



TECHNICAL PROPOSAL

Pine Lakes Infill Redevelopment

Response to Sudbury Housing Authority RFP

Chapter 705 State Public Housing | 4 Duplex Sites | 8 Affordable Units | ~7,580 SF

SUBMITTED BY	MassDwell, LLC
HEADQUARTERS	109 Highland Ave, Suite 203, Needham, MA 02494
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OWNER (per Addendum #1)	Sudbury Pine Lakes LLC (SHA, sole member; long-term lessee)
SUBMITTED TO	Sheila Cusolito, Sudbury Housing Authority
DATE	May 27, 2026

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SECTION 1

Cover Letter

May 27, 2026

Sheila Cusolito
Sudbury Housing Authority
55 Hudson Rd
Sudbury, MA 01776

Re: Pine Lakes Infill Redevelopment — Technical Proposal (RFP as amended by Addendum #1, May 15, 2026)

Dear Ms. Cusolito,

I write on behalf of the Pine Lakes project team. MassDwell, LLC submits this Technical Proposal in response to the Pine Lakes Infill Redevelopment RFP and the May 15 Addendum.

Three firms deliver this project as an integrated team. MassDwell — based in Needham and operating a volumetric modular factory in Woonsocket, RI — is the prime submitter and the manufacturer of the eight modules that will become the four Pine Lakes duplexes. Atomic Ant Construction (966 Hyde Park Ave #303, Boston, MA 02136), founded in 2018 by Patricia Ferreira and certified as both a Woman Business Enterprise and Minority Business Enterprise in Massachusetts, is the General Contractor; all on-site work — demolition, foundations, septic, module set, stitching, finish, and closeout — is performed by Atomic Ant at Massachusetts prevailing wage with certified payrolls. MP Design Consultants (118 Turnpike Road, Suite 200, Southborough, MA — mpdconsultants.com), a multidisciplinary Massachusetts firm of engineers, architects, planners, and scientists, is the engineering and design firm. Carlos Ferreira, P.E. (Massachusetts License #41423) — Principal of MP Design's Structural Engineering Department and CTO of MassDwell — serves as Engineer of Record, supported by Morris Schopf as the firm's Architectural Principal and Marc Alencar as Founder and President. Because MP Design Consultants houses both architectural and engineering departments under one roof, the team provides MA-registered Architect of Record and Structural Engineer of Record sign-off in-house, with no third-party retention required.

What this team brings together is a volumetric building model that has been refined across multiple Massachusetts modular projects. Each duplex is fabricated as a set of three-dimensional modules — framed, sheathed, insulated, glazed, finished, and MEP-roughed indoors at Woonsocket — then trucked to Sudbury and crane-set on a prepared slab in a single day. The result is faster schedule, less weather risk, and a hard-cost number (\$364/sf — inclusive of I/A BANRT advanced septic at the three Water Resource Protection Zone II sites) that fits comfortably within the SHA budget ceiling.

Our proposed scope is the demolition of the four existing single-family homes and the construction of four two-family duplexes — eight affordable rental units across approximately 7,580 net square feet — fully within the \$3,520,000 SHA budget. The unit mix delivers the RFP-required 3-bedroom single-floor accessible unit (8 Oakwood Avenue), the required 2-bedroom single-floor unit (21 Great Lake Drive), and complies with the 50% cap on one-bedroom and studio units.

Two design notes worth flagging here. First, the schematic-level design package is included with this submission — site plans, floor plans, roof plans, and elevations for all four properties, prepared by MP Design Consultants. Second, MassDwell's position on the Massachusetts prevailing wage exemption for off-site modular fabrication under M.G.L. c. 149 § 44E(4) — the subject of Addendum #1 Question 1 — is set forth in Section 6 of this proposal. We have reserved \$75,000 in the Price Proposal against the residual determination risk.

The team has reviewed Addendum #1 in full and incorporated each clarification: the Owner is Sudbury Pine Lakes LLC with SHA as sole member; the Sample Contract scoring section is omitted (contract terms to be negotiated post-award); and the nine Q&A items are addressed throughout Sections 2 and 6. We are prepared to perform with a continuous team, accept the 60-day proposal acceptance period, and collaborate with SHA on EOHLC consent. The project complies with Chapter 30B, prevailing wage (Exhibit L), the EOHLC Multifamily New Construction Design Requirements, the MA Multifamily Guidelines (with the no-dishwasher deviation explicitly noted), the MA Opt-In Specialized Stretch Code, and 521 CMR / MAAB accessibility standards at the Oakwood unit.

We have not built on the prior ZeroEnergy Design 25% schematic. MP Design Consultants has produced an independent design specifically calibrated to deliver this project within the funding SHA has secured.

Respectfully submitted,



Steve Vettori

Co-Founder & CEO, MassDwell, LLC

SECTION 2

Proposed Design

Schematic-level design package included. MP Design Consultants has advanced the design for all four sites to a schematic level. Site plans, floor plans, roof plans, and elevations were prepared by MP Design Consultants and are submitted under separate cover as the schematic design package, dated 05/27/2026. References below summarize content found in those drawings.

2.1 Design Narrative & Architectural Character

Each duplex is designed by MP Design Consultants to blend with the established Pine Lakes neighborhood character. Buildings feature traditional New England residential architecture — covered front porches, varied window patterns, articulated façades, gable forms with 6/12 main pitches and 3/12 accent porch roofs, and clearly defined entryways. The intent is to deliver homes indistinguishable from market-rate single-family residences, reinforcing the dignity and desirability of affordable housing.

