# TOWNSHIP OF RADNOR DESIGN REVIEW BOARD

		TOWNSHIP USE ONLY	
	APPLICATION N	IO:	
	FEE PAID:	RECEIVED:	
	AP	PLICATION FORM	
each month at 6:00 P.M meeting!! Application required information a meeting. Incomplete	M. in the Township M n must be filed with t and appropriate fees, a or late applications w Ordinance No 91-14 (S	If the Design Review Board are held the <b>second V</b> Municipal Building. All applicants must attens the Department of Community Development, als a minimum of <b>twenty-one</b> (21) calendar days poils not be accepted!! Applicants are encouraged Sign Code) and/or Ordinance 91-32 (Design Rev	d this ong with all orior to the ed to obtain
Please refer to the Consc current fees.	olidated Fee Schedule,	as amended, on our website at www.radnor.org for	a copy of our
APPLICANT NAME:			
PROPERTY ADDRESS:			
IS THIS BUILDING S	STAND ALONE OR	ATTACHED TO ANOTHER BUILDING?	
MAILING ADDRESS	6: (if different than a	bove):	
TELEPHONE NO: (_			
PROPERTY OWNER:	:		
SIGN MANUFACTU	RER / CONTRACTO	OR / ARCHITECT:	
ADDRESS:			
TELEPHONE: (	_)		
Please provide a det	ailed description o	of proposal:	

	G ADDITION / ACCESSORY STRUCTURES: on requirements (All of the following MUST be submitted with application):
	Site plan drawn to scale - 6 copies (max. size 24" X 36")
	Building elevation drawn to scale - 6 copies (max. size 24" X 36")
	Colored rendering - 6 copies
	Landscape plan - 6 copies (max. size 24" X 36")
	Lighting plan - 6 copies
	Current photographs of site – 6 copies
	Material samples
NEW BUI	LDING:
Submissio	on requirements (All of the following MUST be submitted with application):
	Site plan drawn to scale - 6 copies (max. size 24" X 36")
	Building elevation drawn to scale - 6 copies (max. size 24" X 36")
	Colored rendering - 6 copies
	Landscape plan - 6 copies (max. size 24" X 36")
	Lighting plan - 6 copies
	Current photographs of site <b>- 6 copies</b>
	Material samples Material samples to be presented at meeting.
TELECO	MMUNICATION ANTENNAS:
Submissio	on requirements (All of the following MUST be submitted with application):
	Site plan drawn to scale - 6 copies (max. size 24" X 36")
	Building elevation - 6 copies (max. size 24" X 36")
	Colored rendering - 6 copies
	Current photographs – 6 copies
	R DINING: a requirements (All of the following MUST be submitted with application):
	A detailed/sketched site plan on $8 \frac{1}{2} \times 11$ paper, but not to exceed 24 X 36. All sidewalk obstruction shall be noted and detailed dimensions shall be clearly shown. (See attached sample site plan.) – <b>6 copies</b>
	A photograph of your proposed Outdoor Dining area. – 6 copies
	A photograph or vendor specification of proposed furniture. – 6 copies
	A photograph or vendor specification of proposed barrier and detail of how far it will extend onto the sidewalk <b>– 6 copies</b>
	Description of proposed outdoor furniture which must include quantity, colors, materials, types of the following; chairs, tables, umbrellas, heaters, barriers. – 6 color copies

	to 6 individual packets. Please be sure ALL items on s. If all items are not included, the application will
I hereby certify that I am the legal owner of the  DATE	e subject property as set forth in this application:  ———————————————————————————————————
	SIGNATURE
I hereby certify that I am the legal representati as set forth in this application:	ion and/or agent for the owner of the subject property
DATE	PRINT NAME
	SIGNATURE
NOTE: Applications will not be revie meeting. Failure to appear shall result	wed without applicant's presence at the in denial of application.

4/11/13

### CAMPUS-WIDE ZONING DATA PLANNED INSTITUTIONAL DISTRICT (PI)

**CLASSIFICATION:** REQUIRED EXISTING **PROPOSED BUILDING AREA** 30% MAX. 13.0% (29.26 ACRES) (a) 14.3% (32.25 ACRES) (b) TOTAL IMPERVIOUS COVERAGE 45% MAX. 37.6% (84.60 ACRES) (a) 36.4% (81.85 ACRES) (c)

### NOTES:

a. DATA OBTAINED FROM LAST CAMPUS DEVELOPMENT APPROVAL SHOWN ON A PLAN ENTITLED "VILLANOVA UNIVERSITY WEST CAMPUS, PROPOSED SOCCER FIELD RECONSTRUCTION", PLAN DATED OCTOBER 4, 2013, LAST REVISED MAY 6, 2014, PREPARED BY ASSOCIATED ENGINEERING CONSULTANTS INCORPORATED (AEC).

b. DORMITORY BUILDING 1 1.05 ACRES (1A: 0.42 + 1B: 0.19 + 1C: 0.44) 1.17 ACRES (2A: 0.32 + 2B: 0.37 + 2C: 0.48) DORMITORY BUILDING 2 PERFORMING ARTS CENTER +0.77 ACRES
TOTAL +0.77 ACRES 2.99 ACRES (PROPOSED BUILDING AREA)

81.85 ACRES

EXISTING BUILDING AREA 29.26 ACRES PROPOSED BUUILDING AREA +2.99 ACRES c. EXISTING IMPERVIOUS 84.60 ACRES CICD REDUCTION -2.65 ACRES

BRIDGE & VISITOR LOT REDUX -0.10 ACRES

### CAMPUS PARKING ANALYSIS

### EVICTING DECHIDED DADVING CDACEC

EXISTING REQUIRED PARK	ING SPACES	
AREA USE DESCRIPTION	AREA USE QUANTITY	REQUIRED PARKING
DORMITORY	4,322 BEDS	1,441
OFFICE (NET SF)	365,851 SF	1,303
RETAIL	6,250 SF (6)	44
RESTAURANT		anna
LARGEST ASSEMBLY AREA	3,778 FIXED SEATS	945
GYMNASIUM / LIBRARY	42,432 SF	283
LARGEST ASSEMBLY AREA	13,722 SF	344
UNSPECIFIED AREA	30,929 SF	104
	TOTAL SPACES	4,464 SPACES
	PARKING AVAILABILITY	5,130 SPACES
	SURPLUS	666 SPACES

PROPOSED REQUIRED PARKING SPACES
----------------------------------

I NOT OBED REGUIRED 17	TITLE ST ACLS	
AREA USE DESCRIPTION	AREA USE QUANTITY	REQUIRED PARKING
DORMITORY	5,460 BEDS (1)	1,820
OFFICE (NET SF)	368,091 SF (2)	1,311
RETAIL	12,371 SF (3)	76
RESTAURANT	85 SEATS (4)	39
LARGEST ASSEMBLY AREA	4,178 FIXED SEATS (5)	1,045
GYMNASIUM / LIBRARY	42,432 SF	283
LARGEST ASSEMBLY AREA	13,722 SF	344
UNSPECIFIED AREA	37,179 SF (6)	124
	TOTAL SPACES	5,042 SPACES
	PARKING AVAILABILITY	5,126 SPACES
	SURPLUS	84 SPACES

### PROPOSED PARKING TABULATION

AREA USE DESCRIPTION		EXISTING	PROPOSED
MAIN LOT		1,126	62
PIKE LOT		577	1,289
VISITOR LOT		80	45
W. LANCASTER LOT		79	240
ST. AUGUSTINES CENTER		271	494
NEVIN FIELD HOUSE		48	47
UNAFFECTED CAMPUS SPACES		2949	2949
	TOTAL	5,130 SPACES	5,126 SPACES

,138 BEDS PROPOSED WITHIN DORMITORIES 1A-20 2,240 SF OFFICE PROPOSED WITHIN THE PERF. ARTS CENTER 3) 9,369 SF BOOKSTORE, 2,877 SF CONVENIENCE STORE, 125 SF RETAIL WITHIN THE PERFORMING ARTS CENTER & 27 EMPLOYEES (4) 85 SEATS & 20 EMPLOYEES WITHIN PROPOSED BISTRO

5) 400 SEAT THEATER WITHIN THE PERF. ARTS CENTER (6) CONVERSION OF EXISTING BOOKSTORE TO UNSPECIFIED AREA

### ZONING DATA

COMPREHENSIVE INTEGRATED COLLEGE DEVELOPMENT DISTRICT (CICD)		1 whiten 6 / ,
CLASSIFICATION:	REQUIRED	PROPOSED
MINIMUM CAMPUS AREA	75 ACRES	225 ACRES (PI ZONING DISTRIC' 15 ACRES (CO ZONING DISTRIC' 240 ACRES (TOTAL CAMPUS)
MINIMUM/MAXIMUM CICD AREA	>10 / <15 ACRES	13.81 GROSS ACRES 11.71 NET ACRES
MAXIMUM BUILDING LENGTH	180'	1 <i>7</i> 1'
MINIMUM BUILDING SEPARATION		
BETWEEN BUILDING AND BUILDING	45'	45'
BETWEEN BUILDING AND PARKING STRUCTURE	30'	30'
MAXIMUM BUILDING HEIGHT		
ACADEMIC AND PERFORMANCE FACILITIES	50'	49.9'
FLY LOFT	65'	64.1'
HOUSING AND SOCIAL FACILITIES	45'	44.9' BLDG. 1, 44.8' BLDG. 2
PARKING STRUCTURE	38'	37.9'
MAXIMUM BUILDING COVERAGE - TOTAL (INCLUDES PARKING STRUCTURE)	30%	35.5%*
MAXIMUM BUILDING COVERAGE - INDIVIDUAL		
RESIDENCE HALL 1 (1.05 ACRES)	10%	7.6%
RESIDENCE HALL 2 (1.17 ACRES)	10%	8.5%
PERFORMING ARTS CENTER (0.77 ACRES)	10%	5.6%
MAXIMUM RETAIL SQUARE FOOTAGE	5% OF GSF	2.9% OF GSF ***
MINIMUM FACILITY SETBACK FROM SINGLE FAMILY RESIDENTIAL USE	100'	227.8'
MINIMUM ELEVATOR/STAIR TOWER ON PARKING STRUCTURE SETBACK	10'	10'
MAXIMUM LENGTH OF ELEVATOR/STAIR TOWER PROJECTION	50'	41.4'
MINIMUM LOADING AREA SETBACK	5'	5'
RIPARIAN BUFFER SETBACK	50'	82.5'
MAXIMUM IMPERVIOUS AREA	82%**	69%

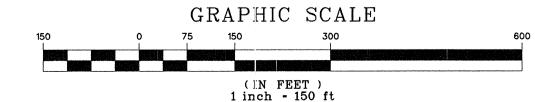
- \* BUILDING COVERAGE EXCEEDING 30% SHALL REQUIRE TWO SQUARE FEET OF OPEN SFACE DEDICATION PER ONE SQUARE FOOT OVER 30%. 33,106 SF EXCEEDING 30% BUILDING COVERAGE REQUIRES 66,212 SF OPEN SPACE DEDICATION. (87,120 SF PROVIDED) (REFER TO THIS SHEET FOR LOCATION OF PRESERVATION AREA)
- \*\* PROPOSED IMPERVIOUS CONDITIONS MUST BE A MINIMUM 10% REDUCTION FROM EXISTING IMPERVIOUS AREA MAIN LOT: 6.8 Ac + PIKE LOT: 4.0 Ac = 10.8 Ac/11.71 Ac = 92% EXISTING IMPERVIOUS (COVERAGE - 10% = 82%

***	5,101 SF (2A) + 9,369 SF (2B) + 125 SF (PAC)	
	194,558 SF (BUILDING 1) + 223,376 SF (BUILDING 2) * 79,400 SF (PA	1

194,558 SF (BUILDING 1) + 223,376	SF (BUILDING	2) * 79,400 SF	(F	PAC)	497,334 SF	•		
SETBACK CHART	ARTERIA	L STREETS	1	MINOR CO	DLLECTORS		RAILROAD RIC	GHTS-OF-WAY
	REQUIRED	PROPOSED		REQUIRED	PROPOSED		REQUIRED	PROPOSED
PERFORMANCE AND SOCIAL FACILITIES	35'	38.2'		30'	65'		50'	332'
HOUSING FACILITIES	35'	39'		30'	30'		50'	61.6'
PARKING STRUCTURES	120'	169.5'		20'	21'		30'	30'
SURFACE PARKING LOTS	60'	237.7'		60'	103'	Γ	5'	12'
RETAIL SUBORDINATE USES	35'	39'		30'	30'		50'	234.4'

1-800-242-1776

PROJECT SERIAL NO. 20112071972 CALL BEFORE YOU DIG! PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL Pennsylvania One Call System, Inc.



= 14,595 SF = 2.9% OF GSF

#### VILLANOVA BUILDING HEIGHT CALCULATIONS AVERAGE BUILDING EXG GRADE | FLOOR LEVEL | FROM FLOOR | MENDEL SCIENCE CENTER ST. AUGUSTINE CENTER 439.0 43.4 BUILDING 1B 435.0 437.0 44.6 BUILDING 1C 436.7 436.0 44.9 SAC PARKING GARAGE 44.3 44.9 (<45) BUILDING 1 436.7 437.3 494 PROPOSED PARKING SPACES (2 ADDITIONAL LEVELS) **BUILDING 2A** 433.8 435.0 43.2 **BUILDING 2B MEMORIAL** BUILDING 20 435.0 43.7 44.8 (<45) BUILDING 2 433.3 421.7 44.0 37.9 (<38) PIKE GARAGE 432.0 434.5 47.3 49.9 (<50) TENNIS COURTS PAC FLY TOWER 432.0 434.5 61.5 64.1 (<65) KENNEDY PARKING ALUMI HALL CONNELLY CENTER HEALTH SERVICES TOLENTINE HALL DAVIS CENTER ST. THOMAS MONASTERY AUSTIN HALL ST. RITA HALL VASEY HALL **DOUGHERTY** BARTLEY Contractor Characteristic ST. THOMAS OF VILLANOVA CHURCH PEDESTRIAN -**BRIDGE** - CICD DISTRICT MIDDLETON -JAKE NEVIN FIELDHOUSE LANCASTER AVENUE FUTURE Y PERFORMING ARTS CENTER R-3 PIKE GARAGE ALDWYN TRIANGLE 5.18 AC. TOTAL PIKE SOFTBALL FIELD TO BE PRESERVED ADDITIONAL AREA TO BE PRESERVED = 3.18 AC PRESERVATION AREA; TO SATISFY MINIMUM CICD REQUIREMENTS = 2.00 AC.\* STANFORD HALL ST. MONICA DRAFT CONDITIONAL USE APPLICATION CONDITIONS: HALL ON NOVEMBER 24, 2014, THE RADNOR TOWNSHIP BOARD OF COMMISSIONERS GRANTED THE CONDITIONAL USE APPLICATION OF VILLANOVA UNIVERSITY. THE GRANTING OF THIS APPLICATION IS SUBJECT TO THE FOLLOWING CONDITIONS: \*ALDWYN TRIANGLE: THE APPLICANT SHALL COMPLY WITH ALL OTHER APPLICABLE TOWNSHIP ORDINANCES AND SHALL SUBMIT A LAND **CAMPUS** DEVELOPMENT PLAN PURSUANT TO THE TOWNSHIP'S SUBDIVISION AND LAND DEVELOPMENT ORDINANCE PRIOR TO THE LAND PRESERVATION CALCULATIONS CONSTRUCTION OF ANY FACILITIES. THAT THE TRANSPORTATION, ROADWAY AND SIGNALIZATION AND IMPROVEMENTS NECESSARY FOR THE CONSTRUCTION HAVE FULL ACCESS TO ITHAN AVENUE FROM BOTH THE PIKE LOT PARKING GARAGE AND LANCASTER AVENUE HOUSING KATHERINE ALLOWABLE BUILDING COVERAGE: 13.81 AC x .30 = 4.14 ACRESPARKING AREA WITH PROVISIONS FOR STOP CONTROL FOR BOTH PARKING ACCESSES TO ITHAN AVENUE AND A ZONING DISTRICT TABLE PEDESTRIAN CROSSWALK BE REQUIRED IF APPROVED BY PENNDOT, UNLESS WAIVED BY THE BOARD OF COMMISSIONERS PROPOSED BUILDING/STRUCTURE COVERAGE: 4.90 ACRES DURING THE LAND DEVELOPMENT PROCESS. PROPOSED BUILDINGS = 2.99 AC C-1 LOCAL COMMERCIAL DISTRICT THAT DURING THE LAND DEVELOPMENT PROCESS AN EVENT CIRCULATION PLAN BE DEVELOPED TO ADDRESS EVENT PROPOSED GARAGE = 1.91 AC CO COMMERCIAL-OFFICE DISTRICT

PARKING AND TRAFFIC CIRCULATION WITH THE RADNOR TOWNSHIP POLICE DEPARTMENT AND TOWNSHIP TRAFFIC ENGINEER OUTLINING PROCEDURES, TRAFFIC PATTERNS, PARKING CONFIGURATIONS AND WAY FINDING TECHNIQUES FOR THE VARIOUS SPORTING AND OTHER EVENTS HELD AT THE UNIVERSITY. UPON DEVELOPMENT OF THE EVENT CIRCULATION PLAN, VILLANOVA SHALL BE RESPONSIBLE FOR CONSTRUCTING AND/OR INSTALLING SUCH SIGNS, STRUCTURES, OR OTHER DIRECTIONAL AIDS NECESSARY TO IMPLEMENT THE EVENT CIRCULATION PLAN.

