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Charles Lamberton
South Dakota State University

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WENTWORTH COOPERATIVE TERMINAL, INC.
FEASIBILITY ANALYSIS

by

Dr. Charles E. Lamberton
Associate Professor of Economics

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Dr. Charles E. Lamberton
Associate Professor of Economics

South Dakota State University
Brookings, South Dakota 57007

WENTWORTH COOPERATIVE TERMINAL, INC.

FEASIBILITY ANALYSIS

INTRODUCTION

Four local cooperatives have agreed to purchase the elevator at Wentworth, South Dakota, and form a federated cooperative at Wentworth. The four locals, which would be the only members of the federation, are:

Colman Farmers Cooperative Company (with branch at Chester);
Egan Farmers Cooperative Elevator Company (with branch at Ward);
Howard Farmers Union Cooperative Association; and,
Munda Cooperative Association (with branch at Rutland).

The Wentworth facility consists of two separate elevators. The main elevator is located on the former Milwaukee Road branchline from Sioux Falls Junction to Madison. The elevator and two annexes have a capacity of approximately 120,000 bushels. A warehouse and frame quonset add approximately 150,000 bushels of storage capacity. A separate office building and truck scale are at the site. The west elevator is a smaller facility with about 53,000 bushels of storage capacity. It is located three blocks west of the main elevator on the Burlington Northern branchline.

The purchase of the Wentworth main elevator includes the rail siding and 1.43 miles of the former Milwaukee Road main track east of the elevator. This is to be used as storage for empty cars. The

BN has agreed to keep 1.5 miles of its former main track north of the BN-Milwaukee interchange. This track will be used as storage for loaded cars.¹

The BN branchline has been abandoned north of Wentworth as has the Milwaukee branchline east of Wentworth. BN purchased the Milwaukee branch west of Wentworth to Madison and serves Wentworth on its Sioux Falls to Madison line. This branchline lies in Lake and Minnehaha Counties which have formed a Regional Railroad Authority as authorized under South Dakota law. The Regional Authority has agreed to make an interest free loan of \$2.06 million dollars to the BN, which, along with a \$1.7 million grant of Local Rail Service Assistance funds and a \$1.5 million contribution by BN, will be used to rehabilitate the line. Burlington Northern will repay the Regional Authority's loan with repayment based upon rail traffic and freight paid. For each carload shipped or received on the Madison branchline, the Authority will receive payment based upon the following schedule:²

¹The BN office in Sioux Falls reported on April 13, 1981, that BN had agreed to retain the 1.5 miles. The BN property office in Minneapolis said, in a telephone conversation the same day that the BN had no use for any track north of Wentworth and would not retain it as siding. BN would sell the property however.

²The anticipated principal movement off the branchline is unit trains of 100 ton carloads of corn to the West Coast. The BN freight bill on this traffic is approximately \$3000. Therefore, it would benefit the Regional Authority if it could negotiate two more repayment categories with the BN to receive \$125 per car for freight bills in the \$2,500-3,000 range and \$150 per car for bills over \$3,000.

<u>BN Freight Bill.</u>	<u>Loan Repayment Amount</u>
At least \$2000	\$ 100
At least 1500 to 2000	75
At least 1000 to 1500	50
At least 500 to 1000	25
Less than 500	0

The loan funds will be raised by the Authority through a bond issue. Interest payments on the outstanding bonds will be funded through the levy of a tax at the rate of four cents per hundredweight on all commodities shipped by truck or rail by shippers located on the branchline. In addition, the four members of Wentworth Cooperative Terminal will pay one cent per hundredweight on commodities shipped from their local facilities and not being shipped from the Wentworth Terminal. To the extent that the annual commodities levy exceeds annual bond interest cost, the tax revenues will be used to retire bonded debt.³

³All commodities shipped from branchline facilities will impose the same cost on the shipper whether moved by truck or rail. For example, 100 tons of corn (one hopper carload) would require a payment of \$80 in tax to the Authority. The Authority's revenue, however, depends upon the shipper's choice of mode. If the corn is shipped to the West Coast by rail, the Authority receives \$180 (\$80 in tax plus \$100 from the BN). The Authority might be able to retire its bonded debt earlier and at a lower cost by offering an incentive to shippers to use the branchline service. For example, any excess of tax revenues above annual interest costs might be credited back to shippers' next year's tax liability on the basis of the BN rebates each shipper earns for the Authority. Alternatively, interest earned on such excess revenues placed on deposit might be so credited.

PROJECTED GRAIN VOLUME

Table I contains volume of grain handled by the four member cooperatives in each of the last five years.

TABLE I

Grain Sold by Members
(000's of Bushels)

Commodity	1976	1977	1978	1979	1980	Average
Corn	1,854	1,451	2,488	2,356	3,777	2,385
Barley	436	270	434	309	388	367
Wheat	222	186	143	113	329	198
Oats	1,387	1,147	1,435	820	1,656	1,289
Soybeans	373	291	494	485	849	498

Other commodities handled include flax, rye and sunflowers. The first two of these are not expected to be potential rail traffic. Sunflowers could become a significant commodity moving through the Wentworth facility but they represent a relatively new and minor commodity at this time. The uncertainty of future sunflower production in the region and the need to handle sunflowers through separate facilities (or clean the facilities before handling another commodity) suggests that it should not be included in near term projections of potential rail traffic from Wentworth.

Of the commodities listed in Table I, soybeans are expected to continue to be trucked to regional processors. If unit train rates to the Gulf are introduced some soybeans might be shipped by rail. In that event,

however, regional processors might have to meet the Gulf price for soybeans. Therefore, soybeans are not included in potential volume at Wentworth.

Oats are expected to be shipped by both modes. Milling oats would move by rail, especially during the seasons when trucks are busy and rates are higher. In slower traffic seasons truck rates may undercut rail rates. The members estimate that one-half the oats sold will be shipped through the Wentworth terminal.

The data in Table I show that 1980 was a record year. The contrast between 1980 and the prior years is due not only to the record production in 1980 and the prior years is due not only to the record production in 1980 but also to the shortfall of production in the drought years of 1976 and 1978.

The data do not include any allowance for grain handled at the Wentworth elevator under the former management. It is estimated that approximately 1.3 million bushels were sold by the Wentworth elevator in 1980. Also excluded from the projected potential volume is any grain handled at Wentworth for other elevators in the region.

Table II shows a range of the projected volume of grain to be shipped through the Wentworth terminal. Commodities included are corn, barley, wheat and oats. The upper bound of the range is the four members' total 1980 sales of corn, barley and wheat plus one-half their 1980 oat sales. Omitting any local (Wentworth) grain and any non-member grain, the members believe that this represents a reasonable projection. The lower bound of the range is the four members' 1976-80 average sales plus eighteen percent which represents the approximate volume attributable to local grain. This is a conservative projection.

TABLE II
Potential Grain Handle
(000's of Bushels)

Commodity	Reasonable Projection	Pessimistic Projection
Corn	3,777	2,815
Barley	388	388
Wheat	329	234
Oats	<u>828</u>	<u>760</u>
TOTAL	5,322	4,197

When the branchline is rehabilitated in 1981, shippers will be able to ship fully loaded 100 ton covered hopper cars. Each car is assumed to be loaded with 3500 bushels of grain. Table III shows the projected number of carloads, 27 car and 54 car units for both the upper and lower bounds of grain handle.

TABLE III
Potential Rail Traffic

Commodity	Reasonable Volume			Pessimistic Volume		
	Carloads	27 Car Units	54 Car Units	Carloads	27 Car Units	54 Car Units
Corn	1,079	40	20	804	30	15
Barley	111	4	2	124	5	2
Wheat	94	3	2	67	2	1
Oats	<u>237</u>	<u>9</u>	<u>4</u>	<u>217</u>	<u>8</u>	<u>4</u>
TOTAL	1,521	56	28	1,212	45	22

The following table shows the average annual crop production in Lake, Miner, and Moody Counties for the 1976-80 period. The share of this production handled by the four Wentworth members is also shown.

