

To whom it may concern,

I trust this message finds you well. I appreciate your prompt attention to this matter. Below, you'll find an explanation regarding the project's deviation from the approved scope and the lack of notification to city staff.

Project Commencement (11/28/23)-The project initiated adhering to the initially approved scope.

Discovery of Unforeseen Challenges:

- Unanticipated issues arose, necessitating careful evaluation and adjustments.
- Partial of the of north and south elevation were initially intended to be retained, but due to termite and weather damage, the wood was deteriorating and changes were necessary.
- The east elevation porch overhang and the 2nd-floor wall could not be saved. The existing wall wasn't strong enough to sister the new lumber to.
- The south elevation required an entirely new foundation, and the east wall needed a new concrete bracing wall due to damage.
- The west elevation wall, sitting on cobblestone and not a foundation, led us to opt for new concrete.
- This decision added to the overall cost, unplanned but prioritized for safety.

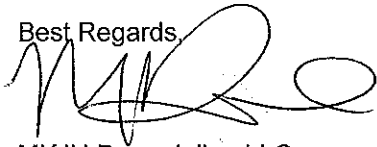
Thorough Assessment and Revision:

- An internal assessment gauged the challenges' extent and their implications on the project timeline and scope.
- Given our past experience working with cities, we've regularly verified and coordinated with inspectors, adjusting plans quarterly.
- Unforeseen delays during similar projects in other cities prompted us to communicate with inspectors on-site and revise plans accordingly.
- The inspector on-site advised us to revise plans promptly. The application was amended to reflect the revised scope, accompanied by a brief explanation of the changes.

I trust this detailed explanation provides a comprehensive overview. We are committed to collaborating closely with the city legal team to ensure transparency and adherence to necessary procedures.

Thank you for your understanding and consideration.

Best Regards,



MKJH Remodeling LLC
Moses Khalil
708-372-5766


COA 23-4821-

Convert 2-Unit to Single Family Residence. Interior Rehab & New 2-Story Frame Addition including New Partitions, New Electrical, Mechanical & Plumbing Systems, New Roof System & New Rear Deck & Balcony per Plans.

223 Center Street, Naperville Illinois 60540

Building Info: 2-Story, Residential Use, Frame Building

DRAWING SHEET INDEX

GENERAL		ARCHITECTURAL	
CS	COVER SHEET & SITE PLAN & DRAWING LIST	A-01	PROPOSED FLOOR PLANS & SCHEDULES
CM	CODE MATRIX	A-02	PROPOSED FLOOR PLANS & WALL TYPES
G-01	GENERAL PROJECT INFORMATION	A-03	PROPOSED ELEVATIONS
G-02	GENERAL PROJECT SPECIFICATIONS	A-04	PROPOSED ELEVATIONS
		A-05	BUILDING ADDITION FOUNDATION & GARAGE EXTENSION
DEMOLITION		A-06	PROPOSED FRAMING PLANS
AD-01	EXISTING-DEMOLITION PLANS	A-07	PROPOSED FRAMING PLANS
AD-02	EXISTING-DEMOLITION ELEVATIONS	A-08	BUILDING SECTION
AD-03	EXISTING WALLS BRACING DETAILS 	A-09	BUILDING SECTIONS
		A-10	REAR DECK & BALCONY PLANS & DETAILS
		A-11	DECK CONNECTION DETAILS 
ELECTRICAL		MECHANICAL	
E-01	POWER & LIGHTING PLANS	M-01	PROPOSED MECHANICAL PLANS
E-02	POWER & LIGHTING PLANS	M-02	PROPOSED MECHANICAL PLANS
E-02	RISER DIAGRAM, LOAD CALCULATIONS, SCHEDULES & PANELBOARDS	M-03	SPLIT SYSTEM DIAGRAM & MECHANICAL NOTES
		M-03	SPLIT SYSTEM DIAGRAM & MECHANICAL NOTES
PLUMBING		P-01	SUPPLY AND WASTE DIAGRAMS

CITY OF NAPERVILLE ADOPTED CODES

2018 INTERNATIONAL BUILDING CODE	2018 INTERNATIONAL FUEL GAS CODE
2018 INTERNATIONAL RESIDENTIAL CODE	2018 INTERNATIONAL PROPERTY MAINTENANCE CODE
2012 INTERNATIONAL MECHANICAL CODE	2017 NATIONAL ELECTRICAL CODE
2018 INTERNATIONAL FIRE CODE	2021 INTERNATIONAL ENERGY CONSERVATION CODE
2018 LIFE SAFETY CODE	2018 INTERNATIONAL EXISTING BUILDING CODE
ILLINOIS PLUMBING CODE	

STATEMENT OF COMPLIANCE

THIS IS TO CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF CONFORM TO THE REQUIREMENTS OF THE CITY OF NAPERVILLE ADOPTED BUILDING CODES.

SIGNED:  DATE: 07-04-2023

ILLINOIS LIC. NO. 001-016881, EXP. DATE: 11-30-2024



ENERGY CONSERVATION CODE COMPLIANCE STATEMENT

I CERTIFY THAT I AM A REGISTERED DESIGN PROFESSIONAL FOR THIS PROJECT. I ALSO CERTIFY THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF THE ATTACHED PLANS FOR: 223 CENTER STREET, NAPERVILLE, IL 60540 FULLY COMPLY WITH THE REQUIREMENTS OF THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE, ADOPTED INTO THE CITY OF NAPERVILLE ORDINANCE

SIGNED:  DATE: 07-04-2023

ILLINOIS LIC. NO. 001-016881, EXP. DATE: 11-30-2024



LIABILITY INSURANCE:

PROVIDE LIABILITY INSURANCE (HOLD HARMLESS AGREEMENT): THE CONTRACTOR SHALL MAINTAIN CONTRACTUAL LIABILITY INSURANCE TO COVER LIABILITY ASSUMED UNDER THE FOLLOWING AGREEMENT: THE CONTRACTOR AND ANY SUBCONTRACTOR SHALL INDEMNIFY AND SAVE HARMLESS OWNER AND ARCHITECT/ENGINEER (A/E), AND THEIR PARTNERS, AGENTS AND EMPLOYEES AGAINST ANY LOSS, DAMAGE OR EXPENSE FOR WHICH THE OWNER AND A/E MAY BECOME LIABLE ON AN ACCOUNT OF BODILY INJURY INCLUDING DEATH, OR PROPERTY DAMAGE SUSTAINED BY ANYONE WHICH MAY ARISE OUT OF OR RESULT FROM THE OPERATIONS OF THE CONTRACTOR OR OF THOSE EMPLOYED BY HIS AGENTS OR SERVANTS INCLUDING HIS SUBCONTRACTORS, IN THE EXECUTION OF ANY WORK INCLUDED UNDER THIS CONTRACT, WHETHER OR NOT IT SHALL BE CLAIMED THAT THE INJURY OR DAMAGE WAS CAUSED THROUGH A NEGLIGENT ACT OR OMISSION OF THE OWNER AND A/E, THEIR AGENTS, SERVANTS OR EMPLOYEES, OR BY ANY OTHER PERSONS WHOMSOEVER; AND THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, APPEAR, DEFEND, PAY ALL COSTS AND EXPENSES, INCLUDING ATTORNEY'S FEES AND ALL JUDGEMENTS IN CONNECTION WITH LIABILITY ASSUMED HERE UNDER. THE FOLLOWING INDEMNIFICATION SHALL ALSO INCLUDE ALL LIABILITY OF THE OWNER, A/E AND OTHER MENTIONED PERSONS ARISING UNDER THE SO CALLED "STRUCTURAL WORK ACT" (CH. 48 SEC. 60-90 ILLINOIS REVISED STAT.) EACH AND EVERY CONTRACTOR AND SUBCONTRACTOR WHEN ACCEPTING CONTRACTUAL OBLIGATIONS FOR THIS PROJECT SHALL UNDERSTAND THAT A PREREQUISITE TO ANY OPERATION AT PROJECT WHETHER FILED WITH OWNER OR NOT, THAT THEY HAVE IMPLIED AGREEMENT TO THE ABOVE ITEM, (HOLD HARMLESS AGREEMENT AND ITS SPECIFIC WORDING)

LIMIT OF WARRANTY OF ARCHITECT'S WORK PRODUCT:

THE A/E AND HIS CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE WORK BEYOND A REASONABLE DILIGENCE. IF ANY ERRORS, DISCREPANCIES OR OMISSIONS ARE FOUND TO EXIST IN THE WORK PRODUCT, THE A/E SHALL BE PROMPTLY NOTIFIED SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE A/E OF SUCH CONDITIONS SHALL ABSOLVE THE A/E FROM ANY RESPONSIBILITY OF SUCH FAILURE. ACTION TAKEN WITHOUT KNOWLEDGE AND CONSENT OF THE A/E OR IN CONTRADICTION TO THE WORK PRODUCT OR THE RECOMMENDATIONS OF THE A/E SHALL BECOME THE RESPONSIBILITY OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

NOTES:

1. THE INFORMATION SHOWN ON THESE DRAWINGS IS BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME TO THE A/E. THIS INFORMATION CANNOT BE GUARANTEED TO SHOW EVERY EXISTING CONDITIONS. THE CONTRACTORS SHALL READ AND STUDY THE TOTAL SET OF PLANS FOR ALL WORK. CONTRACTOR MUST VISIT THE SITE AND DETERMINE ALL FIELD CONDITIONS. ALL DIMENSIONS SHALL BE FIELD VERIFIED AND ALL DISCREPANCIES SHALL BE REPORTED TO A/E PRIOR TO BID SUBMISSIONS.
2. THE INFORMATION SHOWN IN THESE DRAWINGS ARE FOR BIDDING PURPOSES ONLY. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL PROVIDE SHOP DRAWINGS COORDINATED WITH ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND STRUCTURAL DESIGN FOR REVIEW AND APPROVAL BY THE A/E OF RECORD.

ADDITIONAL GENERAL NOTES

1. THE WORK SHALL NOT CAUSE THE STRUCTURE TO BECOME UNSAFE OR ADVERSELY AFFECT THE PERFORMANCE OF THE BUILDING.
2. STRUCTURAL ELEMENTS THAT ARE UNCOVERED DURING THE COURSE OF THE ALTERATION AND THAT ARE FOUND TO BE UNSOUND OR DANGEROUS SHALL BE MADE TO COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE 2018 IRC.
3. IN THE EXISTING HOUSE, A SMOKE DETECTOR MUST BE INSTALLED IN EACH SLEEPING ROOM, OUTSIDE EACH SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, AND ON EVERY FLOOR.
4. SMOKE ALARMS IN THE PORTION OF THE RESIDENCE THAT IS NOT IMPACTED BY THE SCOPE OF WORK SHALL BE PERMITTED TO BE BATTERY POWERED AND INTERCONNECTED SMOKE ALARMS WITHIN THE AREA OF THE SCOPE OF WORK SHALL BE INTERCONNECTED, 110V, HARD WIRED, WITH BATTERY BACKUP. 2018 IRC NAPERVILLE R214.
5. IN THE EXISTING HOUSE, A MINIMUM OF ONE CARBON MONOXIDE DETECTOR SHALL BE INSTALLED WITHIN 15 FEET OF ANY SLEEPING AREA WITHIN ANY DWELLING UNIT. CARBON MONOXIDE DETECTORS IN THE PORTION OF THE RESIDENCE THAT IS NOT IMPACTED BY THE SCOPE OF WORK SHALL BE PERMITTED TO BE BATTERY POWERED.
6. ALL ILLINOIS HOMES ARE REQUIRED TO HAVE SMOKE ALARMS WITH A SELF-CONTAINED, NON-REMOVABLE, LONG TERM (10-YEAR LITHIUM) BATTERY, EFFECTIVE JAN. 1ST, 2023.
7. ANY EXISTING NON-HARDWIRED, BATTERY-POWERED SMOKE ALARMS MUST BE REPLACED WITH A 10-YEAR SEALED BATTERY SMOKE ALARM IF ANY OF THE FOLLOWING IS TRUE:
 - THE UNIT IS 10 YEARS OLDER THAN THE DATE OF MANUFACTURE (OR IF THERE IS NO MANUFACTURED DATE ON THE DEVICE).
 - THE UNIT IS NO LONGER IN OPERATION OR FAILS TO RESPOND TO OPERABILITY TESTING
 - A NEW DEVICE IS BEING INSTALLED

NO.	BY:	DATE	DESCRIPTION
	RT	07/04/2023	Review
	RT	07/04/2023	Permit

Convert 2-Unit to Single Family Residence. Interior Rehab & New 2-Story Frame Addition including New Partitions,

R.T. ARC



PROJECT ARCHITECT

RT

DRAFTPERSON

CS

APPROVED:

RT

PREPARED FOR:

OWNER

LOCATION:

223 Center Street

Naperville, IL 60540

JOB NUMBER:

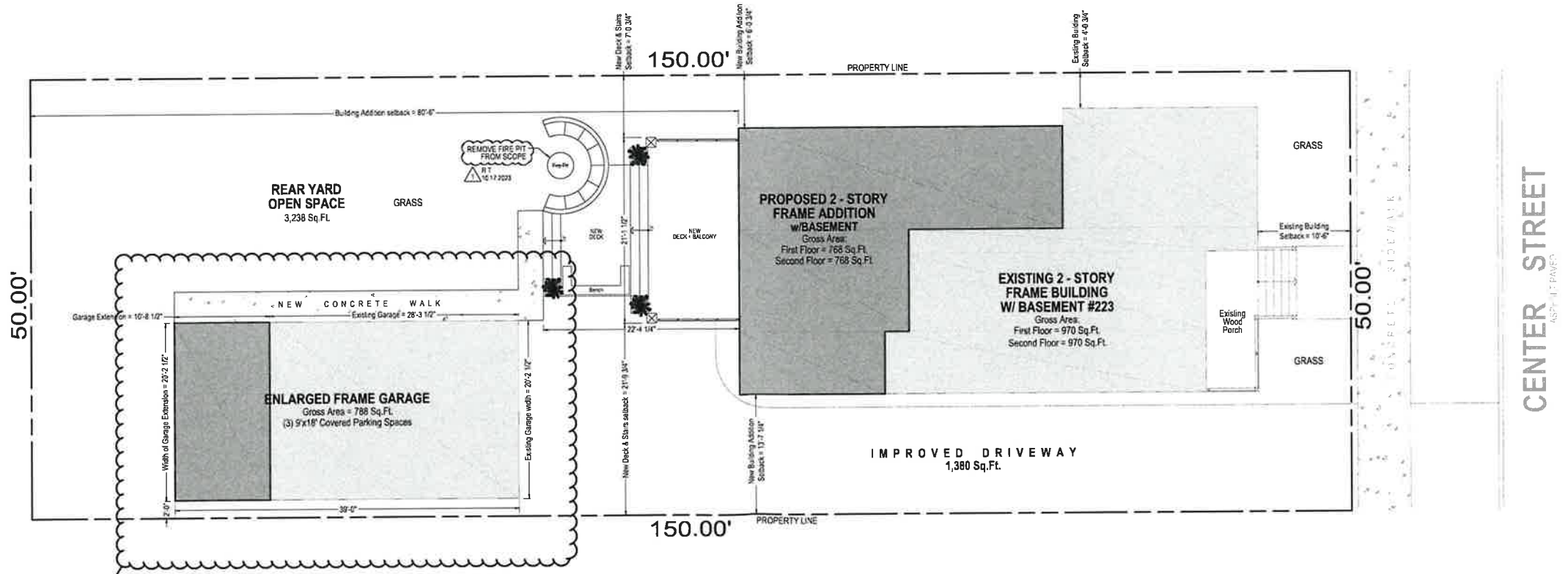
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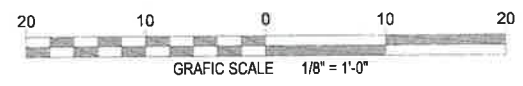
SHEET Name:

Title Sheet

BUILDING INFORMATION		
	EXISTING	PROPOSED
YEAR BUILT	1865	----
STORIES	TWO	TWO
No. OF BUILDINGS / MATERIAL	ONE / FRAME	ONE / FRAME
FLOOR AREA RATIO	0.33	0.57
LOT COVERAGE	0.20	0.33
RESIDENTIAL UNITS	ONE	ONE
LOT AREA	7,500 SQ. FT.	7,500 SQ. FT.
BUILDING AREA	1,844 SQ. FT.	3,476 SQ. FT.
GARAGE AREA	572 SQ. FT.	788 SQ. FT.



The scope of approval for COA 23-4821 does NOT include any work to the detached garage



1 SITE PLAN
 Lot Area = 7,500 Sq.Ft. SCALE 1/8"=1'-0"

REVISIONS	DATE	DESCRIPTION
NO.	BY	RT
	07/24/2023	Review
		Prep

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions,

R.T. ARCHITECTS
 4
 RADULI
 7501 BROAD
 FOREST
 TEL: L
 rtcpav

PROJECT ARCHITECT
 RT
 DRAFTPERS
 CS
 APPROVED
 RT
 PREPARED BY
 OWNER
 LOCATION:
 223 Center St
 Naperville, IL
 JOB NUMBER:
 223CS-07042

SHEET No. 1
 SHEET Name: Site Plan



ABBREVIATIONS

Table of abbreviations with columns A, G, Q and rows for various building materials and components like AC, A/C, ADJ, etc.

WORKING DRAWING NOTES

- 1. CONTRACTOR SHALL VERIFY AND COORDINATE ALL NEW AND EXISTING CONDITIONS AND DIMENSIONS AT JOB SITE FOR COMPARISON WITH DRAWINGS AND SPECIFICATIONS PRIOR TO BIDDING AND START OF AND DURING CONSTRUCTION. IF ANY DISCREPANCIES OR OMISSIONS ARE FOUND, THE ARCHITECT SHALL BE NOTIFIED, IN WRITING FOR CLARIFICATION PRIOR TO PROCEEDING WITH WORK.

MATERIAL NOTES

Material notes sections for WOOD, FASTENERS, CONCRETE, REINFORCEMENT BARS, MASONRY, METAL CONSTRUCTION CONNECTORS, FLASHING AND SEALANTS, and STRUCTURAL STEEL.

TABLE A - METAL CONNECTORS. Table with columns ITEM, SST MODEL#, USP MODEL#, GAGE, and INSTALLATION HARDWARE.

FLAME SPREAD RATING

Table showing materials used for interior wall and ceiling finish, business units, residential units, and flame spread rating details.

BUILDING DESIGN LOADS

Table of building design loads including roof loads, first floor loads, and lateral loads.

GENERAL DRAWING SYMBOLS

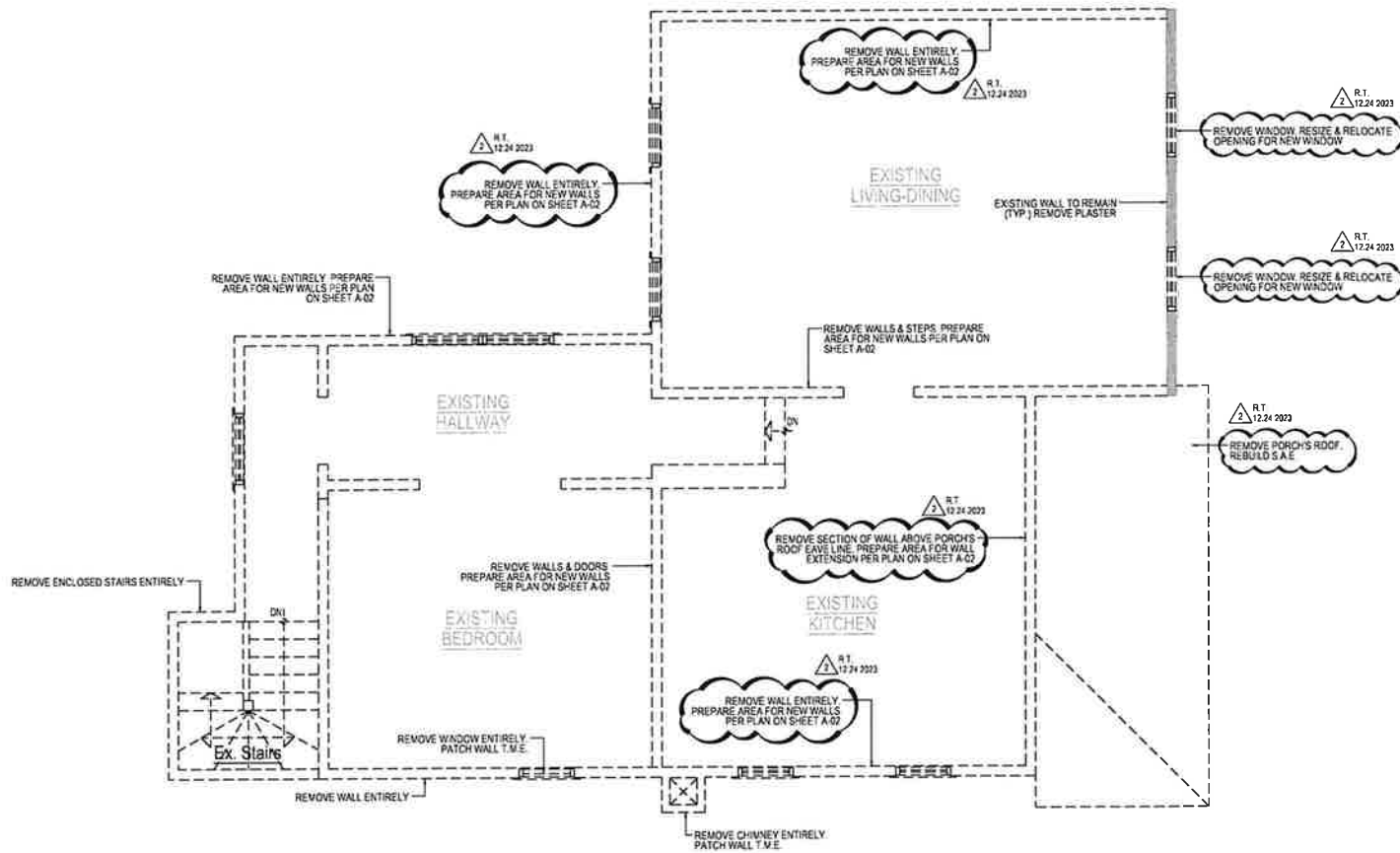
Diagram showing various drawing symbols for revision numbers, spot elevations, wall types, details, sections, and overall sections.

Small table with columns for REVISIONS, NO., DATE, and DESCRIPTION.

