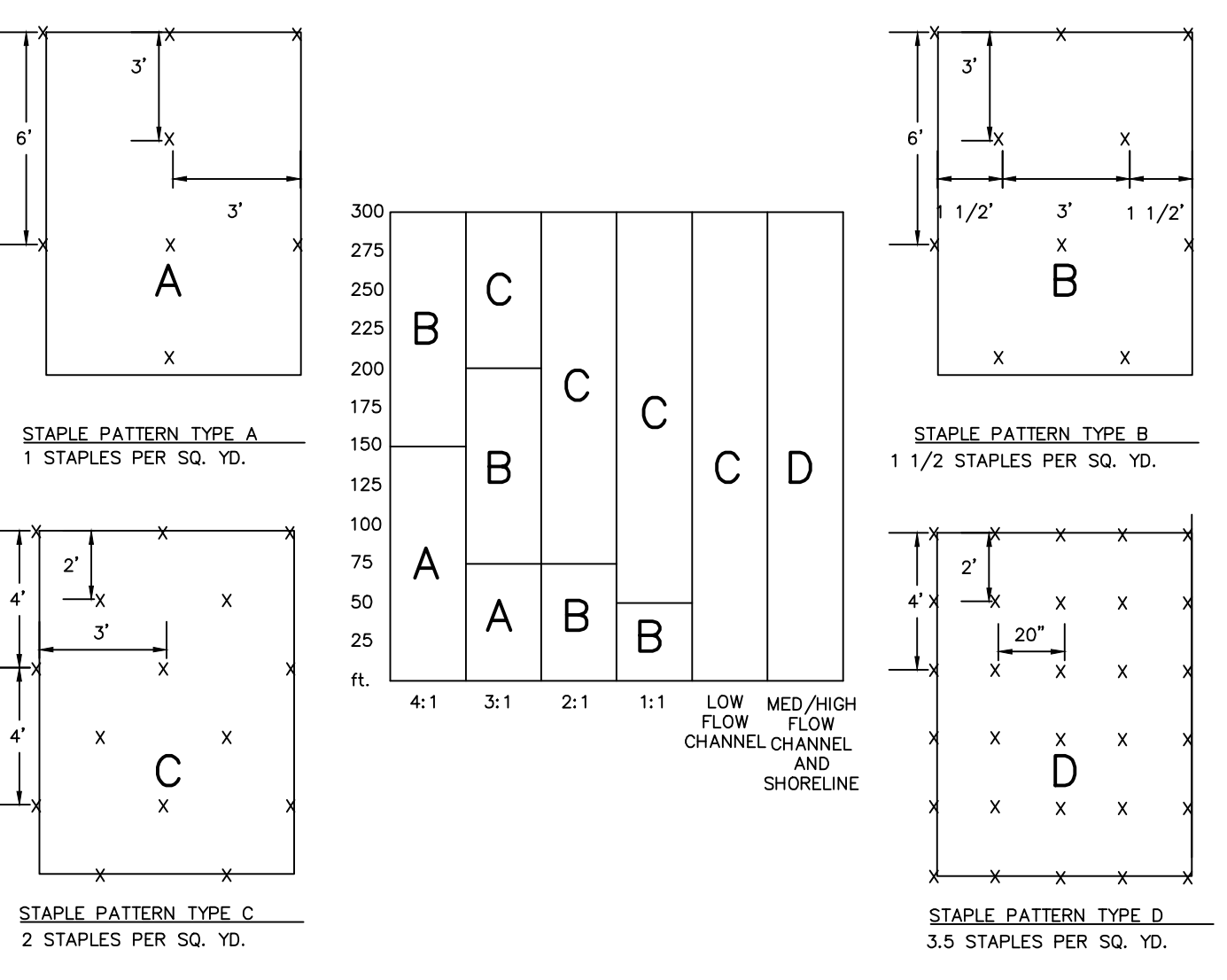
FOR D ≥ 3 FT. - USE R-4  
FOR D ≥ 2 FT. TO D < 3 FT. - USE R-3  
NOT APPLICABLE FOR D < 2 FT.

**NOTES:**  
SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS. IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.

**STANDARD CONSTRUCTION DETAIL #4-13**  
ROCK FILTER  
NOT TO SCALE



**NOT FOR CONSTRUCTION**



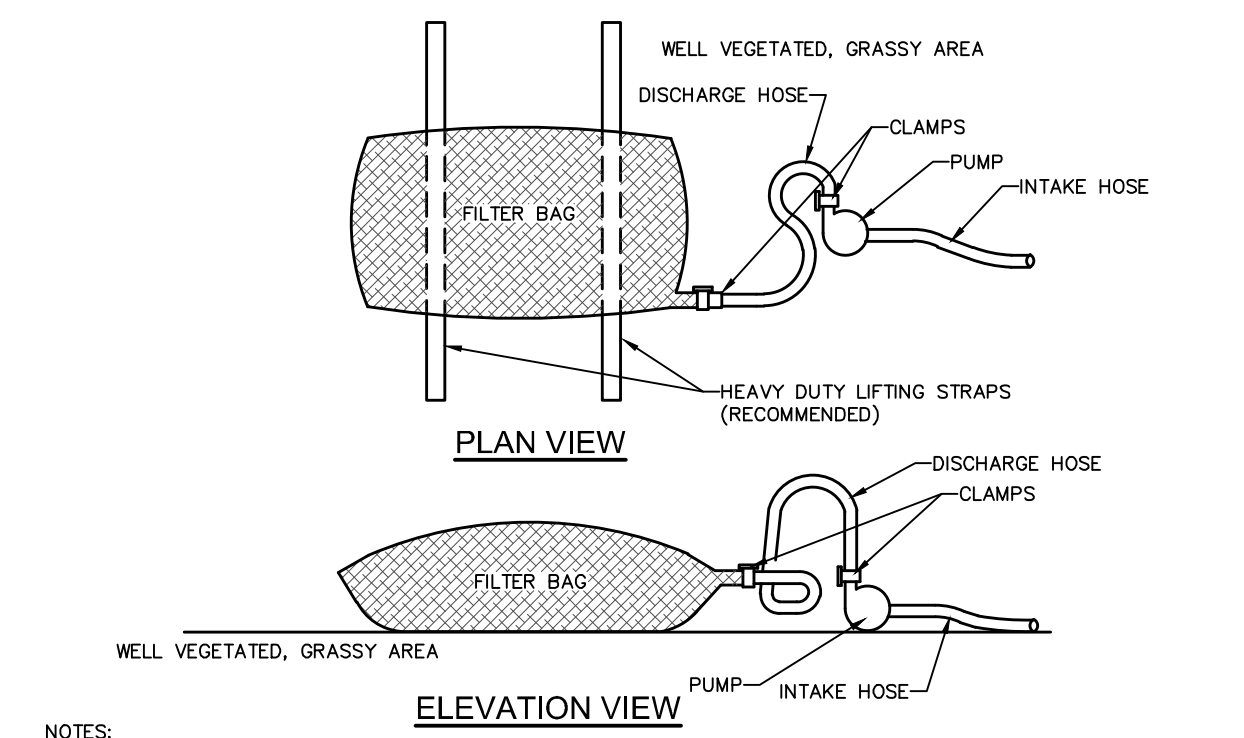
OUTLET NO.	OUTLET DIA. D <sub>0</sub>	BOTTOM LENGTH L <sub>1</sub>	OVERALL LENGTH L <sub>2</sub>	(F <sub>1</sub> ) BOTTOM WIDTH W <sub>1</sub>	(F <sub>1</sub> ) OVERALL WIDTH W <sub>2</sub>	(F <sub>1</sub> ) DEPTH Y	T (RENO MATRESS)	(RIPRAP)	d <sub>50</sub> (RENO MATRESS)	d <sub>50</sub> (RIPRAP)
EW-41	18"	9'	18'	4.5'	13.5'	1.5'	10"	18"	6"(R-4)	9"(R-5)

**NOTES:**  
PREFORMED SCOUR HOLES CAN BE CONSTRUCTED OF RENO MATRESSES, OR RIPRAP. SEE PREFORMED SCOUR HOLE CHART FOR REQUIRED THICKNESS AND MEDIAN STONE SIZE FOR EACH. RENO MATRESS TO BE PVC COATED. GALVANIZED BASKETS FILLED WITH 4" TO 7" ANGULAR BLOCK SHARED ROCK BASKETS TO BE TIGHTLY WIRED TOGETHER. GABIONS CAN BE SUBSTITUTED FOR RENO MATRESSES IF THE PREFORMED SCOUR HOLE THICKNESS DICTATES.

**TYPICAL PREFORMED SCOUR HOLE DETAIL**  
NOT TO SCALE

**ALL EROSION AND SEDIMENT CONTROL DETAILS SHALL BE INSTALLED PER ABACT REQUIREMENTS**

**NOT FOR CONSTRUCTION**



**NOTES:**  
LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB./IN.
GRAB TENSILE	ASTM D-4632	225 LB.
PUNCTURE	ASTM D-4833	110 LB.
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SEIVE

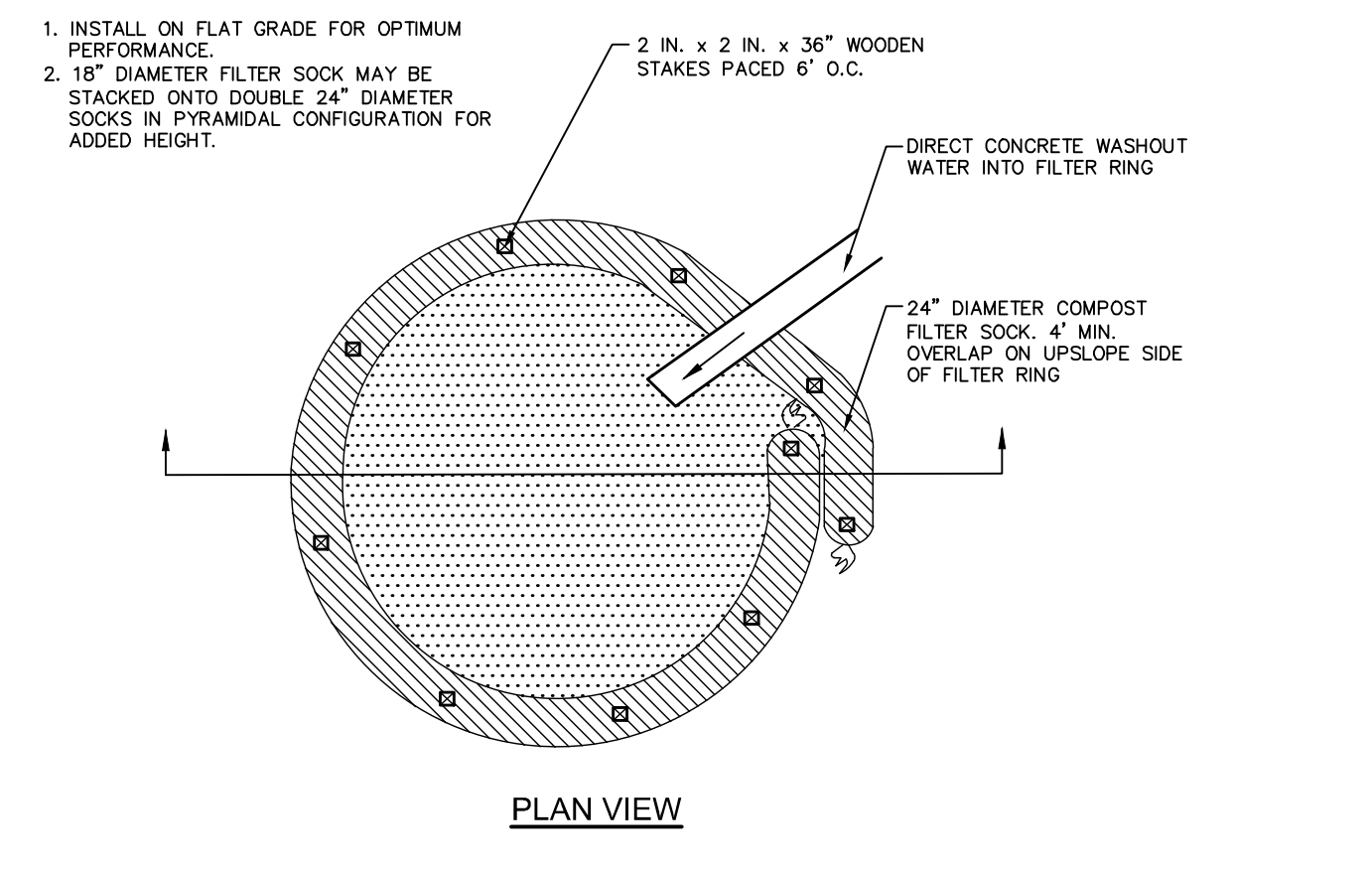
A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.  
BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%. CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR ELY WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.  
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SORENEED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

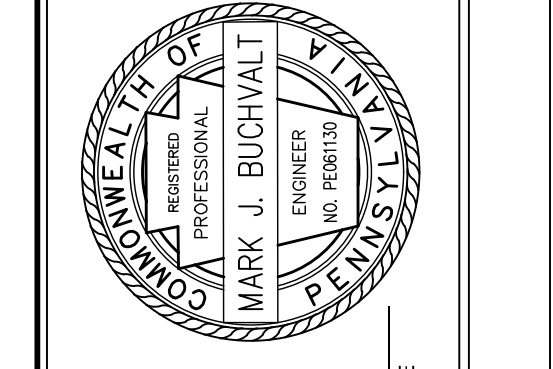
**STANDARD CONSTRUCTION DETAIL #3-16**  
PUMPED WATER FILTER BAG  
NOT TO SCALE  
THE FILTER BAG SHALL BE SURROUNDED BY A COMPOST SOCK RING TO BE ABACT COMPLIANT.



A SUITABLE IMPERVIOUS MEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.  
**MAINTENANCE:**  
ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.  
ACCUMULATED MATERIAL SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.  
PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

**NOT FOR CONSTRUCTION**

NO.	BY	DATE	REVISIONS
2	dch, mjb, cge	06/29/22	REVISED PER TWP REVIEW LETTER DATED 06/07/2022
1	mjb	05/27/22	SUBMITTAL TO MCO



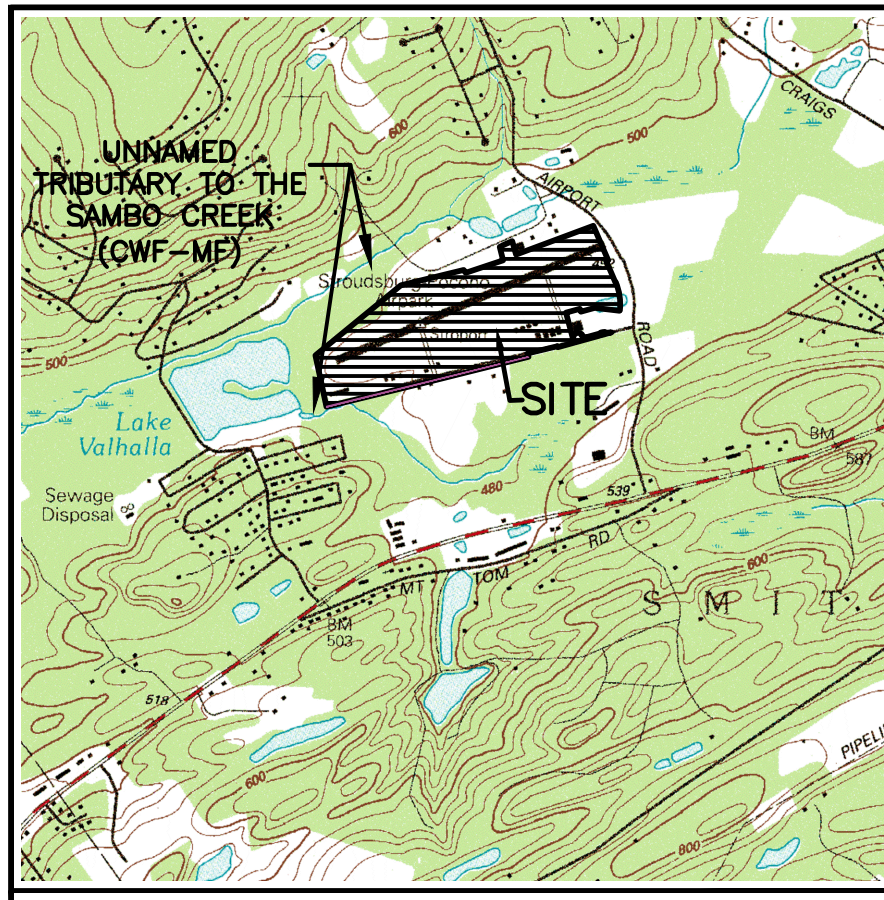
MARK BUCHVALT, P.E.  
LICENSED PROFESSIONAL ENGINEER  
COMMONWEALTH OF PENNSYLVANIA  
LICENSE NO. PE016190

PRELIMINARY/FINAL LAND DEVELOPMENT  
BLACK BUFFALO  
NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY  
SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA  
EROSION AND SEDIMENT CONTROL DETAILS

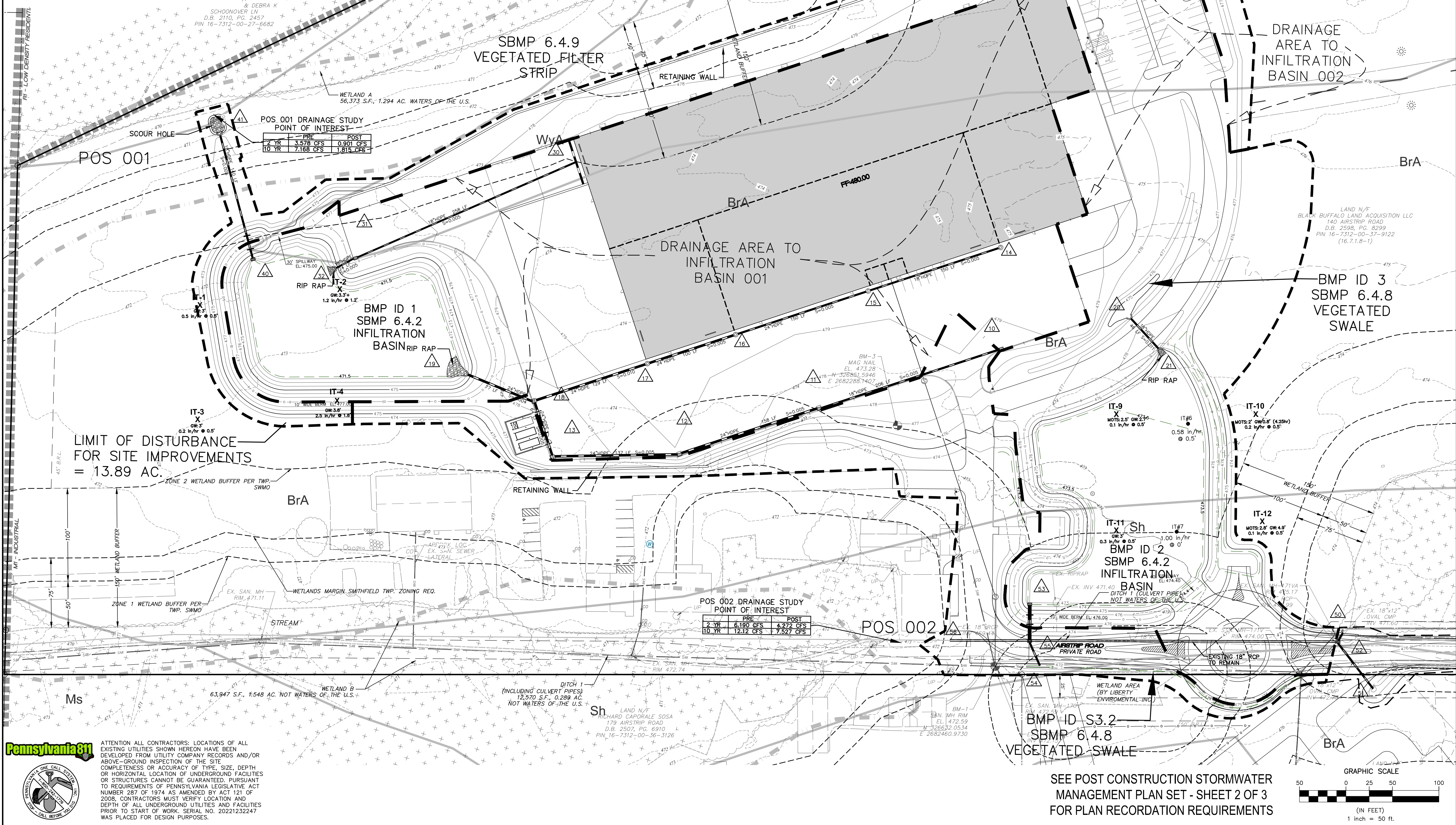
**AND**  
YOUR GOALS. OUR MISSION.  
74 WEST BROAD STREET, SUITE 530  
BETHLEHEM, PA 18018  
TEL 610-625-2999  
FAX 610-625-2969  
www.landmassociates.com  
OFFICES LOCATED IN:  
DELAWARE, INDIANA, KENTUCKY,  
MASSACHUSETTS, MICHIGAN, NEW JERSEY,  
OHIO AND PENNSYLVANIA

DESIGNED BY	DRAWING
MEB, DCH	F-DETAIL
CHECKED BY	SHEET
MJB	13
DRAWN BY	DATE
DCH, MEB	04/29/2022
DATE	SCALE
04/29/2022	AS NOTED
PROJ. NO.	DATE
JGPT00022	05/27/22

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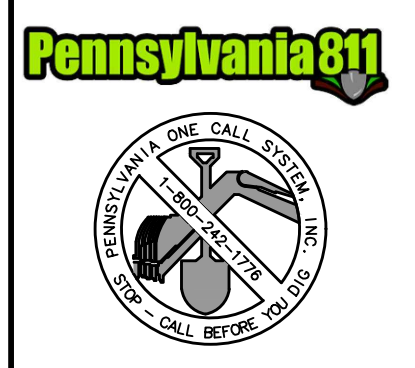


LOCATION MAP  
EAST STROUDSBURG USGS QUAD  
SCALE: 1"=2000'



PROJECT INFORMATION:  
FILE PATH: C:\Projects\00PT\00022\Plans\  
LAST SAVED DATE AND TIME: 28 Jun 2022, 5:21 PM  
LAST SAVE BY: Dhhbert

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NO.	BY	DATE	REVISIONS
2	dch, mhb, cbe	06/29/22	REVISED PER TWP REVIEW LETTER DATED 06/07/2022
1	mhb	05/27/22	SUBMITTAL TO MDCD

**MARK BUCHVALT, P.E.**  
LICENSED PROFESSIONAL ENGINEER

COMMONWEALTH OF PENNSYLVANIA  
LICENSE NO. PE001130

DATE: \_\_\_\_\_

**BLACK BUFFALO**  
NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY  
SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

**POST CONSTRUCTION STORMWATER MANAGEMENT PLAN**

**AND**

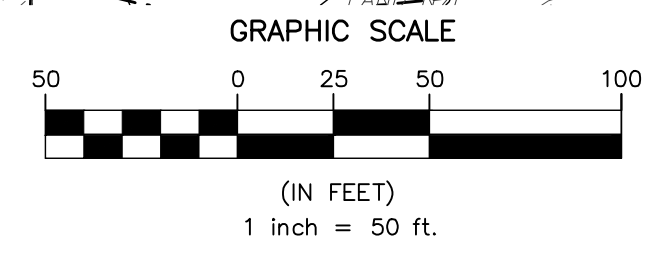
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OHIO AND PENNSYLVANIA

DESIGNED BY: MEB, DCH  
CHECKED BY: MJB  
DRAWN BY: DCH, MEB  
DATE: 04/29/2022  
SCALE: 1"=50'  
PROJ. NO.: JGPT00022

DRAWING: Jpsm  
SHEET: 14 OF 23

SEE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN SET - SHEET 2 OF 3 FOR PLAN RECORDATION REQUIREMENTS



RESPONSIBILITIES FOR FILL MATERIALS

- 1. THE OPERATOR MUST USE ENVIRONMENTAL DUE DILIGENCE TO ENSURE THAT ANY NECESSARY FILL MATERIAL ASSOCIATED WITH THIS PROJECT QUALIFIES AS CLEAN FILL. ALL FILL MATERIAL MUST BE USED IN ACCORDANCE WITH PADEP'S POLICY "MANAGEMENT OF FILL"...

RECYCLING OR DISPOSAL METHODS

- 1. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTE IN ACCORDANCE WITH ANY AND ALL APPLICABLE MUNICIPAL OR OTHER GOVERNMENT AGENCY CURRENT REGULATIONS...

POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM)

PERMIT TERMINATION

UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPs IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8...

PCSM REQUIREMENTS

PCSM REPORTING AND RECORDKEEPING: THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

FINAL CERTIFICATION: THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

PCSM LONG TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPs ON THE PROJECT SITE...

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS

VISUAL INSPECTIONS

THE PERMITTEE AND CO-PERMITTEES MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY AND WITHIN 24 HOURS AFTER EACH MEASURABLE EROSION OR SEDIMENTATION SEPARATION CONSTRUCTION UNTIL THE RECEIPT AND ACKNOWLEDGMENT OF THE NOTICE OF TERMINATION (NOT) BY THE DEPARTMENT OR CONSERVATION DISTRICT...

NONCOMPLIANCE REPORTING

WHEREVER POLICE OR PPC BMPs ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE PERMITTEE AND CO-PERMITTEES SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR CONSERVATION DISTRICT BY PHONE OR IN WRITING TO REPORT AND CONDUCT INSPECTIONS TO MINIMIZE EROSION AND MAINTENANCE OF A WRITTEN REPORT...

REDUCTION, LOSS, OR FAILURE OF THE BMPs

UPON REDUCTION, LOSS, OR FAILURE OF THE BMPs, THE PERMITTEE AND CO-PERMITTEE(S) SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMPs OR PROVIDE AN ALTERNATE METHOD OF TREATMENT, SUCH AS RESTORED BMPs OR ALTERNATE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMPs.

PCSM PLAN RECORDATION REQUIREMENTS

SCENARIO 1 - PERMITTEE IS LANDOWNER
IF THE PERMITTEE IS THE LANDOWNER AND WILL AGREE TO BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs:

- 1. AN INSTRUMENT WILL BE SIGNED BY THE PERMITTEE (AS BOTH GRANTOR AND GRANTEE) AND NOTARIZED. THE INSTRUMENT, ALONG WITH ATTACHMENTS, SHALL (TO SATISFY 25 PA. CODE §102.8(M)(2)):
A. IDENTIFY THE PCSM BMP(S).
B. PROVIDE FOR THE NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP(S).
C. PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP(S) IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT OWNERS.

OPERATION & MAINTENANCE

BLACK BUFFALO 3D CORPORATION, AS OWNER OF THE SITE, ITS SUCCESSORS OR ASSIGNS SHALL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF ALL POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES AND RELATED ITEMS INCLUDED WITHIN THIS PLAN AND NARRATIVE.

- INSPECTING FOR DAMAGE TO THE FACILITY.
INSPECTING EMBANKMENT AND EMERGENCY SPILLWAY FOR EROSION, SEEPS OR LEAKS, FAILURE OF PROTECTIVE MATS OR BARRIERS AND WATER INFILTRATION.
ENSURE THE EMERGENCY SPILLWAY IS CLEAR OF OBSTRUCTIONS AND DEBRIS.

CONSTRUCTION & MAINTENANCE

ALL STORMWATER MANAGEMENT FACILITIES SHALL BE CLEARED OF ALL DEBRIS AND LITTER ON A REGULAR BASIS AND AFTER ALL MAJOR STORM EVENTS.

SEDIMENT ACCUMULATION

MONITOR SEDIMENT ACCUMULATIONS IN ALL STORMWATER MANAGEMENT AND WATER QUALITY FACILITIES. REMOVE SEDIMENT FROM ACCUMULATIONS IN ALL STORMWATER MANAGEMENT AND WATER QUALITY FACILITIES.

VEGETATED AREAS

VEGETATED AREAS SHALL BE MAINTAINED WITH A MINIMUM UNIFORM PERENNIAL 70% VEGETATIVE COVER WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION.

VEGETATED SWALES

AT A MINIMUM, THE FOLLOWING SCHEDULE OF OPERATION AND MAINTENANCE PROCEDURES FOR VEGETATED SWALES SHALL BE FOLLOWED:

- INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS TO ACCUMULATION (ADDRESS WHEN ACCUMULATION IS 30 INCHES AT ANY SPOT OR COVERING VEGETATION).
INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED.

MAINTENANCE ACTIVITIES TO BE DONE AS NEEDED:

- PLANT ALTERNATIVE GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT.
RESEED BARE AREAS; INSTALL APPROPRIATE EROSION CONTROL MEASURE WHEN NATIVE SOIL IS EXPOSED OR EROSION CHANNELS ARE FORMING.

ADDITIONAL MAINTENANCE ACTIVITIES TO BE DONE DURING WINTER CONDITIONS:

- INSPECT SWALE IMMEDIATELY AFTER THE SPRING MELT; REMOVE RESIDUALS (E.G. SAND) AND REPLACE WITH TOPSOIL.
REMOVE SNOW AND ICE FROM SWALES TO PREVENT DAMAGE TO VEGETATION AND TO PREVENT SLIDING AND MUDDING OF STREAMS, RIVERS AND RELATED SYSTEMS.

VEGETATED FILTER STRIPS

AS WITH OTHER VEGETATED BMPs, FILTER STRIPS SHOULD BE PROPERLY MAINTAINED TO ENSURE THEIR EFFECTIVENESS. PARTICULAR CARE SHOULD BE TAKEN TO MAINTAIN THE PROPER ESTABLISHED THROUGHOUT THE LIFE OF THE FILTER STRIP.

SEDIMENT AND DEBRIS SHOULD BE ROUTINELY REMOVED (BUT NEVER LESS THAN BIANNUALLY), OR UPON OBSERVATION WHEN BUILDUP EXCEEDS 12 INCHES IN EITHER THE STRIP ITSELF OR THE LEVEL SPREADER IF EROSION IS OBSERVED.

SEDIMENT SHOULD BE REMOVED WHEN THE FILTER STRIP IS THOROUGHLY DRY. TRASH AND DEBRIS REMOVED FROM THE STRIP SHOULD BE DEPOSITED ONLY AT SUITABLE DISPOSAL/RECYCLING SITES AND MUST COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL WASTE REGULATIONS.

MAINTAINING A VEGETATIVE COVER ON A FILTER STRIP IS CRITICAL FOR MAXIMIZING POLLUTANT REMOVAL EFFICIENCY AND EROSION PREVENTION. GRASS COVER SHOULD BE MOVED, WITH LOW GROUND PRESSURE EQUIPMENT, AS NECESSARY TO MAINTAIN A HEIGHT OF 4-6 INCHES.

IF VEGETATIVE COVER IS NOT FULLY ESTABLISHED WITHIN THE DESIGNATED TIME, IT SHOULD BE REPLACED WITH AN ALTERNATE SPECIES. IT IS STANDARD PRACTICE TO CONTRACTUALLY REQUIRE THE CONTRACTOR TO REPLACE VEGETATION WITHIN 30 DAYS OF THE END OF THE GROWING SEASON.

TWO OTHER MAINTENANCE RECOMMENDATIONS INVOLVE SOIL AERATION AND DRAIN DOWN TIME. IF A FILTER STRIP EXHIBITS SIGNS OF POOR DRAINAGE AND/OR VEGETATIVE COVER PERIODIC SOIL AERATION MAY BE NEEDED.

OPERATION & MAINTENANCE

INFILTRATION FACILITIES

OBSERVATIONS SHALL BE MADE TO DETERMINE THE LENGTH OF TIME NEEDED FOR RETAINED WATER TO INFILTRATE INTO THE SOIL AFTER A STORM EVENT. THE OBSERVATIONS SHALL BE MADE BY READING THE WATER LEVEL IN THE BASIN BEFORE AND AFTER EACH MAJOR STORM EVENT.

