

# Opacity Comparisons



OWNER / CLIENT:

## ARCHITECT:

STRUCTURAL ENGINEER

## CONTRACTOR:

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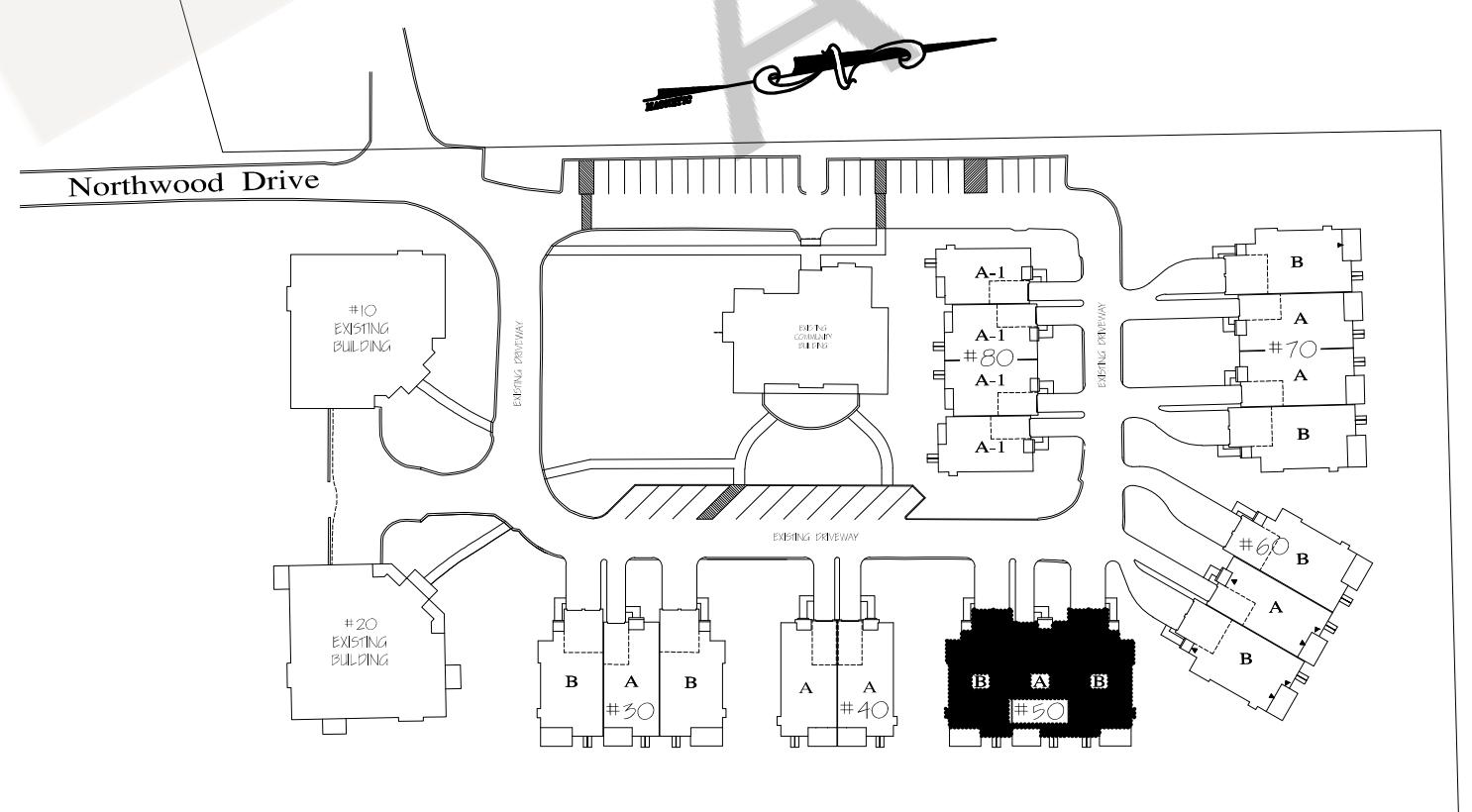
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# SCHEDULE OF DRAWINGS:

- 0.1 TITLE SHEET
  - 0.1 1ST FLOOR PLAN
  - 0.2 2ND FLOOR PLAN
  - 0.1 ELEVATIONS
  - 0.2 ELEVATIONS
  - 0.1 BUILDING SECTIONS
  - 0.2 BUILDING SECTIONS
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  - 0.2 1ST FLOOR FRAMING
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  - 0.4 CEILING FRAMING
  - 0.5 ROOF FRAMING
  - 0.1 DETAILS
  - 0.2 DETAILS

# KEY PLAN



## GENERAL NOTES

### GENERAL:

- I. THE GOVERNING BUILDING CODE FOR THE DESIGN AND CONSTRUCTION IS THE INTERNATIONAL RESIDENTIAL (IRC 2015) WITH MASSACHUSETTS STATE BUILDING CODE AMENDMENTS (9TH EDITION).
2. ARCHITECTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH STRUCTURAL, MECHANICAL, ELECTRICAL, AND SHOP DRAWINGS.
3. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES, AMBIGUITIES, OR INCONSISTENCIES PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL ALSO NOTIFY THE ARCHITECT, PRIOR TO PROCEEDING WITH THE WORK, IF ANY CONSTRUCTION NEEDS TO BE ADJUSTED DUE TO FIELD CONDITIONS.
4. AN ASSUMPTION HAS BEEN MADE THAT THE ELEVATION DIFFERENCE BETWEEN THE GARAGE SLAB AND THE FIRST FLOOR IS 24". THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IF THIS IS INCONSISTENT WITH THE SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
5. ALL FLASHING IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE CORROSION RESISTANT.
6. ALL DUCTWORK AND HOT WATER PIPING SHALL BE INSULATED AND WHERE NECESSARY, A VAPOR BARRIER FOR THE DUCTWORK WILL BE PROVIDED TO PREVENT CONDENSATION.
7. ALL CHIMNEYS TO BE CONSTRUCTED SO THE TOP OF THE FLUE IS 2'-0" ABOVE ANY ROOF/WALL WITHIN 10'-0".
8. PROVIDE CONTINUOUS PITCH BREAK VENTS AT ALL ROOF/WALL INTERSECTIONS WHERE SOFFIT VENTS ARE INSTALLED.

### DIMENSIONS:

- I. DIMENSIONING STANDARDS WITHIN THE DOCUMENTS ARE AS FOLLOWS UNLESS OTHERWISE NOTED:
  - A) DIMENSIONS TO EXTERIOR WALLS ARE FROM OUTSIDE FACE OF A STUD OR CONCRETE WALL.
  - B) DIMENSIONING AT WINDOWS AND EXTERIOR DOORS REPRESENTS A DIMENSION TO THE CENTER OF THAT OPENING FROM THE CENTER OF ANOTHER OPENING OR THE OUTSIDE FACE OF A STUD OR CONCRETE WALL.
  - C) INTERIOR DIMENSIONING AT STUD WALLS REPRESENTS A DIMENSION TO THE MIDDLE OF THE STUD (UNLESS INTERIOR WALL IS ALSO AN EXTERIOR WALL, THAN DIMENSION IS TO FACE OF STUD).
2. INTERIOR DIMENSIONING AT STAIRS REPRESENTS A DIMENSION TO THE FINISHED FACE OF THE STAIR.
3. DIMENSIONS/LOCATIONS OF WALLS ENCLOSING TUB/SHOWER UNITS, PRE-MANUFACTURED FIREPLACES AND ALL OTHER BUILT-INS, MUST BE CONFIRMED WITH THE FIXTURE MANUFACTURER FOR THE REQUIRED R.O. AND ATTACHMENT.
4. DIMENSIONS DEPICTING THE BUILDING HEIGHT, SHOWN OF THE ARCHITECTURAL AND STRUCTURAL DRAWINGS ARE FOR THE BUILDING AND BUILDING COMPONENTS ONLY. THE OVERALL BUILDING HEIGHT DEPICTED, IS FROM THE 1ST FLOOR DECK. THE OWNER/G.C. IS RESPONSIBLE FOR COORDINATING AND ESTABLISHING THE GRADE RELATIVE TO THE 1ST FLOOR, TO ENSURE COMPLIANCE WITH ZONING AND BUILDING CODE HEIGHT REQUIREMENTS.
5. ALL DIMENSIONS FROM EXISTING SURFACES ARE FROM FACE OF EXISTING SURFACE.
6. CLOSET DOORS THAT ARE NOT DIMENSIONED ARE TYPICALLY CENTERED WITHIN THE CLOSET.
7. ALL OTHER DOORS THAT ARE NOT DIMENSIONED ARE TYPICALLY 4" TO 6" (DEPENDING ON THE FINISH CASING WIDTH) FROM FACE FINISH TO THE DOOR OPENING ON THE BUTT SIDE.
8. DIMENSIONS LOCATING CASED OPENINGS ARE TYPICALLY DIMENSIONED TO THE CENTER OF THAT OPENING. TYP., UNLESS OTHERWISE NOTED.

### STAIRWAYS/BALCONIES:

- I. STAIRWAYS SHALL NOT BE LESS THAN 3'-0" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. MAXIMUM RISER HEIGHT SHALL BE 8 1/4", MINIMUM TREAD DEPTH SHALL BE 9" WITH NOSING NOT TO EXCEED 1 1/4". WINDER TREADS SHALL HAVE A MIN. DEPTH EQUAL TO THE STRAIGHT RUN TREAD DEPTH AT A DISTANCE OF 12" FROM THE NARROWER SIDE WITH A MIN. TREAD DEPTH OF 3" AT ANY POINT. MINIMUM HEADROOM SHALL BE 6'-6" MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF A LANDING OR PLATFORM.
2. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT OF STAIRS WITH 4 OR MORE RISERS. MINIMUM HEIGHT SHALL NOT BE LESS THAN 34" WITH A MAXIMUM NOT TO EXCEED 38". HANDRAILS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT.
3. GUARDRAILS, 36" MINIMUM IN HEIGHT, SHALL BE INSTALLED IN FLOOR, PORCH, AND/OR BALCONY AREA MORE THAN THIRTY (30) INCHES ABOVE A FLOOR OR GRADE BELOW. GUARDRAILS ON OPEN SIDES OF STAIRS, WITH A TOTAL RISE OF MORE THAN THIRTY (30) INCHES ABOVE A FLOOR OR GRADE BELOW, SHALL BE NOT LESS THAN 34" IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. THE MAXIMUM CLEAR OPENING BETWEEN RAILS, BALUSTERS, AND FLOORS SHALL NOT EXCEED FOUR (4) INCHES.

**EXCEPTION:**

THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARD AT THE OPEN SIDE OF A STAIRWAY MAY BE OF SUCH A SIZE THAT A SIX INCH (6) SPHERE CANNOT PASS THROUGH. OPENINGS FOR REQUIRED GUARDS ON THE SIDES OF STAIR TREADS SHALL NOT ALLOW A SPHERE 4-3/8 INCHES TO PASS THOUGH

4. AN INSULATED DOOR SHALL BE PROVIDED AT THE TOP OF UNFINISHED BASEMENT STAIRS OR INSULATE THE WALLS AND THE UNDERSIDE OF STAIRS AND PROVIDE AN INSULATED DOOR AT THE BOTTOM OF BASEMENT STAIRS.
5. AN INSULATED DOOR SHALL BE PROVIDED AT THE TOP OF ATTIC STAIRS OR INSULATE THE WALLS AND UNDERSIDE OF STAIRS AND PROVIDE AN INSULATED DOOR AT THE BOTTOM OF ATTIC STAIRS.

**EMERGENCY ESCAPE AND RESCUE OPENINGS / EXTERIOR WINDOWS AND DOORS:**

- I. WINDOW SIZES SHOWN ON THE DRAWINGS ARE BASED GENERICALLY ON ANDERSEN AND THE OWNER OR (GENERAL CONTRACTOR WHERE APPLICABLE) SHALL CHOOSE THE FINAL MANUFACTURER. WINDOW SIZES SHALL BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO ORDERING. ROUGH OPENING SIZES SHALL BE PROVIDED BY THE MANUFACTURER.
2. BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING. WHERE BASEMENTS CONTAIN MORE THAN ONE SLEEPING ROOM, EACH SHALL HAVE AN EMERGENCY ESCAPE AND RESCUE OPENING BUT ADJOINING AREAS SHALL NOT REQUIRE ONE. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL MEET THE FOLLOWING CRITERIA:
  - A) SILL HEIGHT SHALL NOT BE MORE THAN 44 INCHES ABOVE THE FLOOR.
  - B) WHERE A DOOR HAVING A THRESHOLD BELOW THE ADJACENT GROUND ELEVATION IS USED AS AN EMERGENCY ESCAPE AND RESCUE OPENING AND IS PROVIDED WITH A BULKHEAD ENCLOSURE, THE BULKHEAD SHALL PROVIDE DIRECT ACCESS TO THE BASEMENT AND WHEN THE BULKHEAD IS FULLY OPENED IT SHALL PROVIDE THE MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET.
  - C) EMERGENCY ESCAPE AND RESCUE OPENINGS WITH A SILL ELEVATION BELOW THE ADJACENT GROUND ELEVATION SHALL BE PROVIDED WITH A WINDOW WELL WITH A MINIMUM HORIZONTAL AREA OF 9 SQUARE FEET AND A MINIMUM HORIZONTAL PROJECTION OF 36". THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND EGGS OPENING TO BE FULLY OPENED.
  - D) ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET.

**EXCEPTIONS:**

1. GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.0 SQUARE FEET
2. DOUBLE HUNG WINDOWS USED FOR EMERGENCY ESCAPE SHALL BE PERMITTED TO HAVE A NET CLEAR OPENING OF 3.3 SQUARE FEET PROVIDED THAT AT LEAST ONE OPERABLE SASH MEETS THE MINIMUM HEIGHT AND WIDTH REQUIREMENTS AND OPERATIONAL CONSTRAINTS.
  - E) THE MINIMUM NET CLEAR OPENING SHALL BE 24 INCHES X 20 INCHES IN EITHER DIRECTION.
  - F) EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE WITHOUT THE USE OF KEYS OR TOOLS
- 3) IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR.

**EXCEPTIONS:**

- A) WINDOWS WHOSE OPENINGS WILL NOT ALLOW A 4 INCH DIAMETER SPHERE TO PASS THROUGH THE OPENING WHEN THE OPENING IS IN ITS LARGEST OPENED POSITION.
- B) OPENINGS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH SECTION R612.3
- C) OPENINGS THAT ARE PROVIDED WITH FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2090
- D) WINDOWS THAT ARE PROVIDED WITH OPENING LIMITING DEVICES THAT COMPLY WITH SECTION R612.4.

### EGRESS:

- I. STAIRWAYS, RAMPs, EXTERIOR EXIT BALCONIES, HALLWAYS AND DOORS SHALL MEET ALL MINIMUM EGRESS REQUIREMENTS.
2. ALL REQUIRED EXITS SHALL BE POSITIVELY ANCHORED TO THE PRIMARY STRUCTURE TO RESIST BOTH VERTICAL AND LATERAL FORCES.
3. ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD.
4. HALLWAYS SHALL BE A MINIMUM OF 3 FEET CLEAR.
5. EGRESS FROM DWELLING UNITS SHALL BE BY MEANS OF TWO EXIT DOORS. THE MINIMUM NOMINAL WIDTH OF AT LEAST ONE OF THE REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 36" WITH A NOMINAL HEIGHT SHALL OF SIX FEET EIGHT INCHES AND SIDE HINGED. ALL OTHER REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 32" IN NOMINAL WIDTH OR SIX FEET EIGHT INCHES IN NOMINAL HEIGHT AND MAY BE SLIDING OR SIDE-HINGED.
6. EGRESS THOUGH AN ATTACHED GARAGE IS PERMITTED PROVIDED THAT THE ATTACHED GARAGE IS ALSO PROVIDED WITH A 32" EXIT DOOR.
7. ALL OTHER EXTERIOR DOORS IN EXCESS OF THE TWO REQUIRED EXIT DOORS ARE NOT REQUIRED TO COMPLY WITH THESE MINIMUM DIMENSIONS.
8. ALL INTERIOR DOORS PROVIDING ACCESS TO HABITABLE ROOMS SHALL HAVE A NOMINAL WIDTH OF 30 INCHES AND NOMINAL HEIGHT OF SIX FEET 6 INCHES EXCEPT BATHROOMS WHICH ARE PERMITTED TO BE 24 INCHES IN NOMINAL WIDTH.
9. A FLOOR OR LANDING SHALL BE PROVIDED ON EACH SIDE OF AN EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED AND HAVE A MINIMUM DIMENSION OF 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL.

### MINIMUM ROOM REQUIREMENTS:

- I. HABITABLE ROOMS, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOMS, LAUNDRY ROOMS AND BASEMENTS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN SEVEN (7) FEET MEASURED FROM THE FINISH FLOOR TO THE LOWEST PROJECTION FROM THE CEILING

**EXCEPTIONS:**

- I. BEAMS AND GIRDERS SPACED NOT LESS THAN FOUR (4) FEET ON CENTER MAY PROJECT NOT MORE THAN SIX (6) INCHES BELOW THE REQUIRED CEILING HEIGHT.
2. CEILINGS IN BASEMENTS WITHOUT HABITABLE SPACE MAY PROJECT TO WITHIN SIX FEET EIGHT INCHES OF THE FINISHED FLOOR EXCEPT THAT BEAMS, GIRDERS, DUCTS AND OTHER OBSTRUCTIONS MAY PROJECT TO WITHIN SIX FEET FOUR INCHES OF THE FINISHED FLOOR.
3. NOT MORE THAN 50% OF THE REQUIRED FLOOR AREA OF A ROOM IS PERMITTED TO HAVE A SLOPED CEILING LESS THAN SEVEN FEET IN HEIGHT WITH NO PORTION OF THE REQUIRED FLOOR AREA LESS THAN FIVE FEET IN HEIGHT.
4. BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF SIX FEET EIGHT INCHES OVER THE FIXTURE AND AT THE FRONT CLEARANCE AREA FOR THE FIXTURES. A SHOWER OR TUB WITH A SHOWERHEAD SHALL HAVE A MINIMUM CEILING HEIGHT OF SIX FEET EIGHT INCHES ABOVE A MINIMUM 30"X30" AREA AT THE SHOWERHEAD.
2. EVERY DWELLING SHALL HAVE AT LEAST ONE HABITABLE ROOM WITH A GROSS FLOOR AREA OF AT LEAST 150 SQUARE FEET
3. OTHER HABITABLE ROOMS SHALL HAVE A FLOOR AREA OF NOT LESS THAN 70 SQUARE FEET EXCEPT KITCHENS
4. HABITABLE ROOMS SHALL NOT BE LESS THAN SEVEN FEET IN ANY HORIZONTAL EXCEPT KITCHENS
5. PORTIONS OF A ROOM WITH A SLOPING CEILING MEASURING LESS THAN FIVE (5) FEET OR A FURRED CEILING MEASURING LESS THAN SEVEN (7) SHALL NOT BE CONSIDERED AS CONTRIBUTING TO THE MINIMUM REQUIRED HABITABLE AREA FOR THAT ROOM.

### ROOFING AND SIDING:

- I. PROVIDE CONTINUOUS 6'-0" WIDE FIBERGLASS REINFORCED, BITUTHENE, ICE AND WATER SHIELD AT ALL ROOF EDGES, CENTERED ON ALL VALLEYS AND AT ROOF/WALL INTERSECTIONS CARRIED 1'-0" UP THE WALL (REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS).
2. PROVIDE ALUMINUM STEP FLASHING AT ROOF/WALL AND ROOF/CHIMNEY INTERSECTIONS.
3. PROVIDE ALUMINUM FLASHING OVER ALL WINDOW AND DOORS HEAD TRIM AND AT THE CONNECTION BETWEEN ALL EXTERIOR WALLS AND EXTERIOR DECKS.
4. PROVIDE CONTINUOUS SOFFIT VENTS OR CONTINUOUS VENTED DRIP EDGE AT ALL SOFFIT OVERHANGS.
5. PROVIDE 15# FELT UNDER ALL ROOF SHINGLES (UNLESS SPECIFIED OTHERWISE).
6. PROVIDE CONTINUOUS RIDGE VENTS (UNLESS SPECIFIED AS OTHERWISE), SEE BUILDING ELEVATION FOR EXTENT.
7. ALL GUTTERS AND DOWNSPOUTS TO BE PREFINISHED ALUM. COLOR TO BE SELECTED BY OWNER.

### LIGHT/VENTILATION AND INSULATION:

- I. ALL HABITABLE ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING OF NOT LESS THAN 8% OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE THROUGH DOORS, WINDOWS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4% OF THE FLOOR AREA BEING VENTILATED.

