

STOP—CALL BEFORE YOU DIG!

LOCATION OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH CANNOT BE GUARANTEED. CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE START OF WORK BY CALLING PA ONE CALL SYSTEM THREE DAYS PRIOR TO EXCAVATION. REFERENCE PENNSYLVANIA ACT 36, TELE. # 1-800-242-1776

WORK LOCATION NO.: 2985526

PLAN PREPAREER'S CERTIFICATION
I, ROBERT F. IRICK, REGISTERED LANDSCAPE ARCHITECT IN THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THE ACCOMPANYING APPLICATION, PLANS AND SUPPORTING DOCUMENTATION ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.
13310-L

DATE _____ PLAN PREPAREER'S SIGNATURE REG. NO. _____

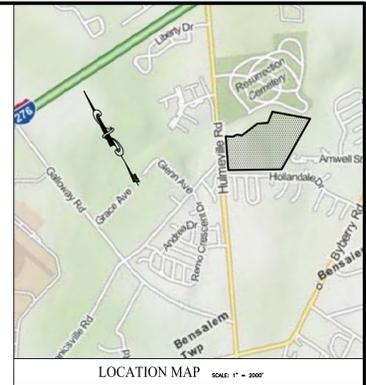
SURVEYOR'S CERTIFICATION

I, _____, A REGISTERED SURVEYOR OF THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THIS PLAN, PREPARED FROM A FIELD SURVEY ON _____, 20____, CORRECTLY REPRESENTS THE PROPERTY BOUNDARY OF T.M.P. 2-33-096.

DATE _____ REGISTERED SURVEYOR REG. NO. _____

STORMWATER MANAGEMENT CERTIFICATION
I, ESTELLE T. EBERHARDT, P.E., HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, THE STORMWATER MANAGEMENT FACILITIES SHOWN AND DESCRIBED HEREON ARE DESIGNED IN CONFORMANCE WITH THE BENSALEM TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

DATE _____ PROFESSIONAL ENGINEER _____



LOCATION MAP SCALE: 1" = 200'

INDEX OF DRAWINGS

Table with 2 columns: SHEET # and DESCRIPTION. Lists drawings from 1 to 22, including Overall Land Development Plan, Existing Features Plan, Natural Resource Protection Plan, etc.

APPLICANTS STATEMENT

WE, THE APPLICANT FOR LAND DEVELOPMENT APPROVAL OF THE ACCOMPANYING PLANS, BEING DULY SWORN ACCORDING TO LAW, STATE THAT WE ARE THE OWNERS OF RECORD SUBMITTING THESE PLANS, AND THAT WE WILL PROPOSE A RECORD PLAN FOR RECORDING, AFTER RECEIVING ALL REQUIRED MUNICIPAL APPROVALS. WE ARE THE OWNER OF RECORD OF THE SUBJECT PROPERTY.

LIVENGRIN FOUNDATION, INC.

RICHARD PINE

PRESIDENT

OWNER'S STATEMENT - T.M.P. 2-33-96

WE, LIVENGRIN FOUNDATION, INC., THE OWNERS OF RECORD OF THE LAND INVOLVING THE ACCOMPANYING PLANS, BEING DULY SWORN ACCORDING TO LAW, STATE THAT WE ARE THE OWNER OF THIS PROPERTY IN PEACEFUL POSSESSION OF IT, AND THAT THERE ARE NO SUITS PENDING AFFECTING THE TITLE OF SAME, AND THAT WE ACKNOWLEDGE AND ENDORSE THE ACCOMPANYING PLANS IN WITNESS WHEREOF, LIVENGRIN, INC. HAS CAUSED THIS CERTIFICATION TO BE EXECUTED BY ITS PRESIDENT THIS _____ DAY OF _____, A.D. 201____.

LIVENGRIN FOUNDATION, INC.

RICHARD PINE

PRESIDENT

NOTARY

ON THE _____ DAY OF _____, 201____, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, RESIDING IN _____ PERSONALLY APPEARED RICHARD PINE, PRESIDENT OF LIVENGRIN FOUNDATION, WHO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF PROPERTY SHOWN THEREON, SITUATE IN THE TOWNSHIP OF BENSALEM, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO THE LAW. WITNESS MY HAND AND NOTORIAL SEAL THE DAY AND YEAR AFORESAID.

NOTARY PUBLIC _____

MY COMMISSION EXPIRES _____

APPROVAL/REVIEW BLOCK

REVIEWED BY THE BUCKS COUNTY PLANNING COMMISSION

COUNTY PLANNING COMMISSION STAFF PERSON _____ DATE _____

RESPONSIBLE FOR REVIEW

REVIEWED BY THE TOWNSHIP ENGINEER _____ DATE _____

TOWNSHIP ENGINEER

REVIEWED BY THE BENSALEM TOWNSHIP PLANNING COMMISSION

CHAIR _____ DATE _____ SECRETARY _____ DATE _____

APPROVED BY RESOLUTION OR MOTION OF THE BENSALEM TOWNSHIP COUNCIL AND ACCEPTED FOR RECORDING

ZONING

IN - INSTITUTIONAL
MINIMUM LOT SIZE - 4 ACRES
MINIMUM LOT WIDTH - 300 FEET
MAXIMUM BUILDING COVERAGE - 30%
MAXIMUM IMPERVIOUS COVERAGE - 40%
MINIMUM BUILDING SETBACKS:
FRONT YARD - 80 FEET
SIDE YARD - 75 FEET
REAR YARD - 100 FEET
MAXIMUM BUILDING HEIGHT - 50 FEET
MINIMUM LANDSCAPED AREA - 20%

PARKING REQUIREMENTS (PHASE I)

REQUIRED PARKING Z.O. 232-586(C)(3)
1. SANITARIUMS/CONVALESCENT HOMES - 0.25 SPACES/BED PLUS ONE PER MAXIMUM NUMBER OF EMPLOYEES ON A SHIFT
104 EXISTING BEDS PLUS 179 PROPOSED BEDS - 283 BEDS/25 SPACES PER BED - 71 SPACES REQUIRED PLUS 1 SPACE/EMPLOYEE X 93 EMPLOYEES - 93 SPACES REQUIRED
2. COMMUNITY CENTER (FRAT) - 1 SPACE PER 200 S.F. GROSS LEASABLE FLOOR AREA - 3,936 S.F. GLFA - 20 SPACES REQUIRED
TOTAL PARKING SPACES REQUIRED - 184
TOTAL PROPOSED PARKING SPACES:
EXISTING SPACES TO BE RETAINED - 94
PROPOSED SPACES - PHASE I - 99
TOTAL SPACES AVAILABLE AFTER PHASE I - 193
ADDITIONAL PARKING REQUIRED FOR FUTURE PHASES - 167
PARKING PROPOSED FOR FUTURE PHASES - 221
TOTAL PARKING REQUIRED (INCLUDING FUTURE PHASES) - 351
TOTAL PARKING PROPOSED UPON COMPLETION - 414

NATURAL RESOURCE PROTECTION

WOODLAND PROTECTION REQUIRED
CONTAINS WETLANDS OR SIGNIFICANT NATURAL FEATURES - 312,176 S.F.
ALLOWABLE DISTURBANCE - 62,435 (80%)
PROPOSED DISTURBANCE - 0
CONTAINS NO WETLANDS OR SIGNIFICANT NATURAL FEATURES - 1,058,525 S.F.
ALLOWABLE DISTURBANCE - 529,262 S.F. (50%)
PROPOSED DISTURBANCE - 297,908 S.F. (28.1%)
WETLANDS BUFFER REQUIRED - 20'

OWNER OF RECORD

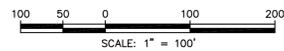
T.M.P. 02-033-096
DEED BOOK 2579 PAGE 0682
LIVENGRIN FOUNDATION, INC.
4833 HULMEVILLE ROAD
EDDINGTON, PA 19020-3023
LATITUDE - 40.118716
LONGITUDE - 74.929935

SITE ADDRESS

LIVENGRIN FOUNDATION, INC.
4833 HULMEVILLE ROAD
EDDINGTON, PA 19020-3023

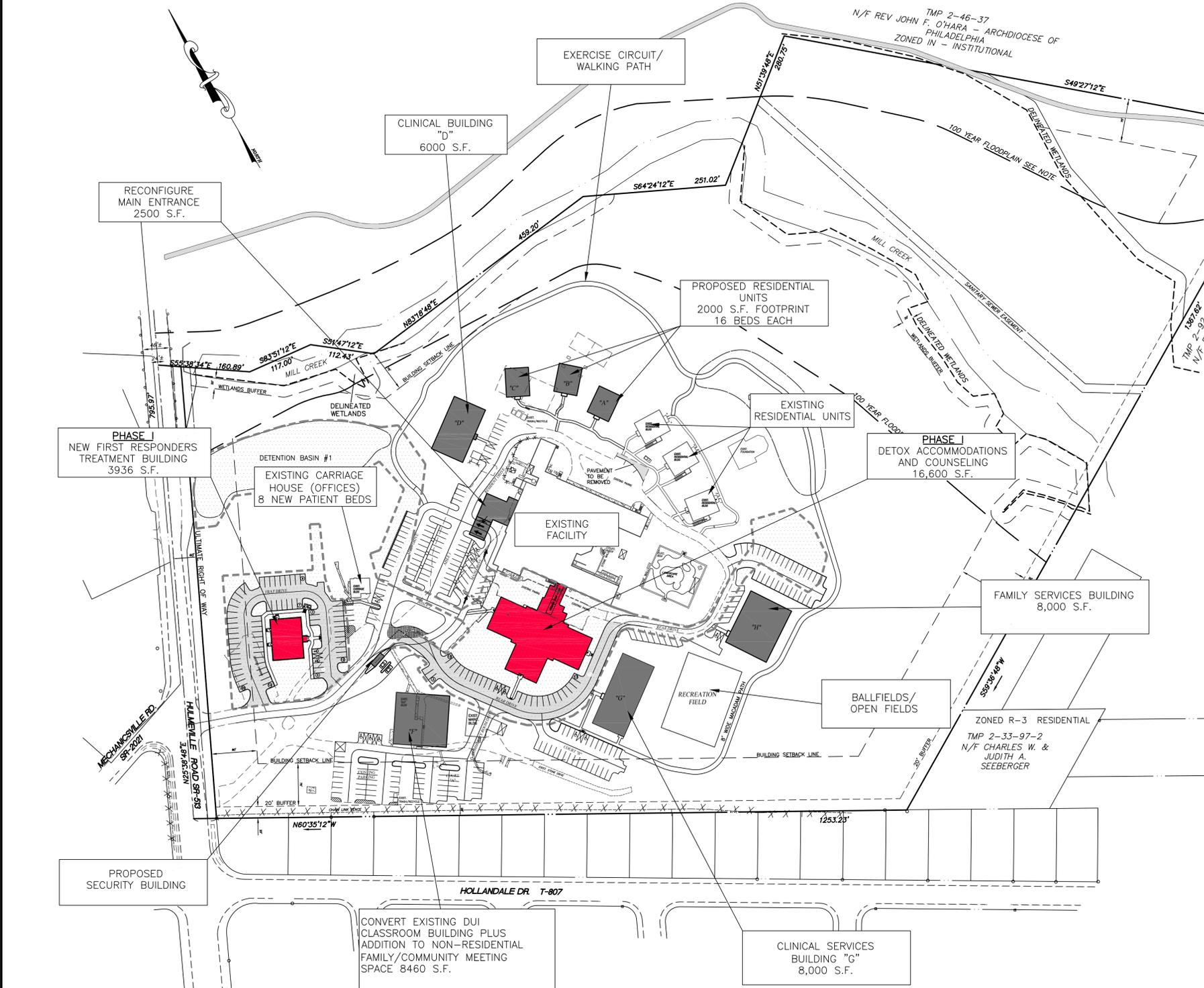
SITE STATISTICS

GROSS TRACT AREA
1,755,143 sq.ft.
40.2925 acres
NET TRACT AREA (LESS LEGAL R.O.W.)
1,729,404 sq.ft.
39.7017 acres
NET TRACT AREA (LESS ULTIMATE R.O.W.)
1,721,707 sq.ft.
39.5247 acres
EXISTING BUILDING COVERAGE - 45,669 S.F. (2.7%)
PERMITTED BUILDING COVERAGE - 516,512 S.F. (30%)
PROPOSED BUILDING COVERAGE - 56,688 S.F. (3.3%)
TOTAL FUTURE BUILDING COVERAGE - 102,357 S.F. (5.9%)
EXISTING IMPERVIOUS COVERAGE - 167,076 S.F. (9.7%)
PERMITTED IMPERVIOUS COVERAGE - 688,682 S.F. (40%)
TOTAL PROPOSED IMPERVIOUS COVERAGE - 301,263 S.F. (17.5%)



"LIVENGRIN"

Table with 2 columns: REVISION DATE and DESCRIPTION. Lists revisions from December 27, 2012 to February 2, 2016. Includes a title block for 'FINAL LAND DEVELOPMENT PLAN' for Phase I of the Livengrin Foundation in Bensalem Township, Bucks County, Pennsylvania.



NOTICES
1. DRAINAGE FACILITIES AND EASEMENTS
A. ALL DRAINAGE EASEMENTS SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A GRASSED OR OTHERWISE IMPROVED CONDITION, IN ACCORDANCE WITH THE GRADES AND DESIGNS SHOWN ON THE APPROVED DEVELOPMENT PLANS FOR THIS PROJECT. ALL THESE EASEMENTS SHALL BE KEPT FREE OF ALL OBSTRUCTION, INCLUDING, BUT NOT LIMITED TO, SUCH OBSTRUCTIONS AS FILL, TEMPORARY OR PERMANENT STRUCTURES, AND PLANTS OTHER THAN GRASS.
B. DRAINAGE EASEMENTS SHALL ALLOW PASSAGE OF STORM WATER IN UNDERGROUND STORM SEWER PIPING AND ASSOCIATED STRUCTURES AND/OR ALLOW ACCESS ACROSS THE AREA FOR PURPOSES OF MAINTENANCE OF THE STORM CONVEYANCE SYSTEMS.
C. EXISTING ROADSIDE OUTLETS OR SWALES SHALL NOT BE OBSTRUCTED BY DRIVEWAYS OR OTHER FILL OR STRUCTURES.
2. MAINTENANCE OF PUBLIC STREETS DURING CONSTRUCTION ACTIVITY
MUD, SEDIMENT AND/OR DEBRIS TRACKED FROM THE SITE ONTO PUBLIC CARTHAY SHALL BE IMMEDIATELY REMOVED BY BROODING AND/OR MECHANICAL MEANS TO THE SATISFACTION OF THE TOWNSHIP. USE OF A BACK-HOE BUCKET TO SCRAPER ROADWAY SURFACE IS PROHIBITED. WHERE MUD AND/OR SEDIMENT IS CAUSING SLICK AND/OR HAZARDOUS CONDITIONS, ROADWAY SURFACE SHALL BE IMMEDIATELY PRESSURE WASHED TO REMOVE CONDITION. ALL SEDIMENT LADEN WATER MUST BE FILTERED IN A MANNER SATISFACTORY TO THE BUCKS COUNTY CONSERVATION DISTRICT BEFORE ENTERING STORM SEWERS AND/OR DRAINAGE CHANNELS.

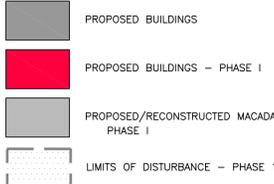


Table for Proposed Improvements with columns: IMPROVEMENT, BUILDING COVERAGE. Lists items like Reconfigured Building Entrance (2900 S.F.), Detox Accom/Counseling 'I' (16,600 S.F.), Clinical Services Building 'D' (6000 S.F.), etc.

STOP-CALL BEFORE YOU DIG!

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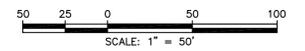
WORK LOCATION NO.: 2985526



TMP 2-46-37
N/F REV JOHN F. O'HARA
ARCHDIOCESE OF PHILADELPHIA
ZONED IN - INSTITUTIONAL

- NOTES:**
- INDICATES MONUMENT TO BE SET. ALL OTHER CORNERS TO BE MARKED BY IRON PINS.
 - THE TOWNSHIP ENGINEER SHALL BE NOTIFIED A MINIMUM OF 72 HOURS IN ADVANCE OF ANY CONSTRUCTION.
 - ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND.
 - SOIL TYPES AS DEPICTED ON THESE PLANS HAVE BEEN INTERPOLATED FROM THE BUCKS COUNTY SOIL SURVEY.
 - ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH PENNDOT SPECIFICATION PUBLICATION 408 STANDARDS, PADEP CHAPTER 102, AND BENSALEM TOWNSHIP EXCEPT WHERE SPECIFICALLY MODIFIED IN THESE PLANS.
 - NO TOPSOIL SHALL BE REMOVED FROM THE SITE UNLESS AUTHORIZED BY THE TOWNSHIP.
 - EXISTING UNDERGROUND UTILITY LOCATIONS WERE PLOTTED FROM UTILITY COMPANY PLANS SUPPLIED TO US IN ACCORDANCE WITH PA ACT 187 (1996) OR BY PHYSICAL SURVEY LOCATIONS. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY. CONTRACTORS ARE REQUIRED BY PA ACT 187 TO VERIFY THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION ACTIVITIES. PA ONE CALL (1-800-242-1776)
 - NO STRUCTURES ARE PERMITTED TO BE PLACED WITHIN BUFFER AREAS DEPICTED ON THIS PLAN.
 - PUBLIC WATER SERVICE TO BE PROVIDED BY AQUA, PA.
 - PUBLIC SEWER SERVICE TO BE PROVIDED BY THE BUCKS COUNTY WATER AND SEWER AUTHORITY (BCWSA). THE BCWSA SHALL BE CONTACTED ONE WEEK PRIOR TO THE SANITARY SEWER CONSTRUCTION, AND 72 HOURS PRIOR TO EXCAVATING NEAR, AND CONNECTING INTO ANY EXISTING SANITARY SEWER. NO TREES, SHRUBS OR OTHER LANDSCAPING EXCEPT THOSE TREES, SHRUBS AND OTHER LANDSCAPING WHICH WILL NOT GROW TO MORE THAN 6' IN HEIGHT SHALL BE PLANTED WITHIN 10 FEET OF ANY SANITARY SEWER MAIN.
 - THE DEVELOPER SHALL ESTABLISH THE LOCATION OF ALL APPROVED TRAFFIC CONTROL POSTS AND SIGNS, INCLUDING, BUT NOT LIMITED TO STOP SIGNS, SPEED LIMIT SIGNS, AND STREET NAME SIGNS, WHICH SHALL BE ACQUIRED AND INSTALLED BY THE DEVELOPER AT THE DEVELOPER'S SOLE COST AND EXPENSE.
 - THE MINIMUM SLOPE IN GRASSED AREAS SHALL NOT BE LESS THAN TWO (2) PERCENT. THE MINIMUM SLOPE FOR PAVED AREAS SHALL BE ONE-HALF (1/2) PERCENT.
 - ALL INLET GRATES ARE TO BE BICYCLE SAFE, PER PENNDOT PUBLICATION 72, RC STANDARDS.
 - WOODED AREAS DEPICTED ON THIS PLAN TO BE PRESERVED AS NOTED HEREON.
 - A PNDI PROJECT ENVIRONMENTAL REVIEW PERFORMED ON JANUARY 18, 2013 IDENTIFIED NO KNOWN IMPACTS. PROJECT SEARCH ID NUMBER 2011112327104.
 - A HANDICAPPED RAMP SHALL BE PROVIDED AT ALL LOCATIONS WHERE A SIDEWALK INTERSECTS A CURB.
 - "RAIN GARDENS" DEPICTED HEREON ARE AN INTEGRAL PART OF THE STORMWATER MANAGEMENT SYSTEM PROPOSED FOR THIS DEVELOPMENT.
 - EXISTING RESIDENTIAL UNITS HAVE BEEN DEPICTED BASED ON A SITE GEOMETRY PLAN PREPARED FOR LIVENGRIN BY VAN CLEEF ENGINEERING ASSOCIATES DATED FEBRUARY 6, 2008 LAST REVISED MAY 29, 2008 AND HAVE NOT BEEN FIELD VERIFIED.

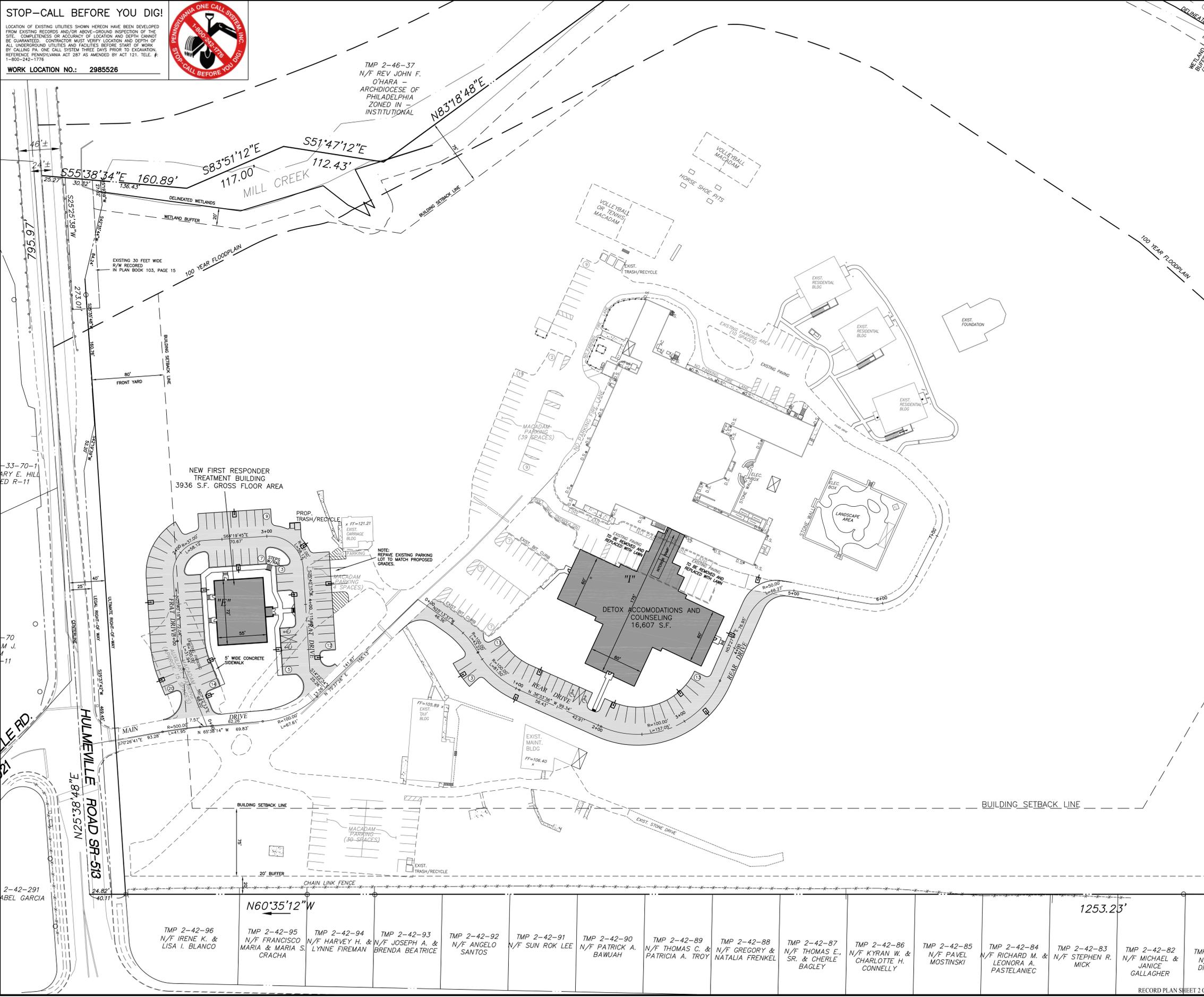
- SURVEY NOTES:**
- BOUNDARY AND TOPOGRAPHIC INFORMATION DEPICTED HEREON BASED ON A SURVEY BY VAN CLEEF ENGINEERING ASSOCIATES (VCEA) IN NOVEMBER & DECEMBER 2006 AND JANUARY 2007 INCLUDING THE FOLLOWING NOTES:
BENCHMARK: CONCRETE MONUMENT FOUND SOUTHWEST CORNER OF PROPERTY. ELEVATION - 105.45. DATUM IS NOV 1929 AS DERIVED FROM GPS OBSERVATION AND OPUS REDUCTIONS.
 - THE ABOVE SURVEY DOES NOT CERTIFY AS TO THE PRESENCE OR ABSENCE OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS.
 - UNDERGROUND SANITARY SEWER LOCATIONS AND UNDERGROUND WATER LOCATIONS IS BY GRAPHIC PLOTTING ONLY. THE TERMINATION POINT OF PIPES IN AND OUT OF BUILDINGS AND MANHOLES ARE UNRELIABLE AND MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
 - THE ABOVE SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION REGARDING EASEMENTS AND OTHER DOCUMENTS THAT MAY AFFECT THE QUALITY OF TITLE TO THE TRACT SHOWN HEREON WAS OBTAINED FROM "RECORD OWNER AND LIEN CERTIFICATE" FILE NO. 6649-AL, PREPARED BY AMERICAN TITLE TRANSFER INC. COVER DATE 12-29-06. THE FOLLOWING COMMENTS CORRESPOND TO ITEMS NUMBERED IN THE OBJECTIONS:
A. RIGHTS GRANTED TO PHILADELPHIA ELECTRIC COMPANY AS IN DEED BOOKS 848, PAGE 95 AND 2032 PAGE 185.
B. DECLARATION OF TAKING: BENSALEM TOWNSHIP AUTHORITY VS. STANDISH FORDE HANSELL ET AL. FILED 5-5-70 TO CP 460, AN EXCERPT OF WHICH IS RECORDED IN DEED BOOK 1964 PAGE 222.
C. DECLARATION OF TAKING: BENSALEM TOWNSHIP AUTHORITY VS. STANDISH FORDE HANSELL ET AL. FILED 11-16-72 TO CP 72-10273, AN EXCERPT OF WHICH IS RECORDED IN DEED BOOK 2059 PAGE 1021.
D. DEED OF EASEMENT AS IN DEED BOOK 2243 PAGE 883.
E. EXCEPTIONS AND TERMS OF AGREEMENTS RECORDED IN DEED BOOK 2579 PAGE 682.
F. TITLE TO THAT PORTION OF PREMISES IN THE BED OF PUBLIC ROAD LEADING TO HULMEVILLE AKA HULMEVILLE ROAD IS SUBJECT TO PUBLIC AND PRIVATE RIGHTS THEREIN.
G. SUBJECT TO THE PROVISIONS OF ACT OF ASSEMBLY AUTHORIZING THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION TO EXTEND THE BOUNDARY LINES OF PUBLIC ROADS.
H. MILL CREEK FLOWS THROUGH PREMISES; SUBJECT TO RIPARIAN RIGHTS OF BOUNDING OWNERS.
I. RIGHTS GRANTED TO BELL TELEPHONE COMPANY OF PENNSYLVANIA AS IN LAND RECORD BOOK 328 PAGE 1812.
 - BY GRAPHIC PLOTTING ONLY, A PORTION OF THIS SITE IS SITUATED IN ZONE A, BEING IDENTIFIED AS SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD WITH NO BASE FLOOD ELEVATIONS DETERMINED, AS DERIVED FROM THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, PANEL 506 OF 532 MAP NUMBER 4201700506 F EFFECTIVE DATE OF MAY 18, 1999.
 - WELANDS/WATERS OF US AREAS SHOWN HEREON ARE FROM A FIELD INVESTIGATION PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC. IN MARCH 2007 AND FIELD LOCATED BY VCEA.



