



**SEPTIC DESIGNS of NH, LLC**  
Licensed Designer, Installer, and Certified Septic Evaluator

20210823

RE: 797 Elwyn Rd., Portsmouth, NH – Conditional Use Permit

City of Portsmouth,

This letter is to briefly describe the application, what the homeowners are trying to do, and why we need the Conditional Use Permit.

The application is for the addition on the back of the house as well as replacing a septic system to one that is up to present day code. The previous septic system is outdated and is in the same location as the proposed septic. Everything will be new for the septic from the pipe leaving to the leaching area to include the septic tank. The tank will be monolithic.

This addition and septic is being completed by the home owners. They are both elderly and one of them does have a medical condition. This addition is to help them improve their quality of life as well as help the children assist their parents better.

The City of Portsmouth has a wetlands setback of 100' and swales are included in this setback requirement. The field and proposed addition are over 156' to poorly drained soils on the back of the property which is outside of the City setback. However, there is a culvert that crosses the road between the two properties. This culvert discharges into a slight swale that runs along the property line to the poorly drained soils at the end of the property. We need this conditional use permit because the septic system and the proposed addition is inside the 100' setback from the swale.

Kind Regards,

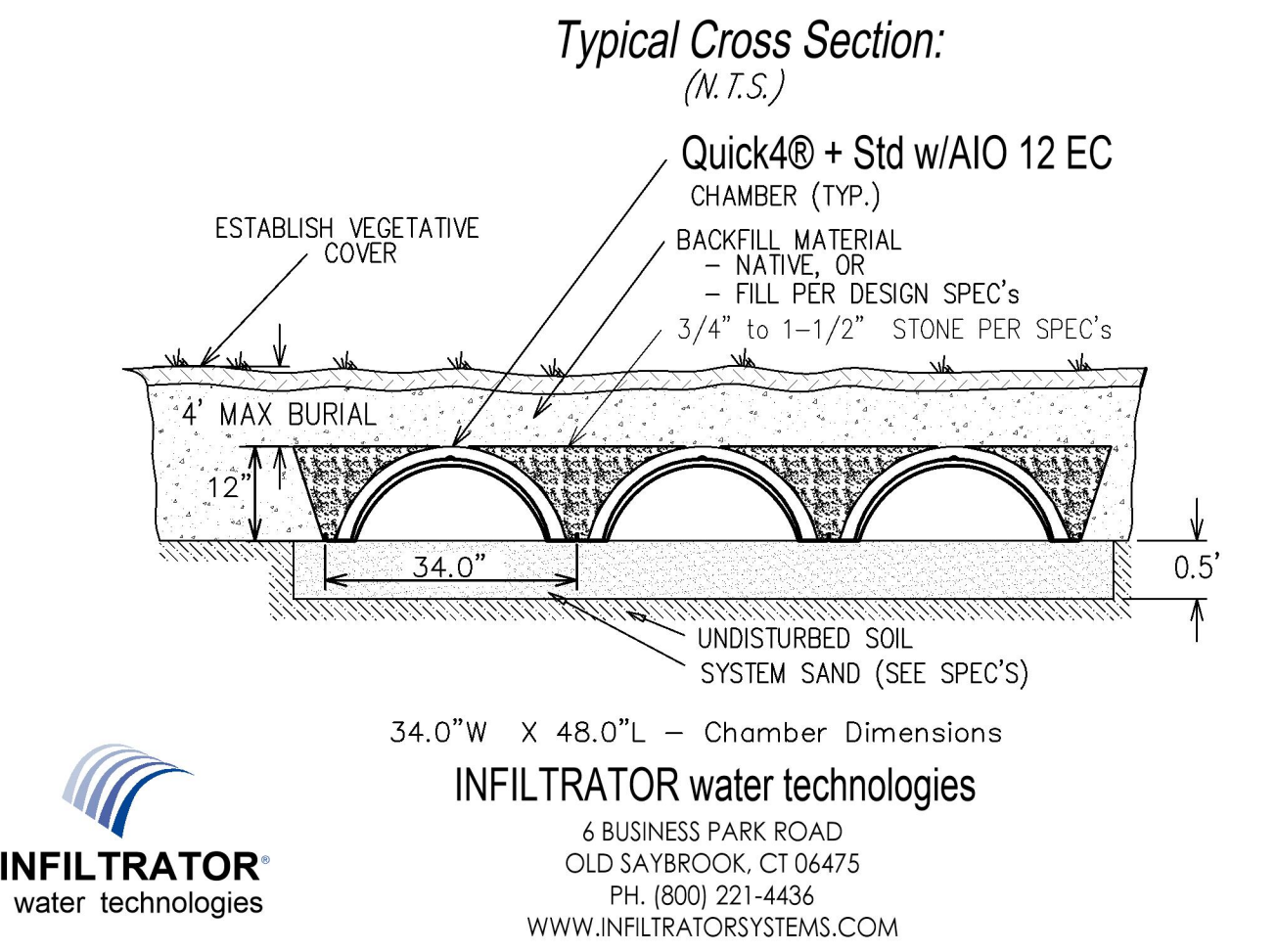
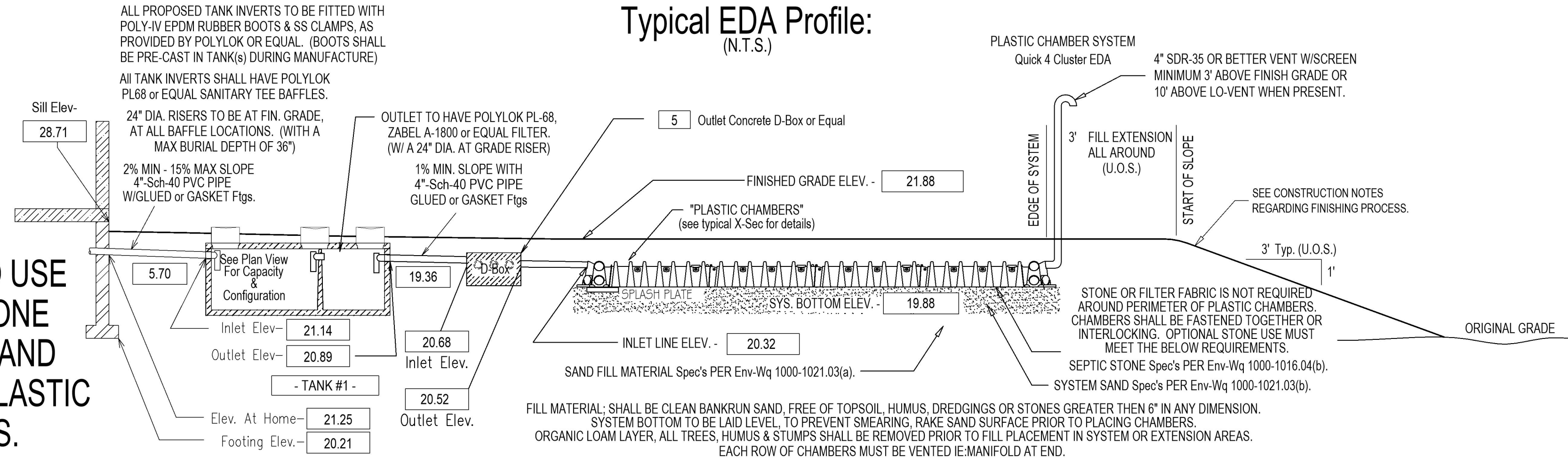
Micah Denner  
Owner, Septic Designs of NH, LLC



Material Specifications	
<b>- System Sand -</b>	<b>- Stone -</b>
<b>ASTM C-33;</b>	<b>AASHTO T11-085;</b>
100% passing #8 Screen	100% passing 2" Screen
95-100% passing #4 Screen	90-100% passing 1 1/2" Screen
80-100% passing #8 Screen	0-20% passing 3/4" Screen
50-85% passing #16 Screen	0-5% passing #4 Screen
25-60% passing #30 Screen	0-1.5% passing #200 Screen
10-30% passing #50 Screen	
0-10% passing #100 Screen	
0-5% passing #200 Screen	
All Material must be WASHED Product	

**-- WETLANDS DELINEATION --**  
 Minimum area of 75' around the OWTS has been delineated per the:  
 "Corps of Engineers Wetlands Delineation Manual  
 Technical Report Y-87-1"  
 The manual was used in accordance with Env-Wq 1014.06  
 by: "Micah Denner"  
 And unless otherwise shown on the plan, it was  
 determined that No Wetlands are present.

**INSTALLER TO USE  
 WASHED STONE  
 IN-BETWEEN AND  
 AROUND THE PLASTIC  
 CHAMBERS.**



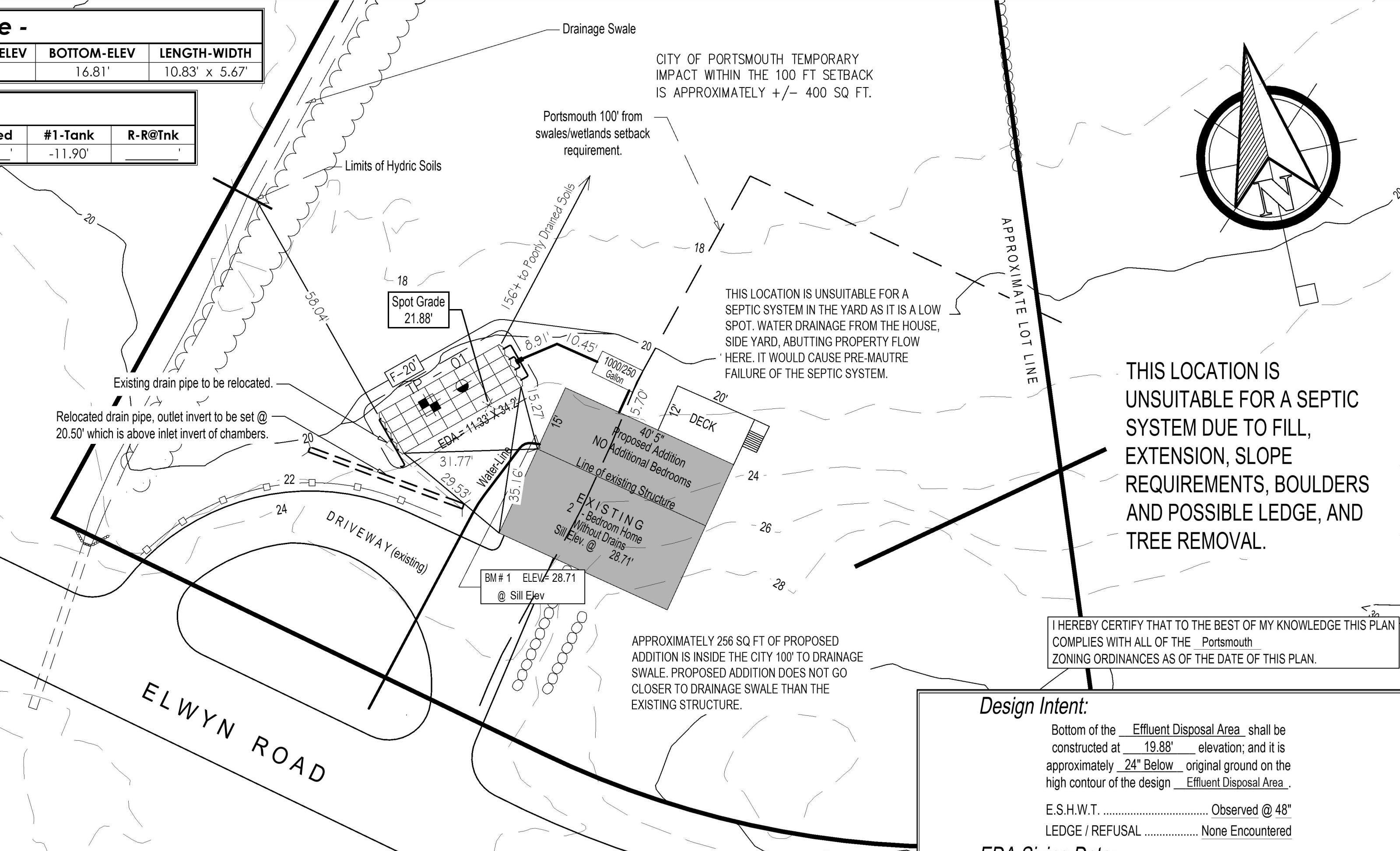
**- Septic Tank Dimension & Invert Table -**

