

LEGEND	
PROPERTY BOUNDARY	
400' FROM SITE	
MAJOR CONTOUR	
MINOR CONTOUR	

- NOTES**
1. AERIAL IMAGERY WAS SOURCED FROM NEARMAPS, DATED 02/24/2020.
 2. REFER TO SHEET VT-101 FOR ADDITIONAL SURVEY DETAIL WITHIN THE SITE BOUNDARY.
 3. A PORTION OF EXISTING CONTOURS SHOWN OUTSIDE THE PROPERTY BOUNDARY WERE GENERATED USING LIDAR INFORMATION, JUNE 2019.
 4. PLAN IS FOR REFERENCE ONLY, NOT FOR CONSTRUCTION OR RECORDING.



Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
5-18-23	REVISED PER TOWNSHIP COMMENTS	4.
3-16-23	REVISED PER TOWNSHIP COMMENTS	3.
1-19-23	REVISED PER TOWNSHIP COMMENTS	2.
7-21-22	REVISED PER TOWNSHIP COMMENTS	1.

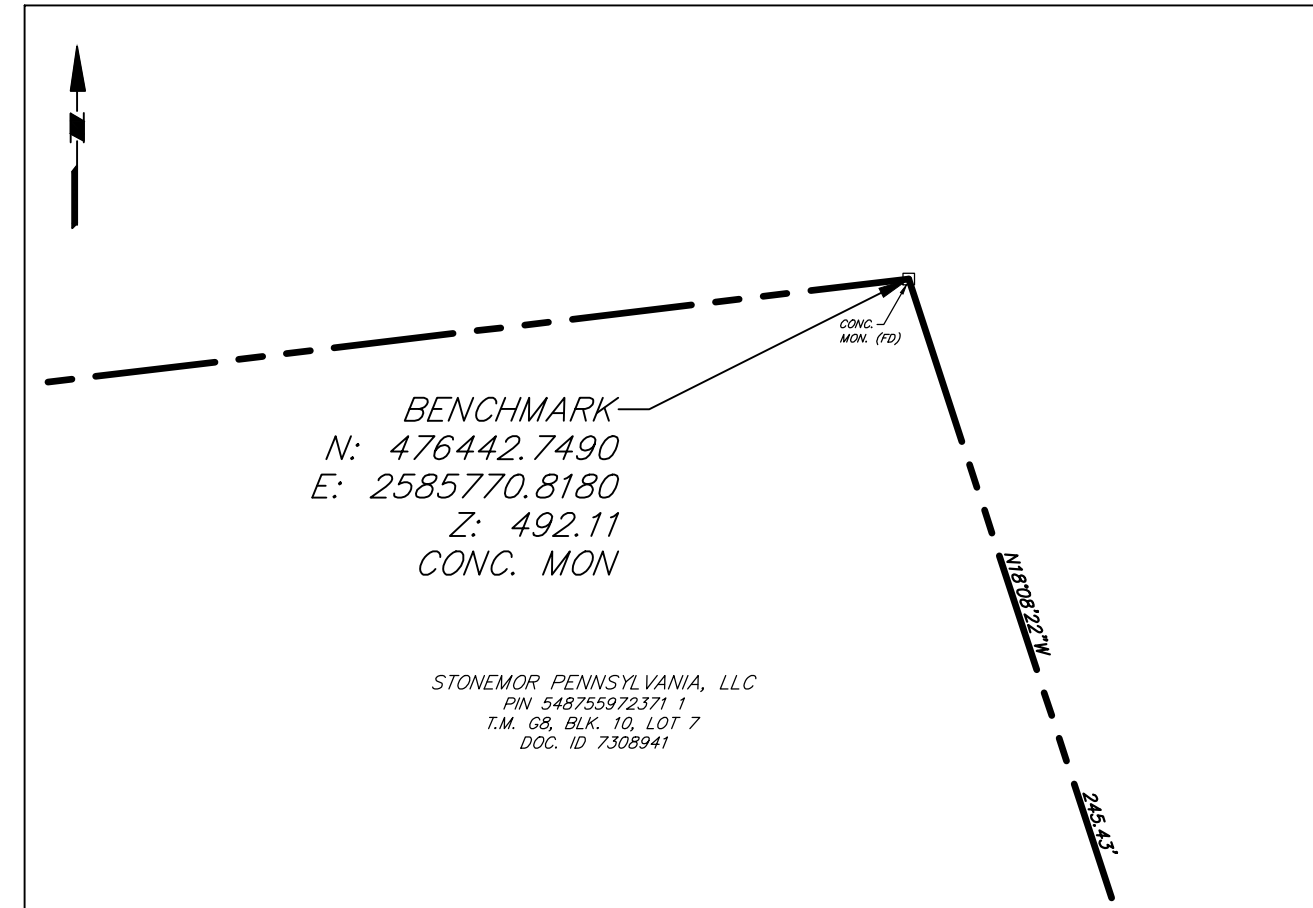
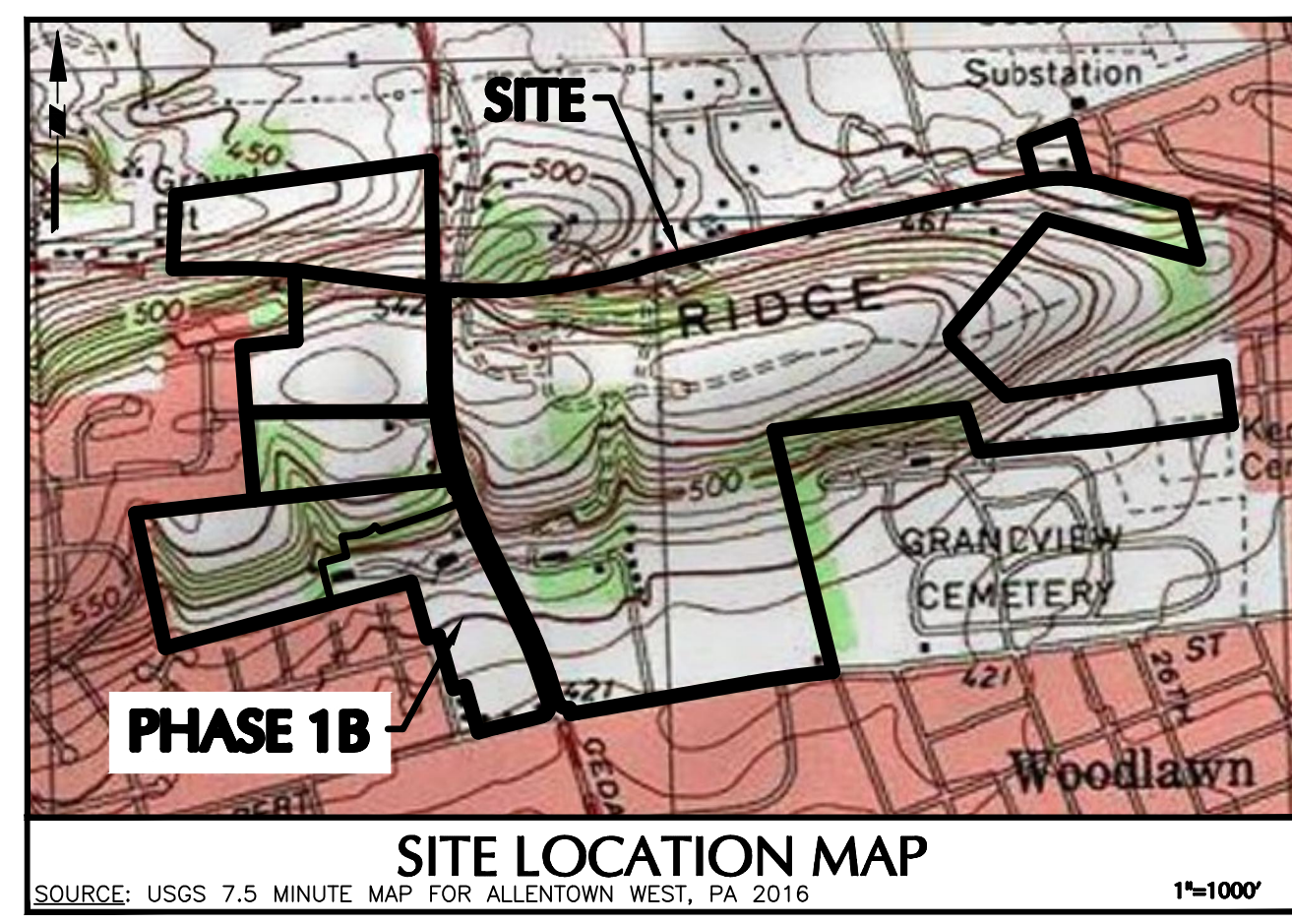
SIGNATURE: DATE SIGNED: _____
 PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
 One West Broad Street, Suite 200, Bethlehem, PA 18018
 T: 610.864.8900 F: 610.864.8501 www.langan.com
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. SA
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
 Langan Engineering and Environmental Services, Inc.
 Langan GI, Inc.
 Langan International LLC
 Collectively known as Langan

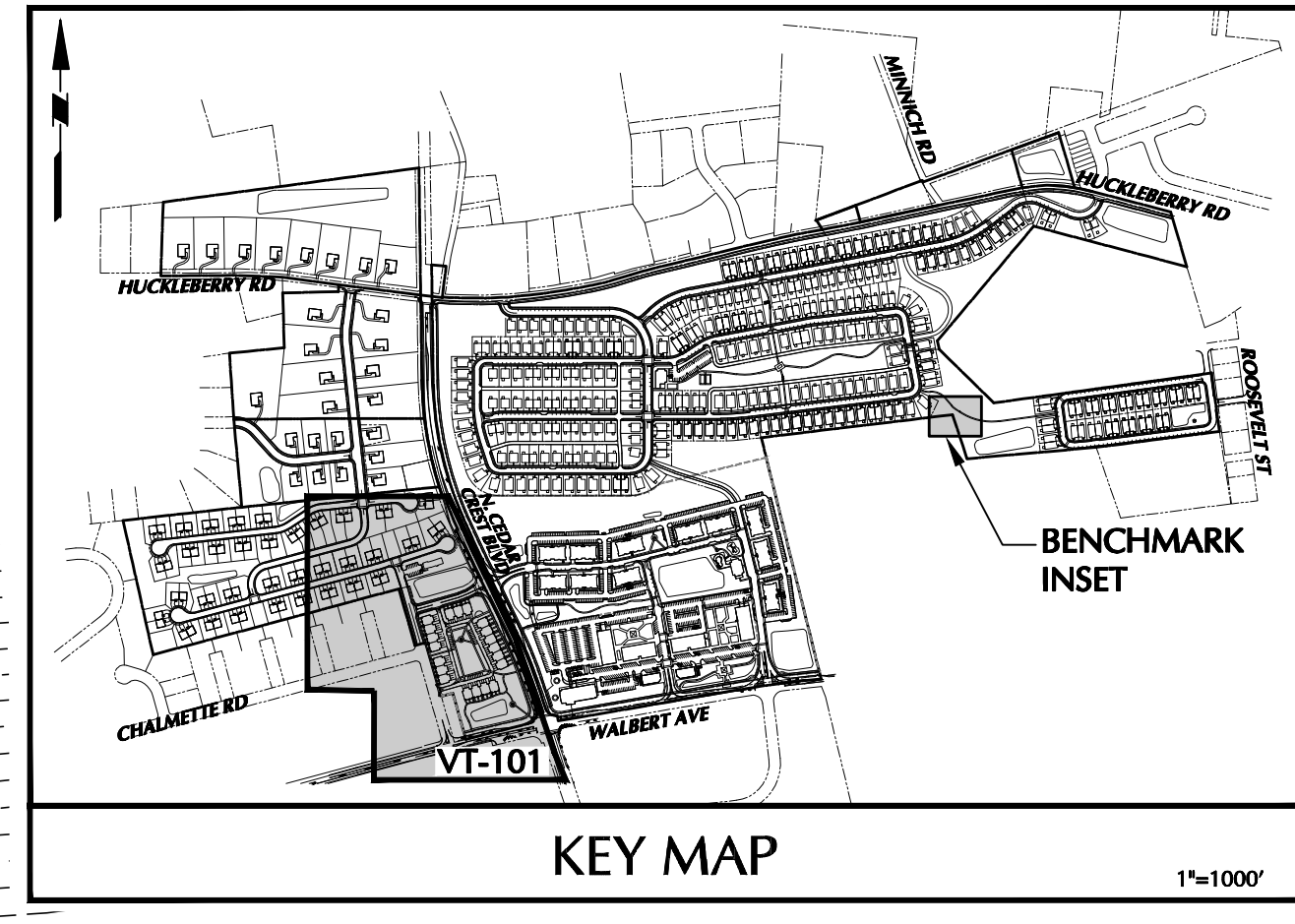
Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
 54872550358 1
 SOUTH WHITEHALL TOWNSHIP
 LEHIGH COUNTY PENNSYLVANIA

Drawing Title: **AERIAL MAP**

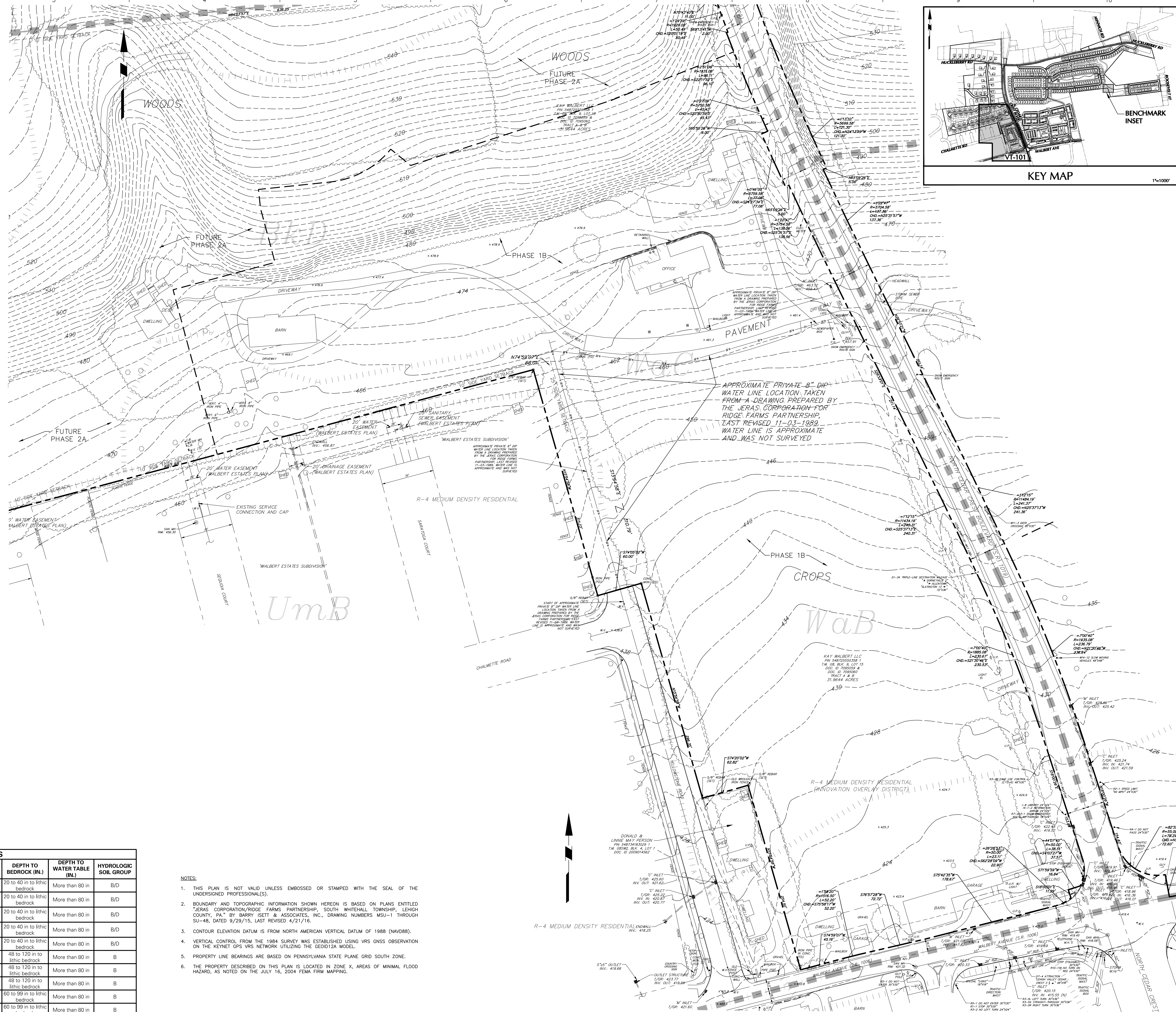
Project No.	240043301	Drawing No.	GI-002
Date	04/20/22		
Scale	1" = 200'		
Drawn By	JDM	Checked By	JSE
Submission Date			



BENCHMARK INSET



KEY MAP



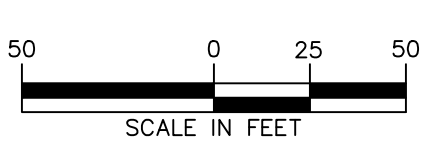
LEGEND EXISTING

PROPERTY BOUNDARY	---
LOT LINE	---
BUILDING SETBACK	---
ULTIMATE RIGHT-OF-WAY	---
LEGAL RIGHT-OF-WAY	---
EASEMENT	---
CURBING	---
BUILDING	---
UTILITY POLE	---
OVERHEAD ELECTRIC	---
WATER MAIN & VALVE	---
FIRE HYDRANT	---
WELL	---
GAS MAIN & VALVE	---
SANITARY LINE, MANHOLE, & CLEANOUT	---
STORM LINE, MANHOLE, & INLET	---
CHAIN-LINK FENCE	---
POST/SPLIT RAIL FENCE	---
WOOD FENCE	---
SIGN	---
DECIDUOUS TREE	---
EVERGREEN TREE	---
TREE ROW	---
CONTOUR	---
SPOT ELEVATION	---
WETLANDS	---
EDGE OF PAVEMENT	---
BITUMINOUS	---
TYPICAL	---
FINISH FLOOR	---
DOOR SILL	---
EXISTING SOIL GROUP	---
EXISTING SOIL GROUP NAME	---
ZONING DISTRICT BOUNDARY	---

SOIL TYPES

SYMBOL	NAME	HYDRIC (Y/N)	DEPTH TO BEDROCK (IN.)	DEPTH TO WATER TABLE (IN.)	HYDROLOGIC SOIL GROUP
BkA	Berks-Weikert complex, 0 to 3 percent slopes	N	20 to 40 in to lithic bedrock	More than 80 in	B/D
BkB	Berks-Weikert complex, 3 to 8 percent slopes	N	20 to 40 in to lithic bedrock	More than 80 in	B/D
BkC	Berks-Weikert complex, 8 to 15 percent slopes	N	20 to 40 in to lithic bedrock	More than 80 in	B/D
BkD	Berks-Weikert complex, 15 to 25 percent slopes	N	20 to 40 in to lithic bedrock	More than 80 in	B/D
BkF	Berks-Weikert complex, 25 to 60 percent slopes	N	20 to 40 in to lithic bedrock	More than 80 in	B/D
DbB	Duffield silt loam, 3 to 8 percent slopes	N	48 to 120 in to lithic bedrock	More than 80 in	B
DIC	Duffield-Hyder silt loams, 8 to 15 percent slopes	N	48 to 120 in to lithic bedrock	More than 80 in	B
UmB	Urban land/Duffield complex, 0 to 8 percent slopes	N	48 to 120 in to lithic bedrock	More than 80 in	B
WaA	Washington silt loam, 0 to 3 percent slopes	N	60 to 99 in to lithic bedrock	More than 80 in	B
WaB	Washington silt loam, 3 to 8 percent slopes	N	60 to 99 in to lithic bedrock	More than 80 in	B
WaC	Washington silt loam, 8 to 15 percent slopes	N	60 to 99 in to lithic bedrock	More than 80 in	B

- NOTES:**
1. THIS PLAN IS NOT VALID UNLESS EMBOSSED OR STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
 2. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON PLANS ENTITLED "JERAS CORPORATION/RIDGE FARMS PARTNERSHIP, SOUTH WHITEHALL TOWNSHIP, LEHIGH COUNTY, PA," BY BARRY ISETT & ASSOCIATES, INC., DRAWING NUMBERS MSU-1 THROUGH SU-48, DATED 9/29/15, LAST REVISED 4/21/16.
 3. CONTOUR ELEVATION DATUM IS FROM NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 4. VERTICAL CONTROL FROM THE 1984 SURVEY WAS ESTABLISHED USING VRS GNSS OBSERVATION ON THE KEYNET GPS VRS NETWORK UTILIZING THE GEOID12A MODEL.
 5. PROPERTY LINE BEARINGS ARE BASED ON PENNSYLVANIA STATE PLANE GRID SOUTH ZONE.
 6. THE PROPERTY DESCRIBED ON THIS PLAN IS LOCATED IN ZONE X, AREAS OF MINIMAL FLOOD HAZARD, AS NOTED ON THE JULY 16, 2004 FEMA FLOOD MAPPING.



OWNER/APPLICANT
KAY WALBERT LLC
 ATTN: RICHARD M. KOZE, JR.
 5930 HAMILTON BLVD., SUITE 10
 ALLENTOWN, PA 18106
 610-395-6857

REVISIONS

Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
5-18-23	REVISED PER TOWNSHIP COMMENTS	4.
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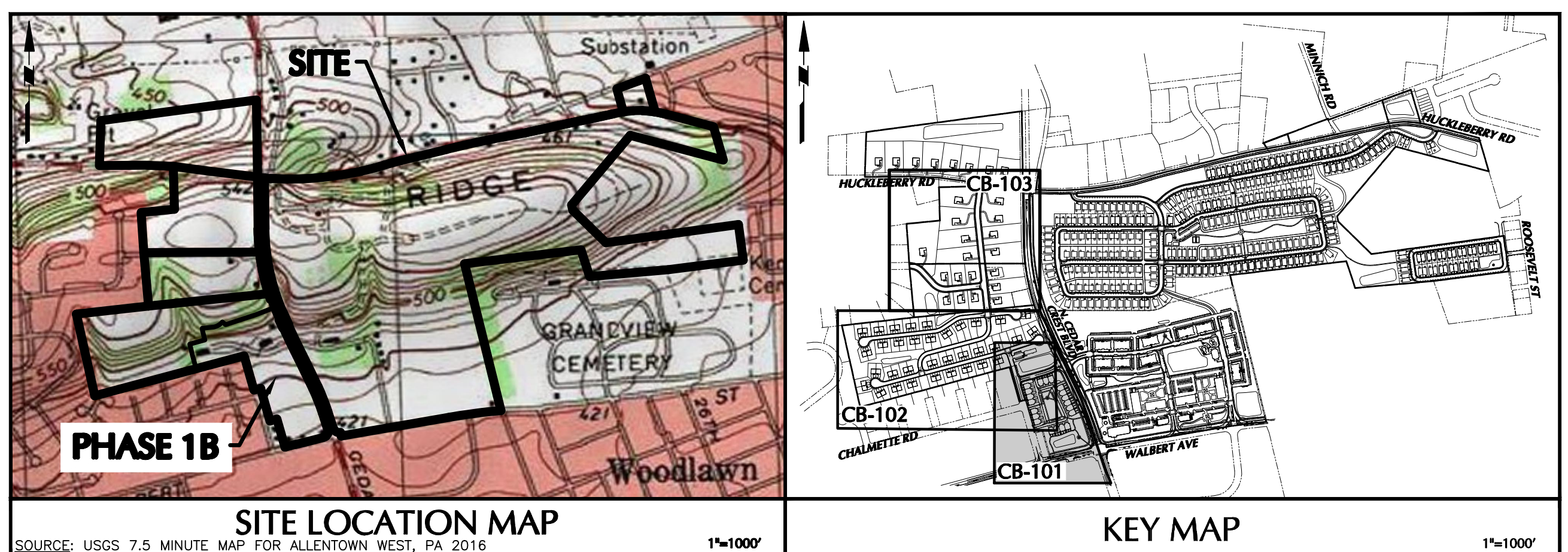
SIGNATURE: **JOE ZEMERHARDT** DATE SIGNED: _____
 PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
 One West Broad Street, Suite 200, Bethlehem, PA 18018
 T: 610.861.9500 F: 610.861.9501 www.langan.com
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 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. PA
 Langan Engineering and Environmental Services, Inc.
 Langan CE, Inc.
 Langan International LLC
 Collectively known as Langan

Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
 548725550358 1
 SOUTH WHITEHALL TOWNSHIP
 LEHIGH COUNTY PENNSYLVANIA

Drawing Title: **EXISTING FEATURES PLAN**

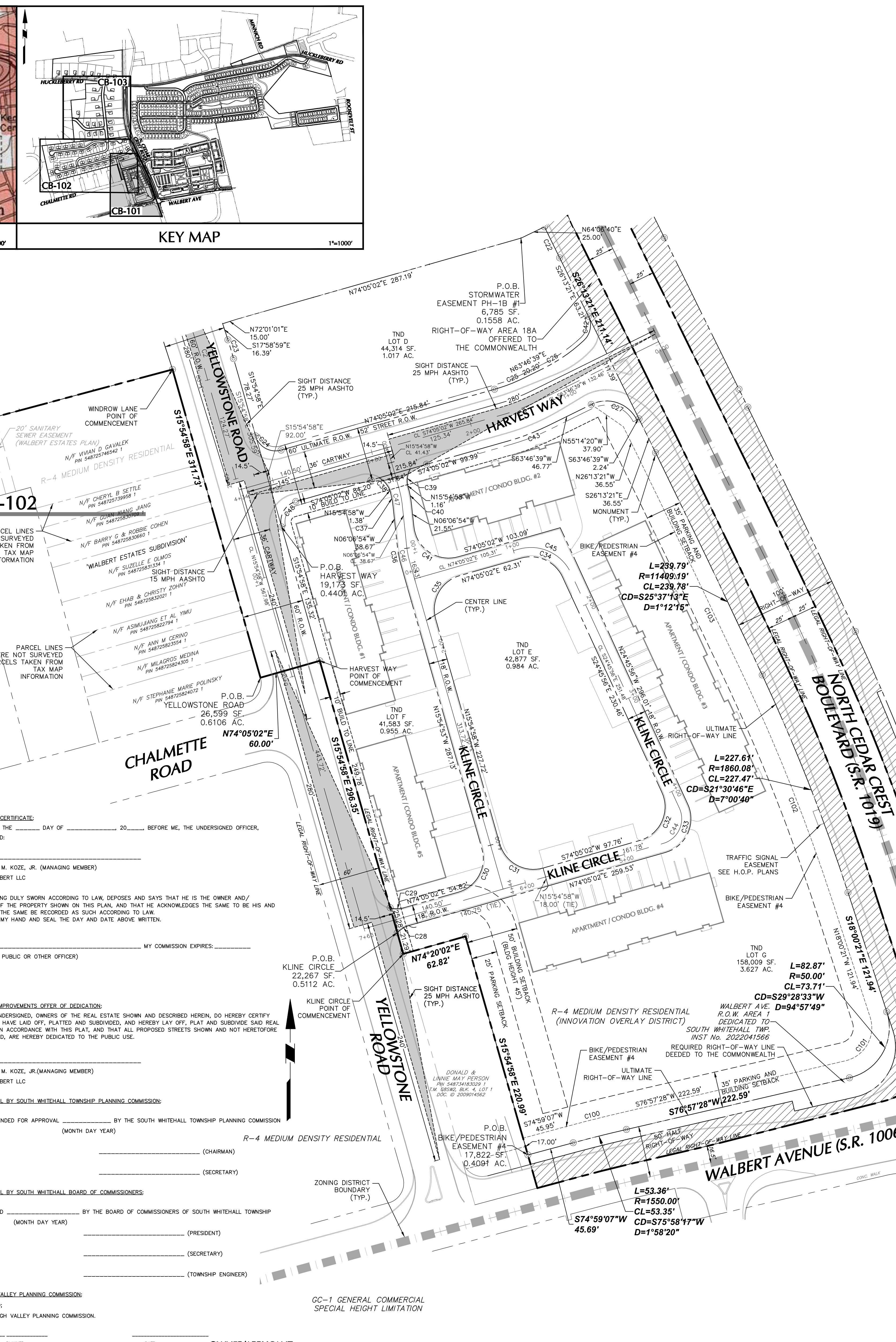
Project No. **240043301**
 Date: **04/20/22**
 Scale: **1" = 50'**
 Drawing No. **VT-101**
 Drawn By: **JDM** Checked By: **JSE**
 Submission Date: _____
 Sheet **3** of **22**



TOWNSHIP REVIEW NOTE: THIS PLAN HAS BEEN REVIEWED BY THE TOWNSHIP STAFF AND TOWNSHIP ENGINEER FOR CONSISTENCY WITH MUNICIPAL REGULATIONS AND ORDINANCES...

OWNER'S CERTIFICATE: ON THIS, THE ___ DAY OF ___ 20___ BEFORE ME, THE UNDERSIGNED OFFICER, APPEARED: RICHARD M. KOZE, JR. (MANAGING MEMBER) KAY WALBERT LLC...

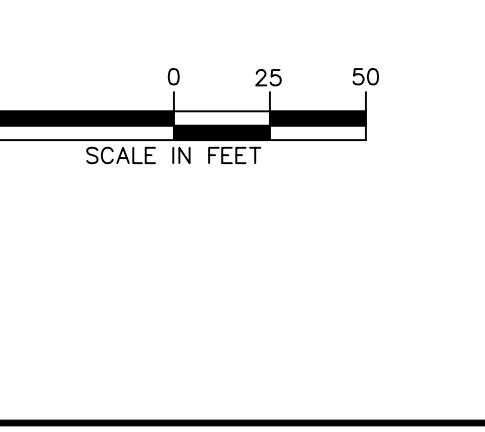
NOTES: 1. SEE SHEET CS-101 FOR NOTES. 2. SEE SHEET CB-101 FOR CURVE DATA TABLE.



CURVE TABLE with columns: CURVE, RADIUS, ARC LENGTH, DELTA, CHORD BEARING, CHORD LENGTH. Lists curves C1 through C105 with their respective geometric data.

REVISIONS table with columns: Date, Description, No. Includes entries for revisions from 7-27-23 to 7-21-22.

OWNER/APPLICANT: KAY WALBERT LLC, 5930 HAMILTON BLVD., SUITE 10 ALLENTOWN, PA 18106. Includes signature of Richard M. Kozé, Jr.

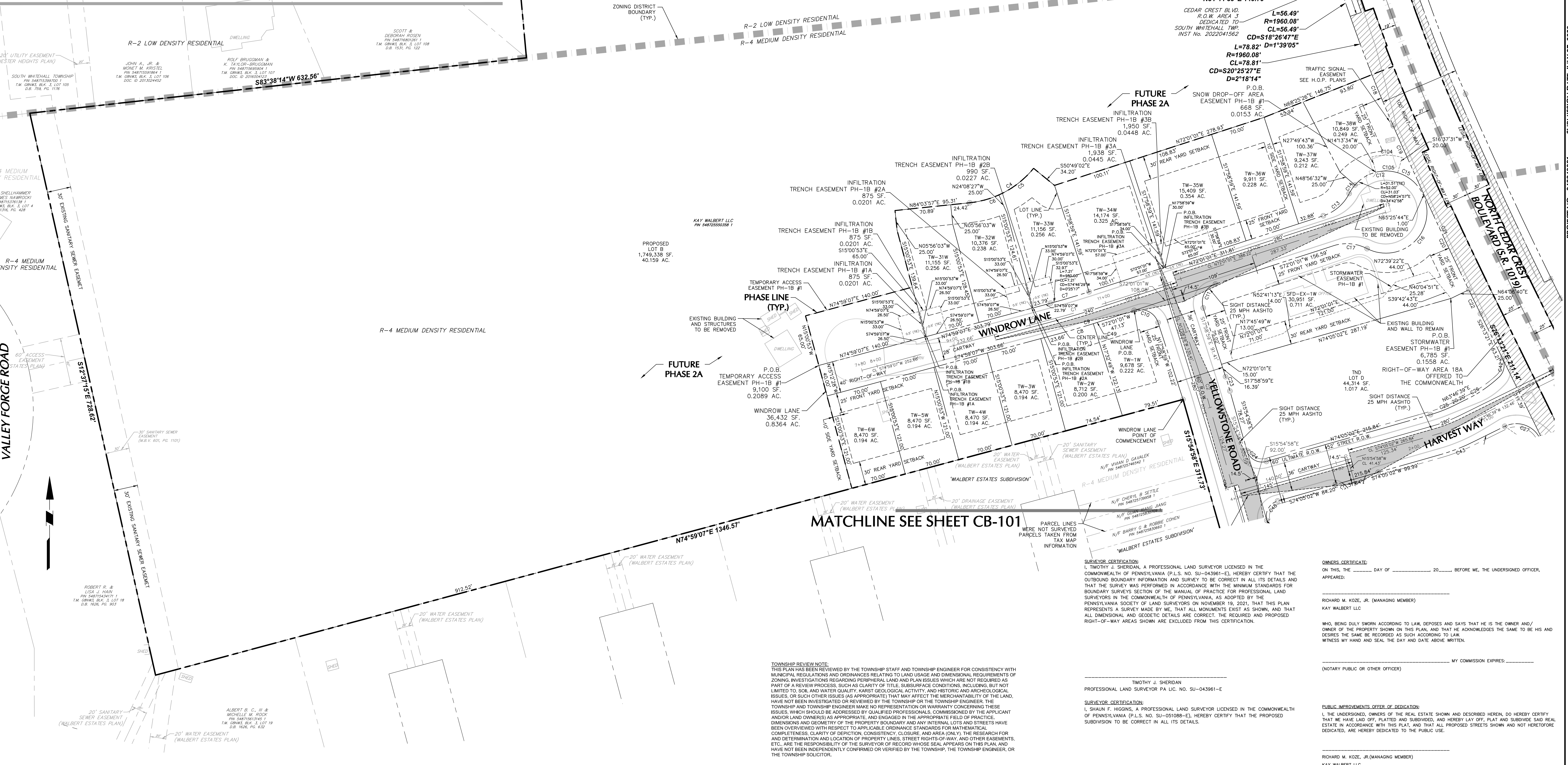


LANGAN logo and contact information: One West Broad Street, Suite 200, Bethlehem, PA 18018. Includes website and phone numbers.

Project: RIDGE FARMS PHASE 1B FINAL PLANS. Drawing Title: SUBDIVISION PLAN (RECORD PLAN).

Project No. 240043301, Date 04/20/22, Scale 1" = 50'. Drawing No. CB-101. Includes drawing date and sheet number (4 of 22).

MATCHLINE SEE SHEET CB-103



- NOTES:**
- SEE SHEET CS-101 FOR NOTES.
 - SEE SHEET CB-101 FOR CURVE DATA TABLE.

REQUIRED RIGHT-OF-WAY OFFERED TO THE COMMONWEALTH

TOWNSHIP REVIEW NOTE:
 THIS PLAN HAS BEEN REVIEWED BY THE TOWNSHIP STAFF AND TOWNSHIP ENGINEER FOR CONSISTENCY WITH MUNICIPAL REGULATIONS AND ORDINANCES RELATING TO LAND USAGE AND DIMENSIONAL REQUIREMENTS OF ZONING. INVESTIGATIONS REGARDING PERIPHERAL LAND AND PLAN ISSUES WHICH ARE NOT REQUIRED AS PART OF A REVIEW PROCESS, SUCH AS CLARITY OF TITLE, SUBSURFACE CONDITIONS, INCLUDING, BUT NOT LIMITED TO, SOIL AND WATER QUALITY, KARST GEOLOGICAL ACTIVITY, AND HISTORIC AND ARCHEOLOGICAL ISSUES, OR SUCH OTHER ISSUES (AS APPROPRIATE) THAT MAY AFFECT THE MERCHANTABILITY OF THE LAND, HAVE NOT BEEN INVESTIGATED OR REVIEWED BY THE TOWNSHIP OR THE TOWNSHIP ENGINEER. THE TOWNSHIP AND TOWNSHIP ENGINEERS MAKE NO REPRESENTATION OR WARRANTY CONCERNING THESE ISSUES, WHICH SHOULD BE ADDRESSED BY QUALIFIED PROFESSIONALS, COMMISSIONED BY THE APPLICANT AND/OR LAND OWNERS) AS APPROPRIATE, AND ENGAGED IN THE APPROPRIATE FIELD OF PRACTICE. THE DIMENSIONS AND GEOMETRY OF THE PROPERTY BOUNDARY AND ANY INTERNAL LOTS AND STREETS HAVE BEEN OVERVIEWED WITH RESPECT TO APPLICABLE ORDINANCE STANDARDS FOR MATHEMATICAL COMPLETENESS, CLARITY OF DEPICTION, CONSISTENCY, CLOSURE, AND AREA ONLY. THE RESEARCH FOR AND DETERMINATION AND LOCATION OF PROPERTY LINES, STREET RIGHTS-OF-WAY, AND OTHER EASEMENTS, ETC., ARE THE RESPONSIBILITY OF THE SURVEYOR OR RECORD. WHERE SHOWN ON THIS PLAN, AND THAT HAVE NOT BEEN INDEPENDENTLY CONFIRMED OR VERIFIED BY THE TOWNSHIP, THE TOWNSHIP ENGINEER, OR THE TOWNSHIP SOLICITOR.

LEGEND	
	EXISTING CURB LINE
	EXISTING MONUMENT
	PROPOSED BUILDING LINE
	PROPERTY LINE
	PROPOSED LOT LINE (WITH PIN MARKERS)
	PROPOSED LOT LINE (WITH CONCRETE REFERENCE MONUMENTS)
	PROPOSED UTILITY EASEMENT
	STORMWATER BMP AREA
	CONCRETE SIDEWALK
	RETAINING WALL
	ACCESSIBLE ROUTE
	EXISTING STORM SEWER
	EXISTING WATER MAIN
	PROPOSED STORM SEWER
	PROPOSED SANITARY SEWER
	PROPOSED SANITARY SEWER FORCE MAIN
	PROPOSED WATER MAIN
	PROPOSED GAS MAIN
	PROPOSED TELEPHONE AND ELECTRIC
	PROPOSED FIRE HYDRANT
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING SPOT ELEVATION
	PROPOSED SPOT ELEVATION
	SOIL BOUNDARY
	SOIL TYPE
	TREELINE
	UTILITY SYMBOLS
	EXISTING SANITARY SEWER MANHOLE
	EXISTING FIRE HYDRANT
	EXISTING CATCH BASIN
	EXISTING WATER VALVE
	EXISTING MANHOLE
	EXISTING ELECTRIC POLE

SURVEYOR CERTIFICATION:
 I, TIMOTHY J. SHERIDAN, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA (P.L.S. NO. SU-043961-E), HEREBY CERTIFY THAT THE OUTBOUND BOUNDARY INFORMATION AND SURVEY TO BE CORRECT IN ALL ITS DETAILS AND THAT THE SURVEY WAS PERFORMED IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR BOUNDARY SURVEYS SECTION OF THE MANUAL OF PRACTICE FOR PROFESSIONAL LAND SURVEYORS IN THE COMMONWEALTH OF PENNSYLVANIA, AS ADOPTED BY THE PENNSYLVANIA SOCIETY OF LAND SURVEYORS ON NOVEMBER 19, 2021, THAT THIS PLAN REPRESENTS A SURVEY MADE BY ME, THAT ALL MONUMENTS EXIST AS SHOWN, AND THAT ALL DIMENSIONAL AND GEODETIC DETAILS ARE CORRECT, THE REQUIRED AND PROPOSED RIGHT-OF-WAY AREAS SHOWN ARE EXCLUDED FROM THIS CERTIFICATION.

TIMOTHY J. SHERIDAN
 PROFESSIONAL LAND SURVEYOR PA LIC. NO. SU-043961-E

SURVEYOR CERTIFICATION:
 I, SHAWN F. HIGGINS, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA (P.L.S. NO. SU-051088-E), HEREBY CERTIFY THAT THE PROPOSED SUBDIVISION TO BE CORRECT IN ALL ITS DETAILS.

SHAWN F. HIGGINS
 PROFESSIONAL LAND SURVEYOR PA LIC. NO. SU-051088-E

ENGINEER'S CERTIFICATION:
 I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA, THAT THIS IS A TRUE AND ACCURATE PLAN COMPLETED BY ME ON _____

I HEREBY CERTIFY THE PLAN TO BE CORRECT IN ALL ITS DETAILS AND THAT IT HAS BEEN PREPARED IN ACCORDANCE WITH THE SOUTH WHITEHALL TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND ZONING ORDINANCE.

JASON S. ENGLHARDT
 PROFESSIONAL ENGINEER PA LIC. NO. PE-057145-E

RECORDING INFORMATION
 RECORDED IN THE OFFICE OF THE RECORDER TO DEEDS, LEHIGH COUNTY, PENNSYLVANIA IN INSTRUMENT No. _____ ON _____ 20____

OWNERS CERTIFICATION:
 ON THIS _____ DAY OF _____ 20____, BEFORE ME, THE UNDERSIGNED OFFICER, APPEARED:
 RICHARD M. KOZE, JR. (MANAGING MEMBER)
 KAY WALBERT LLC

WHO, BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE IS THE OWNER AND/OWNER OF THE PROPERTY SHOWN ON THIS PLAN, AND THAT HE ACKNOWLEDGES THE SAME TO BE HIS AND DESIRES THE SAME BE RECORDED AS SUCH ACCORDING TO LAW. WITNESS MY HAND AND SEAL THE DAY AND DATE ABOVE WRITTEN.

 (NOTARY PUBLIC OR OTHER OFFICER)

PUBLIC IMPROVEMENTS OFFER OF DEDICATION:
 I, THE UNDERSIGNED, OWNERS OF THE REAL ESTATE SHOWN AND DESCRIBED HEREIN, DO HEREBY CERTIFY THAT I HAVE LAY OFF, PLATTED AND SUBDIVIDED, AND HEREBY LAY OFF, PLAT AND SUBDIVIDE SAID REAL ESTATE IN ACCORDANCE WITH THIS PLAN, AND THAT ALL PROPOSED STREETS SHOWN AND NOT HERETOFORE DEDICATED, ARE HEREBY DEDICATED TO THE PUBLIC USE.

RICHARD M. KOZE, JR. (MANAGING MEMBER)
 KAY WALBERT LLC

APPROVAL BY SOUTH WHITEHALL TOWNSHIP PLANNING COMMISSION:

RECOMMENDED FOR APPROVAL _____ BY THE SOUTH WHITEHALL TOWNSHIP PLANNING COMMISSION (MONTH DAY YEAR)

 (CHAIRMAN)

 (SECRETARY)

APPROVAL BY SOUTH WHITEHALL BOARD OF COMMISSIONERS:

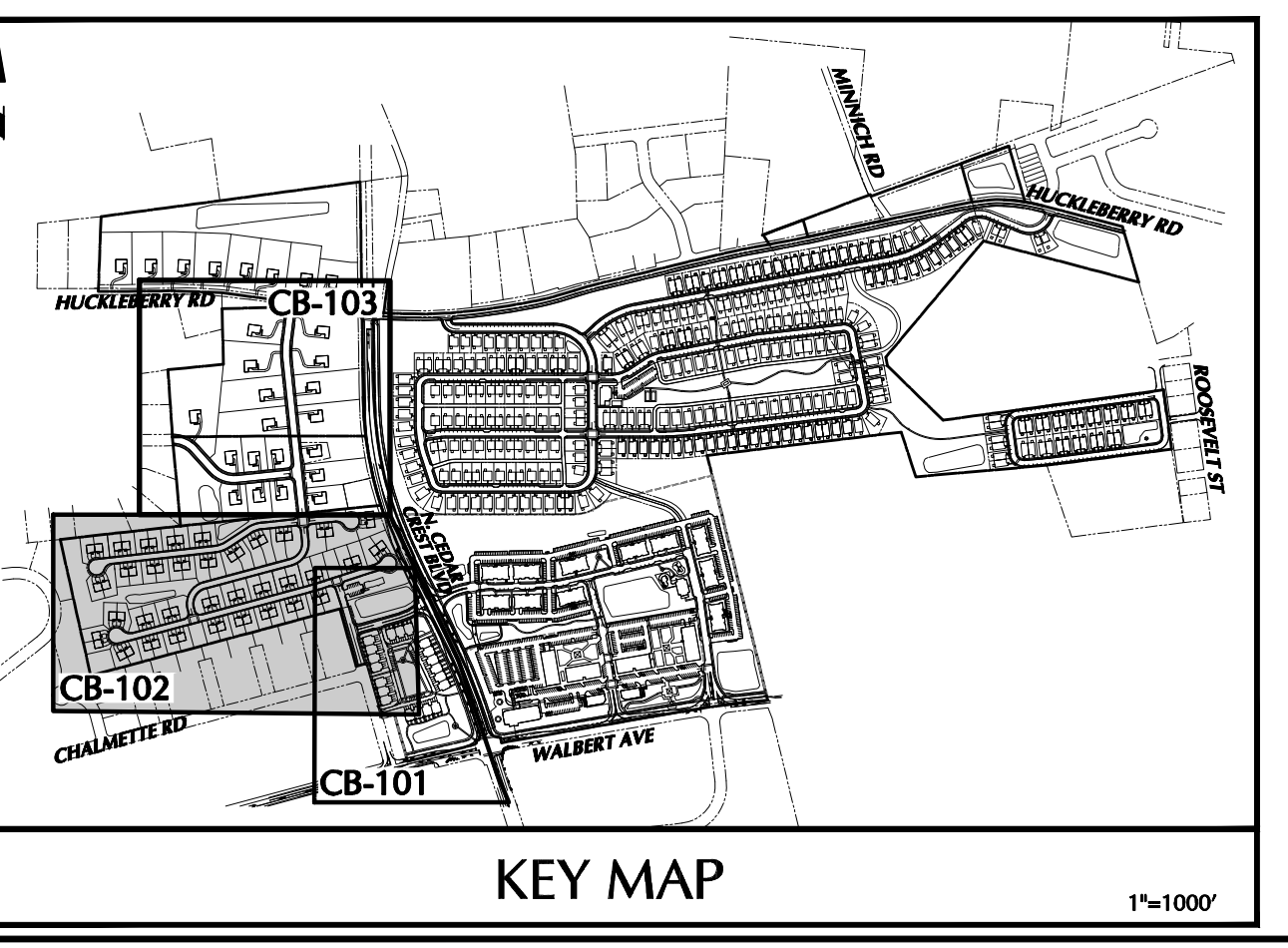
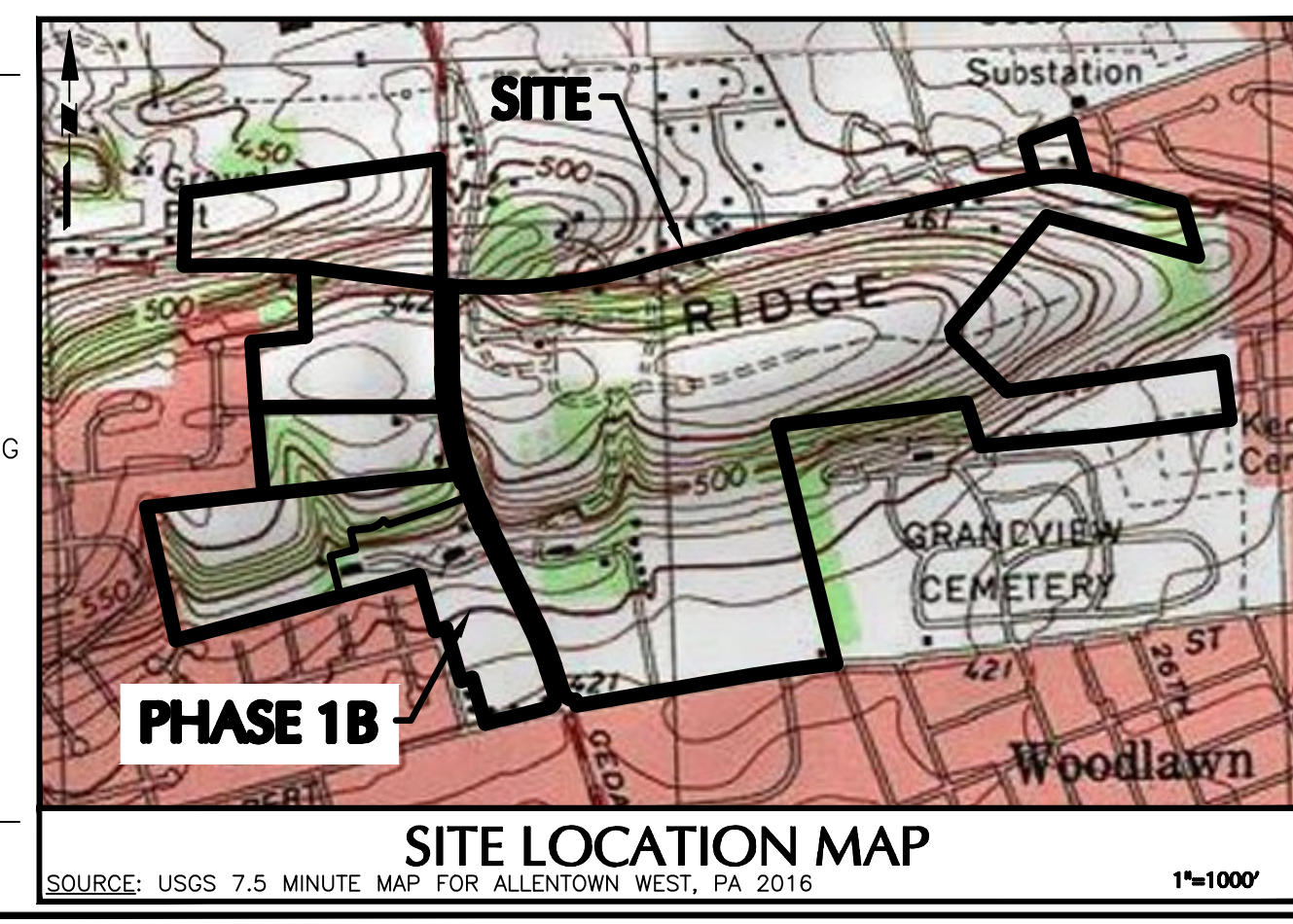
APPROVED _____ BY THE BOARD OF COMMISSIONERS OF SOUTH WHITEHALL TOWNSHIP (MONTH DAY YEAR)

 (PRESIDENT)

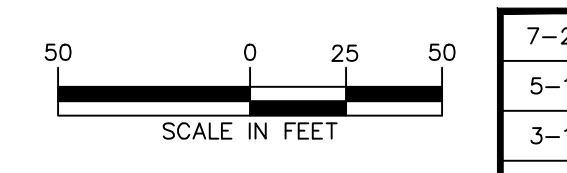
 (SECRETARY)

 (TOWNSHIP ENGINEER)

LEHIGH VALLEY PLANNING COMMISSION:
 REVIEWED:
 BY LEHIGH VALLEY PLANNING COMMISSION.



