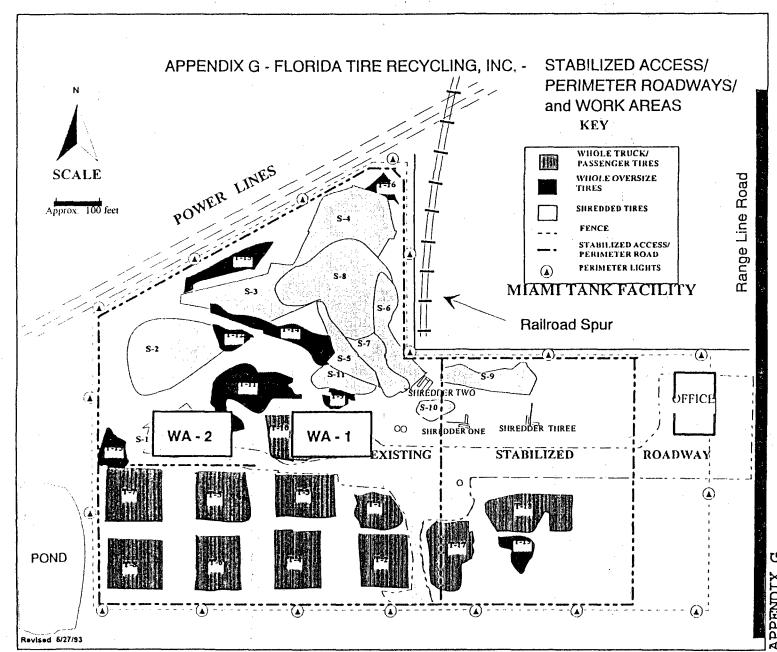
## FLORIDA TIRE SITE

# APPENDIX G

ROAD PLACEMENT SCHEMATIC AND SPECIFICATIONS



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## SECTION 160 STABILIZING

160-1 Description.

The work specified in this Section consists of the stabilizing of designated portions of the roadbed to provide a firm and unyielding subgrade, having the required bearing value specified in the plans. When so called for in the plans this work shall also include the additional strengthening of the subbase, by additional stabilizing of the upper portion of the previously stabilized subgrade, within the limits called for. The work shall be constructed in accordance with these specifications and the lines, grades, thicknesses and notes shown in the plans.

### 160-2 Stabilized Subgrade.

For stabilized subgrade the type of materials, Commercial or Local, is at the Contractor's option and no separate payment for stabilizing materials will be made (other than as may be paid for as borrow).

When the stabilizing is designated as Type B, compliance with the bearing value requirements will be determined by the Limerock Bearing Ratio Method. When the stabilizing is designated as Type C, compliance will be determined by the Florida Soil Bearing Test.

It is the Contractor's responsibility that the finished roadbed section meets the bearing value requirements, regardless of the quantity of stabilizing materials necessary to be added. Also, full payment will be made for any areas where the existing subgrade materials meet the design bearing value requirements without the addition of stabilizing additives, as well as areas where the Contractor may elect to place select high-bearing materials from other sources, within the limits of the stabilizing.

After the roadbed grading operations have been substantially completed, the Contractor shall make his own determination as to the quantity (if any) of stabilizing material, of the type selected by him, necessary for compliance with the bearing value requirements. The Contractor shall notify the Engineer of the approximate quantity to be added, and the spreading and mixing-in of such quantity of materials shall meet the approval of the Engineer as to uniformity and effectiveness.

160-3

#### 160-3 Stabilized Subbase.

When Stabilized Subbase is called for, after the mixing operations for the stabilization of the entire subgrade limits, the upper portion of the subgrade, within the limits shown, shall be further strengthened by the adding and mixing-in of a loose depth of commercial stabilizing material as designated in the plans or as may be otherwise designated by the Engineer. The minimum depth of spread shall be three inches (loose measurement).

#### 160-4 Materials.

160-4.1 Commercial and Local Materials: The particular type of stabilizing material to be used shall meet the requirements of Section 914.

an existing base is called for, (as all, or a portion, of the stabilizing additives) the Engineer will direct the locations, placing and distribution of such materials, and this work shall be done prior to the spreading of any additional commercial or local materials. Removal of any section of existing base will not be required until the need for it in maintaining traffic is fulfilled. No materials from an existing base will be eligible for payment as Commercial Materials.

The utilization of materials from an existing base may be called for in combination with either of the designated types of stabilizing.

#### 160-5 Construction Methods.

160-5.1 General: Prior to the beginning of stabilizing operations, the area to be stabilized shall have been constructed to an elevation such that upon completion of stabilizing operations the completed stabilized subgrade will conform to the lines, grades and cross section shown in the plans. Prior to the spreading of any additive stabilizing material, the surface of the roadbed shall be brought to a plane approximately parallel to the plane of the proposed finished surface.

The subgrade to be stabilized may be processed in one course, unless the equipment and methods being used do not provide the required uniformity, particle size limitation, compaction and other desired results, in which case, the Engineer will direct that the processing be done in more than one course.

160-5.2 Application of Stabilizing Material: When additive stabilizing materials are required, the designated quantity shall be spread uniformly over the area to be stabilized.

When materials from an existing base are to be utilized in the stabilizing at a particular location, all of such materials shall be placed and spread prior to the addition of other stabilizing additives.

Commercial stabilizing material shall be spread by the use of mechanical material spreaders except that where use of such equipment is not practicable other means of spreading may be used, but only upon written approval of the proposed alternate method.

160-5.3 Mixing: The mixing shall be done with rotary tillers, or other equipment meeting the approval of the Engineer. At the Contractor's election, the mixing of the materials may be accomplished in a plant of an approved type suitable for this work. The area to be stabilized shall be thoroughly mixed throughout the entire depth and width of

160-6

the stabilizing limits.

The mixing operations, as specified, (either in place or in a plant) will be required regardless of whether the existing soil, or any select soils placed within the limits of the stabilized sections, have the required bearing value without the addition of stabilizing materials.

As an exception to the above mixing requirements, where the subgrade is of rock, the Engineer may direct that the mixing operations (and the work of stabilizing) be waived and no payment for stabilization will be made for such sections of the roadway.

160-5.4 Maximum Particle Size of Mixed Materials: At the completion of mixing, all particles of material within the limits of the area to be stabilized shall pass a 3<sup>1</sup>/<sub>2</sub>-inch ring. Any particles not meeting this requirement shall be removed from the stabilized area or shall be broken down so as to meet this requirement.

160-5.5 Compaction: Except where a stabilized subbase is also to be constructed (as specified in 160-6), after the mixing operations have been completed and requirements for bearing value, uniformity and particle size have been satisfied, the stabilized area shall be compacted, in accordance with 160-8. The materials shall be compacted at a moisture content permitting the specified compaction. If the moisture content of the material is improper for attaining the specified density, either water shall be added or the material shall be permitted to dry until the proper moisture content for the specified compaction is reached.

160-5.6 Finish Grading: The completed stabilized subgrade shall be shaped to conform with the finished lines, grades and cross section indicated in the plans. The subgrade shall be checked by the use of elevation stakes, or other means approved by the Engineer.