- AT A MINIMUM, OPERATION AND MAINTENANCE PROCEDURES FOR INFILTRATION BASINS SHALL INCLUDE:
SEED AND STABILIZE TOPSOIL. (VEGETATE IF APPROPRIATE WITH NATIVE PLANTINGS).
THE INFILTRATION BASIN SHALL BE BROUGHT ON-LINE ONLY AFTER ALL UP-SLOPE AREAS HAVE BEEN STABILIZED WITH A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER NON-VEGETATIVE COVER AND APPROVAL BY THE DEPARTMENT OR CONSERVATION DISTRICT.

INFILTRATION / DETENTION BASINS

AT A MINIMUM, THE FOLLOWING OPERATION AND MAINTENANCE PROCEDURES FOR INFILTRATION / DETENTION BASINS SHALL BE PERFORMED QUARTERLY:

- BASIN STRUCTURES (BASIN BOTTOMS, TRASH RACKS, OUTLET STRUCTURES, RIPRAP INLETS, GABION STRUCTURES) EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT SHOULD BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES PER YEAR.
SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE BASIN IS COMPLETELY DRY.

OUTLET STRUCTURES

DURING LOW WATER CONDITIONS, CONCRETE SPILLWAY STRUCTURES SHALL BE INSPECTED TO DETERMINE IF WATER IS PASSING THROUGH ANY JOINTS OR OTHER STRUCTURE CONTACTS AND TO IDENTIFY ANY SEED AND SOIL LOSS.

EARTH ENHANCEMENT

- ALL ANIMAL BURROWS SHALL BE BACKFILLED AND COMPACTED AND BURROWING ANIMALS SHALL BE REMOVED FROM THE AREA.
ALL TREES, WOODY VEGETATION, AND OTHER DEEP-ROOTED GROWTH, INCLUDING STUMPS AND ASSOCIATED ROOT SYSTEMS, SHALL BE REMOVED FROM THE ENHANCEMENT TRENCH AND ADJUTMENT AREAS.

IN THE EVENT OWNERS OF THE PROPERTY FAIL TO PROPERLY MAINTAIN THE CONTROL FACILITIES, THE TOWNSHIP OF SMITHFIELD SHALL HAVE THE RIGHT TO ENTER AND PERFORM THE REQUIRED MAINTENANCE AFTER PROPER NOTIFICATION OF THE OWNERS.

MONROE COUNTY CONSERVATION DISTRICT

MONROE COUNTY CONSERVATION DISTRICT: (570) 629-3060
PADEP NORTHEAST REGIONAL OFFICE: (570) 826-2511

FOR ADDITIONAL INFORMATION REGARDING MAINTENANCE OF SPECIFIC STORMWATER MANAGEMENT AND WATER QUALITY FACILITIES, SEE THE PENNSYLVANIA HANDBOOK OF BEST MANAGEMENT PRACTICES FOR DEVELOPING AREAS.

MAINTENANCE OF EROSION CONTROL FACILITIES

- THE OPERATOR SHALL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THE PLAN HERewith.
EROSION AND SEDIMENTATION POLLUTION CONTROL SPECIALISTS' CONTACTS:
MONROE COUNTY CONSERVATION DISTRICT: (570) 629-3060

ALL EROSION AND SEDIMENTATION POLLUTION CONTROL MEASURES MUST REMAIN IN PLACE UNTIL THE SITE IS STABILIZED, REGARDLESS OF CONSTRUCTION IS TAKING PLACE OR NOT.

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT POLLUTION CONTROLS (BMPs) MUST BE PROPERLY MAINTAINED. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPs AFTER EACH RAINFALL EVENT AND ON A WEEKLY BASIS.

SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLANS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.

IN THE EVENT OWNERS OF THE PROPERTY OR THE OPERATOR FAILS TO PROPERLY MAINTAIN THE CONTROL FACILITIES, THE TOWNSHIP OF SMITHFIELD SHALL HAVE THE RIGHT TO ENTER SAID AREA AND PERFORM THE REQUIRED MAINTENANCE AFTER PROPER NOTIFICATION OF THE OWNERS.

ANY FILTER FABRIC FENCE WHICH HAS BEEN UNDERMINED OR TOPPED, MUST BE REPLACED IMMEDIATELY WITH ROCK FILTER OUTLETS.

THE CONTRACTOR SHALL PERIODICALLY AND ESPECIALLY AFTER HEAVY RAINFALL, INSPECT ALL CONTROL FACILITIES FOR PROPER FUNCTION. FACILITIES SHALL BE REPAIRED IF DAMAGED OR MALFUNCTIONING OR REPLACED AS NECESSARY.

THE MONROE COUNTY CONSERVATION DISTRICT MUST BE CONTACTED PRIOR TO REMOVAL OF ANY EROSION AND SEDIMENTATION CONTROL DEVICE SUCH AS FILTER FABRIC FENCES, ROCK FILTERS, INLET PROTECTION, TEMPORARY CHANNELS, ETC.

BMP CONSTRUCTION SEQUENCES

BMP 6.4.2 INFILTRATION BASIN:

- PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION.
DURING CONSTRUCTION THE CONTRACTOR MUST PREVENT SEDIMENTATION FROM ENTERING THE BASIN AREA. AFTER INSTALLATION, PREVENT SEDIMENT LADEN WATER FROM ENTERING INLETS AND PIPES.

BMP 6.4.8 VEGETATED SWALE:

- SEED AND STABILIZE TOPSOIL ONLY WHEN THE UP-GRADED TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. VEGETATED SWALES SHOULD BE CONSTRUCTED AND STABILIZED EARLY IN THE CONSTRUCTION SCHEDULE.
ROUGH GRADE THE FILTER STRIP AREA, INCLUDING THE BERM AT THE TOE OF SLOPE, IF PROPOSED. USE THE LIGHTEST, LEAST DISRUPTIVE EQUIPMENT TO AVOID EXCESSIVE COMPACTION AND/OR LAND DISTURBANCE.

BMP 6.4.9 VEGETATIVE FILTER STRIP

THE VEGETATIVE FILTER STRIP AREA PROPOSED FOR THIS SITE CONSISTS OF THAT UNDISTURBED AREA BETWEEN THE LIMIT OF DISTURBANCE LINE AND THE EXISTING WETLAND BOUNDARIES.

THE FOLLOWING SEQUENCE SHALL BE FOLLOWED SHOULD ANY AREA NEED TO BE RE-ESTABLISHED.

- BEGIN FILTER STRIP CONSTRUCTION ONLY WHEN THE UP-GRADED SITE HAS BEEN SUFFICIENTLY STABILIZED AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE.
FOR PLANTING (NOT INDIGENOUS FILTER STRIPS) CLEAR AND GRUB SITE AS NEEDED. CARE SHOULD BE TAKEN TO DISTURB AS LITTLE EXISTING VEGETATION AS POSSIBLE.

NOTE: WHEN AND IF A FILTER STRIP IS USED FOR TEMPORARY SEDIMENT CONTROL, IT MAY NEED TO BE RE-GRADED AND RESEDED IMMEDIATELY AFTER CONSTRUCTION AND STABILIZATION HAS OCCURRED.

CRITICAL STAGES OF BMP CONSTRUCTION AND/OR INSTALLATION:

THE FOLLOWING CONSTRUCTION AND/OR INSTALLATION ITEMS SHALL BE OBSERVED AND INSPECTED BY A LICENSED PROFESSIONAL AT THE TIME OF INSTALLATION.

- EXCAVATION AND CONSTRUCTION OF THE ABOVE GROUND INFILTRATION BASIN
FINAL GRADING AND STABILIZATION OF THE VEGETATED SWALE.

PCSM DESIGN NOTES

THIS PCSM PLAN PRESERVES THE INTEGRITY OF STREAM CHANNELS AND MAINTAINS AND PROTECTS THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM BY UTILIZING INFILTRATION PRACTICES AND PROTECTING THE BORDERING EXISTING NATURAL DRAINAGE FEATURES AND SENSITIVE VALUE WETLANDS.

THIS PCSM PLAN MINIMIZES IMPERVIOUS AREAS, LAND CLEARING, AND GRADING BY A CAREFUL SELECTION OF THE USABLE SITE AREA REQUIRED FOR THE IMPROVEMENTS ON A SITE PREVIOUSLY USED AS A GOLF COURSE DRIVING RANGE.

THIS PCSM PLAN MAXIMIZES PROTECTION OF THE EXISTING DRAINAGE FEATURES AND VEGETATION BY USING STORMWATER DETENTION AND VOLUME MANAGEMENT PRACTICES WHICH EQUAL OR EXCEED PROTECTIONS PROVIDED WITH AN INFILTRATION DESIGN.

THE PROPOSED PROJECT WILL HAVE NO ADVERSE IMPACTS ON THE EROSION RESISTANCE, OR THE PHYSICAL, CHEMICAL, AND BIOLOGICAL QUALITIES OF THE DOWNSTREAM WATERCOURSES BECAUSE THE SITE PROPOSED PEAK RUNOFF RATES REGARDING ALL STORM EVENTS FOR POST DEVELOPMENT CONDITIONS WILL BE REDUCED TO BELOW PRE-DEVELOPMENT RATES.

AN ANTI-DRAINAGE ANALYSIS HAS BEEN PREPARED FOR THIS PROJECT AS IT IS ADJACENT TO EXCEPTIONAL VALUE WETLANDS AS PER THE CONSERVATION DISTRICT.

ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR SURVEY OF THE SITE. THE ACCURACY, COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED.

THE PROJECT SITE LIES WITHIN THE BROOKHEAD CREEK WATERSHED - SAMBO CREEK SUB BASIN WHICH IS NOT A HIGH QUALITY OR EXCEPTIONAL VALUE WATERSHED.

EXISTING WETLANDS ON THE SITE ARE SHOWN ON THE PLANS. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PERMIT AREA.

THE PROJECT SITE LIES WITHIN THE BROOKHEAD CREEK WATERSHED - SAMBO CREEK SUB BASIN WHICH IS NOT A HIGH QUALITY OR EXCEPTIONAL VALUE WATERSHED.

EXISTING WETLANDS ON THE SITE ARE SHOWN ON THE PLANS. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PERMIT AREA.

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EXISTING WETLANDS ON THE SITE ARE SHOWN ON THE PLANS. THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS WITHIN THE PERMIT AREA.

PROJECT INFORMATION: ALL RIGHTS RESERVED. THE COPYING OR REUSE OF THIS DOCUMENT OR PORTIONS THEREOF, FOR OTHER THAN THE ORIGINAL PROJECT PURPOSES, WITHOUT THE WRITTEN PERMISSION OF T&M ASSOCIATES IS PROHIBITED.

FILE PATH: G:\Projects\UPT\0022\2\Drawings\2022\06\2022\_5-21.PDW
LAST SAVED DATE AND TIME: 28 Jun 2022, 5:21 PM
LAST SAVE BY: Dhhilbert

SOIL DATA

Table with columns: SYMBOL, HYDROLOGIC SOIL GROUP, FULL NAME, SLOPE (PERCENT), HYDRO SOIL. Rows include BVA, CV, MVA, WVA.

SOIL TYPES, LIMITATIONS, & RESOLUTIONS

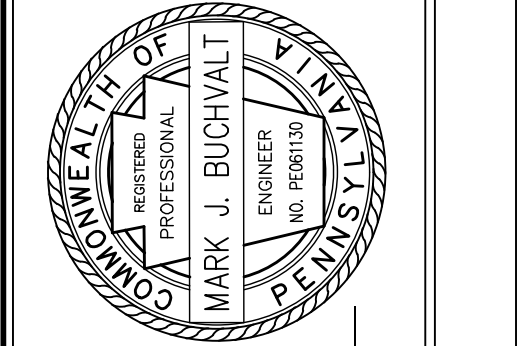
TABLE E.1 LIMITATIONS OF PENNSYLVANIA SOILS PERTAINING TO EARTHMOVING PROJECTS (Absence of an "X" indicates No Potential Limitation)

Table with columns: SOIL NAME, C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100.

RESOLUTIONS FOLLOW:

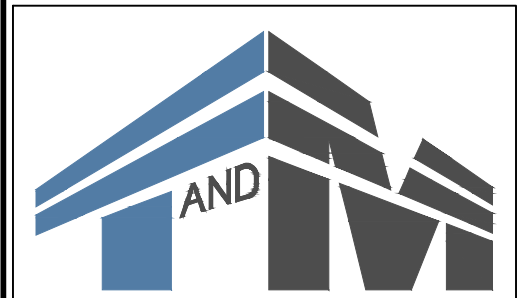
- OUT BANKS CAVE - EXCAVATIONS SHALL BE STOPPED OR SHORED CORROSIVE TO CONCRETE - PRECAUTIONS SHALL BE TAKEN TO PREVENT UNDERGROUND TRENCH COLLAPSE OR STORAGE TANKS.
DROUGHT - SOIL TESTS ARE RECOMMENDED TO DETERMINE THE PROPER APPLICATION OF FERTILIZERS AND NUTRIENTS TO PROMOTE GROWTH.

Table with columns: DATE, SUBMITTAL TO MDCD, REVISIONS. Rows include 06/29/22, 09/27/22.



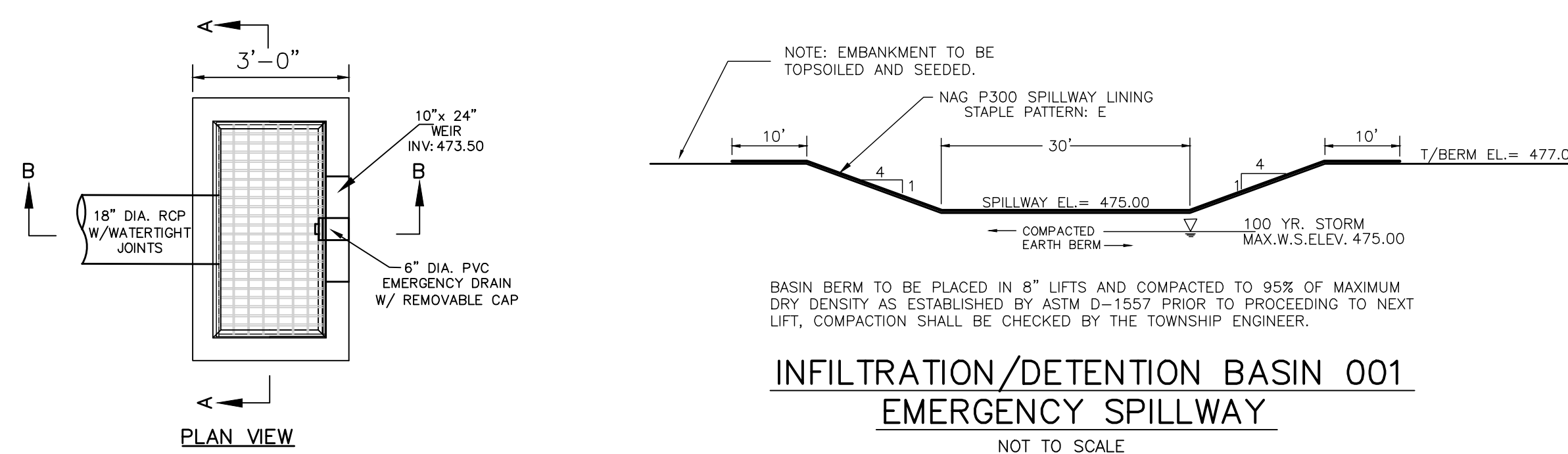
MARK BUCHVALT, P.E. LICENSED PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA LICENSE NO. PE011930

BLACK BUFFALO NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA
POST CONSTRUCTION STORMWATER MANAGEMENT NOTES

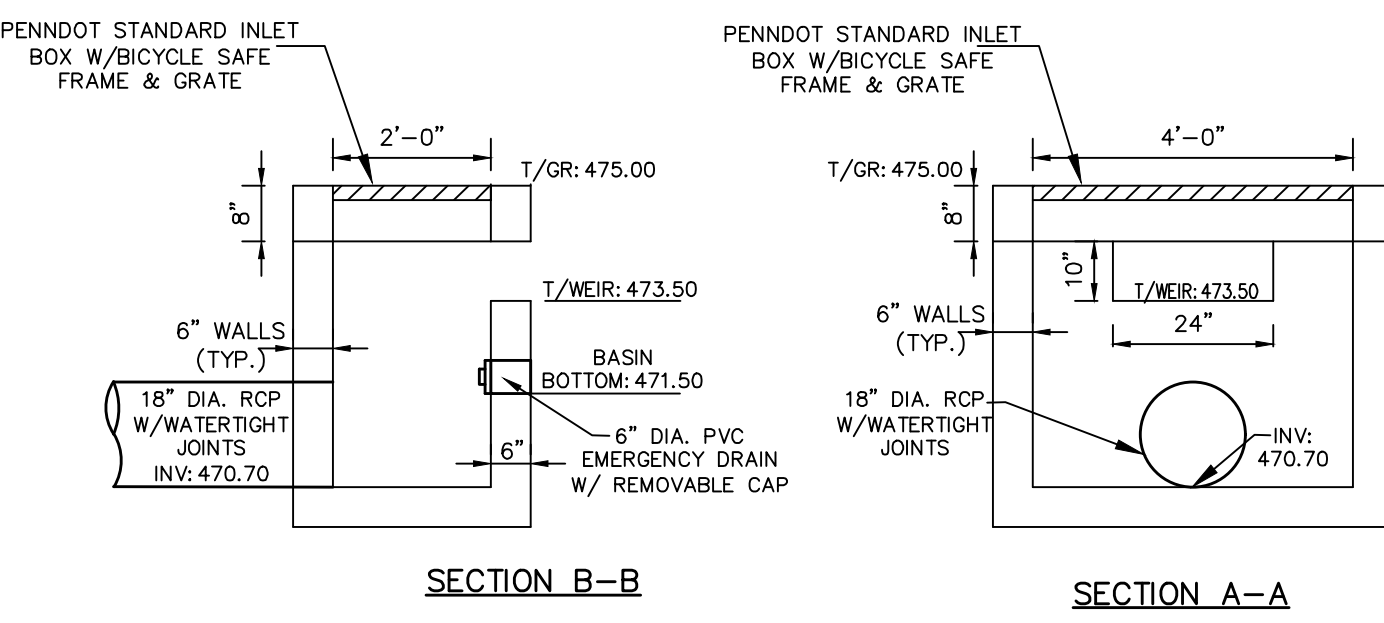


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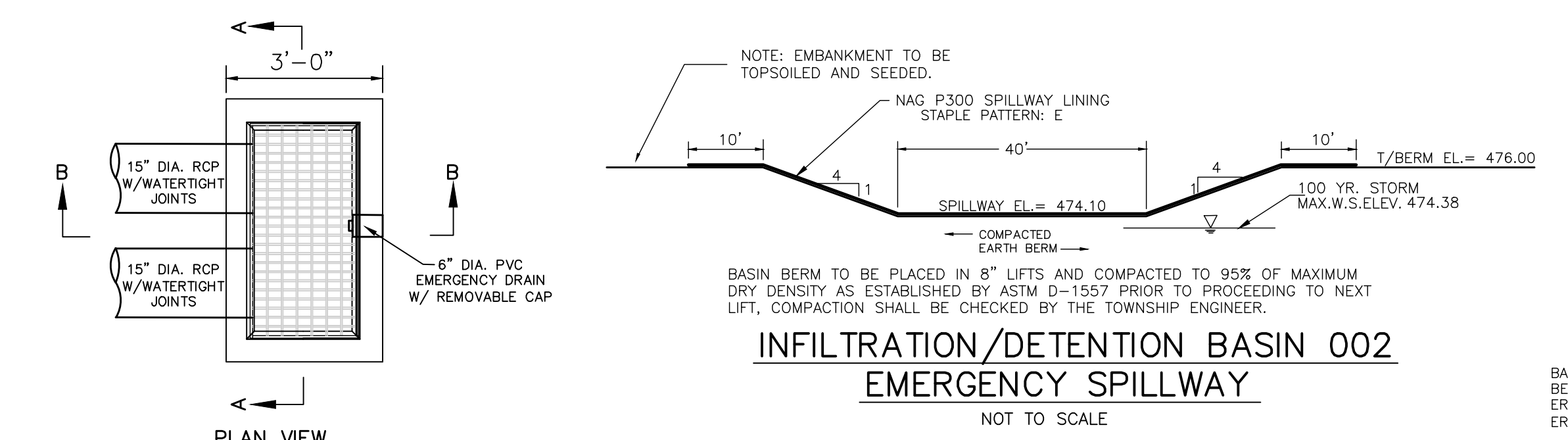
Table with columns: DESIGNED BY, CHECKED BY, DRAWN BY, DATE, SCALE, PROJ. NO., DRAWING, SHEET. Values include MEB, DCH, MJB, DCH, MEB, 04/29/2022, AS NOTED, JGPT00022, 15 OF 23.



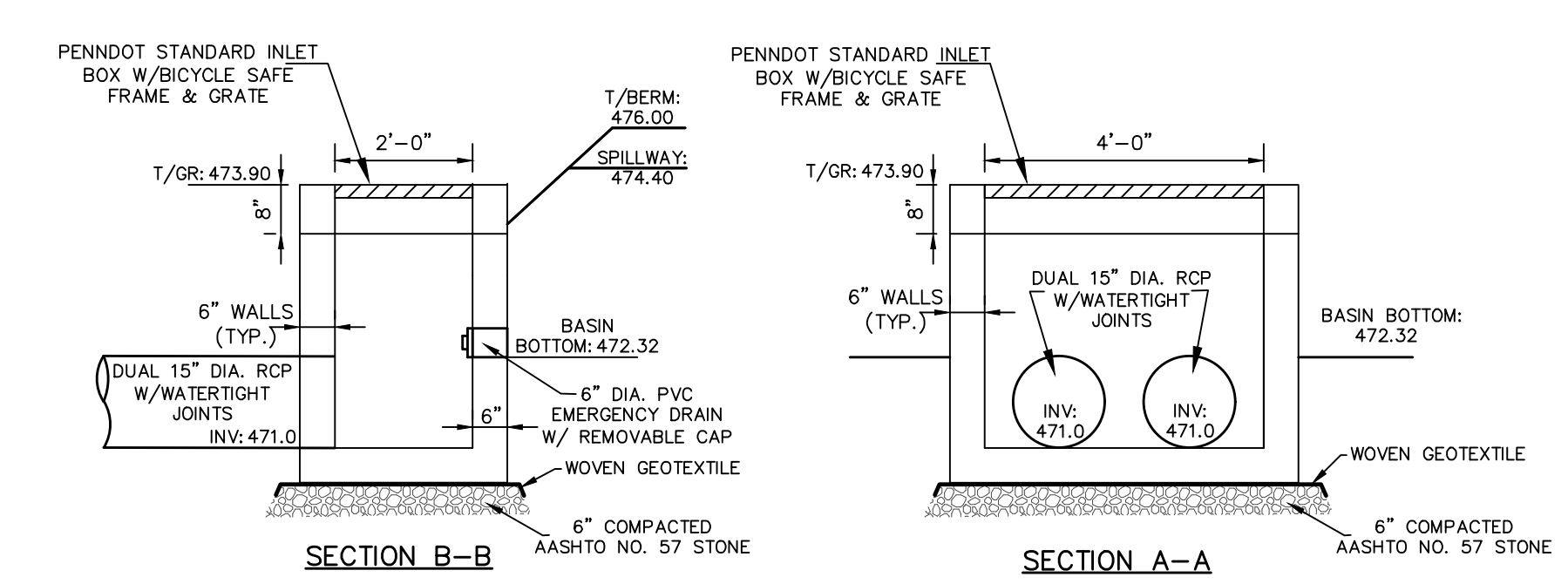
**INFILTRATION/DETENTION BASIN 001  
EMERGENCY SPILLWAY**  
NOT TO SCALE



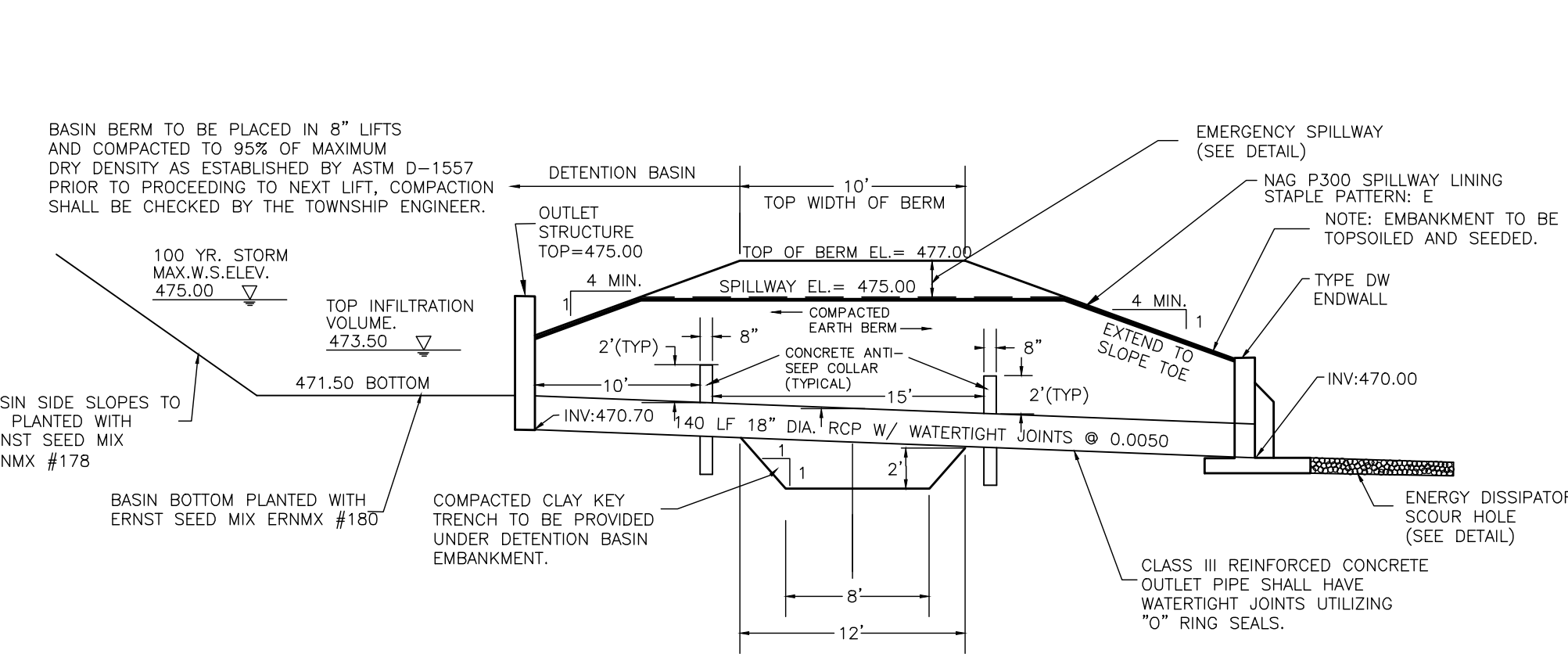
**INFILTRATION / DETENTION BASIN 001  
OUTLET STRUCTURE**  
NOT TO SCALE



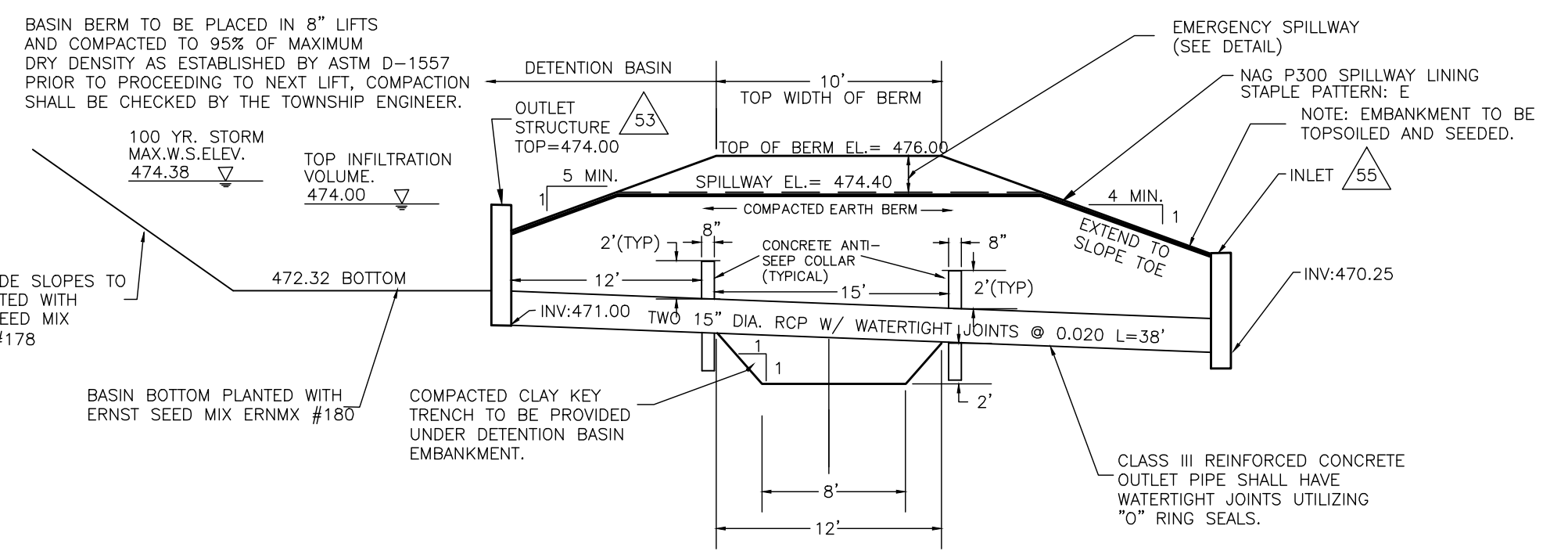
**INFILTRATION/DETENTION BASIN 002  
EMERGENCY SPILLWAY**  
NOT TO SCALE



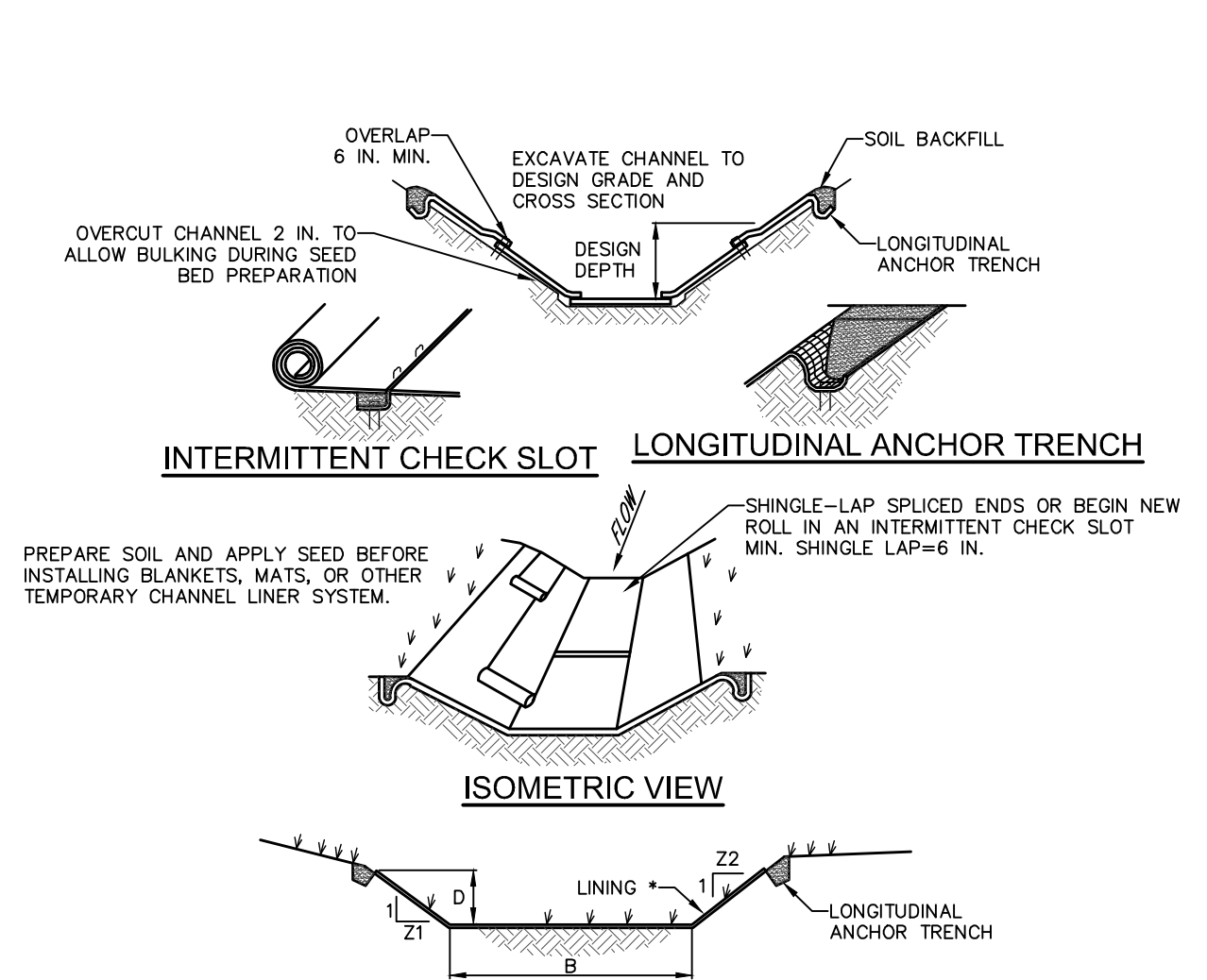
**INFILTRATION / DETENTION BASIN 002  
OUTLET STRUCTURE**  
NOT TO SCALE



