TOWN OF NORTH CASTLE

WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

RESIDENTIAL PROJECT
REVIEW COMMITTEE
Adam R. Kaufman AICP, Chair

Telephone: (914) 273-3000 x 43
Fax: (914) 273-3554
www.nortcastleny.com

RESIDENTIAL PROJECT REVIEW COMMITTEE (RPRC) APPLICATION

Section I- PROJECT

ADDRESS: 69 WINDMILL ROAD

Section III- DESCRIPTION OF WORK:
PROPOSING 250 SF OF COVERED PORCH IN THE FRONT AND 425 SF OF COVERED PORCH IN THE BACK OF BUILDING. PROPOSING A MUDROOM IN THE BACK AND AN OFFICE SPACE IN THE FRONT OF THE BUILDING BY ENCLOSING AN EXISTING PORCH. SINCE THE PROPOSED IMPERVIOUS AREA IS MORE THAN 250 SF, TWO 280 XLHD CULTEC UNITS WERE INSTALLED TO COLLECT THE RUNOFF FROM THE PROPOSED PORCH IN THE BACK YARD THROUGH ROOF LEADERS.

Section III- CONTACT INFORMATION:

APPLICANT: Jessica Haber + Jeffery Boyd
ADDRESS: 69 Windmill Road
PHONE: 9177639887 MOBILE: _____ EMAIL: jefe618@gmail.com
203 550 3468 jessicasuehaber@gmail.com
PROPERTY OWNER: Jessica Haber + Jeffery Boyd
ADDRESS: 69 windmill Road
PHONE: 9177639887 MOBILE: _____ EMAIL: jefe618@gmail.com
203 550 3468 jessicasuehaber@gmail.com
PROFESSIONAL:: RICHARD KOTZ ARCHITECTURE LLC
ADDRESS: 328 PEMBERWICK ROAD GREENWICH CT, 06831
PHONE: _____ MOBILE: 914.525.9980
EMAIL: RICHARD@RICHARDKOTZ.com

Section IV- PROPERTY INFORMATION:

Zone: R-1.5A Tax ID (lot designation) 11/04/10.-204

Town of North Castle
Residential Project Review Committee
17 Bedford Road Armonk, New York 10504
(914) 273-3542 (914) 273-3554 (fax)

RPRC COMPLETENESS REVIEW FORM

This form represents the standard requirements for a completeness review for all Residential Project Review Committee submissions. Failure to provide all of the information requested will result in a determination that the application is incomplete.

Project Name on Plan: Jeff Boyd

☒ Initial Submittal ☐ Revised Preliminary

Street Location: 69 Windmill Rd

Zoning District: R-1.5A Property Acreage: 1.621 Tax Map Parcel ID: 1/04/10.-204

Date: 4/18/2022

DEPARTMENTAL USE ONLY

Date Filed: _____ Staff Name: _____

Preliminary Plan Completeness Review Checklist
Items marked with a ☒ are complete, items left blank ☐ are incomplete and must be completed, "NA" means not applicable.

☐ 1. Plan prepared by a registered architect or professional engineer

☐ 2. Aerial photo (Google Earth) showing the applicant's entire property and adjacent properties and streets

☐ 3. Map showing the applicant's entire property and adjacent properties and streets

☐ 4. A locator map at a convenient scale

☐ 5. The proposed location, use and design of all buildings and structures

☐ 6. Existing topography and proposed grade elevations

☐ 7. Location of drives

☐ 8. Location of all existing and proposed site improvements, including drains, culverts, retaining walls and fences

- ☐ 9. Description of method of water supply and sewage disposal and location of such facilities
- ☐ 10. The name and address of the applicant, property owner(s) if other than the applicant and of the planner, engineer, architect, surveyor and/or other professionals engaged to work
- ☐ 11. Submission of a Zoning Conformance Table depicting the plan's compliance with the minimum requirements of the Zoning District
- ☐ 12. If a tree removal permit is being sought, submission of a plan depicting the location and graphical removal status of all Town-regulated trees within the proposed area of disturbance. In addition, the tree plan shall be accompanied by a tree inventory includes a unique ID number, the species, size, health condition and removal status of each tree.
- ☐ 13. If a wetlands permit is being sought, identification of the wetland and the 100-foot wetland buffer.

More information about the items required herein can be obtained from the North Castle Planning Department. A copy of the Town Code can be obtained from Town Clerk or on the North Castle homepage: http://www.northcastleny.com/townhall.html

_____ On this date, all items necessary for a technical review of the proposed site plan have been submitted and constitute a COMPLETE APPLICATION.

ZONING CONFORMANCE TABLE

Zoning R-1.5A		
Lot Area: 70,612 SF		
	Required	Proposed
Front Yard	50'	78.98'
Side Yard	30'	37.45'
Side Yard	30'	170.55'
Rear Yard	40'	69.64'
	Maximum	Proposed
Floor Area	9,298 SF	6,306 SF
Gross Land Coverage	12,074 SF	8,589 SF


Untitled Map
Write a description for your map.
Legend
69 Windmill Rd
69 Windmill Rd
Long Pond Rd
Long Pond Rd
Google Earth
Image Landsat / Copernicus
200 ft
N


1:01
Safari
69 Windmill Rd
Middle Pate
Rural Cem
N Lake Rd
Thornewood Rd
Windmill Rd
Windmill Pl
North Lake
Mianus River
greenspan
otography
Valley
Banksville Rd
Banksville Rd
LIVE
69 Windmill Rd
69 Windmill Rd, North Castle, NY 10504

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PLANNING DEPARTMENT
Adam R. Kaufman, AICP
Director of Planning

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GROSS LAND COVERAGE CALCULATIONS WORKSHEET

Application Name or Identifying Title: Boyd Residence Date: 4-18-22

Tax Map Designation or Proposed Lot No.: 1/04/10.-204

Gross Lot Coverage

1.	Total lot Area (Net Lot Area for Lots Created After 12/13/06):	70612
2.	**Maximum** permitted gross land coverage (per Section 355-26.C(1)(b)):	11784.5
3.	**BONUS** maximum gross land cover (per Section 355-26.C(1)(b)):	
	Distance principal home is beyond minimum front yard setback 28.98 x 10 =	289.8
4.	**TOTAL Maximum Permitted gross land coverage** = Sum of lines 2 and 3	12074.3
5.	Amount of lot area covered by **principal building:** 2677 existing + 237 proposed =	
6.	Amount of lot area covered by **accessory buildings:** 0 existing + 0 proposed =	0
7.	Amount of lot area covered by **decks:** 0 existing + 0 proposed =	0
8.	Amount of lot area covered by **porches:** 376 existing + 675 proposed =	1051
9.	Amount of lot area covered by **driveway, parking areas and walkways:** 3363 existing + 0 proposed =	3363
10.	Amount of lot area covered by **terraces:** 1261 existing + 0 proposed =	1261
11.	Amount of lot area covered by **tennis court, pool and mechanical equip:** 0 existing + 0 proposed =	0
12.	Amount of lot area covered by **all other structures:** 0 existing + 0 proposed =	0
13. Proposed	**gross land coverage:** Total of Lines 5 – 12 =	8589

If Line 13 is less than or eq ual to Line 4, your proposal **complies** with the Town's maximum gross land coverage regulations and the project may proceed to the Residential Project Review Committee for review. If Line 13 is greater than Line 4 your proposal does not comply with the Town's regulations.

Thomas G. Ahneman

Signature and Seal of Professional Preparing Worksheet

STATE OF NEW YORK
THOMAS G. AHNEMAN
062529
LICENSED PROFESSIONAL ENGINEER

4/18/2022
Date

TOWN OF NORTH CASTLE
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FLOOR AREA CALCULATIONS WORKSHEET

Application Name or Identifying Title: 69 WINDMILL ROAD Date: 4.27.22

Tax Map Designation or Proposed Lot No.: 1/04/10.-204

Floor Area

1.	Total Lot Area (Net Lot Area for Lots Created After 12/13/06):	70612
2.	**Maximum** permitted floor area (per Section 355-26.B(4)):	9297
3.	Amount of floor area contained within first floor: 1948 existing + 249 proposed =	2197
4.	Amount of floor area contained within second floor: 1517 existing + 98 proposed =	1615
5.	Amount of floor area contained within garage: 545 existing + 0 proposed =	545
6.	Amount of floor area contained within porches capable of being enclosed: 374 existing + 695 proposed =	1069
7.	Amount of floor area contained within basement (if applicable – see definition): 795 existing + 0 proposed =	795
8.	Amount of floor area contained within attic (if applicable – see definition): 85 existing + 0 proposed =	85
9.	Amount of floor area contained within all accessory buildings: 0 existing + 0 proposed =	0
10.	Proposed **floor area:** Total of Lines 3 – 9 =	6306

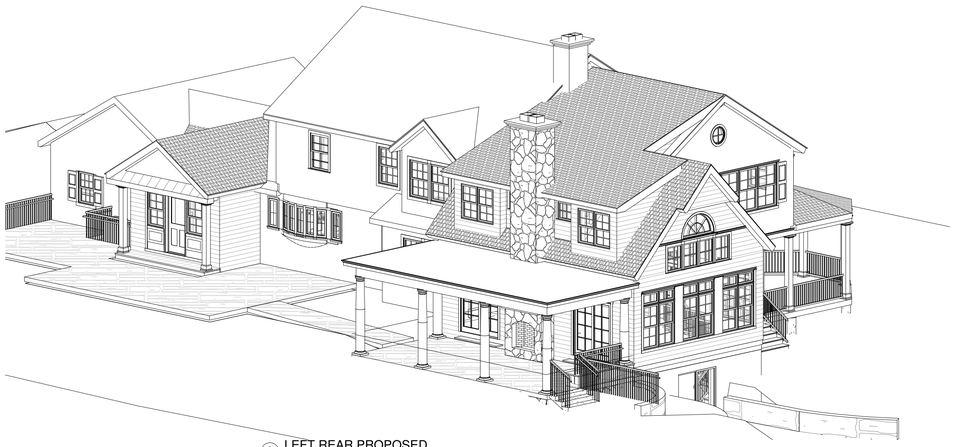
If Line 10 is less than or equal to Line 2, your proposal **complies** with the Town's maximum floor area regulations and the project may proceed to the Residential Project Review Committee for review. If Line 10 is greater than Line 2 your proposal does not comply with the Town's regulations.

Richard Kotz

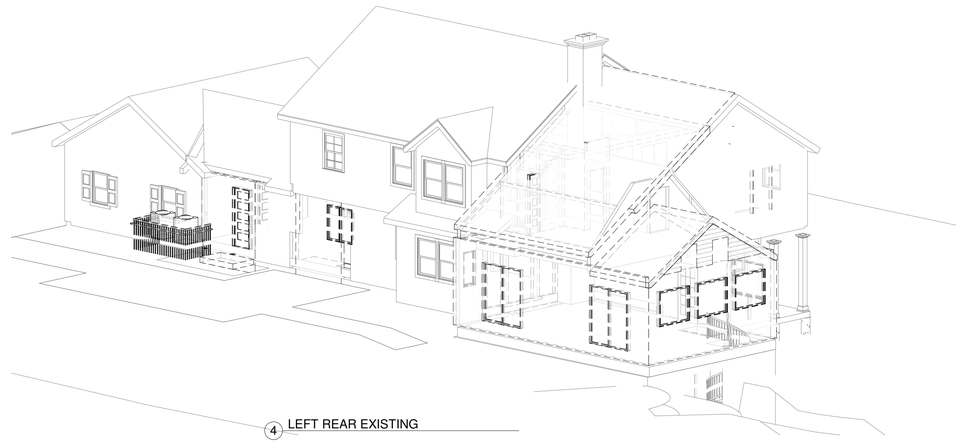
Signature and Seal of Professional Preparing Worksheet

REGISTERED ARCHITECT
RICHARD KOTZ
023233
STATE OF NEW YORK

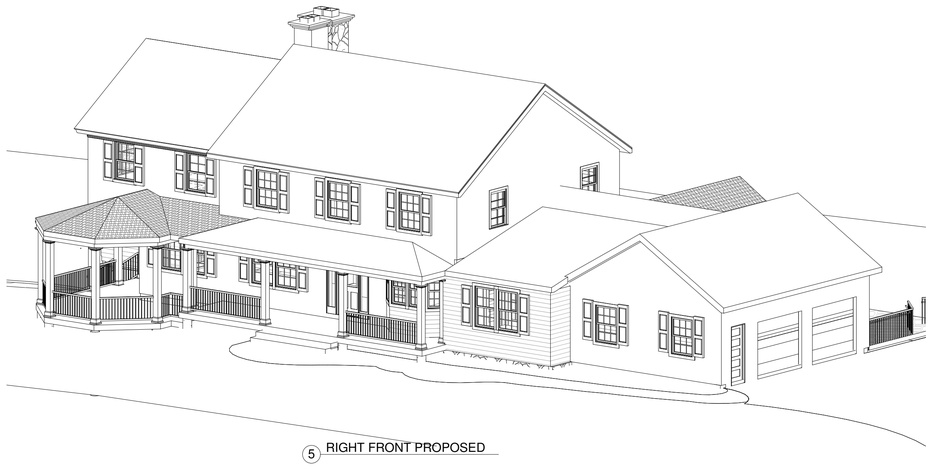
4/27/22
Date



3 LEFT REAR PROPOSED

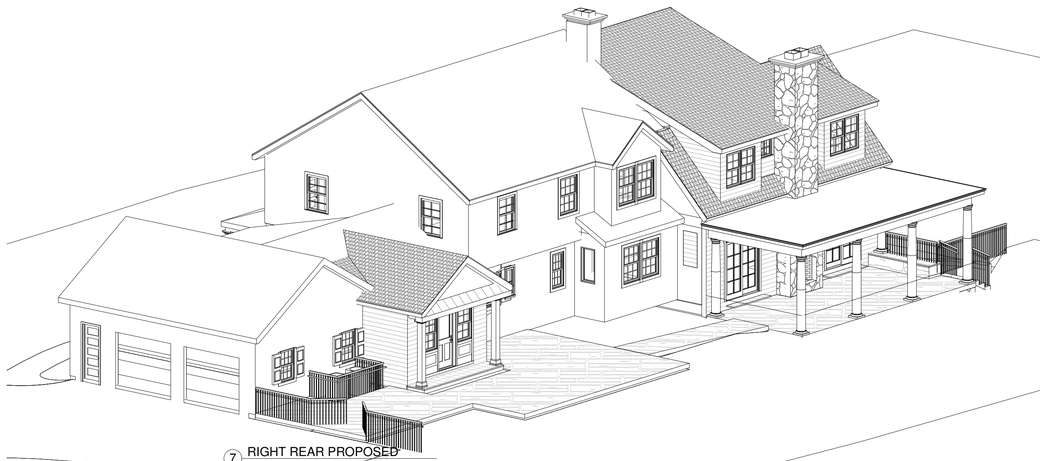


4 LEFT REAR EXISTING

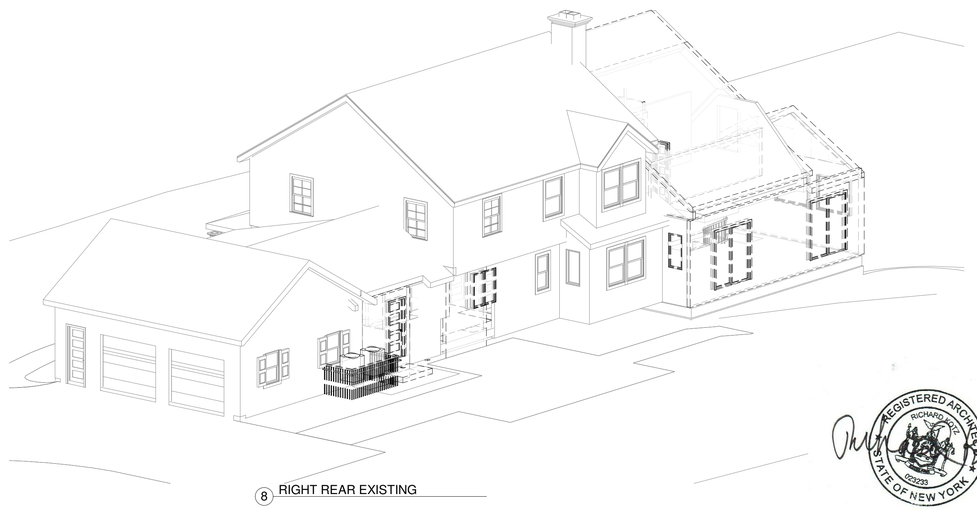


5 RIGHT FRONT PROPOSED

6 RIGHT FRONT EXISTING



7 RIGHT REAR PROPOSED



8 RIGHT REAR EXISTING

REGISTERED ARCHITECT RICHARD KOTZ 033233 STATE OF NEW YORK

PROJECT

PROPOSED REOVATION

69 Windmill Rd
Armonk, NY

DRAWING NAME

3D

RichardKotz Architecture

TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

DATE:

SCALE:

NO.

A0

DRAWING SPECIFICATIONS

GENERAL

1. REMOVALS AND NEW CONSTRUCTION AS PER THE DRAWINGS.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND COORDINATING FIELD DIMENSIONS AND EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF RELATED PHASES OF CONSTRUCTION. ARCHITECT IS TO BE NOTIFIED IF QUESTIONABLE OR CONFLICTING CONDITIONS OR DIMENSIONS EXIST WHEN COMPARED TO THESE DOCUMENTS. DUE TO SLIGHT DISCREPANCIES FROM PLOTTING, BLUEPRINTING, ETC. DO NOT SCALE THE DRAWINGS.
3. ALL WORK TO BE DONE IN ACCORDANCE WITH THE FOLLOWING CODES WHERE APPLICABLE:
4. DESIGN LOADS, 1 & 2 FAMILY DWELLINGS:
   - A. FLOORS (LIVING SPACES) - 40 PSF LIVE / 20 PSF DEAD
   - B. FLOORS (SLEEPING ROOMS) - 30 PSF LIVE / 20 PSF DEAD
   - C. ROOF - 40 PSF LIVE / 20 PSF DEAD
   - D. SOIL BEARING - 2500 PSF (MIN. ASSUMED)
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCURING ALL NECESSARY PERMITS AND ASSOCIATED FEES, SIGN-OFFS, CERTIFICATE OF OCCUPANCY, ETC. INCLUDING INITIAL BLDG. PERMIT UNLESS OTHERWISE DIRECTED BY OWNER.
6. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL PROVIDE WORKMENS' COMPENSATION, COMPREHENSIVE LIABILITY, AND PROPERTY DAMAGE INSURANCE AS REQUIRED BY LAW. PROVIDE CERTIFICATE OF SAME TO OWNER / CLIENT.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE TO BE FAMILIAR WITH ALL EXISTING CONDITIONS ALONG WITH THE SCOPE OF NEW WORK AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS.
8. THE CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES, INCLUDING ANY ITEMS TO BE PROVIDED BY THE OWNER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING ALL TESTS AND INSPECTIONS PERFORMED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR ACTS AND OMISSIONS OF HIS EMPLOYEES, SUBCONTRACTORS, AND THEIR AGENTS, EMPLOYEES, AND OTHERS PERFORMING ANY WORK, UNDER CONTRACT WITH THE CONTRACTOR.
11. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND THE ARCHITECT AND THEIR AGENTS AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE WORK.
12. THE OWNER MAY ORDER CHANGES IN THE WORK AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS, HOWEVER, ALL SUCH PROPOSED CHANGES MAY ONLY BE PERFORMED UPON RECEIPT BY THE G.C. OF WRITTEN AUTHORIZATION OF THE OWNER, IN THE FORM OF A CHANGE ORDER, TO PERFORM SUCH CHANGES.
13. THE CONTRACTOR SHALL MAINTAIN THE JOB SITE IN AN ORDERLY AND CLEAN MANNER. WHEN DAILY WORK IS COMPLETED, SITE SHALL BE REGULARLY MAINTAINED IN SUCH A MANNER AS TO BE CONSIDERED SAFE FOR ADULT-SUPERVISED YOUNG CHILDREN. WHEN THESE CONDITIONS CANNOT BE MET, THE CONTRACTOR SHALL NOTIFY THE OWNER THAT THE SITE, IN HIS OPINION, IS NO LONGER SAFE FOR SUPERVISED YOUNG CHILDREN.
14. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A CONSTRUCTION SCHEDULE. ALL WORK TO BE DONE IN A TIMELY MANNER.
15. THE CONTRACTOR TO PROVIDE A WAIVER OF LIENS ON ALL ITEMS AT THE COMPLETION OF THE PROJECT.
16. THE CONTRACTOR TO GUARANTEE ALL WORK FOR THE MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER.
17. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SAMPLES OF MATERIALS TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE SCOPE OF WORK.
18. THE CONTRACTOR TO PROVIDE ALL TEMPORARY UTILITY CONNECTIONS NECESSARY FOR HIS WORK AND THE WORK OF OTHER TRADES.
19. THE CONTRACTOR SHALL PROVIDE WATER AND TOILET FACILITIES UNLESS OTHER ARRANGEMENTS ARE MADE WITH THE OWNER.
20. THE CONTRACTOR SHALL TELEPHONE & NOTIFY "CALL BEFORE YOU DIG" @ (800) 922-4455 PRIOR TO ANY EXCAVATION WORK.
21. THE CONTRACTOR TO PROVIDE RELEASE OF LIENS FROM ALL SUBS & SUPPLIERS OF MAJOR MATERIALS & EQUIPMENT.
22. PROVIDE ADEQUATE PROTECTION FOR ALL/ANY LANDSCAPE THAT MAY BE AFFECTED DURING SCOPE OF WORK INDICATED IN THESE DRAWINGS.
23. CONTRACTOR TO DISCUSS ANY/ALL DISCREPANCIES THEY NOTE WHEN REVIEWING CONSTRUCTION DOCUMENTS AND CLARIFY WITH ARCHITECT PRIOR TO COMMENCEMENT OF PROJECT.

DEMOLITION

1. THE CONTRACTOR TO PROTECT THE EXISTING CONDITIONS NOTED TO REMAIN OR SCHEDULED FOR REUSE.
2. 2. WORK TO INCLUDE SELECTIVE WRECKING AND REMOVAL OF ITEMS AS SHOWN ON THE DRAWINGS ALONG WITH ALL UTILITIES AND SERVICES ASSOCIATED WITH THEM.
3. REMOVE ALL WALLS, PORTIONS OF WALLS, DOORS, WINDOWS, ETC. AS SHOWN ON THE DRAWINGS. INCLUDE ANY WALL OR FLOOR COVERINGS, ELECTRICAL FIXTURES, AND CONDUITS REQUIRED FOR COMPLETE SCOPE OF DEMOLITION WORK. STORE OR DISCARD ANY ITEMS AS PER DRAWINGS, AND SCHEDULES OR AS DIRECTED OR REQUESTED BY OWNER.
4. ALL MATERIALS TO BE STORED FOR REUSE SHALL BE ADEQUATELY PROTECTED FROM DAMAGE, DIRT, AND PILFERAGE. OWNER TO PROVIDE SECURE LOCATION FOR STORAGE DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE REMOVAL OF DEBRIS FROM THE PROJECT SITE & INCLUDE ALL COSTS OF THIS IN HIS BID.
6. ALL DEMOLITION TO BE DONE DURING APPROVED HOURS AS AGREED TO BY THE OWNER AFTER CONSULTATION WITH NEIGHBORS.
7. CONTRACTOR TO PAY FOR AND PROVIDE A DEMOLITION PERMIT(S) UNLESS OTHERWISE DIRECTED BY OWNER.
8. ARCHITECT TO BE NOTIFIED DURING DEMOLITION SO THAT EXISTING CONDITIONS MAY BE ADEQUATELY DEALT WITH.
9. CONTRACTOR SHALL PROVIDE AND BE SOLELY RESPONSIBLE FOR ALL TEMPORARY BRACING AND SHORING REQUIRED TO MAINTAIN STABILITY OF THE STRUCTURE DURING CONSTRUCTION.
10. REMOVE ONLY THOSE PLANTINGS & LANDSCAPING INDICATED ON THE DRAWINGS OR DIRECTED BY OWNER OR THAT MAY BE IN THE WAY OF NEW CONSTRUCTION.

SITE WORK & EXCAVATION

1. PROVIDE ALL EXCAVATION AND CLEARING FOR NEW DRIVEWAY, WALKS, ETC., INCLUDING BRUSH REMOVAL, STRIPPING AND STOCKPILING OF TOPSOIL FOR REUSE, REMOVAL AND CLEARING OF ROCKS, SOIL, ETC., PROCESSED STONE BASE WHERE REQ'D, AND ROUGH & FINISH GRADING.
2. ROUGH & FINISH GRADING & LEVELING AT AREAS OF PATIO REMOVAL. FILL AREAS WITH FILL & TOPSOIL TO MATCH SURROUNDING GRADES. SOD OR RE-SEED AS PER OWNER. PROVIDE ADD/ALTERNATE FOR NEW STONE PATIO WORK.
3. BACKFILL AT NEW FOUNDATION WALLS TO MATCH EXISTING GRADE. REMOVE FROM THE CONSTRUCTION SITE ANY SOIL EXCAVATED FOR THE CONSTRUCTION AND NOT BEING REUSED. MAINTAIN 3'-6" COVER TO BOTTOM OF FOOTINGS. BACKFILL WITH APPROVED MATERIAL.

SITE WORK & EXCAVATION (CON'T.)

3. BACKFILL WITH APPROVED MATERIAL. BACKFILLING UNDER THE SLAB, AROUND PIERS, AND ON EACH SIDE OF THE FOUNDATION WALLS SHALL BE DONE IN LAYERS, NOT TO EXCEED 12". COMPACTION SHALL BE 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
4. EXCAVATION SHALL BE PROTECTED FROM FROST IN COLD WEATHER.
5. REMOVE ALL WATER FROM EXCAVATION PRIOR TO PLACEMENT OF CONCRETE.
6. FINISH LANDSCAPING, PLANTING, LAWN, AND RESEEDING ARE BY OWNER.
7. CONTRACTOR TO MAKE ARRANGEMENTS FOR REMOVAL OF DEBRIS AND INCLUDE THE COST OF THIS IN HIS BID.
8. ALL EXCAVATION TO BE DONE DURING APPROVED HOURS AS AGREED TO BY THE OWNER. OWNER TO CONSULT AND VERIFY APPROVED HOURS WITH NEIGHBORS.
9. ARCHITECT TO BE NOTIFIED OF UNEXPECTED EXISTING FIELD CONDITIONS THAT MAY ARISE DURING EXCAVATION.
10. CONTRACTOR SHALL FURNISH AND BE SOLELY RESPONSIBLE FOR ALL TEMPORARY BRACING AND SHORING REQUIRED TO MAINTAIN STABILITY OF THE STRUCTURE DURING CONSTRUCTION.
11. INCLUDE ALL TREE CUTTING, STUMP REMOVAL, DEMOLITION & REMOVAL OF ANY PATIO AREAS,WALKWAYS, STEPS AND PORTIONS OF STONE WALLS, ECT. . PROVIDE ALLOWANCES AND CONTINGENCIES FOR REMOVAL OF DEBRIS FROM DEMOLITION AND EXCAVATIONS.
12. PROVIDE UNIT-BASED ALLOWANCES AND JUSTIFIABLE CONTINGENCIES FOR BLASTING AND ROCK EXCAVATION. INCLUDE UNIT PRICE FOR REMOVAL & DISPOSAL

MASONRY

1. ALL NEW STONE AND/OR BRICK TO MATCH EX. IN SIZE, SHAPE, COLOR, INSTALLATION DETAIL, MORTAR COLOR, JOINT THICKNESS, ETC. UNLESS OTHERWISE DIRECTED BY DRAWINGS.
2. INSTALL DUR-O-WAL #D/A 310, TRUSS TYPE JOINT REINFORCEMENT AT ALTERNATE COURSES OF NEW BLOCK WORK.
3. TYPE OF JOINT IN MASONRY WORK TO MATCH EXISTING UNLESS OTHERWISE NOTED. VERIFY FINAL SELECTION WITH OWNER.
4. ALL NEW EXTERIOR STUCCO OR PARGING TO MATCH EX. IN TEXTURE, COLOR, INSTALLATION DETAILS, ETC..
5. WINDOW SILLS IN THE STONE VENEER TO BE SLOPED FOR DRAINAGE TO THE EXTERIOR & AWAY FROM THE WOOD WINDOW SILLS.
6. PROVIDE GALVANIZED STEEL LINTELS W/ FABRIC FLASHING ABOVE WINDOWS IN STONE VENEER WALLS.
7. TIE NEW STONE OR BRICK VENEERS TO SUBSTRATE W/ DUR-O-WAL #D/A 213 AT 32" O.C. HORIZONTAL & 16" O.C. VERTICAL.

FOUNDATION & CONCRETE WORK

1. ALL FOOTINGS SHALL REST ON UNDISTURBED SOIL OF MIN. BEARING CAPACITY OF (2) TONS / SQ. FT.. CONTRACTOR TO NOTIFY THE ENGINEER WHEN CONSTRUCTION IS TO BEGIN SO THAT SOIL BEARING CAPACITY CAN BE VERIFIED AND FOOTING ELEVATIONS ADJUSTED IF REQUIRED.
2. BACKFILL WITH APPROVED MATERIAL. BACKFILLING UNDER THE SLAB, AROUND PIERS, AND ON EACH SIDE OF THE FOUNDATION WALLS SHALL BE DONE IN LAYERS, NOT TO EXCEED 12". COMPACTION SHALL BE 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
3. BUILDING FOOTINGS, FOUNDATION & WALLS TO BE CONCRETE 3000 PSI 28 DAY. MINIMUM OF 3" COVER BETWEEN REINFORCING BARS & EARTH.
4. ALL CONCRETE EXPOSED TO WEATHER INCLUDING CONCRETE FOR EXTERIOR FOUNDATION WALLS SHALL BE AIR ENTRAINED.
5. MESH REINFORCEMENT SHALL BE IN ACCORDANCE WITH ASTM A185 AND A82.
6. ALL DETAILS, WORKMANSHIP, AND PROCEDURES SHALL CONFORM TO ACI 318, LATEST EDITION.
7. ALL BARS MARKED 'CONT.' (CONTINUOUS) SHALL BE LAPPED 40 BAR DIAMETERS AT SPLICES AND CORNERS AND SHALL BE HOOKED OR EXTENDED 2'-0" MINIMUM.
8. ROD REINFORCEMENT SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60 TYPICALLY, GRADE 40 FOR TIES & STIRRUPS. MIN. OF 2-#5 BARS CONT. IN EA. FOOTING & 2-#5 BARS EA. AT THE TOP & BOTTOM OF FOUNDATION WALLS.
9. IF CONC. BLOCK IS USED FOR FOUNDATION WALLS, TO BE GRADE 'N' TYPE 1, HOLLOW LOAD BEARING CONC. MASONRY UNITS, REINFORCED W/ DUR-O-WAL BRAND TRUSS TYPE JOINT REINFORCEMENT @ ALT. COURSES. FILL BLOCK SOLID @ ALL ANCHOR BOLTS, REINFORCING RODS, AND BELOW BEARING BEAMS. BLOCK SIZE AS SPECIFIED ON THE DWGS. PROVIDE ADDL.. REINFORCING AS PER DRAWINGS.
10. PARGE BLOCK W/ 1/2" CEMENT MORTAR ABOVE GRADE &APPLY ASPHALTIC MASTIC WATERPROOFING BELOW GRADE.
11. ANCHOR BOLTS AS PER ASTM A307 & TO BE LOCATED NO MORE THAN 6'-0" O.C. & 12" FROM CORNERS & END CONDITIONS.
12. CONTRACTOR SHALL NOT BACKFILL AGAINST PIERS OR FOUNDATION WALLS UNTIL FIRST FLOOR FRAMING IS SECURED IN PLACE.
13. PROVIDE DRAINAGE FABRIC IN AREAS WHERE FULL BASEMENT IS SPECIFIED.
14. IF ROCK LEDGE IS ENCOUNTERED DURING THE EXCAVATION FOR NEW FOUNDATION, TIE TO CLEAN ROCK SURFACE & PIN NEW FOOTINGS &/OR FOUNDATION WALLS TO ROCK W/ 16" LONG #5 BARS DRILLED & GROUTED INTO THE ROCK.

STRUCTURAL (GENERAL NOTES)

1. ALL STRUCTURAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE BASIC BUILDING CODE OF THE STATE OF CONNECTICUT, LATEST ED.
2. ALL STRUCTURAL NOTES, DRAWINGS, ETC. TO BE USED IN CONJUNCTION WITH ALL ARCHITECTURAL & MECHANICAL SPECIFICATIONS AND DRAWINGS.
3. ALL DIMENSIONS TO BE FIELD VERIFIED BY THE CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROVED SIZE AND LOCATION OF ALL OPENINGS THROUGH THE ROOF, FLOORS, AND WALLS.
4. ALL SECTIONS AND DETAILS SHALL BE CONSIDERED TYPICAL AND APPLY FOR THE SAME AND SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
5. PROVIDE SOLID 4x4 OR PSL POST SUPPORTS FOR ALL FLITCH, LVL, AND GLULAM BEAMS UNLESS NOTED OTHERWISE. PROVIDE SOLID BLOCKING BELOW ALL POSTS DOWN TO FOUNDATION. POSTS LARGER THAN 4 X 4 MAY BE SUBSTITUTED WITH COMPOSITE 2 X 4 PSL POSTS AS APPROVED BY THE STRUCTURAL ENGINEER.
6. EXISTING FRAMING CONDITIONS HAVE NOT BEEN VERIFIED AND SHALL BE EXPOSED DURING THE DEMOLITION PORTION OF THE WORK. NOTIFY STRUCTURAL ENGINEER AND ARCHITECT DURING THIS PHASE SO EXISTING FIELD CONDITIONS CAN BE ADEQUATELY DEALT WITH.
7. NEW FLITCH BEAMS TO BE BOLTED W/ 1/2" DIA. BOLTS @ 12" O.C., AT TOP AND BOTTOM OF BEAM. PROVIDE 1 1/2" CLEARANCE BETWEEN BOLTS AND TOP AND BOTTOM EDGES OF BEAM.. STAGGEREDTOP FROM BOT. BY 6"

STRUCTURAL STEEL

1. MATERIAL: ASTM A36 FOR STRUCTURAL STEEL; ASTM A53, GRADE B FOR STEEL PIPE.
2. WORKMANSHIP: AISC "SPECIFICATIONS FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
3. SHOP AND FIELD CONNECTIONS SHALL BE WELDED USING E70XX SERIES ELECTRODES OR BOLTED WITH 3/4" A-325 FRICTION BOLTS, UNLESS OTHERWISE NOTED.
4. BEAM CONNECTIONS SHALL BE GENERALLY IN ACCORDANCE WITH THE AISC MANUAL.
5. COLUMNS SHALL BE PLUMBED AND BRACED WITH TEMPORARY BRACES UNTIL LATERAL BRACING MEMBERS ARE IN PLACE.

CARPENTRY

1. FRAMING LUMBER SHALL BE DOUGLAS FIR OR SOUTHERN YELLOW PINE, FRAMING AS PER THE DRAWINGS. ANY ALTERNATE FRAMING OR SUBSTITUTIONS SHALL BE RECALCULATED AND APPROVED IN WRITING BY THE STRUCTURAL ENGINEER. 1600 PSI FLEXURE MINIMUM
2. BUILD TO FINISHED FLOOR ELEVATIONS AS SHOWN ON DRAWINGS OR MATCH EXISTING FINISH FLOOR ELEVATIONS AS INDICATED. NEW FLOORS TO BE :

A. STRIP OAK HARDWOOD FINISH FLOORING ON 3/4" T&GCD EXT. PLYWOOD, SCREWED & GLUED ON NEW OR EXISTING FRAMING.

B. CERAMIC TILE FINISH FLOORING ON 1 LAYER DUR-ROCK TILE BACKER BOARD OVER 3/4" T&G CD EXT. PLYWOOD. SCREWED & GLUED ON NEW OR EX. FRAMING.

C. CARPET BY OWNER ON 3/4" T&G, P&T.S. PLYWOOD. SCREWED & GLUED ON NEW OR EX. FRAMING.

3. ALL PRESSURE TREATED MATERIAL TO BE NO. 1 SOUTHERN YELLOW PINE, S4S, .40 RETENTION, FOR DECKS, SILLS, & ANY MEMBERS OR BLOCKING IN CONTACT W/ CONC. OR BLOCK FOUNDATIONS & OTHER DAMP OR WET LOCATIONS.
4. ALL FLUSH FRAMING TO BE SUPPORTED ON METAL HANGERS, W/ SAFE LOAD CARRYING CAPACITY FOR REACTIONS.
5. PROVIDE SOLID BRIDGING AT SUPPORT POINTS AND EVERY EIGHT (8') FEET OF SPAN. PROVIDE FIRE STOPPING AS REQUIRED IN 'BALLOON' TYPE CONSTRUCTION AND AS REQUIRED BY APPLICABLE CODES.
6. ALL SPLICES IN FRAMING MEMBERS TO OCCUR AT SUPPORT POINTS.
7. NEW INTERIOR MOULDINGS, JAMBS, BASE, CROWN, CHAIR RAIL, WINDOW CASINGS, STOOLS, ETC. AND NEW EXTERIOR CORNER BOARDS, SOFFITS, FASCIAS, TRIM BOARDS, ETC. TO MATCH EXISTING OR AS DIRECTED ON THE DWGS. OR AS SELECTED BY OWNER FROM STOCK PROFILES. OWNER HAS FINAL APPROVAL OF ALL PROFILES. ALL NEW INTERIOR TRIM & MOLDINGS TO BE POPLAR, PAINT GRADE. IF TRIM IS TO BE STAINED, SUBSTITUTE CLEAR PINE.
8. SEE TYPICAL WALL SECTION OR WALL LEGEND FOR SPECIFICATIONS OF EXTERIOR WALL FINISHES.
9. EXTERIOR WINDOW ATTACHMENTS & ACCESSORIES TO BE BY WINDOW MANUFACTURER. G.C. TO COORDINATE AND PROVIDE NEW SILLS AND ANY ADDITIONAL TRIM AS REQ'D.
10. ALL EXTERIOR TRIM TO BE 5/4" CLEAR HEART FINGER JOINTED REDWOOD OR CEDAR, PRIME PAINTED ALL SIDES (INCLUDING CUT ENDS) FOR FIELD FINISH. ANY EXTERIOR MOLDINGS TO BE FINGER JOINTED CLEAR HEART REDWOOD OR CEDAR, PRIME PAINTED WHITE FOR FIELD FINISH. ALL FINIAL PROFILES APPROVED AS PER OWNER OR ARCHITECT.
11. DOUBLE UP ALL RAFTERS, JOISTS & FRAMING ADJACENT TO SKYLIGHTS, AROUND OPENINGS, UNDER ALL PARALLEL PARTITIONS, NONBEARING PARTITIONS, ETC.
12. PROVIDE TERMITE PROTECTION & SILL SEAL INSULATION @ ALL SILLS.
13. ALL NEW HEADERS TO BE 2-2X10'S W/ 1/2" PLYWOOD. GUSSET UNLESS OTHERWISE NOTED.
14. PROVIDE SIMPSON STRONG-TIE, OR EQUAL, JOIST HANGERS WHERE REQUIRED DUE TO INADEQUATE PREEXISTING STRUCTURAL CONNECTIONS REVEALED DURING SCOPE OF WORK. STRUCTURAL ENGINEER/ARCHITECT TO BE NOTIFIED OF EXISTING FIELD CONDITIONS.
15. REPLACE OR SISTER ANY DAMAGED, CUT AWAY, OR UNSAFE FRAMING. NOTIFY ENGINEER & ARCHITECT OF ANY SUCH CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
16. ALL NEW CLOSETS TO HAVE 3/4" STAIN GRADE BIRCH VENEER PLYWOOD. SHELF W/ 1X2 BIRCH FACE EDGE ON 1X4 CLEAR PINE CLEATS. INSTALL CHROME HANGER ROD. FOR CLOSETS MORE THAN 5'-6" IN LENGTH, INSTALL 3/4' STAIN GRADE BIRCH VENEER PLYWOOD. DIVIDER W/ BIRCH EDGE @ MIDPOINT FOR LINEN CLOSETS, PANTRY, & STORAGE CLOSETS PROVIDE 5 FIXED SHELVES ON CLEATS.
17. ALL DIMENSIONS TO BE VERIFIED BY THE CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROVED SIZE AND LOCATION OF ALL OPENINGS THROUGH THE ROOF, FLOORS, AND WALLS.

