_____ Sketch

X Preliminary

X Final

FILE NO.: _____

SUBDIVISION AND LAND DEVELOPMENT APPLICATION

CITY OF ALLENTOWN

ALLENTOWN CITY PLANNING COMMISSION

DATE: August 16, 2022

NAME OF SUBDIVISION: Cumberland Apartment Complex

ADDRESS OF SUBDIVISION: 6th and Cumberland Streets

PROPERTY OWNER: Cottage Investors LP

ADDRESS: 116 Route 22

CITY, STATE, ZIP North Plainfield, NJ 07060

E-MAIL ADDRESS: _____

PHONE #: roy@commerceparknj.com FAX#: _____

APPLICANT (If other than owner): The Yasin Khan 2021 Family Trust

ADDRESS: 1146 South Cedar Crest Boulevard

CITY, STATE, ZIP Allentown, PA 18103

E-MAIL ADDRESS: drynkhan@gmail.com

PHONE #: 610-905-6036 FAX#: _____

SURVEYOR/ENGINEER/ATTORNEY: Bernard Telatovich, Benchmark Civil Engineering Services, Inc.

ADDRESS: 1727 Jonathan Street

CITY, STATE, ZIP Allentown, PA 18104

E-MAIL ADDRESS: bernie.telatovich@bencivil.com

PHONE #: 610-776-6700 FAX #: _____

SUBDIVISION CLASSIFICATION: Minor _____ Major _____ Deed Consolidation X

LAND DEVELOPMENT: Minor _____ Major X

NUMBER OF LOTS: _____ ACREAGE: _____

SQ. FT OF FLOOR AREA: Office:_____ Retail:_____ Warehouse:_____ Other: 180,422 (All floors)

PROPOSED DEVELOPMENT: Apartments

ARE MUNICIPAL UTILITIES AVAILABLE? YES X NO _____

FEE: (Please complete page 2 and enter the fee here): $ 27,847.98
(The fee must accompany submission)

Note:

1. All materials, including plans, reports and other documentation submitted on behalf of an application become *public records* as defined in the Pennsylvania Right to Know Law, 65 p.s. § 66.1 et. Seq.
2. ***Major land developments and all subdivisions must be accompanied by an electronic copy and a hard copy of the site plan (8.5" x 11"), location map, project description, project elevation/rendering, and documentation of Lehigh Valley Planning Commission and Lehigh County Authority submissions.***
3. All new submissions require 10 sets of plans and four (4) copies of all reports.

SIGNATURE OF OWNER, APPLICANT OR AUTHORIZED REPRESENTATIVE:

_____ Signature _____ Title

Effective January 2019

(Turn over for fee schedule.)

SUBDIVISION & LAND DEVELOPMENT APPLICATION FEE CALCULATION

Name of Subdivision:			
Application Type	Base Fee +	# of lots x fee =	Fee
Major Subdivisions			
Sketch Plan[1]	$100.00	N/A	$
Preliminary Plan[2]	$500.00 +	# of lots x $50.00 =	$
Final Plan[2]	One-half of the preliminary fee		$
Minor Subdivisions			
Final	$140.00 +	# of lots x $40.00 =	$
Deed Consolidation	$140.00 +	# of lots x $40.00 =15 x 40	$ 740.00
Major Land Development			
Sketch Plan[1]	$250.00	N/A	$
Preliminary Plan[2]	$1,000.00 +	$1,000.00 x # of acres OR **partial acre =	$ 7,000.00
+ (Partial square footage - round up to next 1,000 square foot)	Office - $35 / 1,000 square foot of floor area Retail - $25 / 1,000 square foot of floor area Warehouse - $20 / 1,000 square foot of floor area Other - $10 / 1,000 square foot of floor area		$ 10,825.32
		Total preliminary fee:	$ 18,565.32
Final Plan[2]	One-half of the preliminary fee		$ 9,282.66
** Partial acre - round up to next number (ex: 2½ acres becomes 3 acres)			
Minor Land Development			
Final Plan	$315.00	N/A	$
Total Fee			$

NOTES:
1. SKETCH PLAN REQUIRED FOR SUBDIVISIONS INVOLVING 10 OR MORE LOTS AND OPTIONAL FOR LAND DEVELOPMENTS.
2. PRELIMINARY/FINAL PLAN APPLICATION MAY BE MADE CONCURRENTLY.
3. ALL SUBDIVISIONS AND MAJOR LAND DEVELOPMENTS MUST HAVE A LVPC TRANSMITTAL WITH THE SUBMISSION.

The current fees were effective on January 1, 2019 and are subject to change.

FINAL PLAN
CUMBERLAND APARTMENT COMPLEX

FOR:
THE YASIN KHAN 2021 FAMILY TRUST

CITY OF ALLENTOWN
LEHIGH COUNTY, PENNSYLVANIA

SITE DATA:

OWNER/APPLICANT: THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

SITE ADDRESS: COTTAGE INVESTORS LP

ADDRESS:	PIN NUMBER:
1102–1132 S. 5TH STREET	640636625261 1
1101–1131 S. 6TH STREET	640636415274 1
1029–1031 S. 6TH STREET	640636238192 1
1102–1110 S. 6TH STREET	640636115157 1
1120–1132 S. 6TH STREET	640635292480 1
1112–1118 S. 6TH STREET	640636447004 1
515–521 CUMBERLAND STREET	640636447004 1
523 CUMBERLAND STREET	640636432866 1
523.5 CUMBERLAND STREET	640636431821 1
525 CUMBERLAND STREET	640636339796 1
527 CUMBERLAND STREET	640636338629 1
1125 S. 7TH STREET (REAR)	640635181690 1
527 CUMBERLAND STREET (REAR)	640636345357 1
516–522 RYE STREET	640636444722 1
526 RYE STREET	640636348459 1
ALLENTOWN/PA/18103	

TOTAL SITE AREA: 5.295 AC. OR 236,632 S.F.

INSTRUMENT #: 2016027269

ZONING DATA:

R–MH – MEDIUM HIGH DENSITY RESIDENTIAL DISTRICT

USE: MULTI–FAMILY DWELLINGS (PERMITTED BY RIGHT)

	REQUIRED	PROVIDED
MINIMUM LOT AREA:	9,000 S.F.	249,623.73 S.F.
MINIMUM LOT WIDTH:	120 FT.	615 FT.
MAXIMUM BUILDING COVERAGE:	30%	21.07%
MINIMUM BUILDING SETBACK:		
FRONT:	20 FT.	20 FT.
SIDE :	25 FT.	25 FT.
REAR:	35 FT.	35 FT.

MAXIMUM BUILDING HEIGHT: 38' OR 3 STORIES
MINIMUM AVERAGE LOT AREA PER UNIT: 1,800 S.F.

BUILDING COVERAGE CALCULATIONS:

TOTAL LOT AREA = 278,365.50 SF OR 6.390 ACRES

BUILDING COVERAGE = 52,609.03 S.F. OR 1.207 ACRES

52,609.03 S.F. (BUILDING COVERAGE)/278,365.50 S.F. (TOTAL LOT AREA)
= 0.1889 OR 18.9%

IMPERVIOUS COVERAGE CALCULATIONS:

EXISTING TOTAL LOT AREA = 278,365.50 SF OR 6.390 ACRES

EXISTING HISTORICAL RUINS IMPERVIOUS (BURIED)

IMPERVIOUS AREA = 138,316.83 SF OR 3.175 ACRES

EXISTING SITE IMERVIOUS (TO BE REMOVED)

IMPERVIOUS AREA = 63,163.26 SF OR 1.45 ACRES

PROPOSED SITE IMPERVIOUS

PROPOSED SITE IMPERVIOUS
IMPERVIOUS AREA = 147,396.03 SF OR 3.383 ACRES

SITE IMPERVIOUS CALCULATIONS

147,396.03 SF(SITE IMPERVIOUS)/278,365.50 SF(TOTAL LOT AREA) =
0.5295 OR 53% IMPERVIOUS COVERAGE
(NOTE: DOES NOT INCLUDE ANY HISTORICAL OR EXISTING SITE IMPERVIOUS)

PARKING DATA:

REQUIRED 1.5 SPACES PER UNIT
TOTAL NUMBER OF UNITS=150 UNITS

1.5(SPACES PER UNIT) X 150(NUMBER OF UNITS) = 225 PARKING SPACES REQUIRED

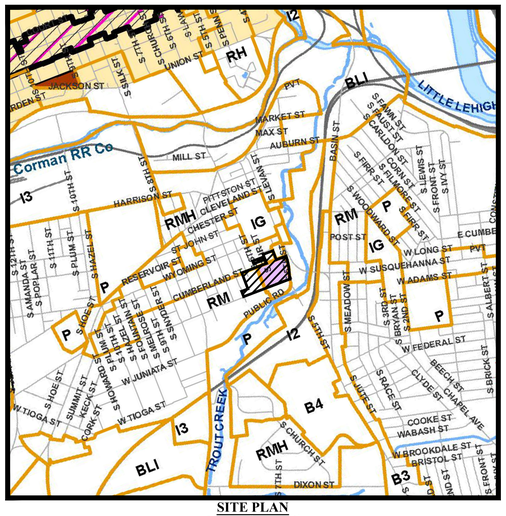
225 SPACES PROVIDED

NOTES:

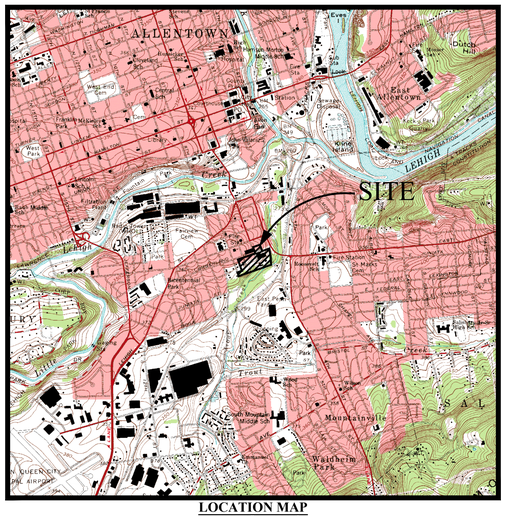
1. PROJECT SITE HAS A LANTA BUS ROUTE STOP 2 BLOCKS FROM THE PROJECT AREA.
2. INFORMATION ON THESE PLANS DERIVED FROM CITY OF ALLENTOWN, GIS INFORMATION AS PROVIDED TO PASDA.

WAIVER REQUEST:

1. ALONG THE SOUTHWESTERN PROPERTY LINE, GIVEN THE SUDDEN DROP IN TOPOGRAPHY, WE ARE INSTALLING RETAINING WALLS SO WE CAN LEVEL OUT THE SITE. THERE IS NOT ENOUGH ROOM TO MAINTAIN THE REQUIRED HORIZONTAL DISTANCE, HOWEVER, THERE IS LAND AND THE SITE WILL BE STABLE. WE REQUEST A WAIVER FOR THIS AREA.



SITE PLAN
SCALE: 1" = 1,000'
CITY OF ALLENTOWN ZONING MAP



LOCATION MAP
SCALE: 1" = 2000'
ALLENTOWN EAST, PA. U.S.G.S. QUADRANGLE, PA.

SHEET INDEX:

1.	(C–1)	COVER SHEET *
2.	(N–1)	NOTES*
3.	(VA–1)	LOT CONSOLIDATION & STREET VACATION PLAN*
4.	(EX–1)	EXISTING FEATURES PLAN
5.	(S–1)	LAND DEVELOPMENT PLAN *
6.	(SG–1)	STORMWATER & GRADING PLAN
7.	(U–1)	UTILITY PLAN
8.	(LL–1)	LANDSCAPING PLAN
9.	(LL–2)	LIGHTING PLAN
10.	(P–1)	PROFILE SHEET (ROAD/UTILITIES)
11.	(P–2)	PROFILE SHEET (ROAD/UTILITIES)
12.	(P–3)	PROFILE SHEET (ROAD/UTILITIES)
13.	(D–1)	DETAIL SHEET
14.	(D–2)	DETAIL SHEET
15.	(D–3)	DETAIL SHEET
16.	(D–4)	DETAIL SHEET
17.	(D–5)	DETAIL SHEET
18.	(ES–1)	EROSION AND SEDIMENTATION CONTROL PLAN
19.	(ES–2)	EROSION AND SEDIMENTATION CONTROL NOTES
20.	(ES–3)	EROSION AND SEDIMENTATION CONTROL DETAILS
21.	(PCSM–1)	POST CONSTRUCTION STORMWATER MAINTENANCE PLAN (OVERALL)*
22.	(PCSM–2)	POST CONSTRUCTION STORMWATER MAINTENANCE PLAN (NOTES)*
23.	(PCSM–3)	POST CONSTRUCTION STORMWATER MAINTENANCE PLAN (DETAILS)*
24.	(PCSM–4)	POST CONSTRUCTION STORMWATER MAINTENANCE PLAN (DETAILS)*
25.	(PRE–1)	PRE–DEVELOPMENT DRAINAGE AREA PLAN*
26.	(PS–1)	POST–DEVELOPMENT DRAINAGE AREA PLAN*
27.	(PS–2)	POST–DEVELOPMENT INLET DRAINAGE AREA PLAN
*	(PLANS TO BE RECORDED)	

CALL BEFORE YOU DIG
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE–STOP CALL
1-800-242-1776
811 Know what's below. Call before you dig.
1–CALL NO. 20220112214 DATE: 01/12/22

NO	REVISION	BY	DATE

OWNER'S CERTIFICATION

WE THE UNDERSIGNED BEING DULY SWORN ACCORDING TO LAW DEPOSE AND SAY THAT WE ARE THE SOLE OWNERS OF THE TRACT SHOWN HEREON IN PEACEFUL POSSESSION OF THE SAME AND THAT THERE ARE NO SUITS OR ACTIONS PENDING OR AFFECTING THE SAME.

SWORN AND SUBSCRIBED BEFORE ME THIS ____ DAY OF _____, A.D. 20__

_____
NOTARY PUBLIC

NOTARY SEAL

MY COMMISSION EXPIRES: _____

LEHIGH VALLEY PLANNING COMMISSION CERTIFICATION

REVIEWED BY THE LEHIGH VALLEY PLANNING COMMISSION

REVIEWED BY: _____
PLANNER DATE

CITY OF ALLENTOWN PLANNING COMMISSION CERTIFICATION

THE WITHIN PLOT OR PLAN OF LAND LOCATED IN ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA, WAS APPROVED BY THE ALLENTOWN CITY PLANNING COMMISSION.

_____CHAIRMAN DATE

_____PLANNING DIRECTOR DATE

_____SECRETARY DATE

APPROVED: _____
CITY ENGINEER

SURVEYOR CERTIFICATION

I, JOSEPH A. GRUVER, PLS, HEREBY CERTIFY THAT THIS PLAN HAS BEEN COMPILED FROM A SURVEY ACTUALLY MADE, ON THE GROUND, THAT IT IS CORRECT AND AT THE TIME THE SURVEY WAS MADE, THERE WERE NO EASEMENTS OR ENCROACHMENTS ACROSS PROPERTY LINES, OTHER THAN THOSE SHOWN.

_____DATE REGISTERED
SURVEYOR

PROOF OF RECORDING

PLAN RECORDED IN THE OFFICE OF THE RECORDER IF DEEDS OF LEHIGH COUNTY, PENNSYLVANIA, IN DOCKET ID_____ ON THE_____ DAY OF_____ 20____.
WITNESS MY HAND AND SEAL OF OFFICE THIS_____ DAY OF_____ 20____.

_____
WITNESS

_____
RECORDER OF DEEDS

_____ _____
DATE

PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:
THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:

Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:
FINAL PLAN
COVER PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: C-1
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 1 OF 27

GENERAL NOTES

1. TOPOGRAPHIC INFORMATION SHOWN IS BASED ON A FIELD SURVEY.

2. TOPOGRAPHIC INFORMATION CONCERNING UNDERGROUND UTILITIES HAVE BEEN COMPILED FROM OBSERVABLE FIELD EVIDENCE AND EXISTING MUNICIPAL DATUM. PRIOR TO ANY EXCAVATIONS, UNDERGROUND UTILITIES MUST BE FIELD VERIFIED BY CALLING THE PA. 1 CALL SYSTEM : 1-800-242-1776

3. SUBSURFACE, ENVIRONMENTAL, GEOLOGICAL AND ARCHEOLOGICAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.

4. THIS PARCEL IS SUBJECT TO ANY AND ALL RECORDED (AND POSSIBLY UNRECORDED) EASEMENTS, RESTRICTIONS, AND COVENANTS.

5. THESE PLANS WERE PREPARED IN CONFORMANCE WITH THE CURRENT STANDARDS, SPECIFICATIONS AND ORDINANCES OF CITY OF ALLENTOWN.

6. IN ACCORDANCE WITH CITY OF ALLENTOWN ZONING ORDINANCE SECTION 1311.06, A TRIANGULAR AREA SHALL BE GRADED AND SHALL BE KEPT FREE OF SIGHT OBSTRUCTIONS BETWEEN INCHES ABOVE GROUND LEVEL AND A HEIGHT OF 10 FEET ABOVE CURB LEVEL, (BUT NOT INCLUDING: UTILITY POLES, OR POLE OF OFFICIAL SIGNS PROVIDED IT DOES NOT HAVE A DIAMETER GREATER THAN 20 INCHES, OR THE TRUNKS OF EXISTING DECIDUOUS TREES WHOSE BRANCHES ARE KEPT CLEAR OF THE SIGHT TRIANGLE). DIMENSIONS ARE SPECIFIED ON THE PLAN.

7. ALL MISSING PROPERTY CORNERS SHALL BE SET PRIOR TO FINAL SITE CONSTRUCTION.

8. FROM A FIELD INVESTIGATION AND FROM REVIEWING BOTH THE SOILS INFORMATION AND THE NATIONAL WETLANDS INVENTORY MAPS; THERE DOES NOT APPEAR TO BE ANY WETLANDS PRESENT ON SITE.

9. BOUNDARY INFORMATION SHOWN ON THIS PLAN HAS BEEN COMPILED FROM INFORMATION BASED ON RECORDED DEEDS ON FILE AT THE LEHIGH COUNTY COURTHOUSE.

10. ALL CONSTRUCTION OF STORM SEWERAGE SYSTEMS AND ROADS ARE TO BE IN ACCORDANCE WITH THE CITY SPECIFICATIONS AND STANDARDS FOR CONSTRUCTION.

11. NO ROCK OUT CROPS, STONE FIELDS AND/OR SINKHOLES EXIST ON THIS SITE.

12. BUILDINGS ARE TO BE SPRINKLED.

13. A KNOX BOX IS REQUIRED.

14. SEE THE SLOPE ANALYSIS FOR STEEP SLOPE AREAS..

15. THERE ARE NO BUILDINGS LOCATED ON THIS SITE OVER 80 YEARS OLD.

16. THE PROPOSED BUILDING EXTERIOR IS TO BE FINISHED WITH MASONRY OR CONCRETE.

17. ALL CONSTRUCTION OF STORM SEWERAGE SYSTEMS AND ROADS ARE TO BE IN ACCORDANCE WITH THE TOWNSHIP SPECIFICATIONS AND STANDARDS FOR CONSTRUCTION.

18. BEFORE ANY DRIVEWAY ACCESS IS PERMITTED TO A STATE HIGHWAY, A PERMIT IS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945. ALSO KNOWN AS THE "STATE HIGHWAY LAW".

19. PROPOSED SIGNS SHOWN ON THIS PLAN ARE FOR PLANNING PURPOSES ONLY. THE APPLICANT IS TO SUBMIT TO THE MUNICIPAL ZONING OFFICE A SEPARATE APPLICATION FOR SIGN INSTALLATION.

20. ANY PROPOSED FENCES ARE TO BE SETBACK A MINIMUM OF 0.5 FEET FROM THE PROPERTY LINE.

21. NO BUILDING, STRUCTURE, GRADE, PLANTINGS OR OTHER OBSTRUCTIONS BETWEEN GRADE & 10 FEET HIGH ABOVE THE INTERSECTION OF CENTERLINES OF THE STREETS SHALL BE PLACED WITHIN THE REQUIRED SIGHT TRIANGLES.

22. THERE IS NO REMAINING LAND ASSOCIATED WITH THIS PLAN.

23. DESIGNATED OPEN SPACE IS NOT PROPOSED.

24. ALL CITY PERMITS MUST BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.

25. ALL IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY MUST COMPLY WITH THE CITY OF ALLENTOWN STANDARDS AND SPECIFICATIONS.

26. THE PROPOSED RETAINING WALL DESIGN WILL BE PREPARED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF PENNSYLVANIA AND SHALL BE SUBMITTED AT THE TIME OF BUILDING PERMIT APPLICATION TO BE REVIEWED AND APPROVED BY THE CITY'S THIRD PARTY REVIEWER.

27. OWNER IS REQUIRED TO PERIODICALLY INSPECT AND MAINTAIN THE ON-SITE STORMWATER FACILITIES, PRIMARILY THE BMP AND STORMWATER MANAGEMENT DEVICES, AND HAVE A LOG ON HAND OF WHEN SUCH INSPECTION AND MAINTENANCE HAS BEEN PERFORMED. THE LOG SHALL BE MADE AVAILABLE TO THE CITY DURING A POST STORMWATER INSPECTION.

28. THE OWNER WILL NEED TO COMPLY WITH CITY ORDINANCE #14476 (ACT 167) REGULATIONS.

29. IF REQUIRED, THE DEVELOPER MUST SUBMIT THE AS-BUILT LIGHTING CONSTRUCTION AND ELECTRICAL WIRING DIAGRAMS PLANS TO THE CITY'S TRAFFIC UNIT UPON COMPLETION OF THE PROJECT FOR THE CITY'S FUTURE REFERENCES FOR MAINTENANCE.

CONTRACTOR NOTES

PRIOR TO ANY EXCAVATIONS, UNDERGROUND UTILITIES MUST BE FIELD VERIFIED BY CALLING THE PA ONE-CALL SYSTEM: 1-800-242-1776.

THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS PRIOR TO THE START OF CONSTRUCTION.

ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.

THE CONTRACTOR SHALL PROTECT ALL BENCHMARKS AND MONUMENTS FROM DAMAGE.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.

ALL PROPOSED TRAFFIC SIGNS ARE TO BE PLACED FOUR FEET (10 FEET ALONG A STATE HIGHWAY) BEHIND THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS RESPONSIBLE TO VERIFY THAT ALL REQUIRED PERMITS HAVE BEEN RECEIVED BEFORE CONSTRUCTION BEGINS.

BEFORE CONSTRUCTION BEGINS, THE CONTRACTOR IS TO VERIFY WITH THE ENGINEER THAT THE CONTRACTOR HAS THE MOST CURRENT SET OF PLANS.

UTILITY NOTES

1. ALL EXISTING PAVING SHALL BE SAW-CUT TO RECEIVE NEW PAVING, UTILITIES, ETC.

2. CONTRACTORS SHALL COORDINATE ALL UTILITY CONNECTIONS WITH RESPECTIVE UTILITY COMPANIES. EXISTING UTILITIES ARE SHOWN FOR REFERENCE ONLY.

3. ACTUAL LOCATIONS AND DEPTH MUST BE FIELD VERIFIED BEFORE CONSTRUCTION OF NEW UNDERGROUND FACILITIES BEGIN.

4. STORM SEWER FACILITIES SHALL BE IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS SET FORTH BY THE CITY OF ALLENTOWN AND PENNDOT

5. ALL WATER LINES SHALL HAVE A MINIMUM OF 4 FEET OF COVER BELOW FINAL GRADE.

6. THE CONTRACTOR WILL BE REQUIRED TO OBTAIN ALL REQUIRED PERMITS FOR THE INSTALLATION OF THE WATER SERVICE LATERAL AND THE SANITARY SEWER LATERAL CONNECTIONS.

7. A MINIMUM 5 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN THE EXISTING AND NEW SERVICE LATERAL CONNECTION POINTS TO THE EXISTING SANITARY SEWER MAIN.

8. ALL GRATES FOR DRAINAGE STRUCTURES SHALL BE NON-ROCKING AND MADE OF STRUCTURAL STEEL PER PENNDOT SPECS.

9. ALL PIPES (STORM, SANITARY, WATER) THAT CROSS EACH OTHER WITH LESS THAN 1'-6" CLEARANCE MUST HAVE A REINFORCED CONCRETE ENCASED INTERSECTION.

10. ALL INLETS ARE TO HAVE HEAVY DUTY BICYCLE SAFE GRATES.

11. ALL SANITARY SEWERS SHALL BE INSTALLED AT AN ELEVATION DEEP ENOUGH SO AS TO PREVENT FREEZING.

12. ALL SANITARY MANHOLES MUST HAVE MANHOLE RUNGS FOR ACCESS. ALL RIMS AND COVERS MUST BE NON-ROCKING HEAVY DUTY CAST IRON.

13. ALL COMPLETED UTILITY SYSTEMS MUST BE CLEANED, TESTED AND PURGED IN ACCORDANCE TO NATIONAL AND LOCAL REQUIREMENTS.

14. THE ROUTING OF ALL UTILITIES IS SUBJECT TO ADJUSTMENT TO MEET UTILITY COMPANY REQUIREMENTS AND SPECIFICS OF BUILDING MECHANICAL DESIGN. WHEN BUILDING MECHANICAL DRAWINGS ARE COMPLETE AND UTILITY REQUIREMENTS ARE FINALIZED, NECESSARY ADJUSTMENTS SHALL BE MADE AS PART OF THE PREPARATION OF CONSTRUCTION DOCUMENTS.

15. ALL PROPOSED STORMWATER STRUCTURES ARE TO HAVE A 12" THICK SUBBASE MATERIAL COMPACTED IN 4" LIFTS AS PER PENNDOT PUBLICATION 408, SECTION 350.2

16. ALL UTILITIES ARE TO BE CONSTRUCTED UNDERGROUND EXCEPT WHERE OTHERWISE DELINEATED ON PLAN.

17. UTILITIES AND LIGHTING SHALL BE PERFORMED BY THE RESPECTIVE PRIME CONTRACTOR. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR LIGHTING AND UTILITY DETAILS.

18. THE CONTRACTOR SHALL PROVIDE, TO THE CITY ENGINEER, AND LCA, SHOP DRAWINGS FOR ALL UTILITY INSTALLATION WORK. SAID SHOP DRAWINGS SHALL BE APPROVED BY THE CITY ENGINEER & LCA PRIOR TO WORK STARTING.

19. SANITARY SEWER LINES ARE TO BE BEDDED IN IN 3/4" CLEAN STONE (PENNDOT #28)

20. ALL STORM STRUCTURES ARE TO HAVE POURED CONCRETE FLOW CHANNELS.

21. ALL UTILITY CROSSOVERS SHALL COMPLY WITH INDIVIDUAL COMPANY SPECIFICATIONS.

22. DROP STRUCTURES SHALL BE UTILIZED WHEREVER THERE IS GREATER THAN 24" FALL BETWEEN INLET AND OUTLET ENTERING ELEVATIONS.

23. STORM LINES SHALL HAVE A MAXIMUM DISTANCE BETWEEN STRUCTURES OF 400 FEET; STRUCTURES SHALL BE LOCATED AT ALL STORM SEWER LINE CHANGES IN PIPE SIZE, DIRECTION, GRADE OR ALIGNMENT.

24. ALL CONCRETE STORM SEWER PIPES ARE TO BE REINFORCED AND HAVE A MINIMUM SIZE OF 018" (I.D.) AND HAVE WATER TIGHT "O"-RING GASKET JOINTS.

25. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OP PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.

26. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.

27. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

28. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED IN THE SAME DAY.

29. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.

30. THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.

31. ANY AND ALL PROPOSED UTILITY CONNECTION(S) TO ANY BUILDING(S), EXISTING OR PROPOSED (INCLUDING BUT NOT LIMITED TO SANITARY LATERALS, FIRE PROTECTION WATER LINES, DOMESTIC WATER LINES, ROOF LEADERS, GAS SERVICE LINES, ELECTRIC, CABLE, OR TELECOMMUNICATIONS LINES) SHOWN ON THIS PLAN ARE TO BE VERIFIED AND COORDINATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION AND ANY OTHER PLANS THAT MAY SHOW UTILITY CONNECTION POINTS AND INVERT ELEVATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THESE CONNECTIONS PRIOR TO ANY INSTALLATION OF THESE UTILITY LINES.

32. ALL PROPOSED STORM SEWER LINES ARE TO BE INSTALLED AS PER PENNDOT PUBLICATIONS 408 AND 72.

33. WHERE ANY PROPOSED UTILITY LINE WITH A FIXED ELEVATION CROSSES ANY EXISTING UTILITY LINE, THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ELEVATION AND LOCATION OF THE EXISTING UTILITY LINE, PRIOR TO ANY WORK BEING STARTED ON THE PROPOSED UTILITY LINE. IF ANY CONFLICT BETWEEN THE UTILITIES ARE FOUND OR ANTICIPATED, THIS SHOULD BE REPORTED TO THE ENGINEER PRIOR TO ANY CONSTRUCTION BEING STARTED ON THE PROPOSED UTILITY LINE.

34. ALL EXCAVATIONS, TRENCHING AND SHORING SHALL COMPLY WITH THE REQUIREMENTS OF THE US DEPARTMENT OF LABOR OCCUPATIONAL AND SAFETY HEALTH ADMINISTRATION PUBLICATION "EXCAVATION AND TRENCHING OPERATIONS" INTERPRETATION (OSHA 2079). SUBPART P, VOLUME III, OF THE CURRENT EDITION AND ANY AMENDMENTS THERETO.

35. ALL FIRE SUPPRESSION LINE SIZES ARE TO BE VERIFIED WITH THE SPRINKLER CONTRACTOR PRIOR TO CONSTRUCTION.

36. THE CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED UTILITY FRAMES, COVERS, MANHOLES, VALVE BOXES, ETC., TO BE FLUSH WITH THE PROPOSED SURFACE ELEVATIONS.

PROTECTIVE COVENANTS:

IIN ACCORDANCE WITH CITY OF ALLENTOWN ZONING ORDINANCE SECTION 1311.06, A TRIANGULAR AREA SHALL BE GRADED AND SHALL BE KEPT FREE OF SIGHT OBSTRUCTIONS BETWEEN 30 INCHES ABOVE GROUND LEVEL AND A HEIGHT OF 10 FEET ABOVE CURB LEVEL, (BUT NOT INCLUDING: UTILITY POLES, OR POLE OF OFFICIAL SIGNS PROVIDED IT DOES NOT HAVE A DIAMETER GREATER THAN 20 INCHES, OR THE TRUNKS OF EXISTING DECIDUOUS TREES WHOSE BRANCHES ARE KEPT CLEAR OF THE SIGHT TRIANGLE). DIMENSIONS ARE SPECIFIED ON THE PLAN.

STORMWATER OPERATION AND MAINTENANCE NOTE

THIS INCLUDES ALL STORMWATER BMP'S AS OUTLINED IN THE THE STORMWATER MANAGEMENT REPORT.

THE FOLLOWING STORMWATER MAINTENANCE NOTES AND RESPONSIBILITIES APPLY TO ON-SITE STORMWATER FACILITIES ONLY.

THE OWNER(S) FOR THEMSELVES, THEIR HEIRS, EXECUTOR, ADMINISTRATORS AND SUCCESSORS AND ASSIGNS DO HEREBY COVENANT TO BIND THEMSELVES, THEIR HEIRS, EXECUTORS, ADMINISTRATORS, SUCCESSORS AND ASSIGNS AND THE LANDS DESCRIBED IN THE PLAN TO FAITHFULLY PERFORM ALL OF THE FOLLOWING REQUIREMENTS:

1. THE OWNER(S) SHALL BE RESPONSIBLE FOR STABILIZATION AND RECONSTRUCTION (TO APPROVED DESIGN GRADES AND SPECIFICATIONS) OF ALL DRAINAGE SWALES AND DETENTION BASINS WITHIN AN OWNER'S LOT WHICH, BECAUSE OF CONSTRUCTION ACTIVITIES, GRADING OR STRIPPING OF VEGETATION ON THE OWNER'S LOT, HAS CAUSED DAMAGE TO SAID PUBLIC IMPROVEMENTS.

2. ALL DRAINAGE AND DETENTION BASIN EASEMENTS SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A GRASSED OR OTHERWISE IMPROVED CONDITION, IN ACCORDANCE WITH THE GRADES AND DESIGNS SHOWN ON THE APPROVED DEVELOPMENT PLANS FOR THIS PROJECT. ALL THESE EASEMENTS SHALL BE KEPT FREE OF ALL OBSTRUCTIONS, INCLUDING BUT NOT LIMITED TO SUCH OBSTRUCTIONS AS FILL OR PERMANENT STRUCTURES AND PLANTS (OTHER THAN GRASS). FENCES SHALL BE CONSTRUCTED WITHIN THESE EASEMENTS, WITHIN THE REQUIREMENTS OF OTHER TOWNSHIP ORDINANCES, PROVIDED THAT THE FENCE IS OF A TYPE AND LOCATION THAT WILL NOT IMPEDED THE FLOW OF STORMWATER, AND PROVIDED THAT THE OWNER(S) SHALL BE BOUND TO REMOVE SUCH FENCE AT THE OWNER'S EXPENSE AND WITHOUT COMPENSATION TO THE OWNER(S) IF DETERMINED BY THE TOWNSHIP TO BE NECESSARY TO ALLOW WORK WITHIN THE EASEMENT. THE MAINTENANCE OF ALL SUCH EASEMENTS SHALL BE THE RESPONSIBILITY OF THE CURRENT LOT OWNER(S) AT ANY POINT IN TIME, INCLUDING FUTURE OWNER(S).

3. WHENEVER SEDIMENTATION IS CAUSED BY STRIPPING VEGETATION, GRADING OR OTHER EARTHMOVING ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE OWNER(S) TO REMOVE THE SEDIMENTATION FROM ALL THE ADJOINING SURFACES, DRAINAGE SYSTEMS AND WATERCOURSES AND TO REPAIR ANY DAMAGE AT THE OWNER'S EXPENSE.

4. IN THE EVENT THAT THE RECORDED OWNER(S) FAILS TO PROPERLY MAINTAIN THE FACILITIES WHICH ARE THE RESPONSIBILITY OF THE RECORDED OWNER(S) AFTER NOTIFICATION TO SAID OWNER(S) BY THE CITY, THE CITY IS AUTHORIZED TO ENTER UPON THE PROPERTY TO PERFORM SUCH MAINTENANCE AND THEREAFTER RECOVER THE COST OF PERFORMING SUCH MAINTENANCE FROM THE RECORD OWNER(S). PRIOR TO ENFORCING THE RECOVERY OF SUCH COST MAINTENANCE, THE CITY SHALL HAVE THE RIGHT TO FILE A MUNICIPAL LIEN AGAINST THE RECORDED OWNER(S) AND THEREFORE TO EXERCISE ITTS REMEDIES IN ACCORDANCE WITH THE HOME RULE CHARTER,

CURB AND SIDEWALK NOTE:

THE OWNER(S) OF THE LOT WILL MAINTAIN THE CURB AND SIDEWALK AT NO EXPENSE TO CITY OF ALLENTOWN AND SHALL HOLD CITY OF ALLENTOWN HARMLESS IN THE EVENT OF ANY CLAIMS ARISING FROM THE CONSTRUCTION, RECONSTRUCTION OR MAINTENANCE OF THE CURB AND SIDEWALK.

SURVEY CUT SHEETS FOR CURBING SHALL BE SUBMITTED TO THE CITY FOR REVIEW PRIOR TO CONSTRUCTION.

BMP INSPECTION NOTE:

THE OWNER SHALL MAINTAIN A LOG DETAILING ALL INSPECTIONS AND MAINTENANCE PERFORMED ON STORMWATER BMP'S. THE LOG SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO THE CITY REGULATORY OFFICIALS AT THE TIME OF THEIR INSPECTION.

GRADING NOTES

1. ALL DETAILS SHOWN ON THE PLAN(S) ARE TO BE USED AS GUIDELINES. THE CONTRACTOR SHALL SUPPLY MATERIALS AND INSTALL SAID MATERIALS TO THE BETTER OF THE STANDARDS SHOWN ON THESE PLANS OR THE REQUIREMENTS OF THE LATEST EDITION OF THE FOLLOWING STANDARDS AND SPECIFICATIONS:
A. PENNSYLVANIA DEPT. OF TRANSPORTATION.
B. MUNICIPAL SUBDIVISION AND LAND DEVELOPMENT ORDINANCES.
C. MUNICIPAL ZONING ORDINANCES.
D. INTERNATIONAL BUILDING CODE(S).
E. ANSI CODE FOR ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES.
F. NATIONAL FIRE PROTECTION ASSOCIATION REGULATIONS.
G. PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
H. COUNTY CONSERVATION DISTRICT REGULATIONS.
I. SEWER AND WATER AUTHORITY REGULATIONS.
J. SITE SPECIFIC SPECIFICATIONS.

2. ALL WORK SHALL BE DONE WITHIN THE PROPERTY BOUNDARY OF THE OWNER. IF IT IS NECESSARY TO WORK BEYOND THESE AREAS, THE CONTRACTOR SHALL SECURE ADEQUATE APPROVAL FROM THE OWNER OF THE PROPERTY ON WHICH IT IS NECESSARY TO WORK. THE CONTRACTOR MUST ALSO SUBMIT WRITTEN NOTIFICATION TO THE CITY THAT THE ADJOINING PROPERTY OWNER HAS BEEN INFORMED OF THE ENCROACHMENT AND THAT APPROVAL WAS GIVEN FOR THE CONTRACTOR TO PROCEED.