**SECTION THROUGH  
INFILTRATION/DETENTION BASIN 001 BERM**  
NOT TO SCALE



**SECTION THROUGH  
INFILTRATION/DETENTION BASIN 002 BERM**  
NOT TO SCALE

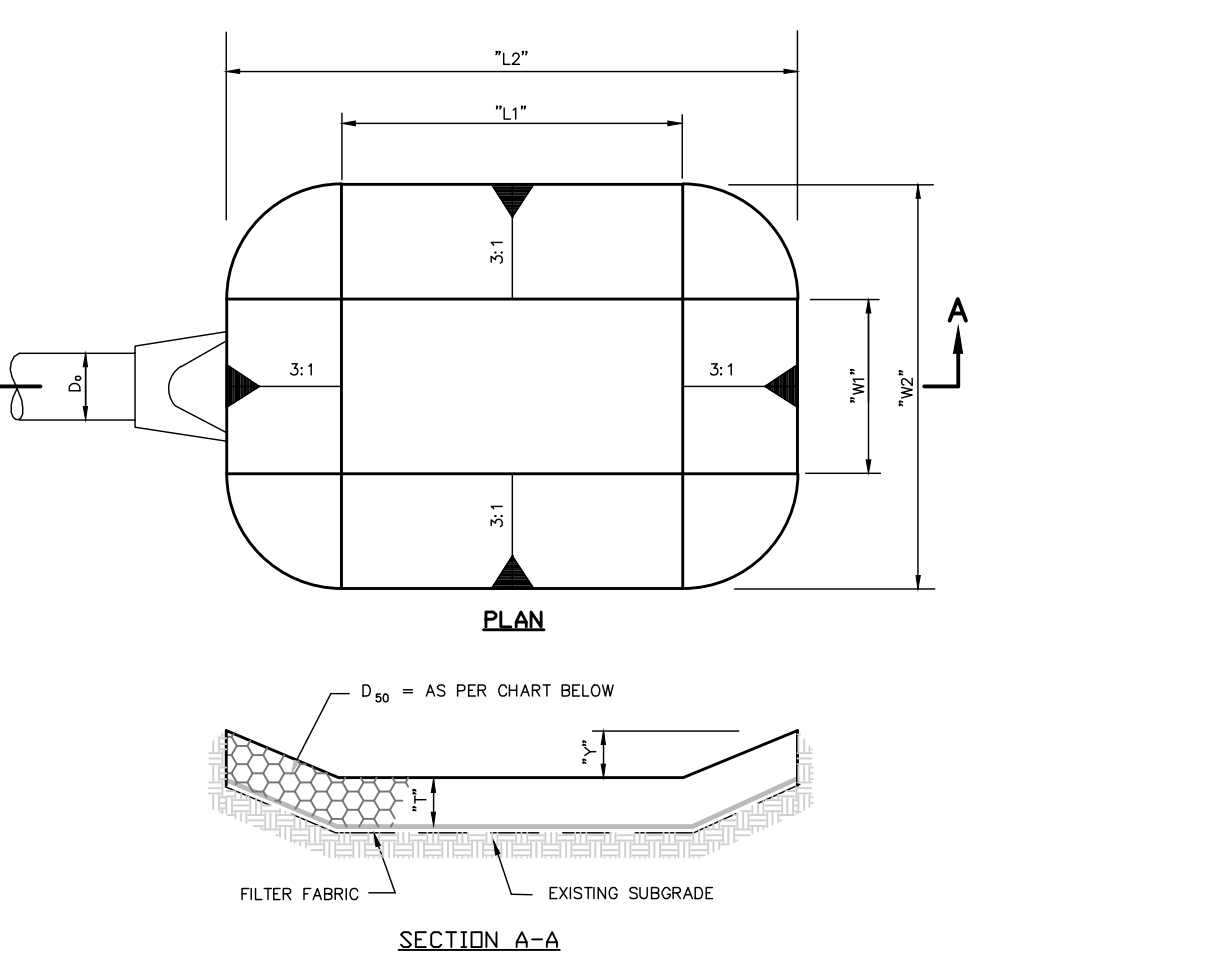


**INTERMITTENT CHECK SLOT  
LONGITUDINAL ANCHOR TRENCH**  
ISOMETRIC VIEW  
CHANNEL CROSS-SECTION

CHANNEL NO.	STATIONS	BOTTOM WIDTH (FT)	DEPTH (FT)	TOP WIDTH (FT)	Z1 (FT)	Z2 (FT)	LINING	STAPLE PATTERN
VEGETATED SWALE S3.2	FULL LENGTH	3	1.25	9.5	3	3	NAG S75	D
VEGETATED SWALE BMP 3	FULL LENGTH	5	1.25	9.5	3	3	NAG S75	D

**NOTES:**  
ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.  
CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.  
SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.  
NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

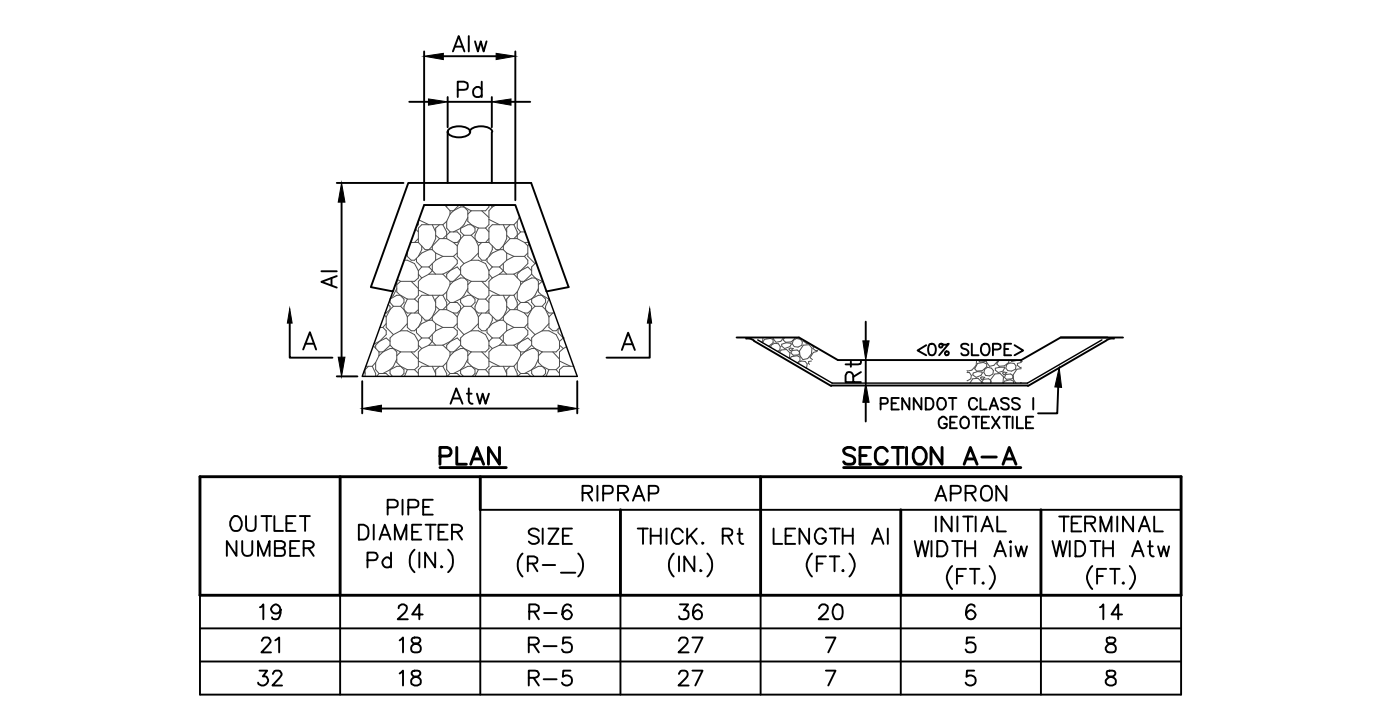
**STANDARD CONSTRUCTION DETAIL #6-1  
VEGETATED CHANNEL**  
NOT TO SCALE



PREFORMED SCOUR HOLE DIMENSIONS										
OUTLET NO.	OUTLET DIA. D <sub>o</sub>	BOTTOM LENGTH L <sub>1</sub>	OVERALL LENGTH L <sub>2</sub>	(F <sub>1</sub> ) OVERALL WIDTH W <sub>1</sub>	(F <sub>1</sub> ) OVERALL WIDTH W <sub>2</sub>	(F <sub>1</sub> ) DEPTH Y	T (RENO MATTRESS)	T (RIPRAP)	d <sub>50</sub> (RENO MATTRESS)	d <sub>50</sub> (RIPRAP)
EW-41	18"	9'	18'	4.5'	13.5'	1.5'	10"	18"	6"(R-4)	9"(R-5)

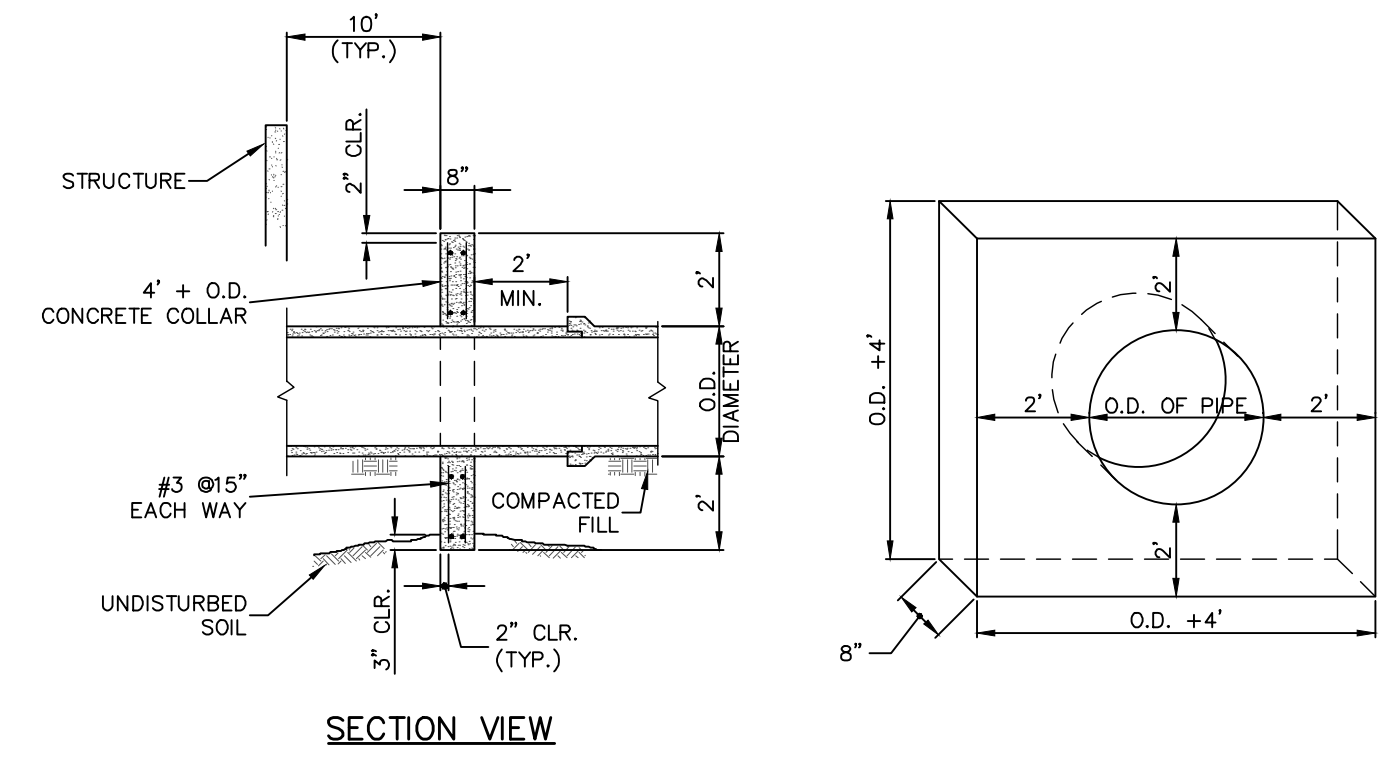
**NOTE:** PREFORMED SCOUR HOLES CAN BE CONSTRUCTED OF RENO MATRESSES, OR RIPRAP. SEE PREFORMED SCOUR HOLE CHART FOR REQUIRED THICKNESS AND MEDIAN STONE SIZE FOR EACH. RENO MATTRESS TO BE PVC COATED, GALVANIZED BASKETS WITH 4" TO 7" ANGULAR BLOK SHARPO RISK BASKETS TO BE TIGHTLY WIRED TOGETHER. GABIONS CAN BE SUBSTITUTED FOR RENO MATRESSES IF THE PREFORMED SCOUR HOLE THICKNESS DICTATES.

**TYPICAL PREFORMED SCOUR HOLE DETAIL**  
NOT TO SCALE



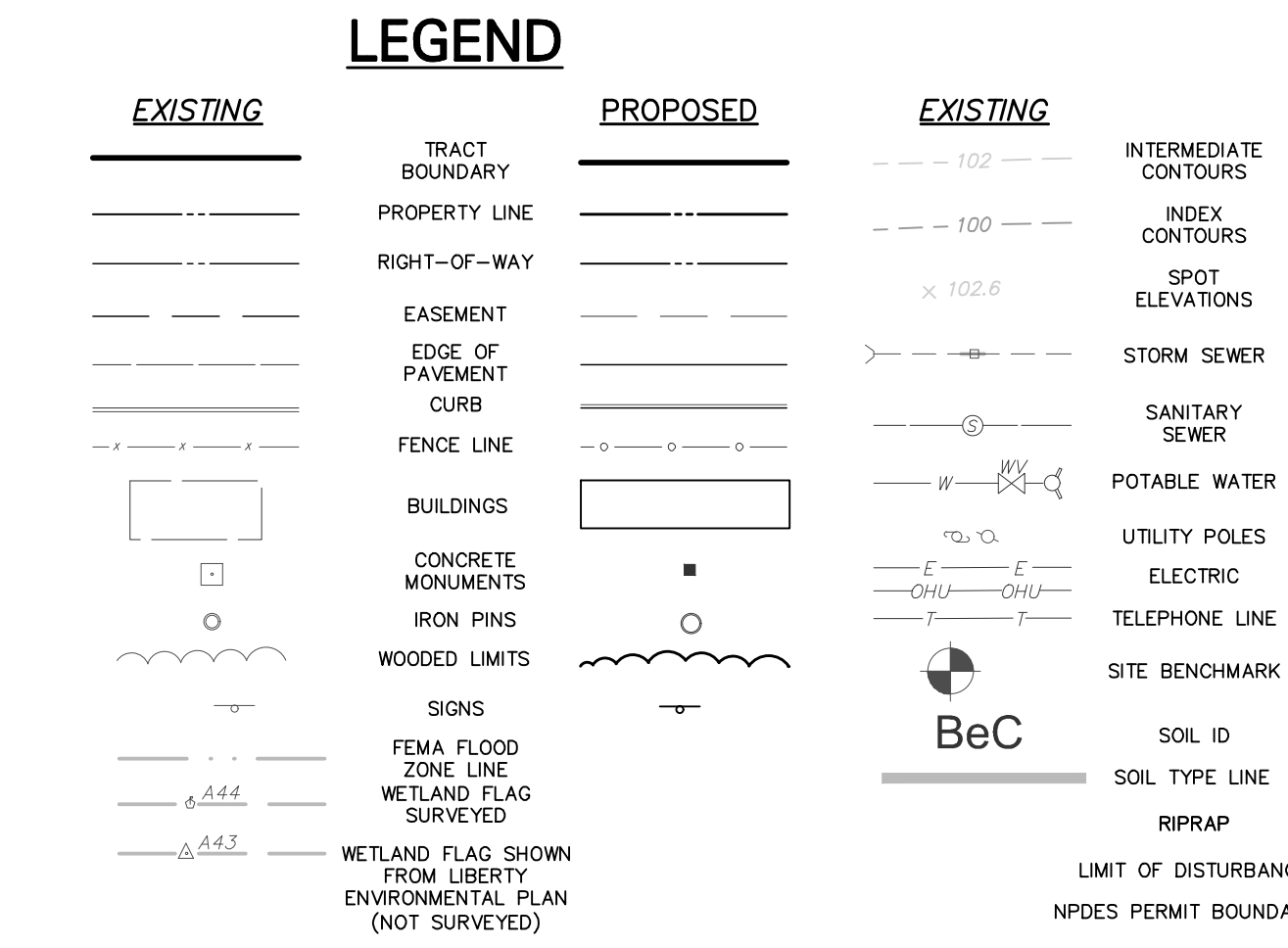
**RIPRAP APRONS AT PIPE OUTLETS WITH ENDWALL**  
NOT TO SCALE

OUTLET NUMBER	PIPE DIAMETER Pd (IN.)	RIPRAP SIZE (R-)	RIPRAP THICK. Rt (IN.)	APRON LENGTH Al (FT.)	APRON INITIAL WIDTH Ai (FT.)	APRON TERMINAL WIDTH Atw (FT.)
19	24	R-6	36	20	6	14
21	18	R-5	27	7	5	8
32	18	R-5	27	7	5	8



**NOTES:**  
1. USE PENNDOT CLASS A CONCRETE.  
2. MAINTAIN A MINIMUM 6" COVER OVER ANTI-SEEP COLLAR.  
3. THE CONNECTION OF ANTI-SEEP COLLARS TO OUTLET PIPES SHALL BE WATERTIGHT.  
4. O-RING GASKETS SHALL BE USED ON BASIN DISCHARGE PIPES THROUGH BERM AREAS.  
5. MAXIMUM SPACING OF ANTI-SEEP COLLARS THROUGH BERM AREAS SHALL BE 40 FEET.  
6. MINIMUM REINFORCEMENT SHALL BE PROVIDED USING #3 BARS @ 1'-3" HORIZONTAL AND VERTICAL SPACING.  
7. PRECAST ANTI-SEEP COLLARS MAY BE USED (AS APPROVED BY MUNICIPAL ENGINEER) IN PLACE OF CAST-IN-PLACE COLLARS.  
8. A QUALITY NON-SHRINK GROUT MATERIAL SHALL BE USED TO SEAL THE ANNUAL SPACE BETWEEN THE COLLAR AND THE PIPE SURFACE. THE GROUT SHALL BE INSTALLED FOR THE FULL THICKNESS OF THE COLLAR.

**ANTI-SEEP COLLAR**  
NOT TO SCALE



**LEGEND**

**EXISTING**

**PROPOSED**

**EXISTING**

**PROPOSED**

**BeC**

**Soil ID**

**Soil Type Line**

**RIPRAP**

**LIMIT OF DISTURBANCE**

**NPDES PERMIT BOUNDARY**

**ATTENTION ALL CONTRACTORS:** LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 121 OF 2008, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK. SERIAL NO. 2022123247 WAS PLACED FOR DESIGN PURPOSES.

**OFFICES LOCATED IN:**  
DELAWARE, INDIANA, KENTUCKY, MASSACHUSETTS, MICHIGAN, NEW JERSEY, OHIO AND PENNSYLVANIA

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NO.	BY	DATE	REVISIONS
2	dch, mmb, cgg	06/29/22	REVISED PER TWP REVIEW LETTER DATED 06/07/2022
1	mmb	05/27/22	SUBMITTAL TO MDCD

**MARK BUCHVALT, P.E.**  
LICENSED PROFESSIONAL ENGINEER

COMMONWEALTH OF PENNSYLVANIA  
LICENSE NO. PE011190

**BLACK BUFFALO**  
NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY  
SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

**POST CONSTRUCTION STORMWATER  
MANAGEMENT NOTES AND DETAILS**

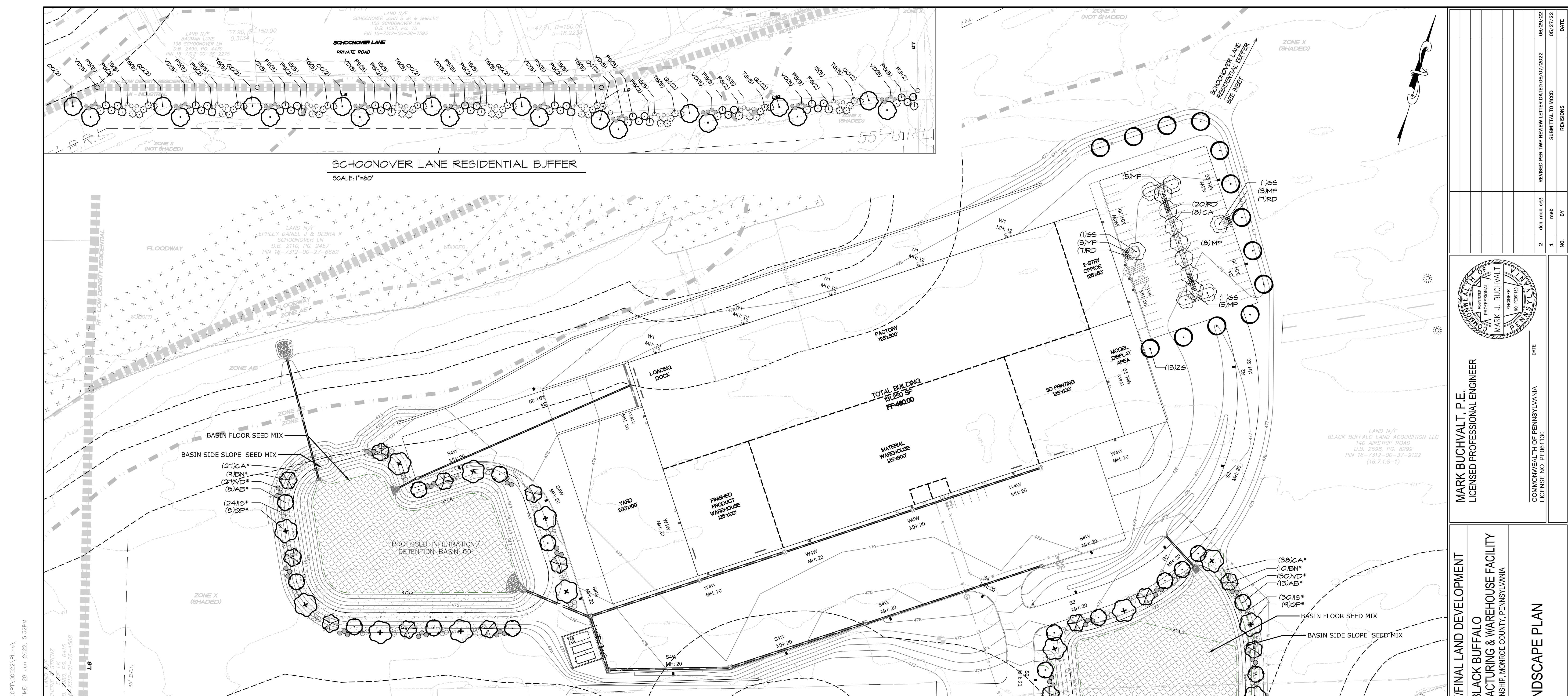
**AND**

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74 WEST BROAD STREET, SUITE 530  
BETHLEHEM, PA 18018  
TEL 610-625-2999  
FAX 610-625-2969  
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DESIGNED BY: MEB, DCH  
CHECKED BY: MJB  
DRAWN BY: DCH, MEB  
DATE: 04/29/2022  
SCALE: AS NOTED  
PROJ. NO.: JGPT00022

DRAWING: 1pcdm-details & notes  
SHEET: 16 OF 23





**PLANTING SCHEDULE**

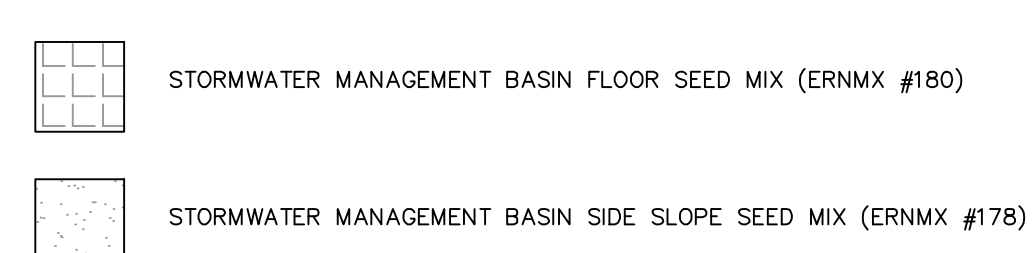
TREES	QTY	BOTANICAL NAME	COMMON NAME	SOOT	CALIPER	HEIGHT	REMARKS
AB	26	ACER RUBRUM 'BONHALL'	BONHALL MAPLE	B # B	8"-9 1/2"		COLUMNAR FORM; * DENOTES STREET TREE
BN	14	BETULA NIGRA	RIVER BIRCH MULTI-TRUNK	B # B	8"-9 1/2"		MULTI STEM CLUMP FORM; 4 STEM MIN
SS	18	SKYLINE HONEY LOCUST	SKYLINE HONEY LOCUST	B # B	8"-9 1/2"		STRAIGHT LEADER SYM. BRANCHING
OC	20	QUERCUS COCCINEA	SCARLET OAK	B # B	8"-9 1/2"		STRAIGHT LEADER SYM. BRANCHING
QP	20	QUERCUS PALustris	PIN OAK	B # B	8"-9 1/2"		STRAIGHT LEADER SYM. BRANCHING
Z6	18	ZELKOVA SERRATA 'GREEN VASE'	SANLEAF ZELKOVA	B # B	8"-9 1/2"		STRAIGHT SINGLE LEADER
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SOOT	CALIPER	HEIGHT	REMARKS
PA	3	PICEA ABIES	NORWAY SPRUCE	B # B	6"-7"		FULL FORM TO GROUND
PS	20	PICEA SILAUCA	WHITE SPRUCE	B # B	6"-7"		FULL FORM TO GROUND
PI	34	PINUS STROBUS	WHITE PINE	B # B	6"-7"		FULL FORM TO GROUND
T6	45	THUJA STANDISHI X FLICATA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	B # B	6"-7"		FULL FORM TO GROUND
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SOOT	CALIPER	HEIGHT	REMARKS
AM	4	AMELANCHIER X GRANDIFLORA 'AUTUMN'	AUTUMN BRILLIANCE APPLE SERVICEBERRY	B # B	2 1/2"	8'-10'	4 STEM MINIMUM
EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	HEIGHT	REMARKS	
IB	111	ILEX GLABRA 'SHAM-ROCK'	INKBERRY	#S	24"-30"		FULL PLANTS
VD	120	VIBURNUM DENTATUM	VIBURNUM	B # B	5'-4"		FULL PLANTS
DECIDUOUS SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	HEIGHT	REMARKS	
CA	45	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	#T	30"-36"		FULL PLANTS
IK	15	ILEX VERTICILLATA	WINTERBERRY	#S	24"-30"		FULL PLANTS
MP	24	MYRTICA PENNSYLVANICA	NORTHERN BAYBERRY	#S	24"-30"		FULL PLANTS
RD	34	ROSA X 'DRIFT'	DRIFT ROSE	#S	24"-30"		FULL PLANTS

**Planting Requirements**

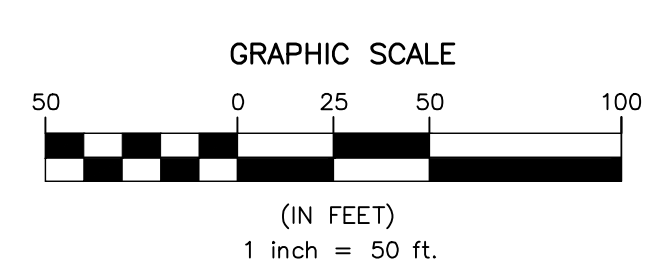
Category	Length	Planting Ratio	Required Plantings	Existing Tree Credit	Total Required Plantings	Total Plantings Provided
Street Trees*	A On Plan Callout Denotes Street Trees	0.02	5	5	5	5
Parking Frontage Buffer*	Evergreens (1 per 20 LF) Shade trees (1 per 3 evergreens) Ornamental trees (1 per 3 evergreens) Shrubs (5 per evergreen)	0.05	12	4	12	12
Parking Area Plantings	Perimeter tree plantings (1/50 LF) Interior Island - trees (1/20LF) Interior Island - shrubs (5/40F)	0.02	12	13	13	13
Basin Perimeter Plantings	Basin 001 Shade trees (1/30 LF) Shrubs (3/30 LF)	0.03	25	25	25	25
Basin 002	Shade trees (1/30 LF) Shrubs (3/30 LF)	0.03	32	96	32	98
Residential Buffer	(80% evergreen & 20% deciduous mix of trees and shrubs)	N/A	N/A	N/A	N/A	90% evergreen buffer

**NOTE:**  
 1. ALL PLANT MATERIAL SHALL MEET THE STANDARDS OF THE AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (2004) OR MOST RECENT EDITION, AND ANY HEIGHTS, SPREADS, AND/OR CALIPER SIZES FOR TREES AND SHRUBS INDICATED IN THIS SECTION.  
 2. STREET TREES SHALL BE A MINIMUM OF THREE (3) INCHES IN CALIPER AND SHALL BE A SPECIES SUGGESTED PER §101.A.(b)(1)(c)(3)(g).  
 3. STREET TREES SHALL BE PRUNED TO A CLEARANCE HEIGHT OF SEVEN (7) FEET ABOVE THE GROUND HAVE A SINGLE, STRAIGHT TRUNK AND CENTRAL LEADER AND SHALL BE FREE OF DISEASE AND MECHANICAL DAMAGE

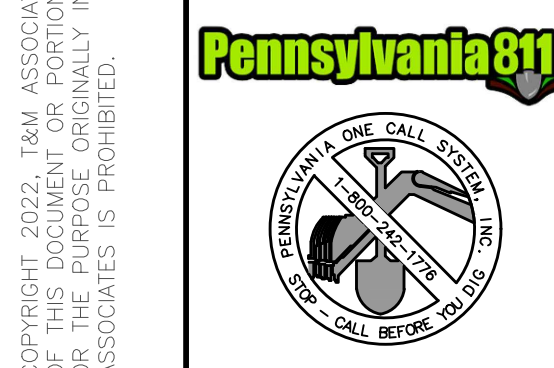
**STORMWATER BASIN SEED MIXES:**



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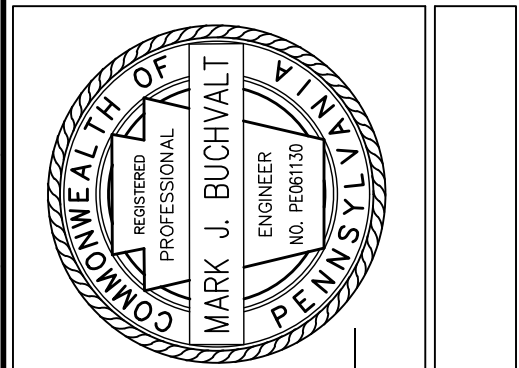


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 LAST SAVE BY: Dhhbert



ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT NUMBER 287 OF 1974 AS AMENDED BY ACT 121 OF 2008, CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO START OF WORK. SERIAL NO. 20221232247 WAS PLACED FOR DESIGN PURPOSES.

