#### Form # P 04 DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK **CITY OF PORTLAND** Please Read PERMIT ISSUED E CTION Application And Notes, If Any, PERMIT Pennit Number: 050370 Attached OCT 1 9 2005 This is to certify that \_\_\_\_ Mushial Erik & Monaghan C itruction a. Ft. 3 Build New Single Family 286 y hom th 12' x has permission to \_\_\_\_\_ deck. CITY OF PORTLAND VT 36 Clark St 058 A02800 ation provided that the person or persons, mor epting this permit shall comply with all ances of the City of Portland regulating of the provisions of the Statutes of I ne and of the of buildings and st he construction, maintenance and u stures, and of the application on file in his department. N ication insped n must Apply to Public Works for street line h and w n permis n procu g A certificate of occupancy must be and grade if nature of work requires re this ding or t thereo procured by owner before this buildb such information. la ed or d osed-in. ing or part thereof is occupied. H R NOTICE IS REQUIRED. OTHER REQUIRED APPROVALS re Dept. alth Dept. peal Board her Department Name PENALTY FOR REMOVING THIS CARD

54/26 - Met contractor + Caitlin on site. FIRMO - Place, but need Letter Grom surveyor To be sent to our office taking on <u>Note:</u> Survey Letter Recis Grom owen Haskell gr 5/16/06 Checked RELAR, IT Well GRMS GRE not in place yet. REDAR is OK. OWNER will call for brackfill of

City of Portland, Maine 389 Congress Street, 04101	Ŷ		Permit No: 05-0370	Date Applied For: 04/08/2005	CBL: 058 A028001
Location of Construction:	Owner Name:		Owner Address:		Phone:
36 Clark St	Mushial Erik &		42 Clark St		207-774-1496
Business Name:	Contractor Name:		Contractor Address:		Phone
n/a	Monaghan Construc	ction. Inc.	PO Box 1235 Sca	rborough	() 883-3755
Lessee/Buyer's Name	Phone:		Permit Type:		( ) ====
n/a	n/a	r	Single Family		
Proposed Use:		Prop	osed Project Description		
Build New Single Family 2860 deck.	sq. Ft. 3 story home with 1.	2' x 22' Bui dec		7 2860 sq. Ft. 3 sto	ory home with 12' x 22
<ul> <li>Note: 9/20/05 received a sca</li> <li>1) This property shall remain approval.</li> <li>2) This permit is being approval</li> </ul>	a single family dwelling. Ar	er 1y change of use		te permit applicati	Ok to Issue: 🗹
<ul> <li>work.</li> <li>3) Separate permits shall be reached this permit and is not part of the second seco</li></ul>	equired for future decks, she of this permit approval. It wi				he plans is not part of
<ul> <li>9/22 received full size</li> <li>9/28 spoke at length w need to check w/mjn full 10/3 received the starm</li> <li>10/6 received fax from</li> <li>10/13 phone tag w/Cau</li> <li>10/18 Caitlin M. Calle</li> <li>checklist, she will subtright criteria as this will delate</li> <li>1) Separate permits are require</li> <li>2) Constructuction of the mez</li> </ul>	nstruction. She will deliver a plans /Carol W.(arch) for futher d or the mezzanine & sprinkle ped letter from the engineer a Carol W. W/pages missing of W. About the mezzanine d to inform of deleting the n mit info. She called back to ay the issuance. Ok to issue ed for any electrical, plumbi zanine is not approved with ails must be submitted prior	asap letails as noted o r requirements. for the structura so I emailed her criteria nezzanine from t rquest a condition ing, or heating. this permit. The to the issuance of	n review checklist. S l plans. and faxed her the en, he permit. Reviewed onal permit for the end e stairwell will be built of the CO.	he will submit, also g. Letter. remaining items c ergy conservation t, but details of the	o
Dept: DRC Sta	tus: Approved with Condit	ions Review	er: Jay Reynolds	Approval	Date: 09/08/2005
Note:					Ok to Issue: 🔽
<ol> <li>All damage to sidewalk, cu certificate of occupancy.</li> </ol>	rb, street, or public utilities	shall be repaired	to City of Portland s	tandards prior to is	ssuance of a
<ol> <li>A sewer permit is required section of Public Works m</li> </ol>	for your project. Please cor ust be notified five (5) work.				
<ol> <li>A street opening permit(s) by the City of Portland are</li> </ol>		ase contact Caro	l Merritt ay 874-830(	), ext. 8822. (Only	y excavators licensed
<ol> <li>The Development Review necessary due to field cond</li> </ol>		ht to require add	itional lot grading or	other drainage inn	provements as
5) Two (2) City of Portland a Occupancy.	pproved species and size tre	es must be plant	ed on your street fron	tage prior to issua	nce of a Certificate of

Location of Construction:	Owner Name:		Owner Address:	Phon	ie:
36 Clark St	Mushial Erik &		42 Clark St	207	-774-1496
Business Name:	Contractor Name:		Contractor Address:	Phon	IC
n/a	Monaghan Const	ruction, Inc.	PO Box 1235 Scarbor	ough ()	883-3755
Lessee/Buyer's Name	Phone:		Permit Type:		
n/a	n/a		Single Family		
6) All Site work (fina	grading, landscaping, loam and s	seed) must be comple	eted prior to issuance of	a certificate of occupa	ncy.
Dept: Planning	Status: Approved	Reviewer	: Rick Knowland	Approval Date:	09/08/2005
Note:				Ok t	o Issue: 🗹

Applicant: ERKa Cartlin Mushi AL Dute: 9/20/05 Address: 36 CLAR ST C-B-L: 058-A-028 CHECK-LIST AGAINST ZONING ORDINANC #05-0370 Date - New lot created Zone Location - R-6 using mfill lot provisions Interior or corner lot -Proposed Use Work - to Construct New Suife then dwelling Servage Disposal -Lot Street Frontage - M From Yard - No more Than 10' - 10' exactly chan Rear Yard - None Except 10'or Sun of harge Between Bedge Side Yard - None, Except 10' of Sun of hargets -S - between 0 pts + 42 = 39,25t 30' = 77,255 = 15. 5 side reg - 22' Show Projections - 39 + 30 = 77 - 5 = 15. 40' reg between bldgs - 42' Show Width of Lot - None re - 38' given Height - 45 mm Los Area - MAX lot SIZE = 10,0007 - Showing 53447 Los Coverage Impervious Surface - 20007 Area per Family - 7259 per Du = shing 5, 344 4 for IDU. Off-street Parking - 1pkg Spc per DU - gAnge Bke front of Re Loading Bays - MA Sile Plan - Monor Munor # 2005-001 Shoreland Zoning/Stream Protection - NA Flood Plains - PAnel 13 Z Required 2 stories of Twin Space x bove grade

# City of Portland, Maine Inspections Division Inspection Schedule

# Appointment Date Between 4/1/2005 And 11/7/2007

Dist. # Fire Insp.	Sch. Date: ParcelNo: Contact:	Appl. Type Inspector	Schedule Type Comments	Appl #:	Location
	05/09/2006 058 A028001 Mushial Erik & Monaghan Construction, Inc. ( ) 883-3755	Building Permit Jonathan Reed	Footings/Setbacks Call Caitlin @ 730-2317	05-0370	36 Clark St
2	05/15/2006 058 A028001	Building Permit	Foundation/Backfill	05-0370	36 CLARK ST
	MUSHIAL ERIK &	Jonathan Reed	Rebar insp Call Caitlin @ 730-23	317 req am insp	D.
2	05/25/2006 058 A028001	Building Permit	Foundation/Backfill	05-0370	36 CLARK ST
	MUSHIAL ERIK &		Per Jon		
2	10/26/2006 058 A028001	Electrical Permit Comme	Electrical Service	2006-4804	36 CLARK ST
	MUSHIAL ERIK &	Michael Collins	Call John Lotfey 615-3400		
2	06/04/2007 058 A028001	Plumbing	Plumbing Only	2006-8171	36 CLARK ST
	MUSHIAL ERIK & CAITLIN J	Tom Markley	Rough plb only Call Kaitlin @ 73 checked plumbing. Pressure tes electrical not done		
2	10/03/2007 058 A028001	Building Permit	Close-in/Elec./Plmb./Framing	05-0370	36 CLARK ST
	Mushial Erik &	Tammy Munson	615-3400 John Erick 730-1244 - already done - went over req. for wrapped, went over insulation re over guard rail req. / tmm	r drywall in gara	ge, steel beams need to be

Total Listed: 6

# BUILDING PERMIT INSPECTION PROCEDURES Please call 874-8703 or 874-8693 to schedule your inspections as agreed upon

Permits-expire in 6-months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

Footing/Building Location Inspecti	on: Prior to pouring concrete
Re-Bar Schedule Inspection:	Prior to pouring concrete
Foundation Inspection:	Prior to placing ANY backfill
Framing/Rough Plumbing/Electric	al: Prior to any insulating or drywalling
	Prior to any occupancy of the structure or use. NOTE: There is a \$75.00 fee per inspection at this point.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection

 $\frac{2M}{2}$  If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

	TE OF OCCUPANICES M CE MAY BE OCCUPIED		ND PAID FOR,
Latte	Mushral	10.19.0S	
Signature of Applica	nt/Designee	Date	
Donna Mar	tin Halmin	10 14 05	-
Signature of Inspecti	ons Official	Date	

CBL: 58 A 028

Building Permit #: 050370

FAX TRANSMISSION
OWEN HASKELL, INC.
Professional Land Surveyors
16 Casco St., Portland, ME 04101
TEL. 207-774-0424 FAX. 207-774-0511
Job #: 2003-116-P Mushial
Date/Time: 5/10/06 12:30 Por # pages Z (including cover sheet
To. Jon Reep co. Inspectous Office City of
Con Con Con Ratter (
Deletime the second is a considered and and and and a considered and alle the all
1 KI. VIT-TTA-INIZA PAR VIT-TTA-INILI JOB N. REPORT 16-P. Kesteral.
Profonational Land Surveyora
Professional Land Surveyors
16 Casco St., Portland, ME 04101
TEL. 207-774-0424 FAX. 207-774-0511
Job #: 2003-116-P Mushia
Date/Time: 5/10/06 12:30 Por # pages Z (including cover sheet
To: 100 Reen Co Tuspeotous Office City of Tel #: 074-2702 Fax #: 074-2716 Pattond
Tel #: 674-8702 Fax #: 674-8716 Patter
Fax From: John Schwands
ratriou, <u>Voin 2010000</u>

1

RE1. 36 Clark Sheet

Professional Land Surveyors

16 Casco Street • Portland, Maine 04101-2979 • 207/774-0424 • FAX: 774-0511 • ohi@owenhaskell.com

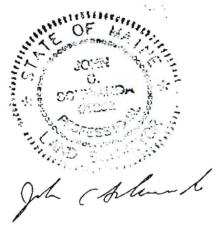
- MEMO TO: Caitlin Mushial City Inspectors office – City of Portland, Jon Reed
- FROM: John C. Schwanda

DATE: May 10, 2006

RE: 36 Clark Street, Portland, Maine

On March 13, 2006, Owen Haskell, Inc. laid out the corners of the proposed residence at 36 Clark Street as per the design plan by Carol Wilson. The building was laid out so that when complete it will conform to the current setbacks.

If you have any further questions or need any additional information please do not hesitate to call.



File: 2003-116-06-JCS

## OWEN HASKELL, INC. Professional Land Surveyors 16 Casco St., Portland, ME 04101

TEL. 207-774-0424	FAX. 207-774-0511			
Job #: 2003-116-P Mushial				
Date/Time: 5/10/06 12:30 Pdg.	# pages (including cover sheet			
To: 10in Reen	Co <u>Inspectary Office</u> (ity ch Fax #: C74- 2716 Pattend			
Tel #: 674-6702	Fax #: @74- 2716 Patterd			

Fax From: John Schwands

RE1. 36 Clork Sheet

# OWEN HASKELL, INC.

Professional Land Surveyors

16 Casco Street • Portland, Maine 04101-2979 • 207/774-0424 • FAX: 774-0511 • ohi@owenhaskell.com

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File: 2003-116-06-JCS

#### CAROL A. WILSON ARCHITECT

Carol A. Wilson Architect 14 Longwoods Road Falmouth, Maine 04105 Tel. 207-781-4684 Fax 207-781-4784 carol@carolwilsonarchitect.com

# **Facsimile Cover Sheet**

Deliver to:	Jeanie Bourke
Fax Number:	874-8716
Sent by:	Carol A. Wilson
Date:	20 October 2005
Regarding:	Mushial Project

Total number of pages including cover sheet: 3 Please contact us at 207.781.4684 if you do not receive all pages.

Dear Jeanie:

Attached are calculation sheets for the Mushial Project percent glazing and R and U factors.

Call me if you have any questions.

Sincerely, Carol Wilson

DEPT. OF BUILDING INSPECTION CITY OF PORTLAND, ME OCT 2 0 2005

14 LONGWOODS ROAD FALMOUTH, MAINE 04105 TEL: 207-781-4684 FAX 207-781-4784 carol@carolwilsonarchitact.com

OCT. 20 '05 (FRI) 16:11 COMMUNICATION No:58 PAGE 1

MUSHIAL

R-Valuer/ UNALUES

KALWAL: 23/4", THEFMALLY BROKEN, CRYSTAL / CRYSTAL, ECNERTY TED WALL'S:

> 51/2 +1BCF ( LAGES : 2.1.0 1/2" HARDI PANEL . 15 for "16" Thick 1/2" PLIWOOD .03 NB .32 for 1/8" thick R-value 22.1 12" GWB U-Factor .045

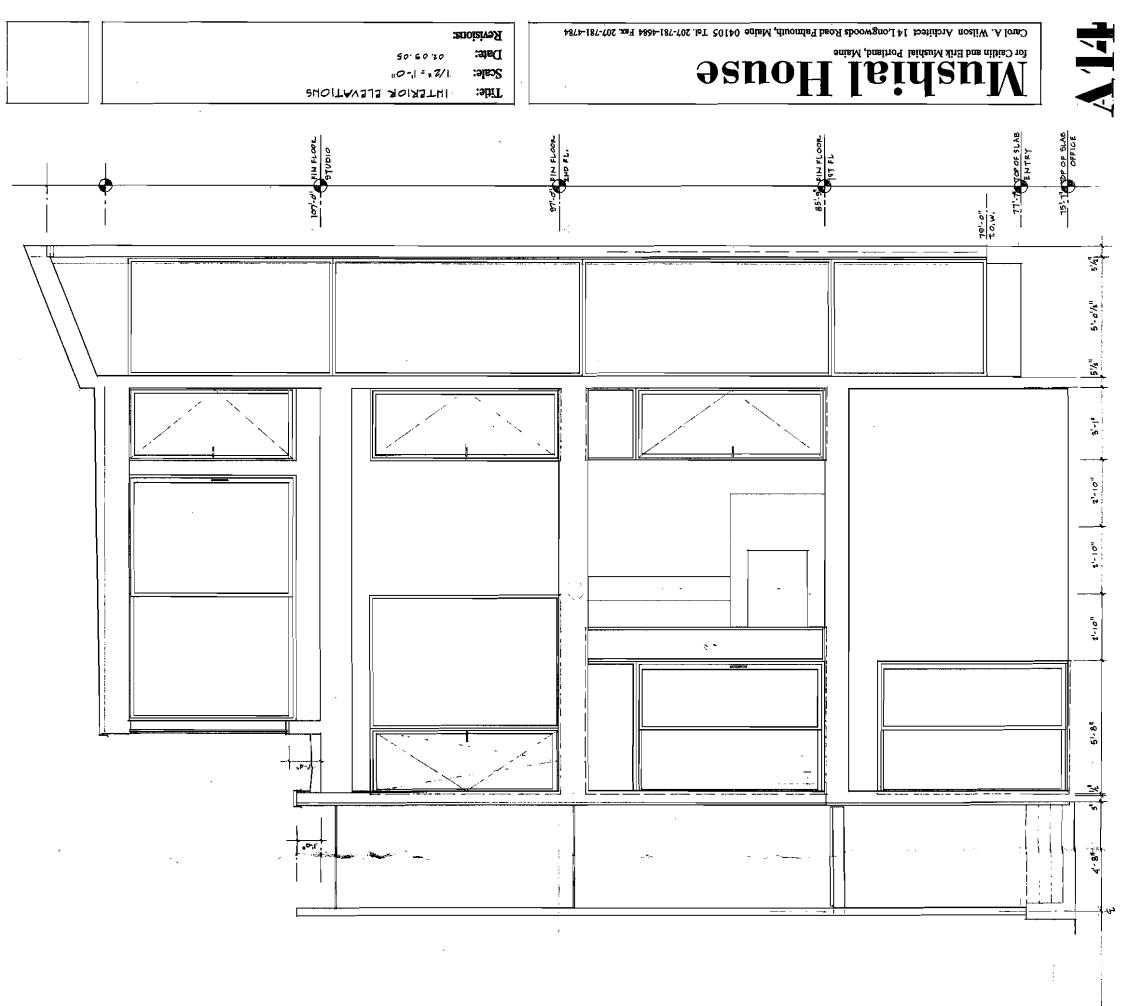
CEILINE:

<u>GARAGE COLLING</u>: 10/2" - FIELORGLAND ENTE: 38 (UFACIOR -> .026) PERMETCR INSULATION: 2" FRATE INSULATION : 10 (UTACIOK > .1)



Carol A. Wilson Architect 207-781-4684

Item Not Rand U Values Mushial Residence.



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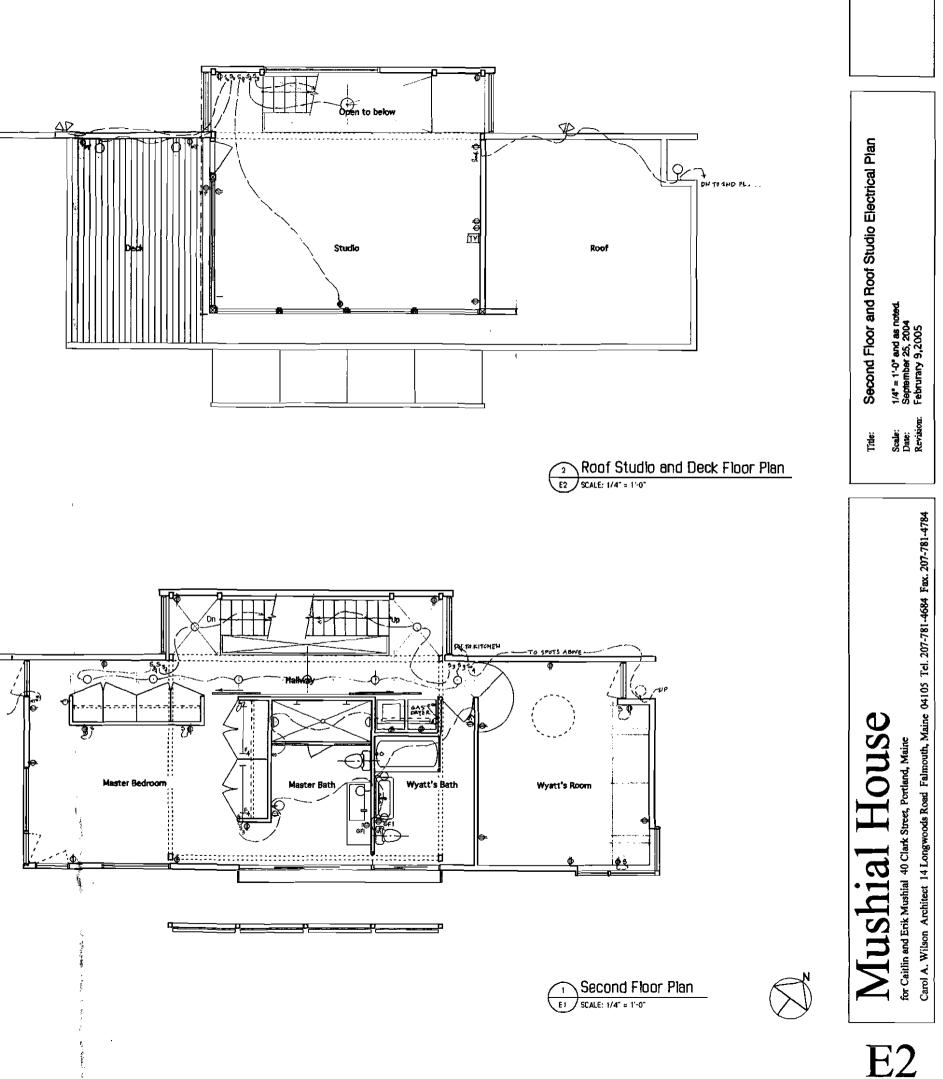
#### SYMBOL TYPE

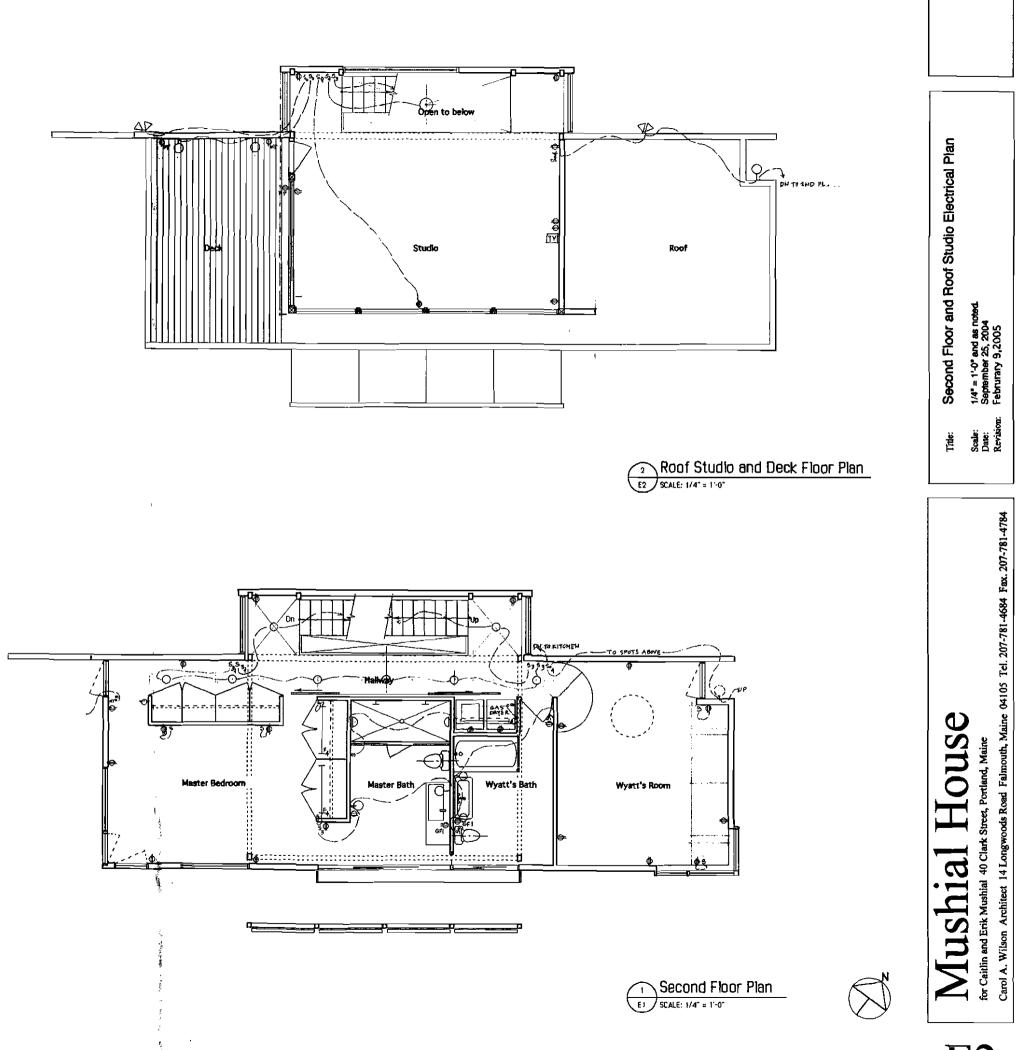
- \$ Switch
- Sa Switch - Three way
- Se Switch - Olymmer
- Switch Dear ectivated Pass and Saymour #1200 Sacor
- Switch Weterproof Swap
- Switch Fan S\_
- Switch Outdoor S
- s. C
- Switch Emergency Beil / Buzzer 1/2" diem. lighted button
- Ē) Ŧ.V.
- Telephone M
- Computer Outlet ۰
- Ξ
- Transformer (within 30" of low voltage flature)
- € Duplex Outlet
- Ð Floor Duplex Outlet - Locete efter fumiture in place
- 😌 en 🛛 Duplex Outlet- Ground Fault Interupter
- 🗢 🔐 Duplex-Exterior
- €220 Valt
- 0 Recessed - 4" diameter - while trim and baffle.
- 0 8 Hangling
- Recessed Fan
- Ŷ Celling Mounted
- Ю Well Mounted

 $\checkmark \lor$ Exterior Wail Mounted Spatilight

Fluorescent Fixture (2', 3',4')

Note: Architect will determine exact location of wail mounted fixturas on site or as shown on drawings. Typ, mounting height-Walt fixture = 6°-6° above fin. fir. Outlet = 12° above fin. fir.