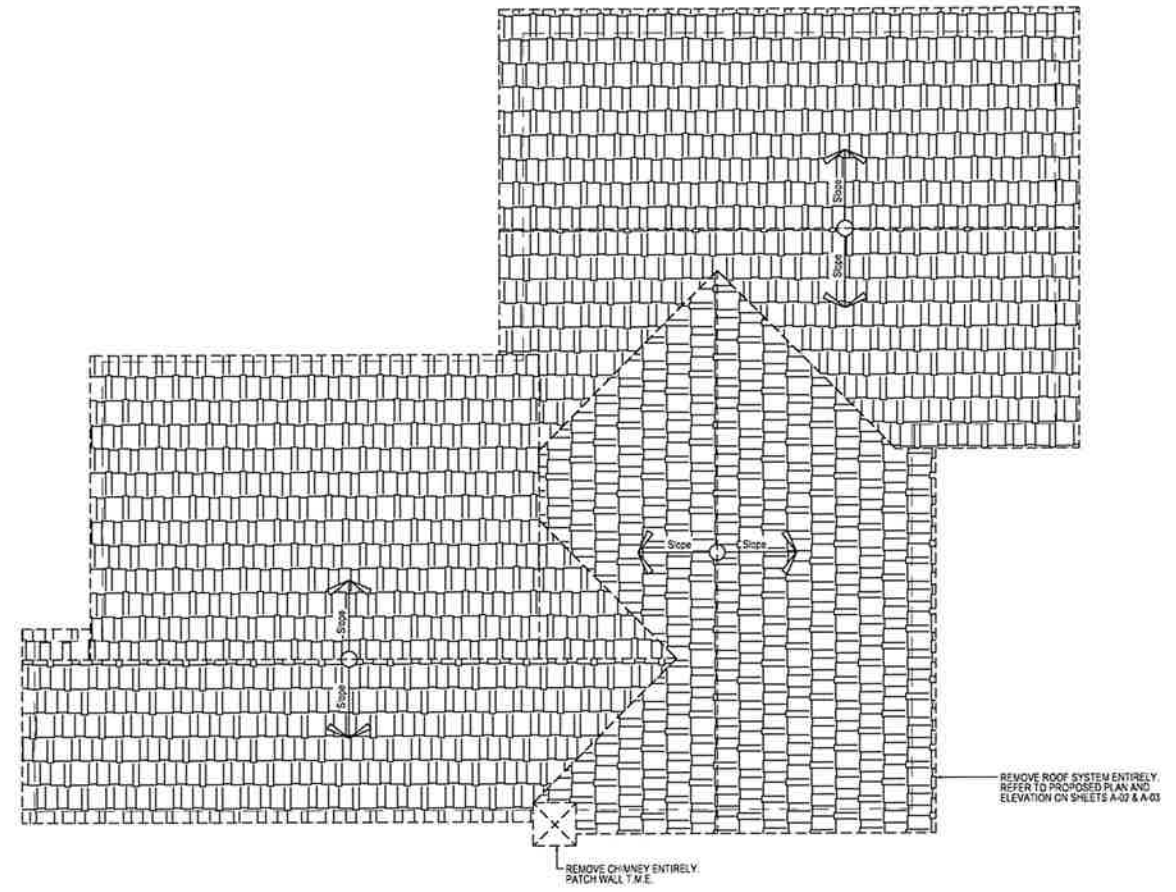
Vertical text on the right edge: Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions.

PROJECT INFORMATION: PROJECT ARCHITECT, DRAFTPERSON, APPROVED, PREPARED BY, LOCATION, JOB NUMBER.

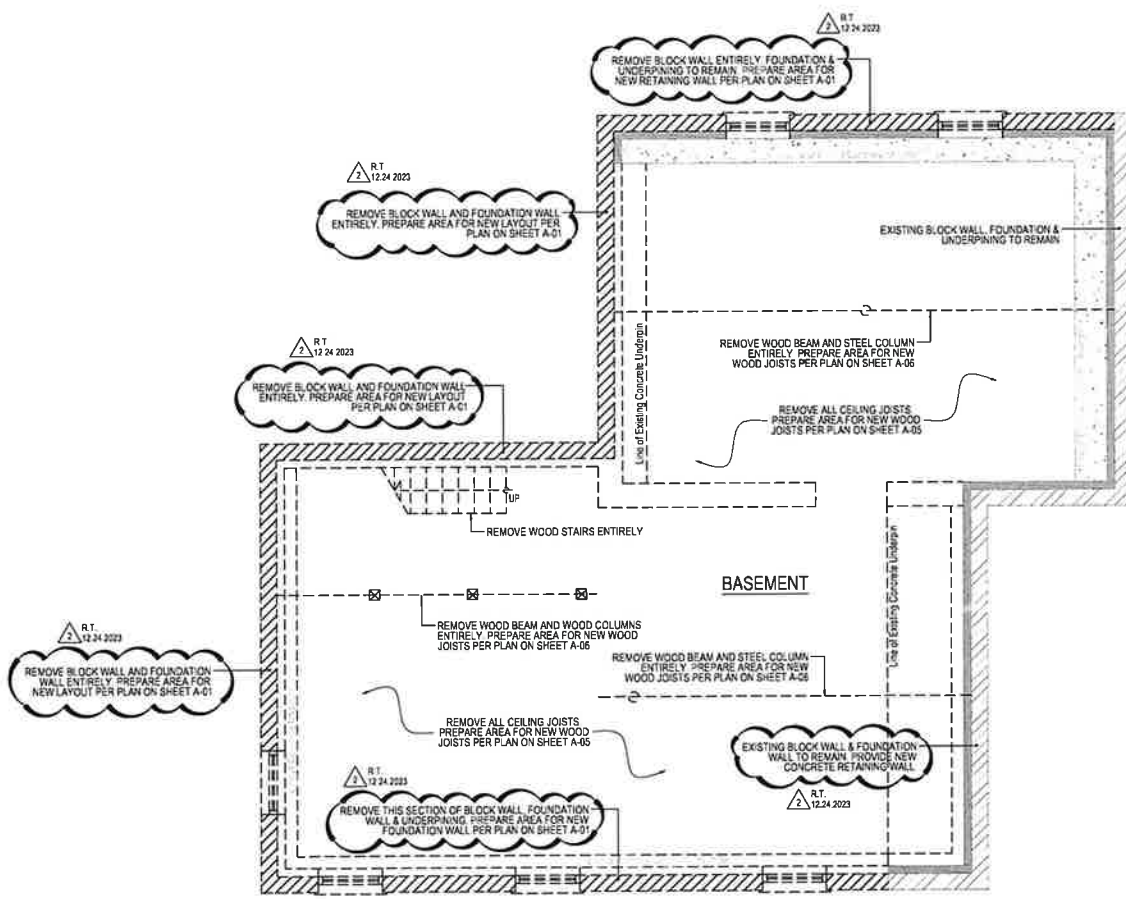
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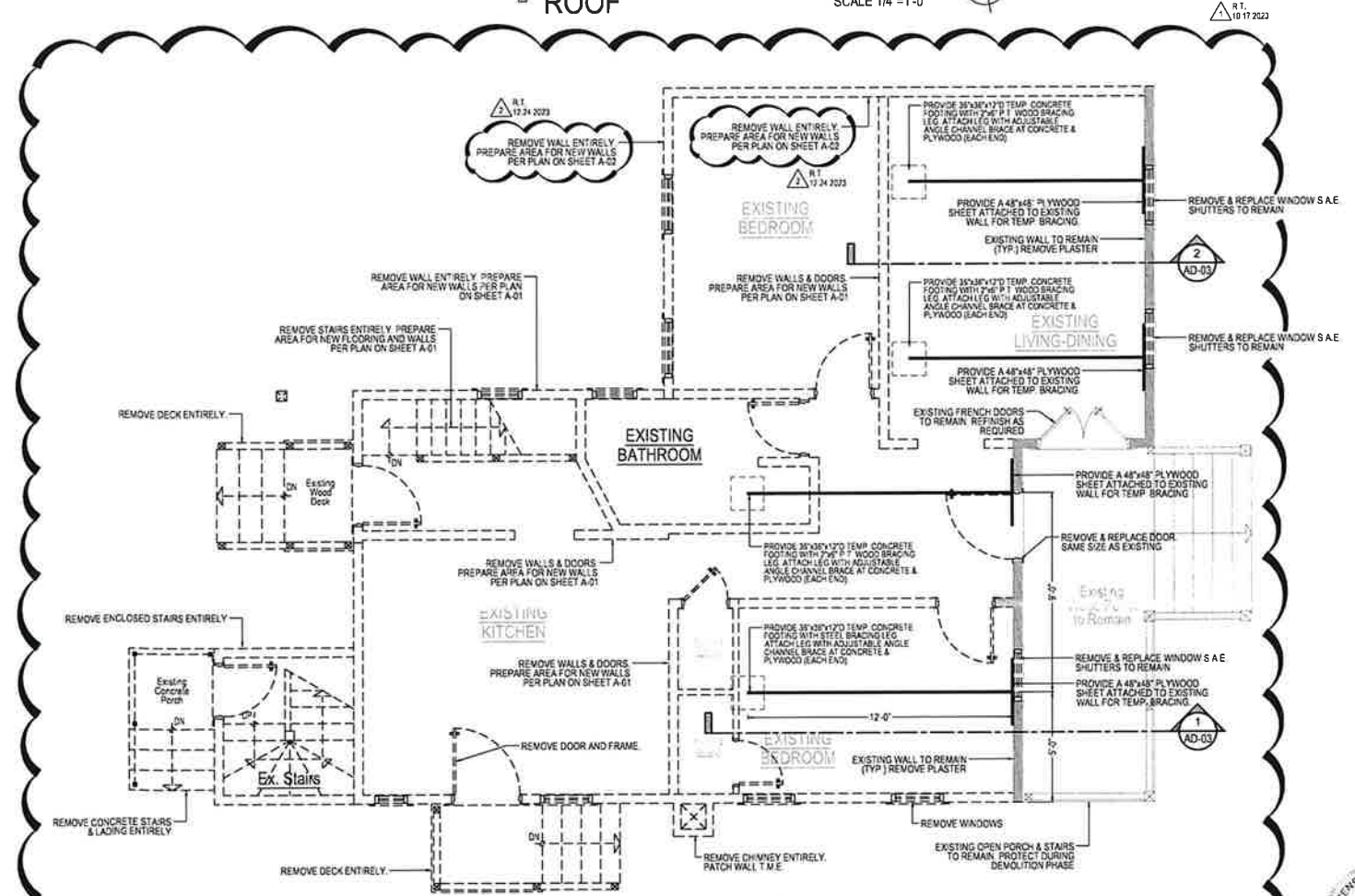
3 EXISTING-DEMOLITION PLAN
SECOND FLOOR SCALE 1/4"=1'-0"



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



1 EXISTING-DEMOLITION PLAN
BASEMENT SCALE 1/4"=1'-0"



2 EXISTING-DEMOLITION PLAN
FIRST FLOOR SCALE 1/4"=1'-0"

REVISIONS NO.	DATE	DESCRIPTION
1	07/24/2023	Revise

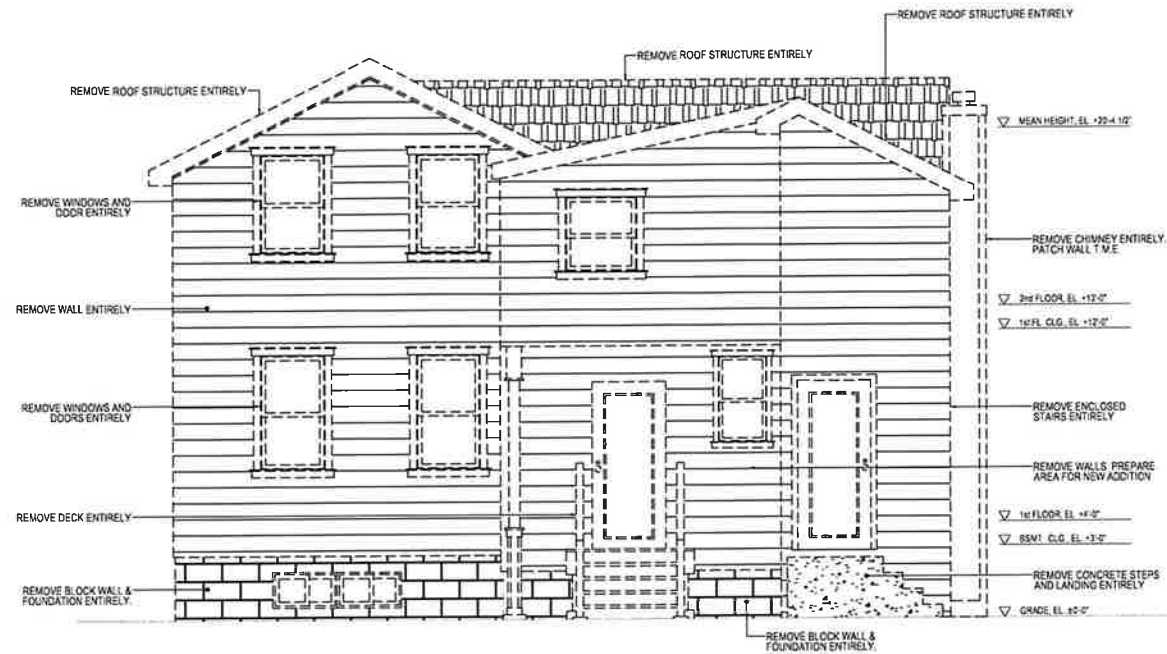
Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions,

R.T. ARCHITECTS
4

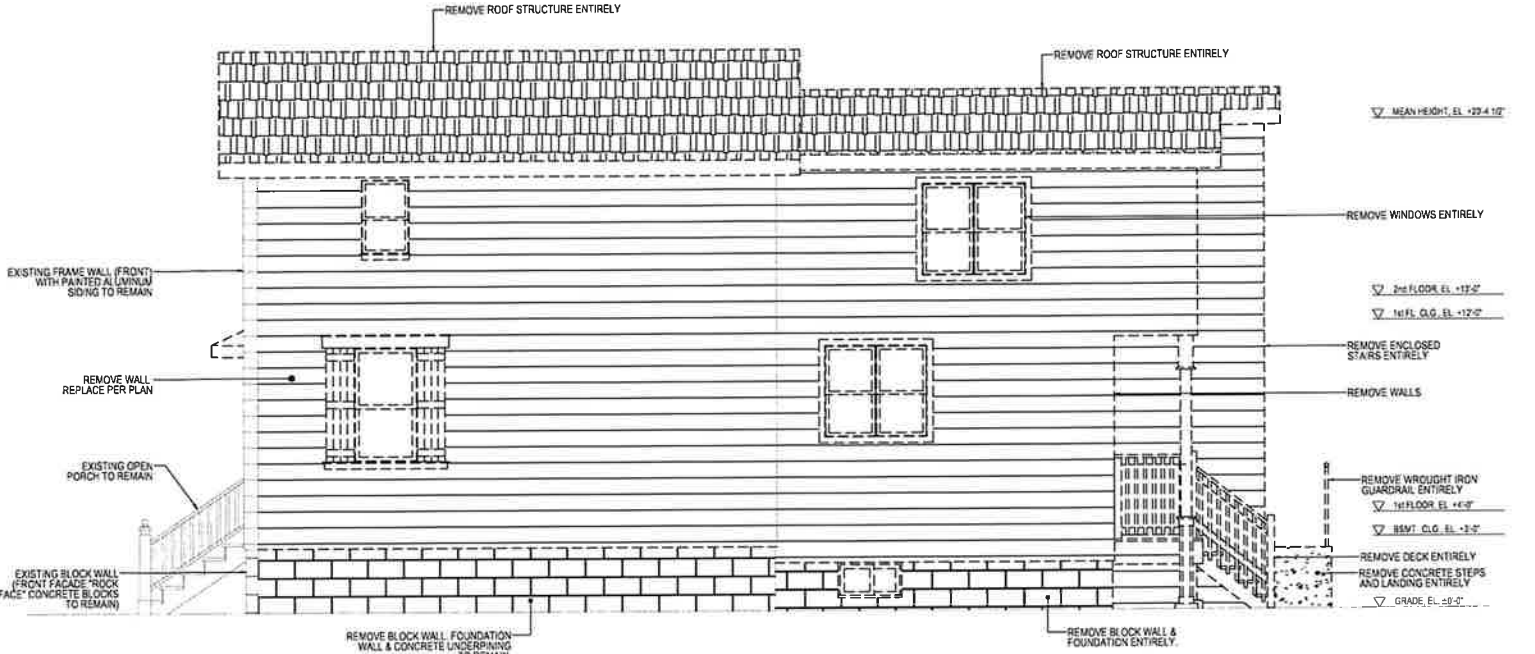
PROJECT ARCHITECT
DRAFTSPERSON
CS
APPROVED:
RT
PREPARED FOR
OWNER
LOCATION:
223 Center St
Naperville, IL
JOB NUMBER:
223CS-070421

SHEET No. 4
SHEET Name: Existing Floor Plan

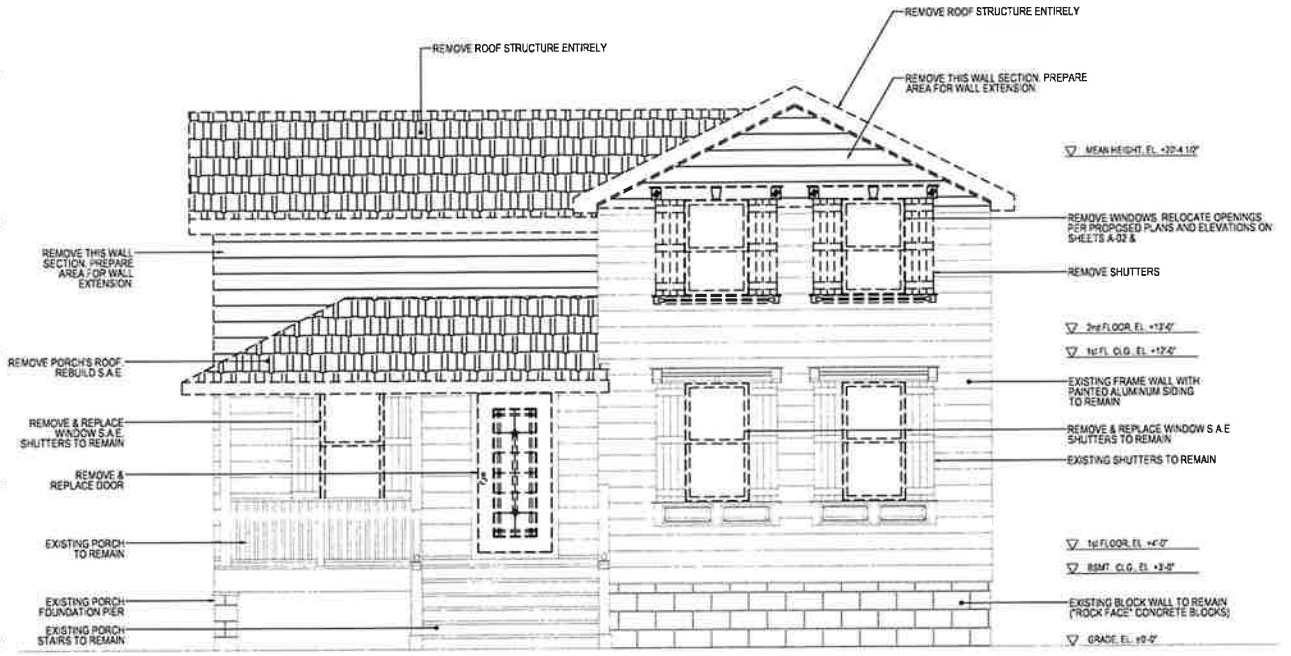




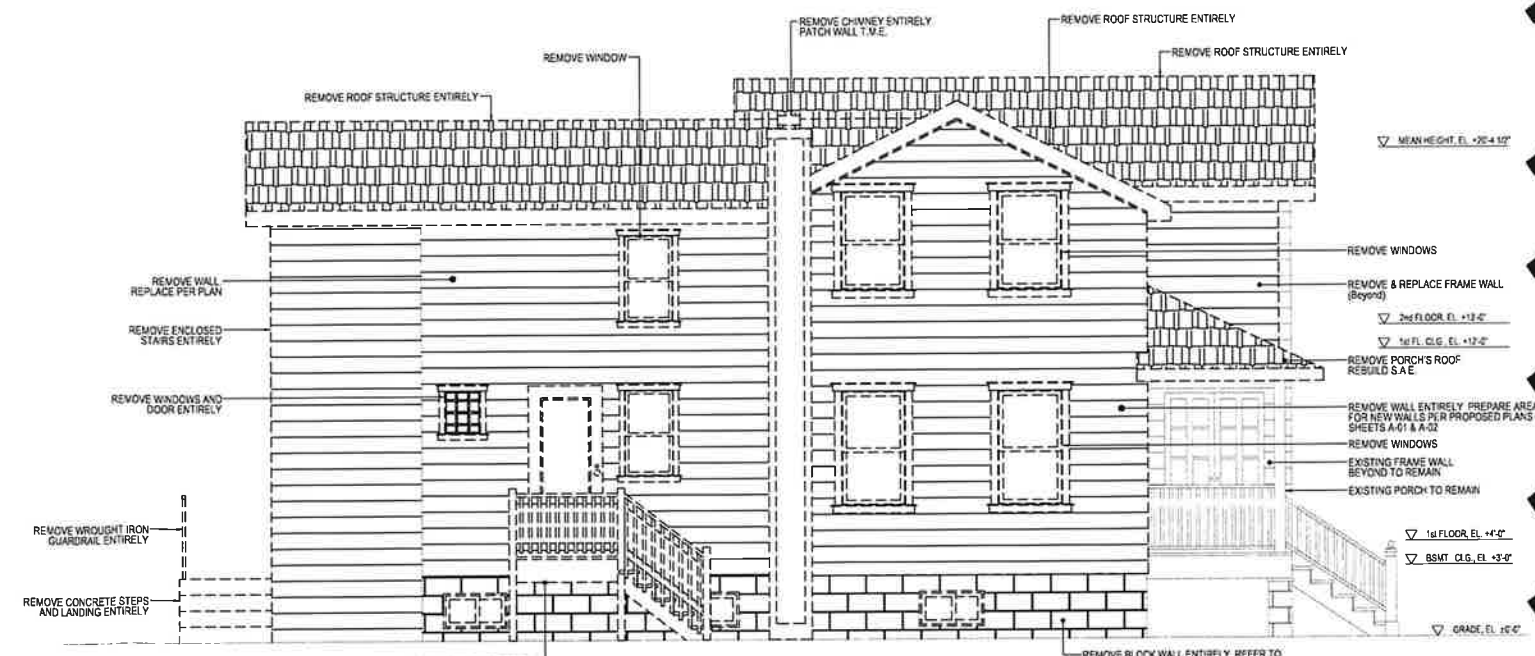
3 EXISTING-DEMOLITION WEST ELEVATION
(REAR ELEVATION) SCALE 1/4"=1'-0"



4 EXISTING-DEMOLITION NORTH ELEVATION SCALE 1/4"=1'-0"



1 EXISTING-DEMOLITION EAST ELEVATION
(FRONT ELEVATION) SCALE 1/4"=1'-0"



2 EXISTING-DEMOLITION SOUTH ELEVATION SCALE 1/4"=1'-0"

REVISIONS	NO.	DATE	DESCRIPTION
	1	07/04/2023	Revise
	2	07/04/2023	Revise

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions,

R.T. ARCHITECTURE

 RADULE BROV FOREST TEL: rrepavc

PROJECT ARCHITECT
 DRAFTSPERSON
 APPROVED BY
 PREPARED BY
 OWNER
 LOCATION: 223 Center St, Naperville, IL
 JOB NUMBER: 223CS-07042
 SHEET No.:

REGISTERED ARCHITECT
 RADULE
 TERPANCEVIC
 001-015681
 STATE OF ILLINOIS

SHEET No. 4
 Existing Elevations

NO.	BY	DATE	DESCRIPTION
1	RT	07/24/2023	Review
2	RT	07/24/2023	Review

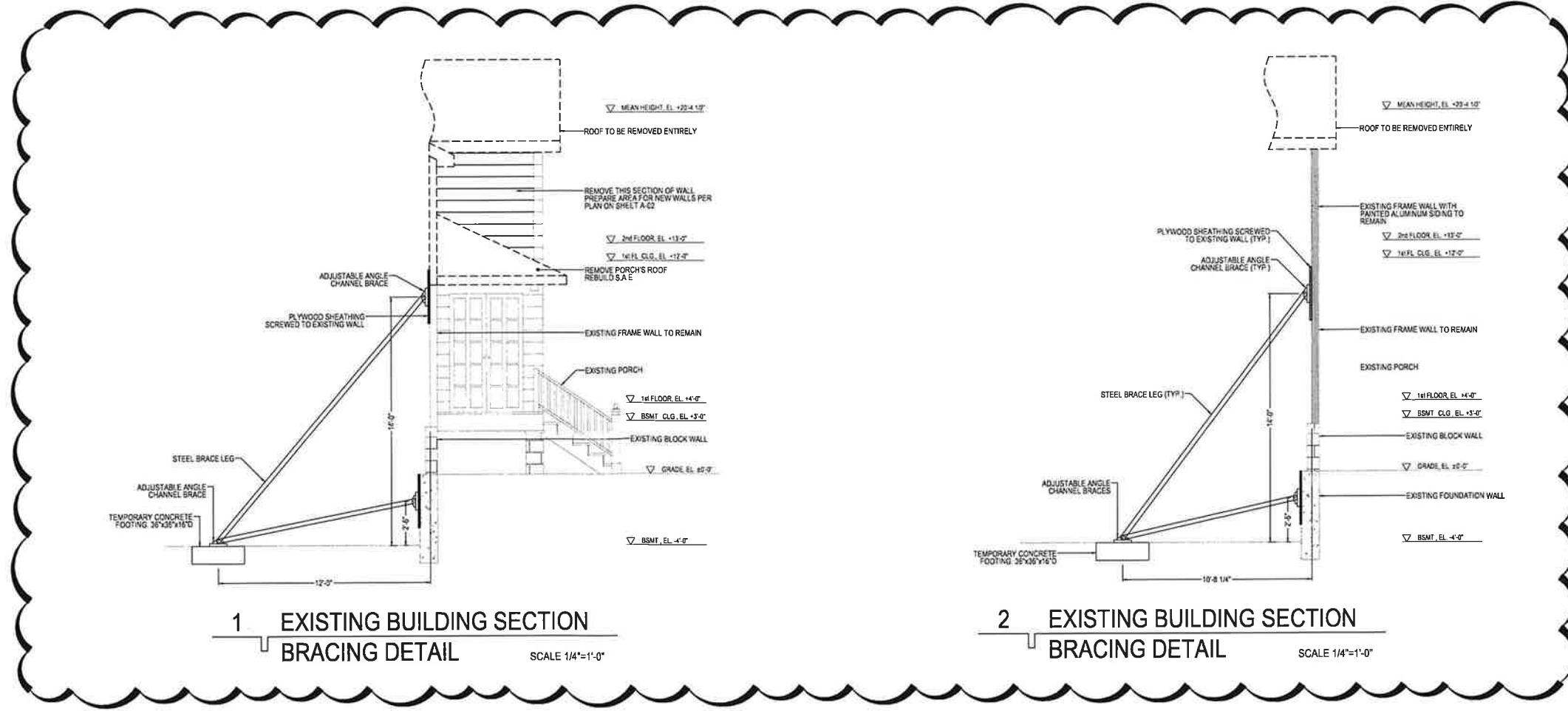
Convert 2-Unit to Single Family Residence, Interior Rehab
& New 2-Story Frame Addition including New Partitions,

R.T. ARCH
4
RADULE
7561 BROWN
FOREST
TEL: (630)
789-9000

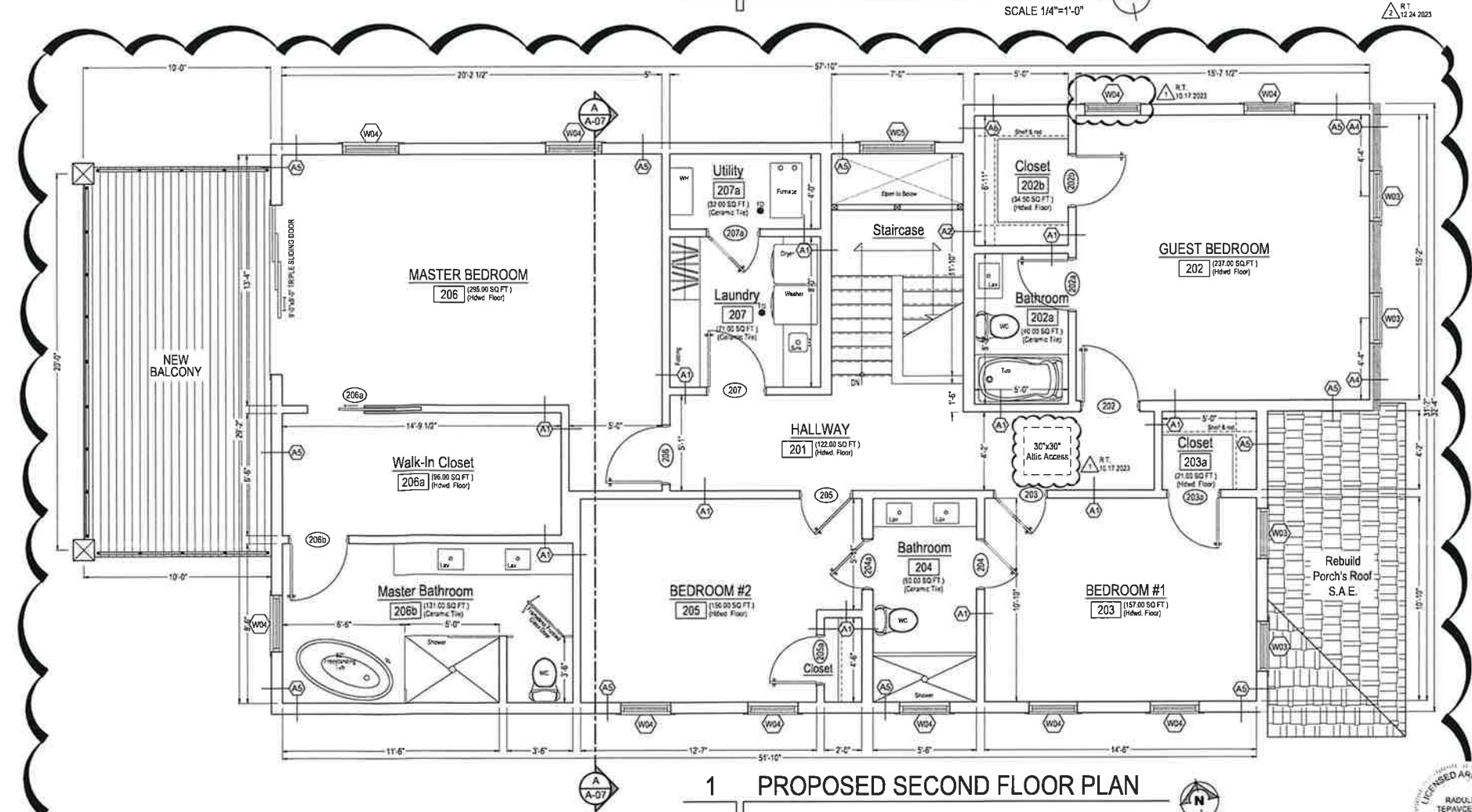
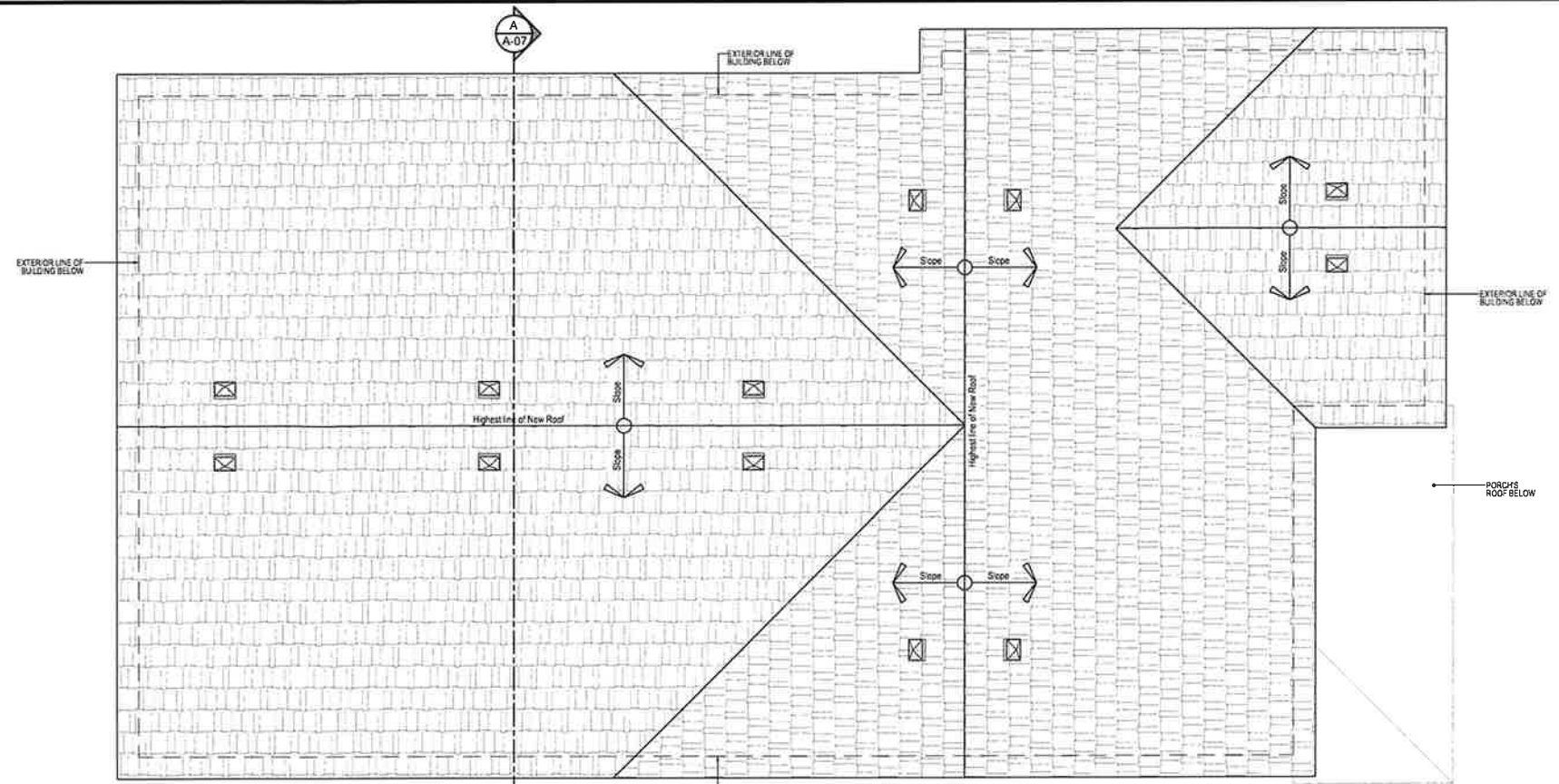
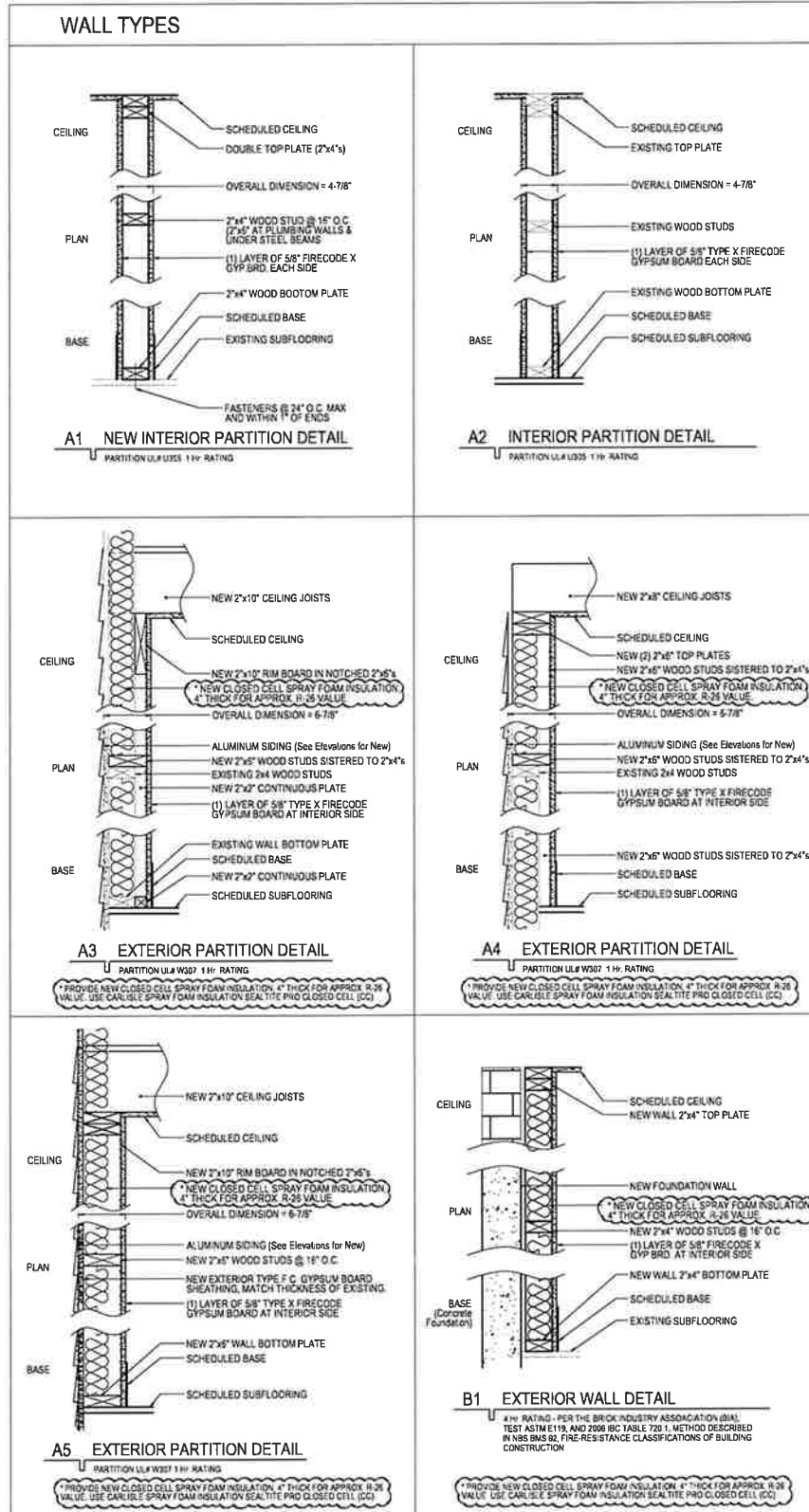
PROJECT ARCHITECT
R.T. ARCHITECTS
DRAFTPERSON
CS
APPROVED:
RT
PREPARED FOR
OWNER
LOCATION:
233 Center Str
Naperville, IL 60563
JOB NUMBER
223CS-070420
SHEET No. 10
SHEET Name: Braced



R.T. 12.24.2023



R.T. 10.17.2023



NO.	BY	DATE	DESCRIPTION
1	RT	07/06/2023	Revised

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions.



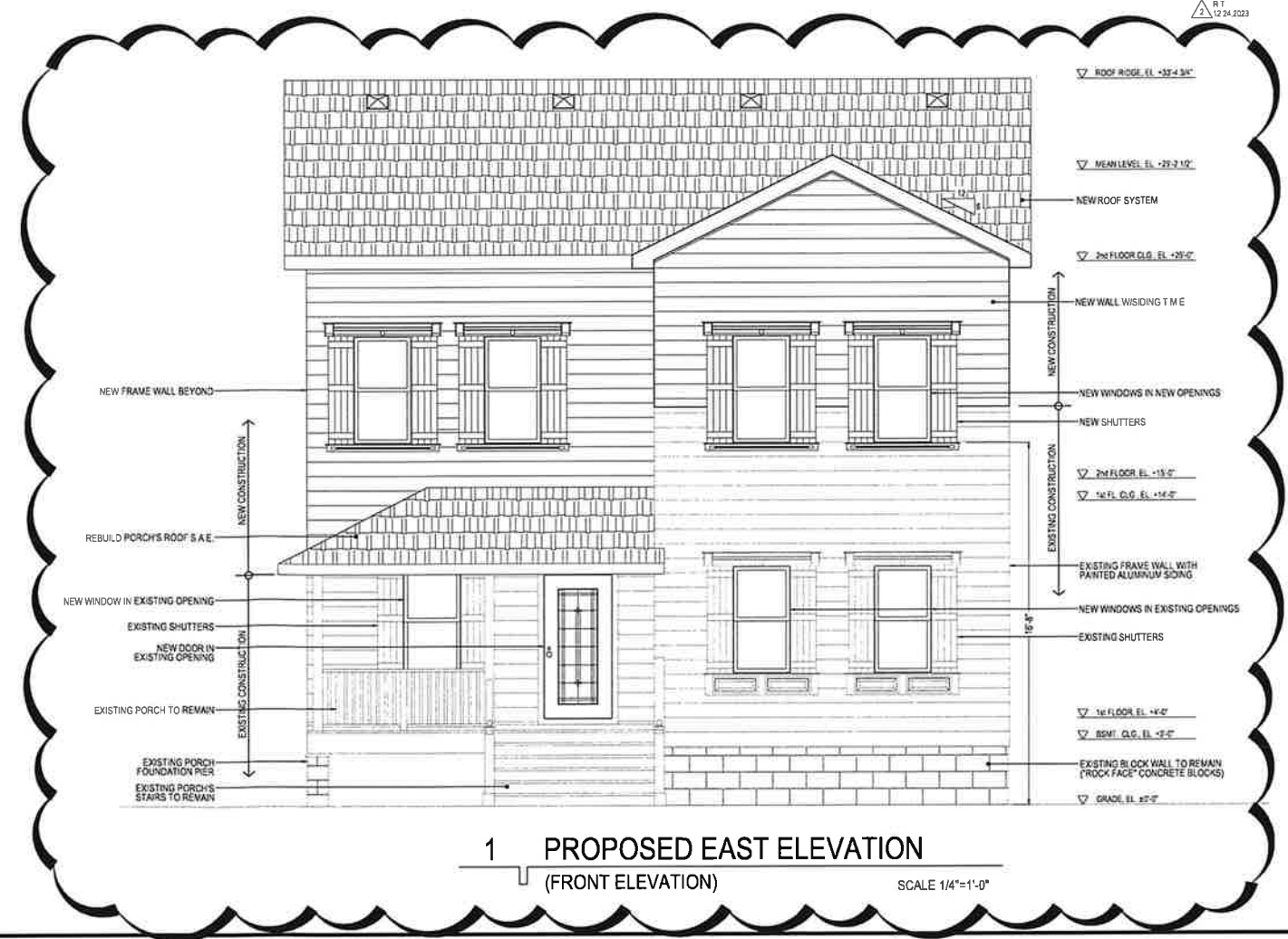
PROJECT ARCHITECT: RADULE TEPAVCOVIC, 001-616881
 DRAFTPERSON: CS
 APPROVED: RT
 PREPARED FOR: OWNER
 LOCATION: 223 Center St, Naperville, IL, IL
 JOB NUMBER: 223CS-07042
 SHEET NO.:

SHEET Name: Proposed Floor Plan



2 PROPOSED WEST ELEVATION

(REAR ELEVATION) SCALE 1/4"=1'-0"



1 PROPOSED EAST ELEVATION

(FRONT ELEVATION) SCALE 1/4"=1'-0"

NO.	BY:	DATE:	DESCRIPTION:
1	RT	07/05/2023	Revised

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions.



PROJECT ARCHITECT: R.T. AR
 DRAFTSPERSON: CS
 APPROVED BY: RT
 PREPARED FOR: OWNER
 LOCATION: 223 Center St, Naperville, IL
 JOB NUMBER: 223CS-07042

SHEET No. 4
 SHEET Name: Proposed Elevations





2 PROPOSED NORTH ELEVATION

SCALE 1/4"=1'-0"



1 PROPOSED SOUTH ELEVATION

SCALE 1/4"=1'-0"

REVISIONS	NO.	DATE	DESCRIPTION
	1	07/02/23	Revise
	2	10/17/23	Revise
	3	12/24/23	Revise

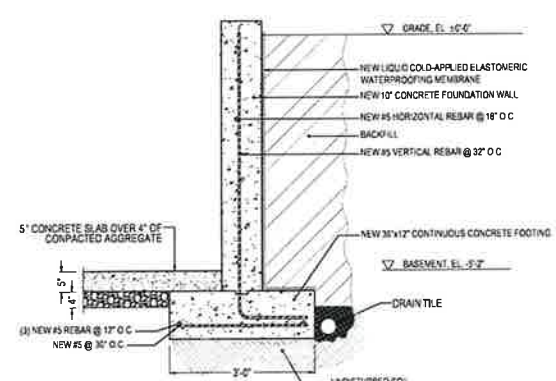
Convert 2-Unit to Single Family Residence. Interior Rehab & New 2-Story Frame Addition including New Partitions.