THREE COUNTY CROP PRODUCTION
(000's of bushels)

<u>Commodity</u>	<u>1975-80 Three County Average Annual Production</u>	<u>Member's Share</u>
Corn	13,300	.18
Barley	1,304	.28
Wheat	690	.29
Oats	6,817	.19
Soybeans	1,258	.40

Both production and members' share of production varied substantially over the period. The severe drought of 1976 affected marketing levels in both 1976 and 1977 while the 1978-80 (especially 1979) period realized excellent production. The three counties served by the members also reflect the regional variations in South Dakota soils, climate, and crops. Moody and Eastern Lake Counties are part of the warm, moist prairie region which is the state's most productive corn and soybean area. Western Lake and Miner Counties reach into the warm, dry plains region producing relatively more barley and wheat. The continuing development of irrigation and other practices has been extending the South Dakota corn producing region to the west in the last fifteen years. This trend is expected to continue and would support the principal advantage of the terminal-shipping unit trains of corn to export markets. At the same time, the diversity of the region should reduce the risk of the terminal operation since the probability of adverse production conditions in the entire region is less than that in any one part of the region.

COMPETITION

The principal commodity movement is expected to be corn shipped to the Pacific Northwest markets. The Burlington Northern's rate structure's current charge for that move is \$1.76/cwt from Wentworth because the shipment must be made in small hopper cars at the single car rate. When the branchline is rehabilitated in 1981, the Terminal will be able to take advantage of the BN's 54 car rate for 100 ton cars. This rate will be \$1.46/cwt if all 54 cars are loaded at one origin; \$1.52/cwt from two origins; or \$1.58/cwt from three, four, or five origins on the branchline. All rates are also subject to the 2.9 percent fuel surcharge on the total freight bill.

Competition from other grain shippers on the branchline will be primarily at Madison and Colton. Madison is eight miles west of Wentworth and has the capability for loading 54 cars. Colton is thirteen miles south of Wentworth and is not capable of loading 27 or 54 cars without substantial additional siding in town. Therefore, it is not expected that Colton will represent a serious competitor for the unit train movements. Reasonable projection of grain volume at Wentworth includes only the volume handled by the four member elevators in 1980. Although 1980 was a record year for the members, they were competing with Madison during that year. In addition, Madison continued to have rail service during all of 1980. Of the four member elevators; Howard and Ward had no rail service, Egan and Colman lost rail service

BURLINGTON NORTHERN

RATES AND SERVICE

AT WENTWORTH

SINGLE CAR RATES (¢/CWT)

	Destination					Gulf Ports (Export)
	Twin Cities	Twin Ports	Kansas City	Sioux City	West Coast (Export)	
Corn, Oats,	100	118	137	58	176 (145,000 lbs)	281 M
Beans					172 (190,000 lbs)	
Wheat	95	114	165	89	447	266 M
Barley	114	149	165	89	447	285 M

(M - Minneapolis combination)

MULTICAR RATES TO PACIFIC NORTHWEST (6/14/81)

CORN

54 cars - 1 origin	146
54 cars - 2 origins	152
54 cars - 3 to 5 origins	158

WHEAT

52 cars - 1 origin (not now available at Wentworth)	211 (Watertown) 226 Granite Falls
--	--------------------------------------

All rates subject to 2.9 percent fuel surcharge on the total freight bill.

Demurrage (24 hour free time). No charge for shipper owned or leased cars on shipper owned track.

STANDARD RATE \$20/car/day

CURRENT BRANCHLINE OPERATIONS

Northbound - Monday and Friday

Southbound - Tuesday and Saturday

early in 1980; Nunda and Rutland lost rail service in midyear; and only the Chester branch of the Colman Cooperative had rail service all year. The Reasonable projection also omits from 1980 volumes, grain sold by the Wentworth elevator itself. This incorporates a conservative bias into the projection with respect to the Terminal's ability to compete with other branchline shippers. By buying the Wentworth Terminal, the members will actually be capturing part of the competition they faced in 1980.

North of Wentworth, competition exists along the Chicago & North Western line from Tracy, Minnesota to Huron. Ward is seven miles from a C & NW station at Elkton. Nunda is eighteen miles from Volga and twenty miles from Arlington. Howard is 27 miles south of DeSmet. None of these stations is capable of loading 54 cars. Since the C & NW does not have direct routes to the West Coast or Gulf Coast, its rates are generally higher than those of the BN for such shipments, for example, \$1.82/cwt from Walnut Grove, Minnesota. These locations are competitive for shipments to the Twin Cities, Duluth or Gulf Ports. However, they had rail service available during all of 1980 and the reasonable projection figures for Wentworth tend to understate the members' ability to compete with C & NW shippers. (A schedule of representative C & NW rates is appended to this report.)

The primary competition for the Wentworth Terminal is expected to occur along the BN mainline at Pipestone or Jasper, Minnesota, or Corson, South Dakota, where new unit train loading facilities are

being constructed. The natural market regions of these elevators reaches and overlaps with the market regions of Egan, Ward, and perhaps Colman. Egan and Ward are eighteen and twenty miles from Pipestone, Minnesota and Colman is 26 miles from Pipestone. As long as the BN rate for unit train movements remains a blanket rate in the region, these members should be able to bid competitively for corn to move in units.

For example, Egan is closest to Pipestone and an equal distance from Wentworth. Therefore, with the same rail rate from either point, Egan's only disadvantage in buying grain will be the four cent per hundredweight Railroad Authority tax. This is only 2.25 cents per bushel and could be offset by Egan's share of any earnings by the Terminal.

The competitive risk arises from the fact that the Madison branchline traffic must move through Sioux Falls to the same BN mainline serving Pipestone, Jasper and Corson. Therefore, if BN changes its rate structure, branchline rates at Wentworth could be increased relative to those on the mainline and place the members at a disadvantage relative to the mainline shippers. Some insurance against such a rate change might be available if the Regional Railroad Authority can negotiate a rate agreement with the BN as a part of the rehabilitation loan agreement.

Even if such a rate agreement is negotiated, it is not certain that the rates cannot be raised through the application of a surcharge. Section 301 of the Staggers Rail Act of 1980 allows railroads to levy surcharges on light density branchline traffic. The railroad is entitled to revenues sufficient to cover the entire operating and

maintenance costs of the branchline, a return on investment of nearly twelve percent, and at least 110 percent of the variable costs of the subsequent mainline haul.

In addition to the risk due to rate structure or surcharge disadvantages of branchline service, there is also the risk that branchline service might be discontinued. The best insurance against the loss of service is traffic volume sufficient to ensure the line's profitability to the railroad. It may be desirable to continue the Regional Railroad Authority's commodity tax beyond the period required for repayment of the Authority's bond issue. The revenues could be accumulated in a fund to be used for the purchase of the line under Section 401 of the Staggers Act. This fund would not only make such a purchase possible if BN decided to discontinue service, it would provide some incentive to BN to retain service.

CAPITAL INVESTMENT
AND OPERATING ALTERNATIVES

The members of the Wentworth Cooperative Terminal, Inc. have agreed to pay a purchase price of \$650,000 for the elevators and related facilities. They have also agreed to reimburse the seller \$33,000 as the price paid to purchase 1.43 miles of the former Milwaukee main track. Officials of the BN indicated that the railroad will retain the siding north of Wentworth for operating needs until the rehabilitation project is complete. After that time the siding may be available for purchase or lease. A price of \$8.00 per foot was mentioned as a possible price. This is a high price for the track in its current condition and location. An estimated cost for the purchase of 1.5 miles and rehabilitation of one mile is \$60,000.

Several alternative levels of investment are possible to upgrade the facility for loading 27 car or 54 car unit trains. A thorough examination of the main elevator was made by Mr. Bill Stegmeier of SBC Construction, Inc. The following discussion of investment and operating alternatives is taken from Mr. Stegmeier's report.