Exterior Materials (per schematic elevation callouts)

- Cladding: Hardie Plank fiber cement siding — durable, low-maintenance, fire-resistant
- Trim, corner boards, and fascia: fiber cement or engineered composite to match siding — no exposed wood, no vinyl
- Windows: aluminum-clad fiberglass with insulated glazing, U-Factor 0.30 (compliant with the MA Opt-In Specialized Stretch Code)
- Exterior doors: steel-framed, insulated, weather-sealed
- Roofing: asphalt architectural shingles with 30-year manufacturer warranty, installed by manufacturer-certified contractor

Foundation & Structural System

All four duplexes are designed on slab-on-grade foundations. Volumetric module floor systems, walls, and roof framing are engineered in cold-formed steel (CFS) by MP Design Consultants and manufactured at MassDwell's Woonsocket factory.

Interior Finishes & Systems

- HVAC: each dwelling unit gets its own dedicated heat pump system — central heat pump, ducted mini-split, or multi-zone mini-split. No window air-conditioners (per RFP §IV-Div15)
- Domestic hot water: heat pump water heaters (Stretch Code compliant)
- Kitchen cabinetry and counters: standard cabinetry with solid-surface countertops (per RFP §IV-Div6)
- Bathrooms: porcelain or ceramic tile flooring; low-flow toilets, flow-restricting shower heads, faucet aerators
- Safety: hardwired smoke and carbon monoxide detectors (per RFP §IV-Div16)

Storage — Interior + Exterior (per Addendum #1 Q5)

Per Addendum #1 Item #3, Question 5, SHA confirmed the desire for BOTH inside and outside storage, with consideration of households with children. MassDwell provides:

- Interior storage: each unit floor plan includes a dedicated storage room or hallway closet sized appropriately for the unit's bedroom count
- Exterior storage: each duplex includes one outdoor storage shed per unit, sized for typical family storage needs (bicycles, seasonal items, outdoor equipment) — total 8 sheds across the project

Appliances — Provided by MassDwell (per RFP §IV-Div11)

- 17 cubic feet minimum energy-efficient refrigerator in every unit
- 30-inch minimum electric range with oven and smooth-top cooking surface in every unit
- Range hood in every unit
- ADA-compliant appliances for 8 Oakwood Avenue Unit A (the accessible 3BR)
- All appliances new, residential-grade

Items Not Provided (per RFP §IV exclusions)

- No dishwashers (per RFP §IV — deviation from MA Multifamily Guidelines; see §2.6 for deviation acknowledgment)
- No garbage disposals
- No laundry machines — in-unit laundry hookups and a 220V outlet for the electric dryer are provided
- No window air-conditioners as primary cooling

Accessibility Commitment

ADA / 521 CMR (MAAB) commitment — 8 Oakwood, Unit A. The 1,430 sf 3-bedroom unit at 8 Oakwood Avenue is a single-floor unit and will be developed at DD/CD to full ADA and 521 CMR (MAAB) compliance: zero-step entry, wider doorways (32" clear minimum), accessible kitchen reach ranges and clearances, accessible bathroom layout with roll-in shower capability, 60" turning radii, and ADA-compliant appliances. This unit satisfies the RFP-required 3BR single-floor accessible/adaptable unit. The 1,200 sf 2BR single-floor unit at 21 Great Lake Drive satisfies the RFP-required 2BR single-floor unit.

2.2 Volumetric Modular Construction Methodology

MassDwell delivers each duplex as a set of factory-built volumetric modules — fully framed, weather-tight 3D modules with windows, doors, MEP rough-in, insulation, drywall, and most interior finishes — manufactured indoors at MassDwell's Woonsocket, RI smart factory. Atomic Ant Construction performs all on-site work at MA prevailing wage including demolition, foundation, septic, module set, mate-line stitching, MEP hookup, and finish work.

Factory Production (MassDwell — Woonsocket, RI)

- Cold-formed steel (CFS) structural framing engineered by MP Design Consultants, produced to $\pm 1/8''$ dimensional tolerances
- Complete envelope assembly inside the factory: walls, floors, roof structure, insulation, weather barrier, siding install (Hardie), windows and exterior doors set, roofing installed
- Interior fit-out: drywall, paint, tile, kitchen cabinetry, solid-surface countertops, appliances, electrical and plumbing rough-in, HVAC sized and pre-installed per unit
- Climate-controlled environment — no weather delays, no moisture damage, no jobsite material loss

On-Site Work (Atomic Ant Construction — Sudbury, MA)

- Site work: demolition of existing structures, site grading, Title V septic replacement, slab-on-grade foundation, utility connections
- Module set: crane-set typically in one day per duplex, weather-tight by end of set day
- Site stitching: module-to-module mate-line connections, roof ridge, porch framing, utility hookup, final finishes at module joints
- All on-site labor performed at MA prevailing wage with certified payrolls

2.3 Construction Schedule

Construction schedule reflects coordinated parallel work across factory and field operations:

Milestone	Dates	Duration
Award / MOU Execution	July 2026	—
Design Development & Permitting	Aug 2026 – Jan 2027	6 months
Module Manufacturing (overlapping with permitting)	Nov 2026 – Feb 2027	4 months
Site 1 — 21 Great Lake Drive (vacant — Phase 1)	Feb 2027	1 month
Site 2 — 9 Richard Avenue (Phase 2)	Mar 2027	1 month
Site 3 — 8 Oakwood Avenue (Phase 3)	Apr 2027	1 month
Site 4 — 2 Beechwood Avenue (Phase 4)	May 2027	1 month
Final COs and Closeout	June 2027	—

Milestone	Dates	Duration
TOTAL — Award to Final CO	Jul 2026 – Jun 2027	~11 months

Per-Site Work — 1 Month Each (Sequential Phasing)

Each site's 1-month on-site window includes:

- Week 1: Site work — demolition (with abatement as required), grading, slab-on-grade foundation pour, Title V septic installation
- End of Week 2: Crane-set of factory-built volumetric modules — typically 1 day per duplex
- Weeks 3-4: Mate-line stitching, MEP utility hookups, exterior finish completion, interior finish completion, punch list, Building Department CO inspection

