# AMBLER CROSSING APARTMENT BUILDINGS

MAPLE AND BUTLER AVENUES, AMBLER, PA 19002

PREPARED FOR:

SUMMIT REALTY ADVISORS, LLC 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002



building information



kramer

# marks

156 s. bethlehem pike ambler, pa 19002 p.215.654.7722 f.215.654.5353 www.kramermarks.com

# DESIGN TEAM:

CIVIL ENGINEERS

LANGAN ONE WEST BROAD STREET, SUITE 200 BETHLEHEM, PA 18018 Tel: 610.984.8500

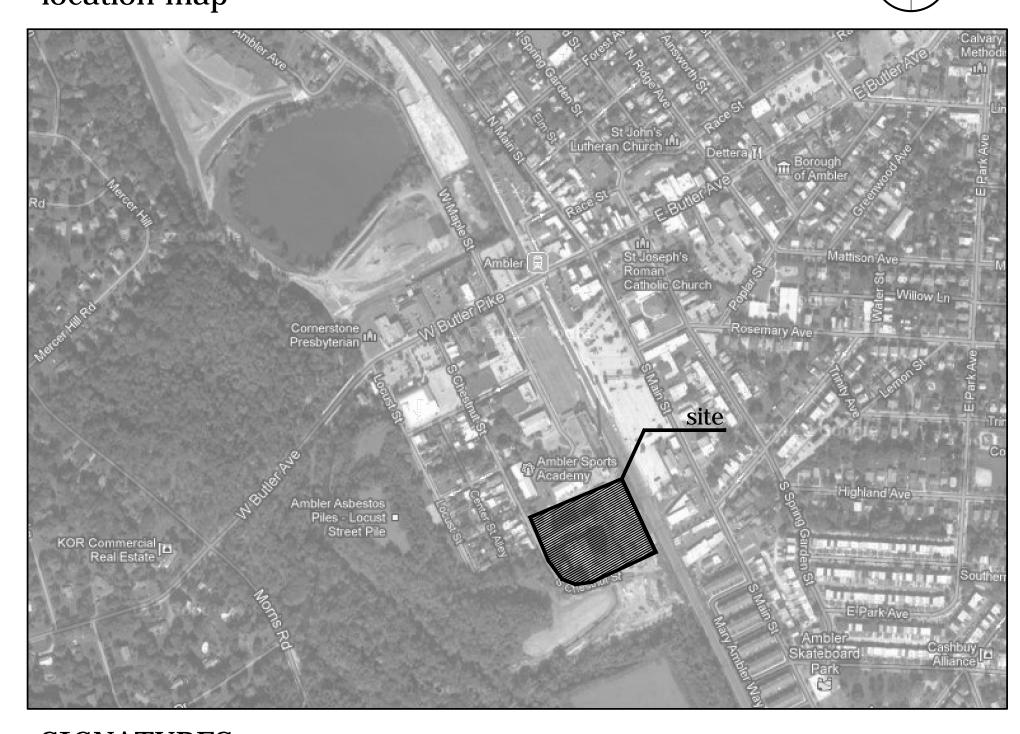
## STRUCTURAL ENGINEERS

ELTON & THOMPSON 2615 JENKINTOWN ROAD GLENSIDE, PA 19038 Tel: 215.576.6460

# MPE ENGINEERS

BSEG, LLC 4949 LIBERTY LANE, SUITE 115 ALLENTOWN, PA 18106 Tel: 610.351.8225

# location map



# SIGNATURES

summit realty advisors, Ilc	date
kramer + marks architects	date
	date

# code abstract

**ADOPTED CODES:** 2008 NATIONAL ELECTRICAL CODE LIFE SAFETY CODE - NFPA 101, 2003 **MEANS OF EGRESS/OCCUPANCY:** 

>44 INCHES OR .3 INCHES PER OCCUPANT (IBC 1005.1

>44 INCHES OR .2 INCHES PER OCCUPANT (IBC 1005.1, &

>32 INCHES CLEAR OR .2 INCHES PER OCCUPANT (1005.1 &

MEZZANINE AREA NOT TO EXCEED 1/3 OF THE AREA OF

THE ROOM IN WHICH THE MEZZANINE IS LOCATED (IBC

505.2). WHEN AN EXIT ACCESS STAIR IS PROVIDED THE

OCCUPANT LOAD SHALL BE ADDED TO THE ROOM IN

WHERE 2 EXITS ARE REQUIRED FROM A SPACE, THE

DISTANCE BETWEEN EXITS SHALL BE A MINIMUM OF 1/3 OF

THE MAXIMUM OVERALL DIAGONAL OF THE SPACE (IBC

WHICH THE MEZZANINE IS LOCATED (IBC1004.6)

1015.2.1, EXCEPTION 2)

<20 FEET (IBC 1018.4)

EXIT ACCESS TRAVEL DISTANCE <250 FEET (IBC TABLE 1016.1)

COMMON PATH OF TRAVEL DISTANCE <75 FEET (IBC 1014.3)

NOT REQUIRED (IBC 1007.3, EXCEPTION 3)

4 EXITS REQUIRED PER STORY

MIN. WIDTH OF STAIRWAYS

MIN. WIDTH OF CORRIDORS

MIN. WIDTH OF EGRESS DOORS

SEPARATION OF REQUIRED EXITS

AREA OF REFUGE

MEZZANINE LEVELS

DEAD END CORRIDORS

BUILDING DATA: (IBC 1002.1) 1ST FLOOR GROSS AREA: 2ND FLOOR GROSS AREA:

TOTAL BUILDING AREA: **USE GROUPS:** R-2 - RESIDENTIAL (IBC 2009)

S-2 - STORAGE (IBC 2009) **CONSTRUCTION TYPE** TYPE: 5A

BASE AREA LIMITATION: 3 STORIES, 12000 S.F. PER FLOOR BASE HEIGHT LIMITATION: 50' ALLOWABLE MATERIALS: FRONTAGE INCREASES: (IBC 506.2)

[XX' / XX' - 0.25] XX / 30 = .34**AUTOMATIC SPRINKLER SYSTEM INCREASES:** (IBC 506.3) & (IBC 504.2) ALLOWABLE AREA INCREASE = 200%

ALLOWABLE HEIGHT INCREASE = 20 ft AND ONE STORY ALLOWABLE AREA MODIFICATIONS: (IBC 506.1) 12,000 + (12,000 x .34) + (12,000 x 200%) = 40,080 S.F. PER STORY

FIRE RESISTANCE RATING REQUIREMENTS:	(IBC TABLE 601)
BUILDING ELEMENTS	MINIMUM FIRE- RESISTANCE RATING
STRUCTURAL FRAME	1 HOUR
BEARING WALLS EXT. WALLS INT. WALL	1 HOUR 0 HOUR
NON-BEARING WALL EXT. WALLS INT. WALL	0 HOURS 0 HOURS
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	1 HOUR
ROOF CONSTRUCTION AND SECONDARY MEMBERS	1 HOUR * **
CORRIDORS (IBC TABLE 1018.1)	0 HOURS
EXIT STAIRS (IBC 1022.1)	1 HOUR
SHAFT ENCLOSURES (IBC 708.4)	1 HOUR ***
FIRE WALLS (IBC TABLE 706.4)	2 HOURS
FIRE DOORS AND SHUTTERS IN FIRE WALLS (IBC 715.4)	1 1/2 HOURS ****

- \* FIRE RATINGS SHALL NOT BE REQUIRED WHERE EVERY PART OF ROOF IS 20 FEET OR MORE ABOVE ANY FLOOR IMMEDIATELY BELOW
- HEAVY TIMBER CONSTRUCTION SHALL BE ALLOWED WHERE A 1-HOUR OR LESS FIRE RESISTANCE RATING IS REQUIRED
- \*\*\* SHAFT ENCLOSURE NOT REQUIRED FOR NON-CONCEALED OPENING BETWEEN THE FLOORS OF THIS FACILITY (IBC 708.2, EXCEPTION 7)
- \*\*\*\* THE AGGREGATE WIDTH OF OPENINGS AT ANY FLOOR LEVEL SHALL NOT EXCEED 25% OF THE LENGTH OF THE FIRE WALL (IBC 70638)

# FIRE PROTECTION SYSTEM:

ALL BUILDINGS SHALL BE EQUIPPED THROUGHOUT WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 (IBC) QUICK RESPONSE SPRINKLER HEADS SHALLBE USED

AUTOMATIC SPRINKLER SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION (IBC 901.6.1)

FIRE ALARM SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION (IBC

# schedule of drawings

# ARCHITECTURAL DRAWINGS:

SUBMISSION/REVISION KEY SHEETS CONTAINS REVISION(S) & INCLUDED IN SUBMISSION O SHEETS INCLUDED IN SUBMISSION CONTRACTOR IS RESPONSIBLE FOR REVIEWING EACH SHEET FOR REVISIONS REGARDLESS OF SHEET INDEX REVISION KEY. A0.1 ABBREVIATIONS & GENERAL NOTES
A0.2A CODE ANALYSIS 6A BUILDING #1 - SECOND FLOOR LIFE SAFETY PLAN 6B BUILDING #2 - SECOND FLOOR LIFE SAFETY PLAN A0.7A BUILDING #1 - THIRD FLOOR LIFE SAFETY PLAN
A0.7B BUILDING #2 - THIRD FLOOR LIFE SAFETY PLAN
A0.8A BUILDING #1 - FOURTH FLOOR LIFE SAFETY PLAN
A0.8B BUILDING #2 - FOURTH FLOOR LIFE SAFETY PLAN
A1.0A BUILDING #1 - BASEMENT PLAN 1.1B BUILDING #2 - FIRST FLOOR PLAN 1.2A BUILDING #1 - SECOND FLOOR PLAN 1.2B BUILDING #2 - SECOND FLOOR PLAN A1.3A BUILDING #1 - THIRD FLOOR PLAN
A1.3B BUILDING #2 - THIRD FLOOR PLAN
A1.4A BUILDING #1 - FOURTH FLOOR PLAN
A1.4B BUILDING #2 - FOURTH FLOOR PLAN
A2.1A BUILDING #1 - ROOF PLAN
A2.1B BUILDING #2 - ROOF PLAN
A3.1 ELEVATIONS 1 BUILDING SECTIONS A4.2 BUILDING SECTIONS

A4.3 BUILDING SECTIONS

A5.1 ACCESSIBILITY DETAILS AND NOTES

A5.2 CONSTRUCTION DETAILS

A5.3 CONSTRUCTION DETAILS

A6.1 WALL, FLOOR, CEILING AND ROOF ASSEMBLIES 3.2 WALL, FLOOR, CEILING AND ROOF ASSEMBLIES .3 WALL, FLOOR, CEILING AND ROOF ASSEMBLIES 6.4 WALL, FLOOR, CEILING AND ROOF ASSEMBLIES 3.5 WALL, FLOOR, CEILING AND ROOF ASSEMBLIES A6.6 WALL, FLOOR, CEILING AND ROOF ASSEMBLIES
A7.1 FIRESTOP SCHEDULE
A7.2 FIRESTOP DETAILS
A8.1 UNIT PLANS
A8.2 UNIT PLANS
A8.3 UNIT PLANS 3.4 UNIT PLANS 9.1 STAIR PLANS & SECTIONS

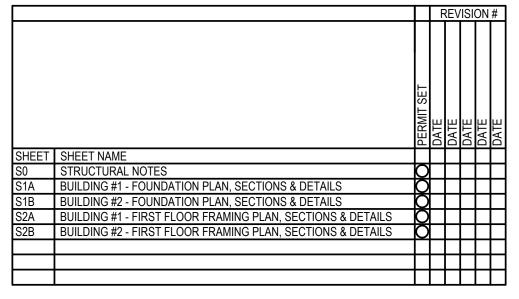
**INTERIOR DRAWINGS & FINISHES:** 

10.4B BUILDING #2 - FOURTH FLOOR REFLECTED CEILING PLAN

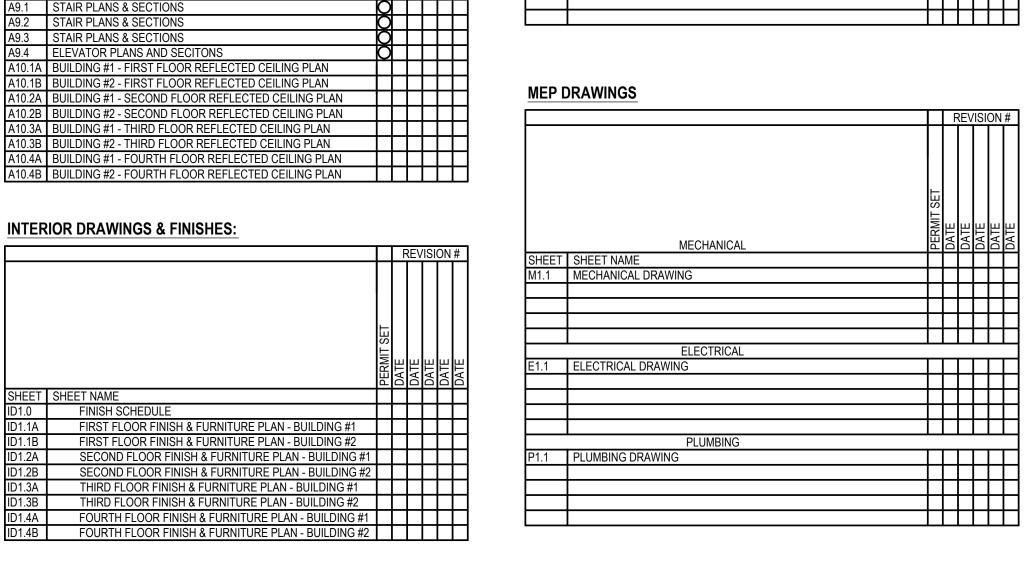
		PERMIT SET	DATE	DATE	DATE
SHEET	SHEET NAME				
ID1.0	FINISH SCHEDULE				
ID1.1A	FIRST FLOOR FINISH & FURNITURE PLAN - BUILDING #1				
ID1.1B	FIRST FLOOR FINISH & FURNITURE PLAN - BUILDING #2				
ID1.2A	SECOND FLOOR FINISH & FURNITURE PLAN - BUILDING #1				
ID1.2B	SECOND FLOOR FINISH & FURNITURE PLAN - BUILDING #2				
ID1.3A	THIRD FLOOR FINISH & FURNITURE PLAN - BUILDING #1				
ID1.3B	THIRD FLOOR FINISH & FURNITURE PLAN - BUILDING #2				
ID1.4A	FOURTH FLOOR FINISH & FURNITURE PLAN - BUILDING #1				
ID1 4R	FOLIRTH FLOOR FINISH & FLIRNITLIRE PLAN - RUIL DING #2				

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		r SET					
		PERMIT	DATE	DATE	DATE	DATE	DATE
SHEET	SHEET NAME						
GI-100	COVER SHEET	0					
GI-101	AERIAL PLAN	Q					
GI-102	EXISTING FEATURES PLAN	Q					
CS-101	SITE PLAN (RECORD PLAN)	Q					L
CS-501	CONSTRUCTION DETAILS	Q					
CS-502	CONSTRUCTION DETAILS	Q					
CS-503	CONSTRUCTION DETAILS	Q					
CS-601	FIRE TRUCK TURN PLAN	<u> </u>					
CS-701	GREEN SPACE PLAN	<u> </u>					
CG-101	GRADING PLAN	0					
CG-201	DRAINAGE PLAN	0					
CG-501	GRADING DETAILS	0					
CG-502	GRADING DETAILS	0					
CG-503	GRADING DETAILS	0					
PCSM-101	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	О					
PCSM-102	POST CONSTRUCTION STORMWATER BMP WATERSHED MAP	О					
PCSM-501	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS	О					
CU-101	UTILITY PLAN	О					
CU-501	UTILITY DETAILS	$\nabla$					
CU-502	UTILITY DETAILS	Ю					
CU-601	DRAINAGE & UTILITY PROFILES	Ю					
CU-602	DRAINAGE & UTILITY PROFILES	Ю					
LP-101	LANDSCAPE PLAN	Ŏ					
LP-501	LANDSCAPE NOTES AND DETAILS	Ŏ					Г
LL-101	SITE LIGHTING PLAN	Ŏ					
LL-501	SITE LIGHTING NOTES AND DETAILS	Ō					

# STRUCTURAL DRAWINGS



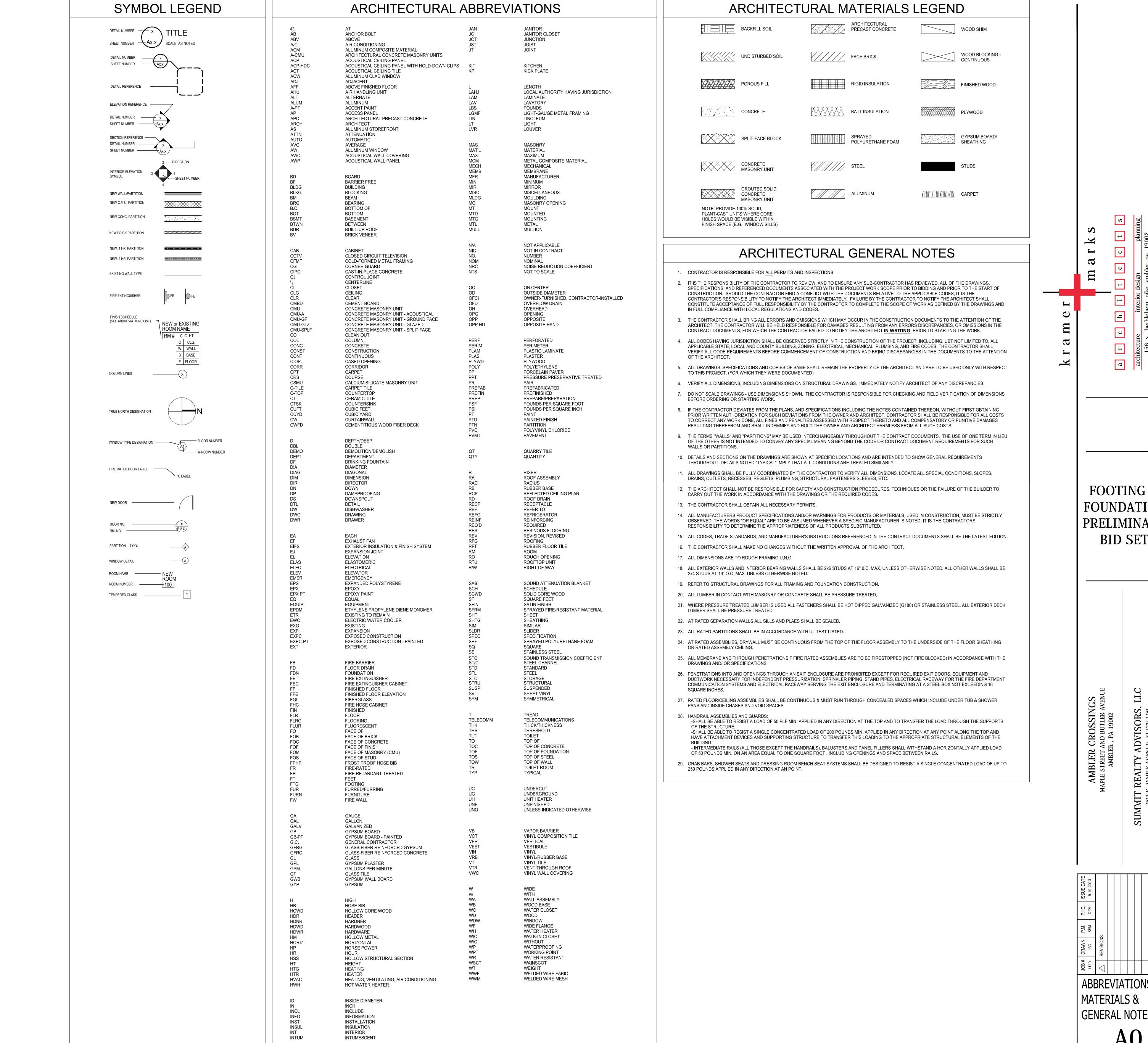
# **MEP DRAWINGS**



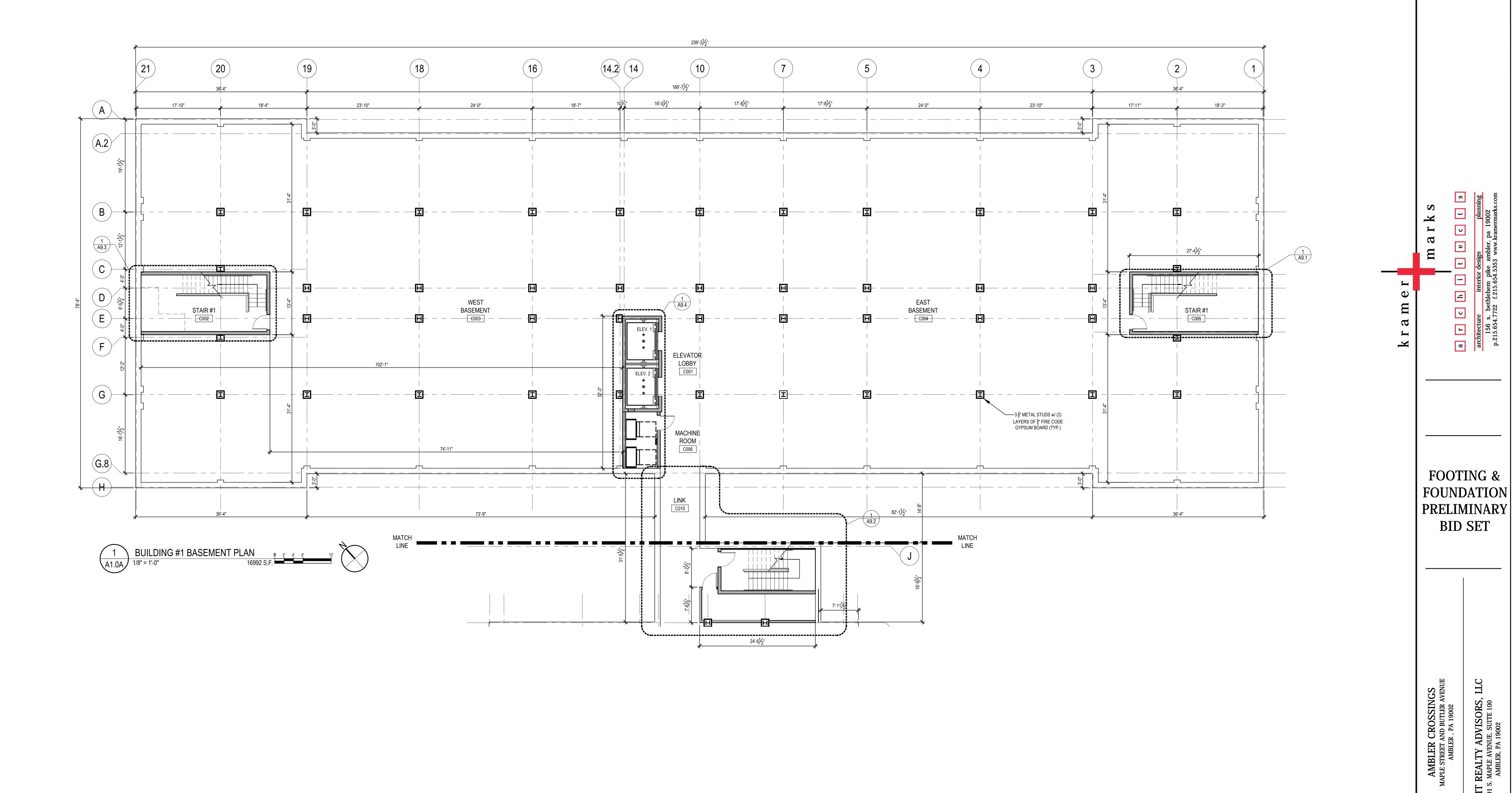
FOOTING & FOUNDATION PRELIMINARY BID SET

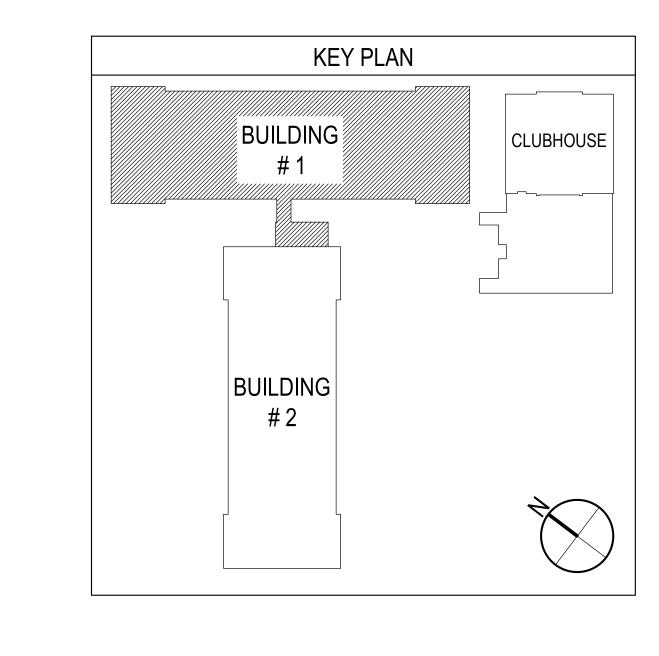
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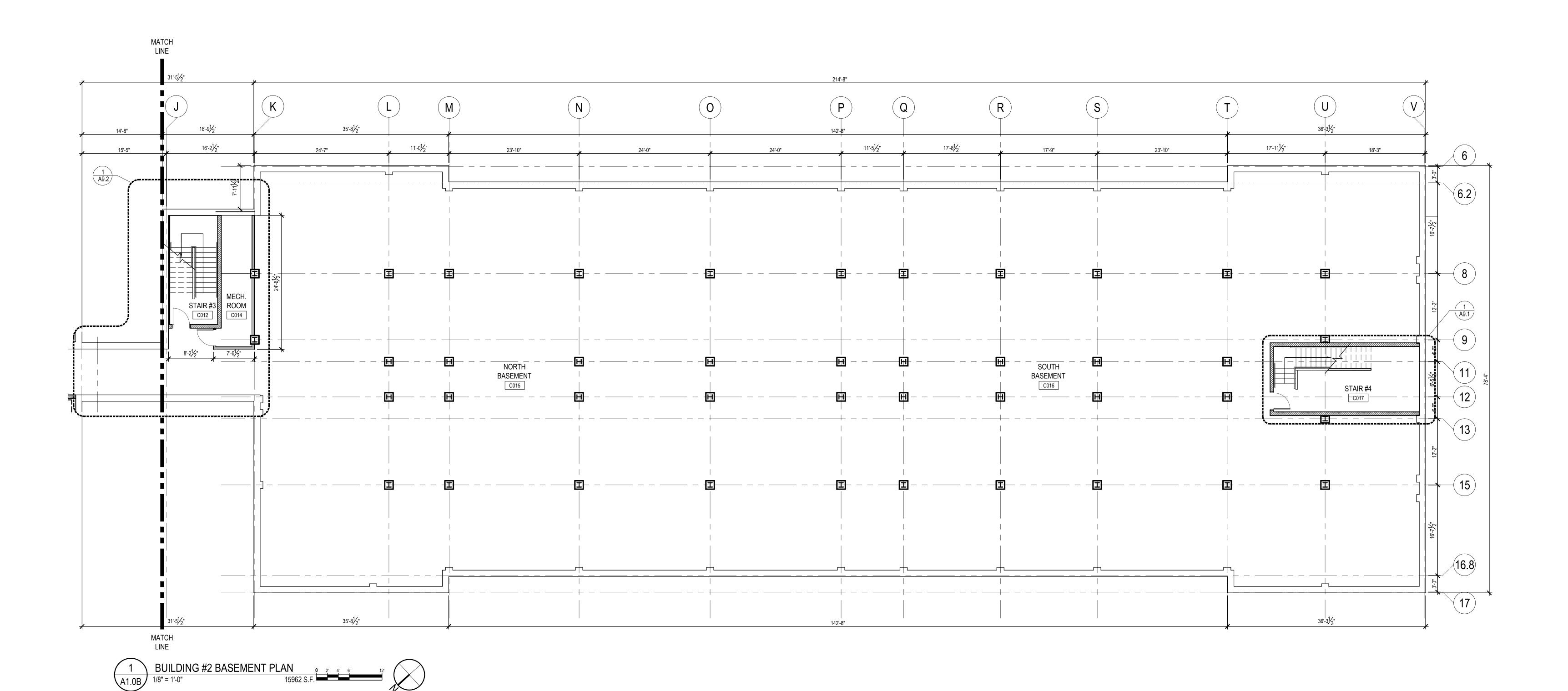
FOOTING &

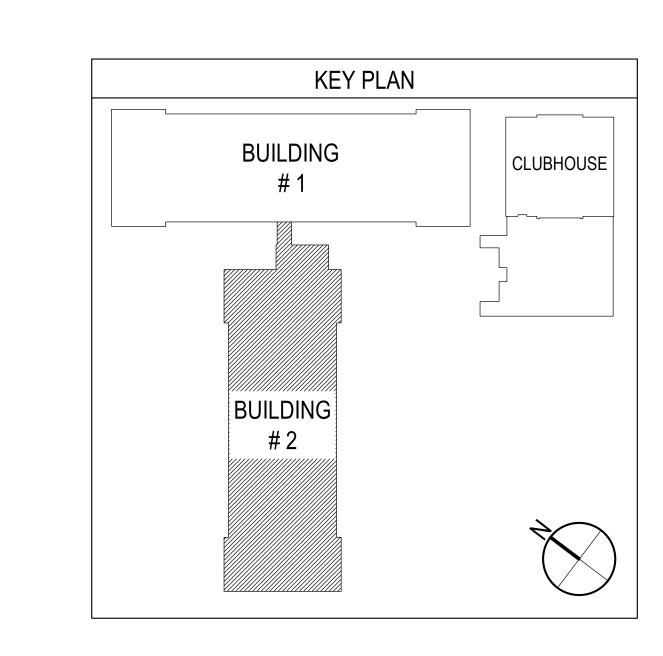




BUILDING #1 -BASEMENT PLAN A1.0A

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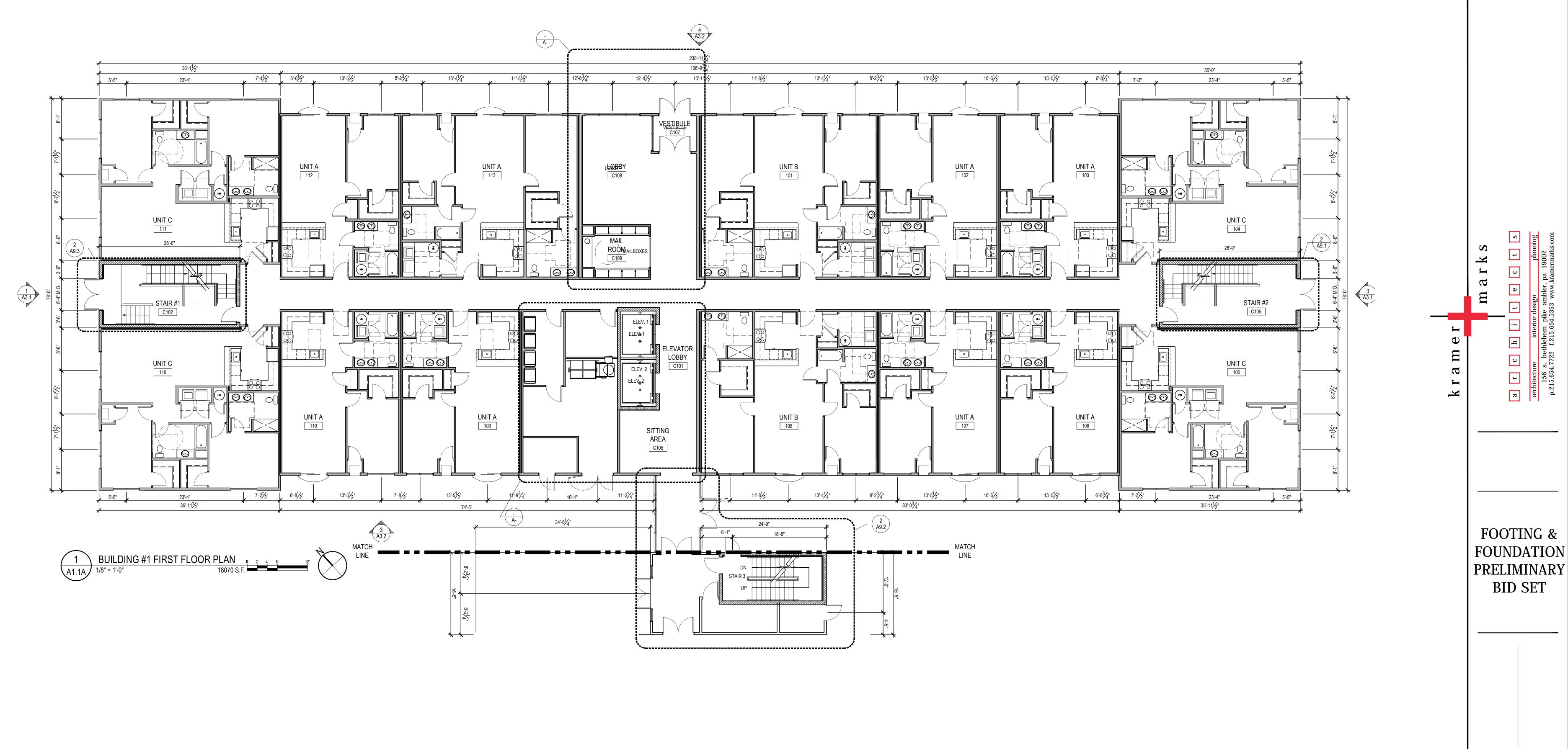


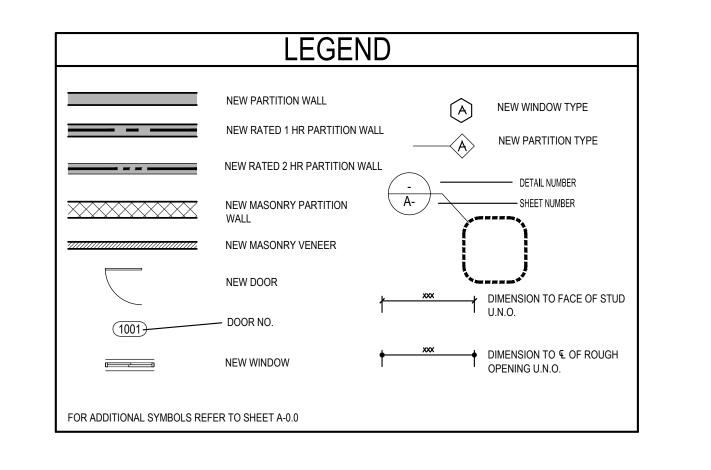
PRELIMINARY BID SET AMBLER CROSSINGS
MAPLE STREET AND BUTLER AVENUE
AMBLER, PA 19002 SUMMIT REALTY ADVISORS, 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 BUILDING #2 -BASEMENT PLAN A1.0B

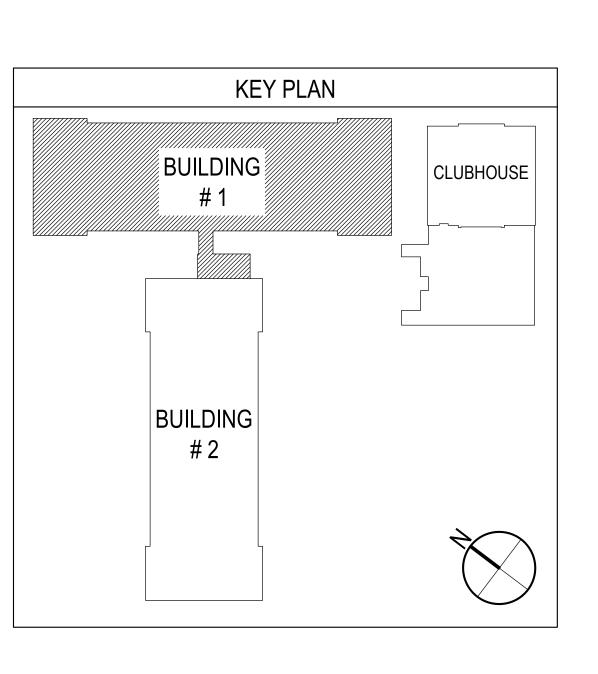
FOOTING &

FOUNDATION

PRESS WRITTEN PERMISSION OF THE AUTHOR. ALL PLAN DIMENSIONS ARE GENERALLY TAKEN TO FACE
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IL DIMENSIONS IN FIELD AND NOTIFY THE ARCHITECT OF ANY AND ALL DISCREPANCIES ON THE
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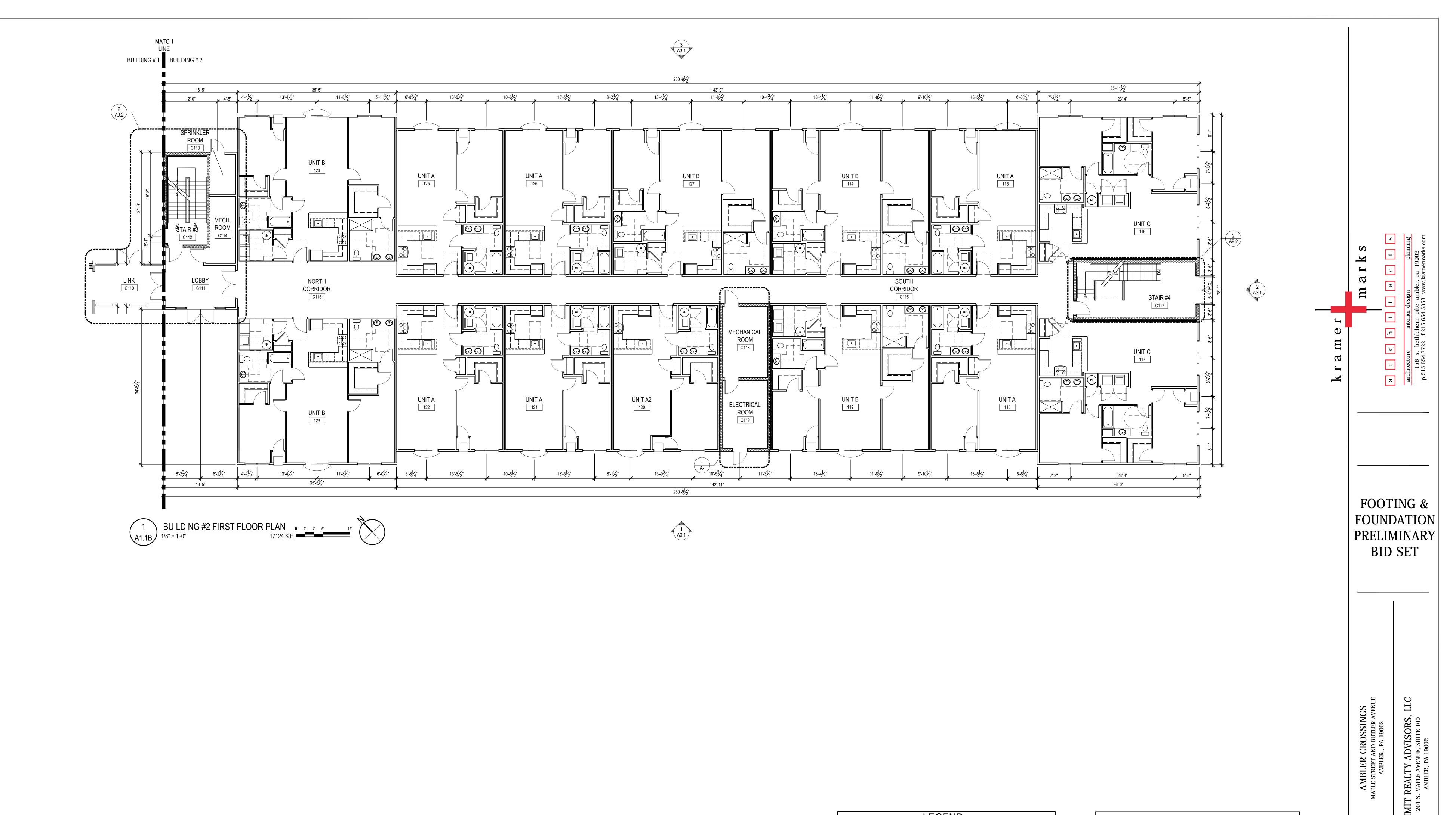


