Former Omega Mill Site Reuse Assessment

Sam Ersinghaus
Stephanie Lopez

Prepared for
ENVS 3991/ ENVE 3995
Brownfield Practicum
July 2022
8.2 Reuse Alternatives

List of Figures
Figure 1. Site layout with parcel numbers and approximate lot size........................................6
Figure 2. Omega Mill Lot (116-96) site diagram.................................................................7
Figure 3. Current conditions at the Site (photo taken in March 2022). Existing structure from Bliss Street view..........................................................8
Figure 4. Current conditions at the Site (photo taken in March 2022). Existing structure from the eastern side view.................................................................8
Figure 5. City Monson Center Census Designated Place (EJ Screen screenshot)..................10
Figure 6. Total population changes in the Town Monson, MA............................................11
Figure 7. Senior population percentages in Monson’s four blockgroups..................................11
Figure 8. Percentage of elderly population in Monson who live alone.................................12
Figure 9. Percentage of elderly population in Monson below poverty level...........................13
Figure 10. Map showing the downtown region a quarter of a mile north of the site................14
Figure 11. Distance from nearest grocery store (Adams Hometown Market).........................15
Figure 12. Total housing units in Town of Monson 2009-2017...........................................16
Figure 13. Short- and long-term conceptual improvements for Monson..............................19
Figure 14. Wetland status of parcel 97-37, the Chicopee Brook Reservoir..............................22
Figure 15. Sample investigation locations during the environmental investigations in 2002 & 2003 (TBA, 2004)..............................................................................25
Figure 16. Proposed development of riverwalk across Chicopee River (on parcel 97-35) and proposed parking lot on Bliss Street......................................................28
Figure 17. East view showing proposed senior housing units and parking lot on parcel 116-96 under Scenario A...........................................................................30
Figure 18. Focused eastern view showing proposed senior housing units and parking lot on parcel 116-96 under Scenario A.........................................................30
Figure 19. View of proposed senior housing units and parking lot on parcel 97-37 under Scenario B.........................................................................................31
Figure 20. View of proposed senior housing units and parking lot on parcel 97-37 and 116-96 under Scenario B...........................................................................31
Figure 21. Eastern view of the overall proposed development under Scenario B....................31
Figure 22. Southern view of overall proposed development under Scenario B......................33
Figure 23. Top view of overall proposed development under Scenario B............................33
List of Tables
Table 1. Demographic data for Monson Center Census Designated Place according to EJSCREEN tool.................................................................9
Table 2. Population changes and demographic trends in the Town of Monson, MA.................................12
Table 3. Monson zoning requirements for elderly housing under Residential Village Zone...............20
Table 4. Minimum and maximum parking requirements for elderly or handicapped congregate housing..........................................................................................21
Table 5. Area calculations for building sites on all 3 lots according to Residential Village Zoning Bylaws........................................................................................................29
Table 6. Housing units and number of parking spaces per structure under Scenario A......................29
EXECUTIVE SUMMARY

The scope of this project is to conduct a Site Reuse Assessment for the Former Omega Mill site located at 21 Bliss Street in Monson, Massachusetts. The study was conducted for three lots encompassing the lot of the former Omega Mill (parcel 116-96), the adjacent lot (parcel 97-35), and the lot across the street from the Omega Mill (Parcel 97-37). The goal of this study is to evaluate the potential future uses of the site based on several criteria incorporating community-wide and site-specific considerations.

The authors conducted an analysis of the community’s demographics, and reviewed and summarized recent planning studies completed by the Town of Monson. The proposed redevelopment scenarios were in accordance with the zoning bylaws, and relevant MA wetland and river regulations. Additional considerations include the connectivity and accessibility of the site to the surrounding community, a traffic and utility assessment, and environmental considerations. This report summarizes a step-by-step approach to incorporating these criteria into future redevelopment scenarios.

The two major redevelopment scenarios emerged from the analysis include development at the primary lot (former Omega Mill, parcel 116-96) for senior housing (Scenario A) and the development of a riverwalk, and two parking lots. The alternative scenario calls for the development of a smaller complex of senior housing units at the lot across from the Omega Mill (Parcel 97-37), in addition to the development proposed under Scenario A for the primary lot (Scenario B).