**EXCEPTIONS:**

1. THE GLAZED AREAS NEED NOT BE OPENABLE WHEN THE OPENING IS NOT A REQUIRED TO BE AN EMERGENCY ESCAPE AND RESCUE OPENING AND AN APPROVED MECHANICAL VENTILATION SYSTEM IS PROVIDED CAPABLE OF PRODUCING 0.35 AIR EXCHANGE PER HOUR IN THE ROOM OR A WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM IS INSTALLED CAPABLE OF SUPPLYING OUTDOOR VENTILATION AIR OF 15 CFM PER OCCUPANT WITH 2 FOR THE FIRST BEDROOM AND ONE FOR EVERY ADDITIONAL BEDROOM.
2. THE GLAZED AREAS NEED NOT BE PROVIDED IN ROOMS WHERE THE ABOVE EXCEPTION IS MET AND ARTIFICIAL LIGHT IS PROVIDED CAPABLE OF PRODUCING AN AVERAGE ILLUMINATION OF SIX FOOTCANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES

2. ALL BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA OF NOT LESS THAN THREE SQUARE FEET, 1/2 OF WHICH MUST BE OPENABLE

#### **EXCEPTION:**

THE GLAZED AREA SHALL NOT BE REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION SYSTEM ARE PROVIDED. VENTILATION AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTSIDE.

3. ATTIC VENTILATION WITH A CEILING VAPOR BARRIER: PROVIDE AT LEAST ONE (1) SQUARE FOOT OF FREE AREA FOR EACH THREE HUNDRED (300) SQUARE FEET OF CEILING AREA.
4. ATTIC VENTILATION WITHOUT A CEILING VAPOR BARRIER: PROVIDE AT LEAST ONE (1) SQUARE FOOT OF FREE AREA FOR EACH ONE HUNDRED-FIFTY (150) SQUARE FEET OF CEILING AREA.
5. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A MOISTURE BARRIER AND PROPERLY INSULATE ALL WALLS AND CEILINGS TO AIR LEAKAGE INTO UNCONDITIONED SPACES.
6. IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, EVES, OVERHANGS AND OTHER SIMILAR UNCONDITIONED, UNINSULATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC., TO AVOID MOISTURE, CONDENSATION, FREEZE THAW, ICE DAMMING, AND OTHER SIMILAR ISSUES.

### PLUMBING:

- I. ALL SANITARY LINES WITHIN WALLS AND FLOORS ADJOINING LIVING SPACES ARE TO BE SOUND INSULATED.
2. ALL PLUMBING WITHIN WALL OR FLOOR CAVITIES WHICH BORDER UNCONDITIONED SPACES, ARE TO BE INSULATED AND ON THE WARM SIDE OF THE CAVITY INSULATION TO AVOID FREEZING.

### SMOKE & CARBON MONOXIDE DETECTORS/ALARMS:

- I. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS ARE ACCEPTABLE PROVIDED SAID ALARMS HAVE SIMULATED VOICE AND TONE ALARMS THAT CLEARLY DISTINGUISH BETWEEN THE TWO TYPES OF EMERGENCIES. IF COMBINATION ALARMS ARE TO BE USED THAN ALL REQUIRED CRITERIA FOR SMOKE AND CARBON MONOXIDE DETECTORS NEED TO BE MET.
2. FIRE DEPARTMENTS ARE REQUIRED TO INSPECT, UPON SALE OR TRANSFER, ALL DWELLING UNITS FOR REQUIRED SMOKE AND CARBON MONOXIDE DETECTORS.
3. CONSUMERS SHALL CHECK WITH LOCAL BUILDING AND/OR FIRE OFFICIALS FOR ACCEPTED ALARM TYPES AND LOCATIONS FOR PROPER INSTALLATION IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS

### SMOKE ALARMS/DETECTORS:

- I. ALL ONE AND TWO FAMILY DWELLINGS SHALL BE EQUIPPED WITH A HOUSEHOLD FIRE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURERS INSTRUCTIONS AND LISTING CRITERIA.
2. SMOKE DETECTORS ARE REQUIRED TO BE PERMANENTLY WIRED TO AN AC PRIMARY POWER SOURCE AND SHALL HAVE SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES.
3. WHERE MORE THAN ONE SMOKE DETECTOR IS REQUIRED, ALL REQUIRED DETECTORS SHALL BE INSTALLED SO THAT THE ACTIVATION OF ANY DETECTOR SHALL CAUSE THE ALARM IN ALL REQUIRED SMOKE DETECTORS IN THE DWELLING UNIT TO SOUND (MIN. 85 DBA AT 10 FEET, 75 DBA IN BEDROOMS)
4. SMOKE DETECTORS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS
  - A) IN THE IMMEDIATE VICINITY OF BEDROOMS
  - B) IN ALL BEDROOMS
  - C) IN EACH STORY OF A UNIT (INCLUDING BASEMENTS & CELLARS) FOR EACH 1,000 SQFT OR PART THEREOF.
  - D) NEAR THE BASE OF ALL STAIRS WHERE SUCH STAIRS LEAD TO ANOTHER OCCUPIED FLOOR
5. PHOTO ELECTRIC SMOKE DETECTORS ARE REQUIRED IF LOCATED WITHIN 20 FEET OF A KITCHEN OR BATHROOM
6. WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED TO AN EXISTING DWELLING, THE ENTIRE BUILDING SHALL BE PROVIDED WITH SMOKE DETECTORS DESIGNED AND LOCATED AS REQUIRED FOR NEW DWELLINGS.

### CARBON MONOXIDE ALARMS/DETECTORS:

- I. ALL ONE AND TWO FAMILY DWELLINGS SHALL BE EQUIPPED WITH A HOUSEHOLD CARBON MONOXIDE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURERS INSTRUCTIONS AND LISTING CRITERIA.
2. CARBON MONOXIDE DETECTORS SHALL BE LOCATED ON EVERY LEVEL OF THE DWELLING UNIT INCLUDING BASEMENTS AND CELLARS (BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS).
3. ALL ALARM-SOUNDING APPLIANCES SHALL HAVE A MINIMUM RATING OF 85 DBA AT 10 FEET

### HEAT DETECTORS:

- I. HEAT DETECTORS SHALL BE INSTALLED IN ANY INTEGRAL OR ATTACHED GARAGE TO THE MAIN HOUSE.
2. A NEW ADDITION ATTACHED GARAGE TO AN EXISTING DWELLING INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CRITERIA. IF THE EXISTING DWELLING CONTAINS A FIRE DETECTION SYSTEM THAT IS COMPATIBLE WITH THE GARAGE HEAT DETECTOR, THAT THE GARAGE HEAT DETECTOR SHALL BE INTERCONNECTED TO THE EXISTING DWELLING FIRE DETECTION SYSTEM. IF THE DETECTOR IS NOT COMPATIBLE THEN THE DETECTOR SHALL BE CONNECTED TO A SOUNDER OR A COMPATIBLE HEAT DETECTOR CONTAINING A SOUNDING DEVICE, LOCATED IN THE DWELLING UNIT AND WITHIN 20 FEET OF THE NEAREST DOOR THO THE GARAGE.
3. FOR FLAT-FINISHED GARAGE CEILINGS, THE DETECTOR SHALL BE LOCATED ON OR NEAR THE CENTER OF THE GARAGE CEILING. FOR VAULTED/SLOPED CEILINGS, THE DETECTOR SHALL BE PLACED IN THE APPROXIMATE CENTER OF THE VAULTED SPACE.
4. THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO ALL SMOKE DETECTORS OF THE REQUIRED HOUSEHOLD FIRE ALARM SYSTEM, SUCH THAT THE ACTIVATION OF THE HEAT DETECTOR WILL ACTIVATE ALL OF THE AUDIBLE ALARMS OF THE HOUSEHOLD FIRE ALARM SYSTEM THROUGHOUT THE DWELLING.

### SPRINKLERS:

THE 3-UNIT TOWNHOUSE HAS AN AGGREGATE AREA OF +/-1,767 SF AND SHALL BE DESIGNED WITH A MINIMUM NFPA 13 SYSTEM.

## TITLE SHEET

**CONSTRUCTION BY:  
FIRST COLONY DEV. LLC**

**#50 NORTHWOOD DRIVE, NORTHWOOD TOWNHOUSE CONDOS, SUDBURY, MA**

SHEET:

JOB NO. 20180101



OWNER / CLIENT:

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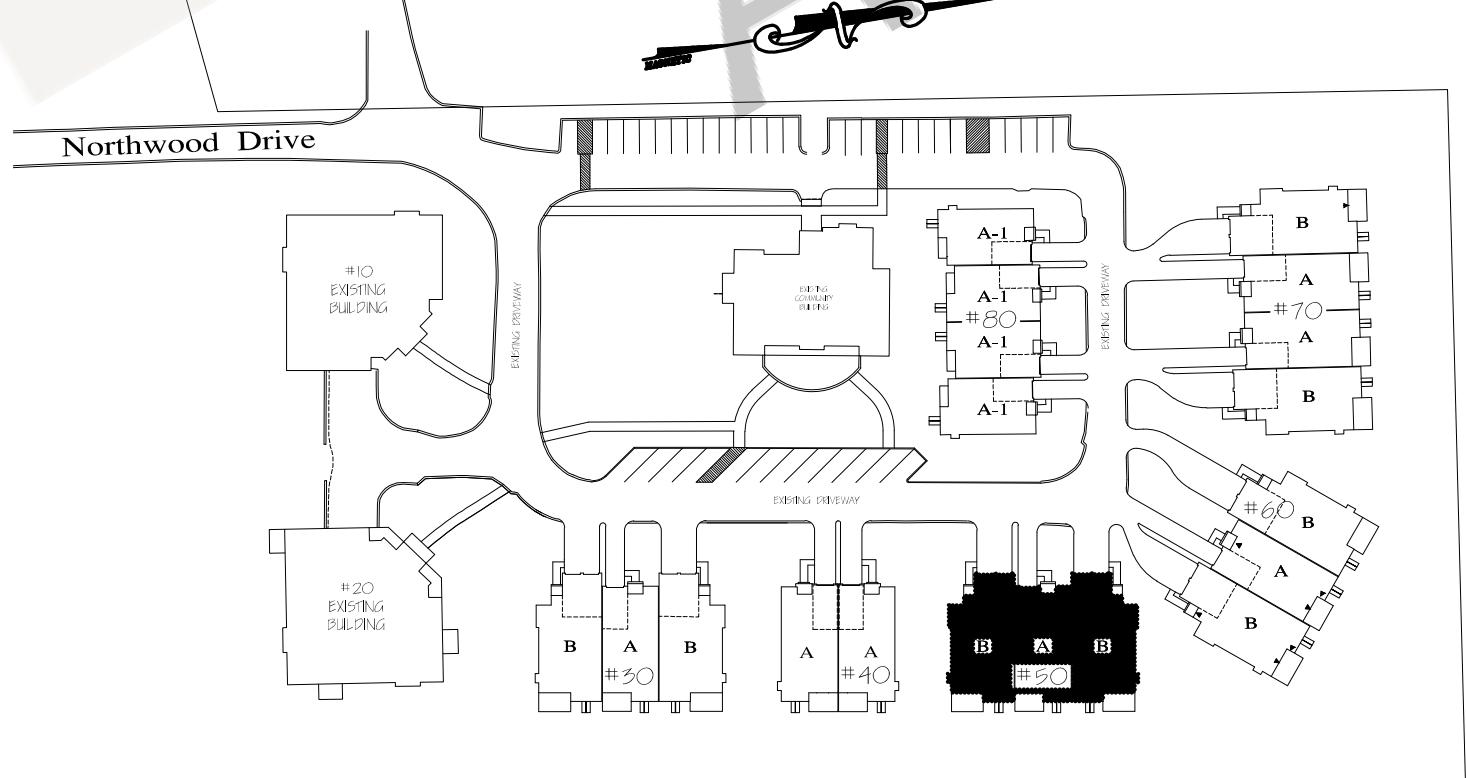
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5. ALL FLASHING IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE CORROSION RESISTANT.
6. ALL DUCTWORK AND HOT WATER PIPING SHALL BE INSULATED AND WHERE NECESSARY, A VAPOR BARRIER FOR THE DUCTWORK WILL BE PROVIDED TO PREVENT CONDENSATION.
7. ALL CHIMNEYS TO BE CONSTRUCTED SO THE TOP OF THE FLUE IS 2'-0" ABOVE ANY ROOF/WALL WITHIN 10'-0".
8. PROVIDE CONTINUOUS PITCH BREAK VENTS AT ALL ROOF/WALL INTERSECTIONS WHERE SOFFIT VENTS ARE INSTALLED.

### DIMENSIONS:

- I. DIMENSIONING STANDARDS WITHIN THE DOCUMENTS ARE AS FOLLOWS UNLESS OTHERWISE NOTED:
  - A) DIMENSIONS TO EXTERIOR WALLS ARE FROM OUTSIDE FACE OF A STUD OR CONCRETE WALL.
  - B) DIMENSIONING AT WINDOWS AND EXTERIOR DOORS REPRESENTS A DIMENSION TO THE CENTER OF THAT OPENING FROM THE CENTER OF ANOTHER OPENING OR THE OUTSIDE FACE OF A STUD OR CONCRETE WALL.
  - C) INTERIOR DIMENSIONING AT STUD WALLS REPRESENTS A DIMENSION TO THE MIDDLE OF THE STUD (UNLESS INTERIOR WALL IS ALSO AN EXTERIOR WALL, THEN DIMENSION IS TO FACE OF STUD).
2. INTERIOR DIMENSIONING AT STAIRS REPRESENTS A DIMENSION TO THE FINISHED FACE OF THE STAIR.
3. DIMENSIONS/LOCATIONS OF WALLS ENCLOSING TUB/SHOWER UNITS, PRE-MANUFACTURED FIREPLACES AND ALL OTHER BUILT-INS, MUST BE CONFIRMED WITH THE FIXTURE MANUFACTURER FOR THE REQUIRED R.O. AND ATTACHMENT.
4. DIMENSIONS DEPICTING THE BUILDING HEIGHT, SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS ARE FOR THE BUILDING AND BUILDING COMPONENTS ONLY. THE OVERALL BUILDING HEIGHT DEPICTED, IS FROM THE 1ST FLOOR DECK. THE OWNER/G.C. IS RESPONSIBLE FOR COORDINATING AND ESTABLISHING THE GRADE RELATIVE TO THE 1ST FLOOR, TO ENSURE COMPLIANCE WITH ZONING AND BUILDING CODE HEIGHT REQUIREMENTS.
5. ALL DIMENSIONS FROM EXISTING SURFACES ARE FROM FACE OF EXISTING SURFACE.
6. CLOSET DOORS THAT ARE NOT DIMENSIONED ARE TYPICALLY CENTERED WITHIN THE CLOSET.
7. ALL OTHER DOORS THAT ARE NOT DIMENSIONED ARE TYPICALLY 4" TO 6" (DEPENDING ON THE FINISH CASING WIDTH) FROM FACE FINISH TO THE DOOR OPENING ON THE BUTT SIDE.
8. DIMENSIONS LOCATING CASED OPENINGS ARE TYPICALLY DIMENSIONED TO THE CENTER OF THAT OPENING. TYP., UNLESS OTHERWISE NOTED.

### STAIRWAYS/BALCONIES:

- I. STAIRWAYS SHALL NOT BE LESS THAN 3'-0" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. MAXIMUM RISER HEIGHT SHALL BE 8 1/4", MINIMUM TREAD DEPTH SHALL BE 9" WITH NOSE NOT TO EXCEED 1 1/4". WINDER TREADS SHALL HAVE A MIN. DEPTH EQUAL TO THE STRAIGHT RUN TREAD DEPTH AT A DISTANCE OF 12" FROM THE NARROWER SIDE WITH A MIN. TREAD DEPTH OF 3" AT ANY POINT. MINIMUM HEADROOM SHALL BE 6'-6" MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSE OR FROM THE FLOOR SURFACE OF A LANDING OR PLATFORM.
2. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT OF STAIRS WITH 4 OR MORE RISERS. MINIMUM HEIGHT SHALL NOT BE LESS THAN 34" WITH A MAXIMUM NOT TO EXCEED 38". HANDRAILS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT.
3. GUARDRAILS, 36" MINIMUM IN HEIGHT, SHALL BE INSTALLED IN FLOOR, PORCH, AND/OR BALCONY AREA MORE THAN THIRTY (30) INCHES ABOVE A FLOOR OR GRADE BELOW. GUARDRAILS ON OPEN SIDES OF STAIRS, WITH A TOTAL RISE OF MORE THAN THIRTY (30) INCHES ABOVE A FLOOR OR GRADE BELOW, SHALL BE NOT LESS THAN 34" IN HEIGHT MEASURED VERTICALLY FROM THE NOSE OF THE TREADS. THE MAXIMUM CLEAR OPENING BETWEEN RAILS, BALUSTERS, AND FLOORS SHALL NOT EXCEED FOUR (4) INCHES.

#### EXCEPTION:

THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARD AT THE OPEN SIDE OF A STAIRWAY MAY BE OF SUCH A SIZE THAT A SIX INCH (6) SPHERE CANNOT PASS THROUGH. OPENINGS FOR REQUIRED GUARDS ON THE SIDES OF STAIR TREADS SHALL NOT ALLOW A SPHERE 4-3/8 INCHES TO PASS THOUGH.

4. AN INSULATED DOOR SHALL BE PROVIDED AT THE TOP OF UNFINISHED BASEMENT STAIRS OR INSULATE THE WALLS AND THE UNDERSIDE OF STAIRS AND PROVIDE AN INSULATED DOOR AT THE BOTTOM OF BASEMENT STAIRS.
5. AN INSULATED DOOR SHALL BE PROVIDED AT THE TOP OF ATTIC STAIRS OR INSULATE THE WALLS AND UNDERSIDE OF STAIRS AND PROVIDE AN INSULATED DOOR AT THE BOTTOM OF ATTIC STAIRS.

### EMERGENCY ESCAPE AND RESCUE OPENINGS / EXTERIOR WINDOWS AND DOORS:

- I. WINDOW SIZES SHOWN ON THE DRAWINGS ARE BASED GENERICALLY ON ANDERSEN AND THE OWNER OR (GENERAL CONTRACTOR WHERE APPLICABLE) SHALL CHOOSE THE FINAL MANUFACTURER. WINDOW SIZES SHALL BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO ORDERING. ROUGH OPENING SIZES SHALL BE PROVIDED BY THE MANUFACTURER.
2. BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING. WHERE BASEMENTS CONTAIN MORE THAN ONE SLEEPING ROOM, EACH SHALL HAVE AN EMERGENCY ESCAPE AND RESCUE OPENING BUT ADJOINING AREAS SHALL NOT REQUIRE ONE. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL MEET THE FOLLOWING CRITERIA:

- A) SILL HEIGHT SHALL NOT BE MORE THAN 44 INCHES ABOVE THE FLOOR.
- B) WHERE A DOOR HAVING A THRESHOLD BELOW THE ADJACENT GROUND ELEVATION IS USED AS AN EMERGENCY ESCAPE AND RESCUE OPENING AND IS PROVIDED WITH A BULKHEAD ENCLOSURE, THE BULKHEAD SHALL PROVIDE DIRECT ACCESS TO THE BASEMENT AND WHEN THE BULKHEAD IS FULLY OPENED IT SHALL PROVIDE THE MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET.
- C) EMERGENCY ESCAPE AND RESCUE OPENINGS WITH A SILL ELEVATION BELOW THE ADJACENT GROUND ELEVATION SHALL BE PROVIDED WITH A WINDOW WELL WITH A MINIMUM HORIZONTAL AREA OF 9 SQUARE FEET AND A MINIMUM HORIZONTAL PROJECTION OF 36". THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND EGRESS OPENING TO BE FULLY OPENED.
- D) ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET.

#### EXCEPTIONS:

- I. GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.0 SQUARE FEET
2. DOUBLE HUNG WINDOWS USED FOR EMERGENCY ESCAPE SHALL BE PERMITTED TO HAVE A NET CLEAR OPENING OF 3.3 SQUARE FEET PROVIDED THAT AT LEAST ONE OPERABLE SASH MEETS THE MINIMUM HEIGHT AND WIDTH REQUIREMENTS AND OPERATIONAL CONSTRAINTS.
  - E) THE MINIMUM NET CLEAR OPENING SHALL BE 24 INCHES X 20 INCHES IN EITHER DIRECTION.
  - F) EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE WITHOUT THE USE OF KEYS OR TOOLS
- 3) IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR.

#### EXCEPTIONS:

- A) WINDOWS WHOSE OPENINGS WILL NOT ALLOW A 4 INCH DIAMETER SPHERE TO PASS THROUGH THE OPENING WHEN THE OPENING IS IN ITS LARGEST OPENED POSITION.
- B) OPENINGS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH SECTION R612.3
- C) OPENINGS THAT ARE PROVIDED WITH FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2040
- D) WINDOWS THAT ARE PROVIDED WITH OPENING LIMITING DEVICES THAT COMPLY WITH SECTION R612.4.