THERMAL AND MOISTURE PROTECTION

1. INSTALL VAPOR BARRIERS WHERE INDICATED ON THE DRAWINGS OR IN THESE NOTES.
2. INSTALL INSULATION OF THE SIZE AND TYPE AS INDICATED ON THE DRAWINGS. MIN. AS FOLLOWS:
   FOR 2X4 STUD WALLS - 3 1/2", R-15
   FOR 2X6 STUD WALLS - 5 1/2", R-21
   FOR FLOORS - 8 1/4", R-30C
   FOR CEILINGS - R-49.
3. USE COR-A-VENT PREFABRICATED AIR CHANNEL EACH RAFTER BAY AS REQUIRED TO VENTED AREA ABOVE.
4. WATERPROOF FOUNDATION W/ ASPHALTIC MASTIC BELOW GRADE.
5. INSTALL CAULK JOINTS @ WINDOWS, DOORS, & CONSTRUCTION JOINTS AS REQUIRED.
6. PROVIDE SILL SEAL INSULATION @ ALL FRAMING SILLS.
7. ALL FLASHING TO BE LEAD COATED COPPER. FLASH OVER THE HEADS OF ALL WINDOWS, DOORS, TRIM, WATER TABLES, ROOF TRANSITIONS WHERE LOWER ROOFS INTERSECT WALLS, MASONRY CHIMNEYS, ETC. & AS SHOWN ON THE DWGS.
8. INSTALL ICE & WATER SHIELD BY W.R. GRACE & CO. @ ALL ROOF OVERHANGS, GABLE ENDS, RIDGES, VALLEYS, HIPS, AND AROUND ALL ROOF PENETRATIONS.
9. ALL RAIN LEADERS AND GUTTERS TO MATCH EXISTING GUTTERS & LEADERS. RUN STORM WATER DRAINS UNDERGROUND TO DAYLIGHT OR PROVIDE SPLASH BLOCKS AT GRADE (MATCH EXISTING CONDITIONS). VERIFY ANY RESTRICTIONS ON FOOTING & STORM WATER DRAINAGE WITH THE TOWN DEPARTMENTS OF INLAND/WETLANDS AND ENVIRONMENTAL HEALTH.
10. TAPE ALL OVERLAPPING TYVEK SHEETS (SEE DWGS. FOR SPECIFIC NOTES) BEFORE INSTALLATION OF WINDOWS, DOORS, SIDING, TRIM, ETC.
11. PROVIDE NEW 2" CONTINUOUS SCREENED SOFFIT VENTS AT ALL NEW SOFFITS OTHERWISE NOTED AS PER DRAWING.
12. ALL RAIN LEADERS TO MATCH EXISTING CONDITIONS. RUN TO SPLASH BLOCKS AT GRADE OR AS DIRECTED BY THE DRAWGINGS.

WRAP ALL EXTERIOR WALLS OF THE RESIDENCE W/ TYVEK HOUSE WRAP AND

DOORS, WINDOWS, AND SKYLIGHTS

1. ALL NEW WINDOWS TO BE AS SPECIFIED ON THE DWGS. SEE WINDOW SCHEDULE FOR SIZES AND NOTES.
2. ALL INTERIOR DOORS TO BE AS SPECIFIED ON THE DWGS. SEE DOOR SCHEDULE FOR SIZES AND NOTES. OWNER TO HAVE FINAL APPROVAL OF ALL DOOR STYLES AND FINISHES.
3. ALL HARDWARE STYLES AND FINISHES TO BE AS SELECTED AND/OR APPROVED BY OWNER. PROVIDE A "PER DOOR" ALLOWANCE IN BID.

FINISHES AND PAINTING

1. SEE FINISH SCHEDULE FOR ALL FINISHES, UNLESS OTHERWISE NOTED IN DRAWINGS.
2. USE TYPES OF WALLBOARD AS FOLLOWS:

A. USE 5/8" FIRE RATED GYP. BD. IN GARAGE, UTILITY RM., & AREAS AS INDICATED ON THE DWGS., FOR ALL BEAMS, HEADERS, FLOOR JOISTS AND ROOF RAFTERS U.N.O.. ALL

B. USE MOISTURE RESISTANT GYP. BD. IN BATHS, KITCHENS & OTHER DAMP LOCATIONS.

C. USE DUROCK OR EQ. TILE BACKER BD. ON ALL WALL AREAS TO RECEIVE CERAMIC TILE.

3. ALL NEW DRYWALL TO BE TAPED, SPACKLED, AND SANDED SMOOTH. ALL SURFACES TO RECEIVE PAINT OR WALL COVERING SHALL BE FREE FROM ALL DEPRESSIONS, CRACKS, CREVICES, ETC.
4. ALL CERAMIC FLOOR AND WALL TILE TO BE INSTALLED ACCORDING TO THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) BY CONTRACTOR. INSTALLATION SHALL ALSO CONFORM TO LOCAL BUILDING CODES, ORDINANCES, TRADE STANDARDS, AND PRACTICES.
5. ALL CERAMIC TILE TO BE SELECTED AND PROVIDED BY THE OWNER. INSTALLATION TO BE PROVIDED IN BASE BID, SEE DRAWINGS FOR DETAILS.
6. ALL WALLS CUT FOR INSTALLATION OF NEW CONSTRUCTION & ABUTTING NEW CONSTRUCTION SHALL BE PATCHED AS REQ'D.
7. OWNER TO DISCUSS SCOPE OF INTERIOR PAINT FINISHES/APPLICATIONS WITH GENERAL CONTRACTOR. G.C. TO PROVIDE ADD/ALTERNATE PRICE FOR SCOPE OF WORK DISCUSSED. ALL WALL COVERING, CARPET, VINYL TILE, SHEET FLOORING, CERAMIC OR SLATE TILE, ETC. BY OWNER AND INSTALLED BY G.C.
8. EXTERIOR PAINT FINISHES ARE BY OWNER. COLOR TO BE DETERMINED.

SPECIALTIES

1. ALL NEW BUILT-IN CABINETRY IS TO BE PROVIDED BY OWNER UNLESS OTHERWISE NOTED, AND INSTALLED BY G.C., INCLUDING NEW VANITIES, NEW MEDICINE & LINEN CABINETS, ETC. OWNER/CONTRACTOR TO DISCUSS AND COORDINATE INSTALLATION OF BUILT-INS AND CABINETRY.
2. TOILET AND BATH ACCESSORIES TO BE PROVIDED & INSTALLED BY G.C.. PROVIDE ALL BLOCKING IN WALLS AS REQUIRED FOR INSTALLATION. FINAL FINISH FOR ALL BATHROOM ACCESSORIES AND HARDWARE AS PER OWNER.
3. ALL KITCHEN CABINETRY IS TO BE PROVIDED BY OWNER UNLESS OTHERWISE NOTED. ALL INSTALLATION IS BY CONTRACTOR OR DESIGNATED SUB. G.C. TO COORDINATE ALL UTILITY HOOKUPS WITH RESPECTIVE SUBS FOR A COMPLETE INSTALLATION OF ALL APPLIANCES AND KITCHEN FIXTURES. KITCHEN EXHAUST FAN DUCTWORK TO BE BY HVAC CONTRACTOR AND COORDINATED BY G.C..
4. ALL MILLWORK TO BE AS SPECIFIED ON THE DRAWINGS. SEE DRAWINGS FOR ADD'L NOTES AND ALLOWANCES. ALL INSTALLATION IS BY G.C. OR DESIGNATED SUBCONTRACTOR. OWNER TO HAVE FINAL APPROVAL OF ALL PROFILES AND FINISHES.
5. FOR ADDITIONAL SPECIALTIES WORK, IF INCLUDED, SEE DRAWINGS FOR NOTES.

ELECTRICAL

1. SYSTEMS DESIGN TO BE PROVIDED BY G.C.'S SUBCONTRACTOR. DISCUSS THE REQUIREMENTS WITH THE OWNER. ALL WORK TO COMPLY WITH LOCAL AND NATIONAL CODES (SEE GENERAL CONDITIONS).
2. ALL LIGHTING FIXTURES TO BE SELECTED BY THE OWNER. THE STYLE AND COLOR OF DUPLEX OUTLETS, TELEPHONE OUTLETS, SWITCHES, ETC. TO BE SELECTED BY THE OWNER.
3. PROVIDE ALL NECESSARY LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO PERFORM A COMPLETE INSTALLATION OF FIXTURES. INCLUDING, BUT NOT LIMITED TO, FEED, METERS, SUBPANELS CIRCUITING, CONDUIT, WIRING, SWITCHES, OUTLETS, CONTROLS, ETC.. EXAMINE EXISTING ELECTRICAL SYSTEM AND VERIFY THE ADEQUACY OF SYSTEM TO HANDLE NEW LOAD REQUIREMENTS. PROVIDE ALTERNATE PRICE TO UPGRADE SERVICE IF REQUIRED.
4. COORDINATE EXACT LOCATION OF OUTLETS, FIXTURES, ETC. WITH THE OWNER AND THE ARCHITECT.
5. PROVIDE DOOR BELL, CHIMES, CABLE TV OUTLETS, TELEPHONE OUTLETS, ETC. AS DIRECTED ON THE DRAWINGS. SEE DRAWINGS FOR ADDITIONAL LOCATIONS AND NOTES.
6. ALL NEW WORK WILL BE CONECTED TO EXISTING ALARM SYSTEM.
7. ALL NEW LIGHTING SHALL NOT BE WIRED ON THE SAME CIRCUITS AS CONVENIENCE OUTLETS.
8. INSTALL HARDWIRED HEAT, SMOKE, AND CARBON MONOXIDE DETECTORS AS PER CODE.

PLUMBING AND HEATING

1. PROVIDE ALL NECESSARY LABOR AND MATERIALS FOR A COMPLETE HVAC SYSTEM INSTALLATION. EXAMINE EXISTING HVAC SYSTEM AND DISCUSS NEW SYSTEM REQUIREMENTS WITH THE OWNER. RECOMMEND MOST EFFICIENT SYSTEM DESIGN. SYSTEMS DESIGN TO BE PROVIDED BY G.C.'S SUBCONTRACTOR. ALL MECHANICAL WORK TO COMPLY WITH LOCAL AND NATIONAL APPLICABLE CODES. (SEE GENERAL CONDITIONS.) SEE DRAWINGS FOR SPECIFIC VAC-RELATED NOTES.
2. PROVIDE ALL NECESSARY LABOR AND MATERIALS FOR A COMPLETE INSTALLATION OF PLUMBING FIXTURES AS SHOWN ON THE DRAWINGS. FIXTURES TO BE SELECTED AND PROVIDED BY THE OWNER. SEE DRAWINGS FOR SPECIFIC PLUMBING-RELATED NOTES.
3. ALL LAVATORIES AND BATHS TO HAVE EXHAUST FANS RATED AT A MINIMUM OF 60 CFM. SEE DRAWINGS FOR LOCATIONS. EXHAUST FAN DUCT TO VENT DIRECTLY TO EXTERIOR. UNDER NO CIRCUMSTANCES SHALL FAN DUCTWORK VENT INTO ATTICS OR CRAWL SPACES.
4. KITCHEN VENTILATION WORK TO BE PART OF HVAC CONTRACT, INCLUDING VENT HOODS OR DOWN DRAFT FAN AND DUCTWORK, IF REQUIRED BY KITCHEN DESIGN. VENT ALL DUCTWORK TO EXTERIOR. UNDER NO CIRCUMSTANCES SHALL FAN DUCTWORK VENT INTO ATTICS OR CRAWL SPACES.
5. ANY EXTERIOR SEWER OR SEPTIC WORK TO BE DONE WILL BE UNDER SEPARATE CONTRACT.
6. PROVIDE COPPER DRIP PAN UNDER WASHING MACHINE LOCATION AND PROVIDE DRYER DUCT TO EXTERIOR FOR TENANT HOOKUP. PROVIDE ALL UTILITIES AS REQ'D FOR A COMPLETE INSTALLATION.

INSULATION NOTES:
ALL NEW WALLS - R-21 BATT INSULATION
NEW FLOORS ABOVE CRALWSPACE -- R-30 BATT INSULATION
ALL NEW ROOFS - CLOSE CELL SPRAY R-49
SPRAY FIREPROOFING OR EQUAL OVER FOAM IN OPEN ATTIC
3" ROXUL SOUND INSULATION IN MASTER BEDROOM FLOOR

Sheet List	
Sheet Number	Sheet Name
A1	SPECIFICATION
A3.2	1ST FLOOR CONSTRUCTION PLAN
A4.1	ELEVATIONS
A3.3	2ND FLOOR CONSTRUCTION PLAN
A4.2	ELEVATIONS
A2.1	1ST FLOOR DEMOLITION PLAN AND MILLWORK ELEVATIONS
A0	3D
A5.1	SECTIONS
A3.5	ROOF PLAN
A6.1	1ST FLOOR LIGHTING PLAN
A2.2	2ND FLOOR DEMOLITION PLAN
A3.1	BASEMENT PLAN
A6.2	2ND FLOOR LIGHTING PLAN
A5.2	SECTIONS
A7.1	FAR CALCS 1ST FLOOR
A7.2	FAR CALCS 2ND FLOOR
A7.3	FAR CALCS BASEMENT

RICHARD KOTZ 023233

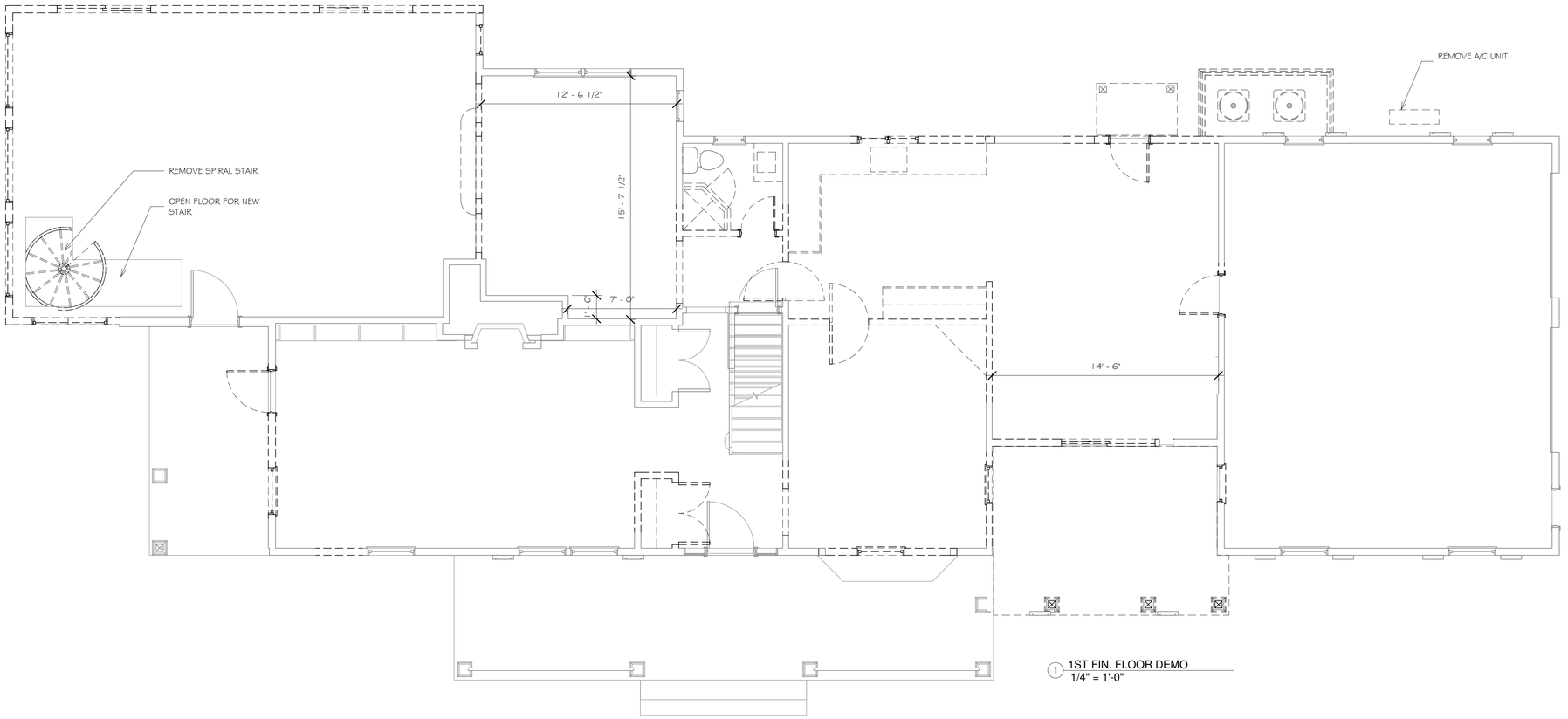
PROJECT
PROPOSED REOVATION
69 Windmill Rd
Armonk, NY

DRAWING NAME
SPECIFICATION

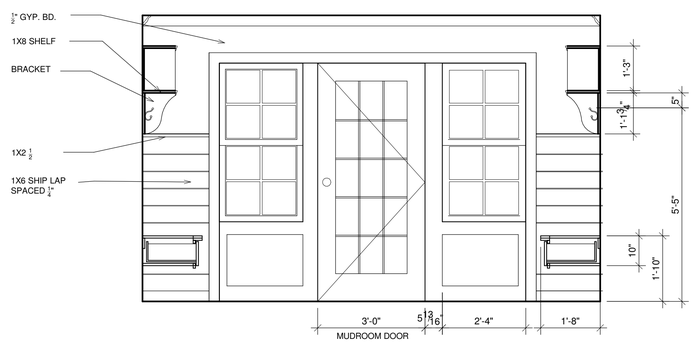
RichardKotz Architecture
TIMELESS DESIGN AND BUILD

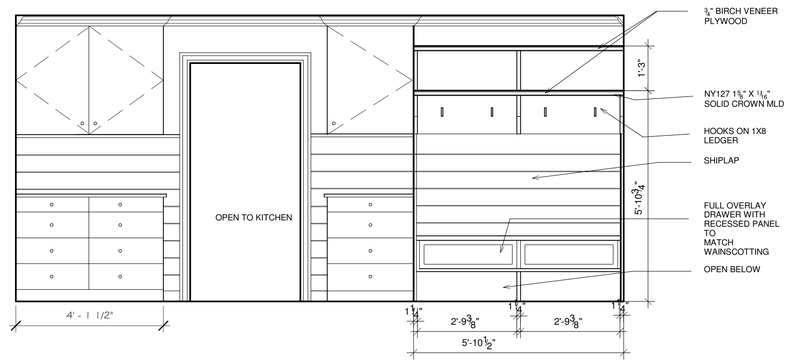
	DATE	REVISIONS
1	4-6-22	FOR BIDS

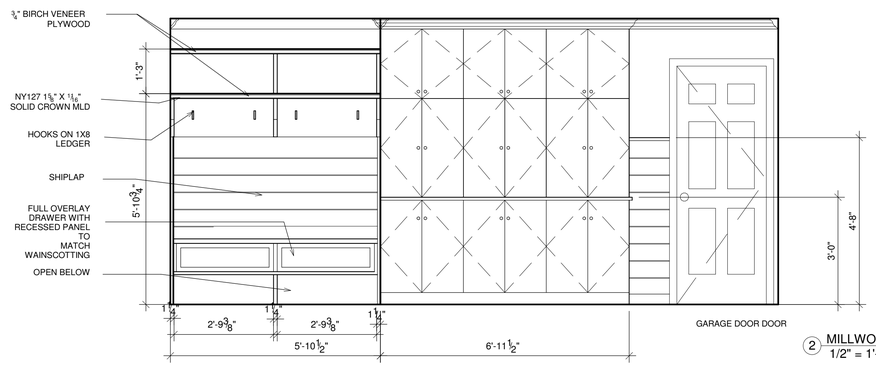
DATE:
SCALE:
NO. A1



1 1ST FIN. FLOOR DEMO
1/4" = 1'-0"







2 MILLWORK
1/2" = 1'-0"

REGISTERED ARCHITECT
RICHARD KOTZ
029233
STATE OF NEW YORK

PROJECT
PROPOSED REOVATION
69 Windmill Rd
Armonk, NY

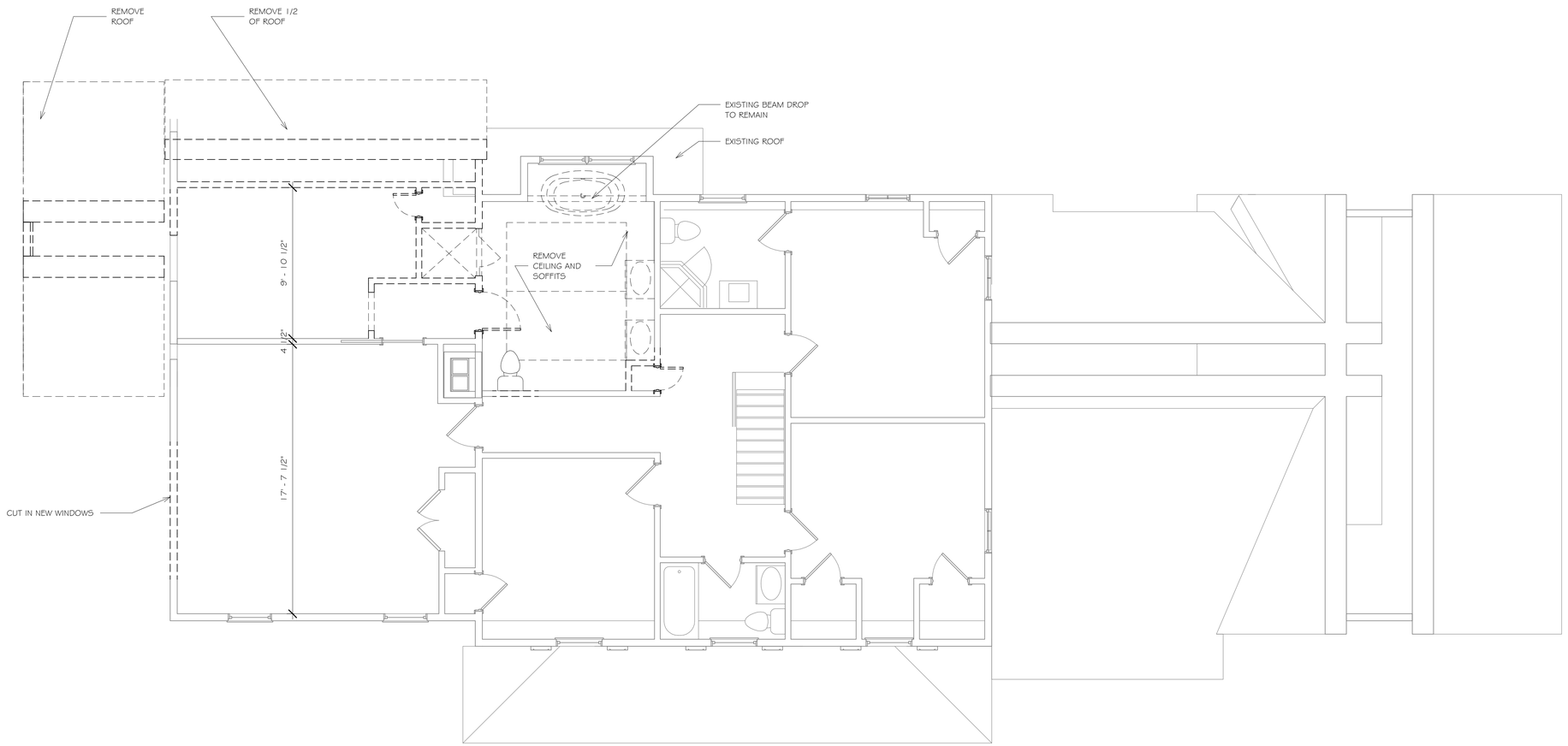
DRAWING NAME
1ST FLOOR DEMOLITION PLAN AND MILLWORK ELEVATIONS

RichardKotz Architecture
TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

DATE:
SCALE:
NO.

A2.1



1 2ND FIN. FLOOR DEMO
1/4" = 1'-0"

PROJECT

PROPOSED REOVATION

69 Windmill Rd
Armonk, NY

DRAWING NAME

2ND FLOOR
DEMOLITION PLAN

RichardKotz Architecture
TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

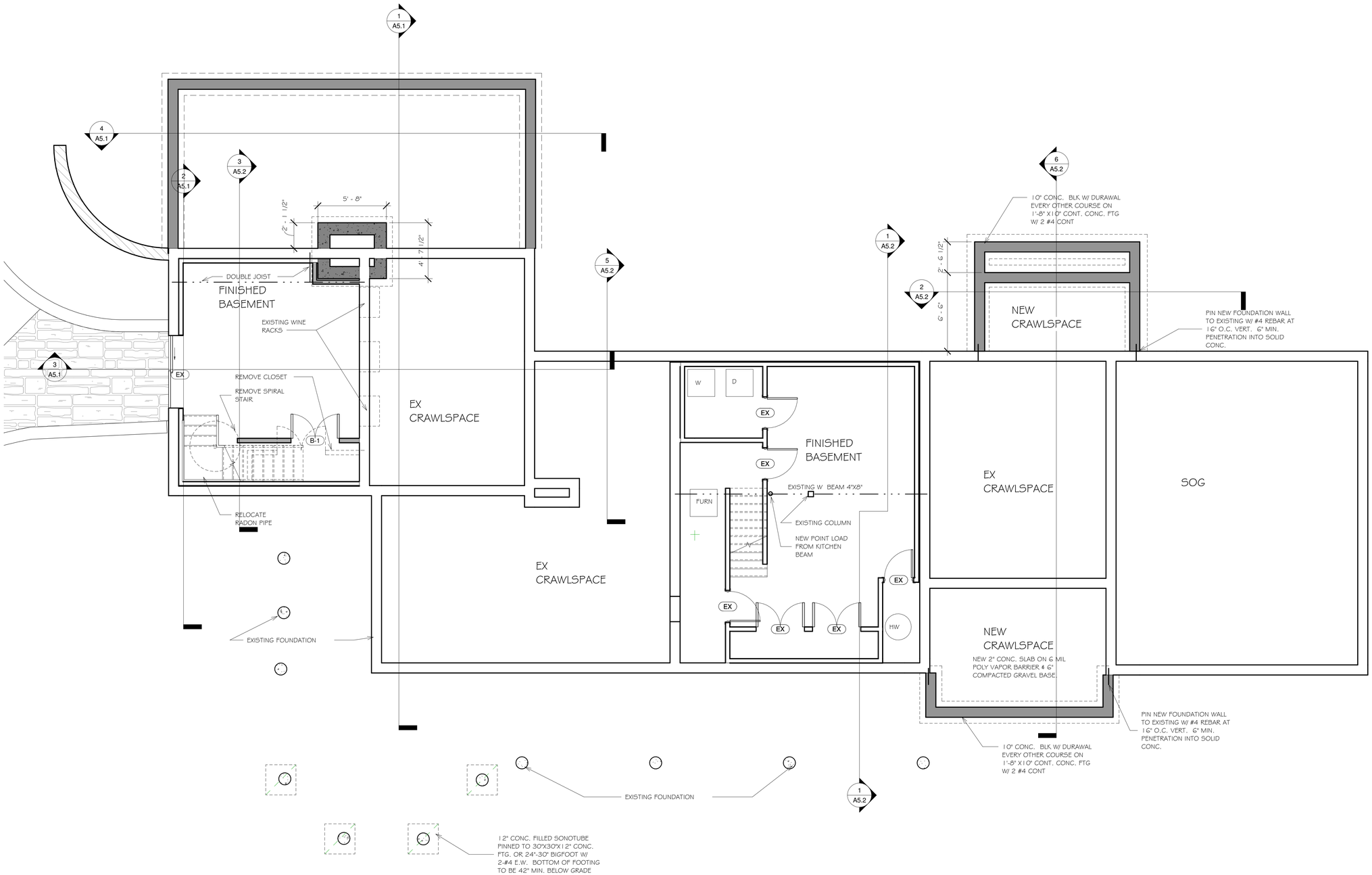
DATE:

SCALE:

NO.

A2.2

REGISTERED ARCHITECT
RICHARD KOTZ
052933
STATE OF NEW YORK



PROJECT

PROPOSED REOVATION

69 Windmill Rd
Armonk, NY

DRAWING NAME

BASEMENT PLAN

RichardKotz Architecture

TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

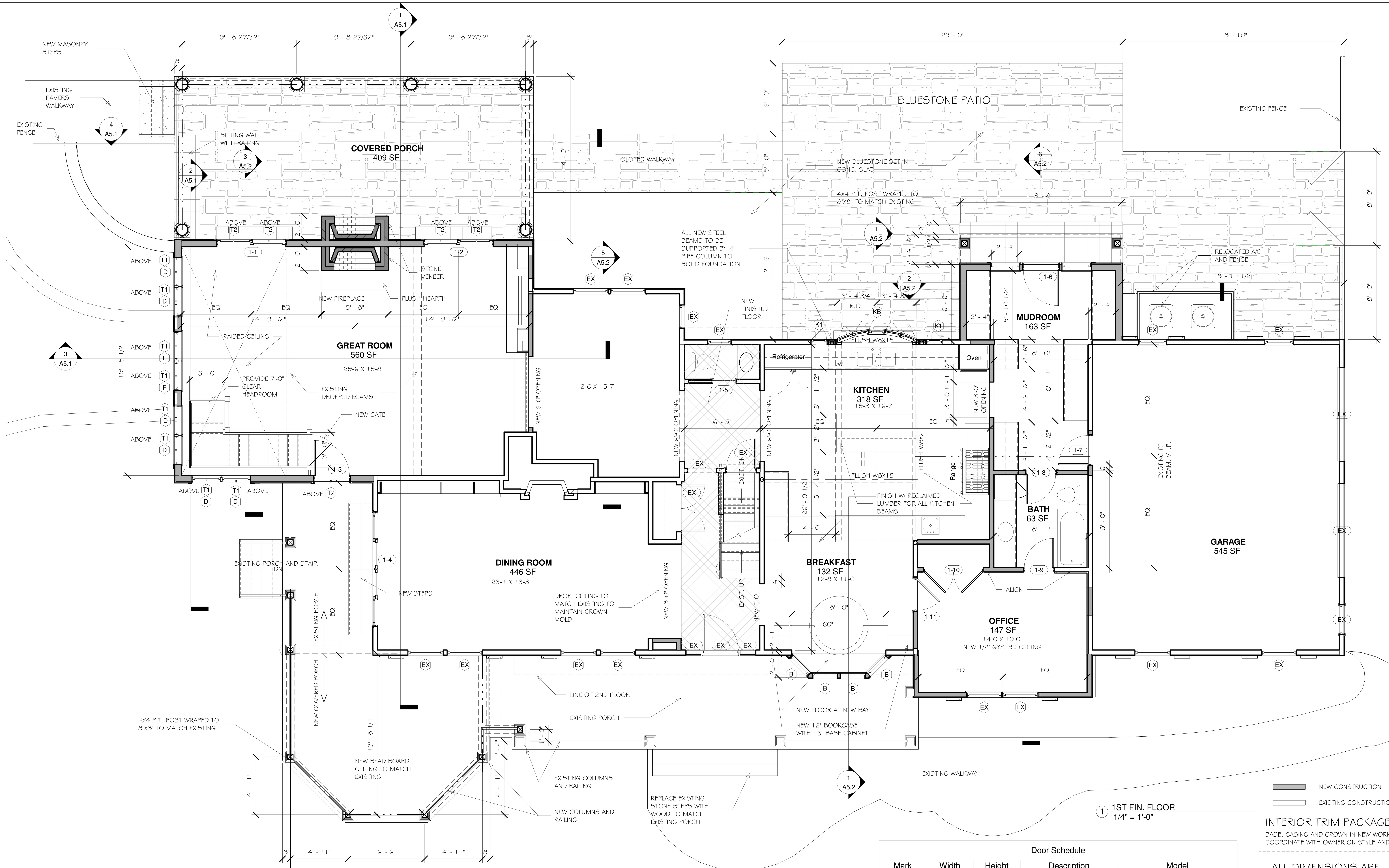
DATE:

SCALE:

NO.