SECTION 1 INTRODUCTION & OBJECTIVES

The objective of the study was to complete a site reuse assessment for the former Omega Mill lots (Hereinafter “the Site”) located in the Town of Monson, Hamden County, Massachusetts. The authors were tasked with the evaluation and assessment of the current conditions for the Site and researching the surrounding community in order to find the most beneficial and holistic reuse for the Site that meets the needs of the community. To accomplish this goal, we took into consideration the Site’s industrial history and current state, and incorporated information related to neighboring properties, zoning, river and wetland regulations, and other socio-economic and cultural factors of the area.
The former Omega Processing Mill is located on 21 Bliss Street in Monson, Hampden County, Massachusetts, about a mile south of the town’s downtown area. The abandoned mill building is situated on parcel 116-96, an approximately 2.5-acre lot (Figure 1). Two additional land parcels are being taken into consideration for this redevelopment project. Parcel 97-35 is a 5-acre lot that borders parcel 116-96 to the north and contains a section of the Chicopee Brook and mostly forested land that borders residential properties. Parcel 97-37 is located across the street from the Omega Mill lot and contains a section of the Chicopee Brook Reservoir, and a wetland area. The former mill (parcel 116-96) is currently owned by the Omega Metal Processing Company while the other parcels (97-35 and 97-35) are owned by Monson Mill Asso LTD Partners HIP.

The Omega Mill was initially created as part of a woolen mill complex for storage and sorting purposes. After being sold to the Zero Manufacturing Corporation in 1962, it was used to
manufacture aluminum cans and steel containers, as well as metal finishing. The facility was leased
to the Omega Metal Processing Company in 1980 and engaged in electroplating steel base parts
until a 2,800-gallon spill of cadmium-cyanide solution led to its shut down in 1989. Since 1989,
the mill has not been in use. There are currently two buildings on the property; the main brick
multi-story building and a two-story wood-framed building. The main building has been used as
the manufacturing site for several companies and is currently unused. The main Omega Mill
building is open to the environment, as there are several broken windows and a damaged roof. The
two-story wooden building is in an unsalvageable condition, as its structure is leaning and
dilapidated. The two buildings are expected to be demolished, following regulatory compliance
and removal of any hazardous building materials prior to obtaining funding for building
demolition. Once the building is demolished, assessment of soil and groundwater and inspection
for other sources could be completed, and a plan to finish site cleanup (if further cleanup is needed)
and submit a Response Action Outcome to MADEP would be developed. The Omega Mill site
diagram is shown in Figure 2.

Figure 2. Omega Mill Lot (116-96) site diagram (source: EPA Removal After Action Report, 2005).
The main building is located adjacent to the Chicopee Brook (Figures 3 and 4), with part of the western side of the building built over it. Underneath the building is a tailrace running from...
Chicopee Brook. To the west of the site is an active railroad, and to the east is a residential property. In addition, the site is located within an approved Zone II groundwater area and a medium yield, potentially productive aquifer. The groundwater classification for the site, as defined by the Massachusetts Contingency Plan (MCP) at 310 CMR 40.0000, is GW-1. The topography of the Omega site is low to moderately sloped in a northwesterly direction.

SECTION 3 NEIGHBORHOOD CHARACTERISTICS

3.1 Demographics

The town of Monson has a total population of 8,150 people according to the 2020 Census. The site is included in the Monson Center Census Designated Place (Figure 5). The demographics for the Monson center are given in Table 1. With a 17% senior population, Monson has a considerable senior population, ranking at the 59th percentile compared to the State and at the 64th percentile compared to the United States. With respect to other demographic parameters such as unemployment, linguistic isolation and others, Monson Center ranks below the State and national averages, as illustrated in Table 1.

Table 1. Demographic data for Monson Center Census Designated Place according to EJSCREEN tool.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Demographic</th>
<th>State Avg.</th>
<th>Percentile in State</th>
<th>USA Avg.</th>
<th>Percentile in USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>People of Color</td>
<td>4%</td>
<td>28%</td>
<td>11</td>
<td>40%</td>
<td>8</td>
</tr>
<tr>
<td>Low Income</td>
<td>14%</td>
<td>22%</td>
<td>43</td>
<td>31%</td>
<td>24</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>5%</td>
<td>5%</td>
<td>64</td>
<td>5%</td>
<td>60</td>
</tr>
<tr>
<td>Linguistically Isolated</td>
<td>0%</td>
<td>6%</td>
<td>40</td>
<td>5%</td>
<td>45</td>
</tr>
<tr>
<td>Less Than High School Education</td>
<td>5%</td>
<td>9%</td>
<td>46</td>
<td>12%</td>
<td>33</td>
</tr>
<tr>
<td>Under Age 5</td>
<td>5%</td>
<td>5%</td>
<td>55</td>
<td>6%</td>
<td>44</td>
</tr>
<tr>
<td>Over Age 64</td>
<td>17%</td>
<td>16%</td>
<td>59</td>
<td>16%</td>
<td>63</td>
</tr>
</tbody>
</table>
Although the population in the Town of Monson has not changed significantly (2% increase 2000-2010 and 5% decrease in 2010-2020), the senior population in Monson is currently increasing (Figures 6 and 7, Table 2). According to the ACS 2015-2019 survey, the elderly population increased to 17.9% from 14% in 2000 and 2010 (calculated as an average of four block groups in the Town of Monson, shown in Figure 6). Based on the demographic data, a significant growth of the senior population could interest and demand in more senior-oriented activities and services in the town.
Figure 6. Total population changes in the Town Monson, MA (Census data).

