

# FEASIBILITY STUDY

OF

EXTENSION OF INDUSTRIAL PARK ROAD  
AND DEVELOPMENT OF PARCEL 14 - B  
SAWMILL BROOK INDUSTRIAL PARK

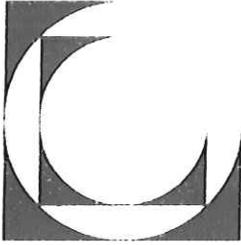
MIDDLETOWN, CONN.  
OCTOBER 1978

prepared for:

INDUSTRY FOR MIDDLETOWN, INC.

prepared by:

LORD-WOOD / LARSON ASSOCIATES, INC.



**Lord-Wood/Larson  
Associates Incorporated**

OCTOBER 9, 1978

MR. JOSEPH CARNEY, DIRECTOR OF ECONOMIC DEVELOPMENT  
INFORM  
RIVERVIEW CENTER  
MIDDLETOWN, CONNECTICUT 06457

DEAR MR. CARNEY,

RE: INDUSTRIAL PARK ROAD EXTENSION

WE TAKE PLEASURE IN SUBMITTING THE FOLLOWING REPORT CONTAINING THE RESULTS OF OUR RECENTLY-COMPLETED STUDY RELATIVE TO THE FEASIBILITY OF ALTERNATIVE SOLUTIONS TO THE EXTENSION OF INDUSTRIAL PARK ROAD TO SERVE THE SAWMILL BROOK INDUSTRIAL PARK AND THE DEVELOPMENT OF PARCEL I4-B.

WE HOPE THAT THE RECOMMENDATIONS AND SUPPORTING DATA CONTAINED HEREIN WILL BE HELPFUL TO INFORM AND THE CITY OF MIDDLETOWN IN THEIR PROGRAM OF INDUSTRIAL DEVELOPMENT, AND WISH TO AGAIN EXPRESS OUR APPRECIATION TO ALL OF THE MANY CITY OFFICIALS WHO WERE SO HELPFUL IN PROVIDING INFORMATION AND ASSISTANCE.

VERY TRULY YOURS,

EVERETT H. LORD-WOOD  
EHL-W, MCB

## ACKNOWLEDGEMENTS

AS NOTED IN OUR ORIGINAL PROPOSAL, WE BELIEVED AT THAT TIME THAT A STUDY SUCH AS THIS COULD NOT BE ADEQUATELY UNDERTAKEN WITHOUT CONSIDERABLE CONTACT AND CONSULTATION WITH THOSE CITY OFFICIALS WHO ARE DIRECTLY CONCERNED WITH ITS ROADS AND UTILITIES, AND SUCH HAS CERTAINLY BEEN THE CASE.

WE WISH TO ACKNOWLEDGE HERE THAT DURING THE COURSE OF THIS STUDY, WE HAVE MET WITH AND DISCUSSED THE PROJECT WITH A GREAT MANY CITY OFFICIALS, EVERY ONE OF WHOM WAS MOST HELPFUL AND COOPERATIVE, AND WITHOUT WHOM WE WOULD HAVE BEEN HARD-PRESSED TO COMPLETE OUR WORK. WHILE WE HAVE NOT SPACE TO LIST EVERY ONE WITH WHOM WE CONSULTED, THE FOLLOWING ARE ESPECIALLY DESERVING OF OUR THANKS AND APPRECIATION:

ANTHONY MARINO, MAYOR, CITY OF MIDDLETOWN

PHILLIP BAUER, CHIEF ENGINEER

WILLIAM BARON, CITY ENGINEER, SEWER AND WATER

GEORGE REIF, CITY PLANNING DIRECTOR

WILLIAM KUHN, MUNICIPAL DEVELOPMENT COORDINATOR

GEOFFREY COLEGROVE, DIRECTOR, MIDSTATE REGIONAL PLANNING  
COMMISSION

IN TERMS OF TIME, HOWEVER, WE MUST EXPRESS OUR SPECIAL APPRECIATION TO JOSEPH CARNEY, DIRECTOR OF ECONOMIC DEVELOPMENT, OF INFORM, WITH WHOM WE CONSULTED ON AN ALMOST DAILY BASIS DURING SOME STAGES OF THIS STUDY, AND WHOSE EXTENSIVE EXPERIENCE AND CONSIDERABLE PERSONAL KNOWLEDGE OF THIS PROPERTY MADE THE ENTIRE STUDY MORE MEANINGFUL.

## INDEX

I.	INTRODUCTION	I
II.	SCOPE OF THIS STUDY	I
III.	PHYSICAL CHARACTER OF THIS STUDY AREA	2
	A.    TOPOGRAPHY	2
	B.    SOILS	2
	C.    SURFACE WATER	3
IV.	ACCESSIBILITY	3
V.	UTILITIES	4
	A.    SANITARY SEWERS	4
	B.    WATER SERVICE	4
	C.    STORM DRAINAGE	4
	D.    GAS AND ELECTRIC	5
VI.	INDUSTRIAL PARK ROAD EXTENSION	5
	A.    GENERAL	5
	B.    STANDARDS	9
	C.    ALTERNATIVE NO. 1	10
	D.    ALTERNATIVE NO. 2	14
	E.    ALTERNATIVE NO. 3	17
	F.    CONCLUSIONS AND RECOMMENDATIONS	20
VII.	PARCEL I4-B	21
VIII.	COST BENEFIT ANALYSIS	25
IX.	SUMMARY OF RECOMMENDATIONS	29

FEASIBILITY STUDY  
OF THE  
EXTENSION OF INDUSTRIAL PARK ROAD  
SAWMILL BROOK INDUSTRIAL AREA  
CITY OF MIDDLETOWN, CONNECTICUT  
SEPTEMBER 1978

I. INTRODUCTION

THE STUDY AREA CONSISTS OF APPROXIMATELY 368 ACRES OF INDUSTRIALLY-ZONED LAND BOUNDED ON THE EAST BY I-91, ON THE NORTH BY THE CITY LINE, ON THE WEST BY MIDDLE STREET, AND ON THE SOUTH BY THE APPROXIMATE NORTHERN LIMIT OF CURRENT DEVELOPMENT IN THE SAWMILL BROOK INDUSTRIAL PARK. THE AREA INCLUDES THE LAND WHICH, UNTIL RECENTLY, HAD BEEN PROPOSED AS THE SITE FOR A RACE TRACK BY SAWMILL BROOK RACING ASSOCIATES, INC.

ALTHOUGH ALL OF THE LAND IN THIS STUDY AREA IS ZONED INDUSTRIAL, THERE ARE A FEW NON-CONFORMING RESIDENTIAL USES (MORE SPECIFICALLY, SOME 15 SINGLE-FAMILY RESIDENCES TOTALLING APPROXIMATELY 24 ACRES ON MIDDLE STREET), THE REMAINDER OF THE LAND NORTH AND WEST OF THE NORTHERN LIMIT OF CITY-OWNED LAND IS EITHER OPEN SPACE, WOODLAND, OR AGRICULTURAL USE AT THE PRESENT TIME. MORE IMPORTANT THAN USE, HOWEVER, IS LAND OWNERSHIP, AND WHILE THE CITY OWNS (OR HAS ACCESS TO) SOME 45 ADDITIONAL ACRES AS YET UNDEVELOPED, WE FIND THAT MUCH OF THE NON-CITY-OWNED INDUSTRIAL LAND (APPROXIMATELY 160 ACRES) IS CONTROLLED BY TWO GROUPS OF INVESTORS (WHICH HAVE SOME MEMBERS INVOLVED IN BOTH PARCELS). OF THE REMAINING INDUSTRIALLY-ZONED LAND IN THE STUDY AREA, APPROXIMATELY 21 ACRES ARE OWNED BY MIDC, WHICH CAN PROBABLY BE INTERPRETED TO ALSO BE CITY LAND, INSOFAR AS ITS ULTIMATE USE AND DISPOSITION ARE CONCERNED. THUS, IN TERMS OF LAND OWNERSHIP, ANY EXTENSION OF INDUSTRIAL PARK ROAD TO THE NORTH OR WEST FROM THE NORTHERN LIMITS OF CITY-OWNED LAND WILL CROSS LAND CONTROLLED BY ONE OF THE ABOVE INVESTMENT GROUPS.

IN ADDITION, FROM AN EXAMINATION OF THE GRADE AND LAYOUT OF THE NORTHERN END OF INDUSTRIAL PARK ROAD, AS IT NOW EXISTS IN THE FIELD, IT SEEMS CLEAR THAT SOME CAREFUL STUDY MUST BE GIVEN TO THE IMMEDIATE QUESTION OF THE EXISTING GRADES AT THE NORTHERN END OF THIS ROAD, IF THE CITY IS GOING TO BE ENABLED TO DISPOSE SATISFACTORILY OF THE REMAINING 45 ACRES (MORE OR LESS) OR INDUSTRIALLY-ZONED LAND IT OWNS. THIS, OF COURSE, APPLIES EQUALLY TO THE PRIVATELY-OWNED INDUSTRIAL LAND TO THE NORTH AND WEST WITHIN THIS STUDY AREA, SINCE ITS DEVELOPMENT IS PROBABLY HIGHLY DEPENDENT ON SOME KIND OF EXTENSION OF INDUSTRIAL PARK ROAD.

II. SCOPE OF THIS STUDY

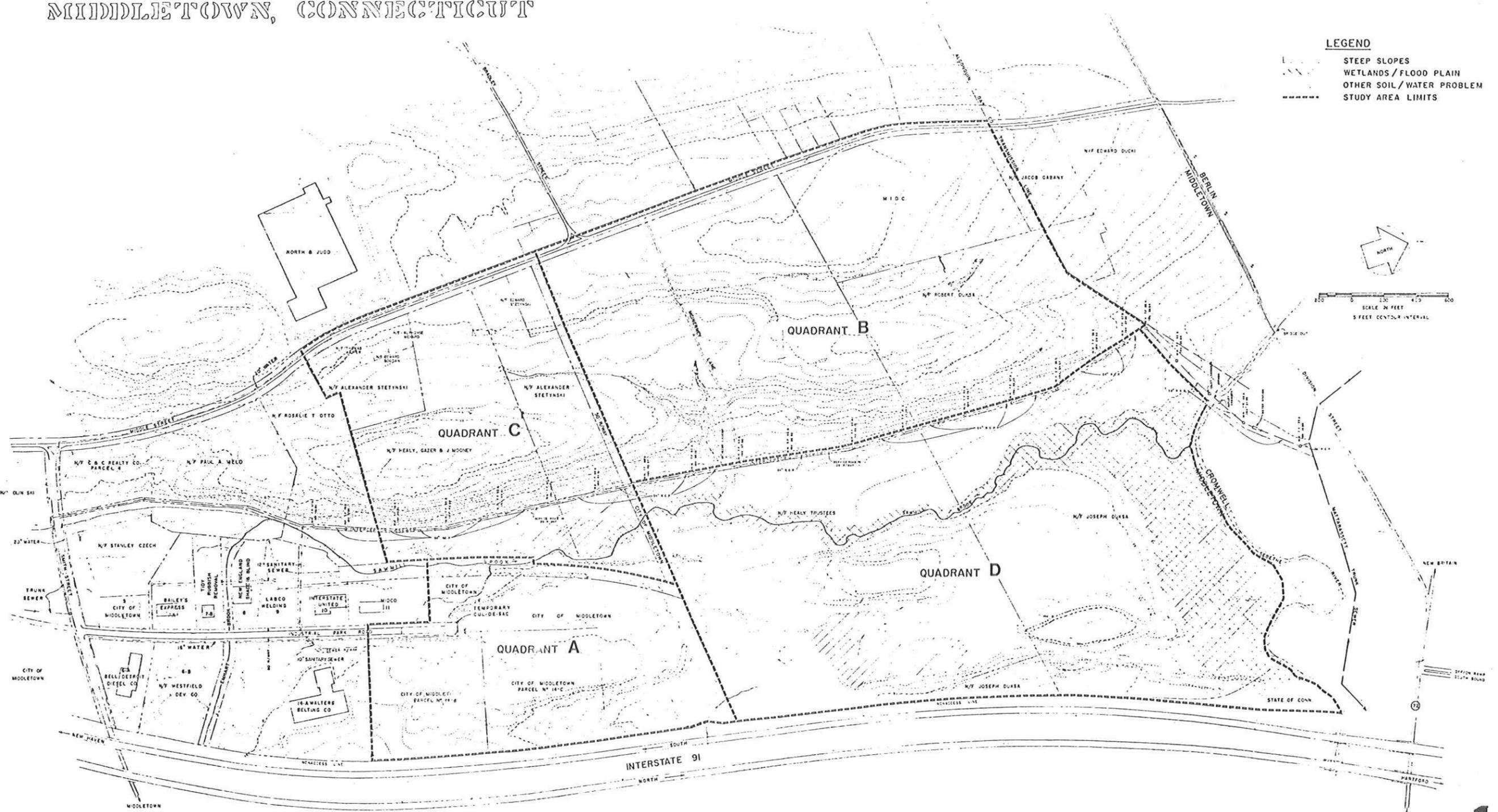
THIS STUDY HAS BEEN UNDERTAKEN IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT DATED JUNE 12, 1978, WHICH DEALS ESSENTIALLY WITH TWO SUBJECTS:

- A. THE MOST FEASIBLE DEVELOPMENT FOR CITY-OWNED PARCEL I4-B, CONSIDERING THE DIFFICULTIES CREATED BY THE PRESENT TOPOGRAPHY OF THE SITE AND THE GRADE OF INDUSTRIAL PARK ROAD AS IT EXTENDS ALONG THE SITE'S FRONTAGE.

# SAWMILL BROOK INDUSTRIAL AREA

MIDDLETOWN, CONNECTICUT

- LEGEND**
-  STEEP SLOPES
  -  WETLANDS / FLOOD PLAIN
  -  OTHER SOIL / WATER PROBLEM
  -  STUDY AREA LIMITS



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PHYSICAL LIMITATIONS

B. THE MOST FEASIBLE ALIGNMENT FOR THREE POSSIBLE STAGES OF EXTENSION OF INDUSTRIAL PARK ROAD:

1. APPROXIMATELY 1,500' TO THE NORTHERN END OF CITY-OWNED LAND;
2. FROM THE ABOVE POINT NORTH TO THE ROUTE 72 INTERCHANGE OF INTERSTATE 91.
3. FROM THE END OF STAGE 1 TO MIDDLE STREET.

III. PHYSICAL CHARACTER OF STUDY AREA

A. TOPOGRAPHY

THE DOMINANT TOPOGRAPHIC FEATURE OF THIS STUDY AREA IS THE VALLEY OF THE SAWMILL BROOK WHICH RUNS NORTH-SOUTH THROUGH THE AREA PARALLEL TO I-91. IN GENERAL, THE LAND EAST OF THE SAWMILL BROOK TO I-91 IS RELATIVELY LEVEL OR GENTLY ROLLING, AND TO DATE, ALMOST ALL OF THE INDUSTRIAL DEVELOPMENT NORTH OF SMITH STREET HAS TAKEN PLACE ON THIS KIND OF LAND. THE LAND WEST OF SAWMILL BROOK, ON THE OTHER HAND, RISES STEEPLY TO MIDDLE STREET, THE WESTERN BOUNDARY OF THIS STUDY AREA, WHICH FOLLOWS THE CREST OF A RIDGE RUNNING NORTH-SOUTH PARALLEL TO SAWMILL BROOK, AND WHICH IS 120' OR MORE HIGHER THAN THE ELEVATIONS ALONG THE BROOK.