3. AT COMPLETION OF ROUGH GRADING BY THE SITE CONTRACTOR, ALL GRADES WITHIN AREAS TO BE LANDSCAPED (INCLUDING ALL LAWN AREAS) SHALL BE SIX INCHES (6") BELOW THE FINISHED GRADE. THIS IS TO ACCOMMODATE THE PLACEMENT OF SIX INCH (6") LAYER OF TOPSOIL BY THE LANDSCAPE CONTRACTOR.

4. ALL EXCAVATION, FILLING AND COMPACTION OPERATIONS SHALL BE OBSERVED BY A LICENSED SOIL ENGINEER. COMPACT ALL SUBGRADES WITHIN THE BUILDING OR PAVED AREA TO A MINIMUM OF 95% MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557.

5. REMOVE ALL UNSUITABLE AND DELETERIOUS MATERIAL AS ENCOUNTERED IN THE FIELD.

6. PRIOR TO FILL OPERATIONS, ALL AREAS WITHIN BUILDING AND PAVEMENT INFLUENCE THAT ARE TO RECEIVE FILL SHALL BE PROOFROLLED, AND ALL UNSTABLE MATERIAL SHALL BE REMOVED OR STABILIZED IN PLACE, AND THEN COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY TO A MINIMUM DEPTH OF TWELVE (12) INCHES, AS DETERMINED BY ASTM D-1557.

7. IMPORTED FILL FROM OFF-SITE BORROW PITS MUST BE MATERIAL SIMILAR IN CONTENT TO NATIVE MATERIAL, ALL IMPORTED FILL MATERIAL MUST BE TESTED AND HAVE THE APPROVAL OF A LICENSED SOILS ENGINEER.

8. FILL SHALL BE DEPOSITED IN EIGHT (8) INCH LOOSE LAYERS MAXIMUM, EXCEPT FILL WITHIN LANDSCAPED AREAS WHICH MAY BE DEPOSITED IN TWELVE (12) INCH LOOSE LAYERS MAXIMUM. ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY ASTM D-1557 (90% IN LANDSCAPED AREAS) AT ITS OPTIMUM MOISTURE CONTENT ± 2% UNLESS OTHERWISE DIRECTED BY THE SOILS ENGINEER.

9. FILL DENSITY AND LOAD BEARING CAPACITY TESTS SHALL BE PERFORMED BY A LICENSED SOILS ENGINEER.

10. WHEN WET EXCAVATION IS ENCOUNTERED, THE EXCAVATED AREA SHALL BE DEWATERED AND KEPT FREE OF WATER. PROVIDE A PERMANENT SUBDRAINAGE SYSTEM IF NECESSARY. ALL SATURATED MATERIAL SHALL BE REMOVED.

11. PROVIDE ALL SOIL EROSION AND SEDIMENTATION CONTROL AS REQUIRED BY LOCAL AUTHORITIES AND PRUDENT CONSTRUCTION PRACTICES AS NECESSITATED TO ELIMINATE ALL CONTAMINATED DISCHARGE FROM THE SITE DURING CONSTRUCTION.

12. PROVIDE SLOPE STABILIZATION ON ALL SITE SLOPES. STABILIZATION MAY BE BY TURF GRASSES, SOD, VEGETATION, GEOTEXTILE FABRICS OR OTHER MEANS AS REQUIRED BY THE DEGREE OF SLOPE TO BE PROTECTED.

13. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THE CONSTRUCTION AND CONDITIONS FOUND TO BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

14. ADJUST ALL EXISTING AND PROPOSED UTILITY FRAMES, GRATES, MANHOLE COVERS, VALVE BOXES, ETC. TO BE FLUSH OF THE PROPOSED SURFACE ELEVATIONS WITHIN THE LIMITS OF CONSTRUCTION.

15. REMOVE AND DISPOSE OF PAVEMENT MATERIALS AT AN APPROVED DISPOSAL SITE. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS.

16. ALL SINKHOLES SHALL BE REPAIRED. ANY NEW SINKHOLES THAT DEVELOP SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER.

17. ALL NON-PAVED AREAS SHALL NOT EXCEED A 2:1 SLOPE (OR THE MAXIMUM SLOPE ALLOWED BY ORDINANCE) UNLESS SPECIFICALLY APPROVED BY A LICENSED SOILS ENGINEER. PROVIDE SLOPE STABILIZATION AS REQUIRED.

18. NEW PAVEMENT GRADES ARE TO BE FIELD ADJUSTED AT EXISTING PAVEMENT SO THAT GRADES MATCH. JOINTS ARE TO BE FLUSH AND SEALED WITH EMULSIFIED ASPHALT.

19. TOPSOIL IS NOT TO BE BURIED.

20. ALL EXCAVATION, TRENCHING AND SHORING SHALL COMPLY WITH THE REQUIREMENTS OF THE U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PUBLICATION "EXCAVATION AND TRENCHING OPERATIONS". INTERPRETATION (OSHA 2079). SUBPART P, VOLUME III, OF THE CURRENT EDITION AND ANY AMENDMENTS THERETO.

21. IF APPLICABLE, TOP AND BOTTOM OF WALL SHOTS (TW/BW) ARE THE ELEVATIONS AT FINISH GRADE.

LANDSCAPE NOTES

1. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE DRAWINGS, AS SPECIFIED, AND IN QUANTITIES INDICATED ON THE PLANT LIST.

2. ALL PLANTS SHALL BE NURSERY GROWN.

3. ALL PLANTS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.

4. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH. THEY SHALL HAVE A STRAIGHT, SINGLE CENTRAL LEADER WITH NO DEAD TWIGS, SPLITS, FROST CRACKS OR BARK ABRASIONS GREATER THAN 2" IN DIAMETER. THEY SHALL BE HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE AND INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS.

5. THE CONTRACTOR SHALL SUBMIT A LIST OF THE NURSERY SOURCE FOR ALL PLANT MATERIALS. THE OWNER RESERVES THE RIGHT TO REQUIRE THE TAGGING OF ALL TREES PRIOR TO DIGGING, FOR INSTALLATION ON THIS PROJECT.

6. SUBSTITUTIONS: WHEN PLANTS OF A SPECIFIED KIND OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR, IF APPROVED BY THE OWNER AND THE LANDSCAPE ARCHITECT.

7. MEASUREMENT: DIMENSIONS OF TREES AND SHRUBS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.

8. SIZE: ALL PLANTS SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE PLANT LIST.

9. BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM NATURAL BALLS OF EARTH, OF DIAMETER AND DEPTH TO INCLUDE MOST OF THE FIBROUS ROOTS. CONTAINER GROWN STOCK SHALL HAVE BEEN GROWN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL TOGETHER FIRM AND WHOLE. NO PLANTS SHALL BE LOOSE IN THE CONTAINER.

10. ROOT BALLS OF ALL PLANTS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES FROM SUN AND DRYING WINDS OR FROST.

11. OWNER OR HIS REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS.

12. PLANTS WITH BROKEN ROOT BALLS OR EXCESSIVE DAMAGE TO THE CROWN OR SCRAPED TRUNK BARK SHALL NOT BE REPLACED PRIOR TO PLANTING.

13. ALL TREES SHALL BE STAKED AND GUYED ACCORDING TO ACCEPTED INDUSTRY PRACTICE.

14. ALL TREES SHALL BE WRAPPED ONLY AFTER THEY ARE INSPECTED BY THE LANDSCAPE ARCHITECT. APPROVED TREE WRAP SHALL BE INSTALLED ACCORDING TO ACCEPTED INDUSTRY PRACTICE.

15. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL DEAD WOOD OR SUCKERS AND ALL BROKEN OR BADLY BRUISED BRANCHES SHALL BE REMOVED.

16. MULCH FOR TREES, SHRUBS AND GROUND COVER SHALL BE FINELY SHREDDED OAK BARK, DARK BROWN IN COLOR: AGED AT LEAST ONE YEAR, AND CLEAN AND FREE OF WEEDS. PRE-EMERGENT WEED KILLER SHALL BE "TREFLAN" OR APPROVED EQUAL. APPLY WEED KILLER TO TOPSOIL PRIOR TO MULCHING BED PLANTINGS.

17. TREES IN LEAF WHEN PLANTED SHALL BE TREATED WITH ANTI-DESICANT SUCH AS WILT-PROOF.

18. PREPARATION OF PLANTING SOIL - BEFORE MIXING, CLEAN TOPSOIL OF ROOTS, PLANTS, STONES, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH. SOIL (BACKFILL) FOR TREES, SHRUBS, AND GROUND COVER SHALL BE A MIXTURE BY VOLUME OF THE FOLLOWING MATERIALS IN QUANTITIES SPECIFIED: 20% PEAT MOSS, 75% TOPSOIL AND 5% ORGANIC MATTER. ADD 10-10-10 FERTILIZER TO THE ABOVE MIXTURE AT THE RATES SPECIFIED BY THE MANUFACTURER.

19. WARRANT TREES AND SHRUBS FOR A PERIOD OF ONE YEAR AFTER WRITTEN DATE OF ACCEPTANCE BY THE LANDSCAPE ARCHITECT AND/OR CONSTRUCTION MANAGER AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. PLANTS THAT DIE DURING THE WARRANTY PERIOD SHALL BE REMOVED IMMEDIATELY, REPLACEMENTS SHALL BE PLACED UNDER WARRANTY FOR AN ADDITIONAL 1 YEAR PERIOD.

20. ALL PLANTING SHALL BE AT THE LOCATIONS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT THE CORRECT GRADES, ALIGNMENT, AND TO THE INDICATED LAYOUT OF PLANTING BEDS.

21. CONDITIONS DETRIMENTAL TO PLANTS: THE CONTRACTOR SHALL NOTIFY THE PROJECT REPRESENTATIVE IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS, ALONG WITH ANY CHANGE IN COST FOR REVIEW AND ACCEPTANCE BY THE PROJECT REPRESENTATIVE.

22. MINOR ADJUSTMENTS TO TREE LOCATION MAY BE NECESSARY DUE TO FIELD CONDITIONS AND FINAL GRADING. THE CONTRACTOR SHALL NOTIFY THE OWNER IF MAJOR ADJUSTMENTS ARE REQUIRED.

23. BEFORE ANY TREE REMOVAL, EARTHWORK OR CONSTRUCTION SHALL COMMENCE, FENCING OR GUARDS SHALL

ADJACENT PROPERTY OWNERS LIST				
SYMBOL	OWNER	TAX MAP	PIN #	DOCUMENT ID #
A	SIYA REAL ESTATE LLC	H09NE3B-008-023	640636557113	2017036077
B	YJO REAL ESTATE LLC	H09NE3C-3-3	640635596559	2018006175
C	YJO REAL ESTATE LLC	H09NE3C-3-2	640635286481	2018006175
D	THOMAS J AMICI & RHUDELL SACCHET	H09NE3-3-1	640635173247	2016018800
E	THOMAS J AMICI & RHUDELL SACCHET	H09NE3C-1-6A	640635084392	2019027401
F	EDWARD W & GLORIA E ROTH	H09NE3C-1-7	640635094462	DBV 1255, PG 337
G	GUSTAVO & LIDIA PUELLO	H09NE3C-1-8	640636003625	7185279
H	SICAM GROUP LLC	H09NE3C-1-8A	640626906336	2018027462
I	JOSEPH A & JOSEPHINE E RAMOS	H09NE3B-7-13	640636121218	DBV 1349, PG 364
J	DONALD J & MARY ANN MARTIN	H09NE3B-8-31	640636235228	DBV 1661, PG 636
K	KANCHANGIR LLC	H09NE3B-8-29	640636332516	2018011457

STREETS REQUESTING TO BE VACATED

S. SIXTH STREET

S. SEVENTH STREET

S. VIRGINIA STREET (UNOPENED)

S. FAIR STREET (VAC. ORD. NO. 10741)

S. FAIR STREET (VAC. ORD. NO. 11510 & 11861)

S. EAST STREET (UNOPENED)

S. EAST STREET (VAC. ORD. NO. H869)

S. FIFTH STREET (50' WIDE)

SUSQUEHANNA STREET

RYE STREET

W. CUMBERLAND STREET

W. SUSQUEHANNA STREET (UNOPENED)

W. SUSQUEHANNA STREET (VAC. ORD. NO. 12768)

W. SUSQUEHANNA STREET (VAC. ORD. NO. 12448)

LONG STREET (VAC. ORD. NO. 11510 & 11861)

SIXTH STREET (VAC. ORD. NO. 12448)

(PORTION UNOPENED)

LOT LINES TO BE REMOVED

12" WATER LINE

N/F REDEVELOPMENT AUTHORITY CITY OF ALLENTOWN TMP H9NE3B – 8 – 22 PIN 640636484539 DOC. ID 7263811

N/F REDEVELOPMENT AUTHORITY CITY OF ALLENTOWN TMP H9NE3B – 8 – 28 PIN 640636345257 DOC. ID 2009011665

N/F ACIDA TMP H9NE3B – 8 – 27A PIN 640636339796 DOC. ID 2012012895

N/F ACIDA TMP H9NE3B–3–30 PIN 640636238192 DOC. ID 2012012895

N/F ACIDA TMP H9NE3B – 8 – 27 PIN 640636418321 DOC. ID 2012012895

N/F ACIDA TMP H9NE3B – 8 – 26 PIN 640636431821 DOC. ID 2012012895

N/F ACIDA TMP H9NE3B – 8 – 25 PIN 640636432866 DOC. ID 2012012895

N/F ACIDA TMP H9NE3B – 8 – 24A PIN 640636447004 DOC. ID 2012012895

N/F REDEVELOPMENT AUTHORITY CITY OF ALLENTOWN TMP H9NE3B – 8 – 24 PIN 640636444722 DOC. ID 2009011665

N/F ACIDA TMP H9NE3C – 1 – 1 PIN 640633611557 DOC. ID 2012012895

N/F ACIDA TMP H9NE3C – 1 – 3 PIN 640636108387 DOC. ID 2012012895

N/F ACIDA TMP H9NE3C – 1 – 4 PIN 6406352924805274 DOC. ID 2012012895

N/F ACIDA TMP H9NE3C – 1 – 6 PIN 640635181690 DOC. ID 2012012895

N/F ACIDA TMP H9NE3C – 2 – 2 PIN 640636415274 DOC. ID 2012012895

N/F ACIDA TMP H9NE3B – 10 – 2 PIN 640636625261 DOC. ID 2012012895

N 67°47'19" E 75.02'

N 68°12'02" E 145.30'

N 68°12'02" E 150.00'

S 68°12'02" W 150.00'

S 68°12'02" W 145.30'

S 68°12'02" W 132.20'

N 68°12'02" E 170.00'

N 68°12'02" E 148.00'

N 68°12'02" E 137.04'

S 68°12'02" W 325.30'

S 67°49'17" W 148.00'

N 68°12'02" E 74.00'

S 68°12'02" W 74.00'

N 68°12'02" E 148.00'

S 68°12'02" W 148.00'

1" BENT PIPE (FND)

1" PINCHED PIPE (FND)

R:676.11' L:129.80' CH:S 17°20'47" E CHL:128.60'

S 05°30'47" E 140.11'

S 05°30'47" E 26.00'

S 16°50'42" E 60.22'

S 16°50'42" E 58.05'

N 21°47'58" W 89.23'

N 22°10'43" W 150.00'

S 21°47'58" E 150.00'

N 21°47'58" W 320.00'

S 21°47'58" E 320.00'

S 21°47'59" E 25.00'

N 21°47'58" W 80.00'

S 21°47'58" E 80.00'

N 21°47'58" W 140.00'

S 21°47'58" E 140.00'

N 21°47'58" W 74.00'

N 21°47'58" W 75.00'

S 21°47'58" E 75.00'

S 21°47'58" E 40.00'

22.00' 40.50' 82.80' 13.50' 3.50' 3.50' 3.50'

(100.00') (80.00') (140.00') (70.00')

60.00' 52.00' 325.30' 58.05' 20.00' 25.00'

0 30' 60'

SCALE: 1" = 30'

OWNER'S CERTIFICATION

WE THE UNDERSIGNED BEING DULY SWORN ACCORDING TO LAW DEPOSE AND SAY THAT WE ARE THE SOLE OWNERS OF THE TRACT SHOWN HEREON IN PEACEFUL POSSESSION OF THE SAME AND THAT THERE ARE NO SUITS OR ACTIONS PENDING OR AFFECTING THE SAME.

SWORN AND SUBSCRIBED BEFORE ME THIS ____ DAY OF _____, A.D. 20__

_____
NOTARY PUBLIC

NOTARY SEAL

MY COMMISSION EXPIRES: _____

LEHIGH VALLEY PLANNING COMMISSION CERTIFICATION

REVIEWED BY THE LEHIGH VALLEY PLANNING COMMISSION

REVIEWED BY: _____ PLANNER _____ DATE

CITY OF ALLENTOWN PLANNING COMMISSION CERTIFICATION

THE WITHIN PLOT OR PLAN OF LAND LOCATED IN ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA, WAS APPROVED BY THE ALLENTOWN CITY PLANNING COMMISSION.

_____ CHAIRMAN _____ DATE

_____ PLANNING DIRECTOR _____ DATE

_____ SECRETARY _____ DATE

APPROVED: _____ CITY ENGINEER

SURVEYOR CERTIFICATION

I, JOSEPH A. GRUVER, PLS, HEREBY CERTIFY THAT THIS PLAN HAS BEEN COMPILED FROM A SURVEY ACTUALLY MADE, ON THE GROUND, THAT IT IS CORRECT AND AT THE TIME THE SURVEY WAS MADE, THERE WERE NO EASEMENTS OR ENCROACHMENTS ACROSS PROPERTY LINES, OTHER THAN THOSE SHOWN.

_____ DATE REGISTERED
SURVEYOR

PROOF OF RECORDING

PLAN RECORDED IN THE OFFICE OF THE RECORDER IF DEEDS OF LEHIGH COUNTY, PENNSYLVANIA, IN DOCKET ID_____ ON THE_____ DAY OF_____ 20____.

WITNESS MY HAND AND SEAL OF OFFICE THIS_____ DAY OF_____ 20____.

_____
WITNESS

_____
RECORDER OF DEEDS

_____ _____
DATE

CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE–STOP CALL

1-800-242-1776

811 Know what's below. Call before you dig.

1–CALL NO. 20220112214 DATE: 01/12/22

EXISTING	TYPE	PROPOSED	EXISTING	TYPE	PROPOSED
	BUILDING SETBACK LINE			PROPERTY LINE	
	CONCRETE MONUMENT	■	○	IRON PIN OR PIPE	●
500	CONTOUR MAJOR	500	502	CONTOUR MINOR	502
TEXT	DECIDUOUS TREE	TEXT	TEXT	EVERGREEN TREE	TEXT
	BRUSH / WOODED AREA			SOILS BOUNDARY	
	DRAINAGE AREA BOUNDARY			TIME OF CONCENTRATION	
	CURB			EDGE OF PAVEMENT	
	LEGAL RIGHT-OF-WAY			TO BE REMOVED	TBR / RAZED
	LIGHT POLE / FLOOD LIGHT			SIGN	
	FENCE			GUIDERAIL	
	EASEMENT			EASEMENT LINE	
GAS	GAS LINE	GAS	D	STORM SEWER MH/INLET/LINE	TEXT
TEXT	PROBE (FAILED)		TEXT	PROBE (PASSED)	
	PERC TEST HOLE(S)			PERMEABILITY TEST(S)	
	FIRE HYDRANT			METER BOX	
W	WATER LINE / VALVE	W	S SAN	SANITARY SEWER/MH/LINE	S SAN
W	WELL	W		SEPTIC BERM	
400.05	SPOT ELEVATION	400.05		SNOUT	
OHU	OVERHEAD UTILITIES	OHU	TEXT	UTILITY POLE	TEXT
	WETLAND BUFFER			WETLAND DELINEATION	
	FLOOD PLAIN			RIPARIAN BUFFER	
	WATER EDGE				
	L.O.D. / NPDES	LOD		CONSTRUCTION ENTRANCE	
	EROSION CONTROL MAT	S75BN		TOPSOIL STOCKPILE	
	INLET PROTECTION			SEPTIC AREA	SEPTIC AREA
	FILTER FENCE W/ LABEL	FF-1		DEWATERING FACILITY/SKIMMER	
	RIP-RAP OUTLET PROT.			ROCK FILTER W/ LABEL	RF-1
	BAFFLE W/ LABEL	BAFFLE 1		CLEANOUT STAKE	C
	PAVEMENT RECONSTRUCTION			IMPERVIOUS HATCH	
	SAWCUT			PAVEMENT MILL / OVERLAY	

NO	REVISION	BY	DATE

PROJECT:

CUMBERLAND APARTMENT COMPLEX

CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:

THE YASIN KHAN 2021 FAMILY TRUST

1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

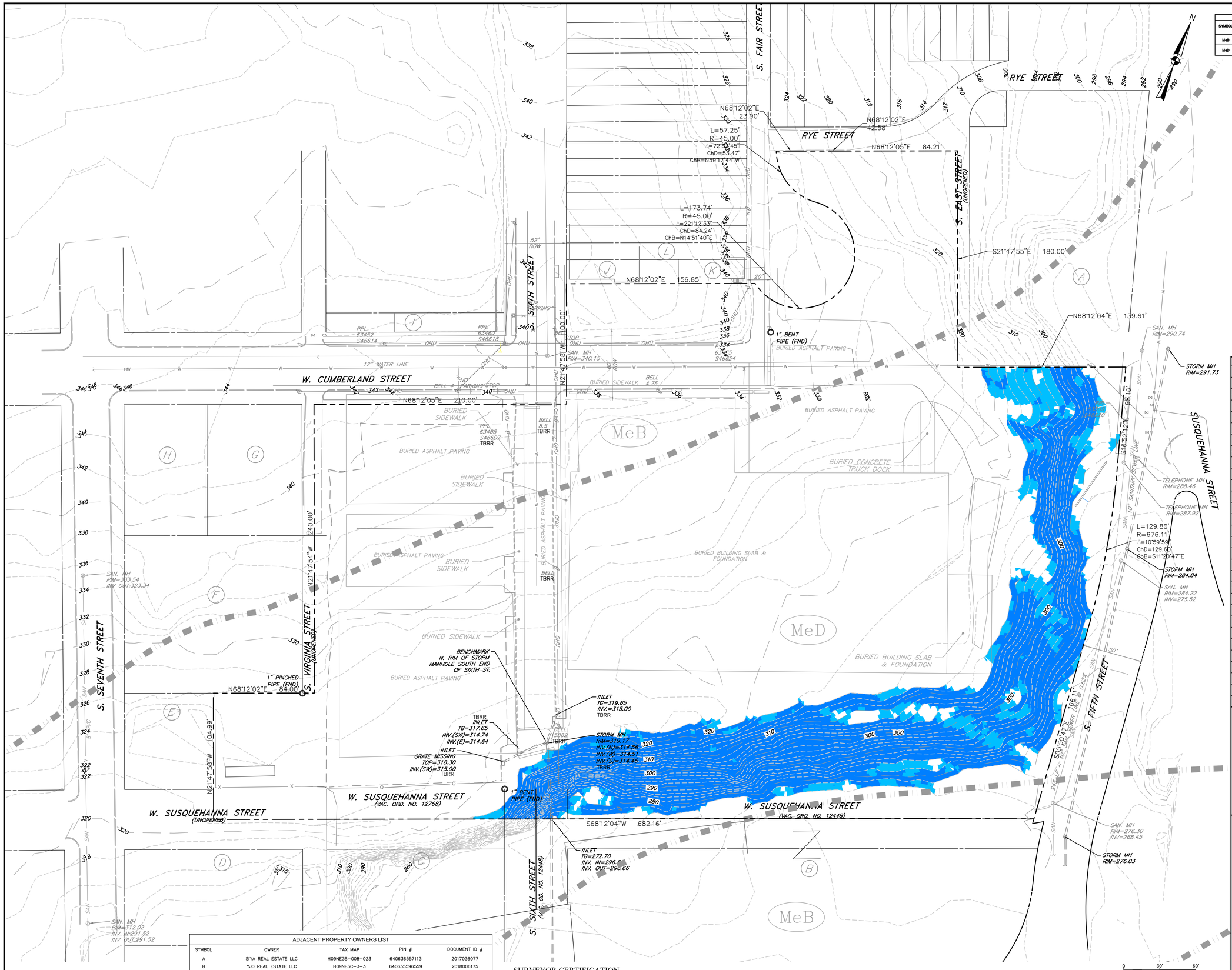
PREPARER:

Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:

FINAL PLAN
LOT CONSOLIDATION & STREET VACATION PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: VA-1
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 3 OF 27



SOIL TYPES						
SYMBOL	NAME	HYDRIC (Y/N)	DEPTH TO BEDROCK (IN.)	DEPTH TO WATER TABLE (FT.)	HYDROLOGIC SOIL GROUP	ERODIBILITY FACTOR
MeB	MADE LAND 3–8 PERCENT SLOPES	N	N/A	N/A	NO	?
MeD	MADE LAND 8–25 PERCENT SLOPES	N	N/A	N/A	NO	?

Slopes Table

Number	Minimum Slope	Maximum Slope	Area	Color
1	25.00%	35.00%	0.00	
2	35.00%	318.84%	0.00	

EXISTING	TYPE	PROPOSED
	BUILDING SETBACK LINE	
	CONCRETE MONUMENT	
500	CONTOUR MAJOR	500
TEXT	DECIDUOUS TREE	TEXT
	BRUSH / WOODED AREA	
	DRAINAGE AREA BOUNDARY	
	CURB	
	LEGAL RIGHT-OF-WAY	
	LIGHT POLE / FLOOD LIGHT	
	FENCE	
	EASEMENT	
GAS	GAS LINE	GAS
TEXT	PROBE (FAILED)	
	PERC TEST HOLE(S)	
	FIRE HYDRANT	
W	WATER LINE / VALVE	W
W	WELL	W
400.05	SPOT ELEVATION	400.05
OHU	OVERHEAD UTILITIES	OHU
	WETLAND BUFFER	
	FLOOD PLAIN	
	WATER EDGE	
LOD	L.O.D. / NPDES	LOD
S758N	EROSION CONTROL MAT	S758N
	INLET PROTECTION	
FF-1	FILTER FENCE W/ LABEL	FF-1
	RIP-RAP OUTLET PROT.	
BAFFLE 1	BAFFLE W/ LABEL	BAFFLE 1
	PAVEMENT RECONSTRUCTION	
	SAWCUT	

EXISTING	TYPE	PROPOSED
	PROPERTY LINE	
	IRON PIN OR PIPE	
500	CONTOUR MINOR	500
TEXT	EVERGREEN TREE	TEXT
	SOILS BOUNDARY	
	TIME OF CONCENTRATION	
	EDGE OF PAVEMENT	
	TO BE REMOVED	TBR / RAZED
	SIGN	A
	GUIDERAIL	
	EASEMENT LINE	
D	STORM SEWER MH/INLET/LINE	D TBRR
TEXT	PROBE (PASSED)	
	PERMEABILITY TEST(S)	
	METER BOX	
S SAN	SANITARY SEWER/MH/LINE	S SAN
	SEPTIC BERM	
TEXT	UTILITY POLE	TEXT
	WETLAND DELINEATION	
	RIPARIAN BUFFER	
	CONSTRUCTION ENTRANCE	
	TOPSOIL STOCKPILE	
SEPTIC AREA	SEPTIC AREA	
	DEWATERING FACILITY/SKIMMER	
RF-1	ROCK FILTER W/ LABEL	RF-1
C	CLEANOUT STAKE	C
	IMPERVIOUS HATCH	
	PAVEMENT MILL / OVERLAY	

NO	REVISION	BY	DATE

ADJACENT PROPERTY OWNERS LIST

SYMBOL	OWNER	TAX MAP	PIN #	DOCUMENT ID #
A	SIYA REAL ESTATE LLC	H09NE3B–00B–023	640636557113	2017036077
B	YJO REAL ESTATE LLC	H09NE3C–3–3	640635596559	2018006175
C	YJO REAL ESTATE LLC	H09NE3C–3–2	640635286481	2018006175
D	THOMAS J AMICI & RHUDELL SACCHET	H09NE3–3–1	640635173247	2016018800
E	THOMAS J AMICI & RHUDELL SACCHET	H09NE3C–1–6A	640635084392	2019027401
F	EDWARD W & GLORIA E ROTH	H09NE3C–1–7	640635094462	DBV 1255, PG 337
G	GUSTAVO & LIDIA PUELLO	H09NE3C–1–8	640636003625	7185279
H	SICAM GROUP LLC	H09NE3C–1–8A	640626906336	2018027462
I	JOSEPH A & JOSEPHINE E RAMOS	H09NE3B–7–13	640636121218	DBV 1349, PG 364
J	DONALD J & MARY ANN MARTIN	H09NE3B–8–31	640636235228	DBV 1661, PG 636
K	KANCHANGIR LLC	H09NE3B–8–29	640636332516	2018011457

CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE–STOP CALL

1-800-242-1776

1–CALL NO. 20220112214 DATE: 01/12/22

811 Know what's below. Call before you dig.

SURVEYOR CERTIFICATION

I, JOSEPH A. GRUVER, PLS, HEREBY CERTIFY THAT THIS PLAN HAS BEEN COMPILED FROM A SURVEY ACTUALLY MADE, ON THE GROUND, THAT IT IS CORRECT AND AT THE TIME THE SURVEY WAS MADE, THERE WERE NO EASEMENTS OR ENCROACHMENTS ACROSS PROPERTY LINES, OTHER THAN THOSE SHOWN.

_____ _____ REGISTERED SURVEYOR DATE

SEAL

PROJECT:

CUMBERLAND APARTMENT COMPLEX

CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:

THE YASIN KHAN 2021 FAMILY TRUST

1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:

Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:

FINAL PLAN
EXISTING FEATURES AND DEMOLITION PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: EX-1
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 4 OF 27

SITE PLAN NOTES:

1. SURVEY CUT SHEETS FOR CURBING SHALL BE SUBMITTED TO THE CITY FOR REVIEW PRIOR TO CONSTRUCTION.
2. PRIOR TO ANY BUILDING PERMIT, COUNTY TAX PARCEL IDENTIFICATION NUMBERS SHOULD BE ASSIGNED FOR ALL NEW LOTS.

CALL BEFORE YOU DIG

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1-800-242-1776

1–CALL NO. 20220112214 DATE: 01/12/22

ADJACENT PROPERTY OWNERS LIST

SYMBOL	OWNER	TAX MAP	PIN #	DOCUMENT ID #
A	SIYA REAL ESTATE LLC	H09NE3B-008-023	640636557113	2017036077
B	YJO REAL ESTATE LLC	H09NE3C-3-3	640635596559	2018006175
C	YJO REAL ESTATE LLC	H09NE3C-3-2	640635286481	2018006175
D	THOMAS J AMICI & RHUDELL SACCHET	H09NE3-3-1	640635173247	2016018800
E	THOMAS J AMICI & RHUDELL SACCHET	H09NE3C-1-6A	640635084392	2019027401
F	EDWARD W & GLORIA E ROTH	H09NE3C-1-7	640635094462	DBV 1255, PG 337
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I	JOSEPH A & JOSEPHINE E RAMOS	H09NE3B-7-13	640636121218	DBV 1349, PG 364
J	DONALD J & MARY ANN MARTIN	H09NE3B-8-31	640636235228	DBV 1661, PG 636
K	KANCHANGIR LLC	H09NE3B-8-29	640636332516	2018011457
L	LEGACY TRUST C/O JAMES ARRINGTON	H09NE3B-8-31	640636237525	DBV 1553, PG 196

PROPOSED UNIT NUMBER RANGE

BUILDING #1 FIRST FLOOR UNITS 1 THRU 12
BUILDING #1 SECOND FLOOR UNITS 13 THRU 24

BUILDING #2 FIRST FLOOR UNITS 1 THRU 12
BUILDING #2 SECOND FLOOR UNITS 13 THRU 24

BUILDING #3 FIRST FLOOR UNITS 1 THRU 12
BUILDING #3 SECOND FLOOR UNITS 13 THRU 24

BUILDING #4 FIRST FLOOR UNITS 1 THRU 12
BUILDING #4 SECOND FLOOR UNITS 13 THRU 24

SIGN TABULATION CHART

SYMBOL	TYPE	QUANTITY	SIZE	DESCRIPTION
A	R1-1	1	30"x30"	STOP SIGN
B	R7-8	8	12"x18"	RESERVED HANDICAP PARKING SIGN
C	R7-8A	8	6"x12"	VAN ACCESSIBLE SIGN
D	R7-8P	8	10"x12"	ACCESSIBLE PARKING PENALTY SIGN
E	R1-5	2	24"x18"	YIELD TO PEDESTRIANS IN CORSSWALK SIGN
F	W11-2	2	30"x30"	PEDESTRIAN CROSS SIGN
G	R5-1	2	30"x30"	DO NOT ENTER SIGN
H	R7-302	2	12"x18"	NO PARKING SYMBOL/ARROW SIGN
I	R5-101	2	24"x30"	EMERGENCY AND AUTHORIZED VEHICLES ONLY SIGN

EXISTING	TYPE	PROPOSED	EXISTING	TYPE	PROPOSED
	BUILDING SETBACK LINE			PROPERTY LINE	
	CONCRETE MONUMENT	■	○	IRON PIN OR PIPE	◉
500	CONTOUR MAJOR	500	502	CONTOUR MINOR	502
TEXT	DECIDUOUS TREE	TEXT	TEXT	EVERGREEN TREE	TEXT
	BRUSH / WOODED AREA			SOILS BOUNDARY	
	DRAINAGE AREA BOUNDARY			TIME OF CONCENTRATION	
	CURB			EDGE OF PAVEMENT	
	LEGAL RIGHT-OF-WAY			TO BE REMOVED	TBR / RAZED
	LIGHT POLE / FLOOD LIGHT	✱		SIGN	A
	FENCE	⊠		GUIDERAIL	
	EASEMENT			EASEMENT LINE	
GAS	GAS LINE	GAS	TEXT	STORM SEWER MH/INLET/LINE	TEXT
TEXT	PROBE (FAILED)		TEXT	PROBE (PASSED)	
	PERC TEST HOLE(S)			PERMEABILITY TEST(S)	
	FIRE HYDRANT			METER BOX	
W	WATER LINE / VALVE	W	S SAN	SANITARY SEWER/MH/LINE	S SAN
	WELL	W		SEPTIC BERM	
400.05	SPOT ELEVATION	400.05		SNOUT	
OHU	OVERHEAD UTILITIES	OHU	TEXT	UTILITY POLE	TEXT
	WETLAND BUFFER			WETLAND DELINEATION	
	FLOOD PLAIN			RIPARIAN BUFFER	
	WATER EDGE				
	L.O.D. / NPDES	LOD		CONSTRUCTION ENTRANCE	
	EROSION CONTROL MAT	S75BN		TOPSOIL STOCKPILE	
	INLET PROTECTION			SEPTIC AREA	SEPTIC AREA
	FILTER FENCE W/ LABEL	FF-1		DEWATERING FACILITY/SKIMMER	
	RIP-RAP OUTLET PROT.			ROCK FILTER W/ LABEL	RF-1
	BAFFLE W/ LABEL	BAFFLE 1		CLEANOUT STAKE	C
	PAVEMENT RECONSTRUCTION			IMPERVIOUS HATCH	
	SAWCUT			PAVEMENT MILL / OVERLAY	

NO	REVISION	BY	DATE

PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:
THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:
Benchmark CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:
FINAL PLAN
SITE PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: S-1
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 5 OF 27

OWNER'S CERTIFICATION

WE THE UNDERSIGNED BEING DULY SWORN ACCORDING TO LAW DEPOSE AND SAY THAT WE ARE THE SOLE OWNERS OF THE TRACT SHOWN HEREON IN PEACEFUL POSSESSION OF THE SAME AND THAT THERE ARE NO SUITS OR ACTIONS PENDING OR AFFECTING THE SAME.

SWORN AND SUBSCRIBED BEFORE ME THIS ____ DAY OF _____, A.D. 20__

NOTARY PUBLIC

NOTARY SEAL

MY COMMISSION EXPIRES:_____

LEHIGH VALLEY PLANNING COMMISSION CERTIFICATION

REVIEWED BY THE LEHIGH VALLEY PLANNING COMMISSION

REVIEWED BY:_____
PLANNER DATE

CITY OF ALLENTOWN PLANNING COMMISSION CERTIFICATION

THE WITHIN PLOT OR PLAN OF LAND LOCATED IN ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA, WAS APPROVED BY THE ALLENTOWN CITY PLANNING COMMISSION.

_____CHAIRMAN DATE

_____PLANNING DIRECTOR DATE

_____SECRETARY DATE

APPROVED:_____
CITY ENGINEER

SURVEYOR CERTIFICATION

I, JOSEPH A. GRUVER, PLS, HEREBY CERTIFY THAT THIS PLAN HAS BEEN COMPILED FROM A SURVEY ACTUALLY MADE, ON THE GROUND, THAT IT IS CORRECT AND AT THE TIME THE SURVEY WAS MADE, THERE WERE NO EASEMENTS OR ENCROACHMENTS ACROSS PROPERTY LINES, OTHER THAN THOSE SHOWN.