Phasing Strategy & Tenant Right of Return

Sequential phasing supports SHA's rolling relocation strategy for occupied units at 2 Beechwood Avenue and 9 Richard Avenue, both of which have a right of return per RFP §III. The schedule:

- Phase 1 — 21 Great Lake Drive (vacant lot, no relocation needed)
- Phase 2 — 9 Richard Avenue (Richard tenant temporarily relocates as Phase 2 begins; can move into Great Lake if appropriately sized, or to comparable temporary housing per SHA-coordinated relocation provider)
- Phase 3 — 8 Oakwood Avenue (vacant during demolition; no tenant)
- Phase 4 — 2 Beechwood Avenue (Beechwood tenant temporarily relocates as Phase 4 begins; can move into Richard or comparable unit; returning tenants have first priority on appropriately sized units in the redeveloped portfolio)

2.4 Per-Site Design Summary

21 Great Lake Drive (Phase 1) — Vacant; Build First

Item	Detail
Parcel	F04-0601; Pine Lakes subdivision (Plan Book 394 Plan 37 / LCC 38235-A)
Lot	7,500 sf record (Hancock survey); ~100' × 75' with 75' frontage on Great Lake Drive
Overlay	Water Resource Protection Zone III ONLY — no Zone II, no Wellhead Protection (most favorable of the four sites)
Existing	1,166 sf — 2-story Colonial, 3BR / 1 bath, built 1950; vacant; oil heat, vinyl siding
Proposed	1,890 sf total — 2BR single-floor (1,200 sf) + 1BR ADU (690 sf)
§2460B Overage	724 sf (~62%) — within 604 Peakham Rd precedent (~2,800 sf)
Septic	Conventional Title 5 at 330 gpd — no I/A BANRT required
ADU Sizing	690 / 1,200 = 57.5% — DD refinement required to ≤ 600 sf ADU or ≥ 1,380 sf principal (per §5500 50% rule)
Approvals	§2460B SP (ZBA); §2440 finding; conventional Title 5 (BOH); §4200 Zone III confirmation; ConCom RDA (defensive); Building Permit

8 Oakwood Avenue (Phase 3) — Required Accessible Unit

Item	Detail
Parcel	F04-0302; Pine Lakes subdivision (Plan Book 394 Plan 37)
Lot	10,000 sf — 100' × 100' square lot with 100' frontage; simplest geometry of the four sites
Overlay	Water Resource Protection Zone II & III; Wellhead Protection Zone II (entire lot)
Existing	1,242 sf — 1-story Ranch, 3BR / 1 bath, built 1962; occupied; oil heat, vinyl siding
Proposed	2,010 sf total — 3BR single-floor accessible (1,430 sf) + 1BR ADU (580 sf); both single-floor; 17'-8" to roof peak
§2460B Overage	768 sf (~62%) — within 604 Peakham Rd precedent (~2,800 sf); supported by very low single-story massing and accessible-unit purpose
Septic	I/A BANRT (Fuji Clean CEN or Orenco Advantex AX20) at 440 gpd; nitrogen variance under 310 CMR 15.410 required (~4.4× the 101 gpd unaided limit on a 0.23-acre Zone II lot)

Item	Detail
§4243b	Required — estimated impervious ~3,200 sf exceeds 2,500 sf threshold; the single-story footprint is the trade-off for accessibility
ADA / 521 CMR	Full ADA/MAAB compliance at DD: zero-step entry, 32" clear doorways, 60" turning radii, roll-in shower, ADA-compliant appliances
Approvals	§2460B SP (ZBA); §2440 finding; §4243b Water Resource SP (Planning Bd); Title 5 I/A BANRT + 310 CMR 15.410 nitrogen variance (BOH/MassDEP); ConCom RDA; Building Permit

2 Beechwood Avenue (Phase 4)

Item	Detail
Parcel	F05-0219
Lot	11,068 sf record (Hancock survey); 106.07' frontage on Beechwood Avenue; abuts Willis Lake Drive layout to the east
Overlay	Water Resource Protection Zone II & III; Wellhead Protection Zone II (entire lot)
Existing	1,664 sf — 2-story Colonial, 3BR / 6 rooms / 1 bath, built 1973; occupied; gas furnace nearing end of life
Proposed	2,180 sf total — 3BR two-story principal (1,510 sf) + 1BR ADU (670 sf) single-floor on first level
§2460B Overage	516 sf — smallest overage of the four sites; a modest, defensible request well within precedent
Septic	I/A BANRT at 440 gpd; nitrogen variance required (~4× the 112 gpd unaided limit on the 0.25-acre Zone II lot)
§4243b	Borderline — estimated impervious ~2,400–2,600 sf; pervious driveway/parking materials can hold impervious below 2,500 sf and avoid the §4243b Planning Board Special Permit
Stairs	Interior egress stair only (RFP §IV + Addendum #1 Q4 compliant)
Tenant	Currently occupied; SHA-coordinated relocation per RFP §III; right of return
Approvals	§2460B SP (ZBA); §2440 finding; §4243b Water Resource SP (Planning Bd) if impervious > 2,500 sf; Title 5 I/A BANRT + nitrogen variance (BOH/MassDEP); ConCom RDA; Building Permit

9 Richard Avenue (Phase 2) — Most Constrained Site

Item	Detail
Parcel	G06-0558; Lot 79, Pine Lakes subdivision (Plan 447 of 1951 / Filed Plan 909)