LOCATION	OA-CAPACITY	CONFIGURATION	INLET-INVERT	OUTLET-INVERT	TANK-TOP-ELEV	BOTTOM-ELEV	LENGTH-WIDTH
#1-Tank	1250-Gallon	1000/250	21.14'	20.89'	22.06'	16.81'	10.83' x 5.67'

**- Key Construction Measurements -**

BM-Nmbr	BM-Elev	R-R@BM	Footing	R-R@Flg	ISDS-Diag.	ISDS-Bottom	R-R@Bed	#1-Tank	R-R@Tnk
1	28.71		-8.50'		36.0285'	-8.83'		-11.90'	

- INSTALLER NOTES --**
- SEPTIC TANK: IF UTILIZING EXISTING PRECAST CONCRETE SEPTIC TANK, CONTRACTOR TO CHECK CONDITION OF BAFFLES AND REPAIR OR REPLACE AS NECESSARY.
  - SEAL AND GROUT ALL SEAMS OF NEW SEPTIC TANK PRIOR TO INSTALLATION WITH APPROVED METHOD SUCH AS HYDRAULIC CEMENT.
  - LEVEL BED, ALL PIPES TO BE SET AT SAME ELEVATION.
  - USE SCH 40 PVC PIPE FROM TANK TO D-BOX AND OWTS.
  - USE SCH 40 PVC PIPE FROM HOUSE TO TANK.
  - INSTALL A VENT, TO BE A MINIMUM OF 36" ABOVE FINISHED GRADE.
  - INSTALL A PLASTIC/CONCRETE 8 OUTLET D-BOX.
  - INSTALL FILTER FABRIC (5 OZ. SQ YD OR GREATER) OVER SYSTEM AFTER STATE APPROVAL TO PREVENT INFILTRATION OF BACKFILL.
  - INSTALL AN EF-4 EFFLUENT FILTER OR EQUIVALENT.
  - INSTALL AN ENTRY RESISTANT RISER OVER THE OUTLET TANK BAFFLE TO BRING IT TO GRADE.
  - REMOVE ALL TREES AND SHRUBS WITHIN 10' OF SYSTEM COMPONENTS.
- QUICK-4 Plus Std & Std CHAMBER NOTES --**
- PIPES LEADING TO AND EXITING FROM THE PROPOSED SEPTIC TANK SHALL BE SEALED WITH AN APPROVED METHOD AS TO MAKE THE JOINTS WATERTIGHT.
  - MAINTENANCE: RECOMMEND INSPECTION OF SEPTIC TANKS AT LEAST EVERY TWO YEARS AND CLEAN IF COMBINED THICKNESS OF SLUDGE AND SCUM EQUALS MORE THAN 1/4 OF THE LIQUID DEPTH INSIDE THE TANK. SHOULD FAILURE OCCUR THIS OWTS SHALL BE RESULT IN PLACE.
  - NEAREST NEIGHBORING WELL OR GROUP 6 SOIL ARE ALL GREATER THAN 75' AWAY FROM PROPOSED SEPTIC SYSTEM.
  - PRIOR TO THE START OF CONSTRUCTION ALL BENCHMARKS SHALL BE VERIFIED FOR ACCURACY.
  - SYSTEM TO BE INSTALLED IN ACCORDANCE WITH PRODUCT DESIGN AND INSTALLATION MANUAL, STATE AND LOCAL REGULATIONS.
  - MEDIUM TO COARSE TEXTURED SAND, WITH AN EFFECTIVE SIZE OF .025 TO 2.0 MM, WITH LESS THAN 2% AND NO GREATER THAN 5% PASSING THE NUMBER 200 SIEVE, AND NO PARTICLE SIZE LARGER THAN 3/4 INCH; OR MATERIALS MEETING THE ASTM C-33 SPECIFICATION REQUIRED UNDER AND AROUND INFILTRATOR® CHAMBERS. (SEE DESIGN AND INSTALLATION MANUAL FOR COMPLETE SAND AND FILL SPECIFICATIONS.)
  - INSTALLER ADVISED TO CONTACT DIG SAFE PRIOR TO CONSTRUCTION.
  - DO NOT INSTALL SYSTEM ON FROZEN GROUND OR LEAVE SYSTEM UNCOVERED FOR EXTENDED PERIODS OF TIME.
  - NO DRAINS, HOT TUBS, SAUNAS, GARBAGE DISPOSALS ETC., SHALL BE INCORPORATED INTO THIS SYSTEM UNLESS OTHERWISE SPECIFIED.
  - SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH Env-Wq 1000.
  - FOUNDATION DRAINS: INSTALLED, NO FOUNDATION DRAINS SHALL BE INSTALLED WITHIN 15' OF THE PROPOSED SEPTIC SYSTEM OR WITHIN 5' OF THE PROPOSED SEPTIC TANK.
  - NO GARBAGE DISPOSAL IS PROPOSED WITH THIS DESIGN. SHOULD THE PROPOSED HOMEOWNER DECIDE TO ADD A GARBAGE DISPOSAL OR GRINDER THAN THE CAPACITY OF THE SEPTIC TANK WILL NEED TO BE DOUBLED. ADDITIONAL APPROVALS FROM THE NH-DES WILL BE REQUIRED FOR THIS CHANGE.
  - JOINTS ARE TO BE BELLED PVC OR STANDARD SLIP COLLARS.
  - FILL SHALL NOT BE OF SATURATED SOIL.
  - ALL TREES TOPSOIL, ROOTS AND ORGANIC MATTER MUST BE REMOVED FROM THE AREA TO BE FILLED, OUT TO AND INCLUDING THE AREA UNDER THE IMPERMEABLE SOIL BARRIER. FILL MATERIAL TO BE CLEAN MEDIUM TO COURSE SAND, FREE FROM TOPSOIL, HUMUS, DREDDINGS, OR STONE OVER 6" IN DIMENSION.
  - PROVIDE MEASURED TIES TO OWNER, ON THE LOCATION OF THE SEPTIC TANK ACCESS POINTS.
  - QUICK 4 Plus Std or Std CHAMBERS BY INFILTRATOR ARE TO BE USED, SIZING CALCULATION INCLUDES THE AREA OF THE ENDCAPS (see specific endcap note for model & effective area)
  - ANY DISCREPANCIES OR UNUSUAL CONDITIONS SHALL BE REPORTED TO THE DESIGNER BEFORE CONTINUING WITH THE INSTALLATION.
  - WATER SOFTENERS, JACUZZI TUBS OR SIMILAR AMMENITIES SHALL NOT BE DISCHARGED INTO THE PROPOSED FIELD. IF SUCH AMENITIES ARE PROPOSED IN THE NEW STRUCTURE THEN THE CONTRACTOR SHALL NOTIFY THE DESIGNER AND AN ALTERNATIVE FOR THESE SERVICES WILL BE DIVISED AND INSTALLED.
  - THE PURPOSE OF THIS PLAN IS TO INSTALL A NEW SEPTIC SYSTEM TO REPLACE A SEPTIC THAT IS IN POOR CONDITION.
  - PRODUCT SUBSTITUTION(S) ARE NOT ALLOWED, AND MAY REQUIRE A NEW DESIGN & APPROVAL(S).



TEST PIT #..... 1 @ 20.92'

To-8" 10YR3/3, DARK BROWN Granular, Loam, V-Friable

To-39" 10YR3/6, DRK YELLOWISH BRN Granular, F-Sandy Loam, Friable

To-60" 2.5Y/2, GRAYISH BROWN Angular Blocky, F-Sandy Loam, Firm

Soil Classification

Soil data provided by: SoilWeb @ UCDavis & NRCS  
 33A - Scitico silt loam, 0 to 5 percent slopes

**PEPIN PRECAST**  
 1-207-324-6125

**Location Map: (N.T.S.)**

Urban Forestry Center

Water Country Water Park Temporarily closed

Map data ©2020 Google

- PLAN PURPOSE --**
- The purpose of this plan is to replace an existing failed system.
  - There is no CHANGE or EXPANSION of USE associated with this system design.
  - Unless Otherwise Shown, all existing system components are to be excavated, removed from the site and disposed of in a legal manner.
  - All uses shown are as previously approved or existed prior to January 1, 1990.

PROPOSED TANK AND LEACH FIELD ARE IN SAME LOCATION AS EXISTING TANK AND LEACH FIELD.

**- LEGEND -**

ANGLE POINT	TREE LINE
BENCHMARK	UTILITY POLE
BOULDERS	WELL
DRILL HOLE	WETLAND LINE
GRANITE BOUND	
IRON PIN	
SPOT ELEVATION	
STONE WALL	

**Design Intent:**

Bottom of the Effluent Disposal Area shall be constructed at 19.88' elevation; and it is approximately 24" Below original ground on the high contour of the design Effluent Disposal Area.

E.S.H.W.T. .... Observed @ 48°

LEDGE / REFUSAL ..... None Encountered

**EDA Sizing Data:**

EDA Designed for 2.0 Bedrooms - Perc Rate = 12 Min./In. @ 40°

EDA Min. Size Per 2020 Infiltrator Manual = 600SF x 0.60 = 360SF

EDA Size Prvd: 4Wide x 8Lg. = 32Uls, 32 x 11.32 + 24.40(endcaps) = 386.64SqFt

**Lot Configuration: (N.T.S.)**

**MAP - 225**  
**Lot - 002**  
**1.06 - Acres**

**Replacement OWTS Plan for:**  
**Omar Gordon Revocable Trust**  
 797 Elwyn Road, Portsmouth NH 03801

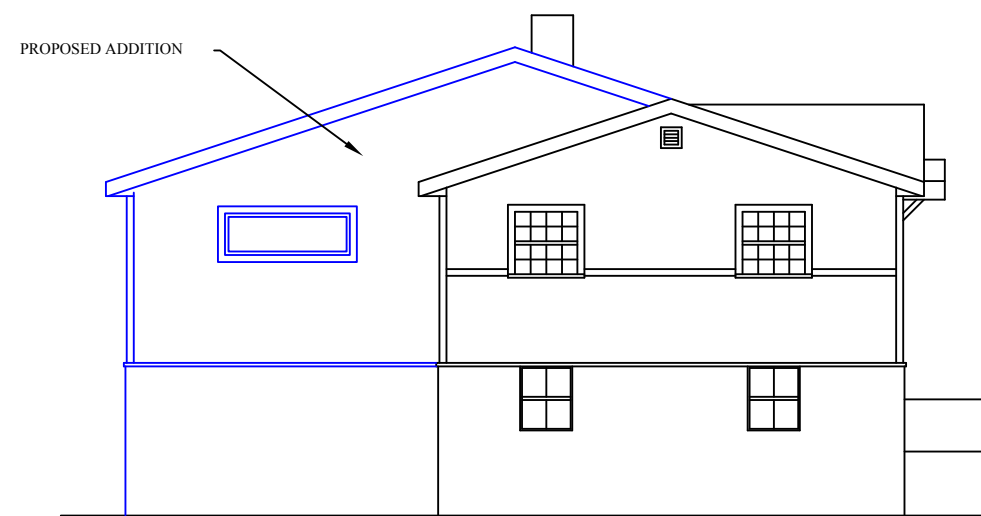
By:  
**Septic Designs of NH**  
 12 Folsom Street  
 Exeter, NH 03833  
 603-714-7018  
 Permitted Designer  
 office@septicdesignsofnh.com  
 SepticDesignsofNH.com