# MUSHIAL

## Wert

WINDOWS - 252:53	51.9.4	™.170.576_sf.
WALKS 881.55F	- 30" × 1'9" + 5.255f	- 1.5 * 80 = 36 of
6 × 36.5 = 249.55	- 2'9" = 7'4"= 10.1sf	- 4.5' × 10'2" = 16.1255f
19.5×84*= 120.835F	- 2'6" * 7'4" = 19.13f .	- 2'9" × 7.5' = 20.6255
9"x 10" = . 625 f	- 2'5*'7'4" + 9.75%	-7'9" × 5'3" * 4017.51
171.5×21'5** 274.82f	- Z'6" + 7'8" + 19.24	-2'4" + 7.5' = 17.53F
17.5×9.5 = 166.25 sf	- Z'5"+7'8"= 18.53f	- 5.6' * 1'9" = 9.625 sf

#### DUTH

21:5'×9'7"= 198.8753f	- 215" + 7"8" = 18.50f	·(5)55·2·11(5)·55
2-10" × 8'0"= 22.673f	- 2'6 * 7'8" = 19.20f	· 2'3" + 7,5" = 16.75f
35'2"×7'2"= 255AF	- 5'4" × 0.5'= 221.7%	-5'5"x7'9" = 425f
1'z" * 10'10"= 19.65f	- 50" * 6.5' = 32.5 of	-5'2"x 299:= 19.95f
1'3" x .5'= , 6255f	- 2'4" * 6.5' = 15.20f	- ジョン ガタッ = 19.7%f
17' × 1'= 175f	-1'2" " " " " " 7.9 %	· (2) 2½"・シタ" = 9(2) = 18×
61' 10' = 488 of	-1'2" × 6'9 - 795f	-2.3"=4'3"=9.6%
59'×14'= 756 sf	-5'9" V7'5" = 29. 11f	-30" " 4'4" - 12.95F
30.75' × 7.5' + 290.0250f	- 5'5" × 7'5" - 29. 10F	-5'2" ×7'5" · 38.3 st
WALKS 2018.1 of	211.70	2.12.2.4
WINDOW - 146.95F		

## NORTH

(z) = (3) = (3) = (1, 0) = (17'x 70' - 5105f 21.5' × 76.5' - 894.35f TOTAL WALKS: 5786.95f = 57875f 12.5 × 21 = 262.55 70TAV WINTOW'Z: 869.6530f ≈ 86536f 19'5' × 16'= 710.75f GLIZING = 14.95 6 15% WALLS 1977.55F WINDOWS - 19.00F ENT 17.5' × 8'= 1404 -2,25'+7:5' (3) - 50.62515 17.5'×72.5'= 292. 75%

- 3.25' × 4.5' 14. 60006 -4,5'×10': 1505 - 1.6 × 0' = 24 15F = 144.253F

Carol A. Wilron Annitect 207-781-4684

14.5' + 7,5'= 108.75%

6× 39.5 - 2375f

WINDOWS - 196.25%

WALKS

Hem No. 1 % of Glazing. October 21, 2005

-- V (WINDOWS INCLUSTP)

DEPT. OF BUILDING INSPECTION

OCT 2 0 2005

879.54f

55.5f.

18-f

# **All Purpose Building Permit Application**

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: 40 Clar	rk st. Portland 04102
Total Square Footage of Proposed Structure 2860 SF Living 300 SF basement 357 gar	Square Footage of Lot 5,344 sq. 1
Tax Assessor's Chart, Block & Lot Chart# 58 Block# A Lot# 28 Erik d	+ Caitlin Mushial Z07 774.1496
telephone:	name, gddress & Cost Of Caitlin Mushial Work: <u>\$</u> 300,000. 42 clark st. Portland ME 04102 Fee: <u>Sta</u> 2, 121.00
Current use: Vard	Ste 300,00
If the location is currently vacant, what was prior use: _	yard cold the
Approximately how long has it been vacant: we the Proposed use: New Single tan	found no cuidence of any withing of
Project description: <u>Ualarket</u> <u>15t 1.00</u> Contractor's name, address & telephone: Michae	Town house - u/ deck on Gorado, + Mico 12 × 12 I monahan Woodworks
Who should we contact when the permit is ready: <u>Ca</u> Mailing address: 42 clark st. Porta	aitin mushial
We will contact you by phone when the permit is ready review the requirements before starting any work, with and a \$100.00 fee if any work starts before the permit is	a Plan Reviewer. A stop work order will be issued
IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE S DENIED AT THE DISCRETION OF THE BUILDING/PLANNING I INFORMATION IN ORDER TO APROVE THIS PERMIT.	
hereby certify that I am the Owner of record of the named property, or have been authorized by the owner to make this application as his/hei urisdiction. In addition, if a permit for work described in this application shall have the authority to enter all areas covered by this permit at any to this permit.	r authorized agent. I agree to conform to all applicable laws of this is issued, i certify that the Code Official's authorized representative
Signature of applicant:	Date: 3.26.05

This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4<sup>th</sup> floor of City Hall

2/22/05

36 Clarkst

38-A-28

Engineen. : Bob Swift

# 05-0370

ONE AND TWO FAMILY	PLAN REVIEW	CHECKLIST
Soil type/Presumptive Load Value (Table R401.4	.1)	
같은 가장에 가장에 가장에 있는 것이 가장에 가장하는 것이다. 같은 것은 것은 것은 것은 것을 통해를 갖춘다. 것은 것은 것이라고 있는	에 가는 물수는 명수있다. 바람감이 말한 것은 또는 방법으로 가격했다. 이 바일은 것을 다 그 것은 것은 것은 것을 것이다. 이 가격 주말님, 이 것을 수 있는	
STRUCTURAL	12" X 20" - S" wall 12" X 24" - 12" wall	
Footing Dimensions/Depth	12" X ZY " - 12" walk	
(Table R403.1 & R403.1(1),	Pier Footings 6' 2'9" REBA	R
(Section R403.1 & R403.1.4.1)	SAL Y NH HOLE	1
Foundation Drainage, Fabric, Damp proofing (Section R405 & R406)	?	Note D Spec-Emithus D Note II Execution OK
Ventilation/Access (Section R408.1 & R408.3) Crawls Space ONLY	NA	
Anchor Bolts/Straps, spacing (Section R403.1.6)	Engineered of Walls 1/2"? Forumas 4'0.C.	8
Lally Column Type (Section R407)	Need Eng Plan: -2	
Girder & Header Spans (Table R 502.5(2))	Need Eng Plan: -2	>Nop drawings ic. 54
Built-Up Wood Center Girder Dimension/Type	<b>.</b>	
Sill/Band Joist Type & Dimensions		
First Floor Joist Species Dimensions and Spacing	2×10/6"0,6.412"0.6	
(Table R502.3.1(1) & Table R502.3.1(2) )	2×12 16"06, Garage -	nsulated
Second Floor Joist Species Dimensions and Spacing (Table R502.3.1(1) & Table R502.3.1(2) )	2×12 16"OC, Garage - R" POWTwebTruss	
Attic or additional Floor Joist Species Dimensions and Spacing (Table R802.4(1) andR802.4(2))	312-14" BET 16"O.C.	
mezzanine. 1,090 SF=1	Floor Belo	
333 me	22 SF	

Pitch, Span, Spacing& Dimension (Table R802.5.1(1) - R 802.5.1(8))	Flat. 2×12@16"QC.	1
Roof Rafter; Framing & Connections (Section	14" BCI 450 @ 16"0.0	F AF
R802.3 & R802.3.1)	<u> </u>	
Sheathing; Floor, Wall and roof	solid	
(Table R503.2.1.1(1)	STS RCAX	A A
Fastener Schedule (Table R602.3(1) & (2) )		called out in spec record (3)
Private Garage		
(Section R309)		
Living Space ?		Δ
(Above or beside)		$\uparrow$
	57.	
Fire separation (Section R309.2)	578 x	
Opening Protection (Section R309.1)	?	Schedule OK (4)
Emergency Escape and Rescue Openings	17	
(Section R310)	6	O( (3))
Roof Covering (Chapter 9)	ZEPDM	OK,
Safety Glazing (Section R308)	7 Baths 5 status	Schedule OK 6
Attic Access (Section R807)	NA	
Chimney Clearances/Fire Blocking (Chap. 10)	NA?	side vent of ()
Header Schedule (Section 502.5(1) & (2)	2ng	
Energy Efficiency (N1101.2.1) R-Factors of Walls, Floors, Ceilings, Building Envelope, U- Factor Fenestration		Condition (8)
	<b>40 of Clazing</b> Kalwall glass - windows - (us	om)

/

44

Type of Heating System	Boiler	? venting 5, dect (9)
Means of Egress (Sec R311 & R312)	? Equest.	No/utility/storage 4 10
Basement		
Number of Stairways	\$7	
Interior	5	
Exterior	2	
Treads and Risers (Section R311.5.3)	Risers-meet code - Tread-Net 1011 ? open riser - AG	- Plexiglass Riser OK
Width (Section R311.5.1)		
Headroom (Section R311.5.2)		
Guardrails and Handrails (Section R312 & R311.5.6 – R311.5.6.3)		
Smoke Detectors (Section R313) Location and type/Interconnected	?	tt 9 inspec notes
Dwelling Unit Separation (Section R317) and IBC – 2003 (Section 1207)	nilla	
Deck Construction (Section R502.2.1)	Eng	
Pool ? (Eliminated)	ust reflecting	

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American America and

were the and second reading the

From:	Jeanie Bourke
То:	cawarcht@maine.rr.com
Date:	10/06/2005 2:55:43 PM
Subject:	Mushial house

Hi Carol,

I just left a message at your office when the fax was delivered to me....apparently only the cover page came through.

Yes, I did receive the stamped letter from Bob Swift.

I spoke to Mike Nugent about the sprinkler & mezzanine: No sprinklers are required under the IRC, however 5A construction only allows 3 stories, and the mezzanine area calculation cannot include enclosed portions of the room that it is located in. It would be counted as a 4th story because it cannot exceed the one-third of the floor or space in which they are located (Sec. 505.2 IBC).

I am not in tomorrow, and Monday is a holiday, so I'll get back to you on Tuesday, Oct. 11.

Thanks, have a great weekend!

Jeanie

(4, A-28

Carol A. Wilson Architect 14 Longwoods Road Falmouth, Maine 04105 Tel. 207-781-4684 Fax 207-781-4784 carol@carolwilsonarchitect.com

# **Facsimile Cover Sheet**

Deliver to:	Jeanie Bourke, C.E.O City of Portland, ME
Fax Number:	874 - 8716
Sent by:	Carol A. Wilson
Date:	October 5, 2005
Regarding:	Mushial House Door and Window
Schedule	42 Clark St. Portland, ME

Total number of pages including cover sheet: 3 Please contact us at 207.781.4684 if you do not receive all pages.

Dear Jeanie:

Did you receive a letter from Bob Swift, PE regarding the structural design of the Mushial House? Could you please fax a copy to me when you receive this. (781-4784).

Attached is the Door and Window Schedule for the Mushial House.

l teach at Bowdoin College on Fridays and will be out of the office this Thursday, October 6. The best way to reach me is through e-mail, cawarcht@maine.rr.com if you have further questions.

Sincerely, Carol A. Wilson FAIA

( and

DEPT	OF BUILDING INSPECTN	
	OCT - 6 2005	
L	RECEIVED	

14 LONGWOODS ROAD FALMOUTH, MAINE 04105 TEL: 207-781-4684 FAX: 207-781-4764 carol@carolwiisposcolitact.com



Consulting Structural Engineers 331 Main Street Norway, Maine 04268 Phone: 207.743.5885 Fax: 207.743.9525 www.swiftengineers.com

September 29, 2005

Ms. Jeanie Bourke CEO/Plan Reviewer CITY OF PORTLAND Rm 315 389 Congress St. Portland, ME 04101

**RE:** Mushial Residence

Dear Ms. Bourke:

This is to inform you that Swift Engineering provided the structural design for the abovereferenced project.

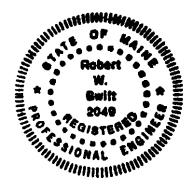
Sincerely,

SWIFT ENGINEERING

Robert N Swift

11

Robert W. Swift, P.E.





# CITY OF PORTLAND, MAINE PLANNING BOARD

Lee Lowry III, Chair Kevin Beal, Vice Chair John Anton Michael Patterson David Silk Janice B. Tevanian Shalom Odokara

August 10, 2005

Erik and Caitlin Mushial 42 Clark Street Portland, ME 04102

RE: 36 Clark Street; 2005-1073

CBL: 058-A-028

Dear Mr. And Mrs. Mushial:

On August 9, 2005, the Portland Planning Board voted 4-0 (Anton, Odokara and Tevanian absent) that the proposed exterior façade plans for a proposed residential building at 36 Clark Street met the standards of the R-6 Infill Development Design Principles and Standards as reviewed under the Alternate Design Review Option and therefore Design Certification for the plan is approved.

The approval is based upon the submitted site plan and the findings related to the R-6 Infill Development Design Principles and Standards, as contained in Planning Report #50-05, which is attached.

If there are any questions regarding the Board's actions, please contact Alexander Jaegerman at 874-8724.

Sincerel Lee Lowry III, Chair Portland Planning Boald

 Lee D. Urban, Planning and Development Department Director Alexander Jaegerman, Planning Division Director Sarah Hopkins, Development Review Services Manager Rick Knowland, Planner/Senior Planner Jay Reynolds, Development Review Coordinator
 Marge Schmuckal, Zoning Administrator Inspections Division Michael Bobinsky, Public Works Director Traffic Division Eric Labelle, City Engineer Jeff Tarling, City Arborist Penny Littell, Associate Corporation Counsel Greg Cass, Fire Prevention Assessor's Office



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Approval Letter File

## CITY OF PORTLAND, MAINE DEVELOPMENT REVIEW APPLICATION PLANNING DEPARTMENT PROCESSING FORM

**Building Copy** 

2005-0073

Application I. D. Number

		0 17	
Mushial Erik &			4/6/2005
Applicant			Application Date
	10		
42 Clark St , Portland , ME 0410	12		Design at Name/Dependention
Applicant's Mailing Address			Project Name/Description
		36 - 36 Clark St , Po	
Consultant/Agent		Address of Proposed	Site
Agent Ph:	Agent Fax:	058 A028001	
Applicant or Agent Daytime Telep	hone, Fax	Assessor's Reference	e: Chart-Block-Lot
Proposed Development (check all	l that apply): 🔽 New Build	ling 🔲 Building Addition 🔲 Change	Of Use 🔽 Residential 🗌 Office 🗌 Retail
Manufacturing Wareho		ng Lot	☐ Other (specify)
2,880 sq. Ft		5,344 sq. Ft	
Proposed Building square Feet or	r # of Units	Acreage of Site	Zoning
Check Review Required:			
Site Plan	Subdivision	PAD Review	14-403 Streets Review
		PAD Review	
(major/minor)	# of lots		
Flood Hazard	Shoreland	🗌 HistoricPreservati	on
	Zoning Variance		□ Other
Use (ZBA/PB)			
Fees Paid: Site Pla	\$50.00 Subdivision	Engineer Review	\$250.00 Date 4/8/2005
Approval St	atus:	Reviewer	
Approved	Approved w/Cor	nditions 🗍 De	nied
	See Attached		
Approval Date	Approval Expiration	n Extension to	Additional Sheets
			Attached
Condition Compliance			
	signature	date	
Performance Guarantee	Required*	Not Required	
* No building germit may be issue	d until a nerformance quara	ntee has been submitted as indicated be	low
no balang perint may be loade	te anel a performance gaara		
Performance Guarantee Acce	epted		
	date	amoun	t expiration date
Inspection Fee Paid			
	date	amoun	t
			•
Building Permit Issue			
	date		
Performance Guarantee Redu	Joed		
	date	remaining ba	alance signature
Temporary Certificate of Occu	IDAUCA	Conditions (See /	Attached)
	date	Ľ	expiration date
			orphanon date
Final Inspection			
	date	signatur	re de la companya de
Certificate Of Occupancy			
	date	)	
Performance Guarantee Rele	ased		
	date	e signatur	
	uale	signatur	•
Defect Guarantee Submitted			
	submitted	d date amoun	t expiration date
Defect Guarantee Released			
	date	signatur	
		2	

4 4 4746 (10	and a mart of the state of the		
	BK   354 OPG   70 WARRANTY DEED 001178 Joint Tenancy		
	Maine Statutory Short Form		
	KNOW ALL PERSONS BY THESE PRESENTS, That	;	
	Winifred Jones and Mary Jane Gould	5	
	of Portland , County of Cumberland , State of Maine,	ľ	
Q	for consideration paid, grant to Erik Mushial and Caltlin J. Mushial	1	
MAINE REAL ESTATE TAX PAID	of Portland , County of Cumberland , State of Maine,		
STATE	whose mailing address is 42 Clark Street, Portland, Maine 04102		
Ш. Б.	with warranty covenants, as joint tenants the land in Portland, County of Cumberland, and State of		
INE RI	Maine, described on the attached EXHIBIT A.	i.	
M	WITNESS our/my hand(s) and seal(s) this day of January, 1998.	•	
	presence of: <u>Winifred Jones</u> <u>Winifred Jones</u> <u>Winifred Jones</u> <u>Winifred Jones</u> <u>January 5</u> , 1998 COUNTY OF Cumberland		
	Then personally appeared the above named Winifred Jones and Mary Jane Gould and acknowledged		
	the foregoing instrument to be his/her/their free act and deed.		
	Notary Public Printéd Name: My Commission Expireix My Commission Expireix		
	· · · ·		

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# BK 13540PG 171

#### Exhibit A - Property Description

A certain lot or parcel of land with the buildings thereon, situated in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at a point on the west side of Clark Street at a point distant four hundred and fifty-two (452) feet southerly from Danforth Street and about one (1) foot north from the northerly corner of the house on the lot hereby conveyed; thence running at nearly right angles with the street about forty-seven (47) feet; thence at a right angle to the right about eleven (11) feet; thence at an angle to the left of about one hundred and ten degrees (110°) about forty-five (45) feet to a post; thence southerly, parallel with Clark Street, or nearly so, about sixty (60) feet to another post; thence easterly about ninety-five and eighty-three one hundredths (95.83) feet to Clark Street; thence northerly by Clark Street about sixty-four and fifty-five one-hundredths (64.55) feet to the point of beginning, together with all of our rights in the street in front of said lot; being the same premises which were conveyed to Shirley Elwell by deed by Joseph F. Hasty and others dated November 23, 1874, and recorded in the Cumberland County Registry of Deeds in Book 416, Page 284.

Also, a certain other lots of land, with any improvements thereon, adjoining the foregoing described lot, and bounded and described as follows:

Beginning at a point on said westerly side of Clark Street distant twenty-four (24) feet northerly from the monument at the west corner of Clark and Summer Streets; thence running northerly on said Clark Street fifty-nine and eight-tenths (59.8) feet to land first above described; thence westerly by said first described lot eighty-three and eight-tenths (83.8) feet to a fence; thence southerly parallel with Clark Street fifty-nine and six-tenths (59.6) feet to land now or formerly belonging to one Michael Lynch; thence easterly by said Lynch land eighty-three and eight-tenths (83.8) feet to the point of beginning; containing four thousand seven hundred and fifty-nine (4759) square feet, and being the same premises which were conveyed to said Shirley Elwell by deed of John F. Froctor dated October 31, 1883, recorded in said Registry of Deeds in Book 503, Page 250. Being the same premises conveyed to Emilia Dyro by deed dated December 11, 1915 and recorded in said Registry of Deeds in Book 961, Page 210.

Being the same premises conveyed to the Grantors by virtue of a deed from deed from Winifred Jones et al dated April 11, 1991 and recorded in the Cumberland County Registry of Deeds in Book 9528, Page 300.

> RECEIVED RECORDED FECISTRY OF DEEDS 1998 JAN -7 PH 2: 50

John B Coloning

#### QUITCLAIM DEED WITHOUT COVENANT (Maine Statutory Short Form)

ERIK M. MUSHIAL and CAITLIN J. MUSHIAL, individuals, both of Portland, Cumberland County, Maine, for One (\$1.00) Dollar and other valuable consideration paid, do hereby RELEASE unto RIVERVIEW CONDOMINIUMS, LLC, a Maine limited liability company, whose mailing address is 42 Clark Street, Portland, Maine 04102, certain real property located on Clark Street in the City of Portland County of Cumberland and State of Maine, bounded and described in Exhibit A annexed hereto.

For grantor's title reference is made to Deed of Winifred Jones and Mary Jane Gould to Erik M. Mushial and Caitlin J. Mushial, dated January ~, 1998, recorded in Cumberland County Registry of Deeds in Book 13450, Page 170 and a certain Boundary Line Agreement dated August 27, 2004 between Erik M. Mushial and Caitlin J. Mushial and William N. Dale, Jr. and Elizabeth Giese recorded in said Registry of Deeds in Book 21759, Page 47.

This deed is between a family limited liability company and its members for the purpose of transferring real property in the organization of the limited liability company for no actual consideration other than interests of the limited liability company.

IN WITNESS WHEREOF, the said Erik M. Mushial and Caitlin J. Mushial have executed this instrument this 3 day of 2004.

Witness Witness

ŬSHIAL CAITLIN J. MUSHIAL

STATE OF MAINE, County of Cumberland, SS.

¢.

13 2004

Then personally appeared the above named Erik M. Mushial and Caitlin J. Mushial and acknowledged the foregoing instrument to be their free act and deed, before me,

Notary Public

JAMES B. MAGUIRE ATTORNEY AT LAW Print or Type Name

My Commission Expires:

[Affix Seal]

### EXHIBIT A

A certain lot or parcel of real property with the improvements thereon situated on Clark Street in the City of Portland, County of Cumberland and State of Maine, more particularly bounded and described as follows:

Beginning at a point on the southwesterly side of Clark Street which point is 81.70 feet distant from the intersection of Salem Street and Clark Street, and then running S37°33'00"E 42.18 feet to a point;

Then S52° 49'59"W, 81.25 feet by other land of grantors;

Then N37°23'55"W, 3.70 feet to a point;

Then S71°28'08"W, 12.57 feet to a point;

Then N36°03'41"W, 58.23 feet by land now or formerly of William N. Dale, Jr. and Elizabeth Giese to a point;

Then N70°06'49"E, 46.29 feet by land now or formerly of Jo Ellen Coyne to a point;

Then S37°33'00"E, 10.97 feet;

Then N52°52'34"E, 47.50 feet to the point of beginning.

Meaning and intending to convey and hereby conveying the real property on Clark Street shown as "4,550 S.F." on a certain Condominium Plat entitled "Condominium Plat '42 Clark Street Condominium' #42 Clark Street, Portland, Maine Made for Erik and Caitlin Mushial" dated August 31, 2004 to be recorded with Cumberland County Registry of Deeds.

Together with the right and easement as appurtenant to the above described land to park motor vehicles on a five-foot-wide strip of other land of grantors as shown on the above referenced Plat. Said five-foot-wide strip of land is situated on the portion of grantors' land shown on said Plat as "5,334 S.F.". Grantors expressly exclude all rights of access or egress to said strip across their other land. Said strip of land is bounded and described as follows:

Beginning at a point on the southwesterly side of Clark Street which point is the northeasterly corner of the above described land;

Then S52° 49'59"W, 81.25 feet by the above described land of grantors;

Then S37°23'55"E, 5.00 feet to a point;

Then N52° 49'59"E on grantors said other land to a point;

Then N37°23'55"W, 5.00 feet to the point of beginning.

.

For grantor's title reference is made to Deed of Winifred Jones and Mary Jane Gould to Erik M. Mushial and Caitlin J. Mushial, dated January ~, 1998, recorded in Cumberland County Registry of Deeds in Book 13450, Page 170 and a certain Boundary Line Agreement dated August 27, 2004 between Erik M. Mushial and Caitlin J. Mushial and William N. Dale, Jr. and Elizabeth Giese recorded in said Registry of Deeds in Book 21759, Page 47.

Received Recorded Register of Deeds Dot 14,2004 10:27:13A Cumberland County John B OBrien

### BOUNDARY LINE AGREEMENT

This agreement is made by and between ERIK M. MUSHIAL and CAITLIN J. MUSHIAL, individuals, both of Portland, Cumberland County, Maine (together, "the Mushials") and WILLIAM N. DALE, JR. and ELIZABETH GIESE, both of Portland, Cumberland County, Maine ("Dale and Giese");

WHEREAS, the Mushials are the owners of certain real property now known and numbered 42 Clark Street, Portland, Maine as shown on a plan entitled "Boundary & Topographic Survey on Clark Street, Portland, Maine Made for Erik & Caitlin J. Mushial Jan. 29, 2004" by Owen Haskell, Inc. (the "Survey"), which land was conveyed to the Mushials by deed of Winifred Jones and Mary Jane Gould dated January, 1998 and recorded in Cumberland County Registry of Deeds in Book 13450, Page 170 (the "Mushial Land"); and

WHEREAS Dale and Giese are the owners of land which adjoins the Mushial Land to the southwest and referred to on the Survey, which land was conveyed to Dale and Giese by deed of James A. Talbot and Hazel M. Talbot dated March 25, 1975 and recorded in said Registry of Deeds in Book 3660, Page 195 (the "Dale and Giese Land"); and

WHEREAS, a survey performed at the request of the Mushials disclosed that the location of the boundary line between the Mushial Land and the Dale and Giese Land was uncertain; and

WHEREAS, the Mushials and Dale and Giese desire to determine and establish the precise location of the boundary between their respective parcels of land;

NOW THEREFORE, in consideration of \$1.00 and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Mushials and Dale and Giese each grant to the other as follows:

- Erik M. Mushial and Caitlin J. Mushial grant, release and quitclaim without covenant unto William N. Dale, Jr. and Elizabeth Giese, whose mailing address is 40 Salem Street, Portland, ME 04102, as joint tenants all our right, title and interest in and to the land described in Exhibit A appended hereto and incorporated herein; and
- 2. William N. Dale, Jr. and Elizabeth Giese grant, release and quitclaim without covenant unto Erik M. Mushial and Caitlin J. Mushial whose mailing address is 42 Clark Street, Portland, Maine 04102-3979 as joint tenants all our right, title and interest in and to the land described in Exhibit B appended hereto and incorporated herein.

10C2. 1203/ UK*24(9/ 13* 1	Doc#:	72039	Bk:21759	fg:	48
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executed this instrument this 27th day of Ququet, 2004 Willia Mais & WILLIAM N. DALE, Witness Gullaghe FRE ELIZABETH GIESE

STATE OF MAINE, County of Cumberland, SS.

2004 nanc

Then personally appeared the above named William N. Dale, Jr. and Elizabeth Giese and acknowledged the foregoing instrument to be their free act and deed, before me,

Maich all of Notary Public

Michelle DONALD Notary Public, Maine My Commission Expires 11 1911

Print or Type Name

My Commission Expires: NOvember 19,201(

[Affix Seal]

SEAL

IN WITNESS WHEREOF, the said Erik M. Mushial and Caitlin J. Mushial have executed this instrument this <u>31</u> day of <u>949</u>, 2004. ð ERIK M. MUSHIAL 

CAITLIN/J. MUSHIAL

STATE OF MAINE, County of Cumberland, SS.

Witness

25.31 2004

Then personally appeared the above named Erik M. Mushial and Caitlin J. Mushial and acknowledged the foregoing instrument to be their free act and deed, before me,

72039 Bk:21759 Fs: 49 Doc‡\*

.....