OWNER/APPLICANT
 KAY WALBERT LLC
 ATTN: RICK KOZE
 5930 HAMILTON BLVD., SUITE 10
 ALLENTOWN, PA 18106
 610-395-6857



REVISIONS	Date	Description	No.
	7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
	5-18-23	REVISED PER TOWNSHIP COMMENTS	4.
	3-16-23	REVISED PER TOWNSHIP COMMENTS	3.
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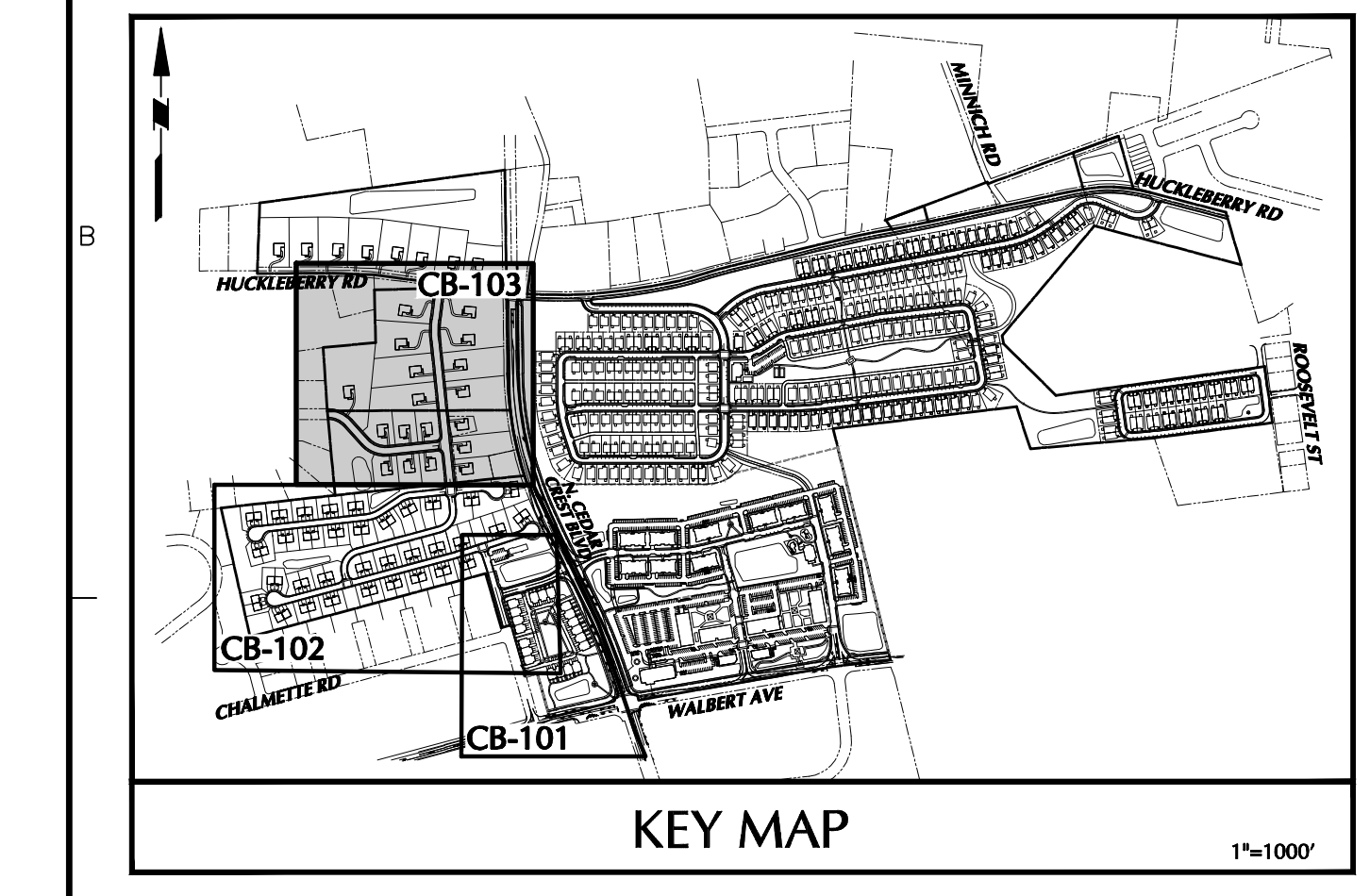
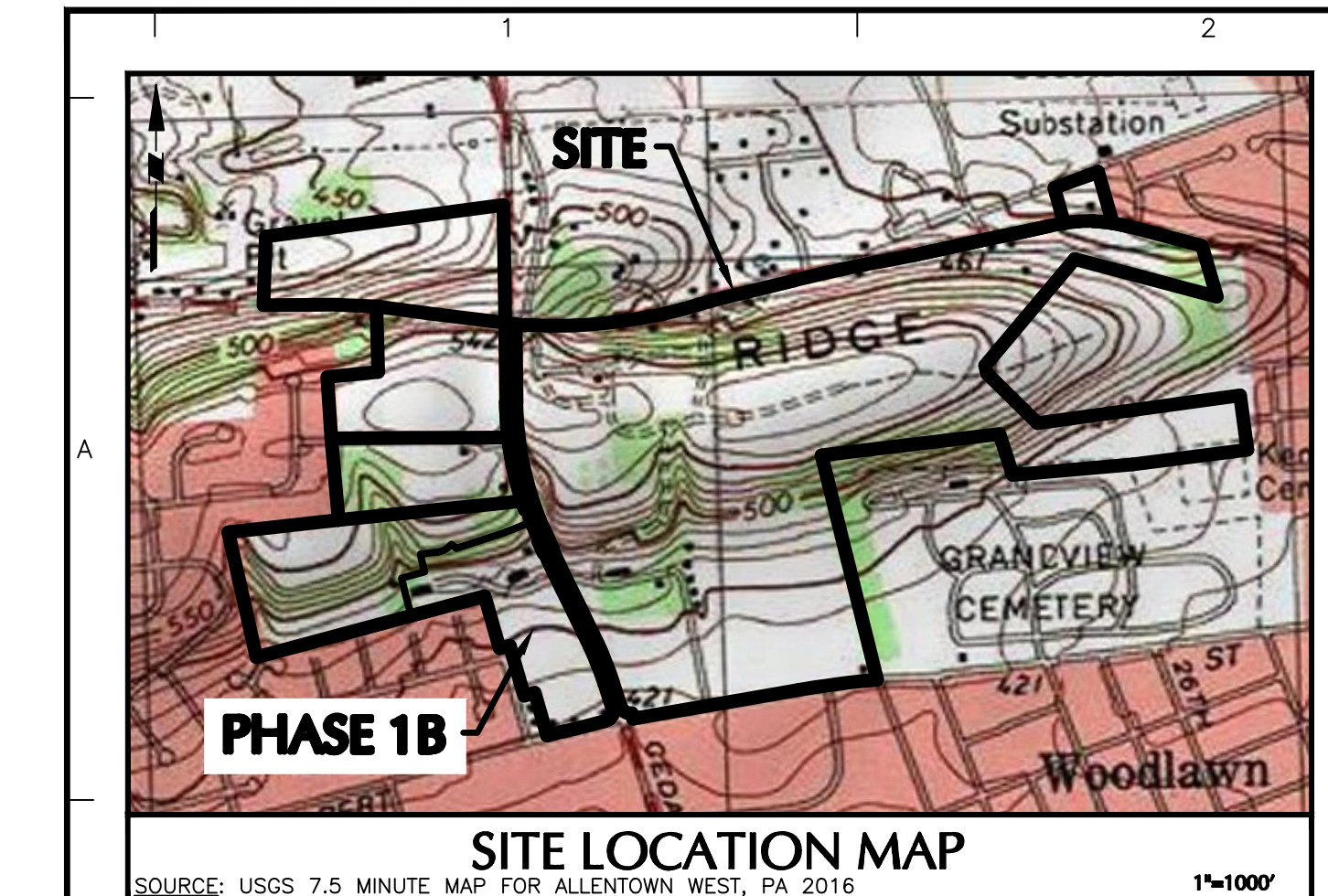
SIGNATURE _____ DATE SIGNED _____
 PROFESSIONAL LAND SURVEYOR PA LIC. No. SU-051088-E

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 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
 Langan International LLC
 Collectively known as Langan

Project
RIDGE FARMS PHASE 1B FINAL PLANS
 54872550358 1
 SOUTH WHITEHALL TOWNSHIP
 LEHIGH COUNTY PENNSYLVANIA

Drawing Title
SUBDIVISION PLAN (RECORD PLAN)

Project No. 240043301
 Date 04/20/22
 Scale 1" = 50'
 Drawing By JDM Checked By SH
 Submission Date _____
 Sheet 5 of 22



LEGEND	
SITE SYMBOLS	GRADING SYMBOLS
EXISTING CURB LINE	EXISTING CONTOUR
EXISTING MONUMENT	PROPOSED CONTOUR
EXISTING PROPERTY LINE	EXISTING SPOT ELEVATION
PROPOSED BUILDING LINE	PROPOSED SPOT ELEVATION
PROPERTY LINE	SOILS SYMBOLS
PROPOSED LOT LINE (WITH PIN MARKERS)	SOILS BOUNDARY
BUILDING SETBACK LINE	SOIL TYPE
PROPOSED UTILITY EASEMENT	TREELINE
STORMWATER BMP AREA	
CONCRETE SIDEWALK	
RETAINING WALL	
BASEIN LIMITS	
ACCESSIBLE ROUTE	
UTILITY SYMBOLS	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING WATER MAIN	EXISTING FIRE HYDRANT
PROPOSED STORM SEWER	EXISTING CATCH BASIN
PROPOSED SANITARY SEWER	EXISTING WATER VALVE
PROPOSED SANITARY SEWER FORCE MAIN	EXISTING MANHOLE
PROPOSED WATER MAIN	EXISTING ELECTRIC POLE
PROPOSED GAS MAIN	
PROPOSED TELEPHONE AND ELECTRIC	
PROPOSED FIRE HYDRANT	

REQUIRED RIGHT-OF-WAY OFFERED TO THE COMMONWEALTH

TOWNSHIP REVIEW NOTE:
THIS PLAN HAS BEEN REVIEWED BY THE TOWNSHIP STAFF AND TOWNSHIP ENGINEER FOR CONSISTENCY WITH MUNICIPAL REGULATIONS AND ORDINANCES RELATING TO LAND USAGE AND DIMENSIONAL REQUIREMENTS OF ZONING. INVESTIGATIONS REGARDING PERIPHERAL LAND AND PLAN ISSUES WHICH ARE NOT REQUIRED AS PART OF A REVIEW PROCESS, SUCH AS CLARITY OF TITLE, SURFACE CONDITIONS, INCLUDING BUT NOT LIMITED TO, SOIL AND WATER QUALITY, KARST GEOLOGICAL ACTIVITY, AND HISTORIC AND ARCHEOLOGICAL ISSUES, OR SUCH OTHER ISSUES (AS APPROPRIATE) THAT MAY AFFECT THE MERCHANTABILITY OF THE LAND, HAVE NOT BEEN INVESTIGATED OR REVIEWED BY THE TOWNSHIP OR THE TOWNSHIP ENGINEER. THE TOWNSHIP AND TOWNSHIP ENGINEER MAKE NO REPRESENTATION OR WARRANTY CONCERNING THESE ISSUES, WHICH SHOULD BE ADDRESSED BY QUALIFIED PROFESSIONALS. COMMISSIONED BY THE APPLICANT AND/OR LAND OWNER(S) AS APPROPRIATE, AND ENGAGED IN THE APPROPRIATE FIELD OF PRACTICE. DIMENSIONS AND GEOMETRY OF THE PROPERTY BOUNDARY AND ANY INTERNAL LOTS AND STREETS HAVE BEEN OVERVIEWED WITH RESPECT TO APPLICABLE ORDINANCE STANDARDS FOR MATHEMATICAL COMPLETENESS, CLARITY OF DEPICTION, CONSISTENCY, CLOSURE, AND AREA (ONLY). THE RESEARCH FOR AND DETERMINATION AND LOCATION OF PROPERTY LINES, STREET RIGHTS-OF-WAY, AND OTHER EASEMENTS, ETC., ARE THE RESPONSIBILITY OF THE SURVEYOR OF RECORD WHOSE SEAL APPEARS ON THIS PLAN, AND HAVE NOT BEEN INDEPENDENTLY CONFIRMED OR VERIFIED BY THE TOWNSHIP, THE TOWNSHIP ENGINEER, OR THE TOWNSHIP SOLICITOR.

SURVEYOR CERTIFICATION:
I, TIMOTHY J. SHERIDAN, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA (P.L.S. NO. SU-043961-E), HEREBY CERTIFY THAT THE OUTBOUND BOUNDARY INFORMATION AND SURVEY TO BE CORRECT IN ALL ITS DETAILS AND THAT THE SURVEY WAS PERFORMED IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR BOUNDARY SURVEYS SECTION OF THE MANUAL OF PRACTICE FOR PROFESSIONAL LAND SURVEYORS IN THE COMMONWEALTH OF PENNSYLVANIA, AS ADOPTED BY THE PENNSYLVANIA SOCIETY OF LAND SURVEYORS ON NOVEMBER 19, 2021, THAT THIS PLAN REPRESENTS A SURVEY MADE BY ME, THAT ALL MONUMENTS EXIST AS SHOWN, AND THAT ALL DIMENSIONAL AND GEODETIC DETAILS ARE CORRECT. THE REQUIRED AND PROPOSED RIGHT-OF-WAY AREAS SHOWN ARE EXCLUDED FROM THIS CERTIFICATION.

OWNERS CERTIFICATE:
ON THIS, THE _____ DAY OF _____, 20____, BEFORE ME, THE UNDERSIGNED OFFICER, APPEARED:

RICHARD M. KOZE, JR. (MANAGING MEMBER)
KAY WALBERT LLC

WHO, BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE IS THE OWNER AND/ OWNER OF THE PROPERTY SHOWN ON THIS PLAN, AND THAT HE ACKNOWLEDGES THE SAME TO BE HIS AND DESIRES THE SAME BE RECORDED AS SUCH ACCORDING TO LAW. WITNESS MY HAND AND SEAL, THE DAY AND DATE ABOVE WRITTEN.

(NOTARY PUBLIC OR OTHER OFFICER)
MY COMMISSION EXPIRES: _____

PUBLIC IMPROVEMENTS OFFER OF DEDICATION:
I, THE UNDERSIGNED, OWNERS OF THE REAL ESTATE SHOWN AND DESCRIBED HEREIN, DO HEREBY CERTIFY THAT WE HAVE LAID OFF, PLATTED AND SUBDIVIDED, AND HEREBY LAY OFF, PLAT AND SUBDIVIDE SAID REAL ESTATE IN ACCORDANCE WITH THIS PLAT, AND THAT ALL PROPOSED STREETS SHOWN AND NOT HERETOFORE DEDICATED, ARE HEREBY DEDICATED TO THE PUBLIC USE.

APPROVAL BY SOUTH WHITEHALL TOWNSHIP PLANNING COMMISSION:
RECOMMENDED FOR APPROVAL _____ BY THE SOUTH WHITEHALL TOWNSHIP PLANNING COMMISSION (MONTH DAY YEAR)

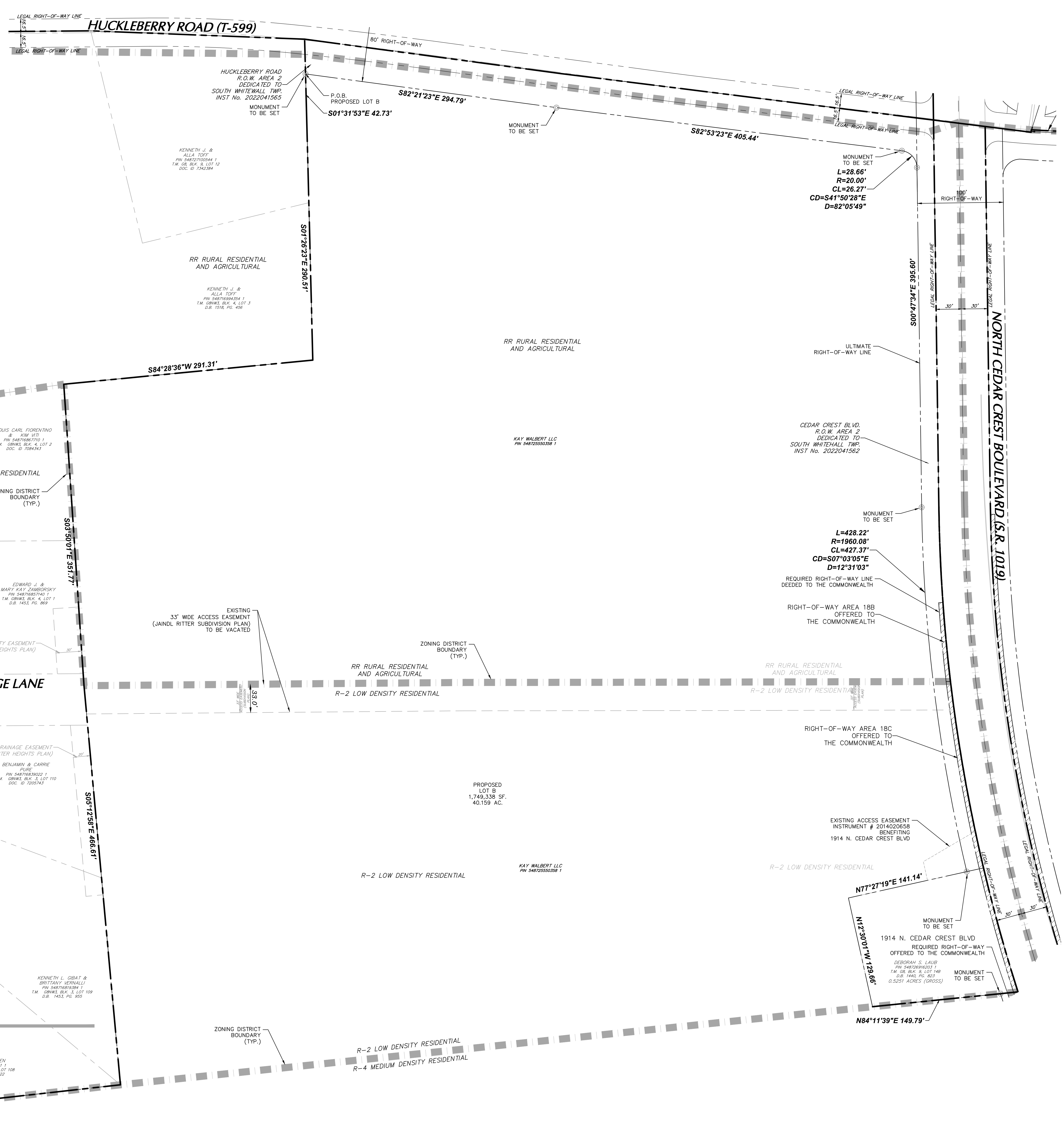
APPROVAL BY SOUTH WHITEHALL BOARD OF COMMISSIONERS:
APPROVED _____ BY THE BOARD OF COMMISSIONERS OF SOUTH WHITEHALL TOWNSHIP (MONTH DAY YEAR)

LEHIGH VALLEY PLANNING COMMISSION:
REVIEWED: _____
BY LEHIGH VALLEY PLANNING COMMISSION

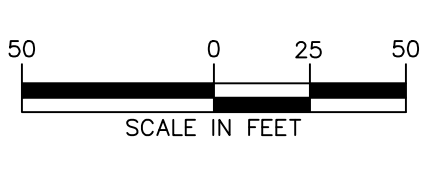
RECORDING INFORMATION:
RECORDED IN THE OFFICE OF THE RECORDER TO DEEDS, LEHIGH COUNTY, PENNSYLVANIA IN INSTRUMENT No. _____ ON _____ 20____

OWNER/APPLICANT:
KAY WALBERT LLC
ATTN: RICK KOZE
5930 HAMILTON BLVD., SUITE 10
ALLENTOWN, PA 18106
610-395-6857

NOTES:
1. SEE SHEET CS-101 FOR NOTES.
2. SEE SHEET CB-101 FOR CURVE DATA TABLE.



MATCHLINE SEE SHEET CB-102



Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
5-18-23	REVISED PER TOWNSHIP COMMENTS	4.
3-16-23	REVISED PER TOWNSHIP COMMENTS	3.
1-19-23	REVISED PER TOWNSHIP COMMENTS	2.
7-21-22	REVISED PER TOWNSHIP COMMENTS	1.

SIGNATURE: _____
PROFESSIONAL LAND SURVEYOR PA LIC. No. SU-051088-E

DATE SIGNED: _____



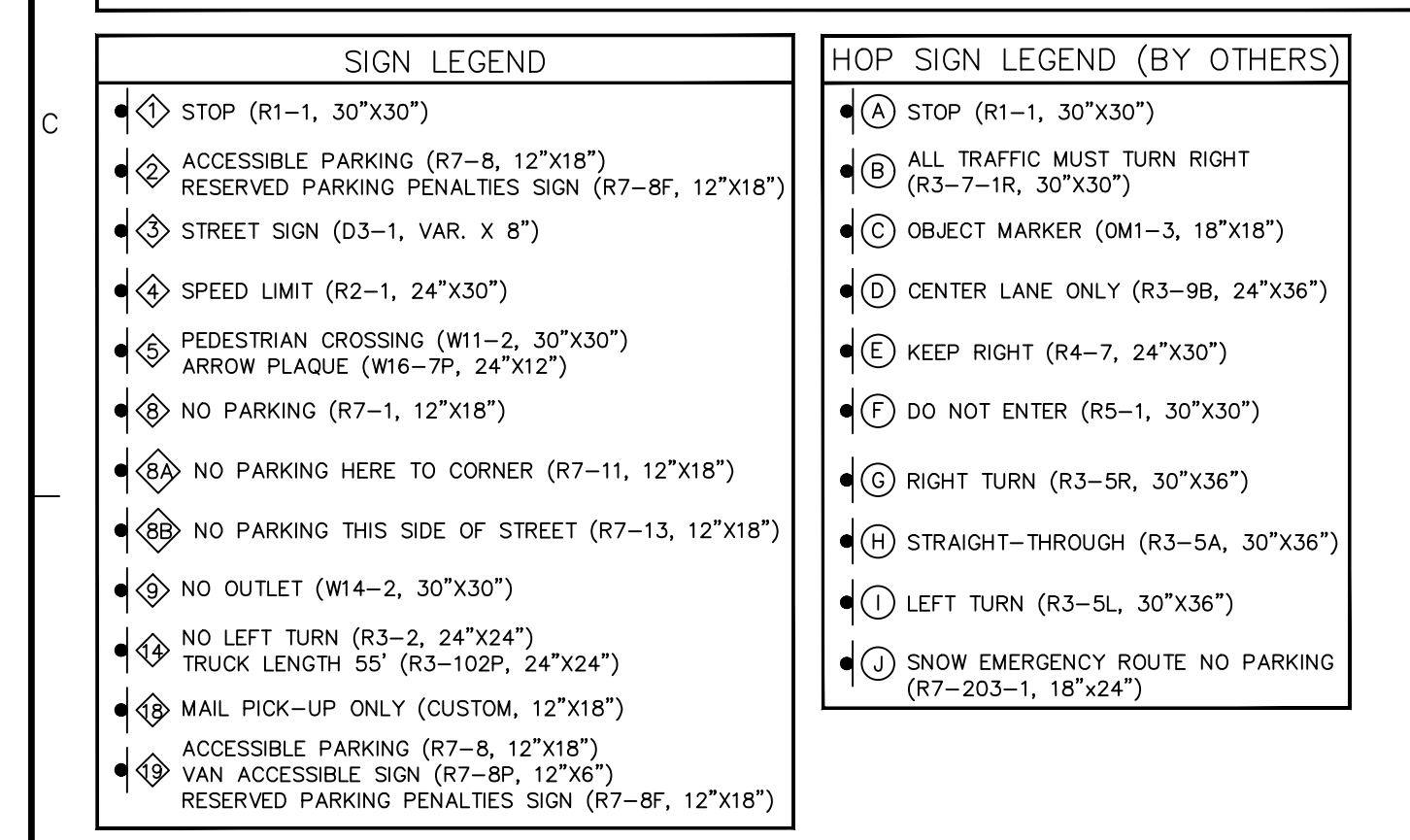
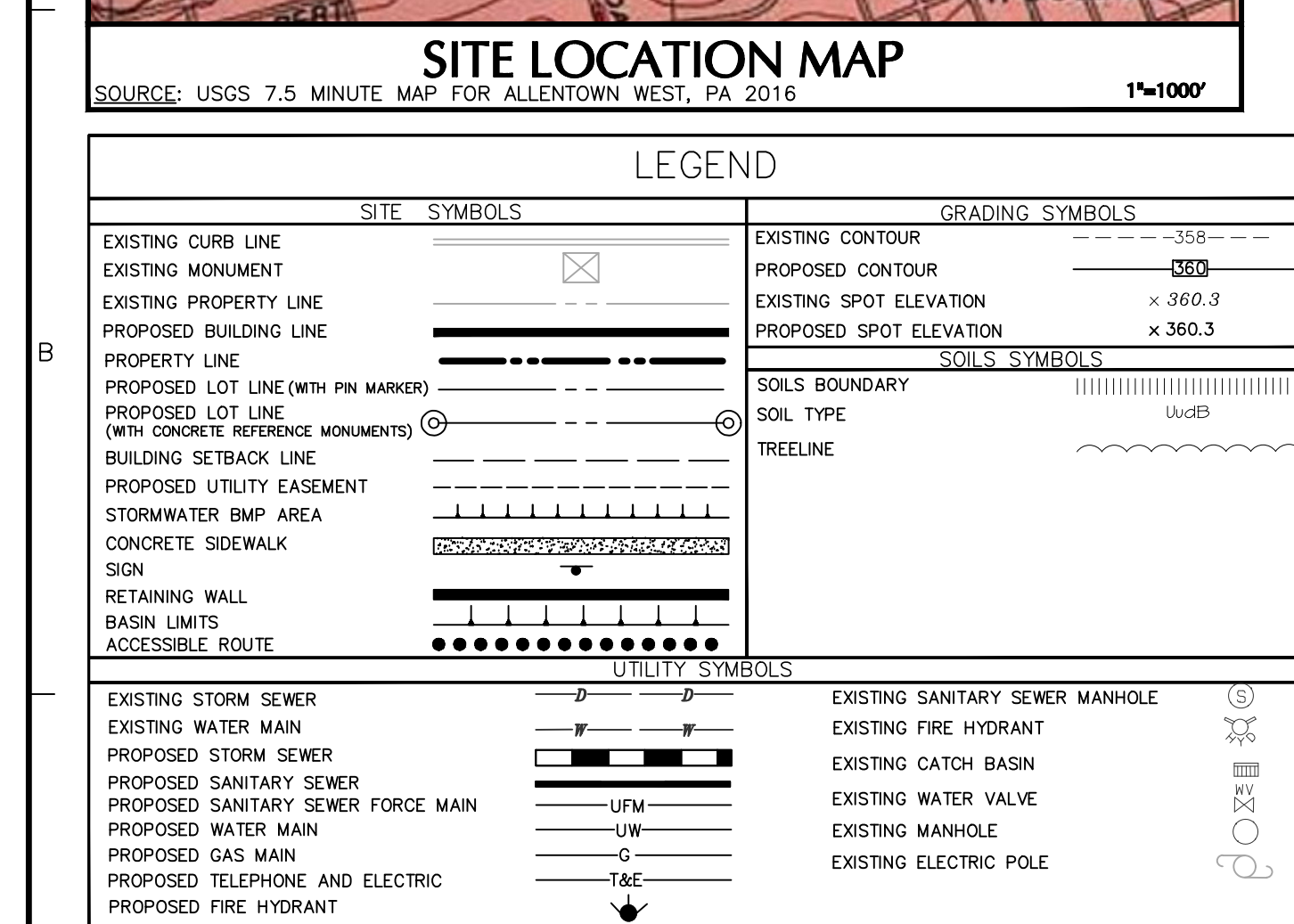
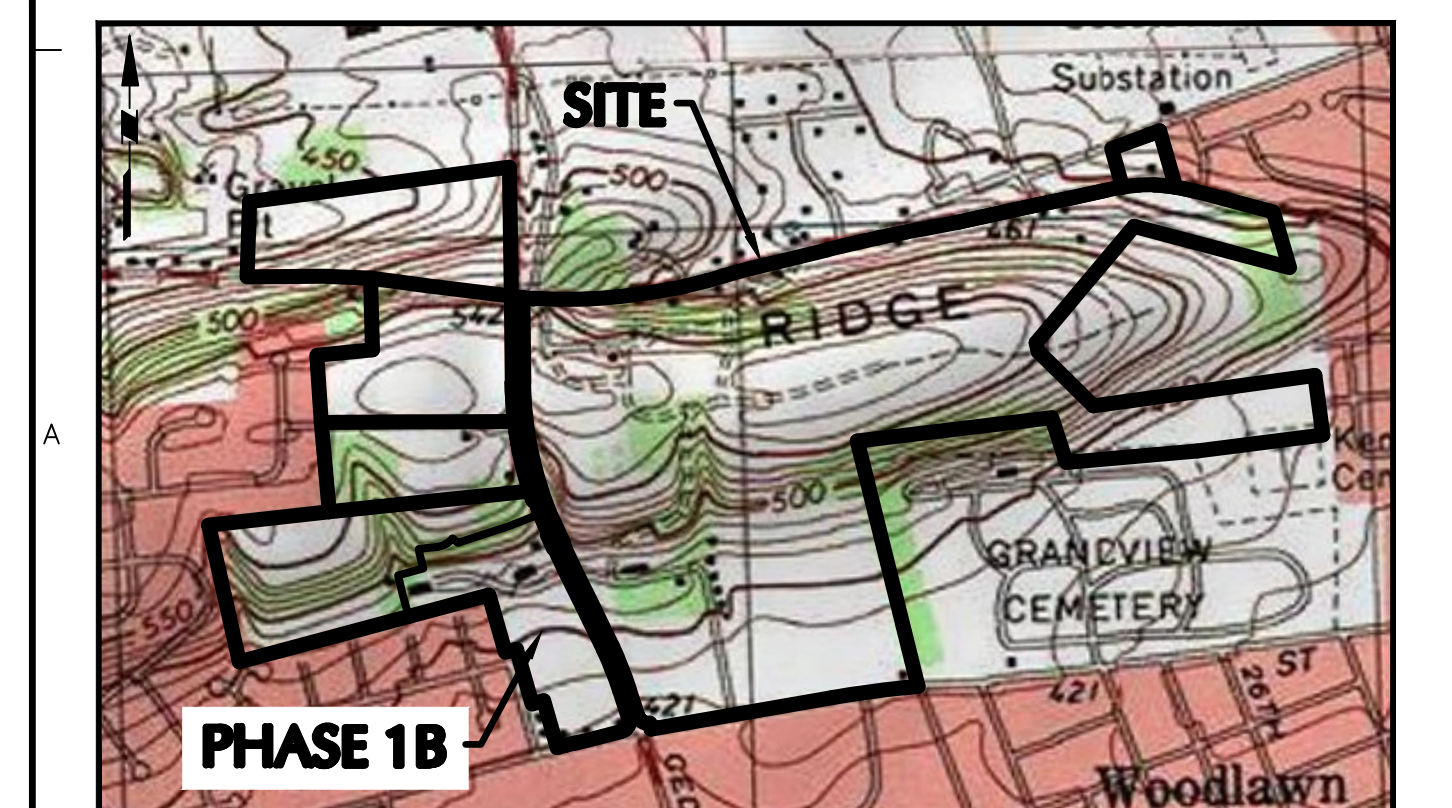
Project: RIDGE FARMS PHASE 1B FINAL PLANS
54872550358 1
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

Drawing Title: SUBDIVISION PLAN (RECORD PLAN)

Project No.: 240043301
Date: 04/20/22
Scale: 1" = 50'
Drawn By: JDM
Checked By: SH
Submission Date: _____

Drawing No.: CB-103
Sheet: 6 of 22

Filename: c:\mangan\p-01\017496324043301-0607-CB101-0102_1.DWG Date: 7/26/2023 Time: 17:46 User: droyer Style: Langan.tbl Layout: CB-103



DEED RESTRICTION NOTES: THE APPLICANT SHALL RESTRICT, BY DEED RESTRICTION OR SIMILAR INSTRUMENT APPROVED BY THE TOWNSHIP SOLICITOR'S OFFICE, THE PROPERTY UNDER THE REMAINING UNCONSTRUCTED PHASES OR UNCONSTRUCTED SUB-PHASES WITHIN THE PHASE IN WHICH ACTIVE CONSTRUCTION IS APPROVED TO REMAIN OPEN TO THE PUBLIC...

OWNERS CERTIFICATE: I, TIMOTHY J. SHERIDAN, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA (P.L.S. NO. SU-043691-E), HEREBY CERTIFY THAT THE OUTBOUND BOUNDARY INFORMATION AND SURVEY TO BE CORRECT IN ALL ITS DETAILS...

PUBLIC IMPROVEMENTS OFFER OF DEDICATION: I, THE UNDERSIGNED, OWNER OF THE REAL ESTATE SHOWN AND DESCRIBED HEREIN, DO HEREBY CERTIFY THAT I HAVE Laid OFF, PLATTED, AND SUBMITTED SAID REAL ESTATE, IN ACCORDANCE WITH THIS PLAN, AND THAT ALL PROPOSED STREETS SHOWN AND NOT HERETOFORE DEDICATED, ARE HEREBY DEDICATED TO THE PUBLIC USE.

APPROVAL BY SOUTH WHITEHALL TOWNSHIP PLANNING COMMISSION: APPROVED (MONTH DAY YEAR) BY THE BOARD OF COMMISSIONERS OF SOUTH WHITEHALL TOWNSHIP. APPROVED (MONTH DAY YEAR) BY THE BOARD OF COMMISSIONERS OF SOUTH WHITEHALL TOWNSHIP.

APPROVAL BY SOUTH WHITEHALL BOARD OF COMMISSIONERS: APPROVED (MONTH DAY YEAR) BY THE BOARD OF COMMISSIONERS OF SOUTH WHITEHALL TOWNSHIP.

RECORDING INFORMATION: RECORDED IN THE OFFICE OF THE RECORDER TO DEEDS, LEHIGH COUNTY, PENNSYLVANIA IN INSTRUMENT No. _____ ON _____ 20_____ DATE _____

GENERAL NOTES: THESE SHALL NOT WALL JUNCTIONS IMPOSED OR STIPULATED WITH THE DEED OF THE UNDERGROUND PROFESSIONALS... THIS PLAN IS SUBJECT TO ALL EASEMENTS AND RIGHTS AS SHOWN HEREON... THE TOWNSHIP ENGINEER SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE CENTER LINE GRADE OF THE CENTER LINE OF THE CENTER LINE OF THE CENTER LINE...

WARNERS GRANTED BY THE BOARD OF COMMISSIONERS OF SOUTH WHITEHALL TOWNSHIP ON NOVEMBER 3, 2021

THE REQUIREMENT OF SECTION 312-35A(8)(I)(II) OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE TO REQUIRE THE CENTERLINE OF AN INTERSECTING STREET TO BE OFFSET A MINIMUM DISTANCE OF EIGHT HUNDRED (800) FEET FROM THE INTERSECTION OF THE INTERSECTING STREET "B" IN THE DIAGRAM IS AN ARTERIAL STREET, WITH REGARD TO THE RIGHT-NIGHT-OUT DRIVEWAY... THE REQUIREMENT OF SECTION 312-35B(8)(I)(II)(III)(IV) OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE PERTAINING TO THE REQUIREMENT THAT GRADING BE TO A MAXIMUM SLOPE OF ONE (1) FOOT HORIZONTAL TO THREE (3) FEET VERTICAL...

HIGHWAY OCCUPANCY PERMIT NOTE: AS THIS SUBDIVISION OR LAND DEVELOPMENT HAS FRONTAGE ALONG DRAINAGE TO OR OTHERWISE IMPACTS A STATE HIGHWAY, THE APPLICANT HAS SUBMITTED THE PLAN TO THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PENNDOT) FOR REVIEW, COPIES OF ALL CORRESPONDENCE BETWEEN THE APPLICANT AND PENNDOT AND ALL ISSUED PERMITS...

Table with 4 columns: AREA DESIGNATION, AREA IN SQ. FT., AREA IN ACRES, AMENITY, OWNER. Lists various lots and their characteristics.

PHASE 1A & 1B OPEN SPACE CALCULATION: Development Option: Residential With Commercial Component. Requirement: Minimum Tract Size 50 Ac. Proposed: 138.34 Ac.

Table with 4 columns: Requirement, Required, Proposed, Min.% of the Tract to be Open Space. Details the calculation for active open space.

REVISIONS: 7-27-23 REVISED PER TOWNSHIP COMMENTS 5. 5-18-23 REVISED PER TOWNSHIP COMMENTS 4. 3-16-23 REVISED PER TOWNSHIP COMMENTS 3.

OWNER/APPLICANT: KAY WALBERT LLC, ATTN: RICK KOZE, 5930 HAMILTON BLVD., SUITE 10 ALLENTOWN, PA 18106, 610-395-6857

BUILDING PERMITS ARE REQUIRED BY THE PAUCO SECTION 403.2(B) FOR WALLS GREATER THAN 4 FEET IN HEIGHT... THE PROPOSED STAIRS, CURB AND RAMP AND SUPPORTING FOUNDATION SHALL COMPLY WITH THE PENN. DIMENSIONAL AND LOADING CALCULATIONS AND SHOP DRAWINGS PREPARED BY THE REGISTERED WALL MANUFACTURER'S ENGINEER TO SHOW COMPLIANCE WITH THE PENNSYLVANIA DIMENSIONAL AND LOADING CALCULATIONS AND SHOP DRAWINGS...

LIST OF REFERENCE PLANS: 1. RIDGE FARMS PHASE 1 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN SET FULL SET OF 9 SHEETS DATED 06/01/2021 REVISED 12/02/2021.

MATCHLINE SEE SHEET CS-102

THE REQUIREMENT OF SECTION 312-35B(8)(I)(II)(III)(IV) OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE PERTAINING TO THE REQUIREMENT TO INSTALL CURBING SPECIFICALLY ALONG WALBERT AVENUE AND CEDAR CREST BOULEVARD IS HEREBY DEFERRED IN FAVOR OF THE IMPROVEMENTS SHOWN ON THE LANGAN ENGINEERING PLAN SET ENTITLED "RIDGE FARMS" DATED AND LATEST REVISED MARCH 18, 2020, ON THE CONDITION THAT CURBING BE ADDED TO THE EAST END OF CEDAR CREST BOULEVARD TO ENSURE A CONTINUOUS CURBING ALONG THE ENTIRE LENGTH OF THE ROAD...

THE REQUIREMENT OF SECTION 312-35B(8)(I)(II)(III)(IV) OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE PERTAINING TO THE REQUIREMENT TO CONSTRUCT STAIRS ALONG WALBERT AVENUE AND CEDAR CREST BOULEVARD IS HEREBY WAIVED IN FAVOR OF THE IMPROVEMENTS SHOWN ON THE LANGAN ENGINEERING PLAN SET ENTITLED "RIDGE FARMS" DATED AND LATEST REVISED MARCH 18, 2020, ON THE CONDITION THAT THE BITE PATHS ALONG WALBERT AVENUE (BOTH EAST AND WEST OF CEDAR CREST BOULEVARD) BE CONSTRUCTED AS REQUIRED ALONG THE FRONTS OF HICKLEBERRY ROAD AND FOCI AVENUE AT 2523 HICKLEBERRY ROAD...

THE REQUIREMENT OF SECTION 312-35B(8)(I)(II)(III)(IV) OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE PERTAINING TO THE REQUIREMENT TO CONSTRUCT STAIRS ALONG WALBERT AVENUE AND CEDAR CREST BOULEVARD IS HEREBY WAIVED IN FAVOR OF THE IMPROVEMENTS SHOWN ON THE LANGAN ENGINEERING PLAN SET ENTITLED "RIDGE FARMS" DATED AND LATEST REVISED MARCH 18, 2020, ON THE CONDITION THAT THE BITE PATHS ALONG WALBERT AVENUE (BOTH EAST AND WEST OF CEDAR CREST BOULEVARD) BE CONSTRUCTED AS REQUIRED ALONG THE FRONTS OF HICKLEBERRY ROAD AND FOCI AVENUE AT 2523 HICKLEBERRY ROAD...

THE REQUIREMENT OF SECTION 312-35B(8)(I)(II)(III)(IV) OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE PERTAINING TO THE REQUIREMENT TO CONSTRUCT STAIRS ALONG WALBERT AVENUE AND CEDAR CREST BOULEVARD IS HEREBY WAIVED IN FAVOR OF THE IMPROVEMENTS SHOWN ON THE LANGAN ENGINEERING PLAN SET ENTITLED "RIDGE FARMS" DATED AND LATEST REVISED MARCH 18, 2020, ON THE CONDITION THAT THE BITE PATHS ALONG WALBERT AVENUE (BOTH EAST AND WEST OF CEDAR CREST BOULEVARD) BE CONSTRUCTED AS REQUIRED ALONG THE FRONTS OF HICKLEBERRY ROAD AND FOCI AVENUE AT 2523 HICKLEBERRY ROAD...

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THE REQUIREMENT OF SECTION 312-35B(8)(I)(II)(III)(IV) OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE PERTAINING TO THE REQUIREMENT TO CONSTRUCT STAIRS ALONG WALBERT AVENUE AND CEDAR CREST BOULEVARD IS HEREBY WAIVED IN FAVOR OF THE IMPROVEMENTS SHOWN ON THE LANGAN ENGINEERING PLAN SET ENTITLED "RIDGE FARMS" DATED AND LATEST REVISED MARCH 18, 2020, ON THE CONDITION THAT THE BITE PATHS ALONG WALBERT AVENUE (BOTH EAST AND WEST OF CEDAR CREST BOULEVARD) BE CONSTRUCTED AS REQUIRED ALONG THE FRONTS OF HICKLEBERRY ROAD AND FOCI AVENUE AT 2523 HICKLEBERRY ROAD...

REVISIONS: 7-27-23 REVISED PER TOWNSHIP COMMENTS 5. 5-18-23 REVISED PER TOWNSHIP COMMENTS 4. 3-16-23 REVISED PER TOWNSHIP COMMENTS 3. 1-19-23 REVISED PER TOWNSHIP COMMENTS 2. 7-21-22 REVISED PER TOWNSHIP COMMENTS 1.

