NOTES:

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R.C. Searles Associates
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17 Glenwood St. Holden Ma.

6 KEITH DAVID DR
ADDITION
MILLBURY, MA

NEW ELEVATIONS

DA 6-20

DATE:	10/5/2020
SCALE:	1/4" = 1'-0"
DRAWN BY:	RWS
CHECKED BY:	RCS
Sheet	1 OF 6

1

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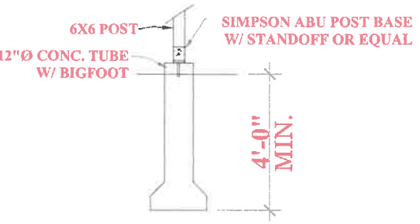
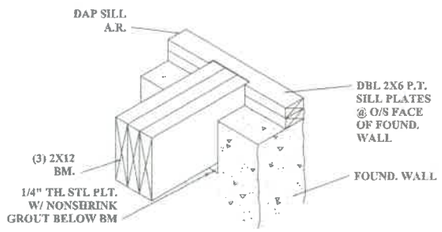
TYPICAL FOUNDATION DETAILS



CONCRETE TUBE DETAIL

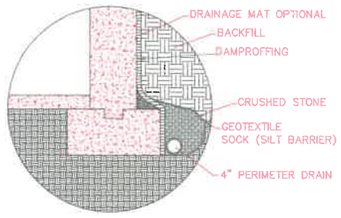
NTS



NOTE: TOP OF BM. & DBL. SILL PLATES ARE EQUAL

BEAM POCKET DETAIL

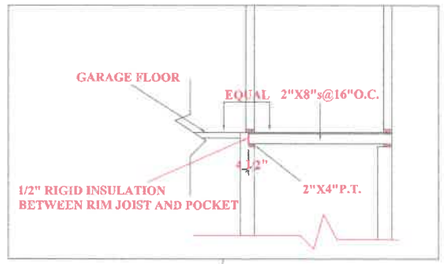
SCALE: 1"=1'-0"