### EGRESS:

- I. STAIRWAYS, RAMPS, EXTERIOR EXIT BALCONIES, HALLWAYS AND DOORS SHALL MEET ALL MINIMUM EGRESS REQUIREMENTS.
2. ALL REQUIRED EXITS SHALL BE POSITIVELY ANCHORED TO THE PRIMARY STRUCTURE TO RESIST BOTH VERTICAL AND LATERAL FORCES.
3. ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD.
4. HALLWAYS SHALL BE A MINIMUM OF 3 FEET CLEAR.
5. EGRESS FROM DWELLING UNITS SHALL BE BY MEANS OF TWO EXIT DOORS. THE MINIMUM NOMINAL WIDTH OF AT LEAST ONE OF THE REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 36" WITH A NOMINAL HEIGHT SHALL OF SIX FEET EIGHT INCHES AND SIDE HINGED. ALL OTHER REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 32" IN NOMINAL WIDTH OR SIX FEET EIGHT INCHES IN NOMINAL HEIGHT AND MAY BE SLIDING OR SIDE-HINGED.
6. EGRESS THOUGH AN ATTACHED GARAGE IS PERMITTED PROVIDED THAT THE ATTACHED GARAGE IS ALSO PROVIDED WITH A 32" EXIT DOOR.
7. ALL OTHER EXTERIOR DOORS IN EXCESS OF THE TWO REQUIRED EXIT DOORS ARE NOT REQUIRED TO COMPLY WITH THESE MINIMUM DIMENSIONS.
8. ALL INTERIOR DOORS PROVIDING ACCESS TO HABITABLE ROOMS SHALL HAVE A NOMINAL WIDTH OF 30 INCHES AND NOMINAL HEIGHT OF SIX FEET 6 INCHES EXCEPT BATHROOMS WHICH ARE PERMITTED TO BE 24 INCHES IN NOMINAL WIDTH.
9. A FLOOR OR LANDING SHALL BE PROVIDED ON EACH SIDE OF AN EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED AND HAVE A MINIMUM DIMENSION OF 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL.

### MINIMUM ROOM REQUIREMENTS:

- I. HABITABLE ROOMS, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOMS, LAUNDRY ROOMS AND BASEMENTS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN SEVEN (7') FEET MEASURED FROM THE FINISH FLOOR TO THE LOWEST PROJECTION FROM THE CEILING

#### EXCEPTIONS:

1. BEAMS AND GIRDERS SPACED NOT LESS THAN FOUR (4) FEET ON CENTER MAY PROJECT NOT MORE THAN SIX (6) INCHES BELOW THE REQUIRED CEILING HEIGHT.
2. CEILINGS IN BASEMENTS WITHOUT HABITABLE SPACE MAY PROJECT TO WITHIN SIX FEET EIGHT INCHES OF THE FINISHED FLOOR EXCEPT THAT BEAMS, GIRDERS, DUCTS AND OTHER OBSTRUCTIONS MAY PROJECT TO WITHIN SIX FEET FOUR INCHES OF THE FINISHED FLOOR.
3. NOT MORE THAN 50% OF THE REQUIRED FLOOR AREA OF A ROOM IS PERMITTED TO HAVE A SLOPED CEILING LESS THAN SEVEN FEET IN HEIGHT WITH NO PORTION OF THE REQUIRED FLOOR AREA LESS THAN FIVE FEET IN HEIGHT.
4. BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF SIX FEET EIGHT INCHES OVER THE FIXTURE AND AT THE FRONT CLEARANCE AREA FOR THE FIXTURES. A SHOWER OR TUB WITH A SHOWERHEAD SHALL HAVE A MINIMUM CEILING HEIGHT OF SIX FEET EIGHT INCHES ABOVE A MINIMUM 30"X30" AREA AT THE SHOWERHEAD.
2. EVERY DWELLING SHALL HAVE AT LEAST ONE HABITABLE ROOM WITH A GROSS FLOOR AREA OF AT LEAST 150 SQUARE FEET.
3. OTHER HABITABLE ROOMS SHALL HAVE A FLOOR AREA OF NOT LESS THAN 70 SQUARE FEET EXCEPT KITCHENS.
4. HABITABLE ROOMS SHALL NOT BE LESS THAN SEVEN FEET IN ANY HORIZONTAL EXCEPT KITCHENS.
5. PORTIONS OF A ROOM WITH A SLOPING CEILING MEASURING LESS THAN FIVE (5) FEET OR A FURRED CEILING MEASURING LESS THAN SEVEN (7) SHALL NOT BE CONSIDERED AS CONTRIBUTING TO THE MINIMUM REQUIRED HABITABLE AREA FOR THAT ROOM.

### ROOFING AND SIDING:

- I. PROVIDE CONTINUOUS 6'-0" WIDE FIBERGLASS REINFORCED, BITUTHENE, ICE AND WATER SHIELD AT ALL ROOF EDGES, CENTERED ON ALL VALLEYS AND AT ROOF/WALL INTERSECTIONS CARRIED 1'-0" UP THE WALL (REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS).
2. PROVIDE ALUMINUM STEP FLASHING AT ROOF/WALL AND ROOF/CHIMNEY INTERSECTIONS.
3. PROVIDE ALUMINUM FLASHING OVER ALL WINDOW AND DOORS HEAD TRIM AND AT THE CONNECTION BETWEEN ALL EXTERIOR WALLS AND EXTERIOR DECKS.
4. PROVIDE CONTINUOUS SOFFIT VENTS OR CONTINUOUS VENTED DRIP EDGE AT ALL SOFFIT OVERHANGS.
5. PROVIDE 15# FELT UNDER ALL ROOF SHINGLES (UNLESS SPECIFIED OTHERWISE).
6. PROVIDE CONTINUOUS RIDGE VENTS (UNLESS SPECIFIED AS OTHERWISE). SEE BUILDING ELEVATION FOR EXTENT.
7. ALL GUTTERS AND DOWNSPOUTS TO BE PREFINISHED ALUM. COLOR TO BE SELECTED BY OWNER.

### LIGHT/VENTILATION AND INSULATION:

- I. ALL HABITABLE ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING OF NOT LESS THAN 8% OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE THROUGH DOORS, WINDOWS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4% OF THE FLOOR AREA BEING VENTILATED.

#### EXCEPTIONS:

1. THE GLAZED AREAS NEED NOT BE OPENABLE WHEN THE OPENING IS NOT A REQUIRED TO BE AN EMERGENCY ESCAPE AND RESCUE OPENING AND AN APPROVED MECHANICAL VENTILATION SYSTEM IS PROVIDED CAPABLE OF PRODUCING 0.35 AIR EXCHANGE PER HOUR IN THE ROOM OR A WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM IS INSTALLED CAPABLE OF SUPPLYING OUTDOOR VENTILATION AIR OF 15 CFM PER OCCUPANT WITH 2 FOR THE FIRST BEDROOM AND ONE FOR EVERY ADDITIONAL BEDROOM.
2. THE GLAZED AREAS NEED NOT BE PROVIDED IN ROOMS WHERE THE ABOVE EXCEPTION IS MET AND ARTIFICIAL LIGHT IS PROVIDED CAPABLE OF PRODUCING AN AVERAGE ILLUMINATION OF SIX FOOTCANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES.

2. ALL BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA OF NOT LESS THAN THREE SQUARE FEET, 1/2 OF WHICH MUST BE OPENABLE

#### EXCEPTION:

THE GLAZED AREA SHALL NOT BE REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION SYSTEM ARE PROVIDED. VENTILATION AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTSIDE.

3. ATTIC VENTILATION WITH A CEILING VAPOR BARRIER: PROVIDE AT LEAST ONE (1) SQUARE FOOT OF FREE AREA FOR EACH THREE HUNDRED (300) SQUARE FEET OF CEILING AREA.
4. ATTIC VENTILATION WITHOUT A CEILING VAPOR BARRIER: PROVIDE AT LEAST ONE (1) SQUARE FOOT OF FREE AREA FOR EACH ONE HUNDRED-FIFTY (150) SQUARE FEET OF CEILING AREA.
5. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A MOISTURE BARRIER AND PROPERLY INSULATE ALL WALLS AND CEILINGS TO AIR LEAKAGE INTO UNCONDITIONED SPACES.
6. IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, EVES, OVERHANGS AND OTHER SIMILAR UNCONDITIONED, UNINSULATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC., TO AVOID MOISTURE, CONDENSATION, FREEZE THAW, ICE DAMMING, AND OTHER SIMILAR ISSUES.

### PLUMBING:

- I. ALL SANITARY LINES WITHIN WALLS AND FLOORS ADJOINING LIVING SPACES ARE TO BE SOUND INSULATED.
2. ALL PLUMBING WITHIN WALL OR FLOOR CAVITIES WHICH BORDER UNCONDITIONED SPACES, ARE TO BE INSULATED AND ON THE WARM SIDE OF THE CAVITY INSULATION TO AVOID FREEZING.

### SMOKE & CARBON MONOXIDE DETECTORS/ALARMS:

- I. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS ARE ACCEPTABLE PROVIDED SAID ALARMS HAVE SIMULATED VOICE AND TONE ALARMS THAT CLEARLY DISTINGUISH BETWEEN THE TWO TYPES OF EMERGENCIES. IF COMBINATION ALARMS ARE TO BE USED THAN ALL REQUIRED CRITERIA FOR SMOKE AND CARBON MONOXIDE DETECTORS NEED TO BE MET.
2. FIRE DEPARTMENTS ARE REQUIRED TO INSPECT, UPON SALE OR TRANSFER, ALL DWELLING UNITS FOR REQUIRED SMOKE AND CARBON MONOXIDE DETECTORS.
3. CONSUMERS SHALL CHECK WITH LOCAL BUILDING AND/OR FIRE OFFICIALS FOR ACCEPTED ALARM TYPES AND LOCATIONS FOR PROPER INSTALLATION IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS

### SMOKE ALARMS/DETECTORS:

- I. ALL ONE AND TWO FAMILY SHALL BE EQUIPPED WITH A HOUSEHOLD FIRE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURERS INSTRUCTIONS AND LISTING CRITERIA.
2. SMOKE DETECTORS ARE REQUIRED TO BE PERMANENTLY WIRED TO AN AC PRIMARY POWER SOURCE AND SHALL HAVE SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES.
3. WHERE MORE THAN ONE SMOKE DETECTOR IS REQUIRED, ALL REQUIRED DETECTORS SHALL BE INSTALLED SO THAT THE ACTIVATION OF ANY DETECTOR SHALL CAUSE THE ALARM IN ALL REQUIRED SMOKE DETECTORS IN THE DWELLING UNIT TO SOUND (MIN. 85 DBA AT 10 FEET, 75 DBA IN BEDROOMS)
4. SMOKE DETECTORS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS
  - A) IN THE IMMEDIATE VICINITY OF BEDROOMS
  - B) IN ALL BEDROOMS
  - C) IN EACH STORY OF A UNIT (INCLUDING BASEMENTS & CELLARS) FOR EACH 1,000 SQ.FT. OR PART THEREOF.
  - D) NEAR THE BASE OF ALL STAIRS WHERE SUCH STAIRS LEAD TO ANOTHER OCCUPIED FLOOR
5. PHOTO ELECTRIC SMOKE DETECTORS ARE REQUIRED IF LOCATED WITHIN 20 FEET OF A KITCHEN OR BATHROOM
6. WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED TO AN EXISTING DWELLING, THE ENTIRE BUILDING SHALL BE PROVIDED WITH SMOKE DETECTORS DESIGNED AND LOCATED AS REQUIRED FOR NEW DWELLINGS.

### CARBON MONOXIDE ALARMS/DETECTORS:

- I. ALL ONE AND TWO FAMILY DWELLINGS SHALL BE EQUIPPED WITH A HOUSEHOLD CARBON MONOXIDE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURERS INSTRUCTIONS AND LISTING CRITERIA.
2. CARBON MONOXIDE DETECTORS SHALL BE LOCATED ON EVERY LEVEL OF THE DWELLING UNIT INCLUDING BASEMENTS AND CELLARS (BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS).
3. ALL ALARM-SOUNDING APPLIANCES SHALL HAVE A MINIMUM RATING OF 85 DBA AT 10 FEET

### HEAT DETECTORS:

- I. HEAT DETECTORS SHALL BE INSTALLED IN ANY INTEGRAL OR ATTACHED GARAGE TO THE MAIN HOUSE.
2. A NEW ADDITION ATTACHED GARAGE TO AN EXISTING DWELLING INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CRITERIA. IF THE EXISTING DWELLING CONTAINS A FIRE DETECTION SYSTEM THAT IS COMPATIBLE WITH THE GARAGE HEAT DETECTOR, THAT THE GARAGE HEAT DETECTOR SHALL BE INTERCONNECTED TO THE EXISTING DWELLING FIRE DETECTION SYSTEM. IF THE DETECTOR IS NOT COMPATIBLE THAN THE DETECTOR SHALL BE CONNECTED TO A SOUNDER OR A COMPATIBLE HEAT DETECTOR CONTAINING A SOUNDING DEVICE, LOCATED IN THE DWELLING UNIT AND WITHIN 20 FEET OF THE NEAREST DOOR THO THE GARAGE.
3. FOR FLAT-FINISHED GARAGE CEILINGS, THE DETECTOR SHALL BE LOCATED ON OR NEAR THE CENTER OF THE GARAGE CEILING. FOR VAULTED/SLOPED CEILINGS, THE DETECTOR SHALL BE PLACED IN THE APPROXIMATE CENTER OF THE VAULTED SPACE.
4. THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO ALL SMOKE DETECTORS OF THE REQUIRED HOUSEHOLD FIRE ALARM SYSTEM, SUCH THAT THE ACTIVATION OF THE HEAT DETECTOR WILL ACTIVATE ALL OF THE AUDIBLE ALARMS OF THE HOUSEHOLD FIRE ALARM SYSTEM THROUGHOUT THE DWELLING.

### SPRINKLERS:

THE 3-UNIT TOWNHOUSE HAS AN AGGREGATE AREA OF +/-1,761 SF AND SHALL BE DESIGNED WITH A MINIMUM NFPA 13 SYSTEM.

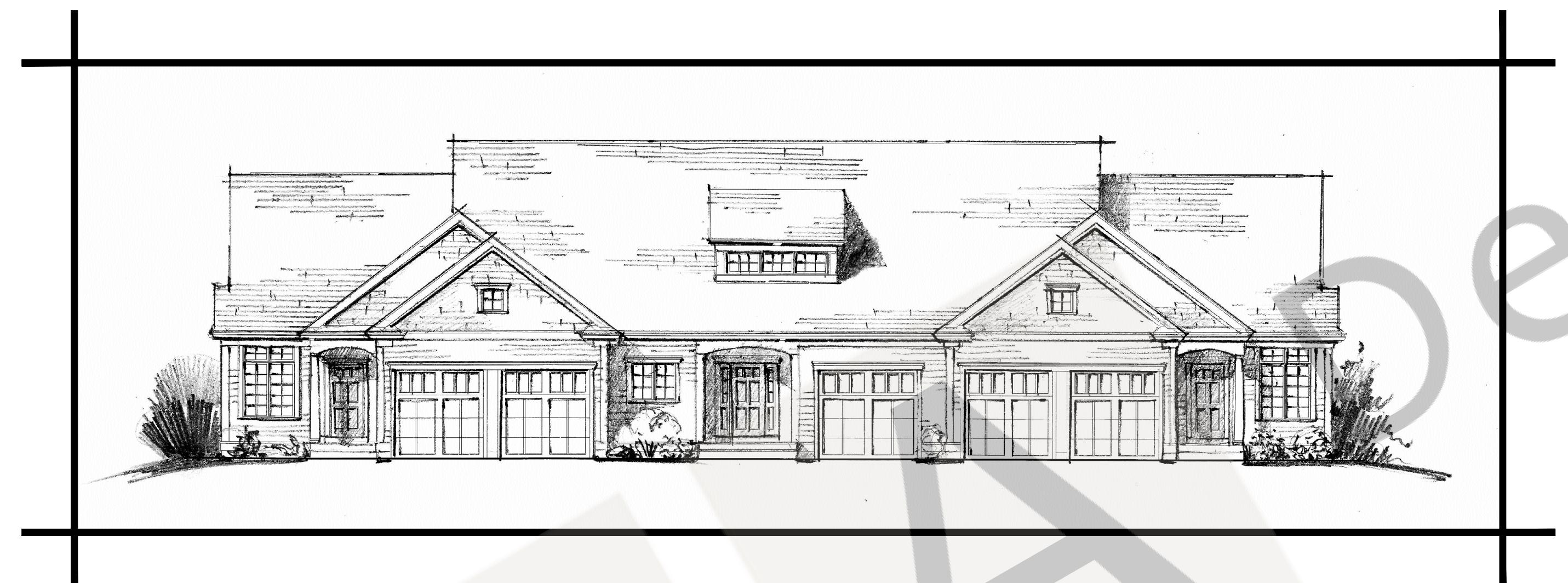
# TITLE SHEET

**CONSTRUCTION BY:**  
**FIRST COLONY DEV. LLC**  
#50 NORTHWOOD DRIVE, NORTHWOOD TOWNHOUSE CONDOS, SUDBURY, MA

SHEET:

JOB NO. 20180101

The banner consists of two main sections. The left section contains the word "FIRST" in a bold, black, sans-serif font. Each letter is composed of multiple thin horizontal lines. The right section contains the word "SECOND" in the same style. Between the two words is a central graphic element: a large, stylized, multi-layered circle or oval shape. To the left of this central shape is a downward-pointing triangle, and to the right is an upward-pointing triangle. The entire banner is set against a white background.