160-5.7 Requirements for Condition of Completed Subgrade: After the stabilizing and compacting operations have been completed the subgrade shall be firm and substantially unyielding, to the extent that it will support construction equipment and will have the bearing value required by the plans.

All soft and yielding material, and any other portions of the subgrade which will not compact readily, shall be removed and replaced with suitable material and the whole subgrade brought to line and grade, with proper allowance for subsequent compaction.

160-5.8 Maintenance of Completed Subgrade: After the subgrade has been completed as specified above, the Contractor shall maintain it free from ruts, depressions and any damage resulting from the hauling or handling of materials, equipment, tools, etc. It shall be the Contractor's responsibility to maintain the required density until the subsequent base or pavement is in place. Such responsibility shall include any repairs, replacement, etc., of curb and gutter, sidewalk, etc., which might become necessary in order to recompact the subgrade in the event of underwash or other damage occurring to the previously compacted subgrade. Any such work required for recompaction shall be at the Contractor's expense. Ditches and drains shall be constructed and maintained along the completed subgrade section.

160-6 Stabilized Subbase (Additional Strengthening of Upper Portion).

When a stabilized subbase is to be constructed in conjunction with the stabilization op-

#### 160-6

erations, after the mixing of the stabilization area as specified in 160-5.3, and determination that the bearing value requirements specified in 160-7 have been met, the area over which the stabilized subhase is to be constructed shall be shaped as provided in 160-5.1 and compacted sufficiently to provide a firm surface for the operations to follow. The amount of commercial stabilizing material specified in 160-3 for this operation shall be spread in accordance with 160-5.2 and mixed to the depth indicated in the plans, in accordance with 160-5.3. A tolerance of one inch in excess of the plan depth will be allowed in this mixing. No additional tests for bearing value will be made after the mixing of materials for the Stabilized Subbase.

The operations of compaction and of finish grading, as specified in 160-5.5 and 160-5.6, shall then be performed, and the provisions of 160-5.4, 160-5.7 and 160-5.8 shall apply to this work.

When commercial materials are used as the stabilizing additives for the initial subgrade stabilization, the work of Stabilized Subbase may be eliminated, at the direction of the Engineer, either entirely or in designated sections of the overall limits for this work as may be called for in the plans.

## 160-7 Bearing Value Requirements.

160-7.1 General: Bearing value samples will be obtained and tested by the Engineer at completion of satisfactory mixing of the stabilized area. For any area where the bearing value obtained is deficient from the value indicated in the plans, in excess of the tolerances established herein, additional stabilizing material shall be spread and mixed in accordance with 160-5.3. This reprocessing shall be done for the full width of the roadway being stabilized and longitudinally for a distance of 50 feet beyond the limits of the area in which the bearing value is deficient.

The Contractor shall make his own determination of the quantity of additional stabilizing material to be used in reprocessing.

160-7.2 Tolerances in Bearing Value Requirements: The following undertolerances from the specified bearing value, will be allowed as based on tests performed on samples obtained after mixing operations have been completed:

Spc	ecified Bearing Value	Undertolerance
	LBR 40	5.0
	LBR 35	4.0
	LBR 30 (and under)	2.5
	All Florida Bearing Values	

#### 160-8 Density Requirements.

160-8.1 General: Within the entire limits of the width and depth of the areas to be stabilized, (other than as provided in 160-8.2) the minimum density acceptable at any location will be 98 percent of the maximum density as determined by AASHTO T 180. When bearing value determinations are made by the Florida Soil Bearing Test, Test Method C of AASHTO T 180 will be used and when bearing value determinations are

160-10.4

made by the Limerock Bearing Ratio Method, Test Method D of AASHTO T 180 (as modified by the Department's Research Bulletin 22-B, Revised April, 1972) will be used.

160-8.2 Exceptions to Density Requirements: Attainment of the minimum density specified in 160-8.1 is not required under this Section within the following limits:

- (a) The width and depth of areas which are to be subsequently incorporated into a base course under the same contract.
  - (b) The upper six inches of areas to be grassed under the same contract.

These areas shall be compacted to a reasonably firm condition as directed by the Engineer.

#### 160-9 Method of Measurement.

For all work of Type B and Type C Stabilization specified herein, the areas to be paid for shall be plan quantity subject to the provisions of 9-3.2.

For the work of Stabilized Subbase, the areas to be paid for shall be measured as provided in 9-1.3.1.

The volumes of stabilizing materials to be paid for separately shall be determined by measurement, loose volumes, in truck bodies at the point of unloading.

## 160-10 Basis of Payment.

160-10.1 Type B Stabilization and Type C Stabilization: The quantity of these types of stabilization, determined as provided in 160-9; shall be paid for at the contract price per square yard for Type B Stabilization or for Type C Stabilization, as applicable. Such price and payment shall constitute full compensation for all work specified in this Section applicable to these types of Stabilization, including furnishing and spreading of all stabilizing material required and any reprocessing of stabilization areas necessary to attain the specified bearing value.

160-10.2 Stabilized Subbase: The quantity of this item, determined as provided in 160-9, shall be paid for at the contract price per square yard for Stabilized Subbase. Such price and payment shall constitute full compensation for the work of incorporating the additional commercial stabilizing material into the designated subbase area.

160-10.3 Commercial Stabilizing Material: The quantity of stabilizing material authorized and used in Stabilized Subbase, determined in accordance with 160-9 (except for materials as excluded hereinbelow) will be paid for at the contract price per cubic yard for Commercial Stabilizing Material. This price and payment shall include all costs of furnishing and spreading commercial stabilizing material.

No separate payment shall be made for any commercial stabilizing material which the Contractor may elect to utilize in Type B or Type C Stabilization.

No separate payment will be made for the work of utilizing of materials from an existing base, in the stabilizing section.

160-10.4 General: The above prices and payments shall constitute full compensation for all work and materials specified in this Section, and shall specifically include all costs of the processing and incorporation of existing base materials into the proposed stabilization area when such work is required by the plans.

### 160-10.4

If the item of Borrow Excavation is included in the contract, any stabilizing materials obtained from designated borrow areas shall be included in the pay quantity for Borrow Excavation.

Payment shall be made under:

Item No. 160-3 - Commercial Stabilizing Material - per cubic yard.

Item No. 160-4 - Type B Stabilization - per square yard.

Item No. 160-5 - Type C Stabilization - per square yard.