**Deed Information:**  
 County: Rockingham Book: 5376 Page: 1249  
 Subdivision Approval #: NA Pre 67 Date: 03 July 20 Scale: 1"=20'  
 Lot & Map #: Map-225, Lot-002

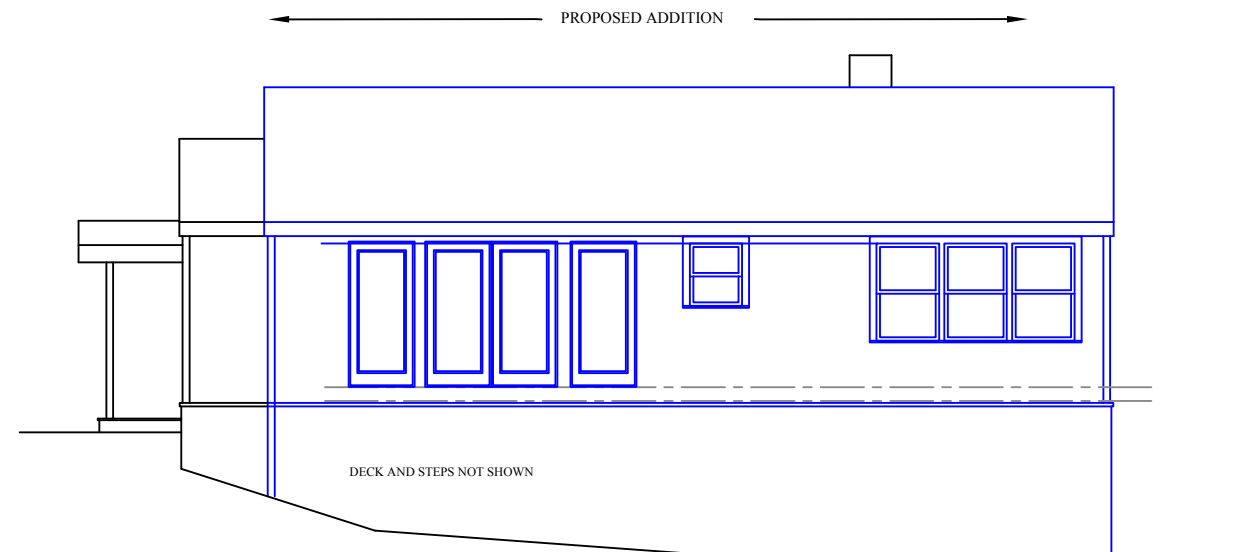
Street: 797 Elwyn Rd  
 Town: PORTSMOUTH, NH

Plan #: Layout 1

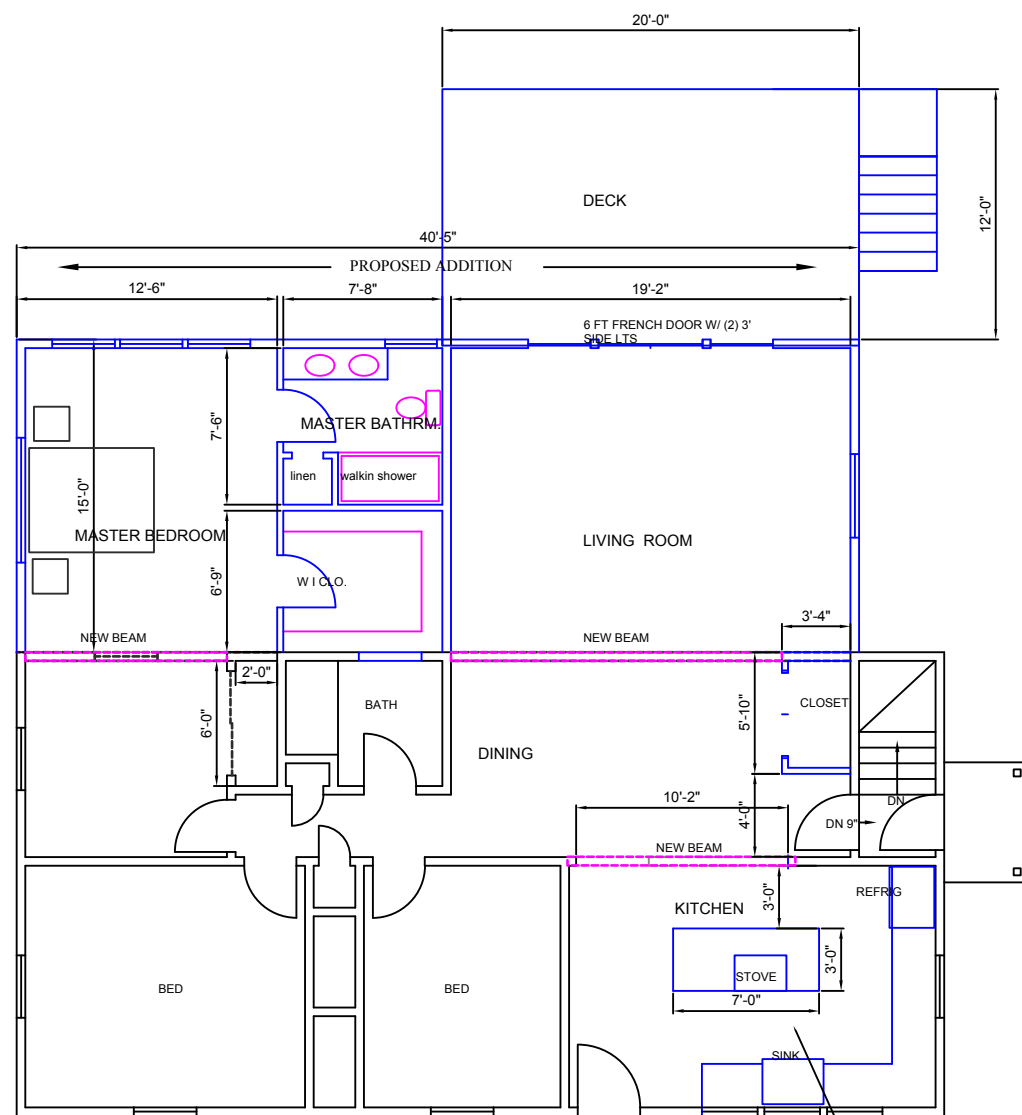




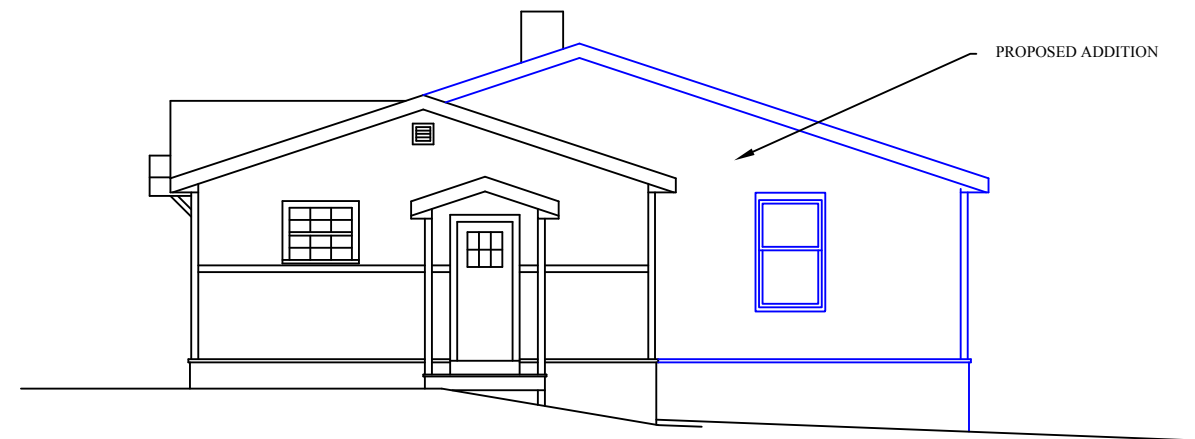
LEFT



REAR



FLOOR PLAN



RIGHT

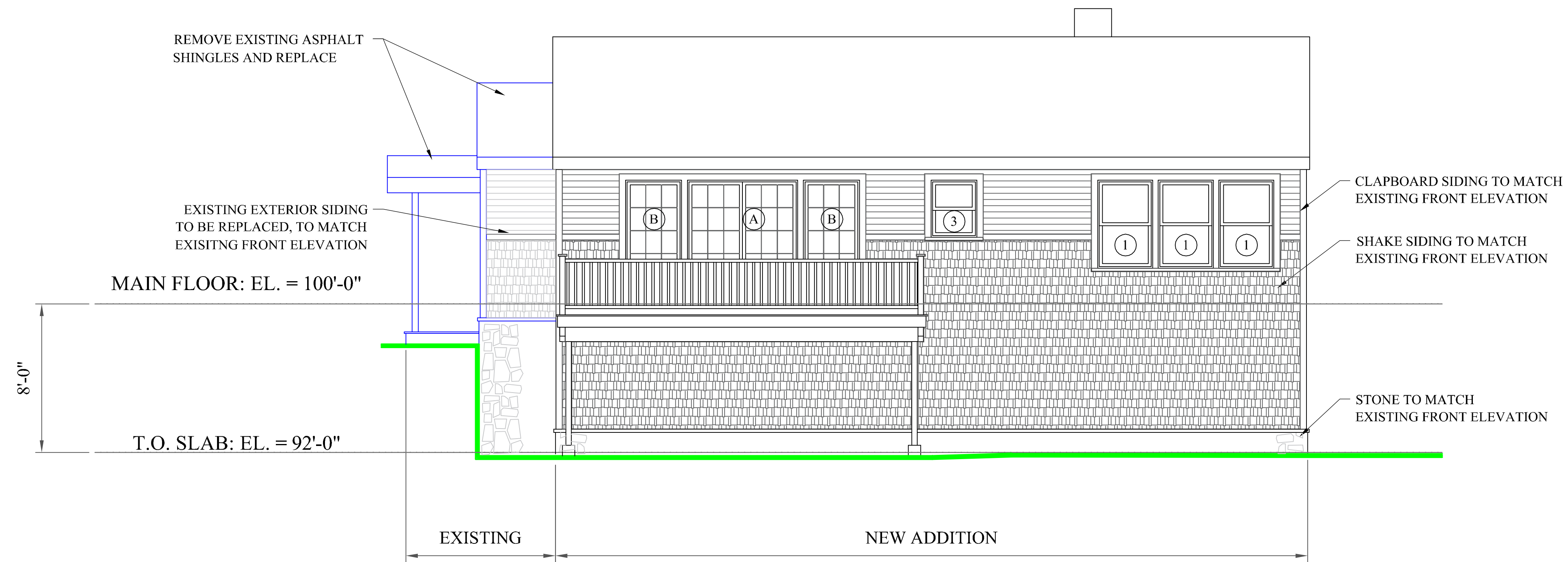
GORDON ADDITION  
 797 ELWYN ROAD  
 PORTSMOUTH NH  
 SCHEME A  
 SCALE: 1/4"=1'-0"