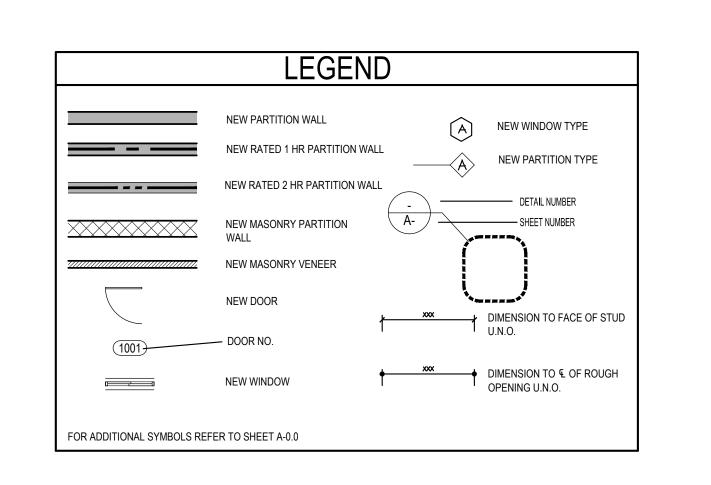


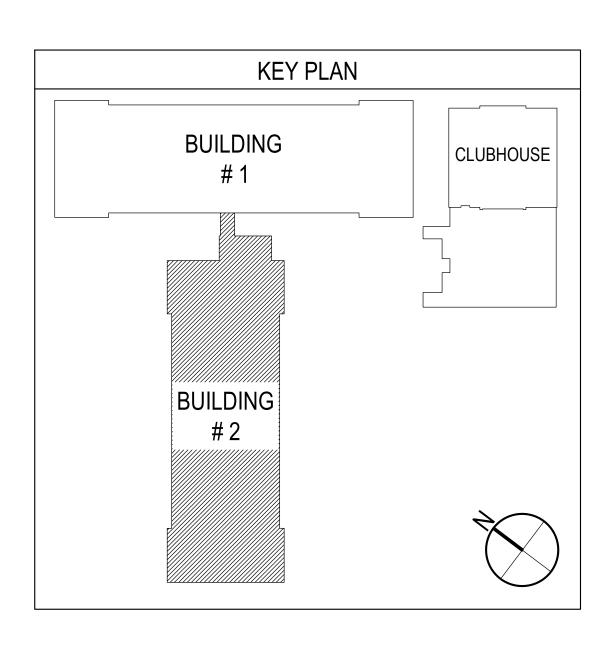


AMBLER CROSSINGS
MAPLE STREET AND BUTLER AVENUE
AMBLER, PA 19002 SUMMIT REALTY ADVISORS, 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 BUILDING #1 -FIRST FLOOR

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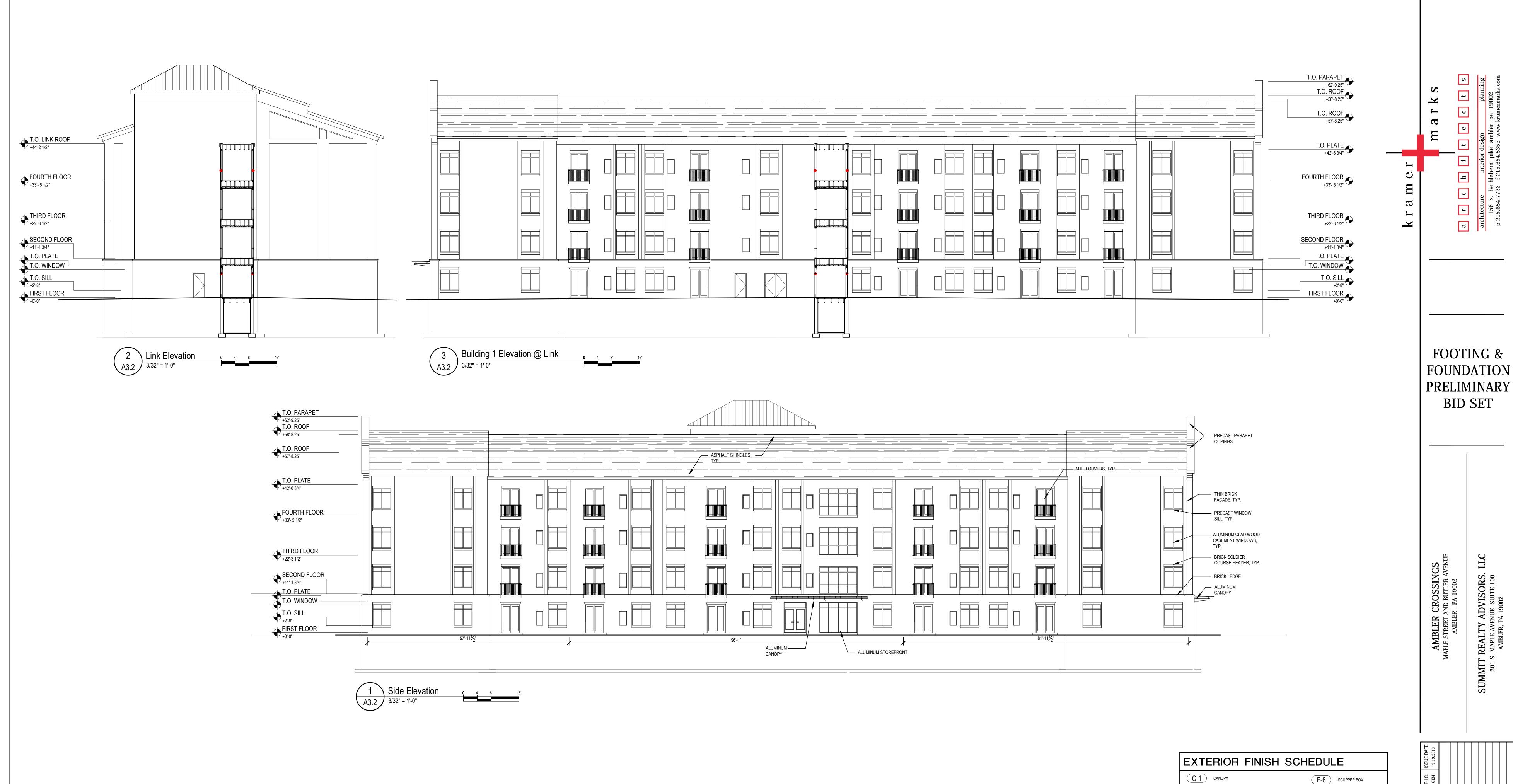






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SUMMIT REALTY ADVISORS, 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 BUILDING ELEVATIONS

F-7 DOWNSPOUT

F-9 AZEK CORNICE

F-11 STANDING SEAM METAL ROOF

F-12 ALUMINUM CORNICE

F-13 STRUCTURAL COLUMN SURROUND

F-14 PIN MOUNTED 1/4"
ALUMINUM LOGO AND
LETTERS

) FIBER CEMENT PANEL SIDING 6" EXPOSED, COLOR #1  $\stackrel{-}{\mathsf{F-10}}$  ALUM GUTTER

F-8 ALUMINUM GUARDRAIL

M-1 BRICK

M-2 THIN BRICK

M-3 PRE-CAST CONCRETE SILL/ HEADER

F-3 3 ½" FIBER CEMENT TRIM BOARD

F-4 ALUMINUM GATE & FENCE, REFER TO CIVIL DWGS.

F-5 METAL COPING

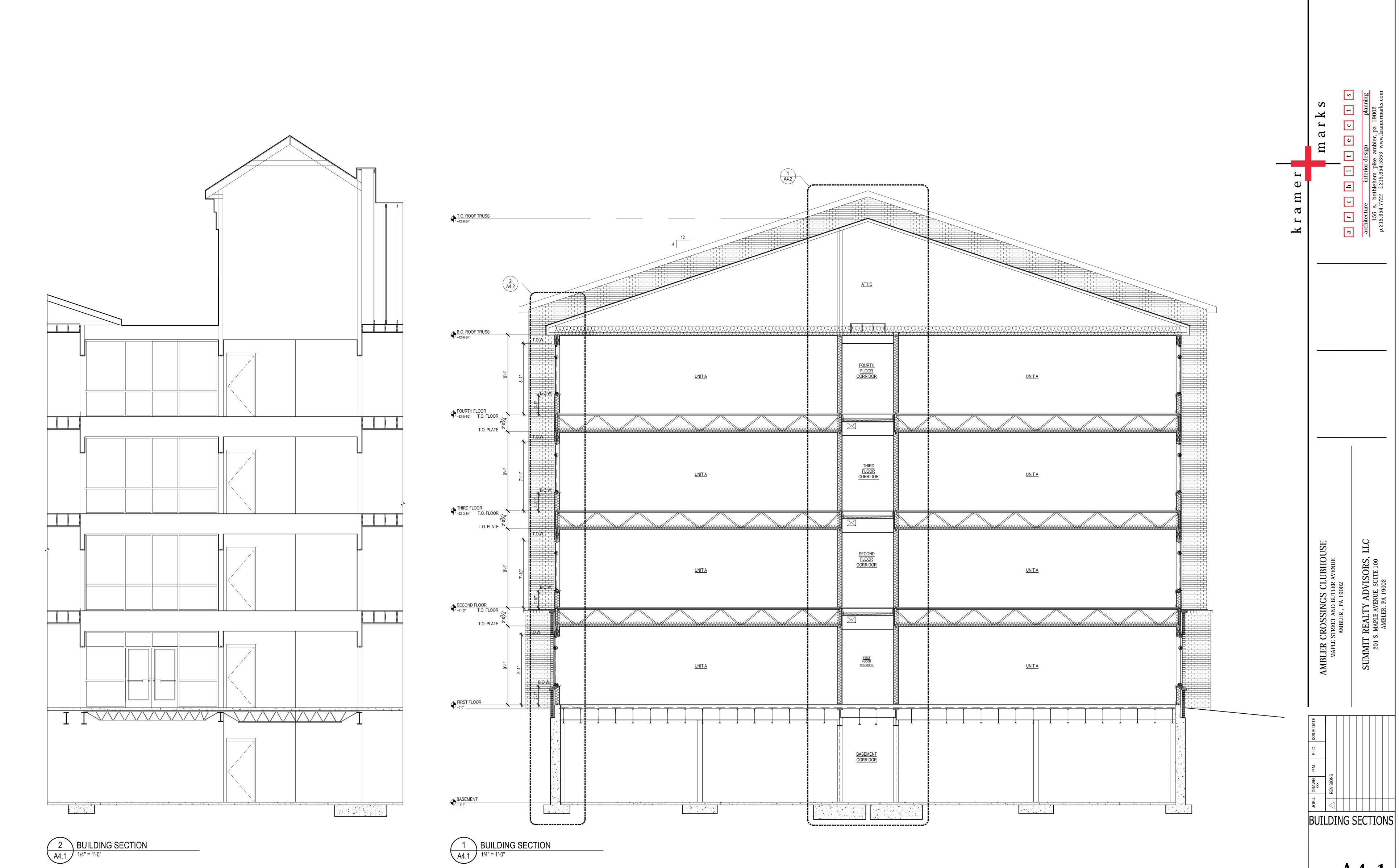
FIBER CEMENT PANEL SIDING 6", COLOR #2

\* COLOR TO BE SELECTED BY ARCH.

\* REFER TO A7.0 SERIES FOR WINDOW, STOREFRONT, AND DOOR DTLS.

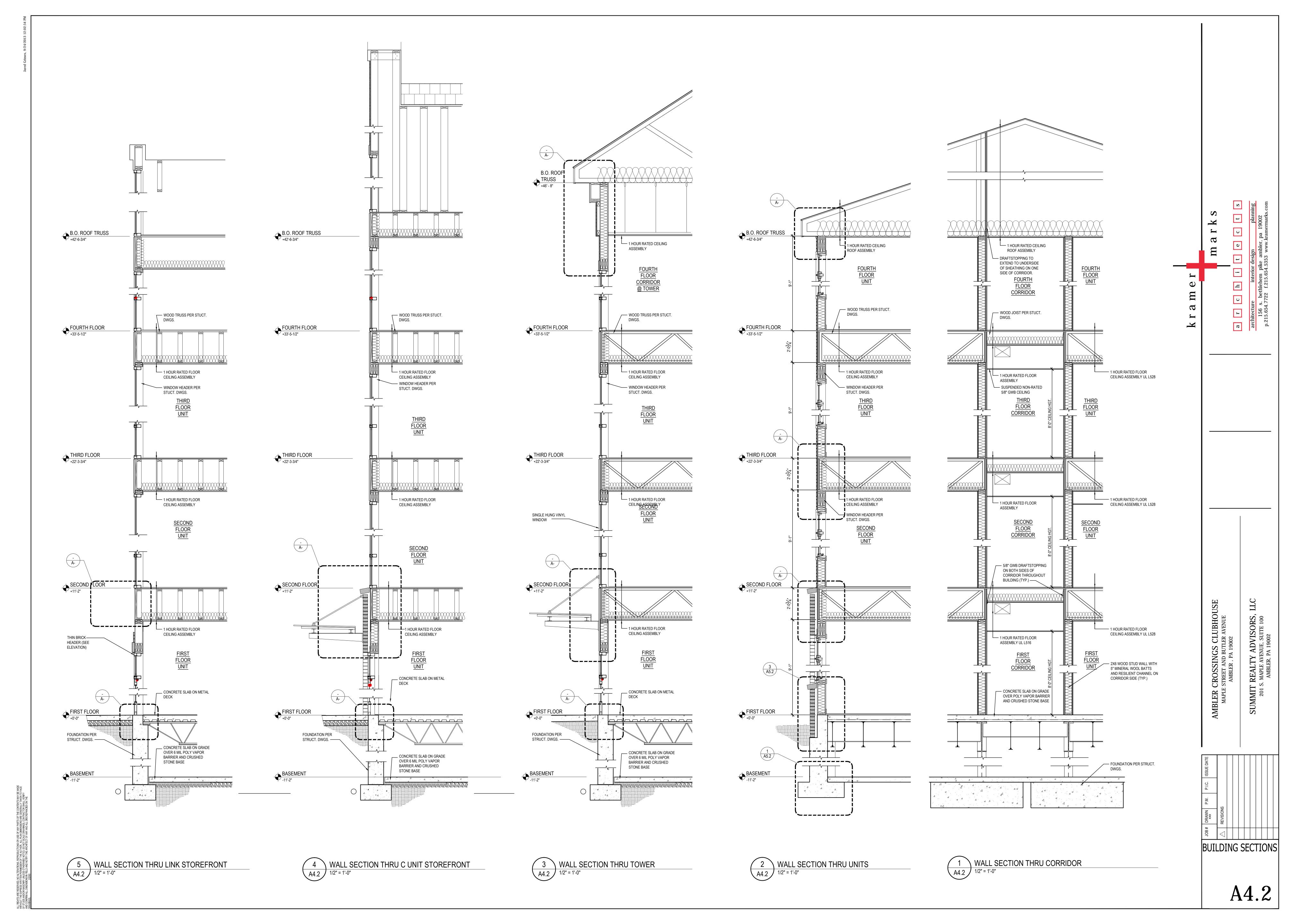
\* METAL LOUVER DIMENSIONS TO BE COORDINATED W/ MECH.

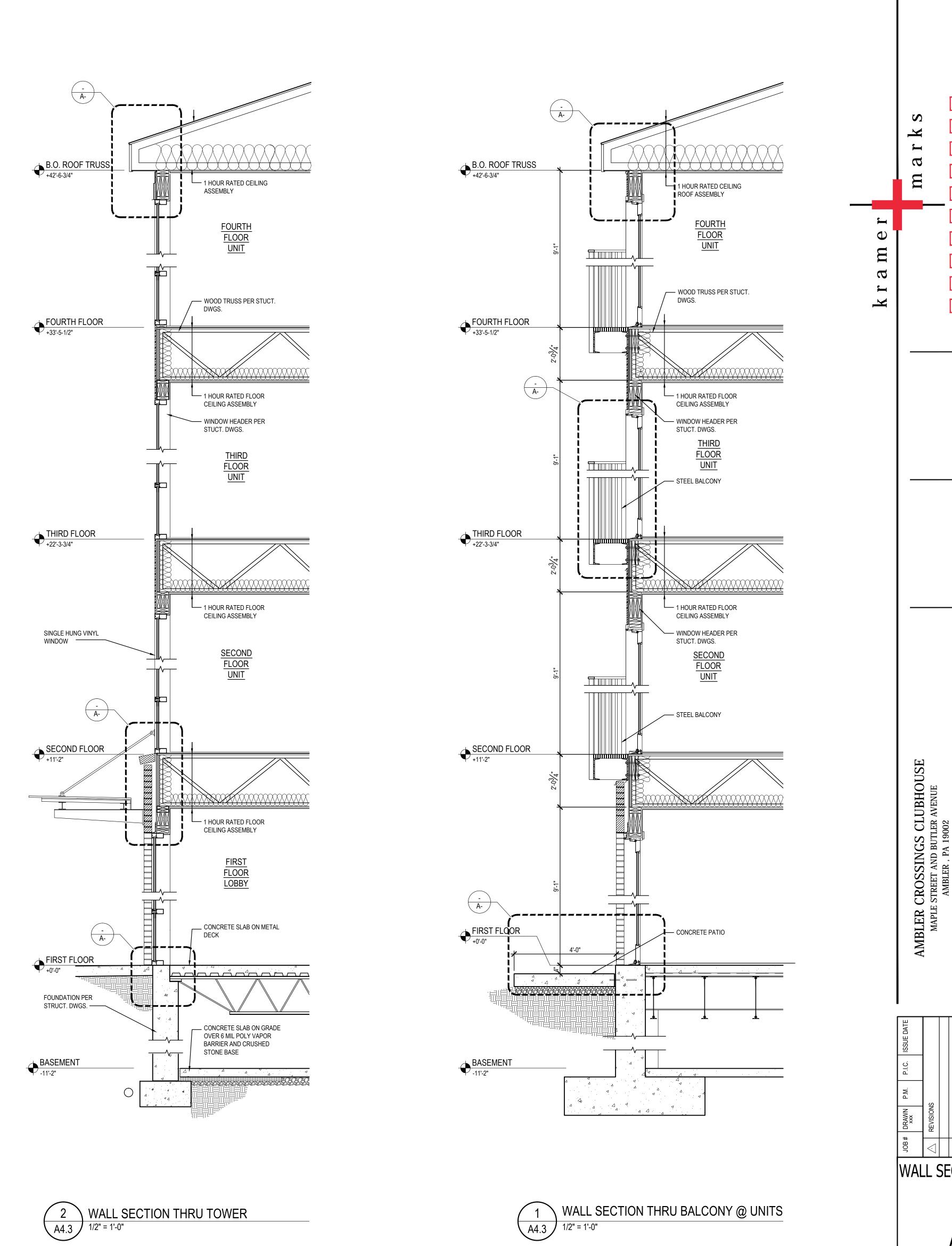
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A4.1



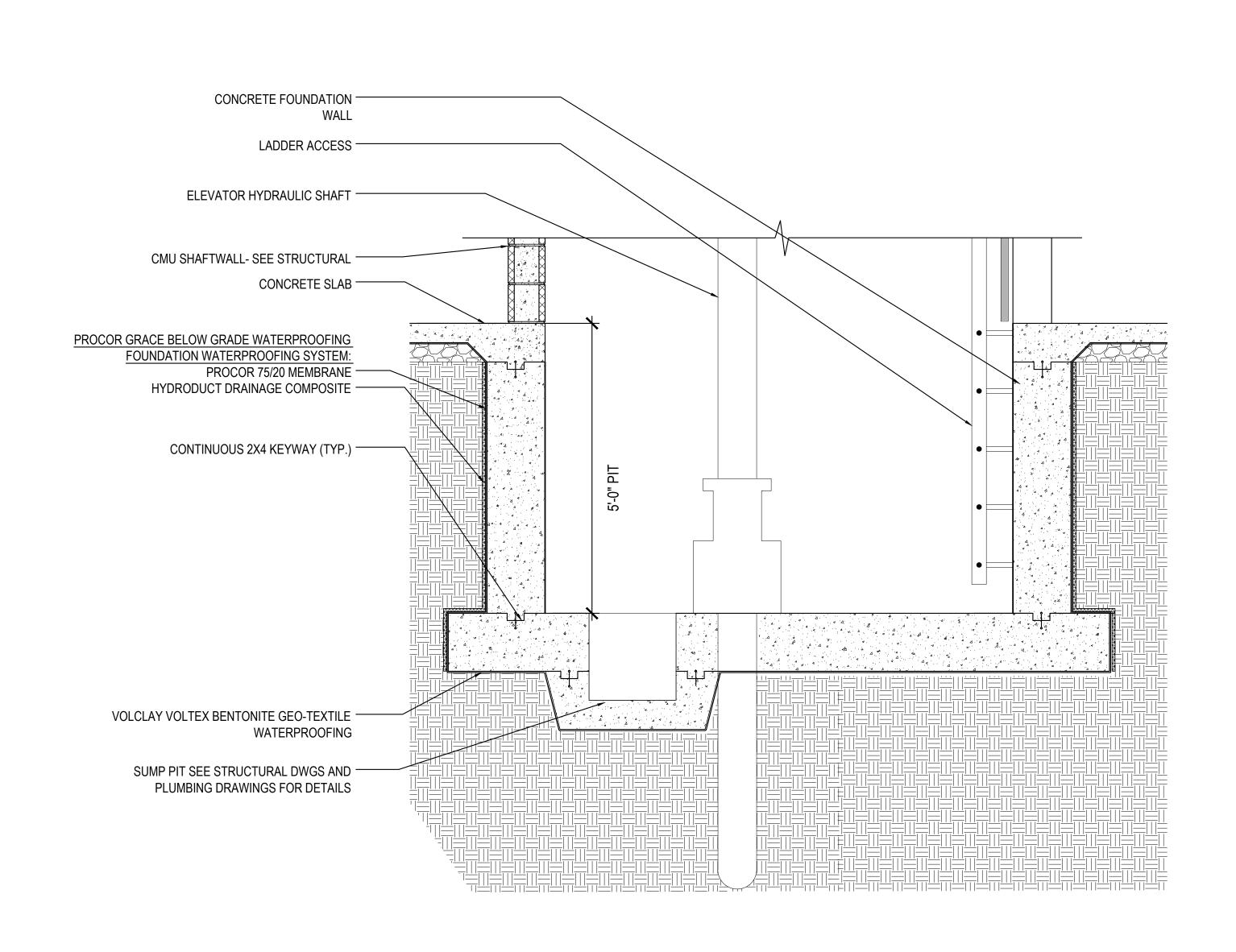


WALL SECTIONS

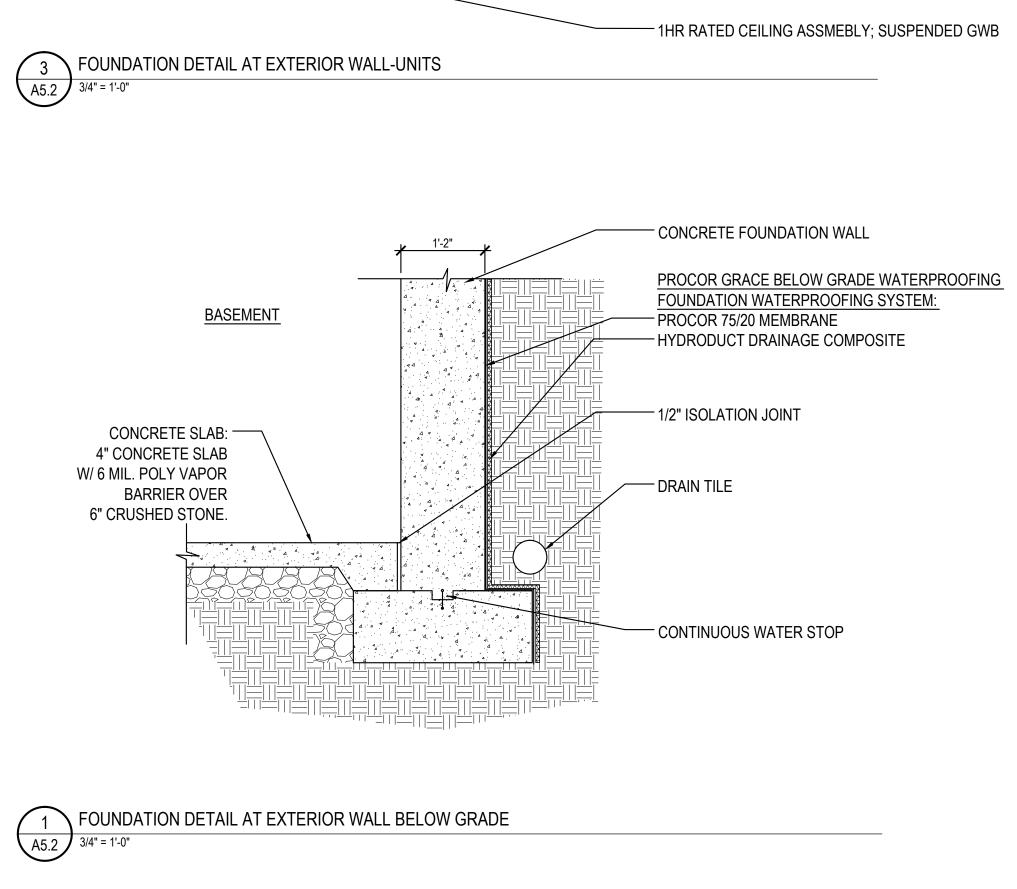
F REALTY ADVISORS, I
S. MAPLE AVENUE, SUITE 100
AMBLER, PA 19002

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A4.3



2 ELEVATOR PIT DETAIL SECTION
3/4" = 1'-0"



ALUMINUM WOOD CLAD CASEMENT WINDOWS — 2" AIRSPACE WEATHER BARRIER — 2 X 6 WD STUD WALL <u>UNIT</u> 4 IN BRICK VENEER TERMINATION BAR HEAD JOINT WEEP VENT 24" O.C. FIRST FLOOR GROUT CAVITY SOLID BELOW **GRADE** 

ACCESSIBILITY

DETAILS & NOTES

REALTY
S. MAPLE AVEI
AMBLER, P

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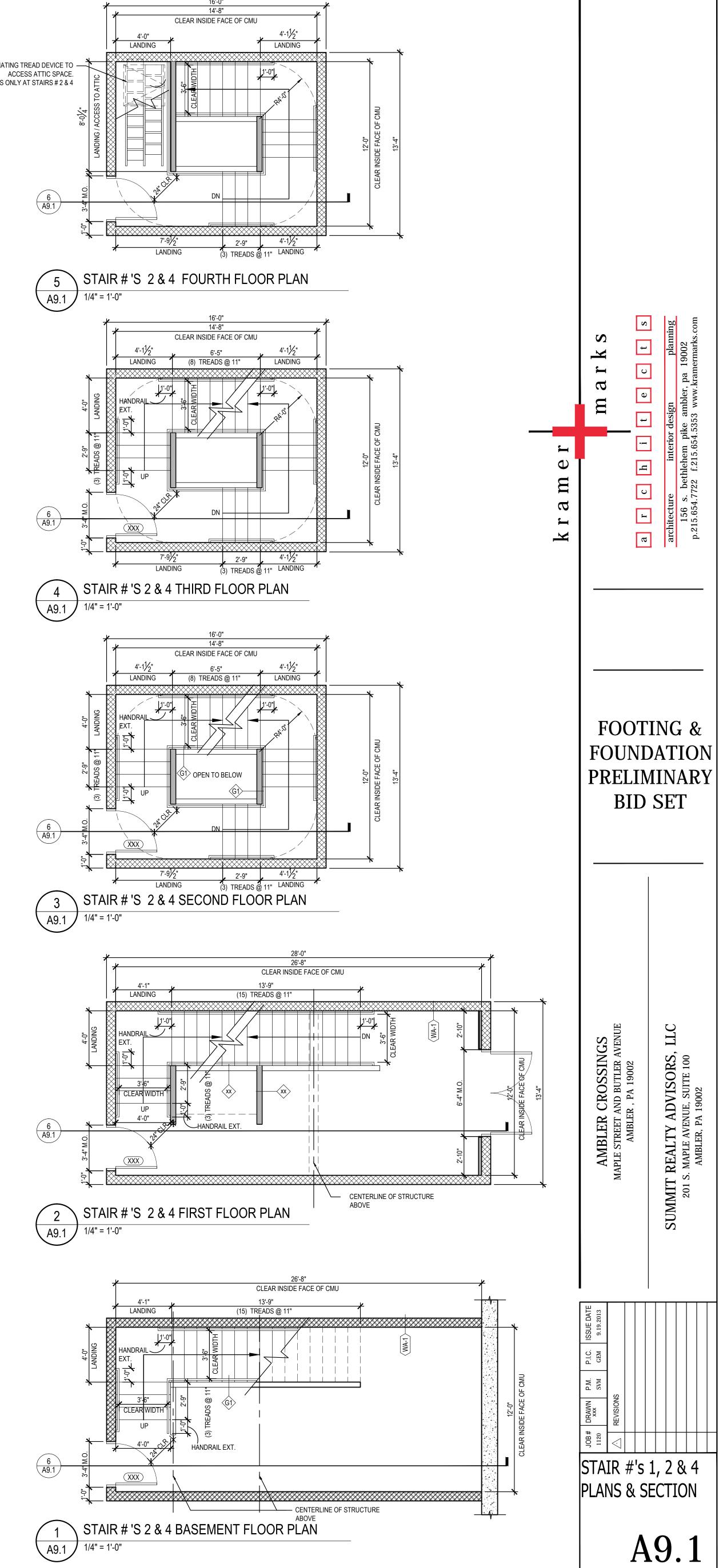
FOOTING &

FOUNDATION

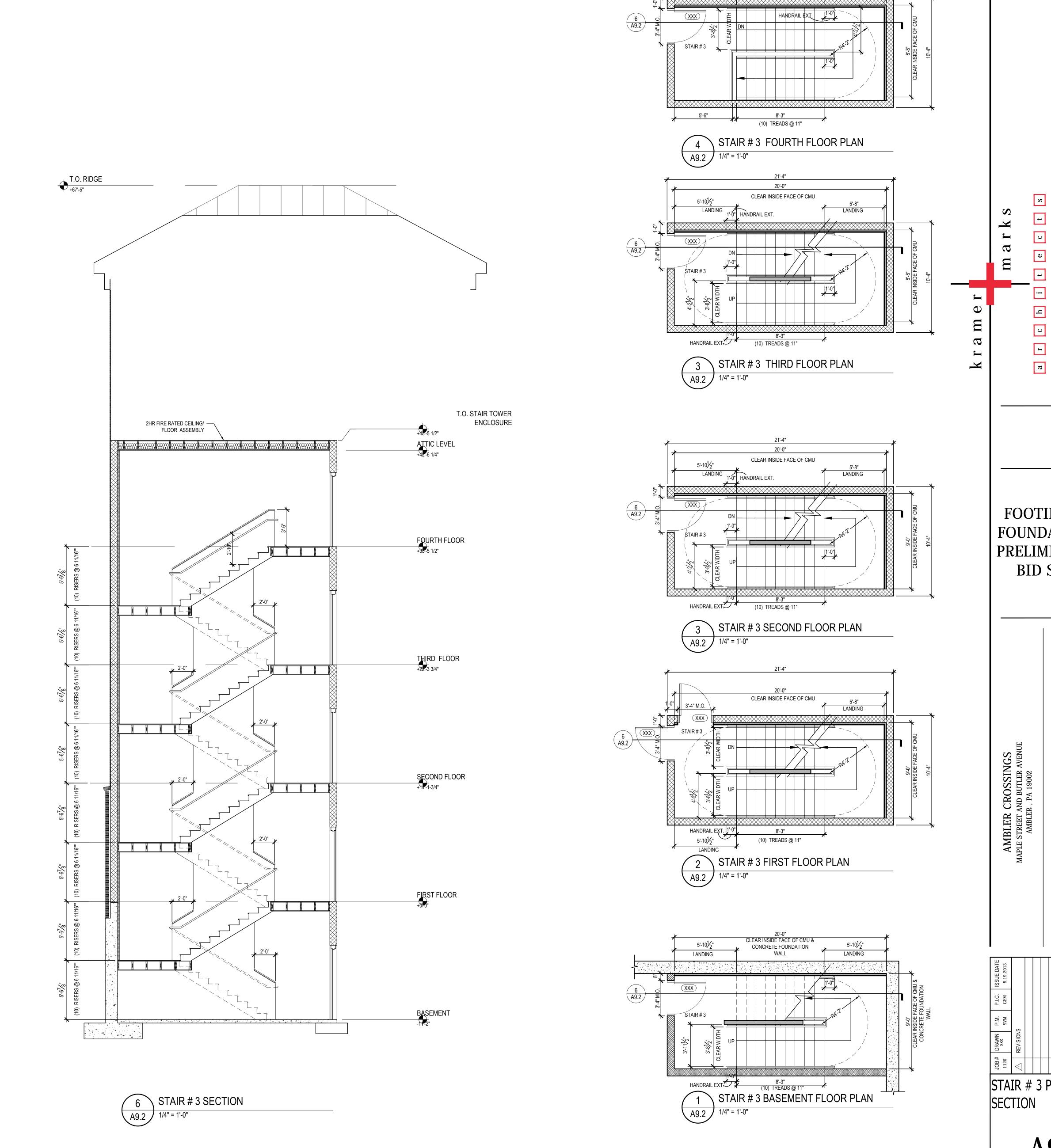
PRELIMINARY

BID SET

ALTERNATING TREAD DEVICE TO — ACCESS ATTIC SPACE. OCCURS ONLY AT STAIRS # 2 & 4 T.O. RIDGE +57'-2" INSULATED(R19) & 2HR FIRE —— RATED ACCESS ROOF HATCH T.O. STAIR TOWER ENCLOSURE 2HR FIRE RATED CEILING/ FLOOR ASSEMBLY +43'-5 1/2" ATTIC LEVEL +42'-6 1/4" ALTERNATING TREAD DEVICE TO — ACCESS ATTIC SPACE. OCCURS ONLY AT STAIRS # 2 & 4 FOURTH FLOOR
+33'-5 1/2" THIRD FLOOR +22'-3 3/4" 2HR FIRE RATED CEILING/ FLOOR ASSEMBLY SECOND FLOOR S 2 A9.1 FIRST FLOOR BASEMENT
-11'-2" 6 STAIR # 'S 2 & 4 SECTION
9.1 1/4" = 1'-0"

