

THE STATE OF CONNECTICUT
DEPARTMENT OF HOUSING (DOH)
COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR)
OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)



June 22, 2015

csa project 1347-18

Issued for:

Bidding and Construction



Balaz Residence - Mitigation, Rehabilitation and Reconstruction

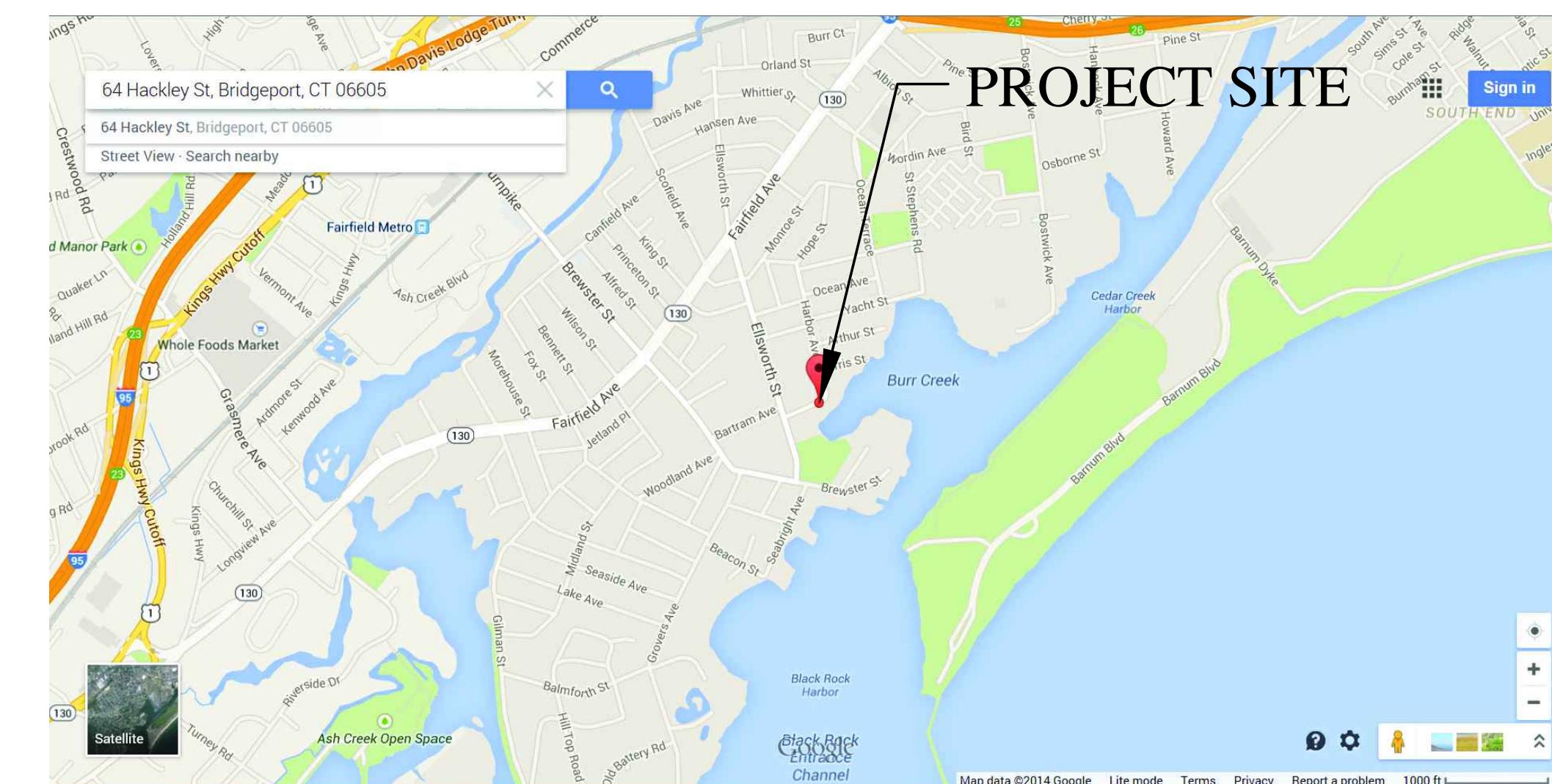


Architect

Capital Studio Architects, LLC
1379 Main Street
East Hartford, Connecticut 06108
tel: 860.289.3262 fax: 860.289.3163

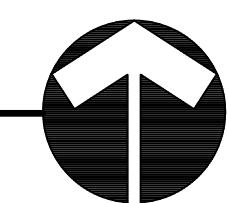
Civil / Site Engineer

Design Professionals, Inc.
PO Box 1167
425 Sullivan Avenue
South Windsor, CT 06074
tel: 860.291.8755 fax: 860.291.8755



LOCATION PLAN

not to scale



Environmental Consultant

Eagle Environmental, Inc.
8 South Main Street, Suite 3
Terryville, Connecticut 06786
tel: 860.589.8257 fax: 860.585.7034

Structural Engineer

William M. LaPoint PE
1379 Main Street
East Hartford, CT 06108
tel: 860.622.0840

MEP Engineer

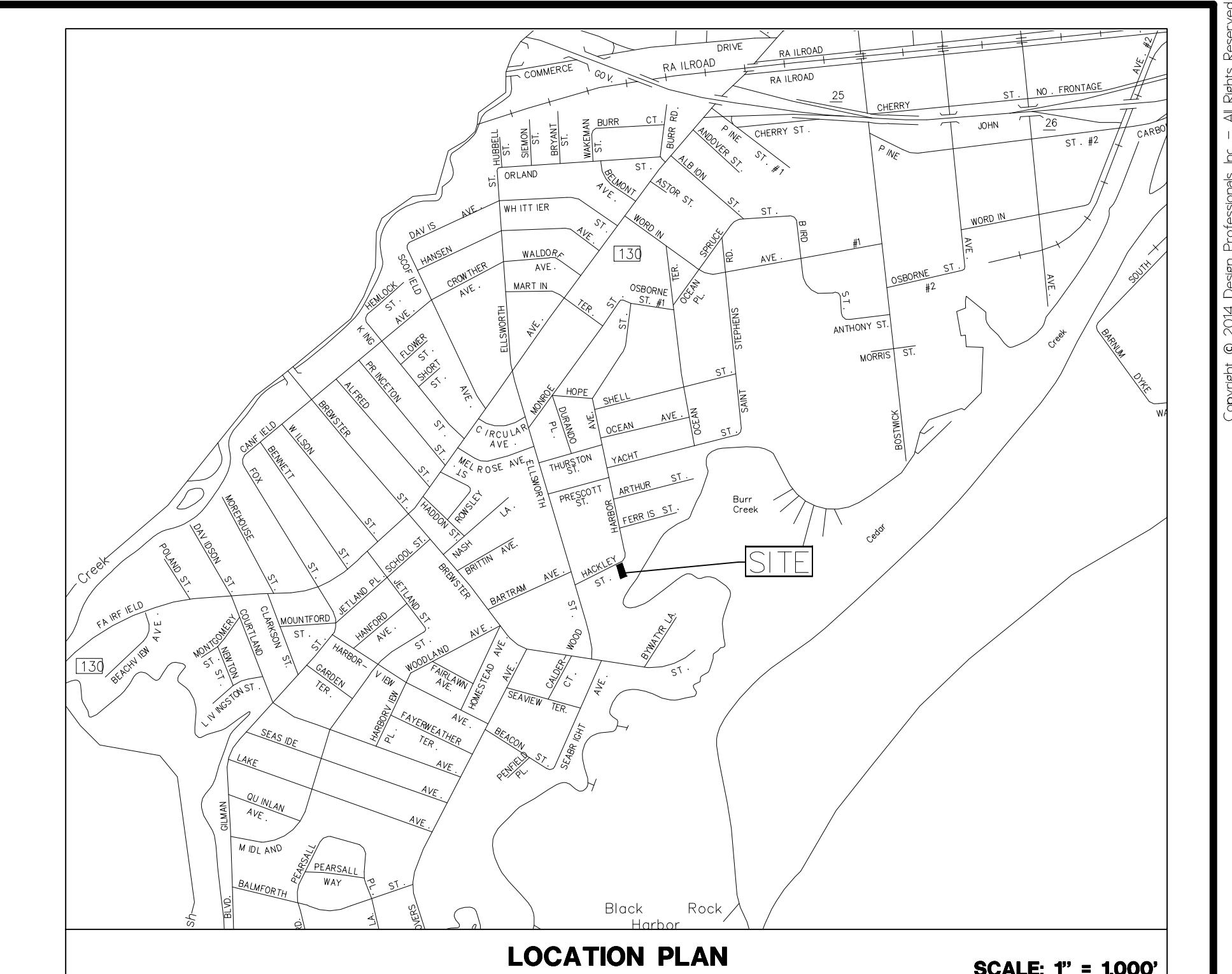
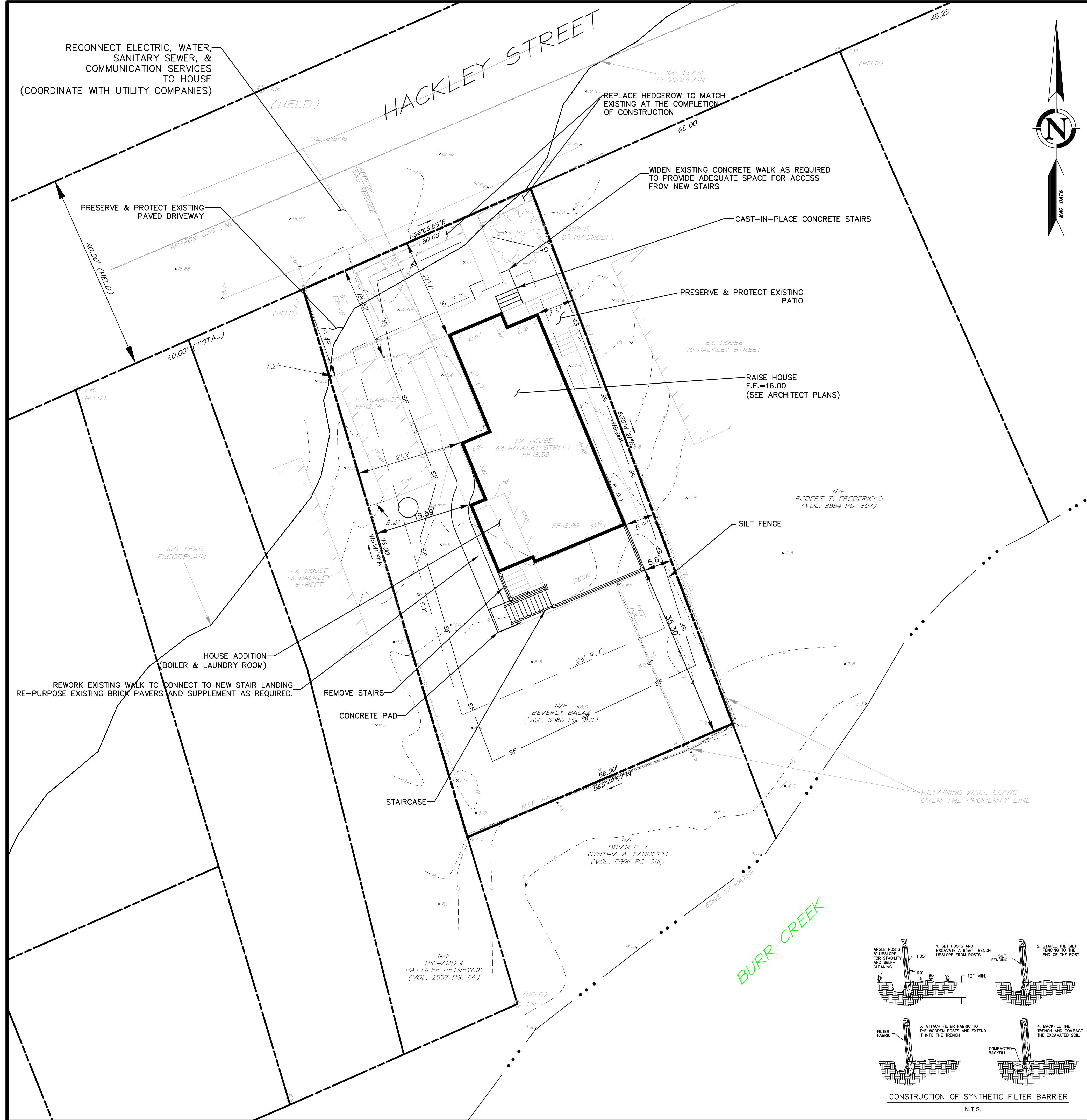
Consulting Engineering Services

811 Middle Street
Middletown, CT 06457
tel: 860.632.1682 fax: 860.632.1768

Drawing List

Title Sheet

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Zoning Information

ZONE: R-B

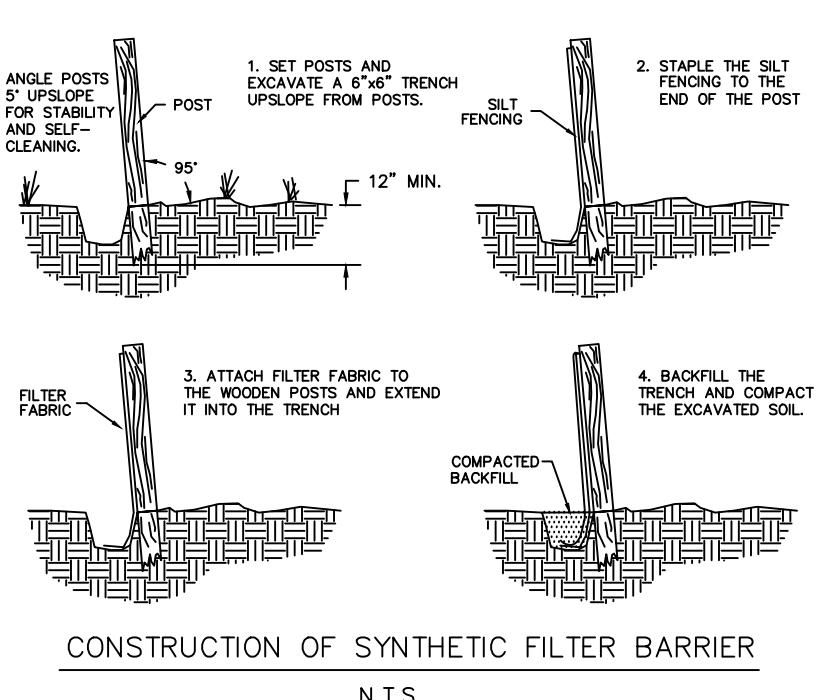
ITEM	REQUIRED	EXISTING CONDITIONS	PROPOSED CONDITIONS
Minimum Lot Area	9,000 s.f.	6,184 s.f.*	6,184 s.f.*
Minimum Lot Frontage	60 feet	50 feet*	50 feet*
Minimum Front Setback (principal building)	15 feet	20.1 feet	20.1 feet
Minimum Side Setback (principal building)	6 feet	0***	1 foot****
Minimum Side Setback (principal building)	Sum of both sides, 20% of lot width (10.8 feet)	21.2 feet	20.9 feet
Minimum Rear Setback (principal building)	20 feet	35.51 feet	35.51 feet (deck)
Minimum Rear Setback (principal building)	20% of lot depth (23 feet)	35.51 feet	35.51 feet (deck)
Minimum Front Setback (accessory structure)	Lesser of 50% of lot depth or 75 feet (57.5 feet)	18.49 feet*	18.49 feet* (garage)
Minimum Side Setback (accessory structure)	3 feet	1.2 feet*	1.2 feet* (garage)
Minimum Rear Setback (accessory structure)	3 feet	68.36 feet	68.36 feet (garage)
Maximum Floor Area (accessory structure)	50% first floor of principal structure	28.3%	28.3% (garage)
Maximum Building Coverage	45%	20.7%	22.1%
Maximum Building Coverage	3,375 s.f.	1,264 s.f.	1,369 s.f.
Maximum Site Coverage	65%	40.0%	40.8%
Minimum Landscaped Area	35%	60%	59.2%
Maximum Height (principal building)	28 feet**	23.9 feet**	26.4 feet**
Maximum Height (principal building-ridge)	35 feet	28.4 feet	30.9 feet
Maximum Height (accessory structure-ridge)	15 feet	<15 feet	<15 feet

* Existing non-conformity

** To midpoint of highest roof.

*** Existing patio (northeast corner of house) encroaches upon adjacent property

**** Requesting variance from Table 3 of the City of Bridgeport Zoning regulations.
(6' principal setback requirement in R-B zone)



CONSTRUCTION OF SYNTHETIC FILTER BARRIER

NTS

MAP REFERENCES:

MAP REFERENCES:

1. MAP CHECKED JAN. 1916 H.L.R. SCALE 60FT TO 1 INC. MAP #224.
(PROVIDED BY THE CITY OF BRIDGEPORT ENGINEERING DEPT)
2. PARTITION MAP, PARCEL "A" MAP OF MEADOW WOOD HOMES,
INC., BRIDGEPORT, CONN., PREPARED FOR LORAMAR
CONSTRUCTION CO., DATED SEPTEMBER 10, 1986 PREPARED BY
FULLER & CO., INC.
3. LAND TRANSFER MAP OF PROPERTY LOCATED ON HACKLEY
STREET BRIDGEPORT, CONNECTICUT FOR JEFFREY H. AND DONNA
C. ROBINSON SCALE 1"-20' DATED JULY 10, 1981 PREPARED BY

SURVEY NOTES:

I. THIS SURVEY AND MAP HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THRU 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

- TYPE OF SURVEY IS A PROPERTY AND TOPOGRAPHIC SURVEY AND IS INTENDED TO DEPICT THE LOCATION OF IMPROVEMENTS RELATIVE TO PROPERTY LINES.
- THIS IS A RESURVEY BASED ON MAP REFERENCE #1.
- HORIZONTAL ACCURACY MEETS CLASS A-2 STANDARDS AND VERTICAL ACCURACY MEETS CLASS T-2 STANDARDS.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT
AS NOTED HEREON.

LAWRENCE P. GEISSLER IP LS

REVISIONS		NO.	DATE	BY
REVISION	COMMENTS			
1	CAPITAL STUDIO COMMENTS	1	6/17/2015	RMM
BEVERLY A BALAZ PLOT PLAN				
SHEET 1				
SCALE: 0' 10' 20' 40' 1' = 20'				



STUDIO
hitects LLC
1 STREET EAST HARTFORD CT. 06118
2 fax 860.289.3144

**THE STATE OF
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COMMUNITY
DEVELOPMENT BLOCK
GRANT - DISASTER
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WILLIAM M. LAPONT, PE

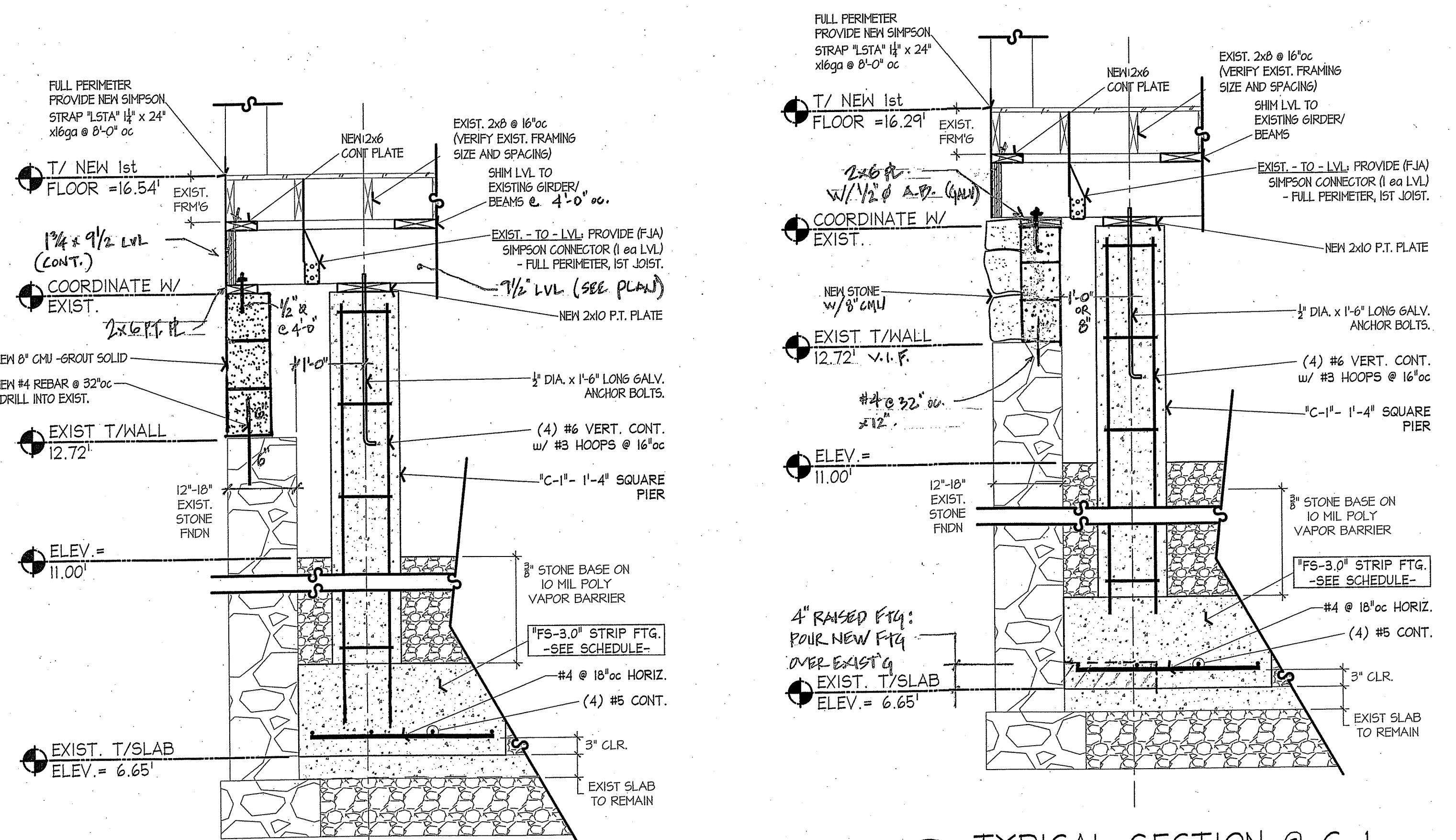
1379 Main Street
East: Hartford, CT 06108
voice: 860.622.0940
vmlpe@aol.com

date	description	no.
<hr/>		
revisions		

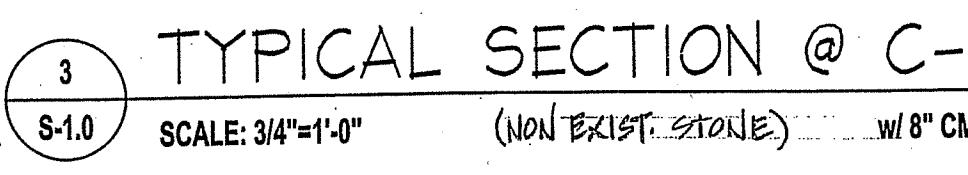
FOUNDATION PLAN

S-1.0

date 22 JUN 2015
drawn JB
scale AS SHOWN
checked WML
project no.
application no. 1326

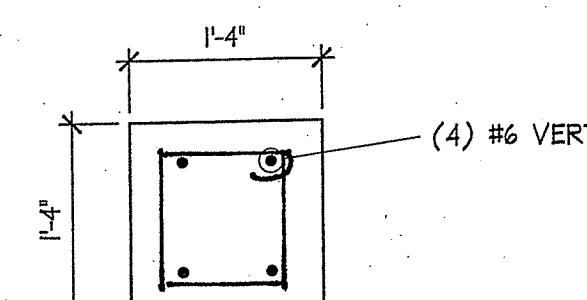


2 TYPICAL SECTION @ C-1
1.0 SCALE: 3/4"=1'-0" (EXIST. STONE) W/STONE/CMU



TYPICAL SECTION @ C-

S-1.0 SCALE: 3/4"=1'-0" (NON EXIST. STONE) w/ 8" CM

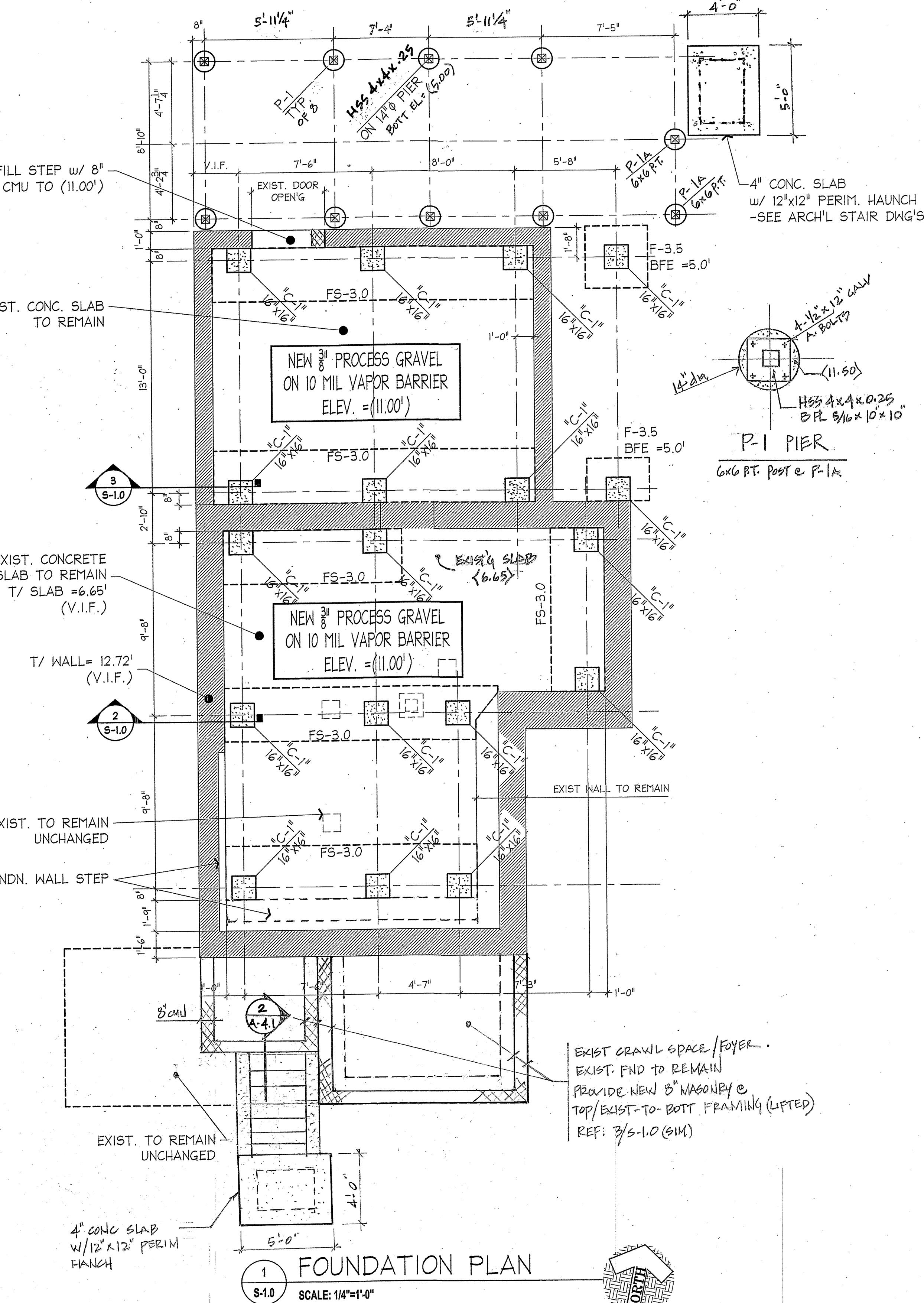


4 CONC. PIER DETAIL "C-1"
S-1.0 SCALE: 3/4"=1'-0"

FOOTING		
NO:	SIZE:	REINF.
FS-3.0	3'-0" x 1'-4" CONT.	(4) #5 L.W. / #4 @18"oc S.W.
F-3.5	3'-6" x 3'-6" x 1'-0"	(4) #5 HORIZ. EA. WAY (BOTT.)

PIER/TUBE SCHEDULE

NO:	SIZE:	REINF.
P-1 P-1A	14"Ø TUBE + <u>HSS 4x4 x 0.25</u>	(2) #5 DOWEL INTO FOOTING
C-1	16" x 16"	(4) #6 DOWEL (EXTEND TO "F" w/ #3 HOOPS S-11



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

NOTES

1. TOP/ NEW CRAWL SPACE FILL ELEV.= 0'-0" (LOCAL ELEV. 11.00') UNLESS NOTED
THUS (\pm). ALL ELEVATIONS (+ OR -)
2. CRAWL SPACE MATERIAL: 4" OF PROCESS GRAVEL OVER 10 MIL POLY VAPOR
BARRIER
3. BFE INDICATES "BOTTOM OF FOOTING ELEVATION", ALL FOOTINGS TO BEAR ON 12"
STRUCTURAL FILL OR EXIST. SLAB ON GRADE
4. CRAWL SPACE:
EXIST. BRICK PIERS TO REMAIN. ALL NEW STEEL: PRIME & RUST PROOF PAINTED
5. VERIFY ALL EXISTING 1st FLOOR FRAMING (SIZE & LOCATION) BEFORE START OF
"HOUSE RELOCATION" OPERATIONS
6. EXTEND CHIMNEY w/ 8" CMU BLOCK -GROUT SOLID
7. SEE "2/A-10" FOR ADD'L INFO.

VERIFY IN FIELD

1. EXISTING FOUNDATION DIMENSIONS
2. DEPTH OF EXISTING FRAMING TO DETERMINE TOP/FND WALLS

STRUCTURAL NOTES:

A. GENERAL

- ALL WORK SHALL CONFORM TO THE CT BUILDING CODES: IRC 2009, & 2007, 2009 & 2013 CONNECTICUT SUPPLEMENT, ALL FEMA Requirements and the Town of Bridgeport.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING REQUIRED TO MAINTAIN STRUCTURAL STABILITY DURING CONSTRUCTION.
- IF REQ'D, ALL FIELD TESTING SHALL BE PERFORMED BY AN ACCREDITED TESTING LABORATORY.

B. FOUNDATION

- ALL FOUNDATIONS SHALL BEAR ON COMPAKTED STRUCTURAL FILL/EXISTING SLAB. ANY UNSUITABLE SOIL CONDITION UNDER SLAB SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER/ARCHITECT/ENGINEER.
- SUB-GRADE SHALL BE COMPAKTED USING A VIBRATORY TAMPER OR JUMPING SOIL RAMMER AFTER THE STRUCTURAL BACKFILL HAS BEEN APPROVED.
- PROVIDE BACKFILL MATERIAL (Submit for Approval) BELOW CRAWL SPACE & SHALL BE PLACED IN LAYERS NOT TO EXCEED 12", REF. BACKFILL SPECIFICATIONS.
- WHERE BOTT/FOOTINGS ARE BELOW THE GROUNDWATER ELEVATION, PLACE FILTER FABRIC & 8" OF 3/8" CRUSHED STONE.