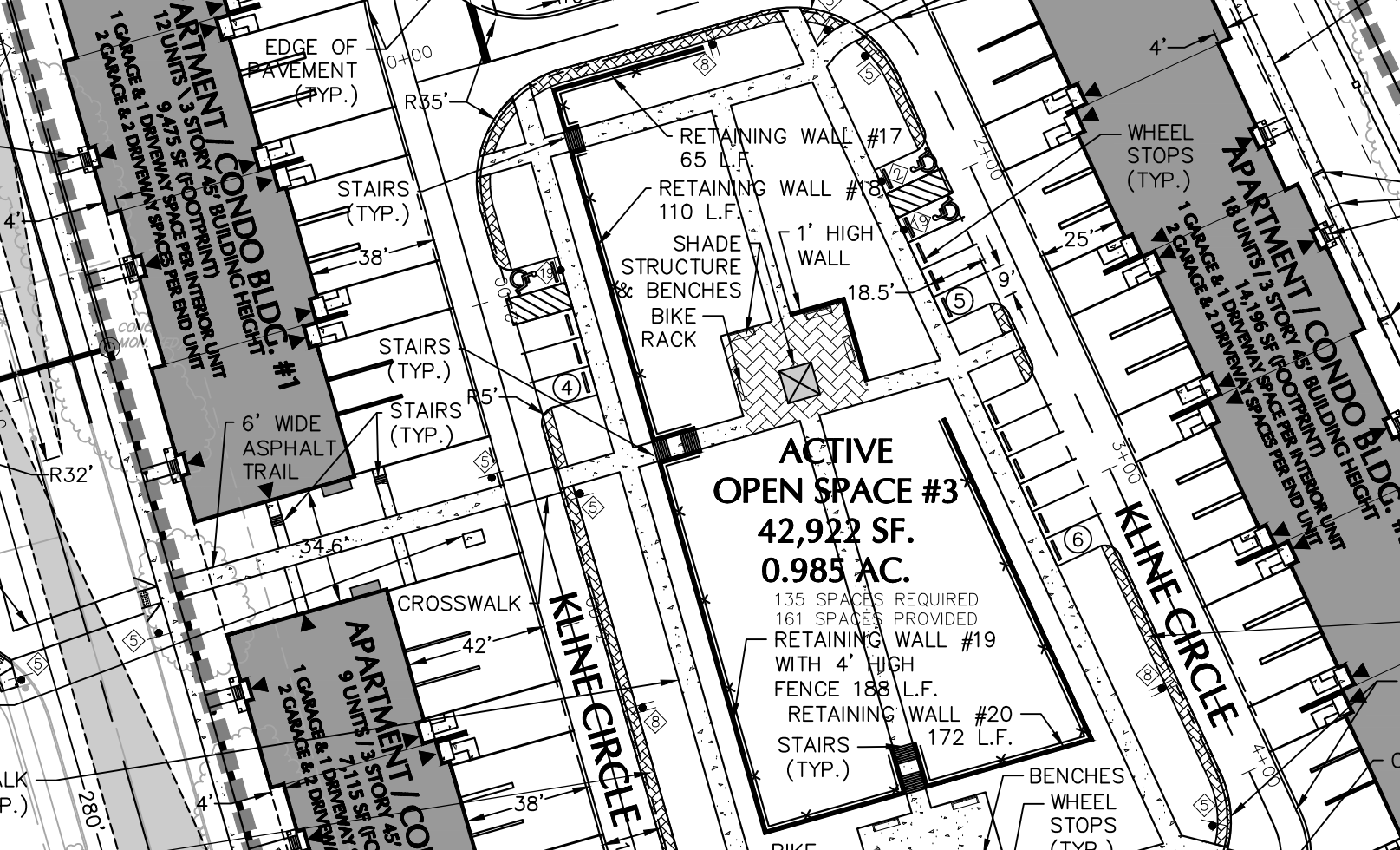
APPROVED WARNERS: ADOPTED NOVEMBER 27, 2018. 1. 4312-36A(1)(A) BLOCK LENGTH: THE LENGTH OF BLOCKS SHALL NOT EXCEED TWELVE HUNDRED (1,200) FEET NOR BE LESS THAN FIVE HUNDRED (500) FEET MEASURED FROM THE CENTERLINES OF THE STREETS. A WAIVER MAY BE GRANTED TO ALLOW INCREASED BLOCK LENGTHS AND BLOCK LENGTHS LESS THAN THE REQUIRED.

1. 4312-36B(1)(A) HORIZONTAL CURVES: THE MINIMUM CENTRIFUGAL RADIUS FOR LOCAL STREETS SHALL BE ONE HUNDRED FIFTY (150) FEET. AND ALL OTHER STREETS SHALL BE THREE HUNDRED (300) FEET. A MINIMUM TANGENT OF ONE HUNDRED (100) FEET SHALL BE MAINTAINED BETWEEN REVERSE CURVES AND BETWEEN A CURVE AND STREET INTERSECTION.

1. 4312-36C(1)(A) PRIVATE STREETS: A CARTWAY WIDTH LESS THAN THIRTY-SIX (36) FEET MAY BE APPROVED BY THE PLANNING COMMISSION AND/OR BOARD OF COMMISSIONERS PROVIDED THAT ALL OTHER ENGINEERING REQUIREMENTS ARE COMPLETED WITH.

1. 4312-36D(1)(A) CENTERLINES OF INTERSECTING STREETS: TWO STREETS INTERSECTING AT A THIRD STREET FROM OPPOSITE SIDES SHALL EITHER INTERSECT WITH A COMMON CENTERLINE OR THEIR CENTERLINES SHALL BE OFFSET A MINIMUM DISTANCE OF 50 FEET FROM THE MAIN STREET TO AN INTERSECTION STREET. IF THE MAIN STREET IS A COLLECTOR STREET, 100 FEET. IF THE MAIN STREET IS A LOCAL STREET, 50 FEET ONLY.

1. A WAIVER WAS GRANTED FROM THIS SECTION TO ALLOW A MINIMUM INTERSECTION SEPARATION ALONG A COLLECTOR ROADWAY OF APPROXIMATELY 200 FEET. A WAIVER WAS GRANTED FOR ALLEYS TO STREET INTERSECTIONS OF APPROXIMATELY 140 FEET.



THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES. ONLY THE LOCATION OF VISIBLE UTILITIES ON OR ABOVE THE SURFACE OF THE EARTH THAT CAN BE REASONABLY LOCATED USING STANDARD SURVEY PROCEDURES SHALL BE CERTIFIED. NO CERTIFICATION MADE BY LANGAN AS TO THE ACCURACY OR COMPLETENESS OF THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES IS IMPLICATED THAT PRIOR TO ANY CONSTRUCTION IN THE AREA THAT A UTILITY MARK-OUT IS ORDERED. CALL 1-800-242-1776

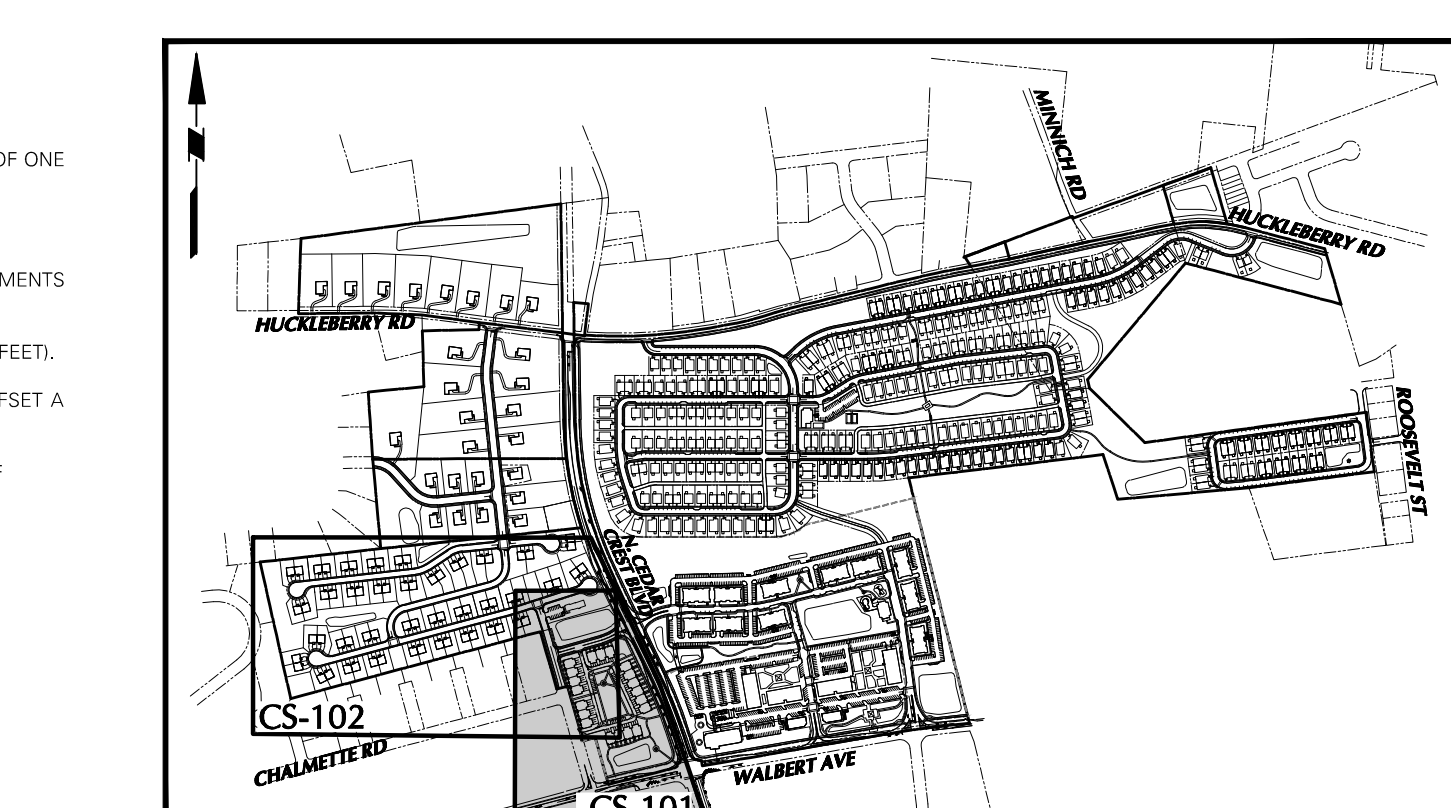
Table with 3 columns: Ridge Farms Development Phase 1B, Roadway Development Phase 1B, Ridge Farms Development Phase 1B. Lists various lots and their characteristics.

PHASE 1A & 1B OPEN SPACE CALCULATION: Development Option: Residential With Commercial Component. Requirement: Minimum Tract Size 50 Ac. Proposed: 138.34 Ac.

REVISIONS: 7-27-23 REVISED PER TOWNSHIP COMMENTS 5. 5-18-23 REVISED PER TOWNSHIP COMMENTS 4. 3-16-23 REVISED PER TOWNSHIP COMMENTS 3. 1-19-23 REVISED PER TOWNSHIP COMMENTS 2. 7-21-22 REVISED PER TOWNSHIP COMMENTS 1.

REVISIONS: 7-27-23 REVISED PER TOWNSHIP COMMENTS 5. 5-18-23 REVISED PER TOWNSHIP COMMENTS 4. 3-16-23 REVISED PER TOWNSHIP COMMENTS 3. 1-19-23 REVISED PER TOWNSHIP COMMENTS 2. 7-21-22 REVISED PER TOWNSHIP COMMENTS 1.

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PHASE 1B PARKING CALCULATIONS: BUILDING TYPE, DWELLING UNITS, AVAILABLE SPACES, REQUIRED SPACES, PROPOSED SPACES. Includes a table for Ridge Farms Phase 1B area dedication table.

NOTES: 1. Each town unit will have a 2 car garage, 2 garage spaces per unit and an additional 2.25 spaces per unit for overflow parking. 2. Two driveway spaces are provided for the single detached dwelling. 3. The required apartment parking is 2 spaces for each dwelling unit and will provide the 2.25 spaces per unit for overflow parking.

RIDGE FARMS PHASE 1B SOUTH WHITEHALL TOWNSHIP AREA DEDICATION TABLE: AREA, ACRES, OWNER. Lists various easements and their details.

ASSIGNED GARAGES: Apartment Units Proposed, Assigned garage spaces, Density Credit for each unit of units with assigned garage space, Total Density Credits.

DENSITY INCREASE BUILDING - #2 AREA WEST: The purpose of this table is to show that with the 3.5 density credit (only 2 needed) that the maximum R-10 Apartment building can increase from 35 units to 45 units (10 additional units) and that the maximum R-10 Apartment units per building can increase from 16 units to 18 units (1 density credit required).

RIDGE FARMS DEVELOPMENT PHASE 1B ROADWAY OWNERSHIP TABLE: Road Name, Length, Private, Homeowner's Association.

RIDGE FARMS DEVELOPMENT PHASE 1B ROADWAY OWNERSHIP TABLE: Road Name, Length, Private, Homeowner's Association.

RIDGE FARMS DEVELOPMENT PHASE 1B ROADWAY OWNERSHIP TABLE: Road Name, Length, Private, Homeowner's Association.

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RIDGE FARMS DEVELOPMENT PHASE 1B ROADWAY OWNERSHIP TABLE: Road Name, Length, Private, Homeowner's Association.

PROJECT INFORMATION: Project No. 240043301, Drawing No. CS-101, Date 04/20/22, Scale 1" = 50', Drawn By JDM, Checked By JE, Submission Date, Sheet 7 of 22.

LANGAN ENGINEERING, SURVEYING AND LANDSCAPE ARCHITECTURE, D.P.C. SA. 1010 EAST BROAD STREET, SUITE 200, BETHLEHEM, PA 18018. TEL: 610-964-9800. FAX: 610-964-9501. WWW.LANGAN.COM



MATCHLINE SEE SHEET CS-101

KAWY/APPLICANT
KAY WALBERT LLC
ATTN: RICK KOZE
5930 HAMILTON BLVD., SUITE 10
ALLEN TOWNSHIP, PA 18106
610-395-6857

SURVEYOR CERTIFICATION:
I, TIMOTHY J. SHERIDAN, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA (P.L.S. NO. SU-043961-E), HEREBY CERTIFY THAT THE OUTBOUND BOUNDARY INFORMATION AND SURVEY TO BE CORRECT IN ALL ITS DETAILS AND THAT THE SURVEY WAS PERFORMED IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR BOUNDARY SURVEYS SECTION OF THE MANUAL OF PRACTICE FOR PROFESSIONAL LAND SURVEYORS IN THE COMMONWEALTH OF PENNSYLVANIA, AS ADOPTED BY THE PENNSYLVANIA SOCIETY OF LAND SURVEYORS ON NOVEMBER 19, 2001, THAT THIS PLAN REPRESENTS A SURVEY MADE BY ME, THAT ALL MONUMENTS EXIST AS SHOWN, AND THAT ALL DIMENSIONAL AND GEODETIC DETAILS ARE CORRECT. THE REQUIRED AND PROPOSED RIGHT-OF-WAY AREAS SHOWN ARE EXCLUDED FROM THIS CERTIFICATION.

OWNER'S CERTIFICATE:
ON THIS, _____ DAY OF _____, 20____, BEFORE ME, THE UNDERSIGNED OFFICER, APPEARED:

RICHARD M. KOZE, JR. (MANAGING MEMBER)
KAY WALBERT LLC

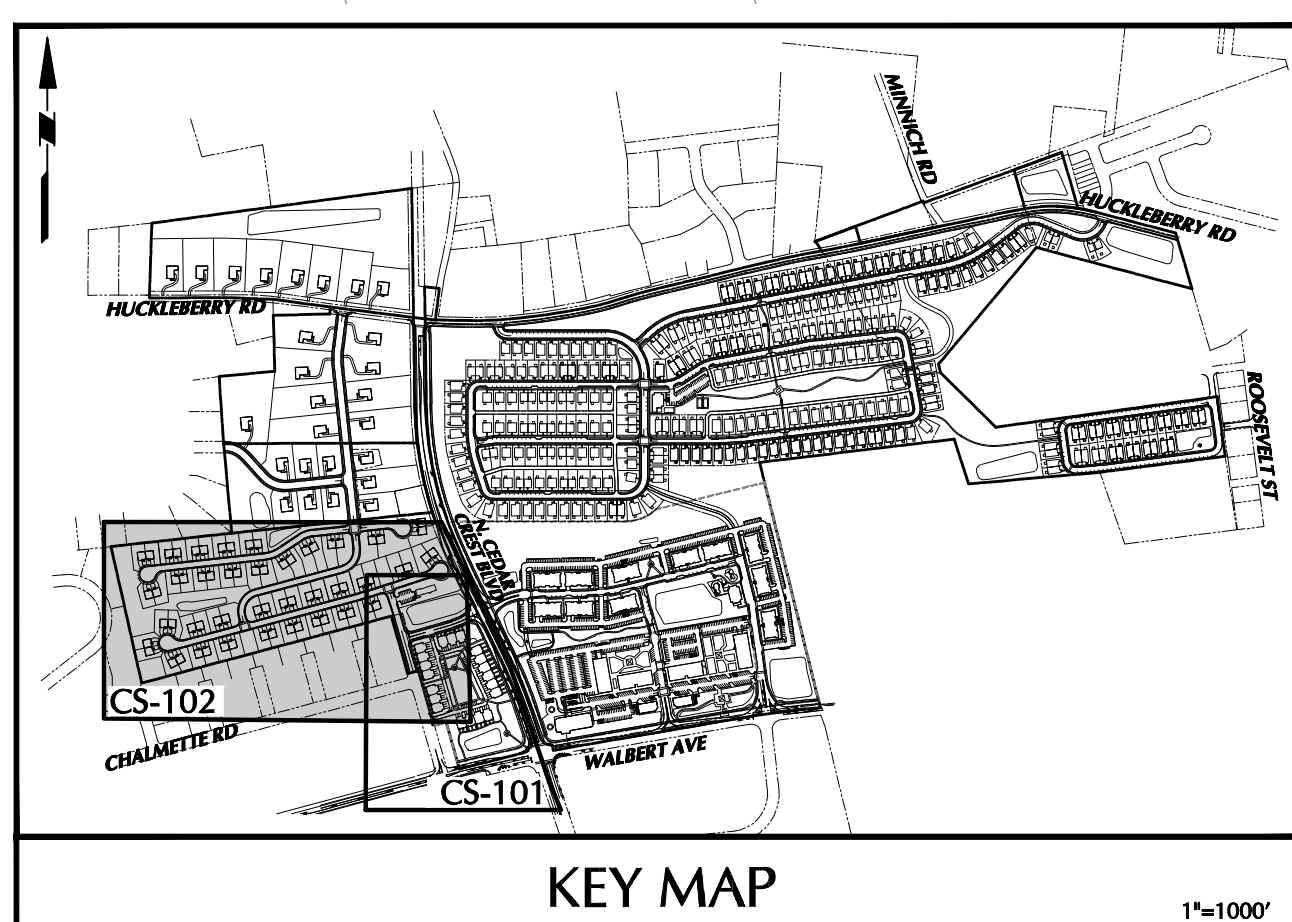
WHO, BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE IS THE OWNER AND/ OR OWNER OF THE PROPERTY SHOWN ON THIS PLAN, AND THAT HE ACKNOWLEDGES THE SAME TO BE HIS AND DESIRES THE SAME BE RECORDED AS SUCH, AND THAT HE WITNESSES THE SAME BY HIS HAND AND SEAL, THE DAY AND DATE ABOVE WRITTEN.

Sign Legend table with symbols for STOP, ACCESSIBLE PARKING, STREET SIGN, SPEED LIMIT, PEDESTRIAN CROSSING, NO PARKING, NO LEFT TURN, and MAIL PICK-UP ONLY.

HOP SIGN LEGEND (BY OTHERS) table with symbols for ALL TRAFFIC MUST TURN RIGHT, OBJECT MARKER, KEEP RIGHT, DO NOT ENTER, STRAIGHT-THROUGH, LEFT TURN, and SNOW EMERGENCY ROUTE.

LEGEND table with symbols for SITE SYMBOLS, GRADING SYMBOLS, SOILS BOUNDARY, SOIL TYPE, TREELINE, and UTILITY SYMBOLS.

Table with 3 columns: Street, Signage, Justification. Lists regulatory signs for Ridge Farms Phase 1B at various intersections.



NOTE: SEE SHEET CS-101 FOR SITE PLAN GENERAL NOTES.

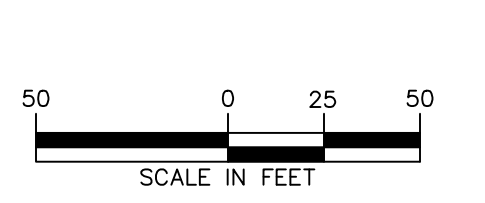
Table with 3 columns: Street, Signage, Justification. Lists regulatory signs for Ridge Farms Phase 1B at Harvest Way and Windrow Lane.

Table with 3 columns: Street, Speed Limit, Justification. Lists speed limit signs for Ridge Farms Phase 1B.

PHASE 1B LOT COVERAGE table with columns: LOT NUMBER, LOT AREA, PROPOSED IMPERVIOUS AREA PER LOT, IMPERVIOUS AREA ACCOUNTED FOR IN STORMWATER CALCULATIONS, LOT COVERAGE PERCENTAGE.

R-4 MEDIUM DENSITY RESIDENTIAL table with columns: ITEM, REQUIRED / PERMITTED, PROPOSED. Lists residential uses and parking requirements.

NOTES: 1. Zoning Section 350-42(1)(3)(i) Frontage along cul-de-sac Lots may be satisfied at the standard front building or Use setback line, provided the length of the ROW line equals at least 60% of the required frontage.



REVISIONS table with columns: Date, Description, No.

SIGNATURE: JASON S. ENGELHARDT DATE SIGNED: _____ PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E



Project: RIDGE FARMS PHASE 1B FINAL PLANS SOUTH WHITEHALL TOWNSHIP PENNSYLVANIA

Drawing Title: SITE PLAN (RECORD PLAN)

Project No. 240043301 Drawing No. CS-102 Date 04/20/22 Scale 1" = 50' Drawn By JDM Checked By JE Submission Date Sheet 8 of 22

NDS, INC.
851 NORTH HARVARD AVE.
LINDSAY, CA 93247
TOLL FREE: 1-800-726-1994
PHONE: (559) 562-9888
FAX: (559) 562-4488
www.ndspro.com

EZ ROLL GRASS PAVER, PRODUCT DESCRIPTION
STOCK ROLL SIZE: 3.98W X 2.41L (96.19F)
3.98W X 152L (96.19F X 92.4F)
CUSTOM SIZES AVAILABLE UPON REQUEST: 1.6" X 152" (20.8" X 92.4F)
2.4" X 152" (20.8" X 92.4F)

NESTED HONEYCOMB CELL: 57, 888 PSF
LAYOUT COMPRESSIVE: 400PSI
STRENGTH (OPEN CELL NO FILL): EXCEEDS 1800 LBS/LOADING

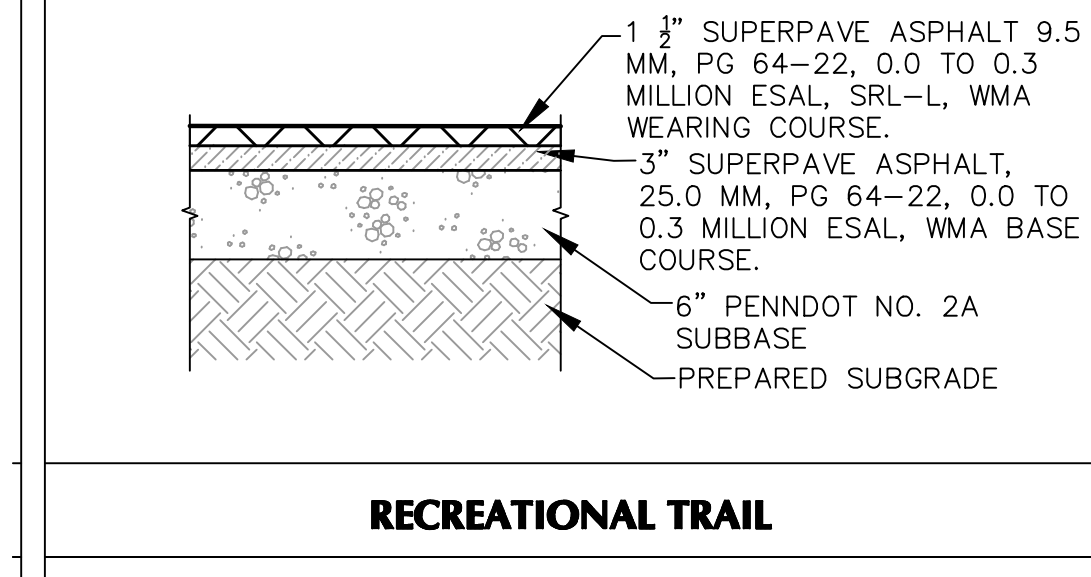
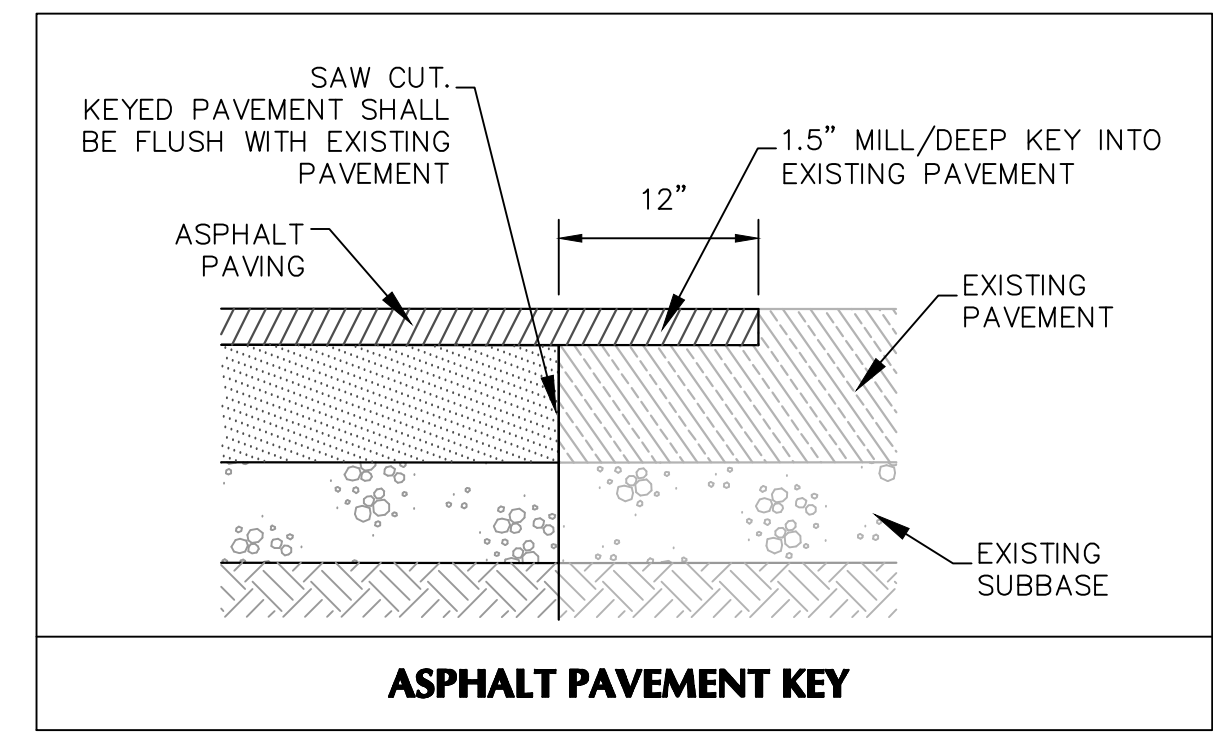
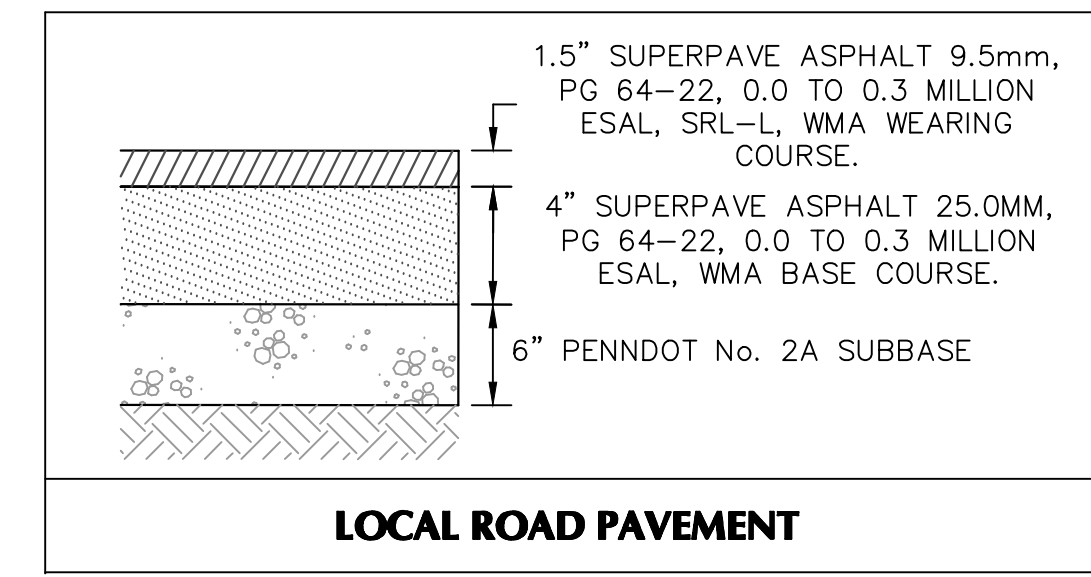
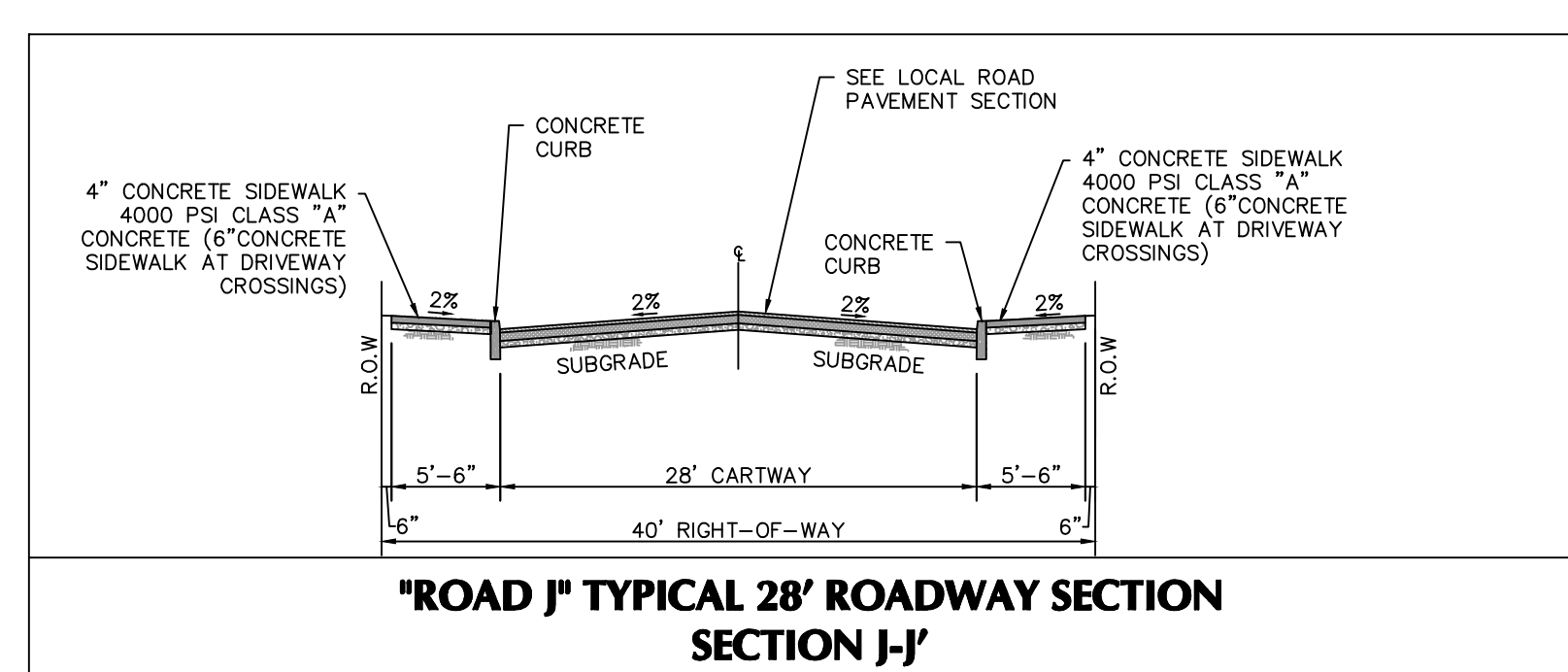
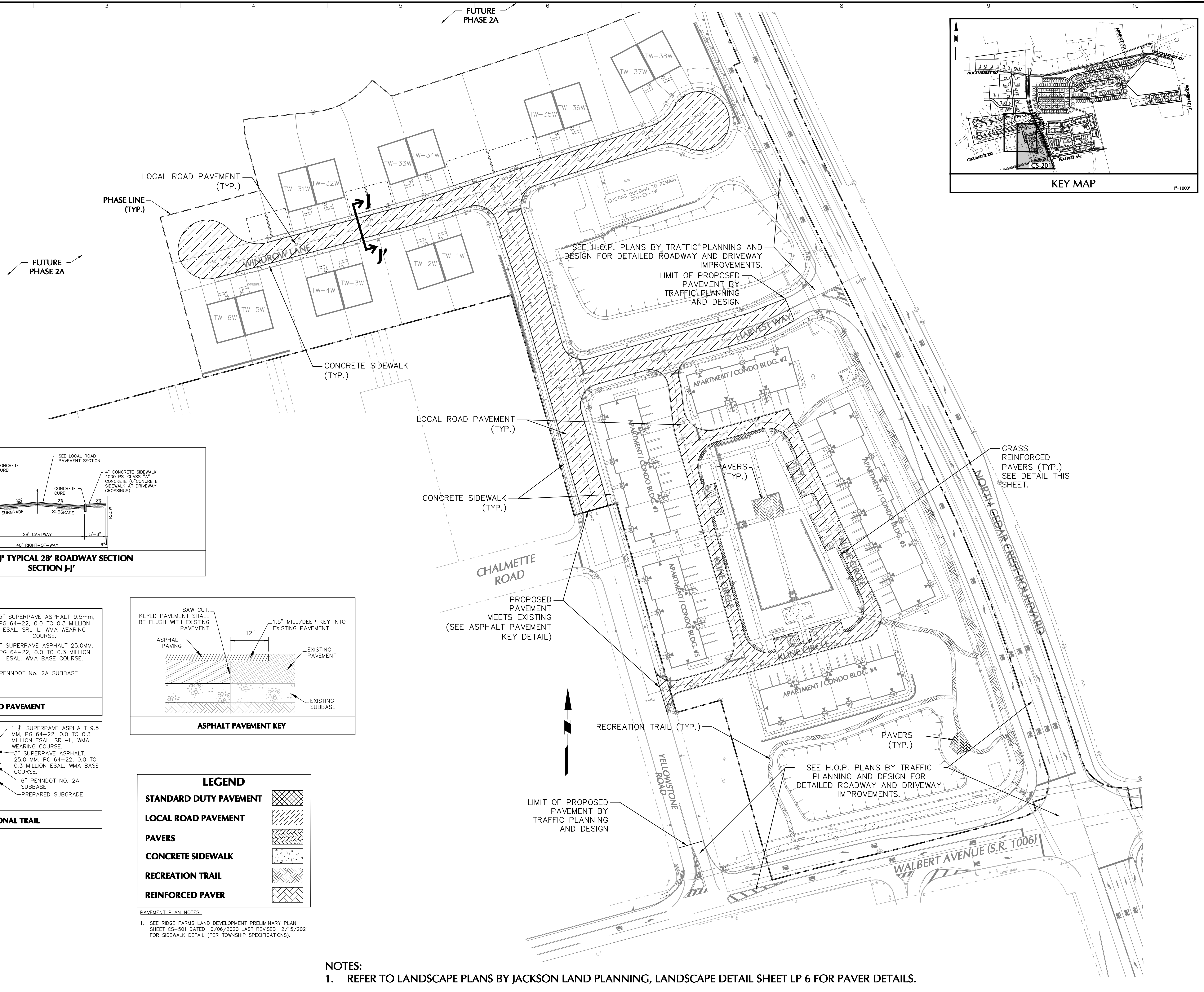
GRASS SEED ON SOD: TYPE TO BE AS SPECIFIED IN THE CONTRACT DOCUMENTS OR BY DESIGN LANDSCAPE ARCHITECT.
THE COMPOSITION OF THE MATERIAL WILL BE BASED ON LOCAL CONDITIONS AND DETERMINED BY THE LANDSCAPE ARCHITECT OR AS SPECIFIED IN THE CONTRACT DOCUMENTS

SOIL INFILL: THE COMPOSITION OF THE MATERIAL WILL BE BASED ON LOCAL CONDITIONS AND DETERMINED BY THE LANDSCAPE ARCHITECT OR AS SPECIFIED IN THE CONTRACT DOCUMENTS

ACTUAL FINISH GRADE: SOIL FILL LEVELS INSIDE PAVER GROOVES AFTER HEAVY WATER DOWN THIS IS THE ACTUAL SOIL PLANTING LEVEL.

SECTION: 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

REVISION DATE 8-24-2015



LEGEND

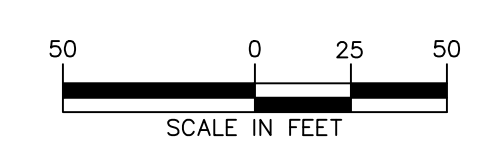
STANDARD DUTY PAVEMENT	
LOCAL ROAD PAVEMENT	
PAVERS	
CONCRETE SIDEWALK	
RECREATION TRAIL	
REINFORCED PAVER	

PAVEMENT PLAN NOTES:

- SEE RIDGE FARMS LAND DEVELOPMENT PRELIMINARY PLAN SHEET CS-501 DATED 10/06/2020 LAST REVISED 12/15/2021 FOR SIDEWALK DETAIL (PER TOWNSHIP SPECIFICATIONS).

NOTES:

- REFER TO LANDSCAPE PLANS BY JACKSON LAND PLANNING, LANDSCAPE DETAIL SHEET LP 6 FOR PAVER DETAILS.



OWNER/APPLICANT
KAY WALBERT LLC.
ATTN: RICK KOZE
5930 HAMILTON BLVD., SUITE 10
ALLENTOWN, PA 18106
610-395-6857

Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
5-18-23	REVISED PER TOWNSHIP COMMENTS	4.
3-16-23	REVISED PER TOWNSHIP COMMENTS	3.
1-19-23	REVISED PER TOWNSHIP COMMENTS	2.
7-21-22	REVISED PER TOWNSHIP COMMENTS	1.

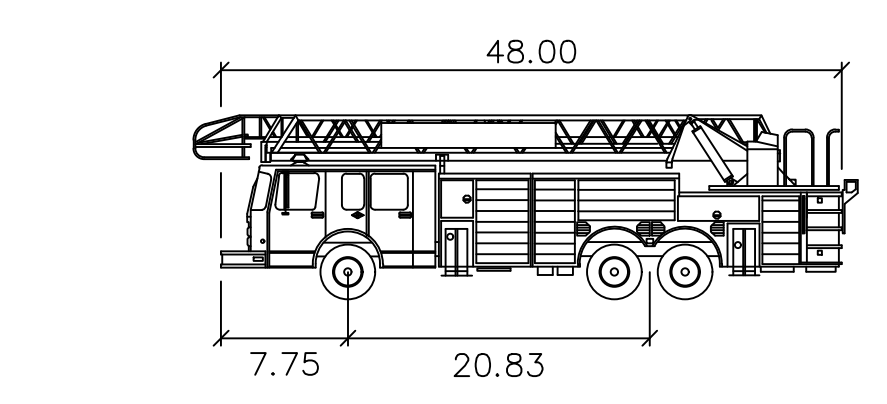
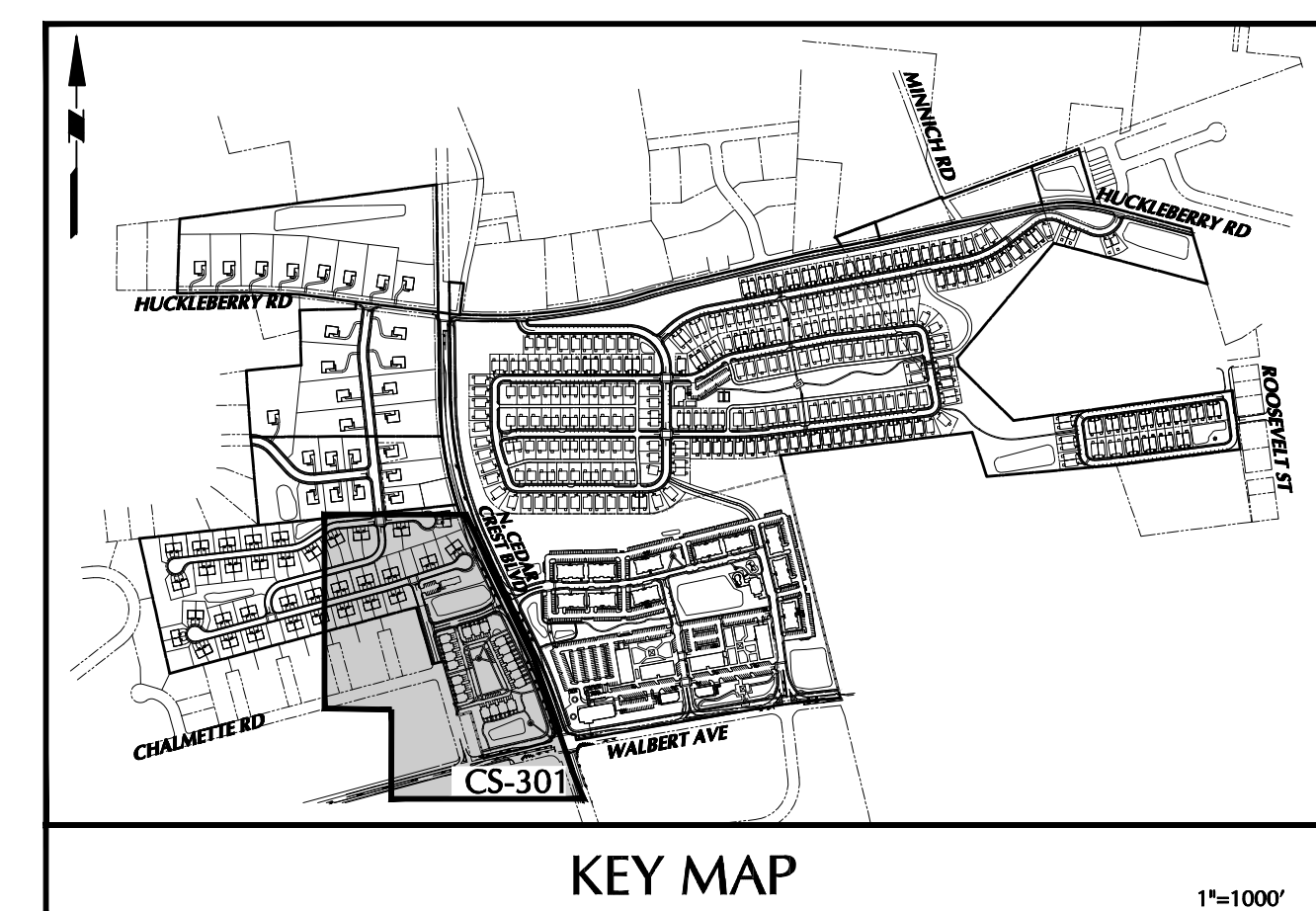
SIGNATURE: DATE SIGNED: _____
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.861.8900 F: 610.861.8501 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan GI, Inc.
Langan International LLC
Collectively known as Langan

Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
54872550358 1
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

Drawing Title: **PAVEMENT PLAN**

Project No. 240043301
Date 04/20/22
Scale 1" = 50'
Drawing By JDM Checked By JSE
Submission Date _____
Sheet 9 of 22



SOUTH WHITEHALL TOWNSHIP FIRE TRUCK

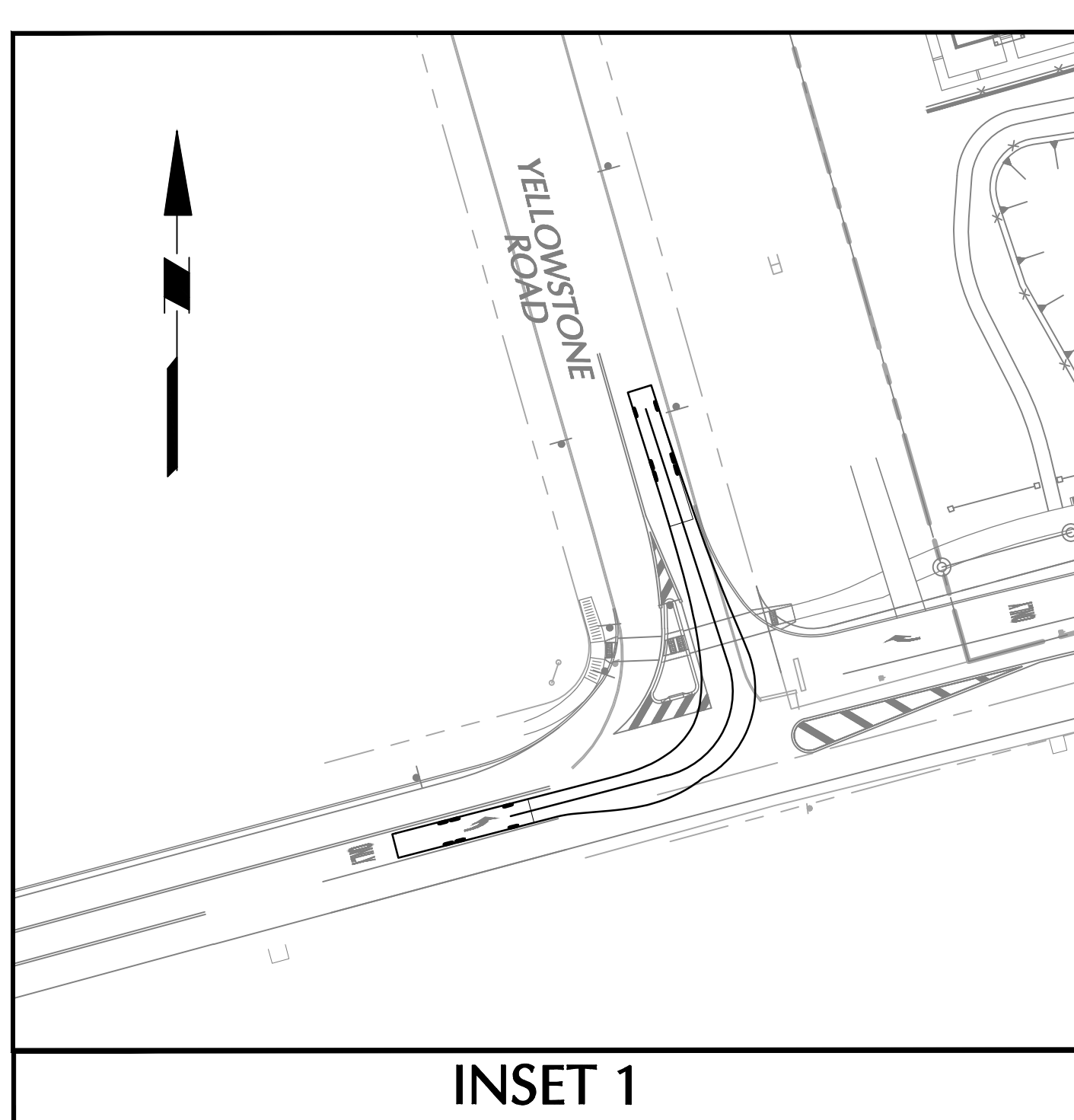
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Steering Angle	: 44.00

TRUCK DIMENSIONS

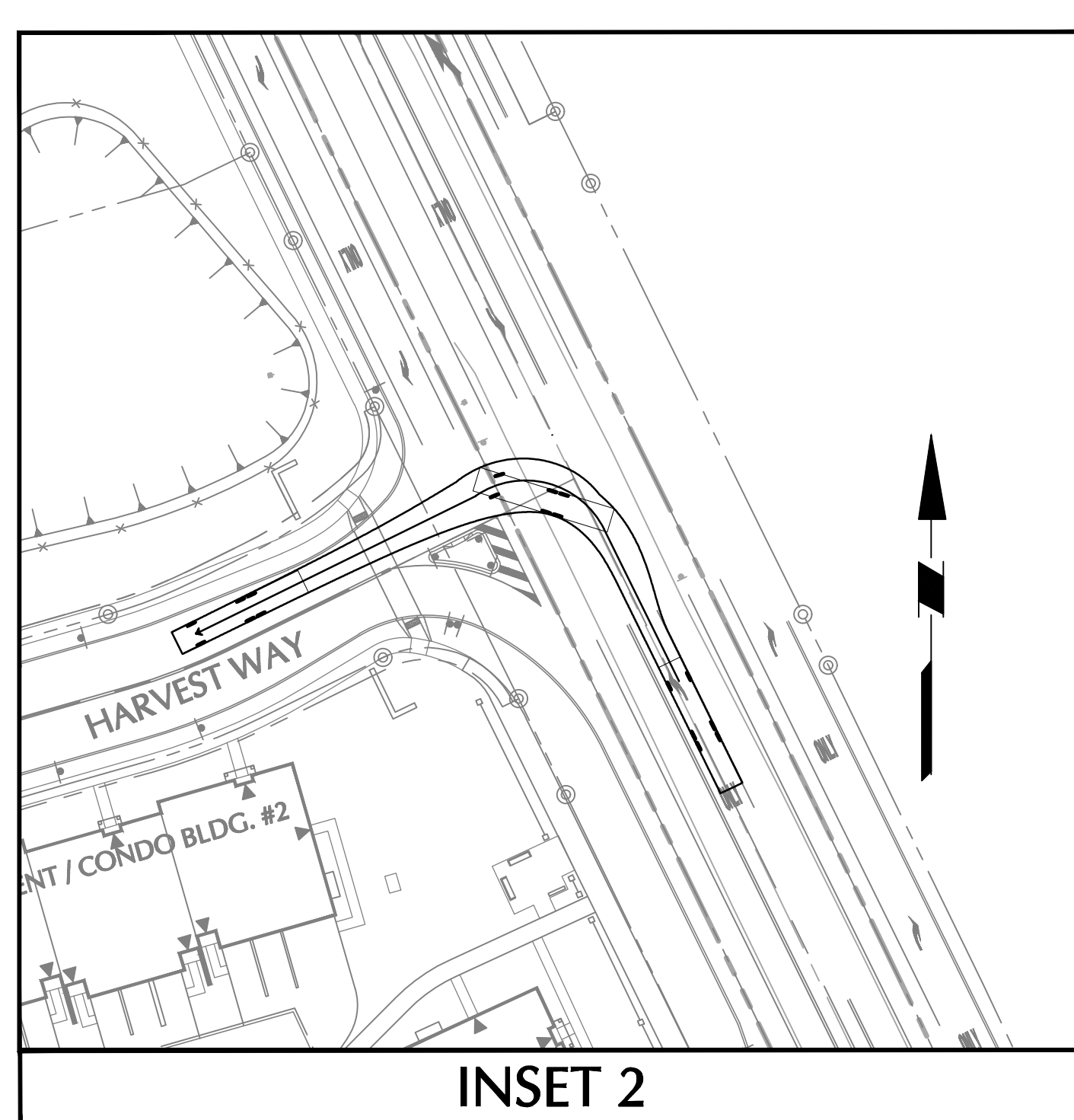
N.T.S.