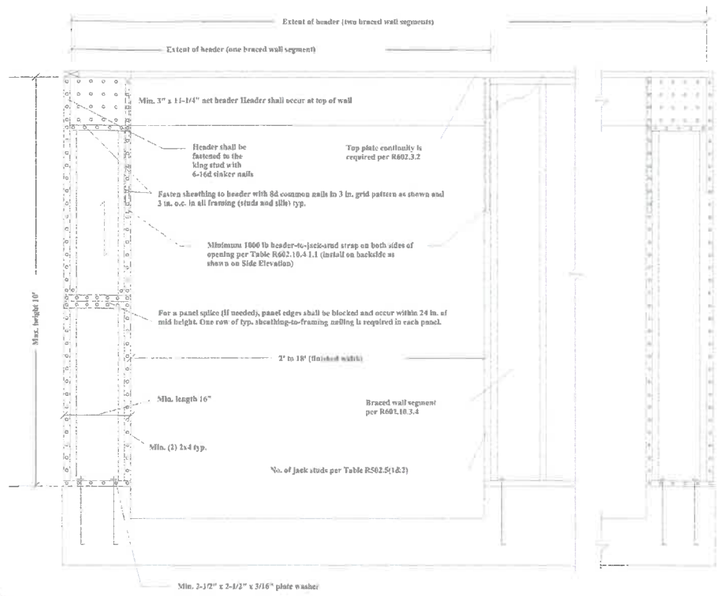
TYP. PERIMETER DRAIN DETAIL

NOTE: SLOPE DRAIN TO SUMP OR OUTFALL

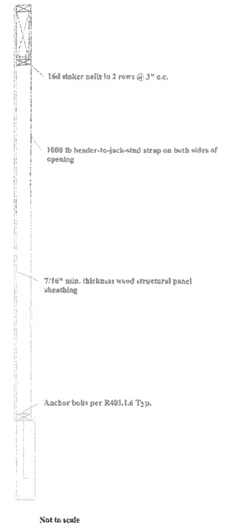
NTS



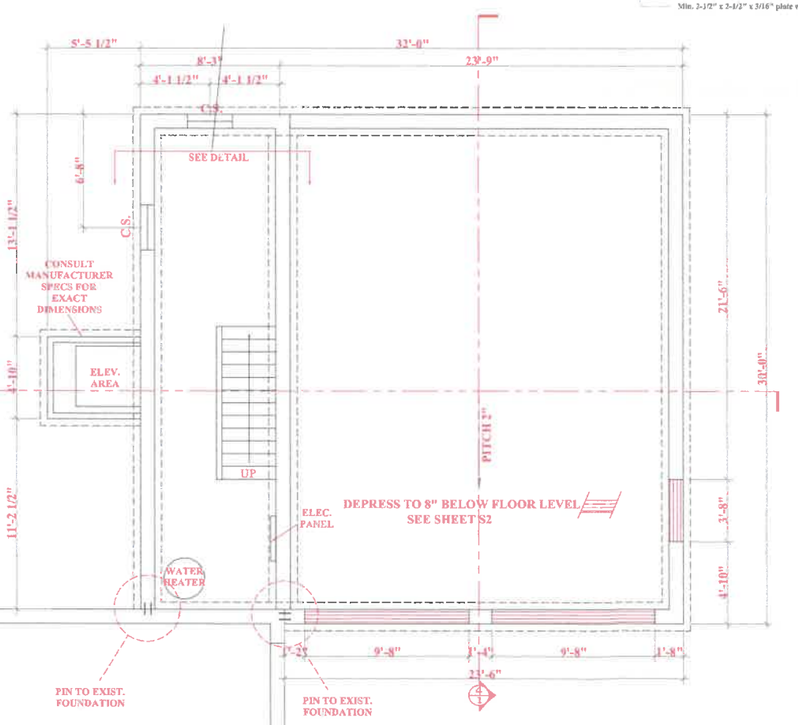
Outside Elevation



Side Elevation

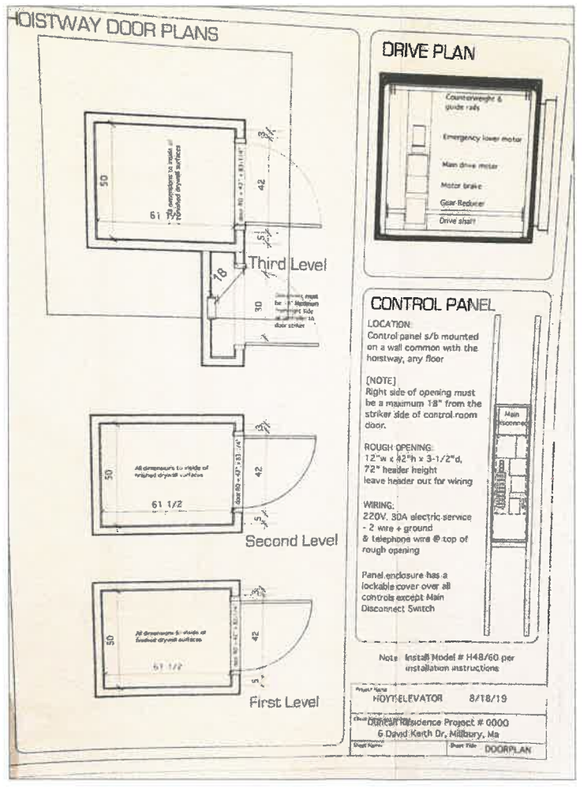


Not to scale



FOUNDATION PLAN

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



NOTES:

FOUNDATION NOTES:

1. HOUSE FOUNDATION- 10"X7'-10" POUR ON 20"X10" CONTINUOUS KEYED FOOTING. FOOTING TO BE PLACED ON UNDISTURBED SOIL OR 95% COMPACTED GRAVEL FREE OF ORGANIC SOIL AND MATERIAL.
2. GARAGE FOUNDATION- 8"X4'-0" MINIMUM POUR ON 16"X8" CONTINUOUS KEYED FOOTING. BOTTOM OF FOOTING TO BE 4'-0" MINIMUM BELOW GRADE. SOIL CONDITION SEE NOTE 1.
3. BASEMENT FLOOR-MINIMUM 4" CONCRETE (3,500 PSI)
4. GARAGE FLOOR- MINIMUM 4" CONCRETE (3,500PSI) WITH WELDED WIRE FABRIC REINFORCEMENT. FLOOR TO PITCH 2" TWARD OVERHEAD GARAGE DOOR'
5. ANCHOR BOLTS 12" FROM CORNERS AND 6'-0" ON CENTER.
6. ONE #4 REBAR WITHIN 12" OF THE TOP OF THE WALL STORY AND ONE #4 BAR NEAR MID-HEIGHT OF THE WALL STORY (TABLE R404.1.2(1) 2009 INTERNATIONAL RESIDENTIALBUILDING CODE)

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6 KEITH DAVID DR
ADDITION
MILLBURY, MA