C. CONCRETE (All materials to be submitted for Review before start of work)

- CONCRETE MATERIALS ARE AS FOLLOWS: 3000 psi at WALLS, PIERS, FOOTINGS, and EXTERIOR SLABS.
- REINFORCEMENT: ASTM A615, Fy = 60 ksi.
- CONCRETE WORK SHALL CONFORM TO ACI 301-03 & ACI 318-03.
- MINIMUM COVER FOR REBAR:
 - CONCRETE AGAINST EARTH.....3"
 - CONCRETE EXPOSED TO WEATHER.....2"
 - CONCRETE AT INTERIOR SLABS.....1"

- INTERIOR FLOOR (If Required). BASEMENT SLAB SHALL HAVE A STEEL TROWEL FINISH. PITCH TO EXTERIOR. EXTERIOR SLABS SHALL RECEIVE A COURSE BROOM FINISH. VERIFY WITH OWNER ON SLAB TREATMENT BEFORE PROCEEDING.
- APPLY CURING COMPOUND TO SLABS IMMEDIATELY FOLLOWING TROWELING, Kure-N-Seal #30 or EQUAL.
- GROUT & RUB ALL EXPOSED SURFACES OF FOUNDATION WALLS WITHIN 48 HOURS OF POUR.
- SAW CUT SLAB-ON-GRADE CONTROL JOINTS AT A MAX. (10' x 10') MAX. JOINTS SHALL BE CUT 1/4" min. and WITHIN 24 HOURS OF POUR. FILL JOINTS WITH NON SHRINK GROUT.

D. STEEL (All materials to be submitted for Review before start of work)

- MATERIALS: (All exposed steel shall be galvanized)
 - W or HP Sections.....ASTM A992, Fy = 50 ksi.
 - HSS Sections.....ASTM A500, Fy = 46 ksi.
 - PLATES, ANGLES, ETC.....ASTM A36, Fy = 36 ksi.
 - ANCHOR BOLTS (galv.).....ASTM A307.
 - EXTERIOR PIPE COLS.....ASTM A501, Fy = 36 ksi.

E. WOOD (All materials to be submitted for Review before start of work)

- MATERIALS: USE HEM OR DOUG FIR-LARCH, NO. 1 OR BETTER FOR ALL CONVENTIONAL FRAMING. USE LUMBER WITH LESS THAN 19 PERCENT MOISTURE CONTENT. Design Data - Fb = 2800 psi, E = 2000 ksi
- MATERIALS: USE LVL OR EQUAL (REDBUILT micro-lam) BEAMS AS INDICATED ON DRAWINGS. FOLLOW MANUF. REQUIREMENTS FOR INSTALLATION AT EXTERIOR DECK. MIN BEARING = 3 1/2" Design Data - Fb = 2800 psi, E = 2000 ksi
- USE TJI (RedBuilt or Approved Equal) FLOOR TRUSSES AS INDICATED ON DRAWINGS. USE WEB STIFFENERS AND SOLID BLOCKING AT ALL BEARING POINTS AND AS REQUIRED PER MANUFACTURE. RedBuilt/TJI's ARE UNSTABLE UNTIL BRACED LATERALLY, PROVIDE TEMPORARY BRACING AND SHORING BEFORE ALL FLOORING IS IN PLACE. MIN. BEARING FOR JOIST's = 3 1/2"
- USE SIMPSON (or Approved Equal) STRONG TIE JOIST HANGERS AND FRAMING CONNECTORS. SEE ENGINEER FOR REVIEW.
- TIKE RAFTERS TO WALL PLATES WITH SIMPSON HURRICANE CONNECTORS. SEE DETAILS.
- DOUBLE UP FLOOR JOISTS NEXT TO ALL FLOOR PENETRATIONS GREATER THAN 24".
- DO NOT CUT HOLES IN FLOOR JOISTS WITHOUT APPROVAL FROM ENGINEER OR MANUF.
- ANY LUMBER TOUCHING CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.
- IT IS CRITICAL THAT ALL ROOF RAFTERS, RIDGE BEAMS, HEADERS AND BEARING WALLS CARRY THEIR LOADS DOWN TO THE FOUNDATION. WHENEVER A BEAM OR HEADER BEARS ON A FRAMED WALL, INSTALL A 3-2X6 COL (OR AS NOTED) IN THE FRAMED WALL VERTICALLY UNDER THE BEARING POINT LOAD. USE SOLID BLOCKING BETWEEN FLOORS.
- CONTRACTOR SHALL CONFORM TO THE AWC, "WOOD FRAME CONSTRUCTION MANUAL", 110 mph, EXPOSURE C (WFCM), FOR ALL NAILING PATTERNS, FASTENING & CONNECTIONS. SEE DWGS FOR ADDITIONAL SHEAR WALL CONNECTIONS.

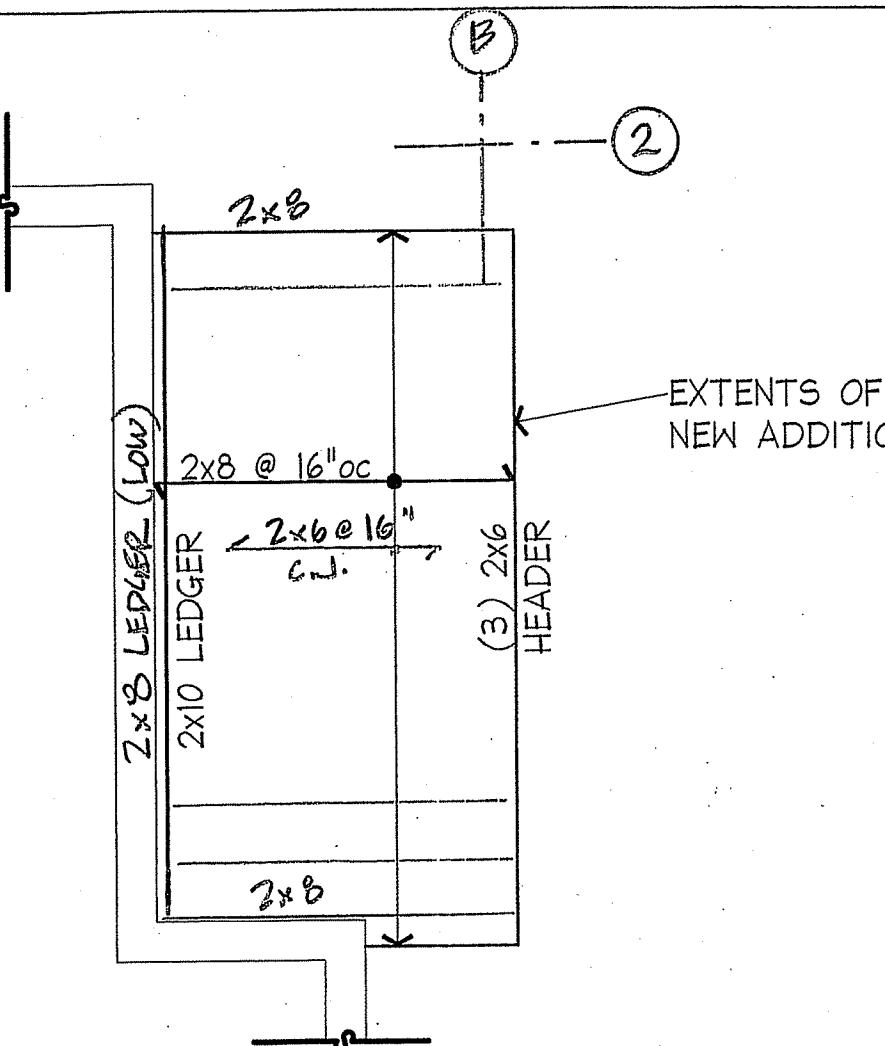
F. CONCRETE MASONRY

- CMU (8" x 16" UNITS): HOLLOW LOAD BEARING ASTM C-90 MORTAR and GROUT: ASTM C-150 TYPE I or III TYPE M or S, 5000 psi
- ALL CMU CELLS SHALL BE GROUTED SOLID.

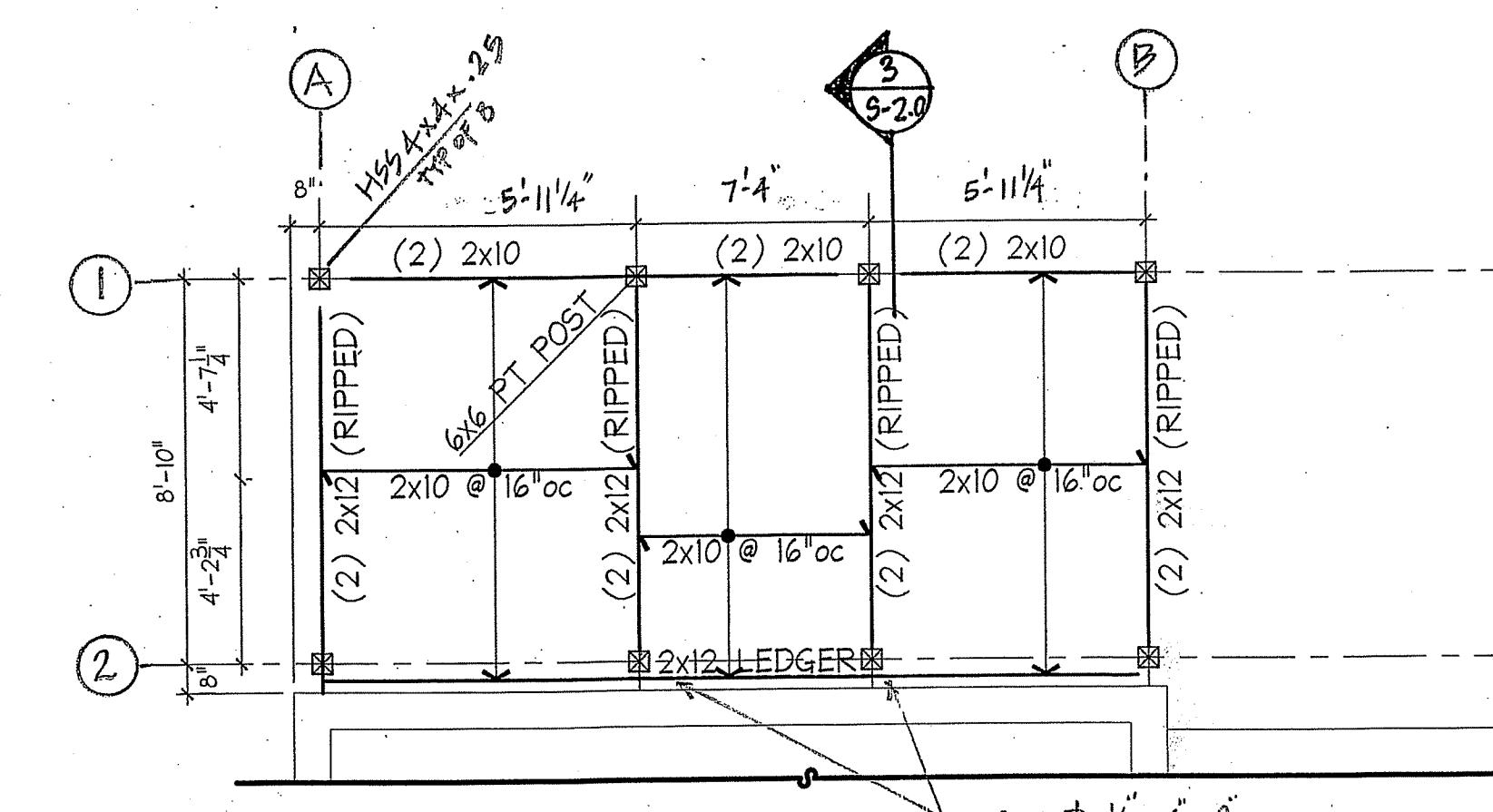
G. DESIGN CRITERIA (Bridgeport, CT)

FIRST FLOOR LIVE LOAD = 40 psf
SECOND FLOOR (Bedrooms) LIVE LOAD = 30 psf
EXTERIOR DECK LIVE LOAD = 60 psf
ROOF LIVE LOAD = 30 psf
WIND LOAD (App K).....110 mph (3 sec)
PRESUMPTIVE SOIL BEARING PRESSURE.....1.0 ton/sq ft

NOTE: The structural design was performed only for general conformance at this Site in Bridgeport, CT, using the assumed local site conditions and general compliance with the CT State Code and based on information provided by the Architect/Owner. The Building Contractor is responsible for existing framing sizes & configurations, which shall be confirmed and coordinated at the job site with the Architect/Engineer. Any changes to the fabrication process, or to the means, methods, techniques, sequences, and procedures of construction. The Contractor is responsible for all work in a safe and sanitary manner. Any discrepancies shall be brought to the attention of the Architect/Engineer/ Owner before the start of Work.



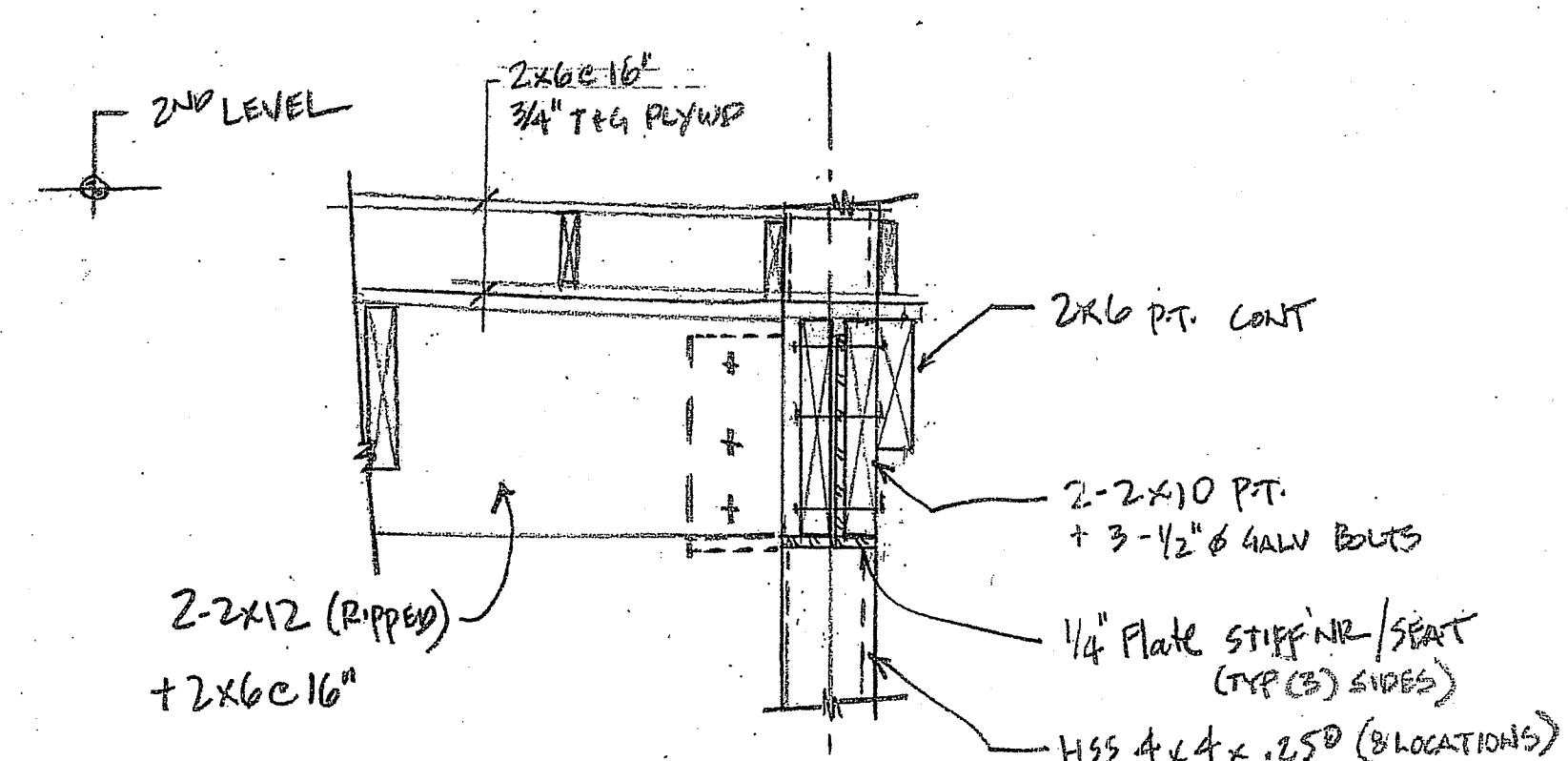
1A
S-2.0
SCALE: 1/4"=1'-0"
OOT FRAMING PLAN
NOTE: PROVIDE H2.5A CONNECTORS
ALL PL-RAPERS



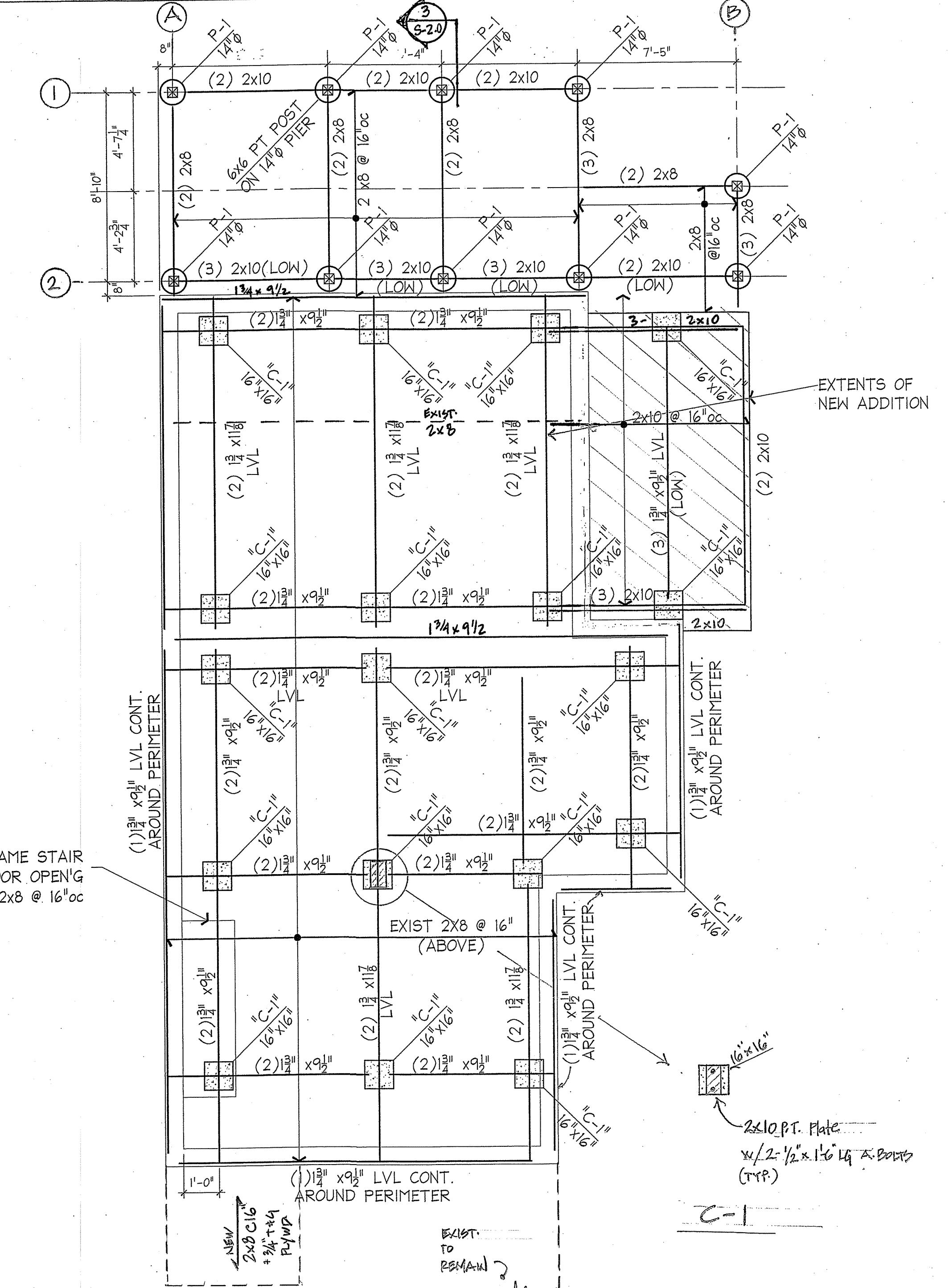
2
S-2.0
SCALE: 1/4"=1'-0"
NEW 2nd FLOOR DECK FRAMING

DECK NOTES:

- ALL FASTENERS TO BE GALV. OR S.S.
- POST CONNECTIONS:
CAP= PC2/EPC2 -SIMPSON STRONG-TIE
BASE= CBQ66 -SIMPSON STRONG-TIE
- REFER TO SHT. A-4.0 FOR DECK DETAILS

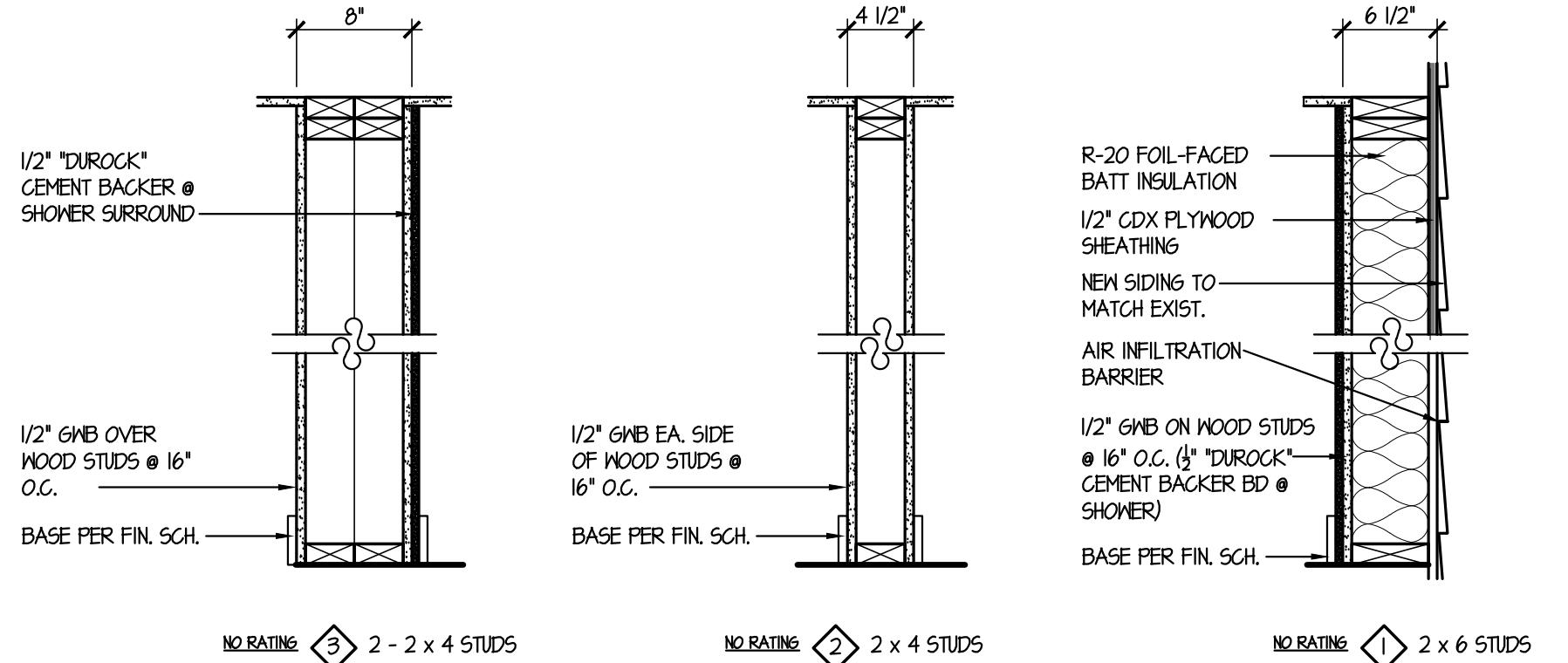


3
S-2.0
SECTION AT DECK
1/4"=1'-0"

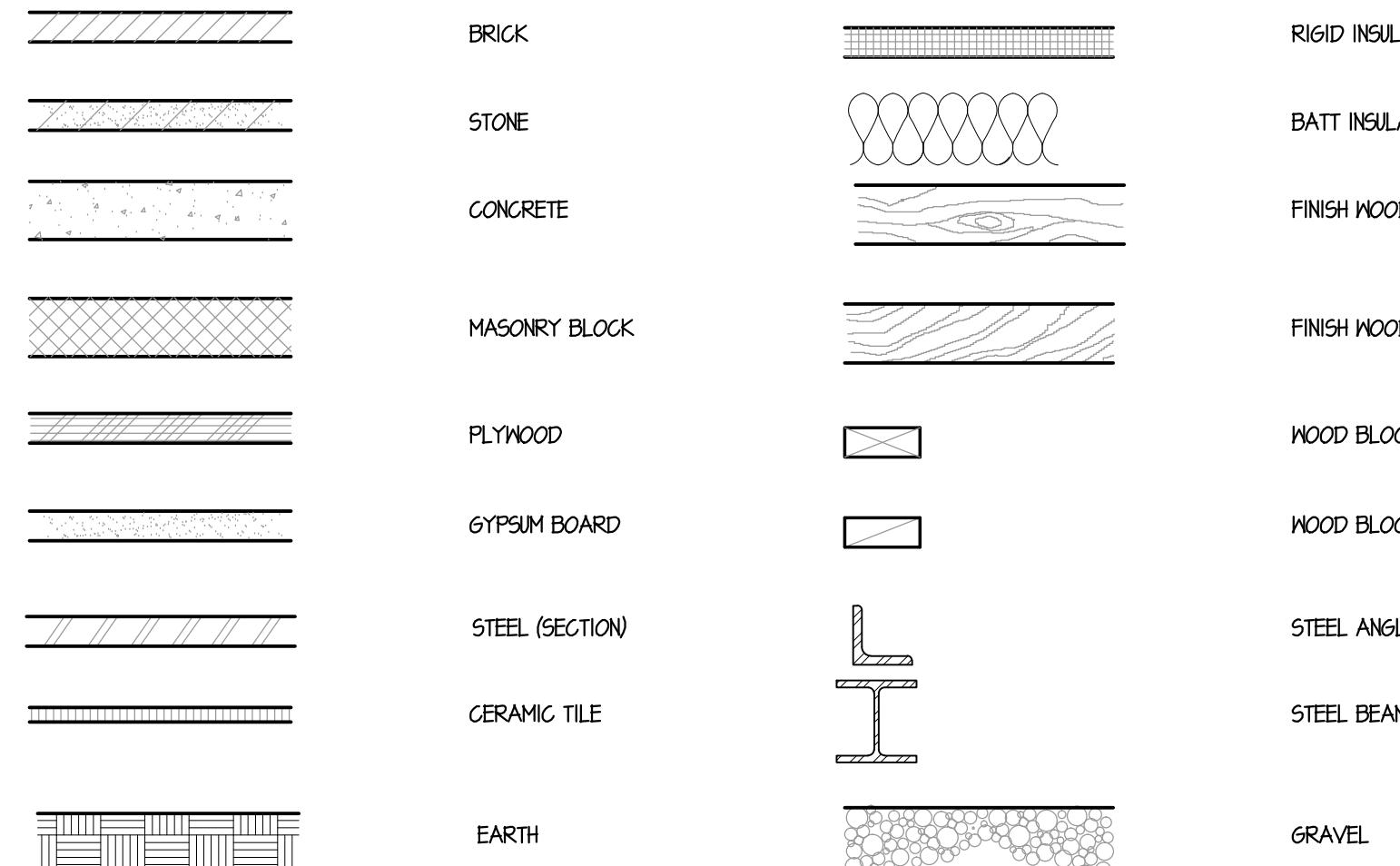


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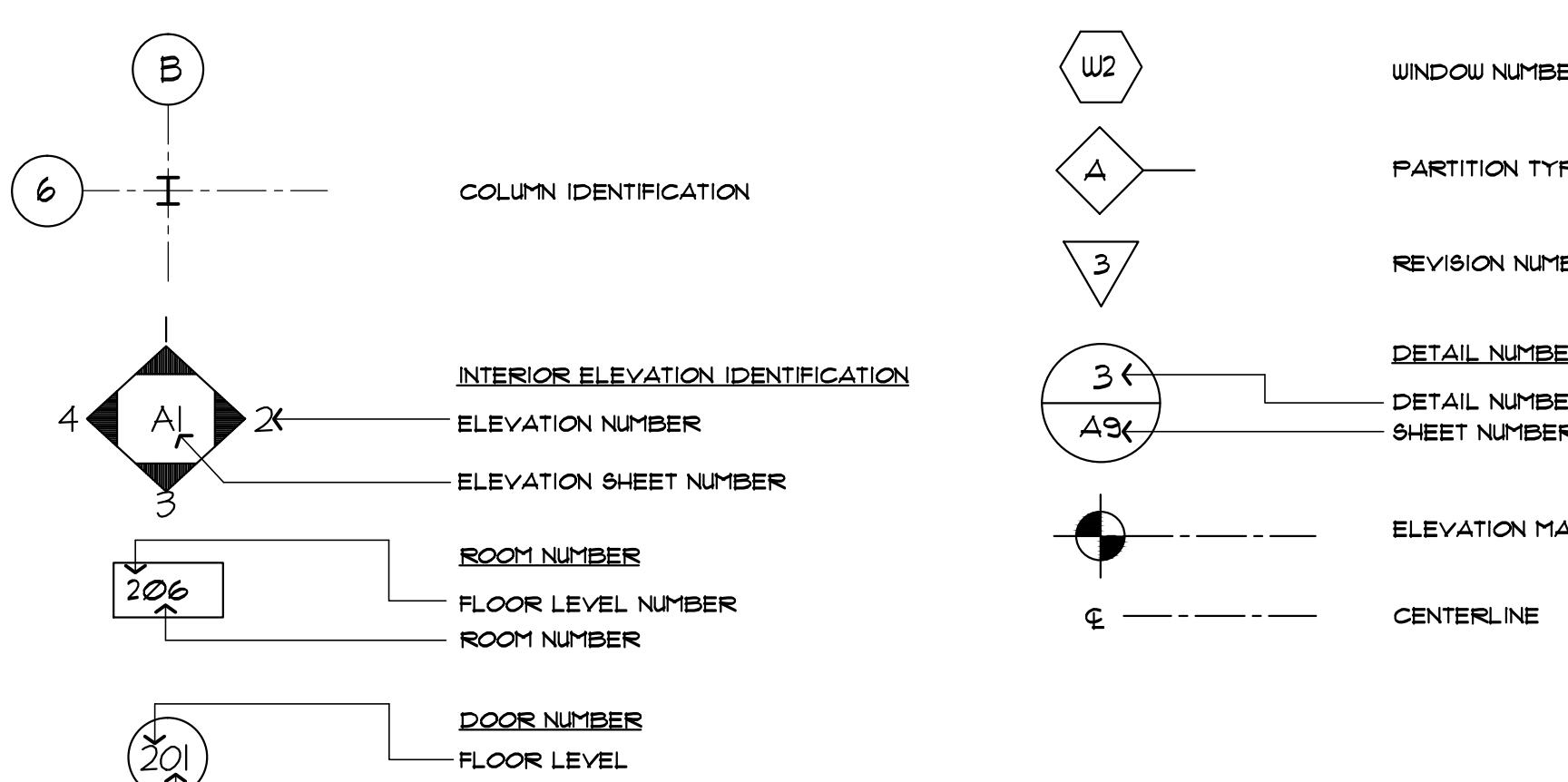
BALAZ RESIDENCE
APPLICATION No. 1326
64 Hackley Street
Bridgeport, CT 06605



