INTERIM REPORT: CONCEPT PLAN STUDY

FOR THE

Maine Yankee Property and Surrounds Wiscasset, Maine

PREPARED FOR THE

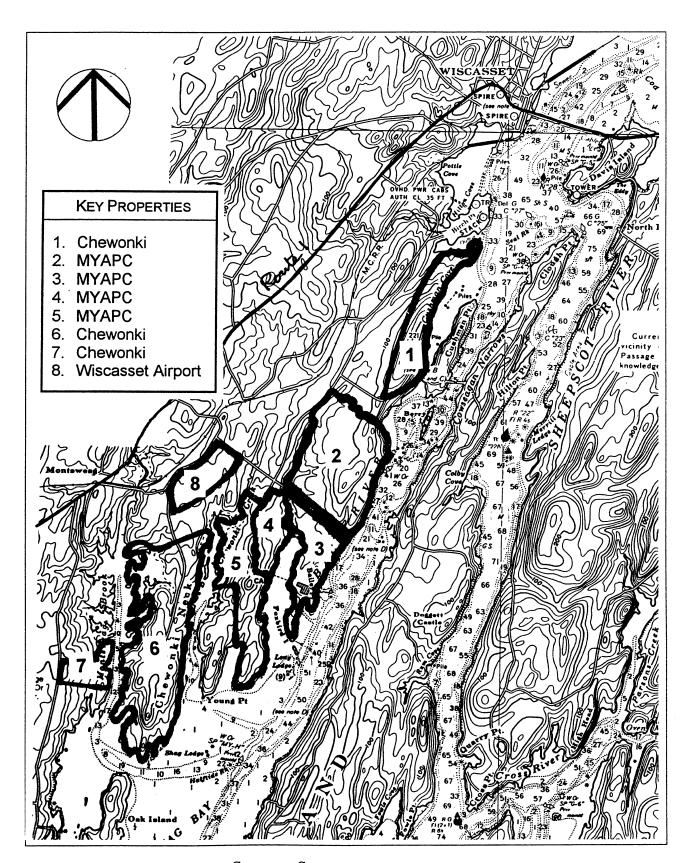
Wiscasset Regional Development Corporation



FERRY ROAD NORTH, MAINE YANKEE SITE

Prepared by
Kent Associates Planning and Design
Consultants, Gardiner, Maine

November 2001



SITE AND SURROUNDS

MAINE YANKEE PROPERTY CONCEPT PLAN STUDY: INTERIM REPORT

Introduction

This interim report serves to summarize progress to date on the development of a Concept Plan (or plans) for:

- a) the \pm 800 acre Maine Yankee property and
- b) the immediate region around the site from the coast to Route 1 south of Wiscasset Village.

This report contains two parts:

- Descriptions of the draft plans.
- Discussion of the **next steps** in the planning process.

This effort is being guided by representatives from the Town of Wiscasset, Maine Yankee, the County Commissioners, the Coastal Enterprise Incorporated, and the Chewonki Foundation. These individuals continue to help shape, and critique, the concept plan as it is developed. The planning process is being paralleled by an on-going marketing effort. Both efforts gain from each other and will help hone the final plans.

The maps and site analyses upon which the draft site plans are based have been provided by Maine Yankee and were developed by Stratex. These wetland, slope, forest cover, utility, and other maps have proved invaluable. They provide a solid base for this work.

Further, the plans presented here have benefited from a review by staff of the Maine Department of Transportation and the State Planning Office. Their input and support of the overall, regional concept plan is appreciated.



Route 144 at the north end of the Ferry Road North site, on right of photo.

Finally, every effort has been made to acknowledge the "Community Criteria" identified in two public workshops held earlier this year with local, county, and state leaders. The criteria are listed below. At these workshops participants identified seven broad **themes**; they are summarized here:

- Access: improve transportation and trail access and provide water access.
- Preservation: ensure development is environmentally responsible; protect air and water quality as well as any unique habitats.
 - Power: attract clean power generators and/or alternative energy research.
 - **Culture**: consider multi-functional community, cultural, and conference facilities.
 - **Economic Development**: support businesses that broaden the tax base, require few public services, and provide quality jobs.
 - **Residential Development**: some support quality, cluster housing as part of a live/work community; others support economic development without on-site housing.
 - Education: include on-site educational facilities such as a university branch, research facilities and/or health care/medical research facilities.

COMMUNITY CRITERIA

- ✓ Buffers development from existing residential development;
- ✓ Clusters of developed area (with balance of open space);
- ✓ Compatible with existing industry, e.g., lobster fishing;
- ✓ Developer demonstrates past successes;
- ✓ Development is consistent with Site Release schedule;
- ✓ Economically feasible;
- ✓ Enhances transportation access;
- ✓ Environmentally sound: clean, low noise, low light impact, and sustainable;
- ✓ Expands the tax base;
- ✓ Improves the infrastructure;
- ✓ Includes diverse uses/commercial activities;
- ✓ Includes, or is consistent with, a Master Site Plan;
- ✓ Increases employment;
- ✓ Nice looking and friendly;
- ✓ Preference to a Developer-Operator vs. absentee;
- ✓ Provides higher than entry-level (skilled) jobs;
- ✓ Provides opportunities for small business;
- ✓ Regional impact and benefit;
- ✓ Sustainable: is flexible, responsive to changing technology;
- ✓ Visual impact (from off-site) is minimized.

DRAFT PLANS

Three draft conceptual plans have been prepared to date. They are described below.

Regional Plan Description (see illustration on page 5)

PURPOSE

This plan provides a context for Concept Planning on the Maine Yankee site. It presents ideas for guiding growth south of Wiscasset Village and north of the Woolwich town line, between Route 1 and the coast.

OBJECTIVES

The following objectives informed the regional planning process:

- Improve access to developed and developable sites south of Route 1;
- Limit sprawl, manage access on Route 1, and provide new opportunities for development in this part of the Town of Wiscasset;
- Capitalize on the future potential for commuter rail service;
- Provide improved, safe, and efficient vehicular connections to Route 1 from the Maine Yankee site and its surrounds;
- Incorporate plans for the expansion of the Town's airport runway and airport related development;
- Establish recreational trails that link up conservation and recreational lands within the region; and
- Use the results of the above to rezone the area for mixed uses, including residential, commercial, and industrial uses, provided they are environmentally responsible.

FEATURES

The draft regional plan provides a new, one-mile parkway off Route 1 to the southeast; this limited access road opens up access to the Maine Yankee site, Route 144, and additional development sites (between Route 1 and Route 144), making about 1000 acres of land available. In addition, the plan features a commuter rail park-and-ride facility, adjacent to the parkway and Route 144. In so doing it improves opportunities for development and provides for the establishment of a mixed-use neighborhood center at the north end of the Ferry Road (North) parcel.

The features illustrated on the Regional Plan drawing, shown on page 5, include:

a new parkway from Route 1 to Route 144;

- a commuter rail station, at the intersection of the parkway and Route 144;
- a neighborhood center, centered around the station, but primarily on the Maine Yankee site;
- development "pods" (the hatched areas) made accessible by the parkway;
- new airport related, commercial development south of the runway;
- a system of hiking trails (shown as dashed lines), all on land that is either conserved (shown with a tree pattern) or controlled by parties associated with the plan; and
- significantly improved access, by rail and road, to the Maine Yankee site, but especially the Ferry Road North parcel (shown cross-hatched).

COMMENTS

- The plan achieves the objectives set forth above. It acts to stem sprawl while offering expanded economic development benefits to the Town of Wiscasset and affected property owners, the most significant, because of the size of the ownership, being Maine Yankee.
- In preliminary discussions with the Maine Department of Transportation staff (from the planning, design, and passenger transportation divisions) and a State Planning Office representative, the plan was greeted with enthusiasm and support. Specific comments addressed:

Rail:

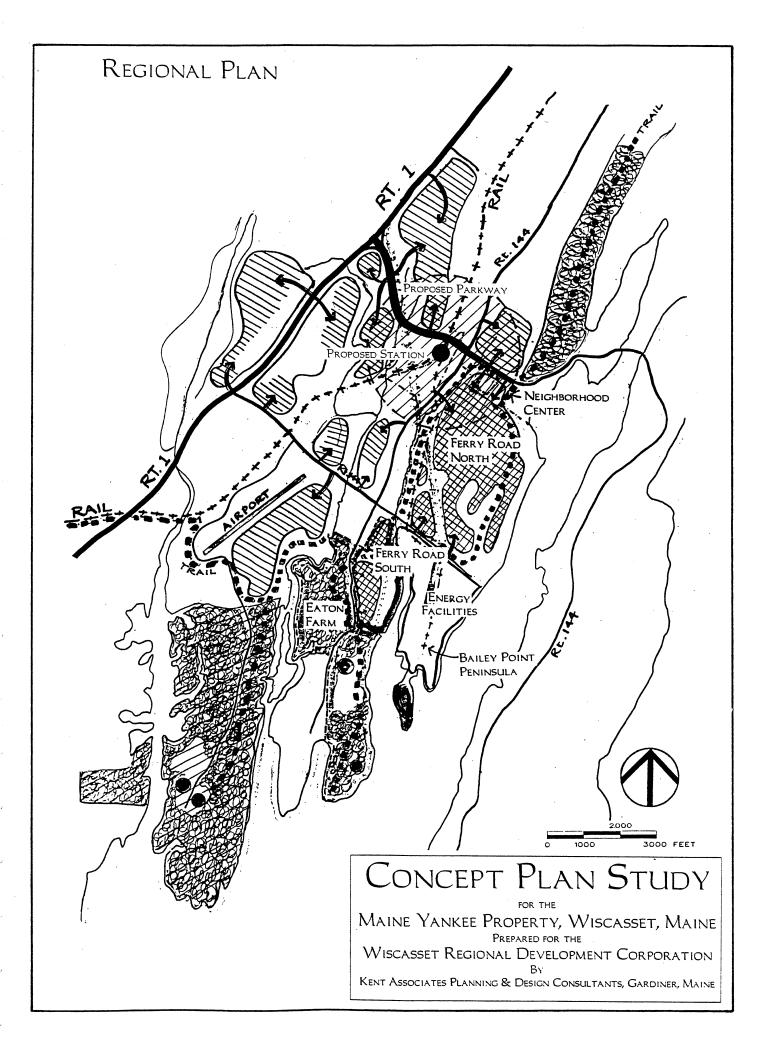
- * MDOT expects to have the track upgraded next year and could see it operational by 2003, for passenger (commuter and tourist) travel.
- * MDOT wants a "park and ride" and park and bus" station in this vicinity.

Route 1:

MDOT is looking for ways to reduce sprawl and driveways along Route 1 and/or to maintain mobility on Route 1 by emphasizing off-arterial development.

Airport:

- * The future of Maine's small airports is in jeopardy given the need for increased security.
- If the runway is extended northeast, Route 144 will have to veer in that direction or tunnel under the runway.
- > The new parkway appears to offer many benefits, yet it is relatively short (1 mile). Funding its construction has not been discussed, but an impact fee linked to new development offers one possibility.



Ferry Road Area Plan (see illustration on page 8)

PURPOSE

This plan for the Maine Yankee property provides a framework for the development of the \pm 800 acre site. This particular plan builds upon the concepts described in the Regional Plan (described above) and sets out to achieve the owner's objectives.

OBJECTIVES

The objectives that guided the development of this plan were:

- Create a mixed-use, neighborhood center that benefits from the proximity of a new rail station and new parkway;
- Design a road network for the Ferry Road North parcel that supports a range of new uses, links key parts of the site and can be built in phases;
- Reserve the Bailey Point Peninsula parcel for energy-related uses;
- Conserve the Eaton Farm property for nature study, outdoor recreation, and environmental education;
- Ensure that a system of trails, linked to a regional system, enhances all the Maine Yankee sites;
- Build flexibility into the plan so it can respond to new market opportunities and different land use demands, while retaining its high quality features; and
- Develop a plan that meets all the criteria identified by local, interested, citizens and organizations (see page 2).

FEATURES

This draft Concept Plan for all of Maine Yankee's \pm 800 acres of property features a system of roads and utilities designed to support a broad variety of land uses. This road system has a close-knit grid of streets, at the parkway/Route 144 intersection, to support a high density of development appropriate to an area with excellent highway and train station access. The extent of the road system and the intensity of land use diminishes towards the south, as access and distance to Route 1 diminishes.