Item	Detail
Lot	5,000 sf record (Hancock survey); 50' × 100' long narrow lot; 50' frontage on Richard Avenue (one-eighth of the 40,000 sf A-Res minimum)
Overlay	Water Resource Protection Zone II; Wellhead Protection Zone II (entire lot)
Existing	752 sf — 1-story Ranch, wood frame on masonry foundation, vinyl siding, oil heat, 1 full bath, built 1952; occupied; existing septic location unknown (Sudbury BOH has no record)
Proposed	1,500 sf total — 2BR two-story principal (1,000 sf) + 1BR ADU (500 sf) single-floor on first level; 24' to peak
§2460B Overage	748 sf (~99%) — largest proportional increase of the four sites; absolute size (1,500 sf) is modest and well below 604 Peakham Rd precedent. This is the application most dependent on a strong pre-application narrative
Septic	I/A BANRT at 330 gpd; nitrogen variance required (~6.5× the 50 gpd unaided limit on the 0.115-acre Zone II lot); compact Fuji Clean CEN essential to fit-on-lot
§4243b	Likely required; estimated impervious right at the 2,500 sf threshold; fit-on-lot is the make-or-break question
Fit-on-Lot	Building footprint plus three-space driveway consume ~half the lot; Title 5 SAS, reserve area, and required separations must fit in what remains. Hancock fit-on-lot confirmation is a precondition to filing
Fallback	If fit-on-lot or nitrogen variance cannot be secured, fall back to single-family 2BR reconstruction (220 gpd, no ADU)
Stairs	Interior egress stair only (RFP §IV + Addendum #1 Q4 compliant)
Tenant	Currently occupied; SHA-coordinated relocation per RFP §III; right of return
Approvals	§2460B SP (ZBA — envelope preservation critical); §2440 finding; §4243b Water Resource SP (Planning Bd); Title 5 I/A BANRT + nitrogen variance (BOH/MassDEP); ConCom RDA; Building Permit

2.5 Unit Mix & RFP Compliance

Site	Unit A	SF	Unit B	SF	Total SF
21 Great Lake Drive	2BR (single-floor)	1,200	1BR	690	1,890
8 Oakwood Ave	3BR (single-floor, ADA-adaptable)	1,430	1BR	580	2,010
2 Beechwood Ave	3BR (2-story)	1,510	1BR ADU	670	2,180
9 Richard Ave	2BR (2-story)	1,000	1BR	500	1,500
TOTAL — 8 Units					7,580

State ADU Code 50% Rule Compliance

Per RFP §IV citation of the State ADU Code, ADUs may not exceed 50% of the principal unit's gross square footage. Current schematic ratios:

- 8 Oakwood: $580 / 1,430 = 40.6\%$ — compliant
- 2 Beechwood: $670 / 1,510 = 44.4\%$ — compliant
- 9 Richard: $500 / 1,000 = 50.0\%$ — at limit (compliant)
- 21 Great Lake: $690 / 1,200 = 57.5\%$ — to be refined at DD to ≤ 600 sf or principal expanded to $\geq 1,380$ sf to comply with the 50% rule

2.6 Addendum #1 Q&A Response & Design Notes

This section consolidates MassDwell's responses to the Addendum #1 Q&A items that relate to design and program:

Q2 — Pricing Guide

Acknowledged: no per-SF or per-unit price guide; SHA budget is total-value-based at \$3,520,000. MassDwell's Price Proposal fully utilizes the \$3,520,000 ceiling.

Q3 — No Additional Capital

Acknowledged: project delivery provider is not expected to raise additional capital beyond \$3,520,000. MassDwell's Price Proposal is sized to the \$3,520,000 ceiling with no expectation of additional fundraising by the Provider.

Q4 — Exterior Stairs

Acknowledged: open exterior stairs are not acceptable. All Pine Lakes duplexes use interior egress stairs only. The 2-story buildings at Beechwood and Richard each have a single interior egress stair serving the upper-floor space; no open exterior stairs are proposed anywhere on the project.

Q5 — Storage

Acknowledged: SHA desires BOTH inside AND outside storage. MassDwell provides interior storage (closets/storage rooms) in every unit AND an outdoor storage shed per unit (8 total). Storage shed size is set to accommodate typical family storage including bicycles, seasonal items, and outdoor equipment.

Q6 — Side-by-Side vs. Stacked

Acknowledged: SHA prefers side-by-side configurations for common circulation efficiency. MassDwell's design uses side-by-side at 21 Great Lake Drive and 8 Oakwood Avenue (both 1-story buildings on larger lots). 2 Beechwood Avenue and 9 Richard Avenue are stacked configurations — necessitated by lot dimension constraints (especially Richard at 5,000 sf), but interior-stair-only and within the nonconforming reconstruction envelope.

Q7 — MA Multifamily New Construction Design Requirements & Deviations

MassDwell's design reflects the MA Multifamily New Construction Design Requirements and Guidelines. One deviation is acknowledged:

- **Dishwashers in 3+ bedroom units:** The RFP §IV explicitly prohibits dishwashers; the MA Multifamily Guidelines recommend dishwashers in units of 3 or more bedrooms. MassDwell follows the RFP's explicit prohibition (no dishwashers in any unit, including the 3BR units at Oakwood and Beechwood). Per Addendum #1 Q7, this deviation is clearly noted and will require State funding partner approval at DD.

Q8 — Project Timing

Acknowledged: respondents may propose their preferred schedule. MassDwell's 11-month schedule (set forth in §2.3) is proposed; we acknowledge SHA may suggest changes during contract negotiations.

Q9 — Prior Design Files

Acknowledged: prior 25% Schematic Design work by ZeroEnergy Design is available in Exhibit A. MassDwell is not proposing to use ZED's designs. CAD file availability is post-award; MP Design Consultants has prepared independent schematic-level designs for this submission.

2.7 Zoning Narrative

All four parcels lie in the Town of Sudbury Single Residence "A" District (A-Res) and are pre-existing nonconforming as to lot area, frontage, and (in most cases) setbacks. The proposed program — a single-family principal dwelling with an attached Accessory Dwelling Unit (ADU) on each site — delivers the eight-unit affordable rental program the Authority seeks while minimizing exposure to discretionary public hearings. The authoritative zoning narrative for this proposal was prepared by Carlos Ferreira, P.E. (Massachusetts License #41423), and incorporates the Hancock Associates existing-conditions surveys, Sudbury Assessor records, and the MP Design Consultants design sets dated 05/27/2026.