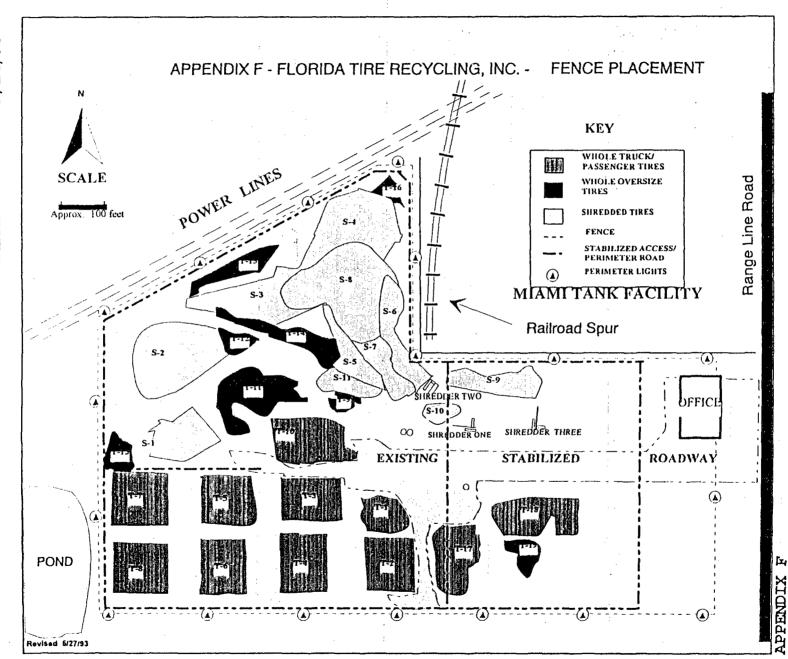
Item No. 160-6 - Stabilized Subbase - per square yard.

#### APPENDIX F

#### DETAILED FENCE SPECIFICATIONS

The perimeter fencing is a nominal six foot galvanized chain-link fence with 3 strands of top-mounted barbed wire conforming to the following specifications.

- 1. Line Posts: Hot-dipped galvanized (at least 1.8 oz/sq ft) 2 3/8" OD schedule 40 steel pipe (3.65 lbs/ft), 9 feet long, placed on maximum 10 foot centers, set in 8 inch diameter holes 3 feet deep with 1-2-4 mix concrete.
- 2. Corner Posts: Hot-dipped galvanized (1.8 oz/sq ft) 3" OD schedule 40 steel pipe (5.79 lbs/ft), 10'6" long, set in 12 inch diameter holes 3' deep with 1-2-4 mix concrete.
- 3. Pull Posts: Spaced at least every 500 feet, meeting Corner Post specifications (see #2).
- 4. Gate Posts: Hot-dip galvanized (1.8 oz/sq ft) 4" OD schedule 40 steel pipe (9.11 lbs/ft), 10'6" long, set in 12 inch diameter hole 3' deep with 1-2-4 mix concrete.
- 5. Fence Mesh: Galvanized (1.2 oz zinc/sq ft) 9 gauge 2" diamond 6 feet high.
- 6. Top and Bottom Tension Support: Galvanized 7-gauge spring coil tension wire with fence fabric attached by 11-gauge galvanized hog rings at least every 24 inches.
- 7. Extension Arms: Hot-dipped galvanized pressed steel arms (meeting 300 pound pull weight test) with 3 strands of barbed wire.
- 8. Barbed Wire: Hot-dipped galvanized, two strand with 4-point barbs spaced not more than 5 inches apart.
- 9. Gates: 24 feet wide, 6 feet high, topped with 3 strands of barbed wire, 180 degree hinges, 2 inch schedule 40 galvanized frame (2.72 lbs/ft) braced and trussed, placed at entrance roads.



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# FLORIDA TIRE SITE

# APPENDIX F

FENCE PLACEMENT AND DETAILED SPECIFICATIONS

# FLORIDA TIRE RECYCLING INC SITE

## PLANS AND SPECIFICATIONS FOR SITE STABILIZATION AND ABATEMENT

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#### GENERAL DESCRIPTION OF WORK

The Florida Tire Recycling Inc. Site (called Florida Tire or FTRI) is the largest accumulation of whole and shredded waste tires identified within the State of Florida. T.A.G. Resource Recovery (TAG) has estimated that the site contained approximately 849,000 whole passenger tire equivalents (PTE) and 4,885,000 shredded passenger tire equivalents as of March 11, 1993. Since the site has remained active, the actual quantity at the time of site abatement will depend upon tires subsequently added or removed, as well as effective pile depths and densities identified during initial tire removal operations.

Since this site represents a significant public health hazard, the State of Florida Department of Environmental Protection (FDEP) will obtain authority to conduct stabilization and/or abatement activities prior to initiation of actual on-site work.

The objectives of pile stabilization and abatement are:
(1) to decrease probability and environmental consequences of a
potential fire at the site; and (2) to decrease the public health
hazard associated with mosquitos currently breeding in whole tires
and shreds at the site. These objectives will be accomplished by
implementation of the following specific activities:

- (1) Creation of Fire Lanes. Approximately 424,000 whole waste tires and 3,640,000 coarsely shredded tires (expressed as passenger tire equivalents or PTE) will be removed from designated fire lanes during site stabilization. The purpose is to break piles into smaller isolated segments and/or enhance separation distances After the site is stabilized, DEP may request between piles. removal of additional tires and/or shreds as part of supplemental stabilization or complete abatement. The removed tires and shreds will be processed to meet specifications required for contractor's designated application(s). Applications offer Applications offering higher product value and/or minimizing consumption of landfill space are preferred, including (but not limited to) use as: (1) a feedstock for crumb rubber production; (2) a supplemental fuel; (3) an alternative material used in landfill liner protective layer construction; or (4) a landfill cover material.
- (2) Fence Installation. Perimeter fencing will be installed to deter unauthorized pedestrian and vehicle access to the site. An estimated 3,000 lineal feet of fencing will be required to supplement existing fencing.

- (3) Roadway Stabilization. Since the site contains predominantly sandy soils that may limit movement of wheeled equipment, central and perimeter stabilized roadways are to be constructed to allow access by processing equipment, transport trucks, and fire-fighting equipment. DEP may authorize additional stabilization of designated work areas if required for efficient contractor operations.
- (4) Perimeter Lighting. Perimeter low-intensity lighting will be installed to enhance detection of unauthorized pedestrians and/or vehicles by on-site security personnel.

The following sections provide detailed plans and specifications for each of these activities, as well as specific bid response requirements for pre-qualified respondents.

#### DESCRIPTION OF SITE

#### Site Location

The Florida Tire Recycling, Inc. Site is located at 10151 Range Line Road in St. Lucie County, approximately 0.4 miles south of State Highway 709 and 8 miles southwest of Interstate Highway 95. The facility occupies approximately 9 acres in a rural area containing scattered commercial, industrial, and agricultural properties.

#### Site Schematic Plot Plan

The site is irregularly shaped, resembling a rectangle with a triangular attachment at its northwestern corner. A schematic plot plan depicting site conditions as of March 11, 1993 is provided in Appendix A and discussed briefly below.

#### Pile Characteristics and Quantities

Whole tire piles were estimated to contain a total of 849,000 passenger tire equivalents (PTE) as of March 11, 1993. The five piles designated T-2, T-4, T-5, T-6 and T-17 in Appendix A contained a calculated total of approximately 221,000 laced passenger tires, with each pile being approximately 7 feet high and covering a surface area of 10,000-12,000 square feet. Truck tires (334,000 PTE) have been stacked into 4 similar piles (designated T-3, T-7, T-8, and T-10) with surface areas of 12,000-18,000 square feet. Off-road tires (294,000 PTE) have been loosely placed in 9 irregularly-shaped piles (designated T-1, T-9, T-11, T-12, T-13, T-15, T-16, T-18 and T-19) 6-9 feet high and occupying 6,000 to 18,000 square feet each. Several of the smaller piles contained a high percentage of truck and off-road tires that were still mounted on rims. Pile T-14 contained a mixture of shreds, off-road, and stacked truck tires with an estimated average height of 9 feet.