NOTE:
TRUCK TURNS WERE GENERATED USING
AUTOTURN 11 FOR AUTOCAD CIVIL 3D 2021

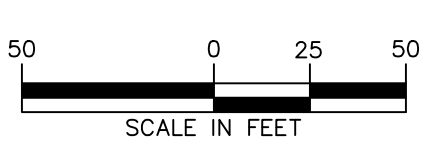
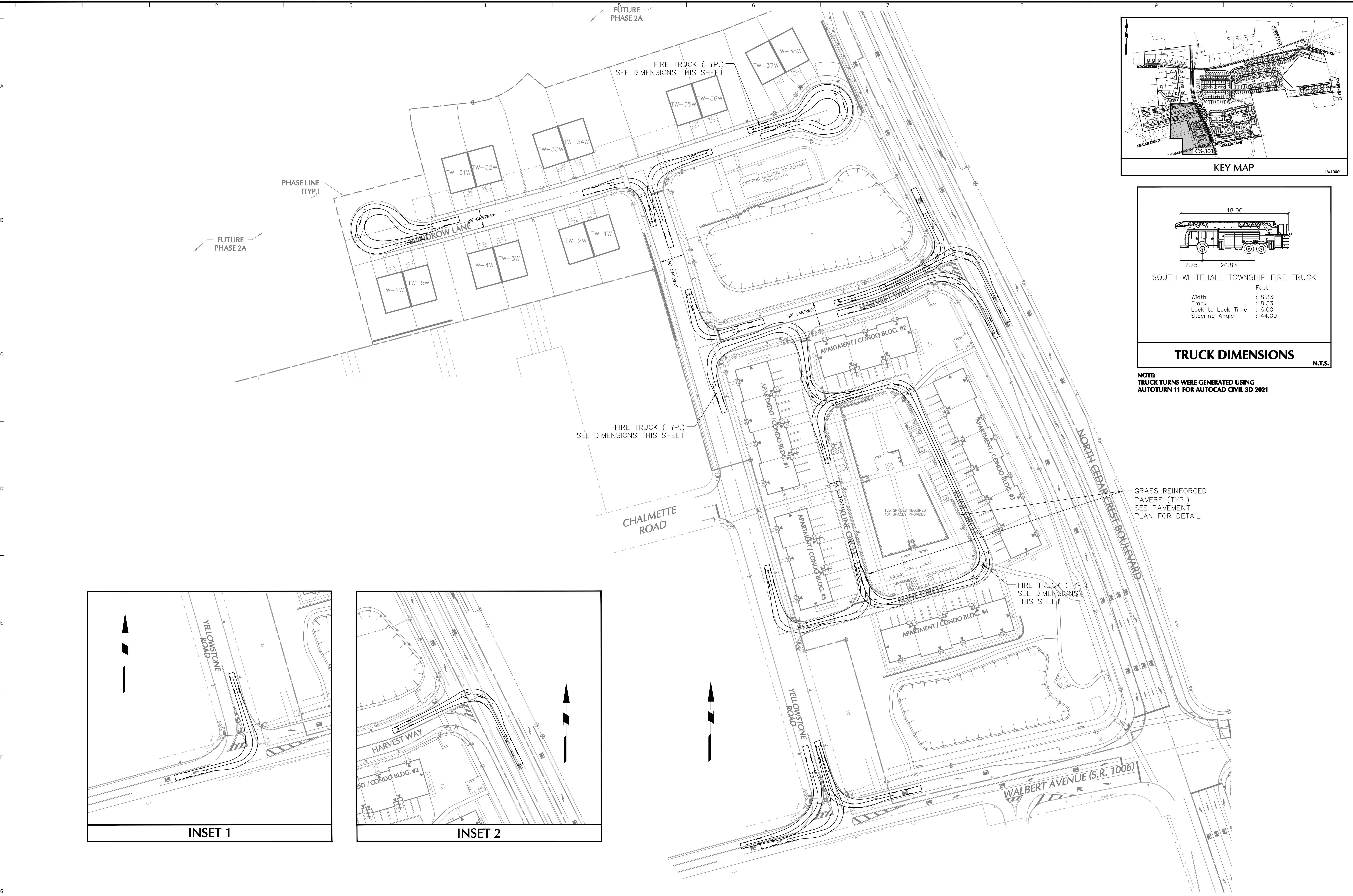
GRASS REINFORCED
PAVERS (TYP.)
SEE PAVEMENT
PLAN FOR DETAIL



INSET 1



INSET 2



Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
5-18-23	REVISED PER TOWNSHIP COMMENTS	4.
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1-19-23	REVISED PER TOWNSHIP COMMENTS	2.
7-21-22	REVISED PER TOWNSHIP COMMENTS	1.

SIGNATURE: *J. Scott Enelhardt* DATE SIGNED: _____
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.861.9500 F: 610.864.9501 www.langan.com
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Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

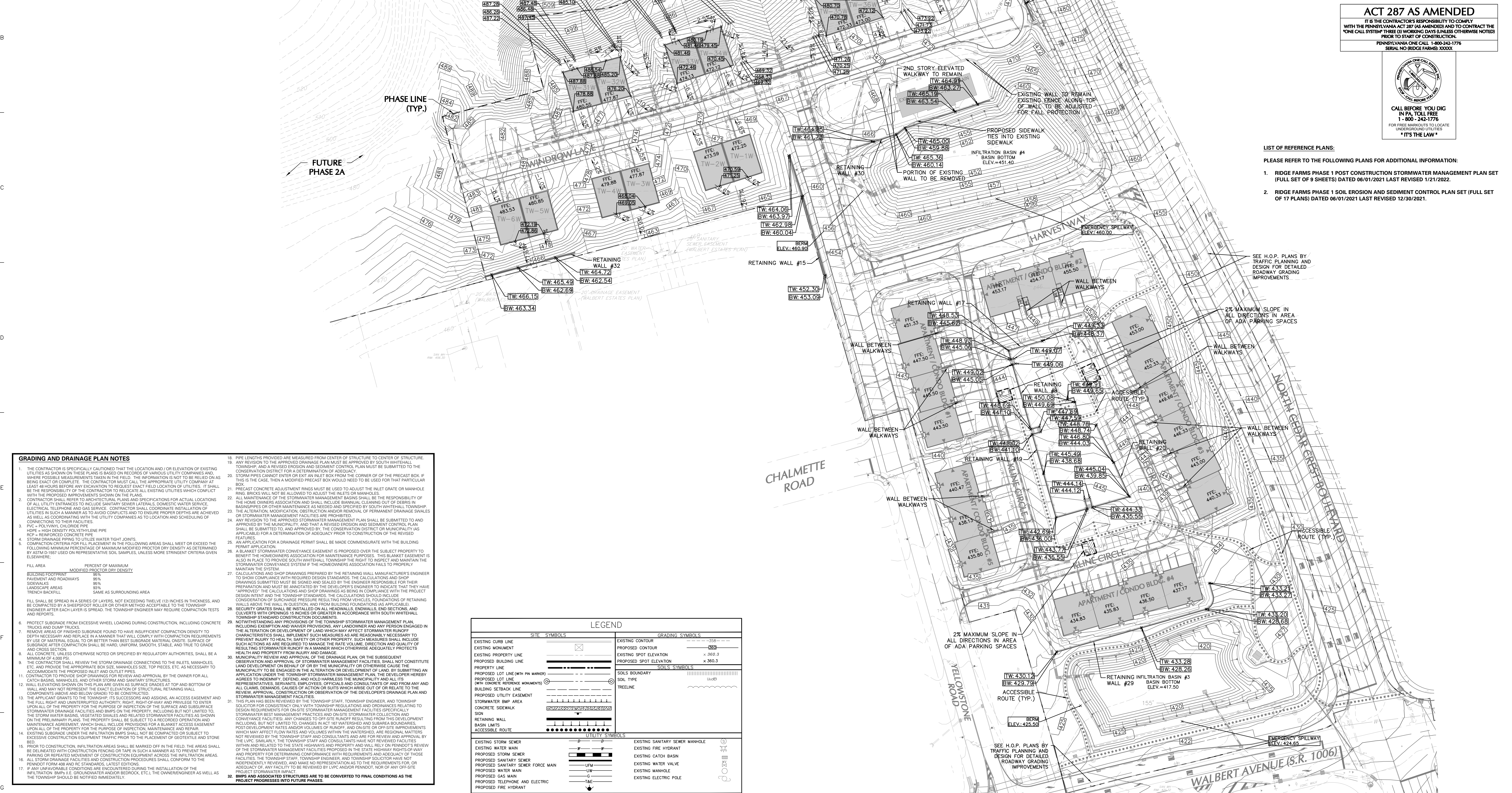
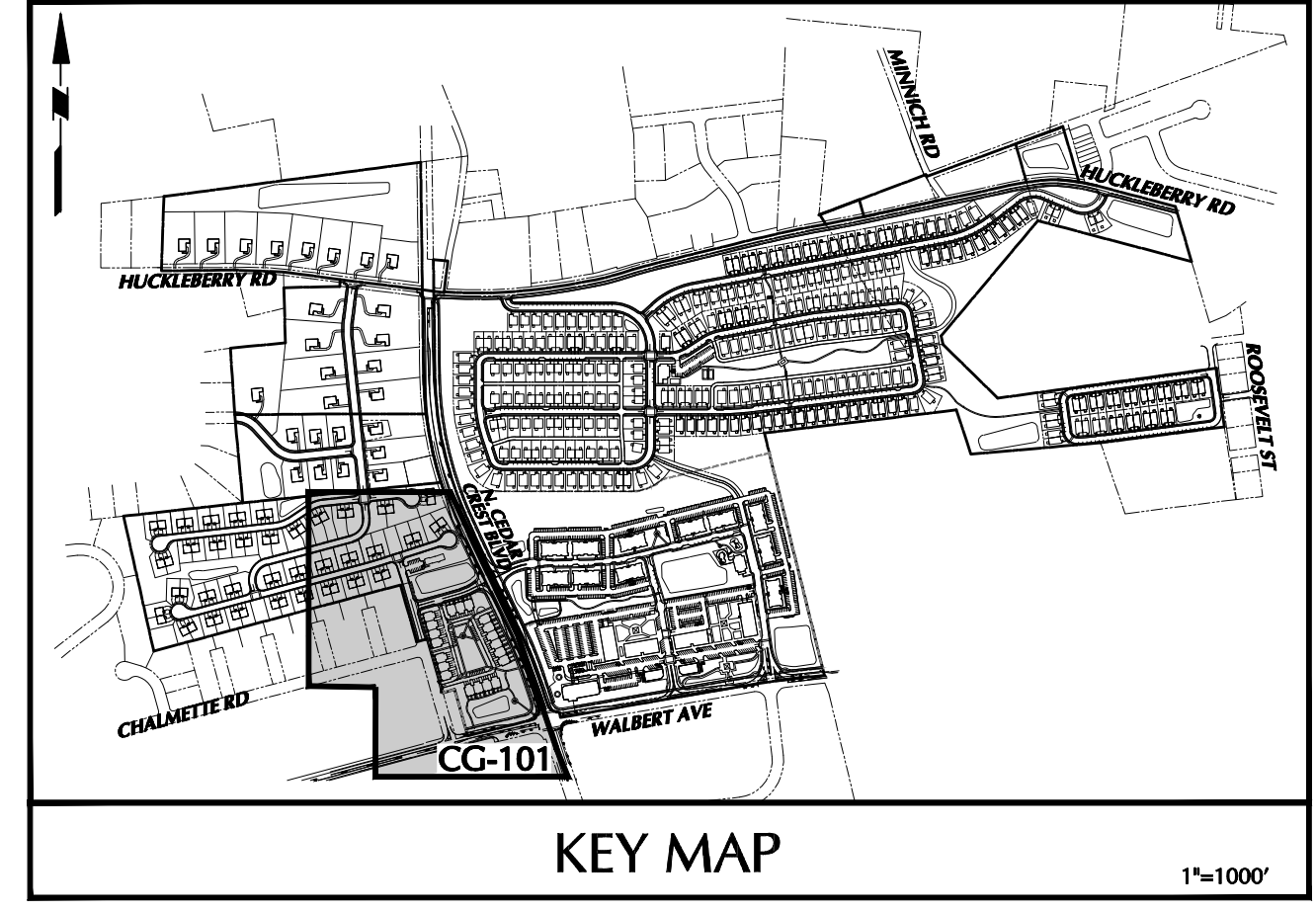
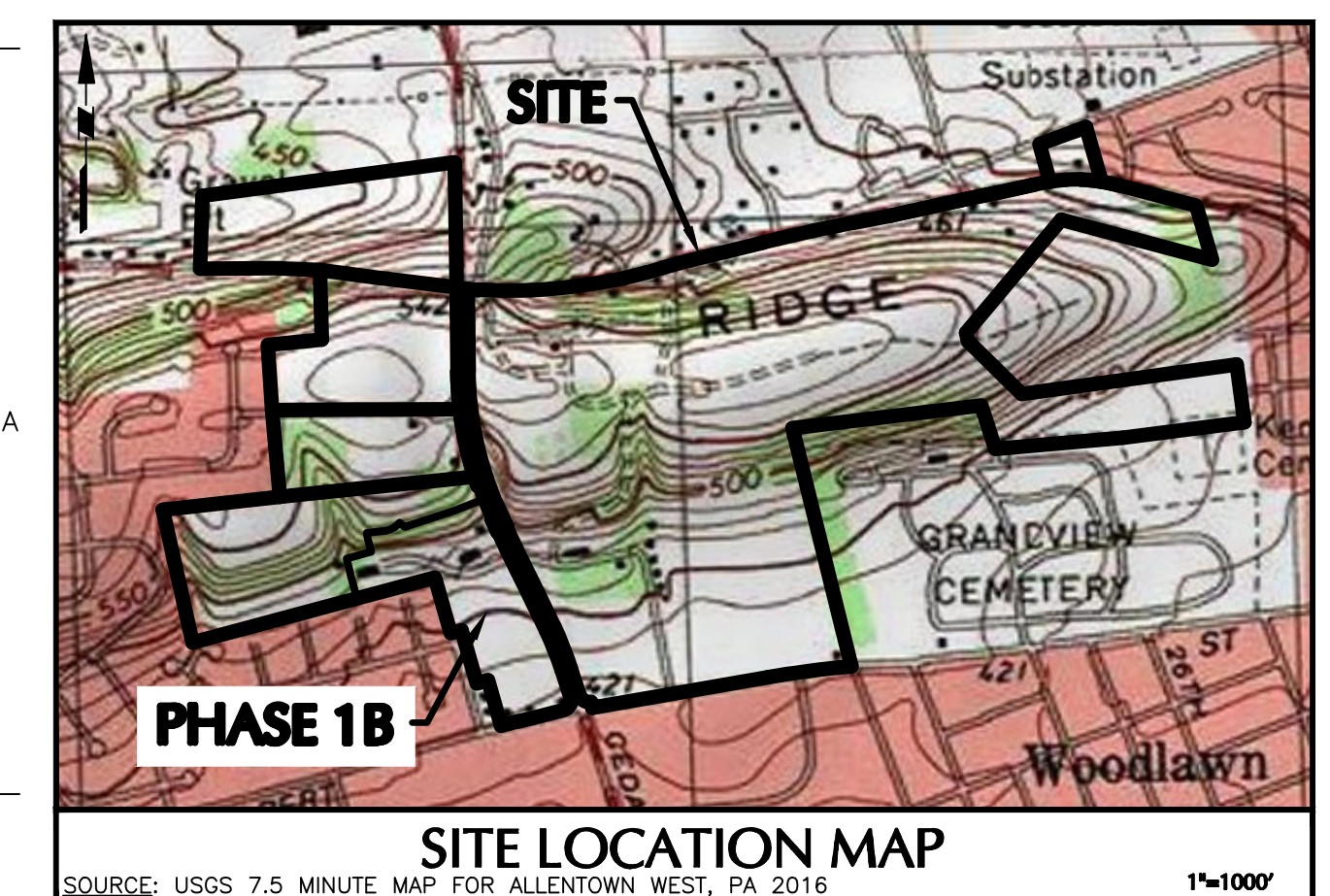
Drawing Title: **FIRE TRUCK TURN PLAN**

Project No.	240043301	Drawing No.	CS-301
Date	04/20/22	Scale	1" = 50'
Drawn By	JDM	Checked By	JSE
Submission Date			

OWNER/APPLICANT
KAY WALBERT LLC
ATTN: RICK KOZE
5930 HAMILTON BLVD., SUITE 10
ALLENTOWN, PA 18106
610-395-6857

FOR REFERENCE ONLY NOT FOR CONSTRUCTION OR RECORDING

LANGAN PROJECT NO. 240043301 SUBMISSION DATE: JULY 27, 2023



GRADING AND DRAINAGE PLAN NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND / OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OR VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- ALL CONCRETE SHALL REFER TO ARCHITECTURAL SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
- PVC - POLYVINYL CHLORIDE PIPE
- HDPE - HIGH DENSITY POLYETHYLENE PIPE
- ROOF - REINFORCED CONCRETE
- STORM DRAINAGE TYPING TO UTILIZE WATER TIGHT JOINTS.
- COMPACTION CRITERIA FOR FILL PLACEMENT IN THE FOLLOWING AREAS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM PERCENTAGE OF MAXIMUM MOISTURE PROCTOR DRY DENSITY AS DETERMINED BY ASTM D-1557 USED ON REPRESENTATIVE SOIL SAMPLES, UNLESS MORE STRINGENT CRITERIA GIVEN ELSEWHERE.
- FILL AREA PERCENT OF MAXIMUM MODIFIED PROCTOR DRY DENSITY
- BUILDING FOOTPRINT 95%
- PAVEMENT AND ROADWAYS 98%
- SIDEWALKS 95%
- LANDSCAPE AREAS 95%
- TRENCH BACKFILL SAME AS SURROUNDING AREA
- FILL SHALL BE SPREAD IN A SERIES OF LAYERS, NOT EXCEEDING TWELVE (12) INCHES IN THICKNESS, AND BE COMPACTED BY A SHEEPSFOOT ROLLER OR OTHER METHOD ACCEPTABLE TO THE TOWNSHIP ENGINEER AFTER EACH LAYER IS SPREAD. THE TOWNSHIP ENGINEER MAY REQUIRE COMPACTION TESTS AND REPORTS.
- PROTECT SUBGRADE FROM EXCESSIVE WHEEL LOADING DURING CONSTRUCTION, INCLUDING CONCRETE TRUCKS AND GOMR TRUCKS.
- REMOVE AREAS OF FINISHED SUBGRADE FOUND TO HAVE INSUFFICIENT COMPACTION DENSITY TO DEPTH NECESSARY AND REPLACE IN A MANNER THAT COMPLY WITH COMPACTION REQUIREMENTS BY USE OF MATERIAL EQUAL TO OR BETTER THAN BEST SUBGRADE MATERIAL ONSITE. SURFACE OF SUBGRADE AFTER REPAIR SHALL BE HARD, UNIFORM, SMOOTH, STABLE, AND TRUE TO GRADE AND CROSS SECTION.
- ALL CONCRETE, UNLESS OTHERWISE NOTED OR SPECIFIED BY REGULATORY AUTHORITIES, SHALL BE A MINIMUM OF 4000 PSI.
- THE CONTRACTOR SHALL REVIEW THE STORM DRAINAGE CONNECTIONS TO THE WALLS, MANHOLES, ETC. AND PROVIDE THE APPROPRIATE BOX SIZE, MANHOLE SIZE, TOP PIECES, ETC. AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
- CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE OWNER FOR ALL CATCH BASINS, MANHOLES, AND OTHER STORM AND SANITARY STRUCTURES.
- WALL ELEVATIONS SHOWN ON THIS PLAN ARE SURFACE GRADES AT TOP AND BOTTOM OF WALL AND MAY NOT REPRESENT THE EXACT ELEVATION OF STRUCTURAL RETAINING WALL COMPONENTS ABOVE AND BELOW GRADE TO BE CONSTRUCTED.
- THE APPLICANT GRANTS TO THE TOWNSHIP, ITS SUCCESSORS AND ASSIGNS, AN ACCESS EASEMENT AND THE FULL RIGHT AND UNRESTRICTED AUTHORITY, RIGHT, RIGHT OF WAY AND PRIVILEGE TO ENTER UPON ALL OF THE PROPERTY FOR THE PURPOSE OF INSPECTION OF THE SURFACE AND SUBSURFACE STORMWATER DRAINAGE FACILITIES AND BMPs ON THE PROPERTY, INCLUDING BUT NOT LIMITED TO THE STORM WATER BASINS, VEGETATED SWALES AND RELATED STORMWATER FACILITIES AS SHOWN ON THE PRELIMINARY PLANS. THE PROPERTY SHALL BE SUBJECT TO A RECORDED EASEMENT AND MAINTENANCE AGREEMENT WHICH SHALL INCLUDE PROVISIONS FOR A BLANKET ACCESS EASEMENT UPON ALL OF THE PROPERTY FOR THE PURPOSE OF INSPECTION, MAINTENANCE AND REPAIR.
- EXISTING SUBGRADE UNDER THE INFILTRATION BMPs SHALL NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT PRIOR TO THE LAYOUT OF GEOTEXTILE AND STONE BED.
- BEFORE TO CONSTRUCTION, INFILTRATION AREAS SHALL BE MARKED OFF IN THE FIELD. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FENCING OR TAPE IN SUCH A MANNER AS TO PREVENT THE ANCHOR OR REPEATED POSITIONING OF CONSTRUCTION EQUIPMENT ACROSS THE INFILTRATION AREAS.
- ALL STORM DRAINAGE FACILITIES AND CONSTRUCTION PROCEDURES SHALL CONFORM TO THE STANDARD FORM AND BEST PRACTICES, LATEST EDITION.
- IF ANY UNFAVORABLE CONDITIONS ARE ENCOUNTERED DURING THE INSTALLATION OF THE INFILTRATION BASIN IS GROUNDWATER AND/OR BEDROCK, ETC. THE OWNER/ENGINEER AS WELL AS THE TOWNSHIP SHOULD BE NOTIFIED IMMEDIATELY.
- PER ELEVATIONS PROVIDED ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE. ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY SOUTH WHITEHALL TOWNSHIP AND A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE CONSERVATION DISTRICT FOR A DETERMINATION OF ACCURACY.
- STORM PIPES CANNOT ENTER OR EXIT AN INLET BOX FROM THE CORNER OF THE PRECAST BOX. IF THIS IS THE CASE, THEN A MODIFIED PRECAST BOX WOULD NEED TO BE USED FOR THAT PARTICULAR BOX.
- PRECAST CONCRETE ADJUSTMENT RINGS MUST BE USED TO ADJUST THE INLET GRATE OR MANHOLE RING. BRICKS WILL NOT BE ALLOWED TO ADJUST THE INLETS OR MANHOLES.
- ALL MAINTENANCE OF THE STORMWATER MANAGEMENT BASINS SHALL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION AND SHALL INCLUDE ANNUAL CLEANING OUT OF DEBRIS IN BASINS/PIPES OR OTHER MAINTENANCE AS NEEDED AND SPECIFIED BY SOUTH WHITEHALL TOWNSHIP OR STORMWATER MANAGEMENT FACILITIES ARE PROHIBITED.
- THE ALTERATION, MODIFICATION, OBSTRUCTION AND/OR REMOVAL OF PERMANENT DRAINAGE SWALES OR STORMWATER MANAGEMENT FACILITIES ARE PROHIBITED.
- ANY REVISION TO THE APPROVED STORMWATER MANAGEMENT PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN SHALL BE SUBMITTED TO, AND APPROVED BY, THE CONSERVATION DISTRICT OF MUNICIPALITY AS APPLICABLE FOR A DETERMINATION OF ACCURACY PRIOR TO CONSTRUCTION OF THE REVISED FEATURES.
- AN APPLICATION FOR A DRAINAGE PERMIT SHALL BE MADE CONTEMPORANEOUS WITH THE BUILDING PERMIT APPLICATION.
- A BLANKET STORMWATER CONFORMANCE EASEMENT IS PROPOSED OVER THE SUBJECT PROPERTY TO BENEFIT THE HOMEOWNERS ASSOCIATION FOR MAINTENANCE PURPOSES. THIS BLANKET EASEMENT IS ALSO IN PLACE TO PROVIDE SOUTH WHITEHALL TOWNSHIP THE RIGHT TO INSPECT AND MAINTAIN THE STORMWATER CONVEYANCE SYSTEM AS THE HOMEOWNERS ASSOCIATION FAILS TO PROPERLY MAINTAIN THE SYSTEM.
- CALCULATIONS AND SHOP DRAWINGS PREPARED BY THE RETAINING WALL MANUFACTURER'S ENGINEER TO SHOW COMPLIANCE WITH REQUIRED DESIGN STANDARDS, THE CALCULATIONS AND SHOP DRAWINGS SUBMITTED MUST BE SIGNED AND SEALED BY THE ENGINEER RESPONSIBLE FOR THEIR PREPARATION AND MUST BE ANNOTATED BY THE DEVELOPER'S ENGINEER TO INDICATE THAT THEY HAVE APPROVED THE CALCULATIONS AND SHOP DRAWINGS AS BEING IN COMPLIANCE WITH THE PROJECT DESIGN INTENT AND THE TOWNSHIP STANDARDS. THE CALCULATIONS SHOULD INCLUDE CONSIDERATION OF SURCHARGE PRESSURE RESULTING FROM VEHICLES, FOUNDATIONS OF RETAINING WALLS ABOVE THE WALL IN QUESTION, AND FROM BUILDING FOUNDATIONS (AS APPLICABLE). SECURITY GRATES SHALL BE INSTALLED ON ALL HEADWALLS, ENDWALLS AND SECTIONS, AND CULVERTS WITH OPENINGS IS INCHES OR GREATER IN ACCORDANCE WITH SOUTH WHITEHALL TOWNSHIP STANDARD DOCUMENTS.
- NOTWITHSTANDING ANY PROVISIONS OF THE TOWNSHIP STORMWATER MANAGEMENT PLAN INCLUDING EXEMPTION AND WAIVER PROVISIONS, ANY LANDOWNER AND ANY PERSON ENGAGED IN THE ALTERATION OR DEVELOPMENT OF LAND WHICH MAY AFFECT STORMWATER RUNOFF CHARACTERISTICS SHALL IMPLEMENT SUCH MEASURES AS ARE REASONABLY NECESSARY TO PREVENT INJURY TO HEALTH, SAFETY OR OTHER PROPERTY. SUCH MEASURES SHALL INCLUDE SUCH ACTIONS AS ARE NECESSARY TO MANAGE THE DIRECTION AND VOLUME OF RUNOFF RESULTING FROM STORMWATER RUNOFF IN A MANNER WHICH OTHERWISE ADEQUATELY PROTECTS HEALTH AND SAFETY FROM INJURY AND DAMAGE.
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LEGEND

EXISTING CURB LINE	EXISTING MONUMENT	EXISTING PROPERTY LINE	PROPERTY LINE	PROPOSED LOT LINE (WITH PIN MARKER)	BUILDING SETBACK LINE	PROPOSED UTILITY EASEMENT	STORMWATER BMP AREA	CONCRETE SIDEWALK	SIGN	RETAINING WALL	PROPOSED WATER MAIN	PROPOSED SANITARY SEWER	PROPOSED SANITARY SEWER FORCE MAIN	PROPOSED WATER MAIN	PROPOSED GAS MAIN	PROPOSED TELEPHONE AND ELECTRIC	PROPOSED FIRE HYDRANT
(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)
(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)
(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)
(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)	(Symbol)

THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES. ONLY THE LOCATION OF VISIBLE UTILITIES ON OR ABOVE THE SURFACE OF THE EARTH THAT CAN BE REASONABLY LOCATED USING STANDARD SURVEY PROCEDURES SHALL BE CERTIFIED TO. NO CERTIFICATION IS MADE BY LANGAN AS TO THE ACCURACY OR COMPLETENESS OF THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. IT IS IMPERATIVE THAT PRIOR TO ANY CONSTRUCTION IN THE AREA THAT A UTILITY MARK-OUT IS ORDERED. CALL 1-800-242-1776

OWNER/APPLICANT
KAY WALBERT LLC.
ATTN: RICHARD M. KOZE, JR.
5930 HAMILTON BLVD., SUITE 10
ALLENTOWN, PA 18106
610-395-6857

REVISIONS

Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
5-18-23	REVISED PER TOWNSHIP COMMENTS	4.
3-16-23	REVISED PER TOWNSHIP COMMENTS	3.
1-19-23	REVISED PER TOWNSHIP COMMENTS	2.
7-21-22	REVISED PER TOWNSHIP COMMENTS	1.

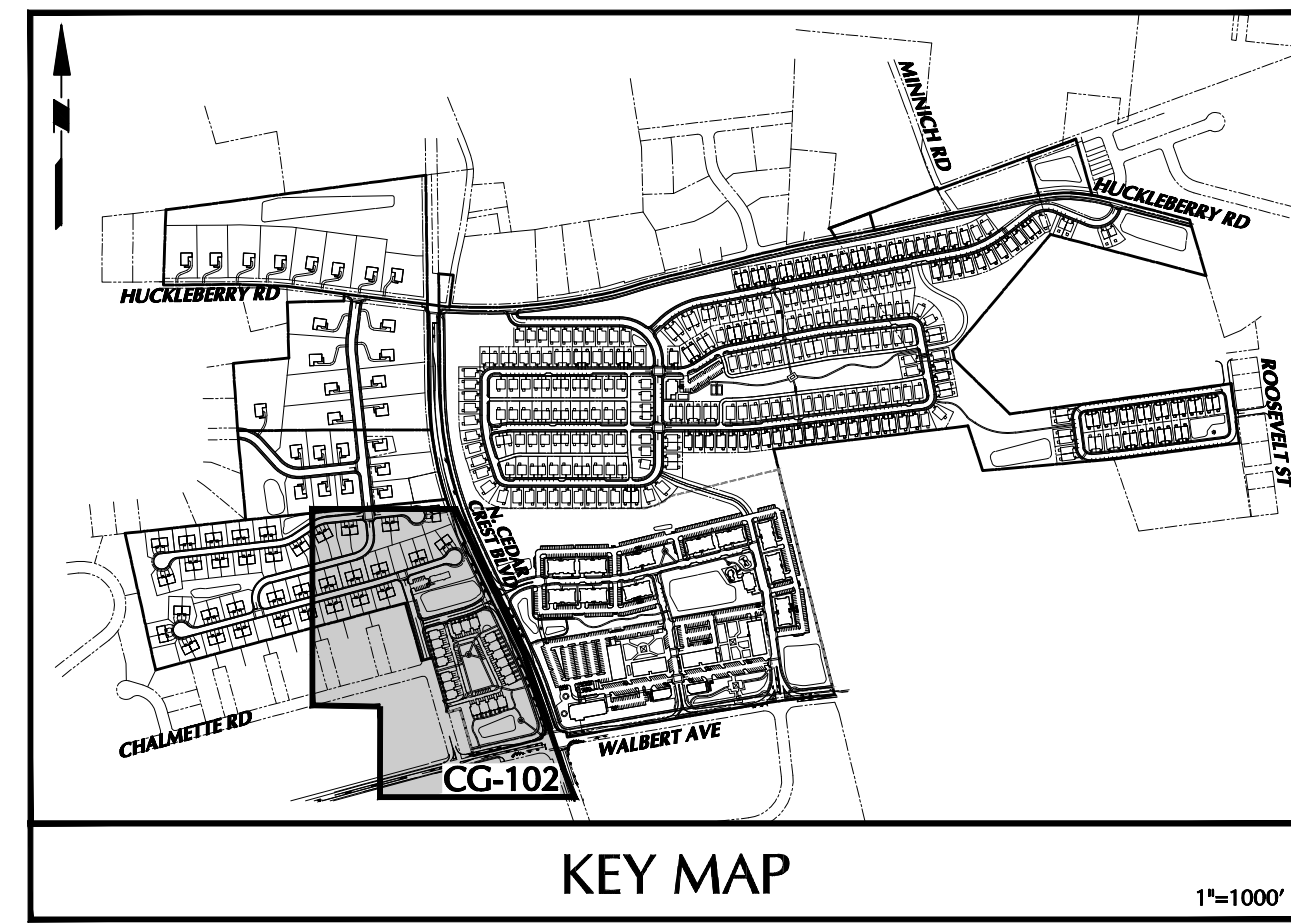
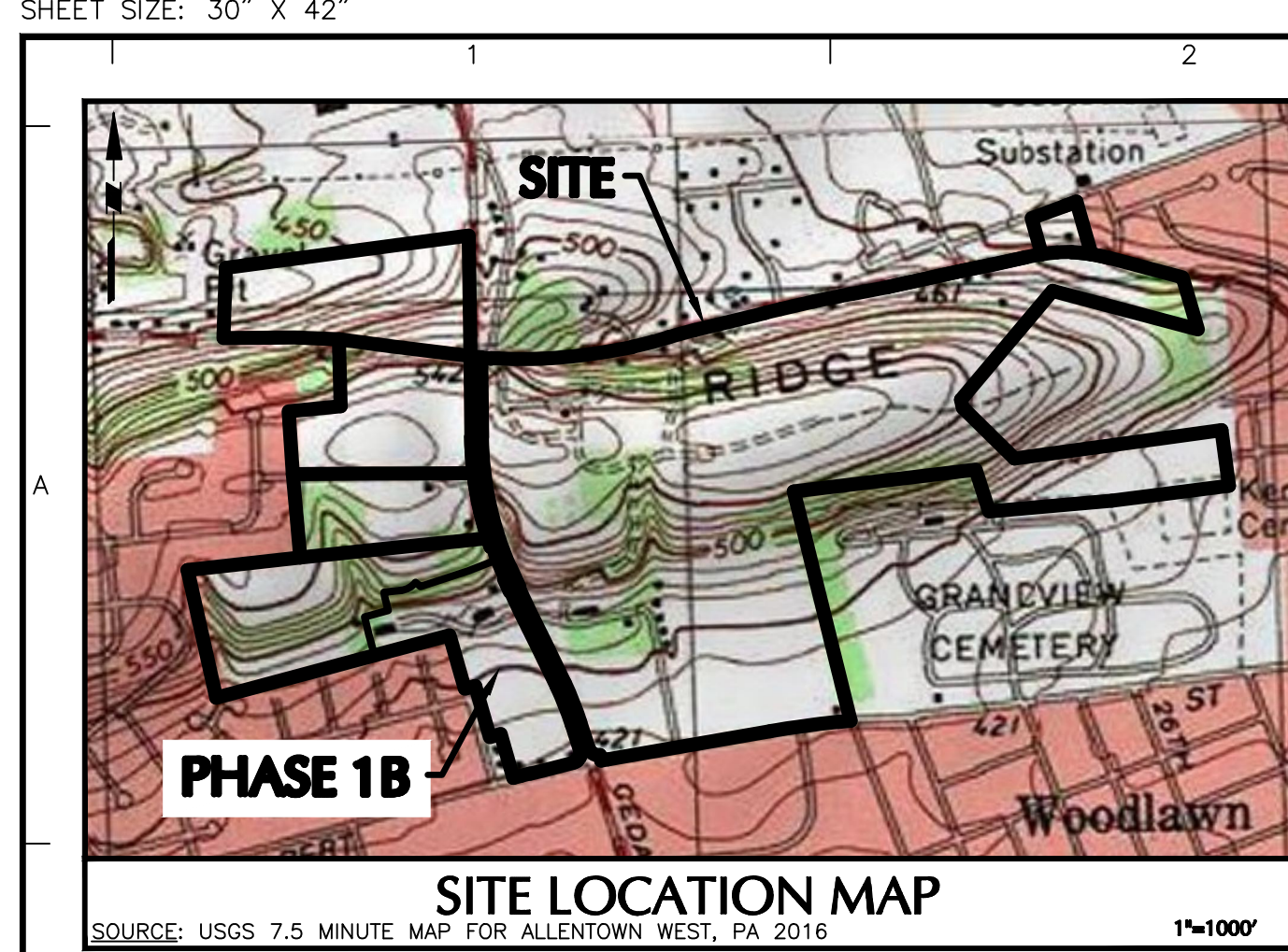
LANGAN INTERNATIONAL LLC
Collectively known as Langan
LANGAN INTERNATIONAL LLC
1500 MARKET STREET, SUITE 200, BETHLEHEM, PA 18018
T 610 984 9500 F 610 984 9501 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. SA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. SA
Langan Engineering and Environmental Services, Inc.
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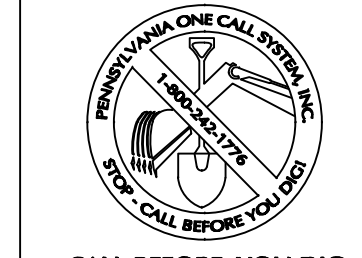
Project
RIDGE FARMS PHASE 1B FINAL PLANS
548725550358 1
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

Drawing Title
GRADING PLAN

Project No.
240043301
Date
04/20/22
Scale
1" = 50'
Drawing By
KG
Checked By
JSE
Submission Date
04/20/22



ACT 287 AS AMENDED
IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 AS AMENDED AND TO CONTRACT THE "ONE CALL SYSTEM" THREE BUSINESS DAYS UNLESS OTHERWISE NOTED PRIOR TO START OF CONSTRUCTION.
PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO. RIDGE FARMS: X0004



CALL BEFORE YOU DIG
1-800-242-1776
FOR FREE SERVICES TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

THE PURPOSE OF THIS PLAN IS TO INCLUDE ADDITIONAL SPOT ELEVATIONS AND DETAILS ON THE ACCESSIBLE ROUTES

LIST OF REFERENCE PLANS:
PLEASE REFER TO THE FOLLOWING PLANS FOR ADDITIONAL INFORMATION:

- RIDGE FARMS PHASE 1 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN SET (FULL SET OF 9 SHEETS) DATED 06/01/2021 LAST REVISED 1/21/2022.
- RIDGE FARMS PHASE 1 SOIL EROSION AND SEDIMENT CONTROL PLAN SET (FULL SET OF 17 PLANS) DATED 06/01/2021 LAST REVISED 12/30/2021.

GRADING AND DRAINAGE PLAN NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND / OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OR VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- ALL MAINTENANCE OF THE STORMWATER MANAGEMENT BASINS SHALL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION AND SHALL INCLUDE BIENNIAL CLEANING OUT OF DEBRIS IN BASINS OR OTHER MAINTENANCE AS NEEDED AND SPECIFIED BY SOUTH WHITEHALL TOWNSHIP OR STORMWATER MANAGEMENT FACILITIES ARE PROHIBITED.
- THE ALTERATION, MODIFICATION, OBSTRUCTION AND/OR REMOVAL OF PERMANENT CHANNEL SWALES OR STORMWATER MANAGEMENT FACILITIES SHALL BE SUBMITTED TO AND APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE CONSERVATION DISTRICT OF MANICAPITALITY AS APPLICABLE FOR A DETERMINATION OF ADEQUACY PRIOR TO CONSTRUCTION OF THE REVISED FEATURES.
- AN APPLICATION FOR A DRAINAGE PERMIT SHALL BE MADE CONTEMPORANEOUS WITH THE BUILDING PERMIT APPLICATION.
- A BLANKET STORMWATER CONFORMANCE EASEMENT IS PROPOSED OVER THE SUBJECT PROPERTY TO BENEFIT THE HOMEOWNERS ASSOCIATION FOR MAINTENANCE PURPOSES. THIS BLANKET EASEMENT IS ALSO IN PLACE TO PROVIDE SOUTH WHITEHALL TOWNSHIP THE RIGHT TO INSPECT AND MAINTAIN THE STORMWATER CONVEYANCE SYSTEM IF THE HOMEOWNERS ASSOCIATION FAILS TO PROPERLY MAINTAIN THE SYSTEM.
- CALCULATIONS AND SHOP DRAWINGS PREPARED BY THE RETAINING WALL MANUFACTURER'S ENGINEER TO SHOW COMPLIANCE WITH REQUIRED DESIGN STANDARDS, THE CALCULATIONS AND SHOP DRAWINGS SUBMITTED MUST BE SIGNED AND SEALED BY THE ENGINEER RESPONSIBLE FOR THEIR PREPARATION AND MUST BE ANNOTATED BY THE DEVELOPER'S ENGINEER TO INDICATE THAT THEY HAVE APPROVED THE CALCULATIONS AND SHOP DRAWINGS AS BEING IN COMPLIANCE WITH THE PROJECT DESIGN INTENT AND THE TOWNSHIP STANDARDS. THE CALCULATIONS SHOULD INCLUDE CONSIDERATION OF SURCHARGE PRESSURE RESULTING FROM VEHICLES, FOUNDATIONS OF RETAINING WALLS ABOVE THE WALL IN QUESTION, AND FROM BUILDING FOUNDATIONS (AS APPLICABLE).
- SECURITY GRATES SHALL BE INSTALLED ON ALL HEADWALLS, ENDWALLS, END SECTIONS, AND CULVERTS WITH OPENINGS 18 INCHES OR GREATER IN ACCORDANCE WITH SOUTH WHITEHALL TOWNSHIP STANDARD CONSTRUCTION DOCUMENTS.
- NOTWITHSTANDING ANY PROVISIONS OF THE TOWNSHIP STORMWATER MANAGEMENT PLAN INCLUDING EXEMPTION AND WAIVER PROVISIONS, ANY LANDOWNER AND ANY PERSON ENGAGED IN THE ALTERATION OR DEVELOPMENT OF LAND WHICH MAY AFFECT STORMWATER RUNOFF CHARACTERISTICS SHALL INDEMNIFY AND HOLD HARMLESS THE MUNICIPALITY AND ALL ITS REPRESENTATIVES, SERVANTS, EMPLOYEES, OFFICIALS AND CONSULTANTS OF AND FROM ANY AND ALL CLAIMS, DAMAGES, CAUSES OF ACTION OR SUITS WHICH ARISE OUT OF OR RELATE TO THE REVIEW, APPROVAL, CONSTRUCTION OR OBSERVANCE OF THE DEVELOPER'S DRAINAGE PLAN AND STORMWATER MANAGEMENT FACILITIES.
- THIS PLAN HAS BEEN REVIEWED BY THE TOWNSHIP STAFF, TOWNSHIP ENGINEER, AND TOWNSHIP SOLICITOR FOR CONSISTENCY ONLY WITH TOWNSHIP REGULATIONS AND ORDINANCES RELATING TO STORMWATER MANAGEMENT FACILITIES FOR ON-SITE STORMWATER MANAGEMENT FACILITIES. SPECIFICALLY, STORMWATER BEST MANAGEMENT PRACTICES AND ON-SITE STORMWATER COLLECTION AND STORAGE REQUIREMENTS FOR ANY CHANGES TO OFF-SITE RUNOFF RESULTING FROM THIS DEVELOPMENT INCLUDING, BUT NOT LIMITED TO, CHANGES IN ACT 167 WATERSHED AND SUBAREA BOUNDARIES, POST-DEVELOPMENT FLOOD RATES AND VOLUMES OF RUNOFF, AND ON-SITE IMPROVEMENTS WHICH MAY AFFECT FLOOD RATES AND VOLUMES WITHIN THE WATERSHED, ARE REGIONAL MATTERS NOT REVIEWED BY THE TOWNSHIP STAFF AND CONSULTANTS AND ARE FOR REVIEW AND APPROVAL BY THE LOCALITY. SIMILARLY, THE TOWNSHIP STAFF AND CONSULTANTS HAVE NOT REVIEWED FACILITIES WITHIN AND RELATED TO THE STATE HIGHWAYS AND PROPERTY AND RIGHTS-OF-WAY OF THE STORMWATER MANAGEMENT FACILITIES PROPOSED IN THE STATE HIGHWAYS RIGHTS-OF-WAY AND PROPERTY FOR DETERMINATION OF COMPLIANCE WITH REQUIREMENTS AND ADEQUACY OF THOSE FACILITIES. THE TOWNSHIP STAFF, TOWNSHIP ENGINEER, AND TOWNSHIP SOLICITOR HAVE NOT INDEPENDENTLY REVIEWED AND MADE NO REPRESENTATION AS TO THE REQUIREMENTS OR ADEQUACY OF ANY FACILITY TO BE REVIEWED BY LPVC AND/OR PENNDOT, NOR OF ANY OFF-SITE PROJECT CONSTRUCTION AND/OR RELATED TO THE FACILITY.
- BMPs AND ASSOCIATED STRUCTURES ARE TO BE CONVERTED TO FINAL CONDITIONS AS THE PROJECT PROGRESSES INTO FUTURE PHASES.