Approval Strategy — Four Levers

- **Sudbury §2460B (Construction After Demolition) — controlling provision.** Reconstruction up to the original gross floor area is permitted by Inspector of Buildings determination only; reconstruction exceeding the original GFA requires a Special Permit from the Zoning Board of Appeals. All four sites require §2460B Special Permits; every proposed building is well within the precedent set by the 604 Peakham Road approval (~2,800 SF).
- **Sudbury §2440 (Nonconforming Residential Structures).** Preserves the pre-existing nonconformities. Each new building is sited within or near the existing setback footprint so the §2440 finding — that reconstruction does not increase the nonconforming nature of the structure — is supportable on the face of the plans.
- **Sudbury §5500 and 760 CMR 71.00 — ADU pathway.** ADUs are permitted as-of-right via building permit. Protected Use ADU status under the Affordable Homes Act insulates the ADU component from local pushback grounded in lot area, frontage, or principal-dwelling dimensional nonconformities.
- **Sudbury §4200 (Water Resource Protection) and Title 5 (310 CMR 15.000).** Three of the four sites (Oakwood, Beechwood, Richard) lie in Water Resource Protection Zone II and the Wellhead Protection District. These require Innovative/Alternative Best Available Nitrogen Reducing Technology (I/A BANRT) septic systems with a Board of Health / MassDEP nitrogen-loading variance under 310 CMR 15.410, and — where impervious cover exceeds the 2,500 SF threshold — a §4243b Special Permit from the Planning Board. The fourth site, 21 Great Lake Drive, lies in Zone III only and takes a conventional Title 5 system with no nitrogen variance.

Why Principal + ADU, Not Two-Family Duplex

The RFP refers to the project as a redevelopment into four two-family homes. The team evaluated the duplex (two-family) configuration and selected the Principal + ADU configuration instead. A two-family duplex in A-Res requires a Special Permit for two-family use — a discretionary use approval with abutter notice, public hearing, and a four-fifths supermajority. The Principal + ADU configuration delivers the same number of dwelling units (two per site, eight total) under a procedurally lighter framework: only the GFA increase triggers the ZBA, and the ADU itself is by-right and state-protected. Schedule and political risk are materially lower under Principal + ADU.

Coordinated Filing — Two Parallel Dockets

All four §2460B Special Permit applications will be filed concurrently and presented to the ZBA as a single coordinated docket. In parallel, the three Zone II sites' §4243b Water Resource Protection applications will be filed as a coordinated Planning Board docket, timed to run alongside the ZBA proceeding. Running the two dockets in parallel keeps the critical path at a single ~90–120 day window rather than stacking proceedings sequentially. The team will request consolidation of each docket at the pre-application meetings.

Wetlands and Conservation

The Hancock existing-conditions surveys show no Wetlands Protection Act resources (Bordering Vegetated Wetlands, Banks, or Land Under Water) on or within the jurisdictional buffer of any of the four parcels, and no Riverfront Area applies. A Request for Determination of Applicability will be filed with the Sudbury Conservation Commission at each site as a defensive measure to confirm no jurisdiction before Building Permit issuance. ConCom action is not anticipated on the project's critical path.

Water Resource Protection — Per Site

Site	WRPOD / Wellhead	Septic Consequence	§4200 Consequence
21 Great Lake Drive	Zone III only	Conventional Title 5 (no I/A, no variance)	Light — confirm Planning Board applicability
8 Oakwood Avenue	Zone II & III; Wellhead II	I/A BANRT + nitrogen variance (440 gpd vs ~101 allowed; ~4.4x)	§4243b required — impervious ~3,200 SF > 2,500 SF
2 Beechwood Avenue	Zone II & III; Wellhead II	I/A BANRT + nitrogen variance (440 gpd vs ~112 allowed; ~4x)	§4243b if impervious > 2,500 SF (~2,400–2,600 SF; avoidable with pervious paving)
9 Richard Avenue	Zone II; Wellhead II	I/A BANRT + nitrogen variance (330 gpd vs ~50 allowed; ~6.5x)	§4243b likely; fit-on-lot is the governing constraint

Net effect: 21 Great Lake Drive is the lowest-risk, fastest-permitting site (Zone III, conventional septic, vacant) and is sequenced first; the three Zone II sites share a common I/A-septic-plus-nitrogen-variance strategy modeled on the same engineering argument (net aquifer nitrogen load reduced despite increased flow); and 9 Richard Avenue remains the most constrained, with a fit-on-lot condition governing its two-unit program.

Recommended Pathway by Site

Site	Required Approvals	Public Hearings
21 Great Lake Dr	§2460B SP (ZBA); §2440 finding; conventional Title 5 (BOH); §4200 Zone III confirmation (Planning Bd — light); ConCom RDA; Building Permit	ZBA only
8 Oakwood Ave	§2460B SP (ZBA); §2440 finding; §4243b Water Resource SP (Planning Bd — impervious > 2,500 SF); Title 5 I/A BANRT + 310	ZBA + Planning Board

Site	Required Approvals	Public Hearings
	CMR 15.410 nitrogen variance (BOH/MassDEP); ConCom RDA; Building Permit	
2 Beechwood Ave	§2460B SP (ZBA); §2440 finding; §4243b Water Resource SP (Planning Bd — if triggered; avoidable with pervious paving); Title 5 I/A BANRT + nitrogen variance (BOH/MassDEP); ConCom RDA; Building Permit	ZBA + Planning Board (if §4243b triggered)
9 Richard Ave	§2460B SP (ZBA — envelope preservation critical); §2440 finding; §4243b Water Resource SP (Planning Bd); Title 5 I/A BANRT + nitrogen variance (BOH/MassDEP); ConCom RDA; Building Permit. Two-unit program contingent on Title 5 fit-on-lot.	ZBA + Planning Board

Estimated proceeding: 90–120 days from filing to written decision, with a 20-day appeal period after.