REVISION DATE:	DESCRIPTION:
DECEMBER 27, 2012	REVISE BUILDING LAYOUT
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 18, 2013	NPDES SUBMISSION
FEBRUARY 26, 2013	ADJUST WATER LINE/ADDITIONAL FIRE HYDRANTS
FEBRUARY 2, 2016	PHASE I - FINAL PLAN

LAND DEVELOPMENT PLAN-PHASE I
PREPARED FOR
LIVENGRIN FOUNDATION
SITUATE
BENSALEM TOWNSHIP
BUCKS COUNTY PENNSYLVANIA

DATE:	AUGUST 1, 2012	Land Use Consultants
MANAGER:	RFI	09-15
DRAWN BY:	RFI	09-15BASE
SCALE:	1" = 50'	2 OF 22



TMP 2-42-96 N/F IRENE K. & LISA I. BLANCO	TMP 2-42-95 N/F FRANCISCO MARIA & MARIA S. CRACHA	TMP 2-42-94 N/F HARVEY H. & LYNNE FIREMAN	TMP 2-42-93 N/F JOSEPH A. & BRENDA BEATRICE	TMP 2-42-92 N/F ANGELO SANTOS	TMP 2-42-91 N/F SUN ROK LEE	TMP 2-42-90 N/F PATRICK A. BAWUAH	TMP 2-42-89 N/F THOMAS C. & PATRICIA A. TROY	TMP 2-42-88 N/F GREGORY & NATALIA FRENKEL	TMP 2-42-87 N/F THOMAS E., SR. & CHERLE BAGLEY	TMP 2-42-86 N/F KYRAN W. & CHARLOTTE H. CONNELLY	TMP 2-42-85 N/F PAVEL MOSTINSKI	TMP 2-42-84 N/F RICHARD M. & LEONORA A. PASTELANIEC	TMP 2-42-83 N/F STEPHEN R. MICK	TMP 2-42-82 N/F MICHAEL & JANICE GALLAGHER
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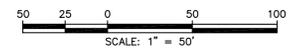
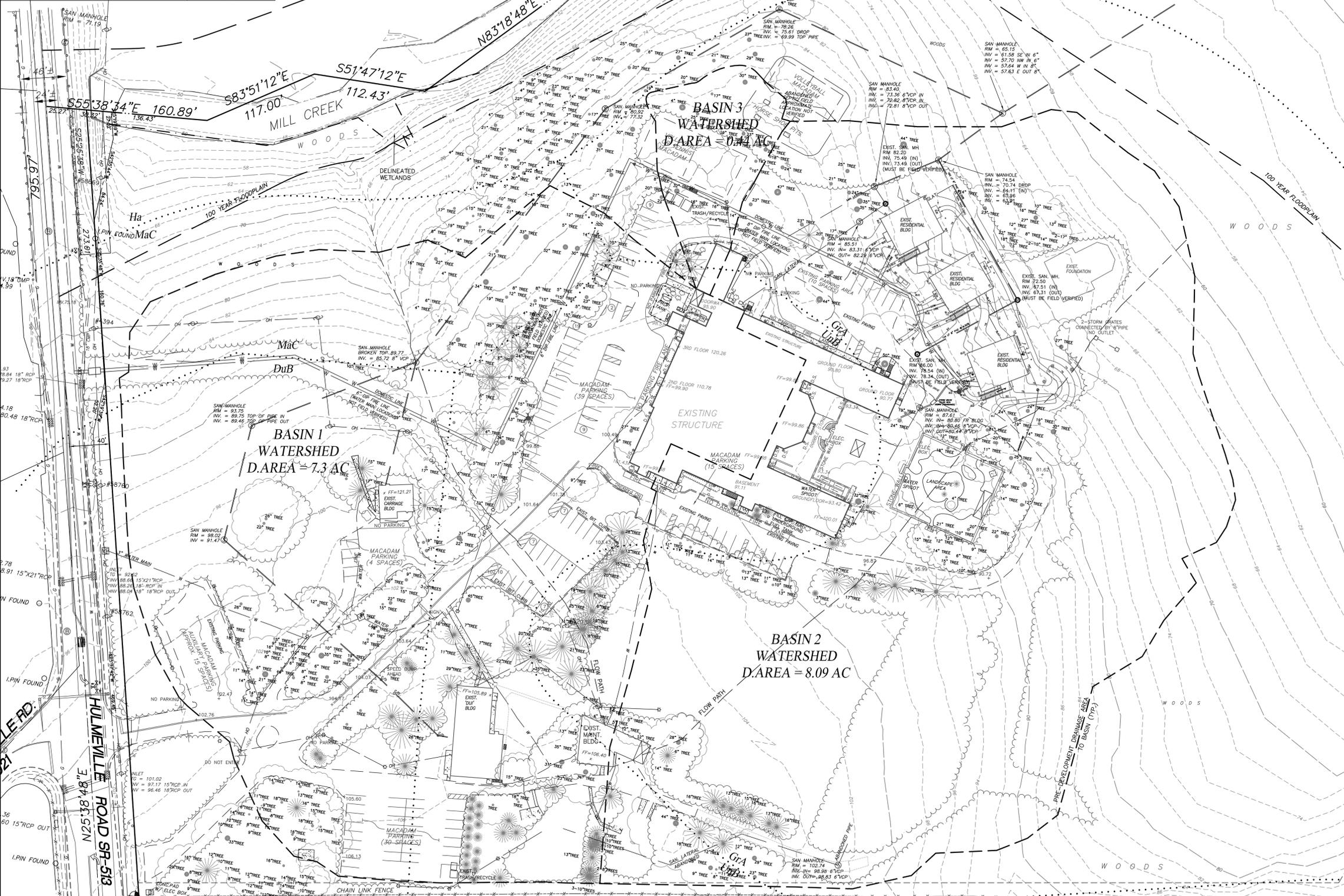
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WORK LOCATION NO.: 2985526



EXISTING STORM SEWER	---
PROPOSED STORM SEWER	---
EXISTING SANITARY SEWER	---
PROPOSED SANITARY SEWER	---
PROPOSED SANITARY SEWER FORCE MAIN	---
EXISTING WATER LINE	W
PROPOSED WATER LINE	W
PROPOSED WATER LINE-FIRE	W-FR
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
POSITIVE DRAINAGE INDICATOR	---
EXISTING ELEV	(333.68) OR 333.68
PROPOSED ELEV	334.50
LIMIT OF TREE REMOVAL/	---
LIMIT OF DISTURBANCE	---
NPDES BOUNDARY	---



REVISION DATE:	DESCRIPTION:
DECEMBER 27, 2012	REVISE BUILDING LAYOUT
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 15, 2013	NPDES SUBMISSION
FEBRUARY 26, 2013	ADJUST WATER LINE/ADDITIONAL FIRE HYDRANTS
FEBRUARY 2, 2016	PHASE 1 - FINAL PLAN

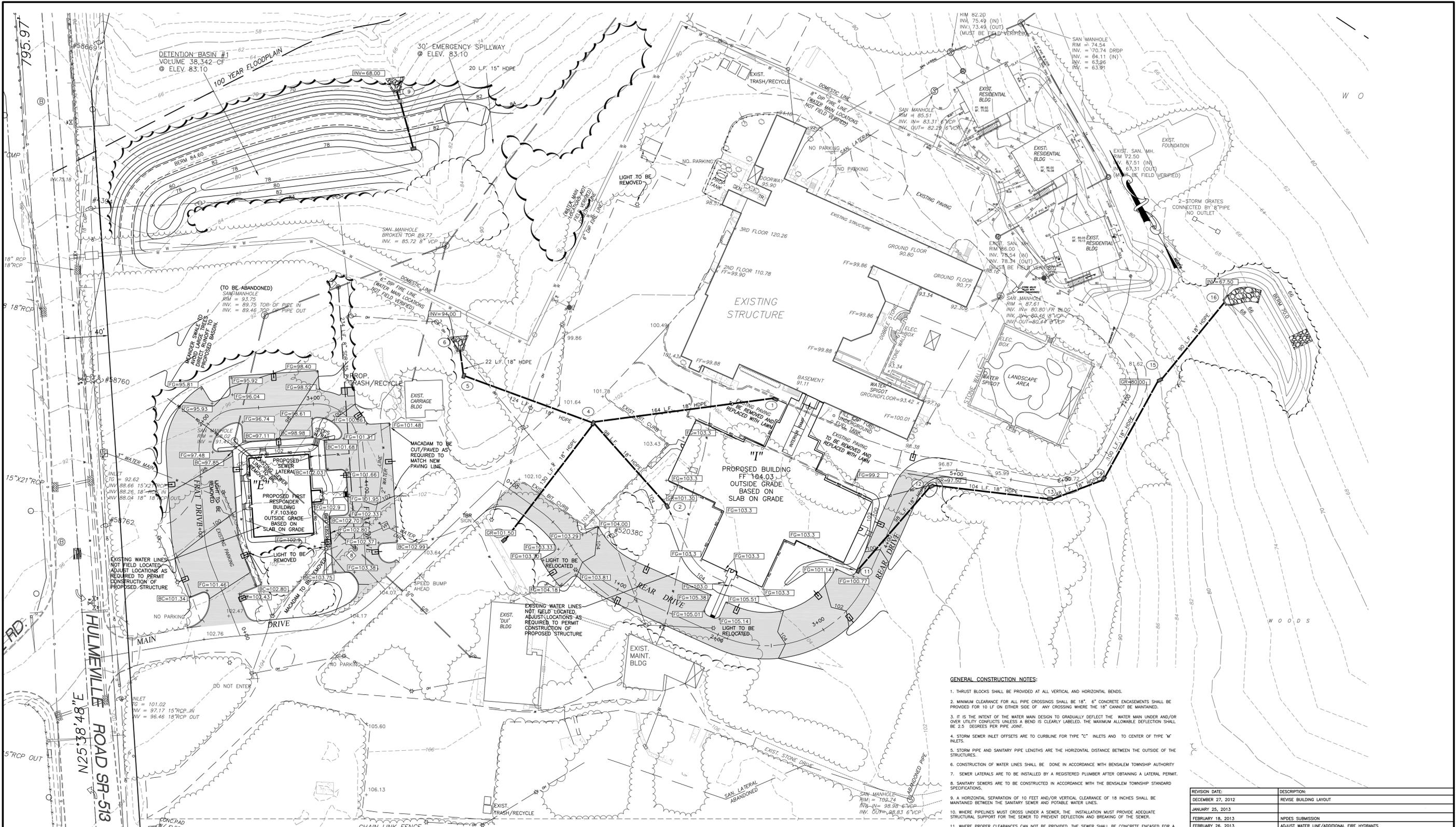
EXISTING FEATURES PLAN
 PREPARED FOR
LIVENGRIN FOUNDATION
 SITUATE
BENSALEM TOWNSHIP
 BUCKS COUNTY PENNSYLVANIA

Map Unit Symbol	Map Unit Name
DuB	Duncannon silt loam, 3 to 8 percent slopes
GrA	Glennville silt loam, 0 to 3 percent slopes
Ha	Harboro silt loam
LAB	Lawrenceville silt loam, 3 to 8 percent slopes
MacC	Manor loam, 8 to 15 percent slopes
UnB	Uniflorts, schist and gneiss
Urb	Urban land-outfield complex, 0 to 8 percent slopes

DATE:	AUGUST 1, 2012
MANAGER:	RFI
JOB NUMB.:	09-15
FILE NAME:	09-15BASE
DRAWN BY:	RFI
SHEET:	3 OF 22
SCALE:	1" = 50'

Land Use Consultants
 Land Planning + Engineering + Landscape Architecture + Land Surveying

Suite Three
 2771 Getville Pike
 Pottsville, PA 18023
 215-541-4626
 215-541-4033(FAX)
 E-Mail: info@EANDM.com



GENERAL CONSTRUCTION NOTES:

- THRUST BLOCKS SHALL BE PROVIDED AT ALL VERTICAL AND HORIZONTAL BENDS.
- MINIMUM CLEARANCE FOR ALL PIPE CROSSINGS SHALL BE 18". 6" CONCRETE ENCASUREMENTS SHALL BE PROVIDED FOR 10 LF ON EITHER SIDE OF ANY CROSSING WHERE THE 18" CANNOT BE MAINTAINED.
- IT IS THE INTENT OF THE WATER MAIN DESIGN TO GRADUALLY DEFLECT THE WATER MAIN UNDER AND/OR OVER UTILITY CONFLICTS UNLESS A BEND IS CLEARLY LABELED. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE 2.5 DEGREES PER PIPE JOINT.
- STORM SEWER INLET OFFSETS ARE TO CURBLINE FOR TYPE "C" INLETS AND TO CENTER OF TYPE "M" INLETS.
- STORM PIPE AND SANITARY PIPE LENGTHS ARE THE HORIZONTAL DISTANCE BETWEEN THE OUTSIDE OF THE STRUCTURES.
- CONSTRUCTION OF WATER LINES SHALL BE DONE IN ACCORDANCE WITH BENSLEM TOWNSHIP AUTHORITY.
- SEWER LATERALS ARE TO BE INSTALLED BY A REGISTERED PLUMBER AFTER OBTAINING A LATERAL PERMIT.
- SANITARY SEWERS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE BENSLEM TOWNSHIP STANDARD SPECIFICATIONS.
- A HORIZONTAL SEPARATION OF 10 FEET AND/OR VERTICAL CLEARANCE OF 18 INCHES SHALL BE MAINTAINED BETWEEN THE SANITARY SEWER AND POTABLE WATER LINES.
- WHERE PIPELINES MUST CROSS UNDER A SEWER, THE INSTALLATION MUST PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING OF THE SEWER.
- WHERE PROPER CLEARANCES CANNOT BE PROVIDED, THE SEWER SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CONFLICT.
- A MINIMUM OF 4'-FEET OF COVER SHALL BE MAINTAINED OVER ALL SANITARY SEWER.
- NO PLANTINGS OR STRUCTURES SHALL BE LOCATED WITHIN ANY SANITARY SEWER EASEMENTS OR WITHIN 10 FEET OF THE SEWER OR LATERALS.
- SEWERS ELEVATIONS ARE BASED ON PROVIDING SERVICE TO THE FIRST FLOOR ONLY.
- TOP OF WALL ELEVATION AND GARAGE FLOOR ELEVATION MUST BE SET SO THAT GROUND SLOPE CONFORMS WITH THE MINIMUM REQUIREMENTS OF 2% AT LEAST 8 INCHES OF SEPARATION MUST BE PROVIDED BETWEEN FINISHED GRADE OUTSIDE OF DWELLING AND TOP OF FOUNDATION WALL ELEVATION. THE BUILDING PERMIT PLAN, SUBMITTED IN CONJUNCTION WITH THE BUILDING PERMIT APPLICATION, MUST DEMONSTRATE CONFORMANCE WITH THIS CRITERIA.
- A. TRAFFIC CONTROL SIGNS MUST BE POSTED ON PENNDOT APPROVED BREAKAWAY POSTS IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE TC-8700 SERIES IN PENNDOT PUBLICATION 111M.
 B. ALL TRAFFIC CONTROL SIGNS SHALL BE POSTED IN ACCORDANCE WITH THE 2009 MUTCD AND THE MOST RECENT VERSION OF PENNDOT PUBLICATION 229M HANDBOOK OF APPROVED SIGNS.
 C. ALL PROPOSED PEDESTRIAN FACILITIES REFLECTED ON THESE PLANS SHALL BE CONSTRUCTED TO COMPLY WITH THE FOLLOWING STANDARDS:
 i. PENNDOT DESIGN MANUAL 2, CHAPTER 6.
 ii. PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, PUBLICATION 72M, RC-67M.
 iii. U.S. ACCESS BOARD PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG).
 17. REFER TO EROSION AND SEDIMENT CONTROL PLANS FOR CONSTRUCTION PHASING.

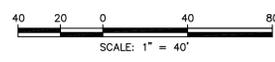
LEGEND

EXISTING STORM SEWER	12" W
PROPOSED STORM SEWER	12" W
EXISTING SANITARY SEWER	
PROPOSED SANITARY SEWER	
PROPOSED SANITARY SEWER FORCE MAIN	
EXISTING WATER LINE	W
PROPOSED WATER LINE	W
PROPOSED WATER LINE-FIRE	W-FR
EXISTING CONTOUR	8'±
PROPOSED CONTOUR	8'±
POSITIVE DRAINAGE INDICATOR	X
EXISTING ELEV.	(333.68) OR 333.68
PROPOSED ELEV.	(333.50)
LIMIT OF TREE REMOVAL	
PROPOSED LIGHT	

STOP—CALL BEFORE YOU DIG!

LOCATION OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH CANNOT BE GUARANTEED. CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE START OF WORK BY CALLING PA ONE CALL SYSTEM THREE DAYS PRIOR TO EXCAVATION. REFERENCE PENNSYLVANIA ACT 287 AS AMENDED BY ACT 121. TELE. #: 1-800-242-1776

WORK LOCATION NO.: 2985526



REVISION DATE:	DESCRIPTION:
DECEMBER 27, 2012	REVISE BUILDING LAYOUT
JANUARY 25, 2013	
FEBRUARY 18, 2013	HPDES SUBMISSION
FEBRUARY 26, 2013	ADJUST WATER LINE/ADDITIONAL FIRE HYDRANTS
FEBRUARY 2, 2016	PHASE I - FINAL PLAN

DATE: AUGUST 1, 2012

MANAGER: RFI

JOB NUMBER: 09-15

FILE NAME: RFI

SCALE: 1" = 40'

SHEET: 5 OF 22

DESCRIPTION:
 SITE IMPROVEMENT PLAN-PHASE I
 PREPARED FOR
LIVENGRIN FOUNDATION
 SITUATE
BENSLEM TOWNSHIP
 BUCKS COUNTY PENNSYLVANIA

Land Use Consultants
Richard Eberhardt
 Associates
 INCORPORATED

Site Three
 2771 Gettysville Pike
 Pottsville, PA 18873
 215-541-4626
 215-541-4023(FAX)
 E-Mail: info@LUCM.com

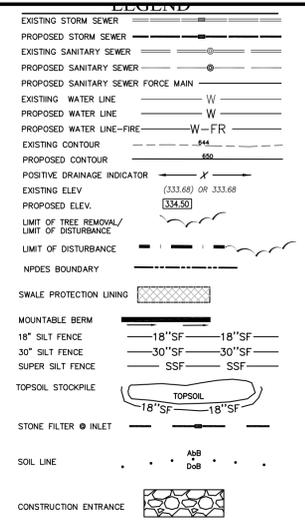
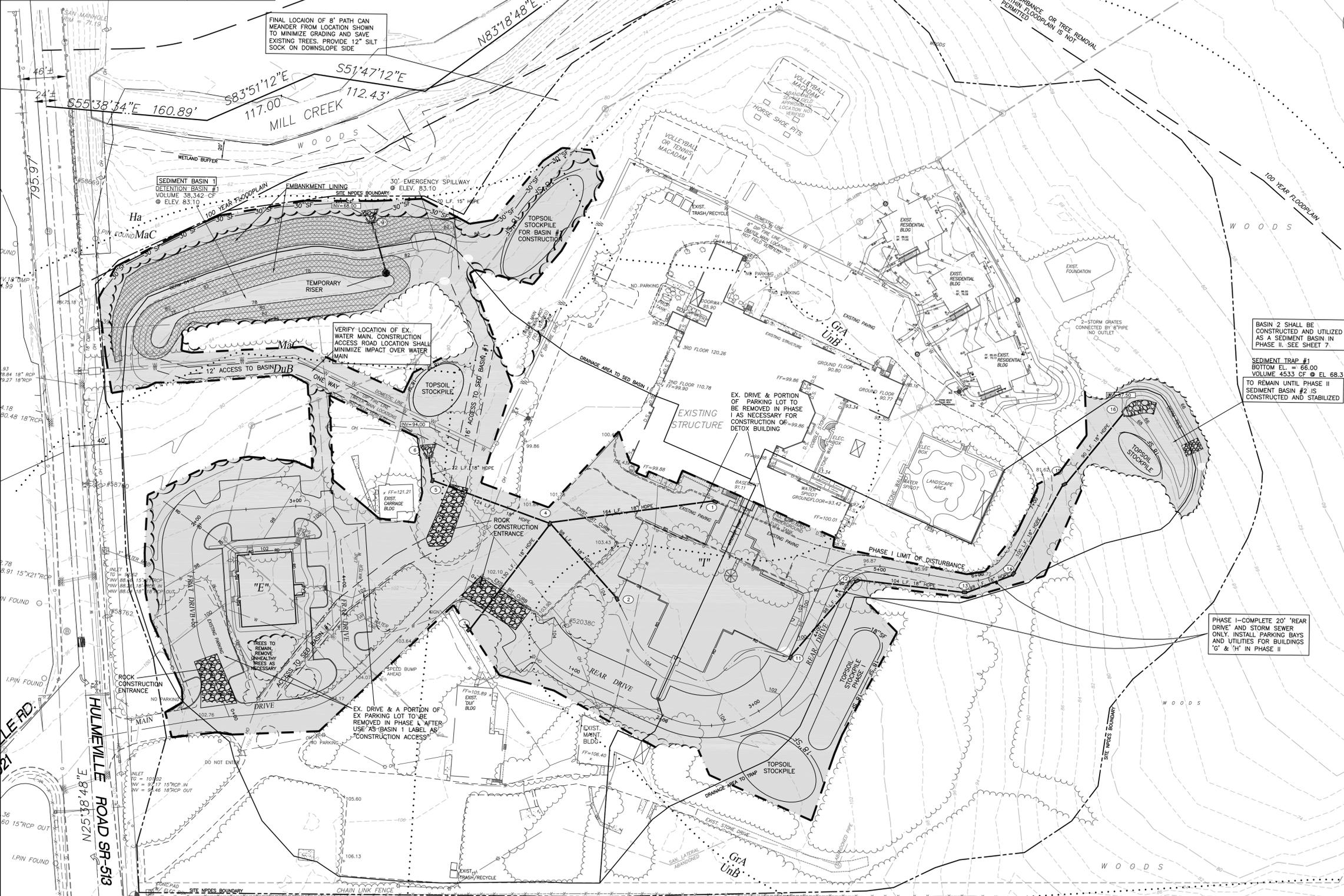
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WORK LOCATION NO.: 2985526



FINAL LOCATION OF 8' PATH CAN MEANDER FROM LOCATION SHOWN TO MINIMIZE GRADING AND SAVE EXISTING TREES. PROVIDE 12" SILT SOCK ON DOWNSLOPE SIDE.

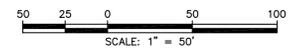


- NOTE:**
- SEE DETAIL PLANS FOR STAGING OF EARTHMOVING ACTIVITIES AND OTHER SPECIFICATIONS.
 - REFER TO LANDSCAPING PLAN FOR EXTENT OF TREE REMOVAL. EXTENT OF DISTURBANCE INDICATES EXTENT OF TREE REMOVAL. EXTENT OF TREES OR TREE MASSES TO REMAIN WITHIN THE DISTURBED AREAS MAY BE ALTERED AS NECESSARY TO REMOVE DEAD/DYING TREES OR TO SAVE TREES.

BASIN 2 SHALL BE CONSTRUCTED AND UTILIZED AS A SEDIMENT BASIN IN PHASE II. SEE SHEET 7.

