PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

PLAN PURPOSE:

THE PURPOSE OF THIS PLAN IS TO SERVE AS A PRELIMINARY LAND DEVELOPMENT PLAN AND LOT CONSOLIDATION PLAN INCLUDING A MINOR LOT LINE ADJUSTMENT FOR THE PHASE V EXPANSION AT THE BETHLEHEM LANDFILL. THE PHASE V EXPANSION ENCOMPASSES THE FOLLOWING:

86 ACRES OF LATERAL EXPANSION (NEW DISPOSAL FOOTPRINT / NEWLY LINED AREA) AND 27.21 ACRES ATOP PREVIOUSLY PERMITTED LINED DISPOSAL AREA. THE TOTAL PHASE V DEVELOPMENT AREA, WHICH INCLUDES THE PROPOSED NEW DISPOSAL AREA, AREAS ATOP PREVIOUSLY PERMITTED LAND DISPOSAL AREAS AS WELL AS ASSOCIATED NEW LANDFILL SUPPORT ACTIVITIES AND STRUCTURES, IS 171 ACRES, ALL TO BE LOCATED WITHIN A PROPOSED 503.4595 ACRE PARCEL.

APPROVED WAIVERS:

BETHLEHEM LANDFILL COMPANY OBTAINED APPROVAL ON_____FROM LOWER SAUCON TOWNSHIP COUNCIL FOR THE FOLLOWING WAIVERS IN ASSOCIATION WITH THE PHASE V EXPANSION PRELIMINARY LAND DEVELOPMENT PLAN. THE WAIVERS APPROVED ARE THE MINIMUM MODIFICATIONS NECESSARY, WILL NOT BE CONTRARY TO THE PUBLIC INTEREST, AND ARE CONSISTENT WITH THE PURPOSE AND INTENT OF THE TOWNSHIP'S ORDINANCES. LITERAL ENFORCEMENT OF THE PROVISIONS FOR WHICH BLC SOUGHT WAIVERS WAS UNNECESSARY AND WOULD CAUSE UNDUE HARDSHIP ON BLC. WAIVERS IDENTICAL TO THOSE REQUESTED IN CONNECTION WITH THIS APPLICATION WERE PREVIOUSLY GRANTED BY TOWNSHIP COUNCIL IN CONNECTION WITH THE 2020 LAND DEVELOPMENT APPROVAL FOR THE NORTHERN REALIGNMENT, THE 2016 LAND DEVELOPMENT APPROVAL FOR THE SOUTHEASTERN REALIGNMENT, AND OTHER PRIOR APPROVALS FOR BETHLEHEM LANDFILL. FURTHER JUSTIFICATION FOR THE REQUESTED WAIVERS IS OUTLINED WITHIN SECTION 13 OF THE LAND DEVELOPMENT PLAN SUPPORTING DOCUMENTATION BINDER WHICH IS MADE PART OF THIS PLAN.

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

1. SALDO SECTION 145-33.B.(1) – REGARDING THE MINIMUM HORIZONTAL PLAN SCALE REQUIREMENT OF ONE INCH EQUALS 100 FEET FOR LOTS GREATER THAN ONE (1) ACRE AND TO ALLOW OVERALL PLAN VIEWS DRAWN AT SCALES OF ONE INCH EQUALS 200, 300, AND 400 FEET.
2. SALDO SECTIONS 145-33.C.(1) AND 145-34.C.(3) – REGARDING THE IDENTIFICATION OF EXISTING FEATURES WITHIN 500 FEET OF THE PROPERTY.
3. SALDO SECTION 145-33.C.(2) – REGARDING THE IDENTIFICATION OF EXISTING CONTOUR LINES WITHIN 500 FEET OF THE PROPERTY.
4. SALDO SECTIONS 145-33.F.(1)(a) AND 145-34.C.(9)(a) AND APPENDIX B-7 – REGARDING THE REQUIREMENT THE DRAINAGE FACILITIES MAINTENANCE NOTES REFERENCE DRAINAGE EASEMENTS.
5. SALDO SECTION 145-34.D.(5) – REGARDING THE REQUIREMENT TO PROVIDE AN AGREEMENT, AS A COVENANT RUNNING WITH THE LAND, DESCRIBING THE PROPERTY OWNER'S RESPONSIBILITIES FOR THE OPERATION AND MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES AND BMP'S IN ACCORDANCE WITH THE DEVELOPER'S POST-CONSTRUCTION OPERATION AND MAINTENANCE PLAN.
6. SALDO SECTIONS 145-41.B.(4) AND 145-45.B.(3), (4), AND (9) – REGARDING THE REQUIREMENT TO PROVIDE ADDITIONAL RIGHT-OF-WAY AND CARTWAY WIDTHS, CURB AND SIDEWALK ALONG APPLEBUTTER ROAD, RIVERSIDE DRIVE AND SKYLINE DRIVE.
7. SALDO SECTION 145-46.B.(3) – REGARDING THE REQUIREMENT TO PROVDE STORM DRAINAGE EASEMENTS.
8. SALDO SECTIONS 145-30 AND 145-34.D(6) – TO USE EXISTING LIABILITY INSURANCE (AND AMEND AS FOUND ACCEPTABLE TO THE TOWNSHIP SOLICITOR).
9. SALDO SECTION 145-45.G(2) – TO PERMIT DRIVEWAYS AS DETAILED THAT DO NOT MEET THE REQUIRED PAVEMENT WIDTHS AND THICKNESSES.

STORMWATER MANAGEMENT ORDINANCE

1. SMO SECTION 137-18.E – TO PERMIT SMALLER BASIN ORIFICES (1-INCH AND 2-INCH) THAN THE MINIMUM REQUIRED . ORIFICE (3-INCH).
2. SMO SECTION 137-18.G – TO ELIMINATE DETENTION BASIN ACCESS RAMP.
3. SMO SECTION 137-18.H – TO PERMIT THE OUTSIDE PERIMETER FENCING TO SERVE AS THE BASIN FENCING.
4. SMO SECTION 137-18.K – TO PERMIT STEEPER BASIN OUTSIDE BERM SLOPES.
5. SMO SECTION 137-18.L – TO PERMIT THE BASINS TO HAVE STORAGE DEPTHEXCEED THE MAXIMUM BASIN DEPTH PERMITTED (3 FEET), TO PERMIT BASIN INTERIOR SLOPES (2:1 AND 3:1) THAT ARE STEEPER THAN ARE REQUIRED (5:1), TO NOT REQUIRE FENCING AND TO NOT REQUIRE THE BASIN TO DRAIN DOWN WITH THE PRESCRIBED TIMES (4 HOURS AND 8 HOURS).
6. SMO SECTION 137-18.N MINIMUM BASIN BOTTOM SLOPE 1%
7. SMO SECTION 137-19.F.(2) TO PERMIT STEEPER SWALE BANK SLOPES.
8. SMO SECTION 137-19.G.(8) – REGARDING THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS FOR INLET AND MANHOLE CASTINGS AND CONCRETE CONSTRUCTION.
9. SMO SECTION 137-19.G.(10) – REGARDING THE REQUIREMENT THAT OPEN-END PIPES MUST BE FITTED WITH CONCRETE END WALLS OR WING WALLS, IN ACCORDANCE WITH PENNDOT STANDARDS, AND PROVIDE A THIRTY INCH (30") CONCRETE FOOTING AND TO ALLOW FLARED END SECTIONS.
10. SMO SECTION 137-19.G.(14) – REGARDING THE REQUIREMENT THAT FIXED PIPE CONVEYANCE OF STORMWATER MUST BE TO THE SAME DESTINATION AS STORMWATER WOULD BE CONVEYED OVERLAND IF THE FIXED PIPE CONVEYANCE SYSTEM WERE TO FAIL.
11. SMO SECTION 137-23.M – REGARDING THE REQUIREMENT THAT NO GROUND MAY BE PROPOSED OR ALTERED TO EXCEED A SLOPE STEEPER THAN ONE (1) VERTICAL FOR THREE (3) HORIZONTAL AND TO ALLOW A PROPOSED SLOPE OF ONE (1) VERTICAL FOR TWO (2) HORIZONTAL.
12. SMO SECTION 137-26.D AND E, -34, -36, -37 AND -38 – REGARDING THE REQUIREMENT TO PROVIDE A LEGAL AGREEMENT BETWEEN THE OWNER AND TOWNSHIP DESCRIBING THE OWNER'S RESPONSIBILITY FOR STORMWATER MANAGEMENT FACILITY OWNERSHIP, MAINTENANCE, REPAIR AND REPLACEMENT.
13. SMO SECTION 137-37.B AND C – REGARDING THE REQUIREMENT TO PROVIDE EASEMENTS AROUND ANY PROPOSED STORMWATER MANAGEMENT FACILITIES.
14. SMO APPENDIX I – REGARDING THE REQUIREMENT TO PROVIDE THE STORM DRAINAGE MAINTENANCE AND EASEMENT NOTES ON THE PLANS.

ZONING APPROVAL:

IN 1993, 2001, 2016 AND 2020 THE LOWER SAUCON TOWNSHIP ZONING HEARING BOARD GRANTED SPECIAL EXCEPTION APPROVAL TO UTILIZE 206 ACRES OF THE PROPOSED CONSOLIDATED LANDFILL PARCEL FOR LANDFILL USE.

ON AUGUST 30 2023, THE LOWER SAUCON TOWNSHIP COUNCIL ADOPTED A ZONING ORDINANCE TEXT AMENDMENT TO ALLOW LANDFILLS AS A PERMITTED USE WITHIN THE LIGHT INDUSTRIAL ZONE. THE PROPOSED CONSOLIDATED LOT IS LOCATED ENTIRELY WITHIN THE LIGHT INDUSTRIAL ZONE.

GENERAL NOTES:

1. DEVELOPMENT PROPOSED HEREIN IS WITHIN AN EXISTING 421.467 ACRE TRACT OWNED BY BETHLEHEM LANDFILL COMPANY AS CONSOLIDATED ON A PLAN APPROVED BY LOWER SAUCON TOWNSHIP COUNCIL TITLED "NORTHERN REALIGNMENT PRELIMINARY / FINAL LAND DEVELOPMENT PLAN, SITE PLAN & CONSOLIDATION PLAN". THIS EXISTING TRACT FOLLOWING A LOT LINE ADJUSTMENT SHOWN HEREIN IS TO BE CONSOLIDATED WITH FOUR (4) ADDITIONAL PARCELS RESULTING IN A PARCEL TOTALING 503.4595 ACRES. REFER TO LOT CONSOLIDATION PLAN FOR DETAILS.
2. THE PHASE V EXPANSION INCLUDES ADDITIONAL DISPOSAL CAPACITY AND PROPOSES LANDFILL OPERATIONS BEYOND THE EXISTING PADEP PERMIT BOUNDARY FOR BETHLEHEM LANDFILL. AS SUCH, A PADEP SOLID WASTE PERMIT MAJOR MODIFICATION IS REQUIRED PRIOR TO COMMENCEMENT OF DEVELOPMENT.
3. UTILITY LOCATIONS SHOWN ON ALL PLAN SHEETS SHALL BE FIELD VERIFIED IN ACCORDANCE WITH PA ACT 187 PRIOR TO ANY EXCAVATION.
4. THE PHASE V EXPANSION PROPOSES NO DEVELOPMENT WITHIN OR DIRECTLY ADJACENT TO THE PUBLIC RIGHTS OF WAY OF SKYLINE DRIVE, RIVERSIDE DRIVE AND APPLEBUTTER ROAD.
5. LOWER SAUCON AUTHORITY SHALL HAVE PERMANENT AND UNRESTRICTED ACCESS TO ITS FACILITIES OVER LANDS OF BETHLEHEM LANDFILL COMPANY VIA THE PERIMETER ACCESS ROAD AND THE VARIOUS UTILITY EASEMENTS SHOWN.
6. SOME SITE INFORMATION FOR THESE PLANS HAS BEEN COMPILED FROM DRAWINGS FURNISHED BY GANNETT FLEMING, INC. OF HARRISBURG, PENNSYLVANIA AND AMERICAN RESOURCE CONSULTANTS, INC. OF DOYLESTOWN, PENNSYLVANIA.
7. BASE MAPPING CREATED BY COMPILING TOPOGRAPHY FROM LOCKWOOD MAPPING CO. DATED 2-2-99 & TVGA ENGINEERING, SURVEYING, P.C. DATED APRIL 1998. MAPPING HAS BEEN FIELD VERIFIED. DISPOSAL AREA INFORMATION TAKEN FROM PHASE III PERMIT DWGS. BY GANNETT FLEMING. DATED NOV. 9, 1993. EXISTING PROPERTY LINE DATA TAKEN FROM PLAN BY KEYSTONE CONSULTING ENGINEERS, INC. REVISED THRU 12-13-00.
8. NO TOPSOIL SHALL BE REMOVED FROM THE SITE EXCEPT FOR TOPSOIL STRIPPED FROM STREET CARTWAY AREAS OR OTHER PAVED AREAS. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED OVER AREAS STRIPPED FOR CONSTRUCTION BEYOND THOSE AREAS COVERED BY STRUCTURES AND PAVING.
9. "EXISTING CONDITIONS" AS DEPICTED HEREIN CONSIST OF EITHER ACTUAL FIELD CONDITIONS TAKEN FROM THE REFERENCED AERIAL PHOTOGRAPHY OR THOSE PREVIOUSLY APPROVED CONDITIONS AS OUTLINED WITHIN THE SOUTHEASTERN REALIGNMENT, RNG FACILITY AND NORTHERN REALIGNMENT LAND DEVELOPMENT PLANS.
10. AS BUILT PLANS SHALL BE PROVIDED AS REQUIRED, OR A CERTIFICATION LETTER THAT THE FACILITIES WERE INSTALLED PER PLAN TO THE LOWER SAUCON TOWNSHIP.
11. THE PHASE V EXPANSION PROPOSES NO CHANGES TO THE LANDFILL OPERATIONS REGARDING WASTE ACCEPTANCE RATES AND HOURS OF OPERATION.
12. THE OWNER ACKNOWLEDGES THAT PADEP REGULATES, INSPECTS AND REQUIRES MAINTENANCE BONDING FOR THE STORMWATER FACILITIES WITHIN THE PADEP PERMIT BOUNDARY, AND THE OWNER MUST MAINTAIN SAID APPROVED FACILITIES IN ACCORDANCE WITH THE APPROVED DESIGNS.
13. THE OWNER WILL POST A BOND WITH PADEP, IN AN AMOUNT THAT PADEP DETERMINES TO BE SUFFICIENT TO INSURE SITE CLOSURE AND POSTCLOSURE IN ACCORDANCE WITH THE PADEP'S APPLICABLE REGULATIONS. THE OWNER ACKNOWLEDGES THAT "CLOSURE" IS DEFINED BY PADEP REGULATIONS AS THE DATE ON WHICH THE FACILITY CEASES TO ACCEPT WASTE; THAT "FINAL CLOSURE" IS THE DATE AFTER WHICH NO FURTHER SITE TREATMENT, MAINTENANCE, OR OTHER ACTION IS OR WILL BE NECESSARY TO ENSURE COMPLIANCE WITH PADEP REGULATIONS; THAT THE DATE OF PADEP'S FINAL CLOSURE CERTIFICATION SHALL BE THE DATE OF COMMENCEMENT OF THE 10-YEAR BOND LIABILITY PERIOD FOLLOWING FINAL CLOSURE [25 PA. CODE 271.342 (e)]; THAT OWNER'S REQUEST FOR BOND RELEASE SHALL BE CONSIDERED A MAJOR PERMIT MODIFICATION (INCLUDING PUBLIC NOTICE AND PUBLIC COMMENTS) [25 PA. CODE 271.341(e)] AND THE RELEASE OF BOND DOES NOT CONSTITUTE A WAVIER OR RELEASE OF LIABILITY PROVIDED IN LAW [25 PA. CODE 271.341 (g)(2)].

DRAINAGE FACILITIES MAINTENANCE NOTES:

A) ALL DRAINAGE FACILITIES SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A GRASSED OR OTHERWISE IMPROVED CONDITION IN ACCORDANCE WITH THE GRADES AND DESIGNS SHOWN ON THE APPROVED DEVELOPMENT PLANS FOR THIS PROJECT. ALL THESE FACILITIES SHALL BE KEPT FREE OF ALL OBSTRUCTION, INCLUDING BUT NOT LIMITED TO SUCH OBSTRUCTIONS AS FILL, TEMPORARY OR PERMANENT STRUCTURES AND PLANTS (OTHER THAN GRASS). THE MAINTENANCE OF ALL SUCH FACILITIES SHALL BE THE RESPONSIBILITY OF THE LOT OWNER ON WHICH THE FACILITIES EXISTS.

B) DRAINAGE FACILITIES SHALL ALLOW THE PASSAGE OF STORMWATER IN UNDERGROUND STORM SEWER PIPING AND ASSOCIATED STRUCTURES AND/OR ALLOW PASSAGE OF STORMWATER OVER THE SURFACE OF THE GROUND AND SHALL ALLOW ACCESS ACROSS THE AREA FOR PURPOSES OF MAINTENANCE OF THE STORM CONVEYANCE SYSTEMS.

C) EXISTING ROADSIDE GUTTERS OR SWALES SHALL NOT BE OBSTRUCTED BY DRIVEWAYS OR OTHER FILL OR STRUCTURES.

LEHIGH VALLEY PLANNING COMMISSION REVIEW

Reviewed by the Leigh Valley Planning Commission

_____ _____

DATE PLANNER

TOWNSHIP PLANNING COMMISSION RECOMENDATIONS

Recommended for approval by the Lower Saucon Township Planning Commission this

_____day of _____20___.

_____ _____

CHAIRMAN SECRETARY

TOWNSHIP COUNCIL APPROVAL AND TOWNSHIP ENGINEER REVIEW

Approved by the Lower Saucon Township Council this

_____day of _____20___.

_____ _____

SECRETARY COUNCIL PRESIDENT

Reviewed by:

_____

TOWNSHIP ENGINEER

This _____ day of _____20___ .

NEIGHBORHOOD PROTECTION:

BETHLEHEM LANDFILL COMPANY SHALL COMPLY WITH THE REQUIREMENTS OF ZONING ORDINANCE SECTION 180-96 OF THE LOWER SAUCON TOWNSHIP ZONING ORDINANCE AS IT PERTAINS TO GENERAL PERFORMANCE STANDARDS REGARDING NEIGHBORHOOD PROTECTION IN SO FAR AS THESE STANDARDS ARE WITHIN THE LIMITATIONS OF NORMAL LANDFILL OPERATIONS AND PROCEDURES.

PENNDOT OCCUPANCY PERMITS:

1) DRIVEWAY ACCESS IMPROVEMENTS TO A STATE HIGHWAY SHALL BE AUTHORIZED ONLY BY HIGHWAY OCCUPANCY PERMIT ISSUED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, AS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945, P.L. 1242, NO. 428, KNOWN AS THE "STATE HIGHWAY LAW" (36 P.S. 670-420).

2) BUILDING PERMITS SHALL NOT BE ISSUED UNTIL OR AFTER SAID HIGHWAY OCCUPANCY PERMIT HAS BEEN ISSUED.

3) APPROVAL OF THIS PLAN DOES NOT REPRESENT ANY GUARANTY OR ASSURANCE BY LOWER SAUCON TOWNSHIP THAT A HIGHWAY OCCUPANCY WILL BE ISSUED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION.

4) NO MODIFICATIONS ARE PROPOSED TO THE EXISTING LANDFILL ACCESS FROM APPLEBUTTER ROAD. NO NEW ACCESS DRIVES ARE PROPOSED. ON APRIL 16, 2023 PENNDOT PROVIDED WRITTEN CONFORMATION THE EXISTING HIGHWAY OCCUPANCY PERMIT IS ADEQUATE TO SERVE THE PROPOSED PHASE V EXPANSION.

5) ALL CURRENT AND FUTURE OWNERS ARE HEREBY NOTIFIED OF THE REQUIREMENT THAT THEY INSTALL, AT THEIR SOLE COST AND EXPENSE, CURBING IN ACCORDANCE WITH TOWNSHIP SPECIFICATIONS IF AND WHEN LOWER SAUCON TOWNSHIP OR PENNDOT INSTALLS CURBING ALONG APPLEBUTTER ROAD.

RIPARIAN CORRIDOR BUFFER, WETLANDS, FLOODPLAIN:

1) THE RIPARIAN BUFFERS DEPICTED ON THESE PLANS WERE TAKEN FROM PHASE IV, SOUTHEASTERN REALIGNMENT AND NORTHERN REALIGNMENT LAND DEVELOPMENT PLANS PREPARED BY MARTIN AND MARTIN.

2 TEN (10) WETLANDS HAVE BEEN DELINEATED WITHIN THE SUBJECT PROPERTY. THESE WETLANDS ARE IDENTIFIED AS WETLANDS A THRU J. WETLANDS A AND B WERE TAKEN FROM THE PHASE III CITY OF BETHLEHEM LANDFILL PADEP PERMIT APPLICATION. WETLANDS A AND B WERE REVIEWED AND CONFIRMED BY THE USACE AS PART OF THE PHASE IV BETHLEHEM LANDFILL EXPANSION. WETLAND C DELINEATED BY ROEMER ECOLOGICAL SERVICES AS SHOWN HEREIN WAS REVIEWED AND CONFIRMED BY THE USACE IN 2014 AS PART OF THE SOUTHEASTERN REALIGNMENT. WETLANDS D THRU J WERE DELINEATED BY TRIAD ENGINEERING INC; HAGERSTOWN, MD. IN 2020 AND HAVE NOT BEEN REVIEWED OR CONFIRMED BY USACE. USACE REVIEW AND CONFIRMATION WILL BE MADE IN CONJUCTION WITH THE PHASE V EXPANSION PADEP SOLID WASTE PERMIT APPLICATION.

3) BASED UPON AN EXAMINATION OF THE LOWER SAUCON TOWNSHIP FLOOD INSURANCE RATE MAPPING AS PREPARED BY FEMA, THERE IS IDENTIFIED FLOOD PLAIN ASSOCIATED WITH THE SUBJECT PROPERTY WHICH LIES ENTIRELY IN ZONE X. SAID FLOODPLAIN IS IDENTIFIED ON THESE PLANS BEING LOCATED ON THE FORMER REDDINGTON PARCEL. NO DEVELOPMENT IS PROPOSED WITHIN THE FLOODPLAIN.

4) THE GRANT OF A PERMIT OR APPROVAL OF A SUBDIVISION AND/OR LAND DEVELOPMENT PLAN IN OR NEAR FLOODPLAIN AREAS SHALL NOT CONSTITUTE A REPRESENTATION, GUARANTY OR WARRANTY OF ANY KIND BY THE TOWNSHIP OR AN OFFICIAL, CONSULTANT OR EMPLOYEE THEREOF OF THE PRACTICABILITY OR SAFETY OF THE PROPOSED USE, AND THE OWNERS HEREBY AGREE AND ACKNOWLEDGE THAT SUCH PERMITS OR APPROVALS SHALL NOT CREATE ANY LIABILITY UPON THE TOWNSHIP, ITS OFFICIAL, EMPLOYEES OR CONSULTANTS.

UTILITY CONTACTS:

WATER / SEWER:
LOWER SAUCON AUTHORITY
3706 OLD PHILADELPHIA PIKE
BETHLEHEM, PENNSYLVANIA 18015
PH: (610) 317-3212
EMAIL: administrator@lowersauconauthority.org

GAS:
CALPINE ENERGY CENTER
2254 APPLEBUTTER ROAD
BETHLEHEM, PENNSYLVANIA 18015
PH: (601) 861-6130

UGI UTILITIES, INC
P.O. BOX 13009
READING, PA 19612
PH: (800) 276-2722
EMAIL: customerservice@ugi.com

STORM SEWER:
LOWER SAUCON TOWNSHIP – PUBLIC WORKS
CONTACT: ROGER RASICH
3700 OLD PHILADELPHIA PIKE
BETHLEHEM, PENNSYLVANIA 18015
PH: (610) 865-3291
EMAIL: dlrpw@lowersaucontownship.org

SANITARY SEWER:
WASTE CONNECTIONS
CONTACT: DAVID PANNUCCI
2335 APPLEBUTTER ROAD
BETHLEHEM, PENNSYLVANIA 18015
PH: (610) 317-3200
EMAIL:
david.pannucci@wasteconnections.com

ELECTRIC:
PPL ELECTRIC UTILITIES
827 HAUSMAN ROAD
ALLENTOWN, PA 18104
PH: (888) 220-9991

DESIGN ENGINEER CERTIFICATION

I hereby certify that I have designed all site and public improvements and have identified all floodplain limits as required for this subdivision or land development.

SEPTEMBER 11, 2023 — DATE

REGISTERED ENGINEER

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH MICHAEL MAXWELL — ENGINEER — NO.082508 — PENNSYLVANIA

SURVEYOR'S CERTIFICATION

I hereby certify that this plan represents a survey and design made by or for me that all dimensional details are correct to the best of my knowledge and belief.

SEPTEMBER 11, 2023 — DATE

REGISTERED SURVEYOR

COMMONWEALTH OF PENNSYLVANIA — REGISTERED — SAMUEL DAVID RUNYON — SURVEYOR — No.3574-E — PENNSYLVANIA

CARBONATE GEOLOGY CERTIFICATION

I hereby certify that the facilities are not underlain by carbonate geology.

SEPTEMBER 11, 2023 — DATE

REGISTERED GEOLOGIST

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL GEOLOGIST — JODI ANDREW LOWRET — GEOLOGIST — 3803-E — PENNSYLVANIA

WETLAND SPECIALIST CERTIFICATION

I hereby certify that I performed the wetland survey for those wetlands depicted on the former Helms and Redington Parcels of the Consolidated Lot.

SEPTEMBER 11, 2023 — DATE

WETLAND SPECIALIST

OWNER'S CERTIFICATION

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF NORTHAMPTON

We, the undersigned, the owners of the property shown on this plan, being duly sworn according to law, depose and say that we are sole owners of this property in peaceful possession of the same and that no suits pending affecting the title of the same. We further depose and say that this plan was made at our direction and that we desire the same to be recorded.

Commonwealth of Pennsylvania - Notary Seal
KEVIN BODNER - Notary Public
Franklin County
My Commission Expires January 28, 2025
Commission Number 1274323

David Pannucci
(OWNER) PRINT

(OWNER) SIGNATURE

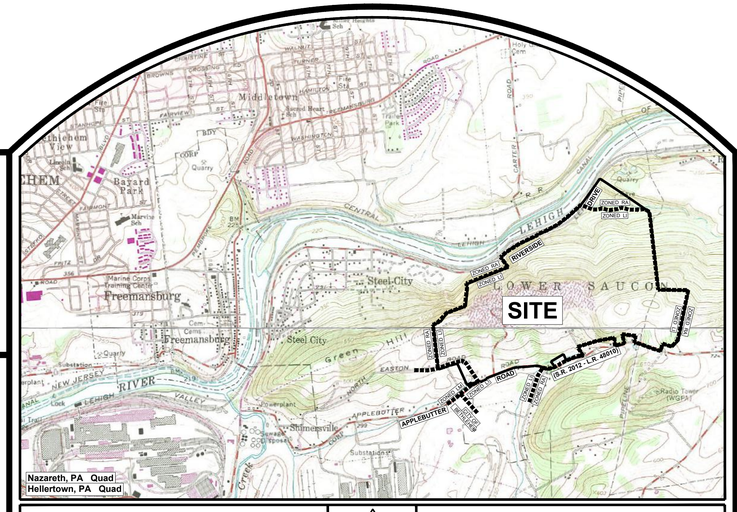
Sworn to and subscribed before me this

11 day of September 2023

NOTARY PUBLIC

SEPTEMBER 11, 2023

LOWER SAUCON TWP. — **NORTHAMPTON COUNTY**



LOCATION MAP | N | SCALE: 1" = 2,000'

OWNER / APPLICANT

BETHLEHEM LANDFILL COMPANY
2335 APPLEBUTTER ROAD
BETHLEHEM, PA 18015
MR. DAVID PANUCCI
PHONE: (610) 317-3200

PREPARED BY:

martin and martin, Inc.
37 South Main Street • Suite A
Chambersburg, Pennsylvania 17201
phone: (717) 264-6759

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SUPPLEMENTAL PLANS:
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (PC1 TO PC-7)

FILE: 1162.6-LDP-PV-01.dwg

PARCEL (A)

(LOT LINE ADJUSTMENT)

LANDS NOW OR FORMERLY OF BETHLEHEM LANDFILL COMPANY & BEING PART OF DEED 2000-1, PAGE 088738 TO BE CONVEYED AS A LOT ADDITION TO ADJOINING LANDS NOW OR FORMERLY OF BETHLEHEM LANDFILL CORPORATION, DEED 2002-1- PAGE 023852.

NO CONSTRUCTION IS CONTEMPLATED AT THIS TIME, ON PARCEL A IN THE FUTURE IF DEVELOPMENT IS PROPOSED IT WOULD BE SUBJECT TO ALL APPLICABLE FEDERAL, STATE AND LOCAL REVIEWS AND APPROVALS INCLUDING, BUT NOT LIMITED TO TOWNSHIP LAND DEVELOPMENT APPROVAL.

TOTAL AREA 6.894 ACRES OR 300,302 S.F.