\*

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-Notary Pub JAMES B. MAGUIRE ATTORNEY AT LAW Print or Type Name My Compaission Expires: [Affy Seal]

1812 - L

Doc#: 72039 Bk:21759 Ps: 50

## EXHIBIT A TO BOUNDARY LINE AGREEMENT (Description for Mushial to Dale)

All our right, title and interest in and to the land lying southwesterly of the following described lines;

Beginning at a 5/8" iron rod to be set at the westernmost corner of the land of Mushial at the southernmost corner of the land now or formerly of Jo Ellen Coyne (See Book 12887 Page 265) as shown on "Boundary & Topographic Survey on Clark Street, Portland, Maine Made for Erik & Caitlin J. Mushial Jan. 29, 2004" by Owen Haskell, Inc. which iron rod to be set is located S 36° 03' 41" E a distance of 56.10 feet from a 5/8" iron rod found on the southeasterly sideline of Salem Street at the northernmost corner of the land of Dale as shown on "Boundary & Topographic Survey Salem and Summer Street Portland, Maine Owner: Norris Dale & Elizabeth Giese Dale June 24, 2003" by Northeast Civil Solutions;

Thence, S 36° 03' 41" E a distance of 58.23 feet to a 1" iron pipe found;

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Thence, N 71° 28' 08" E a distance of 12.57 feet to a 1" iron pipe found;

Thence, S 37° 23' 55" E a distance of 59.09 feet to a 5/8" iron rod with cap #1314.

The purpose of this Instrument is to modify a prior deed and establish the common boundary line between the respective properties of the parties.

### EXHIBIT B TO BOUNDARY LINE AGREEMENT (Description for Dale to Mushial)

All our right, title and interest in and to the land lying northeasterly of the following described lines;

Beginning at a 5/8" iron rod to be set at the westernmost corner of the land of Mushial at the southernmost corner of the land now or formerly of Jo Ellen Coyne (See Book 12887 Page 265) as shown on "Boundary & Topographic Survey on Clark Street, Portland, Maine Made for Erik & Caitlin J. Mushial Jan. 29, 2004" by Owen Haskell, Inc. which iron rod to be set is located S 36° 03' 41" E a distance of 56.10 feet from a 5/8" iron rod found on the southeasterly sideline of Salem Street at the northernmost corner of the land of Dale as shown on "Boundary & Topographic Survey Salem and Summer Street Portland, Maine Owner: Norris Dale & Elizabeth Giese Dale June 24, 2003" by Northeast Civil Solutions;

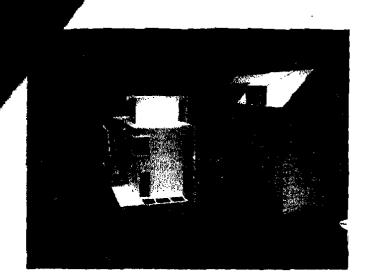
Thence, S 36° 03' 41" E a distance of 58.23 feet to a 1" iron pipe found;

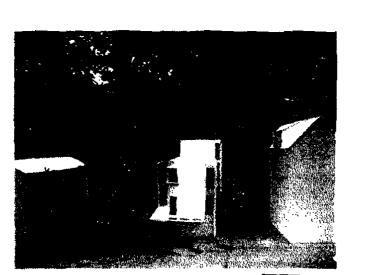
Thence, N 71° 28' 08" E a distance of 12.57 feet to a 1" iron pipe found;

Thence, S 37° 23' 55" E a distance of 59.09 feet to a 5/8" iron rod with cap #1314.

The purpose of this Instrument is to modify a prior deed and establish the common boundary line between the respective properties of the parties.

Received Recorded Resister of Deeds Sem 08:2004 01:13:33P Cumberland Counts John B Obrien







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DEPT. OF BUILDING INSPECT CITY OF PORTLAND, ME SEP - 9 2005 RECEIVED

## Outline Specifications for the **Mushial Residence**

2

40 Clark Street Portland, Maine 04101 September 20, 2002

Carol A. Wilson Architect

14 Longwoods Road Falmouth, Maine 04105 207.781.4684 tel. 207.781.4784 fax Outline Specifications for Mushial Residence 40 Clark Street, Portland, Maine Table of Contents

General Notes Regarding the Project and the Client's Contributions

- 01200: Meetings, Submittals and Special Requirements
- 01500: Temporary Facilities
- 02200: Earthwork

2

- 02800: Landscaping
- 03300: Cast-in-Place Concrete
- 04150: Mortar and Masonry
- 05100: Structural Steel and Miscellaneous Metals
- 06100: Rough Carpentry
- 06200: Finish Carpentry
- 06220: Millwork
- 07200: Insulation
- 07215: Waterproofing
- 07300: Roofing
- 07600: Flashing and Sheet Metal
- 08200: Doors and Frames
- 08600: Windows and Glazing
- 08700: Hardware
- 09250: Gypsum Drywall
- 09300: Tile
- 09900: Painting
- 10800: Toilet and Bath Accessories
- 11400: Appliances
- 15100: General Requirements for HVAC
- 15195: Radiant Floor Heating System
- 15200: Cast-Iron Boilers
- 15380: Sewage Disposal System
- 15400: Plumbing
- 16000: Electrical

#### OUTLINE SPECIFICATIONS

01200 - DRAWINGS, MEETINGS, SUBMITTALS, AND SPECIAL REQUIREMENTS GENERAL

A. The Contract Documents are prepared in accordance with available information, as to existing conditions and locations. If, during the construction, conditions are revealed that are at variance with the Contract Documents, the Contractor shall notify the Architect immediately so that supplementary instructions may be issued.

#### 01500 - TEMPORARY FACILITIES

A. Signs will be permitted only to the extent allowed by the Owner.

B. Storage:

1. Provide substantial and reasonably watertight storage for all material which would be damaged by inclement weather.

C. Electric:

1. The contract responsibility will begin with temporary service brought from the power line, and will include the installation of the permanent underground service from the pole.

2. Make all necessary applications and obtain all necessary permits to provide and maintain electricity for lights, and for power equipment. Fees and charges shall be paid by the Owner.

3. The Contractor shall furnish all temporary wiring, lamps, and similar equipment, as required for the completion of the work.

D. Telephone and other utilities:

1. A Job telephone will be provided by the Owner.

E. Heating and Ventilation:

1. The interior of the building shall have a minimum temperature of 50 degrees F, for the spackling of drywall, installation of wood finish and installation of flooring. Provide safe heating and ventilating equipment. Should the permanent heating system of the building be sufficiently advanced, the General Contractor shall make arrangements for its use for temporary heat, and shall provide electricity, fuel, operation and attendance. Contractor shall also provide temporary fire and safety alarms.

F. Temporary Closure of Openings:

1. Install temporary suitable doors and polyethylene covering for all window openings and other exterior openings as soon as framing is completed to protect the work in progress from adverse effects of weather. Particular attention shall be paid to keeping the subfloor dry at all times so that moisture content will be low for finish floor installation.

G. Fencing and Protection:

1. Provide fences, lights, and other safety devices required as necessary to conform to law.

2. The General Contractor shall take all necessary precautions against damage and injury to all portions of the work, and to workmen on the site in accordance with the requirements of applicable Federal, State and City laws.

3. Any damage to property caused by operation under this Contract shall be repaired by the Contractor to the satisfaction of the Owners at no additional cost to the Owner.

H. Policing:

1. At all times during the construction phase, provide and maintain adequate access and egress to the property. Properly screen, barricade, guard, and protect all areas affected by the work against hazards of any kind that may affect life, limb and property.

2. The Contractor shall take all reasonable precautions possible by policing the site and securing the building as early as possible to prevent theft and vandalism.

3. Provide all necessary labor and equipment to keep all portions of the excavation free from water and maintain pumps in operation as may be required.

J. Cleanup:

1. Periodically, during the progress of the work, remove all debris from the building and premises to make and maintain the premises in a neat and orderly condition, and as directed by the City or is asked by the architect or client. Do not allow excess debris to accumulate.

2. Final Cleanup: All walls, ceilings, floors, etc. to be vacuumed clean throughout. All windows shall be washed.

#### 02200 - EARTHWORK

**GENERAL** 

A. Limit of work: areas around the house delineated as "limits of work" will stripped of loam, and loam shall be stockpiled for regrading before any change in ground contour takes place.

#### MATERIALS

A. Subgrade fill outside the building: bank run or processed gravel, maximum stone size 3"; must be material of sufficient particle variety to be good for compaction and drainage. Material excavated from the foundation may be used away from the building but shall not be used to back fill the foundation walls.

B. Fill under slab: 6" of 3/4" crushed stone.

C. Fill immediately under walks and driveway same as A.

D. Fill for footing drains filter sand or crushed stone with drain completely wrapped with filter fabric. Place geotechnical fabric below stone and footing drains.

E. Fill around power, water and telephone lines: clean dead sand free of rocks.

F. Loam and finish grades by Owner.

#### EXECUTION

A. Layout: Prior to starting excavation, the General Contractor will stake out all limits of the building perimeter and the architect shall assist with layout. Final layout must be approved by the Owner.

**B. Rough Grading:** 

1. Areas outside the buildings: to 6" below finish loam grades as shown on drawings.

2. Walks: to 6" below top of finish grade shown on the drawings. Stonedust and paving by Owner.

3. Driveway: 4" below finish grade shown on Site Plan, L!.

D. Fills:

1. Dispose of materials unfit for fill or grading at approved dumping area off site.

2. Place fill in 6" horizontal layers. Thoroughly compact each layer with vibratory compactors before the next layer is placed. Where conditions warrant and are suitable, the thickness of the first layer placed on existing ground may be increased to 12". Compact to 95% maximum density under building floor slabs and brick walks and driveway, and 92% maximum density in other locations above specified.

3. Maintain optimum moisture content in granular fill and gravel for obtaining required compaction

4. Place fill on both sides of foundation walls simultaneously. Compact evenly in 6" layers. Use extreme care in operation of heavy equipment. Do not backfill for 5 days after removing forms.

5. .Backfill pipes and cables with sand fill that is well tamped under and around pipes and fittings to prevent settlement or lateral movement. Do not roll rocks into trenches and allow them to drop on pipes. Place at least 12" of fine material 6" over and 6" under pipes before dumping fill in trenches.

#### E. Excavation:

1. Keep excavations properly guarded and open for minimum time necessary.

2. Do all shoring and bracing necessary to support soil adjoining an excavation for safety of workmen and protection of the work.

3. Make all excavations to the proper depth, with the proper allowances for formwork. In general, make all excavations clean and clear of loose material. Remove any debris encountered in the excavation.

4. If suitable bearing is not found at levels shown on the drawings, notify the Architect so that any adjustments or changes may be made immediately. In case of error in depth of excavation where the cut is below required level, the Contractor shall increase the depth of structure at no extra cost to the Owners. Filling under footings will not be permitted; use concrete. All footings shall bear on undisturbed soil (or ledge).

5. Make trench excavation for site utilities and for perimeter drains at locations shown on the drawings and to the depth required or as indicated by the work. Bottom of these trenches shall follow a uniformly pitched slope, as conditions require, with no sudden pitches or changes of grades allowed.

6. Make excavation for water pipes to such depth as to provide a continuous and uniform earth cover of at least 5'-6". The bottom shall follow a uniformly pitched slope. Water Line: The water line shall be installed, and tested in accordance with the requirements of the State Plumbing Code. Provide for inspection of those authorities having jurisdiction.

7. Electric, Telephone and Cable underground utilities by Contractor. These utility cables shall be coordinated and installed in accordance with the requirements of the applicable service company.

8. install erosion control mesh on southern side of site, especially low southern corner and as required by City officials.

#### 02800 - LANDSCAPING

All finish landscaping will be by the Owner other than fill to within 6" below final grades as shown on the drawings.

#### 03300 - CAST-IN-PLACE CONCRETE

GENERAL

A. Testing: Tests for slump will be made by the Contractor or Supplier at place of deposit in accordance with ASTM C143-9, if deemed necessary by the Architect. Contractor shall have slump testing equipment available on the job.

B. Provide reinforced concrete slabs

#### PRODUCTS

A. Concrete Mix Materials:

- 1. Cement: Type I, Dragon by Martin Marietta conforming to ASTM C-150.
- 2. Water: Potable.
- 3. Aggregate: to conform to ASTM C-33.

a. Sand shall not contain harmful quantities of organic matter, clay, coal, loam, twigs, branches, roots, weeds, or other deleterious materials.

b. Gravel or crushed stone (coarse aggregate) shall be 3/8 inch minimum to 1-1/2 inch maximum size.

4. All exterior concrete shall be air entrained to 4% to 6% air.

#### B. Reinforcement:

- 1. Reinforcing Steel: Grade 60 deformed bars.
- C. Joint and Other Imbedded Items:

1. Metal accessories, including all chairs, bolsters, spacers, ties, and other items necessary for properly tying, supporting and spacing reinforcing - plastic or hot-dip galvanized after fabrication.

- 2. Form ties: snap off type by Richmond, Jahn, or Rohmann and Barnard.
- 3. Vapor barrier "Tu-Tuff-R" or 6 mil Super Sampson.
- 4. Expansion joint material: as recommended by the concrete subcontractor.

D. Curing Materials: Liquid curing compound for concrete areas shall be Horncure 30. D & C by Grace or Antisol by Sika. Product shall have a transient die for coverage check; or polyethylene coated sisalcraft type paper by St. Regis Paper Co., or by ponding or continuous sprinkling subject to protection of all other work at the option of the Contractor.

E. Form Materials:

- 1. Forms for exposed surfaces: moisture resistant plywood formply or steel.
- 2. Forms for unexposed areas: #2 common or better wood boards may be used.

3. Sonotubes for columns and light posts as drawn, note that all sonotubes have footings.

4. Provide P.V.C. sleeves where pipes pass through concrete walls or slabs.

#### EXECUTION

A. Proportions:

1. Concrete shall be a homogeneous mixture of Portland Cement, water and fine and coarse aggregates specified, mixed to be within the limits stated herein.

2. Requirements:

fc = 3000 psi @ 28 days - footings and foundation walls

fc = 4000 psi @ 28 days - slab on grade

- Max slump allowed: 4
- B. Mixing and Batching:

1. General: Use ready mixed concrete batched and mixed in accordance with "Specification for Ready Mixed Concrete", ASTM C-94.

2. Retempering: Add water only to the extent that the permissible slump is not exceeded. No exceptions to this rule will be allowed, without consultation with the Architect.

- C. Formwork:
  - 1. General: Do not use earth cuts as forms for vertical surfaces.
  - 2. Design of Formwork:

a. Design formwork in accordance with "Recommended Practice for Concrete Formwork", ACI 347.

b. Form accessories to be partially or wholly embedded in concrete shall be as specified in this Section and as required by other trades. Install items as recommended by the manufacturer or as required by the drawings or by the work.

c. Provide for thickening of slabs and all bond-outs as shown in the drawings.3. Preparation of Form Surfaces:

a. Construct forms sufficiently tight to prevent excess leakage of grout or cement paste. Board forms having joints open by shrinkage of wood shall be closed by wetting before concrete is placed.

b. Coat all forms with an approved non-stain form oil or sealer prior to placing reinforcing steel. (Must be compatible with waterproofing.) Do not allow coating material to stand in puddles in

forms or to come in contact with concrete against which fresh concrete will be placed.

c. Clean all form surfaces before reuse.

#### D. Workmanship:

1. Furnishing and Placing Steel Reinforcement:

a. The Contractor shall furnish, cut, bend, and place steel reinforcement including bars and structural shapes as indicated. Reinforcement shall be, when surrounding concrete is placed, free from loose, flaky rust and scale, and free from oil, grease, or other coating which might destroy or reduce its bond with the concrete. Placing shall be in accordance with approved drawings.

b. Fabrication. Steel reinforcement shall be shop fabricated in accordance with ANSI/ACI 315, unless otherwise approved. Bending shall be in accordance with ACI 318.

c. Spacing of Bars. Spacing of bars shall be as indicated or as directed.

d. Relation of bars to Concrete Surfaces. Minimum cover for reinforcement shall conform to ACI 318 or to the dimensions indicated.

e. Splicing. Splices of reinforcing bars shall be in accordance with ACI 318-83. The lapped ends of bars may be separated sufficiently to permit embedment of the entire surface of the bar in concrete or may be securely wired together.

f. Supports. Reinforcement shall be secured in place by the use of metal or concrete supports, spacers, or ties as approved.

g. Other embedded items: Place all keyways, sleeves, inserts, anchors, conduit, piping, and other embedded items prior to placing concrete.

2. Preparation before placing:

a. Remove hardened concrete and foreign materials from inner surfaces of conveying equipment.

b. Complete formwork, remove excess water, secure reinforcement in place, positioned expansion joint material, anchors, and other embedded items.

c. Place vapor barrier specified in 2.C.3 of this Section beneath all slabs. Tape thoroughly around all protrusions, and tape all joints with tape compatible with the vapor barrier, lapping all joints in sheets by at least one foot. Take care in placing concrete not to tear the vapor barrier. Any tears shall be carefully patched.

3. Depositing:

a. General - Deposit concrete continuously, or in layers so that no seams or planes or weakness will be formed within the section. If a section cannot be placed continuously, locate construction joints at points as indicated or as approved. Deposit new concrete while previously placed concrete is still plastic. Discard concrete which has partially hardened or has been contaminated by foreign materials.

b. Place concrete as nearly as practicable in its final position to avoid segregation due to rehandling or flowing.

c. .Vibrate all concrete with mechanical vibrator to minimize voids.

d. Consolidation - Where a surface mortar is to be the basis of the finish, work coarse aggregate back from the forms with a suitable tool so as to bring a full surface or mortar against the form, without formation of excessive surface voids. Consolidate all concrete by spading, rodding, or forking. Work concrete around reinforcement, around embedded items and in corners of forms, eliminating all air or stone pockets.

4. Weather conditions, during placement:

a. Protections:

1. Unless adequate protection is provided and/or approval is obtained do not place concrete during rain, sleet or snow.

2. Do not allow rain water to increase the mixing water or damage the surface finish.

3. Cold weather: when the mean daily temperature falls below 40 degrees F, the minimum temperature of concrete as placed shall be 50 degrees F.

4. Hot weather: concrete deposited in hot weather shall have a placing temperature which will not cause difficulty from loss of slump, flash set, or cold joints, or a maximum of 85 degrees F.

#### 5. Curing:

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a. General: Protect freshly deposited concrete from premature drying and excessively hot or cold temperatures. Maintain minimum moisture loss at a relatively constant temperature for period of time necessary for hydration of the cement and proper hardening of the concrete.

b. Initial curing: Do initial curing immediately following finishing operation: Keep concrete continuously moist at least overnight. Use one of the following methods:

1. Ponding or continuous sprinkling.

2. Curing paper specified in 2.D of this Section.

3. Curing compound specified in 2.D of the Section. Apply such compounds in accordance with recommendations or manufacturer. Do not use on any surfaces against which additional concrete or other cementitious finishing materials are to be bonded unless manufacturer guarantees compatibility with hardener used.

c. Final curing: Immediately following the initial curing and before the concrete has dried, provide additional curing by continuing the method specified above for initial curing.

d. Duration of curing: Continue final curing for not less than 7 days. Prevent rapid drying at the end of the curing period.

6. Maintaining temperature during curing:

a. All concrete shall be maintained at a minimum of 40 degrees F for a full 48 hours after placement and a minimum of 32 degrees for 5 full days thereafter. If freezing weather threatens, the Contractor shall submit a plan to the Architect before placing concrete to maintain this standard by using polyethylene, insulation and/or temporary heat. Plan shall include frequency of temperature monitoring.

b. Hot weather: When necessary, make arrangements for installation of windbreaks, shading, fog spraying, ponding or wet covering of a light color in advance of placement. Take such protective measure as quickly as concrete hardening and finishing operations will allow.

c. Excessive temperature changes: During curing period, protect concrete from temperature changes in excess of 5 degrees F, in any one hour, or 50 degrees F in any 24 hour period.

7. Protection from mechanical injury: During the curing period, protect concrete from damaging mechanical disturbances, particularly load stresses and excessive vibration. Protect all finished concrete surfaces from damage caused by construction equipment, materials, or methods and by rain or running water.

8. Removal of Forms

a. Forms shall be removed carefully to prevent injury to the concrete. Forms shall not be removed before the expiration of the minimum time indicated below, except where otherwise specifically authorized. Columns and walls (lifts 15' and under) 24 hours. When conditions warrant, forms will be required to remain in place for longer periods.

#### 9. Surface repairs:

a. Remove all honeycombed and other defective concrete down to sound concrete. Dampen area to be patched and area 6 inches wide around it to prevent absorption of water from patching mortar.

#### 10. Finishing:

a. Slabs: Finish first by consolidating with trueness of surface with a minimum 10 foot straightedge applied at not less than two different angles. Cut down high spots and fill low spots and retrowel before proceeding. Power or hand trowel to smooth surfaces relatively free of defects. Do additional toweling by hand after the surface has hardened sufficiently. Do the final trowelling when a ringing sound is produced as the trowel is moved over the surface. The finished surface shall be free of any trowel marks, uniform in textures and appearance and placed to within 1/8 inch in 10 feet as determined by a 10 foot straightedge placed on the slab in any direction. Remove defects of sufficient magnitude to show through scheduled floor covering materials by grinding.

b. Exposed formed surfaces, interior and exterior: patch as specified in "11. Surface Repairs" above, immediately upon removal of forms.

c. Formed surfaces, concealed: Knock off all protrusions, fill honeycombed areas as previously specified in "11. Surface Repairs" above, or trowel grade asphalt roofing cement.

d. Bond outs in the edge of the slab must be ture and dead level for proper operation of sliding doors.

#### SECTION 04150 - MORTAR AND MASONRY

#### PRODUCTS

#### A. Types of Mortar

1. Type M mortar in accordance with ASTM C-270, latest revision

2. Masonry cement and Portland cement: Dragon by Martin-Marietta or equal.

3. Sand: Clean, dry, dead.

4. Water: Potable.

5. Ties: Corrosion resistant corrugated metal, minimum 22 gauge 7/8" wide, 6" long. Fasten to studs, not sheathing, with corrosion resistant nails penetrating 1-1/2" minimum.

6. Flashing- Lead sheet step flashing

7. 8" C.M.U. block as required for support of the second floor fireplace and chimney. Install with vertical reinforcing and solid mortar fill as shown on the drawings.

#### EXECUTION

A. General

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1. Lay out masonry work before installation to ensure proper location of openings, joints, building returns, and offsets. Dimensions shall be adjusted only when approved and when required by variations in the masonry unit dimensions.

2. Masonry work shall be plumb, true to line, with courses level and spaced to the vertical dimensions indicated. Except where stack bond is indicated, each course shall break joint with the course below. Bond pattern shall be kept plumb throughout. Keep joints narrow (3/8" maximum) and uniform.

3. Masonry walls shall be bonded in each course and bonded or anchored to connecting work with metal reinforcement ties. Masonry header ties shall only be used where indicated.

4. In unexposed masonry, deviations from running bond in vertical joints shall be less than 2 inches.

5. Mason shall take extreme care to ensure that the cavity between the CMU veneer and the wood frame remains unobstructed by mortar, mortar droppings, or other materials.

6. The size of any two adjacent units shall be within permitted tolerances so that the difference between the vertical faces shall not exceed 1/8 inch for block masonry.

7. Units in exposed-to-view locations or painted walls shall be free from chipped edges or other imperfections detracting from the appearance of the finished work.

8. Any masonry unit that is moved or disturbed after laying shall be removed, cleaned thoroughly, and relaid in fresh mortar.

9. Unfinished masonry work shall be racked or strapped back. Toothing will not be permitted without prior approval.

10. Tool all joints slightly concave.

11. Application of waterproofing for exterior surfaces of CMU: Apply Hydrozo following the manufacturers instruction. In brief: Wall surfaces must be clean and perfectly dry, allowing 72 hours for grout to cure. Application shall be 1 coat with expected coverage of 50 to 100 SF/gallon. Apply with low pressure spray, allowing a flood of material to run down the wall at least 12" to assure proper penetration. Completely protect all adjacent materials from drifting spray.

B. Built-in work: Electrical piping and equipment, expansion strips, wall flashings, anchors, ties, wall plugs, reglets, flashing receivers, and accessories shall be built in as the masonry work progresses. Spaces around metal door frames shall be solidly filled with mortar. Built-ins shall be solidly bedded in mortar or grout.

C. Cold Weather Provisions: Unless proper precautions are taken, masonry shall be erected only when the ambient temperature is at least 40 degrees F and rising. Approved methods shall be provided to protect the work from freezing. The use of admixtures or antifreeze agents to lower the freezing point of mortars is prohibited.

D. Mortar

1. Mortar shall be mixed in accordance with ASTM C-270.

2. Hand mixing, when permitted, shall be performed in a tight mortar mixing box. The mixing time shall be not less than that required to reproduce results obtained by machine mixing after the required amount of water has been added.

3. Mortar shall be used and places in final position within 1-1/2 hours after mixing. Mortar not used within the specified time limit shall be discarded.

E. Joints

1. Except for joints to be caulked or raked, all exposed joints shall be tooled evenly to a dense concave profile, with surface and edges compacted and sealed. Tooling shall be performed after joints are "thumb-print" hard.

2. Exterior joints below grade shall be trowel pointed. Concealed joints and walls to receive plaster or plastic wall covering shall have flush mortar joints.

3. Joint thickness shall average 3/8 inch except where indicated. Joints shall have a minimum thickness of 1/4 inch and a maximum thickness of 1/2 inch. Where approved, joint thickness shall be gradually increased or decreased to meet indicated wall dimensions and to avoid cutting, squeezing, or opening of joints at ends of runs or lifts.

4. Exterior and interior joints between metal frames and masonry, wood frames and masonry, joints between mechanical equipment and masonry, and between other joints indicated shall be raked out to be required depth and left ready for sealant.

#### F. Flashing

1. Flashing shall be provided beneath copings, over wall openings, at spandrels, under sills, at building expansion joints, at wall caps and in locations where flashing is built into the masonry, as indicated.

2. Flashing of wall openings and through-wall flashings shall conform to SMACNA. Flashing shall extend 4 inches or more beyond edge of lintels and sills and turn up edge on sides and back to form pan and to direct moisture to exterior. Flashing shall terminate 1/2 inch from the face of the wall, unless otherwise indicated.

3. Joints in concealed flashing shall be made by interlocking or laps. Spaces around dowels and openings in flashings shall be sealed with mastic before covering the flashing with mortar.

#### G. Facing CMU

1. Facing CMU shall be laid in running bond, with the better face of the brick exposed. Face and ends, corners, and reveals shall be uniformly straight and true, free from chips and spalls, and uniform in color and texture.