THAT VILLANOVA UNIVERSITY CONTRIBUTES THE SUM OF ONE HUNDRED SEVENTY-FIVE THOUSAND DOLLARS (\$175,000.00) TOWARDS THE DESIGN, APPROVAL AND INSTALLATION OF A TRAFFIC ADAPTIVE SIGNAL SYSTEM THAT WOULD INCORPORATE THE FOLLOWING SIGNALIZED INTERSECTIONS ALONG LANCASTER AVENUE: SPROUL ROAD / SPRING MILL ROAD; ALDWYN LANE / KENILWORTH STREET CHURCH WALK

ITHAN AVENUE

AIRDALE ROAD COUNTY LINE ROAD THAT DURING THE LAND DEVELOPMENT PROCESS AN EMERGENCY EVACUATION PLAN FOR THE NEW STUDENT HOUSING THAT APPROPRIATE FENCING BE PROVIDED ON BOTH THE NORTH AND SOUTH SIDES OF LANCASTER AVENUE IN THE AREA OF THE CHURCH WALK PEDESTRIAN BRIDGE IN AN EFFORT TO RESTRICT PEDESTRIAN TRAFFIC FROM ACCESSING THE CAMPUS. A GATE SHALL BE PROVIDED FOR VEHICULAR AND PEDESTRIAN ACCESS DURING CHURCH EVENTS IF APPROVED BY THE BOARD OF COMMISSIONERS. THAT THE UNIVERSITY PRESERVE THE ENTIRE AREA KNOWN AS THE ALDWYN TRIANGLE AND RESTRICT IT AS OPEN SPACE EXCEPT FOR THAT PORTION OF THE AREA NECESSARY TO PROVIDE HANDICAP ACCESSIBILITY IMPROVEMENTS FOR THE

ADJACENT SEPTA RAIL LINE. THAT A LANDSCAPE AND BUFFER PLAN BE DEVELOPED TO COMPLY WITH SECTION 280-68.1.D.(3)(b) OF THE ZONING THAT VILLANOVA SEEK PERMISSION FROM PECO TO PLANT SCREENING ON THE SOUTH SIDE OF THE PECO R-100 LINE TO VISUALLY SCREEN THE SEPTA BRIDGE FROM THE ADJACENT RESIDENTIAL NEIGHBORS. PROVIDED THAT THE APPLICANT RECEIVES PERMISSION, VILLANOVA SHALL PROVIDE AN INSTALLATION AND MAINTENANCE PLAN OF THE VEGETATION NECESSARY FOR THIS SCREENING DURING LAND DEVELOPMENT. VILLANOVA SHALL PROVIDE RADNOR TOWNSHIP WITH A LIST OF CONTRACTORS, SUBCONTRACTORS AND VENDORS

AND THEIR ADDRESSES WITHIN TWENTY (20) DAYS OF THE EXECUTION OF ANY CONTRACTS BY VILLANOVA IN

CONNECTION WITH THE DEVELOPMENT AND/OR CONSTRUCTION OF THE PROPOSED PROJECT. THE PURPOSE OF THIS IST IS TO PERMIT THE TOWNSHIP TO AUDIT FOR REQUIRED BUSINESS/MERCANTILE TAXES DURING THE LAND DEVELOPMENT PROCESS, THE APPLICANT SHALL USE ITS BEST EFFORTS TO DEVELOP AND CONSTRUCT STORMWATER MANAGEMENT FACILITIES, INCLUDING GREEN INFRASTRUCTURE PRACTICES AND COMPONENTS THAT meet or exceed infiltration or retention requirements as currently required by the radnor township. STORMWATER MANAGEMENT ORDINANCE. THE APPLICANT SHALL CONDUCT SOIL TESTING AS NECESSARY TO DETERMINE WHETHER THE SITE CAN ACCOMMODATE VOLUME MANAGEMENT IN EXCESS OF 1-INCH OF RUN-OFF FROM ALL MPERVIOUS SURFACES RESULTING FROM THE PROJECT. IF SOIL TESTING INDICATES THAT IT IS POSSIBLE TO PROVIDE VOLUME MANAGEMENT IN EXCESS OF 1-INCH OF RUN-OFF, THE APPLICANT SHALL CONSTRUCT SUCH NECESSARY STORMWATER FACILITIES ON THE SITE TO ACCOMMODATE THIS INCREASED VOLUME. THE APPLICANT SHALL OBTAIN REVISIONS TO BOTH THE RADNOR TOWNSHIP AND LOWER MERION TOWNSHIP ACT 537

PLANS IN ORDER TO ACCOMMODATE THE INCREASED WASTEWATER DISPOSAL GENERATED BY THE PROJECT. THE APPLICANT SHALL DEVELOP A TRAFFIC PLAN DURING THE LAND DEVELOPMENT PROCESS DELINEATING THE PATHS BY WHICH THE EXISTING POPULATION OF COMMUTING AND PART-TIME STUDENTS WILL BE DIRECTED TO AND FROM PARKING FOR EACH PHASE OF THE CONSTRUCTION. THE APPLICANT SHALL PERMIT PARISHIONERS TO PARK, ON A SPACE AVAILABLE BASIS, ON THE NORTH SIDE OF LANCASTER AVENUE ON EXISTING VILLANOVA PROPERTY ADJACENT TO THE CHURCH FOR CHURCH RELATED EVENTS.

THE APPLICANT SHALL MAINTAIN A PEDESTRIAN CROSSWALK FROM THE PROPOSED PROJECT SITE TO THE EXISTING

CHURCH AT THE PRESENT CHURCH WALK LOCATION. THE APPLICANT SHALL INSURE THAT NO AMPLIFIED MUSIC OR OTHER EXCESSIVE NOISE SHALL EMANATE FROM ANY OF THE SOUTH FACING DORMITORIES. DURING THE LAND DEVELOPMENT PROCESS, THE TOWNSHIP AND APPLICANT SHALL ESTABLISH A PERMISSIBLE SOUND LEVEL AT THE PROPERTY BOUNDARY OF THE ALDWYN LANE RESIDENTIAL USES.

BUILDING COVERAGE ABOVE 30% = 0.76 ACRES (4.90 - 4.14) REQUIRED LAND PRESERVATION = 0.76 x 2 = 1.52 ACRES PROPOSED UNRESTRICTED LAND PRESERVATION AREA = 2.00 ACRES

PROPOSED LAND PRESERVATION AREA PER CONDITIONAL USE DECISION #7 = 5.18 ACRES

**GENERAL NOTES:** 

EXCEPT WHERE SHOWN.

ALDWYN LANE RESIDENTIAL USES.

. THIS PLAN IS BASED ON A SURVEY CONDUCTED IN THE FIELD BY NAVE NEWELL, INC., AND COMPLETED AUGUST 8, 2011 PROPERTY AS SHOWN IS IN NON-FLOOD PRONE COMMUNITY AS DEPICTED ON THE FEDERAL EMERGENCY AGENCY FIRM FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 42045C0050F PER NO. 42045CINDOA, MAP REVISED NOVEMBER 18, 2009. 3. LOCATIONS OF EXISTING UTILITIES AS SHOWN HEREIN HAVE BEEN DEVELOPED FROM EXISTING UTILITY RECORDS, PLANS BY OTHERS AND/OR ABOVE GROUND EXAMINATION OF SITE. THE COMPLETENESS OR ACCURACIES OF THE LOCATIONS ARE NOT GUARANTEED. SHOULD ANY NEW CONSTRUCTION BE PROPOSED, THE CONTRACTOR MUST VERIFY LOCATIONS AND DEPTHS OF ALL UTILITIES BEFORE START OF WORK 4. NO REVIEW OF THE PROPERTY REGARDING THE PRESENCE OF WETLANDS WAS ACCOMPLISHED AS A PART OF THIS SURVEY

CAUGHLIÑ

5. NO REVIEW OF THE PROPERTY REGARDING THE PRESENCE OF HAZARDOUS MATERIAL WAS ACCOMPLISHED AS A PART OF . THE PROPOSED USES ARE TO BE SERVICED BY PUBLIC SEWER (LOWER MERION TOWNSHIP) AND PUBLIC WATER (AQUA PA). ALL PROPOSED UTILITIES IN CONJUNCTION WITH THIS SITE SHALL BE PLACED UNDERGROUND . PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945, (PL1242, NO. 428), KNOWN AS THE "STATE HIGHWAY LAW", PENNDOT HIGHWAY OCCUPANCY PERMITS ARE REQUIRED FOR ANY PROPOSED CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF

LANCASTER AVENUE S.R. 0030 P. ALL CONSTRUCTION IS TO BE IN COMPLIANCE WITH THE STANDARDS AND SPECIFICATIONS OF RADNOR TOWNSHIP. 10. THE PROPOSED BUILDING FOOTPRINTS NOTED ON THE PLAN ARE SCHEMATIC. THE ACTUAL ARCHITECTURAL PLANS SHALL BE UTILIZED FOR BUILDING CONSTRUCTION AND MUST BE NO LARGER THAN SCHEMATIC FOOTPRINT SHOWN. THE PROPOSED GRADING AND UTILITY CONNECTIONS ARE TO BE COORDINATED WITH THE ARCHITECTURAL PLANS, PRIOR TO CONSTRUCTION, TO AVOID ANY CONFLICTS. THE CONTRACTOR SHOULD NOTIFY THE OWNER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. 11. THE PROPOSED SEWER AND WATER SERVICE CONNECTIONS ARE TO BE COORDINATED WITH THE ARCHITECTURAL PLANS TO ENSURE EXACT LOCATION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITY CONNECTION LOCATIONS, AND SHOULD NOTIFY THE OWNER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

12. THE OWNER SHALL HAVE THE RESPONSIBILITY FOR THE PERPETUAL MAINTENANCE OF THE PERMANENT STORM WATER DETENTION BASINS AND BASIN OUTLET STRUCTURES. NO CHANGES SHALL BE MADE TO THE STRUCTURES, PIPES OR FINISH GRADING WITHOUT PRIOR WRITTEN APPROVAL FROM THE TOWNSHIP 13. NO BUILDING OR OBSTRUCTION THAT WOULD OBSCURE THE VISION OF A MOTORIST SHALL BE PERMITTED WITHIN THE 14. THE PROJECT WILL REQUIRE A "GENERAL NPDES PERMIT" FROM THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL

PROTECTION SUBJECT TO OBTAINING APPROVED EROSION AND SEDIMENTATION CONTROL PLANS FROM THE DELAWARE COUNTY CONSERVATION DISTRICT, PRIOR TO CLEARING OR EARTH MOVING ACTIVITY. 15. ALL CURVED SECTIONS OF CURBING SHALL HAVE A FIVE FOOT RADIUS (R=5'), UNLESS NOTED OTHERWISE AS SHOWN ON 16. THE INTENDED USE OF THE PROPOSED BUILDINGS ARE FOR STUDENT HOUSING AND ASSOCIATED RETAIL.

17. ULTIMATE RIGHT-OF-WAY OF ITHAN AVENUE, AS SHOWN, IS OFFERED FOR DEDICATION TO RADNOR TOWNSHIP AS PART OF 18. GRADING AND EROSION CONTROL PLANS MUST BE SUBMITTED AND APPROVED PRIOR TO ISSUANCE OF BUILDING PERMITS.
19. NOISE EMANATING FROM THE SOUTH- FACING DORMS SHALL NOT 55 dBA AT NIGHTTIME AT THE PROPERTY BOUNDARY OF THE

### **WAIVERS GRANTED:**

SECTION 255-27.H.(6) -TO PERMIT A 30 FT. RADIUS CURB ON THE SOUTHWEST CORNER OF ITHAN AVENUE AND LANCASTER AVENUE. SECTION 255-29.A(12)(b) - TO PERMIT A 22 FT. WIDE INTERNAL DRIVE AISLE WITHOUT

ADJACENT PARKING STALLS.

PI PLANNED INSTITUTIONAL DISTRICT

R-2 RESIDENCE DISTRICT

R-3 RESIDENCE DISTRICT

R-4 RESIDENCE DISTRICT

ADDITIONAL PRESERVATION AREA PROVIDED

PROPERTY LINE ----- PARKING SETBACK LINE --- LEGAL RIGHT-OF-WAY LINE — EXISTING CURB — EXISTING EDGE OF PAVEMENT EXISTING BUILDING --- x ---- x ---- EXISTING FENCE - EXISTING RETAINING WALL EXISTING WETLANDS LIMITS OF CICD DISTRICT PROPOSED RIGHT-OF-WAY LINE PROPOSED CURB PROPOSED EDGE OF PAVEMENT PROPOSED BUILDING - PROPOSED DECORATIVE FENCE PROPOSED RETAINING WALL MINIMUM REQUIRED PRESERVATION AREA

# VMA **RAMSA**

Villanova University

Lancaster and Ithan Avenues

Villanova PA 19085

W. Lancaster Ave. Parking

ARCHITECT-OF-RECORD Voith & Mactavish Architects LLI 2401 Walnut Street, 6th Floor Philadelphia, PA 19103 phone: 215-545-4544 fax: 215-545-3299 www.voithandmactavish.com

**DESIGN ARCHITECT** Robert A.M. Stern Architects LLP 460 West 34th Street New York, New York 10001 phone: 212-967-5100 fax: 212-967-5588 www.ramsa.com

**CIVIL ENGINEER** Nave Newell Inc. 900 West Valley Road, Suite 1100 Wayne, PA 19087 phone: 610-265-8323 fax: 610-265-4299

www.navenewell.com

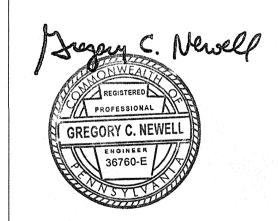
STRUCTURAL ENGINEER - PARKING PLANNING AND DESIGN The Harman Group, Inc. 900 West Valley Forge Road, Suite 200 King of Prussia, PA 19406 phone: 610-337-3360 x 118 voice

mobile phone: 610-334-0974 fax: 610-337-3359 www.HarmanGroup.com MEP&FP ENGINEER

Bala Consulting Engineers, Inc. 443 South Gulph Road King of Prussia, PA 19406 phone: 610-649-8000 fax: 910-649-8475

LANDSCAPE ARCHITECT Sikora Wells Appel 8 Kings Hwy West, Suite Haddonfield NJ 08033 phone dir: 856-433-6377 phone main: 856-433-6380 phone cell: 267-303-3753 www.sikora-wa.com

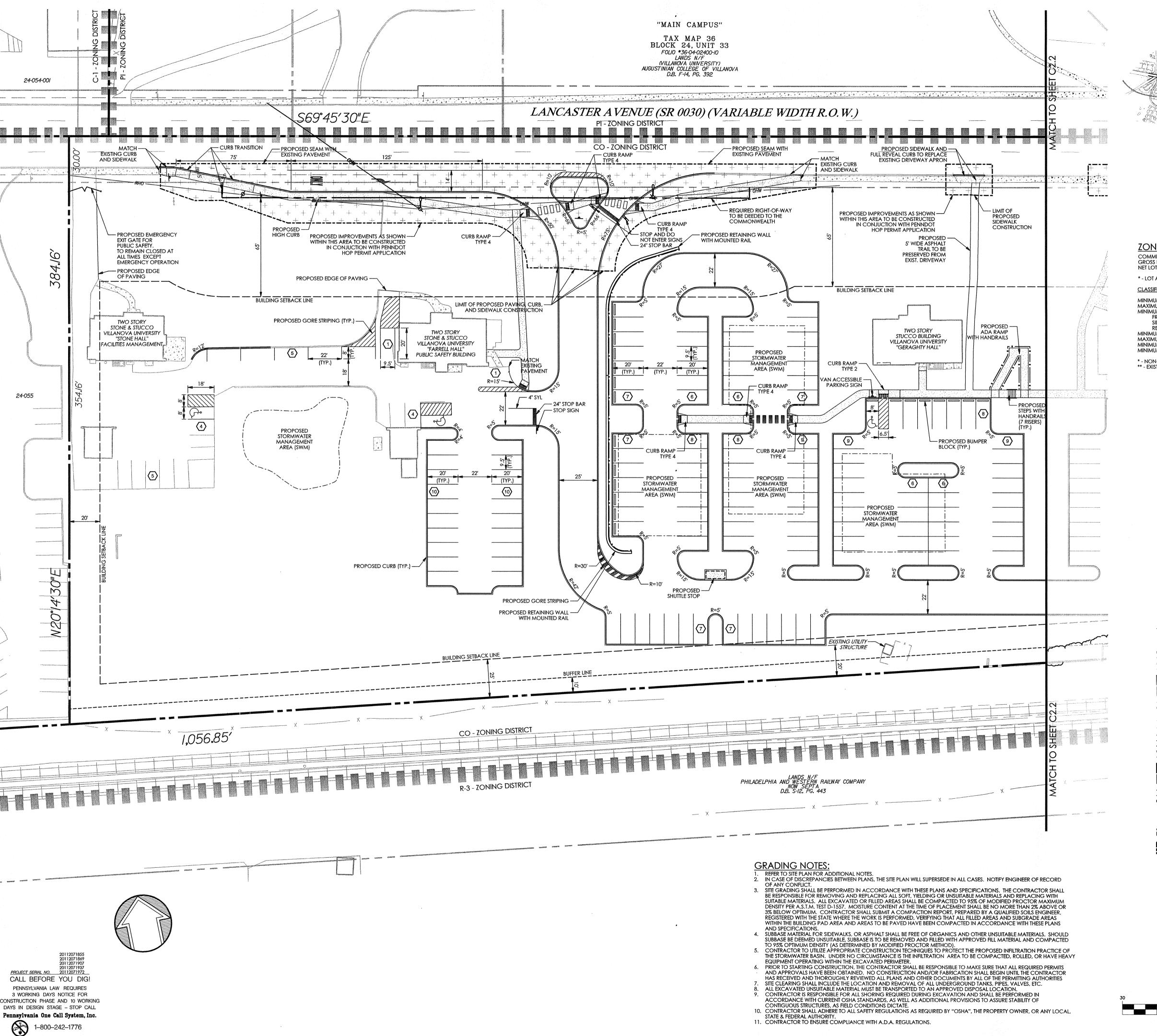
**ELEVATOR CONSULTANT** Zipf Associates Inc. 25 Bala Avenue, Suite 201 Bala Cynwyd, PA 19004 phone: 610-667-1717 fax:610-667-0216