_____DATE REGISTERED
SURVEYOR

PROOF OF RECORDING

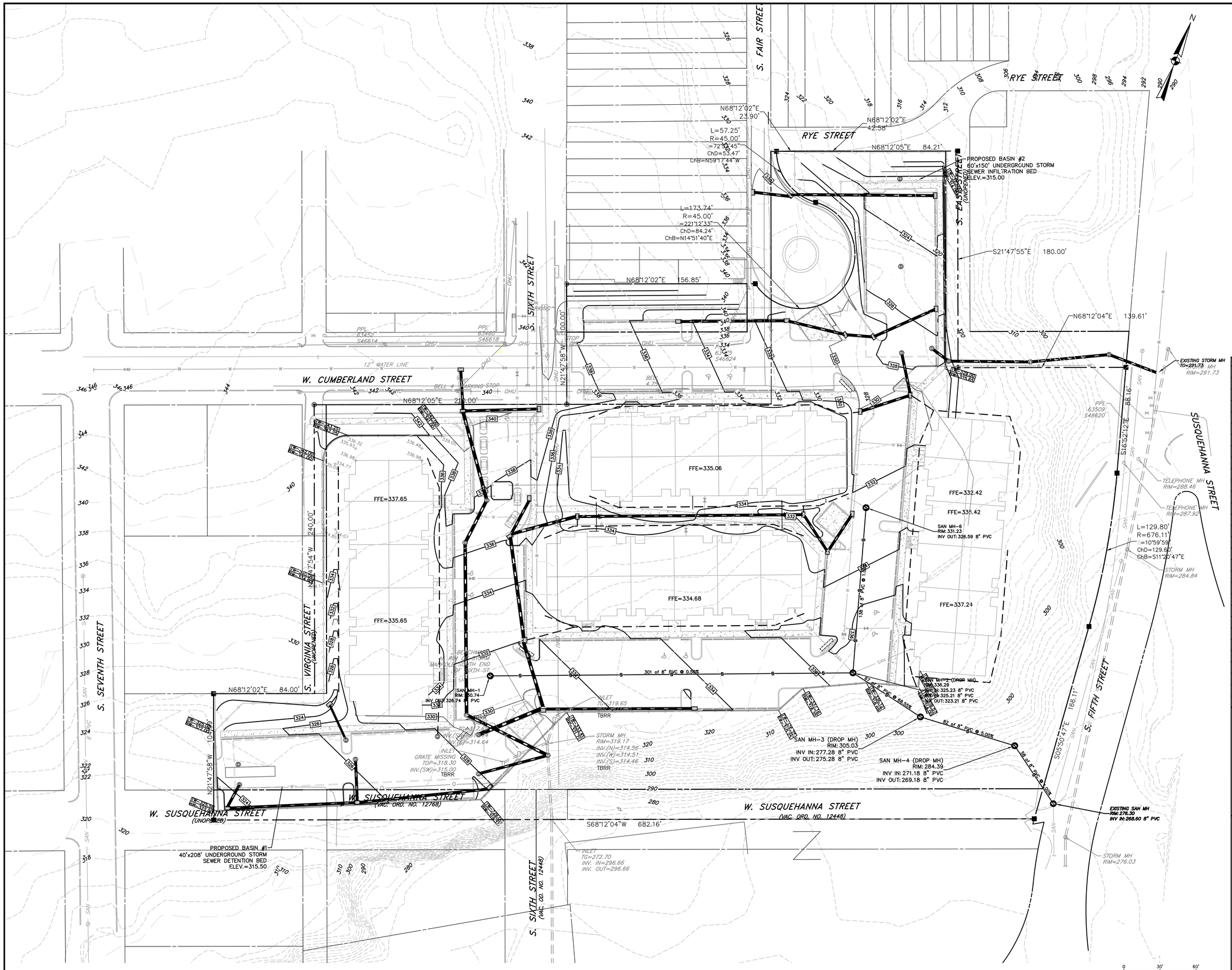
PLAN RECORDED IN THE OFFICE OF THE RECORDER IF DEEDS OF LEHIGH COUNTY, PENNSYLVANIA, IN DOCKET ID_____ ON THE_____ DAY OF_____ 20____.
WITNESS MY HAND AND SEAL OF OFFICE THIS_____ DAY OF_____ 20____.

_____
WITNESS

_____
RECORDER OF DEEDS

_____
DATE

SCALE: 1" = 30'



EXISTING	TYPE	PROPOSED
	BUILDING SETBACK LINE	
	CONCRETE MONUMENT	
500	CONTOUR MAJOR	500
TEXT	DECIDUOUS TREE	TEXT
	BRUSH / WOODED AREA	
	DRAINAGE AREA BOUNDARY	
	CURB	
	LEGAL RIGHT-OF-WAY	
	LIGHT POLE / FLOOD LIGHT	
	FENCE	
	EASEMENT	
GAS	GAS LINE	GAS
TEXT	PROBE (FAILED)	
	PERC TEST HOLE(S)	
	FIRE HYDRANT	
W	WATER LINE / VALVE	W
	WELL	W
400.05	SPOT ELEVATION	400.05
OHU	OVERHEAD UTILITIES	OHU
	WETLAND BUFFER	
	FLOOD PLAIN	
	WATER EDGE	
	L.O.D. / NPDES	LOD
	EROSION CONTROL MAT	S758N
	INLET PROTECTION	
	FILTER FENCE W/ LABEL	FF-1
	RIP-RAP OUTLET PROT.	
	BAFFLE W/ LABEL	BAFFLE 1
	PAVEMENT RECONSTRUCTION	
	SAWCUT	

EXISTING	TYPE	PROPOSED
	PROPERTY LINE	
	IRON PIN OR PIPE	
500	CONTOUR MINOR	500
TEXT	EVERGREEN TREE	TEXT
	SOILS BOUNDARY	
	TIME OF CONCENTRATION	
	EDGE OF PAVEMENT	
	TO BE REMOVED	TBR / RAZED
	SIGN	
	GUIDERAIL	
	EASEMENT LINE	
D TEXT	STORM SEWER MH/INLET/LINE	D TEXT
TEXT	PROBE (PASSED)	
	PERMEABILITY TEST(S)	
	METER BOX	
S SAN TEXT	SANITARY SEWER/MH/LINE	S SAN TEXT
	SEPTIC BERM	
	SNOUT	
TEXT	UTILITY POLE	TEXT
	WETLAND DELINEATION	
	RIPARIAN BUFFER	
	CONSTRUCTION ENTRANCE	
	TOPSOIL STOCKPILE	
	SEPTIC AREA	SEPTIC AREA
	DEWATERING FACILITY/SKIMMER	
	ROCK FILTER W/ LABEL	RF-1
©	CLEANOUT STAKE	
	IMPERVIOUS HATCH	
	PAVEMENT MILL / OVERLAY	

NO	REVISION	BY	DATE

CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE–STOP CALL

1-800-242-1776

811 Know what's below. Call before you dig.

1–CALL NO. 20220112214 DATE: 01/12/22

STORM SEWER NOTES:

1. A CONNCTION PERMIT FROM THE CITY ENGINEERING BUREAU FOR EACH CONNECTION TO THE PUBLIC STORM SEWER MUST BE OBTAINED PRIOR TO CONSTRUCTION.

PROJECT:

CUMBERLAND APARTMENT COMPLEX

CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:

THE YASIN KHAN 2021 FAMILY TRUST

1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

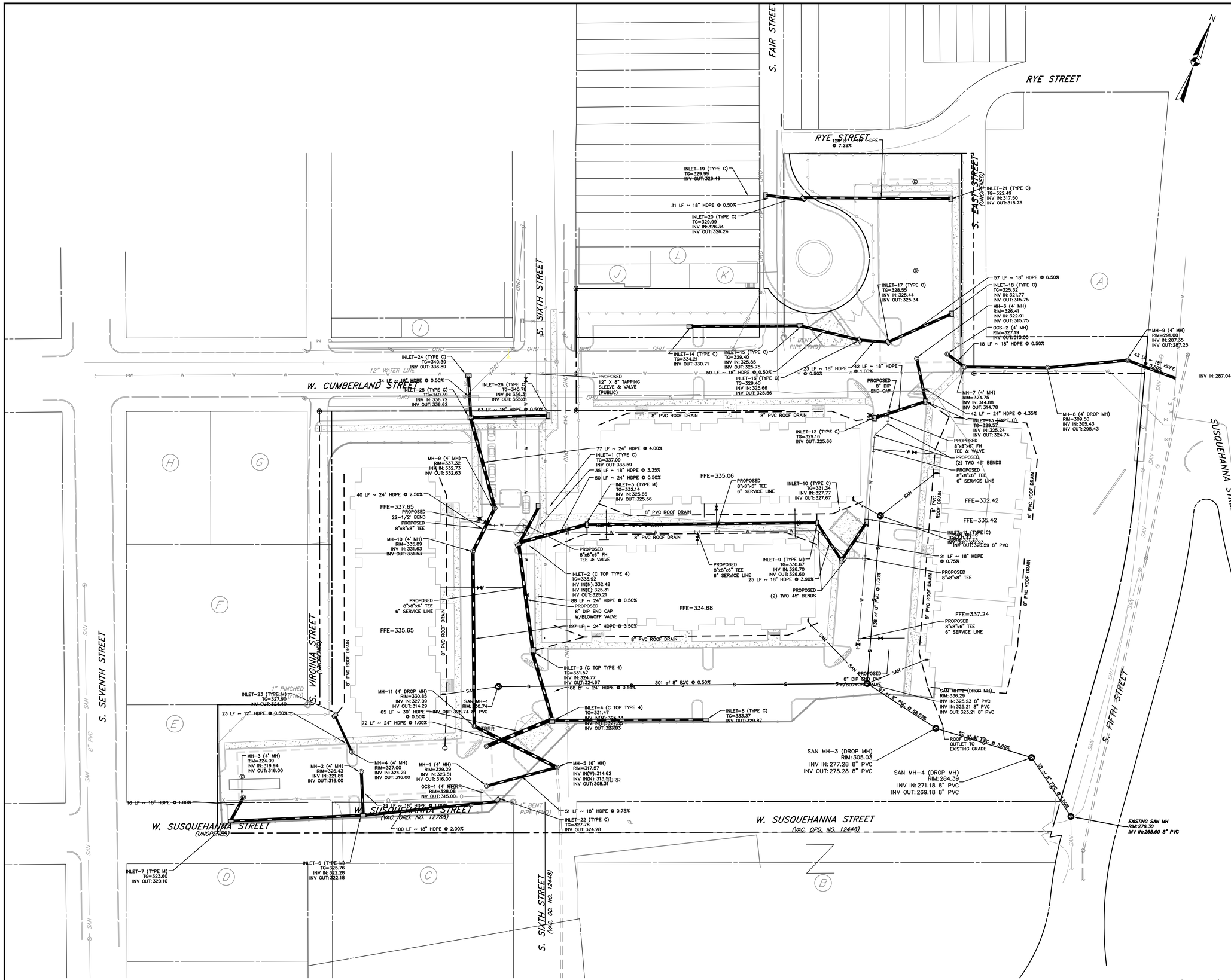
PREPARER:

Benchmark
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ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
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TITLE:

FINAL PLAN
GRADING & STORM SEWER PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: G-1
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 6 OF 27



EXISTING	TYPE	PROPOSED	EXISTING	TYPE	PROPOSED
	BUILDING SETBACK LINE			PROPERTY LINE	
	CONCRETE MONUMENT	■		IRON PIN OR PIPE	◉
500	CONTOUR MAJOR	500	502	CONTOUR MINOR	502
TEXT	DECIDUOUS TREE	TEXT	TEXT	EVERGREEN TREE	TEXT
	BRUSH / WOODED AREA			SOILS BOUNDARY	
	DRAINAGE AREA BOUNDARY			TIME OF CONCENTRATION	
	CURB			EDGE OF PAVEMENT	
	LEGAL RIGHT-OF-WAY			TO BE REMOVED	TBR / RAZED
	LIGHT POLE / FLOOD LIGHT			SIGN	
	FENCE			GUIDERAIL	
	EASEMENT			EASEMENT LINE	
GAS	GAS LINE	GAS	TEXT	STORM SEWER MH/INLET/LINE	TEXT
TEXT	PROBE (FAILED)		TEXT	PROBE (PASSED)	
	PERC TEST HOLE(S)			PERMEABILITY TEST(S)	
	FIRE HYDRANT			METER BOX	
W	WATER LINE / VALVE	W	TEXT SAN	SANITARY SEWER/MH/LINE	TEXT SAN
W	WELL	W		SEPTIC BERM	
400.05	SPOT ELEVATION	400.05		SNOUT	
OHU	OVERHEAD UTILITIES	OHU	TEXT	UTILITY POLE	TEXT
	WETLAND BUFFER			WETLAND DELINEATION	
	FLOOD PLAIN			RIPARIAN BUFFER	
	WATER EDGE				
	L.O.D. / NPDES	LOD		CONSTRUCTION ENTRANCE	
	EROSION CONTROL MAT	S75BN		TOPSOIL STOCKPILE	
	INLET PROTECTION			SEPTIC AREA	SEPTIC AREA
	FILTER FENCE W/ LABEL	FF-1		DEWATERING FACILITY/SKIMMER	
	RIP-RAP OUTLET PROT.			ROCK FILTER W/ LABEL	RF-1
	BAFFLE W/ LABEL	BAFFLE 1		CLEANOUT STAKE	©
	PAVEMENT RECONSTRUCTION			IMPERVIOUS HATCH	
	SAWCUT			PAVEMENT MILL / OVERLAY	

NO	REVISION	BY	DATE

PROJECT:

CUMBERLAND APARTMENT COMPLEX

CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:

THE YASIN KHAN 2021 FAMILY TRUST

1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:

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www.bencivil.com
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TITLE:

FINAL PLAN
UTILITY PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: U-1
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 7 OF 27

CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE–STOP CALL

1-800-242-1776

811 Know what's below. Call before you dig.

1–CALL NO. 20220112214 DATE: 01/12/22

LANDSCAPE REQUIREMENTS

ZONING DISTRICT: R-MH - MEDIUM HIGH DENSITY RESIDENTIAL

STREET TREES - ZONING § 660-79

REQUIREMENT - 1 TREE FOR EVERY 40 FEET OF FRONTAGE

	FRONTAGE	REQUIRED	PROPOSED
W. CUMBERLAND ST.	270 FT.	6.8 TREES	7 TREES
S. FAIR ST.	220 FT.	5.5 TREES	7 TREES
RYE ST.	155 FT.	3.9 TREES	4 TREES

PARKING LOT TREES - ZONING § 660-77

REQUIREMENT - 1 TREE FOR EVERY 10 PARKING SPACES

REQUIRED TREES = 225 / 10 = 22.5 TREES

TOTAL TREES PROPOSED = 23 TREES

PARKING AREA LANDSCAPING - ZONING § 660-77

REQUIREMENT - 10% OF PAVED AREA SHALL BE LANDSCAPED

REQUIRED LANDSCAPED AREA = 77,213 S.F. x 10% = 7,721 S.F.

TOTAL LANDSCAPED AREA PROPOSED = 7,735 S.F.

BUFFER STRIP - ZONING § 660-76

A LANDSCAPED BUFFER STRIP SHALL BE REQUIRED WHENEVER A PARKING LOT OR STRUCTURE INVOLVING EIGHT OR MORE PARKING SPACES IS LOCATED ON A LOT WHOSE SIDE OR REAR LINES ABUT OR ARE ACROSS AN ALLEY FROM A RESIDENTIAL DISTRICT.

A REQUIRED LANDSCAPED BUFFER STRIP SHALL BE PLANTED AND MAINTAINED WITH AN ATTRACTIVE AND CONTINUOUS LANDSCAPE SCREEN. THE LANDSCAPING SHALL CONSIST OF PRIMARILY EVERGREEN TREES AND SHRUBS WITH A MINIMUM HEIGHT WHEN PLANTED OF 3.5 FEET AND IN SUCH NUMBERS, LOCATIONS AND SPECIES AS CAN REASONABLY BE EXPECTED TO PRODUCE, WITHIN THREE GROWING SEASONS, A YEAR-ROUND MOSTLY CONTINUOUS COMPLETE VISUAL SCREEN AT LEAST FIVE FEET IN HEIGHT.

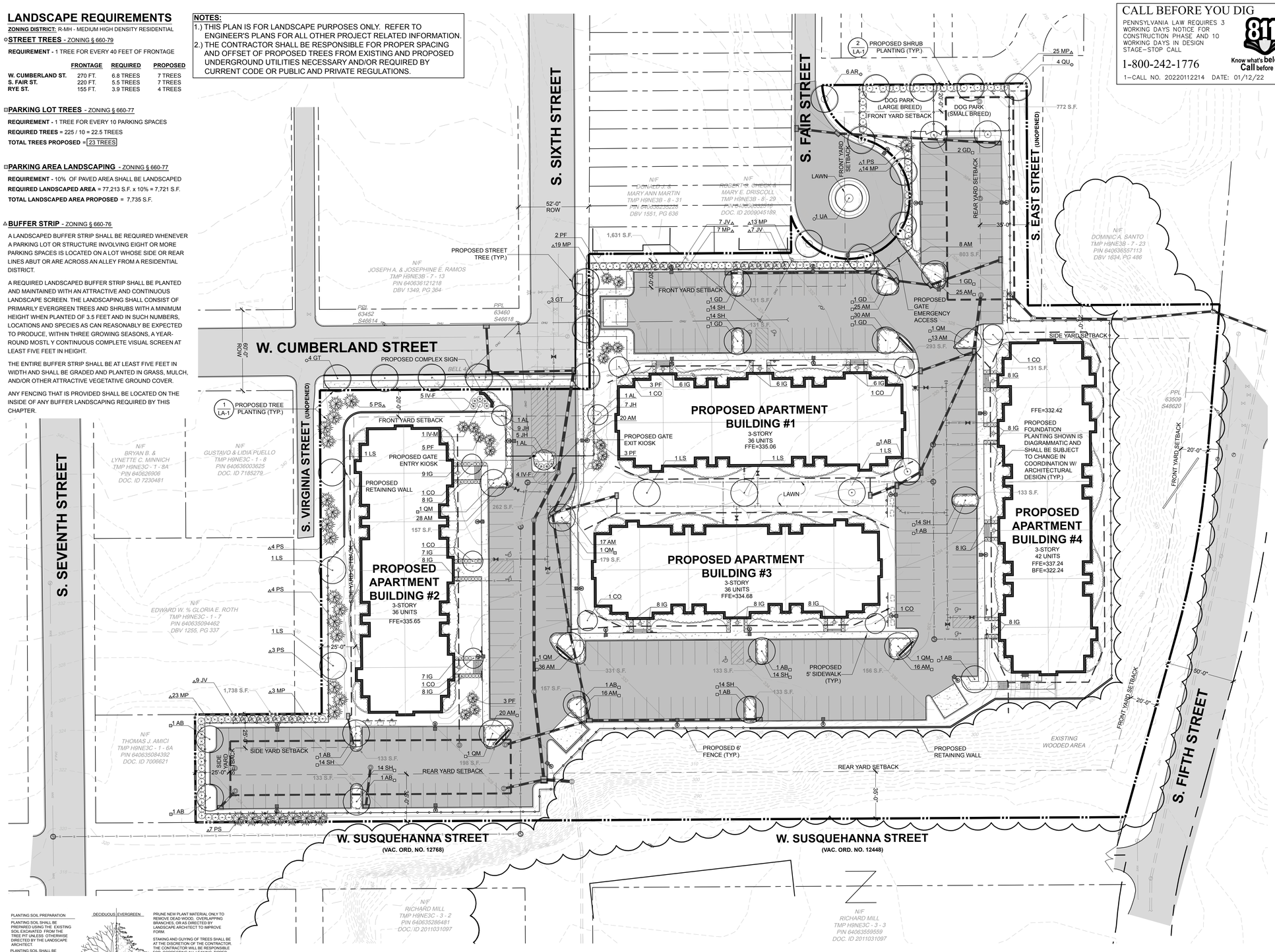
THE ENTIRE BUFFER STRIP SHALL BE AT LEAST FIVE FEET IN WIDTH AND SHALL BE GRADED AND PLANTED IN GRASS, MULCH, AND/OR OTHER ATTRACTIVE VEGETATIVE GROUND COVER.

ANY FENCING THAT IS PROVIDED SHALL BE LOCATED ON THE INSIDE OF ANY BUFFER LANDSCAPING REQUIRED BY THIS CHAPTER.

NOTES:

1.) THIS PLAN IS FOR LANDSCAPE PURPOSES ONLY. REFER TO ENGINEER'S PLANS FOR ALL OTHER PROJECT RELATED INFORMATION.

2.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SPACING AND OFFSET OF PROPOSED TREES FROM EXISTING AND PROPOSED UNDERGROUND UTILITIES NECESSARY AND/OR REQUIRED BY CURRENT CODE OR PUBLIC AND PRIVATE REGULATIONS.



CALL BEFORE YOU DIG

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1-800-242-1776

1—CALL NO. 20220112214 DATE: 01/12/22

811 Know what's below. Call before you dig.

PLANT SCHEDULE

STREET TREE SCHEDULE

DECIDUOUS TREES

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPEC.	NOTES
AR	6	Acer rubrum 'Frank Jr.' PP 16769'	Redpointe Maple	Min. 2½" cal.	B&B	7' Clear branch ht.
GT	7	Gleditsia triacanthos f. inermis 'Skycole'	Skyline Honeylocust	Min. 2½" cal.	B&B	7' Clear branch ht.
QU	4	Quercus macrocarpa 'JFS-KW3'	Urban Pinnacle Oak	Min. 2½" cal.	B&B	7' Clear branch ht.
UA	1	Ulmus americana 'Princeton'	Princeton Elm	Min. 2½" cal.	B&B	7' Clear branch ht.

PER CITY SHADE TREE ORDINANCE, STREET TREE CALIPER SHALL BE MEASURED 6" ABOVE GRADE

PARKING LOT TREE SCHEDULE

DECIDUOUS TREES

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPEC.	NOTES
AB	10	Acer rubrum 'Brandywine'	Brandywine Red Maple	Min. 2½" cal.	B&B	7' Clear branch ht.
GD	7	Gymnocladus dioicus 'Espresso JFS'	Espresso Kentucky Coffeetree	Min. 2½" cal.	B&B	7' Clear branch ht.
QM	6	Quercus macrocarpa	Bur Oak	Min. 2½" cal.	B&B	7' Clear branch ht.

PER CITY ORDINANCE, PARKING LOT TREE CALIPER SHALL BE MEASURED 6" ABOVE GRADE

BUFFER YARD PLANT SCHEDULE

EVERGREEN TREES

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPEC.	NOTES
JV	23	Juniperus virginiana 'Corcorcor'	Emerald Sentinel Red Cedar	Min. 6' ht.	B&B	
PS	24	Pinus stobus	Eastern White Pine	Min. 6' ht.	B&B	

SHRUBS

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPEC.	NOTES
MP	104	Myrica pensylvanica	Northern Bayberry	Min. 4' ht.	Min. #5 Cont.	

GENERAL LANDSCAPE SCHEDULE

DECIDUOUS TREES

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPEC.	NOTES
AL	3	Amelanchier laevis 'JFS-Arb'	Spring Flurry Serviceberry	2-2½" cal.	B&B	
CO	8	Cornus × 'Rutgan'	Stellar Pink Dogwood	2-2½" cal.	B&B	
LS	6	Liquidambar styraciflua 'Worplesdon'	Worplesdon Sweet Gum	2-2½" cal.	B&B	

PER INDUSTRY STANDARDS, TREE CALIPER SHALL BE MEASURED 6" ABOVE GRADE

EVERGREEN TREES

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPEC.	NOTES
PF	16	Pinus stobus 'Fastigiata'	Columnar Eastern White Pine	Min. 6' ht.	B&B	

SHRUBS

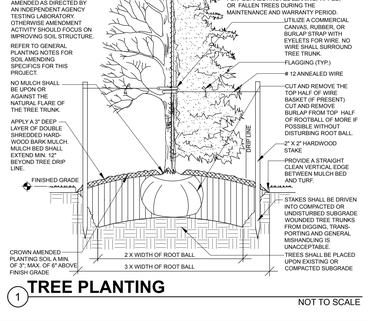
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPEC.	NOTES
IG	121	Ilex glabra 'SMNGAB17'	Gem Box Inkberry	Min. 1' ht.	Min. #3 Cont.	
IV-F	9	Ilex verticillata 'Red Sprite' (female)	Red Sprite Winterberry	Min. 2' ht.	Min. #3 Cont.	
IV-M	1	Ilex verticillata 'Jim Dandy' (male)	Jim Dandy Winterberry	Min. 2' ht.	Min. #3 Cont.	

PERENNIALS/GROUNDCOVERS/GRASSES

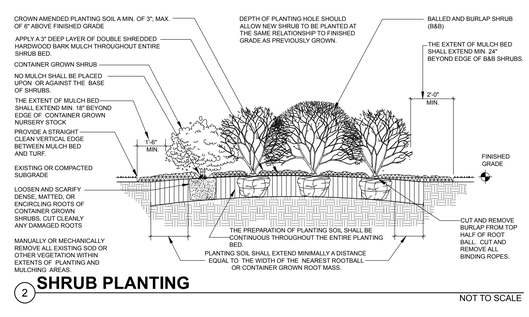
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPEC.	NOTES
AM	254	Aronia melanocarpa 'UCONNAM165'	Low Scape Mound Aronia	clump	Min. #3 Cont.	30" o.c.
JH	21	Juniperus horizontalis 'Plumosa'	Andorra Juniper	clump	Min. #3 Cont.	4' o.c.
SH	98	Sporobolus heterolepis 'Tara'	Dwarf Prairie Dropseed	clump	Min. #1 Cont.	30" o.c.

GENERAL PLANTING NOTES:

1. The contractor must verify location and depth of all underground utilities and facilities prior to beginning construction. Call Pennsylvania One Call 1-800-242-1776.
2. The contractor shall layout and review all plant material and plant locations with landscape architect or owner prior to installation.
3. All plantings shall be located to avoid placement within swale centerlines.
4. All evergreen tree/shrub groupings and hedges shall be completely encompassed within one large mulch bed at each plant grouping location. Breaks in the mulch beds shall only occur as indicated on the plans.
5. All plants shall be in accordance with the American Standard for Nursery Stock, latest edition.
6. Substitutions: When plants of a specified type or size are not available within a reasonable distance, the contractor may make substitutions upon request, and only if approved by the landscape architect, owner or his representative. The contractor shall notify the landscape architect in writing of any plant materials, which he feels, will not be available, prior to submitting a bid on this project. If a bid is received without such qualification, it will be assumed no such substitutions will be proposed.
7. Field conditions may dictate minor adjustments to the location of plant material. Before major adjustments of plant locations occur, the contractor shall notify the owner or the landscape architect.
8. Plants with broken or loose root balls, damage to the crown, or cut leaders shall be rejected.
9. Trees in leaf when planted shall be treated with anti-desiccant such as wilt-proof.
10. The contractor is responsible for any adjustments to soil pH, fertility, and/or drainage conditions necessary to ensure proper growing conditions for proposed plantings. Planting soil for trees, shrubs, and groundcover shall be amended as directed by an independent soil test analysis of the existing soil prior to planting. Test results shall be submitted to the landscape architect.
11. Before mixing, clean topsoil of roots, vegetation, stones, clay lumps, and other extraneous materials harmful to plant growth.
12. Planting beds shall be edged with a power blade edger or hand spade at time of planting. All completed edges shall have a perpendicular appearance between turf and bedlines. Any angels or beveled appearance is unacceptable. (Weed eaters shall not be used in edging).
    Contractor is responsible for re-edging and re-mulching beds in new lawn areas after substantial turf establishment.
13. The contractor shall apply a pre-emergent weed preventative, Treflan (or approved equal), to topsoil prior to mulching activities.
14. Mulch for trees and shrubs shall be double shredded, hardwood bark mulch; dark brown in color; aged at least one year, and clean and free of weeds.
15. The contractor will be responsible for the permanent lawn establishment of all non-paved areas disturbed by construction activities.
    PERMANENT LAWN SEED MIX: 40%-Kentucky Bluegrass 40%-Chewings Fescue 20%-Perennial Ryegrass %= equals proportion by weight; * apply at a rate of 4 lbs/1,000 S.F.
    The contractor shall perform a soil test of the existing topsoil for proper lime and fertilizer application.
    Permanent lawn establishment shall include fine grading of topsoil, removal of all rocks and debris larger than 1" in any direction, seeding, fertilizer and mulch.
16. The contractor is responsible for watering and maintaining all newly planted plantings for a period of thirty (30) days after planting; sixty (60) days for newly seeded lawns (includes mowing). A water source is available on site.
17. All required plantings shall be guaranteed for a period of twelve (12) months from the date of final acceptance and shall be alive and healthy as determined by the landscape architect, owner or owner's representative at the end of the guaranteed period. Should a disagreement arise as to whether the planting is alive and healthy, a qualified nurseryman may be retained by the Project Owner to make a final determination.
18. The contractor shall promptly correct or replace all defective work without any additional cost to the owner, which may occur within one (1) year after the date of final acceptance by the landscape architect and the owner. The contractor will be responsible for a maximum of one replacement planting for each newly installed planting, unless the reason for the plants unhealthy growth is due to the method of planting by the contractor.



1 **TREE PLANTING** NOT TO SCALE



2 **SHRUB PLANTING** NOT TO SCALE

LANDSCAPE LEGEND

EXISTING TREES

PROPOSED EVERGREEN TREE

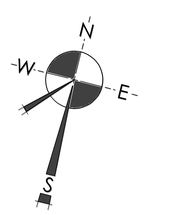
PROPOSED DECIDUOUS TREE

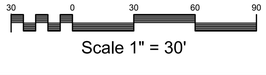
PROPOSED SHRUBS

PROPOSED PLANT LEADER TAGS — KEY | QTY. | 3 XX | STREET TREE | PARKING | BUFFER YARD/ SCREENING | NON-REQUIRED

PROPOSED LIGHT FIXTURE

PROPOSED/ REQUIRED PARKING AREA LANDSCAPING CALCULATION AREAS — 133 S.F.





Scale 1" = 30'

NO	REVISION	BY	DATE

PROJECT:

CUMBERLAND APARTMENT COMPLEX

CITY OF ALLENTOWN, WARD-12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:

KHAN PARTNERSHIP
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:

Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
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PENNSYLVANIA CERTIFICATE NUMBER RA-CHRISTIAN JEROME BROWN RESPONSIBILITY BOARD REGISTERED LANDSCAPE ARCHITECT

Christian J. Brown

PLAN PREPARED BY:

browndesigncorp
land architects and planners
347 north ninth street
old allentown pa, 18102
phone: 610.821.4252
www.browndesigncorp.com

TITLE:

LANDSCAPE PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.:	LL-1
DRAWN: JDG	SCALE: AS NOTED		
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.:	8 OF 26

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Luminaire Schedule - Site Lighting

Symbol	Qty	Label	Arrangement	Mounting Ht.	Description
	13	BL-1	SINGLE	8'-0"	**MANUFACTURER:** WAC LIGHTING **MODEL #:** WS-W36614-BK
	1	BL-2	SINGLE	20'-0"	**MANUFACTURER:** INDUSTRIAL LIGHTING PRODUCTS - **ILP** **MODEL #:** SAS-6L-U-40-T2-WFM-BLK-10YR
	14	SL-1	SINGLE	20'-0"	**MANUFACTURER:** INDUSTRIAL LIGHTING PRODUCTS - **ILP** **MODEL #:** SAS-12L-U-40-T3-UMB-BLK-10YR
	2	SL-1a	SINGLE	20'-0"	**MANUFACTURER:** INDUSTRIAL LIGHTING PRODUCTS - **ILP** **MODEL #:** SAS-9L-U-40-T3-UMB-BLK-10YR
	6	SL-1b	SINGLE	20'-0"	**MANUFACTURER:** INDUSTRIAL LIGHTING PRODUCTS - **ILP** **MODEL #:** SAS-12L-U-40-T3-UMB-BLK-10YR-SAS/GS
	5	SL-2	SINGLE	20'-0"	**MANUFACTURER:** INDUSTRIAL LIGHTING PRODUCTS - **ILP** **MODEL #:** SAS-12L-U-40-T4-UMB-BLK-10YR
	1	SL-3	SINGLE	20'-0"	**MANUFACTURER:** INDUSTRIAL LIGHTING PRODUCTS - **ILP** **MODEL #:** SAS-12L-U-40-T5S-UMB-BLK-10YR

Calculation Summary							
Label	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
CALCS	Illuminance	Fc	1.39	5.6	0.0	1.39/ 0.00	5.61/ 0.00

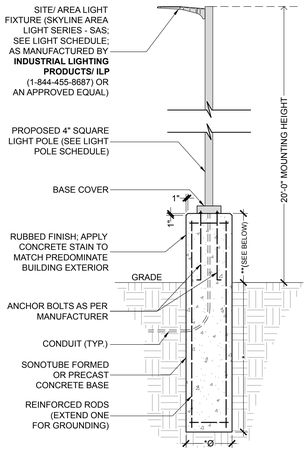
LIGHTING NOTES

1. Contractor shall supply all ballasts, lamps, poles, mounting accessories and hardware necessary for proper installation and operation of the fixture.
2. Provide dimming capabilities to comply w/ latest codes and requirements.
3. All light standards shall be installed a minimum of 36" off edge of pavement to face of concrete base.
4. Color/finish of fixtures to be determined; contractor shall submit color samples for all light fixtures as part of submittal process.

LIGHT POLE SCHEDULE

POLE HEIGHT	QUANTITY	MANUFACTURER	DESCRIPTION
17'-0"	18	INDUSTRIAL LIGHTING PRODUCTS - **ILP**	ILPOLE-SS-4-17-7-SKY-1-GV-VB-BRZ
20'-0"	10	INDUSTRIAL LIGHTING PRODUCTS - **ILP**	ILPOLE-SS-4-20-7-SKY-1-GV-VB-BRZ

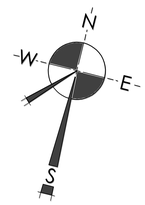
** REFER TO INSTALLATION DETAIL FOR CORRESPONDING SONOTUBE HEIGHTS. ALL FINISHED MOUNTING HEIGHTS TO BE 20'-0".



* CONCRETE BASE & REINFORCEMENT SUBJECT TO DESIGN BY STRUCTURAL ENGINEER.
** 2" HEIGHT FOR FIXTURE INSTALLED DIRECTLY BEHIND SIDEWALK. 3'-0" HEIGHT FOR FIXTURE INSTALLED DIRECTLY BEHIND CURB.