PARCEL (B)

(CONSOLIDATION)

LANDS NOW OR FORMERLY OF BETHLEHEM LANDFILL COMPANY & BEING PART OF DEED 2022-1, PAGE 150680 TO BE CONSOLIDATED WITH THE APPROVED CONSOLIDATED LANDFILL PARCEL IDENTIFIED HEREON.

THIS PARCEL IS SUBJECT TO A CONSERVATION EASEMENT ACCEPTED BY LOWER SAUCON TOWNSHIP ON 08/30/23 RECORDED IN NORTHAMPTON COUNTY DEED BOOK PAGE

TOTAL AREA 0.3276 ACRES OR 14,272 S.F.

PARCEL (C)

(CONSOLIDATION)

LANDS NOW OR FORMERLY OF BETHLEHEM LANDFILL COMPANY & BEING PART OF DEED 2023-1, PAGE 020448 TO BE CONSOLIDATED WITH THE APPROVED CONSOLIDATED LANDFILL PARCEL IDENTIFIED HEREON.

THIS PARCEL IS SUBJECT TO A CONSERVATION EASEMENT ACCEPTED BY LOWER SAUCON TOWNSHIP ON 08/30/23 RECORDED IN NORTHAMPTON COUNTY DEED BOOK PAGE

TOTAL AREA 0.414 ACRES OR 18,034 S.F.

PARCEL (D)

(CONSOLIDATION)

LANDS NOW OR FORMERLY OF BETHLEHEM LANDFILL COMPANY & BEING PART OF DEED 2023-1, PAGE 020448 TO BE CONSOLIDATED WITH THE APPROVED CONSOLIDATED LANDFILL PARCEL IDENTIFIED HEREON.

THIS PARCEL IS SUBJECT TO A CONSERVATION EASEMENT ACCEPTED BY LOWER SAUCON TOWNSHIP ON 08/30/23 RECORDED IN NORTHAMPTON COUNTY DEED BOOK PAGE

TOTAL AREA 0.604 ACRES OR 26,310 S.F.

PARCEL (E)

(CONSOLIDATION)

LANDS OF NOW OR FORMERLY OF BETHLEHEM LANDFILL COMPANY & BEING PART OF DEED 2020-1 PAGE 093296 TO BE CONSOLIDATED WITH THE APPROVED CONSOLIDATED LANDFILL PARCEL IDENTIFIED HEREON.

CONSTRUCTION IS CONTEMPLATED AT THIS TIME AS OUTLINED IN THE PHASE V PRELIMINARY LAND DEVELOPMENT AND LOT CONSOLIDATION PLAN.

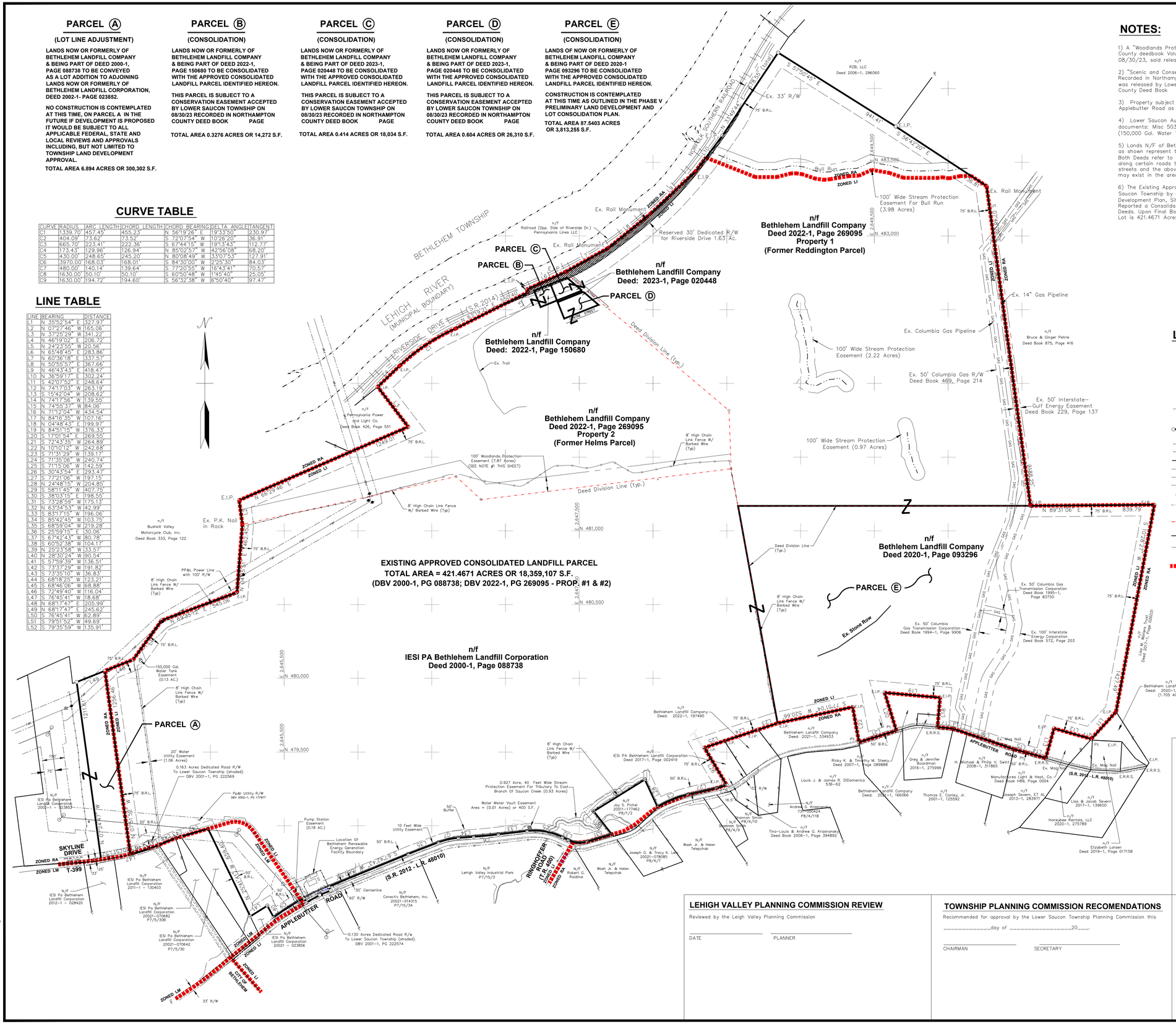
TOTAL AREA 87.5403 ACRES OR 3,813,255 S.F.

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C1	1139.70'	457.45'	455.23'	N 56°19'26" E	23°33'50"	230.97'
C2	404.09'	73.62'	73.52'	S 72°07'54" W	10°26'20"	36.91'
C3	665.70'	223.41'	222.36'	S 67°44'15" W	19°13'43"	112.77'
C4	173.43'	129.96'	126.94'	N 85°02'57" W	42°56'08"	68.20'
C5	430.00'	248.65'	245.20'	N 80°08'49" W	33°07'53"	127.91'
C6	3970.00'	168.03'	168.01'	S 84°30'00" W	2°25'30"	84.03'
C7	480.00'	140.14'	139.64'	S 77°20'55" W	16°43'41"	70.57'
C8	1630.00'	50.10'	50.10'	S 60°50'48" W	1°45'40"	25.05'
C9	1630.00'	194.72'	194.60'	S 56°32'38" W	6°50'40"	97.47'

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 35°52'54" E	327.97'
L2	N 07°27'46" W	165.06'
L3	N 37°25'29" W	341.22'
L4	N 46°19'02" E	206.72'
L5	N 24°23'55" W	120.56'
L6	N 65°48'45" E	283.86'
L7	N 60°36'18" E	337.57'
L8	N 50°55'07" E	367.66'
L9	N 46°43'43" E	418.47'
L10	N 36°59'17" E	302.24'
L11	S 42°07'52" E	248.64'
L12	N 74°17'03" W	263.19'
L13	S 15°42'04" W	208.62'
L14	N 74°17'56" W	139.55'
L15	N 74°55'37" W	84.06'
L16	N 71°12'04" W	434.54'
L17	N 84°16'35" W	107.16'
L18	N 04°48'43" E	199.97'
L19	N 84°51'15" W	376.33'
L20	S 17°01'54" E	269.55'
L21	S 72°43'35" W	264.99'
L22	N 10°10'12" W	242.68'
L23	S 71°31'29" W	139.17'
L24	S 71°35'06" W	240.74'
L25	S 71°15'06" W	142.59'
L26	S 30°43'54" E	293.47'
L27	S 77°21'06" W	197.15'
L28	N 24°48'15" W	204.85'
L29	S 58°11'45" W	407.75'
L30	S 38°03'15" E	198.55'
L31	S 73°28'59" W	175.13'
L32	N 63°34'53" W	42.99'
L33	S 83°17'15" W	196.06'
L34	S 85°42'45" W	103.75'
L35	S 68°59'04" W	219.28'
L36	S 25°59'15" E	30.06'
L37	S 67°42'43" W	80.78'
L38	S 60°52'38" W	104.17'
L39	N 25°23'58" W	33.57'
L40	N 28°10'24" W	90.54'
L41	S 57°59'39" W	136.51'
L42	S 73°37'29" W	191.82'
L43	S 73°35'10" W	36.83'
L44	S 68°18'25" W	123.21'
L45	S 68°46'06" W	68.88'
L46	S 72°49'40" W	116.04'
L47	S 76°45'41" W	18.68'
L48	N 68°17'47" E	205.99'
L49	N 68°17'47" E	245.62'
L50	S 76°45'41" W	62.89'
L51	S 79°51'52" W	49.69'
L52	S 79°35'59" W	135.91'


EXISTING APPROVED CONSOLIDATED LANDFILL PARCEL
TOTAL AREA = 421.4671 ACRES OR 18,359,107 S.F.
(DBV 2000-1, PG 088738; DBV 2022-1, PG 269095 - PROP. #1 & #2)
n/f Bethlehem Landfill Company Deed 2022-1, Page 269095 Property 1 (Former Reddington Parcel)
n/f Bethlehem Landfill Company Deed: 2023-1, Page 020448
n/f Bethlehem Landfill Company Deed: 2022-1, Page 150680
n/f Bethlehem Landfill Company Deed 2022-1, Page 269095 Property 2 (Former Helms Parcel)
n/f Bethlehem Landfill Company Deed 2020-1, Page 093296
n/f IESI PA Bethlehem Landfill Corporation Deed 2000-1, Page 088738
PARCEL (A)
PARCEL (B)
PARCEL (C)
PARCEL (D)
PARCEL (E)
BETHLEHEM TOWNSHIP
LEHIGH RIVER (MUNICIPAL BOUNDARY)
RIVERSIDE DRIVE (S.R.2014)
SKYLINE DRIVE
APPLEBUTTER ROAD (S.R. 2012 - L.R. 48010)
RINGHOFFER ROAD (T.R. 409)
Bull Run
Deed Division Line (typ.)
100' Wide Stream Protection Easement For Bull Run (3.98 Acres)
100' Wide Stream Protection Easement (2.22 Acres)
100' Wide Stream Protection Easement (0.97 Acres)
100' Woodlands Protection Easement (7.87 Acres) (SEE NOTE #1 THIS SHEET)
0.927 Acre, 40' Feet Wide Stream Protection Easement For Tributary To East Branch Of Saucon Creek (0.93 Acres)
Water Meter Vault Easement Area = (0.01 Acres) or 400 S.F.
Pump Station Easement (0.18 AC.)
10 Feet Wide Utility Easement
Location Of Bethlehem Renewable Energy Generation Facility Boundary
0.130 Acres Dedicated Road R/w To Lower Saucon Township (shaded). DBV 2001-1, PG 222574
0.163 Acres Dedicated Road R/W To Lower Saucon Township (shaded). DBV 2001-1, PG 222569
150,000 Gal. Water Tank Easement (0.13 AC.)
20' Water Utility Easement (1.06 Acres)
PP&L Utility R/W DBV 2000-1, PG 117977
Reserved 30' Dedicated R/W for Riverside Drive 1.63 Ac.
Ex. 14" Gas Pipeline
Ex. Columbia Gas Pipeline
Ex. 50' Columbia Gas R/W Deed Book 469, Page 214
Ex. 50' Interstate Gulf Energy Easement Deed Book 229, Page 137
Ex. 50' Columbia Gas Transmission Corporation Deed Book 1995-1, Page 83750
Ex. 100' Interstate Energy Corporation Deed Book 572, Page 203
Ex. 50' Columbia Gas Transmission Corporation Deed Book 1994-1, Page 9906
Ex. Stone Row
Ex. Rail Monument
Ex. P.K. Nail in Rock
PP&L Power Line with 100' R/W
8' High Chain Link Fence W/ Barbed Wire (Typ)
8' High Chain Link Fence W/ Barbed Wire (Typ)
Ex. Trail
Ex. Mag Nail
Ex. Mag Nail
Ex. Mag N

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C1	1339.70'	457.45'	455.23'	N 56°19'26" E	19°33'50"	230.97'
C2	404.09'	73.62'	73.52'	S 72°07'54" W	10°26'20"	36.91'
C3	665.70'	223.41'	222.36'	S 67°44'15" W	19°13'43"	112.77'
C4	1773.43'	129.96'	126.94'	N 85°02'57" W	4°12'08"	65.20'
C5	430.00'	248.65'	245.20'	N 80°08'49" W	33°07'53"	127.91'
C6	3970.00'	168.03'	168.01'	S 84°30'00" W	2°25'30"	84.03'
C7	480.00'	140.14'	139.64'	S 77°20'55" W	16°43'41"	70.57'
C8	1630.00'	50.10'	50.10'	S 60°50'48" W	1°45'40"	25.05'
C9	1630.00'	194.72'	194.60'	S 56°32'38" W	6°50'40"	97.47'

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 35°52'54" E	327.97'
L2	N 07°27'46" W	165.06'
L3	N 37°25'29" W	1341.22'
L4	N 46°19'02" E	206.72'
L5	N 24°23'55" W	20.56'
L6	N 65°48'45" E	283.86'
L7	N 60°36'18" E	137.57'
L8	N 50°55'57" E	367.66'
L9	N 46°43'43" E	418.47'
L10	N 36°59'17" E	302.24'
L11	S 42°07'52" E	248.64'
L12	N 74°17'03" W	263.19'
L13	S 15°42'04" W	208.62'
L14	N 74°17'56" W	139.55'
L15	N 74°55'37" W	84.06'
L16	N 71°12'04" W	434.54'
L17	N 84°16'35" W	107.16'
L18	N 04°48'43" E	199.97'
L19	N 84°51'15" W	376.13'
L20	S 17°01'54" E	269.55'
L21	S 72°43'35" W	264.89'
L22	N 10°10'12" W	242.68'
L23	S 71°31'29" W	139.17'
L24	S 71°35'06" W	240.74'
L25	S 71°15'06" W	142.59'
L26	S 30°43'54" E	293.47'
L27	S 77°21'06" W	197.15'
L28	N 24°48'15" W	204.85'
L29	S 58°11'45" W	407.75'
L30	S 38°03'15" E	198.55'
L31	S 73°28'59" W	175.13'
L32	N 63°34'53" W	142.99'
L33	S 83°17'15" W	196.06'
L34	S 85°42'45" W	103.75'
L35	S 68°59'04" W	219.28'
L36	S 25°59'15" E	30.06'
L37	S 67°42'43" W	80.78'
L38	S 60°52'38" W	104.17'
L39	N 25°23'58" W	33.57'
L40	N 28°30'24" W	90.54'
L41	S 57°59'39" W	136.51'
L42	S 73°37'29" W	191.82'
L43	S 73°35'10" W	36.83'
L44	S 68°18'25" W	123.21'
L45	S 68°46'06" W	68.88'
L46	S 72°49'40" W	116.04'
L47	S 76°45'41" W	18.68'
L48	N 68°17'47" E	205.99'

EX. EASEMENTS / RESTRICTIVE COVENANTS AND R/W WITHIN PROP. CONSOLIDATED LANDFILL PARCEL

1. SKYLINE DRIVE ROAD R/W – 0.163 AC.
2. PP&L UTILITY R/W (100' R/W) – 4.360 AC.
3. LOWER SACON AUTHORITY WATER UTILITY, WATER TANK & PUMP STA. EASEMENT – 1.37 AC.
4. APPLEBUTTER ROAD R/W – 0.130 AC.
5. APPLEBUTTER ROAD 10' WIDE UTILITY EASEMENT – 0.570 AC.
6. RNG WATER METER VAULT EASEMENT – 0.01 AC.
7. 40 FEET WIDE STREAM PROTECTION EASEMENT – 0.93 AC.
8. COLUMBIA GAS TRANSMISSION 50' R/W – 4.085 AC.
9. INTERSTATE ENERGY 100' R/W – 3.735 AC.
10. INTERSTATE GULF ENERGY 50' R/W – 1.116 AC.
11. BULL RUN STREAM PROTECTION EASEMENT – 3.983 AC.
12. MISC. STREAM PROTECTION EASEMENTS – 3.19 AC.
13. EX. CONSERVATION EASEMENT – 107.2 AC.
14. RESERVED 30' RIVERSIDE DRIVE R/W – 1.63 AC.

NOTE: OVERLAP OF EXISTING EASEMENTS AND R/W'S WHICH WILL NOT BE OBSOLETE, MODIFIED OR RELEASED AS PART OF THE PHASE V EXPANSION EQUALS 0.72 ACRES.

* EX. EASEMENTS WILL BECOME OBSOLETE DUE TO PADEP / USACE PERMITTED REMOVAL OF RESOURCES (WETLANDS AND STREAMS)

LEGEND

- E.I.P. — EX. IRON PIN, IRON PIPE, RR SPIKE, PK NAIL, OR NAIL SPIKE.
- EX. OR PROPOSED IRON PIN TO BE SET
- PROPERTY LINE
- SIGNIFICANT TREE FOUND
- UTILITY POLE
- HIGH TENSION TRANSMISSION LINE TOWER
- BUILDING RESTRICTION LINE (B.R.L.)
- CONSOLIDATED LANDFILL PROPERTY LINE (503.4595 AC. PER PROPOSED LOT CONSOLIDATION)
- EASEMENT LINE
- RIGHT OF WAY LINE
- ADJOINING PROPERTY LINE – R/W LINE
- EDGE OF ROAD
- FENCE
- CENTERLINE
- STONE ROW FOUND
- FACILITY LICENSE BOUNDARY (BETHLEHEM RENEWABLE ENERGY, LLC)
- FORMER DEED DIVISION LINE
- TC ENERGY (COLUMBIA GAS TRANSMISSION)
- PP&L POWER LINE
- ZONING BOUNDARY (LI – LIGHT INDUSTRIAL; RA = RURAL AGRICULTURAL; LM = LIGHT MANUFACTURING)
- R/W AREAS = 15.22 ACRES (1)(2)(4)(8)(9)(10)(14)
- EASEMENT AREAS = 107.35 ACRES (3)(5)(6)(7)(11)(12)(13)
- EXISTING CONSERVATION EASEMENT (107.2 AC.) (13)
- CARBONATE GEOLOGY–LIMITS CONFIRMED BY SITE SPECIFIC STUDY AND ANALYSIS

LIMITS OF CARBONATE GEOLOGY CONFIRMED BY SITE SPECIFIC STUDY AND ANALYSIS

PROPOSED CONSOLIDATED LANDFILL PARCEL
TOTAL AREA = 503.4595 ACRES OR 21,930,698 S.F.

OWNER'S CERTIFICATION

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF NORTHAMPTON

We, the undersigned, the owners of the property shown on this plan, being duly sworn according to law, depose and say that we are sole owners of this property in peaceful possession of the same and that no suits pending affecting the title of the same. We further depose and say that this plan was made at our direction and that we desire the same to be recorded.

DAVID PANNUCCI
(OWNER) PRINT

(OWNER) SIGNATURE

Sworn to and subscribed before me this _____day of _____20____.

NOTARY PUBLIC

LEHIGH VALLEY PLANNING COMMISSION REVIEW

Reviewed by the Leigh Valley Planning Commission

DATE

PLANNER

TOWNSHIP PLANNING COMMISSION RECOMENDATIONS

Recommended for approval by the Lower Saucon Township Planning Commission this _____day of _____20____.

CHAIRMAN

SECRETARY

TOWNSHIP COUNCIL APPROVAL AND TOWNSHIP ENGINEER REVIEW

Approved by the Lower Saucon Township Council this _____day of _____20____.

SECRETARY

COUNCIL PRESIDENT

Reviewed by:

TOWNSHIP ENGINEER

This _____ day of _____20____.

COMMONWEALTH OF PENNSYLVANIA — JOSEPH MICHAEL MARTIN — ENGINEER — No. PE059580 — REGISTERED PROFESSIONAL

NO.	REVISION	DATE

CONSOLIDATED LANDFILL LOT WITH EXISTING EASEMENTS AND RIGHTS-OF-WAY

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

NORTHAMPTON CO.
LOWER SAUCON TWP.
PENNSYLVANIA

martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

SCALE: 1" = 300'
DWN. BY: MSH/DB
CHK. BY: RMB
PROJ. NO. 1162.6
DSN. BY: JM

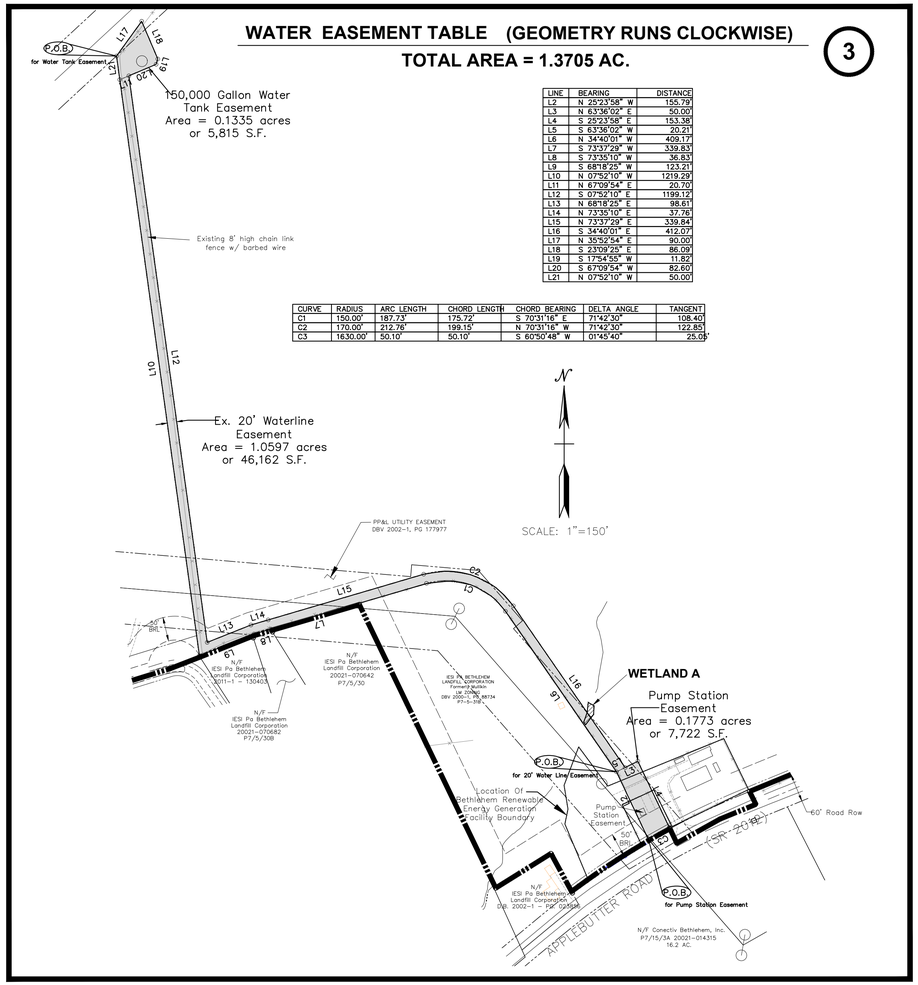
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DATE: 09/11/23
SCALE: 1" = 300'
DRAWING NO. **3 of 29**

FILE: 1162.6-LDP-PV-03.dwg

WATER EASEMENT TABLE (GEOMETRY RUNS CLOCKWISE)

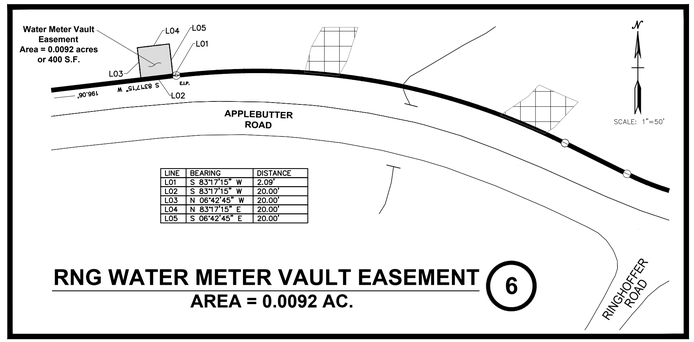
TOTAL AREA = 1.3705 AC.

3



LINE	BEARING	DISTANCE
L2	N 25°23'58" W	155.79'
L3	N 63°36'02" E	50.00'
L4	S 25°23'58" E	153.38'
L5	S 63°36'02" W	20.21'
L6	N 34°40'01" W	409.17'
L7	S 73°37'28" W	339.83'
L8	S 73°35'10" W	36.83'
L9	S 68°18'25" W	123.21'
L10	N 07°52'10" W	1219.29'
L11	N 67°09'54" E	20.70'
L12	S 07°52'10" E	1199.12'
L13	N 68°18'25" E	98.61'
L14	N 73°35'10" E	37.76'
L15	N 73°37'29" E	339.84'
L16	S 34°40'01" E	412.07'
L17	N 35°52'54" E	90.00'
L18	S 23°09'25" E	86.09'
L19	S 17°54'55" W	11.82'
L20	S 67°09'54" W	82.60'
L21	N 07°52'10" W	50.00'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C1	150.00'	187.73'	175.72'	S 70°31'16" E	71°42'30"	108.40'
C2	170.00'	212.76'	199.15'	N 70°31'16" W	71°42'30"	122.85'
C3	1630.00'	50.10'	50.10'	S 60°50'48" W	01°45'40"	25.05'



LINE	BEARING	DISTANCE
L01	S 83°17'15" W	2.09'
L02	S 83°17'15" W	20.00'
L03	N 06°42'45" W	20.00'
L04	N 83°17'15" E	20.00'
L05	S 06°42'45" E	20.00'

RNG WATER METER VAULT EASEMENT

AREA = 0.0092 AC.

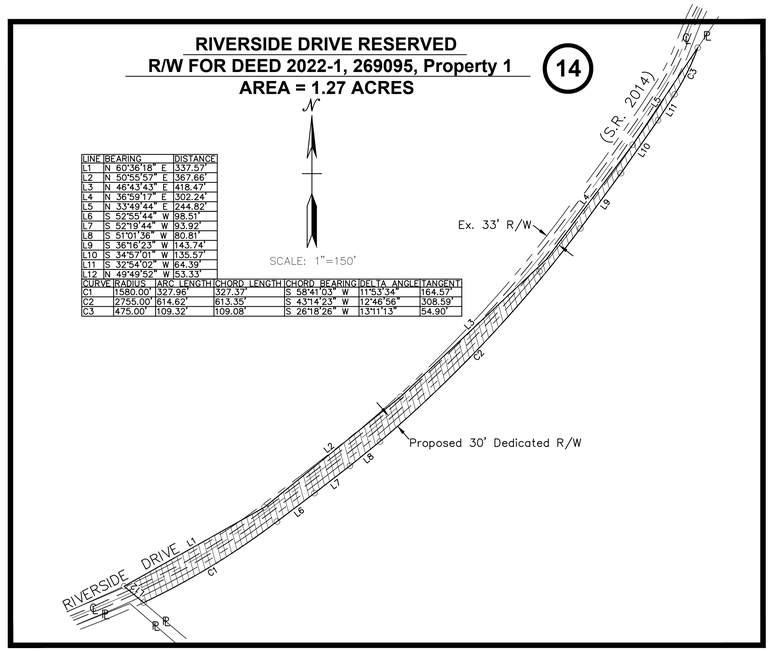
6

RIVERSIDE DRIVE RESERVED

R/W FOR DEED 2022-1, 269095, Property 1

AREA = 1.27 ACRES

14



LINE	BEARING	DISTANCE
L1	N 60°38'18" E	337.57'
L2	N 50°55'57" E	367.66'
L3	N 46°43'43" E	418.47'
L4	N 36°59'17" E	302.24'
L5	N 33°49'44" E	244.82'
L6	S 52°55'44" W	98.51'
L7	S 52°19'44" W	93.92'
L8	S 51°01'36" W	80.81'
L9	S 36°16'23" W	143.74'
L10	S 34°57'01" W	135.57'
L11	S 32°54'02" W	64.39'
L12	N 49°49'52" W	53.33'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C1	1580.00'	327.96'	327.37'	S 58°41'03" W	11°53'54"	164.57'
C2	2755.00'	614.62'	613.35'	S 43°14'23" W	12°46'56"	308.59'
C3	475.00'	109.32'	109.08'	S 26°18'26" W	13°11'13"	54.90'

STREAM EASEMENT TABLE (GEOMETRY RUNS COUNTER-CLOCKWISE)

AREA = 0.927 AC.