5 PARTITION TYPES
A-0.0 NO SCALE



4 MATERIALS LEGEND
A-0.0 NO SCALE



3 SYMBOLS LEGEND
A-0.0 NO SCALE

2 ABBREVIATIONS
A-0.0 NO SCALE

BRICK	RIGID INSULATION	A.C.T.	ACOUSTICAL CEILING TILE	I.D.	INSIDE DIAMETER
STONE	BATT INSULATION	ACOUST.	ACOUSTIC	INSUL.	INSULATION
CONCRETE	FINISH WOOD (ELEVATION)	ALT.	ALTERNATE	JAN.	JANITOR
MASONRY BLOCK	FINISH WOOD (SECTION)	ALUM.	ALUMINUM	J.T.	JOINT
PLYWOOD	WOOD BLOCKING (CONT)	ARCH.	ARCHITECTURAL	LAM.	LAMINATED
GYPSUM BOARD	WOOD BLOCKING (NOT CONT)	ASB.	ASBESTOS	L.P.	LOW POINT
STEEL SECTION	STEEL ANGLE	A.T.	ASPHALT TILE	LCKR.	LOCKER
CERAMIC TILE	STEEL BEAM	B.C.	BRICK COURSE	MAS.	MASONRY
EARTH	GRAVEL	BD.	BOARD	MAT.	MATERIAL
		B.F.	BOTTOM OF FOOTING	MAX.	MAXIMUM
		BLDG.	BUILDING	M.C.	MASONRY COURSE
				M.ECH.	Mechanical
				M.F.M.	Membrane
				M.F.R.	Manufacturer
				M.I.N.	Minimum
				M.I.R.	Mirror
				M.I.S.C.	Miscellaneous
				M.O.	Masonry opening
				N.I.C.	NOT IN CONTRACT
				N.O.	NUMBER
				N.T.S.	NOT TO SCALE
				O/C	ON CENTER
				O.D.	OUTSIDE DIAMETER
				OPNG.	OPENING
				OPP.	OPPOSITE
				PERF.	PERFORATED
				P.T.	PRESSURE TREATED
				R.	RISER (RADIUS)
				R.B.	RUBBER BASE
				REF.	REFERENCE
				REINF.	REINFORCING
				R.L.	RAIN LEADER
				RM.	ROOM
				SIM.	SIMILAR
				SPEC.	SPECIFICATION
				STL.	STEEL
				STRUCT.	STRUCTURAL
				STOR.	STORAGE
				SUSP.	SUSPENDED
				TERR.	TERRAZZO (TERRACE)
				T&G.	TONGUE & GROOVE
				THRESH.	THRESHOLD
				T.	TREAD
				T/S	TOP OF SLAB
				T/STL	TOP OF STEEL
				T/W	TOP OF WALL
				TYP.	TYPICAL
				V.C.T.	VINYL COMPOSITE TILE
				V.B.	VINYL BASE
				VERT.	VERTICAL
				VEST.	VESTIBULE
				V.I.F.	VERIFY IN FIELD
				V.W.C.	VINYL WALL COVERING
				W.	WITH
				W.C.	WATER CLOSET
				W.D.	WALL
				WIND.	WINDOW
				W.P.	WATERPROOFING

FINISH NOTES

- PRIME AND PAINT ROOM WITH 2 COATS OF BENJAMIN MOORE WHITE-EGGHELL
- PRIME AND PAINT ALL WOOD MOLDINGS AND TRIM-COLOR TO BE SELECTED BY OWNER.
- DO NOT PROCEED WITH CHANGE IN SCOPE OF WORK WITHOUT WRITTEN APPROVAL FROM OWNER OR ARCHITECT.
- REFER TO DIVISION 04 SPECIFICATION SECTIONS FOR FINISHES.
- CERAMIC TILES NOTES
 - AT ALL CERAMIC TILE FLOOR AREAS, PROVIDE 1/4" THICK APA RATED A-C PLYWOOD UNDERLayment WITH EXTERIOR GLUE. AT BATHROOM FLOOR, ALSO PROVIDE WATERPROOF MEMBRANE COMPLYING WITH ANSI A108.10. THIS WORK SHALL BE INCLUDED IN THE BASE BID.
 - AT SHOWER STALL WALLS, IN LIEU OF GNB, FURNISH AND INSTALL DURROCK CEMENT BACKER BOARD, FULL EXTENT OF SHOWER SURROUND WALLS, FROM SHOWER BASE UNIT TO CEILING HEIGHT. INSTALL OWNER SELECTED CERAMIC WALL TILE IN ACCORDANCE WITH TGA WALL SYSTEM B-430, USING LATEX-PORTLAND CEMENT MORTAR AND GROUT IN ACCORDANCE WITH ANSI A108.12 AND A108.10, RESPECTIVELY.
 - AT BATHROOM FLOOR, INSTALL SELECTED CERAMIC FLOOR TILE IN ACCORDANCE WITH TGA FLOOR SYSTEM F-143 USING EPOXY MORTAR and EPOXY GROUT IN ACCORDANCE WITH ANSI A108.6.
 - GROUT COLOR AS SELECTED BY OWNER.
 - ALL CERAMIC TILE MATERIALS SHALL BE AS SELECTED BY OWNER, FURNISHED UNDER THE ALLOWANCE SPECIFIED IN SECTION 01010. ALL CERAMIC TILE LABOR and MORTAR / GROUT MATERIALS SHALL BE INCLUDED IN THE BASE BID.

6 GENERAL CONSTRUCTION and DEMOLITION NOTES
A-0.0 NO SCALE

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH APPLICABLE STATE OF CONNECTICUT BUILDING AND FIRE CODES AND SAFETY CODES. BEFORE WORK BEGINS CONTRACTOR IS TO CONTACT CALL BEFORE YOU DIG AT 1-800-422-4455 TO LOCATE ALL UNDERGROUND UTILITIES.
- WORK PERMITS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL SECURE ALL REQUIRED LOCAL AND STATE OF CONNECTICUT PERMITS PRIOR TO COMMENCING WORK. ALL COSTS OF SECURING PERMITS SHALL BE PAID BY THE OWNER.
- ALL MATERIALS AND EQUIPMENT THAT WILL BE USED IN THE CONSTRUCTION OF THIS PROJECT ARE SUBJECT TO THE APPROVAL OF THE OWNER. ALL MATERIALS AND EQUIPMENT REQUIRED BY NOTES OR SPECIFICATIONS SHALL BE SUBMITTED IN THE FORM OF SAMPLES AND SHOP DRAWINGS FOR APPROVAL BY ARCHITECT. WHERE COLOR SELECTIONS ARE MADE, COMPLETE SAMPLES SHALL BE FURNISHED TO THE ARCHITECT.
- ALL EXISTING OR NEW CONSTRUCTION DISTURBED OR DAMAGED DURING THE COURSE OF THIS WORK SHALL BE RESTORED TO MATCH EXISTING ADJACENT SURFACES OR ORIGINAL CONSTRUCTION.
- PRECAUTION MUST BE EXERCISED AT ALL TIMES FOR THE PROTECTION OF PERSONS AND PROPERTY. THE SAFETY PROVISIONS OF APPLICABLE LAWS AND CONSTRUCTION CODES MUST BE OBSERVED. CONTRACTOR SHALL TAKE OR CAUSE TO BE TAKEN SUCH ADDITIONAL SAFETY AND HEALTH MEASURES AS ARE REASONABLY NECESSARY. MACHINERY, EQUIPMENT AND OTHER HAZARDS GUARDED IN ACCORDANCE WITH SAFETY PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" PUBLISHED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, TO THE EXTENT THAT SUCH PROVISIONS ARE NOT IN CONTRADICTION OF APPLICABLE LAWS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AND PRESERVE IN OPERATIONAL CONDITION ALL UTILITIES TRAVERSING THE WORK AREA. DAMAGE TO ANY UTILITY DUE TO WORK UNDER THIS CONTRACT SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT NO ADDITION COST TO THE OWNER. UTILITY SHUT DOWNS MUST BE COORDINATED WITH THE OWNER.
- EACH BIDDER WILL BE HELD TO HAVE EXAMINED THE PREMISES AND SATISFIED HIMSELF WITH THE CONDITIONS WHICH WOULD IN ANY MANNER AFFECT THE WORK UNDER THE CONTRACT AND NO LATER CLAIMS FOR EXTRA COMPENSATION FOR LABOR, MATERIALS AND EQUIPMENT WHICH COULD HAVE BEEN FORSEEN BY SUCH EXAMINATION WILL BE RECOGNIZED.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASUREMENTS FOR HIS WORK AT THE SITE AND SHALL VERIFY ALL MEASUREMENTS AND DIMENSION GIVEN ON THE DRAWINGS. DO NOT SCALE DRAWINGS.
- DO NOT PROCEED WITH CHANGE IN SCOPE OF WORK WITHOUT WRITTEN APPROVAL FROM OWNER OR ARCHITECT.
- ALL DEMOLITION SHOWN ON THESE DRAWINGS IS DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND RELOCATION WORK NECESSARY TO PROPERLY COMPLETE THE PROJECT, REGARDLESS IF DEMOLITION WORK IS SHOWN OR NOT ON DRAWINGS.
- THE CONTRACTOR IS RESPONSIBLE FOR LEGAL DISPOSAL OF ALL CONSTRUCTION WASTE AND REMOVED ELEMENTS, UNLESS NOTED OTHERWISE ON DRAWINGS. DEBRIS SHALL BE DISPOSED OF ON A DAILY BASIS.
- THE CONTRACTOR SHALL PROVIDE ALL STRUCTURAL SHORING, BRACING AND SHEATHING AS REQUIRED FOR SAFETY AND FOR PROPER EXECUTION OF WORK AND HAVE SAME REMOVED WHEN WORK IS COMPLETED.
- THE OWNER RETAINS THE RIGHT TO SALVAGE ANY DEMOLISHED OR CONTRACTOR REMOVED MATERIAL(S). CONTACT OWNER BEFORE REMOVAL FROM SITE

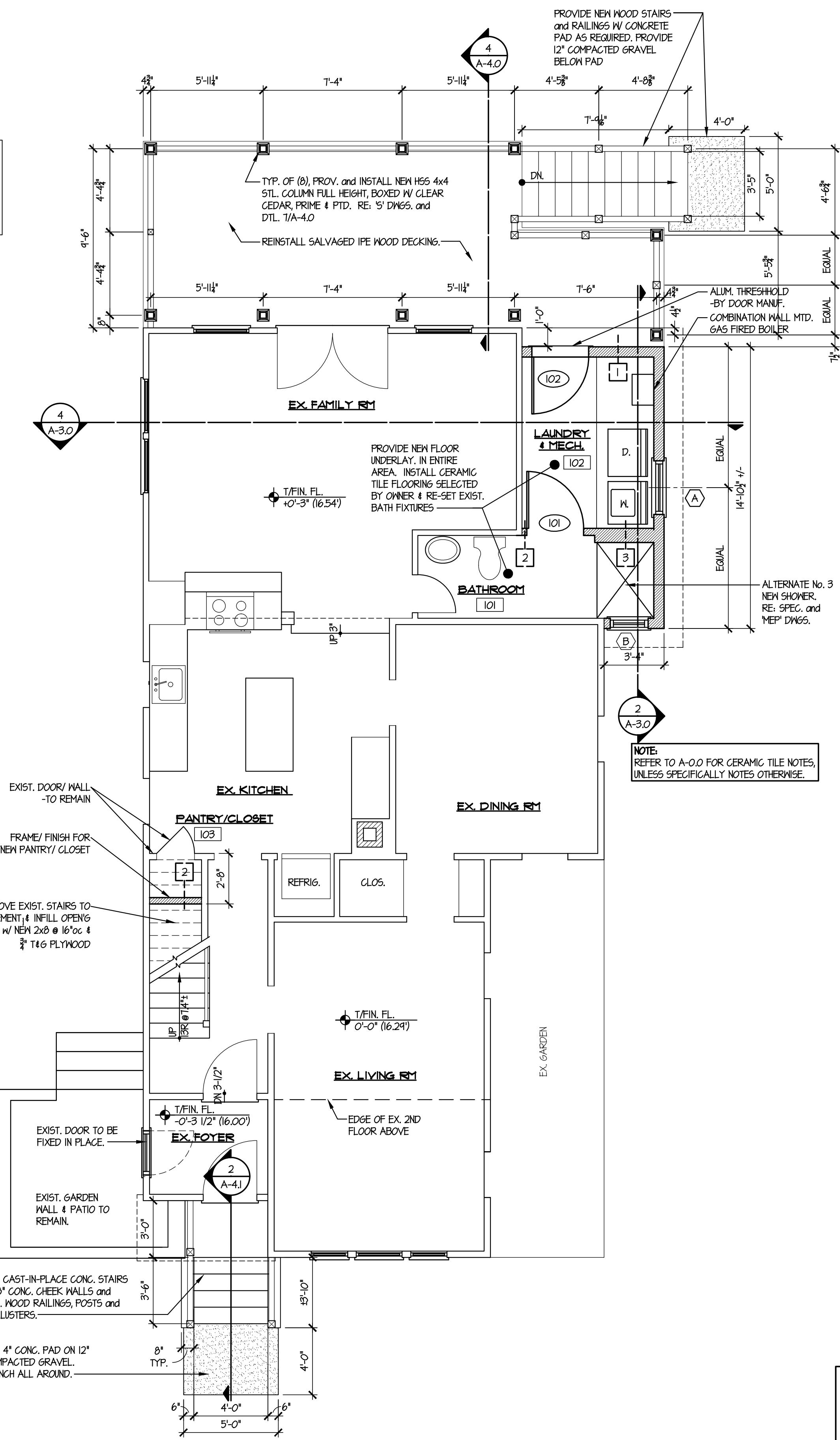
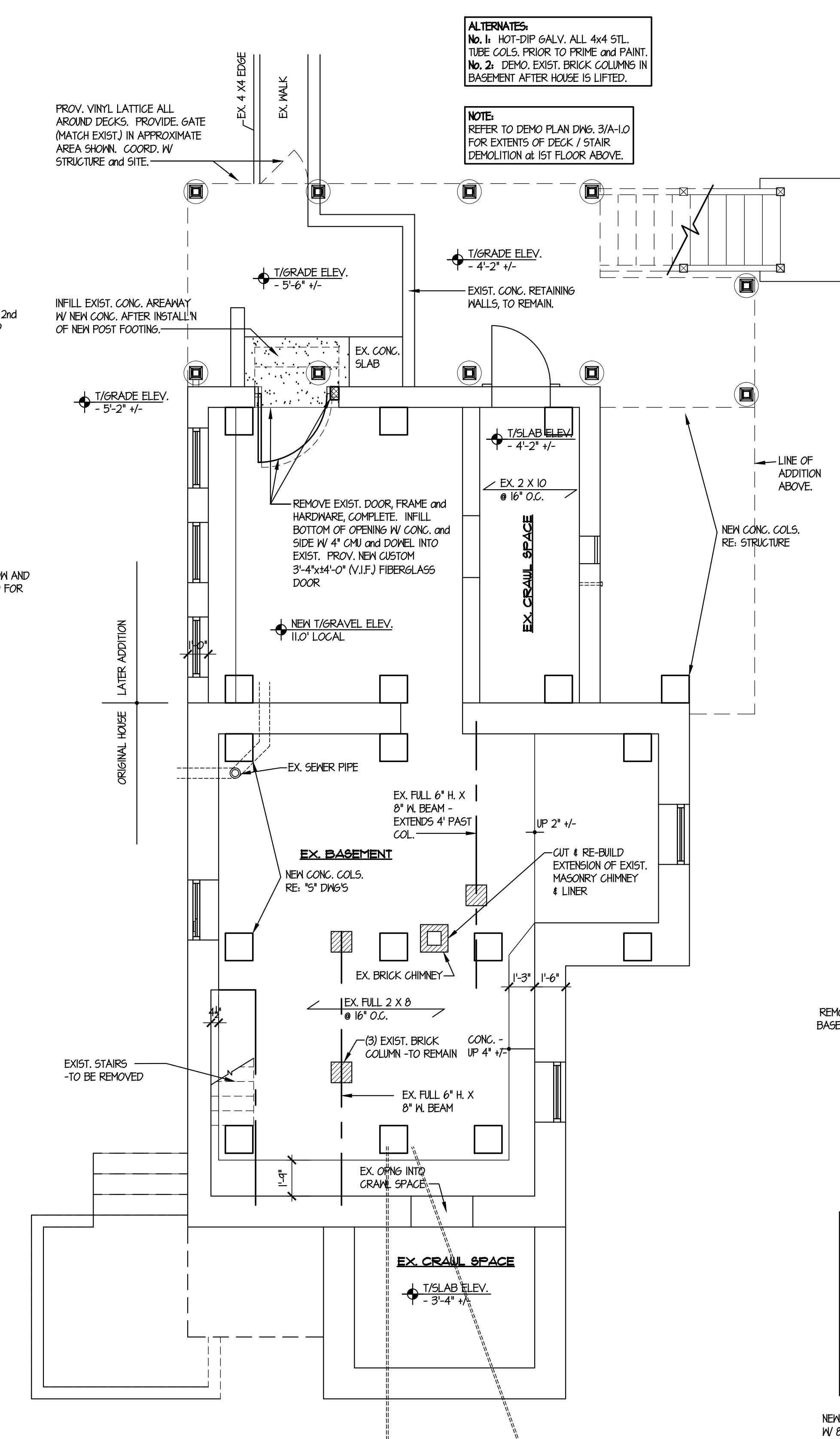
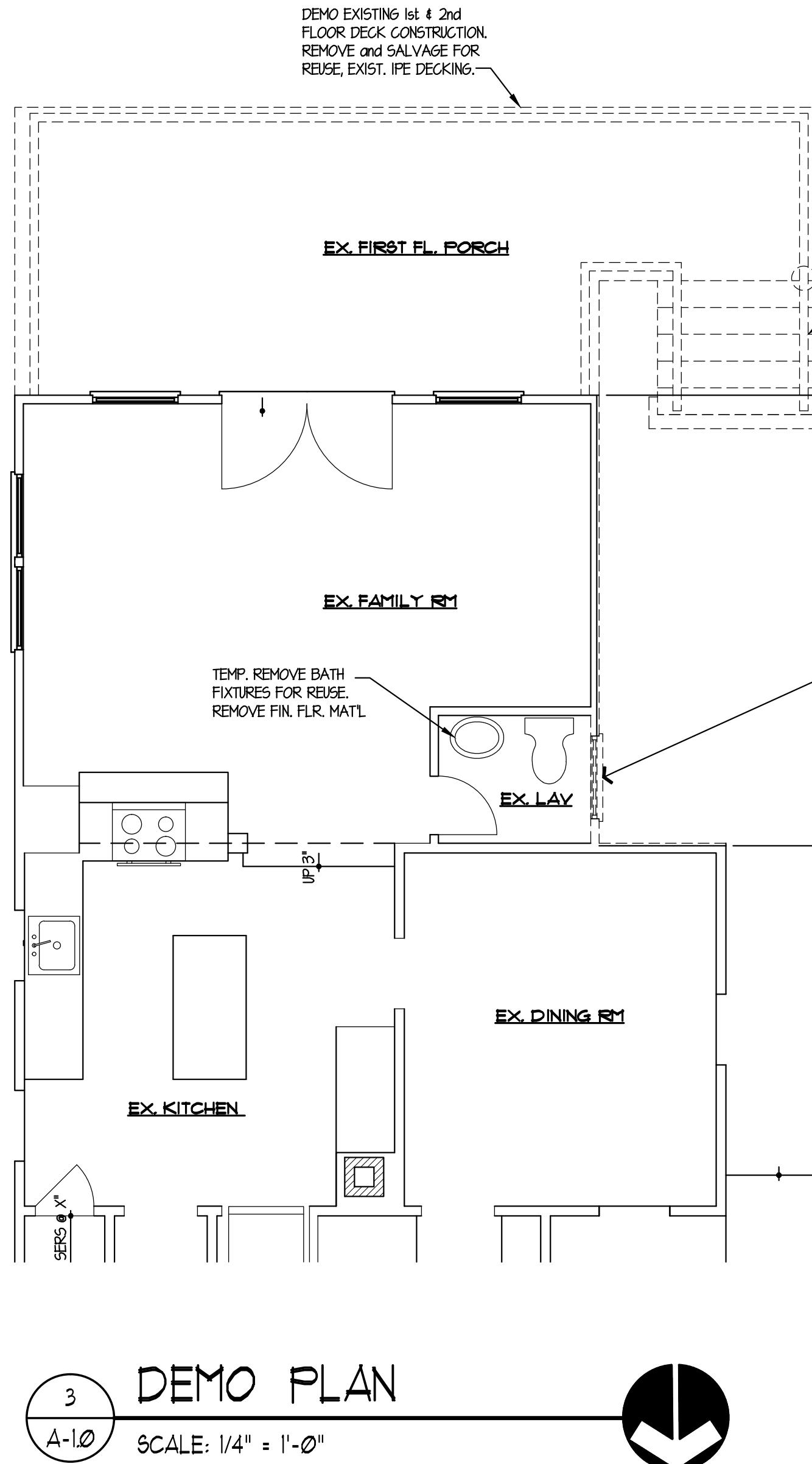
date description no.
revisions

GENERAL INFORMATION

A-0.0

date 22 JUNE 2015
drawn SH/IM
scale AS SHOWN
checked FM/JRP/KG
project no. 1347-18
application no. 1326

1 GENERAL CONSTRUCTION and DEMOLITION NOTES
A-0.0 NO SCALE



A-1.0

date 22 JUNE 2015
 drawn SH/TM
 scale AS SHOWN
 checked FM/JRP/KG
 project no. 1347-10
 application no. 1326

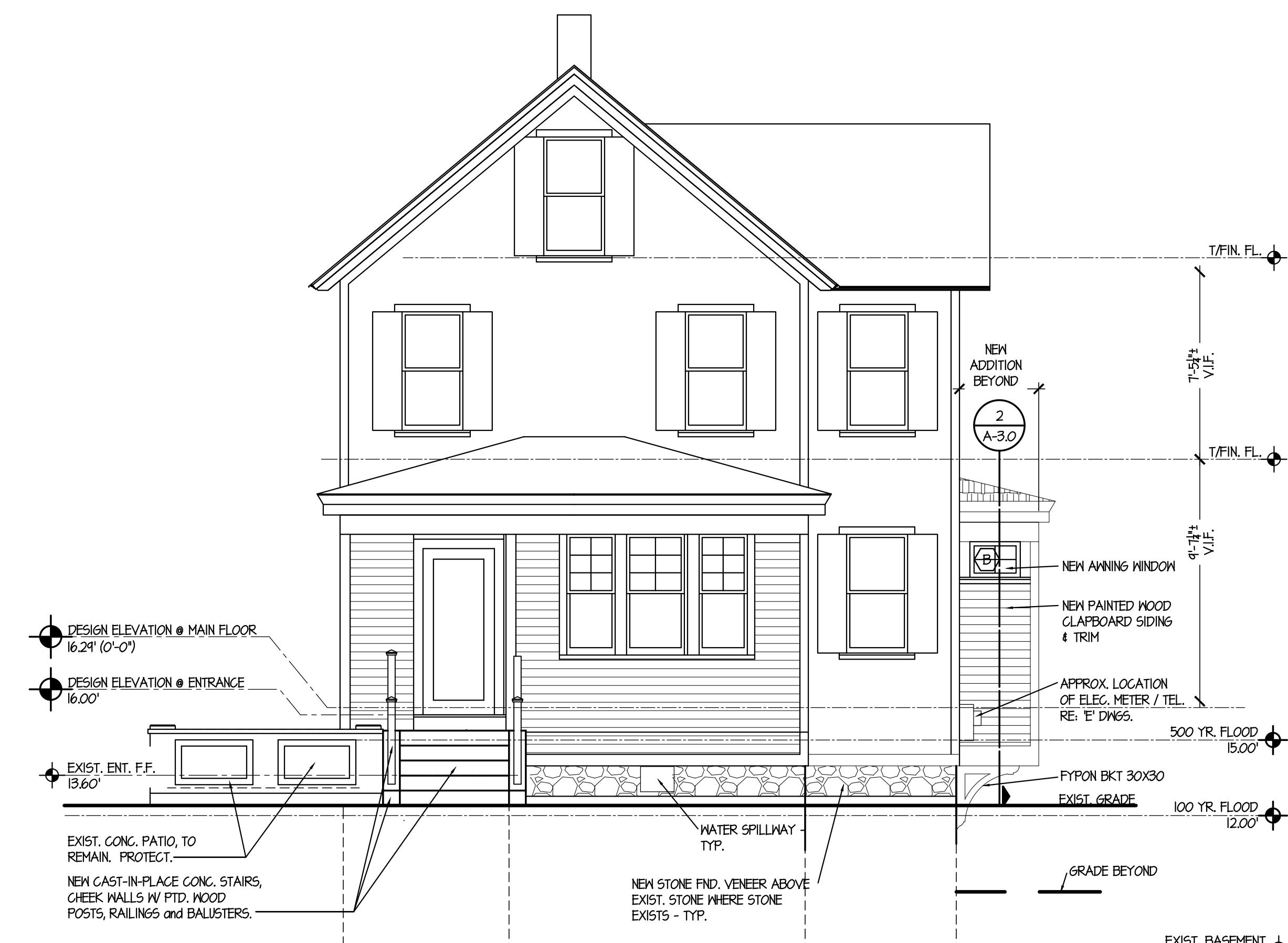
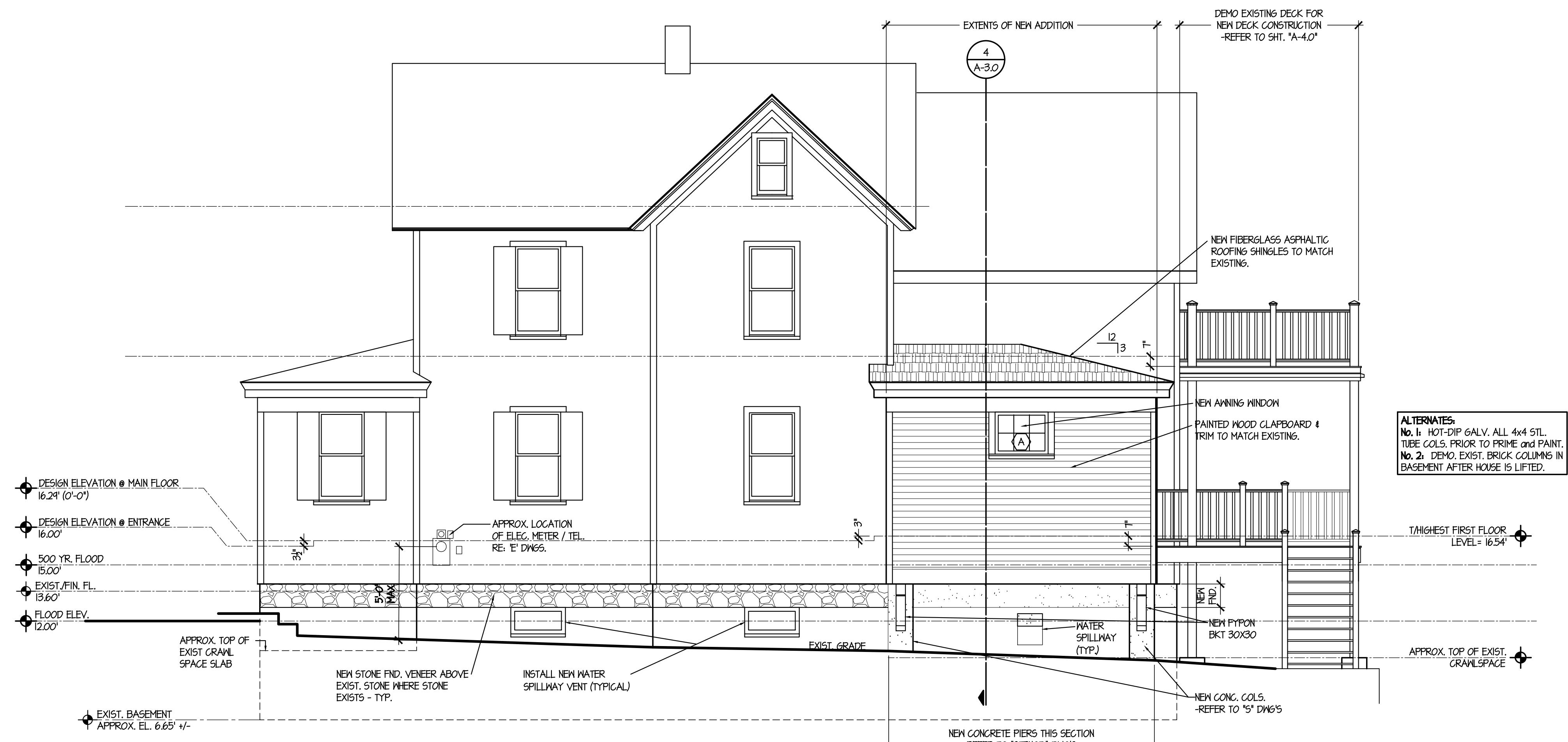
date description no.
 revisions

FLOOR PLANS

CAPITAL STUDIO
architects LLC
 1379 MAIN STREET EAST HARTFORD CT. 06108
 860.289.3262 fax 860.289.3163

THE STATE OF CONNECTICUT DEPARTMENT OF HOUSING (DOH) COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR) OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)

**BALAZ RESIDENCE APPLICATION No. 1326
 64 Hackley Street
 Bridgeport, CT 06605**



NOTE: FOR REPLACEMENT DH WINDOWS LOCATIONS, REFER TO LEAD PAINT ABATEMENT SPEC; SECTION 02090

NORTH and WEST ELEVATIONS

A-2.0

date 22 JUNE 2015
drawn SH/TM
scale AS SHOWN
checked FM/JRP/KG
project no. 1347-18
application no. 1326



THE STATE OF CONNECTICUT DEPARTMENT OF HOUSING (DOH) COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR) OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)

**BALAZ RESIDENCE APPLICATION No. 1326
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revisions



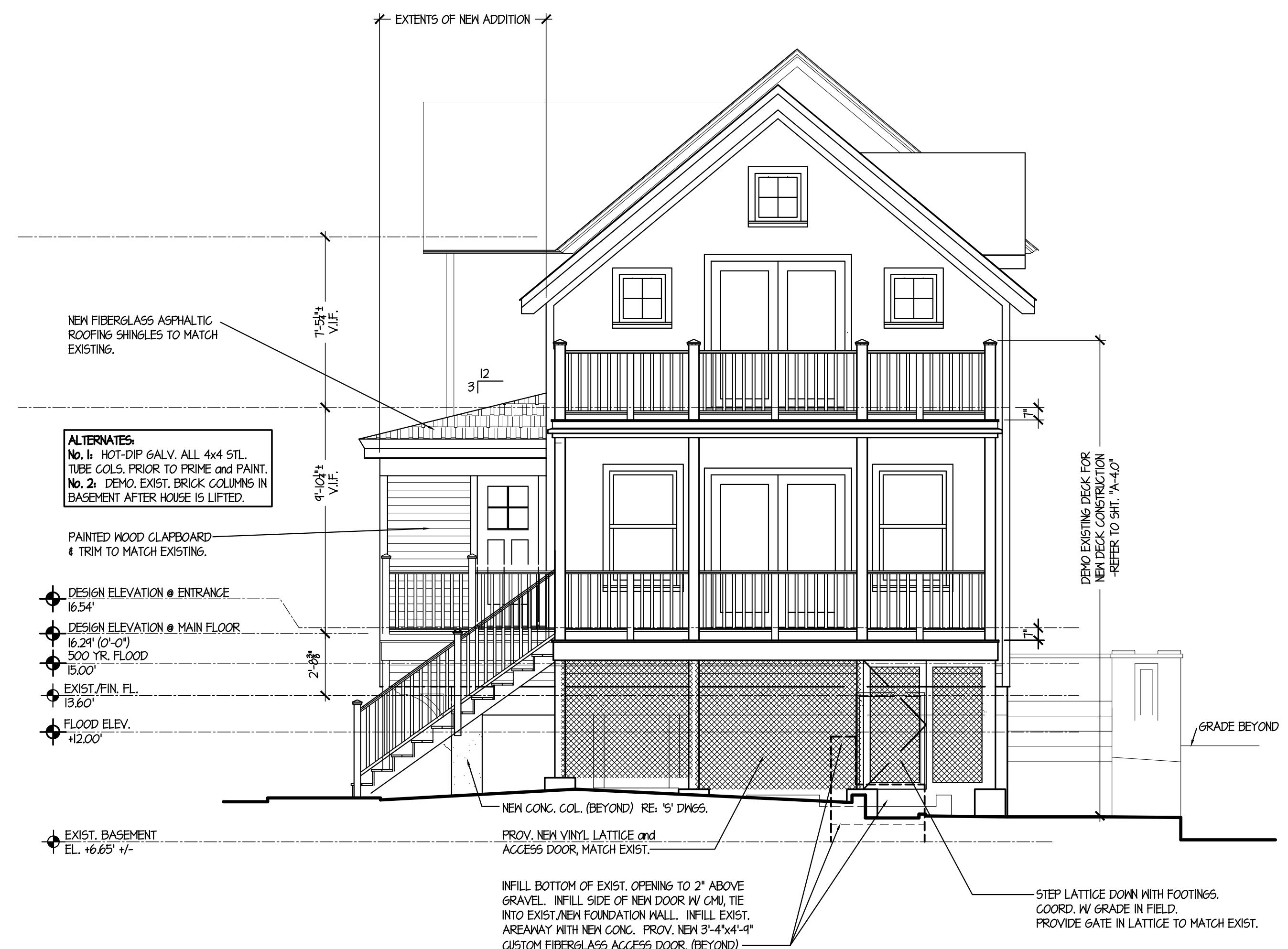
THE STATE OF
CONNECTICUT
DEPARTMENT OF
HOUSING (DOH)
COMMUNITY
DEVELOPMENT BLOCK
GRANT - DISASTER
RECOVERY (CDBG-DR)
OWNER OCCUPIED
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Bridgeport, CT 06605

EAST ELEVATION

A-2.1
SCALE: 1/4" = 1'-0"

NOTE: FOR REPLACEMENT DH WINDOWS
LOCATIONS, REFER TO LEAD PAINT
ABATEMENT SPEC; SECTION 02090



date description no.
revisions

SOUTH and
EAST
ELEVATIONS

A-2.1

SOUTH ELEVATION WITH PORCHES
A-2.1
SCALE: 1/4" = 1'-0"

date 22 JUNE 2015
drawn SH/TM
scale AS SHOWN
checked FM/JRP/KG
project no. 1347-18
application no. 1326

DOOR SCHEDULE

LABEL	TYPE	STYLE	SIZE (W x H)	NOTES
101	INTERIOR DOOR	A	2'-8" x 8"	**MATCH HEAD HEIGHT OF EXIST. OPENINGS TRIM TO MATCH EXIST.
102	EXTERIOR DOOR	A	2'-4" x 8"	**MATCH HEAD HEIGHT OF EXIST. OPENINGS TRIM TO MATCH EXIST.