SEDIMENT TRAP #1
BOTTOM EL. = 66.00
VOLUME 4533 CF @ EL 68.3
TO REMAIN UNTIL PHASE II
SEDIMENT BASIN #2 IS CONSTRUCTED AND STABILIZED

PHASE I—COMPLETE 20' REAR DRIVE AND STORM SEWER ONLY. INSTALL PARKING BAYS AND UTILITIES FOR BUILDINGS 'G' & 'H' IN PHASE II



REVISION DATE:	DESCRIPTION:
DECEMBER 27, 2012	REVISE BUILDING LAYOUT
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 15, 2013	NPDES SUBMISSION
FEBRUARY 26, 2013	ADJUST WATER LINE/ADDITIONAL FIRE HYDRANTS
FEBRUARY 2, 2016	PHASE I - FINAL PLAN

EROSION CONTROL PLAN-PHASE I
PREPARED FOR
LIVENGRIN FOUNDATION
SITUATE
BENSALEM TOWNSHIP
BUCKS COUNTY PENNSYLVANIA

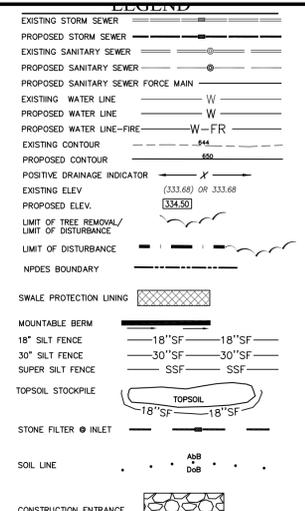
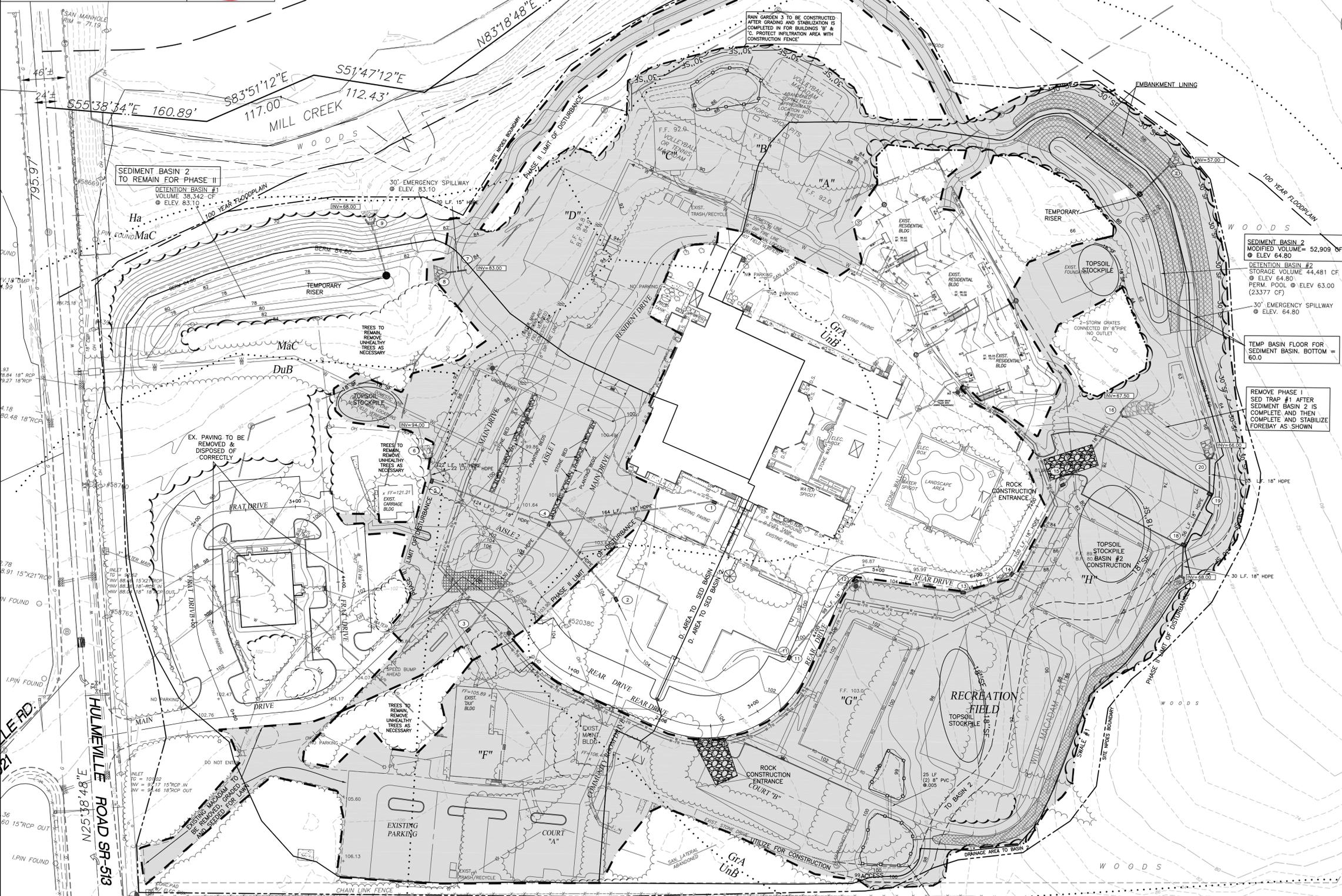
DATE:	AUGUST 1, 2012	
MANAGER:	RFI 09-15	
DRAWN BY:	RFI 09-15BASE	Suite Three 2771 Gettysburg Pike Pottsville, PA 17873 215-541-4626 215-541-4033(fax) E-Mail: info@RANM.com
SCALE:	1" = 50'	SHEET: 6 OF 22

Map Unit Symbol	Map Unit Name
DuB	Duncannon silt loam, 3 to 8 percent slopes
GrA	Glennville silt loam, 0 to 3 percent slopes
Ha	Harboro silt loam
LtB	Laverencville silt loam, 3 to 8 percent slopes
MaC	Manor loam, 8 to 15 percent slopes
UnB	Uniflorents, schist and gneiss
UnH	Urban land-Use/field complex, 0 to 8 percent slopes

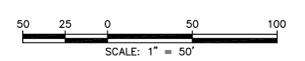
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WORK LOCATION NO.: 2985526



NOTE:
 1. SEE DETAIL PLANS FOR STAGING OF EARTHMOVING ACTIVITIES AND OTHER SPECIFICATIONS.
 2. REFER TO LANDSCAPING PLAN FOR EXTENT OF TREE PROTECTION FENCING. TREE REMOVAL LINE AND/OR LIMIT OF DISTURBANCE INDICATES EXTENT OF TREE REMOVAL. EXTENT OF TREES OR TREE MASSES TO REMAIN WITHIN THE DISTURBED AREAS MAY BE ALTERED AS NECESSARY TO REMOVE DEAD/DYING TREES OR TO SAVE TREES.



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EROSION CONTROL PLAN-PHASE II
 PREPARED FOR
LIVENGRIN FOUNDATION
 SITUATE
BENSALEM TOWNSHIP
 BUCKS COUNTY PENNSYLVANIA

DATE:	AUGUST 1, 2012
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SHEET:	7 OF 22

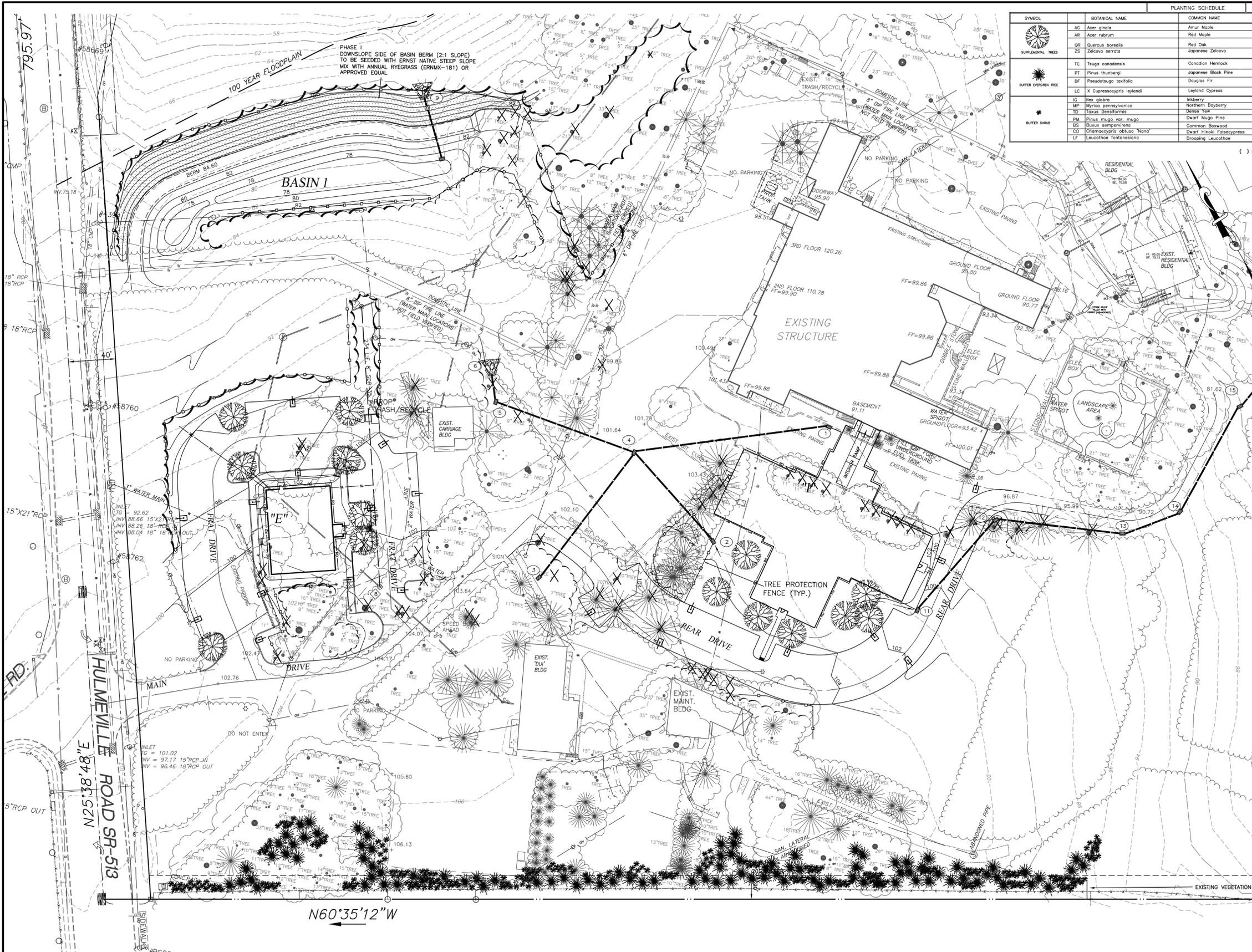
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DuB	Duncannon silt loam, 3 to 8 percent slopes
GrA	Glenville silt loam, 0 to 3 percent slopes
Ha	Harboro silt loam
LtB	Laverneville silt loam, 3 to 8 percent slopes
MaC	Manor loam, 8 to 15 percent slopes
LiB	Lisfort silt, schist and gneiss
UdB	Urban land-outfield complex, 0 to 8 percent slopes

RAIN GARDEN #2A
 VOLUME 3559 CF
 @ ELEV 100.0
 BERM 100.5
 INV. 99.0

RAIN GARDEN 2A TO BE CONSTRUCTED AFTER GRADING AND STABILIZATION IS COMPLETED IN COURT 'B' AREA. PROTECT INFILTRATION AREA WITH CONSTRUCTION FENCE.

RAIN GARDEN 2A TO BE CONSTRUCTED IN PHASE II FOR COURT 'B' & BUILDING 'G'

1253.23'



SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QUANTITY
	AG Acer ginnala	Amur Maple	2.5" cal.	B & B	93
	AR Acer rubrum	Red Maple	2.5" cal.	B & B	
	QR Quercus borealis	Red Oak	2.5" cal.	B & B	
	Zs Zelkova serrata	Japanese Zelkova	2.5" cal.	B & B	
	TC Thuja occidentalis	Canadian Hemlock	4 to 5' min.	B & B	100
	PT Pinus thunbergii	Japanese Black Pine	4 to 5' min.	B & B	
	DF Pseudotsuga taxifolia	Douglas Fir	4 to 5' min.	B & B	
	LC X Cupressocyprip leylandii	Leyland Cypress	4 to 5' min.	B & B	
	IG Ilex glabra	Inhberry	18-24"	B & B	266
	MP Myrica pennsylvanica	Northern Bayberry	18-24"	B & B	
	TD Taxus densiformis	Dense Yew	18-24"	B & B	
	PM Pinus mugo var. mugo	Dwarf Mugo Pine	18-24"	B & B	
	BS Buxus sempervirens	Common Boxwood	18-24"	B & B	(266)
	OO Chamaecyparis obtusa 'Nana'	Dwarf Hinoki Falsecypress	18-24"	B & B	
	LF Leucothoe fontanesiana	Drooping Leucothoe	18-24"	B & B	

LEGEND	
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	EXISTING SANITARY SEWER
	PROPOSED SANITARY SEWER
	EXISTING SANITARY SEWER FORCE MAIN
	PROPOSED SANITARY SEWER FORCE MAIN
	EXISTING WATER LINE
	PROPOSED WATER LINE
	EXISTING WATER LINE-FIRE
	PROPOSED WATER LINE-FIRE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	POSITIVE DRAINAGE INDICATOR
	EXISTING ELEV. (333.68) OR 333.68
	PROPOSED ELEV. (333.50)
	LIMIT OF TREE REMOVAL
	LIMIT OF DISTURBANCE
	NPDES BOUNDARY
	INDICATES EXISTING TREE TO BE REMOVED
	TREE PROTECTION FENCE

RAIN GARDEN PLANTING SCHEDULE		NONE PROPOSED IN PHASE I	
	Botanical Name	Common Name	Size
RAIN GARDEN SHRUB	CS Cornus sericea	Redosier Dogwood	12-18"
	IV Ilex verticillata	Winterberry	12-18"
	IG Ilex glabra	Inhberry	12-18"
	SD Salix discolor	Pussy Willow	12-18"
RAIN GARDEN GRASS	FG Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	12-18"
	MG Miscanthus sinensis 'Morning Light'	Miscanthus	12-18"
RAIN GARDEN TREE	BN Betula nigra	River Birch	12-18"
	AR Acer rubrum	Red Maple	12-18"
	FP Fraxinus pennsylvanica	Green Ash	12-18"

RAIN GARDEN (RG) INSTALLATION

- SEE PLAN FOR RAIN GARDEN LAYOUT.
- EACH BED TO BE PLANTED WITH 1 TREE AND 2 SHRUBS/GRASSES PER 100 S.F. (SEE LIST OF ACCEPTABLE SPECIES 2 CHWY ABOVE).
- CONSTRUCTION: 1. WEAR OR 1" ROOT AND FIBER BARRIER. 2. 2" DEEP OVERLAY SHALL BE PROVIDED TO STREET OR DEFINED SIMILAR. 3. ROOT STRIPS SHALL ACCORDING TO CHWY AS NOTED. 4. SEE PDSM PLAN FOR MAINTENANCE REQ.

REQUIRED PLANTINGS:

RAIN GARDEN 2A - 2252 S.F.
23 TREES

158 SHRUBS/GRASSES

RAIN GARDEN 3A - 2522 S.F.
27 TREES

176 SHRUBS/GRASSES

REQUIRED LANDSCAPING

S.L.D.O. 106 C(2) - STREET TREES
REQUIRED - 1 STREET TREE PER 20 L.F. - MAY BE PLANTED IN AN INFORMAL ARRANGEMENT.
NOTE - STREET TREE REQUIREMENT SATISFIED BY RETAINING EXISTING TREES.

S.L.D.O. 201-106 C (10) B - MINIMUM QUANTITY OF TREES
REQUIRED - 10 TREES PER ACRE GROSS SITE AREA PLUS 1 TREE PER 5 PARKING SPACES
40.29 ACRES = 403 TREES REQUIRED
254 PARKING SPACES = 51 TREES REQUIRED
TOTAL = 454 TREES
NOTE - REQUIREMENT SATISFIED BY RETAINING EXISTING TREES
SUPPLEMENTAL TREES PROVIDED IN DISTURBED AREAS

Z.O. 232-592(3)C - BUFFER REQUIREMENTS - IN ADJACENT TO RESIDENTIAL DISTRICT
REQUIRED - 20' BUFFER STRIP WITH 1 SHRUB/3 L.F. PLUS 1 EVERGREEN TREE/9 L.F.
287 L.F. REQUIRING BUFFER - 266 SHRUBS AND 100 EVERGREEN TREES REQUIRED

PLANTING SPECIFICATIONS:

- PLANT MATERIAL SIZE: ALL PLANTS SHALL BE MEASURED AS THEY STAND IN THEIR NATURAL POSITION. PLANT STOCK FURNISHED SHALL HAVE A FAIR AVERAGE OF THE MINIMUM SIZES SPECIFIED OR OF THE RANGE GIVEN IN LATEST EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK".
- QUALITY: ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. THEY SHALL HAVE NORMAL, WELL DEVELOPED BRANCHES AND WOODRUS FIBROUS ROOT SYSTEMS. ALL PLANTS SHALL BE NURSERY GROWN UNLESS OTHERWISE STATED. THEY SHALL HAVE BEEN GROWN UNDER THE SAME CLIMATE CONDITIONS AS THE SUBJECT SITE FOR AT LEAST TWO YEARS PRIOR TO THE DATE OF PLANTING. ALL PLANTS WHICH ARE FOUND TO BE UNSUITABLE IN GROWTH OR CONDITION OR WHICH ARE NOT TRUE TO NAME SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE PLANTS.
- NOMENCLATURE: SHALL AGREE WITH THE NOMENCLATURE OF "STANDARD PLANT NAMES" AS ADOPTED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURE NOMENCLATURE. SIZE AND GRADING STANDARDS SHALL CONFORM TO THOSE SPECIFIED BY THE AMERICAN ASSOCIATION OF NURSEMEN IN THE LATEST EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-1990).
- PLANT PREPARATION: ALL PREPARATIONS CUSTOMARY IN GOOD TRADE PRACTICE SHALL BE TAKEN IN PREPARING FOR MOVING. ALL BALLED AND BURRLAP PLANTS SHALL BE DUG TO MEET OR EXCEED THE STANDARDS SET FORTH IN THE LATEST EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK".
- PLANTING PITS DEPTH: THE EXCAVATION MUST NOT BE LESS THAN 12 INCHES WIDER OR ANY DEEPER THAN NECESSARY TO ACCOMMODATE THE ROOT BALL OF THE TREE.
- PLANTING DEPTH: TREES SHALL BE PLANTED AT THE SAME DEPTH AS THEY WERE IN THE NURSERY. PLANTING SOIL SHALL BE COMPOSED OF ONE PART PEAT MOSS AND THREE PARTS TOPSOIL THOROUGHLY MIXED. EACH PLANTING PIT SHALL BE FLOODED TWICE WITHIN 24 HOURS OF PLANTING.
- PRUNING: TREES SHALL BE PRUNED AFTER PLANTING, OR BY THE NURSERY AT THE TIME OF DIGGING, TO BALANCE TOP GROWTH WITH ROOTS AND TO PRESERVE THEIR NATURAL SHAPE AND CHARACTER. PRUNING SHALL BE GENERALLY RESTRICTED TO THE SECONDARY BRANCHES AND SOFT AND SUCKER GROWTH.
- TREE WRAP: ALL TREES SHALL BE WRAPPED WITH 4" TO 10" WIDE 8 OZ. BURRLAP OR KWART TREE PAPER AT THE TIME OF PLANTING FROM THE GROUND TO THE FIRST BRANCHES.
- MULCHING: ALL TREES SHALL BE MULCHED WITHIN THREE DAYS OF PLANTING WITH SHREDDED BARK, LICORICE ROOT OR OTHER SUITABLE MULCH MATERIAL.
- TREE SUPPORTS: A. STAKING: TREES SHALL BE STAKED WITH AT LEAST ONE OAK OR CEDAR STAKE WITHIN THREE DAYS OF PLANTING. STAKES SHALL BE A MINIMUM OF FIVE FEET IN HEIGHT AND NOT LESS THAN 2" X 2". STAKES ARE TO BE DRIVEN INTO THE GROUND TO A DEPTH OF 12" BELOW THE BOTTOM OF THE EXCAVATION. THIS SHOULD BE DONE BEFORE SETTING THE TREE, OR IF AFTER SETTING, BE DONE IN SUCH A WAY AS TO NOT INJURE THE ROOTS OR DAMAGE THE ROOT BALL. B. GUYING - TREES SHALL BE GUYED TO A HEIGHT OF ABOUT FIVE FEET USING #10 GALVEANIZED STEEL WIRE IN A PIECE OF RUBBER HOSE. THE WIRE SHALL BE FASTENED TO THE STAKE IN SUCH A MANNER THAT THE WIRE DOES NOT SLIP NOR COME INTO CONTACT WITH THE TRUNK. GUY'S BROKEN WITHIN ONE YEAR OF PLANTING SHALL BE REPLACED. STAKES AND GUY'S SHALL BE REMOVED FOLLOWING THE SECOND GROWING SEASON AFTER PLANTING.
- REMOVAL OF PLANTING DEBRIS: REMOVAL OF DEBRIS IS REQUIRED. THE PRIMARY WASTE BE LEFT IN A NEAT AND ORDERLY CONDITION IN ACCORDANCE WITH GOOD AND ACCEPTED PLANTING PRACTICES.
- GUARANTEE: A. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF 18 MONTHS FROM THE DATE OF ACCEPTANCE BY THE TOWNSHIP. THE APPLICANT MUST REQUEST A FINAL INSPECTION FOR ACCEPTANCE AT THE END OF THE GUARANTEE PERIOD. B. REQUIRED REPLACEMENT WILL BE MADE ACCORDING TO THE SAME SPECIFICATIONS AND GUARANTEE AS THE ORIGINAL PLANT MATERIAL. C. IN CASE OF DISAGREEMENT REGARDING THE CONDITIONS AND SATISFACTORY ESTABLISHMENT OF A REJECTED PLANT, THE CONTRACTOR MAY, IF APPROVED BY THE OWNER, ALLOW THE PLANT TO REMAIN THROUGH ANOTHER GROWING SEASON, AT WHICH TIME THE REJECTED PLANT IS FOUND TO BE DEAD OR IN AN UNHEALTHY OR BADLY IMPAIRED CONDITION SHALL BE REPLACED. D. PLANT MATERIAL PROVEN TO BE DEAD OR UNHEALTHY DUE TO VANDALISM SHALL NOT BE SUBJECT TO THE CONTRACTOR'S GUARANTEE.

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LANDSCAPING PLAN PHASE I

PREPARED FOR
LIVENGRIN FOUNDATION
SITUATE
BENSALEM TOWNSHIP
BUCKS COUNTY PENNSYLVANIA

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WORK LOCATION NO.: 2985526



DATE: AUGUST 1, 2012

MANAGER: RFI 09-15

DRAWN BY: RFI 09-15BASE

SCALE: 1" = 40'

SHEET: 8 OF 22

Irish Land Use Consultants
Land Planning + Engineering + Landscape Architecture + Land Surveying
2771 Gettysburg Pike
Pottsville, PA 19373
215-541-4628
215-541-4033(FAX)
E-Mail: info@IRISHINC.com

Eberhardt
Milents
INCORPORATED

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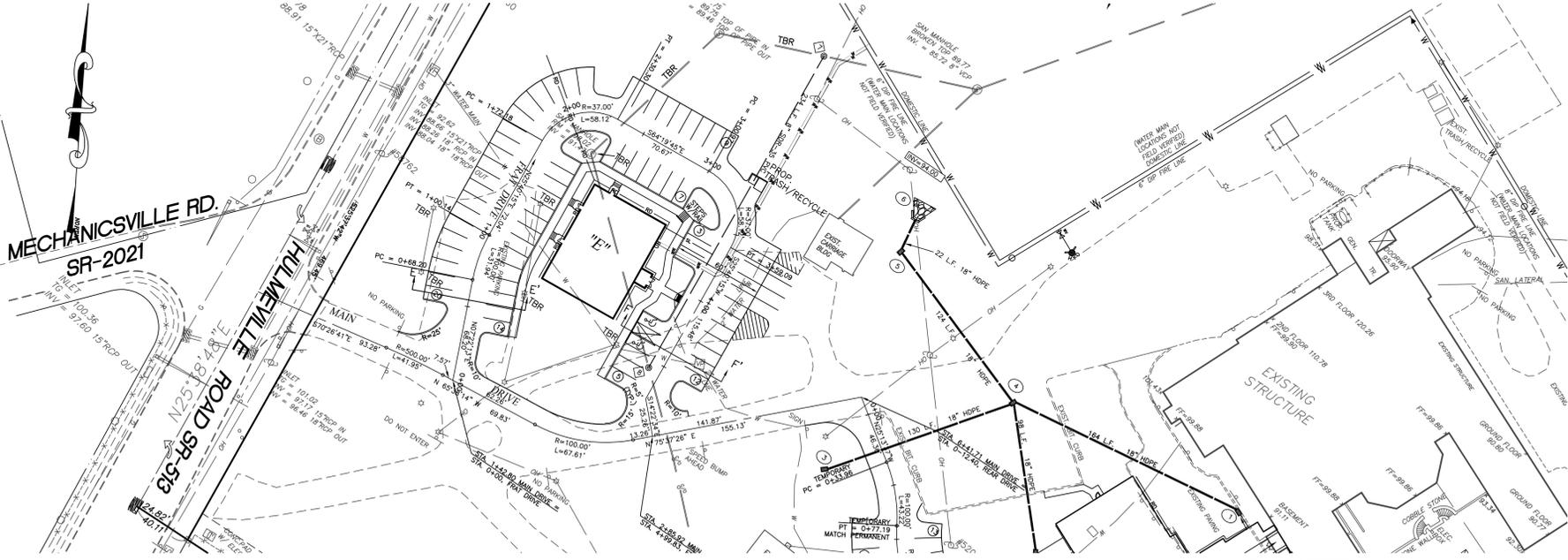
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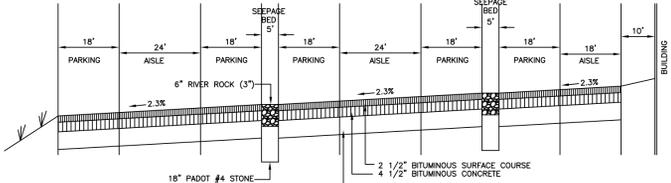


GENERAL CONSTRUCTION NOTES:

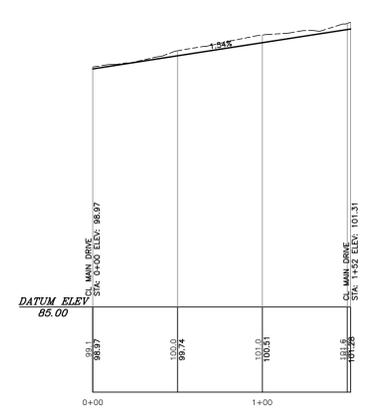
- THRUST BLOCKS SHALL BE PROVIDED AT ALL VERTICAL AND HORIZONTAL BENDS.
- MINIMUM CLEARANCE FOR ALL PIPE CROSSINGS SHALL BE 18". 6" CONCRETE ENCASEMENTS SHALL BE PROVIDED FOR 10 LF ON EITHER SIDE OF ANY CROSSING WHERE THE 18" CANNOT BE MAINTAINED.
- IT IS THE INTENT OF THE WATER MAIN DESIGN TO GRADUALLY DEFLECT THE WATER MAIN UNDER AND/OR OVER UTILITY CONFLICTS UNLESS A BEND IS CLEARLY LABELED. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE 2.5 DEGREES PER PIPE JOINT.
- STORM SEWER INLET OFFSETS ARE TO CURBLINE FOR TYPE "C" INLETS AND TO CENTER OF TYPE "M" INLETS.
- STORM PIPE AND SANITARY PIPE LENGTHS ARE THE HORIZONTAL DISTANCE BETWEEN THE OUTSIDE OF THE STRUCTURES.
- CONSTRUCTION OF WATER LINES SHALL BE DONE IN ACCORDANCE WITH BENSLEM TOWNSHIP AUTHORITY.
- SEWER LATERALS ARE TO BE INSTALLED BY A REGISTERED PLUMBER AFTER OBTAINING A LATERAL PERMIT.
- SANITARY SEWERS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE BENSLEM TOWNSHIP STANDARD SPECIFICATIONS.
- A HORIZONTAL SEPARATION OF 10 FEET AND/OR VERTICAL CLEARANCE OF 18 INCHES SHALL BE MAINTAINED BETWEEN THE SANITARY SEWER AND POTABLE WATER LINES.
- WHERE PIPELINES MUST CROSS UNDER A SEWER, THE INSTALLATION MUST PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING OF THE SEWER.
- WHERE PROPER CLEARANCES CAN NOT BE PROVIDED, THE SEWER SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET ON EITHER SIDE OF THE CONFLICT.
- A MINIMUM OF 4'-FEET OF COVER SHALL BE MAINTAINED OVER ALL SANITARY SEWER.
- NO PLANTINGS OR STRUCTURES SHALL BE LOCATED WITHIN ANY SANITARY SEWER EASEMENTS OR WITHIN 10 FEET OF THE SEWER OR LATERALS.
- SEWERS ELEVATIONS ARE BASED ON PROVIDING SERVICE TO THE FIRST FLOOR ONLY.
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 - PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, PUBLICATION 72M, RC-67M
 - U.S. ACCESS BOARD PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG).