FOUNDATION & ELEVATOR PLAN

DA 6-20

DATE: 10/5/2020

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

DRAWN BY: RWS

CHECKED BY: RCS

Sheet 2 OF 6

2

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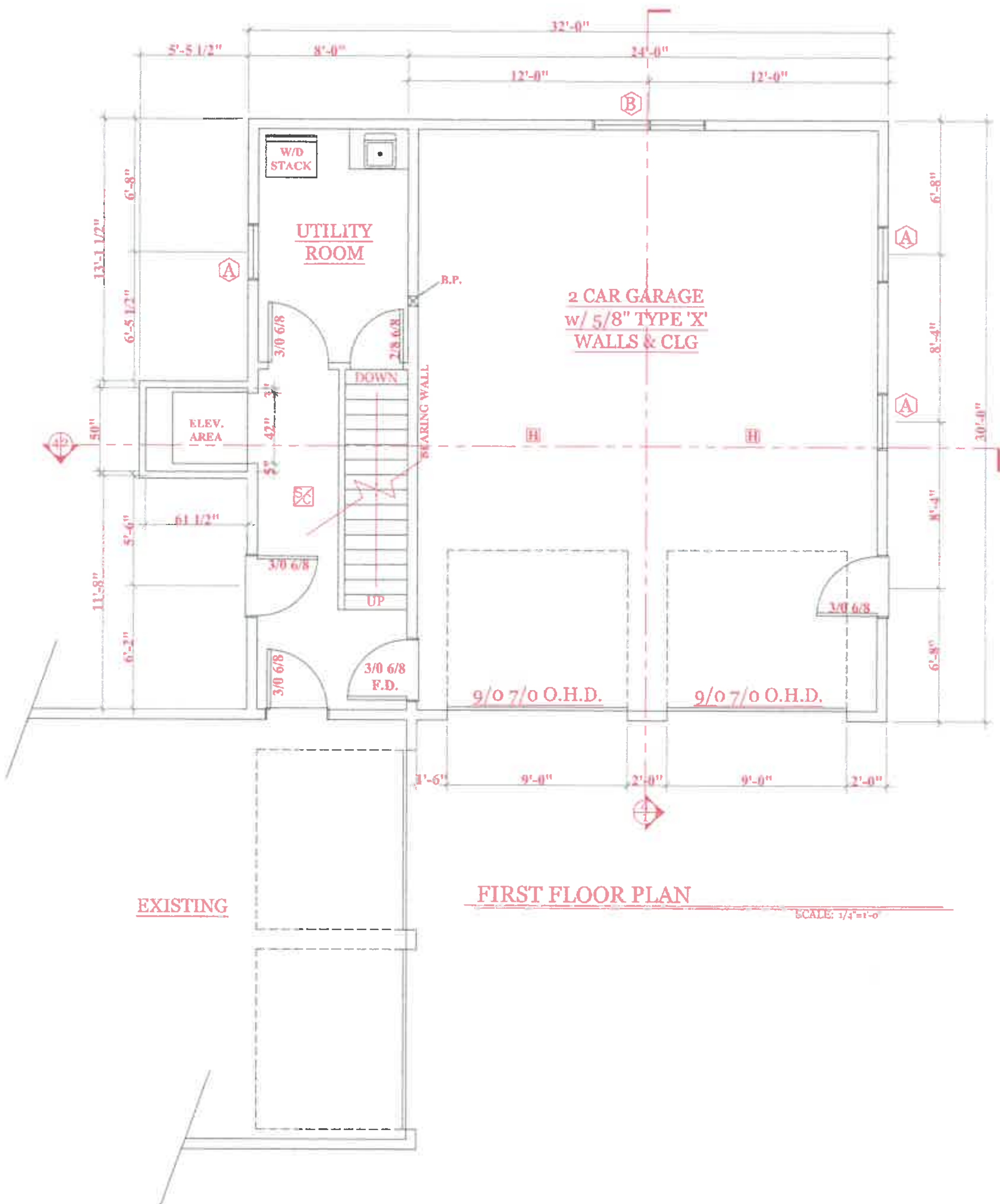
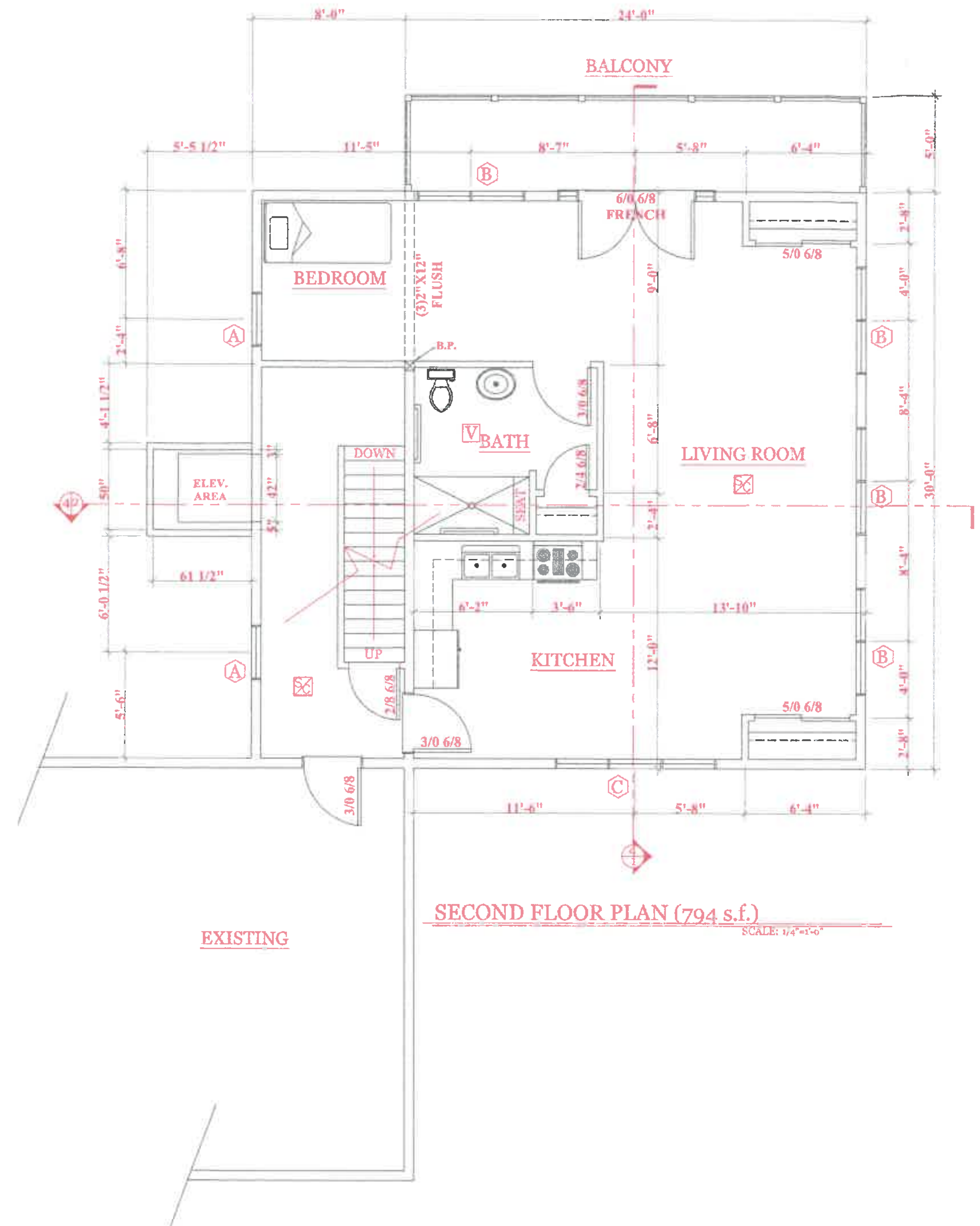


FIRST FLOOR PLAN

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



SECOND FLOOR PLAN (794 s.f.)