FINAL LAND DEVELOPMENT SUBMISSION

Revision #4 August 10, 2015 Date March 6, 2015 Composite Site Plan

Scale 1" = 150' Drawn By MMB





ZONING DATA

COMMERCIAL OFFICE DISTRICT (CO)
GROSS LOT AREA: 8.48 AC (369,543 SF)\*
NET LOT AREA: 7.53 AC (328,137 SF)\*

\* - LOT AREAS ARE BASED ON CONSOLIDATION OF 8 PARCELS

CLASSIFICATION:

MINIMUM LOT WIDTH

MAXIMUM BUILDING COVERAGE

MINIMUM BUILDING SETBACK

FRONT YARD

SIDE YARD

REAR YARD

REAR YARD

MINIMUM BUILDING HEIGHT

MAXIMUM BUILDING HEIGHT

MINIMUM BUILDING HEIGHT

MINIMUM LOT WIDTH

100'

>100'

3%

57.9' \*

11.9' \*\*

REAR YARD

25'

134.7'

MINIMUM BUILDING HEIGHT

35'

<35'

MINIMUM LANDSCAPE AREA

MINIMUM LANDSCAPE AREA

MINIMUM INTERIOR PARKING LANDSCAPE AREA

10%

21.3%

\* - NON-CONFORMITY CAUSED BY PENNDOT RIGHT-OF-WAY DEDICATION \*\* - EXISTING NON CONFORMITY

**LEGEND** ZONING LINE PROPERTY LINE
LEGAL RIGHT-OF-WAY LINE EXISTING CURB
EXISTING EDGE OF PAVEMENT EXISTING BUILDING EXISTING CONC.SIDEWALK OR PAD EXISTING RETAINING WALL EXISTING SIGN EXISTING RAILROAD TRACKS PROPOSED RIGHT-OF-WAY LINE PROPOSED BUFFER LINE PROPOSED CURB PROPOSED EDGE OF PAVEMENT PROPOSED BUILDING PROPOSED CONCRETE SIDEWALK OR PAD PROPOSED GUIDERAIL PROPOSED FENCE PROPOSED RETAINING WALL PROPOSED SIGN PROPOSED ADA PARKING SPACE \_\_\_\_\_\_ PROPOSED STORMWATER MANAGEMENT AREA (SWM) + + + + + AREAS TO BE CONSTRUCTED UNDER A PENNDOT HOP PERMIT APPLICATION

GRAPHIC SCALE

O 15 30 60 120

(IN FEET)
1 inch - 30 ft

Villanova University

W. Lancaster Ave. Parking
Lancaster and Ithan Avenues
Villanova PA 19085

# VMA RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP

2401 Walnut Street, 6th Floor

Philadelphia, PA 19103

phone: 215-545-4544

fax: 215-545-3299

www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588
www.ramsa.com

CIVIL ENGINEER
Nave Newell Inc.
900 West Valley Road, Suite 1100
Wayne, PA 19087
phone: 610-265-8323
fax: 610-265-4299
www.navenewell.com

STRUCTURAL ENGINEER - PARKING
PLANNING AND DESIGN
The Harman Group, Inc.
900 West Valley Forge Road, Suite 200
King of Prussia, PA 19406
phone: 610-337-3360 x 118 voice
mobile phone: 610-334-0974
fax: 610-337-3359
www.HarmanGroup.com

MEP&FP ENGINEER
Bala Consulting Engineers, Inc.
443 South Gulph Road
King of Prussia, PA 19406
phone: 610-649-8000
fax: 910-649-8475

LANDSCAPE ARCHITECT
Sikora Wells Appel
8 Kings Hwy West, Suite A
Haddonfield NJ 08033
phone dir: 856-433-6377
phone main: 856-433-6380
phone cell: 267-303-3753

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717
fax:610-667-0216

www.sikora-wa.com



FINAL LAND DEVELOPMENT SUBMISSION

Revision #4 August 10, 2015
Date March 6, 2015
Title Site Plan

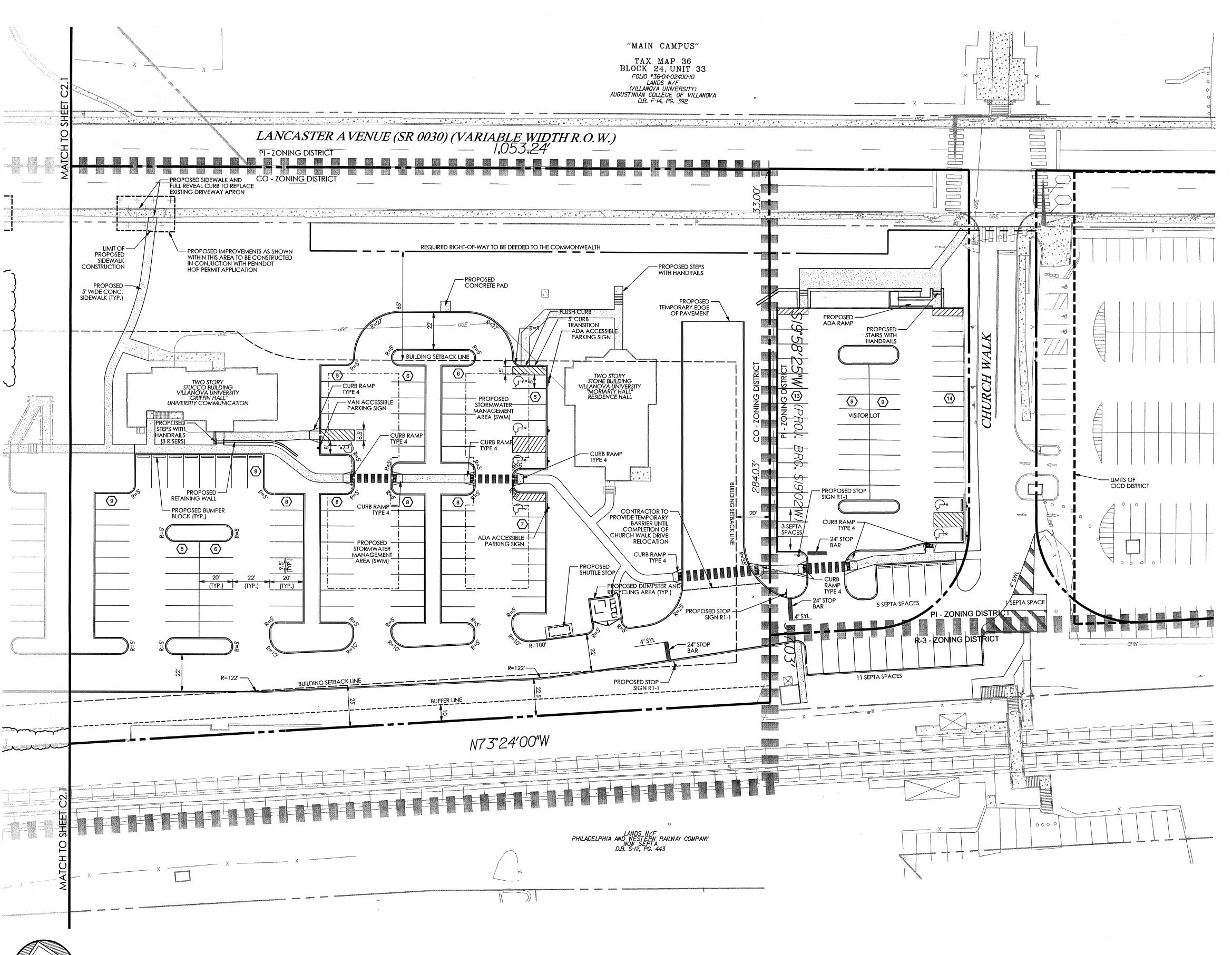
Scale 1" = 30'
Drawn By DWN

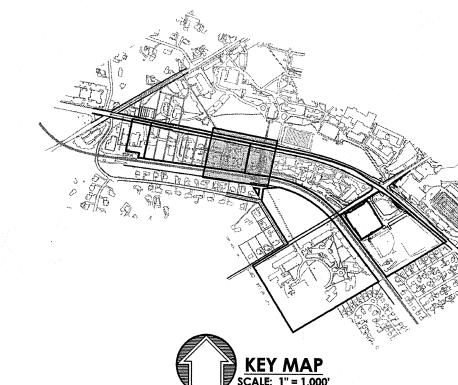
C2.1

No.

Contractor to verify all dimensions in field and inform Architect of any discrepancies before starting work.

5 of 34





<u>LEGEND</u> PROPERTY LINE
LEGAL RIGHT-OF-WAY LINE
EXISTING CURB
EXISTING EDGE OF PAVEMENT EXISTING BUILDING EXISTING CONC.SIDEWALK OR PAD EXISTING FENCE

EXISTING RETAINING WALL
EXISTING SIGN EXISTING RAILROAD TRACKS EXISTING TRAFFIC SIGNAL MAST ARM LIMITS OF CICD DISTRICT

PROPOSED RIGHT-OF-WAY LINE
PROPOSED BUILDING SETBACK LINE ----- PROPOSED BUFFER LINE PROPOSED CURB ---- PROPOSED EDGE OF PAVEMENT PROPOSED BUILDING PROPOSED CONCRETE SIDEWALK OR PAD PROPOSED SIGN PROPOSED ADA PARKING SPACE PROPOSED DUMPSTER ENCLOSURE WITH DUMPSTER, RECYCLING BINS, SCREEN WALLS AND SCREEN GATE PROPOSED STORMWATER

THE HEAS TO BE CONSTRUCTED UNDER A

-----

PENNDOT HOP PERMIT APPLICATION

GRAPHIC SCALE

O 15 30 60 120

(IN FEET)
1 inch - 30 ft

Villanova University
W. Lancaster Ave. Park

W. Lancaster Ave. Parking
Lancaster and Ithan Avenues
Villanova PA 19085

# VMA RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP

2401 Walnut Street, 6th Floor

Philadelphia, PA 19103

phone: 215-545-4544

fax: 215-545-3299

www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588
www.ramsa.com

CIVIL ENGINEER

Nave Newell Inc.
900 West Valley Road, Suite 1100

Wayne, PA 19087

phone: 610-265-8323

fax: 610-265-4299

www.navenewell.com

STRUCTURAL ENGINEER - PARKING
PLANNING AND DESIGN
The Harman Group, Inc.
900 West Valley Forge Road, Suite 200
King of Prussia, PA 19406
phone: 610-337-3360 x 118 voice
mobile phone: 610-334-0974
fax: 610-337-3359
www.HarmanGroup.com

MEP&FP ENGINEER

Bala Consulting Engineers, Inc

443 South Gulph Road

King of Prussia, PA 19406

phone: 610-649-8000

fax: 910-649-8475

LANDSCAPE ARCHITECT Sikora Wells Appel 8 Kings Hwy West, Suite A Haddonfield NJ 08033 phone dir: 856-433-6377 phone main: 856-433-6380 phone cell: 267-303-3753 www.sikora-wa.com

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717
fax:610-667-0216



FINAL LAND DEVELOPMENT SUBMISSION

Revision #4 August 10, 2015

Date March 6, 2015

Title Site Plan

Scale 1" = 30'
Drawn By DWN

C2.2

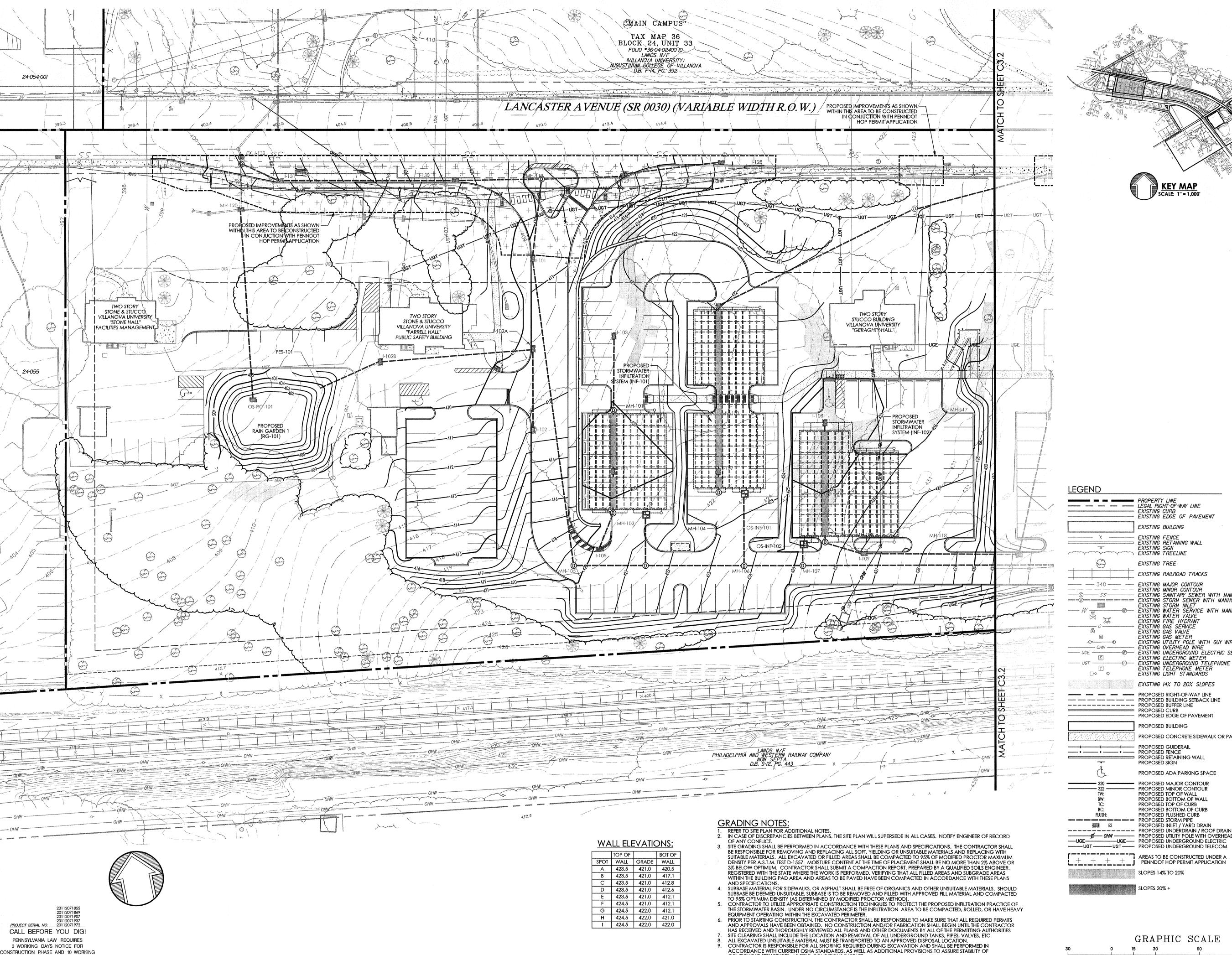
Architect of any discrepancies before starting work.

Sheet No.

Sheet No. 6 of 34

Contractor to verify all dimensions in field and inform

20112071855
20112071869
20112071869
20112071907
20112071937
20112071972
CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE – STOP CALL
Pennsylvania One Call System, Inc.
1–800–242–1776



DAYS IN DESIGN STAGE - STOP CALL

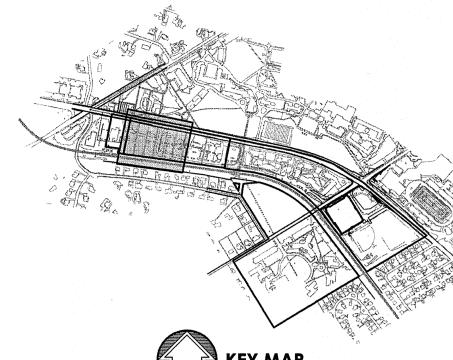
Pennsylvania One Call System, Inc.

1-800-242-1776

CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.

11. CONTRACTOR TO ENSURE COMPLIANCE WITH A.D.A. REGULATIONS.

10. CONTRACTOR SHALL ADHERE TO ALL SAFETY REGULATIONS AS REQUIRED BY "OSHA", THE PROPERTY OWNER, OR ANY LOCAL, STATE & FEDERAL AUTHORITY.