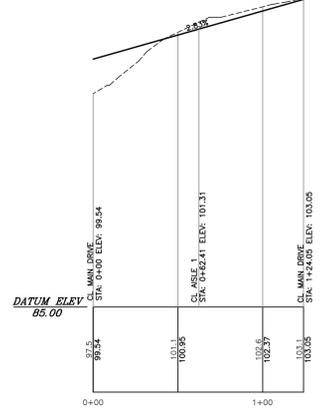
PLAN VIEW
1" = 40'



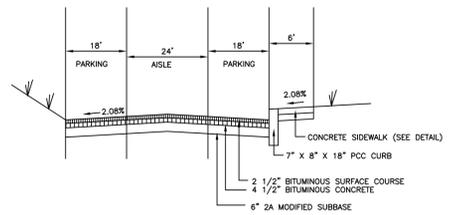
SECTION A-A' FUTURE PHASE
NOT TO SCALE



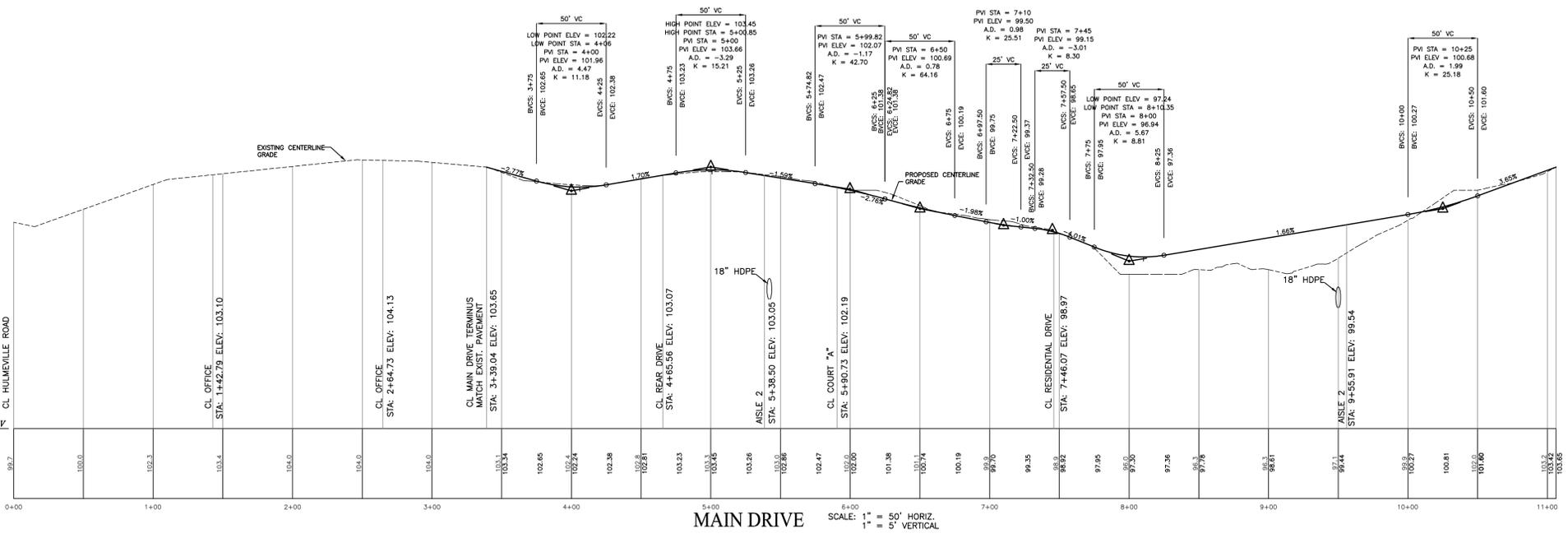
AISLE 1 SCALE: 1" = 50' HORIZ, 1" = 5' VERTICAL
FUTURE PHASE



AISLE 2 SCALE: 1" = 50' HORIZ, 1" = 5' VERTICAL
FUTURE PHASE



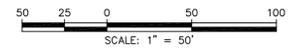
SECTION B-B'
NOT TO SCALE



MAIN DRIVE SCALE: 1" = 50' HORIZ, 1" = 5' VERTICAL

LEGEND

EXISTING STORM SEWER	---
PROPOSED STORM SEWER	---
EXISTING SANITARY SEWER	---
PROPOSED SANITARY SEWER	---
PROPOSED SANITARY SEWER FORCE MAIN	---
EXISTING WATER LINE	---
PROPOSED WATER LINE	---
EXISTING CONTOUR	---
PROPOSED CONTOUR	---
POSITIVE DRAINAGE INDICATOR	---
EXISTING ELEV	---
PROPOSED ELEV	---
PROPOSED LIGHT	---



REVISION DATE:	DESCRIPTION:
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 2, 2016	PHASE I - FINAL PLAN
DRIVEWAY PROFILES	
PREPARED FOR LIVENGRIN FOUNDATION SITUATE BENSLEM TOWNSHIP BUCKS COUNTY PENNSYLVANIA	
DATE:	AUGUST 1, 2012
MANAGER:	RFI
DRAWN BY:	RFI
SCALE:	1" = 50'

STOP-CALL BEFORE YOU DIG!

LOCATION OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH CANNOT BE GUARANTEED. CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE START OF WORK BY CALLING PA ONE CALL SYSTEM THREE DAYS PRIOR TO EXCAVATION. REFERENCE PENNSYLVANIA ACT 287 AS AMENDED BY ACT 121, TELE. # 1-800-242-1776

WORK LOCATION NO.: 2985526

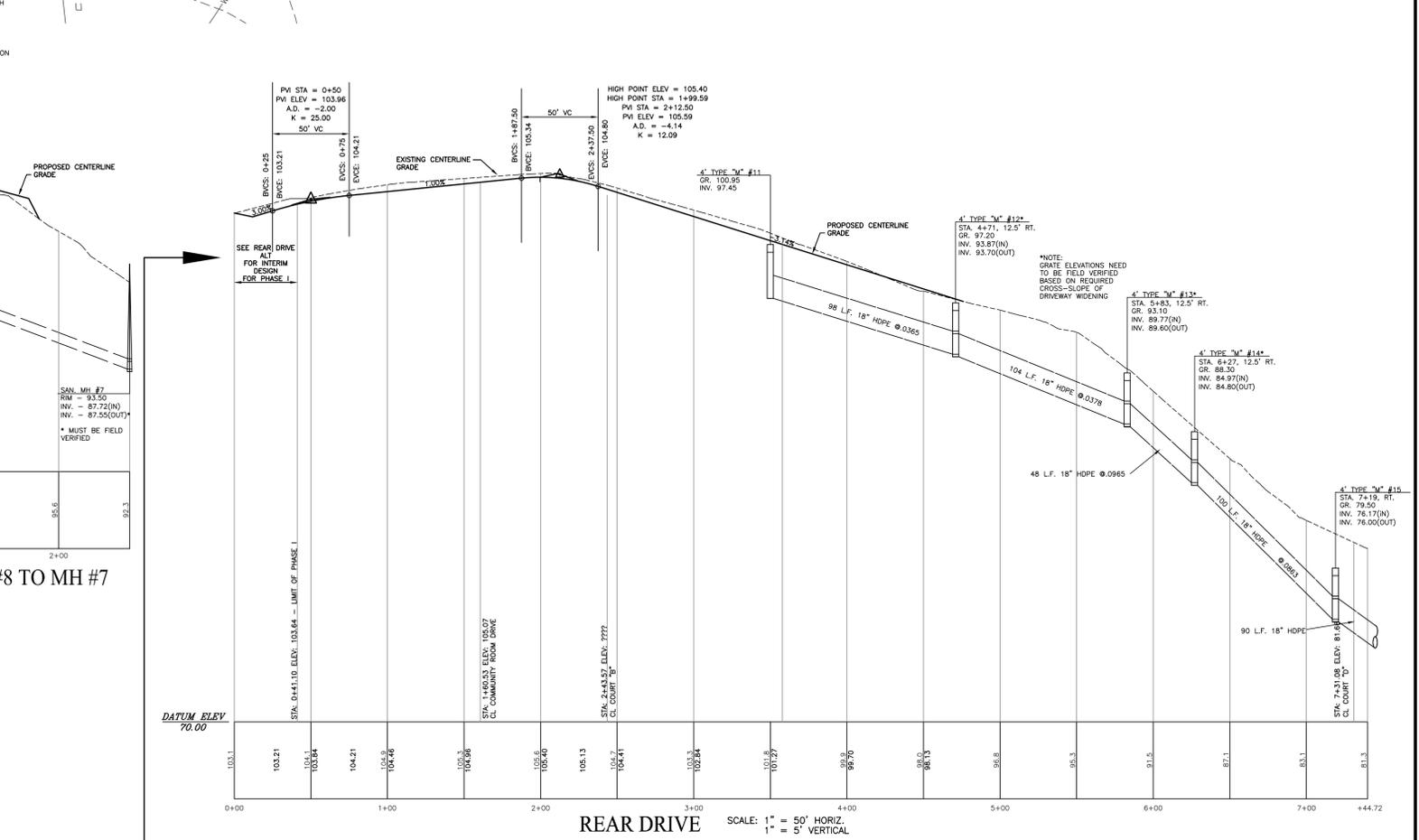
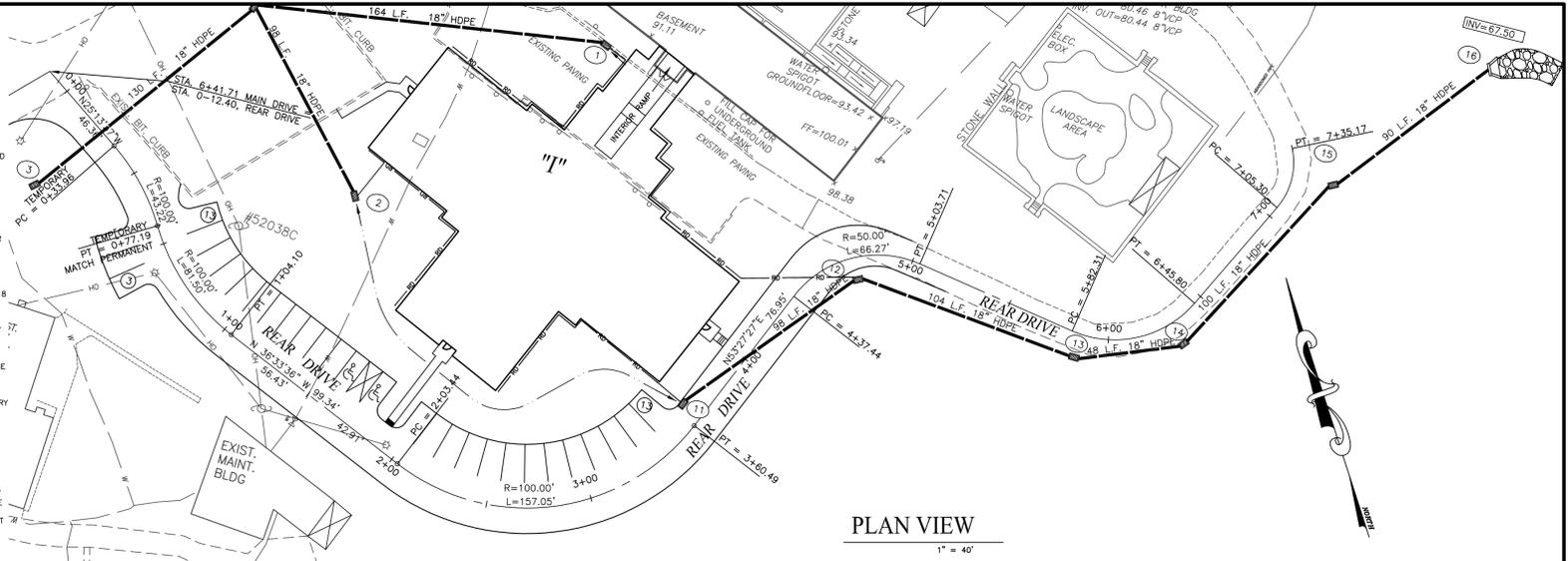
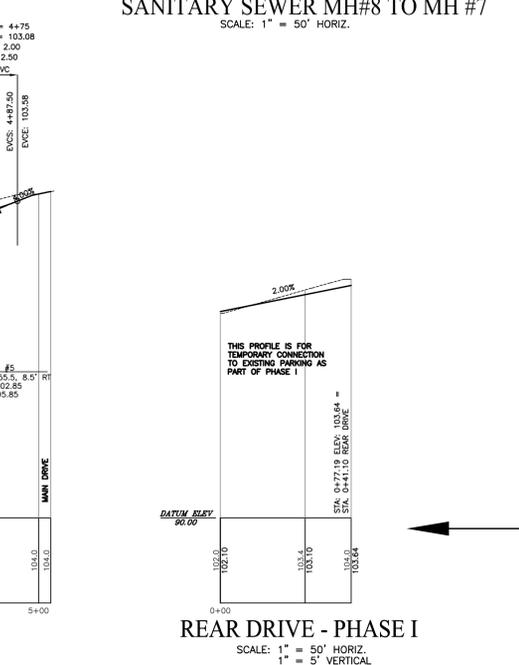
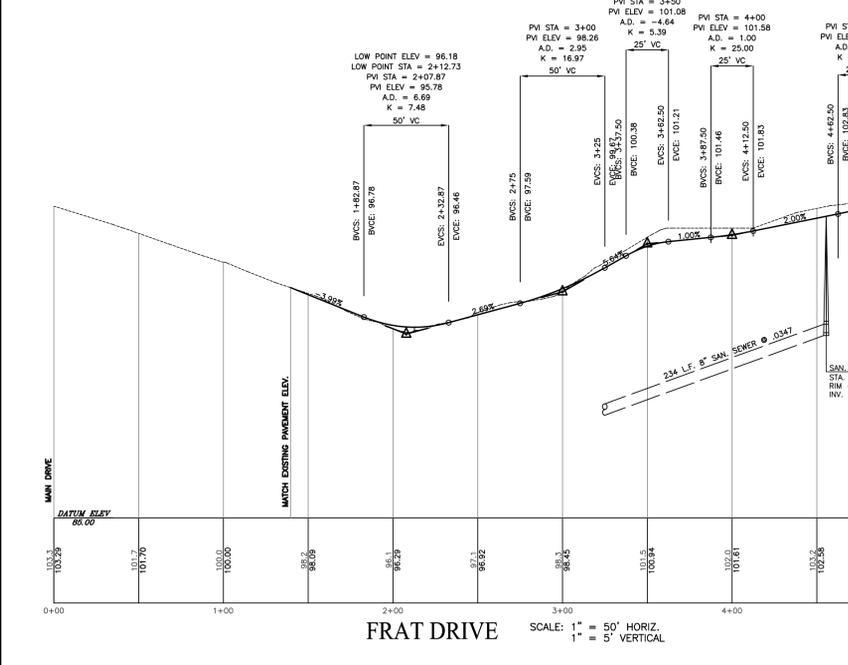
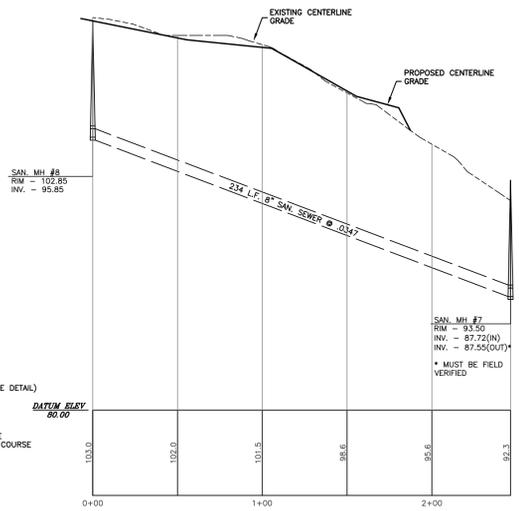
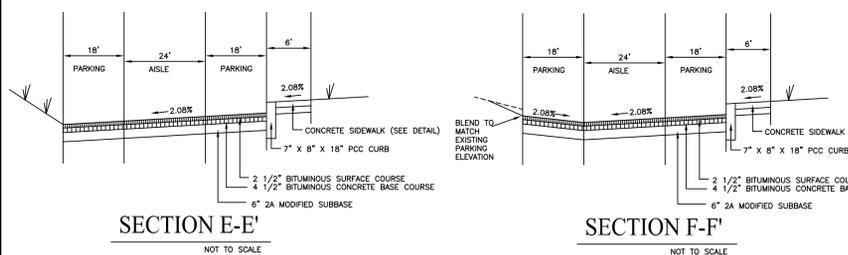
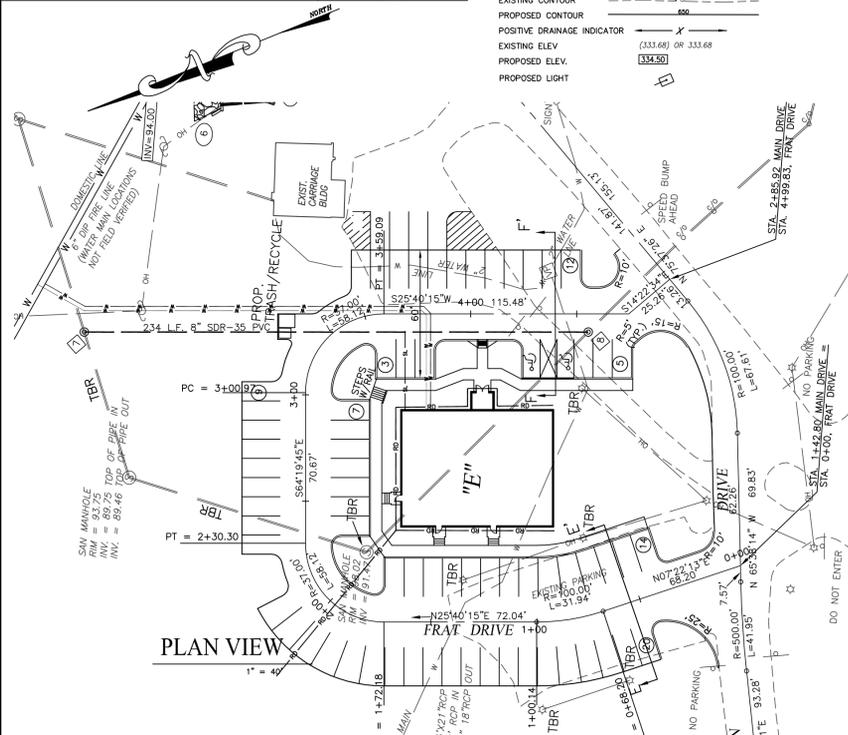


LEGEND

- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY SEWER FORCE MAIN
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- POSITIVE DRAINAGE INDICATOR
- EXISTING ELEV.
- PROPOSED ELEV.
- PROPOSED LIGHT

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6. CONSTRUCTION OF WATER LINES SHALL BE DONE IN ACCORDANCE WITH BENSLEM TOWNSHIP AUTHORITY.
7. SEWER LATERALS ARE TO BE INSTALLED BY A REGISTERED PLUMBER AFTER OBTAINING A LATERAL PERMIT.
8. SANITARY SEWERS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE BENSLEM TOWNSHIP STANDARD SPECIFICATIONS.
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10. WHERE PIPELINES MUST CROSS UNDER A SEWER, THE INSTALLATION MUST PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DEFLECTION AND BREAKING OF THE SEWER.
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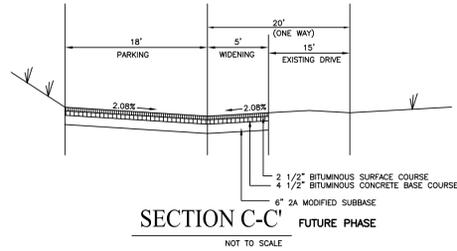
REVISION DATE:	DESCRIPTION:
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 2, 2016	PHASE I - FINAL PLAN
<p>DRIVEWAY PROFILES PREPARED FOR LIVENGRIN FOUNDATION SITUATE BENSLEM TOWNSHIP BUCKS COUNTY PENNSYLVANIA</p>	
DATE:	AUGUST 1, 2012
MANAGER:	RFI
DRAWN BY:	RFI
SCALE:	1" = VARIES
DATE:	AUGUST 1, 2012
MANAGER:	RFI
DRAWN BY:	RFI
SCALE:	1" = VARIES



STOP-CALL BEFORE YOU DIG!