7

CURVE	RADIUS	ARC LENGTH	CHORD LEN	CHORD BEARING	DELTA ANGLE	TANGENT
C36	430.00'	40.04'	40.03'	S 77°14'50" E	05°20'06"	20.03'

LINE	BEARING	DISTANCE
L37	N 10°31'01" E	0.83'
L38	N 35°29'00" E	5.77'
L39	N 65°49'57" E	40.17'
L40	N 32°08'37" E	25.05'
L41	N 04°05'23" W	15.82'
L42	N 34°14'35" E	2.39'
L43	N 47°27'57" E	5.43'
L44	N 75°58'39" E	5.08'
L45	S 89°25'19" E	12.33'
L46	S 65°40'40" E	6.86'
L47	S 56°54'56" E	16.55'
L48	S 69°27'48" E	18.66'
L49	N 82°52'56" E	23.70'
L50	N 64°33'50" E	23.31'
L51	N 78°32'31" E	21.22'
L52	S 81°40'48" E	17.59'
L53	S 40°00'00" E	23.89'
L54	S 51°10'31" E	13.20'
L55	S 64°27'46" E	16.76'
L56	N 89°40'42" E	19.82'
L57	S 60°35'12" E	19.78'
L58	S 76°05'49" E	33.58'
L59	N 58°20'24" E	33.82'
L60	N 19°25'52" E	29.11'
L61	N 43°56'54" E	11.33'
L62	N 38°03'15" W	40.39'
L63	S 43°56'54" W	25.84'
L64	S 19°25'52" W	23.67'
L65	S 58°20'24" W	2.89'
L66	N 76°05'49" W	11.33'
L67	N 60°35'12" W	24.95'
L68	S 89°40'42" W	21.25'
L69	N 64°27'46" W	2.91'
L70	N 51°10'31" W	4.63'
L71	N 40°00'00" W	9.88'
L72	N 15°50'20" E	13.80'
L73	N 06°35'19" E	10.38'
L74	N 21°49'18" E	0.40'
L75	N 84°55'32" E	11.73'
L76	N 44°34'49" E	36.75'
L77	N 26°35'19" E	10.79'
L78	N 49°45'31" E	34.02'
L79	N 43°30'17" E	39.48'
L80	N 56°28'58" E	75.83'
L81	N 72°31'44" E	21.82'
L82	N 29°23'21" E	18.01'
L83	N 65°39'35" E	2.33'
L84	N 87°23'07" E	38.65'
L85	N 63°44'38" E	3.76'
L86	N 58°11'45" E	32.51'
L87	N 53°14'51" E	13.99'
L88	N 45°48'51" E	18.22'
L89	N 77°19'12" E	15.61'
L90	N 58°11'45" E	113.98'
L91	S 24°48'15" E	23.03'
L92	N 45°01'46" E	31.32'
L93	N 04°55'56" E	21.50'
L94	N 03°34'48" W	23.72'
L95	N 09°25'00" E	9.80'
L96	N 80°35'00" W	40.00'
L97	S 09°25'00" W	14.35'
L98	S 03°34'48" E	25.30'
L99	S 04°55'56" W	3.93'
L100	S 45°01'46" W	7.19'
L101	S 83°51'35" W	12.67'
L102	S 72°54'50" W	12.68'
L103	S 79°23'27" W	12.97'
L104	S 59°57'25" W	15.83'
L105	S 44°00'24" W	23.45'
L106	S 67°05'20" W	4.21'
L107	N 90°00'00" W	16.76'
L108	S 77°19'12" W	32.74'
L109	S 45°48'51" W	26.91'
L110	S 53°14'51" W	24.97'
L111	S 63°44'38" W	7.10'
L112	S 87°23'07" W	37.96'
L113	S 65°39'35" W	23.11'
L114	S 29°23'21" W	15.30'
L115	S 72°31'44" W	11.65'
L116	S 56°28'58" W	86.02'
L117	S 43°30'17" W	41.84'
L118	S 49°45'31" W	40.04'
L119	S 26°35'19" W	12.66'
L120	S 44°34'49" W	15.72'
L121	S 84°55'32" W	6.21'
L122	S 84°04'51" W	20.40'
L123	S 21°49'18" W	22.17'
L124	S 06°35'19" W	11.36'
L125	N 81°40'48" W	20.40'
L126	S 78°32'31" W	33.10'
L127	S 64°33'50" W	21.77'
L128	S 82°52'56" W	7.41'
L129	N 59°27'48" W	4.41'
L130	N 56°54'56" W	15.22'
L131	N 65°40'40" W	18.34'
L132	N 89°25'19" W	25.87'
L133	S 75°58'39" W	20.37'
L134	S 47°27'57" W	20.23'
L135	S 34°14'35" W	20.93'
L136	S 04°05'23" E	16.55'
L137	S 65°49'57" W	38.82'
L138	S 35°29'00" W	25.47'
L139	S 10°31'01" W	8.12'

RIVERSIDE DRIVE RESERVED

R/W FOR DEED 2022-1, 269095, Property 2

AREA = 0.36 ACRES

14

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C2	1580.00'	22.06'	22.06'	S 65°01'50" W	0°48'00"	11.03'

LINE	BEARING	DISTANCE
L1	N 63°19'21" E	234.66'
L2	N 24°23'55" W	20.56'
L3	N 65°48'45" E	283.86'
L4	S 49°49'52" E	53.33'
L5	S 67°23'29" W	244.59'
L6	S 68°50'57" W	106.64'
L7	S 67°23'20" W	117.74'
L8	S 68°04'14" W	50.60'

OWNER'S CERTIFICATION

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF NORTHAMPTON

We, the undersigned, the owners of the property shown on this plan, being duly sworn according to law, depose and say that we are sole owners of this property in peaceful possession of the same and that no suits pending affecting the title of the same. We further depose and say that this plan was made at our direction and that we desire the same to be recorded.

DAVID PANNUCCI
(OWNER) PRINT

(OWNER) SIGNATURE

Sworn to and subscribed before me this

_____day of _____20____.

NOTARY PUBLIC

LEHIGH VALLEY PLANNING COMMISSION REVIEW

Reviewed by the Leigh Valley Planning Commission

DATE PLANNER

TOWNSHIP PLANNING COMMISSION RECOMENDATIONS

Recommended for approval by the Lower Saucon Township Planning Commission this

_____day of _____20____.

CHAIRMAN SECRETARY

TOWNSHIP COUNCIL APPROVAL AND TOWNSHIP ENGINEER REVIEW

Approved by the Lower Saucon Township Council this

_____day of _____20____.

SECRETARY COUNCIL PRESIDENT

Reviewed by:

TOWNSHIP ENGINEER

This _____ day of _____20____. .

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JOSEPH J. MARTIN, JR. 049302 PENNSYLVANIA

NO.	REVISION	DATE

RIGHT-OF-WAY & EASEMENT DESCRIPTIONS

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

PENNSYLVANIA

MMI martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO.	DWN. BY:	CHK. BY:	DSN. BY:
1162.6	MSH/DB	RWB	JM

CADD FILE: 1162.6-LDP-PV-04.dwg

DATE: 09/11/23

SCALE: NTS

DRAWING NO.

4 of 29

FILE: 1162.6-LDP-PV-04.dwg

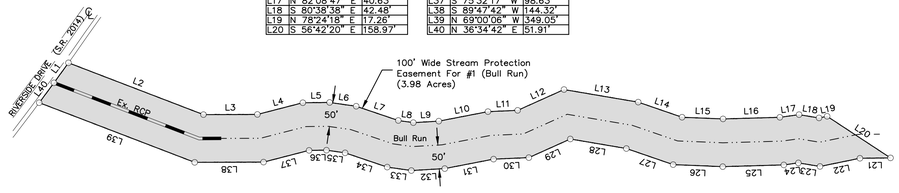
100' WIDE STREAM PROTECTION EASEMENT #1 (BULL RUN)
AREA = 3.98 ACRES

LINE	BEARING		DISTANCE
L1	N	35°56'30" E	51.75'
L2	S	69°00'06" E	303.05'
L3	N	89°47'42" E	113.10'
L4	N	75°53'17" E	98.33'
L5	N	89°27'06" E	56.18'
L6	S	81°54'45" E	56.27'
L7	S	71°18'59" E	93.24'
L8	S	81°52'14" E	31.77'
L9	N	86°38'01" E	53.46'
L10	N	79°03'03" E	104.98'
L11	N	87°32'24" E	62.28'
L12	N	65°49'07" E	106.53'
L13	S	80°21'59" E	157.82'
L14	S	71°00'06" E	97.23'
L15	S	87°38'58" E	85.94'
L16	N	88°22'10" E	119.15'
L17	N	82°08'47" E	40.63'
L18	S	80°38'38" E	42.48'
L19	N	78°24'18" E	17.26'
L20	S	56°42'20" E	158.97'

LINE	BEARING		DISTANCE
L21	S	89°21'48" W	64.14'
L22	S	78°24'18" W	85.41'
L23	N	80°38'38" W	45.84'
L24	S	82°08'47" W	30.93'
L25	S	88°22'10" W	128.06'
L26	N	87°38'58" W	104.04'
L27	N	71°00'06" W	103.67'
L28	N	80°21'59" W	119.23'
L29	S	65°49'07" W	95.32'
L30	S	87°32'24" W	74.02'
L31	S	79°03'03" W	104.19'
L32	S	86°38'01" W	70.15'
L33	N	81°52'14" W	51.09'
L34	N	71°18'09" W	93.20'
L35	N	81°54'45" W	39.43'
L36	S	89°27'06" W	36.43'
L37	S	75°32'17" W	98.63'
L38	S	89°47'42" W	144.32'
L39	N	69°00'06" W	349.05'
L40	N	36°34'42" E	51.91'

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SCALE: 1"=150'



100' WIDE STREAM PROTECTION EASEMENT #2
(UNT TO BULL RUN) - AREA = 2.22 ACRES

* EASEMENT TO BECOME OBSOLETE UPON INSSUANCE OF PADEP USACE PERMIT TO REMOVE RESOURCE

100' Wide Stream Protection Easement #2 (2.22 Acres)

100' WIDE STREAM PROTECTION EASEMENT #2

LINE	BEARING		DISTANCE
L1	N	46°39'40" W	35.08'
L2	N	55°22'33" W	4.97'
L3	S	76°25'00" W	19.15'
L4	S	87°36'33" W	117.85'
L5	S	78°57'28" W	7.22'
L6	S	66°15'49" W	14.74'
L7	S	63°16'36" W	81.81'
L8	N	82°26'32" W	58.50'
L9	N	76°29'31" W	26.81'
L10	N	58°07'02" W	79.59'
L11	N	31°56'59" E	77.37'
L12	N	08°05'12" E	4.15'
L13	N	01°19'02" W	6.21'
L14	N	14°39'22" W	25.12'
L15	N	01°36'27" W	12.33'
L16	N	16°32'11" W	22.96'
L17	N	03°17'23" E	59.16'
L18	N	03°41'46" W	41.84'
L19	N	12°31'30" W	23.15'
L20	N	08°15'40" W	34.96'
L21	N	00°11'50" E	3.14'
L22	N	32°45'44" W	38.82'

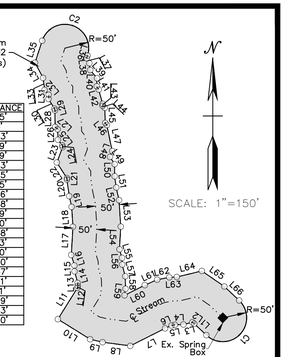
LINE	BEARING		DISTANCE
L23	N	20°39'07" E	34.52'
L24	N	11°33'57" W	3.72'
L25	N	37°36'07" W	14.85'
L26	N	01°40'10" W	21.96'
L27	N	47°20'38" W	7.44'
L28	N	00°31'51" W	34.65'
L29	N	15°05'56" W	3.80'
L30	N	31°24'25" W	23.91'
L31	N	02°13'44" E	8.65'
L32	N	39°55'01" W	13.24'
L33	N	07°14'12" W	25.35'
L34	N	28°00'55" W	36.10'
L35	N	18°08'55" E	48.55'
L36	S	18°08'55" W	5.93'
L37	S	28°00'55" E	11.82'
L38	S	07°14'12" E	14.36'
L39	S	39°55'01" E	22.46'
L40	S	02°13'44" W	16.96'
L41	S	31°24'25" E	8.01'
L42	S	15°05'56" E	30.91'
L43	S	00°31'51" E	4.15'
L44	S	47°20'38" E	6.26'

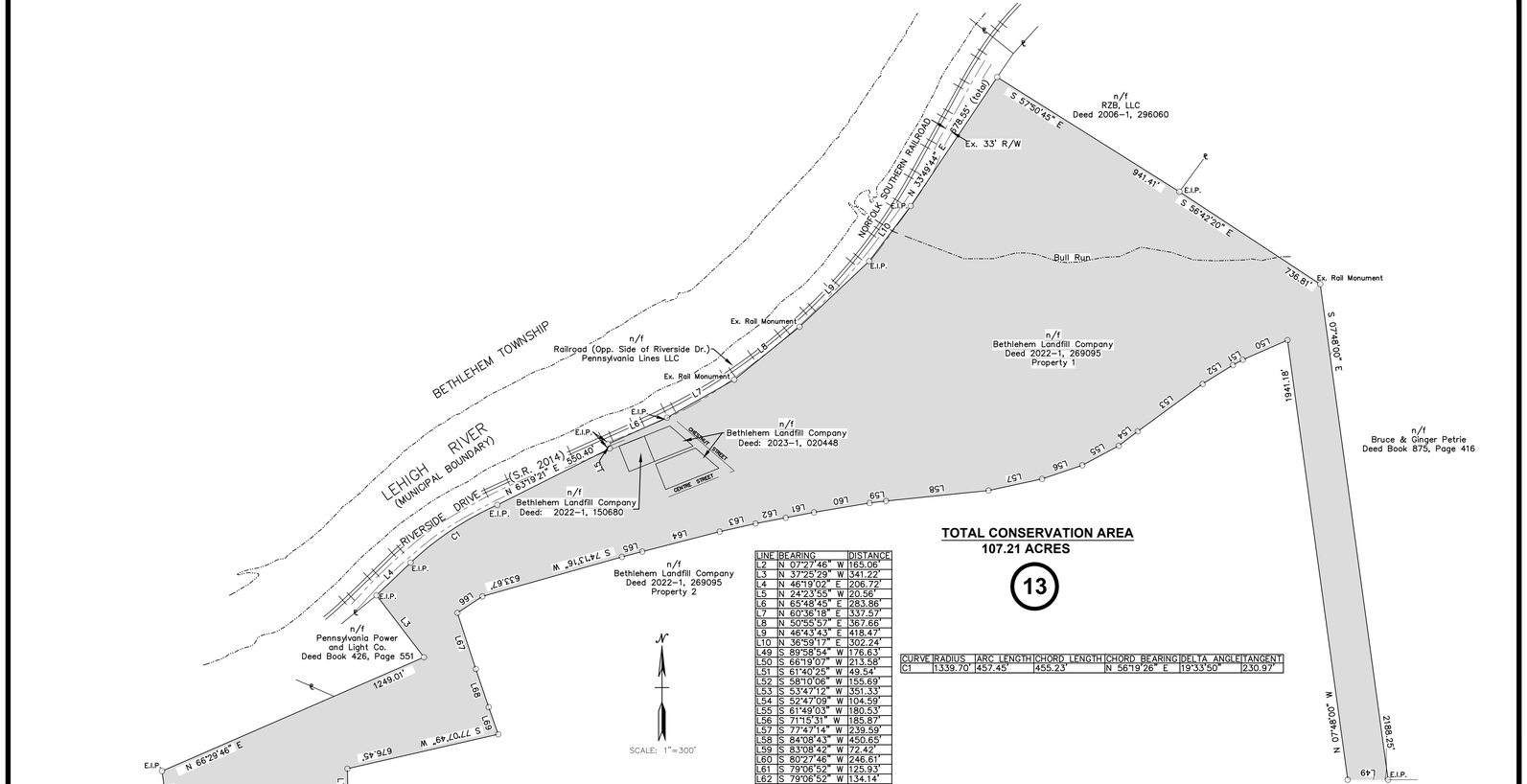
LINE	BEARING		DISTANCE
L45	S	01°40'10" E	31.65'
L46	S	37°36'07" E	5.54'
L47	S	11°33'57" E	55.73'
L48	S	20°39'07" W	13.09'
L49	S	32°45'44" E	18.09'
L50	S	00°11'50" W	25.33'
L51	S	08°15'40" E	23.85'
L52	S	12°31'30" E	27.15'
L53	S	03°41'46" E	55.66'
L54	S	03°17'23" W	47.78'
L55	S	16°32'11" E	18.59'
L56	S	01°36'27" E	14.00'
L57	S	14°39'22" E	25.38'
L58	S	01°19'02" E	26.13'
L59	S	08°05'12" W	14.00'
L60	N	63°16'36" E	47.40'
L61	N	66°15'49" E	28.47'
L62	N	78°57'28" E	25.91'
L63	N	87°36'33" E	15.61'
L64	N	76°25'00" E	54.09'
L65	S	55°22'33" E	57.33'
L66	S	46°39'40" E	42.70'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C1	50.00'	157.08'	100.00'	S 43°20'20" W	180°00'00"	0.00'
C2	50.00'	157.08'	100.00'	S 71°51'05" E	180°00'00"	0.00'

12

SCALE: 1"=150'




n/f RZB, LLC Deed 2006-1, 296060
Ex. 33' R/W
S 57°50'45" E
941.47'
E.I.P.
S 56°42'20" E
736.81'
Ex. Rail Monument
S 07°48'00" E
1914.18'
n/f Bruce & Ginger Petrie Deed Book 875, Page 416
N 07°48'00" W
2188.25'
E.I.P.
Bull Run
BETHLEHEM TOWNSHIP
LEHIGH RIVER (MUNICIPAL BOUNDARY)
RIVERSIDE DRIVE (S.R. 2014)
N 63°19'21" E 350.40'
NORFOLK SOUTHERN RAILROAD
N 33°49'44" E 278.55' (total)
n/f Railroad (Opp. Side of Riverside Dr.) Pennsylvania Lines LLC
n/f Bethlehem Landfill Company Deed: 2023-1, 020448
n/f Bethlehem Landfill Company Deed: 2022-1, 150680
n/f Bethlehem Landfill Company Deed 2022-1, 269095 Property 1
n/f Bethlehem Landfill Company Deed 2022-1, 269095 Property 2
n/f Pennsylvania Power and Light Co. Deed Book 426, Page 551
1249.01'
S 77°07'49" W
676.45'
N 62°29'46" E
462.45'
N 04°35'51" E
n/f Bushkill Valley Motorcycle Club, Inc. Deed Book 333, Page 122
Ex. P.K. Nail in Rock
OVERPECK STREET
OWLTAIL STREET
Ex. Rail Monument
Ex. Rail Monument
E.I.P.
E.I.P.
E.I.P.

NOTES:

1. MAPPING COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY EXPOSED BY LAND MAPPING SERVICES, AND PREVIOUSLY FILED LAND DEVELOPMENT PLANS FOR SOUTHEASTERN REALIGNMENT, RNG FACILITY AND NORTHERN REALIGNMENT PREPARED BY MARTIN AND MARTIN, INC. AND BOUNDARY SURVEY BY BYERS AND RUNYON SURVEYING PERFORMED IN 2022.

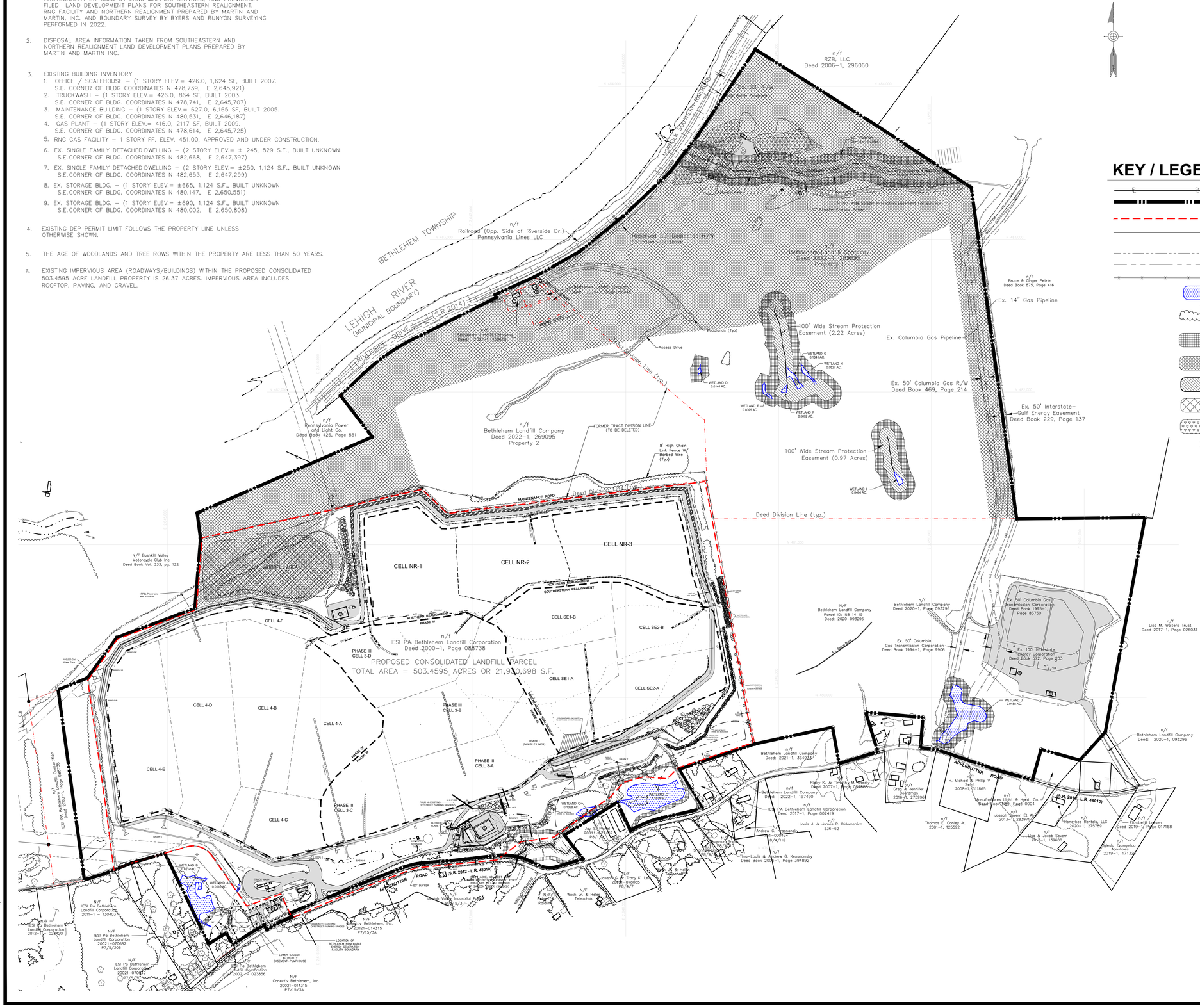
2. DISPOSAL AREA INFORMATION TAKEN FROM SOUTHEASTERN AND NORTHERN REALIGNMENT LAND DEVELOPMENT PLANS PREPARED BY MARTIN AND MARTIN INC.

3. EXISTING BUILDING INVENTORY
   1. OFFICE / SCALEHOUSE – (1 STORY ELEV.= 426.0, 1,624 SF, BUILT 2007. S.E. CORNER OF BLDG COORDINATES N 478,739, E 2,645,921)
   2. TRUCKWASH – (1 STORY ELEV.= 426.0, 864 SF, BUILT 2003. S.E. CORNER OF BLDG. COORDINATES N 478,741, E 2,645,707)
   3. MAINTENANCE BUILDING – (1 STORY ELEV.= 627.0, 6,165 SF, BUILT 2005. S.E. CORNER OF BLDG. COORDINATES N 480,531, E 2,646,187)
   4. GAS PLANT – (1 STORY ELEV.= 416.0, 2117 SF, BUILT 2009. S.E. CORNER OF BLDG. COORDINATES N 478,614, E 2,645,725)
   5. RNG GAS FACILITY – 1 STORY FF. ELEV. 451.00, APPROVED AND UNDER CONSTRUCTION.
   6. EX. SINGLE FAMILY DETACHED DWELLING – (2 STORY ELEV.= ± 245, 829 S.F., BUILT UNKNOWN S.E.CORNER OF BLDG. COORDINATES N 482,668, E 2,647,397)
   7. EX. SINGLE FAMILY DETACHED DWELLING – (2 STORY ELEV.= ±250, 1,124 S.F., BUILT UNKNOWN S.E.CORNER OF BLDG. COORDINATES N 482,653, E 2,647,299)
   8. EX. STORAGE BLDG. – (1 STORY ELEV.= ±665, 1,124 S.F., BUILT UNKNOWN S.E.CORNER OF BLDG. COORDINATES N 480,147, E 2,650,551)
   9. EX. STORAGE BLDG. – (1 STORY ELEV.= ±690, 1,124 S.F., BUILT UNKNOWN S.E.CORNER OF BLDG. COORDINATES N 480,002, E 2,650,808)

4. EXISTING DEP PERMIT LIMIT FOLLOWS THE PROPERTY LINE UNLESS OTHERWISE SHOWN.

5. THE AGE OF WOODLANDS AND TREE ROWS WITHIN THE PROPERTY ARE LESS THAN 50 YEARS.

6. EXISTING IMPERVIOUS AREA (ROADWAYS/BUILDINGS) WITHIN THE PROPOSED CONSOLIDATED 503.4595 ACRE LANDFILL PROPERTY IS 26.37 ACRES. IMPERVIOUS AREA INCLUDES ROOFTOP, PAVING, AND GRAVEL.