Septic — I/A BANRT Strategy

For the three Zone II sites, the team will specify an Innovative/Alternative Best Available Nitrogen Reducing Technology (I/A BANRT) system — most likely the Fuji Clean CEN series, selected for its compact single-tank footprint (CEN5 at 8' × 4'2"), strong nitrogen-reduction performance (total nitrogen below the strict thresholds required for sensitive watersheds), and proven MassDEP Title 5 approval record. The Orenco Advantex AX20 is the planned alternate. Each Zone II system pairs with a nitrogen-loading variance under 310 CMR 15.410, supported by the engineering argument that the new system's net aquifer nitrogen load is below the existing conventional system's load despite the increased design flow. 21 Great Lake Drive (Zone III) takes a conventional Title 5 system at 330 gpd.

SECTION 3

Qualifications and Experience

3.1 Project Team Structure

Pine Lakes is delivered by an integrated team of three Massachusetts-rooted firms, with MassDwell, LLC as the prime submitter and contract counterparty to Sudbury Pine Lakes LLC:

Firm	Role	MA Status
MassDwell, LLC	Prime / Developer / Module Manufacturer	MA-based (HQ Needham); woman- and minority-led leadership
Atomic Ant Construction	General Contractor — all on-site work at MA prevailing wage	Certified Woman-Owned Minority Business Enterprise (WBE/MBE)
MP Design Consultants	Engineering & Design — schematic, DD, CD, CA; site, structural, MEP, and code compliance	Owned by Carlos Ferreira, P.E. (Massachusetts License #41423) — Engineer of Record under 780 CMR IRC 1-and-2-family pathway

3.2 MassDwell, LLC — Submitter & Manufacturer

MassDwell, LLC is a Massachusetts-based modular ADU and small-home company headquartered at 109 Highland Ave, Suite 203, Needham, MA. MassDwell operates a volumetric modular manufacturing facility in Woonsocket, RI. MassDwell's leadership came together from legacy companies including Alpine Property Group (multifamily real estate development) and the predecessor steel framing operation that informs the company's volumetric construction methodology.

Item	Detail
Company Name	MassDwell, LLC
Headquarters	109 Highland Ave, Suite 203, Needham, MA 02494
Manufacturing Facility	Woonsocket, Rhode Island — volumetric modular factory

Item	Detail
Industry	Modular Construction / ADU & Small-Home Manufacturing
Pine Lakes Role	Prime submitter; module manufacturer
Tagline	Stress Less. Dwell More.

3.3 Atomic Ant Construction — General Contractor (Certified WBE/MBE)

Atomic Ant Construction is a Massachusetts general contractor specializing in light gauge steel and modular construction installation. Founded in 2018 by Patricia Ferreira, Atomic Ant is a certified woman-owned, minority business enterprise. Atomic Ant serves as General Contractor on Pine Lakes, responsible for all on-site work — demolition, site preparation, foundations, Title 5 septic installation (including I/A BANRT at Zone II sites), module set, mate-line stitching, MEP hookup, exterior and interior finish work, punch list, and closeout. All on-site labor is performed at MA prevailing wage with certified payrolls.

Item	Detail
Company Name	Atomic Ant Construction
Office	966 Hyde Park Avenue, Suite 303, Boston, MA
Established	2018
President	Patricia Ferreira
Certification	Woman-Owned Minority Business Enterprise (WBE/MBE) — certification documentation attached separately
Specialty	Light gauge steel frame construction; CFS panel and modular installation
MA Contractor License	#190981
SCALE Program	Selected for City of Boston's \$9M Supplying Capital and Leveraging Education Program — one of only 27 companies chosen
Pine Lakes Role	General Contractor — all on-site work at MA prevailing wage

3.4 MP Design Consultants — Engineering & Design

MP Design Consultants (mpdconsultants.com) is the engineering and design firm for Pine Lakes — a multidisciplinary Massachusetts firm of engineers, architects, planners, and scientists headquartered at 118 Turnpike Road, Suite 200, Southborough, MA 01772. MP Design Consultants provides integrated architectural, civil, structural, and environmental design services under a single roof. MP Design Consultants prepared the schematic-level architectural and engineering drawings included with this submission, and will advance the design through Design Development, Construction Documents, and Construction Administration, including all sealed drawings, permit documentation, and code-compliance review. Because MP Design Consultants is a full-service multidisciplinary firm with both an Architectural Department and a Structural Engineering Department,

the team provides Massachusetts-Registered Architect of Record (AOR) and Structural Engineer of Record (SEOR) sign-off in-house with no third-party retention required.

Item	Detail
Firm Role	Engineering and design for Pine Lakes — schematic, DD, CD, CA
Headquarters	118 Turnpike Road, Suite 200, Southborough, MA 01772
Phone	(617) 560-0778
Email	contact@mpdconsultants.com
Website	mpdconsultants.com
Disciplines	Architectural design, civil engineering, structural engineering, environmental services
Engineer of Record	Carlos Ferreira — Principal, Structural Engineering Department; Massachusetts P.E. License #41423
Architectural Lead	Morris Schopf — Principal in charge of Architectural Department (multifamily, historic rehabilitation, mid- and high-rise residential experience)
Firm President & Founder	Marc Alencar — President and Founder; background in major global engineering corporations
Project Team Depth	Director of Engineering (John Grenier); Director of Structural Engineering (Nazeah Hammouri); Senior Project Engineer (Chris Stanton); Project Architect (Akhiris Newlands); plus additional architects, designers, and structural engineers
Scope	Site plans, floor plans, elevations, structural engineering, MEP coordination, code compliance documentation, environmental review
Code Compliance	EOHLC Multifamily New Construction Design Requirements; MA Multifamily Guidelines; MA Opt-In Specialized Stretch Code; 521 CMR (MAAB) — fully accessible/adaptable 3BR unit at 8 Oakwood Ave; 780 CMR (MA State Building Code)