## OWNER / CLIENT:

FIRST COLONY DEV. LLC  
929 POST ROAD EAST  
MARLBOROUGH, MA 01752  
TEL. (508) 481-6095  
FAX (508) 460-0578

## ARCHITECT:

HPA DESIGN, INC.  
200 STONEWALL BLVD.  
SUITE 5  
WRENTHAM, MA 02093  
TEL. (508) 384-8838  
FAX (508) 384-0483

**DWD ENGINEERING, INC.**  
5 MICHAEL RD.  
EAST BRIDGEWATER  
TEL. (508) 378-9602  
FAX. (508) 378-2922

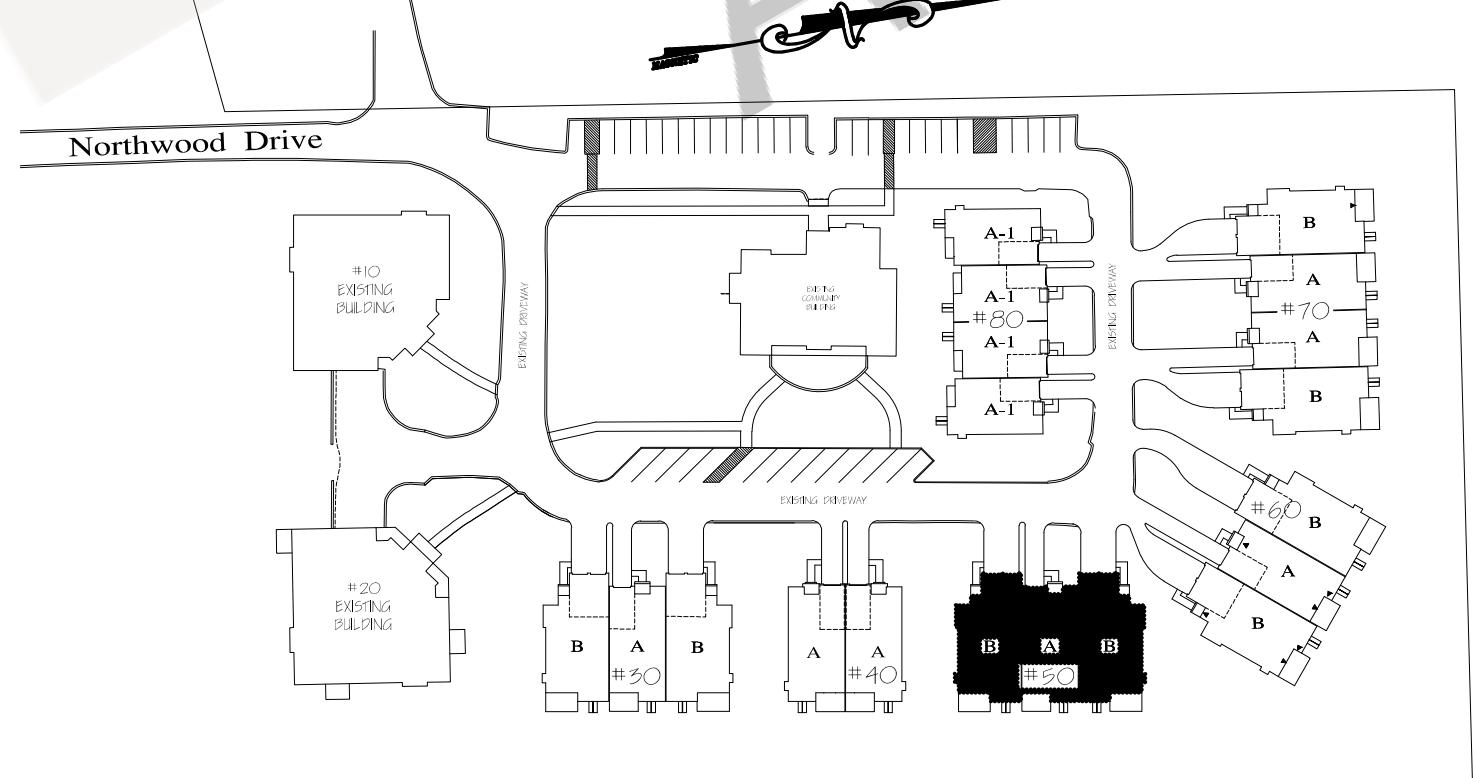
## CONTRACTOR:

LOBISSER BUILDING CORP.  
1 CHARLESVIEW ROAD  
HOPEDALE, MA 01747  
TEL. (508) 478-6235  
FAX (508) 473-0794

# SCHEDULE OF DRAWINGS:

- |     |                             |
|-----|-----------------------------|
| 0.1 | TITLE SHEET                 |
| 1.1 | 1ST FLOOR PLAN              |
| 1.2 | 2ND FLOOR PLAN              |
| 2.1 | ELEVATIONS                  |
| 2.2 | ELEVATIONS                  |
| 3.1 | BUILDING SECTIONS           |
| 3.2 | BUILDING SECTIONS           |
| 4.1 | WALL SECTIONS               |
| 4.2 | AIR BARRIER NOTES & DETAILS |
| 5.1 | DETAILS                     |
| .1  | FOUNDATION PLAN             |
| .2  | 1ST FLOOR FRAMING           |
| .3  | 2ND FLOOR FRAMING           |
| .4  | CEILING FRAMING             |
| .5  | ROOF FRAMING                |
| 2.1 | DETAILS                     |
| 2.2 | DETAILS                     |

## KEY PLAN



**GENERAL NOTES**

**GENERAL:**

- THE GOVERNING BUILDING CODE FOR THE DESIGN AND CONSTRUCTION IS THE INTERNATIONAL RESIDENTIAL (IRC 2015) WITH MASSACHUSETTS STATE BUILDING CODE AMENDMENTS (9TH EDITION).
- ARCHITECTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH STRUCTURAL, MECHANICAL, ELECTRICAL, AND SHOP DRAWINGS.
- THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES, AMBIGUITIES, OR INCONSISTENCIES PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL ALSO NOTIFY THE ARCHITECT, PRIOR TO PROCEEDING WITH THE WORK, IF ANY CONSTRUCTION NEEDS TO BE ADJUSTED DUE TO FIELD CONDITIONS.
- AN ASSUMPTION HAS BEEN MADE THAT THE ELEVATION DIFFERENCE BETWEEN THE GARAGE SLAB AND THE FIRST FLOOR IS 24". THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IF THIS IS INCONSISTENT WITH THE SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
- ALL FLASHING IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE CORROSION RESISTANT.
- ALL DUCTWORK AND HOT WATER PIPING SHALL BE INSULATED AND WHERE NECESSARY, A VAPOR BARRIER FOR THE DUCTWORK WILL BE PROVIDED TO PREVENT CONDENSATION.
- ALL CHIMNEYS TO BE CONSTRUCTED SO THE TOP OF THE FLUE IS 2'-0" ABOVE ANY ROOF/WALL WITHIN 10'-0".
- PROVIDE CONTINUOUS PITCH BREAK VENTS AT ALL ROOF/WALL INTERSECTIONS WHERE SOFFIT VENTS ARE INSTALLED.

**DIMENSIONS:**

- DIMENSIONING STANDARDS WITHIN THE DOCUMENTS ARE AS FOLLOWS UNLESS OTHERWISE NOTED:
  - DIMENSIONS TO EXTERIOR WALLS ARE FROM OUTSIDE FACE OF A STUD OR CONCRETE WALL.
  - DIMENSIONING AT WINDOWS AND EXTERIOR DOORS REPRESENTS A DIMENSION TO THE CENTER OF THAT OPENING FROM THE CENTER OF ANOTHER OPENING OR THE OUTSIDE FACE OF A STUD OR CONCRETE WALL.
  - INTERIOR DIMENSIONING AT STUD WALLS REPRESENTS A DIMENSION TO THE MIDDLE OF THE STUD (UNLESS INTERIOR WALL IS ALSO AN EXTERIOR WALL, THEN DIMENSION IS TO FACE OF STUD).
- INTERIOR DIMENSIONING AT STAIRS REPRESENTS A DIMENSION TO THE FINISHED FACE OF THE STAIR.
- DIMENSIONS/LOCATIONS OF WALLS ENCLOSING TUB/SHOWER UNITS, PRE-MANUFACTURED FIREPLACES AND ALL OTHER BUILT-INS, MUST BE CONFIRMED WITH THE FIXTURE MANUFACTURER FOR THE REQUIRED R.O. AND ATTACHMENT.
- DIMENSIONS DEPICTING THE BUILDING HEIGHT, SHOWN OF THE ARCHITECTURAL AND STRUCTURAL DRAWINGS ARE FOR THE BUILDING AND BUILDING COMPONENTS ONLY. THE OVERALL BUILDING HEIGHT DEPICTED, IS FROM THE 1ST FLOOR DECK. THE OWNER/G.C. IS RESPONSIBLE FOR COORDINATING AND ESTABLISHING THE GRADE RELATIVE TO THE 1ST FLOOR, TO ENSURE COMPLIANCE WITH ZONING AND BUILDING CODE HEIGHT REQUIREMENTS.
- ALL DIMENSIONS FROM EXISTING SURFACES ARE FROM FACE OF EXISTING SURFACE.
- CLOSET DOORS THAT ARE NOT DIMENSIONED ARE TYPICALLY CENTERED WITHIN THE CLOSET.
- ALL OTHER DOORS THAT ARE NOT DIMENSIONED ARE TYPICALLY 4" TO 6" (DEPENDING ON THE FINISH CASING WIDTH) FROM FACE FINISH TO THE DOOR OPENING ON THE BUTT SIDE.
- DIMENSIONS LOCATING CASED OPENINGS ARE TYPICALLY DIMENSIONED TO THE CENTER OF THAT OPENING. TYP., UNLESS OTHERWISE NOTED.

**STAIRWAYS/BALCONIES:**

- STAIRWAYS SHALL NOT BE LESS THAN 3'-0" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. MAXIMUM RISER HEIGHT SHALL BE 8 1/4", MINIMUM TREAD DEPTH SHALL BE 9" WITH NOSING NOT TO EXCEED 1 1/4". WINDER TREADS SHALL HAVE A MIN. DEPTH EQUAL TO THE STRAIGHT RUN TREAD DEPTH AT A DISTANCE OF 12" FROM THE NARROWER SIDE WITH A MIN. TREAD DEPTH OF 3" AT ANY POINT. MINIMUM HEADROOM SHALL BE 6'-6" MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF A LANDING OR PLATFORM.
- HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT OF STAIRS WITH 4 OR MORE RISERS. MINIMUM HEIGHT SHALL NOT BE LESS THAN 34" WITH A MAXIMUM NOT TO EXCEED 38". HANDRAILS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT.
- GUARDRAILS, 36" MINIMUM IN HEIGHT, SHALL BE INSTALLED IN FLOOR, PORCH, AND/OR BALCONY AREA MORE THAN THIRTY (30) INCHES ABOVE A FLOOR OR GRADE BELOW. GUARDRAILS ON OPEN SIDES OF STAIRS, WITH A TOTAL RISE OF MORE THAN THIRTY (30) INCHES ABOVE A FLOOR OR GRADE BELOW, SHALL BE NOT LESS THAN 34" IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. THE MAXIMUM CLEAR OPENING BETWEEN RAILS, BALUSTERS, AND FLOORS SHALL NOT EXCEED FOUR (4) INCHES.

**EXCEPTION:**

THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARD AT THE OPEN SIDE OF A STAIRWAY MAY BE OF SUCH A SIZE THAT A SIX INCH (6) SPHERE CANNOT PASS THROUGH. OPENINGS FOR REQUIRED GUARDS ON THE SIDES OF STAIR TREADS SHALL NOT ALLOW A SPHERE 4 3/8 INCHES TO PASS THOUGH.

- AN INSULATED DOOR SHALL BE PROVIDED AT THE TOP OF UNFINISHED BASEMENT STAIRS OR INSULATE THE WALLS AND THE UNDERSIDE OF STAIRS AND PROVIDE AN INSULATED DOOR AT THE BOTTOM OF BASEMENT STAIRS.
- AN INSULATED DOOR SHALL BE PROVIDED AT THE TOP OF ATTIC STAIRS OR INSULATE THE WALLS AND UNDERSIDE OF STAIRS AND PROVIDE AN INSULATED DOOR AT THE BOTTOM OF ATTIC STAIRS. EMERGENCY ESCAPE AND RESCUE OPENINGS.

**EMERGENCY ESCAPE AND RESCUE OPENINGS / EXTERIOR WINDOWS AND DOORS:**

- WINDOW SIZES SHOWN ON THE DRAWINGS ARE BASED GENERICALLY ON ANDERSEN AND THE OWNER OR (GENERAL CONTRACTOR WHERE APPLICABLE) SHALL CHOOSE THE FINAL MANUFACTURER. WINDOW SIZES SHALL BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO ORDERING. ROUGH OPENING SIZES SHALL BE PROVIDED BY THE MANUFACTURER.
- BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING. WHERE BASEMENTS CONTAIN MORE THAN ONE SLEEPING ROOM, EACH SHALL HAVE AN EMERGENCY ESCAPE AND RESCUE OPENING BUT ADJOINING AREAS SHALL NOT REQUIRE ONE. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL MEET THE FOLLOWING CRITERIA:
  - SILL HEIGHT SHALL NOT BE MORE THAN 44 INCHES ABOVE THE FLOOR.
  - WHERE A DOOR HAVING A THRESHOLD BELOW THE ADJACENT GROUND ELEVATION IS USED AS AN EMERGENCY ESCAPE AND RESCUE OPENING AND IS PROVIDED WITH A BULKHEAD ENCLOSURE, THE BULKHEAD SHALL PROVIDE DIRECT ACCESS TO THE BASEMENT AND WHEN THE BULKHEAD IS FULLY OPENED IT SHALL PROVIDE THE MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET.
  - EMERGENCY ESCAPE AND RESCUE OPENINGS WITH A SILL ELEVATION BELOW THE ADJACENT GROUND ELEVATION SHALL BE PROVIDED WITH A WINDOW WELL WITH A MINIMUM HORIZONTAL AREA OF 9 SQUARE FEET AND A MINIMUM HORIZONTAL PROJECTION OF 36". THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND EGRESS OPENING TO BE FULLY OPENED.
  - ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET.

**EXCEPTIONS:**

- GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.0 SQUARE FEET
- DOUBLE HUNG WINDOWS USED FOR EMERGENCY ESCAPE SHALL BE PERMITTED TO HAVE A NET CLEAR OPENING OF 3.3 SQUARE FEET PROVIDED THAT AT LEAST ONE OPERABLE SASH MEETS THE MINIMUM HEIGHT AND WIDTH REQUIREMENTS AND OPERATIONAL CONSTRAINTS.
  - THE MINIMUM NET CLEAR OPENING SHALL BE 24 INCHES X 20 INCHES IN EITHER DIRECTION.
  - EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE WITHOUT THE USE OF KEYS OR TOOLS
- IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR.

**EXCEPTIONS:**

- WINDOWS WHOSE OPENINGS WILL NOT ALLOW A 4 INCH DIAMETER SPHERE TO PASS THROUGH THE OPENING WHEN THE OPENING IS IN ITS LARGEST OPENED POSITION.
- OPENINGS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH SECTION R612.3
- OPENINGS THAT ARE PROVIDED WITH FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2040
- WINDOWS THAT ARE PROVIDED WITH OPENING LIMITING DEVICES THAT COMPLY WITH SECTION R612.4.

**EGRESS:**

- STAIRWAYS, RAMPS, EXTERIOR EXIT BALCONIES, HALLWAYS AND DOORS SHALL MEET ALL MINIMUM EGRESS REQUIREMENTS.
- ALL REQUIRED EXITS SHALL BE POSITIVELY ANCHORED TO THE PRIMARY STRUCTURE TO RESIST BOTH VERTICAL AND LATERAL FORCES.
- ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD.
- HALLWAYS SHALL BE A MINIMUM OF 3 FEET CLEAR.
- EGRESS FROM DWELLING UNITS SHALL BE BY MEANS OF TWO EXIT DOORS. THE MINIMUM NOMINAL WIDTH OF AT LEAST ONE OF THE REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 36" WITH A NOMINAL HEIGHT SHALL OF SIX FEET EIGHT INCHES AND SIDE HINGED. ALL OTHER REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 32" IN NOMINAL WIDTH OR SIX FEET EIGHT INCHES IN NOMINAL HEIGHT AND MAY BE SLIDING OR SIDE-HINGED.
- EGRESS THOUGH AN ATTACHED GARAGE IS PERMITTED PROVIDED THAT THE ATTACHED GARAGE IS ALSO PROVIDED WITH A 32" EXIT DOOR.
- ALL OTHER EXTERIOR DOORS IN EXCESS OF THE TWO REQUIRED EXIT DOORS ARE NOT REQUIRED TO COMPLY WITH THESE MINIMUM DIMENSIONS.
- ALL INTERIOR DOORS PROVIDING ACCESS TO HABITABLE ROOMS SHALL HAVE A NOMINAL WIDTH OF 30 INCHES AND NOMINAL HEIGHT OF SIX FEET 6 INCHES EXCEPT BATHROOMS WHICH ARE PERMITTED TO BE 24 INCHES IN NOMINAL WIDTH.
- A FLOOR OR LANDING SHALL BE PROVIDED ON EACH SIDE OF AN EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED AND HAVE A MINIMUM DIMENSION OF 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL.

**MINIMUM ROOM REQUIREMENTS:**

- HABITABLE ROOMS, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOMS, LAUNDRY ROOMS AND BASEMENTS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN SEVEN (7) FEET MEASURED FROM THE FINISH FLOOR TO THE LOWEST PROJECTION FROM THE CEILING

**EXCEPTIONS:**

- BEAMS AND GIRDERS SPACED NOT LESS THAN FOUR (4) FEET ON CENTER MAY PROJECT NOT MORE THAN SIX (6) INCHES BELOW THE REQUIRED CEILING HEIGHT.
- CEILINGS IN BASEMENTS WITHOUT HABITABLE SPACE MAY PROJECT TO WITHIN SIX FEET EIGHT INCHES OF THE FINISHED FLOOR EXCEPT THAT BEAMS, GIRDERS, DUCTS AND OTHER OBSTRUCTIONS MAY PROJECT TO WITHIN SIX FEET FOUR INCHES OF THE FINISHED FLOOR.
- NOT MORE THAN 50% OF THE REQUIRED FLOOR AREA OF A ROOM IS PERMITTED TO HAVE A SLOPED CEILING LESS THAN SEVEN FEET IN HEIGHT WITH NO PORTION OF THE REQUIRED FLOOR AREA LESS THAN FIVE FEET IN HEIGHT.
- BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF SIX FEET EIGHT INCHES OVER THE FIXTURE AND AT THE FRONT CLEARANCE AREA FOR THE FIXTURES. A SHOWER OR TUB WITH A SHOWERHEAD SHALL HAVE A MINIMUM CEILING HEIGHT OF SIX FEET EIGHT INCHES ABOVE A MINIMUM 30"x30" AREA AT THE SHOWERHEAD.
- EVERY DWELLING SHALL HAVE AT LEAST ONE HABITABLE ROOM WITH A GROSS FLOOR AREA OF AT LEAST 150 SQUARE FEET
- OTHER HABITABLE ROOMS SHALL HAVE A FLOOR AREA OF NOT LESS THAN 70 SQUARE FEET EXCEPT KITCHENS
- HABITABLE ROOMS SHALL NOT BE LESS THAN SEVEN FEET IN ANY HORIZONTAL EXCEPT KITCHENS
- PORTIONS OF A ROOM WITH A SLOPING CEILING MEASURING LESS THAN FIVE (5) FEET OR A FURRED CEILING MEASURING LESS THAN SEVEN (7) SHALL NOT BE CONSIDERED AS CONTRIBUTING TO THE MINIMUM REQUIRED HABITABLE AREA FOR THAT ROOM.

**ROOFING AND SIDING:**

- PROVIDE CONTINUOUS 6'-0" WIDE FIBERGLASS REINFORCED, BITUTHENE, ICE AND WATER SHIELD AT ALL ROOF EDGES, CENTERED ON ALL VALLEYS AND AT ROOF/WALL INTERSECTIONS CARRIED 1'-0" UP THE WALL (REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS).
- PROVIDE ALUMINUM STEP FLASHING AT ROOF/WALL AND ROOF/CHIMNEY INTERSECTIONS.
- PROVIDE ALUMINUM FLASHING OVER ALL WINDOW AND DOORS HEAD TRIM AND AT THE CONNECTION BETWEEN ALL EXTERIOR WALLS AND EXTERIOR DECKS.
- PROVIDE CONTINUOUS SOFFIT VENTS OR CONTINUOUS VENTED DRIP EDGE AT ALL SOFFIT OVERHANGS.
- PROVIDE 15# FELT UNDER ALL ROOF SHINGLES (UNLESS SPECIFIED OTHERWISE).
- PROVIDE CONTINUOUS RIDGE VENTS (UNLESS SPECIFIED AS OTHERWISE). SEE BUILDING ELEVATION FOR EXTENT.
- ALL GUTTERS AND DOWNSPOUTS TO BE PREFINISHED ALUM. COLOR TO BE SELECTED BY OWNER.

**LIGHT/VENTILATION AND INSULATION:**

- ALL HABITABLE ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING OF NOT LESS THAN 8% OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE THROUGH DOORS, WINDOWS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4% OF THE FLOOR AREA BEING VENTILATED

**EXCEPTIONS:**

- THE GLAZED AREAS NEED NOT BE OPENABLE WHEN THE OPENING IS NOT A REQUIRED TO BE AN EMERGENCY ESCAPE AND RESCUE OPENING AND AN APPROVED MECHANICAL VENTILATION SYSTEM IS PROVIDED CAPABLE OF PRODUCING 0.35 AIR EXCHANGE PER HOUR IN THE ROOM OR A WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM IS INSTALLED CAPABLE OF SUPPLYING OUTDOOR VENTILATION AIR OF 15 CFM PER OCCUPANT WITH 2 FOR THE FIRST BEDROOM AND ONE FOR EVERY ADDITIONAL BEDROOM.
- THE GLAZED AREAS NEED NOT BE PROVIDED IN ROOMS WHERE THE ABOVE EXCEPTION IS MET AND ARTIFICIAL LIGHT IS PROVIDED CAPABLE OF PRODUCING AN AVERAGE ILLUMINATION OF SIX FOOTCANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES

- ALL BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA OF NOT LESS THAN THREE SQUARE FEET, 1/2 OF WHICH MUST BE OPENABLE

**EXCEPTION:**

THE GLAZED AREA SHALL NOT BE REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION SYSTEM ARE PROVIDED. VENTILATION AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTSIDE.

- ATTIC VENTILATION WITH A CEILING VAPOR BARRIER: PROVIDE AT LEAST ONE (1) SQUARE FOOT OF FREE AREA FOR EACH THREE HUNDRED (300) SQUARE FEET OF CEILING AREA.
- ATTIC VENTILATION WITHOUT A CEILING VAPOR BARRIER: PROVIDE AT LEAST ONE (1) SQUARE FOOT OF FREE AREA FOR EACH ONE HUNDRED-FIFTY (150) SQUARE FEET OF CEILING AREA.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A MOISTURE BARRIER AND PROPERLY INSULATE ALL WALLS AND CEILINGS TO AIR LEAKAGE INTO UNCONDITIONED SPACES.
- IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, EVES, OVERHANGS AND OTHER SIMILAR UNCONDITIONED, UNINSULATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC., TO AVOID MOISTURE, CONDENSATION, FREEZE THAW, ICE DAMMING, AND OTHER SIMILAR ISSUES.