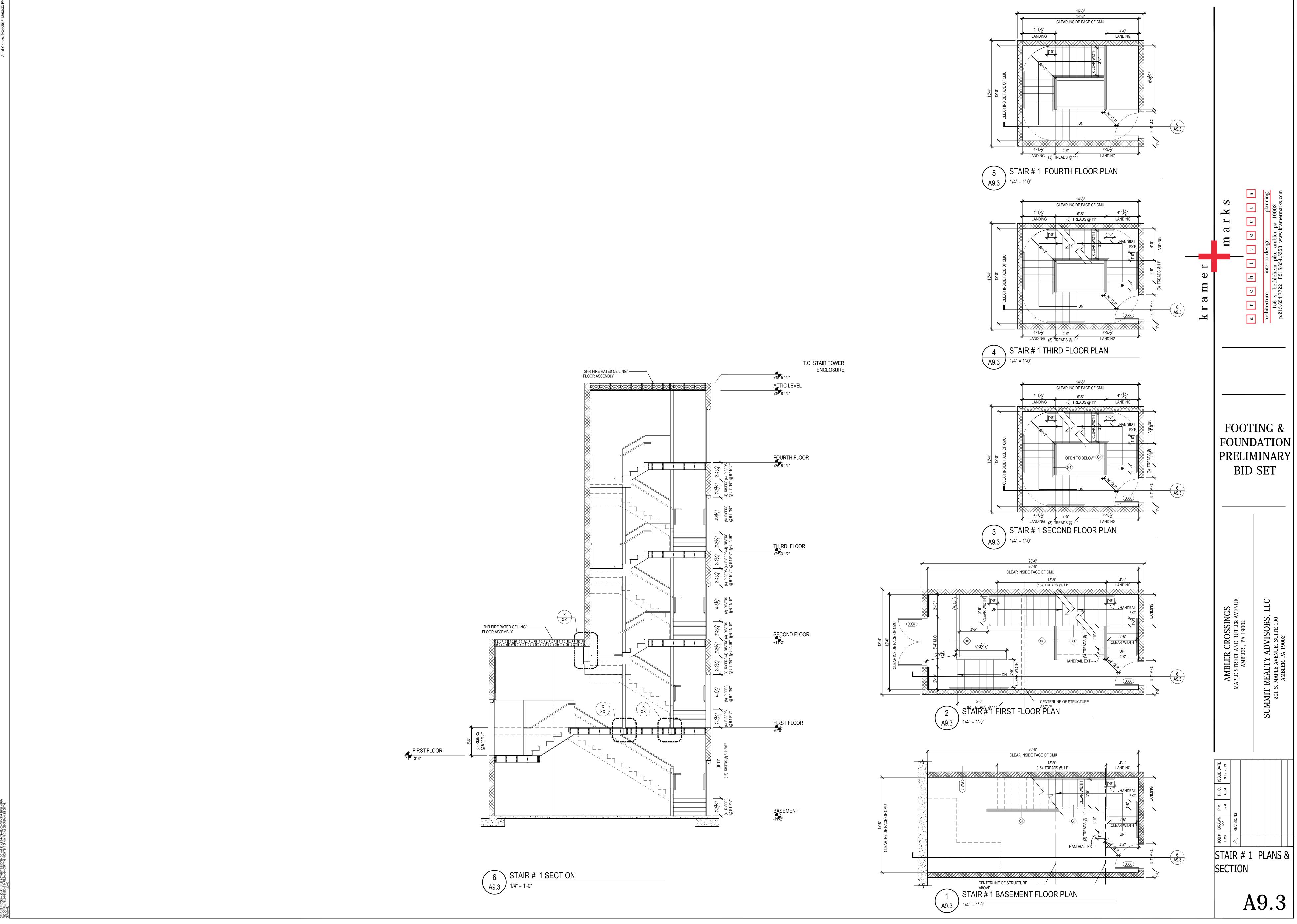


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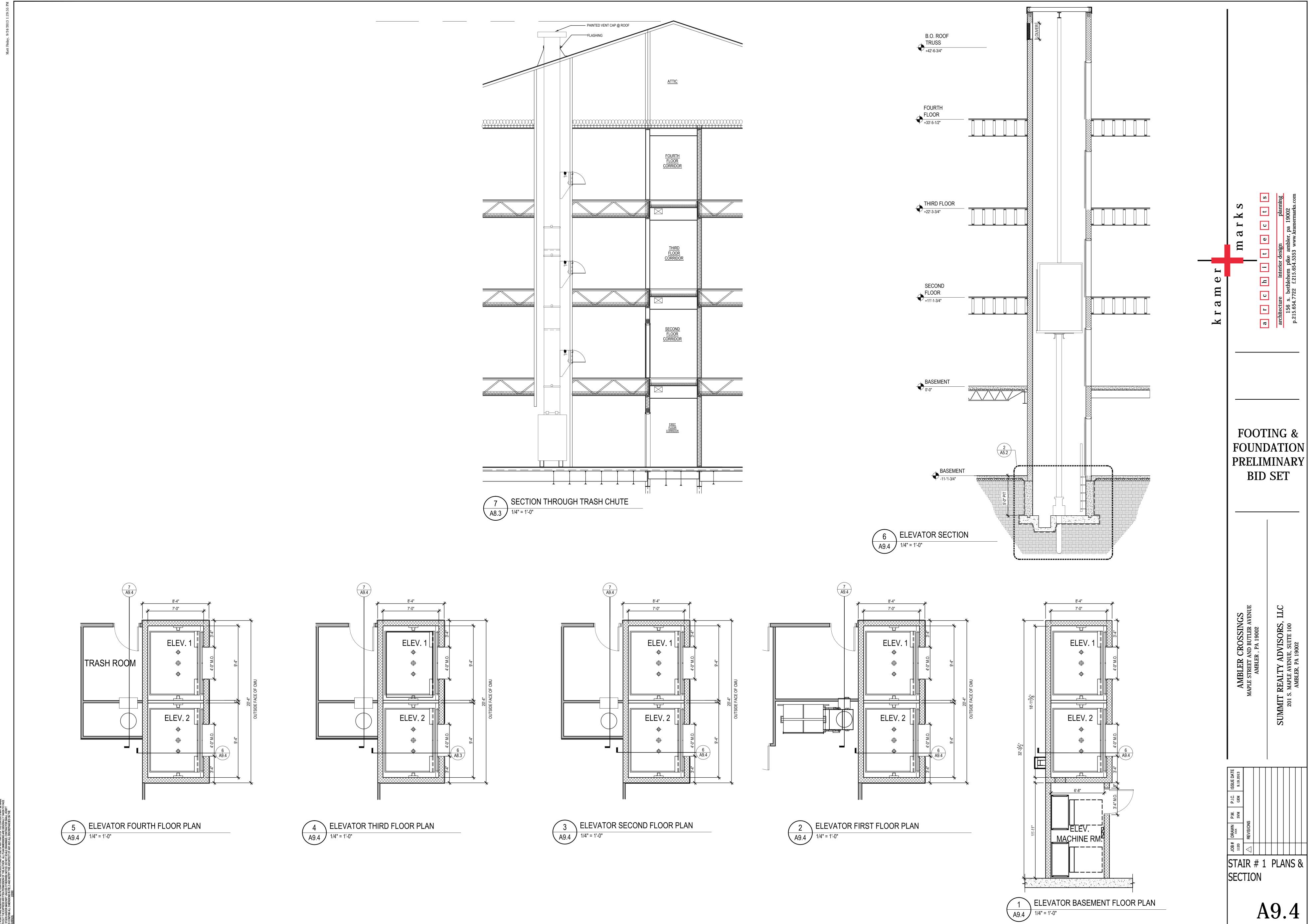


FOOTING & FOUNDATION PRELIMINARY BID SET SUMMIT REALTY ADVISORS, 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 STAIR # 3 PLANS & A9.2

20'-0"
CLEAR INSIDE FACE OF CMU



IO ALTERATIONS, REPRODUCTIONS OR USE OF ANY PARTS OF THE CONTENTS MAY BE MA TEN PERMISSION OF THE AUTHOR. ALL PLAN DIMENSIONS ARE GENERALLY TAKEN TO FA



- THE PROJECT SPECIFICATIONS ARE A PART OF THE CONTRACT
- DOCUMENTS. THE CONTRACTOR SHALL EXAMINE THE STRUCTURAL DRAWINGS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN ELEVATIONS, DIMENSIONS, AND SITE CONDITIONS BEFORE PROCEEDING WITH ANY WORK. OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE DRAWINGS AND SPECIFICATIONS SHALL BE RESOLVED WITH THE
- ENGINEER/ARCHITECT PRIOR TO THE START OF WORK. ALL CONSTRUCTION SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE 2009, AND TO ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS INCLUDING, BUT NOT LIMITED TO ALL APPLICABLE OSHA AND ADA REQUIREMENTS.
- DESIGN AND CONSTRUCTION OF ANY TEMPORARY OR PERMANENT SUPPORT AND PROTECTION SYSTEMS REQUIRED DURING ANY CONSTRUCTION WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL ENGINEER TO DESIGN SUCH SYSTEMS.
- WHERE ALTERATIONS INVOLVE ANY EXISTING STRUCTURE, THE CONTRACTOR SHALL DESIGN AND CONSTRUCT TEMPORARY SUPPORT AND PROTECTION SYSTEMS DESIGNED TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE. THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL ENGINEER TO DESIGN SUCH SYSTEMS.
- THE DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE. THEY DO NOT INDICATE THE MEANS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AND BE SOLELY RESPONSIBLE FOR ALL MEASURES AND MEANS NECESSARY TO PROTECT PERSONS AND THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, MANES, METHODS, COORDINATION, BRACING, SHORING, ETC. OBSERVATION VISITS BY THE ARCHITECT OR ENGINEER DOES NOT INCLUDE INSPECTION OF THOSE
- THE CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL PERSONS AND PROPERTY IN, AROUND AND ADJACENT TO THE CONSTRUCTION AREA. ADEQUATE BARRIERS SHALL BE PROVIDED TO EXERCISE CONTROL OF SAFE TRAFFIC FLOWS, AS WELL AS SAFE INGRESS AND EGRESS OF BUILDING AND SITE. FIRE EXITS, DRIVEWAYS AND FIRE LANES SHALL AT NO TIME BE BLOCKED. CORDON ALL AREAS AROUND OR ADJACENT TO CONDITIONS WHICH REPRESENT A HAZARD TO PERSONS OR PROPERTY
- NOTES & DETAILS ON THE STRUCTURAL DRAWINGS TAKES PRECEDENCE OVER THESE STANDARD STRUCTURAL NOTES. TYPICAL DETAILS SHALL BE USED WHENEVER APPLICABLE. REFER TO SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE NOTES OR DRAWINGS. ALL WORK NOT DETAILED OR NOTED SHALL BE CONSTRUCTED IN
- ACCORDANCE WITH OTHER SIMILAR WORK SHOWN ON THE DRAWINGS AND TYPICAL DETAILS. DIMENSIONS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- 10. THE CONTRACTOR SHALL PREPARE ONE SET OF MARKED DRAWINGS WITH AS-BUILT INFORMATION FOR RETURN TO THE OWNER.
- 11. ALL COSTS OF INVESTIGATION, REDESIGN AND DOCUMENTATION DUE TO CONTRACTOR IMPROPER INSTALLATION OF STRUCTURAL ELEMENTS OR ITEMS NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 12. ALL COSTS OF REVISIONS REQUESTED FOR THE CONTRACTOR'S CONVENIENCE SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 13. THE CONTRACTOR SHALL COORDINATE AND WORK ALL DRAWINGS
- 14. NO PIPES OR DUCTS SHALL BE PLACED IN STRUCTURAL MEMBERS UNLESS SPECIFICALLY DETAILED AND APPROVED BY THE ENGINEER
- 15. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING: A. SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS EXCEPT
- B. SIZE AND LOCATION OF INTERIOR AND EXTERIOR NON-BEARING PARTITIONS. PROVIDE SLIP CONNECTIONS THAT ALLOW VERTICAL MOVEMENT AT THE TOPS OF ALL SUCH PARTITIONS. CONNECTIONS SHALL ALSO BE DESIGNED TO LATERALLY SUPPORT THE TOP OF THE WALL FOR THE CODE-REQUIRED LATERAL LOAD.
- C. SIZE AND LOCATION OF CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGES IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC. D. DETAILS RELATED TO SUBSURFACE DRAINAGE, INSULATION AND
- E. SIZE AND LOCATION OF FLOOR ROOF OPENINGS EXCEPT AS SHOWN.
- FLOOR AND ROOF FINISHES. G. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS. 16. SEE MECHANICAL, PLUMING, AND ELECTRICAL DRAWINGS FOR THE
- FOLLOWING: A. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB

UNEXPECTED UTILITY LINES, ETC.

- OPENINGS, ETC. EXCEPT AS SHOWN OR NOTED. B. ELECTRICAL CONDUIT, BOXES, OUTLETS.
- C. CONCRETE INSERTS FOR ELECTRICAL MECHANICAL, AND PLUMBING FIXTURES.
- D. SIZE AND LOCATION OF MACHINE AND EQUIPMENT BASES, ANCHOR BOLTS, ETC.
- 17. ASTM REFERENCES ARE FOR LATEST REVISIONS AND ISSUE, UNLESS OTHERWISE NOTED.
- 18. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEANING AND EXCAVATION FOR UNSUITABLE CONDITIONS, UNCONSOLIDATED AND UNDOCUMENTED FILLS, BURIED STRUCTURES, UTILITIES, ETC. AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY SITE CONDITIONS NOT REFLECTED ON THE DRAWINGS OR DIFFERENT FROM MAXIMUM OR MINIMUM DIMENSIONS INDICATED, INCLUDING CONFLICTS IN GRADES, ADVERSE SOIL CONDITIONS, GROUND WATER PRESENT, DEEPENED FOOTINGS, UNCOVERED AND
- 19. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON STRUCTURAL FRAME. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOADS. PROVIDE SHORING AND BRACING WHERE DESIGN STRENGTH HAS NOT BEEN ATTAINED OR STRUCTURE IS NOT COMPLETE.
- 20. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN THE AREA TO BE EXCAVATED BEFORE DIGGING, EXERCISE EXTREME CAUTION WHEN EXCAVATING & TRENCHING.
- 21. IF THE EXISTING FIELD CONDITIONS DO NOT PERMIT THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS INDICATED ON THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY AND PROVIDE A SKETCH OF THE CONDITION WITH A PROPOSED MODIFICATION OF THE DETAILS GIVEN ON THE CONTRACT DOCUMENTS. DO NOT COMMENCE WORK UNTIL CONDITION IS RESOLVED AND THE MODIFICATION HAS BEEN REVIEWED BY THE ENGINEER AND APPROVED BY THE ARCHITECT.
- 22. ANY DISCREPANCIES BETWEEN THE GENERAL NOTES, SPECIFICATIONS, DRAWINGS, CODES OR STANDARDS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR DIRECTION PRIOR TO PROCEEDING WITH CONSTRUCTION, FABRICATION OR PROCUREMENT OF MATERIALS.

<u>ABBREVIA</u>	TIONS	(0)	
AB	ANCHOR BOLT	N.I.C.	NOT IN CONTRACT
AFF	ABOVE FINISH FLOOR	OPP	OPPOSITE
ASTM	AMERICAN SOCIETY OF TESTING	P.T.	PRESSURE TREATED
	MATERIALS	PL	PLATE
ВМ	BEAM	PSF	POUNDS PER SQUARE FOOT
B.S.	BOTH SIDES	PSL	PARALLAM
BTM	ВОТТОМ	PSI	POUNDS PER SQUARE INCH
CLR	CLEAR	RD	ROOF DRAIN
do	DITTO	SHTG	SHEATHING
(E)	EXISTING	SQ	SQUARE
EA	EACH	STD	STANDARD
EXT	EXTERIOR	T&B	TOP & BOTTOM
FD	FLOOOR DRAIN	T&G	TONGUE & GROOVE
FLR	FLOOR	T.D.	TRENCH DRAIN
GWB	GYPSUM WALL BOARD	TYP.	TYPICAL
HDR	HEADER	U.N.O.	UNLESS NOTED OTHERWISE
INT	INTERIOR	WWF	WELDED WIRE FABRIC
JST	JOIST	W/	WITH
LB	POUND	W/O	WITHOUT
LLH	LONG LEG HORIZONTAL	WD	WOOD
LLV	LONG LEG VERTICAL		

## STEEL DECK NOTES:

- STEEL DECK SHALL BE APPROVED BY THE STEEL DECK INSTITUTE AND BE MANUFACTURED AND ERECTED IN STRICT ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
- PROVIDE WELDING WASHERS FOR ALL DECKS LIGHTER THAN 22 GAGE. DECK CONTRACTOR SHALL COORDINATE AND PROVIDE ALL FLOOR AND ROOF
- DECK OPENINGS AS REQUIRED. SHOP DRAWINGS ON ALL STEEL DECKING MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW.

#### STEEL JOIST NOTES:

- ALL STEEL JOISTS SHALL BE APPROVED BY THE STEEL JOIST INSTITUTE AND BE MANUFACTURED AND ERECTED IN STRICT ACCORDANCE WITH THE LATEST
- S.J.I. SPECIFICATIONS. ALL BRIDGING FOR K-SERIES JOISTS SHALL BE L 1 1/4 X 1 1/4 X 1/8, UNLESS OTHERWISE NOTED ON DRAWINGS, BRIDGING SPACING SHALL NOT
- EXCEED THE SPACING REQUIRED BY S.J.I. SHOP DRAWINGS OF ALL STEEL JOISTS, INCLUDING ERECTION DETAILS SHOWING ALL FIELD WELDS, SHALL BE SUBMITTED TO THE ENGINEER FOR
- 4. ALL JOISTS MUST BE SHOP PAINTED IN ACCORDANCE WITH S.J.I. SPECIFICATIONS.

#### CONCRETE & REINFORCING STEEL NOTES:

- 1. ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 28 DAYS, EXCEPT AS LISTED BELOW, OR OTHERWISE
- NOTED ON THE DRAWINGS. (SLABS  $F_c' = 4000 \text{ PSI}$ ). 2. ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED (6%). ALL CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4". ALL INTERIOR
- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318, AND ACI 301. AND LOCAL CODES.

SLABS TO BE NON-AIR ENTRAINED CONCRETE.

- 4. ALL CONCRETE FORM WORK SHALL CONFORM TO THE REQUIREMENTS OF
- ACI 347. 5. FLOOR SLABS SHALL HAVE A CLASS 'A' TROWELED FINISH AND BE CURED IN ACCORDANCE WITH ACI 301 AND ACI 308.
- CONSTRUCTION JOINTS WHICH ARE USED IN SLABS OR FOOTINGS SHALL BE LOCATED AT POINTS OF MINIMUM SHEAR. ALL JOINTS SHALL BE KEYED AND HAVE REINFORCING RUN THROUGH THE JOINT OR BE DOWELED WITH SUFFICIENT LAP TO DEVELOP THE FULL STRENGTH OF THE REINFORCING.
- ALL REINFORCING STEEL SHALL BE DEFORMED HIGH BOND BARS MADE OF NEW BILLET STEEL AND SHALL CONFORM TO ASTM A-615 GRADE 60 (Fy = 60 KSI)
- 8. REINFORCING STEEL SHALL BE DETAILED, FABRICATED, AND PLACE IN ACCORDANCE WITH THE MANUAL OF STANDARD PRACTICE FOR DETAILING ACI 315.
- 9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. ALL W.W.F. TO BE SUPPORTED ON CHAIRS AND TO BE 3/4" FROM TOP OF SLAB.
- 10. LENGTH OF REINFORCING LAPS, AND WELDED WIRE FABRIC LAPS, SHALL CONFORM TO ACI BUILDING CODE REQUIREMENTS. 11. PRIOR TO PLACEMENT OF CONCRETE REINFORCING, SHOP DRAWINGS OF
- ALL CONCRETE REINFORCING MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW. 12. PRIOR TO POURING CONCRETE SLABS, THE POUR SCHEDULE MUST BE
- 13. PRIOR TO POURING CONCRETE, MECHANICAL AND ELECTRICAL CONTRACTORS SHALL VERIFY ALL OPENINGS, TRENCHES AND SLEEVES FOR THEIR EQUIPMENT. REVIEW LOCATIONS OF ALL PENETRATIONS WITH ENGINEER PRIOR TO POURING CONCRETE.

SUBMITTED TO ARCHITECT FOR REVIEW.

### **FOUNDATION NOTES:**

- 1. FOUNDATIONS SHALL BEAR ON FIRM COMPACTED FILL CAPABLE OF SUPPORTING 4000 PSF.
- 2. SELECTED FILL SHALL BE COMPACTED TO 98% MAXIMUM DENSITY AS DETERMINED IN CONFORMANCE WITH ASTM D-1557. COMPACTED FILL MUST BE APPROVED BY QUALIFIED SOILS ENGINEER OR CERTIFIED TESTING LABORATORY. ALL EXCAVATION AND BACKFILLING IS OUTLINED IN SOILS REPORT, SOILS REPORT, SEE NOTE #11.
- FOUNDATION SUBGRADE SHALL BE INSPECTED AND TESTED BY QUALIFIED SOILS ENGINEER OR CERTIFIED TESTING LABORATORY. A CERTIFIED TESTING REPORT SHALL BE SUBMITTED TO ARCHITECT PRIOR TO PLACEMENT OF REINFORCING STEEL. PRIOR TO POURING, SHOP DRAWINGS OF ALL REINFORCEMENT MUST BE SUBMITTED TO ENGINEER FOR REVIEW. PRIOR TO POURING FOOTERS, THE POUR SCHEDULE(S) MUST BE SUBMITTED TO ARCHITECT FOR REVIEW.
- EDGES OF ADJACENT FOOTINGS SHALL NOT BE PLACED AT DIFFERENCE IN ELEVATION CREATING A SLOP GREATER THAN 1 VERTICAL TO 2
- HORIZONTAL. PROVIDE STEPPED FOOTINGS AS PER DETAIL WHERE NECESSARY.
- 6. ALL FOOTINGS SHALL HAVE DOWELS OF THE SAME SIZE AND NUMBER AS THE VERTICAL REINFORCEMENT IN THE PIER, PILASTER, COLUMN OR WALL THE FOOTINGS SUPPORT.
- CONTRACTOR SHALL PROTECT ALL EXCAVATIONS, INCLUDING STRUCTURES WHICH MAY BE INVOLVED, WITH PROPER SAFEGUARDS INCLUDING BRACING AND SHORING.
- BOTTOMS OF EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 3'-0" BELOW FINISHED EXTERIOR GRADE. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN THIS REQUIREMENT AND FOOTING ELEVATIONS SHOWN ON THE DRAWINGS.
- 9. IF BUILDING IS UNHEATED DURING WINTER CONSTRUCTION CONTRACTOR MUST PROTECT INTERIOR FOOTINGS FROM ADVERSE FROST ACTION.
- 10. CONTRACTOR SHALL NOT BACKFILL AGAINST ANY BASEMENT OR RETAINING WALL WHICH IS LATERALLY SUPPORTED BY A FLOOR AT THE TOP UNTIL THE FLOOR IS RIGIDLY IN PLACE. CONTRACTOR MUST PROVIDE SHORING AS REQUIRED.
- 11. FOR ADDITIONAL INFORMATION SEE SOILS REPORT BY EARTH ENGINEERS, INC. EEI PROJECT NO 26014.00, AUGUST 21, 2013.

#### **MASONRY NOTES:**

- 1. ALL CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE 'BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES' (ACI 530-05/ASCF 5-05/TMS 402-05) AND THE 'SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING CONCRETE MASONRY', (N.C.M.A.).
- HOLLOW LOAD BEARING MASONRY UNITS SHALL CONFORM TO ASTM C-90, GRADE 'N', TYPE I OR II HAVING TWO (2) CORES. CONCRETE MASONRY UNITS (C.M.U.) SHALL BE GRADE 'N' REGULAR WEIGHT UNITS IN ACCORDANCE WITH ASTM C-90 (f'm = 1500 psi). BOND BEAMS SHALL BE CONSTRUCTED OF DOUBLE OPEN ENDED BOND BEAM BLOCK WITH REINFORCING BAR. ALL CELLS IN RETAINING WALL AND IN WALLS BELOW GRADE SHALL BE FILLED SOLID WITH GROUT. ALL CELLS CONTAINING REBAR SHALL BE FILLED WITH GROUT, AND SHALL NOT CONTAIN CONDUIT OR ELECTRICAL BOXES. MORTAR SHALL CONFORM TO ASTM C-270 TYPE
- 3. LIGHTWEIGHT HOLLOW LOAD BEARING CONCRETE MASONRY UNITS, ASTM C-90, GRADE 'N', TYPE I MOISTURE CONTROLLED UNITS. SOLID UNITS ASTM C145 OR C55, SIZE, EIGHT (8) INCHES BY SIXTEEN (16) INCHES NOMINAL FACE DIMENSION BY THICKNESS AS INDICATED. (f'm = 1500
- 4. PRISM TEST OF MASONRY UNITS SHALL BE MADE IN ACCORDANCE WITH ASTM E-447.
- 5. MORTAR SHALL CONFORM TO ASTM C-270, TYPE 'M' FOR MASONRY IN CONTACT WITH THE EARTH AND FOR FILLING CONCRETE BLOCK, TYPE 'S' FOR EXPOSED MASONRY WALLS. COMPRESSIVE STRENGTH OF THE MORTAR AT 28 DAYS SHALL BE:
- A. TYPE 'M' 2500 psi
- B. TYPE 'S' 2000 psi
- 6. MORTAR SHALL BE TESTED IN ACCORDANCE WITH ASTM C-780. 7. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 psi AT 28 DAYS AND SHALL CONFORM TO ASTM C-476. GROUT SHALL BE
- TESTED IN ACCORDANCE WITH ASTM C-476. 8. HORIZONTAL JOINT REINFORCING SHALL BE TRUSS TYPE, HOT DIPPED GALVANIZED, COLD DRAWN STEEL CONFORMING TO ANSI/ASTM A82. MAXIMUM SPACING TO BE 16" O.C. UNLESS OTHERWISE NOTED ON
- 9. INTERSECTING C.M.U. WALLS SHALL HAVE FLAT BAR ANCHORS 1/4"X1 1/2" AT 16" O.C. VERTICALLY FOR TIES.
- 10. WHEN THE TEMPERATURE FALLS BELOW 40 DEGREES F, PROVISIONS SHALL BE MADE FOR COLD WEATHER WORK. (SEE SPECIFICATIONS)
- A. COLD WEATHER PRECAUTIONS: DO NOT LAY MASONRY IN LESS THAN 40 DEGREES F, OR EXPECTED LOWER TEMPERATURES UNLESS SUITABLE MEANS ARE PROVIDED TO HEAT THE MATERIALS AND TO PROTECT THE UNCURED MORTAR FROM FROST DAMAGE. NO ANTIFREEZE COMPOUNDS OR CALCIUM CHLORIDE MAY BE ADDED TO THE MORTAR AT ANY TIME. REMOVE SNOW AND ICE FROM ALL PREVIOUSLY LAID MASONRY BY ELEVATING THE TEMPERATURE OF THE AIR AROUND IT, DO NOT HEAT THE MASONRY DIRECTLY. CONSULT ARCHITECT AND/OR CONSTRUCTION MANAGER FOR PROTECTION/HEATING REQUIREMENTS IF BRICK IS ON THE SURFACE OF THE MORTAR DURING THE TOOLING AND COMPRESSING STAGE, RAKE THE MORTAR OUT TO A DEPTH OF 1/2" AND COVER WALL. WHEN AIR TEMPERATURES RECOVER ABOVE 40 DEGREES F AND WILL NOT FALL BELOW 32 DEGREES F AGAIN WITHIN 12 HOURS, TUCK POINT THE RAKED JOINT WITH FRESH MORTAR, TOOL AND
- COMPRESS. B. HOT WEATHER PROTECTION: ALL BRICK UNITS SHALL BE DAMPENED TO PREVENT PRE-HYDRATION OF THE CONTACT SURFACES BETWEEN THE BRICK AND MORTAR IN CONFORMANCE WITH THE STRUCTURAL CLAY PRODUCTS INSTITUTE RECOMMENDATIONS. IF THE JOB SITE AIR TEMPERATURE IS ABOVE 80 DEGREES F DURING THE WORK DAY, MORTAR SHALL BE PLACED IN FINAL POSITION WITHIN ONE (1) HOUR AFTER MIXING.
- 11. UTILIZE HIGH-LIFT OR LOW-LIFT GROUTING TECHNIQUES IN ACCORDANCE WITH ABOVE CODES WHERE GROUTING IS NECESSARY.
- 12. ALL REINFORCED MASONRY WORK SHALL BE CONTINUOUSLY INSPECTED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE ARCHITECT.
- 13. ALL VERTICALLY REINFORCED WALLS AND PILASTERS MUST HAVE DOWELS
- TO FOOTINGS, SAME SIZE & SPACING AS VERTICAL REINFORCING. 14. THE FIRST COURSE OF EACH LEVEL SHALL HAVE FULL MORTAR BEDDING.
- 15. TEMPORARY BRACE WALLS AS REQUIRED DURING ERECTION UNTIL FLOORS AND ROOF ARE IN PLACE.
- 16. ALL C.M.U. TO BE GROUTED SOLID FROM FOUNDATION TO UNDERSIDE OF ALL BRICK SHELVES AT GRADE.

#### STRUCTURAL DESIGN CRITERIA (I.B.C. 2009, CHAPTER 16) FLOOR LIVE LOADS (SECTION 1607) ROOMS 40 PSF CORRIDORS 80 PSF

- STAIRS, LOBBY, ASSEMBLY 100 PSF LIVE LOAD REDUCTION FACTOR (IF ANY) ROOF LIVE LOAD
  PONDING & SNOW DRIFTING TO BE IN ACCORDANCE WITH IBC.
- 3. ROOF SNOW LOAD (SECTION 1608) = 25 PSF A. GROUND SNOW LOAD (Pg) B. FLAT ROOF SNOW LOAD (Pf) = 26 PSF C. SNOW EXPOSURE FACTOR (Ce) = 0.7
- SNOW LOAD IMPORTANCE FACTOR (Is) THERMAL FACTOR (Ct) SNOW DRIFT AS PER IBC CODE
- WIND LOADS (SECTION 1609) MAIN-WIND FORCE RESISTING SYSTEM A. BASIC WIND SPEED (V) OCCUPANCY CATEGORY [IBC TABLE 1604.5]
- WIND LOAD IMPORTANCE FACTOR (Iw) WIND EXPOSURE CATEGORY (SECTION 1609.4) INTERNAL PRESSURE COEFFICIENT
- WIND DESIGN PRESSURE (P) (SECTION 1609.6) NET WIND UPLIFT ON ROOF H. COMPONENTS & CLADDING AS PER CODE

# POSITIVE NEGATIVE POSITIVE NEGATIVE

5. <u>EARTHQUAKE DESIGN DATA</u> OCCUPANCY CATEGORY [IBC TABLE 1604.5]

E. SITE CLASS [IBC 1613.5.2]

- SEISMIC IMPORTANCE FACTOR (Is) MAPPED SPECTRAL RESPONSE ACCELERATIONS (Ss) MAPPED SPECTRAL RESPONSE ACCELERATIONS (S1)
- SPECTRAL RESPONSE COEFFICIENTS (SDS) [IBC 16.13.5.4] G. SPECTRAL RESPONSE COEFFICIENTS (SD1) [IBC 16.13.5.4] H. SEISMIC DESIGN CATEGORY [IBC 16.13.5.6] BASIC SEISMIC-FORCE-RESISTING SYSTEM [ASCE 7 12.2] DESIGN BASE SHEAR (V) [ASCE 7 12.8.1]
- SEISMIC RESPONSE COEFFICIENT(S) (Cs) [ASCE 7 12.8.1.1] RESPONSE MODIFICATION COEFFICIENT (R) [ASCE 7 12.2] M. ANALYSIS PROCEDURE [ASCE 7 12.6]
- = 1.0 = 0.29

= CATEGORY I

= NONE

= 1.0

= 1.0

= 90 MPH

= 1.0

 $= 0.18 \pm$ 

= 22 PSF

= 10 PSF

= B

= CATEGORY

- = 0.06= D = 0.33
- = 0.14= B = A13= 0.05W
- = 0.05= 6 1/2 = EQUIVALENT LATERAL FORCE

## STRUCTURAL STEEL NOTES:

- ALL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS"
- 2. ALL STRUCTURAL STEEL SHALL BE ASTM A992 (Fy = 50 KSI). ALL STRUCTURAL STEEL TUBING SHALL BE ASTM A500. GRADE B (Fy = 46 KSI). ALL STRUCTURAL
- STEEL PIPE SHALL BE ASTM A501 (Fy = 36 KSI). ALL STEEL SHALL RECEIVE ONE SHOP COAT OF AN APPROVED PRIMER, 2 MIL.
- THICKNESS, EXCEPT MEMBERS TO HAVE SPRAYED ON FIREPROOFING. ALL EXPOSED STEEL TO BE GALVANIZED. 4. ALL BOLTS SHALL BE ASTM A-325 HIGH STRENGTH BOLTS, BEARING TYPE. ALL BOLTS SHALL BE 3/4" MINIMUM.
- ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION. ALL WELDERS SHALL HAVE BEEN QUALIFIED BY TESTS AND PRESCRIBED IN THE A.W.S. STANDARD CODE. WELDING ELECTRODES SHALL CONFORM TO E70 SERIES, ASTM A-233.
- THE STRUCTURAL STEEL CONTRACTOR SHALL VERIFY THE FOUNDATION CONSTRUCTION FOR ANCHOR BOLT LOCATION, ELEVATION OF TOP OF CONCRETE, LEVELING, OR BEARING PLATES, AND ALIGNMENT, ETC. PRIOR TO START OF
- 7. PROVIDE MASONRY ANCHORS @ 2'-8" O.C. MAX. SET ON COURSING, AND WELDED TO ALL BEAMS, HANGERS, AND COLUMNS ABUTTING OR EMBEDDED IN MASONRY UNLESS OTHERWISE NOTED ON DRAWINGS.
- SHOP DRAWINGS OF ALL STRUCTURAL STEEL MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. SHOP AND ERECTION DRAWINGS MUST SHOW
- 9. BURNING OF HOLES, CUTS, ETC. IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED EXCEPT WITH THE SPECIFIC APPROVAL OF THE ENGINEER, IN
- DOUBLE ANGLE FULL DEPTH CONNECTIONS, UNLESS OTHERWISE NOTED ON THE 11. FOR ELEVATIONS NOT SHOWN, THE STEEL DETAILER SHALL CALCULATE ALL TOP OF STEEL ELEVATIONS AND BEAM SLOPES AT ALL LEVELS. SEE ARCHITECTURAL
- DRAWINGS. 12. STEEL FABRICATOR SHALL PROVIDE L 2 1/2 X 2 1/2 X 3/16 DECK SUPPORTS AROUND ALL SIDES OF ALL COLUMNS AT ALL LEVELS.

10. ALL BEAM TO COLUMN AND BEAM TO BEAM CONNECTION SHALL BE STANDARD

- STEEL FABRICATOR SHALL PROVIDE L 3 X 3 1/4 AT ALL ROOF DRAIN LOCATIONS. 14. STEEL FABRICATOR SHALL PROVIDE ALL PLATES AND ANGLES AS REQUIRED TO SUPPORT ELEVATOR SILL ANGLES AT ALL FLOOR LEVELS.
- 15. STEEL FABRICATOR SHALL PROVIDE ANY ANGLES, TUBES, SHIMS, ETC. AS REQUIRED AT ALL MECHANICAL UNITS TO PROVIDE PROPER SUPPORT AND TO MAINTAIN A LEVEL CONDITION
- 16. BEFORE FABRICATING STEEL, CONTRACTOR, CONSTRUCTION MANAGER, FABRICATOR AND OTHER SUBCONTRACTORS SHALL VERIFY ALL MECHANICAL UNIT LOCATIONS AND OTHER OPENING SIZES WHICH AFFECT STEEL AND JOISTS 17. PROVIDE HOLES IN STEEL MEMBERS AS REQUIRED FOR FASTENING, BLOCKING, ETC
- MUST BE STAGGERED AND THEIR LOCATIONS MUST BE APPROVED BY THE 18. ALL STEEL TO BE PROVIDED BY THE STEEL FABRICATOR, UNLESS OTHERWISE NOTED ON THE DRAWINGS. STEEL FABRICATOR SHALL FURNISH ALL CLIPS, ANGLES, PLATES, ANCHORS, ETC. AS REQUIRED TO PRODUCE A COMPLETE JOB, INCLUDING ALL

REFER TO ARCHITECTURAL DRAWINGS. BOLT HOLES WHICH OCCUR IN BEAM FLANGES

- MEMBERS SHOWN ON THE ARCHITECTURAL DRAWINGS. STEEL FABRICATOR SHALL PROVIDE THREE TONS OF MISC. STEEL INSTALLED IN ADDITION TO THE MEMBERS SHOWN ON THE DRAWINGS. ADDITIONAL STEEL SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
- 19. ALL ERECTION TOLERANCES AS STATED IN THE AISC SPECIFICATION MUST BE STRICTLY ADHERED TO DURING ERECTION. ALL EXPOSED ARCHITECTURAL STEEL SHALL HAVE ALL AROUND WELDED
- CONNECTIONS WHICH ARE TO BE GROUNDED FLUSH, UNLESS OTHERWISE NOTED ON DRAWINGS. STEEL SHALL BE PAINTED AS REQUIRED BY THE ARCHITECT 21. IF THE STEEL FABRICATOR USES COPIES OF THE STRUCTURAL DRAWINGS FOR
- ERECTION PLANS THEN HE MUST VERIFY ALL DIMENSIONS, PROVIDE ADDITIONAL SECTIONS AND DETAILS AS REQUIRED FOR PROPER ERECTION, AND REVIEW ALL ARCHITECTURAL DRAWINGS FOR ADDITIONAL WORK REQUIRED. 22. ALL CONNECTIONS WELDED OR BOLTED, MUST BE INSPECTED, APPROVED AND CERTIFIED BY AN INDEPENDENT TESTING LAB, RETAINED BY THE CONTRACTOR. A
- CERTIFIED TESTING REPORT MUST BE SUBMITTED TO ENGINEER. 23. IF STEEL FABRICATOR SUBSTITUTES ANY STEEL BEAMS OR COLUMNS THAT ARE SHOWN ON THE DESIGN DRAWINGS DUE TO TIME OR AVAILABILITY. ALL SUBSTITUTIONS MUST BE SUBMITTED IN WRITING FOR APPROVAL TO STRUCTURAL ENGINEER BEFORE FABRICATION.
- 24. ALL BEAMS AND GIRDERS SHALL BE CONNECTED FOR THE REACTION DENOTED ON THE DESIGN DRAWINGS. IF NO REACTION IS GIVEN, PROVIDE CONNECTION FOLLOWING NOTE 25 BELOW. 25. ALL BEAM AND GIRDER CONNECTIONS SHALL BE AT LEAST CAPABLE OF DEVELOPING THE MAXIMUM TOTAL UNIFORM LOAD CAPACITY, AT EACH END, USING VALUES TABULATED IN TABLE 3-6 FROM THE AISC MANUAL OF STEEL

CONSTRUCTION, THIRTEENTH EDITION. ALL CONNECTIONS SHALL BE DESIGNED WITH

### SUBMITTAL AND SHOP DRAWING REQUIREMENTS NOTES:

INCLUDING THE SPECIFICATIONS.

1. THE CONTRACTOR SHALL SUBMIT FOR REVIEW BY THE ARCHITECT AND THE ENGINEER ALL INFORMATION REQUIRED BY THE CONTRACT DOCUMENTS,

ASD OR LRFD METHOD. PROVIDE A MINIMUM (2) BOLT CONNECTION.

