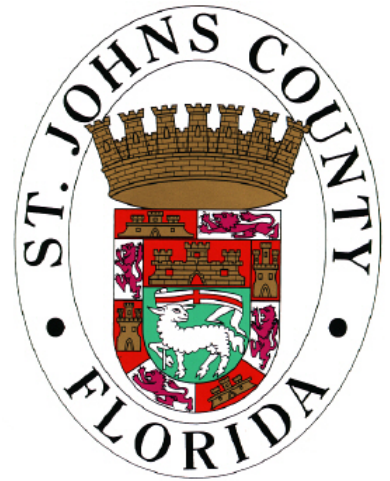


**MINIMUM TECHNICAL STANDARDS
FINAL REPORT OF PHOTOGRAMMETRIC GROUND
CONTROL SURVEY**



**ST. JOHNS COUNTY 2008 - COUNTYWIDE
DIGITAL PHOTOGRAMMETRIC CONTOUR
MAPPING PROJECT**

**ST. JOHNS COUNTY PIGGYBACK CONTRACT ON
THE STATE OF FLORIDA DIVISION OF EMERGENCY
MANAGEMENT (DEM) CONTRACT NO.
07-HS-34-14-00-22-469**

ST. JOHNS COUNTY, FLORIDA

Prepared By:

Woolpert, Inc.
11315 Corporate Boulevard, Suite 115
Orlando, Florida 32817-8340

WOOLPERT PROJECT NO. 67954

LB Number: 0006777

ISSUED: JUNE 2, 2008

QUALITY

At Woolpert, quality is the cornerstone of our business. We invite your comments and suggestions for improving this document.

TRADEMARKS

All brand names and product names are trademarks or registered trademarks of their respective companies.

NOTICE OF PROPRIETARY INFORMATION

© 2008, Woolpert, Inc., Orlando, Florida.

All rights reserved to Woolpert.

This document was designed, prepared, and submitted by Woolpert to be used only by the recipient.

**MTS REPORT OF
PHOTOGRAMMETRIC GROUND CONTROL SURVEY**

**St. Johns County 2008 - Countywide Digital
Photogrammetric Contour Mapping Project**

For:

St. Johns County Public Works Department

Engineering Division

2740 Industry Center Road

St. Augustine, FL 32084

By:

Woolpert, Inc.

11315 Corporate Boulevard, Suite 115

Orlando, FL 32817-8340

Tel 407.381.2192 / Fax 407.384.1185

Florida Certificate of Authorization LB 6777

Prepared by:

David M. Bruno, PSM

Florida Professional Surveyor and Mapper No. 5670

Summary of Contents

Section 1: Photogrammetric Ground Control Survey Report	5 Pages
Summary of Contents	1
Introduction.....	1
Project Area	1
Purpose.....	1
Date of Survey	1
Map Reference	1
Name of Responsible Surveyor.....	1
Name of Company	2
Abbreviations.....	2
Data Sources	2
Monumentation	3
Methodology	3
Rapid Static GPS.....	3
Datum Reference and Final Coordinates	4
GPS Data Analysis and Processing.....	4
Rapid Static Adjustment	4
Accuracy Statement	4
Notes	5

Section 2: New Ground Control Coordinate Listing w/ Standard Deviations
Section 3: Existing St. Johns County Ground Control Coordinate Listing
Section 4: New Ground Control Station Recovery Information Sheets
Section 5: Existing Control Information Sheets
Section 6: GPS Control Diagram and CD Rom

SECTION 1

SECTION 1: PHOTOGRAMMETRIC GROUND CONTROL SURVEY REPORT

Introduction

This report contains an outline of the Photogrammetric Ground Control Survey that supported the St. Johns County, Florida 2008 Countywide Digital Contour Mapping Project; Contract No. 07-HS-34-14-00-22-469; and Woolpert Project No. 67954.

Project Area

The project area encompasses approximately +/- 726 square miles of St. Johns County in Florida. (Refer to Section 6: GPS Control Diagram and Data CDROM).

Purpose

The purpose of this survey was to establish three-dimensional coordinates for fourteen (14) new photogrammetric control stations, and recover and target one hundred eleven (111) existing St. Johns County photogrammetric control stations. These ground control points, in conjunction with aerial triangulation, will be used as the basis for subsequent photogrammetric mapping as outlined in the *Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy (NSSDA)*, published by the Federal Geographic Data Committee (FGDC-STD-007.3-1998) for ADS51 imagery and LIDAR mapping capable of producing 1"=100' scale color infrared mapping with 0.5-foot pixel resolution, and DTM with 1-foot contours at +/-0.7-foot vertical accuracy in well defined areas, at the 95% confidence level.

Date of Survey

All ground control field operations took place between January 14, 2008 and February 25, 2008.

Map Reference

There are no hardcopy map sheets required as a deliverable for this project.

Name of Responsible Surveyor

David M. Bruno, PSM
Woolpert, Inc.
11315 Corporate Blvd, Suite 115
Orlando, Florida 32817-8340
Professional Surveyor and Mapper Number 5670

Name of Company

Woolpert, Inc.
11315 Corporate Blvd, Suite 115
Orlando, Florida 32817-8340
Florida Certificate of Authorization No. LB-0006777

Abbreviations

1-D – One-Dimensional
2-D – Two-Dimensional
3-D – Three-Dimensional
cm – centimeter
DOI – Digital Orthophoto Imagery
FAC – Florida Administrative Code
FL – Florida
FGDC – Federal Geodetic Control Committee
GPS – Global Positioning System
Inc. – Incorporated
MTS – Florida Minimum Technical Standards (FAC 61G17)
NAD 83/90-HARN – North American Datum 1983 High Accuracy Reference Network 1990 adjustment
NAVD 88 – North American Vertical Datum of 1988
NGS – National Geodetic Survey
NOAA – National Oceanic and Atmospheric Administration
NSSDA – National Standards for Spatial Data Accuracy
DOI – Digital Orthophoto Imagery
PID – Photo Identifiable Point (feature)
PSM – Professional Surveyor and Mapper
QC – Quality Control
RMSE – Root Mean Square Error
STD – Standard Deviations
TGO – Trimble Geomatics Office
TTC – Trimble Total Control
U.S. – United States
Woolpert – Woolpert, Inc

Data Sources

Original Control Point Coordinates:	NGS Information Services NOAA, N/NGS12 National Geodetic Survey SSMC-3, #9202 1315 East-West Highway Silver Spring, MD 20910-3282 Phone: (301) 713-3242 Fax: (301) 713-4172 Email: info_center@ngs.noaa.gov http://www.ngs.noaa.gov/
-------------------------------------	--

Woolpert, Inc.
11315 Corporate Blvd, Suite 115
Orlando, Florida 32817-8340
Phone: (407) 381-2192
Fax: (407) 384-1185
<http://www.woolpert.com>

Monumentation

Prior to aerial imagery acquisition, St. John County field crews performed a field reconnaissance to verify the existence and suitability of pre-selected existing National Geodetic Survey (NGS) control stations and existing St. Johns County control stations from the 2002/2003 St. Johns County Aerial Mapping projects. These existing control stations were utilized to insure that quality x, y, and z coordinate values were computed for each of the newly established photogrammetric control stations.

St. Johns County field crews installed a total of fourteen (14) semi-permanent control stations in designated locations for both GPS observations and aerial imagery. These newly established imagery control stations consist of two types of control: thirteen (13) new pre-targeted control stations consisting of a 1/2-inch diameter by 18-inch long rebar with plastic red logo cap, stamped "SJC Trav", placed in the center of a cloth target, and one (1) photo identifiable control stations (PID) consisting of the center of a manhole. These photogrammetric control station descriptions can be found in Section 2 of the report.

St. Johns County field crews also recovered and targeted one hundred eleven (111) existing photogrammetric control stations from the 2002/2003 St. Johns County Aerial Mapping projects. These photogrammetric control station descriptions can be found in Section 3 of the report.

Each photo control station, except for five PID's, was targeted with an 8-foot by 8-foot by 2-foot fiberglass reinforced cloth material or painted target prior to the acquisition of aerial imagery.

Information sheets for the newly established control stations can be found in Section 4. These information sheets consist of 'To Reach' descriptions, sketches, witness ties, and geographic and grid coordinates. The computed elevations provided on these information sheets are based on the NAVD 88 datum. A control diagram showing the ground control stations used to support this photogrammetric mapping project can be found in Section 6 of this report.

Methodology

All field reconnaissance, monumentation, observations, data reductions, data adjustments, and final report development was performed under the direct supervision of David M. Bruno, PSM 5670, Professional Surveyor and Mapper in Charge.

Rapid Static GPS

Rapid-Static GPS surveying techniques were used for measuring all new photogrammetric ground control stations. Rapid-Static GPS surveying, requires a minimum of two receivers to occupy stations at either end of a baseline for approximately 10-15 minutes, depending upon baseline length, number of satellites, and satellite geometry. This is similar in theory to static surveying; however, shorter observation time is made possible due to advances in both hardware and software.

For this survey, Woolpert field crew utilized five (5), Woolpert-owned, Trimble Navigation 5000 series dual-frequency geodetic GPS receivers. Each observation session utilized a 5-second sync rate, lasting between 30-60 minutes each.

Datum Reference and Final Coordinates

All horizontal GPS control was based on the Florida State Plane Coordinate System (East Zone), referenced to North American Datum 1983, adjustment of 1990 (NAD83/1990) HARN, expressed in U.S. Survey Feet.

All vertical control was based on the North American Vertical Datum of 1988 (NAVD88), also expressed in U.S. Survey Feet. These coordinates for the ground control survey can be found in Section 2 of this report.

GPS Data Analysis and Processing

The field crew chief processed all session baselines each day using *Trimble Navigation's* Trimble Geomatics Office (TGO) Version 1.63 baseline processor with the broadcast ephemeris. *Trimble Navigation's* Trimble Geomatics Office (TGO) Wave Software User's Guide (November 1999) was used as a reference. The ratio and root-mean-square error (RMSE) criteria on pages 3-4 to 3-6 of the guide were followed. Other criteria used a maximum of 10.5 percent rejections, along with float-versus-fixed deltas of 10 cm. All cases that failed to meet any of these criteria were rejected and not used. Fixed solutions were obtained for all vector baselines.

Daily processing allowed the field crews to discover any weak links in the network and immediately schedule re-observations of the affected baselines. Once the fieldwork was complete, the processed baselines were then run through a rigorous loop closure analysis. Any baselines that failed this analysis were either reprocessed or removed from the network.