1 **POLE/ AREA LIGHT FIXTURE**
NOT TO SCALE

W. CUMBERLAND STREET
S. SEVENTH STREET
S. SIXTH STREET
S. FAIR STREET
S. EAST STREET (UNOPENED)
S. VIRGINIA STREET (UNOPENED)
S. FIFTH STREET
W. SUSQUEHANNA STREET (VAC. ORD. NO. 12768)
W. SUSQUEHANNA STREET (VAC. ORD. NO. 12448)
52'-0" ROW
60'-0" ROW
PROPOSED APARTMENT BUILDING #1 3-STORY 36 UNITS
PROPOSED APARTMENT BUILDING #2 3-STORY 36 UNITS
PROPOSED APARTMENT BUILDING #3 3-STORY 36 UNITS
PROPOSED APARTMENT BUILDING #4 3-STORY 42 UNITS
FRONT YARD SETBACK
SIDE YARD SETBACK
REAR YARD SETBACK
SIDEWALK (TYP.)
PROPOSED POLE MOUNTED LIGHT FIXTURE (SEE LIGHT SCHEDULE; TYP.)
PROPOSED BUILDING MOUNTED LIGHT FIXTURE (BL-1 & BL-2; SEE LIGHT SCHEDULE; TYP.)
ISO-FOOTCANDLE PLOT/ PHOTOMETRICS (TYP.)
PPL 63452 S46614
PPL 63460 S46618
PPL 63509 S48620
BELL 4



30 0 30 60 90
Scale 1" = 30'

CALL BEFORE YOU DIG
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE—STOP CALL
1-800-242-1776
811 Know what's below. Call before you dig.
1—CALL NO. 20220112214 DATE: 01/12/22

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PENNSYLVANIA REGISTERED LANDSCAPE ARCHITECT
Christian J. Brown

NO	REVISION	BY	DATE

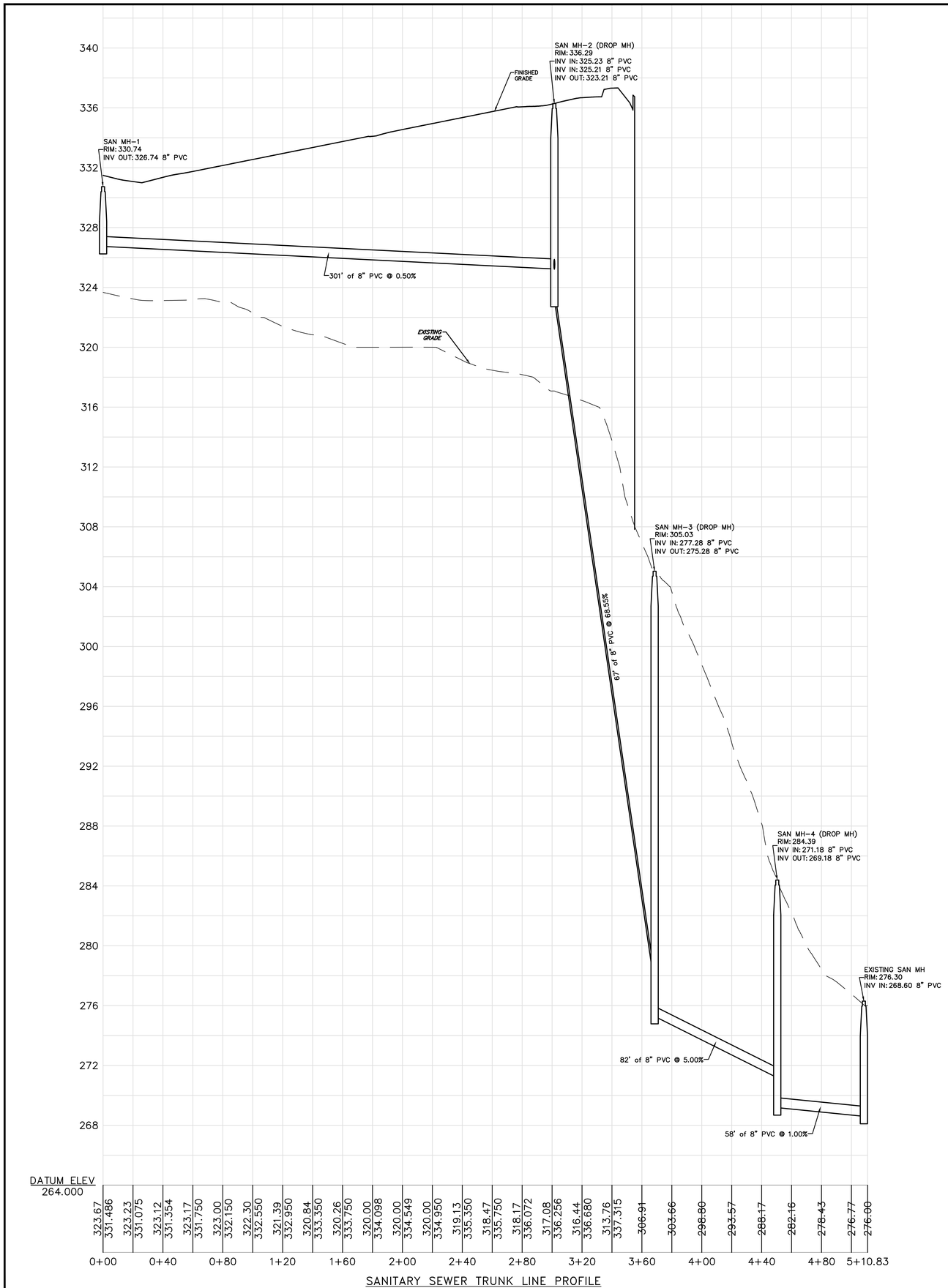
PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD-12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:
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www.bencivil.com
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TITLE:
LIGHTING PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: LL-2
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 9 OF 26



SANITARY SEWER TRUNK LINE PROFILE

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'

0 30' 60'

NO	REVISION	BY	DATE

PROJECT:

CUMBERLAND APARTMENT COMPLEX

CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:

THE YASIN KHAN 2021 FAMILY TRUST

1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

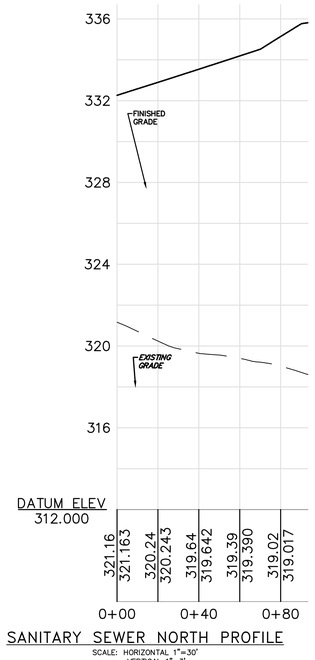
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TITLE:

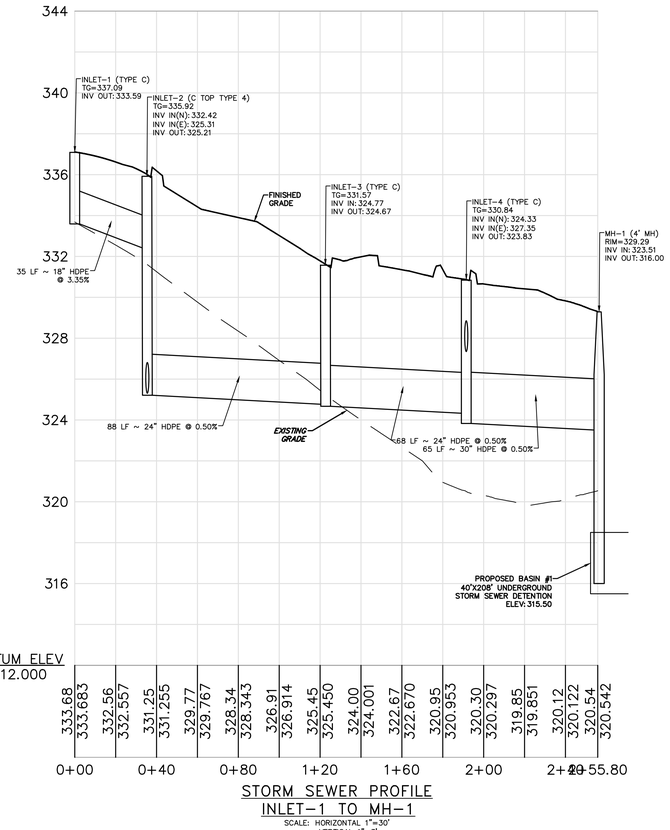
FINAL PLAN
PROFILE PLAN-1

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DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 10 OF 27



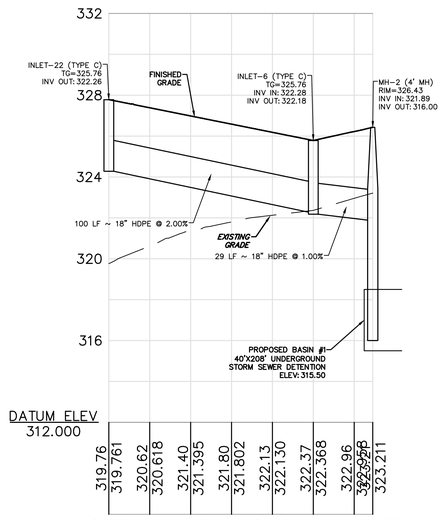
SANITARY SEWER NORTH PROFILE

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



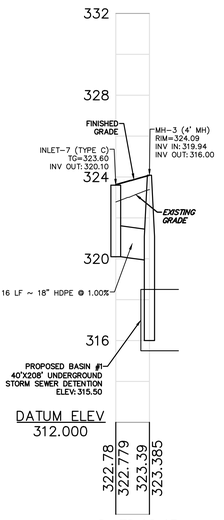
STORM SEWER PROFILE
INLET-1 TO MH-1

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



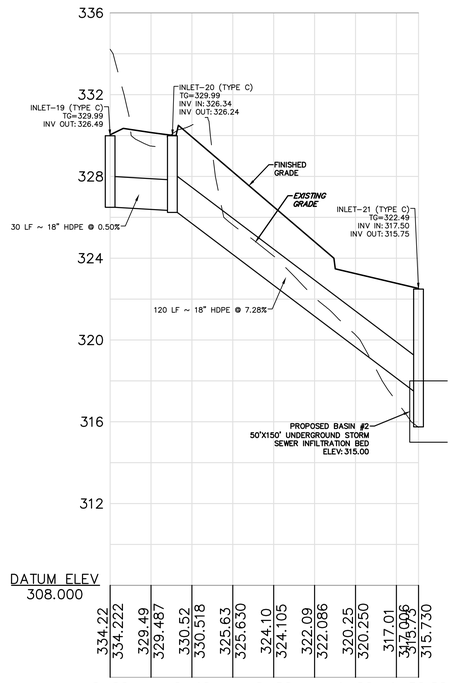
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INLET-22 TO MH-2

SCALE: HORIZONTAL 1"=30'
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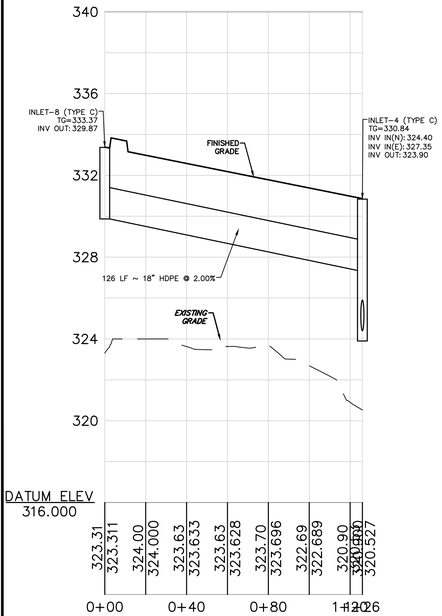
STORM SEWER PROFILE
INLET-7 TO MH-3

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



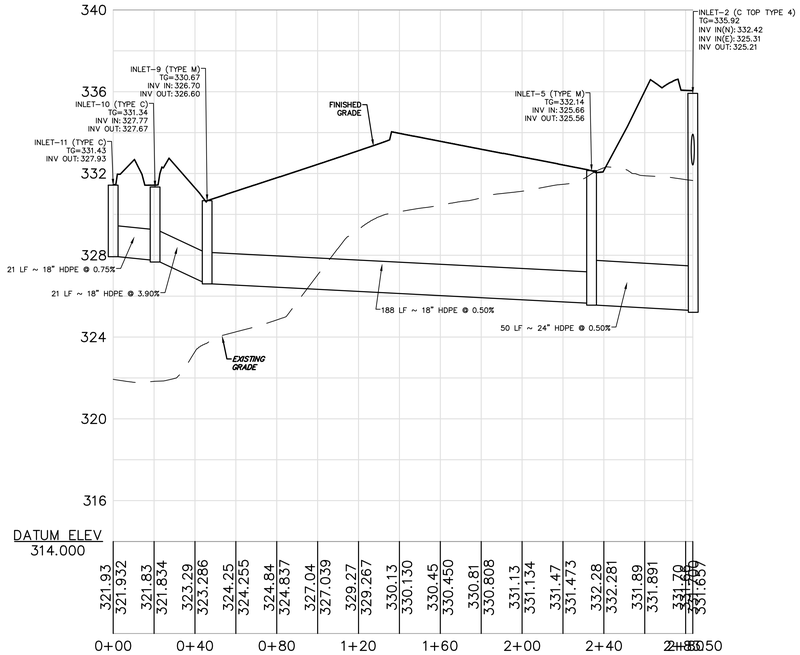
STORM SEWER PROFILE
INLET-19 TO INLET-21

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



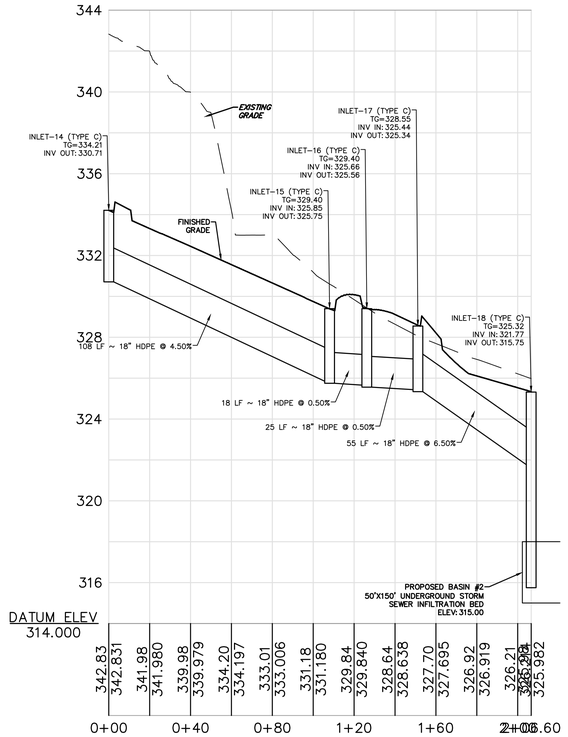
STORM SEWER PROFILE
INLET-8 TO INLET-4

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



STORM SEWER PROFILE
INLET-11 TO INLET-2

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



STORM SEWER PROFILE
INLET-14 TO INLET-18

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'

0 30' 60'

NO	REVISION	BY	DATE

PROJECT:

CUMBERLAND APARTMENT COMPLEX

CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:

THE YASIN KHAN 2021 FAMILY TRUST

1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

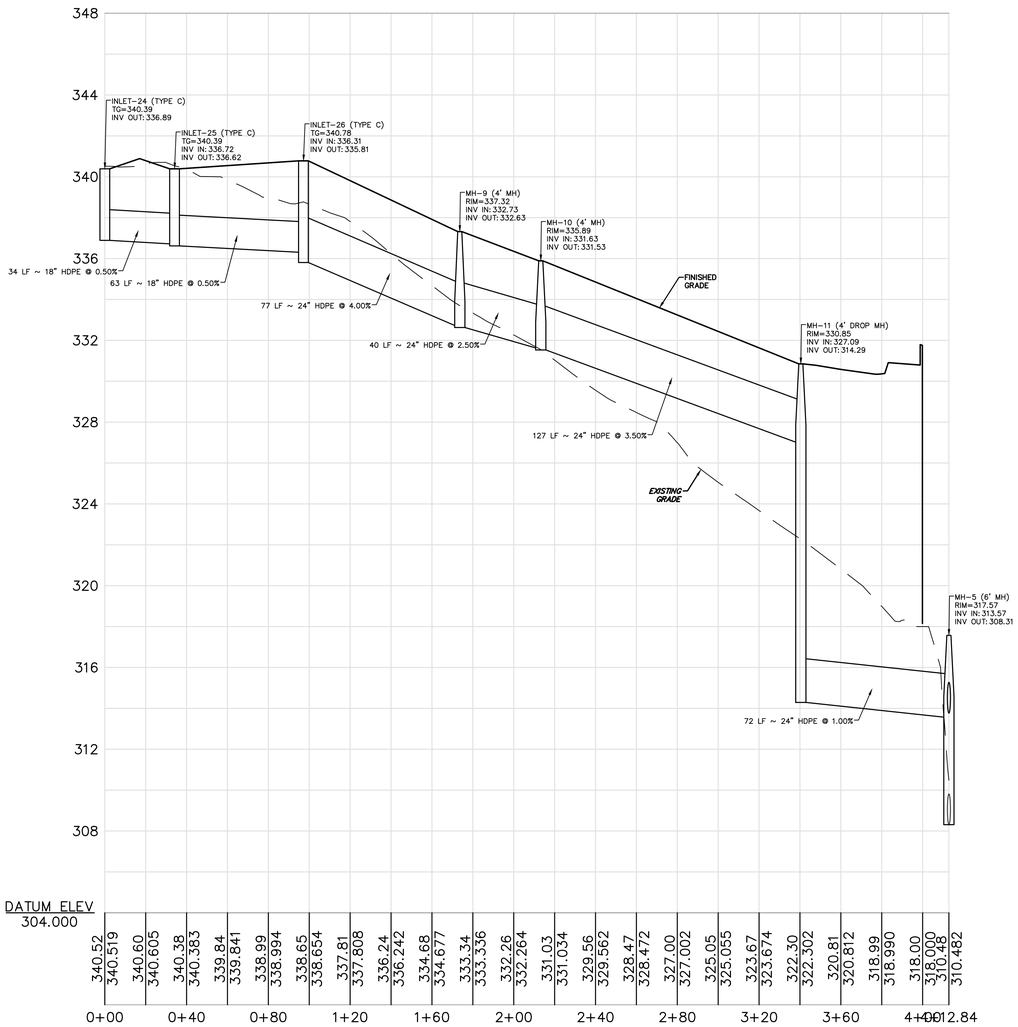
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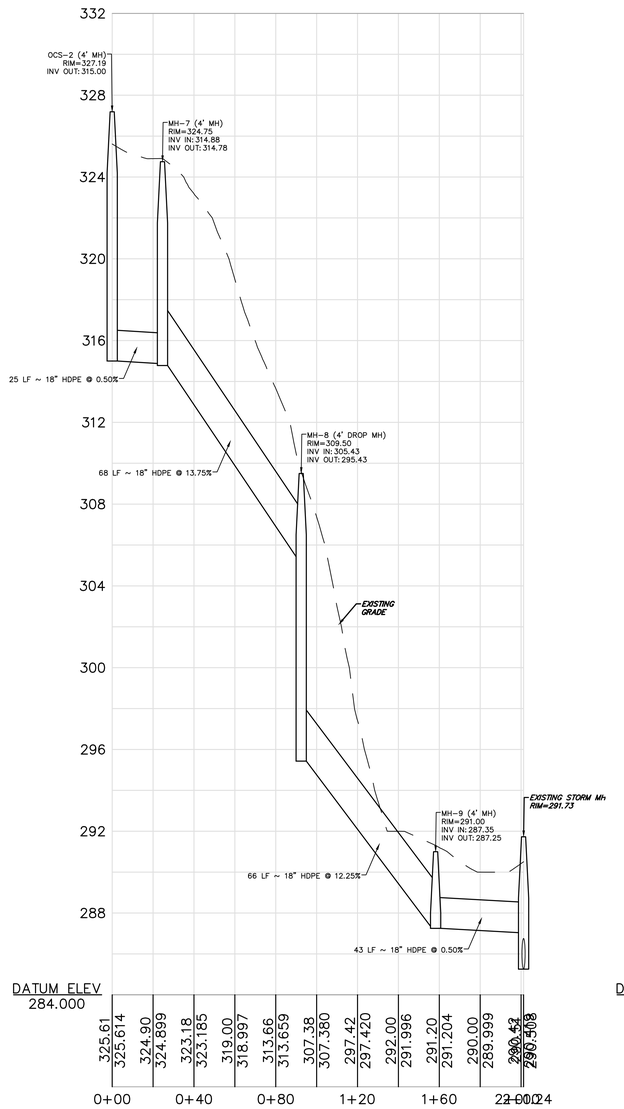
TITLE:

FINAL PLAN
PROFILE PLAN-2

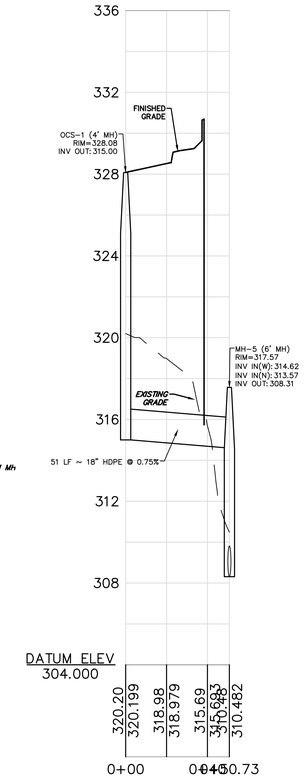
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DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 11 OF 27



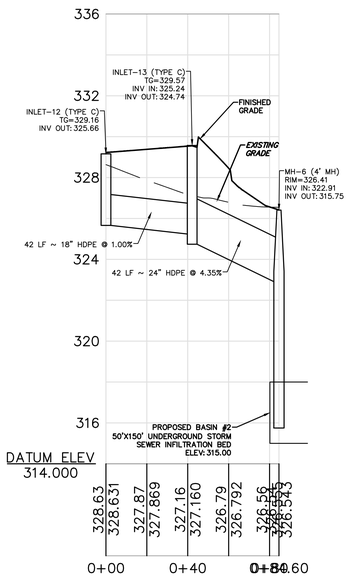
STORM SEWER PROFILE
INLET-24 TO MH-5
SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



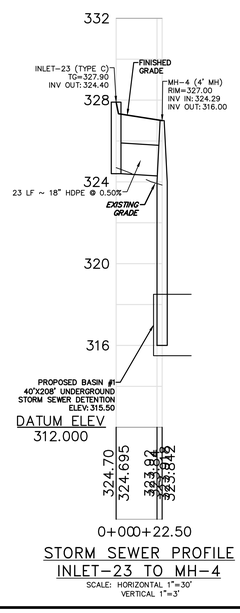
STORM SEWER PROFILE
OCS-2 TO EXISTING STORM MH
SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



STORM SEWER PROFILE
OCS-1 TO MH-5
SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



STORM SEWER PROFILE
INLET-12 TO MH-6
SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



STORM SEWER PROFILE
INLET-23 TO MH-4
SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'

0 30' 60'

NO	REVISION	BY	DATE

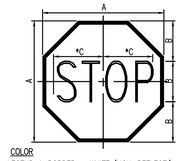
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ALLENTOWN, PA 18103

PREPARER:
Benchmark
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• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:
FINAL PLAN
PROFILE PLAN-3

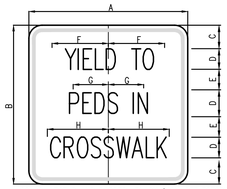
DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: P-3
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 12 OF 27



COLOR
LEGEND & BORDER – WHITE (NON-REFLECT.)
BACKGROUND – RED (REFLECTORIZED)

SIGN SIZE	DIMENSIONS A	B	C	SERIES: LINE		BORDER	BLANK STD.
24x24	24	8	10	C		24	B1–24
30x30	30	10	12½	C		30	B1–30
36x36	36	12	15	C		36	B1–36
48x48	48	16	20	C		48	B1–48

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



COLOR: LEGEND AND BORDER – BLACK (NON-REFLECTORIZED)
BACKGROUND – WHITE (REFLECTORIZED)

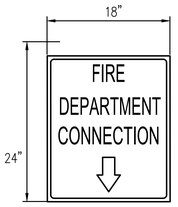
SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	H
24 x 18	24	18	2 3/4	3	1 3/4	7 7/8	6 7/8	9 5/8

SIGN SIZE	SERIES LINES 1	2	3	MAR-GIN	BOR-DER	BLANK STD
24 x 18	C	C	C	3/8	5/8	B5–2418

JUSTIFICATION: THE YIELD TO PEDS IN CROSSWAQLK SIGN SHALL BE AUTHORIZED FOR USE IMMEDIATELY IN ADVANCE OF UNSIGNALIZED MIDBLOCK PEDSESTRIAN CROSSWALKS TO ADVISE DRIVERS OF THIER LEGAL OBLIGATION TO STOP FOR PEDESTRIANS IN CROSSWALKS
PLACEMENT: WHEN USED THE R1-5 SIGN SHALL BE INSTALLED BELOW THE PEDESTRIAN CROSSING SIGN, W11-2

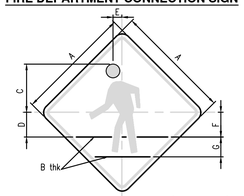
SIZE: THE STANDARD SIZE OF R1-5 SHALL BE 24 INCHES BY 18 INCHES.

(E) **YIELD TO PEDS IN CROSSWALK SIGN**
PENNDOT SERIES R1-5



COLOR: BORDER BLACK
TEXT RED
ARROW RED
BACKBOARD WHITE

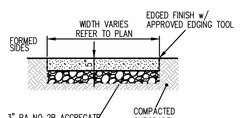
FIRE DEPARTMENT CONNECTION SIGN



COLOR : LEGEND AND BORDER – BLACK (NON-REFLECT.)
BACKGROUND – YELLOW (REFLECTORIZED)

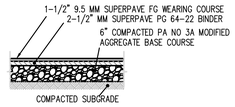
SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	MAR-GIN	BOR-DER	BLANK STD
30x30	30	3/4	14	8	1 1/2	4	6	1/2	3/4	B3–30

(F) **PEDESTRIAN CROSS SIGN**
PENNDOT SERIES W11-2



NOTES:
1. **SIDEWALKS TO SLOPE 1/4" PER ft AWAY FROM BUILDING or IN DIRECTION OF PARKING LOTS AND DRIVEWAYS.**
2. **THERE SHALL BE A SEPARATION CONTROL JOINT EVERY FIVE (5) ft AND 3/8" PRE-MOLDED EXPANSION JOINT EVERY THIRTY (30) ft.**
3. **BROOM FINISH.**
4. **CONCRETE IS TO BE 3000 PSI**

CONCRETE SIDEWALK

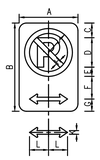


LIGHT DUTY PAVING



R5-1
30"x30"

(G) **DO NOT ENTER SIGN**
PENNDOT SERIES R5-1

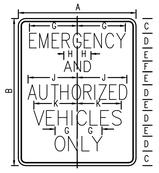


COLOR:
CIRCLE, DIAGONAL, ARROW AND BORDER:
RED (REFLECTORIZED)
BACKGROUND:
WHITE (REFLECTORIZED)
"P":
BLACK (NON-REFLECTORIZED)

SIGN SIZE A x B	DIMENSIONS – IN C	D	E	F	G	H	J	K	L	MARGIN	BORDER	BLANK STD.
12 x 18	3	6E(M)	1.9	3	4.1	1	4.9	0.8	3.8	0.4	0.4	B5–1218

(H) **NO PARKING SYMBOL/ARROW SIGN (R7-302)**

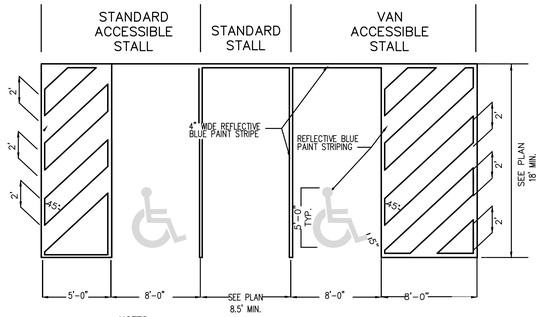
R5–101



COLOR:
LEGEND AND BORDER
BLACK (NON-REFLECTORIZED)
BACKGROUND:
WHITE (REFLECTORIZED)

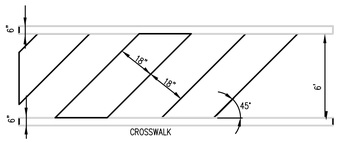
SIGN SIZE A x B	DIMENSIONS – IN C	D	E	F	G	H	J	K	L	MARGIN	BORDER	BLANK STD.
24 x 30	3.2	3C	2.4	2C	9.6	2.1	10.2	7.8	4.1	0.4	0.4	B5–3024

(I) **EMERGENCY AND AUTHORIZED VEHICLES ONLY SIGN (R5-101)**



NOTES:
1. ALL DIMENSIONS ARE MINIMUM.
2. SEE MUNICIPAL ORDINANCES FOR SIZE RESTRICTIONS.
3. PAVEMENT SLOPES IN ALL DIRECTIONS SHALL NOT EXCEED 2.00% IN ACCESSIBLE SPACES.
4. BUILT-UP CURB RAMPS ARE NOT ALLOWED TO PROJECT INTO THE SPACES OR AISLES.
5. PROVIDE ACCESSIBLE ROUTE AS REQUIRED.
6. PROVIDE SIGNAGE AS REQUIRED.

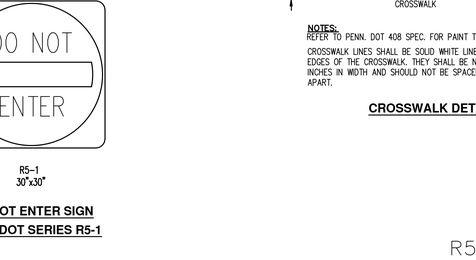
TYPICAL PARKING STALLS STRIPING DETAILS



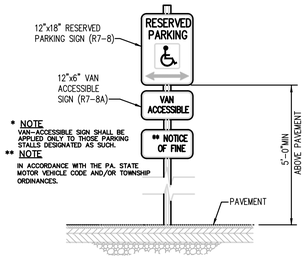
NOTES:
REFER TO PENN. DOT 408 SPEC. FOR PAINT TYPE.

CROSSWALK LINES SHALL BE SOLID WHITE LINES, MARKING BOTH EDGES OF THE CROSSWALK. THEY SHALL BE NOT LESS THAN 6 INCHES IN WIDTH AND SHOULD NOT BE SPACED LESS THAN 6 FEET APART.

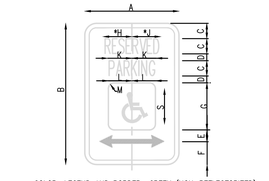
CROSSWALK DETAIL



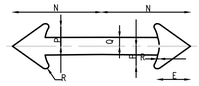
6' HIGH ALUMINUM METAL PICKET FENCE DETAIL
NTS



HANDICAPPED PARKING SIGN



COLOR: LEGEND AND BORDER – GREEN (NON-REFLECTORIZED)
BACKGROUND – WHITE (NON-REFLECTORIZED)
SYMBOL – WHITE (NON-REFLECTORIZED)
BACKGROUND – BLUE (NON-REFLECTORIZED)

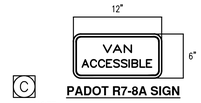


SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	H	J	K	L	M
12X18	12	18	2	1	1 1/2	2 1/2	6	4 7/8	5	4 1/4	3	1/2

* REDUCE SPACING 50%

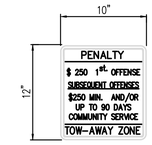
SIGN SIZE	DIMENSIONS N	P	Q	R	S	SERIES LINES 1	2	MAR-GIN	BOR-DER	BLANK STD
12X18	3 7/E 7/8	3/4	1/8	4	2 1/2	C	C	3/8	3/8	B5–1812

(B) **HANDICAP PARKING SIGN (R7-8)**

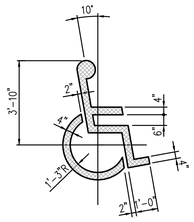


(C) **PADOT R7-8A SIGN**

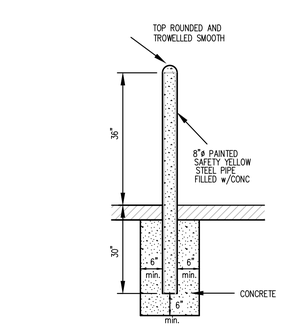
NOTE:
AN ADDITIONAL SIGN SHALL BE REQUIRED TO BE POSTED BELOW EACH R7-8 SIGN INDICATING THE PENALTIES FOR A NON-PLACARDED VEHICLE PARKING IN THE DESIGNATED HANDICAPPED SPACE AS SPECIFIED IN THE PENNSYLVANIA CONSOLIDATED STATUTES 75 3354.(d)(3)(i) AND 3354.(f)



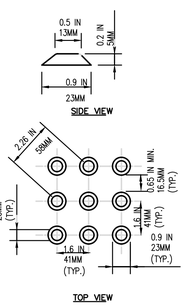
(D) **ACCESSIBLE PARKING PENALTY SIGN**
PENNDOT SERIES R7-8P



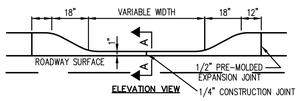
PAINTED HANDICAPPED PARKING SYMBOL



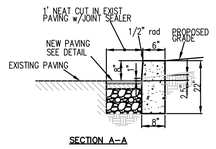
BOLLARD



TRUNCATED DOME PATTERN FOR A.D.A CONCRETE DETECTABLE WARNING SURFACES

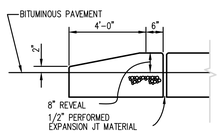


ELEVATION VIEW

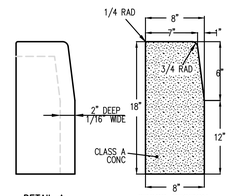


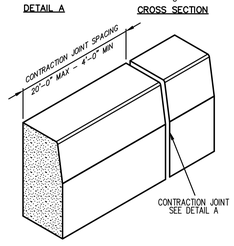
SECTION A–A

DEPRESSED CURB



CURB END ELEVATION





ON-SITE CONCRETE CURB

0 30' 60'

NO	REVISION	BY	DATE

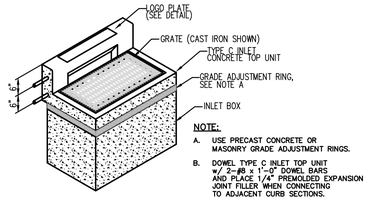
PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:
THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

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TITLE:
FINAL PLAN
DETAIL PLAN-1

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: D-1
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 13 OF 27



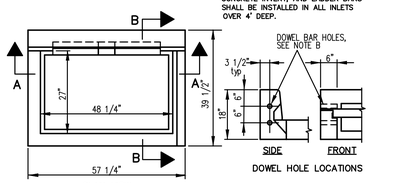
NOTE:

A. USE PRECAST CONCRETE OR MASONRY GRADE ADJUSTMENT RINGS.

B. DOWEL TYPE C INLET TOP UNIT w/ 2-#5 x 1'-0" DOWEL BARS AND PLACE 1/4" PREMOLDED EXPANSION JOINT FILLER WHEN CONNECTING TO ADJACENT CURB SECTIONS.

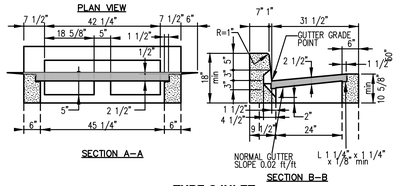
C. PROVIDE A "BICYCLE SAFE" GRATE

D. ALL INLETS ARE TO HAVE A POURED CONCRETE INVERT, AND LADDER BARS SHALL BE INSTALLED IN ALL INLETS OVER 4' DEEP.

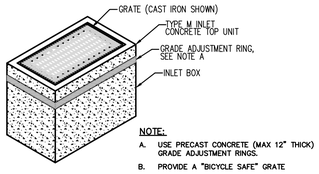


PLAN VIEW

DOWEL HOLE LOCATIONS



TYPE C INLET

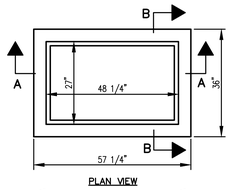


NOTE:

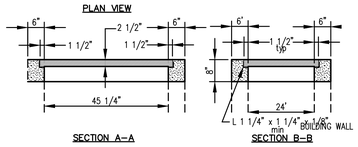
A. USE PRECAST CONCRETE (MAX 12" THICK) GRADE ADJUSTMENT RINGS.

B. PROVIDE A "BICYCLE SAFE" GRATE

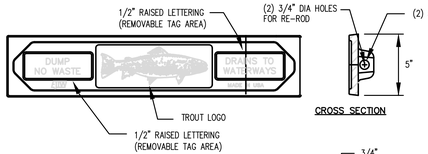
C. ALL INLETS ARE TO HAVE A POURED CONCRETE INVERT, AND LADDER BARS SHALL BE INSTALLED IN ALL INLETS OVER 4' DEEP.

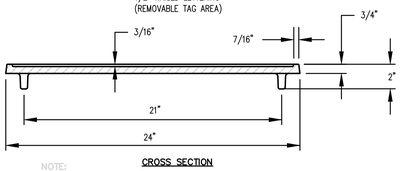


PLAN VIEW



TYPE M INLET

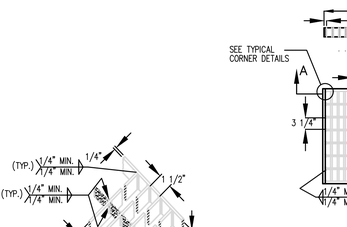




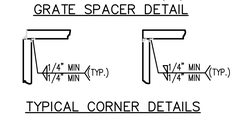
NOTE:

1. INSTALL PLATE ON TOP OF CURB SECTION OF TYPE C CONCRETE TOP UNIT.

TROUT LOGO PLATE (TYPE C INLETS ONLY)



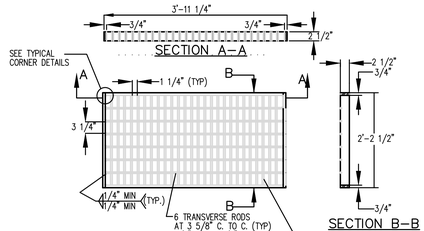
GRATE SPACER DETAIL



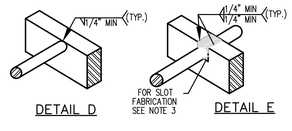
TYPICAL CORNER DETAILS

NOTES:

1. THIS SHEET DEPICTS THE DIMENSIONS REQUIRED FOR UNIFORMITY AND INTERCHANGEABILITY. IT DOES NOT INCLUDE DETAILS REQUIRED FOR FABRICATION OR MANUFACTURING. ONLY GRATES SUPPLIED BY A MANUFACTURER LISTED IN BULLETIN 15 SHALL BE PERMITTED. FOR A BULLETIN 15 LISTING, SUBMIT A 22" X 36" REPRODUCIBLE SHOP DRAWING TO THE BUREAU OF CONSTRUCTION AND MATERIALS, MATERIALS AND TESTING DIVISION FOR REVIEW AND APPROVAL.
2. PROVIDE BICYCLE-SAFE, STRUCTURAL STEEL OR CAST IRON VANE GRATES FOR INSTALLATION ONLY WHERE BICYCLE TRAFFIC IS ANTICIPATED, SUCH AS CURBED ROADWAYS IN URBAN AREAS OR ROADWAYS SPECIFICALLY ESTABLISHED AND SIGNED AS BIKEWAYS OR HAVING BIKE LANES. ALTERNATE BICYCLE-SAFE GRATE DESIGNS SHALL REQUIRE A SHOP DRAWING SUBMISSION AS SPECIFIED IN NOTE 1, AND SHALL CONFORM TO THE DIMENSIONAL REQUIREMENTS FOR PROPER INSTALLATION WITH THE CURRENT CONCRETE TOP UNITS.