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

WINDOW SCHEDULE:

MFG: ANDERSEN

INDEX	QUA	CATALOG	ROUGH OPENING
A	5	244DH2846	2'-8 1/8" X 4'-6 1/8"
B	5	244DH2846(2)	5'-4 9/16" X 4'-6 1/8"
C	1	244DH2446(3)	8'-0 9/16" X 4'-6 1/8"

NOTE: CONSULT TABLE 603.7(1) JACKS AND HEADERS

NOTES:

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6 KEITH DAVID DR
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NEW
FLOOR PLANS

DA 6-20

DATE: 10/5/2020

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

DRAWN BY: RWS

CHECKED BY: RCS

Sheet 3 OF 6

3

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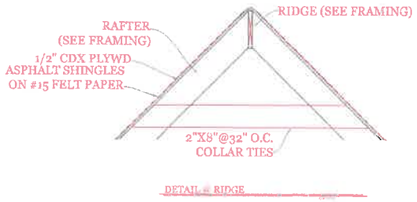
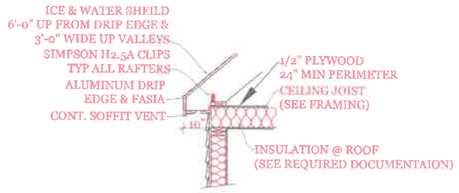
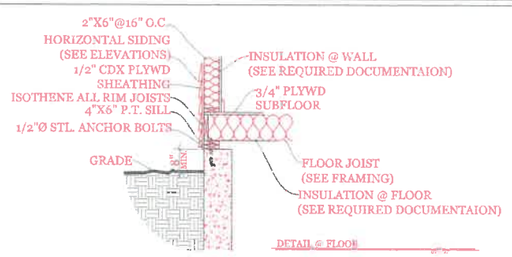
TYPICAL BUILDING SECTION