Rapid Static Adjustment

Upon completion of all field data processing, Woolpert performed a minimally constrained and fully constrained least-squares adjustments using *Trimble Navigation's* Trimble Geomatics Office (TGO) version 1.63. After an acceptable minimally constrained least-squares adjustment was obtained, a fully constrained least-squares adjustment was performed by fixing the GPS networks to existing NGS and St. Johns County control stations. Geoid 03 was used to model the elevations. For this survey the following stations were held fixed:

Dimension	Existing NGS and County Control Stations
3-D Control Stations	L15 and DUPONT 2
2-D Control Stations	G027

Accuracy Statement

The positional accuracy of the new ground control data was 0.10-feet (avg. 0.04-feet) horizontally and 0.12-feet (avg. 0.07-feet) vertically at the 95% confidence level. The ground control survey meets positional accuracies necessary to support ADS51 imagery capable of producing 1" =100' scale digital color infrared mapping with 0.5-foot pixel resolution, and DTM with 1-foot contours at +/-0.7-foot vertical accuracy in well define areas, at the 95% confidence level. The final grid coordinates with standard deviations can be found in Section 2 of this report.

Notes

1. **THIS REPORT OF SURVEY IS PART OF THE PHOTOGRAMMETRIC GROUND CONTROL SURVEY. A GROUND CONTROL LAYOUT MAP SHALL ACCOMPANY THE SURVEY REPORT. NEITHER THE MAP NOR THIS REPORT OF SURVEY IS FULL AND COMPLETE WITHOUT THE OTHER. THIS REPORT OF SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER IN RESPONSIBLE CHARGE.**
2. **THIS REPORT OF SURVEY CONSISTS OF FORTY-ONE (41) PAGES AND EACH PAGE SHALL NOT BE CONSIDERED FULL OR COMPLETE UNLESS ATTACHED TO THE OTHER(S). ADDITIONS OR DELETIONS TO SURVEY MAPS AND REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.**
3. **THIS PHOTOGRAMMETRIC GROUND CONTROL SURVEY DATA AND REPORT IS CERTIFIED TO THE ST. JOHNS COUNTY AS MEETING OR EXCEEDING, IN QUALITY AND PRECISION, THE STANDARDS APPLICABLE FOR THIS WORK, AS SET FORTH IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE.**

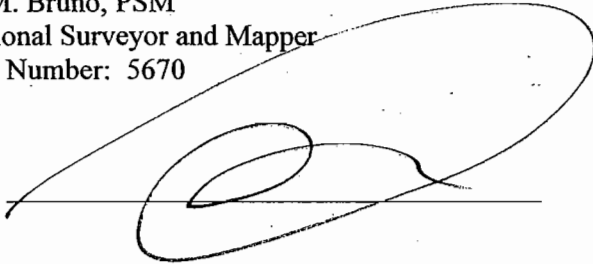
Surveyor and Mapper in Responsible Charge:

David M. Bruno, PSM

Professional Surveyor and Mapper

License Number: 5670

Signed: _____



Seal: _____



SECTION 2

SECTION 2: NEW GROUND CONTROL COORDINATE LISTING WITH STANDARD DEVIATIONS

- This section contains a complete listing of the Final Florida East State Plane Coordinates, Orthometric Heights, Standard Deviations, and Station Descriptions for the St. Johns County 2008 – Countywide Digital Photogrammetric Contour Mapping Project.

**St. Johns County 2008 – Countywide
Digital Photogrammetric Contour Mapping Project**

**HORIZONTAL DATUM: NAD83 (1990)
VERTICAL DATUM: NAVD 88
UNITS: US SURVEY FEET
STATE PLANE ZONE: FLORIDA EAST
GEOID MODEL: GEOID 03
COORDINATE SYSTEM: GRID**

New Photo Control Stations:

Station Name	Grid Northing (USFT)	Grid Easting (USFT)	Station Elevation (USFT)	Y Std Dev. (USFT)	X Std Dev. (USFT)	Z Std Dev. (USFT)	Station Description
08-01	2111345.61	451963.13	20.19	0.10	0.05	0.10	PID - Center of Sanitary Manhole
08-02	2154190.00	524901.60	7.74	0.03	0.02	0.06	1/2"x18" rebar with SJC logo cap
08-03	2154800.14	535341.57	10.32	0.03	0.03	0.08	1/2"x18" rebar with SJC logo cap
08-04	2050594.59	557688.39	16.42	0.03	0.03	0.07	1/2"x18" rebar with SJC logo cap
08-05	2081978.11	463401.80	28.70	0.03	0.03	0.07	1/2"x18" rebar with SJC logo cap
08-06	1963248.02	535172.04	38.36	0.03	0.03	0.06	1/2"x18" rebar with SJC logo cap
08-07	1965684.08	578952.99	3.92	0.05	0.04	0.08	1/2"x18" rebar with SJC logo cap
08-08	1935966.41	564979.07	24.37	0.04	0.03	0.08	1/2"x18" rebar with SJC logo cap
08-09	1933447.47	535538.89	31.12	0.03	0.03	0.08	1/2"x18" rebar with SJC logo cap
08-10	2077614.44	509629.47	28.13	0.03	0.03	0.07	1/2"x18" rebar with SJC logo cap
08-11	2079976.89	479645.93	18.32	0.06	0.04	0.12	1/2"x18" rebar with SJC logo cap
08-12	2106441.16	485776.42	30.21	0.03	0.03	0.07	1/2"x18" rebar with SJC logo cap
08-13	2069675.29	502507.67	33.29	0.03	0.03	0.08	1/2"x18" rebar with SJC logo cap
08-14	1940354.15	588029.76	3.28	0.03	0.03	0.07	1/2"x18" rebar with SJC logo cap

SECTION 3

SECTION 3: EXISTING ST. JOHNS COUNTY GROUND CONTROL COORDINATE LISTING

This section contains a complete listing of the St. Johns County existing ground control coordinates (Florida East State Plane), Orthometric Heights, and Station Descriptions that were recovered and re-targeted.

These existing ground control stations were referenced from the following project reports:

**Survey Report for St. Johns County, Florida Geodetic Control Project
September 1994 through February 1999**

and

**Report of GPS Ground Control Survey: For Topographic Aerial Mapping Project 2003
St. Johns County Public Works Department
Provided by Woolpert in July 2003**

Existing St. Johns County Ground Control Coordinate Listing

ST. JOHNS COUNTY 2008 – COUNTYWIDE DIGITAL PHOTOGRAMMETRIC CONTOUR MAPPING PROJECT

HORIZONTAL DATUM: NAD83 (1990)

VERTICAL DATUM: NAVD 88

UNITS: US SURVEY FEET

STATE PLANE ZONE: FLORIDA EAST

GEOID MODEL: GEOID 03

COORDINATE SYSTEM: GRID

Existing Ground Control Points:

GPS Station Name	Grid Northing (USFT)	Grid Easting (USFT)	Station Elevation (USFT)	Description
002	1925823.63	496051.24	24.55	5/8"x18" rebar with red cap stamped "SJC TRAV"
003	1925314.62	485647.88	27.12	5/8"x18" rebar with red cap stamped "SJC TRAV"
004	1988099.80	482184.98	8.74	5/8"x18" rebar with red cap stamped "SJC TRAV"
005	2014837.79	473586.06	6.51	5/8"x18" rebar with red cap stamped "SJC TRAV"
007	2042912.39	471997.20	4.64	MAG (PK) Nail
008	2056628.00	462783.50	4.16	5/8"x18" rebar with red cap stamped "SJC TRAV"
009	2073735.01	446734.46	14.28	5/8"x18" rebar with red cap stamped "SJC TRAV"
016	2105249.43	528853.65	15.61	5/8"x18" rebar with red cap stamped "SJC TRAV"
017	2119695.41	516814.72	21.27	5/8"x18" rebar with red cap stamped "SJC TRAV"
023	1926645.22	558499.61	33.17	5/8"x18" rebar with red cap stamped "SJC TRAV"
025	1956428.61	488309.05	10.52	MAG (PK) Nail
03_1	2083058.69	445522.44	12.38	5/8" rebar with red cap stamped Woolpert LLP LB-0006777
03_3	2088725.43	448972.34	18.91	5/8" rebar with red cap stamped Woolpert LLP LB-0006777
03_8M	2090097.51	460550.61	27.19	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_9M	2062449.16	465125.73	21.96	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_10	2032573.48	468520.67	4.85	5/8" rebar with red cap stamped Woolpert LLP LB-0006777
03_11M	2094008.31	468389.65	27.03	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"

GPS Station Name	Grid Northing (USFT)	Grid Easting (USFT)	Station Elevation (USFT)	Description
03_13	2052133.52	472938.67	7.39	5/8" rebar with red cap stamped Woolpert LLP LB
03_15	2106154.69	476807.68	6.89	5/8" rebar with red cap stamped Woolpert LLP LB
03_17M	2063146.85	481219.73	28.13	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_20	1972085.83	485636.09	2.22	5/8" rebar with red cap stamped Woolpert LLP LB
03_21	1939117.45	486708.80	18.85	5/8" rebar with red cap stamped Woolpert LLP LB
03_23M	2069089.03	489149.09	22.41	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_24	1922809.20	489743.73	41.37	5/8" rebar with red cap stamped Woolpert LLP LB
03_25	1926297.28	489604.39	28.80	5/8" rebar with red cap stamped Woolpert LLP LB
03_26M	1984147.99	497629.51	14.66	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_27M	2056991.54	497591.34	28.43	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_30M	2027479.08	510364.98	28.05	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_31	2098360.87	511116.70	35.01	5/8" rebar with red cap stamped Woolpert LLP LB
03_36	1921939.98	514681.51	14.25	5/8" rebar with red cap stamped Woolpert LLP LB
03_37	2152684.18	514748.63	25.78	5/8" rebar with red cap stamped Woolpert LLP LB
03_39	2140687.60	518333.82	21.22	5/8" rebar with red cap stamped Woolpert LLP LB
03_41M	2056502.85	519044.84	29.75	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_43M	2147444.43	525564.18	4.20	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_44	1925371.00	527147.66	25.24	5/8" rebar with red cap stamped Woolpert LLP LB-0006777
03_46M	2040839.85	531329.79	33.78	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_50M	2079373.60	533947.45	5.36	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_51M	2128989.11	535207.02	6.34	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_52M	2098331.60	535420.81	4.42	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_55M	2107454.92	539366.50	2.14	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_57M	2019076.31	543936.26	35.21	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_60M	2042840.74	547613.07	7.97	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_61M	1992711.78	547694.04	29.43	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"