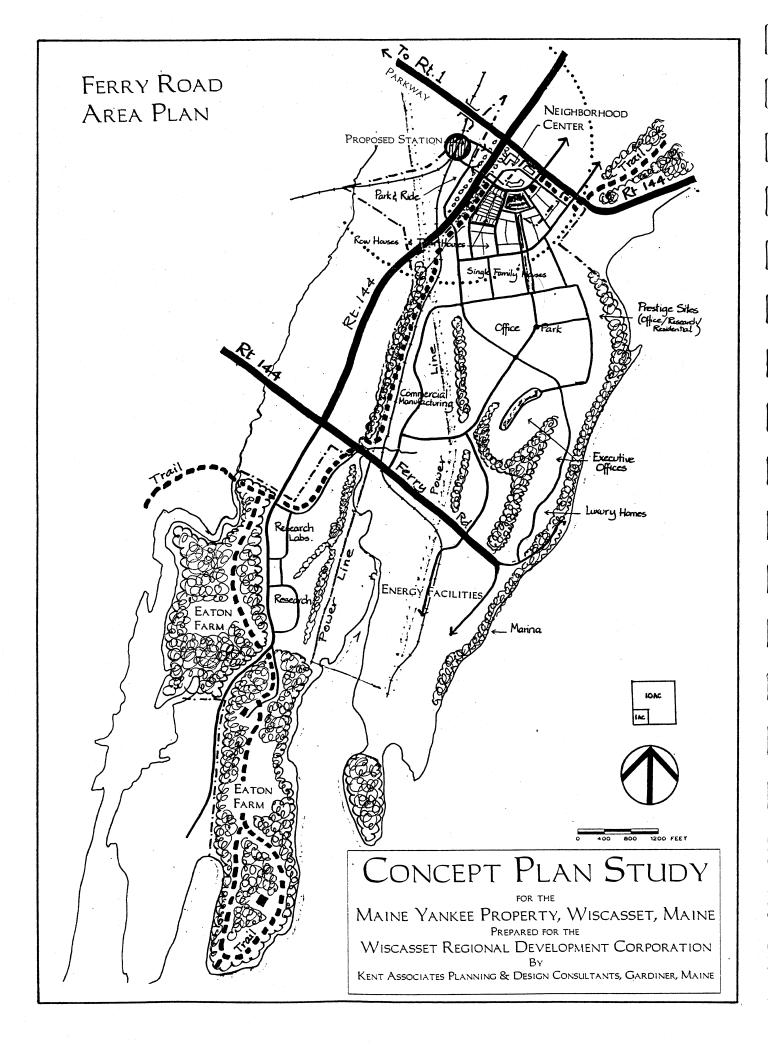
The southernmost Eaton Farm property is the least developed parcel; it will feature recreation facilities and possibly an environmental and/or natural science-based education facility.

The Ferry Road South property (north and east of the Farm and west of Bailey Point) sits on the side of a wooded hillside, with water views to the east. No particular uses have been assigned to this parcel; research labs, prestige offices and/or residential uses are all possibilities.

- The Bailey Point property is to be reserved for energy-related facilities, one possibility being facilities associated with the "Neptune" project. A rail spur and two sets of power lines offer potential, and the existence of a barge slip and marina increases the value of this parcel.
- The Ferry Road North property is the largest parcel; its physical characteristics and accessibility offer a range of land-use opportunities:
 - ▶ the neighborhood center, to the north and linked to the rail station, could support a variety of residential, small scale retail, commercial office and service uses, all within a ± 30 acre area;
 - ▶ the eastern part of this property (± 40 acres) has superb water views, but no good water access; development sites here are small but prestigious; "high-end" uses such as luxury homes and executive office or corporate retreats/spas, fit this category;
 - ▶ the central ± 115 acre part of this property is flat, wooded and accessible; a broad range of uses and parcel sizes could be made available here from residential, to office, to business park to light manufacturing; and
 - ▶ the southwest corner of the property, some ± 40 acres, between the rail spur and power lines is best suited for commercial/manufacturing uses.

COMMENTS

- Within the above-described general street layout and land-use scheme, this plan offers considerable flexibility. It can respond to, and adapt to, different market demand and a broad array of land-use options. It can also inform and give direction to on-going marketing efforts.
- > The entire site is well served by water and sewer systems with the capacity to meet anticipated needs; nevertheless, only the main branches are installed, new laterals and the phasing of development have yet to be addressed.
- > Observers agree that this plan must feature quality development; some have suggested that:
 - * development meet sustainability and "green" standards;
 - * efforts be made to attract "eco-industrial" companies and businesses (i.e., facilities that share resources and/or feed off each others "waste" products);
 - * consideration be given to alternative fuels and/or energy production facilities (such as bio-diesel fuel and micro-turbines); there may be special federal funds available to explore such options.



Conventional Business Park (see illustration on page 10)

PURPOSE

This plan explores development potential on the Maine Yankee site under the assumption that few external road improvements are made. It also does not anticipate a possible rail station. The result is a workable plan and road layout that can accommodate commercial, business park, type uses. This plan does not promote mixed or higher density uses.

FEATURES

This plan treats the southern properties (i.e. Eaton Farm, Ferry Road South, and Bailey Point) in a similar fashion to the Ferry Road Area Plan.

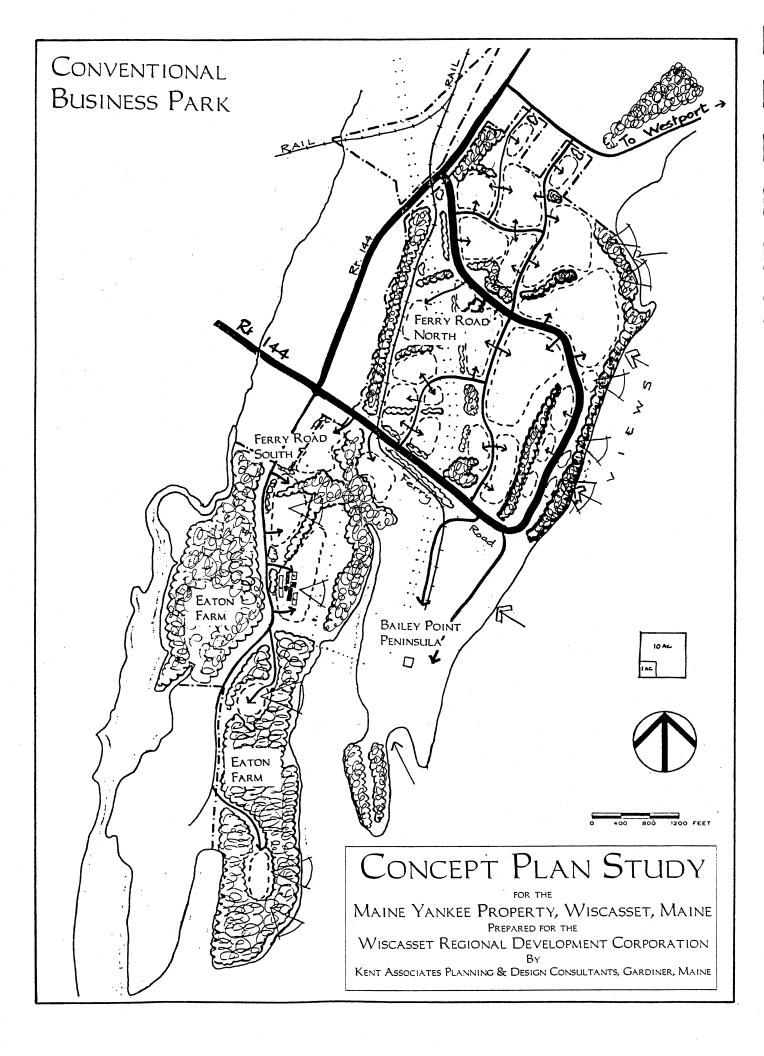
The Ferry Road North site, however, features a road system that uses, and expands on, the existing on- and off-site roads. The main internal, collector road follows the existing road right-of-way and links Route 144, at the rail spur, to the east end of Ferry Road. Shorter roads, off the collector, complete the road system and serve a variety of development parcels, ranging in size from 3 to 20 acres.

COMMENT

While this plan shows that the Ferry Road North property has good development potential, the plan itself needs further work. For example:

- ▶ How would a future train station affect the layout?
- ▶ Could higher end uses be included along the east edge and the collector road realigned to the west?
- ▶ Would a realignment of Route 144, between Route 1 and around an extended airport runway, cause changes to this plan?
- ▶ If a parkway link to Route 1 were made, does it make sense to tie it into this collector rather than the Westport Island Road?

These and other options will be investigated in the next phase of this design process.



NEXT STEPS

STAKEHOLDER MEETING

These draft plans are to be presented to various stakeholders on November 30, 2001. The purpose is to gain feedback from them on the concepts proposed. Invitees include the Commissioners of Transportation and Economic and Community Development, representatives from the Wiscasset Board of Selectmen, the Lincolny County Commissioners, Maine Yankee, and others.

MAPPING

Mapping to support the Concept Plan work is being provided by Maine Yankee. Draft analysis maps of the site are complete and a regional map is being prepared. These are to be fine-tuned for inclusion in a final Concept Plan report. In addition, a tax parcel map for the region is being prepared.

ENGINEERING

As the preferred concept plans are being developed, engineers at DeLuca-Hoffman Associates, Inc., will review and comment on the feasibility of the plans. They are expected to:

- look at sewer and water laterals in terms of cost, feasibility, location, and phasing;
- ballpark estimate parkway, Route 144 tunnel and internal road costs;
- suggest cost-saving alternatives.

TRAFFIC

Casey & Godfrey will estimate the traffic impacts of alternative regional road patterns in terms of:

- the need for grade separations;
- increases and decreases in traffic volume on local roads;
- traffic flow within the Maine Yankee site.

WISCASSET BY-PASS STUDIES

The plans presented here are being developed *independent* of the Maine Department of Transportation's current studies of by-pass feasibility. The concept plan advisory group is neutral on the by-pass. The parkway proposed in the Regional Plan is solely to serve and open up access to developable land south of Route 1, and to replace Route 144 in the vicinity of the airport, if a runway extension is needed.

PROGRAM REFINEMENT

The consultant will continue to work with the Town and Maine Yankee consultants to explore and respond to ideas and signals of interest from potential businesses and tenants on the subject site.

Some basic concepts for an airport business park road system will also be explored, particularly as they relate to the regional roads but primarily Route 144.

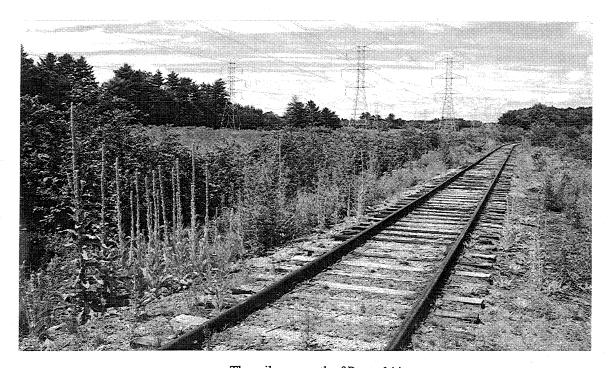
PLAN REFINEMENT

Both the Regional and Area Plans will be refined based on:

- ✓ stakeholder comments:
- √ engineering and traffic input;
- ✓ land parcel information (especially in the vicinity of the neighborhood center);
- ✓ wetlands mapping;
- ✓ market and other programmatic information;
- ✓ scenic view considerations; and
- ✓ design ideas.

PRELIMINARY CONCEPT PLAN DEADLINE

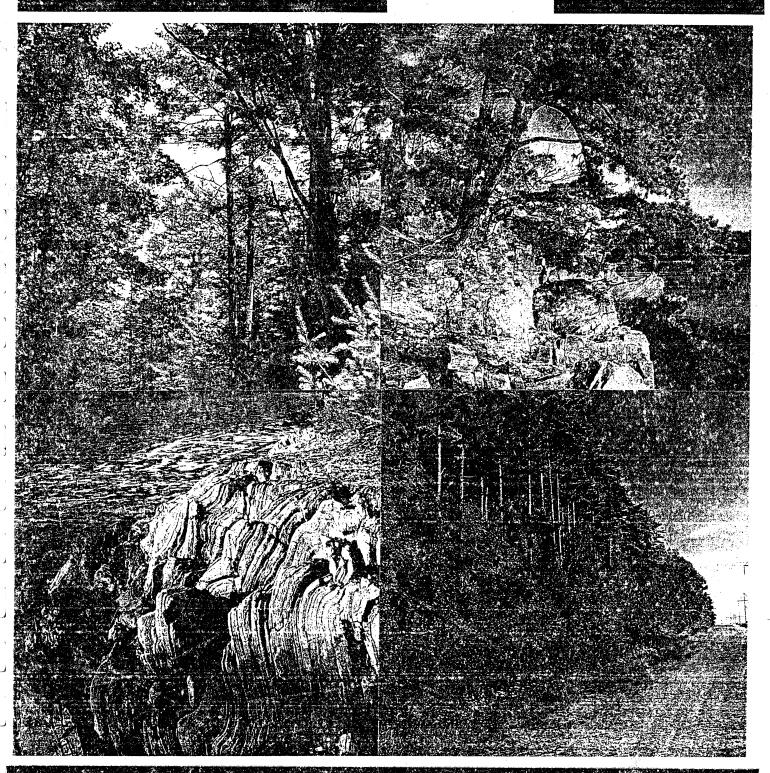
The immediate goal is to present revised, improved concept plans for the region and the site to the advisory group by mid-December, following the November 30th meeting.



The rail spur north of Route 144.

CONCEPT PLAN STUDY for the MAINE YANKEE SITE AND SURROUNDS, WISCASSET, MAINE

APPENDIX



Prepared by Kent Associates Planning & Design Consultants, Galviner, Maine

APPENDIX

This appendix to the Concept Plan Study for the Maine Yankee site and surrounds, Wiscasset, Maine, contains three sections. They provide important background information on which the concept plan and the recommendations within this report are based.

Section A Traffic Report

Prepared by Diane Morabito, Traffic Consultant and Principal at Casey & Godfrey, Transportation Engineers, Gardiner, Maine

Section B Infrastructure Cost Opinions

Prepared by Dwight D. Anderson, P.E., and Joseph Laverriere, P.E., Consulting Civil Engineers with DeLuca Hoffman Associates of South Portland, Maine

Section C Site Analyses

Prepared by Matt Mills at Maine Yankee and Stratex, Environmental Consultants of Freeport, Maine

SECTION A TRAFFIC REPORT



DATE: December 21, 2001



Consulting Engineers

263 Water Street Gardiner, ME 04345 (207) 582-4526 FAX (207) 582-8526 E-mail: cge@ime.net

SUMMARY MEMORANDUM

TO: Brian Kent Kent Associates Brunswick Avenue Gardiner, Maine 04345

RE: Traffic Impact for Conceptual Plans for Potential Maine Yankee Reuse

Introduction

This memorandum summarizes the results of traffic impact analyses that were performed to evaluate potential concept plans for reuse of the Maine Yankee property in Wiscasset, Maine. The Maine Yankee plant ceased operations in 1997. The 800 acre site is located south of Wiscasset village, between Route 1 and the coast. The site location and surrounding area are shown on the map in Figure 1. Route 1 is classified as both a retrograde arterial and a mobility corridor under the Maine Department of Transportation's (MDOT) new access management rules.