**PLUMBING:**

- ALL SANITARY LINES WITHIN WALLS AND FLOORS ADJOINING LIVING SPACES ARE TO BE SOUND INSULATED.
- ALL PLUMBING WITHIN WALL OR FLOOR CAVITIES WHICH BORDER UNCONDITIONED SPACES, ARE TO BE INSULATED AND ON THE WARM SIDE OF THE CAVITY INSULATION TO AVOID FREEZING.

**SMOKE & CARBON MONOXIDE DETECTORS/ALARMS:**

- COMBINATION SMOKE AND CARBON MONOXIDE ALARMS ARE ACCEPTABLE PROVIDED SAID ALARMS HAVE SIMULATED VOICE AND TONE ALARMS THAT CLEARLY DISTINGUISH BETWEEN THE TWO TYPES OF EMERGENCIES. IF COMBINATION ALARMS ARE TO BE USED THAN ALL REQUIRED CRITERIA FOR SMOKE AND CARBON MONOXIDE DETECTORS NEED TO BE MET.
- FIRE DEPARTMENTS ARE REQUIRED TO INSPECT, UPON SALE OR TRANSFER, ALL DWELLING UNITS FOR REQUIRED SMOKE AND CARBON MONOXIDE DETECTORS.
- CONSUMERS SHALL CHECK WITH LOCAL BUILDING AND/OR FIRE OFFICIALS FOR ACCEPTED ALARM TYPES AND LOCATIONS FOR PROPER INSTALLATION IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS

**SMOKE ALARMS/DETECTORS:**

- ALL ONE AND TWO FAMILY SHALL BE EQUIPPED WITH A HOUSEHOLD FIRE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURERS INSTRUCTIONS AND LISTING CRITERIA.
- SMOKE DETECTORS ARE REQUIRED TO BE PERMANENTLY WIRED TO AN AC PRIMARY POWER SOURCE AND SHALL HAVE SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES.
- WHERE MORE THAN ONE SMOKE DETECTOR IS REQUIRED, ALL REQUIRED DETECTORS SHALL BE INSTALLED SO THAT THE ACTIVATION OF ANY DETECTOR SHALL CAUSE THE ALARM IN ALL REQUIRED SMOKE DETECTORS IN THE DWELLING UNIT TO SOUND (MIN. 85 dBA AT 10 FEET, 75 dBA IN BEDROOMS)
- SMOKE DETECTORS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS
  - IN THE IMMEDIATE VICINITY OF BEDROOMS
  - IN ALL BEDROOMS
  - IN EACH STORY OF A UNIT (INCLUDING BASEMENTS & CELLARS) FOR EACH 1,000 SQ.FT. OR PART THEREOF.
  - NEAR THE BASE OF ALL STAIRS WHERE SUCH STAIRS LEAD TO ANOTHER OCCUPIED FLOOR
- PHOTO ELECTRIC SMOKE DETECTORS ARE REQUIRED IF LOCATED WITHIN 20 FEET OF A KITCHEN OR BATHROOM
- WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED TO AN EXISTING DWELLING, THE ENTIRE BUILDING SHALL BE PROVIDED WITH SMOKE DETECTORS DESIGNED AND LOCATED AS REQUIRED FOR NEW DWELLINGS.

**CARBON MONOXIDE ALARMS/DETECTORS:**

- ALL ONE AND TWO FAMILY DWELLINGS SHALL BE EQUIPPED WITH A HOUSEHOLD CARBON MONOXIDE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURERS INSTRUCTIONS AND LISTING CRITERIA.
- CARBON MONOXIDE DETECTORS SHALL BE LOCATED ON EVERY LEVEL OF THE DWELLING UNIT INCLUDING BASEMENTS AND CELLARS (BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS).
- ALL ALARM-SOUNDING APPLIANCES SHALL HAVE A MINIMUM RATING OF 85 dBA AT 10 FEET

**HEAT DETECTORS:**

- HEAT DETECTORS SHALL BE INSTALLED IN ANY INTEGRAL OR ATTACHED GARAGE TO THE MAIN HOUSE.
- A NEW ADDITION ATTACHED GARAGE TO AN EXISTING DWELLING INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CRITERIA. IF THE EXISTING DWELLING CONTAINS A FIRE DETECTION SYSTEM THAT IS COMPATIBLE WITH THE GARAGE HEAT DETECTOR, THAT THE GARAGE HEAT DETECTOR SHALL BE INTERCONNECTED TO THE EXISTING DWELLING FIRE DETECTION SYSTEM. IF THE DETECTOR IS NOT COMPATIBLE THAN THE DETECTOR SHALL BE CONNECTED TO A SOUNDER OR A COMPATIBLE HEAT DETECTOR CONTAINING A SOUNDING DEVICE, LOCATED IN THE DWELLING UNIT AND WITHIN 20 FEET OF THE NEAREST DOOR THO THE GARAGE.
- FOR FLAT-FINISHED GARAGE CEILINGS, THE DECTECTOR SHALL BE LOCATED ON OR NEAR THE CENTER OF THE GARAGE CEILING. FOR VAULTED/SLOPED CEILINGS, THE DETECTOR SHALL BE PLACED IN THE APPROXIMATE CENTER OF THE VAULTED SPACE.
- THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO ALL SMOKE DETECTORS OF THE REQUIRED HOUSEHOLD FIRE ALARM SYSTEM, SUCH THAT THE ACTIVATION OF THE HEAT DETECTOR WILL ACTIVATE ALL OF THE AUDIBLE ALARMS OF THE HOUSEHOLD FIRE ALARM SYSTEM THROUGHOUT THE DWELLING.

**SPRINKLERS:**

THE 3-UNIT TOWNHOUSE HAS AN AGGREGATE AREA OF +/-12,161 SF AND SHALL BE DESIGNED WITH A MINIMUM NFPA 13 SYSTEM.

## TITLE SHEET

**CONSTRUCTION BY:  
FIRST COLONY DEV. LLC**

**#50 NORTHWOOD DRIVE, NORTHWOOD TOWNHOUSE CONDOS, SUDBURY, MA**

SHEET:

JOB NO. 20180101

# FIRST COLONY DEVELOPMENT, INC.



OWNER / CLIENT:

FIRST COLONY DEV. LLC  
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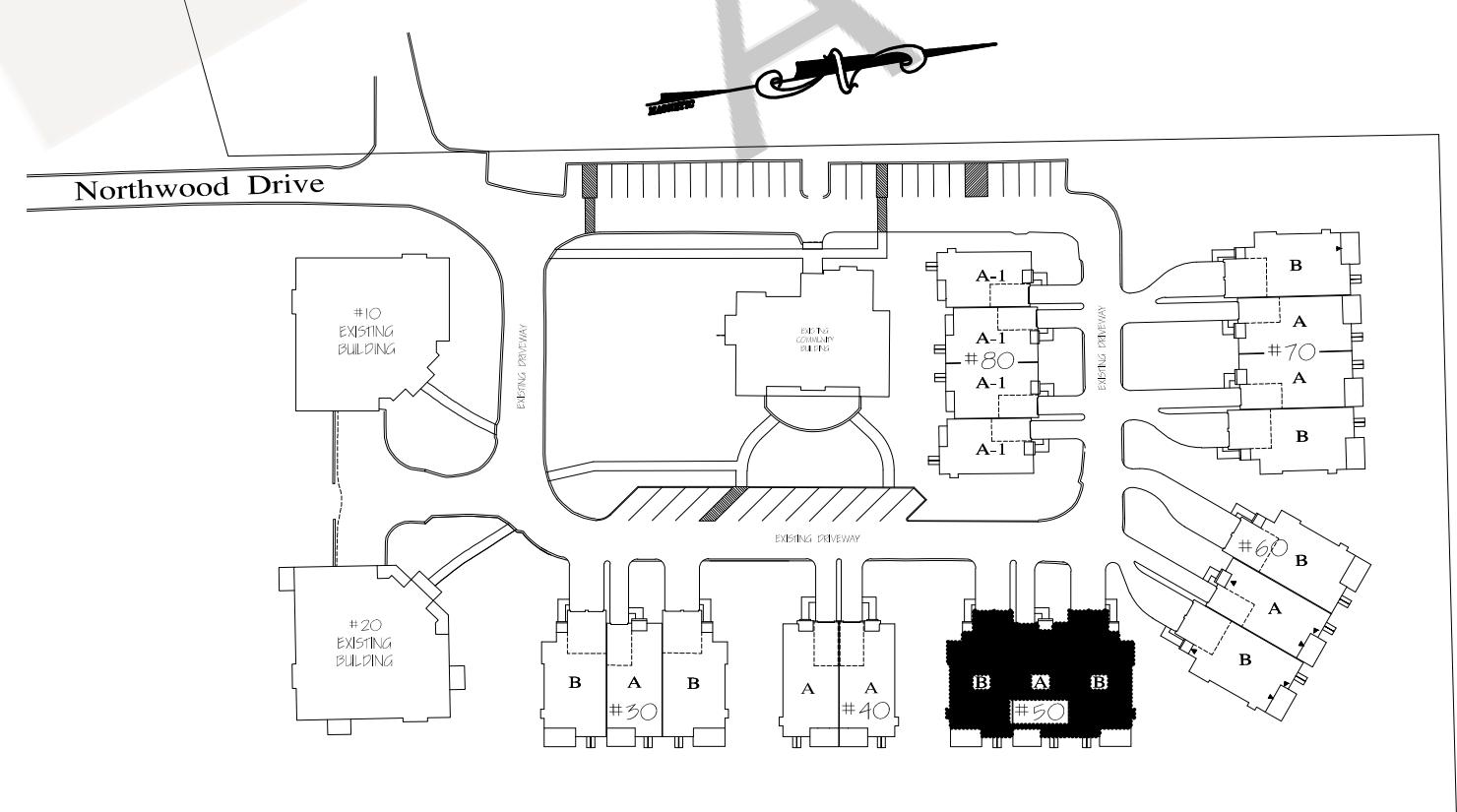
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STRUCTURAL ENGINEER

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5 MICHAEL RD.  
EAST BRIDGEWATER  
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CONTRACTOR:

LOBISSEUR BUILDING CORP.  
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KEY PLAN

## SCHEDULE OF DRAWINGS:

- A0.1 TITLE SHEET
- A1.1 1ST FLOOR PLAN
- A1.2 2ND FLOOR PLAN
- A2.1 ELEVATIONS
- A2.2 ELEVATIONS
- A3.1 BUILDING SECTIONS
- A3.2 BUILDING SECTIONS
- A4.1 WALL SECTIONS
- A4.2 AIR BARRIER NOTES & DETAILS
- A5.1 DETAILS
- S1.1 FOUNDATION PLAN
- S1.2 1ST FLOOR FRAMING
- S1.3 2ND FLOOR FRAMING
- S1.4 CEILING FRAMING
- S1.5 ROOF FRAMING
- S2.1 DETAILS
- S2.2 DETAILS

DATE: AUGUST 1, 2016
DRAWN BY: RWB contact@hpadesign.com
CHECKED BY: HPA
PATH: 20180101_FIRST COLONY DEV 20180101LCDs
SCALE: SEE DRAWING
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CONSTRUCTION BY:  
FIRST COLONY DEV. LLC  
#50 NORTHWOOD DRIVE, NORTHWOOD TOWNSHOUSE CONDOS, SUDBURY, MA

GENERAL NOTES	MINIMUM ROOM REQUIREMENTS
GENERAL:	
1. THE GOVNING BUILDING CODE FOR THE DESIGN AND CONSTRUCTION IS THE INTERNATIONAL RESIDENTIAL (IRC 2015) WITH MASSACHUSETTS STATE BUILDING CODE AMENDMENTS (RTH EDITION).	
2. ARCHITECTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.	
3. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. IF THE CONTRACTOR NOTIFIES THE ARCHITECT, THE ARCHITECT ALSO SHALL NOTIFY THE CONTRACTOR OF THE PROBLEMS WITHIN 10 DAYS. IF ANY CONSTRUCTION NEEDS TO BE ADJUSTED DUE TO FIELD CONDITIONS.	
4. AN ASSUMPTION IS MADE THAT THE ELEVATION DIFFERENCE BETWEEN THE GARAGE SLAB AND THE FIRST FLOOR IS NO MORE THAN ONE INCH. IF THIS IS INCORRECT, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT.	
5. ALL FLASHING IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE CORROSION RESISTANT.	
6. ALL DRAINS AND HOT WATER PIPES SHALL BE INSULATED AND WHERE NECESSARY, A VAPOR BARRIER FOR THE DRAINS WILL BE PROVIDED TO PREVENT CONDENSATION.	
7. ALL GABLES SHALL BE CONSTRUCTED SO THE TOP OF THE FLUE IS 2' ABOVE ANY ROOF/WALL WITHIN 10'-0".	
8. PROVIDE CONTINUOUS PITCH BREAK VENTS AT ALL ROOF/RAIL INTERSECTIONS WHERE SOFFIT VENTS ARE INSTALLED.	
DIMENSIONS	
1. DIMENSIONING STANDARDS ARE AS FOLLOWS UNLESS OTHERWISE NOTED: a) DIMENSIONS EXTERIOR WALLS ARE FROM OUTSIDE FACE OF A STUD OR CONCRETE WALL. b) DIMENSIONS ARE FROM THE CENTER LINE OF ONE OPENING TO THE CENTER LINE OF ANOTHER OPENING FROM THE CENTER OF ANOTHER OPENING OR THE OUTSIDE FACE OF A STUD OR CONCRETE WALL. c) INTERIOR DIMENSIONING IS FROM THE CENTER OF ONE OPENING TO THE MIDDLE OF THE STUD UNLESS OTHERWISE SPECIFIED.	
2. INTERIOR DIMENSION AT STAIRS REPRESENTS A DIMENSION TO THE FINISHED EDGE OF THE STAIR.	
3. INTERIOR DIMENSIONING AT DOORS AND CLOSETS IS FROM THE CENTER OF THE DOOR OR CLOSET TO THE CENTER OF THE DOOR OR CLOSET. DOORS AND CLOSETS MUST BE CENTERED WITHIN THE RECORDED R.D. AND ATTACHED.	
4. DIMENSIONS DEPICTING THE BUILDING HEIGHT, SHOW THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR THE BUILDING AND BUILDING COMPONENTS ONLY. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF.	
5. CLOSET DOORS THAT ARE NOT CENTERED ARE TYPICALLY 4" TO 6" DEPENDING ON THE FINISH AND DIMENSIONS LOCATING CASED OPENINGS ARE TYPICALLY DIMENSIONED TO THE CENTER OF THAT OPENING, UNLESS OTHERWISE NOTED.	
STARWAYS/BALCONIES	
1. STARWAYS SHALL NOT BE LESS THAN 80" IN CLEAR HEIGHT. ALL PORCH ABOVE THE FINISHED HANDBAR SHALL HAVE A MINIMUM CLEAR HEIGHT OF 72". TREAD DEPTH SHALL BE 10" MINIMUM. DECKING DEPTH SHALL BE 6" WITH NO MORE THAN 1/4". UNDER TREADS SHALL HAVE A MIN. DEPTH EQUAL TO THE STRAIGHT RUN TREAD DEPTH AT A DISTANCE OF 12" FROM THE HANDBAR SIDE WITH A MIN. TREAD DEPTH OF 10" AT THE HANDBAR SIDE. STARWAYS SHALL NOT BE SLOPED. STARWAYS SHALL NOT BE SLOPED PLANE OR SLOPED TREADS.	
2. HANDRAILS SHALL BE PROVIDED AT LEAST ONE CONTINUOUS RAIL OR FLIGHT OF STEPS OR FLIGHTS OF STEPS HAVING 1 OR MORE RISERS. MINIMUM HEIGHT SHALL BE 30" MAXIMUM 34" WITH A MAXIMUM NOT TO EXCEED 34" TOTAL RISE. STARWAYS SHALL NOT BE SLOPED. STARWAYS SHALL NOT BE SLOPED PLANE OR SLOPED TREADS.	
3. GUARDRAILS, 36" MINIMUM IN HEIGHT, SHALL BE INSTALLED IN FLORAL, PORCH AND/OR BALCONY AREA'S HAVING MORE THAN 30" INCHES ABOVE A FLORAL OR GRADE BELOW. GUARDRAILS ON OPEN SIDES OF STAIRS, WITH A TOTAL RISE OF MORE THAN 30" INCHES ABOVE A FLORAL OR GRADE BELOW, SHALL NOT BE LOWER THAN THE MAXIMUM CLEAR OPENING BETWEEN RAILS, BALusters, and floors. SHALL NOT EXCEED FOR 4" INCHES.	
EXCEPTION: THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARD AT THE OPEN SIDE OF A STARWAY SHALL NOT BE GREATER THAN A SIX INCH (6") SPHERE CANNOT PASS THROUGH. OPENINGS FOR REQUIRED GUARDS ON THE SIDES OF STAR RAIDS SHALL NOT ALLOW A SPHERE 4-3/8" INCHES TO PASS THROUGH.	
4. AN ISOLATED DOOR SHALL BE PROVIDED AT THE TOP OF AN INTEGRAL BASEMENT STAIRS OR INSTITUTE THE WALLS AND CEILINGS OF THE STAIRS. AN ISOLATED DOOR SHALL BE PROVIDED AT THE BOTTOM OF BASEMENT STAIRS.	
5. AN ISOLATED DOOR SHALL BE PROVIDED AT THE TOP OF ATTIC STAIRS AND INSTITUTE THE WALLS AND CEILINGS OF THE STAIRS. AN ISOLATED DOOR SHALL BE PROVIDED AT THE BOTTOM OF ATTIC STAIRS.	
6. IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, DUES, OVERHANGS AND OTHER UNCONDITIONED UNINTEGRATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC, TO AVOID MOISTURE, CONDENSATION, FREEZE, ICE DAMMING, AND OTHER SIMILAR ISSUES.	
PLUMBING	
1. ALL SANITARY LINES WITHIN WALLS AND FLOORS ADJOINING LIVING SPACES ARE TO BE SOUND INSULATED.	
2. ALL PLUMBING WITHIN WALLS OR FLOOR CAUTIONS WHICH BORDER UNCONDITIONED SPACES, ARE TO BE INSULATED AND ON THE WARM SIDE OF THE CAUTIY INSULATION TO AVOID FREEZING.	
SMOKE & CARBON MONOXIDE DETECTORS	
1. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS ARE ACCEPTABLE PROVIDED SMOKE ALARMS HAVE OPERATIONAL TESTS AND CARBON MONOXIDE ALARMS THAT CLEARLY DISTINCTION BETWEEN THE TWO TYPES OF DETERENCES. IF COMBINATION ALARMS ARE TO BE USED, ALL REQUIRED CRITERIA FOR SMOKE AND CARBON MONOXIDE ALARMS SHALL BE MET.	
2. FIRE DEPARTMENTS REQUIRE THAT SMOKE ALARMS BE PLACED IN ALL REQUIRED SPACES FOR REQUIRED SMOKE AND CARBON MONOXIDE ALARMS.	
3. IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, DUES, OVERHANGS AND OTHER UNCONDITIONED UNINTEGRATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC, TO AVOID MOISTURE, CONDENSATION, FREEZE, ICE DAMMING, AND OTHER SIMILAR ISSUES.	
4. SMOKE DETECTORS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS: a) IN EACH BEDROOM. b) IN EACH STORY OF ALL UNINTEGRATED SPACES / CELLIARS FOR EACH 100 SQFT OR PART THEREOF. c) IN EACH STORY OF ALL STAIRS WHERE STAIRS LEAD TO ANOTHER OCCUPIED FLOOR.	
5. PHOTO ELECTRIC SMOKE DETECTORS ARE REQUIRED IF LOCATED WITHIN A KITCHEN OR BATHROOM.	
6. WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED TO AN EXISTING DWELLING, THE ENTIRE BUILDING SHALL BE PROVIDED WITH SMOKE DETECTORS DESIGNED AND LOCATED AS REQUIRED FOR NEW DWELLINGS.	
CARBON MONOXIDE ALARMS/DETECTORS	
1. ALL ONE AND TWO FAMILY DWELLINGS SHALL BE EQUIPPED WITH A HOUSEHOLD CARBON MONOXIDE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURER'S INSTRUCTIONS AND OTHER CRITERIA.	
2. CARBON MONOXIDE DETECTORS SHALL BE LOCATED ON EVERY LEVEL OF THE DWELLING UNIT INCLUDING BASEMENTS AND CELLIARS (NOT INCLUDING GRANL SPACES AND UNINTEGRATED ATTICS).	
3. ALL ALARM-SOUNDING APPLIANCES SHALL HAVE A MINIMUM RATING OF 85 dB(A) AT 10 FEET, 15 dB IN BEDROOMS.	
4. HEAT DETECTORS SHALL BE INSTALLED IN ANY INTEGRAL OR ATTACHED GARAGE TO THE MAIN HOUSE. A NEW ADDITION ATTACHED GARAGE TO AN EXISTING DWELLING INSTALLED IN ACCORDANCE WITH THE EXISTING DWELLING'S FIRE ALARM SYSTEM. THE NEW ADDITION ATTACHED GARAGE SHALL BE CONNECTED TO A CANISTER OR A COMPATIBLE HEAT DETECTOR CONTAINING A SOUNING DEVICE LOCATED IN THE EXISTING DWELLING.	
5. FOR FLAT-FINISHED CEILINGS, THE DETECTOR SHALL BE LOCATED ON OR NEAR THE CENTER OF THE GARAGE CEILING. FOR VAULTED/CEILINGS, THE DETECTOR SHALL BE PLACED IN THE APPROXIMATE CENTER OF THE CEILING.	
6. THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO ALL SMOKE DETECTORS. THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO THE REARRED HOUSEHOLD FIRE ALARM SYSTEM SUCH THAT THE ACTIVATION OF THE HEAT DETECTOR WILL ACTIVATE ALL OF THE ALARMS OF THE HOUSEHOLD FIRE ALARM SYSTEM THROUGHOUT THE DWELLING.	
SPRINKLERS	
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# FIRST COLONY DEVELOPMENT, INC.