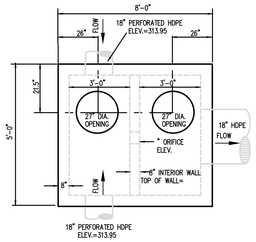


STRUCTURAL STEEL GRATE BICYCLE SAFE



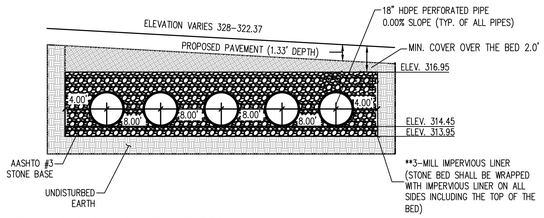
3. FABRICATE SLOTS BY BURNING, DRILLING, SHEARING, OR PUNCHING. HAVE THE BOTTOM OF ALL BURNED OR DRILLED SLOTS CONFORM TO THE SHAPE OF THE ROD.
4. PROVIDE STRUCTURAL STEEL GRATES WITH THE GRATE SPACERS LOCATED FLUSH ALONG THE TOP SURFACE OF THE GRATE.
5. DO NOT USE CAST IRON GRATES WITHIN THE TRAVEL LANES. THESE GRATES ARE PERMITTED AT THE EDGE OF OUTSIDE SHOULDERS, SWALES, WIDE MEDIAN SWALES, AND INFIELD AREAS THAT ARE OUTSIDE THE TRAVEL LANES OR CURB TO CURB ROADWAYS.
6. WELD STRUCTURAL STEEL GRATES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 1105, 031 RT.
7. PROVIDE TRANSVERSE BARS, MEETING THE REQUIREMENTS OF PUB. 408.

INLET GRATE DETAILS (PENN. DOT RC-34)



OUTLET CONTROL STRUCTURE OCS-1 SUBSURFACE DETENTION BASIN #1

BED SIZE = 40' x 208'



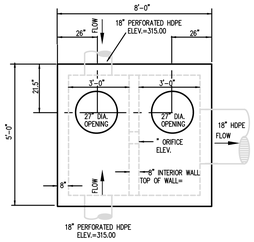
NOTE: THE BOTTOM OF THE DETENTION BED IS 0% SLOPE

** 3 MIL IMPERVIOUS LINER SHALL MEET THE FOLLOWING PROPERTIES:

A. GRAB TENSILE STRENGTH (ASTM-D4632)	120 LBS
B. MULLEN BURST STRENGTH (ASTM-D3786)	225 PSI
C. FLOW RATE (ASTM-D4491)	95 GAL/MIN/FT2
D. UV RESISTANCE AFTER 500 HRS (ASTM-D4355)	70%

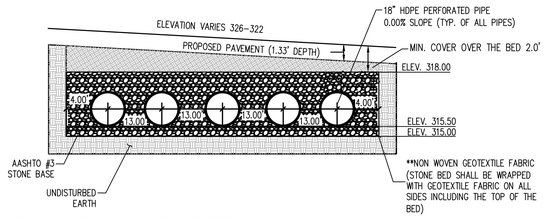
E. HEAT-SET OR HEAT-CALENDARED FABRICS ARE NOT PERMITTED
ACCEPTABLE TYPES INCLUDE MIRAFI 140N, AMOCO 4547, AND GEOTEX 451.

BASIN #1 SUBSURFACE DETENTION BASIN CROSS-SECTION



OUTLET CONTROL STRUCTURE OCS-2 SUBSURFACE INFILTRATION BASIN #2

BED SIZE = 60' x 150'



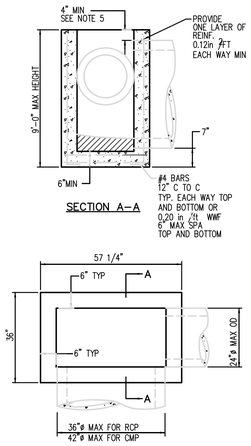
NOTE: THE BOTTOM OF THE INFILTRATION BED IS 0% SLOPE

** NON-WOVEN GEOTEXTILE SHALL CONSIST OF NEEDLED NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:

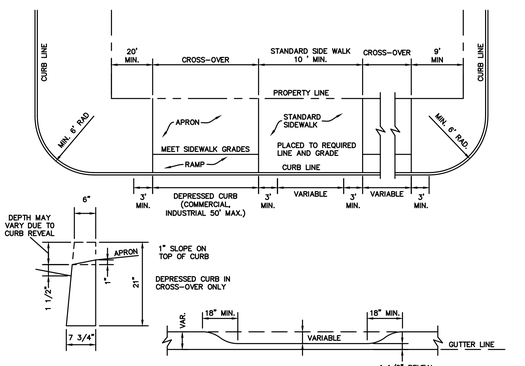
A. GRAB TENSILE STRENGTH (ASTM-D4632)	120 LBS
B. MULLEN BURST STRENGTH (ASTM-D3786)	225 PSI
C. FLOW RATE (ASTM-D4491)	95 GAL/MIN/FT2
D. UV RESISTANCE AFTER 500 HRS (ASTM-D4355)	70%

E. HEAT-SET OR HEAT-CALENDARED FABRICS ARE NOT PERMITTED
ACCEPTABLE TYPES INCLUDE MIRAFI 140N, AMOCO 4547, AND GEOTEX 451.

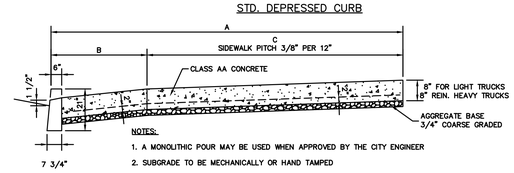
BASIN #2 SUBSURFACE INFILTRATION BASIN CROSS-SECTION



STANDARD BOX (SEE NOTE 2)



STD. DEPRESSED CURB

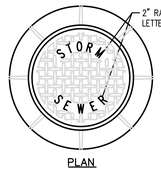


NOTES:

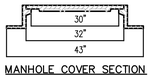
1. A MONOLITHIC POUR MAY BE USED WHEN APPROVED BY THE CITY ENGINEER
2. SUBGRADE TO BE MECHANICALLY OR HAND TAMPED

STANDARDS FOR COMMERCIAL & INDUSTRIAL DRIVEWAYS AND CROSS-OVERS

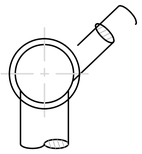
N.T.S.



PLAN



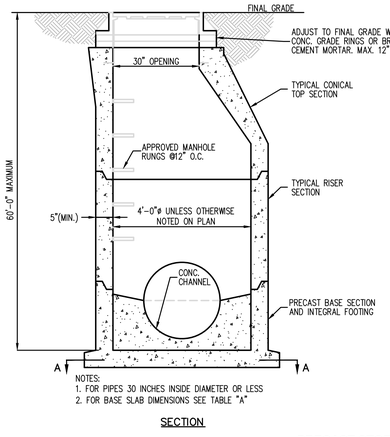
MANHOLE COVER SECTION



PLAN VIEW

TABLE A
BASE SLAB DIMENSIONS

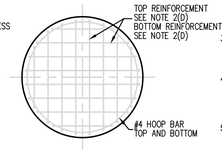
MAX. DEPTH FROM TOP OF MANHOLE TO TOP OF FOOTING	FOOTING DIAMETER	FOOTING THICKNESS
10'-0"	6'-9"	1'-0"
20'-0"	6'-9"	1'-3"
30'-0"	6'-9"	1'-3"
40'-0"	7'-3"	1'-3"
50'-0"	8'-0"	1'-3"
60'-0"	8'-6"	1'-3"



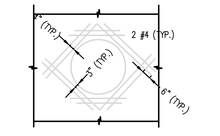
NOTES:

1. FOR PIPES 30 INCHES INSIDE DIAMETER OR LESS
2. FOR BASE SLAB DIMENSIONS SEE TABLE "A"

SECTION



SECTION A–A



NOTE:
FOR WALL THICKNESS 10" THICK OR GREATER PLACE ADDITIONAL REINFORCEMENT AS SHOWN ABOVE AT EACH FACE OF THE WALL INSIDE MAIN REINFORCEMENT. FOR WALLS 5" THICK KEEP MAIN REINFORCEMENT CENTERED IN WALL, PROVIDE ADDITIONAL REINFORCEMENT AS SHOWN ABOVE, MAINTAINING REQUIRED COVER.

REINFORCEMENT DETAIL AT OPENINGS

PRECAST STORM MANHOLE DETAILS

NOTES:

1. PRECAST MANHOLES, MEETING THE REQUIREMENTS OF PUBLICATION 408 SPECIFICATIONS, SECTION 714, MAY BE SUBSTITUTED FOR THE STANDARD CAST-IN-PLACE MANHOLE.
2. CONSTRUCTION NOTES:
   A. CONSTRUCT IN ACCORDANCE WITH: PENNDOT PUBLICATION 408 SPECIFICATIONS, SECTIONS 605, 606, 714 AND ASTM C-478-90, STANDARD SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS, AS MODIFIED HERE IN:
   B. MINIMUM CONCRETE CLASS AA
   C. PROVIDE EPOXY COATED STEEL REINFORCEMENT IN ACCORDANCE WITH ASTM A185, STEEL WELDED WIRE FABRIC ASTM A663 AND A675, PLAIN BILLET STEEL BARS OR ASTM A615, DEFORMED BILLET STEEL BARS PROVIDE MINIMUM YIELD STRENGTH OF 20,000 PSI.
   D. CLEAR COVER FOR STEEL: WALLS: 2" 1 1/2" (SIDE COVER) FOOTINGS: 2" (TOP BARS), 1 1/2" (BOTTOM BARS)
3. PROVIDE 12" MINIMUM HORIZONTAL CLEARANCE BETWEEN OPENINGS LOCATED AT THE SAME DEPTH. PIPES NOT LOCATED AT THE SAME DEPTH MUST BE LOCATED VERTICALLY AT LEAST ONE TIMES MAXIMUM OPENING DIAMETER APART.
4. FOR RISERS OR BASE SECTIONS WITH OPENINGS, PROVIDE A MINIMUM HEIGHT OF SECTION EQUAL TO TWO TIMES THE LARGEST OPENING CENTER OF OPENING TO BE LOCATED AT LEAST ONE TIMES THE OPENING FROM THE CLOSEST JOINT BETWEEN RISERS:
5. FOR PRECAST RISER OR BASE SECTIONS WITH ONE OPENING LOCATED AT DEPTHS TO 60' OR FOR SECTIONS WITH TWO OR MORE OPENINGS, LOCATED AT A DEPTH OF 20FEET AND LESS, PROVIDE CIRCUMFERENTIAL REINFORCEMENT IN ACCORDANCE WITH REINFORCEMENT DETAIL AT OPENINGS.

   FOR RISERS OR BASE SECTIONS WITH 2 OR MORE OPENINGS, LOCATED AT A DEPTH GREATER THAN 15 FEET, BUT LESS THAN OR EQUAL TO 30 FEET, PROVIDE CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.44 SQ/IN VERTICAL FOOT FOR THE DEPTH OF THE RISER OR BASE SECTION

   FOR RISERS OR BASE SECTIONS WITH 2 OR MORE OPENINGS, LOCATED AT DEPTHS GREATER THAN 30 FEET, USE A 10 INCH THICK WALL RISER OR BASE SECTION WITH CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ/IN VERTICAL FOOT EACH FACE

   RISERS OR BASE SECTIONS WITH HOLES TO BE CLEARLY MARKED WITH MAXIMUM ALLOWABLE DEPTH.
6. PROVIDE ADDITIONAL REINFORCEMENT BARS AROUND OPENINGS AS SHOWN ON REINFORCEMENT DETAILS AT OPENINGS
7. PROVIDE MANHOLE STEPS MEETING THE REQUIREMENTS OF PUBLICATION 408 SPECIFICATIONS, SECTION 605.2(C). ALTERNATE CONFIGURATIONS AND DIMENSIONS, AS APPROVED BY THE ENGINEER, MAY BE USED.
8. PROVIDE MINIMUM 1" SECTION DIMENSION FOR METAL STEPS. PROVIDE MAXIMUM 3/4" SECTION DIMENSION FOR NON-DETERIORATING MATERIAL STEPS.
9. MECHANICAL ANCHOR REQUIRED FOR INSTALLATION OF STEPS WITHOUT HOOKS.

NO	REVISION	BY	DATE

PROJECT:

CUMBERLAND APARTMENT COMPLEX

CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:

THE YASIN KHAN 2021 FAMILY TRUST

1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

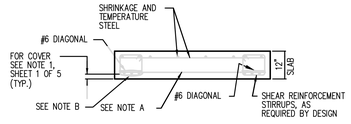
PREPARER:

Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:

FINAL PLAN
DETAIL PLAN-2

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: D-2
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 14 OF 27



SECTION B–B

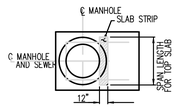
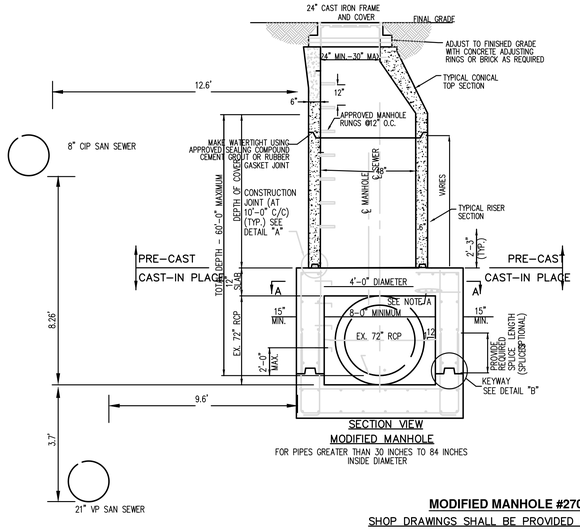
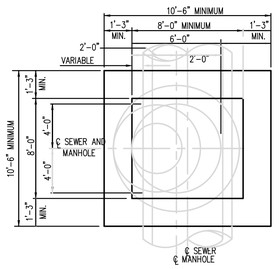


FIGURE 1

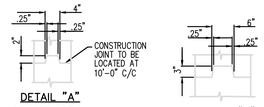
PLAN–TOP OF SLAB



SECTION VIEW
MODIFIED MANHOLE
FOR PIPES GREATER THAN 30 INCHES TO 84 INCHES INSIDE DIAMETER



PLAN VIEW

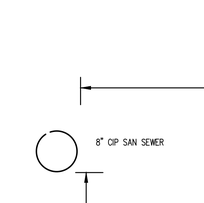


DETAIL "A" CONSTRUCTION JOINT

DETAIL "B" KEYWAY

MODIFIED MANHOLE #2701

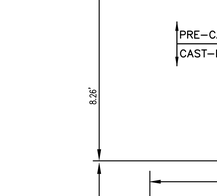
SHOP DRAWINGS SHALL BE PROVIDED FOR THIS STRUCTURE.



IN UNSUITABLE SUBSOIL

IN ROCK

UNDER GRASS AREAS



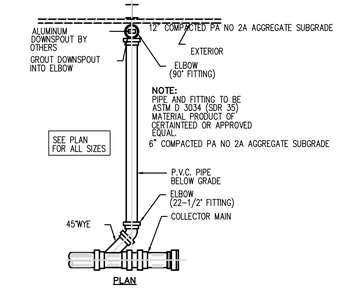
UNDER EXISTING PAVEMENT

UNDER NEW PAVEMENT

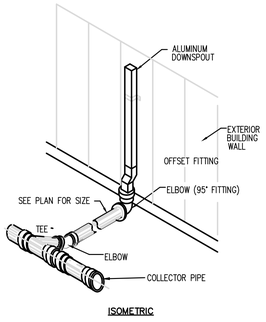
TRENCH VARIATIONS

NOTES:

1. ALL BACKFILL MATERIAL IS SUBJECT TO ARCH./ENG. APPROVAL.
2. CLASS A BEDDING: APPROVED NATIVE SOIL, COARSE SAND, GRAVEL, or CRUSHED STONE, HAVING A MAXIMUM STONE SIZE OF 1/2-INCH.
3. ORDINARY BACKFILL: CLEAN DRY EARTH w/ A MAXIMUM STONE SIZE OF 6-INCHES.
4. WITHIN ROAD RIGHTS-OF-WAY, SURFACE RESTORATION, BACKFILL MATERIALS, AND METHODS SHALL MEET THE APPROPRIATE MUNICIPAL or PENN-DOT REQUIREMENTS.



PLAN



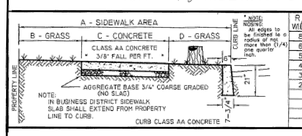
ISOMETRIC

TYPICAL ROOF DRAINAGE SYSTEM

Rev. 8-14-2002

CURB AND SIDEWALK STANDARDS

D-0A



R/W WIDTH	TYPE	DIMENSIONS A	B	C	D
80'	GENERAL	15'	5'	5'	5'
60'	"	12'	3'-6"	5'	3'-6"
50'	"	10'	3'-6"	5'	1'-6"
40'	"	8'	2'-0"	5'	1'-0"
30'	"	6'	0'	5'-6"	6"
20'	"	3'	0'	2'-6"	6"

PERMITS:

A. Warrant of Survey: A Warrant of Survey will be required to establish the proper line and grade of the curb to be installed.

B. Work Order: A Work Order must be obtained prior to the start of any work in the public right of way within the City of Allentown.

C. Crossovers: Application for Residential, Commercial or Industrial Crossovers must be obtained from the Bureau of Engineering prior to starting work.

ALL OF THE ABOVE PERMITS CAN BE OBTAINED FROM THE BUREAU OF ENGINEERING THIRD FLOOR, 641 SOUTH TENTH STREET, ALLENTOWN, PA. 18103.

CURB:

A. Forms: Curb forms, preferably steel forms. Other material shall be smooth, free from warp and must be rigid enough to resist springing out of shape.

B. Dimensions: Curb shall be 21 inches in depth, 6" at the top and 7-3/4" at the base.

C. Joints: All curb shall be cut clear through so it consists of sections ten (10') feet in length.

D. Expansion Joints: Expansion joints shall be placed at the ends of all radii, along all structures or as directed by the Engineer. Expansion shall be pre-molded bituminous material of at least 3/8" of an inch in thickness.

MATERIAL: All concrete used for the construction of curb shall be Class AA Concrete and shall meet the PennDOT Specifications Form 408 and the latest revisions.

FINISH: After concrete is placed into the forms it shall be puddled and spaded thoroughly so as to insure a proper mixture, eleminating air pockets and creating uniform and smooth sides. Before the concrete has thoroughly set and while the concrete is still green the forms shall be removed. The face shall be checked for honeycomb or large air holes (1/4" or larger). Areas affected shall be grouted in with a 50/50% mix of sand and cement and given a steel trowel finish. If the surface is unsatisfactory, the entire top 8" of the face shall be hand rubbed. Plastering or the adding of water are not permitted to achieve the final finish unless authorized by the City Engineer.

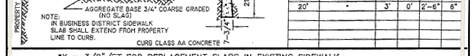
CROSSOVERS: (Some as on Sidewalk).

INSPECTIONS: (Some as on Sidewalk).

STANDARDS
CURB AND SIDEWALK

D-0B

CITY OF ALLENTOWN, PA.
DEPARTMENT OF PUBLIC WORKS



R/W WIDTH	TYPE	DIMENSIONS A	B	C	D
80'	GENERAL	15'	5'	5'	5'
60'	"	12'	3'-6"	5'	3'-6"
50'	"	10'	3'-6"	5'	1'-6"
40'	"	8'	2'-0"	5'	1'-0"
30'	"	6'	0'	5'-6"	6"
20'	"	3'	0'	2'-6"	6"

*X = 3/8"/FT FOR REPLACEMENT SLABS IN EXISTING SIDEWALK.
X = 1/4"/FT FOR NEW DEVELOPMENT SIDEWALK.

PERMITS: Prior to the start of work, a WORK ORDER must be obtained from the Bureau of Engineering, authorizing the work to be performed.

SIDEWALK:

A. Dimensions: Sidewalk blocks shall have an area of 25 square feet (5'x5'). Slabs having an area of more than 100 square feet shall be reinforced with wire fabric.

B. Concrete Depth: The depth of the concrete slab can be one of the three (3) approved types. They are:
1. Type #1: Six (6") inches of Class AA concrete on two (2") inches of 3/4" course graded stone bed on tamped earth.
2. Type #2: Five (5") inches of Class AA concrete on three (3") inches of 3/4" course graded stone bed on tamped earth.
3. Type #4: Four (4") inches of Class AA concrete on four (4") inches of 3/4" course graded stone bed on tamped earth.

C. Slope: In general the pitch or slope of the sidewalk from the curb to the property line shall be three-eights (3/8") of an inch per foot ascending from the curb line. At intersecting streets, warping may be used to conform to the intersecting grades.

D. Expansion: Expansion joints shall be placed at intersections and structures, or as directed by the Engineer. Expansion shall be pre-molded bituminous material of at least 3/8 of an inch in thickness.

E. Finish: The concrete must be puddled for proper mixture and elimination of air pockets. The finished surface can either be a wooden float or a soft broom finish.

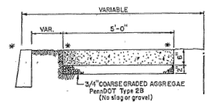
CROSSOVERS: Applications for Residential, Commercial or Industrial Crossovers must be obtained from the Bureau of Engineering prior to starting work. (Refer to Crossovers Application for Specifications and Standards).

INSPECTION: All work performed in the public right of way within the City of Allentown is subject to inspection by the Bureau of Engineering. An Inspection slip MUST BE OBTAINED prior to the placement of any concrete. The Bureau of Engineering will issue the necessary releases. Call 437-7589 or 437-7596 for an inspector. Work performed without the necessary release will be subject to removal at the Contractor's expense.

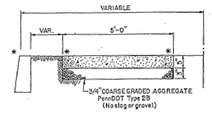
REV. 4/22/08

D-1

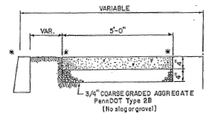
TYPE "6" (6"CONCRETE ON A "2" AGGREGATE BASE)



TYPE "5" (5"CONCRETE ON A "3" AGGREGATE BASE)



TYPE "4" (4"CONCRETE ON A "4" AGGREGATE BASE)



* NOTE: The NOSING on all edges shall be finished to a radius of not more than one-quarter (¼) inch.

CITY OF ALLENTOWN, PA. DEPT. OF PUBLIC WORKS - ENGINEERING		
TYPICAL SECTIONS THREE VARIOUS TYPES CONCRETE SIDEWALK		
DATE MAY '97	SCALE NO SCALE	DEPT. DIR. & CITY ENG. NEAL R. KERN MANAGER OF ENG. RONALD CADDLO

NO	REVISION	BY	DATE

PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

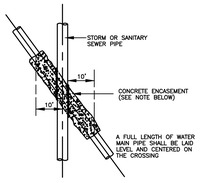
CLIENT:
THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:
Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
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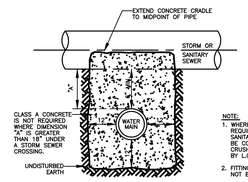
TITLE:
FINAL PLAN
DETAIL PLAN-3

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: D-3
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 15 OF 27

0 30' 60'



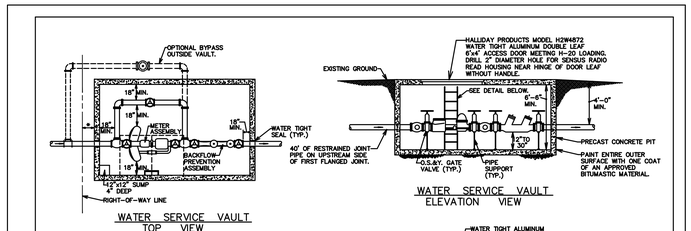
PLAN



SECTION
N.T.S.

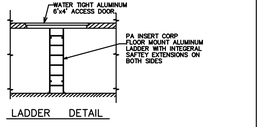
NOTE:
1. WHERE CONCRETE IS NOT REQUIRED, SUPPORT FOR THE SANITARY OR STORM SEWER SHALL BE COMPACTED #2A MODIFIED CRUSHED STONE AS DIRECTED BY L.C.A.'S ENGINEER.
2. FITTINGS AND VALVES SHALL NOT BE ENCASED IN CONCRETE.
3. A BEND SHALL BE A MINIMUM OF 10' FROM A SANITARY OR STORM SEWER CROSSING.

WATER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106
WATER MAIN CROSSING UNDER STORM OR SANITARY SEWER	DWN. BY: C. R. D. | CKD. BY: E. L. H. | APPR. BY: M. A. B. | DATE: DWN:12/1/99
	DWG. NO. | REV. DATE:12/13/07



WATER SERVICE VAULT
TOP VIEW

WATER SERVICE VAULT
ELEVATION VIEW

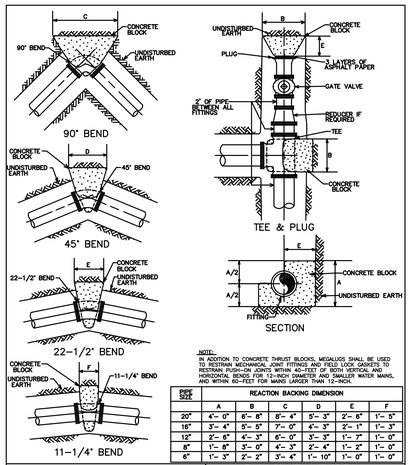


LADDER DETAIL

NOTES:
1. ALL SHUT OFF VALVES SHALL BE UL/FM APPROVED OUTSIDE STEM AND YOKE (OS&Y) RESILIENT SEAT GATE VALVES.
2. NO CONNECTIONS SHALL BE MADE ON THE UPSTREAM (SYSTEM) SIDE OF A BACKFLOW PREVENTION ASSEMBLY.
3. THE BOTTOM OF ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE LOCATED BETWEEN 12" AND 30" ABOVE THE FLOOR, AND A MINIMUM OF 18" FROM ANY WALL OR OTHER EQUIPMENT.
4. THE BACKFLOW PREVENTION ASSEMBLY SHALL HAVE A TEST COCK ON THE SUPPLY SIDE OF THE SUPPLY SHUT OFF VALVE.
5. THE METER SHALL BE APPROVED BY LCA PRIOR TO INSTALLATION.
6. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE APPROVED BY LCA PRIOR TO INSTALLATION.
7. A METER BYPASS LINE IS REQUIRED.

* PLACE VAULT AS CLOSE TO PROPERTY LINE AS FEASIBLE

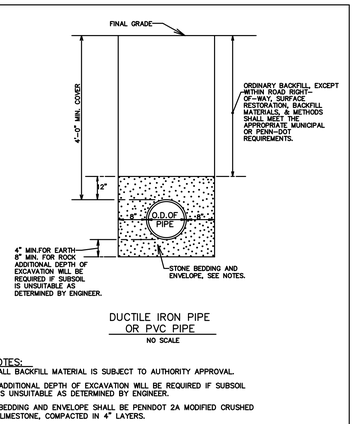
STANDARD INSTALLATION SKETCH	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106
COMBINATION DOMESTIC / PRIVATE FIRE PROTECTION LINES WATER SERVICE METER VAULT NON – TRAFFIC	DWN. BY: C. R. D. | CKD. BY: E. L. H. | APPR. BY: M. A. B. | DATE DWN: 6/16/99
	DWG. NO. | REV. DATE: 1/1/14



NOTE:
IN ADDITION TO CONCRETE THRUST BLOCKS, MEGALUGS SHALL BE USED TO RESTRAIN MECHANICAL JOINT FITTINGS AND FIELD LOCK GASKETS TO RESTRAIN PUSH-ON JOINTS WITHIN 40-FEET OF BOTH VERTICAL AND HORIZONTAL BENDS FOR 12-INCH DIAMETER AND SMALLER WATER MAINS, AND WITHIN 60-FEET FOR MAINS LARGER THAN 12-INCH.

PIPE SIZE	REACTION BACKING DIMENSION					
	A	B	C	D	E	F
20"	4'– 0"	6'– 8"	8'– 4"	5'– 3"	2'– 6"	1'– 5"
16"	3'– 4"	5'– 5"	7'– 0"	4'– 3"	2'– 1"	1'– 3"
12"	2'– 6"	4'– 3"	5'– 0"	3'– 3"	1'– 7"	1'– 0"
8"	1'– 8"	3'– 0"	4'– 3"	2'– 4"	1'– 2"	1'– 0"
6"	1'– 3"	2'– 2"	3'– 4"	1'– 10"	1'– 0"	1'– 0"

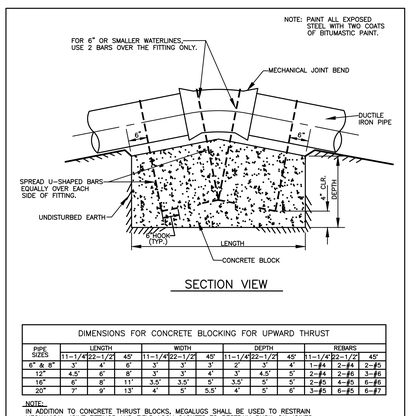
WATER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106
THRUST BLOCKING DETAIL	DWN. BY: C. R. D. | CKD. BY: E. L. H. | APPR. BY: M. A. B. | DATE: DWN:1/29/98
	DWG. NO. | REV. DATE: 12/13/07



DUCTILE IRON PIPE
OR PVC PIPE
NO SCALE

NOTES:
1. ALL BACKFILL MATERIAL IS SUBJECT TO AUTHORITY APPROVAL.
2. ADDITIONAL DEPTH OF EXCAVATION WILL BE REQUIRED IF SUBSOIL IS UNSUITABLE AS DETERMINED BY ENGINEER.
3. BEDDING AND ENVELOPE SHALL BE PENNDOT 2A MODIFIED CRUSHED LIMESTONE, COMPACTED IN 4" LAYERS.
4. BEDDING AND ENVELOPE SHALL EXTEND TO UNDISTURBED SOIL ON SIDES AND BOTTOM OF TRENCH.
5. ORDINARY BACKFILL: CLEAN DRY EARTH WITH MAXIMUM STONE SIZE OF 6".

WATER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106
TYPICAL TRENCH SECTION	DWN.BY: C. R. D. | CKD.BY: F. J. L. | APR.BY: M. A. B. | DATE: DWN:3/27/02
	DWG.NO. | REVDATE: 12/13/07



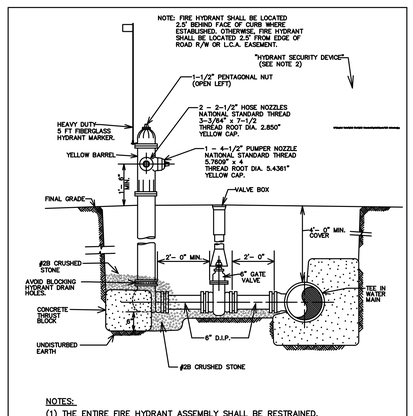
SECTION VIEW

DIMENSIONS FOR CONCRETE BLOCKING FOR UPWARD THRUST

PIPE SIZES	LENGTH			WIDTH			DEPTH			REBARS		
	11-1/4°	22-1/2°	45°	11-1/4°	22-1/2°	45°	11-1/4°	22-1/2°	45°	11-1/4°	22-1/2°	45°
6" & 8"	3'	4'	6'	3'	3'	3'	2'	3'	4'	1-#4	2-#4	2-#5
12"	4.5'	6'	8'	3'	3'	4'	3'	4.5'	5'	2-#4	2-#5	3-#6
16"	6'	8'	11'	3.5'	3.5'	5'	3.5'	5'	5'	2-#5	4-#5	6-#6
20"	7'	9'	13'	4'	5'	5.5'	4'	5'	6'	3-#5	6-#5	6-#7

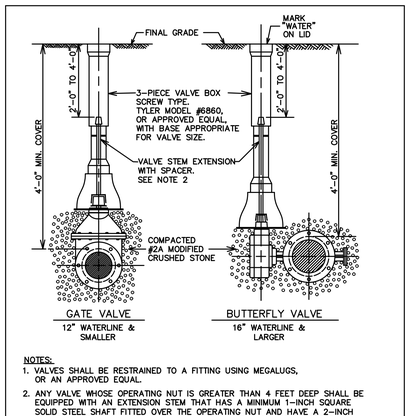
NOTE:
IN ADDITION TO CONCRETE THRUST BLOCKS, MEGALUGS SHALL BE USED TO RESTRAIN MECHANICAL JOINT FITTINGS AND FIELD LOCK GASKETS TO RESTRAIN PUSH-ON JOINTS WITHIN 40-FEET OF BOTH VERTICAL AND HORIZONTAL BENDS FOR 12-INCH DIAMETER AND SMALLER WATER MAINS, AND WITHIN 60-FEET FOR MAINS LARGER THAN 12-INCH.

WATER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106
UPWARD THRUST BLOCKING DETAIL	DWN. BY: C. R. D. | CKD. BY: E. L. H. | APPR. BY: M. A. B. | DATE: DWN:1/29/98
	DWG. NO. | REV. DATE: 12/13/07



NOTES:
(1) THE ENTIRE FIRE HYDRANT ASSEMBLY SHALL BE RESTRAINED. MEGALUGS SHALL BE USED ON MECHANICAL JOINT FITTINGS AND FIELD LOCK GASKETS FOR PUSH-ON JOINTS.
(2) A HYDRANT SECURITY DEVICE SHALL BE PURCHASED FROM LEHIGH COUNTY AUTHORITY.

WATER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106
FIRE HYDRANT DETAIL	DWN. BY: C. R. D. | CKD. BY: E. L. H. | APPR. BY: M. A. B. | DATE: DWN:1/24/98
	DWG. NO. 526-XX-XX-WB3-00-3a | REV. DATE: 12/13/07



NOTES:
1. VALVES SHALL BE RESTRAINED TO A FITTING USING MEGALUGS, OR AN APPROVED EQUAL.
2. ANY VALVE WHOSE OPERATING NUT IS GREATER THAN 4 FEET DEEP SHALL BE EQUIPPED WITH AN EXTENSION STEM THAT HAS A MINIMUM 1-INCH SQUARE SOLID STEEL SHAFT FITTED OVER THE OPERATING NUT AND HAVE A 2-INCH SQUARE OPERATING NUT ON THE TOP. THE SHAFT SHALL BE CENTERED IN THE BOX WITH A SPACER AND BE FASTENED TO THE OPERATING NUT. THE EXTENSION KIT SHALL BE MANUFACTURED BY THE VALVE MANUFACTURER OR APPROVED EQUAL.

WATER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106
VALVE AND VALVE BOX	DWN. BY: C. R. D. | CKD. BY: E. L. H. | APPR. BY: M. A. B. | DATE: DWN:1/29/98
	DWG. NO. | REV. DATE: 12/13/07

NO	REVISION	BY	DATE

PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

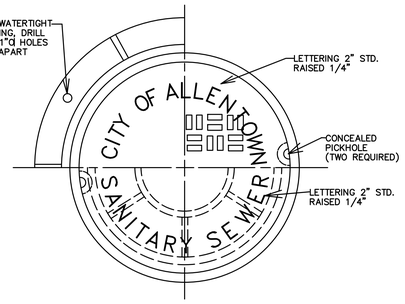
CLIENT:
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TITLE:
FINAL PLAN
DETAIL PLAN-4

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: D-4
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 16 OF 27

0 30' 60'



PLAN

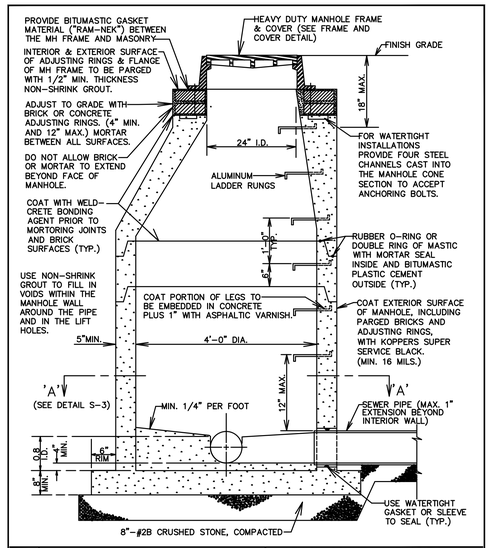
NOTES:

A. STANDARD MANHOLE FRAME AND COVER SHALL BE NEENAH CAT. No. R-1726-A, OR APPROVED EQUAL, WITH SELF-SEALING GASKET.

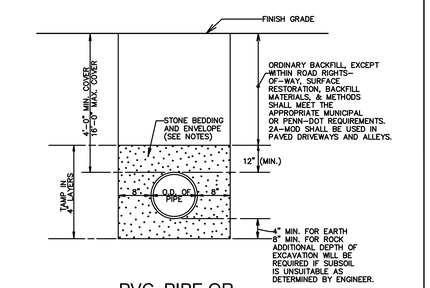
B. WATERTIGHT MANHOLE FRAME AND COVER SHALL BE NEENAH CAT. No. R-1915-G, OR APPROVED EQUAL, WITH FOUR STAINLESS STEEL ANCHOR BOLTS.

