

**PLANNING A SUBTERMINAL
WITH SATELLITE ELEVATORS**

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PLANNING A SUBTERMINAL WITH SATELLITE ELEVATORS

Subterminal elevator construction and the subsequent movement of grain in unit train lots will change the manner in which elevators within a region perform their merchandising functions. Smaller elevators may find themselves competitively disadvantaged when competing with subterminals in buying and selling grain. The ability of subterminals to achieve freight rate savings via unit train shipments, as well as potential operating efficiencies from high throughput may give the larger elevator a decided advantage when bidding for grain. The smaller facilities may find themselves being edged out of their traditional role as commercial grain warehouses.

The Subterminal-Satellite Elevator System

The survival of smaller country elevators may depend on their ability to blend in with their new, larger counterparts, the subterminals, through merger or consolidation. The formation of a subterminal-satellite system, where the smaller stations serve as a feeder stations and perform secondary elevator functions, will likely change the smaller facilities' position in the marketing channel, but may allow them to survive in the midst of the infrastructural change. The alternative may be to attempt competing with the subterminal on the grain merchandising function, and risk a severe reduction in throughput due to the higher bid prices the subterminal may offer. In regions where geographical considerations or limited production allow, the smaller elevator may survive, but if a subterminal can be constructed and attain reasonable throughput, area country elevators will find strict competition for producers' grains.

Functions of the Satellite Elevators

The country satellite stations will probably cease to be primarily merchandisers of grain, that activity being performed by the subterminal. The satellite elevators would serve as intermediaries in the movement of grain. The crop may be moved in different manners from the farm to terminal markets. The firm management may decide that grain can move directly from the farm to terminal by truck for those commodities not conducive to rail shipment. Alternatively, grain may be trucked from the farm to the subterminal for subsequent rail shipment. The country elevators may also serve as transshipping stations, where grain is moved from farms to the satellite stations, and then to the subterminal or directly to the terminal markets. In this latter case, the country elevator will still perform the merchandising function.

The country elevators may exist to perform primarily the peripheral elevator activities not suited to the subterminal operation. Some of these activities may include selling seed, fertilizer, and other farm inputs, conditioning grain (drying, cleaning, blending), and handling of specialty crops which may hinder the operation of the subterminal. The satellite stations may also serve as storage facilities during peak movement periods. A subterminal elevator serves foremostly as a grain merchandiser rather than a storage facility, so this function may become particularly important. Some of these functions may be deemphasized, however, in regions where the variety of crops grown is limited. In states like North Dakota where large volumes of many crops are grown, however, a subterminal may only wish to handle two or three commodities, relying on the satellites to handle the remaining crops.

Functions of the Subterminal Elevator

The subterminal elevator would serve as the focal point of all activities of the cooperative venture. Its primary activity would be receiving grain from farms or satellite elevators and shipping out in unit train lots. Subterminal management would be in charge of arranging transportation services, both from the standpoint of coordinating incoming grain from country stations as well as outbound trains and truck shipments. The management of the subterminal may also dedicate personnel to the purchase of farm inputs. Buying feed, seed, chemicals or fertilizer for all satellite stations may allow economies in volume purchases and consequently lower input prices for patrons.

Transportation Arrangements

Several options concerning grain movement are available when considering the subterminal-satellite system. The major movements will be: 1) transporting grain from farms to either satellite stations or the subterminal, and 2) shipping grain from the subterminal to terminal markets. Grain movements from the subterminal will be handled primarily by shipments in unit trains. If this is not the case, the subterminal is not fulfilling its purpose and only operating as another traditional country elevator. However, moving grain from the farms leaves the subterminal with different options.

The operation could potentially cooperatively own and operate their own truck fleet. A cooperatively owned fleet may be advantageous in that the firm would not have to rely on existing area truckers for service. This may be desirable not only from the standpoint of availability, but also in terms of cost. The cooperative's fleet would be available at all times and would provide a competitive rate alternative to independent truckers. The fleet would also be available to potentially deter rail rate increases. This known transportation capacity at a known transportation cost would be available at the manager's discretion.