BETHLEHEM TOWNSHIP
LEHIGH RIVER (MUNICIPAL BOUNDARY)
RIVERSIDE DRIVE (S.R. 2014)
n/f RZB, LLC Deed 2006-1, 296060
Ex. 33' R/W
50' Water Easement
Railroad (Opp. Side of Riverside Dr.) n/f Pennsylvania Lines LLC
Reserved 30' Dedicated R/W for Riverside Drive
n/f Bethlehem Landfill Company Deed 2022-1, 269095 Property 1
n/f Bethlehem Landfill Company Deed 2022-1, Page 269095
n/f Bethlehem Landfill Company Deed 2022-1, 269095
Woodlands (Typ)
Access Drive
100' Wide Stream Protection Easement (2.22 Acres)
WETLAND G 0.1041 AC.
WETLAND H 0.0527 AC.
WETLAND D 0.0144 AC.
WETLAND E 0.0395 AC.
WETLAND F 0.0092 AC.
Ex. Columbia Gas Pipeline
Ex. 50' Columbia Gas R/W Deed Book 469, Page 214
Ex. 50' Interstate-Gulf Energy Easement Deed Book 229, Page 137
n/f Bruce & Ginger Petrie Deed Book 875, Page 416
Ex. 14" Gas Pipeline
n/f Pennsylvania Power and Light Co. Deed Book 426, Page 551
n/f Bethlehem Landfill Company Deed 2022-1, 269095 Property 2
FORMER TRACT DIVISION LINE (TO BE DELETED)
8' High Chain Link Fence W/ Barbed Wire (Typ)
Deed Division Line (typ.)
100' Wide Stream Protection Easement (0.97 Acres)
WETLAND I 0.0464 AC.
MAINTENANCE ROAD
N/F Bushkill Valley Motorcycle Club Inc. Deed Book Vol. 333, pg. 122
CELL NR-1
CELL NR-2
CELL NR-3
NORTHERN REALIGNMENT
SOUTHEASTERN REALIGNMENT
CELL 4-F
CELL 4-D
CELL 4-B
CELL 4-A
CELL 4-E
CELL 4-C
PHASE III CELL 3-D
PHASE III CELL 3-B
PHASE III CELL 3-A
PHASE III CELL 3-C
CELL SE1-B
CELL SE2-B
CELL SE1-A
CELL SE2-A
PHASE I (DOUBLE LINER)
IESI PA Bethlehem Landfill Corporation Deed 2000-1, Page 088738
PROPOSED CONSOLIDATED LANDFILL PARCEL
TOTAL AREA = 503.4595 ACRES OR 21,930,698 S.F.
N/F IESI PA Bethlehem Landfill Corporation 2011-1 - 130403
N/F IESI PA Bethlehem Landfill Corporation I 2012-1 - 028420
N/F IESI Pa Bethlehem Landfill Corporation 2022-1-070682 P7/5/308
N/F IESI Pa Bethlehem Landfill Corporation 20021-070682 P7/5/3A
N/F IESI Pa Bethlehem Landfill Corporation 20021-023856
N/F Conectiv Bethlehem, Inc. 20021-014315 P7/15/3A
WETLAND B 0.0274 AC.
WETLAND A 0.0118 AC.
50' BUFFER
S.R. 2012 - L.R. 48010
APPLEBUTTER ROAD
N/F Lehigh Valley Industrial Park P8/5/3
N/F Conectiv Bethlehem, Inc. 20021-014315 P7/15/3A
LOCATION OF BETHLEHEM RENEWABLE ENERGY GENERATION FACILITY BOUNDARY
LOWER SAUCON AUTHORITY EASEMENT-PUMPHOUSE
N/F Bethlehem Landfill Company Deed: 2020-1, 093296
N/F Bethlehem Landfill Company Parcel ID: NB 14 15 Deed: 2020-093296
Ex. 50' Columbia Gas Transmission Corporation Deed Book 1994-1, Page 9906
Ex. 50' Columbia Gas Transmission Corporation Deed Book 1995-1, Page 83750
Ex. 100' Interstate Energy Corporation Deed Book 572, Page 203
Lisa M. Waters Trust Deed 2017-1, Page 026031
WETLAND J 0.9488 AC.
n/f Bethlehem Landfill Company Deed: 2020-1, 093296
n/f Bethlehem Landfill Company Deed: 2021-1, 334932
n/f Bethlehem Landfill Company Deed: 2022-1, 197490
IESI PA Bethlehem Landfill Corporation Deed 2017-1, Page 002419
Louis J. & James R. Didomenico 536-62
Ricky K. & Timothy M. Mosley Deed 2007-1, Page 089886
Greg & Jennifer Boardman 2016-1, 275996
H. Michael & Philip V Swint 2008-1, 311865
Manufacturers Light & Heat, Co Deed Book 1425, Page 0004
Joseph Severn Et Al 2013-1, 083971
Thomas E. Conley Jr. 2001-1, 125592
Lisa & Jacob Severn 2012-1, 139600
Honeybee Rentals, LLC 2020-1, 275789
Iglesia Evangelica Apostolica 2019-1, 171320
Elizabeth Lyman Deed 2019-1, Page 017158
Tina-Louis & Andrew G. Krasnansky Deed Book 2004-1, Page 394892
Joseph C. & Tracy K. Lesh 2009-078085 P8/4/7
N/F Wash Jr. & Helen Telephchak
N/F Bethlehem Landfill Company Deed 2022-1, 269095 Property 1
N/F Bethlehem Landfill Company Deed 2022-1, 269095 Property 2
N/F Bethlehem Landfill Company Deed 2022-1, 269095 Property 3
N/F Bethlehem Landfill Company Deed 2022-1, 269095 Property 4
N/F Bethlehem Landfill Company Deed 2022-1, 269095 Property

KEY / LEGEND

- LIMIT OF DISPOSAL (DOUBLE LINER)
- CELL DIVISION
- ADJOINING PROPERTY LINE
- LANDFILL PROPERTY LINE (505.1648 ACRES PER FUTURE LOT CONSOLIDATION)
- POWER LINE R/W
- OVERHEAD UTILITY POLE
- FENCE
- EASEMENT LINE
- RIGHT OF WAY LINE
- DEP PERMIT BOUNDARY AS TAKEN FROM MARCH 1994 PERMIT DRAWINGS
- IMPERVIOUS COVER

GRADING LEGEND

- EXISTING CONTOURS FROM AERIAL MAPPING
- 700 – APPROVED CONTOURS WITHIN PERMITTED LIMITS OF DISPOSAL

SOILS

UNIT	DESCRIPTION
CaB	Califon loam, 3 to 8 percent slopes
GlB	Gladstone gravelly loam, 3 to 8 percent slopes
GlC	Gladstone gravelly loam, 8 to 15 percent slopes
GmB	Gladstone gravelly loam, 0 to 8 percent slopes, very bouldery
GmD	Gladstone gravelly loam, 8 to 25 percent slopes, very bouldery
GmF	Gladstone gravelly loam, 25 to 55 percent slopes, very bouldery
GnD	Gladstone–Parker gravelly loam, 15 to 25 percent slopes
Mb	Middlebury Silt loam
RzF	Ryder–Rock outcrop complex, 25 to 75 percent slopes
UbB	Udorthents, limestone, 0 to 8 percent slopes
UfB	Udorthents, sanitary landfill
UkaB	Urban land– 0 to 8 percent slopes
UupB	Urban land–Udorthents, schist and gneiss complex, 0 to 8 percent slopes
WaB	Washington Silt loam, 3 to 8 percent slopes
WaD	Washington Silt loam, 15 to 25 percent slopes

SOURCE: NATIONAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY AND NRCS SOIL DATA MART.

PROPOSED CONSOLIDATED LANDFILL PARCEL
TOTAL AREA = 503.4595 ACRES OR 21,930,698 S.F.

OVERALL EXISTING CONDITIONS / APPROVED DEVELOPMENT PLAN WITH CONTOURS

LOWER SAUCON TWP. — NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
PENNSYLVANIA

NO. | REVISION | DATE

martin and martin incorporated
37 south main street • suite A
phone: (717) 264-6759 chambersburg, pennsylvania . 17201

SCALE: 1" = 300'
DWN. BY: MSH/DB
CHK. BY: RMB
PROJ. NO.: 1162.6
DSN. BY: JM

CADD FILE: 1162.6-LDP-PV-07.dwg
DATE: 09/11/23
SCALE: 1" = 300'
DRAWING NO.: 7 of 29

FILE: 1162.6-LDP-PV-07.dwg

GENERAL NOTES:

The Bethlehem Landfill site is an existing permitted landfill proposing a Phase V Expansion on a to be consolidated parcel containing 503.4595 acres. As shown on the Natural Resources Delineation Plan and per discussions with Township staff and consultants, the site capacity/buildable area analysis and environmental resource protection analysis following includes only those new properties previously approved to be added (Helms & Reddington) or to be added as part of the Phase V project to the original Landfill lot which have a gross area of 286.00 acres.

BLC is proposing to develop the Phase V Expansion in accordance with Section 180-109(G) of the Lower Saucon Township Zoning Ordinance (Natural Resource Mitigation Alternative) and has provided the information and calculations required by that section on this Sheet 8 of 29. BLC proposes to utilize a greater area of natural resource protection land than would otherwise be permitted by the Resource Protection Standards contained in Section 180-95 ("Excess Resource Utilization"), as is proposed on this Sheet 8 of 29. Per Section 180-109(G) of the Lower Saucon Township Zoning Ordinance, BLC will demonstrate and make the required dedication and/or fee-in-lieu of dedication payment prior to final land development approval.

BASE SITE AREA

As outlined above, the base site area is calculated by taking the gross property area from survey minus those right-of-way and easements within the properties analyzed as shown on plan Sheet 3 of 29. Where easements or rights-of-way overlap, only one easement or right-of-way is subtracted from the gross area. The easements and rights-of-way that are included within this calculation are only those existing easements and rights-of-way that will not become obsolete as a result of PADEP/USACE permitted removal of the corresponding resource. The calculation is as follows:

Gross Site Area:	286.00 ac.	
Existing Rights-of-Way:	(11.32 ac)	(2 @ 0.75ac.),8,9,10 & 14 See Sheet 3 of 29)
Land Within Easements:	(101.28 ac.)	(11, 13 (97.5) See Sheet 3 of 29)
Easement & Rights-of-Way Overlap:	9.643 ac.	
Base Site Area:	**183.04**	

RESOURCE PROTECTION

As calculated above, the Base Site Area is 183.04 acres. Within this base site area the resources described in the table below have been delineated along with the required resource protection area for each. As required where two (2) or more resources overlap, the one with the highest reservation was delineated hereon (Exhibit #1).

RESOURCE	REQUIRED RESERVATION X	LAND IN RESOURCE	RESOURCE PROTECTION LAND
Floodplains	100%	0 ac.	0 ac.
Wetlands	100%	0.75 ac.	0.75 ac.
Waters of the Commonwealth*	100%	6.64 ac.	6.64 ac.
Env. Sensitive Woodlands	85%	146.85 ac.	124.82 ac.
Steep Slopes >25%	85%	0.10 ac.	0.09 ac.
Woodlands	80%	13.57 ac.	10.86 ac.
Steep Slopes (15% to 25%)	70%	0.55 ac.	0.39 ac.
Steep Slopes (8% to 15%)	60%	0.22 ac.	0.13 ac.
	TOTALS	**168.68 ac.**	**143.68 ac.**

*** Waters of the Commonwealth include wetland buffers, riparian buffers and existing stream easements to be removed as a result of PADEP/USACE Permits.**

BUILDABLE AREA

Utilizing the base site area and the total resource protected land on those parcels to be consolidated (Approved or Proposed) with the original landfill lot, the net buildable area within the proposed consolidated parcels (excluding the original landfill lot) is calculated as follows:

Base Site Area:	183.04 ac.
Req'd. Resource Protection Area:	143.68 ac.
Buildable Site Area:	**39.36 ac.**

Upon development of the Phase V Expansion, the total area of development on the parcels to be consolidated with the existing Landfill lot will be 132.2 acres, which is 92.84 acres more than the calculated Buildable Site Area of 39.36 acres. Thus, Bethlehem Landfill proposes to utilize 92.84 acres more of protected land than permitted under Section 180-95 for the Phase V Expansion.

Per Section 180-109(G)(8) of the Zoning Ordinance, prior to receiving final land development approval for the Phase V Expansion, BLC will be required to dedicate 92.84 acres to the Township for preservation or, if it demonstrates to the satisfaction of the Township Council, that it was unable to obtain any or enough property for said dedication, pay a fee in lieu of dedication on that acreage.

MAXIMUM IMPERVIOUS AREA

Calculation of the maximum impervious area is determined by multiplying the calculated buildable site area times the maximum permitted impervious surfaces ratio. The properties analyzed for site capacity are located in two (2) zoning districts. Those districts are Light Industrial (LI) and Rural Agricultural (RA). The LI district has an allowable impervious ratio of 60% while the RA district maximum impervious ratio is 20%.

Given the entire area of development on the to be consolidated properties is entirely in the LI District, the 60% impervious ratio was used to calculate the maximum allowable impervious surface for this analysis to document compliance with the ordinance. The maximum allowable impervious surface on the parcels to be consolidated to the existing Landfill lot is calculated as follows:

Buildable Site Area (39.36 ac.) x 0.60 = 23.62 ac.

The proposed impervious area on the to be consolidated parcels, upon development of the Phase V Expansion, is 9.53 acres of impervious area on 286 acres. This includes all proposed paved or gravel surfaces on the 286.0 acre gross site area. Thus, the maximum allowable impervious surface area is not exceeded with the proposed Phase V Expansion.

SITE CAPACITY CALCULATION SUMMARY

Base Site Area = 183.04 ac.

Allowable Buildable Site Area = 39.36 ac.

Pro. Buildable Site Area = 132.2 ac.

Max. Permitted Number of DU's = N/A

Max. Permitted Impervious Surfaces = 23.62 ac.

Pro. Impervious Surfaces = 9.53 ac. of Impervious Area on 286 ac.

As outlined above, Bethlehem Landfill proposes to utilize more protected lands than permitted by Section 180.95. In accordance with 180-109(G) of the LST Zoning Ordinance, the excess resource utilized is the difference between the allowable buildable site area and the proposed buildable site area, which is 92.84 acres.

Thus, per Section 180-109(G)(8) of the Zoning Ordinance, prior to receiving final land development approval for the Phase V Expansion, BLC will be required to dedicate 92.84 acres to the Township for preservation or, if it demonstrates to the satisfaction of the Township Council, that it was unable to obtain any or enough property for said dedication, pay a fee in lieu of dedication on that acreage.

WETLANDS AND WETLAND BUFFERS

Based upon wetland determination and study performed onsite, seven (7) wetlands (d thru J) exist within the parcels to be consolidated with the original Landfill Lot having a total acreage of 0.754 acres. Wetlands will be impacted as a result of the Phase V Expansion. Wetlands D thru I are proposed to be removed and mitigated by benefit of a PADEP/USACE Permit. The Ordinance requires a 100% protection rate for wetlands. Thus, Bethlehem proposes to utilize more protected land (wetlands) than permitted as outlined below.

Wetland buffers are defined by the Ordinance as 50 feet beyond the wetland boundary. Wetland buffers exist within the new parcels to be consolidated to the original Landfill Lot. Wetland buffers have a protection rate of 85%. The Phase V Expansion proposes utilization of the wetland buffers. As outlined, Bethlehem Landfill proposes to utilize more protected land (wetland Buffers) than permitted.

Resource	Resource Total Area	Utilized Area	Req. Protection Rate	Pro. Protection Rate
Wetland	**0.75 ac.**	**0.27 ac.**	**100%**	**64%**
Wetland Buffer	**4.09 ac.**	**2.57 ac.**	**85%**	**37%**

LAKES AND PONDS

No lakes or ponds exist within the properties analyzed. The Phase V Expansion proposes no impacts to lakes or ponds or lake and pond buffers onsite, thus meeting the 100% protection rate for lakes and ponds and the 85% protection rate for buffers as prescribed by the Ordinance. For this analysis, consistent with previous determinations by the Township in connection with approvals of prior expansions of the Landfill, existing sediment/stormwater basins were not considered lakes or ponds.

STEEP SLOPES

Steep slopes are those which exceed 8% having an area greater than 3,000 square feet. A breakdown of steep slopes along with required protection rates are as follows:

- Steep slopes 8% to 15% - Protection Rate 60%
- Steep slopes 15% to 25% - Protection Rate 70%
- Steep slopes greater than 25% - Protection Rate 85%

The Table below outlines the total amount of steep slopes for each category along with the percentage protection based upon the impacted area as a result of the Phase V Expansion on the new properties previously approved to be added (Helms & Reddington) or to be added as part of the Phase V project to the original Landfill lot. Refer to Exhibit #3 (on Sheet 10 of 29).

Steep Slope	Resource Total Area	Utilized Area	Req. Protection Rate	Pro. Protection Rate
8% to 15%	80.8 ac.	33.0 ac.	60%	59%
15% to 25%	95.6 ac.	50.3 ac.	70%	47%
Greater than 25%	68.8 ac.	33.3 ac.	85%	52%

As shown above the required protection rate for each steep slope category is not met and thus Bethlehem Landfill proposes to utilize more protected land (steep slopes) than permitted.

WOODLANDS

Woodlands are defined as all areas of 3,000 square feet or more which contain an average of one or more trees measuring six inches in caliper or greater per 1,000 square feet.

In addition, woodlands meeting the criteria above which also co-exist with other resources (steep slopes, wetlands, floodplains) are considered environmentally sensitive woodlands. For the purposes of defining the limits of woodlands onsite, the 2020 aerial photography was utilized. The required protection rates for Woodland and Environmentally Sensitive Woodlands is 80% and 85% respectively. The table below outlines the total amount of woodlands and environmentally sensitive woodlands, areas of impact and the percentage protection as a result of the Phase V Expansion new properties previously approved to be added (Helms & Reddington) or to be added as part of the Phase V project to the original Landfill lot. Refer to Exhibit #2 on Sheet 9 of 29.

Woodlands	Resource Total Area	Impacted Area	Req. Protection Rate	Pro. Protection Rate
Woodlands	253.86 ac.	120.72 ac.	80%	52%
Env. Sen. Woodlands	226.97 ac.	112.34 ac.	85%	51%

As outlined above, the required protection rate for all woodlands is not met and thus, Bethlehem Landfill proposes to utilize more protected land (Woodlands) than permitted.

FLOODPLAIN AND FLOODPLAIN SOILS

As per FIRM Map Number 42095C0335E dated July 16, 2014 and a review of soils located within the property against those listed as floodplain soils within the Lower Saucon Township Zoning Ordinance, floodplains exist but floodplain soils do not exist within the property. The floodplain is associated with Bull Run on the Former Reddington Property. No development is proposed within the delineated floodplain, thus the 100% protection rate is met.

ROCK OUTCROPS

Upon review of pertinent mapping no rock outcrops were delineated within the property.

RIPARIAN BUFFERS / WATERS OF THE COMMONWEALTH

Unnamed tributaries to the East Branch of Saucon Creek, Bull Run and unnamed tributaries to the Lehigh River are located within the new properties previously approved to be added (Helms & Reddington) or to be added as part of the Phase V project to the original Landfill lot. Stream protection easements having a total width of 100 feet (50 feet each side of the stream) have been delineated and described by bearing and distance for all identified waterways within the new properties previously approved to be added (Helms & Reddington) or to be added as part of the Phase V project to the original Landfill lot.

These stream protection easements have been established by previous Land Development Plans for expansions and realignments of the Landfill. Two (2) stream protection easements identified as miscellaneous stream protection Easements #12 on Sheet 3 of 29 will become obsolete as a result of PADEP/USACE permitted removal of the stream resource as part of the Phase V Expansion. Thus, Bethlehem proposes to utilize more protected land, (stream easement) than permitted as outlined below.

Riparian buffers are defined as 100 feet from a stream or waterway. Riparian buffers extend beyond the stream protection easements and are identified heron for each tributary. Two (2) riparian buffer areas will be utilized for development of the Phase V Expansion. Riparian buffer areas have a protection rate of 85%. Bethlehem proposes to utilize more protected land (Riparian Buffers) than permitted as outlined below.

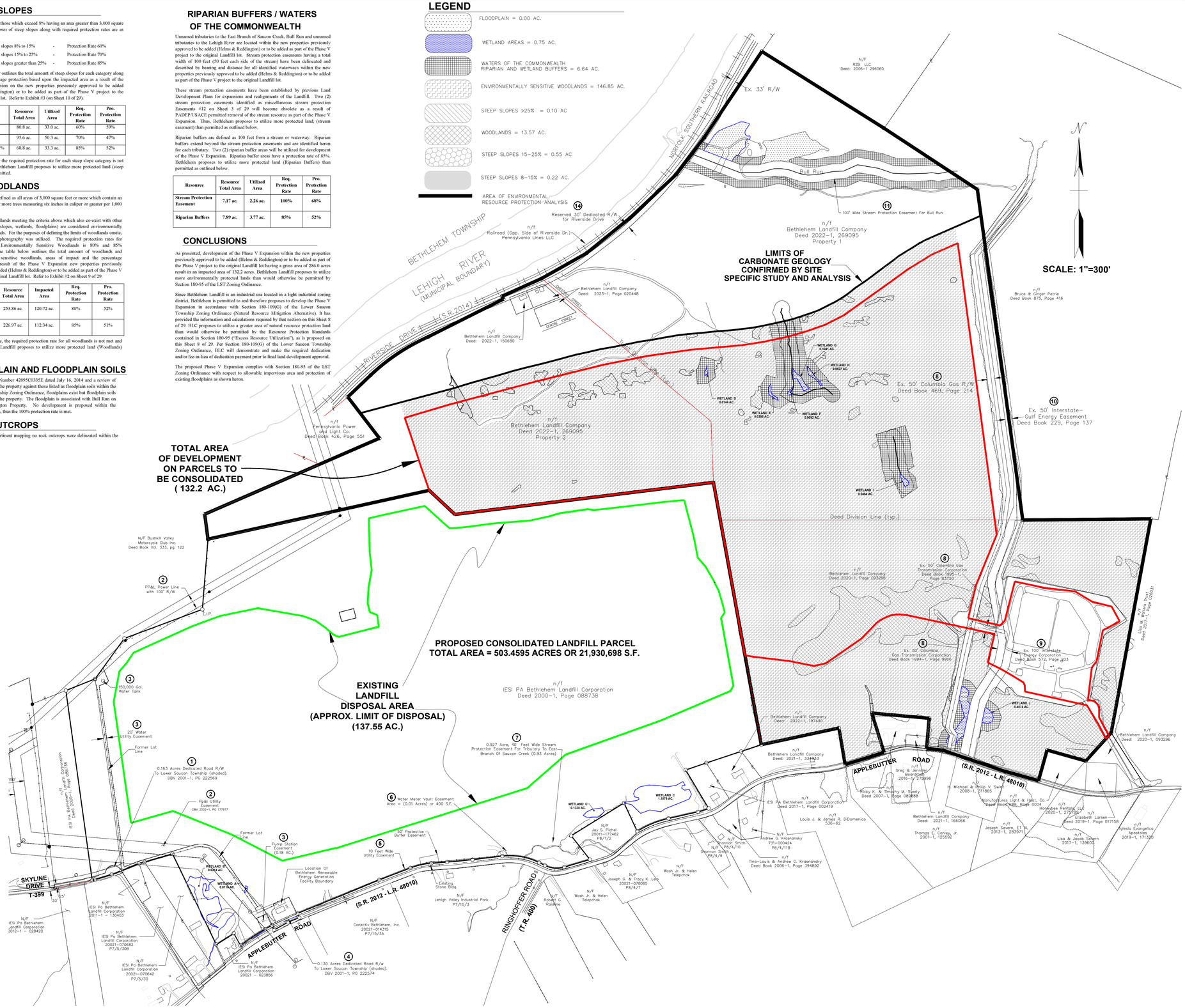
Resource	Resource Total Area	Utilized Area	Req. Protection Rate	Pro. Protection Rate
Stream Protection Easement	**7.17 ac.**	**2.26 ac.**	**100%**	**68%**
Riparian Buffers	**7.89 ac.**	**3.77 ac.**	**85%**	**52%**

CONCLUSIONS

As presented, development of the Phase V Expansion within the new properties previously approved to be added (Helms & Reddington) or to be added as part of the Phase V project to the original Landfill lot having a gross area of 286.0 acres result in an impacted area of 132.2 acres. Bethlehem Landfill proposes to utilize more environmentally protected lands than would otherwise be permitted by Section 180-95 of the LST Zoning Ordinance.

Since Bethlehem Landfill is an industrial use located in a light industrial zoning district, Bethlehem is permitted to and therefore proposes to develop the Phase V Expansion in accordance with Section 180-109(G) of the Lower Saucon Township Zoning Ordinance (Natural Resource Mitigation Alternative). It has provided the information and calculations required by that section on this Sheet 8 of 29. BLC proposes to utilize a greater area of natural resource protection land than would otherwise be permitted by the Resource Protection Standards contained in Section 180-95 ("Excess Resource Utilization"), as is proposed on this Sheet 8 of 29. Per Section 180-109(G) of the Lower Saucon Township Zoning Ordinance, BLC will demonstrate and make the required dedication and/or fee-in-lieu of dedication payment prior to final land development approval.

The proposed Phase V Expansion complies with Section 180-95 of the LST Zoning Ordinance with respect to allowable impervious area and protection of existing floodplains as shown heron.



NATURAL RESOURCE DELINEATION FOR BUILDABLE AREA AND MAXIMUM IMPERVIOUS AREA CALCULATIONS (EXHIBIT #1)

COMMONWEALTH OF PENNSYLVANIA — JOSEPH MICHAEL MARTIN — PROFESSIONAL ENGINEER — REGISTERED — PENNSYLVANIA

NO.	REVISION	DATE

EXISTING NATURAL RESOURCES DELINEATION PLAN

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

PENNSYLVANIA

martin and martin incorporated
37 south main street • suite A
264-6759 chambersburg, pennsylvania . 17201
phone: (717)

SCALE: AS NOTED

DWN. BY: MSH/DB
CHK. BY: RMB
PROJ. NO. 1162.6
DSN. BY: JM

CADD FILE: 1162.6-LDP-PV-08.dwg

DATE: 09/11/23

SCALE: AS NOTED

DRAWING NO.

8 of 29

FILE: 1162.6-LDP-PV-08.dwg

LEGEND

- (ENVIRONMENTALLY SENSITIVE WOODLANDS 226.97 ACRES)
- WOODLANDS (253.86 ACRES)
- = IMPACTED AREA (132.20 ACRES)
- = AREA OF ENVIRONMENTAL RESOURCE PROTECTION ANALYSIS

PHASE V EXPANSION
NATURAL RESOURCE IMPACTS

ENVIRONMENTALLY SENSITIVE WOODLAND (112.34 AC.)
WOODLANDS (120.72 AC.)

N

SCALE: 1" = 300'



EXHIBIT #2 - WOODLANDS

FILE: 1162.6-LDP-PV-09.dwg

COMMONWEALTH OF PENNSYLVANIA — JOSEPH M. CILLO, JR. — PROFESSIONAL ENGINEER — NJ/PE#24E

NO.	REVISION	DATE

WOODLAND NATURAL RESOURCES DELINEATION PLAN

LOWER SAUCON TWP. — NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
PENNSYLVANIA

martin and martin incorporated
37 south main street • suite A
phone: (717) 264-6759 chambersburg, pennsylvania . 17201

SCALE: AS NOTED

PROJ. NO.	DWN. BY:	CHK. BY:
1162.6	MSH/DB	RMB
	DSN. BY:	JM

CADD FILE: 1162.6-LDP-PV-09.dwg

DATE: 09/11/23

SCALE: AS NOTED

DRAWING NO.

9 of 29

LEGEND

- STEEP SLOPES 8 to 15 % (80.8 ACRES)
- STEEP SLOPES 15 to 25 % (95.6 ACRES)
- STEEP SLOPES > 25 % (68.8 ACRES)
- = IMPACTED AREA 132.20 ACRES)
- = AREA OF ENVIRONMENTAL RESOURCE PROTECTION ANALYSIS

PHASE V EXPANSION
NATURAL RESOURCE IMPACTS

STEEP SLOPES 8% TO 15% (33.0 AC.)
STEEP SLOPES 15% TO 25% (50.3 AC.)
STEEP SLOPES GREATER THAN 25% (33.3 AC.)

N

SCALE: 1" = 300'

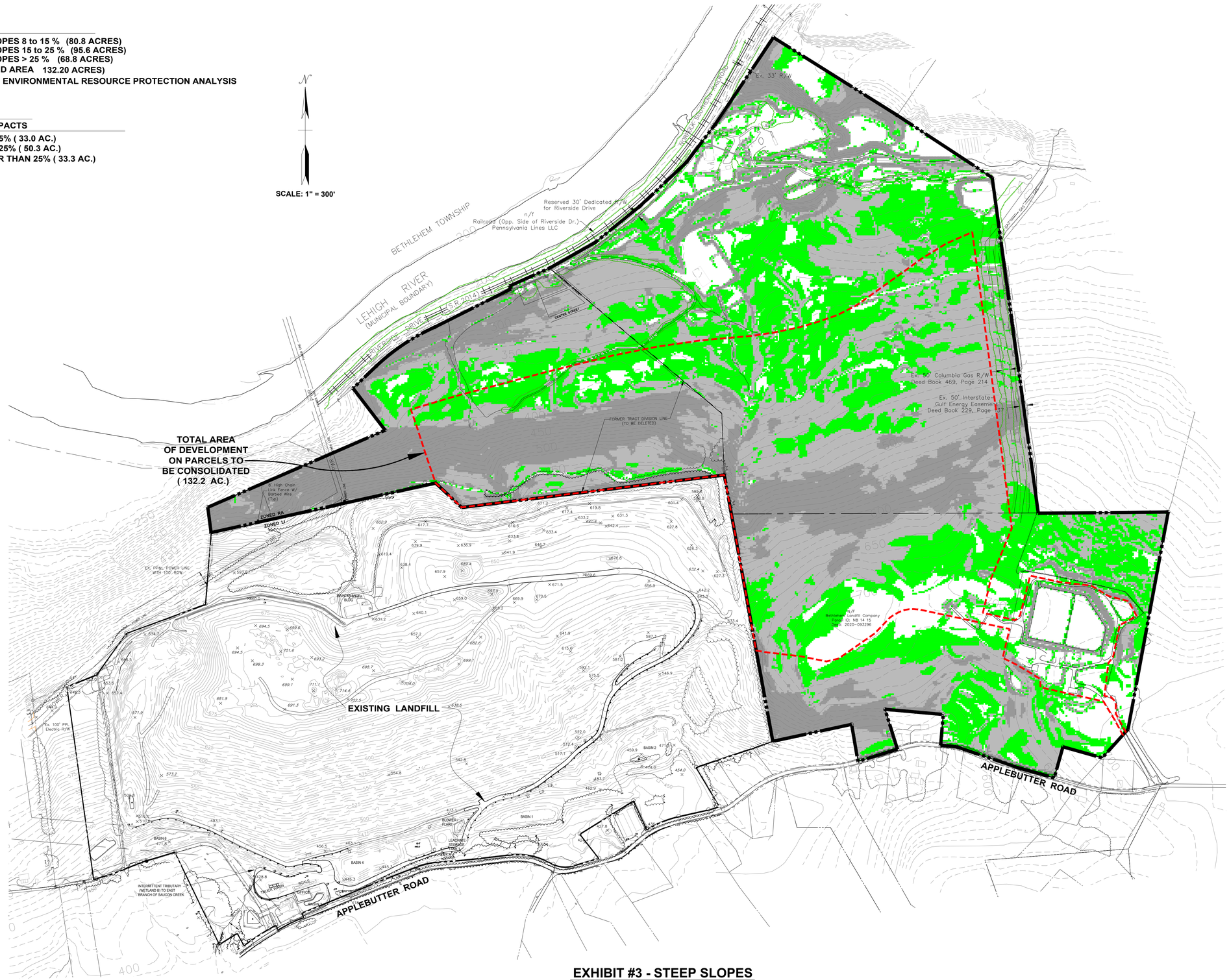


EXHIBIT #3 - STEEP SLOPES

STEEP SLOPE NATURAL RESOURCES DELINEATION PLAN

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
PENNSYLVANIA

NO.	REVISION	DATE

martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO. 1162.6 | DWN. BY: MSH/DB | CHK. BY: RWB | DSN. BY: JM | SCALE: AS NOTED

CADD FILE: 1162.6-LDP-PV-10.dwg

DATE: 09/11/23

SCALE: AS NOTED

DRAWING NO.