FINISH SCHEDULE

ROOM NAME	No.	FLOOR		WALLS	CEILING	CLG. HT.	REMARKS
		FLOORING	BASE				
BATHROOM	101	CERAMIC TILE	WOOD	PAINT	GNB-PTD.	(MATCH EXIST.)	MATCH EXIST. MATERIALS & FINISHES
LAUNDRY/MECH.	102	CERAMIC TILE	WOOD	PAINT	GNB-PTD.	(MATCH EXIST.)	MATCH EXIST. MATERIALS & FINISHES
PANTRY/ CLOSET	103	VINYL	WOOD	PAINT	GNB-PTD.	EXIST.	MATCH EXIST. MATERIALS & FINISHES

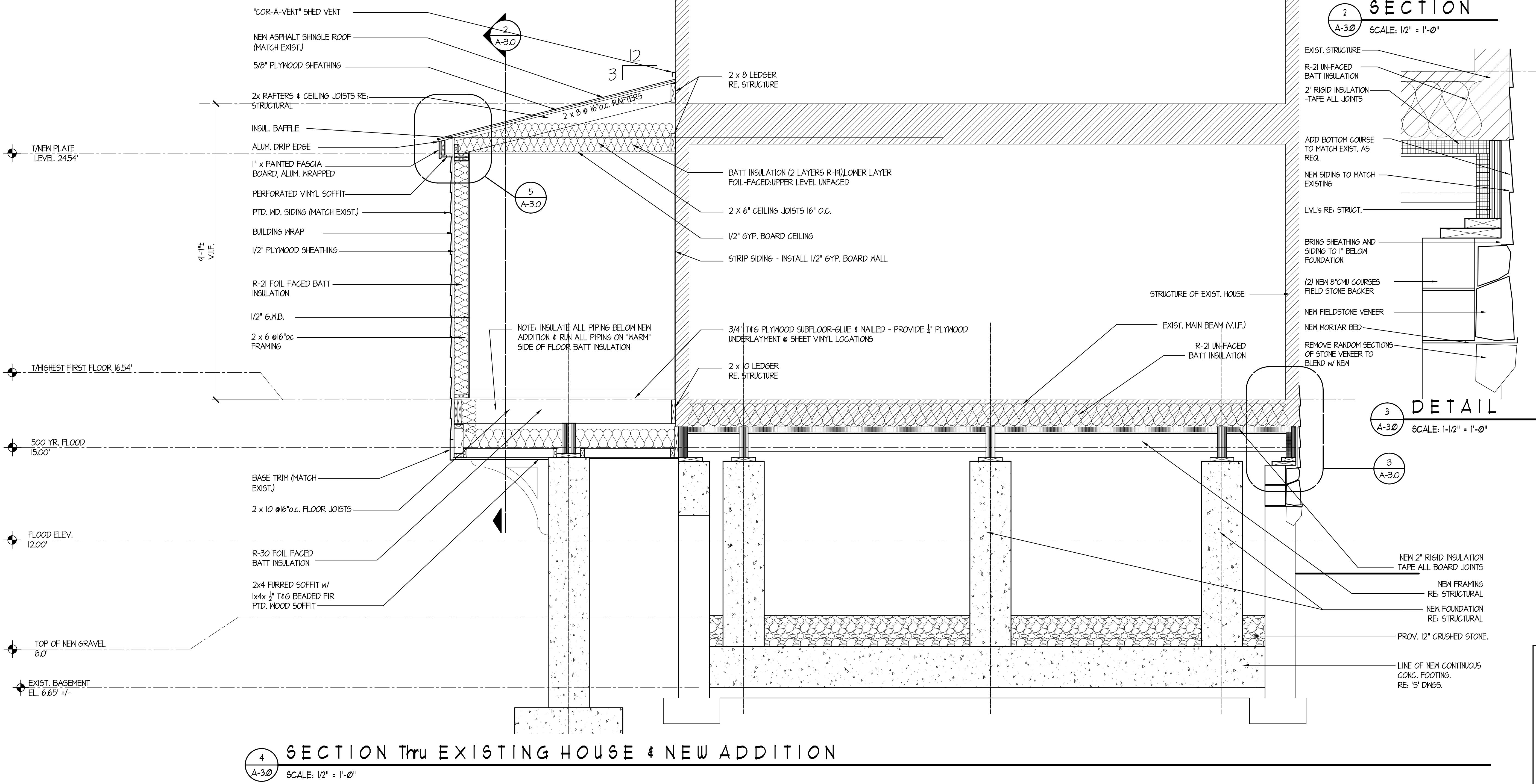
*NOTE: REFER TO A-0.0 FOR CERAMIC TILE NOTES, UNLESS SPECIFICALLY NOTES OTHERWISE.

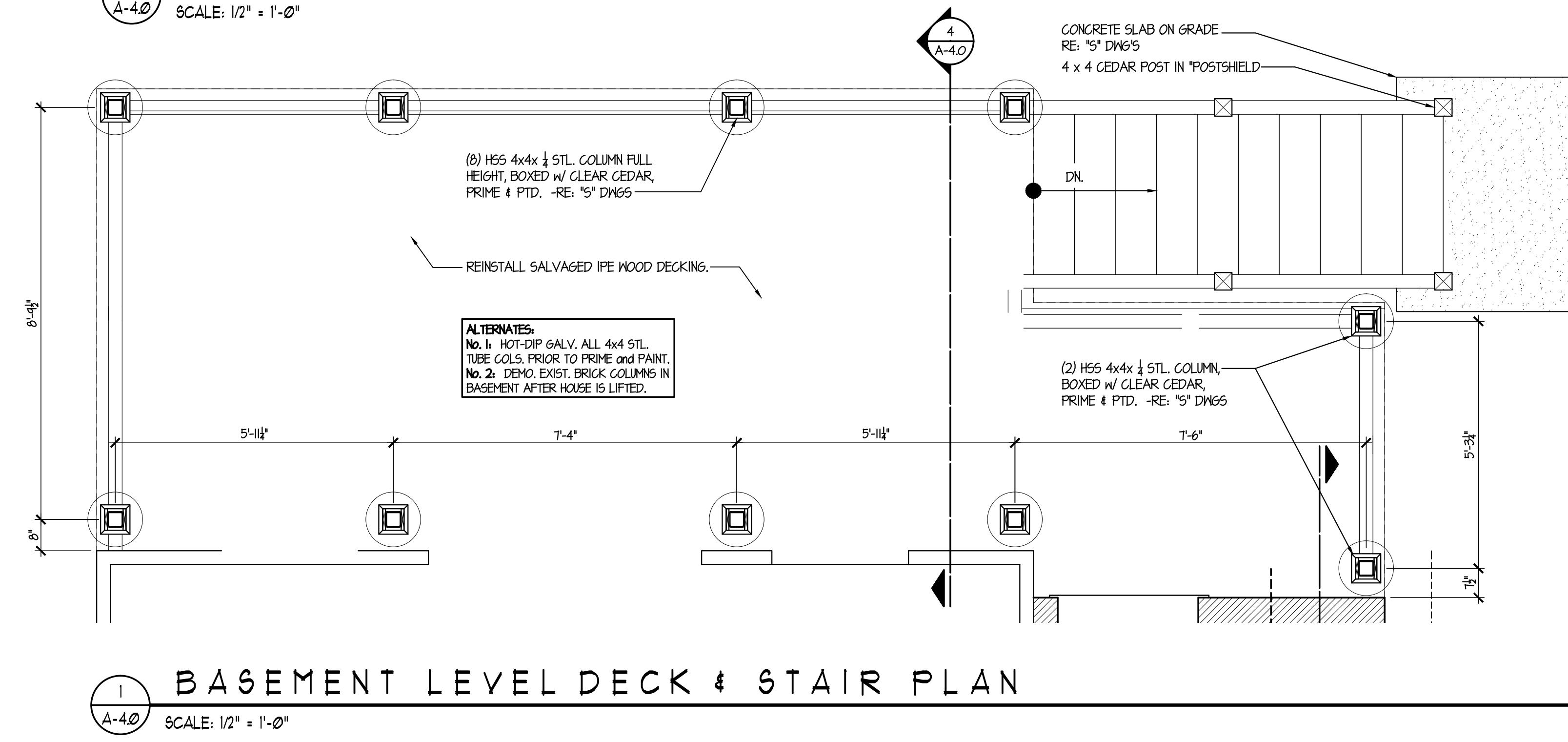
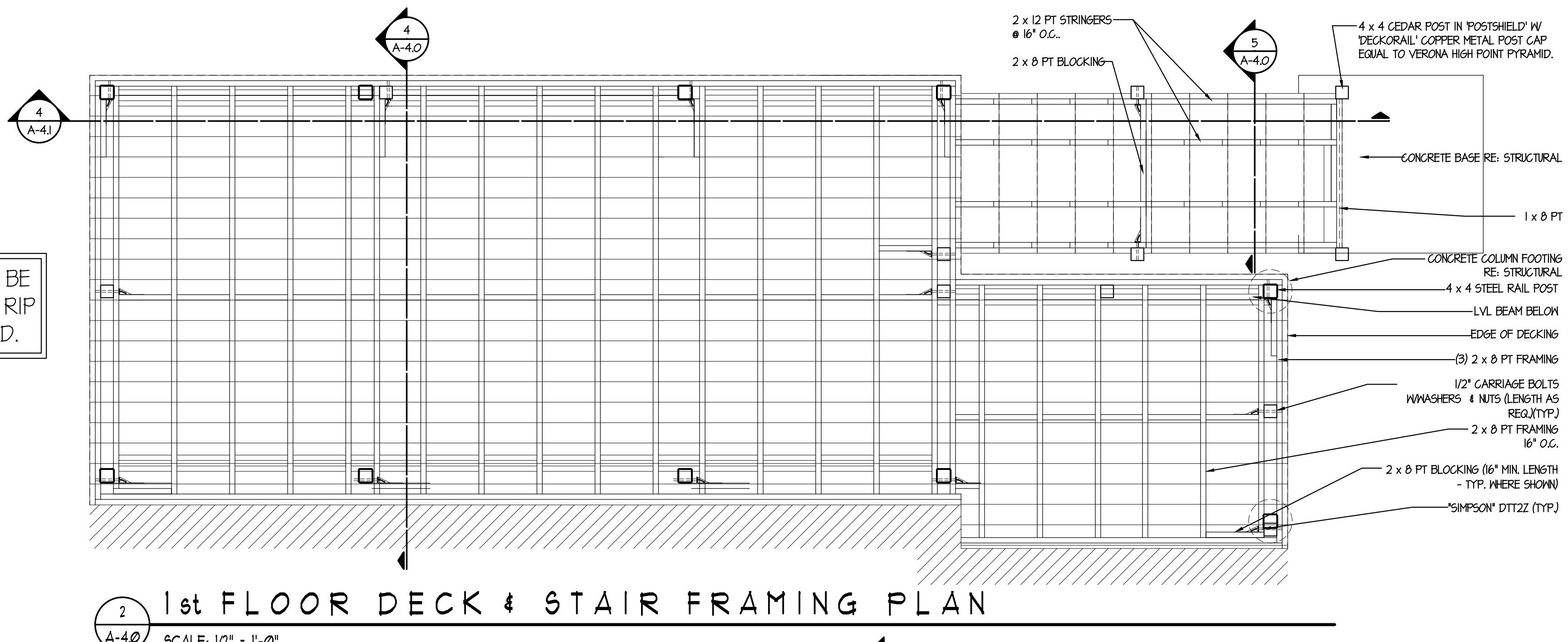
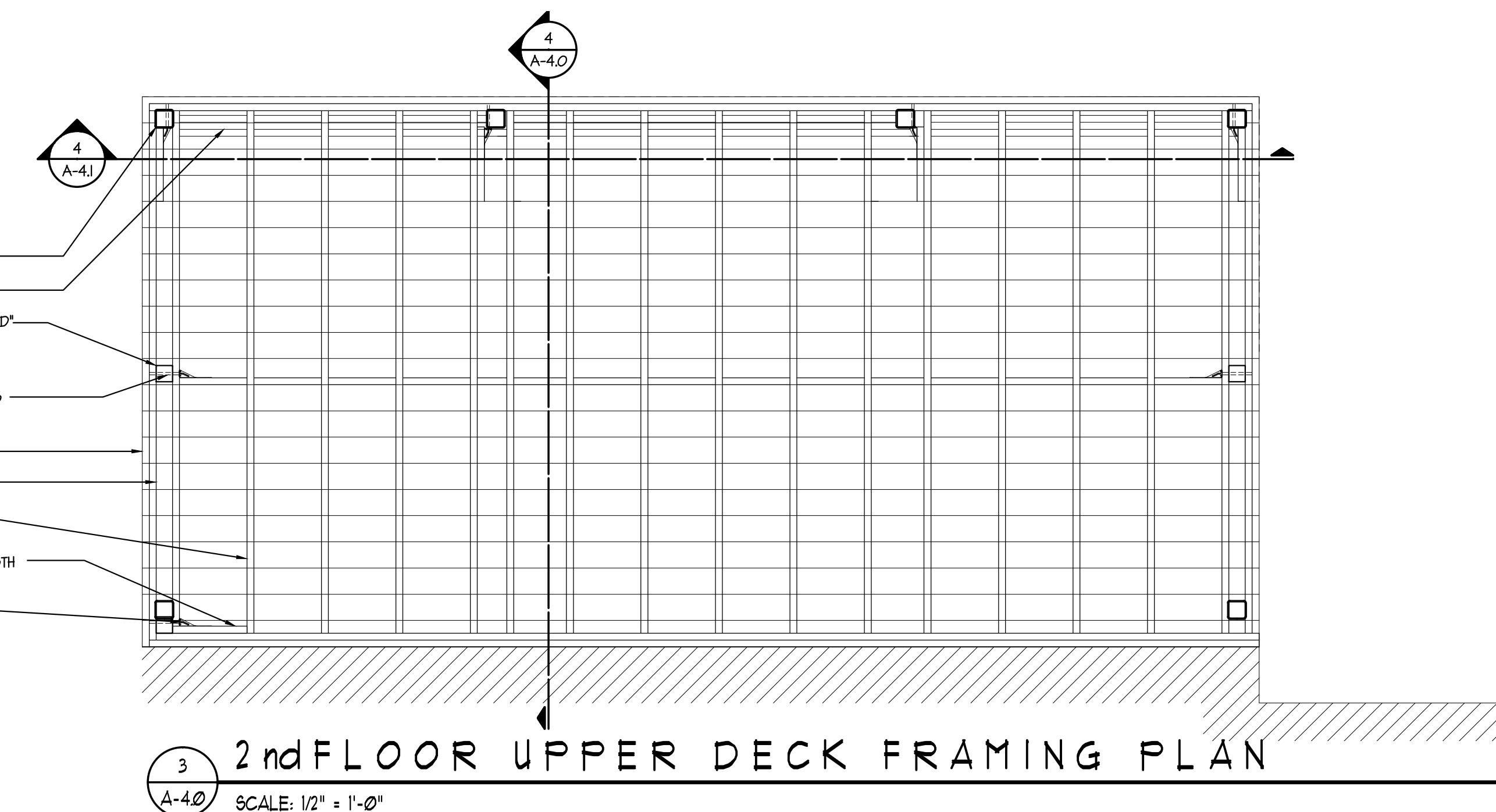
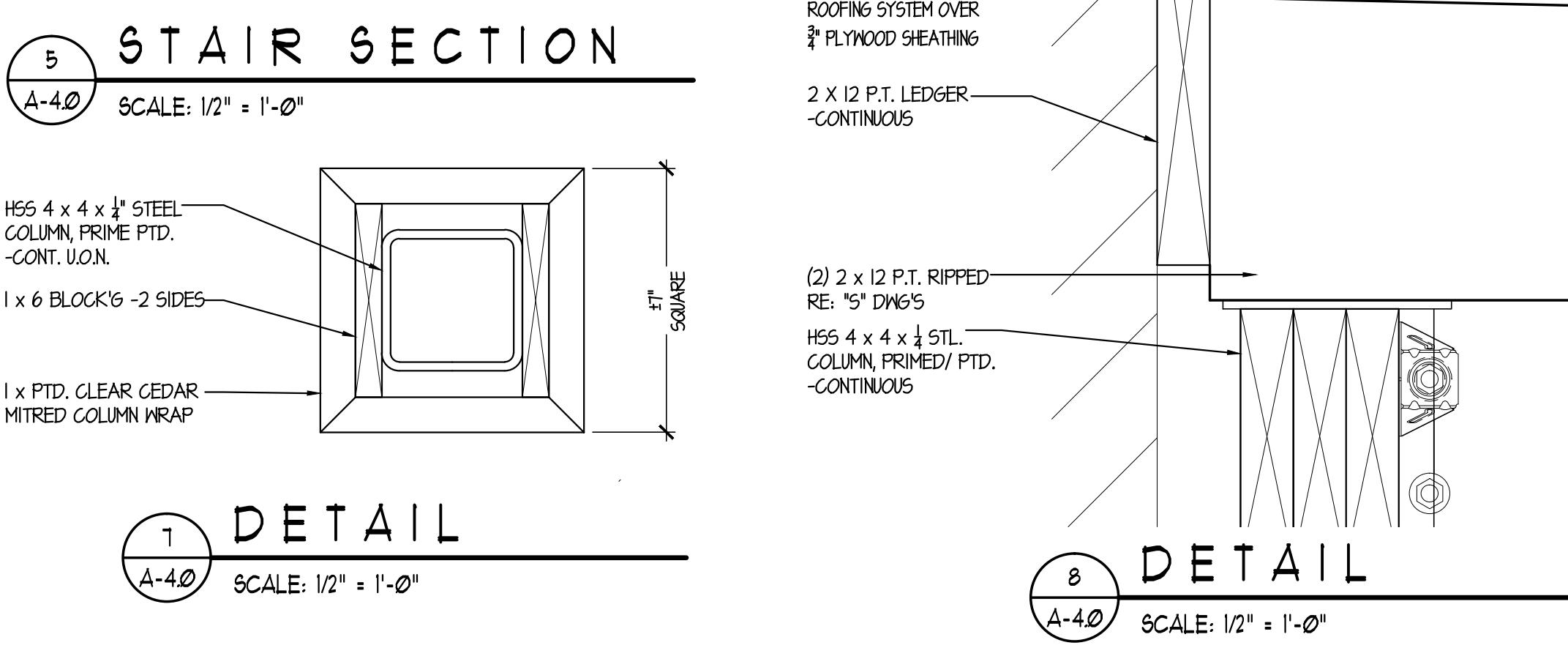
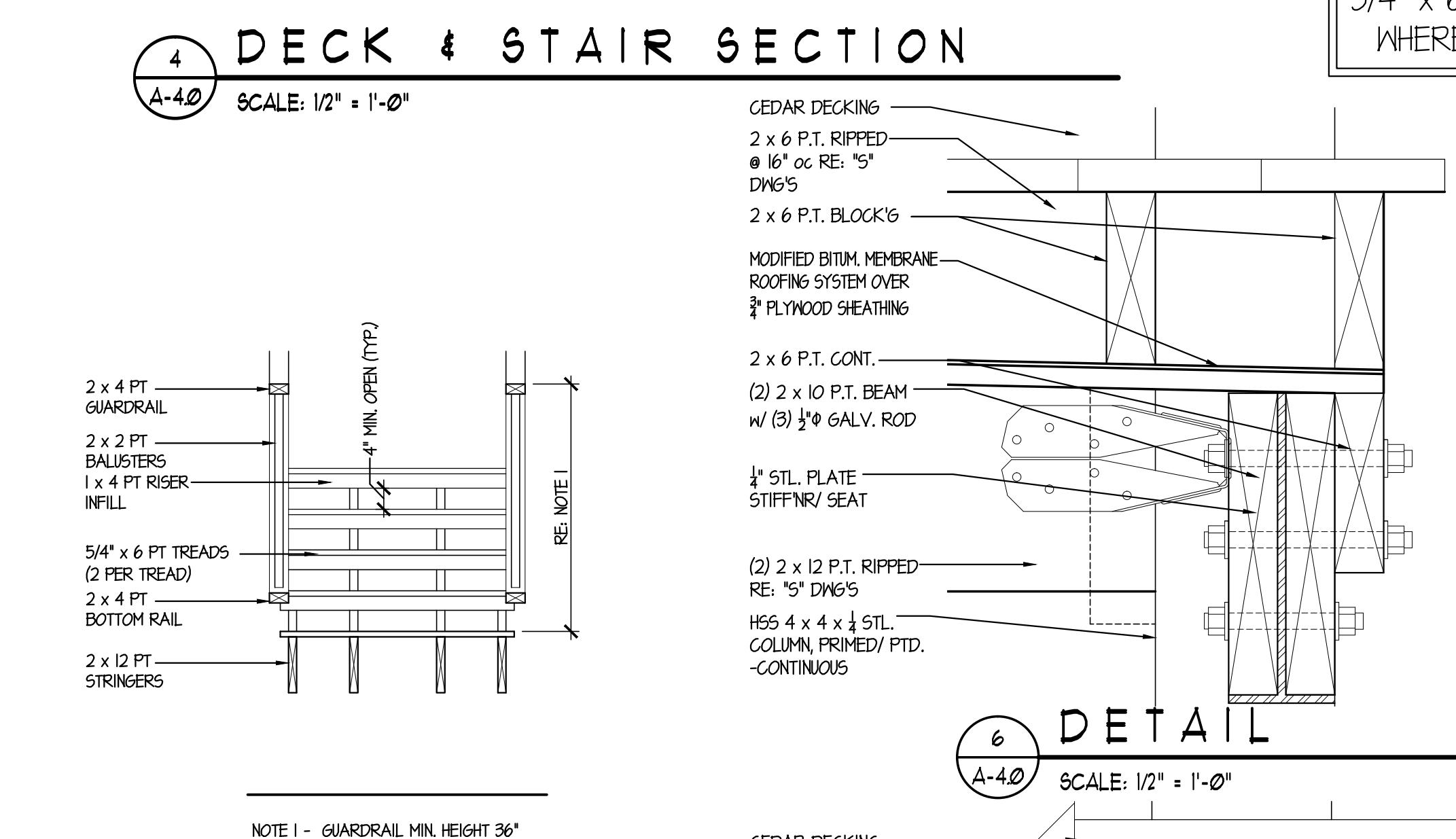
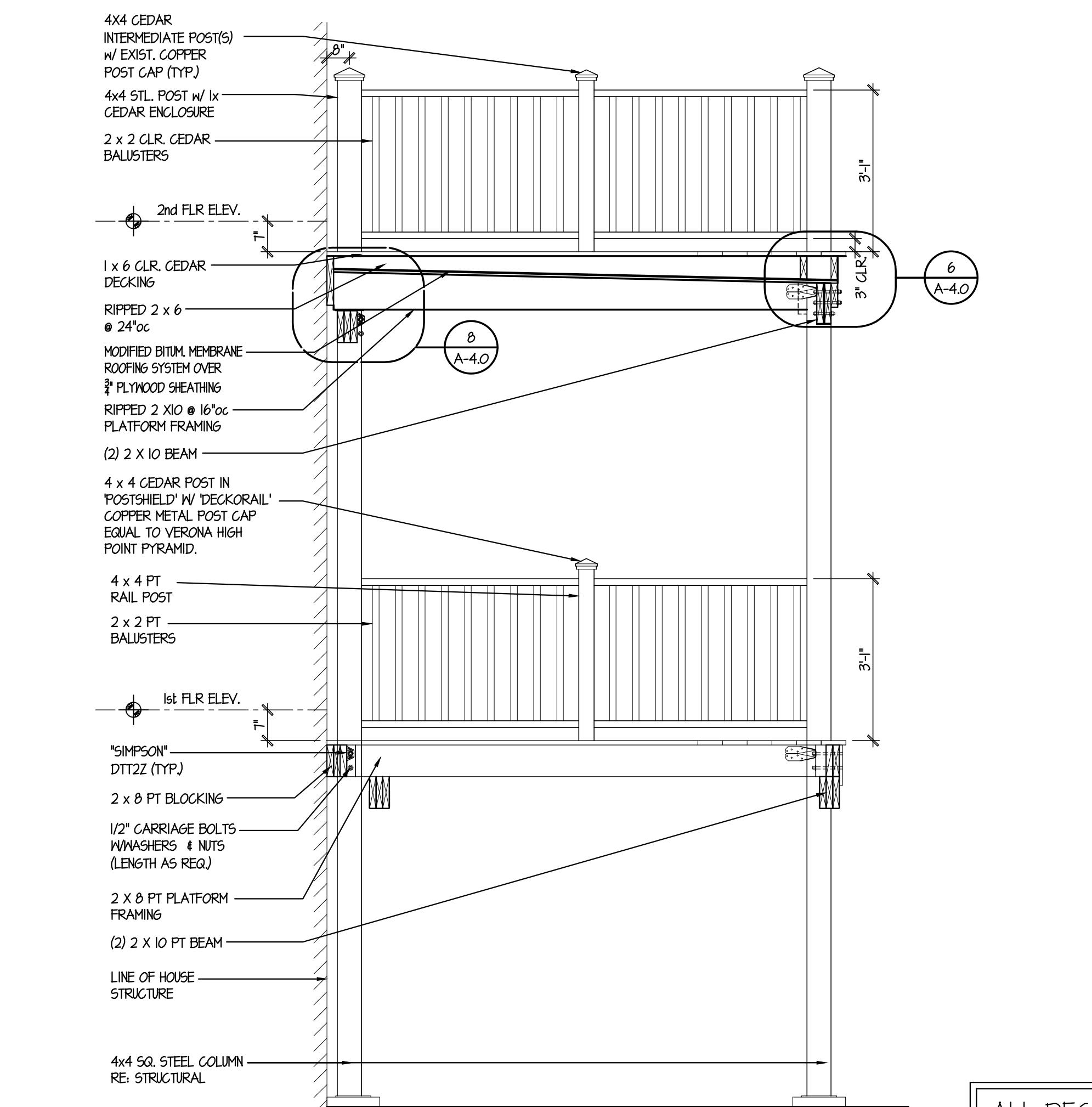
WINDOW SCHEDULE

DESIGNATION	UNIT SIZE	MODEL	MANUFACTURER	REMARKS
(A)	2'-10" x 2'-3"	ULTIMATE ANNING	MARVIN	DIVIDED LITE WOOD WINDOWS; FIELD PAINT
(B)	2'-0" x 1'-5"	ULTIMATE ANNING	MARVIN	DIVIDED LITE WOOD WINDOWS; FIELD PAINT

SCHEDULES

1 A-3.0 NO SCALE





THE STATE OF
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(ORR)