- PIPE LENGTHS PROVIDED ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE. ANY REVISION TO THE APPROVED DRAINAGE PLAN MUST BE APPROVED BY SOUTH WHITEHALL TOWNSHIP, AND A REVISED EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE CONSERVATION DISTRICT FOR A DETERMINATION OF ADEQUACY.
- STORM PIPES CANNOT ENTER OR EXIT AN INLET BOX FROM THE CORNER OF THE PRECAST BOX. IF THIS IS THE CASE, THEN A MODIFIED PRECAST BOX WOULD NEED TO BE USED FOR THAT PARTICULAR BOX.
- PRECAST CONCRETE ADJUSTMENT RINGS MUST BE USED TO ADJUST THE INLET GRATE OR MANHOLE RING. BRICKS WILL NOT BE ALLOWED TO ADJUST THE INLETS OR MANHOLES.
- ALL MAINTENANCE OF THE STORMWATER MANAGEMENT BASINS SHALL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION AND SHALL INCLUDE BIENNIAL CLEANING OUT OF DEBRIS IN BASINS OR OTHER MAINTENANCE AS NEEDED AND SPECIFIED BY SOUTH WHITEHALL TOWNSHIP OR STORMWATER MANAGEMENT FACILITIES ARE PROHIBITED.
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LEGEND	
EXISTING CURB LINE	EXISTING CONTOUR
EXISTING MONUMENT	PROPOSED CONTOUR
EXISTING PROPERTY LINE	PROPOSED SPOT ELEVATION
PROPOSED BUILDING LINE	PROPOSED SPOT ELEVATION
PROPERTY LINE	SOIL TYPE
PROPOSED LOT LINE (WITH PIN MARKER)	SOILS BOUNDARY
PROPOSED LOT LINE (WITH CONCRETE REFERENCE MONUMENTS)	SOIL TYPE
BUILDING SETBACK LINE	TREE LINE
PROPOSED UTILITY EXISTENCE	
STORMWATER BMP AREA	
CONCRETE SIDEWALK	
SIGN	
RETAINING WALL	
BASEIN LIMITS	
ACCESSIBLE ROUTE	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING WATER MAIN	EXISTING FIRE HYDRANT
PROPOSED STORM SEWER	EXISTING CATCH BASIN
PROPOSED SANITARY SEWER	EXISTING WATER VALVE
PROPOSED WATER MAIN	EXISTING MANHOLE
PROPOSED SANITARY SEWER FORCE MAIN	EXISTING ELECTRIC POLE
PROPOSED GAS MAIN	
PROPOSED TELEPHONE AND ELECTRIC	
PROPOSED FIRE HYDRANT	



Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
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SIGNATURE: JEFFREY HARDY DATE SIGNED: 04/20/22
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T 610.864.8500 F 610.864.8501 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
54872550358 1
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

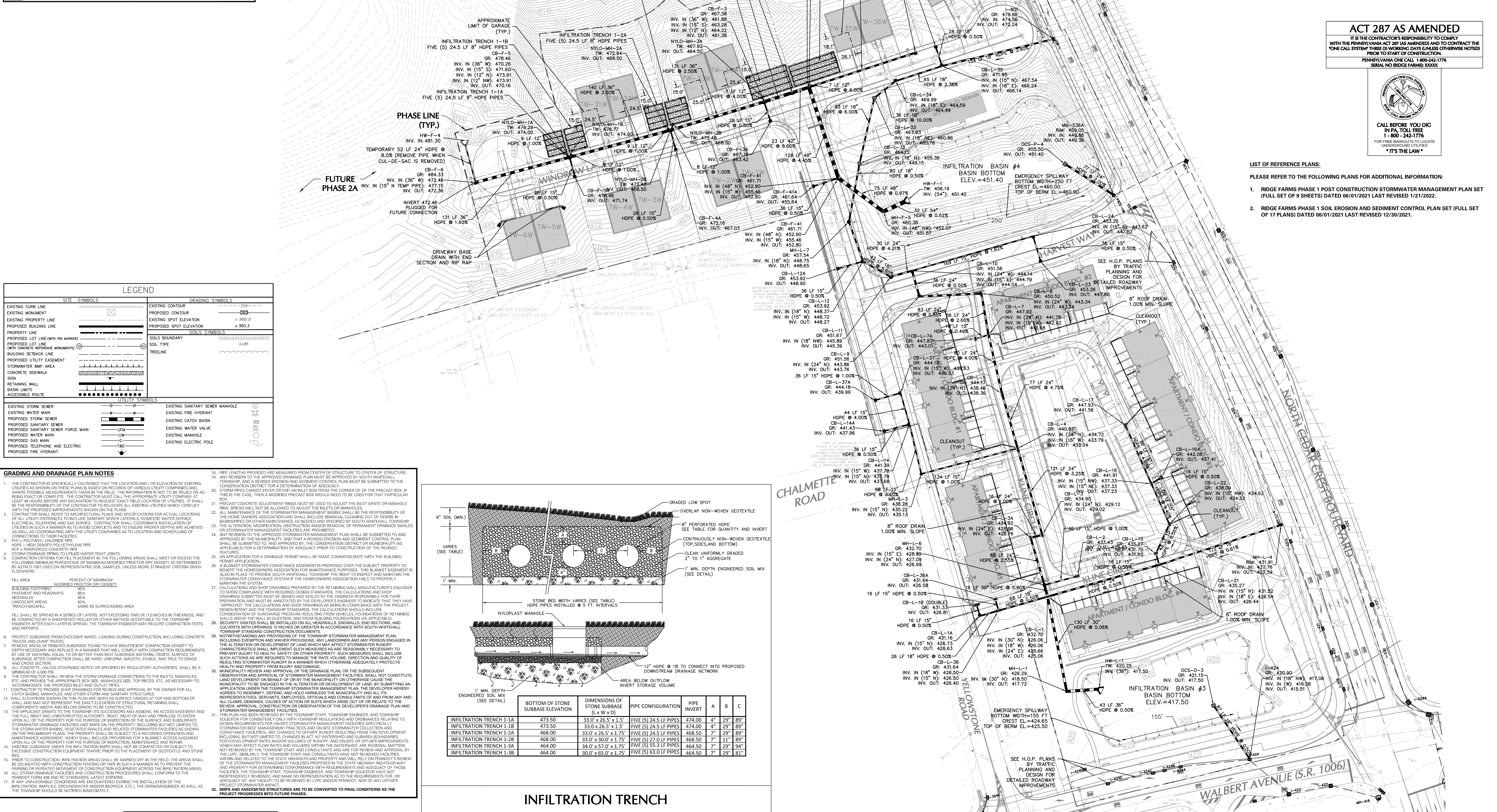
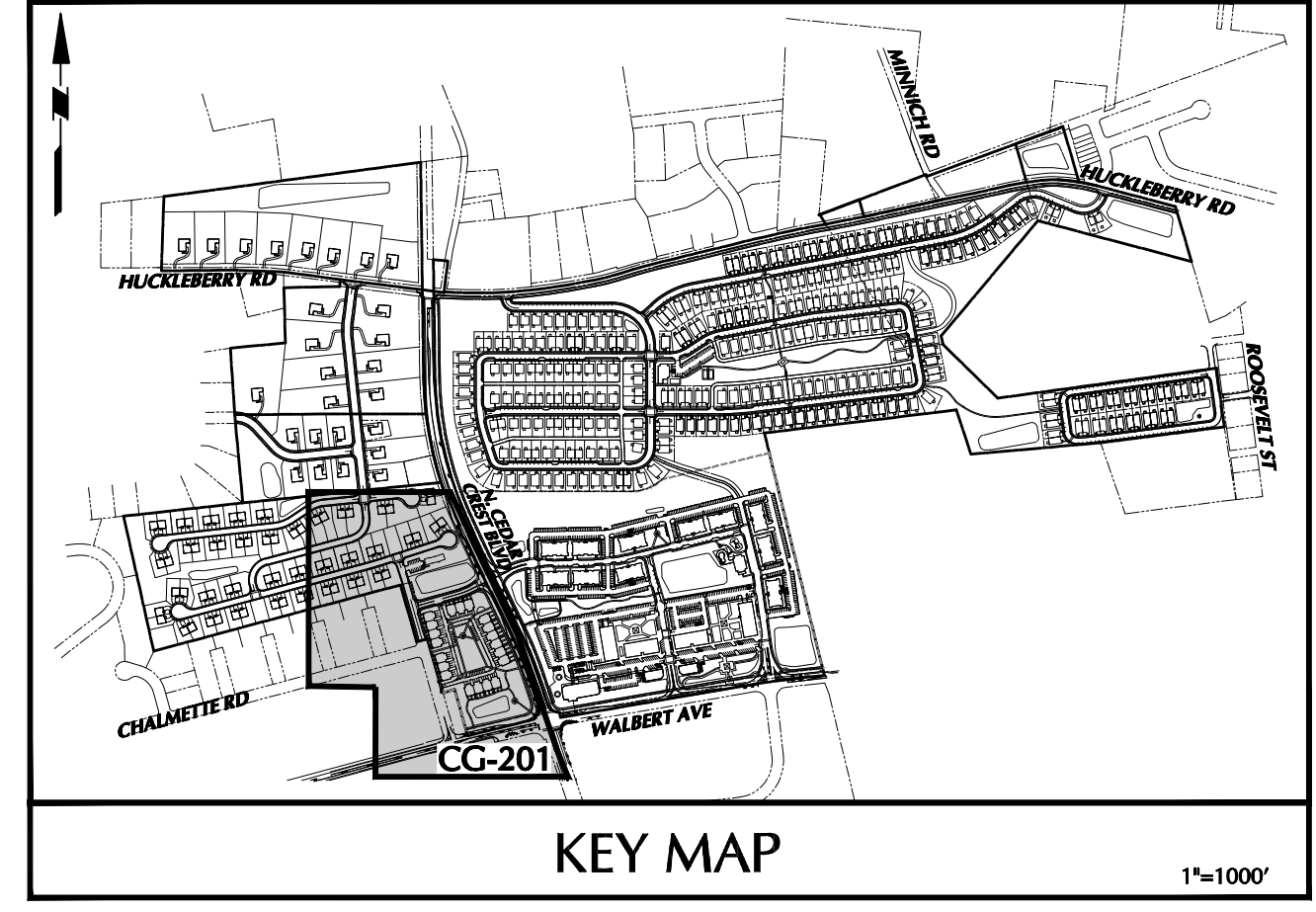
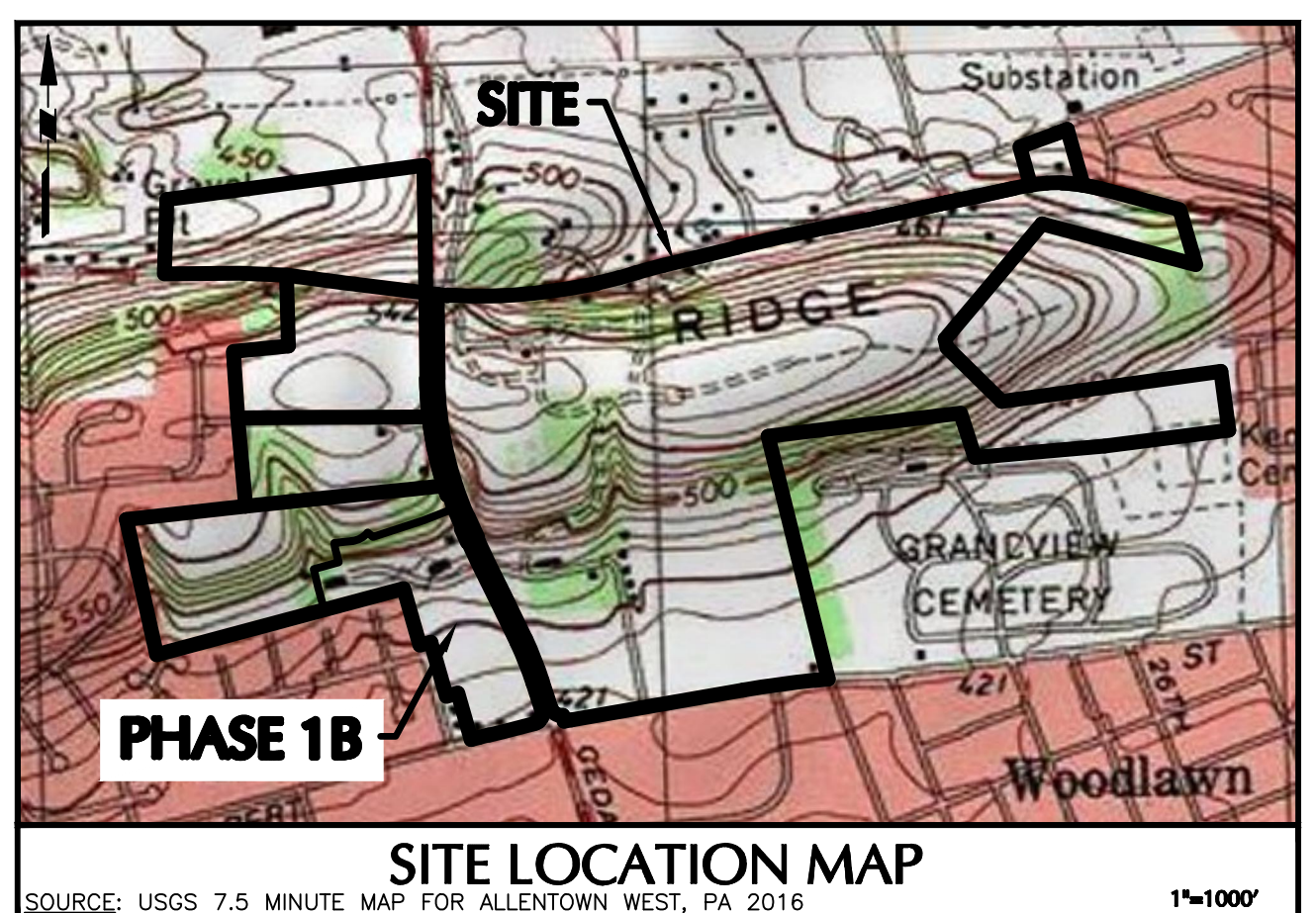
Drawing Title: **DETAILED GRADING PLAN**

Project No.: 240043301
Date: 04/20/22
Scale: 1" = 30'
Drawn By: KG
Checked By: JSE
Submission Date:

Drawing No.: **CG-102**
Sheet 12 of 22

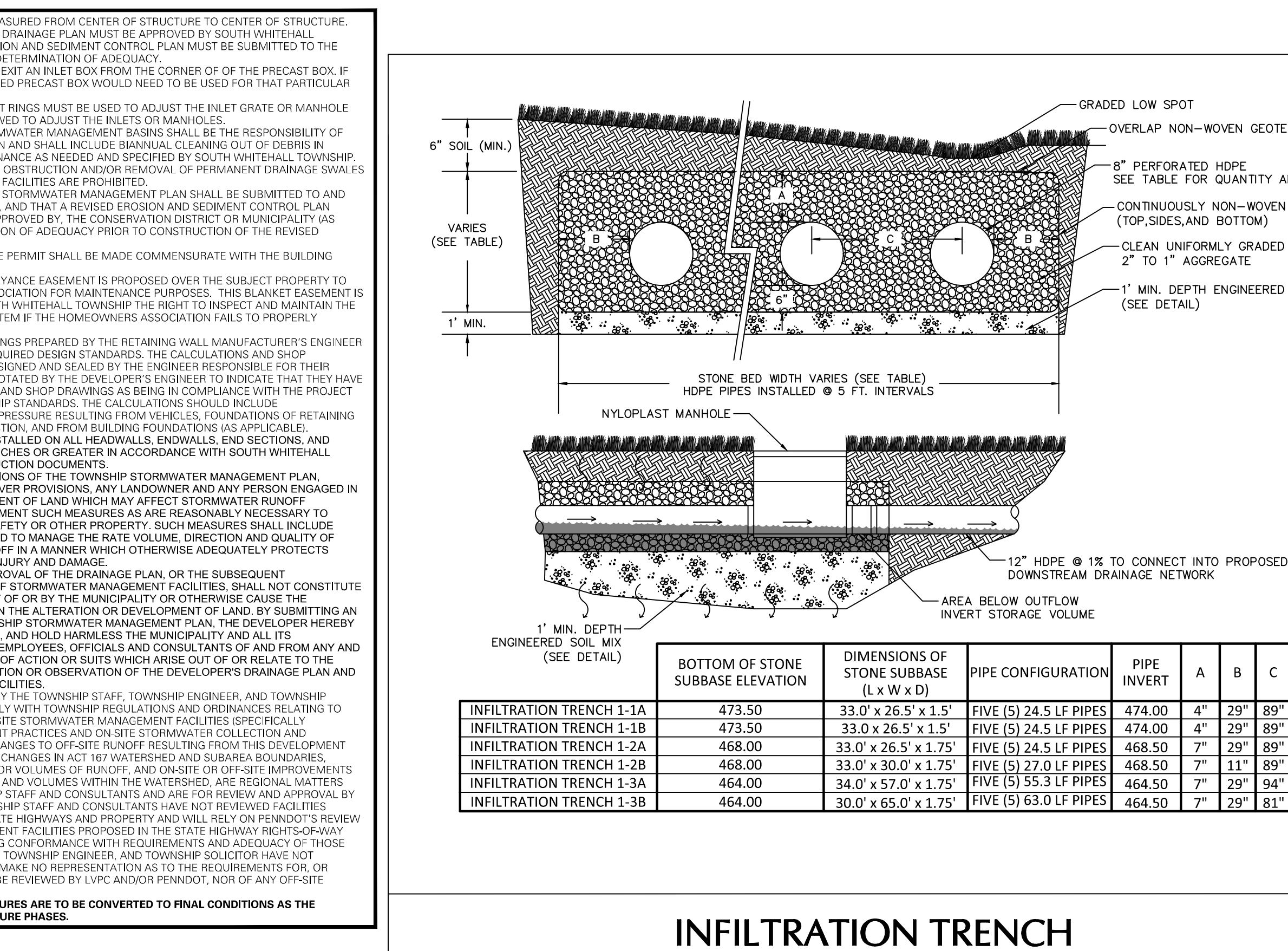
OWNER/APPLICANT
KAY WALBERT LLC.
ATTN: RICHARD M. KOZE, JR.
5930 HAMILTON BLVD., SUITE 10
ALLENTOWN, PA 18106
610-395-6857

THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES. ONLY THE LOCATION OF VISIBLE UTILITIES ON OR ABOVE THE SURFACE OF THE EARTH THAT CAN BE REASONABLY LOCATED USING STANDARD SURVEY PROCEDURES SHALL BE CERTIFIED TO. NO CERTIFICATION IS MADE BY LANGAN AS TO THE ACCURACY OR COMPLETENESS OF THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. IT IS IMPERATIVE THAT PRIOR TO ANY CONSTRUCTION IN THE AREA THAT A UTILITY MARK-OUT IS ORDERED. CALL 1-800-242-1776



LEGEND table with columns for SITE SYMBOLS, GRADING SYMBOLS, SOILS SYMBOLS, and UTILITY SYMBOLS, listing various engineering symbols and their corresponding symbols.

- GRADING AND DRAINAGE PLAN NOTES: A series of numbered notes (1-32) providing detailed instructions and specifications for the construction and maintenance of the drainage system.



OWNER/APPLICANT: KAY WALBERT LLC, ATTN: RICHARD M. KOZE, JR., 5930 HAMILTON BLVD., SUITE 10, ALLENTOWN, PA 18106, 610-395-6857

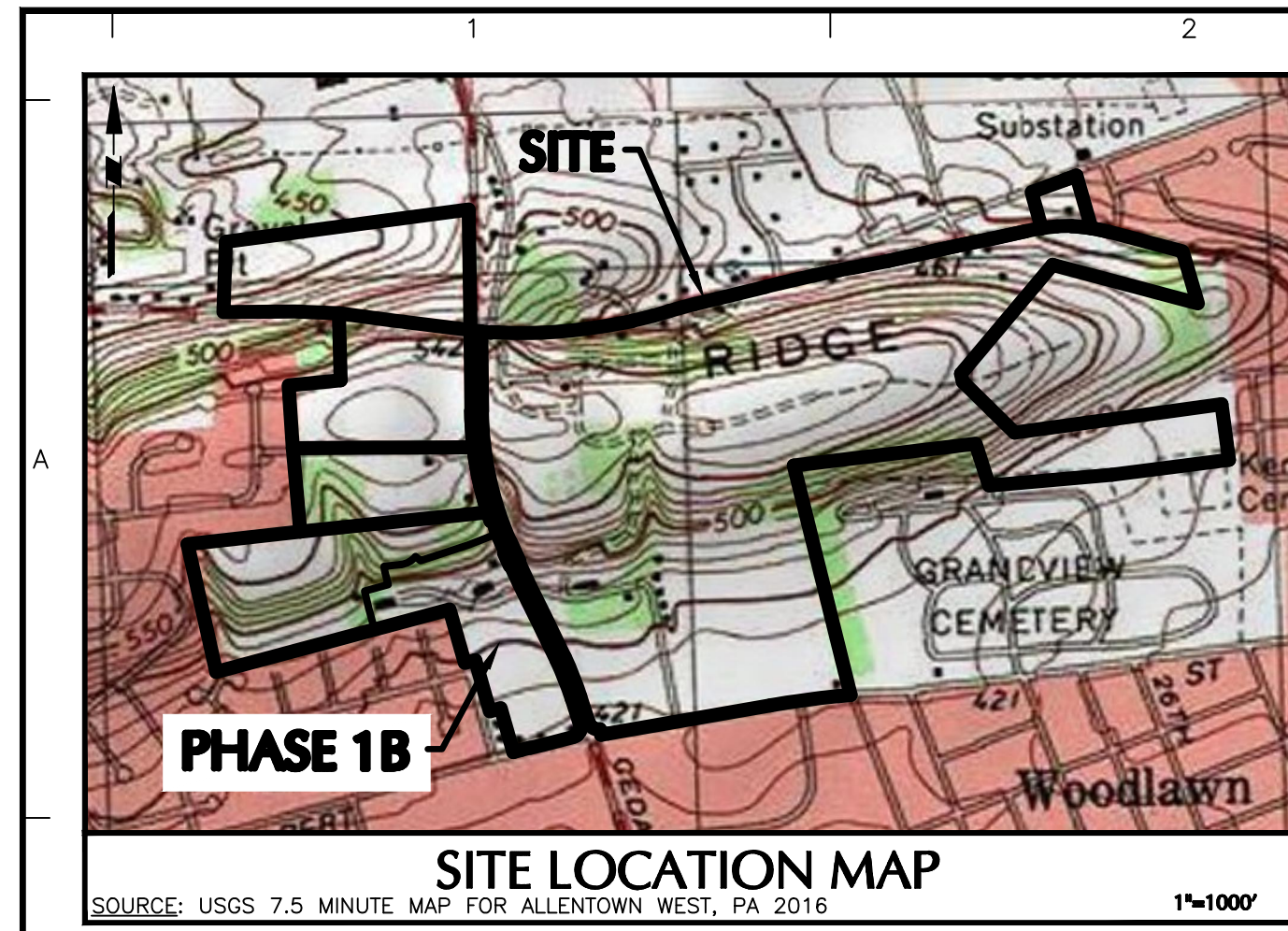
THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES. ONLY THE LOCATION OF VISIBLE UTILITIES ON OR ABOVE THE SURFACE OF THE EARTH CAN BE REASONABLY LOCATED USING STANDARD SURVEY PROCEDURES...

REVISIONS table with columns for Date, Description, and No., listing changes made to the drawing.

Professional Engineer signature block for J. Scott Eshelhart, PE-057145-E, with a seal and date signed.

LANGAN logo and contact information, including address, phone, and website details.

Project and Drawing information including Project No. 240043301, Drawing No. CG-201, Date 04/20/22, Scale 1" = 50', and other project details.



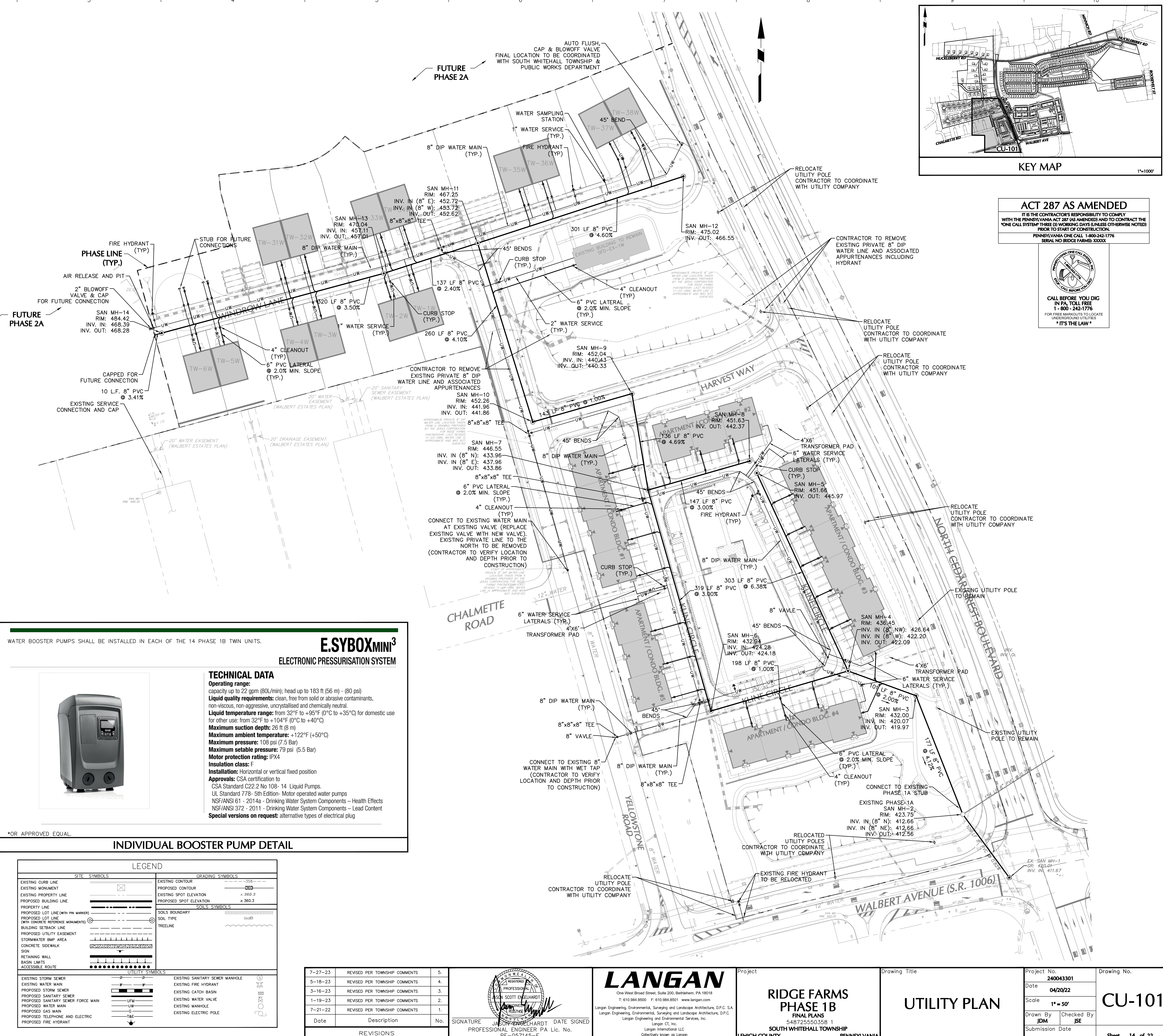
- UTILITY NOTES:**
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
 - CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
 - CONTRACTOR MUST REMOVE OLD PRIVATE 8" WATER LINE AND APPURTENANCES FROM YELLOW STONE CONNECTION POINT TO ALL EXISTING BUILDINGS.
 - CONTRACTOR MUST REMOVE OLD WATER SERVICE CONNECTION AND CAP AT SWT WATER MAIN ON SEQUOIA COURT.
 - ALL FIRE HYDRANTS BEING RELOCATED SHALL BE REPLACED WITH NEW FIRE HYDRANTS WITH CHECK VALVES (SEE SWT CONSTRUCTION STANDARD SW-1).
 - THE LOCATION OF THE EXISTING GAS MAINS ARE APPROXIMATE. THE CONTRACTOR SHOULD CONSULT LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION.
 - THE LOCATION OF EXISTING ELECTRIC LINES ARE APPROXIMATE. THE CONTRACTOR SHOULD CONSULT LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION.
 - ALL GAS WORK AND OTHER ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS. MIN. DEPTH OF COVER OVER ELECTRIC, GAS, AND CABLE SHALL BE 2 FT.
 - ALL ELECTRICAL WORK, TRANSFORMER PADS, AND ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS. MIN. DEPTH OF COVER OVER ELECTRIC, GAS, AND CABLE SHALL BE 2 FT.
 - THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
 - ALL UTILITIES SHALL BE LOCATED UNDERGROUND UNLESS REQUIRED BY PROVIDER.
 - CONTRACTOR SHALL COORDINATE EXACT LOCATION OF UTILITIES WITH APPROVED BUILDING PLANS.
 - ALL METERS, VALVES, ETC. MUST BE RECESSED TYPE AND HEAVY TRAFFIC RATED.
 - THE CONTRACTOR SHALL COORDINATE THE WATER WORK WITH SOUTH WHITEHALL TOWNSHIP.
 - A MINIMUM TEN (10) FOOT HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN WATER MAIN AND STORM SEWER. A MINIMUM EIGHTEEN (18) INCHES VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN WATER MAIN AND ALL OTHER UTILITIES.
 - ALL WATER MAINS ARE TO HAVE A MINIMUM COVER OF 4 FEET FROM THE TOP OF THE PIPE TO THE PROPOSED SURFACE ELEVATION.
 - PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 10 FT BETWEEN SANITARY SEWER MAINS AND WATER MAINS. PROVIDE A 5 FT MINIMUM HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER MAINS AND ALL OTHER UTILITIES. PROVIDE A 5 FT MINIMUM HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER MAINS AND CONCRETE CURBS. A MINIMUM DISTANCE OF 10 FT SHALL BE PROVIDED BETWEEN NEW WATER AND SEWER SERVICE LINES AND LIGHT POLES, TREES ETC.
 - ALL WATER MAIN FITTINGS SHALL BE PROVIDED WITH THRUST BLOCKING. REFER TO DETAILS FOR THRUST BLOCK DETAILS AND FITTING SCHEDULES.
 - ALL FIRE HYDRANTS AND VALVES SHALL OPEN RIGHT (CLOCKWISE).
 - DIP = DUCTILE IRON PIPE
PVC = POLYVINYL CHLORIDE
 - WATER MAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AS WELL AS THE SOUTH WHITEHALL TOWNSHIP STANDARDS AND SPECIFICATIONS, AND IS SUBJECT TO INSPECTION BY SOUTH WHITEHALL TOWNSHIP AND ITS ENGINEER. SOUTH WHITEHALL TOWNSHIP WILL BE RESPONSIBLE FOR THE APPROVAL OF ALL MATERIALS IN CONNECTION WITH THE WATER MAIN.
 - SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, AS WELL AS THE SOUTH WHITEHALL TOWNSHIP STANDARDS AND SPECIFICATIONS, AND IS SUBJECT TO INSPECTION BY SOUTH WHITEHALL TOWNSHIP AND ITS ENGINEER. SOUTH WHITEHALL TOWNSHIP WILL BE RESPONSIBLE FOR THE APPROVAL OF ALL MATERIALS IN CONNECTION WITH THE SANITARY SEWER.
 - ALL SANITARY SEWER LINES SHALL BE SDR-35 PVC AND ALL LATERALS SHALL BE SCHEDULE 40 PVC. EXCEPT AS NOTED, ALL SANITARY LINES AND LATERALS SHALL BE BEDDED TO MEET MANUFACTURER'S SPECIFICATIONS AND/OR APPROVAL OF SOUTH WHITEHALL TOWNSHIP, WHICHEVER IS MORE RESTRICTIVE.
 - ALL SANITARY SEWER MANHOLES PROPOSED TO BE INSTALLED WITHIN ANY EASEMENT SHALL BE INSTALLED WITH WATER TIGHT FRAMES AND COVERS. ANY MANHOLE TO BE INSTALLED OUTSIDE OF PAVED AREAS SHALL BE INSTALLED A MINIMUM OF 12" ABOVE FINISH GRADE.
 - WHEN A NEW SANITARY LINE IS CONSTRUCTED AND TIED INTO AN ACTIVE MANHOLE, THE NEW LINE WILL BE PLUGGED AND REMAIN PLUGGED UNTIL ALL TESTING HAS BEEN COMPLETED BY THE DEVELOPER AND APPROVED BY A SOUTH WHITEHALL TOWNSHIP INSPECTOR OR REPRESENTATIVE.
 - UNDERGROUND WARNING TAPE SHALL BE INSTALLED A MINIMUM OF TWO FEET ABOVE ANY PIPE IN THE BACKFILL OF ANY MAINLINE OR LATERAL TRENCH. TAPE SHALL BE ALKALI RESISTANT, 4 MILS POLYETHYLENE, 4 INCHES MINIMUM WIDTH, CONTINUOUSLY PRINTED WITH NAME OR SYMBOL OF UTILITY BURRED BELOW, COLOR CODED AS FOLLOWS: BLUE: WATER; GREEN: SEWER SYSTEMS.
 - LOW PRESSURE SANITARY FORCE MAINS MUST BE INSTALLED WITH A CONTINUOUS RISE TO AIR RELEASE VALVES INSTALLED AT HIGH POINTS.
 - A WATER EXTENSION / NEW MAIN IS ANTICIPATED TO BE REQUIRED FROM TANK TO SITE VIA RIDGE LANE. THE SCOPE OF THIS IMPROVEMENT IS AWAITING THE RESULTS OF A STUDY COORDINATED WITH THE SOUTH WHITEHALL TOWNSHIP WATER AND SEWER ENGINEER.
 - THE LOCATIONS OF EXISTING UTILITIES ARE NOT THE RESPONSIBILITY AND HAVE NOT BEEN REVIEWED BY THE PIDCOCK COMPANY, THE TOWNSHIP OR THE SPOITS, SUBJECTS AND MCCOY COMPANY.
 - ALL WATER METERS SHALL BE NEPTUNE MACH 10.
 - RELOCATED UTILITY POLES ARE APPROXIMATE AND SUBJECT TO CHANGE BASED ON COORDINATION WITH UTILITY COMPANY. CONTRACTOR TO COORDINATE WITH TRAFFIC PLANNING AND DESIGN, LANGAN ENGINEERING AND UTILITY COMPANY PRIOR TO INSTALLATION OR RELOCATION OF UTILITY POLES.
 - ALL STORMWATER MANAGEMENT FACILITIES WILL BE OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION EXCEPT FOR FACILITIES WITHIN PUBLIC RIGHT-OF-WAYS WHICH WILL BE OWNED AND MAINTAINED BY SOUTH WHITEHALL TOWNSHIP.
 - WATER BOOSTER PUMPS SHALL BE INSTALLED IN EACH OF THE 14 PHASE 1B TWIN UNITS. SEE BOOSTER DETAIL ON THIS SHEET.

- UTILITY TRENCH EXCAVATION GUIDELINES:**
- CONSTRUCTION REQUIREMENTS
 - WORK CREWS AND EQUIPMENT FOR TRENCHING, GRABBING OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SEPARATE AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
 - LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE TO BE PLACED, PLUS INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
 - ALL DISTURBED AREAS ARE TO BE RESTORED AND STABILIZED WITHIN TWENTY (20) DAYS. IN ACCORDANCE WITH THE STABILIZATION METHODS APPLICABLE TO THE AREA OF DISTURBANCE (I.E. SWALES WITH LINER, ROAD WITH BASE COURSE AND ETC.)
 - EXCEPTIONS - IN CERTAIN CASES TRENCHES CANNOT BE BACKFILLED UNTIL THE PIPE IS HYDROSTATICALLY TESTED, OR ANCHORS AND OTHER PERMANENT FEATURES ARE INSTALLED IN THESE CASES, ALL OF THE REQUIREMENTS LISTED UNDER ITEM 1 WILL REMAIN IN EFFECT WITH THE FOLLOWING EXCEPTIONS:
 - DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX DAYS. ALL PRESSURE TESTING AND THE COMPLETE BACKFILLING OF THE TRENCH MUST BE COMPLETED BY THE SIXTH WORKING DAY.
 - IF DAILY BACKFILLING IS DELAYED, THE DISTURBED AREA WILL BE GRADED TO FINAL HYDROSTATICALLY TESTED, OR ANCHORS AND OTHER PERMANENT FEATURES ARE INSTALLED IN MEASURES/FACILITIES WILL BE INSTALLED, AND THE AREAS SEEDED AND MULCHED WITHIN THE NEXT TWO CALENDAR DAYS.
 - UTILITY TRENCH EXCAVATION SHALL BE IN ACCORDANCE WITH SOUTH WHITEHALL TECHNICAL SPECIFICATIONS WATER MAINS AND APPURTENANCES/SANITARY SEWERS AND APPURTENANCES.

- OWNER/APPLICANT**
KAY WALBERT LLC.
ATTN: RICHARD M. KOZE, JR.
5930 HAMILTON BLVD., SUITE 10
ALLENTOWN, PA 18106
610-395-6857

THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES. ONLY THE SURFACE OF THE EARTH THAT CAN BE REASONABLY LOCATED USING STANDARD SURVEY PROCEDURES SHALL BE CERTIFIED TO. NO CERTIFICATION IS MADE BY LANGAN AS TO THE ACCURACY OR COMPLETENESS OF THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. IT IS IMPERATIVE THAT PRIOR TO ANY CONSTRUCTION IN THE AREA THAT A UTILITY MARK-OUT IS ORDERED. CALL 1-800-242-1776

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E.SYBOXmini³
ELECTRONIC PRESSURISATION SYSTEM

WATER BOOSTER PUMPS SHALL BE INSTALLED IN EACH OF THE 14 PHASE 1B TWIN UNITS.

TECHNICAL DATA
 Operating range: capacity up to 22 gpm (80L/min); head up to 183 ft (56 m) - (80 psi)
 Liquid quality requirements: clean, free from solid or abrasive contaminants, non-viscous, non-aggressive, uncrystallized and chemically neutral.
 Liquid temperature range: from 32°F to +45°F (0°C to +35°C) for domestic use for other use: from 32°F to +104°F (0°C to +40°C)
 Maximum suction depth: 26 ft (8 m)
 Maximum ambient temperature: +122°F (+50°C)
 Maximum pressure: 106 psi (7.5 Bar)
 Maximum settable pressure: 79 psi (5.5 Bar)
 Motor protection rating: IPX4
 Insulation class: F
 Installation: Horizontal or vertical fixed position
 Approvals: CSA certification to CSA Standard C22.2 No. 108-14 Liquid Pumps. UL Standard 778-5th Edition- Motor operated water pumps NSF/ANSI 61 - 2014a - Drinking Water System Components - Health Effects NSF/ANSI 372 - 2011 - Drinking Water System Components - Lead Content
 Special versions on request: alternative types of electrical plug

LEGEND	
EXISTING CURB LINE	EXISTING CONTOUR
EXISTING MONUMENT	PROPOSED CONTOUR
EXISTING PROPERTY LINE	EXISTING SPOT ELEVATION
PROPOSED BUILDING LINE	PROPOSED SPOT ELEVATION
PROPERTY LINE	SOILS SYMBOLS
PROPOSED LOT LINE (WITH PIN MARKER)	SOILS BOUNDARY
PROPOSED LOT LINE (WITH CONCRETE REFERENCE MONUMENTS)	TRELLINE
BUILDING SETBACK LINE	
PROPOSED UTILITY EASEMENT	
STORMWATER BMP AREA	
CONCRETE SIDEWALK	
SOIL	
RETAINING WALL	
BASE LIMITS	
ACCESSIBLE ROUTE	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING WATER MAIN	EXISTING FIRE HYDRANT
PROPOSED STORM SEWER	EXISTING CATCH BASIN
PROPOSED SANITARY SEWER	EXISTING WATER VALVE
PROPOSED SANITARY SEWER FORCE MAIN	EXISTING MANHOLE
PROPOSED WATER MAIN	EXISTING ELECTRIC POLE
PROPOSED GAS MAIN	
PROPOSED TELEPHONE AND ELECTRIC	
PROPOSED FIRE HYDRANT	

Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
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1-19-23	REVISED PER TOWNSHIP COMMENTS	2.
7-21-22	REVISED PER TOWNSHIP COMMENTS	1.

SIGNATURE: J. SCOTT EBLEHART
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

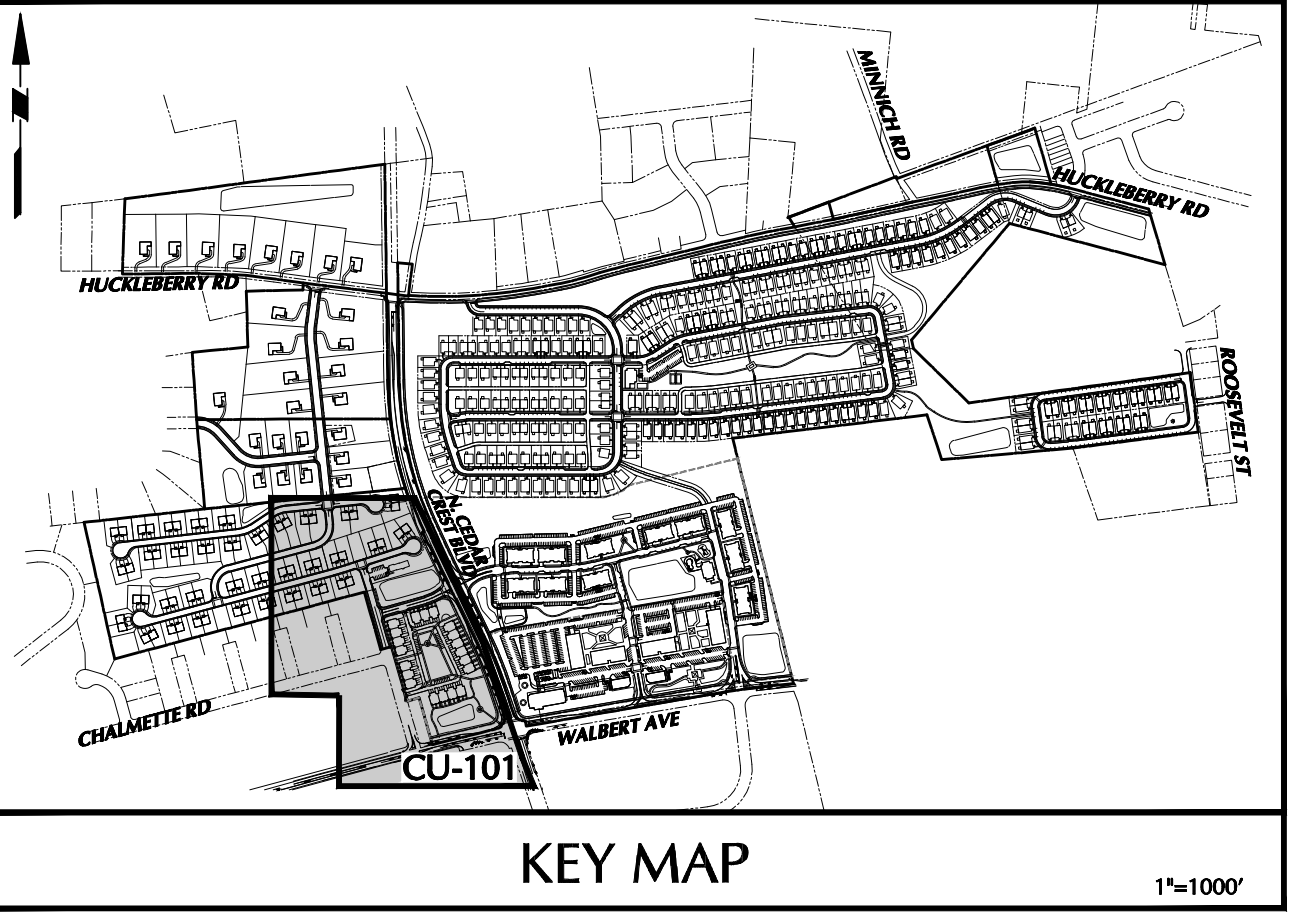
LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.864.9900 F: 610.864.9501 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
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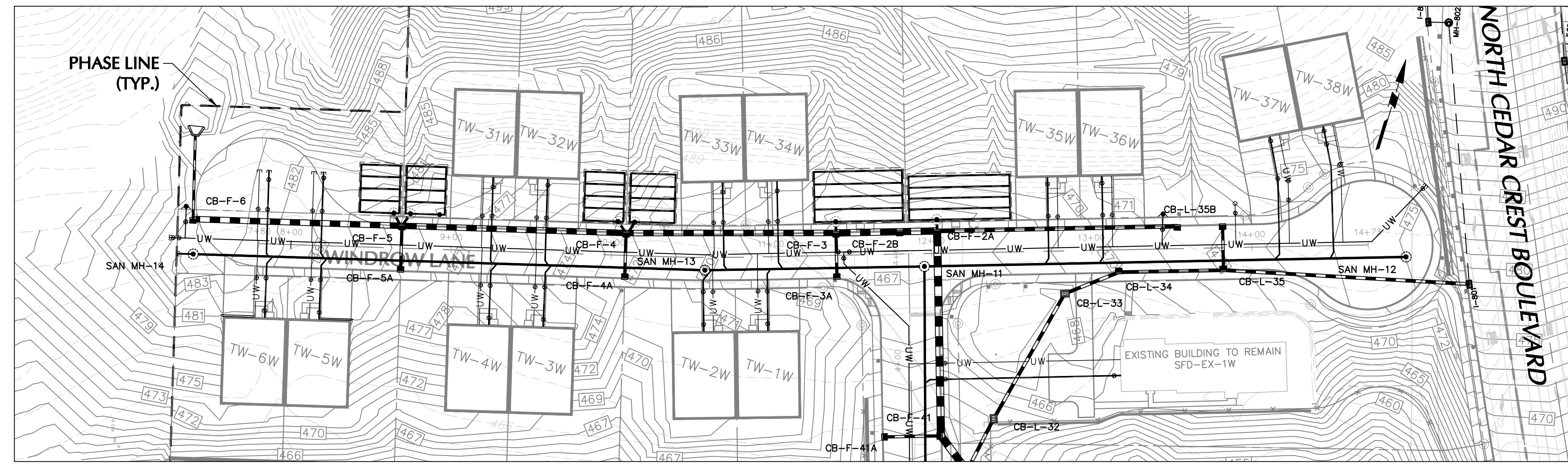
Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
54872550358 1
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