NO.	BY	REVISIONS	DATE
2	dch, mmb, cgg	REVISED PER TWP REVIEW LETTER DATED 06/07/2022	06/29/22
1	mmb	SUBMITTAL TO MDCD	05/27/22



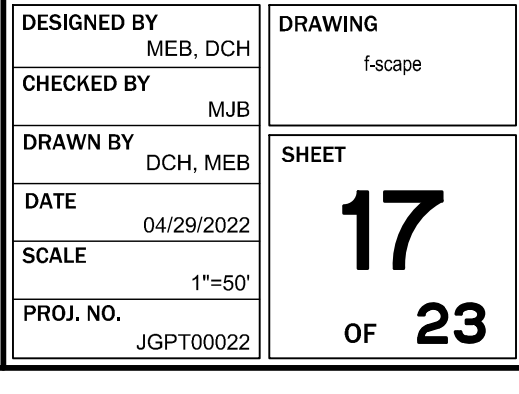
**MARK BUCHVALT, P.E.**  
 LICENSED PROFESSIONAL ENGINEER  
 COMMONWEALTH OF PENNSYLVANIA  
 LICENSE NO. PE011130

**PRELIMINARY/FINAL LAND DEVELOPMENT**  
**BLACK BUFFALO**  
**NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY**  
 SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA

**LANDSCAPE PLAN**

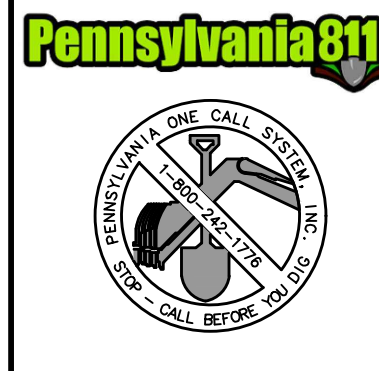
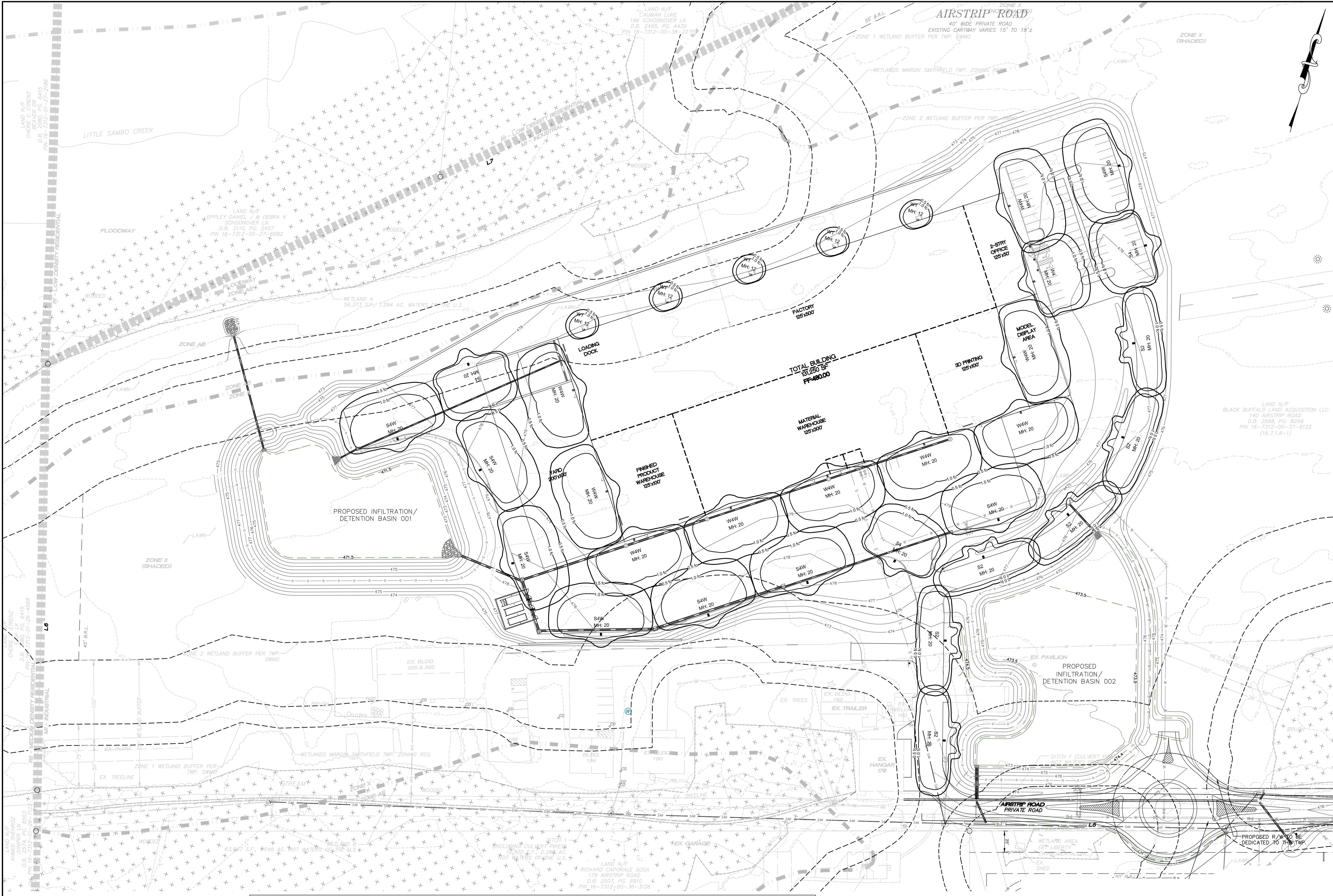
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 CHECKED BY: MJB  
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 DATE: 04/29/2022  
 SCALE: 1"=50'  
 PROJ. NO.: JGPT00022

DRAWING: fscope  
 SHEET: 17 OF 23



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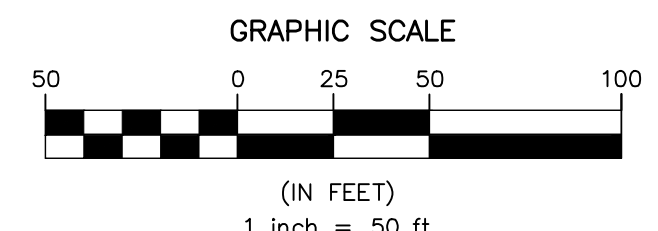
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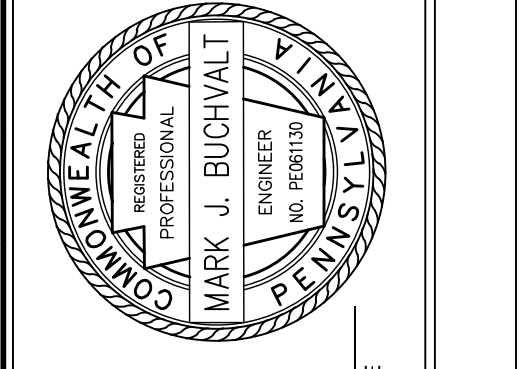
ATTENTION ALL CONTRACTORS: LOCATIONS OF ALL  
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 COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH  
 OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES  
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 TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT  
 NUMBER 287 OF 1974 AS AMENDED BY ACT 121 OF  
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 PRIOR TO START OF WORK. SERIAL NO. 20221232247  
 WAS PLACED FOR DESIGN PURPOSES.

Symbol	Qty	Arrangement	Fixture Type	Description	Manufacturer	Catalog Number	LLF	Total Watts	Delivered Lumens	Photometric File Name
6	SINGLE	S2	S2	LED AREA LIGHT TYPE 2 DISTRIBUTION	Hubbell Lighting Inc, dba Beacon Products	VP-S-60L-136-4K7-2	0.900	135,411	15642	VP-S-60L-136-4K7-2.ies
8	SINGLE	SAW	SAW	LED AREA LIGHT TYPE 4W DISTRIBUTION	Hubbell Lighting Inc	VP-S-60L-136-4K7-4W	0.900	134.2	14802	VP-S-60L-136-4K7-4W.ies
3	SINGLE	S4	S4	LED AREA LIGHT TYPE 4 DISTRIBUTION	Hubbell Lighting Inc, dba Beacon Products	VP-S-60L-136-4K7-4	0.900	135,583	15086	VP-S-60L-136-4K7-4.ies
9	SINGLE	W4W	W4W	LED WALL-MTD AREA LIGHT TYPE 4W DISTRIBUTION	Hubbell Lighting Inc	VP-S-60L-136-4K7-4W-WALL	0.900	134.2	14802	VP-S-60L-136-4K7-4W-W.ies
1	SINGLE	W4	W4	LED WALL-MTD AREA LIGHT TYPE 4 DISTRIBUTION	Hubbell Lighting Inc, dba Beacon Products	VP-S-60L-136-4K7-4-WALL	0.900	135,583	15086	VP-S-60L-136-4K7-4.ies
5	SINGLE	W1	W1	SG1-30-4K7-FT	HUBBELL OUTDOOR LIGHTING	SG1-30-4K7-FT	0.900	29.1	3060	SG1-30-4K7-FT.ies

**NOT FOR CONSTRUCTION**



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**MARK BUCHVALT, P.E.**  
 LICENSED PROFESSIONAL ENGINEER  
 COMMONWEALTH OF PENNSYLVANIA  
 LICENSE NO. PE061130  
 DATE

**PRELIMINARY/FINAL LAND DEVELOPMENT**  
**BLACK BUFFALO**  
**NEW LIGHT MANUFACTURING & WAREHOUSE FACILITY**  
 SMITHFIELD TOWNSHIP, MONROE COUNTY, PENNSYLVANIA  
**LIGHTING PLAN**



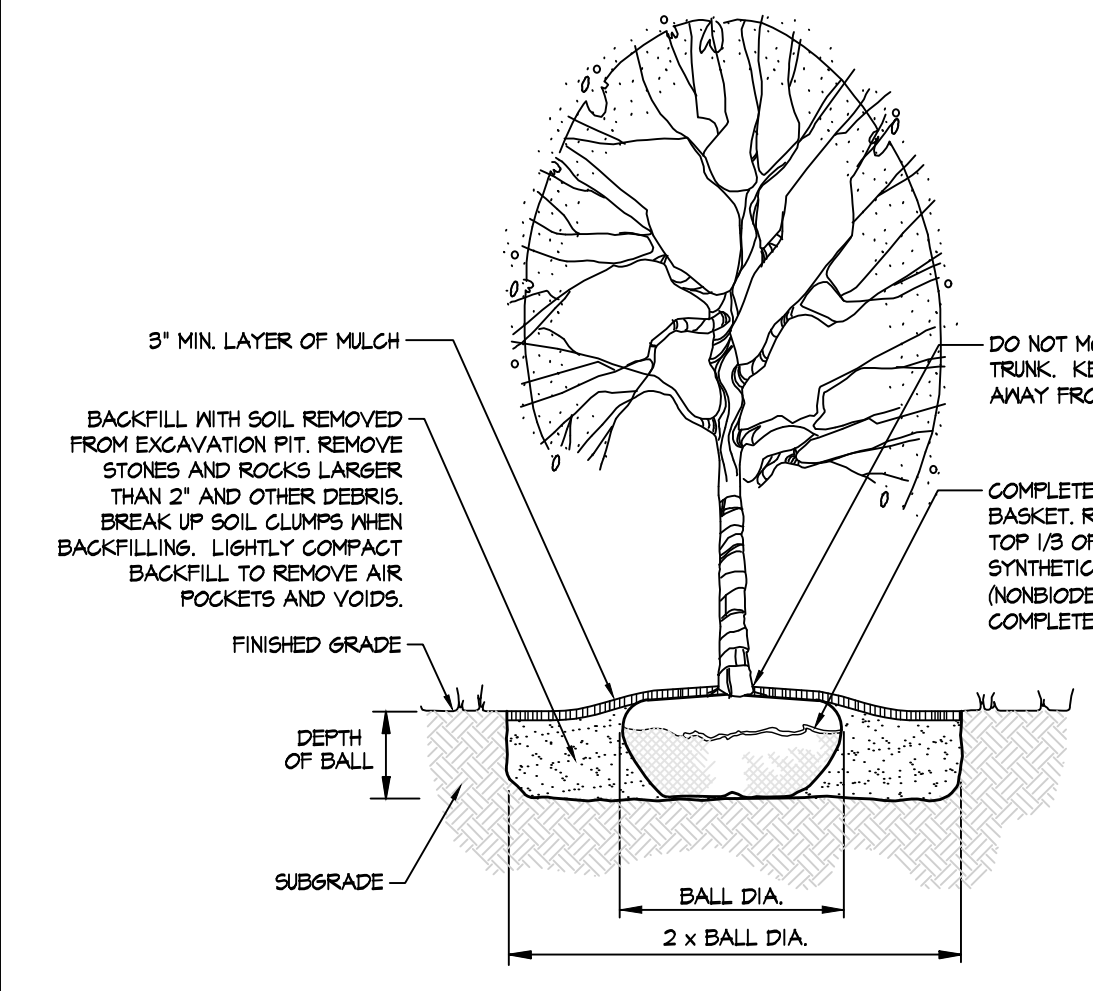
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 DATE: 04/29/2022  
 SCALE: 1"=50'  
 PROJ. NO.: JGPT00022  
 SHEET: 18 OF 23

**PLANTING NOTES**

- ALL EQUIPMENT AND TOOLS SHALL BE PLACED SO AS NOT TO INTERFERE OR HINDER THE PEDESTRIAN AND VEHICULAR TRAFFIC FLOW.
- THE CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS REGARDING TIMING OF INSTALLATION OF PLANT MATERIAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING WHERE THE UNDERGROUND UTILITIES EXIST ON-SITE.
- THE CONTRACTOR SHALL CALL THE PENNSYLVANIA ONE CALL SYSTEM (1-800-242-1776) A MINIMUM OF THREE (3) DAYS PRIOR TO ANY EXCAVATION. THE CONTRACTOR IS ADVISED OF THE EXISTENCE OF UNDERGROUND UTILITIES ON THE SITE. THEIR EXACT LOCATION SHALL BE VERIFIED IN THE FIELD WITH THE OWNER OR GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF ANY DIGGING OPERATIONS. IN THE EVENT THEY ARE UNCOVERED, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO UTILITIES AND SUCH DAMAGE SHALL NOT RESULT IN ANY ADDITIONAL EXPENSE TO THE CONTRACTOR. ANY DAMAGE OF UNREPORTED LINES SHALL NOT BE THE RESPONSIBILITY OF THE CONTRACTOR.
- IF UTILITY LINES ARE ENCOUNTERED IN EXCAVATION OF TREE PITS, OTHER LOCATIONS FOR TREES SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION AT APPROVAL OF LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL REVIEW ARCHITECTURAL/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH GRADING, SUB-SURFACE AND SURFACE UTILITIES.
- THIS PLAN IS TO BE USED FOR LANDSCAPING PURPOSES ONLY. THE CONTRACTOR SHALL EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR EXACT LOCATIONS OF UTILITIES, DRAINS ETC., AND NOTIFY THE OWNER ABOUT ANY DISCREPANCIES BEFORE STARTING WORK.
- LANDSCAPE PLANS SHALL NOT BE UTILIZED TO DETERMINE LOCATIONS, DIMENSIONS OR MEASUREMENTS OF OTHER PROPOSED SITE STRUCTURES. REFER TO APPROPRIATE DRAWINGS (ENGINEERING, ETC.) FOR OTHER INFORMATION.
- EXCAVATION NEAR EXISTING UTILITIES TO BE CAREFULLY PERFORMED BY HAND. ALL TREES SHALL NOT BE LOCATED CLOSER THAN 10' OF ANY EXISTING OR PROPOSED UNDERGROUND UTILITIES.
- EVERY POSSIBLE SAFEGUARD SHALL BE TAKEN TO PROTECT BUILDING STRUCTURES, EQUIPMENT, AND FURNISHINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSONS OR PROPERTY WHICH MAY OCCUR AS A RESULT OF HIS NEGLIGENCE IN THE EXECUTION OF THE WORK.
- IN THE EVENT OF VARIATIONS BETWEEN WRITTEN QUOTATIONS SHOWN ON THE PLAN AND THE PLANT LIST, THE PLANS SHALL CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK. SOOD AND SEED QUANTITY TALK-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN PLANT LIST.
- PLANTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR AS DESIGNATED IN THE FIELD BY THE LANDSCAPE ARCHITECT. MATERIAL LOCATED ON THE SITE FOR REVIEW. ALL LOCATIONS ARE TO BE REVIEWED BY LANDSCAPE ARCHITECT BEFORE EXCAVATION.
- FIELD ADJUST PROPOSED PLANTING LOCATIONS WHERE NEEDED TO AVOID ANY DAMAGE TO EXISTING FACILITIES, AS WELL AS VEGETATION.
- PLANTS SHALL CONFORM TO CURRENT "AMERICAN STANDARD FOR NURSERY STOCK" ANSI Z60.1-2004, OR AS REVISED, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN), PARTICULARLY WITH REGARD TO SIZE, GROWTH SIZE OF BALL, AND DENSITY OF BRANCH STRUCTURE. PLANT MATERIAL SHALL BE TAGGED AT THE SOURCE BY THE LANDSCAPE ARCHITECT UNLESS THIS REQUIREMENT IS SPECIFICALLY WAIVED. LOOSE, BROKEN, OR MANUFACTURED BALLS WILL BE REJECTED.
- ALL PLANT MATERIALS USED SHALL BE TRUE TO NAME AND SIZE IN CONFORMITY WITH THE AMERICAN STANDARD OF NURSERY STOCK (LATEST VERSION) AND SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. ALL PLANTS SHALL HAVE NORMAL WELL-DEVELOPED BRANCHES & VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING INJURIES, ABRASIONS OF THE BARK, SUNSCALD INJURIES, PLANT DISEASES, INSECT EGGS, BORERS AND ALL OTHER FORMS OF INFECTION. ALL PLANTS SHALL BE NURSERY GROWN. ALL PLANTS SHALL BE GRADE A NURSERY STOCK. MATERIAL HAS BEEN NURSERY GROWN UNDER THE SAME CLIMATIC CONDITIONS AS THE PROJECT SITE.
- PLANT NAMES SHALL AGREE WITH THE NOMENCLATURE "STANDARD PLANT NAMES" AS ADOPTED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURE NOMENCLATURE.
- ALL PLANTS (B&B OR CONTAINER) SHALL BE PROPERLY IDENTIFIED BY WEATHER-PROOF LABELS SECURELY ATTACHED HERETO BEFORE DELIVERY TO PROJECT SITE. LABELS SHALL IDENTIFY PLANTS BY NAME, SPECIES, AND SIZE. LABELS SHALL NOT BE REMOVED UNTIL THE FINAL INSPECTION BY THE LANDSCAPE ARCHITECT.
- BALLED AND BURLAPPED, AND BALLED AND PLATFORM PLANTS, SHALL HAVE SOLID BALL OF EARTH SECURELY HELD IN PLACE BY BURLAP AND STOUT ROPE. MINIMUM BALL SIZES SHALL BE SPECIFIED IN THE "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PLANTS SHALL BE SUBJECT TO INSPECTION BEFORE ANY PLANTS ARE DUG AND PLACED. ALL REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST.
- ANY MATERIAL AND/OR WORK MAY BE REJECTED BY THE LANDSCAPE ARCHITECT IF IT DOES NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS. ALL REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
- THE LANDSCAPE ARCHITECT OR OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH, IN HIS OPINION, DOES NOT MEET THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
- NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR STABILITY AND CONDITIONS OF ALL TREES AND SHRUBS AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF ALL TREES SHALL BE DONE AS INDICATED ON THE DOCUMENTS OR BY UTILIZING A METHOD APPROVED BY THE LANDSCAPE ARCHITECT.
- UPON COMPLETION OF ALL LANDSCAPING, AN ACCEPTANCE OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OR OWNER FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
- ALL DISTURBED AREAS OF THE SITE NOT PLANTED WITH SHRUBS OR GROUND COVER SHALL BE FINE GRADED AND SEEDED OR SODDED.
- ALL PLANTING PROCEDURES SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY OR AGENCY HAVING JURISDICTION.
- ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISH GRADE AS IT BORE TO EXISTING GRADE AT THE NURSERY.
- PLANTING SHALL BE CONDUCTED UNDER SEASONS WHICH ARE NORMAL FOR SUCH WORK. AT THE OPTION AND ON THE FULL RESPONSIBILITY OF THE CONTRACTOR, PLANTING OPERATIONS MAY BE CONDUCTED UNDER UNREASONABLE CONDITIONS. PLANTS SHALL ONLY BE INSTALLED WHEN THE SOIL IS FROST FREE. IN GENERAL, PLANT DURING THE FOLLOWING SEASONS UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT:

- DECIDUOUS TREES AND SHRUBS:
  - WHEN PLANTS ARE DORMANT (FALL AND EARLY SPRING).
- BROADLEAF EVERGREEN TREES AND SHRUBS:
  - WHEN THE FROST LEAVES THE GROUND UNTIL NEW GROWTH IS WELL DEVELOPED (SPRING).

- GROUNDCOVER:
  - OVER THE DANGER OF FROST HAS PAST (SPRING UNTIL EARLY SUMMER).



**DECIDUOUS TREE PLANTING**  
NOT TO SCALE

- PRUNE PRUNE NEWLY PLANTED TREES AS DIRECTED BY THE LANDSCAPE ARCHITECT. ALL FINE-LEAVED EVERGREENS SHALL BE SHEARED AS DIRECTED BY THE LANDSCAPE ARCHITECT.
- UNDER NO CIRCUMSTANCES SHOULD THE MAIN LEADER OF A DECIDUOUS OR EVERGREEN TREE BE TOPPED.
- ALL DISTURBED AREAS TO BE TOPSOILED A MINIMUM OF 4" THICK, FERTILIZED, SEEDED AND MULCHED WITH SMALL GRASS STRAW. TOPSOIL SHALL BE NATURAL, FRESH, FERTILE, CHARACTERISTIC OF PRODUCTIVE SOIL IN THE VICINITY. IT SHALL BE FREE OF LUMPS OF CLAY, STONES, ROOTS AND OTHER FOREIGN MATTER.
- SHADE TREES LOCATED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BRANCH BELOW 7'.
- ALL SHRUB MASSSES SHALL FORM PLANTING BEDS AND SHALL BE MULCHED ENTIRELY BETWEEN PLANTS.
- ALL PROPOSED TREES TO BE INSTALLED ENTIRELY ON OR DIRECTLY OUT OF PLANTING BEDS. PLANTING BED LINES ARE NOT TO BE DESTRUCTED. ALL SHRUBS AND GROUND COVER AREAS SHALL BE PLANTED IN CONTINUOUS PREPARED BED AND TOP DRESSED WITH 4-INCH SHREDDED HARDWOOD OR BARK MULCH. MULCH SHALL HAVE BEEN AGED A MINIMUM OF SIX MONTHS.
- ALL PLANTING BEDS ADJACENT TO LAWN, SOIL, OR SEEDED AREAS SHALL BE SPADE EGGED.
- PLANT MATERIAL SHOWN IN A MASS OR TOUCHING EACH OTHER SHALL BE ALLOWED TO GROW TOGETHER TO PERFORM AS A SCREEN OR A HEDGE. DO NOT PRUNE OR SHEAR INTO INDIVIDUAL FREE-STANDING PLANTS.
- CUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF BALL ONLY IF NON-JUTE ROPING IS USED.
- GUY WIRES SHALL BE LOCATED BETWEEN FIRST AND SECOND SETS OF BRANCHES. TREE STAKES AND GUY WIRES SHALL BE REMOVED BY THE CONTRACTOR AFTER ONE GROWING SEASON. GUY WIRES SHALL BE LOCATED SO THAT THEY WILL NOT PULL CRACKS APART.
- PLANTS PLANTED IN ROWS SHALL BE MATCHED SPECIEMENS AND BE UNIFORM IN SIZE AND FORM.
- MULCH 4" IN DEPTH SHALL BE EITHER WOOD CHIPS, PINE BARK OR SHREDDED HARDWOOD BARK NOT EXCEEDING 2" IN GREATEST DIMENSION. A WEED RETARDANT BARRIER SHALL BE USED IN ALL NON-GRASS AREAS.
- ALL PLANTS WITHIN CLEAR SIGHT TRIANGLES SHALL NOT EXCEED A MATURE HEIGHT OF 30' ABOVE ELEVATION OF CURB.
- THE CONTRACTOR IS RESPONSIBLE FOR TESTING PROJECT SOILS. THE CONTRACTOR IS TO PROVIDE A CERTIFIED SOILS REPORT TO THE OWNER. THE CONTRACTOR SHALL VERIFY THAT THE SIZES ON THE SITE LIST ARE ACCEPTABLE FOR THE PROPER GROWTH OF THE PROPOSED PLANT MATERIAL. SHOULD THE CONTRACTOR FIND POOR SOIL CONDITIONS, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SOIL AMENDMENTS AS NECESSARY. THESE AMENDMENTS SHALL BE LIMITED TO FERTILIZERS, LIME, AND TOPSOIL. PROPER PLANTING SOILS MUST BE VERIFIED PRIOR TO PLANTING OF MATERIALS.
- THE CONTRACTOR SHALL FERTILIZE ALL PLANT MATERIAL WITH 5-10-5 FERTILIZER, OR APPROVED EQUAL AT THE RATE SPECIFIED BY THE MANUFACTURER. ALL TURF AREAS SHALL BE MULCHED AND FERTILIZED APPROPRIATELY FOR THE TYPES OF SOILS ON THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE SOIL ACIDITY AND A SOIL TEST CONDUCTED TO ESTABLISH THE SOIL'S LIME AND FERTILIZER RATES.
- TREES OVER SIX FEET IN HEIGHT ARE TO BE STAKED AT TIME OF INSTALLATION AT THE DIRECTION OF THE LANDSCAPE ARCHITECT.
- ALL WATER APPLIED TO PLANTED OR TURF AREAS SHALL BE FREE FROM IMPURITIES HARMFUL TO VEGETATION AND APPLIED AT A RATE OF 4 GALLONS OF WATER PER SQUARE YARD OF PLANT PIT IMMEDIATELY AFTER PLANTING AND INSTALLATION. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADEQUATE IRRIGATION TO ALL PLANT MATERIALS AND LAWN AREAS INSTALLED AS PART OF THIS CONTRACT THROUGHOUT THE CONSTRUCTION TIME PERIOD UP TO AND INCLUDING THE TIME PERIOD ESTABLISHED FOR PLANT MATERIAL SURVIVAL. GUARANTEE. WATER APPLIED DURING THE GUARANTEE PERIOD SHALL BE AT THE RATE OF 1/2 INCH OF WATER PER WEEK, WITH AN ALLOWANCE FOR NATURAL PRECIPITATION AND RAINFALL.
- BACKFILL MATERIAL FOR RAISED PLANT BEDS SHALL CONSIST OF NATURAL LOAM TOPSOIL, FREE FROM SUBSOIL, AND SHALL BE OBTAINED FROM AN AREA WHICH HAS NEVER BEEN STRIPPED. TOPSOIL SHALL HAVE BEEN REMOVED FROM A DEPTH OF NO MORE THAN 1 FOOT, OR LESS IF SUBSOIL IS ENCOUNTERED. SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLUMBS, STIFF CLAY HARD PAN, SODS, PARTIALLY DISINTEGRATED STONE, LIME CEMENT, TAIL RESIDUES, CHIPS OR ANY OTHER UNSERVICEABLE MATERIAL.
- ALL PLANTS ARE SHOWN SEMI-MATURE SIZE ON PLANS. SIZES INDICATED IN PLANT LIST ARE SIZES AT TIME OF INSTALLATION.
- MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL 60 DAYS AFTER FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, FERTILIZING, MULCHING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL. THE CONTRACTOR MUST BE ABLE TO PROVIDE CONTINUED MAINTENANCE IF REQUESTED BY THE OWNER.
- ALL PLANT MATERIAL SHALL BE GUARANTEED FOR EIGHTEEN (18) MONTHS FROM THE DAY OF FINAL APPROVAL OF THE LANDSCAPE INSTALLATION BY THE TOWNSHIP LANDSCAPE ARCHITECT OR TOWNSHIP ENGINEER. THE APPLICANT/DEVELOPER SHALL CONTACT THE TOWNSHIP IN WRITING TO REQUEST A FINAL INSPECTION FOR ACCEPTANCE AT THE END OF THE GUARANTEE PERIOD. THESE INSPECTIONS WILL BE PERFORMED WHEN PLANT MATERIALS ARE IN FULL LEAF ONLY (MAY THROUGH NOVEMBER 15). ALL GUARANTEE ESCROW FUNDS WILL BE RELEASED UPON ACCEPTANCE AT THE END OF THE GUARANTEE PERIOD. THE GUARANTEE WILL BE EXTENDED UNTIL THIRTY (30) DAYS AFTER THE RECEIPT OF THE REQUEST LETTER FOLLOWING MAY 15, SHOULD THE END OF THE GUARANTEE PERIOD OCCUR AFTER NOVEMBER 15, THE GUARANTEE PERIOD SHALL BE EXTENDED TO MAY 15.
- ALL PLANTING DETAILS SHALL CONFORM TO ORDINANCE REQUIREMENTS OF THE MUNICIPALITY OR AGENCY HAVING JURISDICTION.
- ALL TREE PROTECTION AND REMOVAL ACTIVITIES SHALL COMPLY WITH ORDINANCE REQUIREMENTS.
- THE CONTRACTOR SHALL INSURE THAT HIS WORK DOES NOT INTERRUPT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS.
- MAINTAIN POSITIVE DRAINAGE OUT OF PLANTING BEDS AT A MINIMUM 2% SLOPE. ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT OR OWNER.
- THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS.
- THE DEPTH OF PLANTING PITS SHALL BE INCREASED BY 12" THROUGH THE ADDITION OF LOOSE AGGREGATE (3/4" TO 1-1/2" DIAMETER) WHEREVER POOR DRAINAGE OCCURS OR WHERE DIRECTED BY THE LANDSCAPE ARCHITECT.
- DURING PLANTING OPERATIONS, EXCESS WASTE MATERIALS (NOT INCLUDING TOPSOIL) SHALL BE PROMPTLY AND FREQUENTLY REMOVED FROM THE SITE. DISPOSAL SHALL BE IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, REGULATIONS.
- THE CONTRACTOR SHALL DISPOSE OF STUMPS AND MAJOR ROOTS OF ALL PLANTS TO BE REMOVED. ANY DEPRESSIONS CAUSED BY REMOVAL OPERATIONS SHALL BE REILLED WITH FERTILE, FRIABLE SOIL, PLACED AND COMPACTED SO AS TO REESTABLISH PROPER GRADE FOR NEW PLANTING AND/OR LAWN AREAS.
- STREET TREES SHALL BE A MINIMUM OF 3" CALIPER. ALL MAIN BRANCHES SHALL BE PRUNED TO A CLEARANCE HEIGHT OF 7' ABOVE THE GROUND. STREET TREES SHALL HAVE A SINGLE STRAIGHT TRUNK AND CENTRAL LEADER AND SHALL BE FREE OF DISEASE AND MECHANICAL DAMAGE.

