

42-069-1164AN-ERP



APPLICATION

1719

STORMWATER APPLICATION ASSIGNMENT SHEET

Office: ORLANDO Reviewer: ABOODI WARD

Date Received: 7/22/96 Date Processed: 7/23/96

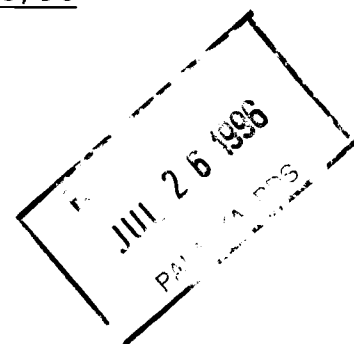
Application Number: 42-069-1164AN-ERP

Owner: RAY PERRIGUEY

Applicant: STRATEGIC TECHNOLOGIES, INC.

Agent/Consultant: FARNER BARLEY & ASSOCIATES, INC.

Project Name: STRATEGIC TECHNOLOGIES TELECOMMUNICATION



THE FOLLOWING INFORMATION IS NEEDED TO ADMINISTRATIVELY COMPLETE THIS APPLICATION:

- ___ Signatures
- ___ Entity Responsible for Maintenance Statement
- ___ Plans (No. Received: 5)
- ___ Calculations (No. Received: 5)
- ___ Notice of Receipt of Application
- ___ Fee: 350.00 Receipt Number: 19604

Comments: MAY NEED REFUND

Application is adminstratively complete? YES LW

Request of Additional Information or permit must be mailed by: 8/19/96

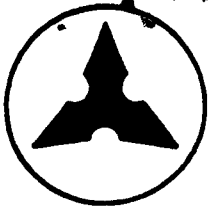
Comments: _____

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. Box 1429
Palatka, Florida 32178-1429

0 019604
DATE July 22 19 96

RECEIVED FROM Ray T. Perrigues III
THE SUM OF Strategic Tech. Tele. Fac. DOLLARS \$ 350.⁰⁰
FOR App# 42-069-1164AN-ERP
AMOUNT OF ACCOUNT \$ 350.-
AMOUNT PAID \$ 350.-
BALANCE DUE Thank You!

CASH CHECK M.O. CREDIT CARD BY Guille Stahl



FARNER BARLEY

AND ASSOCIATES, INC.

ENGINEERS ▲ SURVEYORS ▲ PLANNERS
350 North Sinclair Avenue
Tavares, Florida 32778
352-343-8481 FAX: 352-343-8495

TO: St. Johns River Water Management District
ADDRESS: 618 East South Street
CITY: Orlando
STATE: Florida 32801

DATE: 6-24-96 JOB NO.: 941216.024
ATTN: Permitting Section
RE: Strategic Technologies

WE ARE SENDING YOU ATTACHED UNDER SEPARATE COVER VIA _____ THE FOLLOWING:

- | | | |
|--------------------------------------|---|---|
| <input type="checkbox"/> PLANS | <input type="checkbox"/> LETTER | <input type="checkbox"/> SHOP DRAWINGS |
| <input type="checkbox"/> PRINTS | <input type="checkbox"/> PERMIT APPLICATION | <input type="checkbox"/> SPECIFICATIONS |
| <input type="checkbox"/> DRAWINGS | <input type="checkbox"/> REPORT | <input type="checkbox"/> CHANGE ORDER |
| <input type="checkbox"/> MAPS\PHOTOS | <input type="checkbox"/> BIDS | <input type="checkbox"/> INFORMATION |
| <input type="checkbox"/> OTHER _____ | | |

NO.	COPIES	DATE	DESCRIPTION
	6		Original & Five (5) Copies Of Permit Application
	5		Notice & Receipt Form
	5	✓	Construction Drawings
	5	✓	Storm Water Calculations
	1		Check In The Amount Of \$350.00

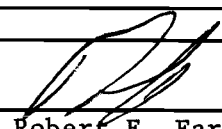
RECEIVED
JUL 22 1996
42-067-116 FAN-ERP

RECORDS
ORLANDO
SJR WMD

THESE ARE BEING TRANSMITTED AS INDICATED BELOW:

- | | | |
|--|---|---|
| <input type="checkbox"/> AS REQUESTED | <input type="checkbox"/> FOR YOUR USE | <input type="checkbox"/> FOR REVIEW AND COMMENT |
| <input checked="" type="checkbox"/> FOR APPROVAL | <input type="checkbox"/> PER DISCUSSION | <input type="checkbox"/> RETURNED AFTER LOAN |
| <input type="checkbox"/> OTHER _____ | | |

COMMENTS: _____

COPIES TO: Certified Mail P 601 183 089
SIGNED:  Robert E. Farner, P.E.

**SECTION C
ENVIRONMENTAL RESOURCE PERMIT NOTICE OF RECEIPT OF APPLICATION**

This information is required in addition to that required in other sections of this application. Please submit five copies of this notice of receipt of application and all attachments. Please submit all information on 8 1/2" x 11" paper.

RECEIVED
JUL 22 1996

Project Name: Strategic Technologies, Inc. County: Lake
 Owner: Strategic Technologies, Inc.
 Applicant: Same
 Applicant's Address: 730 NW 107 Avenue
Miami, Florida 33172