Shreds representing an estimated 4,885,000 PTE or 48,850 tons have been accumulated in piles on the northern portion of the property. S-1, S-9 and S-10 (as labeled in Appendix A) are smaller piles with average heights of 12-15 feet. The main shred pile (including S-2 through S-8) was initially a one level plateau with a shred depth of approximately 15 feet. Additional shreds were subsequently transported up a compacted ramp (S-7) area, then dumped and spread by heavy equipment to create a higher plateau (designated S-8) on top of the existing shred pile. A third tier with an average depth of 30 feet (designated S-6) was created in a similar manner.

Over 90% of the shreds are very coarse, having been produced by single-pass shredding in equipment that was not always properly maintained. Pieces significantly larger than one eighth of a tire (including some pieces approaching one-half of a tire) were observed on pile surfaces. Some finer shreds were visible in pile segments, but only pile S-11 appeared to contain significant quantities. S-11 is a new shred pile being used to accumulate current production of finer shreds from specific machines.

The total quantity of waste tires and shreds on the site as of March 11, 1993 was estimated to be 5,734,000 passenger tire equivalents representing 57,340 tons. Whole waste tires and shreds have continued to be accumulated by Florida Tire Recycling, Inc. as part of their operations. Since this is an operating site, it is likely that site conditions have changed as a result of continuing receipt, shredding and storage operations.

### Site Topography

The site is relatively flat but slopes gradually to the south and east within the property boundary. The entire site is located within a designated flood prone area. Most of the southern half of the property, including the area containing piles of whole tires, was submerged in water up to 2 feet deep on June 30, 1992. Although this area was comparatively dry on March 11,1993, this area is apparently subject to routine flooding during heavy rains and recedes slowly due to poor soil permeation rates. An additional large pond is located about 50 feet outside of the western property line. A topographical map of the site area is provided in Appendix B.

### Soil Characteristics

The predominant soil is Pineda sand. It is a poorly drained soil that typically has a water table depth of less than 10 inches for 1 to 6 months and 10-40 inches for most of the rest of the year. In a few areas, the soil is covered with shallow standing water for 1 week to 6 months per year. The water table is below a depth of 40 inches only for short periods in dry seasons.

The surface layer is typically 6 inches thick with very dark grayish brown sand in the upper 3 inches and dark brown sand in the lower 3 inches. It requires stabilization even for light applications such as playground use. The upper part of the subsoil extends to a depth of 34 inches and contains yellowish brown sand in the upper 6 inches, strong brown sand in the next 9 inches, and pale brown sand in the lower 13 inches. A layer of light gray sand 4 inches thick separates the upper and lower parts of the subsoil.

The lower subsoil is olive gray sandy loam that extends to a depth of 52 inches. The upper 4 inches has intrusions of white sand. The substratum is gray loamy sand to a depth of 80 inches or more. Permeability is classified as rapid in the surface and subsurface layers, slow to very slow in the subsoil, and moderately rapid to rapid in the substratum. A map and description of predominant soil types in the site area are provided in Appendix C.

## Additional Site Factors

Associated site factors potentially impacting environmental, health, and safety considerations of the Florida Tire Site include the following:

- (1) The adjacent industrial facility occupied by Miami Tank Manufacturing and Allied Universal contains chemical storage tanks and rail cars that would reasonably be affected by heat generated from a fire in nearby whole or shredded tire piles. The chlorine, caustic and hydrochloric acid contained in these vessels could significantly affect personnel safety and environmental impact if a fire occurs at the site.
- (2) High voltage transmission lines from a nuclear power plant extend across the northwestern part of the property near the main shred pile. A fire could reasonably disrupt or even destroy these lines. Since the site is generally wet, a fallen high voltage line could represent a serious hazard to fire fighters and site workers if electrical current continues after line breakage.

Tires and coarse shreds containing stagnant water are generally recognized as excellent breeding grounds for the aedes albopictus (often referred to as the Asian Tiger) mosquito and other species capable of serving as carriers of diseases that are potentially fatal to humans. As a result, such breeding grounds become a threat to human life if sources of diseases carried by these mosquitos are present in the area.

There was no indication of the Asian Tiger Mosquito during the site visits. However, the Asian Tiger Mosquito is spreading southward and may become established within the pile by natural migration. This mosquito represents a potential nuisance and health hazard for local residents. The Asian Tiger Mosquito is an aggressive daytime biter capable of serving as a carrier of potentially serious diseases such as Dengue Fever and Encephalitis, among others. If sources of diseases carried by the mosquito are identified, then the site should be considered in any mosquito control programs initiated within the area.

## Utilities and Services

The availability of utilities and services at the site is limited, as discussed below:

Electrical service capable of supplying three-phase power for at least the equivalent of 250 horsepower is available at the site boundary along Range Line Road, but all costs associated with electrical supply at the site will be the responsibility of the contractor including any lighting required for the contractor's operations. DEP intends to install low-intensity perimeter lighting for security reasons, but the contractor must provide supplemental lighting required to support any planned night-time operations.

Potable and process water is available only within buildings that will probably not be accessible to the contractor. DEP will cooperate with the contractor to gain water access, but all costs associated with connection and use of water will be the responsibility of the contractor.

Sanitary facilities are similarly unlikely to be available at the site, so the contractor must plan on providing all facilities required by applicable labor regulations.

Office or sheltered areas will also probably not be available at the site, although a trailer may be installed for security personnel. Any required office or shelter facilities for contractor personnel will be the responsibility of the contractor.

The central access roadway from Range Line Road is unpaved. A lockable gate controls the site entrance. Since the soil is sandy, access to other points on the site with heavy wheeled equipment may be limited.

Truck scales exist near the main entrance. DEP will attempt to obtain usage of the scales to weigh trucks entering and exiting the site.

#### PLANS AND SPECIFICATIONS

The following sections describe plans and specifications for each of the major site stabilization and abatement activities. All operations must fully comply with applicable regulations and permitting requirements.

#### Retrieval, Processing, and Transport

Implementation of site stabilization and abatement requires retrieval, processing, and transport of the following estimated quantities of waste tires and shreds based on site conditions as of March 11, 1993:

N	ESTIMATED QUANTITY (tons @ 100 PTE/ton)		
CLASSIFICATION	STABILIZATION	ABATEMENT	TOTAL
Whole Tires			
Off-Road	2,600	340	2,940
Passenger/Truck	1,640	3,910	5,550
Subtotal	4,240	4,250	8,490
Shredded Tires	36,400	12,450	48,850
TOTAL	40,640	16,700	57,340

DEP (or its duly authorized representative, hereinafter included in the term DEP) reserves the right to adjust, at its sole discretion, the actual quantity to reflect budget, pile quantity, adjusted project scope, and/or timing considerations.