2. Face CMU shall be laid out and adjusted to each wall space. No course shall finish at external corners or at jambs with less than a full header. Header shall center on the stretcher or on the joints of adjoining courses.

3. CMU shall be laid with bed and vertical joints evenly and solidly filled with mortar. Mortar beds shall be spread smooth and the ends of the brick shall be buttered with sufficient mortar to completely fill the end joint when the brick is in place.

SECTION 05100 - STRUCTURAL STEEL AND MISCELLANEOUS METALS

#### GENERAL

Make certain that all beams ordered are of proper length for full beaming at ends. Confirm all connecting details with the Architect before erecting steel.

#### PRODUCTS

A. Metals - General

1. Steel shapes, bars and plates shall conform to ASTM A-36.

2. Columns: Standard weight steel pipe ASTM A-53 Grade B with cap and base plates.

3. Shop paint: 1 coat TNEMEC 10-99 or equal, 2.0-3.5 mls thickness.

4. Nuts, bolts, washers and lags: Standard types and sizes conforming to ASTM A-325N. They shall be hot-dip galvanized for all exterior uses, in accordance with ASTM A-153.

#### B. Fabrication

1. Structural steel fabrication, erection, and connection design shall conform to AISC "Specification for the Design, Fabrication, and Execution of Structural Steel" - Eighth Edition.

2. Where possible, fit and shop assemble work ready for erection.

3. Execute work in strict accordance with drawings, details and approved drawings.

4. Shop painting: coat items of steel with 1 coat unless specified to be galvanized.

5. All beam to beam and beam to column connections shall be designed for reaction of WC/2L per the AISC specification referenced above.

#### C. Fabricated Items

1. Connectors for deck framing to sonotubes and any wood columns to walls and slabs: adjustable post bases by Simpson Co.

2. Anchor bolts, sleeves, joist hangers, miscellaneous connector and dowels: Provide fastening devices necessary for other trades and as necessary for incorporating into the work. Furnish sizes as shown on the drawings, or as necessary for the work shown. Anchor bolts shall have standard bent end, and conform to ASTM A-307.

EXECUTION

#### A. Installation

1. Install columns on concrete bases using non-shrink grout specified beneath base plate.

2. Clean bearing surfaces and surfaces which will be in permanent contact before members are assembled.

#### 06100 - ROUGH CARPENTRY

#### PRODUCTS

A. General

1. Protect all lumber and keep dry, both in transit and at the job site.

2. All lumber shall be well seasoned and contain not more than 19% moisture content (marked "S-Dry").

#### B. Lumber requirements:

1. Blocking and framing: #2 Eastern spruce. Note that sills against concrete shall be pressure treated, .04 specific density or better.

2. Concealed posts: #2 Eastern spruce or otherwise noted on drawings.

- 3. Exterior walls: 2 x 6's 16" o.c. unless otherwise noted.
- 4. Interior walls: 2 x 4's 16" o.c. unless otherwise noted.

5. Micro-lam beams shall be the size shown on the drawings as manufactured by Truss-Joist Corp. Micro-lam beams of 3 plys or less shall be nailed as follows:

9-1/2", 11-7/8" depth: 2-rows 16d nails @ 12" O.C. 14", 16", 18" depth: 3 rows 16d nails @ 12" O.C. Micro-lam beams of more than 3 plys shall be bolted with 2 rows of 1/2" diameter bolts at 24" O.C. staggered.

#### C. Plywood:

1. Plywood for interior and exterior use shall meet the requirements of PS-1-74 for softwood plywood types and be APA grade marked. All sheathing plywood shall be "Standard" with exterior glue and thickness shown.

2. Roof sheathing: 5/8" CDX 40/20 span rating. Exposure 1 with minimum nailing of 10d nails @ 6" O.C. at edge and 12" O.C. elsewhere.

3. Exterior wall sheathing: 1/2" CDX. 15/32 span rating. Exposure 1 with minimum nailing of 10d nails @ 4" O.C. at edge and 12" elsewhere. All panel edges shall be blocked.

4. Subfloor: 3/4" CDX below wood floors. Minimum nailing 10d nails @ 6" O.C. at edges and 10" O.C. elsewhere.

5. Underlayment for wood floor subfloor: 1 layer 1/2" CDX.

6. Backboards for electrical and mechanical trades: 3/4" A-C interior DFPA.

D. Exterior Wood Materials:

#### E. Miscellaneous:

1. Strapping and bridging: Normal 1 x 3 spruce, pine or fir at maximum 8 feet spacing (except living room which shall be  $2 \times 3$  or  $2 \times 4$ ).

2. Building paper for use over plywood wall sheathing: "TYVEC" House Wrap by DuPont.

3. Fastenings: Galvanized framing fasteners with recommended nails as manufactured by Simpson Co. or approved equal. Fasteners shall be as indicated on drawings or the appropriate fastener for the connection indicated on the drawings.

4. Caulking compound for exterior use: "N P I Sonnelastic" by Sonneborn, available from Construction Products, Inc., Scarborough or approved equal as supplied by Owner.

5. Nails for exterior use except trim: Hot-dipped galvanized or correct type and size for the work. Must be approved by Owner.

6. Nails for exterior trim: Stainless steel ring nails by Clendendin Bros., Inc., Baltimore, Maryland.

7. Rough hardware: Furnish and install all nails, spikes, bolts, anchors and nailing clips as may be required for proper execution of the work of this Section. Rough hardware for exterior exposure shall be hot-dipped galvanized.

#### EXECUTION

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A. Installation

1. General: Accurately and properly fit and brace all work and secure in position and direction. Framing, studding and blocking shall be as directed on the drawings or as required by the work.

2. Metal framing fasteners: Install metal fasteners as recommended by the manufacturer.

3. Install plywood sheathing with exterior face grain across supports with all butt end joists occurring over a framing member and 1/8" between butt ends. Take care to lay CDX subfloor with 8' edges at right angles to joists. Nail floor sheathing using annular or spiral thread nails.

4. Place all underlayment at right angles to subfloor, landing all 8' edges on joists or inserted joist or blocking if necessary.

5. Installation of millwork items: In general, install millwork and finish carpentry items to detail, set accurately to line, scribed where necessary, fitted, coped, mitered, glued, nailed, bolted, screwed and of the best workmanship by skilled carpenters and cabinet makers. Cut holes in counter tops for sinks and other appliances. Install appliances as required for hookup by mechanical and electrical subcontractors.

6. Cutting and patching: Do all cutting, patching, heading and blocking required for work of all trades.

7. Blocking and supports: Install blocking of width necessary in stud partitions for anchoring all cabinets, mirrors and for other items applied to or in the walls.

8. All built-up beams and posts shall be nailed as follows as a minimum (unless otherwise noted on drawings):

8eams: 2 - 10d nails at 12" O.C. in each piece Posts: 8d nails at 12" O.C.

#### 06200 - FINISH CARPENTRY

#### PRODUCTS

A. Materials

1. Any interior wood trim shown: Select poplar for paint finish, no sapwood. All millwork shall be machined from stock that is kiln dried to an average moisture content range of 9% to 14%.

2. Stair treads and risers for cellar stair: Southern yellow pine with polyurethane finish.

3. Shelves for all closets: 3/4" pre-finished maple plywood with edge band.

#### EXECUTION

A. Fabrication

1. All trim shall be milled to proper dimension as indicated on the drawings.

2. Make all work in accordance with measurements taken at the job. Accurately assemble finished carpentry work and properly secure together in place.

3. Sand all exposed woodwork to even, smooth surfaces ready for finish, with all holes filled with plastic wood filler and sanded on exposed faces.

4. Join assemblies with concealed nails and screws. Make dado and rabbetted connections where applicable. Countersink nails and screws in exposed surfaces. Fill nail holes with plastic wood and cover screws with wood plugs. Use waterproof type glue of the best quality.

5. Painter or General Contractor shall solidly fill all gaps between pieces of trim and drywall in areas to be painted with DAP glazing compound.

#### 07200 - INSULATION

#### PRODUCTS

A. Materials

1. Sill sealer: 1" x 6" wide fiberglass.

2. Perimeter insulation where shown on drawings: 2" extruded polystyrene board with an R factor of not less than 5 per inch.

3. Vapor barrier: 6 mil Super Sampson or equal.

4. For exterior walls: 5 1/2 " R19 fiberglass batts kraft faced

5. For all ceilings between heated and unheated space: minimum of 5" polyisocyanurate foam on warm side as shown on Drawings.

6. For all vapor barrier joints: Tremco acoustical sealant.

#### EXECUTION

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A. Installation

1. Fiberglass insulation for inside wall of exterior wall to be placed after rough wiring and plumbing is complete.

- 2. The vapor barrier shall be installed in the following locations:
  - a. On the inside face of all exterior walls.

b. Between framing and strapping on all areas of ceiling defining heated from unheated space.

3. In general, the vapor barrier should be installed as follows:

a. It must cover the entire height of the walls including top and bottom plates, fastening approximately 16" o.c. on top and bottom plates, around all framing openings and at lap joints. Seal all joints with Tremco sealant.

b. No horizontal joints shall be permitted except where it passes through floor framing as detailed.

c. Vertical joints must overlap at least two wall studs, or a lap joint may be used, provided that the lap is sealed over a stud with Tremco sealant or approved equivalent.d. It must be cut tight to all penetrating elements such as outside connections. All elements to be collared and sealed tightly to vapor barrier system.

e. Windows and all openings shall be totally covered at time of application, then cut undersize to permit the vapor barrier film to be folded over at time of finishing.

f. The vapor barrier shall be inspected and necessary repairs made prior to installing the interior wall finish. All tears and punctures shall be closed with tape or another layer of polyethylene sealed with Tremco.

4. Place sill sealer between foundation and wood sill before bolting sill into place.

5. Install friction fit or kraftpaper covered type insulation to wood studding or framing in accordance with manufacturer's directions. Pack insulation around window frames, door frames, and other locations shown on the drawings.

#### 07215 - WATERPROOFING

#### GENERAL

All exterior surfaces of foundation walls, basement and crawlspace below grade receive waterproofing.

#### PRODUCTS

A. Foundation wall waterproofing - Polyken 660 system with membrane and mastic.

#### EXECUTION

A. Foundation waterproofing materials shall be applied in strict accordance with manufacturer's recommendations and directions.

07300 - ROOFING

#### GENERAL

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1. Rubber membrane / EPDM roofing . The design and layout of the flat roof is design/build with the Roofing Sub-contractor. Roofing shall meet manufacturers specifications for appropriateness and correct installation.

2. Furnish plumbing stack flashings, counter flashings for all roof penetrations, door and window head flashings, drip edges and other flashings.

#### EXECUTION

A. Installation of roof:

1. Roofing shall meet manufacturers specifications for appropriateness and correct installation.

2. Install flashings around all plumbing vents and other roof apertures to be weather tight.

07600 - FLASHING AND SHEET METAL

#### PRODUCTS

A. Materials:

1. Roof flashing and drip edge: 16 oz. copper.

2. Plumbing vent collars: Standard P.V.C., copper sheathed.

3. Miscellaneous roof and window flashings: 16 oz. copper.

4. Ducts for all bath and kitchen fan to outside wall caps: 4" PVC Schedule 10.

EXECUTION

A. Installation

1. Install all items in accordance with the best practice of the trade, and in accordance with the drawings.

2. Precautions, electrolytic action: When two dissimilar metals adjoin or lap each other, furnish and apply an approved separating strip or other insulating material.

3. Upon completion, remove all dirt, debris, stains and foreign matter from the roofing work.

4. The Contractor shall be responsible for all weather flashings.

#### 08200 - DOORS AND FRAMES

#### PRODUCTS

A. Door types:

1. Exterior doors: see attached door schedule

2. Interior doors: see attached door schedule.

#### EXECUTION

A. Installation:

1. Fit and mortise doors and frames for hinges and locksets in accordance with the Finish Hardware Schedule and to provide tolerances for thresholds, floor finishes and temperature changes.

2. All interior wood doors shall be sanded smooth to the touch on edges and faces with a fine grit sand paper. Factory sanding standard will not be accepted.

#### 08600 - WINDOWS AND GLAZING

GENERAL

Delivery time: Contractor shall order windows to allow for fabrication and delivery time.

#### PRODUCTS

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A. As specified on the Door and Window Schedule.

EXECUTION

A. Installation

1. Place all units true, level and square and ready for interior and exterior trim. Check all operating sash prior to completion to insure complete workability of all units.

#### 08700 - HARDWARE

GENERAL: Delivery time: Contractor shall order hardware, with special attention to allow ample time for preparation of doors before installation.

#### PRODUCTS

- A. Door materials:
- 1. Exterior locksets
- 2. Interior knobs and locksets
- 3. Closet handles by Owner

#### KEYING

A. General: Contractor shall consult with the Owners about their preferences for keying exterior doors before ordering locksets.

#### EXECUTION

A. Installation:

1. Install hardware in accordance with the manufacturer's instruction, securely fitted and adjusted, using templates from the hardware supplier.

2. Provide Owners with 2 clearly tagged and organized sets of keys to all locksets as doors are installed.

NOTE: During construction, extra keys for the Contractor or subcontractors or any other party needing access to the premises will be allowed only after consultation with the Owners.

3. Adjust all doors, hardware and moveable parts prior to the final acceptance of the building, leaving all in good working order.

4. Take particular care in weatherstripping doors, especially wood doors, to compensate for seasonal shrinkage.

09250 - GYPSUM DRYWALL

#### PRODUCTS

A. Storage: Keep materials dry, preferably by storing inside the building under the roof.
 B. Materials:

- 1. All walls and ceilings in the house are to be finished in gypsum wall board.
- 2. Use 5/8" firecode(Type X core) drywall board for garage.
- 3. Use moisture resistant board for all bathrooms, and laundry closet.
- 4. Screws only to be used. No nails
- 5. Outside corner beads: Galvanized metal by the gypsum board manufacturer.

#### EXECUTION

A. Installation of boards:

1. Preparation: Examine and inspect materials to which gypsum board is to be applied. Remedy all defects prior to installation of drywall. Any defects in the finish installation due to misaligned framing or other causes will be the responsibility of the work performed under this Section. Starting or work shall imply the acceptance of the conditions.

2. Cutting: Cut wallboard by scoring and breaking, or by sawing, working from the face side. Where board meets projecting surfaces, it shall be scribed neatly.

3. Placing: Bring boards into contact with each other but do not force into place. Maximum allowable gap at end joints is 1/8". Neatly fit and stagger all end joints. Arrange joints on opposite sides of partitions so as to occur on different studs.

4. Attaching to wood: Drywall screws shall be spaced not to exceed 12" o.c. on ceilings and on side walls.

5. Install #900 corner beads on all outside corners by U.S.G.

6. Follow manufacturers installation recommendations. A first rate drywall job will be expected.

7. Patching: After trim has been applied and prior to painting, correct damage and defects in good lights.

#### 09300 - TILE

#### GENERAL

Lead Time to Order

1. Particular attention should be paid to ordering all tile well in advance of the scheduled installation. Contractor shall call supplier and determine lead time, and double it, for ordering purposes.

#### MATERIALS

1. Ceramic tile shall be as described on the drawings or in the Finish Schedule.

2. Backing for tile at tub enclosure walls shall be a cement mortar base as recommended by Tile Council of American Inc. using metal lath and 3 coat system.

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3. Tile colors and patterns and grout colors to be as selected and detailed by Architect. C. Setting Materials:

1. For each tile specified, best quality thin set epoxy mortar, as recommended by the tile distributor and confirmed by tile installer.

#### **EXECUTION**

1. Installations shall be done by an installer with no less than five years experience in the trade.

2. If the subfloor is laid by the General Contractor, the tile installer shall approve the subfloor installation before any tile is installed, or indicate to the General Contractor and Architect the necessary corrections required for a one year guarantee period.

3. Set tile and grout in complete accordance with recommendations and directions of the manufacturers.

#### WOOD FLOORING

MATERIALS

A. For all floors noted as wood:

- 1. Nails: 2" machine driven fasteners, 7d or 8d screw or cut nail.
- 2. 15 lb. asphalt saturated felt, or red rosin paper.

#### A. Installation of Finish Floor:

1. Flooring shall be properly seasoned on delivery. If stored on the site for any length of time it must be rigorously protected from picking up moisture. To allow wood to acclimate to its final surrounding, break bundles and place in small lots in the living-dining area for 1 - 2 weeks before installation. House must be dry at this point and well ventilated throughout the installation process.

2. Sweep underlayment floors clean and cover with asphalt-saturated felt. Lap felt seams 4". Flooring shall be laid in direction chosen by Owner. First row of strips shall be properly aligned with a chalk line, allowing 1/2" between the flooring and drywall. First strip shall be face nailed, all other courses shall be blind nailed, taking care not to split out the bottoms of the pieces of flooring. Allow 1/2" spacing around all walls for expansion, to be covered by baseboard. Carefully fill expansion, to be covered by baseboard. Carefully fill expansion, to be covered by baseboard. Carefully fill expansion, to match flooring. In general, make sure flooring remains square with walls throughout, and watch the rooms for even distribution of short and long pieces.

B. Sanding (Contractor shall coordinate with Painting Contractor):

1. Floors shall be traversed several times, lengthwise with the grain starting with 40 grit sandpaper on the machine, graduating to #1/2 sandpaper on the second traverse, and with #0 or #00 on the third and fourth traverses. The floor shall then receive a final buffing or cleaning with fine sandpaper or #0 steel wool - by hand or by machine. Sweep and vacuum clean to prepare for floor sealer and finish.

2. Special attention shall be paid to sanding perimeter of flooring surface so that there will be no voids between baseboards and floor surface.

#### 09900 - PAINTING

#### GENERAL

Colors and Samples selected by the Owner and Architect.

#### PRODUCTS

A. Materials and schedule for painting,

1. For interior doors and interior trim: 1 primer coat and 2 coats of high gloss house paint.

2. For interior walls: 1 coat primer and 2 coat of latex finish.

3. For all millwork with paint finish: 1 coat oil base primer and 2 coats of oil base semigloss.

4. For baths: 1 coat primer, 2 coats eggshell or pearl finish. Use Devoe vapor barrier primer or approved equal.

#### **B.** Products:

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1. Paint, varnish, stains and fillers: Of type and brands specified in "Schedule of Painting". Painting materials such as linseed oil, shellac, turpentine, etc. shall be of the highest quality and have identifying labels on all containers.

2. Deliver all paint to the site in manufacturer's sealed containers. Each container shall be labeled by the manufacturer; labels shall give the manufacturer's name, type of paint, color of paint and instructions for reducing. Do thinning only in accordance with directions of the manufacturer.

3. Use materials only as specified by manufacturer's directions.

C. For the following products: B.M. = Benjamin Moore, P&L = Pratt and Lambert or approved equal

- 1. Metal primer for exterior and interior: B.M. Ironclad Retardo Primer P&L Noxide Red Lead Primer Or TNEMEC Series 90-97
- 2. Enamel undercoat: P&L Vitralite Enamel Undercoat B.M. Alkyd Primer Sealer
- Flat paint for interior walls or ceiling: P&L Lyt-All Flowing Flat B.M. Aklyd Sani Flat
- 4. Eggshell paint for interior walls: P&L VitraShield B.M. Regal Aquavelvet
- 5. For all interior trim, doors, door frames: B.M. Satin Impervo Enamel P&L Cellu-Tone
- Enamel for exterior of factory made exterior doors: B.M. Moore House Paint P&L Effecto Enamel

7. Natural finish for wood floors: BONA : Woodline products. One base cont of oil base, two top conts of waterbase. www.bona.com

8. Primer for all bathrooms: Devoe vapor barrier primer

#### **EXECUTION**

A. Surface to be painted:

1. See drawings and schedules for type and location of various surfaces requiring paint. Include all field painting necessary to complete work shown and specified.

2. Exterior. Any wood trim shall be backprimed before installation. Fast drying primers will not be allowed except to spot prime knots after first prime coat.

**B.** Preparation:

1. Wood: Sandpaper to smooth and even surface and then dust off completely. After priming or stain coat has been applied, thoroughly fill nail and other holes and cracks with DAP Glazing Compound. For natural finish, color putty with sawdust to match the wood. Sandpaper between coats.

2. Steel and iron: Remove grease, rust scale, and dust, touch up any chipped or abraded places on items that have been shop coated. Where steel and iron have a heavy coating of scale, remove it by wire brushing or sandblasting as necessary to produce a satisfactory surface for painting.

3. General: Before painting, remove hardware, accessories, plates, lighting fixtures and similar items or provide ample protection of such times. Upon completion of each space, replace above items.

4. Cleaning: The cleaning up prior to painting is required to be done with vacuum cleaners. Painters shall not apply paint or varnish when potentially dusty conditions prevail.

5. Tint all primers possible toward finish color.

C. Schedule of Painting:

1. For any exterior trim: three coats stain.

2. For interior trim, interior doors and millwork for stain finish: 1 primer coat, 2 finish coats.

3. For interior walls except as noted in 5: 1 coat primer, 2 coats flat. For pricing purposes, contractor shall take into account the potential for different colors to be used in bedrooms.

4. For Bathrooms and Laundry Room: 1 coat primer, 2 coats eggshell. Use Devoe vapor barrier primer or approved equal.

5. For wood floors: 4 coats hydroline satin finish for final coat.

6. For steel doors: 1 coat primer, 1 coat enamel #10.

D. Application

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1. Skilled mechanics shall do all painting. Spread all materials evenly, flow on smoothly, free from brush marks, hairs, runs, etc., and shall be rubbed down between coats.

2. Do not apply paint or enamel until the preceding coat is thoroughly dry and hard. Allow exterior stains to dry for at least 72 hours between coats and interior coats to dry for at lease 48 hours between coats. Each undercoat shall differ in shade from the preceding coat and each shall be applied through one section of the building before the next coat is begun.

3. No interior painting will be permitted until the building has thoroughly dried out, and is maintained at least 50 degrees F.

4. Do no exterior painting in rainy or damp weather until the surface is thoroughly dry, or when the temperature is below 50 degrees F., or above 90 degrees F.

5. ALL EXTERIOR TRIM SHALL BE 8ACK-PRIMED and shall be face-primed as soon as weather permits after it has been put up. If exterior trim is to be installed during cold weather (October through April), it must be completely primed before installation.

6. Priming, sealing and finish coats shall be by one manufacturer.

7. Apply all materials in accordance with the manufacturer's instructions.

8. Adequately protect all work adjacent to surfaces to be painted by dropcloths or other approved means. Remove all hardware and accessories, remove all doors if necessary, to allow the top and bottom edges to be painted. On completion of the painting, replace all items removed. The removal and replacement of all items shall be carried out only by skilled mechanics.

9. Rectify any damage caused by paint or painting operations and perform all touching up necessary.

10800 - TOILET AND BATH ACCESSORIES

#### GENERAL

A. The Owner will purchase their own accessories including all towel bars, paper goods holders, etc. The Contractor shall provide blocking and installation for these accessories.

#### 11400 - APPLIANCES

#### GENERAL

Appliances including all kitchen and laundry appliances will be purchased directly by the Owner. The Owner shall arrange for delivery of the appliances to the house when the contractor is ready to install them. In order to facilitate cabinet construction and mechanical coordination, the Owner shall provide the Contractor with a copy of the appliance invoice for complete installation instructions and dimensions The Contractors responsibility will be:

1. To coordinate the installation of all appliances in advance (especially note range and oven vents going to the outside of the building).

2. Install, wire and plumb up all appliances.

#### 15400 - PLUMBING

#### GENERAL

The Contractor shall refer to all sections of the specifications and all drawings and assume all responsibility for a knowledge of all requirements affecting his work, including utility lines and septic system.

#### Description of work included:

1. All labor, materials, equipment and transportation shall be provided as required to completely install the plumbing and water system, with all connections, as shown on the drawings and described in the specifications or as required by the State of Maine Plumbing Code. The drawings do not show details of pipe, valves, fittings, hangers, equipment and fixtures which are necessary for the complete installation. It shall be the Contractor's responsibility to provide all items necessary for a first class job.

2. Work to be performed shall include, but is not limited to, the following:

a. PVC Sanitary drainage and vent system.

b. Hot and cold water systems with plastic supply 5'-6" cover from road min. Install copper supply inside of house

c. All piping materials, valves, hangers, sleeves, etc.

e. Plumbing for clothes washer in basement.

f. Armaflex Pipe insulation.

g. Securing of all tests.

h. Installation of plumbing fixtures. Medium range white Kohler fixtures and fittings, vitreous china and enameled cast iron where possible. All toilets to have insuliners.

i. Installation of water line to house, the extent and location of which is noted on the site plan.

j. All hand excavation and hand backfilling.

k. Include 2 frost proof hose bibs.

D. Codes and Permits:

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1. Work done by Contractor shall conform to Local and State Plumbing Codes having jurisdiction. State and Local Codes are considered a part of these specifications.

2. Maine State Plumbing Codes shall be minimum requirements for the system.

3. Contractor shall apply for all permits and inspections required by law and shall notify proper authorities in time for such inspections to be made. Costs for same shall be paid by the Contractor.

E. Materials: All materials and equipment shall be new and of the latest design of the respective manufacturers. All material and equipment of the same classification shall be the product of the manufacturer unless otherwise specified.

F. Product Handling:

1. Protection: Use all means necessary to protect plumbing materials before, during and after installation and to protect the installed work and materials of all other trades.

2. Replacements: In the event of damage, make all repairs and replacements necessary

to the approval of the Architect at no additional cost to the Owner.

G. Cross Connections:

1. No piping shall be installed in such a manner to permit back-siphonage or flow of any liquid into water service piping under any conditions.

2. Air gaps, funnel type drains and approved vacuum breakers shall be provided as required by the Maine State Plumbing Code. Piping to hose end faucets shall have vacuum breakers.

H. Cutting and Patching:

1. Plumbing Contractor shall be responsible for informing various trades of sizes and locations of all chases, poles, and supports, etc., which his work my require within the building structure. He will be responsible for construction and location of abovementioned items, including the exact locations (horizontal and vertical dimensions) of all sleeves.

2. The Architect shall be notified and approval must be received for any chases, holes, etc., which are needed by the Contractor if they involve cutting away beams, floor joists, concrete, brickwork or digging under foundation walls. Plumbing Contractor will be held responsible for any damage resulting from work not approved by Architect.

