

**LAND DISPOSITION REPORT
REDEVELOPMENT AUTHORITY
COMMON COUNCIL OF THE CITY OF MILWAUKEE**

DATE January 18, 2007

RESPONSIBLE STAFF

Dave Misky (286-8682), Land Development Manager

REDEVELOPMENT PROJECT AREA

Menomonee Valley Industrial Center: The Redevelopment Authority acquired approximately 130 acres in the Menomonee Valley in July 2003 from CMC Heartland Partners. Since acquisition, the Authority has been preparing the area for redevelopment by conducting environmental remediation, removing old building foundations and making geotechnical improvements, adding and compacting fill to raise the property out of the flood plain and conducting property surveys. Extension of West Canal Street through the project area was completed in April 2006.



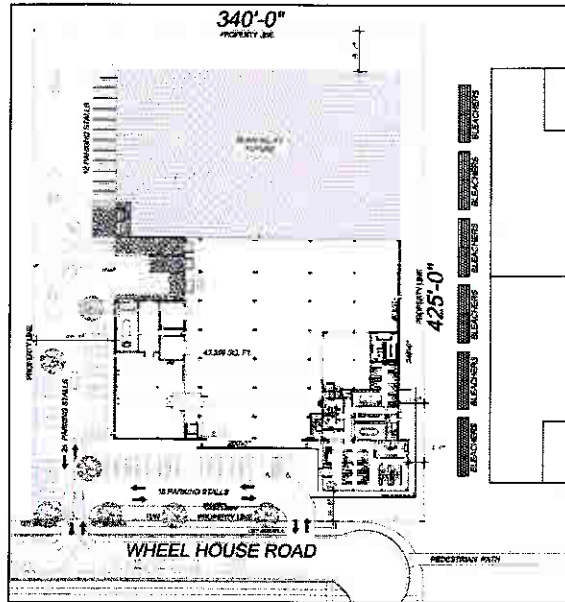
REDEVELOPER

Taylor Dynamometer, Inc., which is currently located in New Berlin, WI, has been around since World War II. Taylor Dynamometer, Inc., manufactures engine dynamometers, which test engines for power and torque. Art Downey is the owner.

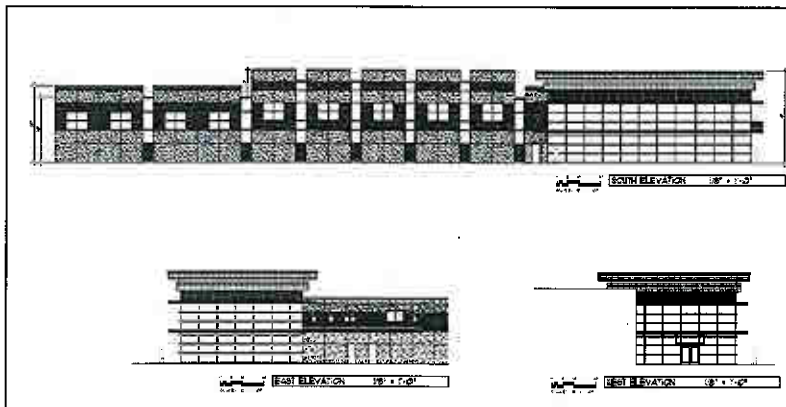
PROJECT DESCRIPTION

Approximately 3.3 acres located to the north of Wheelhouse Road. The exact area and configuration will be determined during preparation of a Certified Survey Map. The site will be developed with a 43,350 SF manufacturing facility and offices for Taylor Dynamometer, Inc. Estimated project cost is \$4 million and buyer will be required to enter into a Best Efforts EBE Agreement. Redeveloper plans to begin construction in the spring of 2007 for fall of 2007 occupancy.

Taylor Dynamometer, Inc., currently has 31 full-time employees and 3 part-time employees in New Berlin. Hourly wages are between \$14.40/hr to \$47.60/hr. Benefits include medical, dental, life and short and long-term disability insurance, paid vacations and holidays and 401(k). See Prospect Data Sheet for more salary and benefit information.



Preliminary Site Plan



Preliminary Elevation

OPTION TERMS AND CONDITIONS

The purchase price shall be \$120,000 per acre. The option term will be for six months to enable the redeveloper to complete their environmental and geotechnical investigations, secure financing and finalize building plans. The option period may be extended by the Executive Director for two three-month extension periods upon submission of a satisfactory written progress report and a \$250 renewal fee for each request. A \$10,000 Option Fee is required to be submitted with the Option to Purchase and shall be credited toward the purchase price at closing. In addition, a \$10,000 Performance Deposit will be required at closing to guarantee satisfactory completion of the improvements.

Additional terms and conditions are identified in a Term Sheet.

PAST ACTIONS

The Redevelopment Authority held a public hearing on January 18, 2007, after which it conditionally accepted the Option to Purchase of the named Redeveloper.

FUTURE ACTIONS

Upon approval by the Common Council and any required approvals by regulatory bodies, Closing will occur once RACM staff has approved of the site and building plans, buyer submits satisfactory evidence of financing and an approved subdivision plat and/or certified survey map of the site is complete.

MENOMONEE VALLEY PROSPECT DATA SHEET

SECTION I-PROSPECT/APPLICANT INFORMATION	
Legal Name: Taylor Dynamometer	
Trade Name:	
Address: 16211 W. Lincoln Avenue	
City, State, Zip: New Berlin, WI 53151	SIC or NAICS:
SECTION II-BUSINESS INFORMATION	
Primary Product or Service: Manufacturer of dynamometers	
Total Company Employment:	Full Time: 32 Part Time: 4
Total Wisconsin Employment:	Full Time: 32 Part Time: 4
Total Project Location	
Employment at Occupancy:	Full Time: 32 Part Time: 4
SECTION III-MARKET INFORMATION	
Three Major Customers In Southeastern Wisconsin:	% OF SALES
1. Pierce Manufacturing Co.	2.3
2. Superior Diesel	.4
3. Fabco Equipment	.3
Three Major Customers Outside Of Southeastern Wisconsin:	% OF SALES
1. PT Altrak 1978	4.1
2. Kenworth Mexicana	4.0
3. Jasper Engine and Transmission	3.2
Three Major Suppliers	Location (City and State):
1. Willman Industries	Milwaukee, WI
2. Standard Electric Supply Company	Milwaukee, WI
3. Interweld	Milwaukee, WI
Brief Market Position Description: Taylor Dynamometer is the leading manufacturer of engine dynamometer and chassis dynamometer systems, accessories, controls, software and instrumentation since the 1930's. Supply to diesel truck OEMs (Caterpillar, Detroit Diesel, etc.), heavy duty truck OEMs (Kenworth, Peterbilt), independent servicers, regional transit authorities, and foreign governments. 35% of the customer base is international. Since 1999, have grown from 13 employees and \$1.9 million in sales to 35 employees and \$7.5 million in sales.	
SECTION IV-PROJECT INFORMATION	
Acreage of Project: 2.75 – 3.5 acres	Square Footage of Project Facility: 40,000 – 50,000
Brief Project Summary (including proportions of manufacturing and office uses on property):	
Construction of a manufacturing facility with 43,350 square feet of manufacturing space and ~3,800 square feet of office space.	
Break ground by: Spring 2007	Begin production by: Fall 2007
Have you identified any members of your project construction team? (Construction firm, architect, etc.) X Yes <input type="checkbox"/> No	
If yes, please list and indicate if any members of the team are LEED™ certified. (For info see www.usgbc.org/LEED/)	
Although MSI General Corporation is not LEED Certified, they have the skills and experience necessary to incorporate general green building concepts and construct the proposed new building for Taylor Dynamometer by following the design guidelines approved by RACM.	