A3.1

REGISTERED ARCHITECT RICHARD KOTZ 023233 STATE OF NEW YORK



1 1ST FIN. FLOOR
1/4" = 1'-0"

INTERIOR TRIM PACKAGE:
BASE, CASING AND CROWN IN NEW WORK ONLY. COORDINATE WITH OWNER ON STYLE AND PRICING

ALL DIMENSIONS ARE TO FACE OF FRAMING

Window Schedule				
Type Mark	Model	Rough Width	Rough Height	Description
A	ELDH3048	2' - 6 1/2"	4' - 0 1/4"	
B	ELDH2648	2' - 2 1/2"	4' - 0 1/4"	
C	AWNING	2' - 5"	2' - 6 1/2"	MATCH TYPE A UPPER SASH
D	ELDH3060	2' - 6 1/2"	5' - 0 1/2"	EGRESS REQUIREMENT
E	ELDH3660 E	3' - 0 1/2"	5' - 0 1/4"	EGRESS REQUIREMENT
F	ELCAP2931	2' - 6 1/2"	3' - 1"	FIXED
K1	ELCA1739	1' - 5"	3' - 3 5/8"	
KB	EL1739 BOW	1' - 5"	3' - 3 5/8"	PROJECTION 10 1/4"
R1		2' - 0 1/2"	2' - 0 1/2"	24" FIXED ROUND
R2	60 CIRCLETOP			
T1	ELDHTR3016	2' - 6 1/2"	1' - 4 1/4"	
T2	ELDHTR3416	3' - 0 1/2"	1' - 4 1/4"	

Grand total: 51

Door Schedule				
Mark	Width	Height	Description	Model
1-1	5' - 11"	6' - 10"	7282 SL FR DOOR	ELSFD6068
1-2	5' - 11"	6' - 10"	7282 SL FR DOOR	ELSFD6068
1-3	3' - 0"	6' - 8"		
1-4	9' - 9"	6' - 7 1/2"	Elevate Sliding French Door 4 Panel	ELSFD10065
1-5	2' - 0"	6' - 8"		
1-6	3' - 0"	6' - 8"		
1-7	2' - 6"	6' - 8"		
1-8	2' - 6"	6' - 8"		
1-9	2' - 6"	6' - 8"		
1-10	5' - 0"	6' - 8"		
1-11	2' - 8"	6' - 8"		
2-1	2' - 6"	6' - 8"		
2-2	3' - 0"	6' - 8"		
2-3	4' - 0"	6' - 8"		
2-4	2' - 4"	6' - 8"		
2-5	2' - 4"	6' - 8"		
B-1	4' - 0"	6' - 8"		

PROJECT
PROPOSED REOVATION
69 Windmill Rd
Armonk, NY

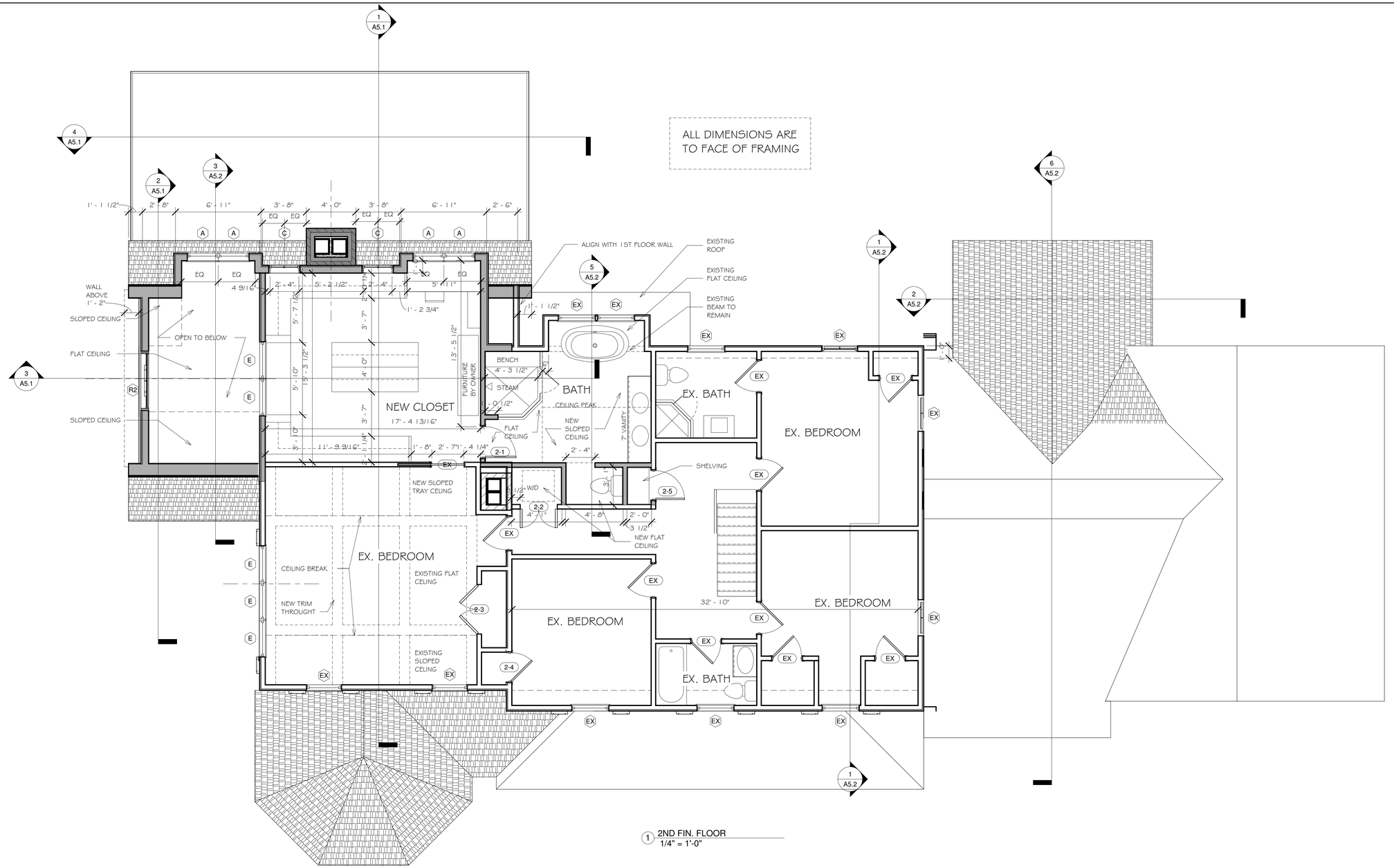
DRAWING NAME
1ST FLOOR CONSTRUCTION PLAN

RichardKotz Architecture
TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

DATE:
SCALE:
NO.
A3.2

REGISTERED ARCHITECT
RICHARD KOTZ
STATE OF NEW YORK



1 2ND FIN. FLOOR
1/4" = 1'-0"

Window Schedule				
Type Mark	Model	Rough Width	Rough Height	Description
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Door Schedule				
Mark	Width	Height	Description	Model
1-1	5' - 11"	6' - 10"	7282 SL FR DOOR	ELSFD6068
1-2	5' - 11"	6' - 10"	7282 SL FR DOOR	ELSFD6068
1-3	3' - 0"	6' - 8"		
1-4	9' - 9"	6' - 7 1/2"	Elevate Sliding French Door 4 Panel	ELSFD10065
1-5	2' - 0"	6' - 8"		
1-6	3' - 0"	6' - 8"		
1-7	2' - 6"	6' - 8"		
1-8	2' - 6"	6' - 8"		
1-9	2' - 6"	6' - 8"		
1-10	5' - 0"	6' - 8"		
1-11	2' - 8"	6' - 8"		
2-1	2' - 6"	6' - 8"		
2-2	3' - 0"	6' - 8"		
2-3	4' - 0"	6' - 8"		
2-4	2' - 4"	6' - 8"		
2-5	2' - 4"	6' - 8"		
B-1	4' - 0"	6' - 8"		

PROJECT
PROPOSED REOVATION
69 Windmill Rd
Armonk, NY

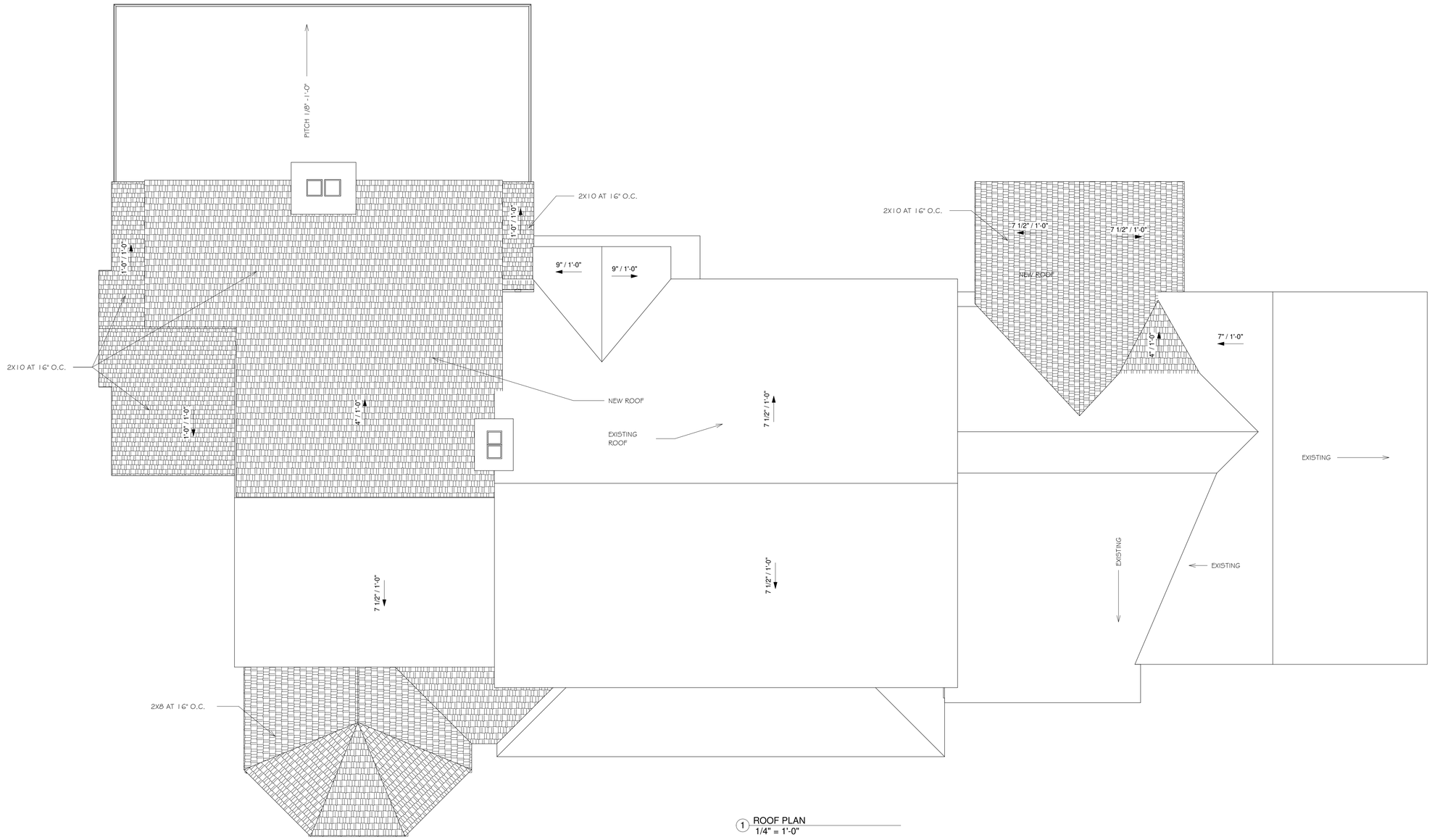
DRAWING NAME
2ND FLOOR
CONSTRUCTION PLAN

RichardKotz Architecture
TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

DATE:
SCALE:
NO.
A3.3

REGISTERED ARCHITECT RICHARD KOTZ 093233 STATE OF NEW YORK



1 ROOF PLAN
1/4" = 1'-0"

PROJECT

PROPOSED REOVATION

69 Windmill Rd
Armonk, NY

DRAWING NAME

ROOF PLAN

RichardKotz Architecture

TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

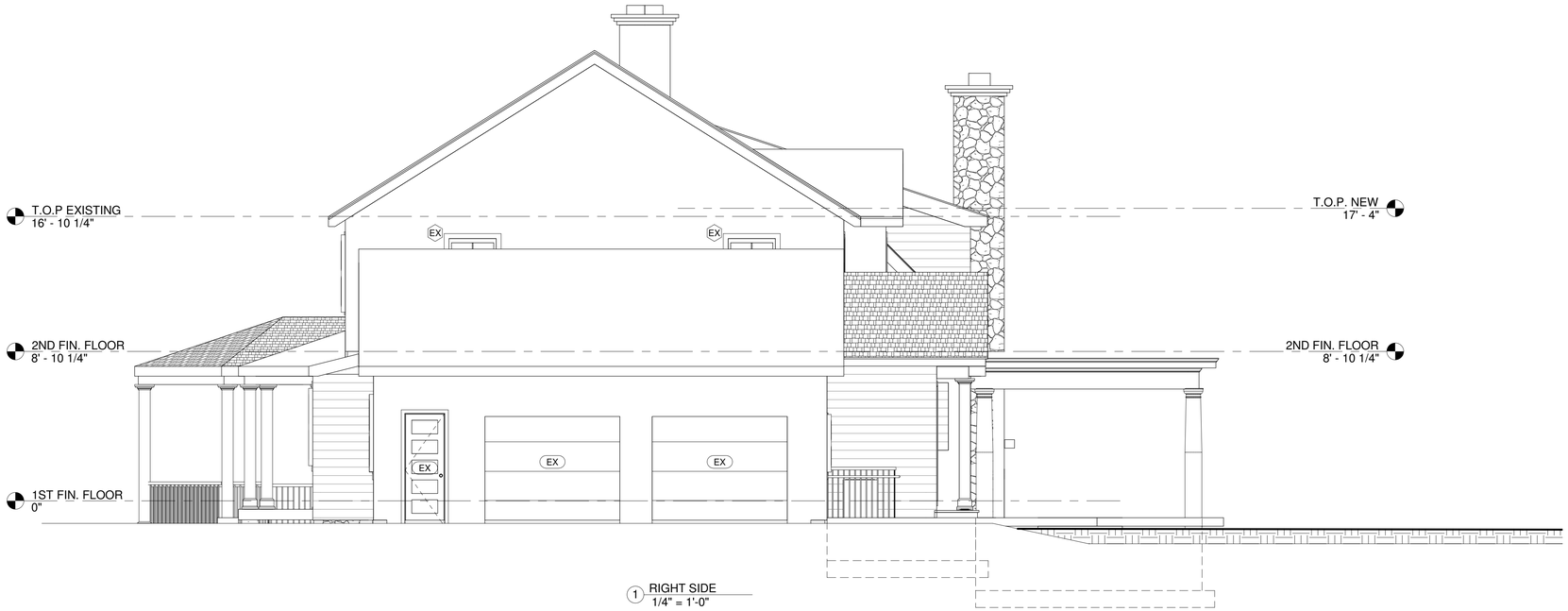
DATE:

SCALE:

NO.

A3.5

REGISTERED ARCHITECT
RICHARD KOTZ
052233
STATE OF NEW YORK



1 RIGHT SIDE
1/4" = 1'-0"

2 REAR
1/4" = 1'-0"

REGISTERED ARCHITECT
RICHARD KOTZ
029233
STATE OF NEW YORK

RichardKotz Architecture
TIMELESS DESIGN AND BUILD

PROJECT
PROPOSED REOVATION
69 Windmill Rd
Armonk, NY

DRAWING NAME
ELEVATIONS

	DATE	REVISIONS
1	4-6-22	FOR BIDS

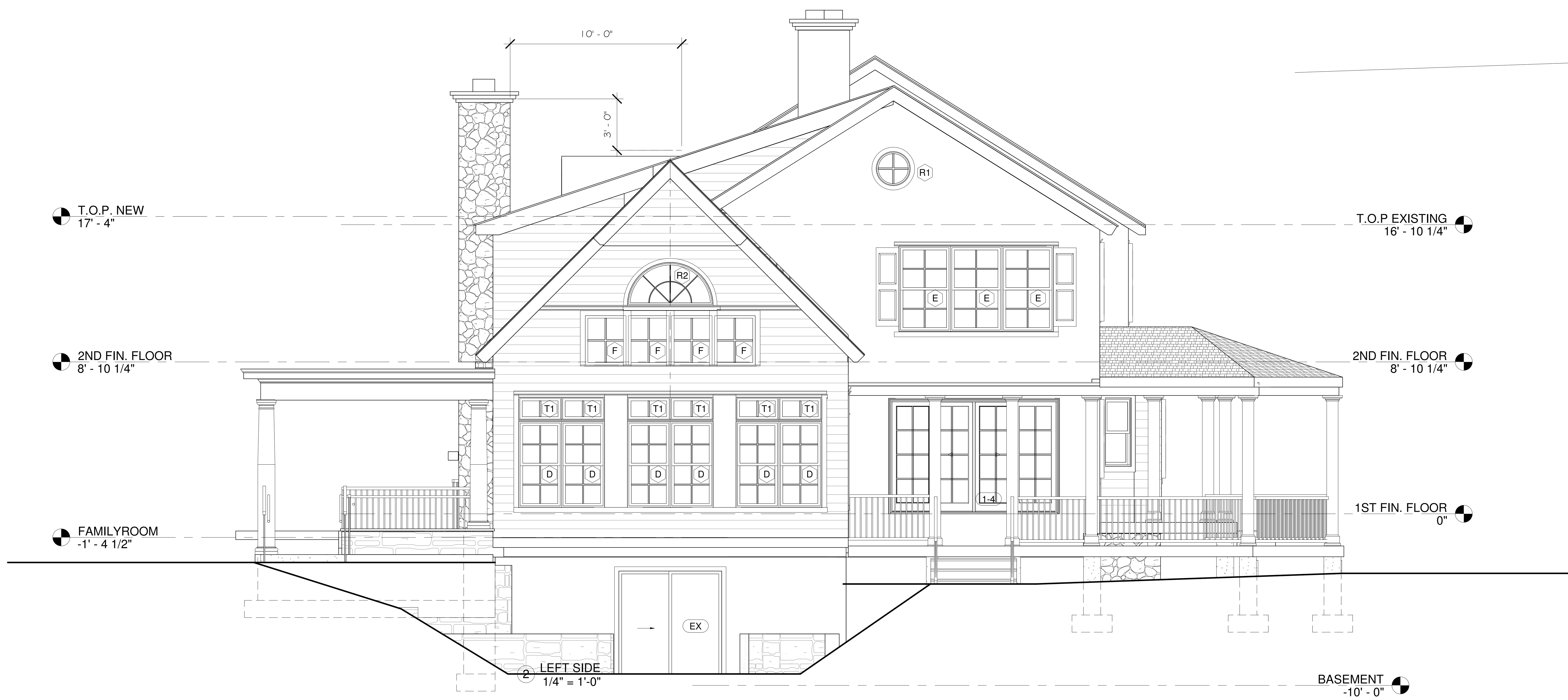
DATE:

SCALE:

NO.

A4.1

1 FRONT
1/4" = 1'-0"



2 LEFT SIDE
1/4" = 1'-0"

PROJECT

PROPOSED REOVATION

69 Windmill Rd
Armonk, NY

DRAWING NAME

ELEVATIONS

RichardKotz Architecture
TIMELESS DESIGN AND BUILD

DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF PROFESSIONAL SERVICE ARE AND SHALL REMAIN THE PROPERTY OF RICHARDKOTZ ARCHITECTURE. ANY REPRODUCTION OR USE, IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF RICHARDKOTZ ARCHITECTURE IS PROHIBITED. THIS DOCUMENT IS INTENDED SOLELY FOR THE CONSTRUCTION OF THE PROJECT NAMED HEREIN AND SHALL NOT BE USED BY ANY OTHER PARTIES FOR ANY OTHER CONSTRUCTION WITHOUT THE WRITTEN CONSENT OF RICHARDKOTZ ARCHITECTURE.

	DATE	REVISIONS
1	4-6-22	FOR BIDS

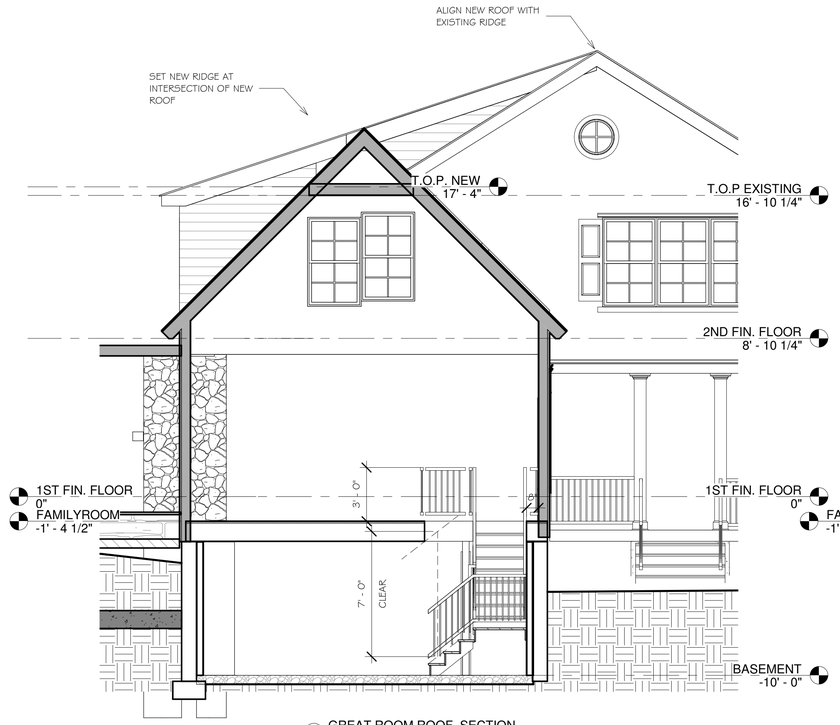
DATE:

SCALE:

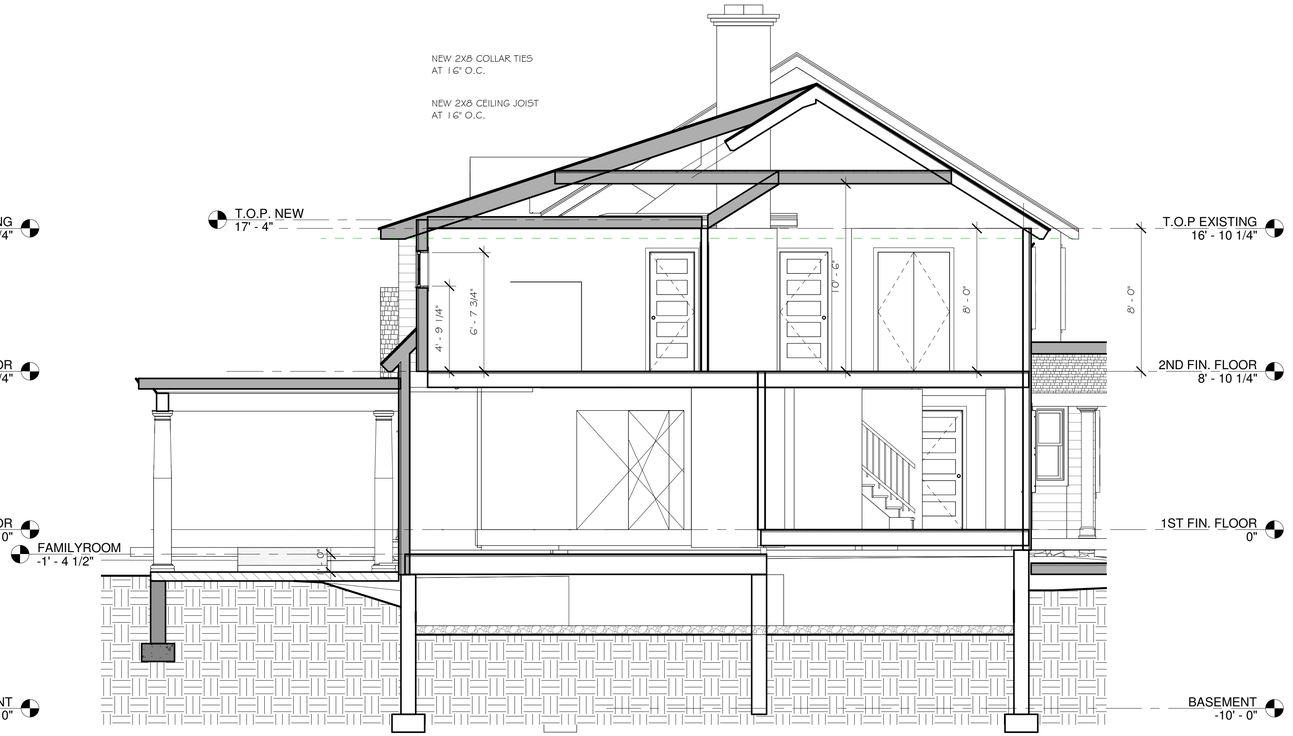
NO.

A4.2

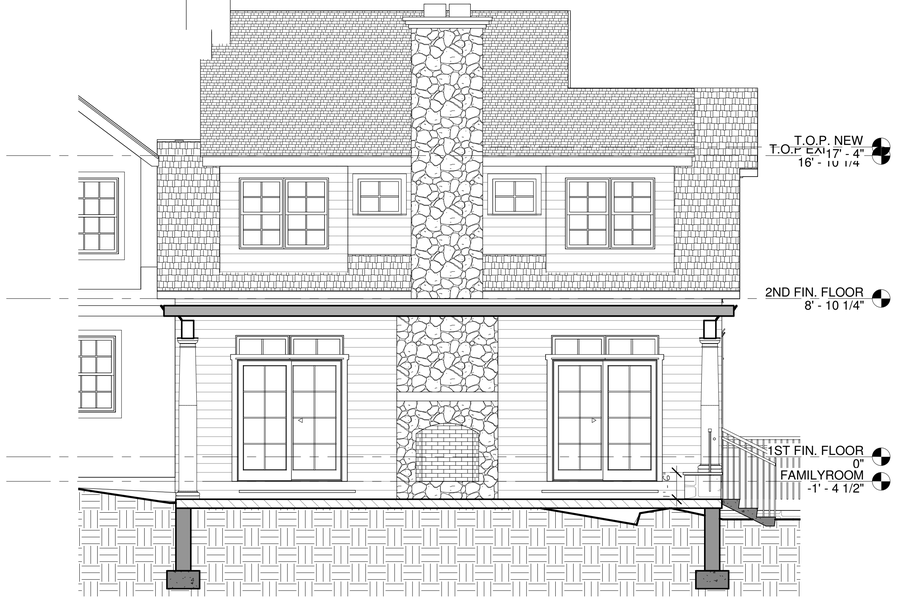
REGISTERED ARCHITECT
RICHARD KOTZ
STATE OF NEW YORK



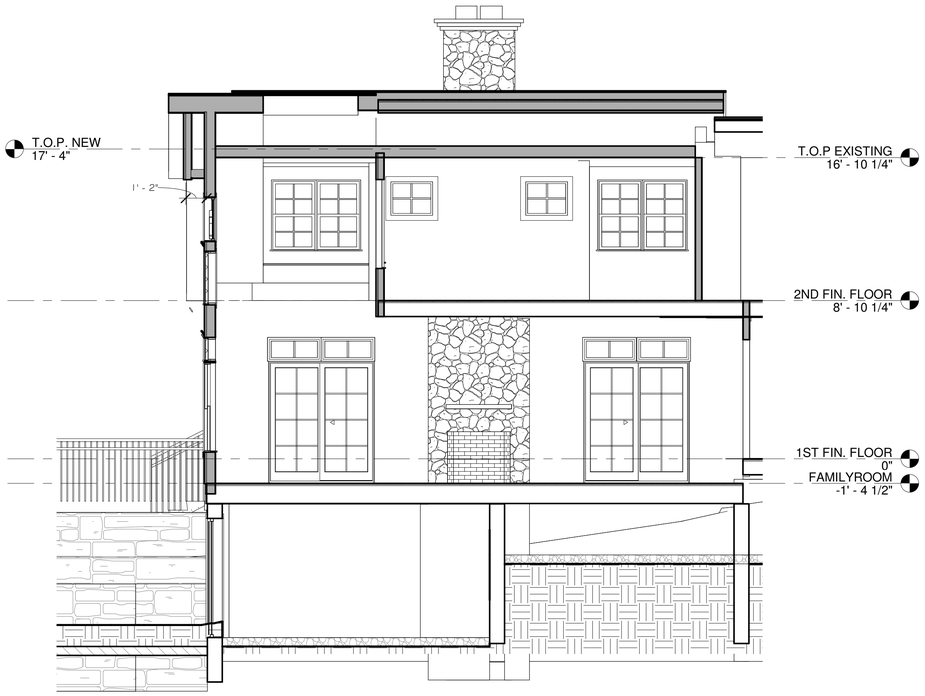
2 GREAT ROOM ROOF SECTION
1/4" = 1'-0"



1 CLOSET ROOF SECTION
1/4" = 1'-0"



4 PORCH SECTION
1/4" = 1'-0"



3 GREAT ROOM SECTION
1/4" = 1'-0"

PROJECT
PROPOSED REOVATION
69 Windmill Rd
Armonk, NY

DRAWING NAME
SECTIONS

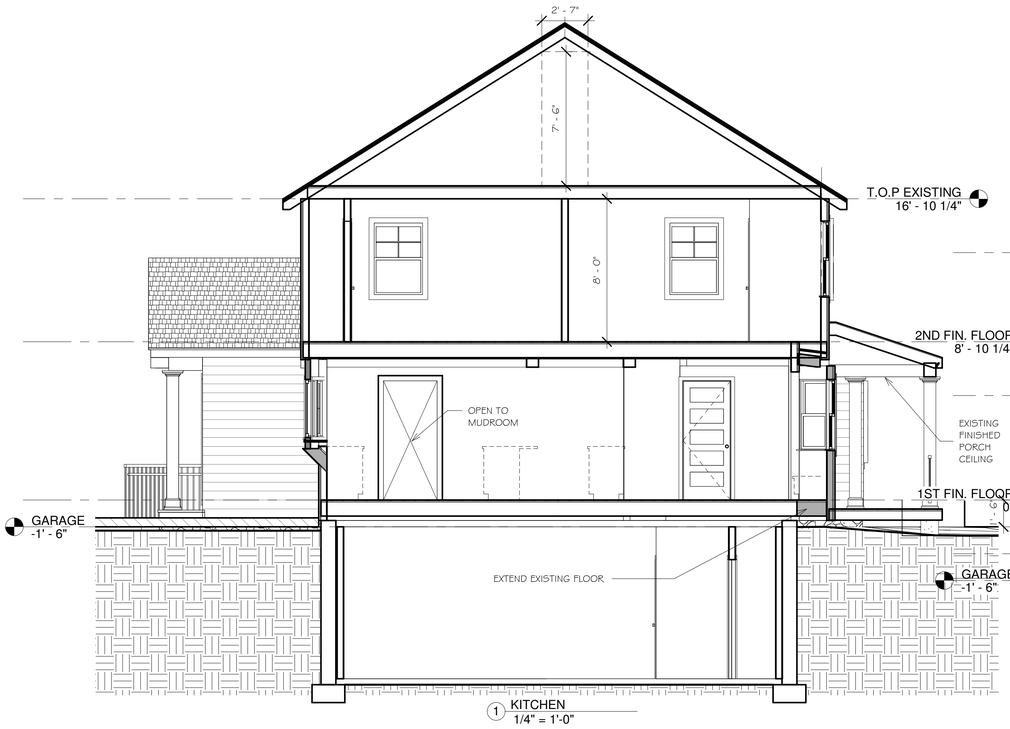
RichardKotz Architecture
TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

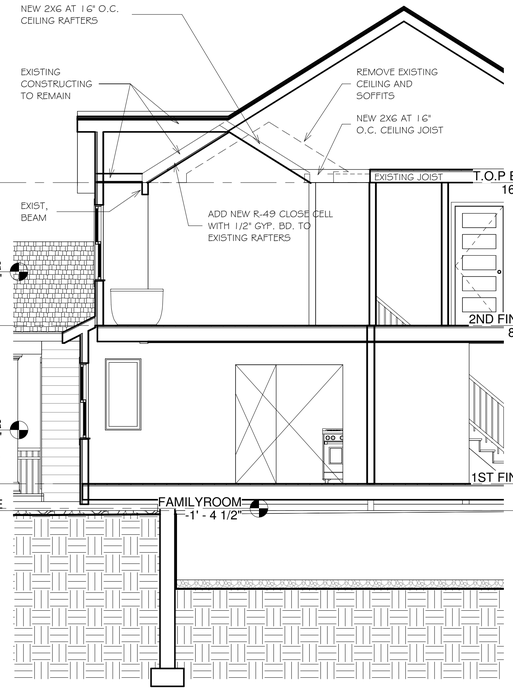
DATE:
SCALE:
NO.

A5.1

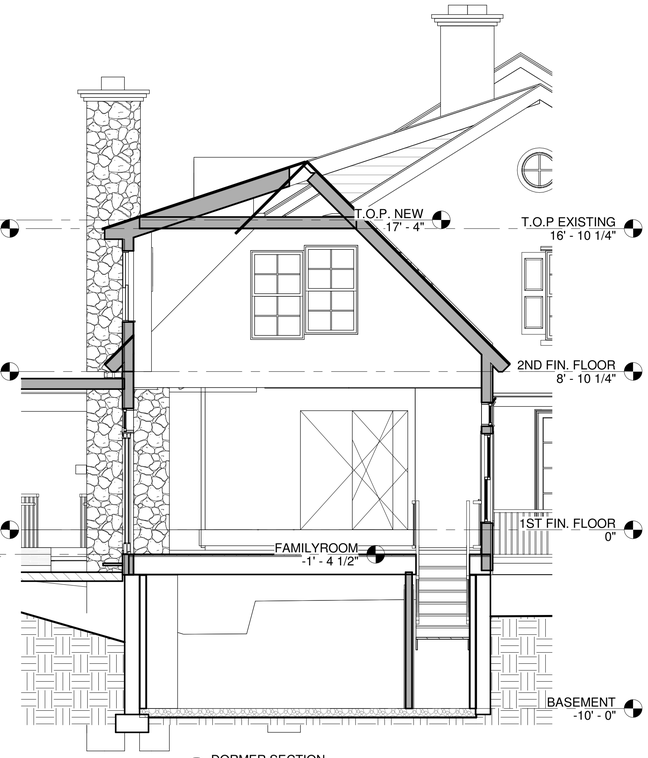
REGISTERED ARCHITECT
RICHARD KOTZ
025233
STATE OF NEW YORK



1 KITCHEN
1/4" = 1'-0"

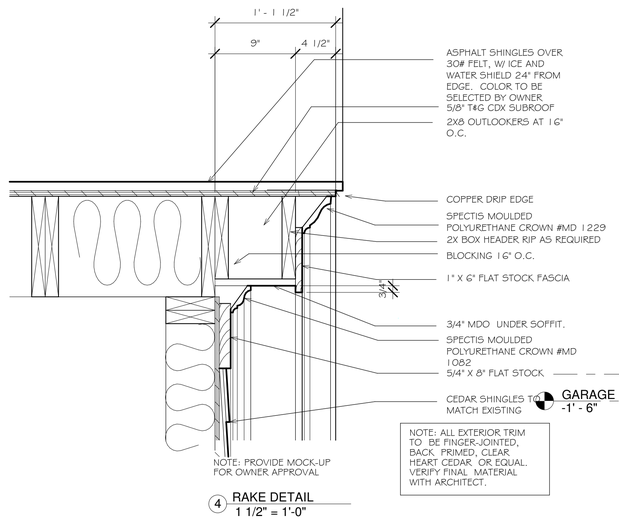


5 MASTER BATHROOM SECTION
1/4" = 1'-0"



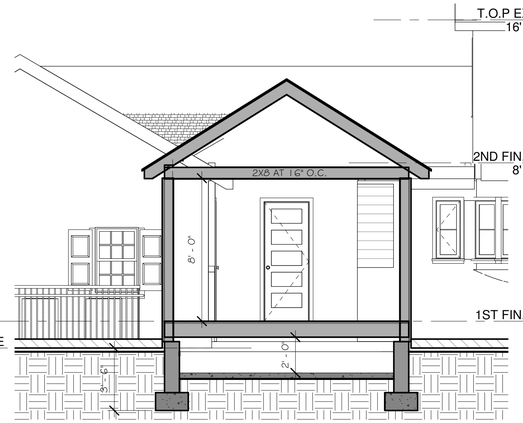
3 DORMER SECTION
1/4" = 1'-0"

6 MUDROOM TO BREAKFAST SECTION
1/4" = 1'-0"



4 RAKE DETAIL
1 1/2" = 1'-0"

NOTE: ALL EXTERIOR TRIM
TO BE FINGER-JOINTED,
BACK PRIMED, CLEAR
HEART CEDAR OR EQUAL.
VERIFY FINAL MATERIAL
WITH ARCHITECT.



2 MUDROOM CROSS SECTION
1/4" = 1'-0"

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TIMELESS DESIGN AND BUILD

PROJECT
PROPOSED REOVATION
69 Windmill Rd
Armonk, NY

DRAWING NAME
SECTIONS

	DATE	REVISIONS
1	4-6-22	FOR BIDS

DATE:
SCALE:
NO.

A5.2

SURFACE MOUNTED PENDANT LIGHT

SH — SHOWER RATED RECESSED LIGHT

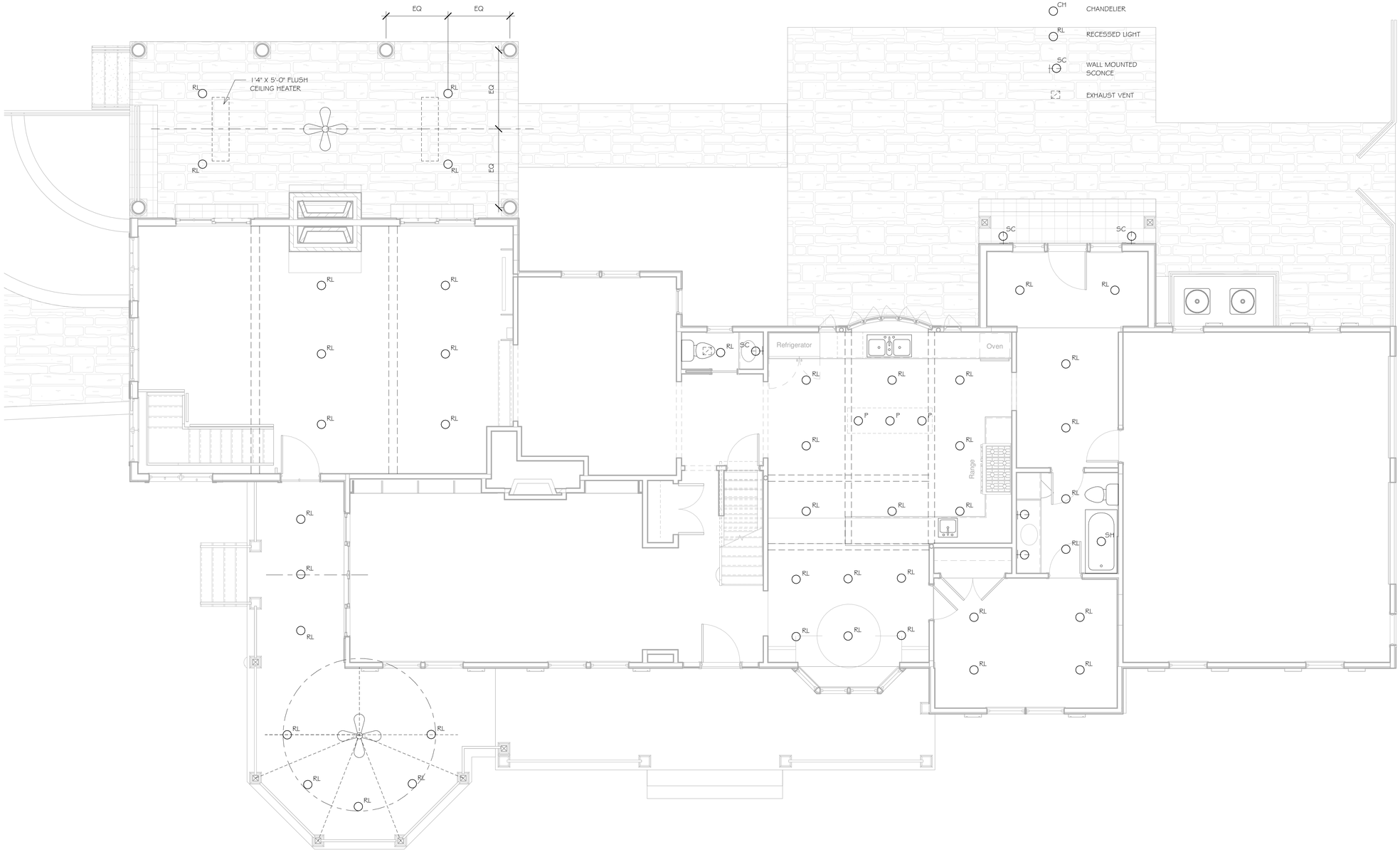
SM — SURFACE MOUNTED LIGHT WITH BEZEL

CH — CHANDELIER

RL — RECESSED LIGHT

SC — WALL MOUNTED SCONCE

EXHAUST VENT



② 1ST FIN. FLOOR ELECTRICAL PLAN
1/4" = 1'-0"

RichardKotz Architecture
TIMELESS DESIGN AND BUILD

PROJECT
PROPOSED REOVATION
69 Windmill Rd
Armonk, NY

DRAWING NAME
1ST FLOOR LIGHTING PLAN

	DATE	REVISIONS
1	4-6-22	FOR BIDS

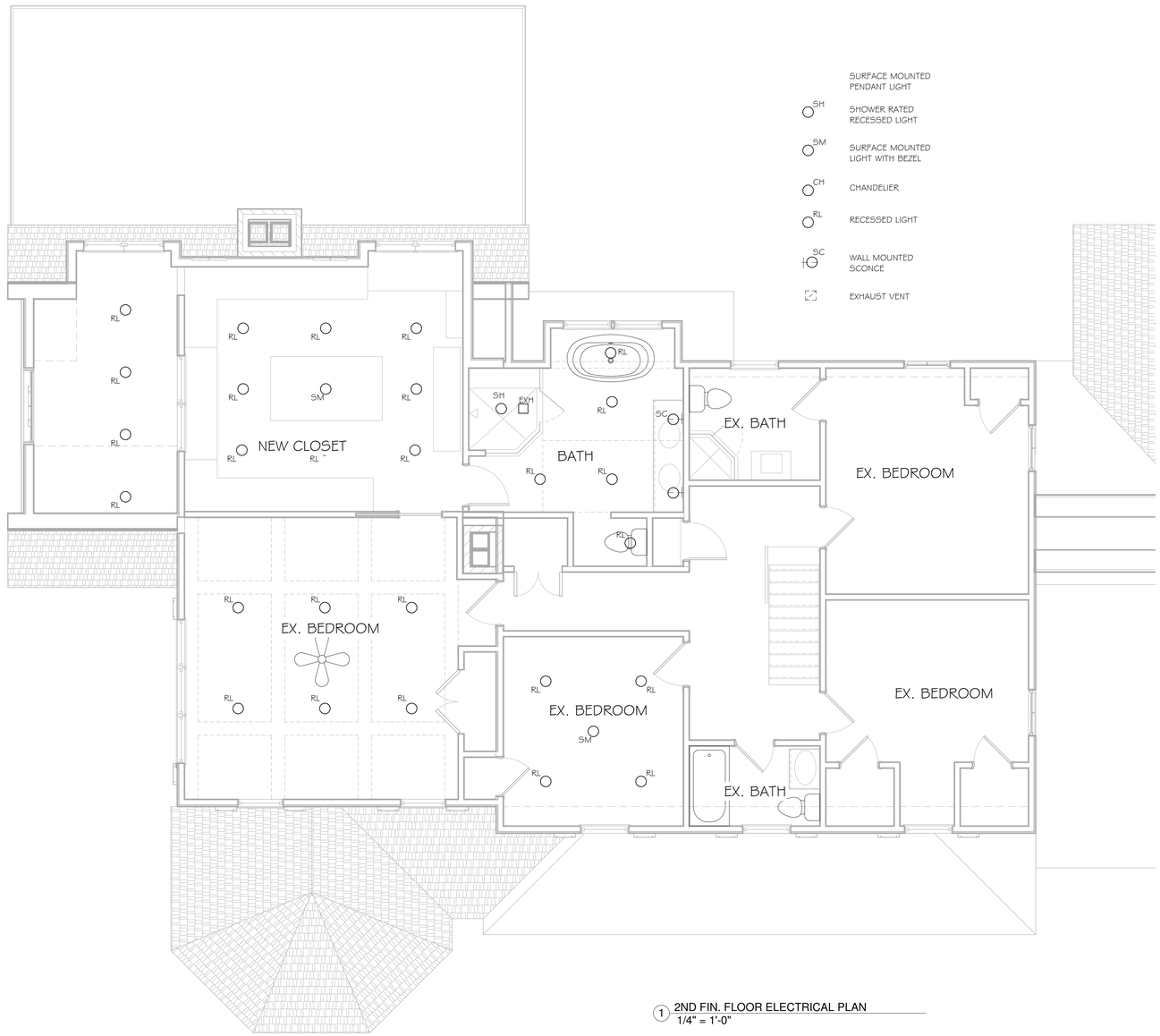
DATE:

SCALE:

NO.