#### PRODUCTS

A. Pipe:

- 1. Soil and waste: Schedule 40 rigid PVC plastic.
- 2. Vent: Schedule 40 rigid PVC plastic, to roof, copper above roof.
- 3. Vent flashing: copper.
- 4. Domestic water piping:

a. All hot and cold water piping above finish floor (not buried) shall be hard drawn type "L" copper tube with wrought fittings and made up with 95-5 tinantimony solder. No lead solder shall be permitted.

b. Buried cold water piping shall be type "K" soft copper tubing and installed with NO joints, or 150 psi plastic (Owner's option).

c. All cold and hot water supply piping shall be insulated with Armaflex.

B. Cleanouts: Provide ample cleanouts for soil and waste piping for convenient access as required by code. All floor cleanouts shall be flush with finish floor.

C. Valves: Valves shall be provided for all fixtures to make the installation and its apparatus complete in its operation. All valves shall be of one manufacturer.

- D. Pipe Sleeves and Escutcheons:
  - 1. Sleeves:
    - a. Contractor shall set sleeves for all piping penetrating concrete.

b. Sleeves set in concrete floors shall extend a minimum of 1 inch above the finish floor.

c. Spaces between sleeves and piping shall be caulked with appropriate rope to make watertight.

#### 2. Escutcheons:

a. Where piping passes through finish walls, floors, ceilings and partitions, provide and set two piece nickel plated steel floor and ceiling plates.

E. Pipe Hangers and Supports:

1. All hangers and supports shall be specially manufactured for that purpose and shall be the pattern, design and capacity required for the location of use.

2. All piping shall be substantially supported.

F. Traps: Traps of material and design as approved by the State shall be furnished and installed at all fixtures and appliances. Trap each fixture separately, keeping all trap screws below waterline. Vent each trap. Make off-sets in vent piping with 45 degree fittings when possible, pitch horizontal vents toward waste lines, group vents and take through roof as shown.

G. Plumbing fixtures: Plumbing fixtures will be supplied by the Owners,

who shall arrange for delivery to the house when the Contractor is ready to install them.

H. Hose Bibs: Hose bibs, with locations approved by Owner shall be frost proof, where possible; otherwise shutoffs shall be located conveniently.

#### EXECUTION

A. Installation of Piping and Equipment:

1. General:

a. Install all piping promptly, capping or plugging all open ends and making pipe generally level and plumb, free form traps, and in a manner to conserve space for other work.
b. Provide uniform pitch of 1/8" per foot for all horizontal waste and soil piping within the building; pitch all vents for proper drainage; install vent piping with each bend 45 degrees minimum from the horizontal wherever structural conditions will permit.

c. Inspect each piece of pipe, tubing, fittings, and equipment for defects and obstructions; promptly remove all defective material form the job site.

d. Install pipes to clear all beams and obstructions; do not cut into or reduce the size of load carrying members without the approval of the Architect.

e. Back vent all fixtures.

f. Make all changes in pipe size with reducing fittings.

g. All low points in water piping shall be drained with 1/2" gate valve with hose nipple. Layout and install water piping so it can be easily drained by gravity.

h. No piping shall be installed in such a manner to permit back-siphonage or flow of any liquid in water piping under any condition.

#### 2. Joints and connections:

a. Smoothly cut all pipe, use solvent cement on all plastic pipe joints and fittings.

b. Pack all joints in cast iron soil and waste pipe and fittings, using oakum and securing

- with one inch deep lead caulking, fully and properly caulked and smoothly finished.
- B. Protection:

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1. Contract materials: Plumbing contractor shall protect all materials, fixtures and fittings, and temporarily close all pipe openings to prevent obstruction and damage. Any loss or injury to materials shall be rectified without expense to the Owner.

2. Material of other trades: Contractor shall see that care is exercised to prevent injury, discoloration or defacement of finished building surfaces. Plumbers shall do no cutting or fitting of any material other than his own. He shall exercise proper supervision to prevent water damage of flooding, and properly isolate plumbing torches within the building. Any damage resulting there from shall be adjusted under this section to the full satisfaction of the Owners at no additional cost to the Owner or increase in Contract Time.

#### C. Sterilization of Pipes:

1. After thoroughly flushing the system, a sample shall be collected from the end of the longest main, or at any other location selected by the Owner's Representative, and a water analysis test provided. The test must prove the water acceptable or disinfecting of the system will be required. A copy of the test report shall be submitted to the Owners.

2. To disinfect the system, chlorinate the entire potable water system in accordance with the current recommendations of the American Water Works Association and in accordance with all pertinent codes and regulations.

3. Upon completion of the sterilization, thoroughly flush the entire potable water system.

D. Closing in Uninspected Work:

1. General: Do not cover up or enclose work until it has been properly and completely inspected and approved.

2. Non-compliance: Should any of the work be covered up or enclosed prior to all required inspection and approvals, uncover the work as required and , after it has been completely inspected and approved, make all repairs and replacements with such materials as are necessary to the approval of the Architect and at no additional cost to the Owner.

#### E. Testing:

1. General: Tests shall be applied to the plumbing installation as required by codes and where and as directed by the Architect and in all cases before work is covered by earth fill or pipe covering.

2. Piping:

a. Sanitary drainage systems shall be securely stopped, except at the highest point above the roof, and the entire system filled with water to the point of overflow. All leaks shall be repaired. Cracked pipes and fittings shall be removed and replaced. No doping of soil pipe or fittings will be allowed.

b. Hot and cold water piping shall be subjected to a hydrostatic pressure test of 150 psi and shall be repaired and repeated until work is tight.

F. Cleaning: Prior to acceptance of the buildings, thoroughly clean all exposed portions of the plumbing installation, removing all labels and all traces of foreign substances, using only a cleaning solution approved by the manufacturer of the plumbing item and being careful to avoid all damage to finished surfaces.

#### 16000 - ELECTRICAL

GENERAL

A. All work done under this section of the Specification shall comply with the National Electric Code, and any applicable local code. The Contractor shall perform all work in conformance with these requirements whether or not such work is shown on the drawings or in this section of the Specification.

#### B. Scope:

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1. Install feeders, meter boxes, panel boards, branch circuit wiring, wall switches, receptacles, outlet boxes, plates, conduits and wire as necessary and all necessary accessories, complete and connected to utility power.

2. Install complete wiring for light fixtures as scheduled.

3. Direct wiring installation for all appliances, the septic system controls within the house, the well, the boiler and all other miscellaneous equipment in the house as noted on the plans and in these specifications.

4. Install electric ventilating and heating units and thermostats as indicated on the plans. This includes ductwork. Note also that wall caps shall be painted to match the color of the windows. Note that provision and installation of thermostats is the responsibility of the heating subcontractor.

5. Installing appliances supplied by the Owners and the General Contractor as shown on the plans.

6. Install telephone wiring and jacks as shown on the plans.

7. Install all controls, equipment and duct work for all fans shown on the drawings.

8. Coordinating the installation of the fire alarm and intrusion alarm system under separate contract.

9. Install underground service to the house, as noted on the site plan.

#### PRODUCTS

A. General: Materials and equipment shall comply with the applicable current standard of Underwriters Laboratories Inc., where such standards exist.

B. Materials and Equipment:

1. The service size shall be 200 amps. The Contractor may opt to provide a 100 amp branch panel in a location approved by the Architect, at no extra cost to the owners. Provide for ample space capacity on panel(s). Panels shall be by Square D or equal: all circuit breakers, no fuses.

2. Wire and cable: Shall all be copper. Aluminum wire is not permitted. Cable to all exterior lights shall be in PVC conduit.

3. Outlet boxes: May be plastic material, except 3 or more ganged boxes which must be metal.

- 4. Switches: Silent type, note dimmers on plans, white.
- 5. Duplex Receptacles: good residential quality, white.
- 6. Plates: "Smoothie", white.
- 7. Ground fault circuits for all outlets in baths and kitchen, color to be selected.
- 8, 5 Weatherproof ground fault outlets as drawn, for exterior locations.

9.)Smoke and heat detectors as required by code.

10. Telephone and cable TV: Underground from Clark Street.

#### EXECUTION

A. Work shall be done in a neat and workmanlike manner. Wires shall be run neatly. Care shall be taken with receptacles, switches and light fixtures to match heights and alignments carefully.

B. The Architect and Owners reserve the right to be particular about outlet and switch boxes being flush with the finish so that plates will lie flat on the wall; also, all boxes must be plumb so that finish plates do not appear crooked to the normally trained eye.

C. The Electrical Contractor shall coordinate his work with the work of other trades and have this work scheduled so as not to delay the work of others.

D. The Contractor shall be responsible for testing, inspection, and approval of wiring, installation of fixtures and equipment and for final acceptance of the complete electrical installations by the Electrical Inspector.

E. Circuiting shall be reviewed with the Owners and Architect before the work is done to insure proper accommodation of equipment.

F. Follow manufacturer's instructions carefully with all lighting and equipment recessed. Take special care with clearances for building insulation around equipment as required by Code.

FIRE ALARM AND SECURITY SYSTEM

GENERAL

A. Scope:

This work will be provided and installed under a separate contract with Owners, but it shall be the Contractor's responsibility to coordinate the installation with the Electrical Contractor and to give advance notice for wiring installation while walls are open, and installation of devices when finishes are at proper stage of completion.

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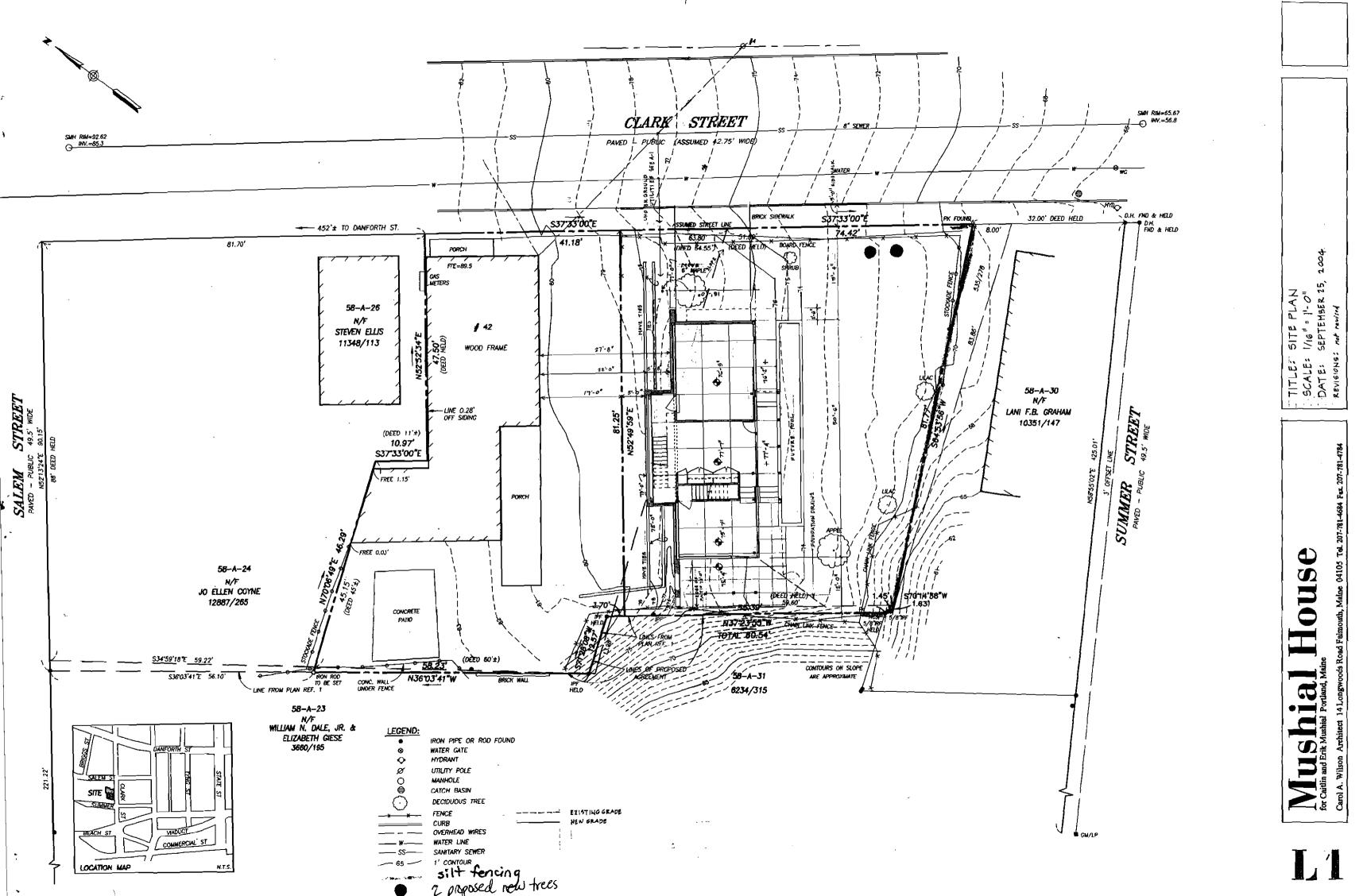
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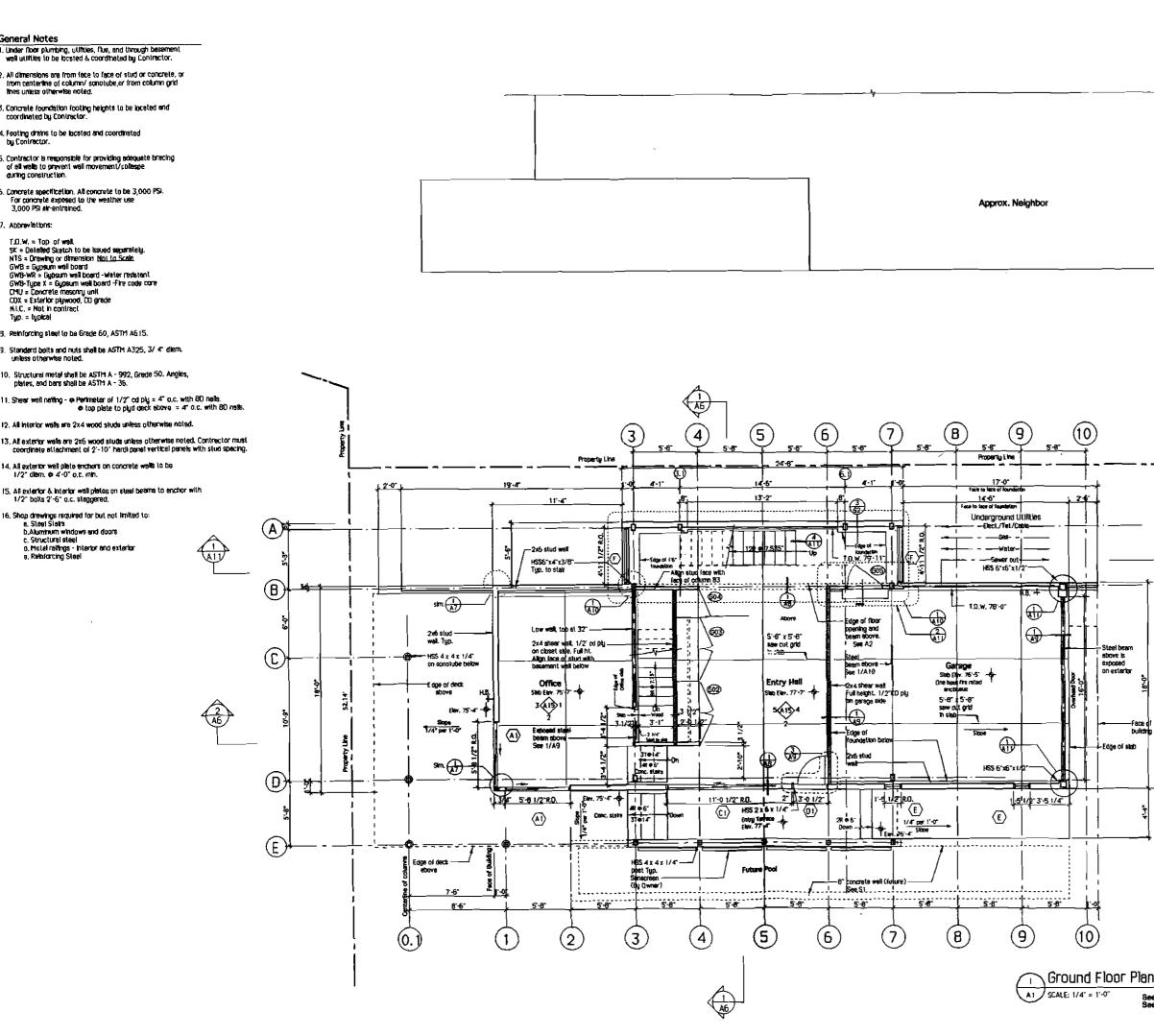
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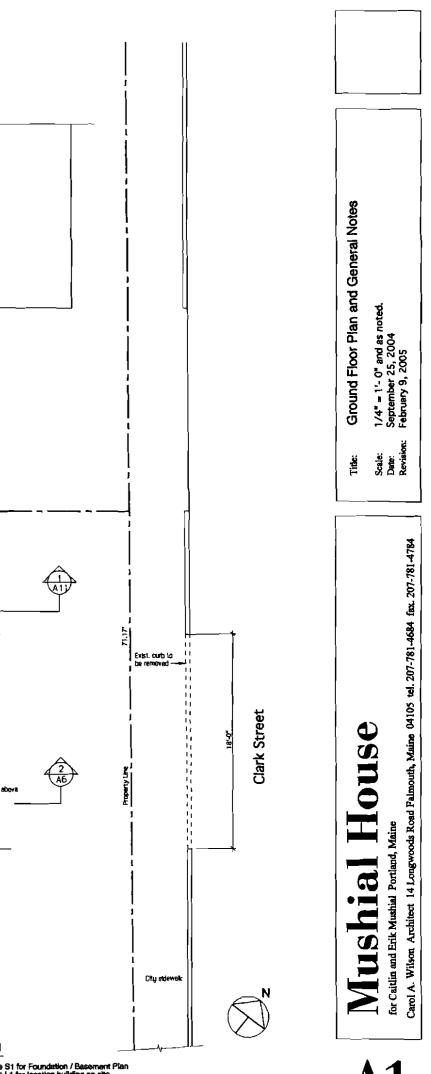
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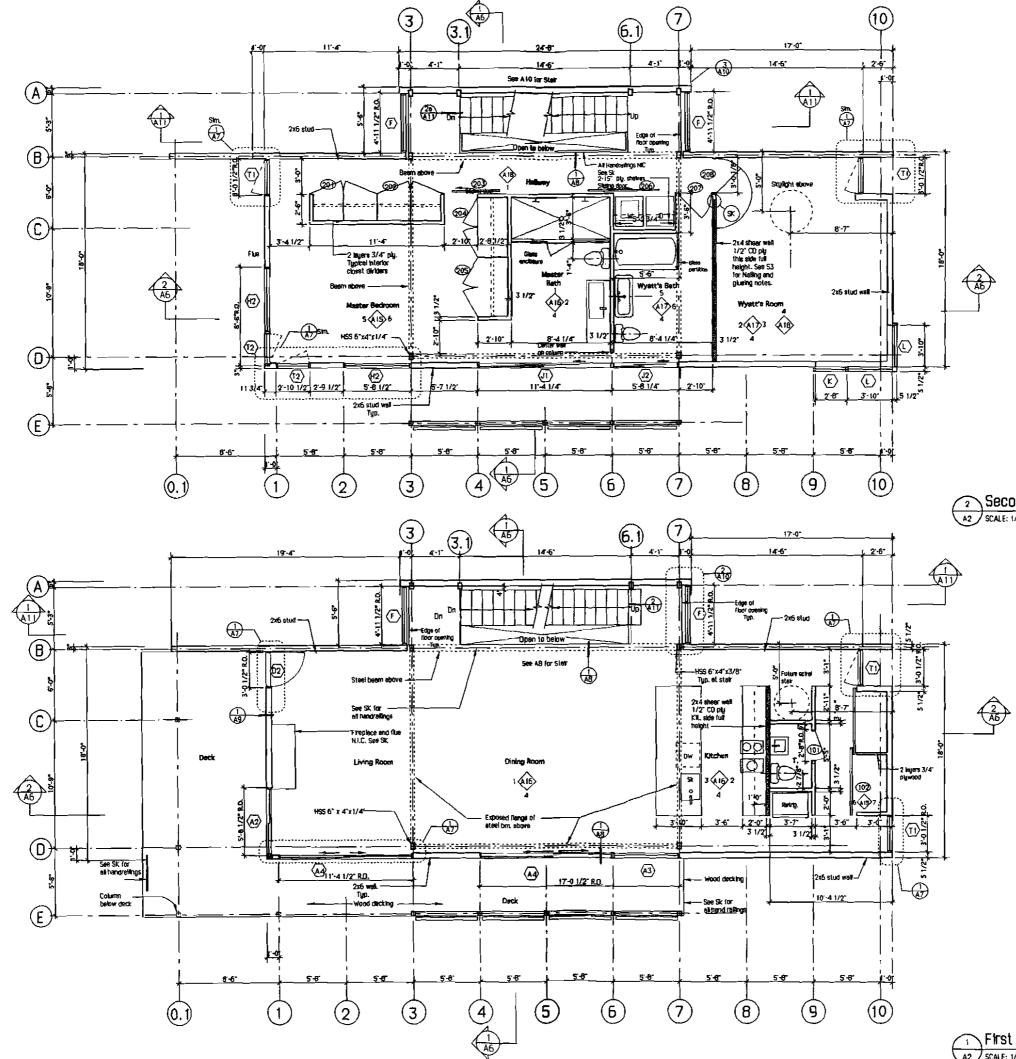
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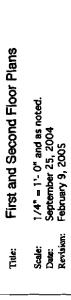
See S1 for Foundation / Basement Plan See L1 for locating building on site







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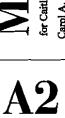