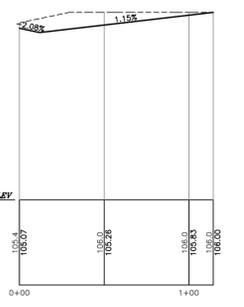
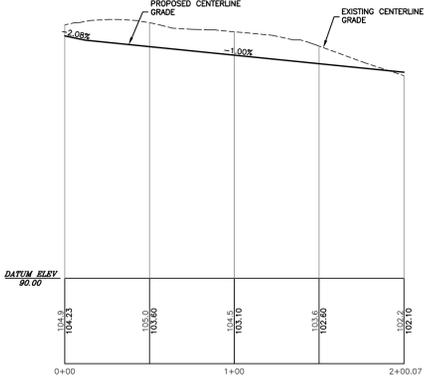
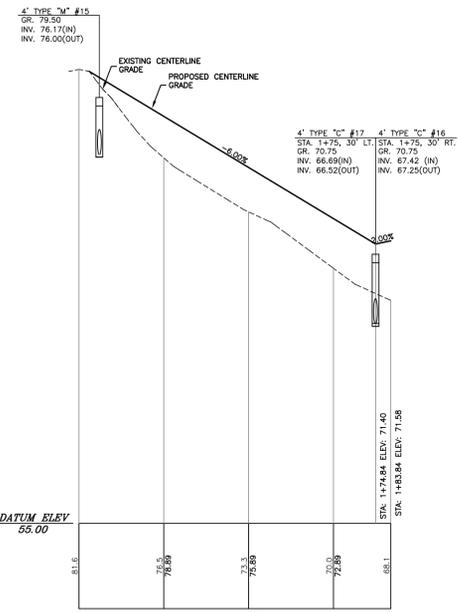
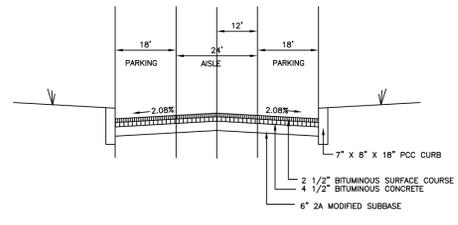
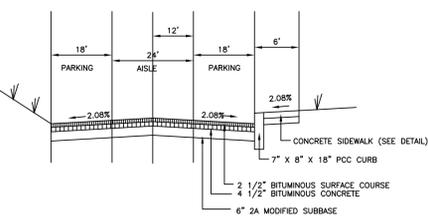
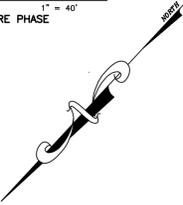
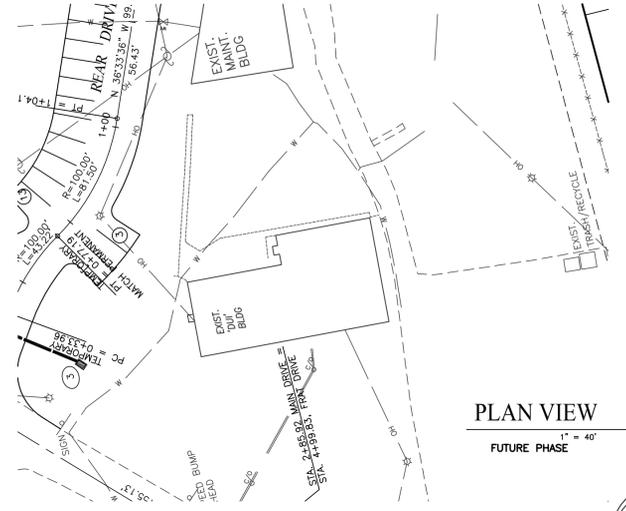
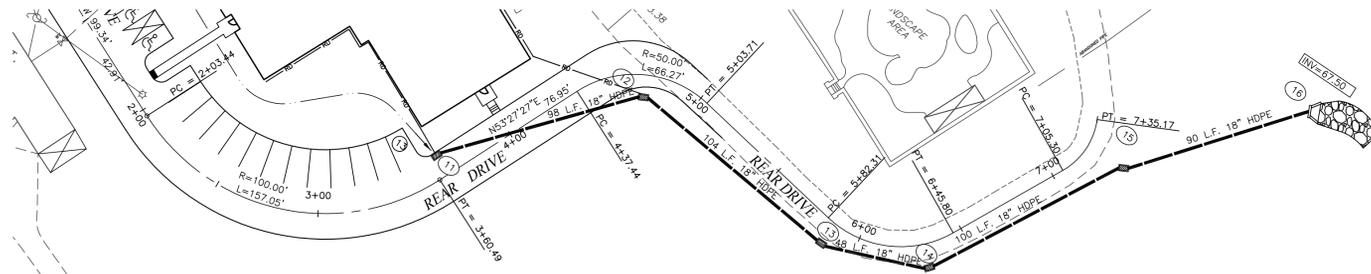
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WORK LOCATION NO.: 2985526



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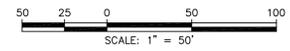
LEGEND

- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY SEWER FORCE MAIN
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- POSITIVE DRAINAGE INDICATOR (133.68) OR 333.68
- EXISTING ELEV. (334.50)
- PROPOSED ELEV.
- PROPOSED LIGHT

COURT "B" SCALE: 1" = 50' HORIZ, 1" = 5' VERTICAL
FUTURE PHASE

COURT "C" SCALE: 1" = 50' HORIZ, 1" = 5' VERTICAL
FUTURE PHASE

COMMUNITY ROOM DRIVE
SCALE: 1" = 50' HORIZ, FUTURE PHASE
1" = 5' VERTICAL



REVISION DATE:	DESCRIPTION:
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 2, 2016	PHASE I - FINAL PLAN
<p>DRIVEWAY PROFILES PREPARED FOR LIVENGRIN FOUNDATION SITUATE BENSALEM TOWNSHIP BUCKS COUNTY PENNSYLVANIA</p>	
DATE: AUGUST 1, 2012	Peak Land Use Consultants Land Planning • Engineering • Landscape Architecture • Land Surveying
MANAGER: RFI	JOB NUMB.: 09-15 2771 Gettysville Pike Pottsville, PA 18873
DRAWN BY: RFI	FILE NAME: 09-15BASE 215-541-4626
SCALE: 1" = 50'	SHEET: 11 OF 22 215-541-4028(fax) E-Mail: info@P&EINC.com

STOP-CALL BEFORE YOU DIG!

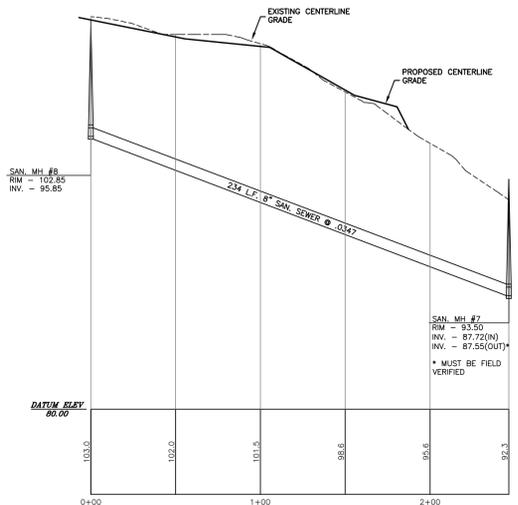
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WORK LOCATION NO.: 2985526



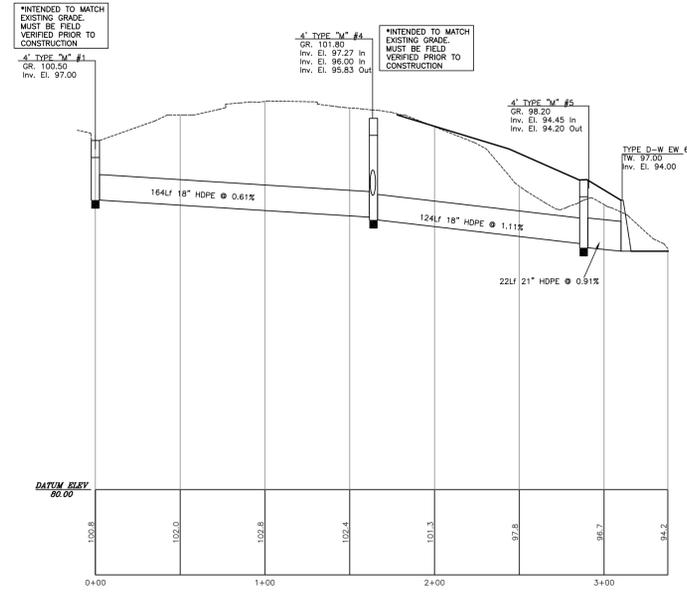
LEGEND

EXISTING STORM SEWER	
PROPOSED STORM SEWER	
EXISTING SANITARY SEWER	
PROPOSED SANITARY SEWER	
PROPOSED SANITARY SEWER FORCE MAIN	
EXISTING WATER LINE	
PROPOSED WATER LINE	
EXISTING CONTOUR	
PROPOSED CONTOUR	
POSITIVE DRAINAGE INDICATOR	
EXISTING ELEV.	
PROPOSED ELEV.	
PROPOSED LIGHT	

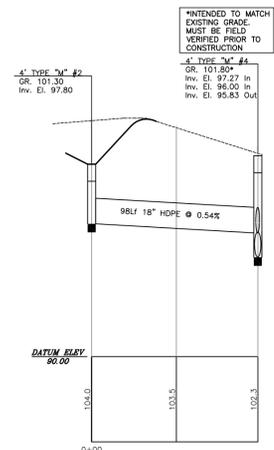


SANITARY SEWER MH#8 TO MH#7
SCALE: 1" = 50' HORIZ.

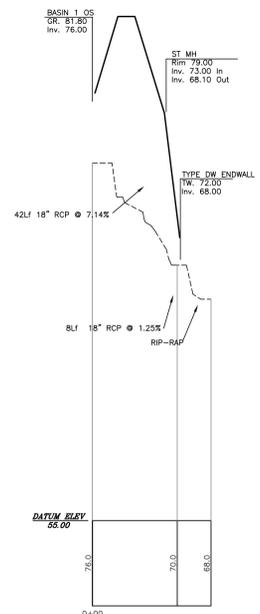
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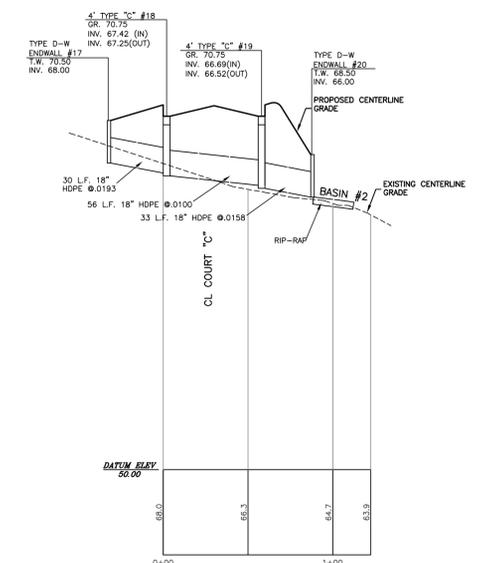
STORM SEWER #1 TO EW#6
SCALE: 1" = 50' HORIZ.



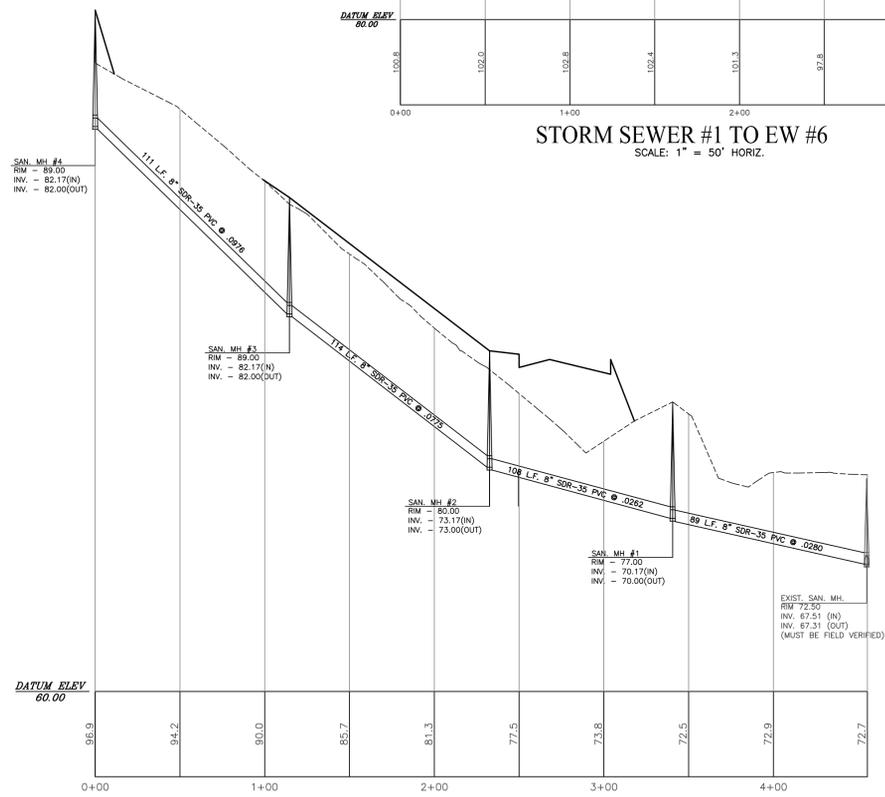
STORM SEWER #2 TO INLET #4
SCALE: 1" = 50' HORIZ.



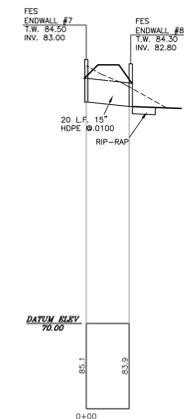
Basin #1 Outfall



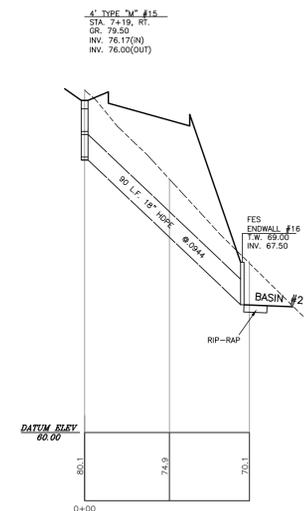
STORM SEWER #17 TO EW#20
SCALE: 1" = 50' HORIZ.



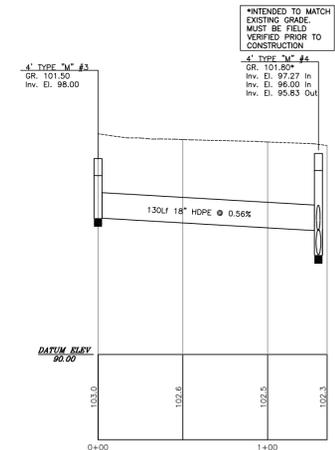
SANITARY SEWER MH#4 TO EXIST. FUTURE PHASE
SCALE: 1" = 50' HORIZ.



STORM SEWER EW#7 TO EW#8
SCALE: 1" = 50' HORIZ.
FUTURE PHASE

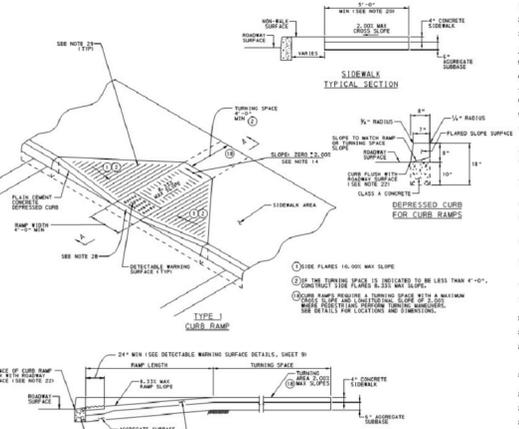
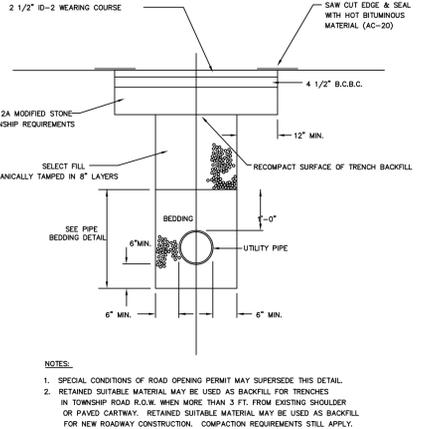
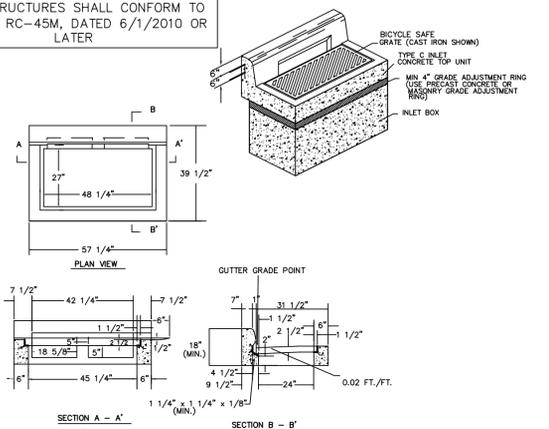
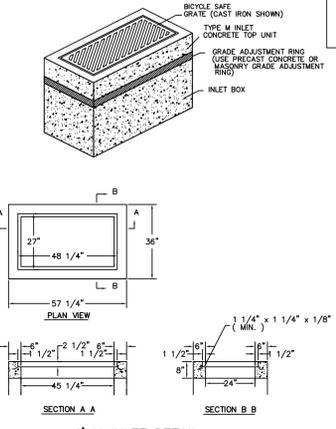
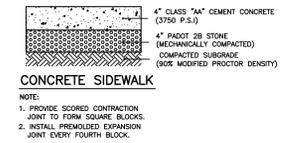
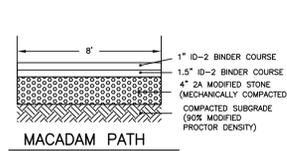


STORM SEWER INLET #15 TO EW#16
SCALE: 1" = 50' HORIZ.
FUTURE PHASE



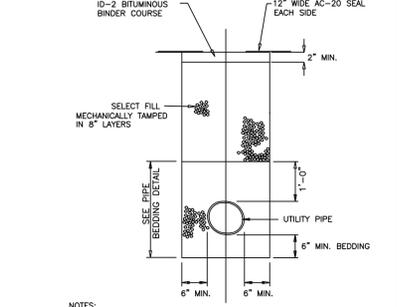
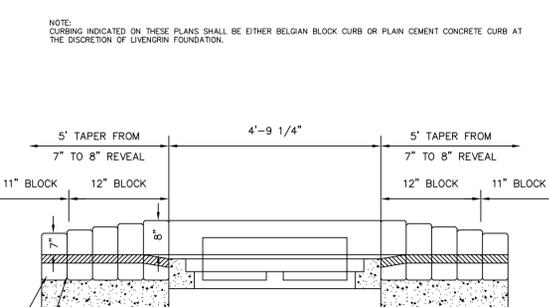
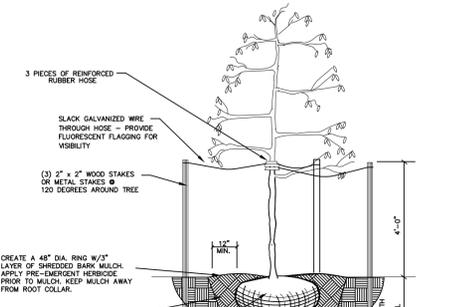
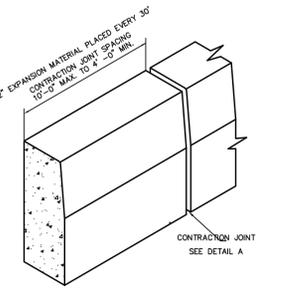
STORM SEWER #3 TO INLET #4
SCALE: 1" = 50' HORIZ.

REVISION DATE:	DESCRIPTION:
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCP, & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 2, 2016	PHASE I - FINAL PLAN
<p>STORM & SANITARY SEWER PROFILES PREPARED FOR LIVENGRIN FOUNDATION SITUATE BENSALEM TOWNSHIP BUCKS COUNTY PENNSYLVANIA</p>	
DATE: AUGUST 1, 2012	Land Use Consultants
MANAGER: RFI	Land Planning • Engineering • Landscape Architecture • Land Surveying
DRAWN BY: RFI	2771 Gettysburg Pike Pittsburg, PA 18073 215-541-4626 215-541-4023(fax) E-Mail: info@LNU.com
SCALE: 1" = 50'	SHEET: 12 OF 22



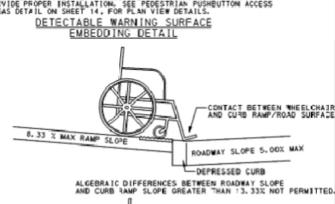
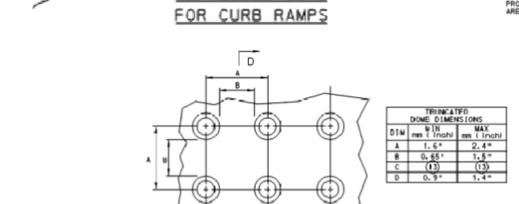
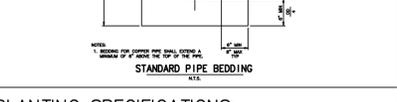
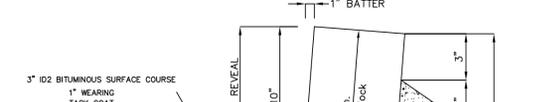
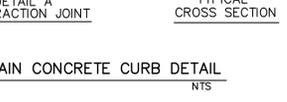
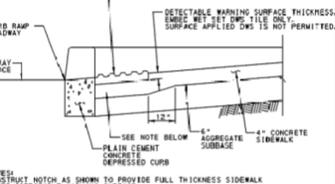
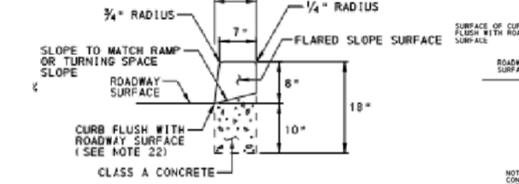
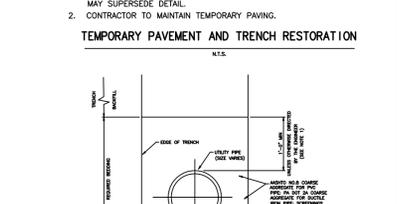
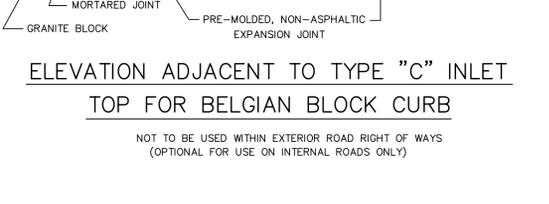
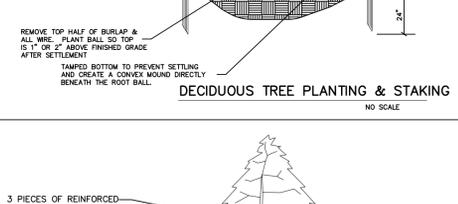
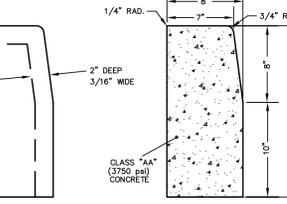
NOTES

1. REFER TO PADOT (RC) STANDARDS, PUB. #72, DWG. RC - 34, SHEETS 1 & 2 OF 9 FOR ADDITIONAL NOTES.
2. CONSTRUCT IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 605, FOR INLET ASSEMBLIES.
3. FLOW CHANNELS MUST BE INSTALLED IN ALL INLETS AFTER CONSTRUCTION.



PERCENT	EQUIVALENT
1%	1.0%
2%	1.0%
3%	1.0%
4%	1.0%
5%	1.0%
6%	1.0%
7%	1.0%
8%	1.0%
9%	1.0%
10%	1.0%

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION OF CURB RAMP AND SIDEWALKS
NEW CONSTRUCTION OR ALTERATION DETAILS
TYPE I CURB RAMPS AND TYPICAL SECTIONS



NOTES

1. REFER TO PENN. DOT. STANDARDS, PUB. #72, DWG. RC-64, SHEET 1 OF 1 FOR ADDITIONAL NOTES.
2. CONSTRUCT IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 630.

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NOTES

1. SPECIAL CONDITIONS OF OCCUPANCY OR ROAD OPENING PERMIT MAY SUPERSEDE THIS DETAIL.
2. CONTRACTOR TO WANTAN TEMPORARY PAVING.

NOTES

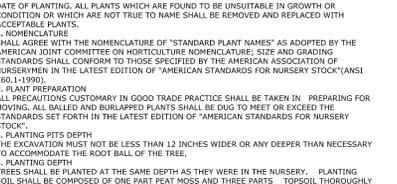
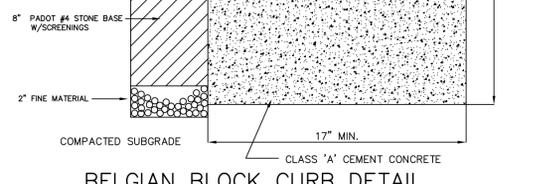
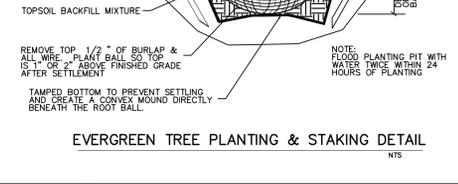
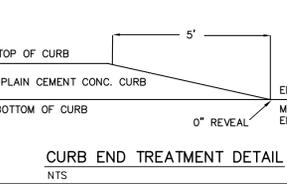
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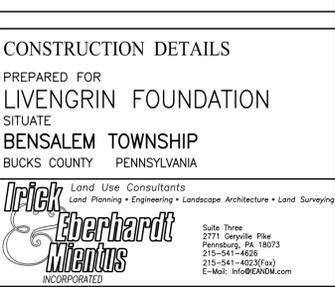
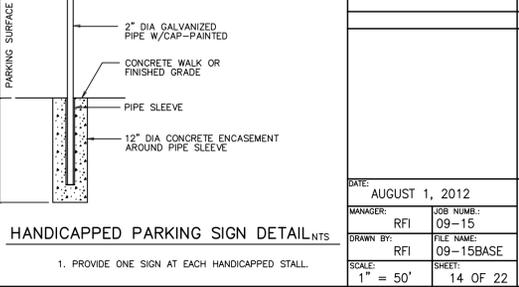
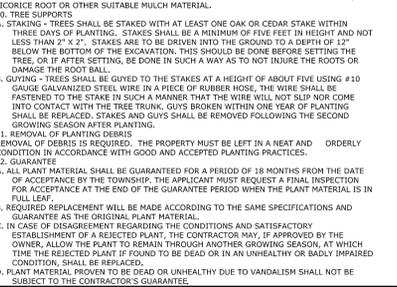
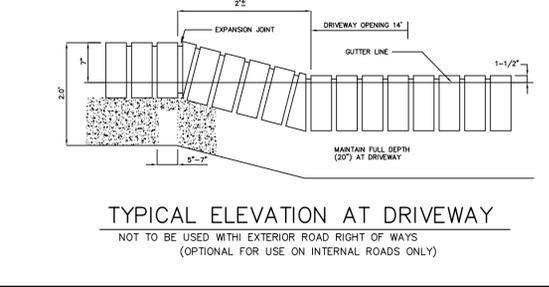
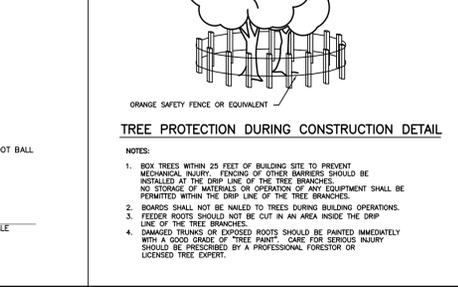
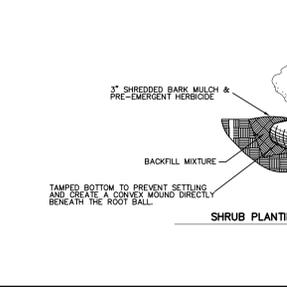
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GENERAL NOTES FOR METER INSTALLATIONS

1. WATER METERS SHALL BE JOINED TO THE SERVICE PIPE WITH:
 - a. METERS COUPLINGS FOR METERS 5/8" TO 1" (PROVIDED BY THE COMPANY).
 - b. FLANGES (2" - 10", BRONZE, HEAVY) FOR METERS 1 1/2" AND 2".
 - c. FLANGES (2" TO 10")
2. **FLANGE SERVICE PIPE** SHALL BE 1/2" COPPER, MEETING ASTM B88.
 - a. 2" AND LARGER DIAMETER SERVICE PIPE SHALL BE CLASS 32 (MIL) DUCTILE IRON, CEMENT LINED W/ TAR COATING IN ACCORDANCE WITH ANSI/AWWA C151/A211.
 - b. FLANGES (OVAL) SHALL BE USED AS COUPLER FLANGES FOR 1 1/2" AND 2" METERS. FLANGES SHALL BE MADE OF BRONZE AND SHALL BE DRILLED, FACED, AND TAPPED IN CONFORMANCE WITH ANSI B2.1. FLANGE ENDROUSE SHALL CONFORM TO ANSA C100.
3. **FLANGED FITTINGS** SHALL BE DUCTILE IRON, CEMENT LINED W/ TAR COATING AND CONFORM TO THE SPECIFIC REQUIREMENTS FOR DUCTILE IRON FITTINGS SPECIFIED IN ANSI/AWWA C110/A210.
 - a. FLANGES OF BOTH DUCTILE IRON AND FLANGED PIPE AND FITTINGS SHALL BE SUFFICIENT FOR WATER SERVICE OF 175 PSI WORKING PRESSURE, OR HIGHER DEPENDING ON TEST PRESSURE. THE BOLT CIRCLE AND HOLES OF THE FLANGES SHALL MATCH THOSE OF THE CLASS 125 FLANGES SHOWN IN FIG. B16.1.
4. **NUTS AND BOLTS** SHALL BE IN ACCORDANCE WITH ASTM STD. A193-87 AND A194, GRADE 4.
5. **GASKETS** SHALL BE 1/8" THICK AND EITHER 308R OR 3090R RUBBER MEETING THE MATERIAL REQUIREMENTS OF ANSI/AWWA C111/A211 MECHANICAL JOINT GASKETS.
6. **VALVES**, 3" AND LARGER, SHALL BE PAINTED 200 PSF WORKING PRESSURE (OR HIGHER DEPENDING ON SHEET PRESSURE) AND SHALL BE IN ACCORDANCE WITH AREA CODE. VALVES TO BE COATED WITH POLYURETHANE GEL COAT (PUG), AND HAVE OUTSIDE SCREW AND YOKE (OS&Y).
7. **PIES, VALVES, AND OTHER FIXTURES** MUST BE SUPPORTED BY ADJUSTABLE PIPE SUPPORTS AND REMAIN SUPPORTED AND STABLE WITH OR WITHOUT A METER / METER SPACER IN PLACE.
8. ALL METERS AND METER SPACERS TO BE SUPPLIED, VARNISHED, AND OWNED BY THE COMPANY.
9. ON DOMESTIC SERVICES, 1 1/2" AND LARGER, A B-PASS IS REQUIRED, EXCEPT FOR LINES DEDICATED STRICTLY FOR IRRIGATION. THE COMPANY WILL DETERMINE OTHER EXCEPTIONS. BACKFLOW DEVICES SHALL NOT BE BY-PASSED.