The elevator has one railcar loadout station; 120,000 bushels of storage capacity useable for loadout; and, two legs rated at 6,500 bushels per hour each. All grain handled must move through the legs on both arrival and loadout. There is one screener rated at 1,000 bushels per hour. In its current configuration the facility is capable of loading

27 cars in 15 hours with several limitations. The screener is not capable of cleaning grain fast enough so that, although grain would pass through the legs upon loading, it would receive a final screening before going into railcars. This increases the risk of dockage or even refusal of grain at destination.

Another limitation is the conveyor under the west annex which is in very poor condition and rated at only 1,000 bushels per hour. With forty percent of grain stored in the West Annex, this conveyor can slow down the loading operation unless its use is well coordinated with the rest of the facilities. A breakdown of this conveyor could impose significant demurrage and other costs of delayed loading. Replacement of this conveyor with one rated at 8,000 bushels per hour is estimated to cost \$13,800 installed and wired.

Therefore, although the facility could load 27 cars in one day (15 hours) with no additional investment, replacement of the conveyor is probably a minimal requirement. Even with this improvement, the facility would have to be full with clean grain before empty cars are delivered. If a very well coordinated truck move from the seven outlying elevators into Wentworth is arranged, the elevator could load 54 cars in two days. Approximately 100 truckloads would have to be delivered in addition to having the elevator full. Grain being trucked in would have to be very clean since it would pass through the legs twice without screening.

To load either 27 or 54 cars in one or two days respectively, it is recommended that one leg be used for the loadout with the use of an overflow bin of 5,000 bushel capacity. A complete car loading cycle would take approximately 35 minutes. The second leg would be used for the overflow bin and for incoming grain.

To avoid delays caused by unexpected emptying of bins and the need for more labor, a bin level indication system would be valuable although not absolutely necessary. Estimated cost is \$4,000 installed. Similarly, a mechanical probe at the scale would be useful but not absolutely necessary. The probe would cost \$7,000 installed and, because the scale and office are separated from the elevator, would save time and additional labor in taking samples and running them to the office. It would also help avoid mixing grain of incompatible quality when unloading trucks rapidly. Additional minor improvements such as modifying gates would be desirable. These are estimated to cost approximately \$2,000.

These improvements totaling \$26,800 would not increase the loadout capacity but would provide insurance against expensive delays or dockage. This insurance is particularly valuable for an operating plan which would load 54 cars in two days and require rapid, coordinated handling of incoming truck traffic while loading railcars. BN rates provide no reduction for 27 car units alone. They must be grouped with 27 cars from either another shipper requiring planning and coordination with other shippers on the line; or, a second day of loading at Wentworth requiring the coordinated truck movement. If a joint shipment plan with another shipper breaks down, the rate differential is 20 cents/cwt or \$10,584 for 27 cars. The cars could be held over and demurrage paid at \$20 per car per day. With the current operating schedule, the cars would incur either two or four days' demurrage. That would cost either \$1,080 or \$2,700 on the 27 cars and still requires that the other shipper has 27 cars loaded within that time.

Wentworth could load 54 cars in two days without the additional capacity. This operating plan would save \$3,175 on each 27 cars with the lower one origin rate but would cost an average of three days' demurrage or \$70 per car under the current BN operating schedule. This is \$3,780 for each 54 car unit or \$75,600 per year for the Reasonable projection of corn unit trains. Should bad weather cause a slow down or halt in the truck movements required without the added capacity, demurrage costs could be greater at a rate of \$1,080 per day for the 54 cars for the first three days, \$2,160 per day for the next three days, and \$3,240 per day for more than six days.

The next level of improvement would not increase loadout capacity but would provide a higher return from cleaner grain, reduce the risk of dockage or refusal, and eliminate the need to rely on cleaning of grain at each of the seven local elevators. This investment would provide high speed cleaning equipment at Wentworth. It is recommended that an 8,000 bushel per hour scalper and two 6,000 bushel per hour screeners be installed. Incoming grain would pass through the scalper and one screener using one leg while grain being loaded would use the second leg and pass through the second screener.

The installation of such cleaning equipment would require that 20 to 25 feet be added to each leg. It would also allow the leg's capacity to be increased to 7,500 bushels per hour each. Installation of this equipment would cost an estimated \$54,800.

The recommended investment of this \$81,600 would not increase storage capacity or the need for a well-planned truck flow into the elevator to load 54 cars. It would increase the loadout capacity only marginally. It would reduce the loading time per railcar by approximately five minutes or 4.5 hours for 54 cars.

The primary limitation on the loadout rate is the single loadout station and limited storage capacity. The final level of investment would allow the facility to load 54 cars in one day. This would replace the 100,000 bushel frame quonset beside the west annex with two raised 50,000 bushel steel tanks. These would add 100,000 bushels of direct gravity flow loadout to either railcars or trucks. An overhead conveyor to the tanks is recommended. The estimated cost is \$176,000 installed and wired. Loading 100 ton covered hopper cars under either of the alternatives described above will require the purchase of a track vehicle. Such a vehicle capable of moving at least five loaded cars, is estimated to cost approximately \$60,000.

Estimated total investment cost to upgrade the facility to a full 54 car, one day operation is \$317,600.

TABLE IV

CAPITAL INVESTMENT

Elevator Purchase	\$650,000	
Milwaukee Siding (1.43 miles)	33,000	\$ 683,000
BN Siding & Rehabilitation (1.5 miles)	60,000	743,000
Conveyor - West Annex	13,800	756,800
Bin Level Indication System	4,000	760,800
Mechanical Probe	7,000	767,800
Modifications (Gates, etc.)	2,000	769,800
Screeners, Scalper & Legs	54,800	824,600
Tanks, Conveyor & Loadout	176,000	1,000,600
Track Vehicle	60,000	1,085,000
Working Capital	375,000	\$1,435,600

WORKING CAPITAL

The Wentworth Terminal operation will require working capital. To pay operating expenses in the case of a poor crop year and/or during seasons when relatively grain might be handled, it is estimated that working capital equal to one-half of cash, non-interest expenses should be held. These expenses are estimated at approximately \$292,000 in the following section. Thus, \$146,000 of working capital would be required for this purpose. These funds are also required for startup costs in 1981.

Working capital should also be held to meet the annual cost of debt repayment. This need is estimated to be \$169,000.

Since the Terminal will purchase enough corn to load 54 cars, working capital would be needed to purchase approximately 200,000 bushels, or \$600,000 if corn is purchased at \$3.00 per bushel. If the members are willing to wait for payment until cars are loaded and the Terminal draws a draft for ninety percent of the value, approximately \$60,000 will be needed for grain purchases. These needs require a total of \$375,000 of working capital. In a normal crop year or during busy seasons, operating expenses should be covered by operating revenues but the working capital would be needed for grain purchases.

TABLE V

DEBT REPAYMENT SCHEDULE

Year	Term Loan for Facilities ¹ (10 Year)				Term Loan for Working Capital & Vehicle ² (5 Year)			
	Beginning Balance	Interest Expense	Principal Repayment	Ending Balance	Beginning Balance	Interest Expense	Principal Repayment	Ending Balance
1	500,300	70,042	50,030	450,270	435,000	60,900	87,000	348,000
2	450,270	63,038	50,030	400,240	348,000	48,720	87,000	261,000
3	400,240	56,034	50,030	350,210	261,000	36,540	87,000	174,000
4	350,210	49,029	50,030	300,130	174,000	24,360	87,000	87,000
5	300,180	42,025	50,030	250,150	87,000	12,180	87,000	- 0 -
6	250,150	35,021	50,030	200,120				
7	200,120	28,017	50,030	150,090				
8	150,090	21,013	50,030	100,050				
9	100,060	14,008	50,030	50,030				
10	50,030	7,004	50,030	- 0 -				

¹Assumes that Wentworth Terminal borrows one-half the initial cost of the facilities, improvements and expansion. The total cost is \$1,000,600 with one-half to be contributed as equity by the members. The loan is assumed to be for ten years at fourteen percent.