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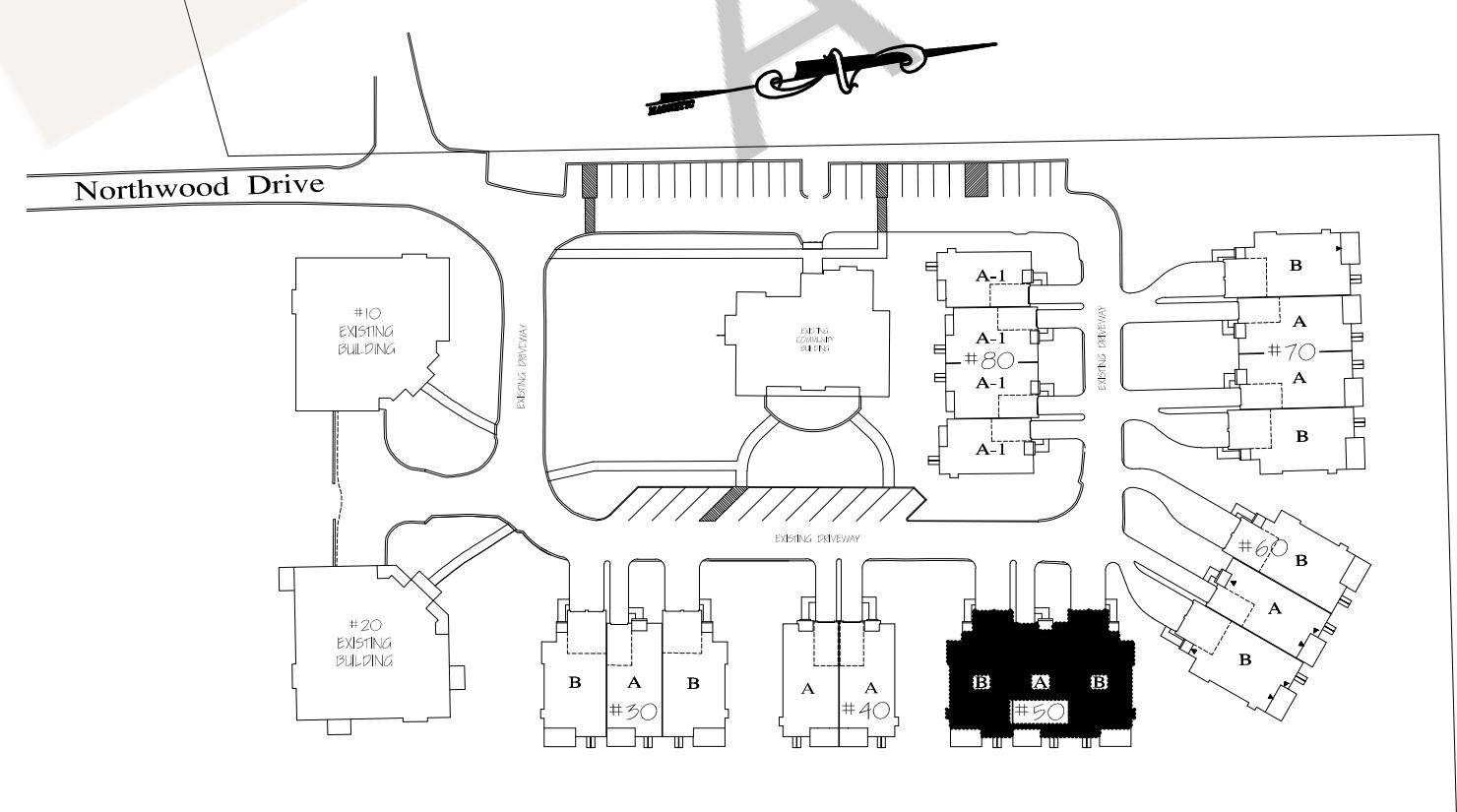
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CONTRACTOR:

LOBISSEUR BUILDING CORP.  
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HOPEDALE, MA 01747  
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KEY PLAN

## SCHEDULE OF DRAWINGS:

- A0.1 TITLE SHEET
- A1.1 1ST FLOOR PLAN
- A1.2 2ND FLOOR PLAN
- A2.1 ELEVATIONS
- A2.2 ELEVATIONS
- A3.1 BUILDING SECTIONS
- A3.2 BUILDING SECTIONS
- A4.1 WALL SECTIONS
- A4.2 AIR BARRIER NOTES & DETAILS
- A5.1 DETAILS
- S1.1 FOUNDATION PLAN
- S1.2 1ST FLOOR FRAMING
- S1.3 2ND FLOOR FRAMING
- S1.4 CEILING FRAMING
- S1.5 ROOF FRAMING
- S2.1 DETAILS
- S2.2 DETAILS

DATE: AUGUST 1, 2016
DRAWN BY: RWB contact@hpadesign.com
CHECKED BY: HPA
PATH: 20180101_FIRST COLONY DEV 20180101LCDs
SCALE: SEE DRAWING
REVISIONS: # DATE DESC.
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CONSTRUCTION BY:  
FIRST COLONY DEV. LLC  
#50 NORTHWOOD DRIVE, NORTHWOOD TOWNSHOUSE CONDOS, SUDBURY, MA

GENERAL NOTES	MINIMUM ROOM REQUIREMENTS
GENERAL:	
1. THE GOVNING BUILDING CODE FOR THE DESIGN AND CONSTRUCTION IS THE INTERNATIONAL RESIDENTIAL (IRC 2015) WITH MASSACHUSETTS STATE BUILDING CODE AMENDMENTS (RTH EDITION).	
2. ARCHITECTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.	
3. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. IF THE CONTRACTOR NOTIFIES THE ARCHITECT, THE ARCHITECT ALSO SHALL NOTIFY THE CONTRACTOR OF THE PROBLEMS WITHIN 10 DAYS. IF ANY CONSTRUCTION NEEDS TO BE ADJUSTED DUE TO FIELD CONDITIONS.	
4. AN ASSUMPTION IS MADE THAT THE ELEVATION DIFFERENCE BETWEEN THE GARAGE SLAB AND THE FIRST FLOOR IS NO MORE THAN ONE INCH. IF THIS IS INCORRECT, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT.	
5. ALL FLASHING IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE CORROSION RESISTANT.	
6. ALL DRAINS AND HOT WATER PIPES SHALL BE INSULATED AND WHERE NECESSARY, A VAPOR BARRIER FOR THE DRAINS WILL BE PROVIDED TO PREVENT CONDENSATION.	
7. ALL GABLES SHALL BE CONSTRUCTED SO THE TOP OF THE FLUE IS 2' ABOVE ANY ROOF/WALL WITHIN 10'-0".	
8. PROVIDE CONTINUOUS PITCH BREAK VENTS AT ALL ROOF/RAIL INTERSECTIONS WHERE SOFFIT VENTS ARE INSTALLED.	
DIMENSIONS	
1. DIMENSIONING STANDARDS ARE AS FOLLOWS UNLESS OTHERWISE NOTED: a) DIMENSIONS EXTERIOR WALLS ARE FROM OUTSIDE FACE OF A STUD OR CONCRETE WALL. b) DIMENSIONS ARE FROM THE CENTER LINE OF ONE OPENING TO THE CENTER LINE OF ANOTHER OPENING FROM THE CENTER OF ANOTHER OPENING OR THE OUTSIDE FACE OF A STUD OR CONCRETE WALL. c) INTERIOR DIMENSIONING IS FROM THE CENTER OF ONE OPENING TO THE MIDDLE OF THE STUD UNLESS OTHERWISE SPECIFIED.	
2. INTERIOR DIMENSION AT STAIRS REPRESENTS A DIMENSION TO THE FINISHED EDGE OF THE STAIR.	
3. INTERIOR DIMENSIONING AT DOORS AND CLOSETS IS FROM THE CENTER OF THE DOOR OR CLOSET TO THE CENTER OF THE DOOR OR CLOSET. DOORS AND CLOSETS MUST BE CENTERED WITHIN THE RECORDED R.D. AND ATTACHED.	
4. DIMENSIONS DEPICTING THE BUILDING HEIGHT, SHOW THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR THE BUILDING AND BUILDING COMPONENTS ONLY. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF.	
5. CLOSET DOORS THAT ARE NOT CENTERED ARE TYPICALLY 4" TO 6" DEPENDING ON THE FINISH AND DIMENSIONS LOCATING CASED OPENINGS ARE TYPICALLY DIMENSIONED TO THE CENTER OF THAT OPENING, UNLESS OTHERWISE NOTED.	
STARWAYS/BALCONIES	
1. STARWAYS SHALL NOT BE LESS THAN 80" IN CLEAR HEIGHT. ALL PORCH ABOVE THE FINISHED HANDBAR SHALL HAVE A MINIMUM CLEAR HEIGHT OF 72". TREAD DEPTH SHALL BE 10" MINIMUM. DECKING DEPTH SHALL BE 6" WITH NO MORE THAN 1/4". UNDER TREADS SHALL HAVE A MIN. DEPTH EQUAL TO THE STRAIGHT RUN TREAD DEPTH AT A DISTANCE OF 12" FROM THE HANDBAR SIDE WITH A MIN. TREAD DEPTH OF 10" AT THE HANDBAR SIDE. STARWAYS SHALL NOT BE SLOPED. STARWAYS SHALL NOT BE SLOPED PLANE OR SLOPED TREADS.	
2. HANDRAILS SHALL BE PROVIDED AT LEAST ONE CONTINUOUS RAIL OR FLIGHT OF STEPS OR FLIGHTS OF STEPS HAVING 1 OR MORE RISERS. MINIMUM HEIGHT SHALL BE 30" MAXIMUM 34" WITH A MAXIMUM NOT TO EXCEED 34" TOTAL RISE. STARWAYS SHALL NOT BE SLOPED. STARWAYS SHALL NOT BE SLOPED PLANE OR SLOPED TREADS.	
3. GUARDRAILS, 36" MINIMUM IN HEIGHT, SHALL BE INSTALLED IN FLORAL, PORCH AND/OR BALCONY AREA'S HAVING MORE THAN 30" INCHES ABOVE A FLORAL OR GRADE BELOW. GUARDRAILS ON OPEN SIDES OF STAIRS, WITH A TOTAL RISE OF MORE THAN 30" INCHES ABOVE A FLORAL OR GRADE BELOW, SHALL NOT BE LOWER THAN THE MAXIMUM CLEAR OPENING BETWEEN RAILS, BALusters, and floors. SHALL NOT EXCEED FOR 4" INCHES.	
EXCEPTION: THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARD AT THE OPEN SIDE OF A STARWAY SHALL NOT BE GREATER THAN A SIX INCH (6") SPHERE CANNOT PASS THROUGH. OPENINGS FOR REQUIRED GUARDS ON THE SIDES OF STAR RAIDS SHALL NOT ALLOW A SPHERE 4-3/8" INCHES TO PASS THROUGH.	
4. AN ISOLATED DOOR SHALL BE PROVIDED AT THE TOP OF AN INTEGRAL BASEMENT STAIRS OR INSTITUTE THE WALLS AND CEILINGS OF THE STAIRS. AN ISOLATED DOOR SHALL BE PROVIDED AT THE BOTTOM OF BASEMENT STAIRS.	
5. AN ISOLATED DOOR SHALL BE PROVIDED AT THE TOP OF ATTIC STAIRS AND INSTITUTE THE WALLS AND CEILINGS OF THE STAIRS. AN ISOLATED DOOR SHALL BE PROVIDED AT THE BOTTOM OF ATTIC STAIRS.	
6. IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, DUES, OVERHANGS AND OTHER UNCONDITIONED UNINTEGRATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC, TO AVOID MOISTURE, CONDENSATION, FREEZE, ICE DAMMING, AND OTHER SIMILAR ISSUES.	
PLUMBING	
1. ALL SANITARY LINES WITHIN WALLS AND FLOORS ADJOINING LIVING SPACES ARE TO BE SOUND INSULATED.	
2. ALL PLUMBING WITHIN WALLS OR FLOOR CAUTIONS WHICH BORDER UNCONDITIONED SPACES, ARE TO BE INSULATED AND ON THE WARM SIDE OF THE CAUTIY INSULATION TO AVOID FREEZING.	
SMOKE & CARBON MONOXIDE DETECTORS	
1. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS ARE ACCEPTABLE PROVIDED SMOKE ALARMS HAVE OPERATIONAL TESTS AND CARBON MONOXIDE ALARMS THAT CLEARLY DISTINCTION BETWEEN THE TWO TYPES OF DETERENCES. IF COMBINATION ALARMS ARE TO BE USED, ALL REQUIRED CRITERIA FOR SMOKE AND CARBON MONOXIDE ALARMS SHALL BE MET.	
2. FIRE DEPARTMENTS REQUIRE THAT SMOKE ALARMS BE PLACED IN ALL REQUIRED SPACES FOR REQUIRED SMOKE AND CARBON MONOXIDE ALARMS.	
3. IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, DUES, OVERHANGS AND OTHER UNCONDITIONED UNINTEGRATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC, TO AVOID MOISTURE, CONDENSATION, FREEZE, ICE DAMMING, AND OTHER SIMILAR ISSUES.	
4. SMOKE DETECTORS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS: a) IN EACH BEDROOM. b) IN EACH STORY OF ALL UNINTEGRATED SPACES / CELLIARS FOR EACH 100 SQFT OR PART THEREOF. c) IN EACH STORY OF ALL STAIRS WHERE STAIRS LEAD TO ANOTHER OCCUPIED FLOOR.	
5. PHOTO ELECTRIC SMOKE DETECTORS ARE REQUIRED IF LOCATED WITHIN A KITCHEN OR BATHROOM.	
6. WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED TO AN EXISTING DWELLING, THE ENTIRE BUILDING SHALL BE PROVIDED WITH SMOKE DETECTORS DESIGNED AND LOCATED AS REQUIRED FOR NEW DWELLINGS.	
CARBON MONOXIDE ALARMS/DETECTORS	
1. ALL ONE AND TWO FAMILY DWELLINGS SHALL BE EQUIPPED WITH A HOUSEHOLD CARBON MONOXIDE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURER'S INSTRUCTIONS AND OTHER CRITERIA.	
2. CARBON MONOXIDE DETECTORS SHALL BE LOCATED ON EVERY LEVEL OF THE DWELLING UNIT INCLUDING BASEMENTS AND CELLIARS (NOT INCLUDING GRANL SPACES AND UNINTEGRATED ATTICS).	
3. ALL ALARM-SOUNDING APPLIANCES SHALL HAVE A MINIMUM RATING OF 85 dB(A) AT 10 FEET, 15 dB IN BEDROOMS.	
4. HEAT DETECTORS SHALL BE INSTALLED IN ANY INTEGRAL OR ATTACHED GARAGE TO THE MAIN HOUSE. A NEW ADDITION ATTACHED GARAGE TO AN EXISTING DWELLING INSTALLED IN ACCORDANCE WITH THE EXISTING DWELLING'S FIRE ALARM SYSTEM. THE NEW ADDITION ATTACHED GARAGE SHALL BE CONNECTED TO A CANISTER OR A COMPATIBLE HEAT DETECTOR CONTAINING A SOUNING DEVICE LOCATED IN THE EXISTING DWELLING.	
5. FOR FLAT-FINISHED CEILINGS, THE DETECTOR SHALL BE LOCATED ON OR NEAR THE CENTER OF THE GARAGE CEILING. FOR VAULTED/CEILINGS, THE DETECTOR SHALL BE PLACED IN THE APPROXIMATE CENTER OF THE CEILING.	
6. THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO ALL SMOKE DETECTORS. THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO THE REARRED HOUSEHOLD FIRE ALARM SYSTEM SUCH THAT THE ACTIVATION OF THE HEAT DETECTOR WILL ACTIVATE ALL OF THE ALARMS OF THE HOUSEHOLD FIRE ALARM SYSTEM THROUGHOUT THE DWELLING.	
SPRINKLERS	
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## OWNER / CLIENT:

FIRST COLONY DEV. LLC  
929 POST ROAD EAST  
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**DWD ENGINEERING, INC.**  
5 MICHAEL RD.  
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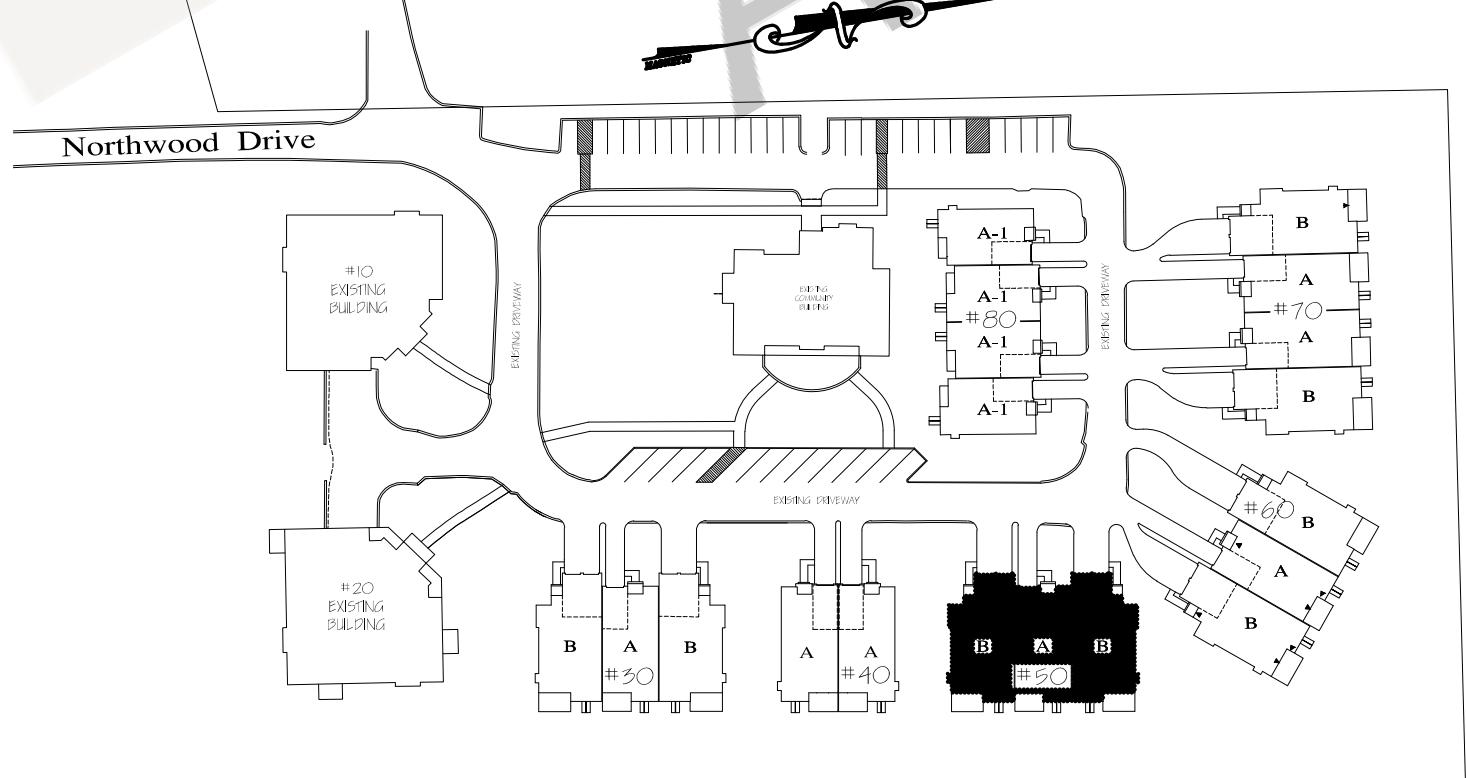
## CONTRACTOR:

LOBISSEER BUILDING CORP.  
1 CHARLESVIEW ROAD  
HOPEDALE, MA 01747  
TEL. (508) 478-6235  
FAX (508) 473-0794

# SCHEDULE OF DRAWINGS:

- 0.1 TITLE SHEET
  - 0.1 1ST FLOOR PLAN
  - 0.2 2ND FLOOR PLAN
  - 0.1 ELEVATIONS
  - 0.2 ELEVATIONS
  - 0.1 BUILDING SECTIONS
  - 0.2 BUILDING SECTIONS
  - 0.1 WALL SECTIONS
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  - 0.1 DETAILS
  - 0.1 FOUNDATION PLAN
  - 0.2 1ST FLOOR FRAMING
  - 0.3 2ND FLOOR FRAMING
  - 0.4 CEILING FRAMING
  - 0.5 ROOF FRAMING
  - 0.1 DETAILS
  - 0.2 DETAILS

## KEY PLAN



## GENERAL NOTES

### GENERAL:

- I. THE GOVERNING BUILDING CODE FOR THE DESIGN AND CONSTRUCTION IS THE INTERNATIONAL RESIDENTIAL (IRC 2015) WITH MASSACHUSETTS STATE BUILDING CODE AMENDMENTS (9TH EDITION).
2. ARCHITECTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH STRUCTURAL, MECHANICAL, ELECTRICAL, AND SHOP DRAWINGS.
3. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES, AMBIGUITIES, OR INCONSISTENCIES PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL ALSO NOTIFY THE ARCHITECT, PRIOR TO PROCEEDING WITH THE WORK, IF ANY CONSTRUCTION NEEDS TO BE ADJUSTED DUE TO FIELD CONDITIONS.
4. AN ASSUMPTION HAS BEEN MADE THAT THE ELEVATION DIFFERENCE BETWEEN THE GARAGE SLAB AND THE FIRST FLOOR IS 24". THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IF THIS IS INCONSISTENT WITH THE SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
5. ALL FLASHING IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE CORROSION RESISTANT.
6. ALL DUCTWORK AND HOT WATER PIPING SHALL BE INSULATED AND WHERE NECESSARY, A VAPOR BARRIER FOR THE DUCTWORK WILL BE PROVIDED TO PREVENT CONDENSATION.
7. ALL CHIMNEYS TO BE CONSTRUCTED SO THE TOP OF THE FLUE IS 2'-0" ABOVE ANY ROOF/WALL WITHIN 10'-0".
8. PROVIDE CONTINUOUS PITCH BREAK VENTS AT ALL ROOF/WALL INTERSECTIONS WHERE SOFFIT VENTS ARE INSTALLED.