10 of 29

FILE: 1162.6-LDP-PV-10.dwg

KEY / LEGEND

- LIMIT OF DISPOSAL (DOUBLE LINER)
- CELL DIVISION
- ADJOINING PROPERTY LINE
- LANDFILL PROPERTY LINE (503.4595 ACRES PER PROPOSED LOT CONSOLIDATION)
- PP&L POWER LINE
- POWER LINE R/W
- BUILDING RESTRICTION LINE (B.R.L.)
- ZONING BOUNDARY (LI = LIGHT INDUSTRIAL; RA = RURAL AGRICULTURAL; LM = LIGHT MANUFACTURING)
- OVERHEAD UTILITY POLE
- FENCE
- EASEMENT LINE
- RIGHT OF WAY LINE

- WETLAND AREAS
- RIPARIAN CORRIDOR BUFFER
- STREAM PROTECTION EASEMENT
- WOOD LINES, TREE MASSES
- WOODFILL AREA

- EXISTING CONSERVATION EASEMENT AREA
- WOODLANDS TO REMAIN
- PROPOSED EDGE OF WOODLANDS
- PROP. PHASE V LANDSCAPING
- EX. LANDSCAPING
- PROPOSED PHASE V STORMWATER MANAGEMENT AREA

- ACCESS ROAD – EX. ACCESS ROAD
- ACCESS ROAD – ALTERNATE ACCESS ROAD
- MAINTENANCE ROAD – PHASE V – MAINTENANCE ROAD
- PHASE V – AREA OF DEVELOPMENT
- PHASE V – CELL DIVISION
- PHASE V – LIMIT OF DISPOSAL
- DEP PERMIT BOUNDARY AS TAKEN FROM MARCH 1994 PERMIT DRAWINGS
- PROPOSED PADEP PERMIT BOUNDARY
- CARBONATE GEOLOGY–LIMITS

- PROP. 50' BUFFER
- PROP. VEGETATED MSE WALL

BENCHMARKS

	BENCHMARKS	COORDINATES	ELEVATION
BM-1	BENCH MARK PT.1 DRILL HOLE IN CHISEL CUT LMC–8	N 478,993.68 E 2,646,105.87	ELEV. 456.24
BM-2	BENCH MARK PT.2 DRILL HOLE IN CHISEL CUT LMC–7	N 479,153.22 E 2,646,622.26	ELEV. 471.28
BM-3	BENCH MARK PT.3 DRILL HOLE IN CHISEL CUT LMC–6	N 479,350.67 E 2,647,261.69	ELEV. 471.24
BM-4	BENCH MARK PT.4	N 479,422.66 E 2,647,595.57	ELEV. 480.29

POST CONSTRUCTION STORMWATER BASIN 100 YR. PEAK ELEVATIONS

STORMWATER BASIN ID	100 YEAR ROUTED ELEVATION
BASIN #1	447.63
BASIN #2	473.35
BASIN #3	423.34
BASIN #4	442.19
BASIN #6	468.99
BASIN #7	683.64
BASIN #8	334.92

SITE DATA:

PROPERTY AREA: 503.4595 AC. (GROSS AREA OF PROP. CONSOLIDATED LOT) MIN REQ'D = 4 ACRES.

ZONING DISTRICT: LI (LIGHT INDUSTRIAL), RA (RURAL AGRICULTURAL) LM (LIGHT MANUFACTURING)

YARD REQUIREMENTS:
(LI – LM) – FRONT: MIN. 50 FEET; SIDE: 50 FEET; REAR MIN. 50 FEET
SIDE & REAR = 75 FT. MIN. FOR LI ZONED PROPERTY ABUTTING RESIDENTIAL

EXISTING & PROPOSED USE: LANDFILL, LI DISTRICT & RNG FACILITY AS ACCESSORY USE
WATER: PUBLIC WATER (LOWER SAUCON AUTHORITY)
SEWER: PUBLIC SEWER (LOWER SAUCON AUTHORITY)
MAXIMUM IMPERVIOUS COVERAGE: 60% (AS PER 180–82)

PROPOSED IMPERVIOUS COVERAGE: 4.3%–21.62 ACRES (EXISTING = 26.37 AC. PROPOSED = –4.75 AC.)

MIMIMUM LOT WIDTH: 300 FEET (INDUSTRIAL USE); PROP. LOT WIDTH: GREATER THAN 1000'

MAXIMUM HEIGHT: 50 FEET (LI, LM, INDUSTRIAL USE)

PROP. HEIGHT: LEACHATE STORAGE TANKS AND FLARE HEIGHT LESS THAN 50'. MSE WALL AVERAGE HEIGHT LESS THAN 50'

MAXIMUM BUILDING COVERAGE: 30%

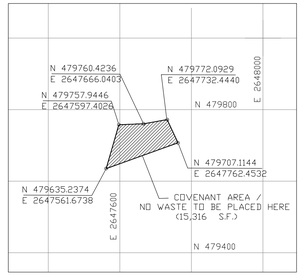
TOTAL BUILDING COVERAGE: <1%

OFFSTREET PARKING: NO NEW OR MODIFICATIONS TO EXISTING OFFSTREET PARKING AREAS ARE PROPOSED
EXISTING FOR LANDFILL OPERATION: 11 PARKING SPACES (ONE REQUIRED / EMPLOYEE – 9 EMPLOYEES)
EXISTING FOR RNG FACILITY OPERATION: 4 PARKING SPACES (ONE REQUIRED / EMPLOYEE – 2 EMPLOYEES)

LANDSCAPING AND SCREENING DATA:

1. SETBACKS:
   EARTHEN BERMS – 50 FEET FROM PROPERTY BOUNDARY; NON DISTURBANCE SETBACK = 80 FEET
   LANDFILL ACTIVITIES * –100 FEET FROM PROPERTY BOUNDARY
   LANDFILL ACTIVITIES * –100 FEET FROM PUBLIC ROAD R/W
   LANDFILL ACTIVITIES * –300 FEET FROM OCCUPIED DWELLING OR COMMERCIAL / INDUSTRIAL BUILDING
   * LIMIT OF DISPOSAL
2. MINIMUM BUFFER YARD WIDTH: 20 FEET
3. PROPOSED BUFFER YARD WIDTH: 50 FEET (LIMITS AS DEPICTED HEREON)
4. NO PERIMETER EARTHEN BERM IS PROPOSED FOR THE AREA WHERE NEW DISPOSAL AREA WILL BE LOCATED. PURSUANT TO SECTION 180–109.F (2) (a) [4], BLC RESPECTFULLY REQUEST THAT TOWNSHIP COUNCIL DETERMINE THAT THE EXISTING FEATURES SERVE AS AN ACCEPTABLE SUBSTITUTE FOR THE BERM REQUIREMENTS. EXISTING LANDSCAPE FEATURES (TREES, SHRUBS & GROUND COVER) ARE MAINTAINED WITHIN 80 FEET OF THE PROPERTY LINE. CONSTRUCTION OF A PERIMETER BERM WOULD RESULT IN REMOVAL OF THE EXISTING LANDSCAPE FEATURES IN THESE AREAS.

RELIEF FROM THE PERIMETER EARTHEN BERM REQUIREMENT FOR THE PHASE V WAS GRANTED BY LOWER SAUCON TOWNSHIP COUNCIL ON ––––––––.



COVENANT AREA / NO WASTE TO BE PLACED HERE DETAIL

OWNER'S CERTIFICATION

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF NORTHAMPTON

We, the undersigned, the owners of the property shown on this plan, being duly sworn according to law, depose and say that we are sole owners of this property in peaceful possession of the same and that no suits pending affecting the title of the same. We further depose and say that this plan was made at our direction and that we desire the same to be recorded.

DAVID PANNUCCI
(OWNER) PRINT

(OWNER) SIGNATURE

Sworn to and subscribed before me this

_____day of _____20____.

NOTARY PUBLIC

LEHIGH VALLEY PLANNING COMMISSION REVIEW

Reviewed by the Leigh Valley Planning Commission

DATE PLANNER

TOWNSHIP PLANNING COMMISSION RECOMENDATIONS

Recommended for approval by the Lower Saucon Township Planning Commission this

_____day of _____20____.

CHAIRMAN SECRETARY

TOWNSHIP COUNCIL APPROVAL AND TOWNSHIP ENGINEER REVIEW

Approved by the Lower Saucon Township Council this

_____day of _____20____.

SECRETARY COUNCIL PRESIDENT

Reviewed by:

TOWNSHIP ENGINEER

This _____ day of _____20____.

COMMONWEALTH OF PENNSYLVANIA – JOSEPH MICHAEL CHERVENAK – PROFESSIONAL ENGINEER – REGISTERED

DATE | REVISION | NO.

LAND DEVELOPMENT PLAN

LOWER SAUCON TWP. – NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
PENNSYLVANIA

MMI martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264–6759

PROJ. NO. 1162.6 | DWN. BY: MSH/DB | CHK. BY: RMB | DSN. BY: JM

SCALE: 300' 150' 0 300' 600' Scale: 1" = 300'

CADD FILE: 1162.6–LDP–PV–11.dwg

DATE: 09/11/23

SCALE: 1" = 300'

DRAWING NO. **11 of 29**

FILE: 1162.6–LDP–PV–11.dwg

KEY / LEGEND

- LIMIT OF DISPOSAL (DOUBLE LINER)
- CELL DIVISION
- ADJOINING PROPERTY LINE
- LANDFILL PROPERTY LINE (505.1648 ACRES PER FUTURE LOT CONSOLIDATION)
- POWER LINE R/W
- OVERHEAD UTILITY POLE
- FENCE
- EASEMENT LINE
- RIGHT OF WAY LINE
- PHASE V – AREA OF DEVELOPMENT
- PHASE V – LIMIT OF DISPOSAL
- DEP PERMIT BOUNDARY AS TAKEN FROM MARCH 1994 PERMIT DRAWINGS
- PROPOSED PADEP PERMIT BOUNDARY
- PROPOSED EDGE OF WOODLANDS
- EX. LANDSCAPING
- PROPOSED PHASE V STORMWATER MANAGEMENT AREA
- ACCESS ROAD – EX. ACCESS ROAD
- ACCESS ROAD – ACCESS ROAD
- MAINTENANCE ROAD – PHASE V – MAINTENANCE ROAD
- EX. BENCH SLOPE
- PROP. BENCH SLOPE

GRADING LEGEND

- EXISTING CONTOURS FROM AERIAL MAPPING
- 700 – APPROVED CONTOURS WITHIN PERMITTED LIMITS OF DISPOSAL
- 725 – PROPOSED PHASE V EXPANSION CONTOURS WITHIN PROP. DISPOSAL AREA


BETHLEHEM TOWNSHIP
LEHIGH RIVER (MUNICIPAL BOUNDARY)
n/f Railroad (Opp. Side of Riverside Dr.) Pennsylvania Lines LLC
n/f R2N, LLC Deed 2008-1, 296060
Jett Run
RIVERSIDE DRIVE
(S.R. 2014)
CENTER STREET
LIMIT OF DEVELOPMENT
PROP. BASIN #1
n/f Bruce & Gloyer Petrie Deed Book 875, Page 416
Ex. 14" Gas Pipeline
Ex. Columbia Gas Pipeline
Ex. 50' Columbia Gas R/W Deed Book 469, Page 214
Ex. 50' Interstate-Gulf Energy Easement Deed Book 229, Page 137
n/f Pennsylvania Power and Light Co. Deed Book 426, Page 551
N/F Bushkill Valley Motorcycle Club Inc. Deed Book Vol. 533, pg. 122
WOODFILL AREA
LIMIT OF EX. APPROVED DISPOSAL
NORTHERN REALIGNMENT SOUTHERN REALIGNMENT
NORTHERN REALIGNMENT PHASE III
PHASE V (DOUBLE LINER)
PHASE IV (DOUBLE LINER)
PHASE III (DOUBLE LINER)
PHASE II (DOUBLE LINER)
PHASE I (DOUBLE LINER)
PADEP/USACE DISTRICT BOUNDARY LINE
PADEP/USACE DISTRICT BOUNDARY LINE
BASIN 1
BASIN 2
BASIN 3
BASIN 4
RETAINED WETLAND A 1.64 Ac.
RETAINED WETLAND B 1.64 Ac.
RETAINED WETLAND C 1.19 Ac.
RETAINED WETLAND D 1.19 Ac.
RETAINED WETLAND E 1.19 Ac.
RETAINED WETLAND F 1.19 Ac.
RETAINED WETLAND G 1.19 Ac.
RETAINED WETLAND H 1.19 Ac.
WETLAND F 1.19 Ac.
WETLAND G 1.19 Ac.
WETLAND H 1.19 Ac.
WETLAND I 1.19 Ac.
WETLAND J 1.19 Ac.
WETLAND K 1.19 Ac.
WETLAND L 1.19 Ac.
WETLAND M 1.19 Ac.
WETLAND N 1.19 Ac.
WETLAND O 1.19 Ac.
WETLAND P 1.19 Ac.
WETLAND Q 1.19 Ac.
WETLAND R 1.19 Ac.
WETLAND S 1.19 Ac.
WETLAND T 1.19 Ac.
WETLAND U 1.19 Ac.
WETLAND V 1.19 Ac.
WETLAND W 1.19 Ac.
WETLAND X 1.19 Ac.
WETLAND Y 1.19 Ac.
WETLAND Z 1.19 Ac.
WETLAND AA 1.19 Ac.
WETLAND BB 1.19 Ac.
WETLAND CC 1.19 Ac.
WETLAND DD 1.19 Ac.
WETLAND EE 1.19 Ac.
WETLAND FF 1.19 Ac.
WETLAND GG 1.19 Ac.
WETLAND HH 1.19 Ac.
WETLAND II 1.19 Ac.
WETLAND JJ 1.19 Ac.
WETLAND KK 1.19 Ac.
WETLAND LL 1.19 Ac.
WETLAND MM 1.19 Ac.
WETLAND NN 1.19 Ac.
WETLAND OO 1.19 Ac.
WETLAND PP 1.19 Ac.
WETLAND QQ 1.19 Ac.
WETLAND RR 1.19 Ac.
WETLAND SS 1.19 Ac.
WETLAND TT 1.19 Ac.
WETLAND UU 1.19 Ac.
WETLAND VV 1.19 Ac.
WETLAND WW 1.19 Ac.
WETLAND XX 1.19 Ac.
WETLAND YY 1.19 Ac.
WETLAND ZZ 1.19 Ac.
WETLAND AAA 1.19 Ac.
WETLAND BBB 1.19 Ac.
WETLAND CCC 1.19 Ac.
WETLAND DDD 1.19 Ac.
WETLAND EEE 1.19 Ac.
WETLAND FFF 1.19 Ac.
WETLAND GGG 1.19 Ac.
WETLAND HHH 1.19 Ac.
WETLAND III 1.19 Ac.
WETLAND JJJ 1.19 Ac.
WETLAND KKK 1.19 Ac.
WETLAND LLL 1.19 Ac.
WETLAND MMM 1.19 Ac.
WETLAND NNN 1.19 Ac.
WETLAND OOO 1.19 Ac.
WETLAND PPP 1.19 Ac.
WETLAND QQQ 1.19 Ac.
WETLAND RRR 1.19 Ac.
WETLAND SSS 1.19 Ac.
WETLAND TTT 1.19 Ac.
WETLAND UUU 1.19 Ac.
WETLAND VVV 1.19 Ac.
WETLAND WWW 1.19 Ac.
WETLAND XXX 1.19 Ac.
WETLAND YYY 1.19 Ac.
WETLAND ZZZ 1.19 Ac.
WETLAND AAAA 1.19 Ac.
WETLAND BBBB 1.19 Ac.
WETLAND CCCC 1.19 Ac.
WETLAND DDDD 1.19 Ac.
WETLAND EEEE 1.19 Ac.
WETLAND FFFF 1.19 Ac.
WETLAND GGGG 1.19 Ac.
WETLAND HHHH 1.19 Ac.
WETLAND IIII 1.19 Ac.
WETLAND JJJJ 1.19 Ac.
WETLAND KKKK 1.19 Ac.
WETLAND LLLL 1.19 Ac.
WETLAND MMMM 1.19 Ac.
WETLAND NNNN 1.19 Ac.
WETLAND OOOO 1.19 Ac.
WETLAND PPPP 1.19 Ac.
WETLAND QQQQ 1.19 Ac.
WETLAND RRRR 1.19 Ac.
WETLAND SSSS 1.19 Ac.
WETLAND TTTT 1.19 Ac.
WETLAND UUUU 1.19 Ac.
WETLAND VVVV 1.19 Ac.
WETLAND WWWW 1.19 Ac.
WETLAND XXXX 1.19 Ac.
WETLAND YYYY 1.19 Ac.
WETLAND ZZZZ 1.19 Ac.
WETLAND AAAAA 1.19 Ac.
WETLAND BBBBB 1.19 Ac.
WETLAND CCCCC 1.19 Ac.
WETLAND DDDDD 1.19 Ac.
WETLAND EEEEE 1.19 Ac.
WETLAND FFFFF 1.19 Ac.
WETLAND GGGGG 1.19 Ac.
WETLAND HHHHH 1.19 Ac.
WETLAND IIIII 1.19 Ac.
WETLAND JJJJJ 1.19 Ac.
WETLAND KKKKK 1.19 Ac.
WETLAND LLLLL 1.19 Ac.
WETLAND MMMMM 1.19 Ac.
WETLAND NNNNN 1.19 Ac.
WETLAND OOOOO 1.19 Ac.
WETLAND PPPPP 1.19 Ac.
WETLAND QQQQQ 1.19 Ac.
WETLAND RRRRR 1.19 Ac.
WETLAND SSSSS 1.19 Ac.
WETLAND TTTTT 1.19 Ac.
WETLAND UUUUU 1.19 Ac.
WETLAND VVVVV 1.19 Ac.
WETLAND WWWWW 1.19 Ac.
WETLAND XXXXX 1.19 Ac.
WETLAND YYYYY 1.19 Ac.
WETLAND ZZZZZ 1.19 Ac.
PROP. BASIN #1
PROP. BASIN #2
PROP. BASIN #3
PROP. BASIN #4
PROP. BASIN #5
PROP. BASIN #6
PROP. BASIN #7
PROP. BASIN #8
PROP. BASIN #9
PROP. BASIN #10
PROP. BASIN #11
PROP. BASIN #12
PROP. BASIN #13
PROP. BASIN

SHEET 16

SHEET 17

SHEET 14

SOUTHEASTERN REALIGNMENT PHASE III

COVENANT AREA / NO WASTE TO BE PLACED WITHIN THIS AREA

PHASE I (DOUBLE LINER)

SLOPE DRAIN

EX. CHANNEL

MH #12

MH #13

CITIZEN DROP OFF AREA

ACCESS ROAD

15' ACCESS ROAD

CHANNEL V

CHANNEL M

C-24

C-25

C-26

I-16

I-19

I-20

I-21

0+00

1+00

2+00

3+00

4+00

5+00

6+00

7+00

8+00

9+00

BASIN 2

BASIN 2 RISER

BASIN 2 OUTLET BARREL

LMC-2

LMC-3

LMC-4

RETAINING WALL

MSE WALL

FLOW

EX. ACCESS ROAD

WETLAND C

WETLAND C
1.1879 AC.

End Not Found

Ex. 24" HDPE

Inv. 470.16

2) 18" HDPE

680 70 660 650 640 630 620 610 600 590 580 570 560 550 540 530 520 510 500 490 480 470 460 450 440 600 590 580 570 560 550 600 650 600 590 465 470 475 460 480 470 460 450 440 480

DETAILED GRADING PLAN (SCALE: 1"=50')

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

PENNSYLVANIA

NO. | REVISION | DATE

martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

SCALE: 50' 25' 0 50' 100' Scale: 1" = 50'

DWN. BY: MSH/DB | CHK. BY: RMB

PROJ. NO.: 1162.6 | DSN. BY: JM

CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO.

13 of 29

CADD FILE: 1162.6-LDP-PV-12,24.dwg

SHEET 17

SHEET 18

SHEET 13

SHEET 15

PROP. EDGE OF WOODLANDS

Ex. Stone Row

EW-5-11

EW-5-12

CHANNEL Z

CHANNEL M

CHANNEL N

CHANNEL 5H

CHANNEL A

ACCESS ROAD
TIE IN
STA. 11+87

900' SETBACK
FROM EX. BUILDINGS

SUPPLEMENTAL
PLANTING
SCREEN PLANTINGS

LANDSCAPE TREES

CONNECT EX. FENCE
TO PROP. FENCE

n/f
Bethlehem Landfill Company
Deed: 2021–1, 334933

n/f
Bethlehem Landfill Company
Deed: 2022–1, 197490

n/f
Ricky K. & Timothy M. Steely
Deed 2007–1, Page 089888

Gas
Deed

Greg
201

DETAILED GRADING PLAN (SCALE: 1"=50')

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT
& LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
PENNSYLVANIA

NO. REVISION DATE

martin and martin incorporated
37 south main street • suite A
phone: (717) 264-6759 chambersburg, pennsylvania . 17201

PROJ. NO. 1162.6 | DSN. BY: JM | DWN. BY: MSH/DB | CHK. BY: RMB

SCALE: 50' 25' 0 50' 100' Scale: 1" = 50'

CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO.

14 of 29

FILE: 1162.6-LDP-PV-12,24.dwg

SHEET 18

SHEET 18

SHEET 14

PROP. BASIN #7

CHANNEL 5B

CONNECT EX. FENCE TO PROP. FENCE

BASIN #7 OUTLET STRUCTURE

PROP. LEACHATE STORAGE TANK (DOUBLE CONTAINMENT) 100' DIA.

PROP. LEACHATE STORAGE TANK (DOUBLE CONTAINMENT) 100' DIA.

PROP. FLARE

CONNECT EX. FENCE TO PROP. FENCE

EX. ACCESS DRIVE (TO REMAIN)

EX. LIGHT (TO BE REMOVED)

EX. EQUIP. (TO BE REMOVED)

EX. BASIN (TO REMAIN)

EX. LIGHT (TO BE REMOVED)

Ex. 100' Interstate Energy Corporation Deed Book 572, Page 293

Ex. 50' Columbia s Transmission Corporation Book 1994-1, Page 9906

Ex. Basin (TO REMAIN)

Ex. Equip. (TO BE REMOVED)

Ex. Gate (TO REMAIN)

PROP. FENCE

WETLAND J
0.9488 AC.

FILE: 1162.6-LDP-PV-12,24.dwg

DETAILED GRADING PLAN (SCALE: 1"=50')

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

LOWER SAUCON TWP. NORTHAMPTON CO.

Bethlehem Landfill Company PENNSYLVANIA

NO. REVISION DATE

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37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO. 1162.6 | DWN. BY: MSH/DB | SCALE: 50' 25' 0 50' 100' Scale: 1" = 50'

DSN. BY: JM | CHK. BY: RMB

CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO.

15 of 29

SHEET 19

SHEET 17

MAINTENANCE DRIVE

SS ROAD

CHANNEL CC

PROPOSED LIMIT OF MODIFIED MSE WALL

LIMIT OF EX. / APPROVED DISPOSAL

LIMIT OF CHANNEL CC BEGIN CHANNEL 5D

TIE PROP. MAINTENANCE DRIVE TO EX. DRIVE

NORTHERN REALIGNMENT SOUTHEASTERN REALIGNMENT

NORTHERN REALIGNMENT PHASE III

CHANNEL E

CHANNEL Y

CHANNEL W

I-18

C-21A

C-21

3.0 %

600 650 700 710 720 725 724 680 670 660 640 630 620 610 590 580 570 560 550 540 530 520

636 634

DETAILED GRADING PLAN (SCALE: 1"=50')

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

PENNSYLVANIA

NO. REVISION DATE

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37 south main street • suite A
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PROJ. NO. 1162.6 | DWN. BY: MSH/DB | SCALE: 50' 25' 0 50' 100' Scale: 1" = 50'

DSN. BY: JM | CHK. BY: RMB

CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO. 16 of 29

FILE: 1162.6-LDP-PV-12,24.dwg

SHEET 20

SHEET 16

SHEET 22

SHEET 13

SHEET 14

LIMIT OF EX. / APPROVED DISPOSAL

LIMIT OF DISPOSAL

650

700

710

720

725

3.0 %

30 %

27.7%

5-DS-A

CHANNEL-5H

CHANNEL-5I

N

DETAILED GRADING PLAN (SCALE: 1"=50')

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT
& LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
PENNSYLVANIA

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SCALE: 50' 25' 0 50' 100' Scale: 1" = 50'

PROJ. NO. 1162.6 | DWN. BY: MSH/DB | CHK. BY: RMB | DSN. BY: JM

CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO.

17 of 29

FILE: 1162.6-LDP-PV-12,24.dwg

SHEET 21

WETLAND I
0.0464 AC.

CHANNEL-5C

PROP. EDGE
OF WOODLANDS

PROP. PADEP PERMIT BOU

LIMIT OF DISPOSAL

EW-5-2

EW-5-1

C-5-1

CHANNEL-5B

PROP. BASIN #7

CONNECT EX. FENCE
TO PROP. FENCE

BASIN #7
OUTLET STRUCTURE

PROP. EDGE OF WOODLANDS

PROP. FLARE

PROP.
LEACHATE
STORAGE
TANK
(DOUBLE
CONTAINMENT)
100' DIA.

PROP.
LEACHATE
STORAGE
TANK
(DOUBLE
CONTAINMENT)
100' DIA.

Ex. 50' Columbia Gas
Transmission Corporation
Deed Book 1995-1,
Page 83750

SHEET 17

SHEET 14

SHEET 15

SHEET 15

DETAILED GRADING PLAN (SCALE: 1"=50')

PHASE V PRELIMINARY LAND DEVELOPMENT
& LOT CONSOLIDATION PLAN
Bethlehem Landfill Company

LOWER SAUCON TWP. NORTHAMPTON CO.
PENNSYLVANIA

NO.	REVISION	DATE

martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO. 1162.6 | DWN. BY: MSH/DB | SCALE: 0 25' 50' 100' Scale: 1" = 50'
DSN. BY: JM | CHK. BY: RMB

CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO.
18 of 29

FILE: 1162.6-LDP-PV-12,24.dwg

PROP. PADEP PERMIT BOUNDARY

PROP. FENCE

PROP. EDGE OF WOODLANDS

CHANNEL-5C

5-DS-I

5-DS-H

5-DS-G

EW

EW-5-9

LIMIT OF MSE WALL

CONTINUE BENCH ACROSS MAINTENANCE DRIVE

CONTINUE BENCH ACROSS MAINTENANCE DRIVE

LIMIT OF DISPOSAL

EX. FENCE (TO BE REMOVED)

CONTINUE BENCH ACROSS MAINTENANCE DRIVE

CONNECT EX. FENCE TO PROP. FENCE

SHEET 16

SHEET 20

DETAILED GRADING PLAN (SCALE: 1"=50')

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

PENNSYLVANIA

NO.	REVISION	DATE

martin and martin incorporated
37 south main street • suite A
phone: (717) 264-6759
chambersburg, pennsylvania . 17201

SCALE: 100' 50' 0 25' 50' Scale: 1" = 50'

DWN. BY: MSH/DB CHK. BY: RMB

PROJ. NO. 1162.6 QUAL. BY: JM

CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO.

19 of 29

FILE: 1162.6-LDP-PV-12,24.dwg

SHEET 22

SHEET 19

SHEET 21

SHEET 17

PROPOSED MSE BERM
(MAX HGT. : 50')

PROP. EDGE OF WOODLANDS

Woodlands (Typ.)

Access Drive

CHANNEL-5D

EW-5-10

C-5-9

LIMIT OF DISPOSAL

LIMIT OF DISPOSAL

WETLAND D
0.0144 AC.

WETLAND G
0.1041 AC.

WETLAND H
0.0527 AC.

WETLAND E
0.0395 AC.

WETLAND F
0.0092 AC.

5-DS-E

5-DS-F

EX. FENCE (TO BE REMOVED)

DETAILED GRADING PLAN (SCALE: 1"=50')

PHASE V PRELIMINARY LAND DEVELOPMENT
& LOT CONSOLIDATION PLAN
Bethlehem Landfill Company

LOWER SAUCON TWP. NORTHAMPTON CO.
PENNSYLVANIA

NO.	REVISION	DATE

martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO. 1162.6 | DWN. BY: MSH/DB | SCALE: 50' 25' 0 50' 100' Scale: 1" = 50' | CHK. BY: RMB | DSN. BY: JM

CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO.