### **LEGEND**

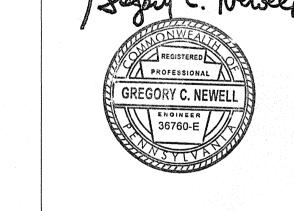
PROPERTY LINE
LEGAL RIGHT-OF-WAY LINE
EXISTING CURB
EXISTING EDGE OF PAVEMENT EXISTING BUILDING EXISTING FENCE
EXISTING RETAINING WALL
EXISTING SIGN
EXISTING TREELINE EXISTING TREE EXISTING RAILROAD TRACKS EXISTING MAJOR CONTOUR XISTING MINOR CONTOUR XISTING SANITARY SEWER WITH MANHOLE EXISTING STORM SEWER WITH MANHOLE 1111 XISTING WATER SERVICE WITH MANHOLE XISTING WATER VALVE XISTING FIRE HYDRANT XISTING GAS SERVICE XISTING GAS VALVE XISTING GAS METER EXISTING UTILITY POLE WITH GUY WIRE
EXISTING OVERHEAD WIRE
EXISTING UNDERGROUND ELECTRIC SERVICE WITH MANHOLE ----- OHW -----EXISTING CHECKIC METER
EXISTING UNDERGROUND TELEPHONE SERVICE WITH MANHOLE EXISTING TELEPHONE METER
EXISTING LIGHT STANDARDS EXISTING 14% TO 20% SLOPES PROPOSED RIGHT-OF-WAY LINE PROPOSED BUILDING SETBACK LINE PROPOSED BUFFER LINE PROPOSED CURB PROPOSED EDGE OF PAVEMENT PROPOSED BUILDING PROPOSED CONCRETE SIDEWALK OR PAD PROPOSED GUIDERAIL PROPOSED FENCE PROPOSED RETAINING WALL PROPOSED SIGN PROPOSED ADA PARKING SPACE --- PROPOSED MAJOR CONTOUR PROPOSED MINOR CONTOUR PROPOSED TOP OF WALL PROPOSED BOTTOM OF WALL PROPOSED TOP OF CURB PROPOSED BOTTOM OF CURB PROPOSED FLUSHED CURB SECURIO EMPRESOR RECORDE RECORDE RECORDE RECORDE SECURIO RECORDE RECOR PROPOSED INLET / YARD DRAIN ---- PROPOSED UNDERDRAIN / ROOF DRAIN PROPOSED UTILITY POLE WITH OVERHEAD WIRE

SLOPES 14% TO 20%

GRAPHIC SCALE

(IN FEET)
1 inch - 30 ft

SLOPES 20% +



Villanova University

Lancaster and Ithan Avenues

Villanova PA 19085

VMA

**RAMSA** 

ARCHITECT-OF-RECORD Voith & Mactavish Architects LLP 2401 Walnut Street, 6th Floor Philadelphia, PA 19103 phone: 215-545-4544 fax: 215-545-3299

www.voithandmactavish.com

Robert A.M. Stern Architects LLP

900 West Valley Road, Suite 1100

STRUCTURAL ENGINEER - PARKING

900 West Valley Forge Road, Suite 200

DESIGN ARCHITECT

460 West 34th Street New York, New York 10001 phone: 212-967-5100 fax: 212-967-5588 www.ramsa.com

CIVIL ENGINEER

Nave Newell Inc.

Wayne, PA 19087

phone: 610-265-8323 fax: 610-265-4299 www.navenewell.com

PLANNING AND DESIGN The Harman Group, Inc.

King of Prussia, PA 19406

mobile phone: 610-334-0974

www.HarmanGroup.com

MEP&FP ENGINEER

fax: 910-649-8475

LANDSCAPE ARCHITECT Sikora Wells Appel 8 Kings Hwy West, Suite A

Haddonfield NJ 08033

phone dir: 856-433-6377 phone main: 856-433-6380 phone cell: 267-303-3753

www.sikora-wa.com

Zipf Associates Inc.

**ELEVATOR CONSULTANT** 

25 Bala Avenue, Suite 201

Bala Cynwyd, PA 19004

phone: 610-667-1717 fax:610-667-0216

fax: 610-337-3359

phone: 610-337-3360 x 118 voice

Bala Consulting Engineers, Inc 443 South Gulph Road King of Prussia, PA 19406 phone: 610-649-8000

W. Lancaster Ave. Parking

FINAL LAND DEVELOPMENT **SUBMISSION** 

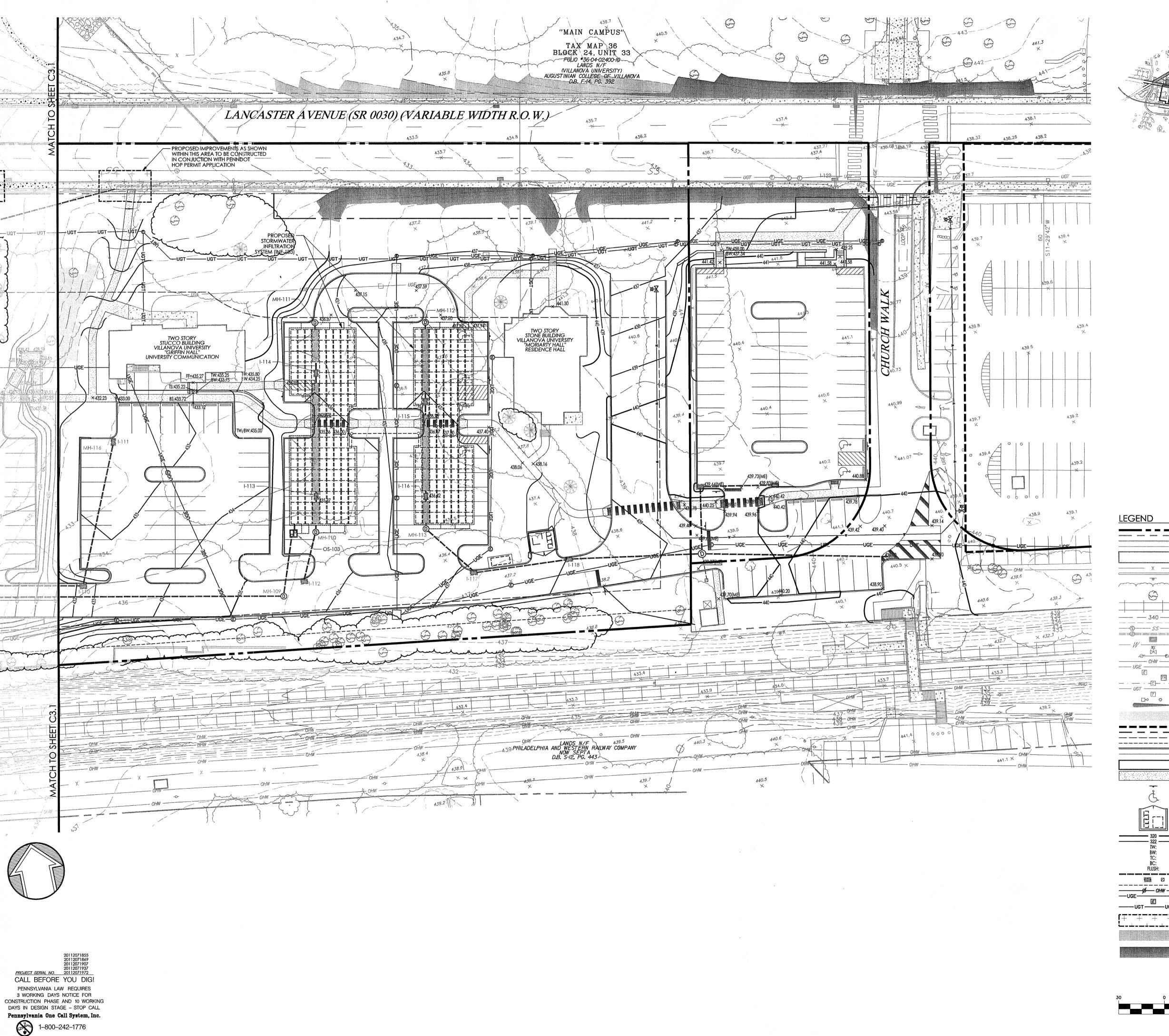
#4 August 10, 2015 Date March 6, 2015 Title Grading Plan

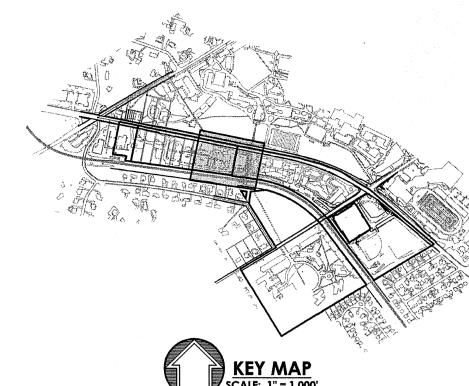
Scale Drawn By DWN

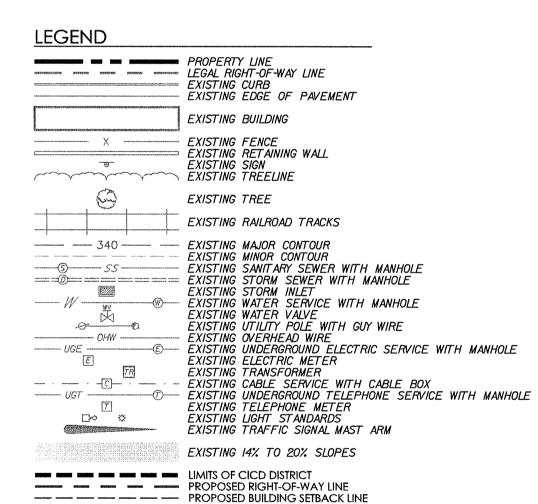
Sheet No.

Contractor to verify all dimensions in field and inform Architect of any discrepancies before starting work.

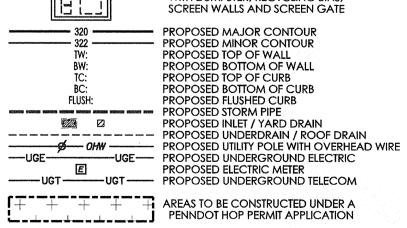
7 of 34







---- PROPOSED BUFFER LINE PROPOSED CURB
PROPOSED EDGE OF PAVEMENT PROPOSED BUILDING PROPOSED CONCRETE SIDEWALK OR PAD PROPOSED SIGN PROPOSED ADA PARKING SPACE PROPOSED DUMPSTER ENCLOSURE



SLOPES 14% TO 20%

GRAPHIC SCALE (IN FEET)
1 inch - 30 ft

Villanova University

W. Lancaster Ave. Parking Lancaster and Ithan Avenues Villanova PA 19085

# VMA **RAMSA**

ARCHITECT-OF-RECORD Voith & Mactavish Architects LLP 2401 Walnut Street, 6th Floor Philadelphia, PA 19103 phone: 215-545-4544 fax: 215-545-3299 www.voithandmactavish.com

**DESIGN ARCHITECT** Robert A.M. Stern Architects LLP 460 West 34th Street New York, New York 10001 phone: 212-967-5100 fax: 212-967-5588 www.ramsa.com

CIVIL ENGINEER Nave Newell Inc. 900 West Valley Road, Suite 1100 Wayne, PA 19087 phone: 610-265-8323 fax: 610-265-4299 www.navenewell.com

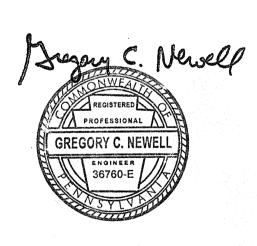
STRUCTURAL ENGINEER - PARKING PLANNING AND DESIGN The Harman Group, Inc. 900 West Valley Forge Road, Suite 200 King of Prussia, PA 19406 phone: 610-337-3360 x 118 voice mobile phone: 610-334-0974 fax: 610-337-3359 www.HarmanGroup.com

MEP&FP ENGINEER Bala Consulting Engineers, Inc. 443 South Gulph Road King of Prussia, PA 19406 phone: 610-649-8000 fax: 910-649-84**7**5

LANDSCAPE ARCHITECT Sikora Wells Appel 8 Kings Hwy West, Suite A Haddonfield NJ 08033 phone dir: 856-433-6377 phone main: 856-433-6380 phone cell: 267-303-3753

**ELEVATOR CONSULTANT** Zipf Associates Inc. 25 Bala Avenue, Suite 201 Bala Cynwyd, PA 19004 phone: 610-667-1717 fax:610-667-0216

www.sikora-wa.com

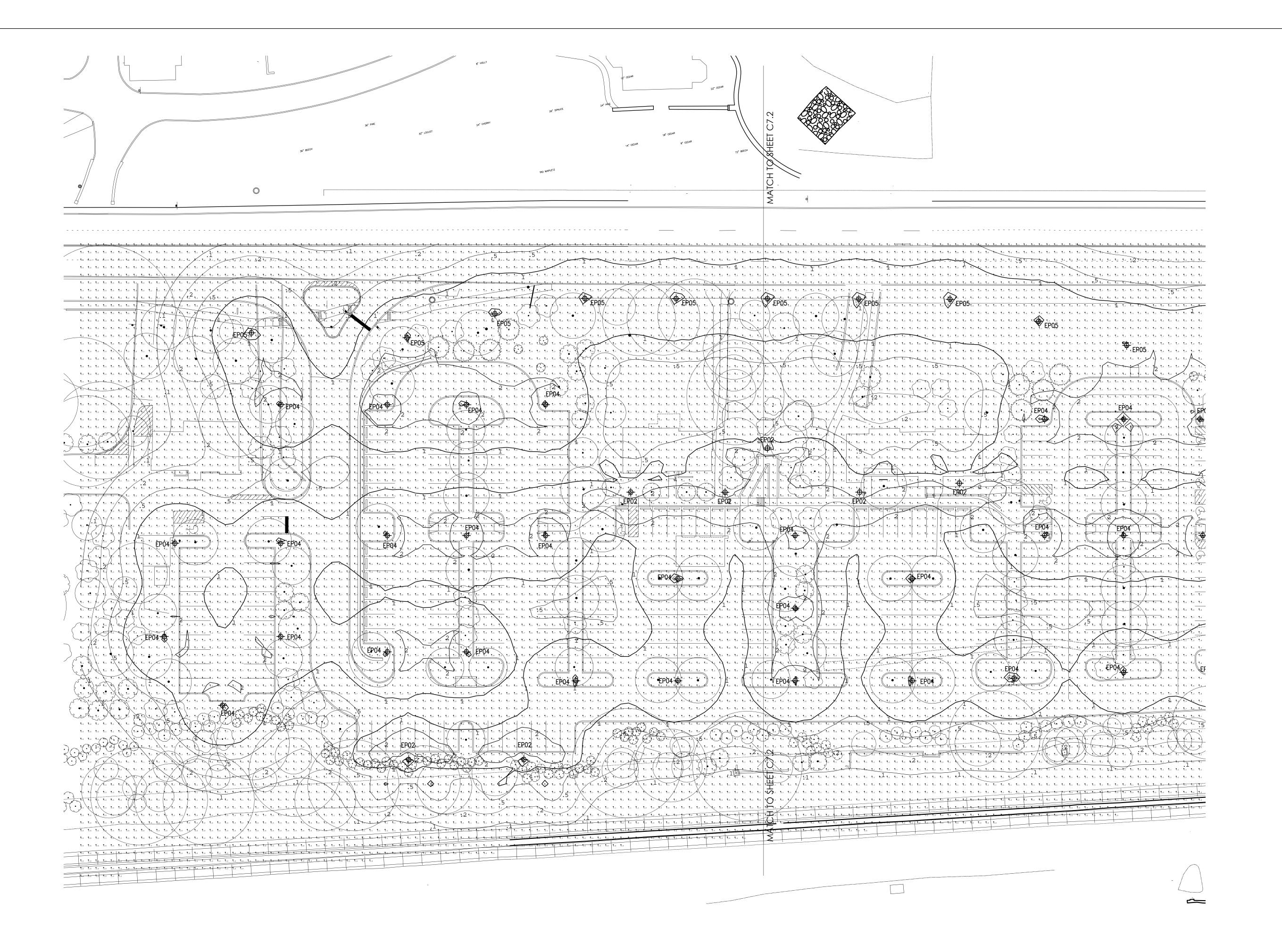


FINAL LAND DEVELOPMENT SUBMISSION

Revision #4 August 10, 2015 Date March 6, 2015 **Grading Plan** 

Scale 1" = 30' Drawn By DWN

8 of 34





Villanova University W. Lancaster Ave. Parking

Lancaster and Ithan Avenues Villanova, PA 19085

# **VMA**

ARCHITECT-OF-RECORD Voith & Mactavish Architects LLP 2401 Walnut Street, 6th Floor Philadelphia, PA 19103 phone: 215-545-4544 fax: 215-545-3299 www.voithandmactavish.com

DESIGN ARCHITECT Robert A.M. Stern Architects LLP 460 West 34th Street New York, New York 10001 phone: 212-967-5100 fax: 212-967-5588

www.ramsa.com **CIVIL ENGINEER** 

Nave Newell Inc. 900 West Valley Road, Suite 1100 Wayne, PA 19087 phone: 610-265-8323 fax: 610-265-4299 www.navenewell.com

STRUCTURAL ENGINEER - PARKING PLANNING AND DESIGN The Harman Group, Inc. 900 West Valley Forge Road, Suite 200 King of Prussia, PA 19406 phone: 610-337-3360 x 118 voice mobile phone: 610-334-0974 fax: 610-337-3359 www.HarmanGroup.com