Also, the fleet may be able to operate more efficiently than independent operators if the firm management achieves utilization of the units at their capacity. Some efficiencies may also arise because the fleet is administratively combined with the subterminal operation. The firm may also draw on subterminal personnel for temporary use during peak trucking periods. Finally, the cooperative elevator, through the use of retained earnings, may have a financial advantage over trucking firms due to lower or internally specified interest rates.

The cooperative subterminal may also wish to simply contract with existing owner-operators. Such contracts would decrease uncertainty in both the rate charged and available capacity. These contractual arrangements may duplicate the dependability of the cooperatively-owned fleet while possibly eliminating the administrative headaches of the operation. However, some drawbacks of contracts do exist. The required capacity may be difficult to predict due to the seasonal variation characteristic of grain marketings. Therefore, some services may have been purchased but not used. Also, unless specified in the contract, the carrier may not be readily available when needed.

In addition to the above options the cooperative firm may serve as a broker for bringing supply and demand for transportation services together. This brokerage activity may be in terms of providing services to the local communities and in terms of arranging backhauls for truckers.

Consequences of Subterminals-Satellite Systems

From the standpoint of grain producers, retention of country elevators as satellite stations may be beneficial in that producers still have outlets for their grain that are close to their farms. This would be particularly critical during harvest when the timeliness of the operation depends on how quickly farm trucks are able to load grain in the field,

travel to the elevator to dump, and return to the field. If the subterminal was the only outlet, not only would the distance traveled increase, the subterminal may not be able to handle the number of farm trucks coming in on a daily basis. The absolute cost of these farm truck movements may be negated by efficiencies of the subterminal and unit train rail rates, but measuring sacrifices in timeliness of the harvest would be difficult.

The net effect on prices to producers will depend on the total costs of the subterminal-satellite configuration and the gains through merchandising in large lots. The effects of double-handling grain may be to lower farm prices, but freight rate savings and merchandising efficiencies through large volume movements could potentially be passed on to producers in the form of higher grain prices.

The truck transportation characteristics in the region may change as grain is trucked from farms to the subterminal or transhipped through country elevators. The result is likely to be increased demand for large trucks on intrastate movements and a reduction in interstate truck movements from country elevators as the cooperative's management seeks to attain lower freight rates through unit train movements. This diversion of longer haul movements to the rail mode may affect grain truckers' length of haul, as well as their overall annual mileage traveled.

One of the potentially most significant aspects of the subterminal-satellite elevator system is the cost of retaining the country elevators. Given that grain is still merchandised through these country stations, and then through the subterminal, one operation has been added to the marketing process. This "double-handling", if avoided, will increase the chances of the operation's success.

Potential Problems of Subterminal-Satellite Systems

The subterminal-satellite elevator concept has definite advantages in that the overall flow of grain moving through the system may be streamlined via truck movements among the satellites and unit train shipments from the subterminal. However, the operation may have its shortcomings as well.

Probably the major hinderance to the financial success of the operation is the double handling of grain. Shipping grain through the satellite stations first, and then through the subterminal increases costs via handling charges. Although this double handling may streamline the physical flow of grain through the operation, and prevent excess farm storage and queuing problems at the subterminal, the per bushel cost may be financially prohibitive. The subterminal's savings gained from unit train shipments may not be large enough to cover both the subterminal's construction and operating costs as well as costs of the existing country elevators.

Moving grain through the satellite elevators and subsequently to the subterminal by truck will very likely have an impact on rail branch lines serving the satellite stations. As country elevators cease to use their rail line, the serving railroad may decide that continuance of service on the line is no longer needed. This drop in rail traffic will weigh heavily on the railroad's and the Interstate Commerce Commission's decision on whether to abandon the line segment. However, if the satellite elevators are indeed committed to the subterminal cooperative, rail service at the country elevator will not be required. But the permanency of the decision to abandon rail service on a line should be seriously considered before joining such a cooperative, particularly if cessation of rail service is accompanied by salvage operations on the line.