DETAIL @ RIDGE



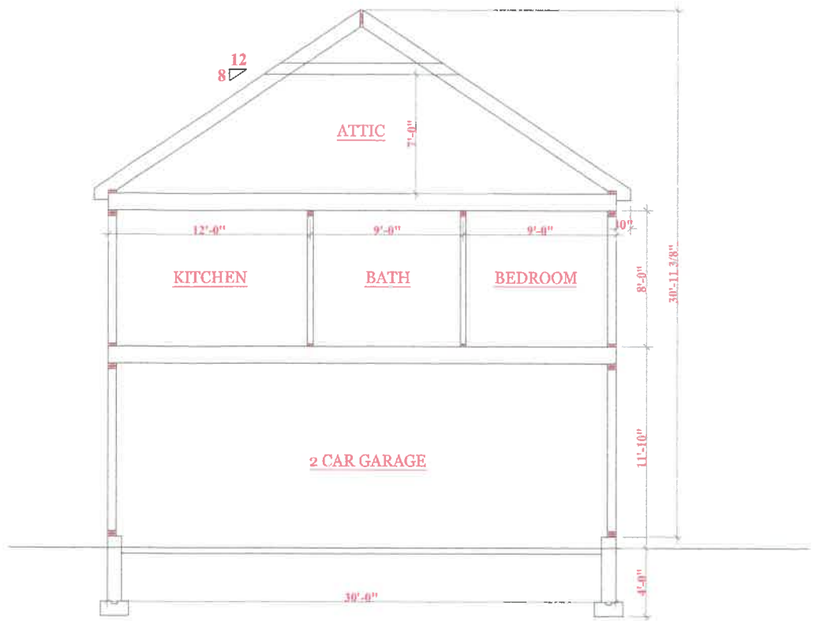
DETAIL @ SOFFIT



DETAIL @ FLOOR

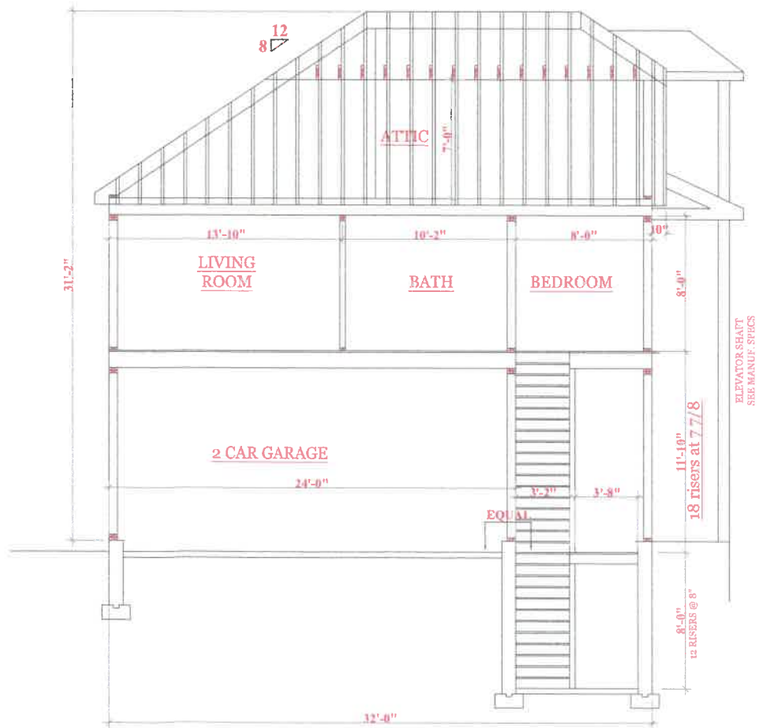
CONSTRUCTION SCHEDULE:		(UNLESS NOTED OTHERWISE ON PLAN)
1	RIDGE BOARD:	N/A
2	ROOF MATERIAL:	ASPHALT SHINGLES ON 15# ROOF FELT
3	ROOF SHEATHING	1/2" SHEATHING W/ SEAM CLIPS
4	ROOF RAFTER:	ROOF TRUSSES @ 24" O.C.
5	COLLAR TIES:	NA.
6	DRIP EDGE	ALUMINUM DRIP EDGE
7	SOFFIT:	CONT. SOFFIT VENT
8	CEILING JOIST	TRUSS BOTTOM CHORD
9	INSULATION@CEIL:	R-38 FILL CAVITY FULL DEPTH ISOTHENE
10	EXT WALL:	2"X6" @ 16" O.C.
11	EXT. SHEATHING	1/2" ZIP SHEATHING
12	EXT. FINISH	SEE ELEVATIONS
13	INSULATION@WALL	R-21
14	INTERIOR WALL	2"X4"@16"O.C.
15	SUB FLOOR:	3/4" ADVANTEK GLUED & NAILED
16	JOIST:	SEE FRAMING PLAN
17	SILL:	4"X6" DBL P.T. SILL
18	INSULATION @ FLOOR	R-30
19	ANCHOR:	1/2"ø STL ANCHOR BOLTS
20	BEAM:	SEE FRAMING PLAN
21	COLUMN:	3 1/2" L.C.
22	FND. WALL:	10"X4'-0" CONC. WALL
23	SLAB:	SEE FOUNDATION NOTES
24	FOOTING:	20"X10" CONT. KEYED FTNG
25	CONC. PAD:	30"X30"X15" CONC. PAD

NOTES: -ISOTHENE ALL RIM JOISTS & SUNROOM CEILING
-ICE & WATER SHEILD 6'-0" UP FROM DRIP EDGE & 3'-0" WIDE UP VALLEYS
-SIMPSON H2.5A CLIPS TYP ALL TRUSSES



CROSS SECTION (4-1)

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



CROSS SECTION (4-2)

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

NOTES:

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6 KEITH DAVID DR
ADDITION
MILLBURY, MA

BULIDING SECTIONS & DETAILS

DA 6-20

DATE: 10/5/19
SCALE: AS NOTED
DRAWN BY: RWS
CHECKED BY: RCS
Sheet 4 OF 6

4

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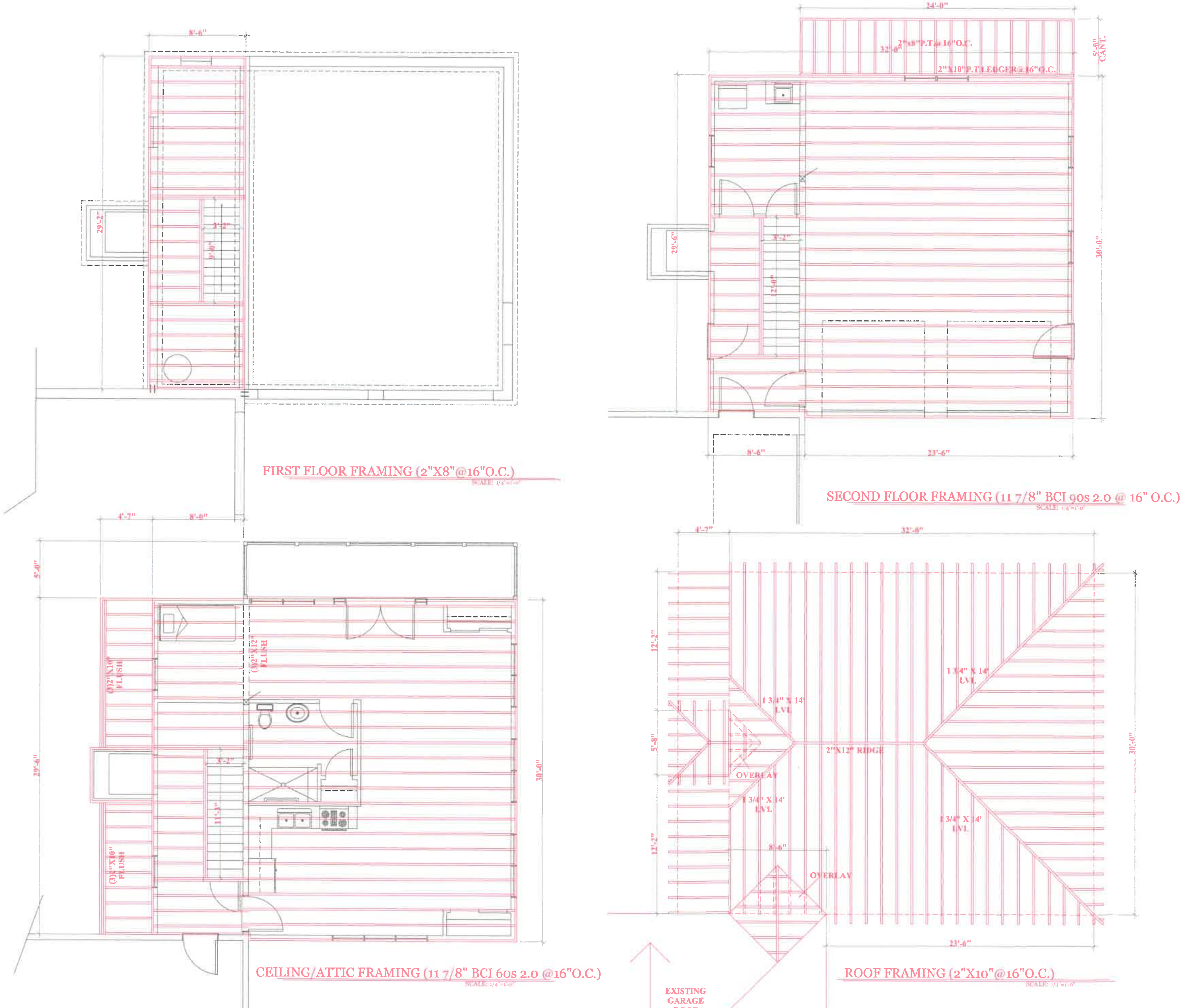