#### Retrieval

DEP's objective is to initially stabilize the Florida Tire Site through removal and processing of tires from perimeter, fire lane, and work areas designated in Appendix D (or additional locations as directed by DEP). The planned sequence for site stabilization and abatement is described below. This sequence may be modified, at DEP's request or with its approval, to reflect site conditions at the time or to enhance contractor efficiency.

- (1) Clear tires and shreds from minimal perimeter areas (stabilizing a vehicle pathway as necessary) to allow required equipment access for installation of perimeter lighting and fencing. This step was not included in the initial stabilization plan but may be required to expedite installation of security lighting and fencing.
- (2) Clear the central portion of the property by removal of piles T-10, S-1, T-13, T-9, T-11, S-10, and S-9 to allow construction of central access roadways and work areas.
- (3) Clear fire lanes 1, 2 (including removal of T-12 and T-14), and 3 as identified in Appendix D to divide the shred pile into smaller segments.
- (4) Remove T-15, T-16, and portions of S-6 and S-4 located within 50 feet of the site perimeter to allow completion of the perimeter roadway.
- (5) Clear fire lane 4 to enhance separation between whole tire piles.
- (6) Lower the height of each remaining shred pile segment to 15 feet or less, then clear an additional fire lane through the center of each segment (FL-5, FL-6, and FL-7 as depicted in Appendix D).
- (7) Upon completion of the above site stabilization activities, DEP may, at its sole discretion, direct the contractor to remove and process additional tires and/or shreds from the remaining piles. The order of supplemental pile removal is currently projected to follow the numerical sequence identified in Appendix E.

The following specifications apply to retrieval operations:

Fire Lane Width - Fire lanes 1, 2, and 3 shall be 100 feet wide and other internal fire lane shall be 50 feet wide, as measured between pile segments at ground level. The edges of the remaining shred piles and randomly deposited whole tire piles adjacent to the fire lanes must be tapered at about a 45 degree angle from ground level to minimize the safety and fire hazards associated with pile edge collapse. Stacked and laced whole tire piles do not need to be tapered.

Perimeter Fire Lane Width - The perimeter fire lane shall be at least 50 feet wide, as measured from the closer of the property line or fence.

Contamination - Retrieval methods should use lifting, rather than pushing, techniques to minimize contamination of the shredded product with surface soil. During the abatement phase, all shreds must be removed down to ground level. Up to 5.0% of the total shred weight retrieved from bottom pile levels may be disposed of by an alternative method with prior written approval from DEP. Such contaminated shred shipments must be clearly identified and DEP reserves the right to adjust associated invoices to reflect DEP's estimate of contamination impact. Any additional quantities of heavily contaminated tires and shreds must be isolated and cleaned prior to processing to avoid product contamination that could affect invoicing validity, unless the contractor demonstrate that the contamination is removed during processing.

## Processing and Transport

All tires and shreds removed from the designated areas are to be processed (on-site or off-site as necessary), weighed, and transported to designated site(s) as outlined in the contractor's bid response in conformance with the following specifications unless otherwise specifically approved by DEP in writing.

Processing - All tires and shreds must be processed, as necessary, to meet product specifications required by the market alternatives identified in the contractor's response documentation. Off-road tires must be cut into at least 8 approximately equal pieces prior to landfill disposal. DEP reserves the right to determine conformance with identified specifications by performing analyses of random samples where applicable.

The contractor is encouraged to utilize product applications representing higher value use of the tires and shreds. Examples include, but are not limited to, use as a raw material for crumb rubber production, supplemental fuel or liner protective layer in landfill cell construction. For alternatives to be the contractor must provide documentation considered, the identifies customer, location, application, specification, monthly usage and total usage commitment A letter of intent will be considered to be adequate documentation for inclusion in the response, but the contractor must provide definitive agreement(s) for all projected product

quantities prior to task assignment. The contractor must also specify projected quantities and the name and location of disposal site(s) to be used for all wastes resulting from processing operations.

Weighing - All shreds and waste streams will be weighed as they leave the Florida Tire Site and as they are received at the DEP-approved sites. The lower net weight will provide the basis for invoicing, subject to confirmation by other techniques chosen by DEP. DEP will designate a scale at or near the receiving location(s). Weight slips will be obtained and submitted as part of the contractor's invoice.

Transport - All products and wastes will be transported directly to the DEP-approved sites, unless otherwise accepted by DEP in writing, in appropriate vehicles in full compliance with all applicable Federal, State and local regulations. The contractor must immediately notify DEP if any products or wastes are rejected at the approved destination. Rejected materials must be transported to an approved reprocessing facility and then be returned to the approved destination at the contractor's expense unless otherwise approved by DEP in writing. The contractor must document rejected quantities, reprocessed product and waste quantities, and the ultimate disposal site for any waste quantities.

<u>Storage</u> - Any on-site storage of product and waste streams must be structured to minimize contamination of property or products. It is preferable that shreds not be stored on the ground to minimize possible contamination. Not more than one week's production of product or waste streams may be stored at the Site unless otherwise approved in writing by DEP.

#### Fencing

Fencing will be installed around the currently unfenced portion of the property perimeter to control vehicle and pedestrian access to the Florida Tire Site as illustrated in Appendix F-1. The fence will be located just inside the property line in conformance with local practice unless otherwise approved by DEP. Fence installation must be coordinated with light pole placement avoid installation difficulties or discontinuities in the straight fence lines. Detailed specifications for fence and gate installation are provided in Appendix F-2.

#### Roadways

A perimeter roadway, central access roadways, and work areas (as illustrated in Appendix G-1) will be stabilized, as needed, to allow efficient movement of transport, fire-fighting, processing and security vehicles. In addition, it may be initially necessary to clear and stabilize a narrow perimeter pathway to allow access by equipment required to install lighting and fencing.

It is anticipated that movement of heavy processing equipment and tractor trailers on unstabilized areas may be difficult in wet conditions. Therefore, the identified east-west central access roadway extending from the main gate (approximately 150 lineal yards) and work areas (approximate total of 3,000 square yards) should be completed as rapidly as possible to facilitate continuing retrieval, processing and transport operations. The north-south central access roadway (approximately 150 lineal yards) and perimeter roadway (approximately 1,000 lineal yards) may be constructed after required removal of tires and shreds in accordance with the planned sequence identified in the previous retrieval section.

The roadways are to meet or exceed the following specifications:

Width - A minimum of 24 feet wide, with corners (at the junction of perpendicular roadways and directional changes) rounded in accordance with a 50 foot radius arc to enhance movement by long trucks.

Length - Based on currently available site data, the total length of central access and perimeter roadways requiring stabilization is estimated to be 1,300 lineal yards, plus approximately 3,000 square yards of work areas. The actual length may be adjusted during the project to reflect conditions discovered during operations.

Location - The planned locations of stabilized roadways and work areas are shown in Appendix G-1. The perimeter roadway should begin about 10 feet from the perimeter fence where possible.

Construction Sequence - The sequence of roadway construction is to include completion of initial perimeter access path and east-west central access roadway described above as rapidly as possible, followed by the remaining sections (unless otherwise

directed by DEP) when tires and shreds have been removed from the areas.