- GRADE CHANGES AND EXCAVATION SHALL NOT ENCRDACH UPON THE TREE PROTECTION ZONE.
- NO TOXIC MATERIALS SHALL BE STORED WITHIN ONE HUNDRED (100) FEET OF A TREE PROTECTION ZONE.
- UNDER NO CIRCUMSTANCES SHOULD THE MAIN LEADER OF A DECIDUOUS OR EVERGREEN TREE BE TOPPED.
- ALL DISTURBED AREAS TO BE TOPSOILED A MINIMUM OF 4" THICK, FERTILIZED, SEEDED AND MULCHED WITH SMALL GRASS STRAW. TOPSOIL SHALL BE NATURAL, FRESH, FERTILE, CHARACTERISTIC OF PRODUCTIVE SOIL IN THE VICINITY. IT SHALL BE FREE OF LUMPS OF CLAY, STONES, ROOTS AND OTHER FOREIGN MATTER.
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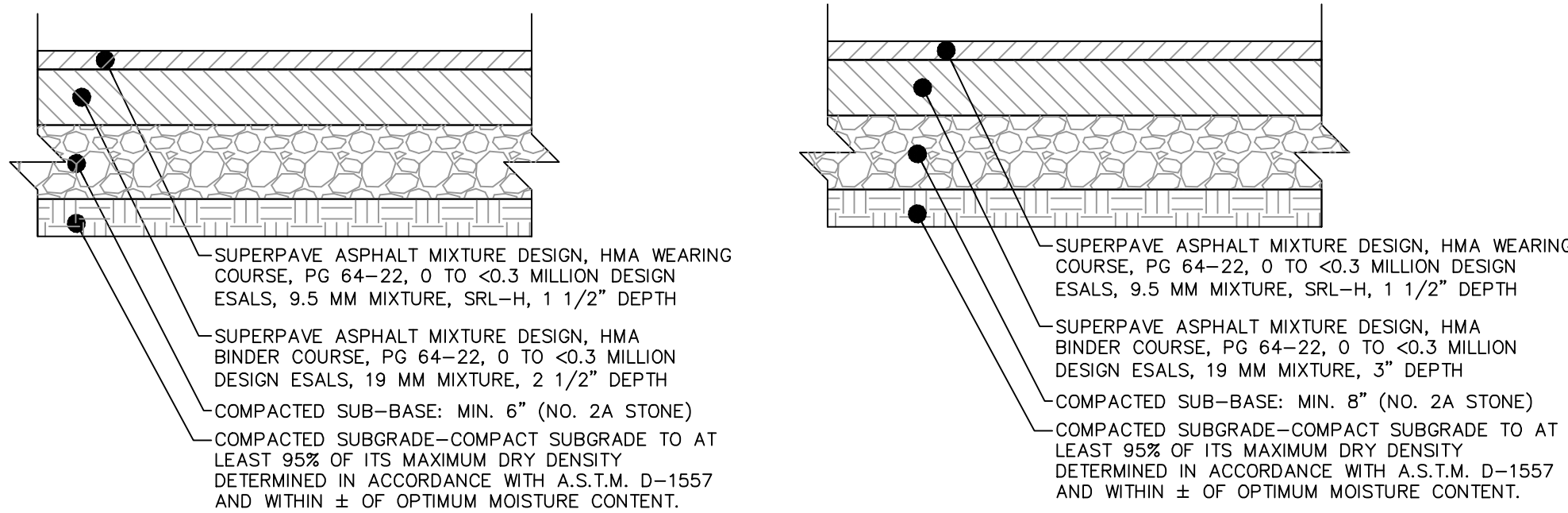
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SYM	% IN MIX; BOTANICAL NAME (COMMON NAME)	SEEDING RATE
<b>STORMWATER MANAGEMENT BASIN FLOOR SEED MIX (ERNMX #18)</b>		
	31.50% <i>Schizachyrium scoparium</i> , (Little Bluestem)	20 LBS/AC OR 0.5 LB/1,000 SF
	20.00% <i>Elymus virginicus</i> , (Virginia Wildrye)	W/ COVER CROP GRAIN RYE @ 30 LB/AC
	10.00% <i>Carex vulpinoidea</i> , (Fox Sedge)	
	10.00% <i>Panicum rigidulum</i> , (Redtop Panicgrass)	
	5.00% <i>Echinacea purpurea</i> , (Purple Coneflower)	
	3.00% <i>Cereopsis lancoletia</i> , (Loncweed)	
	3.00% <i>Rudbeckia hirta</i> , (Blackeyed Susan)	
	2.00% <i>Carex scoparia</i> , (Blunt Broom Sedge)	
	2.00% <i>Chamaecrista fasciculata</i> , (Partridge Pea)	
	2.00% <i>Eupatorium coelestinum</i> , (Mistflower)	
	2.00% <i>Helopsis helianthoides</i> , (Oxeye Sunflower)	
	2.00% <i>Penstemon digitalis</i> , (Tall White Beardtongue)	
	1.00% <i>Asclepias incarnata</i> , (Swamp Milkweed)	
	1.00% <i>Juncus effusus</i> , (Soft Rush)	
	1.00% <i>Juncus tenuis</i> , (Path Rush)	
	1.00% <i>Liatris spicata</i> , (Spiked Dayfeather)	
	0.80% <i>Aster novae-angliae</i> , (New England Aster)	
	0.70% <i>Aster laevis</i> , (Smooth Blue Aster)	
	0.50% <i>Rudbeckia fulgida</i> var. <i>fulgida</i> , (Orange Coneflower)	

**GENERAL NOTES**  
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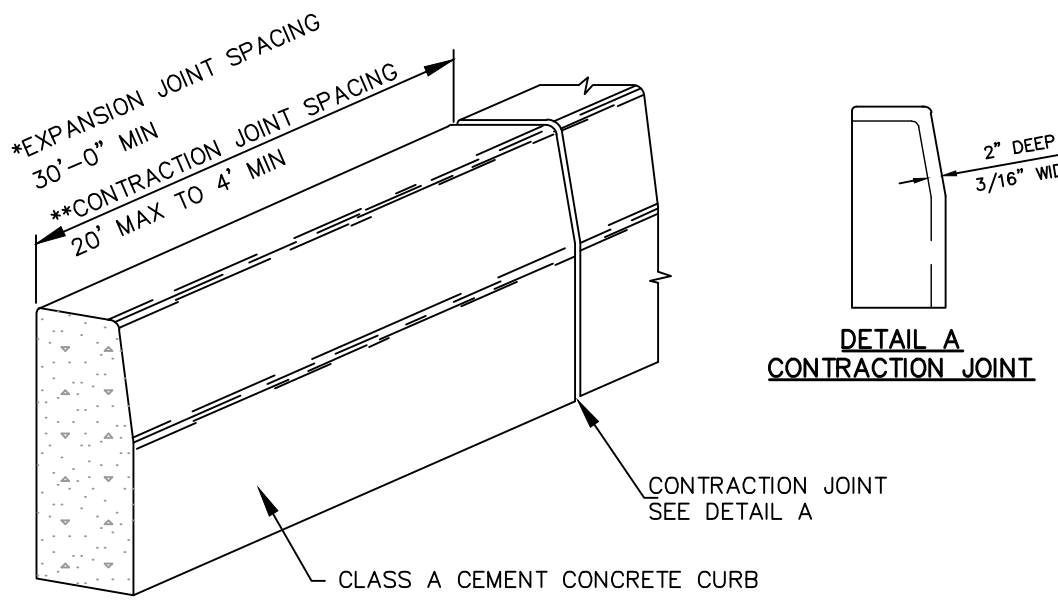
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**TYPICAL PAVEMENT SECTION  
 CAR PARKING LIGHT DUTY PAVING**

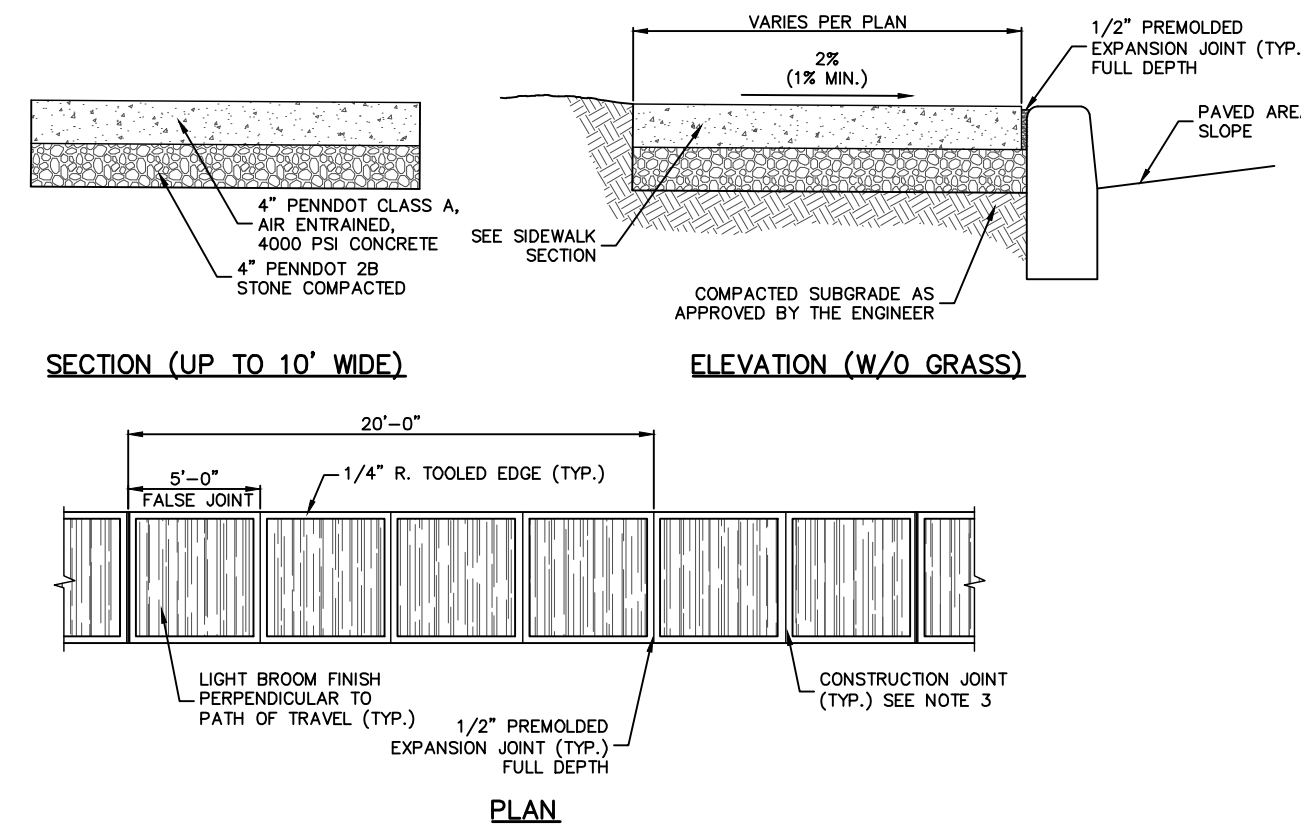
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**TYPICAL PAVEMENT SECTION  
 TRUCK COURT HEAVY DUTY PAVING**

\* EXPANSION JOINT 1/2" PREMOLDED BITUMINOUS EXP. JOINT MATERIAL  
 \*\* CONTRACTION JOINTS TO BE SPACED IN UNIFORM LENGTHS OR SECTIONS.



**CONCRETE CURB DETAIL**

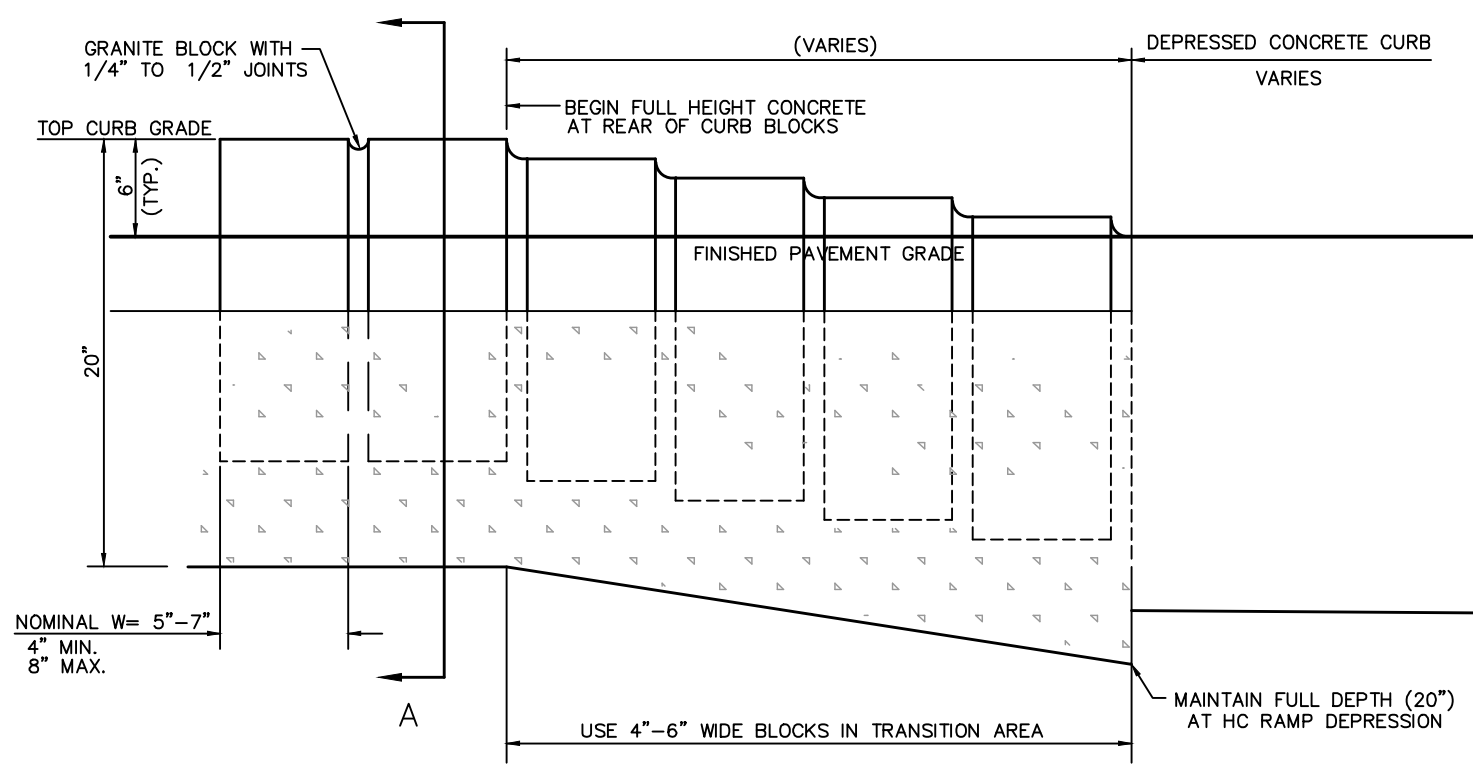


**SIDEWALK - CONCRETE**

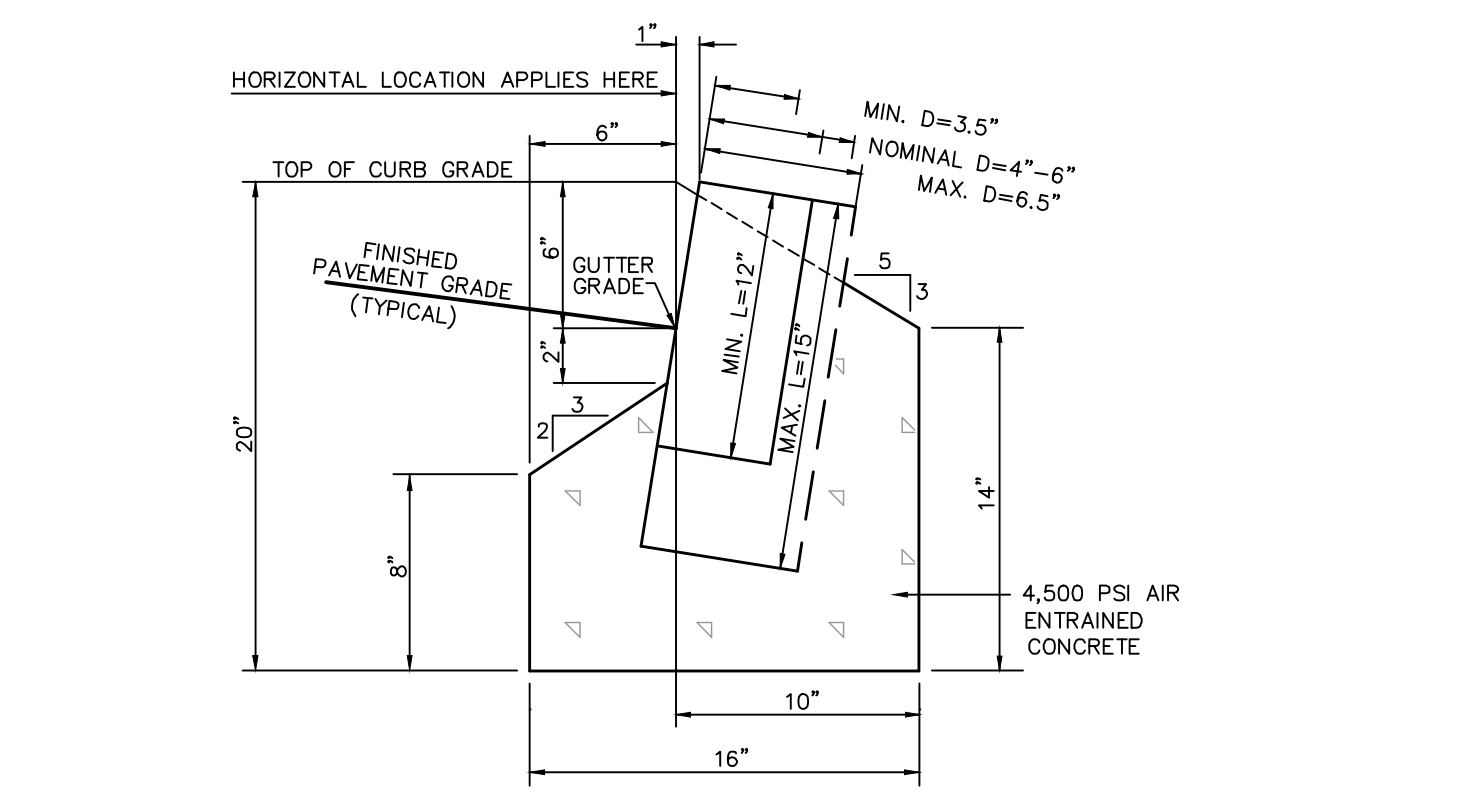
- NOTES:**
- ALL CONSTRUCTION, MATERIALS, METHODS OF CONSTRUCTION AND CONTROL OF WORK TO BE GOVERNED BY THE CURRENT EDITION OF PENNDOT SPECIFICATIONS, PUBLICATION 408.
  - PLACE 1/2" PREMOLDED EXPANSION JOINT MATERIAL FOR THE FULL DEPTH OF THE SIDEWALK AT 20' INTERVALS OPPOSITE EXPANSION JOINTS IN ADJACENT CURB, BETWEEN THE SIDEWALK AND CURB AND BETWEEN THE SIDEWALK AND ANY RIGID STRUCTURES.
  - FORM TRANSVERSE CONTRACTION JOINTS AT 10 FOOT INTERVALS, APPROXIMATELY 1/8" WIDE AND AT LEAST 1" DEEP.
  - ALL EXPOSED CONCRETE SHALL BE SEALED WITH AQUON CPT-2000 OR APPROVED EQUAL.
  - FOR USE WITHIN PEDESTRIAN TRAVEL AREAS.
  - FOR SIDEWALK WIDTH LESS THAN 5'-0", A PASSING SPACE OF 5'-0" X 5'-0" MINIMUM SHALL BE PROVIDED AT A MINIMUM INTERVAL OF 200 FEET.



**DUMPSTER PAD & ENCLOSURE DETAIL**



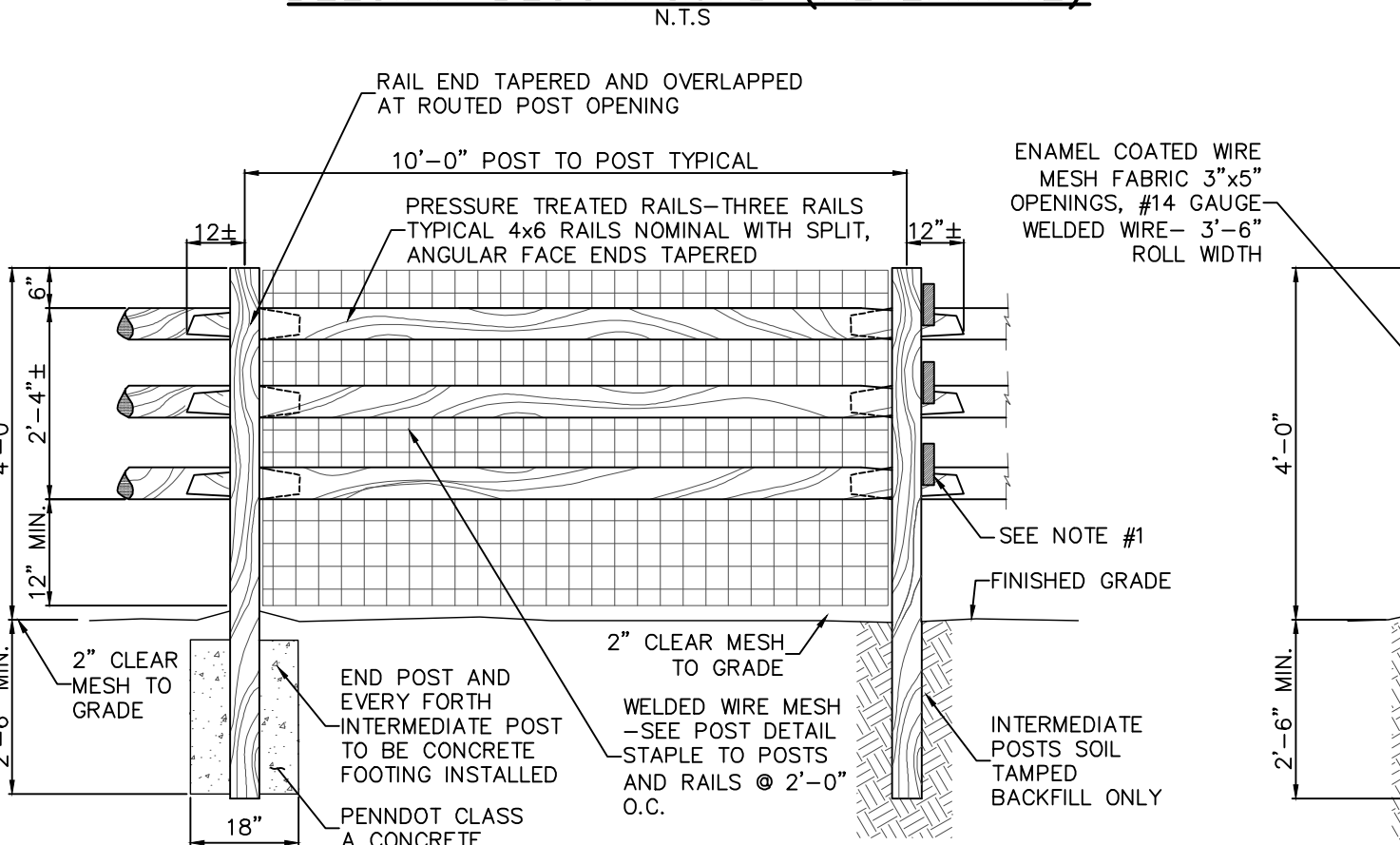
**ELEVATION**



**A-A FULL HEIGHT CURB**

- NOTES:**
- ALL MATERIALS AND WORKMANSHIP, UNLESS OTHERWISE SPECIFIED, TO BE IN ACCORDANCE WITH PENNDOT STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS.
  - PROVIDE 1/2" PREFORMED EXPANSION JOINT FILLER TRIMMED TO CONFORM TO CURB SECTION, AT P.C. & P.T. OF CURB RETURNS, AT 50' INTERVALS ELSEWHERE.
  - ALL CONCRETE TO BE AIR ENTRAINED, 6% ±1%

**BELGIAN BLOCK CURB (ALTERNATE)**

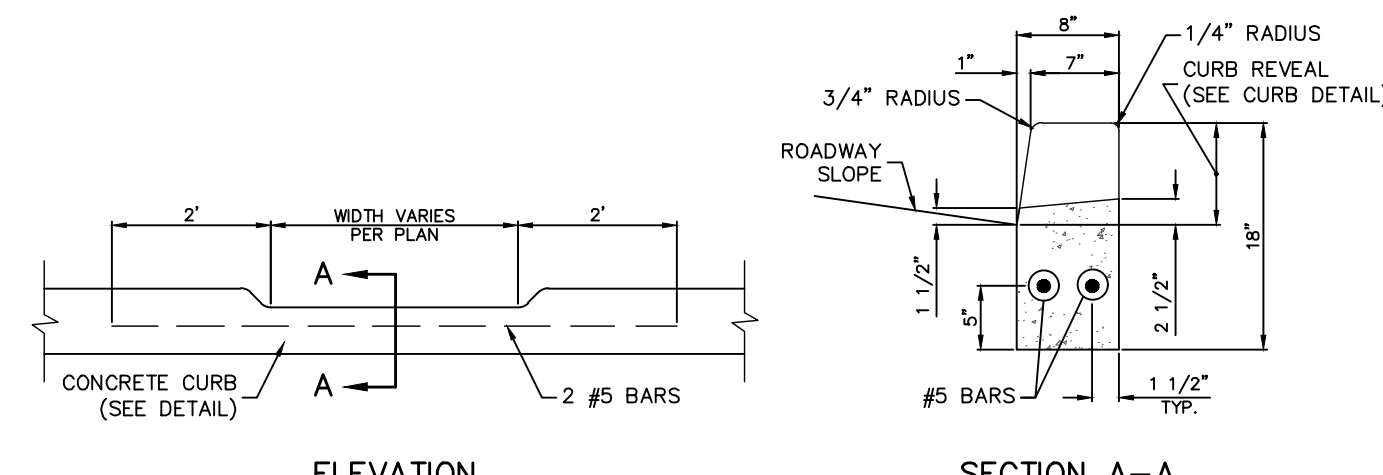


**NOTES:**

- WHERE FENCE CORNER INTERSECTS, JOIN RAILS WITH DOVETAIL JOINT 50% HEIGHT OF RAIL AND TOE NAIL TO POST.

**FENCE - SPLIT-RAIL**

\*SPLIT RAIL FENCE WITH WELDED WIRE MESH TO BE USED AROUND ALL STORMWATER BASINS AND BIOTRETENTION AREA.

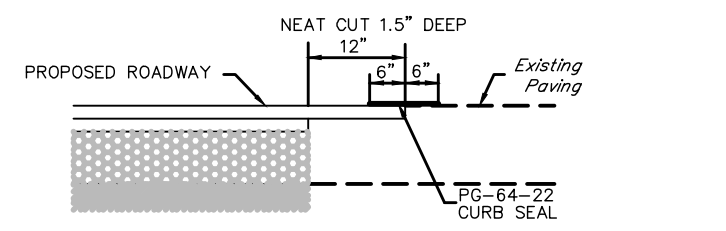


**ELEVATION**

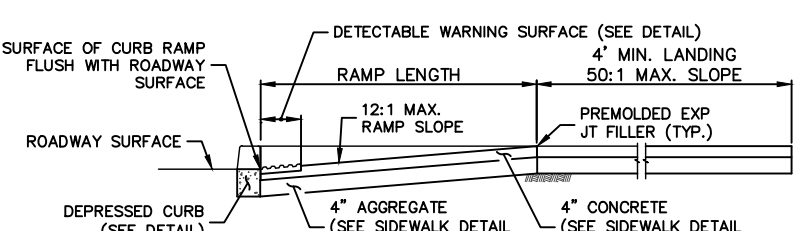
**SECTION A-A**

- NOTES:**
- PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CEMENT CONCRETE GUTTER, AND SECTION 641 FOR PLAIN CEMENT CONCRETE CURB GUTTER.
  - SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
  - PLACE 3/4" THICK PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
  - SEE RC-50M FOR PLAIN CEMENT CONCRETE CURB SLOPED TOP TREATMENT AT END OF STRUCTURES.
  - FOR USE IN AREAS OTHER THAN PEDESTRIAN CURB RAMP.

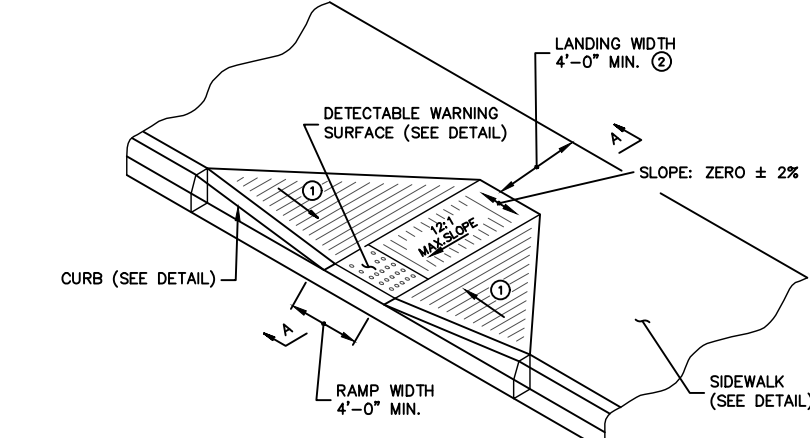
**DEPRESSED CONCRETE CURB**



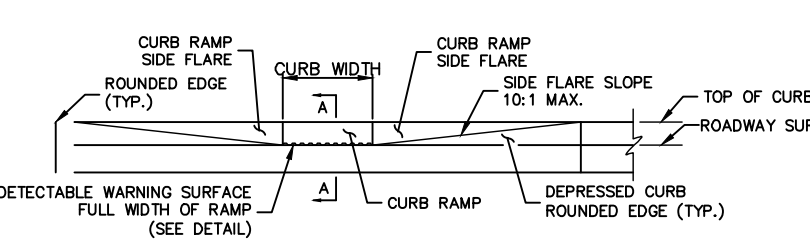
**NEAT CUT AND SEAL**



**SECTION A-A**



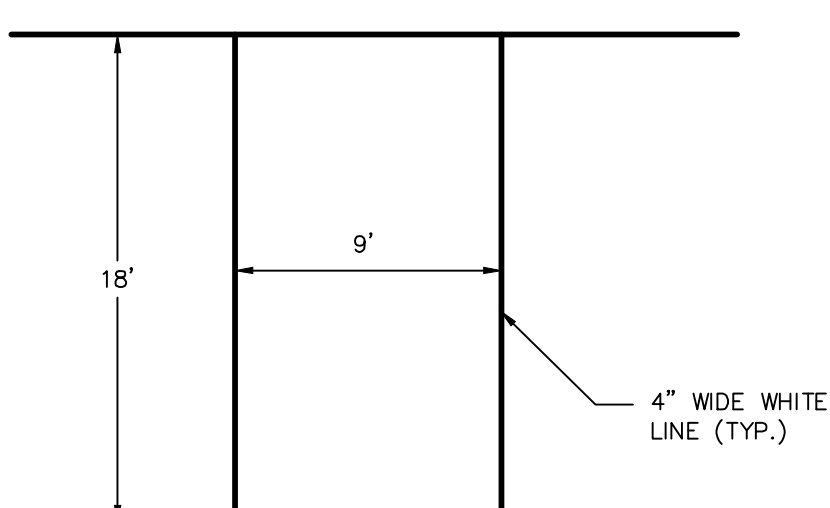
**STRAIGHT ORIENTATION**



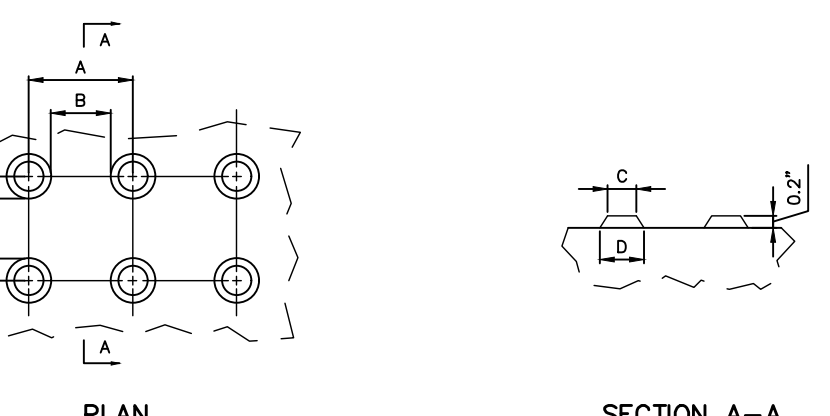
**ELEVATION**

- NOTES:**
- SIDE FLARES 10:1 MAX SLOPE.
  - SIDE FLARES 12:1 MAX FOR RAMP WITH A LANDING LESS THAN 4'-0" FOR ALTERATIONS; IF TECHNICAL FEASIBLE, A LANDING IS REQUIRED; HOWEVER A LANDING IS NOT REQUIRED WHERE 12:1 SIDE FLARE SLOPES ARE PROVIDED AND RIGHT OF WAY OR OTHER STRUCTURAL FEATURES RESTRICT THE INSTALLATION OF A LANDING.