Drawing Title: **UTILITY PLAN**

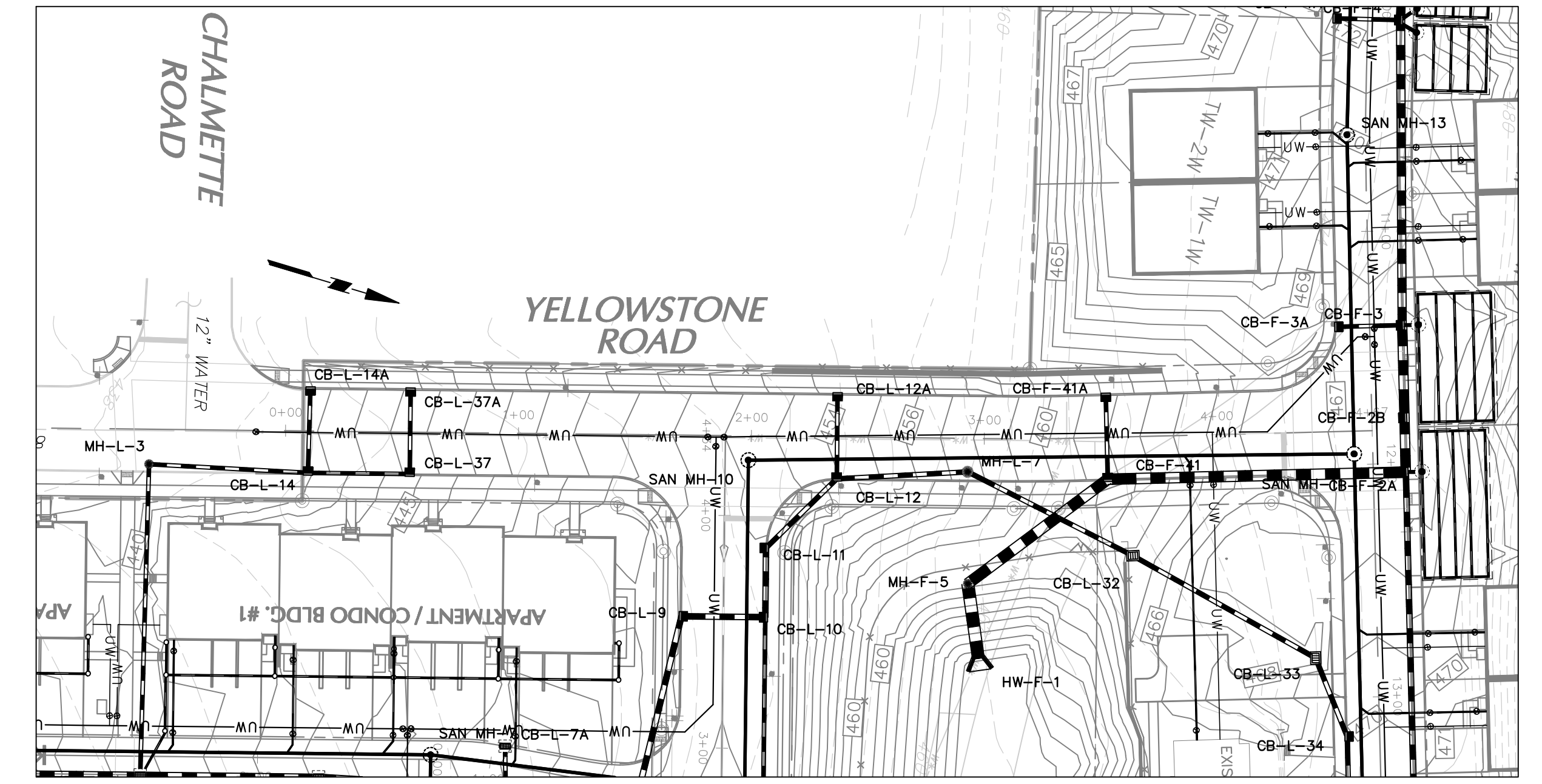
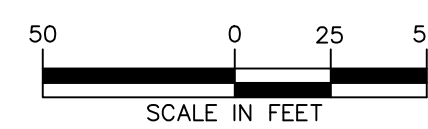
Project No. **24043301**
Date: **04/20/22**
Scale: **1" = 50'**
Drawing By: **JDM** Checked By: **JSE**
Submission Date: **04/20/22**
Sheet **14** of **22**

ACT 287 AS AMENDED
IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 AS AMENDED AND TO CONTRACT THE "ONE CALL SYSTEM" THREE BUSINESS DAYS PRIOR TO START OF CONSTRUCTION.
PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO RIDGE FARMS: XXXXXX

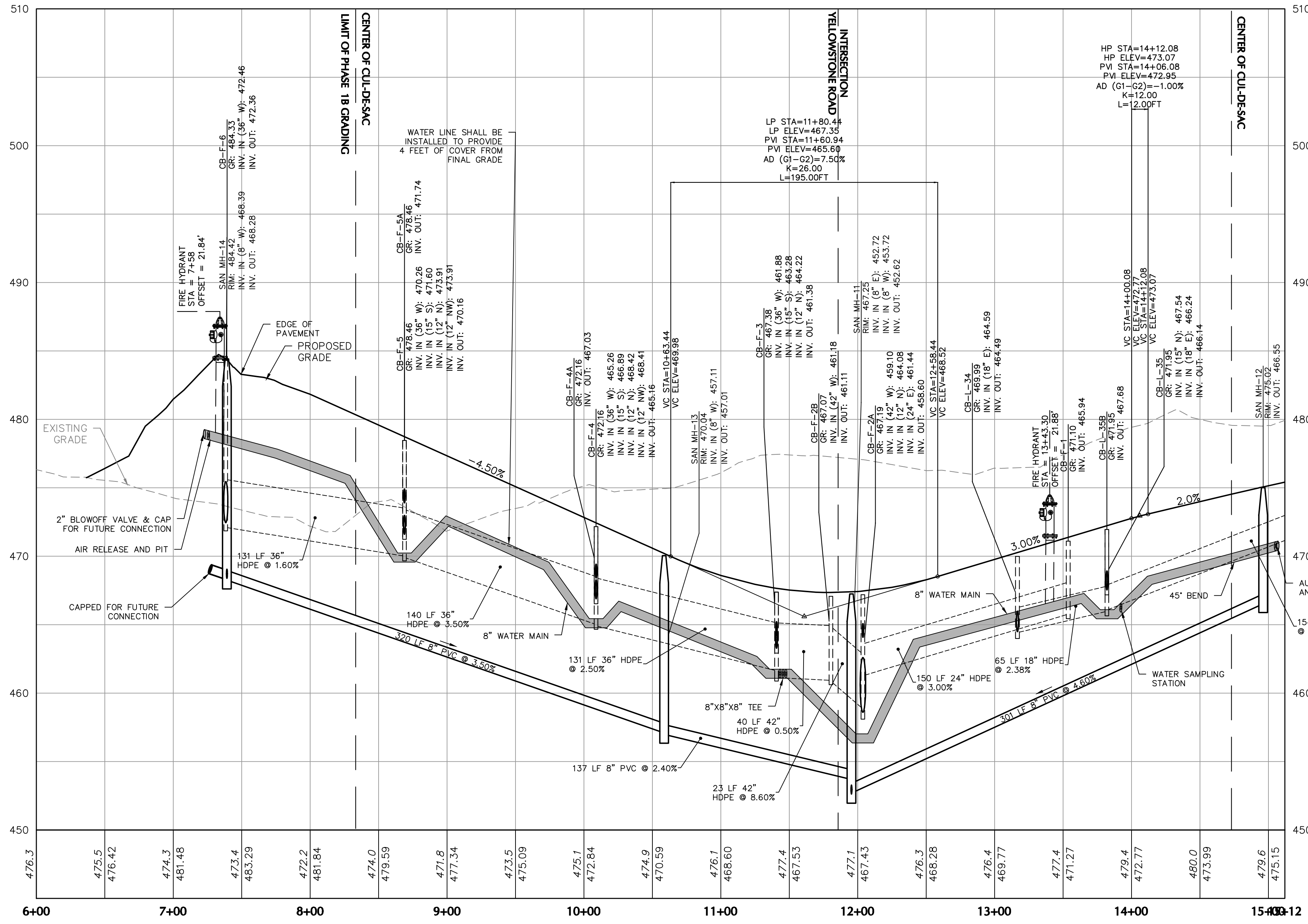
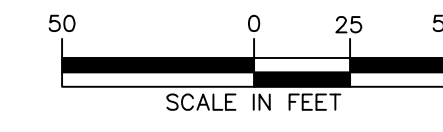




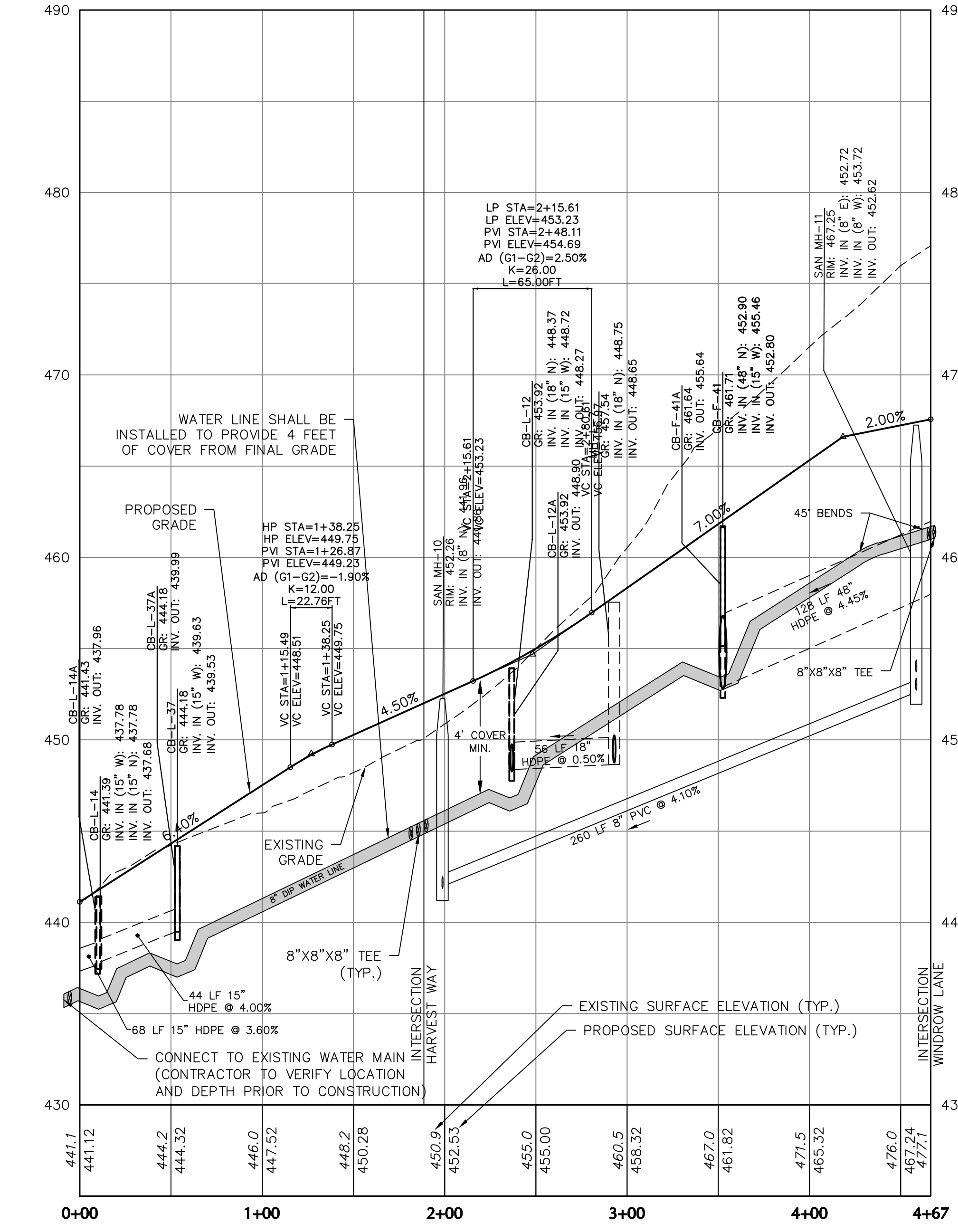
WINDROW LANE PLAN VIEW



YELLOWSTONE ROAD PLAN VIEW

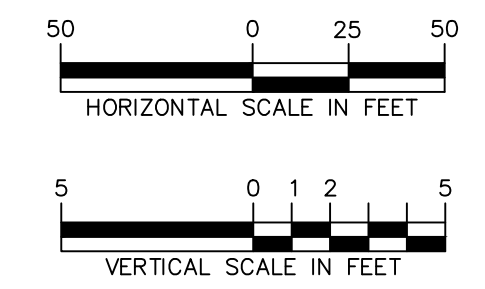


WINDROW LANE PROFILE



YELLOWSTONE ROAD PROFILE

OWNER/APPLICANT
KAY WALBERT LLC.
ATTN: RICHARD M. KOZE, JR.
5930 HAMILTON BLVD., SUITE 10
ALLENTOWN, PA 18106
610-395-6857



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7-21-22	REVISED PER TOWNSHIP COMMENTS	1.

SIGNATURE: *J. Scott Enghardt* DATE SIGNED: _____
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

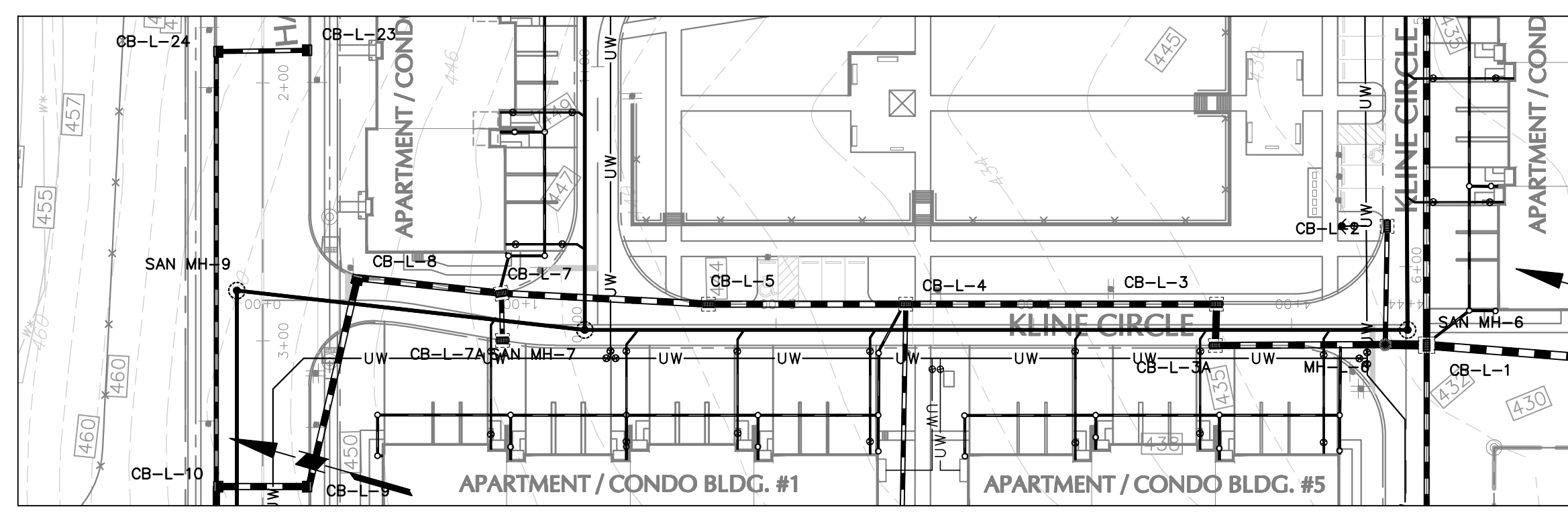
LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.861.9900 F: 610.864.9501 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering and Environmental Services, Inc.
Langan GI, Inc.
Langan International LLC
Collectively known as Langan

Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
54872550358 1
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

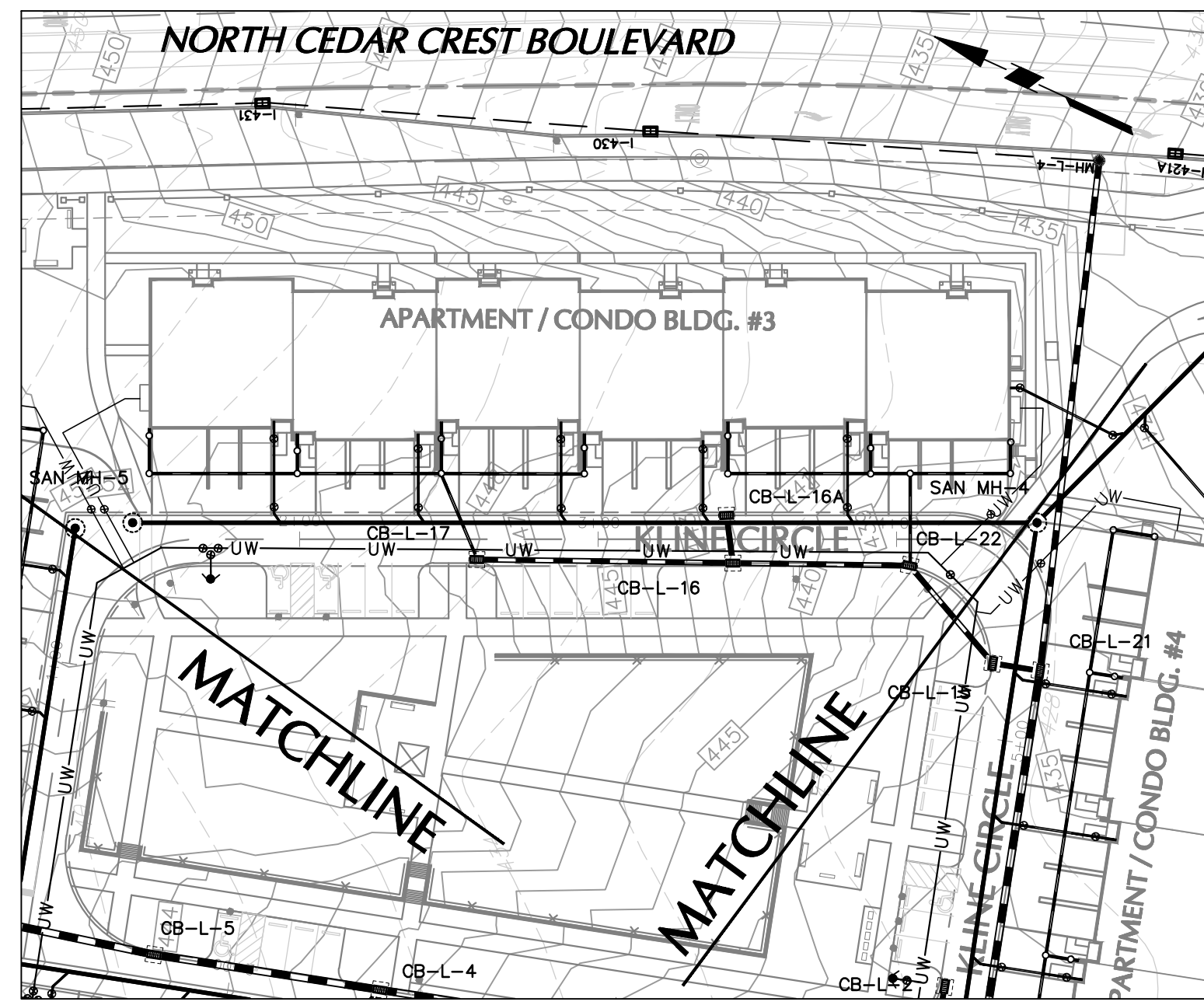
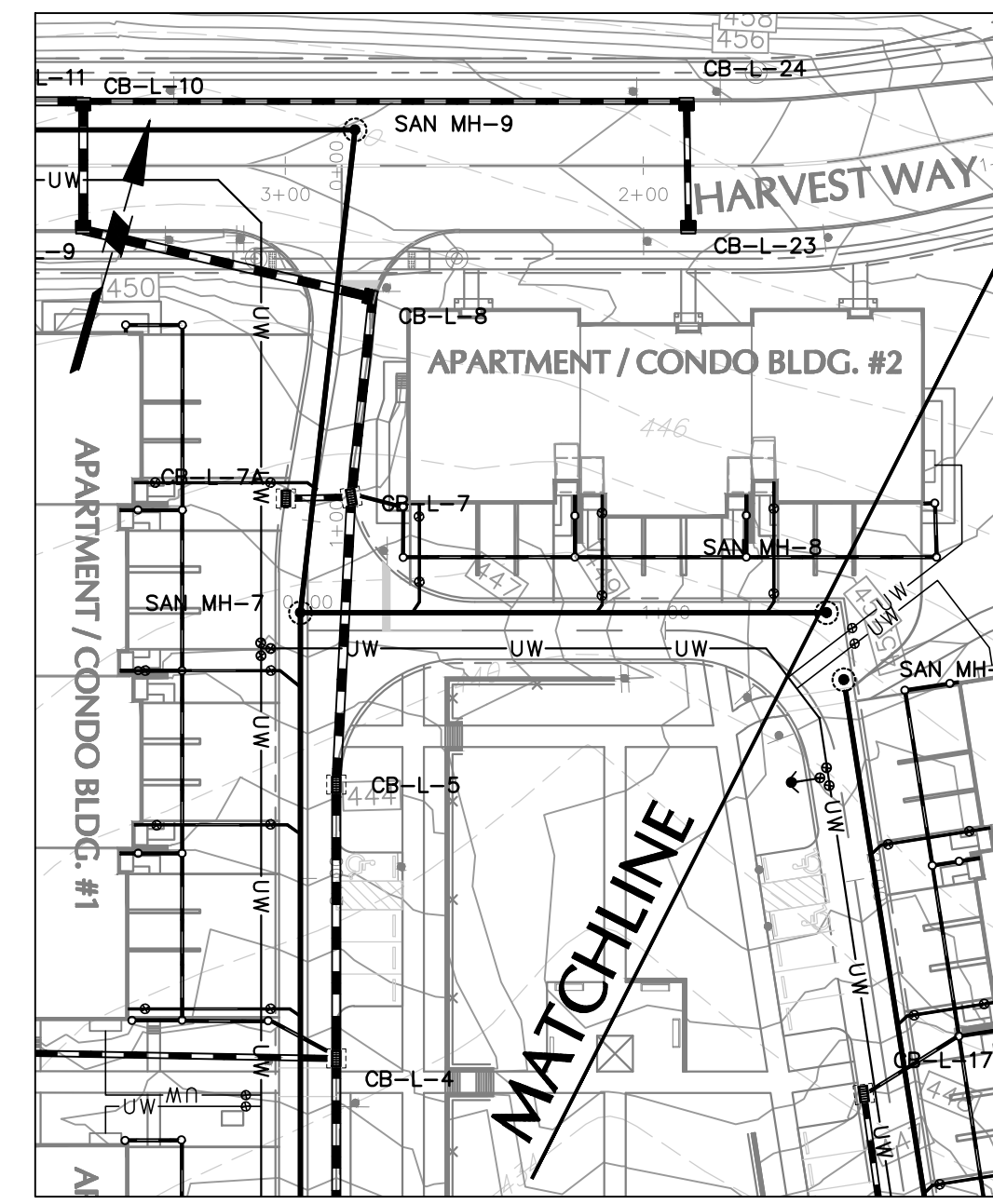
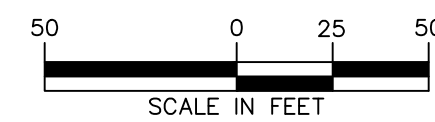
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Project No. 240043301
Date: 04/20/22
Scale: AS SHOWN
Drawn By: JDM Checked By: JSE
Submission Date: _____
Sheet 15 of 22

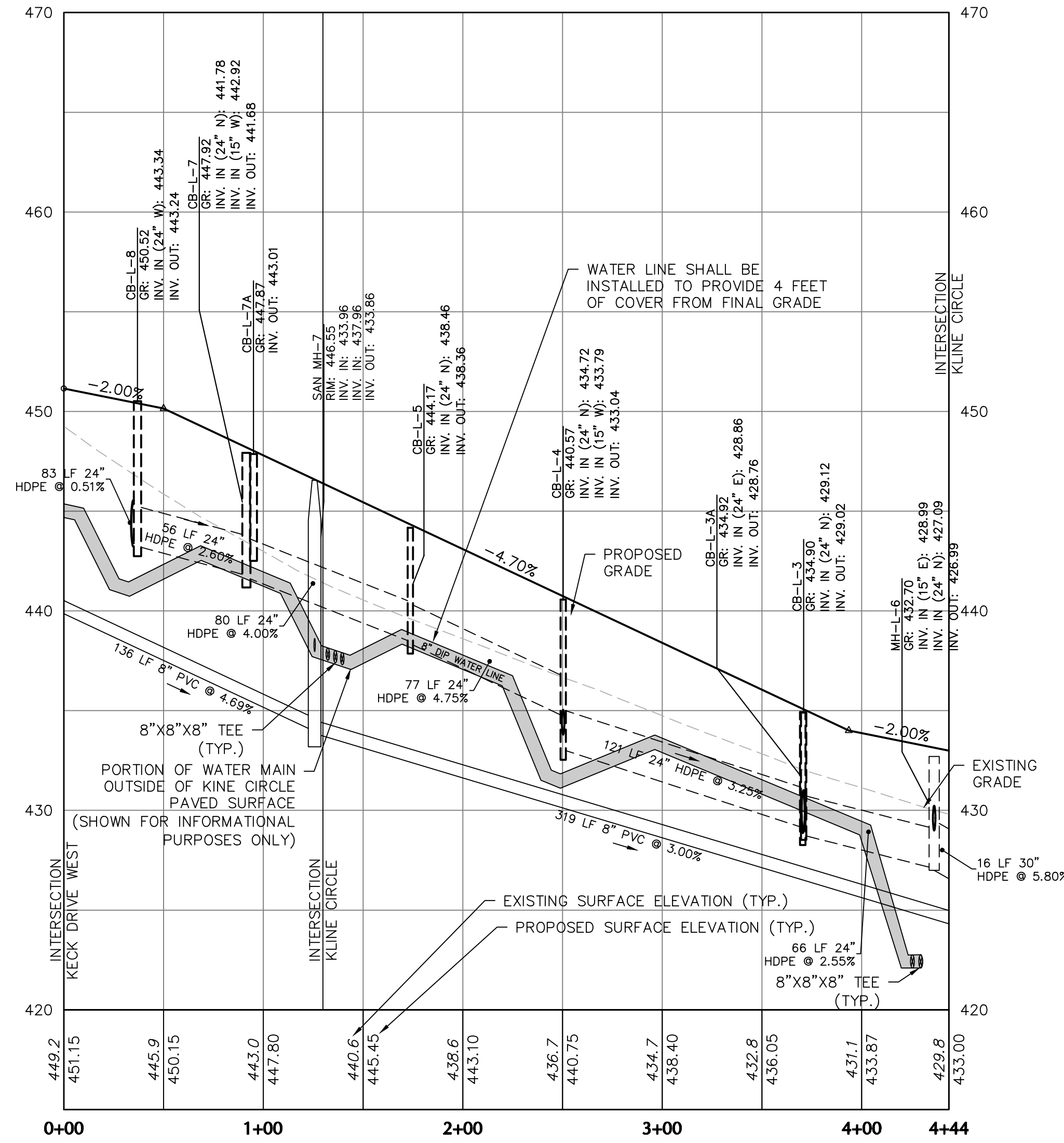
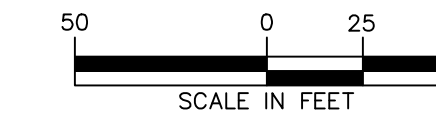
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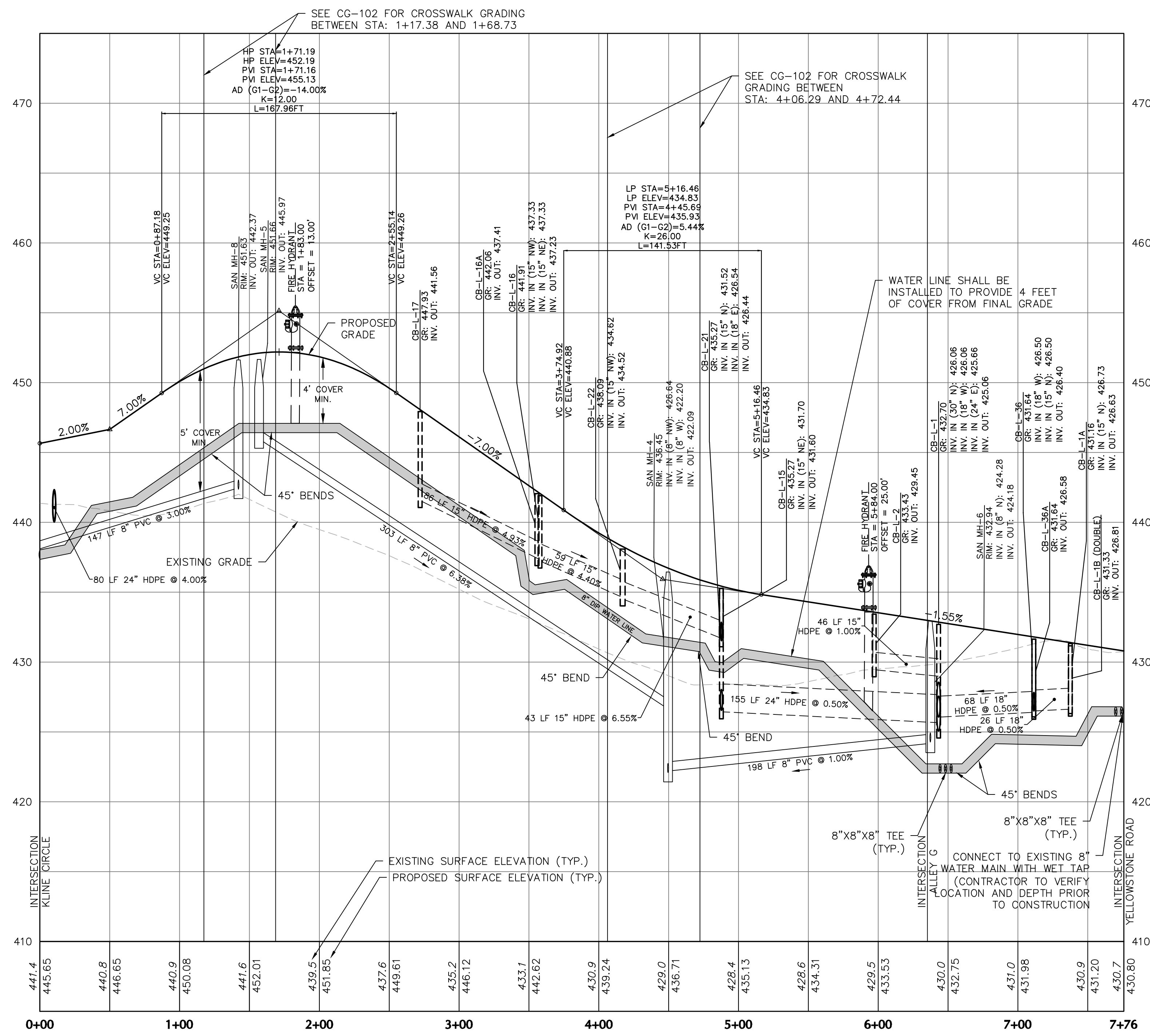
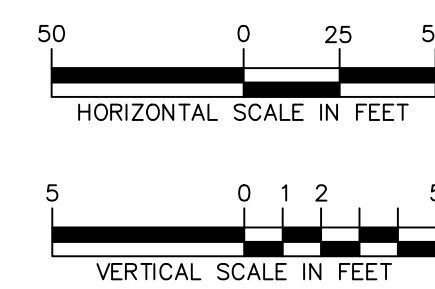
KLINE CIRCLE PLAN VIEW



KLINE CIRCLE PLAN VIEW



KLINE CIRCLE PROFILE



KLINE CIRCLE PROFILE

OWNER/APPLICANT
KAY WALBERT LLC.
ATTN: RICHARD M. KOZE, JR.
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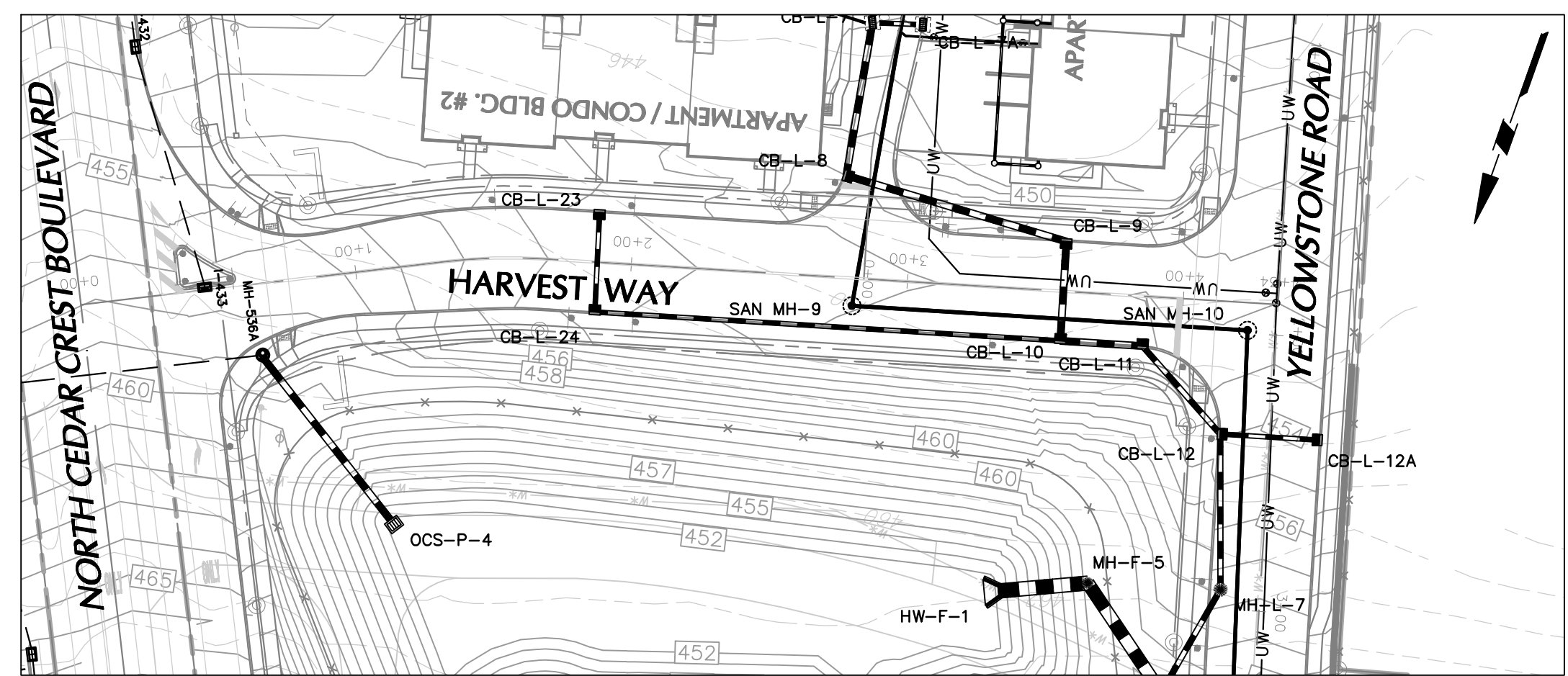
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Project
**RIDGE FARMS
PHASE 1B
FINAL PLANS**
548725550358 1
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

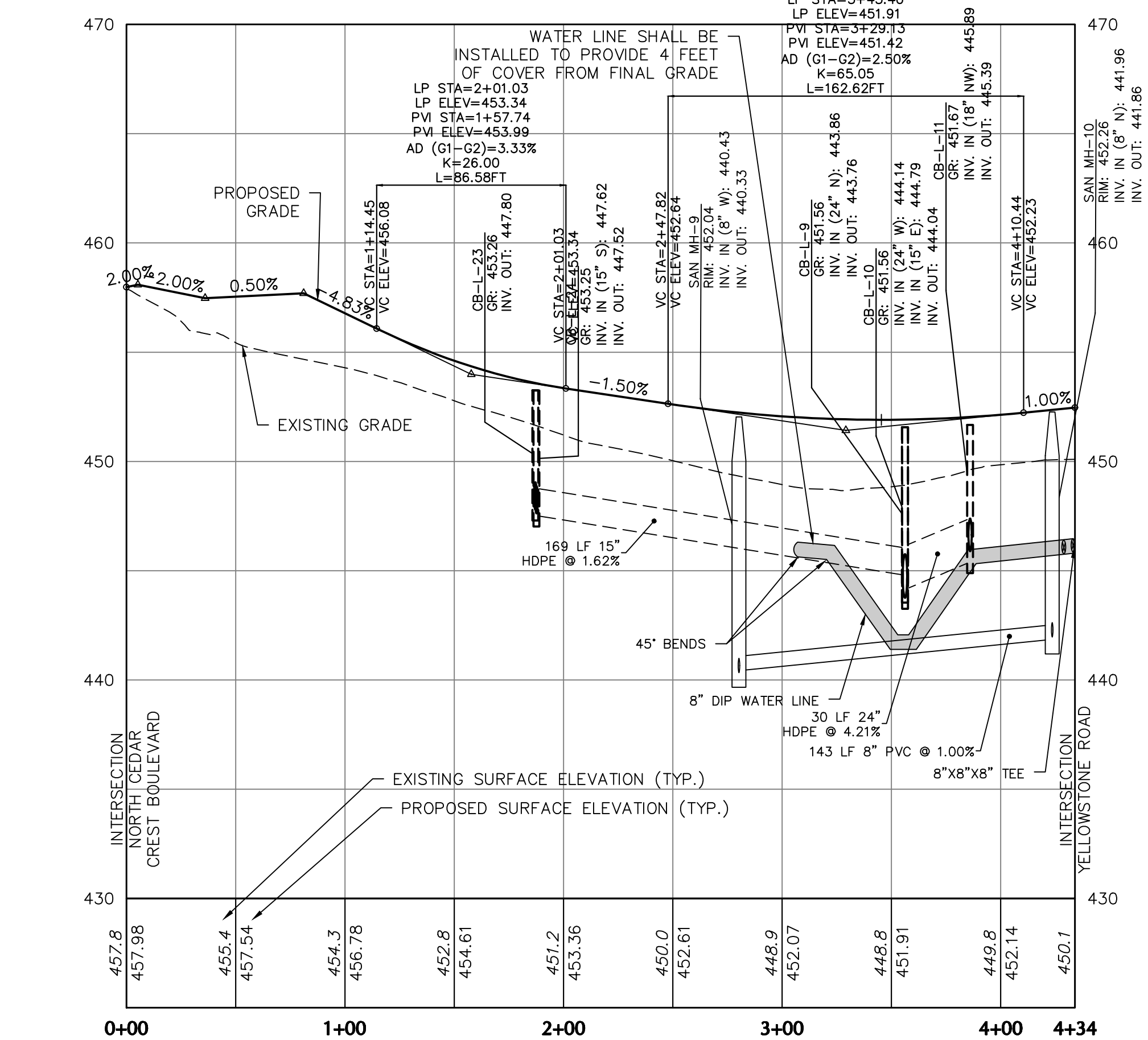
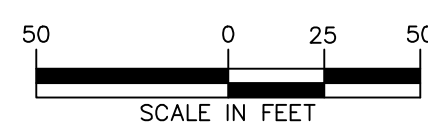
Drawing Title
**ROADWAY &
UTILITY PROFILES**

Project No. 240043301
Date 04/20/22
Scale AS SHOWN
Drawn By JDM Checked By JSE
Submission Date
Drawing No. CG-302
Sheet 16 of 22

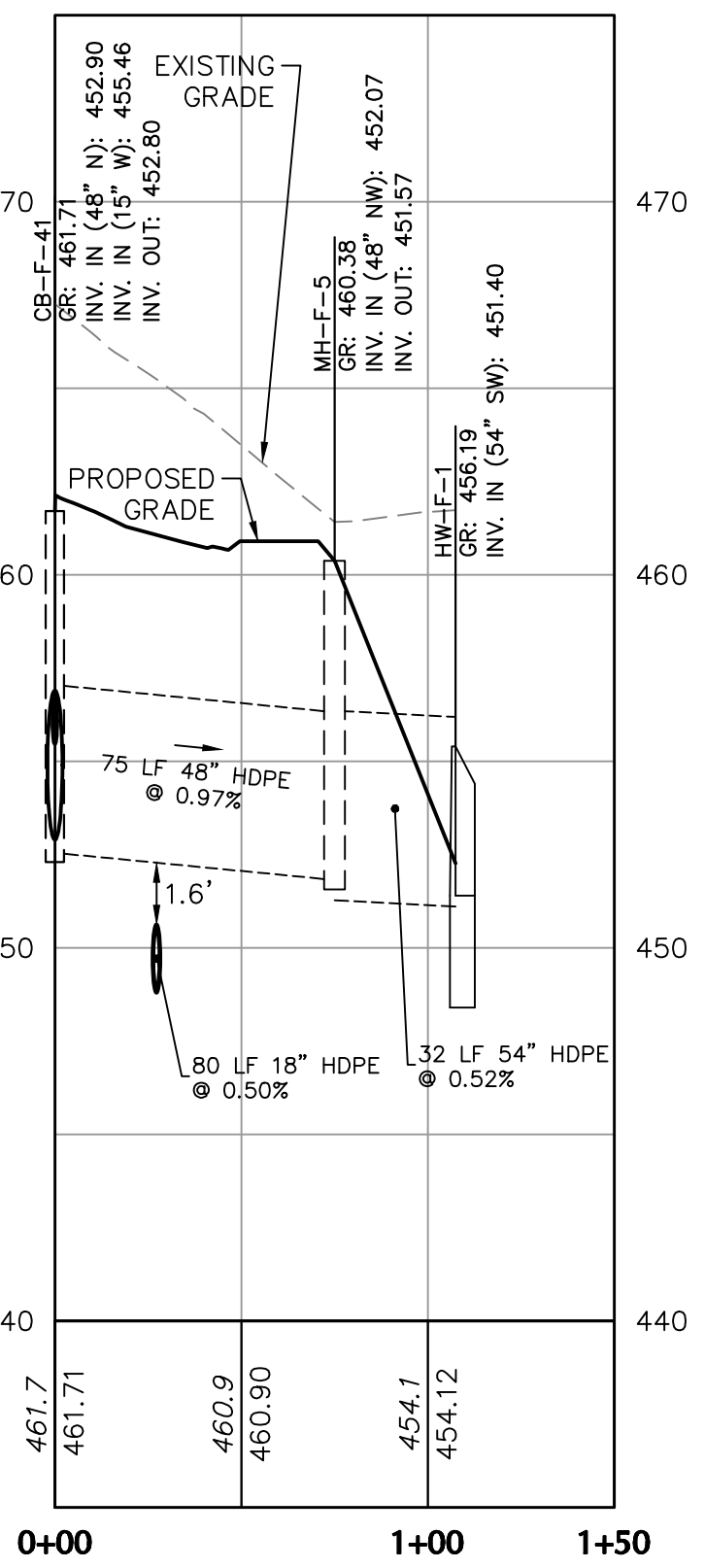
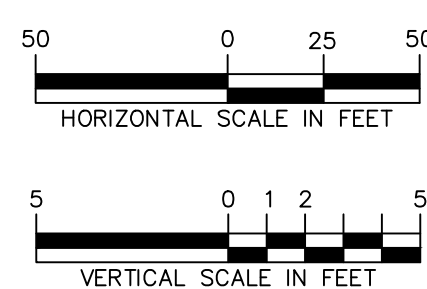
PROJECT NO. 240043301 SUBMISSION DATE: JULY 27, 2023