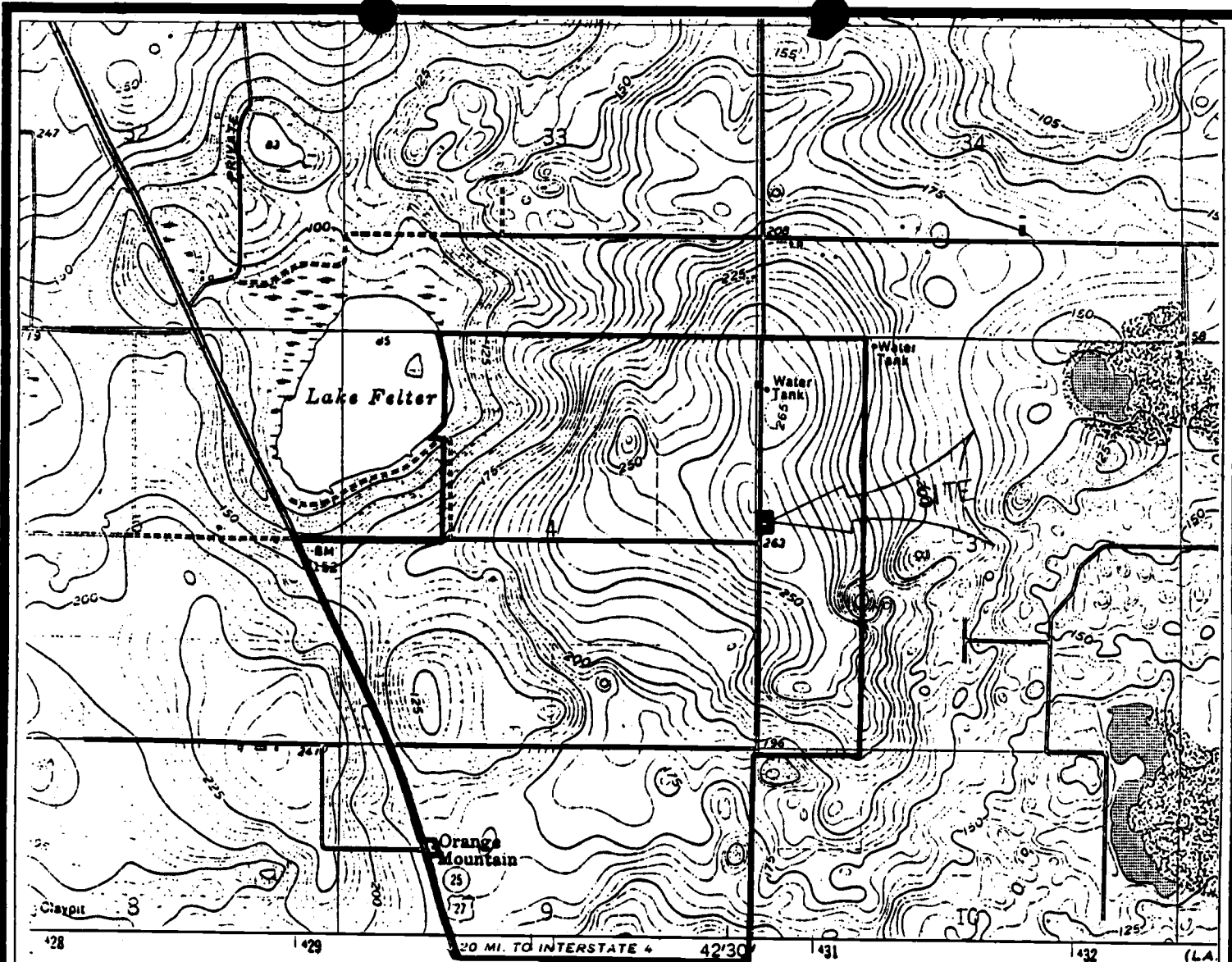
RECORDS
ORLANDO
SJR WMD

1. Indicate the project boundaries on a USGS quadrangle map reduced or enlarged as necessary to legibly show the entire project. If not apparent from the quad map, attach a location map showing a north arrow and a graphic scale; Section(s), Township(s), and Range(s); and sufficient detail to allow a person unfamiliar with the site to find it.
2. Provide the names of all wetlands, or other surface waters that would be dredged, filled, impounded, diverted, drained, or would receive discharge (either directly or indirectly), or would otherwise be impacted by the proposed activity, and specify if they are in an Outstanding Florida Water or Aquatic Preserve:
 N/A
3. Attach a depiction (plan and section views), which clearly shows the works or other facilities proposed to be constructed. Use a scale sufficient to show the location and type of works. Use multiple sheets, if necessary.
4. Briefly describe the proposed project (such as "construct a deck with boatshelter", "replace two existing culverts", "construct surface water management system to serve 150 acre residential development");
 1 Acre Site Plan For A Telecommunications Facility
5. Specify the acreage of wetlands or other surface waters, if any, that are proposed to be disturbed, filled, excavated, or otherwise impacted by the proposed activity:
 N/A
6. Provide a brief statement describing any proposed mitigation for impacts to wetlands and other surface waters (attach additional sheets if necessary):
 N/A

42-069-1164AN-ERP

FOR AGENCY USE ONLY	
Application Name	
Application Number	
Office where the application can be inspected	
Date proposed	
Date to be removed	

7-29-96
8-12-96



SCALE 1" = 2000'

SECTION 3 & 4
TOWNSHIP 23 S
RANGE 26 E

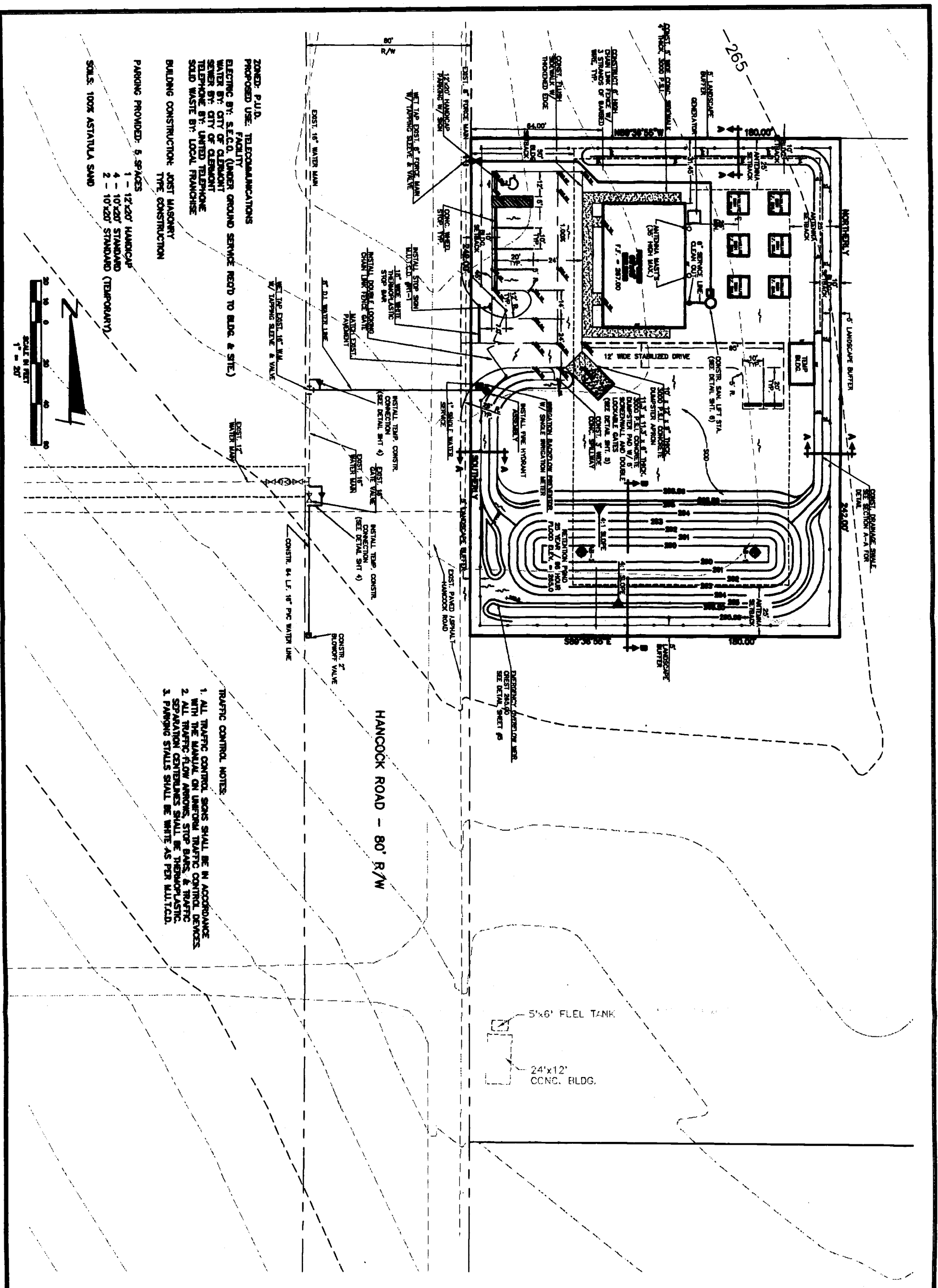
CLERMONT-EAST
LAKE LOUISA



**FARNER
BARLEY**
AND ASSOCIATES, INC.

- ▲ ENGINEERS
- ▲ SURVEYORS
- ▲ PLANNERS

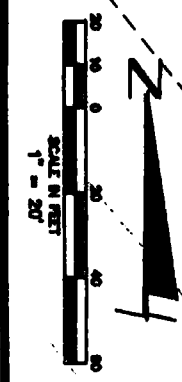
360 North Sinclair Avenue O Tavares, Florida 32778 O (904) 343-8481



ZONED: P.U.D.
 PROPOSED USE: TELECOMMUNICATIONS FACILITY
 ELECTRIC BY: S.E.C.O. (UNDER GROUND SERVICE NEED TO BLDG. & SITE)
 WATER BY: CITY OF CLEVELAND
 SEWER BY: CITY OF CLEVELAND
 TELEPHONE BY: UNITED TELEPHONE
 SOLID WASTE BY: LOCAL FRANCHISE
 BUILDING CONSTRUCTION: JOSE MASONRY TYPE CONSTRUCTION
 PARKING PROVIDED: 5 SPACES
 1 - 12'x20' HANDICAP
 4 - 10'x20' STANDARD
 2 - 10'x20' STANDARD (TEMPORARY)
 SOILS: 100% ASTATULA SAND

TRAFFIC CONTROL NOTES:
 1. ALL TRAFFIC CONTROL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
 2. ALL TRAFFIC FLOW ARROWS, STOP BARS, & TRAFFIC SEPARATION CENTERLINES SHALL BE THERMOPLASTIC.
 3. PARKING STALLS SHALL BE WHITE AS PER M.U.T.C.D.