3.5 Leadership & Key Personnel

Steve Vettori — Co-Founder & CEO, MassDwell, LLC

Steve Vettori leads MassDwell as Co-Founder and CEO. He brings 10+ years of Massachusetts real estate development experience through Alpine Property Group (co-founded 2016), with a track record across the full Acquire–Develop–Stabilize–Disposition cycle in multifamily and mixed-use properties across Greater Boston. Steve serves as primary point of contact for the Pine Lakes project.

Carlos Ferreira, P.E. — Co-Founder & CTO, MassDwell, LLC; Engineer of Record, Pine Lakes

Carlos Ferreira is the technical leader of MassDwell and a Massachusetts-licensed Professional Engineer (License #41423) with 30+ years of development and construction management experience. Carlos is Principal and head of the Structural Engineering Department at MP Design Consultants — the engineering and design firm for Pine Lakes — and serves as the named Engineer of Record. Carlos also directs MassDwell's Woonsocket manufacturing facility, providing a tight engineering-to-factory interface that eliminates coordination delays typical to modular delivery.

Patricia Ferreira — President, Atomic Ant Construction; Founding Partner, MassDwell, LLC

Patricia Ferreira is the woman-owned, minority-business owner of Atomic Ant Construction. Founded in 2018, Atomic Ant Construction is a certified WBE/MBE and was selected for the City of Boston's \$9M SCALE Program — one of only 27 companies chosen. Patricia directs all field operations for Pine Lakes and ensures MA prevailing wage compliance on all on-site work.

3.6 Relevant Project Experience (Last 5 Years)

Per RFP §V Element 3, the following projects represent the team's 5-year experience. Contract amounts available upon request.

MassDwell ADU & Small-Home Program — Multiple Sites, MA

Item	Detail
Building Type	Accessory Dwelling Units and small homes (400–900 sf)
Locations	Foxborough, Fairhaven, and additional Massachusetts sites
Construction	MassDwell volumetric modular methodology
Owner / Developer	MassDwell, LLC
Contract Year	2025–2026 (Ongoing)
Contract Amount	Available upon request

The Beacon — 1114 Beacon Street, Newton, MA (Alpine Property Group — Steve Vettori, legacy experience)

Item	Detail
Building Type	Ground-up multifamily residential condominium
Units	34 units (1BR+ and 2BR+, ranging 1,060–1,750 sf)
Owner / Developer	Alpine Property Group
Architect	EFN Architects
Contract Year	2023–2025; Completed 2025
Contract Amount	Available upon request

4301 Washington Street — Roslindale, MA (Alpine Property Group — Steve Vettori, legacy experience)

Item	Detail
Building Type	Ground-up multifamily residential with affordable units
Units	16 units (mix of 2BR and 3BR; Units 2 and 6 designated affordable)
Owner / Developer	Alpine Property Group
Architect	McKay Architects
Contractor	Self-performed by Alpine Property Group
Contract Year	2025–2026 (In Development)
Contract Amount	Available upon request

CFS Construction Portfolio — Atomic Ant Construction (Patricia Ferreira)

Light gauge steel and CFS framing projects completed by Atomic Ant Construction (2019–2025).

Developer/client contacts are provided in the Firm Resumes attachment for the references team to call.

Project	Location	Scope	Year
Tafthill Terrace	Hyde Park, MA	CFS framing — Alpine Property Group	2019
Burke Lane	Boston, MA	CFS framing — Alpine Property Group	2020
Derby Street	Boston, MA	CFS framing — Alpine Property Group	2020
Bellflower Street	Dorchester, MA	CFS framing — Alpine Property Group	2021

Project	Location	Scope	Year
26 School Street	Brockton, MA	CFS framing	2021
Condor Street	East Boston, MA	CFS framing — Alpine Property Group	2021
8 Winter Street	Cambridge, MA	CFS framing	2022
870 Temple Street	Whitman, MA	CFS framing	2022
16 Fencourt St (Bldgs A, B, C)	Randolph, MA	CFS framing — 3 buildings	2023
230 East Central	Franklin, MA	CFS framing	2023
40 Elmont Street	Dorchester, MA	CFS framing	2024
476 Warren Street	Boston, MA	CFS framing	2024
Multi-Site CFS Production	Greater Boston, MA	Continued CFS framing program	2025

3.7 Staffing Plan

The team has the staff capacity to begin work within 30 days of award:

- Steve Vettori (CEO, MassDwell) — commits at least 40% of his time to Pine Lakes through closeout as project executive
- Carlos Ferreira (CTO, MassDwell) — directs Woonsocket factory production for Pine Lakes module sets
- Patricia Ferreira (President, Atomic Ant Construction) — directs all on-site field operations and prevailing wage compliance
- MP Design Consultants — assigns dedicated multidisciplinary team led by Carlos Ferreira, P.E. (Principal, Structural Engineering; MA License #41423) as Engineer of Record and Morris Schopf (Principal, Architectural Department) as Architect of Record; supported by Marc Alencar (President & Founder), John Grenier (Director of Engineering), Nazeah Hammouri (Director of Structural Engineering), and a project team of senior engineers, project architects, and designers
- Atomic Ant Construction — full-time project superintendent and 6–8 person field crew, scaled by phase
- MassDwell Manufacturing — dedicated factory production slot for Pine Lakes module sets through the construction window

3.8 Pending Lawsuits

No lawsuits are currently pending against MassDwell, LLC, Atomic Ant Construction, MP Design Consultants, or any of their principals by any Federal or State agencies or municipalities. No suits are pending as a result of work on any of the projects listed above.