BALAZ RESIDENCE
APPLICATION No. 1326
64 Hackley Street
Bridgeport, CT 06605

date description no.
revisions

STAIR and DECK DETAILS

A-4.0

date 22 JUNE 2015
drawn SH/IM
scale AS SHOWN
checked FM/JRP/KG
project no. 1347-18
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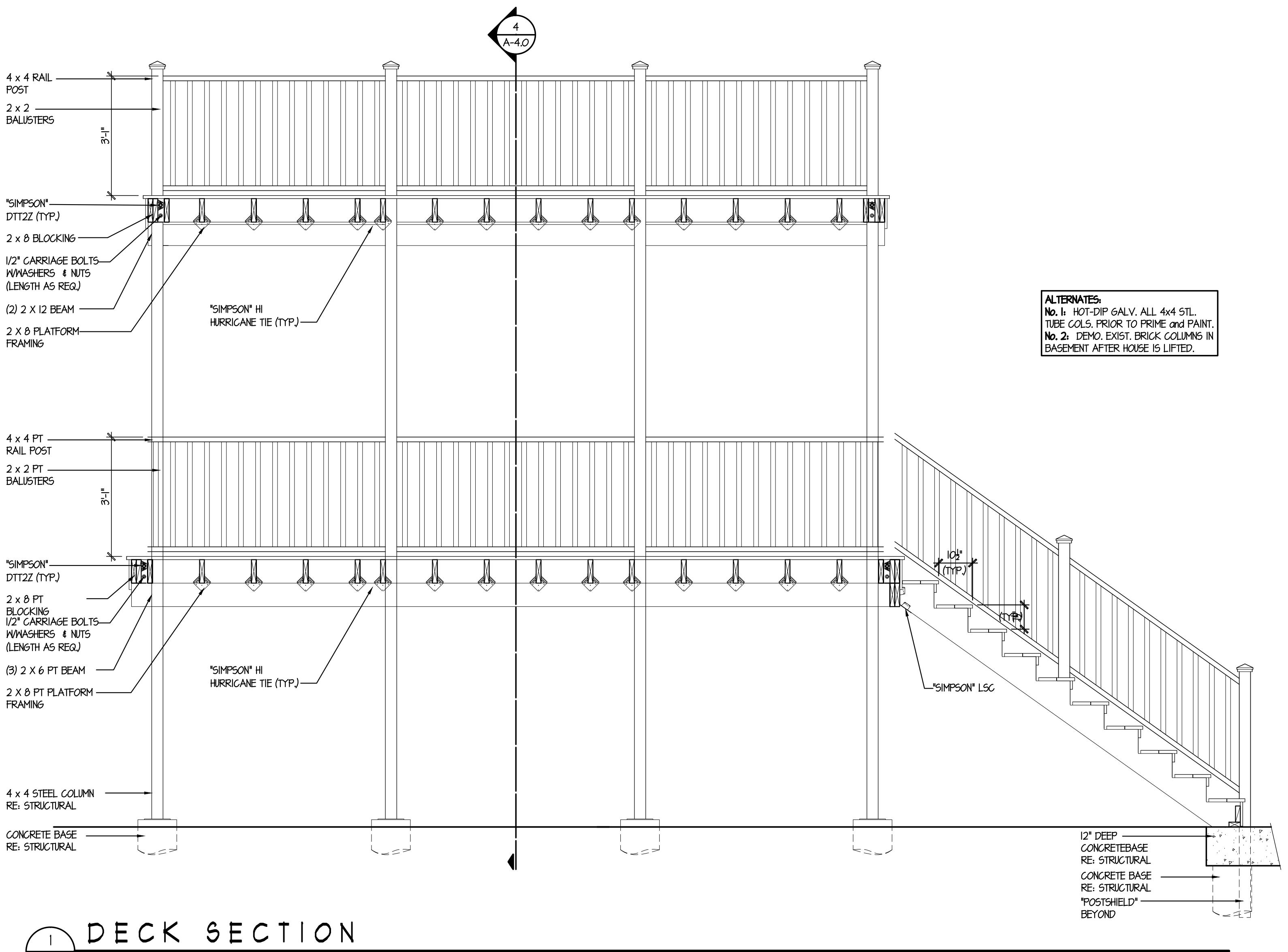
**BALAZ RESIDENCE
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64 Hackley Street
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date	description	no.
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revisions

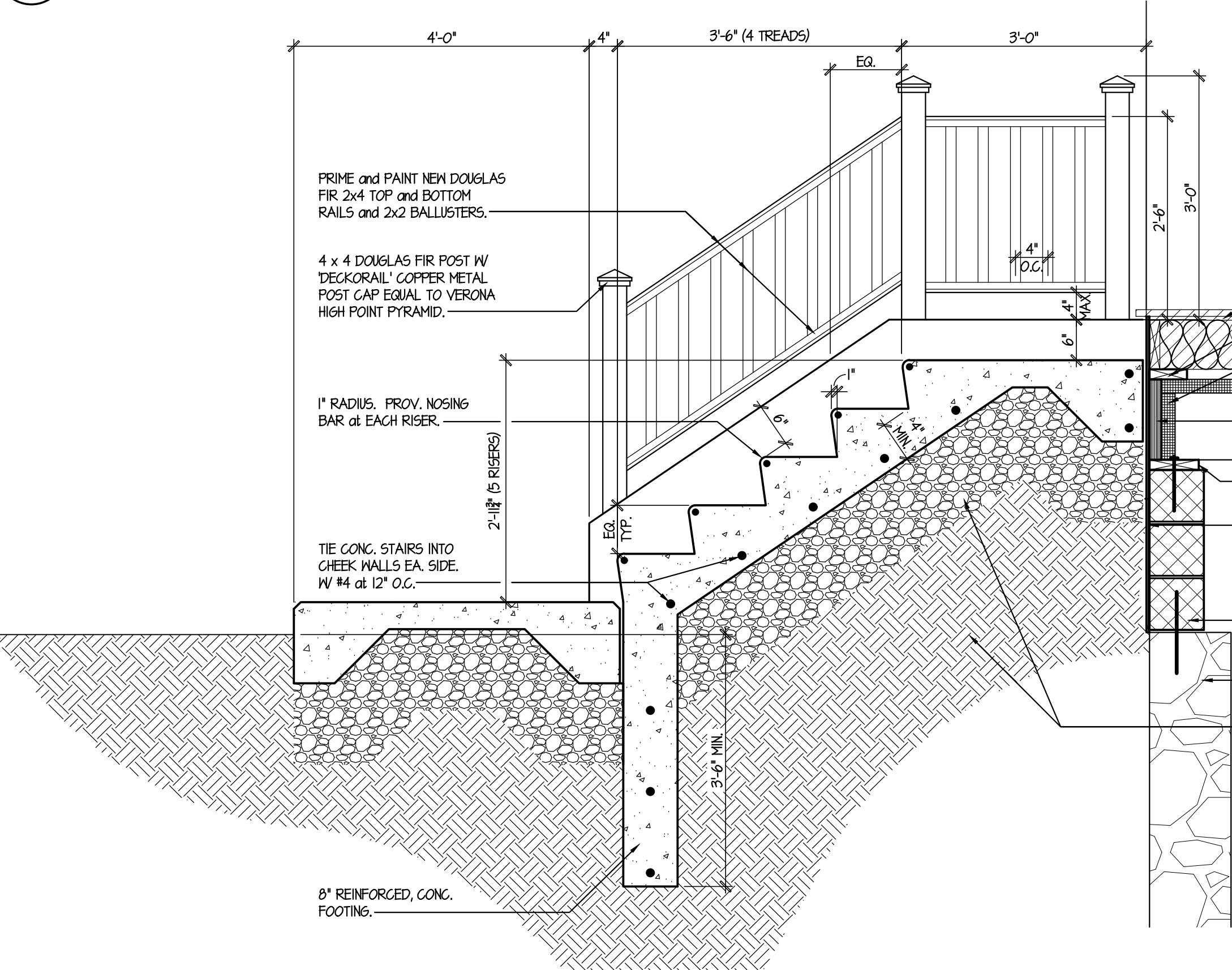
STAIR and DECK DETAILS

A-4.1



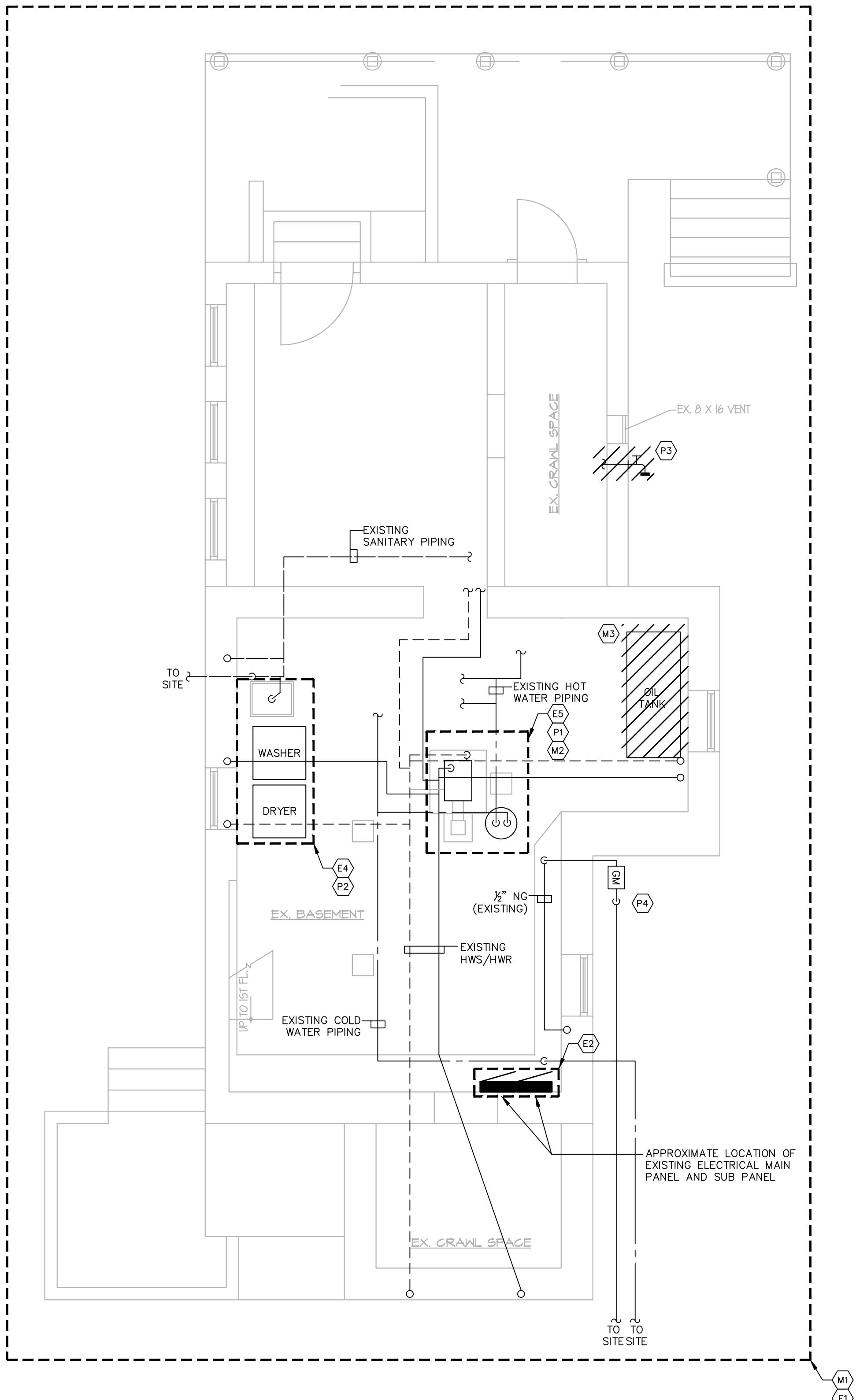
DECK SECTION

A-4.1 SCALE: 1/2" = 1'-0"

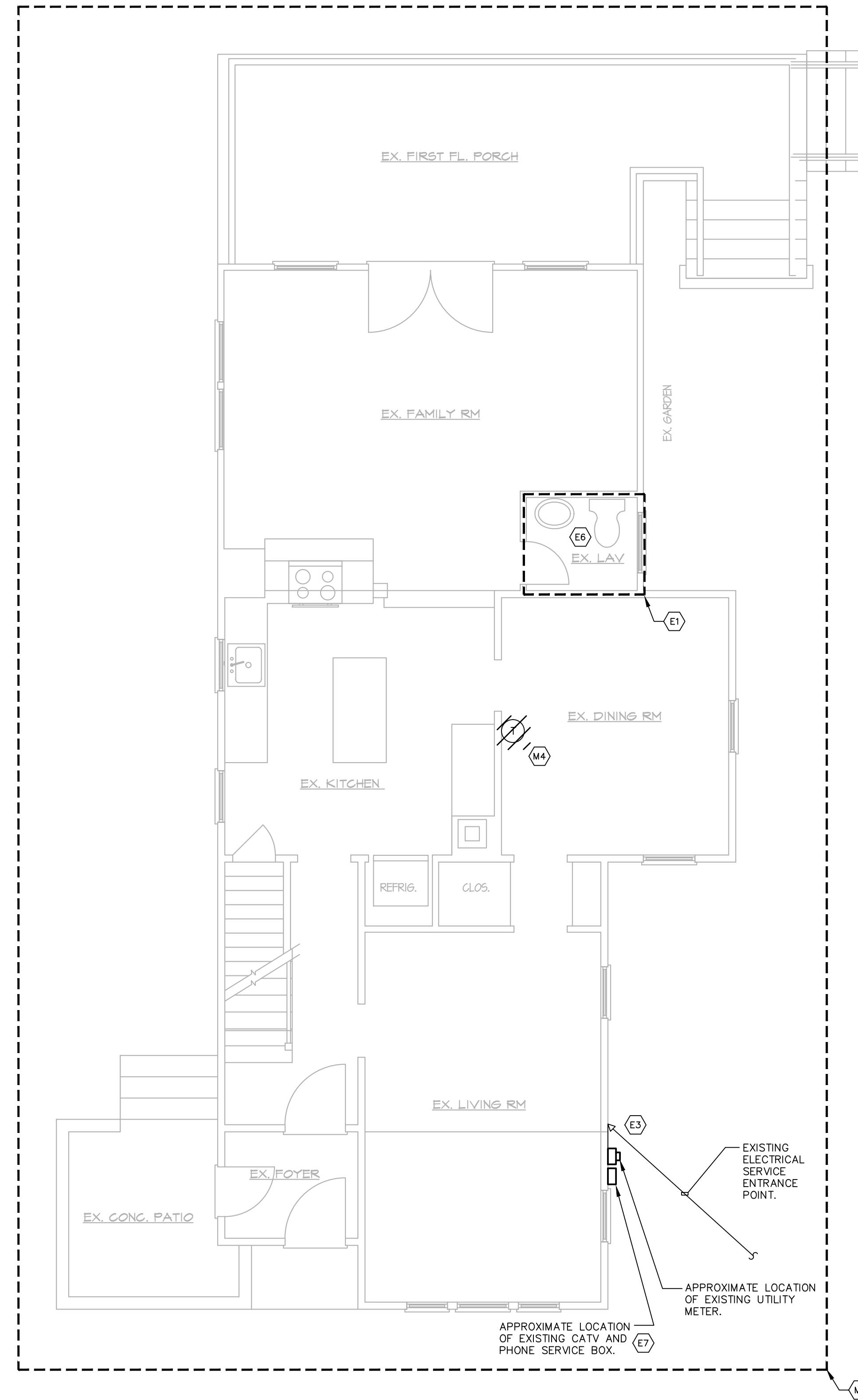


2 DECK SECTION

A-4.1 SCALE: 1/2" = 1'-0"



DEMOLITION BASEMENT PLAN



DEMOLITION FIRST FLOOR PLAN

PLUMBING DEMOLITION KEY NOTES

- P1** REMOVE EXISTING WATER HEATER, ASSOCIATED PIPING AND SPECIALTIES. REMOVE HOT AND COLD WATER PIPING TO NEAREST MAIN.
- P2** REMOVE ALL SUPPLY AND DRAINAGE PIPING SERVING WASHING MACHINE AND SINK. REMOVE DRYER VENT.
- P3** REMOVE EXISTING HOSE BIBB AND ALL ASSOCIATED PIPING BACK TO NEAREST ACTIVE MAIN.
- P4** REMOVE GAS METER AND ALL ASSOCIATED PIPING BACK TO STREET. REMOVE PIPING AFTER METER.

MECHANICAL DEMOLITION KEY NOTES

- M1 REMOVE ALL HYDRONIC HEATING PIPING, INCLUDING RISERS, FEEDING FIRST AND SECOND FLOOR. RADIATORS TO REMAIN FOR REUSE.
- M2 REMOVE EXISTING BOILER AND ALL ASSOCIATED PIPING, SPECIALTIES, AND CONTROLS.
- M3 REMOVE EXISTING FUEL OIL TANK AND ALL ASSOCIATED PIPING.
- M4 REMOVE EXISTING THERMOSTAT AND ALL ASSOCIATED CONTROL WIRING.

ELECTRICAL DEMOLITION KEY NOTES

- E1** REMOVE ALL ELECTRICAL LIGHTS, LIGHTING SWITCHES, AND ALL ASSOCIATED WIRING BACK TO PANEL OF ORIGIN.
- E2** REMOVE EXISTING MAIN ELECTRICAL PANEL AND SUB PANEL. REMOVE ALL ASSOCIATED WIRING OUT TO UTILITY METER. REFER TO KEYNOTE 3 FOR MORE INFORMATION.
- E3** REMOVE EXISTING ELECTRIC SERVICE TO THE RESIDENCE, INCLUDING WEATHER HEAD AND ALL ASSOCIATED WIRING FROM WEATHER HEAD TO METER, METER, METER SOCKET, FEEDER AND CONNECTION TO MAIN PANEL IN THE RESIDENCE.
- E4** REMOVE EXISTING WASHER AND DRYER 120V AND 240V RECEPTACLES AND ALL ASSOCIATED WIRING BACK TO THE PANEL OF ORIGIN.
- E5** REMOVE EXISTING CONNECTION TO BOILER AND WATER HEATER. REMOVE ALL ASSOCIATED WIRING BACK TO THE PANEL OF ORIGIN.
- E6** REMOVE EXISTING BASEBOARD ELECTRIC HEATING UNIT IN THIS ROOM. PROTECT AND STORE FOR FUTURE REUSE. REMOVE ALL ASSOCIATED WIRING BACK TO PANEL OF ORIGIN.
- E7** REMOVE EXISTING CATV AND PHONE SERVICE TO RESIDENCE, INCLUDING SERVICE BOXES AND ALL ASSOCIATED WIRING BACK TO POINT OF ENTRY.

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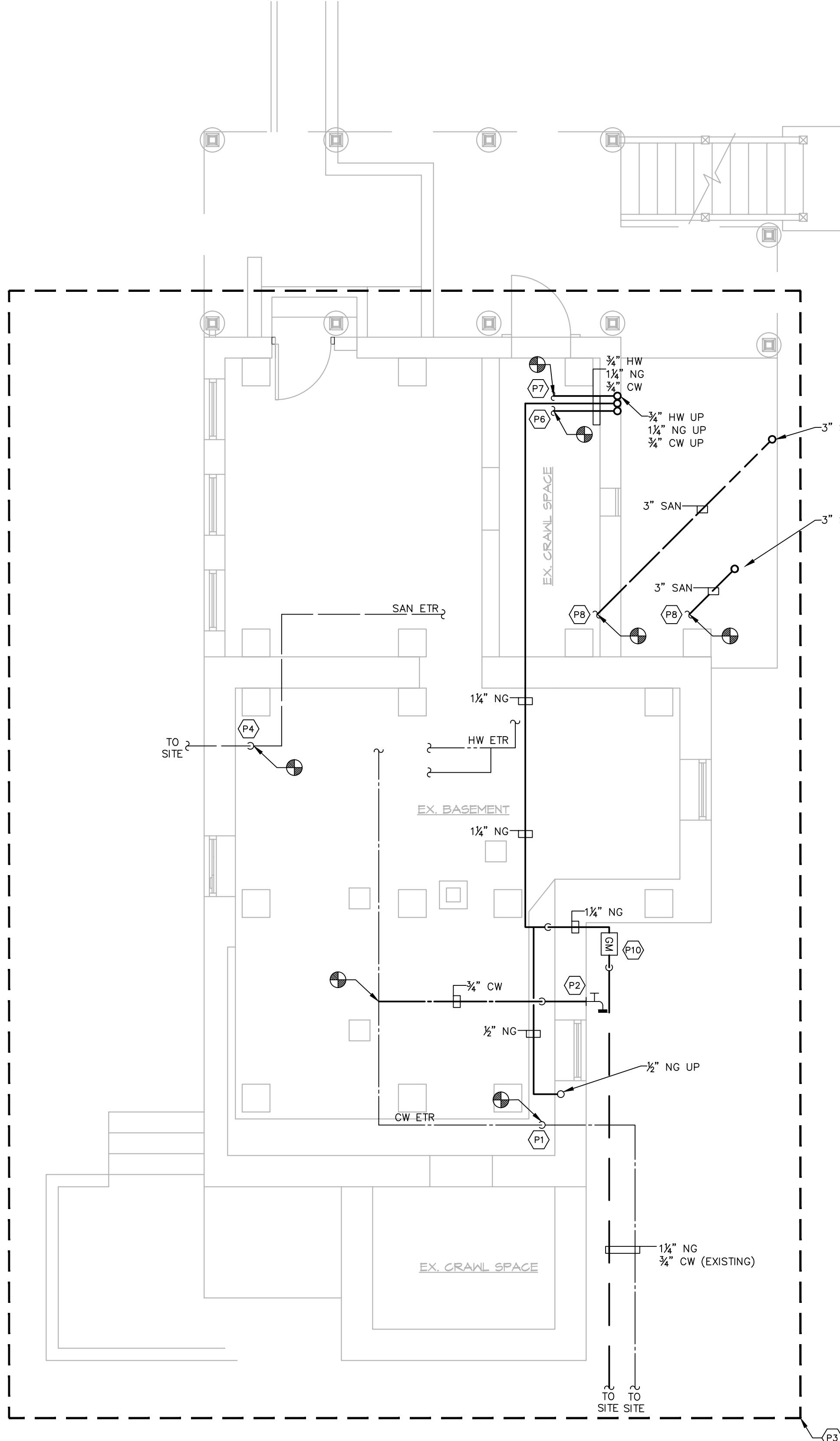
The logo for Consulting Engineering Services, Inc. (CES) is displayed. It features a large, bold, black 'CES' monogram. Above the 'C', there is a circular graphic element consisting of a horizontal line intersected by a vertical line, with a curved line arching over the top of the 'C'. Below the monogram, the company name 'Consulting Engineering Services, Inc.' is written in a smaller, bold, black serif font.

date	description	no.
revision 2		

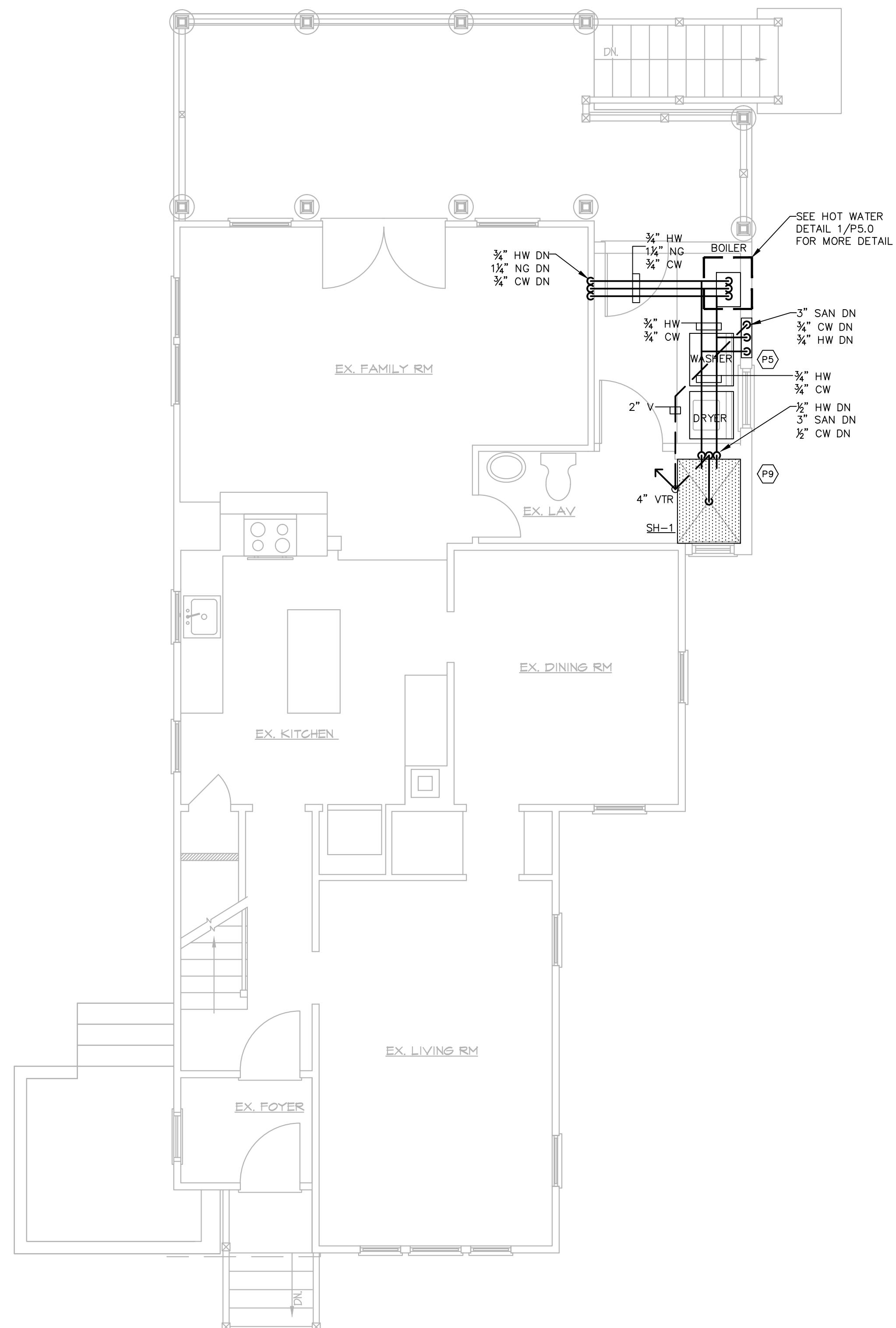
MEP DEMOLITION FLOOR PLANS

MEP-1.0

date JUNE 22, 2015
drawn VCM/ANK
scale AS SHOWN
checked DTB
project no. 2014064.00
application no. 1743



1
P-1.0
NEW WORK BASEMENT PLAN
SCALE: 1/4" = 1'-0"
NORTH



2
P-1.0
NEW WORK FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"
NORTH

GENERAL NOTES	
1. PLUMBING ITEMS INCLUDING BUT NOT LIMITED TO PIPING, EQUIPMENT, ETC SHALL BE INSTALLED ABOVE THE FLOOD PLANE AS DETERMINED BY THE ARCHITECTURAL PLANS.	
2. WORK SHALL BE COORDINATED WITH ARCHITECTURAL PLANS INCLUDING ACCESS PANELS FOR VALVES AND EQUIPMENT, ETC.	

PLUMBING KEY NOTES	
P1	PROVIDE PRESSURE RELIEF VALVE AND ISOLATION VALVE ON RISE. PROVIDE NEW CW PIPING EXTENSION AS NECESSARY FOR RAISING OF HOUSE.
P2	PROVIDE NEW EXTERIOR WALL HYDRANT 3' ABOVE FINAL FINISHED GRADE. PROVIDE LOW POINT DRAIN ON PIPING DROP FROM HOUSE. SEE DETAIL 1/MEP5.0 FOR MORE DETAILS.
P3	ALL NEW AND EXISTING DOMESTIC COLD WATER SUPPLY PIPING EXPOSED BELOW THE PROPERTY SHALL BE INSULATED WITH 3/8" FIBERGLASS INSULATION WITH CONTINUOUS PVC JACKETING. ALL HOT AND COLD WATER PIPING EXPOSED BELOW THE PROPERTY SHALL BE HEAT TRACED. HOT WATER PIPING SHALL BE 120V INPUT AND HAVE AN OUTPUT OF 6W PER FOOT. PROVIDE ONE HEAT TAPE FOR HOT WATER PIPING AND ONE HEAT TAPE FOR COLD WATER PIPING. PROVIDE ALL NECESSARY ACCESSORIES NEEDED FOR COMPLETE AND OPERATIONAL SYSTEM. PROVIDE ONE 20A/120V DEDICATED POWER CIRCUIT FOR EVERY 150 FEET OF HEAT TRACE CABLE.
P4	PROVIDE SANITARY WASTE PIPING EXTENSION AS REQUIRED FOR RAISING OF HOUSE. CONTRACTOR TO FIELD VERIFY PIPING LOCATION AND SIZE PRIOR TO BIDDING AND INSTALLATION.
P5	PROVIDE WATER-TITE MODEL #W2700 HA WASHING MACHINE OUTLET BOX.
P6	CONNECT NEW CW PIPING TO NEAREST ACTIVE MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION PRIOR TO FABRICATION AND INSTALLATION.
P7	CONNECT NEW HW PIPING TO NEAREST ACTIVE MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION PRIOR TO FABRICATION AND INSTALLATION AND ENSURE RECONNECTION TO ALL EXISTING HOT WATER PIPING.
P8	CONNECT NEW SANITARY PIPING TO NEAREST ACTIVE MAIN OR STACK. CONTRACTOR TO FIELD VERIFY EXACT LOCATION PRIOR TO FABRICATION AND INSTALLATION.
P9	SH-1 IS ALTERNATE. REFER TO ARCHITECTURAL SPECIFICATIONS SECTION 01230.
P10	PROVIDE NEW GAS METER. COORDINATE EXACT LOCATION WITH UTILITY PRIOR TO BIDDING AND INSTALLATION. CONNECT NEW PIPING TO EXISTING PIPING AS INDICATED ON FLOOR PLANS.

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BALAZ RESIDENCE
APPLICATION No. 1326
64 Hackley Street
Bridgeport, CT 06605

CES
Consulting Engineering Services, Inc.
111 Middle Street
Middletown, CT 06457
Tel: (860) 632-1682
Fax: (860) 632-1798
CES #2014064.00

date description no.
revisions

PLUMBING
NEW WORK
FLOOR PLANS

P-1.0

date JUNE 22, 2015
drawn ANK
scale AS SHOWN
checked DTB
project no. 2014064.00
application no. 1743

CAPITAL
STUDIO
architects LLC

1379 MAIN STREET EAST HARTFORD CT. 06108
860.259.3262 fax 860.289.3163

PLUMBING FIXTURE SCHEDULE				
SYMBOL	MANUFACTURER/ MODEL NUMBER	DESCRIPTION OF FIXTURE	TRIM AND ACCESSORIES	REMARKS
SH-1	AQUARIUS MODEL#AB 3448	SHOWER PAN: 48" x 34" x 5.25" ONE PIECE ACRYLIC WITH CHROME GRID DRAIN.	AMERICAN STANDARD "COPELAND" MODEL T005.501 SHOWER ONLY TRIM KIT.	#1,2
REMARKS:				
1.	COLOR SHALL BE WHITE.			
2.	PROVIDE ISOLATION VALVES AT THE PIPE CONNECTIONS.			