SECTION VI-PROJECTED EMPLOYMENT

Full Time Positions Only (2,080 hours/year)

Existing Positions		Position Title	Positions Created				
Avg. Hourly	Number of Existing		Avg. Starting Hourly	Year One Number Created	Year Two Number Created	Year Three Number	Total Number Created
\$28.00	9	Sales and Service					
\$25.00	6	Administration					
\$28.00	6	Engineering					
\$20.00	11	Production					
		TOTAL					
\$24.69	32	Weighted Average Wage (Existing / Year One)					

SECTION VII-BENEFIT INFORMATION

Check the Health Insurance Provided to Employees: None Individual Family

Percent of Health Insurance Premium Paid by Company: 50 % 50 %

Other Benefits Provided to the Majority of the Workforce:
 Life Insurance Pension 401(k) Childcare Tuition Reimbursement Other: (Specify) Profit sharing

Will new employees be provided with substantially the same benefits as described above:
 Yes No

Brief description of any training or internal advancement programs you have to develop your workforce.

RACM/TAYLOR DYNAMOMETER, INC
TERM SHEET
FOR ACQUISITION OF LAND
IN MENOMONEE VALLEY INDUSTRIAL CENTER

Property: Approximately 3.32 acres located in the RACM Menomonee Valley Industrial Center identified as Parcel A on Exhibit A attached hereto. The exact acreage will be confirmed by survey. [Note: Due to elevation differentials, the Purchaser will not be required to pay for a 32-foot strip of unusable land (0.25 acres) along the northern edge of the proposed development but will own and maintain the strip].

Purchase Price: \$120,000/acre, payable in cash at closing less that portion of unusable land [0.25 acres @ \$120,000/acre = \$30,000]. Total cost of 3.07 acres will be \$368,400.

Closing: Closing shall occur on or before April 19, 2007, as mutually agreed.

Property Condition: RACM shall have completed all filling, grading and environmental remediation at the site pursuant to the specifications attached hereto as Exhibit B. The costs for such site work shall be paid solely by RACM. RACM shall be responsible for obtaining case closure from the WDNR and shall indemnify Taylor Dynamometer, Inc. from and against any claims relating to adverse environmental conditions existing on or prior to closing. Taylor Dynamometer, Inc. shall provide RACM with reasonable access to the Property to accommodate case closure requirements (such as well monitoring). RACM shall allow Taylor Dynamometer, Inc. to dispose of any fill within the Menomonee Valley Industrial Center at no cost to Taylor Dynamometer, Inc. (i.e. tipping fee). RACM shall also make available to Taylor Dynamometer, Inc. crushed stone (at the consistency requested by the developer at a cost of \$7.00 per ton or \$10.50 per cubic yard).

Further, as agreed to in previous correspondence between RACM and Taylor Dynamometer, Inc., RACM shall pay for the placement and removal of the surcharge on the footprint of the proposed building and Taylor Dynamometer, Inc. shall pay for the placement and removal of the surcharge on the footprint of the future building. The surcharge cost is \$1.25/square foot for a total of 30,000 cubic yards of material. If the City surcharges the original 43,350 square foot building and Taylor surcharges the future building, the total estimated cost of surcharging is \$100,000. Taylor's cost of the surcharge work for the future building shall not exceed \$45,000.

Development: Taylor Dynamometer, Inc. shall construct and operate a new office and manufacturing facility on the site containing approximately 43,350 square feet (the "Project"). Taylor Dynamometer, Inc. anticipates completion of construction of the Project sometime in the fall of 2007, subject to force majeure.

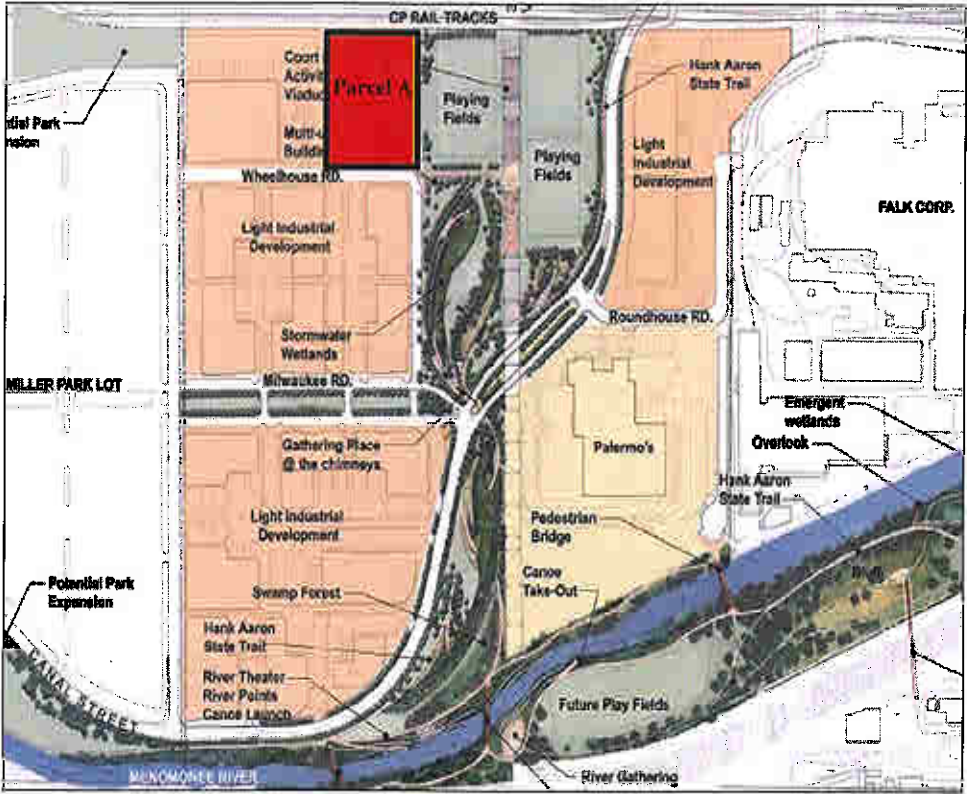
Design Guidelines: Taylor Dynamometer, Inc. shall develop and operate the Project in compliance with the Design Guidelines attached hereto as Exhibit C. These guidelines have been incorporated into a Redevelopment Plan and approved by RACM and the City and encompass Parcel A and the other land owned and being developed by RACM in the Menomonee Valley Industrial Center within Tax Incremental District No. 53.

Human Resources Requirements: Taylor Dynamometer, Inc. shall use its best efforts to utilize Emerging Business Enterprise for not less than 18% of the construction cost of the Project and shall enter into an Emerging Business Enterprise Agreement for that purpose. Taylor Dynamometer, Inc. shall also use its best efforts to cause its contractors to pay workers on the Project based on the current prevailing wage scale.

Stormwater Maintenance: As part of the overall development of the Menomonee Valley Industrial Center, RACM is installing a master stormwater management system that will serve Parcel A and the other lands within the Center. The cost of installation of the system is included in the purchase price. Subsequent to closing, Taylor Dynamometer, Inc. shall be obligated to pay to RACM or to a property owners association created by RACM, Taylor Dynamometer, Inc.'s pro rata share of the annual costs of operating and maintaining such stormwater management system.

Subsequent Documentation: Prior to closing, RACM and Taylor Dynamometer, Inc. shall enter into an Agreement For Sale of Land containing RACM's customary provisions (consistent with the provisions of this Term Sheet) pertaining to the conveyance of RACM-owned property. Such provisions shall include the requirement that Parcel A shall be governed by a Redevelopment Plan containing use and design regulations and that title to properties within the Menomonee Valley Industrial Center shall be further subject to customary permitted encumbrances such as utility, access and other easements for common benefit.

Exhibit A
Proposed Location of Taylor Dynamometer, Inc.



**City of Milwaukee Commitments
to
Stormwater Management, Environmental Remediation and
Geotechnical Improvements
for the
Shops Property
March 2006**

The City of Milwaukee is redeveloping the former Shops area (Site) into about 70 acres of light industrial space and another 30 acres of greenspace for stormwater management / recreational use. The greenspace will be used for both active and passive recreation.

The Site is a former heavy industrial site (i.e., rail yard) that was originally built in the estuary of the Menomonee River. As such, there are issues with floodwater/stormwater management, environmental contamination, and soil conditions. The City is making extensive investments in addressing those issues during the redevelopment process. This memorandum summarizes the commitments that the City is making to stormwater management, environmental remediation, and geotechnical improvements to the Site. By providing this summary, the City hopes to provide important Site background information to prospective developers.