Figure 7. Senior population percentages in Monson’s four blockgroups (source: EJ SCREEN).
Table 2. Population changes and demographic trends in the Town of Monson, MA.

<table>
<thead>
<tr>
<th></th>
<th>Total Population (Town of Monson)</th>
<th>Percentage Over 64</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BG: 250138137022</td>
<td>BG: 250138137012</td>
</tr>
<tr>
<td>Census 2000</td>
<td>8359</td>
<td>7.26</td>
</tr>
<tr>
<td>Census 2010</td>
<td>8560</td>
<td>10.39</td>
</tr>
<tr>
<td>ACS 2015-2019</td>
<td>8150*</td>
<td>15.48</td>
</tr>
</tbody>
</table>

* Source: Census 2020.

According to the Pioneer Valley Planning Commission (PVPC), approximately 6.8% of the elderly population lives below the poverty line, a trend that has decreased since 2010 (~10%) (Figure 8).

Figure 8. Percentage of elderly population in Monson who live alone (Source: PVPC).
Significant is also the population of elderly below the poverty line, with 6.8% of the elderly population being under poverty levels in 2017 (Figure 9).

![Figure 9. Percentage of elderly population in Monson below poverty level (Source: PVPC).](image)

The increasing population of seniors in the Town of Monson and concerns about higher poverty levels and seniors living alone are of the major areas of focus of the Town in terms of housing and services provided to the seniors of Monson.
3.2 Public Services

In this section, the major public services located within 1 mile of the Site are identified including nearby schools, municipal services, healthcare sites, and green space (Figure 10). The parenthesis indicates the distance from the Site.

Figure 10. Map showing the downtown region a quarter of a mile north of the Site.

**Schools**
- Quarry Hill School in Monson Center (0.7 miles)
- Monson High School, Hillside Elementary School, Granite Valley Middle School, Quarry Hill Community School (~2 miles)

**Fire & Police Departments**
- Monson Fire Department (0.5 miles)
- Monson Police Department (1 mile)

**Health Care**
- Baystate Wing Hospital (7 miles)
- MinuteClinic Urgent Care Center (5.5 miles)
Green Space and Outdoor Activities

- Local parks, playgrounds, and their activities:
  b. Dave Grieve Park: Gazebo and General Recreation.
  c. Flynt Park: Playground, Athletic Fields (including Doctor Rogers Fields), Hiking Trails, Mt. Ella Scenic Area, and General Recreation.
  d. Flynt Quarry: Hiking and Historical Exploration.
  f. Miller’s Park: Park for parties, reunions, and for civic organizations like the scouts.
  g. Peaked Mountain: Wood roads through a former working forest and trek to views from Mount Wachusett to Vermont’s Green Mountains.
  h. Veterans Field: Playground, Basketball Court, Skatepark, Athletic Fields, Exercise Equipment, Tennis Courts, and General Recreation.

3.3 Food Access

The USDA Food Access Research Atlas indicates that Monson is not located in a low-access area or low-access income area. Adam’s Hometown Market is within a 1-mile radius from the Site (Figure 11), but it is the single supermarket in the town, with the next closest being in the town of Wales.

Figure 11. Distance from nearest grocery store (Adams Hometown Market).
3.4 Housing

The total housing units in Monson have increased by ~60 units in the past decade, from 3568 units in 2009 to 3627 units in 2017 (Figure 12). There is no significant increase in the housing units which might reflect a need for additional housing.

In the 2004 Master Plan, it is stated that the Monson Housing Authority operates 78 one-bedroom units of senior and handicapped housing at Colonial Village at 50 State Street. Rents for the units are based on income and are set at 30 percent of the person’s or family’s net income. The Housing Authority also provides state-aided housing which accommodates 17 families. Based on the 2004 study, there was additional need for senior housing at the Colonial Village.