MEP&FP ENGINEER Bala Consulting Engineers, Inc. 443 South Gulph Road King of Prussia, PA 19406 phone: 610-649-8000 fax: 910-649-8475

LANDSCAPE ARCHITECT Sikora Wells Appel Haddonfield NJ 08033 phone dir: 856-433-6377 phone main: 856-433-6380 phone cell: 267-303-3753 www.sikora-wa.com

**ELEVATOR CONSULTANT** Zipf Associates Inc. 25 Bala Avenue, Suite 201 Bala Cynwyd, PA 19004 phone: 610-667-1717 fax: 610-667-0216

LIGHTING DESIGN CONSULTANT O'Donohoe & Rose Lighting 525 S. 4th St. Suite 359 Philadelphi, PA 19147 phone: 215-592-8800

FINAL LAND DEVELOPMENT

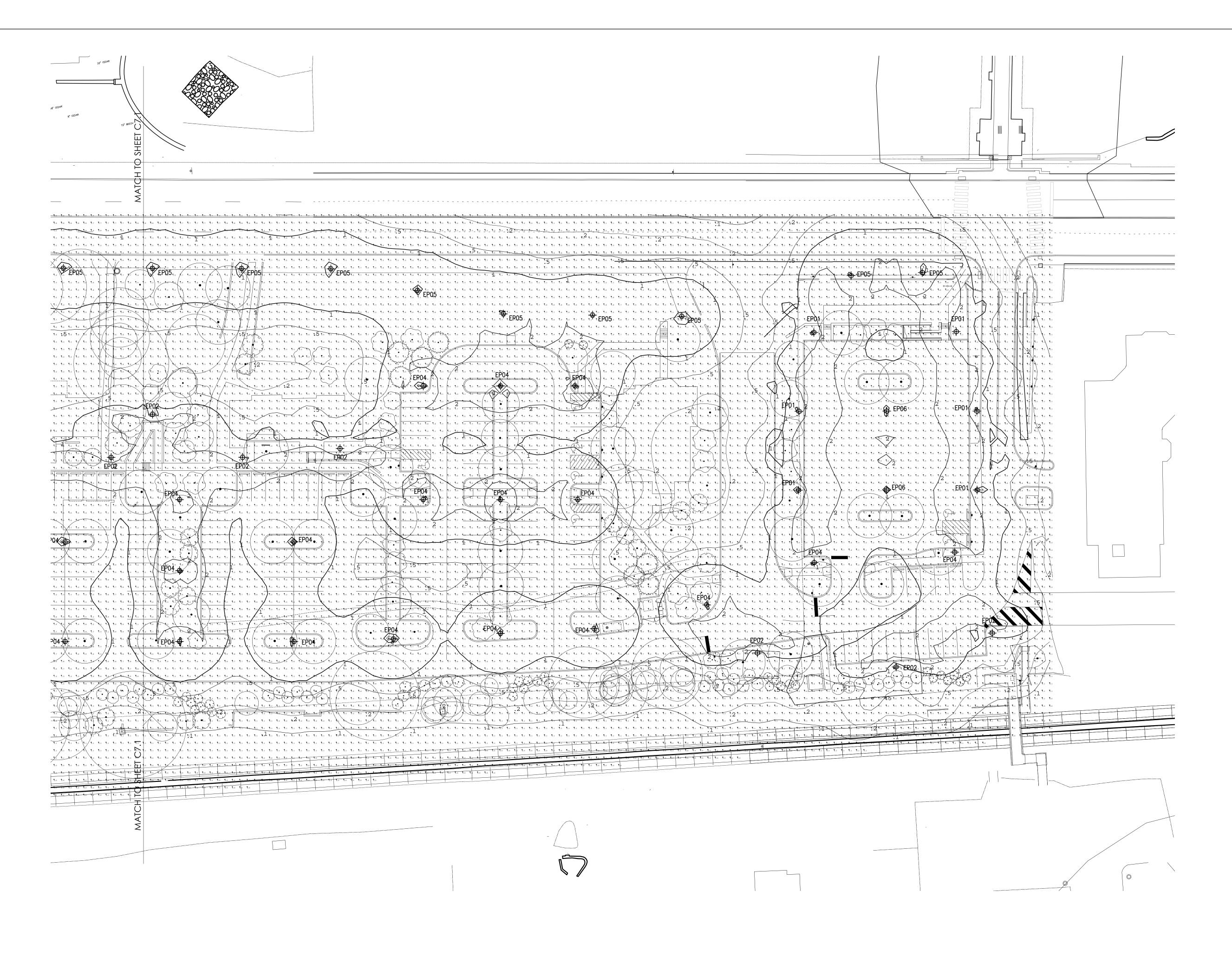
Revision

Date Title Site Lighting Plan

Scale 1" = 30 Drawn By JO/JL

Contractor to verify all dimensions in field and inform

Architect of any discrepancies before starting work.



30

GRAPHIC SCALE

O 0 15 30 60

(IN FEET)

1 inch = 30 ft

Villanova University
W. Lancaster Ave. Parking

Lancaster and Ithan Avenues Villanova, PA 19085

# VMA RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP

2401 Walnut Street, 6th Floor

Philadelphia, PA 19103

phone: 215-545-4544

fax: 215-545-3299

www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588

phone: 212-967-5100

fax: 212-967-5588

www.ramsa.com

CIVIL ENGINEER

Nave Newell Inc.

900 West Valley Road, Suite 1100 Wayne, PA 19087 phone: 610-265-8323 fax: 610-265-4299 www.navenewell.com

STRUCTURAL ENGINEER - PARKING
PLANNING AND DESIGN
The Harman Group, Inc.
900 West Valley Forge Road, Suite 200
King of Prussia, PA 19406
phone: 610-337-3360 x 118 voice
mobile phone: 610-334-0974
fax: 610-337-3359
www.HarmanGroup.com

MEP&FP ENGINEER

Bala Consulting Engineers, Inc.

443 South Gulph Road

King of Prussia, PA 19406

phone: 610-649-8000

fax: 910-649-8475

LANDSCAPE ARCHITECT
Sikora Wells Appel
8 Kings Hwy West, Suite A
Haddonfield NJ 08033
phone dir: 856-433-6377
phone main: 856-433-6380
phone cell: 267-303-3753
www.sikora-wa.com

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717
fax: 610-667-0216

FINAL LAND DEVELOPMENT PLANS

Revision

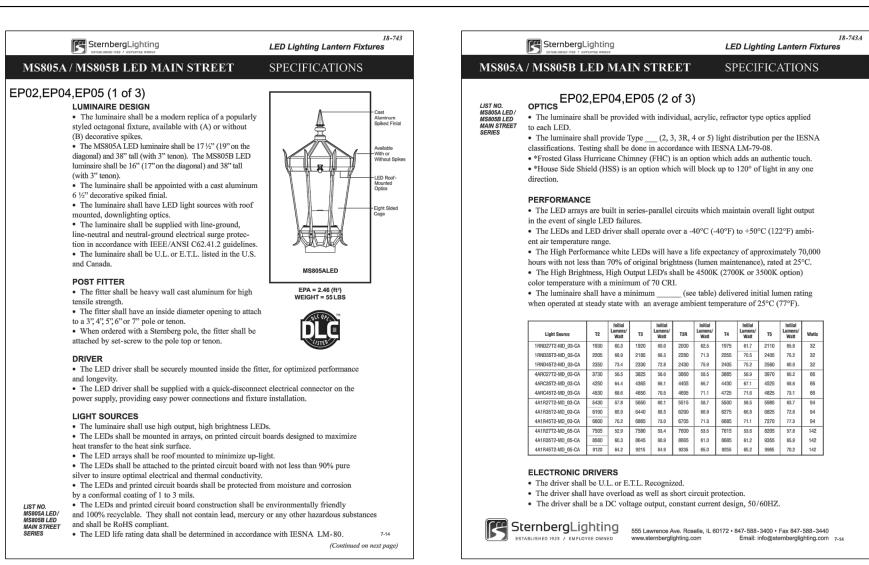
Date August 10, 2015
Title Site Lighting Plan

Scale 1" = 30'
Drawn By JO/JL

C7.2

Sheet No.

2, 3, 32



Fixture Type: EP01, EP02, EP04, EP05, EP06 Page: 1

Fixture Type: EP01, EP02, EP04, EP05, EP06 Page: 2 Fixture Type: EP01, EP02, EP04, EP05, EP06 Page: 3

WARRANTY: Three-year limited warranty.

Anchor Rods: (4) 3/4" dia. x 19"

Base Dimensions: 15 1/2" dia. x 48" Hand Hole: 11" x 5" Shaft: MFG: Philips Hadco

House Side 4" Up from Top of Base - Aligned with

Ordering Guide

HOUSING: 356 HM high-strength, low-copper, proprietary cast aluminum alloy . 6005-T5 extruded aluminum. Anchor rods are hot dipped galvanized steel . Tenon is 356 HM sand cast aluminum.

FINISH:
A durable polyurethane enamel finish is applied after assemblies are shot blasted to create a surface profile which allows for the highest level of paint adhesion. Laboratory tested for superior weatherability and fade resistance in accordance with ASTM B-117-64 and ANSI/ASTM GS3-77 specifications. For larger projects where a custom color is required, contact the factory for more information.

OUTLET:
Standard Duplex Outlet has universal metal weatherproof cover. Weatherproof while in use. Heavy-duty all-metal construction. Lockable security cover. Meets NEC 406.9 (B).
Weather resistant. GFI Duplex Outlet has dusl-function indicator light, universal metal weatherproof cover. Weatherproof-while in use. Heavy-duty all-metal construction. Lockable security cover. Meets NEC 406.9 (B). Weather resistant.

Note: Philips reserves the right to modify the above details to reflect changes in the cost of materials and/or production and/or design without prior notice.

100 craftway Drive, Littlestown, PA 17340 | P: +1-717-359-9289 | http://www.hadco.com | Copyright 2013 Philips

Example: P4465 12 A T D

# LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION:	MFR	CATALOG #	LAMP MFR	LAMP TYPE	QTY	WATTS	VOLTS	APERTURE	DEPTH	O.A.H.
EP01	EXTERIOR DECORATIVE LED POLE MOUNTED LANTERN FIXTURE WITH CAST ALUM. HOUSING, CLEAR ACRYLIC LENSES, INTEGRAL DIMMING DRIVER, ROOF MOUNTED CUT OFF OPTIC WITH TYPE III DISTRIBUTION ON 12'-0" DECORATIVE POLE. BLACK TEXTURED FINISH ON ALL ITEMS.	STERNBERG LIGHTING / HADCO	MS805ALED/3/ OTHER/4AIR- 45- T3/MDL/CA/BK T - P4465-12'-A	INCLUDED			57	120	15"W	26"h	14'-2" O.A.H.
EP02	EXTERIOR DECORATIVE LED POLE MOUNTED LANTERN FIXTURE WITH CAST ALUM. HOUSING, CLEAR ACRYLIC LENSES, INTEGRAL DIMMING DRIVER, ROOF MOUNTED CUT OFF OPTIC WITH TYPE III DISTRIBUTION & HOUSE SIDE SHIELD ON 12'-0" DECORATIVE POLE. BLACK TEXTURED FINISH ON ALL ITEMS.	STERNBERG LIGHTING / HADCO	MS805ALED/3/ OTHER/4AIR- 45-T3/MDL- HSS/CA/BKT - P4465-12'-A	INCLUDED			57	120	15"W	26"h	14'-2" O.A.H.
EP04	EXTERIOR DECORATIVE LED POLE MOUNTED LANTERN FIXTURE WITH CAST ALUM. HOUSING, CLEAR ACRYLIC LENSES, INTEGRAL DIMMING DRIVER, ROOF MOUNTED CUT OFF OPTIC WITH TYPE V DISTRIBUTION ON 12'-0" DECORATIVE POLE. BLACK TEXTURED FINISH ON ALL ITEMS.	STERNBERG LIGHTING / HADCO	MS805ALED/3/ OTHER/4AIR- 45- T5/MDL/CA/BK T - P4465- 12'-A	INCLUDED			57	120	15"W	26"h	14'-2" O.A.H.
EP05	EXTERIOR DECORATIVE LED POLE MOUNTED LANTERN FIXTURE WITH CAST ALUM. HOUSING, CLEAR ACRYLIC LENSES, INTEGRAL DIMMING DRIVER, ROOF MOUNTED CUT OFF OPTIC WITH TYPE V DISTRIBUTION ON 14'-0" DECORATIVE POLE. BLACK TEXTURED FINISH ON ALL ITEMS.	STERNBERG LIGHTING / HADCO	MS805ALED/3/ OTHER/4AIR- 45- T5/MDL/CA/BK T - P4465- 12'-A	INCLUDED			57	120	15"W	26"h	16'-2" O.A.H.
EP06	LANTERN FIXTURE WITH CAST ALUM. HOUSING,	STERNBERG LIGHTING / HADCO	MS805ALED/3/ OTHER/4AIR- 45- T5/MDL/CA/BK T - P4465- 12'-A	INCLUDED			57	120	15"W	26"h	14'-2" O.A.H.

Villanova University W. Lancaster Ave. Parking

Lancaster and Ithan Avenues Villanova, PA 19085

# **VMA** RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP

2401 Walnut Street, 6th Floor

Philadelphia, PA 19103

phone: 215-545-4544

fax: 215-545-3299

www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588
www.ramsa.com

CIVIL ENGINEER

Nave Newell Inc.

900 West Valley Road, Suite 1100

Wayne, PA 19087

phone: 610-265-8323

fax: 610-265-4299

www.navenewell.com

STRUCTURAL ENGINEER - PARKING
PLANNING AND DESIGN
The Harman Group, Inc.
900 West Valley Forge Road, Suite 200
King of Prussia, PA 19406
phone: 610-337-3360 x 118 voice
mobile phone: 610-334-0974
fax: 610-337-3359

www.HarmanGroup.com

MEP&FP ENGINEER

Bala Consulting Engineers, Inc.

443 South Gulph Road

King of Prussia, PA 19406

phone: 610-649-8000

fax: 910-649-8475

LANDSCAPE ARCHITECT
Sikora Wells Appel
8 Kings Hwy West, Suite A
Haddonfield NJ 08033
phone dir: 856-433-6377
phone main: 856-433-6380
phone cell: 267-303-3753

www.sikora-wa.com

fax: 610-667-0216

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717

FINAL LAND DEVELOPMENT PLANS

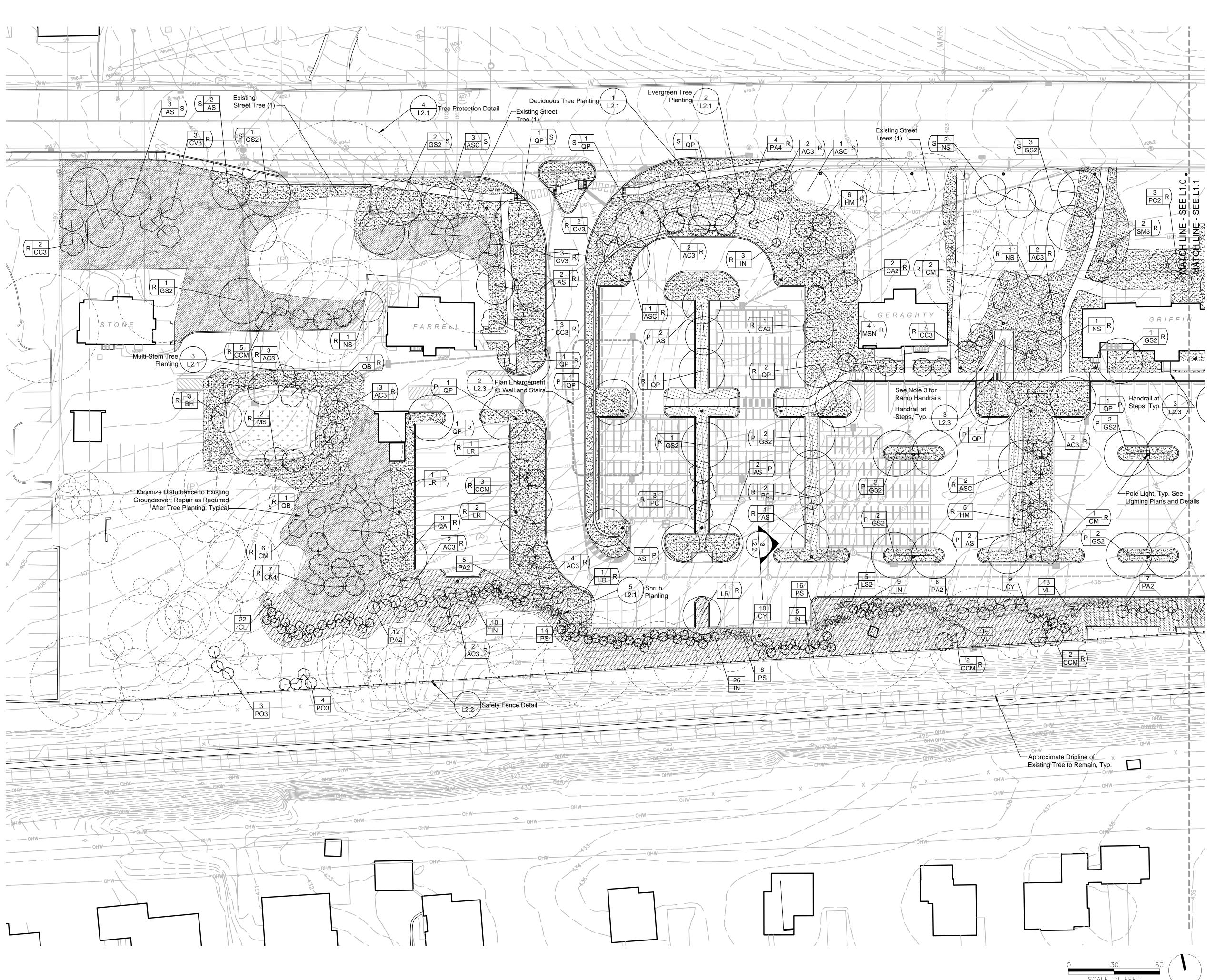
Revision

Date August 10, 2015
Title Site Lighting Details

Scale 1" = 30'
Drawn By JO/JL

C7.3

Sheet No. 24 of 34



### Legend

8 AC3 S Street Tree

1 R Replacement Trees

1 ASC P Parking Lot Trees

Lawr

Refurbish Existing Turf Grass As Required

Planting Bed

"No-Mow' Seed Mix

Rain Garden Seed Mix

 Pole Light; See Lighting Plans and Details

----- Fence

### Note

- See Land Development Plans for Lancaster Avenue Tree Replacements Shown Within Aldwyn Triangle.
- See "EX" series of drawings in the Lancaster Avenue Housing set for an elevation view of proposed buffer planting at the southern project boundary.
- 3. Handrails at Ramps Similar to Those Shown in Detail 3, Sheet L2.3, including Base and Alternate Design.
- 4. Buffer planting to be completed prior to the completion of project.