GPS Station Name	Grid Northing (USFT)	Grid Easting (USFT)	Station Elevation (USFT)	Description
03_64	1934909.01	551766.97	24.79	5/8" rebar with red cap stamped Woolpert LLP LB
03_66B	1929143.94	552732.35	27.85	5/8" rebar with red cap stamped Woolpert LLP LB
03_68M	2029766.59	555841.25	4.22	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_69M	1971453.52	555954.25	26.85	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_70M	2043476.45	557383.46	4.46	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_73	2020736.40	560126.34	4.87	5/8" rebar with red cap stamped Woolpert LLP LB-0006777
03_74M	1996002.24	560459.97	11.10	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_77	2025087.91	566356.30	5.66	5/8" rebar with red cap stamped Woolpert LLP LB
03_78	2007458.32	568078.56	7.75	5/8" rebar with red cap stamped Woolpert LLP LB
03_79M	1953924.05	568060.55	25.73	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_81	2016656.77	569709.79	4.43	5/8" rebar with red cap stamped Woolpert LLP LB-0006777
03_82M	1994045.92	570691.37	12.92	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_85M	1941553.23	572864.63	23.02	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_86	1983594.71	573436.78	6.85	5/8" rebar with red cap stamped Woolpert LLP LB-0006777
03_88	1940100.06	576230.82	11.27	5/8" rebar with red cap stamped Woolpert LLP LB-0006777
03_89	1940949.38	585664.59	5.54	5/8" rebar with red cap stamped Woolpert LLP LB-0006777
03_96M	2073674.29	461534.72	29.59	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
03_97M	1959113.05	493693.61	6.85	Berntsen F-130 Drive-in Monument stamped "ST JOHNS COUNTY" / "0006777 WOOLPERT"
3A	2046249.96	505032.32	27.33	5/8"x18" rebar with red cap stamped "SJC TRAV"
4A	2109958.80	464771.49	10.26	5/8"x18" rebar with red cap stamped "SJC TRAV"
6A	2064346.09	542280.26	3.53	5/8"x18" rebar with red cap stamped "SJC TRAV"
A004	2097687.19	497400.22	45.95	Monument Disk in Massive Structure stamped FLORIDA 1-95 72 A04 DOT
A014	2131446.25	540118.76	9.17	Monument Disk in Concrete stamped FL DEPT OF NATURAL RESOURCES SURVEY MARK 78 79 A14
A032	2064087.81	554750.29	16.02	Monument Disk in Concrete stamped FL DEPT OF NATURAL RESOURCES SURVEY MARK 78 79 A32
A039	2031014.81	563197.87	7.08	Monument Disk in Concrete stamped FL DEPT OF NATURAL RESOURCES SURVEY MARK 78 79 A39
CM01	2041842.78	517356.79	31.25	Monument Disk in Concrete stamped SJC GPS CM01

GPS Station Name	Grid Northing (USFT)	Grid Easting (USFT)	Station Elevation (USFT)	Description
CM02	1950794.06	552402.74	37.96	Monument Disk in Concrete stamped SJC GPS CM02
D002	1999305.78	534950.48	39.08	Monument Disk in Concrete stamped FLORIDA DOT SURVEY MARKER 78-95 GPS-1
D322	2008137.97	571956.11	10.09	Monument Disk in Concrete stamped US COAST AND GEODETIC SURVEY BENCHMARK D322 1970
DUP2	1968084.73	545533.12	39.50	Monument Disk in Concrete stamped USCG SURVEY MARK DUPONT 2 1964
ELLZ	2030457.67	524684.38	45.31	Monument Disk in Concrete stamped US COAST AND GEODETIC SURVEY-TRIA.STA. ELLZEY 1933
G002	1942423.94	586977.38	5.34	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G002
G004	1955756.65	582960.71	7.25	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G004
G006	1976416.85	575534.94	5.48	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G006
G010	2082997.28	550860.65	11.88	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G010
G012	2101369.11	547130.34	19.12	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G012
G014	2118709.71	542319.97	8.78	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G014
G017	1937400.61	569396.43	13.23	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G017
G019	1955673.59	560302.10	27.07	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G019
G022	1971615.61	567468.97	17.03	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G022
G027	2029666.49	543103.70	34.30	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G027
G032	2064969.58	531784.92	38.20	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G032
G033	2078454.91	521372.02	34.28	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G033
G037	2098267.95	519036.44	42.78	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G037
G042	2136827.79	527043.91	5.87	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G042
G047	2004884.73	525726.76	42.55	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G047
G052	2088138.87	503290.26	29.52	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G052
G055A	1923807.00	538762.04	38.03	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G055
G057	1943220.23	519471.81	26.84	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G057
G059	1960540.67	520639.13	42.64	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G059
G063	1983935.56	521038.53	32.49	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G063

GPS Station Name	Grid Northing (USFT)	Grid Easting (USFT)	Station Elevation (USFT)	Description
G065	2006789.40	504657.48	22.91	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G065
G067	2018873.71	499438.22	18.46	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G067
G069	2034333.93	499147.69	17.10	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G069
G071	2050530.59	488493.60	11.47	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G071
G081	1939404.28	504348.79	12.43	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G081
G089	2005127.12	488457.29	14.26	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G089
G091	2034631.88	488711.61	12.76	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G091
G095A	2078464.88	471331.50	28.34	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G095
G097	2105341.08	471306.22	15.30	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G097
G099	1923317.33	505580.44	17.01	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G099
G101	1934344.64	496334.61	20.16	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G101
G113	2066937.27	455788.93	13.11	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G113
G117	2097512.67	456356.34	14.04	Monument Disk in Concrete stamped ST. JOHNS COUNTY GPS MONUMENT G117
L10	2096254.54	490313.73	16.77	5/8"x18" rebar with red cap stamped "SJC TRAV"
L15	2082046.11	500303.46	24.71	5/8"x18" rebar with red cap stamped "SJC TRAV"
Q323	2143173.68	537716.00	10.50	Monument Disk in Concrete stamped U.S.C.G SURVEY BENCH MARK Q323 1970
TID1	2003949.60	479142.39	9.04	Monument Disk in Concrete stamped U.S.C.G.S. BENCH MARK (NO. 1 1934)

SECTION 4

SECTION 4: NEW GROUND CONTROL STATION RECOVERY INFORMATION SHEETS

This section contains the station recovery information sheets for each of the photo control stations and quality control check point that was established for the St. Johns County 2008 – Countywide Digital Photogrammetric Contour Mapping Project. Each information sheet contains a sketch, to reach description, witness ties, and geographic and grid coordinates.

SPECIFIC PURPOSE SURVEY CONTROL MONUMENT INFORMATION SHEET ST. JOHNS COUNTY 2008 COUNTYWIDE DIGITAL PHOTOGRAMMETRIC CONTOUR MAPPING PROJECT APRIL 2008																									
Quad Name	Station 08-01 is located in the center of a manhole along Cachet Dr. From the intersection of SR 13 and Westberry Rd, proceed west on Westberry Rd for +/- 0.7 mi to Brady Place BLVD. Turn right and go north along Brady Place BLVD for +/- 0.1 mi to Cachet Dr. Turn Left and go west along Cachet Dr for +/- 0.1 mi to the station in the center of the road, just southeast of drive leading to house # 12645.			Station Designation																					
ORANGE PARK				08-01																					
County				Station Description																					
DUVAL				PID - Center of Manhole																					
Date Set or Found	Latitude	Longitude	Horiz. Datum	Zone	Vert. Datum																				
1/28/2008	N 30°08'23.25452"	W 081°38'45.66621"	NAD83 (1990)	FLE0901	NAVD 88																				
Section-Town-Range	Northing (State Plane)	Easting (State Plane)	Elevation	Order of Accuracy																					
35-4S-26E	2111345.61 (U.S. Feet)	451963.13 (U.S. Feet)	20.19 (U.S. Feet)	Horiz-2nd Vert-3rd (GPS Derived)																					
Person filling out form	Scale Factor	Back Station I.D.	Grid Azimuth & Distance to Back Station																						
Greg Fox	0.999988955	N/A	N/A																						
Established by Agency	Convergence Angle	Ahead Station I.D.	Grid Azimuth & Distance to Ahead Station																						
St Johns County	-0°19'27.78127"	N/A	N/A																						
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No.																					
				PSM 5670																					
Sketch:																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Ref. #</th> <th>Distance</th> <th>Bearing</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1)</td> <td>23.3'</td> <td>NW</td> <td>Fiberglass Light Pole</td> </tr> <tr> <td>2)</td> <td>36.9'</td> <td>SW</td> <td>SW Corner of Walk & Driveway (#12645)</td> </tr> <tr> <td>3)</td> <td>29.1'</td> <td>W</td> <td>West Edge of Sidewalk</td> </tr> <tr> <td>4)</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table>						Ref. #	Distance	Bearing	Description	1)	23.3'	NW	Fiberglass Light Pole	2)	36.9'	SW	SW Corner of Walk & Driveway (#12645)	3)	29.1'	W	West Edge of Sidewalk	4)	N/A	N/A	N/A
Ref. #	Distance	Bearing	Description																						
1)	23.3'	NW	Fiberglass Light Pole																						
2)	36.9'	SW	SW Corner of Walk & Driveway (#12645)																						
3)	29.1'	W	West Edge of Sidewalk																						
4)	N/A	N/A	N/A																						



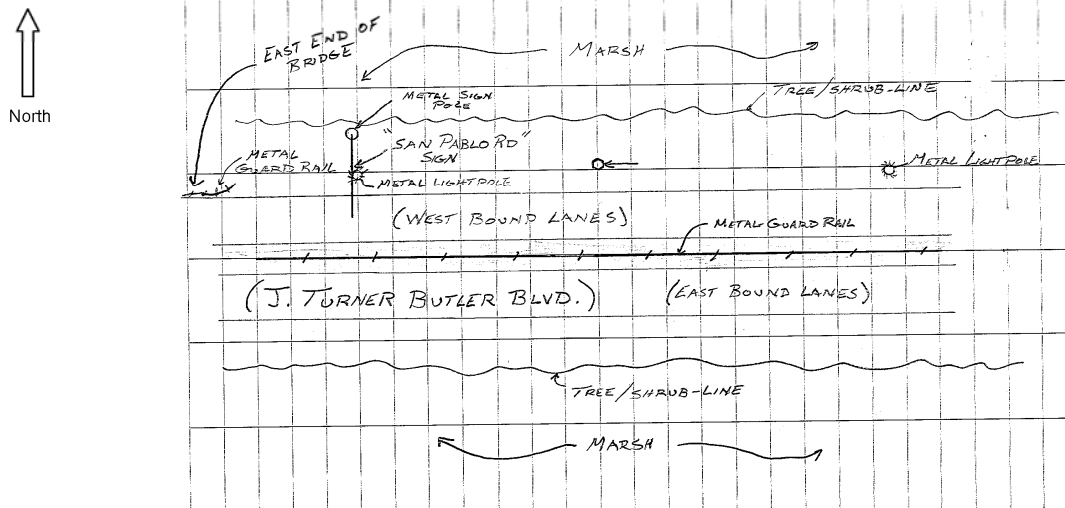
SPECIFIC PURPOSE SURVEY
CONTROL MONUMENT INFORMATION SHEET