A6.1

REGISTERED ARCHITECT
RICHARD KOTZ
029233
STATE OF NEW YORK



1 2ND FIN. FLOOR ELECTRICAL PLAN
1/4" = 1'-0"

RichardKotz Architecture
TIMELESS DESIGN AND BUILD

PROJECT
PROPOSED REOVATION
69 Windmill Rd
Armonk, NY

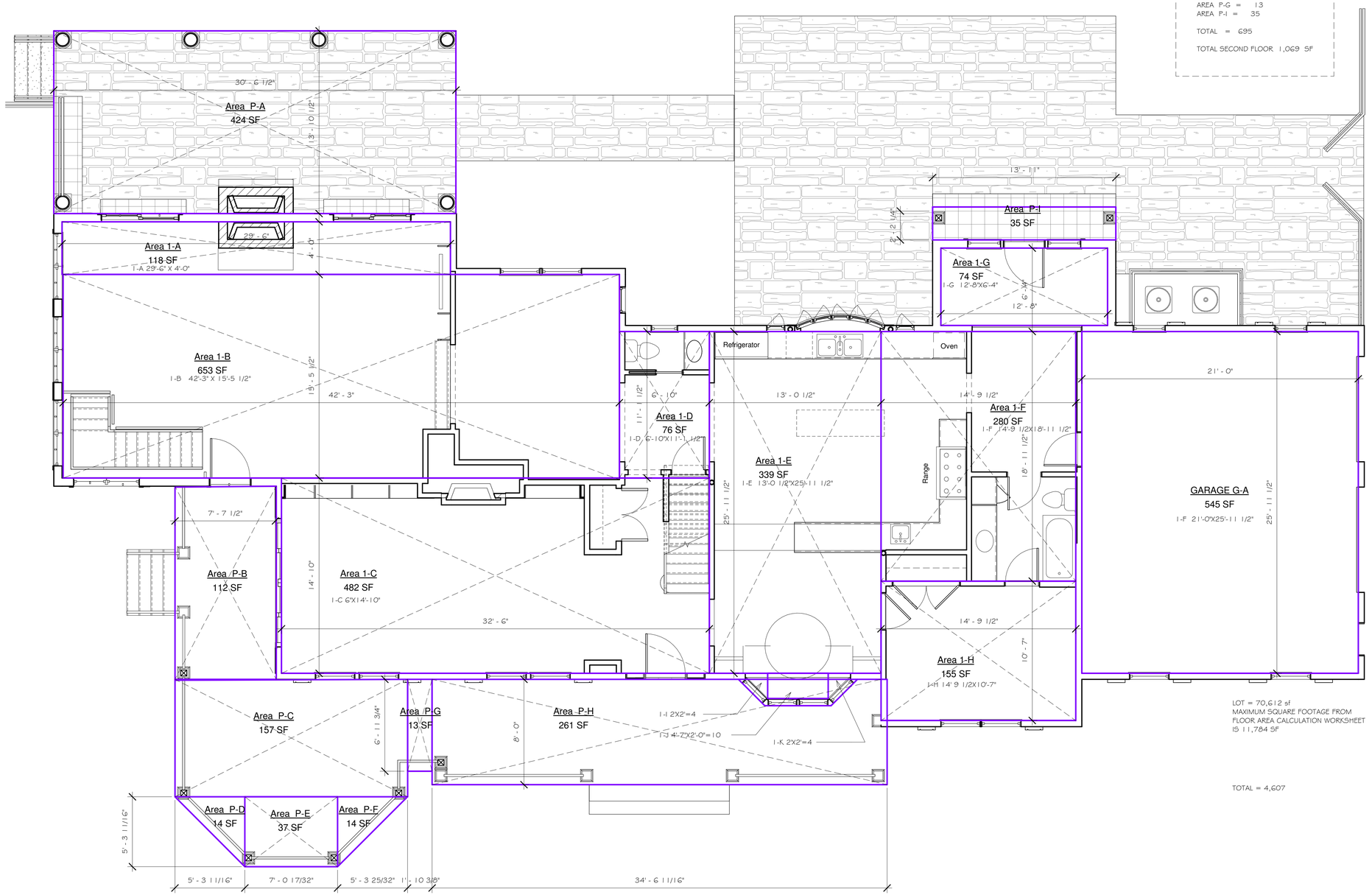
DRAWING NAME
2ND FLOOR LIGHTING PLAN

	DATE	REVISIONS
1	4-6-22	FOR BIDS

DATE:
SCALE:
NO.

A6.2

REGISTERED ARCHITECT
RICHARD KOTZ
STATE OF NEW YORK
026723



PORCH ABLE TO BE ENCLOSED

EXISTING:

AREA P-B = 113
AREA P-H = 261

TOTAL = 374

PROPOSED:
AREA P-A = 424
AREA P-C = 158
AREA P-D = 14
AREA P-E = 37
AREA P-F = 14
AREA P-G = 13
AREA P-I = 35

TOTAL = 695

TOTAL SECOND FLOOR 1,069 SF

2ND FLOOR

EXISTING:

AREA 2-C = 558
AREA 2-D = 19
AREA 2-E = 940

TOTAL = 1,517

PROPOSED:
AREA 2-A = 92 SF
AREA 2-B = 6 SF

TOTAL = 98

TOTAL SECOND FLOOR 1,615 SF

1ST FLOOR

EXISTING:
AREA 1-A = 118
AREA 1-B = 653
AREA 1-C = 482
AREA 1-D = 76
AREA 1-E = 339
AREA 1-F = 280

TOTAL = 1,948

PROPOSED:
AREA 1-G = 74 SF
AREA 1-H = 157 SF
AREA 1-I = 4
AREA 1-J = 10
AREA 1-K = 4

TOTAL = 249

TOTAL FIRST FLOOR 2,197

GARAGE

EXISTING:

AREA G-A = 545

TOTAL = 545

PROPOSED: = 0

TOTAL = 545

BASEMENT

EXISTING:

AREA B-A = 264
AREA B-N = 495

TOTAL = 795

PROPOSED: = 0

TOTAL = 795

TOTAL EXISTING =
#3 1ST FL = 1,948
#4 2ND FL = 1,517
#5 GARAGE = 545
#6 PORCHES = 374
#7 BASEMENT = 795
#8 ATTIC = 85
#9 ACC BLDG = 0

TOTAL = 5,264

TOTAL PROPOSED =
#3 1ST FL = 249
#4 2ND FL = 98
#5 GARAGE = 0
#6 PORCHES = 695
#7 BASEMENT = 0
#8 ATTIC = 0
#9 ACC BLDG = 0

TOTAL = 1,042

TOTAL
EXISTING = 5,264
PROPOSED = 1,042
TOTAL = 6,306

LOT = 70,612 sf
MAXIMUM SQUARE FOOTAGE FROM FLOOR AREA CALCULATION WORKSHEET IS 11,784 SF

TOTAL = 4,607

PROJECT

PROPOSED REOVATION

69 Windmill Rd
Armonk, NY

DRAWING NAME

FAR CALCS 1ST FLOOR

RichardKotz Architecture

TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

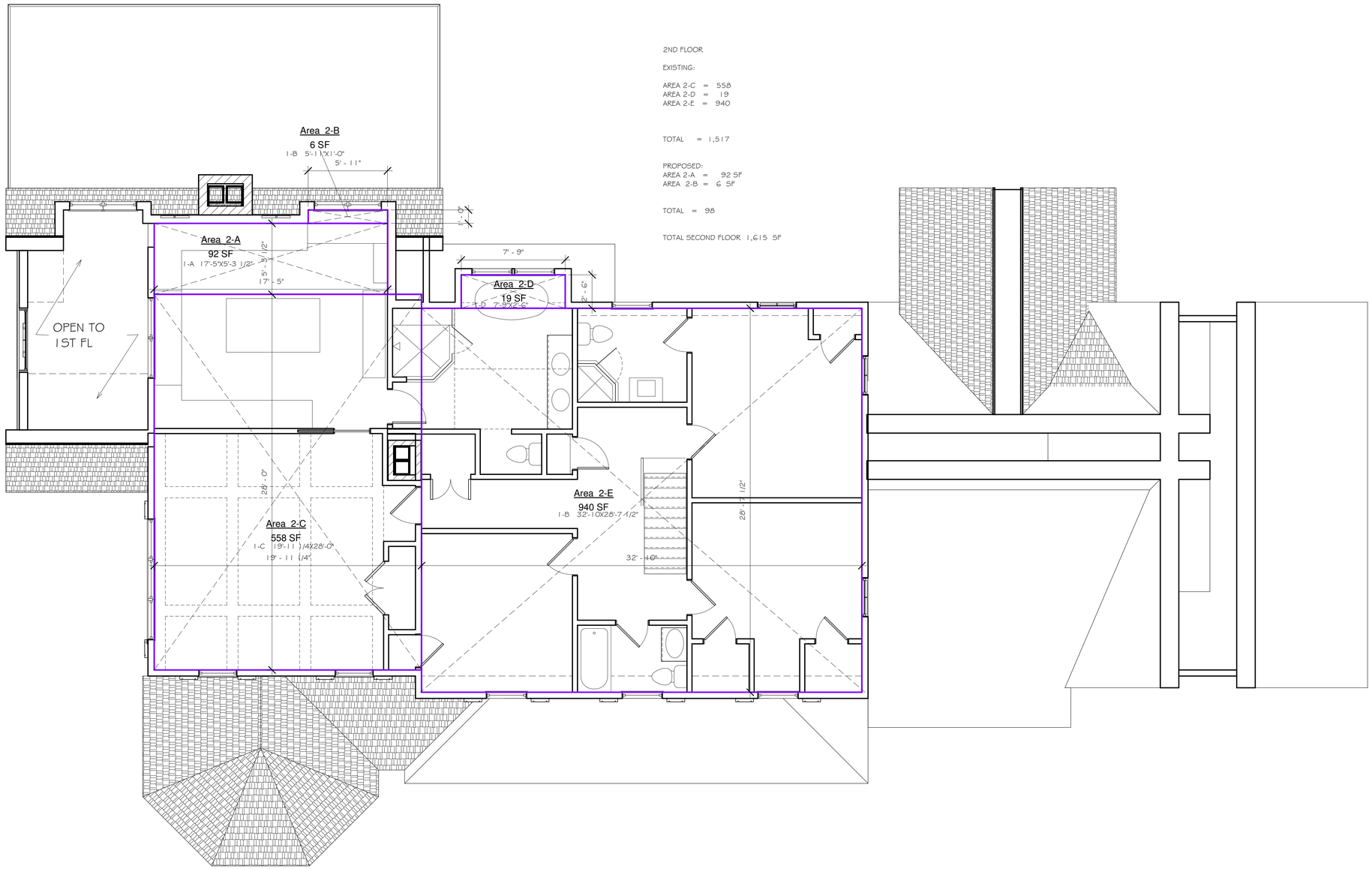
DATE:

SCALE:

NO.

A7.1

REGISTERED ARCHITECT RICHARD KOTZ 025233 STATE OF NEW YORK



2ND FLOOR

EXISTING:

AREA 2-C = 558
AREA 2-D = 19
AREA 2-E = 940

TOTAL = 1,517

PROPOSED:
AREA 2-A = 92 SF
AREA 2-B = 6 SF

TOTAL = 98

TOTAL SECOND FLOOR 1,615 SF

PROJECT

PROPOSED REOVATION

69 Windmill Rd
Armonk, NY

DRAWING NAME

FAR CALCS 2ND FLOOR

RichardKotz Architecture

TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

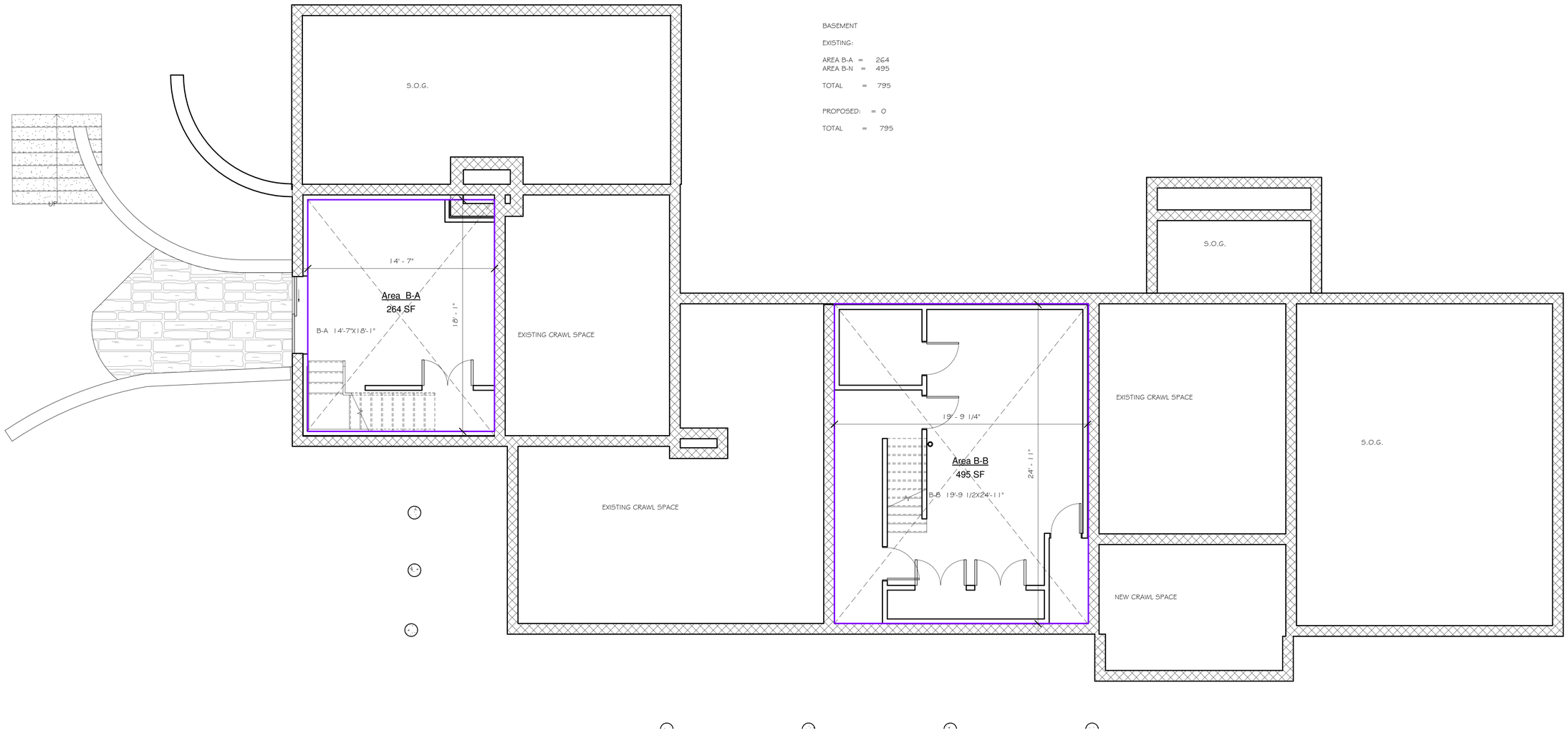
DATE:

SCALE:

NO.

A7.2

REGISTERED ARCHITECT
RICHARD KOTZ
029213
STATE OF NEW YORK



BASEMENT

EXISTING:

AREA B-A = 264
AREA B-N = 495

TOTAL = 795

PROPOSED: = 0

TOTAL = 795

1 BASEMENT
1/4" = 1'-0"

PROJECT

PROPOSED REOVATION

69 Windmill Rd
Armonk, NY

DRAWING NAME

FAR CALCS BASEMENT

RichardKotz Architecture

TIMELESS DESIGN AND BUILD

	DATE	REVISIONS
1	4-6-22	FOR BIDS

DATE:

SCALE:

NO.

A7.3

REGISTERED ARCHITECT
RICHARD KOTZ
030233
STATE OF NEW YORK

GENERAL CONSTRUCTION STAGING:

1. INSTALL EROSION & SEDIMENT CONTROLS.
2. MARK AND CUT TREES TO BE REMOVED.
3. INSTALL TREE PROTECTION AS REQUIRED.
4. STRIP TOPSOIL AND STOCKPILE IT WITH APPROPRIATE SEDIMENTATION CONTROL MEASURES.
5. ROUGH IN PROPOSED POOL AND CONSTRUCTION ACCESS.
6. CONSTRUCT POOL.
7. FINE GRADE AND STABILIZE ALL SLOPES.
8. LANDSCAPE AS REQUIRED.
9. REMOVE EROSION AND SEDIMENT CONTROLS.

GENERAL NOTES:

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS AND SEQUENCES OF CONSTRUCTION AND FOR THE SAFETY OF WORKERS AND OTHERS ON THE CONSTRUCTION SITE.
2. THE CONTRACTOR SHALL LOCATE AND VERIFY THE SIZE, LOCATION, DEPTH AND INVERTS OF ANY AND ALL EXISTING UTILITIES PRIOR TO COMMENCING OPERATIONS. THE CONTRACTOR SHALL ALSO BE REQUIRED TO CONTACT THE TOLL FREE "UDIGNY".
3. THE EXISTING DRIVEWAYS WILL SERVE AS THE MACHINERY ACCESS ROUTE AS SHOWN HEREON.
4. ANY DRIVEWAY AREAS, PLANTINGS, LAWN AREAS AND TREES NOT TO BE REMOVED SHALL BE PROTECTED DURING CONSTRUCTION.
5. ANY EXISTING DRAINAGE, SEWER OR OTHER SUBSURFACE STRUCTURES FOUND WITHIN THE PROPOSED CONSTRUCTION AREA THAT INTERFERE WITH THE PROPOSED CONSTRUCTION INDICATED HEREON SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.
6. ANY REQUIRED FILL SECTIONS SHALL BE PLACED ON THE PERIMETER OF THE AREA AND SPREAD WITH A SMALL CRAWLER, TRACTOR OR OTHER APPROVED MACHINERY AND COMPACTED TO 95-PERCENT OPTIMUM DRY DENSITY.
7. A NEW YORK REGISTERED PROFESSIONAL ENGINEER ACCEPTABLE TO THE CITY SHALL INSPECT CONSTRUCTION OF THE FACILITATES INDICATED HEREON TO INSURE COMPLIANCE WITH THE PROPOSED PLAN.
8. WATER AND GAS ARE PROVIDED BY UTILITY. THIS PROPERTY CONTAINS AN UNDERGROUND SEPTIC SYSTEM.

DRAINAGE NOTES:

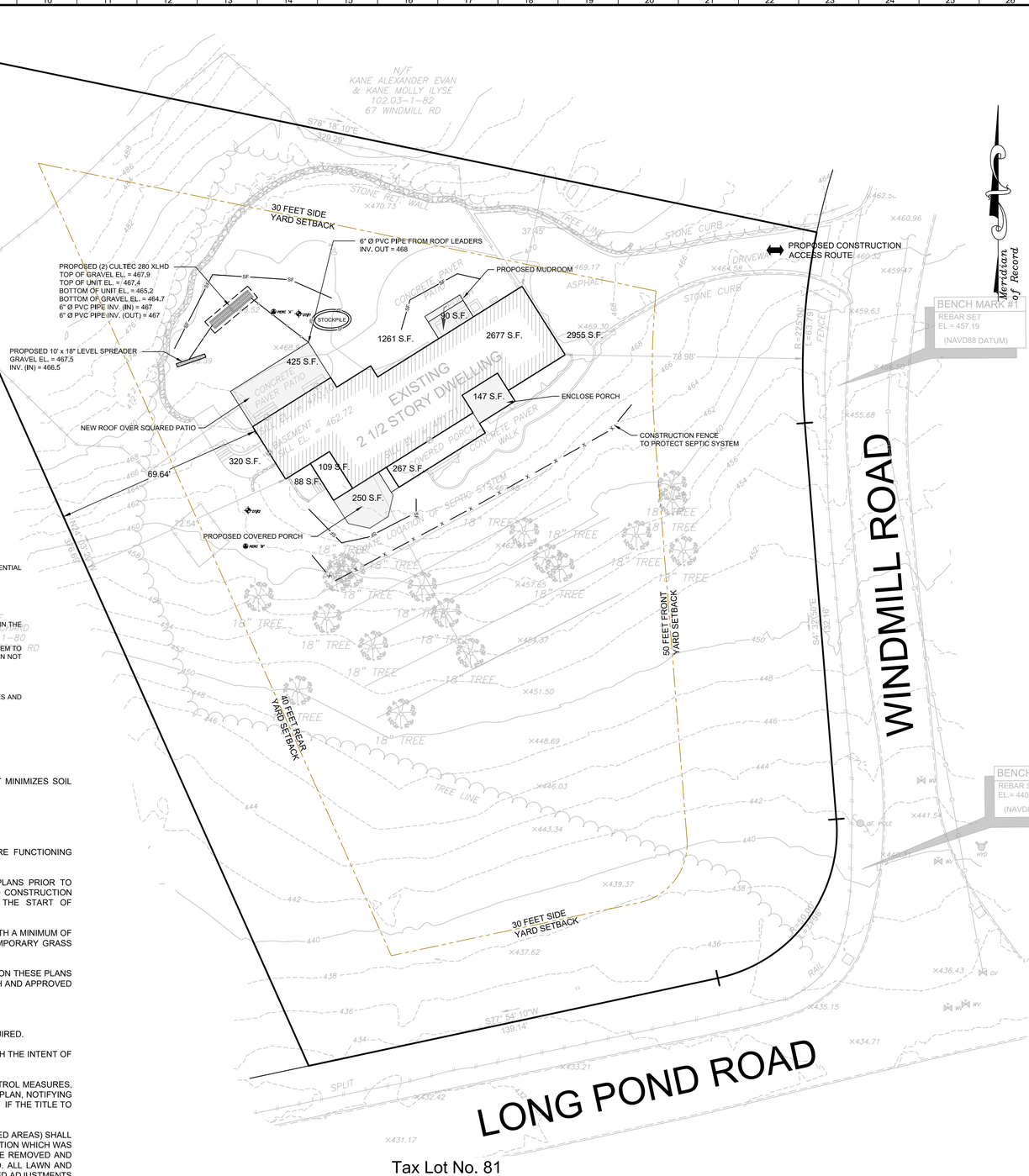
1. CONTRACTOR TO PROBE AND EXCAVATE WHERE POTENTIAL CONFLICTS MAY EXIST PRIOR TO DRAINAGE INSTALLATION. ALL KNOWN OR POTENTIAL CONFLICTS SHOULD BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.
2. ALL NEW AND EXISTING AND FINISHED GRADES SHALL SLOPE TO DRAIN AWAY FROM THE PROPOSED AND EXISTING BUILDINGS.
3. ALL PVC PIPE TO BE SCHEDULE 40, OR EQUAL. MINIMUM PIPE PITCH SHALL BE 2-PERCENT.
4. ALL RETAINING WALLS GREATER THAN THREE FEET REQUIRE COMPUTATIONS SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK TO BE SUBMITTED FOR ENGINEERING DIVISIONS RECORDS, PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
5. ALL DETENTION/RETENTION SYSTEMS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. ALL SYSTEMS SHALL USE A MANIFOLD SYSTEM TO DISTRIBUTE RUNOFF EVENLY INTO EACH ROW OF INFILTRATORS. THE MANIFOLD SHALL BE INSTALLED ON THE INLET AND OVERFLOW SIDES WHEN NOT HANDLING THE FIRST FLUSH AND ONLY ON THE INLET SIDE WHEN A FIRST FLUSH SYSTEM IS BEING INSTALLED.
6. EACH BMP TO BE INSTALLED SHALL HAVE THE SOILS BENEATH THE BMP SCARIFIED OR TILLED TO IMPROVE INFILTRATION.
7. ALL AREAS THAT ARE USED BY CONSTRUCTION EQUIPMENT AND USED FOR CONTRACTOR PARKING MUST HAVE THE SOIL TILLED 12 TO 16 INCHES AND AMENDED WITH SMALL AMOUNTS OF ORGANIC MATERIAL IF NEEDED. THE AREA TO BE RESTORED SHALL BE DETERMINED BY THE SITE ENGINEER.
8. SOIL TESTS WERE PERFORMED BY AHNEMAN KIRBY LLC ON 3/31/2022.

SEDIMENT AND EROSION CONTROL:

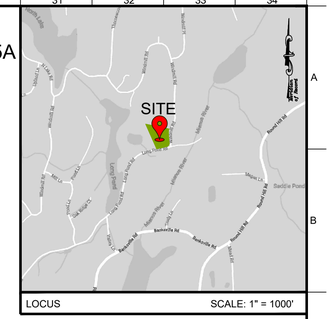
THE PURPOSE OF THIS SEDIMENT AND EROSION NARRATIVE, DETAILS AND NOTES IS TO OUTLINE A PROGRAM THAT MINIMIZES SOIL EROSION DURING CONSTRUCTION. THE PRIMARY POLICIES OF THIS PROGRAM AREA:

a) AVOID CONTAMINATION OF ADJACENT NEIGHBORING PROPERTIES AND DOWN GRADIENT MUNICIPAL ROADWAYS.
b) TRAPPING PARTICLES AT THEIR SOURCE BY PROMPTLY STABILIZING DISTURBED AREAS.
c) AVOID CONCENTRATION OF WATER OR STORM WATER RUNOFF.
d) AVOID CONTAMINATION OF EXISTING STORM DRAIN STRUCTURES AND DRAINAGE PIPES.
e) MAINTENANCE SHALL BE WEEKLY AND AFTER EVERY STORM EVENT FOR ALL CONTROLS TO ENSURE THEY ARE FUNCTIONING PROPERLY.

1. PROPOSED EROSION CONTROLS SHALL BE INSTALLED TO THE LOCATIONS AND DETAILS SHOWN ON THESE PLANS PRIOR TO CONSTRUCTION AS APPROVED IN THE FIELD BY THE APPROPRIATE MUNICIPAL AGENCY PERSONNEL. PROPOSED CONSTRUCTION PHASING TO BE DETERMINED IN CONSULTATION WITH THE APPROPRIATE MUNICIPAL AGENCY PRIOR TO THE START OF CONSTRUCTION.
2. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM. RESTABILIZATION WILL BE SCHEDULED AS SOON AS POSSIBLE WITH A MINIMUM OF 4 INCHES TOPSOIL, SEED AND MULCH. "HYDRO-SEED" MAY BE REQUIRED BASED ON FIELD CONDITIONS FOR TEMPORARY GRASS GERMINATION DURING SEASONAL PLANTING PERIODS TO INSURE MINIMAL SEDIMENTATION AND EROSION.
3. HAY BALES AND SNOW FENCE AND/OR SILT CURTAIN BARRIERS WILL BE INSTALLED AT THE LOCATIONS INDICATED ON THESE PLANS AND, IF NEEDED, ALONG THE TOE OF ALL CUT AND FILL SLOPES. ALL EROSION CONTROLS SHALL BE REVIEWED WITH AND APPROVED BY THE APPROPRIATE MUNICIPAL AGENCY PERSONNEL PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
4. ALL CONTROL MEASURES WILL BE MAINTAINED DURING THE CONSTRUCTION PERIOD.
5. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF NECESSARY OR REQUIRED.
6. SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THESE PLANS AND/OR AS DIRECTED BY THE MUNICIPAL STAFF.
7. IT IS THE RESPONSIBILITY OF THE OWNER/DEVELOPER TO INCLUDE THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE MUNICIPAL STAFF OF ANY TRANSFER OF THIS RESPONSIBILITY, AND FOR CONVEYING A COPY OF THESE PLANS IF THE TITLE TO THE LAND IS TRANSFERRED.
8. THE EROSION CONTROLS (WHICH WILL BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE PROPOSED CONSTRUCTED AREAS) SHALL BE INSPECTED PERIODICALLY AND ESPECIALLY FOLLOWING ANY PERIODS OF EXTENDED PRECIPITATION. ANY SILTATION WHICH WAS ACCUMULATED UPSLOPE OF THE PROPOSED EROSION BARRIERS IF GREATER THAN 6 INCHES IN DEPTH SHALL BE REMOVED AND THE EROSION CONTROLS CHECKED AND REPAIRED AS NECESSARY TO INSURE THAT NO BREACHING OCCURRED. ALL LAWN AND PROPOSED PLANTED AREAS SHALL BE CHECKED TO INSURE THAT GERMINATION HAS OCCURRED AND ANY REQUIRED ADJUSTMENTS PERFORMED AS NECESSARY PRIOR TO REMOVE OF TEMPORARY CONSTRUCTION CONTROLS.
9. TREES TO BE CUT, FALLEN TREES OR BUSH WITHIN DESIGNATED PROPOSED CONSTRUCTION AREAS SHALL BE CUT TO FIREPLACE LENGTHS AND STACKED OUTSIDE OF THOSE AREAS, FEED SMALLER BRANCHES AND TWIGS THROUGH CHIPPER AND STOCKPILE. ALL STOCKPILES SHALL BE OUTSIDE OF DRIP LINES OF PROTECTED TREE.
10. TREES TO BE SAVED SHALL BE BANDED WITH A BRIGHT-COLORED SURVEYOR'S RIBBON LOCATED AT A HEIGHT VISIBLE TO EQUIPMENT OPERATORS. TREE ARMORING PROTECTION MEASURES SHALL BE USED AS SHOWN IN THE DETAIL ON THIS PLAN.
11. INDIVIDUAL TREES OR STANDS TO BE SAVED WITHIN DESIGNATED AREAS OF PROPOSED STRUCTURES SHALL BE PROTECTED BY FENCING WHICH CIRCUMSCRIBES THE DRIP LINE OF THE INDIVIDUAL GROUP PER THE DETAIL ON THIS DRAWING.



ZONE: R-1.5A



LEGEND

- 95 — EXISTING MAJOR CONTOURS
- –96– EXISTING MINOR CONTOURS
- x 94.37 SPOT ELEVATIONS
- 90 PROPOSED CONTOURS
- x 94 PROPOSED SPOT GRADES
- // // SPLIT RAIL FENCE
- G G GAS LINE
- EXISTING BUILDING
- UT. POLE UTILITY POLE
- HYD HYDRANT
- WV WATER VALVE
- GV GAS VALVE
- TREE EXISTING TREES
- SF SILT FENCE

ABBREVIATIONS

INV.	INVERT ELEVATION
TYP.	TYPICAL
EL.	ELEVATION
T.B.R.	TO BE REMOVED
EX.	EXISTING
N/F	NOW OR FORMERLY
R.O.W.	RIGHT OF WAY

Test Pit or Soil Boring #: 1 Ground Elevation: 469.35

Elevation	Soil Texture (Percent Sand, Silt and Clay)	Depth Range in Inches
469.18	Topsoil	0-2
463.35	Brown Sandy Loam with Gravel and Cobble	2-72

Elevation		Depth in Inches
NA	Roots	NA
NA	Groundwater	NA
463.35	Ledge	72

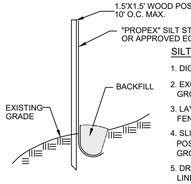
Test Pit or Soil Boring #: 2 Ground Elevation: 462.4

Elevation	Soil Texture (Percent Sand, Silt and Clay)	Depth Range in Inches
462.23	Topsoil	0-2
455.40	Brown Sandy Loam with silt and Cobbles	2-84

Elevation		Depth in Inches
458.73	Roots	44
NA	Groundwater	NA
NA	Ledge	NA

PERCOLATION TEST #A

TIME PASSED (min)	Depth (")	Change in Depth (")	Rate (min/in)
0	7	0	-
10	8	1	10.0
20	9	1	10.0
30	10	1	10.0
40	11	1	10.0
		Average	10

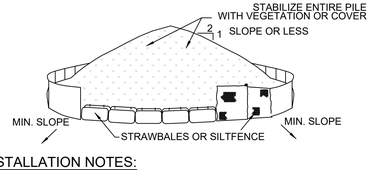


SILT FENCE NOTES

1. DIG A 6" DEEP TRENCH ALONG THE INTENDED FENCE LINE.
2. EXCEPT FOR THE END POST, DRIVE ALL POSTS INTO THE GROUND AT BACK SIDE OF TRENCH 10' O.C. MAX.
3. LAY OUT FILTER FABRIC ON THE UPHILL SIDE ALONG THE FENCE LINE.
4. SLIP POCKET IN END OF FILTER FABRIC OVER THE FIRST POST INSURING THAT THE BOTTOM RED GAUGE LINE IS AT GROUND LEVEL.
5. DRAPE BOTTOM 6" OF FILTER FABRIC BELOW RED GAUGE LINE IN TRENCH, BACK FILL WITH SOIL AND COMPACT.

EROSION CONTROL SILT FENCE DETAIL

N.T.S.



INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE DETAIL THIS SHEET FOR INSTALLATION OF SILT FENCE.
5. PROVIDE PLASTIC BELOW STOCK PILE + PROTECT UNDERSIDE.

STOCKPILE DETAIL

Date:	April 6, 2022
Scale:	1" = 20'
Drawn/Checked By:	IGH / TGA
Book #:	259:92
Job #:	22-232-10504
Reference:	10504

Tax Lot No. 81

Lot Area = 1.621 Ac. (70,612 Sq. Ft.)

GRAPHIC SCALE :
20 0 20
FEET

PRINT IS INVALID WITHOUT SEAL AND ORIGINAL SIGNATURE

THOMAS G. ANNEMAN #14364 LICENSED PROFESSIONAL ENGINEER STATE OF CONNECTICUT

REV. #	REV. DESCRIPTION:	DATE:

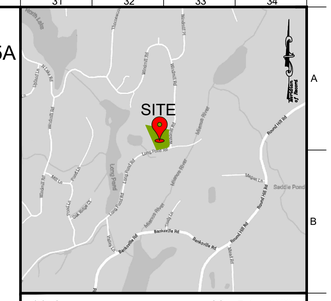
AHNEMAN KIRBY ENGINEERS•SURVEYORS•PLANNERS SINCE 1871
1171 East Putnam Avenue, Riverside, CT 06878
Tel: 203.869.7707 • Fax: 203.869.4606
www.ahnemankirby.com

PREPARED FOR:
JEFF BOYD
69 Windmill Road, Armonk, NY 10504
(Tax ID: 1/04/10.-204)

PROPOSED SITE PLAN

SP-1

ZONE: R-1.5A



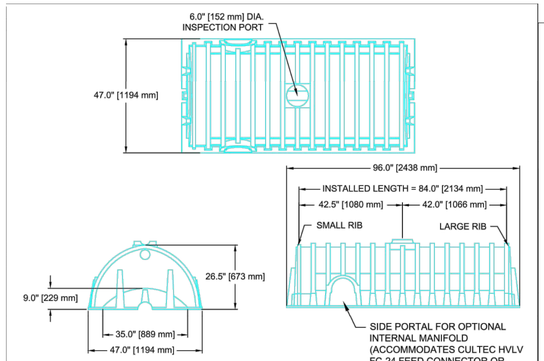
LOCUS SCALE: 1" = 1000'

LEGEND

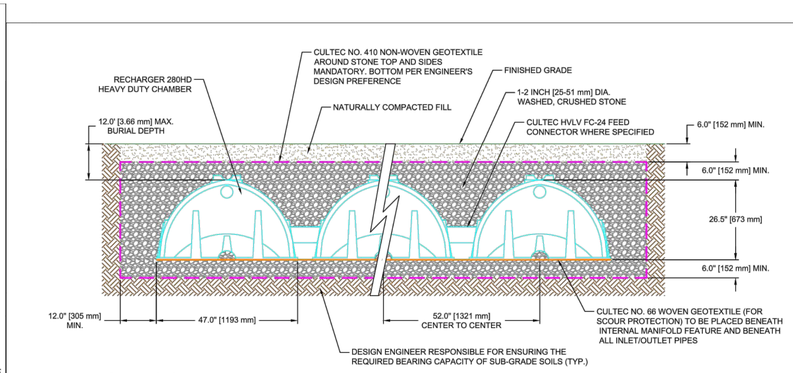
95	EXISTING MAJOR CONTOURS
96	EXISTING MINOR CONTOURS
x 94.37	SPOT ELEVATIONS
90	PROPOSED CONTOURS
x 94	PROPOSED SPOT GRADES
// //	SPLIT RAIL FENCE
G G	GAS LINE
	EXISTING BUILDING
UT. POLE	UTILITY POLE
HYD	HYDRANT
WV	WATER VALVE
GV	GAS VALVE
TREE	EXISTING TREES
SF	SILT FENCE

ABBREVIATIONS

INV.	INVERT ELEVATION
TYP.	TYPICAL
EL.	ELEVATION
T.B.R.	TO BE REMOVED
EX.	EXISTING
N/F	NOW OR FORMERLY
R.O.W.	RIGHT OF WAY



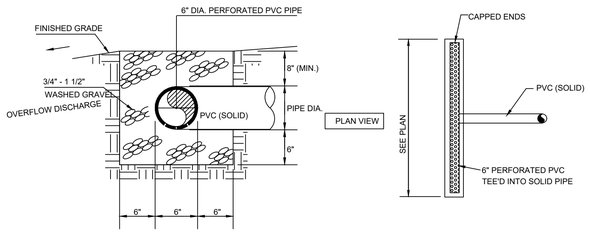
CULTEC RECHARGER 280HD CHAMBER STORAGE = 6.079 CF/FT [0.565 m³/m]
INSTALLED LENGTH ADJUSTMENT = 1.0' [0.3048 m]
ALL RECHARGER 280HD HEAVY DUTY UNITS ARE MARKED WITH A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
SIDE PORTAL ACCEPTS CULTEC HVLV FC-24 FEED CONNECTOR.