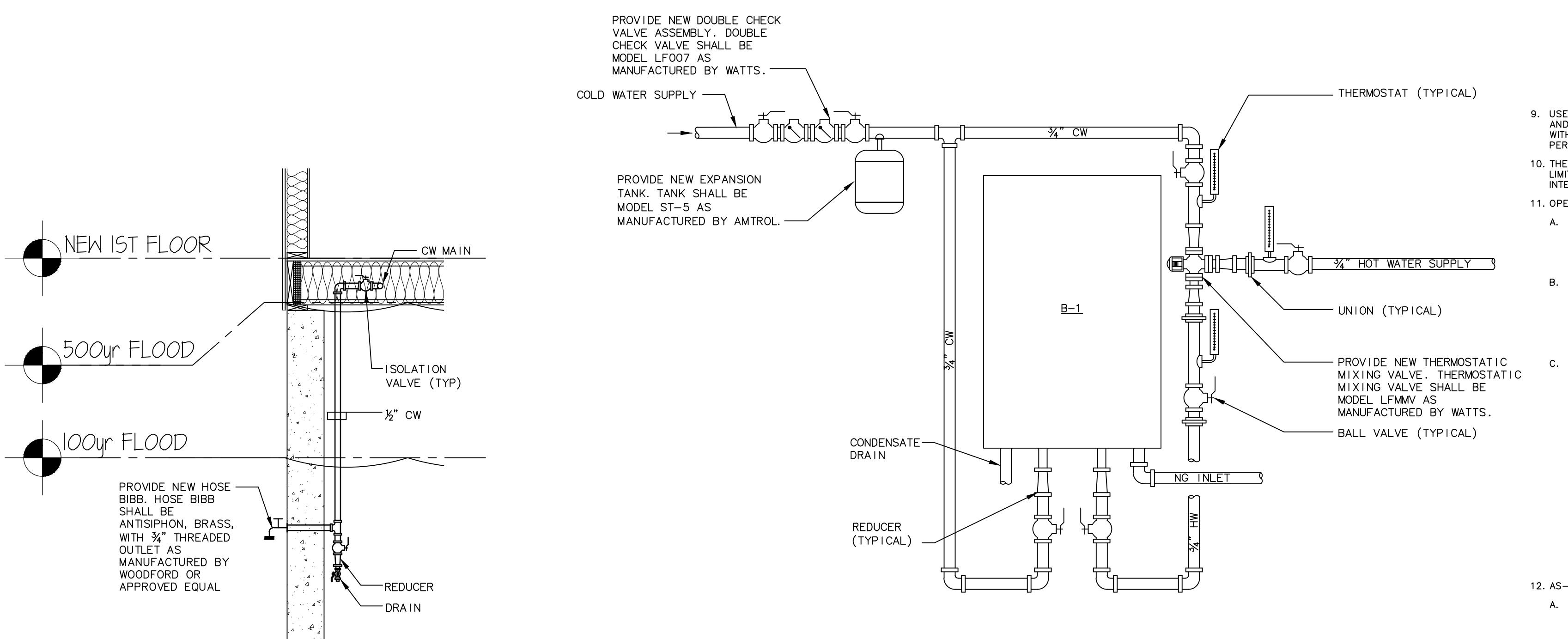
PLUMBING FIXTURE CONNECTION SCHEDULE				
FIXTURE TYPE	WASTE CONNECTION	VENT CONNECTION	COLD WATER CONNECTION	HOT WATER CONNECTION
HOSE BIB	-	-	3/4"	3/4"
LAVATORY	1 1/2"	1 1/2"	1/2"	1/2"
SHOWER	3"	1 1/2"	1/2"	1/2"
SINK	1 1/2"	1 1/2"	1/2"	1/2"
WATER CLOSET (TANK TYPE)	4"	2"	1/2"	-

NOTES:
 1. REFER TO ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURE MOUNTING HEIGHTS.
 2. ALL PIPE TRAPS AT SINKS AND LAVATORIES SHALL BE CHROME PLATED BRASS.

PLUMBING PIPING LEGEND	
SYMBOL	DESCRIPTION
---	NEW CW BURRIED
---	NEW CW
---	EXISTING CW
---	NEW SAN BURRIED
---	NEW SAN
---	EXISTING SAN
---	NEW HW
---	EXISTING HW
---	NEW NG
---	EXISTING NG
---	NEW V
---	EXISTING V
○	DETAIL LINE
○	90° ELBOW DOWN
○	90° ELBOW UP
○	TEE UP
○	TEE DOWN
○	DROP AND RUN
○	TEE OFF TOP OF PIPE
○	TEE OFF BOTTOM OF PIPE
○	CLEANOUT
○	FLOOR CLEANOUT
○	HOSE BIBB

PLUMBING SYMBOL LEGEND	
SYMBOL	DESCRIPTION
(M)	WATER METER
+	THERMOMETER
△	PRESSURE REGULATOR
○	CONNECT NEW TO EXISTING
→	VENT THRU ROOF
GM	GAS METER

PLUMBING ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
BTU	BRITISH THERMAL UNIT
CO	CLEANOUT
CW	COLD WATER
DN	DOWN
ET	EXPANSION TANK
HB	HOSE BIBB
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
NG	NATURAL GAS
TYP	TYPICAL
V	VENT
VTR	VENT THRU ROOF



HOSE BIBB CW SUPPLY DETAIL

N.T.S.

NOTE: COMBINATION BOILER/HOT WATER HEATER PROVIDED BY MECHANICAL CONTRACTOR

GENERAL PROCEDURES ALL TRADES
 1. THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS UNLESS NOTED OTHERWISE.
 2. DESCRIPTION
 A. THIS PROJECT COMPRISES ALTERATIONS AND RENOVATIONS TO THE EXISTING BUILDING. THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT WILL PROCEED IN A MANNER WHICH WILL MINIMIZE ANY INCONVENIENCE TO THE BUILDING OCCUPANTS.
 B. SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED UNDER THE CONTRACT DOCUMENTS, NOT LIMITING GENERAL THEREOF CONCERNING FURNISHING OF MATERIALS, EQUIPMENT, TESTING, PLANT, TRANSPORTATION, RIGGING, STAGING, APPURTENANCES, AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND AS DESCRIBED HEREIN.
 C. DEFINITIONS: THE FOLLOWING DEFINITIONS APPLY TO THIS CONTRACT
 A. FURNISH: THE TERM "FURNISH" MEANS TO SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND MAINTENANCE.
 B. INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS.
 C. PROVIDE: THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
 D. REMOVE: THE TERM REMOVE MEANS TO DISCONNECT FROM ITS PRESENT POSITION, REMOVE FROM THE PREMISES AND TO DISPOSE OF IN A LEGAL MANNER.
 E. SUBSTITUTIONS: "SUBSTITUTIONS" ARE REQUESTS FOR CHANGES IN PRODUCTS, MATERIALS AND METHODS OF CONSTRUCTION AS PROPOSED BY THE CONTRACTOR AFTER AWARD OF THE CONTRACT.
 4. DRAWINGS
 A. PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK OUTLINE IN THE DRAWINGS AND SPECIFICATIONS. CONTRACTOR IS TO NOTIFY THAT THESE DOCUMENTS ARE DIAGRAMMATIC, ONLY AND THAT FINAL PLACEMENT OF EQUIPMENT OR DEVICES IN THE FIELD MAY NOT DIRECTLY CORRESPOND TO THAT WHICH IS SHOWN ON THE DRAWINGS. IF A CONFLICT IN POSITION OCCURS, THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY TO ASCERTAIN WHAT THE INTENT WAS BY THE DESIGN PROFESSIONAL.
 E. SURVEY AND MEASUREMENTS:
 A. PRIOR TO SUBMITTING BID, VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT WORK TO BE PERFORMED. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY IDENTIFIED BY EXPERIENCED OPERATORS. THIS IS NOT TO BE CONSTRUED AS THE BID ALL DEMOLITION WORK REQUIRED.
 B. DO NOT SCALE DRAWINGS. SCALE INDICATED ON DRAWINGS IS FOR ESTIMATION PURPOSES ONLY. ACTUAL FIELD CONDITIONS SHALL GOVERN ALL DIMENSIONS.
 C. PRIOR TO ORDERING ANY MATERIALS AND EQUIPMENT, THOROUGHLY REVIEW THE SITE CONDITIONS TO DETERMINE IF ADEQUATE CLEARANCES AND ACCESS IS ALLOWED TO INSTALL THE COMPONENTS. ORDER EQUIPMENT BROKEN DOWN AS NEEDED TO ALLOW FOR EASY TRANSPORTATION THROUGH THE PROJECT AREA. PROVIDE ALL NECESSARY ALTERATIONS TO THE STRUCTURE OF THE BUILDING AS NECESSARY TO RIG THE EQUIPMENT IN PLACE.
 D. ARRANGE INSTALLATION TO PROVIDE ACCESS TO EQUIPMENT FOR EASY MAINTENANCE AND REPAIR.
 6. CODES AND STANDARDS: ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STATE OF CONNECTICUT ACCEPTED VERSION OF THE FOLLOWING
 A. INTERNATIONAL RESIDENTIAL CODE
 B. INTERNATIONAL BUILDING CODE
 C. INTERNATIONAL PLUMBING CODE
 D. INTERNATIONAL MECHANICAL CODE
 E. NATIONAL ELECTRIC CODE (NFPA 70)
 F. THE LIFE SAFETY CODE (NFPA 101)
 7. PERMITS AND FEES: THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL NECESSARY PERMITS, COORDINATE WITH LOCAL TAXES, FEES WHERE APPLICABLE, AND OTHER COSTS, INCLUDING UTILITY CONNECTIONS OR EXTENSIONS IN CONNECTION WITH THE WORK, FILE ALL NECESSARY DRAWINGS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL AUTHORITIES DEPARTMENT, BUREAU, OR AGENCY, SUBMIT ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK, AND DELIVER A COPY TO THE OWNER AND ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.
 8. SHOP DRAWINGS:
 A. SUBMIT NEWLY PREPARED INFORMATION, DRAWN TO ACTUAL SCALE OF 1/4"=1'-0" HIGHLIGHT, ENCIRCLE, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DRAWINGS. SUBMIT DRAWINGS IN A FOLDING DRAWING CASE OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS.
 B. SHOP DRAWINGS INCLUDE EQUIPMENT SUBMITTALS, FABRICATION AND INSTALLATION DRAWINGS, SETTING DIAGRAMS, SCHEDULES, PATTERNS, TEMPLATES AND SIMILAR DRAWINGS. INCLUDE THE FOLLOWING INFORMATION:
 a. DIMENSIONS.
 b. IDENTIFICATION OF PRODUCTS AND MATERIALS INCLUDED.
 c. COMPLIANCE WITH SPECIFIED STANDARDS AND PERFORMANCE DATA AS INDICATED.
 d. NOTATION OF COORDINATION REQUIREMENTS.
 e. NOTATION OF DIMENSIONS ESTABLISHED BY FIELD MEASUREMENT.
 f. SUBMIT 3 BLACK-LINE PRINTS AND 2 ADDITIONAL PRINTS WHERE NECESSARY. PRINTS SHALL BE DRAWN TO ACTUAL SCALE. ONE PRINT WILL BE KEPT BY THE CONTRACTOR, ONE PRINT WILL BE KEPT BY THE OWNER AND ONE PRINT WILL BE KEPT BY THE CONTRACTOR. THE PRINTS RETURNED SHALL BE MARKED UP AND MAINTAINED AS A "RECORD DOCUMENT".
 g. DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION TAKEN IN CONNECTION WITH CONSTRUCTION.
 h. DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED SHOP DRAWINGS.
 i. PROVIDE SUBMITTALS AS INDICATED IN SPECIFIC SPECIFICATION SECTIONS.
 9. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
 10. THE CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN 5 DAYS PRIOR TO THE INTERRUPTION.
 11. OPERATION AND MAINTENANCE
 A. UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL MAINTAIN, OPERATE, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD.
 B. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATING INSTRUCTIONS BOOKLET FORM, ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE, BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 3-RING VINYL-COVERED BINDERS, WITH PLASTIC FOLDED SHEET PROTECTORS AND PLASTIC PAGE PROTECTORS. IDENTIFY EACH VOLUME, MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.
 C. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE THE FOLLOWING:
 a. MANUFACTURER'S PRINTED OPERATING AND MAINTENANCE PROCEDURES.
 b. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING.
 c. COPIES OF WARRANTIES.
 d. APPROVED SHOP DRAWINGS AND PRODUCT DATA.
 e. BALANCE REPORTS.
 f. INCLUDE THE MANUAL, A TABULATED EQUIPMENT SCHEDULE FOR ALL EQUIPMENT. SCHEDULE SHALL INCLUDE PERTINENT DATA SUCH AS MAKE, MODEL NUMBER, SERIAL NUMBER, VOLTAGE, NORMAL OPERATING CURRENT, BELT SIZE, FILTER QUANTITIES AND SIZES, BEARING NUMBER, ETC. SCHEDULE SHALL INCLUDE MAINTENANCE TO BE DONE AND FREQUENCY.
 g. MAINTENANCE AND INSTRUCTION MANUALS SHALL BE SUBMITTED TO THE OWNER AND THE ENGINEER AS THE SEVEN (7) DAYS NOTICE IS GIVEN PRIOR TO THE INSTRUCTION PERIOD.
 12. AS-BUILT DRAWINGS
 A. PREPARE AS-BUILT DRAWINGS TO A SCALE OF 1/4"=1'-0" OR LARGER; DRAWINGS SHALL ACCURATELY INSTALLATION OF MAJOR ELEMENTS, COMPONENTS, AND SYSTEMS OF MECHANICAL EQUIPMENT AND MATERIALS. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE AS-BUILT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS WHICH WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE.
 B. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER, BUT WAS NOT SHOWN ON CONTRACT DRAWINGS OR SHOP DRAWINGS.
 C. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE.
 D. ORGANIZE AS-BUILT DRAWINGS INTO MANAGEABLE SETS, BIND WITH DURABLE PLASTIC COVER SHEETS, AND PRINT STANDARD TITLES, DATES AND OTHER IDENTIFICATION ON THE COVER OF EACH SET.
 13. OBTAIN IN OWNER'S NAME WRITTEN EQUIPMENT AND MATERIAL WARRANTIES OFFERED



THE STATE OF CONNECTICUT
DEPARTMENT OF HOUSING (DOH)
COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR)
OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)

BALAZ RESIDENCE
APPLICATION No. 1326
64 Hackley Street
Bridgeport, CT 06605

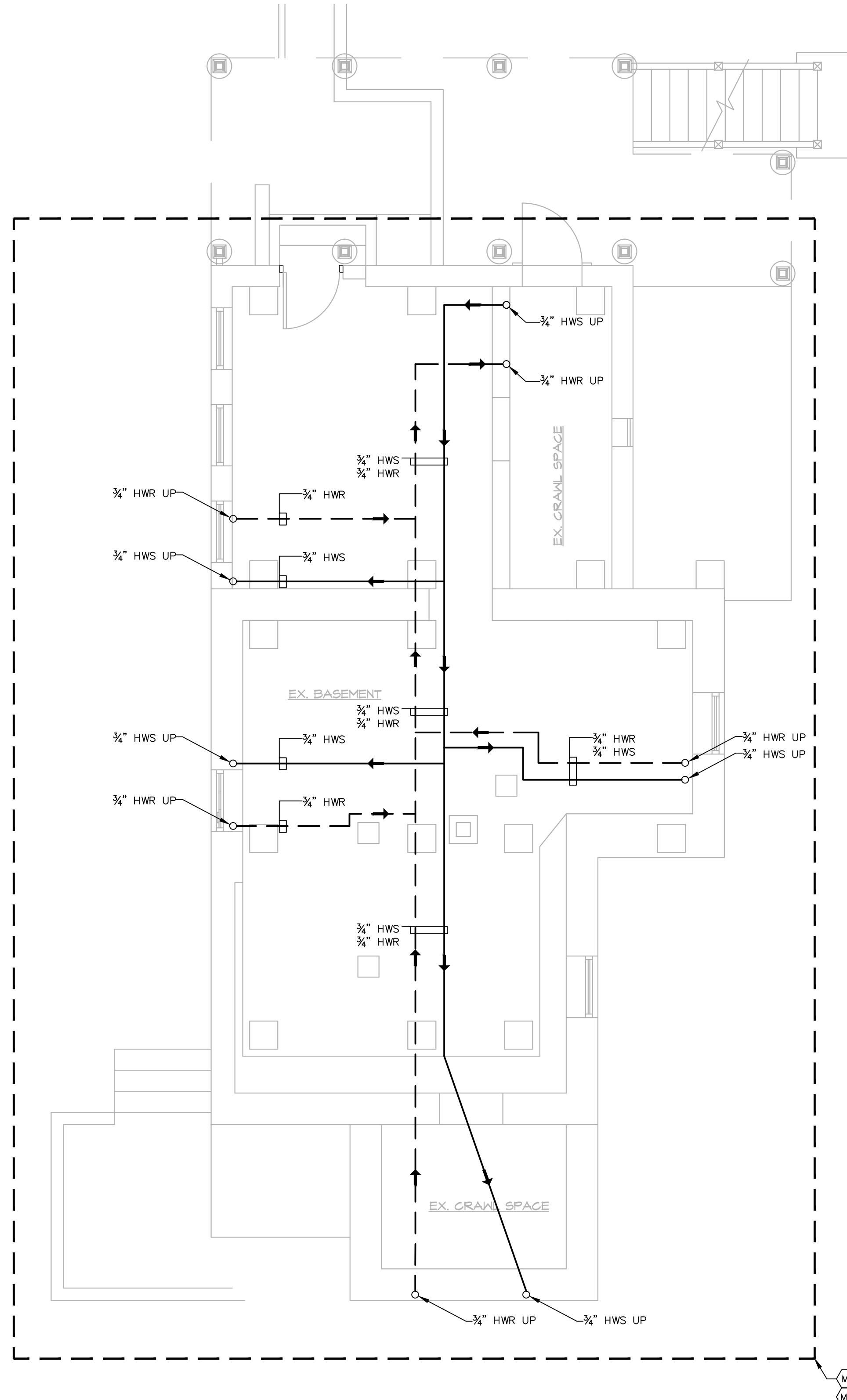
CES
Consulting Engineering Services, Inc.
131 Middle Street
Middletown, CT 06457
Tel: (860) 632-1652
Fax: (860) 632-1758
CES #2014064.0

date description no.
revisions

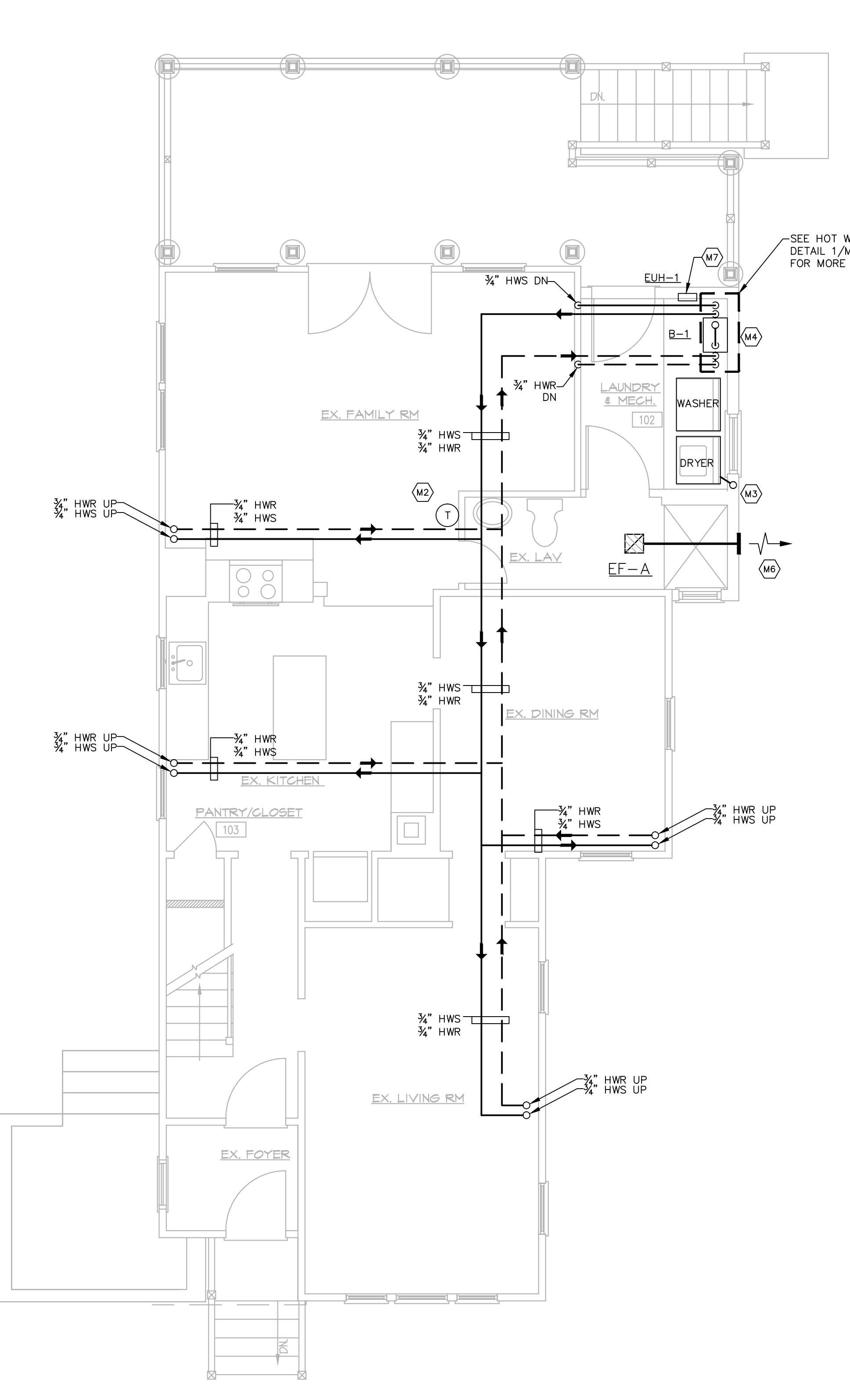
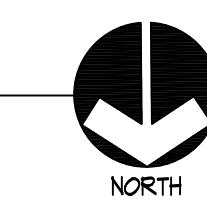
PLUMBING SCHEDULES DETAILS AND SPECIFICATIONS

P-5.0

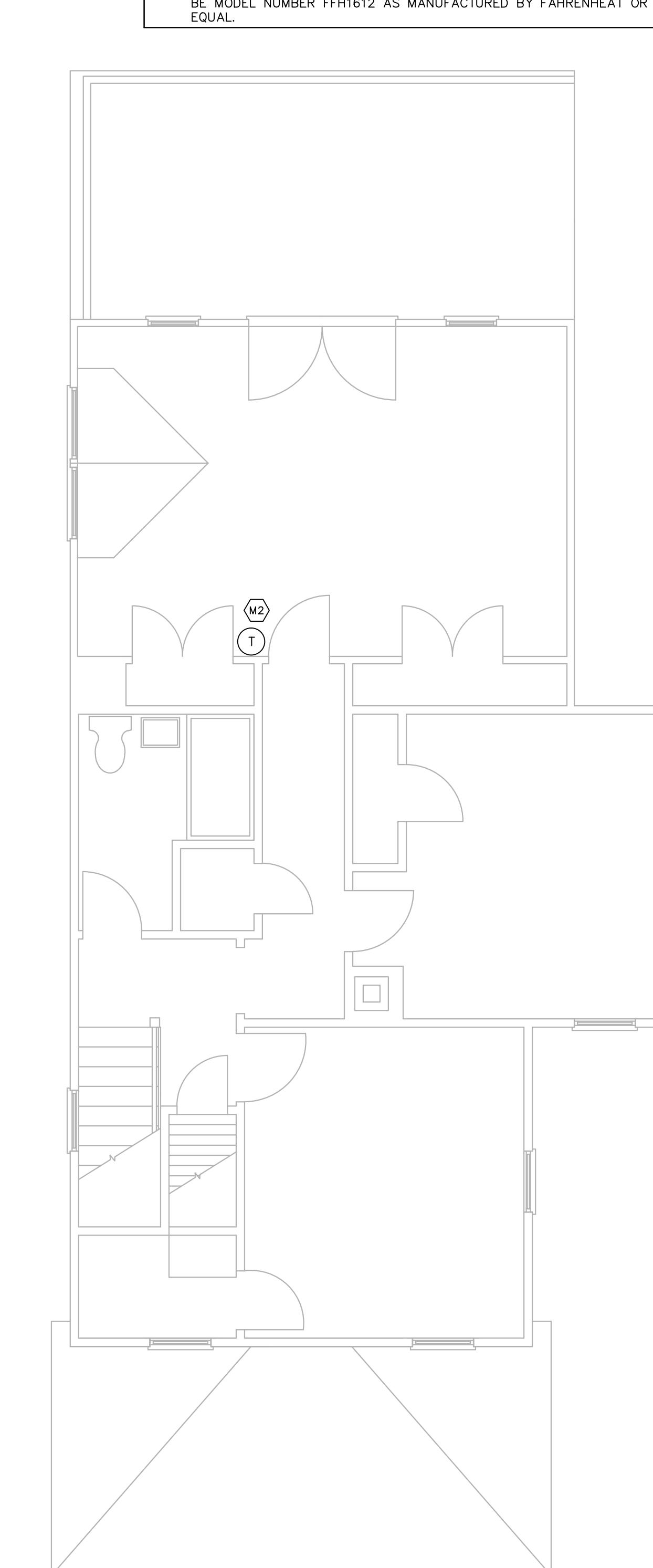
date JUNE 22, 2015
drawn ANK
scale AS SHOWN
checked DTB
project no. 2014064.00
application no. 1743



1 NEW WORK BASEMENT PLAN
M-1.0
SCALE: 1/4" = 1'-0"



2 NEW WORK FIRST FLOOR PLAN
M-1.0
SCALE: 1/4" = 1'-0"



3 NEW WORK SECOND FLOOR PLAN
M-1.0
SCALE: 1/4" = 1'-0"

GENERAL NOTES	
<p>1. ALL MECHANICAL ITEMS SHALL BE INSTALLED ABOVE THE FLOOD PLANE AS INDICATED ON THE ARCHITECTURAL PLANS.</p> <p>2. WORK SHALL BE COORDINATED WITH ARCHITECTURAL PLANS INCLUDING ACCESS PANELS FOR VALVES AND EQUIPMENT, DIFFUSER LOCATIONS, THERMOSTAT AND SENSOR LOCATIONS, ETC.</p> <p>3. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS PRIOR TO PROVIDING ALL EQUIPMENT AND PIPING.</p>	

MECHANICAL KEY NOTES	
	ROUTE HOT WATER SUPPLY AND RETURN PIPING THROUGH JOISTS AND ABOVE INSULATION.
	PROVIDE NEW 7 DAY FULLY PROGRAMMABLE THERMOSTAT.
	PROVIDE 4" DRYER EXHAUST DUCT. DUCT SHALL BE ALUMINUM RIDGED FLEXIBLE DUCTWORK. TERMINATE THROUGH ROOF.
	PROVIDE 2" PVC INTAKE AND VENT. TERMINATE THROUGH ROOF MANUFACTURERS CONCENTRIC VENT.
	CONTRACTOR SHALL FIELD VERIFY EXISTING HYDRONIC SUPPLY SYSTEM. PROVIDE RADIATOR CONTROL VALVES TO EVERY UNIT.
	PROVIDE EXHAUST FAN WALL CAP. WALL CAP SHALL BE METAL WITH BACKDRAFT DAMPER MODEL WC-6 AS MANUFACTURED BY BUCKLEY ASSOCIATES.
	PROVIDE SMALL FAN-FORCED WALL HEATER. WALL HEATER SHALL BE 120V, 1500/750 WATT WITH A CAPACITY OF 5120/2560 BTU/HR. WALL HEATER SHALL BE MODEL NUMBER FFH1612 AS MANUFACTURED BY FAHRENHEAT OR APPROVED EQUAL.

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MECHANICAL
NEW WORK
FLOOR PLANS

M-1.0

date drawn
scale AS SHOWN
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application no. 1743
JUNE 22, 2015
ANK
NORTH

drawn
scale AS SHOWN
checked DTB
project no. 2014064.00
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MECHANICAL PIPING LEGEND	
SYMBOL	DESCRIPTION
---	NEW V
---	NEW HWS
---	EXISTING HWS
---	EXISTING HWR
---	DETAIL LINE
---	NEW HW
○	BALL VALVE
○	CHECK VALVE
→	DIRECTION OF FLOW
○	END CAP
○	90° ELBOW DOWN
○	90° ELBOW UP
○	TEE UP
○	TEE DOWN
○	DROP AND RUN
○	TEE OFF TOP OF PIPE
○	TEE OFF BOTTOM OF PIPE

MECHANICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
○	THERMOSTAT
→	RETURN/EXHAUST/OUTSIDE AIR ARROW
→	SUPPLY ARROW
○	EXHAUST VENT
○	CONNECTION TO EXISTING
○	EXISTING TO REMAIN

MECHANICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
BTU	BRITISH THERMAL UNIT
CAP	CAPACITY
ET-#	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE
HD	HORSE POWER
HP	LEAVING WATER TEMPERATURE
LWT	MINIMUM
MIN	NOT TO SCALE
N.T.S.	NOT APPLICABLE
N/A	NOISE CRITERIA
NC	NUMBER
NO	NOMINAL
NOM	OUTSIDE AIR
OA	PUMP
P-#	SPECIFICATION
SPEC	TEMPERATURE
TEMP	TYPICAL
TYP	

BOILER SCHEDULE																
SYMBOL	MANUFACTURER/ MODEL NUMBER	MEDIA	GROSS OUTPUT (MBH)	GROSS INPUT (MBH)	EWT/LWT (°F)	FUEL DATA		DOMESTIC HOT WATER DATA		BURNER DATA		REMARKS				
						TYPE	RATE (MBH)	GPM	EWT (°F)	LWT (°F)	AMPS					
B-1	LAARS/MASCOT LX 150	HW	142.5	150	160/180	NATURAL GAS	150	5	45	105	1.5	120	1	—	—	ALL

REMARKS:
1. BURNER FIRING SHALL BE MODULATING WITH A 5:1 TURN DOWN RATIO.
2. PROVIDE WITH CONDENSATE NEUTRALIZATION KIT.
3. PROVIDE WITH MANUFACTURER OA SENSOR.
4. PROVIDE WITH MANUFACTURER SUPPLY WATER TEMPERATURE SENSOR.