This traffic impact review evaluates the impact of potential employment levels for reuse of this property. Traffic analyses were performed for the existing 2001 conditions and the projected 2010 and 2020 conditions for the alternative concepts.

Traffic Volumes

Turning movement counts were conducted during the PM peak hour period at the Route 1 intersections of Route 144 and Birch Point Road. These counts were factored to peak summer volumes using published MDOT group mean factors as shown in Figure 2. The count summaries are included in the appendix.

Existing average annual daily traffic (AADT) data for the area was obtained from "Traffic Volume Counts, 1992 and 1997, 1999 Annual Reports", prepared by MDOT. This data is summarized below:

| | Average Annual Daily Traffic | | | | | |
|--|------------------------------|-------------|-------------|-------------|-------|-------------|
| | <u>1990</u> | <u>1992</u> | <u>1995</u> | <u>1996</u> | 1997 | <u>2000</u> |
| Route 1, southwest of Route 27 | | | 17830 | | | 19130 |
| Route 1, southwest of Bradford Street | | | 17100 | | | 19890 |
| Route.1, northeast of Route 144 | | 14460 | 15290 | | 16450 | 17010 |
| Route 1, southwest of Route 144 | | 14760 | 15040 | | 15610 | 16670 |
| Route 1, at Woolwich Town Line | | | 14700 | | 16340 | 16820 |
| Route 144, northeast of Inv Road # 386 | | | | | 1430 | 1570 |
| Route 144, southeast of Route 1 | | 2440 | | | | 2500 |
| Route 144 @ Wiscasset/Westport Line | 1140 | 1110 | 1630 | 1540 | 1470 | 1790 |

Based upon the preceding counts, traffic volumes on Route 1 in the vicinity of Route 144 have increased at an annual rate of approximately 1.7 % over the period 1992 to 2000. Traffic volumes on Route 144 have increased at a greater annual rate of approximately 3.7 %. These historical growth rates were used to project the 2001 traffic volumes to future 2010 and 2020 conditions as shown in Figure 3.

Other Development Trip Generation

In addition to background traffic growth, typical of growth outside the study area, traffic volumes from other development within the study area must also be considered. Kent Associates identified two potential development areas within the immediate vicinity of the site. The first is a possible expansion of the Wiscasset Airport with development of an adjacent industrial park. The second potential project is an office/retail complex, which could be located off Route 1. The traffic to be generated by these two other development areas was estimated based upon the Institute of Transportation Engineers (ITE) "Trip Generation, 6th Edition" report.

The calculations were performed using land use codes 022 – General Aviation Airport, 130 – Industrial Park, 710 – General Office Building and 820 – Shopping Center. The results for the PM peak hour, based upon the projected employment in each use, are shown below:

| | TIGH GENERATION - 2010 | | | | | |
|--------------|------------------------|-------------|--------------|--------------|-------------|--------------|
| | Airp | ort A | rea | \mathbf{R} | oute 1 Area | |
| Time Period | <u>Airport</u> | <u>I.P.</u> | <u>Total</u> | Office | Shop | <u>Total</u> |
| PM Peak Hour | 37 | 58 | 95 | 116 | 628(214) | 744(214) |
| Entering | 20 | 12 | 32 | 20 | 301(102) | 321(102) |
| Exiting | 17 | 46 | 63 | 96 | 327(112) | 423(112) |

TRIP GENERATION – 2020 Route 1 Area Expansion – Additional Trips

TRIP GENERATION - 2010

| | | Permoroni | TAGGICA TALL |
|--------------|---------------|-----------|--------------|
| Time Period | <u>Office</u> | Shop | <u>Total</u> |
| PM Peak Hour | 55 | 364(124) | 419(124) |
| Entering | 10 | 175(60) | 185(60) |
| Exiting | 45 | 189(64) | 234(64) |

^{*} XX= New Trips, (XX) = Pass-by Trips

Note: 34% of the retail trips are pass-by.

As can be seen above, there is the potential for approximately 100 new peak hour trips to be generated by the airport expansion/industrial park development. A retail/office complex on Route 1 has the potential to generate hundreds of new PM peak hour trips.

In addition to these two potential development areas, a park and ride lot may be developed to accommodate potential passenger rail service. The lot would likely consist of 400 to 500 parking spaces. Allowing for several rail arrival and departures daily, along with some overnight use, it was assumed that 60 new trips (30 entering, 30 exiting) would be generated during the PM peak hour.

Concept Plan Trip Generation

The traffic to be generated by the proposed new development on the Maine Yankee site was also estimated using the ITE "Trip Generation" report. The estimates were obtained using land use code (LUC) 750 - Office Park. The results, based upon the projected number of employees, for several scenarios, are outlined as follows:

| Time Period | 500 | <u>750</u> | <u>1000</u> | 1600 | <u>2000</u> |
|--------------|-----|------------|-------------|------|-------------|
| PM Peak Hour | 228 | 325 | 418 | 629 | 764 |
| Entering | 34 | 49 | 63 | 94 | 115 |
| Exiting | 194 | 276 | 355 | 535 | 649 |

As can be seen above, development of the parcel into an office park will generate from 228 to 764 PM peak hour trips, dependent upon employment level. Since the development will generate in excess of 100 trips, a Traffic Movement Permit would be required from the Maine Department of Transportation. These trips were assigned to Route 1 based upon the currently observed travel patterns, with 60 % of the traffic to and from the north, and the remainder (40 %) south.

Concept Scenarios

In addition to utilizing the existing roadways in the study area (scenario 1), two other scenarios were analyzed. A possible airport expansion may cause the Route 144 connection to be closed off from the Maine Yankee development site (scenario 2). As a result, all traffic to and from the Maine Yankee property would be directed onto Birch Point Road. A new connector road from the Route 1 retail/office development site to the Maine Yankee was also evaluated (scenario 3). This connector road/drive would be located approximately midway between Route 144 and Birch Point Road, and would continue from Route 1 serving both the office/retail site and the Maine Yankee property. Under this scenario, the majority of traffic entering and exiting Maine Yankee would utilize this drive.

Figure 4 shows the overall trip assignments for the year 2010, assuming 500 employees at the Maine Yankee site, for all three alternative access scenarios. Figure 5 shows the trip assignments for 1,000 employees. Lastly, trip assignments for the potential 2000 employees are shown in Figure 6 for the year 2020.

TRAFFIC ANALYSIS

Traffic operations are evaluated in terms of level of service (LOS). Level of service is a qualitative measure which describes operations by letter designation. The levels range from A - very little delay to F - extreme delays. Level of service "D" is considered generally acceptable in urban locations while LOS "E" is generally considered the capacity of a facility and the minimum tolerable level. The level of service for unsignalized intersections is based upon average control delay per vehicle for each minor, opposed movement, as defined in the following table excerpted from the 2000 "Highway Capacity Manual":

Unsignalized Intersection Level of Service

| <u>LOS</u> | Control Delay Range |
|------------|--------------------------|
| A | < = 10.0 seconds |
| В | > 10.0 and $<= 15.0$ |
| C | > 15.0 and ≤ 25.0 |
| D | > 25.0 and ≤ 35.0 |
| E | > 35.0 and ≤ 50.0 |
| F | > 50.0 |

The level of service for signalized intersections is based upon the average control delay per vehicle. The levels are shown below:

Signalized Intersection Level of Service

| <u>LOS</u> | Control Delay per Vehicle |
|------------|---------------------------|
| Α | ≤ 10.0 seconds |
| В | > 10.0 and ≤ 20.0 |
| С | > 20.0 and ≤ 35.0 |
| D | > 35.0 and ≤ 50.0 |
| E | > 50.0 and ≤ 80.0 |
| F | > 80.0 |

EXISTING CONDITIONS

Unsignalized Intersections

The traffic analysis began by assessing existing conditions. The level of service for the PM peak hour condition was determined for the two existing Route 1 access intersections, using Highway Capacity Software (HCS). The results are shown with LOS followed by delay in seconds in parentheses below:

2001 PM Peak Hour Level of Service

| Route 1 @ Route 144 | |
|---------------------------------|------------|
| Route 144 Approach Overall | F (999.99) |
| Left Turns onto Route 144 | B (13.7) |
| Route 1 @ Birch Point Rd | |
| Birch Point Rd Approach Overall | F (999.99) |
| Left Turns onto Route 144 | C(15.6) |

Given that both the Route 144 and the Birch Point Road approaches to Route 1 are failing under existing conditions, improvement actions were evaluated. A review of traffic volumes at Birch Point Road indicated that that there is a limited demand for vehicles turning left off Birch Point Road. As a result, a traffic signal is not recommended at this location. In order to correct the existing capacity deficiency, widening of Birch Point Road to provide two exit lanes is recommended. In addition, a left turn lane is warranted for traffic turning left onto Birch Point Road. The level of service was re-evaluated with the additional exit lane and the left turn lane on Route 1. The results are summarized below:

2001 PM Peak Hour Level of Service

Route 1 and Birch Point Road

| Lefts off Birch Point Road | F (999.9) |
|-----------------------------|-----------|
| Rights off Birch Point Road | F (293.7) |
| Birch Point Road Overall | F (385.6) |
| Left Turns onto Route 144 | C (15.6) |

As can be seen above, the overall LOS will improve significantly with the addition of turn lanes, reducing delay from 999.99 seconds to 385.6 seconds. However, the Birch Point Road approach will continue to operate at LOS "F" under summer peak hour volumes.

A review of the existing peak hour volumes indicates that a traffic signal is warranted at the intersection of Route 1 and Route 144, under the peak hour warrant. In addition, auxiliary turn lane warrants indicate that both right and left turn lanes should be provided on Route 1 to accommodate existing turning volumes. As a result, a signalized intersection analysis was performed, using Synchro optimizing software and HCS, for 2001, 2010 and 2020 to determine if signalization would correct the level of service deficiency. The results are shown below:

Signalized Intersection Level of Service Intersection of Route 1 and Route 144

2001 PM Peak Hour

| Westbound Route 144 Approach | D (51.1) |
|------------------------------|----------|
| Northbound Route 1 Approach | B (11.1) |
| Southbound Route 1 Approach | A (4.5) |
| Overall | B (12.0) |

2010 PM Peak Hour

| Westbound Route 144 Approach | E (58.9) |
|------------------------------|----------|
| Northbound Route 1 Approach | C (33.5) |
| Southbound Route 1 Approach | A (5.7) |
| Overall | C (25.5) |

2020 PM Peak Hour

| Westbound Route 144 Approach | F (249.1) |
|------------------------------|-----------|
| Northbound Route 1 Approach | F (146.6) |
| Southbound Route 1 Approach | A (7.2) |
| Overall | F (106.0) |

Based upon the analysis, signalization and the addition of turn-lanes, would correct the existing deficiency for the existing development levels at the intersection of Route 1 and Route 144. The overall LOS would be "B" under current 30th highest hour volumes. In 2010, the overall LOS would be "C". The LOS would reach an unacceptable LOS "F" by the year 2020. This is projected to occur without any new development in the area, based upon similar historical background traffic growth. The establishment of a Wiscasset Route 1 by-pass would reduce the projected Route 1 volumes and would allow for side street volumes to be better accommodated along the corridor.

FUTURE CONDITIONS ANALYSIS

Future conditions were assessed with the Maine Yankee property re-use trips and the other potential developments in the area. The future conditions were evaluated for the three scenarios. The results are summarized as follows:

Scenario 1 – Existing roadway layout, additional turn lanes at Route 144 and Birch Point Road, and signalization of both Route 144 and Birch Point Road

Given that the intersection of Birch Point Road will not operate acceptably under existing 2001 volumes with appropriate turn lanes, it was assumed that a traffic signal installation would be necessary to accommodate the additional traffic associated with re-use of the Maine Yankee property.

500 Employees at Maine Yankee Site

| Route 1 & Route 144 (Signalized) | <u>Year 2010</u> | <u>Year 2020</u> |
|---------------------------------------|------------------|------------------|
| Westbound Route 144 Approach | F (293.9) | F (418.2) |
| Northbound Route 1 Approach | E (74.4) | F (693.6) |
| Southbound Route 1 Approach | A (7.6) | F (196.4) |
| Overall | E (77.4) | F (470.5) |
| Route 1 & Birch Point Rd (Signalized) | | |
| Birch Point Rd Approach | F (205.3) | F (157.8) |
| Northbound Route 1 Approach | F (195.2) | F (350.0) |
| Southbound Route 1 Approach | F (91.3) | F (137.6) |
| Overall | F (156.2) | F (250.8) |

As can be seen by the above results, the Route 1 volumes in this area exceed the capacity of single through lanes. As a result, even with the addition of a traffic signal, Birch Point Road will not operate at acceptable levels.

Scenario 2 – Airport expansion closes Route 144 access, Maine Yankee and Route 144 is forced to use Birch Point Road

2) Airport expansion closes off the Route 144 access to the site, traffic is rerouted to a signalized Birch Point Road intersection.