Detailed Roadway Specification - Roadway construction shall conform to that outlined for Type B Stabilization in Section 160 of the 1991 Florida Department of Transportation Standard Specifications for Road and Bridge Construction (included in Appendix G-2), with a limerock bearing ratio (LBR) of at least 40 as determined by an independent testing laboratory acceptable to DEP.

#### Perimeter Lighting

It is currently anticipated that a perimeter low-intensity lighting system involving approximately 18 lights will be designed and installed by Florida Light and Power under contract to DEP or its duly authorized representative. Tentative light location is illustrated in Appendix G, but is subject to change based on actual system design.

#### RESPONSE REQUIREMENTS

The preceding sections have described the type and specifications of work to be conducted by the contractor(s) that DEP selects for this project. DEP anticipates concurrent utilization of multiple contractors due to the magnitude and urgency of the project. However, DEP reserves the right to choose any number of contractors, to assign specific activities to contractors, and to solicit additional quotations for any specific activity if DEP deems the initial responses to be inadequate in its sole discretion.

The following sections describe the specific information to be provided by the contractor. The instructions have been prepared to help ensure that all proposals are reviewed and evaluated in a consistent manner, as well as to minimize response time and cost. A maximum number of pages for response to each section has been established. All responders shall comply with the following mandatory provisions: (1) All sections must be identified and addressed in the order outlined in this section; (2) All pages must be standard 8.5 X 11 inch recycled paper with one inch borders on all sides and contain type no smaller than 12 characters per inch for text submitted; (3) Prospective contractors shall provide, in an appendix, a maximum of 5 pages of professional resumes (no more than 2 pages per individual) for individuals directly assigned to the management or execution of this project which do not appear in the contractor's response to RFSOQ 9105C. Failure to comply with these provisions will preclude the response from consideration.

## Activity 1: Retrieval, Processing and Transport

#### A. Technical Response Plan (4 pages)

(1) The prospective contractor shall fully describe any changes and/or deviations in the company or its methods/equipment from the information provided in Sections C-1 through C-8 of its response to DEP Solicitation Number 9105C, with emphasis on any deviations associated with retrieval, processing, transport and marketing of coarse shreds, rimmed tires, and off-road tires present at the Florida Tire Site.

- (2) The prospective contractor shall describe the following components related to its proposed alternative:
  - (a) Methods, equipment, and guaranteed monthly capacity associated with retrieval, processing, and transport of shreds, whole passenger/truck tires, and off-road tires;
  - (b) Complete definition of planned product market(s), including identification of the customer, location, application, product specifications, projected monthly usage of products emanating from Florida Tire and total usage commitment for such products. Contract(s) or Letter(s) of Intent (not part of the page limit) must be included and must identify dates for initial and total consumption of all products originating from Florida Tire;
  - (c) A complete definition of the characteristics and quantity of any materials requiring disposal (i.e., wastes and off-road tires), including the name and location of disposal sites to be used;
  - (d) Estimated percentage and method of processing and/or disposing of contaminated shreds, including the name and location of any disposal sites to be used.

#### B. Projected Schedule (1 page)

This section is intended to define the contractor's schedule for execution of this designated activity. Monthly productivity (tons) guaranteed by the contractor must be clearly stated (for coarse shreds and whole passenger, truck, and off-road tires), as well as the contractor's planned productivity for each type (if different). The time required to set up and initiate operations from the date of task assignment execution must be provided, including identification of major time components. The projected length of any start-up period with reduced productivity should also be identified.

## C. Project Activity Cost (4 pages, including Tables 1, 2 and 3)

This section is intended to define costs associated with execution of this project activity. DEP may, at its sole

discretion, award multiple task assignments covering varying ranges of tire/shred quantities based on the merits of the contractor's proposals and other considerations. Therefore, the contractor is requested to provide independent unit/total costs for a baseline quantity and for additional quantities for each classification (shreds, whole passenger/truck tires, and off-road tires) as identified in Tables 1, 2 and 3. In addition, the contractor must describe, in detail, any difference in costs associated with retrieval, processing, transport and disposal of rimmed tires and contaminated shreds (from the bottom of piles and site grooming) encountered at the site.

### D. Alternative Suggestions

DEP may choose to utilize more than one alternative to enhance the rate of Florida Tire Site abatement. This section is intended to allow the contractor to describe one or more additional alternatives for consideration by DEP. The contractor should fully define any such alternative(s) following the format and page limits identified above for the primary response, including differences, any specific benefits, and savings which would result from DEP's acceptance of this alternative. The contractor should complete a Table 4, 5 and/or 6 for each alternative to summarize costs associated with implementation.

TABLE 1
COST SUMMARY FOR FLORIDA TIRE SITE ABATEMENT

## WHOLE PASSENGER/TRUCK TIRES

## MARKET USE:

COST COMPONENT	PRICE/TON	TOTAL COST
BASELINE QUANTITY (1,000 tons)		
Set Up/Tear Down Retrieve Process Transport	\$ \$ \$	\$ \$ \$
Whole Tires (tons) Shreds (tons) Product (tons) Processing Waste (tons) Disposal Cost/(Revenue)	\$ \$ \$ \$	s s s
Shreds (tons) Product (tons) Processing Waste (tons)	s s s	\$ \$
TOTAL	\$ *	\$
ADDITIONAL QUANTITY (up to 7,000 addit:	ional tons)	
Retrieve Process Transport	\$ \$	\$ \$
Whole Tires (tons) Shreds (tons) Product (tons) Processing Waste (tons) Disposal Cost/(Revenue)	s s s	\$ \$ \$ \$
Shreds (tons) Product (tons) Processing Waste (tons)	s s s	s s s
TOTAL (Additional Quantity Only)	<b>\$</b>	\$

<sup>\*</sup> Total \$ divided by total tons removed from site NOTE: EACH OF THE ABOVE COST COMPONENTS MUST BE STATED SEPARATELY

TABLE 2

COST SUMMARY FOR FLORIDA TIRE SITE ABATEMENT

SHREDDED TIRES

MARKET USE:

COST COMPONENT	PRICE/TON	TOTAL COST
BASELINE QUANTITY (10,000 tons)		
Set Up/Tear Down Retrieve Process Transport Shreds ( tons) Product ( tons) Processing Waste ( tons) Contaminated Shreds ( tons) Disposal Cost/(Revenue) Shreds ( tons) Product ( tons) Processing Waste ( tons) Contaminated Shreds ( tons) TOTAL	**	
ADDITIONAL QUANTITY (up to 50,000 addi-	tional tons)	
Retrieve Process Transport Shreds (tons) Product (tons) Processing Waste (tons) Contaminated Shreds (tons) Disposal Cost/(Revenue) Shreds (tons) Product (tons) Processing Waste (tons) Contaminated Shreds (tons)		
TOTAL (Additional Quantity Only)	\$ *	\$

<sup>\*</sup> Total \$ divided by total tons removed from site

NOTE: EACH OF THE ABOVE COST COMPONENTS MUST BE STATED SEPARATELY

TABLE 3
COST SUMMARY FOR FLORIDA TIRE SITE ABATEMENT

WHOLE OFF-ROAD TIRES

MARKET USE:

		·					
COST COMPONENT	PRICE/TON	TOTAL COST					
BASELINE QUANTITY (1,000 tons)							
Set Up/Tear Down Retrieve Process Transport Whole Tires (tons) Chopped Tires (tons) Product (tons) Processing Waste (tons) Disposal Cost/(Revenue) Whole Tires (tons) Chopped Tires (tons) Product (tons) Processing Waste (tons) TOTAL	**						
ADDITIONAL QUANTITY (up to 5,000 additi	ional tons)						
Retrieve Process Transport Whole Tires (tons) Chopped Tires (tons) Product (tons) Processing Waste (tons) Disposal Cost/(Revenue) Whole Tires (tons) Chopped Tires (tons) Product (tons) Processing Waste (tons) TOTAL (Additional Quantity Only)	************						

<sup>\*</sup> Total \$ divided by total tons removed from site

NOTE: EACH OF THE ABOVE COST COMPONENTS MUST BE STATED SEPARATELY

TABLE 4

ALTERNATIVE COST SUMMARY FOR FLORIDA TIRE SITE ABATEMENT

WHOLE PASSENGER/TRUCK TIRES

#### MARKET USE:

COST COMPONENT	PRICE/TON	TOTAL COST
BASELINE QUANTITY (1,000 tons)		
Set Up/Tear Down Retrieve Process Transport	\$ \$ \$	\$ \$
Whole Tires (tons) Shreds (tons) Product (tons) Processing Waste (tons)	\$ \$ \$ \$ \$	s s s
Disposal Cost/(Revenue) Shreds (tons) Product (tons) Processing Waste (tons)	s s s	\$ \$
TOTAL	\$ *	\$
ADDITIONAL QUANTITY (up to 7,000 additi	ional tons)	
Retrieve Process Transport	\$	\$ \$
Whole Tires (tons) Shreds (tons) Product (tons) Processing Waste (tons) Disposal Cost/(Revenue)	s s s	\$ \$ \$
Shreds ( tons) Product ( tons) Processing Waste ( tons)	s s s	s s s
TOTAL (Additional Quantity Only)	\$ ***	\$

<sup>\*</sup> Total \$ divided by total tons removed from site NOTE: EACH OF THE ABOVE COST COMPONENTS MUST BE STATED SEPARATELY

TABLE 5

ALTERNATIVE COST SUMMARY FOR FLORIDA TIRE SITE ABATEMENT
SHREDDED TIRES

MARKET	USE:	-	,

COST COMPONENT	PRICE/TON	TOTAL COST
BASELINE QUANTITY (10,000 tons)		
Set Up/Tear Down Retrieve Process Transport	ው <del>የ</del> ን የን	ው <del>የ</del> ን የን
Shreds (tons) Product (tons) Processing Waste (tons) Contaminated Shreds (tons)	<i>ሴ የ</i> ኔ <i>የ</i> ኔ <i>የ</i> ኔ	<b>ው</b> የአ የ የ
Disposal Cost/(Revenue) Shreds (tons) Product (tons) Processing Waste (tons) Contaminated Shreds (tons) TOTAL	ው ው ው ው ው <b>ው</b>	ው ው ው ው ው <b>ው</b>
ADDITIONAL QUANTITY (up to 50,000 addit	tional tons)	
Retrieve Process Transport	\$\$	\$\$
Shreds (tons) Product (tons) Processing Waste (tons) Contaminated Shreds (tons) Disposal Cost/(Revenue)	40.00	ው <del>የ</del> ን የን የን
Shreds (tons) Product (tons) Processing Waste (tons) Contaminated Shreds (tons) TOTAL (Additional Quantity Only)	\$\$ \$\tau \tau \tau \tau \tau \tau \tau \tau	\$ \$ \$ \$ \$ \$ \$

<sup>\*</sup> Total \$ divided by total tons removed from site

NOTE: EACH OF THE ABOVE COST COMPONENTS MUST BE STATED SEPARATELY

TABLE 6

ALTERNATIVE COST SUMMARY FOR FLORIDA TIRE SITE ABATEMENT

WHOLE OFF-ROAD TIRES

MARKET USE:

COST COMPONENT	PRICE/TON	TOTAL COST
BASELINE QUANTITY (1,000 tons)		
Set Up/Tear Down Retrieve Process Transport Whole Tires (tons) Chopped Tires (tons) Product (tons) Processing Waste (tons) Disposal Cost/(Revenue) Whole Tires (tons) Chopped Tires (tons) Product (tons) Processing Waste (tons) TOTAL	<b>ማ</b> ውውውው ውውው ውውው	<b>ማ</b> ውውው የተመቀው ተመቀው
ADDITIONAL QUANTITY (up to 5,000 addit	ional tons)	
Retrieve Process Transport	\$\$	\$ \$
Whole Tires (tons) Chopped Tires (tons) Product (tons) Processing Waste (tons) Disposal Cost/(Revenue)	\$ \$ \$ \$	\$ \$ \$ \$
Whole Tires (tons) Chopped Tires (tons) Product (tons) Processing Waste (tons) TOTAL (Additional Quantity Only)	\$\tau_{\\ \tau_{\tau_{\tau_{\\ \tau_{\tau_{\\ \tau_{\tau_{\\ \tau_{\\ \tau_{\\ \tau_{\\ \tau_{\\ \tau_{\\ \tau_{\\ \\ \tau_{\\ \tau_{\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	ው ው ው ው <b>ው</b>

<sup>\*</sup> Total \$ divided by total tons removed from site

NOTE: EACH OF THE ABOVE COST COMPONENTS MUST BE STATED SEPARATELY

## Activity 2: Fencing

This section is intended to allow the contractor to state productivity, costs, and any suggested alternatives associated with installation of required fencing.

## A. Productivity (1/2 page)

The contractor shall clearly state guaranteed and projected productivity in terms of the total workdays required to install an estimated 3,000 feet of access control fencing that includes one entrance gate.

## B. Projected Cost (1/2 page)

The contractor shall clearly state the cost associated with installing 3,000 feet of fencing (including 1 gate 24 feet wide) conforming to the description and specifications contained herein (see Appendix F for location and detailed specifications). Since the actual length of required perimeter fence will be determined by DEP at the time of implementation, the contractor should also identify the unit (\$/lineal foot) costs associated with installing up to 3,000 additional lineal feet and up to 1,000 less lineal feet.

## C. Alternative Suggestions (1/2 page)

The contractor may describe the differences, advantages, disadvantages, and cost impact of any recommended alternatives to existing specifications.

## Activity 3: Access Roadways

This section is intended to allow the contractor to state productivity, costs, and any suggested alternatives associated with access and perimeter roadway construction. DEP reserves the right to adjust the amount, location, and specifications for roadway construction as appropriate in its sole judgement.

## A. Productivity (1/2 page)

The contractor shall clearly state projected productivity in terms of the total workdays required to construct approximately 1,500 lineal yards of access roadway and 3,000 square yards of work areas as detailed in Appendix G.