R.T. ARCHITECTS
 4
 RADULI
 7501 BROOK
 FOREST
 TEL: 615-223-1111
 REP: 615-223-1111

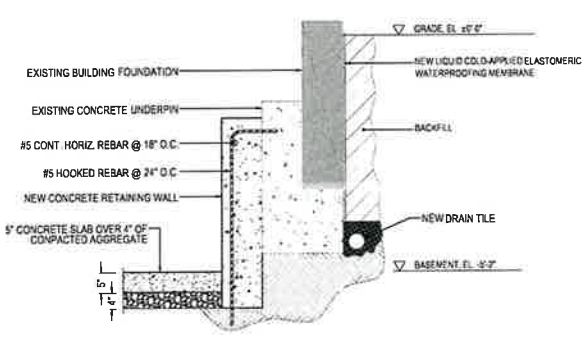
PROJECT ARCHITECT: R.T.
 DRAFTSMAN: CS
 APPROVED: RT
 PREPARED BY: OWNER
 LOCATION: 223 Center St, Naperville, IL
 JOB NUMBER: 223CS-07042

SHEET No. 4
 SHEET Name: Proposed Elevations

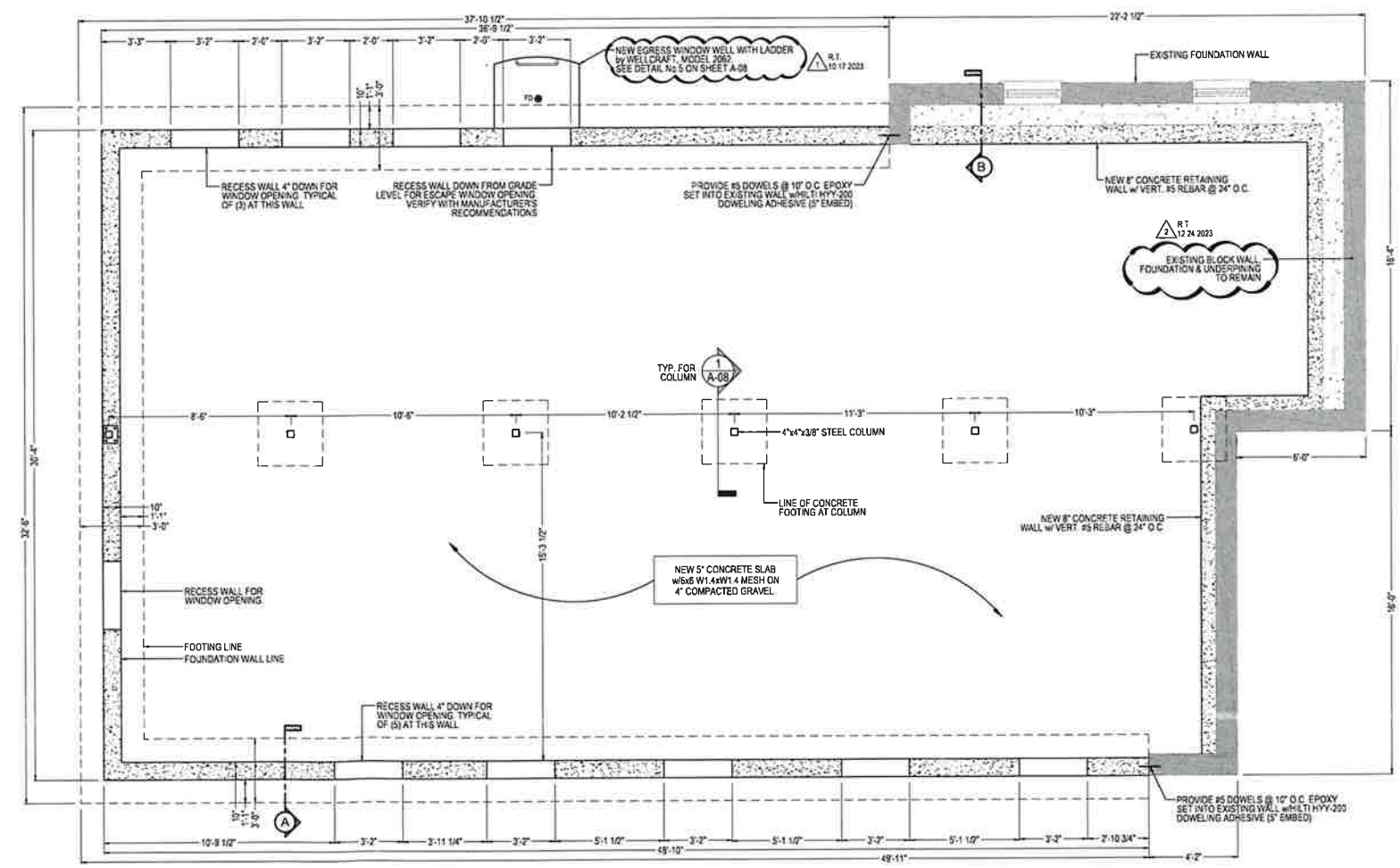




**A FOUNDATION SECTION
REAR BUILDING ADDITION**



**B FOUNDATION SECTION
@ EXISTING WALL**



**8 PROPOSED FOUNDATION PLAN
REAR BUILDING ADDITION**

RT 12/24/2023

RT 12/24/2023

NO.	BY	DATE	DESCRIPTION
1	RT	07/04/2023	Revised
2	RT	12/24/2023	Revised

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions,

R.T. ARCHITECT

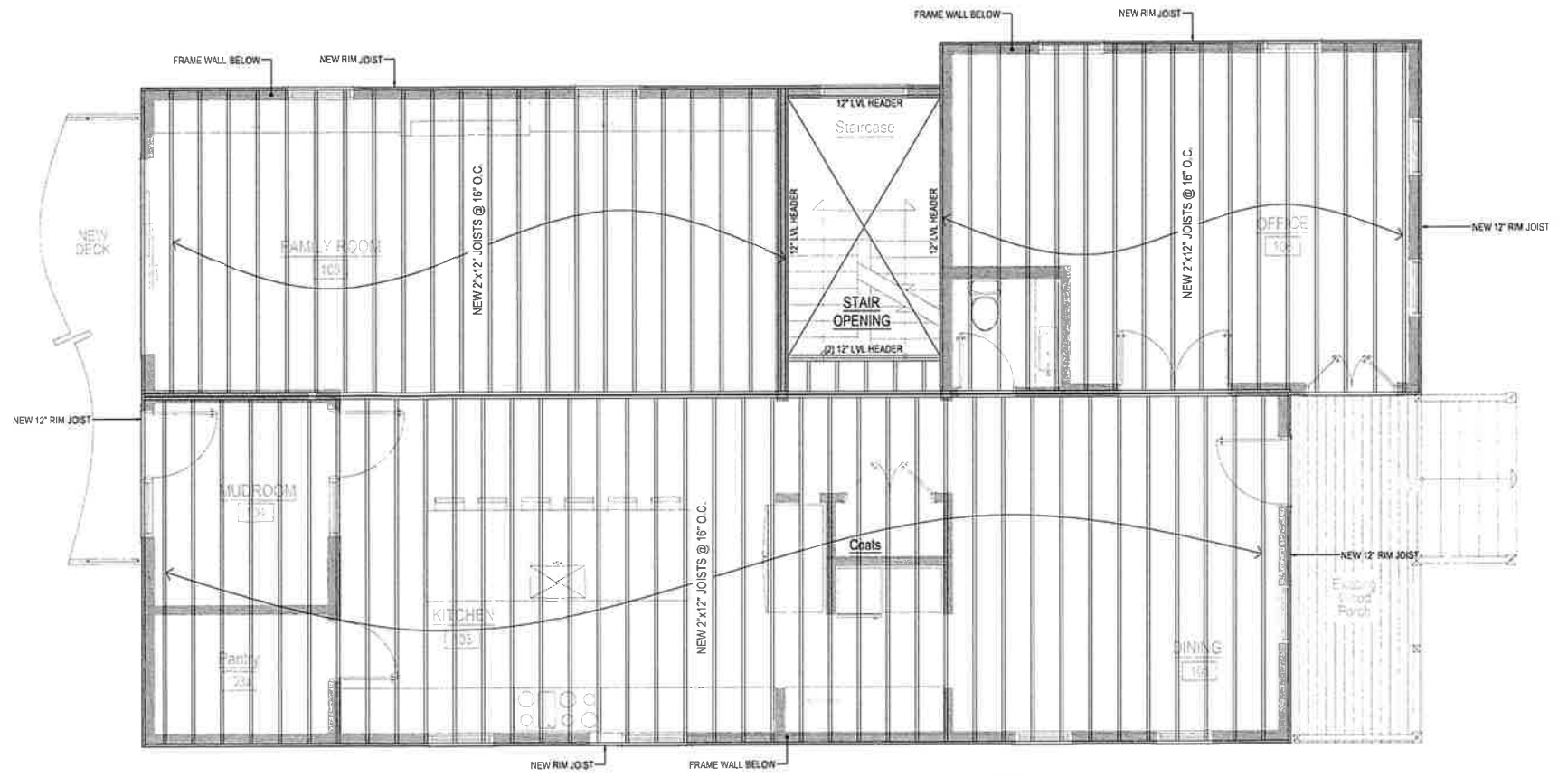


PROJECT ARCHITECT: R.T.
DRAFTPERSON: CS
APPROVED: RT
PREPARED BY: OWNER
LOCATION: 223 Center St, Naperville, IL, C
JOB NUMBER: 223CS-070423

SHEET No.

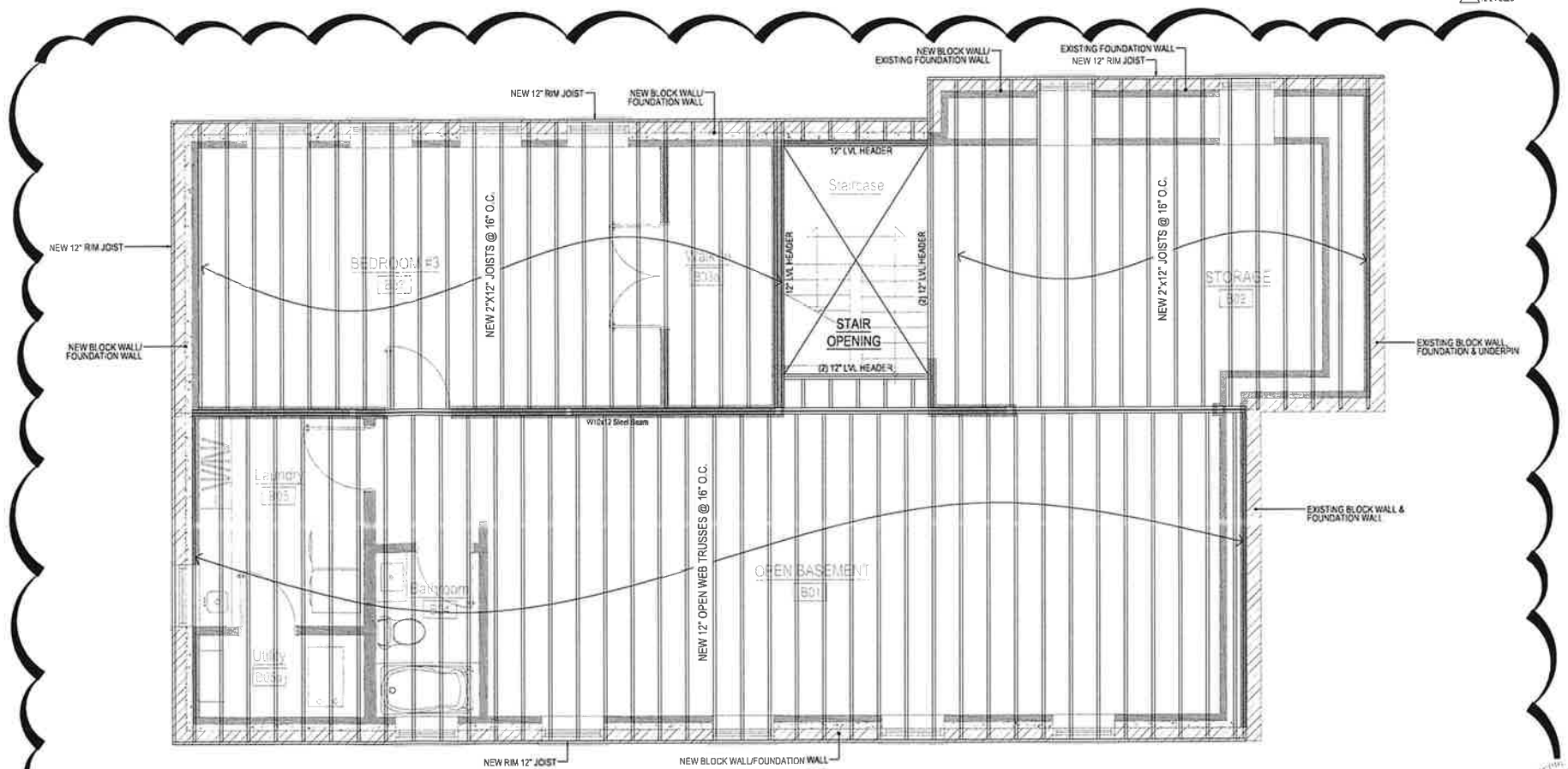
SHEET Name: Addition Founda





**2 PROPOSED FRAMING PLAN
SECOND FLOOR DECK**

SCALE 1/4"=1'-0"



**1 PROPOSED FRAMING PLAN
FIRST FLOOR DECK**

SCALE 1/4"=1'-0"



NO.	BY	DATE	DESCRIPTION
1	RT	07/04/2023	Revised

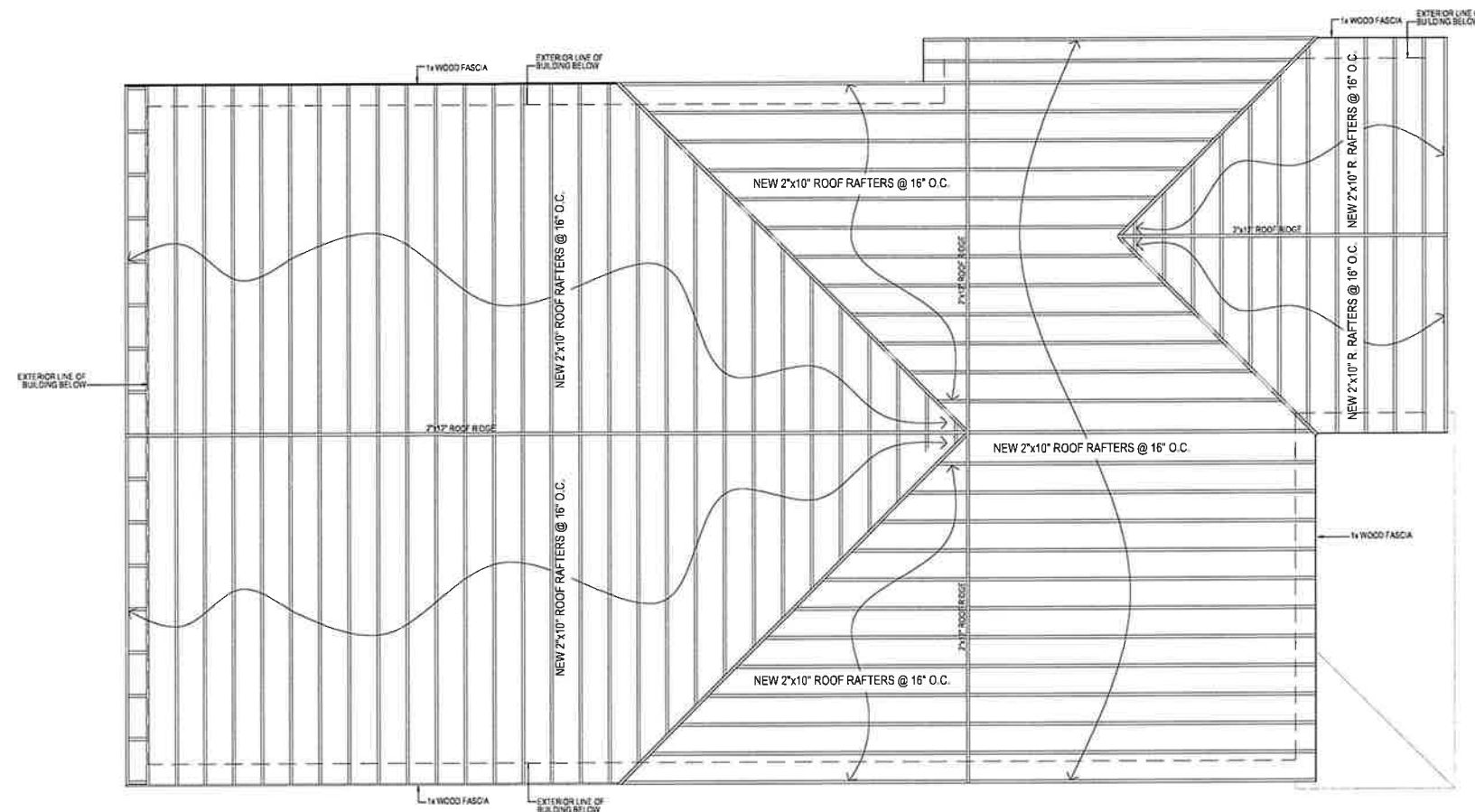
Convert 2-Unit to Single Family Residence. Interior Rehab & New 2-Story Frame Addition including New Partitions,



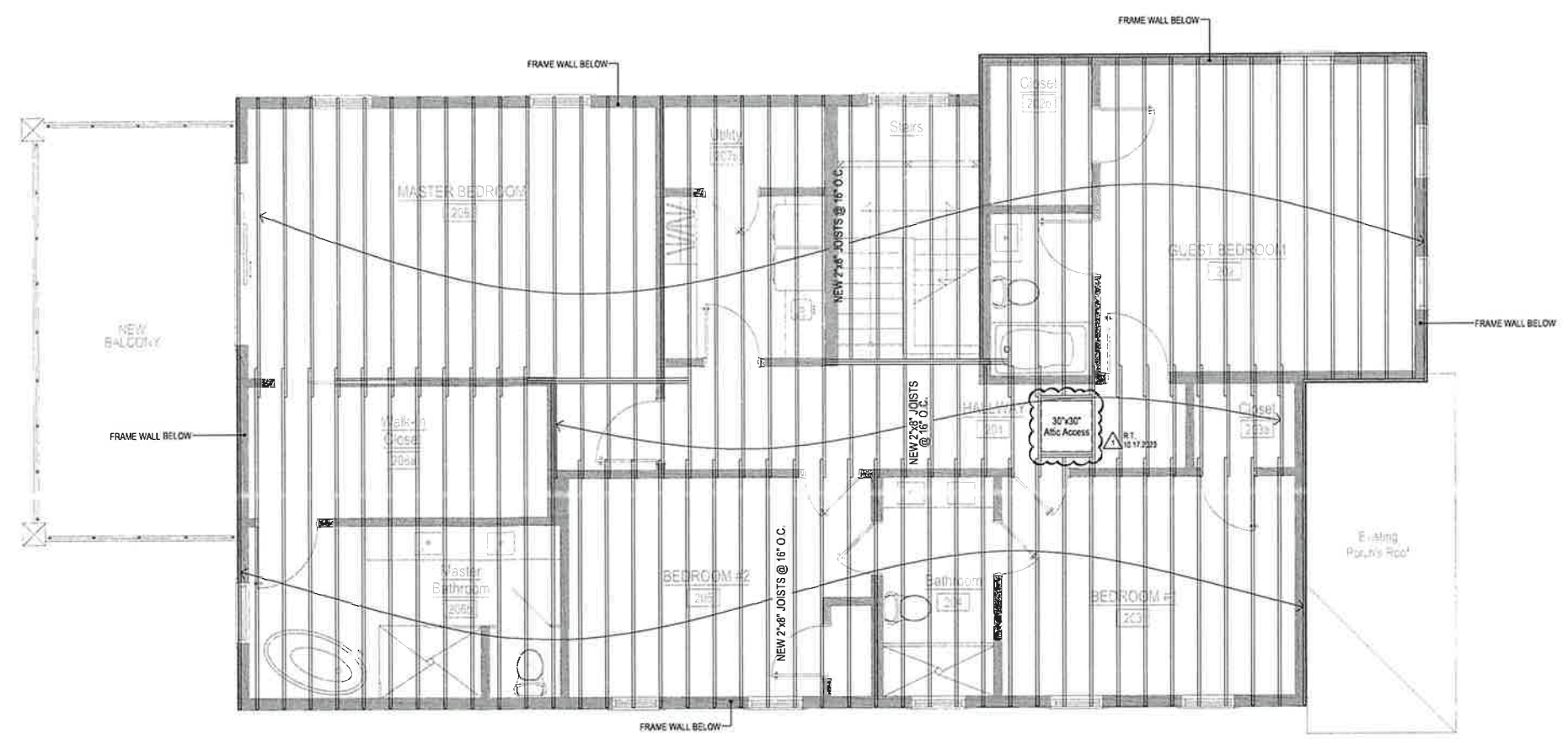
PROJECT ARCHITECT
RT
DRAFTPERSON
CS
APPROVED:
RT
PREPARED FOR
OWNER
LOCATION:
223 Center Street
Nashville, IL 6
JOB NUMBER:
223CS-070420

SHEET No.
SHEET Name:
Proposed Framing





2 PROPOSED ROOF FRAMING PLAN
SCALE 1/4"=1'-0"



**1 PROPOSED FRAMING PLAN
SECOND FLOOR CEILING**
SCALE 1/4"=1'-0"

REV. NO.	DATE	DESCRIPTION
1	07/02/2023	Review

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions,

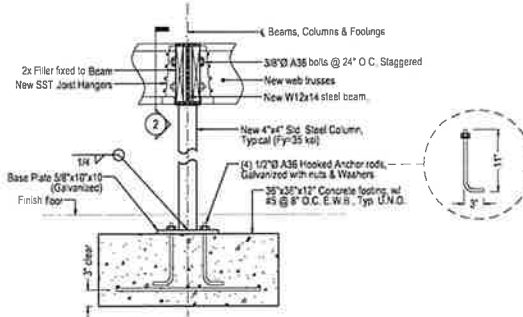
R.T. ARCHITECTS

 RADULI
 7501 BROWN
 FOREST
 TEL: 618-233-1111
 rrepavc@rtarch.com

PROJECT ARCHITECT
 R.T.
 DRAFTER/CS
 CS
 APPROVED BY
 RT
 PREPARED FOR
 OWNER
 LOCATION:
 223 Center St
 Naperville, IL
 JOB NUMBER
 223CS-07042

SHEET No.
 SHEET Name:
 Proposed Framing

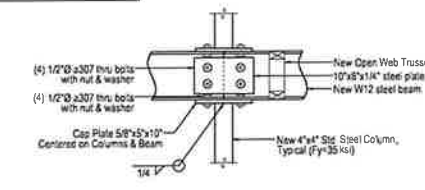




1 COLUMN-FOOTING DETAIL

SCALE 3/4"=1'-0"

NOTES:
 WELDS: ASTM A307 Fy=50 ksi
 4\"/>

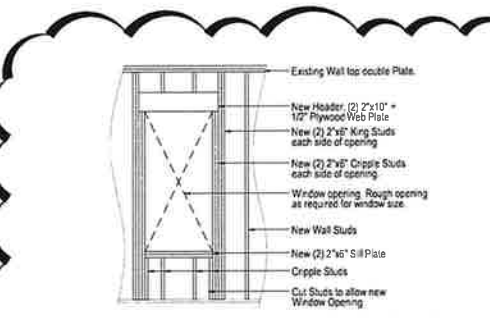


2 W12 BEAM DETAIL

SCALE 3/4"=1'-0"

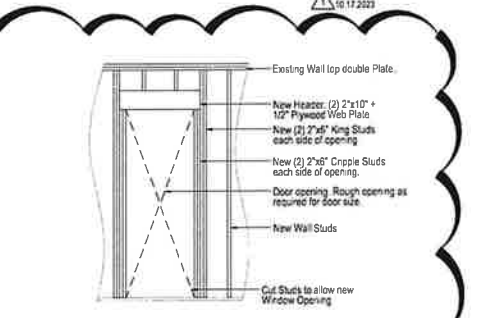
ATTIC VENTILATION CODE REQUIREMENT
 REQUIRED ATTIC VENTILATION:
 According to IRC, Section R806.2
 $V = \text{Ventilating Area} = (1/3000)A$
 $A = \text{Attic Area} = 1,738 \text{ Square Feet}$
 $V = (1/3000)(1,738) = 5.80 \text{ Square Feet (635.2 Square Inches)}$
 PROVIDED VENTILATION:
 Using Veri Soffit LSV8 Series by "GAF", which comes in 6' long sections with a net free area of 66 square inches each and Roof Vents Model RT-65 by "GAF" with a net free area of 80 square inches.
 Soffit Vents = (8)(66) = 528 square inches, and
 Roof Vents = (12)(66) = 792 square inches
 Total vent area = 1,264 square inches > 635.2
 NOTES:
 1. A VAPOR BARRIER HAVING A TRANSMISSION RATE NOT EXCEEDING 1 PERM SHALL BE INSTALLED ON THE WARM-IN WINTER SIDE OF THE CEILING (6-mil polyethylene plastic sheathing used).
 2. VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE MESH, WITH 1/8" MINIMUM TO 1/4" MAXIMUM OPENINGS.
 3. WHERE EAVE OR CORNICE VENTS ARE INSTALLED, INSULATION SHALL NOT BLOCK THE FREE FLOW OF AIR, A MINIMUM OF 1" SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AND AT THE LOCATION OF THE VENT.

