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Morgan Construction Company Meeting

The Morgan Company

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MORGAN CONSTRUCTION COMPANY

February, 1969

In Attendance

Paul S. Morgan, President
Harold W. Poole, Senior Vice President
Warren H. Howard, Vice President
Robert R. Neilson, Controller
Patrick Conley, Boston Consulting Group
Robert E. Lienhard, Boston Consulting Group

Topics Discussed

The morning session consisted of a presentation by The Boston Consulting Group on the results of the additional executive interviews which were conducted between the January and February meetings. The afternoon session consisted of a presentation to the Morgan Board of Directors of the material presented at the January meeting on the design ability of corporate growth. Specific comments on the new subsidiary possibility were not covered at this meeting.

Morning Session

Based on the prior corporate development meetings and a series of additional interviews with seven other key Morgan executives, BCG made a presentation on the following topics:

1. Morgan's current strategy
2. Morgan's position in existing product areas
3. Specific future development proposals
   a. in existing business areas
   b. in new areas
4. Morgan's strengths
5. Morgan's weaknesses
6. A suggested action program
Morgan's Current Strategy

The Boston Consulting Group feels that Morgan's strategy has been to exploit engineering innovations to be sold to the steel industry for cost reduction and/or new capacity needs. This has involved a continuing process of renewing old product areas through technological improvements, in order to maintain competitiveness as the steel industry's needs have gradually evolved towards larger equipment, higher speeds, closer tolerances and other performance improvements.

Position in Current Areas

Rolling Mills

Morgan is today the clear leader in the rod mill area winning about 3/4 of the new and revamp installations in the U.S. and a major segment of the overseas jobs. To date, there has been no serious challenge to this position and although the German firm Schloemann has recently signed a licensing agreement with Birdsboro, this is not considered an unusual competitive threat. Morgan has been the industry leader in innovation, leading the development of higher speeds and is well known for its NO TWIST and STELMOR process. Morgan produces a line of high price/high quality custom built mills which are of most interest to the well financed, technically sophisticated large steel companies. Business is quite cyclical and individual jobs can run up to $10 million and more apiece, and require up to three years to build and deliver. As a result of the company's leading position, profitability has been good although little or no overall growth is expected for this line in the future. Rod mill building provides a largest part of the shop load and while it is probably true that the rod mill department could exist without the shop facilities, the reverse is not true. Foreign licensing agreements appear satisfactory as the company wins a large fraction of the total jobs let.

Morgan's position in the bar mill area is quite different. It appears that the company enjoys no significant technological edge over any of its competitors in this field and that its prices on recent bids have been substantially higher than those of Blaw Knox who has won the bulk of the recent jobs and United Engineering, the other major competitor in the field. Blaw Knox apparently "bought" several major jobs a number of years ago at very low prices and Morgan's only recent bar mill job of any consequence has been the current contract for C. F. & I. As a result of
its relatively weak current position domestically, the company has no international arrangements for this product. It is believed that these would be essential to a sound long range development of this business. Overall, growth of bar mills should be very low as this is a relatively unattractive product area for steel mills in general and small regional producers are taking this business away from the majors.

Morgan is facing a major policy issue in deciding whether or not it should invest additional corporate resources in renewing its competitiveness in this field. The investment would probably consist of a diversion of corporate resources which might be used at higher profitability elsewhere. (Engineering development charges which could not be recouped on the first order and the possibility of out-of-pocket losses on two or three contracts in order to regain the lead in this area.) The decision to go ahead or not in this area will be made during 1969.

Non-ferrous rolling mills, largely for copper, represents a smaller but growing section of the rolling mill department. These jobs are generally much smaller with average orders of under a million dollars a piece. Overall growth should be better, although a really good rate of growth in this area is probably dependent upon the development of a successful aluminum rolling mill design. Morgan is currently tied to Southwire as a result of a technical exchange agreement with this firm. It is not clear whether or not the terms of this agreement will permit an optimum future development of Morgan's interests in this area. The problem in aluminum is that to date producers have been willing to buy relatively less sophisticated equipment produced by the Italian firm of Properzi and that Morgan would have great difficulty building equipment of this type at competitive cost.