Stormwater/Floodwater Management

Integral to the overall redevelopment of the Site is an approximately 30-acre area of greenspace known as the "Stormwater Park". The Stormwater Park includes the area dedicated to future soccer fields, walking trails, and a central stormwater management area for the 70 acres of industrial land use. The handling and treating of stormwater is an integral part of the overall greenspace design. Stormwater will not be treated through a conventional detention pond, but rather a series of filtering processes that are part of the Park's landscape. This approach should meet both water quality and quantity requirements by which all new development needs to comply. Thus, developers are not required to dedicate their own space for stormwater management or construct a site-specific stormwater facility.

The City will:

- Build the stormwater park, including the stormwater treatment component.
- Obtain initial permits from the WDNR.
- Install the storm sewers along public streets/alleys for drainage from future development sites.

The responsibilities of future developers will be to:

- Provide the drainage infrastructure for their properties to public storm sewers.
- Obtain an individual permit from the WDNR to connect to this regional facility.
- In addition, the City would like to encourage good onsite stormwater management practices that further reduce pollutant runoff and will thereby extend the life of the stormwater treatment facility.

The Stormwater Park – both the recreational and stormwater treatment aspects – will be managed by the City or a public/private partnership. A typical declaration for business parks will be developed through which annual fees will be assessed to property owners for the maintenance of the stormwater treatment systems. Thus property owners will contribute to the maintenance costs but will not have direct responsibility for maintenance of the stormwater facility.

The Site is currently in the regulated flood plain and is listed as a flood fringe area. Because the Site will be raised as part of filling, the Site will be removed from the regulated flood plain. The City will eventually work through FEMA to develop new flood plain maps.

Environmental Remediation

The City is making significant investments to address environmental issues at the Shops. The general remediation approach consists of placing several feet of soil over the existing contaminated soil and monitoring groundwater long-term. Free product will be recovered in a very limited area. “Hot spots” of soil have been removed. The goal of the City is to achieve an NR 726 flexible closure for the Site. Thus future property owners will not be required to manage environmental closure of their sites.

The City will:

- Undertake soil and free product management required for WDNR closure.
- Perform long-term groundwater monitoring associated with closure
- Convey the property to the developer with the assurance that the property is or will be closed.
- Provide an onsite placement area for impacted soil that is excavated as part of future developments.

Future developers will have some responsibilities to comply with site closure requirements. These are:

- Provide long-term right-of-entry agreements to the City so that they can access monitoring wells for groundwater sampling. The wells will be located at locations mutually agreeable to the developers and the City. Wherever possible, monitoring wells will be located on public right of way.
- Agree to maintain the 2-foot clean soil cover (or acceptable equivalent)– either through the final design of the landscaping, building, or parking areas.
- Acknowledge that soil generated during the excavation of building foundations, utilities, truck docks or other structures may need special handling and placement. The handling, transport, and placement of those soils to an onsite placement area are a developer responsibility. The City will provide an onsite placement location. The developer will not have long-term responsibility for those soils relocated onsite but are only responsible for their relocation.

In addition, methane generation is a potential issue across the entire Valley. Many new buildings constructed during the past decade in the Valley included passive methane/soil gas management systems. The need for methane abatement is very site specific. Developers will need to assess their own needs for a methane gas management system.

Geotechnical Requirements

The City has completed a geotechnical engineering site feasibility study of the Site. The study indicates that a variety of geotechnical conditions could affect future building design. These conditions include:

- A layer of organic silts and soft clays that will pose the potential for settlement. The thickness of the organic silt layer varies across the Site.
- Relic floor slabs, sewers, and foundations from the Milwaukee Road facility and other developments.
- The addition of ten feet of compacted structural fill across the Site.

The City intends to address the existing soil conditions such that relatively lightweight, single story, industrial buildings can be built on shallow footings. Settlement sensitive equipment and process may require special foundations. Heavier or multi-story buildings would likely require piles. However, as with any site, it is emphasized that each potential owner will need to conduct their own comprehensive geotechnical exploration and site analysis to determine design characteristics for their planned development. The City has collected extensive data across the Site and will make all data available to prospective developers.

The City is addressing soil conditions by the following.

Monitoring Long-term Settlement of the Organic Silt and Soft Clay Layer

- The City filled the Canal Street corridor in early 2004. As part of that effort, it is undertaking settlement monitoring associated with the additional roadway embankment soil loads. Most settlement of the underlying native organic silts and soft clays is expected to occur within the first year of filling. The roadway embankment monitoring results will be made available to the future owners. Again, each potential owner will have to conduct its own geotechnical evaluation and make its own determination of settlement potential, based on the Site specific soil conditions, expected building/structure loads and their settlement tolerance.
- Other settlement plates are being installed across the Site as various sections are filled. Settlement data will be collected during 2004 and 2005 and will be made available to developers.

Addressing Relic Structures

- The former Milwaukee Road facility built a system of stormwater and process sewers to drain the Site. The City is making reasonable attempts to locate and abandon these structures. In particular, sewers more than 18-inches in diameter and less than 6-feet below existing ground surface are being abandoned. Sewers greater than 6-feet below grade will be left in place as is. After the additional fill is placed on the Site, these sewers will be at depths generally greater than 15 feet below the new ground surface.
- The existing building slabs and roads will be broken in place. Breaking the slabs will serve two purposes. First, it will help verify that there are no relic structures under the slabs. Second, if the developer deems necessary, it will allow piles to be pushed through the broken slabs in the future, if needed in areas conducive to piling. All known relic structures will be mapped and the location provided to the potential future owners. Some parts of the Site have had many known structures and others had very few known structures. The presence of buried structures will vary across the Site.

Compaction of Additional Recent Fill Placed on the Site

- The development portion of the Site will be filled to a depth of about 10 feet. The City is treating this portion of the Site as an engineered fill Site. The City is only accepting material suitable for building pad construction as Site fill and the fill will be compacted and tested to at least 90% Modified Proctor value. Soil compaction results will be available for the developer to review.

The responsibilities of the developer will be to:

- Conduct its own geotechnical investigation, as required for any building project.
- Using the information provided by the City and other data it may choose to collect as part of its own investigation, design its own building foundations, floor slab and utilities consistent with the requirements of that particular building.

**Attachment B
Shops Development Site
Geotechnical Limitations**

The redevelopment of this 100-acre Site for industrial/commercial use is the focus of this technical memorandum. The Redevelopment Authority of the City of Milwaukee has a goal of entering into developer agreements as soon as the Site is filled to final grade in 2005/2006. There are a number of limitations that the City, and developers, should be aware of on this Site that will affect constructability depending on which portion of the Site is being considered.

History--Summary

The Site area was almost entirely used as a series of rail yards, with parallel sidings and main line tracks, maintenance shops for rolling stock, locomotive repair shops, roundhouses and ancillary buildings supporting these facilities. The Site was a former large marshy estuary associated with the Menomonee River that opened onto Lake Michigan. It was filled in, starting about 1875, beginning at about 44th Street and along the north bluff (present I-94 location), until about 1890.

Subsurface Conditions—Summary

The entire development area is thus underlain by organic clay and peat deposits of the marsh that are now buried under approximately 8 to 20 feet of mixed rubble, cinder, foundry sand and clay fill. Larger buildings in the CMC Shops area were founded on timber piles, and in some cases steel piles, driven through the fill and organics into the dense lake sands that underlie the entire Site. Bedrock ranges from approximately 30 to 80 feet below grade prior to filling depending on location. The groundwater table is approximately even with the Menomonee River that bounds the Site on the south and east, that is, about 6 to 8 feet below grade prior to filling. In summary, the large wetland marsh still exists, but it is entirely covered by the mixed fill.

City Demolition Work—Summary

The Site will have a major arterial road, West Canal Street, traversing it from NE to SW that is being built first, ahead of general Site preparation. This means the street will be on an elevated earthen embankment initially, that will be later filled against from both sides.

