



Figure 9
Local Area
CN Moterm Terminal

Table 3
Operating Characteristics
(in 1993/1994 Terms Based on "Condominium" Concept)

	No Action	DIFT/Condominium Concept
Management and Other Overhead	<p>?? Each terminal has full management staff for RR and contractors.</p> <p>?? Each RR provides its own security, site maintenance, snow removal, equipment repair, and other services.</p>	<p>?? RRs and contractors consolidate management and shift coverage.</p> <p>?? Consolidation of support services will reduce average costs.</p>
Switching	<p>?? Large cost for most RRs.</p>	<p>?? Consolidation and better track design will reduce the number of yard switching crews.</p>
Lift Labor	<p>?? Productivity is uneven as layouts and service requirements vary.</p>	<p>?? Better layouts and reduced service peaking will improve productivity.</p>
Clerical/Gate	<p>?? Each RR provides its own gate and clerical staff. Operating hours limited.</p>	<p>?? RRs consolidate gate staff to reduce cost and increase hours of operation.</p>
Operating Systems	<p>?? Each RR provides its own system. Quality varies.</p>	<p>?? Each RR has access to the best available operating system.</p>
Drayage	<p>?? Short gate hours force draymen to operate during congested period.</p> <p>?? Deadheading between separate terminals.</p> <p>?? Fragmented "lane" density to many GDA plants/warehouses.</p>	<p>?? Deadhead time between terminals virtually eliminated.</p> <p>?? 24-hour gates permit draymen to avoid congested period, reduce deadheading.</p> <p>?? Increased lane volume and density to/from major GDA plants/warehouses.</p>

Source: Mercer Management Consulting, Inc.

Table 4
Capital Productivity Characteristics
(in 1993/1994 Terms Based on "Condominium" Concept)

	No Action	DIFT/Condominium Concept
Rail Cars	Each RR maintains its own cars including a "safety stock."	One safety stock improves rail car velocity and productivity.
Trailers/Containers/Chassis	Each RR maintains its own trailers/containers/chassis including a safety stock.	Opportunity for neutral chassis pool. One safety stock improves velocity and productivity.
Lift Equipment	Each RR provides its own lift equipment. Annual lifts/machine is low.	Fewer, newer machines achieve increased productivity (equal to industry norms).
Parking Area	Each RR provides its own facility. Expansion is difficult.	More efficient use of parking areas and smaller safety stock of empties. Expansion is relatively inexpensive.
Loading and Storage Tracks	Each RR provides its own facility. The amount of track used per lift is higher than industry norms.	More efficient use of loading tracks. Less storage track required.
Gates	Each RR provides its own facility.	One gate complex for each "condo."
Maintenance Facilities	Each RR provides its own facility.	One maintenance facility for the complex.

Source: Mercer Management Consulting, Inc.

A summary comparison of the consolidated terminal concept⁶ and No Action conditions is shown in Table 3 for operating characteristics and Table 4 for capital productivity characteristics. And, while this work is being updated to reflect current conditions, these early results of implementing a consolidated intermodal terminal in terms of efficiency indicated an advantage of consolidation over the No Action scenario.

This early work led to the selection of the Livernois-Junction Yard as the preferred location for a consolidated intermodal terminal. This is considered Alternative 3 in the EIS Study process. The Livernois-Junction Yard was chosen for a number of reasons, especially the fact that it is the only site in Michigan to which all four Class I railroads have ready access. Alternative 3 (with a demand of as many as 1.2 million lifts per year) is expected to see greater intermodal activity than Alternative 2 (up to 900,000 lifts per year) because of expected improvements in travel cost/time.

A refined but still preliminary concept for Alternative 3 has been developed since the completion of the DIFT Feasibility Study (Figure 10). A summary of the characteristics of the refined concept, from the beginning of the Feasibility Study to now, is shown on Table 5.

Table 5
Plan Characteristics
Alternative 3

Characteristics	Feasibility Study		EIS
	Beginning	End	
Acreage	1,175±	850±	895±
Gates	9	6	4
Truck-Only Road (Concept)	None	1 (Springwells)	2 options (Springwells) or (Schaefer)

Source: The Corradino Group of Michigan, Inc.

Further refinements of this concept will take place during the EIS.

It is noteworthy that the consolidated terminal demand forecast of as many as 1.2 million annual lifts is lower than the previous 2025 forecast of regional intermodal demand of 2 million lifts. Additionally, in 2002, a survey of 70 CSX, NS, CP and CN intermodal terminals produced an average of 1.44 truck trips per lift, with a range of up to 2 trips. This is lower than the truck-trips-per-lift ratio of three used during the DIFT Feasibility Study.

In the analysis of intermodal activity in the Greater Detroit Area, trucks were counted in August 2002. The eight-hour counts were then translated into an average day in August. (Note that the eight-hour counts were made between 9 a.m. and 6 p.m., with no counting from noon to 1 p.m.). The averages of the calculations are shown as "August Average Daily Traffic" in Table 6. These counts were then multiplied by 0.935 because intermodal activity in August is 6.5 percent more than the average month, on a national basis. Therefore, an average day for any time of year can be determined by multiplying the August counts by 93.5 percent (or 0.935). This is shown as "Average Annual Daily Traffic" in Table 6. This number is multiplied by 365 to determine Annual Yearly Traffic, which is the last column in Table 6.

⁶The consolidated terminal concept used in the Mercer work was based on the assumption MDOT would own the terminal and lease space ("condos") to the railroads.