![Figure 12. Total housing units in Town of Monson 2009-2017 (Source PVPC).](image)

3.5 Businesses

There are several businesses located within 0.5 miles of the Site. EWS Plumbing and Heating, Vulcan Metal Products, and Lombard Funeral Home are located close to the Site, along with the Quaboag Riders racecourse and Harvey Auto Shop.

Bliss Street leads into Main Street, which flows through the downtown area of Monson, around 0.5 miles north of the Site. The downtown area contains many businesses, such as Walgreens, Monsoon Savings Bank, Squier Lumber & Hardware, and multiple restaurants that within a 1 mile from the Site. The location allows easy access to these businesses.

3.6 Community Stakeholders

In this section, key community stakeholders are identified such as places of worship and community organizations that may hold an interest in the development of the site.

**Places of Worship**
First Church of Monson (located right to the east of the Site). This church is also listed as a food bank.
- Monson United Methodist Church
- Grace Community Church
- Unitarian Universalist Parish of Monson
- St. Patricks Roman Catholic Church

Community Groups & Organizations
- Polish American Citizens Club
- Monson Home for the Aged People, Inc.
- Monson Historical Society, Inc.
- Purcell-Labrecque Post 241/American Legion

SECTION 4 SUMMARY OF PLANNING STUDIES

No specific market study has been completed for the town of Monson. However, the town of Monson has developed reports on the status of their open spaces and their future goals for town planning.

4.1 Open Space and Recreation Plan, 2014-2021

The Open Space and Recreation Plan is a plan created by the Town of Monson and Pioneer Valley Planning Commission for 2014-2021. The plan emphasizes Monson's local town character and recreational opportunities utilizing the water and agricultural resources, and the goal of raising awareness to open space and outdoor recreation. The plan includes a community vision for their next upcoming goals for open space and recreation, as well as community needs, potential changes, and a seven-year action plan to conserve and protect outdoor areas. In the report, the Town notes the importance of wetland environments for harboring biodiversity, which is taken into account in this study. The Town also expresses the desire for developing a potential riverwalk along Chicopee Brook, the brook that runs through the Omega Mill site. According to a survey conducted by the Town in August through September of 2021, over 90% of respondents were in favor of a greenway or riverwalk for walking or bicycling. Based on the study, the residents are particularly interested in trails and other “passive recreation opportunities”. In the report, the town also reports that meeting ADA accessibility is of the highest priority when developing open space and recreational facilities, which has also been taken into consideration in this study.
4.2 Town of Monson Municipal Vulnerability Preparedness Community Resiliency Building Workshop, 2019

The Town of Monson Municipal Vulnerability Preparedness Community Resiliency Building Workshop is a report written by the Pioneer Valley Planning Commission and the Town of Monson. The report details a community resilience building workshop that took place in February 2019 in which town officials and consultants discussed the importance of mitigation and adaptation strategies needed to prevent the effects of climate change in Monson. These strategies are used to protect the town and its citizens, town infrastructure, the local environment, and the built environment. Chicopee Brook is a main area of concern as a potential flooding area, citing that debris present in the brook has increased flooding and that erosion of the brook has increased due to increased intensity of rainfall events. These factors should be taken into consideration as the Omega Mill is situated upon Chicopee Brook.

Eighteen of the twenty-six dams in Monson are classified as Low Hazard while six dams are classified as Significant Hazard, and two dams (Manufacturing Company Dam and the Conant Brook Dam) are categorized as High Hazard. The failure of the Conant Brook Dam could result in devastation all along the Chicopee River, with severe implications for the Site.

One of the main challenges identified in the workshop is the high risk experienced by vulnerable populations (including seniors) in case of a power outage in the winter or a heat wave. Although Monson has an effective mechanism to cool or warm centers and shelters, there is need for local solutions for those unable to travel.

4.3 Community Plan for Monson Center, 2012

The Community Plan for Monson center was developed in 2012 as a supplemental chapter to the Monson Master Plan by the Town of Monson and PVPC. In the 2012 Plan, the Chicopee Riverwalk was identified as an immediate priority in the community’s vision as stated by public input with a better connection to Omega Mill. Additional needs of the Town identified:

- New Town Hall that would also an accessible center for community gatherings
- Tree Restoration
- Town connectivity and better pedestrian accessibility through sidewalks, trails, and bike paths.
- Preservation of downtown’s historic character and visual appeal.
- Larger public gathering spaces, such as a commercial town square in the mid-downtown area.
- Making greater use of Memorial Hall, possibly with enhancements to memorials and plaza area connecting with the House of Art and Rotary Gazebo.
- Building on existing economic strengths by focusing future business growth in established areas.
- Updating zoning to be consistent with residents’ strong preferences for maintaining the existing look and feel of downtown.