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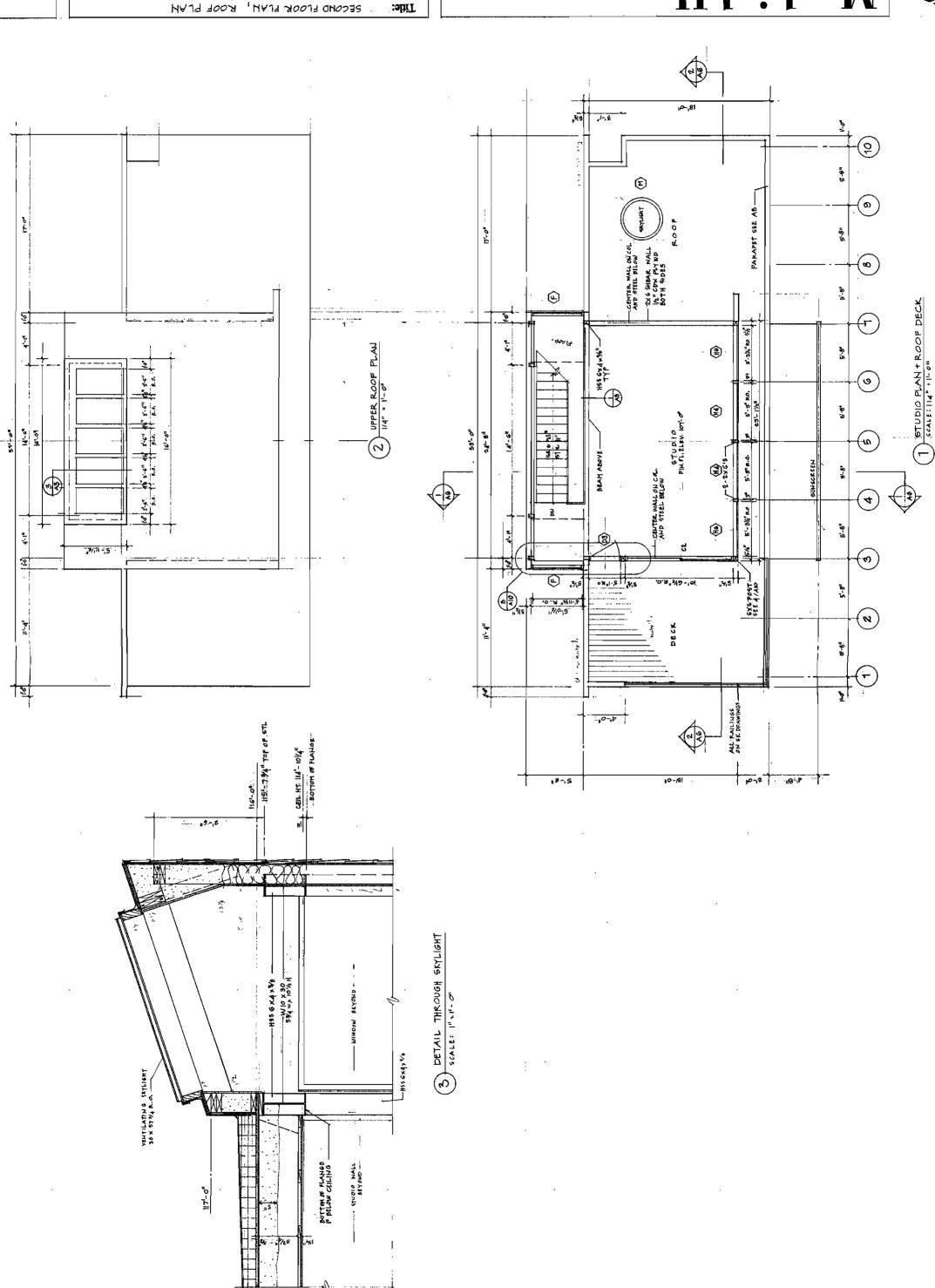
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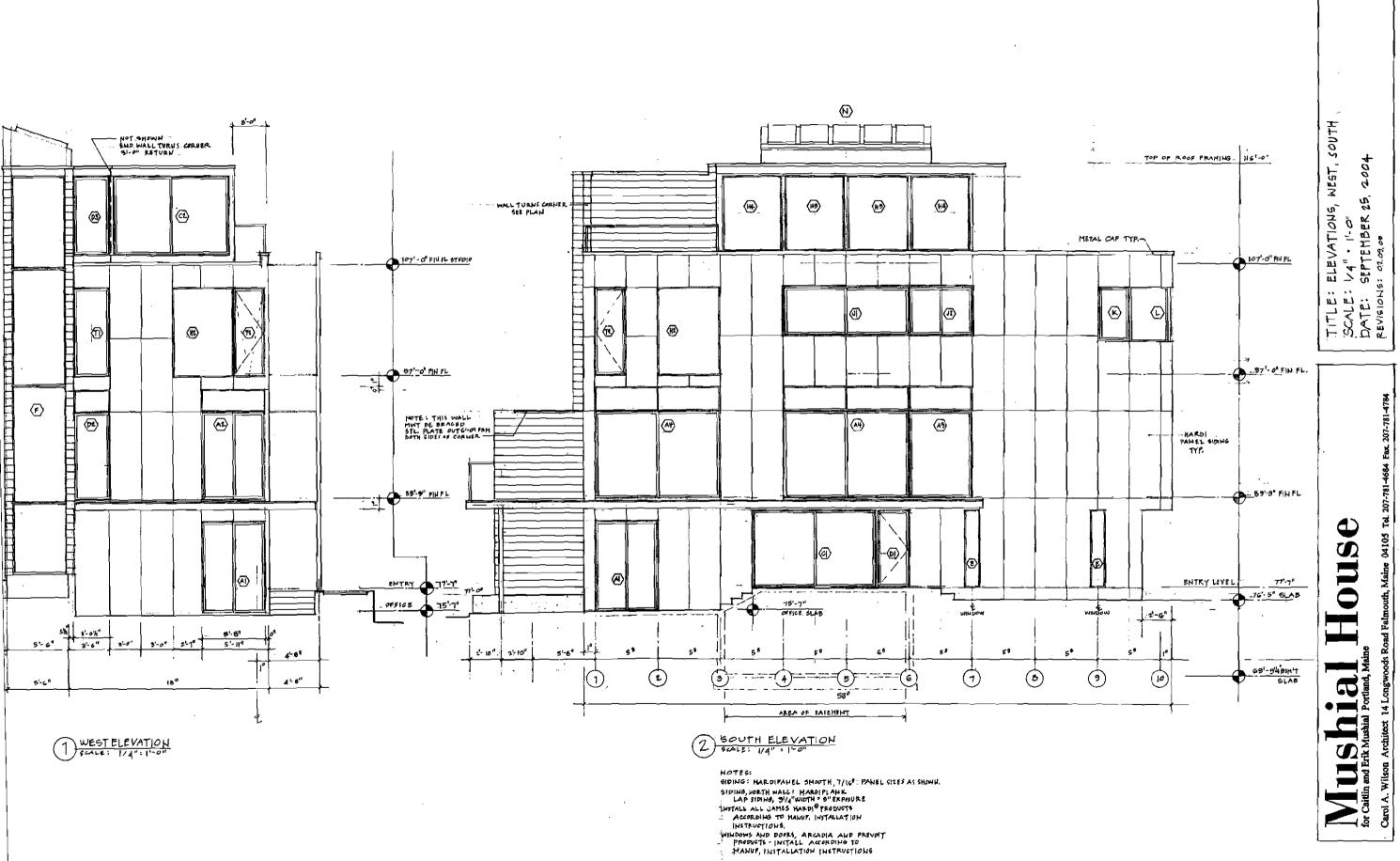
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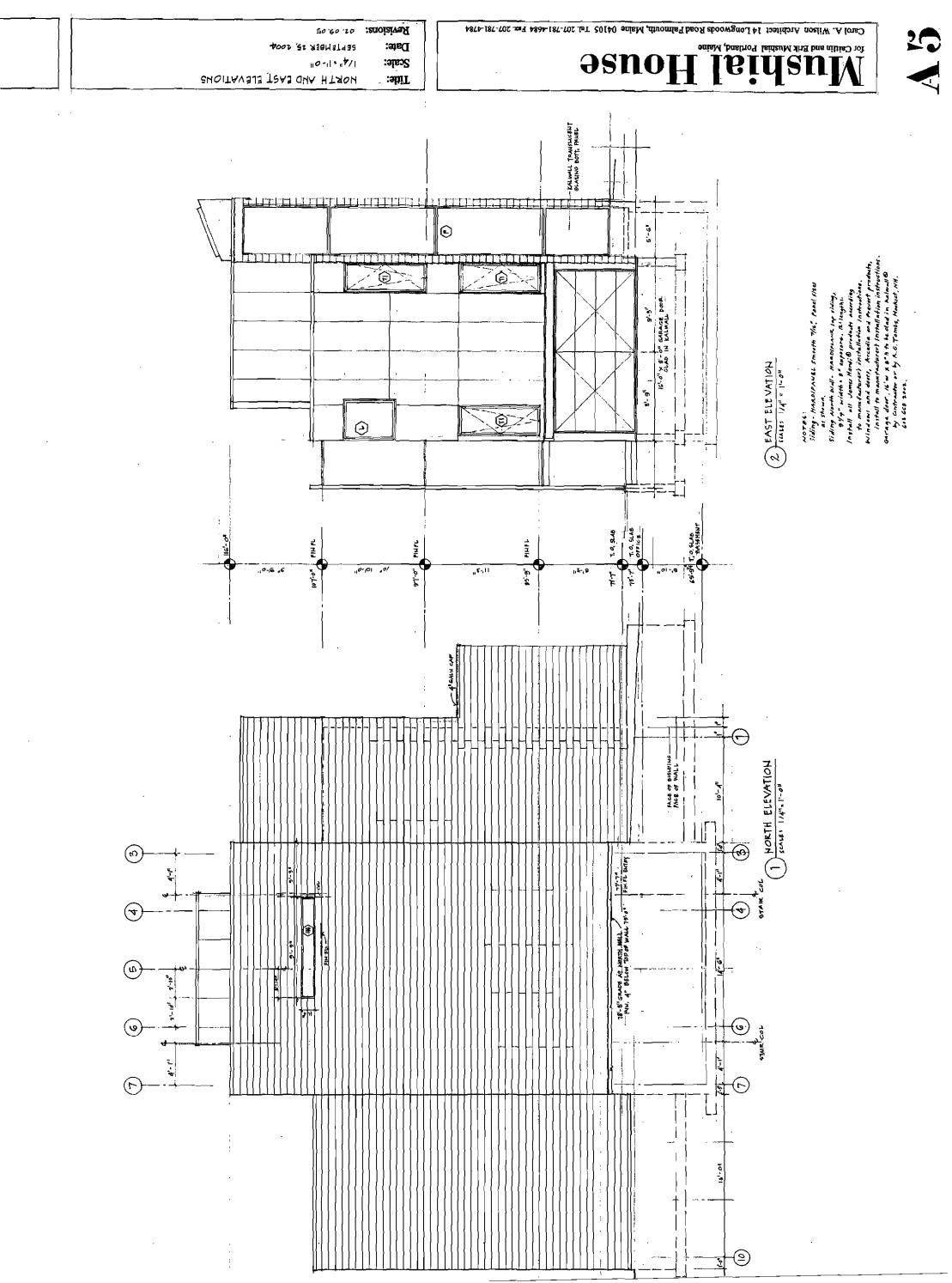
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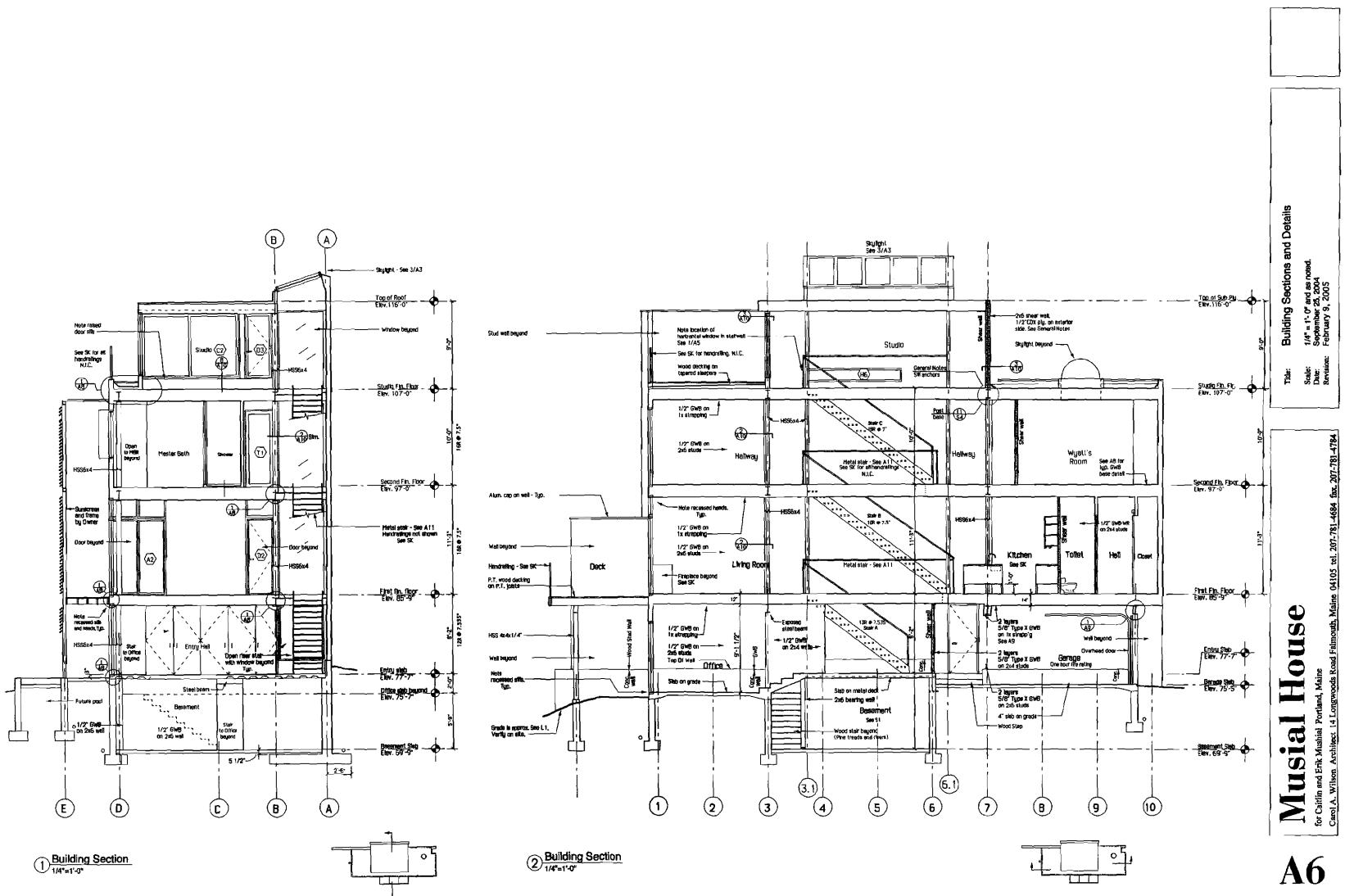
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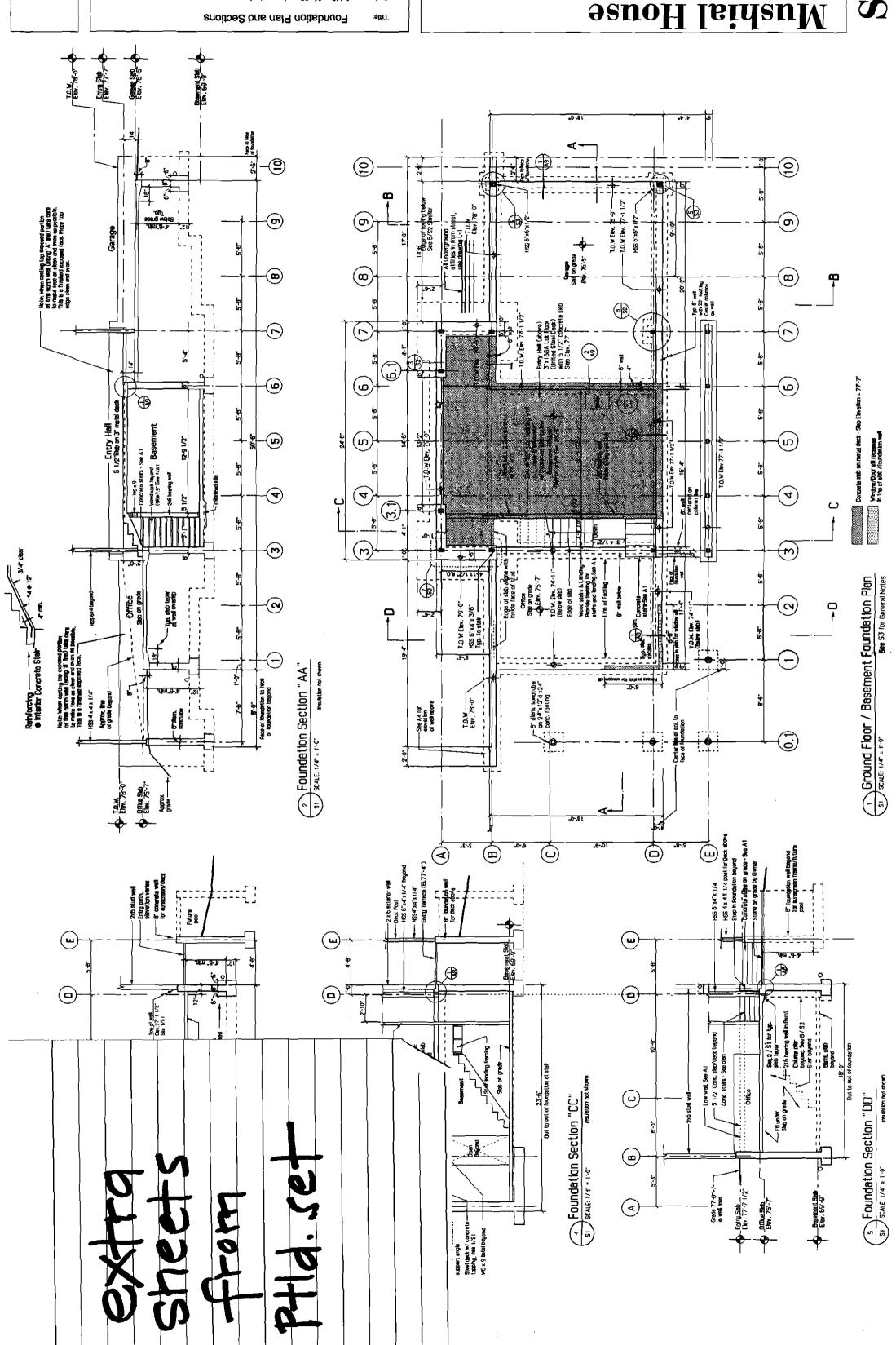
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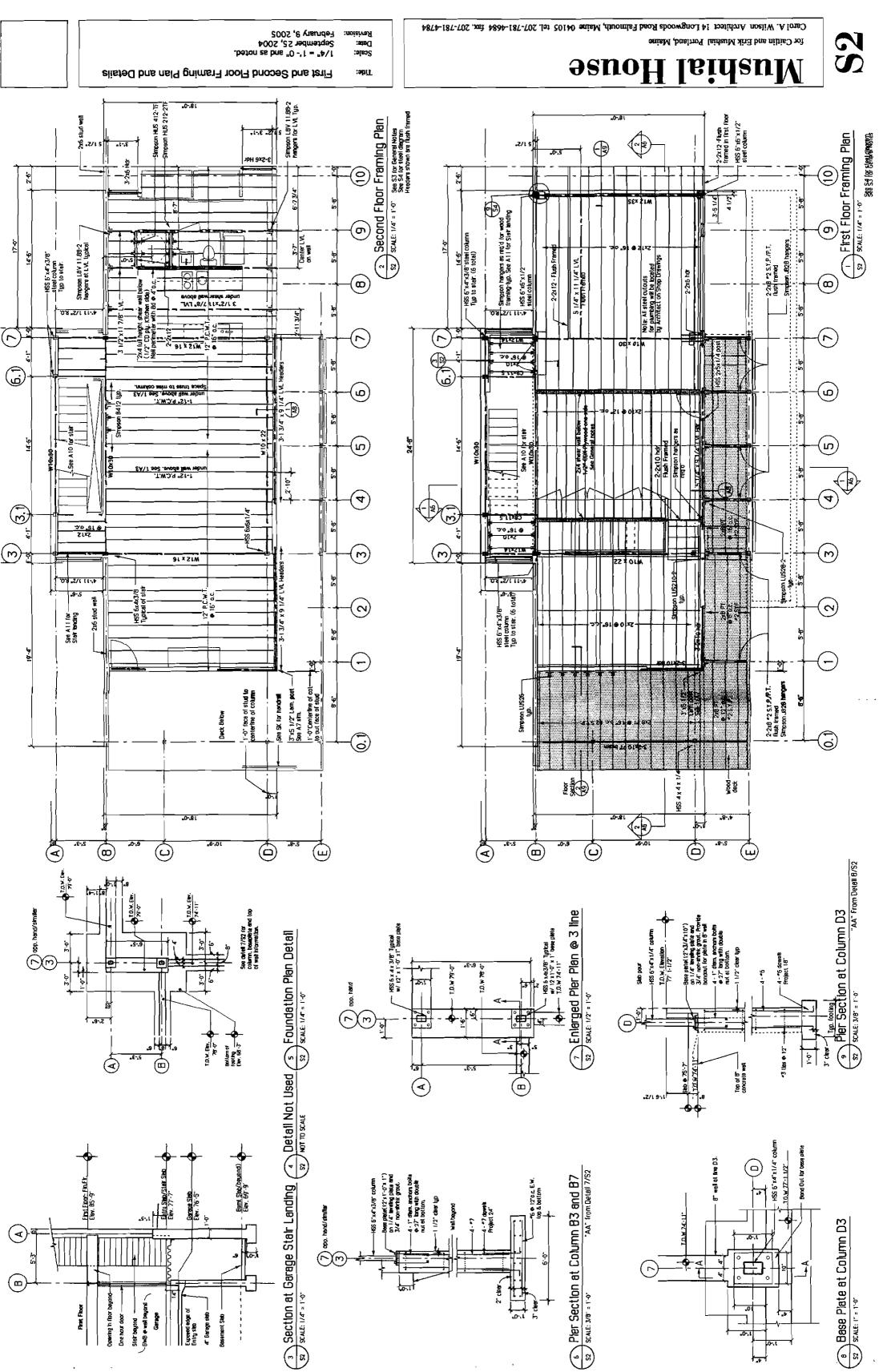
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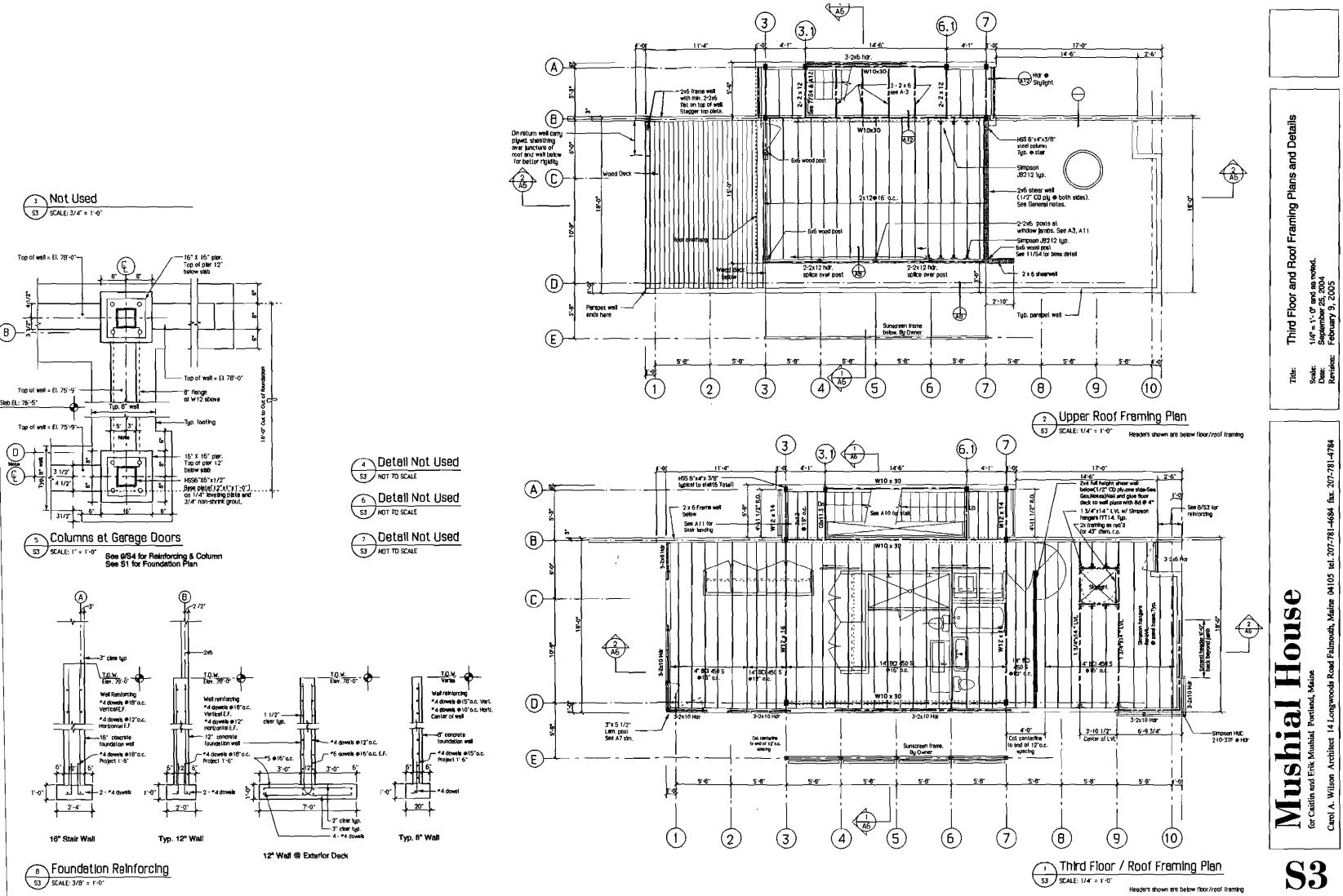
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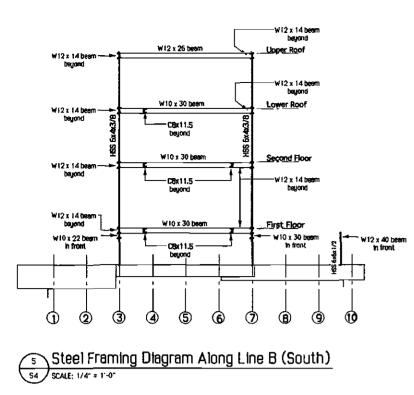
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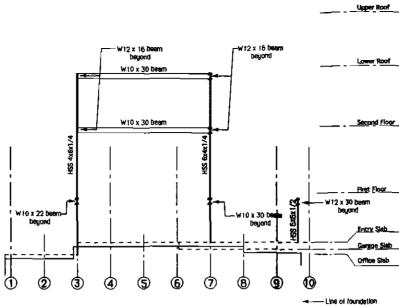
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Carol A. Wilson Architect 14 Longwoods Road Falmouth, Maine 04105 tel. 207-781-4684 fax. 207-781-4784

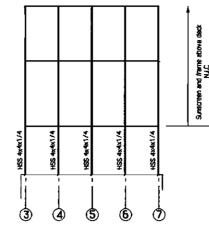




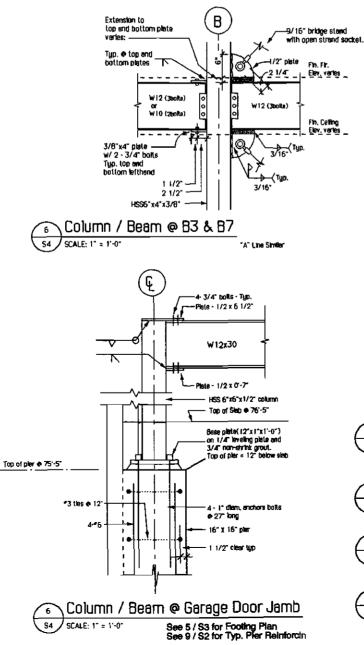




Steel Framing Diagram Along Line D (South) 54 SCALE: 1/4" = 1'-0"



S4 / SCALE: 1/4" = 1'-0" South Elevelion of Sunscreen Frame



∽**∖N**ot Used

SA SCALE: 1" = 1'-0"

🖳 Not Used

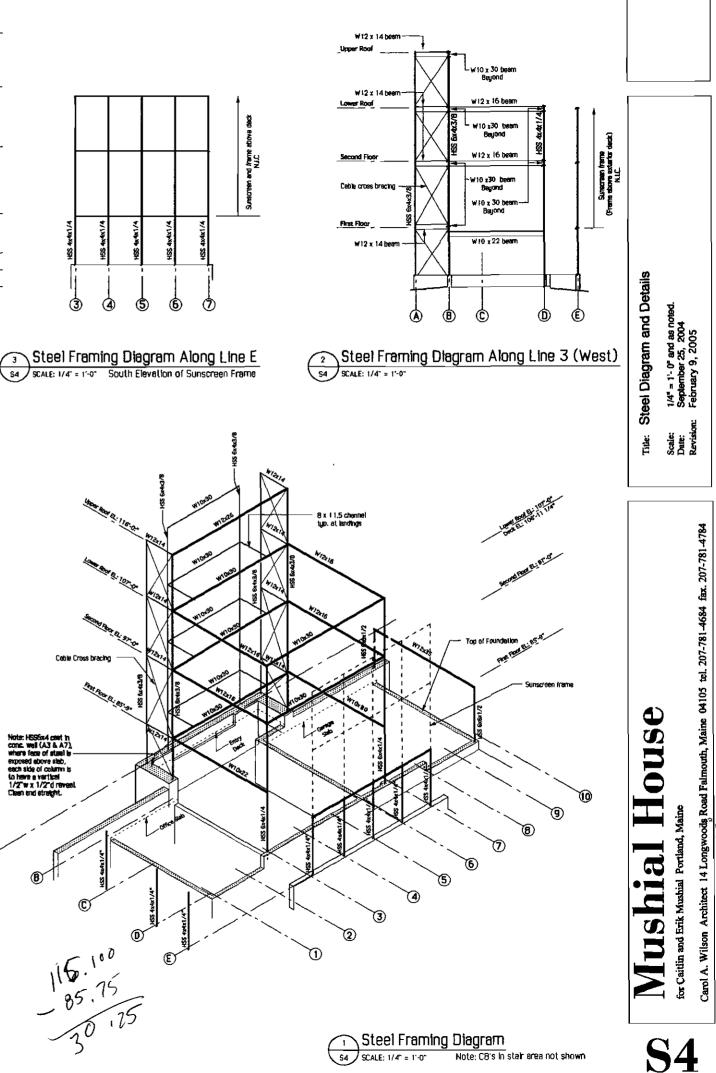
SA SCALE: 1" = 1'-0"

Not Used

\$4 SCALE: 1" = 1'-0"

Not Used

\$4 SCALE: 1" = 1'-0"



**General Notes** 

- Under (loor plumbing, utilities, flue, and thru basement wall utilities to be located & coordinated by Contractor.
- All dimensions are from face to face of stud or concrete, or from centerine of column/ sonotube, or from column grid lines unless otherwise noted.
- 3. Concrete foundation footing heights to be located and coordinated by Contractor
- Footing drains to be located and coordinated by Contractor.
- Contractor is responsible for providing adequate bracing of all wells to prevent well movement/collespe during construction
- Concrete specification, All concrete to be 3,000 PSI, For concrete exposed to the weather use 3,000 PSI ein-entremed.
- . Abbreviations

T.O.W. = Top of well. SK = Detelled sketch to be besued separately. MTS = Drawing or note <u>Natio Scale</u>. GWB = Agusum well board GWB-WR = Gypoum well board - Weter resetant. GWB-WR = Gypoum well board - Weter resetant. GWB-Type X = Gypson wai boot 4 are resident GWB-Type X = Gypson wai board -Fire code cone CDX = Exterior plywood, CO grade NJ.C. = Not in contract Tup, = tupical

8. Reinforcing sleel to be Grade 60, ASTM A615.

9. Standard bolts and nuts shall be ASTM A325, 3/ 4° diam. unless otherwise noted.

Structural metal shall be ASTM A - 992, Grade SO. Angles, plates, and bars shall be ASTM A - 35.