HANCOCK ROAD - 80' R/W



<p>STRATEGIC TECHNOLOGIES INC. TELECOMMUNICATIONS CENTER</p> <p>SITE PLAN</p>	<p>AND ASSOCIATES, INC. 220 North Ridge Avenue • Toledo, Ohio 43624 • (606) 242-0222</p>	<p>DATE: 4-22-95 DES. NO.: 95010007 PROJ. NO.: 111 P.A. NO.: 111 DRAWN BY: JLB CHD BY: JLB</p>	<p>REVISIONS</p> <p>1-22-95 RELOCATED SITE PER CLIENT 7-02-95 ADD LIFT STA.</p>
		<p>▲ ENGINEERS ▲ SURVEYORS ▲ PLANNERS</p>	

STORMWATER CALCULATIONS

FOR

STRATEGIC TECHNOLOGIES INC.

RECEIVED

JUL 22 1996

OWNER/DEVELOPER

42-669-1164A-N-

RECORDS
ORLANDO
SJR WMD

ERP

STRATEGIC TECHNOLOGIES, INC.

730 NW 107 AVENUE

MIAMI, FLORIDA 33172

(305) 229-6585

Performed by:

 **FARNER
BARLEY**
AND ASSOCIATES, INC.

▲ ENGINEERS
▲ SURVEYORS
▲ PLANNERS

350 North Sinclair Avenue O Tavares, Florida 32778 O (904) 343-8481

[Handwritten signature]
6/22/96

MAPS

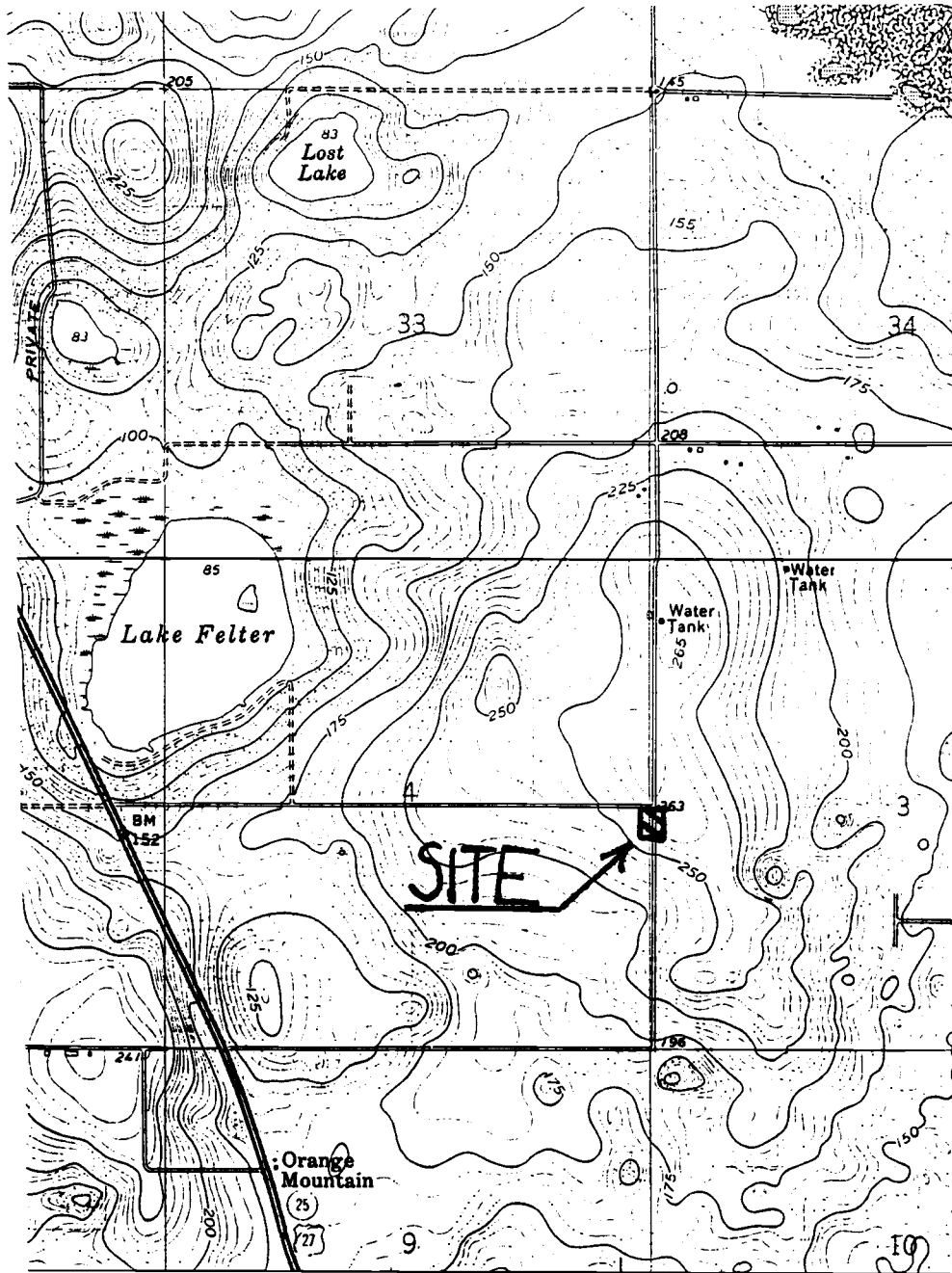


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350 North Sinclair Avenue O Tavares, Florida 32778 O (904) 343-8481

**Strategic
Technologies
Inc.**



CLERMONT EAST, FLORIDA, QUADRANGLE



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AND ASSOCIATES, INC.

- ▲ ENGINEERS
- ▲ SURVEYORS
- ▲ PLANNERS

**USGS QUAD
MAP**

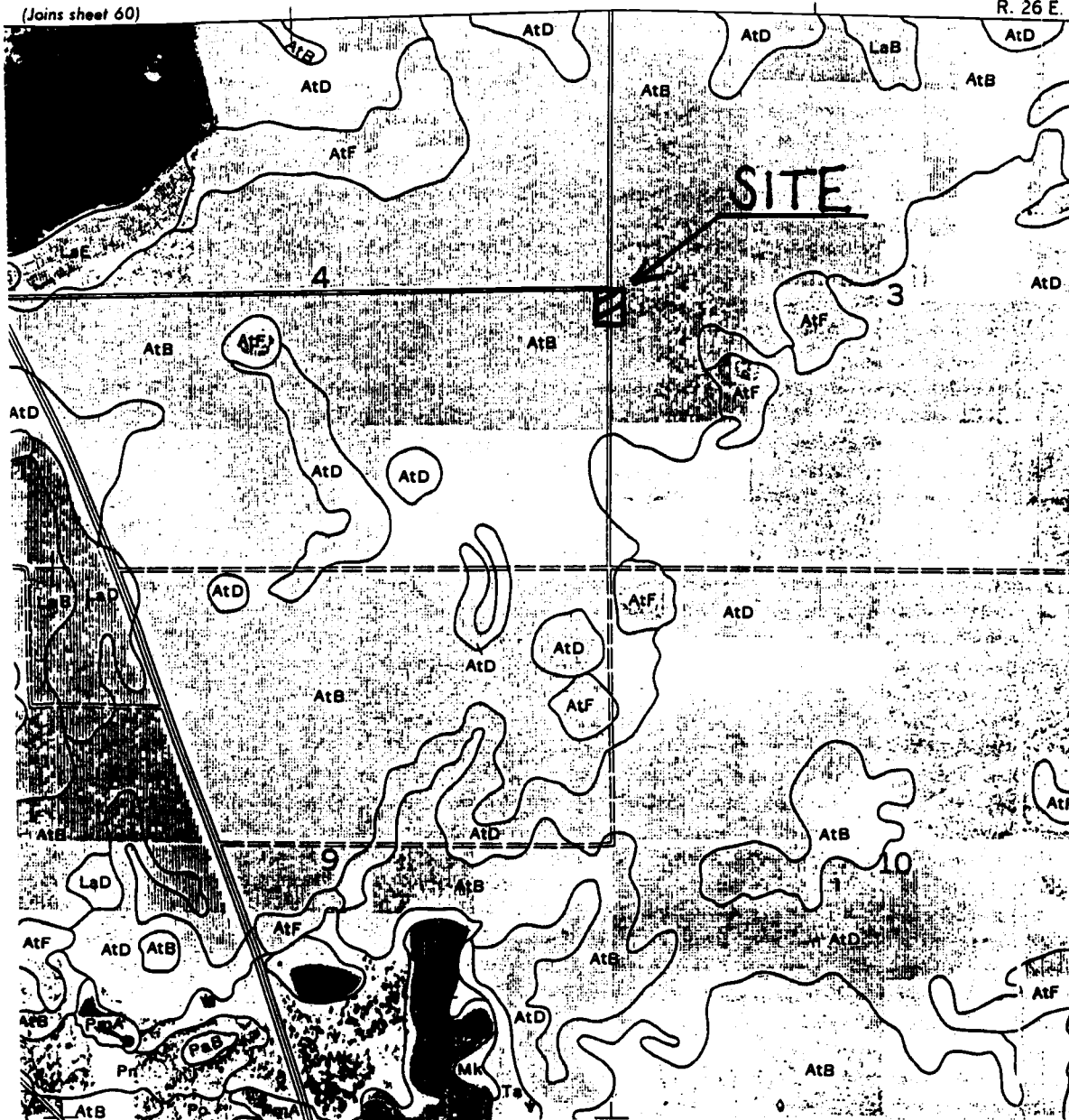
350 North Sinclair Avenue ◯ Tavares, Florida 32778 ◯ (904) 343-8481