B. SOILS

THE RATHER EXTENSIVE PHYSICAL AND TOPOGRAPHIC DIFFERENCES IN THE LAND WITHIN THIS STUDY AREA ARE TO BE EXPECTED TO PRODUCE WIDE RANGES IN SOIL TYPES, WITH THE MOST PREDOMINANT SOIL GROUP BEING UPLAND SOILS OVER GLACIAL TILL, OR HARDPAN, WHICH OCCUPIES OVER 60 PERCENT OF THE SOILS IN THIS AREA.

THESE SOILS ARE FOUND GENERALLY IN THE AREA BETWEEN MIDDLE STREET AND THE SEWER INTERCEPTOR LINE, IN THE WESTERN HALF OF THE STUDY AREA. THESE SOILS OCCUR ON THE HIGHER LAND AND SIDE SLOPES WITHIN THE STUDY AREA, AND RANGE FROM WELL-DRAINED TO MODERATELY-DRAINED STONEY/NON-STONEY SOILS OF THE WETHERSFIELD, LUDLOW AND CHESHIRE GROUPS WHICH PREDOMINATE, TO THE POORLY-DRAINED COMPACT TILL SOILS OF THE WILBRAHAM GROUP WITH ITS HIGH WATER TABLE.

AT THE OTHER EXTREME ARE THE SOILS OF THE LOWLANDS AND STREAM VALLEYS, WHICH INCLUDE FLOOD PLAIN, MARSH AND SWAMP SOILS OF THE ROWLAND AND SACO GROUPS, PLUS ALLUVIAL LAND, PEAT AND MUCK. MOST OF THESE SOILS ARE LOCATED ALONG THE SAWMILL BROOK OR IN THE NORTHEASTERN CORNER OF THIS AREA SOUTH OF THE MATTABASSETT RIVER, AND ALL LAND GENERALLY BELOW ELEVATION 30 IS INCLUDED IN FLOOD PLAIN AND/OR INLAND WETLAND CATEGORIES.

IN BETWEEN THE ABOVE TWO EXTREMES ARE THE TRANSITIONAL SOILS FOUND ALONG STREAM TERRACES, SUCH AS BERLIN SILT LOAM, AND THE SHALLOW, ROCKY SOILS OF THE HOLYOKE GROUP FOUND ON THE STEEPER SIDE SLOPES GENERALLY PARALLEL TO AND WEST OF THE SAWMILL BROOK VALLEY.

WHILE THERE APPEARS TO BE NO EXTENSIVE LEDGE ROCK OR UNDERLYING LEDGE WITHIN THE NORMAL RANGE OF ROAD AND UTILITY CUTS, THERE IS RATHER EXTENSIVE HARDPAN AND SOME STONES OR BOULDERS, WHICH NOT ONLY MAKES EXCAVATION SOMEWHAT MORE DIFFICULT, BUT WHICH REDUCES PERCOLATION BELOW THE HARDPAN LEVEL AND TENDS TO TRAP GROUND WATER DURING RAINY PERIODS. OTHER TYPICAL PROBLEMS ASSOCIATED WITH THESE SOILS WOULD BE FROST HEAVING IN WINTER DUE TO GROUND WATER ACCUMULATION ABOVE THE HARDPAN, AND SOIL SLIPPAGE IN ROAD CUTS DURING RAINY PERIODS. THESE CONDITIONS SUGGEST A HEAVY STRESS ON UNDER-DRAINAGE IN ROADS AND BUILDINGS THROUGHOUT THE AREA.

#### C. SURFACE WATER

ALMOST THE ENTIRE STUDY AREA IS WITHIN THE WATERSHED OF SAWMILL BROOK, WHICH FLOWS NORTH INTO THE MATTABASSETT RIVER, FLOWING EAST ALONG THE NORTH BOUNDARY OF THE AREA. THE LAND IN THE NORTHEAST CORNER OF THIS AREA, AT THE JUNCTION OF THE TWO WATERCOURSES, IS GENERALLY LOW AND INCLUDES SOME 30-40 ACRES OF WETLANDS. A FEW SMALL, LOW WETLAND AREAS ARE SCATTERED IN THE NORTHEAST QUADRANT OF THE STUDY AREA, AND A SMALL STREAM FLOWS DOWN THE STEEP SLOPES EAST OF MIDDLE STREET, INTO SAWMILL BROOK. FOR THE PURPOSES OF THIS STUDY, MOST LAND BELOW ELEVATION 30 IS TO BE CONSIDERED TO BE FLOOD PLAIN, OR WETLAND, WHICH CONSTITUTES APPROXIMATELY 40 ACRES WITHIN THE STUDY AREA.

#### IV. ACCESSIBILITY

WHILE THE STUDY AREA HAS 1.1 MILE FRONTAGE ON I-91, ACCESS TO THAT HIGHWAY IS SOMEWHAT LIMITED, BLOCKED BY THE MATTABASSETT RIVER TO THE NORTH. TRAFFIC FROM THE SAWMILL BROOK INDUSTRIAL PARK BOUND FOR HARTFORD OR NEW BRITAIN THEREFORE, MUST GO SOUTH ON INDUSTRIAL PARK ROAD TO SMITH STREET, WEST ON SMITH STREET TO MIDDLE STREET, AND NORTH ON MIDDLE STREET TO ROUTE 72, AND THEN WEST ON ROUTE 72 TO NEW BRITAIN OR EAST TO I-91 AND HARTFORD. IF THE MATTABASSETT RIVER COULD BE BRIDGED, AND INDUSTRIAL PARK ROAD EXTENDED TO THE NORTH OVER THE RIVER DIRECTLY TO ROUTE 72, THERE WOULD BE A REDUCTION OF 1.8 MILES IN THIS NORTH-BOUND ROUTE.

TRAFFIC BOUND TO THE SOUTH, MERIDEN OR NEW HAVEN, FARES BETTER, STARTING OUT THE SAME, BUT TURNING SOUTH ON MIDDLE STREET, WHICH LEADS DIRECTLY TO THE COUNTRY CLUB ROAD INTERCHANGE ON I-91, A DISTANCE OF 1.2 MILES WITH NO BACK-TRACKING.

OF THE THREE ROUTES TO MIDDLETOWN (VIA COUNTRY CLUB ROAD TO THE SOUTH, SMITH STREET AND EAST STREET TO THE EAST, AND ROUTE 72 AND NEWFIELD STREET TO THE NORTH), THE SMITH STREET ROUTE IS SHORTEST, BUT LEADS THROUGH MANY RESIDENTIAL AREAS, AND NONE PROVIDE WHAT COULD BE CALLED A "DIRECT" CONNECTION.

## V. UTILITIES

### A. SANITARY SEWERS

ACCESS BY GRAVITY INTO A SANITARY SEWER INTERCEPTOR RUNNING NORTH FROM SMITH STREET THROUGH THE AREA IS POSSIBLE FOR ABOUT 60 PERCENT OF THE PROPERTY IN THE AREA (GENERALLY SPEAKING, ALL OF THAT LAND ABOVE 40' ELEVATION IS CONSIDERED TO HAVE SUCH ACCESS, DEPENDING, OF COURSE, ON HOW FAR IT IS FROM THE INTERCEPTOR). THIS SEWER INTERCEPTOR IS LOCATED JUST WEST OF SAWMILL BROOK AT THE BASE OF THE STEEP SLOPES EAST OF MIDDLE STREET, AND PICKS UP SEWAGE FROM NORTH AND JUDD AND OLIN SKI, AS WELL AS ALL OF THE PRESENT INDUSTRIES ON INDUSTRIAL PARK ROAD AT ITS SOUTH END. IT TIES INTO THE MATTABASSETT TRUNK LINE AT ITS NORTH END, INCREASING IN SIZE FROM 24" AT THE SOUTH OF THE STUDY AREA TO 30" AT THE NORTH END. THIS IN TURN LEADS EAST TO THE MATTABASSETT SEWAGE TREATMENT PLANT LOCATED NEAR THE JUNCTION OF ROUTES 9 AND 99 AT THE MIDDLETOWN-CROMWELL LINE.

### B. WATER SERVICE

THE INDUSTRIAL AREA NORTH OF SMITH STREET IS SERVED BY TWO WATER LINES RUNNING NORTH FROM A 20" WATER MAIN IN SMITH STREET. THERE IS A 20" LINE IN MIDDLE STREET NORTH AS FAR AS THE NORTH AND JUDD PROPERTY, AND A 16" LINE IN INDUSTRIAL PARK ROAD RUNNING NORTH TO THE MIDCO PROPERTY. THESE LINES ARE BOTH TEMPORARILY DEAD-ENDED, BUT WERE SIZED TO SERVE POSSIBLE DEVELOPMENT OF THE REST OF THE INDUSTRIAL AREA TO THE NORTH. AN IMPORTANT FACTOR TO CONSIDER IN ANY ROAD PLAN IS THE DESIRABILITY OF ULTIMATELY COMPLETING A LOOP BY JOINING THESE TWO LINES AS PART OF THE DEVELOPMENT PLAN FOR THIS STUDY AREA.

### C. STORM DRAINAGE

THE CENTRAL LOCATION OF THE SAWMILL BROOK RUNNING NORTH THROUGH THIS AREA WITH ITS SMALL TRIBUTARY STREAMS OFFERS AMPLE OPPORTUNITY TO CARRY OFF STORM WATER RUN-OFF FROM PROPOSED STREETS AND INDUSTRIAL PARCELS, AND THE EXISTING STORM SEWERS IN INDUSTRIAL PARK ROAD MAKE GOOD USE OF THIS SITUATION.

THE QUESTION OF STORM DRAINAGE IN ITS BROADEST SENSE IS AN IMPORTANT FACTOR IN THIS AREA DUE TO THE HIGH POSSIBILITY OF EROSION RESULTING

FROM THE PREVIOUSLY-MENTIONED SOIL CHARACTERISTICS, AS WELL AS THE RATHER CONSIDERABLE AREAS OF FLOOD PLAIN AND WETLANDS FOUND IN THE NORTHEAST QUADRANT OF THE STUDY AREA. EXAMPLES OF SUCH EROSION CAN BE FOUND IN THE STEEP SLOPES ALONG THE EAST AND NORTH END OF THE CUL-DE-SAC AND SUCH CONDITIONS, IF NOT CAREFULLY CONTROLLED, CAN GENERATE SILT AND MUD FOLLOWING HEAVY RAINFALL WHICH WILL CLOG CATCH-BASINS AND AGGRAVATE THE PROBLEM OF STORM RUN-OFF IN SPRING AND FALL, AS WELL AS ICING OF STREETS IN THE WINTER.

D. GAS AND ELECTRIC

GAS AND ELECTRIC SERVICE HAS BEEN PROVIDED TO ALL EXISTING INDUSTRIES AND IS AVAILABLE TO EXTENSIONS OF INDUSTRIAL PARK ROAD WITHIN THE STUDY AREA.

VI. INDUSTRIAL PARK ROAD EXTENSION

A. GENERAL

INDUSTRIAL PARK ROAD CURRENTLY TERMINATES IN A TEMPORARY TURN-AROUND AT STATION 32+00, THE FINAL 370 FEET OF WHICH ARE UNPAVED. THE ROAD RIGHT-OF-WAY WIDTH IS 80', AND THE ROAD IS PAVED TO 30' IN WIDTH. WATER AND STORM SEWERS ARE ON THE EAST SIDE OF THE ROAD, UNDERGROUND ELECTRIC ON THE WEST.

IF ONE WERE TO LOOK AT A MAP OF THE SAWMILL BROOK INDUSTRIAL AREA, IT GIVES THE IMPRESSION THAT INDUSTRIAL PARK ROAD AS IT NOW EXISTS WAS PLANNED TO BE EXTENDED TO THE NORTH TO SERVE FUTURE INDUSTRIALLY-ZONED LAND TO THE NORTH AND WEST, AND THIS IMPRESSION IS STRENGTHENED BY THE LOCATION OF THE INTERCEPTOR SEWER RUNNING NORTH-SOUTH BETWEEN INDUSTRIAL PARK ROAD AND MIDDLE STREET.

UNFORTUNATELY, AN EXAMINATION OF THE EXISTING CONDITIONS AT THE CUL-DE-SAC TERMINATING INDUSTRIAL PARK ROAD SHOWS A NUMBER OF SERIOUS PROBLEMS RESULTING FROM THE PRESENT LAYOUT OF THE ROAD AND ANY PLANNED EXTENSION:

- . THE ROAD GRADE HAS NO RELATION TO THE EXISTING GRADES OF THE LAND TO THE NORTH, THE CUL-DE-SAC TERMINATES AT THE BOTTOM OF A STEEP 18' HIGH BANK, WHICH IMPLIES EITHER EXTENSIVE GRADING OR STEEP GRADES IN ORDER TO EXTEND THE ROAD TO THE NORTH FROM ITS PRESENT TERMINUS.
- . THE GRADE OF THE LAST 600' OF INDUSTRIAL PARK ROAD HAS RESULTED IN A 15-18' HIGH BANK ALONG THE ENTIRE FRONTAGE OF PARCEL I4-B, MAKING IT DIFFICULT TO DEVELOP, OR EVEN TO HAVE ACCESS TO THIS SITE FROM THE PRESENT ROAD WITHOUT EXTENSIVE EARTH MOVING OPERATIONS;

ANOTHER RESULT OF THE EXCESSIVELY LOW GRADE ALONG INDUSTRIAL PARK ROAD IS THAT THE SANITARY SEWER LINE DESIGNED TO SERVICE PARCEL 14-B HAD TO LEAVE THE ROAD RIGHT-OF-WAY AND FOLLOW A SEPARATE 20' RIGHT-OF-WAY ON THE BANK TO THE EAST OF THE ROAD, AND IF THE LAND SURROUNDING THE CUL-DE-SAC WERE TO BE GRADED DOWN TO MEET THE PRESENT GRADE OF THE ROAD, THERE WILL BE NO CHANCE TO GET INTO THE SANITARY SEWER EXCEPT BY PUMPING;

THE SLOPES ALONG THE EAST AND NORTH OF THE CUL-DE-SAC HAVE BEEN LEFT AT VERY STEEP GRADES (GENERALLY IN EXCESS OF 2:1 AND NO APPARENT SLOPE STABILIZATION MEASURES HAVE BEEN TAKEN, SO CLEAR EVIDENCE OF EROSION, SILTING OF CATCH BASINS AND SOIL SLIPPAGE CAN BE SEEN IN THIS AREA.

SOME OTHER POINTS WHICH SHOULD BE NOTED RELATIVE TO THE PRESENT CONDITION OF THE INDUSTRIAL PARK ROAD INCLUDE:

THE LENGTH OF THE CUL-DE-SAC AT 3,100' ALREADY SUBSTANTIALLY EXCEEDS THE MAXIMUM LENGTH PRESCRIBED FOR SUCH ROADS IN THE CITY'S OWN ZONING REGULATIONS, AND THERE IS NO DIRECTION THAT CAN BE TAKEN THAT WILL NOT, AT LEAST TEMPORARILY, FURTHER EXTEND THAT CONDITION (THIS WILL BE DISCUSSED MORE IN DETAIL IN FOLLOWING SECTIONS OF THIS REPORT).