**Figure 13** illustrates the short- and long-term improvements in the Town of Monson Center according to the 2012 Plan.

**4.4 Monson Master Plan, 2004**

The Monson Master Plan is a master plan prepared by the Town of Monson with assistance from Daylor Consulting Group, In. and in association with LandUse, Inc. and Mark Bobrowski,
Esq. in 2004. The purpose of the master plan was to study the Town’s resources, and establish goals and an implementation plan for the development of the Town. Issued in 2004, this plan details the land use of the town and the Town’s demographics. An analysis of the demographics in the document reveals that from 1990 to 2000, the population of people aged 45-64 increased by 37.4%, and that the overall trend is toward an older population. One of the main recommendations include a call for a “mill conversion overlay district” that would encourage economic development of abandoned mill sites in the town, such as the Omega Mill. This overlay district would allow for zoning flexibility and for the permittance of these mill sites to be refurbished as residential developments such as senior housing. The report suggests that dimensional regulations could be relaxed by special permit, which would allow for more flexible development. As of 2022, this district overlay has not been established.

SECTION 5 SITE-SPECIFIC CONSIDERATIONS

5.1 Zoning Regulations

The Site is currently located in an industrial zoning district, which prohibits any sort of residential development. Although the site is located in an industrial zoning district prohibiting any residential or commercial use of the Site, the zoning bylaws can be changed in order to appeal to future redevelopment ideas and construction. The anticipated change for the area is to be rezoned to Residential Village (RV).

Residential Village Zoning Regulations for Elderly Housing

Given that senior housing has been identified as a major need from the demographic analysis, the zoning regulations for congregate elderly or handicapped dwelling units under the RV were examined. Dimensional and density regulations for elderly housing in a RV zone are outlined in section 6.3 of Monson’s Zoning Bylaws, and specifically:

1. The applicant shall comply with all requirements listed in 6.2.2 and 6.2.3 of the Bylaw.
2. Congregate elderly housing shall comply with all regulations for multi-family dwellings contained in the dimensional and density regulations (Summarized in Table 3).
3. The maximum number of elderly or handicapped occupants per structure cannot exceed 6.

Table 3. Monson zoning requirements for elderly housing under Residential Village Zone.

<table>
<thead>
<tr>
<th>Zoning Requirements</th>
<th>Residential Village – Elderly Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum lot area</td>
<td>31,000 square feet &amp; 2,000 per bedroom</td>
</tr>
</tbody>
</table>
Minimum frontage: 125 ft
Minimum front yard: 40 ft
Minimum rear yard: 40 ft
Minimum side yard: 40 ft
Maximum height: 40 ft
Maximum number of stories: 3
Maximum building coverage: 25% of total lot area
Minimum open space: 30% of total lot area
Maximum units per structure: 6

Parking Requirements
The parking dimensions are listed in section 5.4 of the Bylaws outlined in Table 4. Per Section 5.4.7 of the Bylaws, 60% of the parking spaces shall be 9 by 18 feet, and the remaining spots can be 8 by 16 feet.

<table>
<thead>
<tr>
<th>Elderly or Handicapped Dwellings</th>
<th>Minimum spaces required*</th>
<th>Maximum spaces required*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ½ spots per sleeping room</td>
<td>1 ½ spots per sleeping room</td>
<td></td>
</tr>
</tbody>
</table>

*Per 1,000 feet of Gross Floor Area.

5.2 Floodplains
The Town zoning map indicates that a section of the site that contains part of the Chicopee Brook has been designated as a floodplain overlay district; however, the section is small and there is no significant impact on the Site. FEMA flood maps do not indicate the site as being inside a flood zone.

Water Supply Overlay District
The site is located in the Water Supply Protection overlay district, which prohibits any sort of landfill or hazardous waste collection center. Residential development, outdoor recreation, and park paths are permittable.

5.3. Massachusetts Rivers Protection Act

Given the proximity to the Chicopee River, the Site falls under the jurisdiction of the Massachusetts Rivers Protection Act of 1996. Under the Massachusetts Rivers Protection Act, the 200-foot riverfront area extends on both sides of rivers and streams, and “the law establishes the policy of the state to protect the natural integrity of rivers and to encourage and establish open space along rivers.”

All three lots at the Site are within 200 feet of the Chicopee Brook, and hence, additional approval by the Conservation Commission will be required to support the development of the Site.