Morgoil Bearings

The Morgoil area had been discussed at considerable length in previous sessions and these are brief comments only. Fundamentally, Morgoil is a slowly dying product which has several significant applications in various parts of a steel mill. Morgan is the clear leader in the oil film bearing field but some old applications are gradually being lost to roller bearings. The prospects of finding major new applications areas for Morgoil are not promising. The business generates large replacement and spares sales which are quite profitable. Morgan expects Morgoil to contribute about a million dollars a year pre-tax profits which will be available for dividends and/or future development of other activities.
Wire Drawing Machines

Morgan appears to have essentially completed a program of product renewal in the ferrous wire drawing area and sales have increased from about $750,000 ten years ago to almost 3 million dollars last year and a projected 4 million dollars in 1969. This has been done by an adaptation of the Vaughn design to fill a major gap in the Morgan product line and license of a foreign wire drawing machine. Ferrous wire drawing is another slow growth area, however, and further growth for this division is contingent upon taking major sales away from Vaughn, the leader in the field, or a substantial improvement in the company's position in the non-ferrous wire drawing field. In this latter connection, the company has negotiated another foreign license for a non-ferrous wire drawing machine and is preparing to increase its penetration of this area.

Combustion control

This is the smallest of Morgan's departments and is entirely based on one product, the ejector, and one system, the Morgan-Isley system of combustion control which has found application in steel industry, open hearth furnaces and soaking pits and glass melting. The first of these areas is dead or dying and an expansion of this department's activities requires development or acquisition of new products and the design of systems for new applications. Since combustion control is an extremely broad field it is possible that substantial growth opportunities exist in this area.

Future Development Proposals

A. Existing Areas

Morgan is currently committed to or actively reviewing developments in six product areas closely related to the four existing areas. Most significant of these is the bar mill renewal program which will be resolved in 1969, and was discussed earlier. Second is the development of a competitive aluminum rolling mill design. Non-ferrous wire drawing machinery as well as additional wire and tube products such as stranders and tube drawing equipment are also under consideration. An expanded program
in new combustion control applications has also been recommended. Finally, the company has accepted a foreign license on a scrap preheater which appears to have some potential although no units have been sold to date.

B. New Areas

As a result of the interviews, a number of diversification areas were suggested by various members of Morgan's management. The following is a list of the most important:

- material handling of bar mill output
- paper industry equipment
- extrusion machinery for metals and plastic
- marine drives for Navy and commercial vessels
- rolling equipment for plastics - especially auto industry
- continuous casting equipment
- standard gear boxes
- a program of increased vertical integration involving a new forging operation and a general move towards making more components in-house rather than buying them.

In general, it is felt that this is an extremely short list and most of the suggestions would not prove to be practical. In paper industry equipment and extrusion machinery for example, there appear to be well entrenched competitors who would be extremely difficult to dislodge at this stage. The potential for plastics rolling equipment sounds like an extremely long range development if it ever prospers. The argument for vertical integration is weak; it would appear that Morgan should move in the direction of reducing manufacturing commitment in the Worcester area rather than expanding them.
Morgan's Strengths

Based on The Boston Consulting Group's understanding of Morgan, it would appear that the company has four major competitive advantages which might be exploited in the future. First, and one that has been discussed at great lengths in earlier meetings, is the company's substantial financial resources. These consist of essentially two parts. The first, a large amount of unused debt capacity which could be drawn down and used very quickly but which might be usable only once. The second consists of that portion of the company's internal cash generation which would be available over and above normal reinvestment needs and justified internal development programs. This latter sum would be expected to be a fluctuating sum each year. The company's second major advantage is its relatively large and capable pool of engineering talent which probably would be able to handle a range of technical challenges somewhat broader than now provided by the existing product lines. Thirdly, the company probably knows the Worcester area quite well and through Morgan's family connections presumably would be in a good position to learn about attractive local business opportunities early in the game if this interest were made known. Finally, Morgan knows the steel industry quite well and has contacts and general knowledge which might be put to use.

Morgan's Weaknesses

Morgan appears to have little to build on in the marketing area since it has developed a highly specialized technical marketing skill in one industry which would be difficult to apply to many other marketing situations. Additionally, the company is currently locked into low growth segments of an extremely low growth industry and as a result cannot look forward to any easy fairly automatic future growth as can many other companies.

The company's manufacturing facilities are now concentrated in a specialized heavy metal job shop which, partly because of its Worcester location, would be extremely difficult to utilize in a broader scale manufacturing program. Finally, the company's product lines are basically quite mature and it has become increasingly difficult to justify the renewals of aging designs due to the slow growth in major areas. Major technical breakthroughs in most product lines are likely to be relatively rare.
A Suggested Program for Action

Based on our joint work to date, BCG feels that Morgan should initiate the following action program:

1. Pursue the logical development of the non-ferrous rolling mill, non-ferrous wire drawing equipment and complimentary wire products equipment areas. Each of these would appear to be of relatively low risk since they represent rather familiar areas. The programs should be accomplished for very moderate overall costs and involve little in the way of new skills on the part of the Morgan Company or additional substantial physical assets. The marketing skills involved are likely to be evolutionary rather than revolutionary in nature. This would appear to be a natural program of close in concentric product extension.