THE ACTUAL PAVEMENT WIDTH OF THE ROADWAY IS 30' INSTEAD OF THE 40' ULTIMATELY PLANNED FOR (TO ACCOMPLISH THIS, THE CITY HAS HELD THE WEST CURB LINE), THUS PROVISION SHOULD BE MADE IN LOCATING UTILITIES, DRIVEWAYS, SIGNS, ETC. FOR POSSIBLE FUTURE WIDENING OF 10' ALONG THE EAST SIDE OF THIS ROAD.

ACCORDING TO PUBLIC WORKS DEPARTMENT PERSONNEL, THIS REDUCED WIDTH WAS BASED UPON THE LIMITED TRAFFIC LOAD EXPECTED FROM THIS ROAD WHILE IT IS A DEAD-END CUL-DE-SAC, AND THAT ANY PROVISION TO CONNECT EITHER TO MIDDLE STREET OR ROUTE 72 SHOULD INCLUDE CONSIDERATION OF RESTORING THE FULL 40' WIDTH.

ANOTHER FACTOR THAT MUST AT LEAST BE CONSIDERED IS THAT AS LONG AS THIS ROAD IS A CUL-DE-SAC, THERE IS THE DANGER THAT BLOCKAGE OF THE ROAD DURING A DISASTER (FIRE, FLOOD, ETC.) MIGHT MAKE THE ACCESS BY EMERGENCY EQUIPMENT SUCH AS FIRE VEHICLES OR AMBULANCES DIFFICULT OR EVEN IMPOSSIBLE. FOR THIS REASON, ALTERNATE EMERGENCY ACCESS ROUTES SHOULD BE EXPLORED AS PART OF ANY OVER-ALL PLAN FOR THE AREA.

RELATIVE TO TRAFFIC FLOW, AS HAS BEEN NOTED, THE RESULT OF THIS DEAD-END DESIGN IS TO CREATE ADDITIONAL TRAFFIC AT SMITH STREET, AS WELL AS TO NEARLY DOUBLE THE DISTANCE REQUIRED BY HARTFORD-BOUND TRAFFIC FROM PARCELS ON INDUSTRIAL PARK ROAD.

EVEN A FUTURE CONNECTION TO MIDDLE STREET, WHILE REDUCING THESE TWO CONDITIONS, WILL STILL THROW LARGE AMOUNTS OF TRAFFIC ONTO THAT PORTION OF MIDDLE STREET IN THE TOWN OF BERLIN, NORTH OF MIDDLETOWN, WHICH IS MORE NARROW, AND ALMOST TOTALLY RESIDENTIAL IN CHARACTER. FROM A TRAFFIC POINT OF VIEW, OBVIOUSLY A DIRECT NORTHERN LINK TO ROUTE 72 WOULD CREATE AN IDEAL FLOW TO ALL POINTS TO THE NORTH, NORTHEAST, OR NORTHWEST.

ANOTHER GENERAL FACTOR TO BE CONSIDERED IN THE PLANNING FOR ANY EXTENSION OF INDUSTRIAL PARK ROAD IS THE RESULTANT LAND DEVELOPMENT POTENTIAL CREATED BY ANY NEW ALIGNMENT.

A CASUAL EXAMINATION OF THE EXISTING LAYOUT OF THIS ROAD WILL SHOW THAT BECAUSE OF THE LOCATION OF SAWMILL BROOK AND THE LOW LANDS THAT BORDER IT, ALL OF THOSE PARCELS ON THE WEST SIDE OF THE ROAD ARE SHALLOW (300' AVERAGE), AND GENERALLY DO NOT EXCEED THREE ACRES IN AREA, WHILE THE PARCELS ON THE EAST SIDE AVERAGE OVER 500' IN DEPTH AND GO FROM ABOUT 5 TO OVER 14 ACRES IN AREA.

THE PRACTICE HAS BEEN, FOR A NUMBER OF VALID REASONS, TO PRESERVE THE LOW-LYING LANDS ALONG SAWMILL BROOK AS A CONTINUOUS STREAM-BELT, AND THIS SHOULD BE CONTINUED AS THE ROAD IS EXTENDED, HOWEVER, THE IMPLICATIONS OF THIS NON-DEVELOPABLE LAND ON THE SHAPE, SIZE AND AVAILABILITY OF FUTURE INDUSTRIAL PARCELS MUST BE PART OF THE CONSIDERATION THAT IS GIVEN TO ANY PROPOSED EXTENSION OF THE ROAD.

FINALLY, THE QUESTION OF ANY EXTENSION OF INDUSTRIAL PARK ROAD MUST CONFRONT THE FACT THAT THE MAJOR PORTION OF LAND THROUGH WHICH IT MUST PASS TO GET TO EITHER MIDDLE STREET OR ROUTE 72 IS CONTROLLED BY PRIVATE LAND OWNERS WITH WHOM THE CITY MUST DEAL IF THE ROAD IS TO GO IN EITHER DIRECTION. THERE ARE, OBVIOUSLY, SEVERAL ALTERNATIVES, IN GENERAL TERMS, AS TO HOW THE CITY MAY DEAL WITH THIS SITUATION:

1. ACQUIRE THE LAND
2. ACQUIRE AN ADEQUATE RIGHT-OF-WAY THROUGH THE LAND
3. CONDEMN THE RIGHT-OF-WAY REQUIRED
4. NEGOTIATE A PLAN WHEREBY THE PRIVATE LAND-OWNERS WILL BUILD THE EXTENSION OF INDUSTRIAL PARK ROAD AS PART OF ANY APPROVED DEVELOPMENT PLAN FOR THEIR PROPERTY.
5. LEAVE INDUSTRIAL PARK ROAD AS A PERMANENT CUL-DE-SAC.

WHILE IT IS NOT THE FUNCTION OF THIS STUDY TO ADVISE INFORM OR THE CITY AS TO ITS LAND ACQUISITION POLICIES, OF THE FIVE ALTERNATIVES PRESENTED, WE WOULD GUESS THAT ITEMS NO. 3 AND NO. 5 WILL NOT BE CONSIDERED AS VIABLE OR DESIRABLE ALTERNATIVES FOR THE CITY, AND IT'S NOT TOO LIKELY THAT THE PRIVATE OWNERS WOULD BE WILLING TO GO ALONG WITH NO. 4. THIS LEAVES US, BY THE PROCESS OF ELIMINATION, WITH CHOICES NO. 1 AND NO. 2 AS THE MOST REALISTIC POSSIBILITIES, BUT NO. 1 PERHAPS SHOULD BE FURTHER BROKEN DOWN INTO TWO POSSIBILITIES:

- I. ACQUIRE ALL OF THE FORMER MACINERNEY PARCEL, OR
- IA. ACQUIRE THAT PORTION OF THE MACINERNEY PARCEL EAST OF THE SEWER INTERCEPTOR, PLUS A RIGHT-OF-WAY FROM THERE OUT TO MIDDLE STREET.

THIS LATTER ALTERNATIVE OFFERS THE PRESENT OWNERS TWO ADVANTAGES-- THEY CAN DISPOSE OF THE LEAST DESIRABLE AND DEVELOPABLE PORTION OF THEIR PROPERTY, WHILE AT THE SAME TIME GAINING EXTENSIVE FRONTAGE ON A PUBLIC ROAD WITH ALL UTILITIES TO SERVE THE REMAINING, MORE DESIRABLE ACREAGE.

FROM THE CITY'S POINT OF VIEW, THIS ALTERNATIVE WOULD PERMIT RETAINING THE OPTION FOR SOME FUTURE EXTENSION TO ROUTE 72, WOULD ALLOW THE PRESERVATION OF THE EXTENSIVE FLOOD PLAIN AND WETLAND AREAS IN THIS PART OF THE PROPERTY, WHILE STILL PROVIDING SOME 40 ACRES OF ADDITIONAL DEVELOPABLE INDUSTRIAL LAND, AND WOULD PROBABLY REPRESENT A MUCH LOWER PER ACRE COST THAN IF THE WHOLE SITE WERE TO BE ACQUIRED.

IF WE WOULD MAKE A PRELIMINARY EVALUATION OF THE ALTERNATIVE ROUTES OPEN TO US IN TERMS OF THE EXTENSION OF INDUSTRIAL PARK ROAD, AND THE ACREAGE LIKELY TO BE OPENED UP TO DEVELOPMENT AS A RESULT OF EACH ALTERNATIVE, WE CAN BREAK THIS STUDY AREA INTO FOUR SUB-AREAS, OR QUADRANTS TO FACILITATE OUR FURTHER STUDY AND ANALYSIS:

QUADRANT A IS THE SOUTHEAST PORTION OF THE STUDY AREA, CONSISTING OF ALL OF THE LAND PRESENTLY OWNED BY THE CITY BOUNDED ON THE EAST BY I-91, ON THE NORTH AND WEST BY THE LIMIT OF CITY OWNERSHIP, ON THE SOUTH BY THE LIMIT OF PRESENT DEVELOPMENT (MIDCO AND WALTERS) AND INCLUDING THE 50' RIGHT-OF-WAY TO MIDDLE STREET. THE ACREAGE IN THIS QUADRANT IS APPROXIMATELY 45 ACRES.

QUADRANT B IS THE NORTHWEST PORTION OF THE STUDY AREA BOUNDED ON THE NORTH BY THE NATURAL GAS RIGHT-OF-WAY, ON THE EAST BY THE SEWER INTERCEPTOR LINE, ON THE SOUTH BY THE CITY-OWNED RIGHT-OF-WAY, AND ON THE WEST BY MIDDLE STREET. THE ACREAGE IN THIS QUADRANT IS APPROXIMATELY 121 ACRES.

QUADRANT C IS THE SOUTHWEST PORTION OF THE STUDY AREA BOUNDED BY QUADRANT "A" TO THE EAST, BY QUADRANT "B" TO THE NORTH, BY MIDDLE STREET TO THE WEST, AND BY THE PROPERTY OF ALEXANDER STETYNSKI AND ROSALIE OTTO TO THE SOUTH. THE ACREAGE IN THIS QUADRANT IS APPROXIMATELY 62 ACRES.

QUADRANT D IS THE NORTHEAST PORTION OF THE STUDY AREA BOUNDED ON THE NORTH BY THE CITY LINE, ON THE EAST BY I-91, ON THE SOUTH BY QUADRANT "A", AND ON THE WEST BY QUADRANT "B". THE ACREAGE IN THIS QUADRANT IS APPROXIMATELY 140 ACRES.

THE ASSIGNMENT OF SEQUENCE OF THESE AREAS WAS BASED ON A PRELIMINARY JUDGMENT THAT AREAS "A" AND "B" (EACH CONTAINING PARCELS OF CITY-OWNED LAND) MIGHT BE GRANTED SOME SLIGHT PRIORITY OVER "C" AND "D", IN WHICH ALL OF THE LAND IS IN PRIVATE OWNERSHIP.

IN EVALUATING THE ALTERNATIVE ROUTES FOR EXTENSION OF INDUSTRIAL PARK ROAD, THEREFORE, WE CAN SAY THAT ALTERNATIVE NO. 1 OCCURS IN QUADRANT "A", ALTERNATIVE 2 IN QUADRANT "D", AND ALTERNATIVE 3 IN QUADRANT "B", AND MAKE OUR STUDY OF THESE ALTERNATIVES TO SOME EXTENT BASED ON THE QUADRANT AREA WITHIN WHICH EACH ROUTE FALLS.

## B. STANDARDS

THE STANDARDS FOR EXTENSION OF INDUSTRIAL PARK ROAD WILL BE BASED IN GENERAL ON TWO CONDITIONS:

- I. FOR ANY PROPOSED EXTENSION WHICH WILL RESULT IN THE ROAD STILL REMAINING A DEAD END, THE CONSTRUCTION STANDARDS WILL BE ASSUMED TO BE THE SAME AS AT PRESENT -
  - . 80' RIGHT OF WAY
  - . 30' PAVED WIDTH (PROVISION TO WIDEN TO 40')
  - . BITUMINOUS CONCRETE CURB BOTH SIDES
  - . MAXIMUM GRADE 5 PERCENT
  - . ELECTRIC UNDERGROUND
  
2. AT THE POINT WHEN INDUSTRIAL PARK ROAD WILL TIE INTO MIDDLE STREET, OR ROUTE 72, MAKING IT OPEN TO THROUGH TRAFFIC, THE WIDTH FOR THE FULL LENGTH SHOULD THEN BE INCREASED TO THE PLANNED 40' PAVING.

IN ADDITION, ANTICIPATING THIS POSSIBILITY, THERE SHOULD BE CONSIDERATION GIVEN AT THIS TIME TO INCREASING THE LOAD-BEARING CAPACITY BOTH AS TO BASE COURSE AND SURFACE IN LIGHT OF THE ANTICIPATED INCREASED LOADING, WHICH WOULD RESULT FROM OPENING THE ROAD TO THROUGH TRAFFIC.

C. ALTERNATIVE NO. 1 - EXTENSION TO LIMIT OF CITY-OWNED LAND

IF THE LIMIT OF THE EXTENSION OF INDUSTRIAL PARK ROAD IS TO BE RESTRICTED TO QUADRANT "A", THAT IS, TO THE NORTHERN LIMIT OF CITY-OWNED LAND, (A DISTANCE OF SOME 1,350') THERE IS A CRITICAL DECISION THAT MUST BE MADE - HOW TO DEAL WITH THE SANITARY SEWER LINE IF IT IS TO SERVE ONLY THAT AREA.

THE PRESENT LIMIT OF SANITARY SEWER SERVICE ON INDUSTRIAL PARK ROAD IS A MANHOLE LOCATED 30' EAST OF THE EAST RIGHT-OF-WAY LINE OF THE ROAD, APPROXIMATELY OPPOSITE STATION 24+50, WITH AN INVERT OF 58.4', COMPARED TO AN ELEVATION OF APPROXIMATELY 62' IN INDUSTRIAL PARK ROAD. IT SEEMS CLEAR THAT A STRAIGHT LINE EXTENSION OF THIS SEWER AT A MINIMUM GRADE OF 0.3 PERCENT WILL MEAN THAT EXISTING GRADES ALONG THE LINE OF THE ROAD EXTENSION TO THE NORTH WILL PRECLUDE SEWER SERVICE FOR AN EXTENSION OF MUCH MORE THAN 1,200 FEET (OR ABOUT 900 FEET SHORT OF THE NORTHERN LIMIT OF QUADRANT "A"). THERE IS SOME CONCERN, HOWEVER, HOW FAR THIS LINE SHOULD BE CARRIED AHEAD AT SUCH A FLAT GRADE AND STILL BE ABLE TO MAINTAIN AN ACCEPTABLE FLOW. THIS CERTAINLY WOULD BE THE LIMIT.

SINCE THE ELEVATION OF POTENTIALLY DEVELOPABLE LAND NORTH OF THIS POINT FALLS AWAY TO THE NORTH, THE SOLUTION FOR SEWER SERVICE TO LOTS 16, 17, 19, AND 20 WOULD HAVE TO BE EITHER TO RESORT TO PUMPING, OR TO CARRY ANOTHER SEWER LINE TO THE NORTH AND WEST, VIA THE CITY-OWNED 50' RIGHT-OF-WAY, CROSSING SAWMILL BROOK NEAR THE NORTHERN LIMIT OF CITY-OWNED LAND AND TIEING INTO THE INTERCEPTOR APPROXIMATELY OPPOSITE STATION 44+50 ALONG INDUSTRIAL PARK ROAD.