### DIMENSIONS:

- I. DIMENSIONING STANDARDS WITHIN THE DOCUMENTS ARE AS FOLLOWS UNLESS OTHERWISE NOTED:
  - A) DIMENSIONS TO EXTERIOR WALLS ARE FROM OUTSIDE FACE OF A STUD OR CONCRETE WALL.
  - B) DIMENSIONING AT WINDOWS AND EXTERIOR DOORS REPRESENTS A DIMENSION TO THE CENTER OF THAT OPENING FROM THE CENTER OF ANOTHER OPENING OR THE OUTSIDE FACE OF A STUD OR CONCRETE WALL.
  - C) INTERIOR DIMENSIONING AT STUD WALLS REPRESENTS A DIMENSION TO THE MIDDLE OF THE STUD (UNLESS INTERIOR WALL IS ALSO AN EXTERIOR WALL, THEN DIMENSION IS TO FACE OF STUD).
2. INTERIOR DIMENSIONING AT STAIRS REPRESENTS A DIMENSION TO THE FINISHED FACE OF THE STAIR.
3. DIMENSIONS/LOCATIONS OF WALLS ENCLOSING TUB/SHOWER UNITS, PRE-MANUFACTURED FIREPLACES AND ALL OTHER BUILT-INS, MUST BE CONFIRMED WITH THE FIXTURE MANUFACTURER FOR THE REQUIRED R.O. AND ATTACHMENT.
4. DIMENSIONS DEPICTING THE BUILDING HEIGHT, SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS ARE FOR THE BUILDING AND BUILDING COMPONENTS ONLY. THE OVERALL BUILDING HEIGHT DEPICTED, IS FROM THE 1ST FLOOR DECK. THE OWNER/G.C. IS RESPONSIBLE FOR COORDINATING AND ESTABLISHING THE GRADE RELATIVE TO THE 1ST FLOOR, TO ENSURE COMPLIANCE WITH ZONING AND BUILDING CODE HEIGHT REQUIREMENTS.
5. ALL DIMENSIONS FROM EXISTING SURFACES ARE FROM FACE OF EXISTING SURFACE.
6. CLOSET DOORS THAT ARE NOT DIMENSIONED ARE TYPICALLY CENTERED WITHIN THE CLOSET.
7. ALL OTHER DOORS THAT ARE NOT DIMENSIONED ARE TYPICALLY 4" TO 6" (DEPENDING ON THE FINISH CASING WIDTH) FROM FACE FINISH TO THE DOOR OPENING ON THE BUTT SIDE.
8. DIMENSIONS LOCATING CASED OPENINGS ARE TYPICALLY DIMENSIONED TO THE CENTER OF THAT OPENING. TYP. UNLESS OTHERWISE NOTED.

### STAIRWAYS/BALCONIES:

- I. STAIRWAYS SHALL NOT BE LESS THAN 3'-0" IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. MAXIMUM RISER HEIGHT SHALL BE 8 1/4", MINIMUM TREAD DEPTH SHALL BE 9" WITH NOSE NOT TO EXCEED 1 1/4". WINDER TREADS SHALL HAVE A MIN. DEPTH EQUAL TO THE STRAIGHT RUN TREAD DEPTH AT A DISTANCE OF 12" FROM THE NARROWER SIDE WITH A MIN. TREAD DEPTH OF 3" AT ANY POINT. MINIMUM HEADROOM SHALL BE 6'-6" MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSE OR FROM THE FLOOR SURFACE OF A LANDING OR PLATFORM.
2. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT OF STAIRS WITH 4 OR MORE RISERS. MINIMUM HEIGHT SHALL NOT BE LESS THAN 34" WITH A MAXIMUM NOT TO EXCEED 38". HANDRAILS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT.
3. GUARDRAILS, 36" MINIMUM IN HEIGHT, SHALL BE INSTALLED IN FLOOR, PORCH, AND/OR BALCONY AREA MORE THAN THIRTY (30) INCHES ABOVE A FLOOR OR GRADE BELOW. GUARDRAILS ON OPEN SIDES OF STAIRS, WITH A TOTAL RISE OF MORE THAN THIRTY (30) INCHES ABOVE A FLOOR OR GRADE BELOW, SHALL BE NOT LESS THAN 34" IN HEIGHT MEASURED VERTICALLY FROM THE NOSE OF THE TREADS. THE MAXIMUM CLEAR OPENING BETWEEN RAILS, BALUSTERS, AND FLOORS SHALL NOT EXCEED FOUR (4) INCHES.

#### EXCEPTION:

THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARD AT THE OPEN SIDE OF A STAIRWAY MAY BE OF SUCH A SIZE THAT A SIX INCH (6) SPHERE CANNOT PASS THROUGH. OPENINGS FOR REQUIRED GUARDS ON THE SIDES OF STAIR TREADS SHALL NOT ALLOW A SPHERE 4-3/8 INCHES TO PASS THROUGH.

4. AN INSULATED DOOR SHALL BE PROVIDED AT THE TOP OF UNFINISHED BASEMENT STAIRS OR INSULATE THE WALLS AND THE UNDERSIDE OF STAIRS AND PROVIDE AN INSULATED DOOR AT THE BOTTOM OF BASEMENT STAIRS.
5. AN INSULATED DOOR SHALL BE PROVIDED AT THE TOP OF ATTIC STAIRS OR INSULATE THE WALLS AND UNDERSIDE OF STAIRS AND PROVIDE AN INSULATED DOOR AT THE BOTTOM OF ATTIC STAIRS.

### EMERGENCY ESCAPE AND RESCUE OPENINGS / EXTERIOR WINDOWS AND DOORS:

- I. WINDOW SIZES SHOWN ON THE DRAWINGS ARE BASED GENERICALLY ON ANDERSEN AND THE OWNER OR (GENERAL CONTRACTOR WHERE APPLICABLE) SHALL CHOOSE THE FINAL MANUFACTURER. WINDOW SIZES SHALL BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO ORDERING. ROUGH OPENING SIZES SHALL BE PROVIDED BY THE MANUFACTURER.
2. BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING. WHERE BASEMENTS CONTAIN MORE THAN ONE SLEEPING ROOM, EACH SHALL HAVE AN EMERGENCY ESCAPE AND RESCUE OPENING BUT ADJOINING AREAS SHALL NOT REQUIRE ONE. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL MEET THE FOLLOWING CRITERIA:
  - A) SILL HEIGHT SHALL NOT BE MORE THAN 44 INCHES ABOVE THE FLOOR.
  - B) WHERE A DOOR HAVING A THRESHOLD BELOW THE ADJACENT GROUND ELEVATION IS USED AS AN EMERGENCY ESCAPE AND RESCUE OPENING AND IS PROVIDED WITH A BULKHEAD ENCLOSURE, THE BULKHEAD SHALL PROVIDE DIRECT ACCESS TO THE BASEMENT AND WHEN THE BULKHEAD IS FULLY OPENED IT SHALL PROVIDE THE MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET.
  - C) EMERGENCY ESCAPE AND RESCUE OPENINGS WITH A SILL ELEVATION BELOW THE ADJACENT GROUND ELEVATION SHALL BE PROVIDED WITH A WINDOW WELL WITH A MINIMUM HORIZONTAL AREA OF 9 SQUARE FEET AND A MINIMUM HORIZONTAL PROJECTION OF 36". THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND EGRESS OPENING TO BE FULLY OPENED.
  - D) ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET.

#### EXCEPTIONS:

- I. GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.0 SQUARE FEET.
2. DOUBLE HUNG WINDOWS USED FOR EMERGENCY ESCAPE SHALL BE PERMITTED TO HAVE A NET CLEAR OPENING OF 3.3 SQUARE FEET PROVIDED THAT AT LEAST ONE OPERABLE SASH MEETS THE MINIMUM HEIGHT AND WIDTH REQUIREMENTS AND OPERATIONAL CONSTRAINTS.
  - E) THE MINIMUM NET CLEAR OPENING SHALL BE 24 INCHES X 20 INCHES IN EITHER DIRECTION.
  - F) EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE WITHOUT THE USE OF KEYS OR TOOLS
- 3) IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR.

#### EXCEPTIONS:

- A) WINDOWS WHOSE OPENINGS WILL NOT ALLOW A 4 INCH DIAMETER SPHERE TO PASS THROUGH THE OPENING WHEN THE OPENING IS IN ITS LARGEST OPENED POSITION.
- B) OPENINGS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH SECTION R612.3
- C) OPENINGS THAT ARE PROVIDED WITH FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2040
- D) WINDOWS THAT ARE PROVIDED WITH OPENING LIMITING DEVICES THAT COMPLY WITH SECTION R612.4.

### EGRESS:

- I. STAIRWAYS, RAMPS, EXTERIOR EXIT BALCONIES, HALLWAYS AND DOORS SHALL MEET ALL MINIMUM EGRESS REQUIREMENTS.
2. ALL REQUIRED EXITS SHALL BE POSITIVELY ANCHORED TO THE PRIMARY STRUCTURE TO RESIST BOTH VERTICAL AND LATERAL FORCES.
3. ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYPSUM BOARD.
4. HALLWAYS SHALL BE A MINIMUM OF 3 FEET CLEAR.
5. EGRESS FROM DWELLING UNITS SHALL BE BY MEANS OF TWO EXIT DOORS. THE MINIMUM NOMINAL WIDTH OF AT LEAST ONE OF THE REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 36" WITH A NOMINAL HEIGHT SHALL OF SIX FEET EIGHT INCHES AND SIDE HINGED. ALL OTHER REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 32" IN NOMINAL WIDTH OR SIX FEET EIGHT INCHES IN NOMINAL HEIGHT AND MAY BE SLIDING OR SIDE-HINGED.
6. EGRESS THOUGH AN ATTACHED GARAGE IS PERMITTED PROVIDED THAT THE ATTACHED GARAGE IS ALSO PROVIDED WITH A 32" EXIT DOOR.
7. ALL OTHER EXTERIOR DOORS IN EXCESS OF THE TWO REQUIRED EXIT DOORS ARE NOT REQUIRED TO COMPLY WITH THESE MINIMUM DIMENSIONS.
8. ALL INTERIOR DOORS PROVIDING ACCESS TO HABITABLE ROOMS SHALL HAVE A NOMINAL WIDTH OF 30 INCHES AND NOMINAL HEIGHT OF SIX FEET 6 INCHES EXCEPT BATHROOMS WHICH ARE PERMITTED TO BE 24 INCHES IN NOMINAL WIDTH.
9. A FLOOR OR LANDING SHALL BE PROVIDED ON EACH SIDE OF AN EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED AND HAVE A MINIMUM DIMENSION OF 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL.

### MINIMUM ROOM REQUIREMENTS:

- I. HABITABLE ROOMS, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOMS, LAUNDRY ROOMS AND BASEMENTS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN SEVEN (7) FEET MEASURED FROM THE FINISH FLOOR TO THE LOWEST PROJECTION FROM THE CEILING

#### EXCEPTIONS:

1. BEAMS AND GIRDERS SPACED NOT LESS THAN FOUR (4) FEET ON CENTER MAY PROJECT NOT MORE THAN SIX (6) INCHES BELOW THE REQUIRED CEILING HEIGHT.
2. CEILINGS IN BASEMENTS WITHOUT HABITABLE SPACE MAY PROJECT TO WITHIN SIX FEET EIGHT INCHES OF THE FINISHED FLOOR EXCEPT THAT BEAMS, GIRDERS, DUCTS AND OTHER OBSTRUCTIONS MAY PROJECT TO WITHIN SIX FEET FOUR INCHES OF THE FINISHED FLOOR.
3. NOT MORE THAN 50% OF THE REQUIRED FLOOR AREA OF A ROOM IS PERMITTED TO HAVE A SLOPED CEILING LESS THAN SEVEN FEET IN HEIGHT WITH NO PORTION OF THE REQUIRED FLOOR AREA LESS THAN FIVE FEET IN HEIGHT.
4. BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF SIX FEET EIGHT INCHES OVER THE FIXTURE AND AT THE FRONT CLEARANCE AREA FOR THE FIXTURES. A SHOWER OR TUB WITH A SHOWERHEAD SHALL HAVE A MINIMUM CEILING HEIGHT OF SIX FEET EIGHT INCHES ABOVE A MINIMUM 30"X30" AREA AT THE SHOWERHEAD.
5. EVERY DWELLING SHALL HAVE AT LEAST ONE HABITABLE ROOM WITH A GROSS FLOOR AREA OF AT LEAST 150 SQUARE FEET
6. OTHER HABITABLE ROOMS SHALL HAVE A FLOOR AREA OF NOT LESS THAN 70 SQUARE FEET EXCEPT KITCHENS
7. HABITABLE ROOMS SHALL NOT BE LESS THAN SEVEN FEET IN ANY HORIZONTAL EXCEPT KITCHENS
8. PORTIONS OF A ROOM WITH A SLOPING CEILING MEASURING LESS THAN FIVE (5) FEET OR A FURRED CEILING MEASURING LESS THAN SEVEN (7) SHALL NOT BE CONSIDERED AS CONTRIBUTING TO THE MINIMUM REQUIRED HABITABLE AREA FOR THAT ROOM.

### ROOFING AND SIDING:

- I. PROVIDE CONTINUOUS 6'-0" WIDE FIBERGLASS REINFORCED, BITUTHENE, ICE AND WATER SHIELD AT ALL ROOF EDGES, CENTERED ON ALL VALLEYS AND AT ROOF/WALL INTERSECTIONS CARRIED 1'-0" UP THE WALL (REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS).
2. PROVIDE ALUMINUM STEP FLASHING AT ROOF/WALL AND ROOF/CHIMNEY INTERSECTIONS.
3. PROVIDE ALUMINUM FLASHING OVER ALL WINDOW AND DOORS HEAD TRIM AND AT THE CONNECTION BETWEEN ALL EXTERIOR WALLS AND EXTERIOR DECKS.
4. PROVIDE CONTINUOUS SOFFIT VENTS OR CONTINUOUS VENTED DRIP EDGE AT ALL SOFFIT OVERHANGS.
5. PROVIDE 15# FELT UNDER ALL ROOF SHINGLES (UNLESS SPECIFIED OTHERWISE).
6. PROVIDE CONTINUOUS RIDGE VENTS (UNLESS SPECIFIED AS OTHERWISE). SEE BUILDING ELEVATION FOR EXTENT.
7. ALL GUTTERS AND DOWNSPOUTS TO BE PREFINISHED ALUM. COLOR TO BE SELECTED BY OWNER.

### LIGHT/VENTILATION AND INSULATION:

- I. ALL HABITABLE ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING OF NOT LESS THAN 8% OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE THROUGH DOORS, WINDOWS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4% OF THE FLOOR AREA BEING VENTILATED.

#### EXCEPTIONS:

1. THE GLAZED AREAS NEED NOT BE OPENABLE WHEN THE OPENING IS NOT A REQUIRED TO BE AN EMERGENCY ESCAPE AND RESCUE OPENING AND AN APPROVED MECHANICAL VENTILATION SYSTEM IS PROVIDED CAPABLE OF PRODUCING 0.35 AIR EXCHANGE PER HOUR IN THE ROOM OR A WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM IS INSTALLED CAPABLE OF SUPPLYING OUTDOOR VENTILATION AIR OF 15 CFM PER OCCUPANT WITH 2 FOR THE FIRST BEDROOM AND ONE FOR EVERY ADDITIONAL BEDROOM.
2. THE GLAZED AREAS NEED NOT BE PROVIDED IN ROOMS WHERE THE ABOVE EXCEPTION IS MET AND ARTIFICIAL LIGHT IS PROVIDED CAPABLE OF PRODUCING AN AVERAGE ILLUMINATION OF SIX FOOTCANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES

2. ALL BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA OF NOT LESS THAN THREE SQUARE FEET, 1/2 OF WHICH MUST BE OPENABLE

#### EXCEPTION:

THE GLAZED AREA SHALL NOT BE REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION SYSTEM ARE PROVIDED. VENTILATION AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTSIDE.

3. ATTIC VENTILATION WITH A CEILING VAPOR BARRIER: PROVIDE AT LEAST ONE (1) SQUARE FOOT OF FREE AREA FOR EACH THREE HUNDRED (300) SQUARE FEET OF CEILING AREA.
4. ATTIC VENTILATION WITHOUT A CEILING VAPOR BARRIER: PROVIDE AT LEAST ONE (1) SQUARE FOOT OF FREE AREA FOR EACH ONE HUNDRED-FIFTY (150) SQUARE FEET OF CEILING AREA.
5. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A MOISTURE BARRIER AND PROPERLY INSULATE ALL WALLS AND CEILINGS TO AIR LEAKAGE INTO UNCONDITIONED SPACES.
6. IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, EVES, OVERHANGS AND OTHER SIMILAR UNCONDITIONED, UNINSULATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC., TO AVOID MOISTURE, CONDENSATION, FREEZE THAW, ICE DAMMING, AND OTHER SIMILAR ISSUES.

### PLUMBING:

- I. ALL SANITARY LINES WITHIN WALLS AND FLOORS ADJOINING LIVING SPACES ARE TO BE SOUND INSULATED.
2. ALL PLUMBING WITHIN WALL OR FLOOR CAVITIES WHICH BORDER UNCONDITIONED SPACES, ARE TO BE INSULATED AND ON THE WARM SIDE OF THE CAVITY INSULATION TO AVOID FREEZING.