ST. JOHNS COUNTY 2008
COUNTYWIDE DIGITAL PHOTOGRAMMETRIC
CONTOUR MAPPING PROJECT
APRIL 2008



Quad Name JACKSONVILLE BEACH	Station 08-02 is located along the north side of J Turner Butler BLVD. From the intersection of north A-1-A and J Turner Butler BLVD, go west along J Turner Butler BLVD for +/- 1.7 mi to the station on the right.			Station Designation 08-02	
County DUVAL				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 30°15'30.71178"	Longitude W 081°24'56.77730"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 8-3S-29E	Northing (State Plane) 2154190.00 (U.S. Feet)	Easting (State Plane) 524901.60 (U.S. Feet)	Elevation 7.74 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999960918	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°12'34.23999"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	

Sketch:



Ref. #	Distance	Bearing	Description
1)	33.3'	N	Centerline of West Bound Lane
2)	406.0'	E	East End of Metal Guard Rail
3)	82.0'	W	Metal Light Pole
4)	146.3'	E	Sign Post "SAN PABLO RD"



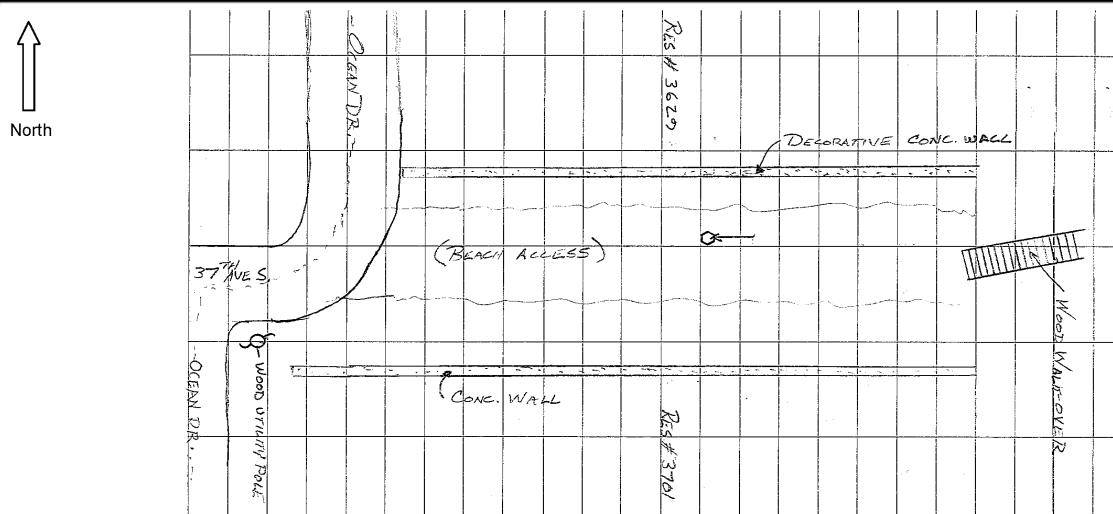
SPECIFIC PURPOSE SURVEY
CONTROL MONUMENT INFORMATION SHEET

ST. JOHNS COUNTY 2008
COUNTYWIDE DIGITAL PHOTOGRAMMETRIC
CONTOUR MAPPING PROJECT
APRIL 2008



Quad Name JACKSONVILLE BEACH	Station 08-03 is located along the beach access to Ponte Vedra Beach. From the intersection of SR A-1-A and Ponte Vedra BLVD, go east along Ponte Vedra BLVD for +/- 0.09 mi to 37th Ave South. Turn left and go east along 37th Ave South for +/- 0.6 mi to the beach access. Continue east along beach access to the station between two concrete walls.			Station Designation 08-03	
County DUVAL				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 30°15'37.11418"	Longitude W 081°22'57.75906"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 10-3S-29E	Northing (State Plane) 2154800.14 (U.S. Feet)	Easting (State Plane) 535341.57 (U.S. Feet)	Elevation 10.32 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999957903	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°11'34.30112"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	

Sketch:



Ref. #	Distance	Bearing	Description
1)	169.3'	E	Centerline of 37th Ave S & Ocean Drive
2)	60.6'	W	Center of the Wood WALK-Over
3)	16.0'	S	Decorative Concrete Wall
4)	N/A	N/A	N/A



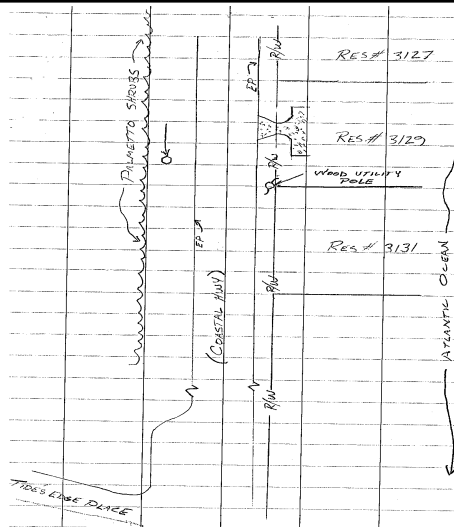
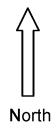
SPECIFIC PURPOSE SURVEY
CONTROL MONUMENT INFORMATION SHEET

ST. JOHNS COUNTY 2008
COUNTYWIDE DIGITAL PHOTOGRAMMETRIC
CONTOUR MAPPING PROJECT
APRIL 2008



Quad Name ST AUGUSTINE	Station 08-04 is located along the west side of Coastal Highway. From the intersection of Vilano Beach Causeway and Coastal Highway in Vilano Beach, go north along Coastal Highway for 4.0 mi to the station on the left.			Station Designation 08-04	
County ST. JOHNS				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 29°58'26.27551"	Longitude W 081°18'39.70694"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 20-6S-30E	Northing (State Plane) 2050594.59 (U.S. Feet)	Easting (State Plane) 557688.39 (U.S. Feet)	Elevation 16.42 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999952288	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°09'19.41698"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	

Sketch:



Ref. #	Distance	Bearing	Description
1)	22.0'	W	Centerline of Coastal Highway
2)	19.6'	SW	Centerline of Concrete Drive (Res. # 3129)
3)	51.7'	WNW	Wooden Utility Pole
4)	N/A	N/A	N/A

SPECIFIC PURPOSE SURVEY <u>CONTROL MONUMENT INFORMATION SHEET</u> ST. JOHNS COUNTY 2008 COUNTYWIDE DIGITAL PHOTOGRAMMETRIC CONTOUR MAPPING PROJECT APRIL 2008																									
Quad Name	Station 08-05 is along located Longleaf Pine PWKY (old Roberts Rd). From the intersection of Dam Rd and Greenbriar Rd, go west along Greenbriar Rd for +/- 2.6 mi to Longleaf Pine PKWY (old Roberts Rd). Turn right and go north along Longleaf Pine PWKY (old Roberts Rd) for +/- 0.3 mi to the station on the right.			Station Designation																					
ORANGEDALE				08-05																					
County				Station Description																					
ST. JOHNS				1/2"x18" rebar with S.J.C. logo cap																					
Date Set or Found	Latitude	Longitude	Horiz. Datum	Zone	Vert. Datum																				
1/28/2008	N 30°03'33.18481"	W 081°36'33.61414"	NAD83 (1990)	FLE0901	NAVD 88																				
Section-Town-Range	Northing (State Plane)	Easting (State Plane)	Elevation	Order of Accuracy																					
39-5S-27E	2081978.11 (U.S. Feet)	463401.80 (U.S. Feet)	28.70 (U.S. Feet)	Horiz-2nd Vert-3rd (GPS Derived)																					
Person filling out form	Scale Factor	Back Station I.D.	Grid Azimuth & Distance to Back Station																						
Greg Fox	0.999983752	N/A	N/A																						
Established by Agency	Convergence Angle	Ahead Station I.D.	Grid Azimuth & Distance to Ahead Station																						
St Johns County	-0°18'18.80145"	N/A	N/A																						
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No.																					
				PSM 5670																					
Sketch:																									
<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>Ref. #</th> <th>Distance</th> <th>Bearing</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1)</td> <td>103.6'</td> <td>W</td> <td>Centerline of Longleaf Pine PKWY</td> </tr> <tr> <td>2)</td> <td>212.7'</td> <td>SW</td> <td>Centerline of Roberts Rd</td> </tr> <tr> <td>3)</td> <td>74.3'</td> <td>N</td> <td>Storm Manhole</td> </tr> <tr> <td>4)</td> <td>40.0'</td> <td>SE</td> <td>Wooden Guy Pole</td> </tr> </tbody> </table>						Ref. #	Distance	Bearing	Description	1)	103.6'	W	Centerline of Longleaf Pine PKWY	2)	212.7'	SW	Centerline of Roberts Rd	3)	74.3'	N	Storm Manhole	4)	40.0'	SE	Wooden Guy Pole
Ref. #	Distance	Bearing	Description																						
1)	103.6'	W	Centerline of Longleaf Pine PKWY																						
2)	212.7'	SW	Centerline of Roberts Rd																						
3)	74.3'	N	Storm Manhole																						
4)	40.0'	SE	Wooden Guy Pole																						



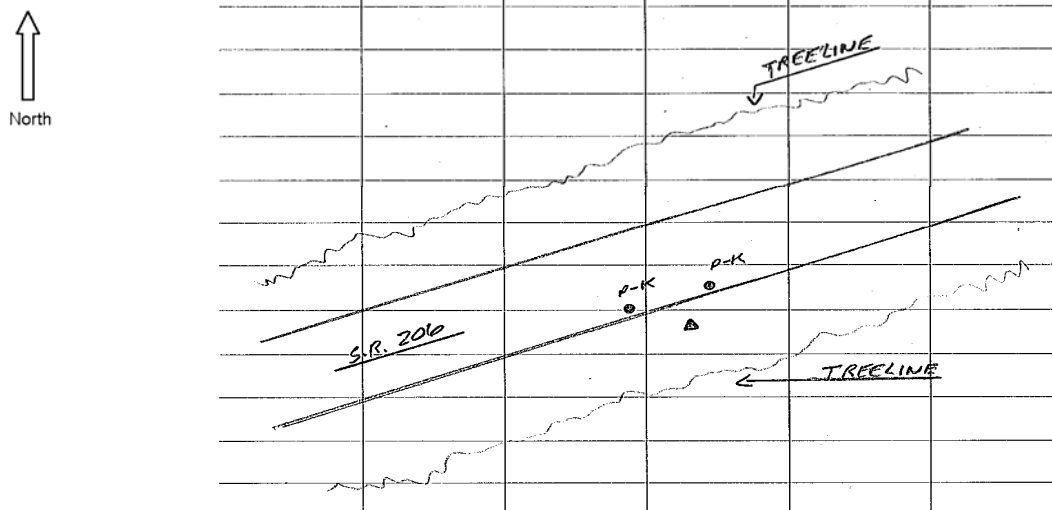
SPECIFIC PURPOSE SURVEY
CONTROL MONUMENT INFORMATION SHEET