20 of 29

CADD FILE: 1162.6-LDP-PV-12,24.dwg

SHEET 22

SHEET 20

SHEET 18

Ex. Columbia Gas Pipeline

Ex. 50' Columbia Gas R/W
Deed Book 469, Page 214

Ex. 50' Interstate–
Gulf Energy Easement
Deed Book 229, Page 137

LIMIT OF DISPOSAL

EW-5-7
EW-5-6
EW-5-5
EW-5-4
EW-5-3
I-5-1
I-5-2
C-5-4
C-5-5
C-5-2
5-DS-C
5-DS-D
5-DS-B
4+00 CHANNEL-5E
3+00 CHANNEL-5F

FILE: 1162.6-LDP-PV-12,24.dwg

DETAILED GRADING PLAN (SCALE: 1"=50')

PHASE V PRELIMINARY LAND DEVELOPMENT
& LOT CONSOLIDATION PLAN
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LOWER SAUCON TWP. NORTHAMPTON CO.
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PROJ. NO.: 1162.6
DSN. BY: JM
DWN. BY: MSH/DB
CHK. BY: RMB
SCALE: 50' 25' 0 50' 100'
Scale: 1" = 50'

CADD FILE: 1162.6-LDP-PV-12,24.dwg
DATE: 09/11/23
SCALE: 1" = 50'
DRAWING NO.
21 of 29

Bull Run

100' Wide Stream Protection Easement For Bull Run

50' Riparian Corridor Buffer

PROP. FENCE

PROP. EDGE OF WOODLANDS

PROPOSED LEVEL SPREADER

BASIN #8 OUTLET STRUCTURE

LIMIT OF DEVELOPMENT

LIMIT OF MSE WALL

PROP. FENCE

PROP. DRY EXTENDED DETENTION BASIN #8

EW-5-8

C-5-7

I-5-4

C-5-6

I-5-3

SHEET 20

SHEET 21

DETAILED GRADING PLAN (SCALE: 1"=50')

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

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CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO. 22 of 29

FILE: 1162.6-LDP-PV-12,24.dwg

SHEET 24

MAINTENANCE ROAD 15'

20' WIDE LSA WATERLINE EASEMENT
(TO BE RELOCATED)

INLET #2

CHANNEL B

CHANNEL A

CHANNEL K

CHANNEL-5J

C-5-11

C-5-12

C-5-13

C-5-14

EW-5-14

EW-5-15

I-5-5

MH-5-1

MH-5-2

MH #1

INLET 13

C-2

C-3

C-8

BASIN 6

WETLAND B
0.6214 AC.

WETLAND A
0.0116 AC.

CONNECT EX. FENCE
TO PROP. FENCE

FILE: 1162.6-LDP-PV-12,24.dwg

DETAILED GRADING PLAN (SCALE: 1"=50')

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT
& LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
PENNSYLVANIA

NO.	REVISION	DATE

martin and martin incorporated
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chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO.: 1162.6 | DWN. BY: MSH/DB | SCALE: 50' 25' 0 50' 100' Scale: 1" = 50'
DSN. BY: JM | CHK. BY: RMB

CADD FILE: 1162.6-LDP-PV-12,24.dwg

DATE: 09/11/23

SCALE: 1" = 50'

DRAWING NO.
23 of 29

PP&L Power Line
with 100' R/W

BERM SWALE

MANHOLE #5

C-14

INLET 11

C-15

CHANNEL DS-3

MANHOLE #6

INLET 12

MANHOLE #7

MANHOLE #8

150,000 Gal.
Water Tank

CONNECT EX. FENCE
TO PROP. FENCE

PROPOSED
LIMIT OF
MODIFIED
MSE WALL

EW-5-13

10+91

10+00

9+00

8+00

7+00

EX. FENCE
(TO BE REMOVED)

SHEET 23

DETAILED GRADING PLAN (SCALE: 1"=50')

LOWER SAUCON TWP. NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT
& LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
PENNSYLVANIA

NO. REVISION DATE

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37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO. 1162.6
DWN. BY: MSH/DB
CHK. BY: RMB
DSN. BY: JM

SCALE: 100' 50' 0 25' 50'
Scale: 1" = 50'

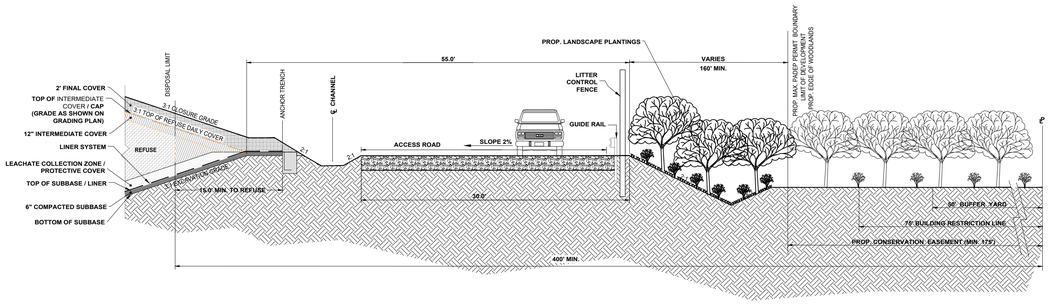
CADD FILE:
1162.6-LDP-PV-12,24.dwg

DATE:
09/11/23

SCALE:
1" = 50'

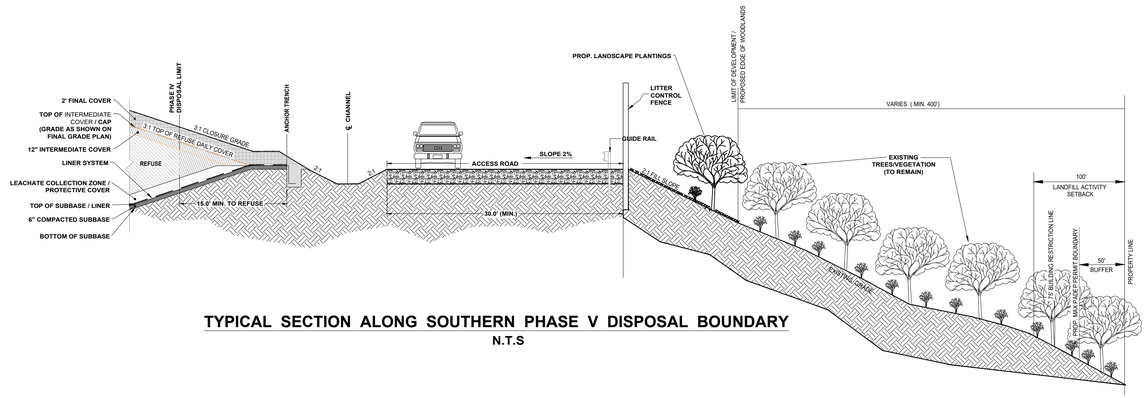
DRAWING NO.
24 of 29

FILE: 1162.6-LDP-PV-12,24.dwg



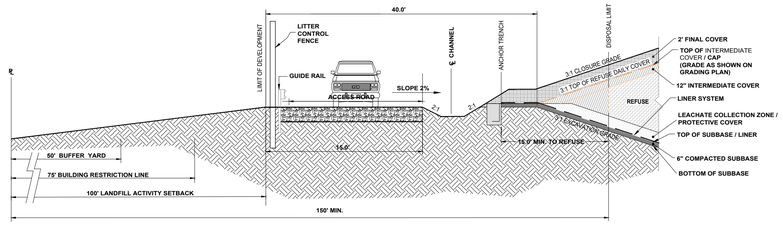
TYPICAL SECTION ALONG EASTERN PHASE V DISPOSAL BOUNDARY

N.T.S



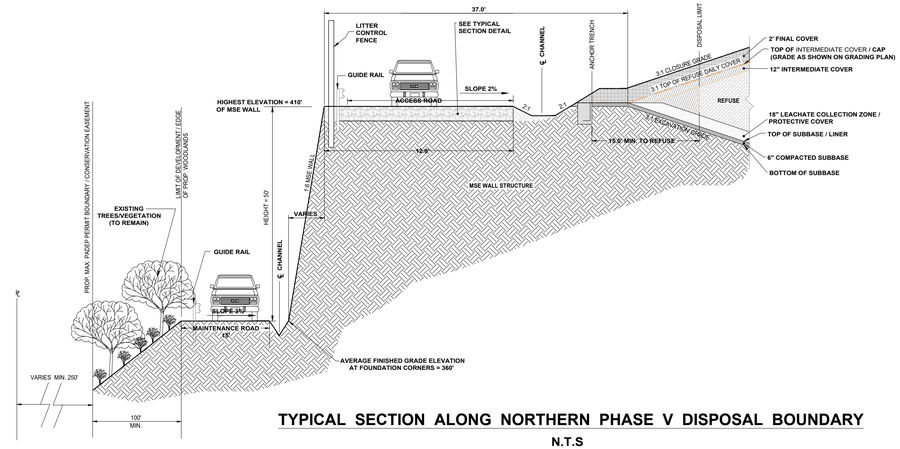
TYPICAL SECTION ALONG SOUTHERN PHASE V DISPOSAL BOUNDARY

N.T.S



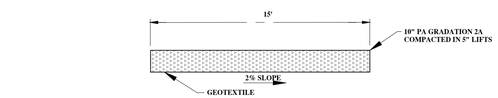
TYPICAL SECTION ALONG WESTERN PHASE V DISPOSAL BOUNDARY

N.T.S



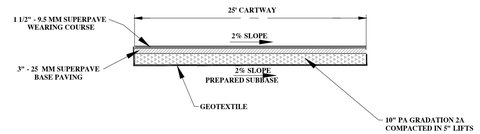
TYPICAL SECTION ALONG NORTHERN PHASE V DISPOSAL BOUNDARY

N.T.S



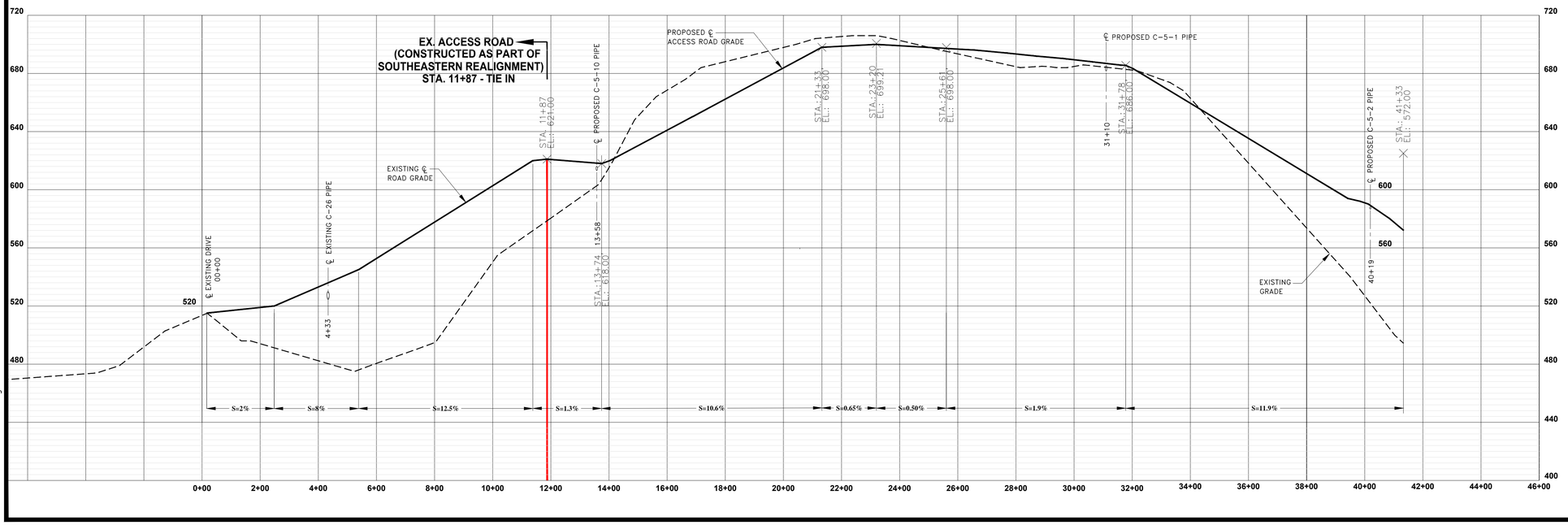
TYPICAL MAINTENANCE ROAD SECTION DETAIL (GRAVEL)

NOT TO SCALE



TYPICAL ACCESS ROAD SECTION DETAIL (PAVED)

NOT TO SCALE



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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JOSEPH M. DELL'OMO, JR.
NO. 035218E

NO.	REVISION	DATE

ACCESS ROAD PROFILES & DETAILS

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN
Bethlehem Landfill Company

NORTHAMPTON CO.
LOWER SAUCON TWP.
PENNSYLVANIA

martin and martin incorporated
37 south main street suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

SCALE: AS SHOWN

PROJ. NO.	DWN. BY:	DB
1162.6	CHK. BY:	RMB
DSN. BY:	JM	

CADD FILE: 1162.6-LDP-PV-25.dwg

DATE: 09/11/23

SCALE: AS SHOWN

DRAWING NO.

25 of 29

NEIGHBORHOOD PROTECTION ANALYSIS

(required per Zoning Ordinance Section 180-96)

SUBMITTALS FOR PRIOR EXPANSIONS OF THE LANDFILL, NAMELY THE 2001 PHASE IV, 2016 SOUTHEASTERN REALIGNMENT, AND 2020 NORTHERN REALIGNMENT EXPANSION LAND DEVELOPMENT PLANS, PROVIDED A NEIGHBORHOOD PROTECTION ANALYSIS WHICH WAS ACCEPTED BY THE TOWNSHIP. THE FOLLOWING ANALYSIS PROVIDES AN UPDATE AS A RESULT OF THE PHASE V EXPANSION. THOSE SECTIONS REVISED INCLUDE: HEAT, NOISE, AND SMOKE, DUST, ETC. ALL OTHER SECTIONS INCLUDED ARE CONSISTENT WITH THE PREVIOUSLY APPROVED NEIGHBORHOOD PROTECTION ANALYSIS ON FILE WITH THE TOWNSHIP.

A. **RADIOACTIVITY** - THE ONLY USE OF EQUIPMENT WHICH EMITS RADIOACTIVITY IS THE OCCASIONAL USE OF A NUCLEAR SOIL DENSITY GAUGE DURING CONSTRUCTION INSPECTION ACTIVITIES. THE EQUIPMENT IS OPERATED ONLY BY A TECHNICIAN CERTIFIED TO USE THE EQUIPMENT. IT IS TRANSPORTED AND OPERATED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS. WASTE CONTAINING RADIOACTIVE MATERIALS ABOVE DEP NORM LEVELS IN THE FORM X ARE NOT PERMITTED AT THE SITE. IF ANY WASTE DELIVERED IS SUSPECTED OF CONTAINING SUCH MATERIAL, THE WASTE WILL BE REJECTED PURSUANT TO THE LANDFILL'S WASTE ACCEPTANCE AND CLASSIFICATION PLAN AND FORM X. IF NECESSARY, EMERGENCY PROCEDURES WILL BE IMPLEMENTED SUCH AS CONTACTING THE ENVIRONMENTAL CLEANUP CONTRACTOR AS DESCRIBED IN THE BETHLEHEM LANDFILL PPC PLAN.

B. **HEAT** - THE ONLY HEAT SOURCE USED AT THE SITE OTHER THAN NORMAL BUILDING AND VEHICLE HEATERS IS THE LANDFILL GAS FLARE USED TO SAFELY BURN LANDFILL GAS AS PART OF THE LANDFILL'S GAS CONTROL SYSTEM. THE FLARE IS LOCATED AT THE SOUTH CENTRAL PORTION OF THE SITE. IT IS LOCATED APPROXIMATELY 200 FEET FROM THE SOUTHERN PROPERTY LINE AND APPLEBUTTER ROAD. THE FLARE CAUSES NO MEASURABLE INCREASE IN TEMPERATURE AT THE PROPERTY LINE. THE PHASE V EXPANSION WILL RESULT IN AN INCREASE IN METHANE GAS GENERATION DUE TO THE EXPANSION OF DISPOSAL FOOTPRINT. AN ADDITIONAL FLARE SYSTEM IS PROPOSED LOCATED ON THE EASTERN END OF THE PROPERTY. THE NEAREST PROPERTY LINE TO THE PROPOSED FLARE IS 100 FEET OVER THREE TIMES FURTHER THAN THE EXISTING FLARE.

C. **GLARE** - NO WALKWAY OR PARKING AREA ILLUMINATION IS PROPOSED AT THIS TIME. IF SUCH LIGHTING IS INSTALLED IN THE FUTURE, IT WILL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ZONING ORDINANCE. IN THE WINTER MONTHS TEMPORARY LIGHTS ARE ROUTINELY USED ON THE WORKING FACE OF THE LANDFILL DURING OPERATIONAL HOURS BETWEEN 6 AM AND 6PM.

D. **NOISE** - THERE ARE NO NEARBY (WITHIN 100 FEET) RESIDENTIAL PROPERTY BOUNDARIES TO THE PHASE V EXPANSION DEVELOPMENT AREA.THE LANDFILL RECEIVING HOURS FOR WASTE ARE FROM 7 AM TO 4 PM ON MONDAYS THRU SATURDAYS. THERE WILL BE NO RECEIVING HOURS ON SUNDAYS. SOME EQUIPMENT IS GENERALLY WORKING AT THE SITE FROM ABOUT 30 MINUTES BEFORE THE START OF THE RECEIVING HOURS TO ABOUT 2 HOURS AFTER THE END OF RECEIVING HOURS. THESE TIMES ALLOW FOR START UP, WARMING OF EQUIPMENT, PREPARATION OF THE WORKING FACE TO RECEIVE WASTES BEFORE RECEIVING HOURS, AND COMPACTION OF COVERING OF WASTES AFTER THE END OF RECEIVING HOURS. THE TOWNSHIP ZONING ORDINANCE LISTS LIMITS FOR CONTINUOUS NOISE LEVELS AT THE PROPERTY LINE OF THE ADJACENT PROPERTIES BASED ON THE RECEIVING PROPERTIES LAND USE. THE NEAREST NOISE RECEPTORS TO THE SITE ARE RESIDENTIAL AREAS TO THE SOUTH OF THE PHASE V EXPANSION ALONG APPLEBUTTER ROAD AND TO THE EAST OF THE PHASE V DISPOSAL AREA. FOR RESIDENTIAL PROPERTIES THE LIMITS ARE 60 dBA FROM 7 AM TO 10 PM MONDAY THRU SATURDAY AND 50 dBA AT OTHER HOURS. THE LIMIT IS REDUCED BY 5 dBA FOR "PURE TONES". THE CURRENTLY APPROVED OPERATIONS PLAN FOR THE SITE LISTS THE EQUIPMENT USED FOR OPERATION OF THE FACILITY. NO CHANGE IN EQUIPMENT IS PROPOSED FOR THE PHASE V EXPANSION. THE EQUIPMENT PRODUCING THE MOST NOISE WOULD BE DOZERS, LANDFILL COMPACTORS AND ARTICULATED TRUCKS. THESE OPERATE AT THE WORKING FACE AND ACCESS ROADS. THE ONLY SIGNIFICANT CONTINUOUS NOISE SOURCE IS THE OPERATION OF EQUIPMENT AT THE WORKING FACE. FOLLOWING ARE DATA FROM THE CATERPILLAR EQUIPMENT COMPANY ON THE NOISE LEVELS AT A DISTANCE OF 15 METERS OR (ABOUT 50 FEET) FROM THE EQUIPMENT.

NOISE LEVELS BASED ON OPERATING CONDITIONS AT A DISTANCE OF 15 METERS **(± 50 FEET)**

FROM CATERPILLAR EQUIPMENT – dBA

	(1)	(2)	(3)	(4)	(5)
826 Compactor	80.0	79.3	74.5	79.8	83.0
836 Compactor	79.5	79.3	76.8	81.5	81.0
D4 Dozer	75.9	75.1	76.5	77.1	83.1
D8 Dozer	81.0	80.0	81.0	81.0	86.0
D350 Haul Truck	78.5	77.5	79.0	81.0	81.0

(1) = Engine at High Idle (max.)

(2) = Engine at Rated Speed

(3) = Engine Cycle (Idle-Max-Idle)

(4) = Hydraulic Cycle – Engine at Max.

(5) = Intermediate Gear Moving

TABLE #1

NOISE LEVELS MEASURED AT IESI BETHLEHEM LANDFILL - JANUARY 8, 2001

(A) DISTANCE FROM WORKING FACE (1)	(A) TYPICAL SOUND PRESSURE LEVEL (dBA)	(B) Noise Levels at 15 sec. Intervals at Location 50' from Main Access Road to Working Face - Start 9:35 AM: SOUND PRESSURE LEVEL (dBA)	(B) SOUND PRESSURE (4)	(C) Noise Levels at 15 sec. Intervals at Side of Applebutter Rd at Landfill Entrance - Start 9:50 AM: SOUND PRESSURE LEVEL (dBA)	(C) SOUND PRESSURE (4)	(D) Same as Previous Column Except Excluding 3 data Points Affected by Vehicles Entering Landfill: SOUND PRESSURE LEVEL (dBA)	(D) SOUND PRESSURE (4)
		54.0	501.19	50.9	350.75	50.9	350.75
		56.0	630.96	51.5	375.84	51.5	375.84
50'	87.0	54.3	518.80	49.6	302.00	49.6	302.00
100'	70.5	58.5	841.40	64.0	1584.89	64.0	1584.89
200'	64.0	56.4	660.69	48.8	275.42	48.8	275.42
400' (2)	54.0	53.6	478.63	48.8	275.42	48.8	275.42
550' (3)	51.5	56.0	630.96	49.3	291.74	49.3	291.74
		58.3	822.24	71.3	3672.82	71.3	3672.82
		64.4	1659.59	49.8	309.03	49.8	309.03
		57.6	758.58	48.0	251.19	48.0	251.19
		55.8	616.60	47.6	239.88	47.6	239.88
		54.1	506.89	46.8	218.78	46.8	218.78
		53.8	489.78	63.1	1428.89	63.1	1428.89
		55.4	588.84	55.8	616.60		
		52.7	431.52	49.2	288.40	49.2	288.40
		52.4	416.87	49.1	285.10	49.1	285.10
		54.3	518.80	68.9	2786.12		
		53.5	473.15	61.0	1122.02		
		53.2	457.09	61.9	1244.51	61.9	1244.51
		57.9	785.24	55.3	582.10	55.3	582.10
		65.0	1778.28	60.0	1000.00	60.0	1000.00
		66.5	21134.89 (5)				
		63.8	1548.82				
		62.3	1303.17				
		54.9	555.90				
	AVERAGE	63.9	1564.36	58.4	833.41	57.2	720.93

NOTES:
(1) One compactor and one dozer spreading wastes with trucks delivering wastes about 9:10 to 9:25 AM
(2) Traffic noise from I-78 also audible at this location
(3) This point was across bench in slope as line of sight to working face no longer available; Working face noise not evident over other background noise (I-78 traffic in particular) except for scattered impact sounds and back-up alarms.
(4) Since dBA is a logarithmic scale, values are averaged using this column which is the Antilog (dBA/20).
(5) This high value caused by haul truck passing about 10' from meter.
EQUIPMENT USED - SPER SCIENTIFIC DIGITAL SOUND METER 840029
PERSONS PRESENT - Chuck Blough and Karen Christman - IESI, Allen O'Dell - Martin & Martin

AS PREVIOUSLY STATED THERE ARE NO NEARBY (WITHIN 100 FEET) RESIDENTIAL PROPERTY BOUNDARIES TO THE PHASE V EXPANSION DEVELOPMENT AREA. SINCE THE WORKING FACE IS THE ONLY SIGNIFICANT CONTINUOUS NOISE SOURCE, DISTANCES FROM RESIDENTIAL PROPERTY LINES TO THE NEAREST WORKING FACE FOR THE PHASE V EXPANSION ARE THE APPLICABLE SEPARATION DISTANCES TO CONSIDER. THE NEAREST RESIDENTIAL PROPERTY LINE WITH AN ASSOCIATED OCCUPIED DWELLING NOT OWNED BY BETHLEHEM LANDFILL COMPANY IS TO THE EAST (PETRIE PROPERTY) APPROXIMATELY 400' FROM THE NEAREST PHASE V WORKING FACE AREA. THE NEAREST OCCUPIED DWELLING NOT OWNED BY BETHLEHEM LANDFILL COMPANY IS TO THE SOUTH (STEELY) APPROXIMATELY 600'FROM THE NEAREST PHASE V WORKING FACE. NOISE LEVELS AT THESE GREATER DISTANCES WERE NOT AVAILABLE FROM THE MANUFACTURE. BLC CONDUCTED NOISE LEVEL MEASUREMENTS AS LISTED ON TABLE 1 ON JANUARY 8, 2001 IN ORDER TO OBTAIN ACTUAL NOISE LEVELS AT THE DISTANCES FROM THE WORKING FACE EQUIPMENT, AT AN ACCESS ROAD AND ALONG APPLEBUTTER ROAD AT THE ENTRANCE.

DATA SET (A) ON TABLE 1 GIVES THE TYPICAL SOUND PRESSURE LEVELS AT VARIOUS DISTANCES FROM THE WORKING FACE. AT 400', THE NEAREST RESIDENTIAL USE PROPERTY BOUNDARY, THE NOISE LEVEL WAS 54.0 dBA AT THE WORKING FACE LOWER THAN THE REQUIRED 60 dBA. THE NOISE LEVEL RECEPTER (DWELLING) FOR THIS PROPERTY IS OVER 2000 FEET FROM THE PROPERTY LINE WHERE NOISE LEVELS WILL CONTINUE TO BE LOWER THAN REQUIRED BY ORDINANCE. THE CLOSEST WORKING FACE OPERATIONS WILL BE ABOUT 600' FROM THE NEAREST OCCUPIED DWELLING. THE NOISE LEVEL AT THIS DISTANCE FROM THE WORKING FACE WAS LESS THAN 51.5 dBA WHICH IS LESS THAN THE ORDINANCE'S LIMIT OF 60 dBA.

DATA SET (B) GIVES THE NOISE LEVEL AT A LOCATION 50' FROM THE MAIN ACCESS ROAD OFF APPLEBUTTER ROAD TO THE WORKING FACE WHERE TRUCKS ARE GOING UP OR DOWN A SIGNIFICANT GRADE. THESE DATA WERE OBTAINED AT A TIME WHERE DELIVERIES WERE NOT AT A PEAK RATE. HOWEVER THE AVERAGE LEVEL OBTAINED 50' FROM THE ACCESS ROAD (ABOUT 64 dBA) IS FAR LESS THAN THE 50' FROM THE WORKING FACE (ABOUT 87 dBA). THIS SHOWS THAT THE WORKING FACE IS THE MOST SIGNIFICANT SOURCE OF NOISE RATHER THAN THE ACCESS ROADS. FURTHER THE PHASE V EXPANSION PROPOSES NO MODIFICATION OR CHANGE TO THE EXISTING APPLEBUTTER ROAD ACCESS.

DATA SET (C) AND (D) GIVE NOISE LEVELS ALONG APPLEBUTTER ROAD, BOTH INCLUDING AND EXCLUDING LANDFILL RELATED TRAFFIC. THE AVERAGE NOISE LEVELS (57-58 DBA) WERE COMPARABLE TO NOISE LEVELS 300' FROM THE WORKING FACE AND EASILY EXCEEDED NOISE LEVEL 400' FROM THE WORKING FACE. THIS SHOWS MID-MORNING BACKGROUND NOISE LEVELS ALONG APPLEBUTTER ROAD ARE HIGHER THAN THE OFF-SITE NOISE LEVEL CAUSED BY WORKING FACE OPERATIONS.

E. **SMOKE, DUST, ETC.** - THE PROCEDURES USED TO CONTROL ODORS, METHANE GAS, DUST AND LITTER ARE DESCRIBED IN THE CURRENTLY APPROVED PLAN OF OPERATIONS AND NUISSANCE MINIMIZATION AND CONTROL PLAN FOR THE SITE. THE PHASE V EXPANSION PROPOSES TO CONTINUE OPERATIONS CONSISTENT WITH THESE APPROVED PLANS. PREVAILING WIND DIRECTIONS ARE FROM THE SOUTHWEST, WEST AND NORTHWEST AS INDICATED IN FIGURE 1 WHICH IS A WIND ROSE FOR THE LEHIGH VALLEY AREA. THIS WOULD TEND TO CARRY DUST AND LITTER TO THE NORTHEAST, EAST AND SOUTHEAST OF THE SITE. IN THESE DIRECTIONS THE NEAREST PROPERTY LINE IS AT LEAST 400' FROM ANY PHASE V DISPOSAL AREA WITH THE NEAREST RESIDENTIAL DWELLING OVER 1000' AWAY (WALTERS).

F. **VIBRATIONS** - THE LANDFILL UTILIZES A VIBRATORY COMPACTOR WHEN NEEDED. THIS UNIT DOES NOT PRODUCE VIBRATIONS WHICH CAN BE FELT MORE THAN 100-200' AWAY. OPERATION OF THIS EQUIPMENT IN THE PAST HAS NOT CAUSED ANY CONCERNS. BLASTING IS NEEDED ON OCCASIONS TO FACILITATE ROCK REMOVAL FOR CONSTRUCTION OF LANDFILL CELLS. WHEN UTILIZED, AN OUTSIDE CONTRACTOR IS USED TO DO PRE- AND POST- BLAST SURVEYS, RECORD SEISMIC IMPACTS FROM THE BLAST AROUND THE BLAST ZONE AND MEASURE VIBRATIONS OFF THE SITE. THIS IS A NORMAL LANDFILL CONSTRUCTION ACTIVITY. IT IS ANTICIPATED TO BE USED IN THE PHASE V EXPANSION.