- 2. SHOP DRAWINGS SHALL BE PREPARED, SUBMITTED AND REVIEWED PRIOR TO PROCEEDING WITH FABRICATION AND OR INSTALLATION OF THE ASSOCIATED WORK. REVIEW PERIOD SHALL BE A MINIMUM OF TWO (2) WEEKS. THE CONTRACTOR SHALL SUBMIT FOR REVIEW, DRAWINGS AND CALCULATIONS FOR ALL PERFORMANCE ASSEMBLIES IDENTIFIED IN THE GENERAL NOTES AND LISTED BELOW. THE DESIGN OF THESE ASSEMBLIES IS
- THE RESPONSIBILITY OF THE CONTRACTOR'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION. ALL SUBMITTALS SHALL BEAR CONTRACTOR'S ENGINEER'S SEAL AND SIGNATURE. REVIEW SHALL BE FOR GENERAL CONFORMANCE WITH THE PROJECT REQUIREMENTS AS INDICATED ON THE DRAWINGS AND IN THE GENERAL NOTES. A. NON-LOAD BEARING STUD WALL AND CURTAIN WALL SYSTEMS AND **RELATED CONNECTIONS:**
- DESIGNS SHALL TAKE INTO ACCOUNT ALL VERTICAL AND LATERAL LOADS REQUIRED BY APPLICABLE BUILDING CODES. BACK UP SYSTEM AND STUD WALLS SHALL BE DESIGNED FOR A MAXIMUM DEFLECTION OF 1/600 OF THE SPAN, OR 3/8", WHICHEVER IS LESS, AT THE APPLICABLE DESIGN WIND LOAD, CURTAIN WALLS SHALL BE DESIGNED FOR A MAXIMUM DEFLECTION AS INDICATED BY AAMA REQUIREMENTS UNLESS OTHERWISE NOTED IN
- SPECIFICATIONS. B. METAL STAIRS AND METAL RAILINGS: DESIGNS SHALL TAKE INTO ACCOUNT ALL VERTICAL AND LATERAL LOADS REQUIRED BY APPLICABLE BUILDING CODES. WHERE HEADERS OR OTHER TYPES OF STRUCTURAL MEMBERS HAVE BEEN DESIGNATED BY THE ENGINEER OF RECORD TO SUPPORT THE STAIRS. THE CONNECTIONS FROM THE STAIRS SHALL BE DESIGNED SO THAT NO ECCENTRIC OR TORSIONAL FORCES ARE INDUCED IN THESE STRUCTURAL MEMBERS. THE CONTRACTOR SHALL BE

RESPONSIBLE FOR FURNISHING AND INSTALLING HARDWARE AS

- REQUIRED BY THE STAIR DESIGN. 4. REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONTRACT DRAWINGS FOR RESUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOP DRAWINGS PRODUCED IN SUCH A MANNER WILL BE REJECTED AND RETURNED. SHOP DRAWINGS SHALL NOT BE SUBMITTED VIA FAX OR EMAIL. STRUCTURAL SHOP DRAWINGS SUBMITTED TO THE ENGINEER FOR REVIEW SHALL CONSIST OF TWO (2) SETS OF PRINTS. ONLY ONE (1) MARKED UP SET WITH THE REVIEW COMMENTS WILL BE RETURNED TO THE ARCHITECT. SHOP DRAWINGS SUBMITTED FOR REVIEW SHALL BEAR THE CONTRACTOR'S STAMP OF APPROVAL WHICH SHALL CONSTITUTE CERTIFICATION THAT THE CONTRACTOR HAS VERIFIED ALL CONSTRUCTION CRITERIA. DIMENSIONS. MATERIALS. AND SIMILAR DATA AND HAS CHECKED EACH DRAWING FOR COMPLETENESS, COORDINATION, AND COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR'S REVIEW INCLUDES BUT IS NOT LIMITED TO VERIFICATION & COORDINATION OF ACTUAL FIELD CONDITIONS, INCLUDING
- SUPPORTS, ANCHORAGES, AND OPENING FOR THE ACTUAL EQUIPMENT PURCHASED. THE SHOP DRAWINGS SHALL INCLUDE DIMENSIONED FLOOR AND ROOF EDGES, OPENINGS AND SLEEVES AT ALL FLOORS REQUIRED FOR ALL

DIMENSIONS AND ELEVATIONS, AS WELL AS ACTUAL DIMENSIONS FOR

# SCHEDULE OF STRUCTURAL SPECIAL INSPECTIONS

- "SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE JURISDICTION BUILDING DEPARTMENT INSPECTIONS REQUIRED BY SECTION 109 OF THE IBC.
  REPORTING FOR SPECIAL INSPECTION -
- SPECIAL INSPECTION AND TESTING REPORTS SHALL BE COMPLETED AND DISTRIBUTED AT THE COMPLETION OF EACH TASK. IF A TASK IS TO TAKE LONGER THAN (3) DAYS, PROVIDE REPORTS FOR EACH DAY. PROVIDE COPIES OF REPORTS TO CONTRACTOR, OWNER, ARCHITECT, AND STRUCTURAL ENGINEER OF RECORD. SPECIAL INSPECTOR TO KEEP A NON-COMPLIANCE LIST DOCUMENTING ITEMS INSPECTED NOT MEETING
- PROVED CONSTRUCTION DOCUMENTS AND WHEN/HOW RESOLVED. DOCUMENTS FOR ADDITIONAL NON-STRUCTURAL SPECIAL INSPECTION ITEMS.
- IN ACCORDANCE WITH IBC CHAPTER 17, THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS AND TESTING:

INSPECTION REQUIRED Y/N	VERIFICATION & INSPECTION	DURING TASK LISTED	PERIODICALLY DURING TASK	IBC SECTION	REFERENCED STANDARD
N	1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS & PLACEMENT.	-	×	1913.4	ACI 318: 3.5, 7.1-7.7
N	2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5b.	-	-	-	AWS D1.4, ACI 318; 3.5.2
N	3. INSPECT BOLTS & ANCHOR PLATES WITH ATTACHED HEADED STUDS, OR REBAR TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.	x	1	1911.5	-
Y	4. VERIFYING USE OF REQUIRED DESIGN MIX.	-	×	1904.2.2, 1913.2, 1913.3	ACI 318: CH.4, 5.2-5.4
Y	5. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	x	1	1913.10	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8
Y	6. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	×	-	1913.6, 1913.7, 1913.8	ACI 318: 5.9, 5.10
Y	7. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	1913.9	ACI 318: 5.11-5.13
	8. INSPECTION OF PRESTRESSED CONCRETE:				
N	a. APPLICATION OF PRESTRESSING FORCES	х	-	-	ACI 318: 18.20
N	b. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING-SYSTEM	x	-	-	ACI 318: 18.18.4
N	9. ERECTION OF PRECAST (TILT UP PANELS) CONCRETE MEMBERS.	-	Х	-	ACI 318: CH.16
N	10. VERIFICATION OF IN—SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST—TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORING AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	x	-	ACI 318: 6.2
N	11. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	х	-	ACI 318: 6.1.1
N	12. EPOXY ANCHORS AND EXPANSION ANCHORS WHERE CALLED FOR IN DRAWINGS.	-	X	-	-

PECIAL INSPECTION & VERIFICATION OF CONCRETE CONSTRUCTIO

FREQUENCY OF INSPECTION REFERENCE FOR CRITERIA

**FOOTING FOUNDATION PRELIMINARY** 

C

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STRUCTURAL NOTES BUILDING # 1 & #2 **CONTRACTOR NOTE:** CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH ANY WORK, AND SHALL BE RESPONSIBLE FOR SAME.

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THIS DRAWING MUST BE USED

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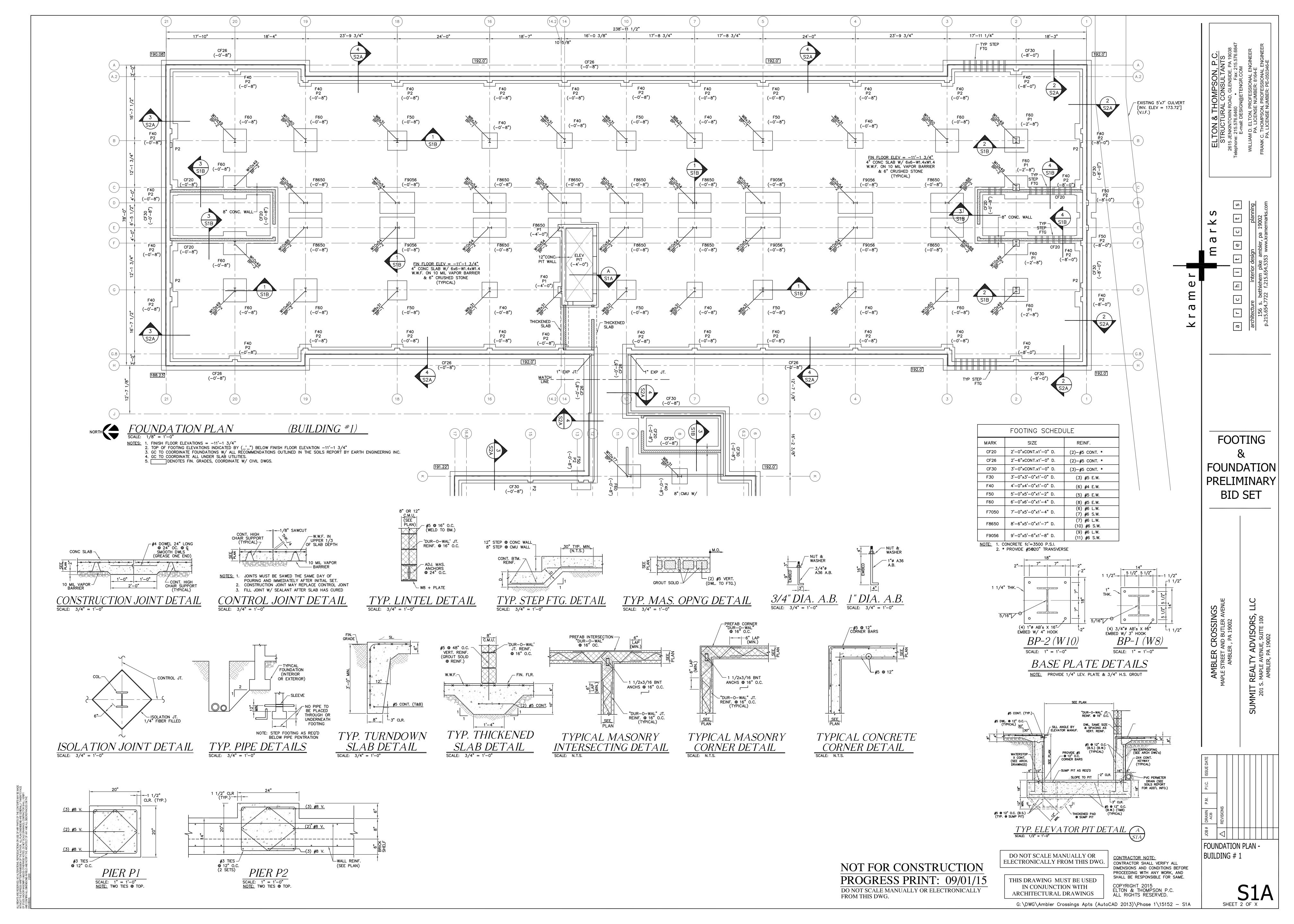
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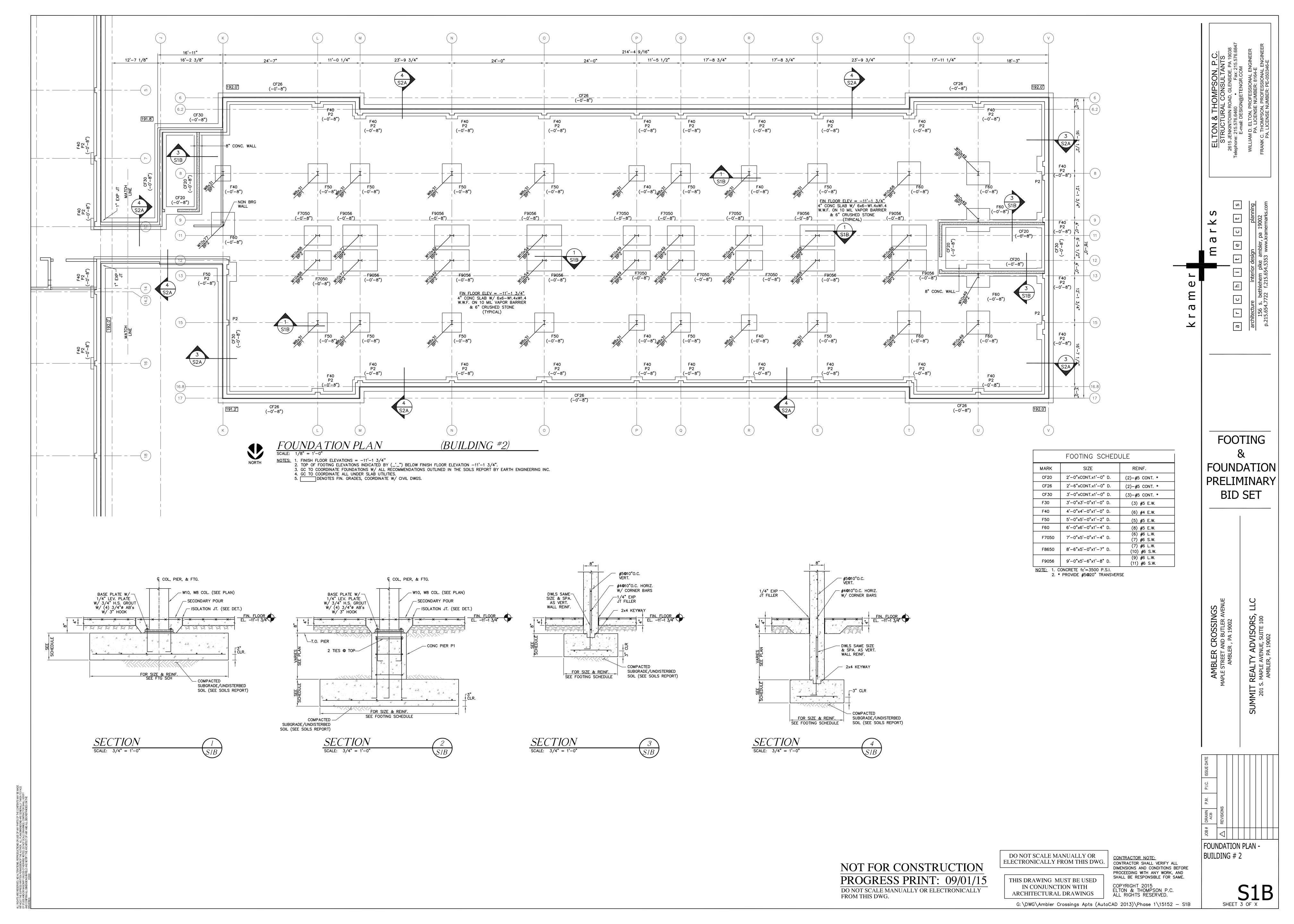
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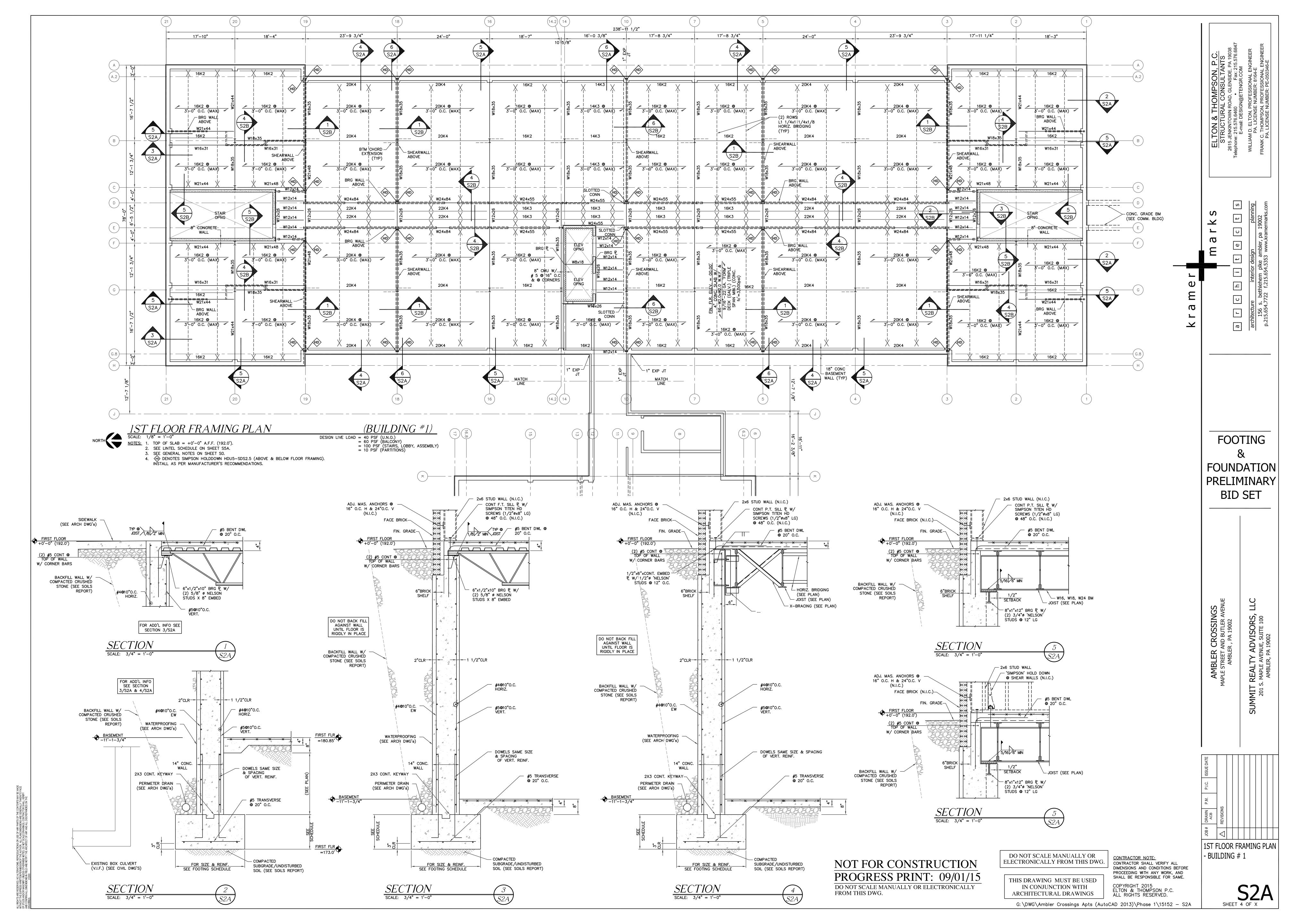
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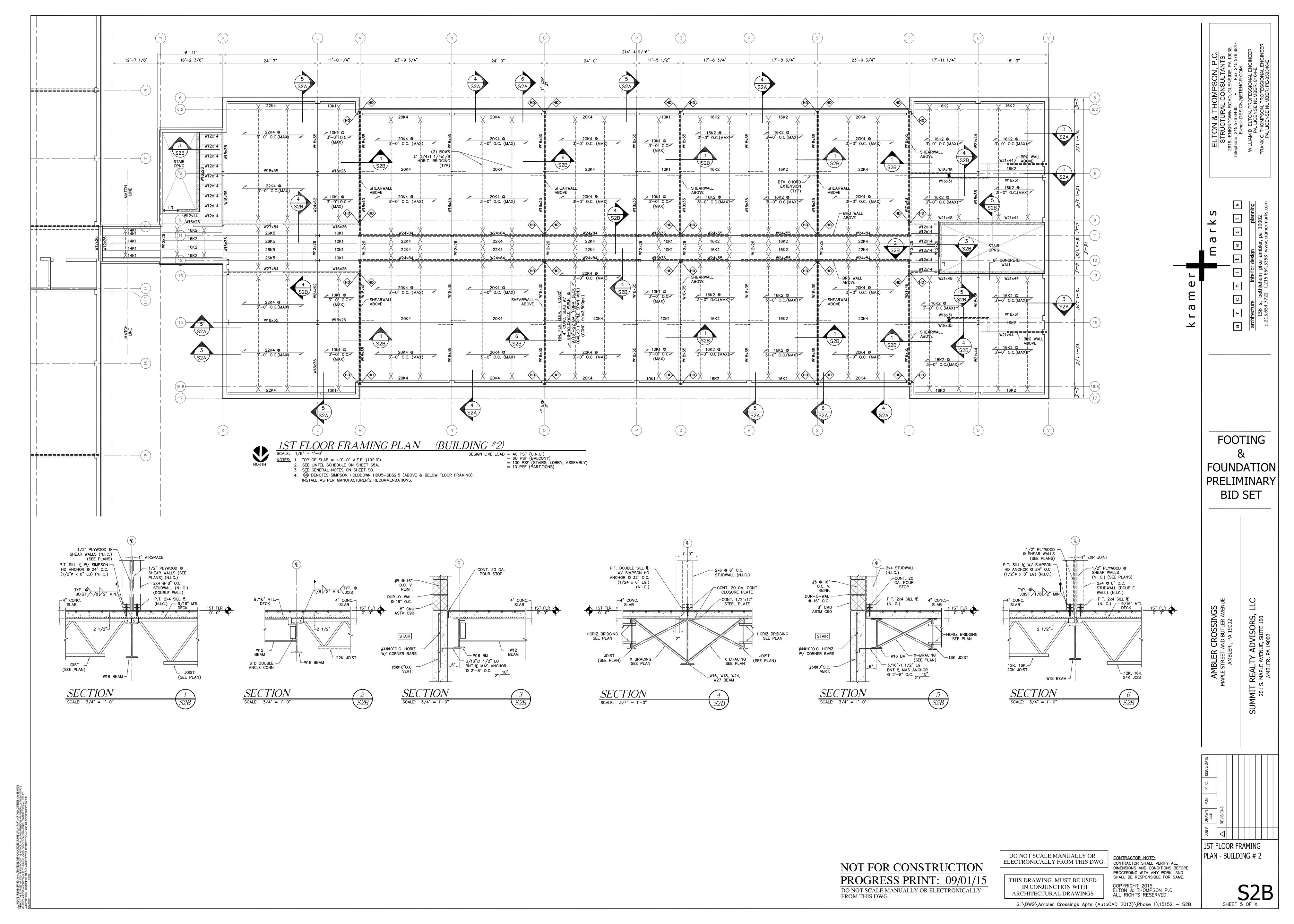
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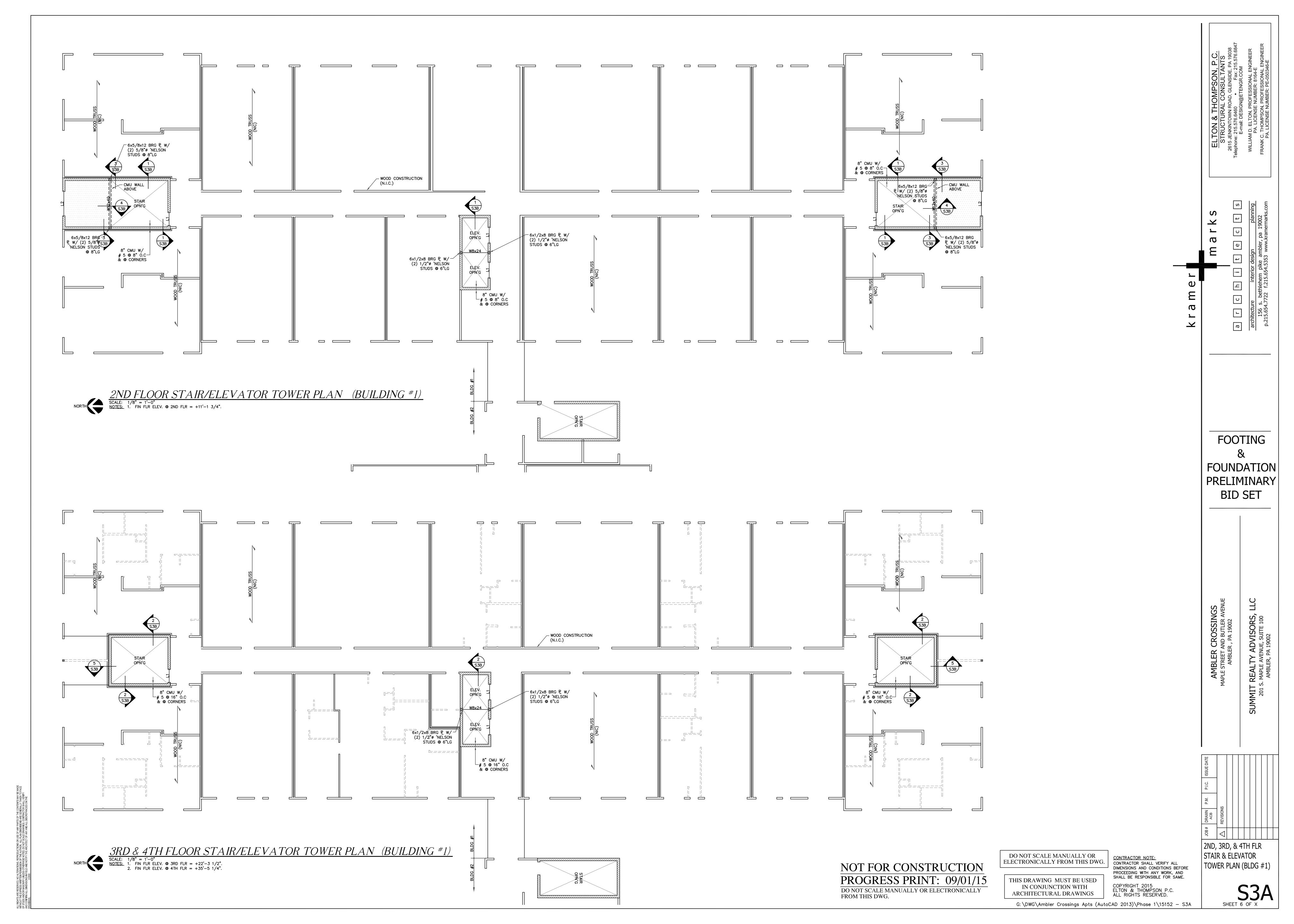
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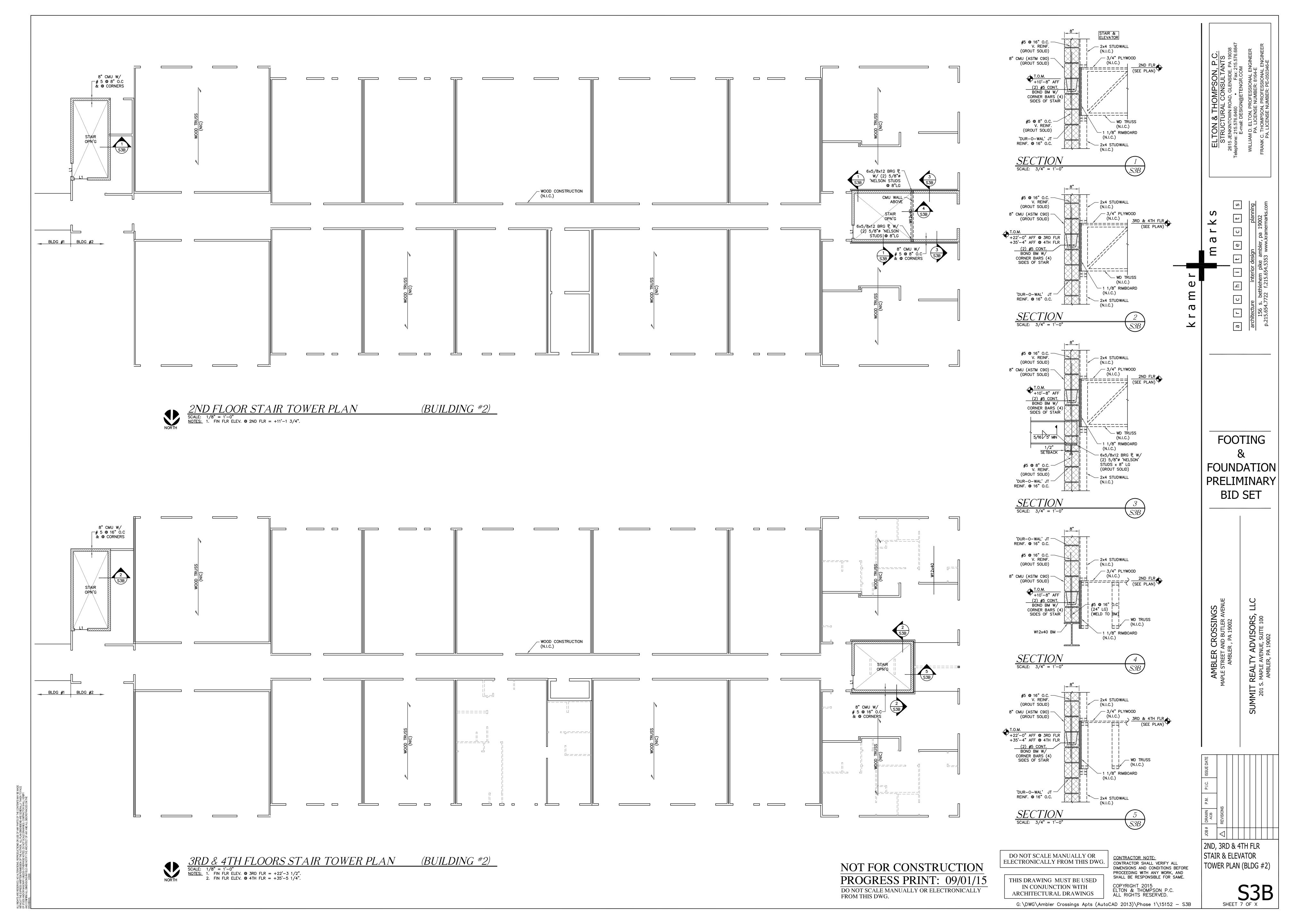








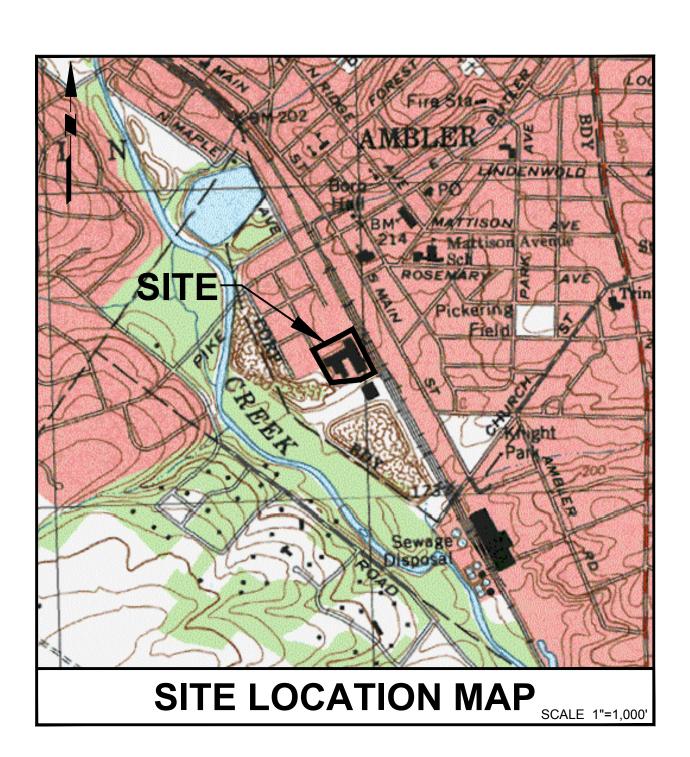


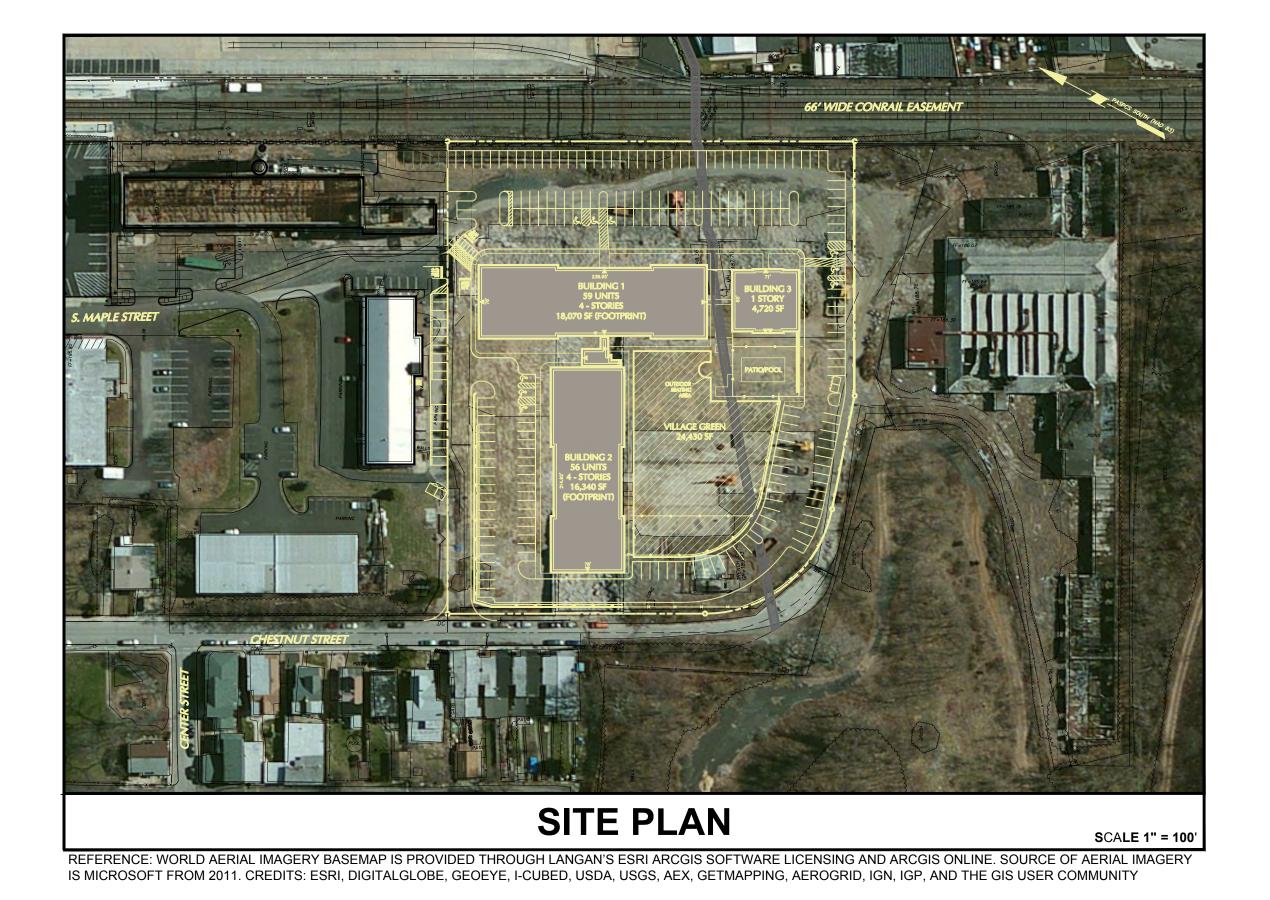


Date Revised

# AMBLER CROSSINGS

# BOROUGH OF AMBLER, MONTGOMERY COUNTY, PENNSYLVANIA CONDITIONAL USE & PRELIMINARY / FINAL LAND DEVELOPMENT PLANS





4 CS-101 SITE PLAN (RECORD PLAN) 1"=80" 10/3/2013
5 CS-501 CONSTRUCTION DETAILS N.T.S. 10/3/2013
6 CS-502 CONSTRUCTION DETAILS N.T.S. 10/3/2013
7 CS-503 CONSTRUCTION DETAILS N.T.S. 10/3/2013
8 CS-601 FIRE TRUCK TURN PLAN N.T.S. 10/3/2013
9 CS-701 GREEN SPACE PLAN 1"=30" 10/3/2013
10 CG-101 GRADING PLAN 1"=30" 10/3/2013
11 CG-201 DRAINAGE PLAN 1"=30" 10/3/2013
12 CG-501 DRAINAGE DETAILS N.T.S. 10/3/2013
13 CG-502 DRAINAGE DETAILS N.T.S. 10/3/2013
14 CG-503 DRAINAGE DETAILS N.T.S. 10/3/2013
15 PCSM-101 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN 1"=30" 10/3/2013
16 PCSM-501 POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS N.T.S. 10/3/2013
17 CU-101 UTILITY PLAN 1"=30" 10/3/2013
18 CU-501 UTILITY PLAN 1"=30" 10/3/2013
19 CU-502 UTILITY DETAILS N.T.S. 10/3/2013
19 CU-502 DRAINAGE AND UTILITY PLAN 1"=30" 10/3/2013
19 CU-502 DRAINAGE AND UTILITY PLAN 1"=30" 10/3/2013
20 CU-601 DRAINAGE AND UTILITY PLAN 1"=30" 10/3/2013
21 CU-602 DRAINAGE AND UTILITY PROFILES AS SHOWN 10/3/2013
22 LP-101 LANDSCAPE NOTES AND DETAILS N.T.S. 10/3/2013
23 LP-501 LANDSCAPE NOTES AND DETAILS N.T.S. 10/3/2013
24 LT-101 SITE LIGHTING PLAN 1 1"=30" 10/3/2013
25 LT-501 DRAININGE NAD DETAILS N.T.S. 10/3/2013

**DRAWING LIST** 

**COVER SHEET** 

# CONTACTS

SEWER COLLECTION ENGINEER
Gilmore & Associates Inc.
331 Butler Avenue
New Britain, PA 18901

SEWER TREATMENT ENGINEER
Environmental Engineering &
Management Associates, Inc.

P.O. Box 232 Kulpsville, PA 19443 215-368-3375

ELECTRIC AND GAS

215-345-4330

PECO
Customer Service Center
2301 Market Street
P.O. Box 8699

Philadelphia, PA 19101
Customer service inquiries call: 1-800-494-4000

Gas or electric emergency call: 1-800-841-4141

BOROUGH ENGINEER
Gilmore & Associates
Jim Dougherty
350 Butler Ave
New Britain, PA 18901

BOROUGH HALL 122 East Butler Avenue Ambler. PA 19002 215-646-1000

215-345-4330

SEWER AND WATER SERVICE Borough of Ambler 122 East Butler Avenue Ambler, PA 19002-4476 215-628-9457 215-628-0142 Fax

#### **APPLICANT / EQUITABLE OWNER:**

AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 P: (484)532-7830

RECORD OWNER:
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# ENGINEER & SURVEYOR LANGAN

Phone: 610.984.8500 Fax: 610.984.8501
One West Broad Street
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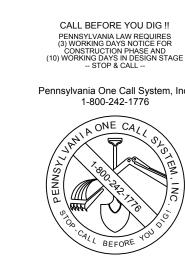
#### GENERAL SITE NOTES:

- 1. These plans represent the overall sitework improvements required for project construction. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor shall be solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor shall be responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.
- 2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner makes no guarantee in regard to the accuracy of any available information which was obtained during investigations. The Contractor shall make a thorough site inspection in order to field check existing site conditions, correlate conditions with the drawings and resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall make additional topographic surveys he deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's
- 3. The Contractor shall, when they deem necessary, provide written Requests for Information (RFIs) to the Owner and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and Engineer and shall allow for a minimum of two work days or additional reasonable time for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.
- 4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to construction. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to construction.
- 5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.
- 6. Construction activities are planned to start in the Spring of 2014 with final stabilization occurring in the Fall of 2015. Construction activities will commence once all applicable permits and approvals have been obtained.

#### ACT 287 AS AMENDED

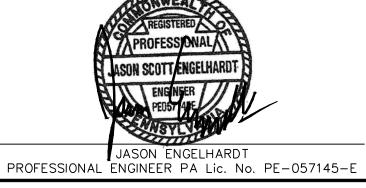
UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION.

TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION. CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY



SERIAL NUMBER 2935617

10-3-13	BOROUGH COMMENTS	2.		
6-21-13	BOROUGH COMMENTS	1.		
Date Description No.				
REVISIONS				



One West Broad Street, Suite 200, Bethlehem, PA 18018
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NEW JERSEY NEW YORK VIRGINIA CALIFORNIA
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ABU DHABI ATHENS DOHA

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.