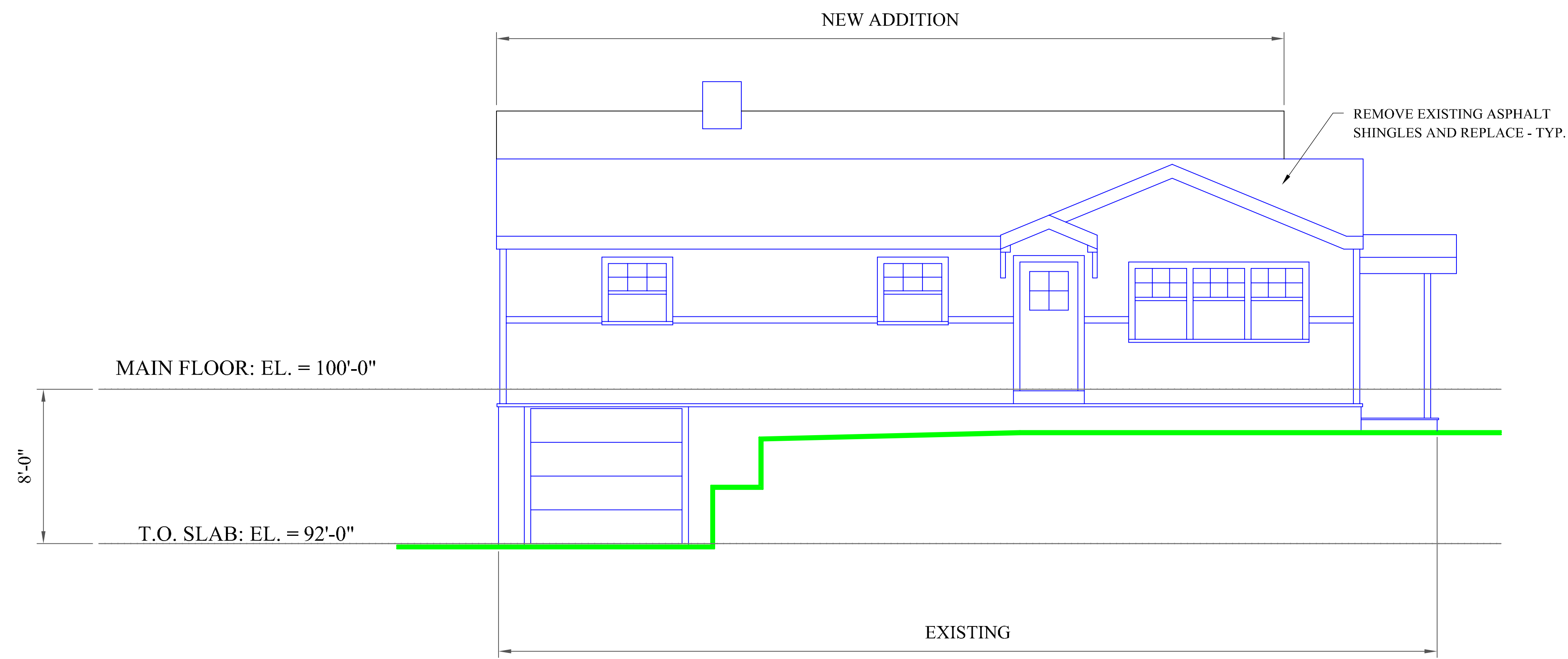
4-20-20

A12

PRICING SET

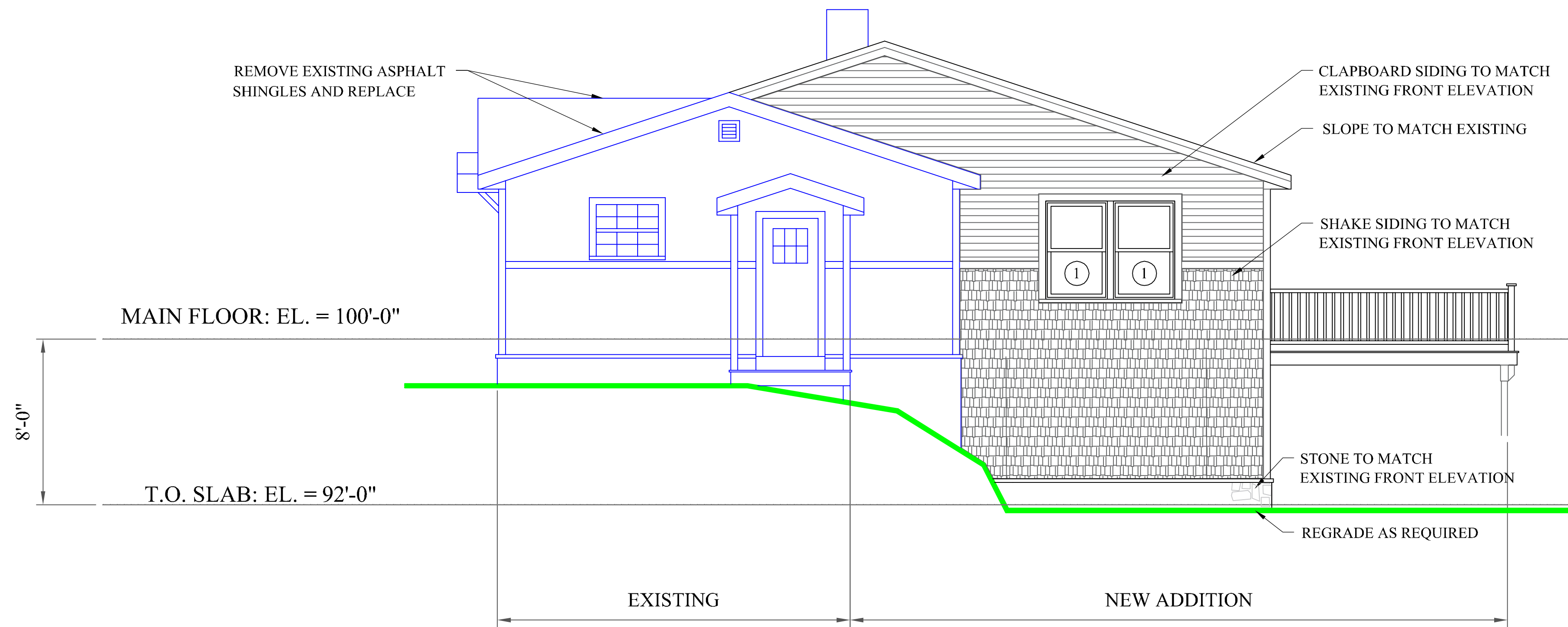


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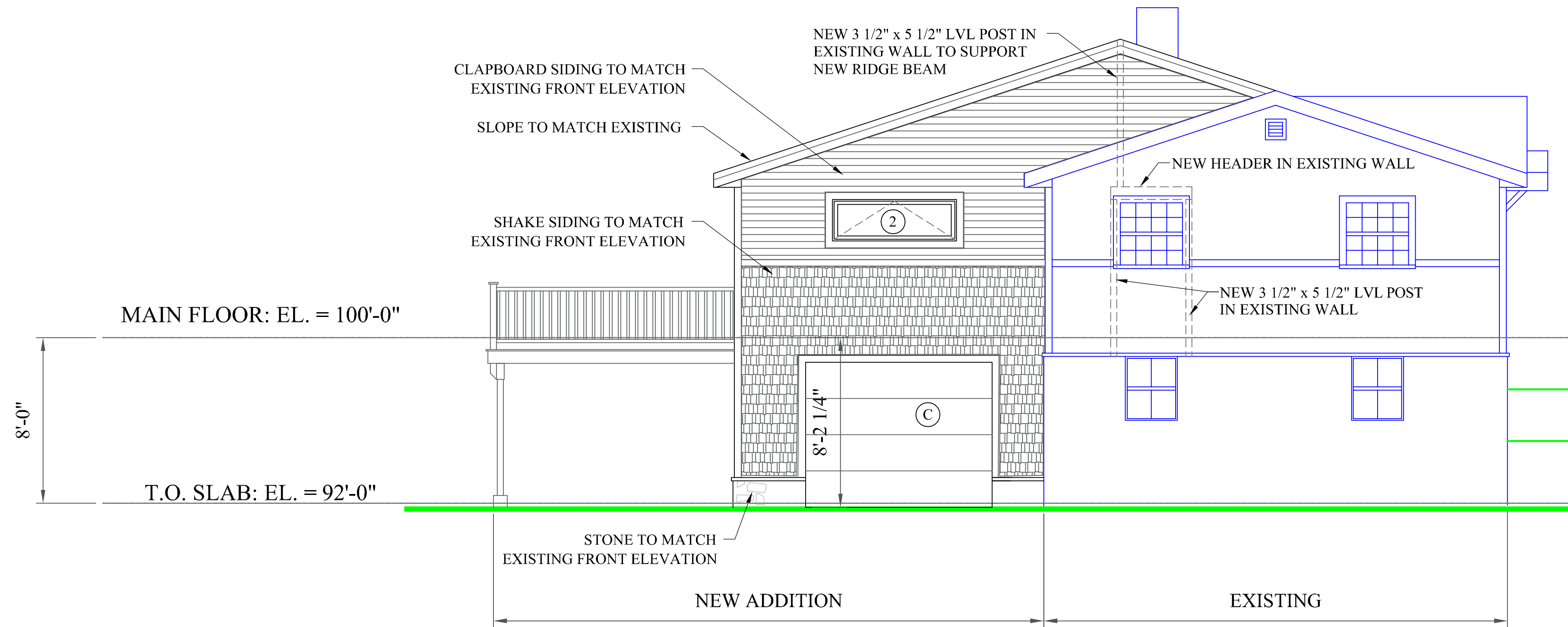


FRONT

<p>797 ELWYN RD HAMPTON, NH.</p>		<p>ELEVATIONS SCALE: 1/4"=1'-0"</p>	
<p>CHARLES HOYT DESIGNS Shingle Style Architecture 395 Ocean Blvd. Rye, NH 03870 (603) 431-5310 charleshooyt@charleshooyt.com</p>		<p>07-15-20</p>	<p>A1</p>