2. Look with an extremely jaundiced eye at the bar mill renewal program. The answer to this area is still far from clear although it should be noted that the bar mill area in general does not appear to be targeted for any significant overall growth. Although this area is very close to the rod mill area in terms of required skills, it is not clear that the major investment in resource commitment, (design investment, price cutting) would produce a very rapid payback for overall attractive terms. Commitment in this area is likely to be measured in millions of dollars and the time in several years. The decision should always be based on the following factors:

- the overall growth expected in the area

- the strength and weaknesses of the two major competitors already operating in this area
possible tie ins between the company's strategy in the material handling area and the sales of the bar mill itself to the extent that these products should be sold as a package. Morgan may have to be represented in both segments of the "system". Interestingly, individual comments within Morgan generally favored such a program but no one was able to indicate what time, money or effort would be involved in a successful implementation of the program BCG suggested the approach of "costing out" what would be required to win the next three bar mill jobs in order to get a better feel for the exact commitment involved.

3. Study the combustion control field further. Morgan today is more out of than in the combustion control field and its one-product one-system approach is not likely to produce any significant sales or profits in the future. Overall field has a number of possible attractions but these would be dependent upon the development of new products and/or new systems. It is not felt that anyone in the Morgan Company today has enough information available to make an intelligent decision of whether or not it would be worthwhile to expand the company's commitments in this area. It is suggested that this topic be set aside for future evaluation either by additional Morgan staff or The Boston Consulting Group.

4. Continue the material handling development program. Short-run, there really is no choice, as the company is currently committed to a five million dollar contract. Based on work to date, the field seems to offer some promise as a way to replace the stagnant bar mill areas for the company. If the Morgan system could be adapted to old bar mill updating, then the potential could be quite substantial and it could proceed independently of a bar mill renewal program. Morgan should not wait until the first installation is in operation several years from now, but should decide now what additional steps would be involved in an orderly development of the company's potential in this area.
5. Investigate the possibility of gradually withdrawing from the company's commitment to manufacture in Worcester. It is felt that the Crescent Street facilities will present an increasing problem for the company due to their bad location and fairly specialized areas in which manufacturing can be done at competitive costs. There are no internal development programs currently underway which would provide much growth potential and significantly, the material handling line if successful, would probably be brought in from the outside. Several other firms in the general area are faced with somewhat similar problems and it is possible that several of these shops could be consolidated into a single joint venture facility which would offer savings for all. The possibility of accomplishing this through the establishment of a new company to which Morgan and others might contribute their facilities and/or equipment should be explored. Presumably, Morgan could gradually ease itself out of this commitment by accepting notes and/or stocks in the new company which would be gradually retired.

6. Make a five year cash projection based on the best estimate of the potential in the existing business areas and the costs involved in the internal development areas. This will require an updating of the marketing forecasts, estimates as to the commitments which would be likely needed in the various new business areas. When this work is completed, Morgan should have a reasonable basis for projecting future funds availability for dividends and/or additional diversification.

7. Initiate a program designed to find up to two or three acquisitions at a total investment of about 5 to 10 million dollars. BCG feels that acquisition area is the one most likely to produce a significant new growth opportunity for the company in the near term. Internal development programs are fairly limited in scope and will inevitably require many years if they are to utilize the corporation's financial
resources. Traditionally, most of these programs reinforce the company's position as a steel industry supplier and it is felt that the company should try to reduce its overall dependence on this industry. Unfortunately, the company has little other than its engineering resources on which to build a major internal development program and the weaknesses in the marketing and manufacturing areas would be difficult to overcome internally. This suggests that acquisitions, although obviously not without risks as well, offers a better overall chance for the company to break out of its slow growth pattern.

8. If the foregoing recommendation is accepted. The company should establish specific acquisition criteria and undertake a systematic search for companies to meet these criteria. The Boston Consulting Group has proposed that new acquisitions meet as many as possible of the following criteria:

- be in a non-steel area
- be in a growth industry
- be the leader or potential leader of its business segment
- the ideal acquisition should have about $5 million in annual sales
- be in the area of capital goods which engineering and design play an important part in overall success; not be as cyclical a business as rolling mills and preferably be focused on products whose sales price is measured in hundreds of thousands of dollars rather than millions of dollars.

The discussion of how the acquisition search might be accomplished was held and that The Boston Consulting Group agreed to outline the way in which this might be accomplished in a separate letter.