Langan Engineering and Environmental Services, Inc.

AMBLER CROSSINGS

**PENNSYLVANIA** 

AMBLER BOROUGH

MONTGOMERY COUNTY

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APPLICANT / EQUITABLE OWNER:
AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP

201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 P: (484)532-7830

**RECORD OWNER:** 

P: (484)532-7830

MAPLE AVE PARK PARTNERS, LLP 110 SPRUCE ROAD AMBLER, PA 19002

REFERENCE: WORLD AERIAL IMAGERY BASEMAP IS PROVIDED THROU SOFTWARE LICENSING AND ARCGIS ONLINE. SOURCE OF AERIAL IMAG 2011. CREDITS: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, USDA, USGS, AEROGRID, IGN, IGP, AND THE GIS USER COMMUNITY

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REVISIONS

REGISTERED ASON SCOTT ENGELHARDT ENGINEER PEOST AND
JASON ENGELHARDT PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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PENNSYLVANIA CONNECTICUT FLORIDA

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DUBAI ISTANBUL Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan International LLC Collectively known as Langan

AMBLER CROSSINGS

AMBLER BOROUGH MONTGOMERY COUNTY

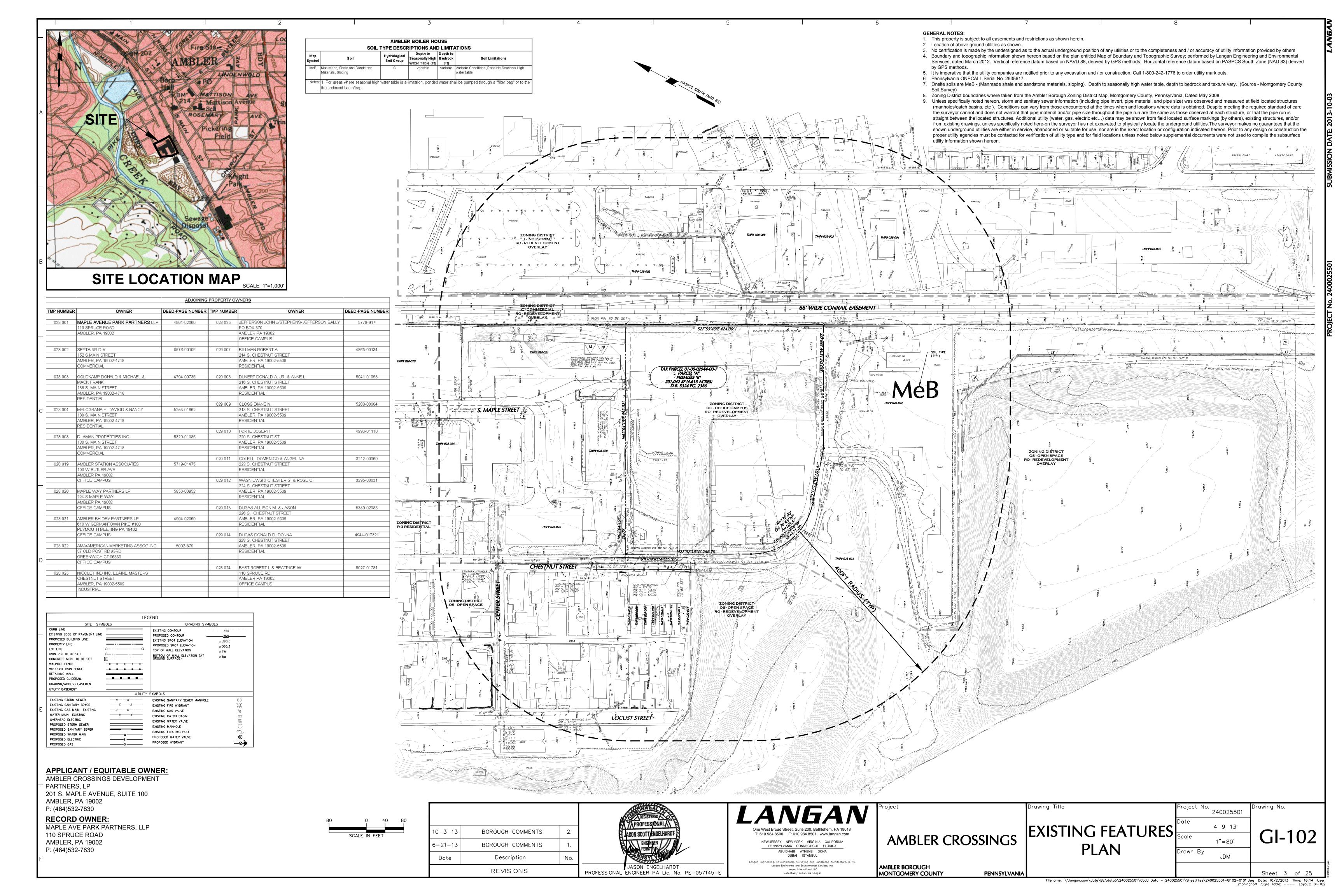
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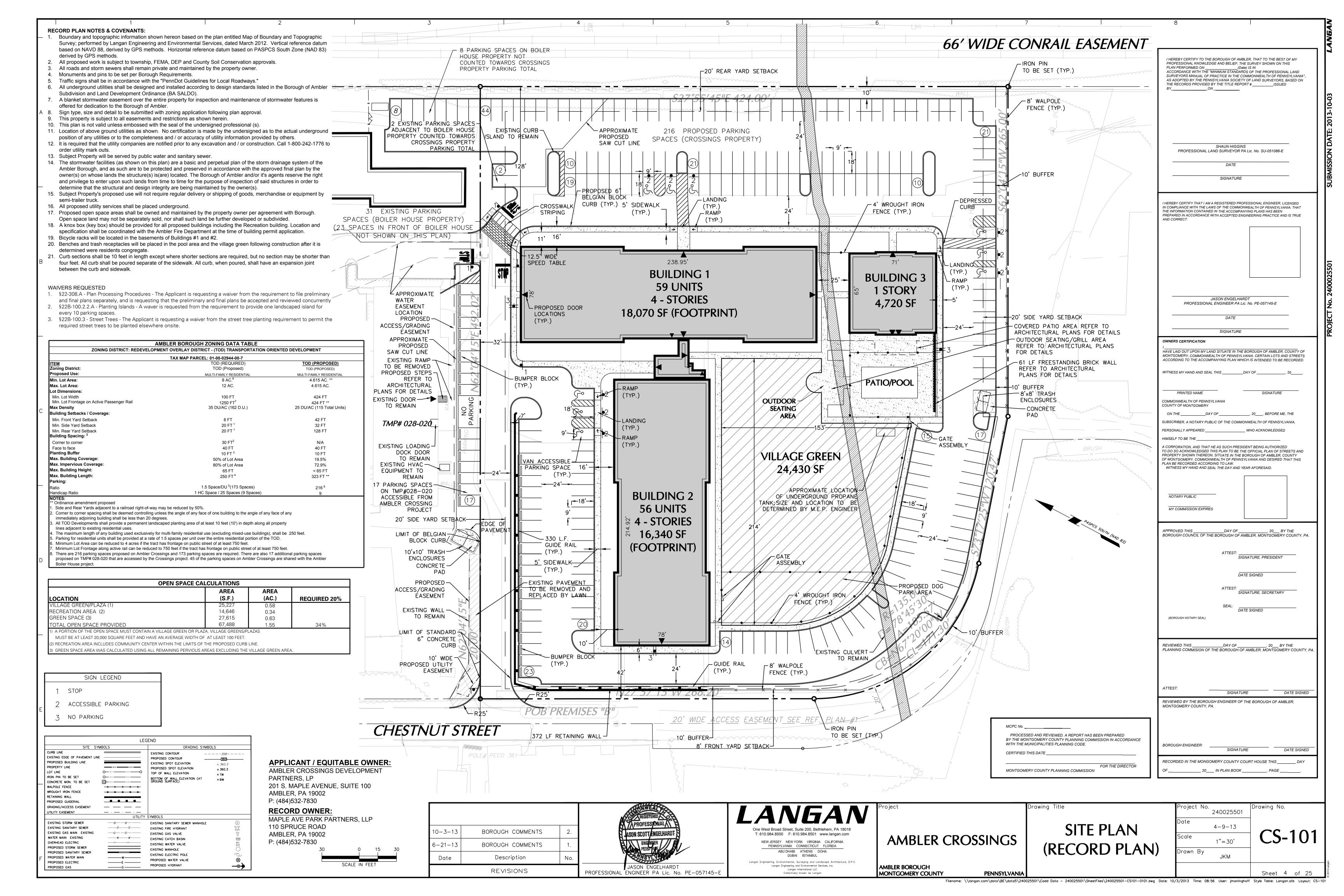
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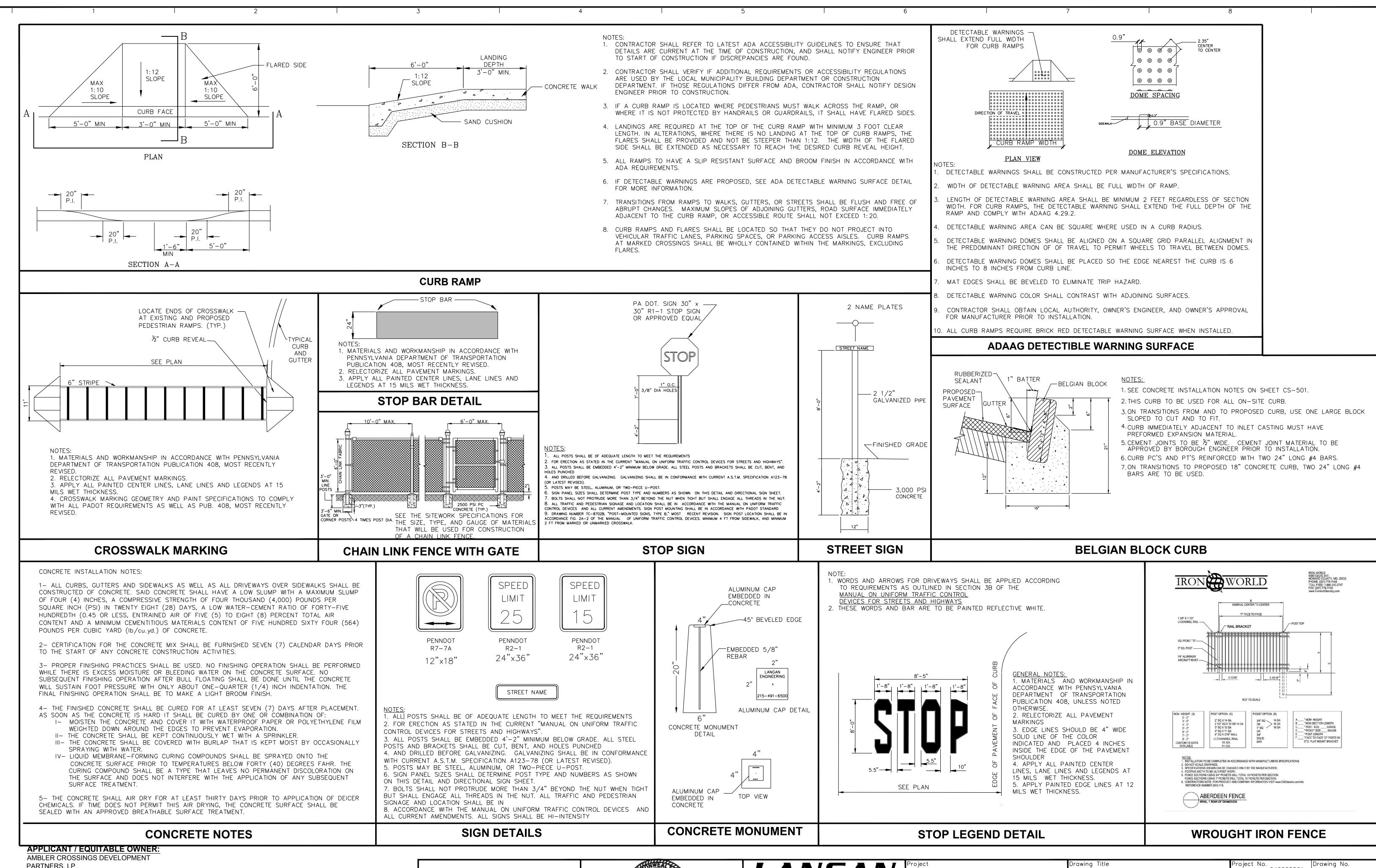
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AERIAL MAP	Scale
	Drawn By

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Date	4-9-13	
Scale	1"=50'	GI-101
Drawn By	JDM	







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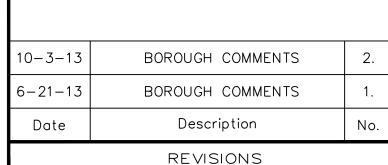
AMBLER CROSSINGS DEVELOPMENT
PARTNERS, LP
201 S. MAPLE AVENUE, SUITE 100
AMBLER, PA 19002
P: (484)532-7830

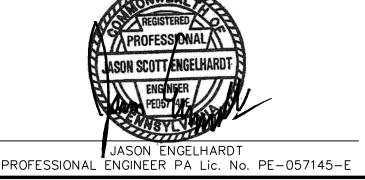
RECORD OWNER:

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RECORD OWNER:

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AMBLER, PA 19002
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PENNSYLVANIA CONNECTICUT FLORIDA

ABU DHABI ATHENS DOHA
DUBAI ISTANBUL

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.

AMBLER CROSSINGS

CONSTRUCTION DETAILS

Project No. 240025501

Date 4-9-13

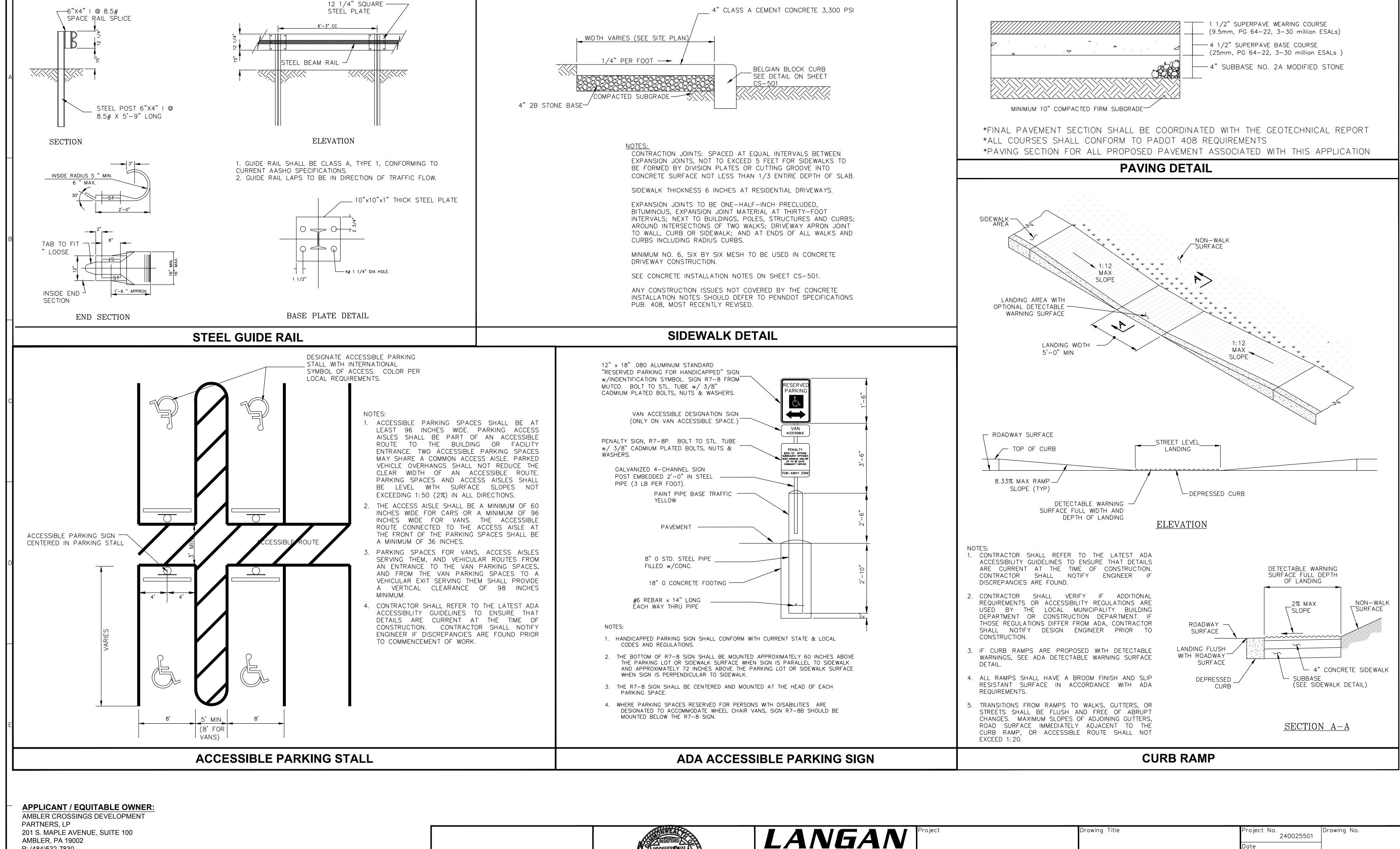
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AMBLER BOROUGH
MONTGOMERY COUNTY
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PENNSYLVANIA Sheet 5 of 25

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AMBLER, PA 19002
P: (484)532-7830

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AMBLER, PA 19002

P: (484)532-7830

10-3-13 BOROUGH COMMENTS 2.
6-21-13 BOROUGH COMMENTS 1.
Date Description No.

REVISIONS

REGISTERED PROFESSIONAL PROFESSIONAL SON SCOTT ENGELHARDT PROFESSIONAL PROFESSIONAL PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering and Environmental Services, Inc.

AMBLER CROSSINGS

**PENNSYLVANIA** 

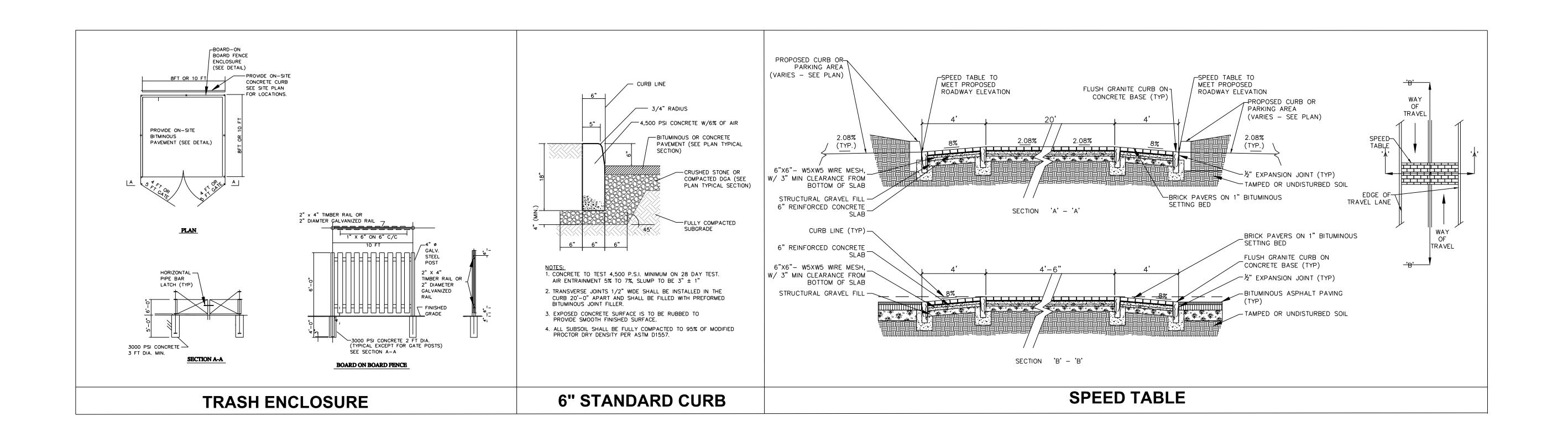
AMBLER BOROUGH

MONTGOMERY COUNTY

CONSTRUCTION DETAILS

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Sheet 6 of 25



APPLICANT / EQUITABLE OWNER:

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P: (484)532-7830

			REGISTERED
10-3-13	BOROUGH COMMENTS	2.	ASON SCOTT ENGELHARDT
6-21-13	BOROUGH COMMENTS	1.	ENG NEER PEUST 14PE
Date	Description	No.	MSYL
	REVISIONS		JASON ENGELHARDT PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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AMBLER CROSSINGS

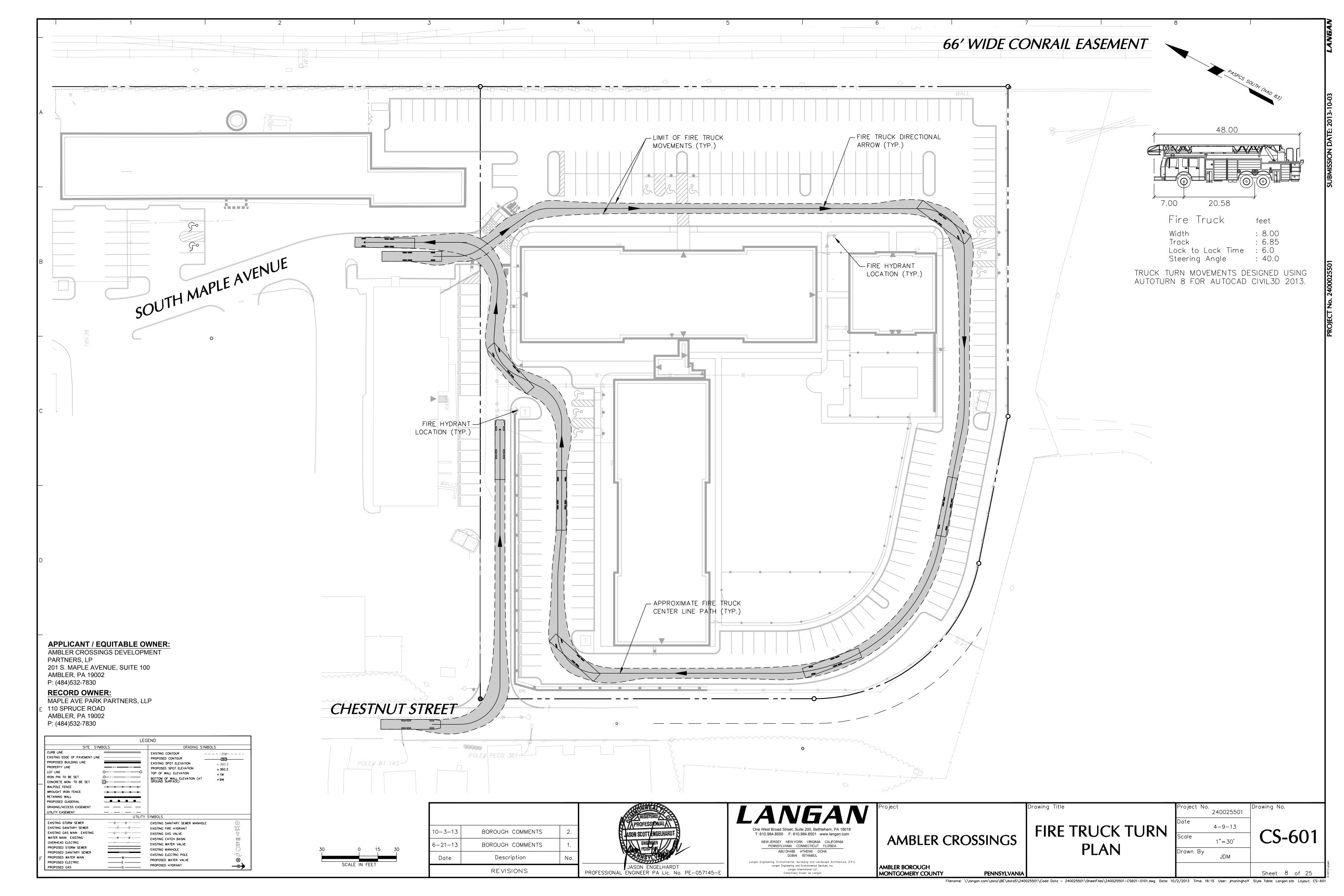
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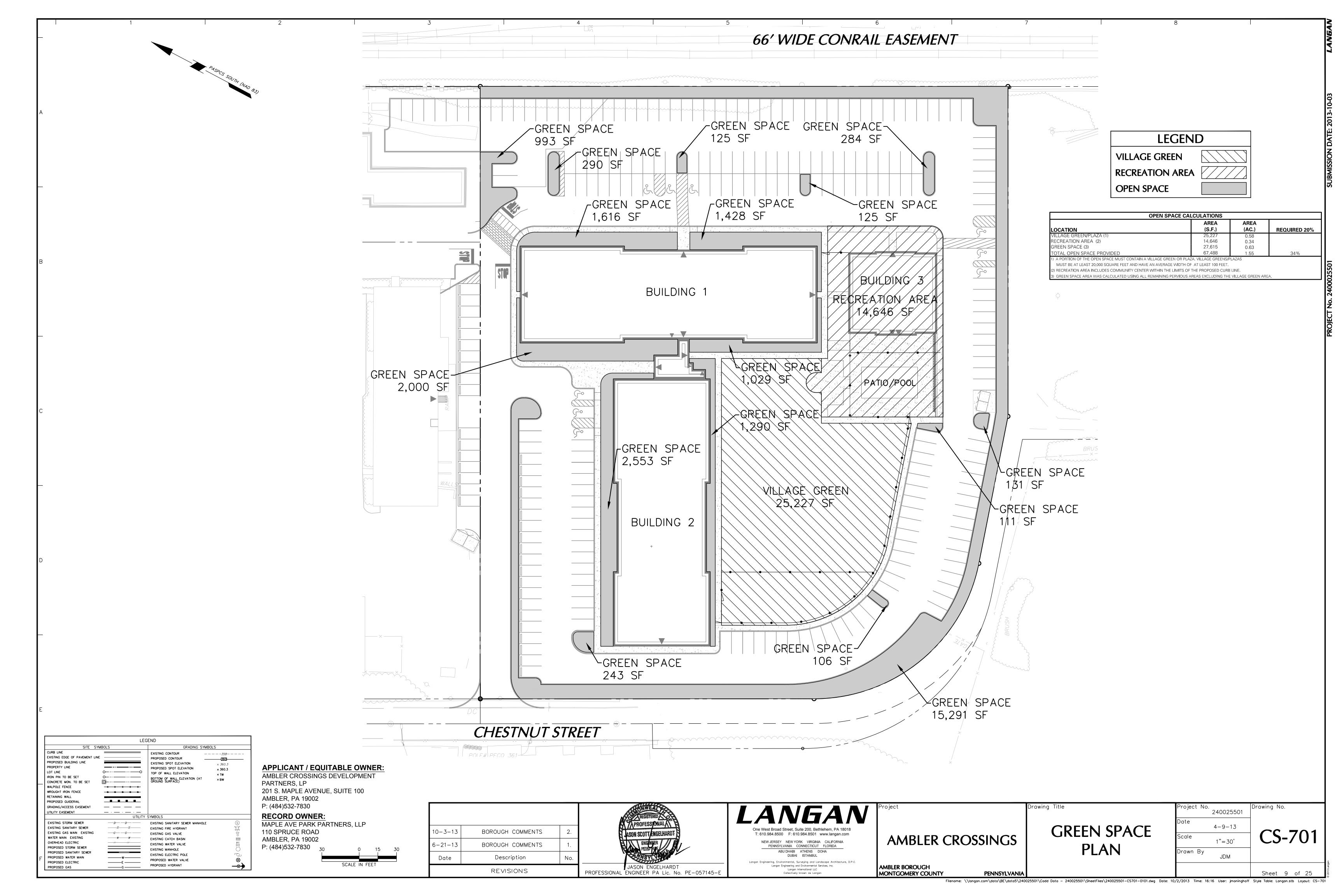
AMBLER BOROUGH MONTGOMERY COUNTY

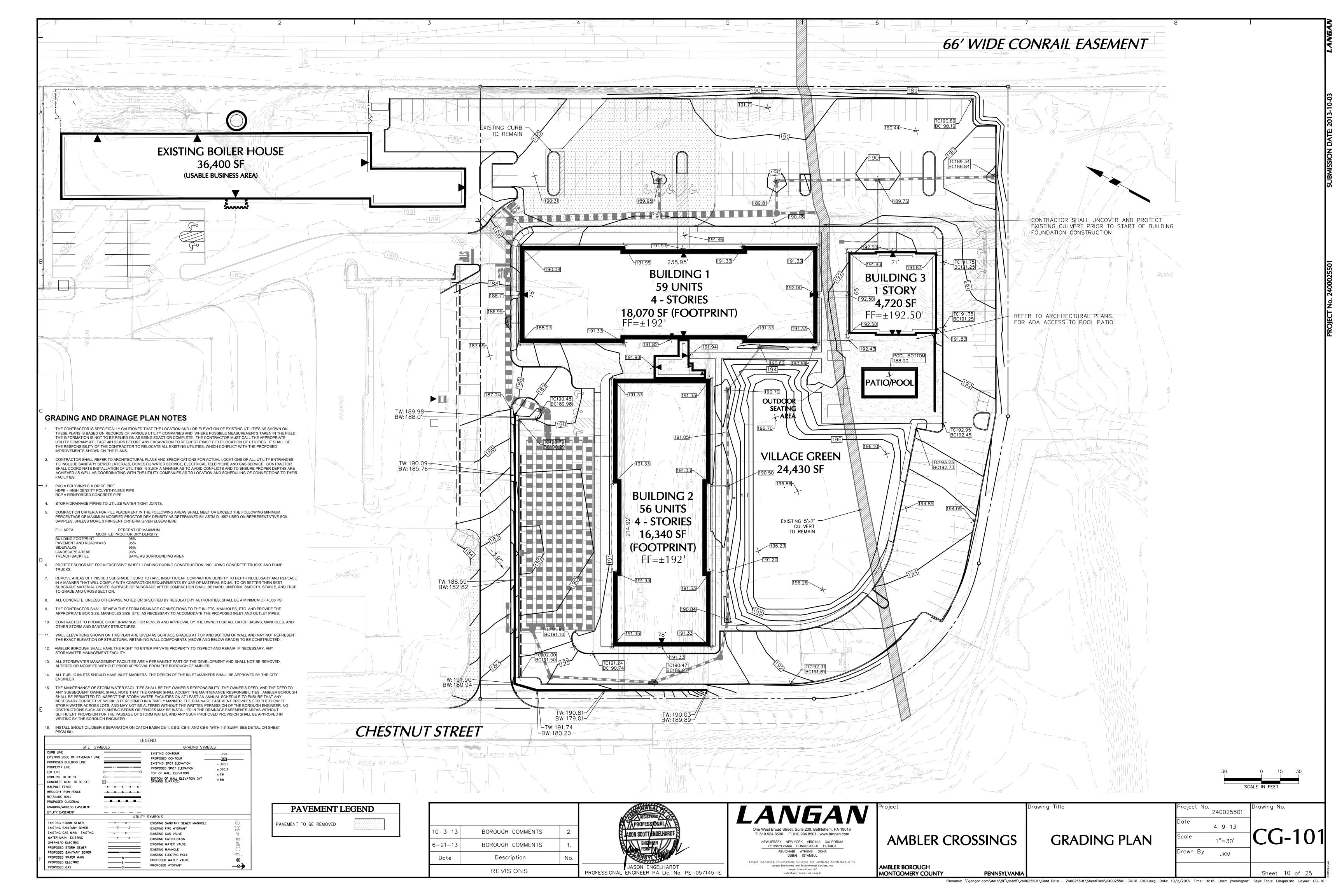
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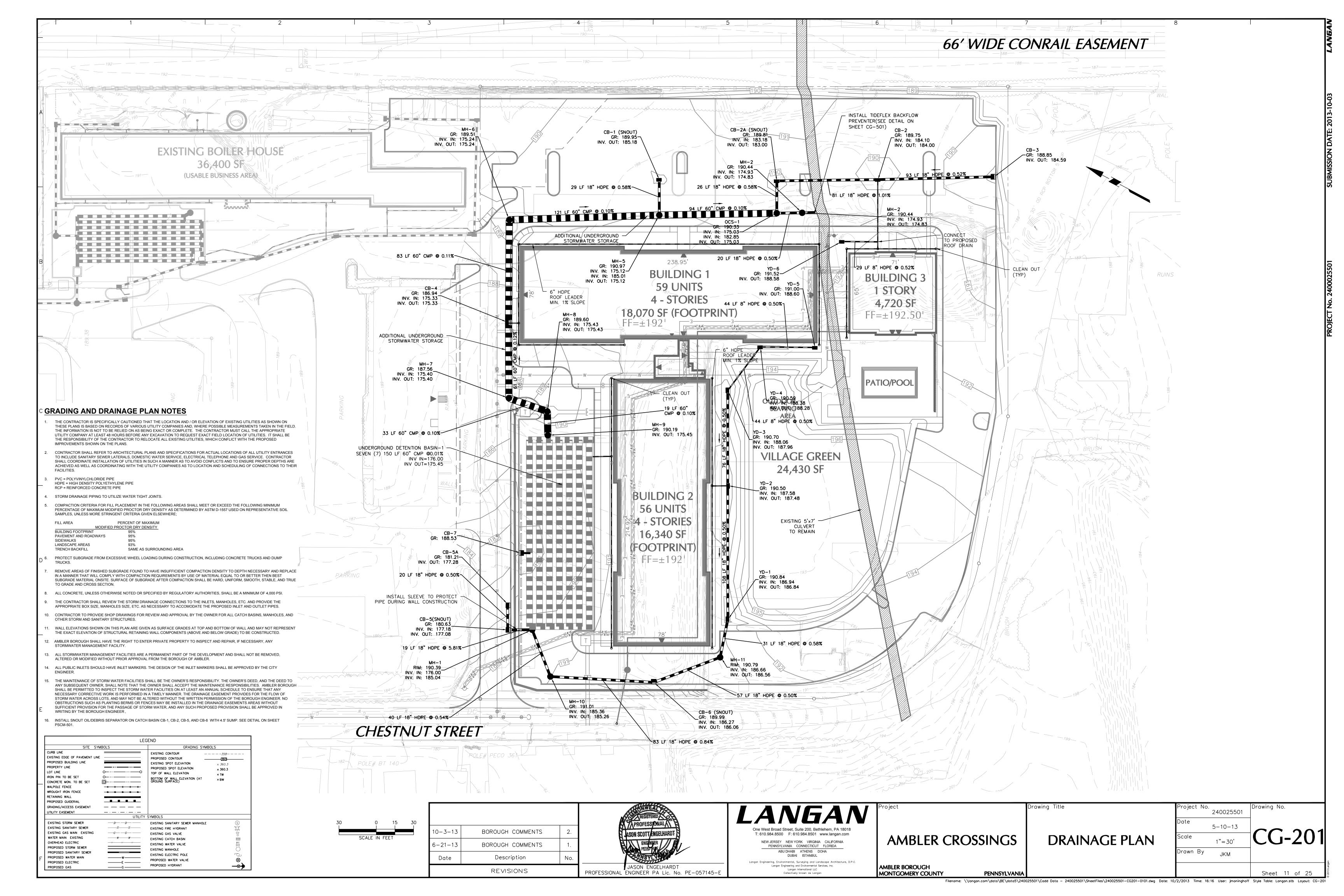
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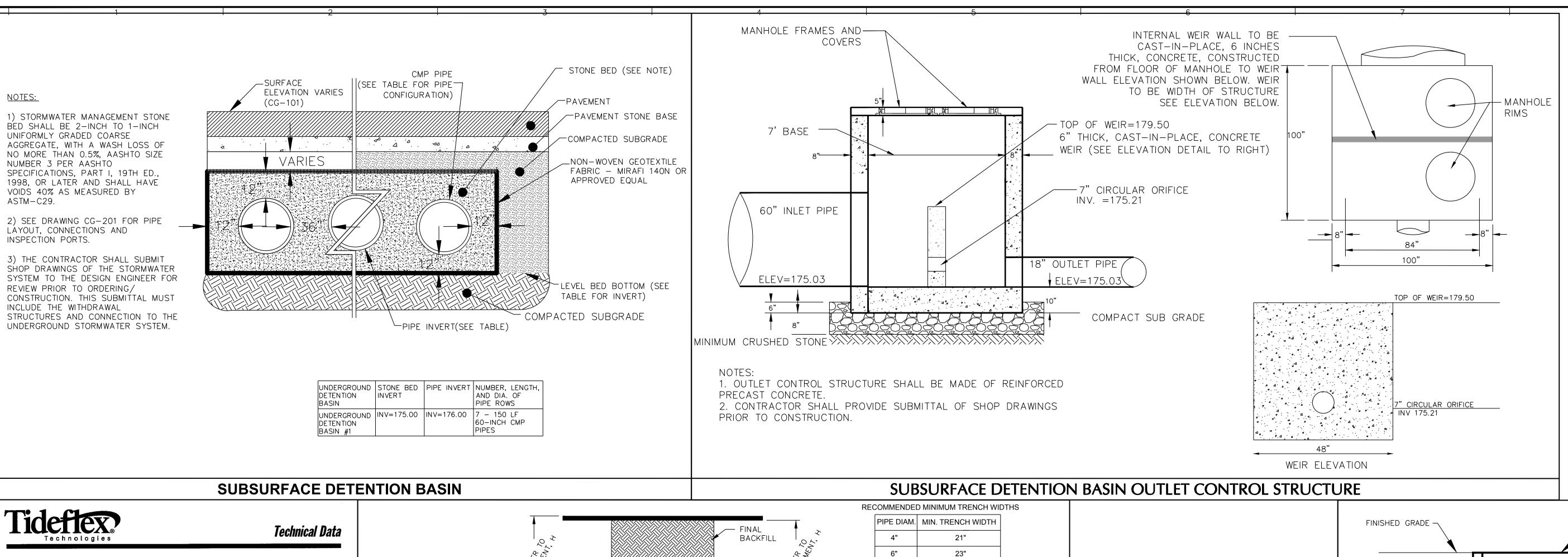
Sheet 7 of 25

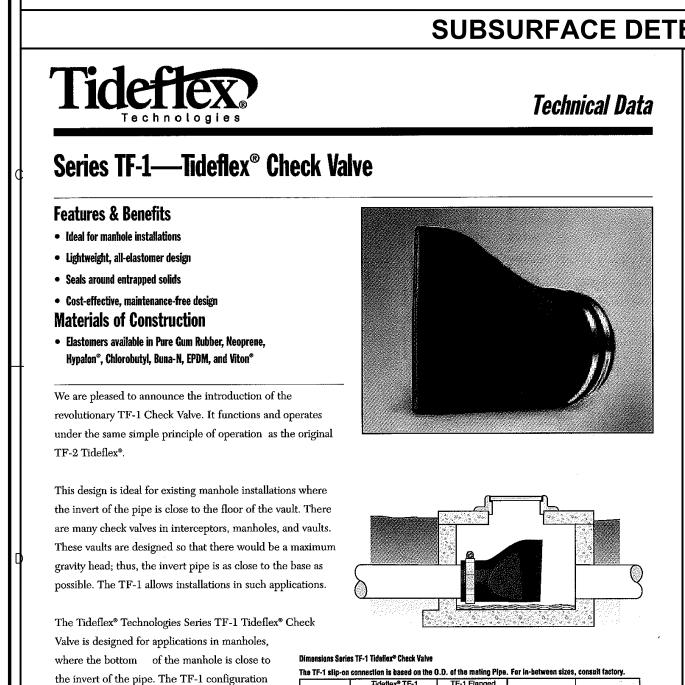












43" 54-3/4 69\* 70-1/2 91\* 95" 46" 55-1/4" 65" 59-1/2" 71" 80-3/4" Tideflex Technologies, Inc. • 300 Bilmar Dr., Pittsburgh, PA 15205 USA • 412-919-0919 • Fax 412-919-0918 • www.tideflex.com

**FLAP VALVE DETAIL** 

allows the valve to be properly installed without

manhole modification, ensuring

positive backflow prevention

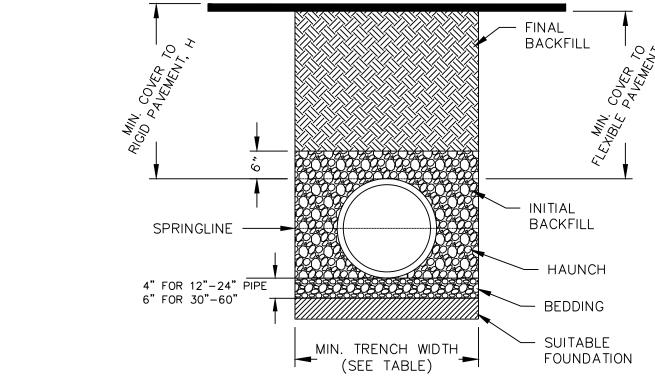
and a lifetime of maintenance-

free performance.