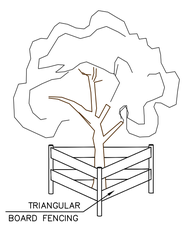
GENERAL NOTES
RECHARGER 280HD BY CULTEC, INC. OF BROOKFIELD, CT.
STORAGE PROVIDED = 9.21 CF/FT [1.83 m³/m] PER DESIGN UNIT.
REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
MAXIMUM ALLOWED COVER OVER TOP OF UNIT SHALL BE 12' (3.65 m)
THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.

ALL RECHARGER 280HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
ALL RECHARGER 280HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

RECHARGER 280HD DETAIL



LEVEL SPREADER DETAIL
N.T.S.



TREE PROTECTION DETAIL
(AS REQUIRED FOR ALL TREES TO BE SAVED)
SCALE: N.T.S.

Tax Lot No. 81
Lot Area = 1.621 Ac. (70,612 Sq. Ft.)

GRAPHIC SCALE :
30 0 30
FEET

PRINT INVALID WITHOUT SEAL AND ORIGINAL SIGNATURE

REV. #:	REV. DESCRIPTION:	DATE:

AHNEMAN KIRBY
ENGINEERS•SURVEYORS•PLANNERS
SINCE 1871
1171 East Putnam Avenue, Riverside, CT 06878
Tel: 203.869.7707 • Fax: 203.869.4606
www.ahnemankirby.com

Date:	March 22, 2022
Scale:	1" = 30'
Drawn/Checked By:	IGH / TGA
Book #:	259:92
Job #:	22-232-10504
Reference:	10504

PREPARED FOR:
JEFF BOYD
69 Windmill Road, Armonk, NY 10504
(Tax ID: 1/04/10.-204)

PROPOSED SITE PLAN

SP-1

Z:\AKL_projects\69 Windmill Rd 10504 Boyd\Dwg\2022-03-23 69 Windmill Rd Boyd SP-1.dwg 04/18/22, 5:13pm staghelli

Stormwater Management Report

Prepared for:

Jeff Boyd

69 Windmill Rd

North Castle, NY 10504

April 6, 2022

Prepared by:

Ahneman Kirby, LLC

1171 East Putnam Avenue

Riverside, Connecticut

Project Narrative

Property of Jeff Boyd
69 Windmill Rd, North Castle, NY 10504
April 6, 2022

A. GEOGRAPHICAL LOCATION AND DESCRIPTION

The subject parcel is located in the Northwest corner of the intersection of Long Pond Rd and Windmill Rd, North of Long Pond Rd and West of Windmill Rd and has a lot area of 1.62 Acres. The topographic nature of the lot is sloped downward from the Northwest side of the property to the south toward Long Pond Rd. The property contains a stone retaining wall behind the house, with trees, and wooded open space. There is a driveway entrance to the property from Windmill Road which leads uphill to the residence in the center of the parcel.

B. PURPOSE AND DESCRIPTION

This application package proposes a covered porch and a mudroom in the back and a new covered porch in the front of the house along with proposing an office space. The new impervious area is 305 ft^2. The topography of the site is going from the Northwest to the South towards the Long Pond Road at a rate of approximately 16%. However, in the rear yard, there is a stone retaining wall approximately 50 feet away from the house to create an almost flat back yard.

Drainage design was performed in accordance with the Town of North Castle Town Code Chapter 267-6, with a net zero increase in the rate of runoff. We proposed collecting runoff from the proposed covered porch in the backyard through roof leaders and treating it with North Castle's Stormwater Best Management Practices (BMP).

The area of the site being collected is in the Northwestern portion of the lot. The stormwater will be collected by a proposed roof downspout. From the drains the stormwater is then conveyed to two (2) Cultec 280XLHD Recharger basins placed underneath the lawn area behind the proposed covered porch in the flat back yard. The outlet from the Cultecs will then be routed to a level spreader located to the Northwest side of the proposed covered porch (See Plans).

C. SOIL EVALUATION

The soils within the site below the surface are 98.7% CsD with hydrologic group Type B and 1.3% CrC with hydraulogic group Type B per the USDA Natural Resource Conservation Service and are depicted on the soils map located in Appendix B of this report as follows:

- Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky (map unit symbol CrC)
- Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky (map unit symbol CsD)

Refer to Appendix C for USDA Soils Engineering Properties.

D. PRE & POST DEVELOPMENT SITE HYDROLOGY COMPARISON

The proposed development increases the impervious coverage for the watershed but will decrease peak flows to all points of concern. The roof leaders will pick up the runoff from the newly introduced impervious surfaces.

Refer to Table 1 for a comparison of peak flow rates for the existing and proposed site conditions at point of interest A. The peak runoff to all points of concern has a zero increase for the 1, 2, 5, 10, and 25-year storms. Upon completion of the construction depicted on the proposed developments plans, there will be no drainage impacts to any of the adjoining properties.

Table 1: Comparison of Existing and Proposed Peak Flow Rates for Point of Interest A

Storm Event	Existing Flow (cfs)	Proposed Flow (cfs)	Difference
1-year	1.77	1.76	-0.01
2-year	2.67	2.65	-0.02
5-year	4.02	4.00	-0.02
10-year	5.35	5.32	-0.03
25-year	7.59	7.54	-0.05

E. ALTERNATIVES CONSIDERED

The alternatives considered included cultec units placed in the west side of the house near the garden to store the runoff from the proposed porch in the front yard through a roof leader or collecting runoff from catch basins in the driveway and a trench drain installed along the existing driveway.

The cultec units in the side yard were discarded due to the location of the septic system in the front yard. We need to maintain at least 50 feet from the leaching fields.

The trench drain collection, storage, and discharge option in the existing driveway was eliminated due to limiting the area of disturbance (removing and replacing the existing driveway) to the backyard where the other work will be taking place.

Appendix A Impervious Coverage Pre & Post Development

Appendix B USDA Soils Engineering Properties

Map Scale: 1:907 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Westchester County, New York
Survey Area Data: Version 17, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 4, 2020—Oct 31, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	0.0	1.3%
CsD	Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky	2.3	98.7%
Totals for Area of Interest		**2.3**	**100.0%**

Westchester County, New York

CsD—Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2w69k
Elevation: 0 to 1,290 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Chatfield, very stony, and similar soils: 45 percent
Charlton, very stony, and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chatfield, Very Stony

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 2 inches: fine sandy loam
Bw - 2 to 30 inches: gravelly fine sandy loam
2R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 41 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Charlton, Very Stony

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Leicester, very stony

Percent of map unit: 6 percent
Landform: Depressions, ground moraines, hills, drainageways
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope

Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: Yes

Hollis, very stony

Percent of map unit: 5 percent
Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Rock outcrop

Percent of map unit: 5 percent
Landform: Ridges, hills
Hydric soil rating: No

Sutton, very stony

Percent of map unit: 4 percent
Landform: Ground moraines, hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Data Source Information

Soil Survey Area: Westchester County, New York
Survey Area Data: Version 17, Sep 1, 2021

Westchester County, New York

CrC—Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2w698
Elevation: 0 to 1,550 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton, very stony, and similar soils: 50 percent
Chatfield, very stony, and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton, Very Stony

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 4 inches: fine sandy loam
Bw - 4 to 27 inches: gravelly fine sandy loam
C - 27 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Chatfield, Very Stony

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 2 inches: fine sandy loam
Bw - 2 to 30 inches: gravelly fine sandy loam
2R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 3 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 41 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Hollis, very stony

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Rock outcrop

Percent of map unit: 5 percent
Hydric soil rating: No

Sutton, very stony

Percent of map unit: 5 percent
Landform: Ground moraines, hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

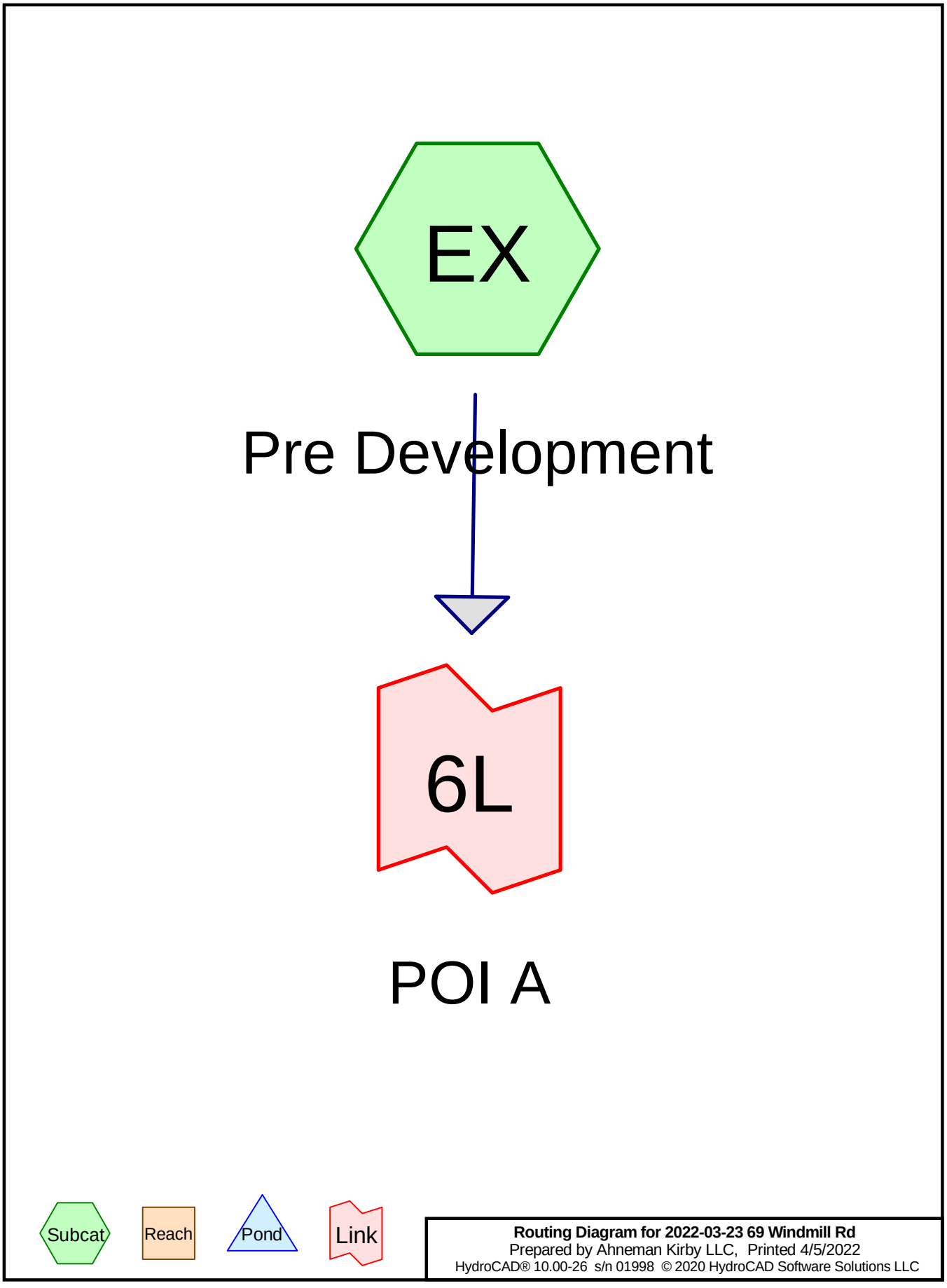
Leicester, very stony

Percent of map unit: 5 percent
Landform: Drainageways, depressions
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Westchester County, New York
Survey Area Data: Version 17, Sep 1, 2021

Appendix C HydroCAD Pre & Post Development Calculations



Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
62,366	74	>75% Grass cover, Good, HSG C (EX)
1,657	98	BACK PATIO (EX)
292	98	BASEMENT WALKWAY (EX)
3,010	98	DRIVEWAY AND FRONT WALKWAY (EX)
420	98	FRONT PORCH (EX)
81	98	FRONT WALKWAY (EX)
2,677	98	HOUSE (EX)
109	98	SIDE PORCH (EX)
70,612	**77**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX: Pre Development Runoff Area=70,612 sf 11.68% Impervious Runoff Depth>0.05"
Tc=5.0 min CN=77 Runoff=0.02 cfs 281 cf

Link 6L: POI A Inflow=0.02 cfs 281 cf
Primary=0.02 cfs 281 cf

Total Runoff Area = 70,612 sf Runoff Volume = 281 cf Average Runoff Depth = 0.05"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX: Pre Development Runoff Area=70,612 sf 11.68% Impervious Runoff Depth>0.94"
Tc=5.0 min CN=77 Runoff=1.77 cfs 5,533 cf

Link 6L: POI A Inflow=1.77 cfs 5,533 cf
Primary=1.77 cfs 5,533 cf

Total Runoff Area = 70,612 sf Runoff Volume = 5,533 cf Average Runoff Depth = 0.94"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX: Pre Development Runoff Area=70,612 sf 11.68% Impervious Runoff Depth>1.38"
Tc=5.0 min CN=77 Runoff=2.67 cfs 8,104 cf

Link 6L: POI A Inflow=2.67 cfs 8,104 cf
Primary=2.67 cfs 8,104 cf

Total Runoff Area = 70,612 sf Runoff Volume = 8,104 cf Average Runoff Depth = 1.38"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX: Pre Development Runoff Area=70,612 sf 11.68% Impervious Runoff Depth>2.05"
Tc=5.0 min CN=77 Runoff=4.02 cfs 12,046 cf

Link 6L: POI A Inflow=4.02 cfs 12,046 cf
Primary=4.02 cfs 12,046 cf

Total Runoff Area = 70,612 sf Runoff Volume = 12,046 cf Average Runoff Depth = 2.05"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX: Pre Development Runoff Area=70,612 sf 11.68% Impervious Runoff Depth>2.71"
Tc=5.0 min CN=77 Runoff=5.35 cfs 15,962 cf

Link 6L: POI A Inflow=5.35 cfs 15,962 cf
Primary=5.35 cfs 15,962 cf

Total Runoff Area = 70,612 sf Runoff Volume = 15,962 cf Average Runoff Depth = 2.71"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX: Pre Development Runoff Area=70,612 sf 11.68% Impervious Runoff Depth>4.95"
Tc=5.0 min CN=77 Runoff=9.70 cfs 29,127 cf

Link 6L: POI A Inflow=9.70 cfs 29,127 cf
Primary=9.70 cfs 29,127 cf

Total Runoff Area = 70,612 sf Runoff Volume = 29,127 cf Average Runoff Depth = 4.95"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX: Pre Development Runoff Area=70,612 sf 11.68% Impervious Runoff Depth>6.30"
Tc=5.0 min CN=77 Runoff=12.25 cfs 37,049 cf

Link 6L: POI A Inflow=12.25 cfs 37,049 cf
Primary=12.25 cfs 37,049 cf

Total Runoff Area = 70,612 sf Runoff Volume = 37,049 cf Average Runoff Depth = 6.30"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX: Pre Development Runoff Area=70,612 sf 11.68% Impervious Runoff Depth>3.85"
Tc=5.0 min CN=77 Runoff=7.59 cfs 22,676 cf

Link 6L: POI A Inflow=7.59 cfs 22,676 cf
Primary=7.59 cfs 22,676 cf

Total Runoff Area = 70,612 sf Runoff Volume = 22,676 cf Average Runoff Depth = 3.85"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Summary for Subcatchment EX: Pre Development

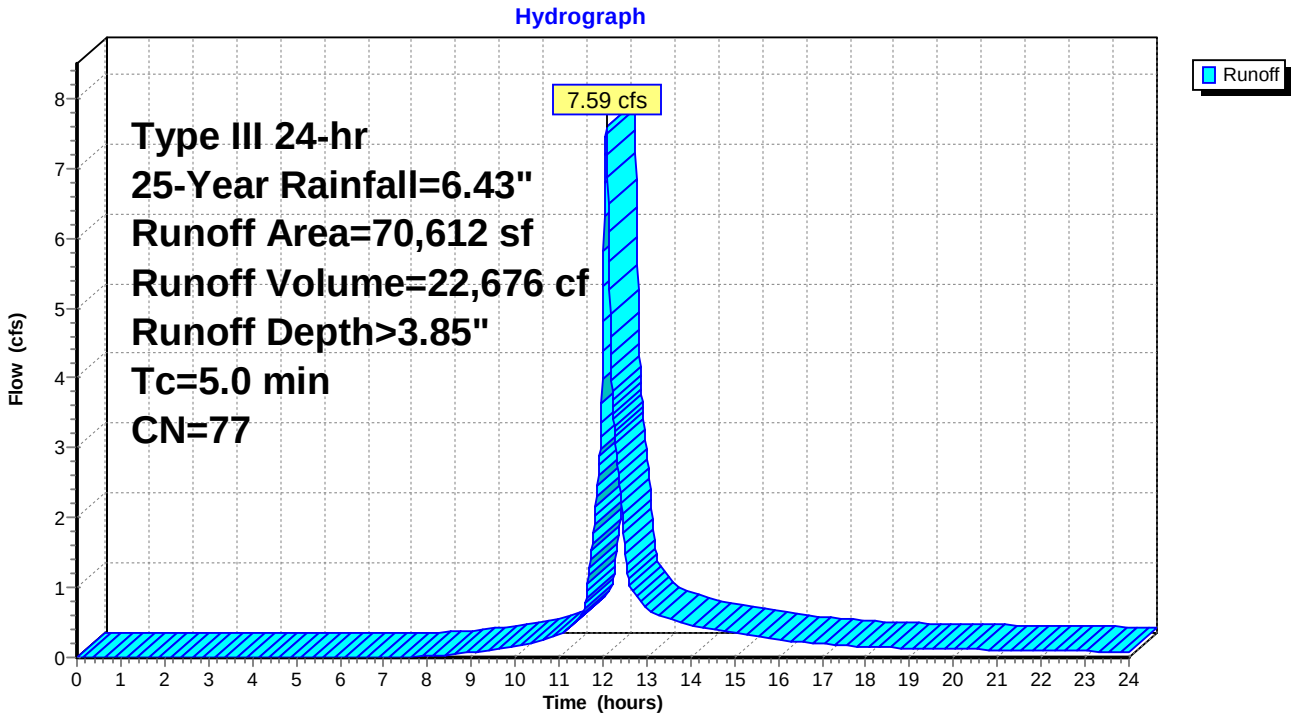
Runoff = 7.59 cfs @ 12.07 hrs, Volume= 22,676 cf, Depth> 3.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.43"

	Area (sf)	CN	Description
*	2,677	98	HOUSE
*	109	98	SIDE PORCH
*	420	98	FRONT PORCH
*	1,657	98	BACK PATIO
*	3,010	98	DRIVEWAY AND FRONT WALKWAY
*	292	98	BASEMENT WALKWAY
*	81	98	FRONT WALKWAY
	62,366	74	>75% Grass cover, Good, HSG C
	70,612	77	Weighted Average
	62,366		88.32% Pervious Area
	8,246		11.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment EX: Pre Development

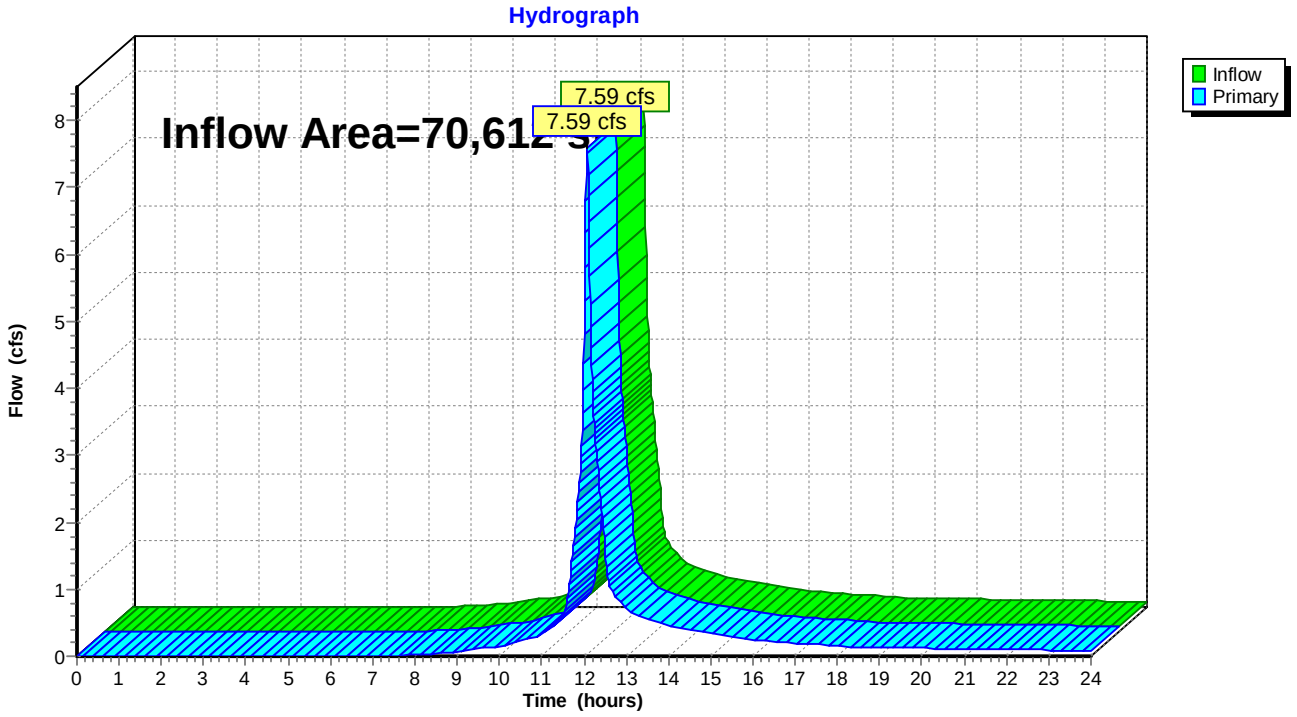


Summary for Link 6L: POI A

Inflow Area = 70,612 sf, 11.68% Impervious, Inflow Depth > 3.85" for 25-Year event
Inflow = 7.59 cfs @ 12.07 hrs, Volume= 22,676 cf
Primary = 7.59 cfs @ 12.07 hrs, Volume= 22,676 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link 6L: POI A



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX: Pre Development Runoff Area=70,612 sf 11.68% Impervious Runoff Depth>6.30"
Tc=5.0 min CN=77 Runoff=12.25 cfs 37,049 cf

Link 6L: POI A Inflow=12.25 cfs 37,049 cf
Primary=12.25 cfs 37,049 cf

Total Runoff Area = 70,612 sf Runoff Volume = 37,049 cf Average Runoff Depth = 6.30"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Summary for Subcatchment EX: Pre Development

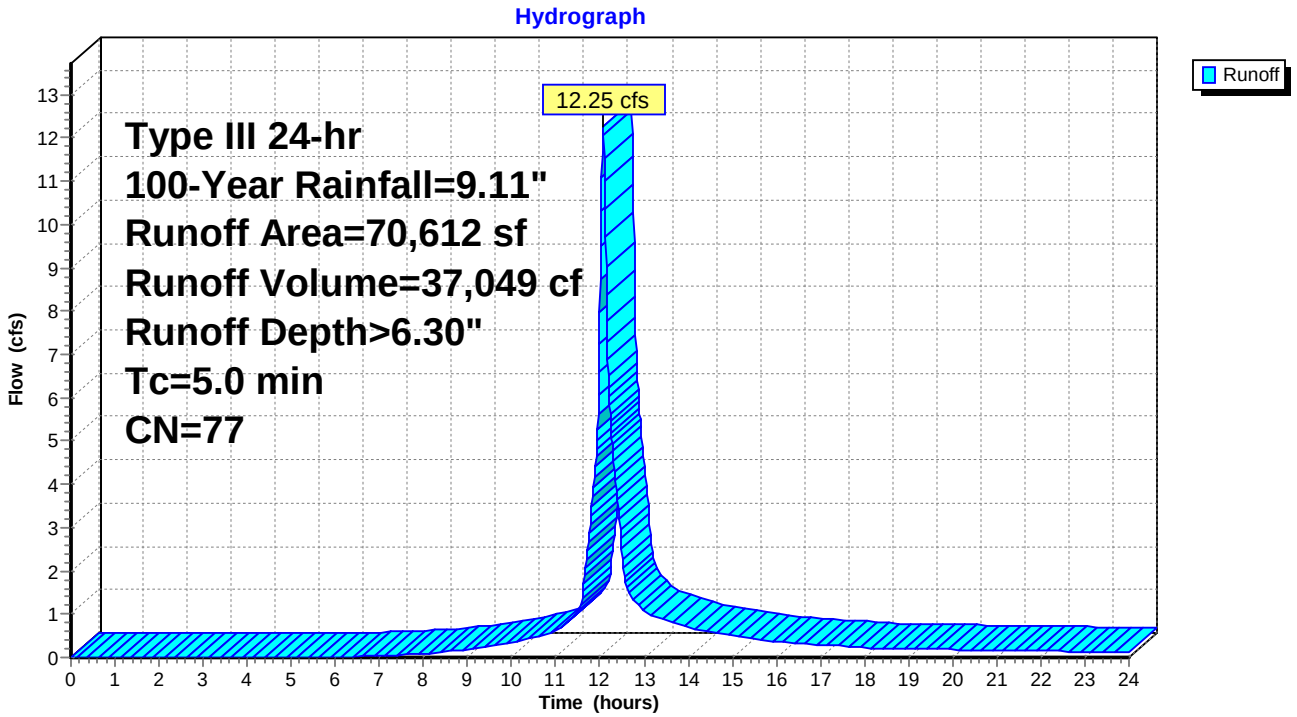
Runoff = 12.25 cfs @ 12.07 hrs, Volume= 37,049 cf, Depth> 6.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.11"

	Area (sf)	CN	Description
*	2,677	98	HOUSE
*	109	98	SIDE PORCH
*	420	98	FRONT PORCH
*	1,657	98	BACK PATIO
*	3,010	98	DRIVEWAY AND FRONT WALKWAY
*	292	98	BASEMENT WALKWAY
*	81	98	FRONT WALKWAY
	62,366	74	>75% Grass cover, Good, HSG C
	70,612	77	Weighted Average
	62,366		88.32% Pervious Area
	8,246		11.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment EX: Pre Development

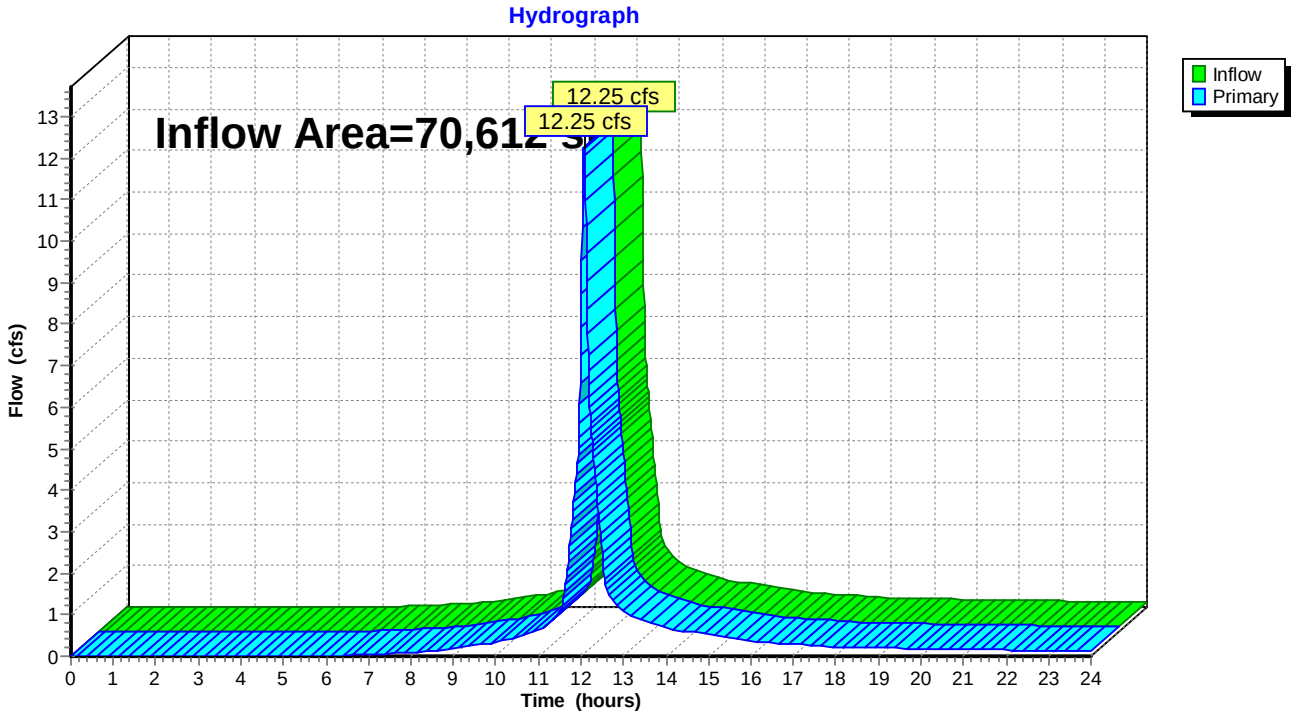


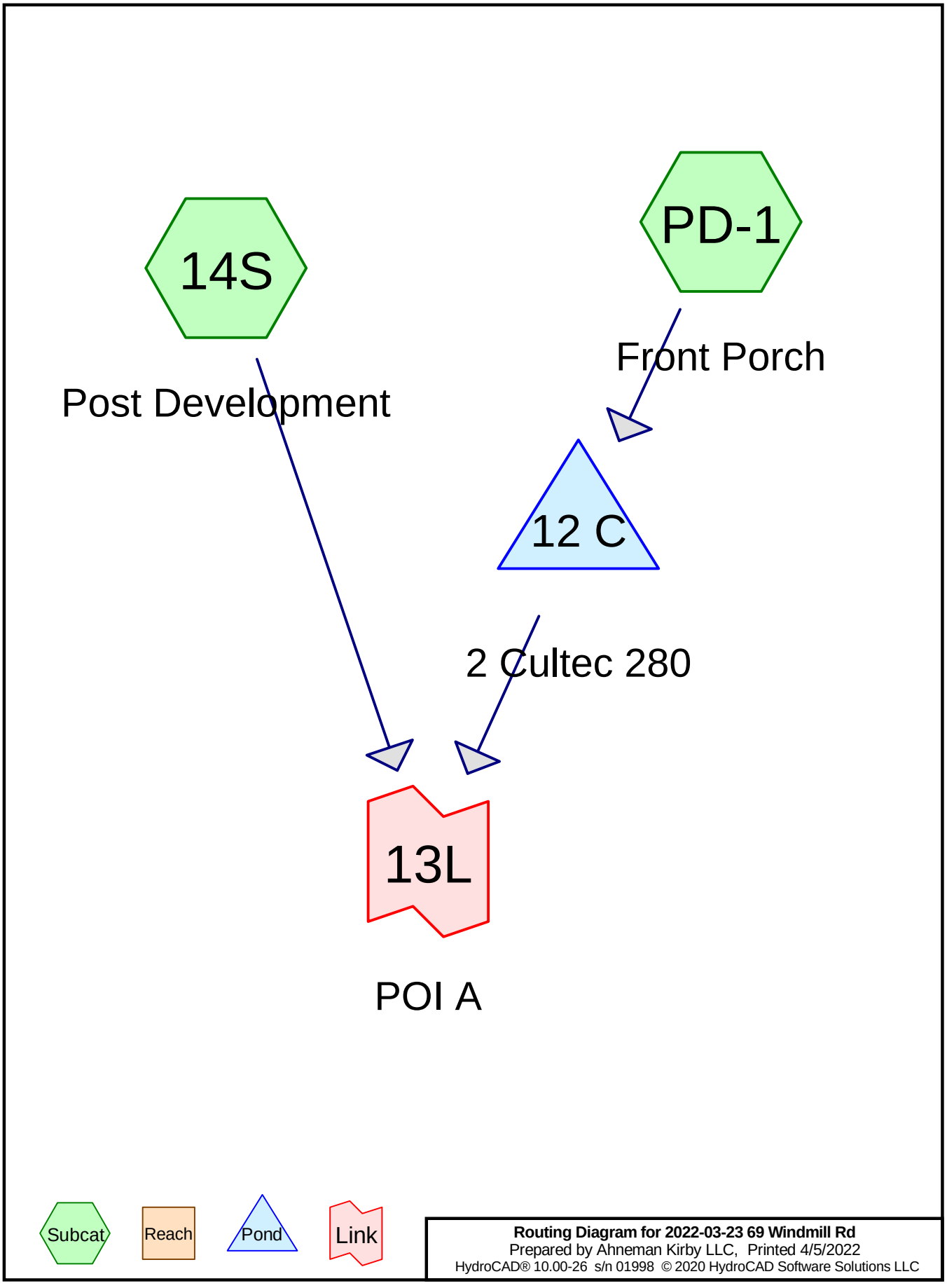
Summary for Link 6L: POI A

Inflow Area = 70,612 sf, 11.68% Impervious, Inflow Depth > 6.30" for 100-Year event
Inflow = 12.25 cfs @ 12.07 hrs, Volume= 37,049 cf
Primary = 12.25 cfs @ 12.07 hrs, Volume= 37,049 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link 6L: POI A





Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
62,366	74	>75% Grass cover, Good, HSG C (14S)
1,232	98	BACK PATIO (14S)
292	98	BASEMENT WALKWAY (14S)
3,010	98	DRIVEWAY AND FRONT WALKWAY (14S)
420	98	FRONT PORCH (14S)
81	98	FRONT WALKWAY (14S)
2,677	98	HOUSE (14S)
109	98	SIDE PORCH (14S)
425	98	back patio (PD-1)
70,612	**77**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: Post Development Runoff Area=70,187 sf 11.14% Impervious Runoff Depth>0.05"
Tc=5.0 min CN=77 Runoff=0.02 cfs 279 cf

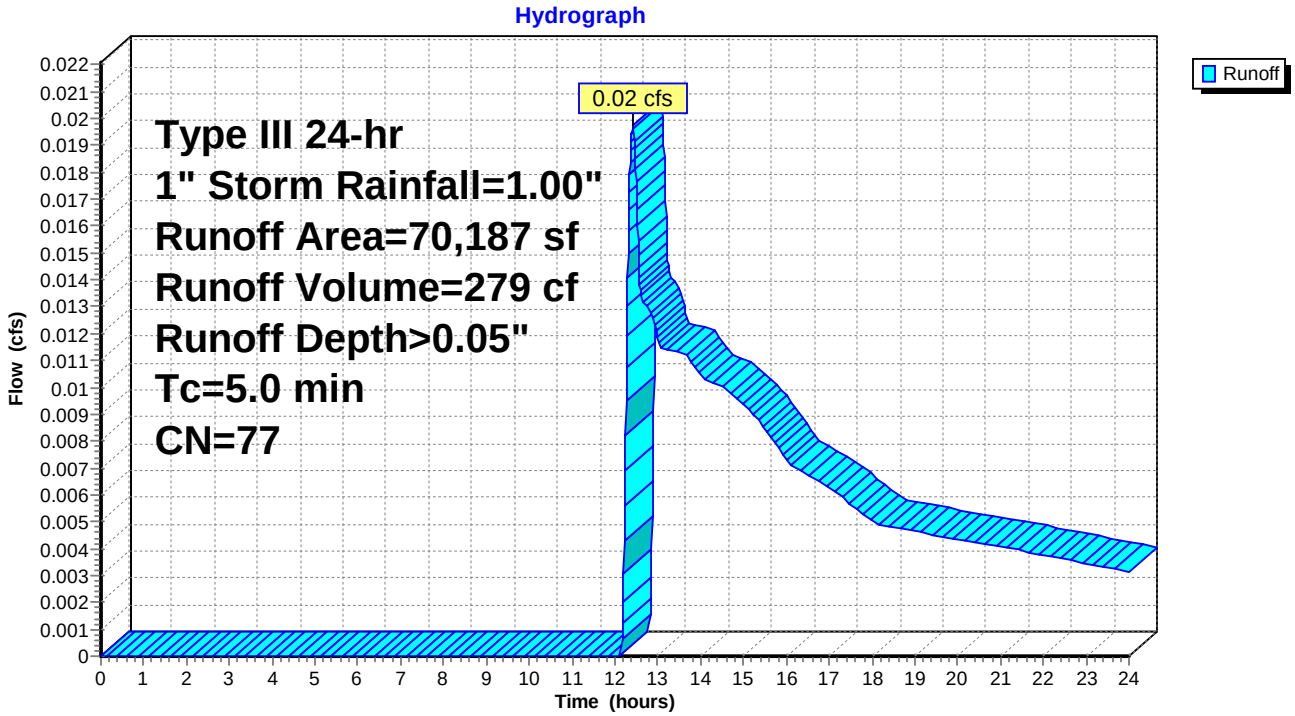
Subcatchment PD-1: Front Porch Runoff Area=425 sf 100.00% Impervious Runoff Depth>0.79"
Tc=5.0 min CN=98 Runoff=0.01 cfs 28 cf

Pond 12 C: 2 Cultec 280 Peak Elev=465.29' Storage=28 cf Inflow=0.01 cfs 28 cf
Outflow=0.00 cfs 0 cf