ST. JOHNS COUNTY 2008
COUNTYWIDE DIGITAL PHOTOGRAMMETRIC
CONTOUR MAPPING PROJECT
APRIL 2008

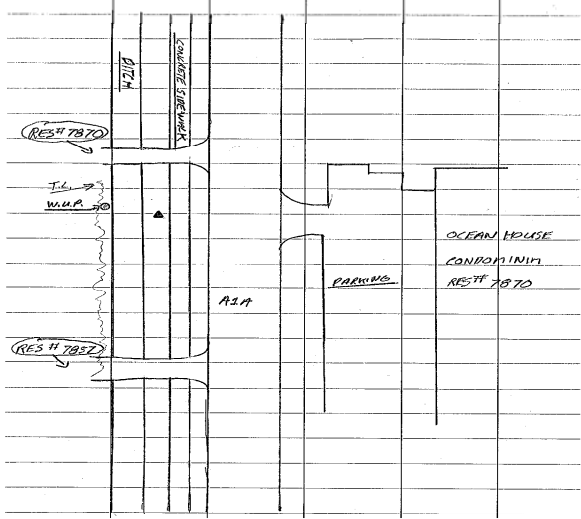


Quad Name SPUDS	Station 08-06 is located along the south side of SR 206. From the intersection of SR 206 and I-95 overpass, go southwest along SR 206 for +/- 2.3 mi to the station on the left.			Station Designation 08-06	
County ST. JOHNS				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 29°44'00.94381"	Longitude W 081°22'52.42624"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 9-9S-29E	Northing (State Plane) 1963248.02 (U.S. Feet)	Easting (State Plane) 535172.04 (U.S. Feet)	Elevation 38.36 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999957951	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°11'20.68706"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	

Sketch:



Ref. #	Distance	Bearing	Description
1)	8.0'	S	South Edge of SR 206
2)	12.7'	SE	Mag (PK) Nail
3)	15.0'	SW	Mag (PK) Nail
4)	N/A	N/A	N/A

 SPECIFIC PURPOSE SURVEY CONTROL MONUMENT INFORMATION SHEET ST. JOHNS COUNTY 2008 COUNTYWIDE DIGITAL PHOTOGRAMMETRIC CONTOUR MAPPING PROJECT APRIL 2008 																									
Quad Name MATANZAS INLET	Station 08-07 is located along the west side of SR A-1-A. From the intersection of SR 206 and SR A-1-A, go south along SR A-1-A for +/- 2.2 mi to on the right, just south of drive leading to house # 7870.			Station Designation 08-07																					
County ST. JOHNS				Station Description 1/2"x18" rebar with S.J.C. logo cap																					
Date Set or Found 1/28/2008	Latitude N 29°44'26.23101"	Longitude W 081°14'35.88760"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88																				
Section-Town-Range 11-9S-30E	Northing (State Plane) 1965684.08 (U.S. Feet)	Easting (State Plane) 578952.99 (U.S. Feet)	Elevation 3.92 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)																					
Person filling out form Greg Fox	Scale Factor 0.999948008	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A																						
Established by Agency St Johns County	Convergence Angle -0°07'14.50738"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A																						
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670																					
Sketch:																									
 North 																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Ref. #</th> <th style="width: 20%;">Distance</th> <th style="width: 15%;">Bearing</th> <th style="width: 55%;">Description</th> </tr> </thead> <tbody> <tr> <td>1)</td> <td>80.0'</td> <td>S</td> <td>Centerline of Drive ((RES.#7875)</td> </tr> <tr> <td>2)</td> <td>17.8'</td> <td>SE</td> <td>Wooden Utility Pole (#364435215)</td> </tr> <tr> <td>3)</td> <td>16.0'</td> <td>W</td> <td>West Edge of SR A 1 A</td> </tr> <tr> <td>4)</td> <td>4.5'</td> <td>W</td> <td>West Edge of Sidewalk</td> </tr> </tbody> </table>						Ref. #	Distance	Bearing	Description	1)	80.0'	S	Centerline of Drive ((RES.#7875)	2)	17.8'	SE	Wooden Utility Pole (#364435215)	3)	16.0'	W	West Edge of SR A 1 A	4)	4.5'	W	West Edge of Sidewalk
Ref. #	Distance	Bearing	Description																						
1)	80.0'	S	Centerline of Drive ((RES.#7875)																						
2)	17.8'	SE	Wooden Utility Pole (#364435215)																						
3)	16.0'	W	West Edge of SR A 1 A																						
4)	4.5'	W	West Edge of Sidewalk																						



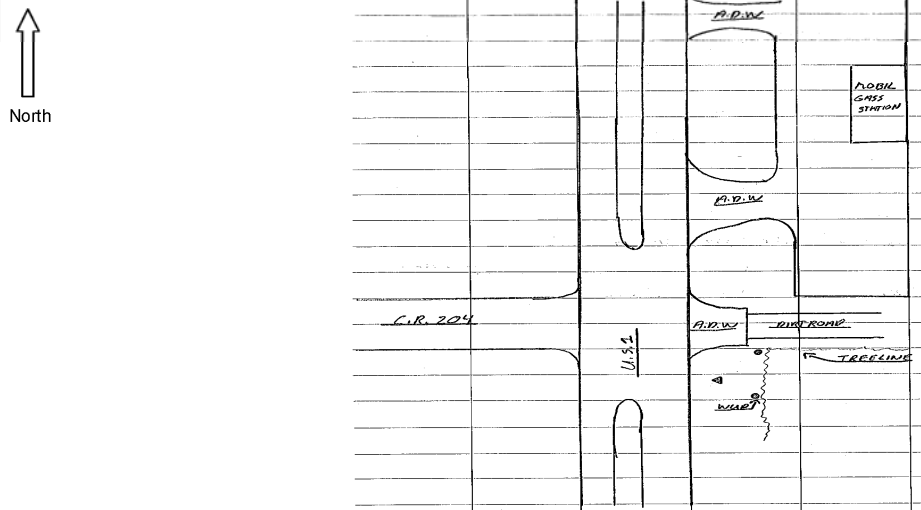
SPECIFIC PURPOSE SURVEY
CONTROL MONUMENT INFORMATION SHEET

ST. JOHNS COUNTY 2008
COUNTYWIDE DIGITAL PHOTOGRAMMETRIC
CONTOUR MAPPING PROJECT
APRIL 2008



Quad Name DINNER ISLAND NE	Station 08-08 is located along on the east side of US 1. From the intersection of US 1 and I-95 overpass, go south along US 1 for +/- 0.2 mi to the station on the left, just south of CR 204.			Station Designation 08-08	
County ST. JOHNS				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 29°39'31.72338"	Longitude W 081°17'13.56495"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 4-10S-30E	Northing (State Plane) 1935966.41 (U.S. Feet)	Easting (State Plane) 564979.07 (U.S. Feet)	Elevation 24.37 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999950705	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°08'31.44647"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	

Sketch:



Ref. #	Distance	Bearing	Description
1)	19.0'	E	West Edge of US 1 (Northbound)
2)	111.0'	S	CL of South Drive to MOBIL Gas Station
3)	27.7'	NW	Wooden Utility Pole (#36137 7415)
4)	N/A	N/A	N/A



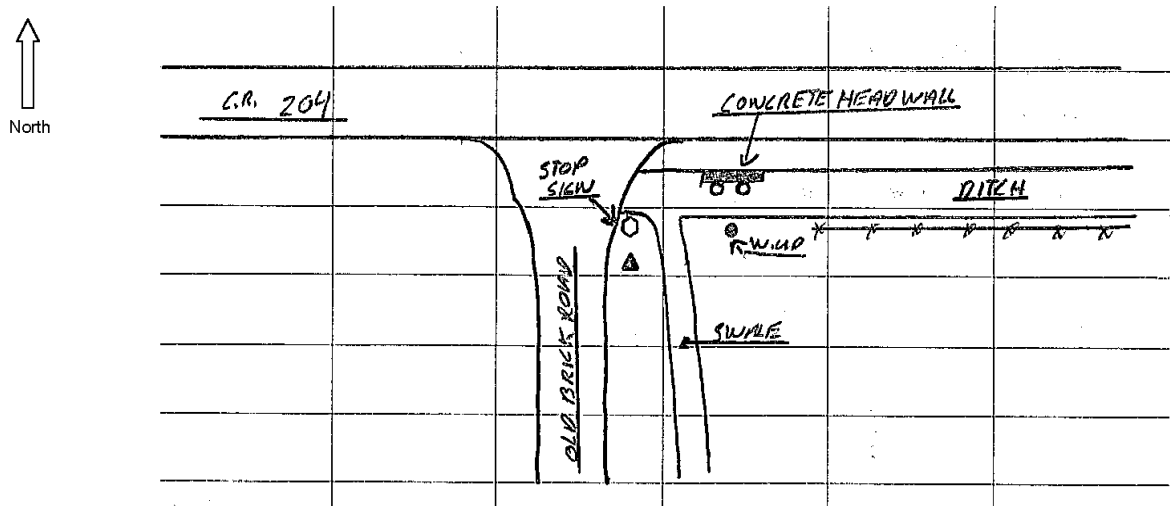
SPECIFIC PURPOSE SURVEY
CONTROL MONUMENT INFORMATION SHEET

ST. JOHNS COUNTY 2008
COUNTYWIDE DIGITAL PHOTOGRAMMETRIC
CONTOUR MAPPING PROJECT
APRIL 2008



Quad Name SPUDS	Station 08-09 is located in the southeast quadrant of CR 204 and Old Brick Rd. From the intersection of US 1 and CR 204, go west along CR 204 for +/- 5.7 mi to Old Brick Rd and the station on the left.			Station Designation 08-09	
County ST. JOHNS				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 29°39'05.94796"	Longitude W 081°22'47.15531"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 9-10S-29E	Northing (State Plane) 1933447.47 (U.S. Feet)	Easting (State Plane) 535538.89 (U.S. Feet)	Elevation 31.12 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999957850	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°11'16.37421"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	

Sketch:



Ref. #	Distance	Bearing	Description
1)	34.0'	S	South Edge of CR 204
2)	43.0'	SW	Center of Headwall
3)	36.7'	W	Wooden Utility Pole (#35536894709)
4)	14.9'	SE	Stop Sign