Maximum Length

17-1/4" 21-1/2" 26"

12" 15-1/4" 18-3/4" 22" 29" 36"



1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

4. <u>BEDDING:</u> SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT

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\$ \frac{7}{2}	4"
EME	6"
AVENENT TO	8"
	10"
,	12"
_	15"
	18"
	24"
	30"
	36"
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60" MINIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

42"

48"

54"

26"

28"

30"

34"

39"

72"

80"

88"

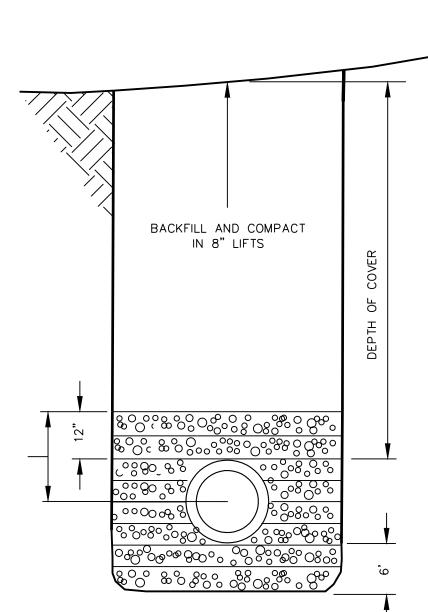
	SURFACE LIVE LOADING CONDITION		
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *	
12" - 48"	12"	48"	
54" - 60"	24"	60"	

\* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

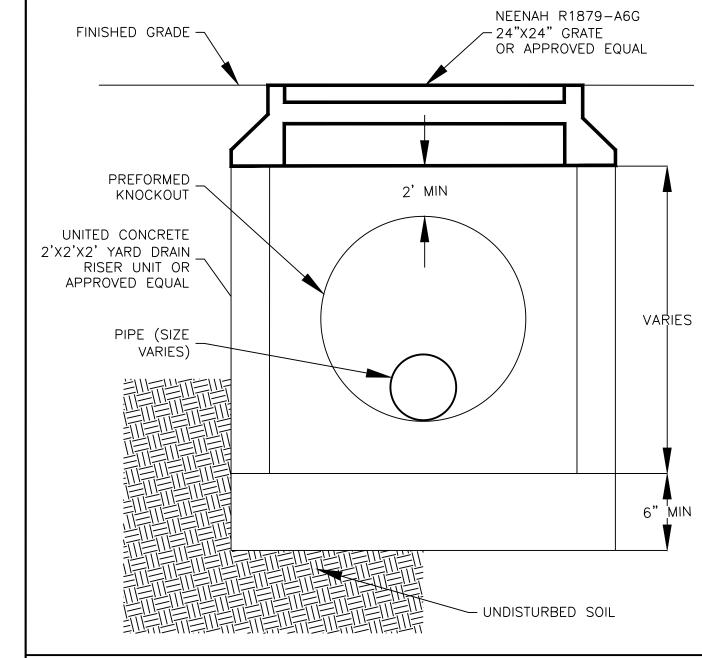
MINIMUM RECOMMENDED COVER BASED

Ol	N RAILWAY I	LOADING CONDITION	S
	PIPE DIAM.	COOPER E-80**	
	UP TO 24"	24"	
	30"-36"	36"	
	42"-60"	48"	

\*\* COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE. \*\*\* E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.



NOTES:
1. HAND PLACED BACKFILL TAMPED & COMPACTED IN 6 INCH LAYERS TO 1' ABOVE TOP OF PIPE. BACKFILL TO BE GRANULAR MATERIAL W/LESS THEN 5% FINES. REMAINDER OF FILL TO BE PLACED AND COMPACTED IN 8" LIFTS AS PER SITE SPECIFICATIONS. 2. ALL STORM SEWER PIPE SHALL BE LAID IN CLASS B FINE AGGREGATE BEDDING AS PER SECTION 703.1 OF PENNDOT PUB. 408, IN SHAPED SUBGRADE, AS SPECIFIED IN PENNDOT STANDARDS FOR ROADWAY CONSTRICTION RC-30. 3. NOT MORE THAN ONE HUNDRED (100') OF TRENCH SHALL BE EXCAVATED IN ADVANCE OF PIPE OR UTILITY INSTALLATION AND BACKFILLING. ALL TRENCHES ARE TO BE CLOSED AT THE END OF EACH 4. ANY EXISTING SITE SOILS WITHIN THE ALIGNMENT OF THE PROPOSED UTILITY CORRIDORS WILL BE EXCAVATED TO APPROXIMATELY TWO (2) FEET BELOW THE ANTICIPATED DEPTH OF THE DEEPEST UTILITY LINE. THÉ WIDTH OF THE EXCAVATION WILL BE APPROXIMATELY TWO (2) FEET BEYOND THE ANTICIPATED WIDTH REQUIRED TO CONTAIN ALL UTILITIES ANTICIPATED TO BE INSTALLED IN EACH CORRIDOR. EXCAVATED SOILS WILL BE RELOCATED TO DESIGNATED FILL AREAS OF THE SITE USING PROCEDURES DESCRIBED IN SECTION 5.0. THE WALLS AND BOTTOM OF THE



YARD DRAIN

HDPE PIPE DETAIL

STORM TRENCH

UTILITY EXCAVATION WILL THEN BE LINED WITH A GEOTEXTILE FILTER FABRIC AND THE EXCAVATION WILL BE FILLED WITH IMPORTED CLEAN FILL.

#### **APPLICANT / EQUITABLE OWNER:**

APPLICATIONS", LATEST ADDITION

AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 P: (484)532-7830

#### **RECORD OWNER:**

 $\Delta$  2007 ADS, INC.

MAPLE AVE PARK PARTNERS, LLP 110 SPRUCE ROAD AMBLER, PA 19002 P: (484)532-7830

			REGISTERED
10-3-13	BOROUGH COMMENTS	2.	ASON SCOTT ENGELHARDT
6-21-13	BOROUGH COMMENTS	1.	ENGINEER PEDST AVE
Date	Description	No.	Maye
	REVISIONS		JASON ENGELHARDT PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

# LANGAN T: 610.984.8500 F: 610.984.8501 www.langan.com NEW JERSEY NEW YORK VIRGINIA CALIFORNIA

PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc.

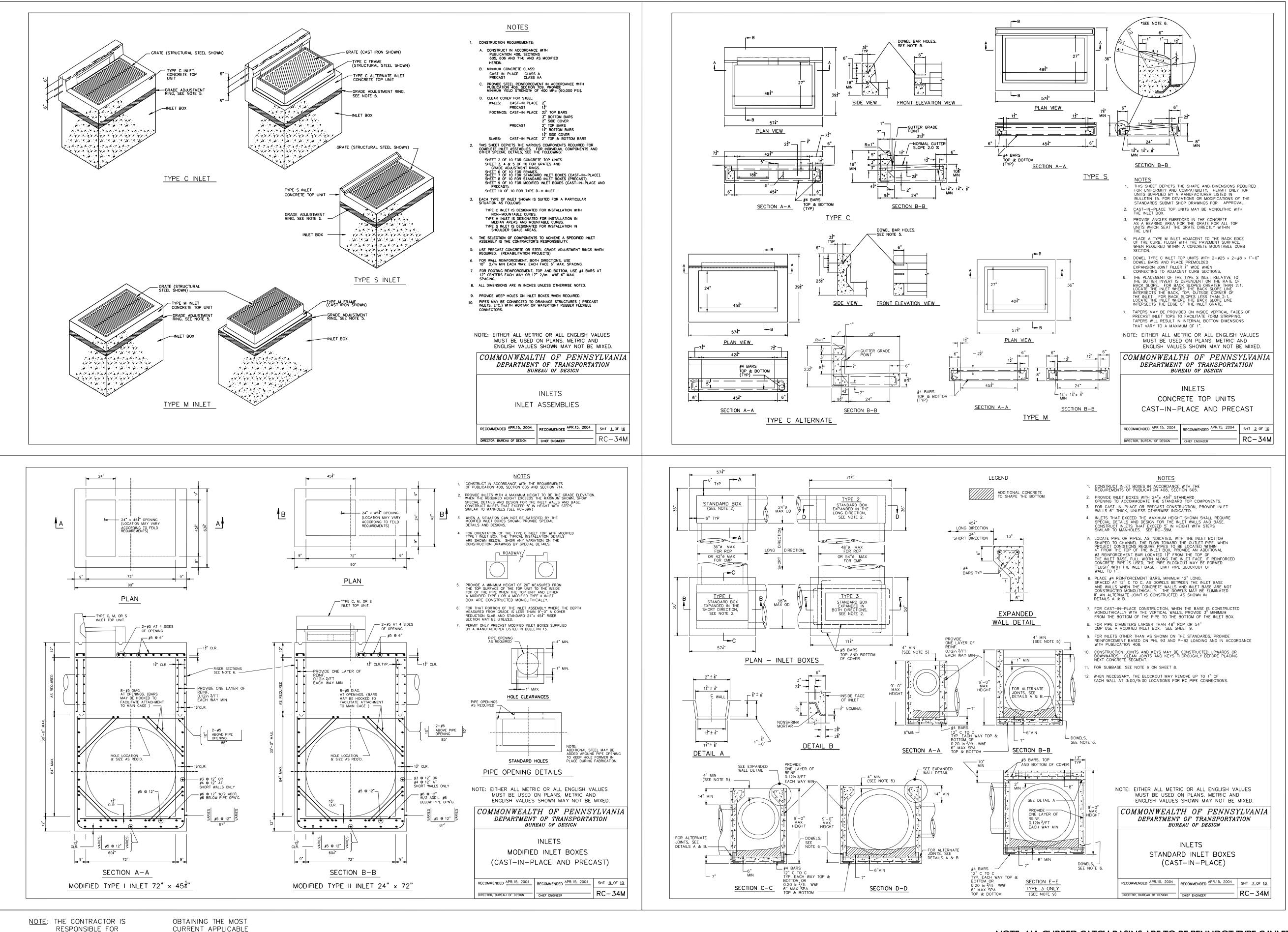
AMBLER CROSSINGS

240025501 4-9-13 DRAINAGE DETAILS N.T.S. )rawn By JKM

CG-501 AMBLER BOROUGH Sheet 12 of 25 MONTGOMERY COUNTY **PENNSYLVANIA** 

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CURRENT APPLICABLE

DETAILS FROM PENNDOT APPLICANT / EQUITABLE OWNER: PUBLICATION 72M. AMBLER CROSSINGS DEVELOPMENT

PARTNERS, LP 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 P: (484)532-7830

( /
<b>RECORD OWNER:</b>
MAPI F AVF PARK PAR

MAPLE AVE PARK PARTNERS, LLP 110 SPRUCE ROAD AMBLER, PA 19002 P: (484)532-7830

			REGISTERED
)-3-13	BOROUGH COMMENTS	2.	ASON SCOTT ENGELHARDT
-21-13	BOROUGH COMMENTS	1.	ENGINEER PED57 APE
Date	Description	No.	MSYL
REVISIONS			JASON ENGELHARDT PROFESSIONAL ENGINEER PA Lic. No. PE-0571

# T: 610.984.8500 F: 610.984.8501 www.langan.com NEW JERSEY NEW YORK VIRGINIA CALIFORNIA PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA

Langan Engineering and Environmental Services, Inc.

AMBLER CROSSINGS

4-9-13 CG-502 DRAINAGE DETAILS N.T.S. Orawn By JKM

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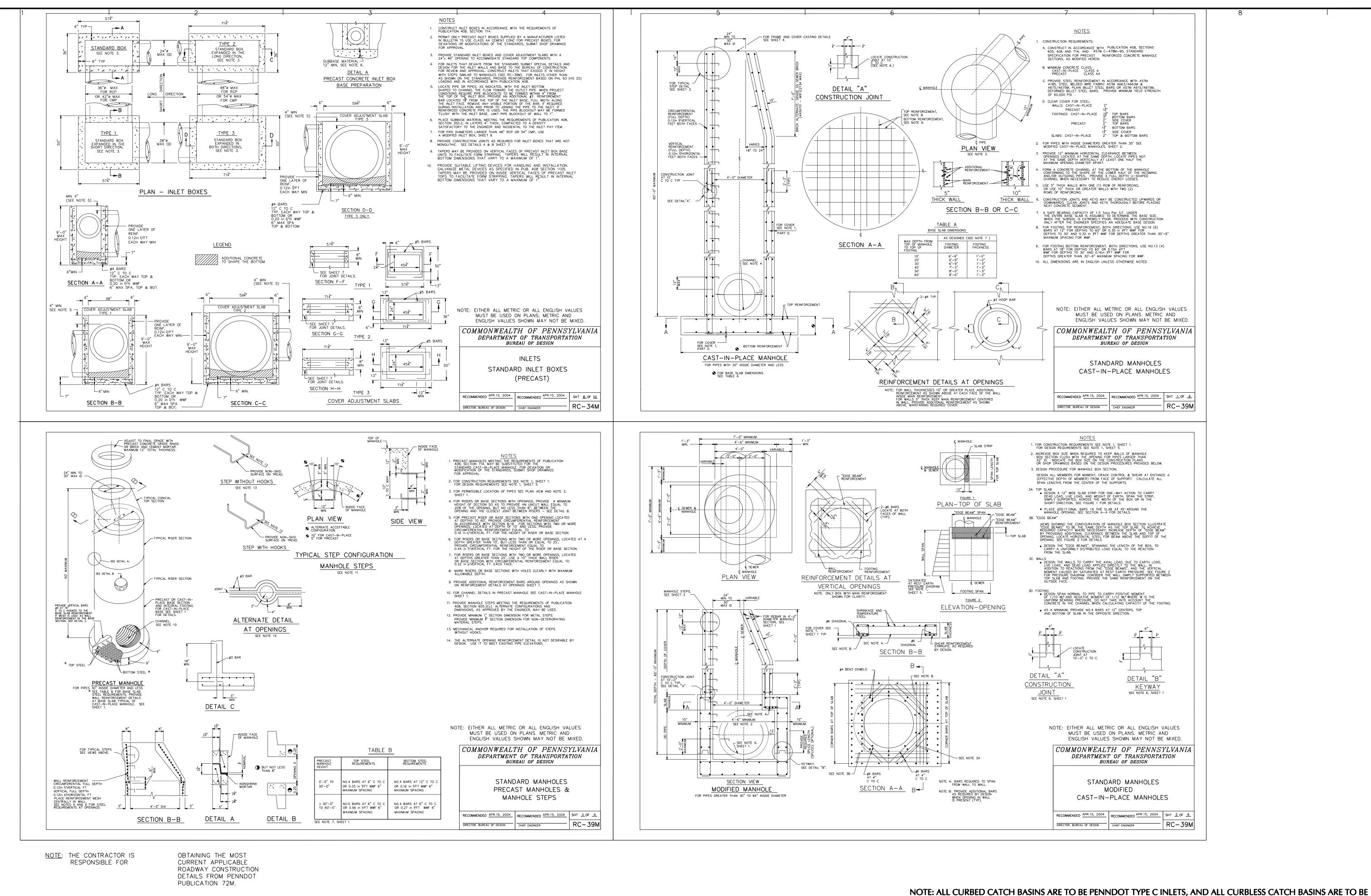
240025501

AMBLER BOROUGH MONTGOMERY COUNTY **PENNSYLVANIA** Sheet 13 of 25

NOTE: ALL CURBED CATCH BASINS ARE TO BE PENNDOT TYPE C INLETS, AND ALL CURBLESS CATCH BASINS ARE TO BE

PENNDOT TYPE M INLETS (UNLESS OTHERWISE SPECIFIED ON SHEET CG-201). THESE INLETS ARE TO BE CONSTRUCTED TO

THE STANDARDS OF THE LATEST EDITION OF PENNDOT PUBLICATION #72M, STANDARDS FOR ROADWAY CONSTRUCTION.

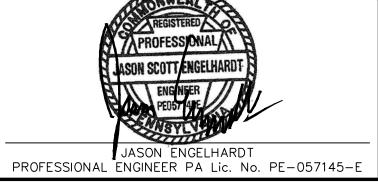


### **APPLICANT / EQUITABLE OWNER:**

AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 P: (484)532-7830

RECORD OWNER:
MAPLE AVE PARK PARTNERS

10-3-13 BOROUGH COMMENTS RS, LLP 6-21-13 BOROUGH COMMENTS 110 SPRUCE ROAD AMBLER, PA 19002 Date Description P: (484)532-7830 REVISIONS



T: 610.984.8500 F: 610.984.8501 www.langan.com PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA

> Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc.

AMBLER CROSSINGS

**PENNSYLVANIA** 

AMBLER BOROUGH

MONTGOMERY COUNTY

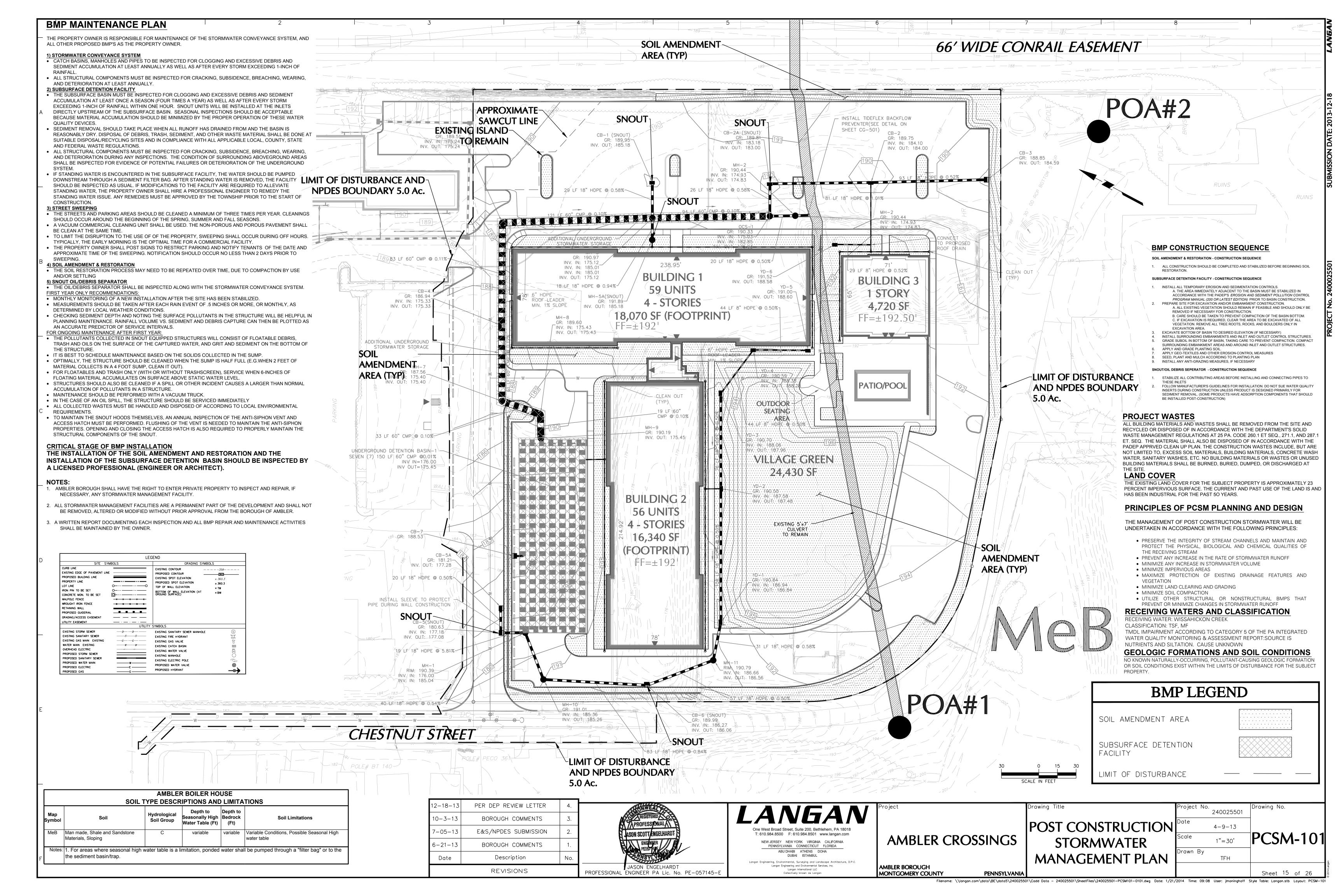
DRAINAGE DETAILS Orawn By

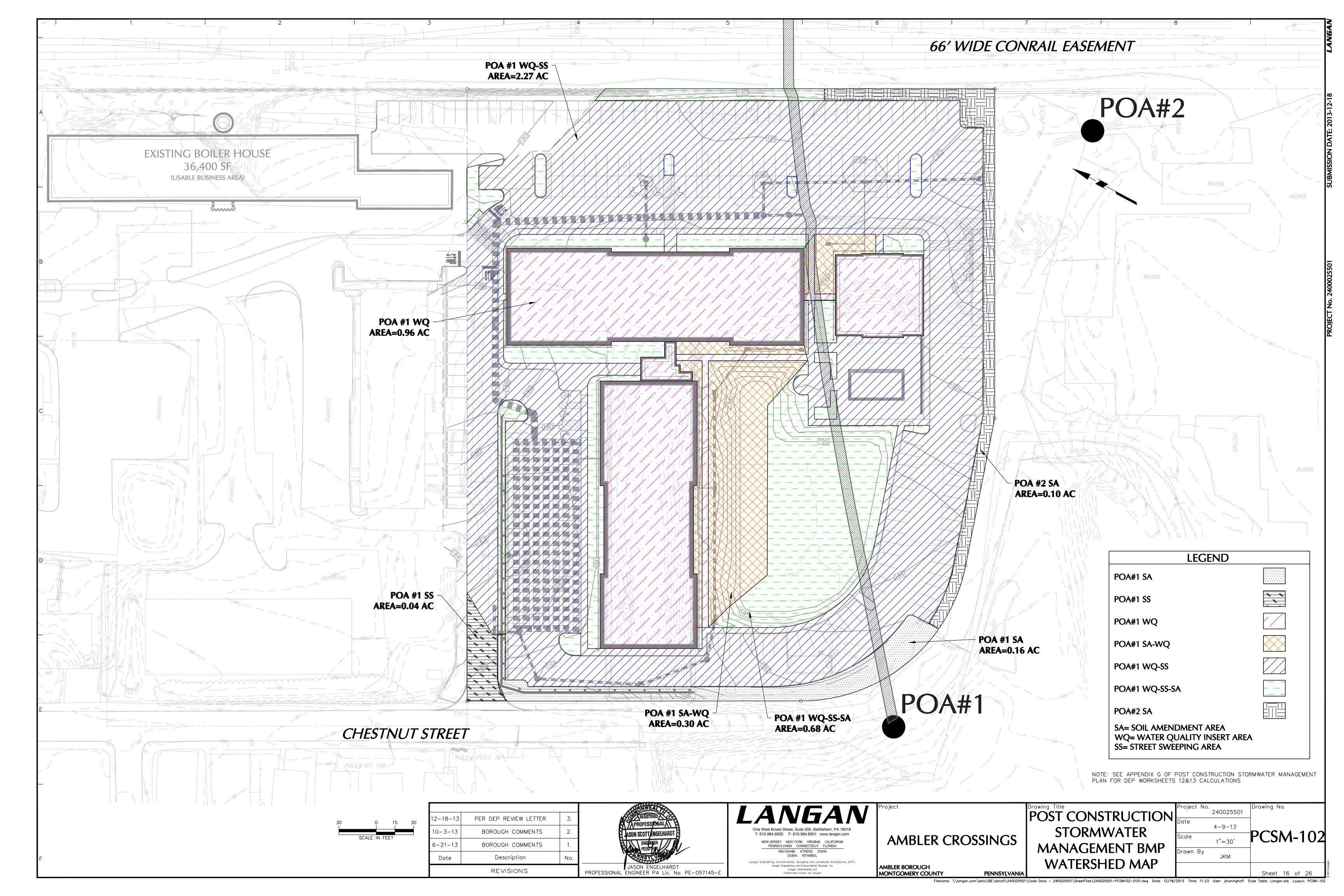
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PENNDOT TYPE M INLETS (UNLESS OTHERWISE SPECIFIED ON SHEET CG-201). THESE INLETS ARE TO BE CONSTRUCTED TO

THE STANDARDS OF THE LATEST EDITION OF PENNDOT PUBLICATION #72M, STANDARDS FOR ROADWAY CONSTRUCTION.

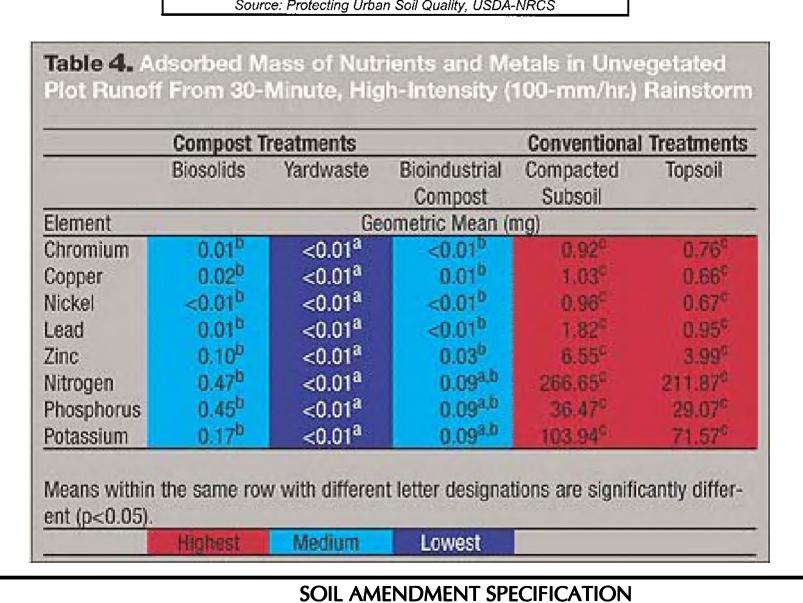
240025501 4-9-13 CG-503 N.T.S. JKM





- THE FOLLOWING SPECIFICATIONS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. THESE SPECIFICATIONS INCLUDE INFORMATION ON ACCEPTABLE MATERIALS FOR TYPICAL APPLICATIONS, BUT ARE BY NO MEANS EXCLUSIVE OR LIMITING.
- a. THIS SPECIFICATION COVERS THE USE OF COMPOST FOR SOIL AMENDMENT AND THE MECHANICAL RESTORATION OF COMPACTED. ERODED AND NON-VEGETATED SOILS SOIL AMENDMENT AND RESTORATION IS NECESSARY WHERE EXISTING SOIL HAS BEEN DEEMED UNHEALTHY IN ORDER TO RESTORE SOIL STRUCTURE AND FUNCTION, INCREASE INFILTRATION POTENTIAL AND SUPPORT HEALTHY VEGETATIVE COMMUNITIES.
- b. SOIL AMENDMENT PREVENTS AND CONTROLS EROSION BY ENHANCING THE SOIL SURFACE TO PREVENT THE INITIAL DETACHMENT AND TRANSPORT OF SOIL PARTICLES.
- 2. COMPOST MATERIALS
- a. COMPOST PRODUCTS SPECIFIED FOR USE IN THIS APPLICATION ARE DESCRIBED IN TABLE 1. THE PRODUCT'S PARAMETERS WILL VARY BASED ON WHETHER VEGETATION WILL BE ESTABLISHED ON THE TREATED SLOPE.
- b. ONLY COMPOST PRODUCTS THAT MEET ALL APPLICABLE STATE AND FEDERAL REGULATIONS PERTAINING TO ITS PRODUCTION AND DISTRIBUTION MAY BE USED IN THIS APPLICATION. APPROVED COMPOST PRODUCTS MUST MEET RELATED STATE AND FEDERAL CHEMICAL CONTAMINANT (E.G., HEAVY METALS, PESTICIDES, ETC.) AND PATHOGEN LIMIT STANDARDS PERTAINING TO THE FEEDSTOCKS (SOURCE MATERIALS) IN WHICH IT IS DERIVED.
- c. VERY COARSE COMPOST SHOULD BE AVOIDED FOR SOIL AMENDMENT AS IT WILL MAKE PLANTING AND CROP ESTABLISHMENT MORE DIFFICULT.
- d. NOTE 1 SPECIFYING THE USE OF COMPOST PRODUCTS THAT ARE CERTIFIED BY THE U.S. COMPOSTING COUNCIL'S SEAL OF TESTING (STA) PROGRAM (<u>WWW.COMPOSTINGCOUNCIL.ORG</u>) WILL ALLOW FOR THE ACQUISITION OF PRODUCTS THAT ARE ANALYZED ON A ROUTINE BASIS, USING THE SPECIFIED TEST METHODS. STA PARTICIPANTS ARE ALSO REQUIRED TO PROVIDE A STANDARD PRODUCT LABEL TO ALL CUSTOMERS, ALLOWING EASY COMPARISON TO OTHER PRODUCTS.
- 3. SUB-SOILING TO RELIEVE COMPACTION
- a. BEFORE THE TIME THE COMPOST IS PLACED AND PREFERABLY WHEN EXCAVATION IS COMPLETED, THE SUBSOIL SHALL BE IN A LOOSE, FRIABLE CONDITION TO A DEPTH OF 8 INCHES BELOW FINAL TOPSOIL GRADE AND THERE SHALL BE NO EROSION RILLS OR WASHOUTS IN THE SUBSOIL SURFACE EXCEEDING 3 INCHES IN DEPTH.
- b. TO ACHIEVE THIS CONDITION, SUBSOILING, RIPPING, OR SCARIFICATION OF THE SUBSOIL WILL BE REQUIRED AS DIRECTED BY THE OWNERS REPRESENTATIVE, WHEREVER THE SUBSOIL HAS BEEN COMPACTED BY EQUIPMENT OPERATION OR HAS BECOME DRIED OUT AND CRUSTED, AND WHERE M - NECESSARY TO OBLITERATE EROSION RILLS. SUB-SOILING SHALL BE REQUIRED TO REDUCE SOIL COMPACTION IN ALL AREAS WHERE PLANT ESTABLISHMENT IS PLANNED. SUB-SOILING SHALL BE PERFORMED BY THE PRIME OR EXCAVATING CONTRACTOR AND SHALL OCCUR BEFORE COMPOST PLACEMENT.
- c. SUBSOILED AREAS SHALL BE LOOSENED TO LESS THAN 1400 KPA (200 PSI) TO A DEPTH OF 8 INCHES BELOW FINAL TOPSOIL GRADE. WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL VERIFY THAT THE SUB-SOILING WORK CONFORMS TO THE SPECIFIED DEPTH.
- d. SUB-SOILING SHALL FORM A TWO-DIRECTIONAL GRID. CHANNELS SHALL BE CREATED BY A COMMERCIALLY AVAILABLE, MULTI-SHANKED, PARALLELOGRAM IMPLEMENT (SOLID-SHANK RIPPER). THE EQUIPMENT SHALL BE CAPABLE OF EXERTING A PENETRATION FORCE NECESSARY FOR THE SITE. NO DISC CULTIVATORS CHISEL PLOWS, OR SPRING-LOADED EQUIPMENT WILL BE ALLOWED. THE GRID CHANNELS SHALL BE SPACED A MINIMUM OF 12 INCHES TO A MAXIMUM OF 36 INCHES APART, DEPENDING ON EQUIPMENT, SITE CONDITIONS, AND THE SOIL MANAGEMENT PLAN. THE CHANNEL DEPTH SHALL BE A MINIMUM OF 8 INCHES OR AS SPECIFIED IN THE SOIL MANAGEMENT PLAN. IF SOILS ARE SATURATED, THE CONTRACTOR SHALL DELAY OPERATIONS UNTIL THE SOIL WILL NOT HOLD A BALL WHEN SQUEEZED. ONLY ONE PASS SHALL BE PERFORMED ON ERODIBLE SLOPES GREATER THAN 1 VERTICAL TO 3 HORIZONTAL. WHEN ONLY ONE PASS IS USED, WORK SHOULD BE AT RIGHT ANGLES TO THE DIRECTION OF SURFACE DRAINAGE, WHENEVER PRACTICAL.
- e. EXCEPTIONS TO SUB-SOILING INCLUDE AREAS WITHIN THE DRIP LINE OF ANY EXISTING TREES, OVER UTILITY INSTALLATIONS WITHIN 30 INCHES OF THE SURFACE, WHERE TRENCHING/DRAINAGE LINES ARE INSTALLED, WHERE COMPACTION IS BY DESIGN (ABUTMENTS, FOOTINGS, OR IN SLOPES), AND ON INACCESSIBLE SLOPES, AS APPROVED BY THE OWNER'S REPRESENTATIVE. IN CASES WHERE EXCEPTIONS OCCUR, THE CONTRACTOR SHALL OBSERVE A MINIMUM SETBACK OF 20 FEET OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ARCHEOLOGICAL CLEARANCES MAY BE REQUIRED IN SOME INSTANCES.
- 4. COMPOST SOIL AMENDMENT QUALITY
- a. THE FINAL, RESULTING COMPOST SOIL AMENDMENT MUST MEET ALL OF THE MANDATORY CRITERIA IN TABLE 4.
- 5. COMPOST SOIL AMENDMENT INSTALLATION
- a. AFTER EXISTING TOPSOIL IS RE-SPREAD. SPREAD 2 INCHES OF APPROVED COMPOST ON EXISTING SOIL, TILL ADDED SOIL INTO EXISTING SOIL WITH A ROTARY TILLER THAT IS SET TO A DEPTH OF 6 INCHES. ADD AN ADDITIONAL 4 INCHES OF APPROVED COMPOST TO BRING THE THE AREA UP TO GRADE. b. AFTER PERMANENT PLANTING/SEEDING, 2-3 INCHES OF COMPOST BLANKET WILL BE APPLIED TO ALL AREAS NOT PROTECTED BY GRASS OR OTHER PLANTS.

	Ideal Dulls	Bulk densities	Bulk densities
	Ideal Bulk	that may afffect	that restrict root
Soil Texture	densities	root growth	growth
	g/cm3	g/cm3	g/cm3
Sands, loamy sands	<1.60	1.69	1.8
Sandy loams, loams	<1.40	1.63	1.8
Sandy clay loams,			
loams, clay loams	<1.40	1.6	1.75
Slilt, silt loams	<1.30	1.6	1.75
Silt loams, silty clay	•		
loams	<1.10	1.55	1.65
Sandy clays, silty			
clays, some clay			
loams (35-45% clay)	<1.10	1.49	1.58
Clays (>45% clay)	<1.10	1.39	1.47



# TYPICAL INSTALLATION -ANTI-SIPHON DEV SNOUT OIL-DEBRIS HOOD OIL AND DEBRIS ~~~~~ SEE NOTE\* SOLIDS SETTLE ON BOTTOM

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

UNIFORMLY GRADED COARSE

VOIDS 40% AS MEASURED BY

LAYOUT, CONNECTIONS AND

REVIEW PRIOR TO ORDERING/

INCLUDE THE WITHDRAWAL

INSPECTION PORTS.

NUMBER 3 PER AASHTO

ASTM-C29.