SCALE 1" = 2000'

LAKE COUNTY AREA, FLORIDA

(Joins sheet 60)

R. 26 E.



LAKE COUNTY SOIL SURVEY



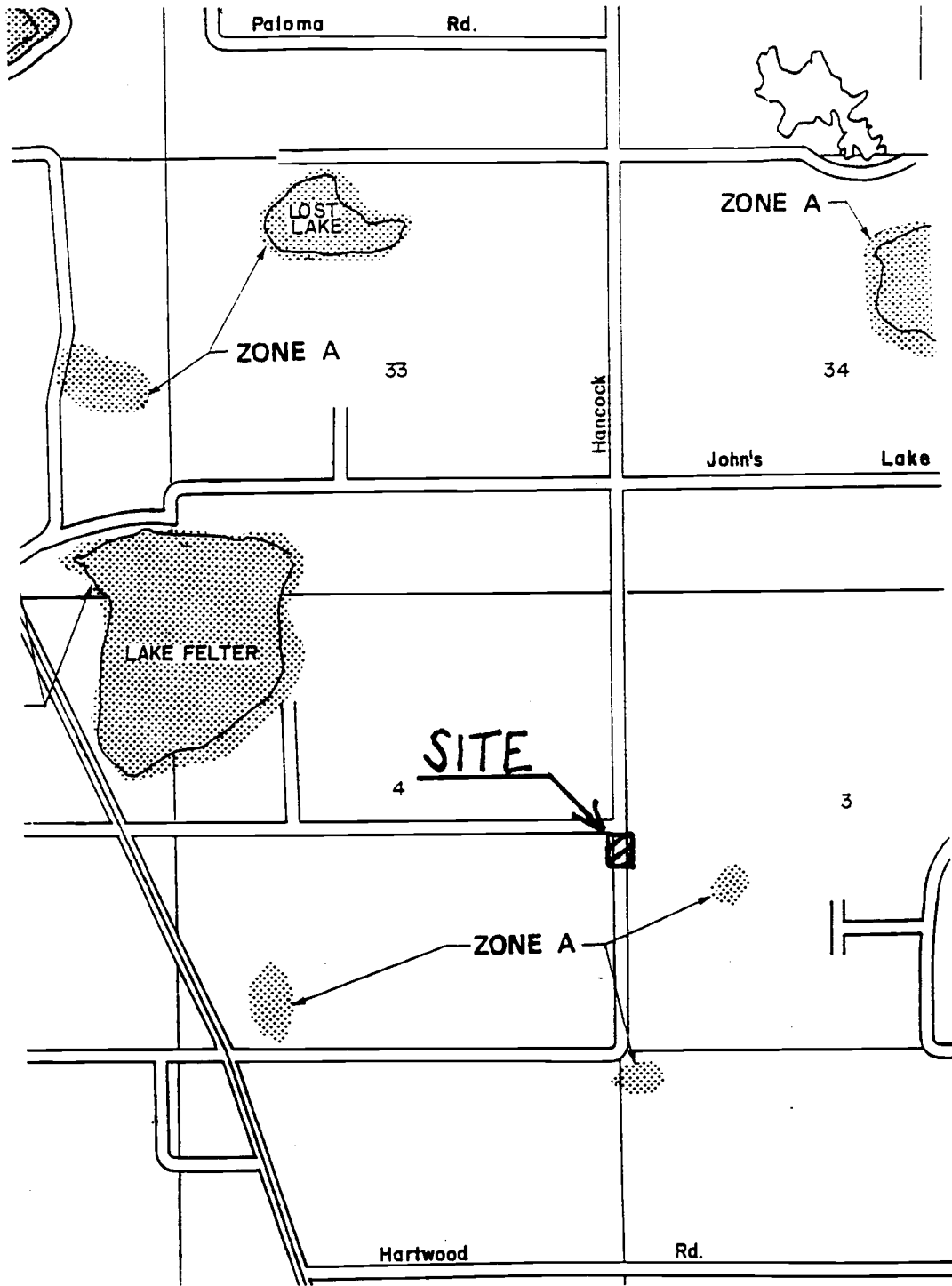
**FARNER
BARLEY**
AND ASSOCIATES, INC.

350 North Sinclair Avenue ◯ Tavares, Florida 32778 ◯ (904) 343-8481

- ▲ ENGINEERS
- ▲ SURVEYORS
- ▲ PLANNERS

**SCS SOILS
MAP**

SCALE 1" = 1667'



FIRM PANEL # 120421 0375 B
LAKE COUNTY, FLORIDA



**FARNER
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- ▲ SURVEYORS
- ▲ PLANNERS

350 North Sinclair Avenue O Tavares, Florida 32778 O (904) 343-8481

**FLOOD
 MAP**

SCALE 1" = 2000'

Pre-Development Drainage



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350 North Sinclair Avenue ○ Tavares, Florida 32778 ○ (904) 343-8481

**Strategic
Technologies
Inc.**

Strategic Technologies, Inc.
Sections 3 & 4, Township 23 South, Range 26 East
Clermont, Lake County, Florida

Pre-Developed Summary

The project site is presently inactive burned out citrus grove and brush and the total area of the project site is 1.0 acres located in the City of Clermont, Lake County, Florida. The site contains one soil type as identified in the Lake County Soil Survey. This soil is Astatula B, SCS Type 'A' sand. Runoff curve number in the pre-developed condition is 39 and the pre-developed time of concentration is 40.9 minutes. There are no water courses, water bodies or wetlands associated with this project and the project site is located in FIRM Zone C, Community Panel No. 120421-0375B. The site is not located in a flood zone. Potable water service and sanitary sewer service are to be provided by existing treatment facilities owned by the City of Clermont, so the site will contain no well or septic tank. Pre-development runoff flows from the northwest to the southeast across the site. No offsite runoff is expected to enter the site due to the fact that the site is located at the top of a bluff. Computations for runoff curve number, time of concentration and modeling are found in the following pages. The design storm for this project is the St. Johns River Water Management District Mean Annual Storm Event. This storm has a duration of 24 hours and a total precipitation of 4.3 inches. In addition, the 25 year/96 hour event (11.3 inches) was modeled. The onsite pond was sized to accommodate this larger storm. Modeling for this project has been conducted using AdICPR Version 1.40 and Ponds Version 2.10.

ST. JOHNS MEAN ANNUAL EVENT

PRE-DEVELOPED

STI SITE, PRE-DEVELOPED, ST JOHNS MEAN ANNUAL EVENT
6-18-96

BASIN NAME	1	99
NODE NAME	1	99

TIME INCREMENT (min)	5.00	5.00
----------------------	------	------

RAINFALL FILE	SJMEAN	SJMEAN
RAIN AMOUNT (in)	4.30	4.30
STORM DURATION (hrs)	24.00	24.00

AREA (ac)	1.00	1.00
CURVE NUMBER	39.00	1.00
DCIA (%)	.00	.00
TC (mins)	40.90	99.00
LAG TIME (hrs)	.00	.00
BASIN STATUS	ONSITE	OFFSITE

BASIN	QMX (cfs)	TMX (hrs)	VOL (in)	NOTES
1	.01	13.92	.08	
99	.00	.00	.00	BOUNDARY NODE

25 YEAR/96 HOUR EVENT

PRE-DEVELOPED

Advanced Interconnected Channel & Pond Routing (adICPR Ver 1.40)
 Copyright 1989, Streamline Technologies, Inc.