HW = HOT WATER

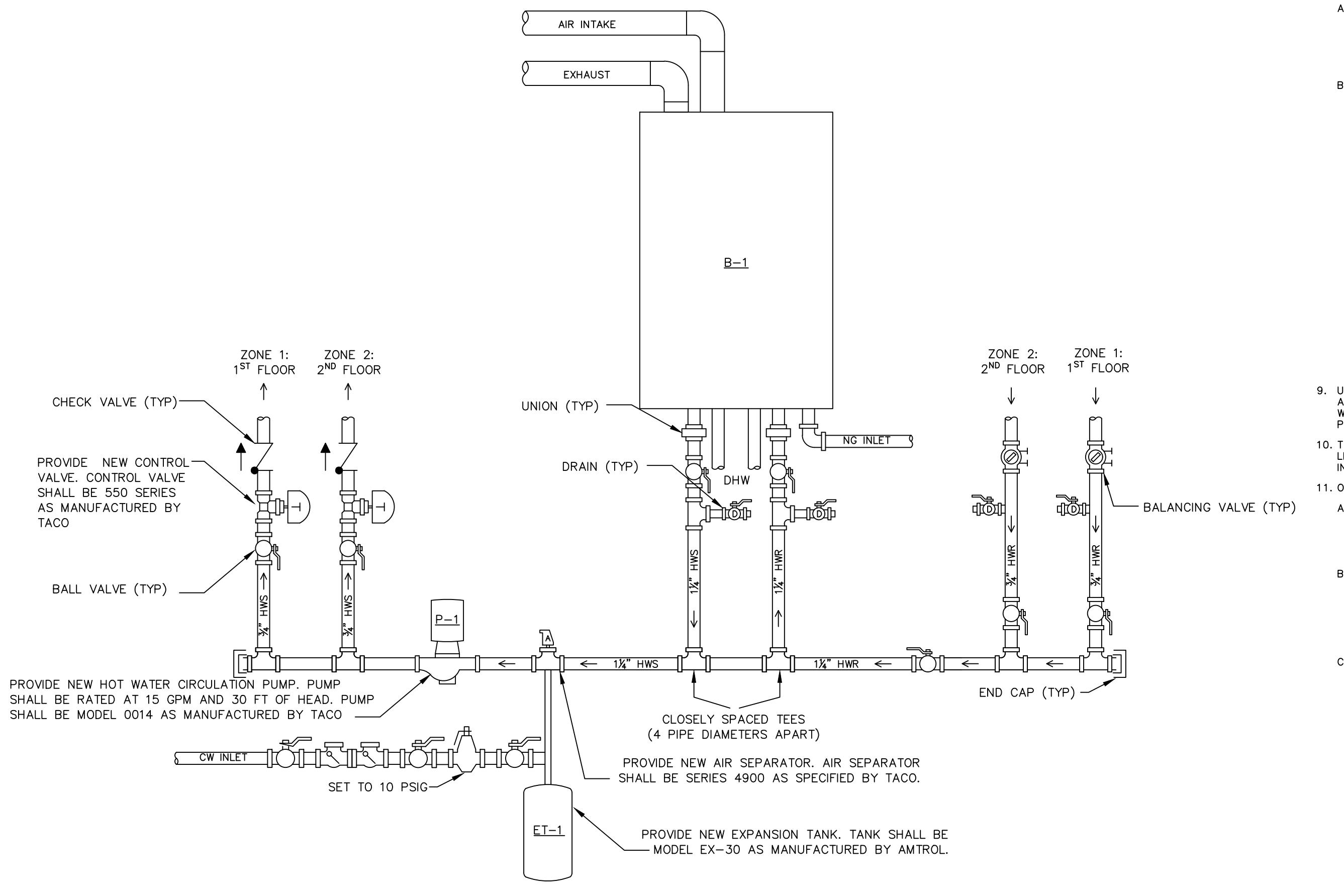
GENERAL				PHYS.	PERFORMANCE			ELECTRICAL		REMARKS						
SYMBOL	MANUFACTURER	MODEL	LOCATION	SERVICE	WEIGHT (LBS)	CFM	SP (IN WG)	RPM	SONES	MOTOR (HP)	AMPS-WATTS	VOLTS	TYPE	RATINGS	FEATURES	INSTALL
EF-A	PANASONIC	FV-08VKM3	BATHROOM	SHOWER/BATHROOM	—	86	0.25	1200	0.7	—	0.11-13.3	120	1	1	1	1

REMARKS-TYPE
1. CEILING MOUNTED COMBINATION EXHAUST FAN WITH INTEGRAL LED LIGHT.

REMARKS-RATINGS
1. AIR PERFORMANCE CERTIFIED IN ACCORDANCE TO AMCA

REMARKS-FEATURES
1. CEILING MOUNTED EXHAUST FAN WITH INTEGRAL LED LIGHT SMART ACTION MOTION SENSOR. UNIT SHALL HAVE DC BRUSHLESS MOTOR. LIGHT SHALL BE 12 WATT AND NOT LESS THAN 912 LUMENS.

REMARKS-INSTALL
1. PROVIDE BACKDRAFT DAMPER ON FAN OUTLET.



BOILER PIPING DETAIL
N.T.S.

GENERAL PROCEDURES ALL TRADES
1. THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS UNLESS NOTED OTHERWISE.

2. DESCRIPTION

A. THIS PROJECT COMPRISSES ALTERATIONS AND RENOVATIONS TO THE EXISTING BUILDING. THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT WILL PROCEED IN A MANNER WHICH WILL MINIMIZE ANY INCONVENIENCE TO THE BUILDING OCCUPANTS.

B. SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED UNDER THE CONTRACT DOCUMENTS. THE WORK LIMITING GENERAL THEREOF CONSISTS OF FURNISHING MATERIALS, EQUIPMENT, WORKSHOP, TESTING, PLANT, TRANSPORTATION, RIGGING, STAGING, APPURTENANCES, AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.

C. PROVIDE THE FOLLOWING DEFINITIONS TO THIS CONTRACT

A. FURNISH: THE TERM "FURNISH" MEANS TO "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

B. INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INVOLVING UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

C. PROVIDE: THE TERM "PROVIDE" MEANS TO "FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

D. REMOVE: THE TERM REMOVE MEANS TO DISCONNECT FROM ITS PRESENT POSITION, REMOVE FROM THE PREMISES AND TO DISPOSE OF IN A LEGAL MANNER."

E. SUBSTITUTIONS: "SUBSTITUTIONS" ARE REQUESTS FOR CHANGES IN PRODUCTS, MATERIALS AND METHODS OF CONSTRUCTION AS PROPOSED BY THE CONTRACTOR AFTER AWARD OF THE CONTRACT.

4. DRAWINGS

A. PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK OUTLINED ON THESE CONTRACT DOCUMENTS. THE CONTRACTOR IS TO SUBMIT ALL NECESSARY DOCUMENTS AND DRAWINGS ON THE DATE OF THE CONTRACT FINISHING DATE. THE CONTRACTOR SHALL NOT DIRECTLY CORRESPOND TO THAT WHICH IS SHOWN ON THE DRAWINGS. IF A CONFLICT IN POSITION OCCURS, THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY TO ASCERTAIN WHAT THE INTENT WAS BY THE DESIGN PROFESSIONAL.

5. SURVEY AND MEASUREMENTS:

A. PRIOR TO SUBMITTING BID, VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT WORK TO BE PERFORMED. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY IDENTIFIED BY EXPERIENCED CONTRACTOR.

B. DO NOT SCALE DRAWINGS. SCALE INDICATED ON DRAWINGS IS FOR ESTABLISHING REFERENCE; POINTS ONLY. ACTUAL FIELD CONDITIONS SHALL GOVERN ALL DIMENSIONS.

C. PRIOR TO ORDERING ANY MATERIALS AND EQUIPMENT, THOROUGHLY REVIEW THE SITE CONDITIONS TO DETERMINE IF ADEQUATE CLEARANCES AND ACCESS IS ALLOWED TO INSTALL THE COMPONENTS. ORDER EQUIPMENT BROKEN DOWN AS NEEDED TO EASILY MOVE AND POSITION THROUGH THE PROJECT AREA. PROVIDE ALL NECESSARY ALTERATIONS TO THE STRUCTURE OF THE BUILDING AS NECESSARY TO RIG THE EQUIPMENT IN PLACE.

D. ARRANGE INSTALLATION TO PROVIDE ACCESS TO EQUIPMENT FOR EASY MAINTENANCE AND REPAIR.

E. CODES AND STANDARDS: ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STATE OF CONNECTICUT ACCEPTED VERSION OF THE FOLLOWING

A. INTERNATIONAL RESIDENTIAL CODE

B. INTERNATIONAL BUILDING CODE

C. INTERNATIONAL PLUMBING CODE

D. INTERNATIONAL MECHANICAL CODE

E. NATIONAL ELECTRIC CODE (NFPA 70)

F. THE LIFE SAFETY CODE (NFPA 101)

7. PERMITS AND FEES: THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, PERMIT REQUESTS, AND PAY ALL FEES FOR ALL PERMITS, LICENSES, AND FEES WHERE APPLICABLE, AND OTHER COSTS, INCLUDING UTILITY CONNECTIONS OR EXTENSIONS IN CONNECTION WITH THE WORK, FILE ALL NECESSARY DRAWINGS, PREPARE ALL DOCUMENTS, AND OBTAIN ALL NECESSARY APPROVALS OF ALL CONTRACTOR'S SUBCONTRACTORS, VENDORS, AND MANUFACTURERS. SUBMIT ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK, AND DELIVER A COPY TO THE OWNER AND ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.

8. SHOP DRAWINGS:

A. SUBMIT NEWLY PREPARED INFORMATION, DRAWN TO ACCURATE SCALE OF 1/4"=1'-0" HIGHLIGHT, ENCIRCLE, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DOCUMENTS. RECOMMENDATION, COMMENTS, OR COPY STANDARD INFORMATION AS THE BASIS OF THE DRAWING. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS.

B. SHOP DRAWINGS INCLUDE EQUIPMENT SUBmittals, FABRICATION AND INSTALLATION DRAWINGS, SETTING DIAGRAMS, SCHEDULES, PATTERNS, TEMPLATES AND SIMILAR DRAWINGS. INCLUDE THE FOLLOWING INFORMATION:

c. DIMENSIONS.

b. IDENTIFICATION OF PRODUCTS AND MATERIALS INCLUDED.

c. COMPLIANCE WITH SPECIFIED STANDARDS AND PERFORMANCE DATA AS INDICATED.

d. NOTATION OF COORDINATION REQUIREMENTS.

e. NOTATION OF DIMENSIONS ESTABLISHED BY FIELD MEASUREMENT.

f. SUBMIT 3 BLACK-LINE COPIES AND 2 ADDITIONAL POINTS WHERE APPROPRIATE. PROVIDE ONE FOR INSPECTION AND ONE FOR THE OWNER. PRINTS NEEDED BY THE ENGINEER FOR DISTRIBUTION, ONE PRINT WILL BE RETAINED; THE REMAINDER RETURNED. ONE OF THE PRINTS RETURNED SHALL BE MARKED AND MAINTAINED AS A "RECORD DRAWING".

g. DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION TAKEN IN CONNECTION WITH CONSTRUCTION.

h. DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED SHOP DRAWINGS.

i. PROVIDE SUBmittals AS INDICATED IN SPECIFIC SPECIFICATION SECTIONS.

9. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.

10. THE CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN 5 DAYS PRIOR TO THE INTERRUPTION.

11. OPERATION AND MAINTENANCE

A. UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD.

B. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATING AND MAINTENANCE BOOKLET FORM. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 3-RING VELCRO-COVERED BINDER WITH DOCUMENT FOLDERS. SELECT INFORMATION AND DESIGNATION PARTITION WITH IDENTIFICATION TABLE. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.

C. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE THE FOLLOWING:

a. MANUFACTURER'S PRINTED OPERATING AND MAINTENANCE PROCEDURES.

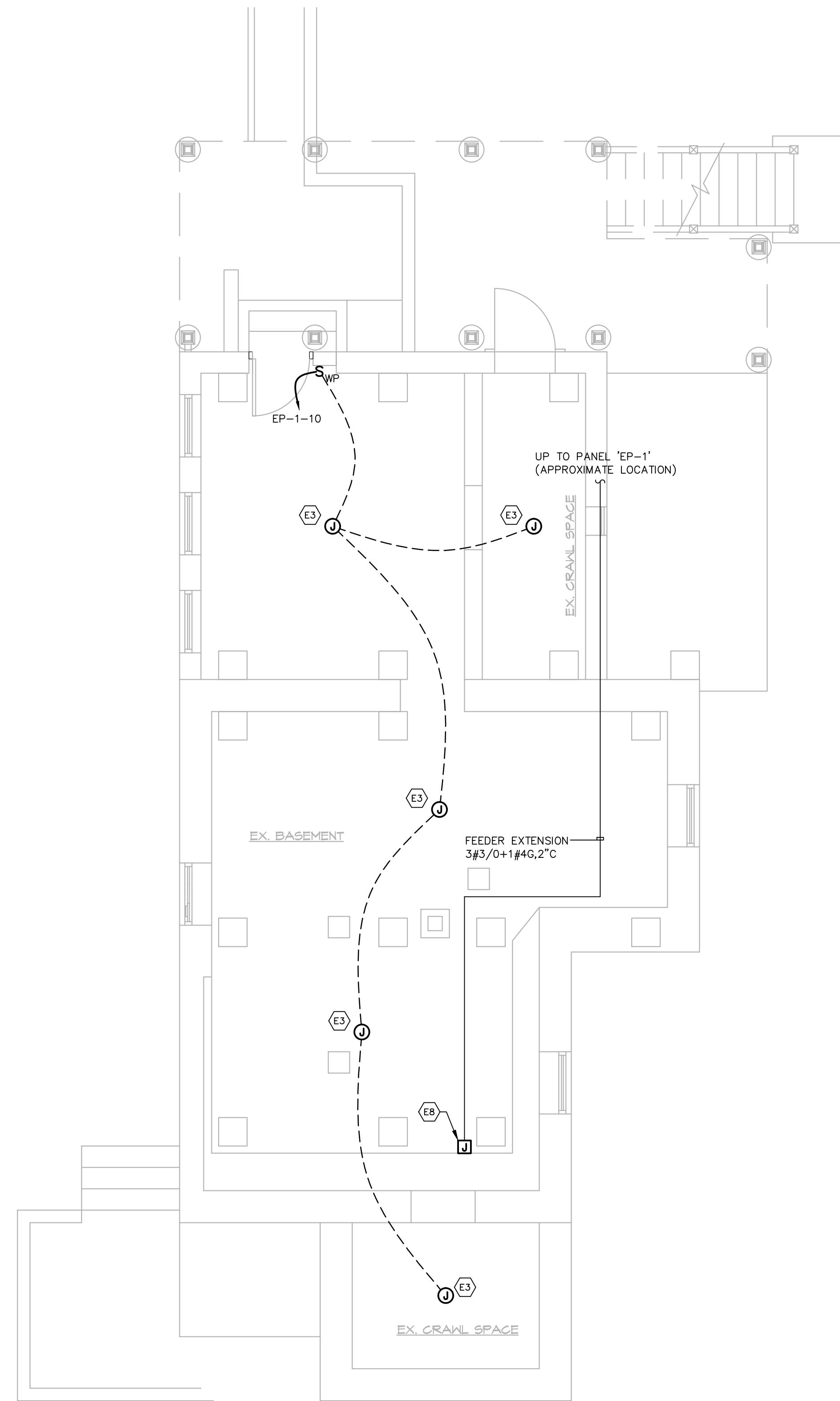
b. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING.

c. COPIES OF WARRANTIES.

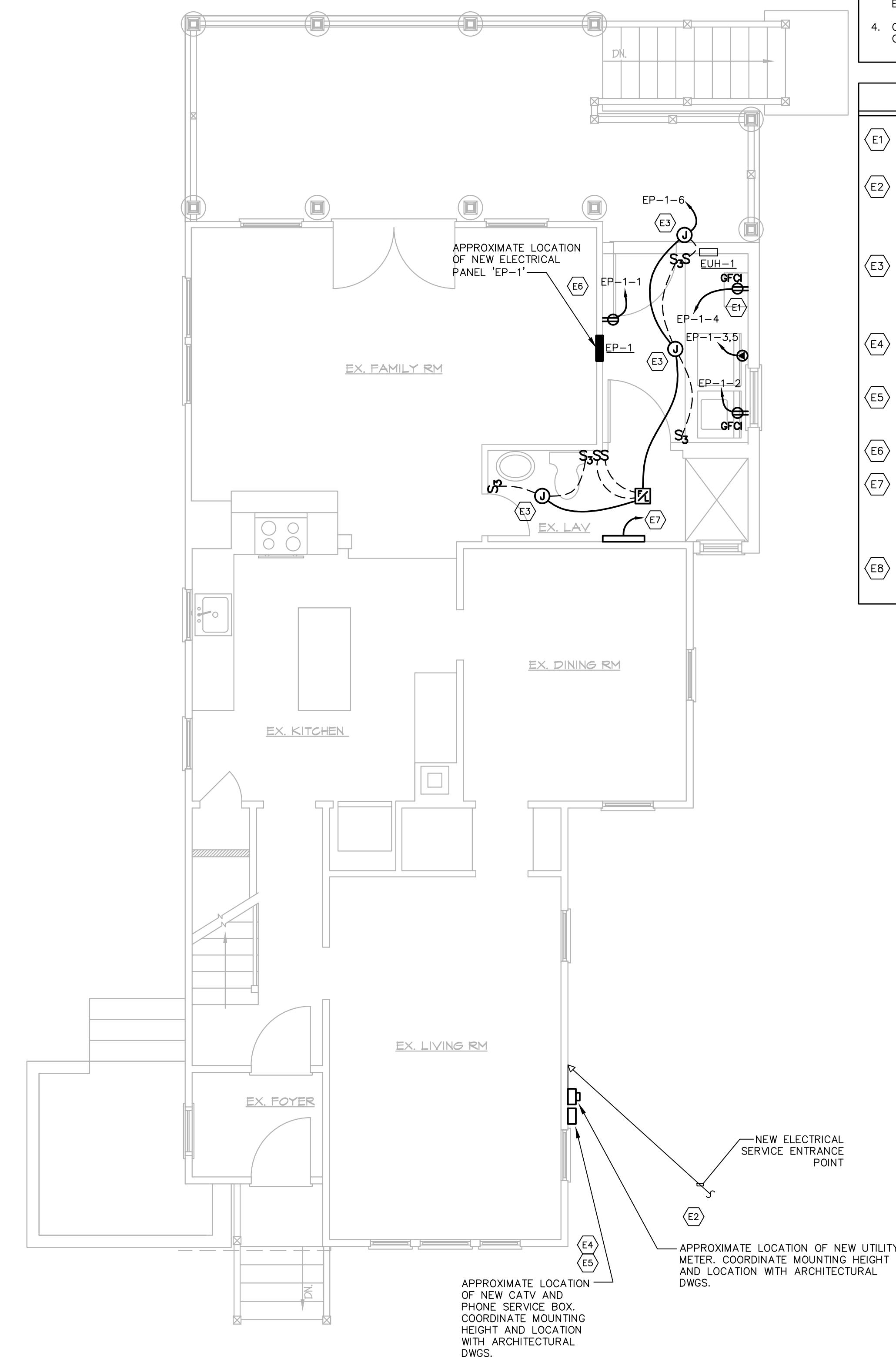
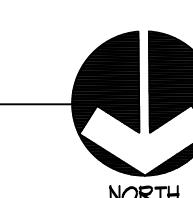
d. APPROVED SHOP DRAWINGS AND PRODUCT DATA.

e. BALANCE REPORTS.

f. INCORPORATE IN THE MANUAL A TABULATED EQUIPMENT SCHEDULE FOR ALL EQUIPMENT. EQUIPMENT SHALL INCLUDE PERTINENT DATA SUCH AS MAKE, MODEL NUMBER, SERIAL NUMBER, VOLTAGE, NORMAL OPERATING CURRENT, BELT SIZE, FILTER QUANTITIES AND SIZES, BEARING NUMBER, ETC



1 NEW WORK BASEMENT PLAN
E-1.0
SCALE: 1/4" = 1'-0"



2 NEW WORK FIRST FLOOR PLAN
E-1.0
SCALE: 1/4" = 1'-0"



GENERAL NOTES ALL TRADES

1. ELECTRICAL ITEMS INCLUDING BUT NOT LIMITED TO WIRING, EQUIPMENT, SWITCHES, OUTLETS, ETC SHALL BE INSTALLED ABOVE THE FLOOD PLANE AS DETERMINED BY THE ARCHITECTURAL PLANS.
2. WORK SHALL BE COORDINATED WITH ARCHITECTURAL PLANS.
3. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS PRIOR TO PROVIDING ALL EQUIPMENT AND PIPING.
4. CIRCUITS SHALL BE #12 FOR 20A-1P CIRCUIT BREAKERS AND #14 FOR 15A-1P CIRCUIT BREAKERS IN PANEL INDICATED UNLESS NOTED OTHERWISE.

ELECTRICAL KEY NOTES

- (E1) PROVIDE 120VAC/20AMP GFCI RECEPTACLE FOR COMBINATION WATER HEATER/BOILER. 12-2 FEED TO NEW 20A/1-POLE BREAKER IN PANEL 'EP-1'.
- (E2) PROVIDE NEW ELECTRIC SERVICE TO THE RESIDENCE. PROVIDE NEW WEATHER HEAD, WIRING (FROM WEATHER HEAD TO METER), METER, METER SOCKET, NEW FEEDER TO PANEL 'EP-1' AND CONNECTION TO PANEL 'EP-1'. REFER TO DISTRIBUTION RISER DIAGRAM FOR MORE INFORMATION. COORDINATE WITH THE UTILITY COMPANY ALL WORK MATERIALS, AND PARTS ASSOCIATED WITH PROVIDING A NEW SERVICE.
- (E3) PROVIDE 12-2 WIRING AND JUNCTION BOX TO THIS LOCATION. WIRING AND JUNCTION BOX SHALL BE PROTECTED FOR FUTURE USE AND INSTALLATION OF LIGHTING FIXTURE. OWNER SHALL PROVIDE LIGHTING FIXTURE AND COORDINATE INSTALLATION BASED ON ALLOWANCE PROVIDED UNDER THIS PROJECT. REFER TO PANELBOARD SCHEDULE FOR CKT INFORMATION. REFER TO DWGS FOR WIRING INFORMATION.
- (E4) NEW TELEPHONE SERVICE SHALL BE PROVIDED. CONNECT TO EXISTING TELEPHONE DISTRIBUTION EQUIPMENT AND CABLING. COORDINATE WITH THE TELEPHONE COMPANY ALL WORK, MATERIAL, AND PARTS ASSOCIATED WITH PROVIDING A NEW SERVICE.
- (E5) NEW CATV SERVICE SHALL BE PROVIDED. CONNECT TO EXISTING CATV DISTRIBUTION EQUIPMENT AND CABLING. COORDINATE WITH THE CATV COMPANY ALL WORK, MATERIAL, AND PARTS ASSOCIATED WITH PROVIDING A NEW SERVICE.
- (E6) PROVIDE NEW PANEL 'EP-1' 200A/MCB, 2P, 120/240V, 30-POLE, 3-WIRE.
- (E7) EC SHALL RECONNECT BASEBOARD HEATING UNIT PREVIOUSLY REMOVED DURING DEMOLITION PHASE. EC SHALL COORDINATE RECONNECTION TO THE SAME CIRCUIT IN WHICH THE UNIT WAS PREVIOUSLY ALLOCATED. EC SHALL PROVIDE NEW APPROPRIATELY SIZED WIRING AND CIRCUIT BREAKER OF AFCI TYPE TO CKT BASED ON VERIFICATION ON-SITE. EC SHALL UPDATE INFORMATION ON PANELBOARD SCHEDULE DIRECTORY.
- (E8) PROVIDE NEW SPLICE/JUNCTION BOX FOR EXTENSION OF EXISTING BRANCH CIRCUITS TO LOCATION OF NEW PANEL 'EP-1'. REFER TO FLOORPLAN FOR APPROXIMATE LOCATION.

THE STATE OF
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DEPARTMENT OF
HOUSING (DOH)
COMMUNITY
DEVELOPMENT BLOCK
GRANT - DISASTER
RECOVERY (CDBG-DR)
OWNER OCCUPIED
REHABILITATION and
REBUILDING PROGRAM
(OORR)

BALAZ RESIDENCE
APPLICATION No. 1326
64 Hackley Street
Bridgeport, CT 06605

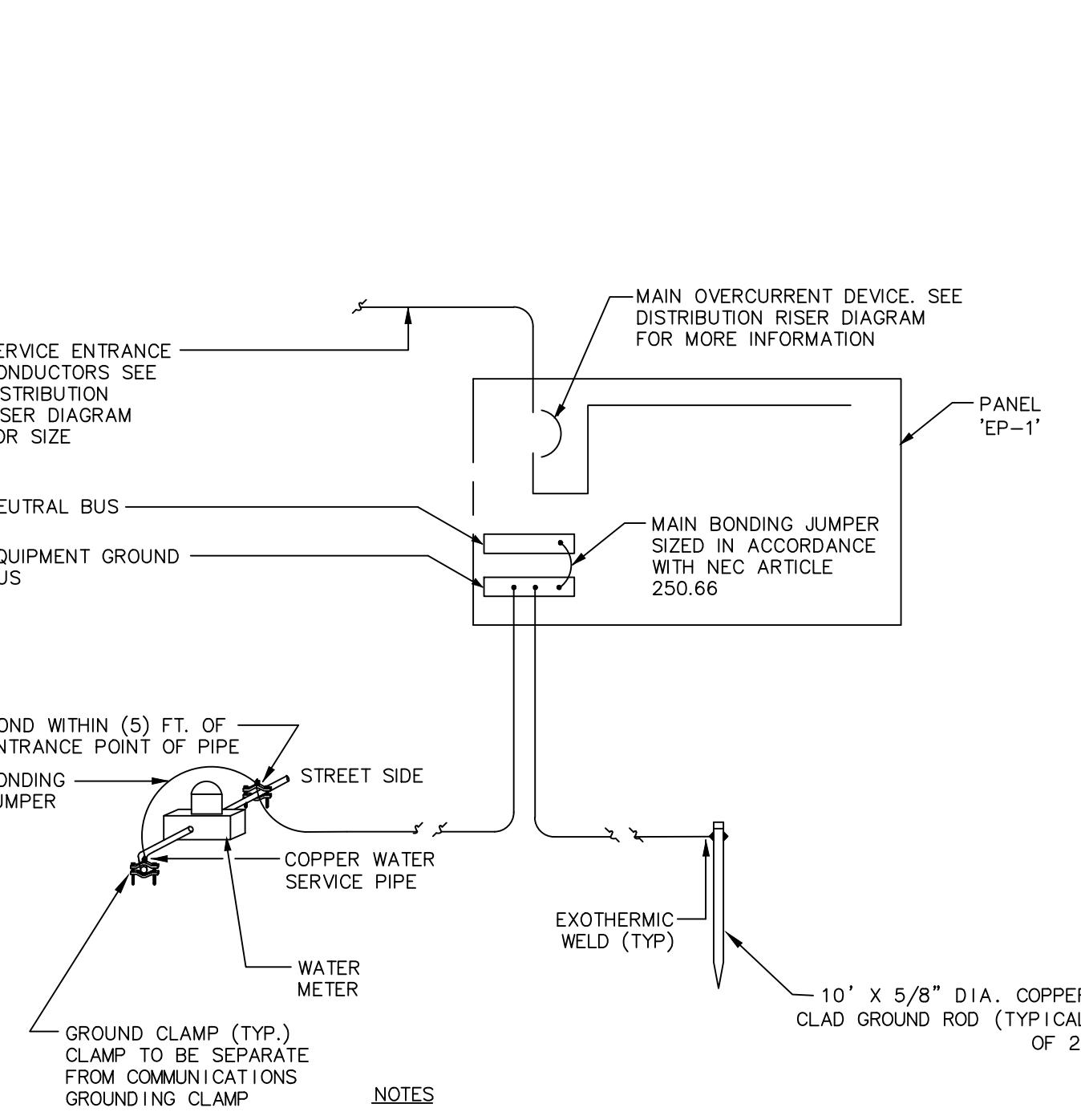
CES
Consulting Engineering Services, Inc.
111 Middle Street
Middletown, CT 06457
Tel: (860) 632-1652
Fax: (860) 632-1758
CES #2014064.00

date description no.
revisions

ELECTRICAL
NEW WORK
FLOOR PLANS

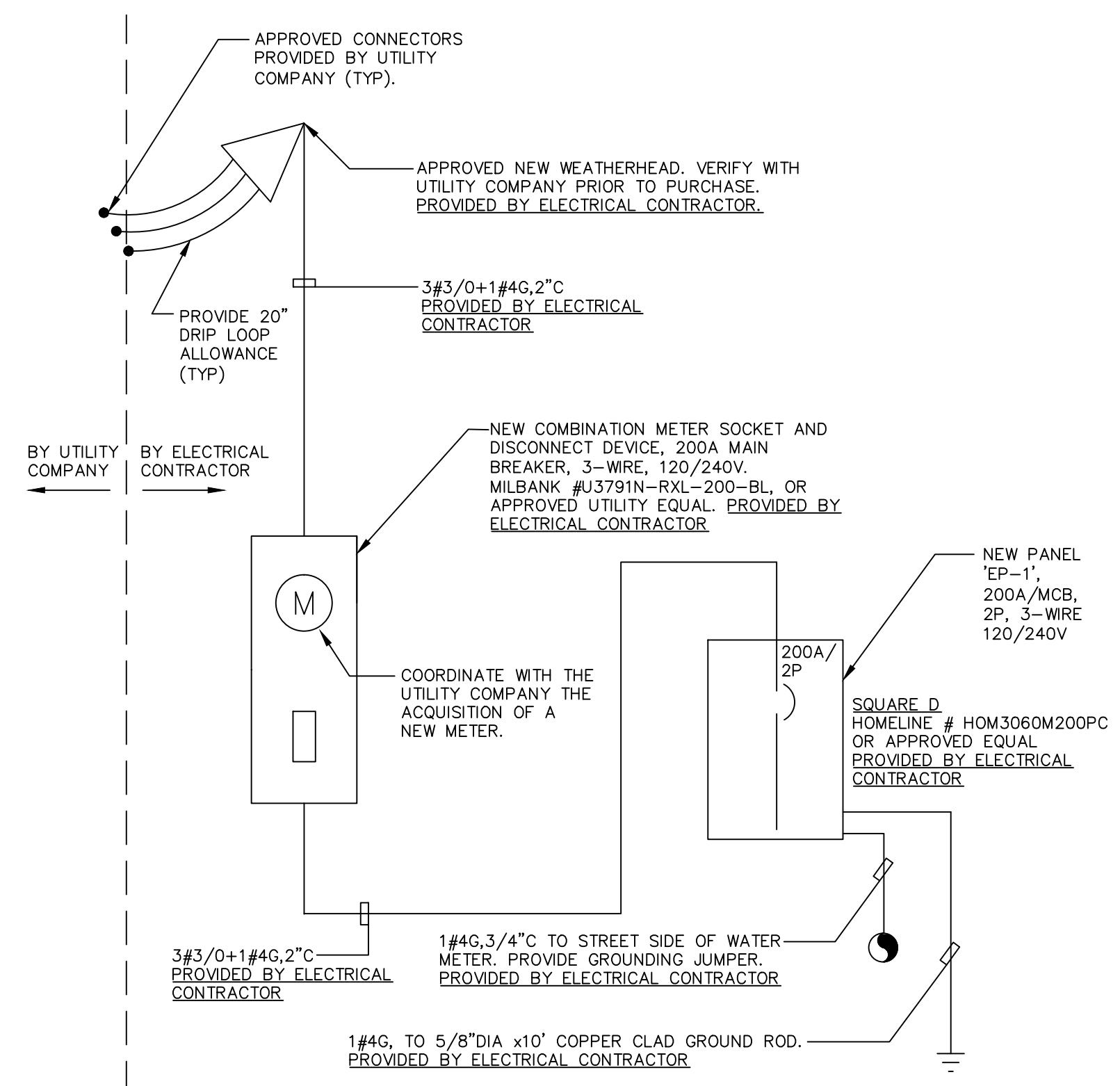
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date JUNE 22, 2015
drawn VCM
scale AS SHOWN
checked DTB
project no. 2014064.00
application no. 1743



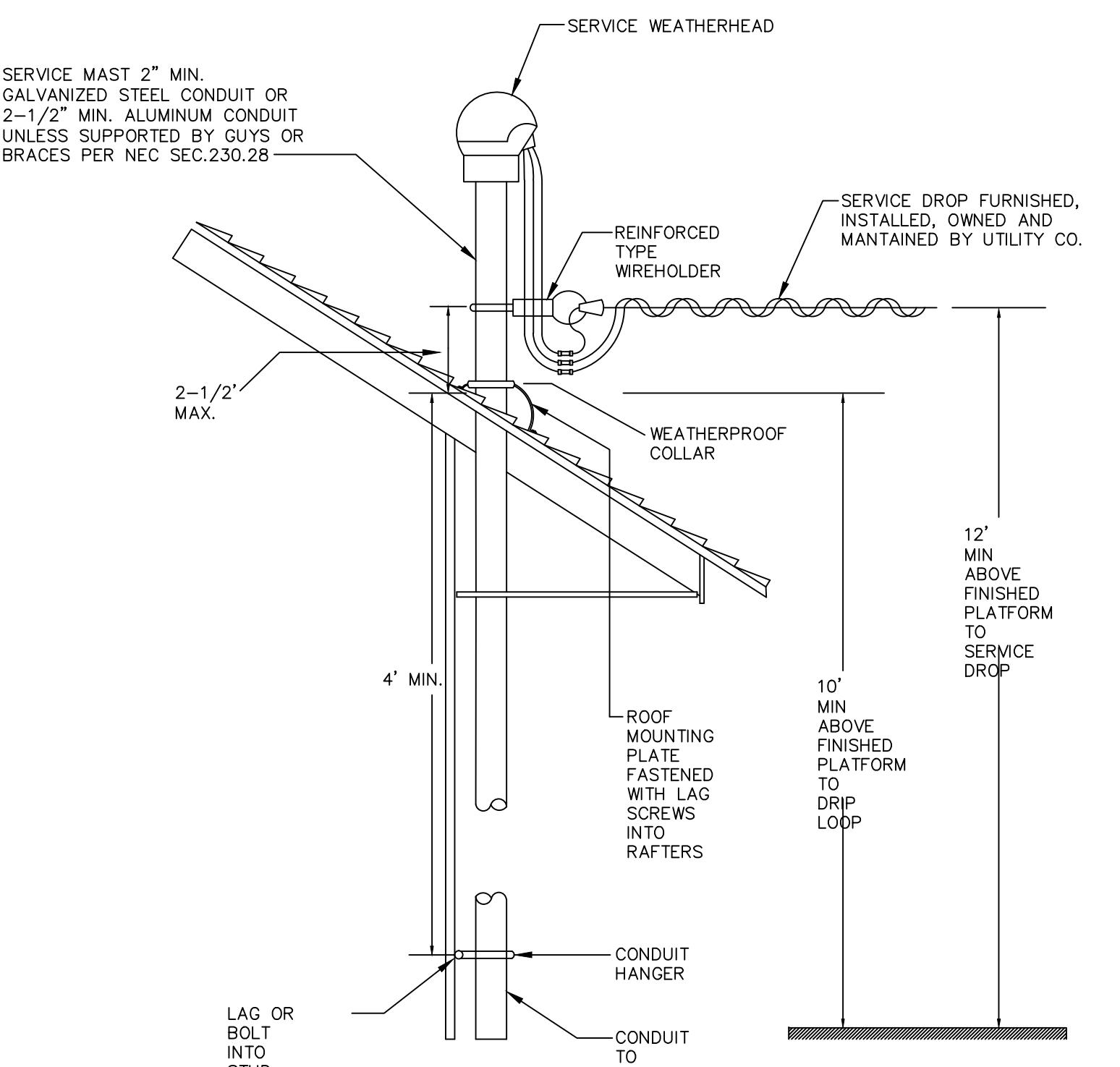
TYPICAL MAIN ELECTRIC GROUNDING DETAIL

N.T.S.