RIGHT

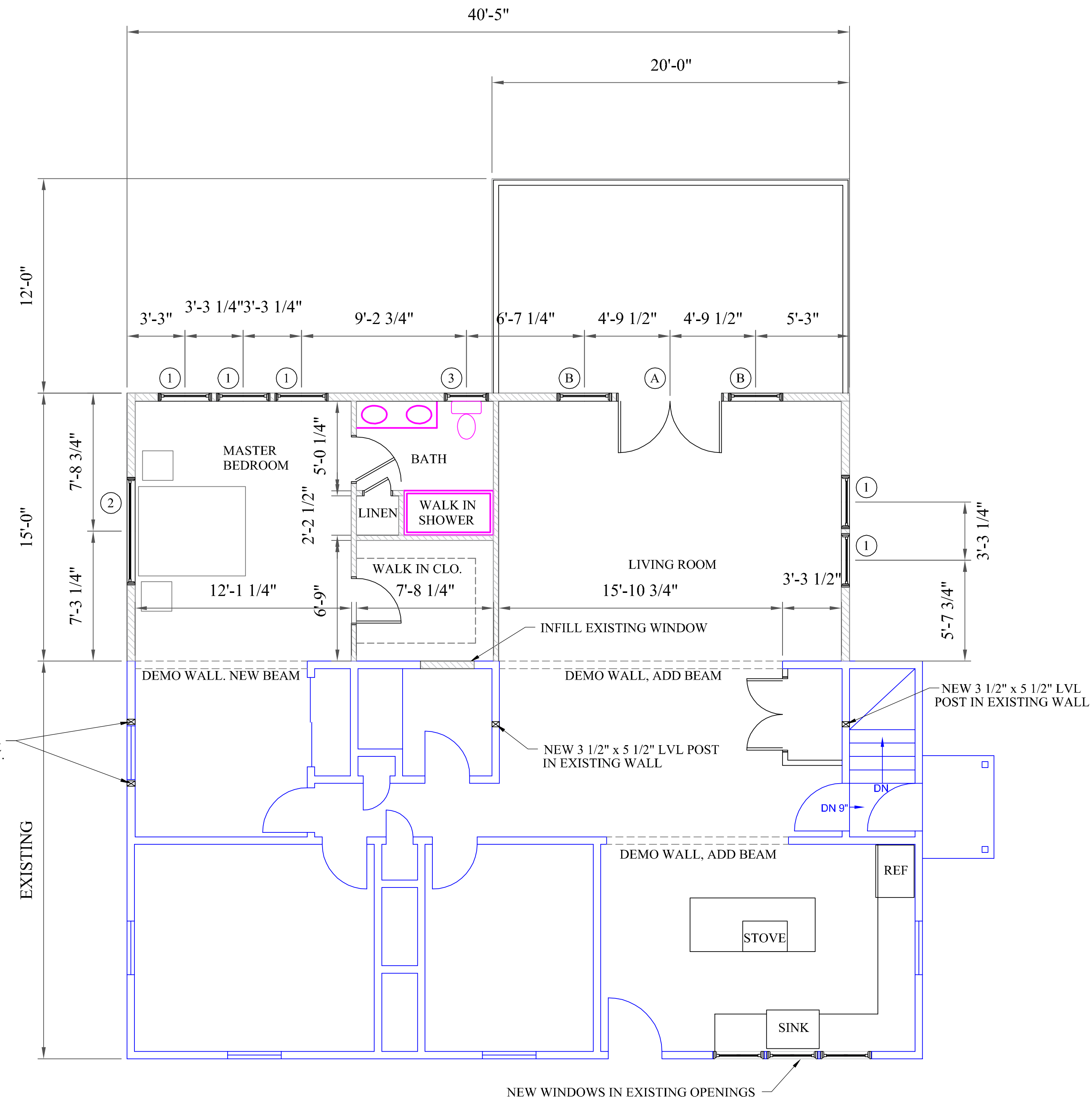


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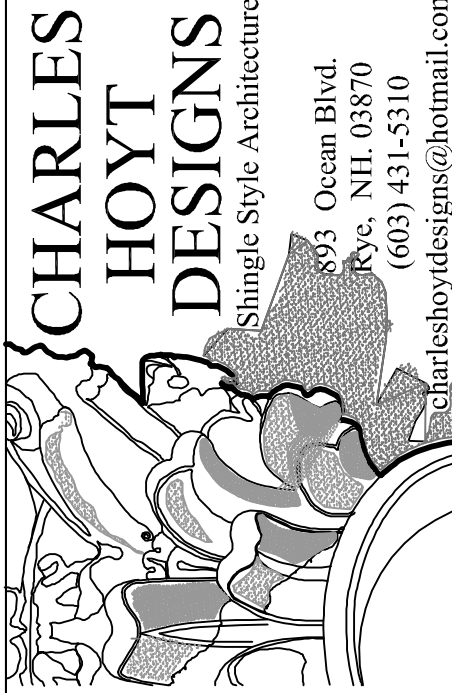
<p>797 ELWYN RD HAMPTON, NH.</p>		<p>ELEVATIONS SCALE: 1/4"=1'-0"</p>	
<p>CHARLES HOYT DESIGNS Shingle Style Architecture 395 Ocean Blvd. Rye, NH 03870 (603) 431-5310 charleshoyt@charleshoyt.com</p>	<p>07-15-20</p>		<p>A2</p>

PERMIT SET

WINDOW AND DOOR SCHEDULE				
	SYMBOL	ROUGH OPENING	MODEL NO.	NOTES
DOORS	(A)	6'-0" x 6'-8"	FWH6068APLR	ANDERSEN FRENCHWOOD HINGED INSWING PATIO DOOR
	(B)	3'-2 1/2" x 6'-10 1/4"	FWH3168S	ANDERSEN FRENCHWOOD SIDELIGHT
	(C)	9'-0" x 7'-0"		GARAGE DOOR: 9'-0" x 7'-0"
WINDOWS	(1)	3'-0 1/8" x 4'-8 7/8"	TW21046	ANDERSEN 400 SERIES DOUBLE-HUNG
	(2)	6'-0 3/8" x 2'-0 5/8"	AW61	ANDERSEN 400 SERIES AWNING
	(3)	2'-6 1/8" x 3'-0 7/8"	TW24210	ANDERSEN 400 SERIES DOUBLE-HUNG



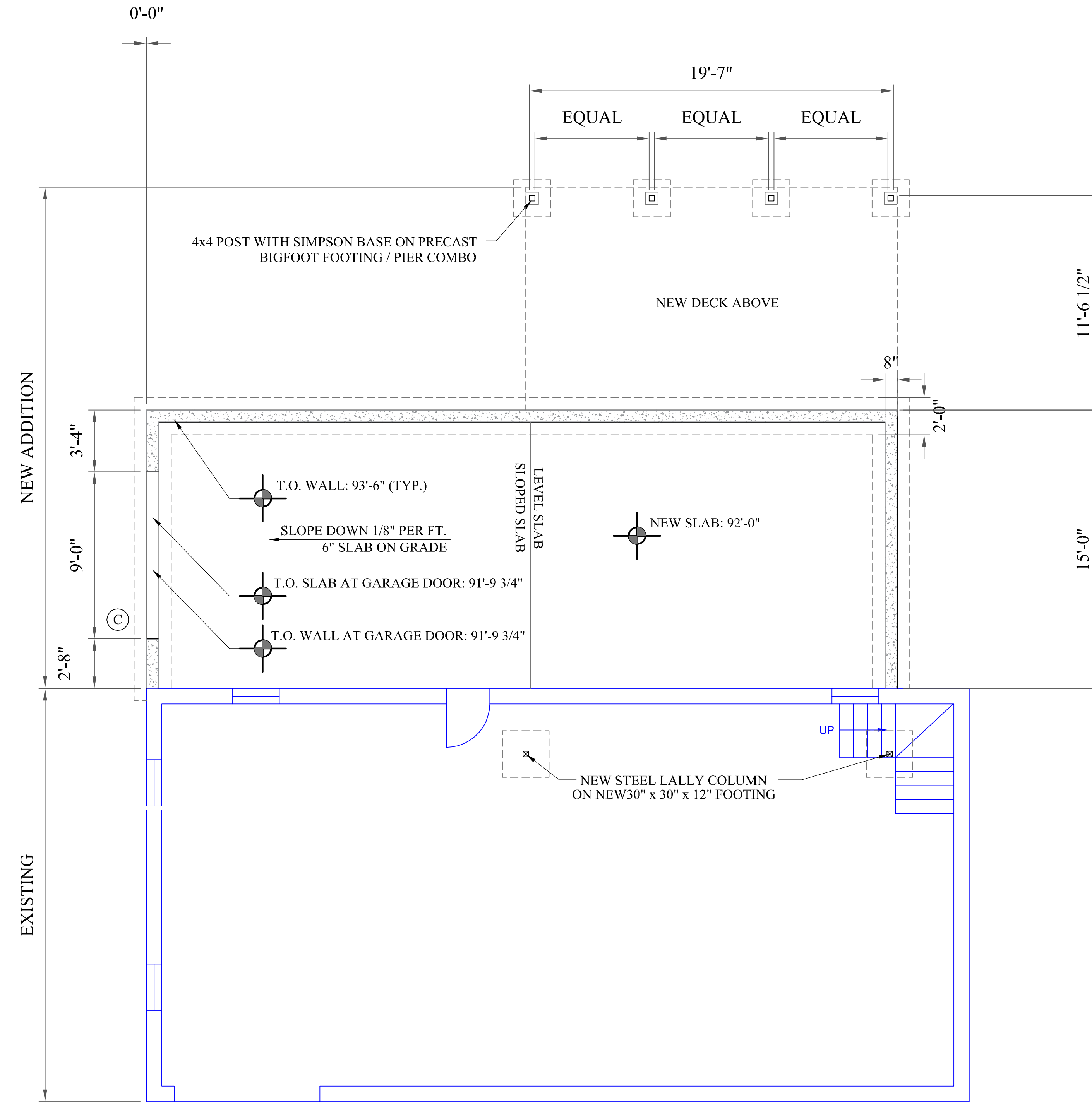
MAIN FLOOR

797 ELWYN RD HAMPTON, NH.		FLOOR PLAN SCALE: 1/4"=1'-0"	
 <b>CHARLES HOYT DESIGNS</b> Shingle Style Architecture 395 Ocean Blvd. Rye, NH 03870 (603) 431-5310 charleshoymail.com	07-15-20	A3	



**NOTES:**

1. SOIL BEARING CAPACITY SHOULD BE TESTED AND RATED FOR 3000 PSF.
2. CONCRETE MIX SHALL BE 3,500 IN GARAGE.
3. FOOTING SHOULD REST ON UNDISTURBED SOILS. IF LEDGE IS ENCOUNTERED, FOOTING SHOULD BE PINNED TO ROCK WITH 12" LONG #5 REBAR 6" INTO ROCK AND 6" INTO FOOTING @ 5' O.C.
4. FOOTING: 24" WIDE x 10" THICK; REINFORCED WITH 2 ROWS OF #5 REBAR CONTINUOUS, 3" UP FROM BOTTOM. PIN WALL TO FOOTING WITH #4 VERTICAL REBAR @ 24" O.C. UP 24" INTO WALL (TYP.)
5. STRIP FOOTER: REINFORCE WITH 4 ROWS OF #5 REBAR CONTINUOUS 3" UP FROM BOTTOM.
6. FOUNDATION WALL: 8" THICK AT TYPICAL WALLS. REINFORCE WITH #4 REBAR (2 ROWS 2" FROM TOP AND (2) ROWS AT BOTTOM, RUN HORIZONTALLY. PLACE EXTRA #4 VERTICAL REBAR BELOW LOCATIONS WHERE POST SITS ON FOUNDATION WALL.
7. AT DECK: 5" TALL PRECAST BIGFOOT FOOTER / PIER COMBO.
8. PIN P.T. PLATE TO FOUNDATION WALL WITH  $\frac{1}{2}$ " DIAMETER x 1'-0" ANCHOR BOLTS 4'-0" O.C. (TYP.). THERE SHALL BE A MINIMUM OF TWO BOLTS PER SILL PLATE SECTION AND NOT MORE THAN 12" FROM EACH END.