### SMOKE & CARBON MONOXIDE DETECTORS/ALARMS:

- I. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS ARE ACCEPTABLE PROVIDED SAID ALARMS HAVE SIMULATED VOICE AND TONE ALARMS THAT CLEARLY DISTINGUISH BETWEEN THE TWO TYPES OF EMERGENCIES. IF COMBINATION ALARMS ARE TO BE USED THAN ALL REQUIRED CRITERIA FOR SMOKE AND CARBON MONOXIDE DETECTORS NEED TO BE MET.
2. FIRE DEPARTMENTS ARE REQUIRED TO INSPECT, UPON SALE OR TRANSFER, ALL DWELLING UNITS FOR REQUIRED SMOKE AND CARBON MONOXIDE DETECTORS.
3. CONSUMERS SHALL CHECK WITH LOCAL BUILDING AND/OR FIRE OFFICIALS FOR ACCEPTED ALARM TYPES AND LOCATIONS FOR PROPER INSTALLATION IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS

### SMOKE ALARMS/DETECTORS:

- I. ALL ONE AND TWO FAMILY SHALL BE EQUIPPED WITH A HOUSEHOLD FIRE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURERS INSTRUCTIONS AND LISTING CRITERIA.
2. SMOKE DETECTORS ARE REQUIRED TO BE PERMANENTLY WIRED TO AN AC PRIMARY POWER SOURCE AND SHALL HAVE SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES.

3. WHERE MORE THAN ONE SMOKE DETECTOR IS REQUIRED, ALL REQUIRED DETECTORS SHALL BE INSTALLED SO THAT THE ACTIVATION OF ANY DETECTOR SHALL CAUSE THE ALARM IN ALL REQUIRED SMOKE DETECTORS IN THE DWELLING UNIT TO SOUND (MIN. 85 DBA AT 10 FEET, 75 DBA IN BEDROOMS)

4. SMOKE DETECTORS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS
  - A) IN THE IMMEDIATE VICINITY OF BEDROOMS
  - B) IN ALL BEDROOMS
  - C) IN EACH STORY OF A UNIT (INCLUDING BASEMENTS & CELLARS) FOR EACH 1,000 SQ.FT. OR PART THEREOF.
  - D) NEAR THE BASE OF ALL STAIRS WHERE SUCH STAIRS LEAD TO ANOTHER OCCUPIED FLOOR
5. PHOTO ELECTRIC SMOKE DETECTORS ARE REQUIRED IF LOCATED WITHIN 20 FEET OF A KITCHEN OR BATHROOM

6. WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED TO AN EXISTING DWELLING, THE ENTIRE BUILDING SHALL BE PROVIDED WITH SMOKE DETECTORS DESIGNED AND LOCATED AS REQUIRED FOR NEW DWELLINGS.

### CARBON MONOXIDE ALARMS/DETECTORS:

- I. ALL ONE AND TWO FAMILY DWELLINGS SHALL BE EQUIPPED WITH A HOUSEHOLD CARBON MONOXIDE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURERS INSTRUCTIONS AND LISTING CRITERIA.
2. CARBON MONOXIDE DETECTORS SHALL BE LOCATED ON EVERY LEVEL OF THE DWELLING UNIT INCLUDING BASEMENTS AND CELLARS (BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS).

3. ALL ALARM-SOUNDING APPLIANCES SHALL HAVE A MINIMUM RATING OF 85 DBA AT 10 FEET

- HEAT DETECTORS:
  1. HEAT DETECTORS SHALL BE INSTALLED IN ANY INTEGRAL OR ATTACHED GARAGE TO THE MAIN HOUSE.
  2. A NEW ADDITION ATTACHED GARAGE TO AN EXISTING DWELLING INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CRITERIA. IF THE EXISTING DWELLING CONTAINS A FIRE DETECTION SYSTEM THAT IS COMPATIBLE WITH THE GARAGE HEAT DETECTOR, THAT THE GARAGE HEAT DETECTOR SHALL BE INTERCONNECTED TO THE EXISTING DWELLING FIRE DETECTION SYSTEM. IF THE DETECTOR IS NOT COMPATIBLE THAN THE DETECTOR SHALL BE CONNECTED TO A SOUNDER OR A COMPATIBLE HEAT DETECTOR CONTAINING A SOUNDING DEVICE, LOCATED IN THE DWELLING UNIT AND WITHIN 20 FEET OF THE NEAREST DOOR TO THE GARAGE.
  3. FOR FLAT-FINISHED GARAGE CEILINGS, THE DETECTOR SHALL BE LOCATED ON OR NEAR THE CENTER OF THE GARAGE CEILING. FOR VAULTED/SLOPED CEILINGS, THE DETECTOR SHALL BE PLACED IN THE APPROXIMATE CENTER OF THE VAULTED SPACE.
  4. THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO ALL SMOKE DETECTORS OF THE REQUIRED HOUSEHOLD FIRE ALARM SYSTEM, SUCH THAT THE ACTIVATION OF THE HEAT DETECTOR WILL ACTIVATE ALL OF THE AUDIBLE ALARMS OF THE HOUSEHOLD FIRE ALARM SYSTEM THROUGHOUT THE DWELLING.

### SPRINKLERS:

THE 3-UNIT TOWNHOUSE HAS AN AGGREGATE AREA OF +/-12,161 SF AND SHALL BE DESIGNED WITH A MINIMUM NFPA 13 SYSTEM.

## TITLE SHEET

**CONSTRUCTION BY:  
FIRST COLONY DEV. LLC**

**First Colony Dev. LLC**

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**JOB NO.** 20180101

# FIRST COLONY DEVELOPMENT, INC.



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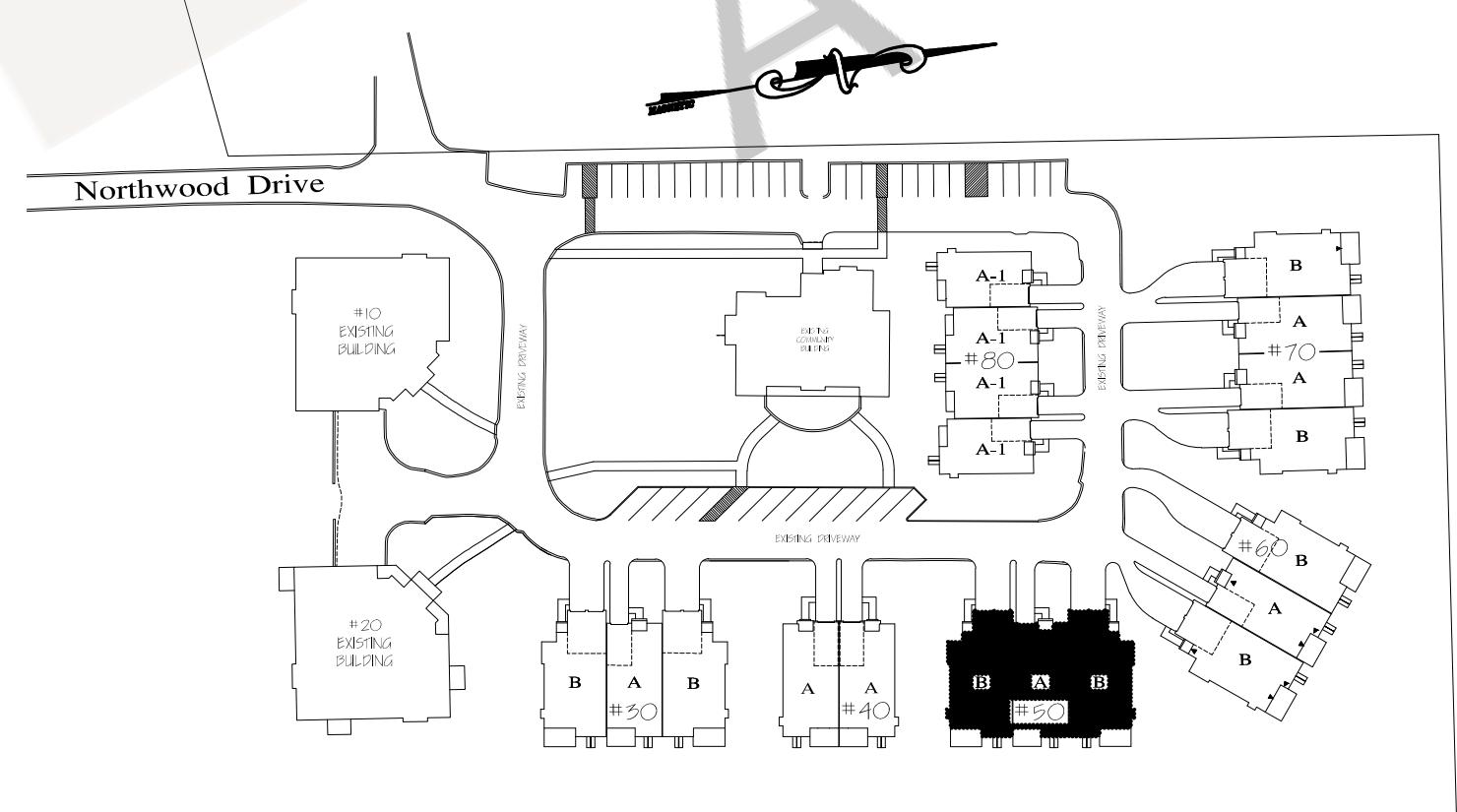
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KEY PLAN

## SCHEDULE OF DRAWINGS:

- A0.1 TITLE SHEET
- A1.1 1ST FLOOR PLAN
- A1.2 2ND FLOOR PLAN
- A2.1 ELEVATIONS
- A2.2 ELEVATIONS
- A3.1 BUILDING SECTIONS
- A3.2 BUILDING SECTIONS
- A4.1 WALL SECTIONS
- A4.2 AIR BARRIER NOTES & DETAILS
- A5.1 DETAILS
- S1.1 FOUNDATION PLAN
- S1.2 1ST FLOOR FRAMING
- S1.3 2ND FLOOR FRAMING
- S1.4 CEILING FRAMING
- S1.5 ROOF FRAMING
- S2.1 DETAILS
- S2.2 DETAILS

DATE: AUGUST 1, 2016
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CHECKED BY: HPA
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#50 NORTHWOOD DRIVE, NORTHWOOD TOWNSHOUSE CONDOS, SUDBURY, MA

GENERAL NOTES	MINIMUM ROOM REQUIREMENTS
GENERAL:	
1. THE GOVNING BUILDING CODE FOR THE DESIGN AND CONSTRUCTION IS THE INTERNATIONAL RESIDENTIAL (IRC 2015) WITH MASSACHUSETTS STATE BUILDING CODE AMENDMENTS (RTH EDITION).	
2. ARCHITECTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.	
3. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. IF THE CONTRACTOR NOTIFIES THE ARCHITECT, THE ARCHITECT ALSO SHALL NOTIFY THE CONTRACTOR OF THE PROBLEMS WITHIN 10 DAYS. IF ANY CONSTRUCTION NEEDS TO BE ADJUSTED DUE TO FIELD CONDITIONS.	
4. AN ASSUMPTION IS MADE THAT THE ELEVATION DIFFERENCE BETWEEN THE GARAGE SLAB AND THE FIRST FLOOR IS NO MORE THAN ONE INCH. IF THIS IS INCORRECT, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT.	
5. ALL FLASHING IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE CORROSION RESISTANT.	
6. ALL DRAINS AND HOT WATER PIPES SHALL BE INSULATED AND WHERE NECESSARY, A VAPOR BARRIER FOR THE DRAINS WILL BE PROVIDED TO PREVENT CONDENSATION.	
7. ALL GABLES SHALL BE CONSTRUCTED SO THE TOP OF THE FLUE IS 2' ABOVE ANY ROOF/WALL WITHIN 10'-0".	
8. PROVIDE CONTINUOUS PITCH BREAK VENTS AT ALL ROOF/RAIL INTERSECTIONS WHERE SOFFIT VENTS ARE INSTALLED.	
DIMENSIONS	
1. DIMENSIONING STANDARDS ARE AS FOLLOWS UNLESS OTHERWISE NOTED: a) DIMENSIONS EXTERIOR WALLS ARE FROM OUTSIDE FACE OF A STUD OR CONCRETE WALL. b) DIMENSIONS ARE FROM THE CENTER LINE OF ONE OPENING TO THE CENTER LINE OF ANOTHER OPENING FROM THE CENTER OF ANOTHER OPENING OR THE OUTSIDE FACE OF A STUD OR CONCRETE WALL. c) INTERIOR DIMENSIONING IS FROM THE CENTER OF ONE OPENING TO THE MIDDLE OF THE STUD UNLESS OTHERWISE SPECIFIED.	
2. INTERIOR DIMENSION AT STAIRS REPRESENTS A DIMENSION TO THE FINISHED EDGE OF THE STAIR.	
3. INTERIOR DIMENSIONING AT DOORS AND CLOSETS IS FROM THE CENTER OF THE DOOR OR CLOSET TO THE CENTER OF THE DOOR OR CLOSET. DOORS AND CLOSETS MUST BE CENTERED WITHIN THE RECORDED R.D. AND ATTACHED.	
4. DIMENSIONS DEPICTING THE BUILDING HEIGHT, SHOW THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR THE BUILDING AND BUILDING COMPONENTS ONLY. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF. THE OVERALL BUILDING HEIGHT DEPICTED IS FROM THE STOKE TO THE ROOF.	
5. CLOSET DOORS THAT ARE NOT CENTERED ARE TYPICALLY 4" TO 6" DEPENDING ON THE FINISH AND DIMENSIONS LOCATING CASED OPENINGS ARE TYPICALLY DIMENSIONED TO THE CENTER OF THAT OPENING, UNLESS OTHERWISE NOTED.	
STARWAYS/BALCONIES	
1. STARWAYS SHALL NOT BE LESS THAN 80" IN CLEAR HEIGHT. ALL PORCH ABOVE THE FINISHED HANDBAR SHALL HAVE A MINIMUM CLEAR HEIGHT OF 72". TREAD DEPTH SHALL BE 10" MINIMUM. DECKING DEPTH SHALL BE 6" WITH NO MORE THAN 1/4". UNDER TREADS SHALL HAVE A MIN. DEPTH EQUAL TO THE STRAIGHT RUN TREAD DEPTH AT A DISTANCE OF 12" FROM THE HANDBAR SIDE WITH A MIN. TREAD DEPTH OF 10" AT THE HANDBAR SIDE. STARWAYS SHALL NOT BE SLOPED. STARWAYS SHALL NOT BE SLOPED PLANE OR SLOPED TREADS.	
2. HANDRAILS SHALL BE PROVIDED AT LEAST ONE CONTINUOUS RAIL OR FLIGHT OF STEPS OR FLIGHTS OF STEPS HAVING 1 OR MORE RISERS. MINIMUM HEIGHT SHALL BE 30" MAXIMUM 34" WITH A MAXIMUM NOT TO EXCEED 34" TOTAL RISE. STARWAYS SHALL NOT BE SLOPED. STARWAYS SHALL NOT BE SLOPED PLANE OR SLOPED TREADS.	
3. GUARDRAILS, 36" MINIMUM IN HEIGHT, SHALL BE INSTALLED IN FLORAL, PORCH AND/OR BALCONY AREA'S HAVING MORE THAN 30" INCHES ABOVE A FLORAL OR GRADE BELOW. GUARDRAILS ON OPEN SIDES OF STAIRS, WITH A TOTAL RISE OF MORE THAN 30" INCHES ABOVE A FLORAL OR GRADE BELOW, SHALL NOT BE LOWER THAN THE MAXIMUM CLEAR OPENING BETWEEN RAILS, BALusters, and floors. SHALL NOT EXCEED FOR 4" INCHES.	
EXCEPTION: THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARD AT THE OPEN SIDE OF A STARWAY SHALL NOT BE GREATER THAN A SIX INCH (6") SPHERE CANNOT PASS THROUGH. OPENINGS FOR REQUIRED GUARDS ON THE SIDES OF STAR RAIDS SHALL NOT ALLOW A SPHERE 4-3/8" INCHES TO PASS THROUGH.	
4. AN ISOLATED DOOR SHALL BE PROVIDED AT THE TOP OF AN INTEGRAL BASEMENT STAIRS OR INSTITUTE THE WALLS AND CEILINGS OF THE STAIRS. AN ISOLATED DOOR SHALL BE PROVIDED AT THE BOTTOM OF BASEMENT STAIRS.	
5. AN ISOLATED DOOR SHALL BE PROVIDED AT THE TOP OF ATTIC STAIRS AND INSTITUTE THE WALLS AND CEILINGS OF THE STAIRS. AN ISOLATED DOOR SHALL BE PROVIDED AT THE BOTTOM OF ATTIC STAIRS.	
6. IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, DUES, OVERHANGS AND OTHER UNCONDITIONED UNINTEGRATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC, TO AVOID MOISTURE, CONDENSATION, FREEZE, ICE DAMMING, AND OTHER SIMILAR ISSUES.	
PLUMBING	
1. ALL SANITARY LINES WITHIN WALLS AND FLOORS ADJOINING LIVING SPACES ARE TO BE SOUND INSULATED.	
2. ALL PLUMBING WITHIN WALLS OR FLOOR CAUTIONS WHICH BORDER UNCONDITIONED SPACES, ARE TO BE INSULATED AND ON THE WARM SIDE OF THE CAUTIY INSULATION TO AVOID FREEZING.	
SMOKE & CARBON MONOXIDE DETECTORS	
1. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS ARE ACCEPTABLE PROVIDED SMOKE ALARMS HAVE OPERATIONAL TESTS AND CARBON MONOXIDE ALARMS THAT CLEARLY DISTINCTION BETWEEN THE TWO TYPES OF DETERENCES. IF COMBINATION ALARMS ARE TO BE USED, ALL REQUIRED CRITERIA FOR SMOKE AND CARBON MONOXIDE ALARMS SHALL BE MET.	
2. FIRE DEPARTMENTS REQUIRE THAT SMOKE ALARMS BE PLACED IN ALL REQUIRED SPACES FOR REQUIRED SMOKE AND CARBON MONOXIDE ALARMS.	
3. IF MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT IS TO BE PLACED IN ATTICS, DUES, OVERHANGS AND OTHER UNCONDITIONED UNINTEGRATED SPACES, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A PROPER ENCLOSURE, INSULATION, DIRECT VENTILATION, ETC, TO AVOID MOISTURE, CONDENSATION, FREEZE, ICE DAMMING, AND OTHER SIMILAR ISSUES.	
4. SMOKE DETECTORS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS: a) IN EACH BEDROOM. b) IN EACH STORY OF ALL UNINTEGRATED SPACES / CELLIARS FOR EACH 100 SQFT OR PART THEREOF. c) IN EACH STORY OF ALL STAIRS WHERE STAIRS LEAD TO ANOTHER OCCUPIED FLOOR.	
5. PHOTO ELECTRIC SMOKE DETECTORS ARE REQUIRED IF LOCATED WITHIN A KITCHEN OR BATHROOM.	
6. WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED TO AN EXISTING DWELLING, THE ENTIRE BUILDING SHALL BE PROVIDED WITH SMOKE DETECTORS DESIGNED AND LOCATED AS REQUIRED FOR NEW DWELLINGS.	
CARBON MONOXIDE ALARMS/DETECTORS	
1. ALL ONE AND TWO FAMILY DWELLINGS SHALL BE EQUIPPED WITH A HOUSEHOLD CARBON MONOXIDE WARNING SYSTEM. ALL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE CODES, MANUFACTURER'S INSTRUCTIONS AND OTHER CRITERIA.	
2. CARBON MONOXIDE DETECTORS SHALL BE LOCATED ON EVERY LEVEL OF THE DWELLING UNIT INCLUDING BASEMENTS AND CELLIARS (NOT INCLUDING GRANL SPACES AND UNINTEGRATED ATTICS).	
3. ALL ALARM-SOUNDING APPLIANCES SHALL HAVE A MINIMUM RATING OF 85 dB(A) AT 10 FEET, 15 dB IN BEDROOMS.	
4. HEAT DETECTORS SHALL BE INSTALLED IN ANY INTEGRAL OR ATTACHED GARAGE TO THE MAIN HOUSE. A NEW ADDITION ATTACHED GARAGE TO AN EXISTING DWELLING INSTALLED IN ACCORDANCE WITH THE EXISTING DWELLING'S FIRE ALARM SYSTEM. THE NEW ADDITION ATTACHED GARAGE SHALL BE CONNECTED TO A CANISTER OR A COMPATIBLE HEAT DETECTOR CONTAINING A SOUNING DEVICE LOCATED IN THE EXISTING DWELLING.	
5. FOR FLAT-FINISHED CEILINGS, THE DETECTOR SHALL BE LOCATED ON OR NEAR THE CENTER OF THE GARAGE CEILING. FOR VAULTED/CEILINGS, THE DETECTOR SHALL BE PLACED IN THE APPROXIMATE CENTER OF THE CEILING.	
6. THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO ALL SMOKE DETECTORS. THE REQUIRED HEAT DETECTOR SHALL BE LISTED FOR AND REQUIRED TO BE INTERCONNECTED TO THE REARRED HOUSEHOLD FIRE ALARM SYSTEM SUCH THAT THE ACTIVATION OF THE HEAT DETECTOR WILL ACTIVATE ALL OF THE ALARMS OF THE HOUSEHOLD FIRE ALARM SYSTEM THROUGHOUT THE DWELLING.	
SPRINKLERS	
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JOB NO. 20180101	