## B. Projected Cost (1/2 page)

The contractor shall clearly state the unit and total cost associated with the construction of 1,500 lineal yards of access/perimeter roadway (\$/lineal yard) and 2 work areas (\$/square yard) containing 1,500 square yards each as detailed in Appendix G. Since the actual required length of stabilized roadways and size of work areas will be determined by DEP based on future considerations, the contractor should also identify any difference in unit costs associated with installing up to 100% more or 25% less footage/area.

## C. Alternative Suggestions (1 page)

The contractor may describe the advantages, disadvantages, and cost impact of any recommended alternatives.

## Project Cost Summary

The contractor shall complete the cost summary in Table 7 for primary responses identified in the preceding sections. Table 8 should be completed for each set of alternatives discussed in the contractor's response.

TABLE 7
COST SUMMARY FOR FLORIDA TIRE SITE

COST COMPONENT	1	UNIT PRICE	EST QUANTITY	COST
Site Costs				
Services		N/A	N/A	\$
Perimeter Fence	\$	/lin ft	3,000 ft	\$
Roadways	\$	/lin yd	1,500 yd	\$
Work Areas	\$	/sq yd	3,000 sq yd	\$
Subtotal				\$
Process *				
Whole Pass/Truck	\$	/ton	1,000 tons	\$
Off-Road	\$	/ton	1,000 tons	\$
Shreds	\$	/ton	10,000 tons	\$
Subtotal	\$			
TOTAL COST	\$ .			
PROJEC	red 1	MAXIMUM INCRE	MENTAL QUANTITIE	S
Process *				
Whole Pass/Truck	\$	/ton	1,000 tons	\$
Off-Road	\$	/ton	1,000 tons	\$
Shreds	\$	/ton	10,000 tons	\$
Subtotal	\$			
TOTAL COST	\$			

<sup>\*</sup> Including set up/teardown, retrieval, processing, transportation, marketing, and waste disposal

TABLE 8
ALTERNATIVE COST SUMMARY FOR FLORIDA TIRE SITE

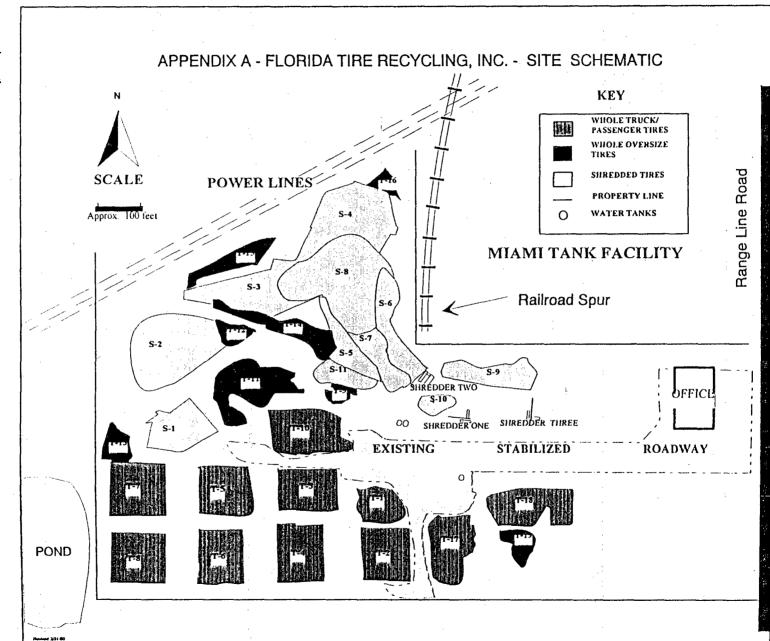
COST COMPONENT		UNIT PRICE	EST QUANTITY	COST		
BASELINE QUANTITIES						
Site Costs						
Services		N/A	N/A	\$		
Perimeter Fence	\$	/lin ft	3,000 ft	\$		
Roadways	\$	/lin yd	1,500 yd	\$		
Work Areas	\$	/sq yd	3,000 sq yd	\$		
Subtotal				\$		
Process *			·			
Whole Pass/Truck	\$	/ton	1,000 tons	\$		
Off-Road	\$	/ton	1,000 tons	\$		
Shreds	\$	/ton	10,000 tons	\$		
Subtotal				\$		
TOTAL COST				\$		
PROJEC	ŒD	MAXIMUM INCRE	MENTAL QUANTITIE	:S		
Process *						
Whole Pass/Truck	\$	/ton	1,000 tons	\$		
Off-Road	\$	/ton	1,000 tons	\$		
Shreds	\$	/ton	10,000 tons	\$		
Subtotal				\$		
TOTAL COST	\$					

<sup>\*</sup> Including set up/teardown, retrieval, processing, transportation, marketing, and waste disposal

## FLORIDA TIRE SITE

APPENDIX A

STTE SCHEMATIC

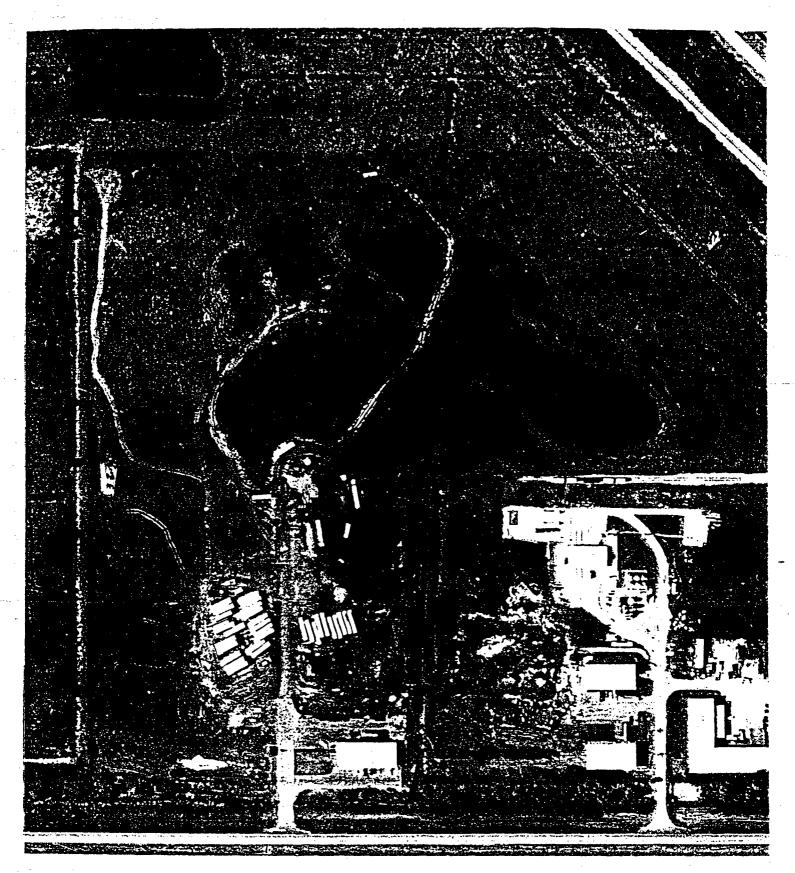


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# FLORIDA TIRE SITE

APPENDIX B

TOPOGRAPHICAL MAP



# FLORIDA TIRE SITE

# APPENDIX C

SOIL MAP AND CHARACTERISTICS