11. Shear well nations  $< \Phi$  Perimeter of 1/2" of piy = 4" o.c. with 60 needs.  $\Phi$  top plate to piyd dect above = 4" o.c. with 60 needs.

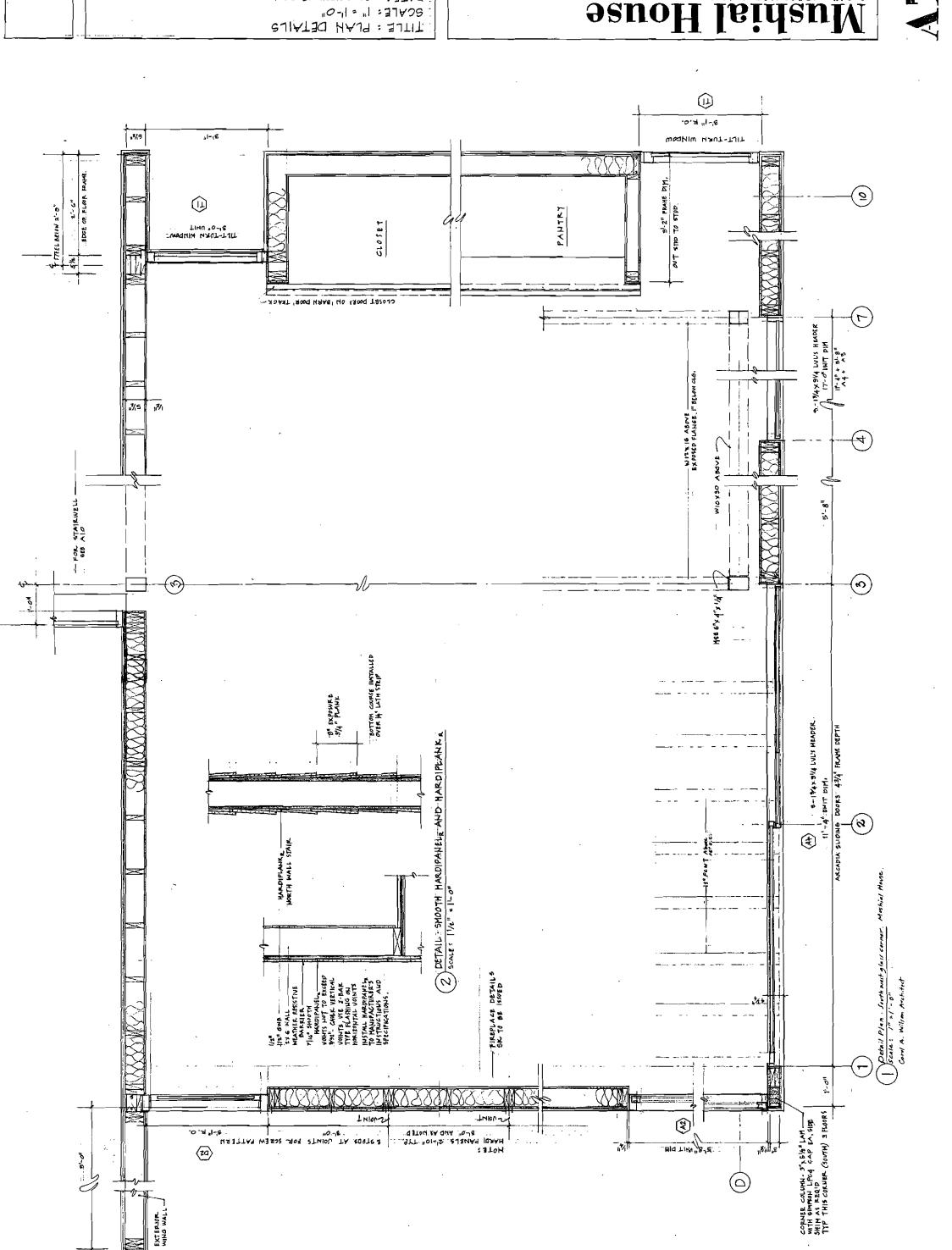
12. All Interior walls are 2x4 wood atude unless otherwise noted

13. All exterior walls are 2x5 wood studs unless otherwise noted

14. All exterior wall plate enchors on concrete walls to be 1/2" diam. @ 4-0" o.c. min.

15. All exterior & interior well plates on steel beams to anchor with 1/2" polts 2-6" o.c. staggered.

- Shop drawings required for:
   Steel ster
   Auminum wholws and doors
   Structural steel
   Hetai tangs interior and exterior
   Reinforcing Steel

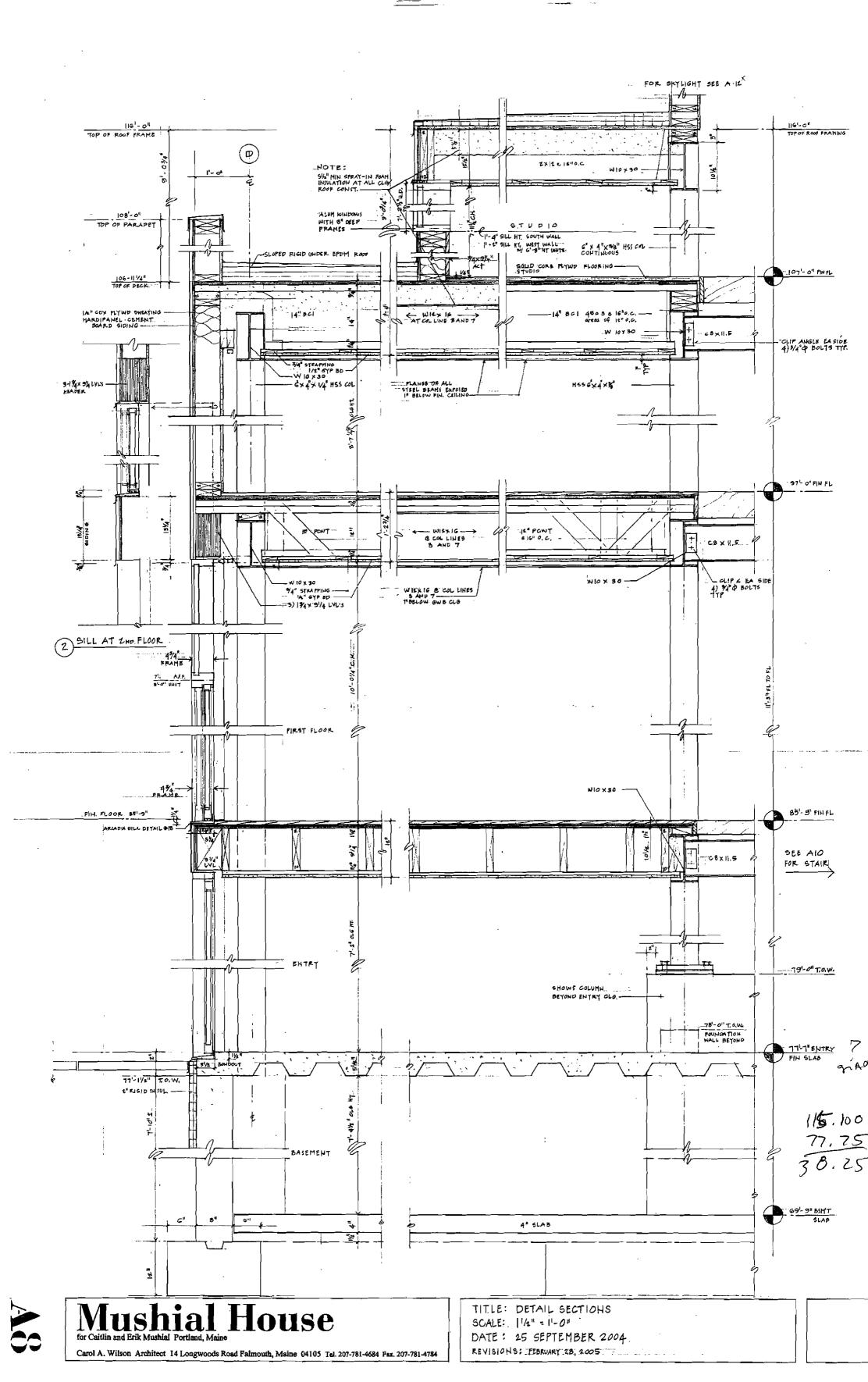


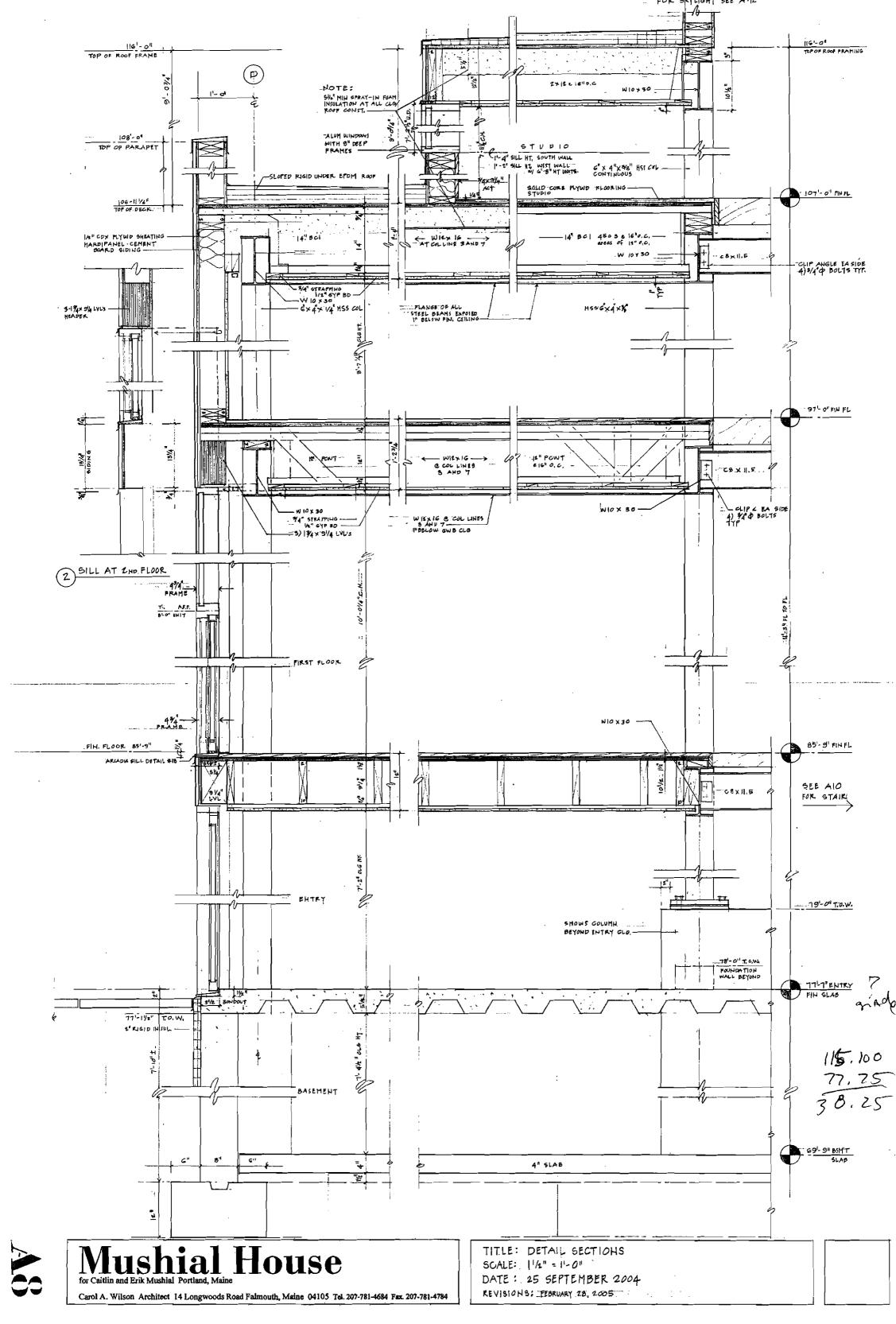
REVISIONS : Hel 02.09.05

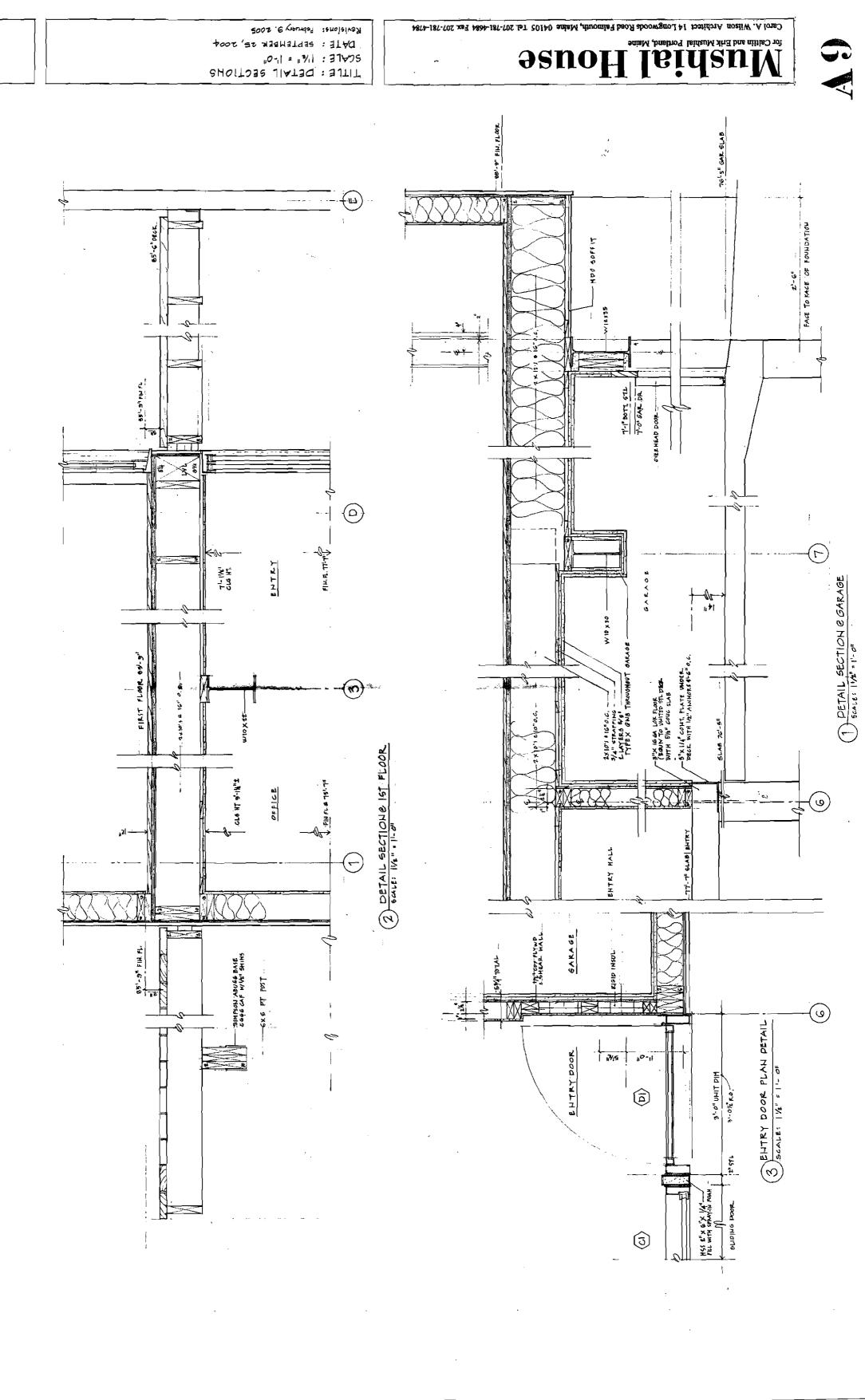
DATE: SEPTEMBER 26, 2004

for Cattlin and Brik Mushial Portland, Maine

Carol A. Wilson Architect 14 Longwoods Road Falmouth, Maine 04105 Tel 207-781-4684 Fax 207-781-4784