GENERAL FRAMING NOTES
 1. PROVIDE DIAGONAL METAL BRACING @ BOTH ENDS OF EXTERIOR FRAME WALLS. USE SIMPSON STRONG TIE TWB-22 GA. WALL BRACING OR EQUAL APPROVED.
 2. ALL DIMENSIONS ON DRAWINGS TO BE CHECKED AGAINST ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS BY THE GENERAL CONTRACTOR. ANY DISCREPANCIES MUST BE REPORTED TO THE ARCHITECT/ENGINEER OF RECORD IMMEDIATELY.
 3. GENERAL CONTRACTOR SHALL INSPECT ALL EXISTING (TO REMAIN) STRUCTURAL MEMBERS PRIOR TO COMMENCEMENT OF ANY NEW WORK. GENERAL CONTRACTOR SHALL INFORM THE ARCHITECT/ENGINEER (A/E) OF RECORD OF ANY DAMAGED AND/OR MISSING PARTS OF STRUCTURAL SUPPORT MEMBERS IMMEDIATELY. NO WORK SHALL BE DONE UNLESS ARCHITECT/ENGINEER HAS GIVEN THE WRITTEN AUTHORIZATION TO CONTINUE AND THE CONSIDERATIONS TO BE DONE ACCORDING TO EXISTING CONDITIONS.



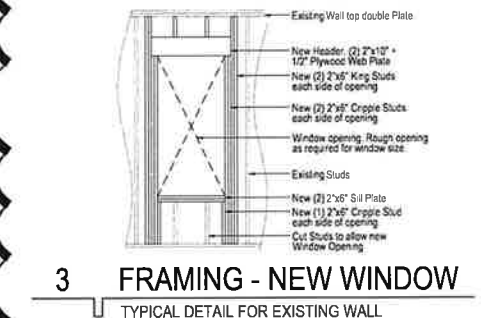
5 FRAMING - NEW WINDOW

TYPICAL DETAIL FOR NEW WALL



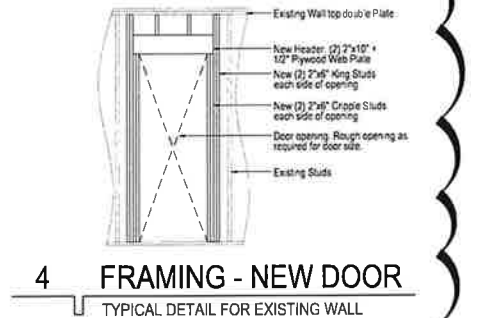
6 FRAMING - NEW DOOR

TYPICAL DETAIL FOR NEW WALL



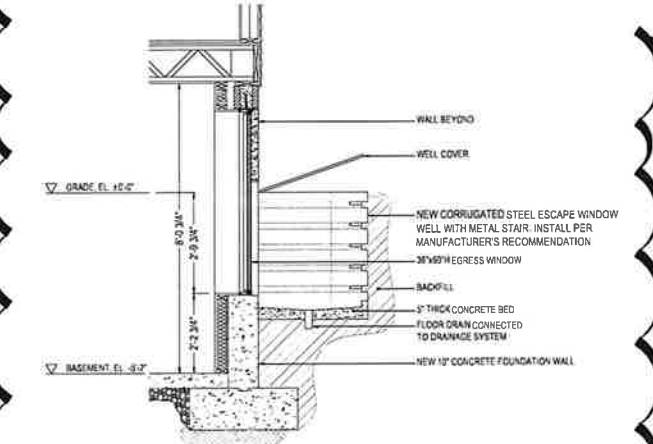
3 FRAMING - NEW WINDOW

TYPICAL DETAIL FOR EXISTING WALL



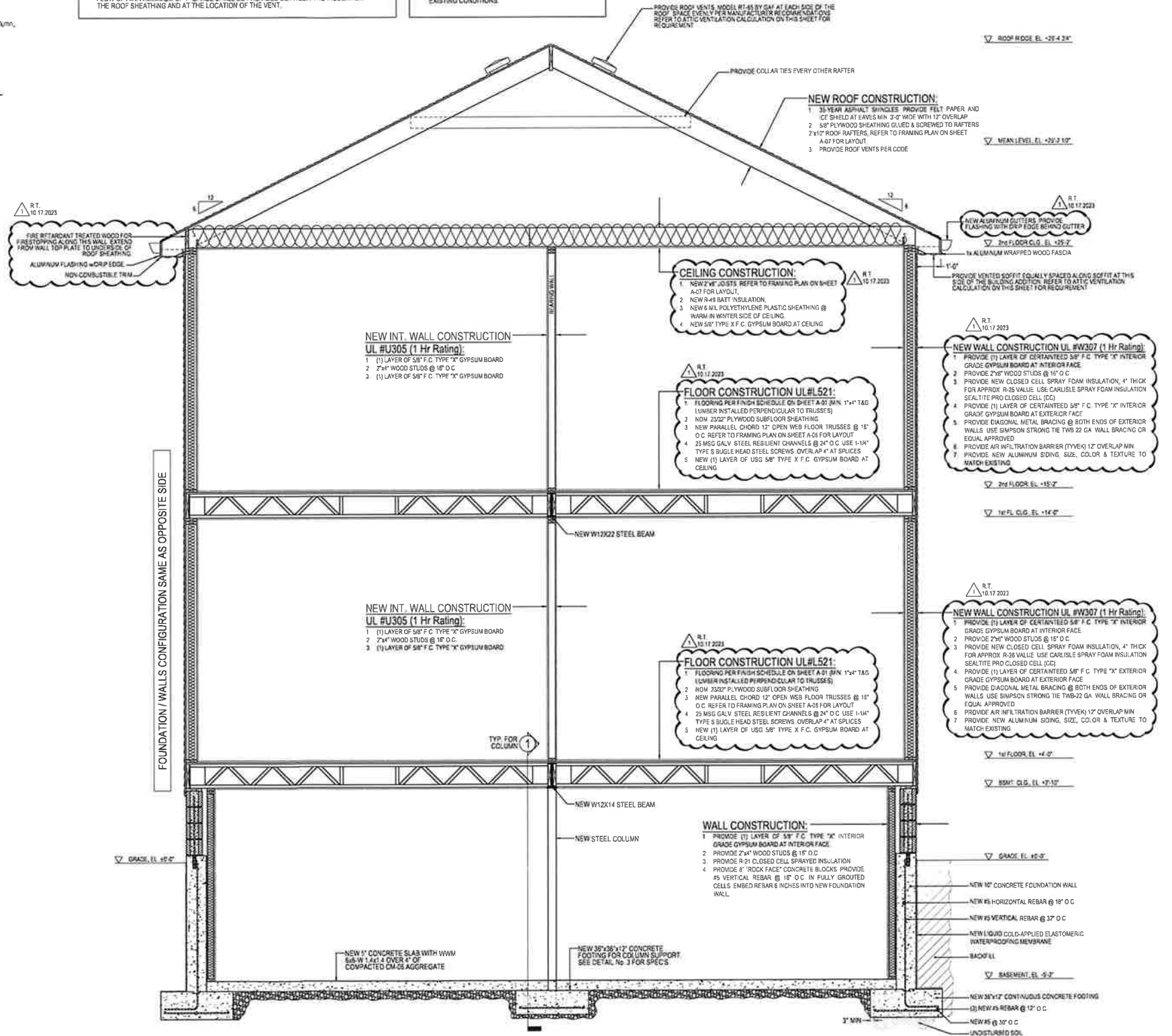
4 FRAMING - NEW DOOR

TYPICAL DETAIL FOR EXISTING WALL



5 EGRESS WINDOW

SECTION DETAIL



A-A BUILDING OVERALL SECTION

SCALE 3/8"=1'-0"

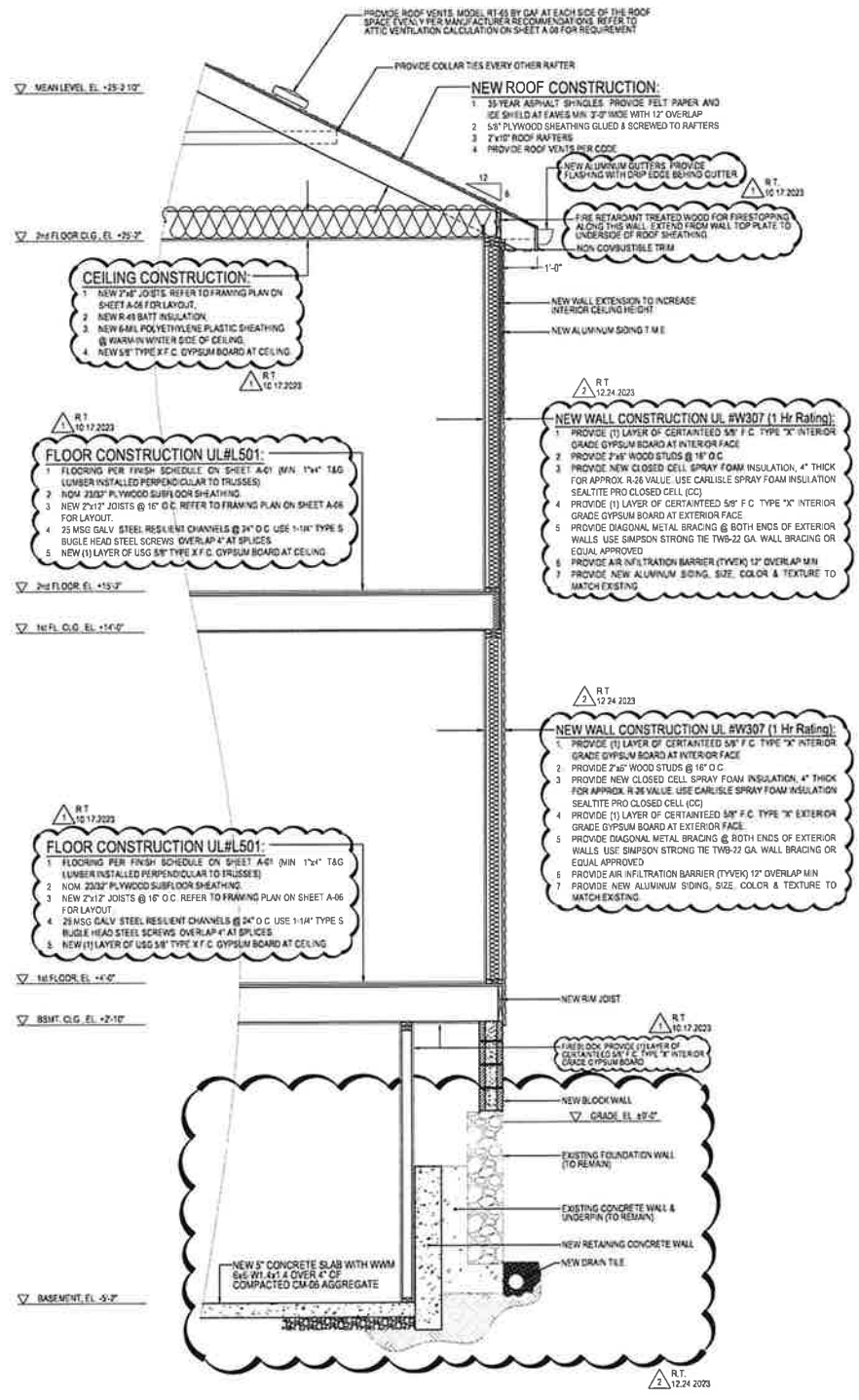
REVISIONS	NO.	BY	DATE	DESCRIPTION
	1	RT	07/24/2023	Revise

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions.

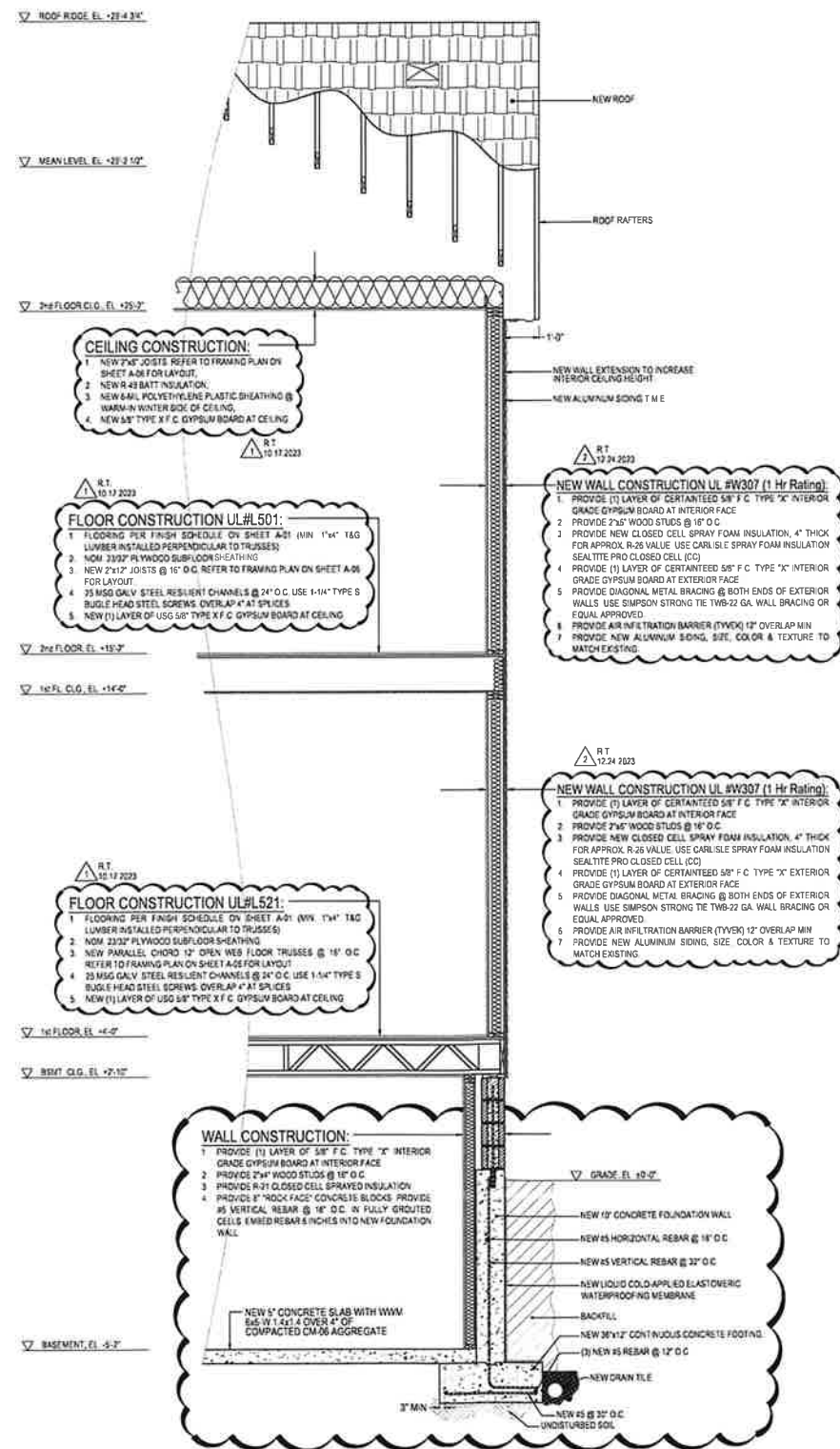
R.T. ARCHITECTS

PROJECT ARCHITECT: R.T. ARCHITECTS
 DRAFTPERSON: CS
 APPROVED: RT
 PREPARED FOR: OWNER
 LOCATION: 223 Center St, Naperville, IL
 JOB NUMBER: 223CS-070420
 SHEET No. Building

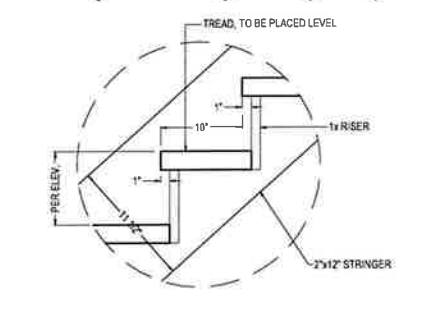




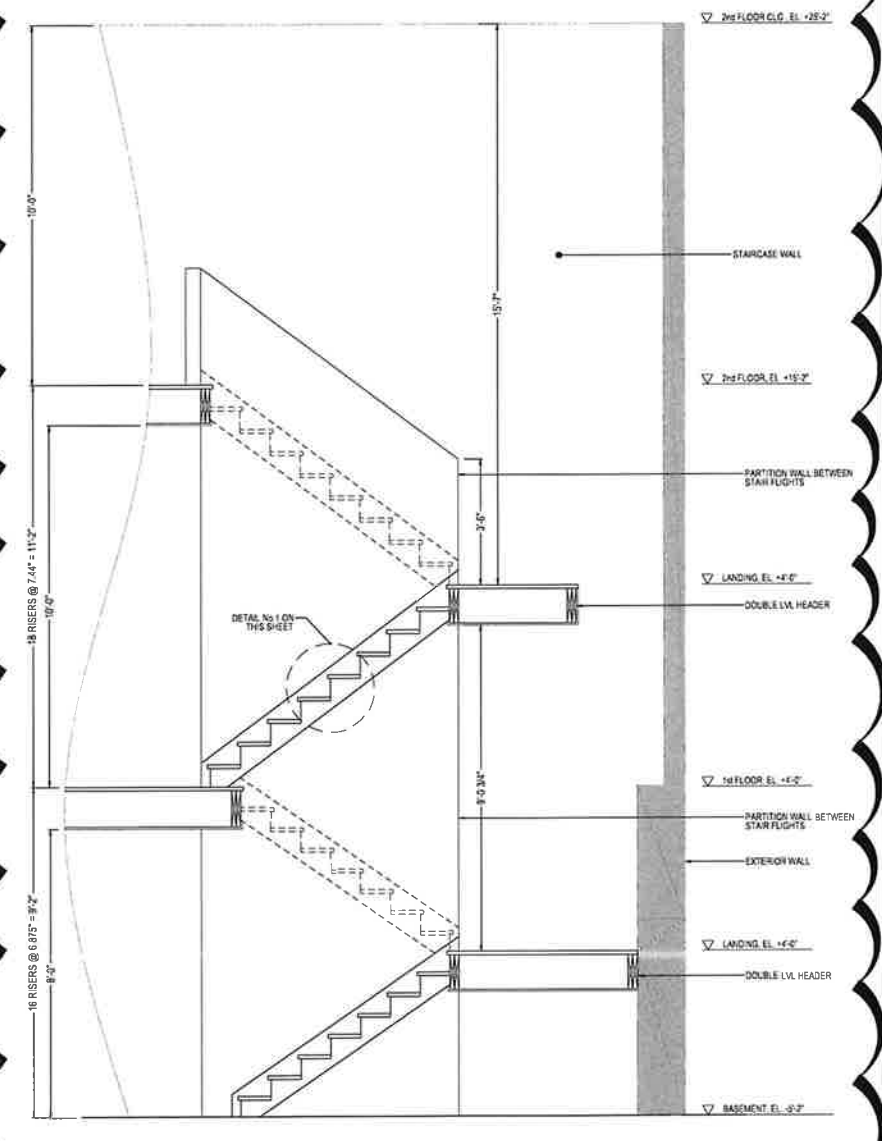
B BUILDING PARTIAL SECTION
SCALE 3/8"=1'-0"



C BUILDING PARTIAL SECTION
SCALE 3/8"=1'-0"



1 TREAD & RISER DETAIL
NOT TO SCALE



D STAIR SECTION
SCALE 3/8"=1'-0"

NO.	BY:	DATE:	DESCRIPTION:
1	RT	07/01/2023	Review

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions.



PROJECT ARCHITECT: RT
DRAFTER: CS
APPROVED: RT
PREPARED FOR: OWNER
LOCATION: 223 Center St, Naperville, IL
JOB NUMBER: 223CS-07042

SHEET No. Building



NEW SPREAD FOOTING SCHEDULE										f _c = 3,500 psi	
MARK	FOOTING			PEDESTAL						NOTES	
	LONG WAY "B"	SHORT WAY "D"	MINIMUM "t"	REINFORCEMENT		DIAMETER "Ø"	LENGTH "L"	REINFORCEMENT			
				LONG WAY	SHORT WAY			HORIZ	VERTICAL		
F-1	1'-6"	1'-6"	1'-0"	(3)#5	(3)#5	10"	36"	#3 @ 18" O.C.	(4)#5	1, 2	
F-2	2'-0"	2'-0"	1'-0"	(3)#5	(3)#5	14"	36"	#3 @ 18" O.C.	(4)#5	1, 2	
F-3	3'-0"	3'-0"	1'-0"	(3)#5	(3)#5	14"	36"	#3 @ 18" O.C.	(4)#5	1, 2	

NOTES:
 1. FOOTING REINFORCEMENT TO BE SPACED EVENLY ON EACH DIRECTION NUMBER OF BARS AS SPECIFIED
 2. REFER TO "MATERIAL NOTES" ON SHEET A-11 FOR MATERIALS SPECIFICATIONS

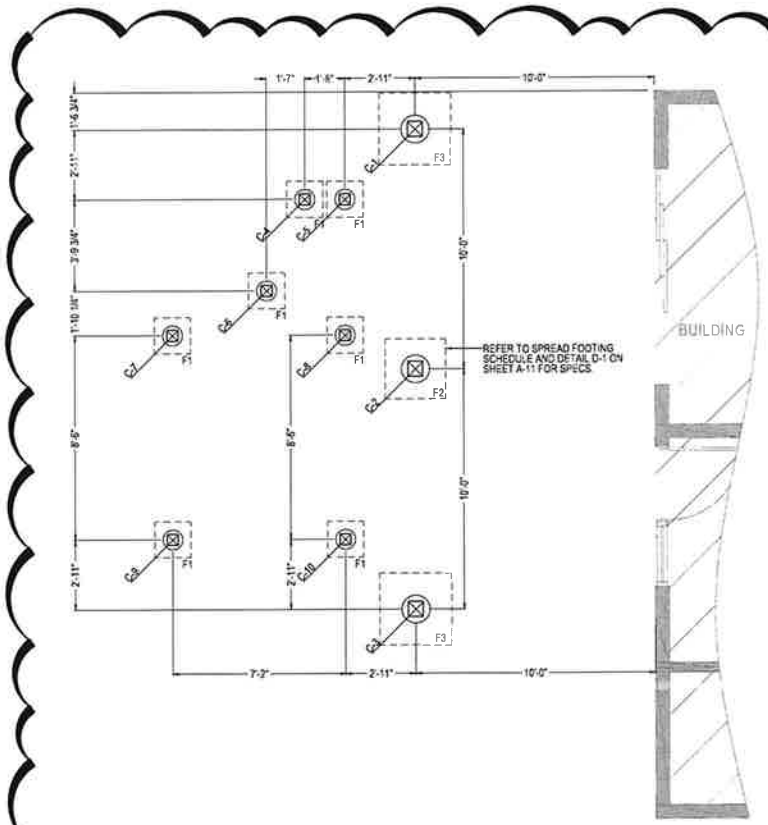
COLUMN SCHEDULE					
MARK	TYPE	SIZE	MATERIAL	BASE CONNECTOR	NOTES
C-1 to C-3	NEW	6"x6"	P.T. WOOD	CBS088-SDS2	1, 2
C-4 to C-10	NEW	6"x6"	P.T. WOOD	CBS088-SDS2	1, 2

NOTES:
 1. SEE TABLE A ON SHEET C-01 FOR CONNECTOR DESCRIPTION
 2. REFER TO "MATERIAL NOTES" ON SHEET C-01 FOR MATERIALS SPECIFICATIONS

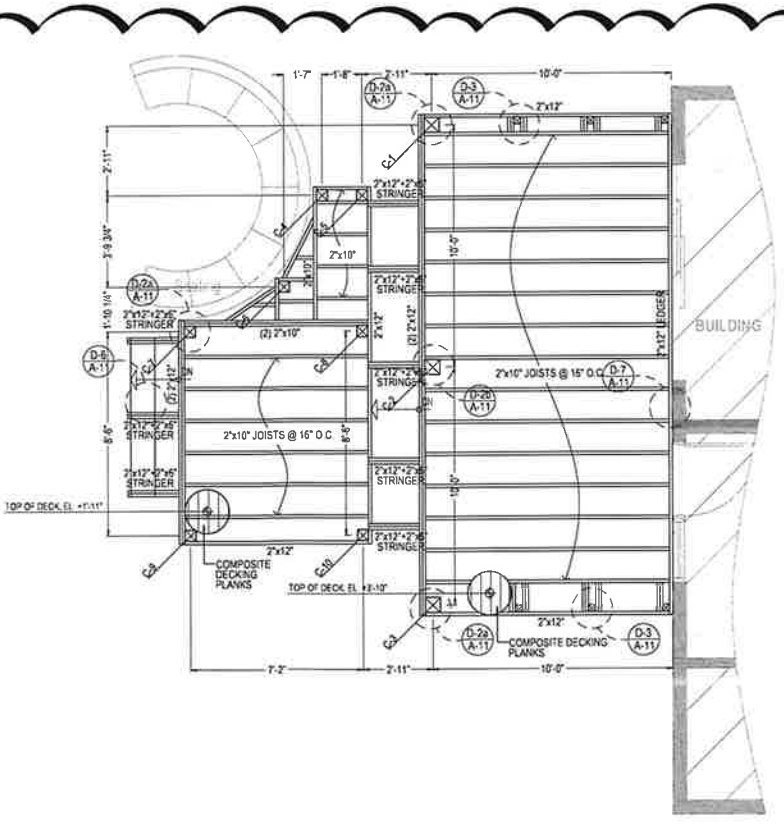
ARCHITECTURAL NOTES

- THE ABOVE PLANS SHOW ONLY A PARTIAL PORTION OF THE FRAME BUILDING. REFER TO PROPOSED PLAN ON SHEETS A-01 & A-02 FOR LOCATION OF DECK & BALCONY IN GENERAL VIEW.
- THRUSTS ON HANDRAILS. HANDRAILS SHALL BE DESIGNED TO RESIST A SIMULTANEOUS VERTICAL & HORIZONTAL THRUST OF 50 Lb/ft. APPLIED AT THE TOP OF THE RAILING OR A CONCENTRATED LOAD OF 200 Lb/ft. IN ANY DIRECTION.