²Assumes that the \$60,000 cost of a track vehicle and \$375,000 working capital are borrowed on a five year, fourteen percent loan.

OPERATING EXPENSES

The following estimates of operating expenses apply only to the Wentworth Cooperative Terminal and not to the individual members. Each member will have different costs associated with marketing through the Wentworth Terminal depending upon not only their local trade and operating practices but also upon their costs to move grain to Wentworth by truck.

Salary Expense

It is expected that a manager will be paid approximately \$40,000 and two full-time employees will be necessary at about \$15,000 each. Part-time additional labor and a bookkeeper are expected to cost another \$15,000. Salary expense is estimated at \$85,000.

Salary Related Expenses

Payroll taxes, unemployment compensation, and fringe benefits are estimated to be eight to ten percent of salaries. At nine percent, an estimate of \$7,650 is used.

Professional Fees

An annual audit for the protection of members and miscellaneous legal fees are estimated at \$7,500. The audit fee is expected to be less than that for a local cooperative because of the limitation on membership and no need to audit such items as retail customer accounts.

Directors Fees

Directors fees, meeting and travel expenses are estimated to be \$2,800.

Insurance and Bonds

Insurance and bonding expense is estimated at \$19,171. This is based upon an examination of the property and on estimate of premiums by a representative of the Mill Mutuals Company. The list coverages is appended.

Elevator Repairs, Supplies, and Inspections

Repair and inspection expenses are estimated at four percent of the value of the facility or \$26,000.

Property Taxes

Property taxes are estimated at nine percent of the value of the facility or \$5,850.

Depreciation of Elevator

It is assumed that the facility and improvements will be depreciated over a twenty year period using a straight line method. Annual depreciation is \$36,580.

Depreciation of Track Vehicle

The track vehicle is assumed to be depreciated over a five year period or an annual expense of \$12,000.

Interest-Working Capital

A five year loan to provide \$375,000 of working capital will have first year interest expense of \$52,500 at fourteen percent and annual principal payments of \$75,000.

Interest on Long Term Debt

The cost of acquiring the elevator, 1.43 miles of Milwaukee track, 1.5 miles of the BN track, and the recommended improvements (without increasing the loadout capacity) is estimated to be \$825,000. Assuming that one-half of the capital is contributed by the members as equity, long term debt would be \$412,500. Such a loan at fourteen percent and with a ten year term would require an annual payment of \$41,250. Interest expense in the first year would be \$57,750.

interest on Term Loan

Purchase of a track vehicle capable of moving at least five cars is estimated to cost \$60,000. A five year loan of \$60,000 at fourteen percent would require annual payments of \$12,000. First year interest expense would be \$8,400.

Office Supplies

Office supply expenses are estimated to be \$6,000.

Utility and Telephone Expense

Utility expense is estimated at \$10,000. Telephone and telegraph expenses are estimated to be \$7,500. (As members market grain through the Terminal, there may be some reduction in communications expenses of the local member.)

Railroad Authority Grain Tax

Shippers on the branchline will be required to pay a tax to the Regional Railroad Authority at the rate of four cents per hundredweight. At the reasonable projected volume of grain to be handled at the Terminal (Table II), the annual tax would be \$110,550.

Miscellaneous Expenses

Meeting, travel, bank charges, rodent control and other minor expenses are estimated at \$5,000.

Interest on Expansion Loan

The cost of adding 100,000 bushels of storage capacity is estimated to be \$176,000. Assuming half is contributed as equity, a ten year, fourteen percent loan for \$88,000 will be needed. Annual principal payment would be \$8,800 and first year interest would be \$12,320.

Depreciation of Expansion

The added storage tanks and equipment are assumed to be depreciated over a twenty year life. Annual depreciation expense is \$8,800.

TABLE VI
 FIRST YEAR
ESTIMATED OPERATING EXPENSES

Salaries	\$ 85,000
Salary Related Expenses	7,650
Professional Fees	7,500
Directors Fees	2,800
Insurance & Bonds	19,171
Repairs, Supplies & Inspections	26,000
Property Tax	5,850
Depreciation of Elevator	36,580
Depreciation of Track Vehicle	12,000
Interest on Working Capital Loan	52,500
Interest on Long Term Debt	57,750
Interest on Term Loan	8,400
Office Supplies	6,000
Utility & Telephone Expenses	17,500
Rail Authority Grain Tax	110,550
Miscellaneous Expenses	<u>5,000</u>
TOTAL OPERATING EXPENSES	\$460,251
Interest on Expansion Loan	12,320
Depreciation on Expansion	<u>8,800</u>
TOTAL OPERATING EXPENSES WITH EXPANSION	\$481,371

OPERATING REVENUE

The operating expenses estimated above imply that the Terminal would require a margin of 8.5 cents per bushel to break even if the Reasonable projection of grain handle is attained. If the Terminal handles a volume of grain closer to the Pessimistic estimate, 10.6 cents per bushel margin would be necessary to cover operating expenses.

To estimate potential operating revenue, the value of the Terminal to the four members is assumed to be the difference in the price of grain received by shipping through the Terminal. The principal movement of grain from Wentworth would be the unit train shipment of corn to the Pacific Northwest ports. Without the Wentworth Terminal, members' best marketing alternative is assumed to be the Twin Cities.

Corn

Using unit train shipments to the West Coast, the value of corn (C_R) at the local elevator is the export price (P_W) minus the rail rate (R) and the cost of trucking to Wentworth (T_W).

$$C_R = P_W - R - T_W$$

If the corn is trucked to Twin Cities, the value at the member's elevator (C_T) is the difference between the Minneapolis price (P_M) and the cost of trucking to the Twin Cities (T_M).

$$C_T = P_M - T_M$$

Therefore, the value of the Wentworth Terminal to the members is the difference in price at the members' elevators:

$$C_R - C_T = (P_w - R - T_w) - (P_m - T_m); \text{ or,}$$

$$C_R - C_T = (P_w - P_m) - (R + T_w - T_m).$$

The first term on the right side is just the difference between the West Coast and Minneapolis market prices. The last term on the right side is the difference between truck and rail costs using Wentworth ($R + T_w$) and truck cost to Minneapolis (T_m).

To estimate the price difference, the weekly price of No. 2 Yellow Corn in the two markets was compared for the forty-eight weeks up to April 10, 1981. The price difference ranged from 62 cents per bushel to 108 cents per bushel with the West Coast price always greater. The price difference increased in late 1980 and early 1981 and narrowed toward late winter of 1981. The price differences, of course, reflect only the many complex market forces such as domestic and export demands, Asian and European export demands, closing of the Upper Mississippi River in winter, the cost of delays at the Panama Canal, and port and terminal capacity at West Coast and Gulf Coast ports. Therefore, the 1980-81 price differential pattern may not be typical.

Several factors suggest however, that if the pattern changes, Wentworth Terminal shippers would not be injured and might be expected to gain. For example, the late winter narrowing of the price differential may have been due in part to the opening of the Mississippi River. Then in a normal year with a later opening of the river, the relative advantage of shipping by rail to the West Coast could be expected

to benefit such shippers longer than was the case in 1981. In October 1980, barge shippers began to pay a fuel tax for the first time. This tax is scheduled to increase to ten cents per gallon and the Administration is suggesting a tax of thirty cents per gallon. Such increases will depress the Minneapolis price relative to the West Coast price.

One of the constraints on West Coast grain exports has been terminal capacity at the ports. As capacity is increased at these ports, rail embargoes will be eliminated and demand for feed grains at these ports will be greater. All of these prospects suggest that the West Coast-Minneapolis price differential will be supported in the foreseeable future. The principal unknown factors are the long term strength of the Asian market for feed grains and potential interruptions in trade for foreign policy considerations.

The average price differential for the 48 week period was 83.6 cents per bushel. This price differential and the more conservative minimum differential of 62 cents per bushel are used to develop a conservative range of the Terminal's value.