5.4. Wetlands Protection Act

A significant portion of the 97-37 parcel is covered by wetlands (Figure 14). The Wetlands Protection Act (310 CMR 10.00) is triggered for the 97-37 parcel due the presence of wetlands on site. Based on the Wetland Protection Act, any activity within the buffer zone (area of land extending 100 feet horizontally outward from the boundary of the wetlands) would require a Notice of Intent. The development of the Site is contingent upon the approval of the Conservation Commission.

Figure 14. Wetland status of parcel 97-37, the Chicopee Brook Reservoir.
https://www.fws.gov/wetlands/data/mapper.html
SECTION 6 TRAFFIC & INFRASTRUCTURE ASSESSMENT

6.1 Utilities

The Site is connected to the public water supply system, which enters the lot 116-96 from under the main driveway located on Bliss Street (source: EPA Assessment Report, 2002). The main sewage pipe is connected across the southern edge of the site and runs east to west over the Chicopee River. The Site is currently connected to the Palmer Wastewater Treatment Plant in December 1984 which treats effluent and discharges it into the Chicopee River. The building is connected to the electric grid that runs throughout the nearby neighborhood. It is not likely that the Site currently has natural gas.

6.2 Traffic Assessment

Located one mile South of Monson’s downtown area, the Site has two entrances on Bliss Street. The Southeast entrance is used for the Omega mill’s parking area, while its Northeast entrance was previously facilitated as an entrance to the mill’s loading dock. The Site is surrounded by two major routes. Massachusetts Route 32, which drives through the entire state and connects to Connecticut, is located 0.18 miles East of the site, and US Route 20 is located approximately 4.7 miles North. Since the Town Center is a walkable distance, the closest modes of public transportation are located in Springfield, Massachusetts. Bus routes provided by Pioneer Valley Transit Authority run 13 miles West of the site, and public trains located at Springfield Union Station are about 17.5 miles West.

The transportation indicators in the Town of Monson (2017 data, source: PVPC):

- Mean Commuter: 28.8 minutes
- Commuters who commute by car, alone: 87.1%
- Commuters who commute by a mode other than single occupancy car: 12.9%
- Commuters who commute by bike: 0.2%
- Commuters who commute by carpool: 8.4%
- Commuters who walk: 0.5%
- Commuters who use public transit: 0%
- Workers who work at home: 3.8%
**SECTION 7 ENVIRONMENTAL ASSESSMENTS**

**7.1 Summary of Environmental Site Assessments and Previous Remediation**

**Targeted Brownfield Assessment, 2004**

A Targeted Brownfield Assessment (TBA) was conducted for the Omega Mill Processing Property (lot 116-96) by Metcalf & Eddy on approval by the EPA in December of 2002. A follow-up supplemental assessment, upon the request of the EPA, was conducted in October and November of 2003. The initial investigation involved an asbestos and lead paint survey of the buildings, soil sampling under the building and the tailrace, soil borings, water vat sampling, and groundwater sampling. The supplemental investigation involved more advanced soil boring sampling and more groundwater sampling.

The areas of concern at the Omega Mill Property include the main building (including crawl space), the tail race, site soil, and site groundwater *(Figure 15)*. The sources and extent of plating waste contamination appear to be limited to the area within and to the west of the tail race and building footprint. The major findings of the initial and supplemental TBA assessments are summarized below:

- Asbestos-containing materials were found throughout the main building, such as pipe insulation and other construction materials, some of which were saturated with water.
- Lead-based paint was found on the wood and metal doors, windows, and siding of both the main Omega Mill building and the wood building.
- Presence of two steel tanks, one plastic vat containing oil, two lines of electroplating vats, and other mechanical equipment.
- Sanding water in one of the vats contained elevated concentrations of metals including cadmium, which exceeded the regulatory limits.
- Elevated metal concentrations in soils underneath the building and within the crawl space under the building, surface soils around the site and within the tail race.
- Polycyclic aromatic hydrocarbons (PAHs) were found in soils within the tail race, in the surface soils around the site.
- Elevated concentrations of cadmium, weak acid dissociable (WAD) cyanide, and nickel were identified in the groundwater. The extent of groundwater contamination appears to be defined to the east by the tail race.
Figure 15. Sample investigation locations during the environmental investigations in 2002 & 2003 (TBA, 2004).

Based on the findings of the 2004 TBA assessment, the extent of soil and groundwater contamination under the tail race, beneath the building, and between the building and the brook has not been completely determined. Removal of all asbestos-containing materials from the main building must be completed prior to building demolition. According to the 2004 report an estimated cost of $257,000 is required for the abatement of asbestos and wastes from the building, a $306,000 is estimated for the demolition of the building, $25,325 for the excavation and disposal of trail race soils, and $13,150 for the remediation of crawl space soils. The total removal, demolition, and remediation is estimated at $782,568 including a 30% contingency. It should be noted that the cost estimates should be updated or adjusted for inflation. Additional sampling should also be conducted for soil contamination underneath the building.

