



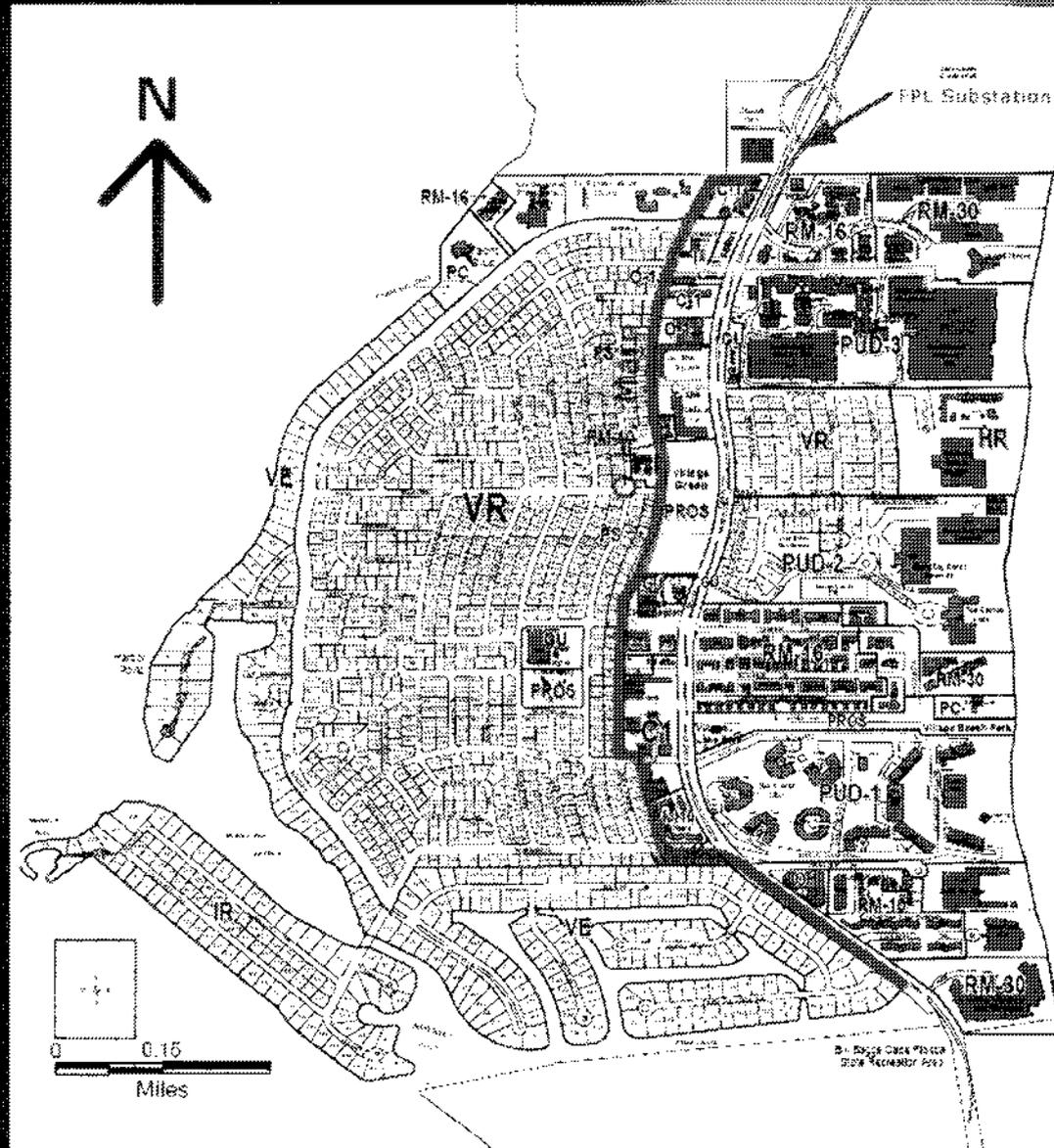
Village of  
*Key Biscayne*

Electrical, Telephone and Cable  
Facilities

Conversion from Overhead to  