The unit train rate of \$1.46 per cwt or 81.76 cents per bushel is used to estimate rail cost to the West Coast. Trucking costs to the Twin Cities are estimated to be \$1.00 per running mile or \$400 per trip. This represents a cost of 44 cents per bushel. Trucking grain from members to Wentworth is assumed to cost \$1.00 per running mile plus a charge for loading and unloading time. This extra charge is necessary because such time is relatively more important for short trips. If the total trip time to Minneapolis is ten hours, of which one hour is loading and unloading time, the ten percent of the cost or \$40 is attributable to such time.

To estimate the combined cost of trucking members' grain to Wentworth, the roundtrip mileage for each member is weighted by its 1980 share of grain handled.

	<u>Round Trip Miles</u>	<u>Weighting Factor</u>	<u>Weighted Average Miles</u>
Colman	26	.30	7.8
Egan	46	.27	12.4
Howard	60	.17	10.2
Nunda	28	.26	<u>7.3</u>
Average Miles			37.7

Grain is estimated to be trucked an average of 38 round trip miles between members and Wentworth. Therefore, the average cost of trucking to Wentworth is \$78 at \$1.00 per mile plus \$40 loading/unloading time charge. For 900 bushel truckloads, this is 8.7 cents per bushel.

Table VII shows the estimated value of the Wentworth Terminal to the four members. If the Terminal is assumed to retain this value as its operating revenue, then members would receive the same average price which would have been received without acquiring the Terminal. The estimated value is based only upon the unit train shipment of corn to the West Coast. Net earnings from other commodities is assumed to be no greater than what the members could earn individually. To the extent that the Terminal provides a transportation advantage for shipping other commodities, the value and operating revenue of the Terminal is underestimated.

TABLE VII

NET OPERATING REVENUE

(Based on Corn Unit Trains Only)

	1980-81 Weekly Price Differential	
	Average	Minimum
Market Price Differential/Bushel (Pw - Pm)	83.6¢	62¢
Transportation Cost Differential/Bushel (R + Tw - Tm)	46.0	46
Net West Coast Advantage/Bushel (Gross Margin)	37.6¢	16¢
Reasonable Estimate Corn Volume (Bushels)	3,777,000	
Operating Revenue at Reasonable Volume	\$1,420,152	\$604,320
Less: Operating Costs	<u>481,371</u>	<u>481,371</u>
Net Operating Revenue at Reasonable Volume	\$ 938,781	\$122,949
Pessimistic Estimate of Corn Volume (Bushels)	2,915,000	
Operating Revenue at Pessimistic Volume	\$1,058,440	\$450,400
Less: Operating Costs*	<u>459,822</u>	<u>459,822</u>
Net Operating Revenue at Pessimistic Volume	\$ 598,618	\$ (9,422)

*Adjusted for the 4¢/cwt. Rail Authority tax.

The Table indicates that at the minimum 1980-81 West Coast price advantage and the Pessimistic projection of the members' corn volume, the Terminal would operate near the breakeven point. Any greater price differential or corn volume would increase the value of the Terminal to the members. This emphasizes the need for volume guarantees from members if the Terminal is to be self-supporting. A guarantee of approximately three million bushels appears to be needed to provide the revenue necessary under relatively adverse price conditions.

At the average weekly price differential of 83.6 cents, the net advantage of shipping to the West Coast is 37.6 cents. This implies that each additional bushel of corn which the Terminal handles, would provide a gross margin of approximately 35 cents. (That is, 37.6 cents less the 2.25 cents Rail Authority Tax.) If the minimum weekly average price differential prevails, additional corn provides a gross margin of nearly fourteen cents per bushel. Therefore, each additional unit train of 189,000 bushels would generate net operating income of \$66,000 at the average 1980-81 price differential. Using the minimum and maximum price differentials, the net income from an additional unit train of corn would range from \$26,000 to \$114,000.

All corn shipped to the West Coast must be screened. To the extent that this process reduces the amount shipped relative to the amount which have been shipped to Minneapolis, any West Coast advantage is reduced. Current policy at Minneapolis is a dockage of two cents per bushel for each percentage point of broken corn and foreign material over three percent. West Coast dockage is four cents for the first

point and six cents for the second point. Over five percent is accepted only at a negotiated price. At reasonable combinations of the BCFM percentage shipped to Minneapolis or screened out at the Terminal, screening could reduce the West Coast price advantage by three to five cents per bushel.

Other Commodities

The other commodities identified as potential grain traffic through the terminal are barley, wheat and oats. Rail service does not appear to offer any advantage in shipping wheat to either the Twin Cities or West Coast. The cost of trucking wheat to the Twin Cities is 45 to 50 cents per bushel. The single car rail rate is 57¢ and the average cost of trucking to Wentworth is approximately nine cents per bushel. Therefore, the local cooperative is better off trucking directly to the Twin Cities.

The average weekly price differential for wheat between the West Coast and Minneapolis has been 95 cents per bushel for the last seventy weeks. The single car rail rate to the West Coast is 268 cents per bushel which far outweighs any price advantage. The closest unit train rate to the West Coast is \$1.356 per bushel from Granite Falls, Minnesota. If the same rate applied at Wentworth, the net additional freight cost is $\$1.356 + \$.084 - \$.450 = \$.99$. This also outweighs the average price advantage.

The 95 cent price advantage is an average. Therefore, there are times when the West Coast price advantage exceeds this level and the West Coast transportation cost disadvantage. In 1980 the West Coast

wheat price exceeded the Minneapolis price by \$.18 to \$1.29 per bushel between late August and mid October. If wheat were held until this period and unit train (52 car) rates comparable to the Granite Falls rates were obtained, unit train shipments to the West Coast could net 20 to 30 cents per bushel over the Minneapolis market. Whether these gains would actually materialize is questionable because the existence of a West Coast price advantage for a few weeks does not necessarily mean that the highest prices occur at that time. There would be no advantage in watching the price fall thirty cents in both markets while waiting for 25 cent market price differential to occur. Waiting will also incur storage costs. On the other hand, the opportunity to have access to two markets means that the Terminal can always take the Minneapolis price and ship unit trains to the West Coast only when the price advantage exceeds the transportation cost disadvantage. Thus, the Terminal should be able to beat the average price advantage and profit from shipping wheat.

Barley can be trucked to the Twin Cities for approximately forty cents per bushel. The BN rate from Wentworth is 55 cents per bushel. There are no multicar rates to the West Coast but the single car rate is \$2.15 per bushel which exceeds any West Coast price advantage. Therefore, barley does not appear to be a likely contributor to rail traffic through Wentworth at current BN rates.

The BN has indicated that a ten car rate for the movement of barley to Minneapolis is being considered. The proposed rate is 86 cents

per cwt. or 41.3 cents per bushel. This rate would be competitive with the cost of trucking and might attract barley traffic through the Terminal when the advantages of ten car handling are considered. Even though such a rate might be adequate to attract barley, it is not likely that it would add significantly to the Terminal's net revenue.

Oats are trucked to the Kansas, Missouri and other southern destinations. This is likely to remain a truck move because of the flexibility of truck shipments. At \$1.00 per running mile, trucking cost to Kansas City is approximately \$850 or 50 cents per bushel. The BN rate to Kansas City is \$1.65 per cwt. or 53 cents per bushel. Thus, the rail rate may be too high to offset trucking costs and trucking flexibility.

With the completion or the construction of a bridge at Sioux City, Iowa, late in 1981, the BN intends to introduce unit train rates to the Gulf Ports. Since the 1980 merger of the St. Louis-San Francisco Railway into the BN, the BN will provide single line unit train service to the Gulf. This additional outlet will open another market for the Wentworth Terminal for corn and soybeans. As with wheat, the availability of additional markets for corn and soybeans will provide profitable alternatives for the Terminal.