NOTES FOR METERS LOCATED IN A BUILDING

1. EXPANSION COUPLINGS NOT REQUIRED.
2. FOR DOMESTIC METERS, THE B-PASS LINE SHOULD BE INSTALLED ON THE WALL-SIDE AND PARALLEL TO THE METER, OR DIRECTLY ABOVE THE METER.
3. THE METER AND/OR BACKFLOW DEVICE ARE NOT PERMITTED WITHIN A CLOSET, CRAWL SPACE, GARAGE, UNHEATED AREA, OR ANY ENCLOSURE NOT APPROVED BY THE COMPANY. ADEQUATE ACCESS TO THE METER AND BACKFLOW DEVICE (INCLUDING VALVES, FITTINGS, AND FIXTURES) MUST BE MAINTAINED AT ALL TIMES.
4. WHEN TWO SERVICE LINES ARE LAD PARALLEL, A 4-FOOT MINIMUM DISTANCE BETWEEN THE CENTERLINE OF THE PIPES IS REQUIRED.
5. PROPERLY SIZED FLOOR DRAINS MUST BE LOCATED NEAR METERS AND BACKFLOW DEVICES.

NOTES FOR METER PITS / VAULTS

IN GENERAL, METER PITS/VAULTS ARE TO BE INSTALLED ON THE PROPERTY BEING SERVED AND IN AN OFF-STREET LOCATION WITHIN 35 FT. OF THE PROPERTY LINE.

1. PRE-CAST METER PITS/VAULTS SHALL BE DESIGNED FOR 10-20 TONS, SEGMENTS SHALL BE KEYS, AND THEIR JOINTS WATER-TIGHT.
2. CONCRETE SHALL BE PORTLAND CEMENT THAT CONFORMS TO ASTM C150, AND AGGREGATES THAT CONFORM TO ASTM C33. THE MINIMUM COMPRESSIVE STRENGTH SHALL BE 4000 PSI.
3. REINFORCING STEEL SHALL BE A603, GRADE 60 FOR BARS AND A615, GRADE 60 FOR WELDED WIRE FABRIC.
4. COVER HOLES 4 IN. DEEP, TO BE PROVIDED IN CENTER OF PIT.
5. METER PIT LOCATIONS MUST BE APPROVED PRIOR TO INSTALLATION.
6. METER PIT IS TO BE LOCATED IN GRASS OR SIDEWALK AREA, WHICH WILL NOT BE SUBJECT TO VEHICULAR LOADING. BOLLARDS OR CURBING MUST BE INSTALLED AROUND METER PIT (IF PIT IS INSTALLED IN PARKING AREA).
7. ALL ACCESS DOORS TO BE BILCO ALUMINUM, SINGLE OR DOUBLE-LEAF TYPE J-HAL, CHANNEL FRAME W/ STAINLESS STEEL HARDWARE THROUGHOUT OR EQUAL.
8. ALL DOORS TO BE CENTERED OVER THE METER.
9. METER PIT IS TO BE SET BETWEEN 1 IN. AND 4 IN. ABOVE FINISHED GRADE IN GRASS AREA AND GRADE TO BE SLOPED TO DRAIN WATER AWAY FROM PIT/VAULT.
10. ANY ALTERATIONS TO PIT (NEW OR EXISTING) MUST BE APPROVED PRIOR TO CONSTRUCTION OR CHANGE.
11. A 10 FT. WIDE PAVED ACCESS ROAD TO THE METER VAULT IS REQUIRED FOR ALL VAULTS WHOSE CENTERLINE OF THE FURTHEST ACCESS DOOR IS GREATER THAN 4 FT. FROM THE EDGE OF ROAD.
12. TRUCK ACCESS TO THE VAULT MUST BE MAINTAINED AT ALL TIMES (E.G. RAIN, SNOW, ETC.).
13. REDUCED PRESSURE BACKFLOW DEVICES ARE NOT PERMITTED BELOW GRADE.
14. A METER PIT WILL BE REQUIRED IN ALL CASES DETERMINED BY THE COMPANY, IN ADDITION TO THE FOLLOWING:

1. THE CUSTOMER'S SERVICE LINE CROSSES A STREAM, SWALE, RETENTION BASIN, OR SIMILAR STRUCTURE.
2. THE CUSTOMER'S SERVICE LINE IS OVER 200 FT. IN LENGTH FROM CURB STOP TO POINT OF ENTRY.
3. THE CUSTOMER'S SERVICE LINE CANNOT BE INSTALLED AT A RIGHT ANGLE TO THE CURB WITHIN THE BUILDING LIMITS OF THE STRUCTURE TO BE SERVED, OR IS NOT OR CANNOT BE INSTALLED WITHIN A SPECIFIED AREA ALONG THE SIDE WALL (THAT IS, A WALL ADJACENT TO A FRONT WALL) OF THE BUILDING TO BE SERVED UP TO THE POINT OF ENTRY OF THE SERVICE LINE INTO THE SIDE OF THE BUILDING, SAID AREA BEING SPECIFIED AS AN AREA CLOSER THAN 5 FEET AND NO FURTHER THAN 10 FEET FROM THE SIDE WALL, UNLESS OTHERWISE APPROVED BY THE COMPANY.
4. THE CUSTOMER'S STRUCTURE DOES NOT CONTAIN A BASEMENT OR IS NOT A PERMANENTLY FIXED STRUCTURE, UNLESS OTHERWISE APPROVED BY THE COMPANY.
5. THERE IS NO SUITABLE LOCATION TO PROTECT THE METER FROM FREEZING OR OTHER DAMAGE, OR TO PROVIDE ACCESS FOR REPAIRS OR MAINTENANCE.
6. WHERE SERVICE REQUESTED IS TEMPORARY AND/OR UTILIZED FOR CONSTRUCTION PURPOSES.
7. IF THE BUILDING IS CONSTRUCTED ON A CONCRETE SLAB.
8. WHERE THE METER CANNOT BE SET WITHIN 2 FT. OF THE POINT OF ENTRY TO THE BUILDING.
9. ALL DOMESTIC SERVICES 8 IN. AND LARGER.
10. ALL "OPEN" FIRE SERVICES.

NOTES FOR BACKFLOW DEVICES

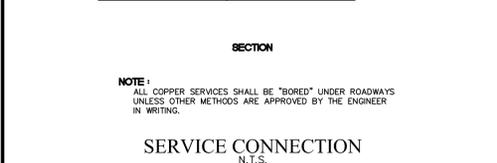
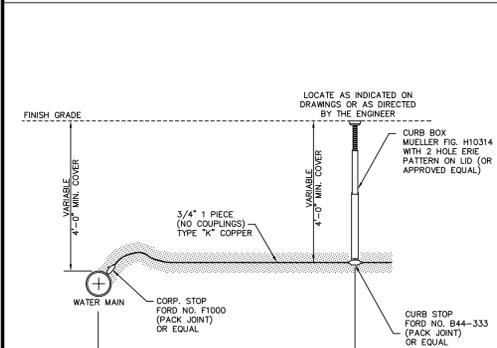
1. ALL BACKFLOW PREVENTION ASSEMBLIES TO BE SUPPLIED, MAINTAINED, OWNED, AND INSTALLED BY THE CUSTOMER.
2. ALL BACKFLOW PREVENTION ASSEMBLIES MUST BE PURCHASED WITH MANUFACTURER APPROVED RESILIENT SEATED INLET AND OUTLET CONTROL VALVES AND FOUR (4) TEST COCKS AS A COMPLETE PACKAGE UNIT. THE HIGHER ONE (1) TEST COCK IS TO BE INSTALLED ON THE INLET SIDE OF THE DEVICE'S INLET MAIN.
3. BACKFLOW PREVENTION DEVICES SHOULD BE SIZED HYDRAULICALLY, TAKING INTO ACCOUNT BOTH THE VOLUME REQUIREMENTS OF THE SERVICE AND THE PRESSURE DROP THROUGH THE ASSEMBLY. PRESSURE LOSS THROUGH THE ASSEMBLY IS NOT NECESSARILY DIRECTLY PROPORTIONAL TO THE FLOW. REFER TO MANUFACTURER HEAD LOSS PRESSURE CURVES.
4. WHEN A BACKFLOW PREVENTION DEVICE IS BEING INSTALLED RETROACTIVELY ON AN EXISTING DOMESTIC OR FIRE SPRINKLER SYSTEM, A THOROUGH HYDRAULIC ANALYSIS, INCLUDING REVISED HYDRAULIC CALCULATIONS, NEW FRICTION DATA, AND ALL NECESSARY SYSTEM MODIFICATIONS TO ACCOMMODATE THE ADDITIONAL FRICTION LOSS SHOULD BE PERFORMED PRIOR TO THE INSTALLATION OF THE BACKFLOW PREVENTER AND BE APPROVED BY THE CUSTOMER'S INSURANCE UNDERWRITER.
5. NO B-PASS WILL BE ALLOWED AROUND BACKFLOW PREVENTION DEVICES, WHERE CONTINUOUS, UNINTERRUPTED WATER SERVICE IS DESIRED. TWO DEVICES MAY BE INSTALLED IN PARALLEL, PARALLEL INSTALLATION REQUIRES TESTING AND MAINTENANCE OF EACH INDIVIDUAL BACKFLOW PREVENTER WITHOUT TOTAL SERVICE INTERRUPTION. WHEN TWO BACKFLOW PREVENTERS ARE USED IN PARALLEL, THE TOTAL RATED CAPACITY OF THE DEVICES MUST EXCEED THE CAPACITY OF THE MAIN FEED LINE.
6. REDUCED PRESSURE ASSEMBLY (RPA) AND REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) BACKFLOW PREVENTERS SHALL NOT BE INSTALLED IN A PIT BELOW GROUND LEVEL.
7. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO HAVE ALL BACKFLOW PREVENTION DEVICES TESTED BY A COMPANY APPROVED CERTIFIED "TESTER" AT THE TIME OF INSTALLATION AND ANNUALLY THEREAFTER.
8. BACKFLOW PREVENTERS ARE TO BE INSTALLED DOWNSTREAM OF THE METER, AND BEFORE ANY OUTLET OR BRANCH CONNECTIONS.
9. FOR MORE DETAILS ON BACKFLOW PREVENTION DEVICE INSTALLATION AND TESTING, REFER TO THE COMPANY'S MANUAL OF CROSS-COMMERCIAL CONTROL.

DEFINITIONS

AN OPEN FIRE SYSTEM IS ANY FIRE SYSTEM SUPPLIED DIRECTLY BY THE COMPANY THAT INCLUDES APPOINTMENTS TO THE SYSTEM SUCH AS PRIVATE FIRE HYDRANTS, RESERVOIRS OR HOLDING TANKS THAT REQUIRE OR PERMIT THE FLOW OF WATER FOR STORAGE FOR FUTURE FIRE FIGHTING PURPOSES, OR FIRE FIGHTING TRAINING, ETC. IN SUCH A VOLUME, THAT THE COMPANY WOULD REQUIRE AND INSTALL A FULL FLOW METER.

A CLOSED FIRE SYSTEM IS ANY FIRE SYSTEM SUPPLIED DIRECTLY BY THE COMPANY THAT INCLUDES ONLY ALTERNATE SPRINKLER, STANDPIPE, OR OTHER AUTOMATIC FIRE SERVICE DEVICES. A CLOSED SYSTEM DOES NOT INCLUDE PRIVATE FIRE HYDRANTS, RESERVOIRS, OR HOLDING TANKS OF ANY SIZE OR CONSTRUCTION.

A DOMESTIC SERVICE IS ANY SERVICE, OTHER THAN FIRE, SUPPLIED DIRECTLY BY PS&C. THIS INCLUDES RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL CUSTOMERS.



NOTE:
ALL COPPER SERVICES SHALL BE "BORED" UNDER ROADWAYS UNLESS OTHER METHODS ARE APPROVED BY THE ENGINEER IN WRITING.

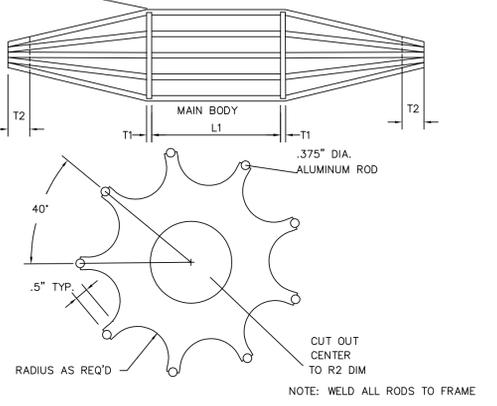
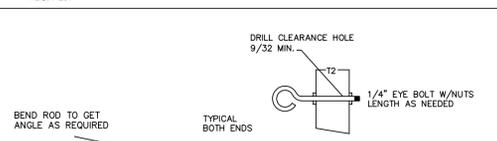
SERVICE CONNECTION
N.T.S.

WATER MAIN EXTENSION GENERAL NOTES

1. ALL VALVES AND FIRE HYDRANTS ARE TO OPEN LEFT-RIGHT.
2. ALL DIRECTIONAL CHANGE FITTINGS REQUIRE RETAINING GLANDS (MEGA-LUG OR EQUAL) AND THE PROPER SQUARE FOOTAGE OF CONCRETE BLOCKING.
3. ALL PERMANENT BLOW-OFFS ARE TO BE BLOCKED WITH A STEEL RAIL AND THE PROPER SQUARE FOOTAGE OF CONCRETE BLOCKING.
4. 1" M.A.V./C.I. ASSEMBLIES (AQUA PENNSYLVANIA, INC. PLAN NO. G-17665) ARE REQUIRED OF ALL WATER MAIN EXTENSIONS. THE EXACT QUANTITY AND LOCATION WILL BE DETERMINED AT THE PROJECT SITE BY THE ASSIGNED AQUA PENNSYLVANIA, INC. INSPECTOR.
5. PRESSURE EXCEEDS 150 P.S.I. IN THIS AREA, PRESSURE REDUCING VALVES ARE NOT REQUIRED ON THE ALL SERVICES. PRESSURE REDUCING VALVES ARE NOT SUPPLIED OR MAINTAINED BY AQUA PENNSYLVANIA, INC.
6. ALL THRUST BLOCKS ASSUMING PRESSURES LESS/GREATER THAN 200 P.S.I.; IF ACTUAL PRESSURE IS DIFFERENT THEN THRUST BLOCKS MAY BE RESIZED ACCORDING TO THE STANDARDS OF AQUA PENNSYLVANIA, INC.
7. THESE PLANS WERE PREPARED FROM INFORMATION OBTAINED FROM PLANS PROVIDED BY THE:
8. EASEMENT RIGHTS, WHEN GRANTED, ARE TWENTY (20) FEET WIDE CENTERED OVER THE WATER MAIN AND ITS APPURTENANCES AND PERPETUAL FOR THE ENTIRE 20-FOOT WIDTH. SAID EASEMENTS ARE EXCLUSIVE FOR TEN (10) FEET CENTERED OVER THE WATER MAIN AND ITS APPURTENANCES. EASEMENTS SHALL INCLUDE AN ADDITIONAL TEN (10) FOOT WIDE TEMPORARY EASEMENT ON ALL SIDES DURING CONSTRUCTION.
9. AN ADDITIONAL TEN (10) FOOT WIDE EASEMENT IS GRANTED FOR EACH WATER SERVICE THAT IS OR WILL BE CONNECTED TO THE WATER MAIN. EACH SERVICE LINE EASEMENT SHALL EXTEND IN LENGTH FROM THE APPROPRIATE SIDELINE OF THE EASEMENT ACCOMMODATING THE SAID WATER MAIN TO A POINT FIVE (5) FEET BEYOND THE SHUT-OFF VALVE (CURB STOP) FOR EACH WATER SERVICE LINE.

PAVEMENT WATER MAIN EXTENSION CONSTRUCTION NOTES:

1. TOWNSHIP TO BE NOTIFIED PRIOR TO WORKING NEAR SCHOOL SIGNALS AND SCHOOL SIGNALS SHALL BE MARKED OUT AS REQUIRED.
2. SHOULDER AREAS PRONE TO WASHOUT SHALL BE PAVED.
3. ANY DAMAGE TO TREES OR CUT SLOPES CAUSING THEM TO FALL SHALL BE RESPONSIBILITY OF PERMITTEE.
4. MAIN TO BE SLEEVED OR ENCASED WHERE PASSING THROUGH GUIDE RAIL.
5. PERMITTEE AND HIS CONTRACTOR ARE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES.
6. APPROPRIATE CONTROLS ARE TO BE IN PLACE PRIOR TO SITE DISTURBANCE AND CONTINUALLY MAINTAINED DURING CONSTRUCTION UNTIL REMOVED. THEY ARE TO BE LEFT IN PLACE UNTIL SITE IS STABLE.
7. TOWNSHIP TO BE NOTIFIED PRIOR TO WORKING NEAR TRAFFIC SIGNAL LOOPS AND SHALL MARK OUT AS REQUIRED.



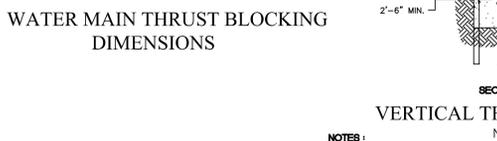
PIPE SIZE	L1	L2	R2	T1	T2	ROD DIA.	ØK R1
6"	6"	6"	0.75"	.375"	1.0"	.375"	2.78"
8"	6"	6"	1.25"	.375"	1.0"	.375"	3.73"
10"	8"	6"	1.50"	.375"	1.0"	.375"	4.66"
12"	8"	6"	1.75"	.375"	1.0"	.375"	5.65"
18-20"	9"	9"	2.00"	.375"	1.0"	.375"	6.79"

MANDREL

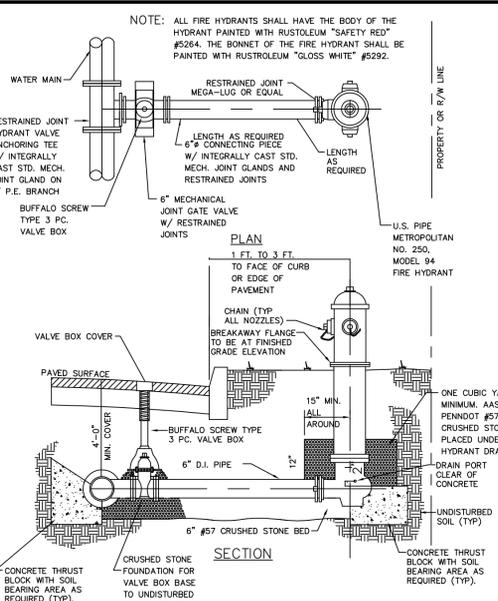
MINIMUM THRUST BLOCKING DIMENSIONS FOR VERTICAL UPWARD THRUST 200 P.S.I. TEST PRESSURE *

PIPE SIZES (IN.)	DEGREE OF BEND OR DEFLECTION			
	11.25	22.5	45	90
6-8	4.0	4.5	6.5	3.0
10-12	4.5	5.0	8.0	4.0
14-16	5.5	6.0	11.5	5.0
18-20	6.0	7.5	13.0	6.0
24	6.5	10.0	14.0	6.5

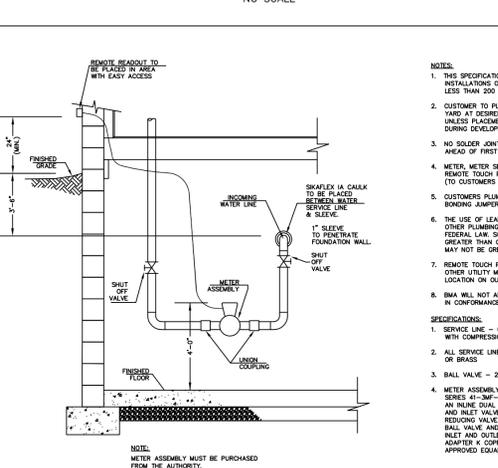
* ALLOWANCES MUST BE MADE FOR SATURATED SOILS AND SIZES ADJUSTED ACCORDINGLY.



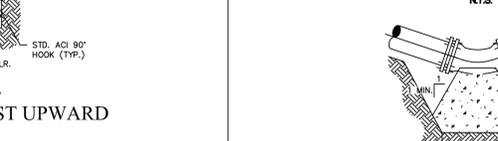
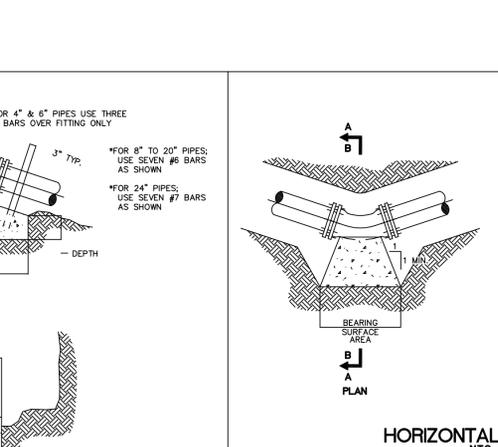
- NOTES:**
1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT THE END OF 28 DAYS.
 2. REINFORCING STEEL SHALL BE ASTM A-615, GRADE 60, EPOXY COATED DEFORMED BARS.
 3. ALL FITTINGS AND JOINTS SHALL BE COVERED WITH POLYETHYLENE FILM BEFORE PLACING CONCRETE.
 4. PAINT ALL EXPOSED FERROUS SURFACES WITH TWO COATS OF VALDURA PAINT OR APPROVED EQUAL PER MFR'S REQUIREMENTS.
 5. REINFORCING BARS ARE "U" SHAPED AROUND PIPE.