**CURB RAMP - TYPE 1**



**PARKING SPACE LAYOUT**



**SECTION A-A**

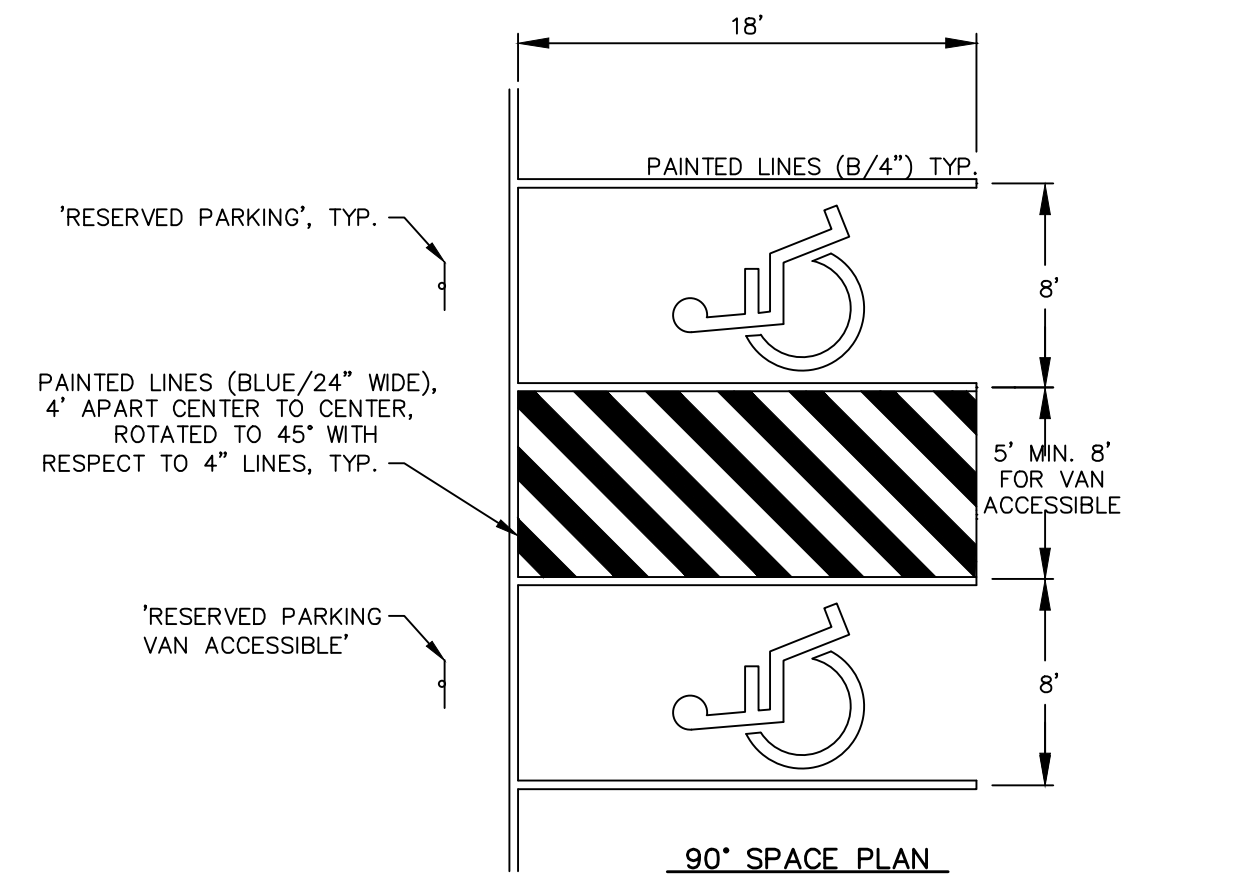
TRUNCATED DOME DIMENSIONS			
DM	MIN (INCH)	MAX (INCH)	
A	1.6	2.4	
B	0.65	1.5	
C	SEE NOTE 1	SEE NOTE 1	
D	0.9	1.4	

**NOTES:**

- THE C DIMENSION SHALL BE 50% TO 60% OF THE D DIMENSION.
- DETECTABLE WARNING SURFACES SHALL COMPLY WITH ALL REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT AND PENNDOT PUBLICATION 72M - RIG-7M.
- DETECTABLE WARNINGS SHALL BE PROVIDED AT ALL LOCATIONS WHERE A PEDESTRIAN WALK CROSS OR ADJACENT A VEHICULAR WAY AND THE WALKING SURFACES ARE NOT SEPARATED BY CURBS, RAILINGS, OR OTHER ELEMENTS.
- DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE WALKING PATH AND BE A MINIMUM OF TWO FEET (2') IN DEPTH.
- DETECTABLE WARNINGS SHALL BE ARMOR-TILE (TM) TACTILE SYSTEM - CAST IN PLACE SYSTEM, OR APPROVED EQUAL (WWW.ARMOR-TILE.COM).
- COLOR SHALL BE DARK GRAY (FEDERAL COLOR NO. 36118). COLORS SHALL BE SUBMITTED FOR OWNER'S APPROVAL PRIOR TO ORDERING MATERIAL.

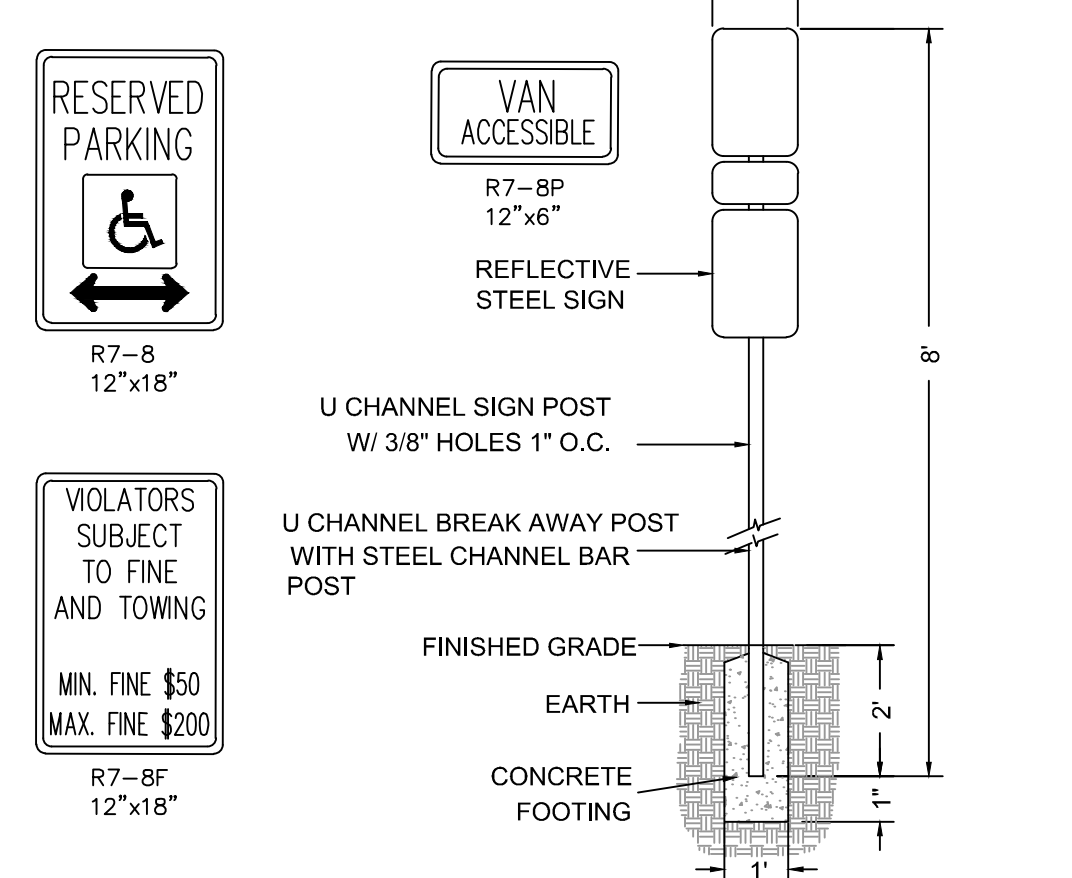
**DETECTABLE WARNING SURFACE**

**HANDICAP ACCESSIBLE PARKING SPACE DETAIL**

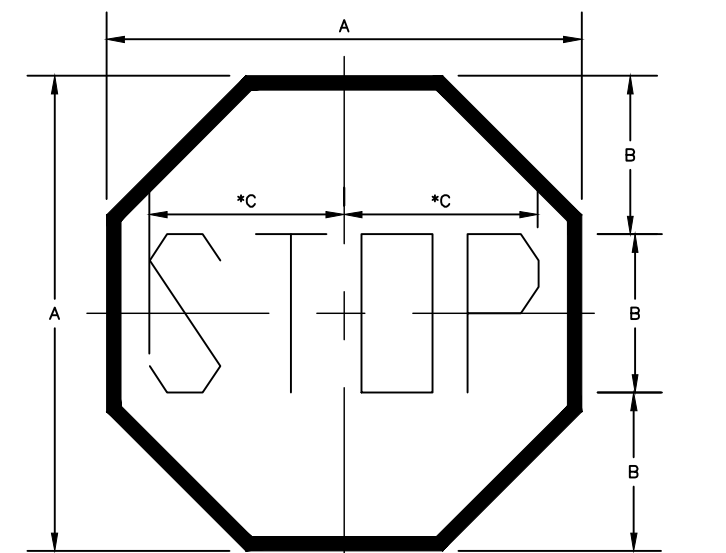


**90" SPACE PLAN**

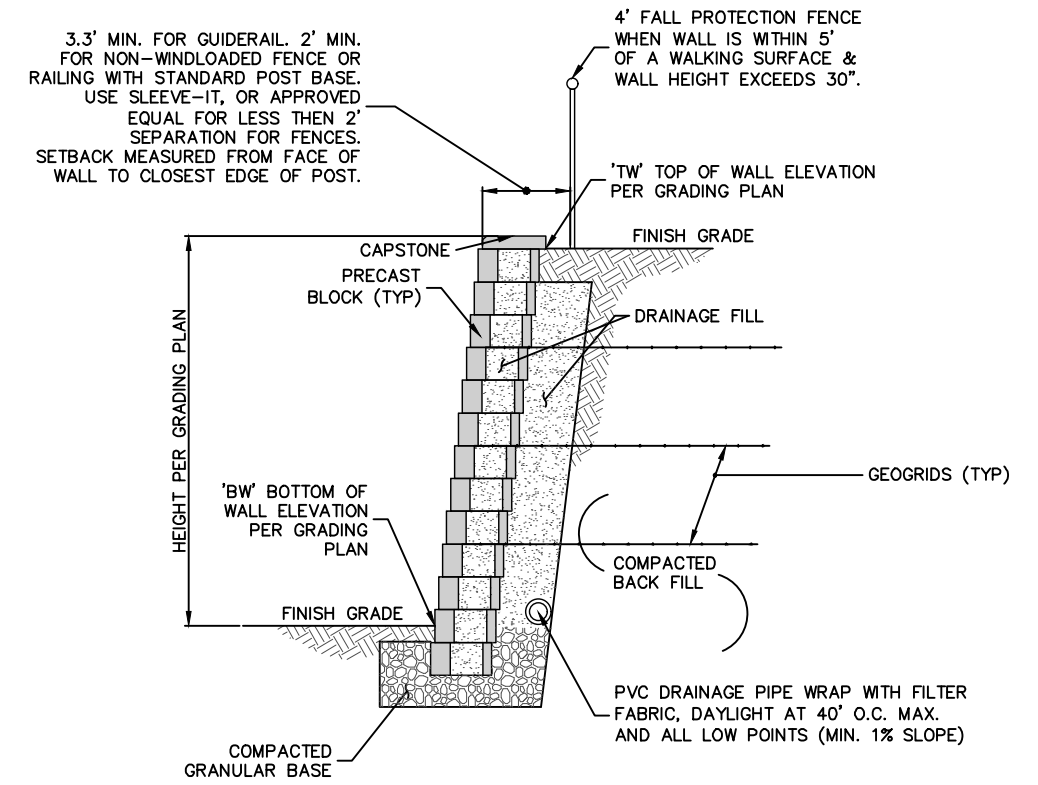
**HANDICAP ACCESSIBLE PARKING SIGN DETAIL**



**STOP SIGN (R1-1) DETAIL**



**STOP SIGN (R1-1) DETAIL**

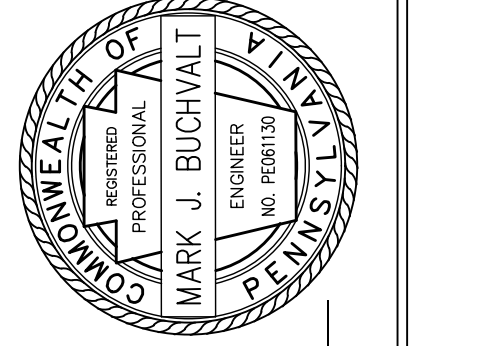


**CONCEPTUAL WALL DETAIL NOT FOR CONSTRUCTION**

- NOTES:**
- THE SEGMENTAL RETAINING WALL SYSTEM TO BE UTILIZED IS VERSA-LOK OR APPROVED EQUAL.
  - COMPLETE DESIGN CALCULATIONS, SHOP DRAWINGS, SPECIFICATIONS, MANUFACTURER AND CONSTRUCTION DETAILS OF THE PROPOSED RETAINING WALL SYSTEM, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, SHALL BE PROVIDED FOR REVIEW AND APPROVAL.
  - THE RETAINING WALL SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, INCLUDING, BUT NOT LIMITED TO, ASHSTO, NATIONAL CONCRETE MASONRY ASSOCIATION DESIGN MANUAL FOR RETAINING WALLS, MUNICIPAL REGULATIONS, BUILDING CODES, AND THE MANUFACTURER'S SPECIFICATIONS.
  - ANY CONFLICTS WITH THE DRAINAGE PIPE, GEOTEXTILES, STORM SEWER STRUCTURES AND ANY OTHER UTILITIES SHALL BE COORDINATED DURING THE DESIGN PROCESS AND SHOWN ON THE SHOP DRAWINGS TO BE PROVIDED.
  - GEOTEXTILES AND WALL UNIT DESIGN SHALL PREVENT ENDOACHMENT INTO THE GRIPLINE AREA OF EXISTING TREES.
  - A GEOTECHNICAL ENGINEER SHALL INSPECT THE CONSTRUCTION OF THE WALL.

**RETAINING WALL - SEGMENTAL BLOCK (SCHEMATIC)**

NO.	BY	DATE	REVISIONS
2	mm	06/29/22	REVISED PER TWP REVIEW LETTER DATED 06/07/2022
1	mm	05/27/22	SUBMITTAL TO MCD



**MARK BUCHVALT, P.E.**  
 LICENSED PROFESSIONAL ENGINEER

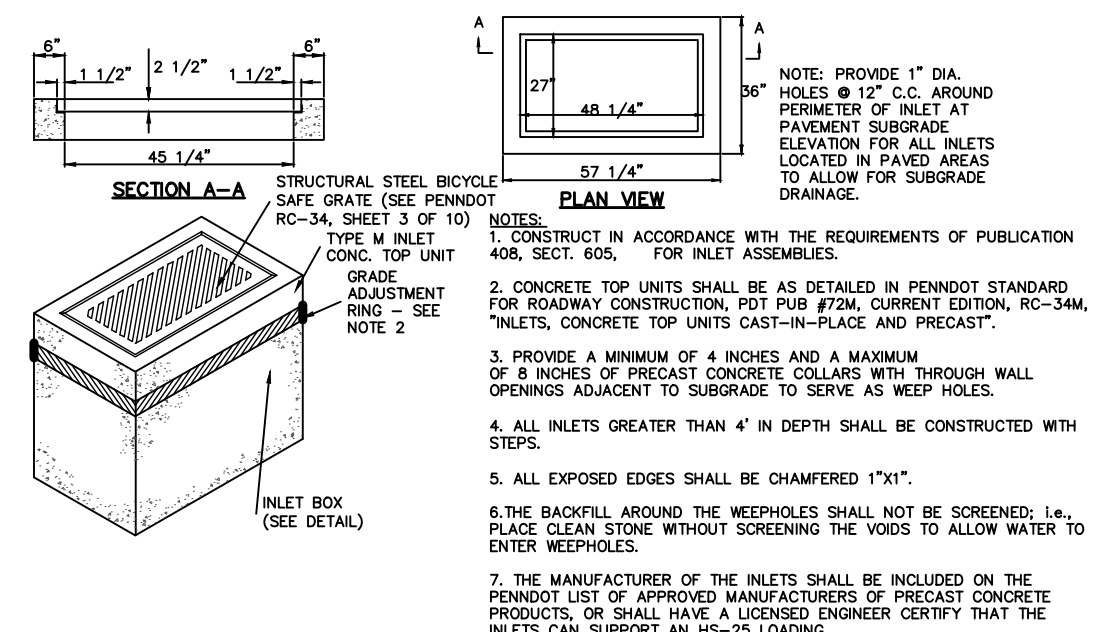
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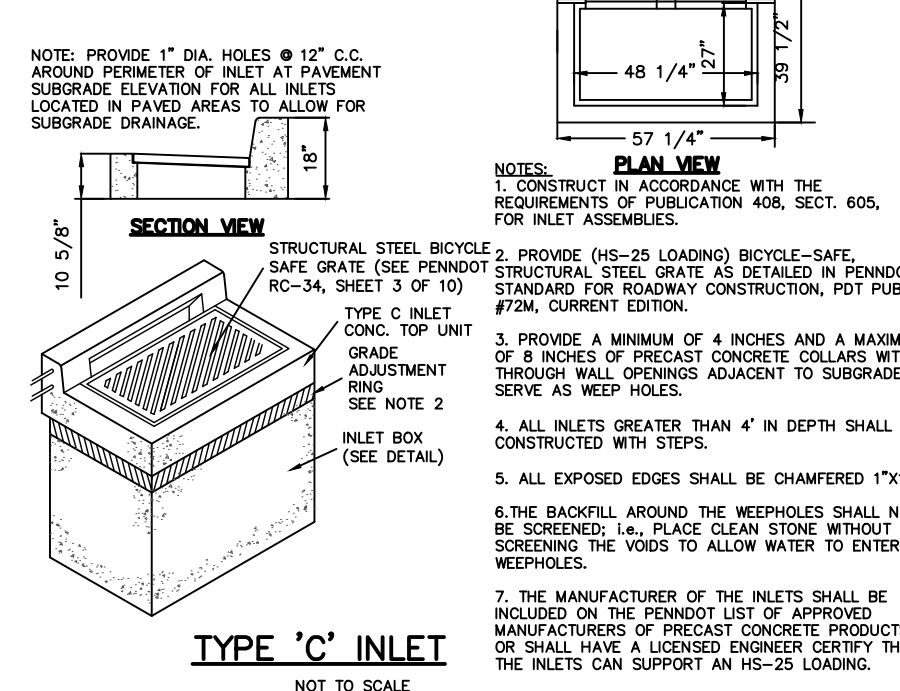
DESIGNED BY	DRAWING
MEB, DCH	F-DETAIL
CHECKED BY	SHEET
MJB	20
DRAWN BY	SCALE
DCH, MEB	AS NOTED
DATE	PROJ. NO.
04/29/2022	JGPT00022

**NOT FOR CONSTRUCTION**

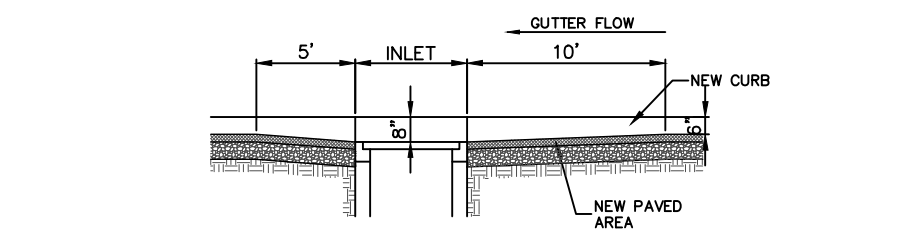
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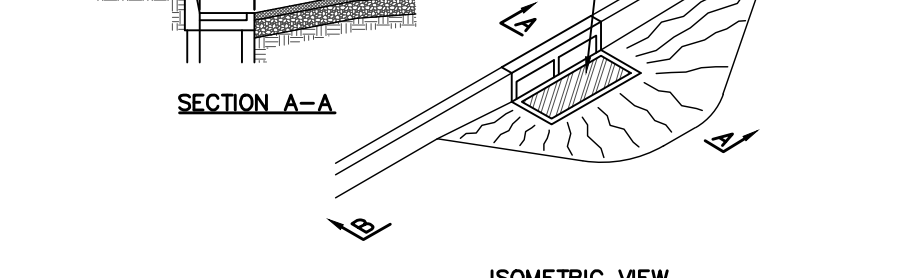
**STANDARD TYPE 'M' INLET**  
NOT TO SCALE



**TYPE M INLET (6' INLET TOP)**  
N.T.S.



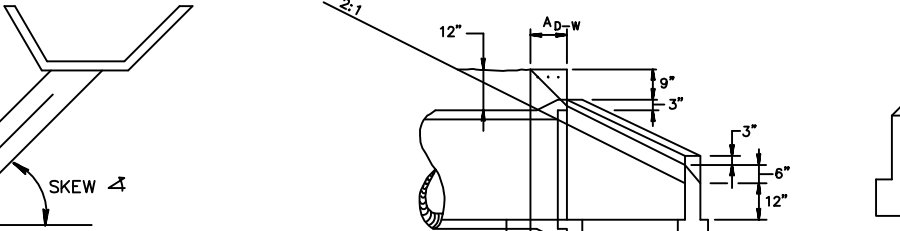
**TYPE 'C' INLET**  
NOT TO SCALE



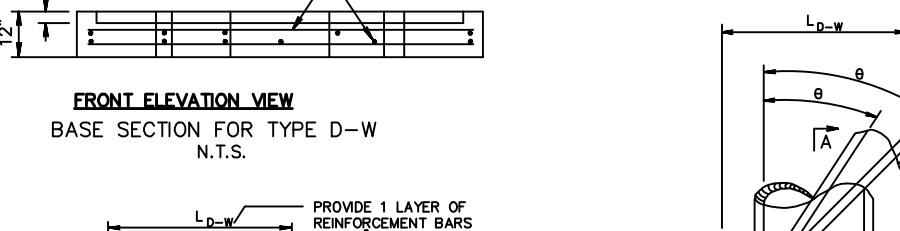
**STRUCTURAL STEEL GRATE (BICYCLE SAFE)**  
NOT TO SCALE



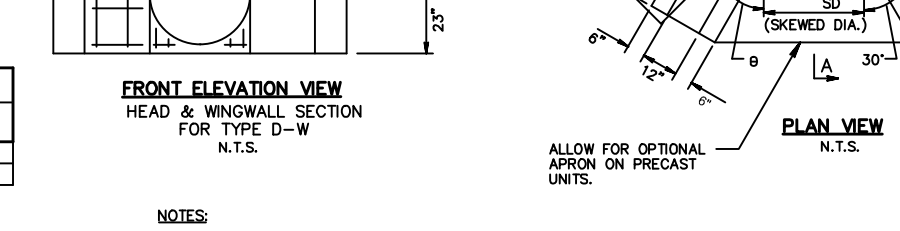
**STRUCTURAL STEEL GRATE (BICYCLE SAFE)**  
NOT TO SCALE



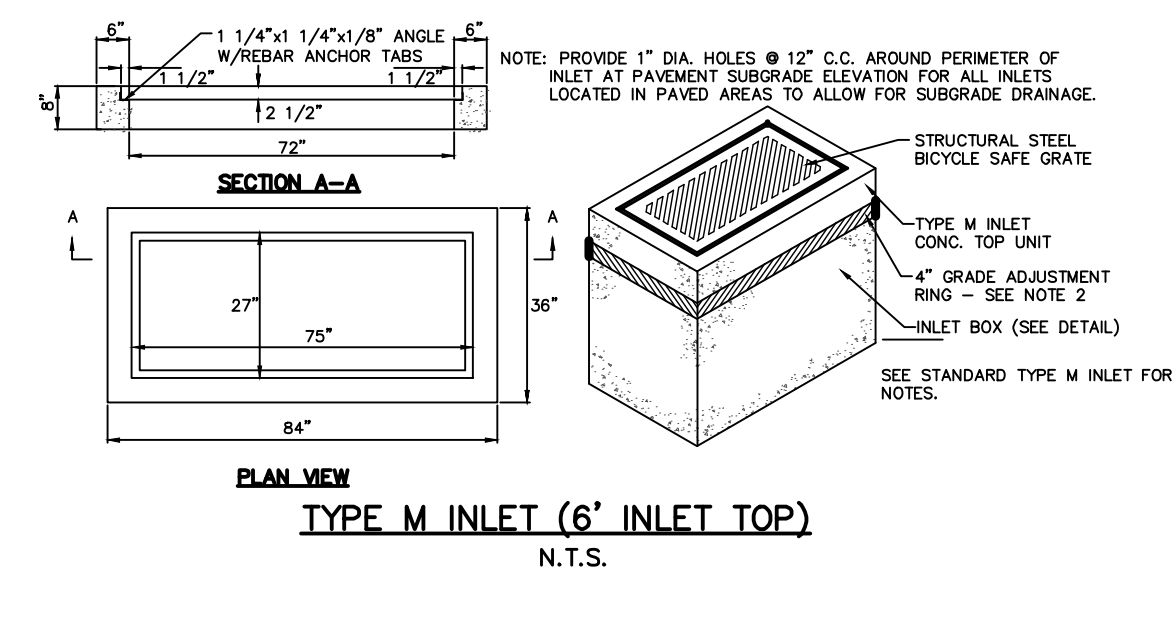
**PLATE - NO DUMP**  
NOT TO SCALE



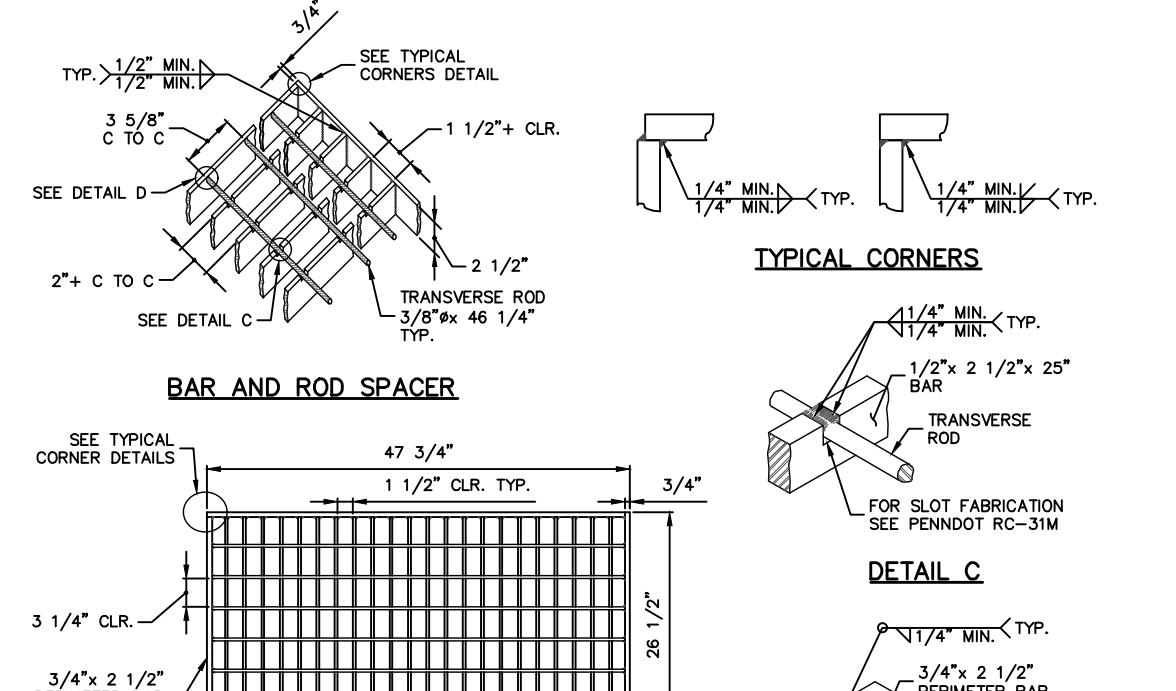
**CHILD SAFETY GATE**  
NOT TO SCALE



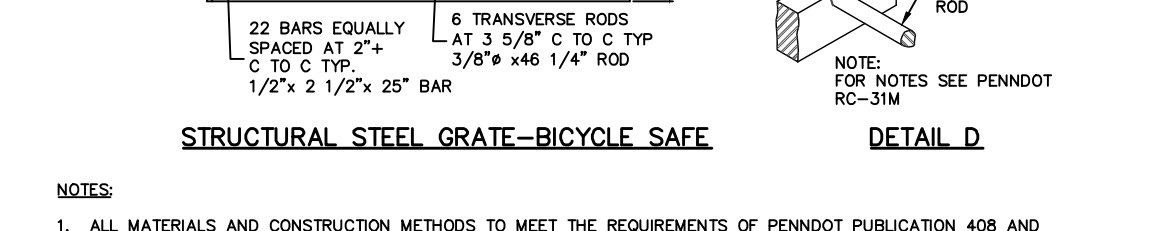
**TYPE D-W ENDWALL**  
N.T.S.