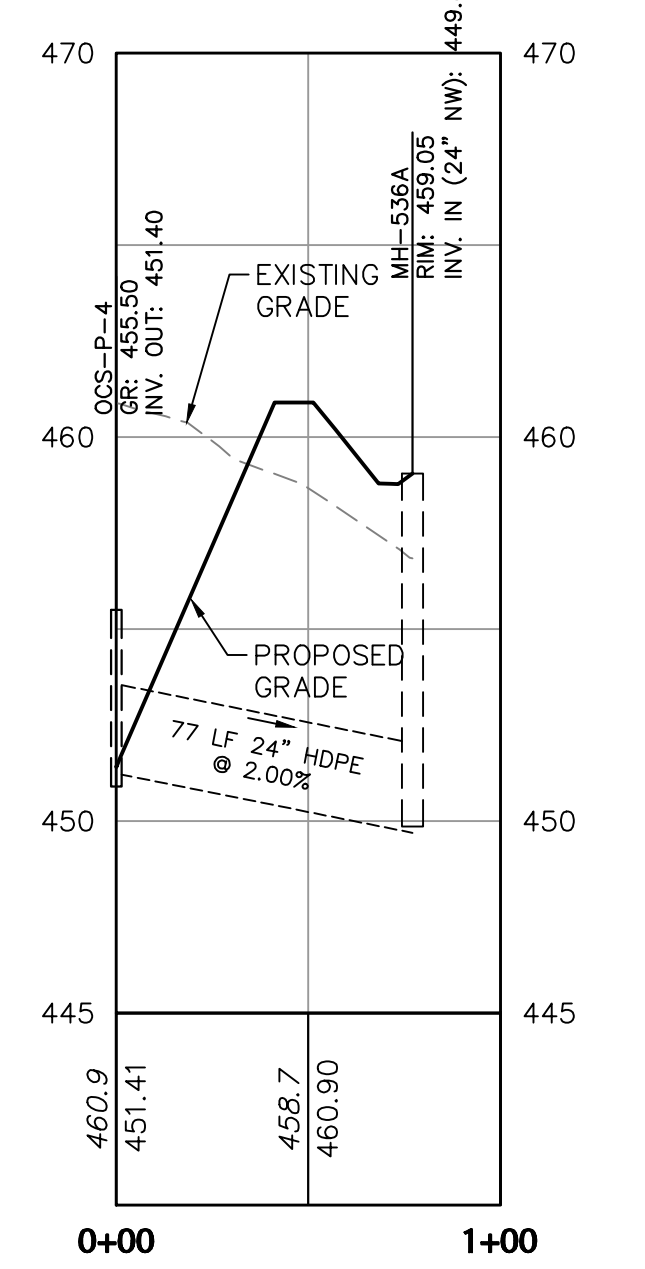
HARVEST WAY PLAN VIEW



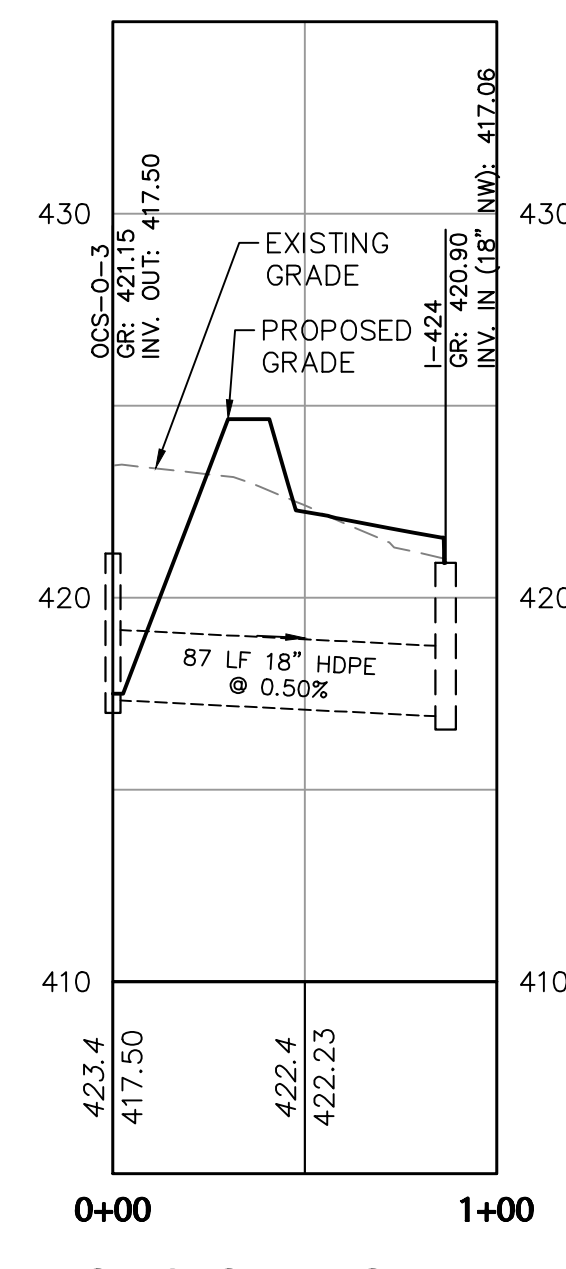
HARVEST WAY PROFILE



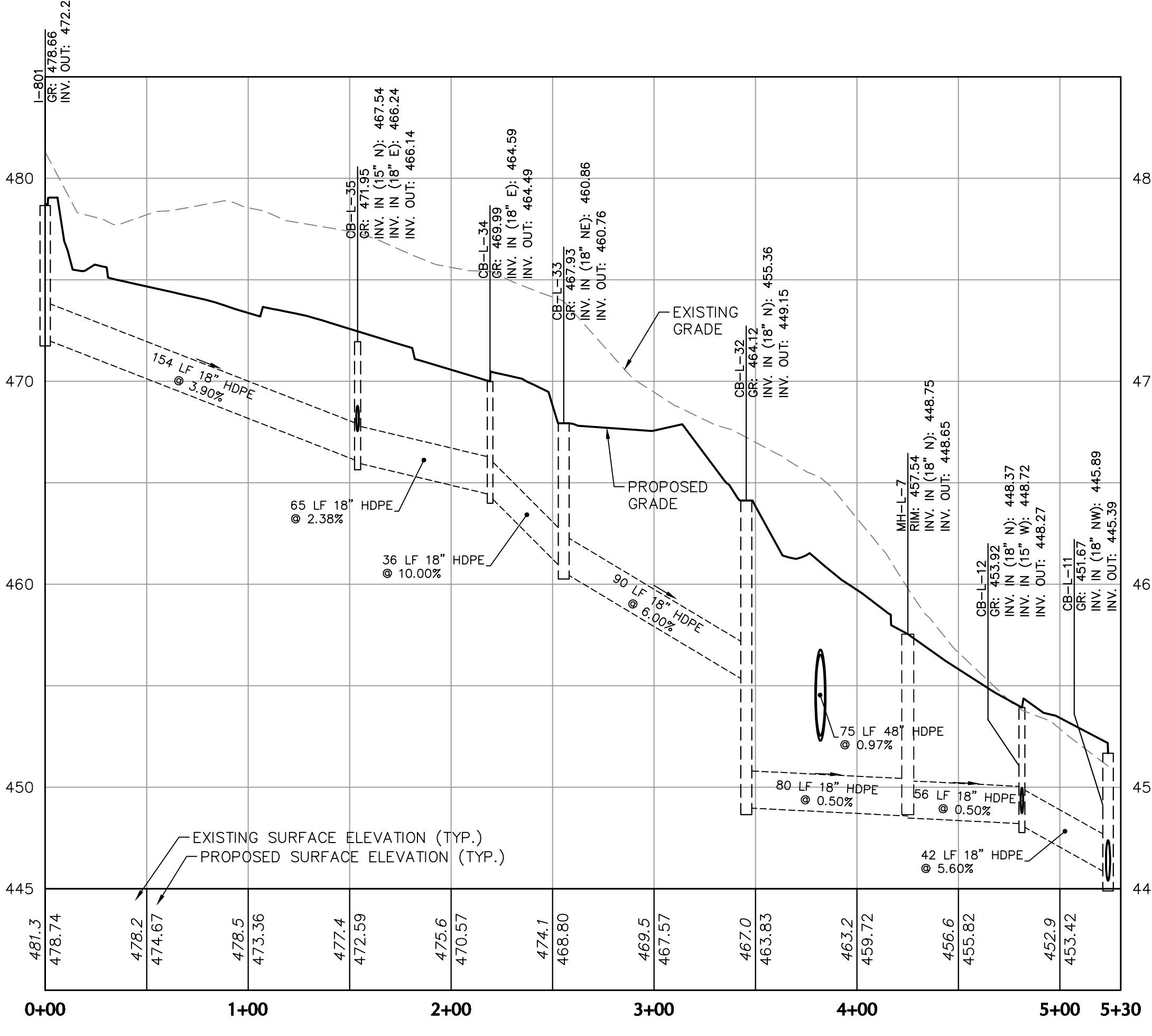
CB-F-42 TO HW-F-1



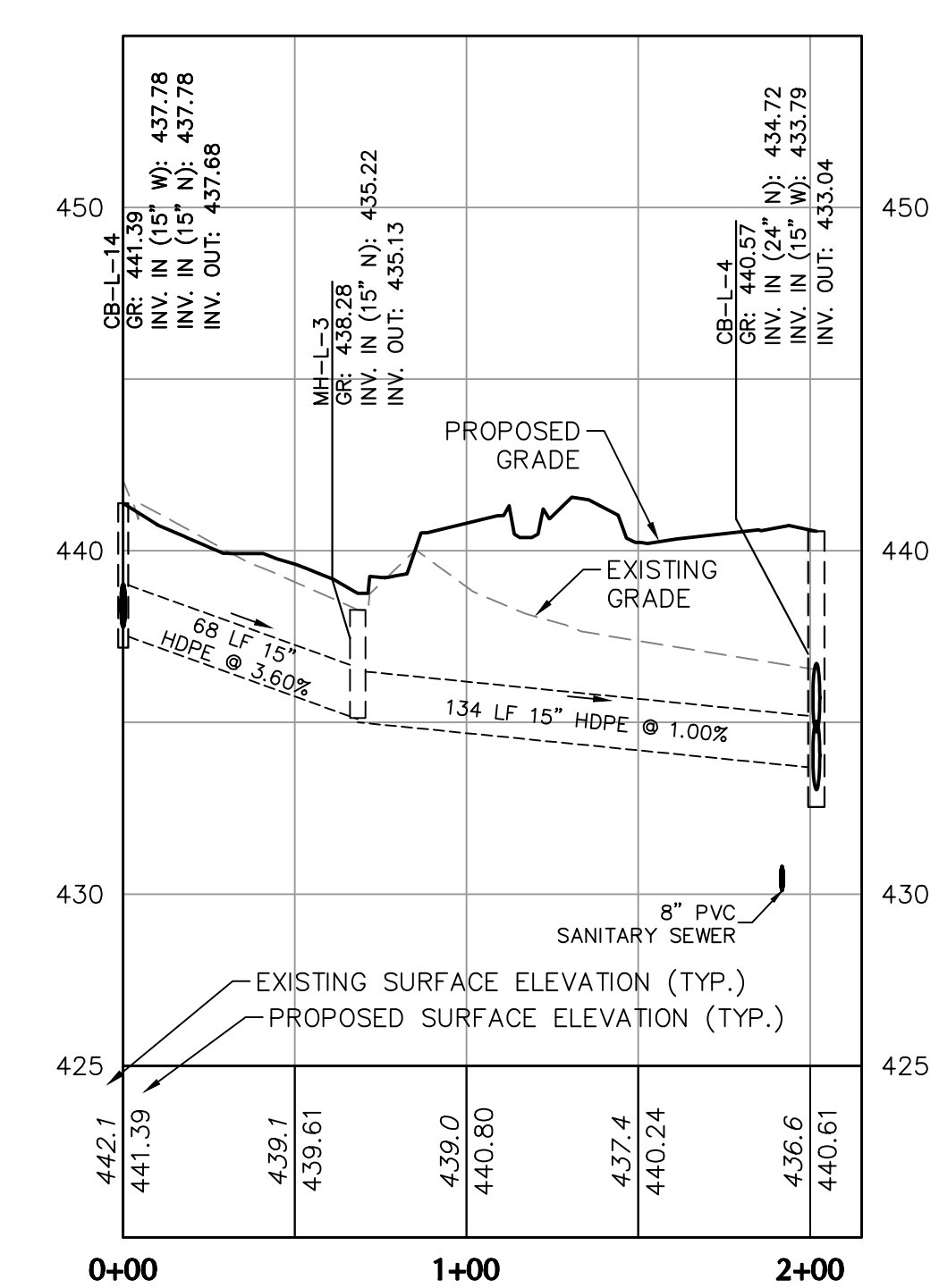
OCS-P-4 TO MH-536A



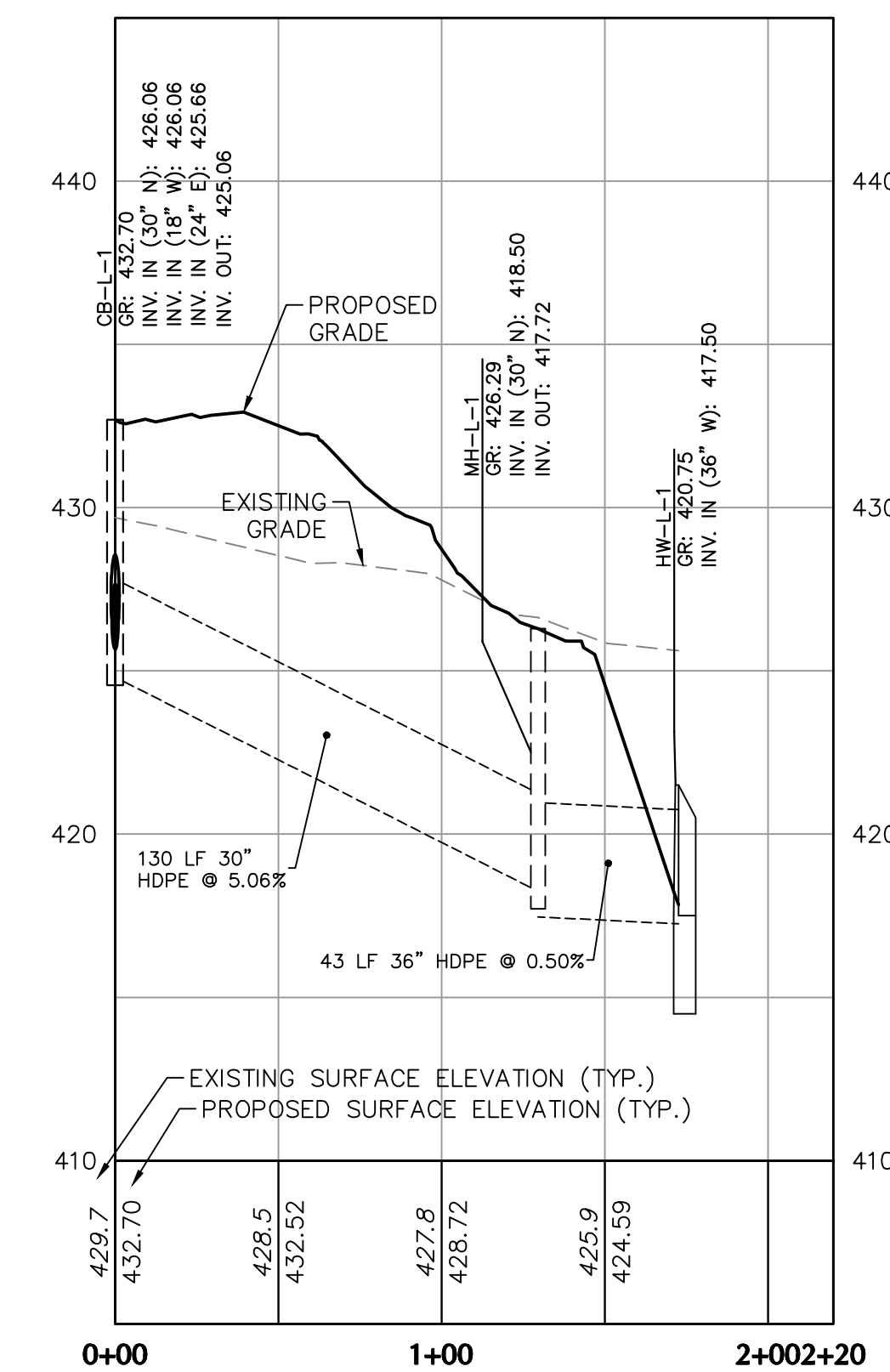
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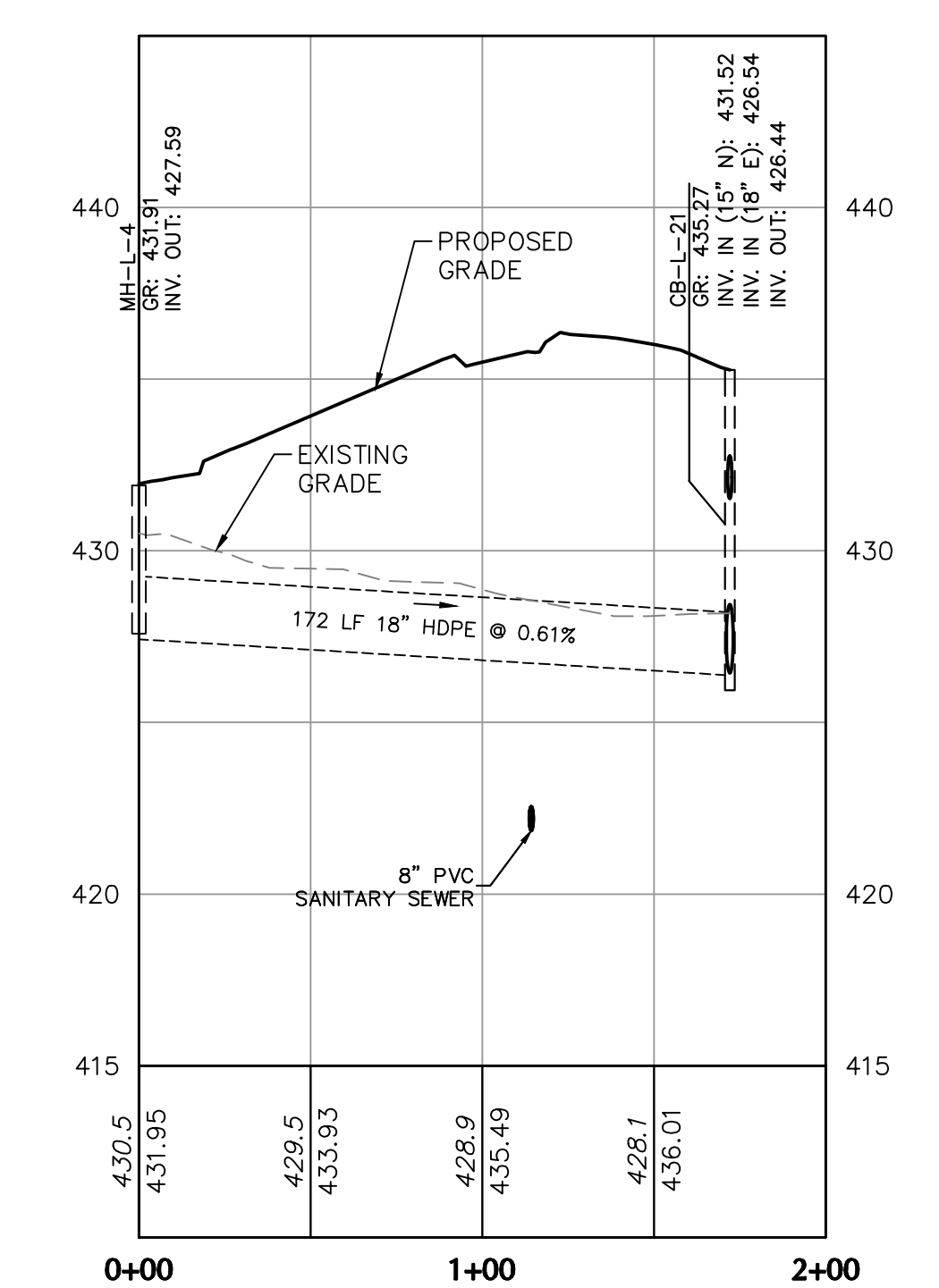
I-801 TO CB-L-11



CB-L-14 TO CB-L-4



CB-L-1 TO HW-L-1



MH-L-4 TO CB-L-21

OFF-ROAD DRAINAGE PROFILES

Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
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SIGNATURE: *J. Scott Enelhardt* DATE SIGNED: _____
 PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

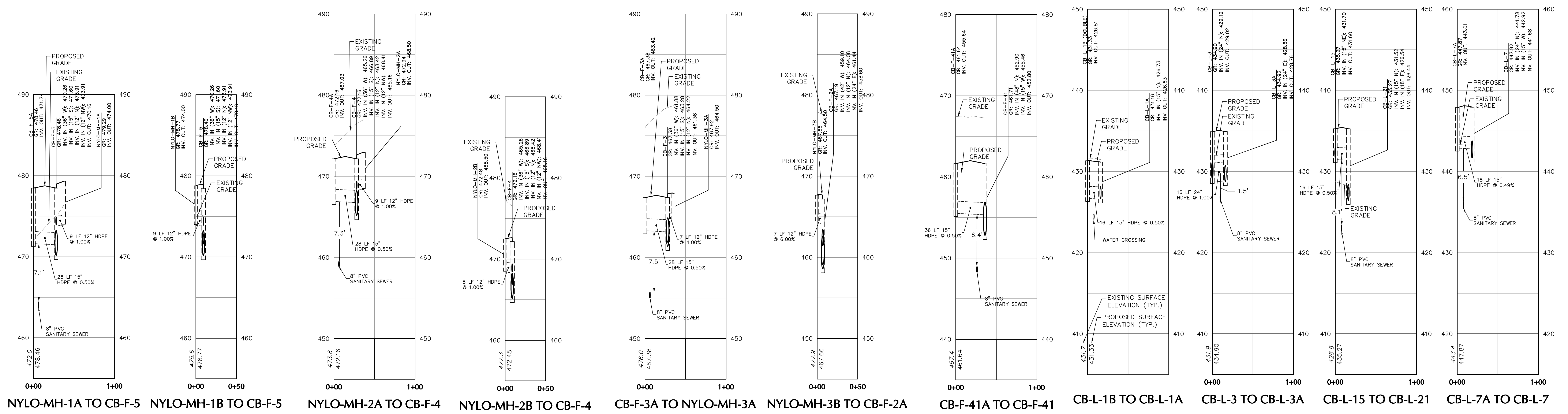


Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
 SOUTH WHITEHALL TOWNSHIP
 LEHIGH COUNTY PENNSYLVANIA

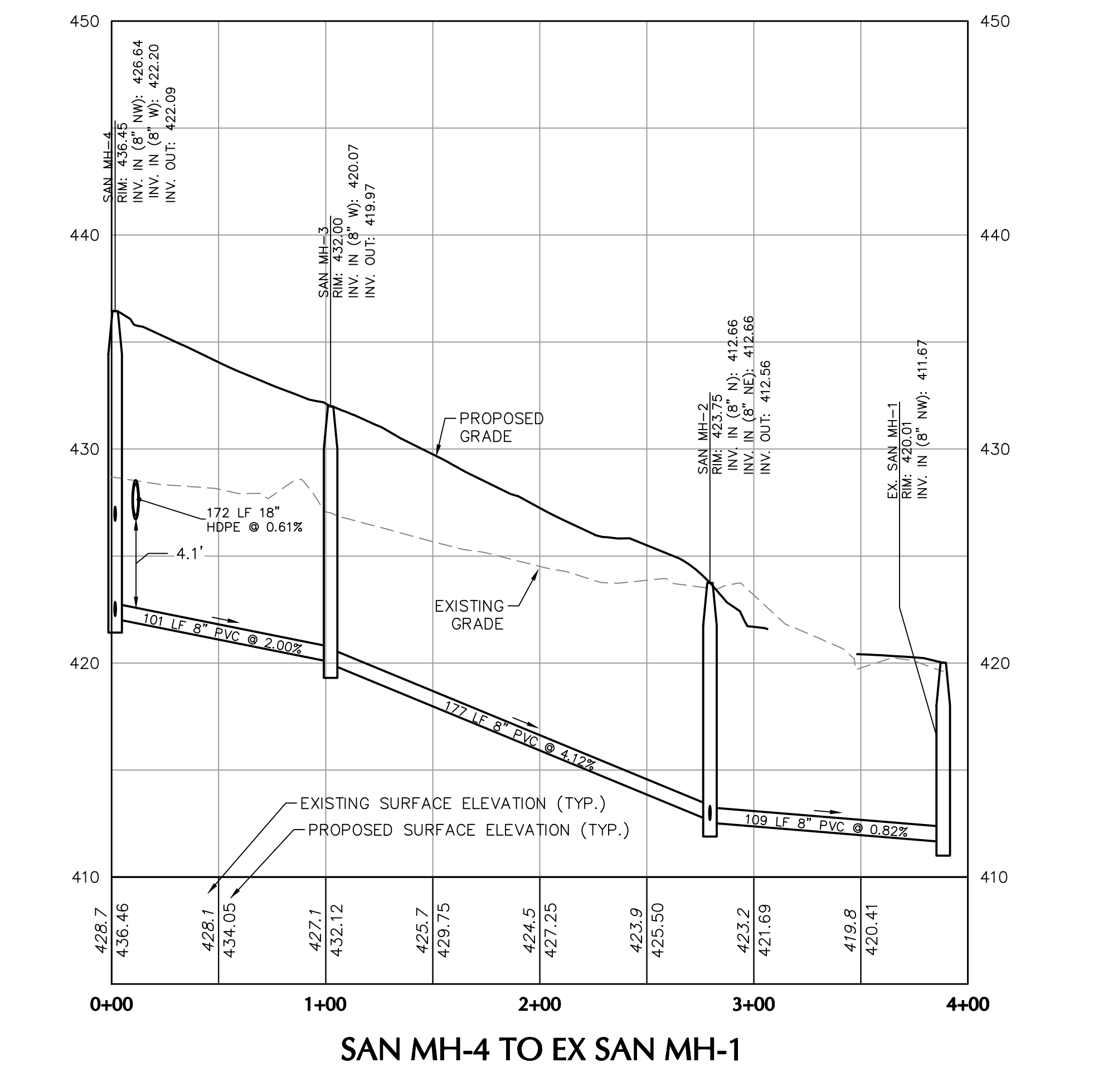
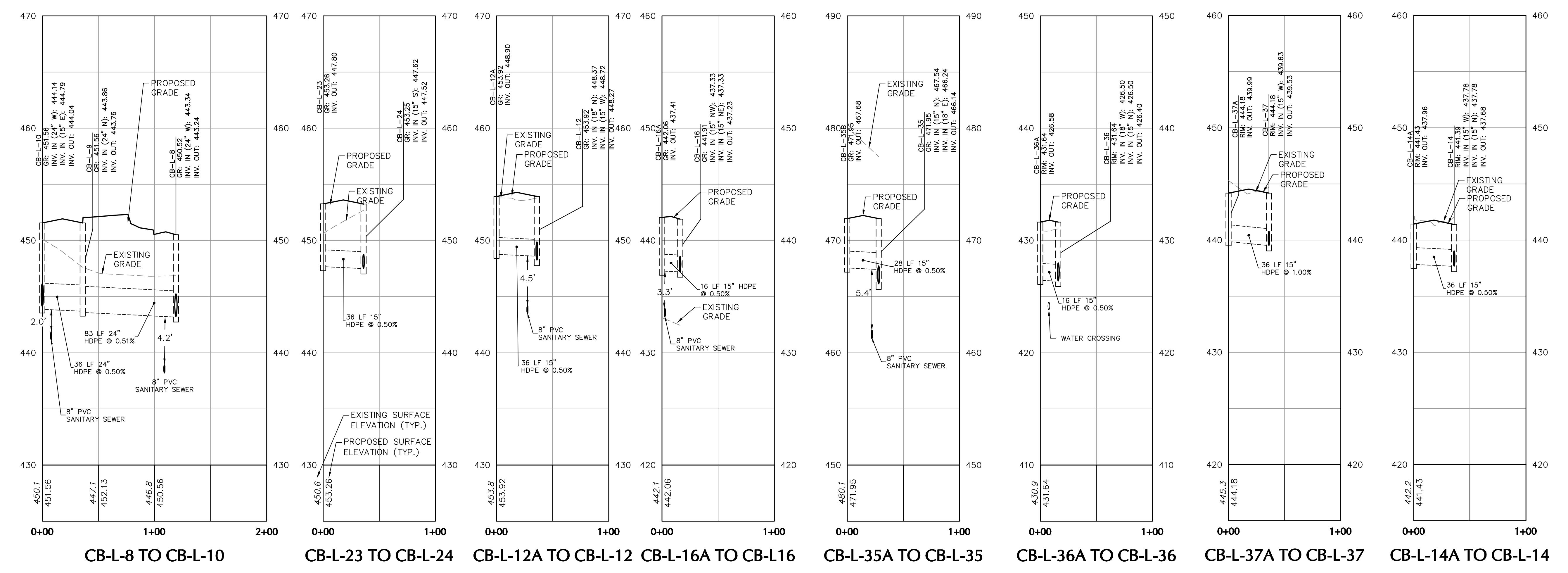
Drawing Title: **ROADWAY & UTILITY PROFILES**

Project No. **240043301**
 Date: **04/20/22**
 Scale: **AS SHOWN**
 Drawn By: **JDM** Checked By: **JSE**
 Submission Date: _____
 Sheet **17** of **22**

OWNER/APPLICANT
 KAY WALBERT LLC.
 ATTN: RICHARD M. KOZE, JR.
 5930 HAMILTON BLVD., SUITE 10
 ALLENTOWN, PA 18106
 610-395-6857



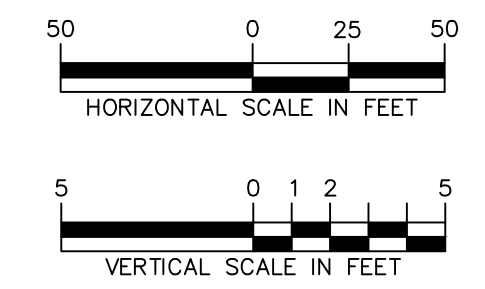
OFF-ROAD DRAINAGE PROFILES



OFF-ROAD DRAINAGE PROFILES

OFF-ROAD SANITARY PROFILE

OWNER/APPLICANT
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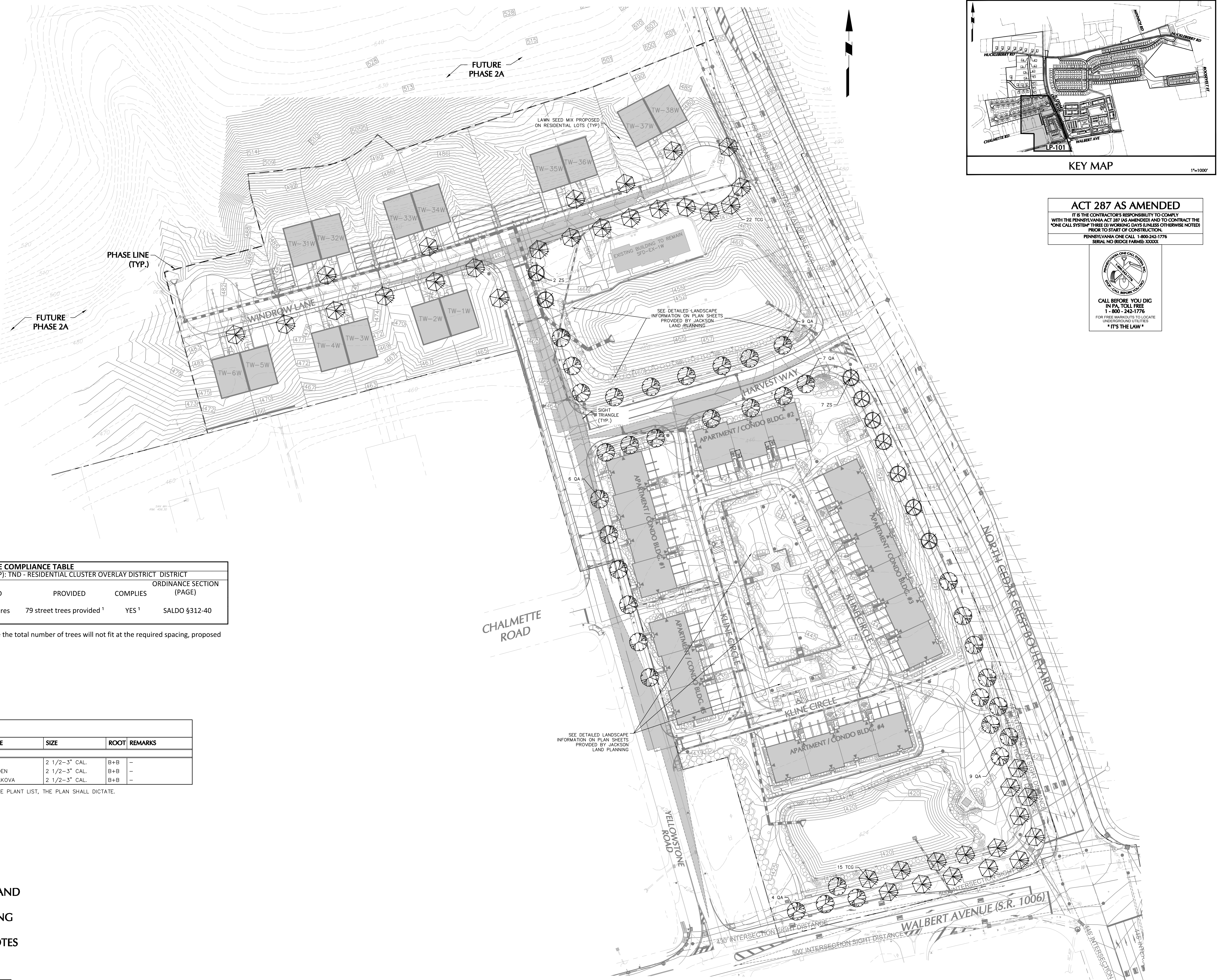
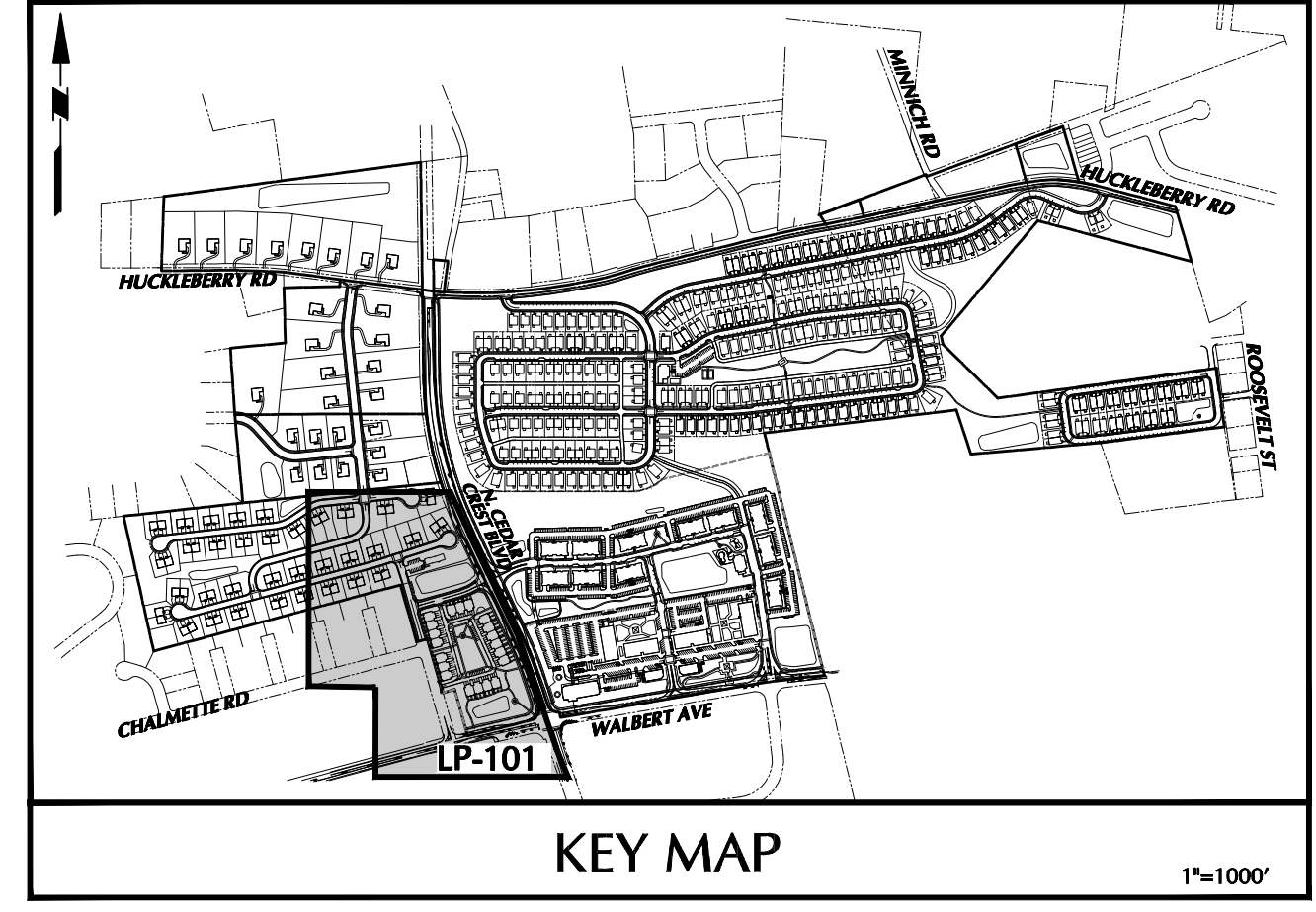
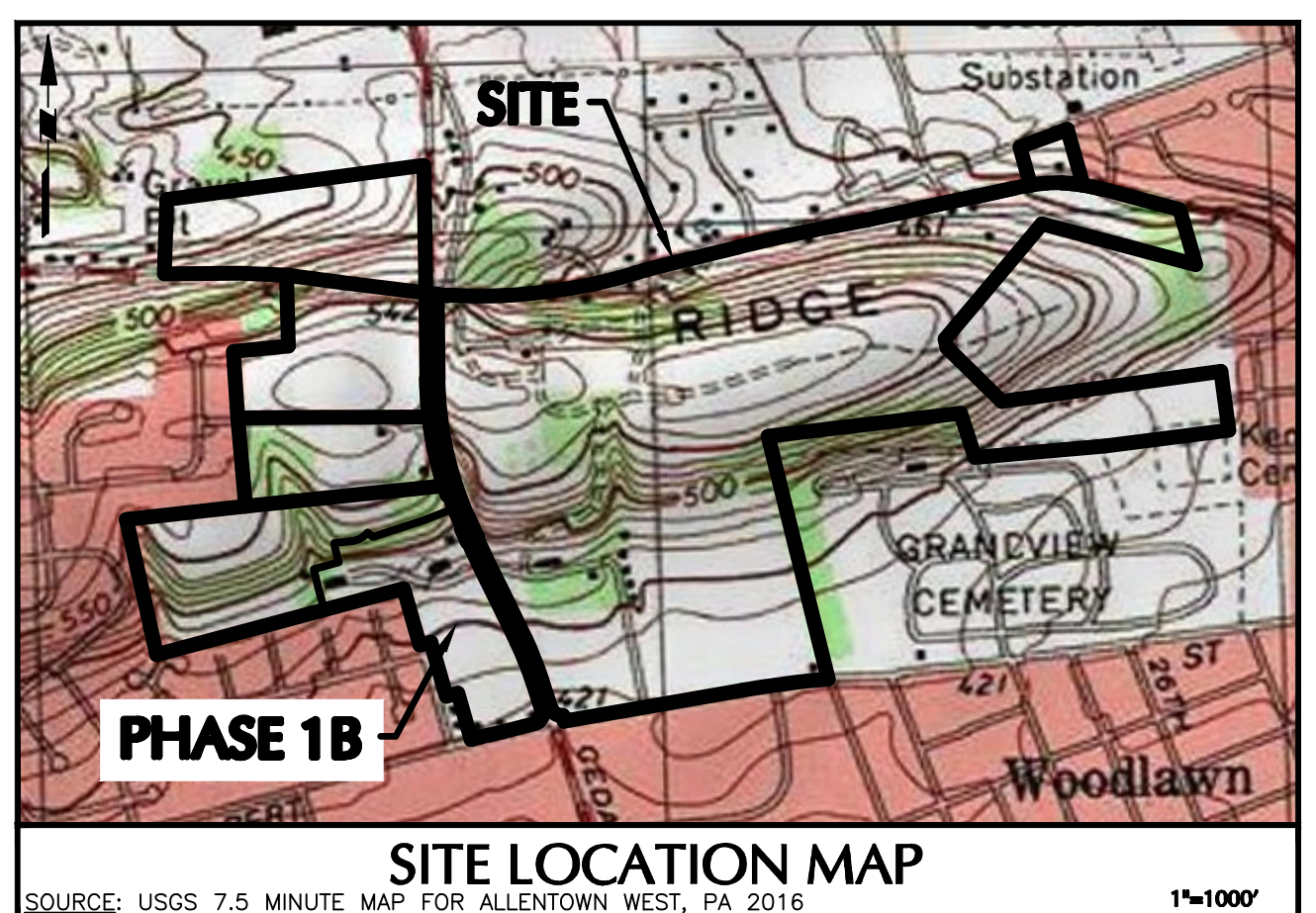
SIGNATURE: *J. P. ENGBERHARDT* DATE SIGNED: _____
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E



Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

Drawing Title: **ROADWAY & UTILITY PROFILES**

Project No. **240043301**
Date: **04/20/22**
Scale: **AS SHOWN**
Drawn By: **JDM** Checked By: **JSE**
Submission Date: _____
Sheet **18** of **22**



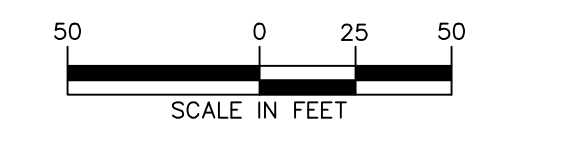
ORDINANCE COMPLIANCE TABLE					
ZONING DISTRICT (SOUTH WHITEHALL TOWNSHIP): TND - RESIDENTIAL CLUSTER OVERLAY DISTRICT					DISTRICT
ITEM	REQUIRED	PROPOSED	PROVIDED	COMPLIES	ORDINANCE SECTION (PAGE)
Shade Trees	Uniformly spaced at every 30' - 40'	3,453 LF roadway requires 87 street trees	79 street trees provided ¹	YES ¹	SALDO §312-40

¹ - Street trees have been provided as suitable along roadway frontages. Where the total number of trees will not fit at the required spacing, proposed street trees have been provided elsewhere on site to provide compliance

PLANT SCHEDULE						
KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREE(S)						
QA	35	QUERCUS ALBA	WHITE OAK	2 1/2-3" CAL.	B+B	-
TCG	37	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2 1/2-3" CAL.	B+B	-
ZS	9	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2 1/2-3" CAL.	B+B	-

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

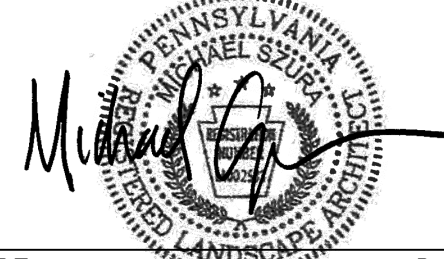
- NOTES:**
- REFER TO LANDSCAPE PLANS BY JACKSON LAND PLANNING FOR DETAILED PLANTINGS, SCHEDULES AND PARKING LOT LANDSCAPING ORDINANCE COMPLIANCE INFORMATION.
 - REFER TO SHEET LP-501 FOR STREET TREE NOTES AND DETAILS.



THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES. ONLY THE LOCATION OF VISIBLE UTILITIES ON OR ABOVE THE SURFACE OF THE EARTH THAT CAN BE REASONABLY LOCATED USING STANDARD SURVEY PROCEDURES SHALL BE CERTIFIED TO. NO CERTIFICATION IS MADE BY LANGAN AS TO THE ACCURACY OR COMPLETENESS OF THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. IT IS IMPERATIVE THAT PRIOR TO ANY CONSTRUCTION IN THE AREA THAT A UTILITY MARK-OUT IS ORDERED. CALL 1-800-242-1776

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KAY WALBERT LLC.
ATTN: RICHARD M. KOZE, JR.
5930 HAMILTON BLVD., SUITE 10
ALLENTOWN, PA 18106
610-395-6857

Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
5-18-23	REVISED PER TOWNSHIP COMMENTS	4.
3-16-23	REVISED PER TOWNSHIP COMMENTS	3.
1-19-23	REVISED PER TOWNSHIP COMMENTS	2.
7-21-22	REVISED PER TOWNSHIP COMMENTS	1.

SIGNATURE: 
MICHRU SUZUKI
REGISTERED LANDSCAPE ARCHITECT PA Lic. No. LA-002533 DATE SIGNED


LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.861.9500 F: 610.861.9501 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan GI, Inc.
Langan International LLC
Collectively known as Langan

Project
RIDGE FARMS PHASE 1B FINAL PLANS
548725550358 1
SOUTH WHITEHALL TOWNSHIP
PENNSYLVANIA

Drawing Title
NON-TND LANDSCAPE & STREET TREE PLAN

Project No. 240043301
Date 04/20/22
Scale 1" = 50'
Drawing By SPW
Checked By NB
Submission Date
Drawing No. LP-101
Sheet 19 of 22

ACT 287 AS AMENDED
IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 AS AMENDED AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS UNLESS OTHERWISE NOTED PRIOR TO START OF CONSTRUCTION.
PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DIGE FARM#): XXXXXX



CALL BEFORE YOU DIG IN PA, TOLL FREE 1-800-242-1776 FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES. *IT'S THE LAW*

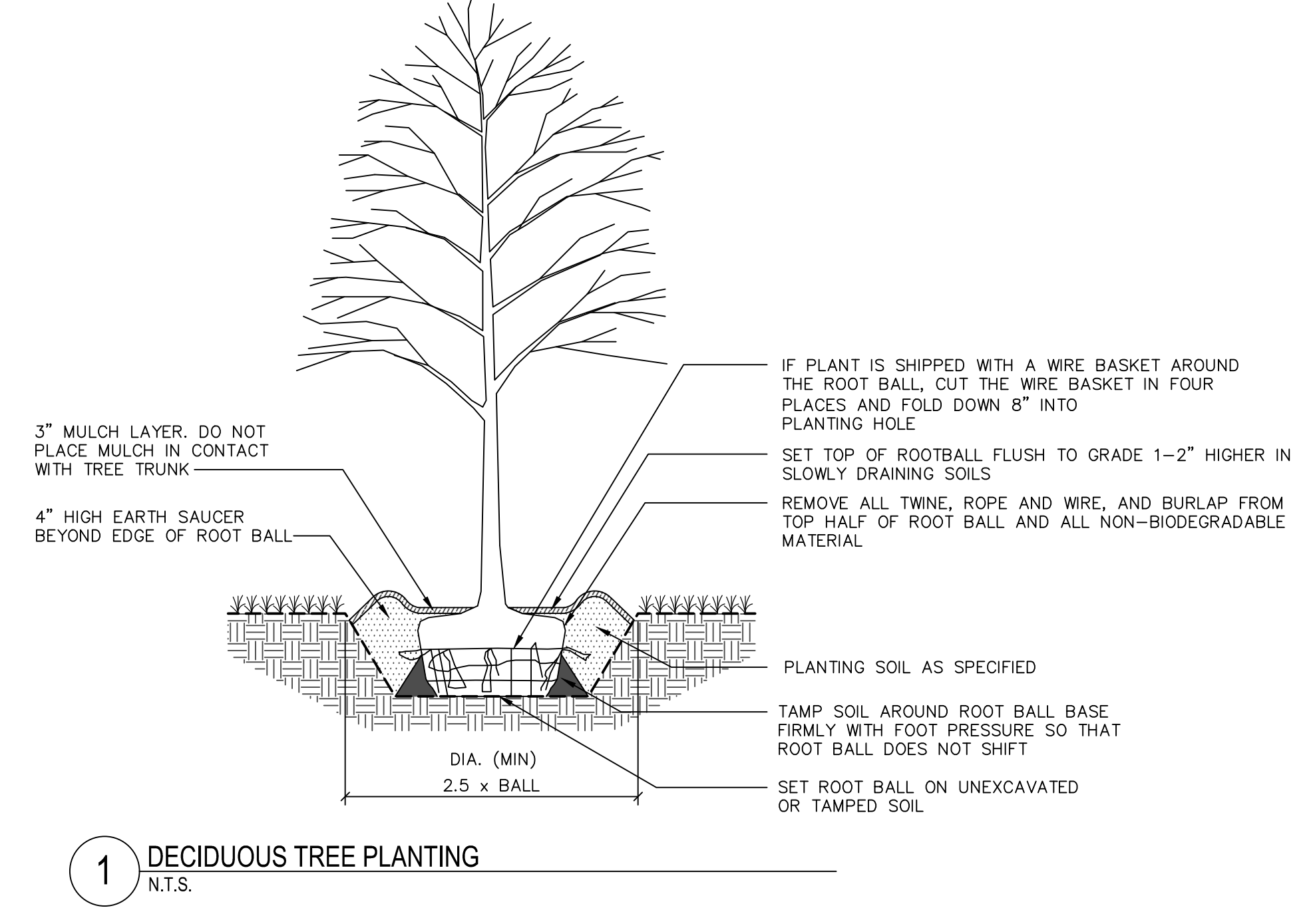
GENERAL STREET TREE PLANTING NOTES:

- PLANTING MATERIALS**
- NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.
 - STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.
 - NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING. PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES.
 - THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.
 - THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE, BEFORE PLANTING, FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER REVIEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
- PLANTING SOILS**
- REUSE SURFACE SOILS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL CRITERIA IN THIS SPECIFICATION THROUGH TESTING. CLEAN SURFACE SOIL OF ALL ROOTS, PLANTS, SOIL, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS. IF ON-SITE SOILS ARE TO BE USED FOR PROPOSED PLANTING, THE CONTRACTOR SHALL DEMONSTRATE, THROUGH SOIL TESTING, THAT ON-SITE SOILS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANS AND SPECIFICATIONS.
 - SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN TOPSOIL AND PLANTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4" DEEP. DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.
 - IF DEPTH OF PLANTING SOILS AND TOPSOIL IS NOT INDICATED IN PLANS OR DETAILS, A MINIMUM 18" DEPTH SHALL BE PROVIDED FOR ALL TREES AND LARGE SHRUBS; MINIMUM 12" DEPTH SHALL BE PROVIDED FOR GROUNDCOVERS, HERBACEOUS AND MEADOW OR ORNAMENTAL GRASS AREAS AND A MINIMUM 6" LAYER SHALL BE INSTALLED IN ALL LAWN AREAS. TOPSOIL AND PLANTING SOIL DEPTH INDICATED ON PLANS AND PLANTING DETAILS AND NARRATIVE SPECIFICATIONS SHALL GOVERN DEPTH WHEN PROVIDED.
 - WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS, BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES.
 - IF THE QUANTITY OF SOILS FROM THE SITE IS NOT ADEQUATE TO FILL PLANTING AREAS TO A DEPTH INDICATED IN PLANS AND DETAILS, TOPSOIL AND PLANTING SOILS TO DETERMINE IF THE MATERIALS ARE CONDUCTIVE TO SUSTAINING PROPOSED PLANTINGS SHOULD BE FURNISHED BY THE CONTRACTOR. TOPSOIL AND PLANTING SOILS SHALL BE FREE OF BROKEN GLASS, PAINT CHIPS, PLASTIC, DELETERIOUS MATERIALS, ROOTS, WEEDS, BOULDERS, COBBLES AND GRAVEL OVER 1" IN DIAMETER AND COMPLY WITH THE FOLLOWING CRITERIA:
 - SOILS SHALL MEET ALL APPLICABLE SOIL REMEDIATION STANDARDS.
 - ORGANIC CONTENT: 2-5% IN NATIVE SOILS; UP TO 10% IN AMENDED SOILS
 - SOLUBLE SALTS: LESS THAN 0.5 MM HOS/CM
 - SOIL PH: 4.5-7.8 TO BE AMENDED PER SOIL TEST RESULTS
 - PHYSICAL (SIEVE) ANALYSIS/ SOIL TEXTURE
 - SAND: 40-60% SILT: 25-60% CLAY: 5-20%
 - NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE.
 - ALL PLANTING SOILS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE, OR APPROVED EQUAL, PRIOR TO DELIVERY TO THE SITE. CONTRACTOR SHALL FURNISH SOIL SAMPLES AND SOIL TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 CUBIC YARDS TO ENSURE CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOILS REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT THE SOILS ARE DEFICIENT IN ANY MANNER AND MAY BE CORRECTED BY ADDING AMENDMENTS, THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR SOIL IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.
 - IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC AMENDMENT SHALL BE WELL COMPOSTED, PH RANGE OF 6-8; MOISTURE CONTENT 35-55% BY WEIGHT 100% PASSING THROUGH 1" SIEVE, SOLUBLE SALT CONTENT LESS THAN 0.5 MM HOS/CM; MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL; FREE OF BROKEN GLASS, PAINT CHIPS, PLASTIC, DELETERIOUS MATERIALS, ROOTS, WEEDS, BOULDERS, COBBLES AND GRAVEL OVER 1" IN DIAMETER
 - SCAFFRY AND/OR TILL ALL COMPACTED SUBSOILS PRIOR TO ADDING PLANTING SOIL OR TOPSOIL. PLANTING SOILS AND TOPSOIL SHALL BE PLACED IN 12-18" LIFTS AND WATER THOROUGHLY BEFORE INSTALLING NEXT LIFT. NO SOILS SHALL BE PLACED IN A FROZEN OR MUDDY CONDITION.
- DELIVERY, STORAGE, AND HANDLING**
- PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED AT SITE.
 - TREES AND SHRUBS: THE CONTRACTOR SHALL DELIVER TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PLANT TREES OR SHRUBS UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP OR BREAK BALLED STOCK DURING DELIVERY OR HANDLING.
 - ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT BALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING. IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8" INTO THE PLANTING HOLE. WITH CONTAINER-GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO LOCATIONS.
 - THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.
- INSTALLATION**
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES PRIOR TO THE START OF EXCAVATION ACTIVITIES. NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
 - THE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.
 - NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
 - ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND UNEVEN SURFACES PRIOR TO PLANTING OR MULCHING.
 - ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES.
 - THE CONTRACTOR SHALL KEEP AREA CLEAN DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF-SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.
 - AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.
 - MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR.
 - ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY SITE AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND HEALTHY PLANT GROWTH.
 - AFTER COMPLETION OF A PROJECT, ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A SHREDDED HARDWOOD BARK OR APPROVED EQUAL MULCH THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST.
 - TREES MAY BE STAKED AT LANDSCAPE CONTRACTOR'S DISCRETION. CURRENT HORTICULTURAL PRACTICE DOES NOT RECOMMEND STAKING TREES EXCEPT IN CONDITIONS WHERE TREES ARE SUBJECT TO BLOW DOWNS DUE TO SOIL CONDITIONS, HEAVY PREVAILING WINDS OR A HIGH RATIO OF TOP GROWTH TO ROOT BALL. IF STAKING IS DEEMED NECESSARY BY CONTRACTOR, STAKE AND GUYS SHOULD BE LOCATED AND FLAGGED IN A MANNER TO PREVENT TRIPPING HAZARDS. WIRES OR GUYS SHALL BE LOCATED AND COVERED SO AS NOT TO PULL OR DAMAGE BRANCHES AND SHALL BE REMOVED AT THE END OF THE GUARANTEE PERIOD.
- GUARANTEE & MAINTENANCE**
- NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF 18 MONTHS FOLLOWING ACCEPTANCE BY THE OWNER. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
 - THE OWNER SHALL HAVE SOLE RESPONSIBILITY THROUGH CONTRACT OR OTHER MEANS TO ACTIVELY MAINTAIN THE PROPERTY AND LANDSCAPE IMPROVEMENTS IN A MANNER WHICH IS CONSISTENT WITH SUCH IMPROVEMENTS AS PORTRAYED IN THESE PLANS.