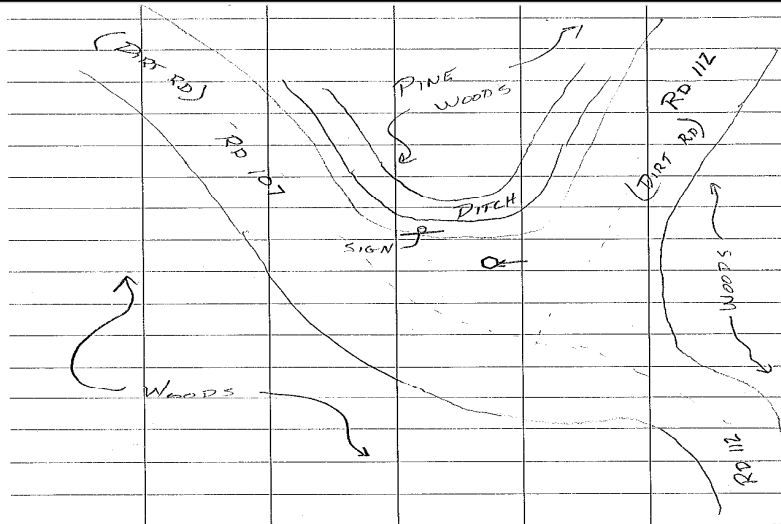
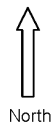
SPECIFIC PURPOSE SURVEY
CONTROL MONUMENT INFORMATION SHEET

ST. JOHNS COUNTY 2008
COUNTYWIDE DIGITAL PHOTOGRAMMETRIC
CONTOUR MAPPING PROJECT
APRIL 2008



Quad Name DURBIN	Station 08-10 is located at the north edge of the intersection of Road 107 (dirt road) and Road 112 (dirt road). From the intersection of US 1 and International Golf PKWY, go west along International Golf PKWY for +/- 1.5 mi to the entrance of Twelve Mile Swamp Wildlife Management Area. Turn right and go north through gate and along Road 1212 for +/- 0.9 mi to Road 117. Keep left and proceed westerly along Road 117 for +/- 3.0 mi to Road 109. Turn right and go northerly along Road 109 for +/- 1.3 mi to Road 112. Turn left and go northwesterly along Road 112 for +/- 0.8 mi to the station at the intersection with Road 107.			Station Designation 08-10	
County ST. JOHNS				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 30°02'52.13527"	Longitude W 081°27'47.37097"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 42-5S-28E	Northing (State Plane) 2077614.44 (U.S. Feet)	Easting (State Plane) 509629.47 (U.S. Feet)	Elevation 28.13 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999965780	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°13'54.90408"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	

Sketch:



Ref. #	Distance	Bearing	Description
1)	41.6'	NNE	Centerline of Intersection of Roads
2)	17.3'	S	Small Metal Sign Post
3)	15.5'	SW	Top of Bank of Ditch
4)	N/A	N/A	N/A

SPECIFIC PURPOSE SURVEY CONTROL MONUMENT INFORMATION SHEET ST. JOHNS COUNTY 2008 COUNTYWIDE DIGITAL PHOTOGRAMMETRIC CONTOUR MAPPING PROJECT APRIL 2008																									
Quad Name ORANGEDALE	Station 08-11 is located at the north edge of two dirt roads. From the intersection of I-95 and CR 210 West, go west along CR 210 for +/- 3.7 mi to a dirt woods road on the right. Turn right and go north through a gate and along the dirt woods road for +/- 0.45 mi to Y intersection and the station on the north edge of the road.			Station Designation 08-11																					
County ST. JOHNS				Station Description 1/2"x18" rebar with S.J.C. logo cap																					
Date Set or Found 1/28/2008	Latitude N 30°03'14.19601"	Longitude W 081°33'28.65684"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88																				
Section-Town-Range 23-5S-27E	Northing (State Plane) 2079976.89 (U.S. Feet)	Easting (State Plane) 479645.93 (U.S. Feet)	Elevation 18.32 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)																					
Person filling out form Greg Fox	Scale Factor 0.999976879	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A																						
Established by Agency St Johns County	Convergence Angle -0°16'45.98992"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A																						
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670																					
Sketch:																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Ref. #</th> <th>Distance</th> <th>Bearing</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1)</td> <td>13.7'</td> <td>NW</td> <td>Centerline Intersection of Two Dirt Roads</td> </tr> <tr> <td>2)</td> <td>49.6'</td> <td>E</td> <td>8-inch Pine Tree with Metal Sign "4"</td> </tr> <tr> <td>3)</td> <td>22.4'</td> <td>SE</td> <td>6-inch Pine Tree</td> </tr> <tr> <td>4)</td> <td>36.6'</td> <td>SW</td> <td>6-inch Pine Tree</td> </tr> </tbody> </table>						Ref. #	Distance	Bearing	Description	1)	13.7'	NW	Centerline Intersection of Two Dirt Roads	2)	49.6'	E	8-inch Pine Tree with Metal Sign "4"	3)	22.4'	SE	6-inch Pine Tree	4)	36.6'	SW	6-inch Pine Tree
Ref. #	Distance	Bearing	Description																						
1)	13.7'	NW	Centerline Intersection of Two Dirt Roads																						
2)	49.6'	E	8-inch Pine Tree with Metal Sign "4"																						
3)	22.4'	SE	6-inch Pine Tree																						
4)	36.6'	SW	6-inch Pine Tree																						



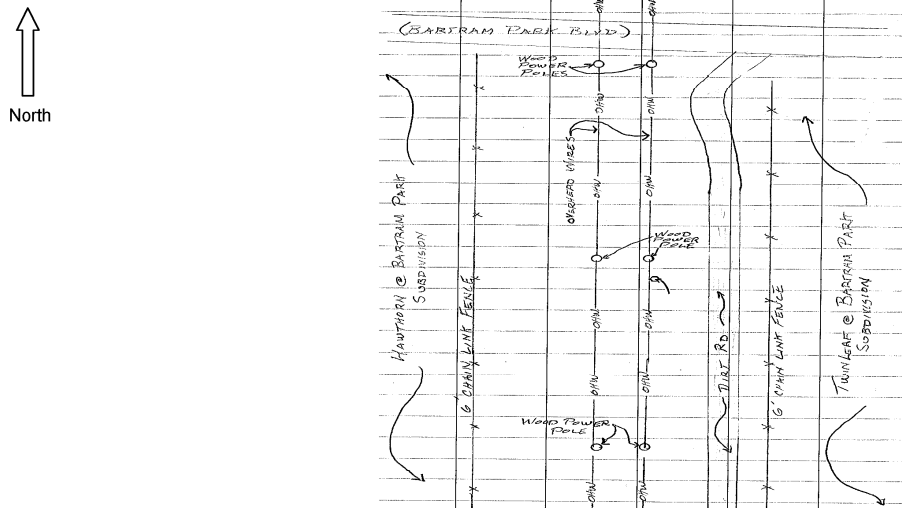
SPECIFIC PURPOSE SURVEY
CONTROL MONUMENT INFORMATION SHEET

ST. JOHNS COUNTY 2008
COUNTYWIDE DIGITAL PHOTOGRAMMETRIC
CONTOUR MAPPING PROJECT
APRIL 2008



Quad Name BAYARD	Station 08-12 is located west of a dirt road just south of Bartram Park Blvd. From the intersection US 1 and Old St Augustine Rd, go west along Old Augustine Rd for +/- 1.8 mi to Bartram Park Blvd. Turn left and go southerly along Bartram Park Blvd for +/- 1.1 mi to a dirt road leading south. Turn right and go south along the dirt road for +/- 0.1 mi to the station on the right, just east of an overhead power line.			Station Designation 08-12	
County DUVAL				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 30°07'36.44578"	Longitude W 081°32'20.31993"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 30-4S-28E	Northing (State Plane) 2106441.16 (U.S. Feet)	Easting (State Plane) 485776.42 (U.S. Feet)	Elevation 30.21 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999974442	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°16'13.89790"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	

Sketch:



Ref. #	Distance	Bearing	Description
1)	35.0'	W	Centerline of Dirt Road
2)	98.3'	S	Wood Power Pole with Railroad Spike
3)	68.8'	W	6-foot Chain-Link Fence
4)	101.0'	SE	Wooden Power Pole



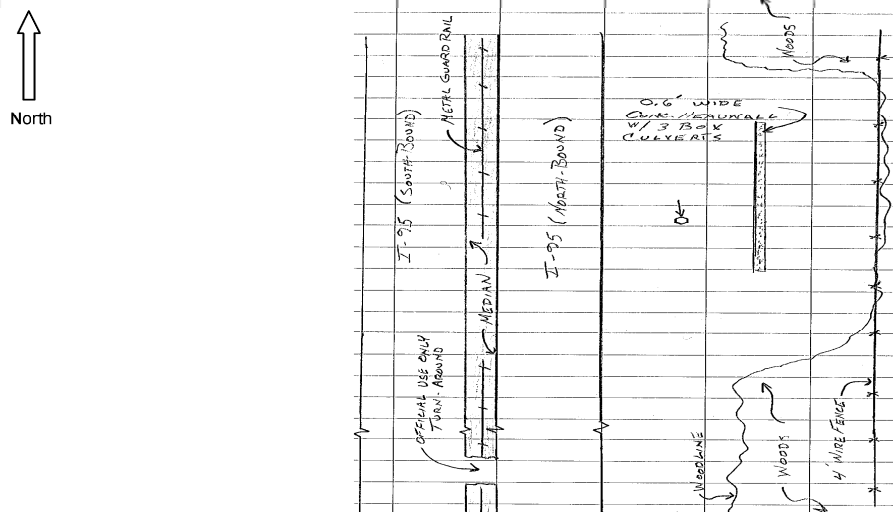
SPECIFIC PURPOSE SURVEY
CONTROL MONUMENT INFORMATION SHEET