THE ABOVE ALTERNATIVES REPRESENT THE OPTIONS AVAILABLE FOR EXTENDING SANITARY SEWER SERVICE ALL THE WAY TO THE PRESENT LIMIT OF CITY-OWNED LAND IN QUADRANT "A" WITHOUT HAVING TO ACQUIRE (OR CONDEMN) ADDITIONAL LAND FOR EASEMENTS, AND, WITHOUT PROVISION FOR SEWERING ANY LAND NORTH OR WEST OF THAT POINT.

SINCE THERE ARE STILL ALTERNATIVES TO BE EXPLORED FOR EXTENDING INDUSTRIAL PARK ROAD BEYOND THIS LINE TO THE NORTH OR WEST, AND, SINCE, AS PREVIOUSLY NOTED, THEY ALL INVOLVE NEGOTIATIONS WITH PRIVATE LAND OWNERS, IT WOULD SEEM WISE TO WITHHOLD A DECISION ON THE SEWER EXTENSION TO THE NORTH (EVEN TO THE LIMIT OF CITY-OWNED LAND) UNTIL THE DECISION IS MADE ON ANY FURTHER EXTENSION OF THE ROAD, SINCE ANY SUCH EXTENSION SHOULD LOGICALLY CARRY THE SANITARY SEWER WITH IT.

THERE IS ANOTHER FACTOR IN CARRYING DEVELOPMENT MUCH BEYOND STATION 36+00, AND THAT CONCERNS THE AMOUNT OF GRADING TO BE DONE ALONG THE LINE OF THE ROAD EXTENSION. FOR EXAMPLE, THE GRADE OF THE ROAD COULD BE DECIDED UPON TWO DIFFERENT SETS OF CRITERIA :

1. IF THERE IS TO BE NO FURTHER EXTENSION BEYOND QUADRANT "A", THEN THE GRADE WOULD BE BASED ONLY ON TRAFFIC FLOW, UTILITIES, ETC. MOVING TO THE SOUTH, AND DEVELOPMENT OF ADJACENT PARCELS WHICH WOULD BE THE MAJOR CONCERN INSOFAR AS ESTABLISHING ROAD GRADES.
2. IF THE ROAD WERE TO BE EXTENDED INTO QUADRANT "B" OR "D", THERE WILL BE THE NEED FOR MUCH EARTH FILL TO RAISE THE GRADE OF ADJACENT PARCELS IN ORDER TO PROVIDE BETTER ACCESS TO THE SEWER, TO REDUCE GROUND WATER AND DRAINAGE PROBLEMS, ETC., AND THAT MATERIAL COULD BEST COME FROM QUADRANT "A", BUT TO DO SO WOULD REQUIRE A DIFFERENT SET OF ROAD GRADES.

WE THEREFORE CONCLUDE THAT WITHIN QUADRANT "A" THERE SHOULD BE TWO STAGES, AND STAGE I-A REPRESENTS THE EXTENSION OF INDUSTRIAL PARK ROAD ONLY SO FAR AS THOSE LOTS WHICH COULD BE SERVED BY THE MAXIMUM EXTENSION OF THE PRESENT 10" SANITARY SEWER (OR TO APPROXIMATELY STATION 36+35). THE STATISTICS OF THIS INITIAL STAGE OF DEVELOPMENT (AND THE ESTIMATED COSTS) ARE AS FOLLOWS: (ALL FIGURES ARE APPROXIMATE, BASED ON PRELIMINARY PLANS AND THE LATEST AVAILABLE UNIT COSTS).

1. RECONSTRUCT INDUSTRIAL PARK ROAD TO RAISE THE ELEVATIONS ALONG PARCEL 14-B BETWEEN STATION 25+00 AND 32+00. (NOTE THAT PRESENT PAVING AND CURB STOPS AT APPROXIMATELY STATION 28+25.)  
ESTIMATE \$ 119,000
2. REGRADE AND SHAPE ENTIRE SLOPE ALONG EAST SIDE OF INDUSTRIAL PARK ROAD, STATION 25+00 THROUGH 32+00 TO 5:1 SLOPE, TOPSOIL AND SEED  
ESTIMATE \$ 46,000
3. EXTEND INDUSTRIAL PARK ROAD TO THE NORTH FROM THE END OF PRESENT CUL-DE-SAC (STATION 32+00) TO A TEMPORARY CUL-DE-SAC AT STATION 44+50, CONFORMING TO SAME SPECIFICATIONS AS THE EXISTING ROAD (30' WIDTH WITH PROVISIONS TO WIDEN TO 40' BY ADDING 10' ALONG EAST SIDE), PAVING AND CURB TO END TEMPORARILY AT STATION 40+00.  
ESTIMATE \$ 173,500

X THIS INCLUDES AN ALLOWANCE OF \$5,000 TO RAISE THE GRADE OF THE MIDCO DRIVEWAY TO MEET THE REVISED ROAD GRADE.

4.	EXTEND THE EXISTING 10" SANITARY SEWER APPROXIMATELY 1,100' NORTH FROM A MANHOLE LOCATED OPPOSITE STATION 24+50 IN A 20' EASEMENT ON THE WALTERS PROPERTY EAST OF INDUSTRIAL PARK ROAD, AT A GRADE OF APPROXIMATELY 0.3 PERCENT.	ESTIMATE	\$ 13,100
5.	EXTEND THE EXISTING 16" WATER MAIN LOCATED IN THE EAST SIDE OF INDUSTRIAL PARK ROAD FROM ITS PRESENT TERMINUS AT APPROXIMATELY STATION 27+50, APPROXIMATELY 1,000' TO A TEMPORARY TERMINUS AT A NEW HYDRANT AT STATION 37+50	ESTIMATE	\$ 17,500
6.	ALLOWANCE FOR MISCELLANEOUS ITEMS SUCH AS SHAPING SLOPES ON EITHER SIDE OF ROAD, ADDITIONAL STREET LIGHTS, ETC. (10 PERCENT)	ESTIMATE	<u>\$ 37,000</u>
		TOTAL	\$ 406,100
		ROUND TO	\$ 406,000

THE RESULT OF STAGE I-A IN TERMS OF PROVIDING ACCESS TO ADDITIONAL INDUSTRIAL LAND IS TO MAKE AVAILABLE 6 PARCELS TOTALLING APPROXIMATELY 20 ACRES (INCLUDING PARCEL I4-B) ALL WITH ACCESS TO ROAD AND UTILITIES (SEE SECTION VII FOR DESCRIPTION OF PARCEL I4-B DEVELOPMENT PLAN). INCLUDED IN THE COSTS OF STAGE I-A SHOULD ALSO BE CONSTRUCTION OF AN EMERGENCY ACCESS ROAD FROM THE TEMPORARY TURN-AROUND AT STATION 44+50 WEST ACROSS SAWMILL BROOK TO THE SERVICE ROAD THAT RUNS ALONG THE INTERCEPTOR RIGHT-OF-WAY.

THE ABOVE FIGURES REPRESENT, IN EFFECT, THE COSTS OF THE INTERIM STAGE I-A WHICH WILL EXTEND ROAD AND UTILITIES TO WITHIN APPROXIMATELY 400' OF THE LIMIT OF CITY-OWNED LAND. THEREFORE, TO COMPLETE STAGE I, IF THERE IS TO BE NO FURTHER ROAD EXTENSION BEYOND QUADRANT "A", WE WOULD REQUIRE AN EXTENSION OF PAVING AND CURB TO STATION 44+50, AS WELL AS EXTENSION OF SEWER AND WATER LINES TO THAT SAME POINT. THESE COSTS (INCLUDING A SEWER CONNECTION WEST ALONG THE 50' RIGHT-OF-WAY TO TIE INTO THE INTERCEPTOR SEWER, WOULD TOTAL APPROXIMATELY \$100,000.)

THE PREVIOUS FIGURES SHOW AN ESTIMATED TOTAL COST TO EXTEND INDUSTRIAL PARK ROAD AND ALL UTILITIES TO THE PRESENT LIMIT OF CITY-OWNED LAND OF \$506,000 (APPROXIMATELY \$90,000 OF WHICH IS CHARGEABLE TO CORRECTING THE EXISTING GRADE PROBLEMS IN THE FINAL 400' OF THE EXISTING ROAD, AND THE ACCOMPANYING SLOPE PROBLEMS ALONG THE WEST LINE OF PARCEL 14-B). THIS CONSTRUCTION WILL OPEN UP A TOTAL OF 10 LOTS AND APPROXIMATELY 45 ACRES OF CITY LAND TO INDUSTRIAL DEVELOPMENT ALL IN QUADRANT "A".

D. ALTERNATIVE NO. 2 - EXTENSION TO ROUTE NO. 72

LOOKING AT A STREET MAP OF THIS AREA, ALMOST ANYONE WOULD ASSUME THAT THE MOST LOGICAL AND DESIRABLE DIRECTION FOR AN EXTENSION OF INDUSTRIAL PARK ROAD BEYOND THE PRESENT LIMIT OF CITY-OWNED LAND IS TO THE NORTH TO INTERSECT ROUTE NO. 72. CERTAINLY SUCH A CONNECTION WOULD PROVIDE DIRECT ACCESS TO THE AREA FROM THE ROUTE NO. 72 INTERCHANGE WITH I-91, AND THUS TO HARTFORD AND POINTS NORTH, AS WELL AS TO NEW BRITAIN VIA ROUTE NO. 72 WEST. FROM A TRAFFIC POINT OF VIEW, CERTAINLY SUCH A CONNECTION WOULD PRODUCE BENEFICIAL RESULTS, BUT UNFORTUNATELY, THERE ARE MANY OTHER FACTORS INVOLVED IN SUCH AN EXTENSION.

THE TOTAL DISTANCE FROM THE PRESENT LIMIT OF CITY-OWNED LAND TO ROUTE NO. 72 AT A POINT OPPOSITE THE SOUTHBOUND ON-OFF RAMP TO I-91 IS APPROXIMATELY 4,600'. IF WE ANALYZE THE BEST PROBABLE ALIGNMENT FOR SUCH AN EXTENSION, WE FIND THE FOLLOWING POINTS:

1. THE ELEVATIONS ALONG THIS ROUTE VARY WITHIN A RATHER NARROW RANGE - BETWEEN THE END OF STAGE I AND THE MATTABASSETT RIVER (A DISTANCE OF APPROXIMATELY 3,600') THE MAXIMUM DIFFERENCE IN ELEVATION IS PERHAPS 25' (FROM A HIGH OF APPROXIMATELY 50' AT THE CUL-DE-SAC IN STAGE I TO 25' IN THE WETLANDS BORDERING THE RIVER. THEREFORE, UNLIKE OTHER PARTS OF THE STUDY AREA, THIS AREA HAS NO PROBLEM WITH EXCESSIVE GRADES. UNFORTUNATELY, THE OPPOSITE EXTREME IS ALSO A PROBLEM SINCE GRADES OF LESS THAN 1 PERCENT ARE DIFFICULT TO DRAIN AND CAN RESULT IN PONDING DURING RAINY WEATHER, AND ICE PATCHES IN WINTER.

THE REAL PROBLEM HERE IS NOT THE LACK OF GRADE, HOWEVER, BUT THE FACT THAT IT RESULTS FROM A SIZEABLE PORTION OF THIS ROUTE HAVING TO CROSS THROUGH LARGE AREAS OF FLOOD PLAINS OR INLAND WETLANDS, WITH ATTENDANT ENVIRONMENTAL PROBLEMS.

2. THE SOILS ALONG THE ROUTE ARE GENERALLY POOR, AS MIGHT BE EXPECTED FROM THE ELEVATIONS ENCOUNTERED HERE, AND IN FACT THIS QUADRANT OF THE STUDY AREA CONTAINS THE MAJOR PROPORTION OF THOSE SOILS WITH SEVERE LIMITATIONS. THE MAJOR SOIL TYPES ALONG THIS ROUTE TEND TO BE STONY WITH SEVERE PROBLEMS OF FROST HEAVING DUE TO THE HIGH WATER TABLE AND HARDPAN IN THE LUDLOW SOILS, AND THE STONY SILT LOAM OF THE WILBRAHAM SOILS. CLOSER TO THE MATTABASSETT RIVER WE ENCOUNTER THE TRUE INLAND WETLAND AREAS WITH PEAT AND MUCK. IN CONTRAST, THE MOST LOGICAL ROUTE FOR THIS EXTENSION OF THE ROADWAY MUST FOLLOW A LINE WHICH ALSO BRINGS IT VERY CLOSE TO THE ONLY PORTION OF THE STUDY AREA WHERE EXPOSED ROCK LEDGE HAS BEEN IDENTIFIED THUS,, EXCEPT FOR STEEP SLOPES, RUNNING THE GAMUT OF POOR SOIL TYPES FOUND IN THE STUDY AREA.

3. UTILITIES SERVICES ALONG THIS ROUTE WILL BE ANOTHER DIFFICULT PROBLEM. INsofar AS WATER IS CONCERNED, THIS ALTERNATIVE WILL NOT PERMIT THE COMPLETION OF THE LOOP AROUND TO MIDDLE STREET.

INsofar AS SANITARY SEWERS ARE CONCERNED, BECAUSE OF THE GENERALLY LOW ELEVATIONS THROUGHOUT THIS WHOLE AREA (MOST OF THE LAND IS BELOW ELEVATION 40 WITH PERHAPS 20 PERCENT OF THE ACREAGE ABOVE THAT ELEVATION, THE HIGHEST POINT HARDLY ABOVE 50') AS WELL AS THE LENGTH OF RUN REQUIRED TO GET INTO THE INTERCEPTOR, THERE WOULD BE GREAT DIFFICULTY TO SERVICE MUCH MORE THAN HALF OF THE DEVELOPABLE ACREAGE BY GRAVITY, THE REST WOULD HAVE TO RELY ON PUMPING.

IN ADDITION, THE HIGH WATER TABLE POSES THE POSSIBLE PROBLEM OF A MUCH HIGHER-THAN-NORMAL RATE OF INFILTRATION OF BOTH LINES AND MANHOLES, WHICH LEADS TO INCREASED COSTS OF THE STEPS NECESSARY TO DEAL WITH THIS PROBLEM.

4. AS A DIRECT RESULT OF THE POOR SOIL CONDITIONS AND THE HIGH PROPORTION OF FLOOD PLAIN AND INLAND WETLAND AREAS FOUND ALONG THIS ALTERNATE ROUTE AND THAT PORTION OF THE QUADRANT THROUGH WHICH IT PASSES, ONLY PERHAPS 65-70 ACRES OF THE TOTAL 140 ACRES IN THIS QUADRANT CAN BE CONSIDERED REASONABLY DEVELOPABLE. EVEN THIS AMOUNT OF ACREAGE DEPENDS UPON THE ABILITY TO PLACE FILL IN PRESENTLY LOW-LYING AREAS IMMEDIATELY NORTH OF THE NORTH LINE OF STAGE I AS PART OF AN OVERALL GRADING PLAN. THE ONLY NEARBY SOURCE OF SUCH FILL MATERIAL IS IN STAGE I, AND IF IT IS NOT MADE USE OF FROM THERE, THE COST OF HAULING NECESSARY FILL IN FROM MORE DISTANT LOCATIONS WILL MOST LIKELY RENDER THE ENTIRE PROCESS ECONOMICALLY INFEASIBLE.
5. IF WE EVALUATE THE COST OF ALTERNATE ROUTE No. 2, IN ADDITION TO THE PROBABLE MINIMUM COST FOR MERELY EXTENDING THE ROAD WITH ASSOCIATED UTILITIES AND GRADING OF ADJACENT LAND WITHIN THE RIGHT-OF-WAY (ESTIMATED TO BE APPROXIMATELY \$830,000) WILL BE ADDITIONAL COSTS FOR EXCESSIVE EXCAVATION, BACKFILL, AND UNDERDRAINAGE THROUGH MUCK AND SWAMP AREAS, PLUS THE BRIDGE OVER THE MATTABASSETT RIVER. THESE ADDITIONAL COSTS COULD EASILY ADD \$1.2 TO \$2.5 MILLION TO THE ABOVE FIGURE, GIVING A TOTAL OF \$2.0 TO \$3.3 MILLION. FOR THIS TOTAL ROADWAY, AND THIS HAS NOT INCLUDED THE COSTS OF EARTH MOVING TO RAISE THE GRADE OF LAND JUST NORTH OF STAGE I.