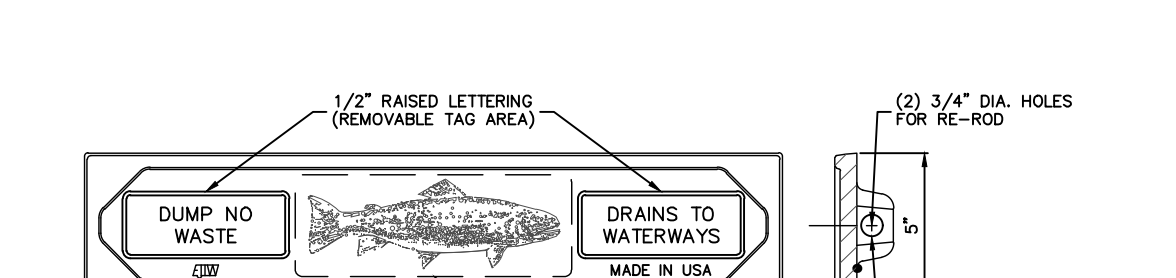
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NOT TO SCALE



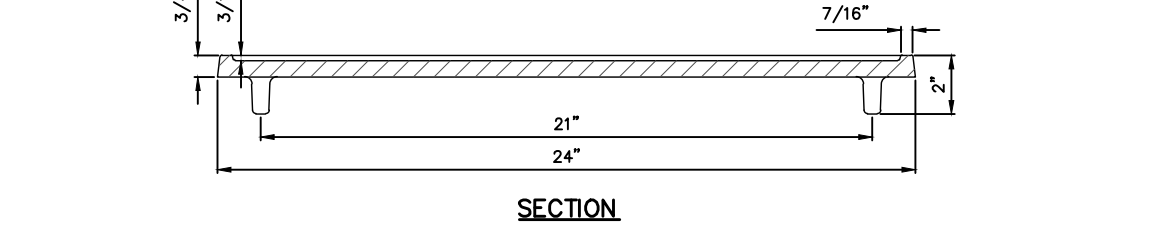
**MANHOLE (PRECAST)**  
NOT TO SCALE



**MANHOLE (PRECAST)**  
NOT TO SCALE



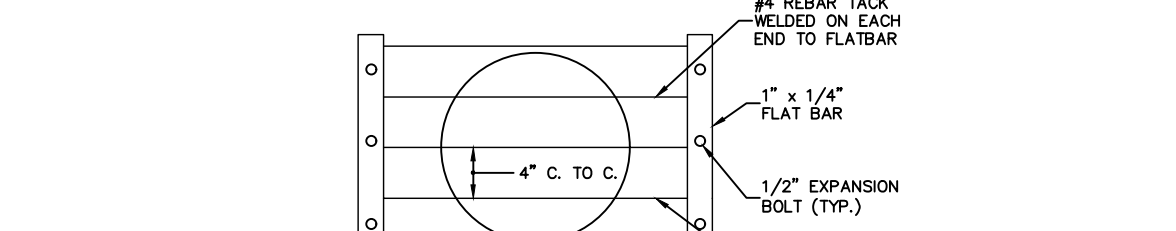
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NOT TO SCALE



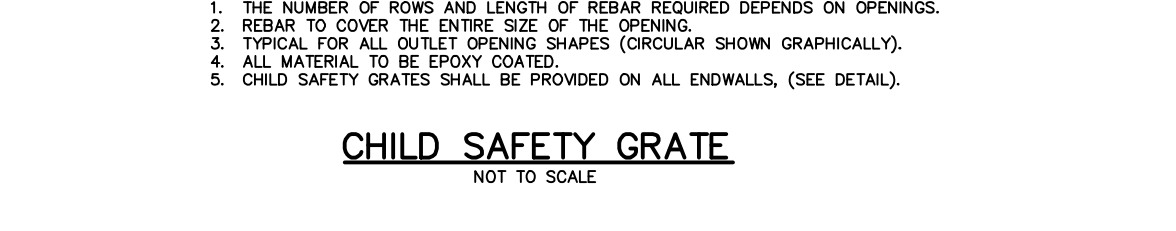
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NOT TO SCALE



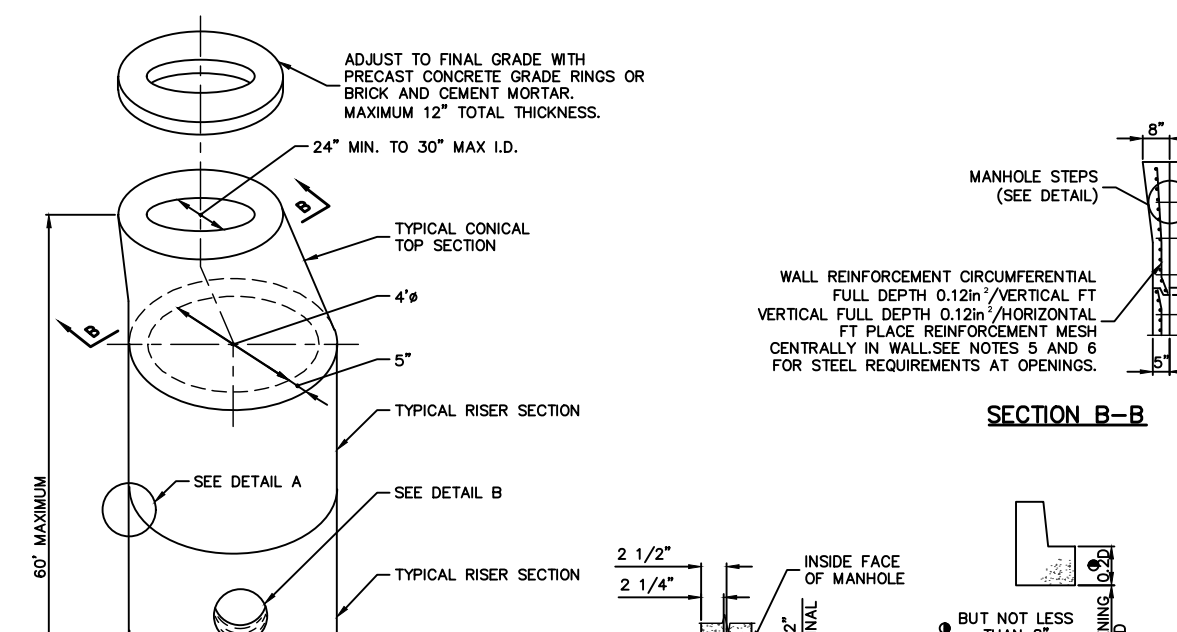
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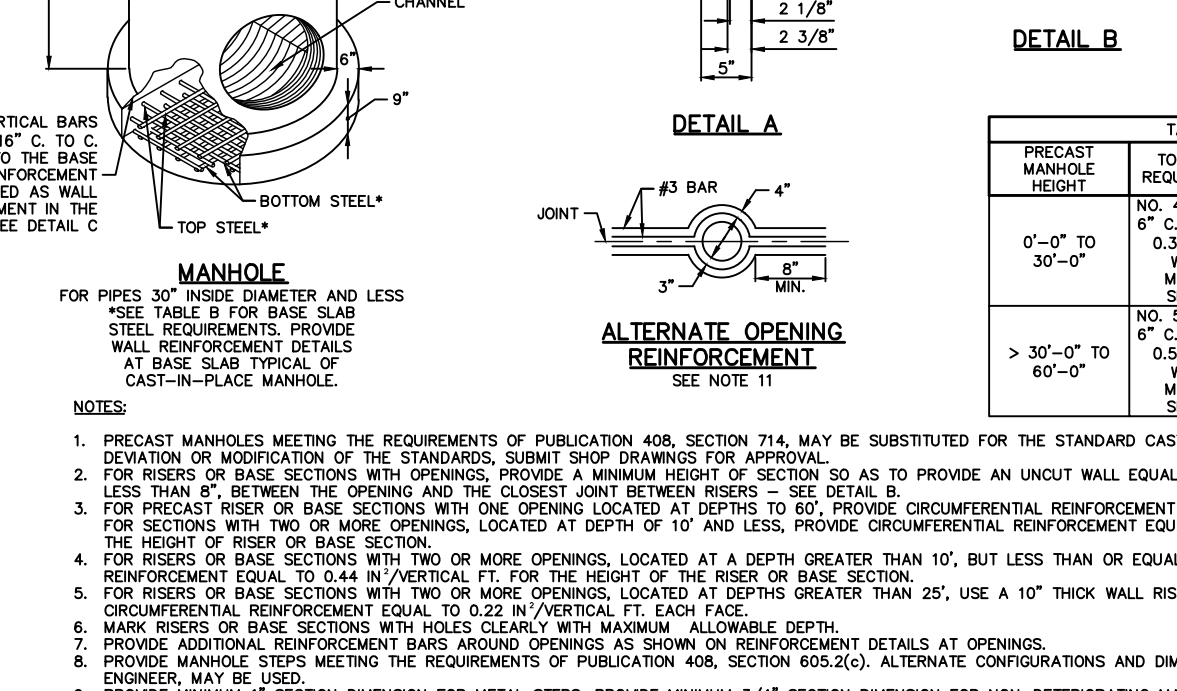
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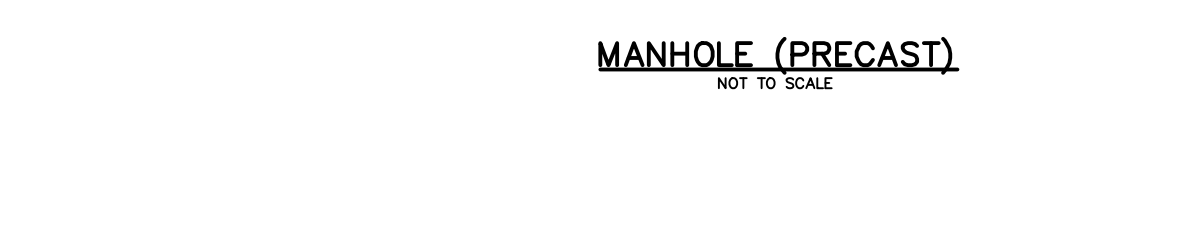
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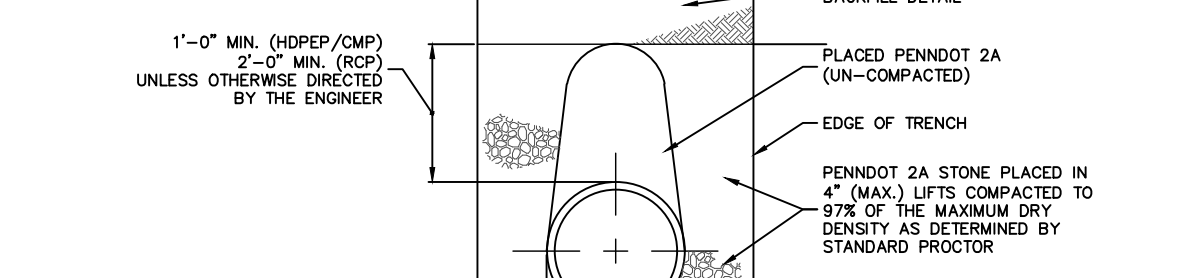
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NOT TO SCALE



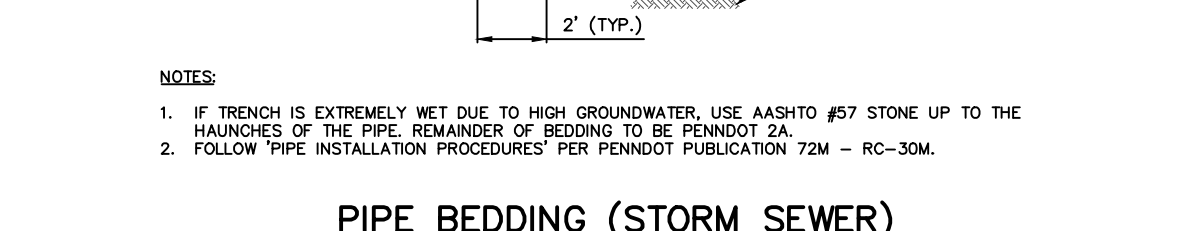
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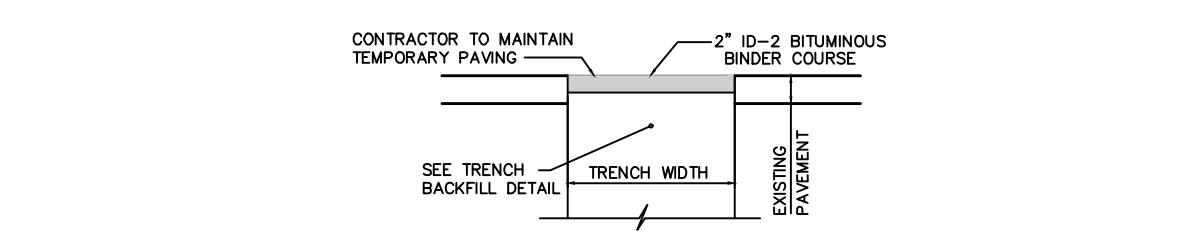
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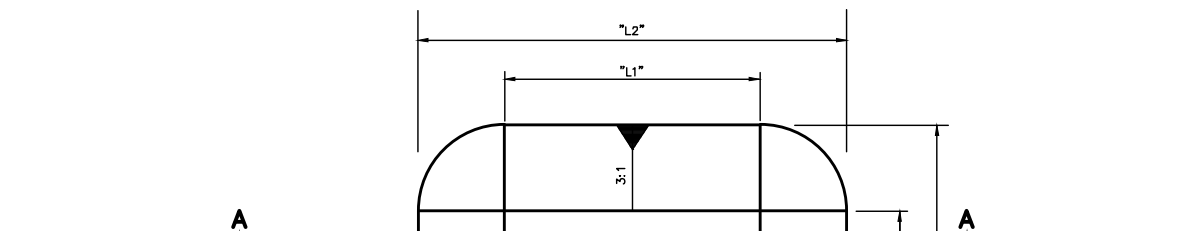
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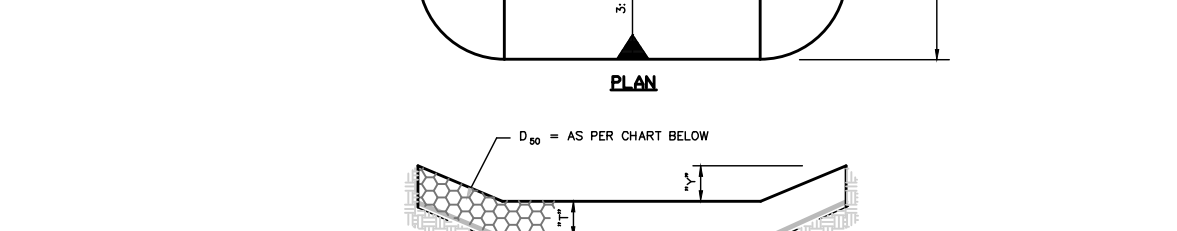
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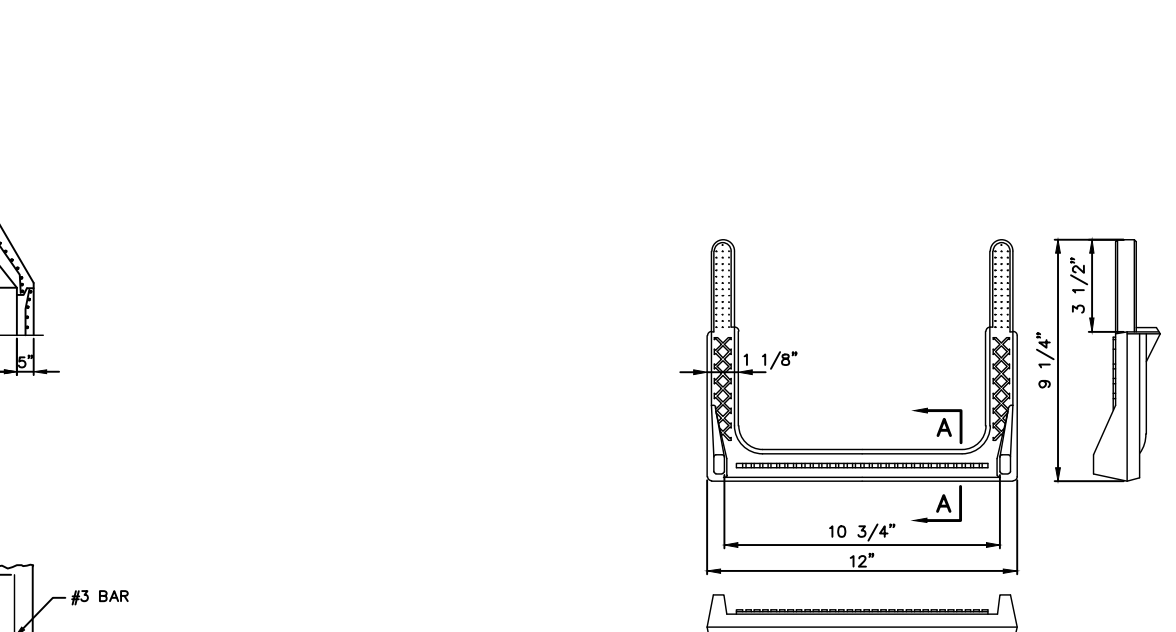
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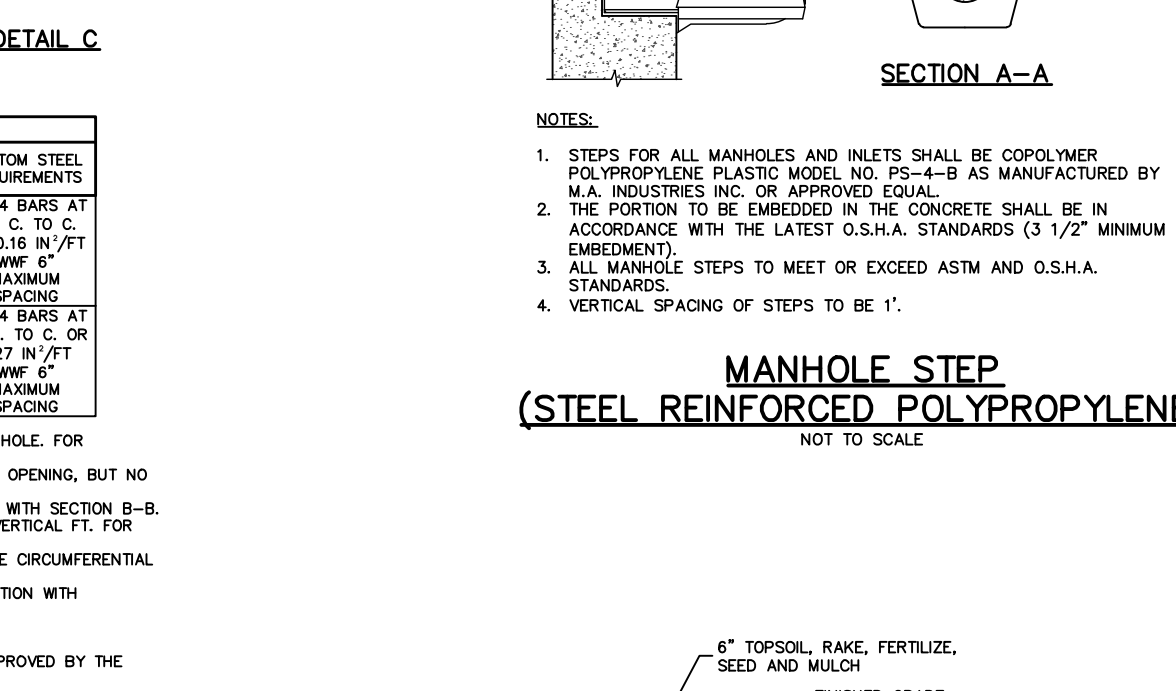
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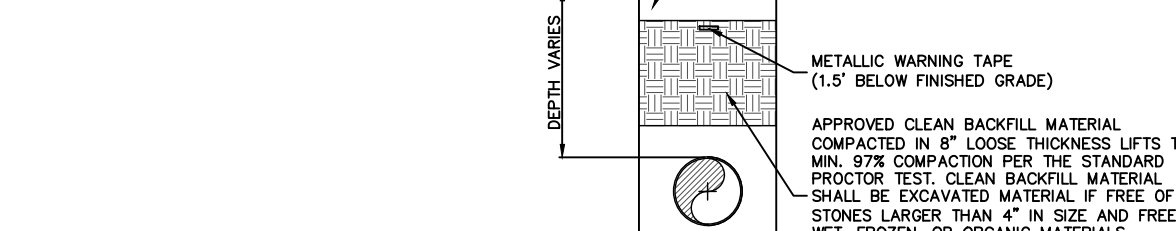
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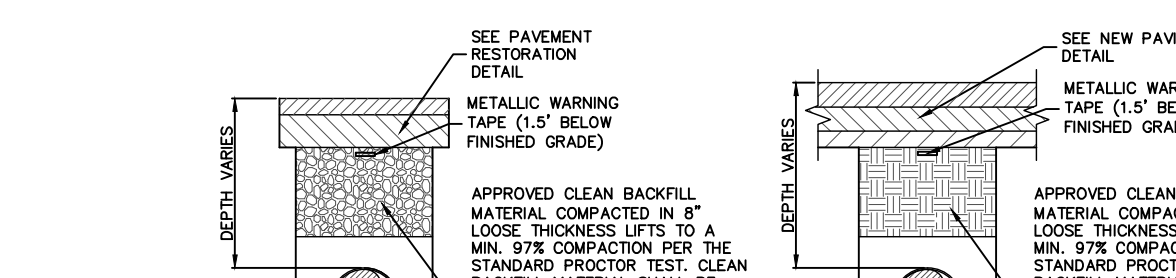
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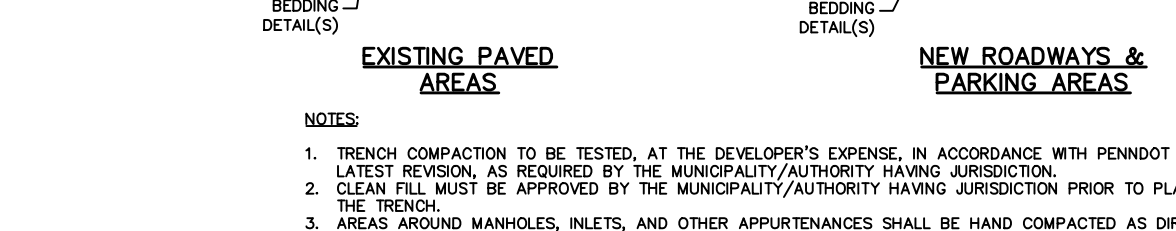
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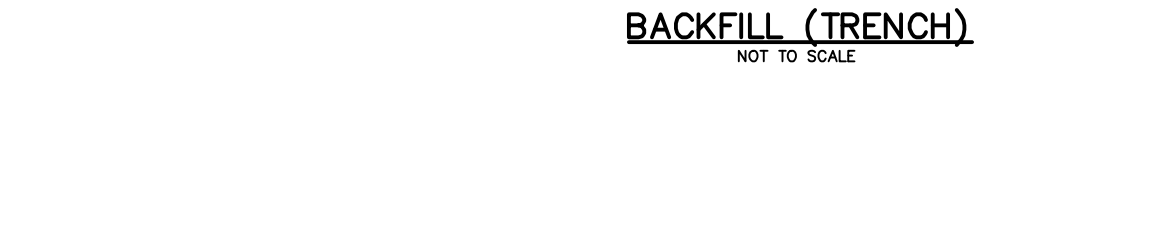
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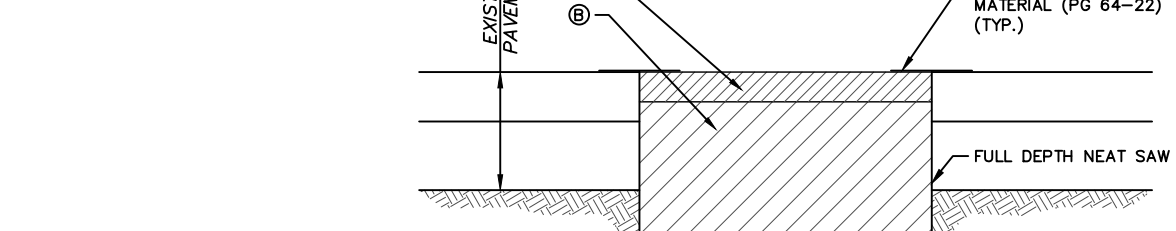
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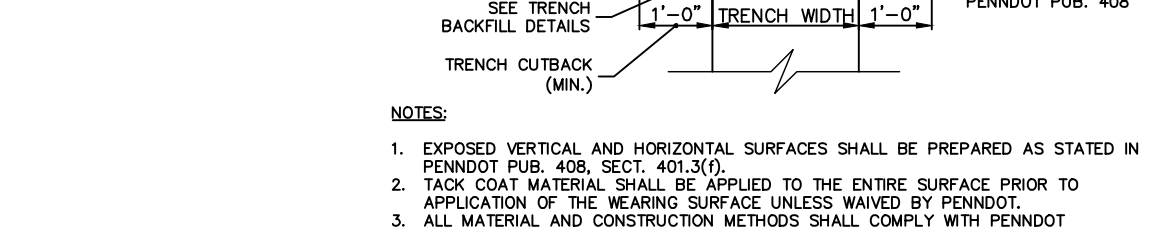
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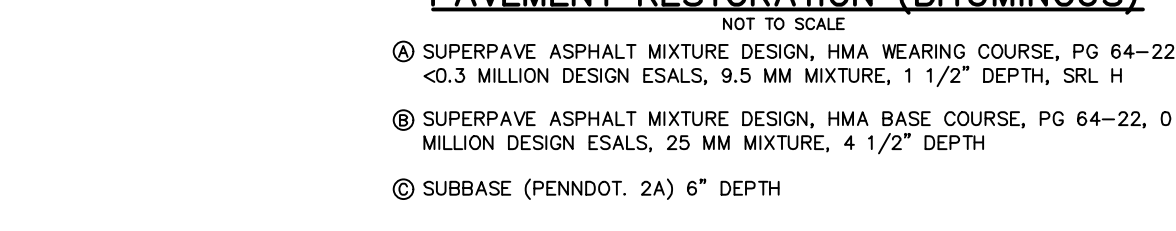
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**MANHOLE (PRECAST)**  
NOT TO SCALE



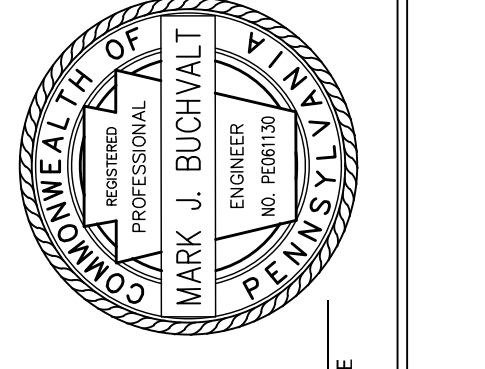
**MANHOLE (PRECAST)**  
NOT TO SCALE



**MANHOLE (PRECAST)**  
NOT TO SCALE

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NO.	BY	DATE	REVISIONS
1	mm	05/27/22	DATE
2	mm	06/29/22	REVISOR



**MARK BUCHVALT, P.E.**  
LICENSED PROFESSIONAL ENGINEER  
COMMONWEALTH OF PENNSYLVANIA  
LICENSE NO. PE061130

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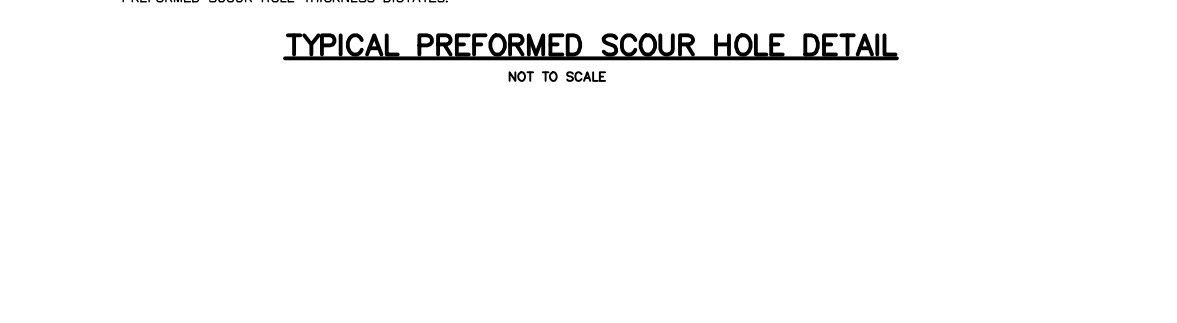
**STORM SEWER DETAILS**

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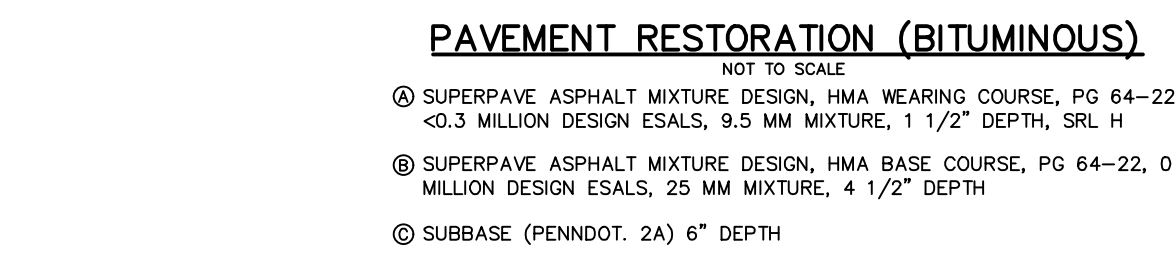
DESIGNED BY	DRAWING
MEB, DCH	F-DETAIL
CHECKED BY	MJB
DRAWN BY	DCH, MEB
DATE	04/29/2022
SCALE	AS NOTED
PROJ. NO.	JGPT00022

**NOT FOR CONSTRUCTION**

OUTLET NO.	OUTLET DIA.	BOTTOM LENGTH	OVERALL LENGTH	BOTTOM WIDTH	OVERALL WIDTH	DEPTH	1 (RENDO MATRESS)	2 (RRAPP MATRESS)	3 (RRAPP MATRESS)	4 (RRAPP MATRESS)
1	18"	5'	15'	4.5"	13.5"	1.5'	10"	18"	6'0"-4 1/2' (0'-0")	0'-0"



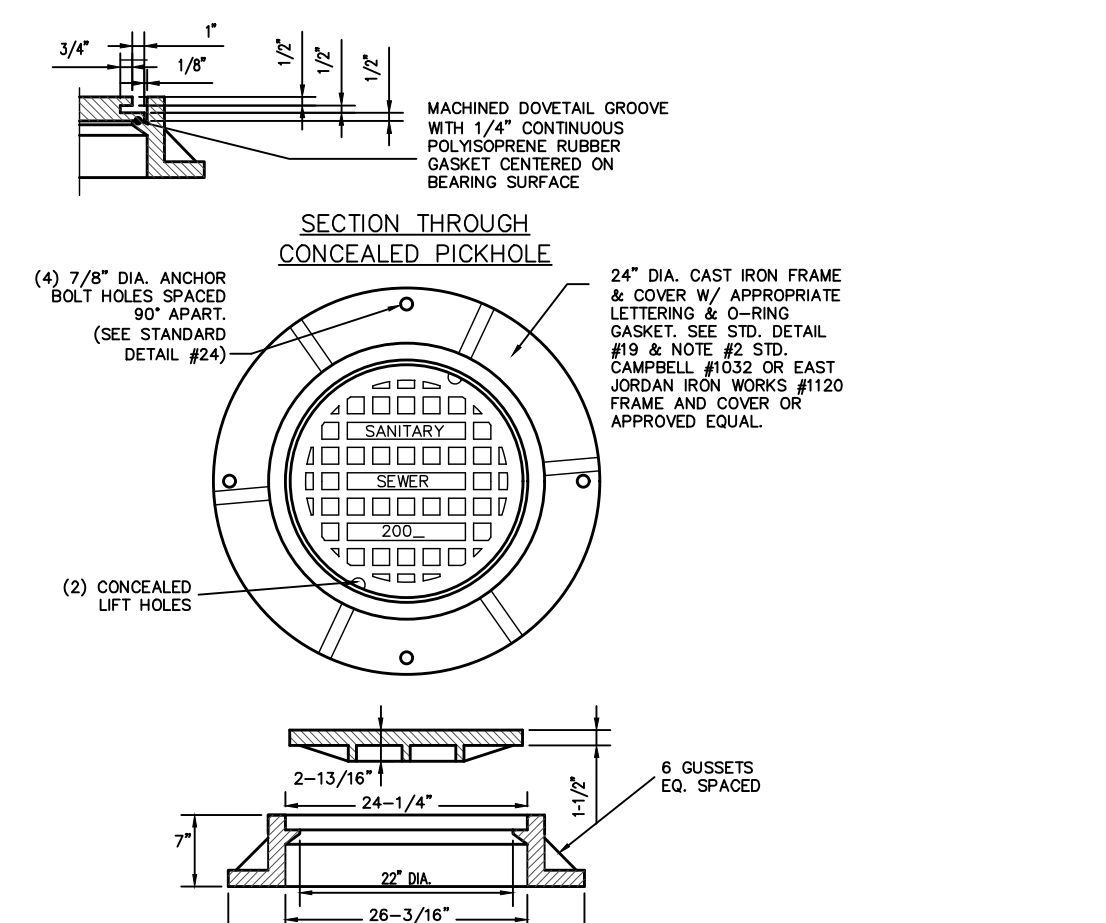
**TYPICAL PREFORMED SCOUR HOLE DETAIL**  
NOT TO SCALE



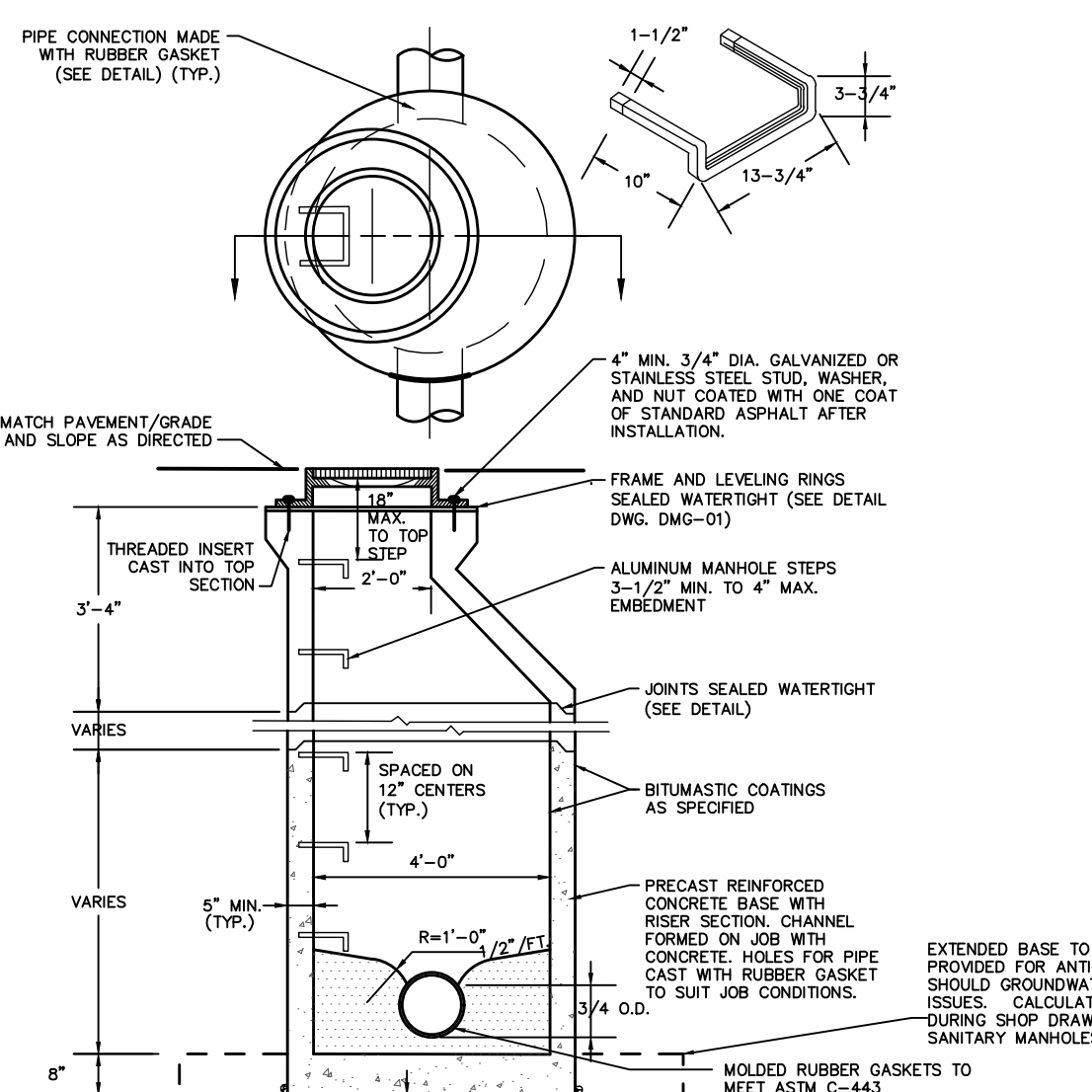
**PAVEMENT RESTORATION (BITUMINOUS)**  
NOT TO SCALE

- EXPOSED VERTICAL AND HORIZONTAL SURFACES SHALL BE PREPARED AS STATED IN PENNDOT PUB. 408, SECT. 401.010.
- TACK COAT MATERIAL SHALL BE APPLIED TO THE ENTIRE SURFACE PRIOR TO APPLICATION OF THE WEARING SURFACE UNLESS WAIVED BY PENNDOT.
- ALL MATERIAL AND CONSTRUCTION METHODS SHALL COMPLY WITH PENNDOT SPECIFICATIONS, PUBLICATION 408, LATEST REVISION.
- IF WORK IS COMPLETED WITHIN PENNDOT RIGHT OF WAY, SPECIAL CONDITIONS OF THE HIGHWAY OCCUPANCY PERMIT SHALL SUPERSEDE THIS DETAIL.
- REFER TO TYPICAL STREET CROSS SECTION FOR DESCRIPTIONS OF A.B.C. AND D.