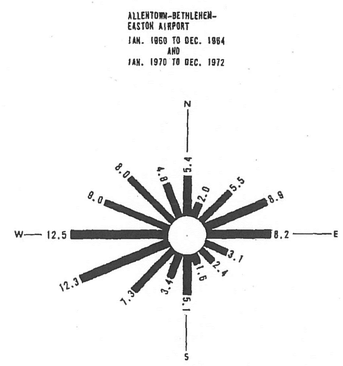
G. **STORAGE OF HAZARDOUS AND TOXIC SUBSTANCES** - THE LANDFILL DOES NOT STORE ANY OF THE SUBSTANCES LISTED IN SECTION 180-96G OF THE ZONING ORDINANCE OR SIMILAR HAZARDOUS AND TOXIC SUBSTANCES EXCEPT FOR HEATING OIL AND DIESEL FUEL. HEATING OIL TANKS ARE LOCATED IN AND AROUND THE OFFICE AND MAINTENANCE BUILDING. PROCEDURES FOR PREVENTION OF AND RESPONSE TO POTENTIAL SPILLS ARE DESCRIBED IN THE PPC PLAN FOR BETHLEHEM LANDFILL.

H. **STORAGE OF CHEMICALS** - THERE IS NO UNDERGROUND STORAGE OF CHEMICALS. WASTE OIL AND ANTI-FREEZE IS STORED IN 55 GALLON DRUMS IN THE MAINTENANCE BUILDING UNTIL THEY ARE TAKEN OFF-SITE FOR RECYCLING. THESE ITEMS, SHOP CHEMICALS, CLEANING CHEMICALS, AND 5-GALLON CONTAINERS OF GASOLINE FOR SMALL POWER EQUIPMENT ARE STORED IN THE EXISTING OFFICE AND MAINTENANCE BUILDINGS. ALL OF THESE BUILDINGS ARE LOCATED MORE THAN 300' AWAY FROM ANY RESIDENTIAL DWELLING OR RESIDENTIAL DISTRICT BOUNDARY. SPILL PREVENTION AND RESPONSE PROCEDURES ARE DESCRIBED IN THE PPC PLAN FOR BETHLEHEM LANDFILL.

I. **STORAGE OF WASTES** - WASTES DELIVERED TO THE SITE FOR DISPOSAL ARE COMPACTED DAILY. ROLLOFF CONTAINERS SHALL BE PROVIDED AT THE EXISTING "DROP-OFF" AREA FOR THE RECYCLABLES AND SOLID WASTE FROM SMALL VEHICLES. THE RECYCLABLES ARE HAULED OFF-SITE FOR RECYCLING AS NEEDED. THE WASTE CONTAINERS ARE HAULED TO THE WORKING FACE AS NEEDED WHICH IS USUALLY EVERY 1-2 DAYS.

J. **OTHER** - OTHER ENVIRONMENTAL IMPACTS AND CONTROL MEASURES ARE DESCRIBED IN OTHER SECTIONS OF THE PERMIT APPLICATION.

WIND ROSE FOR THE LEHIGH VALLEY REGION



NOTE: NUMBERS EXPRESS FREQUENCY OF OCCURRENCE IN PERCENT.

NOISE LEVEL SUPPLEMENT
FEBRUARY 15, 2023

The Phase V Expansion proposes no operational changes with respect to equipment, equipment usage and delivery methods for waste handling and disposal as compared to previous expansions for which the noise level analysis in 2001 was conducted. Therefore, the noise level analysis initially provided in 2001 as part of the Phase IV expansion and subsequently provided as part of the Southeastern and Northern Realignments remains valid.

In response to concerns raised by the Township and its consultants related to the time elapsed from the 2001 study to 2023, Martin & Martin, Inc. on February 15, 2023 took noise level readings at the current working face at Bethlehem Landfill. Readings were taken at the working face since the 2001 analysis clearly identified that the most significant source of noise is generated at the working face and this will remain true as part of the Phase V Expansion. The current working face is located within the southeastern area of the landfill within the Southeastern Realignment Phase. Except for the location where readings were taken on the landfill, the new readings were taken and are presented consistent with the 2001 study. These consistencies include the sound level metering device (Sper Scientific Digital Sound Meter Model 840029), distance from working face, equipment on the working face, time of day, and weather conditions. With regard to the equipment on the working face at the time of the readings, the 2001 study included one bulldozer and one compactor. During readings taken in this supplemental analysis, one compactor and one dozer were operating consistent with the 2001 analysis. However, additional equipment was present and operating to include one additional bulldozer and a waste trailer tipper. Further, as consistent with the 2001 analysis offsets from the working face moved to the south at distances of 50 feet, 100 feet, 200 feet, 400 feet and 550 feet. Offsets to the south were performed since the majority of residential noise receptors are located to the south toward Applebutter Road from the working face. Table 2 below presents the results of the February 15, 2023 readings obtained at various distances established by the 2001 analysis and the 2001 results so a direct comparison can be made.

Table #2

Noise Levels Measured at Bethlehem Landfill – February 15, 2023

Distance from Working Face	2023 Typical Sound Pressure Level (dBA)	2001 Typical Sound Pressure Level (dBA)
50'	69.9	87.0
100'	67.1	70.5
200'	62.8	64.0
400'	59.4	54.0
550'	55.9	51.5

Analysis of the results above yield consistency with the 2001 analysis such that noise level readings diminish with distance from the working face and at a distance of 400 feet sound pressure levels drop below 60 dBA. This consistency enables conclusions to be made with regard to the Phase V Expansion as follows.

1. The nearest residential dwelling or noise receptor to the proposed Phase V Expansion working face is 600 feet being the Steely Property along Applebutter Road. Both analyses (2001 & 2023) conclude noise levels at this distance from the working face are less than those required by Ordinance (60 dBA).

2. The nearest residential property boundary to the proposed Phase V working face is 400 feet. Both analyses conclude noise level readings at this distance are less than 60 dBA as required by the Ordinance.

Thus, we conclude the newly obtained sound level measurements confirm and validate the 2001 study accepted under previous approved expansions and realignments and, therefore, is valid for the Phase V Expansion.

COMMONWEALTH OF PENNSYLVANIA — JOSEPH M. MILLER, JR. — REGISTERED PROFESSIONAL ENGINEER

NO. | REVISION | DATE

NEIGHBORHOOD PROTECTION ANALYSIS

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

LOWER SAUCON TWP. — NORTHAMPTON CO. — PENNSYLVANIA

martin and martin incorporated
37 south main street suite A•
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO. 1162.6 | DWN. BY: DB | CHK. BY: RWB | QSN. BY: JM

SCALE: AS NOTED

CADD FILE: 1162.6-LDP-PV-26.dwg

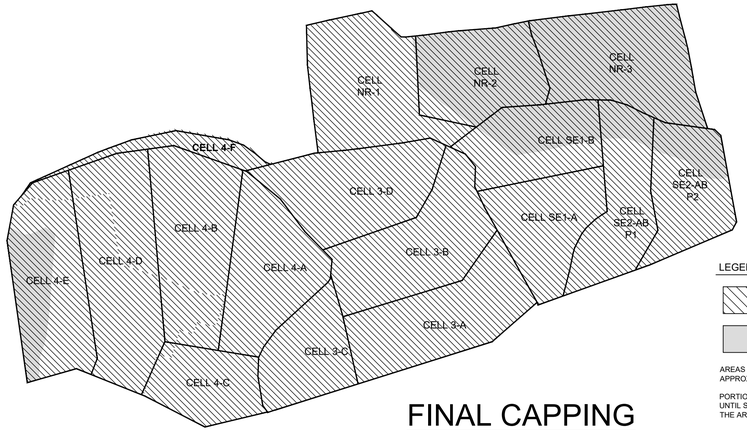
DATE: 09/11/23

SCALE: AS NOTED

DRAWING NO.

26 of 29

FILE: 1162.6-LDP-PV-26.dwg



FINAL CAPPING

LEGEND

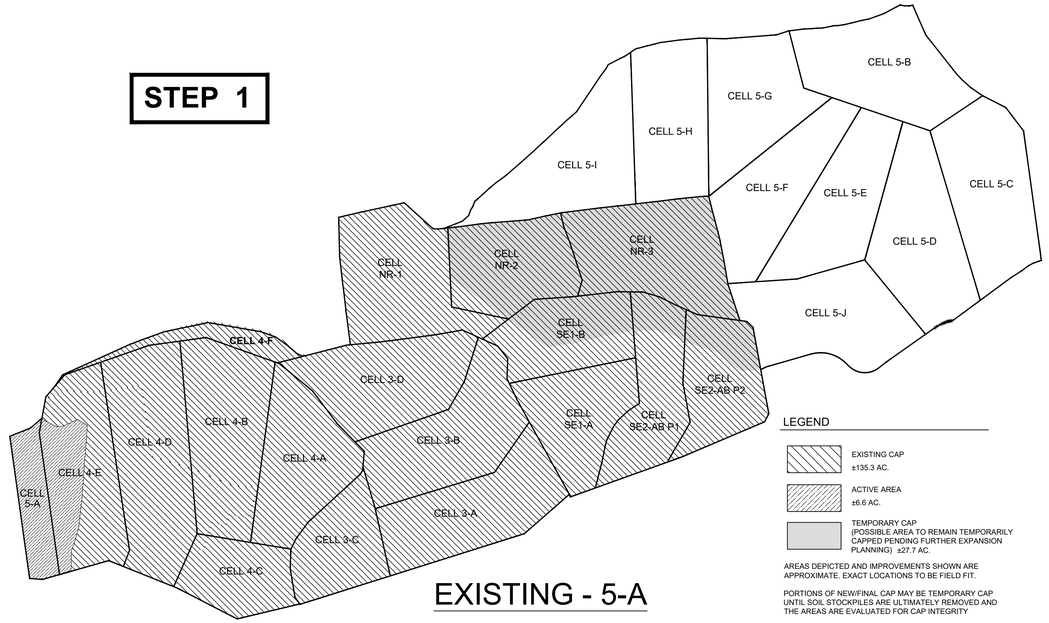
EXISTING CAP
±138.7 AC.

TEMPORARY CAP
(POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±27.7 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

STEP 1



EXISTING - 5-A

LEGEND

EXISTING CAP
±135.3 AC.

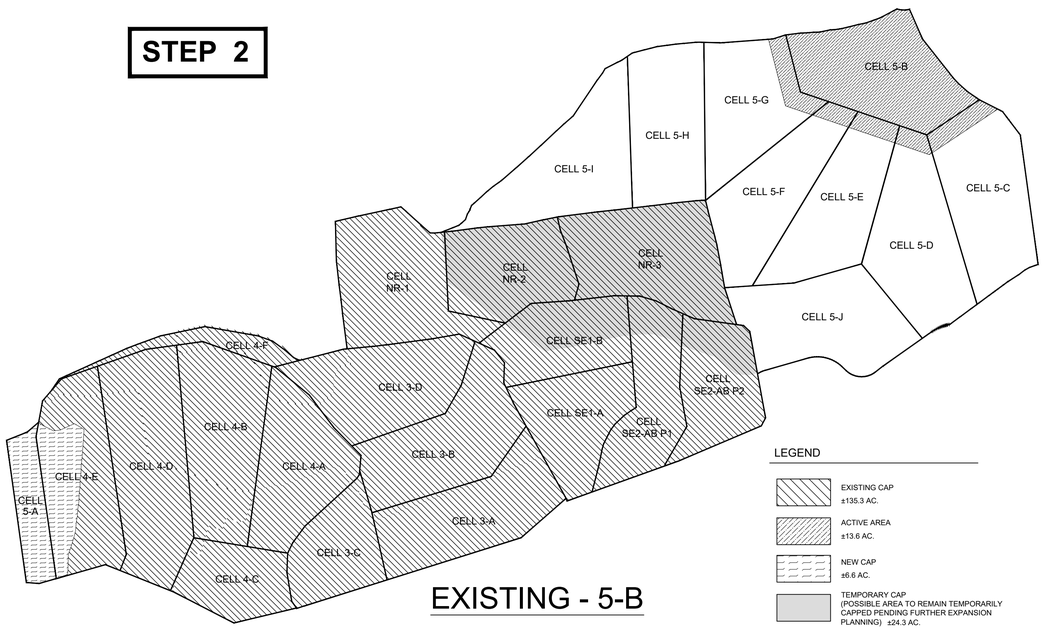
ACTIVE AREA
±6.6 AC.

TEMPORARY CAP
(POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±27.7 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

STEP 2



EXISTING - 5-B

LEGEND

EXISTING CAP
±135.3 AC.

ACTIVE AREA
±13.6 AC.

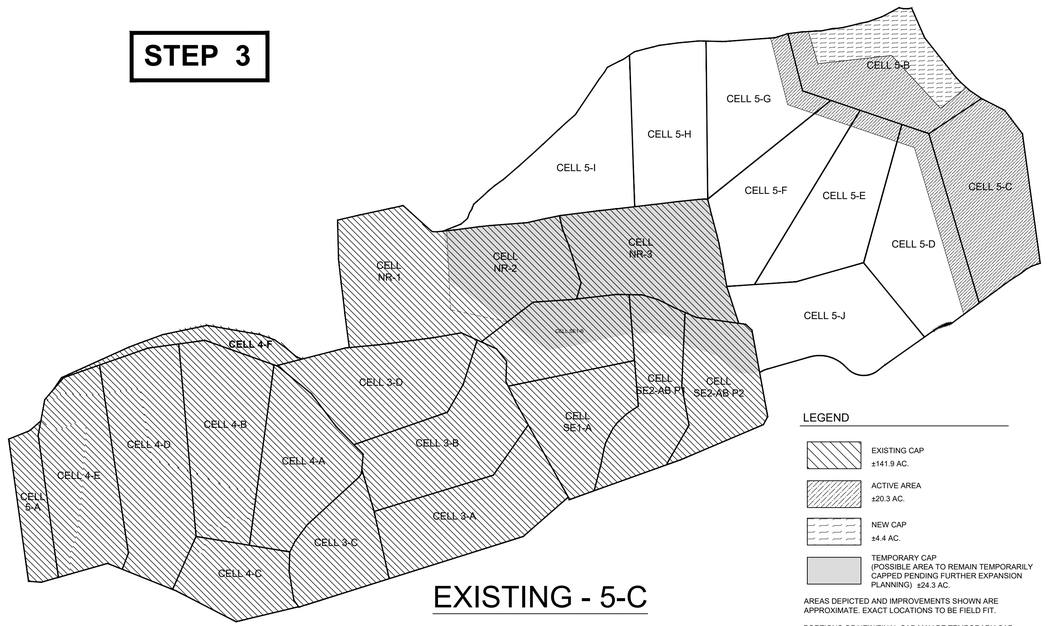
NEW CAP
±6.6 AC.

TEMPORARY CAP
(POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±24.3 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

STEP 3



EXISTING - 5-C

LEGEND

EXISTING CAP
±141.9 AC.

ACTIVE AREA
±20.3 AC.

NEW CAP
±4.4 AC.

TEMPORARY CAP
(POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±24.3 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

COMMONWEALTH OF PENNSYLVANIA — JOSEPH M. MILL, JR. — REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	DATE

CELL DEVELOPMENT SCHEDULE

NORTHAMPTON CO.

LOWER SAUCON TWP.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

PENNSYLVANIA

martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO.	DWN. BY:	CHK. BY:
1162.6	DB	JM
DSN. BY:		JM

SCALE: 400' 200' 0 400' 800' Scale: 1" = 400'

CADD FILE: 1162.6-LDP-PV-27.dwg

DATE: 09/11/23

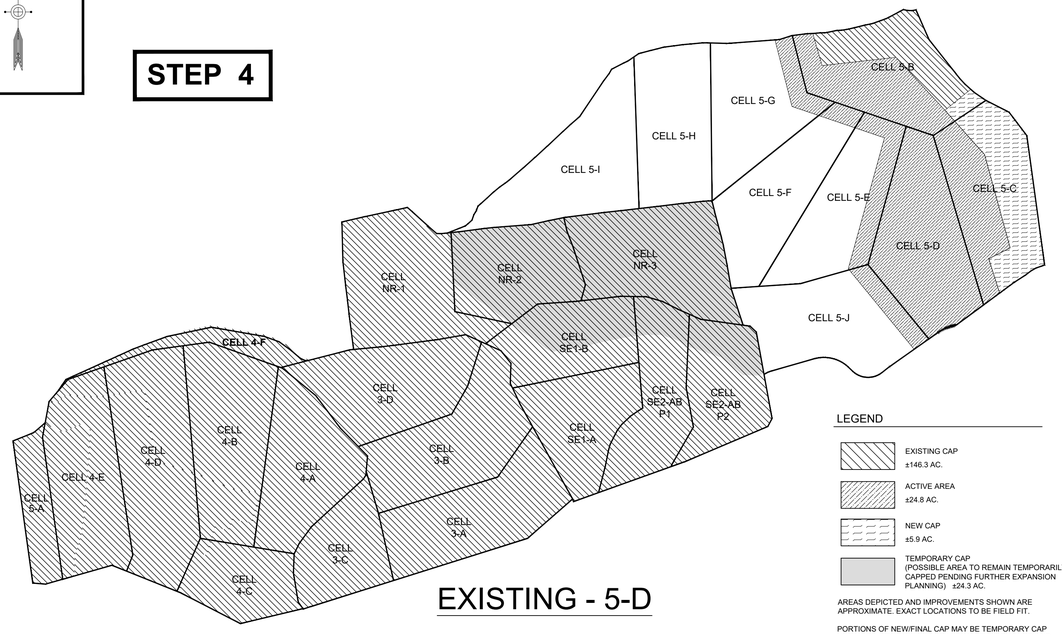
SCALE: 1" = 400'

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27 of 29

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STEP 4



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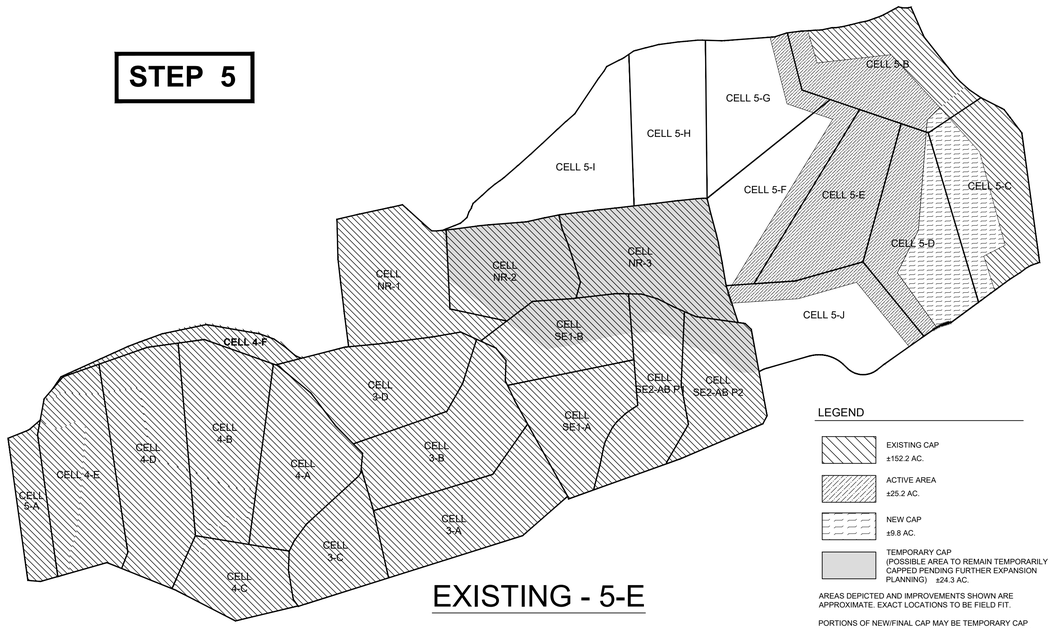
LEGEND

- EXISTING CAP ±146.3 AC.
- ACTIVE AREA ±24.8 AC.
- NEW CAP ±5.9 AC.
- TEMPORARY CAP (POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±24.3 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

STEP 5



EXISTING - 5-E

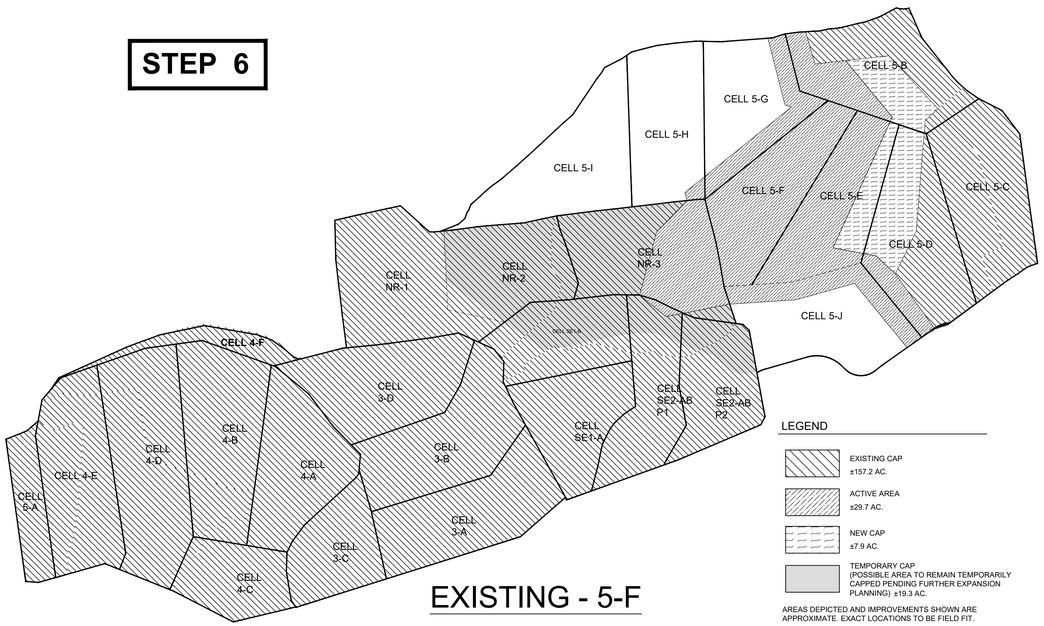
LEGEND

- EXISTING CAP ±152.2 AC.
- ACTIVE AREA ±25.2 AC.
- NEW CAP ±9.8 AC.
- TEMPORARY CAP (POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±24.3 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

STEP 6



EXISTING - 5-F

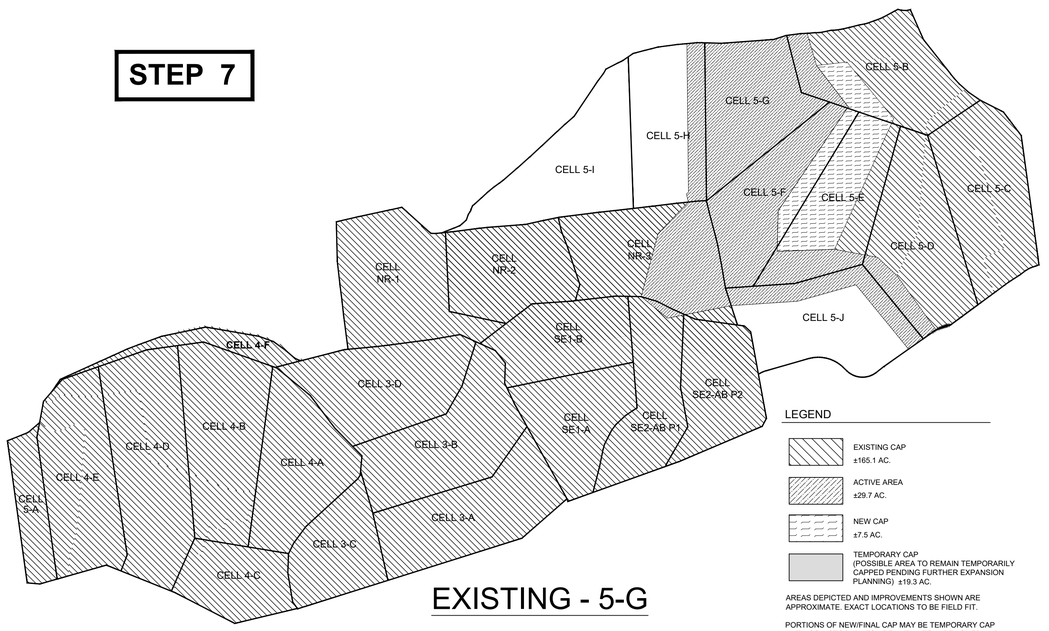
LEGEND

- EXISTING CAP ±157.2 AC.
- ACTIVE AREA ±29.7 AC.
- NEW CAP ±7.9 AC.
- TEMPORARY CAP (POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±19.3 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

STEP 7



EXISTING - 5-G

LEGEND

- EXISTING CAP ±165.1 AC.
- ACTIVE AREA ±29.7 AC.
- NEW CAP ±7.5 AC.
- TEMPORARY CAP (POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±19.3 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

COMMONWEALTH OF PENNSYLVANIA — JOSEPH M. MILLI, JR. — ENGINEER — REGISTERED PROFESSIONAL

NO.	REVISION	DATE

CELL DEVELOPMENT SCHEDULE

NORTHAMPTON CO.

LOWER SAUCON TWP.

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

PENNSYLVANIA

martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

PROJ. NO. 1162.6 | DWN. BY: DB | CHK. BY: JM | DSN. BY: JM

SCALE: 400' 200' 0 400' 800' Scale: 1" = 400'

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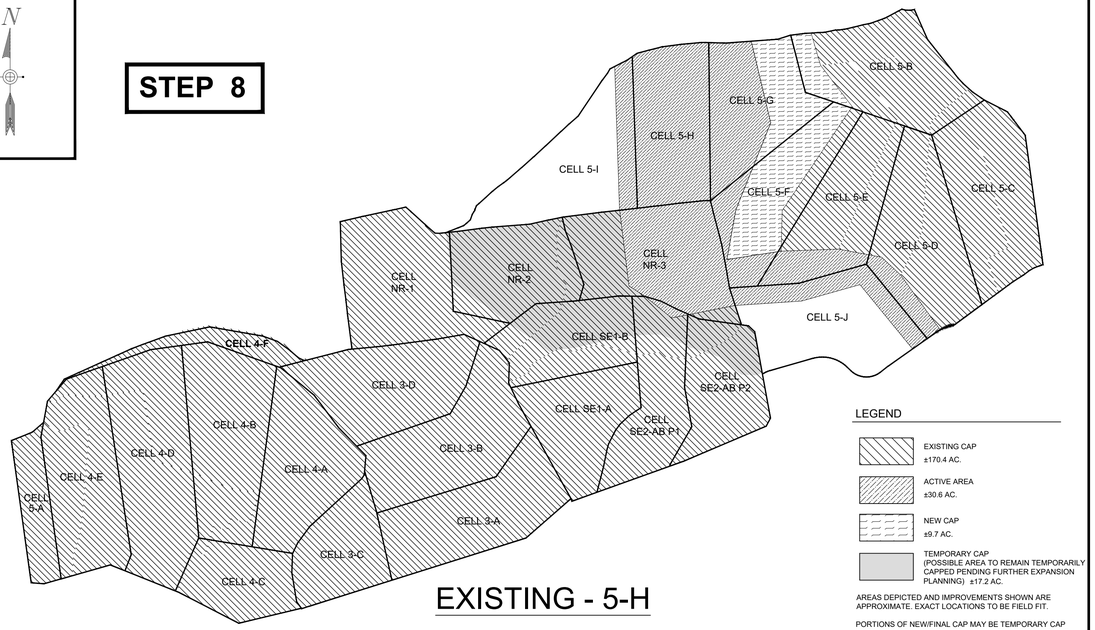
DATE: 09/11/23

SCALE: 1" = 400'

DRAWING NO.