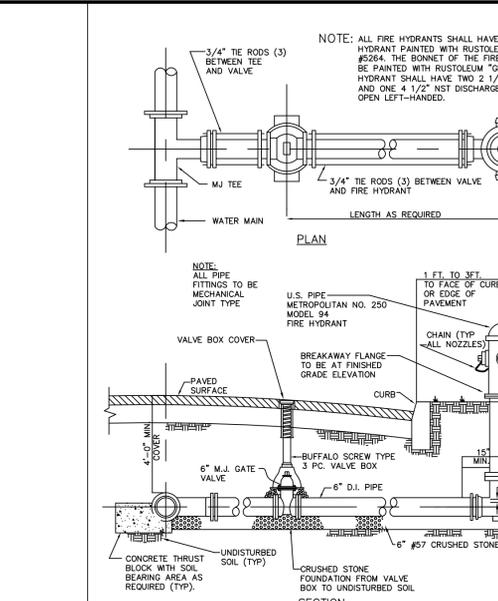
FIRE HYDRANT INSTALLATION, TYPE A, WITH RESTRAINED MECHANICAL JOINTS
NO SCALE



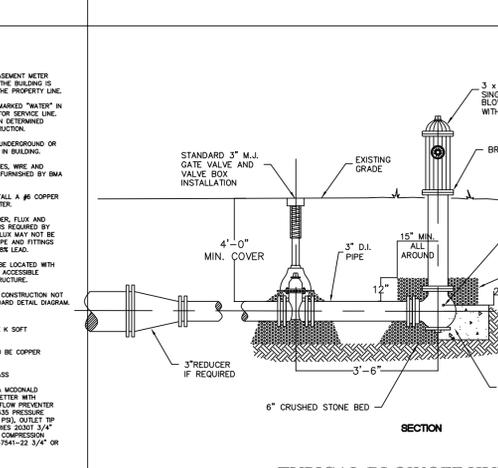
RESIDENTIAL WATER METER CONNECTION DETAIL



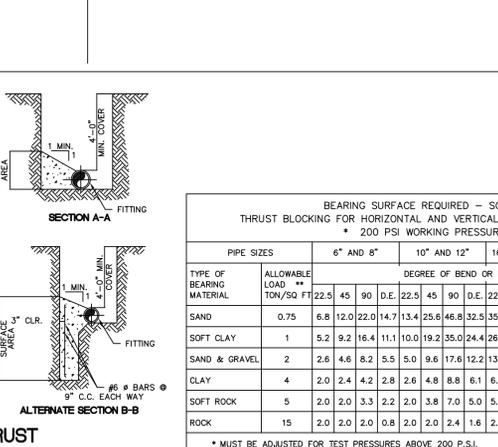
- NOTES:**
1. ALL FIRE HYDRANTS SHALL HAVE THE BODY OF THE HYDRANT PAINTED WITH RUSTOLEUM "SAFETY RED" #5294. THE BONNET OF THE FIRE HYDRANT SHALL BE PAINTED WITH RUSTOLEUM "GLOSS WHITE" #5292.
 - 3/4" TIE RODS (3) BETWEEN TEE AND VALVE.
 - 3/4" TIE RODS (3) BETWEEN VALVE AND FIRE HYDRANT.
 - NOTE: ALL PIPE FITTINGS TO BE MECHANICAL JOINT TYPE.
 - NOTE: ALL FIRE HYDRANTS SHALL HAVE THE BODY OF THE HYDRANT PAINTED WITH RUSTOLEUM "SAFETY RED" #5294. THE BONNET OF THE FIRE HYDRANT SHALL BE PAINTED WITH RUSTOLEUM "GLOSS WHITE" #5292. HYDRANT SHALL HAVE TWO 1/2" NPT OUTLETS AND ONE 1/2" NPT DISCHARGE. HYDRANTS SHALL OPEN LEFT-HANDED.
 - NOTE: ALL PIPE FITTINGS TO BE MECHANICAL JOINT TYPE.
 - NOTE: ALL FIRE HYDRANTS SHALL HAVE THE BODY OF THE HYDRANT PAINTED WITH RUSTOLEUM "SAFETY RED" #5294. THE BONNET OF THE FIRE HYDRANT SHALL BE PAINTED WITH RUSTOLEUM "GLOSS WHITE" #5292. HYDRANT SHALL HAVE TWO 1/2" NPT OUTLETS AND ONE 1/2" NPT DISCHARGE. HYDRANTS SHALL OPEN LEFT-HANDED.



TYPICAL BLOWOFF HYDRANT
N.T.S.



VALVE BOX INSTALLATION (SCREW TYPE)
N.T.S.



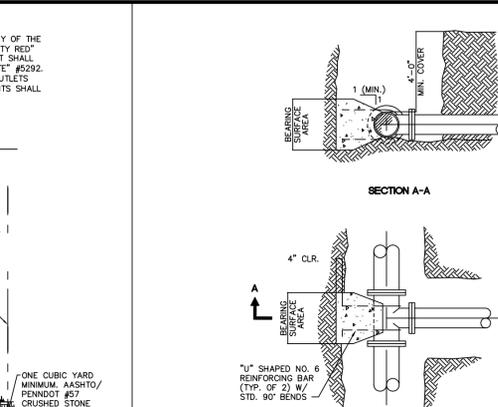
BEARING SURFACE REQUIRED - SQ. FT. THRUST BLOCKING FOR HORIZONTAL AND VERTICAL DOWNWARD THRUSTS * 200 PSI WORKING PRESSURE

PIPE SIZES	6" AND 8"				10" AND 12"				16", 18" AND 20"				24"				
	ALLOWABLE TON/SO FT	22.5	45	90	D.E.	22.5	45	90	D.E.	22.5	45	90	D.E.	22.5	45	90	D.E.
SAND	0.75	6.8	12.0	22.0	14.7	13.4	25.6	46.8	32.5	35.2	69.1	27.6	90.3	52.2	99.5	83.1	30.1
SOFT CLAY	1	5.2	9.2	16.4	11.1	10.0	19.2	35.0	24.4	26.4	51.8	95.7	68.0	39.2	74.7	37.9	9.75
SAND & GRAVEL	2	2.6	4.6	8.2	5.5	5.0	9.6	17.6	12.2	13.2	25.9	47.9	33.9	19.6	37.3	69.0	48.8
CLAY	4	2.0	2.4	4.2	2.8	2.6	4.8	8.8	6.1	6.6	13.0	23.9	16.9	9.8	18.7	34.5	24.4
SOFT ROCK	5	2.0	2.0	3.3	2.2	2.0	3.8	7.0	5.0	5.3	10.4	19.1	13.5	7.8	14.9	27.6	18.5
ROCK	15	2.0	2.0	2.0	0.8	2.0	2.4	1.6	2.0	2.0	3.5	6.4	4.5	2.6	5.0	9.2	6.5

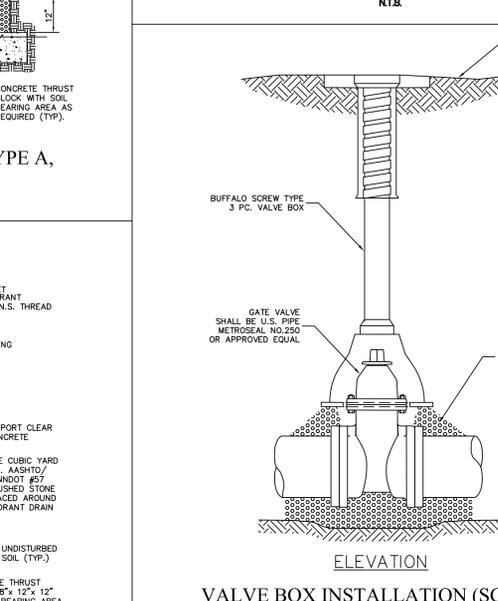
* MUST BE ADJUSTED FOR TEST PRESSURES ABOVE 200 P.S.I.
** SOIL TESTING AGENCY TO ESTABLISH ALLOWABLE BEARING PRESSURE BASED ON FIELD CONDITIONS. (ALLOWANCES MUST BE MADE FOR SATURATED SOILS.)
*** D.E. DENOTES DEAD END AND APPLIES AT TEES AND PLUGS.

- NOTES:**
1. CONCRETE TO HAVE 2,500 P.S.I. MINIMUM 28 DAY COMPRESSIVE STRENGTH.
 2. REINFORCING STEEL TO BE ASTM A-615, GRADE 60, EPOXY COATED DEFORMED BARS.
 3. BARS ARE "U" SHAPED AROUND PIPE.
 4. COAT ALL EXPOSED FERROUS SURFACES WITH TWO COATS OF VALDURA ASPHALT PAINT OR APPROVED EQUAL PER MANUFACTURER'S REQUIREMENTS.
 5. COVER ALL FITTINGS AND JOINTS WITH POLYETHYLENE FILM BEFORE PLACING CONCRETE.
 6. CONCRETE MUST BEAR AGAINST UNDISTURBED SOIL.
 7. KEEP CENTER CLEAR OF JOINTS AND LUGS.
 8. FORM UNSUPPORTED AREAS OF CONCRETE.

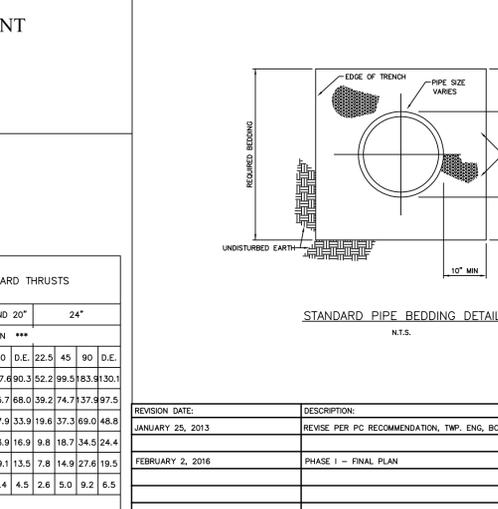
WATER MAIN THRUST BLOCKING BEARING SURFACES



HORIZONTAL THRUST BLOCKING - TEE
N.T.S.



VALVE BOX INSTALLATION (SCREW TYPE)
N.T.S.



REVISION DATE:

REVISION DATE	DESCRIPTION
JANUARY 25, 2013	PERISE PER PC RECOMMENDATION, TWP. ENG, BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 2, 2016	PHASE I - FINAL PLAN

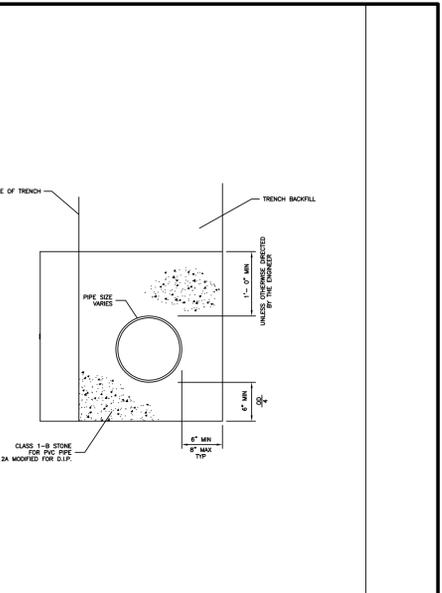
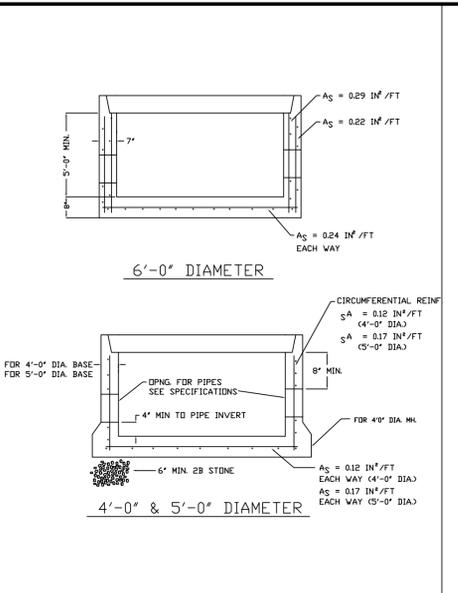
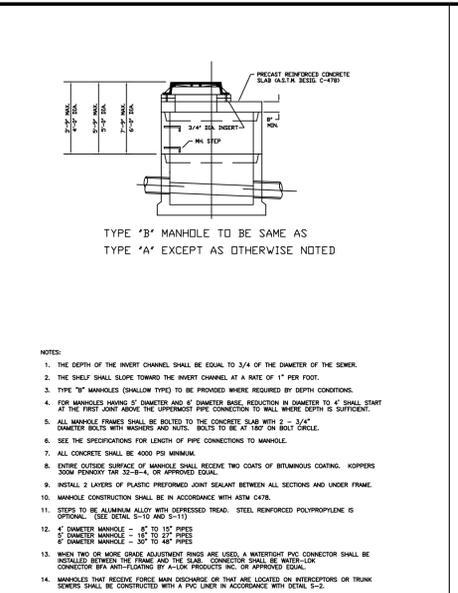
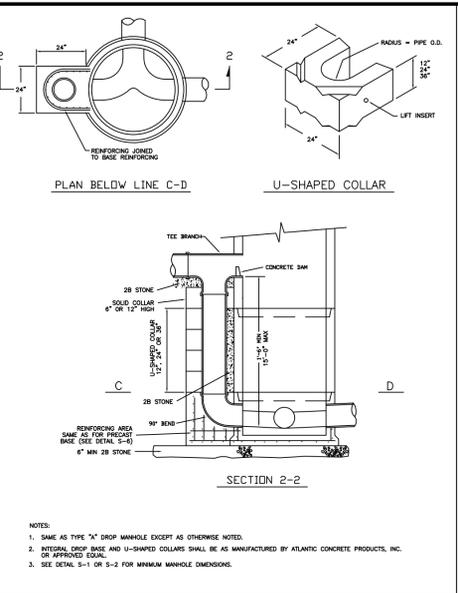
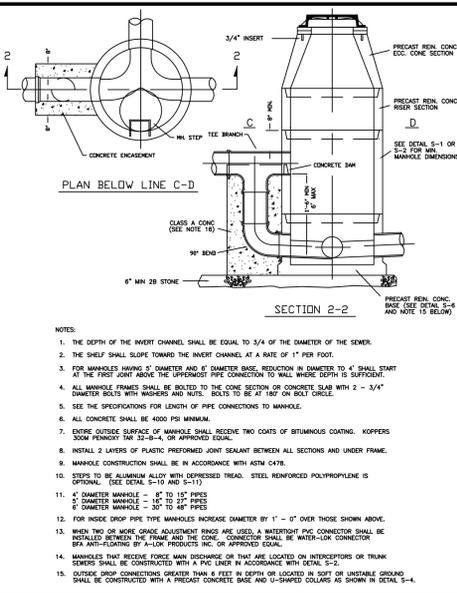
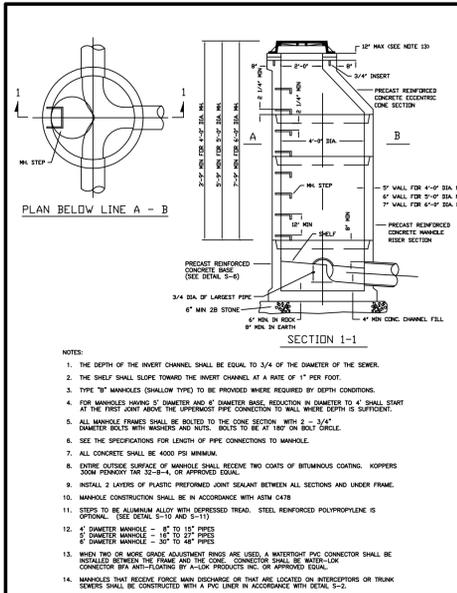
CONSTRUCTION DETAILS
PREPARED FOR
LIVENGRIN FOUNDATION
SITUATE
BENSALEM TOWNSHIP
BUCKS COUNTY PENNSYLVANIA

DATE: AUGUST 1, 2012
MANAGER: RFI
JOB NUMB.: 09-15
FILE NAME: 09-15BASE
SCALE: 1" = 50'
SHEET: 15 OF 22

Land Use Consultants
Land Planning + Engineering + Landscape Architecture + Land Surveying

Robert Eberhardt
Milents
INCORPORATED

Suite Three
2771 Gettysville Rd
Pottsville, PA 18853
610-541-4629
215-541-4028(FAX)
E-Mail: info@LUCENW.com



BUCKS COUNTY WATER AND SEWER AUTHORITY TYPE "A" STANDARD MANHOLE DATE 3/1/96 2000 GA STANDARD DETAIL S-1

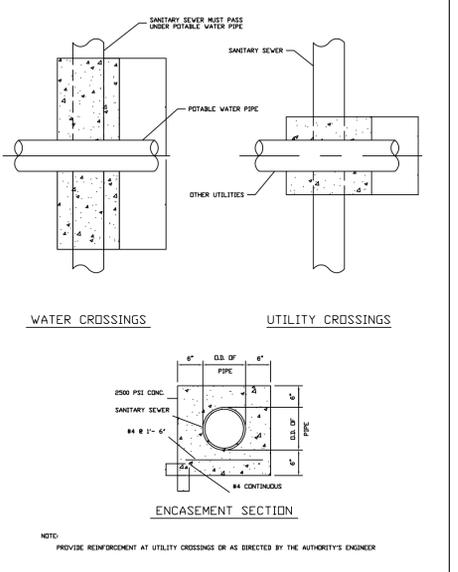
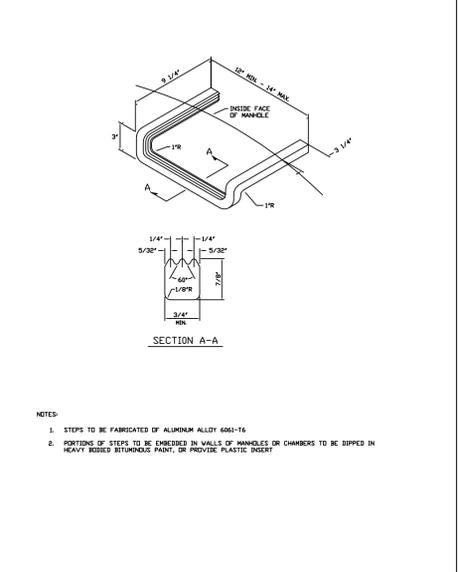
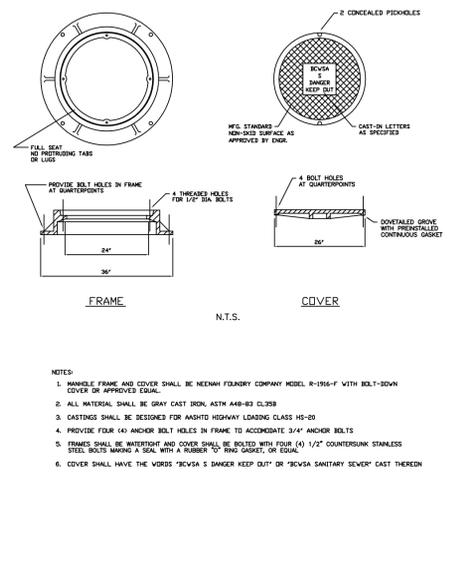
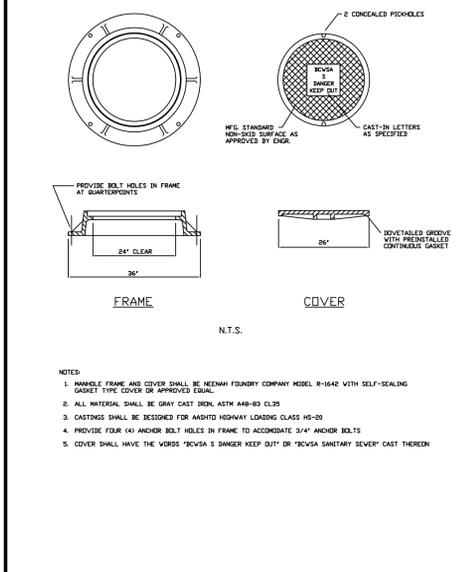
BUCKS COUNTY WATER AND SEWER AUTHORITY TYPE "A" DROP MANHOLE DATE 3/1/96 2000 GA STANDARD DETAIL S-3

BUCKS COUNTY WATER AND SEWER AUTHORITY DROP MANHOLE WITH PRECAST BASE & U-SHAPED COLLARS DATE 3/1/96 2000 GA STANDARD DETAIL S-4

BUCKS COUNTY WATER AND SEWER AUTHORITY TYPE "B" MANHOLE DATE 3/1/96 2000 GA STANDARD DETAIL S-5

BUCKS COUNTY WATER AND SEWER AUTHORITY PRECAST BASE DATE 3/1/96 2000 GA STANDARD DETAIL S-6

BUCKS COUNTY WATER AND SEWER AUTHORITY STANDARD PIPE BEDDING DATE 3/1/96 2000 GA STANDARD DETAIL S-13

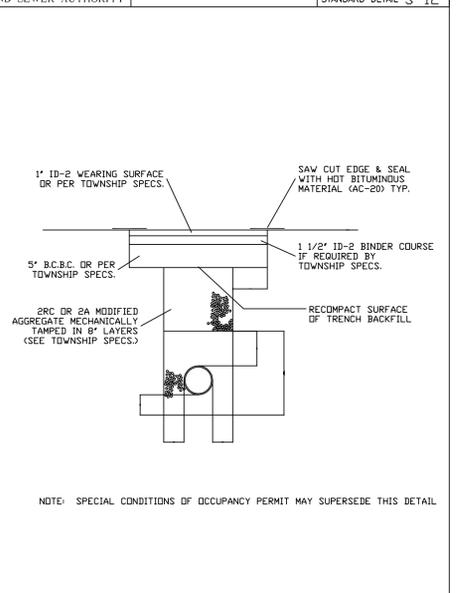
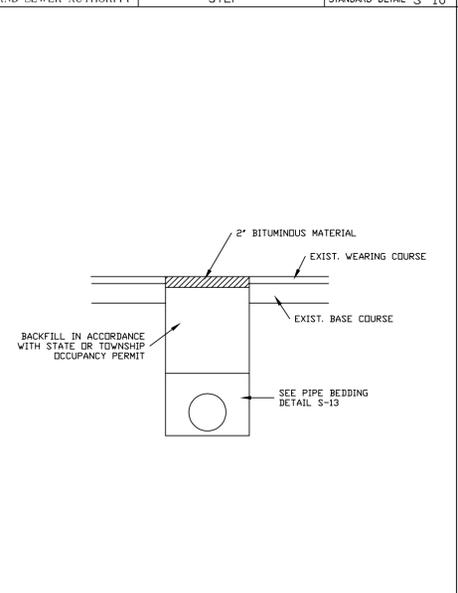
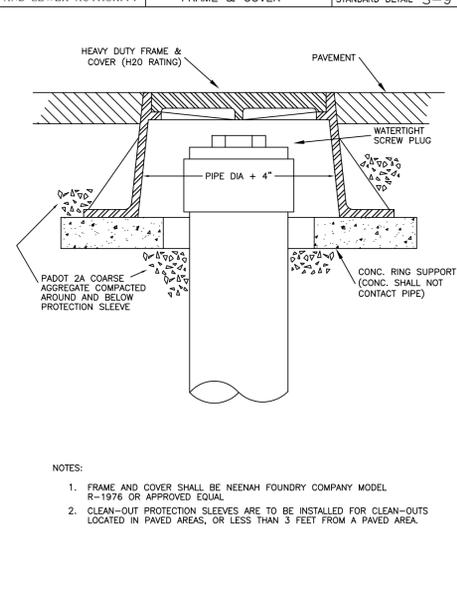
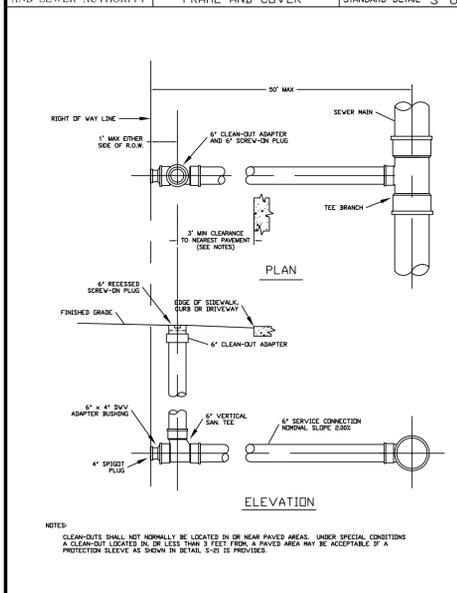


BUCKS COUNTY WATER AND SEWER AUTHORITY STANDARD MANHOLE FRAME AND COVER DATE 3/1/96 2000 GA STANDARD DETAIL S-8

BUCKS COUNTY WATER AND SEWER AUTHORITY WATERTIGHT MANHOLE FRAME & COVER DATE 3/1/96 2000 GA STANDARD DETAIL S-9

BUCKS COUNTY WATER AND SEWER AUTHORITY ALUMINUM MANHOLE STEP DATE 3/1/96 2000 GA STANDARD DETAIL S-10

BUCKS COUNTY WATER AND SEWER AUTHORITY CONCRETE ENCASEMENT DATE 3/1/96 2000 GA STANDARD DETAIL S-12



BUCKS COUNTY WATER AND SEWER AUTHORITY SERVICE CONNECTION SHALLOW SEWER DATE 3/1/96 2000 GA STANDARD DETAIL S-19

BUCKS COUNTY WATER AND SEWER AUTHORITY CLEAN-OUT PROTECTION SLEEVE (FOR USE IN OR NEAR PAVED AREAS) DATE 3/1/96 2000 GA STANDARD DETAIL S-21

BUCKS COUNTY WATER AND SEWER AUTHORITY TEMPORARY PAVEMENT FOR STATE HIGHWAYS AND TOWNSHIP ROADS DATE 3/1/96 2000 GA STANDARD DETAIL S-25

BUCKS COUNTY WATER AND SEWER AUTHORITY PERMANENT PAVEMENT TRENCH RESTORATION AND BACKFILL FOR TOWNSHIP ROADS DATE 3/1/96 2000 GA STANDARD DETAIL S-25

REVISION DATE:	DESCRIPTION:
JANUARY 25, 2013	REVERSE PER PC RECOMMENDATION, TWP. ENG. BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 2, 2016	PHASE 1 - FINAL PLAN
CONSTRUCTION DETAILS	
PREPARED FOR LIVENGRIN FOUNDATION SITUATE BENSALEM TOWNSHIP BUCKS COUNTY PENNSYLVANIA	
DATE: AUGUST 1, 2012	Land Use Consultants
MANAGER: RFI	2771 Gettysburg Pike Pottsville, PA 18073
DESIGNER: RFI	215-541-4628 215-541-4023(fax) E-Mail: info@LIVENGRIN.com
SCALE: 1" = 50'	SHEET: 17 OF 22

STOP-CALL BEFORE YOU DIG!

LOCATION OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH CANNOT BE GUARANTEED. CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE START OF WORK. BY CALLING PA, ONE CALL SYSTEM THREE DAYS PRIOR TO EXCAVATION, REFERENCE PENNSYLVANIA ACT 287 AS AMENDED BY ACT 121, TELE. # 1-800-242-1776

WORK LOCATION NO.: 2985526



MANAGED AREA' SWM BYPASS

INFILTRATION AREA TO BE PROTECTED WITH CONSTRUCTION FENCE PRIOR TO CONSTRUCTION OF RAIN GARDEN



- BMP MAINTENANCE
A. INSPECTIONS
BMP'S (INFILTRATION BASINS & RAIN GARDENS) SHOULD BE INSPECTED ANNUALLY AND AFTER ANY STORM LARGER THAN THE 2-YEAR STORM (3.2 IN/24 HOURS)...