500 Employees at Maine Yankee Site

| Route 1 & Route 144 (Unsignalized) | Year 2010 | Year 2020 |
|---------------------------------------|-----------|-----------|
| Route 144 Right-Turn | F (104.8) | F (673.9) |
| Route 144 Left-Turn | F (999.9) | F (999.9) |
| Route 144 Approach Overall | F (999.9) | F (999.9) |
| Left Turns onto Route 144 | C (16.3) | C (21.2) |
| Route 1 & Birch Point Rd (Signalized) | | |
| Westbound Birch Point Rd Approach | F (151.1) | F (154.2) |
| Northbound Route 1 Approach | F (256.7) | F (412.3) |
| Southbound Route 1 Approach | F (172.4) | F (265.2) |
| Overall | F (209.3) | F (317.9) |

Based upon the projected volumes, Birch Point Road will not be able to accommodate all of the diverted Route 144 traffic and traffic from the re-development of the Maine Yankee site, even with signalization and turn-lanes. The overriding constraint is the Route 1 through volumes. During the PM peak hour period, the Route 1 northbound volumes are expected to exceed the capacity of a single lane. To provide for future growth and development, either a by-pass or widening of Route 1 to provide additional travel lanes would be required. Based upon the analysis, if the Airport expansion disconnects Route 144, then a new connector road must be provided.

Scenario 3 – Route 1 development provides direct access to the office/retail development, the Maine Yankee Property and the Park & Ride lot.

The combined connector road - office/retail site drive would be signalized with appropriate turn lanes.

500 Employees at Maine Yankee Site

| <u>Year 2010</u> | <u>Year 2020</u> |
|------------------|-------------------------------------|
| F (311.0) | F (999.9) |
| F (999.9) | F (999.9) |
| F (999.9) | F (999.9) |
| C (17.3) | C (24.2) |
| | F (311.0) F (999.9) F (999.9) |

| Route 1 and the Connector Road (Signalia | zed) | |
|--|-----------|-----------|
| Westbound Connector Road | F (106.9) | F (191.5) |
| Northbound Route 1 | F (183.8) | F (291.2) |
| Southbound Route 1 | F (174.1) | F (453.3) |
| Overall | F (171.0) | F (299.0) |
| Route 1 & Birch Point Rd (Signalized) | | |
| Birch Point Road | F (117.6) | F (157.1) |
| Northbound Route 1 | F (183.8) | F (291.2) |
| Southbound Route 1 | B (17.9) | E (59.2) |
| Overall | F (117.2) | F (195.7) |

As can be seen, due to the high volume of traffic along Route 1 in both the northbound and southbound direction, lane capacity is exceeded and additional through lanes would need to be constructed to remedy the delays shown. Without either additional Route 1 through lanes, or a Route 1 by-pass, it does not appear that a retail/office development, of this scale, could be established on Route 1.

Based upon the projected volumes for the Route 1 office/retail development area, a traffic signal installation would be warranted. As a result, all analysis for this new access intersection assumes signalization of this drive to serve the office/retail development, and under some scenarios, the park and ride lot and the Maine Yankee property. Under each future year analyzed, 2010 and 2020, additional through lanes would need to be added to keep the intersection from failing. The analyses indicated that acceptable operations could be achieved through 2020 with additional travel lanes. As an alternative, an overall reduction in volumes, due to a by-pass or lesser traffic growth, would also provide for the accommodation of some additional development.

SAFETY ANALYSIS Accident Review

Accident location data was obtained from MDOT for the three-year period 1998 to 2000. The Maine Department of Transportation uses two criteria to determine high crash locations (HCLs). The first is the critical rate factor (CRF), which is a measure of the accident rate. A CRF greater than one indicates a location which has a higher than expected accident rate. The expected rate is calculated as a statewide average of similar facilities.

The second criterion, which also must be met, is based upon the number of accidents that occur at a particular location. Eight or more accidents must occur over the three-year study period for the location to be considered a high accident location. The high crash locations along Route 1 within the vicinity of the Maine Yankee property are summarized as follows:

| Location | # of Acc. | <u>CRF</u> |
|--|-----------|------------|
| Intersection of Route 1 and Route 127 in Woolwich | 8 | 1.00 |
| Intersection of Route 1 and Nequasset Road in Woolwich | 8 | 1.20 |
| Intersection of Route 1, Parker Street and Lee Street | 8 | 1.03 |
| Intersection of Route 1 and Route 27 | 12 | 1.52 |
| Route 1 between Route 127 and Bridge 3039 | 23 | 1.37 |
| Route 1 between Wesson and Sanders Roads | 8 | 1.29 |
| Route 1 between Page Avenue and Birch Point Road | 13 | 1.14 |

Based upon the accident data, there are 7 high crash locations within the likely study area. These high accident areas will need to be evaluated to determine if there are any deficiencies that may need to be corrected.

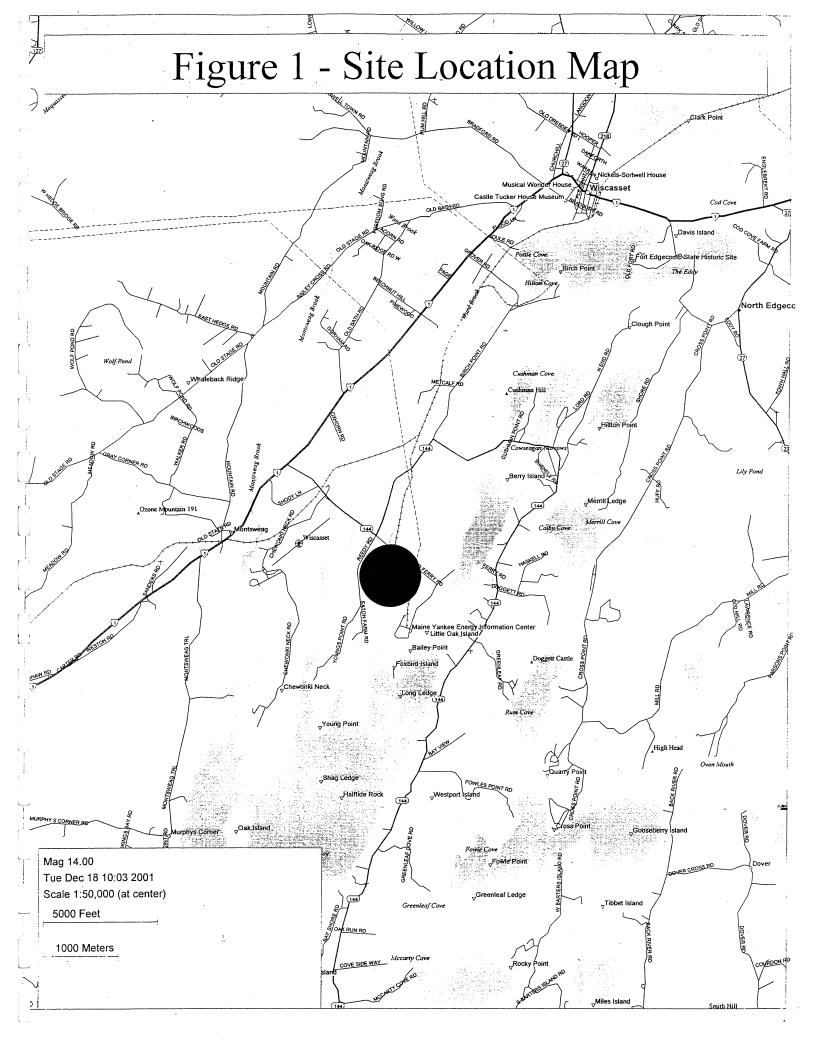
SUMMARY AND CONCLUSIONS

Development for reuse of the 800 acre Maine Yankee property in Wiscasset, Maine is projected to generate from 228 to 764 PM peak hour trips, dependent upon employment levels. Other potential developments and expansion of the airport may generate an additional 155 to 804 new trips by the build out study year of 2020.

Both right and left turn lanes are warranted on Route 1 at Route 144 under existing volumes. The intersection also warrants a traffic signal under the peak hour warrant. These improvements would correct the existing capacity deficiency at this intersection.

The Birch Point Road approach to Route 1 also fails under existing volumes. As a result, separate right and left turn are recommended. In addition, a southbound left-turn lane is warranted on Route 1 for traffic turning onto Birch Point Road.

The existing capacity constraints would be worsened by the potential developments/expansions, without the addition of additional through lanes on Route 1 or a by-pass to reduce Route 1 through volumes. A traffic signal at the intersection of Routes 1 and 144 would provide for the existing volumes and just accommodate the projected year 2010 volumes, with the addition of new development traffic. In order to accommodate projected 2020 volumes either additional through travel lanes, or a reduction in overall Route 1 volumes, would be required. These more extensive improvements would also be required for development of a major office/retail complex on Route 1 or for extensive development of the Maine Yankee site.



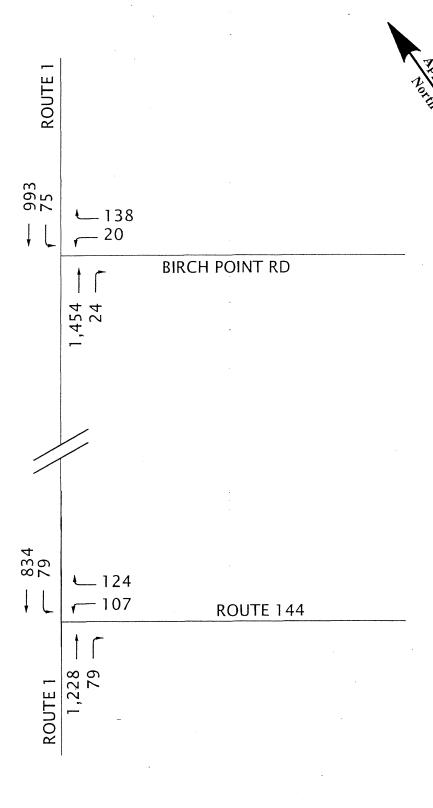
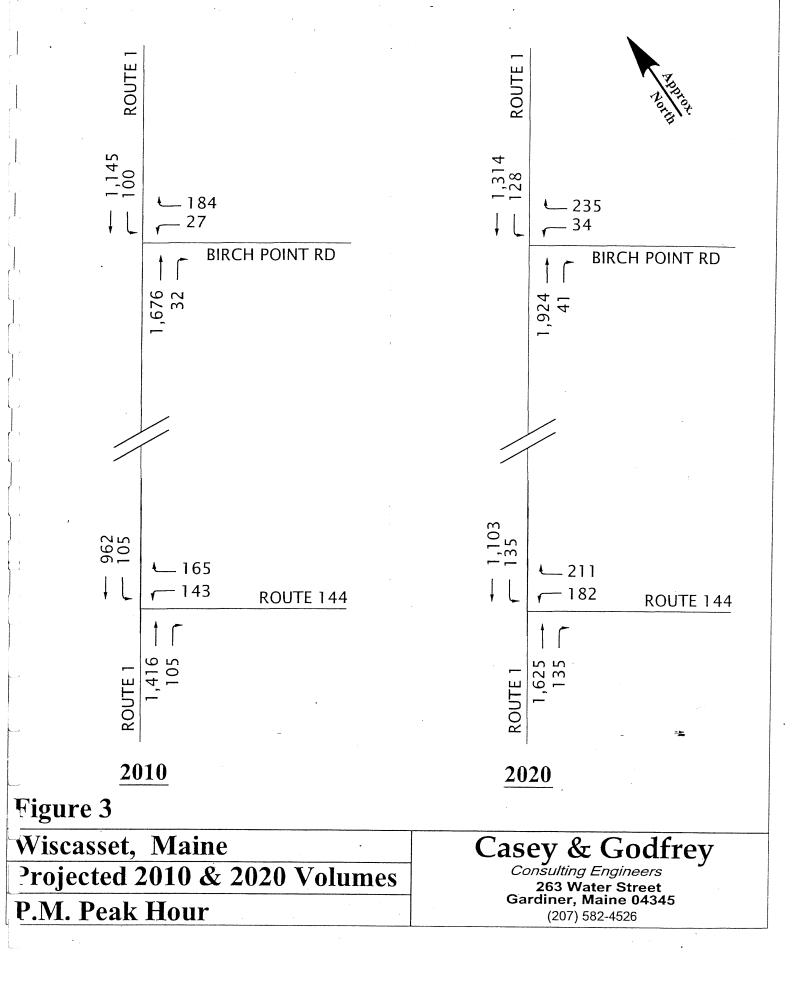