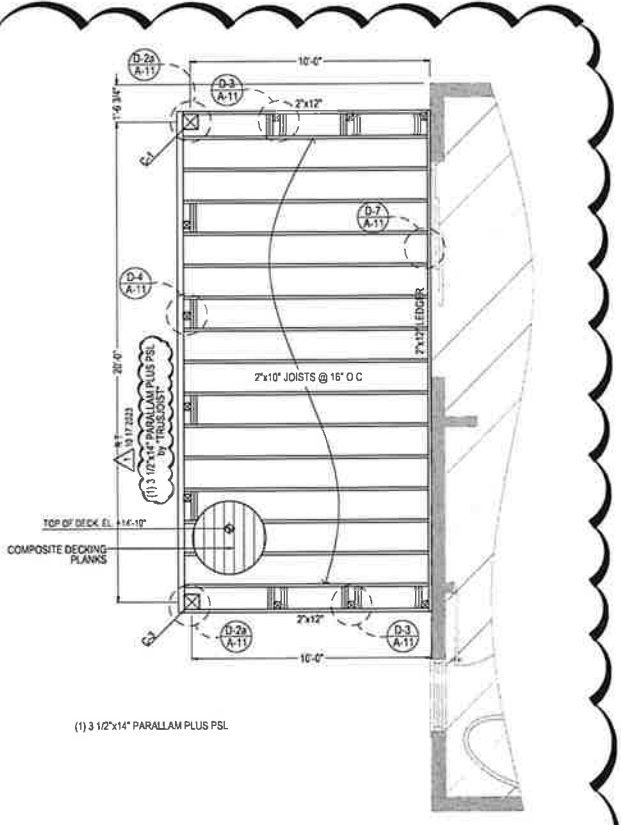
CALCULATED DESIGN LOAD ON DECK FOOTING (ABOVE BEARING)										
COLUMN MARK	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10
LOAD (Lbs.)	9,134	6,652	9,134	1,432	1,203	922	2,582	2,922	2,454	2,490



1 PROPOSED FOUNDATION PLAN
 REAR DECK SCALE 1/4"=1'-0"



2 PROPOSED FRAMING PLAN
 REAR DECK - FIRST FLOOR SCALE 1/4"=1'-0"

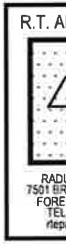


3 PROPOSED FRAMING PLAN
 REAR BALCONY - SECOND FLOOR SCALE 1/4"=1'-0"



NO.	BY:	DATE:	DESCRIPTION:
1	RT	07/04/2023	Review
2	RT	07/04/2023	Permit

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions,

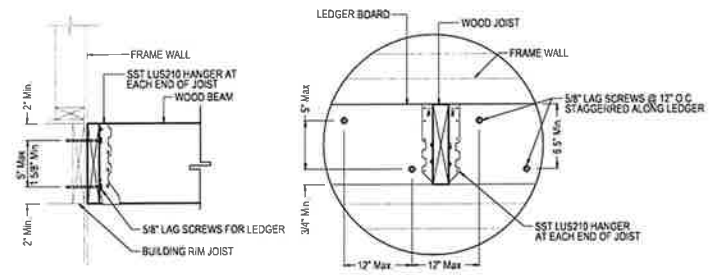


PROJECT ARCHITECT: R.T. ARCHITECTS
 DRAFTPERSON: CS
 APPROVED: RT
 PREPARED FOR: OWNER
 LOCATION: 223 Center St, Naperville, IL
 JOB NUMBER: 223CS-070420

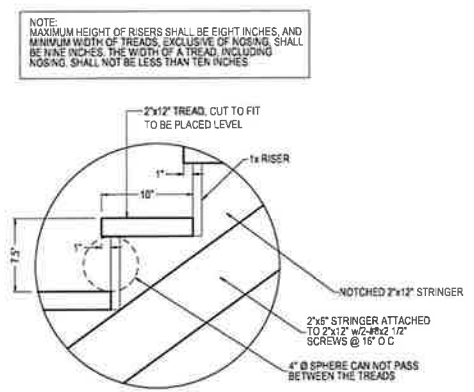
SHEET No.:
 SHEET Name: Porch & Balcony

PLACEMENT OF LAG SCREWS AND BOLTS IN DECK LEDGERS AND BAND JOISTS
MINIMUM END AND EDGE DISTANCES AND SPACING BETWEEN ROWS

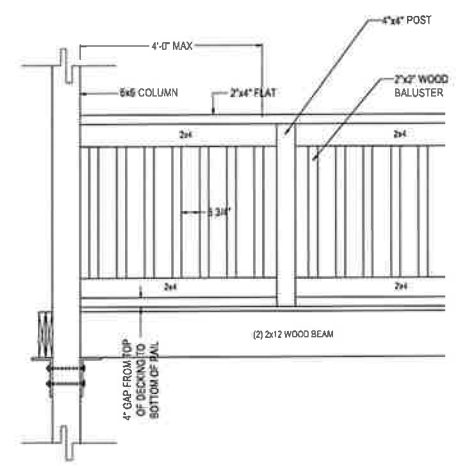
	TOP EDGE	BOTTOM EDGE	ENDS	ROW SPACING
LEDGER	2 INCHES	3/4 INCH	2 INCHES	1-5/8 INCHES
BAND JOIST	3/4 INCH	2 INCHES	2 INCHES	1-5/8 INCHES



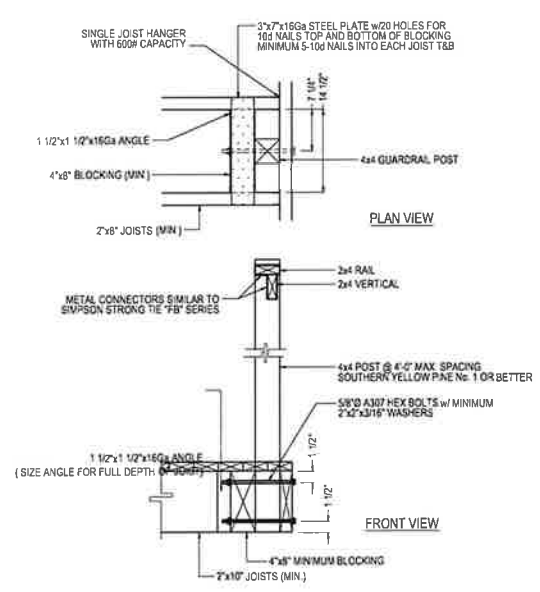
D-7 LEDGER CONNECTION DETAIL
TO FRAME WALL NOT TO SCALE



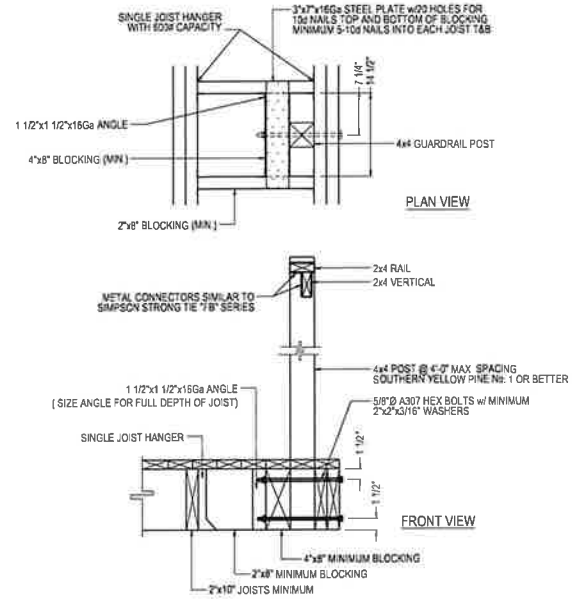
D-6 TREAD & RISER DETAIL
NOT TO SCALE



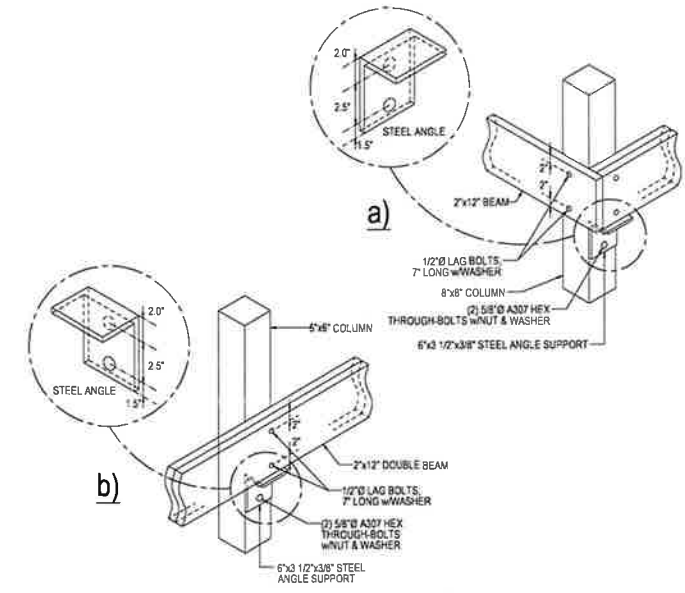
D-5 GUARDRAIL ELEVATION
PARTIAL DETAIL NOT TO SCALE



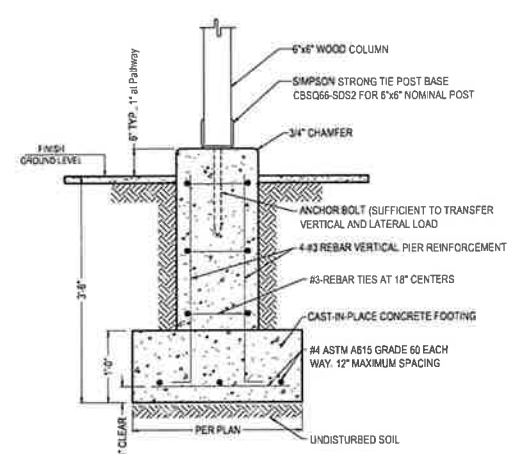
D-4 GUARDRAIL POST DETAIL
w/JOISTS NORMAL TO EDGE NOT TO SCALE



D-3 GUARDRAIL POST DETAIL
w/JOISTS PARALLEL TO EDGE NOT TO SCALE



D-2 COLUMN DETAILS
NOT TO SCALE



D-1 POST SPREAD FOOTING
FOR 6"x6" COLUMNS NOT TO SCALE

NOTE: ALL STRUCTURAL STEEL TO BE COATED WITH A RUST PROHIBITED PRIMER (3 MIL DRY THICKNESS MIN.)

NO.	BY	DATE	DESCRIPTION
1	RT	07/04/2023	Review

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions,

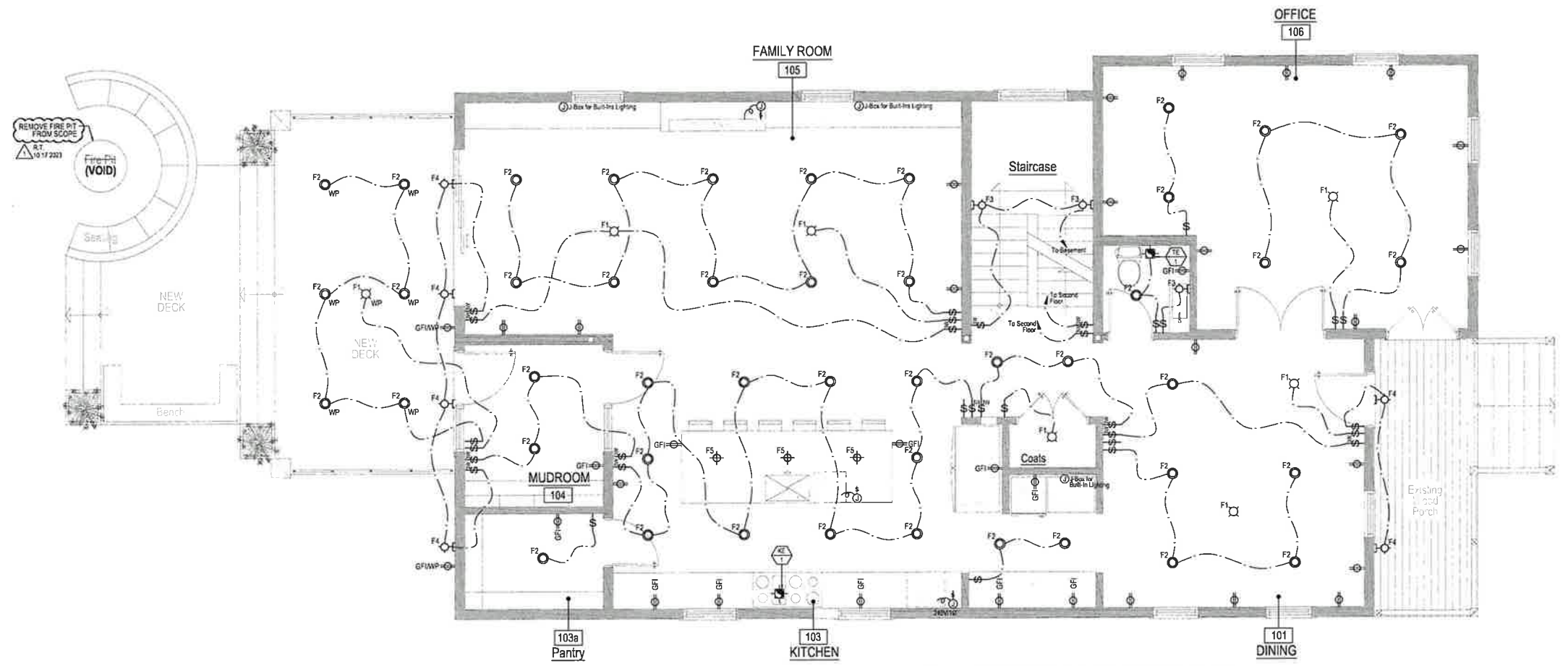
R.T. ARCHITECTS

 RADULE TEPAVCEVIC
 FOREST TELLER
 rtepavcevic.com

PROJECT ARCHITECT
 DRAFTPERSON
 APPROVED BY
 PREPARED BY
 OWNER
 LOCATION:
 223 Center Street
 Naperville, IL
 JOB NUMBER:
 223CS-070423

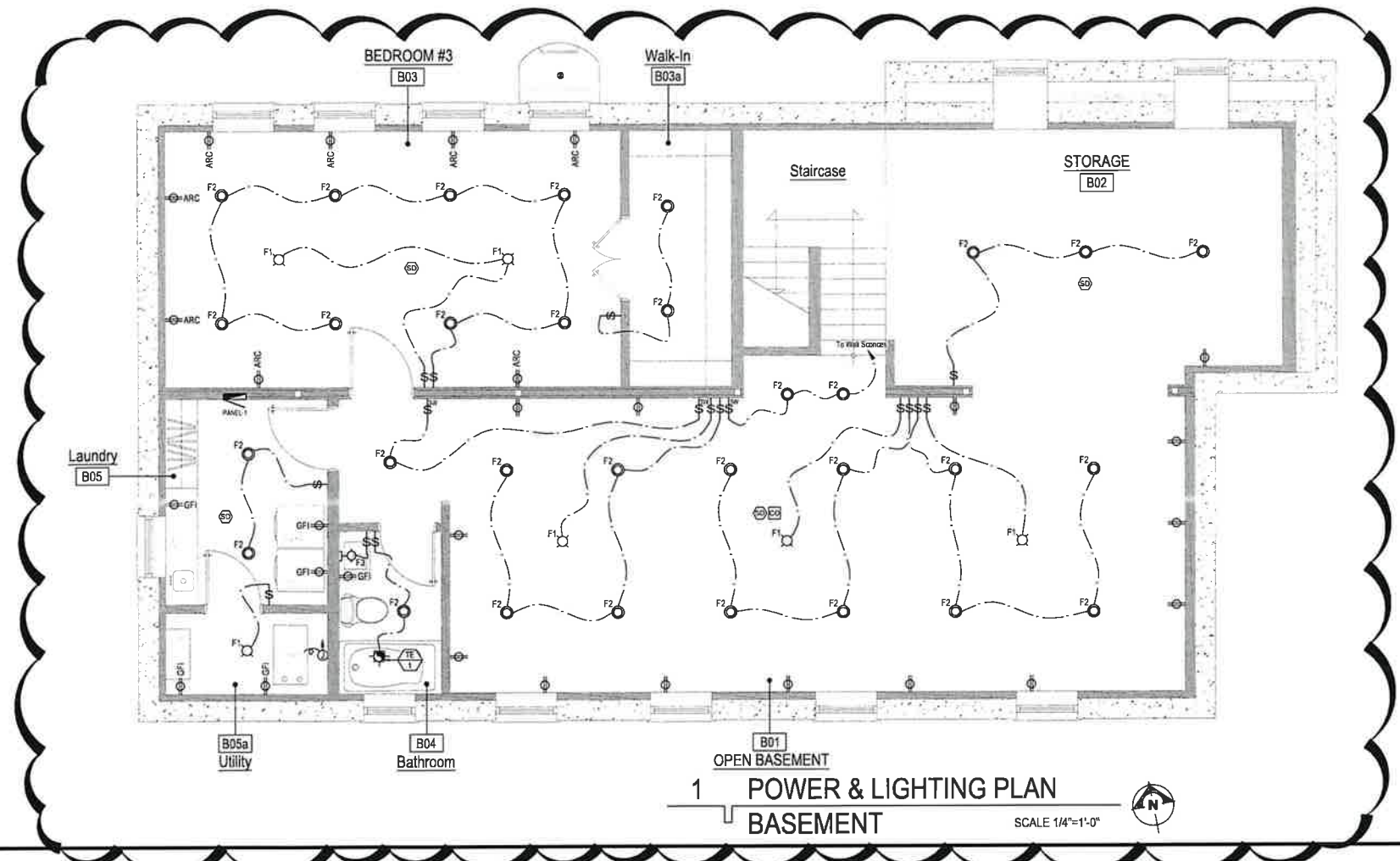
SHEET No:
 SHEET Name:
 Porch Connection





2 POWER & LIGHTING PLAN
FIRST FLOOR

SCALE 1/4"=1'-0"



1 POWER & LIGHTING PLAN
BASEMENT

SCALE 1/4"=1'-0"



REVISIONS	DATE	DESCRIPTION
NO. BY: RT	07/04/2023	Review
RT		

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions,

R.T. ARCHITECT



RADULE
7501 BROW
FOREST
TEL: (630)
rtepa@rta.com

PROJECT ARCHITECT
R.T.
DRAFTPERSON
CS
APPROVED
RT
PREPARED FOR
OWNER

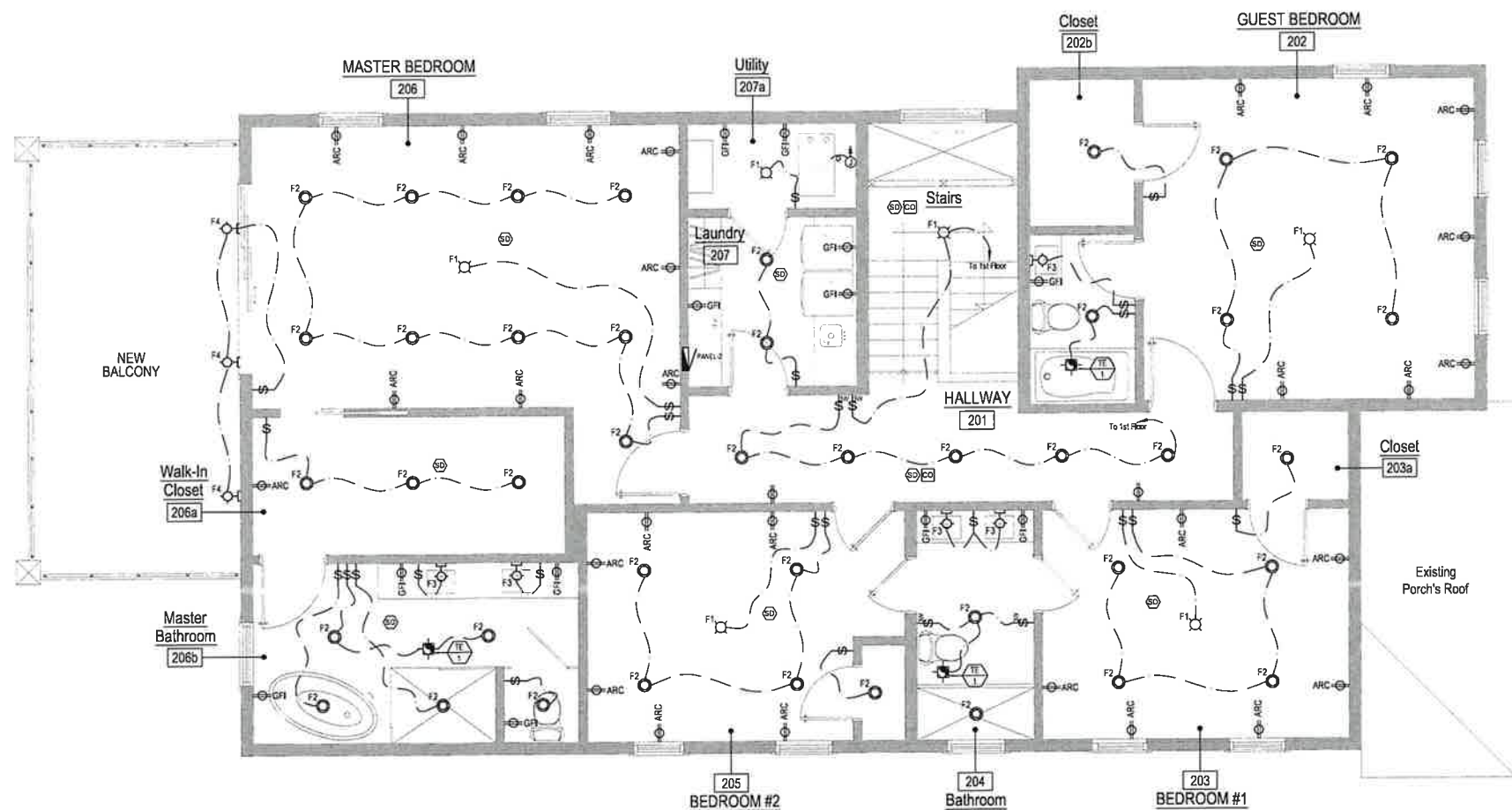
LOCATION:
223 Center St
Naperville, IL 60563

JOB NUMBER
223CS-070426

SHEET No.