STI SITE, PRE-DEVELOPED, 25YR/96HR EVENT
 6-18-96

BASIN NAME	1	99
NODE NAME	1	99

TIME INCREMENT (min)	5.00	5.00
----------------------	------	------

RAINFALL FILE	FLMOD	FLMOD
RAIN AMOUNT (in)	11.30	11.30
STORM DURATION (hrs)	96.00	96.00

AREA (ac)	1.00	1.00
CURVE NUMBER	39.00	1.00
DCIA (%)	.00	.00
TC (mins)	40.90	99.00
LAG TIME (hrs)	.00	.00
BASIN STATUS	ONSITE	OFFSITE

BASIN	QMX (cfs)	TMX (hrs)	VOL (in)	NOTES
1	.49	48.00	2.80	
99	.00	.00	.00	BOUNDARY NODE

WORKSHEET FOR Curve Number Estimation

BASIN NO. 1

PRE-DEVELOPMENT
 POST-DEVELOPMENT

LAND USE	SOIL NAME	HSG	CN	%	ACRES	PRODUCT
Open Space - Good	Astatula B	A	39	100	1.00	39.00
TOTAL				100	1.00	39.00

Cover Description	Average % Impervious	CURVE NO. FOR HSG				$\overline{CN} =$
		A	B	C	D	
• Open Space:						39.00
POOR CONDITION (GRASS COVER < 50%)		68	79	86	89	
FAIR CONDITION (GRASS COVER 50-75%)		49	69	79	84	
GOOD CONDITION (GRASS COVER > 75%)		39	61	74	80	
• Impervious Areas:						
PAVED PARKING LOTS, ROOFS, DRIVEWAYS, ETC.		98	98	98	98	
• Urban Districts:						
COMMERCIAL & BUSINESS	85	89	92	94	95	
INDUSTRIAL	72	81	88	91	93	
• Residential Districts by average lot size:						
1/8 ACRE OR LESS (TOWN HOUSES)	65	77	85	90	92	
1/4 ACRE	38	61	75	83	87	
1/3 ACRE	30	57	72	81	86	
1/2 ACRE	25	54	70	80	85	
1 ACRE	20	51	68	79	84	
• Pasture, Grassland, or Range:						
POOR		68	79	86	89	
FAIR		49	69	79	84	
GOOD		39	61	74	80	
• Meadow- CONTINUOUS GRASS, PROTECTED FROM GRAZING		30	58	71	78	
• Brush- BRUSH-WEED-GRASS MIXTURE WITH BRUSH THE MAJOR ELEMENT						
POOR		48	67	77	83	
FAIR		35	56	70	77	
GOOD		30	48	65	73	
• Woods- GRASS COMBINATION (ORCHARD OR TREE FARM)						
POOR		57	73	82	86	
FAIR		43	65	76	82	
GOOD		32	58	72	79	
• Woods-						
POOR		45	66	77	83	
FAIR		36	60	73	79	
GOOD		30	55	70	77	

(210-VI-TB-86
SECOND EDITION
JUNE 1986)



STRATEGIC TECHNOLOGIES
AND ASSOCIATES, INC.

▲ ENGINEERS
▲ SURVEYORS
▲ PLANNERS

360 North Sinclair Avenue O Tequesta, Florida 32778 O (904) 343-8481

JOB: Strategic Technologies, Inc.
 Calculated by: RAE
 Job No. 941216.024
 Date: 6-18-96 Client: S.T.I.

- PRE-DEVELOPMENT
 POST-DEVELOPMENT

WORKSHEET FOR
Time of Concentration
BASIN NO. 1

REACH	PATH DESCRIPTION	n	LENGTH (FEET)	SLOPE (F/F)	Velocity (FEET/SEC)	Minutes (TIME)
1	Sheet Flow	0.24	300	0.008		40.9

P=4.70 FOR ZONE 7 2YR-24HR

TOTAL **TC= 40.9**

Surface	" n "
DENSE GRASS, LAWN.....	0.24
SHORT GRASS.....	0.15
RANGE, NATURAL.....	0.13
WOODS, LIGHT UNDERBRUSH....	0.4
DENSE UNDERBRUSH.....	0.8
CONCRETE PIPE (RCP).....	0.012
METAL PIPE (CMP).....	0.023

PIPE & OPEN CHANNEL FLOW $V = \frac{1.49}{n} (R_h)^{2/3} \cdot \sqrt{S}$ $R_h = \frac{\text{CROSS SECTIONAL AREA}}{\text{WETTED PERIMETER}} = \frac{\text{DIAMETER}}{4}$ FOR PIPE FLOWING FULL

SHEET FLOW $T_t = \frac{.007(nL)^{0.8}}{(P)^{0.5}(S)^{0.4}}$

SHALLOW CONCENTRATED FLOW , T_c = FROM SCS TR-55, Fig.1, pg. 3-2

NOTE: IF $T_c < 10$ MINUTES, USE $T_c = 10$ MINUTES.



SCS AND ASSOCIATES, INC.
 360 North Sholar Avenue • Tavares, Florida 32778 • (904) 343-8481

▲ ENGINEERS
 ▲ SURVEYORS
 ▲ PLANNERS

JOB: Strategic Technologies, Inc.
 Calculated by: RAE
 Job No. 941216.024
 Date: 6-18-96 Client: S.T.I.

Post-Development Drainage



**FARNER
BARLEY**
AND ASSOCIATES, INC.

▲ ENGINEERS
▲ SURVEYORS
▲ PLANNERS

350 North Sinclair Avenue O Tavares, Florida 32778 O (904) 343-8481

**Strategic
Technologies
Inc.**

Strategic Technologies, Inc.
Sections 3 & 4, Township 23 South, Range 26 East
Clermont, Lake County, Florida

Post-Developed Summary

The project site consists of a total area of 1.0 acres, with 0.157 acres dedicated to the water retention area, 0.782 acres dedicated to general open space and the remaining 0.061 acres being impervious consisting of the building and parking areas. The post-developed runoff curve number has been found to be 52.18 and the post-developed time of concentration has been found to be 10.0 minutes. The design storm for this project is the St. Johns Mean Annual Event (24 hour duration, 4.3 inches of precipitation). The pond has been designed to capture and treat the entire volume for this event, hence there will be no stormwater discharge from the site during this event. In addition, the pond was sized to accommodate the 25 year/96 hour event, as well. The pond bottom is located at elevation 260.0 and the top of the pond is located at elevation 265.5. Max stage in the pond during this event has been found to be 261.23. No well or septic tank will be installed on this site and the site contains no wetlands or water bodies. A soil boring log can be found in this report and contains a description of the soil profile encountered, which consisted of sand for the entire depth of the boring. Retention pond pollution abatement volume recovery has been found to occur in 29.8 hours and meets the St. Johns criteria of recovery within 72 hours. Modeling for this project was conducted using AdICPR Version 1.40 and Ponds Version 2.10.

Per the Lake County Soil Survey, the soil type found onsite generally has a permeability rate greater than 20 in/hr (40 ft/day). Recovery assumes a F.S. of 2, so the permeability rate utilized in modeling is 20 ft/day. An additional factor of safety is introduced into the analysis due to the fact that water was not encountered during the borings. It was assumed, in the interest of being conservative, that the base of the aquifer occurred at the bottom of the bore hole, or four feet below the bottom of the proposed pond. The water table was assumed to be a foot above this, or at three feet below the bottom of the proposed pond. It can be seen that even utilizing these factors of safety, the pond recovers well within the required time.