ST. JOHNS COUNTY 2008
COUNTYWIDE DIGITAL PHOTOGRAMMETRIC
CONTOUR MAPPING PROJECT
APRIL 2008

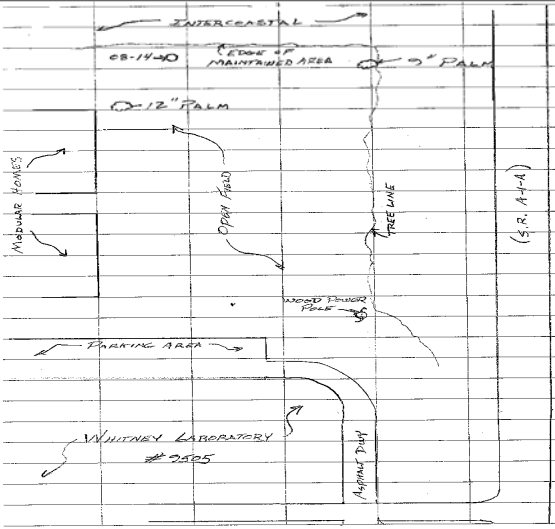


Quad Name DURBIN	Station 08-13 is located on the east side of I-95 Northbound. From the intersection of International Golf Parkway and I-95, go north along I-95 for +/- 3.0 mi to the station on the right, just north of a turn-around in the median of I-95.			Station Designation 08-13	
County ST. JOHNS				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 30°01'33.25529"	Longitude W 081°29'08.02065"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 33-5S-28E	Northing (State Plane) 2069675.29 (U.S. Feet)	Easting (State Plane) 502507.67 (U.S. Feet)	Elevation 33.29 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999968230	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°14'34.71060"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	

Sketch:



Ref. #	Distance	Bearing	Description
1)	32.6'	SW	North End of Concrete Headwall
2)	23.0'	NW	South End of Concrete Headwall
3)	14.2'	E	East Edge of I-95 Northbound
4)	N/A	N/A	N/A

 SPECIFIC PURPOSE SURVEY CONTROL MONUMENT INFORMATION SHEET ST. JOHNS COUNTY 2008 COUNTYWIDE DIGITAL PHOTOGRAMMETRIC CONTOUR MAPPING PROJECT APRIL 2008 					
Quad Name MATANZAS INLET	Station 08-14 is located on the west of SR A-1-A and on the property of the U.F. Whitney Laboratory for Marine Bio-Science. From the intersection of SR A-1-A and SR 206, go south along SR A-1-A for +/- 7.5 mi to the entrance of the U.F. Whitney Laboratory for Marine Bio-Science at the County Line. Turn right and go west along an asphalt drive into the complex for +/- 50-feet to a drive leading north. Turn right and go north along drive to a bend in the road west. Continue westerly to a parking area on the right and the station on the right at north end of an open field.			Station Designation 08-14	
County ST. JOHNS				Station Description 1/2"x18" rebar with S.J.C. logo cap	
Date Set or Found 1/28/2008	Latitude N 29°40'15.65460"	Longitude W 081°12'52.39111"	Horiz. Datum NAD83 (1990)	Zone FLE0901	Vert. Datum NAVD 88
Section-Town-Range 0-0S-0E	Northing (State Plane) 1940354.15 (U.S. Feet)	Easting (State Plane) 588029.76 (U.S. Feet)	Elevation 3.28 (U.S. Feet)	Order of Accuracy Horiz-2nd Vert-3rd (GPS Derived)	
Person filling out form Greg Fox	Scale Factor 0.999946496	Back Station I.D. N/A	Grid Azimuth & Distance to Back Station N/A		
Established by Agency St Johns County	Convergence Angle -0°06'22.34978"	Ahead Station I.D. N/A	Grid Azimuth & Distance to Ahead Station N/A		
Florida Professional Surveyor and Mapper	David M. Bruno			Fla. Registration No. PSM 5670	
Sketch:					
 North 					
Ref. #	Distance	Bearing	Description		
1)	168.0'	N	Centerline of Drive and Parking Area		
2)	133.1'	NW	Wooden Power Pole		
3)	44.9'	NE	Northeast Corner of Modular Home		
4)	31.2'	NE	12-inch Palm Tree		

SECTION 5

SECTION 5: EXISTING CONTROL INFORMATION SHEETS

This contains the published National Geodetic Survey (NGS) and St. Johns County control used in the final control network for the St. Johns County 2008 – Countywide Digital Photogrammetric Contour Mapping Project.