C. ALL CASTINGS SHALL BE PAINTED ONE COAT OF BITUMASTIC PAINT AT FACTORY.

S-2	SEWER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106			
	MANHOLE FRAME AND COVER	DWN.BY: C.R.D.	CKD.BY: E.L.H.	APR.BY: M.A.B.	DATE DWN: 4/15/94
		DWG.NO.: S-2			REV. DATE: 08/13/08



S-1	SEWER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106			
	PRECAST REINFORCED CONCRETE MANHOLE ASTM SPEC. C478 (LATEST REVISION)	DWN.BY: C.R.D.	CKD.BY: E.L.H.	APR.BY: M.A.B.	DATE: 5/1/2000
		DWG.NO. S-1			REV.DATE: 6/13/2008



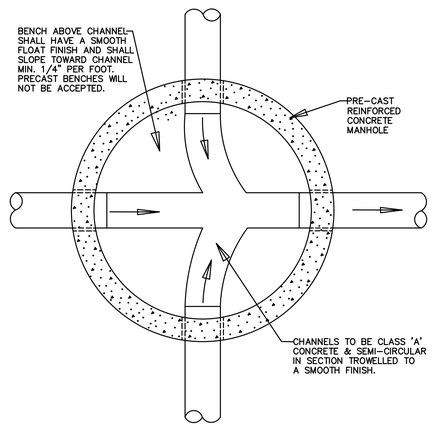
PVC PIPE OR DUCTILE IRON PIPE

NO SCALE

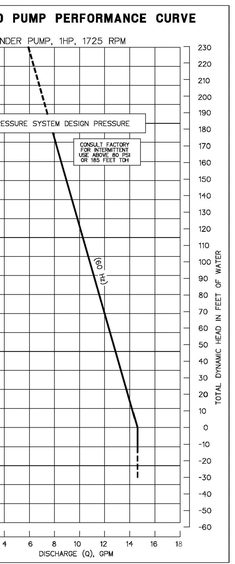
NOTES:

1. ALL BACKFILL MATERIAL IS SUBJECT TO AUTHORITY APPROVAL.
2. ORDINARY BACKFILL: CLEAN DRY EARTH WITH A MAXIMUM STONE SIZE OF 6".
3. BEDDING AND ENVELOPE SHALL BE PENN-DOT 2A MODIFIED STONE FOR TRENCHES ABOVE THE GROUNDWATER TABLE AND #2B CRUSHED STONE FOR TRENCHES BELOW THE GROUNDWATER TABLE.
4. BEDDING AND ENVELOPE SHALL EXTEND TO UNDISTURBED SOIL ON SIDES AND BOTTOM OF TRENCH.
5. HYDRO HAMMERS CAN BE USED AT DISTANCES GREATER THAN 3' ABOVE THE TOP OF THE PIPE IF THE SOIL DENSITY HAS BEEN PREVIOUSLY COMPACTED TO A MINIMUM 90% STANDARD PROCTOR DENSITY.

S-8	SEWER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106			
	TYPICAL TRENCH SECTION	DWN.BY: C.R.D.	CKD.BY: E.L.H.	APR.BY: M.A.B.	DATE DWN: 4/28/00
		DWG.NO. S-8			REV.DATE: 06/16/08



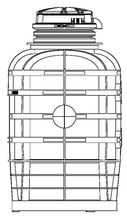
S-3	SEWER SYSTEM STANDARD DETAIL	LEHIGH COUNTY AUTHORITY P. O. BOX 3348 1053 SPRUCE STREET ALLENTOWN, PA. 18106			
	PRECAST REINFORCED CONCRETE MANHOLE SECTION "A – A"	DWN.BY: C.R.D.	CKD.BY: E.L.H.	APR.BY: M.A.B.	DATE DWN: 4/15/94
		DWG.NO.: S-3			REV. DATE: 8/13/08



ESD 08-0022 REV. 2, 6/08

E/ONE EXTREME SERIES

WH472/WR472



General Features

The model WH472 or WR472 grinder pump station is a complete unit that includes: two grinder pumps, check valve, polyethylene tank, controls, and alarm panel. Designed specifically for higher-flow applications where local codes dictate higher storage requirements. The lower portion of the tank has a smaller diameter, tapered down to a dish-shaped bottom. The tank access opening is ideally sized for smaller diameter, low-profile covers for minimal "footprint."

- Rated for flows of 3500 gpd (13,249 lpd)
- 476 gallons (1802 liters) of capacity
- Standard outdoor heights range from 77 inches to 122 inches

The WH472 is the "hardwired," or "wired," model where a cable connects the motor controls to the level controls through watertight penetrations.

The WR472 is the "radio frequency identification" (RFID), or "wireless," model that uses wireless technology to communicate between the level controls and the motor controls.

Operational Information

Motor
1 hp, 1,725 rpm, high torque, capacitor start, thermally protected, 120/240V, 60 Hz, 1 phase

Inlet Connections
4-inch inlet grommet standard for DWV pipe. Other inlet configurations available from the factory.

Discharge Connections
Pump discharge terminates in 1.25-inch NPT female thread. Can easily be adapted to 1.25-inch PVC pipe or any other material required by local codes.

Discharge
15 gpm at 0 psig (0.95 lps at 0 m)
11 gpm at 40 psig (0.69 lps at 28 m)
7.8 gpm at 80 psig (0.49 lps at 56 m)

Accessories

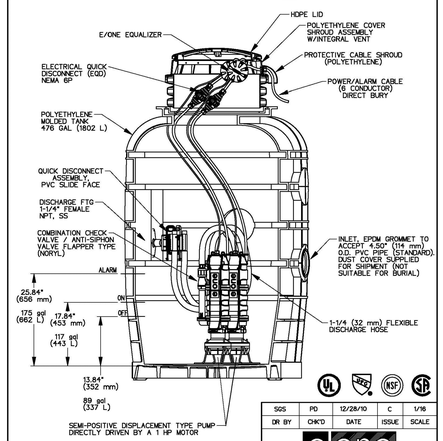
E/One requires that the Uni-Lateral, E/One's own stainless steel check valve, be installed between the grinder pump station and the street main for added protection against backflow.

Alarm panels are available with a variety of options, from basic monitoring to advanced notice of service requirements.

The Remote Sentry is ideal for installations where the alarm panel may be hidden from view.

NA0223P01 Rev E

OPTIONS : ☐ WH472 (HARD WIRED LEVEL CONTROLS) ☐ WR472 (WIRELESS LEVEL CONTROLS)



SQS	PD	12/28/10	C	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

E/ONE SEWER SYSTEMS

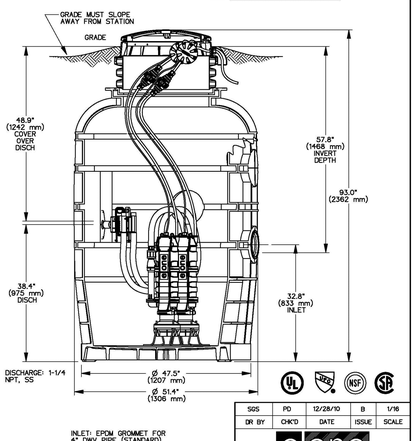
MODEL WH472 / WR472 DETAIL SHEET

NA0223P02

CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTIONS FOR DETAILS

NOTE: DIMENSIONS ARE FOR REFERENCE ONLY

OPTIONS : ☐ WH472-92 (HARD WIRED LEVEL CONTROLS) ☐ WR472-92 (WIRELESS LEVEL CONTROLS)



SQS	PD	12/28/10	B	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

E/ONE SEWER SYSTEMS

MODEL WH472-92 / WR472-92

NA0223P04

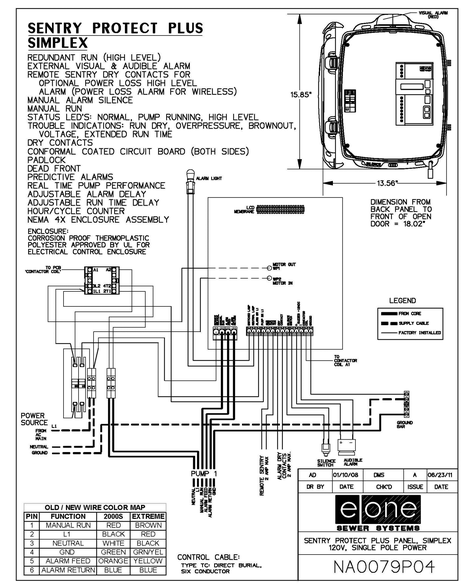
CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTIONS FOR DETAILS

NOTE: DIMENSIONS ARE FOR REFERENCE ONLY

SENTRY PROTECT PLUS SIMPLEX

REDUNDANT RUN (HIGH LEVEL)
EXTERNAL VISUAL & AUDIBLE ALARM
REMOTE SENTRY DRY CONTACTS FOR OPTIONAL POWER LOSS HIGH LEVEL ALARM (POWER LOSS ALARM FOR WIRELESS)
MANUAL ALARM SILENCE
MANUAL RUN
STATUS LED'S: NORMAL, PUMP RUNNING, HIGH LEVEL
TROUBLE INDICATIONS: RUN DRY, OVERPRESSURE, BROWNOUT, VOLTAGE, EXTENDED RUN TIME
DRY CONTACTS
CONFORMAL COATED CIRCUIT BOARD (BOTH SIDES)
PADLOCK
DEAD FRONT
PREDICTIVE ALARMS
REAL TIME PUMP PERFORMANCE
ADJUSTABLE ALARM DELAY
ADJUSTABLE RUN TIME DELAY
HOUR/CYCLE COUNTER
NEMA 4X ENCLOSURE ASSEMBLY

ENCLOSURE:
CORROSION PROOF THERMOPLASTIC POLYESTER APPROVED BY UL FOR ELECTRICAL CONTROL ENCLOSURE



OLD / NEW WIRE COLOR MAP			
PIN	FUNCTION	2000S	EXTREME
1	MANUAL RUN	RED	BROWN
2	L1	BLACK	RED
3	NEUTRAL	WHITE	BLACK
4	GND	GREEN	GRNYEL
5	ALARM FEED	ORANGE	YELLOW
6	ALARM RETURN	BLUE	BLUE

CONTROL CABLE:
TYPE TC- DIRECT BURIAL, SIX CONDUCTOR

AD	03/10/08	DMS	A	06/23/11
DR BY	DATE	CHK'D	ISSUE	DATE

E/ONE SEWER SYSTEMS

SENTRY PROTECT PLUS PANEL, SIMPLEX 120V, SINGLE POLE POWER

NA0079P04

NO	REVISION	BY	DATE

PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

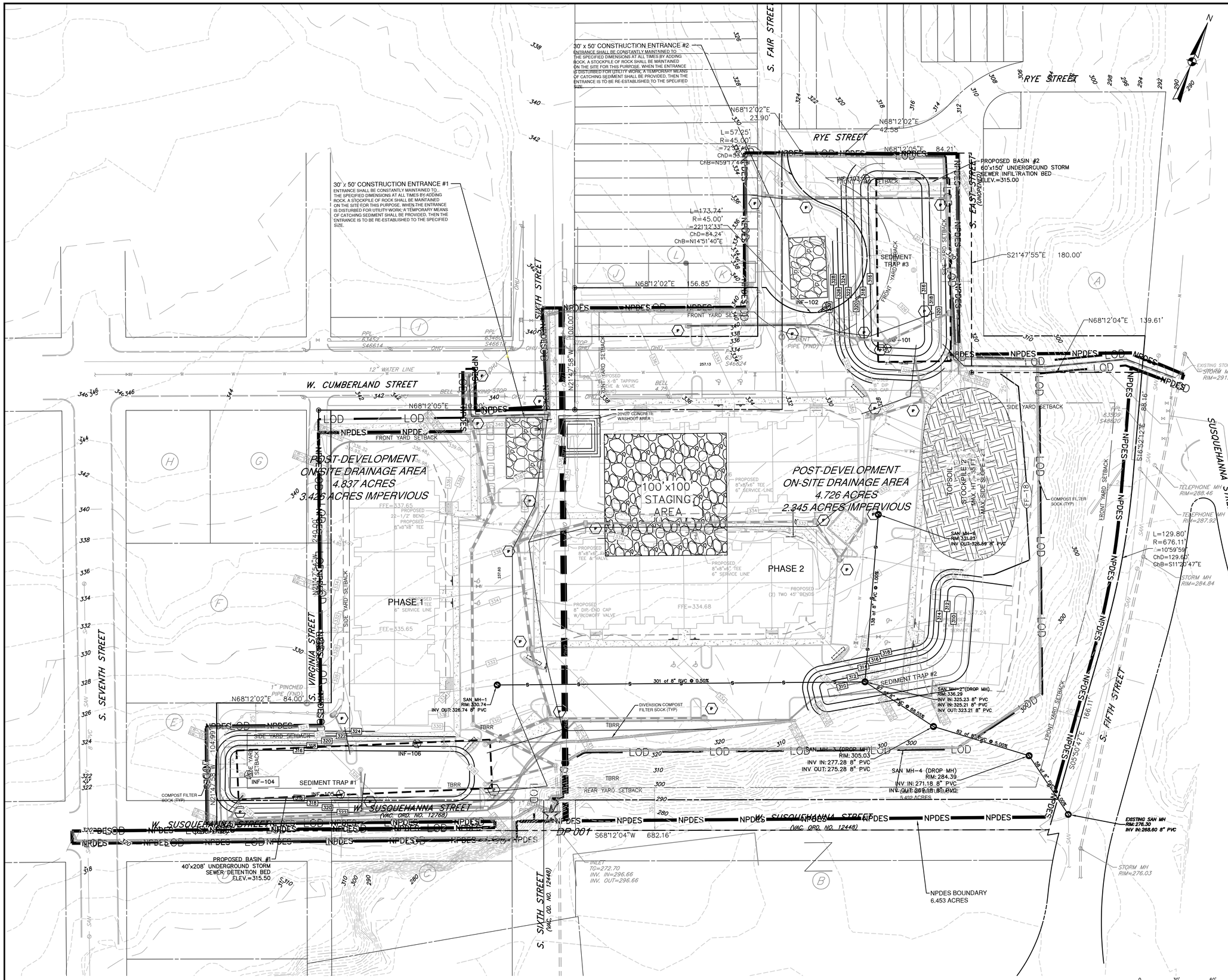
CLIENT:
THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:
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TITLE:
FINAL PLAN
DETAIL PLAN-5

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: D-5
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 17 OF 27

0 30' 60'



E&S LEGEND

- PROPOSED INLET PROTECTION
- PROPOSED CONSTRUCTION ENTRANC
- PROPOSED CONCRETE WASHOUT
- PROPOSED 18" FILTER FABRIC FENC
- PROPOSED STAGING AREA
- PROPOSED STOCKPILE (TOPSOIL STOCKPILE '2' MAX. HT. = 35 FT. MAX. SIDE SLOPE = 2:1)
- PROPOSED SILT SOXX
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED NPDES BOUNDARY
- PROPOSED PHASE LINE
- TEST PIT LOCATIONS

EXISTING	TYPE	PROPOSED	EXISTING	TYPE	PROPOSED
	BUILDING SETBACK LINE			PROPERTY LINE	
	CONCRETE MONUMENT	■	○	IRON PIN OR PIPE	◉
500	CONTOUR MAJOR	500	502	CONTOUR MINOR	502
TEXT	DECIDUOUS TREE	TEXT	TEXT	EVERGREEN TREE	TEXT
	BRUSH / WOODED AREA			SOILS BOUNDARY	
	DRAINAGE AREA BOUNDARY			TIME OF CONCENTRATION	
	CURB			EDGE OF PAVEMENT	
	LEGAL RIGHT-OF-WAY			TO BE REMOVED	TBR / RAZED
	LIGHT POLE / FLOOD LIGHT	✱ ◀		SIGN	▭ A
	FENCE	⊠		GUIDERAIL	
	EASEMENT			EASEMENT LINE	
GAS	GAS LINE	GAS	D	STORM SEWER MH/INLET/LINE	TEXT
TEXT	PROBE (FAILED)		TEXT	PROBE (PASSED)	
	PERC TEST HOLE(S)			PERMEABILITY TEST(S)	
	FIRE HYDRANT			METER BOX	
W	WATER LINE / VALVE	W	SAN	SANITARY SEWER/MH/LINE	TEXT SAN
W	WELL	W		SEPTIC BERM	
400.05	SPOT ELEVATION	400.05		SNOUT	
OHU	OVERHEAD UTILITIES	OHU	TEXT	UTILITY POLE	TEXT
	WETLAND BUFFER			WETLAND DELINEATION	
	FLOOD PLAIN			RIPARIAN BUFFER	
	WATER EDGE				
	L.O.D. / NPDES	LOD		CONSTRUCTION ENTRANCE	
	EROSION CONTROL MAT	S75BN		TOPSOIL STOCKPILE	
	INLET PROTECTION			SEPTIC AREA	SEPTIC AREA
	FILTER FENCE W/ LABEL	FF-1		DEWATERING FACILITY/SKIMMER	
	RIP-RAP OUTLET PROT.			ROCK FILTER W/ LABEL	RF-1
	BAFFLE W/ LABEL	BAFFLE 1		CLEANOUT STAKE	©
	PAVEMENT RECONSTRUCTION			IMPERVIOUS HATCH	
	SAWCUT			PAVEMENT MILL / OVERLAY	

NO	REVISION	BY	DATE

CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE–STOP CALL

1-800-242-1776

811 Know what's below. Call before you dig.

1–CALL NO. 20220112214 DATE: 01/12/22

PROJECT:

CUMBERLAND APARTMENT COMPLEX

CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:

THE YASIN KHAN 2021 FAMILY TRUST

1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:

Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:

FINAL PLAN
EROSION & SEDIMENTATION PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: ES-1
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 18 OF 27

EROSION AND SEDIMENTATION CONTROL NOTES

1) ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

2) AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.

3) AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

4) ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.

5) AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.

6) CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.

7) AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

8) TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.

9) IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.

10) ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THIS SITE.

11) ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.

12) THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.

13) ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.

14) ALL CONSTRUCTION TRAFFIC VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM ONTO (MACK BLVD OR SOUTH 12TH STREET). VEHICLES AND EQUIPMENT MAY ONLY ENTER AND EXIT THE CONSTRUCTION SITE VIA A STABILIZED ROCK CONSTRUCTION ENTRANCE.

15) UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. THE OPERATOR SHALL MAINTAIN AND MAKE AVAILABLE TO LEHIGH COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF ALL THOSE INSPECTIONS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

16) A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

17) SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

18) ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.

19) AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

20) ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

21) ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.

22) FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

23) FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

24) FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

STABILIZATION NOTES

UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE OPERATOR SHALL STABILIZE IMMEDIATELY THE DISTURBED AREAS TO PROTECT FROM ACCELERATED EROSION. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATE. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS, WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN 1 YEAR, MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS. ALL TOPSOIL STOCKPILES MUST BE STABILIZED IMMEDIATELY.
HAY OR STRAW MULCH MUST BE APPLIED AT RATES OF AT LEAST 3.0 TONS PER ACRE.
UNTIL THE SITE HAS ACHIEVED FINAL STABILIZATION, THE OWNER AND/OR CONTRACTOR SHALL PROPERLY IMPLEMENT, OPERATE AND MAINTAIN ALL THE BEST MANAGEMENT PRACTICES. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES GREATER THAN 3:1.

IMMEDIATELY AFTER EACH SECTION OF FINAL GRADING HAS BEEN COMPLETED, ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. TO ACHIEVE THIS A THIN LAYER OF TOPSOIL, 2 TO 4 INCH DEPTH, SHALL BE EVENLY DISPERSED OVER ALL DISTURBED AREAS THEN PERMANENTLY SEEDED AND MULCHED ACCORDING TO THE SPECIFICATIONS WITHIN THE NARRATIVE.
NOTE, IN THE EVENT THAT THE SITE DOES NOT HAVE ENOUGH NATIVE TOPSOIL TO COVER THE DISTURBED AREAS, THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO EXTRACT TOPSOIL FROM ANOTHER SITE THAT HAS BEEN PRE-APPROVED BY THE LEHIGH COUNTY CONSERVATION DISTRICT.

CONTINUE E AND S CONTROL NOTES

25) SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

26) ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.

27) IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS DURING NON-GERMINATING MONTHS, MULCH OR OTHER PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.

28) PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR MOTHER MOVEMENTS.

29) EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

30) UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.

31) AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

32) UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.

33) FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

34) IN THE EVENT OF SINKHOLE DISCOVERY A PROFESSIONAL GEOLOGIST OR ENGINEER WILL BE CONTACTED CONCERNING MITIGATION. ADDITIONALLY, THE LEHIGH COUNTY CONSERVATION DISTRICT WILL BE MADE AWARE OF THE SINKHOLE DISCOVERY IMMEDIATELY.

35) THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.

36) THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.

37) THE E&S CONTROL PLAN MAPPING MUST DISPLAY A PA ONE CALL SYSTEM INCORPORATED SYMBOL INCLUDING THE SITE IDENTIFICATION NUMBER. (THIS IS A NUMBERED SYMBOL NOT A NOTE.)

38) AT STREAM CROSSINGS, 50' BUFFER AREAS SHOULD BE MAINTAINED. ON BUFFERS, CLEARING, SOD DISTURBANCES, EXCAVATION, AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING, AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS.

39) ALL WETLANDS MUST BE DELINEATED AND PROTECTED WITH ORANGE SAFETY FENCE PRIOR TO ANY EARTHMOVING ACTIVITY.

40) STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN

41) CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.

42) ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.

43) UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTED FROM EROSIVE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.

44) CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.

45) SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.

46) SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.

47) BAFFLES MUST BE INSTALLED TO ALLOW BASIN MAINTENANCE AND CLEAN OUT.

48) ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.

49) UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

50) EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER, WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

51) FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM ____8"_____ LAYERED LIFTS AT _____95_____ % DENSITY.

TEMPORARY AND PERMANENT SEEDING SPECIFICATIONS

SPECIFICATIONS: THE DEPARTMENT RECOMMENDS THE USE OF THE PENN STATE AGRONOMY GUIDE AS THE STANDARD TO USE FOR SELECTION OF SPECIES, SEED SPECIFICATIONS, MIXTURES, LIMING AND FERTILIZING, TIME OF SEEDING, AND SEEDING METHODS. SPECIFICATIONS FOR THESE ITEMS MAY ALSO BE OBTAINED FROM PENN STATE'S EROSION CONTROL & CONSERVATION PLANTINGS ON NON CROPLAND OR BY CONTACTING THE APPLICABLE COUNTY CONSERVATION DISTRICT. UPON THAT REFERENCE MUST BE USED TO SELECTION OF A REFERENCE, PROVIDE ALL SPECIFICATIONS FOR SEEDING, MULCHING, AND SOIL AMENDMENTS. THE FOLLOWING SPEC. WILL BE USED FOR THIS PROJECT.

TEMPORARY

SPECIES:	ANNUAL RYEGRASS
% PURE LIVE SEED:	90%
APPLICATION RATE:	40 lbs/ac
FERTILIZER TYPE:	10-10-10
FERTILIZER APPLICATION RATE:	500 lbs/ac
LIMING TYPE:	AGRICULTURAL LIME
LIMING RATE:	1 t/ac
MULCH TYPE:	HAY or STRAW
MULCHING RATE:	3 t/ac
ANCHOR MATERIAL:	WOOD CELLULOSE
ANCHORING METHOD:	BROADCAST
SEEDING SEASON DATES:	MAR 15 ~ NOV 15

PERMANENT TOPSOIL PLACEMENT DEPTH: 6 INCHES

SPECIES:	FESCUE, KENTUCKY BLUEGRASS MIX
% PURE LIVE SEED:	90~85~81%
APPLICATION RATE:	30 lbs/ACRE
FERTILIZER TYPE:	10-20-20
FERTILIZER APPLICATION RATE:	1000 lbs/ac
LIMING TYPE:	AGRICULTURAL LIME
LIMING RATE:	6 t/ac
MULCH TYPE:	HAY or STRAW
MULCHING RATE:	3 t/ac
ANCHOR MATERIAL:	NON-EMULSIFIED ASPHALT
ANCHORING METHOD:	SPRAY
RATE OF ANCHOR MATERIAL APPLICATION:	31 GAL/1,000 sy
SEEDING SEASON DATES:	MAR 15 ~ JUN 1, AUG 1 ~ OCT 15

PERMANENT~STEEP SLOPES

TOPSOIL PLACEMENT DEPTH: 6 INCHES

SPECIES:	PERENNIAL RYEGRASS MIX, CREEPING RED FESCUE, KENTUCKY BLUEGRASS MIX
% PURE LIVE SEED:	90~85~81%
APPLICATION RATE:	30 lbs/ACRE
FERTILIZER TYPE:	10-20-20
FERTILIZER APPLICATION RATE:	1000 lbs/ac
LIMING TYPE:	AGRICULTURAL LIME
LIMING RATE:	6 t/ac
MULCH TYPE:	HAY or STRAW
MULCHING RATE:	3 t/ac
ANCHOR MATERIAL:	NON-EMULSIFIED ASPHALT
ANCHORING METHOD:	SPRAY
RATE OF ANCHOR MATERIAL APPLICATION:	31 GAL/1,000 sy
SEEDING SEASON DATES:	MAR 15 ~ JUN 1, AUG 1 ~ OCT 15

MAINTENANCE PROGRAM

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THIS PLAN.
MAINTENANCE ITEMS INCLUDE:
ROCK CONSTRUCTION ENTRANCE WITH WASHRACK - THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. THE WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

TOPSOIL STOCKPILE - STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER. SEDIMENT REMOVED FROM ALL E&SBPC FACILITIES SHALL BE PLACED ON TOPSOIL STOCKPILE AND SEEDED AND MULCHED IMMEDIATELY.

COMPOST FILTER SOCK- CLEANOUT UPON SEDIMENT REACHING ONE HALF THE SOCK HEIGHT, REPLACING ANY DAMAGED POSTS OR SOCKS IMMEDIATELY.

ROCK FILTER AND MODIFIED ROCK FILTER - SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ONE-HALF THE HEIGHT OF THE FILTER. IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER AND STABILIZE ANY DISTURBED AREAS.

CONCRETE WASHOUT FACILITY - MUST BE MAINTAINED SO THAT NO WASH WATER MAY FROM THE VEHICLES REACH ANY SURFACE WATER. THEY MUST BE LOCATED WITHIN 50' OF STORM DRAINS, OPEN DITCHES, OR SURFACE WATERS. ONCE FULL PROPERLY DISPOSE OF THE MATERIALS BY RECYCLING.

PUMPED WATER FILTER BAG - A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. THE BAG SHALL BE PLACED ON LEVEL GROUND AND NOT ON A SLOPE GREATER THAN 5%. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEMS ARISE, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

ROCK FILTER OUTLET - THE ROCK FILTER OUTLET SHALL BE REMOVED WHEN CONSTRUCTION WITH SEDIMENT MATERIALS MUST BE WASHED COMPLETELY FREE OF ALL FOREIGN MATERIALS OR NEW ROCK USED TO REBUILD THE FILTER. UNDER NO CIRCUMSTANCES IS THE SEDIMENT REMOVED FROM THE FILTER DURING CLEANING TO BE WASHED OFF THE SITE.

TEMPORARY SEEDING AND MULCHING - ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE SEEDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDATION RATES. REFER TO SPECIFICATIONS FOR SEEDING AND MULCHING.

SEDIMENT REMOVED DURING BMP MAINTENANCE - SEDIMENT REMOVED FROM BMPS SHALL BE PLACED ON THE TOPSOIL STOCKPILE AND STABILIZED IMMEDIATELY.

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY BY THE CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTION OF ALL E&SPC FACILITIES AFTER EACH RUNOFF EVENT AND ON A MINIMUM OF A WEEKLY BASIS. ALL PREVENTION AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, RE-GRADING, RESEEDING, AND RE-MULCHING MUST BE PERFORMED IMMEDIATELY. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE, OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE CONTRACTOR TO ELIMINATE ALL SUCH PROBLEMS.

INSPECTIONS FOR ALL E&S BMPS SHALL BE DONE BY QUALIFIED PERSONNEL TO ENSURE THAT THE E&S BMPS ARE WORKING CORRECTLY. A LOG SHOWING DATES THAT ALL E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

FILL MATERIALS

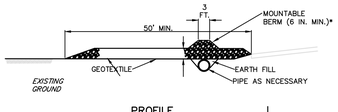
WHEN FILL IS TO BE IMPORTED FROM OFF-SITE, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THAT THE FILL IS CLEAN FILL AND TO PERFORM THE ENVIRONMENTAL DUE DILIGENCE. MATERIAL THAT IS BEING USED FROM OFF-SITE IS NOT REQUIRED TO BE DETERMINED TO BE CLEAN FILL BY THE CONTRACTOR UNLESS THERE IS A BELIEF THAT A SPILL OR RELEASE OF A REGULATED SUBSTANCE OCCURRED ON-SITE. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WASTE SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATER OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDED MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

ENVIRONMENTAL DUE DILIGENCE: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY THE SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEP'S POLICY "MANAGEMENT OF FILL".

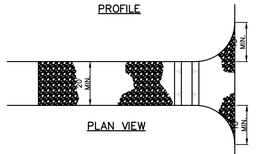
FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEP'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.

RECYCLING/ DISPOSAL OF PROJECT WASTES NOTE

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25



PROFILE



PLAN VIEW

NOTES:

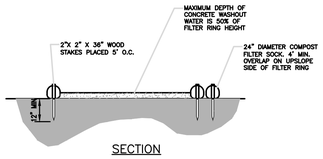
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

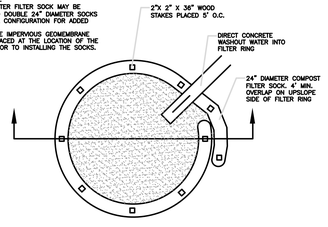
MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE



SECTION

NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
2. 18" DIAMETER FILTER SOCK MAY BE STAKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.

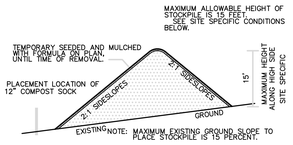


ADAPTED FROM FILTREXX

PLAN

TYPICAL COMPOST SOCK WASHOUT INSTALLATION

NOT TO SCALE



NOTE: MAXIMUM EXISTING GROUND SLOPE TO PLACE STOCKPILE IS 15 PERCENT.

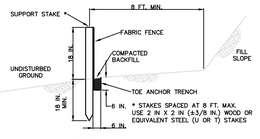
STOCKPILED (TOPSOIL AND SUBSOIL) & FILL MATERIAL

NO SCALE

MAINTENANCE:
1. THE STOCKPILED TOPSOIL AND FILL MATERIAL WILL BE INSPECTED ON A DAILY BASIS AND AFTER EVERY RUNOFF EVENT. ALL NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
2. ALL STOCKPILES WILL BE TEMPORARY SEEDED AND MULCHED AT ALL TIMES.



JOINING FENCE SECTIONS



* STAKES SPACED AT 8 FT. MAX. USE 2 IN X 2 IN (±3/8 IN.) WOOD OR EQUIVALENT STEEL (U OR T) STAKES

SECTION VIEW

NOTES:

FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL.

FABRIC WIDTH SHALL BE 30 IN. MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES.

SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.

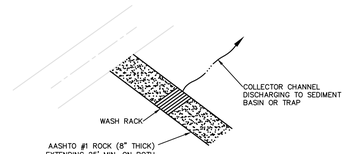
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (STANDARD CONSTRUCTION DETAIL # 4-6).

FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY

STANDARD CONSTRUCTION DETAIL #4-7
STANDARD SILT FENCE (18" HIGH)

NOT TO SCALE



NOTES:

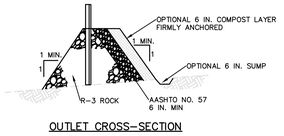
WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.

WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

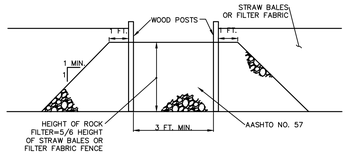
A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-2
ROCK CONSTRUCTION ACCESS WITH WASH RACK



OUTLET CROSS-SECTION



UP-SLOPE FACE

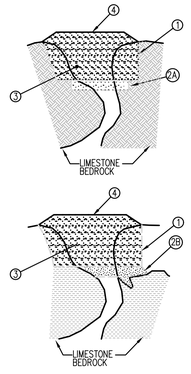
NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET

NOT TO SCALE



1. EXCAVATE DOWN TO ROCK TO SINKHOLE THROAT OR TO A DEPTH OF 58 FEET BELOW GRADE, WHICHEVER OCCURS FIRST.

2A. IF NO ROCK IS ENCOUNTERED: PLUG SOIL THROAT WITH GROUT OR CONCRETE. IF A CLEARLY DEFINED THROAT IS NOT ENCOUNTERED AFTER 10 FEET; STOP EXCAVATION. GENERALLY; A ZONE OF SOFT, IN-FILL MATERIAL WILL BE FOUND WHICH COVERS MOST OF THE BOTTOM OF THE EXCAVATION. COVER THIS AREA WITH 4 FEET OF CONCRETE EXTENDING AT LEAST 1 FOOT INTO FIRM SOIL. IF THE SOFT ZONE IS LARGER (>3 FT.), REINFORCING STEEL SHOULD BE INCLUDED WITHIN THE CONCRETE CAP.

IN BUILDING STRUCTURAL AREAS, IF ROCK IS NOT ENCOUNTERED, COMPACTION GROUTING IS RECOMMENDED.

2B. IF ROCK IS ENCOUNTERED: CLEAN SURFACE AND PLACE HIGH-SLUMP CEMENT GROUT INTO OPEN VOIDS AND CREVICES UNTIL VOIDS ARE FILLED. IF SEVERAL CUBIC YARDS OF GROUT DO NOT FILL VOIDS, USE A STIFFER, LEAN CONCRETE MIX. IF A SINKHOLE IS ENCOUNTERED POST-CONSTRUCTION, COMPACTION GROUTING IS RECOMMENDED

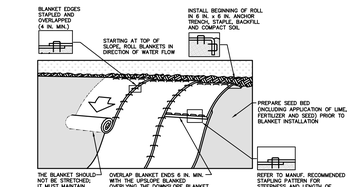
3. AFTER CONCRETE HAS SET OVERNIGHT, BACKFILL HOLE WITH RELATIVELY IMPERMEABLE SOIL. COMPACT SOIL IN 6" LIFTS WITH A POWER TAMPER OR RAMMER. TWO COMPLETE COVERAGES SHOULD BE USED ON EACH LIFT.

4. BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.

5. WHEN SINKHOLE IS UNDER A PROPOSED UTILITY, CONCRETE IS TO BE SET 6" BELOW THE UTILITY TO ALLOW FOR A STONE BEDDING.

6. SINKHOLE REMEDIATION SHOULD BE PERFORMED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER.

SINKHOLE CONDITIONS



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

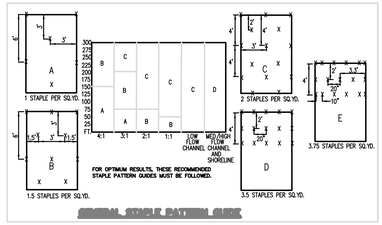
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

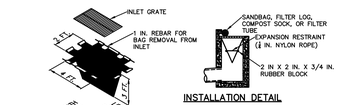
BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 24 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE

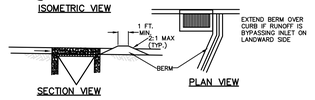


MINIMUM STAPLE PATTERN GUIDE



ISOMETRIC VIEW

INSTALLATION DETAIL



SECTION VIEW

PLAN VIEW

NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

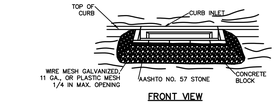
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE. BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 290 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

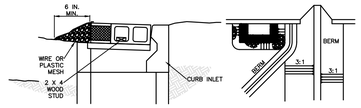
INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-15
FILTER BAG INLET PROTECTION - TYPE C INLET



FRONT VIEW



SECTION VIEW

PLAN VIEW

NOTES:

MAXIMUM DRAINAGE AREA = 1 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE. BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

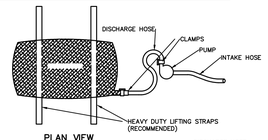
FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

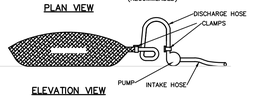
STANDARD CONSTRUCTION DETAIL #4-17

NOT TO SCALE
USE FOR INLET :1-4

STONE AND CONCRETE BLOCK INLET PROTECTION - TYPE C INLET



PLAN VIEW



ELEVATION VIEW

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

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. BAGS SHOULD NOT BE PLACED ON TOP OF OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

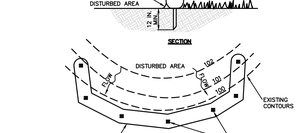
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

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

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG



SECTION

PLAN VIEW

NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK

NOT TO SCALE

TABLE #4-1

COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

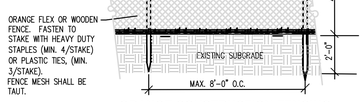
MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE *	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12"* 18"* 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % RETENTION (ASTM G-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET CONTINUOUSLY WOUND EXTRUSION WELDED 3/4" X 3/4" MAX. APERTURE SIZE				
OUTER FILTRATION MESH	COMPOST FOR POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE LAYER NEEDLE PUNCHED) 3/16" MAX. APERTURE SIZE				
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.					