# Villanova University

W. Lancaster Ave. Parking
Lancaster and Ithan Avenues
Villanova PA 19085

# VMA RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP
1616 Walnut Street, 24th Floor
Philadelphia, PA 19103
phone 215-545-4544
fax 215-545-3299
www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588

www.ramsa.com

CIVIL ENGINEER

Nave Newell Inc. 900 West Valley Road, Suite 100 Wayne, PA 19087 phone: 610-265-8323 fax: 610-265-4299 www.navenewell.com

STRUCTURAL ENGINEER

MacIntosh Engineering

One East Uwchlan Avenue, Ste. 403

Exton, PA 19341

phone: 484-475-2180

fax: 484-475-2181

www.macintosheng.com

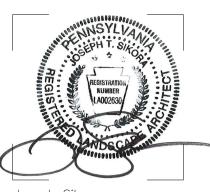
MEP&FP ENGINEER
Bala Consulting Engineers, Inc.
443 South Gulph Road
King of Prussia, PA 19406
phone: 610-649-8000
fax: 910-649-8475

LANDSCAPE ARCHITECT
Sikora Wells Appel
8 Kings Highway West, Suite A
Haddonfield, NJ 08033
phone: 856-433-6381
www.sikora-wa.com

ACOUSTIC CONSULTANT Acentech Inc. 8 Interplex Drive, Suite 218 Trevose, PA 19053 phone: 215-245-8244 fax: 215-245-1796

www.acentech.com

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717
fax: 610-667-0216



Joseph Sikora PA.L.A. # LA002630

FINAL LAND DEVELOPMENT SUBMISSION

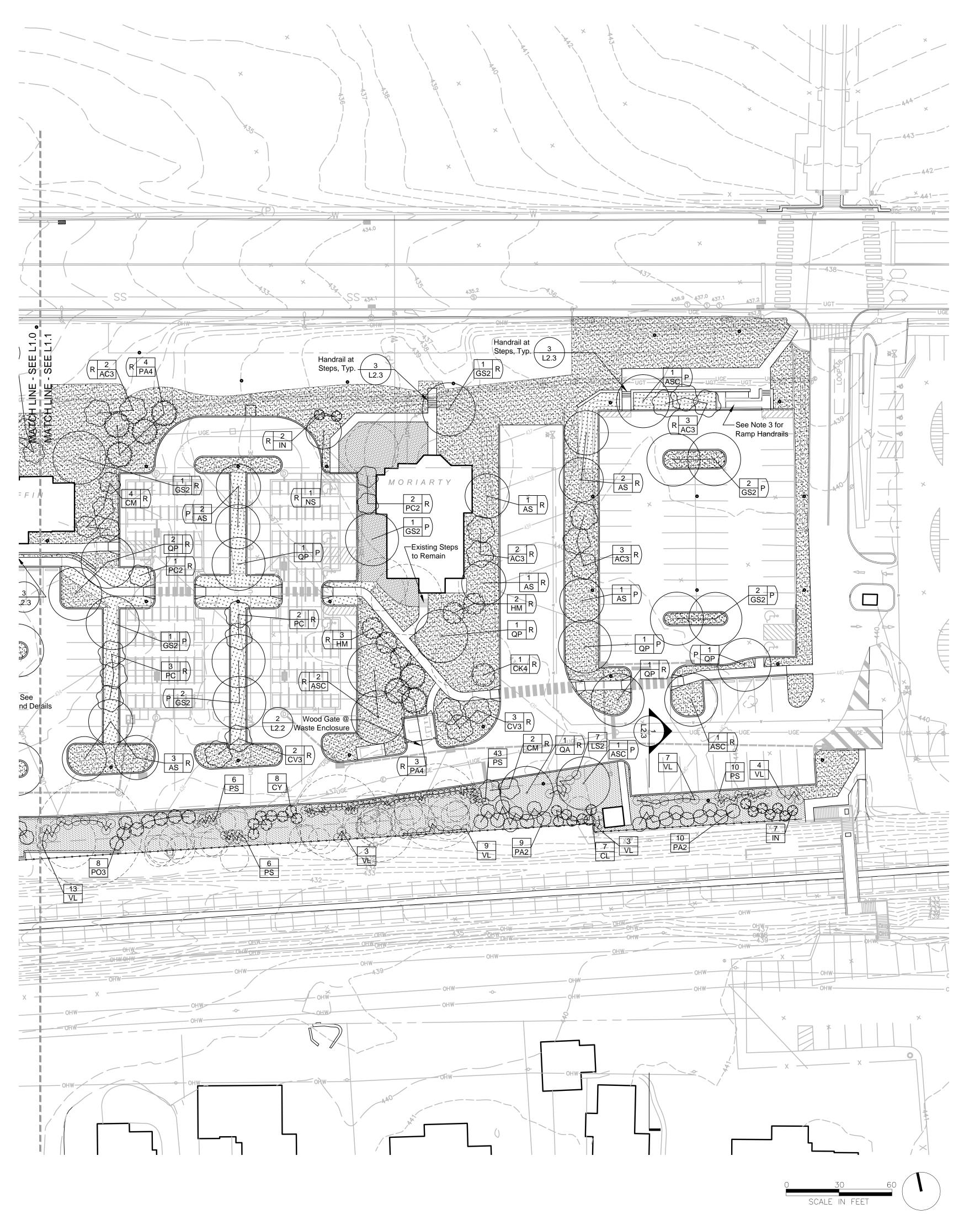
Revision August 10, 201
Date March 6, 2015
Title Planting Plan

Scale 1" = 30'-0"

Drawn By RM

L1.0

Sheet No. 25 of 34



Legend

8 AC3 S Street Trees

1 R Replacement Trees

1 ASC P Parking Lot Trees

La

Definition

Refurbish Existing Turf Grass As Required

Planting Bed

"No-Mow' Seed Mix

Rain Garden Seed Mix

 Pole Light; See Lighting Plans and Details

----- Fence

### Notes:

 See Land Development Plans for Lancaster Avenue Tree Replacements Shown Within Aldwyn
Triangle

Trian

- See "EX" series of drawings in the Lancaster Avenue Housing set for an elevation view of proposed buffer planting at the southern project boundary.
- Handrails at Ramps Similar to Those Shown in Detail 3, Sheet L2.3, including Base and Alternate Design.
- Buffer planting to be completed prior to the completion of project.

Villanova University

W. Lancaster Ave. Parking
Lancaster and Ithan Avenues
Villanova PA 19085

# VMA RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP

1616 Walnut Street, 24th Floor

Philadelphia, PA 19103

phone 215-545-4544

fax 215-545-3299

www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588
www.ramsa.com

CIVIL ENGINEER
Nave Newell Inc.
900 West Valley Road, Suite 100
Wayne, PA 19087
phone: 610-265-8323
fax: 610-265-4299

www.navenewell.com

STRUCTURAL ENGINEER

MacIntosh Engineering

One East Uwchlan Avenue, Ste. 403

Exton, PA 19341

phone: 484-475-2180

fax: 484-475-2181

www.macintosheng.com

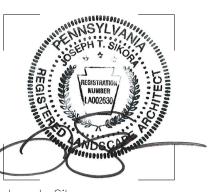
MEP&FP ENGINEER
Bala Consulting Engineers, Inc.
443 South Gulph Road
King of Prussia, PA 19406
phone: 610-649-8000
fax: 910-649-8475

LANDSCAPE ARCHITECT
Sikora Wells Appel
8 Kings Highway West, Suite A
Haddonfield, NJ 08033
phone: 856-433-6381
www.sikora-wa.com

ACOUSTIC CONSULTANT
Acentech Inc.
8 Interplex Drive, Suite 218
Trevose, PA 19053
phone: 215-245-8244
fax: 215-245-1796

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717
fax: 610-667-0216

www.acentech.com



Joseph Sikora PA.L.A. # LA002630

FINAL LAND DEVELOPMENT SUBMISSION

Revision August 10, 2015
Date March 6, 2015
Title Planting Plan

Scale 1" = 30'-0"

Drawn By RM

L1.1

Sheet No.

Contractor to verify all dimensions in field and inform Architect of any discrepancies before starting work.

26 of 34

	REQUIRED	PROPOSED
STREET TREES		
LANCASTER AVENUE = 785 FT. SECTION 255-38.B INTERVALS OF NOT MORE THAN 30 FEET	785'/30' = 26 TREES	26 TREES
BUFFER SCREENS		
SOUTHERN PROPERTY LINE ADJACENT TO R-100 TRAIN RIGHT OF WAY SECTION 255-42 CLASS 'B' BUFFER SCREEN OPTION SELECTED: (1) EVERGREEN PER 15 FEET (INFORMALLY ARRANGED) PLUS; (1) EVERGREEN SHRUB PER 8 FEET (INFORMALLY ARRANGED)	1,198'/15' = 80 EVERGREEN TREES 1,198'/8' = 150 EVERGREEN SHRUBS	162 EVERGREEN TREES 174 EVERGREEN SHRUBS
REPLACEMENT TREES		•
6 TO 18 INCH DBH REMOVED = (1) REPLACEMENT TREE 19 TO 29 INCH DBH REMOVED = (3) REPLACEMENT TREES** 30 INCH DBH OR GREATER REMOVED = (6) REPLACEMENT TREES***	(112) REMOVALS @ 6 TO 18 INCH = 112 REPLACEMENTS (13) REMOVALS @ 19 TO 29 INCH = (13) x 3= 39 REPLACEMENTS (23) REMOVALS @ 30 INCH+ = (23) x 6 = 138 REPLACEMENTS TOTAL REPLACEMENT TREES REQUIRED = 289 TREES	LARGE CANOPY TREES = 92 TREES ORNAMENTAL TREES = 163 TREES* EVERGREEN TREES = 34 TREES TOTAL TREES PROPOSED = 289 (INCLUDES 36 LARGE CANOPY TREES, 25 ORNAMENTAL TREES, AND 18 EVERGREE TREES AT ALDWYN TRIANGLE; SEE LANCASTER AVENUE HOUSING AND CHURCH WALK AND BRIDGE PROJECTS FOR LOCATIONS; 8 LARGE CANOPY TREE AND 6 ORNAMENTAL TREES AT PIKE GARAGE - SEE PIKE FIELD GARAGE PROJECT FOR LOCATIONS) SEE NOTE #2
PARKING LOT		
SECTION 255-29.B (1) ONE TREE FOR EVERY FIVE PARKING SPACES IN SINGLE BAYS AND ONE TREE FOR EVERY TEN PARKING SPACES IN DOUBLE BAYS	68 SINGLE BAY SPACES/ 5 = 13.6 TREES 222 DOUBLE BAY SPACES/ 10 = 22.2 TREES TOTAL PARKING LOT TREES REQUIRED = 36 TREES (THE REQUIRED TREES ARE PROVIDED FOR A TOTAL OF 290 PARKING SPACES. THIS COUNT OF 290 SPACES INCLUDES 20 SEPTA PARKING SPACES, AND DOES NOT INCLUDE 22 EXISTING SPACES OUTSIDE THE PROJECT LIMITS).	38

\*\*\* FOUR BEING LARGE CANOPY TREES

### NOTES:

- 1. QUANTITY, AND ARRANGEMENT OF PLANT MATERIAL WITHIN BUFFER SCREEN WILL PRODUCE A VISUAL SCREEN NOT TO BE SEEN THROUGH AND PROVIDE IMMEDIATE VISUAL SCREENING TO THE ABUTTING PROPERTY OR DISTRICT AS PER SECTION 280-71.A. OF THE TOWNSHIP ZONING ORDINANCE.
- 2. THE TOTAL NUMBER OF PROPOSED REPLACEMENT TREES MEETS THE QUANTITY REQUIRED BY ORDINANCE; HOWEVER, THE RATIO OF LARGE CANOPY TREES TO UNDERSTORY ORNAMENTAL TREES DOES NOT. DUE TO THE NATURE OF THIS PARTICULAR SITE, AND THE NUMBER OF LARGE, EXISTING TREES TO REMAIN, A GREATER NUMBER OF UNDERSTORY, ORNAMENTAL TREES HAVE BEEN USED THAT CAN TOLERATE SUCH CONDITIONS, WHILE PROVIDING MAXIMUM SCREENING AND VISUAL INTEREST.

#### PLANT SCHEDULE CANOPY TREES QTY BOTANICAL NAME CONT CAL COMMON NAME REMARKS SOMERSET RED MAPLE 25 ACER RUBRUM `SOMERSET` B & B | 2" - 2 1/2" ASC 12 ACER SACCHARUM `COMMEMORATION` COMMEMORATION SUGAR MAPLE B & B | 2" - 2 1/2" **FULL HEAD** 3 BETULA NIGRA `HERITAGE` HERITAGE RIVER BIRCH В&В 10` - 12` MULTISTEMMED 29 | GLEDITSIA TRIACANTHOS `SKYLINE` B & B 2 1/2" - 3" GS2 SKYLINE HONEY LOCUST MATCHED SPECIMENS; FULL HEAD 6 LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA' TM ROUND-LOBED SWEET GUM B & B | 2 1/2" - 3" MATCHED SPECIMENS; FULL HEAD B & B | 2" - 2 1/2" 6 NYSSA SYLVATICA SOUR GUM SPECIMEN QUALITY QA WHITE OAK B & B | 2" - 2 1/2" SPECIMEN QUALITY 4 QUERCUS ALBA QB SWAMP WHITE OAK B & B | 2" - 2 1/2" 2 QUERCUS BICOLOR 19 QUERCUS PHELLOS WILLOW OAK B & B | 2" - 2 1/2" EVERGREEN TREES | QTY | BOTANICAL NAME CONT CAL SIZE COMMON NAME REMARKS 27 CRYPTOMERIA JAPONICA 'YOSHINO' YOSHINO CRYPTOMERIA В&В 8`-10` HT. SPECIMENS; FULL TO GROUND; 6` MAX. O.C. 62 | ILEX X `NELLIE R STEVENS` SPECIMENS; FULL TO GROUND; 6` MAX. O.C. NELLIE STEVENS HOLLY 8`-10` HT. SPACING IN BUFFER NORWAY SPRUCE SPECIMENS; FULL TO GROUND; 8` MAX. O.C. PA2 51 PICEA ABIES 8`-10` HT. SPACING 8`-10` HT. SERBIAN SPRUCE SPECIMENS; FULL TO GROUND; 8` MAX. O.C. 15 PICEA OMORIKA SPACING PA4 11 PICEA ORIENTALIS 'AUREA' SPRUCE B&B 8`-10` HT. 29 X CUPRESSOCYPARIS LEYLANDII B & B 8`-10` HT. LEYLANDI CYPRESS SPECIMENS; FULL TO GROUND; MAX. 6` O.C. SPACING ORNAMENTAL TREES | QTY | BOTANICAL NAME COMMON NAME CONT CAL SIZE REMARKS 32 AMELANCHIER CANADENSIS SHADBLOW SERVICEBERRY MULTI-TRUNK | B & B 8`-10` HT. FULL SPECIMENS; MIN. 5 STEMS 3 CARPINUS CAROLINIANA AMERICAN HORNBEAM B & B CCM 12 CERCIS CANADENSIS EASTERN REDBUD MULTI-TRUNK 8`-10` HT. B & B FULL SPECIMENS; MIN. 5 STEMS CC3 9 CORNUS FLORIDA `CHEROKEE CHIEF` CHEROKEE CHIEF DOGWOOD MATCHED SPECIMENS B & B | 2" - 2 1/2" CK4 B&B 8 | CORNUS KOUSA KOUSA DOGWOOD 8`-10` HT. FULL SPECIMENS 15 CORNUS MAS CORNELIAN CHERRY DOGWOOD B&B 8`-10` HT. FULL SPECIMENS CV3 13 CRATAEGUS VIRIDIS `WINTER KING` **`WINTER KING` HAWTHORN** B & B | 2" - 2 1/2" WITCH HAZEL B&B 5`-6` HT MULTISTEM | 16 | HAMAMELIS MOLLIS 2 MAGNOLIA VIRGINIANA SWEET BAY MULTI-TRUNK B & B 8`-10` HT. SPECIMEN QUALITY; WELL-BRANCHED 4 MALUS X `SNOWDRIFT` SNOWDRIFT CRAB APPLE B & B | 2 1/2" - 3" MSN 6 PRUNUS SARGENTII `COLUMNARIS` **COLUMNAR SARGENT CHERRY** B & B | 2" - 2 1/2" 10 PRUNUS VIRGINIANA `CANADA RED` CANADA RED CHOKECHERRY B & B | 2" - 2 1/2" SM3 2 | STEWARTIA PSEUDOCAMELLIA `MILK AND HONEY` | JAPANESE STEWARTIA B&B 10`-12` QTY BOTANICAL NAME COMMON NAME CONT SIZE REMARKS SHRUBS 12 LINDERA GLAUCA SALICIFOLIA B & B | 4`-5` HT. SPICEBUSH 103 PRUNUS LAUROCERASUS `SCHIPKAENSIS` SCHIPKA LAUREL B & B | 3` - 4` HT. DENSE, FULL PLANTS; 4` MAX. O.C. SPACING LEATHERLEAF VIBURNUM 66 VIBURNUM RHYTIDOPHYLLUM B&B | 5`-6` HT. DENSE, FULL PLANTS; 5` MAX. O.C. SPACING

### Villanova University

W. Lancaster Ave. Parking
Lancaster and Ithan Avenues
Villanova PA 19085

# VMA RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP

1616 Walnut Street, 24th Floor

Philadelphia, PA 19103

phone 215-545-4544

fax 215-545-3299

www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588
www.ramsa.com

CIVIL ENGINEER

Nave Newell Inc.