ST. JOHNS MEAN ANNUAL EVENT

POST-DEVELOPED

STI SITE, POST-DEVELOPED, ST JOHNS MEAN ANNUAL EVENT
 6-18-96

BASIN NAME 1 99
 NODE NAME 1 99

TIME INCREMENT (min) 5.00 5.00

RAINFALL FILE SJMEAN SJMEAN
 RAIN AMOUNT (in) 4.30 4.30
 STORM DURATION (hrs) 24.00 24.00

AREA (ac) 1.00 1.00
 CURVE NUMBER 52.18 1.00
 DCIA (%) .00 .00
 TC (mins) 10.00 99.00
 LAG TIME (hrs) .00 .00
 BASIN STATUS ONSITE OFFSITE

BASIN	QMX (cfs)	TMX (hrs)	VOL (in)	NOTES
1	.28	12.00	.52	
99	.00	.00	.00	BOUNDARY NODE

STI SITE, POST-DEVELOPED, ST JOHNS MEAN ANNUAL EVENT
 6-18-96

NODAL MIN/MAX/TIME CONDITIONS REPORT

NODE ID	PARAMETER	<-- MINIMUMS -->		<-- MAXIMUMS -->	
		VALUE	TIME (hr)	VALUE	TIME (hr)
1	STAGE (ft):	260.00	11.50	261.23	24.00
	VOLUME (af):	.00	11.50	.04	24.00
	RUNOFF (cfs):	.00	11.50	.28	12.00
	OFFSITE (cfs):	.00	24.00	.00	24.00
	OTHER (cfs):	.00	24.00	.00	24.00
	OUTFLOW (cfs):	.00	24.00	.00	24.00
	99	STAGE (ft):	264.00	24.00	264.50
	VOLUME (af):	.00	24.00	.00	24.00
	RUNOFF (cfs):	.00	24.00	.00	24.00
	OFFSITE (cfs):	.00	24.00	.00	24.00
	OTHER (cfs):	.00	24.00	.00	24.00
	OUTFLOW (cfs):	.00	24.00	.00	24.00

Advanced Interconnected Channel & Pond Routing (adICPR Ver 1.40)
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STI SITE, POST-DEVELOPED, ST JOHNS MEAN ANNUAL EVENT
 6-18-96

NODE NAME	NODE TYPE	INI STAGE (ft)	X-COOR (ft)	Y-COOR (ft)	LENGTH (ft)	STAGE (ft)	AR/TM/STR (ac/hr/af)
1	STRG	260.000	.000	.000	.000	260.000	.000
						261.000	.030
						262.000	.090
						263.000	.170
						264.000	.280
						265.000	.420
99	TIME	264.000	.000	.000	.000	264.000	.000
						264.500	12.000
						264.000	24.000

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STI SITE, POST-DEVELOPED, ST JOHNS MEAN ANNUAL EVENT
6-18-96

>>REACH NAME : 1
FROM NODE : 1
TO NODE : 99
REACH TYPE : TRAPEZOIDAL WEIR/GATE/ORIFICE, MAVIS EQ.
FLOW DIRECTION : POSITIVE AND NEGATIVE FLOWS ALLOWED
CREST EL. (ft): 265.000 BTM. WIDTH (ft): 10.000 LEFT SS (h/v): 4.000
RGHT SS (h/v): 4.000 OPENING (ft): 999.000 WEIR COEF.: 3.000
GATE COEF.: .600 NUMBER OF ELEM.: 1.000
NOTE:

Advanced Interconnected Channel & Pond Routing (adICPR Ver 1.40)
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STI SITE, POST-DEVELOPED, ST JOHNS MEAN ANNUAL EVENT
6-18-96

CONTROL PARAMETERS
=====

START TIME: .00
END TIME: 24.00

TO TIME (hours)	SIMULATION INC (secs)	PRINT INC (mins)
----- 100.00	----- 150.00	----- 15.00

RUNOFF HYDROGRAPH FILE: DEFAULT
OFFSITE HYDROGRAPH FILE: DEFAULT
BOUNDARY DATABASE FILE: NONE

NOTE:

25 YEAR/96 HOUR EVENT

POST-DEVELOPED

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STI SITE, POST-DEVELOPED, 25YR/96HR EVENT
6-18-96

BASIN NAME	1	99		
NODE NAME	1	99		
TIME INCREMENT (min)	5.00	5.00		
RAINFALL FILE	FLMOD	FLMOD		
RAIN AMOUNT (in)	11.30	11.30		
STORM DURATION (hrs)	96.00	96.00		
AREA (ac)	1.00	1.00		
CURVE NUMBER	42.60	1.00		
DCIA (%)	.00	.00		
TC (mins)	10.00	99.00		
LAG TIME (hrs)	.00	.00		
BASIN STATUS	ONSITE	OFFSITE		
BASIN QMX (cfs)	TMX (hrs)	VOL (in)	NOTES	
1	.82	47.92	3.35	
99	.00	.00	.00	BOUNDARY NODE

STI SITE, POST-DEVELOPED, 25YR/96HR EVENT
 6-18-96

NODAL MIN/MAX/TIME CONDITIONS REPORT

NODE ID	PARAMETER	<-- MINIMUMS -->		<-- MAXIMUMS -->	
		VALUE	TIME (hr)	VALUE	TIME (hr)
1	STAGE (ft):	260.00	42.75	264.36	96.00
	VOLUME (af):	.00	42.50	.28	96.00
	RUNOFF (cfs):	.00	42.50	.76	47.75
	OFFSITE (cfs):	.00	96.00	.00	96.00
	OTHER (cfs):	.00	96.00	.00	96.00
	OUTFLOW (cfs):	.00	96.00	.00	96.00
	99	STAGE (ft):	264.00	96.00	264.50
	VOLUME (af):	.00	96.00	.00	96.00
	RUNOFF (cfs):	.00	96.00	.00	96.00
	OFFSITE (cfs):	.00	96.00	.00	96.00
	OTHER (cfs):	.00	96.00	.00	96.00
	OUTFLOW (cfs):	.00	96.00	.00	96.00

Advanced Interconnected Channel & Pond Routing (adICPR Ver 1.40)
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STI SITE, POST-DEVELOPED, 25YR/96HR EVENT
 6-18-96

NODE NAME	NODE TYPE	INI STAGE (ft)	X-COOR (ft)	Y-COOR (ft)	LENGTH (ft)	STAGE (ft)	AR/TM/STR (ac/hr/af)
1	STRG	260.000	.000	.000	.000	260.000	.000
						261.000	.030
						262.000	.090
						263.000	.100
						264.000	.200
						265.000	.420
99	TIME	264.000	.000	.000	.000	264.000	.000
						264.500	48.000
						264.000	96.000

Advanced Interconnected Channel & Pond Routing (adICPR Ver 1.40)
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STI SITE, POST-DEVELOPED, 25YR/96HR EVENT
6-18-96

>>REACH NAME : 1
FROM NODE : 1
TO NODE : 99
REACH TYPE : TRAPEZOIDAL WEIR/GATE/ORIFICE, MAVIS EQ.
FLOW DIRECTION : POSITIVE AND NEGATIVE FLOWS ALLOWED
CREST EL. (ft): 265.000 BTM. WIDTH (ft): 10.000 LEFT SS (h/v): 4.000
RGHT SS (h/v): 4.000 OPENING (ft): 999.000 WEIR COEF.: 3.000
GATE COEF.: .600 NUMBER OF ELEM.: 1.000
NOTE:

STI SITE, POST-DEVELOPED, 25YR/96HR EVENT
6-18-96

CONTROL PARAMETERS
=====

START TIME: .00
END TIME: 96.00

TO TIME (hours)	SIMULATION INC (secs)	PRINT INC (mins)
100.00	150.00	15.00

RUNOFF HYDROGRAPH FILE: DEFAULT
OFFSITE HYDROGRAPH FILE: DEFAULT
BOUNDARY DATABASE FILE: NONE

NOTE:

WORKSHEET FOR Curve Number Estimation

BASIN NO. 1

PRE-DEVELOPMENT
 POST-DEVELOPMENT

LAND USE	SOIL NAME	HSG	CN	%	ACRES	PRODUCT
Open Space - Good	Astatula B	A	39	78.2	0.782	30.49
Impervious			98	6.1	0.061	5.98
Retention Pond			100	15.7	0.157	15.70
TOTAL				100	1.00	52.18