SHEET Name:
Power & Lighting





1 POWER & LIGHTING PLAN
SECOND FLOOR

SCALE 1/4"=1'-0"



REVISES:	DATE:	DESCRIPTION:
NO.	BY:	RT
		07/04/2023
		Review
		Drawn

Convert 2-Unit to Single Family Residence. Interior Rehab & New 2-Story Frame Addition including New Partitions,

R.T. ARCHITECT

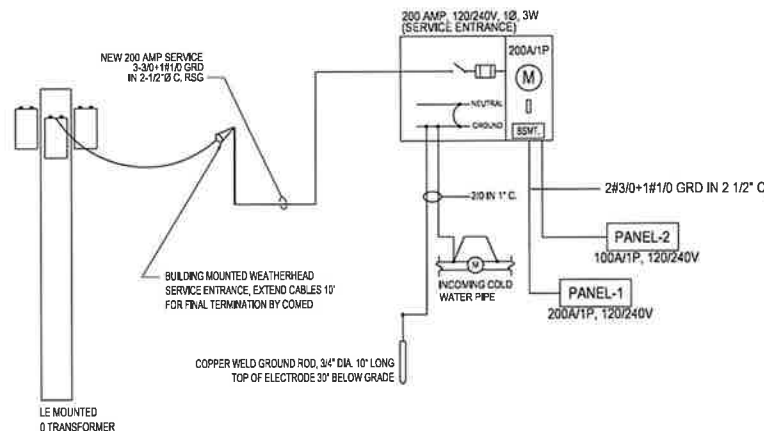
 RADULE
 7501 BROWN
 FOREST
 TEL: 630-399-1100
 rtepavc@rtarchitect.com

PROJECT ARCHITECT
 RT
 DRAFTPERSON
 CS
 APPROVED:
 RT
 PREPARED FOR
 OWNER
 LOCATION:
 223 Center St
 Naperville, IL
 JOB NUMBER
 223CS-07042

SHEET No:
 SHEET Name:
 Power & Lighting

ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY A LICENSED ELECTRICIAN IN THE CITY OF NAPERVILLE. ALL ELECTRICAL WORK MUST COMPLY WITH THE CITY OF NAPERVILLE ADOPTED ELECTRICAL CODE.
- ALL MATERIALS SHALL BE U.L. LISTED, AND APPROVED FOR THE PURPOSE INTENDED.
- OBTAIN AND PAY ALL FEES, TAXES, AND PERMITS REQUIRED FOR ELECTRICAL WORK. PREPARE AND SUBMIT TO THE CITY OF NAPERVILLE ANY AND ALL DATA, DRAWINGS, AND DETAILS WHICH MAY BE REQUIRED FOR APPROVAL PRIOR TO INSTALLATION OF SAME.
- FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND RELATED APPURTENANCES REQUIRED FOR ALL WORK INCLUDED AS PART OF THE ELECTRICAL INSTALLATION FOR THIS PROJECT.
- COORDINATE ELECTRICAL WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS AND DELAYS.
- FURNISH AND INSTALL ALL AUXILIARY SUPPORTS AND MATERIAL NECESSARY TO INSTALL EQUIPMENT, MATERIAL, LIGHTING FIXTURES, DEVICES, CONDUIT AND WIRING.
- ALL SYSTEMS WHICH ARE INCLUDED AS PART OF THE ELECTRICAL INSTALLATION FOR THIS PROJECT SHALL BE COMPLETE IN ALL DETAILS, INCLUDING ALL COMPONENTS REQUIRED FOR PROPER AND SATISFACTORY OPERATION.
- ALL WIRE SHALL BE INSTALLED IN CONDUIT. MINIMUM SIZE OF CONDUIT SHALL BE 1/2" I.D. LARGER SIZES SHALL BE USED WHERE REQUIRED BY ADOPTED ELECTRICAL CODE.
- ELECTRICAL METALLIC TUBING (EMT) MAY BE USED WITHIN CODE LIMITATIONS ON INTERIORS ONLY.
- CONDUITS SHALL BE CONCEALED IN ALL "FINISHED" AREAS. IN "UNFINISHED" AREAS CONDUITS MAY BE RUN EXPOSED, PARALLEL WITH OR PERPENDICULAR TO BUILDING LINES.
- FURNISH AND INSTALL ALL OUTLET BOXES RAISED COVERS, COVER PLATES, AND SUPPORTS AS REQUIRED.
- FURNISH AND INSTALL BREAKERS FOR ALL EQUIPMENT, INCLUDING EQUIPMENT FURNISHED BY OWNER AND OTHERS.
- ALL ELECTRICAL OUTLETS NEAR WATER MUST BE GFCI.
- ALL CLOSETS SHALL BE:
 - RECESSED LIGHTS WITH 6" CLEARANCE BETWEEN FIXTURE AND NEAREST POINT OF STORAGE SPACE.
 - FLUORESCENT LIGHTS WITH 6" CLEARANCE BETWEEN FIXTURE AND NEAREST POINT OF STORAGE SPACE.
 - INCANDESCENT LIGHTS WITH 12" CLEARANCE BETWEEN FIXTURE AND NEAREST POINT OF STORAGE SPACE.



1 ELECTRICAL SINGLE LINE DIAGRAM

CALCULATION FOR ELECTRICAL SERVICE

LIGHTING*	
Basement 1,272 Sq.Ft. x 3 (W per Sq.Ft.) =	3,816 W
1st Floor 1,543 Sq.Ft. x 3 (W per Sq.Ft.) =	4,629 W
2nd Floor 1,510 Sq.Ft. x 3 (W per Sq.Ft.) =	4,530 W
POWER*	
Basement 1,272 Sq.Ft. x 4 (W per Sq.Ft.) =	5,088 W
1st Floor 1,543 Sq.Ft. x 4 (W per Sq.Ft.) =	6,172 W
2nd Floor 1,510 Sq.Ft. x 4 (W per Sq.Ft.) =	6,040 W
MOTOR LOAD @ 100% =	18,000 W
25% MOTOR LOAD =	4,500 W
TOTAL LOAD	52,775 W
$(52,775 \text{ W} / 240 \text{ V}) * 0.80 =$	176 AMPS
SELECTED	200 AMPS

*FROM MECHANICAL AND ELECTRICAL SYSTEMS IN BUILDINGS BY RICHARD R. LEWIS AND A.L.D. TABLE 13-3 PG. 419

ELECTRICAL SYMBOL LIST

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⚡	NEW SINGLE POLE LIGHT SWITCH 4'-0" ABOVE FINISH FLOOR (TYP.)	F2 ○	NEW RECESSED CAN LIGHT
SD	NEW CEILING MOUNTED HARDWIRED SMOKE DETECTOR W/BATTERY BACK UP	F3 ⬠	NEW WALL MOUNTED LIGHT FIXTURE
CO	NEW CEILING-MTD HARDWIRED CARBON MONOXIDE DETECTOR W/BATTERY BACK UP	F4 ⬠	NEW WALL MOUNTED WEATHERPROOF LIGHT FIXTURE "MS" TAG FOR MOTION SENSOR ACTIVATED FIXTURES.
⚡	NEW EXHAUST FAN - SINGLE PHASE	F5 ⬠	NEW CEILING MOUNTED PENDANT LIGHT FIXTURE
⚡	NEW 120V, 1Ø WALL-MOUNTED DUPLEX GROUND OUTLET 15" ABOVE FLOOR (TYP.)	⚡	NEW ELECTRICAL PANEL
⚡	NEW 120V, 1Ø WALL-MOUNTED DUPLEX GROUND FAULTED INTERRUPTOR OUTLET	⚡	NEW ELECTRICAL METER
⚡	NEW 120V, 1Ø WALL-MOUNTED DUPLEX ARC-FAULTED INTERRUPTOR OUTLET	⚡	EMERGENCY LIGHT w/ BATTERY BACK-UP
F1 ⬠	NEW CEILING MOUNTED LIGHT FIXTURE. *PC* TAG FOR PHOTOVOLTAIC SENSOR ACTIVATED FIXTURES.	⚡	EXIT SIGN w/ BATTERY BACK-UP

PANELBOARD SCHEDULE, PANEL-1

PANEL MTD.	WALL MOUNTED	VOLTAGE	120/240 V	PANEL DIMENSIONS	
MAIN FUSE	200 AMP BREAKER	LOCATION	BASEMENT	HEIGHT AS REQD.	
MARKS	PHASE	1Ø (Ø)	WIDTH		
LUGS	FEEDER SIZE	SEE ONE LINE DIAGRAM	DEPTH		
No. OF CCTS.	SERVED FROM	METER	CONN. LOAD	38.90 KW	
GAL. BAR	YES	DESIGNATED LOAD	48.00 KW		
ISO. GR.	NO				
CCT. No.	CCT. AMP	A WATTS	B WATTS	CCT. AMP No.	
1	15	GEN. LIGHTING (RECF.)	2132	15	2
2	15	GEN. LIGHTING (RECF.)	2110	15	2
3	15	GEN. LIGHTING (RECF.)	2112	15	2
4	15	GEN. LIGHTING (RECF.)	2112	15	2
5	15	GEN. LIGHTING (RECF.)	2112	15	2
6	15	GEN. LIGHTING (RECF.)	2112	15	2
7	15	GEN. LIGHTING (RECF.)	2112	15	2
8	15	GEN. LIGHTING (RECF.)	2112	15	2
9	15	GEN. LIGHTING (RECF.)	2112	15	2
10	15	GEN. LIGHTING (RECF.)	2112	15	2
11	20	RECEPTACLE (RECF.)	2480	20	12
12	20	RECEPTACLE (RECF.)	2480	20	12
13	20	RECEPTACLE (RECF.)	2480	20	12
14	20	RECEPTACLE (RECF.)	2480	20	12
15	20	RECEPTACLE (RECF.)	2480	20	12
16	20	RECEPTACLE (RECF.)	2480	20	12
17	20	RECEPTACLE (RECF.)	2480	20	12
18	20	RECEPTACLE (RECF.)	2480	20	12
19	20	RECEPTACLE (RECF.)	2480	20	12
20	20	RECEPTACLE (RECF.)	2480	20	12
21	20	RECEPTACLE (RECF.)	2480	20	12
22	20	RECEPTACLE (RECF.)	2480	20	12
23	20	RECEPTACLE (RECF.)	2480	20	12
24	20	RECEPTACLE (RECF.)	2480	20	12
25	20	RECEPTACLE (RECF.)	2480	20	12
26	20	RECEPTACLE (RECF.)	2480	20	12
27	20	RECEPTACLE (RECF.)	2480	20	12
28	20	RECEPTACLE (RECF.)	2480	20	12
29	20	RECEPTACLE (RECF.)	2480	20	12
30	20	RECEPTACLE (RECF.)	2480	20	12
TOTAL WATTS / PHASE		20,016	18,934		
TOTAL CONN. LOAD					38.90 KW
DEMAND FACTOR @ 50%					
SPARE LOAD FACTOR @ 25%					
REMARKS:					

PANELBOARD SCHEDULE, PANEL-2

PANEL MTD.	WALL MOUNTED	VOLTAGE	120/240 V	PANEL DIMENSIONS	
MAIN FUSE	100 AMP BREAKER	LOCATION	2ND FLOOR	HEIGHT AS REQD.	
MARKS	PHASE	1Ø (Ø)	WIDTH		
LUGS	FEEDER SIZE	SEE ONE LINE DIAGRAM	DEPTH		
No. OF CCTS.	SERVED FROM	METER	CONN. LOAD	23.43 KW	
GAL. BAR	YES	DESIGNATED LOAD	24.00 KW		
ISO. GR.	NO				
CCT. No.	CCT. AMP	A WATTS	B WATTS	CCT. AMP No.	
1	15	GEN. LIGHTING (RECF.)	1843	15	2
2	15	GEN. LIGHTING (RECF.)	1843	15	2
3	15	GEN. LIGHTING (RECF.)	1843	15	2
4	15	GEN. LIGHTING (RECF.)	1843	15	2
5	15	GEN. LIGHTING (RECF.)	1843	15	2
6	15	GEN. LIGHTING (RECF.)	1843	15	2
7	15	GEN. LIGHTING (RECF.)	1843	15	2
8	15	GEN. LIGHTING (RECF.)	1843	15	2
9	15	GEN. LIGHTING (RECF.)	1843	15	2
10	15	GEN. LIGHTING (RECF.)	1843	15	2
11	20	RECEPTACLE (RECF.)	2480	20	12
12	20	RECEPTACLE (RECF.)	2480	20	12
13	20	RECEPTACLE (RECF.)	2480	20	12
14	20	RECEPTACLE (RECF.)	2480	20	12
15	20	RECEPTACLE (RECF.)	2480	20	12
16	20	RECEPTACLE (RECF.)	2480	20	12
17	20	RECEPTACLE (RECF.)	2480	20	12
18	20	RECEPTACLE (RECF.)	2480	20	12
19	20	RECEPTACLE (RECF.)	2480	20	12
20	20	RECEPTACLE (RECF.)	2480	20	12
TOTAL WATTS / PHASE		11,586	11,843		
TOTAL CONN. LOAD					23.43 KW
DEMAND FACTOR @ 50%					
SPARE LOAD FACTOR @ 25%					
REMARKS:					



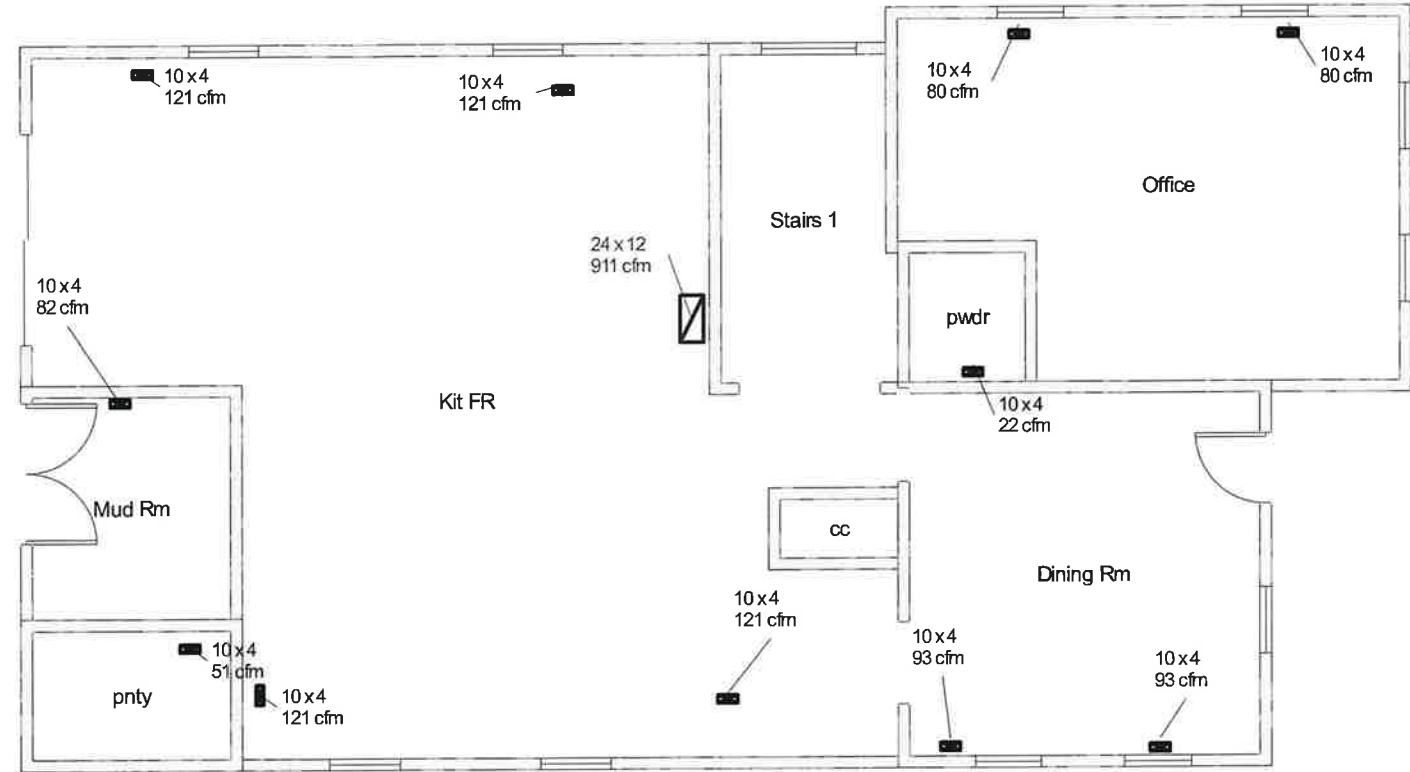
NO.	BY	DATE	DESCRIPTION
	RT	07/04/2023	Revised

Convert 2-Unit to Single Family Residence. Interior Rehab & New 2-Story Frame Addition including New Partitions,

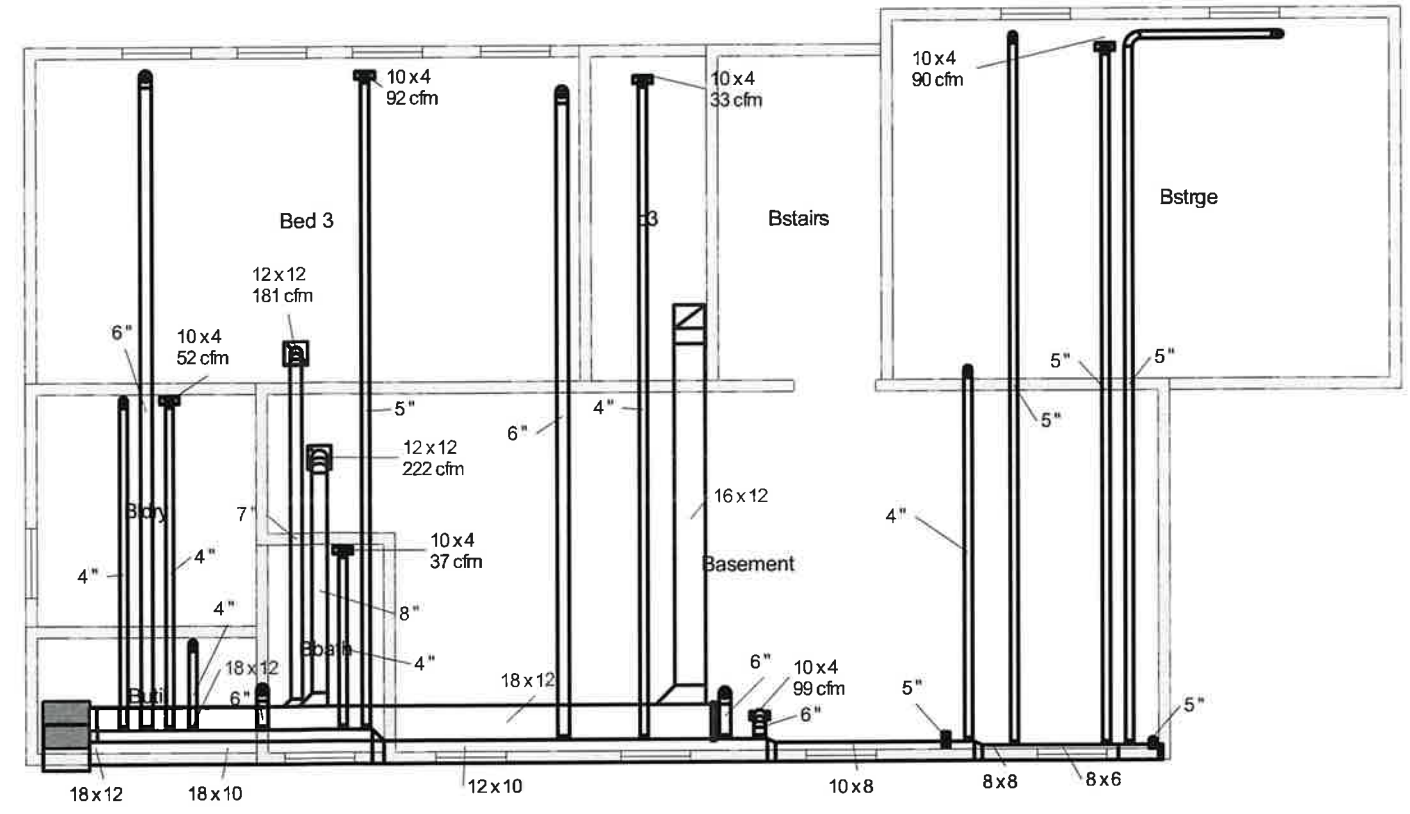
R.T. ARCHITECT
 4
 RADULE
 7501 BROOK
 FOREST
 TEL: 630-208-1111
 rtpavc@rtarchitect.com

PROJECT ARCHITECT
 RT
 DRAFTPERSON
 CS
 APPROVED:
 RT
 PREPARED BY
 OWNER
 LOCATION:
 223 Center St
 Naperville, IL
 JOB NUMBER
 223CS-07042