* INDICATES THE LINING TYPE TO BE USED IN THIS PROJECT.

TABLE 4.2
COMPOST STANDARDS

ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
PH	5.5-8.5
MOISTURE CONTENT	30%-60%
PARTICLE SIZE	30%-50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 DS/M (MMHOS/CM) MAXIMUM

FILTREXX SOXX
PROVIDER/INSTALLER
HILLTOP SERVICE INC.
16403 POTTSVILLE PIKE
HAMBURG, PA 19526
(610)-562-3124
FAX: (610)-562-9653



ORANGE CONSTRUCTION FENCING

TABLE #11-1

CUBIC YARDS OF TOPSOIL REQUIRED FOR APPLICATION TO VARIOUS DEPTHS

DEPTH (IN.)	PER 1,000 SQUARE FEET	PER ACRE
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806
7	21.7	940
8	24.8	1,074

0 30' 60'

NO	REVISION	BY	DATE

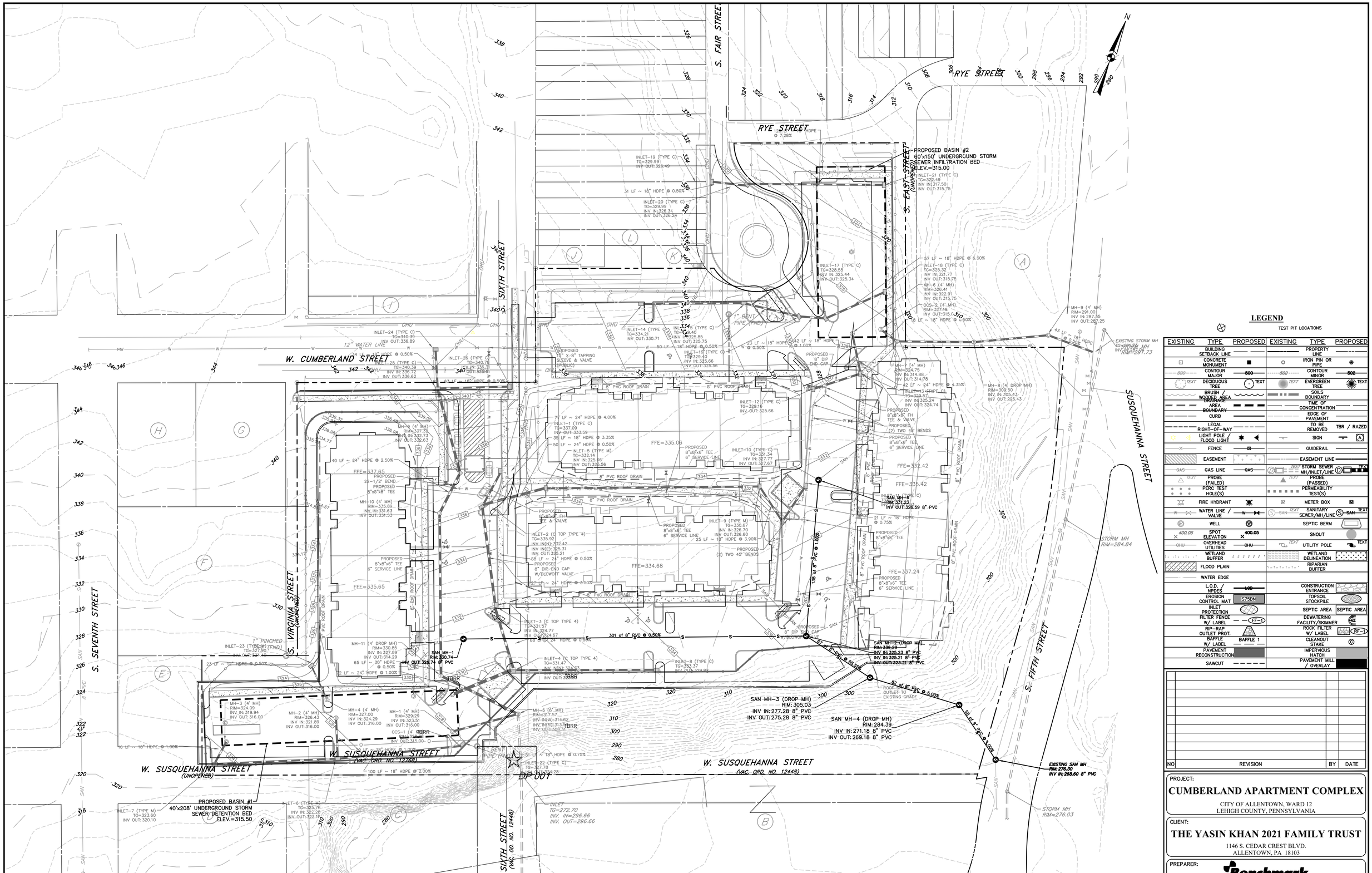
PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:
THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:
Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:
FINAL PLAN
EROSION & SEDIMENTATION DETAILS

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: ES-3
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 20 OF 27


S. FAIR STREET
RYE STREET
RYE STREET
S. EAST STREET (UNOPENED)
SIXTH STREET
W. CUMBERLAND STREET
S. SEVENTH STREET
S. VIRGINIA STREET (UNOPENED)
W. SUSQUEHANNA STREET (UNOPENED)
W. SUSQUEHANNA STREET (VAC. ORD. NO. 12768)
W. SUSQUEHANNA STREET (VAC. ORD. NO. 12448)
SIXTH STREET (VAC. ORD. NO. 12448)
S. FIFTH STREET
SUSQUEHANNA STREET
PROPOSED BASIN #2
60'x150' UNDERGROUND STORM SEWER INFILTRATION BED
ELEV.=315.00
PROPOSED BASIN #1
40'x208' UNDERGROUND STORM SEWER DETENTION BED
ELEV.=315.50
DP 001
INLET
TG=272.70
INV. IN=296.66
INV. OUT=296.66
FFE=335.06
FFE=332.42
FFE=336.42
FFE=334.68
FFE=335.65
FFE=337.65
FFE=357.24
SAN MH-1
RIM: 330.74
INV OUT: 326.74 8" PVC
SAN MH-2 (DROP MH)
RIM: 336.20
INV IN: 325.23 8" PVC
INV IN: 325.21 8" PVC
INV OUT: 323.21 8" PVC
SAN MH-3 (DROP MH)
RIM: 305.03
INV IN: 277.28 8" PVC
INV OUT: 275.28 8" PVC
SAN MH-4 (DROP MH)
RIM: 284.39
INV IN: 271.18 8" PVC
INV OUT: 269.18 8" PVC
SAN MH-5
RIM: 331.23
INV OUT: 326.59 8" PVC
EXISTING SAN MH
RIM: 276.30
INV IN: 268.60 8" PVC
EXISTING STORM MH
TG=291.08
INV IN=287.58
RIM=291.73
STORM MH
RIM=284.84
STORM MH
RIM=276.03
ROOF DRAIN OUTLET TO EXISTING GRADE
PROPOSED 1" X 8" TAPPING SLEEVE & VALVE
PROPOSED 8" DIP END CAP
PROPOSED 8"x8"x6" TEE & VALVE
PROPOSED 8"x8"x6" TEE 6" SERVICE LINE
PROPOSED (2) TWO 45° BENDS
PROPOSED 22-1/2° BEND
PROPOSED 8"x8"x8" TEE
PROPOSED 8"x8"x4" TEE 6" SERVICE LINE
PROPOSED 8" DIP-END CAP W/BLOWOFF VALVE
8" PVC ROOF DRAIN
INLET-1 (TYPE C) TG=337.09 INV OUT: 333.59
INLET-2 (C TOP TYPE 4) TG=335.92 INV IN(N): 332.42 INV IN(E): 325.31 INV OUT: 325.21
INLET-3 (C TOP TYPE 4) TG=331.57 INV IN: 324.77 INV OUT: 324.67
INLET-4 (C TOP TYPE 4) TG=331.47 INV IN(N): 324.33 INV IN(E): 324.23 INV OUT: 318.83
INLET-5 (TYPE M) TG=332.14 INV IN: 325.66 INV OUT: 320.56
INLET-6 (TYPE M) TG=325.76 INV IN: 322.26 INV OUT: 322.16
INLET-7 (TYPE M) TG=323.60 INV OUT: 320.10
INLET-8 (TYPE C) TG=333.37 INV OUT: 330.87
INLET-9 (TYPE M) TG=330.67 INV IN: 326.70 INV OUT: 326.60
INLET-10 (TYPE C) TG=331.34 INV IN: 327.77 INV OUT: 327.67
INLET-11 (TYPE C) TG=329.99 INV IN: 325.44 INV OUT: 325.34
INLET-12 (TYPE C) TG=329.16 INV OUT: 325.66
INLET-14 (TYPE C) TG=334.21 INV OUT: 330.71
INLET-15 (TYPE C) TG=329.40 INV IN: 325.85 INV OUT: 325.75
INLET-16 (TYPE C) TG=329.40 INV IN: 325.66 INV OUT: 325.56
INLET-17 (TYPE C) TG=328.55 INV IN: 325.44 INV OUT: 325.34
INLET-18 (TYPE C) TG=325.32 INV IN: 321.77 INV OUT: 315.75
INLET-19 (TYPE C) TG=329.99 INV OUT: 328.49
INLET-20 (TYPE C) TG=329.99 INV IN: 326.34 INV OUT: 326.24
INLET-21 (TYPE C) TG=322.49 INV IN: 317.50 INV OUT: 315.75
INLET-22 (TYPE C) TG=327.78 INV OUT: 324.28
INLET-23 (TYPE M) TG=327.90 INV OUT: 324.40
INLET-24 (TYPE C) TG=340.39 INV OUT: 336.89
INLET-25 (TYPE C) TG=340.39 INV IN: 336.72 INV OUT: 336.62
INLET-26 (TYPE C) TG=340.78 INV IN: 336.31 INV OUT: 336.21
MH-1 (4' MH) RIM=329.29 INV IN: 323.51 INV OUT: 315.00
MH-2 (4' MH) RIM=326.43 INV IN: 321.89 INV OUT: 316.00
MH-3 (4' MH) RIM=324.09 INV IN: 319.94 INV OUT: 316.00
MH-4 (4' MH) RIM=327.00 INV IN: 324.29 INV OUT: 316.00
MH-5 (6' MH) RIM=317.57 INV-IN(W): 314.62 INV IN(N): 313.37 INV OUT: 305.37
MH-6 (4' MH) RIM=326.41 INV IN: 322.91 INV OUT: 315.75
MH-7 (4' MH) RIM=324.75 INV IN: 314.88 INV OUT: 314.78
MH-8 (4' DROP MH) RIM=309.50 INV. IN: 305.43 INV OUT: 295.43
MH-9 (4' MH) RIM=291.00 INV IN: 287.35 INV OUT: 287.25
MH-10 (4' MH) RIM=335.89 INV. IN: 331.63 INV OUT: 331.53
MH-11 (4' DROP MH) RIM=330.85 INV IN: 327.09 INV OUT: 314.29
OCS-1 (4' MH) RIM=327.19 INV OUT: 315.19
OCS-2 (4' MH) RIM=327.19 INV OUT: 315.19
OCS-3 (4' MH) RIM=327.00 INV OUT: 315.00
1" BENT PIPE (FND)
1" PINCHED PIPE (FND)
12" WATER LINE
OHU
SAN
SAN
SAN

PCSM GENERAL NOTES:

PERMIT TERMINATION
UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPS IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

THE NOTICE OF TERMINATION MUST INCLUDE:
(1) THE FACILITY NAME, ADDRESS AND LOCATION.
(2) THE OPERATOR NAME AND ADDRESS.
(3) THE PERMIT NUMBER.
(4) THE REASON FOR PERMIT TERMINATION.
(5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH § 102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M)(2).

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

LICENSED PROFESSIONAL OVERSIGHT OF CRITICAL STAGES. A LICENSED PROFESSIONAL OR A DESIGNEE SHALL BE PRESENT ONSITE AND BE RESPONSIBLE DURING CRITICAL STAGES OF IMPLEMENTATION OF THE APPROVED PCSM PLAN. THE CRITICAL STAGES MAY INCLUDE THE INSTALLATION OF UNDERGROUND TREATMENT OR STORAGE BMPS, STRUCTURALLY ENGINEERED BMPS, OR OTHER BMPS AS DEEMED APPROPRIATE BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

FINAL CERTIFICATION. THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:
"I, (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 P.A.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

(1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
(2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS.

PCSM LONG TERM OPERATIONS AND MAINTENANCE REQUIREMENTS
UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPS ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE. THE DEPARTMENT OR CONSERVATION DISTRICT WILL CONDUCT A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION WITHIN 30 DAYS.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPS UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPS.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMPS AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEES, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER § 102.7(B)(5) (RELATING TO PERMIT TERMINATION

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPS OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS LOCATED ON THE PROPERTY.

RECYCLING/ DISPOSAL OF PROJECT WASTES NOTE

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL WASTES AT THE SITE.

"PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH DEPARTMENT REGULATIONS."

INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTE INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHENEVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL.

HAZARDOUS MATERIALS OR WASTES ARE NOT ANTICIPATED FROM THE CONSTRUCTION OF THE SITE. THE SITE CONTRACTOR MUST HOWEVER MAKE PROVISIONS FOR WASTE ASSOCIATE WITH EARTHMOVING AND CONSTRUCTION EQUIPMENT AS REQUIRED AND IN ACCORDANCE WITH REGULATIONS BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, DEPARTMENT OF ENVIRONMENTAL RESOURCES, FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, AND USE OF FUELS, CONSTRUCTION MATERIALS, AND EQUIPMENT.

SHOULD IT BE REQUIRED THAT RECYCLING OR DISPOSAL OF MATERIALS BE REQUIRED, THE CONTRACTOR MUST CONTACT THE COUNTY CONSERVATION DISTRICT AND/OR THE LOCAL PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICES FOR FURTHER ASSISTANCE TO OBTAIN THE REQUIRED INSTRUCTIONS AND/OR PERMITS FOR TRANSPORTING, STORING, USING, OR DISPOSING CONSTRUCTION WASTES.

MATERIALS ASSOCIATED WITH BMP INSTALLATION AND REMOVAL SHALL BE REMOVED FROM SITE AT THE END OF FINAL STABILIZATION. MATERIAL WHICH CANNOT BE RECYCLED BY THE CONTRACTOR FOR FUTURE USE MUST BE DISPOSED OF IN AN APPROPRIATE MANNER AS DICTATED BY DEPARTMENT REGULATIONS. THESE MAY INCLUDE, SILT FENCE, PLASTIC LINERS, CONCRETE, EXTRANEOUS MATERIALS, AND OTHER NON-REUSABLE ITEMS. MATERIALS SUCH AS SUPER SILT FENCE, CHAIN LINK FENCE, TREE PROTECTION, OR OTHER MATERIALS, WHICH HAVE NOT BEEN USED OR CAN BE RETAINED BY THE CONTRACTOR FOR FUTURE USE, UPON APPROVAL AND AGREEMENT OF THE OWNER, AND BE REMOVED FROM THE SITE IN AN APPROPRIATE MANNER.

EXTRANEOUS SOIL AND ROCK MATERIAL DUE TO BMP INSTALLATION, USE, AND REMOVAL SHALL BE DISPOSED OF IN A PROPER MANNER. IT IS RECOMMENDED THAT THESE MATERIALS EITHER BE DISTRIBUTED THROUGHOUT THE SITE AS NEEDED, OR A MINOR STOCKPILE LOCATED ON THE SITE BE PROVIDED, SHOULD THESE MATERIALS BE REQUIRED FOR MAINTENANCE OF IMPLEMENTED BMP'S.

THE OWNER SHALL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THIS PLAN.

ANTICIPATED CONSTRUCTION WASTES

EROSION CONTROL MATTING
BUILDING MATERIALS SUCH AS CONCRETE BLOCKS, BRICKS, SCRAP LIMBER, DRYWALL ETC.
HDPE PIPE
RUBBER SEALANT
GEOTEXTILE
SCRAP ELECTRIC WIRING.

BMP SEDIMENT REMOVAL NOTE

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

POST CONSTRUCTION STORMWATER MANAGEMENT MAINTENANCE NOTES:

SEDIMENT REMOVED FROM STORMWATER PONDS SHOULD BE DISPOSED OF ACCORDING TO AN APPROVED COMPREHENSIVE OPERATION AND MAINTENANCE PLAN.
THE OUTLET STRUCTURE SHALL BE KEPT FREE OF DEBRIS AT ALL TIMES.
MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE LAND ON WHICH THE POST CONSTRUCTION BMP IS LOCATED.

ALL SEDIMENT REMOVED FROM BMPS SHALL BE DIPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.

RESPONSIBLE PARTY:

KHAN PARTNERSHIP
1146 S. CEDAR CREST BOULEVARD
ALLENTOWN, PA 18103

DRAWING INDEX

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN – OVERALL PLAN	PCSM-1 OF 4
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POST CONSTRUCTION STORMWATER MANAGEMENT PLAN – DETAILS	PCSM-3 OF 4
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN – DETAILS	PCSM-4 OF 4

5.6.3 RE-VEGETATE AND REFOREST DISTURBED AREAS USING NATIVE SPECIES

TREE CALIPERS ARE MEASURED AT A HEIGHT OF FOUR AND A HALF FEET (4.5) ABOVE FINISHED GRADE.
5.6.3 REVEGETATE AND RE-FOREST DISTURBED AREAS USING NATIVE SPECIES

PART 2 : REVEGETATE AND REFOREST
–TREE SPECIES ARE NATIVE SPECIES (ACCORDING TO APPENDIX A OF PENNSYLVANIA STORMWATER MANAGEMENT MANUAL)
–ALL TREES HAVE MINIMUM 2" CALIPER AND THE MINIMUM TREE HEIGHT IS 6 FEET.
–TREES CREDITED FOR STORMWATER MANAGEMENT SHALL BE RECORDED ON RECORD PLAN FOR THE PROJECT
–TREES SHALL BE ADEQUATELY PROTECTED DURING CONSTRUCTION.
–TREES SHALL BE MAINTAINED AND PROTECTED FOR THE LIFE OF THE PROJECT (50 YEARS) OR UNTIL REDEVELOPMENT OCCURS. ESCROW SHALL BE PROVIDED FOR THE REPLACEMENT OF ANY PROTECTED TREES USED FOR STORMWATER CREDIT WITHIN 5 YEARS OF CONSTRUCTION. DEAD TREES SHALL BE REPLACED WITHIN 6 MONTHS.

ANY CHANGES TO SPECIES OF RE-VEGETATE/REFOREST IS REQUIRED TO BE REVIEWED AND APPROVED BY LCCD AND THE CITY OF ALLENTOWN.

PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL CHAPTER 8
PART 2 REVEGETATE AND REFOREST
TO RECEIVE CREDIT FOR PLANTING TREES, THE FOLLOWING CRITERIA MUST BE MET:
☒ TREES MUST BE NATIVE SPECIES (SEE APPENDIX), MINIMUM 2"-CALIPER. MINIMUM TREE HEIGHT IS 6 FEET.
☒ TREES SHALL BE ADEQUATELY PROTECTED DURING CONSTRUCTION.
☒ TREES CREDITED FOR STORMWATER MANAGEMENT SHALL BE CLEARLY LABELED ON THE CONSTRUCTION DRAWINGS AND RECORDED ON RECORD PLAN FOR PROJECT.
☒ TREES SHALL BE MAINTAINED AND PROTECTED FOR THE LIFE OF THE PROJECT (50 YEARS) OR UNTIL REDEVELOPMENT OCCURS.
☒ NO MORE THAN 25% OF THE RUNOFF VOLUME CAN BE MITIGATED THROUGH THE USE OF TREES.
☒ ESCROW SHALL BE PROVIDED FOR THE REPLACEMENT OF ANY PROTECTED TREES USED FOR STORMWATER CREDIT THAT DIE WITHIN 5 YEARS OF CONSTRUCTION. DEAD TREES SHALL BE REPLACED WITHIN 6 MONTHS.
☒ SHALL BE LOCATED ON THE DEVELOPMENT PROJECT.
☒ MAY BE APPLIED FOR TREES REQUIRED UNDER STREET TREE OR LANDSCAPING REQUIREMENTS.
☐ MAY BE APPLIED FOR TREES PLANTED AS PART OF RIPARIAN BUFFER IMPROVEMENT.
☒ NON-NATIVE SPECIES ARE NOT APPLICABLE.

** CREDITS
VOLUME and QUALITY
A VOLUME REDUCTION MAY BE CREDITED BASED UPON THE EXISTING TREE CANOPY.
FOR DECIDUOUS TREES:
VOLUME REDUCTION (FT3) = 6 FT3
FOR EVERGREEN TREES:
VOLUME REDUCTION (FT3) = 10 FT3

PEAK RATE AND CHANNEL PROTECTION
THE PEAK RATE FOR FLOOD PROTECTION AND CHANNEL PROTECTION WILL BE REDUCED BY THE REDUCTION IN RUNOFF VOLUME PROVIDED ABOVE.

** TREES HAVE BEEN USED FOR WATER QUALITY CREDITS ONLY

STREET SWEEPING :

THE STREET SWEEPING SHALL BE COMPLETED BY THE OWNER IN ACCORDANCE WITH THE CITY OF ALLENTOWN ON A QUARTERLY BASIS, AT THE MINIMUM.

OPERATION AND MAINTENANCE PROCEDURES:
1. ALL PARKING AND ROADWAY AREAS SHALL BE SWEPT WITH A DRY VACUUM FILTER SWEEPER AT A MINIMUM OF 4 TIMES PER YEAR (EVENLY SPACED). MORE SWEEPING MAY BE REQUIRED BASED ON THE AMOUNT OF SILTS AND FINES PRESENT IN THE SITE SPECIFIC POLLUTANT LOAD.
2. SWEEPING SHALL OCCUR DURING OFF BUSINESS TIMES. IF NEEDED, SIGNAGE SHOULD BE INSTALLED AS TO THE EXACT TIME OF THE SWEEPING ACTIVITY.
3. SWEEPER AND VACUUMS SHALL BE ADJUSTED AS NEEDED FOR SEASON VARIATIONS AND SURFACE TYPE.
4. SWEEPING SHALL OCCUR DURING DRY PERIODS.
5. SWEEPING THAT ARE CANCELED SHALL BE RESCHEDULED AS NEEDED.
6. ALL SURFACES SHALL BE MONITORED TO ENSURE THAT THE SWEEPING SCHEDULE IS ADEQUATE.

STREET SWEEPING SCHEDULES:

ROUTINE SCHEDULE
STREET SWEEPING SHALL BE PERFORMED A MINIMUM OF FOUR TIMES PER YEAR (EVENLY SPACED).

NON-ROUTINE SCHEDULE
NON-ROUTINE SCHEDULE SHALL BE PERFORMED ON AN AS-NEEDED BASIS.

BMP 6.6.3: DRY EXTENDED DETENTION BASIN

CONSTRUCTION SEQUENCE
1. INSTALL ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS.
   a. THE AREA IMMEDIATELY ADJACENT TO THE BASIN MUST BE STABILIZED IN ACCORDANCE WITH THE PADEP'S EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (2000 OR LATEST EDITION) PRIOR TO BASIN CONSTRUCTION.
2. PREPARE SITE FOR EXCAVATION AND/OR EMBANKMENT CONSTRUCTION.
   a. ALL EXISTING VEGETATION SHOULD REMAIN IF FEASIBLE AND SHOULD ONLY BE REMOVED IF NECESSARY FOR CONSTRUCTION.
   b. CARE SHOULD BE TAKEN TO PREVENT COMPACTION OF THE BASIN BOTTOM.
   c. IF EXCAVATION IS REQUIRED, CLEAR THE AREA TO BE EXCAVATED OF ALL VEGETATION. REMOVE ALL TREE ROOTS, ROCKS, AND BOULDERS ONLY IN EXCAVATION AREA
3. EXCAVATE BOTTOM OF BASIN TO DESIRED ELEVATION (IF NECESSARY).
4. INSTALL SURROUNDING EMBANKMENTS AND INLET AND OUTLET CONTROL STRUCTURES.
5. GRADE SUBSOIL IN BOTTOM OF BASIN, TAKING CARE TO PREVENT COMPACTION. COMPACT SURROUNDING EMBANKMENT AREAS AND AROUND INLET AND OUTLET STRUCTURES.
6. APPLY AND GRADE PLANTING SOIL.
7. APPLY GEO-TEXTILES AND OTHER EROSION-CONTROL MEASURES.
8. SEED, PLANT AND MULCH ACCORDING TO PLANTING PLAN
9. INSTALL ANY ANTI-GRAZING MEASURES, IF NECESSARY.

MAINTENANCE
MAINTENANCE IS NECESSARY TO ENSURE PROPER FUNCTIONALITY OF THE EXTENDED DETENTION BASIN AND SHOULD TAKE PLACE ON A QUARTERLY BASIS. A BASIN MAINTENANCE PLAN SHOULD BE DEVELOPED WHICH INCLUDES THE FOLLOWING MEASURES:
- ALL BASIN STRUCTURES EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT SHOULD BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES PER YEAR, AS WELL AS AFTER EVERY STORM GREATER THAN 1 INCH.
- STRUCTURES INCLUDE BASIN BOTTOMS, TRASH RACKS, OUTLETS STRUCTURES, RIPRAP OR GABION STRUCTURES, AND INLETS.
- SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE BASIN IS COMPLETELY DRY. SEDIMENT SHOULD BE DISPOSED OF PROPERLY AND ONCE SEDIMENT IS REMOVED, DISTURBED AREAS NEED TO BE IMMEDIATELY STABILIZED AND REVEGETATED.
- MOWING AND/OR TRIMMING OF VEGETATION SHOULD BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM, BUT ALL DETRITUS SHOULD BE REMOVED FROM THE BASIN.
- VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR EROSION.
- VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR UNWANTED GROWTH OF EXOTIC/INVASIVE SPECIES.
- VEGETATIVE COVER SHOULD BE MAINTAINED AT A MINIMUM OF 95 PERCENT. IF VEGETATIVE COVER HAS BEEN REDUCED BY 10% VEGETATION SHOULD BE REESTABLISHED.

SOIL LIMITATIONS AND RESOLUTIONS

THESE ARE THE LIMITATIONS AND RESOLUTION THAT AFFECT THE ON SITE SOILS FOR THIS PROJECT:

SINKHOLE FORMATION
PROPER CARE SHOULD BE TAKEN TO PREVENT SINKHOLE FORMATION, SINKHOLES, IF DEVELOP, SHOULD BE APPROPRIATELY HANDLED AND REPAIRED PER THE SINKHOLE REMEDIATION DETAIL IN THE PLAN SET. IN THE EVENT OF SINKHOLE DISCOVERY A PROFESSIONAL GEOLOGIST OR ENGINEER WILL BE CONTACTED CONCERNING MITIGATION. ADDITIONALLY, LEHIGH COUNTY CONSERVATION DISTRICT WILL BE MADE AWARE OF THE SINKHOLE DISCOVERY IMMEDIATELY.
IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED OR WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE
IF WATER IS ENCOUNTERED DURING EXCAVATION OR TRENCHING, A PUMPED WATER BAG SHALL BE USED TO REMOVE SEDIMENT FROM THE WATER BEFORE IT IS DISCHARGED TO A STABILIZED LOCATION. (SEE E&S DRAWING FOR DETAILS).

CUTBANKS CAVE EXCAVATION – EXCAVATION SHALL BE SHALLOW. IF SHALLOW IS NOT POSSIBLE USE TRENCH BOXES OR SHORING AS REQUIRED TO MEET OSHA REQUIREMENTS AND LOCAL CONDITIONS.

LOW STRENGTH/LANDSLIDE – DO NOT PERFORM TRENCHING, PRONE BACKFILLING OR COMPACTING WHEN WEATHER CONDITIONS OR THE CONDITION OF MATERIAL IS SUCH, IN THE OPINION OF THE ENGINEER, THAT WORK CANNOT BE PERFORMED SATISFACTORY.

PIPING – ANTI-SEEP COLLARS ARE TO BE UTILIZED, AS NEEDED

WINTER GRADING
WINTER GRADING SHALL DONE IN A CAREFUL MANNER. EXTRA STABILIZATION METHODS MAY BE NEEDED TO STABILIZE DISTURBED EARTH UNTIL THE GROWING SEASON. SEE THE GENERAL EROSION CONTROL NOTES ABOUT WINTER GRADING CONCERN.

ERODED SOILS
SWALES AND SLOPES ARE DESIGNED WITH EROSION CONTROL MATTING TO PREVENT EROSION UNTIL PERMANENT STABILIZATION IS ESTABLISHED.

POOR SOURCE TO TOP SOIL
AN ONSITE INVESTIGATION REVEALED SUFFICIENT AMOUNTS OF FILL AVAILABLE FOR THE PROJECT.

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

SHRINK – SWELL
DO NOT USE BACKFILL MATERIALS CONTAINING MOISTURE IN EXCESS OF THE AMOUNT NECESSARY FOR COMPACTION.
THE AVAILABILITY OF ROADFILL
AN ONSITE INVESTIGATION REVEALED SUFFICIENT AMOUNTS OF FILL AVAILABLE FOR THE PROJECT.

ALSO KEEP A PUMPED WATER FILTER BAG ON SITE SINCE GROUND WATER MAY BE ENCOUNTERED DURING GRADING AND TRENCHING.
(SEE E&S DRAWINGS FOR DETAILS).
THERE ARE NO OTHER MAJOR LIMITATIONS TO THE SOILS ONSITE.
THESE SOILS SHOULD NOT LIMIT THE PROPOSED DEVELOPMENT.

BMP INSPECTION NOTE:

THE OWNER SHALL MAINTAIN A LOG DETAILING ALL INSPECTIONS AND MAINTENANCE PERFORMED ON STORMWATER BMP'S. THE LOG SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO THE CITY REGULATORY OFFICIALS AT THE TIME OF THEIR INSPECTION.

RESPONSIBLE PARTY DATA:

DEVELOPER / APPLICANT: KHAN PARTNERSHIP
1146 S. CEDAR CREST BOULEVARD
ALLENTOWN, PA 18103

PARCEL INFORMATION

UNIFORM PARCEL IDENTIFIER (UPI)/ ADDRESS:	TAX PARCEL ID# PIN NUMBER:
1102–1132 S. 5TH STREET	640636625261 1
1101–1131 S. 6TH STREET	640636415274 1
1029–1031 S. 6TH STREET	640636238192 1
1102–1110 S. 6TH STREET	640636115157 1
1101–1123 S. 6TH STREET	640635292480 1
1112–1118 S. 6TH STREET	640636447004 1
515–521 CUMBERLAND STREET	640636447004 1
523 CUMBERLAND STREET	640636432866 1
523.5 CUMBERLAND STREET	640636431821 1
525 CUMBERLAND STREET	640636339796 1
527 CUMBERLAND STREET	640636338629 1
1125 S. 7TH STREET (REAR)	640635181690 1
527 CUMBERLAND STREET (REAR)	640636345357 1
516–522 RYE STREET	640636444722 1
526 RYE STREET	640636348459 1

MUNICIPALITY: CITY OF ALLENTOWN, COUNTY: LEHIGH
LOT(S): 15 UNIT(S): N/A

SOIL CLASSIFICATION

THIS SOIL TAKEN FROM THE SOIL SURVEY OF LEHIGH COUNTY, PA PERFORMED BY THE U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE, DATED NOVEMBER 1963, THIS SITE IS FOUND ON MAP PAGE 32.

MADE LAND, LIMESTONE MATERIAL – 8% SLOPES**
(MeB)
SUITABILITY:
WINTER GRADING – VARIABLE
ROAD FILL – FAIR
TOPSOIL –
UNSUITABLE SUSCEPTIBILITY TO FROST HEAVING – LOW
DEPTH TO BEDROCK – N/A

MADE LAND, LIMESTONE MATERIAL, 8 – 25% SLOPES
(MeD)
SUITABILITY:
WINTER GRADING – VARIABLE
ROAD FILL – FAIR
TOPSOIL –
UNSUITABLE
SUSCEPTIBILITY TO FROST HEAVING – LOW
DEPTH TO BEDROCK – N/A

IDENTIFICATION OF THE NATURALLY OCCURRING GEOLOGIC FORMATIONS

OR SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION DURING EARTH DISTURBANCE ACTIVITIES AND INCLUDE BMPS TO AVOID OR MINIMIZE POTENTIAL POLLUTION AND ITS IMPACTS FROM SUCH FORMATIONS.
THE SOILS ONSITE ARE SUSCEPTIBLE TO SINKHOLE FORMATION. A SINKHOLE REMEDIATION DETAIL HAS BEEN ADDED TO THE PLAN SET. PROPER CARE SHOULD BE TAKEN TO PREVENT SINKHOLE FORMATION. SINKHOLES, IF THEY DEVELOP, SHOULD BE APPROPRIATELY HANDLED.
IN THE EVENT OF SINKHOLE DISCOVERY A PROFESSIONAL GEOLOGIST, TOWNSHIP ENGINEER WILL BE CONTACTED CONCERNING MITIGATION. ADDITIONALLY, THE LEHIGH COUNTY CONSERVATION DISTRICT WILL BE MADE AWARE OF THE SINKHOLE DISCOVERY IMMEDIATELY.
IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED OR WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

IDENTIFICATION OF POTENTIAL THERMAL IMPACTS

THE PROJECT PROPOSES REMOVING EXISTING IMPERVIOUS SURFACES. THE TOTAL PROPOSED IMPERVIOUS AREAS SHALL BE LESS IN POST-DEVELOPMENT CONDITION THAN THE PRE-DEVELOPMENT CONDITION THAT WILL RESULT IN MINIMIZING THE THERMAL IMPACTS ASSOCIATED WITH THE PROJECT.
IN ADDITION TO THAT THE PROPOSED LANDSCAPING (TREES) WILL ALLOW STORMWATER RUNOFF TO COOL PRIOR TO REACHING THE WATERS OF THE COMMONWEALTH.
ALSO DURING CONSTRUCTION COMPOST SILT SOCKS SHALL BE UTILIZED. WHEN THE WATER RUN THROUGH THE SOCKS THEY SLOW THE RATE OF RUNOFF, REDUCING PEAK FLOWS AND THEY DO NOT STORE OR IMPOUND THE STORM RUNOFF THEREFORE USING THE COMPOST FILTER SOCKS MINIMIZE THE THERMAL IMPACTS ASSOCIATED WITH THE PROJECT.

E&S PLAN CONSISTENT WITH PCSM PLAN.

THE E&S PLAN SHALL BE PLANNED, DESIGNED AND IMPLEMENTED TO BE CONSISTENT WITH THE PCSM PLAN UNDER § 102.8 (RELATING TO PCSM REQUIREMENTS). UNLESS OTHERWISE APPROVED BY THE DEPARTMENT, THE E&S PLAN SEPARATE FROM THE PCSM PLAN AND LABELED "EROSION AND SEDIMENT CONTROL PLAN" AND BE THE FINAL PLAN FOR CONSTRUCTION.

IDENTIFICATION OF EXISTING AND PROPOSED RIPARIAN FOREST BUFFERS.

THERE ARE NO EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS ASSOCIATED WITH THIS PROJECT.

LAND USE

PAST LAND USE: MANUFACTURING PRIOR TO 2005
PRESENT LAND USE: VACANT LOT FOR THE PAST 17 YEARS.
PROPOSED LAND USE: APARTMENTS

PCSM WAIVERS

THE PROJECT IS NOT REQUESTING ANY WAIVERS FOR ALTERNATIVE ANALYSIS FOR COMPLIANCE WITH RIPARIAN BUFFERS.

CRITICAL STAGES:

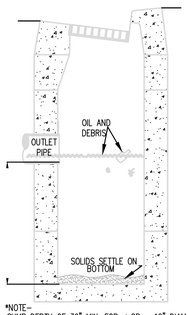
THIS PROJECT HAS A SOIL MANAGEMENT PLAN IN PLACE WHICH MUST BE FOLLOWED FOR ANY EARTH DISTURBANCE ON SITE. ALL PARTIES RESPONSIBLE FOR EARTH DISTURBANCE SHALL READ AND FOLLOW THE RECOMMENDATIONS IN THE SOIL MANAGEMENT PLAN REPORT PREPARED BY GTA FOR THIS PROJECT. THE OVERALL SOIL MANAGEMENT PLAN (NPDES PLAN SHEET 10) ACCOMPANIES GTA'S SOIL MANAGEMENT PLAN REPORT.

THE CRITICAL STAGES OF IMPLEMENTATION OF PCSM BMP'S FOR WHICH A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT ON SITE INCLUDE THE:
1) THE CONSTRUCTION OF DRY EXTENDED DETENTION BASINS 1, 2, 3, 4 AND 5.
2) THE CONSTRUCTION OF THE PROPOSED INLETS WITH SUMP.
3) THE INSTALLATION OF WATER QUALITY TREES

THESE BMP'S ARE REQUIRED TO BE INSPECTED DURING INSTALLATION AND MUST BE SIGNED OFF ON PRIOR TO NOTICE OF TERMINATION. THE RESPONSIBLE PARTY, AND/OR AN AGENT OF SUCH AS WELL AS THE DESIGN PROFESSIONAL AND/OR AN AGENT OF SUCH WILL BE PRESENT ON-SITE DURING THE INSTALLATION OF THE PROPOSED BMP'S.