Removal After Action Report, 2005

In 2004, EPA and START personnel conducted an extent-of-contamination survey at the site as part of a Removal Program Preliminary Assessment/Site Investigation (PA/SI) and collected surface soil, vat, floor sweepings, and building material samples for analysis.

In 2005, the EPA Emergency Planning and Response Branch mobilized to the site in order to relocate and remove hazardous debris and begin a cleanup. On January 25, air sampling for asbestos was completed and asbestos pipe insulation was removed from the first floor of the building. The following week, more air sampling was conducted and asbestos pipe insulation was removed from the basement of the building.
In September, a START team mobilized to the site to collect an additional number of 13 surface and 3 subsurface soil samples in preparation for soil removal, in order to identify their disposal classification. The following week, an ERRS team mobilized to the site and transferred 3,000 gallons of contaminated rainwater from plating vats in the building to a tanker truck for removal. In November, contaminated soils were excavated from the site from a depth up to 1 foot, and the excavated areas were backfilled with gravel. An additional 5,000 gallons of contaminated rainwater from the plating lines in the northern section of the building. In all, over the course of November, approximately 18 tons of cadmium and lead-contaminated soils were removed from the site.

There were no recommendations for additional investigation and cleanup in the 2005 EPA report. It is, however, anticipated that additional investigation and/or remediation will be required prior or after the demolition of the building.

7.2 Remedial Restrictions

At the current stage, it is unknown whether there will be any activity restrictions at the Site.
SECTION 8 REDEVELOPMENT SCENARIOS

8.1 Criteria for Reuse Assessment

The reuse assessment for the former Omega Mill site was based on several criteria that took into consideration the community’s need, zoning regulations, and other considerations. The redevelopment scenarios were based on the following criteria:

- **Demographics:** The demographics of Monson suggested that there is a growing population of seniors in the Town. Census data, satellite maps, and EPA’s EJSCREEN tool were utilized to analyze demographics and the availability of services in the area. Based on the research, there is currently a need for additional housing units for the growing elderly population.

- **Discussion with Town officials:** Through discussions with the Director of Community Development for the Town of Monson, Dan Laroche, the cultural background and history of the Town, including future goals were incorporated into the redevelopment scenarios.

- **Demolition of existing structures:** The existing structure of the Omega Mill building will be demolished since it is not a condition for safe reuse. For the redevelopment scenarios, the built structures would be brand new buildings, built after demolition operations.

- **Construction of riverwalk:** The primary focus of the Town is to develop a riverwalk next to Chicopee Brook. This has been considered, with a possible site for a parking lot and entrance to the riverwalk area located on the east side of parcel 97-35 that connects to Bliss Street. Residents and visitors could utilize this parking space to access the riverwalk. The riverwalk would be extended until the property boundary of parcel 116-96.

- **ADA accessibility:** Compliance with the Americans with Disabilities Act is of the highest priority for the new development. A main goal for the riverwalk is for it to be wheelchair accessible. Ramps and elevators have been integrated into all redevelopment scenarios so ADA accessibility is taken into account.

- **Aesthetics:** The development of the Site would be oriented towards maximizing the river views available at the property.

- **Preservation of wetlands:** A large section of the southernmost parcel (parcel 97-37) contains a large section of the area taken up by the Chicopee Brook Reservoir, which is classified as a wetland area.

- **Specific site characteristics:** The Chicopee Brook, which runs through the main Omega Mill lot, and the steep topography close to the river are limiting the developable area at the Site.

- **Zoning regulations:** The redevelopment scenarios are in accordance with the Town of Monson’s Residential Village zoning district, as per the 2013 Monson Zoning Bylaws. This is contingent on a change in the zoning regulations from Industrial to Residential Village.
• **Market Ready**: The future redevelopment will be offered at a market rate, per Town’s economic development suggestions.

8.2 **Reuse Alternatives**

The reuse alternatives would entail the development of an ADA-accessible river walk across parcel 97-35 that would connect the Omega Mill lot (parcel 116-96) with the downtown, and the development of a parking lot (on parcel 97-35) with access on Bliss Street (**Figure 16**).

![Figure 16. Proposed development of riverwalk across Chicopee River (on parcel 97-35) and proposed parking lot on Bliss Street.](image)

Two scenarios were considered for the development of senior housing units on the Omega Mill lot (parcel 116-96) and the lot across the street (97-37).