Cover Description	Average % Impervious	CURVE NO. FOR HSG				$\overline{CN} =$
		A	B	C	D	
• Open Space:						52.18
POOR CONDITION (GRASS COVER < 50%)		68	79	86	89	
FAIR CONDITION (GRASS COVER 50-75%)		49	69	79	84	
GOOD CONDITION (GRASS COVER > 75%)		39	61	74	80	
• Impervious Areas:						
PAVED PARKING LOTS, ROOFS, DRIVEWAYS, ETC.		98	98	98	98	
• Urban Districts:						
COMMERCIAL & BUSINESS	85	89	92	94	95	
INDUSTRIAL	72	81	88	91	93	
• Residential Districts by average lot size:						
1/8 ACRE OR LESS (TOWN HOUSES)	85	77	85	90	92	
1/4 ACRE	38	61	75	83	87	
1/3 ACRE	30	57	72	81	86	
1/2 ACRE	25	54	70	80	85	
1 ACRE	20	51	68	79	84	
• Pasture, Grassland, or Range:						
POOR		68	79	86	89	
FAIR		49	69	79	84	
GOOD		39	61	74	80	
• Meadow- CONTINUOUS GRASS, PROTECTED FROM GRAZING		30	58	71	78	
• Brush- BRUSH-WEED-GRASS MIXTURE WITH BRUSH THE MAJOR ELEMENT						
POOR		48	67	77	83	
FAIR		35	56	70	77	
GOOD		30	48	65	73	
• Woods- GRASS COMBINATION (ORCHARD OR TREE FARM)						
POOR		57	73	82	86	
FAIR		43	65	76	82	
GOOD		32	58	72	79	
• Woods-						
POOR		45	66	77	83	
FAIR		36	60	73	79	
GOOD		30	55	70	77	

(220-VI-T2-55
SECOND EDITION
JUNE 1990)



STRATEGIC TECHNOLOGIES
AND ASSOCIATES, INC.

▲ ENGINEERS
▲ SURVEYORS
▲ PLANNERS

350 North Shiloh Avenue O Tequesta, Florida 32778 O (904) 343-8481

JOB: Strategic Technologies, Inc.
 Calculated by: RAE
 Job No. 941216.024
 Date: 6-18-96 Client: S.T.I.

- PRE-DEVELOPMENT
 POST-DEVELOPMENT

WORKSHEET FOR
Time of Concentration
BASIN NO. 1

REACH	PATH DESCRIPTION	n	LENGTH (FEET)	SLOPE (F/F)	Velocity (FEET/SEC)	Minutes (TIME)
1	Sheet Flow	0.011	95	0.01		1.3
2	Open Channel Flow	0.24	100	0.007	0.32	5.2

P=4.70 FOR ZONE 7 2YR-24HR

TOTAL **TC** = **10.0**

- Surface "n"
DENSE GRASS, LAWN.....0.24
SHORT GRASS.....0.15
RANGE, NATURAL.....0.13
WOODS, LIGHT UNDERBRUSH....0.4
DENSE UNDERBRUSH.....0.8
CONCRETE PIPE (RCP).....0.012
METAL PIPE (CMP).....0.023

PIPE & OPEN CHANNEL FLOW $V = \frac{1.49}{n} (R_h)^{2/3} \sqrt{S}$ $R_h = \frac{\text{CROSS SECTIONAL AREA}}{\text{WETTED PERIMETER}} = \frac{\text{DIAMETER}}{4}$ FOR PIPE FLOWING FULL

SHEET FLOW $T_t = \frac{.007(nL)^{0.8}}{(P)^{0.5} (S)^{0.4}}$

SHALLOW CONCENTRATED FLOW , T_c = FROM SCS TR-55, Fig.1, pg. 3-2

NOTE: IF $T_c < 10$ MINUTES, USE $T_c = 10$ MINUTES.



JOB: Strategic Technologies, Inc.
Calculated by: RAE
Job No. 941216.024
Date: 6-18-96 Client: S.T.I.

Pond Volume



**FARNER
BARLEY**
AND ASSOCIATES, INC.

▲ ENGINEERS
▲ SURVEYORS
▲ PLANNERS

350 North Sinclair Avenue ◊ Tavares, Florida 32778 ◊ (904) 343-8481

**Strategic
Technologies
Inc.**

 ***** POND VOLUME COMPUTATIONS *****

Description: Strategic Technologies Pond
 DATE: Jun 18,1996 TIME: 10:54:44 AM

BOTTOM AREA = 880 SQ FT

BOTTOM ELEVATION = 260

BOTTOM PERIMETER = 236

SLOPE = 4 TO 1

TOP OF BERM ELEVATION = 265.5

ELEV	AREA (SF)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
260.00	880				0	0.00
260.50	1365	1122	0.50	561	561	0.01
261.00	1874	1619	0.50	810	1371	0.03
261.50	2409	2142	0.50	1071	2442	0.06
262.00	2969	2689	0.50	1345	3786	0.09
262.50	3554	3262	0.50	1631	5417	0.12
263.00	4164	3859	0.50	1930	7347	0.17
263.50	4800	4482	0.50	2241	9588	0.22
264.00	5460	5130	0.50	2565	12153	0.28
264.50	6146	5803	0.50	2902	15054	0.35
265.00	6857	6501	0.50	3251	18305	0.42
265.50	7593	7225	0.50	3612	21917	0.50

Pond Recovery



**FARNER
BARLEY**
AND ASSOCIATES, INC.

▲ ENGINEERS
▲ SURVEYORS
▲ PLANNERS

350 North Sinclair Avenue ◯ Tavares, Florida 32778 ◯ (904) 343-8481

**Strategic
Technologies
Inc.**

PONDS - Version 2.10
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Written By Devo Seereeram, Ph.D.
And Robert D. Casper

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Farner Barley and Associates, Inc. (Tavares, Fl)

Retention Pond Recovery Analysis

I. Job Information

Job Name: Strategic Technologies, Inc.
Engineer: RAE
Date: 6-18-96

II. Input Data

Equivalent Pond Length, [L] (ft):	125.00
Equivalent Pond Width, [W] (ft):	25.00
Pond Bottom Elevation, [PB] (ft above datum):	260.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	256.00
Water Table Elevation, [WT] (ft above datum):	257.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	10.00
Runoff Volume, [V] (cubic feet)	3630.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0900
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	2812.50

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0310
Recovered Volume From Saturated Flow, [V2] (ft ³):	817.50
Maximum Radius Of Influence, [R] (ft):	5.82
Maximum Driving Head, [Hmax] (ft):	3.262
Minimum Driving Head, [Hmin] (ft):	3.000

TOTAL

Total Recovery Time, [T] (days):	0.1210
Total Recovered Volume, [V] (ft ³):	3630.00

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Water Table Elevation, [WT] (ft above datum):	257.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	20.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	10.00
Runoff Volume, [V] (cubic feet)	617.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0197
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	617.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0197
Total Recovered Volume, [V] (ft ³):	617.00

Strategic Technologies, Inc.

Pollution Abatement Volume Calculations

Pollution Abatement Volume = $1\frac{1}{12}'' \times 43,560 \text{ ft}^2 = 3,630 \text{ ft}^3$

Note: Total runoff volume from the St. Johns Mean Annual Event is only 1,888 ft³, so recovery for both volumes is shown.

In both instances, recovery takes place within the required 72 hours.

Hand Auger Boring Log

Job Name: Strategic Technologies, Inc.
 Sheet No: 1
 Performed by: Scott Harp

Job Number: 941216.024
 Of: 1
 Date of Boring: 5-24-96

Boring No. AB-1

Ground Surface Elevation = 266

<u>Depth</u>	<u>Description</u>
<u>0' - 0.5'</u>	<u>Topsoil, Dark, Fine, Silty</u>
<u>0.5' - 10'</u>	<u>Tan, Medium, Sand</u>

Perc. Test @ _____ ft. below ground surface

<u>Time (sec)</u>	<u>Drawdown, d (feet)</u>	<u>Drop in Water Level, h (ft)</u>
<u>N/A</u>		

Groundwater Not Encountered

Boring No. AB-2

Ground Surface Elevation = 266

<u>Depth</u>	<u>Description</u>
<u>0' - 0.5'</u>	<u>Topsoil, Dark, Fine, Silty</u>
<u>0.5' - 10'</u>	<u>Tan, Medium, Sand</u>

Perc. Test @ _____ ft. below ground surface

<u>Time (sec)</u>	<u>Drawdown, d (feet)</u>	<u>Drop in Water Level, h (ft)</u>
<u>N/A</u>		

Groundwater Not Encountered



GEORGE

AND ASSOCIATES, INC.