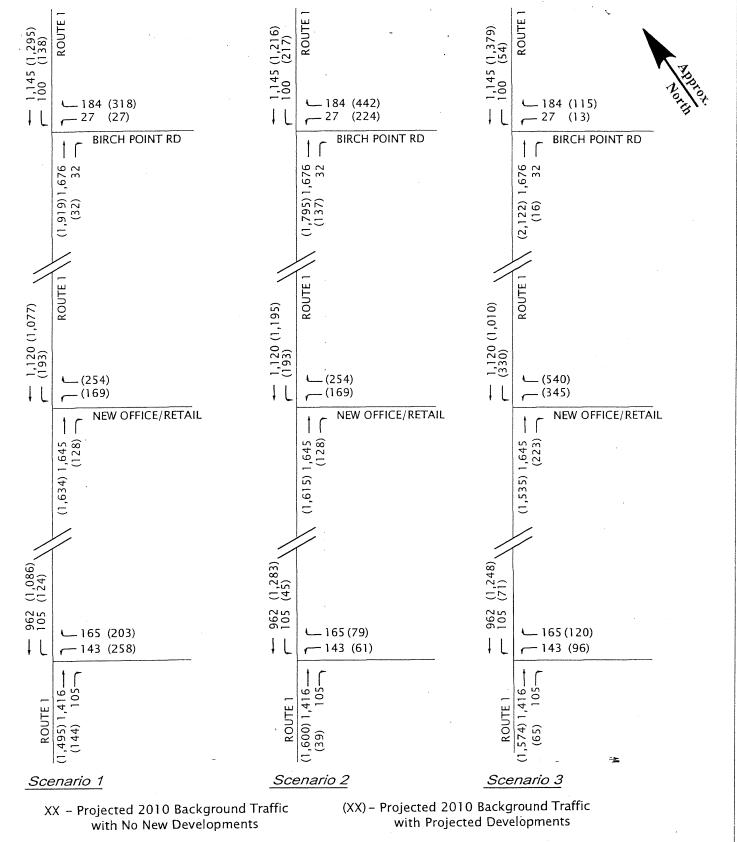
Figure 2

Wiscasset, Maine
Existing 2001 30th Highest Hour
P.M. Peak Hour

Casey & Godfrey Consulting Engineers

Consulting Engineers
263 Water Street
Gardiner, Maine 04345
(207) 582-4526





Based upon 500 employees @ Maine Yankee property

Figure 4

Projected 2010

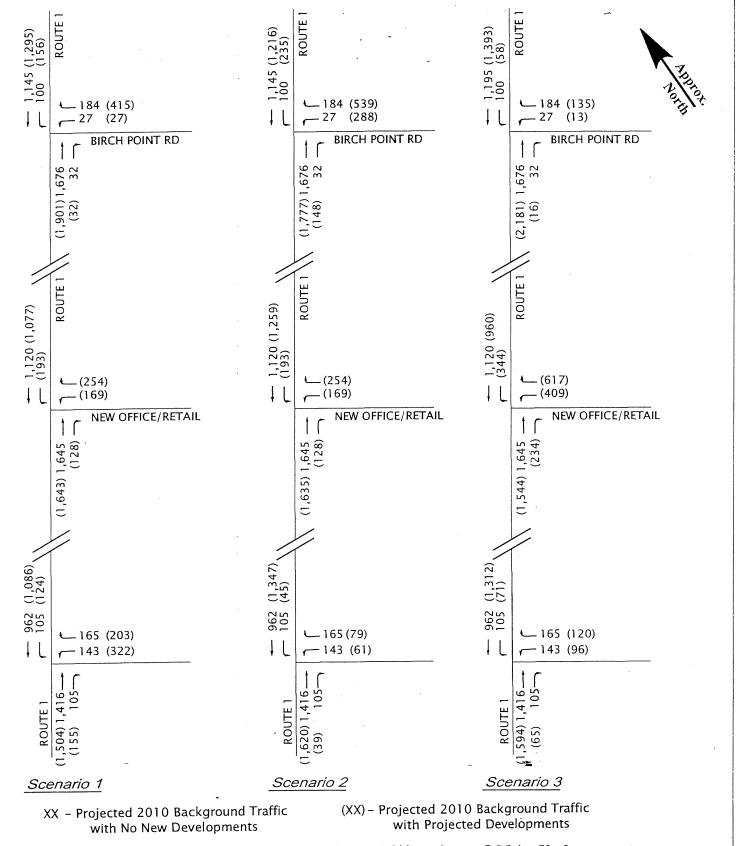
P.M. Peak Hour Volumes

Casey & Godfrey

Consulting Engineers

263 Water Street
Gardiner, Maine 04345

(207) 582-4526



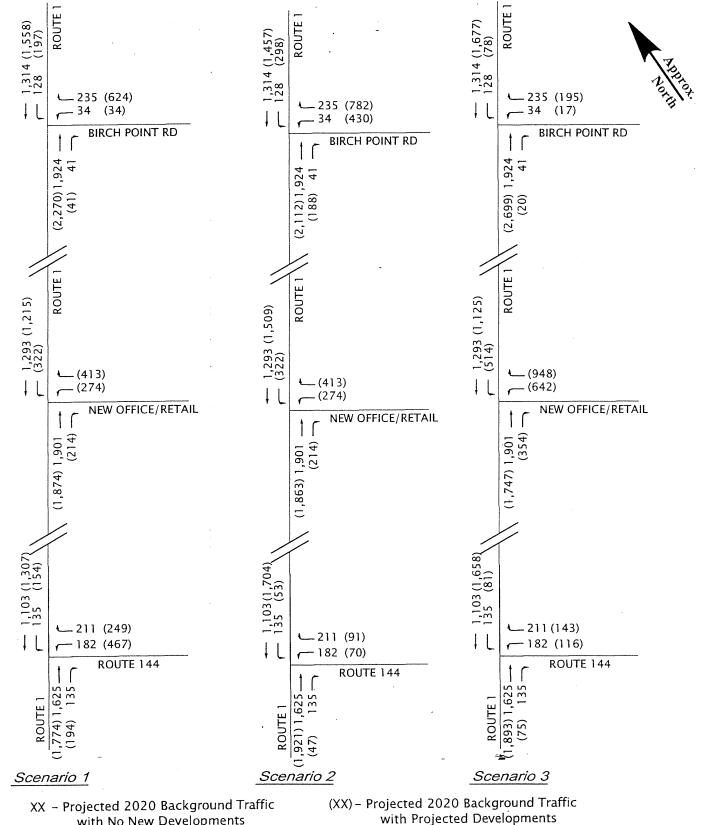
Based upon 1,000 employees @ Maine Yankee property

Figure 5
Projected 2010

P.M. Peak Hour Volumes

Casey & Godfi

Consulting Engineers
263 Water Street
Gardiner, Maine 04345
(207) 582-4526



with No New Developments

Based upon 2,000 employees @ Maine Yankee property

Figure 6 Projected 2020 - Full Build-out P.M. Peak Hour Volumes

Consulting Engineers 263 Water Street Gardiner, Maine 04345 (207) 582-4526

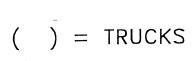
TURNING MOVEMENT COUNT (25)882 0.97 595 535 (24) P.H.F. = 0.61ROUTE 144 175 (4) 94 (2)(2) 81 120

(23)

788 9

(24)

848



| Wiscasset, | Maine |
|------------|-------------------|
| December | 5, 2001 |
| | Hour, 3:45 - 4:45 |

9

61

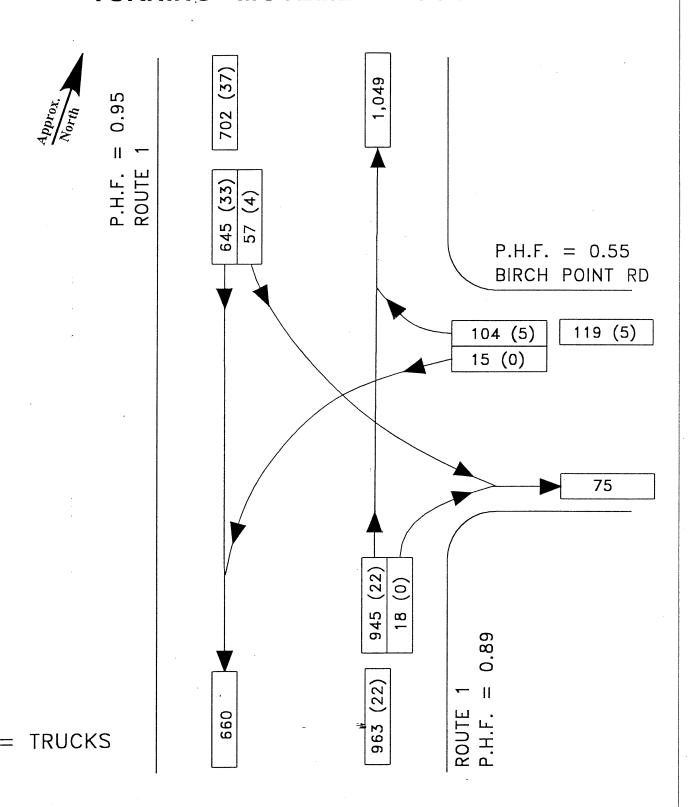
Casey & Godfrey

Consulting Engineers

263 Water Street

Gardiner, Maine 04345 (207) 582-4526

TURNING MOVEMENT COUNT



| Wiscasset, | Maine |
|------------|-------------------|
| December | 11, 2001 |
| P.M. Peak | Hour, 3:45 - 4:45 |

Casey & Godfrey Consulting Engineers

Consulting Engineers
263 Water Street
Gardiner, Maine 04345
(207) 582-4526

SECTION B Infrastructure Cost Opinions



DeLUCA-HOFFMAN ASSOCIATES, INC. CONSULTING ENGINEERS

778 MAIN STREET SUITE 8 . SOUTH PORTLAND, MAINE 04106 TEL. 207 775 1121 FAX 207 879 0896 ■ ROADWAY DESIGN

ENVIRONMENTAL ENGINEERING

■ TRAFFIC STUDIES AND MANAGEMENT

■ PERMITTING

■ AIRPORT ENGINEERING

■ SITE PLANNING

■ CONSTRUCTION ADMINISTRATION

December 21, 2001

Mr. Brian Kent Kent Associates 37 Brunswick Avenue Gardiner, ME 04345

Subject:

Maine Yankee Property, Wiscasset, Maine

Budgetary Cost Data

Dear Mr. Kent:

As requested, our office has prepared the attached Order of Magnitude Cost Estimate for redevelopment of the Maine Yankee Property based upon the Concept Plan Study included as Figure 1. Order of Magnitude Costs may vary from actual project costs 25% or more. Our office has presented both "Low End" and "High End" budgetary cost data for this project. "High End" costs provided for Roadway and Earthwork includes bituminous curb, closed storm drain system components, and higher assumed quantities of rock removal over "Low End" costs. "High End" costs provided for Sanitary Sewer and Water Main Work include higher assumed quantities of rock removal over "Low End" costs.

A summary of the Order of Magnitude Cost Estimate for Roadway, Sanitary Sewer and Water Main Work associated with the redevelopment of the Maine Yankee Property is presented below:

| | Low End Cost | High End Cost |
|------------------------|---------------------|-----------------------|
| Roadway and Earthwork | \$11,800,000.00 | \$14,500,000.00 |
| Sanitary Sewer Service | \$3,900,000.00 | \$5,000,000.00 |
| Water Main Work | \$3,700,000.00 | \$4,600,000.00 |
| Total | \$19,400,000.00 | \$24,100,000.00 |

A detailed breakdown of the Order of Magnitude Cost Data is provided in the attached estimate summary worksheets. The Order of Magnitude Cost Estimate summarized above is based upon concept plans, limited engineering analysis and has not been benefited by any formal design work. The cost estimate does not include cost for land acquisition, permit, engineering or legal fees. The cost data provided is preliminary in nature and is subject to change based upon further refinement of the concept plan, actual engineering design work and evaluation, topographic survey of existing conditions, and geotechnical investigation.

Mr. Brian Kent December 21, 2001

Page 2

Please contact our office with any questions or comments you may have.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Dwight D. Anderson, P.E.

Project Engineer

Attachments

DDA/mb/JN2234/Kent12-21

c: Joseph A. Laverriere, P.E.

MAINE YANKEE PROPERTY ORDER OF MAGNITUDE COST ESTIMATE ROADWAY, SANITARY SEWER AND WATER MAIN

| | | LENGTH (FEET) | LOW END (PER FOOT) | LOW END (COST) | HIGH END (PER FOOT) | HIGH END (COST) |
|---------------------------|------------|------------------|-----------------------|-------------------|---------------------------------------|--------------------|
| ROADWAY AND EARTHW | /ORK | , , | , | , | , | (, |
| | | | | | · · · · · · · · · · · · · · · · · · · | |
| 80' ROADWAY | | 4,300 | \$530.00 | \$2,279,000 | \$597.00 | \$2,567,100 |
| 60' ROADWAY | | 4,400 | \$410.00 | \$1,804,000 | \$475.00 | \$2,090,000 |
| 50' ROADWAY | | 1,600 | \$349.00 | \$558,400 | \$414.00 | \$662,400 |
| 40' ROADWAY | | 2,000 | \$289.00 | \$578,000 | \$353.00 | \$706,000 |
| 30' ROADWAY | | 20,950 | \$229.00 | \$4,797,550 | \$292.00 | \$6,117,400 |
| 25' ROADWAY | | 9,060 | \$199.00 | \$1,802,940 | \$261.00 | \$2,364,660 |
| | SUBTOTAL | 42,310 | | \$11,800,000 | | \$14,500,000 |
| SANITARY SEWER SERV | <u>ICE</u> | | | | | |
| 80' ROADWAY | | 4,300 | \$86.00 | \$369,800 | \$111.00 | \$477,300 |
| 60' ROADWAY | | 4,400 | \$83.00 | \$365,200 | \$106.00 | \$466,400 |
| 50' ROADWAY | | 1,600 | \$81.00 | \$129,600 | \$104.00 | \$166,400 |
| 40' ROADWAY | | 2,000 | \$80.00 | \$160,000 | \$102.00 | \$204,000 |
| 30' ROADWAY | | 20,950 | \$78.00 | \$1,634,100 | \$99.00 | \$2,074,050 |
| 25' ROADWAY | | 9,060 | \$77.00 | \$697,620 | \$98.00 | \$887,880 |
| 3 NEW ONSITE PUMP | STATIONS | | LUMP SUM | \$255,000 | | \$360,000 |
| UPGRADES TO 2 OFF | | NS | LUMP SUM | \$240,000 | | \$350,000 |
| | SUBTOTAL | 42,310 | | \$3,900,000 | | \$5,000,000 |
| WATER MAIN WORK | : | | | | | |
| 80' ROADWAY | | 4,300 | \$95.00 | \$408,500 | \$119.00 | \$511,700 |
| 60' ROADWAY | | 4,400 | \$91.00 | \$400,400 | \$114.00 | \$501,600 |
| 50' ROADWAY | | 1,600 | \$89.00 | \$142,400 | \$112.00 | \$179,200 |
| 40' ROADWAY | | 2,000 | \$87.00 | \$174,000 | \$109.00 | \$218,000 |
| 30' ROADWAY | | 20,950 | \$85.00 | \$1,780,750 | \$107.00 | \$2,241,650 |
| 25' ROADWAY | | 9,060 | \$84.00 | \$761,040 | \$106.00 | \$960,360 |
| | SUBTOTAL | 42,310 | | \$3,700,000 | | \$4,600,000 |
| | TOTAL | 42,310 | | \$19,400,000 | | \$24,100,000 |