6. A FINAL POINT THAT SHOULD BE MADE RELATIVE TO THIS ALTERNATIVE ROUTE IS THAT, AS CAN BE SEEN, THE FINAL 600' (INCLUDING ONE-HALF OF THE BRIDGE) WILL BE IN THE TOWN OF CROMWELL - THEREFORE ROAD CONSTRUCTION DECISIONS WILL NOT BE LIMITED TO MIDDLETOWN, AND THUS, IF THIS ROUTE IS TO BE CONSIDERED, THERE SHOULD BE CONSULTATIONS WITH CROMWELL AND THE STATE.

E. ALTERNATIVE NO. 3 - EXTENSION TO MIDDLE STREET (QUADRANT "B")

THE ORIGINAL INTENT BEHIND THE PURCHASE OF THE 50' RIGHT-OF-WAY BETWEEN INDUSTRIAL PARK ROAD (EXTENDED) AND MIDDLE STREET WAS TO PROVIDE A RIGHT-OF-WAY FOR A PROPOSED DAM IN THIS GENERAL AREA, BUT AN EXAMINATION OF THE GRADES TO BE ENCOUNTERED IMMEDIATELY WEST OF THE INTERCEPTOR (WHICH EXCEED 35 PERCENT) MAKE IT CLEAR THAT THIS IS NOT A FEASIBLE ROUTE FOR EXTENDING INDUSTRIAL PARK ROAD.

A SECOND ALTERNATIVE TO REACHING MIDDLE STREET WAS CONSIDERED TO BE MCINERNEY LANE (SO-CALLED) WHICH WAS A FARM ROAD LEADING EAST FROM MIDDLE STREET TO SAWMILL BROOK, GENERALLY PARALLEL TO AND APPROXIMATELY 700' NORTH OF THE RIGHT-OF-WAY. AN EXAMINATION OF THIS POSSIBLE ROUTE SHOWED THAT AT THE VERY BEST THE GRADE WOULD AVERAGE ABOUT 7 PERCENT, AND TO ACCOMPLISH THIS WOULD REQUIRE THAT THE ROAD BE IN A DEEP CUT FOR SEVERAL HUNDRED FEET NEAR THE TOP OF THE RIDGE AS IT APPROACHES MIDDLE STREET.

AFTER CAREFUL ANALYSIS OF THE POSSIBILITIES OF THIS ROUTE, AND CONSIDERING THE ABOVE POINTS, WE DECIDED THAT THIS ROUTE HAS TO BE REJECTED IN FAVOR OF ONE WHICH WOULD NOT EXCEED 5 PERCENT IN GRADE, AND WHICH WOULD MORE CLOSELY FOLLOW EXISTING GRADES IN ORDER TO MINIMIZE THE NEED FOR PLACING THE ROAD INTO DEEP CUTS.

THE THIRD ALTERNATIVE ROUTE FOR THIS ROAD WAS DETERMINED TO BE AN ALIGNMENT WHICH WOULD:

1. NOT EXCEED 5 PERCENT IN GRADE
2. PROVIDE A MAXIMUM OF USEABLE FRONTAGE
3. OFFER AN OPPORTUNITY FOR EFFECTIVE DEVELOPMENT OF THE MIDC PARCEL ON MIDDLE STREET.

AS A RESULT OF THESE STUDIES AN ALIGNMENT WAS SELECTED THAT APPEARS TO MEET EACH OF THESE CONDITIONS. BEGINNING AT THE TEMPORARY CUL-DE-SAC AT THE END OF STAGE I (STATION 44+50), THE ROAD PROCEEDS NORTH, TURNS WESTWARDLY CROSSING SAWMILL BROOK AND THE INTERCEPTOR AT ABOUT THE SAME POINT AS MACINERNEY LANE, THEN TURNS NORTHWARDLY AGAIN AND PROCEEDS DIAGONALLY ACROSS PROPERTY OF HEALY TRUSTEES, CROSSING INTO THE SOUTHEAST CORNER OF THE MIDC PARCEL, FOLLOWING THAT BACK LINE FOR 600', THEN TURNING WEST AND CROSSING THROUGH THE MIDC PROPERTY TO MIDDLE STREET.

THIS ALIGNMENT IS 3,700' IN LENGTH, WITH AN AVERAGE GRADE OF 2.5 PERCENT AND A MAXIMUM GRADE OF 5 PERCENT. FOR THE MOST PART, THIS ROUTE WILL FOLLOW EXISTING GRADES FAIRLY CLOSELY, WHICH, ALONG WITH THE SECTION WHICH PARALLELS MIDDLE STREET, WILL PERMIT DOUBLE LOADING OF MOST OF ITS LENGTH. THE RELATIONSHIP OF THE NORTHERN HALF OF THIS EXTENSION TO MIDDLE STREET WILL PROVIDE MIDC 2,000' OF FRONTAGE, PERMITTING 7 LOTS IN THE TWO- TO THREE-ACRE RANGE.

THE EXTENSION OF INDUSTRIAL PARK ROAD WILL CARRY WITH IT A SEWER CONNECTION FROM MIDDLE STREET EAST TO THE INTERCEPTOR AS WELL AS AN EXTENSION OF THE 16" WATER MAIN NORTHWEST TO MIDDLE STREET. THIS LOCATION WILL PERMIT SOME SEWER EXTENSION SOUTH ON MIDDLE STREET FOR MUCH OF THE MIDC PARCEL, BUT BEYOND THAT HIGH POINT THE ROAD FALLS AWAY TO THE SOUTH AND ANY SEWER CONNECTION FOR THE REMAINING FRONTAGE ON MIDDLE STREET MUST BE CARRIED TO THE INTERCEPTOR SOMEWHERE IN THE VICINITY OF THE STETYNSKI PARCEL.

THE COMPLETION OF INDUSTRIAL PARK ROAD TO MIDDLE STREET WILL OFFER AN OPPORTUNITY, HOWEVER, TO EXTEND THE EXISTING WATER MAIN FROM ITS PRESENT TERMINUS NEAR NORTH AND JUDD NORTHWARD ALONG MIDDLE STREET TO LINK UP WITH THE 16" LINE CARRIED BY THIS EXTENSION, THUS COMPLETING THE LOOP. UNDER THESE CONDITIONS IT IS RECOMMENDED THAT THE WATER MAIN EXTENSION IN MIDDLE STREET BE CONTINUED 20" AS FAR AS BRADLEY STREET, THEN 16" FROM BRADLEY STREET TO THE LINK UP AT INDUSTRIAL PARK ROAD EXTENSION.

THIS PROPOSED ROUTE FOR THE EXTENSION OF INDUSTRIAL PARK ROAD OFFERS A MUCH MORE FAVORABLE SOLUTION THAN ALTERNATIVE NO. 2 (EXTENSION TO ROUTE 72):

1. THE TOTAL LENGTH OF ROAD IS 3,900' COMPARED TO 4,600' .
2. THE PROBABLE COST FOR THIS ALTERNATIVE IS IN THE RANGE OF \$750,000 (INCLUDING A BRIDGE OVER SAWMILL BROOK) COMPARED TO A COST OF PERHAPS \$2.0 TO \$3.3 MILLION FOR ALTERNATIVE 2.
3. THIS ROUTE WILL ALLOW COMPLETION OF THE WATERLINE LOOP AROUND TO MIDDLE STREET, OPENING UP WATER SERVICE TO ALL OF THOSE PROPERTIES BETWEEN NORTH AND JUDD AND THE MIDC PARCEL.
4. THIS ROUTE WILL OPEN UP FOR DEVELOPMENT (WITH ALL UTILITIES) THE PRESENT MIDC PARCEL, WITH AN ESTIMATED 7 PARCELS ON 21 ± ACRES.
5. THE CONNECTION TO MIDDLE STREET WILL IMPROVE TRAFFIC FLOW IN THE WHOLE AREA, ELIMINATE THE DEAD END CHARACTER OF INDUSTRIAL PARK ROAD AND REMOVE THE POTENTIAL PROBLEM THAT COULD ARISE WHERE SUCH A ROAD HAS ONLY ONE OUTLET.
6. FINALLY, THIS ROUTE WILL PROVIDE AN OPPORTUNITY FOR THE LARGE PARCEL OF PRIVATELY-HELD INDUSTRIAL LAND IN THE CENTER OF THIS STUDY AREA TO BE LAID OUT IN PARCELS OF 2 - 10 ACRES (WHICH ARE MUCH MORE MARKETABLE THAN 50 - 60 ACRE TRACTS AT THESE PRICES), SO THAT NOT ONLY WILL DEVELOPMENT OF THE MIDDLE STREET FRONTAGE BE

ENCOURAGED BY THIS ROUTE, BUT ALSO THE INTERIOR LAND, THEREBY LAYING THE FOUNDATION FOR AN EXTENSIVE AND LONG-RANGE INDUSTRIAL GROWTH IN THIS AREA CONSISTANT WITH ITS ZONING, AND OFFERING A MUCH GREATER POTENTIAL FOR EXPANDING THE TAX BASE THAN IN THE PAST WHEN SUCH DEVELOPMENT WAS LIMITED ALMOST SOLELY TO CITY-HELD PROPERTY.

IN ORDER TO IMPLEMENT THIS ALTERNATIVE, THE CITY WILL HAVE TO ACQUIRE A RIGHT-OF-WAY 80' IN WIDTH BETWEEN THE PRESENT END OF CITY-OWNED LAND AND MIDDLE STREET FOLLOWING THIS ALIGNMENT DIAGONALLY ACROSS 2,700' OF PRIVATE PROPERTY (APPROXIMATELY 5 ACRES) AND 1,000' THROUGH PROPERTY OF MIDC (APPROXIMATELY 1.8 ACRES). EVEN THOUGH THE PRESENT 50' RIGHT-OF-WAY IS NOT BEING UTILIZED IN THIS ROUTE TO MIDDLE STREET, IT SHOULD BE RETAINED BY THE CITY:

1. IT MAY WELL SERVE AS A RIGHT-OF-WAY FOR SANITARY SEWER OR OTHER UTILITY LINES FROM THE MIDDLE STREET PROPERTIES BETWEEN NORTH AND JUDD AND MIDC.
2. IT MAY STILL SERVE AS A ROAD ACCESS FROM MIDDLE STREET INTO PROPERTY EAST OF MIDDLE STREET, BUT STOPPING SHORT OF THE STEEP GRADES IMMEDIATELY WEST OF THE INTERCEPTOR.

F. CONCLUSIONS AND RECOMMENDATIONS

IN SUMMARY, THE ACTIONS RECOMMENDED TO CARRY OUT THIS ALTERNATIVE FOR THE EXTENSION OF INDUSTRIAL PARK ROAD TO MIDDLE STREET INCLUDE:

1. ACQUIRE (AS A MINIMUM) AN 80' RIGHT-OF-WAY (APPROXIMATELY 5 ACRES) BETWEEN THE PRESENT END OF CITY OWNED LAND NORTHWEST TO THE MIDC PROPERTY ON MIDDLE STREET, AS SHOWN IN PLAN NO. 2.
2. DO NOT DISPOSE OF THE PRESENT 50' RIGHT-OF-WAY
3. EXTEND INDUSTRIAL PARK ROAD, WITH ALL UTILITY SERVICES, FROM THE PROPOSED TERMINUS AT STATION 44+50 TO MIDDLE STREET (A DISTANCE OF 3,900')
4. AS PART OF THIS ROAD CONSTRUCTION PROGRAM, COMPLETE THE PLANNED WIDENING OF INDUSTRIAL PARK ROAD BETWEEN SMITH STREET AND MIDDLE STREET TO ITS FULL 40' WIDTH.
5. EXTEND THE PRESENT WATER LINE IN MIDDLE STREET TO THE NORTH TO LINK UP WITH THE LINE IN THIS NEW SECTION OF INDUSTRIAL PARK ROAD, THUS COMPLETING THE LOOP (EXTEND THE PRESENT 20" LINE TO BRADLEY STREET CONTINUE THE REST OF THE LOOP AS 16")

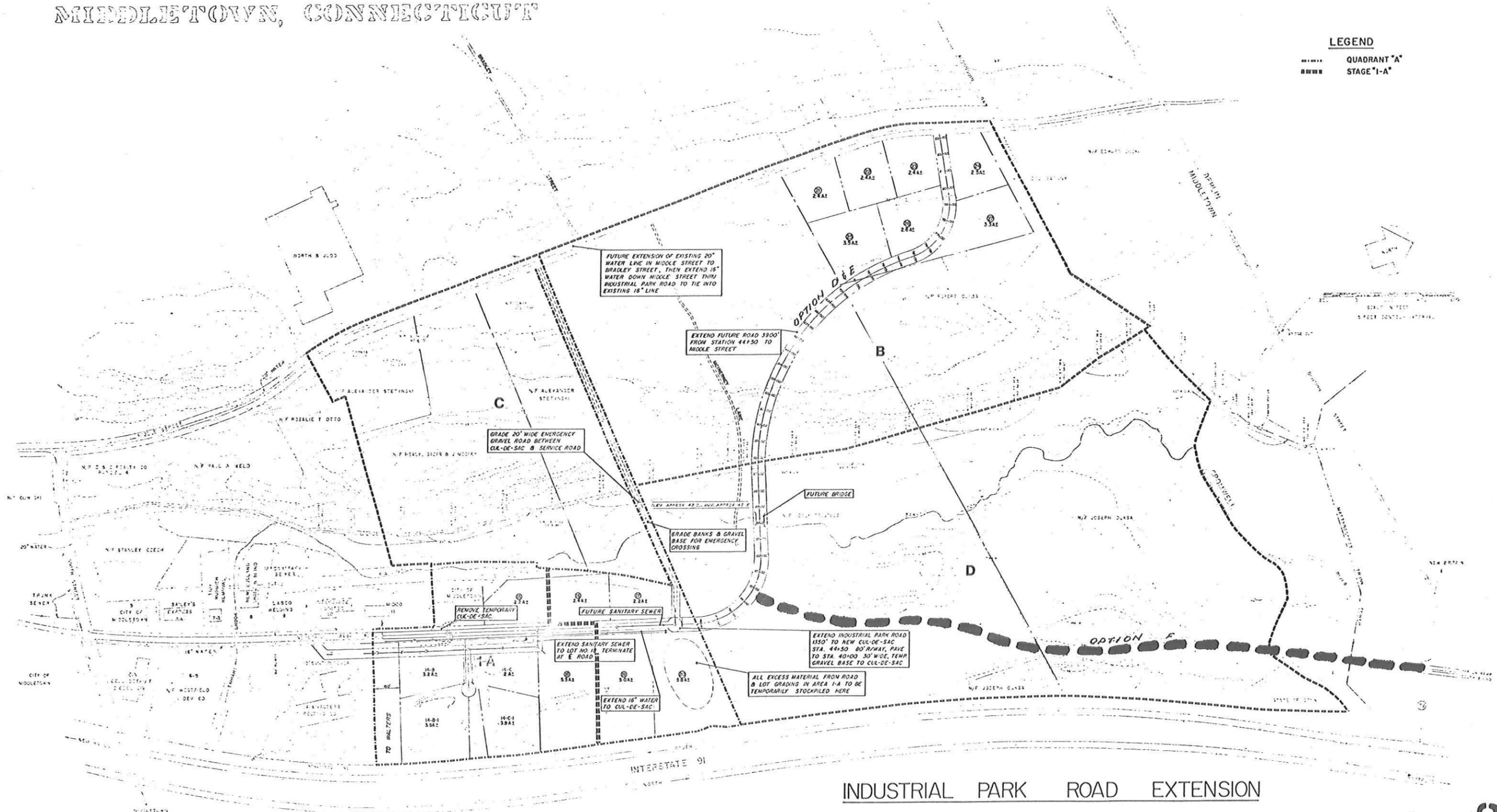
THE ESTIMATED COST OF \$750,000 COVERS THE IMMEDIATE ROAD EXTENSION ONLY (WITH NO PROVISION FOR LAND ACQUISITION COSTS) AND EXCLUDING THE COST OF EXTENDING THE WATER LINE IN MIDDLE STREET, AND THE COST OF WIDENING THE INITIAL 4,450' OF INDUSTRIAL PARK ROAD TO 40' PAVED WIDTH.