SHEET No.:
 SHEET Name:
 Riser Dia
 Calc's &
 Panelbo



2 MECHANICAL PLAN
FIRST FLOOR SCALE 1/4"=1'-0"



1 MECHANICAL PLAN
BASEMENT SCALE 1/4"=1'-0"

NO.	BY	DATE	DESCRIPTION
1	RT	07/04/2023	Review
2	RT	07/04/2023	Permit

Convert 2-Unit to Single Family Residence, Interior Rehab
& New 2-Story Frame Addition including New Partitions,

R.T. ARCH



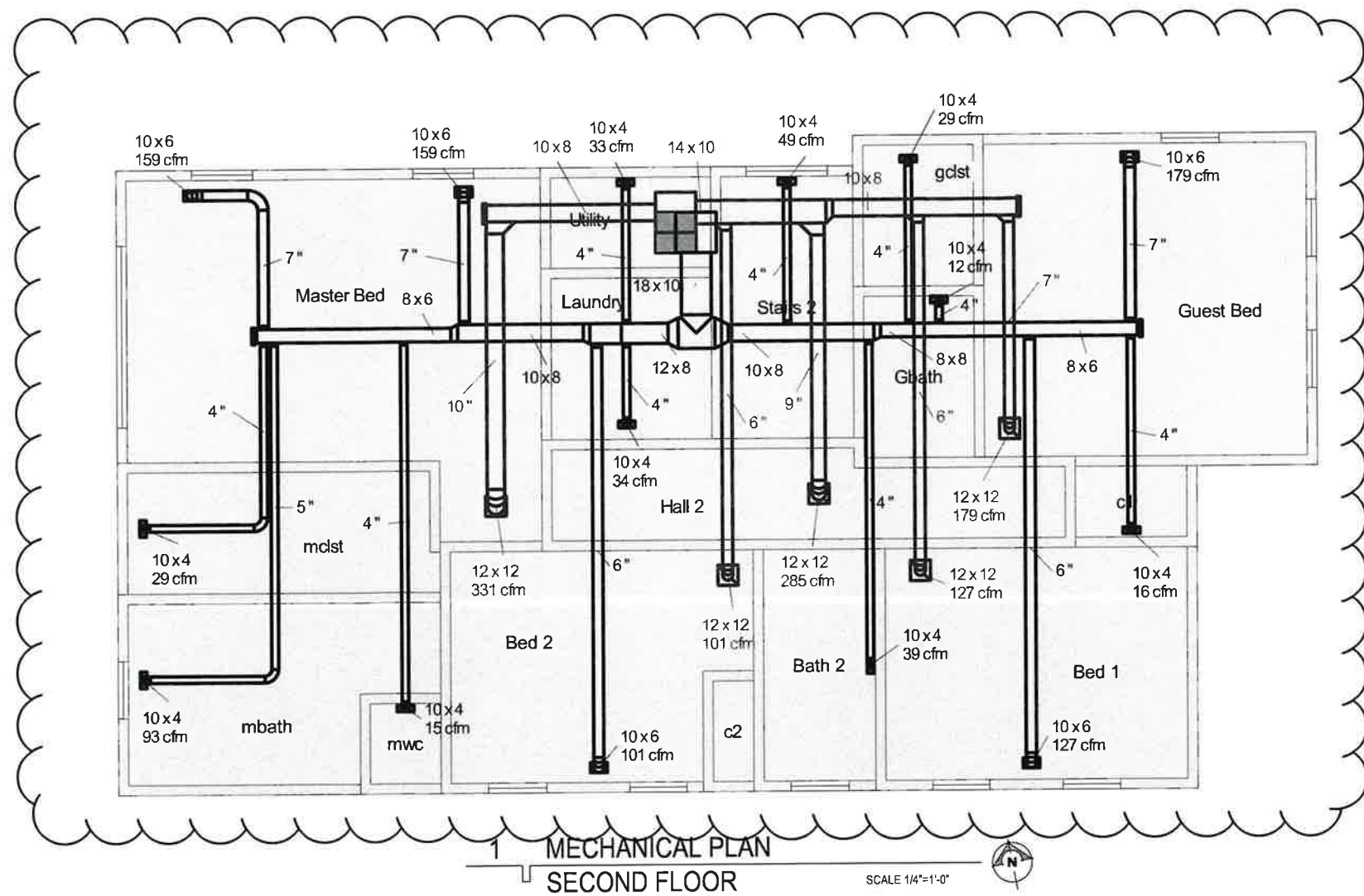
PROJECT ARCH
RT
DRAFTPERSON
CS
APPROVED:
RT
PREPARED FOR
OWNER

LOCATION:
223 Center St
Naperville, IL
JOB NUMBER
223CS-07042

SHEET No.

SHEET Name:
Mechan





1 MECHANICAL PLAN
SECOND FLOOR

SCALE 1/4"=1'-0"



NO.	BY	DATE	DESCRIPTION
1	RT	07/6/2023	Review
2	RT		Permit

Convert 2-Unit to Single Family Residence. Interior Rehab & New 2-Story Frame Addition including New Partitions,



PROJECT ARCHITECT
DRAFTPERSON
APPROVED FOR
PREPARED FOR
OWNER
LOCATION:
223 Center St
Naperville, IL
JOB NUMBER:
223CS-07042

SHEET No.
SHEET Name:
Mechanical

MECHANICAL EQUIPMENT SCHEDULE

TAG	SERVICE	UNIT DATA				HEATING DATA				CONNECTIONS		BLOWER PERFORMANCE						
		MANUF.	MODEL #	EFF.	TONS	UNIT WEIGHT	HEAT SOURCE	V / Ø / Hz	AIR FLOW (CFM)	HEATING INPUT HIGH (Kw)	HEATING OUTPUT HIGH (Kw)	TEMP. RISE RANGE HIGH (°F)	FLUE CONN.	GAS PIPE SIZE (IN)	AIR VOLUME (CFM)	TONS ADD-ON COOLING	FAN DIA. (IN)	MOTOR HP
FUR-1	BSMT & 1ST	HEIL	N55ESN001716A	95%	4.4-5	146 LB	NAT. GAS	120/1/60	935-1665	80,000	78,000	40-70	3" PVC	1/2"	935-1665	4.4-5	11x8	3/4
FUR-2	SECOND FL.	HEIL	N55ESN0601412A	95%	2.5-3	129 LB	NAT. GAS	120/1/60	345-1120	60,000	58,000	45-75	3" PVC	1/2"	345-1120	2.5-3	11x7	1/2

- ALL FURNACES TO BE PROVIDED WITH PLENUM MOUNTED HUMIDIFIER, APRIL A/R MOL. #554 WITH ALL NECESSARY WATER & DRAIN PIPING, INTERLOCK TO HEATING CYCLE
- ALL FURNACE UNITS TO BE PROVIDED WITH ROOM THERMOSTAT AND SUBBASE WITH ALL CONTROL WIRING.
- ALL EXHAUST FANS TO BE PROVIDED WITH INTEGRATED DAMPER

REFRIGERATION SCHEDULE

TAG	SERVICE	COMP. TON	COMP. HP	REFRIG.	WT. REFRIG.	REMOTE	SELF CONT.	LOCATION	AIR COOLED	WATER COOLED	SPECIAL
CU-1	BSMT & 1ST FL.										PER ATTACHED MANUAL J, SEE SHEET M-04 FOR SUMMARY
CU-2	2ND FL.										PER ATTACHED MANUAL J, SEE SHEET M-04 FOR SUMMARY

EXHAUST FAN SCHEDULE

TAG	SYSTEM	LOCATION	MANUFAC.	MODEL #	TYPE	PERFORMANCE			ELECTRICAL DATA			
						CFM	SONES	DUCT SIZE (IN)	DISCHARGE DIRECTION	HP or WATTS	V / Ø / Hz	AMPS
TE-1	BATH EXHAUST	CEILING	BROAN	LoSone #100	RECESSED	110	0.90	3	SIDE	87 W	120/1/60	1.1
KE-1	RANGE HOOD	KITCHEN	Per Owner	---	---	350 max	0.3-3.0	4" Ø"	UP	---	120/1/60	---

MECHANICAL SYMBOL LIST

SYMBOL	DESCRIPTION
	NEW 18"x6" CLG-MTD SUPPLY DIFFUSER WITH ADJUSTABLE LOUVERED SCREEN
	NEW 18"x6" FLOOR-MTD SUPPLY DIFFUSER WITH ADJUSTABLE LOUVERED SCREEN
	NEW CEILING-MTD RETURN GRILL, SIZE AS SPECIFIED
	NEW WALL-MTD RETURN GRILL, SIZE AS SPECIFIED
	NEW FURNACE, REFER TO EQUIP. SCHEDULE FOR SPECS
	NEW CEILING MOUNTED HARDWIRED SMOKE DETECTOR W/BATTERY BACK UP
	NEW CEILING-MTD HARDWIRED CARBON MONOXIDE DETECTOR W/BATTERY BACK UP
	NEW EXHAUST FAN
	NEW SUPPLY DUCT, SIZE AS SPECIFIED, REFER TO SHEET METAL NOTES
	NEW RETURN DUCT, SIZE AS SPECIFIED, REFER TO SHEET METAL NOTES
	NEW VOLUME DAMPER
	NEW SUPPLY DIFFUSER WITH VOLUME DAMPER

- MECHANICAL GENERAL NOTES**
- ALL NEW MECHANICAL WORK SHALL COMPLY WITH STATE AND VILLAGE BUILDING CODES, LATEST EDITION, AND SHALL BE LEFT IN PERFECT OPERATING CONDITIONS
 - PROVIDE GAS SERVICE WITH SHUT-OFF VALVE TO ALL GAS FIRED EQUIPMENT. ALL GAS PIPING SHALL BE BLACK STEEL SCHEDULE 40 WITH MALLEABLE FITTINGS
 - PROVIDE VOLUME DAMPERS AT ALL DUCTWORK SUPPLY LINES
 - ALL GAS LINES MUST BE PRESSURE TESTED
 - THE CONTRACTOR SHALL CONFORM TO ALL APPLICABLE OSHA STANDARDS
 - THIS CONTRACTOR SHALL COORDINATE WORK WITH GENERAL CONTRACTOR AND ALL OTHER TRADES TO AVOID INTERFERENCE DURING CONSTRUCTION
 - ALL CONTROL WIRING SHALL BE BY THIS CONTRACTOR
 - ALL REFRIGERANT PIPING SHALL BE INSULATED WITH 1/2" ARMAFLEX
 - PROVIDE CARBON MONOXIDE DETECTORS AS SPECIFIED ON DRAWINGS
 - DUCTWORK PENETRATIONS THRU WALLS / CEILING BETWEEN CONFINED SPACES MUST BE TIGHT-SEALED TO PREVENT FIRE SPREADING
 - MECHANICAL DRAWINGS ARE SCHEMATIC FOR PERMIT PROCESS ONLY, VERIFY WITH MECHANICAL CONTRACTOR
 - ALL EQUIPMENT MUST BE AS SPECIFIED OR EQUAL IN ITS PERFORMANCE, CAPACITY AND APPROVED BY THE VILLAGE
 - COMBUSTION AIR DUCTS SHALL BE OF GALVANIZED STEEL, SERVE A SINGLE APPLIANCE ENCLOSURE AND MUST CONFORM WITH THE VILLAGE CODE
 - ANY CHANGE OR DEVIATION IN THE MECHANICAL SPECIFICATIONS MUST BE SUBMITTED IN WRITING TO THE ENGINEER/ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION
 - DOWNFLOW EXHAUST DUCTS NOT PERMITTED

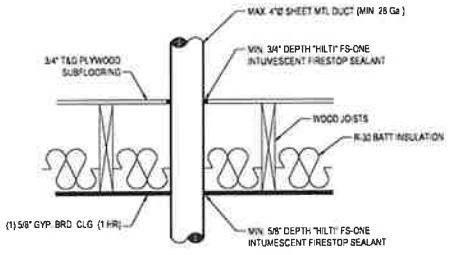
- SHEET METAL NOTES**
- ALL DUCTWORK MUST BE GALVANIZED IRON, GAUGES PER ASHRAE GUIDE, UNLESS OTHERWISE NOTED. ALL SQUARE ELBOWS TO HAVE DOUBLE THICKNESS TYPE TURNING VANES. UNLESS OTHERWISE NOTED, ALL ROUND ELBOWS SHALL HAVE INSIDE RADIUS EQUAL TO 75% OF DUCT WIDTH. MANUAL VOLUME DAMPERS TO HAVE LOCKING QUADRANT.
 - DIFFUSER GRILLES, AND REGISTERS: EACH REGISTER SHALL BE FURNISHED WITH AN OPPOSING BLADE VOLUME DAMPER WITH ADJUSTABLE AIR RETURN LOUVER
 - ALL DUCTWORK IN UNHEATED AREAS SHALL BE ADEQUATELY PROTECTED AGAINST THE ELEMENTS

- VENT NOTES**
- VENTS SHALL TERMINATE NOT LESS THAN 2 FEET ABOVE THE HIGHEST POINT OF THE ROOF PENETRATION AND NOT LESS THAN 2 FEET HIGHER THAN ANY PORTION OF A BUILDING WITHIN 10 FEET.
 - HORIZONTAL TERMINATIONS FOR VENTS ARE PERMITTED ON CATEGORY IV APPLIANCES ONLY AND SHALL BE LOCATED PER APPLICABLE CODE

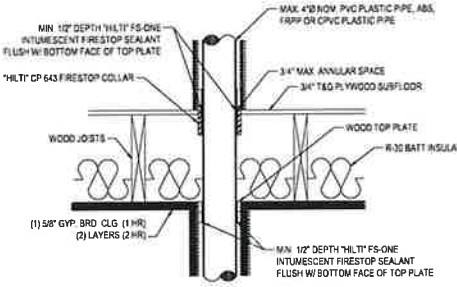
- COMBUSTION AIR DUCTS**
- COMBUSTION AIR DUCTS SHALL:
- BE OF GALVANIZED STEEL COMPLYING WITH CHAPTER 6 OR OF EQUIVALENT CORROSION-RESISTANT MATERIAL APPROVED FOR THIS APPLICATION
 - HAVE A MINIMUM CROSS-SECTIONAL DIMENSION OF 3 INCHES
 - TERMINATE IN AN UNOBSTRUCTED SPACE ALLOWING FREE MOVEMENT OF COMBUSTION AIR TO THE APPLIANCES
 - HAVE THE SAME CROSS-SECTIONAL AREAS AS THE FREE AREA OF THE OPENINGS TO WHICH THEY CONNECT
 - SERVE A SINGLE APPLIANCE ENCLOSURE
 - NOT SLOPE DOWNWARD TOWARD THE SOURCE OF COMBUSTION AIR

- REFRIGERATION NOTES**
- REFRIGERATION PIPING:
- COPPER TUBING MAY BE TYPE ACR OR TYPE "K" UNLESS THE PRESSURE EXCEEDS THE RATED CAPACITY OF AC TUBING
 - ALL JOINTS & CONNECTIONS TO BE BRAZED
 - REMOVE EXPANSION VALVES, DEVICES, AND CONNECTIONS FROM THE AIR STREAM
 - INSTALL PRESSURE RELIEF VALVE ON HIGH PRESSURE SIDE OF SYSTEM, UPSTREAM OF ANY INTERVENING VALVES

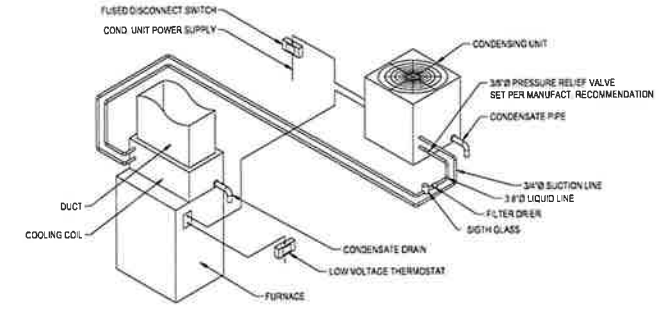
- CONDENSATE PIPING NOTES**
- FUEL-BURNING, EVAPORATIVE & COOLING DEVICES THAT PRODUCE CONDENSATING MUST BE DRAINED. CONDENSATE SHALL BE COLLECTED AND DISCHARGED TO AN APPROVED PLACE OF DISPOSAL. CONDENSATE PIPING SHALL BE TYPE M COPPER OR SCHEDULE 40 PVC AND SHALL NOT BE SMALLER THAN THE DRAIN CONNECTION ON THE APPLIANCE. SUCH PIPE SHALL MAINTAIN A MIN. HORIZONTAL SLOPE IN THE DIRECTION OF DISCHARGE OF NOT LESS THAN ONE-EIGHT (1/8) INCH VERTICAL IN 12 UNITS HORIZ.
 - OVERFLOW DRAINS SHOULD DISCHARGE IN A CONSPICUOUS LOCATION.



2 METAL DUCT THRU-PENETRATION
FIRE STOP SYSTEM # FC-7013, 1 HR. RATING NTS



3 PLASTIC PIPE THRU-PENETRATION
FIRE STOP SYSTEM # FC-2025, 1 & 2 HR. RATING NTS



2 SPLIT SYSTEM DIAGRAM
NTS



REVISIONS	NO.	BY:	DATE	DESCRIPTION:
	1	RT	07/02/2023	Review

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions.

R.T. ARCHITECT
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RADULE
7501 BROAD
FOREST
TEL: L
rlpav

PROJECT AR
RT
DRAFTPERS
CS
APPROVED
RT
PREPARED F
OWNER
LOCATION:
223 Center St
Naperville, IL
JOB NUMBER
223CS-07042

SHEET No
SHEET Name:
Light, Ve
Sched.-

wrightsoft Project Summary
AH 1 1st Floor
Easy Manual J

Job: 223 Center Street
Date: Sep 29, 2023
By: Josh Putman
Plan: 223 Center Street

Project Information

For: Khaled Hasan
L
Notes: 223 Center Street, Naperville, IL

Design Information

Weather: Chicago O'Hare, IL, US

Winter Design Conditions		Summer Design Conditions	
Outside db	3 °F	Outside db	89 °F
Inside db	70 °F	Inside db	75 °F
Design TD	67 °F	Design TD	14 °F
		Daily range	M
		Relative humidity	50 %
		Moisture difference	33 gr/lb

Heating Summary		Sensible Cooling Equipment Load Sizing	
Structure	41498 Btuh	Structure	19129 Btuh
Ducts	0 Btuh	Ducts	0 Btuh
Central vent (110 cfm)	7863 Btuh	Central vent (110 cfm)	1501 Btuh
Outside air		Outside air	
Humidification	9937 Btuh	Blower	1707 Btuh
Piping	0 Btuh	Use manufacturer's data	Y
Equipment load	59298 Btuh	Rateloading multiplier	
		Equipment sensible load	22427 Btuh

Infiltration		Latent Cooling Equipment Load Sizing	
Method	Simplified	Structure	666 Btuh
Construction quality	Semi-tight	Ducts	0 Btuh
Fireplaces	0	Central vent (110 cfm)	2403 Btuh
		Outside air	
Area (ft²)	Heating 3409	Equipment latent load	9070 Btuh
Volume (ft³)	Cooling 3408		
Air changes/hour	20710	Equipment Total Load (Sens+Lat)	31496 Btuh
Equip AVF (cfm)	0.39	Req. total capacity at 0.72 SHR	2.6 ton
	0.19		
	136		
	67		

Heating Equipment Summary		Cooling Equipment Summary	
Make	Heil	Make	Heil
Trade	HEIL	Trade	PERFORMANCE 14 SEER2AC
Model	NSSES0801716A	Model	RMAS337K1AAA
AHRI ref	203362674	Cond	EA*4X36L21A*NSSES0801716A
		Coil	
AHRI ref	203888814	AHRI ref	203888814
Efficiency	95 AFUE	Efficiency	11.5 EER2, 13.4 SEER2
Heating input	80000 Btuh	Heating input	23904 Btuh
Heating output	78000 Btuh	Heating output	9256 Btuh
Temperature rise	66 °F	Latent cooling	33200 Btuh
Actual air flow	1100 cfm	Total cooling	1100 cfm
Air flow factor	0.027 cfm/Btuh	Actual air flow	0.028 cfm/Btuh
Static pressure	0.60 in H2O	Air flow factor	0.028 cfm/Btuh
Space thermostat		Static pressure	0.60 in H2O
		Load sensible heat ratio	0.71

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed

wrightsoft Project Summary
AH 2 2nd Floor
Easy Manual J

Job: 223 Center Street
Date: Sep 29, 2023
By: Josh Putman
Plan: 223 Center Street

Project Information

For: Khaled Hasan
L
Notes: 223 Center Street, Naperville, IL

Design Information

Weather: Chicago O'Hare, IL, US

Winter Design Conditions		Summer Design Conditions	
Outside db	3 °F	Outside db	89 °F
Inside db	70 °F	Inside db	75 °F
Design TD	67 °F	Design TD	14 °F
		Daily range	M
		Relative humidity	50 %
		Moisture difference	33 gr/lb

Heating Summary		Sensible Cooling Equipment Load Sizing	
Structure	23446 Btuh	Structure	11318 Btuh
Ducts	6176 Btuh	Ducts	5656 Btuh
Central vent (80 cfm)	6424 Btuh	Central vent (80 cfm)	1306 Btuh
Outside air		Outside air	
Humidification	4843 Btuh	Blower	1707 Btuh
Piping	0 Btuh	Use manufacturer's data	Y
Equipment load	42891 Btuh	Rateloading multiplier	
		Equipment sensible load	19984 Btuh

Infiltration		Latent Cooling Equipment Load Sizing	
Method	Simplified	Structure	4374 Btuh
Construction quality	Semi-tight	Ducts	1227 Btuh
Fireplaces	0	Central vent (80 cfm)	1984 Btuh
		Outside air	
Area (ft²)	Heating 1739	Equipment latent load	7565 Btuh
Volume (ft³)	Cooling 1739		
Air changes/hour	17393	Equipment Total Load (Sens+Lat)	27549 Btuh
Equip AVF (cfm)	0.39	Req. total capacity at 0.72 SHR	2.3 ton
	0.19		
	114		
	54		

Heating Equipment Summary		Cooling Equipment Summary	
Make	Heil	Make	Heil
Trade	HEIL	Trade	PERFORMANCE 14 SEER2AC
Model	NSSES0601412A	Model	EA*4X36L21A*NSSES0601412A
AHRI ref	203924776	Cond	EA*4X36L21A*NSSES0601412A
		Coil	
AHRI ref	203888814	AHRI ref	203888814
Efficiency	95 AFUE	Efficiency	11.5 EER2, 14 SEER2
Heating input	90000 Btuh	Heating input	26169 Btuh
Heating output	56000 Btuh	Heating output	7840 Btuh
Temperature rise	59 °F	Latent cooling	29000 Btuh
Actual air flow	910 cfm	Total cooling	910 cfm
Air flow factor	0.029 cfm/Btuh	Actual air flow	0.029 cfm/Btuh
Static pressure	0.60 in H2O	Static pressure	0.60 in H2O
Space thermostat		Load sensible heat ratio	0.73

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed

REVISIONS	NO.	BY:	DATE:	DESCRIPTION:
	1	RT	07/02/2023	Review

Convert 2-Unit to Single Family Residence, Interior Rehab & New 2-Story Frame Addition including New Partitions.



PROJECT ARCHITECT
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DRAFTPERS
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APPROVED:
RT
PREPARED BY
OWNER
LOCATION:
223 Center Street
Naperville, IL
JOB NUMBER:
223CS-07042

SHEET No.
SHEET Name:
Manual Summary