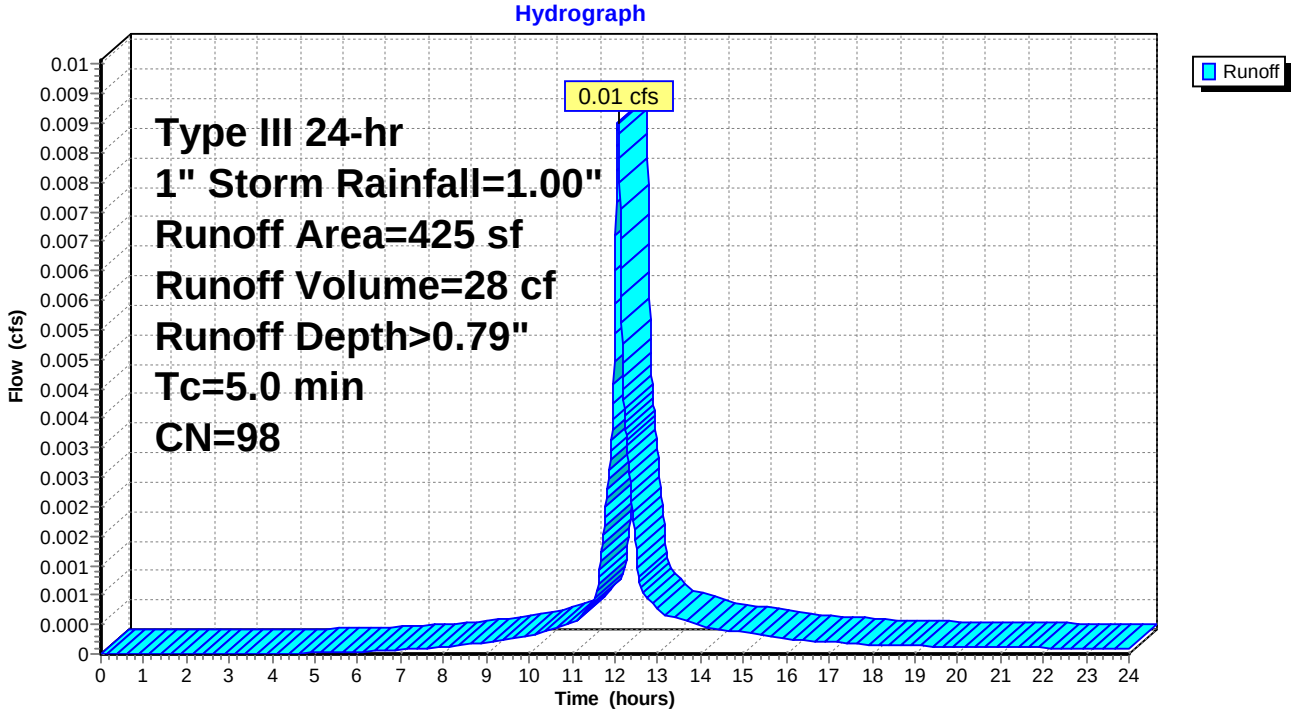
Link 13L: POI A Inflow=0.02 cfs 279 cf
Primary=0.02 cfs 279 cf

Total Runoff Area = 70,612 sf Runoff Volume = 307 cf Average Runoff Depth = 0.05"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

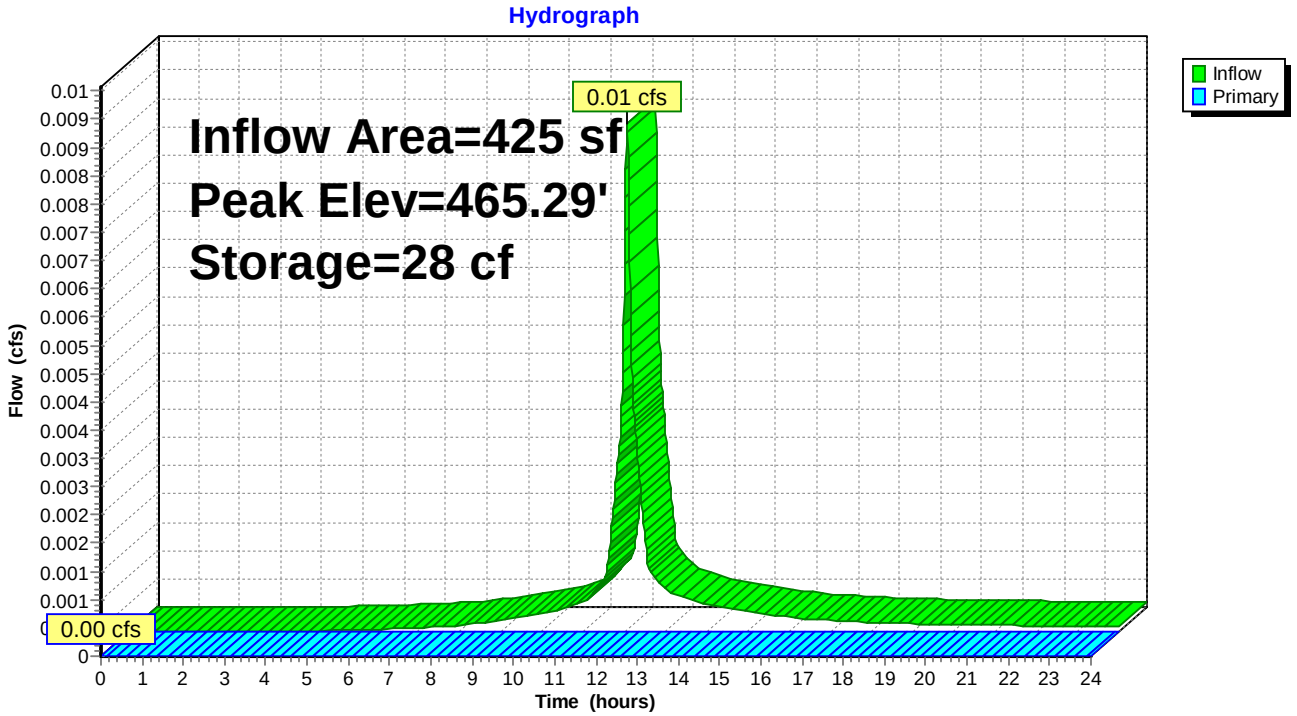
Subcatchment 14S: Post Development



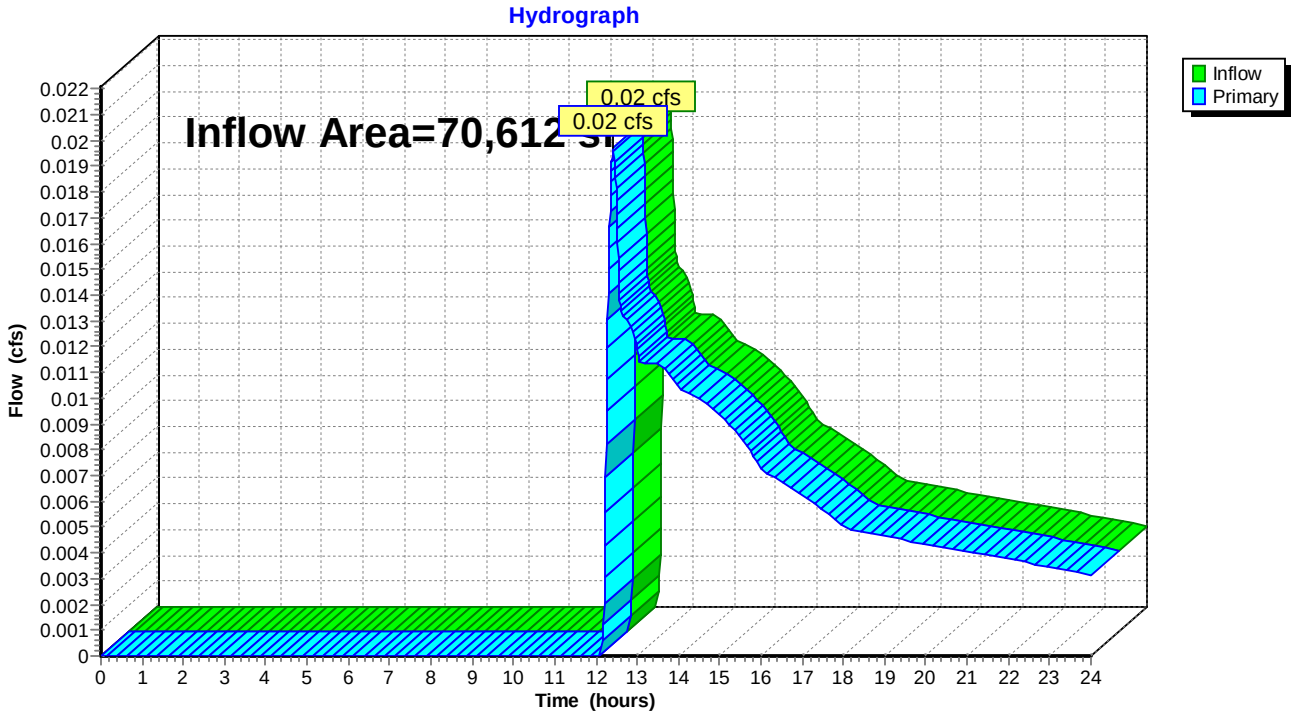
Subcatchment PD-1: Front Porch



Pond 12 C: 2 Cultec 280



Link 13L: POI A



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: Post Development Runoff Area=70,187 sf 11.14% Impervious Runoff Depth>0.94"
Tc=5.0 min CN=77 Runoff=1.76 cfs 5,500 cf

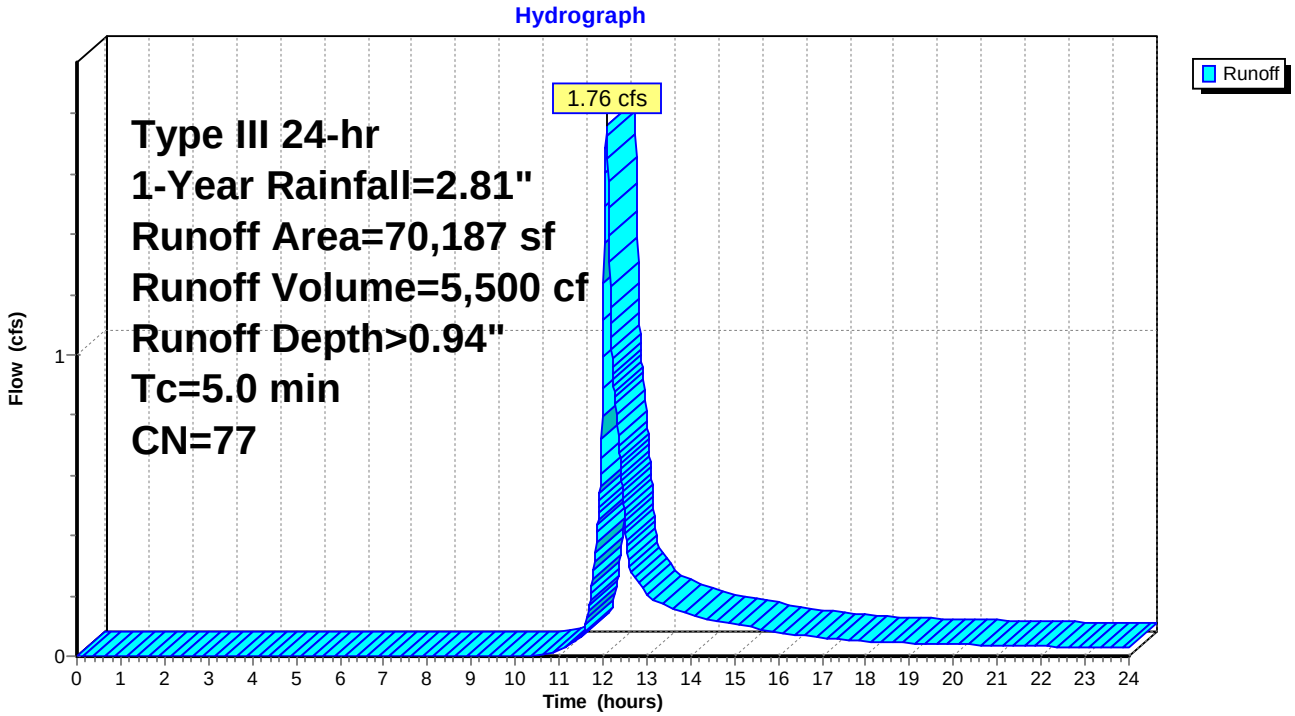
Subcatchment PD-1: Front Porch Runoff Area=425 sf 100.00% Impervious Runoff Depth>2.58"
Tc=5.0 min CN=98 Runoff=0.03 cfs 91 cf

Pond 12 C: 2 Cultec 280 Peak Elev=466.13' Storage=91 cf Inflow=0.03 cfs 91 cf
Outflow=0.00 cfs 0 cf

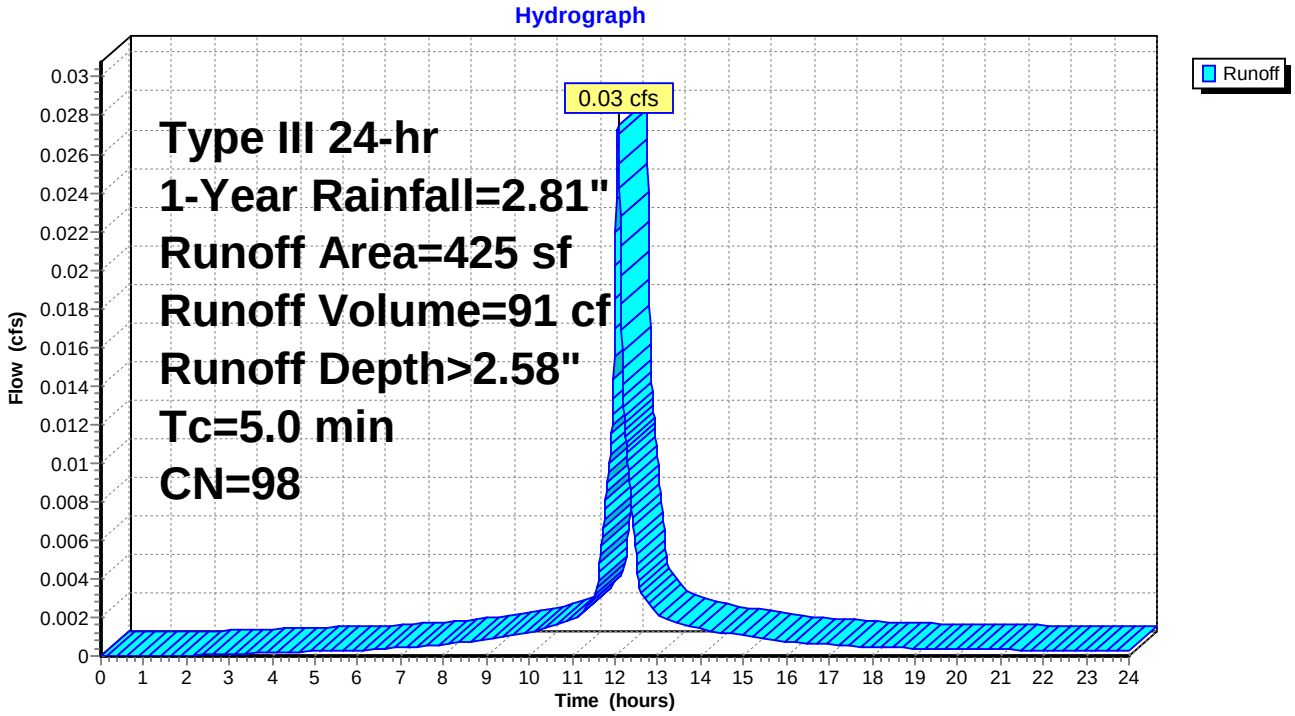
Link 13L: POI A Inflow=1.76 cfs 5,500 cf
Primary=1.76 cfs 5,500 cf

Total Runoff Area = 70,612 sf Runoff Volume = 5,591 cf Average Runoff Depth = 0.95"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

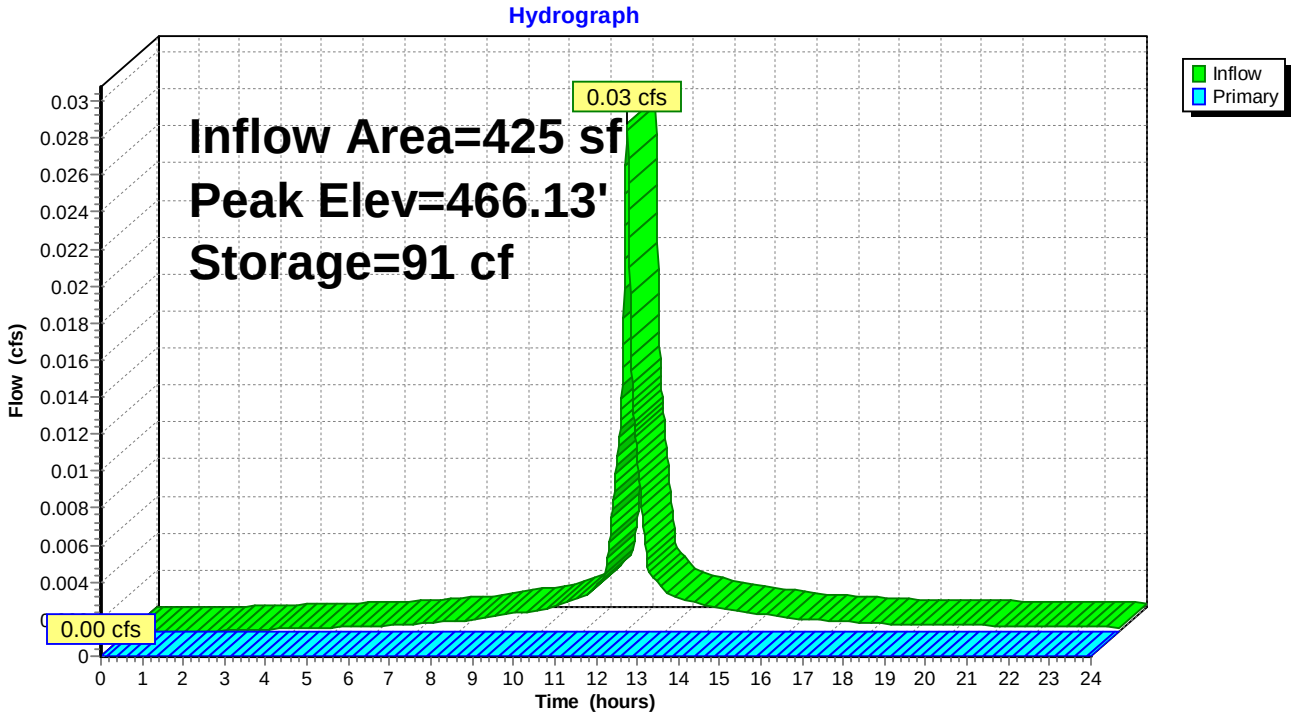
Subcatchment 14S: Post Development



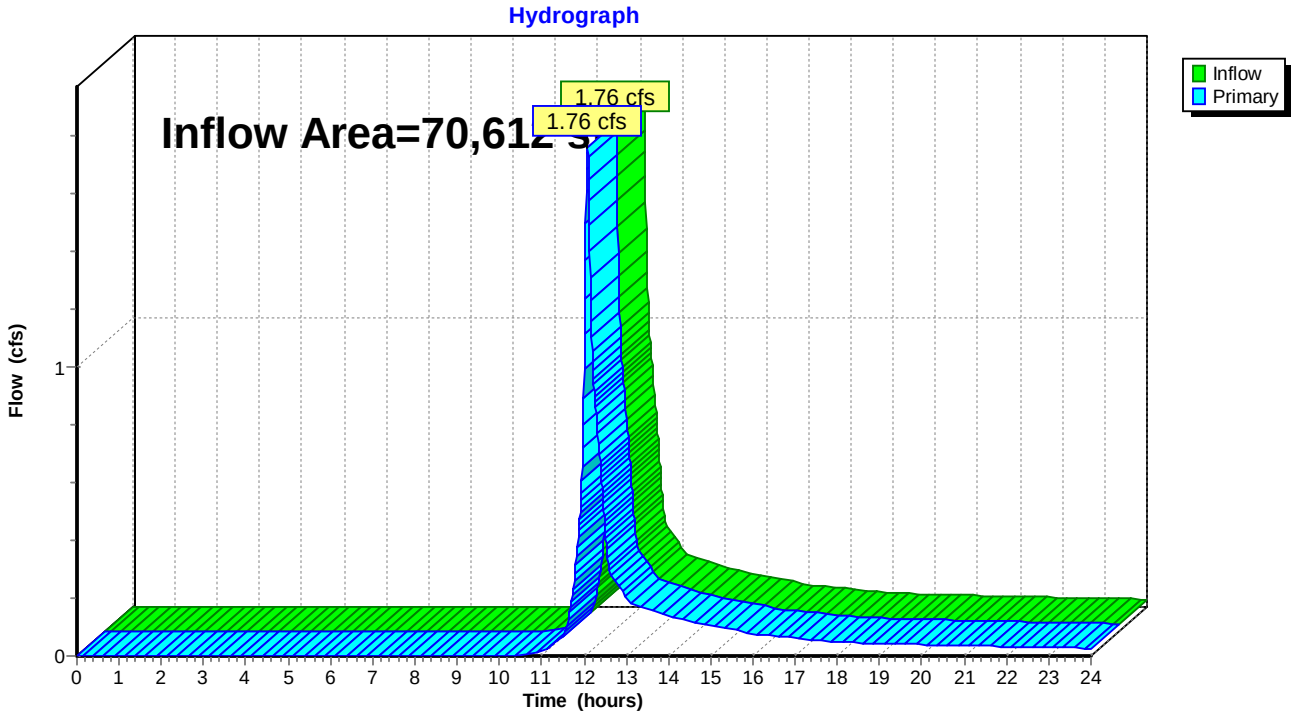
Subcatchment PD-1: Front Porch



Pond 12 C: 2 Cultec 280



Link 13L: POI A



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: Post Development Runoff Area=70,187 sf 11.14% Impervious Runoff Depth>1.38"
Tc=5.0 min CN=77 Runoff=2.65 cfs 8,055 cf

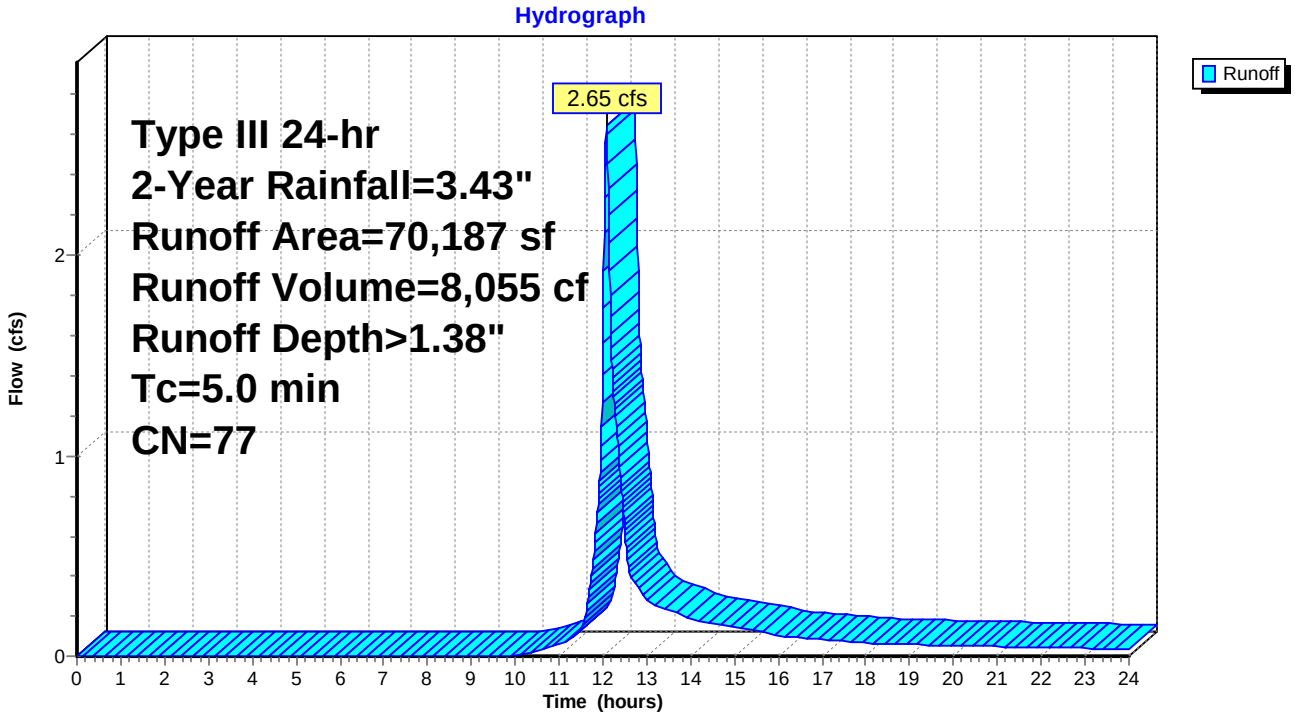
Subcatchment PD-1: Front Porch Runoff Area=425 sf 100.00% Impervious Runoff Depth>3.19"
Tc=5.0 min CN=98 Runoff=0.03 cfs 113 cf

Pond 12 C: 2 Cultec 280 Peak Elev=466.44' Storage=113 cf Inflow=0.03 cfs 113 cf
Outflow=0.00 cfs 0 cf

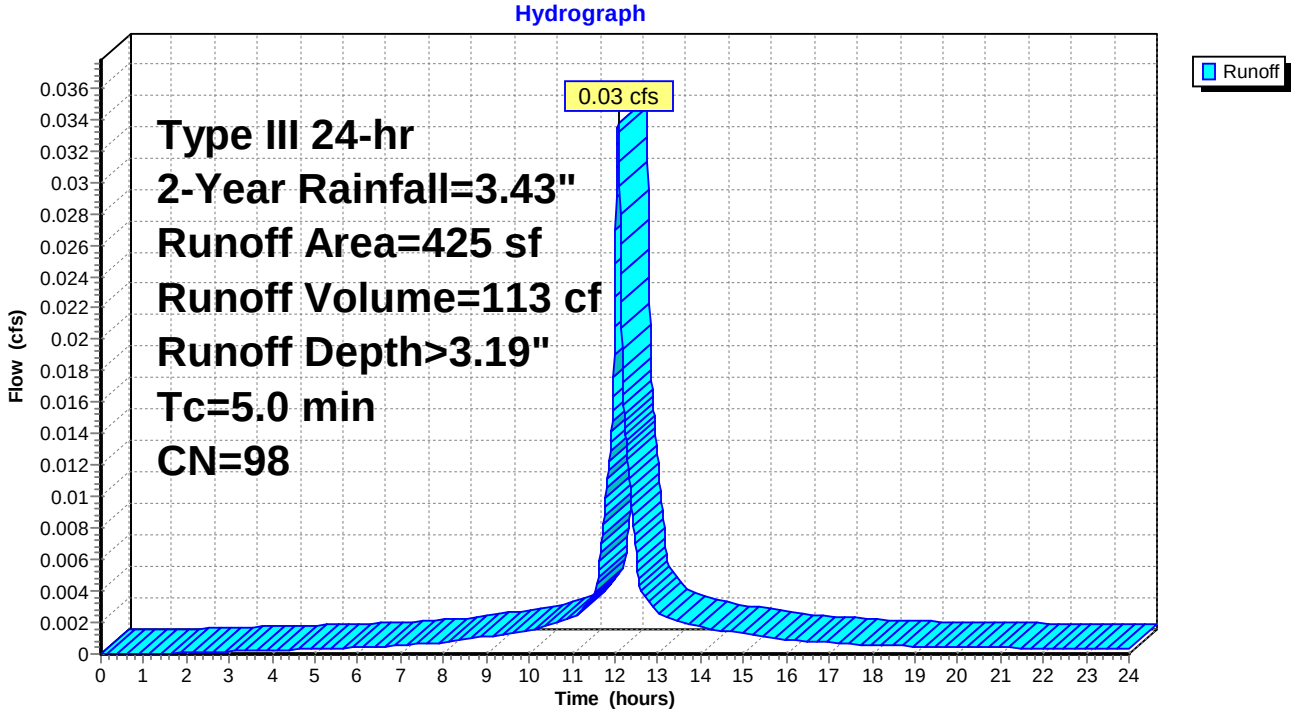
Link 13L: POI A Inflow=2.65 cfs 8,055 cf
Primary=2.65 cfs 8,055 cf

Total Runoff Area = 70,612 sf Runoff Volume = 8,168 cf Average Runoff Depth = 1.39"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

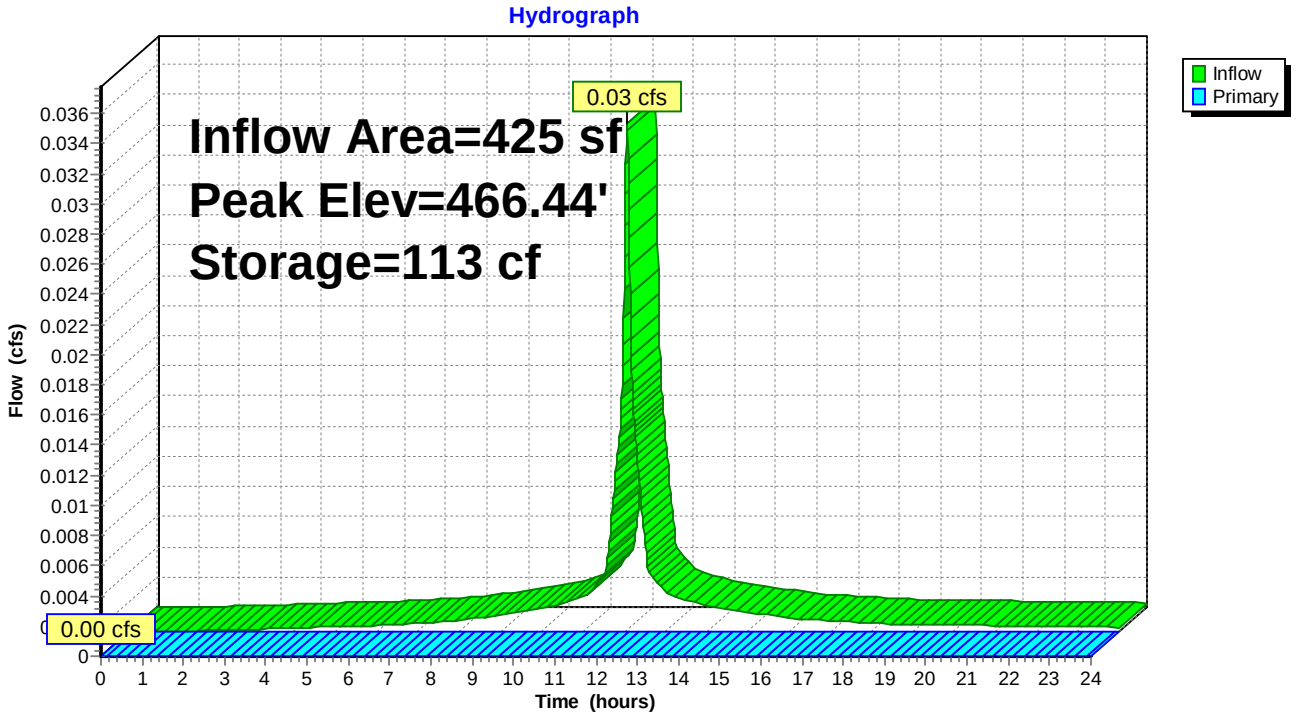
Subcatchment 14S: Post Development



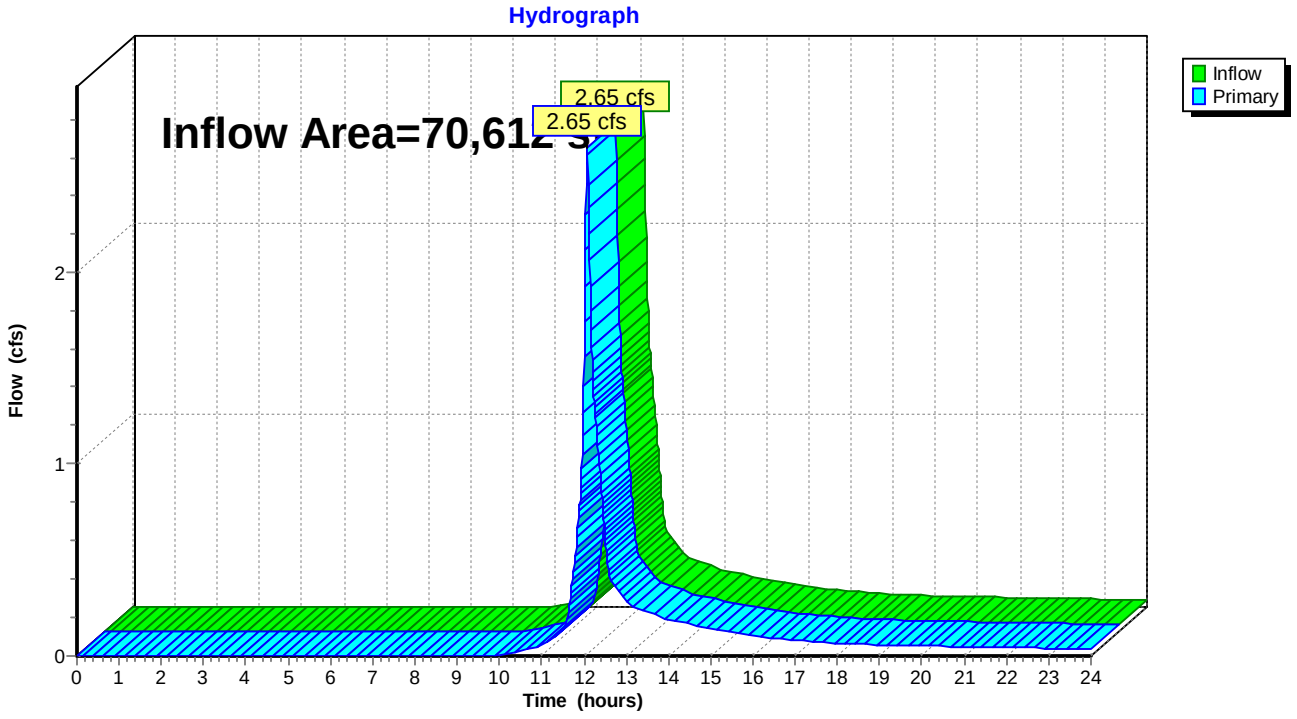
Subcatchment PD-1: Front Porch



Pond 12 C: 2 Cultec 280



Link 13L: POI A



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: Post Development Runoff Area=70,187 sf 11.14% Impervious Runoff Depth>2.05"
Tc=5.0 min CN=77 Runoff=4.00 cfs 11,974 cf

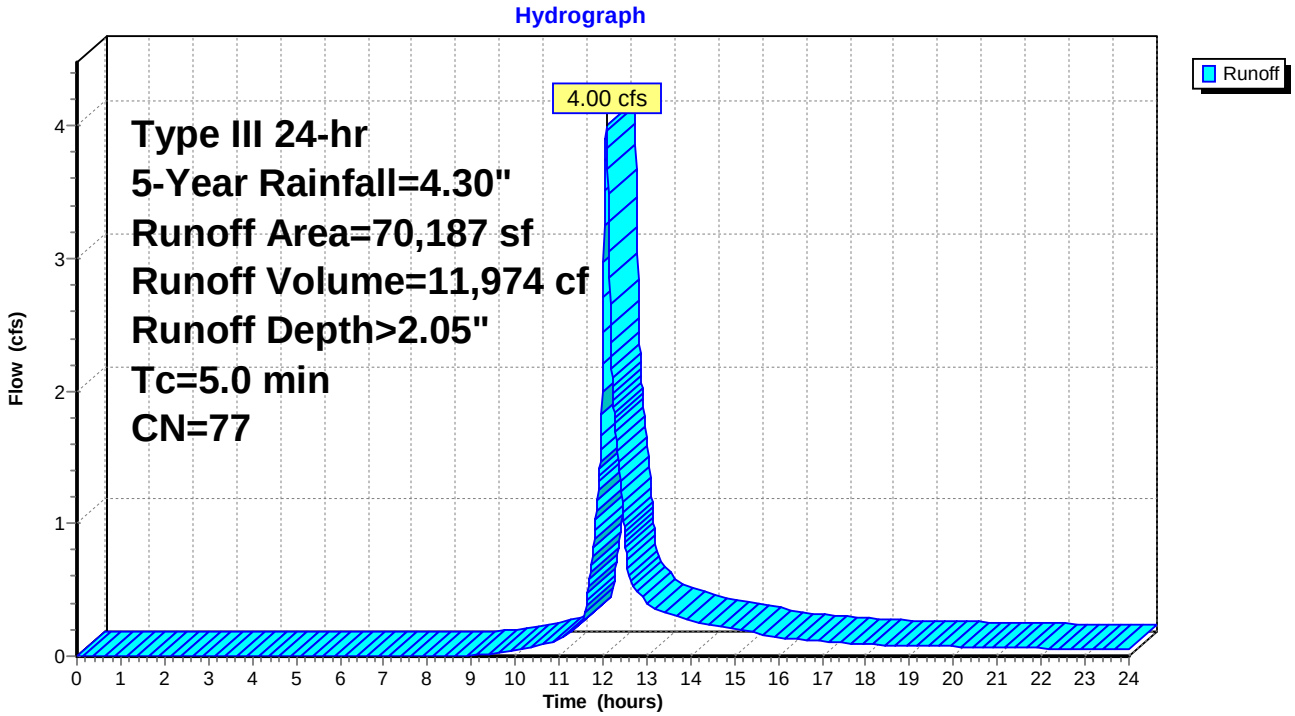
Subcatchment PD-1: Front Porch Runoff Area=425 sf 100.00% Impervious Runoff Depth>4.06"
Tc=5.0 min CN=98 Runoff=0.04 cfs 144 cf

Pond 12 C: 2 Cultec 280 Peak Elev=466.90' Storage=144 cf Inflow=0.04 cfs 144 cf
Outflow=0.00 cfs 0 cf

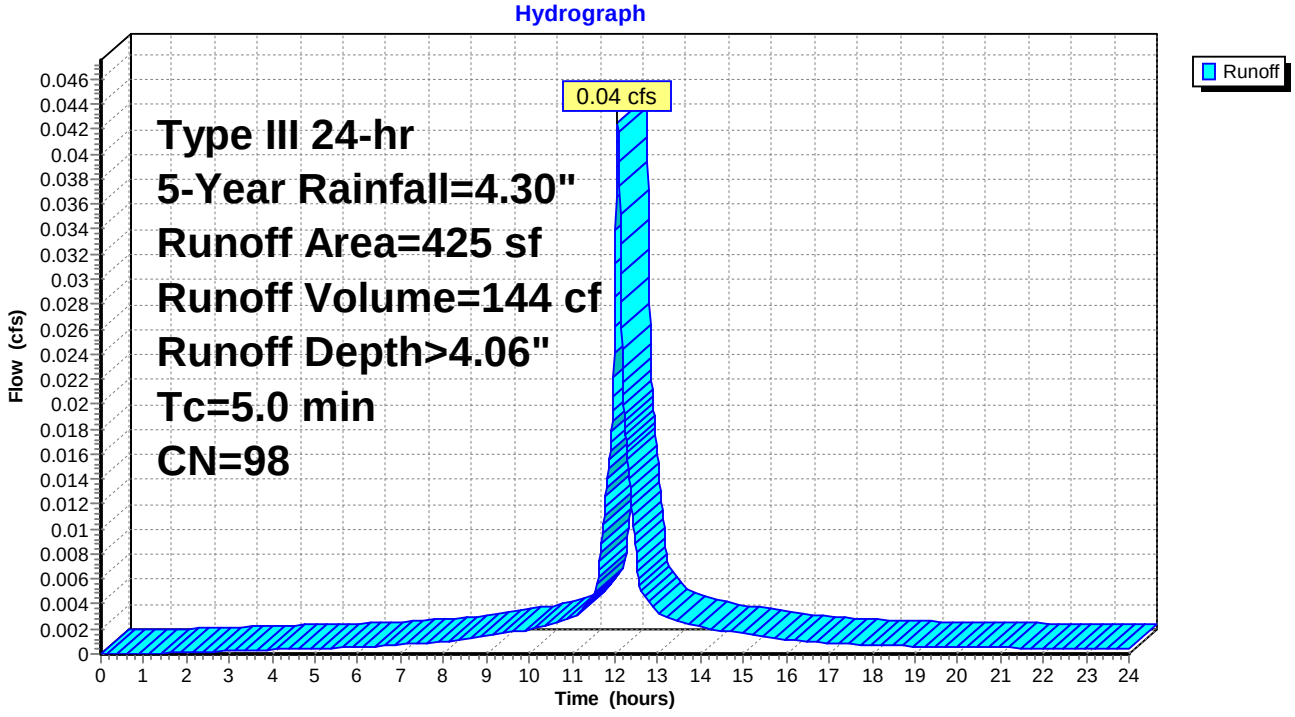
Link 13L: POI A Inflow=4.00 cfs 11,974 cf
Primary=4.00 cfs 11,974 cf