FILL MATERIALS

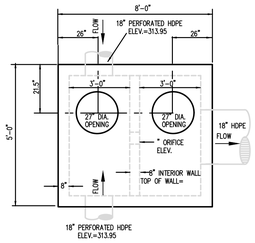
WHEN FILL IS TO BE IMPORTED FROM OFF-SITE, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THAT THE FILL IS CLEAN FILL AND TO PERFORM THE ENVIRONMENTA



*NOTE-
SUMP DEPTH OF 36" MIN. FOR < OR = 12" DIAM. OUTLET. FOR OUTLETS >OR= 15", DEPTH = 2.5-3X DIAM.

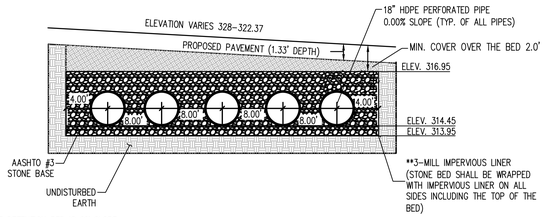
ANY STRUCTURE JOINT BELOW THE EFFLUENT INLET SHALL BE WATER TIGHT.

SUMPED INLET



OUTLET CONTROL STRUCTURE OCS-1
SUBSURFACE DETENTION BASIN #1

BED SIZE = 40' x 208'



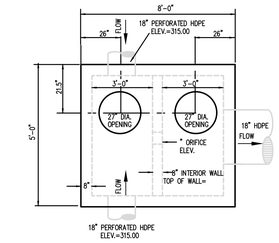
NOTE: THE BOTTOM OF THE DETENTION BED IS 0% SLOPE

** 3 MIL IMPERVIOUS LINER SHALL MEET THE FOLLOWING PROPERTIES:

A. GRAB TENSILE STRENGTH (ASTM-D4632)	120 LBS
B. MULLEN BURST STRENGTH (ASTM-D3786)	225 PSI
C. FLOW RATE (ASTM-D4491)	95 GAL/MIN/FT2
D. UV RESISTANCE AFTER 500 HRS (ASTM-D4355)	70%

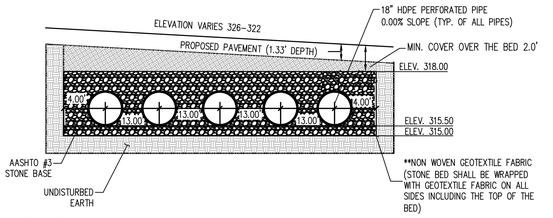
E. HEAT-SET OR HEAT-CALENDARED FABRICS ARE NOT PERMITTED
ACCEPTABLE TYPES INCLUDE MIRAFI 140N, AMOCO 4547, AND GEOTEX 451.

BASIN #1 SUBSURFACE DETENTION BASIN CROSS-SECTION



OUTLET CONTROL STRUCTURE OCS-2
SUBSURFACE INFILTRATION BASIN #2

BED SIZE = 60' x 150'



NOTE: THE BOTTOM OF THE INFILTRATION BED IS 0% SLOPE

** NON-WOVEN GEOTEXTILE SHALL CONSIST OF NEEDLED NON-WOVEN POLYPROPYLENE FIBERS AND MEET THE FOLLOWING PROPERTIES:

A. GRAB TENSILE STRENGTH (ASTM-D4632)	120 LBS
B. MULLEN BURST STRENGTH (ASTM-D3786)	225 PSI
C. FLOW RATE (ASTM-D4491)	95 GAL/MIN/FT2
D. UV RESISTANCE AFTER 500 HRS (ASTM-D4355)	70%

E. HEAT-SET OR HEAT-CALENDARED FABRICS ARE NOT PERMITTED
ACCEPTABLE TYPES INCLUDE MIRAFI 140N, AMOCO 4547, AND GEOTEX 451.

BASIN #2 SUBSURFACE INFILTRATION BASIN CROSS-SECTION

OWNER'S CERTIFICATION

WE THE UNDERSIGNED BEING DULY SWORN ACCORDING TO LAW DEPOSE AND SAY THAT WE ARE THE SOLE OWNERS OF THE TRACT SHOWN HEREON IN PEACEFUL POSSESSION OF THE SAME AND THAT THERE ARE NO SUITS OR ACTIONS PENDING OR AFFECTING THE SAME.

SWORN AND SUBSCRIBED BEFORE ME THIS ____ DAY OF _____, A.D. 20__

_____
NOTARY PUBLIC

NOTARY SEAL

MY COMMISSION EXPIRES: _____

CITY OF ALLENTOWN PLANNING COMMISSION CERTIFICATION

THE WITHIN PLOT OR PLAN OF LAND LOCATED IN ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA, WAS APPROVED BY THE ALLENTOWN CITY PLANNING COMMISSION.

_____CHAIRMAN DATE

_____PLANNING DIRECTOR DATE

_____SECRETARY DATE

APPROVED: _____
CITY ENGINEER

PROOF OF RECORDING

PLAN RECORDED IN THE OFFICE OF THE RECORDER IF DEEDS OF LEHIGH COUNTY, PENNSYLVANIA, IN DOCKET ID_____ ON THE_____ DAY OF_____ 20____
WITNESS MY HAND AND SEAL OF OFFICE THIS_____ DAY OF_____ 20____

_____
WITNESS

_____
RECORDER OF DEEDS

_____ _____
DATE

NO	REVISION	BY	DATE

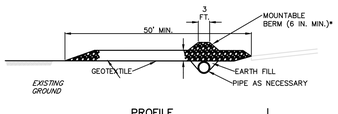
PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:
THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

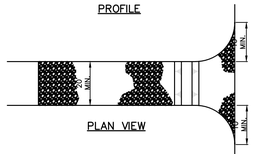
PREPARER:
Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:
FINAL PLAN
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN - DETAILS

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: PCSM-3
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 23 OF 27



PROFILE



PLAN VIEW

NOTES:

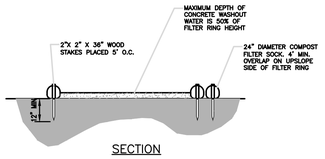
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

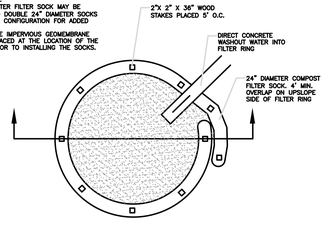
MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE



SECTION

NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
2. 18" DIAMETER FILTER SOCK MAY BE STAKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.

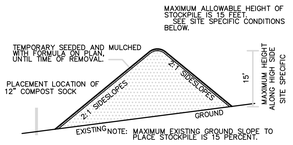


ADAPTED FROM FILTREXX

PLAN

TYPICAL COMPOST SOCK WASHOUT INSTALLATION

NOT TO SCALE



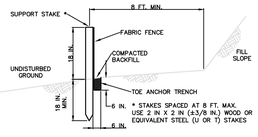
STOCKPILED (TOPSOIL AND SUBSOIL) & FILL MATERIAL

NO SCALE

MAINTENANCE:
1. THE STOCKPILED TOPSOIL AND FILL MATERIAL WILL BE INSPECTED ON A DAILY BASIS AND AFTER EVERY RUNOFF EVENT. ALL NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
2. ALL STOCKPILES WILL BE TEMPORARY SEEDED AND MULCHED AT ALL TIMES.



JOINING FENCE SECTIONS



SECTION VIEW

NOTES:

FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL.

FABRIC WIDTH SHALL BE 30 IN. MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES.

SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.

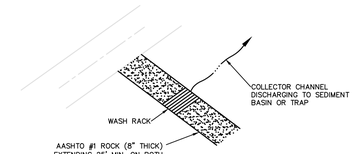
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (STANDARD CONSTRUCTION DETAIL # 4-6).

FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY

STANDARD CONSTRUCTION DETAIL #4-7
STANDARD SILT FENCE (18" HIGH)

NOT TO SCALE



NOTES:

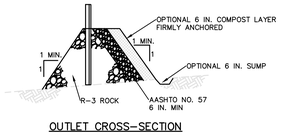
WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.

WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

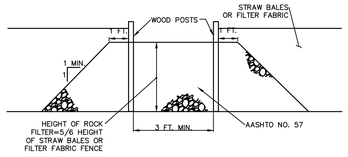
A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-2
ROCK CONSTRUCTION ACCESS WITH WASH RACK



OUTLET CROSS-SECTION



UP-SLOPE FACE

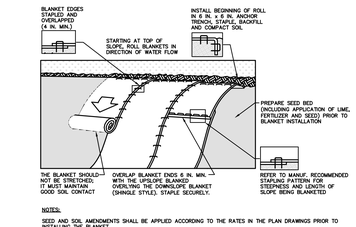
NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET

NOT TO SCALE



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

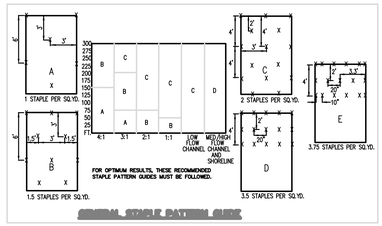
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

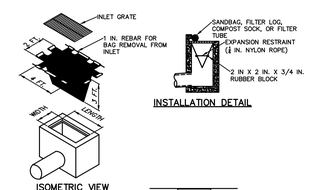
THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 24 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE





NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

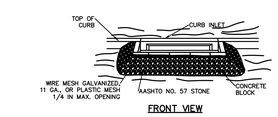
ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE. BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

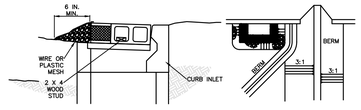
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 290 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-15
FILTER BAG INLET PROTECTION - TYPE C INLET





NOTES:

MAXIMUM DRAINAGE AREA = 1 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE. BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

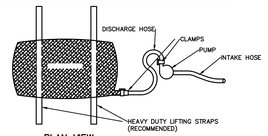
FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-17

NOT TO SCALE
USE FOR INLET :1-4

STONE AND CONCRETE BLOCK INLET PROTECTION - TYPE C INLET



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

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON PAVED SURFACES, CURBING, OR ON TOP OF STONE INLET GRATES. CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

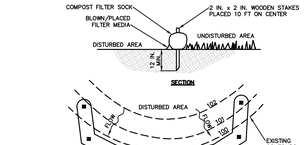
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

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

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK

NOT TO SCALE

TABLE #4-1

COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE *	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12"* 18"* 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % RETENTION (ASTM G-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET CONTINUOUSLY WOUND POLYPROPYLENE FIBRES 3/4" X 3/4" MAX. APERTURE SIZE				
OUTER FILTRATION MESH	COMPOST BIO-STRIP/LITE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE LAYER LAMINATED BY NEEDLE PUNCH) 3/16" MAX. APERTURE SIZE				
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.					

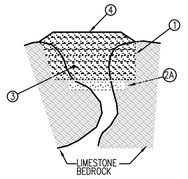
* INDICATES THE LINING TYPE TO BE USED IN THIS PROJECT.

TABLE 4.2
COMPOST STANDARDS

ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
PH	5.5-8.5
MOISTURE CONTENT	30%-60%
PARTICLE SIZE	30%-50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 DS/M (MMHOS/CM) MAXIMUM

FILTREXX SOXX
PROVIDER/INSTALLER
HILLTOP SERVICE INC.
16403 POTTSVILLE PIKE
HAMBURG, PA 19526
(610)-562-3124
FAX: (610)-562-9653

STANDARD CONSTRUCTION DETAIL #11-1
SINKHOLE CONDITIONS



1. EXCAVATE DOWN TO ROCK TO SINKHOLE THROAT OR TO A DEPTH OF 58 FEET BELOW GRADE, WHICHEVER OCCURS FIRST.

2A. IF NO ROCK IS ENCOUNTERED: PLUG SOIL THROAT WITH GROUT OR CONCRETE. IF A CLEARLY DEFINED THROAT IS NOT ENCOUNTERED AFTER 10 FEET; STOP EXCAVATION. GENERALLY; A ZONE OF SOFT, IN-FILL MATERIAL WILL BE FOUND WHICH COVERS MOST OF THE BOTTOM OF THE EXCAVATION. COVER THIS AREA WITH 4 FEET OF CONCRETE EXTENDING AT LEAST 1 FOOT INTO FIRM SOIL. IF THE SOFT ZONE IS LARGER (>3 FT.), REINFORCING STEEL SHOULD BE INCLUDED WITHIN THE CONCRETE CAP.

IN BUILDING STRUCTURAL AREAS, IF ROCK IS NOT ENCOUNTERED, COMPACTION GROUTING IS RECOMMENDED.

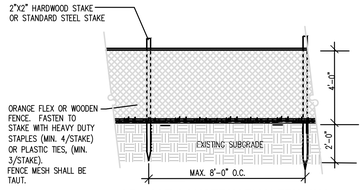
2B. IF ROCK IS ENCOUNTERED: CLEAN SURFACE AND PLACE HIGH-SLUMP CEMENT GROUT INTO OPEN VOIDS AND CREVICES UNTIL VOIDS ARE FILLED. IF SEVERAL CUBIC YARDS OF GROUT DO NOT FILL VOIDS, USE A STIFFER, LEAN CONCRETE MIX. IF A SINKHOLE IS ENCOUNTERED POST-CONSTRUCTION, COMPACTION GROUTING IS RECOMMENDED

3. AFTER CONCRETE HAS SET OVERNIGHT, BACKFILL HOLE WITH RELATIVELY IMPERMEABLE SOIL. COMPACT SOIL IN 6" LIFTS WITH A POWER TAMPER OR RAMMER. TWO COMPLETE COVERAGES SHOULD BE USED ON EACH LIFT.

4. BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.

5. WHEN SINKHOLE IS UNDER A PROPOSED UTILITY, CONCRETE IS TO BE SET 6" BELOW THE UTILITY TO ALLOW FOR A STONE BEDDING.

6. SINKHOLE REMEDIATION SHOULD BE PERFORMED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER.



ORANGE CONSTRUCTION FENCING

TABLE #11-1

CUBIC YARDS OF TOPSOIL REQUIRED FOR APPLICATION TO VARIOUS DEPTHS

DEPTH (IN.)	PER 1,000 SQUARE FEET	PER ACRE
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806
7	21.7	940
8	24.8	1,074

OWNER'S CERTIFICATION

WE THE UNDERSIGNED BEING DULY SWORN ACCORDING TO LAW DEPOSE AND SAY THAT WE ARE THE SOLE OWNERS OF THE TRACT SHOWN HEREON IN PEACEFUL POSSESSION OF THE SAME AND THAT THERE ARE NO SUITS OR ACTIONS PENDING OR AFFECTING THE SAME.

SWORN AND SUBSCRIBED BEFORE ME THIS ____ DAY OF _____, A.D. 20__

_____
NOTARY PUBLIC

NOTARY SEAL

MY COMMISSION EXPIRES: _____

CITY OF ALLENTOWN PLANNING COMMISSION CERTIFICATION

THE WITHIN PLOT OR PLAN OF LAND LOCATED IN ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA, WAS APPROVED BY THE ALLENTOWN CITY PLANNING COMMISSION.

_____CHAIRMAN DATE

_____PLANNING DIRECTOR DATE

_____SECRETARY DATE

APPROVED: _____
CITY ENGINEER

PROOF OF RECORDING

PLAN RECORDED IN THE OFFICE OF THE RECORDER IF DEEDS OF LEHIGH COUNTY, PENNSYLVANIA, IN DOCKET ID_____ ON THE_____ DAY OF_____ 20____.
WITNESS MY HAND AND SEAL OF OFFICE THIS_____ DAY OF_____ 20____.

_____
WITNESS

_____
RECORDER OF DEEDS

_____ _____
DATE

NO	REVISION	BY	DATE

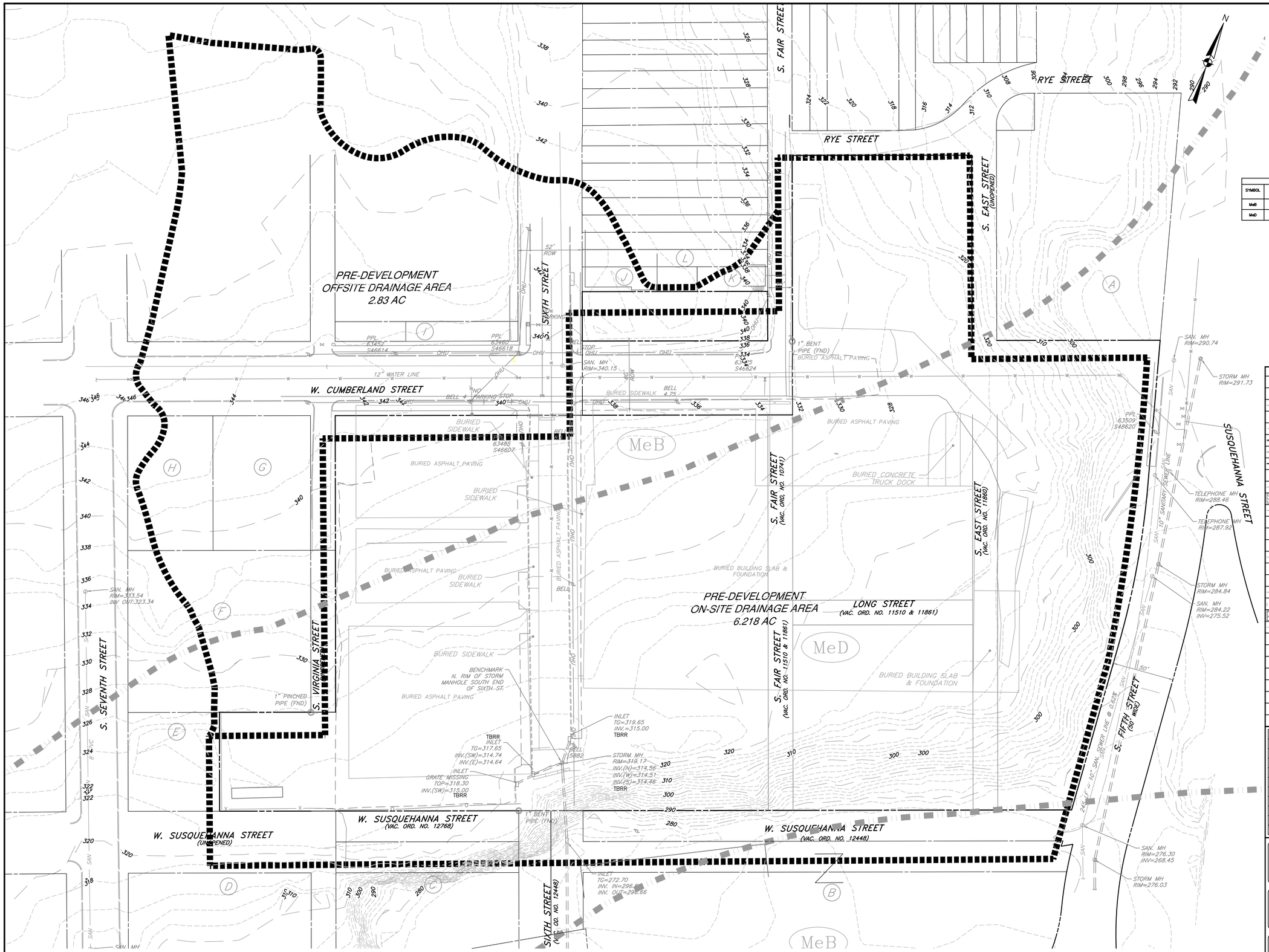
PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

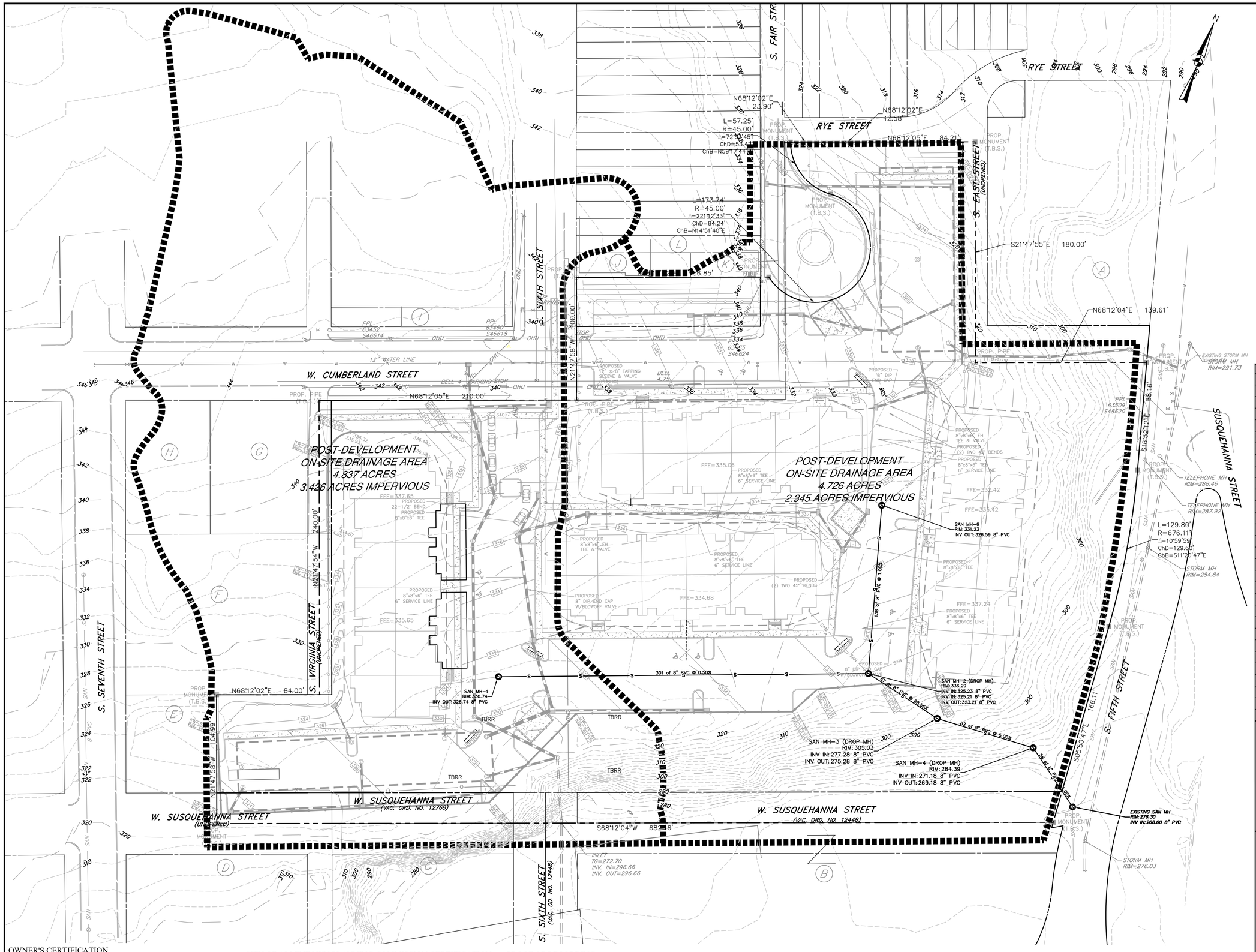
CLIENT:
THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:
Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:
FINAL PLAN
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN - DETAILS

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: PCSM-4
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 24 OF 27


PRE-DEVELOPMENT
OFFSITE DRAINAGE AREA
2.83 AC
PRE-DEVELOPMENT
ON-SITE DRAINAGE AREA
6.218 AC
W. CUMBERLAND STREET
W. SUSQUEHANNA STREET
(VAC. ORD. NO. 12768)
W. SUSQUEHANNA STREET
(UNOPENED)
W. SUSQUEHANNA STREET
(VAC. ORD. NO. 12448)
S. SEVENTH STREET
S. VIRGINIA STREET
SIXTH STREET
S. FAIR STREET
(VAC. ORD. NO. 10741)
S. FAIR STREET
(VAC. ORD. NO. 11510 & 11861)
SIXTH STREET
(VAC. ORD. NO. 12448)
S. EAST STREET
(UNOPENED)
S. EAST STREET
(VAC. ORD. NO. 11860)
RYE STREET
LONG STREET
(VAC. ORD. NO. 11510 & 11861)
SUSQUEHANNA STREET
S. FIFTH STREET
(50' WIDE)
MeB
MeD
52' ROW
12" WATER LINE
BURIED SIDEWALK
BURIED ASPHALT PAVING
BURIED CONCRETE TRUCK DOCK
BURIED BUILDING SLAB & FOUNDATION
BENCHMARK
N. RIM OF STORM MANHOLE SOUTH END OF SIXTH ST.
1" PINCHED PIPE (FND)
1" BENT PIPE (FND)
INLET
TG=319.65
INV.=315.00
TBRR
INLET
TG=317.65
INV.(SW)=314.74
INV.(E)=314.64
INLET
GRATE MISSING
TOP=318.30
INV.(SW)=315.00
TBRR
STORM MH
RIM=319.17
INV.(N)=314.56
INV.(W)=314.51
INV.(S)=314.46
TBRR
INLET
TG=272.70
INV. IN=296.
INV. OUT=295.66
SAN. MH
RIM=340.15
SAN. MH
RIM=290.74
STORM MH
RIM=291.73
TELEPHONE MH
RIM=288.46
TELEPHONE MH
RIM=287.92
STORM MH
RIM=284.84
SAN. MH
RIM=284.22
INV=275.52
SAN. MH
RIM=276.30
INV=268.45
STORM MH
RIM=276.03
SAN. MH
RIM=333.54
INV OUT:323.34
24"LF ± 10" SAN. SEWER LINE @ 0.62% SLOPE
10" SANITARY SEWER LINE
PPL
63457
S46614
PPL
63460
S46618
PPL
63509
S48628
PPL
63465
S46607
PPL
63462
S46624
BELL
4.75
BELL
4.75
BELL
4.75



CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE--STOP CALL

1-800-242-1776

Know what's **below.** **Call** before you dig.

1-CALL NO. 20220112214 DATE: 01/12/22

EXISTING	TYPE	PROPOSED
	BUILDING SETBACK LINE	
	CONCRETE MONUMENT	
500	CONTOUR MAJOR	500
TEXT	DECIDUOUS TREE	TEXT
	BRUSH / WOODED AREA	
	DRAINAGE AREA BOUNDARY	
	CURB	
	LEGAL RIGHT-OF-WAY	
	LIGHT POLE / FLOOD LIGHT	
	FENCE	
	EASEMENT	
GAS	GAS LINE	GAS
TEXT	PROBE (FAILED)	
	PERC TEST HOLE(S)	
	FIRE HYDRANT	
W	WATER LINE / VALVE	W
(P)	WELL	(W)
400.05	SPOT ELEVATION	400.05
OHU	OVERHEAD UTILITIES	OHU
	WETLAND BUFFER	
	FLOOD PLAIN	
	WATER EDGE	
	L.O.D. / NPDES	LOD
	EROSION CONTROL MAT	S75BN
	INLET PROTECTION	
	FILTER FENCE W/ LABEL	FF-1
	RIP-RAP OUTLET PROT.	
	BAFFLE W/ LABEL	BAFFLE 1
	PAVEMENT RECONSTRUCTION	
	SAWCUT	

EXISTING	TYPE	PROPOSED
	PROPERTY LINE	
	IRON PIN OR PIPE	
500	CONTOUR MINOR	500
TEXT	EVERGREEN TREE	TEXT
	SOILS BOUNDARY	
	TIME OF CONCENTRATION	
	EDGE OF PAVEMENT	
	TO BE REMOVED	TBR / RAZED
	SIGN	
	GUIDERAIL	
	EASEMENT LINE	
D TEXT	STORM SEWER MH/INLET/LINE	D TEXT
TEXT	PROBE (PASSED)	
	PERMEABILITY TEST(S)	
	METER BOX	
S SAN TEXT	SANITARY SEWER/MH/LINE	S SAN TEXT
	SEPTIC BERM	
	SNOUT	
TEXT	UTILITY POLE	TEXT
	WETLAND DELINEATION	
	RIPARIAN BUFFER	
	CONSTRUCTION ENTRANCE	
	TOPSOIL STOCKPILE	
	SEPTIC AREA	SEPTIC AREA
	DEWATERING FACILITY/SKIMMER	DE
	ROCK FILTER W/ LABEL	RF-1
	CLEANOUT STAKE	C
	IMPERVIOUS HATCH	
	PAVEMENT MILL / OVERLAY	

NO	REVISION	BY	DATE

OWNER'S CERTIFICATION

WE THE UNDERSIGNED BEING DULY SWORN ACCORDING TO LAW DEPOSE AND SAY THAT WE ARE THE SOLE OWNERS OF THE TRACT SHOWN HEREON IN PEACEFUL POSSESSION OF THE SAME AND THAT THERE ARE NO SUITS OR ACTIONS PENDING OR AFFECTING THE SAME.

SWORN AND SUBSCRIBED BEFORE ME THIS ____ DAY OF _____, A.D. 20__

NOTARY PUBLIC

NOTARY SEAL

MY COMMISSION EXPIRES: _____

CITY OF ALLENTOWN PLANNING COMMISSION CERTIFICATION

THE WITHIN PLOT OR PLAN OF LAND LOCATED IN ALLENTOWN, LEHIGH COUNTY, PENNSYLVANIA, WAS APPROVED BY THE ALLENTOWN CITY PLANNING COMMISSION.

_____ CHAIRMAN DATE

_____ PLANNING DIRECTOR DATE

_____ SECRETARY DATE

APPROVED: _____ CITY ENGINEER

PROOF OF RECORDING

PLAN RECORDED IN THE OFFICE OF THE RECORDER IF DEEDS OF LEHIGH COUNTY, PENNSYLVANIA, IN DOCKET ID_____ ON THE _____ DAY OF _____ 20____.
WITNESS MY HAND AND SEAL OF OFFICE THIS_____ DAY OF _____ 20____

_____ WITNESS

_____ RECORDER OF DEEDS

_____ DATE

PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

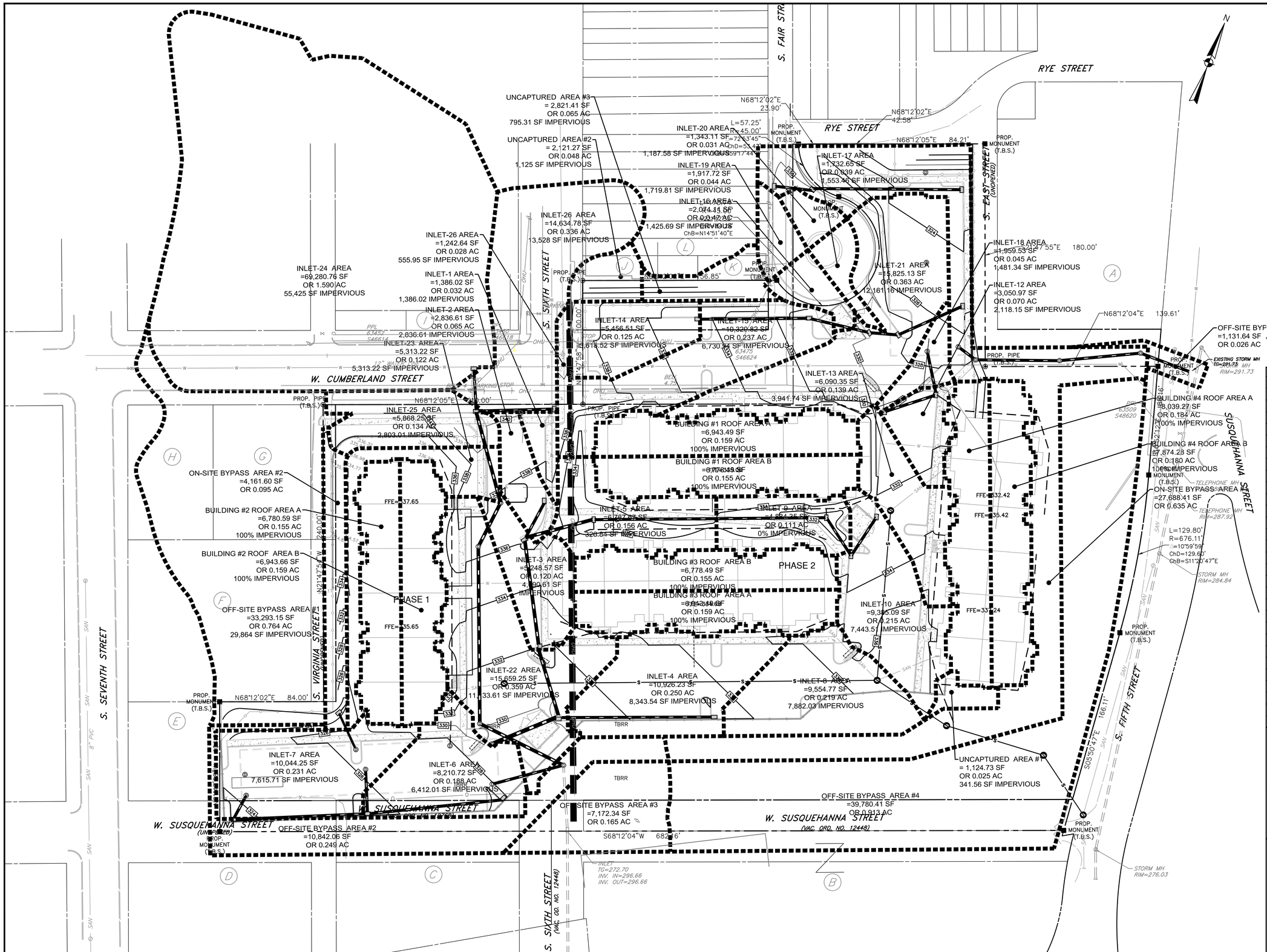
CLIENT:
THE YASIN KHAN 2021 FAMILY TRUST
1146 S. CEDAR CREST BLVD.
ALLENTOWN, PA 18103

PREPARER:

Benchmark
CIVIL ENGINEERING SERVICES, INC.
1727 JONATHAN STREET
ALLENTOWN, PA 18104
610.776.6700 610.776.1190 FAX
www.bencivil.com
• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:
POST-DEVELOPMENT OVERALL DRAINAGE AREA PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: D-2
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 26 OF 27



CALL BEFORE YOU DIG

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811 Know what's below. Call before you dig.

1—CALL NO. 20220112214 DATE: 01/12/22

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	CONCRETE MONUMENT	■		IRON PIN OR PIPE	◉
500	CONTOUR MAJOR	500	502	CONTOUR MINOR	502
TEXT	DECIDUOUS TREE	TEXT	TEXT	EVERGREEN TREE	TEXT
	BRUSH / WOODED AREA			SOILS BOUNDARY	
	DRAINAGE AREA BOUNDARY			TIME OF CONCENTRATION	
	CURB			EDGE OF PAVEMENT	
	LEGAL RIGHT-OF-WAY			TO BE REMOVED	TBR / RAZED
	LIGHT POLE / FLOOD LIGHT			SIGN	
	FENCE			GUIDERAIL	
	EASEMENT			EASEMENT LINE	
GAS	GAS LINE	GAS	TEXT	STORM SEWER MH/INLET/LINE	TEXT
TEXT	PROBE (FAILED)		TEXT	PROBE (PASSED)	
	PERC TEST HOLE(S)			PERMEABILITY TEST(S)	
	FIRE HYDRANT			METER BOX	
W	WATER LINE / VALVE	W	TEXT SAN	SANITARY SEWER/MH/LINE	TEXT SAN
W	WELL	W		SEPTIC BERM	
400.05	SPOT ELEVATION	400.05		SNOUT	
OHU	OVERHEAD UTILITIES	OHU	TEXT	UTILITY POLE	TEXT
	WETLAND BUFFER			WETLAND DELINEATION	
	FLOOD PLAIN			RIPARIAN BUFFER	
	WATER EDGE				
	L.O.D. / NPDES	LOD		CONSTRUCTION ENTRANCE	
	EROSION CONTROL MAT	S758N		TOPSOIL STOCKPILE	
	INLET PROTECTION		SEPTIC AREA	SEPTIC AREA	SEPTIC AREA
	FILTER FENCE W/ LABEL	FF-1		DEWATERING FACILITY/SKIMMER	DEWATERING FACILITY
	RIP-RAP OUTLET PROT.		RF-1	ROCK FILTER W/ LABEL	RF-1
	BAFFLE W/ LABEL	BAFFLE 1	©	CLEANOUT STAKE	©
	PAVEMENT RECONSTRUCTION			IMPERVIOUS HATCH	
	SAWCUT			PAVEMENT MILL / OVERLAY	

NO	REVISION	BY	DATE

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_____ CHAIRMAN DATE

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APPROVED: _____ CITY ENGINEER

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WITNESS MY HAND AND SEAL OF OFFICE THIS_____ DAY OF_____ 20____.

_____ WITNESS

_____ RECORDER OF DEEDS

_____ DATE

PROJECT:
CUMBERLAND APARTMENT COMPLEX
CITY OF ALLENTOWN, WARD 12
LEHIGH COUNTY, PENNSYLVANIA

CLIENT:
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• CIVIL ENGINEERING • TRAFFIC ENGINEERING • SURVEYING

TITLE:
POST-DEVELOPMENT INLET DRAINAGE AREA PLAN

DESIGN: PAS	PLAN DATE: 08/16/22	DWG. NO.: D-3
DRAWN: JDG	SCALE: AS NOTED	
SURVEY DATE: .	DWG. FILE: 858002	SHT. NO.: 27 OF 27