# SAWMILL BROOK INDUSTRIAL AREA

MIDDLETOWN, CONNECTICUT

## LEGEND

- QUADRANT "A"
- STAGE "1-A"



INDUSTRIAL PARK ROAD EXTENSION

STUDY AREA

prepared for:  
INDUSTRY FOR MIDDLETOWN, INC.  
designed by:  
LEFORD-WOOD ENGINEERS, INC.

VII. PARCEL I4-B

THIS PARCEL OF 11.4 ACRES APPEARS TO BE THE LAST PARCEL OF CITY-OWNED LAND CAPABLE OF BEING SERVICED FROM THE EXISTING INDUSTRIAL PARK ROAD. HOWEVER, AN EXAMINATION OF THE TOPOGRAPHY OF THE SITE IN CONJUNCTION WITH THE GRADES ALONG ITS FRONTAGE WITH INDUSTRIAL PARK ROAD, SHOWS THAT IT WOULD BE VERY DIFFICULT TO OBTAIN ACCESS (AT REASONABLE GRADES) WITHOUT EXTENSIVE REGRADING, OR WITHOUT CUTTING OFF THE OPPORTUNITY OF EXTENDING THE SANITARY SEWER ANY FURTHER NORTH.

FOR THESE REASONS, AS WELL AS TO ESTABLISH MORE SUITABLE GRADES FOR DEVELOPMENT OF THE ACREAGE NORTH OF I4-B, IT SEEMS CLEAR THAT THE FIRST PREREQUISITE TO DEVELOPMENT OF I4-B IS TO CARRY OUT THE PROPOSED IMPROVEMENTS TO INDUSTRIAL PARK ROAD DISCUSSED IN SECTION VI-C:

1. RECONSTRUCT THE LAST 700' OF EXISTING ROAD TO RAISE THE GRADES AS PROPOSED.
2. EXTEND INDUSTRIAL PARK ROAD NORTH TO STATION 44+50.
3. EXTEND THE SANITARY SEWER NORTH TO STATION 36+35.
4. REGRADE, TOPSOIL, AND SEED THE SLOPE ALONG THIS PARCEL'S WEST LINE TO MAINTAIN A MAXIMUM 5:1 GRADE INSTEAD OF THE PRESENT STEEP 1:1 SLOPE.

WITH THE ABOVE WORK DONE, WE CAN LOOK AT PARCEL I4-B ITSELF IN TERMS OF PUTTING TOGETHER A DEVELOPMENT PLAN. A FACTOR WHICH WE CANNOT IGNORE IS THE EXISTENCE OF A SUBSTANTIAL AREA OF FILL (UP TO 20' HIGH) WHICH WAS DEPOSITED ON THE EASTERN HALF OF THIS PROPERTY WHEN I-91 WAS BUILT. THE MAJOR ITEMS THAT SHOULD BE CONSIDERED IN THE PREPARATION OF ANY DEVELOPMENT PLAN FOR THIS PARCEL SHOULD RECOGNIZE THAT:

1. BECAUSE OF THE ELEVATIONS NEEDED TO TIE INTO THE SANITARY SEWER, WE CANNOT CUT DOWN THE GRADE OF POSSIBLE BUILDING SITES BELOW ELEVATION 70.
2. THE PRIME SIZE OF PARCELS FOR MARKETING PURPOSES IN THIS AREA APPEARS TO BE BETWEEN 2 - 5 ACRES, AND SINCE THE CITY OWNS BOTH I4-B AND I4-C, THE PRESENT LOT LINES SHOULD NOT BE VIEWED AS RIGID.
3. THE RESULT OF THE LARGE MASS OF FILL MATERIAL IN THE EASTERN PORTION OF THE PROPERTY IN EFFECT DIVIDES IT INTO TWO PARCELS - ONE WITH ELEVATIONS OF 88' - 100' WITH GOOD VISUAL EXPOSURE TO I-91; THE OTHER WITH ELEVATIONS OF 72' - 80', NO VIEW FROM I-91, BUT WITH DIRECT FRONTAGE ON INDUSTRIAL PARK ROAD

KEEPING ALL OF THE ABOVE POINTS IN MIND, WE EXPLORED VARIOUS ALTERNATIVE SITE PLANS FOR PARCEL I4-B, INCLUDING IN EACH CASE THE MOST RECENT DEVELOPMENT AFFECTING THIS PARCEL, WHICH IS THE SALE OF A 160' WIDE STRIP ALONG THE SOUTH LINE TO THE ABUTTING OWNER, WALTERS ENGINEERING, LEAVING THE NET REMAINING ACREAGE AT 8.6 ACRES. AS A RESULT OF THIS PROCESS, WE ARRIVED AT THREE ALTERNATIVES WHICH SEEMED MOST FEASIBLE:

1. DEVELOP THE ENTIRE SITE OF 8.6 ACRES AS ONE PARCEL, WITH EXTENSIVE RE-GRADING OF THE HIGH GROUND TO PERMIT A DRIVEWAY TO MAINTAIN NO MORE THAN 5 PERCENT GRADE FROM INDUSTRIAL PARK ROAD. THIS WAS REJECTED BECAUSE, UNLESS THE ENTIRE SITE WAS SUBSTANTIALLY REGRADED (WHICH MEANS CUTTING AT LEAST 8' - 10' FROM THE HIGH GROUND IN THE EASTERN HALF OF THE SITE), THE SEVERE GRADE DIFFERENTIAL DIVIDES THE SITE INTO TWO DISTINCT AREAS NOT READILY USEABLE FOR A SINGLE OWNER. IN ADDITION, THE AREA IS STILL LARGER THAN THOSE SITES THAT ARE MOST READILY MARKETED.
2. EXTEND A 480' LONG CUL-DE-SAC AT RIGHT ANGLES TO INDUSTRIAL PARK ROAD INTO THE CENTER OF THE SITE AND THUS DIVIDE IT INTO FOUR PARCELS OF APPROXIMATELY 2.0 ACRES EACH. THIS WAS REJECTED BECAUSE THE FOUR SITES SEEMED SOMEWHAT TOO SMALL CONSIDERING THE NECESSITY TO DO THE REGRADING TO GET THE CUL-DE-SAC IN TO THE HIGHER GROUND.
3. IGNORING THE NORTH LINE OF PARCEL I4-B, LAY OUT LOTS ON THE EAST SIDE OF INDUSTRIAL PARK ROAD TO THE LIMIT OF CITY-OWNED LAND, TO BE OF COMPARABLE SIZE (RANGING FROM 5-7 ACRES EACH) AND RUN A SHORT (350') CUL-DE-SAC AT RIGHT ANGLES TO INDUSTRIAL PARK ROAD CLOSE TO THE PRESENT NORTH LINE OF I4-B, SO THAT PARCELS I4-B AND I4-C CAN BE DIVIDED INTO FOUR LOTS (SEE PLAN No. 2) OF ABOUT 3 ACRES EACH.

THIS LAST PLAN HAS BEEN DETERMINED TO OFFER GREATER FLEXIBILITY, MORE MARKETABLE PARCELS, AND MORE REASONABLE COST, THAN THE OTHER TWO, AND THEREFORE IS THE PLAN THAT IS BEING RECOMMENDED.

UNDER THIS PLAN, PARCEL I4-B (AS MODIFIED BY THE SALE TO WALTERS) WILL BE LAID OUT TO PRODUCE TWO LOTS -

LOT I4-B WILL HAVE 3.2 ACRES WITH 440' FRONTAGE ON INDUSTRIAL PARK ROAD, WHICH IT WILL FACE, AND ELEVATIONS WILL AVERAGE 70' - 72' AT THE BUILDING SITE.

- . LOT 14-B1 WILL HAVE 3.9 ACRES WITH 425' FRONTAGE ON I-91 (PLUS GOOD VIEWS OF THE SITE FROM THE NORTH-BOUND LANE) AND ELEVATIONS WILL AVERAGE 90' - 100' AT THE BUILDING SITE.
  
- . BOTH OF THESE PARCELS WILL BE SERVED BY A 350' LONG CUL-DE-SAC FROM INDUSTRIAL PARK ROAD, AND BOTH WILL HAVE ACCESS TO ALL UTILITIES IN INDUSTRIAL PARK ROAD (AND THE SANITARY SEWER LINE CAN BE CONTINUED TO THE NORTH TO SERVE FOUR ADDITIONAL PARCELS).

THE ESTIMATED COST OF THIS DEVELOPMENT PLAN FOR PARCEL 14-B WOULD BE AS FOLLOWS:

. X GRADING AND CLEARING	\$ 4,000
. ACCESS ROAD (30')	52,000
. SANITARY SEWER AND WATER	10,000
. CONTINGENCY	<u>6,000</u>
TOTAL	\$ 72,600

BECAUSE OF THE LAYOUT UPON WHICH THIS PLAN IS BASED, THE ABOVE COSTS (COMBINED WITH THE EXTENSION OF INDUSTRIAL PARK ROAD AS RECOMMENDED IN STAGE I-A) WILL NOT ONLY PROVIDE FOR THE MARKETING OF 2 LOTS ON 14-B, BUT 2 ADDITIONAL LOTS ON 14-C, SO THE DEVELOPMENT COSTS WILL, IN EFFECT, PRODUCE 4 LOTS OF APPROXIMATELY 3.5 ACRES EACH, FOR A NET DEVELOPMENT COST PER ACRE OF APPROXIMATELY \$5,200 PER LOT.

THE RECOMMENDED DEVELOPMENT PLAN FOR 14-B, THEREFORE, REQUIRES THE RECONSTRUCTION OF THE LAST 400' MORE OR LESS OF INDUSTRIAL PARK ROAD, AND THE EXTENSION OF THE PAVED SECTION OF THE ROAD FROM THERE TO AT LEAST STATION 40+00. THIS WILL PERMIT THE CONSTRUCTION OF THE 350' CUL-DE-SAC EAST FROM INDUSTRIAL PARK ROAD AT STATION 33+30 AND THE EXTENSION OF THE SANITARY SEWER LINE TO STATION 36+35.

AS A RESULT, THE PREPARATORY CONSTRUCTION ALONG INDUSTRIAL PARK ROAD, WHICH WILL BE REQUIRED TO ALLOW FOR THE DEVELOPMENT OF PARCEL 14-B, WILL ALSO PROVIDE FOR DEVELOPMENT OF 14-C, PLUS PROBABLY TWO OTHER PARCELS, WITHOUT ANY ADDITIONAL ROAD CONSTRUCTION. THIS WILL ALSO ALLOW A TIME LAPSE WHILE THESE LOTS ARE BEING MARKETED, DURING WHICH THE CITY CAN ADEQUATELY EXPLORE THE ALTERNATIVES TO FURTHER EXTENSION OF INDUSTRIAL PARK ROAD AS PER THE OPTIONS COVERED IN OTHER SECTIONS OF THIS REPORT.

X WE ASSUME THAT THE REGRADING OF THE PRESENT STEEP BANK ALONG THE 14-B FRONTAGE WITH INDUSTRIAL PARK ROAD SHOULD BE CONSIDERED PART OF THE COST OF EXTENDING INDUSTRIAL PARK ROAD RATHER THAN CHARGED TO IMPROVEMENT OF SITE 14-B.



## VIII. COST/BENEFIT ANALYSIS

THE DECISION TO EXTEND INDUSTRIAL PARK ROAD IN ACCORDANCE WITH ONE OF THE PREVIOUSLY-EXPLORED ALTERNATIVES WILL UNDOUBTEDLY BE BASED ON A VARIETY OF FACTORS, SOME OF WHICH WE WILL HAVE NO ABILITY TO EVALUATE, BUT TO THE EXTENT THAT CERTAIN GENERALLY-ACCEPTED COST/BENEFIT FACTORS MAY BE USEFUL TO THOSE WHO MUST MAKE THE DECISION, THEY ARE PRESENTED HEREWITH.

IN ORDER TO PROVIDE THE WIDEST RANGE OF COMPARISONS WE HAVE SET UP, IN EFFECT, SIX ALTERNATIVES, EACH OF WHICH REPRESENTS A DIFFERENT DEVELOPMENT OPTION AS FOLLOWS:

OPTION 'A' REPRESENTS THE MINIMUM DECISION (SHORT OF DOING NOTHING AT ALL) WHICH IS TO MERELY COMPLETE THE PAVING OF INDUSTRIAL PARK ROAD TO THE PRESENT CUL-DE-SAC (A DISTANCE OF 375') AND SHAPE UP THE BANKS TO THE NORTH AND EAST. IN THIS SITUATION THE ONLY APPARENT DEVELOPMENT POTENTIAL IS TO DISPOSE OF PARCEL I4-B AS IT IS (8.6 ACRES) AND PROBABLY DISPOSE OF THE REMAINING 36 ACRES TO A DEVELOPER WHO WOULD BE WILLING TO FURTHER SUB-DIVIDE THE 11.4 ACRES WHICH MAKE UP STAGE I-A. THE FINAL 25 ACRES ARE A QUESTION - THEY MIGHT BE SOLD TO ONE INDUSTRY WHICH PAST EXPERIENCE SUGGESTS AS UNLIKELY OR THEY WILL MORE LIKELY REMAIN UNDEVELOPED WITHOUT SOME EXTENSION OF INDUSTRIAL PARK ROAD.

OPTION 'B' IS DESCRIBED IN THE PRECEDING TEXT, SEC. VI-C AND INVOLVES EXTENDING INDUSTRIAL PARK ROAD TO STA. 44+50, THE PAVING TO STA. 44+00 AND THE SANITARY SEWER TO STA. 36+35 WHICH WILL OPEN UP 6 "IMPROVED" LOTS LEAVING APPROXIMATELY 25 ACRES SERVED ONLY BY THE GRAVEL SURFACED PORTION OF THE ROAD, WITH NO SANITARY SEWER. THIS IS A LOGICAL FIRST STAGE BUT STILL UNSATISFACTORY UNLESS THE ROAD IS EXTENDED FURTHER.