In 2004 and 2005, the entire Site was raised to create building pads, but also to bring the entire development Site above the 100-year floodplain elevation.

There are several hundred thousand square feet of concrete slabs remaining from the buildings. The slabs are generally about 6-inches to 12-inches thick. Slabs have been broken in place to a size of approximately 1-foot pieces. By breaking the slabs, the City was better able to determine the conditions around and under the slabs and where sub-surface structures exist. Concrete structures at or near the ground surface were demolished. Some of the former buildings had basements that were filled in with loose rubble when demolished in the years between 1993 and 2001. All known basements, utility vaults, and other sub-surface structures are being exposed

and mapped on record drawings. Where filled in with debris, these basements have been cleaned out and structurally backfilled with crushed stone and/or compacted fill. Removal of some of the larger utility lines crossing the Site was completed. Sewer pipes larger than 18-inch diameter located within 6 feet of pre-filling grade were excavated and crushed in place. Smaller diameter pipes were left in place as-is, if located within 6 feet of pre-filling grade. All pipes regardless of size were left in place if located below 6 feet of the pre-filling grade.

All relic structures could not be practically removed. Some footings, piles, and smaller diameter sewers remain. These relic structures may be underneath future building footprints, causing a potential for differential settlement of new buildings built over them. The existing fill lying between and around the relic structures remains in place. The existing fill was buried under new fill as discussed below.

Filling the Site

The Site is in the process of being filled an average depth of ten feet. Compaction of new fill will be controlled by inspection and testing: Compaction to at least 90% Modified Proctor (ASTM D-1557) Density will be the minimum standard. This level of compaction should achieve an approximately 2,000 psf allowable bearing capacity within the fill mass. However, each potential owner should perform a geotechnical engineering exploration and analysis to determine design characteristics for their planned development and risk tolerance.

New fill over both these dissimilar elements will help spread out future foundation loads, but will not eliminate the potential for differential settlement. The greater the fill depth, the more these risks are reduced.

The addition of the new fill material placed over the relic structures and older fill will exert new downward pressures, re-starting, or accelerating settlement. The underlying native organic layers below these elements may experience some additional settlement also. It is difficult to predict how much settlement will occur and exactly where it will occur. Some Site areas will experience next to nothing, while others could settle up to 5 inches over ten years.

A way to better control the potential for settlement is to leave the new fill in place for 1 to 2 years and/or accelerate the settlement rate by using wick drains or drawdown wells on the future building sites. Settlement plates are being placed in the fill areas to monitor the rate and magnitude of new fill induced settlement.

Limitations for Development

Deep Foundations—heavy building loads

Much of the Site will have limitations for the development of buildings requiring deep foundation support systems. In general, this will be any structure exceeding three stories, and any reinforced or precast concrete structure exceeding two stories. Many underground obstructions from residual foundations, piles, sewers, and structures remain, particularly in the northwest and

northeast quadrants of the Site. Historically, there were very few structures in the southeast corner of the Site and deep foundations can be considered in this area.

In addition to encountering obstructions due to pile driving or drilled shaft installations, the Site is underlain with environmentally-impacted soil. The Wisconsin Department of Natural Resources (WDNR) has restrictions to driving deep foundation units through such soils, because the units can become downward migration conduits for impacted groundwater that can contaminate deeper, clean, substrata.

Shallow Foundations—light building loads

The Site is not be restricted for light building loads that can economically be supported by spread footing systems. Despite rigorous field efforts to expose subsurface conditions, there will be voids under these footings from historic uses of the Site, particularly in the northwest portion of the Site. Site-specific designs for foundations, floor slabs, and utilities are expected to be more rigid than standard and need to be evaluated by each potential owners design team.

The mass Site-filling and grading was designed to surcharge the softer, natural subsoil underlying the Site. However, long-term settlement of the deeper organic clays may continue for many years, creating superficial cracking, or even structural distress to walls, floor slabs and utilities. The thickness of deeper organic clays varies across the Site. The organic soils are generally thicker in the northern half of the Site compared to the southern half. Again, long-term settlement potential will need to be addressed on a site-specific basis.

The amount of this residual settlement potential is on the order of 1 to 4 inches, and possibly more if the permanent water table is ever drawn down below present levels. This might happen as a result of low adjacent river levels, covering most of the Site with paved surfaces, or if organic soils above the water table continue to lose support by internal decay of their organic fractions.

The total amount of settlement that could be experienced is the sum of the above primary and secondary consolidation of the organic substrata and the primary consolidation of the new fill mass itself due to increased loads. Though the fill mass was subject to rigorous compactive effort and placement in thin lifts, some settlement, of up to approximately 1 inch, may occur within the fill mass itself several years after filling operations are completed. The sum of potential settlements at building pads could thus be on the order of 2 to 5 inches.

Further, because remaining building foundations were left in place in many areas, new buildings straddling these buried structures may experience some settlement in places and none at all in other, adjacent parts of new buildings or utility lines.

As a result, on a preliminary basis, maximum allowable soil bearing values in the compacted fills should not exceed 2,000 psf for footings placed in the upper 5 feet of the placed fill, and should not exceed 1,500 psf for footings placed from 5 to 8 feet into the newly-placed fill. Even with these low allowable bearing values, differential settlement exceeding 1 inch to 2 inches could occur between building columns spaced at 30 to 40 feet. Building structure types and exterior

walls, floor slabs and utilities should be designed with this amount of settlement potential considered.

An option for light building load construction would be to place buildings and foundations on floating-slab construction at final grade, supported by a free-draining bed of 12 to 16 inches of open-graded crushed gravel. Drainage and insulation to reduce frost heave needs to be considered with this type of system. This option would provide the most positive means of reducing differential settlement.

Loading Docks, Depressed Slabs, Basements

Loading docks typically are depressed 4 to 5 feet below finished grade floor elevations. By adding more fill to the entire Site at building pads, there will still be 4 to 5 feet of new, compacted soil under loading dock slabs. Drainage utility lines at loading docks may be deep enough to encounter obstructions in some areas of the Site, and developers should be aware of that possibility.

Basements are not recommended for any building pad on this project. Waterproofing would be required; impacted groundwater will be encountered during excavations; the strata at the bottom of basement excavations will be old, loosely-placed mixed rubble and clay, rather than the controlled, compacted upper new fill mass.

Elevator pits are not recommended for any building pad on this project, but may be a necessity for some building types. Pits should not extend deeper than 7 feet below final building pad grades, for the same reasons as above for restricting basement construction.

Utility Lines—New Construction

All underground new laterals from under buildings are expected to be placed in the new fill materials that will exist by the time building pads are ready for construction. These lines are expected to perform with a minimum of settlement deformation, except as noted above. Deep lines that will be placed more than 10 feet below grade will encounter obstructions that cannot be removed. These lines will also encounter groundwater that may, or may not, be contaminated, depending on the Site location.

Paved Areas and Parking Lots

There will be no restriction on the construction of on-grade pavements and parking lots associated with building pads other than to maintain a cover. Please note that the mass-grading fills will be clays with high frost-susceptibility. Their equivalent CBR-values for the mass-graded fill will generally exceed 5, meaning that soil support indexes will allow the design of both flexible and rigid pavement for truck traffic.

Disclosure of Current Data

The City will make all geotechnical data from the Canal Street and Shops Sites available to any developer for review. The City will also make all compaction testing data on the mass fill/grading and documentation of all demolition work available. Known relic slabs, foundations and utility lines left in place will be documented and mapped; these maps will be made available to developers as well.

Disclaimers

Even with fulltime inspection of demolition and compaction operations, neither Milwaukee Transportation Partners (MTP) nor the City of Milwaukee can guarantee that obstructions will not continue to exist below the newly-placed fill mass, or that settlement of up to 5 inches may not occur over a ten year period or longer at building pads. The Site is still fundamentally a filled-over marsh. Each potential owner must have a site specific geotechnical engineering exploration and analysis performed so that they can evaluate the cost and potential risk to their operation.