CONFIGURATION DETAIL INSTALLATION DETAIL PVC ANTI-SIPHON PIPE ADAPTER FOAM GASKET W/ PSA BACKING-REMOVABLE WATERTIGHT (TRIM TO LENGTH) ACCESS PORT, 6" OPENIN MOUNTING ANCHOR W/ BOLT FLANGE (SEE DETAIL A) **INSTALLATION NOTE:** POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1/2 OUTLET PIPE DIAMETER (MIN.) 1/2 D BELOW THE PIPE INVERT. MINUMUM DISTANCE FOR SIDE VIEW PIPES < 12" I.D. IS 6". **GASKET** FRONT VIEW COMPRESSED **BETWEEN HOOD** DETAIL A OUTLET PIPE (HIDDEN) AND STRUCTURE (SEE DETAIL B) SNOUT OIL-WATER-DEBRIS SEPARATOR ANCHOR DRILLED SHIELD STAINLESS EXPANSION CONE BOLT (NARROW END OUT)

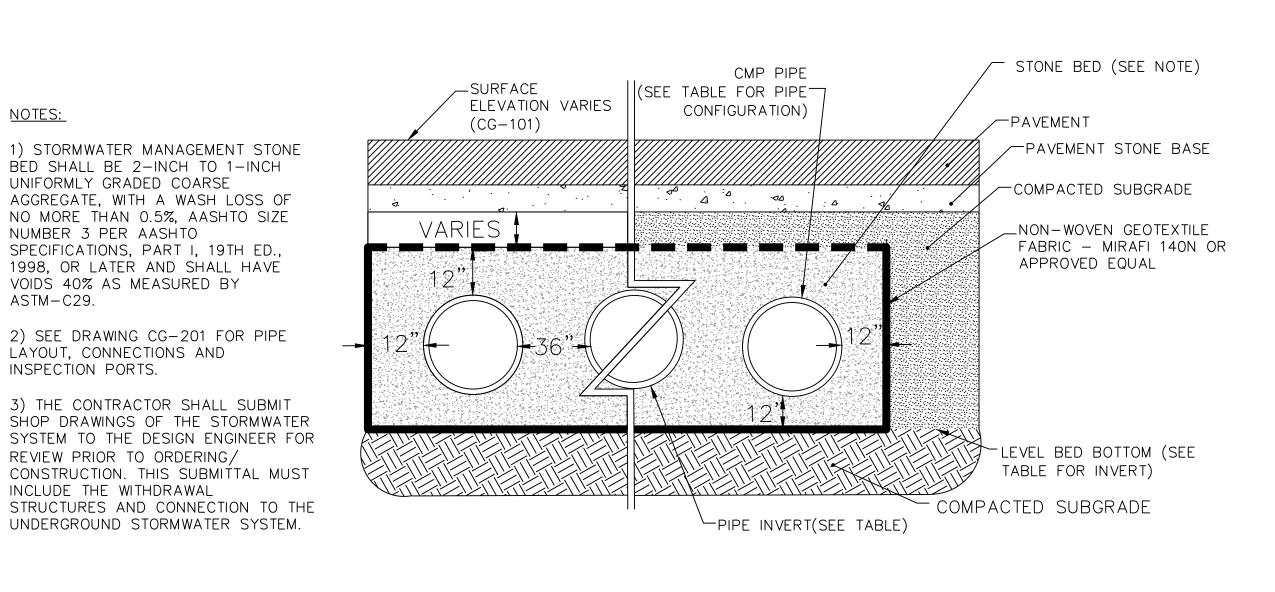
- 1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY: BEST MANAGEMENT PRODUCTS, INC.
- 53 MT\_ARCHER RD LYME, CT 06371 (860) 434-0277, (860) 434-3195 FAX TOLL FREE: (800) 504-8008 OR (888) 354-7585

WEB SITE: www.bmpinc.com

OR PRE-APPROVED EQUAL

- 2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
- 3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION
- 4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
- 5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR
- 6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
- 7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL
- 8. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8' STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
- 9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT
- INSTALLATION KIT SHALL INCLUDE: A. INSTALLATION INSTRUCTIONS
- B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
- D. 3/8" STAINLESS STEEL BOLTS E. ANCHOR SHIELDS
- 10. THE CONTRACTOR IS SPECIFICALLY MADE AWARE THAT OIL/DEBRIS HOODS MAY REQUIRE OVERSIZED STRUCTURES AND/OR DEEPER STRUCTURES TO ACCOMMODATE DEVICES. EXISTING STRUCTURES IN WHICH DEVICES ARE PROPOSED MAY REQUIRE REPLACEMENT IF UNDERSIZED. CONTRACTOR MUST INCLUDE REPLACEMENT OF EXISTING STRUCTURES RECEIVING SNOUT DEVICE IN BID AND VERIFY PRIOR TO INSTALLATION.

### BMP 6.6.4 B SNOUT OIL/DEBRIS SEPARATOR



UNDERGROUND DETENTION BASIN	STONE BED INVERT	PIPE INVERT	NUMBER, LENGTH AND DIA. OF PIPE ROWS
UNDERGROUND DETENTION BASIN #1	INV=175.00	INV=176.00	7 - 150 LF 60-INCH CMP PIPES

SUBSURFACE DETENTION BASIN

**APPLICANT / EQUITABLE OWNER:** 

AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP 201 S. MAPLE AVENUE, SUITE 100 AMBLER, PA 19002 P: (484)532-7830

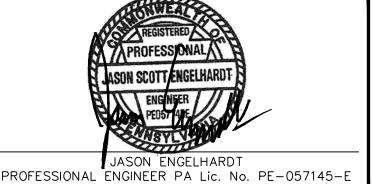
RECORD OWNER:

SITE LOCATION MAP SCALE 1"=1,000"

MAPLE AVE PARK PARTNERS, LLP 110 SPRUCE ROAD AMBLER, PA 19002 P: (484)532-7830

PER DEP REVIEW LETTER 12-18-13 10 - 3 - 13BOROUGH COMMENTS 7-05-13 E&S/NPDES SUBMISSION 6-21-13 BOROUGH COMMENTS Date Description

REVISIONS



T: 610.984.8500 F: 610.984.8501 www.langan.com NEW JERSEY NEW YORK VIRGINIA CALIFORNIA PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA

AMBLER CROSSINGS

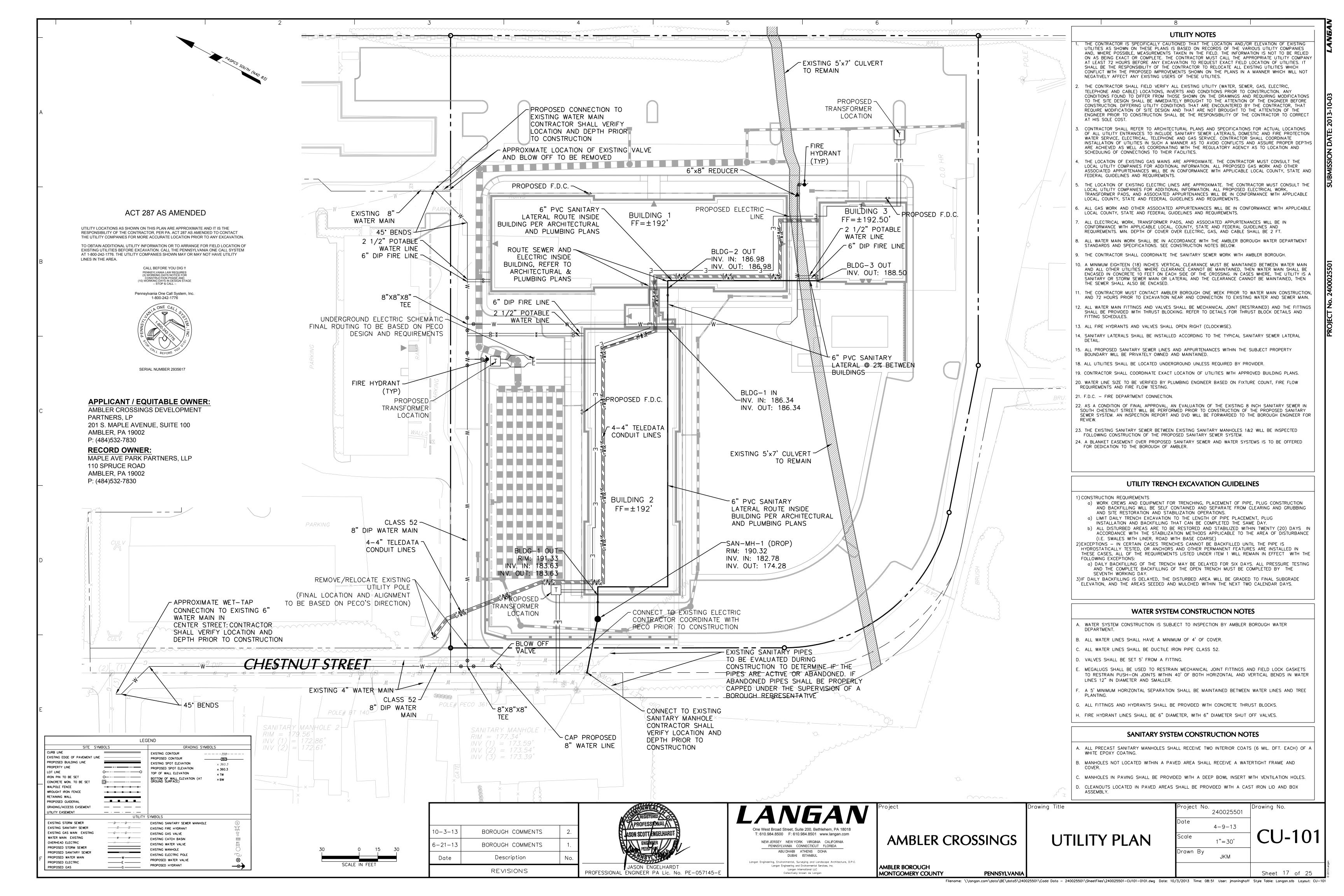
POST CONSTRUCTION **STORMWATER** MANAGEMENT DETAILS

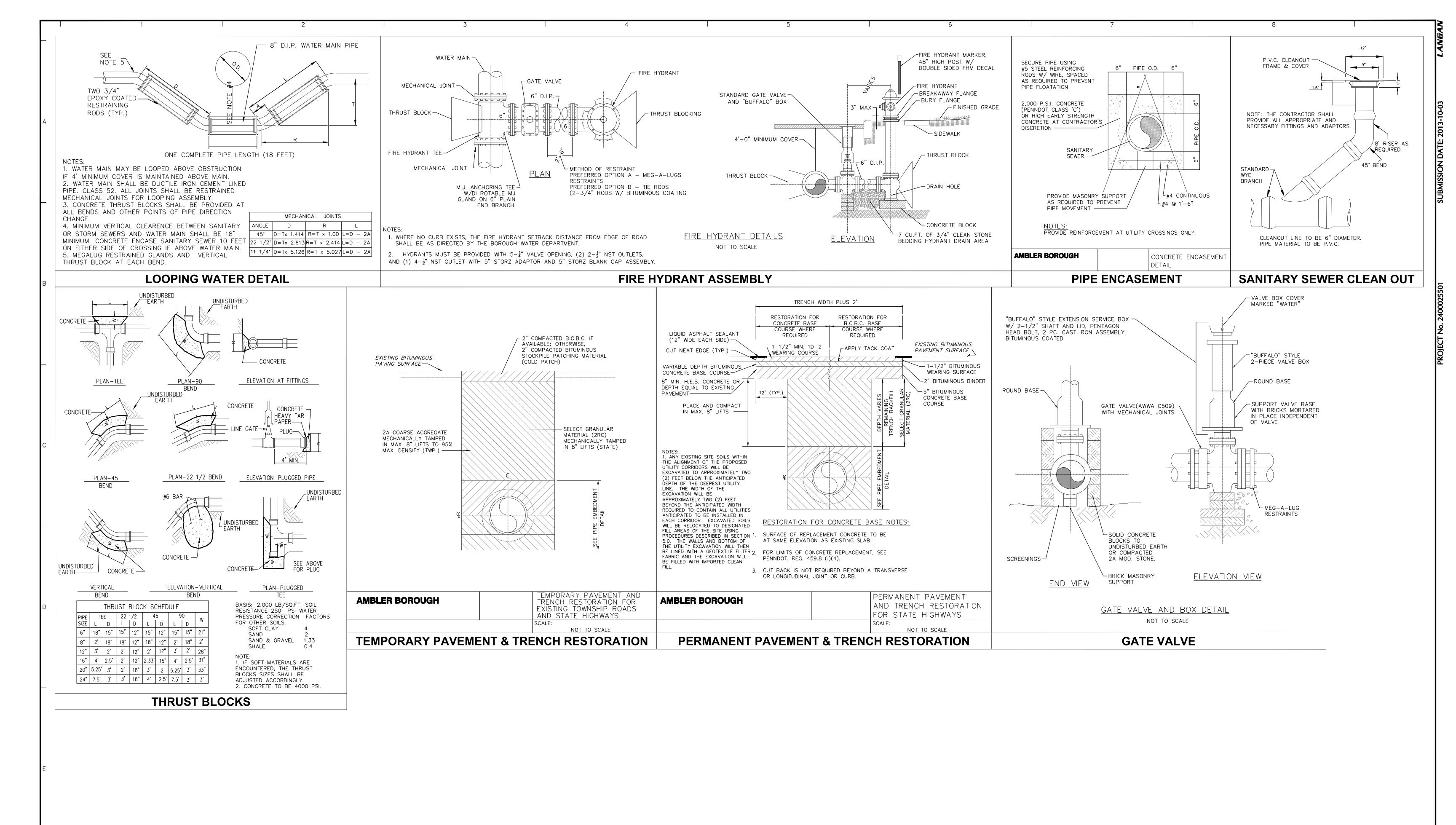
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Project No.	240025501	Drawing No.
Date		
	4-9-13	DCCM FO
Scale	N.T.S.	PSCM-50
Drawn By	KG	

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services. Inc.

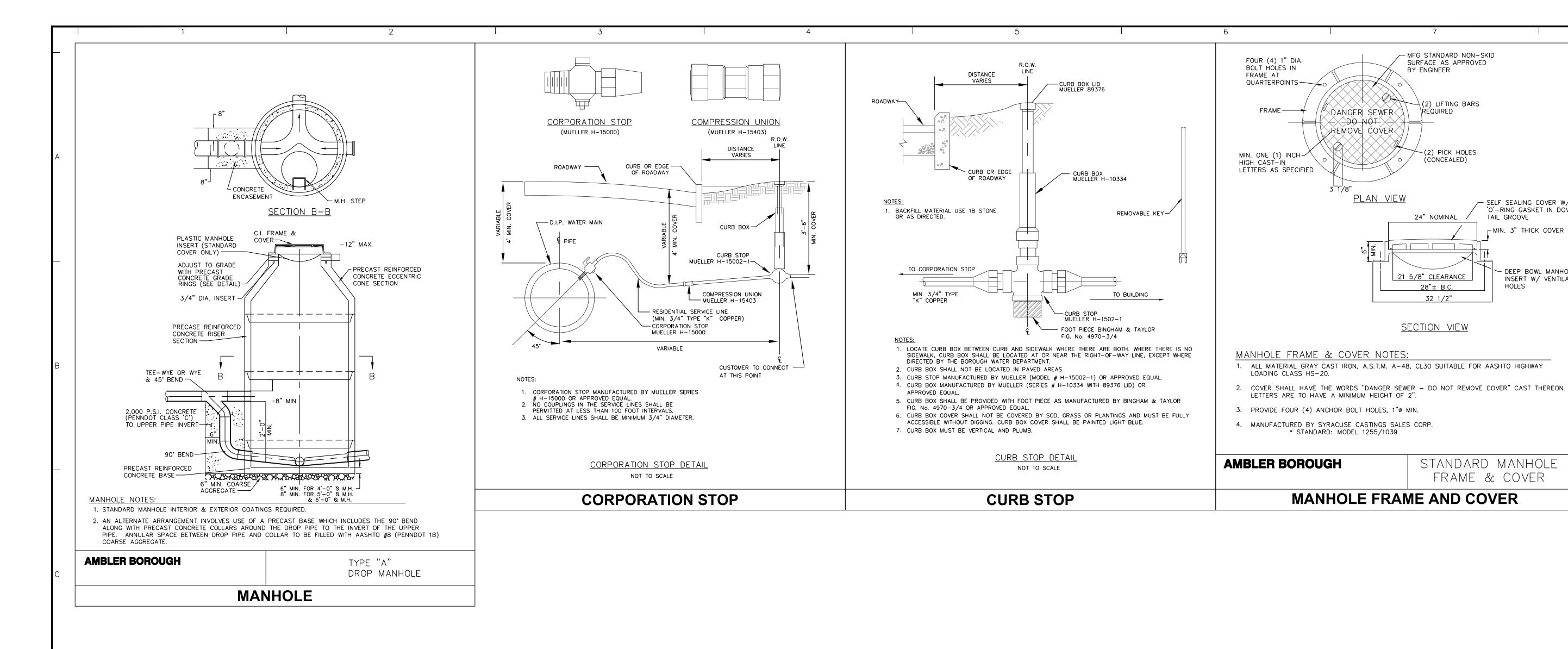
AMBLER BOROUGH MONTGOMERY COUNTY **PENNSYLVANIA**  Sheet 17 of 26

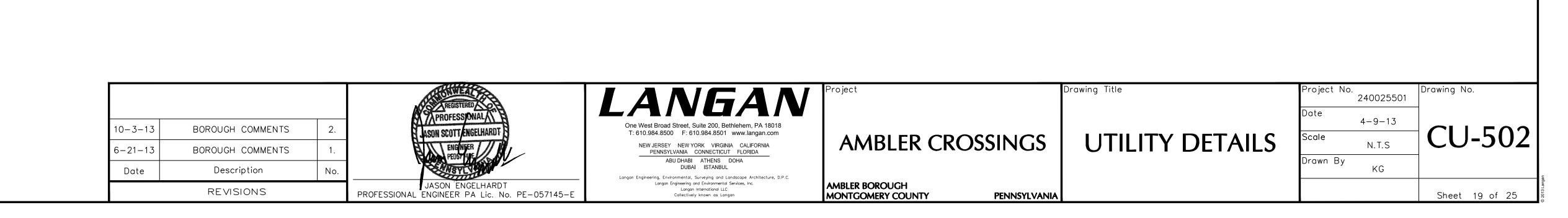




			DECISTERED A	LANGAN	Project	Drawing Title	Project No. 240025501	Drawing No.
10-3-13	BOROUGH COMMENTS	2.	PROFESSIONAL ASON SCOTT ENGELHARDT	One West Broad Street, Suite 200, Bethlehem, PA 18018 T: 610.984.8500 F: 610.984.8501 www.langan.com			Date 4-9-13 Scale	
6-21-13	BOROUGH COMMENTS	1.	ENGINEER PEDST ANE	NEW JERSEY NEW YORK VIRGINIA CALIFORNIA PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA	AMBLER CROSSINGS	UTILITY DETAILS	N.T.S.  Drawn By	CU-501
Date	Description	No.		DUBAI ISTANBUL  Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.			KG	
	REVISIONS	•	JASON ENGELHARDT PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E	Langan Engineering and Environmental Services, Inc. Langan International LLC	AMBLER BOROUGH MONTGOMERY COUNTY PENNSYLVAI			Sheet 18 of 25

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(2) LIFTING BARS

-(2) PICK HOLES

SELF SEALING COVER W/

- MIN. 3" THICK COVER

- DEEP BOWL MANHOLE

INSERT W/ VENTILATION

TAIL GROOVE

HOLES

STANDARD MANHOLE

FRAME & COVER

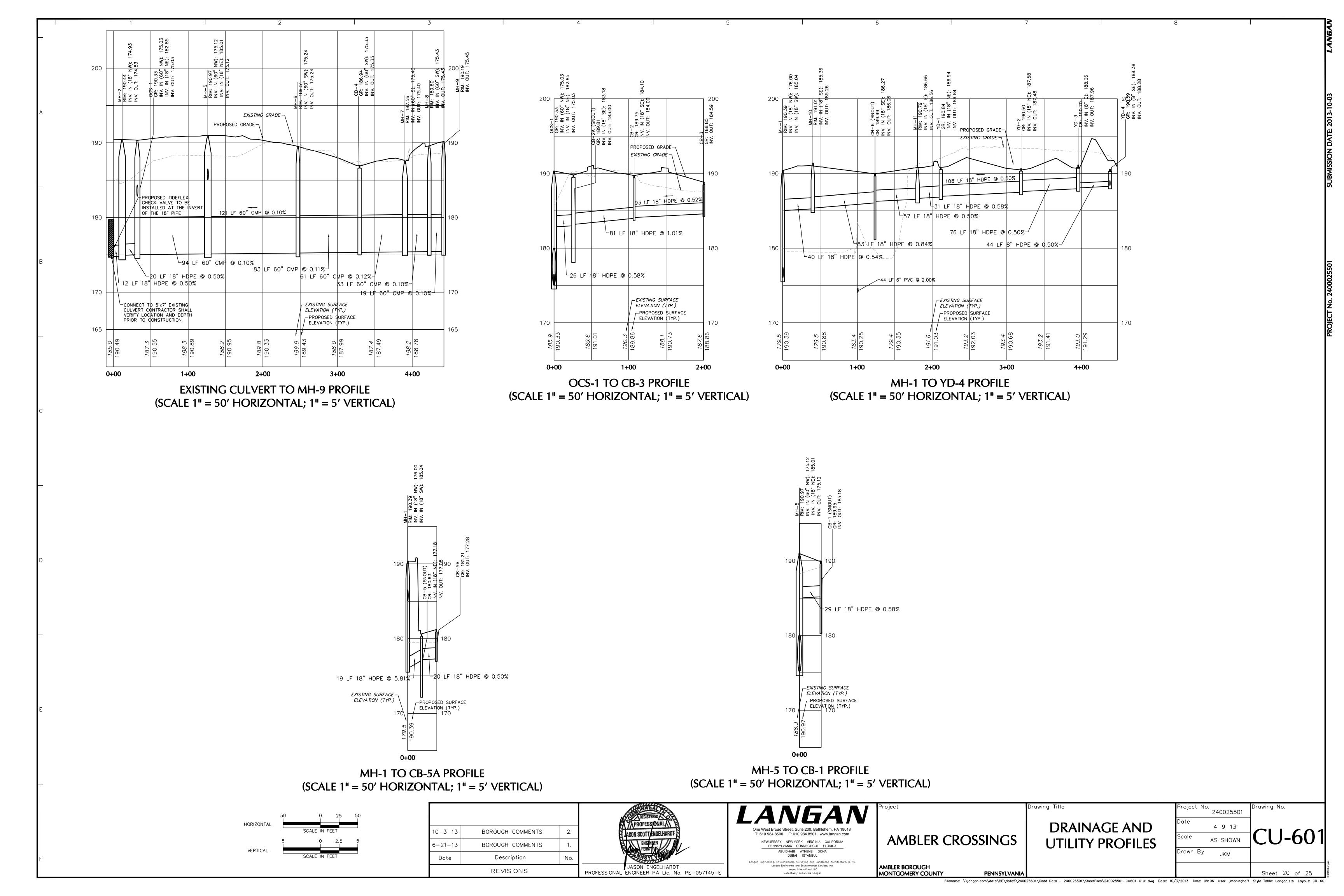
'O'-RING GASKET IN DOVE-

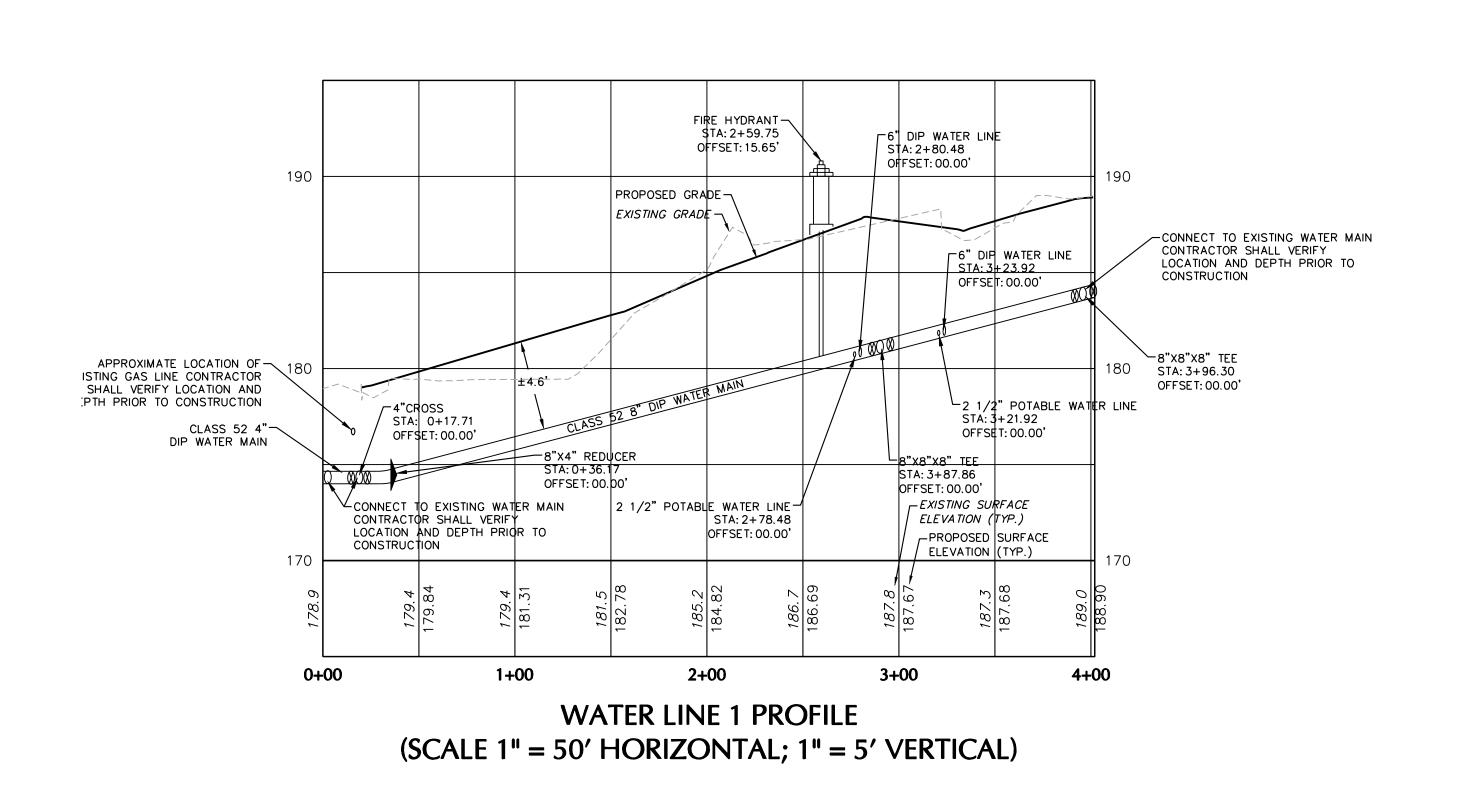
(CÓNCEALED)

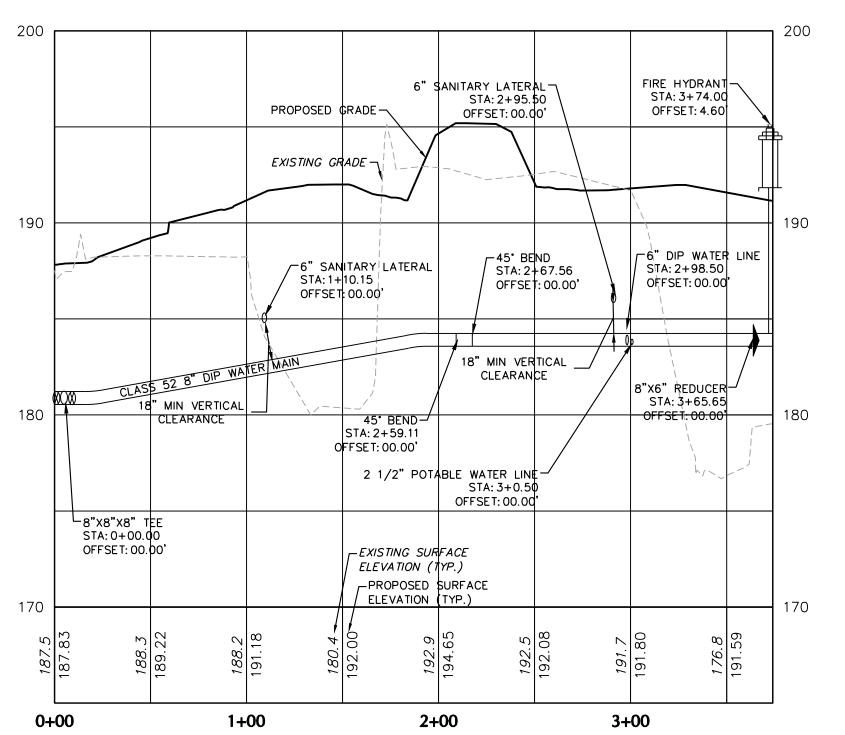
28"± B.C.

32 1/2"

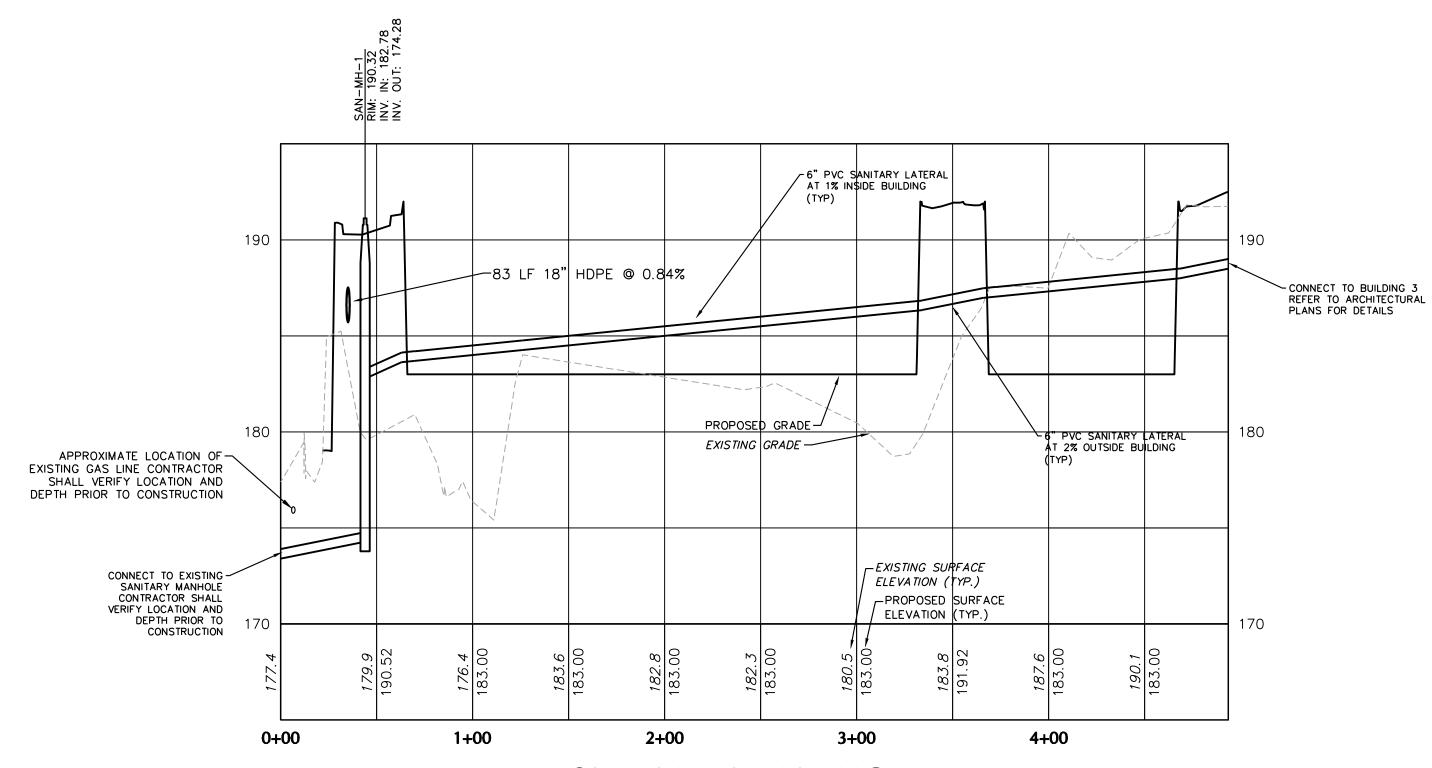
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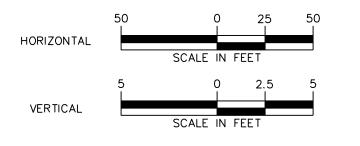




WATER LINE 2 PROFILE (SCALE 1" = 50' HORIZONTAL; 1" = 5' VERTICAL)



SANITARY LATERAL PROFILE (SCALE 1" = 50' HORIZONTAL; 1" = 5' VERTICAL)



			REGISTERED
10-3-13	BOROUGH COMMENTS	2.	LASON SCOTT ENGELHARDT
6-21-13	BOROUGH COMMENTS	1.	ENG NEER PE057 AME
Date	Description	No.	MSYL MAN
	REVISIONS		JASON ENGELHARDT PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E



Langan International LLC Collectively known as Langan AMBLER CROSSINGS DRA
UTIL

**PENNSYLVANIA** 

MONTGOMERY COUNTY

DRAINAGE AND
UTILITY PROFILES

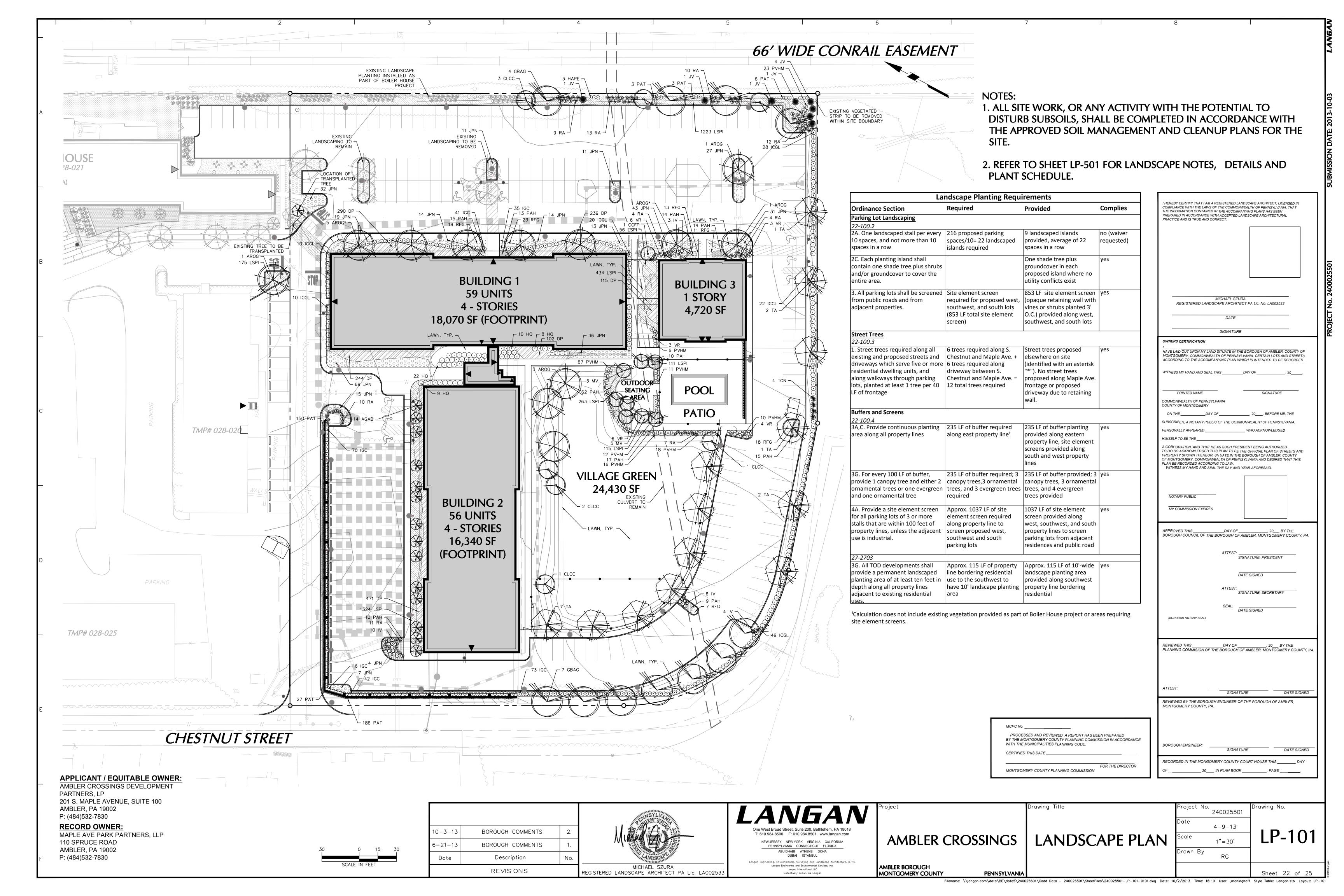
Project No. 240025501

Date
4-9-13

Scale
AS SHOWN
Drawn By

JKM

 $Filename: \label{langencom} $$ Filename: \label{langencom} $$ Date: 10/2/2013 Time: 16:19 User: jmoninghoff Style Table: Langen.stb Layout: CU-602 User: January CU-602 User: J$ 



### **GENERAL LANDSCAPE PLANTING NOTES:**

- 1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE, NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.
- STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.
- 3. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING. PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR AND HABIT, THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES.
- THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.
- 5. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE, BEFORE PLANTING, FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER REVIEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER.