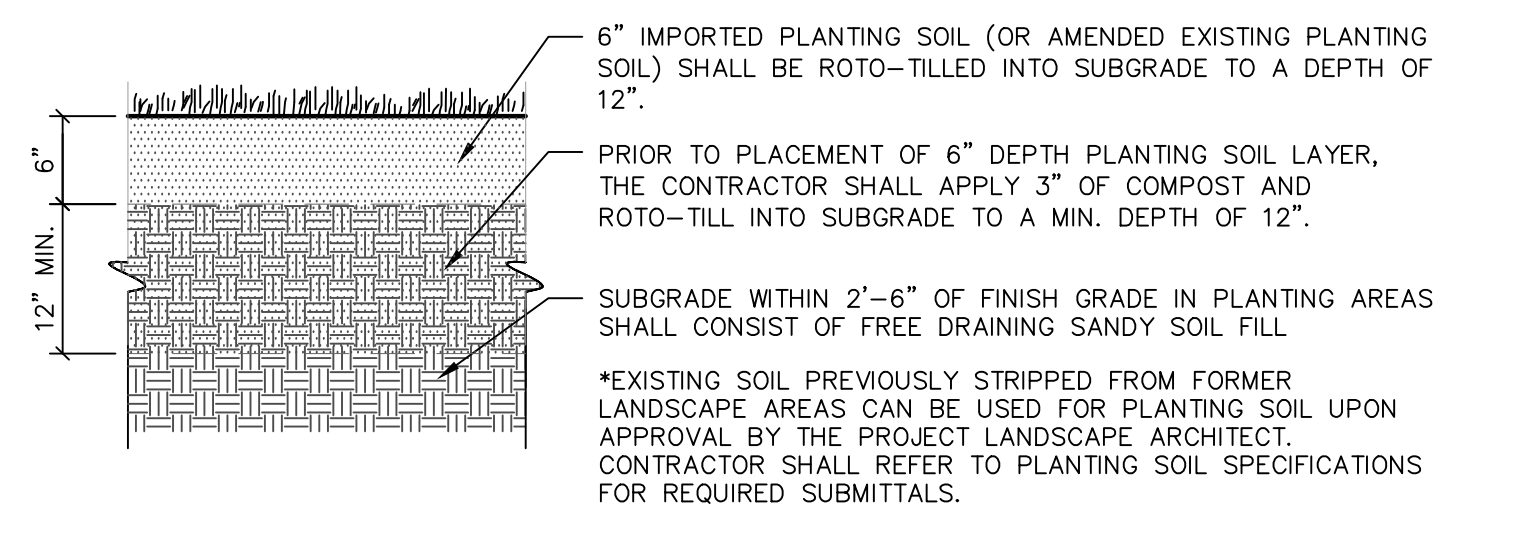
MEADOW SEEDING NOTES:

- MEADOW SEED MIX "A" - ERNST SEED MIX ERNMX-183 "NATIVE DETENTION AREA MIX"**

32.0%	PANICUM CLANDESTINUM, "TIOGA"	DEERTONGUE
20.0%	CAREX VULPINOIDEA, PA ECOTYPE	FOX SEDGE
20.0%	ELYMUS VIRGINICUS, PA ECOTYPE	VIRGINIA WILDRIE
20.0%	PANICUM VIRGANTUM, "SHAWNEE"	SWITCHGRASS
4.0%	ARAGROSIS STOLONIFERA	CREeping BENTGRASS
2.0%	JUNCUS TENUIUS, PA ECOTYPE	PAITH RUSH
1.0%	JUNCUS EFFUSUS	SOFT RUSH
1.0%	PANICUM RIGIDULUM, PA ECOTYPE	REDTOP PANICGRASS
 - GENERAL SEEDING NOTES:**
 - SEED AT A RATE OF 20 LBS./ACRE.
 - FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 20 LBS./ACRE.
 - FOR FALL SEEDING, APPLY A NURSE CROP OF BARLEY AT A RATE OF 20 LBS./ACRE.
 - WEED CONTROL/MAINTENANCE NOTES:**
 - DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"-10". DO NOT MOW CLOSE, AS SOME OF THE MEADOW MIX MAY BE DAMAGED.
 - AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH.
 - MOW IN WETLAND AND WETLAND TRANSITION AREAS DURING DRIER SITE CONDITIONS WHEN SOIL DISTURBANCE WILL NOT OCCUR. MAINTENANCE FOR WETLAND AND WETLAND TRANSITION AREAS SHALL OCCUR DURING LATE SUMMER (JULY 1 TO AUGUST 15) WHEN THE WATER TABLE IS USUALLY AT ITS LOWEST POINT OF THE YEAR. DO NOT MOW IN WETLAND OR WETLAND TRANSITION AREAS ESTABLISHMENT OF MEADOW MIX.
- GENERAL NOTE:**
DUE TO GENERAL CONSTRUCTION ACTIVITIES AND ADJACENT SITE COMPACTION REQUIREMENTS, SUBGRADE SOILS WITHIN PROPOSED PLANTING AREAS TEND TO BECOME HIGHLY COMPACTED. IN ORDER TO CREATE A HEALTHY GROWTH MEDIUM TO ALLOW PROPOSED PLANTINGS TO ESTABLISH A VIGOROUS ROOT MASS, THIS SUBGRADE SOIL MUST UNDERGO A RESTORATION PROCESS. IN ADDITION, IMPORTED OR AMENDED EXISTING SOILS SHALL BE MIXED WITH SUBGRADE SOILS WHERE THEY MEET IN ORDER TO CREATE A TRANSITIONAL GRADIENT TO ALLOW FOR PROPER DRAINAGE.



1 DECIDUOUS TREE PLANTING N.T.S.



NOTE:

- REFER TO LANDSCAPE PLANS BY JACKSON LAND PLANNING FOR NON-STREET TREE RELATED LANDSCAPING NOTES AND DETAILS.
- REFER TO SHEET LP-101 FOR LANDSCAPE PLAN, LANDSCAPE SCHEDULE AND ORDINANCE COMPLIANCE CHART.

Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
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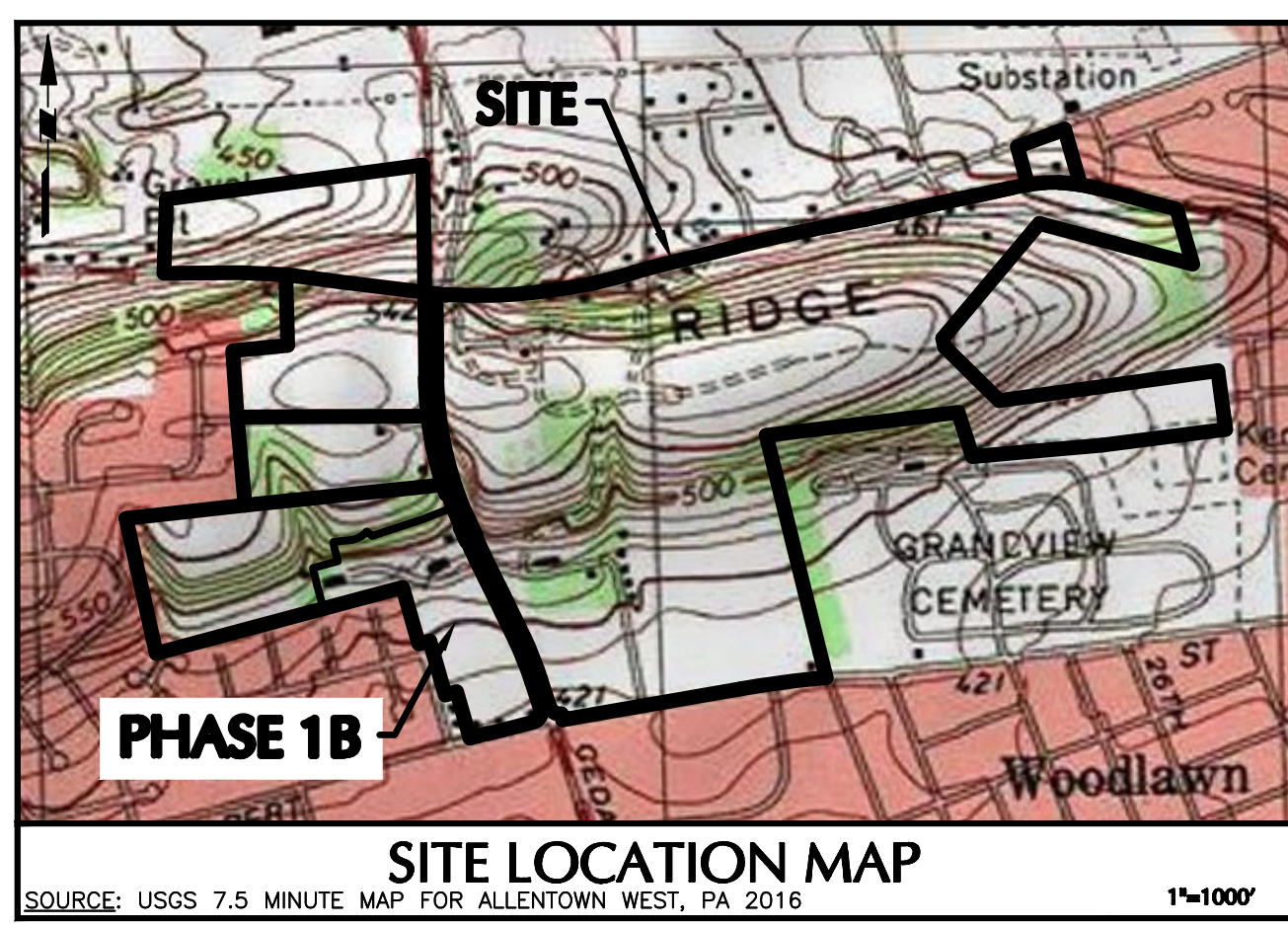
SIGNATURE: *Michael S. Zura* DATE SIGNED: _____
REGISTERED LANDSCAPE ARCHITECT PA Lic. No. LA-002533



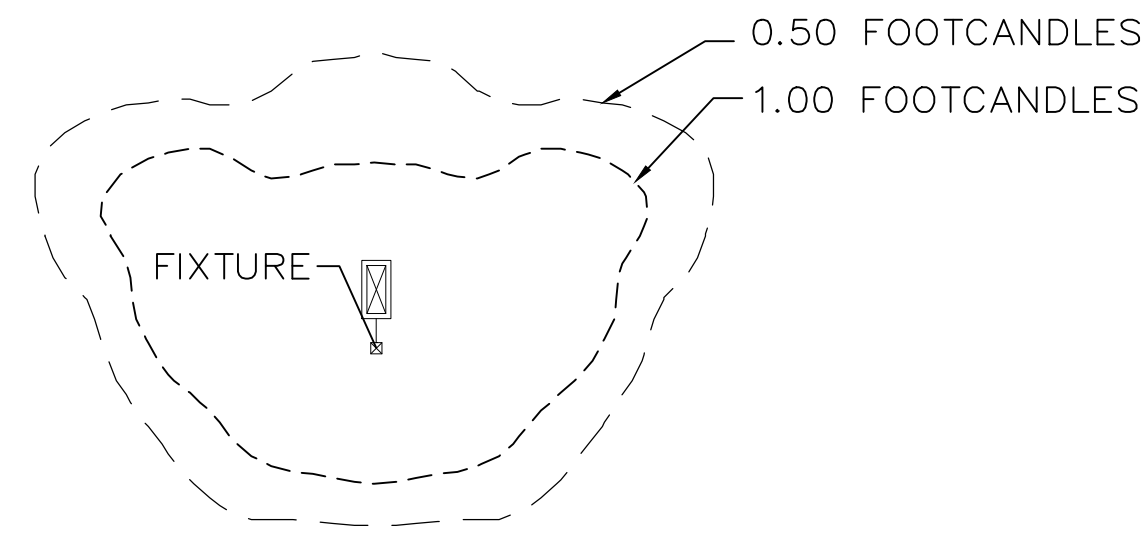
Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
SOUTH WHITEHALL TOWNSHIP
LEHIGH COUNTY PENNSYLVANIA

Drawing Title: **STREET TREE NOTES AND DETAILS**

Project No.	240043301	Drawing No.	LP-501
Date	04/20/22		
Scale	N.T.S.		
Drawn By	SPW	Checked By	NB
Submission Date			
		Sheet	20 of 22



PHOTOMETRIC LIGHTING TEMPLATE:



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE AND DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.

STATISTICS

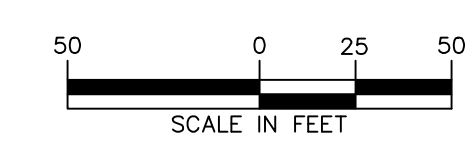
DESCRIPTION	AVG.	MAX.	MIN.	MAX./MIN.	AVG./MIN.
CENTRAL GREEN PARKING	1.34 FC	3.0 FC	0.7 FC	4.29:1	1.91:1

NOTE: LIGHT PHOTOMETRY AND CALCULATIONS FOR EXISTING AND ADJACENT LIGHTING TO REMAIN ARE NOT INCLUDED IN THE ABOVE STATISTICS.

SITE LIGHTING SCHEDULE

SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	LAMP	OPTICS	LUMENS	LLF	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.
•	B	16	SELUX	BETA LANTERN LED	POST TOP PEDESTRIAN LIGHT; COLOR - BLACK	16'	64W LED	TYPE V ROUND DISTRIBUTION	6,422	0.90	BLR-R55-5G700-30-BL-UNV	SELUX	STRAIGHT STEEL POLE	16'	AT535-16-BL
•	C	13	SELUX	BETA LANTERN LED	POST TOP PEDESTRIAN LIGHT; COLOR - BLACK	16'	64W LED	TYPE IV DISTRIBUTION	6,396	0.90	BLR-R4-1-5G700-30-BL-UNV	SELUX	STRAIGHT STEEL POLE	16'	AT535-16-BL
•	D	22	BEGA	99862	BOLLARD; COLOR - BLACK	3'	19.8W LED	N/A	1,280	0.90	99862	BEGA	99622	32"	99622

NOTE:
1. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING VOLTAGES.



NOTES:
1. REFER TO SHEET LL-501 FOR LIGHTING NOTES AND DETAILS.

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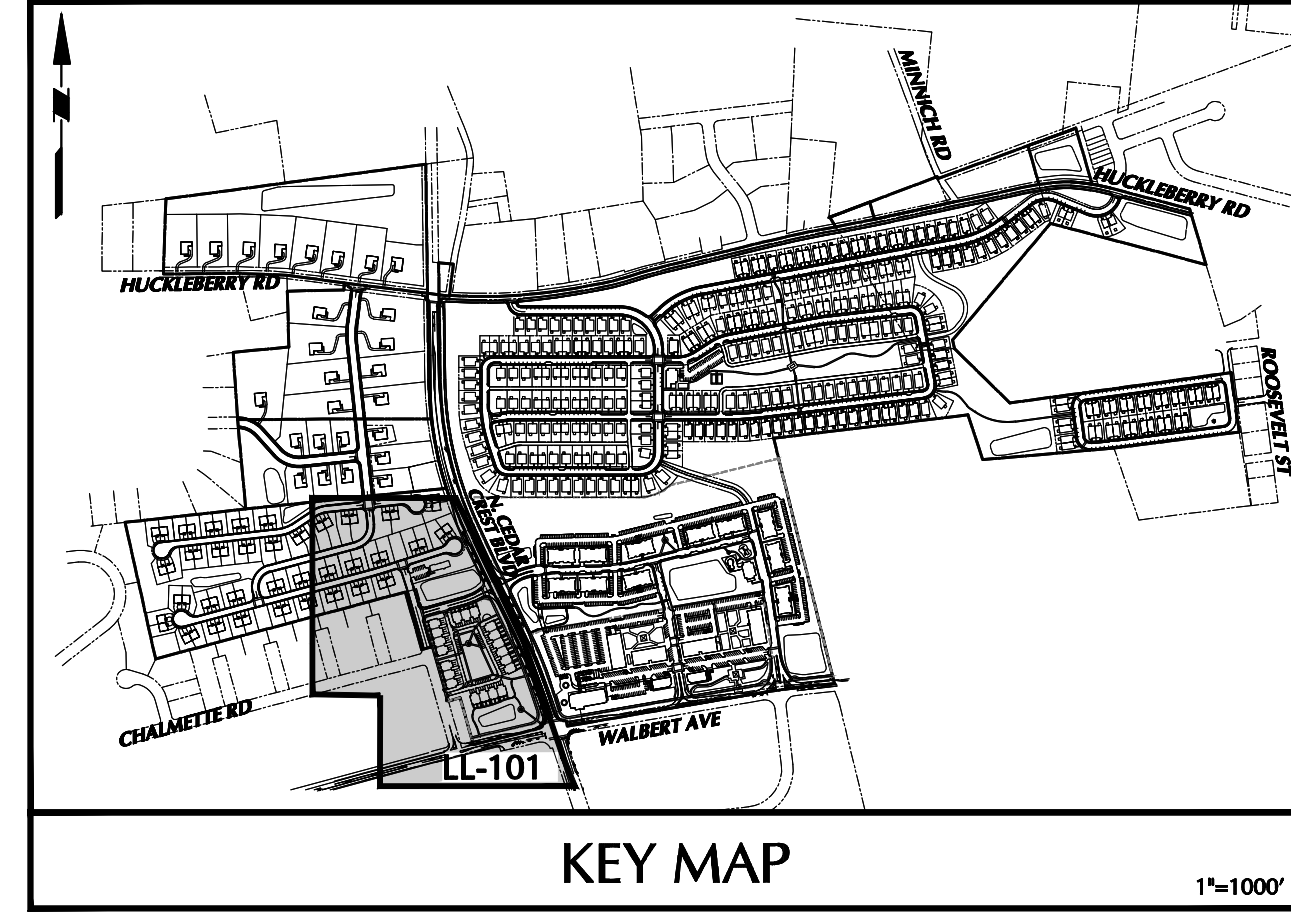
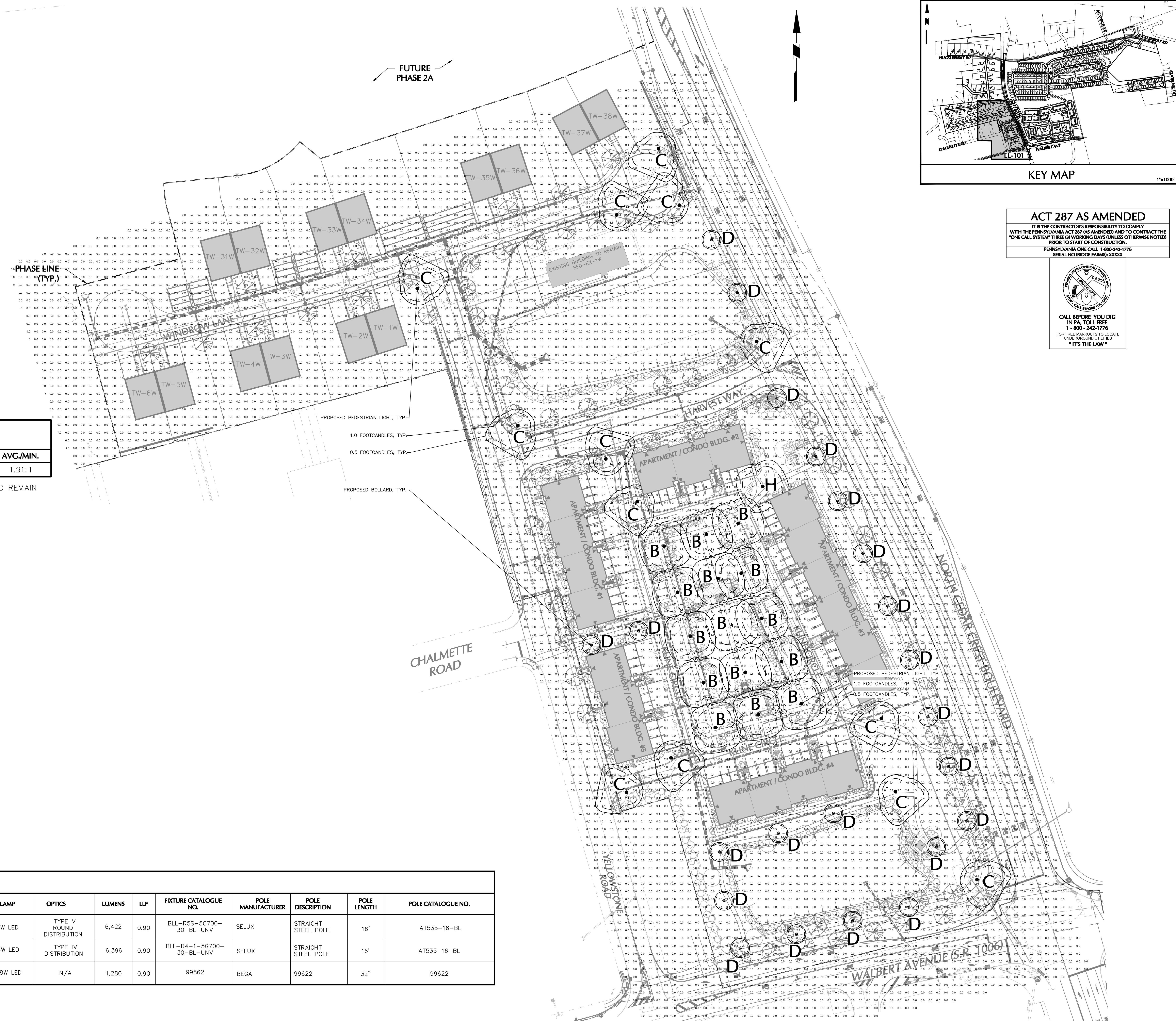
SIGNATURE: MICHAEL J. SZURA DATE SIGNED: _____
 REGISTERED LANDSCAPE ARCHITECT PA Lic. No. LA-002533

LANGAN
 One West Broad Street, Suite 200, Bethlehem, PA 18018
 T: 610.864.8500 F: 610.864.8501 www.langan.com
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 Collectively known as Langan

Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
 54872550358 1
 SOUTH WHITEHALL TOWNSHIP
 LEHIGH COUNTY PENNSYLVANIA

Drawing Title: **LIGHTING PLAN**
 Project No.: 240043301
 Date: 04/20/22
 Scale: 1" = 50'
 Drawn By: SPW Checked By: NB
 Submission Date: _____

Drawing No.: **LL-101**
 Sheet 21 of 22



ACT 287 AS AMENDED
 IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 AS AMENDED AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS UNLESS OTHERWISE NOTED PRIOR TO START OF CONSTRUCTION.
 PENNSYLVANIA ONE CALL 1-800-242-1776
 SERIAL NO. (DIGE FARMSE) XXXXXX



LIGHTING NOTES:

GENERAL

- POINT-BY-POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE TO IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY STANDARD LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP / DIRT DEGRADATION ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY STANDARD LLF IN ACCORDANCE WITH GUIDANCE AS PROVIDED BY IESNA. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR ADJACENT LIGHT SOURCES AND/OR OTHER POTENTIAL IMPACTS HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS-BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS. NO GUARANTEE OF LIGHT LEVELS IS EXPRESSED OR IMPLIED BY THE POINT BY POINT CALCULATIONS SHOWN ON THESE PLANS.
- LIGHT LEVEL POINT SPACING IS 20 FT. LEFT TO RIGHT AND 20 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON THE LIGHT LOSS FACTOR AS STATED IN THE LIGHTING SCHEDULE.
- ALL LIGHTING IS TO BE FULL OUT-OFF.
- A BUILDING PERMIT IS REQUIRED FOR LIGHT POLE FOUNDATIONS PRIOR TO INSTALLATION.

COMPLIANCE

- ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.
- LIGHTING LAYOUT COMPLIES WITH THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) SAFETY STANDARDS FOR LIGHT LEVELS.

COORDINATION

- CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO ENSURE ALL SITE LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.
- REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.
- CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
- INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH ALL SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK.
- CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING EXCAVATIONS.

POLES AND FOOTINGS

- PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND/OR IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO CAST-IN-PLACE CONCRETE. THE USE OF ALTERNATE LIGHTING FOUNDATIONS, SUCH AS PRECAST, MAY CHANGE THE SIZING AND REINFORCEMENT REQUIREMENTS FROM THOSE SHOWN ON THESE PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING ANY SUBSTITUTED PRODUCTS.
- CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERCISED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNSATISFACTORY CONDITIONS.
- POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.
- ALL POLES HIGHER THAN 25 FT. SHALL BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENERS.

ADJUSTMENT AND INSPECTION

- CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.
- CONTRACTOR TO AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.
- CONTRACTOR TO CONFIRM THAT LIGHT FIXTURES, TILT ANGLE AND AIMING MATCH SPECIFICATIONS ON THE PLANS.

REQUIREMENTS FOR ALTERNATES

- ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING REQUIREMENTS:
 - ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER AND TENANTS. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR.
 - COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES, BY ISOPHOTIC CURVE, THE SYSTEM'S PERFORMANCE.
 - A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS, IES CALCULATIONS, POINT BY POINT FOOT CANDLE PLAN, STATISTIC ZONES SHOWING AVERAGE, MAXIMUM, MINIMUM AND UNIFORMITY RATIOS, SUMMARY, IESNA PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS, WATTAGE, VOLTAGE, FINISH HOUSING DESCRIPTION AND ALL OTHER PERTINENT INFORMATION.
 - POLE MANUFACTURER ASHOTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
 - THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE UTILIZED.
 - A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.

Date: _____ Customer: _____
 Project: _____ selux
 Type: _____ Qty: _____

Beta Lantern LED



Order Code:	BLL	Series	Height	Finish	Options	
BLL	Series	BLL Beta Lantern LED				
Optics	R1 Type I Distribution	R2 Type II Distribution	R3 Type III Distribution	R4 Type IV Distribution	R5R Type V (Round) Distribution	R5S Type V (Square) Distribution
Mounting	1 Single	2 Double	W Wall Mount			
Light Engine	5G350 nominal 33W	5G530 nominal 49W	5G700 (optional LED) nominal 65W	5G105 nominal 95W	5G140 nominal 125W	
CCT	30 3000K	40 4000K			*DA Approved with 3000K CCT *If other CCT, please consult factory.	
Power Cord Length	12 12'	15 15'	18 18'	20 20'	25 25'	XX XX'
Finish	WH White	BK Black	BL Semi-Matte Black	BZ Bronze	SV Silver	SP Specify Premium Color
Voltage	UNV 120-277	347*	480*			*Equipped with step down transformer
Options	HS ¹ Hose Side Shield (80")	DM ¹ Dinning (0-100)	PCT Photocell Sensor 6 to 6.5m	HL30 ^{1,2} P.L.C. Switching See Order Code 30%	HL50 ^{1,2} P.L.C. Switching See Order Code 30%	*Type I, II, III and IV only *120, 240, 277V only

Product Modifications
 Please list modification requirements for review by factory:

Approvals

Date: _____

Page 1 of 12
 (Rev. 02/2018)
 BLL.us.v5.0

3 SELUX PEDESTRIAN LIGHT FIXTURE
 N.T.S.

BEGA LED system bollard - luminaire head with shielded light - 360°

Enclosure: Housing constructed of die-cast aluminum. Die-castings are marine grade, copper free (a 0.2% copper content A3062) aluminum alloy. Glass diffuser, inside white. Fully gasketed for weather tight operation using molded silicone gaskets.

Installation: BEGA LED system bollards are designed for easy attachment to system bollard tubes using an interlocking stainless steel mechanism and stainless steel set screws threaded into stainless steel insert. An accompanying bollard tube must be selected for proper installation, see below chart for compatible tube options.

Electrical: 16.5W LED luminaire, 19.8 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver. 0-10V dimming. LED modules are available from factory for easy replacement. Standard LED color temperature is 3000K with a +80 CRI. Available in 4000K (add CRI); add suffix K4 to order.

Note: LEDs subjected with lifetime. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK), White (WHI), Bronze (BRZ), Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order. CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

Weight: 6.4 lbs

Luminaire Lumens: 1286

Type: _____
 BEGA Product: _____
 Project: _____
 Voltage: _____
 Color: _____
 Options: _____
 Modified: _____



Bollard heads - shielded - 360°	A	B
99 862 16.5W LED	7 1/2"	6 1/2"

Bollard tubes	Door	A	B	Arch. unit
99 822	1 1/2"	7 1/2"	32"	79 818
99 844	1 1/2"	7 1/2"	32"	79 818
99 826	GFCI outlet	7 1/2"	32"	79 818
99 858	Passive infrared motion sensor	7 1/2"	32"	79 818
99 836	Emergency lighting battery 10Wh	7 1/2"	32"	79 818
99 815		7 1/2"	14 1/2"	79 817

BEGA 1000 Bega Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 686-9474 www.bega-us.com
 Copyright BEGA 2018 Updated 04/2018

5 BEGA BOLLARD
 N.T.S.

Date	Description	No.
7-27-23	REVISED PER TOWNSHIP COMMENTS	5.
5-18-23	REVISED PER TOWNSHIP COMMENTS	4.
3-16-23	REVISED PER TOWNSHIP COMMENTS	3.
1-19-23	REVISED PER TOWNSHIP COMMENTS	2.
7-21-22	REVISED PER TOWNSHIP COMMENTS	1.

REVISIONS

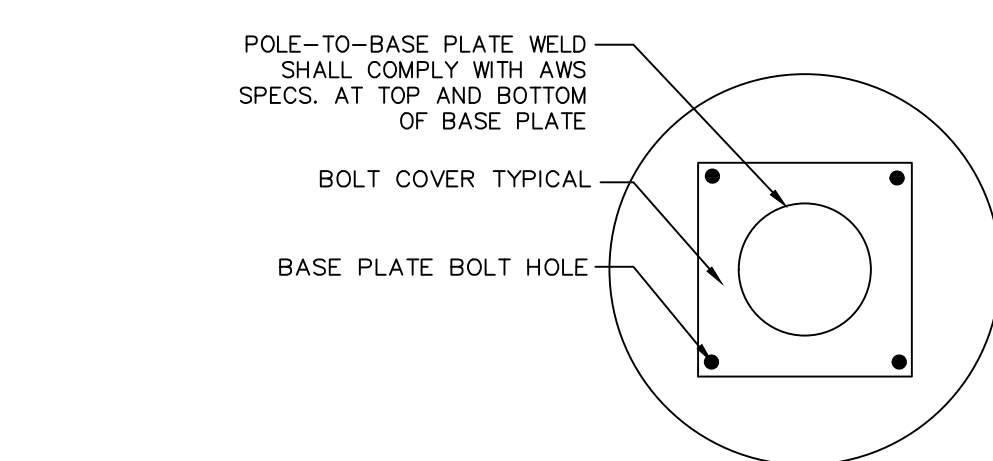
SIGNATURE: _____ DATE SIGNED: _____
 REGISTERED LANDSCAPE ARCHITECT PA Lic. No. LA-002533

LANGAN
 One West Broad Street, Suite 200, Bethlehem, PA 18018
 T: 610.884.8500 F: 610.884.8501 www.langan.com
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. SA
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Inc.
 Langan Engineering and Environmental Services, Inc.
 Langan International LLC
 Collectively known as Langan

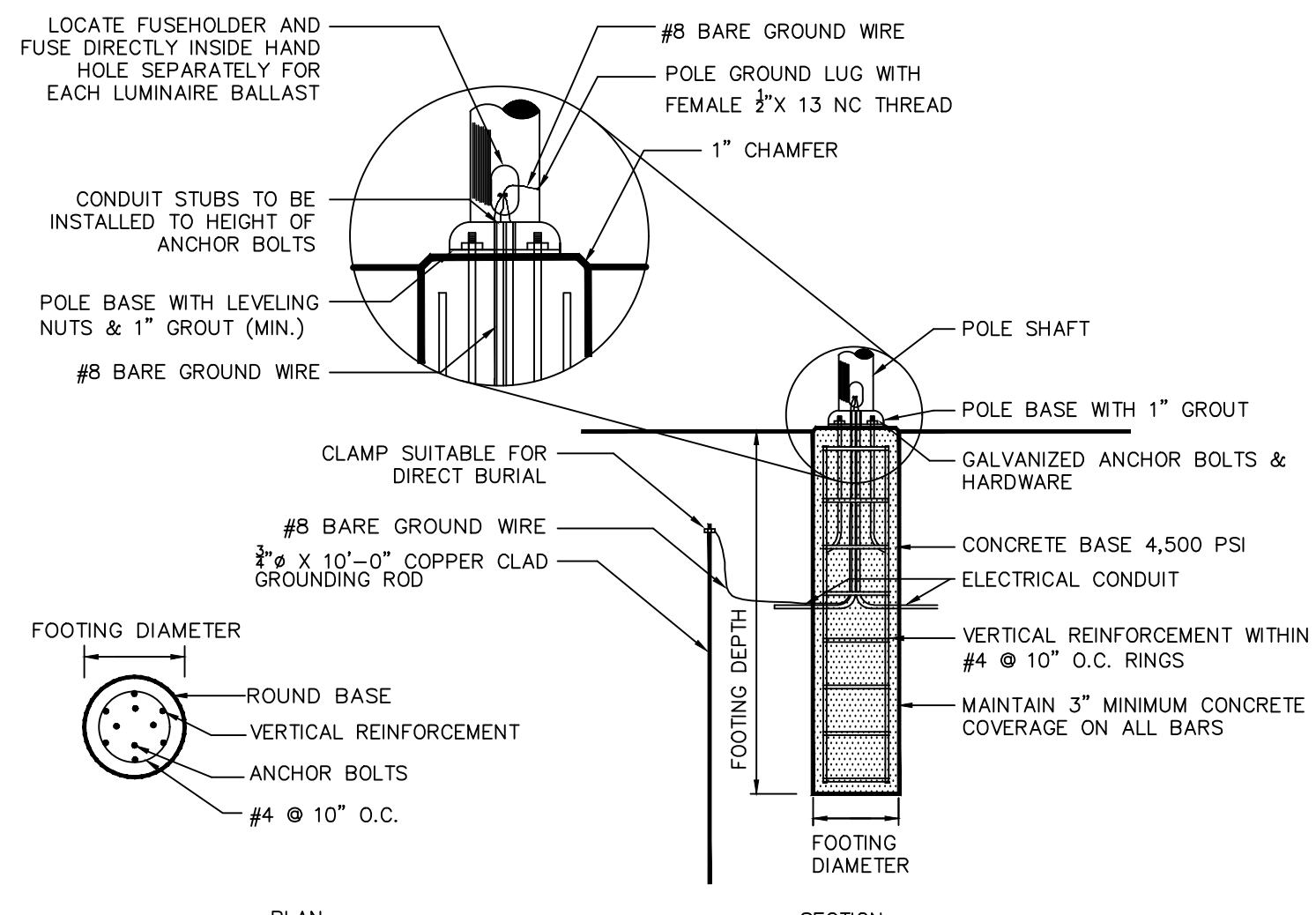
Project: **RIDGE FARMS PHASE 1B FINAL PLANS**
 Drawing Title: **LIGHTING NOTES AND DETAILS**
 Project No.: **240043301**
 Date: **04/20/22**
 Scale: **N.T.S.**
 Drawing No.: **LL-501**
 Drawn By: **SPW** Checked By: **NB**
 Submission Date: _____
 Sheet **22** of **22**

Project: **SOUTH WHITEHALL TOWNSHIP LEHIGH COUNTY PENNSYLVANIA**

NOTE: SEE SHEET LL-101 FOR LIGHTING PLAN, LIGHTING SCHEDULE AND STATISTICS.

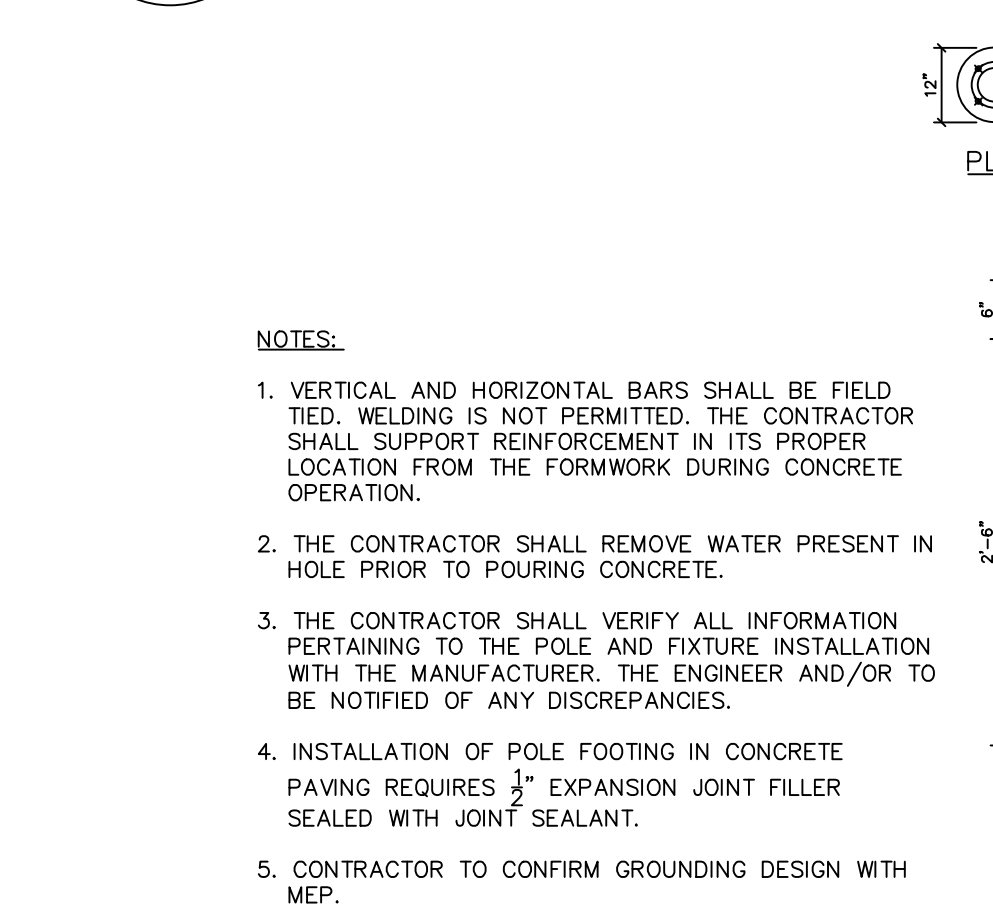


MOUNTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	VERTICAL REINFORCEMENT	"H"
20'-0"	7'-0"	2'-0"	6 #5 BARS	AT GRADE
16'-0"	5'-6"	2'-0"	6 #5 BARS	AT GRADE

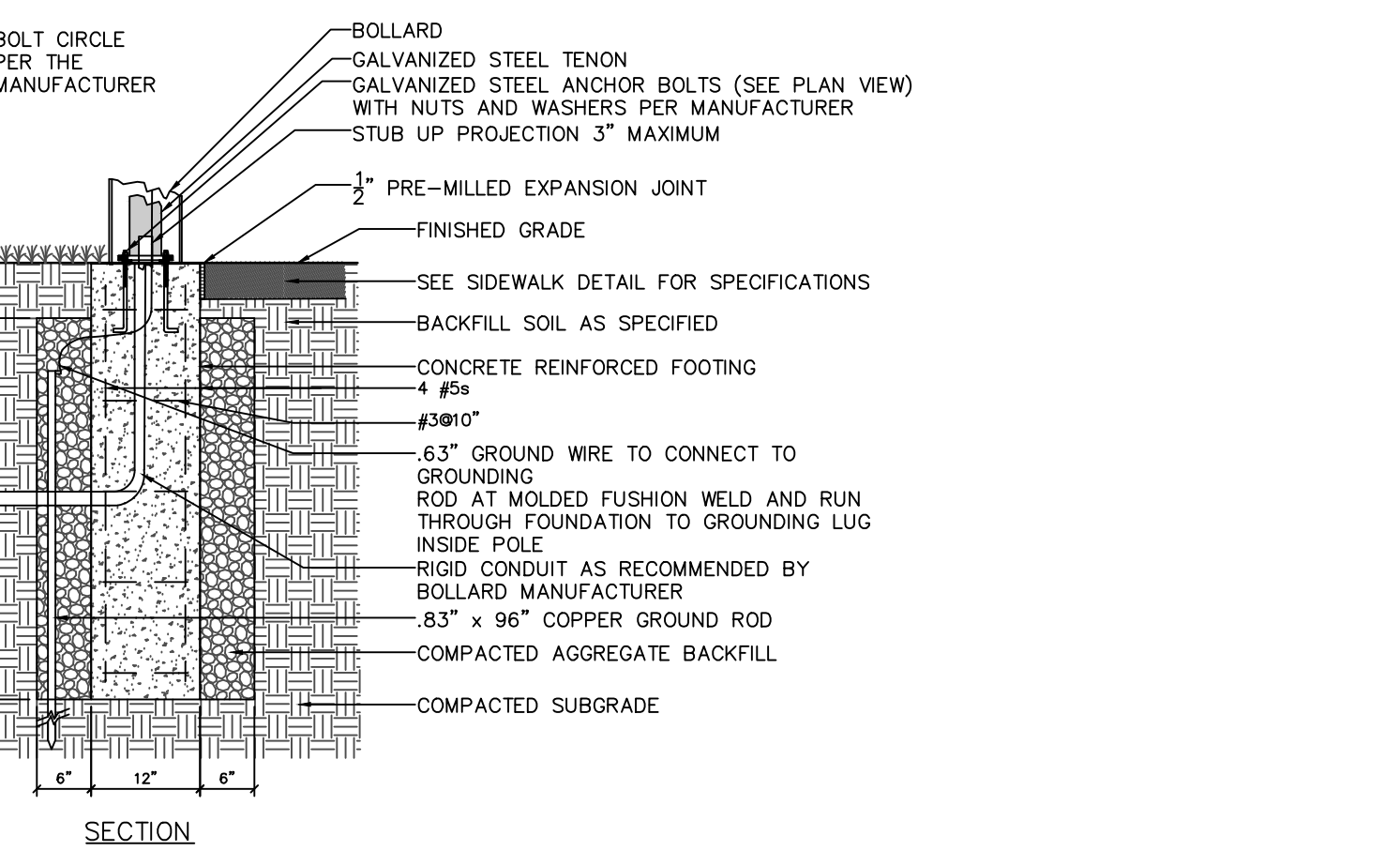


- NOTES:**
- SHAFT CAP, ARMS, BASE FLANGE, ANCHOR BOLTS, LEVELING NUTS, CONNECTION HARDWARE, BOLT COVERS, HANDHOLE COVER, AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED BY POLE MANUFACTURER.
 - EACH STANDARD TO BE PROTECTED AGAINST LIGHTNING WITH AN INTERCONNECTED GROUND ROD. THIS ROD SHALL BE BONDED PER SECTION NUMBER 250-86, N.E.C.
 - CONTRACTOR TO ENSURE CONCRETE POLE BASES ARE POURED / PLACED ABSOLUTELY VERTICAL & LEVEL.
 - POLE BASE SHALL BE ONE CONTINUOUS POUR. EXPOSED PORTION OF BASE SHALL BE HAND-RUBBED SMOOTH.
 - CONTRACTOR TO COMPACT SUBGRADE AROUND POLE BASE PER EARTHWORK SPECIFICATIONS / GEOTECH REPORT.
 - THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 - CONCRETE BASES SHALL NOT BE PAINTED.
 - CONTRACTOR TO CONFIRM GROUNDING SYSTEM WITH PROJECT MEP PRIOR TO BID.

1 LIGHT POLE BASE
 N.T.S.



2 BOLLARD FOOTING
 N.T.S.



- NOTES:**
- SEE DETAIL 3 AND 5 ON LL501 FOR COLOR TEMPERATURE AND FINISH.
 - A BUILDING PERMIT IS REQUIRED FOR LIGHT POLE FOUNDATIONS PRIOR TO INSTALLATION.

SUBMISSION DATE: JULY 27, 2023
 PROJECT NO.: 240043301

Filename: c:\bms\langan-pw-01\0174953\240043301-0507-LL501-0101.dwg Date: 7/26/2023 Time: 18:07 User: dmoyer Style Table: --- Layout: LL-501