Underground

February 13, 2007

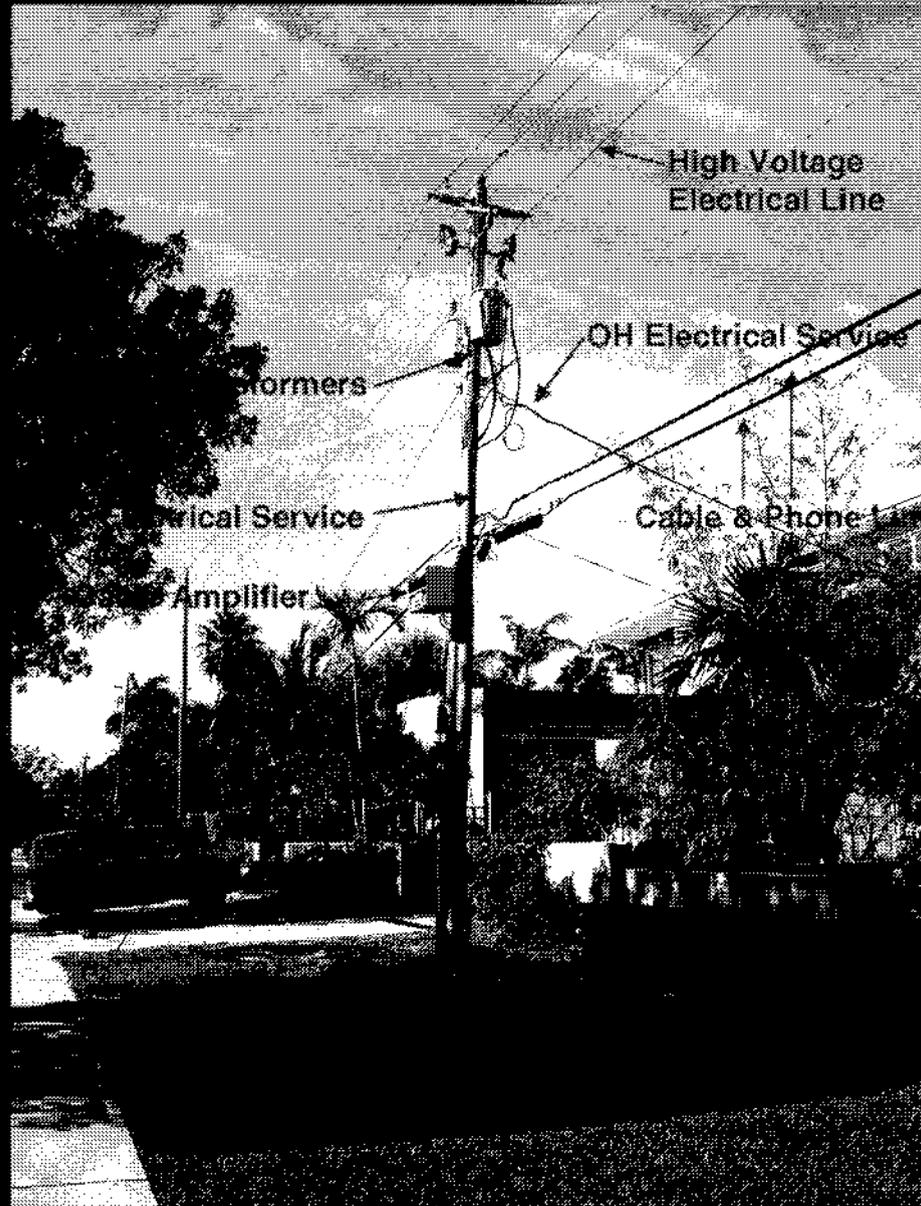
# Existing Areas Served by Overhead Facilities