- ▲ ENGINEERS
- ▲ SURVEYORS
- ▲ PLANNERS

300 North Shaded Avenue • Tallahassee, Florida 32378 • (904) 343-8481

FOR AGENCY USE ONLY

ACOE Application #	SJR Application #
Date Application Received	Date Application Received
Proposed Project Name	Fee Received \$
Proposed Project Long	Fee Receipt #
Date Received	Project Use Codes
Assigned Reviewers	Reviewer #

SECTION A

Are any of the activities described in this application proposed to occur in, on, or over wetlands or other surface waters? ___ yes **xx** no

A. Type of Environmental Resource Permit Requested (check at least one)

- Noticed General - include information requested in Section B.
- Standard General (Single Family Dwelling) - include information requested in Sections C and D.
- Standard General (all other projects) - include information requested in Sections C and E.
- Individual (Single Family Dwelling) - include information requested in Sections C and D.
- Individual (all other projects) - include information requested in Sections C and E.
- Conceptual - include information requested in Sections C and E.
- Mitigation Bank Permit (construction) - include information requested in Sections C and E.

(If the proposed mitigation bank involves the construction of a surface water management system requiring another permit defined above, check the appropriate box and submit the information requested by the applicable section.)

- Mitigation Bank (conceptual) - include information requested in Sections C and E.
- Standard General Stormwater - include information requested in Sections C and H
- Individual Stormwater - include information requested in Sections C and H

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JUL 22 1996

RECORDS
ORLANDO
SJR WMD

B. Type of activity for which you are applying (check at least one)

- Construction and operation of a new system including dredging or filling in, on or over wetlands and other surface waters.
- Alteration and operation of an existing system which was not previously permitted by a WMD or DEP.
- Modification of a system previously permitted by a WMD or DEP. Provide previous permit numbers:

- | | |
|---|--|
| <input type="checkbox"/> Alteration and operation of a system | <input type="checkbox"/> Extension of permit duration |
| <input type="checkbox"/> Abandonment of a system | <input type="checkbox"/> Construction and operation of additional phases of a system |
| <input type="checkbox"/> Removal of a system | |

C. Are you requesting authorization to use State Owned Submerged Lands? ___ yes **X** no
(If yes, include the information requested in Section G.)

D. For activities in, on or over wetlands or other surface waters, check type of federal dredge and fill permit requested:

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Individual | <input type="checkbox"/> Programmatic General |
| <input type="checkbox"/> General | <input type="checkbox"/> Nationwide |

E. Are you claiming to qualify for an exemption? ___ yes **X** no
If yes provide rule number if known _____.

OWNER(S) OF LAND	ENTITY TO RECEIVE PERMIT (IF OTHER THAN OWNER)
NAME Ray Perriguey	NAME Ray Perriguey
ADDRESS Post Office Box 120429	ADDRESS Post Office Box 120429
CITY, STATE, ZIP Clermont, Florida 34712	CITY, STATE, ZIP Clermont, Florida 34712
COMPANY AND TITLE Strategic Technologies, Inc.	COMPANY AND TITLE Strategic Technologies, Inc.
TELEPHONE () FAX ()	TELEPHONE () FAX ()
AGENT AUTHORIZED TO SECURE PERMIT (IF AN AGENT IS USED)	CONSULTANT (IF DIFFERENT FROM AGENT)
NAME	NAME Robert E. Farner, P.E. #31950
COMPANY AND TITLE	COMPANY AND TITLE Farner Barley & Associates, Inc.
ADDRESS	ADDRESS 350 North Sinclair Avenue
CITY, STATE, ZIP	CITY, STATE, ZIP Tavares, Florida 32778
TELEPHONE () FAX ()	TELEPHONE (352) 343-8481 FAX (352) 343-8495
Name of project, including phase if applicable <u>Strategic Technologies Telecommunication Facility</u> Is this application for part of a multi-phase project? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no Total applicant-owned area contiguous to the project <u>1.00</u> ac Total project area for which a permit is sought <u>1.00</u> ac Impervious area for which a permit is sought <u>0.06</u> ac What is the total area (metric equivalent for federally funded projects) of work in, on, or over wetlands or other surface waters? _____ acres _____ square feet _____ hectares _____ square meters If a docking facility, the number of proposed new slips _____	
Project location (use additional sheets, if needed) County(ies) <u>Lake</u> Section(s) <u>3</u> Township(s) <u>23S</u> Range(s) <u>26E</u> Section(s) <u>4</u> Township(s) <u>23S</u> Range(s) <u>26E</u> Land Grant name, if applicable <u>N/A</u> Tax Parcel Identification Number <u>Hancock Road</u> Street address, road, or other location <u>N/A</u> City, Zip Code if applicable _____	

Describe, in general terms, the proposed project, system or activity.

A 1.00 Acre Site for a telecommunication Facility Site and related Drainage Facilities.

If there have been any pre-application meetings, including at the project site, with regulatory staff, please list the date(s), location(s), and names of key staff and project representatives.

Please identify by number any MSSW/Wetland Resource/ERP/ACOE permits pending, issued or denied for projects at the location and any related enforcement actions.

Agency	Date	No. \ Type of Application	Action Taken(Pending/Issued/Denied)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Note:The following information is required for projects proposed to occur in, on or over wetlands or other surface waters that need a federal dredge and fill permit and/or authorization to use state owned submerged lands. Please provide the names, addresses and zip codes of property owners whose property directly adjoins the project (excluding applicant). Please attach a plan view showing the owner's names and adjoining property lines. Attach additional sheets if necessary.

1. _____

2. _____

3. _____

4. _____

By signing and submitting this application form, I am applying, or I am applying on behalf of the applicant, for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application, and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto, does not relieve me of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree, or I agree on behalf of my corporation, to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a responsible operation entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S., and 18 U.S.C. Section 1001.

Ray Perriguet

Typed/Printed Name of Applicant (If no Agent is used) or Agent (If one is so authorized below)

Signature of Applicant/Agent

Date

Strategic Technologies, Inc.

(Corporate Title if applicable)

AN AGENT MAY SIGN ABOVE ONLY IF THE APPLICANT COMPLETES THE FOLLOWING:

I hereby designate and authorize the agent listed above to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I designate and authorize the above-listed agent to bind me, or my corporation, to perform any requirement which may be necessary to procure the permit or authorization indicated above. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S., and 18 U.S.C. Section 1001.

Typed/Printed Name of Applicant

Signature of Applicant

Date

(Corporate Title if applicable)

Please note: The applicant's original signature (not a copy) is required above.

PERSON AUTHORIZING ACCESS TO THE PROPERTY MUST COMPLETE THE FOLLOWING:

I either own the property described in this application or I have legal authority to allow access to the property, and I consent, after receiving prior notification, to any site visit on the property by agents or personnel from the Department of Environmental Protection, the Water Management District and the U.S. Army Corps of Engineers necessary for the review and inspection of the proposed project specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review and inspection. Further, I agree to provide entry to the project site for such agents or personnel to monitor permitted work if a permit is granted.

Ray Perriguet

Typed/Printed Name

Signature

Date

Strategic Technologies, Inc.

(Corporate Title if applicable)

FORM NUMBER 40C-4.900(1)

ADMINISTRATIVE APPLICATION PROCESSING SHEET

Application Number: 42-069-1164AN-ERP Reviewer(s): ABOODI WARD

Date Received: 7/22/96

Applicant: STRATEGIC TECHNOLOGIES, INC.

APPLICATION DATA ENTRY INFORMATION:

<u>FILE</u>	<u>DATE</u>	<u>INITIALS</u>
Main	<u>7.29</u>	_____
Address	_____	_____
Fee **	_____	_____

COMMENTS: _____

** Fee is entered during the Electronic Assignment Sheet Process.