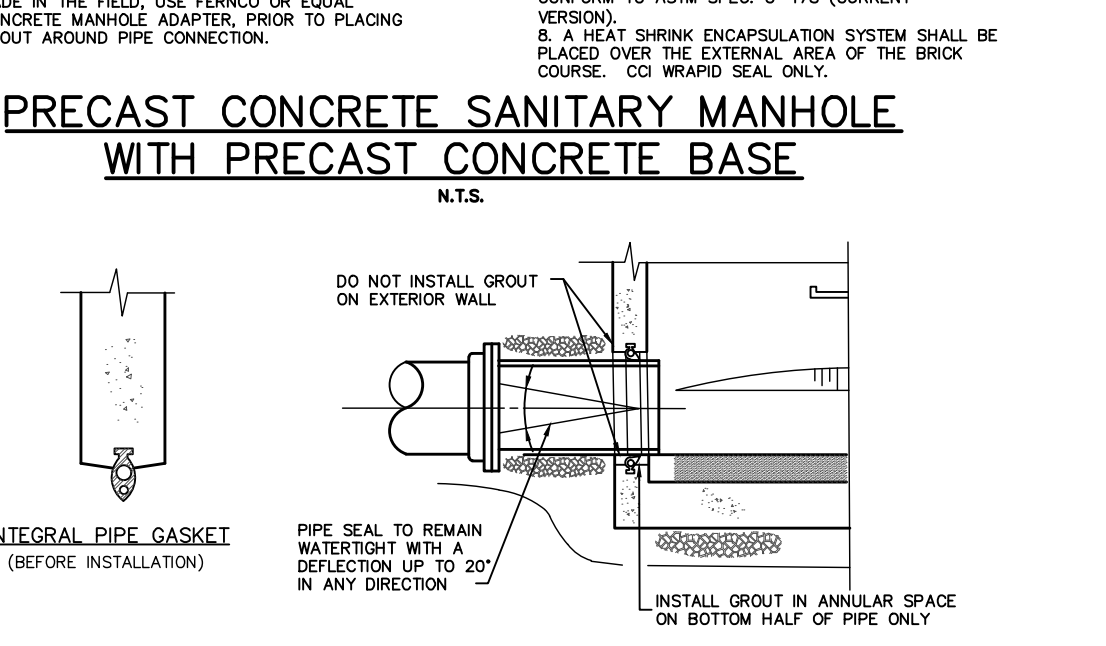
REVISIONS



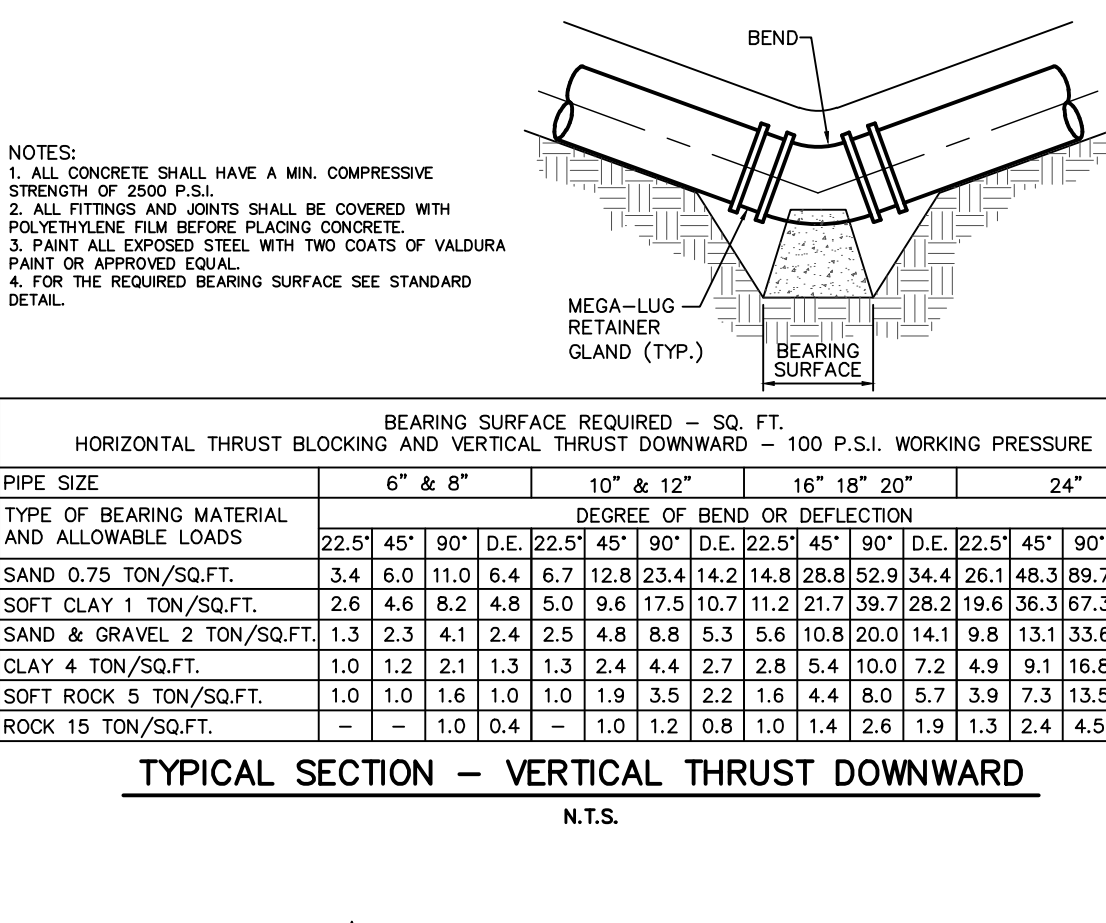
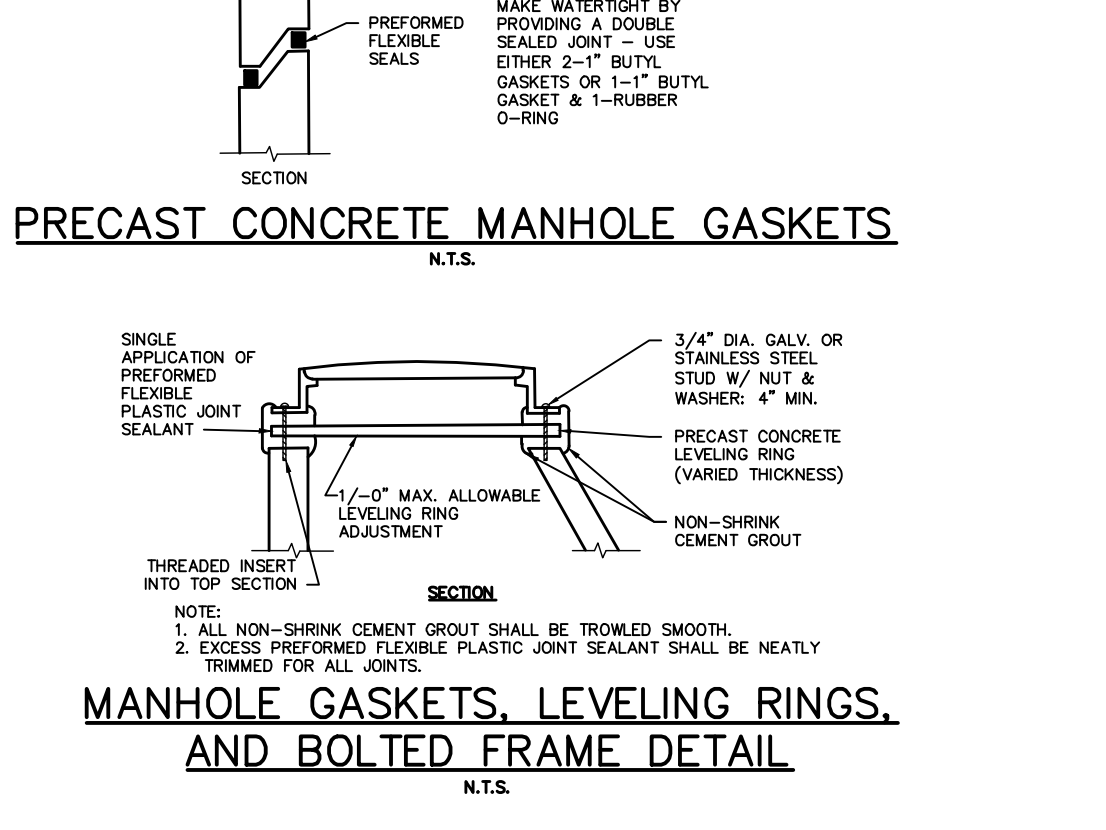
**HEAVY DUTY CAST IRON MANHOLE FRAME AND SELF-SEALING COVER**  
N.T.S.



**PRECAST CONCRETE SANITARY MANHOLE WITH PRECAST CONCRETE BASE**  
N.T.S.

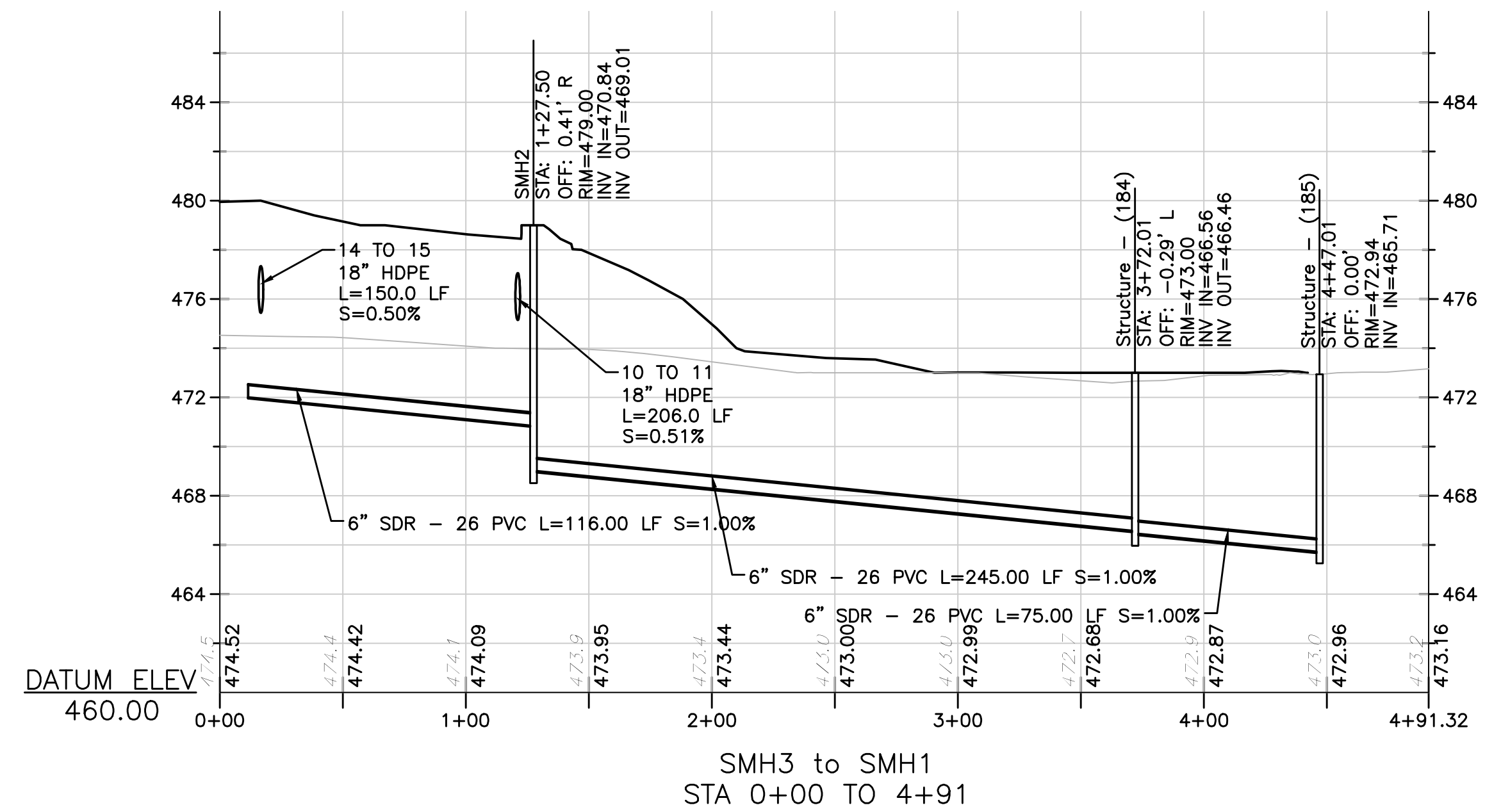


**MANHOLE GASKETS, LEVELING RINGS, AND BOLTED FRAME DETAIL**  
N.T.S.

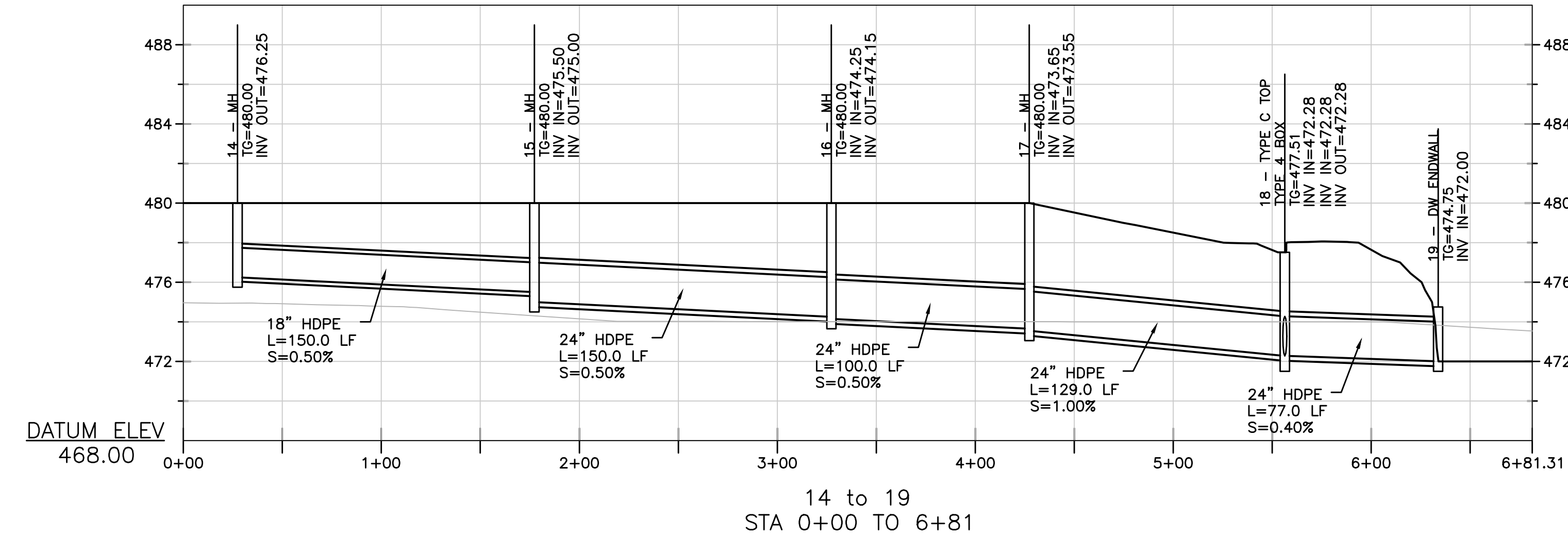


PROJECT INFORMATION:  
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 LAST SAVED DATE AND TIME: 28 Jun 2022, 6:15PM  
 LAST SAVE BY: D.Hilbert

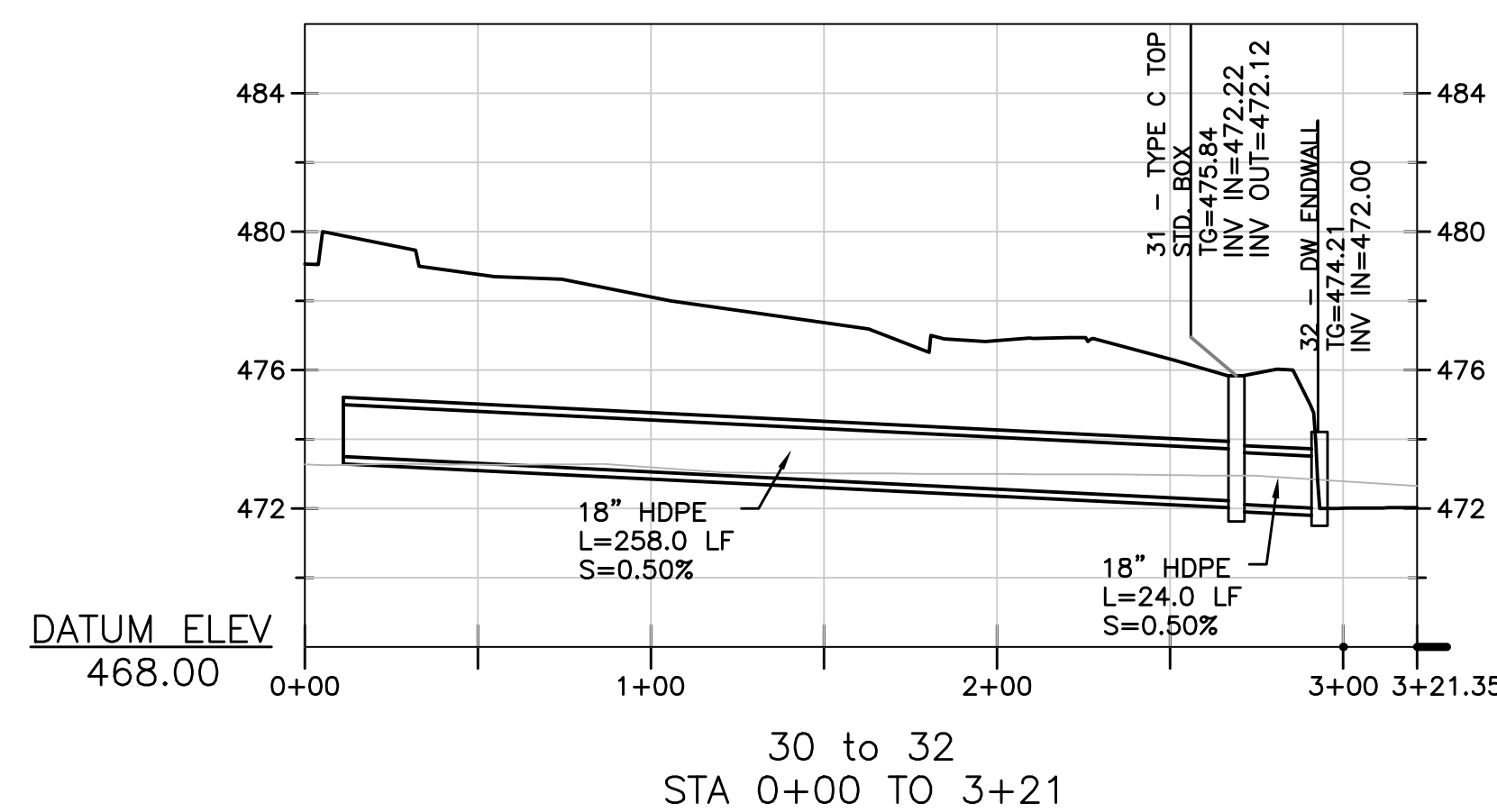
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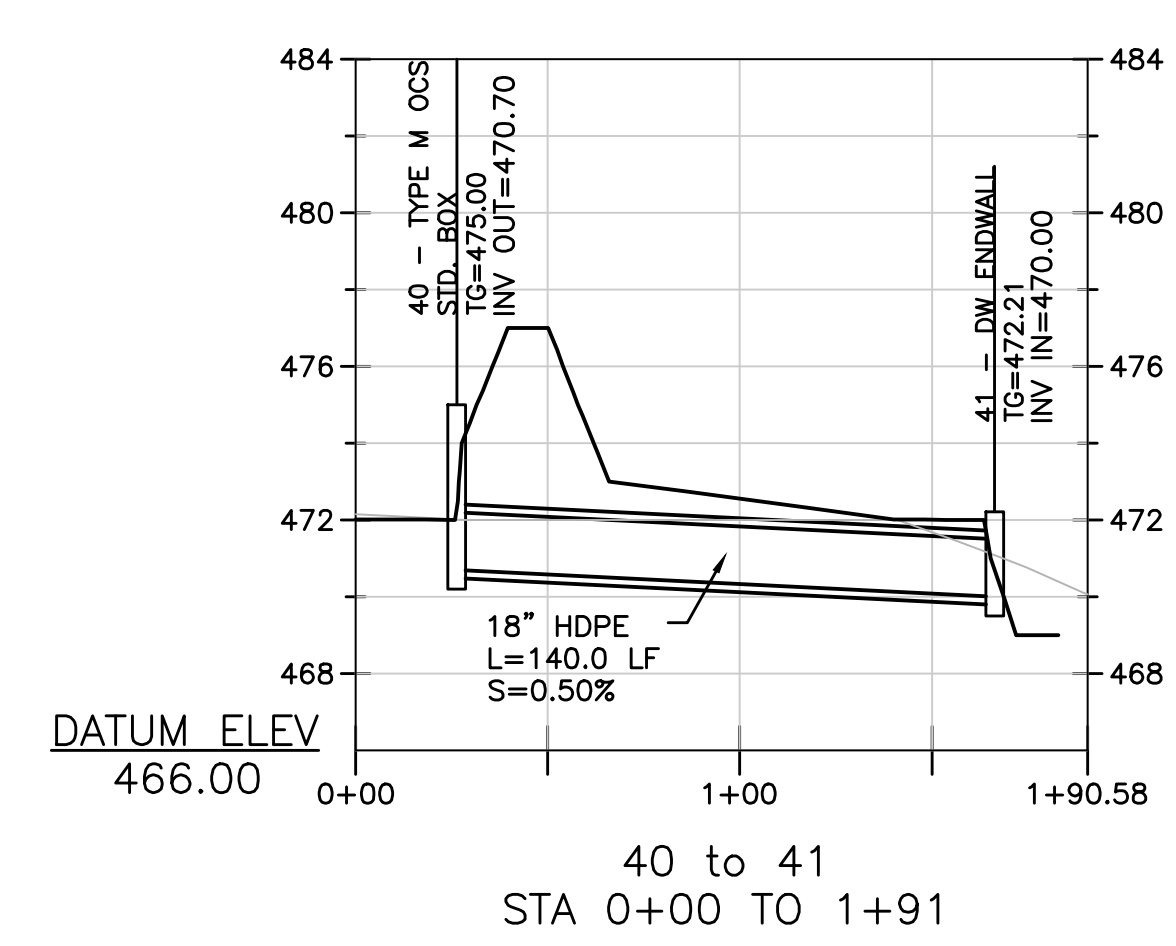
SMH3 to SMH1  
 STA 0+00 TO 4+91



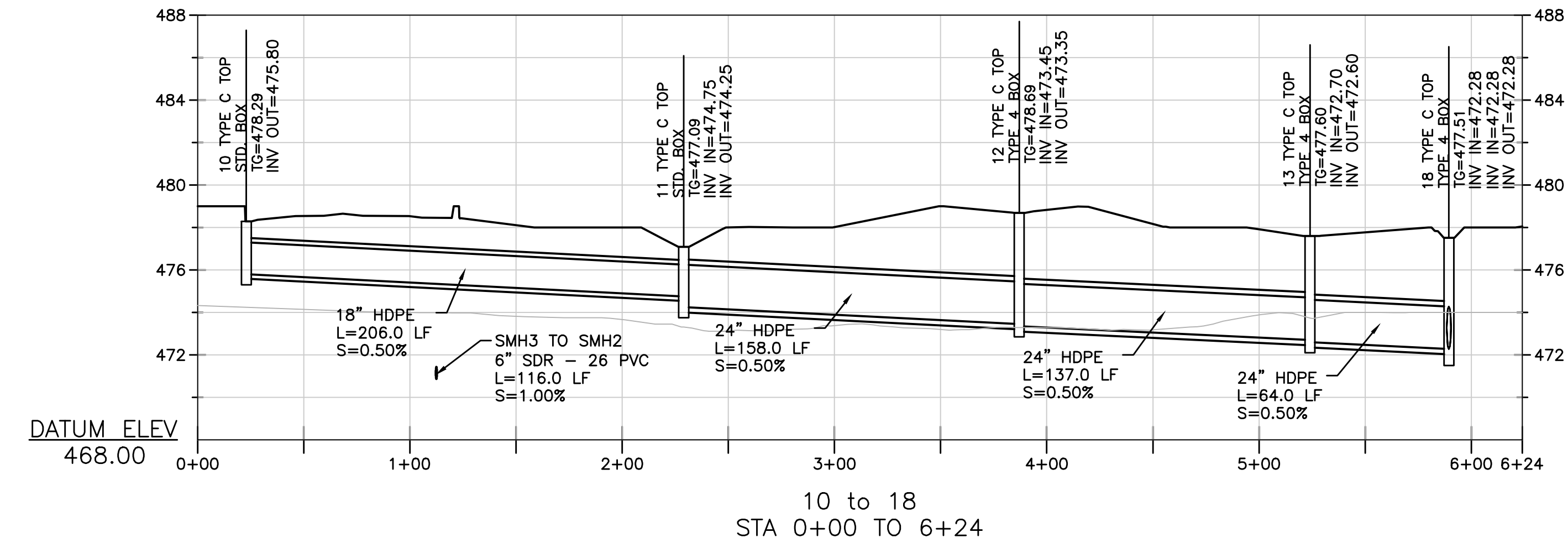
14 to 19  
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30 to 32  
 STA 0+00 TO 3+21

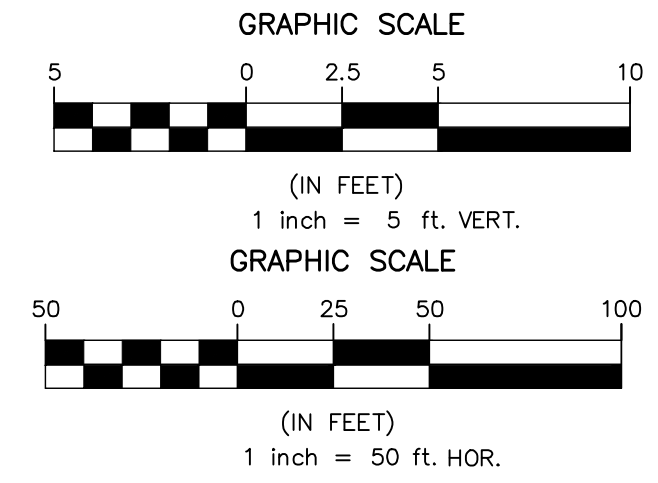


40 to 41  
 STA 0+00 TO 1+91

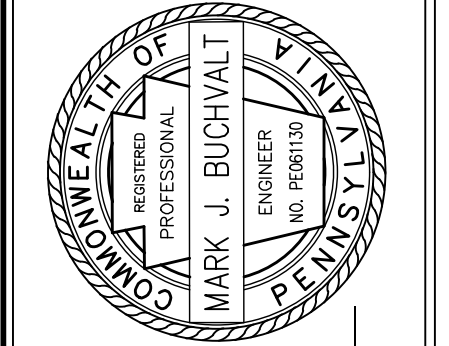


10 to 18  
 STA 0+00 TO 6+24

**NOT FOR  
 CONSTRUCTION**



NO.	BY	REVISIONS	DATE
2	dch, mmb, csg	REVISED PER TWP REVIEW LETTER DATED 06/07/2022	06/29/22
1	mmb	SUBMITTAL TO MCOCD	05/27/22



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DESIGNED BY: MEB, DCH  
 CHECKED BY: MJB  
 DRAWN BY: DCH, MEB  
 DATE: 04/29/2022  
 SCALE: AS NOTED  
 PROJ. NO.: JGPT00022

DRAWING: fprof  
 SHEET: 23  
 OF 23