NOTES:

FRAMING NOTES:

1. Bridging between joists at mid-span.
2. Box out all plumbing fixtures with double joists. Consult with plumber on chase prior to framing.
3. 3/4" T&G plywood sub floor to be glued and nailed.
4. Dbl joists under all partition walls.
5. 5/8" firecode Gypsum board on house walls and ceiling in garage area.
6. expandable foam insulation required at all window and door frames and rough openings.

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ADDITION
MILLBURY, MA

FRAMING PLANS

DA 6-20

DATE:	10/6/2020
SCALE:	AS NOTED
DRAWN BY:	RWS
CHECKED BY:	RCS
Sheet	5 OF 6

5

BRACED WALL PANEL CONSTRUCTION METHODS (IRC TABLE R602.10.4)

SHEAR WALL DESIGN LEGEND

LIB △1 NOMINAL ONE BY 4 CONTINOUS BD. LET IN TO TOP & BOTTOM PLATES & INTERVENING STUD NO MORE THAN 60 & LESS THAN 45 DEGREES FROM HORZ.

WSP △3 WOOD STRUCTURAL PANEL 15/32 CDX PLY WD. SHEATHING ON 16" STUD SPACING PANELS INSTALLED VERTICALLY W/ 6d COMMON NAIL 6" O.C. @ EDGES & 12" O.C. INTERMEDIATE SUPPORTS

ABW △4 WOOD STRUCTURAL PANEL 15/32 CDX PLY WD. SHEATHING ON 16" STUD SPACING PANELS INSTALLED VERTICALLY W/ 6d COMMON NAIL 3" O.C. @ EDGES & 6" O.C. INTERMEDIATE SUPPORTS

GB △5 1/2 GYPSUM BOARD ON MAX 24" STUD SPACING PANELS INSTALLED W/ 5d ANNULAR RINGED COOLER NAIL ,1 5/8" LONG 15/64" HEAD GYP NAIL 4" O.C. @ EDGES & 7" O.C. INTERMEDIATE SUPPORTS

NOTE: SEE FLOOR PLANS FOR MORE INFO.

LENGTH REQUIREMENTS FOR BRACED WALL PANELS AT WALL OPENINGS (IRC TABLE R602.10.5)

FOR BRACING NEXT TO OPENINGS REFER TO CHART BELOW

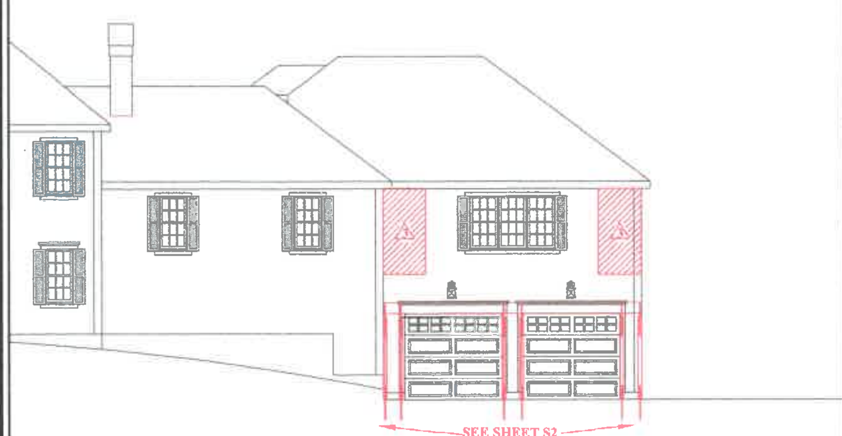
STUD HEIGHT	MAXIMUM OPENING HEIGHT NEXT TO BRACED WALL PANEL	MINIMUM LENGTH OF BRACED WALL PANEL
8'-0"	100% = 96"	48"
	85% = 81.6"	32"
	65% = 62.4"	24"
9'-0"	100% = 108"	54"
	85% = 91.6"	42"
	65% = 70.2"	27"

LENGTH REQUIREMENTS FOR BRACED WALL PANELS (IRC TABLE R602.10.4)

AMOUNT OF BRACING BY WALL LENGTH - MINIMUM 24"