**FOUNDATION PLAN**

<p>797 ELWYN RD HAMPTON, NH.</p>		<p>FOUNDATION PLAN SCALE: 1/4"=1'-0"</p>	
<p>CHARLES HOYT DESIGNS Shingle Style Architecture 395 Ocean Blvd. Rye, NH 03870 (603) 431-5310 charleshoymdesigns@hotmail.com</p>	<p>A4</p>		<p>07-15-20</p>

**PERMIT SET**

**FRAMING NOTES:**

- a. Material: SPF (Spruce-Pine-Fir) Fb 875 PSI FV 70 PSI
- b. Grade: No. 2 or better
- c. Sill Material: (2) 2x6 pt (pressure treated)
- d. General Notes on Building Materials: ( Refer to the framing plans )
- e. Provide solid blocking between joists below all post locations.
- f. All wood framing shall be built plumb level square and true with adequate bracing and connection hardware to insure a rigid structure. All dimensions are taken to rough stud or rafter unless otherwise noted.
- g. All plywood will be laid with long dimensions perpendicular to supports, stagger all joints. Solid Blocking @ Wall along the perp. dimension to studs.
- h. All exterior doors and window headers less than 4' spans shall be 2 x 8s with 1/2" fir plywood. 4 foot to 8 foot spans, use 2 x 10s with 1/2" fir plywood". Spans greater than 8 foot, refer to framing plans.
- i. Refer to Sections for discription.
- j. Contractor to take precaution that all beam ends support trace down to solid bearing.
- k. Apply construction adhesive between all joists and plywood floors.
- l. Install additional joists at parallel interior walls for second floor.
- m. All exterior wall construction shall be 2x6 @ 16" o.c.
- n. Design assumption of first floor minimum of 40 PSF live & 10 PSF dead.
- o. Design assumption of roof minimum of 50 PSF live & 10 PSF dead.
- p. Design assumption off all decks 60 PSF live & 10PSF dead.

**1 FIRST FLOOR FRAMING:**

- a. Floor joists: 9 1/2" TJIs @ 16" O.C. ( refer to framing plans )
- b. Sub Floor: 3/4" Advantec decking Glued and fastened w/ 8p ring shank nails @ 16" O.C. Staggered joints
- c. Bridging: Solid bracing @ midspan. (where applicable)
- d. Other: Main girder (See framing plans)
- e. Structural posts: 5/4" PSL or 4" x 4" x 1/4" steel Posts ( see framing plans )

**2 ATTIC (COLAR TIES)**

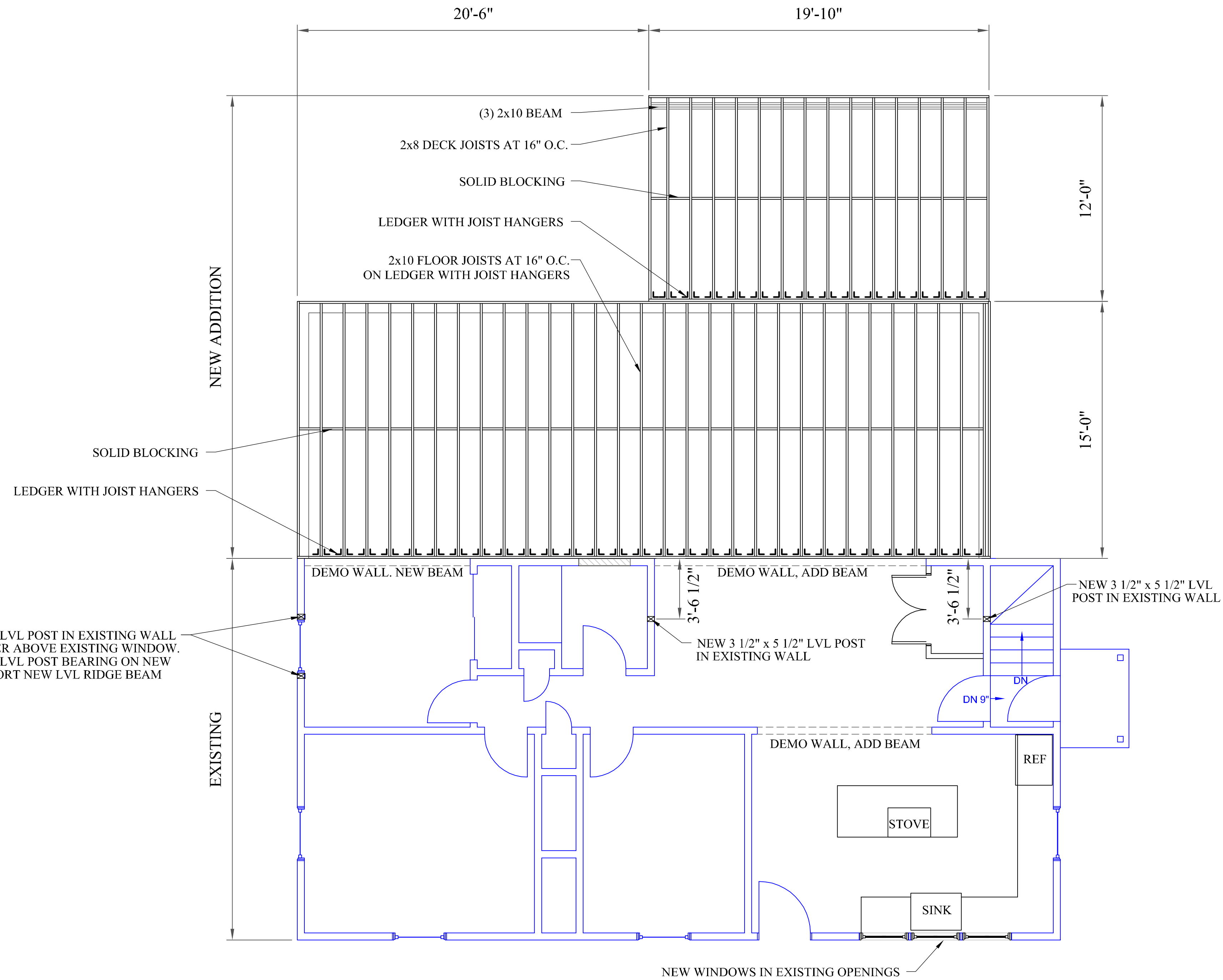
- a. 2 x 8s Spacing: 16" O.C. (if applicable)

**3 ROOF FRAMING:**

- a. Rafters (typ.): 2x10 @ 16" O.C.
- Ridge Beam: (3) 16" LVLs
- b. Sheathing: 5/8" Fir .
- c. Roofing: Material, Asphalt organic 35 years ARC Grade.
- d. Manufacturer: To be determined. Model: TBD Color: TME Fastening: Galvanized nails
- e. Grace Ice and Water: At all roofs
- f. Valleys: Cut with ice and water .
- g. Others:
- h. Flashing Material: Heavy Gauge copper
- i. Windows: Andersen (see specs from window sales rep.)
- j. Steps: Lead
- k. Drip Edge: Heavy gauge copper.
- l. Ice Belt: Grace on entire roof.

**4 FRAMING MISC.**

- a. Nailing: All nailing to meet IBC requirements
- b. Soffit Venting: Vinyl
- c. Other: All framing to be within 1/4" tolerance per 4 feet of run for all horizontal and vertical members. Provide adequate blocking for cabinets and plumbing accessories.



**MAIN FLOOR FRAMING PLAN**

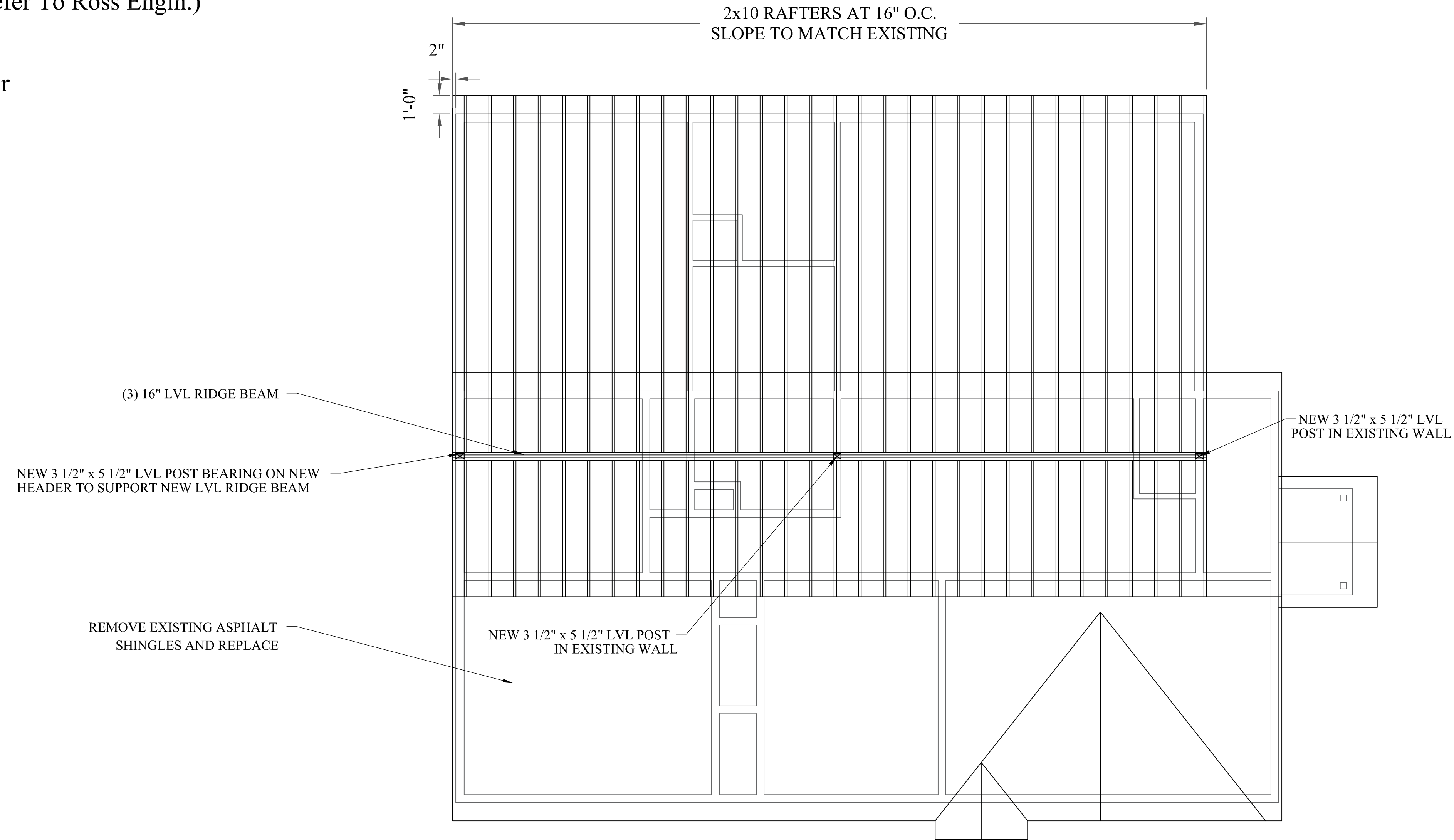
<p>797 ELWYN RD HAMPTON, NH.</p>		<p>MAIN FLOOR FRAMING SCALE: 1/4"=1'-0"</p>	
<p>CHARLES HOYT DESIGNS Shingle Style Architecture 393 Ocean Blvd. Rye, NH 03870 (603)-431-5310 charleshoymtdesigns@hotmail.com</p>	<p>A5</p>		<p>07-15-20</p>