# Overhead Main on Fernwood Road



# Overhead on Harbor Drive



# Overhead on Sonesta Drive



# Typical Overhead Area- Cypress Drive



# Cypress Drive



# Cypress Drive



JUL 24 2007

# Cypress Drive (looking East)



# Cypress Drive (looking West)



# Galen Drive



# Behind apartments on Galen



# Behind apartments on Galen





# Ground Mounted Electrical Transformer- Island Drive



# Ground Mounted Electrical Telephone & Cable Equipment- Island Drive



# Island Drive



# Conversion to Underground- Cypress Drive



# Conversion to Underground- Directional Drilling



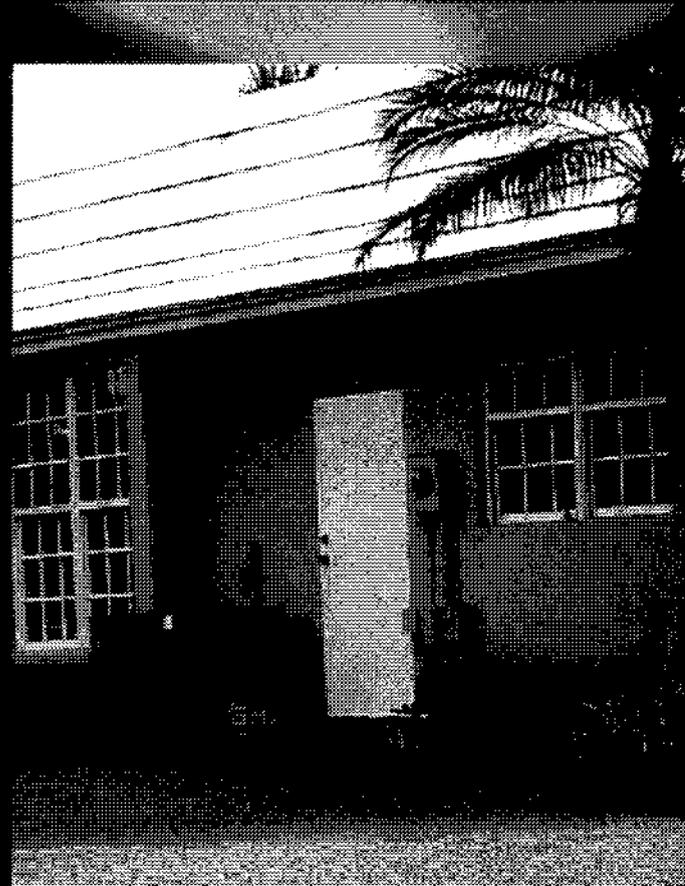
# Conversion to Underground- Landscaping at Transformers



# Conversion to Underground



Overhead service



Underground service

# Underground Service Line Run to House



# Underground Service Line Run to House



# Underground Service Line Run to House



## FPL Storm Secure Plan

### Hardening of overhead systems & Increased Maintenance

- Upgrading of poles and lines to meet hurricane wind velocities (up to 150 mph)
- Long Range FPL Plan (10 yrs+)
- First priority given to critical infrastructure
- Hardened systems are still vulnerable to wind-blown vegetation and debris
- Improved pole inspections
- Accelerated line clearing

# Underground Conversion Advantages

- Standard of service
  - Storm Secure Plan encourages underground conversion
  - 37% of FPL facilities are currently underground vs. 20% nationwide
- Life Safety
  - Reduced likelihood of electrocution during tree trimming activities or due to downed power lines
- More resilient to wind and weather
  - Even hardened above-ground systems are vulnerable to windblown vegetation and flying debris
- Less frequent outages
  - Difference of 1% for normal weather, but minimum 20% difference for major storms
  - Reduced outages means lighting is maintained for safety
- Aesthetics / Community Enhancement

## Underground Conversion disadvantages

- High cost (FPL proposes 25% contribution)
- Construction inconvenience and disruption
- Damaged lines are difficult to locate
  - Consequently outages typically last longer
- Susceptible to flooding
  - Ground mounted equipment is vulnerable to storm surge
- Shorter life expectancy