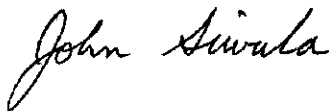
If greater assurances of settlement performance are needed for developers, then settlement monitoring and attendant observations should continue for 24 months after the mass filling is completed. The deeper the new fills are on this Site, the better the likelihood is that settlement will be more uniform and that it will occur earlier.

Any planned building construction should be accompanied by an independent geotechnical engineering exploration and analysis, as would be the case on any site. In fact, developer agreements should state specifically that the developer or builder is not relying exclusively on the City-supplied information, as the purpose of the City preliminary investigations was not to provide specific geotechnical design information for final design of a specific building, pavement, and associated utilities of any particular type or loading at any specific location.

Prepared by



David A. Rudig, P.E.
Principal Engineer



John M. Siwula, P.E.
Senior Geotechnical Engineer

MENOMONEE VALLEY INDUSTRIAL CENTER

Development Guidelines

**Redevelopment Authority of the City of Milwaukee (RACM)
Milwaukee, WI**

Prepared by:
Department of City Development
March 2006

	Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
Context or Planning Area			
Land Use of Plan Area and/or Context			
Principal Uses	Permitted, Special and Prohibited Land Uses are enumerated in Table 295-803-1 of the Milwaukee Code of Ordinances		Certain uses permitted in the City of Milwaukee IH zoning regulations have been further restricted in this renewal area. Please refer to the development objectives for the status of specific uses.
Accessory Uses	Accessory Uses are defined in Table 295-803-3 of the Milwaukee Code of Ordinances. Accessory Uses are not permitted to stand alone from the Principal Use of Land. Accessory Uses must be on the same parcel as the Principal Use.	Negative off-site effects should be considered in site selection and layout of specific parcels, especially when adjacent to public streets or differing land use categories.	
Outdoor Storage			No articles, goods, materials, finished or semi-finished products, incinerators or storage tanks shall be kept outdoors without written application to, and prior approval of, RACM.
Noise			Noise levels within a site activity in occupied areas on a Site shall produce a sound level that exceeds a maximum interior Noise Criteria of 35 db. No activity shall produce an exterior noise level that exceeds a reading of 50 db when measured at the property line.
Site Build-out		Parcel layout may accommodate area for future expansion, but should not contemplate additional space that does not have a specific purpose.	
Initial Site Build-Out			Building to Land Ratio. Initial build-out must achieve a ratio of total gross floor area to total lot area of at least 1:3.
Full Phase Build-Out			Building to Land Ratio. Build-out of all phases of a development must achieve of ratio of total gross floor area to total lot area of at least 2:3.
Street Hierarchy of Plan Area and/or Context			

Street Hierarchy	Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
Street Hierarchy		<p>Within industrial parks, a street prioritization system shall address the hierarchy of streets. This order is Primary ("A"), Secondary ("B"), and Other ("C") streets. "A" streets require the highest degree of street wall build-out and street activation. Construction along "B" and "C" streets is encouraged to address design standards for "A" streets, but not required to do so.</p>	<p>The attached exhibit (Diagram 1) indicates the Street Classification System for the Menomonee Valley Industrial Center.</p>
Street Connectivity		<p>Enhance linkages to surrounding uses, especially public services and amenities.</p>	
Overall Site Planning and Building Form			
General Provisions			<p>Design sites to create and maintain cohesive "setting" for the Menomonee Valley Industrial Center.</p> <p>Create a pleasant, safe and productive environment for employees and visitors.</p>
Building Placement		<p>Design site and buildings to create a cohesive and inviting sense of place and fit within the larger context of the site.</p>	
Massing/Scale		<p>Relate to the physical character and scale of the neighborhood and any adjacent buildings.</p>	
Building Typology		<p>Ensure that the scale and design of new buildings are compatible with adjacent buildings.</p>	<p>Building forms are generally industrial buildings with attached or integral office space. No height restrictions.</p>
Building Orientation			<p>Where possible, use the industrial park's east-west orientation to align buildings to maximize daylighting benefits.</p>
Street Wall			<p>Building form and design shall be consistent with the industrial park's east-west orientation to align buildings to maximize daylighting benefits.</p>

	Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
Define Street Edges		Locate buildings and other street edge elements such as significant landscaping, architectural fencing, and architectural walls in a manner that defines street edges and corners.	Enliven street frontages to enhance the pedestrian experience.
Corner Treatments		Incorporate special design features into buildings at street intersections and structures that form the corner of a group of buildings. Buildings at intersections of two "A" Streets or at the street entrance to the business park require the most significant corner treatments.	Emphasize street corners by locating buildings and/or street-edge elements at the corner. The attached exhibit XX indicates corners requiring highest degree of design detail.
"Anchor Points" Location		Buildings located at the intersection of two Primary Streets or at the street entrance to the business park or development area should have the most significant corner treatments. Within the industrial park, specific corners shall be established as locations needing "anchor points." Locate main building entrance, customer reception and executive office areas at anchor points. Focus the building's highest level of design detail at anchor points. Provide street-activating features.	The attached exhibit (Diagram XXX) indicates anchor points within the Menomonee Valley Industrial Center.
Special Context			
Street Terminating Vistas		In the design process, thoughtfully consider the view of the business development from key adjacent streets and elevation changes.	
Adjacencies			
Parks and Rec Space		Where public open spaces and amenities are adjacent and/or available to the business park development, provide access to them. Facades and site elements that face public open spaces should have design detail similar to that required for Primary Streets.	Development layouts should support public access to greenspace and the river. Development of parcels adjacent to the river should optimize views, orientation and access to the River Greenway and Hank Aaron Trail.
Site Specific Issues			

	Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
<p>General Property Components</p>		<p>An industrial property should be designed to be functional, allow for expansion of the business, and lend itself to adaptation by future users. Further, it should provide attractive and appropriate edges along streets and adjacent properties, incorporate green building and sustainable practices into its design and offer workers and visitors transportation choices and pleasant work amenities. Industrial design requirements should serve to raise the value of the entire surrounding industrial area.</p>	<p>From the outset of the development project, integrate site, landscape and soil needs into architectural design and construction sequences.</p>
<p>Bldg-Site / Layout-Configuration Office</p>		<p>The siting of various required components is critical to a good overall design. An industrial property is generally composed of a large building where areas are devoted to production, shipping and receiving, post-production, finishing, storage and the housing of mechanicals. A smaller area is typically devoted to offices for executives and administration, sales, engineering, and support services for employees. In businesses producing certain products, visitor areas for conference rooms, showrooms and limited retail outlets may be provided.</p>	
<p>Parking</p>		<p>Place the office, visitor, and employee services areas of an industrial building along street frontages so as to break down the scale of the building. This placement also serves to activate the street and provides optimal location for these activities.</p>	

Industrial Zoning Requirements	General Industrial Guidelines	Memomonee Valley Industrial Center Specific Guidelines
	<p>Minimize parking between the front office area of the building and the street. Limit parking between the office area of the building and the street to one double-sided row; landscape the parking area with a significant urban edge treatment. Use paved concrete, preferably of a porous nature, for parking on the front of the building. Create a strong connection between the parking area and the street, using wide, concrete pedestrian walkways and other outdoor plaza features.</p>	<p>Parking in front of a building shall be limited to one single-sided row, unless the building contains a retail component, in which case one double-sided row of parking is allowed.</p>
Truck Loading Docks / Utility Location	<p>Loading docks, required outdoor mechanicals, and expansion area temporary walls of the larger building should be to the rear or to the sides and screened from public streets and the offices of neighboring buildings.</p>	
Outdoor Storage	<p>Locate outdoor storage at the rear of the property or be behind buildings or appropriate screen wall and landscaping. The zoning code requires substantial landscape screening of these areas.</p>	
Principal Building		
Setbacks		
Setbacks ("A" and "B" streets)	<p>Table 295-805-2 of the Zoning Code has no setback requirements, unless the industrial use is adjacent to or across from residential or other non-industrial zoned property.</p>	<p>Building up to the street property lines is strongly encouraged. Buildings should not be set back more than 10' from a property line unless for the specific purpose of a building's function, expected expansion or to respect an established easement for utility or multiple property access.</p>
Building Massing		
Principal Building Height	<p>When an industrial property is adjacent to a residential district, height adjustments to meet context shall be required in accordance with 295-805-4e.</p>	
Scale of Principal Building		

Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
Street Wall Build-out	The building should be appropriately sized in relation to its site. While space for expansion is appropriate, the proposed use should have enough programmatic needs for the size of the parcel.	Establish hierarchy between building elements. For example, define and articulate entrances and building corners.
Overall Design and Hierarchy of Areas		Along Primary Streets, buildings should generally fill out a greater proportion of the street wall along the Primary Street frontages. Where building massing does not occur, other elements, such as landscaping, are needed to establish continuity of the street wall.
Office Area Design	The office area should generally receive a larger amount of design attention with respect to a more striking/signature design. Elements of such design may include large windows, more articulate detailing, higher quality materials, etc.	
Industrial Space/Office Correlation	While more design and detail should likely occur on the office portion of the facility rather than on the large "box" of the factory or storage areas, the design of the larger components should correlate and be compatible with the more articulated office area. This can be achieved by design elements such as limited, high windows that are proportioned to windows on the main building, base banding articulation that is carried over to the large box element, continuation of cornice details, etc.	
Corners of Principal Buildings	Corners of industrial buildings should be articulated with some special design elements so buildings do not appear merely as large boxes. This can be achieved in a number of ways, including larger windows, extruded elements, and possibly more articulated pre-cast score lines.	

Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
Street Activation		Articulate the corners of the building to avoid it appearing merely as a large box. This may be achieved through the use of larger windows, extruded elements, or additional pre-cast score lines. <u>Create Corner Hierarchy</u>
Entrance Activation Requirements	Use entrance area to help activate the street frontage.	Building entrances shall be clearly visible from the street and easily accessible to pedestrians.
Glazing	Glazing on office portions of buildings and entrances to industrial buildings should be transparent vision glass.	
Street Activating Outdoor Uses	Outdoor areas that can be utilized for breaks, presentations, dining, and other activities are encouraged. Such areas enliven the exterior of industrial buildings, and contribute to a positive work environment.	
Facades		
Orientation		Orient front facades toward the major public streets in the business park.
Building Modulation and Scale		Blank walls facing streets are not permitted. All facades visible from public streets, pedestrian walkways and recreational trails shall be modulated across the entire facade with articulated bays, windows and openings, varying color and texture and/or other architectural details that relate to the human scale
Horizontal Articulation		At pedestrian areas of the building, use awnings, landscaping, windows and doors to reduce the scale of the building.

	Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
		<p>Building design should result in a distinct base, middle and top. If pre-cast tip-up panels are used, these articulations could be cast into the panels as scoring lines, with different relief at top and bottom. Colorization of pre-cast panels or painting bases differing tones could also help achieve these goals. Different materials, such as masonry bases with metal systems above, could also help achieve this articulation.</p>	
		<p>Incorporate both vertical and horizontal articulation in the design of the larger, more production- or storage-oriented areas of the property. Break down long stretches of blank walls into smaller distinct areas. If pre-cast, tip-up panels are used, consider chamfering vertical joint lines to break down long stretches of walls. The large box element should typically have either a series of high, smaller punched openings, a continuous clerestory or a combination of elements to both better articulate the building, and provide natural day lighting to interior areas as an appropriate green building practice.</p>	
		<p>A variety of materials and construction methods may be used. All materials should have finished quality appearance. Street facing sides should utilize higher quality materials. Pre-cast panels should be articulated with scoring and other techniques to provide a higher quality finish. Brick veneer, ground face block and other finished quality materials may be used.</p>	<p>All walls visible from public streets shall contain the most architecturally significant materials and fenestration. Significant building materials include decorative masonry, brick, cut stone, glass, architectural-finished metal cladding and architectural precast concrete panels</p>

Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
	Use utility concrete block only on rear portions of buildings. Split-face block should generally be used only for base elements, unless detailed within specific patterns. Metal walls may be used if they are limited in area, generally are above a masonry base, have bending, cornice lines and other articulation, and are finished quality materials. EFIS may be used but should be avoided near office entrance areas and areas where durability is important.	Exterior insulation and finish systems shall not exceed 30% of the exterior wall area and shall not be used on the lower two-thirds of the building. Corrugated sheet metal, vinyl siding, reflective glass and imitation stone siding are discouraged.
Roofs		
Shapes	The building technology and construction typology should be detailed appropriately. The larger building box area should have parapet walls and/or appropriately detailed tops/cornices in order to properly drain and divert storm water.	
Details		Screen or locate roof-top mechanical equipment so it is not visible from the street.
Pre-engineered Buildings	Pre-engineered metal building portions typically need to be site-modified in order to meet the above design requirements. Exercise care in the use of "stock" building components to ensure their overall coordination into the building design.	
Accessory Buildings		
Accessory Buildings General	Accessory buildings should follow the design requirements of the main building. Otherwise accessory buildings shall be located at non-conspicuous rear areas of the property and/or be screened with landscaping from streets and common areas.	
Accessory Buildings Along Street Frontages		

	Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
	Loading docks shall be screened with Type "G" landscape (opaque fence or wall) as described in 295-405, per requirements of 295-805-4g.		If a building includes a truck canopy, it shall either be architecturally screened from view using materials identical to, or structurally and visibly compatible with those used for the main building. Landscaping and screening shall be in accordance with the guidelines of the business park, and must receive the prior approval of RACM.
Accessory Buildings at Rear or Internal to Site			
Towers	Antenna Tower Systems must comply with requirements of 295-805-4e-2g.		Antenna Towers should only be ancillary to the business located on the parcel.
Stockpiles			Stockpiles are not allowed.
Motor Vehicle Parking			
Parking Lot Setbacks	Parking lot shall have a perimeter landscaping along street frontage of at least 5' in width per requirements of Table 295-405-1c.		
Access Point			Minimize drive openings per site and provide appropriate traffic control measures at all entrance to public rights-of-way. Align new driveways with driveways across the street where possible.
Parking Lots	Parking spaces shall meet the requirements of 295-403-3. There are no minimum parking space requirements in IH zoning.	Parking areas should be no larger than needed by current work force of the facility. A number of smaller, well placed parking lots are generally better than one large expensive area.	In general, provide no more than 1.5 parking spaces per 1,000 S.F. of building on site. Use proportional number of street parking spaces for additional parking needs. (See illustrative public parking diagram attached at end of guidelines). Minimize employee and customer parking stall dimensions to 9' x 18' in order to minimize parking lot size and allow for a larger building footprint.
Shared Parking/Carpools			Consider shared parking where possible. Where possible, provide preferred parking for carpools.
Parking Lot Design			

Memomonee Valley Industrial Center Specific Guidelines

General Industrial Guidelines

Industrial Zoning Requirements

Where possible, use concrete pavement rather than asphalt to keep parking areas cool. Consider using porous paving systems to extend the life of the pavement, allow for stormwater infiltration, reduce maintenance costs, and reduce the heat island effect in summer.

Parking Lot Surface

Parking Lot Street Edge Landscape

Provide perimeter Type "B" landscaping along parking lots that front on streets. This includes trees spaced no more than 25' on center, two rows of shrubs, spaced no more than 4' on center, and inclusion of a decorative metal fence. See Table 295-405-1c. for full requirements.

Parking Lot Interior Landscaping

Parking lots shall have interior parking lot trees in accordance with 295-407-2, which includes a minimum of one tree for every 9,000 square feet of surface area of parking lot, with no space more than 54 feet from a tree.

Lighting

Lighting shall be designed in accordance with 295-409, which requires that no light source be visible from adjoining properties or the public right of way.

Pedestrian Access

Pedestrian Walkway to Main Entrance

Provide direct, continuous, safe, and accessible pedestrian walkways between public sidewalks and all building entrances.

Public Transit Accommodations

Provide pedestrian connections to public transportation locations.

Bicycle Accommodations

Provide bike racks for employees in secure areas.

Parking for at least 10 bicycles is required for buildings over 20,000 sq. ft. in size per requirements of 295-403-3c.

	Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
Outdoor Areas			
Storage Areas			
Location and Screening	Outdoor Storage shall be screened with Type "E" or Type "F" landscaping as described in 295-405, which includes per requirements of 295-805-4g.		Locate outdoor storage areas at the rear of the property or behind an 6-foot high opaque fence.
Truck Docks			
Location and Configuration			Provide shared service areas for multiple buildings within a single site.
Truck Access Points	Access drives shall not exceed 30 feet in width per 295-805-4.		
Screening	Loading docks shall be screened with Type "G" landscape as described in 295-405, which includes per requirements of 295-805-4g.	incorporate wing walls into the design of loading docks on side walls of buildings, in order to screen truck and loading activity from view.	Screen service and loading areas using wing walls that continue from the main building mass.
Landscaping			
Landscaping Buffers to Adjacent Land Uses	Per the requirements of 295-307, landscaping shall incorporate substantial landscaping and opaque fencing as required when an industrial use is adjacent to residentially zoned property.		
General Site Landscaping			Landscape all open areas, except those required for driveways, parking, or walks, not later than 6 months after occupancy.
Planting Requirements			Use native plantings for required landscape screening or where portions of the site are to remain unused.

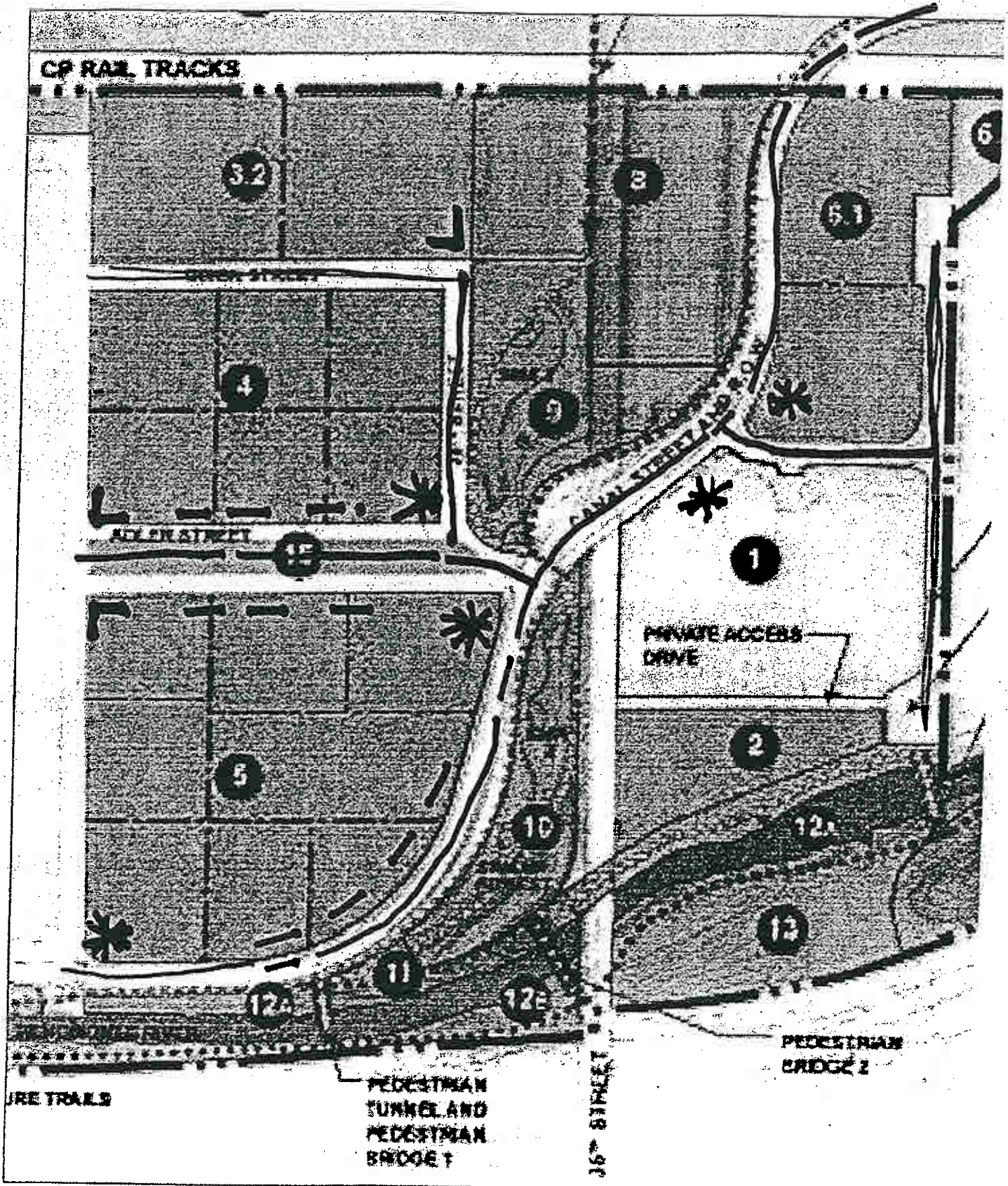
	Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
Landscape Design Coordination			Specify native plant and tree species for at least 60% of planted area. Use drought-resistant plantings, reducing the need for irrigation other than collected rainwater. Use deciduous shade trees, vegetative cover and exterior structures such as louvers, arbors and trellises to provide 30% shade over non-roof impervious area within 5 years. Standard sod should generally not be used for lawn. Appropriate mixture grasses such as those listed in Appendix XX are preferred.
Landscape Design Elements			Design landscaping to coordinate with the landscaping in the common spaces of the Menomonee Valley Industrial Center.
Landscape Installation Standards			No berms are allowed along public streets.
Temporary Landscape Areas		Plant future expansion areas in a manner that provides a finished appearance in the interim period. These areas should not be used for storage or other purposes unless appropriately screened.	Where rooting area will be limited, use strategies such as connected planting beds, rooting breakouts under parking, or walkways floating on root-permeable soils to extend rooting space and increase plant vigor. Establish engineering specifications for these strategies, drainage patterns, and installation of structural soils as part of the building design and site grading plan.
Fences			
Fences Allowed			
Fences at Street Sides and Sides of Front Yards	An ornamental fence or combination of brick piers with ornamental fencing is allowed to a height up to 6 feet along street frontage as long as a 5 foot Type "A" landscaped setback is provided per Section 295-905-5i-2a.	Fences/walls used along street property lines and in front yards of buildings should be decorative metal fencing, finished product masonry walls, or other high-quality materials.	Fences and walls should be decorative metal, finished product masonry, or similar high quality materials. Vinyl coated chain link fences are not permitted.
Fences Along Interior Lines, Within Rear Yards			







Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
A fence along a side or rear property line can be up to 6' in height per 295-805-5-13.	Decorative metal fences that are coordinated with the street side and front yard are encouraged.	
	Black or green vinyl coated chain link fences are limited to the rear portion of side property lines, rear property lines and to rear yard enclosures not visible from a public street or public common space.	
Fences Prohibited		
Fences at Street Sides and Sides of Front Yards	Chain link, wood and other non-approved fences are prohibited along public streets, in front yards and facing common areas. Barbed wire is prohibited in these areas. Razor wire is prohibited on all portions of the property.	
Fences Along Interior Lines, Within Rear Yards		Barbed wire, razor wire, and similar products are not allowed at any portion of the property. Decorative metal fences with security design are allowed.
Fences Required		
Along Certain Streets		Along Saig Drive a minimum 4' decorative metal fence is required along the street property line. See attached exhibit xx for the fence specifications. The required fence is allowed to be up to 8' tall as long as specifications are met.
Along Parking Lot Edges		A decorative metal fence (3'-4' height) is required along parking lot edges on Primary Streets.
Fences Prohibited		
Barbed Wire, Razor Wire	Per Section 295-805-5-16, barbed wire fences are restricted and razor wire and concertina wire fences are all prohibited.	Barbed wire, razor wire, and similar products are not allowed at any portion of the property.