- C. NON-ROUTINE MAINTENANCE
SEDIMENT GRADUALLY WILL ACCUMULATE IN MANY BMP'S INCLUDING INFILTRATION FACILITIES AND GRASS SWALES
-IF STANDING WATER (> 6 DAYS AFTER RAIN EVENT) IS FOUND, REMOVE TOP 6 INCHES OF MEDIA (AS NOTED IN DETAIL) AND REPLACE WITH FABRIC AND SIMILAR MEDIA.

- NOTES
1. THIS PLAN TO BE USED IN CONJUNCTION WITH THE PCSM NARRATIVE AND THE REMAINDER OF THE LAND DEVELOPMENT PLANS (22 SHEETS) PREPARED FOR THIS SITE BY THIS OFFICE...
2. POSTCONSTRUCTION BMP'S FOR THIS TRACT INCLUDE CLUSTERING DEVELOPMENT AREA, INFILTRATION/BORSTENTION BASINS AND RAIN GARDENS WITH INFILTRATION, PRESERVATION OF EXISTING TREES WITHIN THE SITE, MINIMIZE STORM SEWER TO REDUCE POINT DISCHARGE AND PROMOTE OVERLAND SHEET FLOW, GRASS FILTER STRIPS...

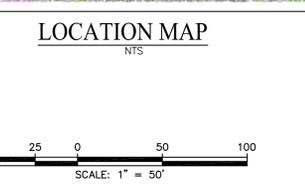


Table with 2 columns: REVISION DATE and DESCRIPTION. Includes dates from December 2012 to February 2016.

PCSM PLAN PREPARED FOR LIVENGRIN FOUNDATION SITUATE BENSELEM TOWNSHIP BUCKS COUNTY PENNSYLVANIA

DATE: AUGUST 1, 2012
MANAGER: RFI
DRAWN BY: RFI
SCALE: 1" = 50'

NATURAL RESOURCE PROTECTION
WOODLAND PROTECTION REQUIRED:
1. CONTAINS WETLANDS OR SIGNIFICANT NATURAL FEATURES - 312,176 S.F. ALLOWABLE DISTURBANCE - 62,432 (80%) PROPOSED DISTURBANCE - 0

SITE STATISTICS
GROSS TRACT AREA - 1,755,143 sq.ft. 40,292.5 acres
NET TRACT AREA (LESS LEGAL R.O.W.) - 1,729,404 sq.ft. 39,707.1 acres
NET TRACT AREA (LESS ULTIMATE R.O.W.) - 1,721,707 sq.ft. 39,524.7 acres

INFILTRATION AREA TO BE PROTECTED WITH CONSTRUCTION FENCE PRIOR TO CONSTRUCTION OF RAIN GARDEN
RAIN GARDEN #2A
VOLUME 3559 CF @ ELEV 100.0 BERM 100.5 INV. 99.0

OWNER OF RECORD
LIVENGRIN FOUNDATION, INC.
4833 HULMEVILLE ROAD
EDINGTON, PA 19020-3023

Map Unit Symbol and Map Unit Name table listing various soil types and their slopes.

STOP-CALL BEFORE YOU DIG!

LOCATION OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH CANNOT BE GUARANTEED. CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE START OF WORK. BY CALLING PA, ONE CALL SYSTEM THREE DAYS PRIOR TO EXCAVATION. REFERENCE PENNSYLVANIA ACT 287 AS AMENDED BY ACT 121. TELE. # 1-800-242-1776

WORK LOCATION NO.: 2985526



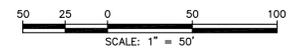
LEGEND

- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY SEWER FORCE MAIN
- EXISTING WATER LINE
- PROPOSED WATER LINE
- PROPOSED WATER LINE-FIRE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- POSITIVE DRAINAGE INDICATOR
- EXISTING ELEV. (333.68) OR 333.69
- PROPOSED ELEV. (334.50)
- LIMIT OF TREE REMOVAL/ LIMIT OF DISTURBANCE
- NPDES BOUNDARY



SPAULDING RAVEN SERIES FIXTURE*

NTS
TO BE MOUNTED ON 18" SQUARE STRAIGHT STEEL POLES
*OR APPROVED EQUAL



REVISION DATE:	DESCRIPTION:
DECEMBER 27, 2012	REVISE BUILDING LAYOUT
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 18, 2013	NPDES SUBMISSION
FEBRUARY 26, 2013	ADJUST WATER LINE/ADDITIONAL FIRE HYDRANTS
FEBRUARY 2, 2016	PHASE 1 - FINAL PLAN

LIGHTING PLAN
PREPARED FOR
LIVENGRIN FOUNDATION
SITUATE
BENSALEM TOWNSHIP
BUCKS COUNTY PENNSYLVANIA

DATE: AUGUST 1, 2012
MANAGER: RFI
DRAWN BY: RFI
SCALE: 1" = 50'

JOB NUMB.: 09-15
FILE NAME: 09-15BASE
SHEET: 19 OF 22

Peak Land Use Consultants
Land Planning • Engineering • Landscape Architecture • Land Surveying
Eberhardt
Mentus INCORPORATED
Suite Three
2771 Getville Pike
Pottsville, PA 18873
610-541-4626
215-541-4023(FAX)
E-Mail: info@EANDM.com

Calculation Summary

Label	Avg	Max	Min	Avg/Min	Max/Min	PtSpCpr	PtSpCtb
CalcPts - All Pts Out To Zero Foot-Candles	1.41	6.8	0.0	N.A.	N.A.	10	10
CalcPts - Parking Areas And Drives	2.65	6.8	1.0	2.65	6.80	10	10
CalcPts - Property Line	0.01	0.5	0.0	N.A.	N.A.	10	N.A.

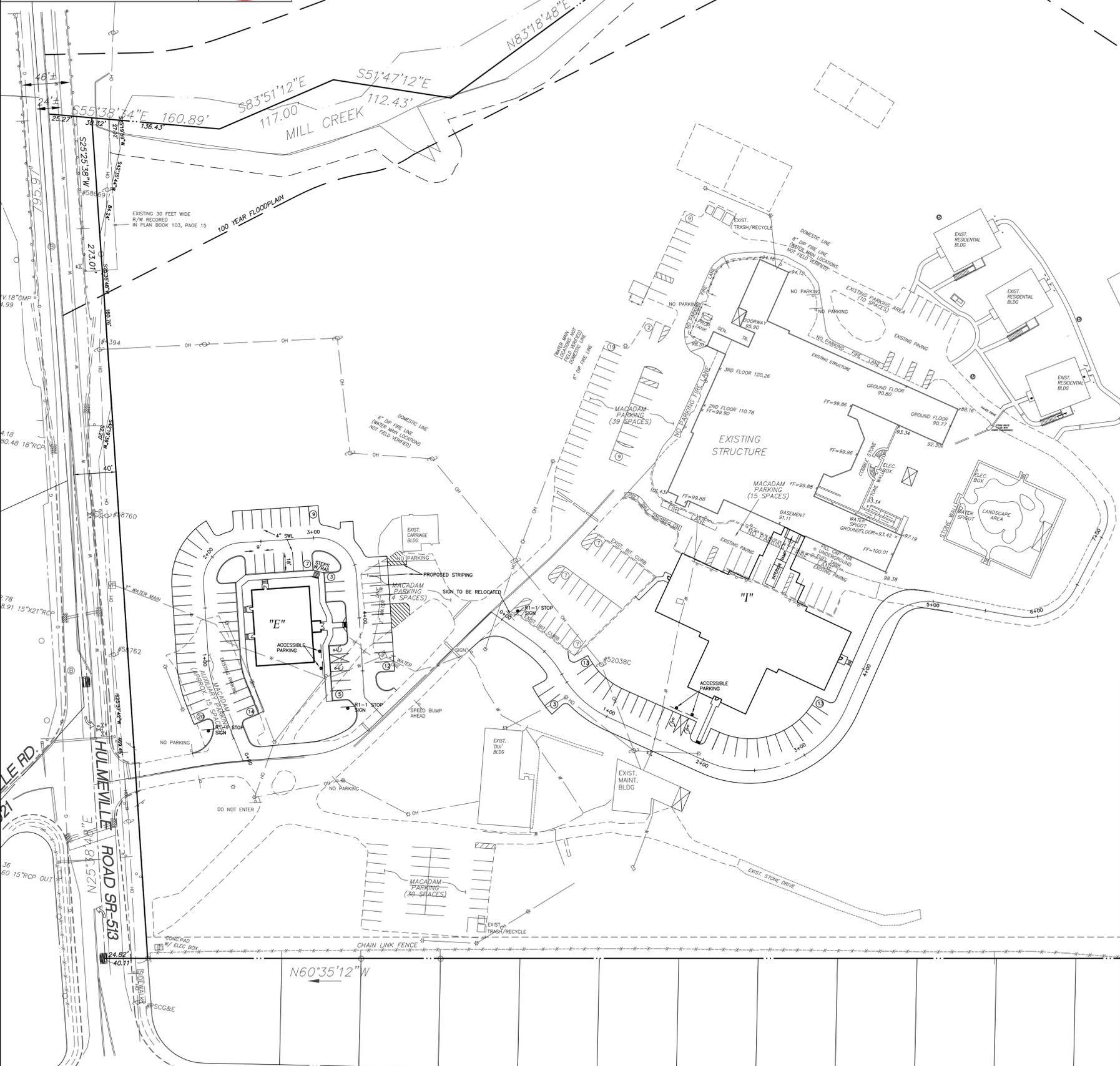
Luminaire Schedule

Symbol	Label	Qty	Description	Lumens/Lamp	Arrangement	LLF	Filename	(TEST)
■	SL3	53	RCS-P20-H3P	19000	SINGLE	0.720	RCS-P20-H3P.Jes	3608
■	SL3-HS	6	RCS-P20-H3P-HS	19000	SINGLE	0.720	RCS-P20-H3P-HS.Jes	3615
■	SL4	6	RCS-P20-H4P	19000	SINGLE	0.720	RCS-P20-H4P.Jes	3623
■	SL5	14	RCS-P20-H5P	19000	SINGLE	0.720	RCS-P20-H5P.Jes	3631
■	SL52	1	RCS-P20-H5P	19000	BACK-BACK	0.720	RCS-P20-H5P.JES	3631

STOP-CALL BEFORE YOU DIG!

LOCATION OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH CANNOT BE GUARANTEED. CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE START OF WORK BY CALLING PA ONE CALL SYSTEM THREE DAYS PRIOR TO EXCAVATION. REFERENCE PENNSYLVANIA ACT 289 AS AMENDED BY ACT 121. TELE. # 1-800-242-1776

WORK LOCATION NO.: 2985526



RI-1 STOP SIGN

(a) Justification. The Stop Sign (RI-1) is authorized for use on those streets or highways which intersect with a through highway or at a stop intersection as designated by the Department with reference to State-designated highways or local authorities with reference to highways under their jurisdiction. The RI-1 sign is also authorized for use in work zones involving one-way, two-way roadways. At intersections where all approaches are controlled by an RI-1 sign, a supplemental ALL-WAY plaque (RI-507) shall be mounted below each RI-1 sign.

(b) Authorization. Below local authorities designate any highway as a through highway or stop intersection which will intersect or affect a State-designated highway, approval of such designation shall first be obtained from the Department. Approval to install RI-1 signs in work zones shall not require the approval of the Department local authorities when the conditions stipulated in the Department's Temporary Traffic Control Guidelines are satisfied.

(c) Size. The standard size RI-1 sign shall be 30" x 30" for single lane conventional highways and 30" x 30" for multi-lane conventional highways. The 24" x 24" size shall only be used for days with restrictive physical conditions and vehicle usage that prohibits the installation of the standard size RI-1. A sign that is mounted back-to-back with an RI-1 sign should stay within the edges of the RI-1 sign. If necessary, the size of the RI-1 sign should be increased so that any other sign installed back-to-back with it remains within the edges of the RI-1 sign.

SIGN SIZE A x B	DIMENSIONS - IN										BLANK STD.		
	C	D	E	F	G	H	I	J	K	L			
12" x 18"	4	5.5	1.1	3.3	3.3	3.9	0.4	3.5	13	0.8	1.8	4.2	1.8
24" x 24"	6	8	1.6	4.8	4.8	5.4	0.6	5.0	18	1.2	2.4	6.0	2.4
30" x 30"	10	12	2.2	6.6	6.6	7.2	0.8	6.8	24	1.6	3.0	7.2	3.0
30" x 36"	10	12	2.2	6.6	6.6	7.2	0.8	6.8	24	1.6	3.0	7.2	3.0
36" x 36"	12	15	3.0	9.0	9.0	9.6	1.0	9.2	30	2.0	3.6	9.0	3.6
48" x 48"	16	20	4.0	12.0	12.0	12.8	1.2	12.4	40	2.4	4.8	12.0	4.8

COLOR:
LEGEND AND BORDER:
WHITE (REFLECTORIZED)
BACKGROUND:
RED (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: *C. Row* Date: 02-25-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R6-1R HORIZONTAL BRIGHT ONE-WAY SIGN

(a) Justification. The Horizontal Bright One-Way Sign (R6-1R) shall be authorized for use to indicate a street, roadway, or alley which carries traffic in the permitted direction only. When the central island of a roundabout allows for installation of signs, the R6-1R sign may be used instead of or in addition to Roundabout Directional Arrow (RD-4) series signs to direct traffic counter-clockwise around the central island.

(b) Placement. At unsignalized intersections, the R6-1R sign shall be placed on the near right-hand side of the intersection so as to face traffic entering or crossing the one-way street. At signalized intersections, the R6-1R sign shall be placed either near the appropriate signal face, on poles holding the traffic signals, on mast arms, or on poles with holding the signals, or at the locations specified for unsignalized intersections. When used on the central island of a roundabout, the mounting height of a R6-1R sign should be at least 4 feet measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way.

(c) Size. The standard size of the R6-1R sign for single lane conventional highways shall be 30" x 12". The standard size for multi-lane conventional highways and expressways shall be 48" x 18". See General Notes for additional guidance.

SIGN SIZE A x B	DIMENSIONS - IN										BLANK STD.		
	C	D	E	F	G	H	I	J	K	L			
12" x 18"	4	5.5	1.1	3.3	3.3	3.9	0.4	3.5	13	0.8	1.8	4.2	1.8
24" x 24"	6	8	1.6	4.8	4.8	5.4	0.6	5.0	18	1.2	2.4	6.0	2.4
30" x 30"	10	12	2.2	6.6	6.6	7.2	0.8	6.8	24	1.6	3.0	7.2	3.0
36" x 36"	12	15	3.0	9.0	9.0	9.6	1.0	9.2	30	2.0	3.6	9.0	3.6
48" x 48"	16	20	4.0	12.0	12.0	12.8	1.2	12.4	40	2.4	4.8	12.0	4.8

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

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: *C. Row* Date: 02-25-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R5-1 DO NOT ENTER SIGN

(a) Justification. The Do Not Enter Sign (R5-1) shall be authorized for use to prohibit traffic from entering a restricted road section.

(b) Placement. The R5-1 sign should normally be mounted on the right-hand side of the roadway, facing traffic entering the roadway or stop in the wrong direction. However, a second sign on the left-hand side of the roadway may be justified, particularly where traffic may be approaching in a turn.

(c) Size. The standard size of the R5-1 sign shall be 30" x 30" for single lane conventional highways, 30" x 36" for multi-lane conventional highways and expressways, and 48" x 48" for freeways.

SIGN SIZE A x B	DIMENSIONS - IN										BLANK STD.		
	C	D	E	F	G	H	I	J	K	L			
12" x 18"	4	5.5	1.1	3.3	3.3	3.9	0.4	3.5	13	0.8	1.8	4.2	1.8
24" x 24"	6	8	1.6	4.8	4.8	5.4	0.6	5.0	18	1.2	2.4	6.0	2.4
30" x 30"	10	12	2.2	6.6	6.6	7.2	0.8	6.8	24	1.6	3.0	7.2	3.0
30" x 36"	10	12	2.2	6.6	6.6	7.2	0.8	6.8	24	1.6	3.0	7.2	3.0
48" x 48"	16	20	4.0	12.0	12.0	12.8	1.2	12.4	40	2.4	4.8	12.0	4.8

COLOR:
NO. 1:
LEGEND:
WHITE (REFLECTORIZED)
BACKGROUND:
RED (REFLECTORIZED)
NO. 2:
BACKGROUND:
WHITE (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: *C. Row* Date: 02-25-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

EXISTING STORM SEWER

EXISTING SANITARY SEWER

PROPOSED SANITARY SEWER FORCE MAIN

PROPOSED WATER LINE

EXISTING CONTOUR

POSITIVE DRAINAGE INDICATOR

EXISTING ELEV.: (333.68) OR 333.68

PROPOSED ELEV.: (334.50)

LIMIT OF TREE REMOVAL

LIMIT OF DISTURBANCE

NPDES BOUNDARY

NOTE:
SEE STANDARD ARROW FOR DIMENSIONS OF ARROWHEAD

DIMENSIONS - IN

SIGN SIZE A x B	DIMENSIONS - IN										BLANK STD.		
	C	D	E	F	G	H	I	J	K	L			
12" x 18"	4	5.5	1.1	3.3	3.3	3.9	0.4	3.5	13	0.8	1.8	4.2	1.8
24" x 24"	6	8	1.6	4.8	4.8	5.4	0.6	5.0	18	1.2	2.4	6.0	2.4
30" x 30"	10	12	2.2	6.6	6.6	7.2	0.8	6.8	24	1.6	3.0	7.2	3.0
36" x 36"	12	15	3.0	9.0	9.0	9.6	1.0	9.2	30	2.0	3.6	9.0	3.6
48" x 48"	16	20	4.0	12.0	12.0	12.8	1.2	12.4	40	2.4	4.8	12.0	4.8

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

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: *C. Row* Date: 02-25-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R6-1R HORIZONTAL BRIGHT ONE-WAY SIGN

(a) Justification. The Horizontal Bright One-Way Sign (R6-1R) shall be authorized for use to indicate a street, roadway, or alley which carries traffic in the permitted direction only. When the central island of a roundabout allows for installation of signs, the R6-1R sign may be used instead of or in addition to Roundabout Directional Arrow (RD-4) series signs to direct traffic counter-clockwise around the central island.

(b) Placement. At unsignalized intersections, the R6-1R sign shall be placed on the near right-hand side of the intersection so as to face traffic entering or crossing the one-way street. At signalized intersections, the R6-1R sign shall be placed either near the appropriate signal face, on poles holding the traffic signals, on mast arms, or on poles with holding the signals, or at the locations specified for unsignalized intersections. When used on the central island of a roundabout, the mounting height of a R6-1R sign should be at least 4 feet measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way.

(c) Size. The standard size of the R6-1R sign for single lane conventional highways shall be 30" x 12". The standard size for multi-lane conventional highways and expressways shall be 48" x 18". See General Notes for additional guidance.

SIGN SIZE A x B	DIMENSIONS - IN										BLANK STD.		
	C	D	E	F	G	H	I	J	K	L			
12" x 18"	4	5.5	1.1	3.3	3.3	3.9	0.4	3.5	13	0.8	1.8	4.2	1.8
24" x 24"	6	8	1.6	4.8	4.8	5.4	0.6	5.0	18	1.2	2.4	6.0	2.4
30" x 30"	10	12	2.2	6.6	6.6	7.2	0.8	6.8	24	1.6	3.0	7.2	3.0
36" x 36"	12	15	3.0	9.0	9.0	9.6	1.0	9.2	30	2.0	3.6	9.0	3.6
48" x 48"	16	20	4.0	12.0	12.0	12.8	1.2	12.4	40	2.4	4.8	12.0	4.8

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

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: *C. Row* Date: 02-25-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

REVISION DATE: DESCRIPTION:

DECEMBER 27, 2012	REVISE BUILDING LAYOUT
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCPC & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 18, 2013	NPDES SUBMISSION
FEBRUARY 26, 2013	ADJUST WATER LINE/ADDITIONAL FIRE HYDRANTS
FEBRUARY 2, 2016	PHASE 1 - FINAL PLAN

SCALE: 1" = 50'

STRIPING & SIGNAGE PLAN
PREPARED FOR
LIVENGRIN FOUNDATION
SITUA
BENSALEM TOWNSHIP
BUCKS COUNTY PENNSYLVANIA

DATE: AUGUST 1, 2012

MANAGER: RFI

DRAWN BY: RFI

SCALE: 1" = 50'

20 OF 22

Land Use Consultants
Land Planning • Engineering • Landscape Architecture • Land Surveying

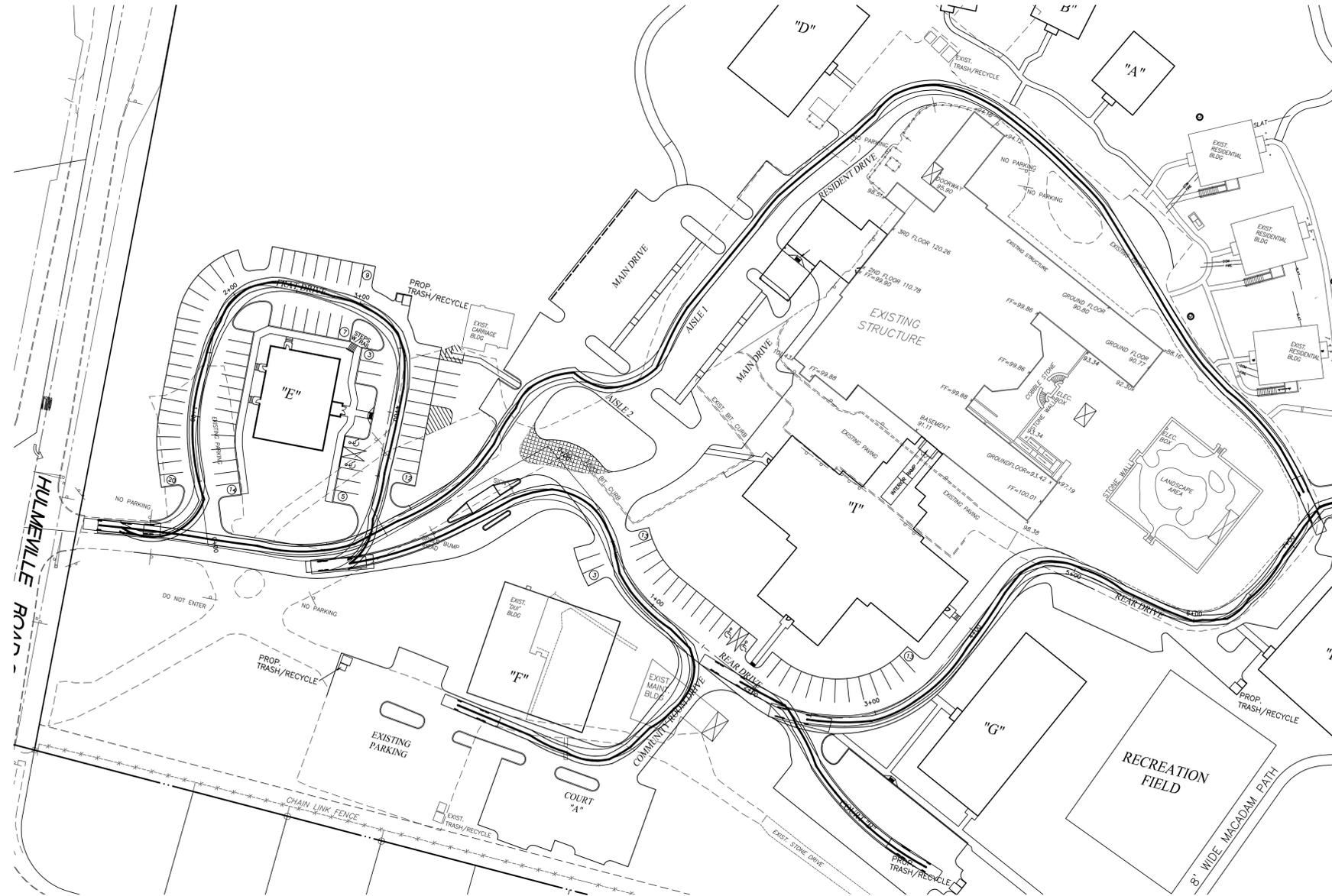
Herhardt
Milents
INCORPORATED

File Three
2771 Gettysville Pike
Pottsville, PA 17073
610-541-4628
215-541-4033(fax)
E-Mail: info@LUCMD.com

STOP-CALL BEFORE YOU DIG!

LOCATION OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM EXISTING RECORDS AND/OR ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH CANNOT BE GUARANTEED. CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES BEFORE START OF WORK. BY CALLING PA ONE CALL SYSTEM THREE DAYS PRIOR TO EXCAVATION, REFERENCE PENNSYLVANIA ACT 287 AS AMENDED BY ACT 121, TELE. # 1-800-242-1776

WORK LOCATION NO.: 2985526



FIRE TRUCK AUTOTURN DIAGRAM
47' FIRE TRUCK ANALYZED

REVISION DATE:	DESCRIPTION:
JANUARY 25, 2013	REVISE PER PC RECOMMENDATION, TWP. ENG, BCP & TWP. TRAFFIC ENG REVIEWS
FEBRUARY 2, 2016	PHASE 1 - FINAL PLAN
<p>VEHICLE TURN ANALYSIS PREPARED FOR LIVENGRIN FOUNDATION SITUATE BENSALEM TOWNSHIP BUCKS COUNTY PENNSYLVANIA</p>	
DATE:	AUGUST 1, 2012
MANAGER:	RFI
SOB NUMB.:	09-15
FILE NAME:	RFI
FILE NAME:	09-15BASE
SCALE:	1" = 50'
SHEET:	22 OF 22