**PERMIT SET**



**NOTES:**

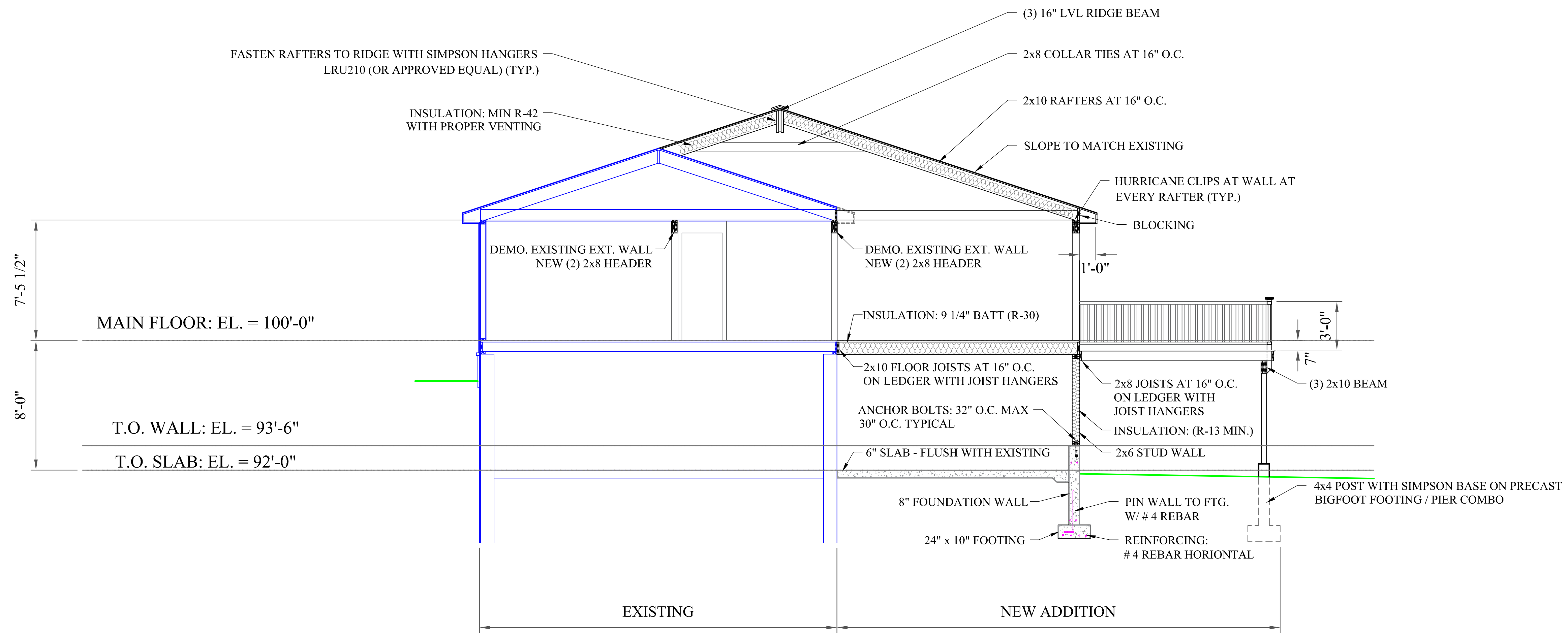
1. Hurricane Clips SIMPSON H2.5A (Or Approved Eq.)  
@ Wall @ Every Rafter (Typ.)
2. Fasten Rafters To Ridge W/ Simpson Hangers  
LRU210 (Or Approved Eq.)(Typ. )
3. All Structural Beam To Beam, Beam To Post,  
Fastened W/ An Approved Connector, (Refer To Ross Engin.)
4. ROOF SYSTEM:  
2x10s @ 16" O.C. W/ 5/8" Fir Plywd. Over



**ROOF FRAMING  
PLAN**

<p>797 ELWYN RD HAMPTON, NH.</p>	<p>ROOF FRAMING SCALE: 1/4"=1'-0"</p>
<p>CHARLES HOYT DESIGNS Shingle Style Architecture 395 Ocean Blvd. Rye, NH 03870 (603) 431-5310 charleshooytdesigns@hotmail.com</p>	<p>07-15-20 <b>A6</b></p>

**PERMIT SET**



**SECTION**

797 ELWYN RD  
HAMPTON, NH.

SECTION  
SCALE: 1/4"=1'-0"

**CHARLES HOYT DESIGNS**  
Shingle Style Architecture

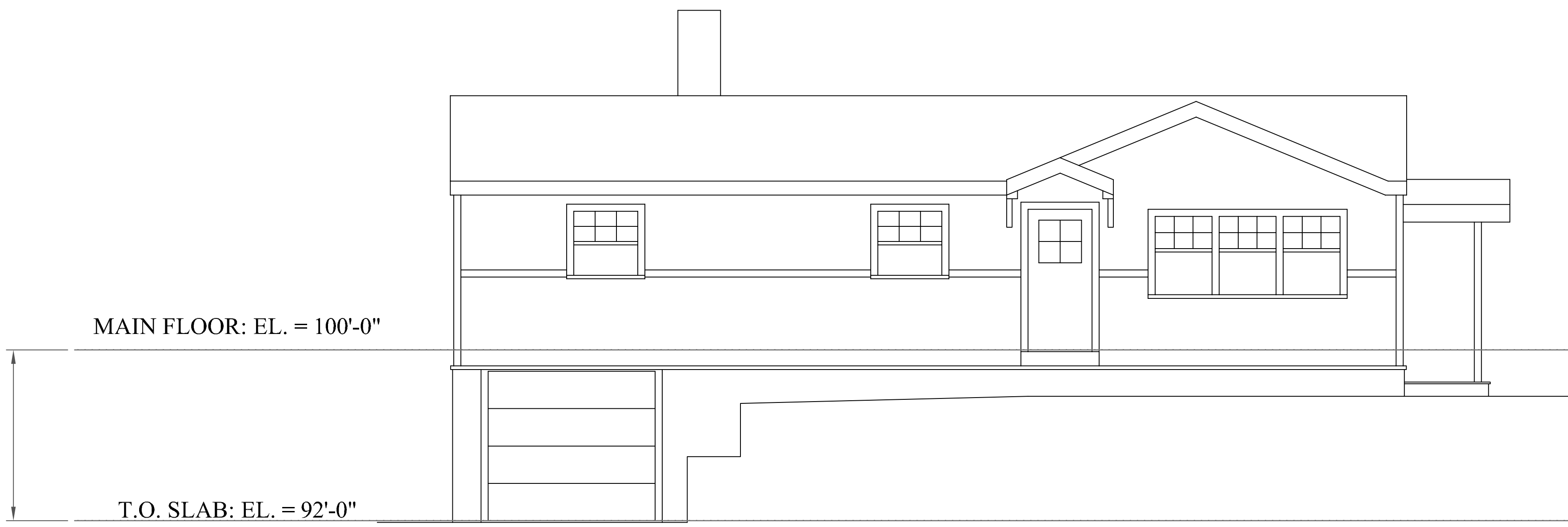
395 Ocean Blvd.  
Rye, NH 03870  
(603) 431-5310  
charleshoymtdesigns@hotmail.com