The BN has announced its intention to introduce 26 and 52 car rates on sunflowers to the West Coast. This might provide another opportunity for the Terminal although questions about the strength of the West Coast sunflower market, additional costs of handling

sunflowers, and future sunflower production in the Wentworth area reduce the probability that the Terminal can profit from this traffic.

Other Revenue Sources

The Terminal might also generate revenues as a point for the rail receipt of members' fertilizer needs. There are no facilities for handling fertilizer and no immediate plans for such facilities. Currently, some fertilizer is being trucked from Sioux City, Iowa, as a backhaul after soybeans have been delivered to Sioux City. Fertilizer is shipped to Sioux City from southern states and Canada by rail. If unit train service is begun for shipping soybeans to the Gulf Ports and the Wentworth Terminal uses the service, members deliveries to Sioux City will decrease and the low cost backhaul of fertilizer will not be available. Therefore, the use of the Terminal for receiving fertilizer by rail is, in part, tied to the use of the Terminal for shipping soybeans.

The storage facilities at the west elevator of the Wentworth Terminal is filled with 149,000 bushels of corn being stored for the Commodity Credit Corporation. The income for this storage service is 26 cents per bushel or \$38,740 per year. This income has not been included in the Pro Forma Statements which follow because of the uncertainty about how long the corn will remain in storage. It should be recognized that the greatest probability for the earning of this income occurs in the near term. This is also the period when the approximately \$3,200 per month may be most useful to the Terminal in

covering start up costs. Therefore, while this storage income is not included in the longer term projections, its short term value to the beginning of Terminal operations is significant.

BALANCE SHEET

rd	Total	Pro Forma Upon Incorporation				
		Egan	Colman	Nunda	Howard	Wentworth
27	307,821	265,395	39,950	1,048	1,427	375,000
37	1,713,998	446,423	523,412	476,471	267,687	
35	874,896	183,273	409,726	155,512	126,385	
39)	<u>533,551</u>	<u>245,963</u>	<u>151,448</u>	<u>164,424</u>	<u>(28,289)</u>	
10	3,430,266	1,141,065	1,124,536	797,455	367,210	375,000
97	1,365,365	543,672	645,630	521,522	154,842	
22	<u>1,184,373</u>	<u>353,550</u>	<u>324,502</u>	<u>262,099</u>	<u>244,222</u>	<u>1,060,600</u>
31	5,980,004	2,038,287	2,094,667	1,581,076	766,274	1,435,600
46	2,297,505	974,784	620,552	543,925	158,246	137,030
50	<u>364,050</u>	<u>141,752</u>	<u>164,402</u>	<u>389,402</u>	<u>168,795</u>	<u>798,270</u>
36	2,661,555	1,116,535	784,954	933,327	327,041	935,300
35	<u>3,318,449</u>	<u>921,751</u>	<u>1,309,713</u>	<u>647,749</u>	<u>439,235</u>	<u>500,300</u>
31	5,980,004	2,038,287	2,094,667	1,581,076	766,276	1,435,600
54	1,132,761	166,281	503,984	253,530	208,964	237,970

ditional capacity, are financed with 50% as long term loan to Wentworth,

anced with 100%, five year loan to Wentworth.

CONSOLIDATED BALANCE SHEET

	December 31, 1980					Pro Forma Upon Incorporation				
	Egan	Colman	Nunda	Howard	Total	Egan	Colman	Nunda	Howard	Wentworth
Current Assets										
Cash	265,396	39,950	1,048	1,427	307,821	265,396	39,950	1,048	1,427	375,000
Receivables	446,428	523,412	476,471	267,687	1,713,998	446,428	523,412	476,471	267,687	
Inventories - Grain (Net)	183,273	407,726	155,512	126,385	874,896	183,273	409,726	155,512	126,385	
- Merchandise	<u>245,968</u>	<u>151,448</u>	<u>164,424</u>	<u>(28,289)</u>	<u>533,551</u>	<u>245,968</u>	<u>151,448</u>	<u>164,424</u>	<u>(28,289)</u>	
Total	1,141,065	1,124,536	797,455	367,210	3,430,266	1,141,065	1,124,536	797,455	367,210	375,000
Fixed Assets										
Investment	401,920	503,878	379,770	79,797	1,365,365	543,672	645,630	521,522	154,842	
Land, Bldgs & Equip (Net)	<u>353,550</u>	<u>324,502</u>	<u>262,099</u>	<u>244,222</u>	<u>1,184,373</u>	<u>353,550</u>	<u>324,502</u>	<u>262,099</u>	<u>244,222</u>	<u>1,060,600</u>
Total Assets	1,896,535	1,952,916	1,439,323	691,231	5,980,004	2,038,287	2,094,667	1,581,076	766,274	1,435,600
Current Liabilities										
Long Term Debt	974,784	620,552	543,925	158,246	2,297,505	974,784	620,552	543,925	158,246	137,030
	<u>--</u>	<u>22,650</u>	<u>247,650</u>	<u>93,750</u>	<u>364,050</u>	<u>141,752</u>	<u>164,402</u>	<u>389,402</u>	<u>168,795</u>	<u>798,270</u>
Total Liabilities	974,784	643,202	791,575	251,996	2,661,555	1,116,536	784,954	933,327	327,041	935,300
Equity	<u>921,751</u>	<u>1,309,713</u>	<u>647,749</u>	<u>439,235</u>	<u>3,318,449</u>	<u>921,751</u>	<u>1,309,713</u>	<u>647,749</u>	<u>439,235</u>	<u>500,300</u>
Total Liability & Equity	1,896,535	1,952,915	1,439,325	691,231	5,980,004	2,038,287	2,094,667	1,581,076	766,276	1,435,600
Working Capital	166,281	503,984	253,530	208,964	1,132,761	166,281	503,984	253,530	208,964	237,970

*Assumes: (1) Investment in elevators, sidings, improvements, and additional capacity, are financed with 50% as long term loan to Wentworth, 50% as long term loans to members.

(2) Investment in working capital and track vehicle are financed with 100%, five year loan to Wentworth.

Pro Forma Statements
Average Price Advantage, Reasonable Volume
Operating Statement

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Gross Margin	\$1,420,152	\$1,420,152	\$1,420,152	\$1,420,152	\$1,420,152
Operating Expense	<u>481,371</u>	<u>462,187</u>	<u>443,003</u>	<u>423,818</u>	<u>404,634</u>
Savings	938,781	957,965	977,149	996,334	1,015,518

Sources & Uses of Working Capital

<u>Sources</u>					
Savings	\$938,781	\$957,965	\$977,149	\$996,334	\$1,015,518
Depreciation	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>
Total	996,161	1,015,345	1,034,529	1,053,714	1,072,898
<u>Uses</u>					
Debt Repayment	50,030	50,030	50,030	50,030	50,030
Debt Repayment	87,000	87,000	87,000	87,000	87,000
Addition to Working Capital	<u>859,131</u>	<u>878,315</u>	<u>987,499</u>	<u>916,684</u>	<u>935,868</u>
	996,161	1,015,345	1,034,529	1,053,714	1,072,898

Year End Position Statement

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Working Capital	\$237,970	\$1,097,101	\$1,975,416	\$2,872,915	\$3,789,599	\$4,725,467
Fixed Assets	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600
Accumulated Depreciation	<u>-0-</u>	<u>(57,380)</u>	<u>(114,760)</u>	<u>(172,140)</u>	<u>(229,520)</u>	<u>(286,900)</u>
	1,298,570	2,100,321	2,921,256	3,761,375	4,620,679	5,499,167
Long Term Debt	\$798,270	\$661,240	\$524,210	\$387,180	\$250,150	\$113,120
Equity	500,300	500,300	500,300	500,300	500,300	500,300
Savings	<u>-0-</u>	<u>938,781</u>	<u>1,896,746</u>	<u>2,873,895</u>	<u>3,879,229</u>	<u>4,885,747</u>
	1,298,570	2,100,321	2,921,256	3,761,375	4,620,679	5,499,167

Pro Forma Statements
Minimum Price Advantage, Reasonable Volume
Operating Statement