Total Runoff Area = 70,612 sf Runoff Volume = 12,118 cf Average Runoff Depth = 2.06"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

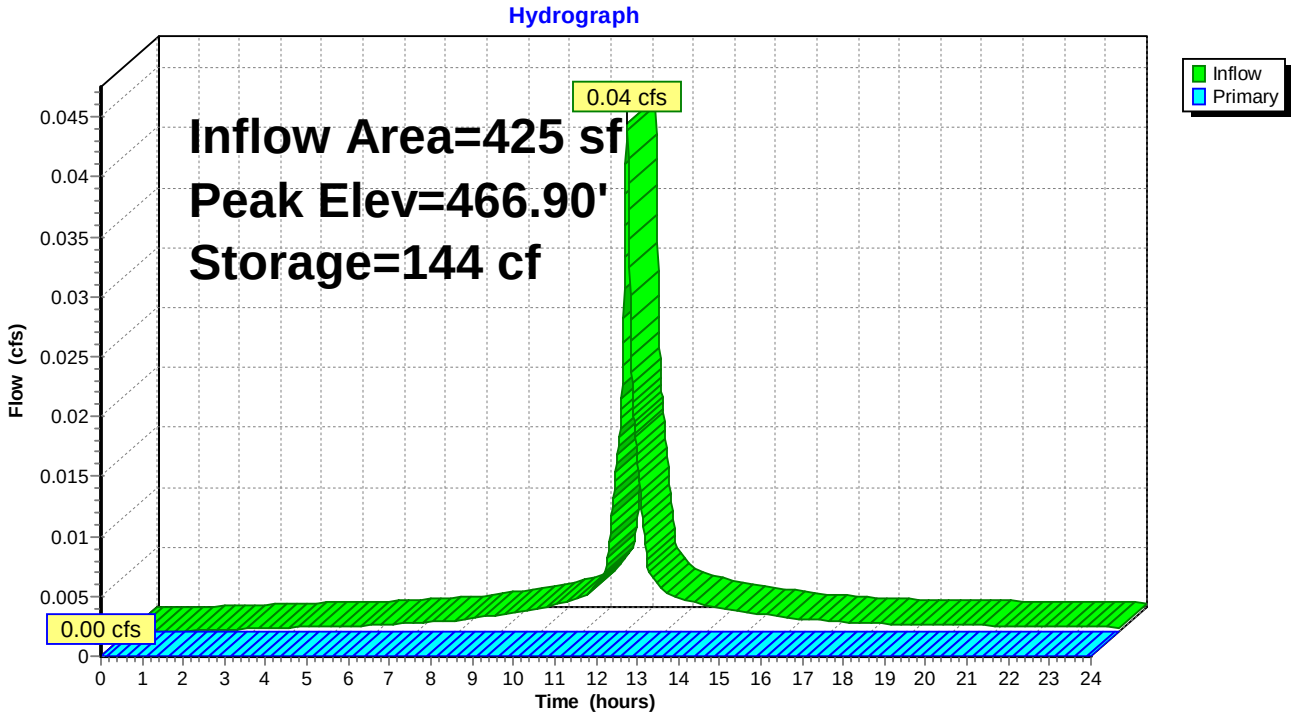
Subcatchment 14S: Post Development



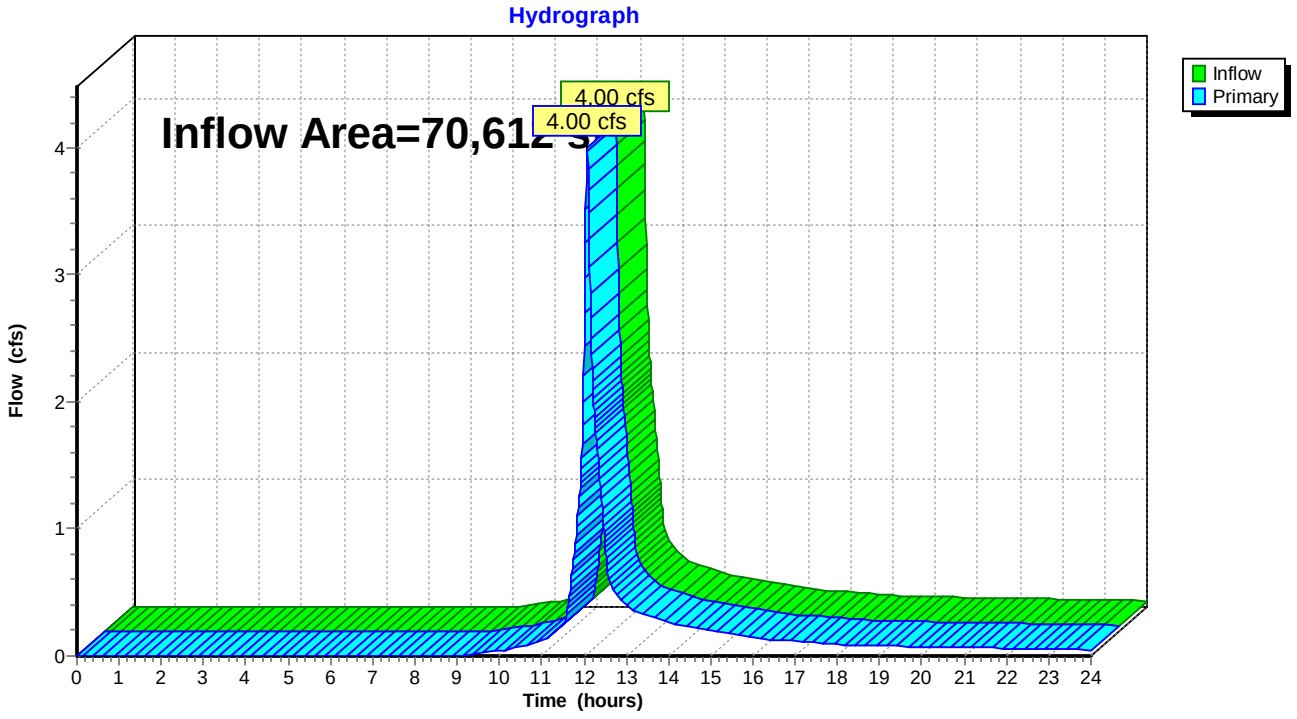
Subcatchment PD-1: Front Porch



Pond 12 C: 2 Cultec 280



Link 13L: POI A



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: Post Development Runoff Area=70,187 sf 11.14% Impervious Runoff Depth>2.71"
Tc=5.0 min CN=77 Runoff=5.32 cfs 15,866 cf

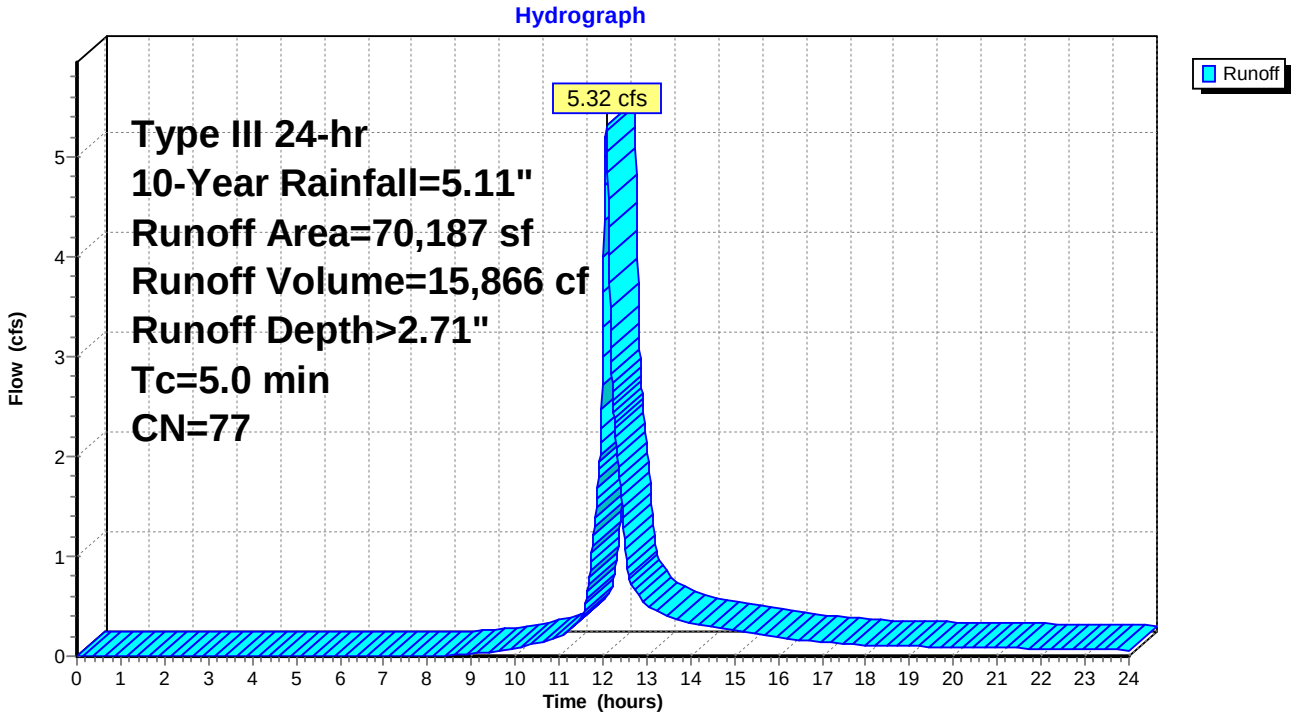
Subcatchment PD-1: Front Porch Runoff Area=425 sf 100.00% Impervious Runoff Depth>4.87"
Tc=5.0 min CN=98 Runoff=0.05 cfs 172 cf

Pond 12 C: 2 Cultec 280 Peak Elev=467.02' Storage=151 cf Inflow=0.05 cfs 172 cf
Outflow=0.00 cfs 22 cf

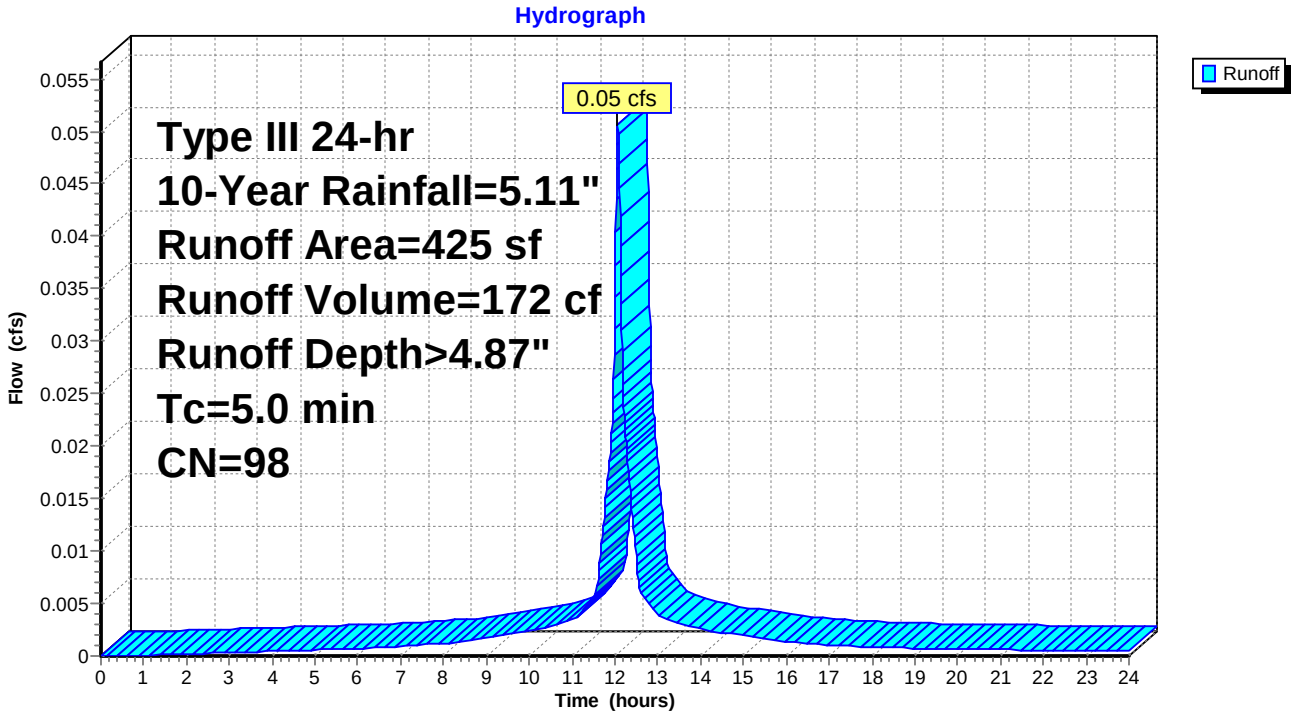
Link 13L: POI A Inflow=5.32 cfs 15,888 cf
Primary=5.32 cfs 15,888 cf

Total Runoff Area = 70,612 sf Runoff Volume = 16,038 cf Average Runoff Depth = 2.73"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

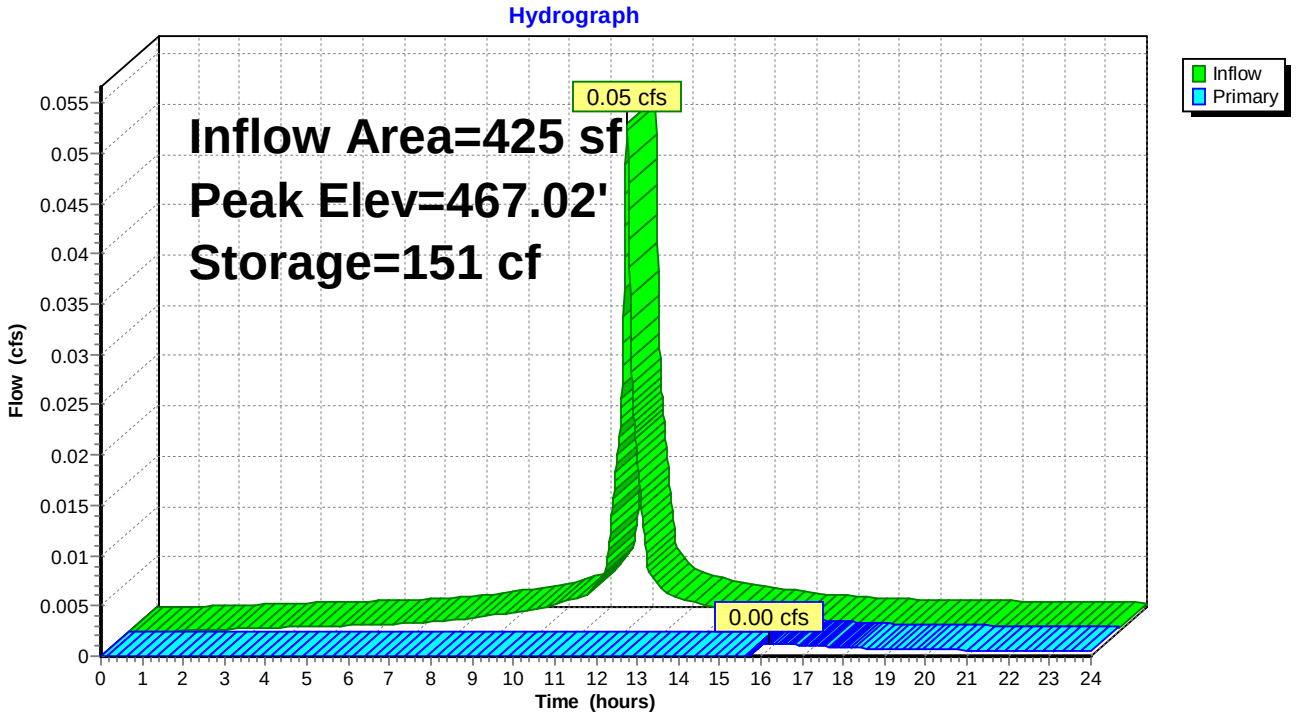
Subcatchment 14S: Post Development



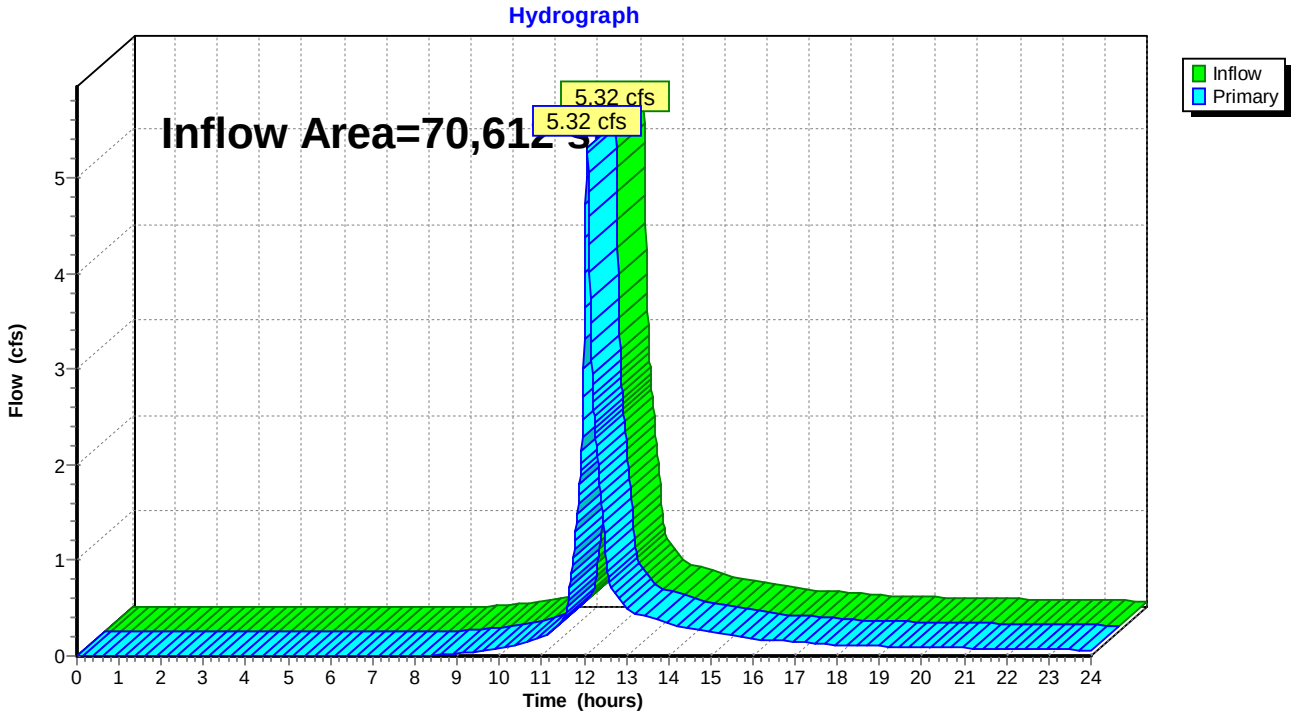
Subcatchment PD-1: Front Porch



Pond 12 C: 2 Cultec 280



Link 13L: POI A



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: Post Development Runoff Area=70,187 sf 11.14% Impervious Runoff Depth>4.95"
Tc=5.0 min CN=77 Runoff=9.64 cfs 28,952 cf

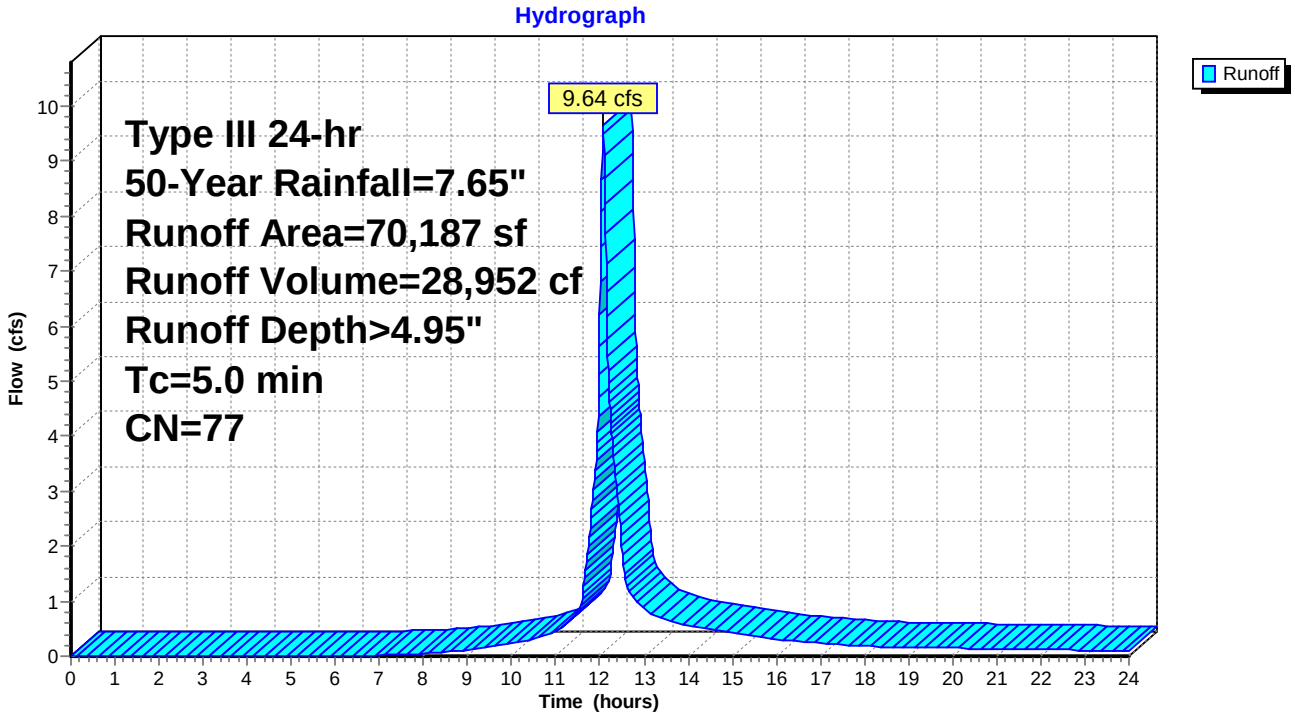
Subcatchment PD-1: Front Porch Runoff Area=425 sf 100.00% Impervious Runoff Depth>7.41"
Tc=5.0 min CN=98 Runoff=0.08 cfs 262 cf

Pond 12 C: 2 Cultec 280 Peak Elev=467.10' Storage=155 cf Inflow=0.08 cfs 262 cf
Outflow=0.03 cfs 112 cf

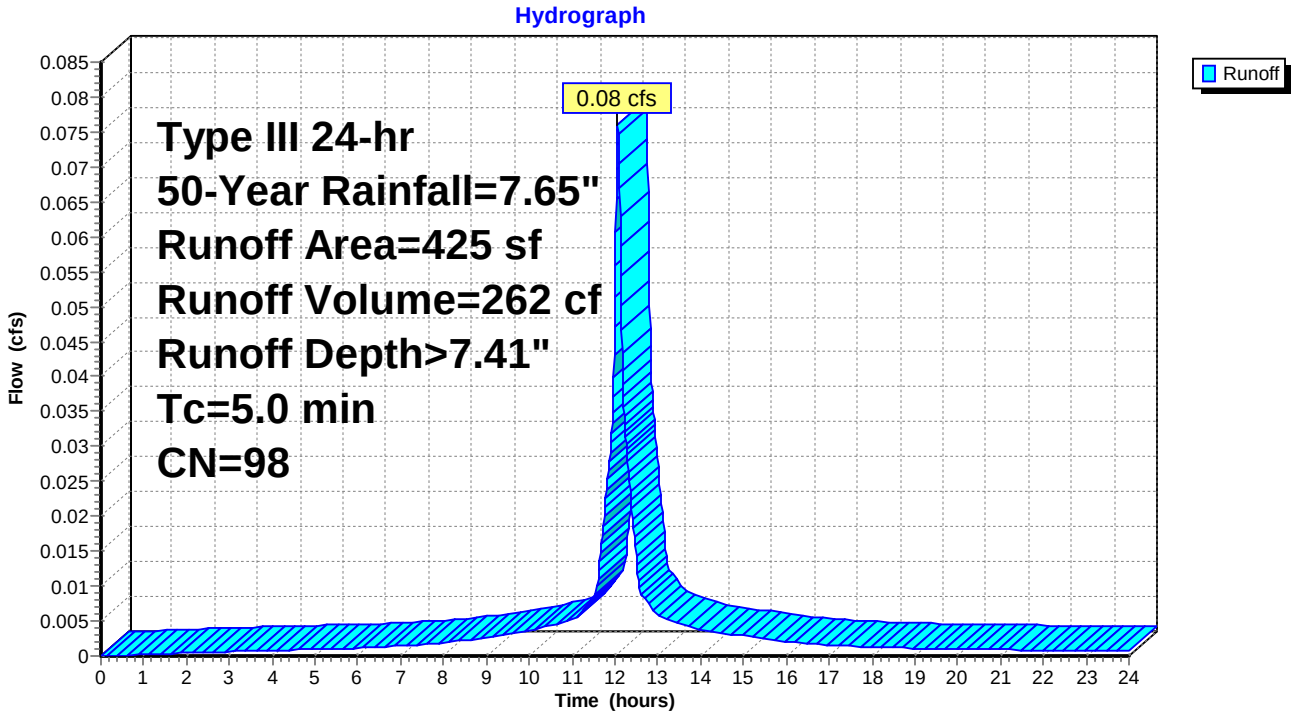
Link 13L: POI A Inflow=9.64 cfs 29,064 cf
Primary=9.64 cfs 29,064 cf

Total Runoff Area = 70,612 sf Runoff Volume = 29,214 cf Average Runoff Depth = 4.96"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

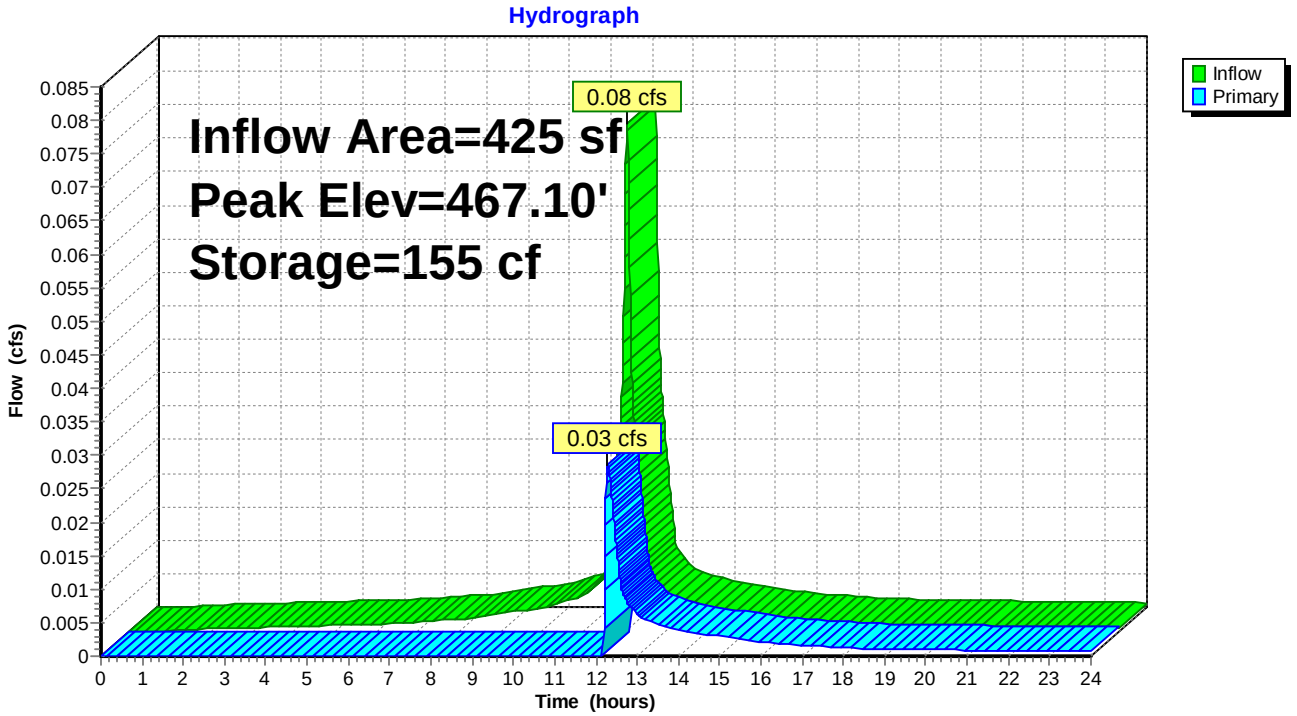
Subcatchment 14S: Post Development



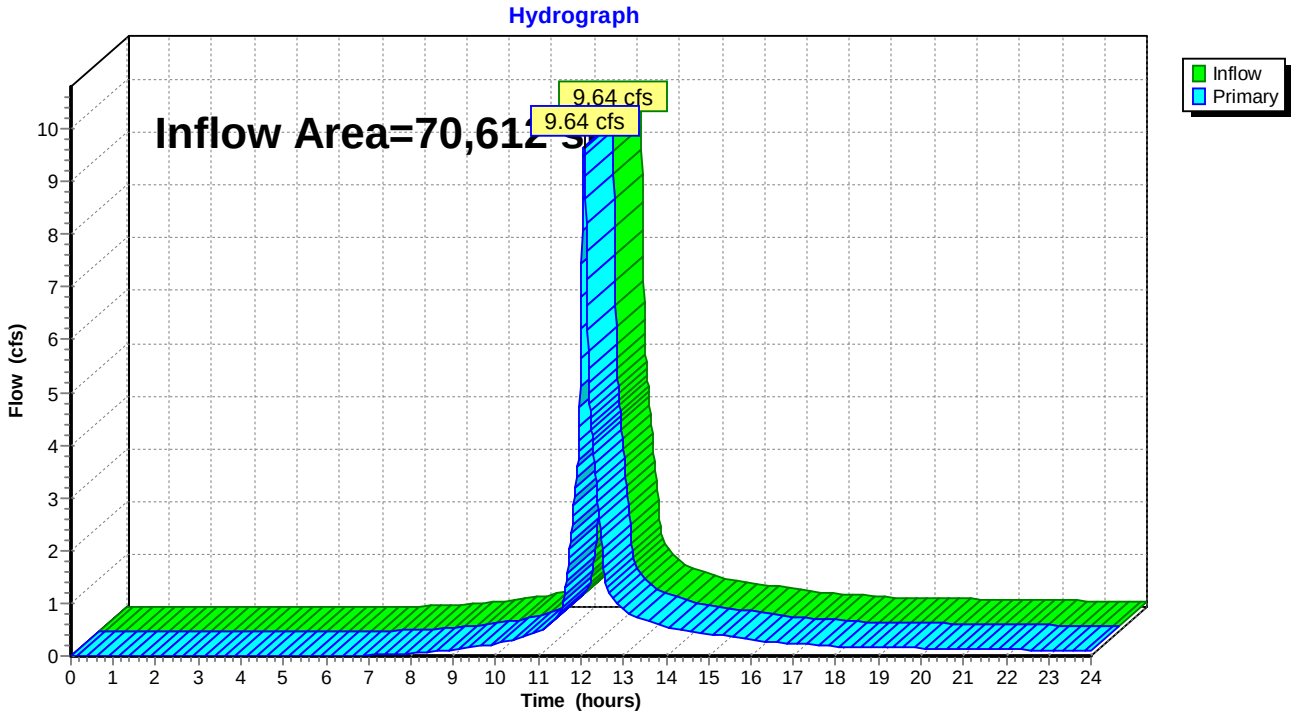
Subcatchment PD-1: Front Porch



Pond 12 C: 2 Cultec 280



Link 13L: POI A



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: Post Development Runoff Area=70,187 sf 11.14% Impervious Runoff Depth>6.30"
Tc=5.0 min CN=77 Runoff=12.17 cfs 36,826 cf

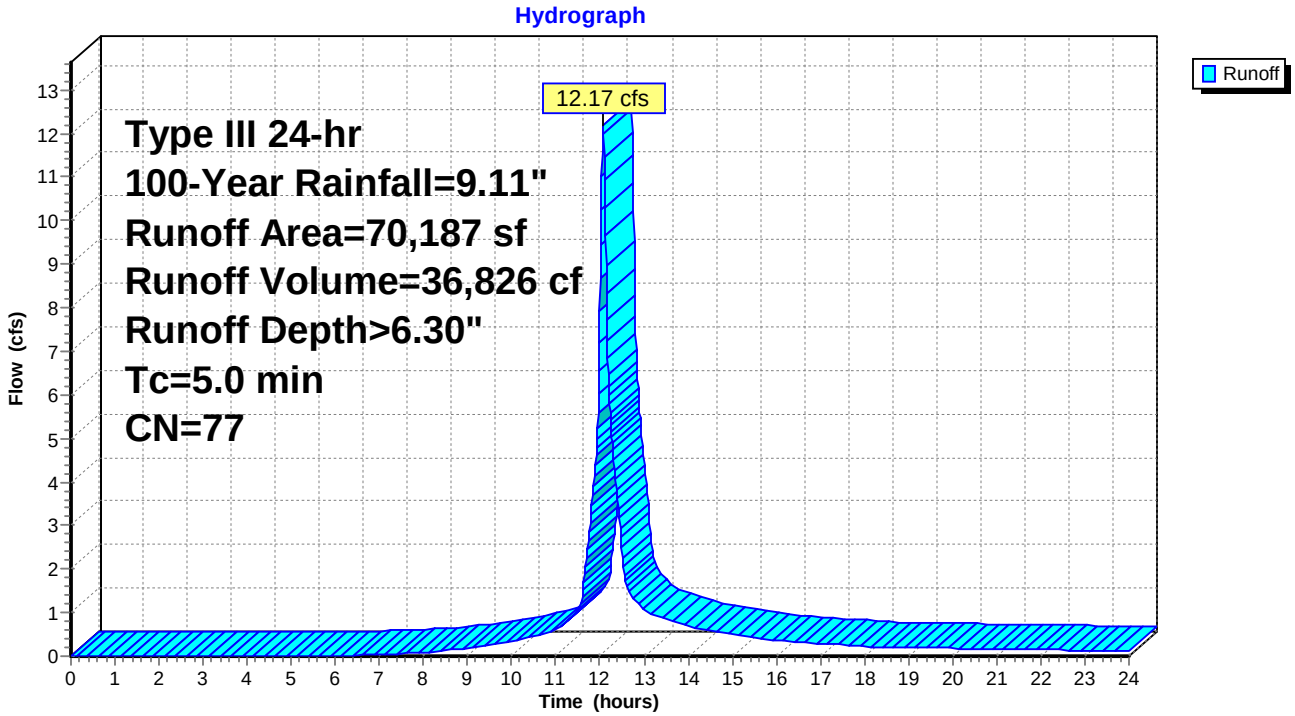
Subcatchment PD-1: Front Porch Runoff Area=425 sf 100.00% Impervious Runoff Depth>8.86"
Tc=5.0 min CN=98 Runoff=0.09 cfs 314 cf

Pond 12 C: 2 Cultec 280 Peak Elev=467.16' Storage=159 cf Inflow=0.09 cfs 314 cf
Outflow=0.07 cfs 163 cf

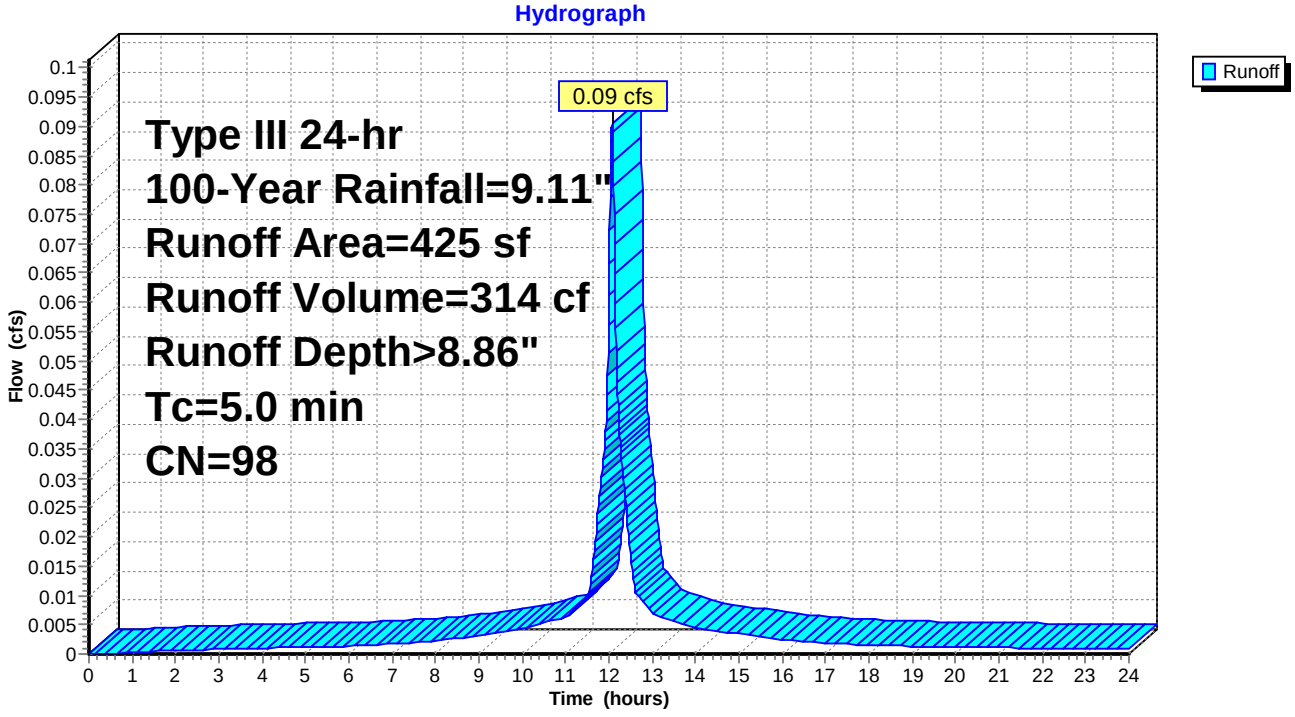
Link 13L: POI A Inflow=12.18 cfs 36,989 cf
Primary=12.18 cfs 36,989 cf