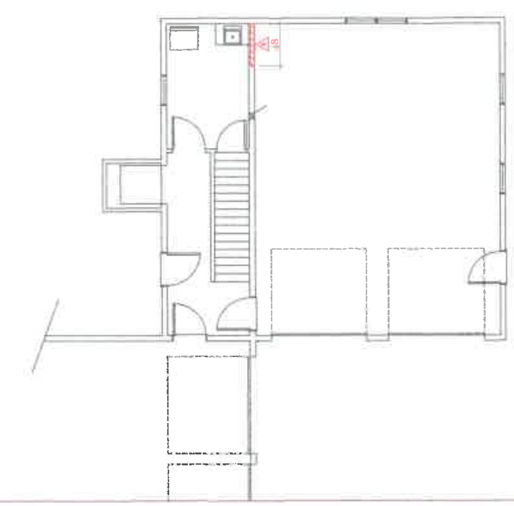
	MAXIMUM WALL LENGTH	MINIMUM AMOUNT OF BRACED WALL
ONE STORY	24'-0"	5'-6"
	20'-0"	4'-0"
TWO STORY	20'-0"	4'-0"

FRONT ELEVATION SCALE: 1/8" = 1'-0"



LEFT SIDE ELEVATION SCALE: 1/8" = 1'-0"

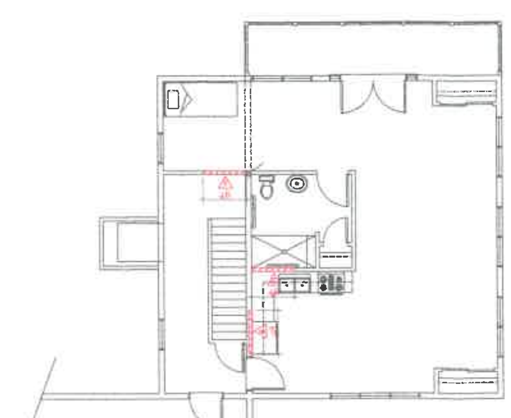
FIRST FLOOR SHEAR WALLS SCALE: 1/8" = 1'-0"



REAR ELEVATION SCALE: 1/8" = 1'-0"

RIGHT SIDE ELEVATION SCALE: 1/8" = 1'-0"

SECOND FLOOR SHEAR WALLS SCALE: 1/8" = 1'-0"



NOTES:

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6 KEITH DAVID DR
MILLBURY, MA

BRACING METHODS

DA 6-20

DATE:	10/6/2020
SCALE:	AS NOTED
DRAWN BY:	RWS
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Sheet	6 OF 6

S1

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Based on Plan Book 699 Plan 9

N/F
Steven M. Wright
Book 18297 Page 323
Lot 33 - Pacel 22/57
Plan Book 699 Plan 9

Iron Rod found

N 62 - 46' 05" E 177.11'

S 35 - 50' - 00" E 116.31'

Zoning District
S-IV / Suburban IV
Frontage - 150'
Front Yard - 25'
Side Yard - 10'
Rear Yard - 10'
Building Height - 30'

Open Space Community

N/F
William P. Demaria
Book 28418 Page 168
Lot D - Pacel 22/54
Plan Book 699 Plan 9

Building Setback Lines

495

500

Limit of Work and Erosion Control Fencing

Edge of existg Lawn and top of slope

Wooded

Drainage Easement

Existing Utilities
Elec box
Tel Box
Cable Box

Iron Rod found
N 2901874.197
E 585152.711

Existing Utility Lines

Tree

Existing Waterline

Existing House #6

Existing Deck above

Existing Wood Shed

Remove Walkway

295'

Proposed Addition 792 SQ FT
Garage FF = 498.8

32'

30'

Existing Waterline

Existing Gasline

Walkway

Garage FF = 498.8

Existing edge of pavement

Existing Driveway to Remain

50 ft

11.3 ft

11.5 ft

492

495

500

505

N 27 - 13' - 55" W

150.00'

Keith David Drive
Public

Existing stone Retaining wall to be removed.

2 - Burning Bushes to be removed

Concrete Bound found
N 2901771.679
E 585204.999

Tree

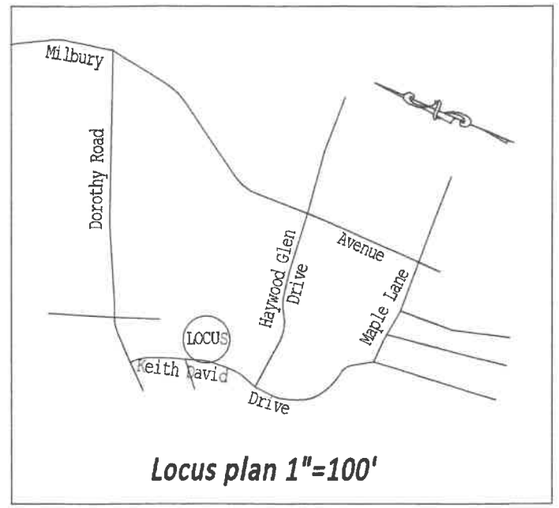
Iron Rod found
N 2901860.070
E 585378.197

Building Setback Lines

N 62 - 46' 05" E 194.51'

N/F
Town of millbury
Book 41249 Page 382
Lot D - Pacel 22/55
Plan Book 699 Plan 9

NOTE:
1. Existing stone wall will be remove
2. Minimal to no grading will be performed around adddition, match to existing grades.
3. All utilities (Cable, Electrical, Gas, Water and Sewer) will be run from inside dwelling.
4. Two red burning bushes will be removed.
5. Plan based on a on the ground survey based on Nad83/NAVD88 datum.
6. Deed Book 18494 Page 12 - Plan Book 699 Plan 9 - Lot No. 34