OPTION 'C' IS DESCRIBED IN THE PRECEDING TEXT, SEC. VI-D AND COVERS THE FULL DEVELOPMENT OF CITY-OWNED LAND IN THIS AREA. THE RESULT OF THIS OPTION IS TO OPEN UP FOR DEVELOPMENT 10 LOTS AND 45 ACRES OF CITY-OWNED LAND (BUT STILL NO PRIVATE LAND). IT REPRESENTS THE MAXIMUM EXTENT TO WHICH THE CITY CAN GO WITHOUT ACQUIRING ADDITIONAL LAND OR RIGHT-OF-WAY.

OPTION 'D' COVERS THE EXTENSION OF INDUSTRIAL PARK ROAD FROM THE END OF STAGE I ALL THE WAY TO MIDDLE STREET VIA AN 80' RIGHT-OF-WAY WHICH MUST BE ACQUIRED FROM THE INTERVENING LANDOWNERS AS DESCRIBED IN SEC. VI-E. IN ADDITION TO FINALLY TERMINATING THE DEAD-END STATUS OF INDUSTRIAL PARK ROAD, THIS EXTENSION WOULD FOR THE FIRST TIME PROVIDE EXTENSIVE AREAS OF INDUSTRIALLY-ZONED PRIVATE LAND WITH BOTH ROAD AND FULL UTILITY SERVICES (INCLUDING PROPERTY ALONG MIDDLE STREET AND PROPERTY THROUGH WHICH THIS NEW RIGHT-OF-WAY PASSES). AS A RESULT, IN ADDITION TO OPENING UP THE 21 ACRES OF MIDC PROPERTY ON MIDDLE STREET TO DEVELOPMENT FOR INDUSTRIAL PROGRESS, IT WILL OPEN UP OVER 100 ACRES OF PRIVATE LAND, SOME ALONG MIDDLE STREET, THE REST TO BE SERVED BY THIS EXTENSION OF INDUSTRIAL PARK ROAD.

OPTION 'E' IS ESSENTIALLY THE SAME AS 'D' ABOVE, BUT INCLUDES THE SITUATION WHEREBY THE CITY ACQUIRES NOT ONLY THE 80' RIGHT-OF-WAY TO MIDDLE STREET, BUT ALL OF THE LAND FROM HEALY TRUSTEES THAT LIES EAST OF THE INTERCEPTOR SEWER (SOME 60 ACRES). THIS OFFERS THE OPPORTUNITY TO ADD SOME 40 ACRES MORE OR LESS OF CITY-OWNED INDUSTRIAL LAND IMMEDIATELY NORTH OF STAGE I BETWEEN THERE AND SAWMILL BROOK, AS WELL AS GIVING THE CITY THE CHANCE TO ADD SOME 20 ACRES OF FLOOD PLAIN AND WETLAND AREA TO ITS PERMENTENT OPEN SPACE INVENTORY.

OPTION 'F' INVOLVES THE EXTENSION OF INDUSTRIAL PARK ROAD NORTH TO ROUTE No. 72, A ROUTE WHICH HAS ONE IMPORTANT BENEFIT - A GREATLY IMPROVED TRAFFIC FLOW INCLUDING DIRECT ACCESS TO I-91. UNFORTUNATELY, THIS ROUTE HAS A NUMBER OF RATHER FORMIDABLE DIFFICULTIES - NEARLY THREE TIMES THE COST OF THE ROUTE TO MIDDLE STREET, THE NEED FOR A MAJOR BRIDGE STRUCTURE, THE NEED TO CROSS SEVERAL HUNDRED FEET OF SWAMPS AND WETLANDS, AND THE NEED TO DEAL WITH ANOTHER TOWN FOR THE FINAL 400'. IN ADDITION, THIS ROUTE DOES NOT DO ANYTHING FOR THE INDUSTRIALLY-ZONED LAND ALONG MIDDLE STREET, NOR DOES IT ALLOW FOR COMPLETING THE WATER MAIN LOOP. IN EFFECT THIS STILL LEAVES ALL OF THE LAND BETWEEN MIDDLE STREET AND THE INTERCEPTOR ZONED INDUSTRIAL, BUT WITHOUT THE NECESSARY SEWER AND WATER SERVICE WITHOUT WHICH IT IS UNLIKELY TO DEVELOP.

IN ANALYZING THESE OPTIONS (NOTE TABLE I ) WE MUST BE CONSCIOUS OF THE FACT THAT THEY CANNOT BE JUDGED BY A MERE COMPARISON OF THE FIGURES FOR EXAMPLE, OPTIONS 'A'-'C' EACH REPRESENT INCREASING STAGES OF DEVELOPMENT ALONG THE SAME LINE OF INDUSTRIAL PARK ROAD WITHIN THE LAND OWNED BY THE CITY (IN OTHER WORDS THREE PROGRESSIVE STAGES OF DEVELOPMENT WITHIN ALTERNATE No. 1). UNFORTUNATELY, HOWEVER, THERE DOES NOT SEEM TO BE ANY LOGICAL STAGING OR BREAKDOWN OF THE FURTHER EXTENSION OF INDUSTRIAL PARK ROAD ALONG ALTERNATE No. 2 OR 3, ALTHOUGH WE DO CONSIDER TWO VARIATIONS OF ALTERNATE No. 2 (ONE WHEREIN THE CITY ACQUIRES ONLY THE RIGHT-OF-WAY AND THE OTHER WHEREIN IT ALSO ACQUIRES AN ADDITIONAL 60 ACRES OF PRIVATE LAND TO THE NORTH OF ITS PRESENT LINE.)

WE SHOULD ALSO POINT OUT THAT IN CONSIDERING THE FINANCIAL IMPLICATIONS OF THESE OPTIONS THEY TOO ARE NOT DIRECTLY COMPARABLE. FOR EXAMPLE, THE COST FIGURES REPRESENT ONE-TIME COSTS, WHICH IT IS ASSUMED WILL BE PAID FOR BY BOND ISSUE, AND UNDER "FINANCING" WE HAVE ASSUMED THAT BOND ISSUE WOULD BE FOR 5 YEARS AT 6 PERCENT. THE TOTAL COST FIGURES, THEREFORE, WOULD BE SPREAD OVER AT LEAST A FIVE YEAR PERIOD (POSSIBLY LONGER FOR THE LARGER PROJECTS).

BY COMPARISON, THE REVENUE FIGURES COVER TWO KINDS OF REVENUE - FROM SALE OF LOTS (A ONE-TIME SOURCE OF INCOME), AND FROM TAXES ON IMPROVED INDUSTRIAL LAND AND BUILDINGS (ONCE IMPOSED, ASSUMED TO BE A CONTINUING SOURCE OF REVENUE FOR THE CITY). IN ALL CASES WE HAVE, FOR THE SAKE OF SIMPLICITY,

AND LACKING ANY ACCURATE MEANS OF PROJECTING FUTURE TRENDS, BASED OUR COSTS ON CURRENT EXPERIENCE KNOWING FULL WELL THAT IF THE PAST IS ANY GUIDE, FUTURE COSTS, FUTURE LAND PRICES, FUTURE TAXES WILL ALL BE HIGHER - HOW MUCH HIGHER IN EACH INSTANCE IS ANYBODY'S GUESS.

ANOTHER POINT THAT SHOULD BE MADE IS THAT THESE FIGURES DO NOT CONSIDER ANY FUNDING THAT MIGHT BE AVAILABLE TO THE CITY TO HELP DEFRAY SOME OF THE COSTS - FEDERAL, STATE, OR OTHERWISE. SINCE ANY SUCH ASSUMPTION AT THIS TIME IS MERE SPECULATION, BY SHOWING THE COSTS WITHOUT SUCH FUNDING WE SHOW THE MOST CONSERVATIVE FIGURES, AND ANY ADDITIONAL REVENUE FROM THE STATE IBD PROGRAM, FEDERAL EDA OR PUBLIC WORKS PROGRAMS WILL SERVE TO MAKE THESE OPTIONS BETTER.

IN ORDER TO ARRIVE AT THE FIGURES SHOWN ON THIS TABLE WE HAVE HAD TO MAKE SOME ASSUMPTIONS WHICH ARE NOTED AT THE BOTTOM OF THAT TABLE. WE HAVE ATTEMPTED TO VERIFY THESE FIGURES INSOFAR AS POSSIBLE BY CHECKING WITH APPROPRIATE CITY OFFICIALS, OR IN SOME CASES THE CONNECTICUT DEPARTMENT OF COMMERCE,

HAVING MADE THESE POINTS LET US LOOK AT TABLE I ) TO SEE HOW THESE OPTIONS COMPARE:

OPTION 'A' WAS PURPOSELY CHOSEN AS A MINIMUM PROGRAM SINCE THERE MAY BE THOSE WHO WILL SAY THAT "THE CITY HAS DONE ENOUGH IN THIS AREA, LET'S JUST FINISH PAVING INDUSTRIAL PARK ROAD AND STOP AT THAT POINT." WE SEE THIS OPTION, AT ITS VERY BEST, AS ALLOWING FOR THE SALE AND DEVELOPMENT OF A MAXIMUM OF 20 ACRES OF ADDITIONAL LAND (PARCEL 14-B PLUS PERHAPS 11 ACRES MORE IMMEDIATELY NORTH OF THE CUL-DE-SAC). WE MAY WELL BE OPTIMISTIC AS TO WHETHER THIS LAND CAN BE SOLD AT ALL, GIVEN THE DIFFICULTY OF ACCESS FROM THE EXISTING GRADES AT THE NORTH END OF INDUSTRIAL PARK ROAD, BUT WE HAVE MADE SUCH AN ASSUMPTION AS THE PROBABLE MAXIMUM BENEFIT THAT CAN BE DERIVED FROM THIS OPTION. ON THIS BASIS WE SEE COSTS OF \$ 120,000 PLUS FINANCING AND REVENUE FROM LOT SALES OF \$ 143,000. OVER A FIVE TO SIX YEAR PERIOD THESE WOULD PROBABLY BALANCE OUT, BY WHICH TIME THE MAXIMUM UTILIZATION OF THIS LAND MIGHT PRODUCE 146 JOBS PLUS \$ 44,000 ANNUALLY IN TAXES.

OPTION 'B' IS ESSENTIALLY WHAT WE SEE AS THE LOGICAL FIRST STAGE OF ANY EXTENSION OF INDUSTRIAL PARK ROAD, BUT THESE FIGURES ARE PREDICATED ON THE SUPPOSITION THAT THIS STAGE IS TO BE THE FINAL STAGE OF DEVELOPMENT. THE DIFFERENCE IS EXPRESSED IN THE REVENUE SECTION WHERE WE HAVE ASSUMED THAT IF THIS IS THE FINAL STAGE OF DEVELOPMENT ALL OF THE REMAINING CITY-OWNED LAND (25 ACRES MORE OR LESS) WILL BE SOLD AND DEVELOPED AT THIS TIME, PROBABLY TO A DEVELOPER WHO MAY FURTHER SUBDIVIDE. THUS AGAIN, THE DATA DEVELOPED HERE IS FOR COMPARISON PURPOSES OF WHAT IS MORE LOGICALLY ONE STAGE OF DEVELOPMENT, NOT THE COMPLETE PROGRAM.

THIS DOES SHOW, HOWEVER, THAT DEVELOPMENT OF THE 45 ACRES OF CITY-OWNED LAND RESULTING FROM THE FIRST STAGE OF DEVELOPMENT WITHIN ALTERNATE No. 1 WILL PRODUCE MORE THAN TWICE AS MANY JOBS (330 TO 146) AND A SIMILAR INCREASE IN TAXES (\$98,476 TO \$43,544) AS WOULD RESULT FROM OPTION 'A', ALTHOUGH AS CAN BE SEEN, THE FULL EXTENSION OF INDUSTRIAL PARK ROAD UNDER OPTION 'C' WILL PROVIDE THE MOST BENEFIT FROM THE EXPENDITURES MADE.

OPTION 'C' REPRESENTS THE FULL UTILIZATION OF PRESENTLY-OWNED CITY LANDS, AND IS OUR EVALUATION OF ALTERNATE No. 1 - THE EXTENSION OF INDUSTRIAL PARK ROAD TO THE LIMIT OF CITY-OWNED LAND, THIS TO BE THE TERMINATION OF THE CITY'S INVOLVEMENT DIRECT IN INDUSTRIAL DEVELOPMENT IN THAT AREA. IF THIS BE THE CASE, WE SEE THE COSTS TO GET THERE AS APPROXIMATELY \$657,800 (INCLUDING FINANCING COSTS) WHICH WILL PRODUCE 405 JOBS, \$450,000 IN LOT SALES AND APPROXIMATELY \$118,573 IN TAXES ON LAND AND BUILDINGS. AT THIS POINT IT APPEARS THAT THE COSTS OF DEVELOPMENT WOULD BE COVERED BY LOT SALES PLUS INCREASES IN TAXES OVER A PERIOD OF 5-7 YEARS (DEPENDING ON THE RATE OF SELLOUT). WE SHOULD POINT OUT, HOWEVER, THAT WE STILL SEE THIS ALTERNATE AS BEST BROKEN INTO TWO STAGES WITH OPTION 'B' BEING THE FIRST STAGE, IN WHICH CASE THE COMPLETION OF DEVELOPMENT TO OPTION 'C' WILL REQUIRE ONLY AN ADDITIONAL \$100,000 OF DEVELOPMENT COST TO PRODUCE 75 MORE JOBS, \$125,000 IN ADDITIONAL LOT SALES, AND \$10,000 INCREASE IN TAXES ON LAND AND BUILDINGS.

AT THIS POINT THE EXTENSION OF INDUSTRIAL PARK ROAD HAS INVOLVED ONLY CITY-OWNED LAND, BUT THE EXTENSION HAS NOT RESULTED IN ANY IMPROVEMENT OF THE TRAFFIC PATTERNS AND HAS MERELY FURTHER EXTENDED THE LENGTH OF A DEAD-END ROAD WHICH ALREADY EXCEEDS THE LIMITS SET BY THE SUBDIVISION REGULATIONS. WE HAVE ALSO AT THIS POINT NOT PROVIDED AN OPPORTUNITY FOR INDUSTRIAL DEVELOPMENT OF PRIVATE LANDS IN THIS AREA THROUGH PROVISION OF ROADS WITH SEWER AND WATER SERVICE. THESE CONDITIONS ARE DEALT WITH IN OPTIONS 'D', 'E', AND 'F'.

IT MUST, OF COURSE, BE POINTED OUT THAT A PRE-REQUISITE FOR EITHER ALTERNATE D, E, OR F MUST BE COMPLETION OF INDUSTRIAL PARK ROAD TO THE LIMIT OF CITY-OWNED LAND (THAT IS, COMPLETION OF OPTION 'C'), THUS ONE OF THESE NEXT THREE OPTIONS IS THE ONLY WAY BY WHICH INDUSTRIAL PARK ROAD CAN BE COMPLETED AS A THROUGH STREET, WITH THE RESULTANT PERIPHERAL BENEFITS OF IMPROVED TRAFFIC FLOW, MORE EFFECTIVE UTILITY (ESPECIALLY WATER) SERVICE, AND REDUCTION OF THE POTENTIAL PROBLEMS INHERENT ON A DEAD-END STREET SERVING A LARGE NUMBER OF PROPERTIES.

OPTION "D", THE EXTENSION OF INDUSTRIAL PARK ROAD TO MIDDLE STREET IS THE FIRST POINT AT WHICH ANY SIZEABLE AREA OF PRIVATE INDUSTRIAL LAND IS OPENED UP FOR DEVELOPMENT BY VIRTUE OF FRONTAGE ON IMPROVED ROADS WITH ACCESS TO ALL UTILITIES.