SERVICE ENTRANCE / DISTRIBUTION RISER DIAGRAM

N.T.S.



TYPICAL ELECTRICAL SERVICE MAST DETAIL

N.T.S.

ELECTRICAL ABBREVIATIONS	
A/AMP	AMPERE
AC	ALTERNATING CURRENT
ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
BSMT	BASEMENT
C	CONDUIT
CATV	CABLE TELEVISION
C/B	CIRCUIT BREAKER
CKT	CIRCUIT
DIA/ø	DIAMETER
DN	DOWN
DWG	DRAWING
ETR	EXISTING TO REMAIN
ELEC	ELECTRICAL
EWH	ELECTRIC WATER HEATER
GFCI	GROUND FAULT INTERRUPTER
JB	JUNCTION BOX
KVA	KILOVOLT AMPERE
KW	KILOWATT
MAX	MAXIMUM
MCCB	MOLDED CASE CIRCUIT BREAKER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NA	NOT APPLICABLE
P	POLE
PE	PRIMARY ELECTRICAL SERVICE
PF	POWER FACTOR
PH/ø	PHASE
PNL	PANEL
PVC	POLYVINYL CHLORIDE CONDUIT
RE	REMOVE EXISTING
RGS	RIGID GALVANIZED STEEL CONDUIT
RL	RELOCATE EXISTING
RM	ROOM
RSPC	REMOVE AND REPLACE ON NEW SURFACE
SWBD	SWITCHBOARD
TELE	TELECOMMUNICATIONS/TELEPHONE
T/TX	TELEVISION
TYP	TRANSFORMER
V	TYPICAL
VA	VOLT AMPERE
VAC	VOLTS ALTERNATING CURRENT
W	WATT
WP	WIRE
WEATHERPROOF	WEATHERPROOF

ELECTRICAL SYMBOL LIST	
	RECESSED PANELBOARD
	ELECTRICAL METER
	BRANCH CIRCUIT WIRING, CONCEALED IN WALLS OR CEILINGS
	HOMERUN TO PANELBOARD, UNLESS INDICATED OTHERWISE SHALL BE CONNECTED TO A 1 POLE, 20 AMP CIRCUIT BREAKER
	BRANCH CIRCUIT WIRING, SWITCHED
	JUNCTION BOX
	SPECIAL PURPOSE RECEPTACLE, NEMA CONFIGURATION AS INDICATED
	THREE POLE SWITCH
	SINGLE POLE SWITCH
	GFCI DUPLEX RECEPTACLE

PANELBOARD SCHEDULE												
PANELBOARD	LOCATION	MAIN	VOLTAGE	PHASE	WIRE	FEEDER	SE RATED	MOUNTING	MIN SCR	REMARKS		
EP-1		200A/2P MCB		120/240	1	3	3#3/0+1#4G,2" C	N/A		RECESSED	10,000	
CKT	DESCRIPTION	P	AT	AF	CIRCUITRY	KVA	CKT	DESCRIPTION	P	AT	AF	
1	RCPT - LAUNDRY/FAN	1	20	20	12-2	0.21	2	WASHER	1	20	20	
3	DRYER	2	30	30	10-3	5.0	4	BOILER/WATER HEATER	1	20	20	
5	-	-	-	-	-	-	6	LTG - LAUNDRY/BATH	1	15	15	
7	SEE NOTE 9	2	20	20	12-2	1.8	8	EUH-1	1	20	20	
9	-	-	-	-	-	-	10	LTG - CRAWLSPACE	1	15	15	
11	SEE NOTE 9**	1	20	20	12-2	0.36	12	SEE NOTE 9	2	50	50	
13	SEE NOTE 9**	1	20	20	12-2	0.36	14	-	-	-	-	
15	SEE NOTE 9**	1	20	20	12-2	0.36	16	SEE NOTE 9**	1	15	15	
17	SEE NOTE 9**	1	20	20	12-2	0.36	18	SEE NOTE 9**	1	15	15	
19	SEE NOTE 9**	1	15	15	14-2	0.36	20	SEE NOTE 9**	1	15	15	
21	SEE NOTE 9**	1	20	20	12-2	0.36	22	SEE NOTE 9**	1	20	20	
23	SEE NOTE 9**	1	20	20	12-2	0.36	24	SEE NOTE 9**	1	20	20	
25	SEE NOTE 9**	1	20	20	12-2	0.36	26	SEE NOTE 9**	1	20	20	
27	SPARE	-	20	20	-	-	28	SPARE**	1	20	20	
29	SPARE	-	20	20	-	-	30	SPARE**	1	20	20	
SUBTOTAL KVA						9.89	SUBTOTAL KVA					
							SUBTOTAL KVA					
						13.62	TOTAL KVA					
TOTAL												23.01

* CONTRACTOR SHALL FIELD VERIFY THE WIRING SIZE OF EXISTING CIRCUITS AND PROVIDE APPROPRIATELY SIZED AFCI CIRCUIT BREAKERS.

** CIRCUIT SHALL BE PROVIDED WITH CIRCUIT BREAKER OF AFCI TYPE.

PANELBOARD REMARKS:

1. PROVIDE WITH EQUIPMENT GROUND BUS.
2. PROVIDE WITH 100% RATED NEUTRAL BUS.
3. BRANCH CIRCUIT BREAKERS SHALL BE PLUG-ON TYPE.
4. PROVIDE WITH HINGED DOOR WITH IN DOOR TRIM.
5. PROVIDE A TYPED WRITTEN PANELBOARD DIRECTORY AND A DIRECTORY HOLDER ON THE INSIDE COVER OF DOOR.
6. PROVIDE WITH COPPER BUS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TYPES AND QUANTITIES OF CIRCUIT BREAKERS INDICATED ON THE DRAWINGS.
8. CIRCUITS SPECIFIED IS FOR WIRING FROM PANEL TO FIRST DEVICE. CONTRACTOR TO PROVIDE CALL MULTI-CONDUCTOR CABLES AS REQUIRED FOR 3 & 4 WAY SWITCHES.
9. CIRCUITS UNDER THIS NOTE ARE EXISTING AND SHALL BE EXTENDED AND RECONNECTED TO THE NEW LOCATION OF PANEL 'EP-1'. EC SHALL FIELD VERIFY CIRCUIT QUANTITIES AND CIRCUIT BREAKERS REQUIRED TAKING INTO ACCOUNT THE REMOVAL OF PREVIOUSLY EXISTING CIRCUITS IN THE DEMOLITION PHASE. CIRCUITS SHOWN UNDER THIS NOTE REFLECT EXISTING CONDITIONS. CIRCUITS SHOWN ON PANELBOARD FOR DEVICES AND FIXTURES NO LONGER EXISTING SHALL BE REMOVED AND BE DESIGNATED AS SPACES IN PANEL. EC SHALL PROVIDE SPACE COVER IF NECESSARY.
10. CIRCUIT BREAKERS UNDER THIS PROJECT THAT ARE 120V/1P AND ASSOCIATED WITH NEW, OR EXISTING TO-BE-EXTENDED AND RECONNECTED CIRCUITS SHALL BE OF AFCI TYPE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY QUANTITIES AND CIRCUIT LOCATIONS, AND PROVIDE AFCI CIRCUIT BREAKERS AS NECESSARY.

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ELECTRICAL SCHEDULES AND DETAILS

E-5.0

date drawn scale checked project no. application no.
JUNE 22, 2015 VCM AS SHOWN DTB 2014064.00 IT43

GENERAL PROCEDURES ALL TRADES

1. THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS UNLESS NOTED OTHERWISE.

2. DESCRIPTION

A. THIS PROJECT COMPRISSES ALTERATIONS AND RENOVATIONS TO THE EXISTING BUILDING. THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT WILL PROCEED IN A MANNER WHICH WILL MINIMIZE ANY INCONVENIENCE TO THE BUILDING OCCUPANTS.

B. SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED URGENTLY, UNEXPECTEDLY AND WITHOUT LIMITING GENERALLY THEREOF CONSISTS OF FURNISHING LABOR, MATERIALS, EQUIPMENT, HOSTING, PLANT, TRANSPORTATION, RIGGING, STAGING, APPURTENANCES, AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND AS DESCRIBED HEREIN.

3. THE FOLLOWING DEFINITIONS APPLY TO THIS CONTRACT

A. FURNISH: THE TERM "FURNISH" MEANS TO "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

B. INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE, INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

C. PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

D. REMOVE: THE TERM REMOVE MEANS TO DISCONNECT FROM ITS PRESENT POSITION, REMOVE FROM THE PREMISES AND TO DISPOSE OF IN A LEGAL MANNER.

E. SUBSTITUTIONS: "SUBSTITUTIONS" ARE REQUESTS FOR CHANGES IN PRODUCTS, MATERIALS AND METHODS OF CONSTRUCTION AS PROPOSED BY THE CONTRACTOR AFTER AWARD OF THE CONTRACT.

4. DRAWINGS

A. PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK OUTLINED ON THESE CONTRACT DRAWINGS. THE CONTRACTOR IS TO NOTE THAT THESE DOCUMENTS ARE DIAGRAMMATIC ONLY AND THAT FINAL PLACEMENT OF EQUIPMENT OR DEVICES IN THE FIELD MAY NOT DIRECTLY CORRESPOND TO THAT WHICH IS SHOWN ON THE DRAWINGS. IF A CONFLICT IN POSITION OCCURS, THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY TO ASCERTAIN WHAT THE INTENT WAS BY THE DESIGN PROFESSIONAL.

5. SURVEY AND MEASUREMENTS:

A. PRIOR TO SUBMITTING BID, VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT WORK TO BE PERFORMED. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS. THE CONTRACTOR IS TO NOTIFY THE ENGINEER OF ANY UNPREDICTED OBSERVERS. INCLUDE IN THE BID ALL DEMOLITION WORK REQUIRED.

B. DO NOT SCALE DRAWINGS. SCALE INDICATED ON DRAWINGS IS FOR ESTABLISHING REFERENCE POINTS ONLY. ACTUAL FIELD CONDITIONS SHALL GOVERN ALL DIMENSIONS.

C. PRIOR TO ORDERING ANY MATERIALS AND EQUIPMENT, THOROUGHLY REVIEW THE SITE CONDITIONS TO DETERMINE IF ADEQUATE CLEARANCES AND ACCESS IS AVAILABLE TO INSTALL THE EQUIPMENT. IF ANY EQUIPMENT BROKEN DOWN AS NECESSARY, ALLOW FOR PROPER RIGGING THROUGH THE PROJECT AREA. PROVIDE ALL NECESSARY ALTERATIONS TO THE STRUCTURE OF THE BUILDING AS NECESSARY TO RIG THE EQUIPMENT IN PLACE.

D. ARRANGE INSTALLATION TO PROVIDE ACCESS TO EQUIPMENT FOR EASY MAINTENANCE AND REPAIR.

E. CODES AND STANDARDS: ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STATE OF CONNECTICUT ACCEPTED VERSION OF THE FOLLOWING

- A. INTERNATIONAL RESIDENTIAL CODE
- B. INTERNATIONAL BUILDING CODE
- C. INTERNATIONAL PLUMBING CODE
- D. INTERNATIONAL MECHANICAL CODE
- E. NATIONAL ELECTRIC CODE (NFPA 70)
- F. THE LIFE SAFETY CODE (NFPA 101)

7. PERMITS AND FEES: THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, DRAWINGS, PLANS, PERMITS, APPROVALS, GOVERNMENT AND STATE SALES TAXES AND FEES WHERE APPLICABLE, AND OTHER COSTS, INCLUDING UTILITY CONNECTIONS OR EXTENSIONS IN CONNECTION WITH THE WORK, FILE ALL NECESSARY DRAWINGS, PREPARED IN ACCORDANCE WITH ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL AND STATE DEPARTMENTS, HAVING JURISDICTION, OBTAIN REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK, AND DELIVER A COPY TO THE OWNER AND ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.

8. SHOP DRAWINGS:

A. SUBMIT NEWLY PREPARED INFORMATION, DRAWN TO ACCURATE SCALE OF 1/4"=1'-0", HIGHLIGHT ENCIRCLE, OR OTHERWISE INDICATE DRAWINGS FROM THE DRAWING NUMBER, DATE, REVISION NUMBER, DRAWING NUMBER, OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS.

B. SHOP DRAWINGS INCLUDE EQUIPMENT SUBmittals, FABRICATION AND INSTALLATION DRAWINGS, SETTING DIAGRAMS, SCHEDULES, PATTERNS, TEMPLATES AND SIMILAR DRAWINGS. INCLUDE THE FOLLOWING INFORMATION:

- a. DIMENSIONS.
- b. IDENTIFICATION OF PRODUCTS AND MATERIALS INCLUDED.
- c. COMPLIANCE WITH SPECIFIED STANDARDS AND PERFORMANCE DATA AS INDICATED.
- d. NOTATION OF COORDINATION REQUIREMENTS.
- e. NOTATION OF DIMENSIONS ESTABLISHED BY FIELD MEASUREMENT.
- f. SHOW 3 BLACK-LINE PRINTS AND 2 ADDITIONAL PRINTS WHERE REQUIRED FOR MAINTENANCE MANUALS, PLUS THE NUMBER OF PRINTS NEEDED BY THE ENGINEER FOR DISTRIBUTION. ONE PRINT WILL BE RETAINED; THE REMAINDER RETURNED. ONE OF THE PRINTS RETURNED SHALL BE MARKED-UP AND MAINTAINED AS A "RECORD DOCUMENT".
- g. DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION TAKEN IN CONNECTION WITH CONSTRUCTION.
- h. DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED SHOP DRAWINGS.

i. PROVIDE SUBmittals AS INDICATED IN SPECIFIC SPECIFICATION SECTIONS.

9. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.

10. THE CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN 5 DAYS PRIOR TO THE INTERRUPTION.

11. OPERATION AND MAINTENANCE

A. UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER TO ARRANGE FOR THIS PERIOD.

B. THE CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A COMPLETE OPERATION AND MAINTENANCE MANUAL BOUND IN BOOKLET FORM. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 3-RING VINYLED BINDER. MAKE APPROPRIATE IDENTIFICATION OF EACH SHEET INFORMATION AND DESIGNATION PARTITIONS WITH IDENTIFICATION TABS. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.

C. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE THE FOLLOWING:

a. MANUFACTURER'S PRINTED OPERATING AND MAINTENANCE PROCEDURES.

b. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING.

c. COPIES OF WARRANTIES.

d. APPROVED SHOP DRAWINGS AND PRODUCT DATA.

e. BALANCE REPORTS.

f. INCLUDE IN THE MANUAL A TABULATED EQUIPMENT SCHEDULE FOR ALL EQUIPMENT. SCHEDULE SHALL INCLUDE PERTINENT DATA SUCH AS: MAKE, MODEL NUMBER, SERIAL NUMBER, VOLTAGE, NORMAL OPERATING CURRENT, BELT SIZE, FILTER QUANTITIES AND SIZES, BEARING NUMBER, ETC. SCHEDULE SHALL INCLUDE MAINTENANCE TO BE DONE AND FREQUENCY.

g. MAINTENANCE AND INSTRUCTION MANUALS SHALL BE SUBMITTED TO THE OWNER AT THE SAME TIME AS THE SEVEN (7) DAY NOTICE IS GIVEN PRIOR TO THE INSTRUCTION PERIOD.

12. AS-BUILT DRAWINGS

A. PREPARE AS-BUILT DRAWINGS TO A SCALE OF 1/4"=1'-0" OR LARGER. DRAWINGS SHALL BE ACTUAL INSTALLATION OF MAJOR ELEMENTS, COMPONENTS, AND SYSTEMS OF MECHANICAL EQUIPMENT AND MATERIALS. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE AS-BUILT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE.

B. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER, BUT WAS NOT SHOWN ON CONTRACT DRAWINGS OR SHOP DRAWINGS.

C. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE.

D. ORGANIZE AS-BUILT DRAWINGS INTO MANAGEABLE SETS, BIND WITH DURABLE PAPER COVER SHEETS, AND PRINT SUITABLE TITLES, DATES AND OTHER IDENTIFICATION ON THE COVER OF EACH SET.

13. OBTAIN IN OWNER'S NAME WRITTEN EQUIPMENT AND MATERIAL WARRANTIES OFFERED

IN MANUFACTURER'S PUBLISHED PRODUCT DATA WITHOUT EXCLUSION OR LIMITATION.

14. GUARANTEE WORK OF THESE CONTRACT DOCUMENTS IN WRITING FOR NOT LESS THAN ONE (1) YEAR FROM DATE OF FINAL NOTICE OF ACCEPTANCE, REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN THIS PERIOD, PROMPT AND TO OWNER'S SATISFACTION AND IN ACCORDANCE WITH THE CONTRACT, EXCLUDING MAINTENANCE, REPAIRS AND REPLACEMENTS UNDER GUARANTEE WITHIN CONTRACT PRICE.

15. SUBMIT TO THE OWNER AN OFFICIAL CERTIFICATE OF INSURANCE FOR THEIR RECORDS.

MEANS AND METHODS ALL TRADES

1. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS

2. DO NOT BURN WASTE MATERIALS. DO NOT BURY DEBRIS OR EXCESS MATERIALS ON THE OWNER'S PROPERTY. DO NOT DISCHARGE VOLATILE, HARMFUL, OR DANGEROUS MATERIALS INTO DRAINAGE SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, RIGGING, STAGING, APPURTENANCES, AND SERVICES OF A LAWFUL MANNER IN ACCORDANCE WITH MUNICIPAL, STATE AND FEDERAL REGULATIONS.

3. MATERIALS AND EQUIPMENT SHALL BE UL LISTED WHERE STANDARD HAS BEEN ESTABLISHED.

4. CAREFULLY INSPECT ALL BUILDING ELEMENTS PRIOR TO CUTTING OR DRILLING INTO WALL, FLOORS OR CEILINGS. PATCH AND PAINT SURFACES DISTURBED BY WORK UNDERTAKEN. CONTRACTOR IS RESPONSIBLE TO RESTORE THEM TO THEIR ORIGINAL CONDITION.

5. SCAFFOLDING, RIGGING, HOISTING: THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT, RIGGING, HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES ANY EQUIPMENT AND APPARATUS FURNISHED UNDER THIS DIVISION. REMOVE SAME FROM PREMISES WHEN NO LONGER REQUIRED.

6. EXCAVATION AND BACKFILLING: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE SIZES, DEPTHS, FILL AND BEDDING REQUIREMENTS AND ANY OTHER EXCAVATION WORK REQUIRED UNDER THESE SPECIFICATIONS.

7. WATERPROOFING: WHERE THE WORK PIERCES WATERPROOFING, INCLUDING WATERPROOFING CONCRETE, ROOF, EXTERIOR WALLS AND FLOORS IN WET AREAS, THE METHOD OF INSTALLATION SHALL BE REVIEWED BY THE ENGINEER BEFORE WORK IS DONE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, CAULKING AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERPROOF.

8. PROVIDE FIRESTOPPING AROUND ALL FIRE PROTECTION, PLUMBING, MECHANICAL AND ELECTRICAL CONDUITS, TUBING, RIGGING, RODS, RAILINGS, ETC. PROVIDE ASBESTOS FREE FIRESTOPPING SYSTEM CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME AND GASES. SYSTEM SHALL BE UL LISTED AND COMPLY WITH ASTM E 814.

9. ACCESS DOORS SHALL BE PROVIDED IN CEILINGS, WALLS AND FLOORS AT ALL LEVELS. DOORS, COVERS, CLOSING DEVICES, AND OTHER APPARATUS AND EQUIPMENT REQUIRED, PERIODIC SERVICE AND INSPECTION. COORDINATE TYPE AND LOCATION WITH ARCHITECTURAL PLANS.

10. SEISMIC RESTRAINTS SHALL BE INSTALLED AS REQUIRED PER BUILDING CODE AND FIRE SAFETY CODE. RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND SMACNA STANDARDS. SUBMIT SHOP DRAWINGS INCLUDING SEISMIC CALCULATIONS WITH PROFESSIONAL ENGINEER'S SEAL FOR REVIEW BY ENGINEER.

ELECTRICAL SPECIFICATIONS

1. CONTACT THE POWER COMPANY FOR NECESSARY COORDINATION OF SERVICE REQUIREMENTS AND PAY FOR ALL RELATED CHARGES FOR THE SERVICE INSTALLATION. PROVIDE ALL NECESSARY EQUIPMENT, CONDUITS, CONDUCTS, WIRE, TRENCHING, SAND AND BACKFILL ETC., FOR THE POWER COMPANY SERVICE CONNECTIONS AND ACTIVATION OF SERVICE FOR THE PROJECT. ALL EQUIPMENT SHOWN ON DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR. DRAWINGS SHALL BE SUBMITTED TO THE POWER COMPANY PRIOR TO ORDERING OR INSTALLATION.

2. CONTACT THE TELEPHONE COMPANY FOR NECESSARY COORDINATION OF SERVICE REQUIREMENTS AND PAY FOR ALL RELATED CHARGES FOR THE SERVICE INSTALLATION. PROVIDE ALL BOXES, TERMINATIONS, CONDUITS AND WIRING PER DRAWINGS.

3. CONTACT THE CABLE TELEVISION COMPANY FOR NECESSARY COORDINATION OF SERVICE REQUIREMENTS AND PAY FOR ALL RELATED CHARGES FOR THE SERVICE INSTALLATION. PROVIDE ALL BOXES, TERMINATIONS, CONDUITS AND WIRING PER DRAWINGS.

4. SERVICE-DISCONNECTING MEANS SHALL BE OF THE TYPE AS INDICATED WITH EXTERNAL HANDLE FOR MANUEL OPERATION. WHEN SERVICE DISCONNECTING MEANS IS PART OF AN ASSEMBLY, THE ASSEMBLY SHALL BE LISTED AS SUITABLE FOR SERVICE DISCONNECT. THE DISCONNECTING MEANS SHALL BE SHOT METAL WITH HINGED COVER FOR SURFACE MOUNTING UNLESS OTHERWISE INDICATED.

5. PANELBOARD/LOAD CENTER:

A. PROVIDE CIRCUIT BREAKER TYPE PANELBOARD/LOAD CENTER WITH BUS RATING AS INDICATED ON DRAWINGS.

B. MINIMUM INTEGRATED SHORT CIRCUIT RATING: 10,000A RMS SYMMETRICAL.

C. MOLDED CASE CIRCUIT BREAKER: NEMA AB, PLUG ON TYPE THERMAL MAGNETIC TRIP CIRCUIT BREAKERS, WITH COMBINATION HANDLE PER PEE, LISTED AS CIRCUIT BREAKER, LISTED AS CLASS A, GROUND FAULT INTERRUPTER CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKERS AS INDICATED ON DRAWINGS.

D. ENCLOSURE: GENERAL PURPOSE.

E. BOX: FLUSH TYPE WITH DOOR AND PULL RING LATCH, FINISH IN MANUFACTURER STANDARD GRAY ENAMEL.

6. MOUNT PANELBOARDS, CIRCUIT BREAKERS, AND DISCONNECTING SWITCHES SO HEIGHT OF OPERATING HANDLE AT ITS HIGHEST POSITION IS MAXIMUM 78 INCHES ABOVE FLOOR.

7. ALL BACKBOARDS SHALL UTILIZE FIRE RETARDANT 3/4 INCH PLYWOOD, SIZED AS INDICATED ON THE DRAWINGS.

8. GROUNDING SHALL BE COMPLETED IN ACCORDANCE WITH NFPA 70.

A. GROUND EXPOSED, NON-CURRENT-CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, GROUNDING CONDUCTOR IN NOMINAL METAL RACEWAYS, GROUNDING CONDUCTOR OF NONMETALLIC SHEATHED CABLES, AND NEUTRAL CONDUCTOR OF WIRING SYSTEMS.

B. MAKE GROUND CONNECTION AT MAIN SERVICE EQUIPMENT AND EXTEND GROUND CONDUCTOR TO POINT OF ENTRANCE OF METALLIC WATER SERVICE. MAKE CONNECTION TO WATER PIPE BY SUITABLE GROUND CLAMP WITH METER JUMPER OR LUG CONNECTION TO PLUGGED TEE IF FLANGED PIPES ARE ENCOUNTERED. MAKE CONNECTION WITH LUG BURIED TO STREET SIDE OF BUILDING. MAKE CONNECTION TO GROUNDING ELECTRODE BY SUITABLE GROUNDING SYSTEM WITH ADDITIONAL MADE ELECTRODE IN COMPLIANCE WITH NFPA 70. MAKE GROUND CONNECTION TO DRIVEN GROUND RODS ON EXTERIOR OF BUILDING. GROUNDING CONDUCTOR SHALL BE 10 AWG SOLID COPPER WIRE, 1/4" (19.1 MM) (5/8" INCH) IN DIAMETER, BY 2.4 METER (8 FEET) IN LENGTH WHERE GROUND FAULT PROTECTION IS EMPLOYED. ENSURE THAT CONNECTION OF GROUNDING CONDUCTOR DOES NOT INTERFERE WITH CORRECT OPERATION OF FAULT PROTECTION.

8. WIRING SHALL BE COMPLETED IN ACCORDANCE WITH NFPA 70.

A. CONDUCTORS NO. 8 AWG AND LARGER DIAMETER SHALL BE STRANDED ANNEALED COPPER. CONDUCTORS NO. 10 AWG AND SMALLER DIAMETER SHALL BE SOLID ANNEALED COPPER. CONDUCTOR SIZES AND AMPACITIES SHOWN ARE BASED ON COPPER, UNLESS INDICATED OTHERWISE, UNLESS SPECIFIED OR INDICATED ON DRAWINGS. NFPA 70, UNLESS OTHERWISE INDICATED, WIRING METHODS SHALL BE:

a. SERVICE ENTRANCE WIRING AND WIRING TO DISTRIBUTION PANELS. WIRES SHALL BE IN PVC CONDUIT AND SHALL BE 600-VOLT, TYPE THHN/THHN ANNEALED COPPER.

b. BRANCH CIRCUITING INSIDE THE BUILDING IN DRY AREAS SHALL BE 600 VOLT, TYPE NM-B.

c. BRANCH CIRCUITING OUTSIDE THE BUILDING AND IN WET/DAMP AREAS SHALL BE 600 VOLT, TYPE UF-B.

d. WIRES SUBJECT TO DAMAGE SHALL BE IN PVC CONDUIT.

B. MAKE ALL SPLICES IN ACCESSIBLE LOCATIONS. MAKE SPLICES IN CONDUCTORS NO. 10 AWG AND SMALLER DIAMETER WITH INSULATED, PRESSURE-TYPE CONNECTOR. MAKE SPLICES IN CONDUCTORS NO. 8 AWG AND LARGER DIAMETER WITH SOLDERLESS CONNECTOR, AND COVER WITH INSULATION EQUIVALENT TO CONDUCTOR INSULATION.

C. PHASE CONDUCTORS SHALL BE COLORED ACCORDING TO COLOR CODING. THE COLOR OF THE INSULATION ON PHASES A AND B RESPECTIVELY (FOR SINGLE-PHASE SYSTEMS) SHALL BE AS FOLLOWS: 120/240 VOLTS, SINGLE-PHASE: BLACK AND RED.

9. BOXES:

A. ALL OUTLETS, SWITCH AND JUNCTION BOXES SHALL BE NONMETALLIC BOXES.

B. BOXES SHALL BE SIZED IN ACCORDANCE WITH NFPA 70.

C. EXTERIOR BOXES SHALL BE GASKETED AND WATERTIGHT.

10. OUTLETS AND SWITCHES:

A. ALL OUTLETS AND SWITCHES SHALL BE WHITE.

B. MOUNT LIGHTING SWITCHES 48 INCHES ABOVE FINISHED FLOOR; RECEPTACLES 18 INCHES ABOVE FINISHED FLOOR, AND OTHER DEVICES AS INDICATED. MEASURE MOUNTING HEIGHTS OF WIRING DEVICES AND OUTLETS TO TOP OF DEVICE OR OUTLET.

C. SINGLE AND DUPLEX RECEPTACLES SHALL BE RATED 15 AMPERES, 125 VOLTS, TWO-POLE THREE-WIRE, GROUNDING TYPE WITH POLARIZED PARALLEL SLOTS. RECEPTACLE SHALL BE SIDE OR BACK WIRED WITH TWO SCREWS PER TERMINAL. THE THIRD GROUNDING POLE SHALL BE CONNECTED TO THE METAL MOUNTING Yoke.

D. SWITCHED RECEPTACLES SHALL BE THE SAME AS OTHER RECEPTACLES SPECIFIED EXCEPT THAT THE UNGROUNDED POLE OF EACH SUITABLE RECEPTACLE SHALL BE PROVIDED WITH A SEPARATE TERMINAL. ONLY THE TOP TERMINAL OF THE DUAL RECEPTACLE SHALL BE WIRED FOR SWITCHING PURPOSE.

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