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```
DATABASE = ,PROGRAM = datasheet, VERSION = 7.59
1      National Geodetic Survey, Retrieval Date = APRIL 23, 2008
AQ0389 *****
AQ0389 DESIGNATION - DUPONT 2
AQ0389 PID - AQ0389
AQ0389 STATE/COUNTY- FL/ST JOHNS
AQ0389 USGS QUAD - DINNER ISLAND NE (1992)
AQ0389
AQ0389 *CURRENT SURVEY CONTROL
AQ0389
AQ0389* NAD 83(1990)- 29 44 49.14788(N) 081 20 55.07130(W) ADJUSTED
AQ0389* NAVD 88 - 12.040 (meters) 39.50 (feet) ADJUSTED
AQ0389
AQ0389 LAPLACE CORR- -0.65 (seconds) DEFLEC99
AQ0389 GEOID HEIGHT- -28.70 (meters) GEOID03
AQ0389 DYNAMIC HT - 12.024 (meters) 39.45 (feet) COMP
AQ0389 MODELED GRAV- 979,292.3 (mgal) NAVD 88
AQ0389
AQ0389 HORZ ORDER - SECOND
AQ0389 VERT ORDER - SECOND CLASS I
AQ0389
AQ0389.The horizontal coordinates were established by classical geodetic methods
AQ0389.and adjusted by the National Geodetic Survey in May 1991.
AQ0389
AQ0389.The orthometric height was determined by differential leveling
AQ0389.and adjusted in May 2004.
AQ0389
AQ0389.The Laplace correction was computed from DEFLEC99 derived deflections.
AQ0389
AQ0389.The geoid height was determined by GEOID03.
AQ0389
AQ0389.The dynamic height is computed by dividing the NAVD 88
AQ0389.geopotential number by the normal gravity value computed on the
AQ0389.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AQ0389.degrees latitude (g = 980.6199 gals.).
AQ0389
AQ0389.The modeled gravity was interpolated from observed gravity values.
AQ0389
AQ0389; North East Units Scale Factor Converg.
AQ0389;SPC FL E - 599,873.416 166,278.775 MT 0.99995520 -0 10 22.7
AQ0389;SPC FL E - 1,968,084.70 545,532.95 sFT 0.99995520 -0 10 22.7
AQ0389;UTM 17 - 3,290,800.723 466,290.280 MT 0.99961402 -0 10 22.7
AQ0389
AQ0389! - Elev Factor x Scale Factor = Combined Factor
AQ0389!SPC FL E - 1.00000262 x 0.99995520 = 0.99995782
AQ0389!UTM 17 - 1.00000262 x 0.99961402 = 0.99961664
AQ0389
AQ0389|-----|
AQ0389| PID Reference Object Distance Geod. Az |
AQ0389| | | | dddmmss.s |
AQ0389| CW3596 DUPONT RM 4 03924 |
AQ0389| CW3593 DUPONT AZ MK 2 0613603.7 |
AQ0389| AQ0385 I95 72 B42 221.327 METERS 06648 |
AQ0389| AQ2015 DUPONT RESET 89.714 METERS 06715 |
AQ0389| AQ0391 DUPONT 2 RM 2 26.323 METERS 24353 |
AQ0389| AQ0393 DUPONT 2 AZ RESET 2473048.5 |
AQ0389| AQ0390 DUPONT 2 RM 1 29.746 METERS 33702 |
AQ0389|-----|
```

AQ0389
 AQ0389 SUPERSEDED SURVEY CONTROL
 AQ0389
 AQ0389 NAD 83(1986)- 29 44 49.15428(N) 081 20 55.08166(W) AD() 2
 AQ0389 NAD 27 - 29 44 48.26070(N) 081 20 55.82820(W) AD() 2
 AQ0389 NAVD 88 (06/15/91) 12.042 (m) 39.51 (f) UNKNOWN 2 2
 AQ0389 NGVD 29 (??/??/92) 12.360 (m) 40.55 (f) ADJ UNCH 2 2
 AQ0389
 AQ0389.Superseded values are not recommended for survey control.
 AQ0389.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AQ0389.[See file dsdata.txt](#) to determine how the superseded data were derived.
 AQ0389
 AQ0389_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMN6629090801(NAD 83)
 AQ0389_MARKER: DS = TRIANGULATION STATION DISK
 AQ0389_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AQ0389_SP_SET: CONCRETE MONUMENT
 AQ0389_STAMPING: DUPONT 2 1964
 AQ0389_MARK LOGO: CGS
 AQ0389_MAGNETIC: N = NO MAGNETIC MATERIAL
 AQ0389_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AQ0389+STABILITY: SURFACE MOTION
 AQ0389_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AQ0389+SATELLITE: SATELLITE OBSERVATIONS - July 01, 1999
 AQ0389

AQ0389	HISTORY	- Date	Condition	Report By
AQ0389	HISTORY	- 1964	MONUMENTED	CGS
AQ0389	HISTORY	- 1965	GOOD	CGS
AQ0389	HISTORY	- 1973	GOOD	FLDT
AQ0389	HISTORY	- 1973	GOOD	NGS
AQ0389	HISTORY	- 1988	GOOD	USPSQD
AQ0389	HISTORY	- 19990701	GOOD	FLDEP

 AQ0389
 AQ0389 STATION DESCRIPTION
 AQ0389
 AQ0389'DESCRIBED BY COAST AND GEODETIC SURVEY 1964 (KAM)
 AQ0389'STATION IS LOCATED ABOUT 12 MILES SOUTHWEST OF ST. AUGUSTINE,
 AQ0389'2.25 MILES WEST OF DUPONT CENTER, AND ABOUT 600 FEET WEST
 AQ0389'OF THE CENTERLINE OF INTERSTATE HIGHWAY 95 WHICH IS NOW
 AQ0389'BEING CONSTRUCTED. IT IS 47.5 FEET SOUTH OF THE CENTERLINE OF
 AQ0389'STATE ROAD 206, 2.5 FEET NORTH OF A METAL WITNESS POST AND
 AQ0389'SIGN. IT IS A STANDARD DISK SET FLUSH WITH THE GROUND AND
 AQ0389'IS STAMPED DUPONT 2 1964.
 AQ0389'
 AQ0389'REFERENCE MARK NO. 1 IS 50.5 FEET NORTH OF THE CENTERLINE
 AQ0389'OF THE ROAD, 2 FEET SOUTH OF A METAL WITNESS POST AND
 AQ0389'SIGN. IT IS A STANDARD DISK WHICH PROJECTS 2 INCHES AND IS
 AQ0389'STAMPED DUPONT 2 NO 1 1964.
 AQ0389'
 AQ0389'REFERENCE MARK NO. 2 IS 49 FEET SOUTH OF THE CENTERLINE OF THE
 AQ0389'ROAD, 1.5 FEET NORTH OF A METAL WITNESS POST AND SIGN. IT IS
 AQ0389'A STANDARD DISK WHICH PROJECTS 2 INCHES AND IS STAMPED
 AQ0389'DUPONT 2 NO 2 1964.
 AQ0389'
 AQ0389'AZIMUTH MARK IS 0.25 MILE EAST OF THE STATION, 46 FEET NORTH
 AQ0389'OF THE CENTERLINE OF STATE ROAD 206, 6 FEET SOUTHWEST OF A
 AQ0389'6 INCH PINE TREE, 1.5 FEET NORTH OF A METAL WITNESS POST
 AQ0389'AND SIGN. IT IS A STANDARD DISK WHICH PROJECTS 4 INCHES AND
 AQ0389'IS STAMPED DUPONT 1933 1962.
 AQ0389'
 AQ0389'NOTE--THIS AZIMUTH MARK WAS FORMERLY THE AZIMUTH MARK TO STATION
 AQ0389'DUPONT 1933 1952.
 AQ0389'
 AQ0389'TO REACH THE STATION FROM DUPONT CENTER AT THE JUNCTION OF

AQ0389'U.S. HIGHWAY 1 AND STATE ROAD 206, GO WEST ON STATE ROAD
AQ0389'206 FOR 2.0 MILES TO THE AZIMUTH MARK ON THE RIGHT, CONTINUE
AQ0389'WEST FOR 0.25 MILE TO THE STATION ON THE LEFT AS DESCRIBED.
AQ0389'
AQ0389'HEIGHT OF LIGHT ABOVE STATION MARK 1 METER.
AQ0389
AQ0389 STATION RECOVERY (1965)
AQ0389
AQ0389'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1965 (JB)
AQ0389'RECOVERED ALL MARKS IN GOOD CONDITION. NO PRIOR DESCRIPTION
AQ0389'WAS AVAILABLE.
AQ0389'
AQ0389'ABOUT 12 MILES S OF ST. AUGUSTINE, 2.1 MILES W ALONG NO. 206
AQ0389'FLORIDA HWY. FROM ITS INTERSECTION WITH NO. 1 U.S. HWY. AT
AQ0389'DUPONT CENTER, ABOUT 745 FEET W ALONG SAID SAME FROM ITS
AQ0389'INTERSECTION WITH THE C/L OF NO. 95 INTERSTATE HWY., 98 FEET
AQ0389'W OF A CORNER IN HWY. RIGHTS-OF-WAY, 47.5 FEET S OF CENTER
AQ0389'LINE OF NO. 206 HWY. 20-FOOT ASPHALT PAVEMENT, ABOUT A FOOT
AQ0389'LOWER THAN SAME, STANDARD DISKS STAMPED DUPONT 2 1964
AQ0389'THE UPPER ONE FLUSH WITH THE
AQ0389'GROUND, AND 2.6 FEET N OF STEEL WITNESS POST.
AQ0389'
AQ0389'R.M. NO. 1 IS 50.5 FEET N OF CENTER LINE OF HWY., 0.2 FOOT
AQ0389'HIGHER THAN SAME, 2.3 FEET S OF STEEL-PIPE WITNESS POST,
AQ0389'AND 0.1 FOOT BELOW GENERAL LEVEL OF THE GROUND.
AQ0389'
AQ0389'R.M. NO. 2 IS 49 FEET S OF CENTER LINE OF HWY., 1.0 FEET LOWER
AQ0389'THAN SAME, 1.5 FEET N OF A STEEL-PIPE WITNESS POST, AND
AQ0389'FLUSH WITH THE GROUND.
AQ0389'
AQ0389'THE AZIMUTH MARK IS 235.8 FEET E OF E END OF 1- X 27-FOOT
AQ0389'CONCRETE HEADWALL OF A TRIPLETS CULVERT OF 24-INCH CONCRETE
AQ0389'PIPES UNDER THE HWY., 147 FEET E OF CONCRETE R/W MARKER, 50
AQ0389'FEET N OF CENTER LINE OF HWY., 2.0 FEET LOWER THAN SAME, 1.4
AQ0389'FEET E OF STEEL WITNESS POST, AND FLUSH WITH THE GROUND. THE
AQ0389'DISTANCE GIVEN ABOVE IS RECKONED WITH THE AID OF HWY. SURVEY
AQ0389'STATIONING.
AQ0389
AQ0389 STATION RECOVERY (1973)
AQ0389
AQ0389'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 1973
AQ0389'17.8 MI S FROM ST AUGUSTINE.
AQ0389'FROM THE INTERSECTION OF U.S. 1 AND STATE ROAD 16 IN ST. AUGUSTINE
AQ0389'PROCEED WEST ON STATE ROAD 16 FOR ABOUT 5.4 MILES TO INTERSTATE
AQ0389'ROUTE 95 THEN SOUTH ON INTERSTATE ROUTE 95 FOR ABOUT 12.3 MILES TO
AQ0389'STATE ROAD 206 THEN WEST FOR ABOUT 0.05 MILE AND STATION MARK,
AQ0389'WHICH IS SET IN THE TOP OF A CONCRETE MONUMENT 2 INCHES BELOW
AQ0389'THE GROUND. IT IS 2.7 FEET NORTHWEST OF A METAL WITNESS POST
AQ0389'AND 47.5 FEET SOUTHEAST OF CENTERLINE OF STATE ROAD 206. SECTION
AQ0389'2, T 9 S, R 29 E.
AQ0389
AQ0389 STATION RECOVERY (1973)
AQ0389
AQ0389'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1973 (CBM)
AQ0389'STATION RECOVERED IN GOOD CONDITION, AS DESCRIBED BY J. BULL
AQ0389'IN 1965. A DIFFERENCE WAS NOTICED IN DISTANCE TO REFERENCE
AQ0389'MARK NUMBER 1, DISTANCE BEING 29.746 METERS, OR 97.60 FEET.
AQ0389
AQ0389 STATION RECOVERY (1988)
AQ0389
AQ0389'RECOVERY NOTE BY US POWER SQUADRON 1988 (JD)
AQ0389'RECOVERED IN GOOD CONDITION.
AQ0389

AQ0389

STATION RECOVERY (1999)

AQ0389'RECOVERY NOTE BY FL DEPT OF ENV PRO 1999 (JLM)

AQ0389' RECOVERED AS DESCRIBED.

***** ORIGINAL DESCRIPTION *****

SSN: 0050
Designation: G027 PRIM MK
PID:
Approx. Latitude: 295458N State: FL
Approx. Longitude: 0812124W County: ST JOHNS
Approx. Elevation: Disk From: FL-109
Stamping: ST JOHNS COUNTY G027 GPS MONUMENT

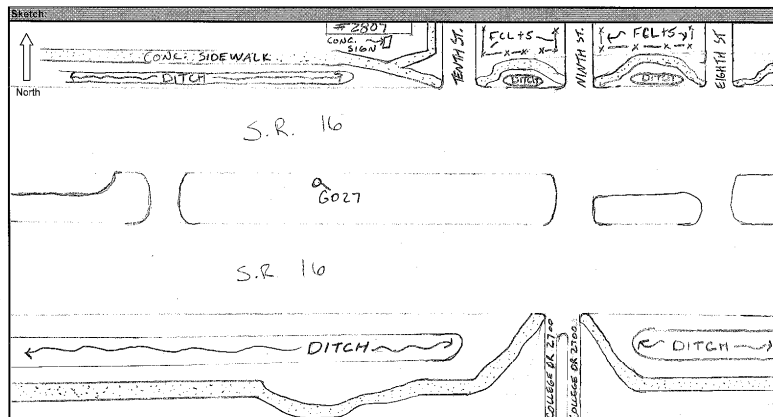
Surface Mark-
Type: Survey disk
Magnetic code: R
Setting: SET INTO THE TOP OF A CONCRETE MONUMENT
Rod depth: Sleeve Depth:

****Mark is suitable for GPS

Set by ST JOHNS in 1995, Chief of party TMD.

DESCRIBED BY ST JOHNS COUNTY, GPS SURVEY (1995).

TO REACH PRIMARY STATION LOCATED WEST OF ST AUGUSTINE CITY LIMITS FROM THE INTERSECTION OF US1 AND STATE ROAD 16, PROCEED WEST ON SR 16 FOR 1.9 MILES (3.1 KM) TO STATION IN THE MEDIAN OF DIVIDED HIGHWAY. STATION IS A BRASS DISK, STAMPED ST JOHNS COUNTY GPS MONUMENT G027, SET IN THE TOP OF A POURED IN PLACE CONCRETE MONUMENT. IT IS 0.8 FEET (24.4 CM) BELOW GROUND LEVEL, 23.3 FEET (7.1 M) SOUTH OF CENTERLINE OF WEST BOUND SR 16, 76.7 FEET (23.4 M) WEST OF CENTERLINE OF TENTH ST, AND 357.0 FEET (108.8 M) WEST OF CENTERLINE OF MAIN ENTRANCE OF ST JOHNS RIVER COMMUNITY COLLEGE.



GPS Station Recovery - GPS Log Sheet																
Project Name: St John's County 2008	Operator Name: <u>William Smith</u> Job No.: <u>67954 & 60581</u>															
Station Name: <u>L15</u>	Date of Survey: <u>2/11/08</u> Julian Day: _____															
WGS 84 Coordinates: Latitude: <u>30°03'35.61754"N</u> Longitude: <u>81°29'33.70072"W</u> Ellip. Height: <u>-20.801 Meters</u>	File Name: _____ Session #: _____ Type of Receiver: <u>TRIMBLE 5700</u> Type of Antenna: <u>ZEPHYR</u>															
Type of Mark: <u>1/2" red with cap</u>	Antenna Height: <u>6.562</u> Circle one: Circle one: USFT ARP Meters Phase Center															
Stamping on Mark: <u>SJC TRAV</u>	Start Time (local): <u>9.53 am</u> Weather Condition: <u>Sunny Clear Skies</u>															
To-Reach Description: <u>From intersection of SR 16 and Interstate 95 head North on 95. Get off at 210 east. Go East on 210 to first road on right which is Sandy Creek Parkway. Go South on Sandy Creek Parkway until you reach a two track road on left with power lines over head. Go East and L15 is on South side.</u>	Witness Ties: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Reference Object</th> <th>Distance</th> <th>Azimuth</th> </tr> </thead> <tbody> <tr><td>1)</td><td></td><td></td></tr> <tr><td>2)</td><td></td><td></td></tr> <tr><td>3)</td><td></td><td></td></tr> <tr><td>4)</td><td></td><td></td></tr> </tbody> </table>	Reference Object	Distance	Azimuth	1)			2)			3)			4)		
Reference Object	Distance	Azimuth														
1)																
2)																
3)																
4)																
Sketch:																

SECTION 6

SECTION 6: GPS CONTROL DIAGRAM AND DATA CD ROM

This section contains a graphical representation of the new and existing control stations used for this photogrammetric mapping project.

This section also contains a CD ROM with all the pertinent files pertaining to this project.