NOTES:

- 1) THE ORDER OF MAGNITUDE COST ESTIMATE SUMMARIZED ABOVE IS BASED UPON CONCEPT PLANS, LIMITED ENGINEERING ANALYSIS AND HAS NOT BEEN BENEFITED BY ANY FORMAL DESIGN WORK. THE COST ESTIMATE DOES NOT INCLUDE COST FOR LAND ACQUISITION, PERMIT, ENGINEERING OR LEGAL FEES. THE COST DATA PROVIDED IS PRELIMINARY IN NATURE AND IS SUBJECT TO CHANGE BASED UPON FURTHER REFINEMENT OF THE CONCEPT PLAN, ADDITIONAL ENGINEERING DESIGN WORK AND EVALUATION, TOPOGRAPHIC SURVEY OF EXISTING CONDITIONS, AND GEOTECHNICAL INVESTIGATION.
- 2) THIS COST INFORMATION IS MEANT TO SERVE AS AN ORDER OF MAGNITUDE COST ONLY; THEREFORE, TOTALS PRESENTED ABOVE HAVE BEEN ROUNDED TO THE NEAREST \$100,000. THIS ESTIMATE ASSUMES ROCK WILL BE ENCOUNTERED DURING EXCAVATION FOR ROADWAY AS WELL AS UTILITY WORK; HOWEVER, ACTUAL QUANTITIES OF ROCK ENCOUNTERED AND THE EXTENT AT WHICH ROCK EXCAVATION IS ENCOUNTERED CAN SIGNIFICANTLY ALTER FINAL PROJECT COSTS.
- 3) ATTACHED FIGURE 1 TITLED "CONCEPT PLAN STUDY FOR THE MAINE YANKEE PROPERTY" AND FIGURE 2 TITLED "CONCEPT PLAN OF SEWERED AREAS FOR MAINE YANKEE PROPERTY" WERE USED TO ASSIST IN PREPARATION OF THIS ORDER OF MAGNITUDE COST ESTIMATE.

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

80 LF

ROADWAY AND EARTHWORK (WITH CURB AND STORMDRAIN SYSTEM - HIGH END)

| ITEM | | | | UNIT | |
|------|--|----------|-------|------------|--------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | 01 1 0 111 17 18 | 4.0 | | 40.500.00 | 40.000.50 |
| 1 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.83 | \$3,500.00 | \$2,892.56 |
| 2 | Rock Removal (4") | CY | 293 | \$60.00 | \$17,600.00 |
| 3 | Common Excavation Including Pavement | CY | 2,667 | \$16.00 | \$42,666.67 |
| | Removal and Common Borrow | TON | | **** | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 7 | Bituminous Curb | LF | 480 | \$4.00 | \$1,920.00 |
| 8 | 12" Storm Drain | LF | 380 | \$25.00 | \$9,500.00 |
| 9 | 4' Diameter Manhole | EA | 1 | \$2,400.00 | \$2,400.00 |
| 10 | 4' Diameter Catchbasin | EA | 2 | \$1,900.00 | \$3,800.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 1,333 | \$16.00 | \$21,333.33 |
| 12 | Aggregate Base Gravel Type A | CY | 444 | \$18.00 | \$8,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 400 | \$38.00 | \$15,200.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 240 | \$42.00 | \$10,080.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | . 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$8,800.00 | \$8,800.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$155,725.56 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$23,358.83 |
| | | | | TOTAL | \$179,084.40 |
| | | | PER F | OOT COST | \$597.00 |

| | LIFT (IN) | QTY (CY) | QTY (TON) |
|---------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 1333 | |
| Aggregate Base Gravel Type A | 6 | 444 | |
| Hot Bituminous Concrete Binder | 2.5 | | 400 |
| Hot Bituminous Concrete Surface | 1.5 | | 240 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

80 LF

ROADWAY AND EARTHWORK (WITHOUT CURB AND STORMDRAIN SYSTEM - LOW END)

| ITEM | • | | | UNIT | |
|------|--|----------|-------|------------|--------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.83 | \$3,500.00 | \$2,892.56 |
| 2 | Rock Removal (4") | CY | 293 | \$60.00 | \$17,600.00 |
| 3 | Common Excavation Including Pavement | CY | 2,667 | \$16.00 | \$42,666.67 |
| - | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 1,333 | \$16.00 | \$21,333.33 |
| 12 | Aggregate Base Gravel Type A | CY | 444 | \$18.00 | \$8,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 400 | \$38.00 | \$15,200.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 240 | \$42.00 | \$10,080.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$8,800.00 | \$8,800.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$138,105.56 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$20,715.83 |
| | | | | TOTAL | \$158,821.40 |
| | | | PERI | FOOT COST | \$530.00 |

| ١ (| $\gamma T \gamma$ | 11 | へくい | \cap | TV | $T \cap$ | NIN. |
|-----|-------------------|----|-----|--------|----|----------|------|

| | LIFT (IN) | QTY (CY) | QTY (TON) |
|----------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 1333 | |
| Aggregate Base Gravel Type A | 6 | 444 | |
| Hot Bituminous Concrete Binder | 2.5 | | 400 |
| Hot Bituminous Concrete Surface. | 1.5 | | 240 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

80 LF

SANITARY SEWER SERVICE - HIGH END

| ITEM | | | | UNIT | |
|------|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 100 | \$30.00 | \$3,000.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (4' DEPTH) | CY | 178 | \$75.00 | \$13,333.33 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$30,083.33 |
| 7 | Mob., Demob., Misc. | | | 10% | \$3,008.33 |
| | | | | TOTAL | \$33,091.67 |
| L | | | PER F | OOT COST | \$111.00 |

| ITEM | | • | | UNIT | |
|------|-----------------------------------|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 100 | \$35.00 | \$3,500.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (4' DEPTH) | CY | 178 | \$75.00 | \$13,333.33 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$32,398.33 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$3,239.83 |
| == | | | | TOTAL | \$35,638.17 |
| | | | PFR F | OOT COST | \$119.00 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

80 LF

SANITARY SEWER SERVICE - LOW END

| ITEM | | | | UNIT | |
|------|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 100 | \$30.00 | \$3,000.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (2' DEPTH) | CY | 89 | \$75.00 | \$6,666.67 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$23,416.67 |
| 7 | Mob., Demob., Misc. | | | 10% | \$2,341.67 |
| | | | | TOTAL | \$25,758.33 |
| | | | PER F | OOT COST | \$86.00 |

| ITEM | | | | UNIT | |
|------|-----------------------------------|------|-------|------------|-------------|
| ŅO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 100 | \$35.00 | \$3,500.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (2' DEPTH) | CY | 89 | \$75.00 | \$6,666.67 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$25,731.67 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$2,573.17 |
| | | | | TOTAL | \$28,304.83 |
| L | | | PER F | OOT COST | \$95.00 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

60 LF

ROADWAY AND EARTHWORK (WITH CURB AND STORMDRAIN SYSTEM - HIGH END)

| ITEM | | | | UNIT | |
|------|--|----------|-------|------------|--------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.69 | \$3,500.00 | \$2,410.47 |
| 2 | Rock Removal (4") | CY | 220 | \$60.00 | \$13,200.00 |
| 3 | Common Excavation Including Pavement | CY | 2,000 | \$16.00 | \$32,000.00 |
| | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 7 | Bituminous Curb | LF | 480 | \$4.00 | \$1,920.00 |
| 8 | 12" Storm Drain | LF | 360 | \$25.00 | \$9,000.00 |
| 9 | 4' Diameter Manhole | EA | 1 | \$2,400.00 | \$2,400.00 |
| 10 | 4' Diameter Catchbasin | EA | 2 | \$1,900.00 | \$3,800.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 1,000 | \$16.00 | \$16,000.00 |
| 12 | Aggregate Base Gravel Type A | CY | 333 | \$18.00 | \$6,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 300 | \$38.00 | \$11,400.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 180 | \$42.00 | \$7,560.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | . 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$6,600.00 | \$6,600.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$123,823.47 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$18,573.52 |
| | | | | TOTAL | \$142,396.99 |
| | | | PER F | OOT COST | \$475.00 |

| | LIFT (IN) | QTY (CY) | QTY (TON) |
|---------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 1000 | |
| Aggregate Base Gravel Type A | 6 | 333 | |
| Hot Bituminous Concrete Binder | 2.5 | | 300 |
| Hot Bituminous Concrete Surface | 1.5 | | 180 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

60 LF

ROADWAY AND EARTHWORK (WITHOUT CURB AND STORMDRAIN SYSTEM - LOW END)

| ITEM | | | | UNIT | · |
|------|--|----------|-------|------------|--------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.69 | \$3,500.00 | \$2,410.47 |
| 2 | Rock Removal (4") | CY | 220 | \$60.00 | \$13,200.00 |
| 3 | Common Excavation Including Pavement | CY | 2,000 | \$16.00 | \$32,000.00 |
| | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 1,000 | \$16.00 | \$16,000.00 |
| 12 | Aggregate Base Gravel Type A | CY | 333 | \$18.00 | \$6,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 300 | \$38.00 | \$11,400.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 180 | \$42.00 | \$7,560.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$6,600.00 | \$6,600.00 |
| 21 | Silt Fence | !LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$106,703.47 |
| | Fill Office Male Daniele Mice | | | | • |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$16,005.52 |
| | | | | TOTAL | \$122,708.99 |
| | Management of the control of the con | | PER F | OOT COST | \$410.00 |

| • | - | • | _ | _ | • | _ | _ | _ | • | Τ. |
|---|-------|---|---|---|---|---|---|---|---|----|
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

| | LIFT (IN) | QTY (CY) | QTY (TON) |
|----------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 1000 | |
| Aggregate Base Gravel Type A | 6 | 333 | |
| Hot Bituminous Concrete Binder | 2.5 | | 300 |
| Hot Bituminous Concrete Surface. | 1.5 | | 180 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

60 LF

SANITARY SEWER SERVICE - HIGH END

| ITEM | | | | UNIT | |
|------|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 80 | \$30.00 | \$2,400.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (4' DEPTH) | CY | 169 | \$75.00 | \$12,666.67 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$28,816.67 |
| 7 | Mob., Demob., Misc. | | | 10% | \$2,881.67 |
| | | | | TOTAL | \$31,698.33 |
| L | | | PER F | OOT COST | \$106.00 |

| ITEM | | | | UNIT | |
|----------|-----------------------------------|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 80 | \$35.00 | \$2,800.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (4' DEPTH) | CY | 169 | \$75.00 | \$12,666.67 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$31,031.67 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$3,103.17 |
| | | | | TOTAL | \$34,134.83 |
| <u> </u> | | | PER F | OOT COST | \$114.00 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

60 LF

SANITARY SEWER SERVICE - LOW END

| ITEM | | | | UNIT | |
|--|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 80 | \$30.00 | \$2,400.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (2' DEPTH) | CY | 84 | \$75.00 | \$6,333.33 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$22,483.33 |
| 7 | Mob., Demob., Misc. | | | 10% | \$2,248.33 |
| | | | | TOTAL | \$24,731.67 |
| ************************************** | | | PER F | OOT COST | \$83.00 |

| ITEM | | | | UNIT | |
|------|-----------------------------------|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 80 | \$35.00 | \$2,800.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (2' DEPTH) | CY | 84 | \$75.00 | \$6,333.33 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$24,698.33 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$2,469.83 |
| | | | | TOTAL | \$27,168.17 |
| | | | PER F | OOT COST | \$91.00 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

50 LF

ROADWAY AND EARTHWORK (WITH CURB AND STORMDRAIN SYSTEM - HIGH END)

| ITEM | | | | UNIT | |
|------|--|----------|-------|------------|--------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.62 | \$3,500.00 | \$2,169.42 |
| 2 | Rock Removal (4") | CY | 183 | \$60.00 | \$11,000.00 |
| 3 | Common Excavation Including Pavement | CY | 1,667 | \$16.00 | \$26,666.67 |
| | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 7 | Bituminous Curb | LF | 480 | \$4.00 | \$1,920.00 |
| 8 | 12" Storm Drain | LF | 350 | \$25.00 | \$8,750.00 |
| 9 | 4' Diameter Manhole | EA | 1 | \$2,400.00 | \$2,400.00 |
| 10 | 4' Diameter Catchbasin | EA | 2 | \$1,900.00 | \$3,800.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 833 | \$16.00 | \$13,333.33 |
| 12 | Aggregate Base Gravel Type A | CY | 278 | \$18.00 | \$5,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 250 | \$38.00 | \$9,500.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 150 | \$42.00 | \$6,300.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$5,500.00 | \$5,500.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$107,872.42 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$16,180.86 |
| | | | | TOTAL | \$124,053.28 |
| | | | PER I | FOOT COST | \$414.00 |