# Conversion to Underground

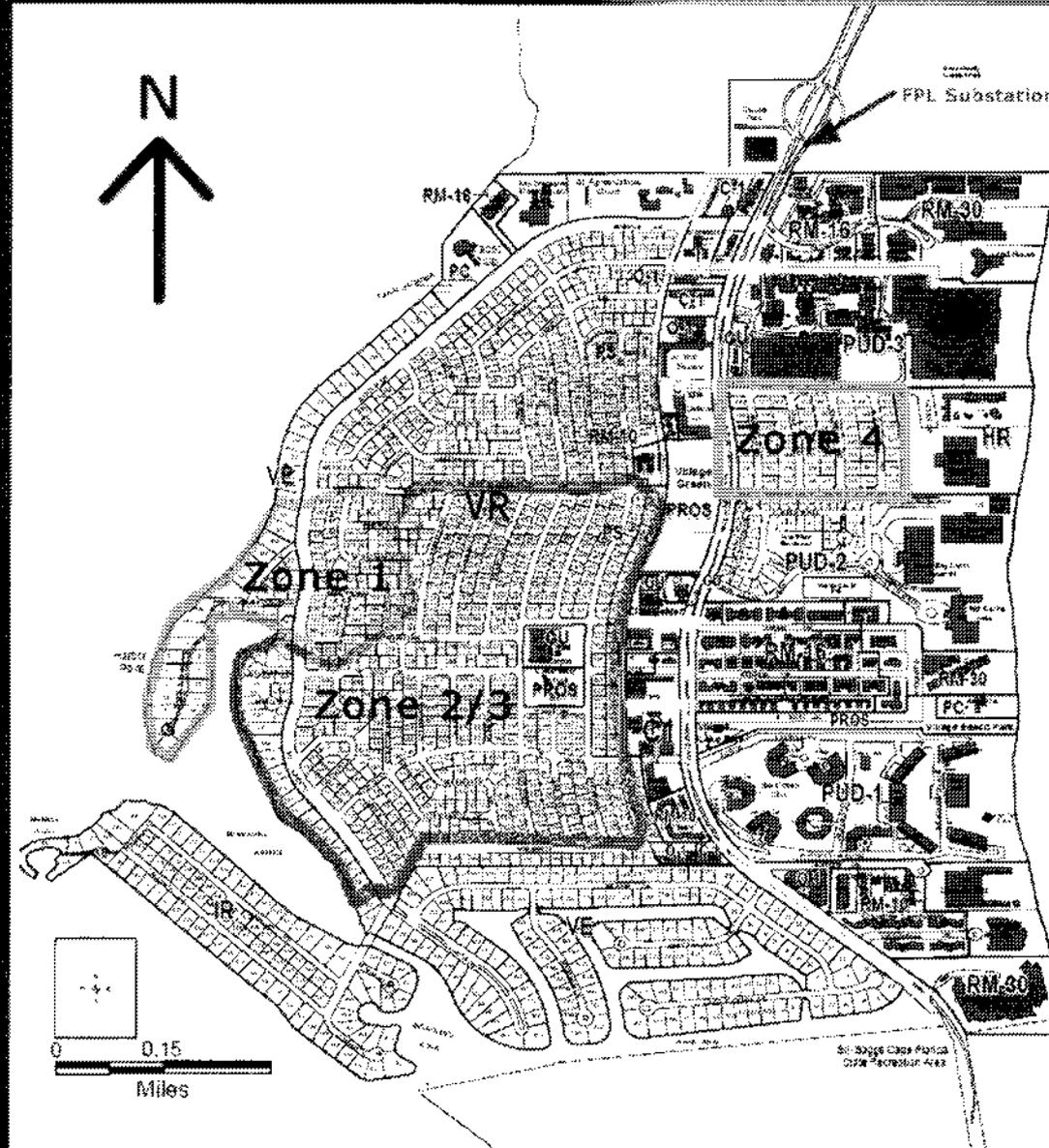
- FPL provides non-binding “ballpark” estimate, no charge (to help you decide whether to proceed or not)
- FPL provides binding estimate for non-refundable deposit
  - Deposit amount=\$1.20/ft
  - Applied toward CIAC if contract signed within 180 days
  - Estimate is valid for 180 days
  - Estimate requires 10 to 15 weeks to produce (pending agreement on easement locations)
- Applicant makes arrangements with other utilities
- Applicant arranges conversion of service entrances

# Cost Analysis and Comparison for Underground Conversion

## COST ANALYSIS & COMPARISON for UNDERGROUND CONVERSION

MUNICIPALITY	FPL Electrical Estimate (with 25% Credit and Restoration Costs)	Bell South Telephone Estimate	Cable Estimate	TOTAL for all 3 Utilities	Number of Home Connections	AVERAGE COST per HOME for Connection up to PROPERTY LINE	Additional COST per Home for Lateral Connection from PROPERTY LINE to METER
	A	B	C	D = A+B+C	E	F = D ÷ E	
Town of Golden Beach	\$6,396,775	\$387,666	\$98,750	\$6,883,191	394	\$17,470	\$2,000 to \$3,000
Town of Palm Beach	\$36,642,760	\$6,261,750	\$6,261,750	\$51,166,260	2851	\$17,947	\$5,000 to \$5,300
Town of Jupiter Island (1000 foot test project)	\$8,000,000	N/A	N/A	\$8,000,000	575	\$13,913	N/A to N/A
Sunny Isles (Atlantic Isie Phase Budget)	\$1,000,000	N/A	N/A	\$1,000,000	61	\$16,393	N/A to N/A
Village of Key Biscayne	\$11,200,000	\$2,946,000	\$2,946,000	\$17,092,000	982	\$17,405	\$3,000 to \$4,500

# Overlap of Underground Zone with Sewer Project





Thank You