**A7**

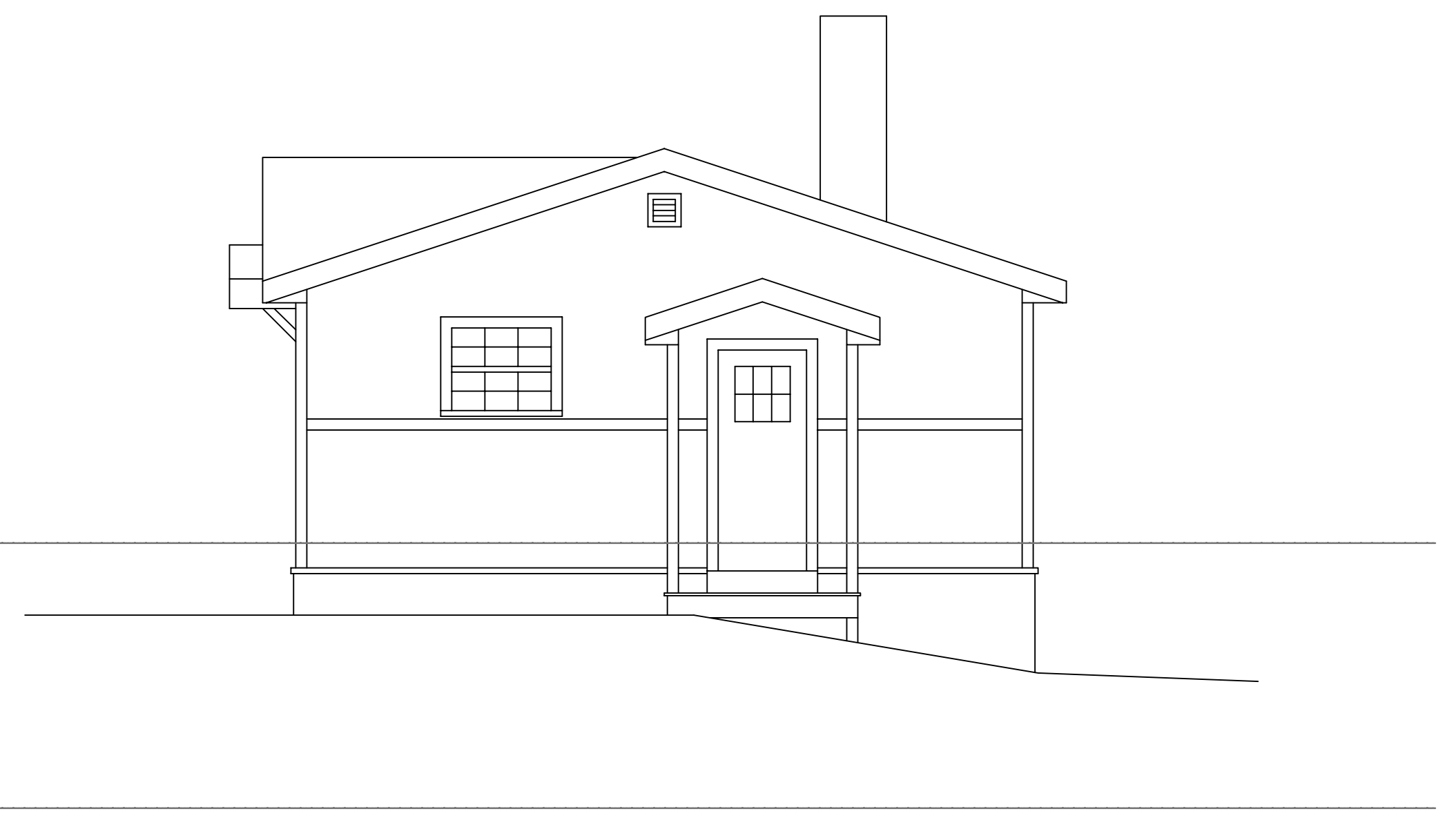
07-15-20

**PERMIT SET**

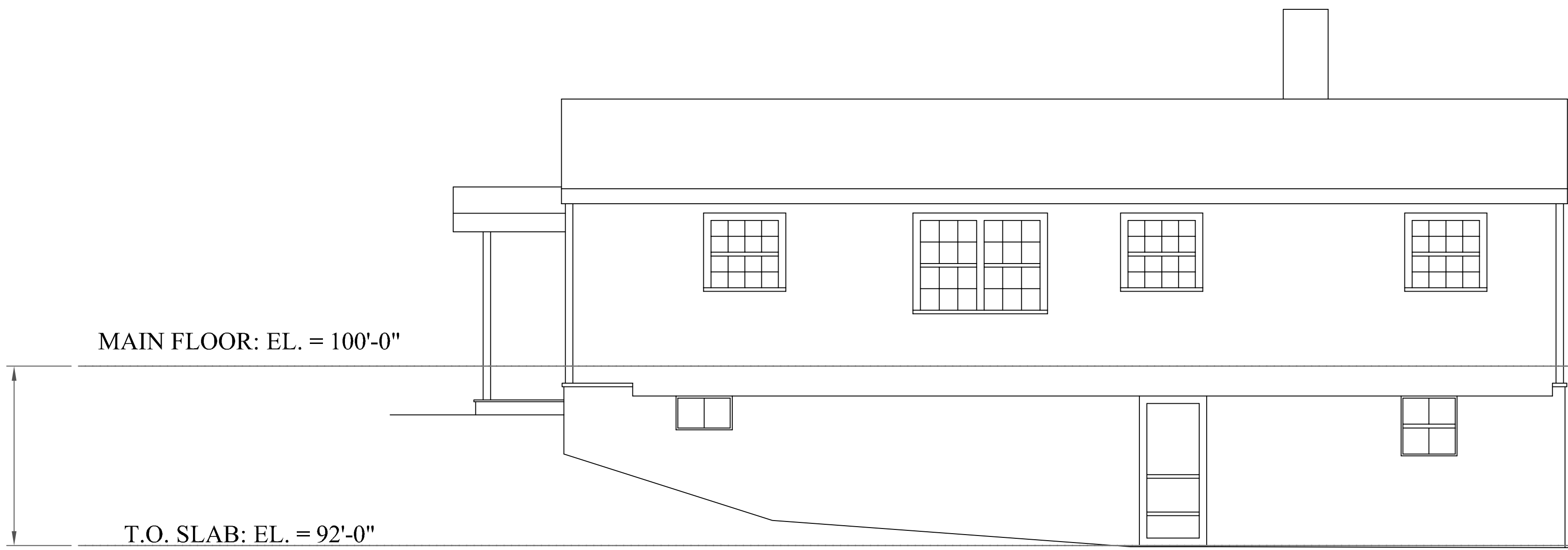




FRONT



RIGHT



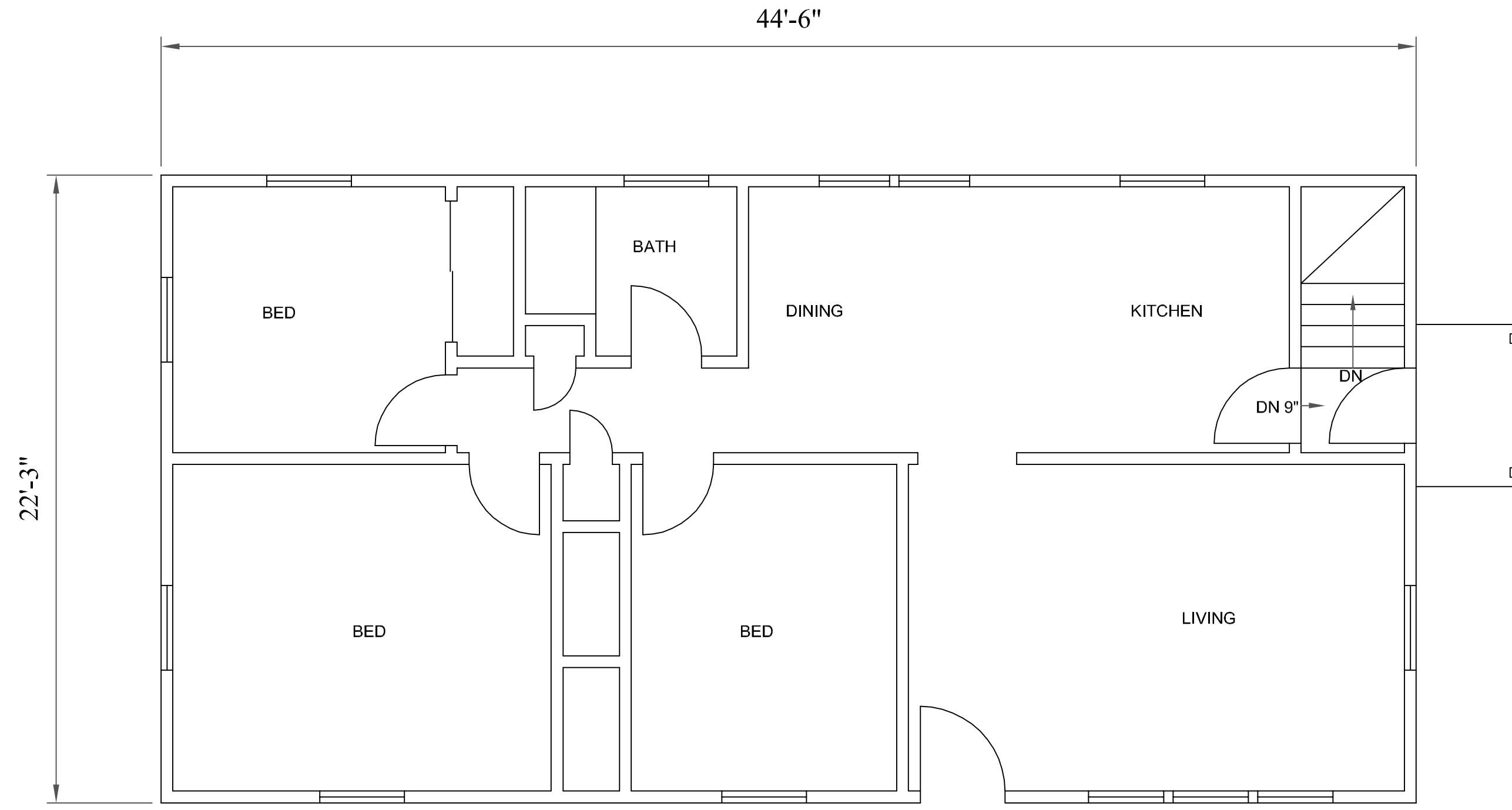
REAR



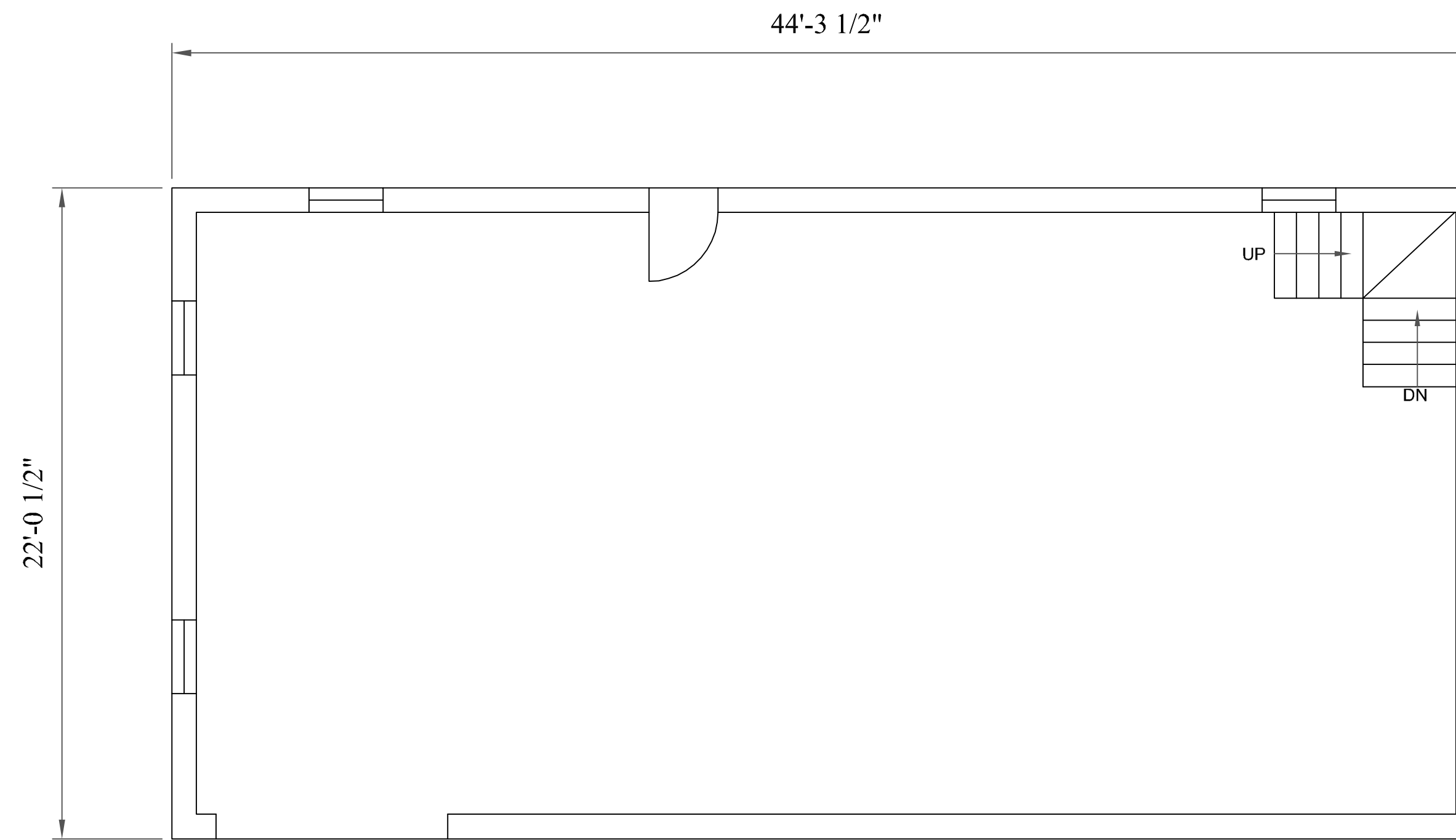
LEFT

<p>797 EL WYN RD HAMPTON, NH.</p>	<p>EXISTING ELEVATIONS SCALE: 1/4"=1'-0"</p>
<p>CHARLES HOYT DESIGNS Shingle Style Architecture 395 Ocean Blvd. Rye, NH 03870 (603)-431-5310 charleshooytdesigns@hotmail.com</p>	<p>07-15-20 <b>E1</b></p>

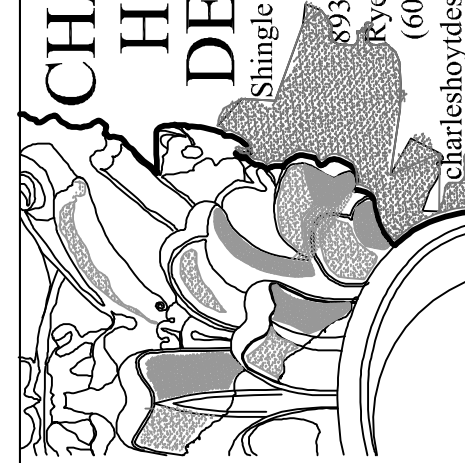
PERMIT SET



MAIN  
FLOOR



BASEMENT

<p>797 ELWYN RD HAMPTON, NH.</p>		<p>EXISTING PLANS SCALE: 1/4"=1'-0"</p>	
 <p>CHARLES HOYT DESIGNS Shingle Style Architecture</p> <p>395 Ocean Blvd. Rye, NH 03870 (603) 431-5310 charleshooyt@charleshooyt.com</p>	<p>07-15-20</p>	<p>E2</p>	

PERMIT SET