PER FOOT COST

| | LIFT (IN) | QIY (CY) | QIY (ION) |
|---------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 833 | |
| Aggregate Base Gravel Type A | 6 | 278 | |
| Hot Bituminous Concrete Binder | 2.5 | | 250 |
| Hot Bituminous Concrete Surface | 1.5 | | 150 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

50 LF

ROADWAY AND EARTHWORK (WITHOUT CURB AND STORMDRAIN SYSTEM - LOW END)

| ITEM | • | | | UNIT | |
|------|--|----------|-------|------------|--------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.62 | \$3,500.00 | \$2,169.42 |
| 2 | Rock Removal (4") | CY | 183 | \$60.00 | \$11,000.00 |
| 3 | Common Excavation Including Pavement | CY | 1,667 | \$16.00 | \$26,666.67 |
| į | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 833 | \$16.00 | \$13,333.33 |
| 12 | Aggregate Base Gravel Type A | CY | 278 | \$18.00 | \$5,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 250 | \$38.00 | \$9,500.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 150 | \$42.00 | \$6,300.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$5,500.00 | \$5,500.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$91,002.42 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$13,650.36 |
| | | | | TOTAL | \$104,652.78 |
| | | | PFR F | OOT COST | \$349.00 |

PER FOOT COST \$349

| | LIFT (IN) | QTY (CY) | QTY (TON) |
|----------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 833 | |
| Aggregate Base Gravel Type A | 6 | 278 | |
| Hot Bituminous Concrete Binder | 2.5 | | 250 |
| Hot Bituminous Concrete Surface. | 1.5 | | 150 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

50 LF

SANITARY SEWER SERVICE - HIGH END

| ITEM | | | | UNIT | |
|------|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | , | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 70 | \$30.00 | \$2,100.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (4' DEPTH) | CY | 164 | \$75.00 | \$12,333.33 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$28,183.33 |
| 7 | Mob., Demob., Misc. | | | 10% | \$2,818.33 |
| | · | | | TOTAL | \$31,001.67 |
| | | | PER F | OOT COST | \$104.00 |

| ITEM | | | | UNIT | |
|------|-----------------------------------|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 70 | \$35.00 | \$2,450.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (4' DEPTH) | CY | 164 | \$75.00 | \$12,333.33 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$30,348.33 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$3,034.83 |
| | | | _ | TOTAL | \$33,383.17 |
| | | | PER F | OOT COST | \$112.00 |

ROADWAY LENGTH

300 LF 50 LF

ROADWAY WIDTH

SANITARY SEWER SERVICE - LOW END

| <u> </u> | | | | | |
|----------|---|------|-------|------------|-------------|
| ITEM | | | | UNIT | |
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 70 | \$30.00 | \$2,100.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (2' DEPTH) | CY | 82 | \$75.00 | \$6,166.67 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$22,016.67 |
| 7 | Mob., Demob., Misc. | | | , 10% | \$2,201.67 |
| | | | | TOTAL | \$24,218.33 |
| | | | PER F | OOT COST | \$81.00 |

| ITEM | | | | UNIT | |
|------|-----------------------------------|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 70 | \$35.00 | \$2,450.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (2' DEPTH) | CY | 82 | \$75.00 | \$6,166.67 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$24,181.67 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$2,418.17 |
| | | | en. | TOTAL | \$26,599.83 |
| | | | PER F | OOT COST | \$89.00 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

40 LF

ROADWAY AND EARTHWORK (WITH CURB AND STORMDRAIN SYSTEM - HIGH END)

| ITEM | | | | UNIT | |
|------|--|----------|----------------|------------|--------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.55 | \$3,500.00 | \$1,928.37 |
| 2 | Rock Removal (4") | CY | 147 | \$60.00 | \$8,800.00 |
| 3 | Common Excavation Including Pavement | CY | 1,333 | \$16.00 | \$21,333.33 |
| | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 7 | Bituminous Curb | LF | 480 | \$4.00 | \$1,920.00 |
| 8 | 12" Storm Drain | LF | 340 | \$25.00 | \$8,500.00 |
| 9 | 4' Diameter Manhole | EA | 1 | \$2,400.00 | \$2,400.00 |
| 10 | 4' Diameter Catchbasin | EA | 2 | \$1,900.00 | \$3,800.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 667 | \$16.00 | \$10,666.67 |
| 12 | Aggregate Base Gravel Type A | CY | 222 | \$18.00 | \$4,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 200 | \$38.00 | \$7,600.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 120 | \$42.00 | \$5,040.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | ['] 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$4,400.00 | \$4,400.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | ÷ | SUBTOTAL | \$91,921.37 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$13,788.21 |
| | | | | TOTAL | \$105,709.58 |
| | | | | COST COST | \$353 00 |

PER FOOT COST \$353.00

| | LIFT (IN) | QTY (CY) | QTY (TON) |
|---------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 667 | |
| Aggregate Base Gravel Type A | 6 | 222 | |
| Hot Bituminous Concrete Binder | 2.5 | | 200 |
| Hot Bituminous Concrete Surface | 1.5 | | 120 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

40 LF

ROADWAY AND EARTHWORK (WITHOUT CURB AND STORMDRAIN SYSTEM - LOW END)

| ITEM | | | | UNIT | → |
|------|--|----------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY : | PRICE | AMOUNT |
| | | * - | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.55 | \$3,500.00 | \$1,928.37 |
| 2 | Rock Removal (4") | CY | 147 | \$60.00 | \$8,800.00 |
| 3 | Common Excavation Including Pavement | .CY | 1,333 | \$16.00 | \$21,333.33 |
| | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 667. | \$16.00 | \$10,666.67 |
| 12 | Aggregate Base Gravel Type A | CY | 222 | \$18.00 | \$4,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 200 | \$38.00 | \$7,600.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 120 | \$42.00 | \$5,040.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | . \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | · 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$4,400.00 | \$4,400.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$75,301.37 |
| 22 | Field Office, Mob., Demob., Misc. | | • | 15% | \$11,295.21 |
| | : . | | | TOTAL | \$86,596.58 |
| | | | PER F | OOT COST | \$289.00 |

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| | ; · (···-) | | (/ |
|---------------------------------|------------|-----------|-----|
| Aggregate Subbase Gravel Type D | 18 | 667 | |
| Aggregate Base Gravel Type A | 6 | 222 | |
| Hot Bituminous Concrete Binder | 2.5 | | 200 |
| Hot Bituminous Concrete Surface | 1.5 | . * · · · | 120 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

40 LF

SANITARY SEWER SERVICE - HIGH END

| ITEM | | | | UNIT | |
|------|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 60 | \$30.00 | \$1,800.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (4' DEPTH) | CY | 160 | \$75.00 | \$12,000.00 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$27,550.00 |
| 7 | Mob., Demob., Misc. | | | 10% | \$2,755.00 |
| | | | | TOTAL | \$30,305.00 |
| | | | PER F | OOT COST | \$102.00 |

| ITEM | · | | | UNIT | |
|------|-----------------------------------|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 60 | \$35.00 | \$2,100.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (4' DEPTH) | CY | 160 | \$75.00 | \$12,000.00 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$29,665.00 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$2,966.50 |
| | | | | TOTAL | \$32,631.50 |
| | | | PER F | OOT COST | \$109.00 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

40 LF

SANITARY SEWER SERVICE - LOW END

| ITEM | | | | UNIT | |
|------|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | - | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 60 | \$30.00 | \$1,800.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (2' DEPTH) | CY | 80 | \$75.00 | \$6,000.00 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$21,550.00 |
| 7 | Mob., Demob., Misc. | | | 10% | \$2,155.00 |
| | | | | TOTAL | \$23,705.00 |
| | | | PER F | OOT COST | \$80.00 |

| ITEM | | | | UNIT | |
|------|-----------------------------------|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 60 | \$35.00 | \$2,100.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (2' DEPTH) | CY | 80 | \$75.00 | \$6,000.00 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$23,665.00 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$2,366.50 |
| | · | | | TOTAL | \$26,031.50 |
| | | | PER F | OOT COST | \$87.00 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

30 LF

ROADWAY AND EARTHWORK (WITH CURB AND STORMDRAIN SYSTEM - HIGH END)

| ITEM | | | | UNIT | |
|------|--|----------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.48 | \$3,500.00 | \$1,687.33 |
| 2 | Rock Removal (4") | CY | 110 | \$60.00 | \$6,600.00 |
| 3 | Common Excavation Including Pavement | CY | 1,000 | \$16.00 | \$16,000.00 |
| | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 7 | Bituminous Curb | LF | 480 | \$4.00 | \$1,920.00 |
| 8 | 12" Storm Drain | LF | 330 | \$25.00 | \$8,250.00 |
| 9 | 4' Diameter Manhole | EA | 1 | \$2,400.00 | \$2,400.00 |
| 10 | 4' Diameter Catchbasin | EA | 2 | \$1,900.00 | \$3,800.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 500 | \$16.00 | \$8,000.00 |
| 12 | Aggregate Base Gravel Type A | CY | 167 | \$18.00 | \$3,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 150 | \$38.00 | \$5,700.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 90 | \$42.00 | \$3,780.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$3,300.00 | \$3,300.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$75,970.33 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$11,395.55 |
| | | | | TOTAL | \$87,365.88 |
| | | | PER E | OOT COST | \$292.00 |

PER FOOT COST \$292.00

| | LIFT (IN) | QTY (CY) | QTY (TON) |
|---------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 500 | |
| Aggregate Base Gravel Type A | 6 | 167 | |
| Hot Bituminous Concrete Binder | 2.5 | - | 150 |
| Hot Bituminous Concrete Surface | 1.5 | | 90 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

30 LF

ROADWAY AND EARTHWORK (WITHOUT CURB AND STORMDRAIN SYSTEM - LOW END)

| ITEM | | | | UNIT | - |
|------|--|----------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.48 | \$3,500.00 | \$1,687.33 |
| 2 | Rock Removal (4") | CY | 110 | \$60.00 | \$6,600.00 |
| 3 | Common Excavation Including Pavement | CY | 1,000 | \$16.00 | \$16,000.00 |
| | Removal and Common Borrow | | | • | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 500 | \$16.00 | \$8,000.00 |
| 12 | Aggregate Base Gravel Type A | CY | 167 | \$18.00 | \$3,000.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 150 | \$38.00 | \$5,700.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 90 | \$42.00 | \$3,780.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$3,300.00 | \$3,300.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$59,600.33 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$8,940.05 |
| | | | | TOTAL | \$68,540.38 |
| | | | PFR F | OOT COST | \$229 00 |

| | LIFT (IN) | QTY (CY) | QTY (TON) |
|----------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 500 | |
| Aggregate Base Gravel Type A | 6 | 167 | |
| Hot Bituminous Concrete Binder | 2.5 | | 150 |
| Hot Bituminous Concrete Surface, | 1.5 | | 90 |

ROADWAY LENGTH

300 LF **30** LF

ROADWAY WIDTH

SANITARY SEWER SERVICE - HIGH END

| ITEM | | | | UNIT | |
|------|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | - | , | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 50 | \$30.00 | \$1,500.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (4' DEPTH) | CY | 156 | \$75.00 | \$11,666.67 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$26,916.67 |
| 7 | Mob., Demob., Misc. | | : | 10% | \$2,691.67 |
| | | | | TOTAL | \$29,608.33 |
| | | | PER F | OOT COST | \$99.00 |

| ITEM | | | | UNIT | |
|------|-----------------------------------|------|------------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | , 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 50 | \$35.00 | \$1,750.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (4' DEPTH) | CY | 156 | \$75.00 | \$11,666.67 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$28,981.67 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$2,898.17 |
| | • | _ | | TOTAL | \$31,879.83 |
| | | | PER F | OOT COST | \$107.00 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

30 LF

SANITARY SEWER SERVICE - LOW END

| ITEM | | | | UNIT | |
|------|---|----------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 50 | \$30.00 | \$1,500.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (2' DEPTH) | CY | 78 | \$75.00 | \$5,833.33 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$21,083.33 |
| 7 | Mob., Demob., Misc. | | ŧ | 10% | \$2,108.33 |
| | | | | TOTAL | \$23,191.67 |
| | | <u> </u> | PER F | OOT COST | \$78.00 |

| ITEM | | | | UNII | |
|------|-----------------------------------|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | , 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 50 | \$35.00 | \$1,750.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (2' DEPTH) | CY | 78 | \$75.00 | \$5,833.33 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$23,148.33 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$2,314.83 |
| | | - | | TOTAL | \$25,463.17 |
| | | | PER F | OOT COST | \$85.00 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

25 LF

ROADWAY AND EARTHWORK (WITH CURB AND STORMDRAIN SYSTEM - HIGH END)

| ITEM | | | | UNIT | |
|------|--|-----------------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.45 | \$3,500.00 | \$1,566.80 |
| 2 | Rock Removal (4") | CY | 92 | \$60.00 | \$5,500.00 |
| 3 | Common Excavation Including Pavement | CY | 833 | \$16.00 | \$13,333.33 |
| | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 7 | Bituminous Curb | LF | 480 | \$4.00 | \$1,920.00 |
| 8 | 12" Storm Drain | · LF | 325 | \$25.00 | \$8,125.00 |
| 9 | 4' Diameter Manhole | EA | 1 | \$2,400.00 | \$2,400.00 |
| 10 | 4' Diameter Catchbasin | EA | 2 | \$1,900.00 | \$3,800.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 417 | \$16.00 | \$6,666.67 |
| 12 | Aggregate Base Gravel Type A | CY | 139 | \$18.00 | \$2,500.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 125 | \$38.00 | \$4,750.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 75 | \$42.00 | \$3,150.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3.00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | ⁱ EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$2,750.00 | \$2,750.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | | | SUBTOTAL | \$67,994.80 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$10,199.22 |
| | | | | TOTAL | \$78,194.03 |
| | | | PER F | OOT COST | \$261.00 |

| LIFT (IN) | QTY (CY) | QTY (TON) |
|-----------|----------|-----------|
| 18 | 417 | |

| Aggregate Subbase Gravel Type D | 18 | 417 | |
|---------------------------------|-----|-----|-----|
| Aggregate Base Gravel Type A | 6 | 139 | |
| Hot Bituminous Concrete Binder | 2.5 | | 125 |
| Hot Bituminous Concrete Surface | 1.5 | | 75 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