Total Runoff Area = 70,612 sf Runoff Volume = 37,140 cf Average Runoff Depth = 6.31"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

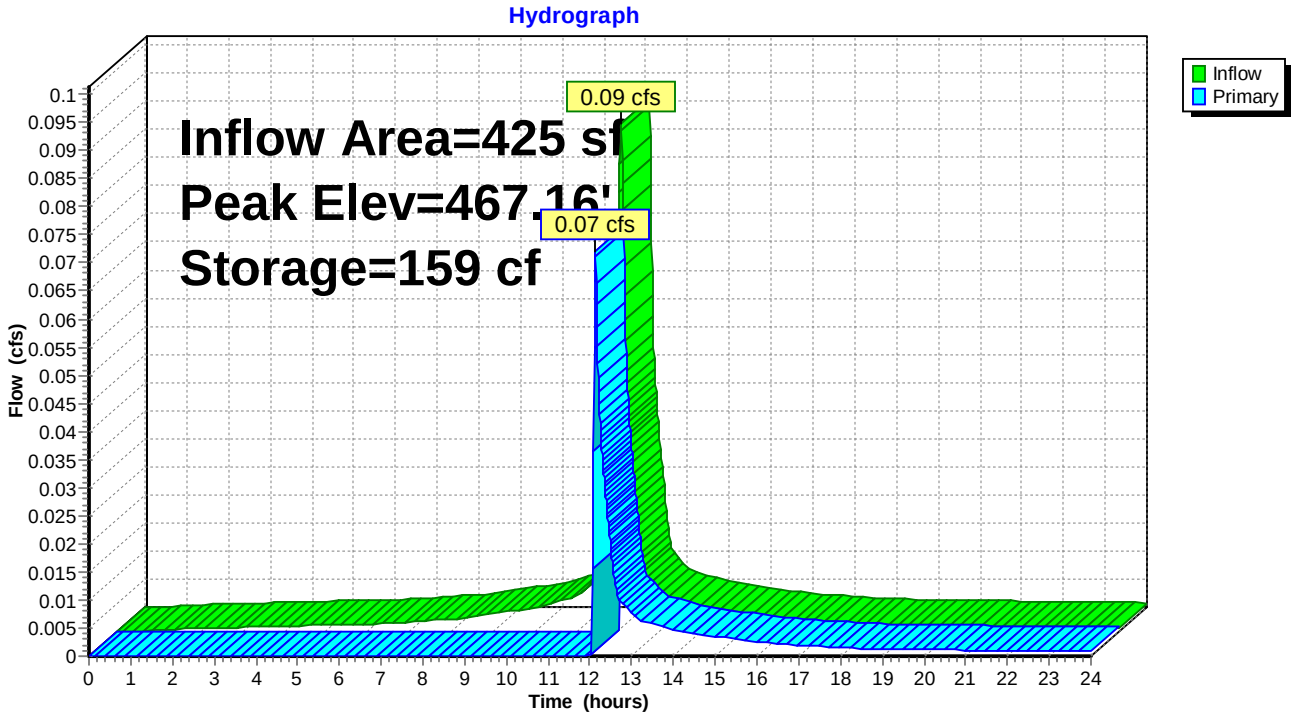
Subcatchment 14S: Post Development



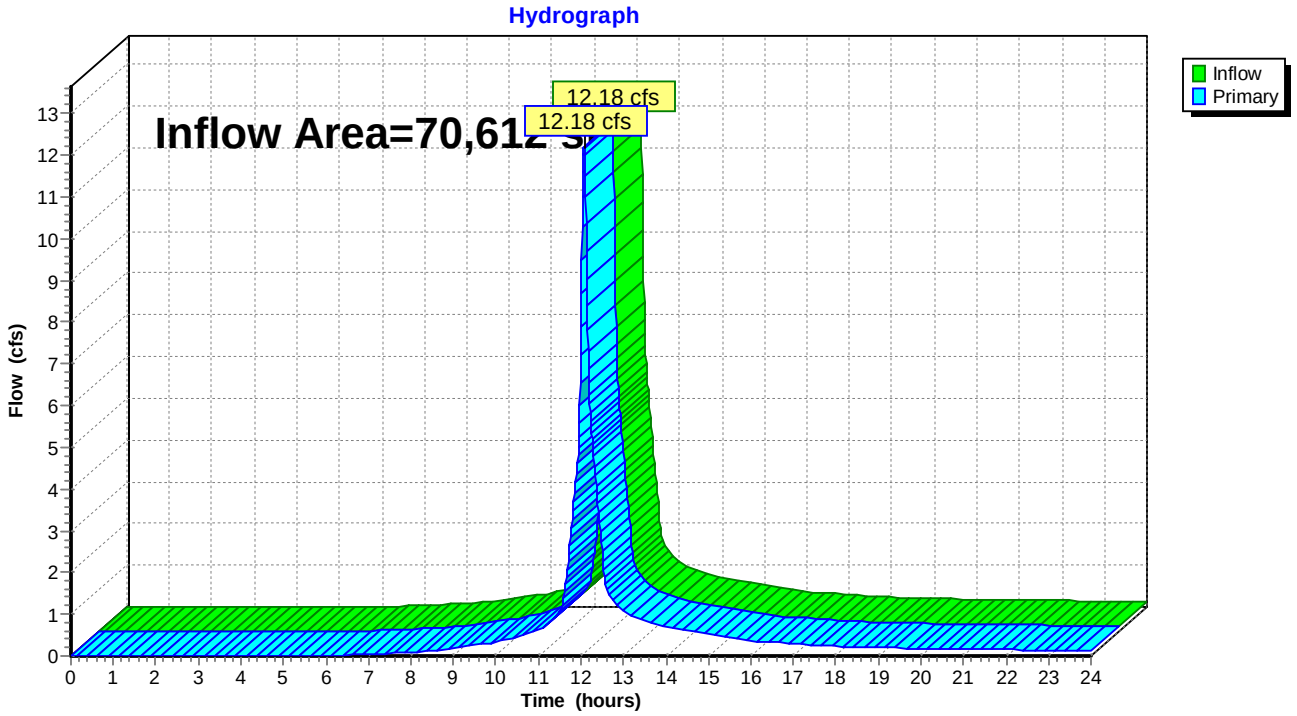
Subcatchment PD-1: Front Porch



Pond 12 C: 2 Cultec 280



Link 13L: POI A



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: Post Development Runoff Area=70,187 sf 11.14% Impervious Runoff Depth>3.85"
Tc=5.0 min CN=77 Runoff=7.54 cfs 22,540 cf

Subcatchment PD-1: Front Porch Runoff Area=425 sf 100.00% Impervious Runoff Depth>6.19"
Tc=5.0 min CN=98 Runoff=0.06 cfs 219 cf

Pond 12 C: 2 Cultec 280 Peak Elev=467.04' Storage=153 cf Inflow=0.06 cfs 219 cf
Outflow=0.01 cfs 69 cf

Link 13L: POI A Inflow=7.54 cfs 22,609 cf
Primary=7.54 cfs 22,609 cf

Total Runoff Area = 70,612 sf Runoff Volume = 22,759 cf Average Runoff Depth = 3.87"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Summary for Subcatchment 14S: Post Development

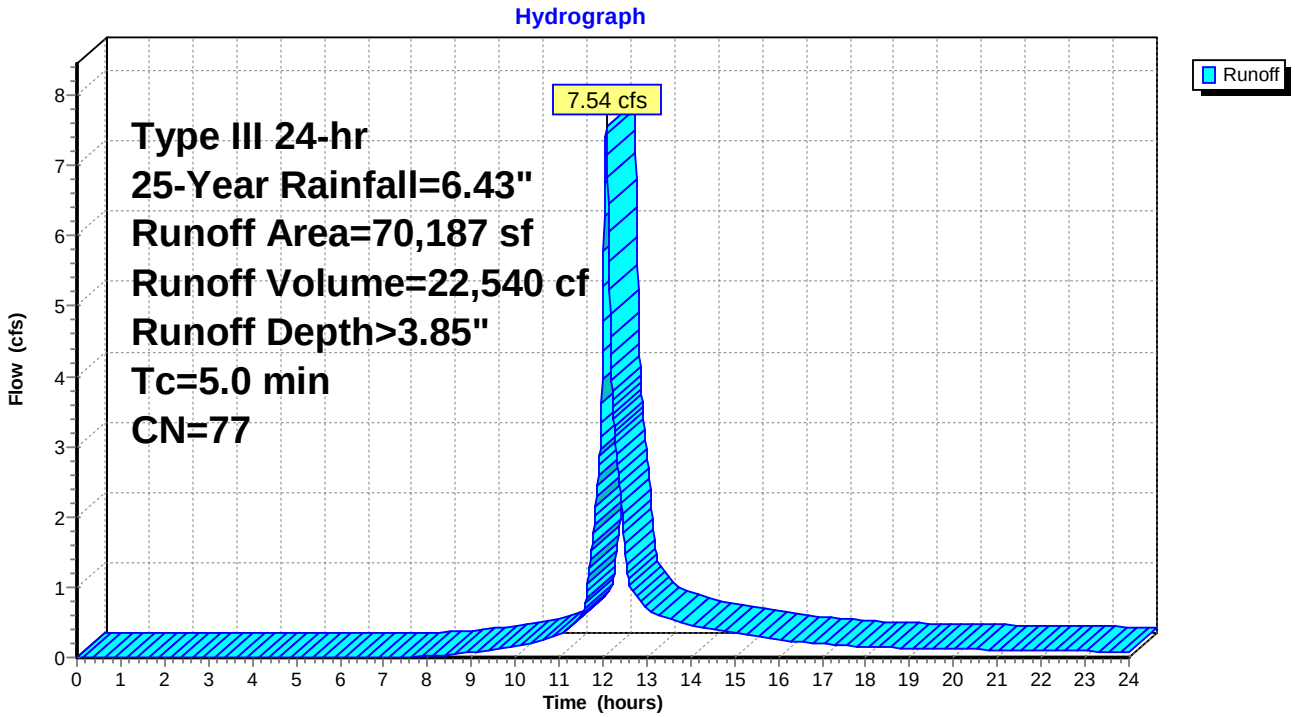
Runoff = 7.54 cfs @ 12.07 hrs, Volume= 22,540 cf, Depth> 3.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.43"

	Area (sf)	CN	Description
*	2,677	98	HOUSE
*	109	98	SIDE PORCH
*	420	98	FRONT PORCH
*	1,232	98	BACK PATIO
*	3,010	98	DRIVEWAY AND FRONT WALKWAY
*	292	98	BASEMENT WALKWAY
*	81	98	FRONT WALKWAY
	62,366	74	>75% Grass cover, Good, HSG C
	70,187	77	Weighted Average
	62,366		88.86% Pervious Area
	7,821		11.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 14S: Post Development



Summary for Subcatchment PD-1: Front Porch

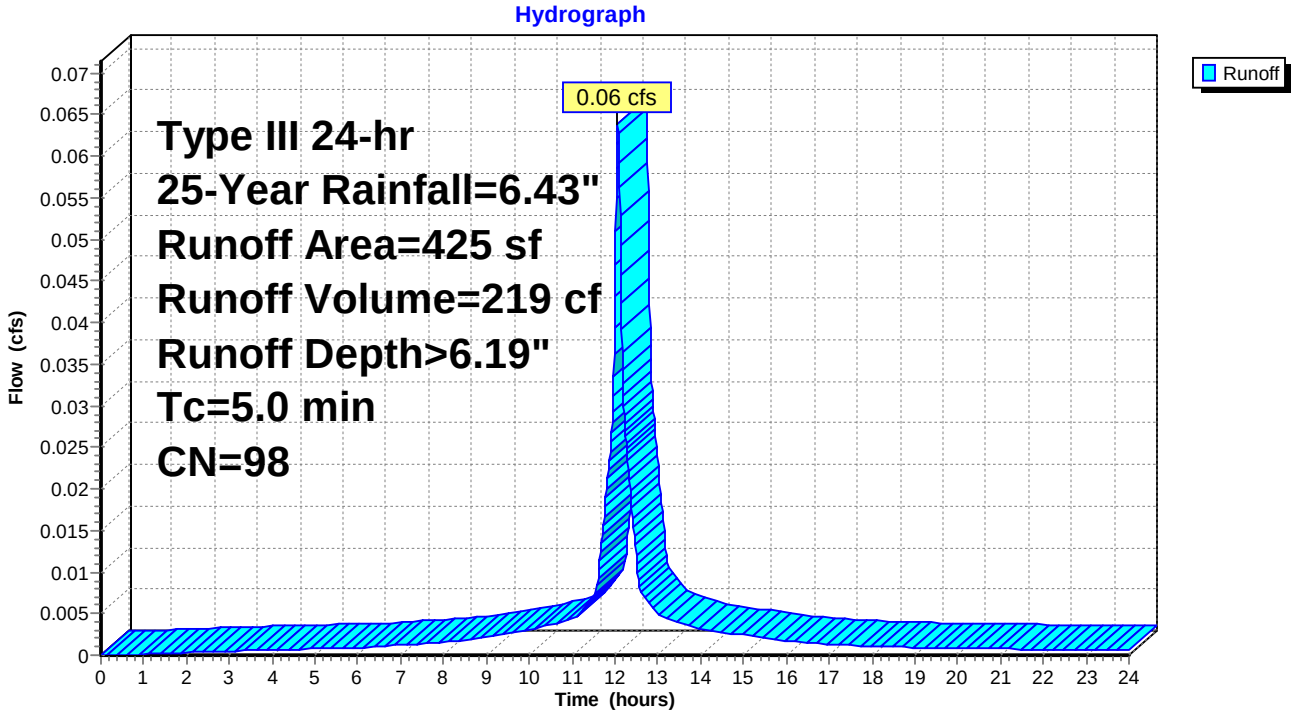
Runoff = 0.06 cfs @ 12.07 hrs, Volume= 219 cf, Depth> 6.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.43"

	Area (sf)	CN	Description
*	425	98	back patio
	425		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment PD-1: Front Porch



Summary for Pond 12 C: 2 Cultec 280

Inflow Area = 425 sf,100.00% Impervious, Inflow Depth > 6.19" for 25-Year event
Inflow = 0.06 cfs @ 12.07 hrs, Volume= 219 cf
Outflow = 0.01 cfs @ 12.75 hrs, Volume= 69 cf, Atten= 90%, Lag= 40.7 min
Primary = 0.01 cfs @ 12.75 hrs, Volume= 69 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 467.04' @ 12.75 hrs Surf.Area= 103 sf Storage= 153 cf

Plug-Flow detention time= 414.7 min calculated for 69 cf (31% of inflow)
Center-of-Mass det. time= 219.2 min (962.0 - 742.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	464.70'	94 cf	**10.33'W x 10.00'L x 3.21'H Field A** 332 cf Overall - 97 cf Embedded = 234 cf x 40.0% Voids
#2A	465.20'	97 cf	**Cultec R-280HD** x 2 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 2 rows
		191 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	467.00'	**6.0" Vert. Outlet Pipe** C= 0.600

Primary OutFlow Max=0.01 cfs @ 12.75 hrs HW=467.04' (Free Discharge)
↑—**1=Outlet Pipe** (Orifice Controls 0.01 cfs @ 0.72 fps)

Pond 12 C: 2 Cultec 280 - Chamber Wizard Field A

Chamber Model = Cultec R-280HD (Cultec Recharger® 280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 2 rows

47.0" Wide + 6.0" Spacing = 53.0" C-C Row Spacing

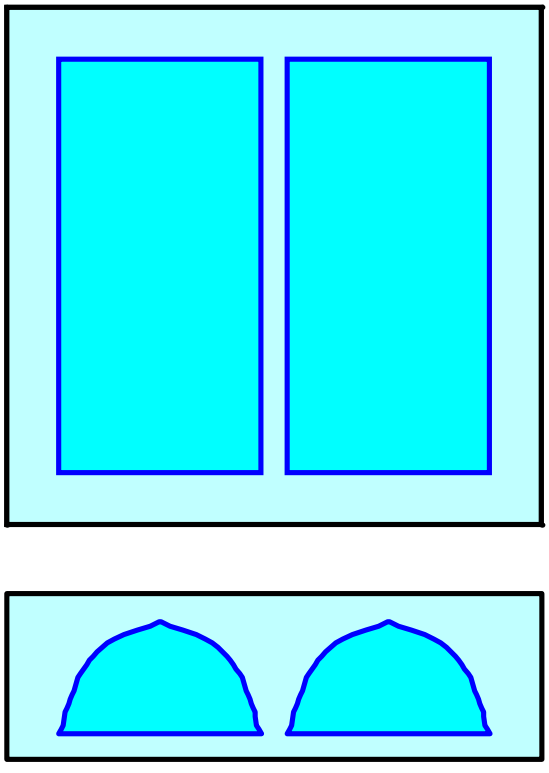
1 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 8.00' Row Length +12.0" End Stone x 2 = 10.00' Base Length
2 Rows x 47.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 10.33' Base Width
6.0" Base + 26.5" Chamber Height + 6.0" Cover = 3.21' Field Height

2 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 2 Rows = 97.1 cf Chamber Storage

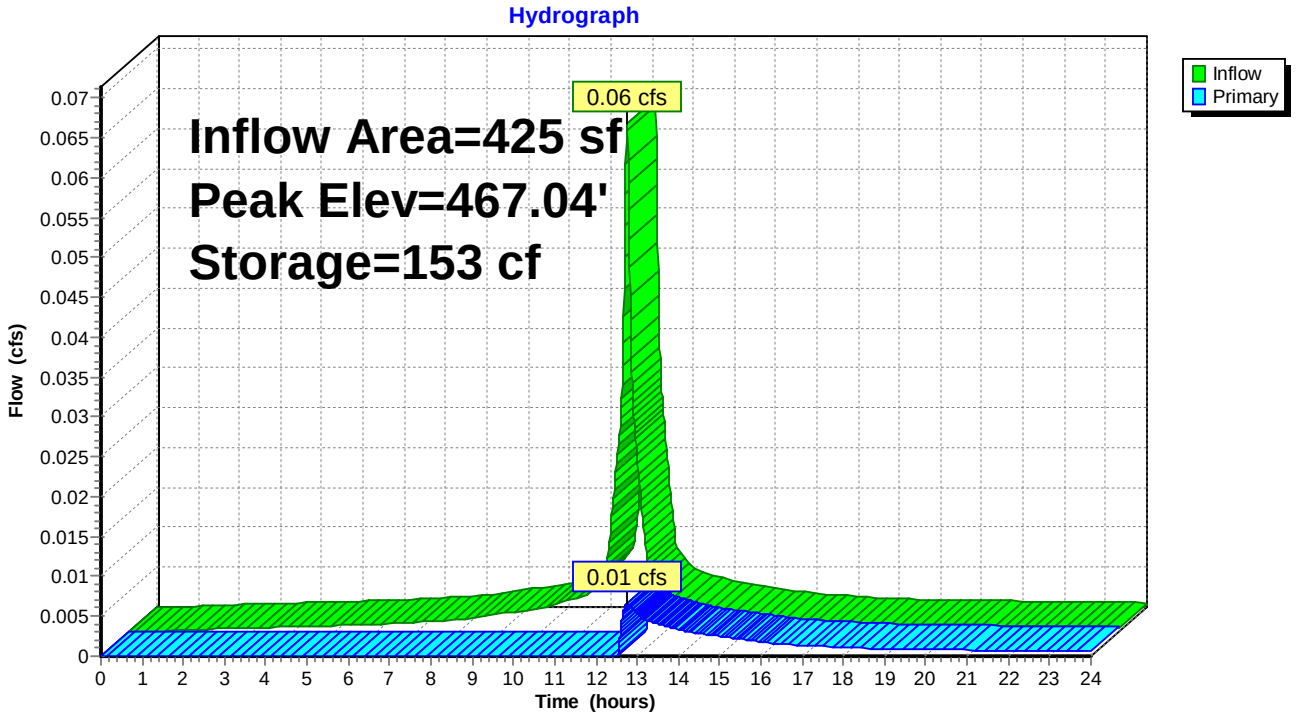
331.5 cf Field - 97.1 cf Chambers = 234.4 cf Stone x 40.0% Voids = 93.8 cf Stone Storage

Chamber Storage + Stone Storage = 190.9 cf = 0.004 af
Overall Storage Efficiency = 57.6%
Overall System Size = 10.00' x 10.33' x 3.21'

2 Chambers
12.3 cy Field
8.7 cy Stone



Pond 12 C: 2 Cultec 280

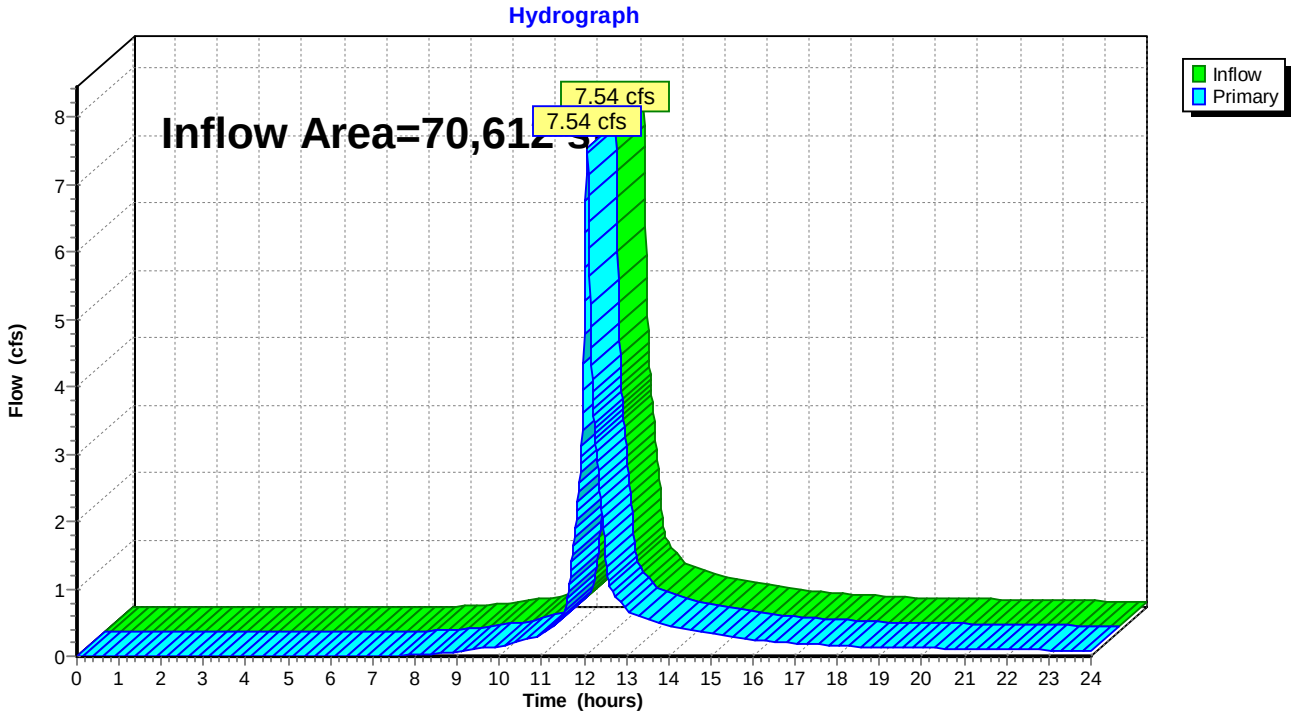


Summary for Link 13L: POI A

Inflow Area = 70,612 sf, 11.68% Impervious, Inflow Depth > 3.84" for 25-Year event
Inflow = 7.54 cfs @ 12.07 hrs, Volume= 22,609 cf
Primary = 7.54 cfs @ 12.07 hrs, Volume= 22,609 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link 13L: POI A



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 14S: Post Development Runoff Area=70,187 sf 11.14% Impervious Runoff Depth>6.30"
Tc=5.0 min CN=77 Runoff=12.17 cfs 36,826 cf

Subcatchment PD-1: Front Porch Runoff Area=425 sf 100.00% Impervious Runoff Depth>8.86"
Tc=5.0 min CN=98 Runoff=0.09 cfs 314 cf

Pond 12 C: 2 Cultec 280 Peak Elev=467.16' Storage=159 cf Inflow=0.09 cfs 314 cf
Outflow=0.07 cfs 163 cf

Link 13L: POI A Inflow=12.18 cfs 36,989 cf
Primary=12.18 cfs 36,989 cf

Total Runoff Area = 70,612 sf Runoff Volume = 37,140 cf Average Runoff Depth = 6.31"
88.32% Pervious = 62,366 sf 11.68% Impervious = 8,246 sf

Summary for Subcatchment 14S: Post Development

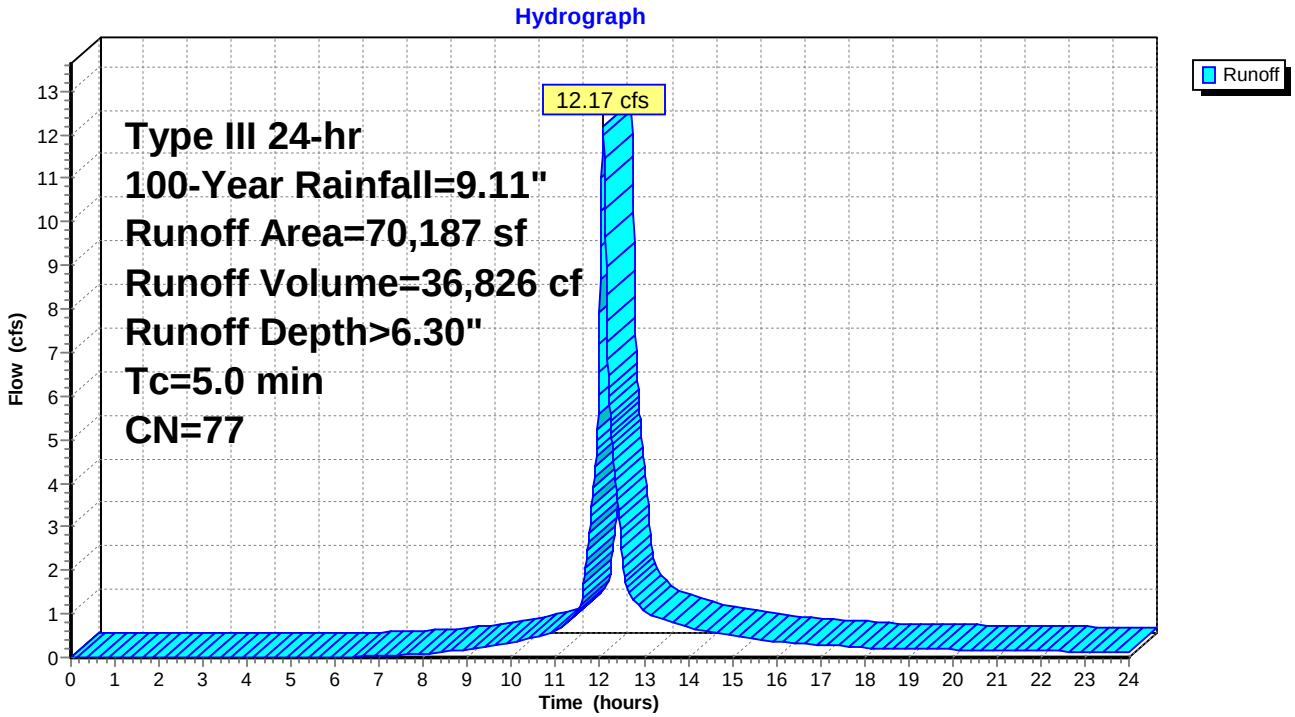
Runoff = 12.17 cfs @ 12.07 hrs, Volume= 36,826 cf, Depth> 6.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.11"

	Area (sf)	CN	Description
*	2,677	98	HOUSE
*	109	98	SIDE PORCH
*	420	98	FRONT PORCH
*	1,232	98	BACK PATIO
*	3,010	98	DRIVEWAY AND FRONT WALKWAY
*	292	98	BASEMENT WALKWAY
*	81	98	FRONT WALKWAY
	62,366	74	>75% Grass cover, Good, HSG C
	70,187	77	Weighted Average
	62,366		88.86% Pervious Area
	7,821		11.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 14S: Post Development



Summary for Subcatchment PD-1: Front Porch

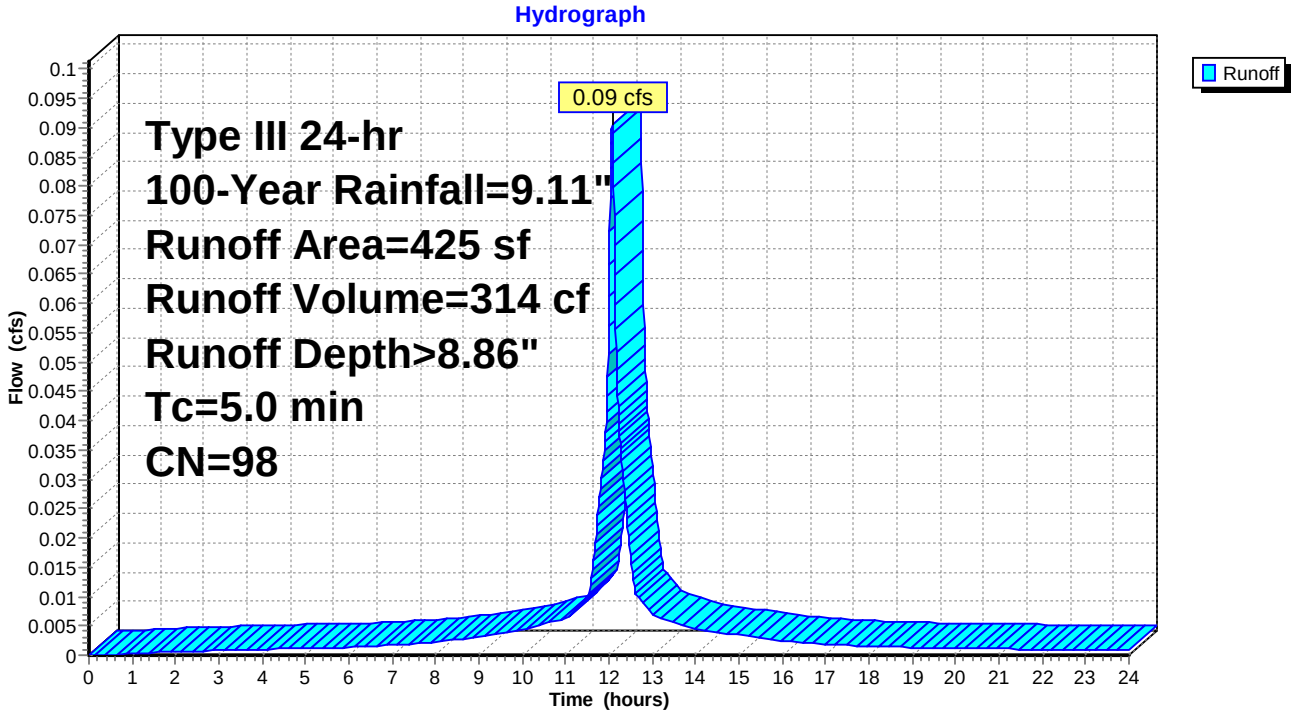
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 314 cf, Depth> 8.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.11"

	Area (sf)	CN	Description
*	425	98	back patio
	425		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment PD-1: Front Porch



Summary for Pond 12 C: 2 Cultec 280

Inflow Area = 425 sf,100.00% Impervious, Inflow Depth > 8.86" for 100-Year event
Inflow = 0.09 cfs @ 12.07 hrs, Volume= 314 cf
Outflow = 0.07 cfs @ 12.13 hrs, Volume= 163 cf, Atten= 20%, Lag= 3.4 min
Primary = 0.07 cfs @ 12.13 hrs, Volume= 163 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 467.16' @ 12.13 hrs Surf.Area= 103 sf Storage= 159 cf

Plug-Flow detention time= 261.8 min calculated for 163 cf (52% of inflow)
Center-of-Mass det. time= 132.3 min (870.6 - 738.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	464.70'	94 cf	**10.33'W x 10.00'L x 3.21'H Field A** 332 cf Overall - 97 cf Embedded = 234 cf x 40.0% Voids
#2A	465.20'	97 cf	**Cultec R-280HD** x 2 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 2 rows
		191 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	467.00'	**6.0" Vert. Outlet Pipe** C= 0.600

Primary OutFlow Max=0.07 cfs @ 12.13 hrs HW=467.16' (Free Discharge)
1=Outlet Pipe (Orifice Controls 0.07 cfs @ 1.35 fps)

Pond 12 C: 2 Cultec 280 - Chamber Wizard Field A

Chamber Model = Cultec R-280HD (Cultec Recharger® 280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 2 rows

47.0" Wide + 6.0" Spacing = 53.0" C-C Row Spacing

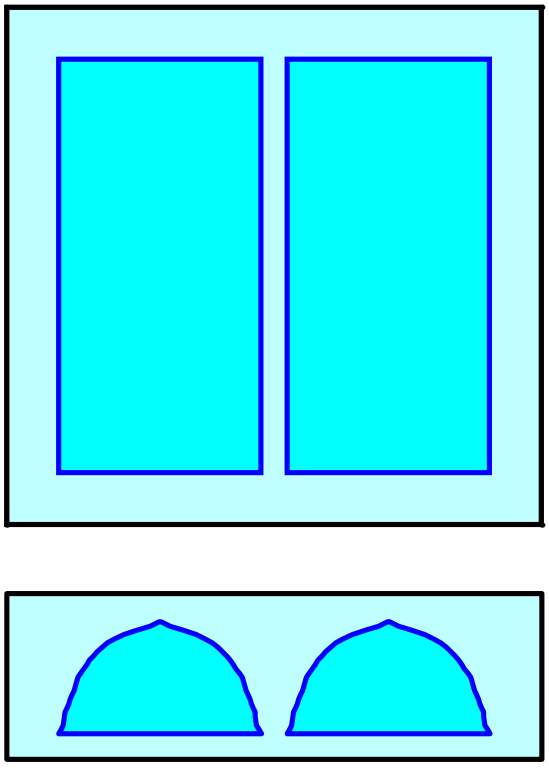
1 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 8.00' Row Length +12.0" End Stone x 2 = 10.00' Base Length
2 Rows x 47.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 10.33' Base Width
6.0" Base + 26.5" Chamber Height + 6.0" Cover = 3.21' Field Height

2 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 2 Rows = 97.1 cf Chamber Storage

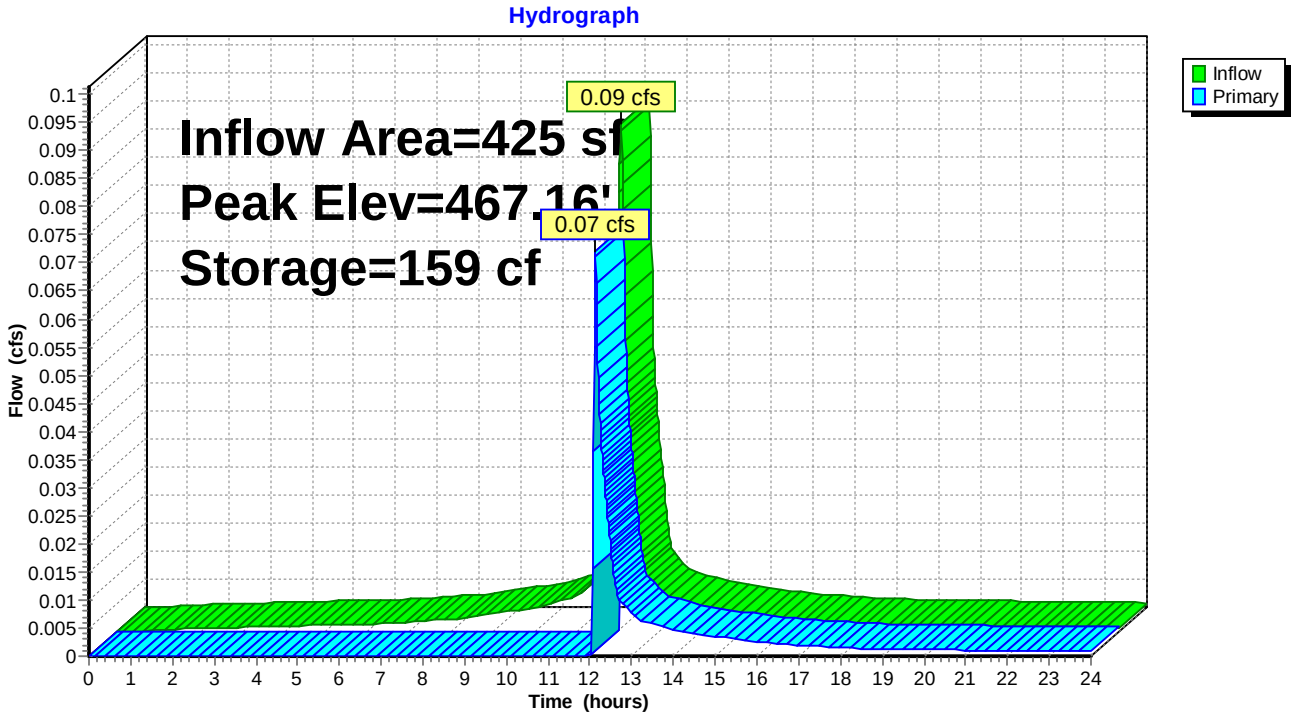
331.5 cf Field - 97.1 cf Chambers = 234.4 cf Stone x 40.0% Voids = 93.8 cf Stone Storage

Chamber Storage + Stone Storage = 190.9 cf = 0.004 af
Overall Storage Efficiency = 57.6%
Overall System Size = 10.00' x 10.33' x 3.21'

2 Chambers
12.3 cy Field
8.7 cy Stone



Pond 12 C: 2 Cultec 280



Summary for Link 13L: POI A

Inflow Area = 70,612 sf, 11.68% Impervious, Inflow Depth > 6.29" for 100-Year event
Inflow = 12.18 cfs @ 12.07 hrs, Volume= 36,989 cf
Primary = 12.18 cfs @ 12.07 hrs, Volume= 36,989 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link 13L: POI A