27A of 29

STEP 8



EXISTING - 5-H

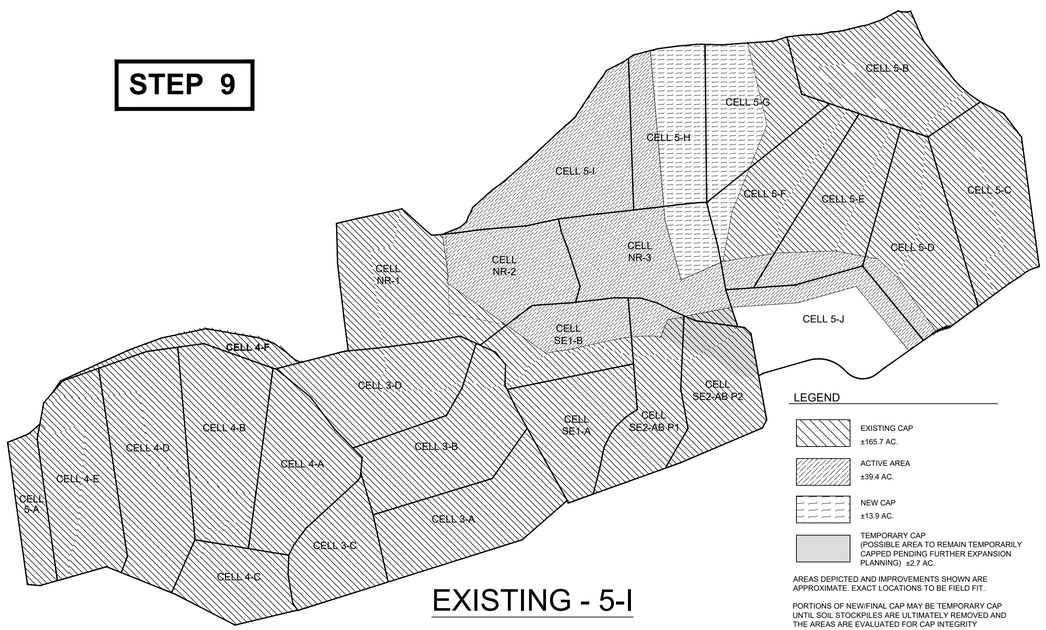
LEGEND

- EXISTING CAP ±170.4 AC.
- ACTIVE AREA ±30.6 AC.
- NEW CAP ±9.7 AC.
- TEMPORARY CAP (POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±17.2 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

STEP 9



EXISTING - 5-I

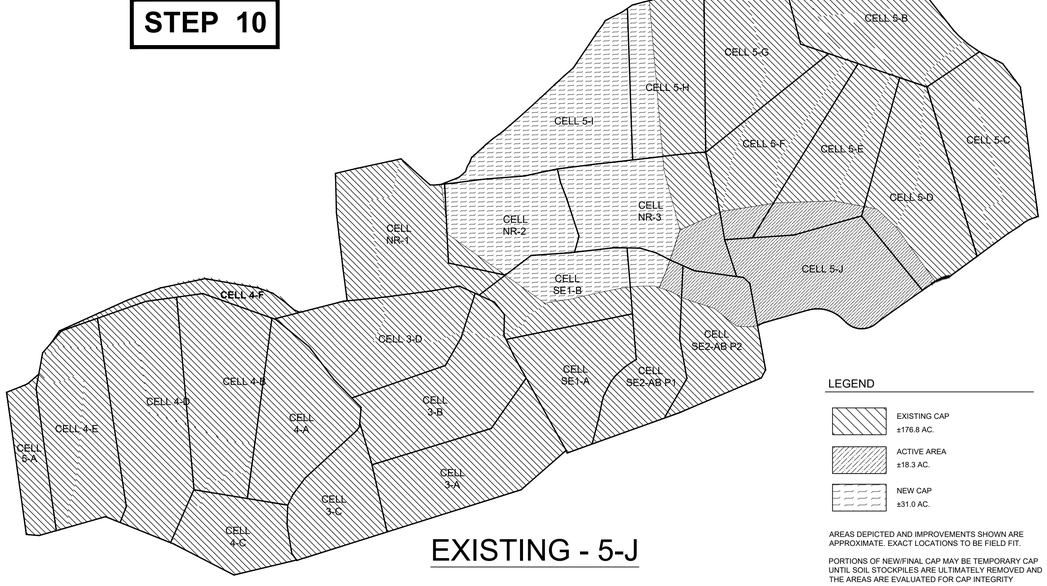
LEGEND

- EXISTING CAP ±165.7 AC.
- ACTIVE AREA ±39.4 AC.
- NEW CAP ±13.9 AC.
- TEMPORARY CAP (POSSIBLE AREA TO REMAIN TEMPORARILY CAPPED PENDING FURTHER EXPANSION PLANNING) ±2.7 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

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STEP 10



EXISTING - 5-J

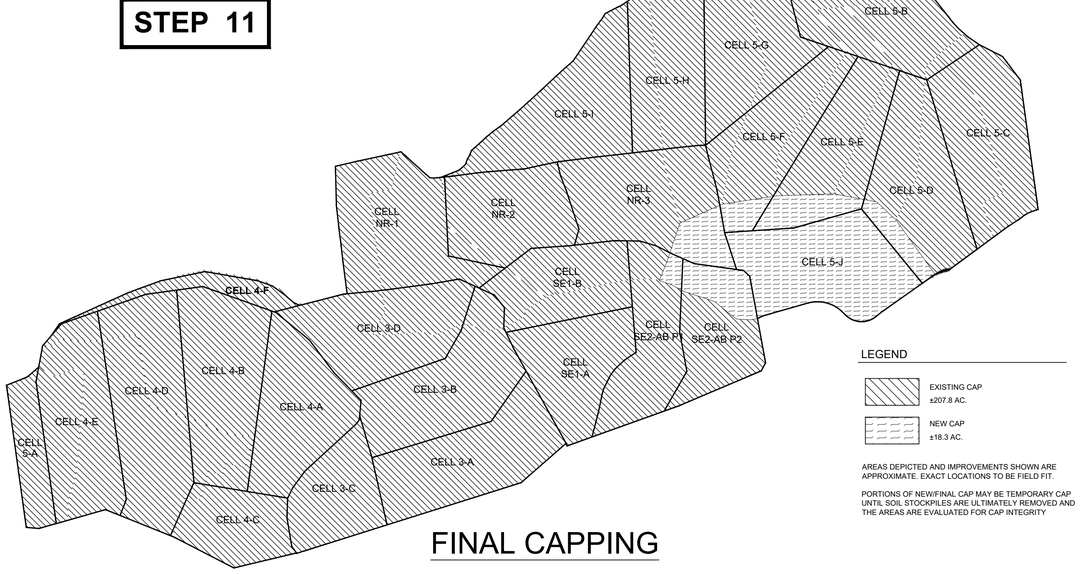
LEGEND

- EXISTING CAP ±176.8 AC.
- ACTIVE AREA ±18.3 AC.
- NEW CAP ±31.0 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

STEP 11



FINAL CAPPING

LEGEND

- EXISTING CAP ±207.8 AC.
- NEW CAP ±18.3 AC.

AREAS DEPICTED AND IMPROVEMENTS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE FIELD FIT.

PORTIONS OF NEW/FINAL CAP MAY BE TEMPORARY CAP UNTIL SOIL STOCKPILES ARE ULTIMATELY REMOVED AND THE AREAS ARE EVALUATED FOR CAP INTEGRITY

AREAS		LONGEVITY (IN MONTHS)		
CELL	LINER AREA (AC.)	CELL	EACH CELL	CUMULATIVE
5-A	3.2	5-A	2.9	2.9
5-B	10.0	5-B	17.6	20.5
5-C	10.0	5-C	21.0	41.5
5-D	10.0	5-D	24.4	65.9
5-E	8.5	5-E	31.8	97.7
5-F	8.5	5-F	38.4	136.1
5-G	8.5	5-G	23.8	159.9
5-H	8.5	5-H	15.3	175.2
5-I	10.0	5-I	8.3	183.5
5-J	10.0	5-J	15.8	199.3
TOTAL:	87.2		YEARS:	16.6

1. GROSS AIRSPACE IS VOLUME BETWEEN EXISTING GRADE/PERMITTED FINAL GRADES TO PROPOSED FINAL GRADE. (BOTTOM OF MEMBRANE CAP)
2. CELLS 5-A THRU 5-J LONGEVITY ASSUMES: TONS/DAY: 1,375, DAYS/YEAR: 312, DAYS/MONTH: 26, MINIMUM VCF:0.67
3. LINED AREA INCLUDES MINIMUM SETBACK FROM ANCHOR TRENCH TO DISPOSAL LIMIT OF 15 FEET.

COMMONWEALTH OF PENNSYLVANIA — JOSEPH M. MILLI, JR. — PROFESSIONAL ENGINEER

NO.	REVISION	DATE

CELL DEVELOPMENT SCHEDULE

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN

Bethlehem Landfill Company

NORTHAMPTON CO.

LOWER SAUCON TWP.

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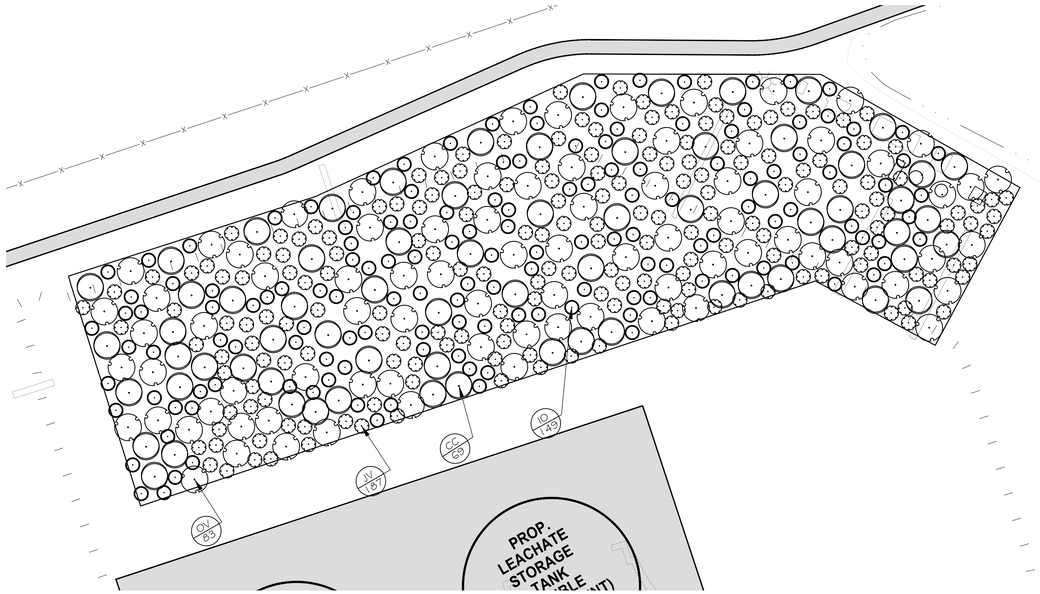
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DATE: 09/11/23

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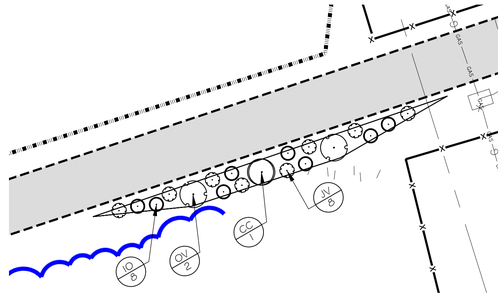
27B of 29



SCALE: 1"=40'

LANDSCAPE AREA #4
PLANT SCHEDULE

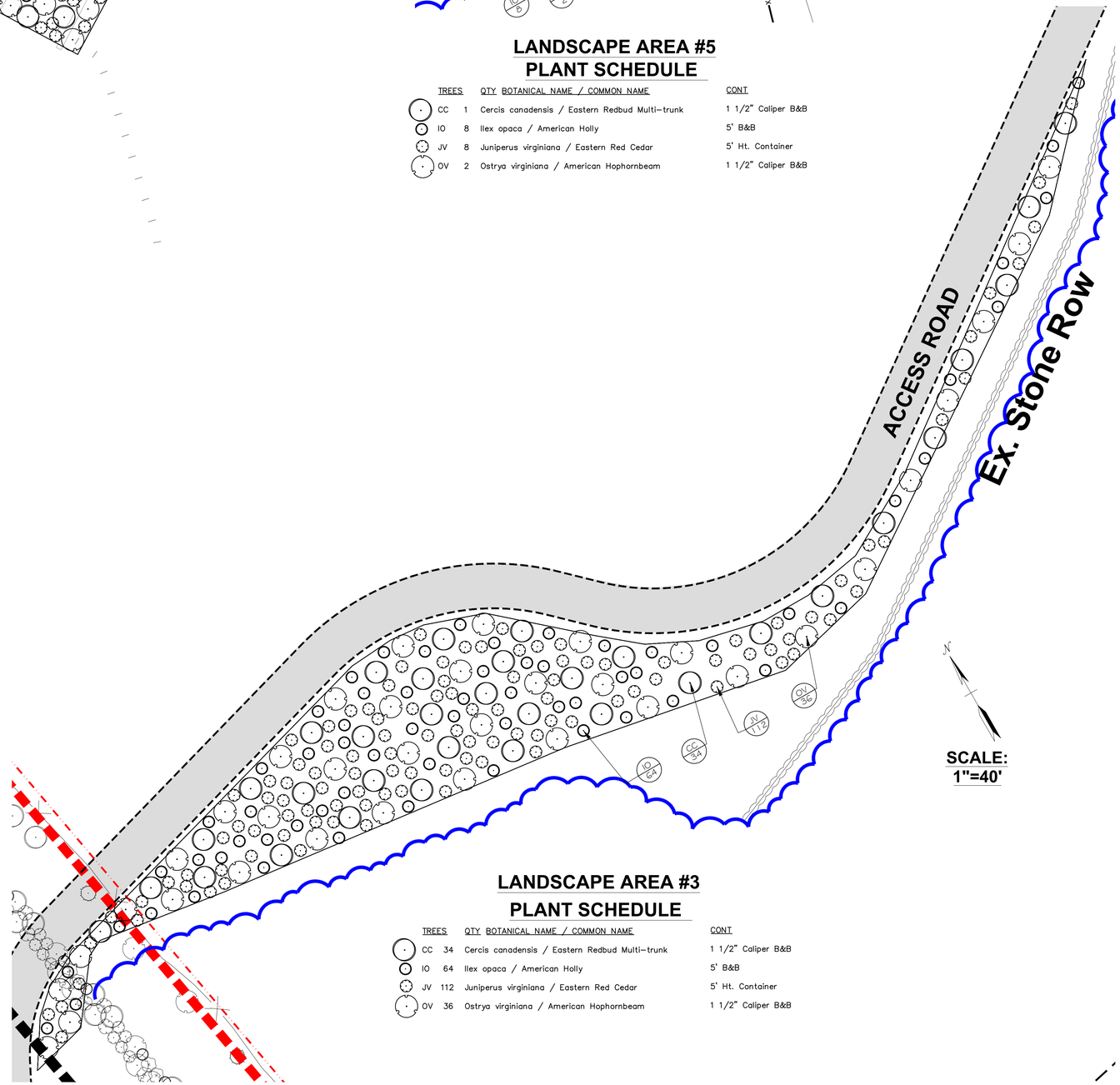
TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT
CC	69	Cercis canadensis / Eastern Redbud Multi-trunk	1 1/2" Caliper B&B
IO	149	Ilex opaca / American Holly	5' B&B
JV	187	Juniperus virginiana / Eastern Red Cedar	5' Ht. Container
OV	83	Ostrya virginiana / American Hophornbeam	1 1/2" Caliper B&B



SCALE: 1"=40'

LANDSCAPE AREA #5
PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT
CC	1	Cercis canadensis / Eastern Redbud Multi-trunk	1 1/2" Caliper B&B
IO	8	Ilex opaca / American Holly	5' B&B
JV	8	Juniperus virginiana / Eastern Red Cedar	5' Ht. Container
OV	2	Ostrya virginiana / American Hophornbeam	1 1/2" Caliper B&B



SCALE: 1"=40'

LANDSCAPE AREA #3
PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT
CC	34	Cercis canadensis / Eastern Redbud Multi-trunk	1 1/2" Caliper B&B
IO	64	Ilex opaca / American Holly	5' B&B
JV	112	Juniperus virginiana / Eastern Red Cedar	5' Ht. Container
OV	36	Ostrya virginiana / American Hophornbeam	1 1/2" Caliper B&B

COMMONWEALTH OF PENNSYLVANIA — JOSEPH MICHAEL DRUCE — REGISTERED PROFESSIONAL — ENGINEER

NO.	REVISION	DATE

LANDSCAPE PLAN & DETAILS

LOWER SAUCON TWP. — NORTHAMPTON CO.

PHASE V PRELIMINARY LAND DEVELOPMENT
& LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
PENNSYLVANIA

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1162.6	DB	RMB	JM

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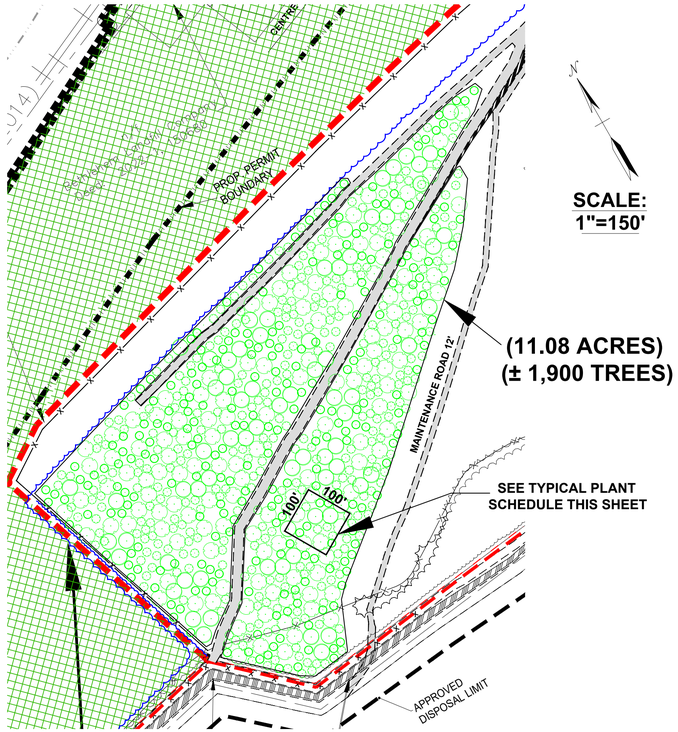
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DRAWING NO.

28 of 29

FILE: 1162.6-LDP-PV-28,29.dwg

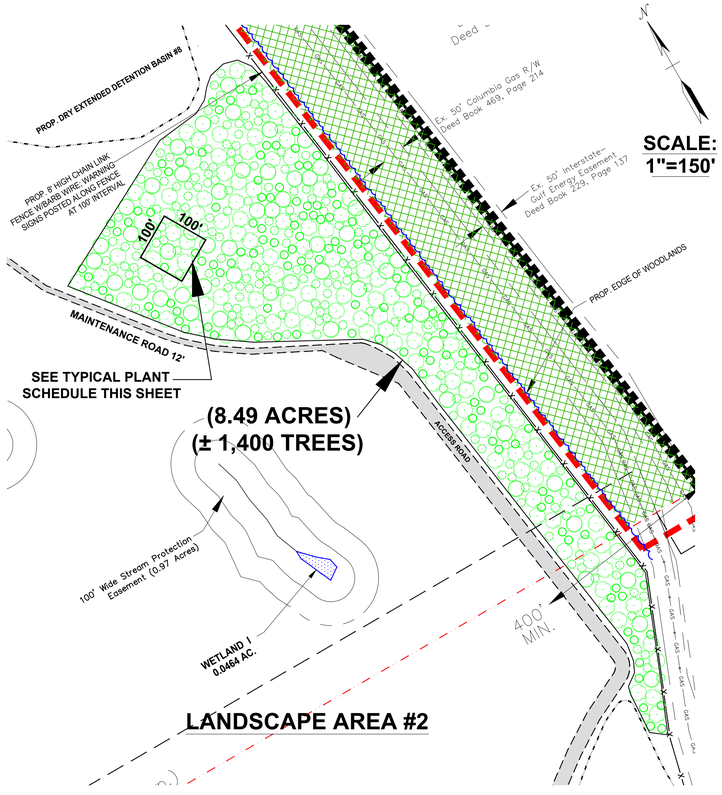
LANDSCAPE AREA #1



SCALE: 1"=150'

(11.08 ACRES)
(± 1,900 TREES)

SEE TYPICAL PLANT SCHEDULE THIS SHEET



SCALE: 1"=150'

SEE TYPICAL PLANT SCHEDULE THIS SHEET

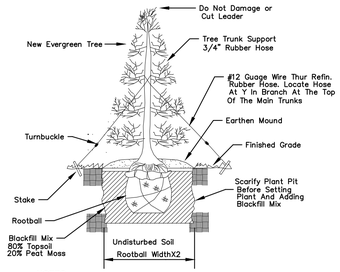
(8.49 ACRES)
(± 1,400 TREES)

LANDSCAPE AREA #2

FILE: 1162.6-LDP-PV-28,29.dwg

TREES REQUIRED FOR PROPOSED IMPERVIOUS AREA

1. THE PHASE V EXPANSION RESULTS IN THE CONVERSION OF 4.75 AC. OF IMPERVIOUS AREA TO PERVIOUS AREA. THUS, NO TREES ARE REQUIRED FOR PROPOSED IMPERVIOUS AREA.

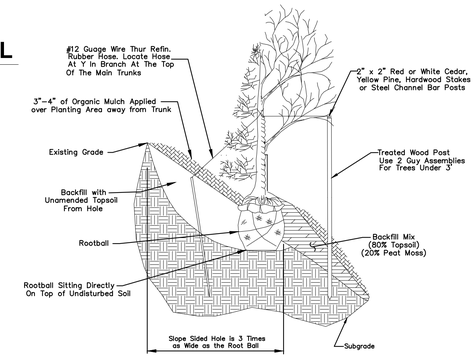


NOTES:

1) This Method Is To Be Used On All 4' Or Taller Evergreen Plant Materials
2) Fertilizer With 0-20-0 (Clay Soil) 20-10-5 Or 16-8-16 (Sandy Soil) Before Mulching (1Lb./Cu. Ft Of Soil)
3) No Soil or Mulch Shall be in Contact with the Trunks of Trees or Branches of Shrubs

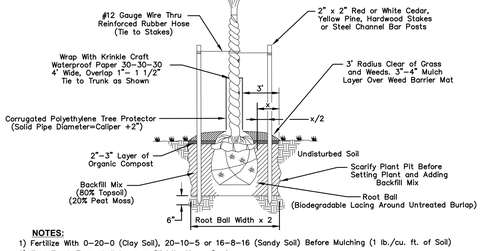
EVERGREEN TREE PLANTING DETAIL

N.T.S.



STEEP SLOPE TREE PLANTING DETAIL

N.T.S.

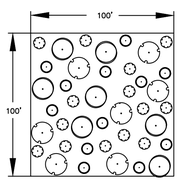


NOTES:

1) Fertilize With 0-20-0 (Clay Soil), 20-10-5 or 16-8-16 (Sandy Soil) Before Mulching (1 lb./cu. ft. of Soil)
2) Tree Trunk Flare shall be a or Slightly Above Grade
3) No Soil or Mulch Shall be in Contact with the Trunks of Trees or Branches of Shrubs

TREE PLANTING DETAIL

N.T.S.



40 PLANTINGS PER 10,000 S.F. (0.23 ACRES)

1"=100'

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME / COMMON NAME	CONT
CC	6	Cercis canadensis / Eastern Redbud Multi-trunk	1 1/2" Caliper B&B
IO	12	Ilex opaca / American Holly	5' B&B
JV	15	Juniperus virginiana / Eastern Red Cedar	5' Ht. Container
OV	7	Ostrya virginiana / American Hophornbeam	1 1/2" Caliper B&B

TYPICAL PLANT SCHEDULE FOR LANDSCAPE AREAS #1 & #2

STREET TREE NOTES & CALCULATIONS

1. As depicted herein, the Phase V Expansion proposes no impact to existing trees and vegetation along the Applebutter Road and Skyline Drive Rights-of-Way.
2. The total length of roadway frontage (Applebutter Road) for the Bethlehem Landfill Property is 3,000 feet. Section 145-52.B of the Subdivision and Land Development Ordinance would require the planting of one (1) street tree for every 100 feet of roadway frontage (for a total of 30 street trees), if existing trees along Applebutter Road were not retained. The existing trees and vegetation along Applebutter Road that are being retained exceed the 30 street trees that would be required under Section 145-52.B of the Subdivision and Land Development Ordinance.
3. The total length of roadway frontage (Skyline Drive) for the Bethlehem Landfill Property is 500 feet. Section 145-52.B of the Subdivision and Land Development Ordinance would require the planting of one (1) street tree for every 100 feet of roadway frontage (for a total of 5 street trees), if existing trees along Skyline Drive were not retained. The existing trees and vegetation along Skyline Drive that are being retained exceed the 5 trees that would be required under Section 145-52.B of the Subdivision and Land Development Ordinance.
4. The total length of roadway frontage (Riverside Drive) for the Bethlehem Landfill Property is 3,500 feet. Section 145-52.B of the Subdivision and Land Development Ordinance would require the planting of one (1) street tree for every 100 feet of roadway frontage (for a total of 35 street trees), if existing trees along Riverside Drive were not retained. The existing trees and vegetation along Riverside Drive that are being retained exceed the 35 trees that would be required under Section 145-52.B of the Subdivision and Land Development Ordinance.

LANDSCAPING NOTES:

SITE LANDSCAPING SCHEDULE

LANDSCAPING PROPOSED AS PART OF PHASE V EXPANSION IS ANTICIPATED TO BE DEVELOPED AS FOLLOWS:

LANDSCAPE AREA #1 – AS PART OF CELL 5-I DEVELOPMENT
LANDSCAPE AREA #2 – AS PART OF CELL 5-C DEVELOPMENT
LANDSCAPE AREA #3 – AS PART OF CELL 5-J DEVELOPMENT
LANDSCAPE AREA #4 – AS PART OF LEACHATE STORAGE TANK DEVELOPMENT
LANDSCAPE AREA #5 – AS PART OF CELL 5-J DEVELOPMENT

REMOVAL OF DEBRIS

ALL STUMPS AND OTHER TREE PARTS, LITTER, BRUSH, WEEDS, EXCESS OR SCRAP BUILDING MATERIALS OR OTHER DEBRIS SHALL BE REMOVED FROM THE PLANTING SCREEN AREA/BUFFER YARD AND DISPOSED OF IN ACCORDANCE WITH TOWNSHIP REGULATIONS. NO TREE STUMPS, OR PORTIONS OF TREE TRUNKS OR LIMBS SHALL BE BURIED ANYWHERE WITHIN THE PLANTING SCREEN AREA/BUFFER YARD. IF TREES AND LIMBS ARE REDUCED TO CHIPS, THEY MAY BE USED AS MULCH IN THE PLANTING SCREEN AREA ONLY UPON APPROVAL BY THE TOWNSHIP DIRECTOR OF COMMUNITY DEVELOPMENT.

SLOPE PLANTINGS

LANDSCAPING OF ALL CUTS AND FILLS SHALL BE SUFFICIENT TO PREVENT EROSION AND ALL EMBANKMENT SLOPES STEEPER THAN ONE (1) FOOT VERTICAL TO TWO (2) FEET HORIZONTAL SHALL BE PLANTED WITH SUITABLE GROUND COVER IN ACCORDANCE WITH THE PENN STATE AGRONOMY GUIDE. SAID GROUND COVER SHALL INCLUDE SPRING OATS (96 lbs/ac), WINTER WHEAT (120 lbs/ac), OR WINTER RYE (112 lbs/ac). THE BASE MIXTURE SHALL BE AUGMENTED WITH BIRDSFOOT TREFOIL (10 lbs/ac), TALL FESCUE (35 lbs/ac), AND REDTOP (5 lbs/ac).

PLANTATION AND MAINTENANCE

ALL PLANTING MATERIALS REQUIRED SHALL BE FURNISHED BY BLC, INSTALLED IN A GOOD WORKMANSHIP LIKE MANNER AND IN ACCORDANCE WITH ACCEPTED AND GOOD PLANTING PROCEDURES, AND MAINTAINED BY BLC IN ACCORDANCE WITH ANSI STANDARDS. PLANTINGS SHALL BE OF HEALTHY STOCK AND SHALL BE WATERED REGULARLY BY BLC AND IN A MANNER APPROPRIATE FOR THE SPECIFIC PLANT SPECIES THROUGH THE FIRST GROWING SEASON. DEAD AND DYING LANDSCAPING SHALL BE REPLACED BY BLC TO THE SATISFACTION OF THE TOWNSHIP MANAGER OR OTHER TOWNSHIP OFFICIAL DESIGNATED BY TOWNSHIP COUNCIL, DURING THE NEXT GROWING SEASON. NO BUILDINGS, STRUCTURES, STORAGE OF MATERIALS, OR PARKING SHALL BE PERMITTED WITHIN THE PLANTING SCREEN AREA. THE PLANTING SCREEN AREA SHALL BE MAINTAINED BY BLC SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE AND SHALL BE KEPT FREE OF ALL DEBRIS & RUBBISH. PLANTINGS SHALL BE AS PER THE APPROVED LAND DEVELOPMENT PLAN. ANY SUBSTITUTIONS SHALL BE APPROVED IN WRITING BY THE TOWNSHIP DIRECTOR OF COMMUNITY DEVELOPMENT PRIOR TO INSTALLATION BY BLC.

GUYING AND STAKING

GUYS OR STAKES SHALL BE SECURED TO THE TREE USING A WIRE THROUGH A HOSE AND ATTACHING THE GUY OR STAKE WIRES AT THAT POINT. BARE WIRE SHALL NOT BE USED. TREES UP TO THREE (3) INCHES IN DIAMETER MAY BE SUPPORTED BY STAKES, HOWEVER TREES OF LARGER SIZE SHALL REQUIRE GUY WIRES. NORMAL ATTACHMENT IS AT TWO-THIRDS THE HEIGHT OF THE TREE. TO AVOID GIRDLING THE TREE STEM, GUYS AND STAKES SHOULD BE REMOVED AFTER ONE YEAR OR EARLIER IF THE WIRE CAUSES DAMAGE.

MULCHING

ALL PLANTINGS SHALL BE MULCHED THOROUGHLY WITH FOUR (4) INCHES OF WOOD CHIPS. MULCH SHALL BE MAINTAINED IN GOOD CONDITION BY IESI FOR A MINIMUM OF ONE (1) YEAR AFTER PLANTING

COMMONWEALTH OF PENNSYLVANIA — JOSEPH M. TIMKO — REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	DATE

LANDSCAPE PLAN & DETAILS

PHASE V PRELIMINARY LAND DEVELOPMENT & LOT CONSOLIDATION PLAN
Bethlehem Landfill Company
NORTHAMPTON CO.
LOWER SAUCON TWP.
PENNSYLVANIA

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