Locus plan 1"=100'

COMMONWEALTH OF MASSACHUSETTS
BRYAN G. PARMENTER
NO. 48193
REGISTERED PROFESSIONAL LAND SURVEYOR

Site Plan of Land

Showing Proposed New Addition and Existing Conditions

Earl E & Marguerite Duncan
6 Keith David Drive
Millbury, Ma.
01527

Hz Scale: 1 : 20'		Vt Scale: n/a	
Drawn By: MK		Chkd By: BP	
Revision History			
Revision	1	DD/MM/YYYY	Initials
Revision			
Revision			
Revision			

SCALE 1" = 20'

40 0 20 ft

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was **Massachusetts State Plane Mainland Zone (FIPS zone 2001). The horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the **same vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from digital orthophotography. Base map files were provided in digital format by Massachusetts Geographic Information Systems (MassGIS). Ortho imagery was produced at a scale of 1:5,000. Aerial photography is dated April 2005.

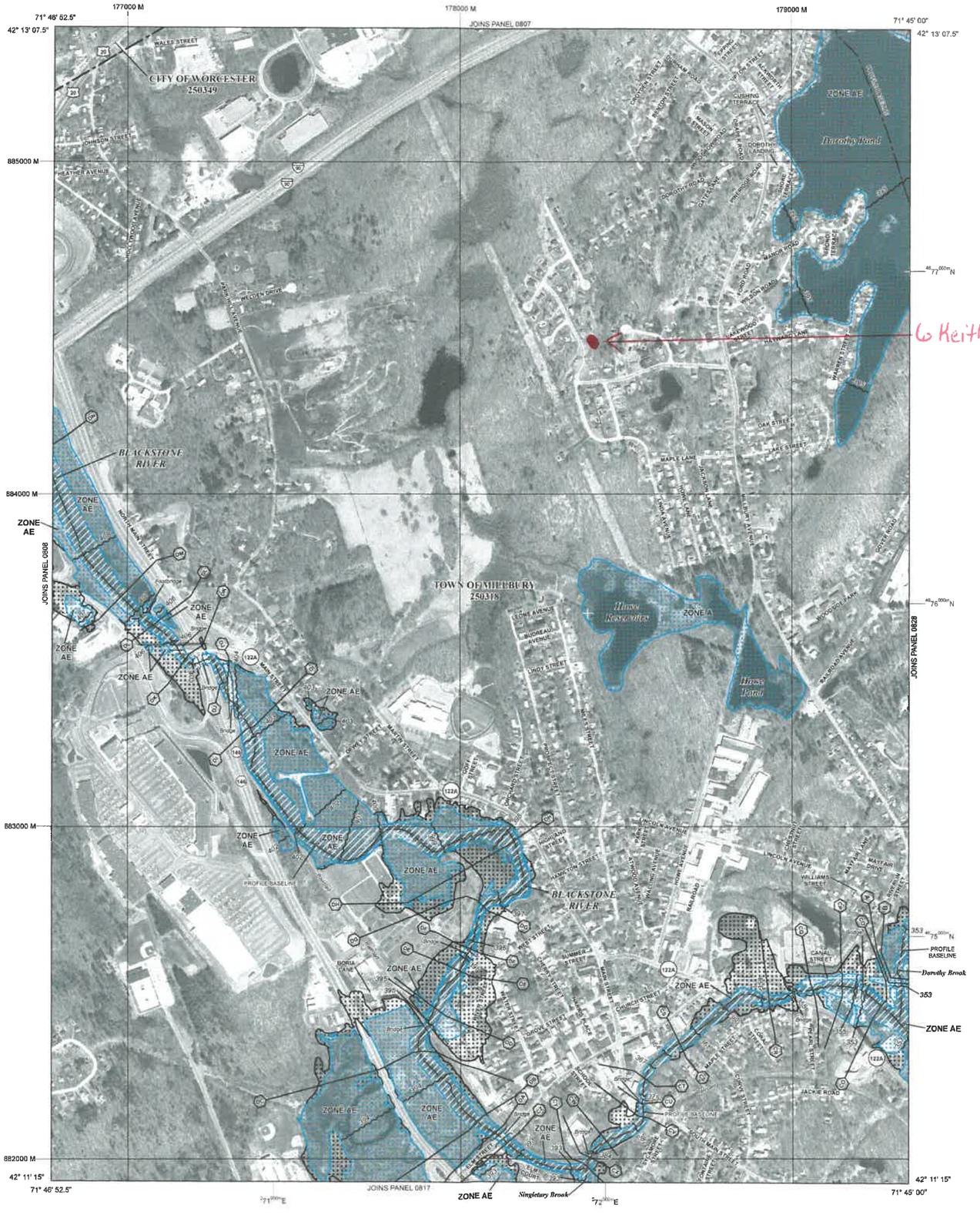
The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- Culvert
- Bridge
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 4089000 M — 1000-meter Universal Transverse Mercator grid values, zone 19N
- 1000-meter Universal Transverse Mercator grid values, zone 19N
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
July 4, 2011

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0809E

FIRM

FLOOD INSURANCE RATE MAP

WORCESTER COUNTY, MASSACHUSETTS (ALL JURISDICTIONS)

PANEL 809 OF 1075
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MILLBURY, TOWN OF	250318	0808	E
WORCESTER, CITY OF	250349	0809	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
25027C0809E
EFFECTIVE DATE
JULY 4, 2011

Federal Emergency Management Agency