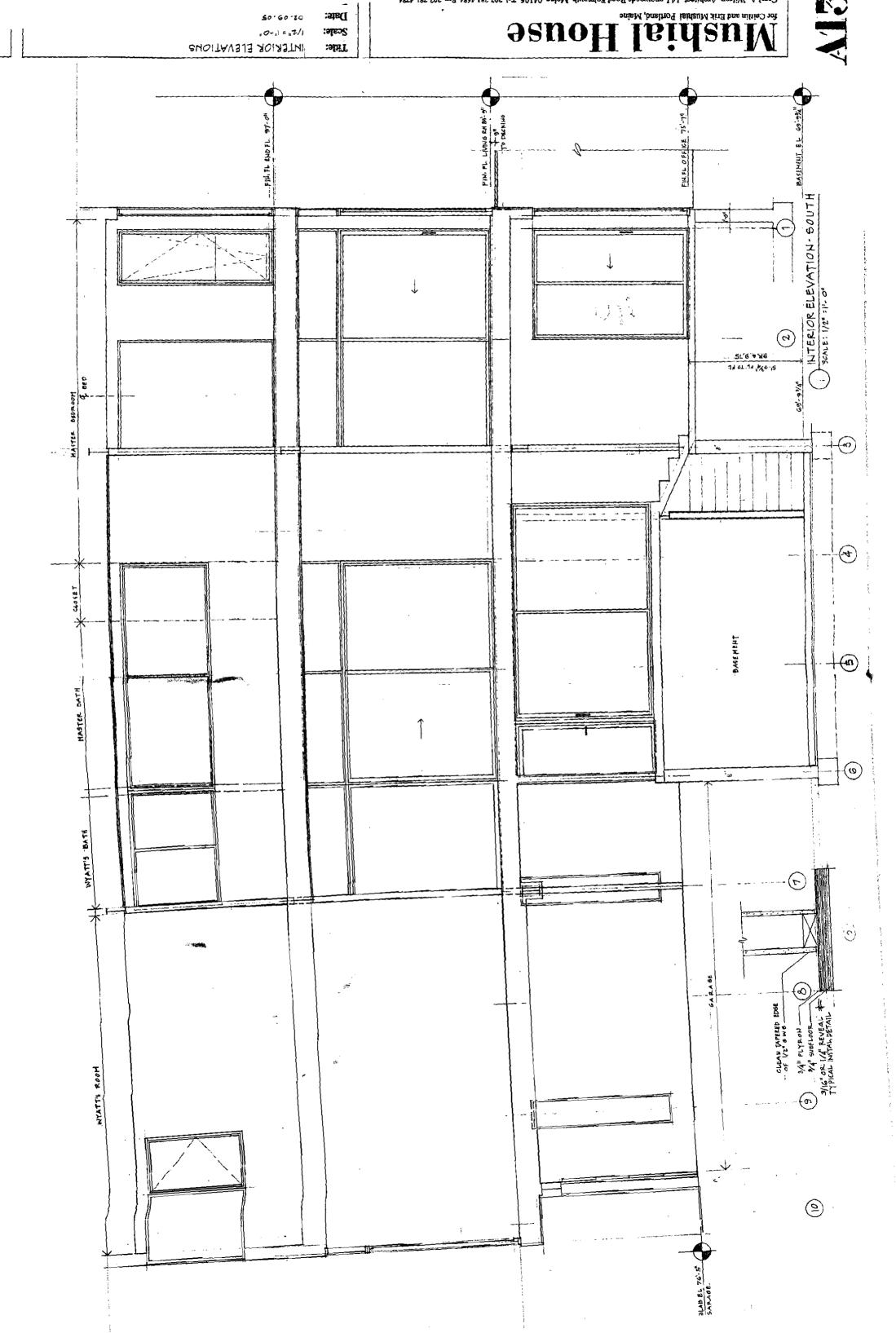




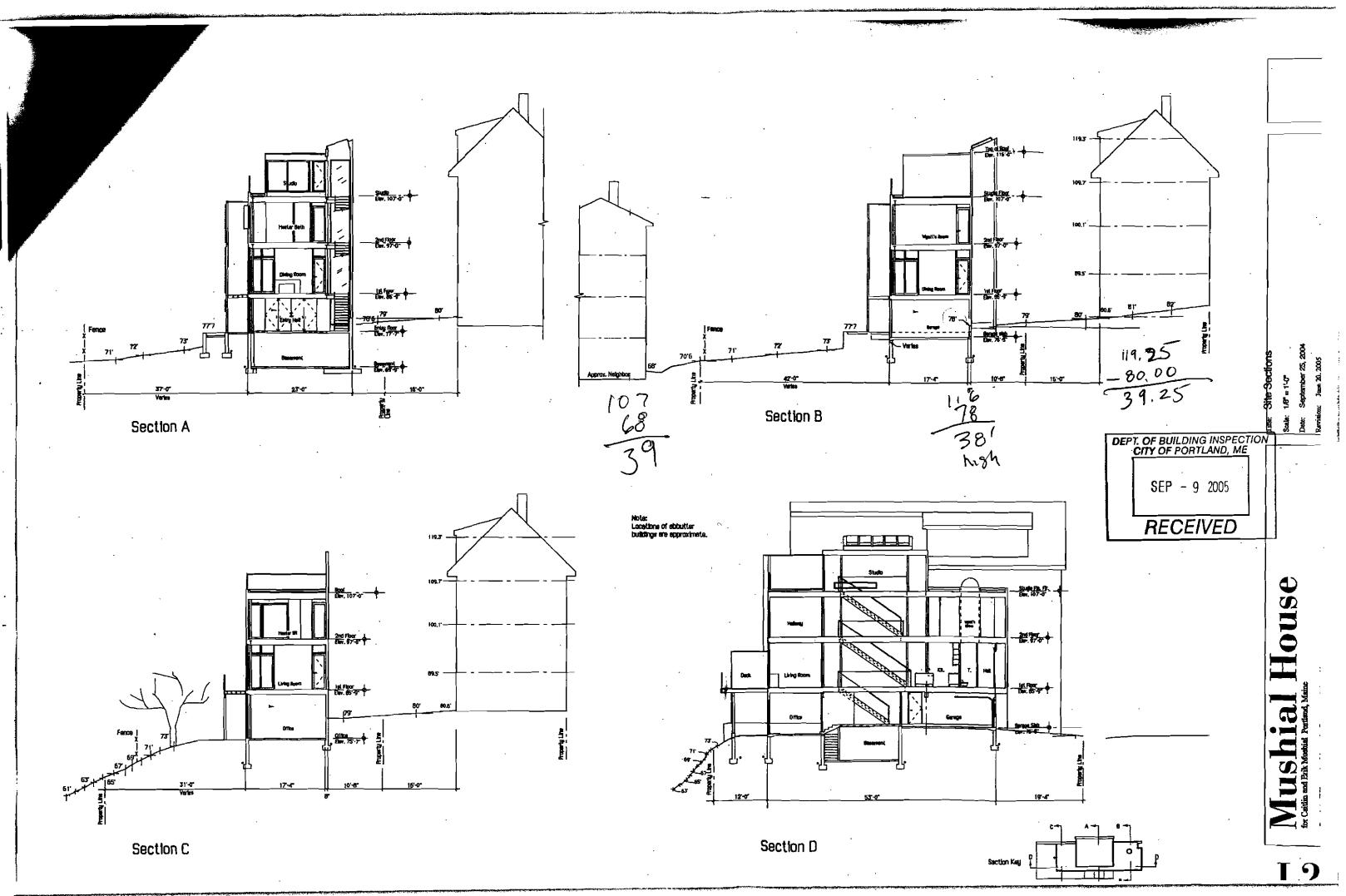


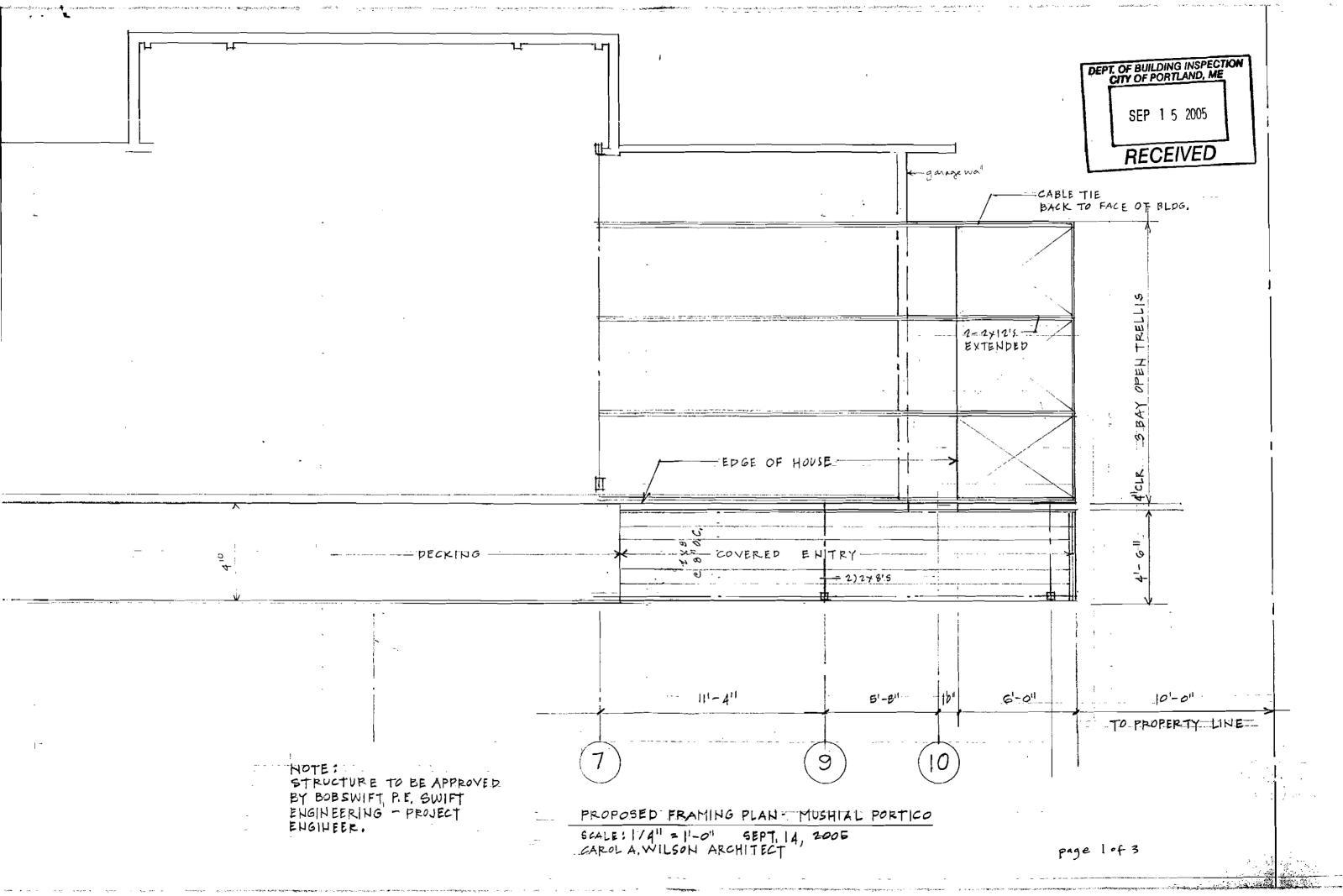
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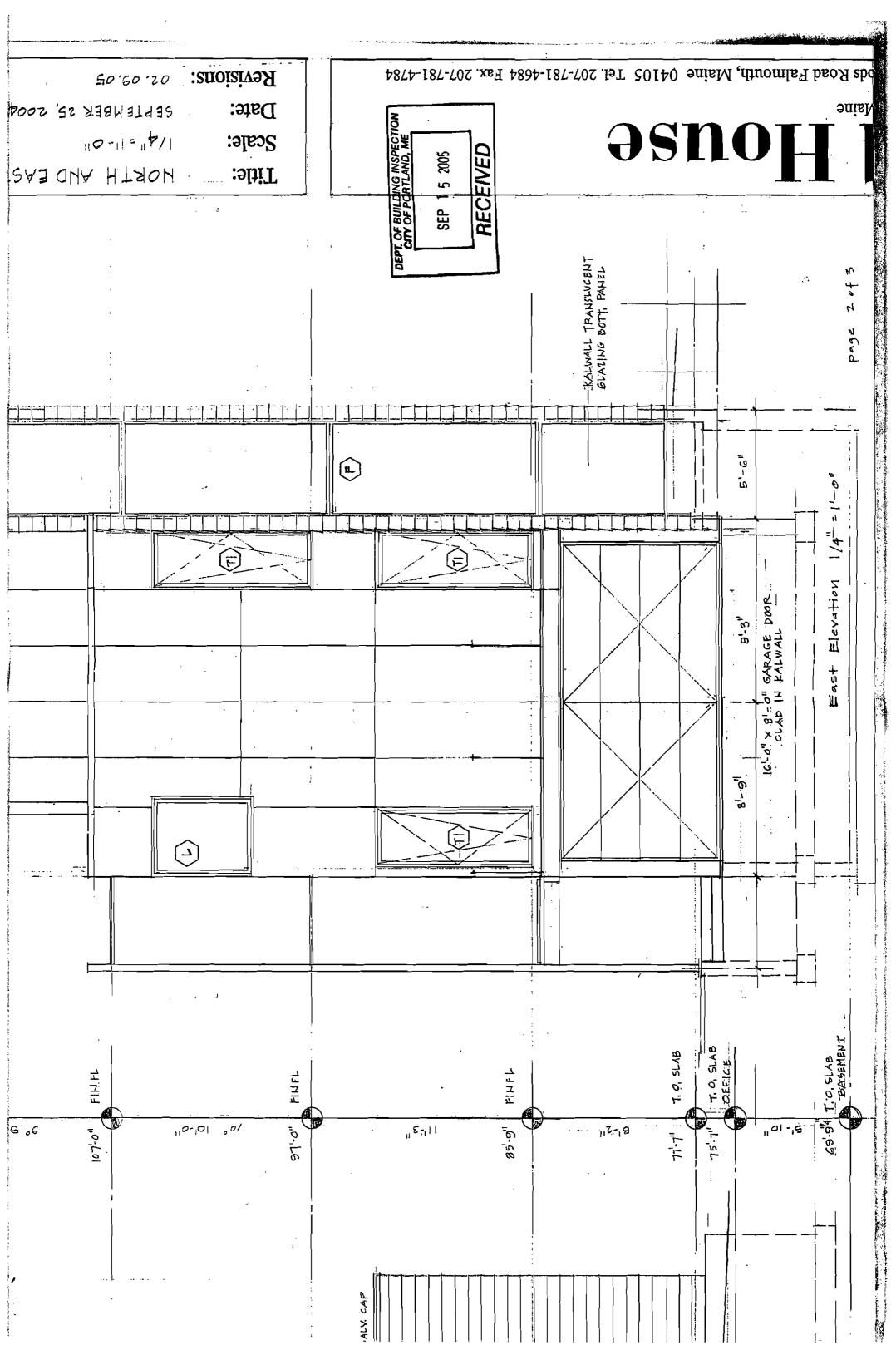
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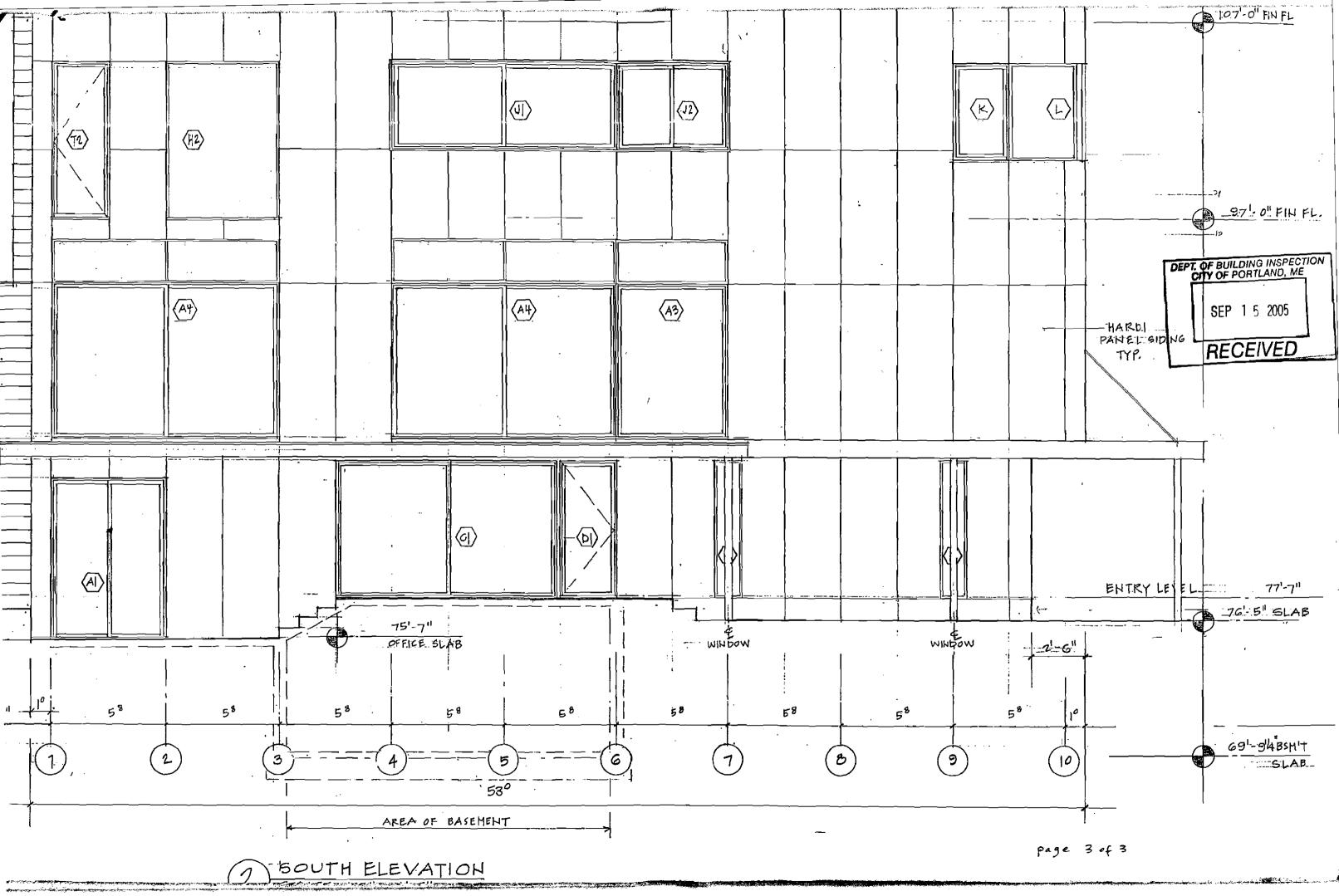


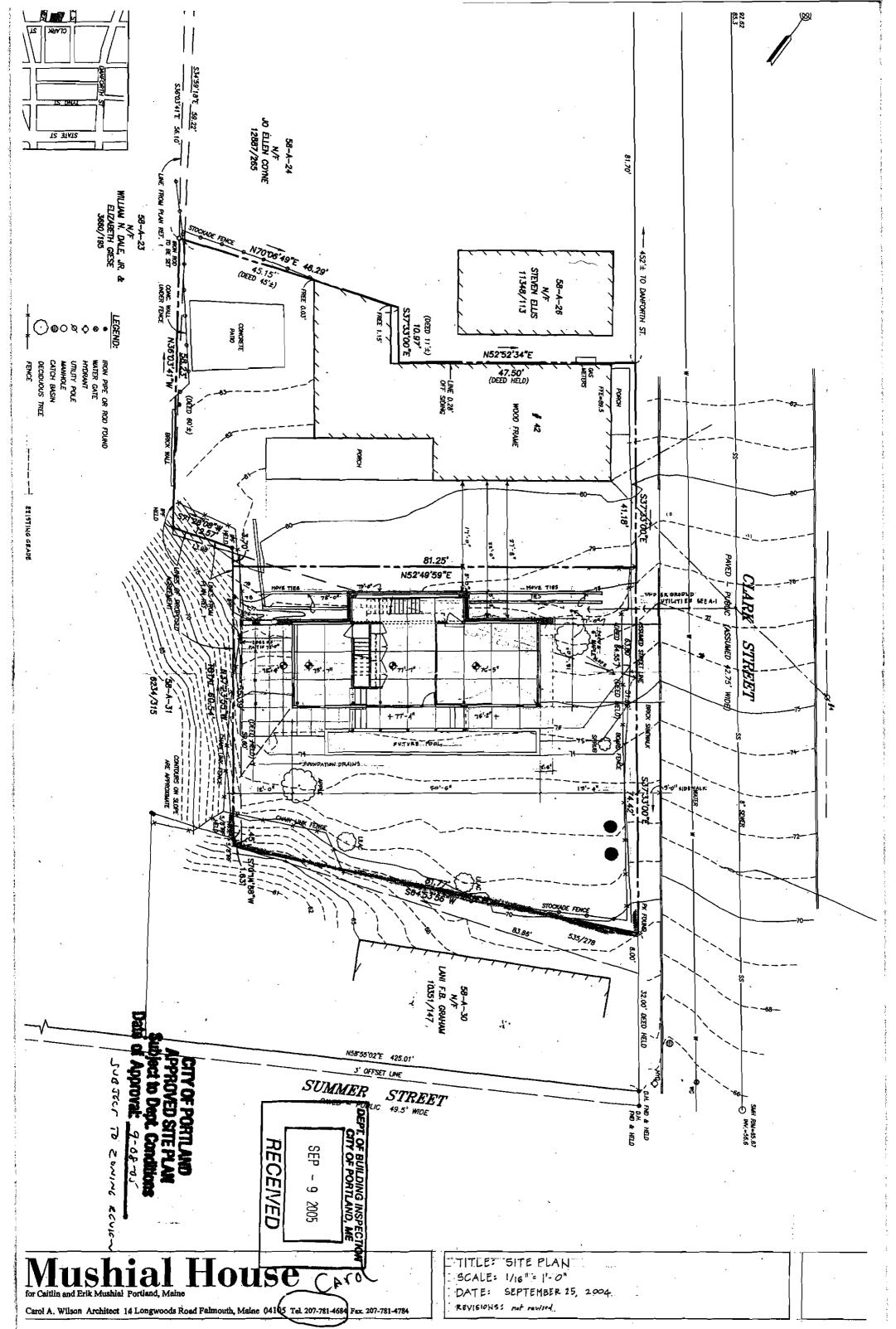


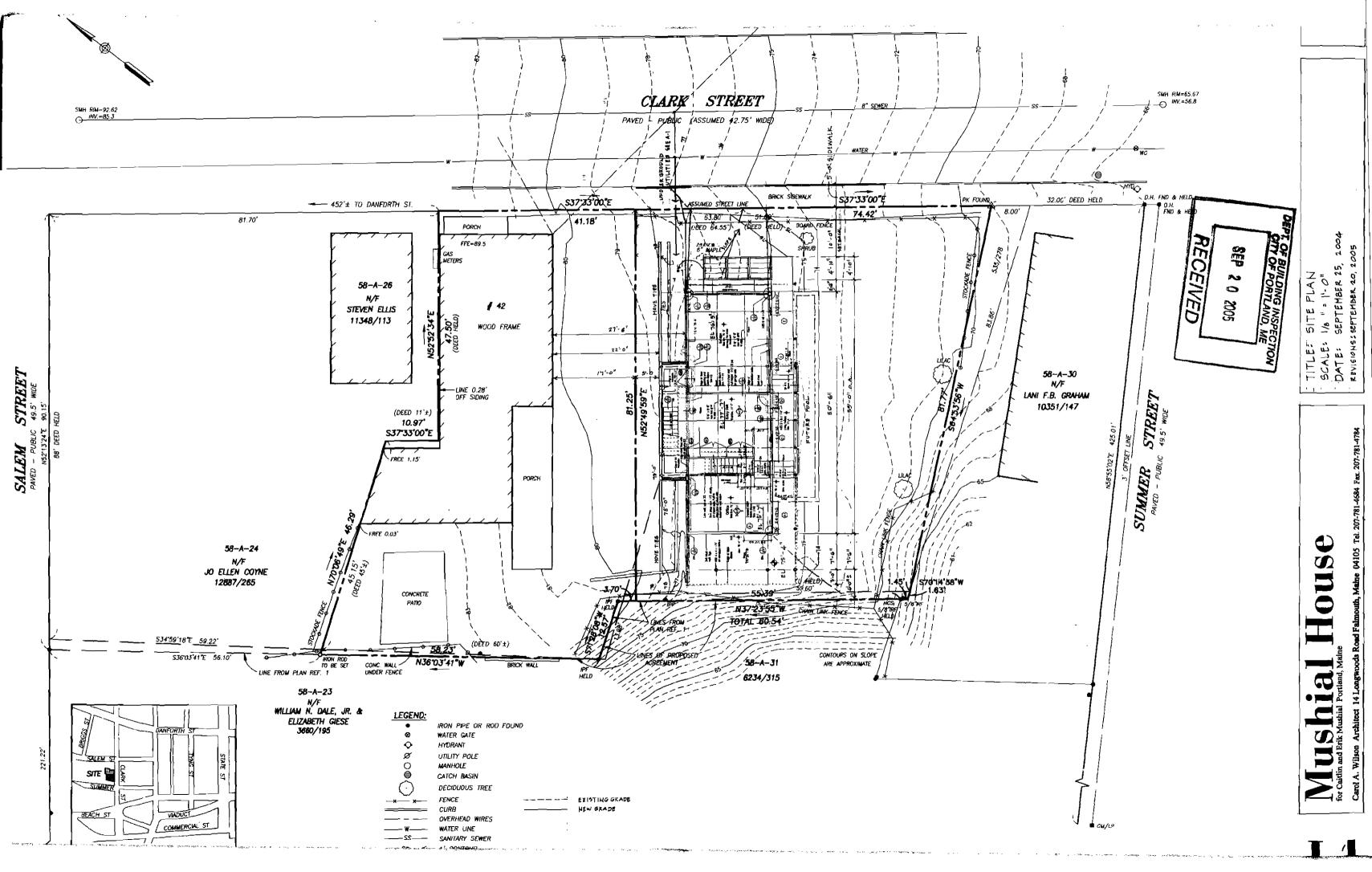


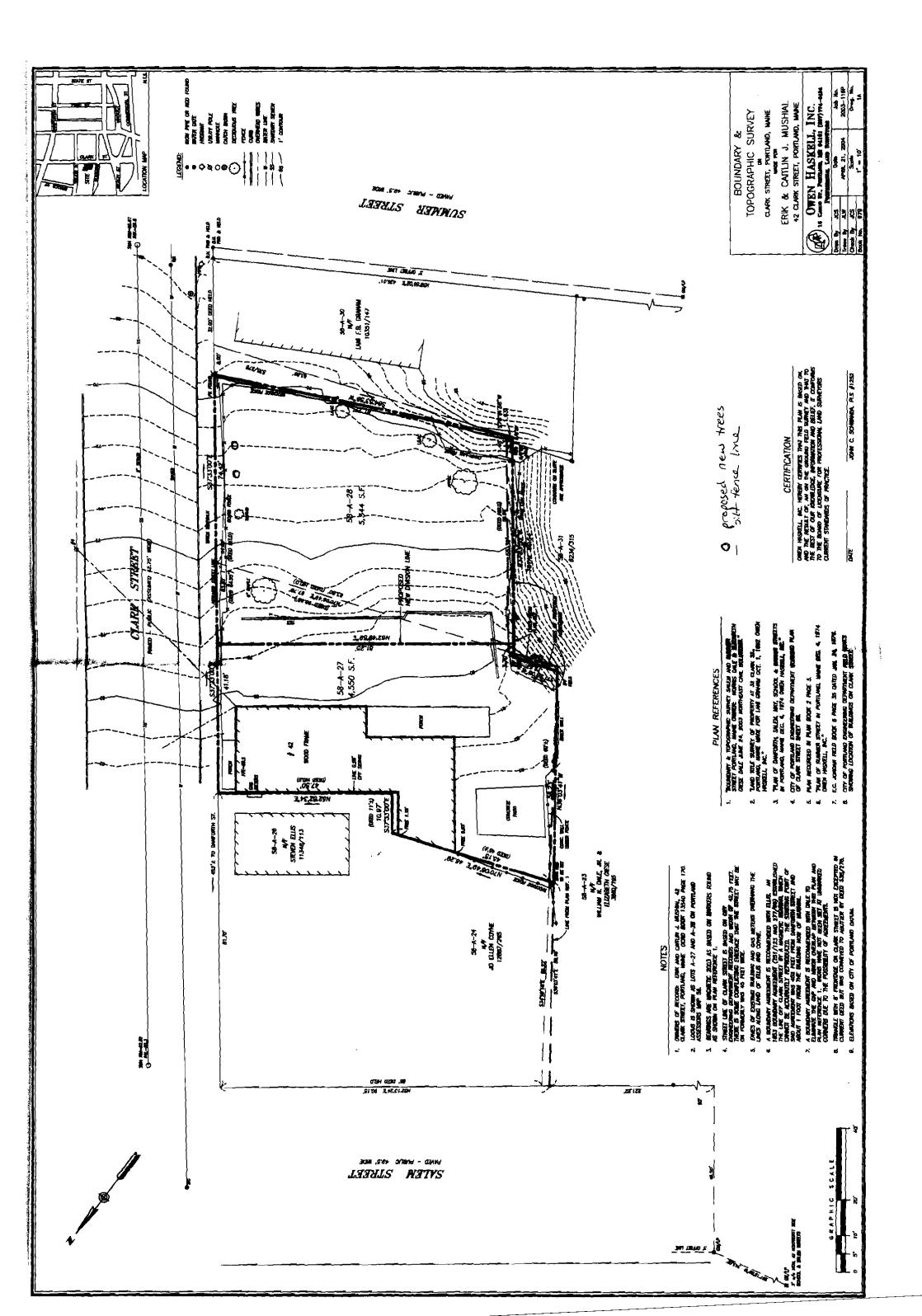












Form # P 01

## **ELECTRICAL PERMIT** City of Portland, Me.



To the Chief Electrical inspector, Portland Maine:

The undersigned hereby applies for a permit to make electrical installations in accordance with the laws of Maine, the City of Portland Electrical Ordinance, National Electrical Code and the following specifications:

Date	Jeb	<u>K 8</u>	<u>. 0 C</u>
Permit	<u># OÙ</u>	-48	304
	58		

LOCATION: 36 CLANK STRUS	
CMP ACCOUNT #	OWNER KATINE Enic MUSHING
TËNANT	PHONE #
	TOTAL EACH FEE

OUTLETS	<b>g</b> d	Receptacles	డు	Switches	4	Smoke Detector	.20	21.20
	$\vdash$	In a second second						
FIXTURES		Incandescent		Fluorescent		Strips	.20	<u> </u>
SERVICES		Overhead		Underground		TTL AMPS <800	15.00	<u> </u>
	<b>–</b>	Overhead		Underground		>800	25.00	15.00
<b>_</b>							20.00	<u> </u>
Temporary Service		Overhead		Underground		TTL AMPS	25.00	
— — — · ·			,			· · · ·	25.00	· · ·
METERS	(	(number of)					1.00	1.00
MOTORS		(number of)		· - ·	•		2.00	
RESID/COM	İ .	Electric units					1.00	
HEATING		oil/gas units		Interior		Exterior	5.00	
APPLIANCES		Ranges		Cook Tops		Wall Ovens	2.00	1
<b>_</b>		Insta-Hot		Water heaters	\$	Fans	2.00	1
	1	Dryers		Disposals	1	Dishwasher	2.00	2,00
,	,	Compactors		Spa		Washing Machine	2.00	
		Others (denote)			1		2.00	
MISC. (number of)	1	Air Cond/win			1		3.00	
	· ·	Air Cond/cent		1		Pools	10.00	
		HVAC		EMS	<u> </u>	Thermostat	5.00	1
	1	Signs			· · · ·		10.00	1
· · ·	1	Alarms/res		1			5.00	
		Alarms/com					15.00	
	1	Heavy Duty(CRKT)				DEPT. OF BUILDING INSPEC CITY OF PORTLAND, ME	2.00	
	1	Circus/Carnv				CITY OF PORILAND, ME		1
		Alterations					5.00	
	1	Fire Repairs				900 0 - 0 0009	15.00	
		E Lights					1.0D	
		E Generators					20.00	
	1					RECEIVED		
PANELS	1	Service		Remote		Main	4.00	100
TRANSFORMER		0-25 Kva					5.00	
		25-200 Kva					8.00	
		Over 200 Kva					10.00	
						TOTAL AMOUNT DUE		
		MINIMUM FEE/CO	MM	ERCIAL 55.00		MINIMUM FEE 45.00		4500
CONTRACTORS NAL ADDRESS <u>59 Ra</u> TELEPHONE <u>77</u>			Cr.	- ) 01103		_MASTER LIC. # _LIMITED LIC. # 	/ 5	
SIGNATURE OF COM			h	for the		- VA 8014		

SIGNATURE OF CONTRACTOR

White Copy - Office

•

Yellow Copy - Applicant

Department of Human Sciences Division of Health Engineering Tenn of 058. A07 PORTLAND Street 💰 PERMIT # 9871 TOWN COPY 82 P6 MUS Арріан Name Mailing Address of ----BOX Carner/Applicatit 29 04350 (If Different) Owner/Ap cant Statement Caution: inspection Reduired I have inspected the Installation authorized above and found it to be in liaconnect to the best of m rtity that the information compliance with the Maine Plumbing-Plues lication is reason for the Local  $\mathcal{O}$ Local Plumbing Inspector Signature Date Approved Plumbing To Be installed By: This Application is for Type of Structure To Be Served 1. A NEW PLUMEING 1. X SINGLE FAMILY DWELLING 1. K MASTER PLUMBER 2. OIL BURNERMAN 2. 🛛 MODULAR OR MOBILE HOME 3. C MFG D HOUSING DEALER MECHANIE 3. D MULTIPLE FAMILY OWELLING. 4. D PUBLIC UTILITY EMPLOYEE 4. CI OTHER - SPECIFY 5. C PROPERTY OWNER LICENSE + D820 Column 2 100 Type of Flixture **Whather** Number Type of Pixture THE CONTRACT OF THE CONTRACT O Hosebibb / Sillcock Bathtub (and Showed) 0 Shower (Separate) Floor Drain DEP OF AUDING INSPECTION DEP OF AUDIONTLAND, ME Sink OR Wash Basin HOOK-UP: to an existing subsurface waterwater disposal system. Water Closet (Tollet) 2006 PIPING RELOCATION: of senitary <u>ک</u>م جم reatment Softener, Filter, et Ĭ., Clothes Washer NO WILLOW Hater - **1** new flictures. grease Oil Separate **Dish Washer** Dental Cuspidor Garbage Disposal Bidet Laundry Tub OR Other: Water Heater TRANSFER FEE Fixtures (Subtotal) Column 2 [\$8.00] in the SEE PERIMIT FEE SCHEDULE n 5.5 Page 1 th 1 HHE 211 HOP 5:54 TOWN COPY