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Gross Margin	\$604,320	\$604,320	\$604,320	\$604,320	\$604,320
Operating Expense	<u>481,371</u>	<u>462,187</u>	<u>443,003</u>	<u>423,818</u>	<u>404,634</u>
Savings	122,949	142,133	161,317	180,502	199,686

Sources & Uses of Working Capital

<u>Sources</u>					
Savings	\$122,949	\$142,133	\$161,317	\$180,502	\$199,686
Depreciation	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>
Total	180,329	199,513	218,697	237,882	257,066
<u>Uses</u>					
Debt Repayment	50,030	50,030	50,030	50,030	50,030
Debt Repayment	87,000	87,000	87,000	87,000	87,000
Addition to Working Capital	<u>43,299</u>	<u>62,483</u>	<u>81,667</u>	<u>100,852</u>	<u>120,036</u>
	\$180,329	\$199,513	\$218,697	\$237,882	\$257,066

Year End Position Statement

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Working Capital	\$237,970	\$281,269	\$343,752	\$425,419	\$526,271	\$646,307
Fixed Assets	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600
Accumulated Depreciation	<u>-0-</u>	<u>(57,380)</u>	<u>(114,760)</u>	<u>(172,140)</u>	<u>(229,520)</u>	<u>(286,900)</u>
	1,298,570	1,284,489	1,298,592	1,313,879	1,357,351	1,420,007
Long Term Debt	\$798,270	\$661,240	\$524,210	\$387,180	\$250,150	\$113,120
Equity	500,300	500,300	500,300	500,300	500,300	500,300
Savings	<u>-0-</u>	<u>122,949</u>	<u>265,082</u>	<u>426,399</u>	<u>606,901</u>	<u>806,587</u>
	1,298,570	1,284,489	1,289,592	1,313,879	1,357,351	1,420,007

Pro Forma Statements
Average Price Advantage, Pessimistic Volume
Operating Statement

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Gross Margin	\$1,058,440	\$1,058,440	\$1,058,440	\$1,058,440	\$1,058,440
Operating Expense	<u>459,822</u>	<u>440,638</u>	<u>421,454</u>	<u>402,269</u>	<u>383,085</u>
Savings	598,618	617,802	636,986	656,171	675,355

Sources & Uses of Working Capital

<u>Sources</u>					
Savings	598,618	617,802	636,986	656,171	675,355
Depreciation	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>
Total	655,998	675,182	694,366	713,551	732,735
<u>Uses</u>					
Debt Repayment	50,030	50,030	50,030	50,030	50,030
Debt Repayment	87,000	87,000	87,000	87,000	87,000
Addition to Working Capital	<u>518,968</u>	<u>538,152</u>	<u>557,336</u>	<u>576,521</u>	<u>595,705</u>
	655,998	675,182	694,366	713,551	732,735

Year End Position Statement

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Working Capital	\$237,970	\$756,938	\$1,295,090	\$1,852,426	\$2,428,947	\$3,024,652
Fixed Assets	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600
Accumulated Depreciation	<u>-0-</u>	<u>(57,380)</u>	<u>(114,760)</u>	<u>(172,140)</u>	<u>(229,520)</u>	<u>(286,900)</u>
	1,298,570	1,760,158	2,240,930	2,740,886	3,260,027	3,798,352
Long Term Debt	\$798,270	\$661,240	\$524,210	\$387,180	\$250,150	\$113,120
Equity	500,300	500,300	500,300	500,300	500,300	500,300
Savings	<u>-0-</u>	<u>598,618</u>	<u>1,216,420</u>	<u>1,853,406</u>	<u>2,509,577</u>	<u>3,184,932</u>
	1,298,570	1,760,158	2,240,930	2,740,886	3,260,027	3,798,352

Pro Forma Statements
Minimum Price Advantage, Pessimistic Volume
Operating Statement

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>
Gross Margin	\$450,400	\$450,400	\$450,400	\$450,400	\$450,400	\$450,400	\$450,400
Operating Expense	<u>459,822</u>	<u>440,638</u>	<u>421,454</u>	<u>402,269</u>	<u>383,085</u>	<u>363,901</u>	<u>356,897</u>
Savings	(9,422)	9,762	28,946	48,131	67,315	86,499	93,503

Sources & Uses of Working Capital

Sources							
Savings	(9,422)	9,762	28,946	48,131	67,315	86,499	93,503
Depreciation	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>	<u>57,380</u>	<u>45,380</u>	<u>45,380</u>
Total	47,958	67,142	86,326	105,511	124,695	131,879	138,883
Uses							
Debt Payment	50,030	50,030	50,030	50,030	50,030	50,030	50,030
Debt Repayment	87,000	87,000	87,000	87,000			
Addition to Working Capital	<u>(89,072)</u>	<u>(69,888)</u>	<u>(50,704)</u>	<u>(31,519)</u>	<u>74,665</u>	<u>81,849</u>	<u>88,853</u>
	47,958	67,142	86,326	105,511	124,695	131,879	138,883

Year End Position Statement

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>
Working Capital	\$237,970	\$148,898	\$ 79,010	\$ 28,306	(3,213)	\$ 71,452	\$153,301	\$242,154
Fixed Assets	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600	1,060,600
Accumulated Depreciation	<u>-0-</u>	<u>(57,380)</u>	<u>(114,760)</u>	<u>(172,140)</u>	<u>(229,520)</u>	<u>(286,900)</u>	<u>(332,280)</u>	<u>(377,110)</u>
	1,298,570	1,152,118	1,024,850	916,766	827,867	845,152	881,621	925,094
Long Term Debt	\$798,270	\$661,240	\$524,210	\$387,180	\$250,150	\$200,120	\$150,090	\$100,060
Equity	500,300	500,300	500,300	500,300	500,300	500,300	500,300	500,300
Savings	<u>-0-</u>	<u>(9,422)</u>	<u>340</u>	<u>29,286</u>	<u>77,417</u>	<u>144,732</u>	<u>231,231</u>	<u>324,734</u>
	1,298,570	1,152,118	1,024,850	916,766	827,867	845,152	881,621	925,094

OLDHAM MEMBERSHIP

The Oldham Farmers Elevator of Oldham, S.D., has considered membership in the Wentworth Cooperative Terminal. Oldham is in southeast Kingsbury County 35 miles from Wentworth.

Annual Grain Handled* (000's of Bushels)

	1981**	1980	1979	1978	1977	1976	1975
Corn	501	273.0	50.8	50.8	44.6	86.9	179.9
Barley	123	113.4	58.4	87.2	106.3	198.4	217.5
Wheat	135	120.3	82.0	73.4	52.0	100.1	98.1
Oats	225	139.6	100.1	69.6	60.3	106.7	191.8
Soybeans	20	15.4	3.4	--	--	.8	--

*Fiscal year ends May 31.

**Through April 30, 1981.

Like the four members, Oldham has had a change in management and the data for 1980 and 1981 reflect a more active grain marketing effort. Oldham is currently shipping corn to western feedlots by truck as a backhaul to eastbound lumber shipments. Some grain is loaded on the C & NW at Lake Preston and on the BN at Bancroft. A proposed corn alcohol plant at Lake Preston would also use 700,000 bushels from the area each year.

Given the past two years volume of corn handled, Oldham could reasonably contribute the equivalent of one to two trainloads of corn to the Terminal. This volume of 190,000 to 380,000 bushels would not increase operating expenses. The following tables show the potential contribution to net income from these two alternative volume levels.