900 West Valley Road, Suite 100

Wayne, PA 19087

phone: 610-265-8323

fax: 610-265-4299

www.navenewell.com

STRUCTURAL ENGINEER

MacIntosh Engineering

One East Uwchlan Avenue, Ste. 403

Exton, PA 19341

phone: 484-475-2180

fax: 484-475-2181

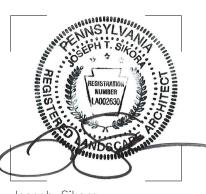
www.macintosheng.com

MEP&FP ENGINEER
Bala Consulting Engineers, Inc.
443 South Gulph Road
King of Prussia, PA 19406
phone: 610-649-8000
fax: 910-649-8475

LANDSCAPE ARCHITECT
Sikora Wells Appel
8 Kings Highway West, Suite A
Haddonfield, NJ 08033
phone: 856-433-6381
www.sikora-wa.com

ACOUSTIC CONSULTANT
Acentech Inc.
8 Interplex Drive, Suite 218
Trevose, PA 19053
phone: 215-245-8244
fax: 215-245-1796
www.acentech.com

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717
fax: 610-667-0216



Joseph Sikora PA.L.A. # LA002630

FINAL LAND DEVELOPMENT SUBMISSION

Revision August 10, 2015

Date March 6, 2015

Title Planting Schedule and Tabulations

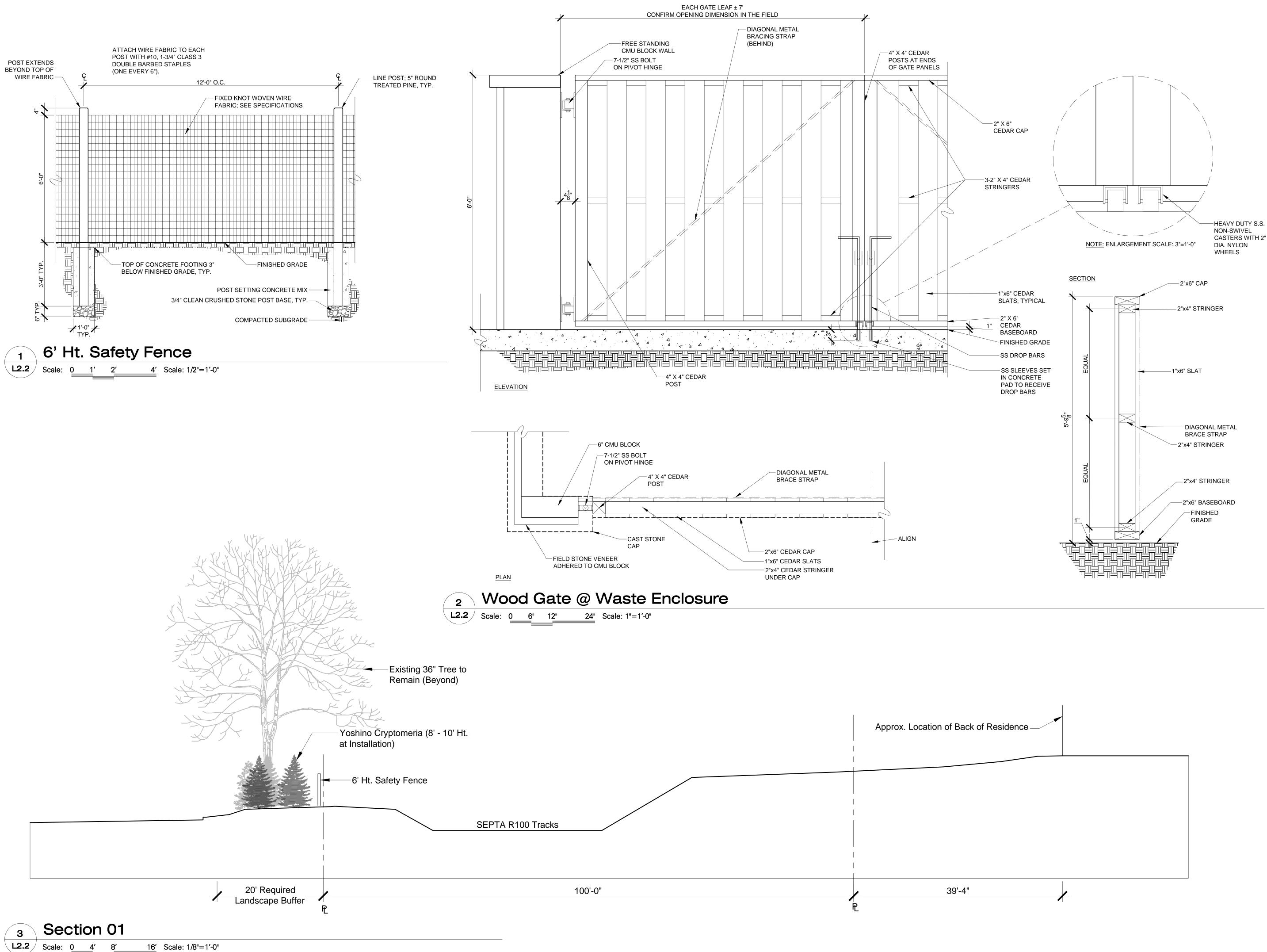
Scale As Indicated

Drawn By RM

L2.0

Sheet No.

27 of 34



Villanova University

W. Lancaster Ave. Parking Lancaster and Ithan Avenues Villanova PA 19085

# VMA **RAMSA**

ARCHITECT-OF-RECORD Voith & Mactavish Architects LLP 1616 Walnut Street, 24th Floor Philadelphia, PA 19103 phone 215-545-4544 fax 215-545-3299 www.voithandmactavish.com

DESIGN ARCHITECT Robert A.M. Stern Architects LLP 460 West 34th Street New York, New York 10001 phone: 212-967-5100 fax: 212-967-5588 www.ramsa.com

CIVIL ENGINEER Nave Newell Inc. 900 West Valley Road, Suite 100 Wayne, PA 19087 phone: 610-265-8323 fax: 610-265-4299 www.navenewell.com

STRUCTURAL ENGINEER MacIntosh Engineering One East Uwchlan Avenue, Ste. 403 Exton, PA 19341 phone: 484-475-2180

fax: 484-475-2181 www.macintosheng.com MEP&FP ENGINEER Bala Consulting Engineers, Inc. 443 South Gulph Road

King of Prussia, PA 19406 phone: 610-649-8000 fax: 910-649-8475 LANDSCAPE ARCHITECT

Sikora Wells Appel 8 Kings Highway West, Suite A Haddonfield, NJ 08033 phone: 856-433-6381 www.sikora-wa.com

ACOUSTIC CONSULTANT Acentech Inc. 8 Interplex Drive, Suite 218 Trevose, PA 19053 phone: 215-245-8244 fax: 215-245-1796

**ELEVATOR CONSULTANT** Zipf Associates Inc. 25 Bala Avenue, Suite 201 Bala Cynwyd, PA 19004 phone: 610-667-1717 fax: 610-667-0216

www.acentech.com

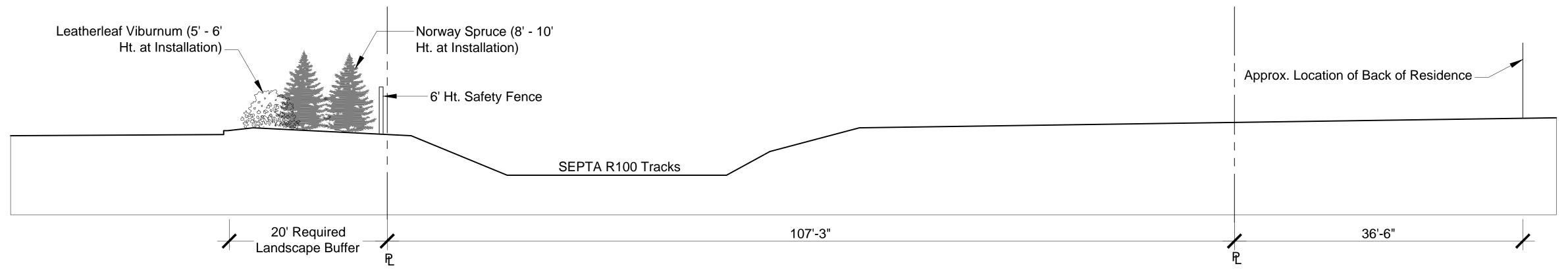


FINAL LAND DEVELOPMENT SUBMISSION

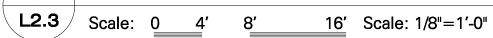
Revision August 10, 2015 Date May 26, 2015 Landscape Details

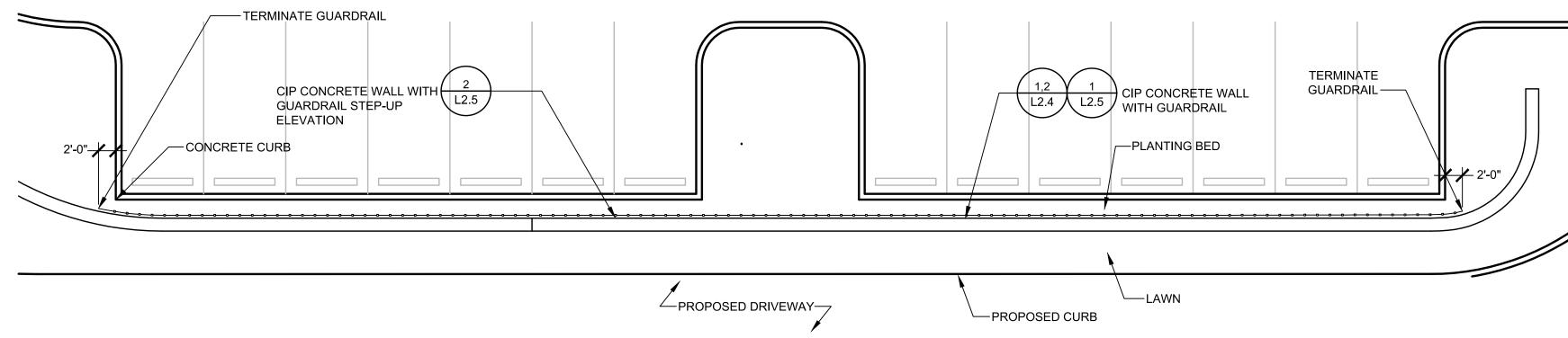
Scale As Indicated Drawn By DF/SP

Sheet No. 29 of 34

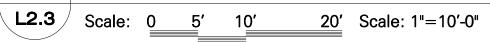


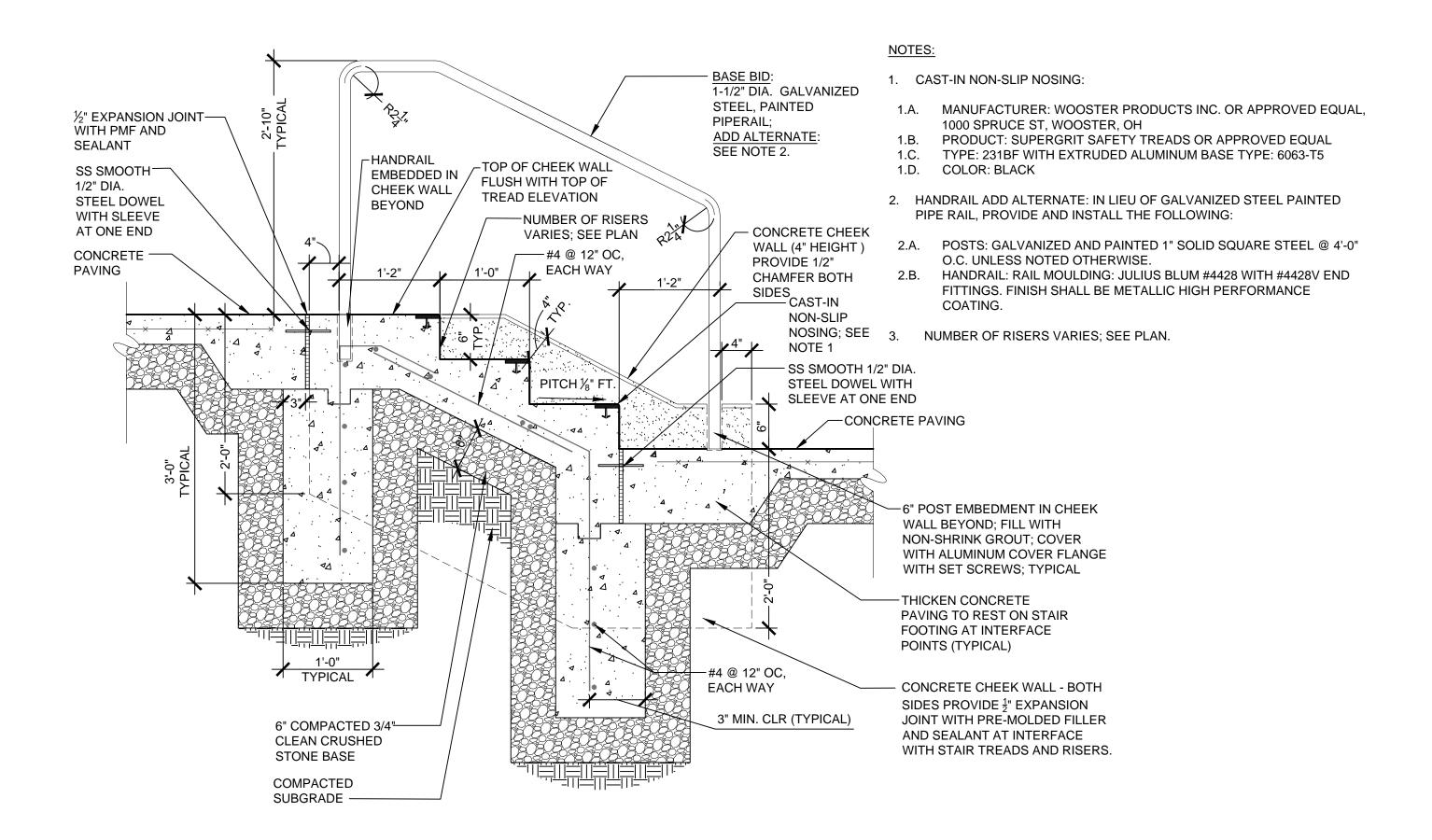






## Plan Enlargement at Wall





# 3 Handrail at Steps

Scale: 0 6" 1' 2' Scale: 1" = 1'-

### Villanova University

W. Lancaster Ave. Parking
Lancaster and Ithan Avenues
Villanova PA 19085

# VMA RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP

1616 Walnut Street, 24th Floor

Philadelphia, PA 19103

phone 215-545-4544

fax 215-545-3299

www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588
www.ramsa.com

CIVIL ENGINEER

Nave Newell Inc.