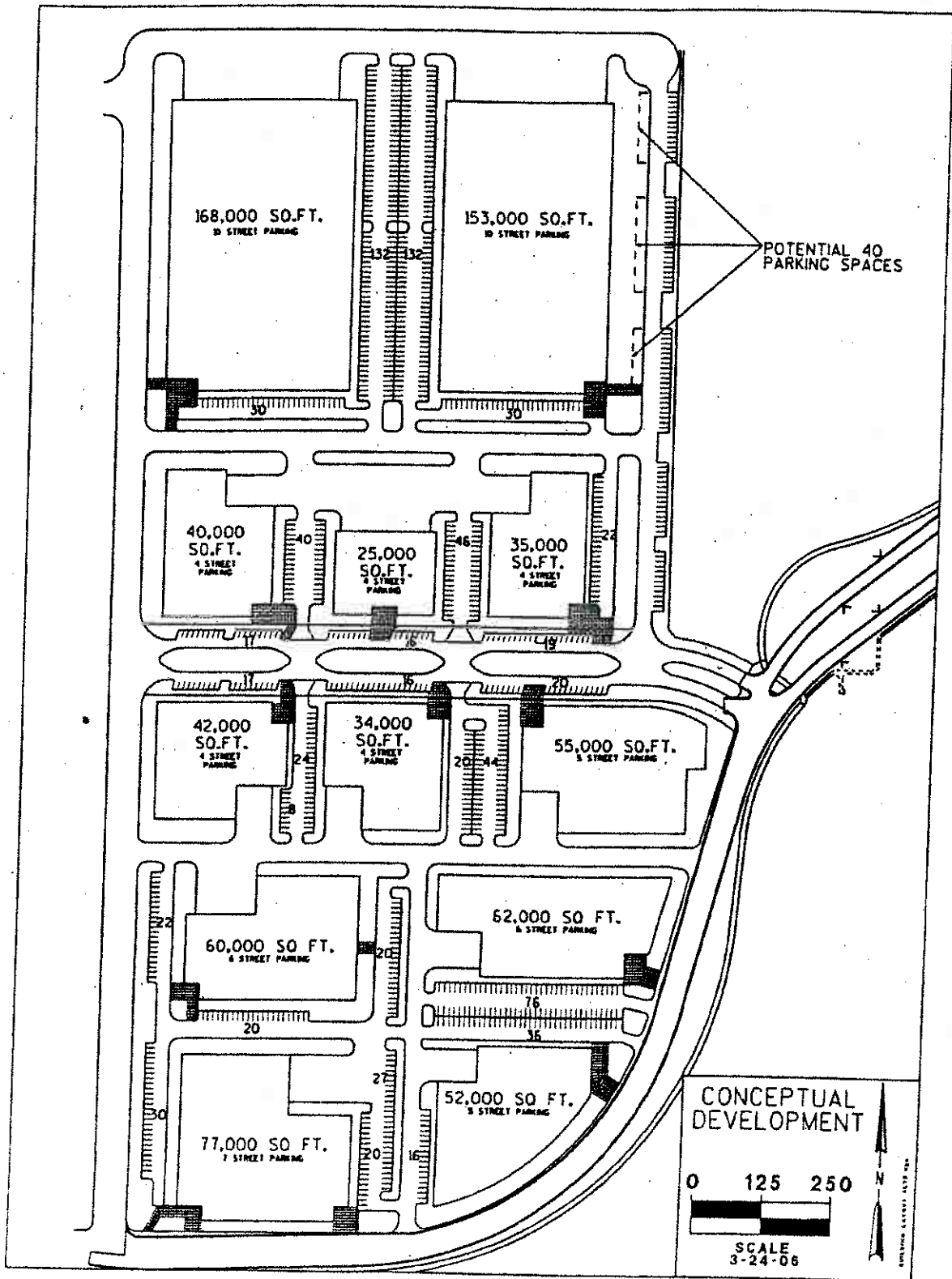
	Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
Utility			
General Provisions			Utilize energy and resource-saving techniques to significantly reduce operating costs.
Storm Water Management		Consider stormwater management techniques and connections from the onset of the design process.	All developments within the Menomonee Valley Industrial Center must use the central stormwater management facility. Stormwater management plans must illustrate connection to the central facility. Connect stormwater conveyance systems to onsite storm sewers that will pipe stormwater to treatment areas, SMA 1, 2 or 3 (see map x)
Mechanicals and Utility Connections		Utility locations and connections, gas meters, condensers and similar mechanical equipment should be located at rear or side areas, and should be screened and/or painted to coordinate with the building.	
Waste Collection			Design to accommodate areas for recycling of waste materials. Provide a centralized ground-floor location for collection and storage of recyclables.
Dumpster Screening	Dumpster and waste storage shall be screened with opaque walls as required for Type "G" landscaping as described in 295-405 and 295-405-4f.	Enclose and screen dumpsters and recycling units with 8-foot high fences of solid material.	
Utility Service			Where feasible, install utility lines underground.
Lighting			Exterior light rays shall not be directed into the street rights-of-way or upward into the atmosphere.

Industrial Zoning Requirements	General Industrial Guidelines	Menomonee Valley Industrial Center Specific Guidelines
		<p>All exterior lighting fixtures shall use high efficiency lamps (metal halide or high pressure sodium) with low cut-off angles and down-lighting for landscaping. Utilize reflective-type lighting fixtures to reduce or eliminate glare and provide safer, more human-scaled nightscapes. No direct-beam exterior lighting shall be emitted at or beyond a site's property line.</p>
Pedestrian Path Lighting		<p>To reduce dependence on high-wattage electrical lighting at night, use light-colored or reflective edges along driveways or walkways.</p>
Parking Lot Lighting	Lighting for parking lots and shall be in accordance with Section 295-405 of the Zoning Code.	
Landscape Lighting		Design lighting to enhance the architecture of the building and provide enhanced security and visual appeal.
Signage		
General	Only corporate identification, directional and interpretive signs are allowed.	All signs shall be attached to the vertical surface of a building or to a ground-mounted base and shall not flash, pulsate, rotate or be affixed with moving appurtenances.
Freestanding Signs	<p>Only Type A freestanding signs are allowed. Type B "Pylon" styled freestanding signs or other box signs are not allowed.</p> <p>Per requirements of 295-605-5, no more than one freestanding sign per site, with a maximum display area of 80 square feet for a Type A sign no more than 6' in height. All provisions for Type A Freestanding Sign are found in 295-407-2b1.</p>	Internally illuminated monument signs shall be framed and coordinated with other site elements and building materials.
Wall Signs	<p>Per requirements of 295-605-5, the main wall identification sign shall be a Type "A" sign. All provisions for Type A Wall Signs are found in 295-407-2b2. The maximum size of the sign, assuming placement on a facade of at least 50' in width, is 120 square feet for a Type A, individual letter sign.</p>	Internally illuminated box signs are not permitted, unless they are recessed into the building and are an integral part of the building design and do not exceed 64 square feet in area (on facades greater than 50 feet in width.)
Awning Signs		

	Industrial Zoning Requirements	General Industrial Guidelines	Memomone Valley Industrial Center Specific Guidelines
	The maximum area of signage on any awning shall not exceed 20 square feet. Per 295-805-5.		Internally illuminated awnings are not permitted. Signage on fabric awnings is permitted. The design shall relate to each window or entrance.
Roof Signs	One roof sign per building is permitted.	Only Type A Roof Signs are allowed and must be coordinated with the overall facade design.	
Other Signs			
Directional Signs	Directional site sign shall not exceed 6 square feet in area per Section 295-407-3.		
Temporary Signs	Temporary banner signs may be used for events such as grand openings and anniversaries. They may be displayed for up to 60 days.		
Construction, Sale and Leasing Signs	Construction signs are limited to the requirements of Section 295-407-4 of the Zoning Code and shall be no larger than 48 square feet.		
Off-Premise Billboards			Billboards (off-premise signs) are not permitted.



-  A STREETS
-  B STREETS
-  C STREETS
-  ANCHOR POINT
-  SIGNIFICANT CORNER
-  STREET EDGE CONTINUITY



Public Parking Space Illustrative Diagram