Oldham Net Operating
Income Contribution

	<u>1980-81 Weekly Price Differential</u>	
	<u>Average</u>	<u>Minimum</u>
Market Price Differential/Bushel	83.6¢	62.0¢
Transportation Cost Differential/Bushel	<u>50.2</u>	<u>50.2</u>
Net West Coast Advantage/Bushel	33.4¢	11.8¢
 <u>190,000 Bushels/Year</u>		
Operating Revenue	\$63,460	\$22,420
Less: Rail Authority Tax	<u>4,256</u>	<u>4,256</u>
Net Operating Income Contribution	\$59,204	\$18,164
 <u>380,000 Bushels/Year</u>		
Operating Revenue	\$126,920	\$44,840
Less: Rail Authority Tax	<u>8,512</u>	<u>8,512</u>
Net Operating-Income Contribution	\$118,408	\$36,328

The contribution of Oldham corn traffic to the Terminal's net income is based upon the West Coast-Minneapolis price comparison. It assumes that the price now received at Oldham for deliveries elsewhere has been equalized, net of transportation costs, by market forces. The contribution is, therefore, due to the lower unit train rates available to the Terminal. For Oldham, this advantage over trucking corn to Minneapolis is approximately 31 cents per bushel at the average price differential and 9.5 cents at the minimum price differential.

The contribution to net income from the four Oldham alternatives can be added to the corresponding Pro Forma Statements above to assess the impact of Oldham's membership on the Terminal's financial position.

SUMMARY

Investment in and operation of the Wentworth Cooperative Terminal appears to be a feasible undertaking. The analysis in this report is based upon what are believed to be reasonably conservative assumptions and judgments. Several of these are below.

1. Projected revenues are based only upon the unit train handling of corn. Other commodities will undoubtedly be profitably handled at the Terminal but do not, under current conditions, offer an advantage over the average return earned at the members' own facilities. Increases in trucking costs, the development of ten car barley rates, and the opening of unit train service for corn and soybeans to the Gulf Ports are likely to provide such an advantage to the Terminal within the next year. Storage income will also contribute to the Terminal's revenues.

2. Revenues projected on corn traffic are based upon the average and the minimum differences between West Coast and Minneapolis prices, less the additional transportation costs to the West Coast. If the Terminal manager can take advantage of price differentials exceeding the average, the Terminal's revenue will be greater than projected. A similar situation occurs with wheat whereby the Terminal could ship one or two trainloads profitably if marketed so as to exceed the average price differential. Trucking costs to Minneapolis were estimated at \$1 per running mile. To the extent that these costs

increase due to either operating cost cost increases or greater trucking demand, the transportation costs disadvantage of the Terminal will be reduced.

3. The estimated corn volume handled by the Terminal is in the range of 2.8 to 3.8 million bushels. It appears that approximately 3.0 million bushels would be required to break even during the early years of debt repayment. Members' average corn sales during the 1976-1980 period were 2.3 million bushels. While this period included an outstanding year in 1979, it also included the worst drought year, 1976, since the 1930's. The estimates exclude any provision for growth through increased local membership from the Wentworth area, purchases from other elevators in the region, or additional cooperative members in the Terminal. All three of these are likely to occur within the first year of the commencement of Terminal operations.
4. Debt repayment requirements and interest expense estimates are based upon the full-scale investment alternative. Any smaller investment would reduce cash flow requirements and operating expenses.
5. Operating expenses are believed to be conservatively estimated. For example, with substantial recent and forthcoming investment in the elevator facility, the Repair, Supplies, and Inspections expense may be less than the estimated \$26,000 in early years of operation.

On the other side of the analysis there are some concerns which cannot be measured in dollars and over which the Terminal has little or no control. These relate primarily to the location of the Terminal on a branchline and the uncertainty of branchline rates and services.

1. With the upgrading and rehabilitation of the track structure in 1981, service by the BN should not be a question for at least a few years. The ultimate decision will depend upon traffic levels and local interests will have to continue efforts to attract rail using industry to the area. With rehabilitation of the line, it should be possible to obtain a replacement for the BN should BN decide to abandon the line.

2. Even with continued BN service, there is no guarantee of any rate parity between branchline shippers and those located on the nearby BN mainline. In addition, the BN can levy a surcharge on branchline traffic which would effectively raise rates. Perhaps the most effective constraint on such rate increases and surcharges is a combination of traffic growth on the line and continued healthy competition for traffic by the C & NW line north of Wentworth and Madison. While the withdrawal of the C & NW would divert some traffic to both the Soux Falls-Madison and Watertown-Huron branchlines of the BN, it would also remove the competitive pressure to continue operating those branchlines. BN would have an incentive to abandon them and have traffic trucked to and from its mainline in Minnesota.

In summary, it appears that the Terminal can at least break even during the first five years of operation. After that period, when debt

repayment, interest expense, and the Railroad Authority tax are no longer a burden, the Terminal profits will accrue to members. During the first five years, the principle effect upon members may be the accumulation of equity in the Terminal.

CHICAGO & NORTH WESTERN

CORN RATES

FIFTY CAR RATES (¢/CWT)

FROM/ TO	Twin Cities	Twin Ports	Kansas City	Sioux City	West Coast (Export)	Gulf Ports (Export)
Walnut Grove	41	62	66½	45	182	128
Brookings	61	69½		37		
Huron	64	73½		47		156
Heron Lake	37		81	35		126

<u>Insurance</u>	<u>Coverage</u>	<u>Premium</u>
I. Property		
(24,000 bu) (48,000 bu each)		
1. Elevator & two annexes		
Primary coverage	\$ 250,000	
Rebuilding coverage	60,000	
2. Office & scale	65,000	
3. Warehouse - East of office	10,000	
4. Frame quonset - West of annex	25,000	
5. Steel dryer leg - east side	10,000	
6. MC dryer- east of leg	25,000	
7. Tox-o-wic dryer	6,000	
(18,000 bu.) (35,000 bu.)		
8. West elevator & annex		
Primary coverage	120,000	
Rebuilding coverage	30,000	
9. Bulk bin - West of elevator	20,000	
10. Steel building - South of bulk bin	<u>40,000</u>	
Total Primary Coverage	\$571,000	\$6,705
Rebuilding Coverage	<u>90,000</u>	<u>1,002</u>
Total Insurance	\$661,000	\$7,707
II. Grain & Merchandise		
	<u>Limit</u>	
1. Main elevator & structures	\$ 750,000	
2. West elevator & structures	<u>600,000</u>	
	\$1,350,000	
Deposit premium on one-half of limit		<u>5,805</u>
Total Premium		\$13,512
Dividend (approximately 10%)		<u>1,351</u>
Net Premium		\$12,161

Premium

III. Liability (personal injury, property damage,
product hazard, operations hazard)

\$1 million basic coverage

\$2 million limit

Estimated Sales = \$15 million

\$1,600

IV. Warehouse Bond (equal to value of outstanding
storage liability)

Premium Rates

\$7.50/\$1000 up to \$10,000

5.00/\$1000 next 15,000

2.50/\$1000 next 75,000

1.00/\$1000 over 100,000

(150,000 bushels at \$3.00 = \$450,000)

688

V. Grain Contamination Insurance

Premium Rates

\$1.00/railcar shipped (5 million bushels)

1,400

.75/truckload shipped

VI. Directors', Officers', and Managers Liability

Limit: \$1 million

Based on merchandise sales: Sales up to \$500,000

300

VII. Directors' Travel Accident

Limit \$25,000. \$6.50/director (8)

52

VIII. Deferred Payment Bond

\$10 million bond based on amount of deferred payments.
Probably not purchased since deferred payments will be
liability of each member cooperative, not Wentworth.

Premium

IX. Dishonesty Policy

Limit: \$100,000

1. Employee dishonesty
2. \$25,000 depositor forgery bond
3. Burglary
 - a. Money & securities inside. Limit: \$2,500
 - b. Money & securities outside. Limit: 2,500
 - c. Open stock burglary & theft. Limit: 20,000

\$ 670

X. Vehicle Insurance

1. Full coverage including \$1 million liability: \$250/vehicle 250
2. Liability only: \$175/vehicle
Additional \$1 million: \$30/vehicle

XI. Workmen's Compensation

State rate: grain handling \$2.68/\$100 payroll
clerical .10/\$100

Wentworth experience modification factor: .90
\$85,000 estimated payroll \$ 2,050

\$19,171