ASSUMING THAT THE PRICE FOR INDUSTRIAL LOTS ON PRIVATE LAND WILL BE SET AT A REASONABLE RANGE COMPARED TO THAT SET BY INFORM, THEN THE RESULTANT DEVELOPMENT OF THOSE PRIVATE LANDS SHOULD GENERATE SIGNIFICANT JOB AND TAX BENEFITS TO THE CITY AS CAN BE SEEN IN TABLE I.

THE COST OF CONSTRUCTION TO EXTEND INDUSTRIAL PARK ROAD NORTHEAST, ACROSS SAWMILL BROOK AND DIAGONALLY ACROSS THE SLOPES UP TO MIDDLE STREET (A DISTANCE OF APPROXIMATELY 3,900') IS ESTIMATED AT \$750,000, TO WHICH MUST BE ADDED A FIGURE OF \$135,000 COVERING THE COST OF WIDENING THE FIRST STAGE OF THE ROAD (TO STATION 44+50) FROM ITS PRESENT 30' TO THE PLANNED 40' TO ACCOMMODATE ANTICIPATED INCREASED TRAFFIC DUE TO ITS CONDITION NOW AS A THROUGH STREET. ADDING TO THIS, WE WILL HAVE AN ESTIMATED \$265,500 IN FINANCING COSTS FOR A GROSS ESTIMATED COST OF \$1,150,500.

DUE TO THE OPENING UP OF SOME 102 ACRES OF PRIVATE INDUSTRIAL LAND, THIS OPTION COULD GENERATE 1,512 JOBS, \$660,000 IN LOT SALES (TO THE CITY) AND AN ANNUAL TAX INCREASE OF \$519,842 WHEN FULLY DEVELOPED. IF WE REALIZE THAT OPTION "D" MUST BE LOOKED AT AS AN EXTENSION BEYOND OPTION "C", THEN WE SHOULD LOOK AT THE TOTAL BENEFITS OF EXTENDING INDUSTRIAL PARK ROAD FROM ITS PRESENT TERMINUS ALL THE WAY TO MIDDLE STREET, AS RESULTING IN APPROXIMATELY 1,917 NEW JOBS, AND \$638,415 IN INCREASED TAXES WHEN FULLY DEVELOPED.

CONSIDERING LOT SALES TO THE CITY OF \$1,110,000 (BASED ON THE CURRENT \$10,000 PER ACRE), PLUS THE NEARLY \$640,000 (ULTIMATE) PER YEAR IN TAXES, THERE SHOULD BE A REASONABLE EXPECTATION OF BALANCING AGAINST THE ESTIMATED \$1,656,500 CONSTRUCTION COST IN A RELATIVELY SHORT PERIOD OF TIME.

AS PREVIOUSLY NOTED, THIS OPTION ASSUMES THE ACQUISITION OF AN 80' RIGHT-OF-WAY TO MIDDLE STREET WITHOUT COST TO THE CITY, AND NO OTHER LAND ACQUISITION.

OPTION "E" IS ESSENTIALLY THE SAME AS "D" INsofar AS THE ROAD IS CONCERNED, BUT IS PREDICATED ON THE POSSIBLE ACQUISITION OF SOME 60 ACRES OF LAND FROM HEALY TRUSTEES (ALL OF THAT PARCEL EAST OF THE INTERCEPTOR) WHICH WILL TRANSFER AN ESTIMATED 40 ACRES OF DEVELOPABLE LAND FROM PRIVATE TO PUBLIC OWNERSHIP AT AN ESTIMATED COST OF \$180,000 (\$3,000 PER ACRE BASED ON UNIMPROVED, BACK LOT VALUES). THIS WILL REPRESENT A POTENTIAL FOR PERHAPS \$400,000 MORE IN LOT SALES TO THE CITY-- IN ADDITION TO GIVING THE CITY OWNERSHIP OF ADDITIONAL WATERWAY ALONG SAWMILL BROOK AND, OF COURSE, SOME CONTROL OF A POSSIBLE FUTURE ACCESS TO ROUTE 72, IF THIS IS EVER NEEDED.

OPTION "F" COVERS ALTERNATE NO. 2, THE EXTENSION OF INDUSTRIAL PARK ROAD TO ROUTE 72, INSTEAD OF MIDDLE STREET. ON ALL COUNTS EXCEPT FOR TRAFFIC BENEFITS, THIS ALTERNATIVE MUST BE LOOKED AT AS ECONOMICALLY INFEASIBLE WITHOUT CONSIDERABLE FUNDING FROM STATE OR FEDERAL SOURCES.

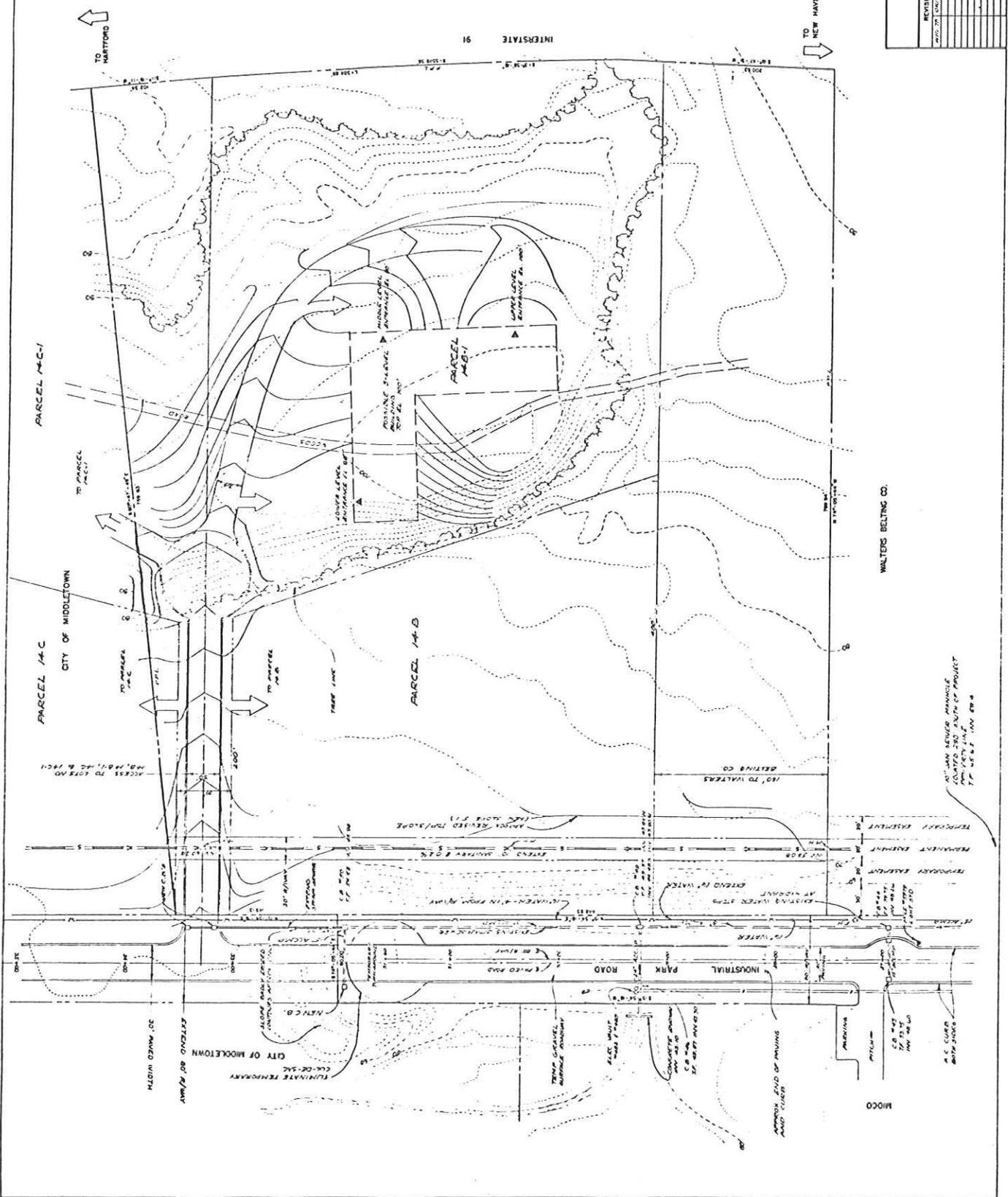
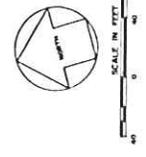
AT A GROSS COST OF OVER \$3 MILLION (COMPARED TO \$1,150,500 FOR OPTION "D" OR "E"), THIS ROUTE WOULD OPEN UP ONLY 105 ACRES (COMPARED TO 168 ACRES FOR "D" OR "E"), AND RETURN ONLY ABOUT ONE-HALF OF THE TAX INCOME. IN ADDITION, DUE TO THE SUBSTANTIALLY GREATER COSTS AND DELAYS RESULTING FROM THE COMBINATION OF THE RIVER CROSSING, PLUS THE NEED TO WORK WITH ANOTHER TOWN, THIS ROUTE DOES NOTHING FOR ALL OF THE INDUSTRIAL LAND ALONG MIDDLE STREET AND BETWEEN MIDDLE STREET AND THE INTERCEPTOR.

## IX SUMMARY OF RECOMMENDATIONS

TO SUMMARIZE THE RECOMMENDATIONS COVERED IN THE PREVIOUS TEXT, BASED ON THESE STUDIES WE RECOMMEND:

- I. RECONSTRUCT THE LAST 400' OF INDUSTRIAL PARK ROAD TO RAISE THE GRADE ALONG THE ENTIRE FRONTAGE OF PARCEL I4-B.
2. EXTEND INDUSTRIAL PARK ROAD (AT THIS REVISED GRADE) IN THREE STAGES NORTH AND WEST TO MIDDLE STREET:
  - A. THE FIRST STAGE WOULD EXTEND THE ROAD 1,250' TO STATION 44+50, WITH PAVING TEMPORARILY ENDED AT 40+00 AND SANITARY SEWER AT 36+35. THIS WOULD PROVIDE FOR 6 LOTS AND 20 ACRES OF DEVELOPMENT INCLUDING I4-B (OPTION "B").
  - B. CONTINUE PAVING AND UTILITIES TO THE PRESENT LIMIT OF CITY-OWNED LAND, PICKING UP 4 MORE LOTS, REACHING THE LIMIT OF LAND IN THIS AREA OWNED BY THE CITY. (OPTION "C").
  - C. ACQUIRE APPROXIMATELY 60 ACRES BEYOND THE NORTH LIMIT OF CITY-OWNED LAND, PLUS AN 80' RIGHT-OF-WAY TO MIDDLE STREET AND EXTEND INDUSTRIAL PARK ROAD (TO A FULL WIDTH OF 40') TO MIDDLE STREET WITH ALL UTILITIES, A DISTANCE OF 3,900'. THIS WILL PROVIDE THE MIDC PARCEL ON MIDDLE STREET WITH ACCESS TO INDUSTRIAL PARK ROAD AS WELL AS MIDDLE STREET, AND ALL UTILITIES (OPTION "E").
3. EXTEND THE 16" WATER LINE IN INDUSTRIAL PARK ROAD ALONG THE PROPOSED EXTENSION TO MIDDLE STREET, THEN SOUTH ON MIDDLE STREET TO BRADLEY STREET, AT WHICH POINT IT SHOULD BE INCREASED IN SIZE TO 20" AND CON

- NOTES:
1. TOPOGRAPHIC DATA BY HENRY C. COTTON, SURVEYOR AND U.S.P.S. AND CITY OF MIDDLETOWN MAPING.
  2. PROPERTY LINES, ROAD & UTILITIES DATA FROM CITY OF MIDDLETOWN ENGINEERING DEPT. MAPING.
  3. INDUSTRIAL PARK ROAD TEMPORARILY PAVED TO 30' WIDE WITH 40' R/W WAY WIDTH 80' CURB LINE. DESIGN WIDTH 40'. R/W WAY WIDTH 80'.
  4. AREA PARCEL 14B = 11.60 A.



NOT AN OFFICIAL RECORD  
LOCATED AND PART OF PROJECT  
FILED IN THE  
PLAT BOOK NO. 1000 89-4

TINUED SOUTH ALONG MIDDLE STREET TO TIE INTO THE EXISTING 20'' MAIN NEAR NORTH AND JUDD, COMPLETING THE LOOP.

4. WIDEN INDUSTRIAL PARK ROAD FROM SMITH STREET TO THE PRESENT LIMIT OF CITY-OWNED LAND (A DISTANCE OF 3,200') FROM 30' TO 40' AS PLANNED.
5. CONSTRUCT A 350' LONG CUL-DE-SAC EAST FROM STATION 33+30 INTO LOT 14-B SUCH THAT LOT 14-B AND 14-C CAN THEN BE DIVIDED INTO 4 LOTS (TWO AT 3.2 A. AND TWO AT 3.9 A), ALL WITH ACCESS TO THE EXTENDED ROAD AND SEWER LINE. THIS PARCEL 14-B BECOMES FOUR PARCELS.

THE ABOVE RECOMMENDATIONS, IN OUR JUDGEMENT, WOULD PROVIDE THE CITY WITH THE GREATEST LONG-RANGE BENEFITS FROM ITS INVESTMENT IN ROADS AND UTILITIES IN THE SAWMILL BROOK PARK AREA, AND PROVIDE THE INCENTIVE FOR SALE AND DEVELOPMENT OF PRIVATELY HELD INDUSTRIAL LAND NOT ONLY ALONG INDUSTRIAL PARK ROAD, BUT ALONG MIDDLE STREET AS WELL. THE ONLY ADDITIONAL ACTION NEEDED TO SPUR THE LATTER IS EXTENSION OF THE SANITARY SEWER FROM MIDDLE STREET DOWN TO THE INTERCEPTOR (POSSIBLY VIA THE 50' RIGHT-OF-WAY) AND ALONG MIDDLE STREET TO SERVE THAT FRONTAGE. MUCH OF THIS COST COULD WELL BE RECOVERED FROM THE \$15.00 FRONT FOOT ASSESSMENT TO BECOME EFFECTIVE THIS COMING YEAR.

AS A FINAL NOTE WE SHOULD POINT OUT THAT THE PREVIOUS DATA HAS MADE NO REFERENCE TO THE MATTER OF SALES REPRESENTATION AND ADMINISTRATION. IT HAS BEEN OUR EXPERIENCE THAT SOME MUNICIPALITIES WITH INDUSTRIAL DEVELOPMENT PROGRAMS ASSUME THAT ACCEPTABLE RESULTS WILL OCCUR WITHOUT PAYING ATTENTION (OR ALLOCATING COSTS) FOR THESE CRITICAL FUNCTIONS. UNFORTUNATELY, THIS HAS NEVER BEEN THE CASE.

ON THE CONTRARY, A WELL-BALANCED AND DIVERSIFIED INDUSTRIAL DEVELOPMENT PROGRAM IS NOT THE RESULT OF CHANCE, AND MUST DEPEND UPON MORE THAN JUST THE PROVISION OF THE PHYSICAL FACILITIES, IT IS USUALLY ACHIEVED ONLY BY AN IMAGINATIVE AND CONTINUING EFFORT SUPPORTED BY COMMITMENTS LIVED UP TO, AND A REALISTIC RECOGNITION OF THE NEED TO ADEQUATELY FUND THIS ASPECT OF THE PROGRAM.