### PLANTING SOILS

- REUSE SURFACE SOILS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL CRITERIA IN THIS SPECIFICATION THROUGH TESTING. CLEAN SURFACE SOIL OF ALL ROOTS, PLANTS, SOD, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS. IF ON-SITE SOILS ARE TO BE USED FOR PROPOSED PLANTING. THE CONTRACTOR SHALL DEMONSTRATE, THROUGH SOIL TESTING, THAT ON-SITE SOILS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANS
- SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN TOPSOIL AND PLANTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4" DEEP. DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.
- 3. IF DEPTH OF PLANTING SOILS AND TOPSOIL IS NOT INDICATED IN PLANS OR DETAILS, A MINIMUM 18" DEPTH SHALL BE PROVIDED FOR ALL TREES AND LARGE SHRUBS; MINIMUM 12" DEPTH SHALL BE PROVIDED FOR GROUNDCOVERS, HERBACEOUS AND MEADOW OR ORNAMENTAL GRASS AREAS AND A MINIMUM 6" LAYER SHALL BE INSTALLED IN ALL LAWN AREAS. TOPSOIL AND PLANTING SOIL DEPTH INDICATED ON PLANS AND PLANTING DETAILS AND NARRATIVE SPECIFICATIONS SHALL GOVERN DEPTH WHEN PROVIDED
- WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS, BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND
- 5. IF THE QUANTITY OF SOILS FROM THE SITE IS NOT ADEQUATE TO FILL PLANTING AREAS TO THE DEPTH INDICATED IN THE PLANS AND DETAILS, CONTRACTOR SHALL FURNISH PLANTING SOILS THAT ARE FREE OF BROKEN GLASS, PAINT CHIPS, PLASTIC, DELETERIOUS MATERIALS, ROOTS, WEEDS, BOULDERS, COBBLES AND GRAVEL OVER 1" IN DIAMETER AND COMPLY WITH THE FOLLOWING CRITERIA:
- -SOILS SHALL MEET ALL APPLICABLE SOIL REMEDIATION STANDARDS -ORGANIC CONTENT: 2-5% IN NATIVE SOILS; UP TO 10% IN AMENDED SOILS
- -SOLUBLE SALTS: LESS THAN 0.5 MM HOS/CM
- -SOIL PH: 4.5-7% TO BE AMENDED PER SOIL TEST RESULTS -PHYSICAL (SIEVE) ANALYSIS/ SOIL TEXTURE
- SAND: 40-60% SILT: 25-60% CLAY: 5-20% -NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE.
- 6. ALL PLANTING SOILS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE, OR APPROVED EQUAL, PRIOR TO DELIVERY TO THE SITE. CONTRACTOR SHALL FURNISH SOIL SAMPLES AND SOIL TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 CUBIC YARDS TO ENSURE CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOIL REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT THE SOILS ARE DEFICIENT IN ANY MANNER AND MAY BE CORRECTED BY ADDING AMENDMENTS, THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR SOIL IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.
- 7. IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC AMENDMENT SHALL BE WELL COMPOSTED, PH RANGE OF 6-8; MOISTURE CONTENT 35-55% BY WEIGHT 100% PASSING THROUGH 1" SIEVE: SOLUBLE SALT CONTENT LESS THAN 0.5 MM HOS/CM; MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL; FREE OF BROKEN GLASS, PAINT CHIPS, PLASTIC, DELETERIOUS MATERIALS, ROOTS, WEEDS, BOULDERS, COBBLES AND GRAVEL OVER 1" IN DIAMETER
- SCARIFY AND/OR TILL ALL COMPACTED SUBSOILS PRIOR TO ADDING PLANTING SOIL OR TOPSOIL, PLANTING SOILS AND TOPSOIL SHALL BE PLACED IN 12-18" LIFTS THAT ARE LOOSELY COMPACTED. NO SOILS SHALL BE PLACED IN A FROZEN

### DELIVERY, STORAGE, AND HANDLING

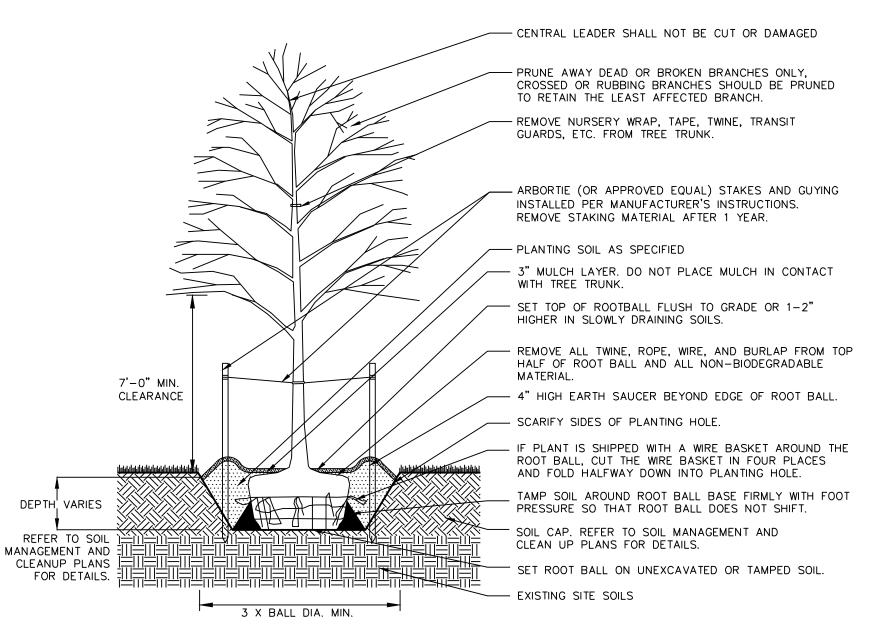
- 1. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED
- TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP OR BREAK BALLED STOCK DURING DELIVERY OR HANDLING.
- 3. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT BALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING, IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8" INTO THE PLANTING HOLE, WITH CONTAINER-GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO LOCATIONS.
- 4. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.

### INSTALLATION

- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES PRIOR TO THE START OF EXCAVATION ACTIVITIES. NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
- THE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.
- 3. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
- 4. ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND UNEVEN SURFACES PRIOR TO PLANTING OR
- ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES.
- 6. THE CONTRACTOR SHALL KEEP AREA CLEAN DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF-SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.
- 7. AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.
- MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR.
- 9. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY SITE AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND
- 10. AFTER COMPLETION OF A PROJECT, ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A SHREDDED HARDWOOD BARK OR APPROVED EQUAL MULCH THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF

### GUARANTEE

1. NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF ONE YEAR FOLLOWING ACCEPTANCE BY THE OWNER. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.



## **DECIDUOUS TREE PLANTING**

3" MULCH LAYER, DO NOT

PLACE MUICH IN CONTACT

DEPTH, VARIES

REFER TO SOIL

CLEANUP PLANS

FOR DETAILS.

SIDEWALK

10-3-13

6 - 21 - 13

Date

**MULTI-STEMMED TREE PLANTING** 

MANAGEMENT AND

BEYOND EDGE OF ROOT BALL----

WITH TREE TRUNK -

N.T.S.

N.T.S.

-IF PLANT IS SHIPPED WITH A WIRE BASKET AROUND

-REMOVE ALL TWINE, ROPE AND WIRE, AND BURLAP FROM

TOP HALF OF ROOT BALL AND ALL NON-BIODEGRADABLE

-SOIL CAP. REFER TO SOIL MANAGEMENT AND CLEAN UF

THE ROOT BALL, CUT THE WIRE BASKET IN FOUR

PLACES AND FOLD DOWN 8" INTO

PLANTING SOIL AS SPECIFIED

ROOT BALL DOES NOT SHIFT

PLANS FOR DETAILS.

 $2.5 \times BALL$ 

1. PLANTS ARE TO BE SPACED EQUIDISTANT FROM EACH OTHER.

BOROUGH COMMENTS

BOROUGH COMMENTS

Description

REVISIONS

PLANTS PRIOR TO PLANTING.

**GROUNDCOVER/ PERENNIAL PLANTING** 

REFER TO PLAN AND SCHEDULE FOR SPACING OF INDIVIDUAL PLANTS. REMOVE ALL WIRE, PLASTIC, TAGS OR SYNTHETIC MATERIAL FROM

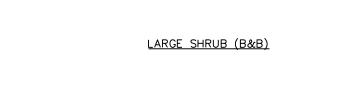
—SET TOP OF ROOTBALL FLUSH TO GRADE

-TAMP SOIL AROUND ROOT BALL BASE

-SET ROOT BALL ON UNEXCAVATED

FIRMLY WITH FOOT PRESSURE SO THAT

OR 1-2" HIGHER IN SLOWLY DRAINED SOILS



REFER TO SOIL

MANAGEMENT AND

CLEANUP PLANS

REFER TO SOIL "

MANAGEMENT AND T

CLEANUP PLANS

FOR DETAILS.

FOR DETAILS.

AND BURLAP FROM TOP HALF OF ROOT -IF PLANT IS SHIPPED WITH A WIRE BASKET IN FOUR PLACES AND FOLD HALFWAY DOWN INTO PLANTING HOLE. 3" MULCH LAYER, KEEP MULCH AWAY FROM SHRUB BASE AND TOP OF ROOTBALL (TYP). 4" HIGH EARTH SAUCER BEYOND EDGE OF ROOT BALL TO DIRECT WATER INTO ROOTBALL (TYP). - REMOVE PLASTIC CONTAINER ---PLANTING SOIL AS SPECIFIED. TAMP SOIL AROUND ROOT BALL BASE FIRMLY

WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT (TYP). SET ROOT BALL ON UNEXCAVATED OR TAMPED SOIL. CLEAN UP PLANS FOR DETAILS.

**SHRUB PLANTING** 

## N.T.S.

### PLANT SCHEDULE **BOTANICAL NAME** SIZE ROOT REMARKS COMMON NAME 2 1/2-3" CAL. 2 1/2-3" CAL. GBAG 11 GINKGO BILOBA 'AUTUMN GOLD' MAIDENHAIR TREE IB+B 2 1/2-3" CAL. PRNAMENTAL TREE(S) AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' AUTUMN BRILLIANCE SERVICEBERRY AGAB 114 l 14–16′ CCFP CERCIS CANADENSIS 'FOREST PANSY' FOREST PANSY REDBUD 1 1/2-2" CAL. CLCC CRATAEGUS LAEVIGATA 'CRIMSON CLOUD' 1 1/2-2" CAL. CRIMSON CLOUD HAWTHORN B+B SWEETBAY MAGNOLIA VERGREEN TREE(S) 8-10' JV | 8 JUNIPERUS VIRGINIANA LEASTERN RED CEDAR lB+B ILEX CRENATA 'GREEN LUSTER' GREEN LUSTER HOLLY 24-30" 24-30" 274 ILEX GLABRA COMPACTA DWARF INKBERRY HOLLY #5 CAN 5-6' THUJA OCCIDENTALIS 'NIGRA' DARK AMERICAN ARBORVITAE B+B VIBURNUM X RHYTIDOPHYLLUM LEATHERLEAF VIBURNUM 3-4' В+В ECIDUOUS SHRUB(S) 24-30" #5 CAN ITEA VIRGINICA 'HENRY'S GARNET' GARNET SWEETSPIRE 18-24" RHUS AROMATICA #3 CAN GROUND COVER DENNSTAEDTIA PUNCTILOBULA EASTERN HAYSCENTED FERN 1 QUART spaced @ 18" o.c. 353 JUNIPERUS PROCUMBENS 'NANA' JAPANESE GARDEN JUNIPER 12-15" SPRD. #2 CAN spaced @ 36" o.c. LSPI 3619 CONTAINER LIRIOPE SPICATA CREEPING LILYTURE 1 QUART spaced @ 12" o.c. RUDBECKIA FULGIDA 'GOLDSTURM' GOLDSTURM/BLACK-FYFD SUSAN RFG 85 11 QUART CONTAINER | spaced @ 24" o.c. RNAMENTAL GRAS PENNISETUM ALOPECUROIDES 'HAMELN DWARF FOUNTAIN GRASS PVHM 163 PANICUM VIRGATUM 'HEAVY METAL' HEAVY METAL SWITCH GRASS QUART CONTAINER HAPE I HYDRANGEA ANOMALA PETIOLARIS CLIMBING HYDRANGEA CONTAINER PARTHENOCISSUS TRICUSPIDATA CONTAINER

**PENNSYLVANIA** 

**EVERGREEN TREE PLANTING** 

2.5 X BALL DIA. MIN.

SMALL SHRUB (CONTAINER)

N.T.S.

- CENTRAL LEADER SHALL NOT BE CUT OR DAMAGED

3" MULCH LAYER. DO NOT PLACE MULCH

- REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP

AROUND THE ROOT BALL, CUT THE WIRE BASKET

IN FOUR PLACES AND FOLD HALFWAY DOWN INTO

FROM TOP HALF OF ROOT BALL AND ALL

FIF PLANT IS SHIPPED WITH A WIRE BASKET

- SOIL CAP, REFER TO SOIL MANAGEMENT AND

IN CONTACT WITH TREE TRUNK.

GRADE OR 1-2" HIGHER

- 4" HIGH EARTH SAUCER

PLANTING HOLE.

EXISTING SITE SOILS.

IN SLOWLY DRAINING SOILS

BEYOND EDGE OF ROOT BALL.

NON-RIODEGRADARIE MATERIAL

CLEAN UP PLANS FOR DETAILS.

- SET ROOT BALL ON UNEXCAVATED

ROOT BALL DOES NOT SHIFT.

TAMP SOIL AROUND ROOT BALL BASE

FIRMLY WITH FOOT PRESSURE SO THAT

- PLANTING SOIL AS SPECIFIED

- SET TOP OF ROOTBALL FLUSH TO

-REMOVE ALL TWINE, ROPE AND WIRE, BALL AND ALL NON-BIODEGRADABLE MATERIAL AROUND THE ROOT BALL, CUT THE WIRE BASKET

-SOIL CAP. REFER TO SOIL MANAGEMENT AND

EXISTING SITE SOILS.

3 TIMES ROOTBALL DIA.

3 TIMES ROOTBALL DIA.

Langan Engineering and Environmental Services. Inc.

N.T.S.

T: 610.984.8500 F: 610.984.8501 www.langan.com PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA

AMBLER CROSSINGS

AMBLER BOROUGH

MONTGOMERY COUNTY

LANDSCAPE NOTES

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4. SEEDING DATES FOR THIS MIXTURE SHALL BE AS FOLLOWS:

**LAWN SEED NOTES:** 

THAN 2" DIAMETER.

PERENNIAL RYEGRASS

KENTUCKY BLUEGRASS

TONS/AC OR 90 LBS/1,000 SF

SPRING: APRIL 1 - MAY 31

SPREADING FESCUE

RED FESCUE

FALL: AUGUST 16 - OCTOBER 31 5. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER

3. SEED MIX SHALL BE MULCHED WITH SALT HAY OR UNROTTED SMALL GRAIN STRAW AT A RATE OF 2

1 1/2 LBS./1,000 SF

1 1/2 LBS./1,000 SF

1 LBS./1,000 SF

1 LBS. /1.000 SF

### TREE AND SHRUB TRANSPLANTING NOTES:

1. REFER TO LANDSCAPE PLAN FOR LOCATION OF TRANSPLANTED PLANTS

2. THE FOLLOWING SEED MIX SHALL BE SOWN AT THE RATES AS DEPICTED:

- TRANSPLANTING SHALL CONSIST OF ON-SITE OR OFF-SITE TRANSPLANTING OF EXISTING TREES AND OTHER PLANT MATERIALS FROM PROPOSED CONSTRUCTION AREAS TO PERMANENT POSITIONS AS NOTED ON
- DIGGING, WRAPPING, AND HANDLING: TREES AND OTHER PLANT MATERIALS SHALL BE DUG AND PREPARED FOR MOVING IN A MANNER THAT WILL NOT CAUSE DAMAGE TO BRANCHES, SHAPE, ROOT SYSTEM, AND
- DEVELOPMENT. TIME OF PLANTING AND TRANSPLANTING: UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE
- ARCHITECT, EVERGREEN MATERIAL SHALL BE TRANSPLANTED FROM APRIL 1ST TO MAY 1ST, AND FROM SEPTEMBER 1ST TO OCTOBER 15TH. DECIDUOUS MATERIAL SHALL BE TRANSPLANTED FROM MARCH 1ST TO MAY 1ST AND FROM OCTOBER 15TH TO DECEMBER 1ST.
- 5. BALLED AND BURLAPPED PLANTS:
- i. BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP OR ACCEPTED CLOTH SUBSTITUTE. ii. NO BALLED PLANT WILL BE ACCEPTABLE IF THE BALL IS CRACKED AND BROKEN OR IF THE STEM OR
- TRUNK IS LOOSE IN THE BALL, EITHER BEFORE OR DURING TRANSPLANTING. iii. ROOT BALL SHALL BE HELD TOGETHER WITH DRUM LACING USING THREE-PLY SISAL.
- iv. BALLED PLANTS SHALL BE LIFTED AND HANDLED FROM THE BOTTOM OF THE BALL.
- v. PROTECT BALL AND DELIVER TO THE SITE, PLANT IMMEDIATELY, AND WATER THOROUGHLY. vi. WIRE CAGED BALLS ARE NOT ACCEPTABLE.
- vii, ROOT BALL SIZE SHALL BE AS NOTED IN THIS DOCUMENT
- i. RELOCATED PLANT MATERIALS SHALL BE PLANTED ACCORDING TO PROCEDURES DESCRIBED FOR NEW MATERIAL, SECTION 02900. VERIFY FINAL GRADES HAVE BEEN ESTABLISHED BEFORE PLANTING OPERATIONS. ALL PLANTS SHALL STAND, AFTER SETTLEMENT, AT THE SAME LEVEL AT WHICH THEY
- ii. ENSURE PROPOSED PLANTING PITS DRAIN BY TEST-FILLING WITH WATER BEFORE TRANSPLANTATION. iii. CONTINUE WATERING AND CARING FOR RELOCATED MATERIAL AS SPECIFIED.
- iv. MULCH TREE AND PLANTING PIT AREAS TO REDUCE WEEDS, DISCOURAGE FOOT TRAFFIC, CONSERVE MOISTURE, AND MINIMIZE TEMPERATURE FLUCTUATIONS.
- v. WRAP TREE TRUNKS AND STRUCTURAL BRANCHES OF THIN-BARKED TREES TO PROTECT AGAINST SUN SCALD AND DEHYDRATION. RETAIN THROUGH AT LEAST ONE GROWING SEASON, AND THROUGH COLD
- vi. FEED WITH A DILUTED SOLUTION OF N-P-K WITH A SOLID NEEDLE TO PROVIDE WATER, AIR AND
- vii. WHERE FOLIAGE IS DESICCATED OR SLOW TO REGENERATE, SPRAY WITH A SOLUBLE TYPE OF FOLIAGE
- viii. AT TIME OF PLANTING, FILL AIR POCKETS AND KEEP ROOTS, ESPECIALLY FEEDER ROOTS, MOIST, LIVE AND HEALTHY. USE SOIL NEEDLES FOR WATERING NEW TRANSPLANTS.
- I. FOLLOWING TRANSPLANTATION. THE SOIL AROUND EACH PLANT SHALL BE THOROUGHLY SATURATED WITH WATER AND SHALL BE THOROUGHLY WATERED AS SEASONABLE CONDITIONS REQUIRE THROUGHOUT THE
- ENTIRE MAINTENANCE PERIOD. ii. PROVIDE MANUAL WATERING OF RELOCATED PLANT MATERIALS FOR ENTIRE MAINTENANCE PERIOD. IF USED, CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL OF ALL TEMPORARY WATERING SYSTEMS AFTER WATERING PERIOD.
  - NOTE: ALL SITEWORK, OR ANY ACTIVITY WITH THE POTENTIAL TO DISTURB SUBSOILS, SHALL BE COMPLETED IN ACCORDANCE WITH THE APPROVED SOIL MANAGEMENT AND CLEANUP PLANS FOR THE

EGISTERED LANDSCAPE ARCHITECT PA Lic. LA00253.

TYPICAL O.C. PLANTING SPACING

PLANTS TO BE INSTALLED

-PRIOR TO PLANTING, REMOVE

PLANT FROM CONTAINER AND

-PLANTING SOIL AS SPECIFIED

-3" MULCH LAYER, MULCH TO BE

GENTLY COMB OUT ROOTS

PLACED BEFORE PLANTING.

-UNDISTURBED SUBGRADE

ALTERNATELY.

### **GENERAL LIGHTING NOTES:**

- 1. POINT-BY-POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE TO IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY ACCEPTABLE LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY ACCEPTABLE LLF TO ENSURE ADEQUATE LIGHT INTENSITIES OVER YEARS OF USE AND WEAR. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR ADJACENT LIGHT SOURCES AND/OR OTHER POTENTIAL IMPACTS HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS-BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS.
- 2. PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO
- 3. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING
- 4. CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.
- 5. AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE
- CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER. 6. CONTRACTOR TO COORDINATE INSTALLATION OF ALL THE WALL MOUNTED FIXTURES AND ELECTRICAL

CONNECTIONS TO SITE STRUCTURE(S) WITH BUILDING MEP, ARCHITECT, AND/OR OWNER.

13. REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.

- 7. INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH ALL
- SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK. 8. POINT SPACING ON PLACE OF CALCULATION IS 10 FT. LEFT TO RIGHT AND 10 FT. TOP TO BOTTOM, POINT BY
- POINT CALCULATIONS ARE BASED ON A 0.72 MAINTENANCE FACTOR.
- 9. ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS. 10. SITE ELECTRICAL CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND
- DRAINAGE BEFORE DRILLING POLE BASES. 11. SITE ELECTRICAL CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO INSURE ALL SITE
- LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.
- 12. SITE ELECTRICAL CONTRACTOR SHALL CONFIRM THAT LIGHT FIXTURES MATCH SPECIFICATIONS ON THE PLANS.
- 14. SITE ELECTRICAL CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERTED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY
- 15. POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.
- 16. ELECTRICIAN AND INSTALLATION OF WALL MOUNTED FIXTURES SHALL BE COORDINATED WITH THE ARCHITECTURAL, STRUCTURAL, AND SITE DRAWINGS FOR SAFETY AND TO PROVEN EXPOSED WIRING.
- 17. POST-APPROVAL ALTERATIONS TO LIGHTING PLANS OR INTENDED SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE BOROUGH FOR REVIEW AND APPROVAL.
- 18. THE BOROUGH RESERVES THE RIGHT TO CONDUCT POST-INSTALLATION INSPECTIONS TO VERIFY COMPLIANCE WITH THE ORDINANCE REQUIREMENTS AND APPROVED LIGHTING PLAN COMMITMENTS AND, IF DEEMED APPROPRIATE BY THE BOROUGH, TO REQUIRE REMEDIAL ACTION AT NO EXPENSE TO THE BOROUGH.
- 19. ALL EXTERIOR LIGHTING SHALL MEET IESNA FULL-CUTOFF CRITERIA UNLESS OTHERWISE APPROVED BY THE
- BOROUGH. 20. THE INSTALLER SHALL NOTIFY THE BOROUGH TO ARRANGE FOR INSPECTION AND APPROVAL OF ALL EXTERIOR
- LIGHTING, INCLUDING BUILDING-MOUNTED LIGHTING, PRIOR TO ITS INSTALLATION. 21. LIGHTING SUBSTITUTION REQUIREMENTS:

REQUIREMENTS:

- ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING
- A. ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER
- B. COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES BY ISOFOOTCANDLE THE SYSTEM'S PERFORMANCE. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR.
- C. A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS; IES CALCULATIONS, CANDLEPOWER TABULATIONS, ZONE LUMEN SUMMARY, ISOLUX PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY, BUT NOT LIMITED TO, OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS WATTAGE, VOLTAGE, FINISH AND HOUSING DESCRIPTION.
- D. POLE MANUFACTURER AASHTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- E. THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE
- F. A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.
- 22. PHOTOMETRIC LIGHTING TEMPLATE:

**IES FILE** 

14,000 | 0.72 | GE175MH000XS25XX.IES | GE-175PM-MA-

14,000 | 0.72 | GE175MH000XS25XX.IES | GE-175PM-MA-

BRH-PBRO-HC3.IES

0.72 | GE175MH000XS21XX.IES

14,000 | 0.72 | GE175MH000XS26NX.IES |

28,000 0.72 GE175MH000XS26NX.IES



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE.

HOLOPHANE

ELECTRICAL

FIXTURE CATALOGUE NO.

GE-175PM-MA-1

GE-175PM-MA-1

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### 0.6FC | 5.4FC | 0.0FC NOTE: LIGHT PHOTOMETRY AND CALCULATIONS FOR EXISTING AND ADJACENT LIGHTING TO

HOLOPHANE

HOLOPHANE

HOLOPHANE

HOLOPHANE

HOLOPHANE

SPRING CITY ELECTRICAL

1.1FC 5.2FC 0.3FC

HALLBROOK

### **NOTES:**

- 1. REFER TO SHEET LL-501 FOR SITE LIGHTING NOTES, DETAILS AND FIXTURE CUTSHEETS.
- 2. ALL SITE WORK, OR ANY ACTIVITY WITH THE POTENTIAL TO DISTURB SUBSOILS, SHALL BE COMPLETED IN ACCORDANCE WITH THE APPROVED SOIL MANAGEMENT AND CLEANUP PLANS FOR THE SITE.
- 3. CONTRACTOR SHALL INSTALL AUTOMATED SWITCHES ON SITE LIGHTING SO THAT PROPOSED LIGHT LEVELS ARE DIMMED TO 25% OF THOSE SHOWN ON THIS PLAN. DIMMING SHALL OCCUR BETWEEN THE HOURS OF 11 PM AND 6 AM.

			WAELS:
10-3-13	BOROUGH COMMENTS	2.	
6-21-13	BOROUGH COMMENTS	1.	/V/ VILLE VILLE
Date	Description	No.	ANDSCAPE
	REVISIONS		MICHAEL SZURA REGISTERED LANDSCAPE ARCHITECT PA Lic. LAOC

PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA

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Langan Engineering and Environmental Services. Inc. AMBLER BOROUGH MONTGOMERY COUNTY

# AMBLER CROSSINGS

14'-6"

**APPLICANT / EQUITABLE OWNER:** 

AMBLER CROSSINGS DEVELOPMENT

201 S. MAPLE AVENUE, SUITE 100

MAPLE AVE PARK PARTNERS, LLP

FIXTURE MOUNTING

AMBLER, PA 19002

RECORD OWNER:

110 SPRUCE ROAD

**AMBLER**, PA 19002

17.3:1

FIXTURE DESCRIPTION

SINGLE FIXTURE: FULL

HALLBROOK SINGLE FIXTURE: FULL EXTENSION CUTOFF

HALLBROOK | SINGLE FIXTURE: FULL

HALLBROOK | DOUBLE FIXTURE: FULL

P: (484)532-7830

AVG. MAX. MIN. MAX./MIN. AVG./MIN.

P: (484)532-7830

**PENNSYLVANIA** 

OPTICS

TYPE III

TYPE IV

TYPE V

TYPE V

TYPE III

12,800

175W METAL

PRESSURE

175W METAL | 2@ TYPE

14,000

# SITE LIGHTING **PLAN**

	•	
_		
Project N	o. 240025501	Drawing No.
Date	4-9-13	
Scale	1"=30'	│ LL-101
Drawn By	RG	
		Ch 1 24 - 1 25

POLE DESCRIPTION

14' HIGH CAST ALUMINUM

WITH VALENCIA CROSS

14' HIGH CAST ALUMINUM

PRINCETON SERIES POLE

WITH VALENCIA CROSS

14' HIGH CAST ALUMINUM

PRINCETON SERIES POLE

WITH VALENCIA CROSS

14' HIGH CAST ALUMINUM

WITH DOUBLE VALENCIA

BUILDING MOUNTED FIXTURE WITH VALENCIA

CAST IRON MADISON S

LOUIS TOP POLE. POLE

FINISH: SHERWIN WILLIAMS ACROLON GREEN-BLACK

PRINCETON SERIES POLE

POLE CATALOGUE NO

Z-P-15S5X18-CA-I

K-GW-

00-SCA Z-P-15S5X18-CA-I

VL27/1CXXH-GWLF,

VL27/1CXXH-GWLF 00-SCA Z-P-15S5X18-CA-I

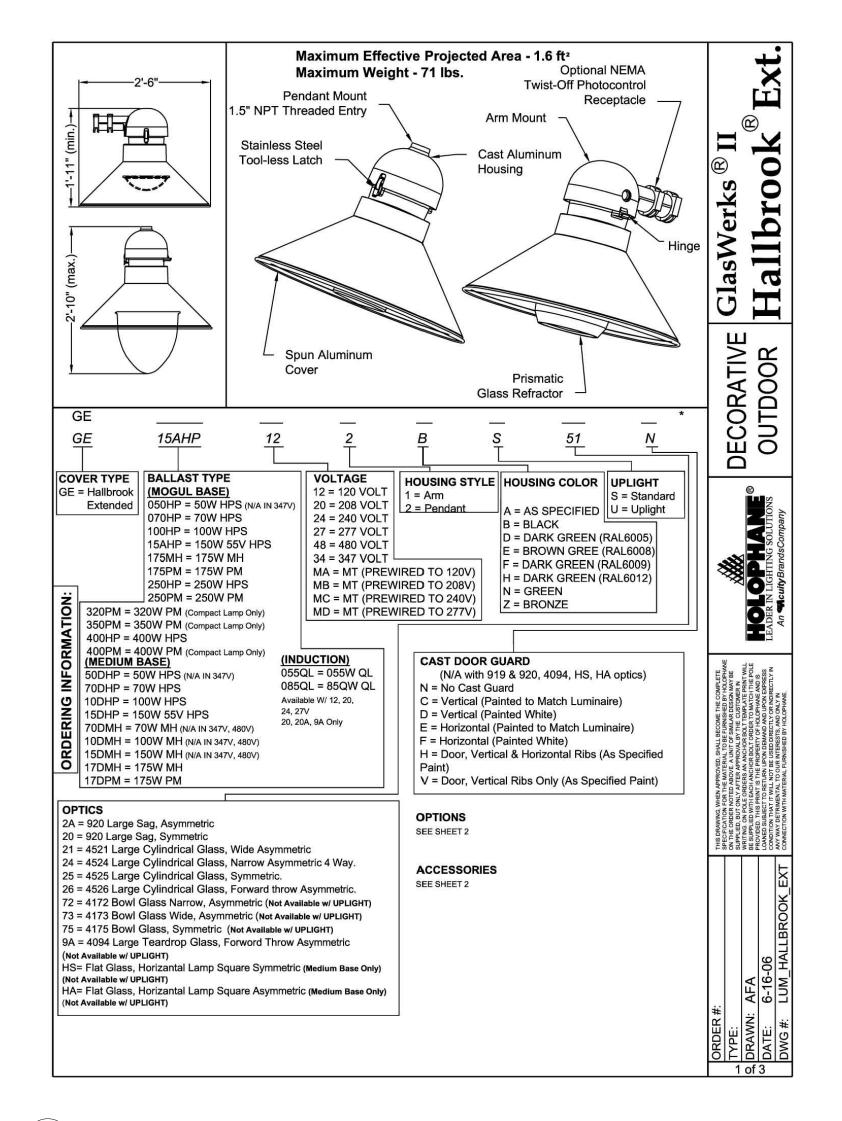
K-GW-

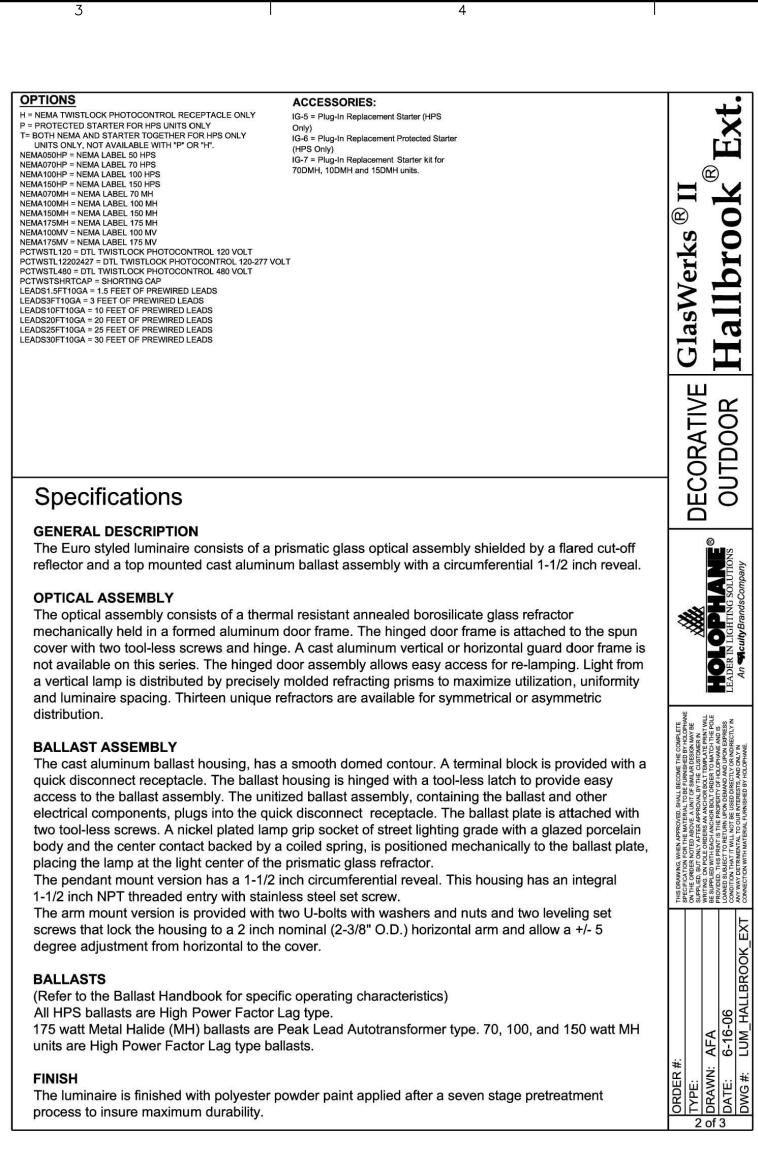
VL27/1CXXH-GWLF/

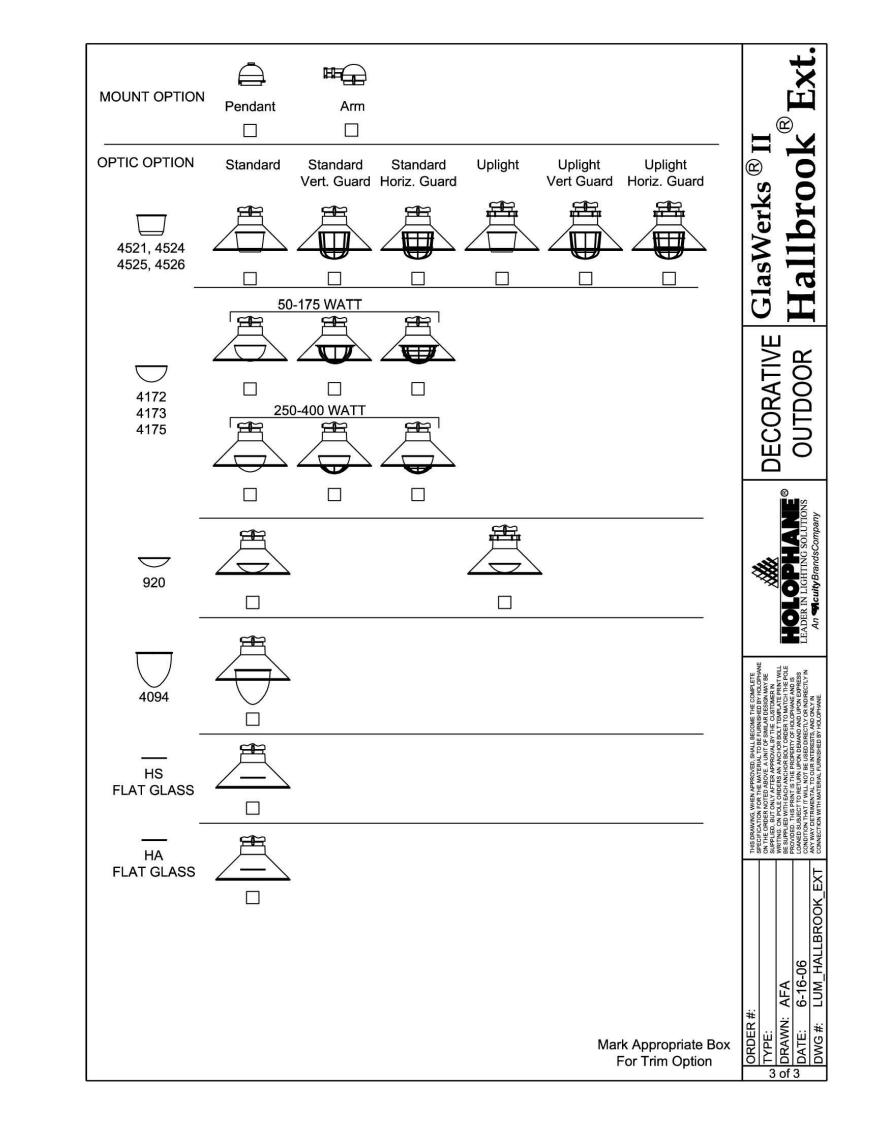
Z-P-15S5X18-CA-I

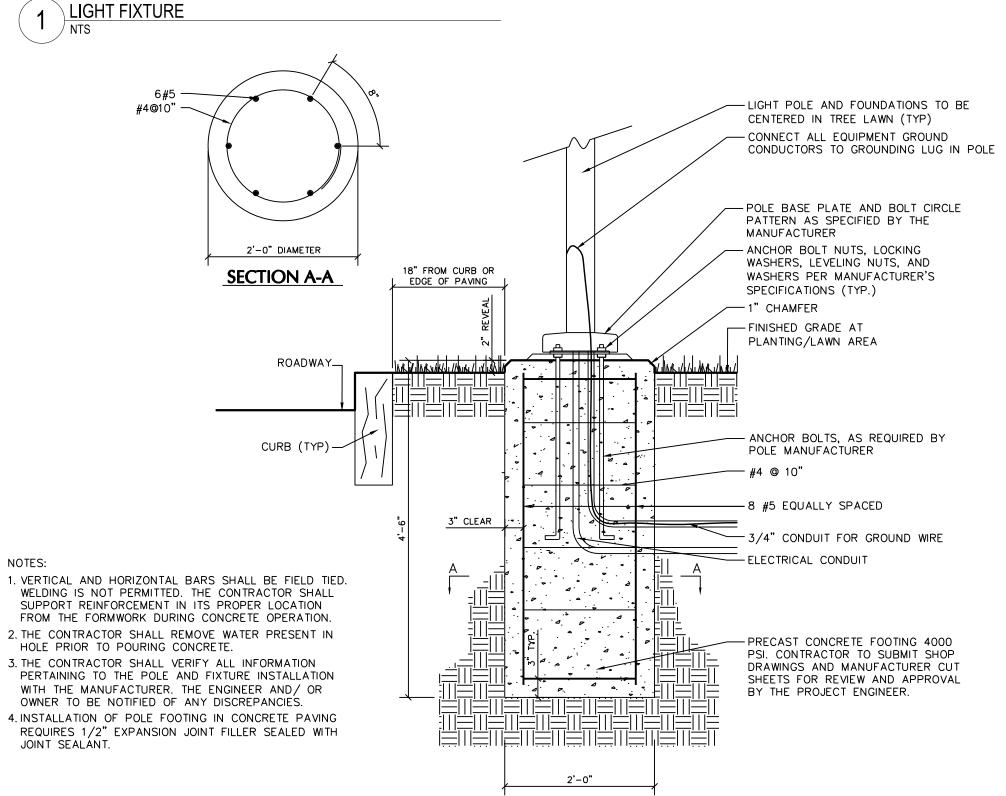
VL54/2-CA/BK-GW

VL27/1-CA/BK









NOTE: THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES, LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.

10 - 3 - 13BOROUGH COMMENTS 6-21-13 BOROUGH COMMENTS Date Description REVISIONS REGISTERED LANDSCAPE ARCHITECT PA Lic. LA002533

T: 610.984.8500 F: 610.984.8501 www.langan.com NEW JERSEY NEW YORK VIRGINIA CALIFORNIA PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.

Langan Engineering and Environmental Services, Inc. Langan International LLC Collectively known as Langan

AMBLER CROSSINGS

rawing Title 240025501 4-9-13 SITE LIGHTING NOTES N.T.S. **AND DETAILS** Drawn By

Filename: \langan.com\data\BE\data5\240025501\Cadd Data - 240025501\SheetFiles\240025501-LL501-0101.dwg Date: 10/2/2013 Time: 16:20 User: jmoninghoff Style Table: Langan.stb Layout: LL-501

AMBLER BOROUGH MONTGOMERY COUNTY **PENNSYLVANIA**  Sheet 25 of 25