900 West Valley Road, Suite 100

Wayne, PA 19087

phone: 610-265-8323

fax: 610-265-4299

www.navenewell.com

STRUCTURAL ENGINEER

MacIntosh Engineering

One East Uwchlan Avenue, Ste. 403

Exton, PA 19341

phone: 484-475-2180

fax: 484-475-2181

www.macintosheng.com

MEP&FP ENGINEER
Bala Consulting Engineers, Inc.
443 South Gulph Road
King of Prussia, PA 19406
phone: 610-649-8000
fax: 910-649-8475

LANDSCAPE ARCHITECT
Sikora Wells Appel
8 Kings Highway West, Suite A
Haddonfield, NJ 08033
phone: 856-433-6381
www.sikora-wa.com

ACOUSTIC CONSULTANT
Acentech Inc.
8 Interplex Drive, Suite 218
Trevose, PA 19053
phone: 215-245-8244
fax: 215-245-1796

www.acentech.com

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717
fax: 610-667-0216

FINAL LAND DEVELOPMENT SUBMISSION

Revision August 10, 2015

Date May 26, 2015

Title Landscape Details

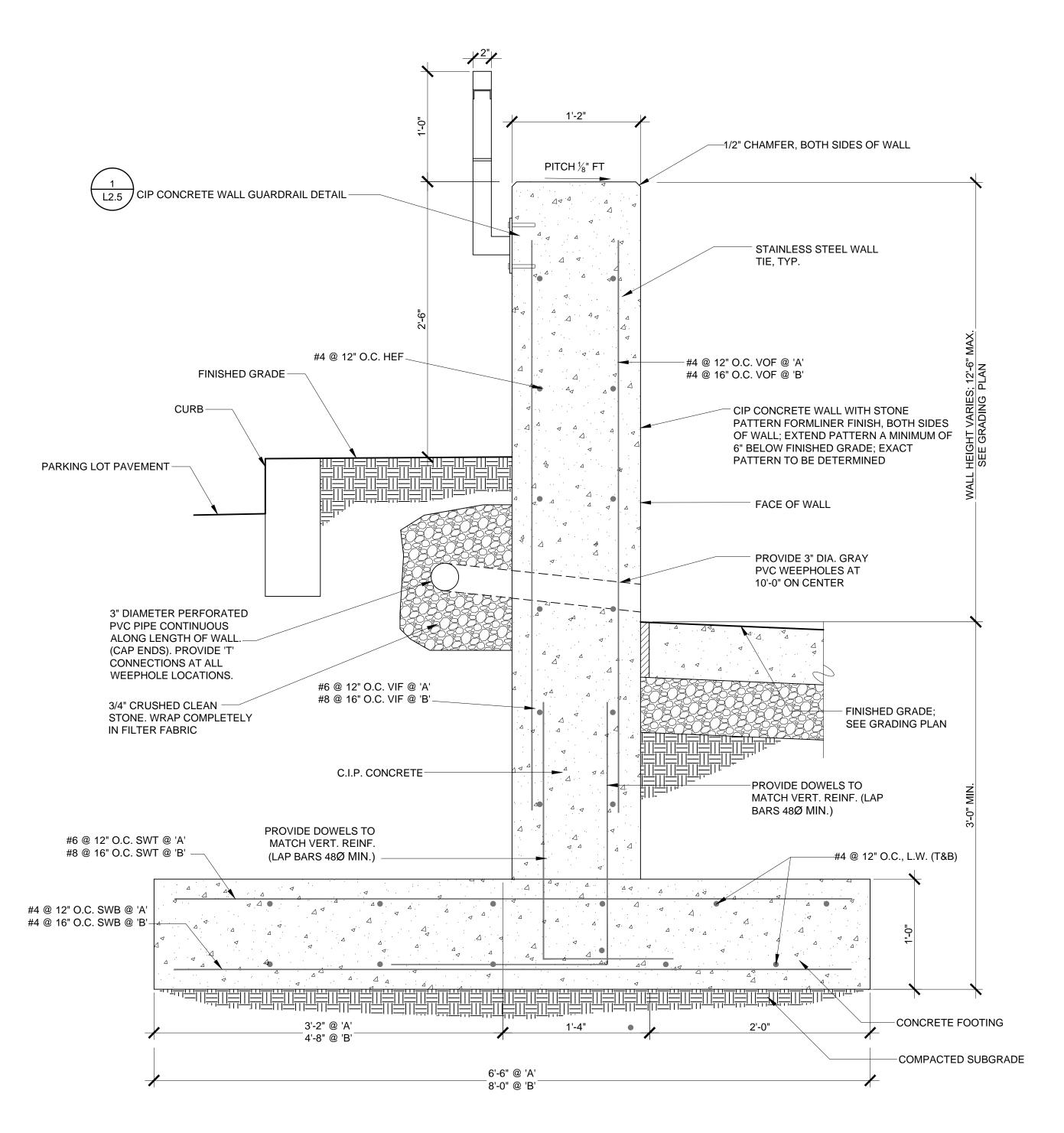
Scale As Indicated
Drawn By DF/SP

L2.3

Sheet No.

sions in field and inform

30 of 34



CIP Concrete Wall with Guardrail

L2.4 Scale: 0 4" 8" 1'-4" Scale: 1-1/2" = 1'- 0"



Ç 5" Ç O.C.

L2.4 Scale: 0 4" 8" 1'-4" Scale: 1-1/2" = 1'- 0"

MAX

CIP CONCRETE WALL GUARDRAIL DETAIL

----3/4" SQ. METAL

PICKET

8'-0"

ON CENTER

—1" x 2" METAL "C" CHANNEL

-2" X 1/4" BAR STOCK BOTTOM Villanova University

W. Lancaster Ave. Parking
Lancaster and Ithan Avenues
Villanova PA 19085

# VMA RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP

1616 Walnut Street, 24th Floor

Philadelphia, PA 19103

phone 215-545-4544

fax 215-545-3299

www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588
www.ramsa.com

CIVIL ENGINEER

Nave Newell Inc.
900 West Valley Road, Suite 100

Wayne, PA 19087
phone: 610-265-8323
fax: 610-265-4299
www.navenewell.com

−2" x 2" SQ. METAL POST

- CIP CONCRETE WALL WITH STONE

6" BELOW FINISHED GRADE; EXACT PATTERN TO BE DETERMINED

PATTERN FORMLINER FINISH, BOTH SIDES

OF WALL; EXTEND PATTERN A MINIMUM OF

STRUCTURAL ENGINEER

MacIntosh Engineering

One East Uwchlan Avenue, Ste. 403

Exton, PA 19341

phone: 484-475-2180

fax: 484-475-2181

www.macintosheng.com

MEP&FP ENGINEER
Bala Consulting Engineers, Inc.
443 South Gulph Road
King of Prussia, PA 19406
phone: 610-649-8000
fax: 910-649-8475

LANDSCAPE ARCHITECT
Sikora Wells Appel
8 Kings Highway West, Suite A
Haddonfield, NJ 08033
phone: 856-433-6381
www.sikora-wa.com

ACOUSTIC CONSULTANT
Acentech Inc.
8 Interplex Drive, Suite 218
Trevose, PA 19053
phone: 215-245-8244
fax: 215-245-1796

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717
fax: 610-667-0216

www.acentech.com

FINAL LAND DEVELOPMENT
SUBMISSION

Revision August 10, 2015

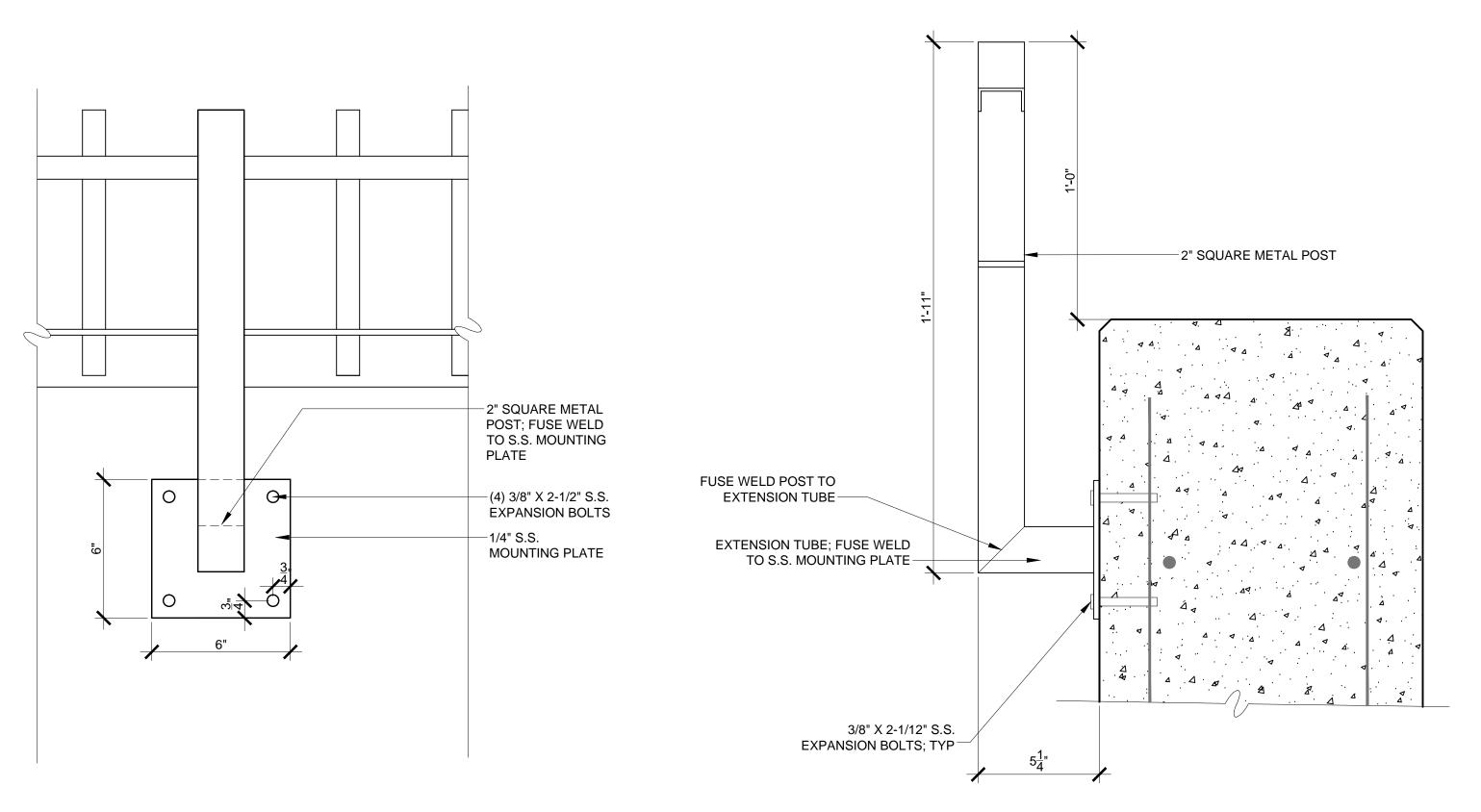
Date May 26, 2015

Title Landscape Details

Scale As Indicated
Drawn By SP

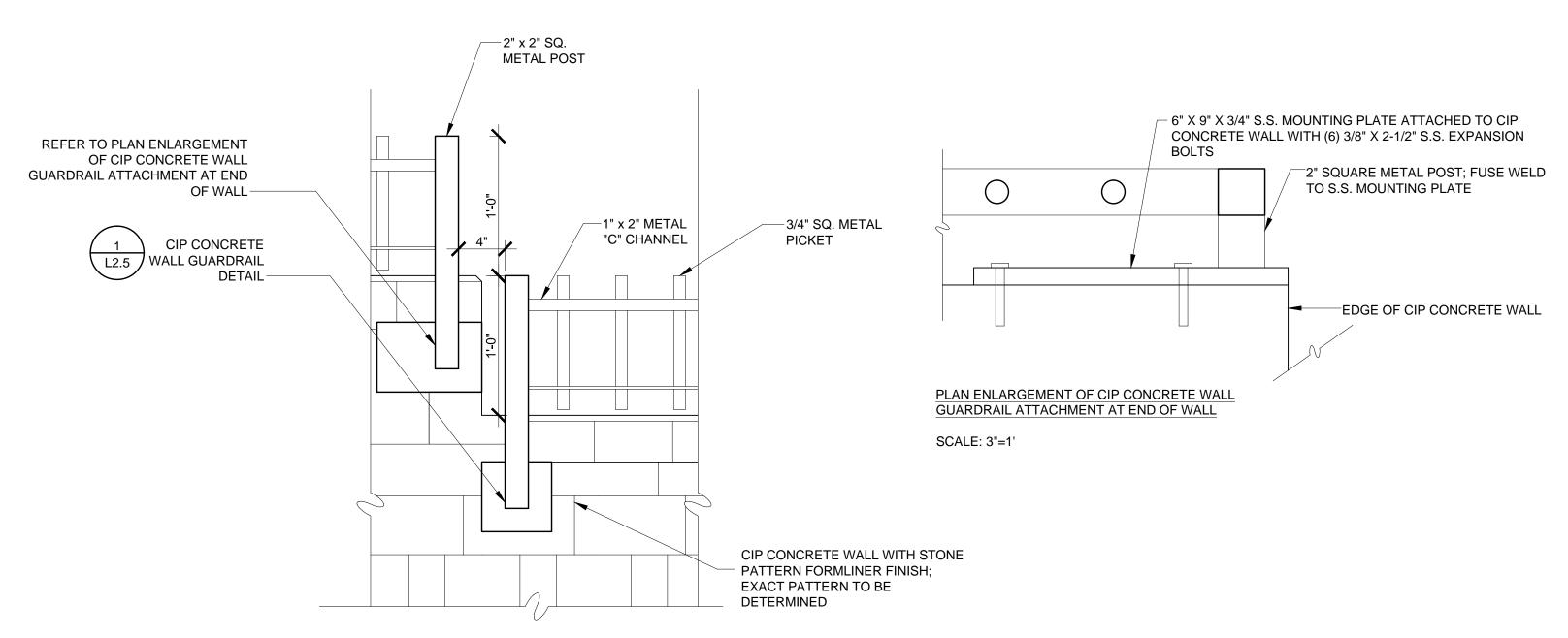
L2.4

Sheet No. 31 of 34



# CIP Concrete Wall Guardrail Detail

**L2.5** Scale: 0 2" 4" 8" Scale: 3" = 1'- 0"



# CIP Concrete Wall with Guardrail Step-up Elevation

**L2.5** Scale: 0 4" 8" 1'-4" Scale: 1-1/2" = 1'- 0"

### Villanova University

W. Lancaster Ave. Parking
Lancaster and Ithan Avenues
Villanova PA 19085

# VMA RAMSA

ARCHITECT-OF-RECORD

Voith & Mactavish Architects LLP

1616 Walnut Street, 24th Floor

Philadelphia, PA 19103

phone 215-545-4544

fax 215-545-3299

www.voithandmactavish.com

DESIGN ARCHITECT
Robert A.M. Stern Architects LLP
460 West 34th Street
New York, New York 10001
phone: 212-967-5100
fax: 212-967-5588
www.ramsa.com

CIVIL ENGINEER

Nave Newell Inc.

900 West Valley Road, Suite 100

Wayne, PA 19087

phone: 610-265-8323

fax: 610-265-4299

www.navenewell.com

STRUCTURAL ENGINEER

MacIntosh Engineering

One East Uwchlan Avenue, Ste. 403

Exton, PA 19341

phone: 484-475-2180

fax: 484-475-2181

www.macintosheng.com

MEP&FP ENGINEER
Bala Consulting Engineers, Inc.
443 South Gulph Road
King of Prussia, PA 19406
phone: 610-649-8000
fax: 910-649-8475

LANDSCAPE ARCHITECT
Sikora Wells Appel
8 Kings Highway West, Suite A
Haddonfield, NJ 08033
phone: 856-433-6381
www.sikora-wa.com

ACOUSTIC CONSULTANT
Acentech Inc.
8 Interplex Drive, Suite 218
Trevose, PA 19053
phone: 215-245-8244
fax: 215-245-1796
www.acentech.com

ELEVATOR CONSULTANT
Zipf Associates Inc.
25 Bala Avenue, Suite 201
Bala Cynwyd, PA 19004
phone: 610-667-1717
fax: 610-667-0216

FINAL LAND DEVELOPMENT SUBMISSION

Revision August 10, 2015

Date May 26, 2015

Title Landscape Details

Scale As Indicated
Drawn By DF

L2.5

Sheet No. 32 of 34

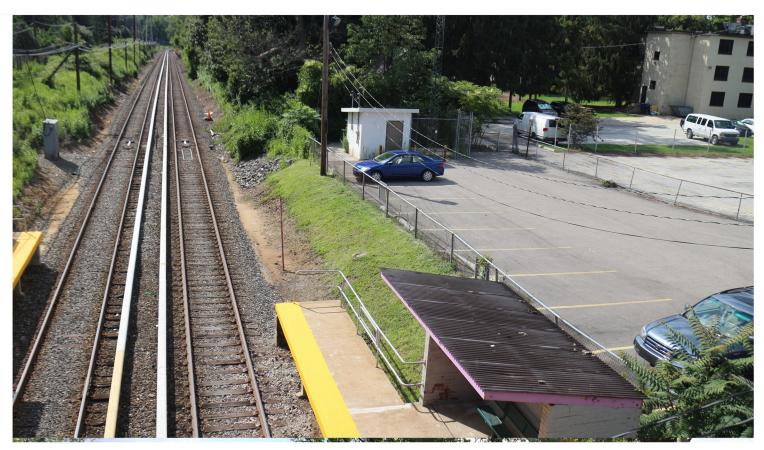


VIEW OF MORIARITY HALL LOOKING NORTH EAST ALONG LANCASTER AVENUE



VIEW FARRELL HALL LOOKING SOUTH WEST

Villanova University - West Lancaster Avenue Parking Lot Design review Board Submission — 2015-09-23



VIEW OF MAIN LOT PARKING LOOKING SOUTH WEST



VIEW VILLANOVA CHALLENGE COURSE LOOKING WEST