**Table 5** shows the calculations performed to examine compliance with the Residential Village zoning regulations. Maximum building coverage was calculated according to 25% of the total square footage. Minimum open space was calculated according to 30% of the total square footage. All lots meet the criteria of having a minimum frontage greater than 125 feet and meet the requirements for minimum lot area.
Table 5. Area calculations for building sites on all 3 lots according to Residential Village Zoning Bylaws.

<table>
<thead>
<tr>
<th></th>
<th>Omega Mill (Lot 116-96)</th>
<th>Lot 97-37</th>
<th>Lot 97-35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Size (acres)</td>
<td>2.5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Maximum Building Coverage (sq. ft.)</td>
<td>27,225</td>
<td>54,450</td>
<td>54,450</td>
</tr>
<tr>
<td>Minimum Open Space (sq. ft.)</td>
<td>32,670</td>
<td>65,340</td>
<td>65,340</td>
</tr>
</tbody>
</table>

Scenario A (Senior Housing on Omega Mill Lot)

The first reuse scenario includes the development of eight (8) senior housing units on the Omega Mill lot (parcel 116-96). The development of the 116-96 parcel is contingent upon approval from the Conservation Committee given that the MA Rivers Protection Act prohibits the development within 200 ft from the river. The units would be one-floor apartments to comply with ADA accessibility. This scenario would include 2 buildings with 4 units each, as shown in Table 6.

Table 6. Housing units and number of parking spaces per structure under Scenario A.

<table>
<thead>
<tr>
<th></th>
<th>1-Bedroom Apartments</th>
<th>2-Bedroom Apartments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (sq. ft.) per apt.</td>
<td>648</td>
<td>936</td>
</tr>
<tr>
<td>Number of Units</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Parking spots required per apt.</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td>Total Area (sq. ft.)</td>
<td>3,168</td>
<td>1,336</td>
</tr>
<tr>
<td>Total parking spots</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

*Parking area is calculated following that 60% of parking spaces require 8’ x 18’ and 40% are calculated by 8’ x 16’ per zoning regulations.

The total development area for the 2 structures with four (4) 1-bedroom apartments and four (4) 2-bedroom apartments is 6,336 sq. ft. and 18 parking spaces with an estimated 2,672 sq. ft required for parking (Figures 17 & 18).
Figure 17. East view showing proposed senior housing units and parking lot on parcel 116-96 under Scenario A.

Figure 18. Focused eastern view showing proposed senior housing units and parking lot on parcel 116-96 under Scenario A.
Scenario B

Scenario B included the development of a 4-unit senior housing building on parcel 97-37 across the street in addition to Scenario A (riverwalk on parcel 97-35 and the two housing structures on parcel 116-96). The development of parcel 97-37 is contingent upon approval from the Conservation Committee given that the MA Wetlands Protection Act prohibits the development within 100 ft of the wetland and the MA Rivers Protection Act prohibits the development within 200 ft from the river. The proposed development on parcel 97-37 would be similar to the housing units proposed for Scenario A as shown in Table 6 and Figures 19 and 20.

![Figure 19. View of proposed senior housing units and parking lot on parcel 97-37 under Scenario B.](image)

The overall development area under scenario B would include:

- A total of 6,336 sq. ft. for four (4) 1-bedroom apartments and four (4) 2-bedroom apartments in parcel 116-96.
- 18 parking spaces in parcel 116-96 with an estimated area of 2,672 sq. ft.
- A total of 3,168 sq. ft. for two (2) 1-bedroom apartments and two (2) 2-bedroom apartments in parcel 97-37.
- 9 parking spaces in parcel 97-37 with an estimated area of 1,336 sq. ft.
Figure 20. View of proposed senior housing units and parking lot on parcel 97-37 and 116-96 under Scenario B.

Figures 21, 22, and 23 show the proposed development of the overall area under Scenario B.

Figure 21. Eastern view of the overall proposed development under Scenario B.
Figure 22. Southern view of overall proposed development under Scenario B.

Figure 23. Top view of overall proposed development under Scenario B.
REFERENCES

EPA EJSCREEN TOOL
https://www.epa.gov/ejscreen

U.S. Fish & Wildlife Service
https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper

Town of Monson GIS
https://hosting.tighebond.com/Monson/Default.html

Town of Monson Zoning Bylaws (2013)

Town of Monson Zoning Map

Monson Open Space and Recreation Plan (2014-2021)


Targeted Brownfield Assessment, EPA 2004

Removal After Action Report, EPA 2005

Town of Monson Municipal Vulnerability Preparedness Community Resiliency Building Workshop
https://www.mass.gov/doc/monson-report/download