25 LF

ROADWAY AND EARTHWORK (WITHOUT CURB AND STORMDRAIN SYSTEM - LOW END)

| ITEM | | | | UNIT | 7 |
|------|--|----------|------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | ı | | | |
| 1 | Clearing, Grubbing and Topsoil Removal | AC | 0.45 | \$3,500.00 | \$1,566.80 |
| 2 | Rock Removal (4") | CY | 92 | \$60.00 | \$5,500.00 |
| 3 | Common Excavation Including Pavement | CY | 833 | \$16.00 | \$13,333.33 |
| | Removal and Common Borrow | | | | |
| 4 | Calcium Chloride | TON | 0.30 | \$100.00 | \$30.00 |
| 5 | Water for Dust Control | 1000 GAL | 1 | \$50.00 | \$50.00 |
| 6 | Loam and Seed | UNIT | 15 | \$300.00 | \$4,500.00 |
| 11 | Aggregate Subbase Gravel Type D | CY | 417 | \$16.00 | \$6,666.67 |
| 12 | Aggregate Base Gravel Type A | CY | 139 | \$18.00 | \$2,500.00 |
| 13 | Hot Bituminous Concrete Binder | TON | 125 | \$38.00 | \$4,750.00 |
| 14 | Hot Bituminous Concrete Surface | TON | 75 | \$42.00 | \$3,150.00 |
| 15 | 5' Gravel Shoulder | CY | 111 | \$18.00 | \$2,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$3.00 | \$3,00 |
| 17 | Guiderail | LF | 60 | \$35.00 | \$2,100.00 |
| 18 | Provide & Install Street Trees | EA | 1 | \$250.00 | \$250.00 |
| 19 | Standard Street Signs | EA | 1 | \$200.00 | \$200.00 |
| 20 | Erosion Control | LS | 1 | \$2,750.00 | \$2,750.00 |
| 21 | Silt Fence | LF | 600 | \$4.00 | \$2,400.00 |
| | | 1 | | SUBTOTAL | \$51,749.80 |
| 22 | Field Office, Mob., Demob., Misc. | | | 15% | \$7,762.47 |
| | | | | TOTAL | \$59,512.28 |
| | | | PER | FOOT COST | \$199.00 |

| | LIFT (IN) | QTY (CY) | QTY (TON) |
|----------------------------------|-----------|----------|-----------|
| Aggregate Subbase Gravel Type D | 18 | 417 | |
| Aggregate Base Gravel Type A | 6 | 139 | |
| Hot Bituminous Concrete Binder | 2.5 | | 125 |
| Hot Bituminous Concrete Surface. | 1.5 | | 75 |

ROADWAY LENGTH

300 LF

ROADWAY WIDTH

25 LF

SANITARY SEWER SERVICE - HIGH END

| ITEM | | | | UNIT | |
|------|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 45 | \$30.00 | \$1,350.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (4' DEPTH) | CY | 153 | \$75.00 | \$11,500.00 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$26,600.00 |
| 7 | Mob., Demob., Misc. | | | 10% | \$2,660.00 |
| | | | | TOTAL | \$29,260.00 |
| | | | PER F | OOT COST | \$98.00 |

| ITEM | | | | UNIT | |
|------|-----------------------------------|------|-------|------------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | : | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 45 | \$35.00 | \$1,575.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (4' DEPTH) | CY | 153 | \$75.00 | \$11,500.00 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$28,640.00 |
| 11 | Field Office, Mob., Demob., Misc. | • | | 10% | \$2,864.00 |
| | - | | | - TOT AL | \$31,504.00 |
| | | | PER F | OOT COST | \$106.00 |

ROADWAY LENGTH

300 LF

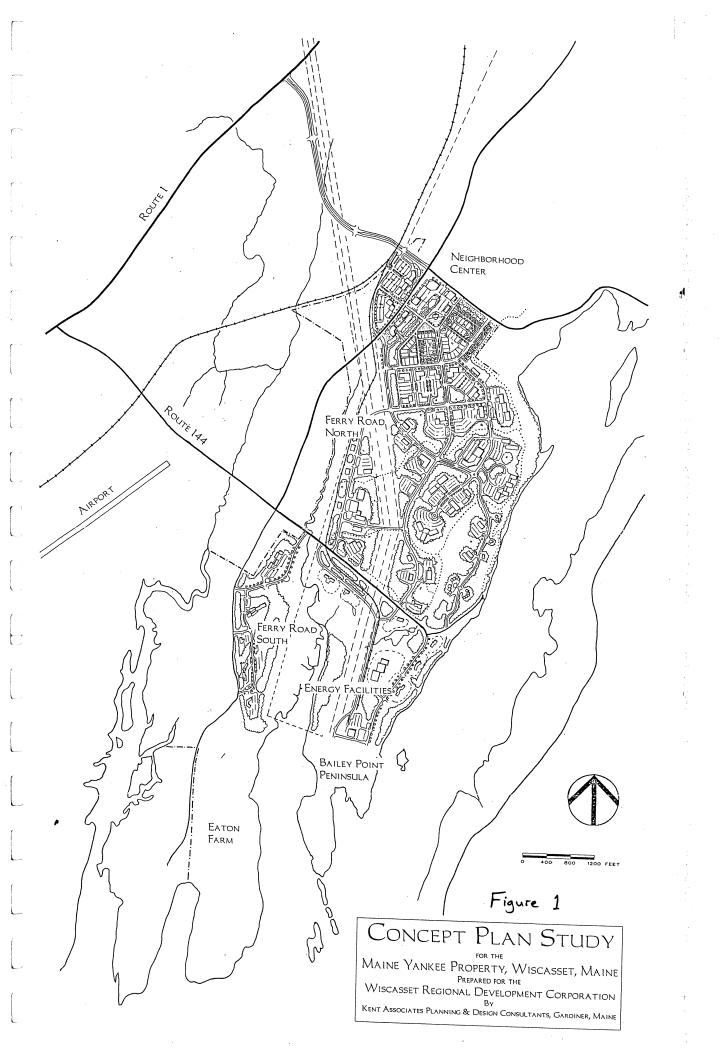
ROADWAY WIDTH

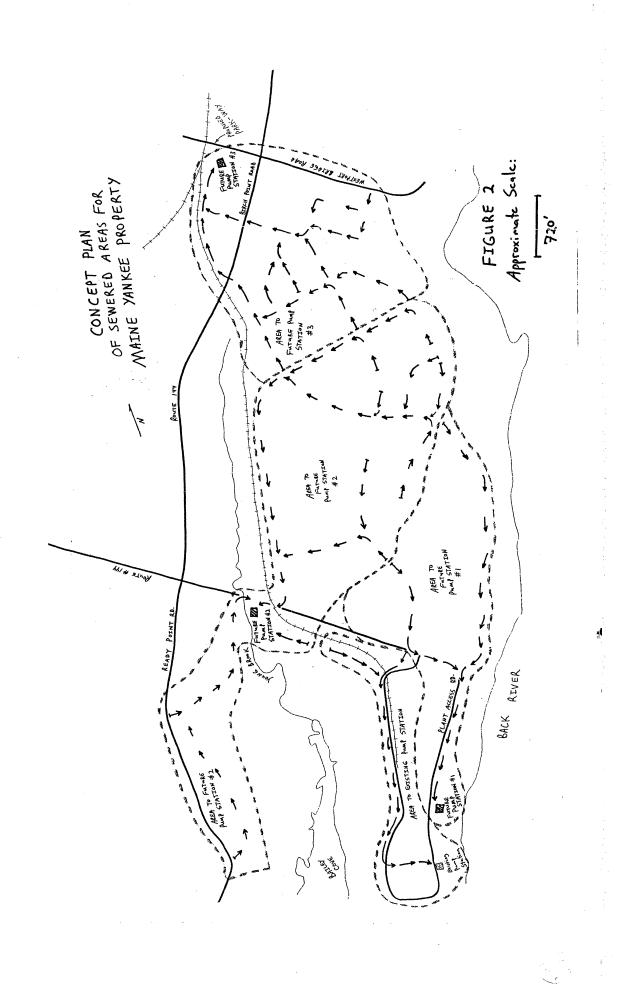
25 LF

SANITARY SEWER SERVICE - LOW END

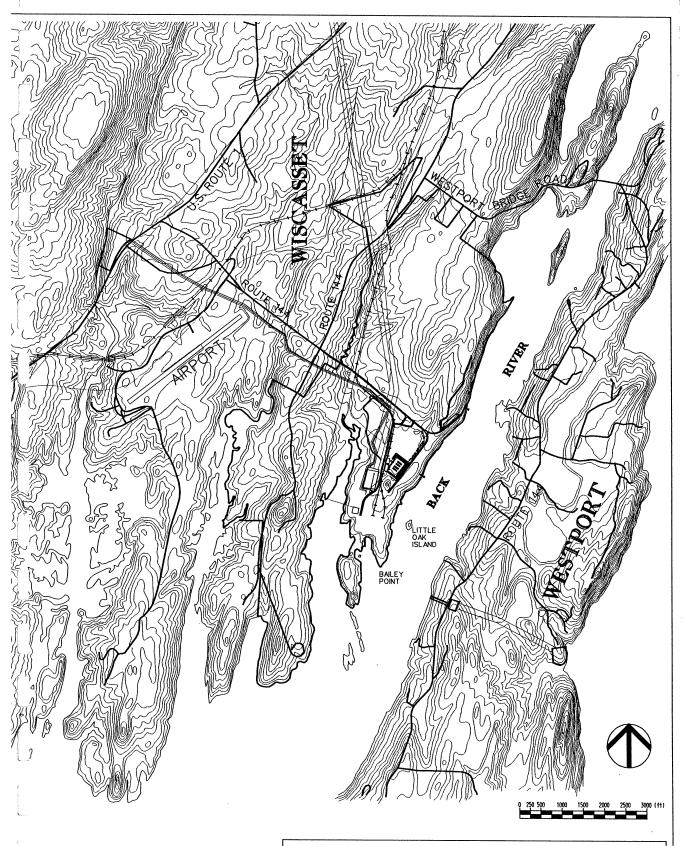
| ITEM | | | | UNIT | |
|----------|---|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | | |
| 1 | 4 AND 6" Diameter Sewer Service Leads | LF | 45 | \$30.00 | \$1,350.00 |
| 2 | 8" Diameter Sewer | LF | 300 | \$38.00 | \$11,400.00 |
| 3 | Trench Rock (2' DEPTH) | CY | 77 | \$75.00 | \$5,750.00 |
| 4 | 4 AND 6" Tees for Sewer Services | EA | 2 | \$150.00 | \$300.00 |
| 5 | Alter or Adjust Existing Manhole or Catch Basin | EA | 0.1 | \$500.00 | \$50.00 |
| 6 | 4'-0" Diameter Manholes | EA | 1 | \$2,000.00 | \$2,000.00 |
| | | | | SUBTOTAL | \$20,850.00 |
| 7 | Mob., Demob., Misc. | | | 10% | \$2,085.00 |
| | | | | TOTAL | \$22,935.00 |
| <u> </u> | | | PER F | OOT COST | \$77.00 |

| ITEM | | | | UNIT | |
|------|-----------------------------------|------|-------|------------|-------------|
| NO. | DESCRIPTION OF WORK | UNIT | QTY | PRICE | AMOUNT |
| | | | | : | |
| 1 | 8" X 8" Tapping Sleeve and Valve | EA | 0.1 | \$3,200.00 | \$320.00 |
| 2 | 6" Gate Valves | EA | 1 | \$1,000.00 | \$1,000.00 |
| 3 | 8" Gate Valves | EA | 0.3 | \$1,200.00 | \$360.00 |
| 4 | Air Release Valves | EA | 0.1 | \$2,000.00 | \$200.00 |
| 5 | 8" x 8" x 6" Tees | EA | 1 | \$1,000.00 | \$1,000.00 |
| 6 | 8" x 8" x 8" Tees | EA | 0.1 | \$1,100.00 | \$110.00 |
| 7 | 6" Water Main | LF | 45 | \$35.00 | \$1,575.00 |
| 8 | 8" Water Main | LF | 300 | \$40.00 | \$12,000.00 |
| 9 | Trench Rock (2' DEPTH) | CY | 77 | \$75.00 | \$5,750.00 |
| 10 | Hydrant Assembly | EA | 0.25 | \$2,300.00 | \$575.00 |
| | | | | SUBTOTAL | \$22,890.00 |
| 11 | Field Office, Mob., Demob., Misc. | | | 10% | \$2,289.00 |
| | - | | | TOTAL | \$25,179.00 |
| | | | PER F | OOT COST | \$84.00 |





SECTION C SITE ANALYSES



CONCEPT PLAN STUDY

FOR THE

MAINE YANKEE PROPERTY, WISCASSET, MAINE PREPARED FOR THE

WISCASSET REGIONAL DEVELOPMENT CORPORATION BY

KENT ASSOCIATES PLANNING & DESIGN CONSULTANTS, GARDINER, MAINE

BASE MAPPING BY STRATEX

DECEMBER 2001