SECTION 4

Reference Forms

Completed Exhibit D Reference Forms for the developer/builder (MassDwell), architect (MP Design Consultants), and contractor (Atomic Ant Construction) are submitted as a sealed attachment within the Technical Proposal envelope.

EXHIBIT D — REFERENCE FORMS Reference forms attached for: (1) Developer/Builder — MassDwell, LLC (Steve Vettori, CEO); (2) Engineer of Record — Carlos Ferreira, P.E. (MA License #41423) of MP Design Consultants; (3) Contractor — Atomic Ant Construction (Patricia Ferreira, President). Each form includes project references with developer/owner contact information for direct verification, and performance evaluations are available in the Firm Resumes attachment.

SECTION 5

Supplier Diversity Strategy

The MassDwell team is committed to meaningful participation by Minority Business Enterprises (MBE), Women Business Enterprises (WBE), and Veteran Business Enterprises (VBE/SDVOBE) in the Pine Lakes Infill Redevelopment.

General Contractor as Certified WBE/MBE

A distinctive strength of this proposal is that the General Contractor — Atomic Ant Construction, led by Patricia Ferreira — is a certified Woman-Owned Minority Business Enterprise. Because Atomic Ant is responsible for the entirety of on-site construction (demolition, site work, foundations, septic, module set, stitching, MEP hookup, finishes), a substantial share of construction spending flows directly through woman-owned, minority leadership.

Participation Goals

Category	MA Supplier Diversity Goal	Strategy
MBE	6.6%	Atomic Ant Construction (GC) qualifies; additional MBE subcontracting for site work, civil, specialty trades
WBE	9.0%	Atomic Ant Construction (GC) qualifies; additional WBE subcontracting for landscaping and interior trades
VBE / SDVOBE	3.0%	Targeted outreach to veteran-owned firms for applicable trade scopes

Implementation Approach

- Identify and solicit bids from certified MBE/WBE/VBE firms for all subcontracted scopes (site work, demolition, civil engineering, landscaping, plumbing, electrical, and specialty trades)
- Maintain a supplier diversity tracking system to document participation percentages throughout the project
- Provide mentoring and capacity-building opportunities for smaller diverse firms where feasible
- Submit completed Exhibit K — Supplier Diversity Attachments with detailed diversity plan and firm-specific commitments

SECTION 6

Prevailing Wage Position

MassDwell, LLC acknowledges the Sudbury Housing Authority's reference in Addendum #1 Item #3, Question 1 to Department of Labor Standards Opinion Letter PW-2025-10-28 (October 28, 2025) regarding the Clarendon Hill Redevelopment Project. MassDwell has obtained legal counsel's analysis of this opinion and its applicability to Pine Lakes, and confirms the following:

On-Site Labor — Prevailing Wage

All on-site labor at Pine Lakes — demolition, site work, foundation construction, Title V septic installation, module setting, mate-line stitching, MEP rough-in hookup, exterior finish work, interior finish work, and any other construction performed on site at any of the four properties — will be performed by Atomic Ant Construction at Massachusetts prevailing wage rates as established by the Department of Labor Standards, with certified payrolls filed in accordance with M.G.L. c. 149, §§ 26-27H.

Off-Site Modular Fabrication — §44E(4) Exemption Position

Pricing in the accompanying Price Proposal assumes that off-site fabrication of volumetric modular building components at MassDwell's Woonsocket, RI manufacturing facility qualifies for the modular-manufacture exemption at M.G.L. c. 149, § 44E(4). This position is supported by three independent factors:

- **No applicable Home Rule Petition.** Pine Lakes is procured under standard M.G.L. c. 30B § 6 (per the SHA RFP advertisement). No special legislation analogous to Chapter 197 of the Acts of 2018 — the home rule petition that drove the Clarendon Hill nullification of §44E(4) — applies to Pine Lakes.
- **Distinguishing factual nexus.** MassDwell's Woonsocket facility is a pre-existing, standing, multi-customer manufacturing operation with a documented record of producing for multiple projects. The Lab 9 Littleton facility analyzed in PW-2025-10-28 was characterized by DLS as "not a pre-existing factory with a history of manufacturing units and selling them to other parties" whose "first production... was exclusively developed for Clarendon Hill." Those distinguishing nexus facts do not exist for MassDwell.
- **Express limiting language of PW-2025-10-28.** The October 28, 2025 DLS opinion letter expressly states that "nothing in this determination changes the applicability of G.L. c. 149, § 44E to other modular housing projects nor does the decision subject either offsite manufacturing or offsite fabrication in general to the prevailing wage laws."

Prevailing Wage Determination Reserve

In recognition of residual uncertainty, MassDwell has reserved \$75,000 within the Price Proposal as a Prevailing Wage Determination Reserve. In the event that DLS issues a determination specific to Pine Lakes subjecting any portion of off-site fabrication at MassDwell's Woonsocket facility to prevailing wage, the cost differential will be drawn from this reserve and not from the SHA budget. Sudbury Pine Lakes LLC and the Sudbury Housing Authority are not exposed to additional cost arising from any such determination.

Counsel Opinion

MassDwell has prepared a structured research memo on this question and will provide a formal opinion letter from retained Massachusetts construction/labor counsel upon SHA request.

This Technical Proposal is submitted by MassDwell, LLC in response to the Sudbury Housing Authority Pine Lakes Infill Redevelopment RFP as amended by Addendum #1 dated May 15, 2026. All information contained herein is accurate to the best of our knowledge as of the date of submission.

MassDwell, LLC

109 Highland Ave, Suite 203, Needham, MA 02494



Steve Vettori, Co-Founder & CEO

May 27, 2026