

Survey Control

Reference and Recovery Data

George Mason University

Fairfax East Campus Fairfax, Virginia



Prepared For:

George Mason University

4400 University Drive Fairfax, Virginia 22030

Prepared By:

christopher consultants, ltd.

engineering surveying land planning 9417 innovation drive manassas, virginia 20110



<u>Synopsis</u>

Provide the initial thirty-two (32) inter-visible control points surrounding the George Mason University Fairfax's East Campus. Control Points to be set around the exterior limits of the campus and include a cross loop through the center of the campus. Each monument is to be inter-visible with two adjacement monuments.

ccl was contracted in April 2012 provided control points as described. Each point consisted of a 3" aluminum rounded disk with a machined graphic of the GMU brand logo and a punch-scribed identification name on each. Each aluminum disk was molded into a 4" x 4" x 2' long concrete encasement and each was placed by hand into hand-dug holes and were compacted flush to the finished grade. The control network was established using convention traverse methods with a Leica TCR 405 series total station for the horizontal positional qualities. Each station was traversed through with a mean angle and distance collected through four sets of angle turns to form a closed loop. Elevations were established on each monument through a closed bench loop using a Leica DNA 03 Digital Level to establish elevations. On GPS selected monuments, four Leica GPS 1200 systems in static sessions over a one day period. Session times ranged between twenty to twenty five minutes depending on vector distance and each GPS unit was set to a 15° mask angle and to record on a 15 second interval.

Control network was referenced to the National Geodetic Control Network utilizing four (4) First Order Horizontal and Third Order Vertical Monuments. Control network was further referenced to the Project control network specific to George Mason University utilizing eight (8) onsite christopher consultants control points.

Adhering to FGDC-STD-007.4-2002, Standards for Architecture, Engineering, Construction (A/E/C) and Facility Management of the Geospactial Position Accuracy Standards, as published by the Federal Geographic Data Committee of the U.S. Geological Survey, the network quality able to achieved was:

O Horizontal Second-Order, Class I (1:50,000)

Vertical First-Order, Class I

Contents of Report

1.) Overall Site Map

Delineates the location of each control point set in relation to the site limits. Vector delineation shown to show overall geometry of network.

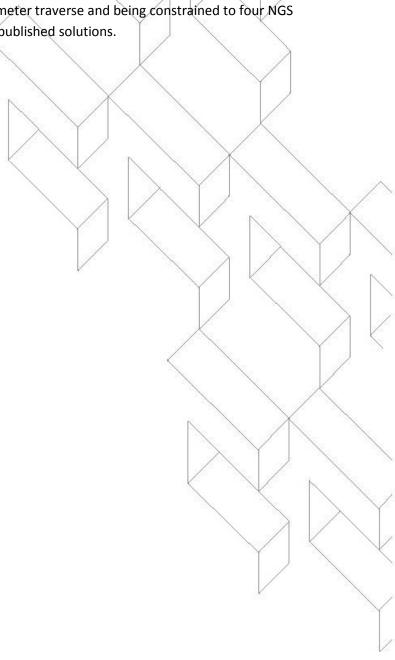
2.) Recovery Datasheets

FX Points 1 through 36. Denotes adjusted horizontal and vertical data of each point within the GPS Network. Data shown includes GRID Coordinates, WORLD Coordinates and PROJECT Coordinates. Datasheets also provide Location Sketch of each point to physical features adjacent to set points.



Addendum:

In August of 2012 CCL revisited the Fairfax campus to install the remainder of the Geodetic control monuments that were now accessible due to the completion of construction on Aquia River Lane. Adhering to all in place control network standards, CCL installed and coordinated the last four Geodetic monuments in the control network and arrived at a final overall network solution, hereon referred to as the August 2012 adjustment, for the Gmu Fairfax East Campus. The August 2012 adjustment incorporating; two interior cross loops, the perimeter traverse and being constrained to four NGS passive monuments is to supersede all previous published solutions.



GEORGE MASON UNIVERITY GEODETIC SURVEY CONTROL EX-7 UNIVERSITY DRIVE PARKING DECK PATRIOT CIRCLE FIELD HOUSE AND MODULE STAFFORDSHIRE LANE SHENANDOAH RIVER LANE MASON POND DRIVE PATRIOT CIRCLE PATRIOT CIRCLE FAIRFAX CAMPUS **christopher** consultants engineering - surveying - land planning STATION KEY MAP 9417 Innovation Drive Manassas, VA 20110 703.393.9887 fax 703.393.9076

HORIZONTAL DATA LOCATION SKETCH (NOT TO SCALE)

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

6,987,413.234 11.821460.787

LATITUDE: LONGITUDE:

> 38°49'47.03713" N 77°18'41.64133" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 11,821,460.721 6.987.413.353

00°44'30.2" CONVERGENCE (): +

COMBINED FACTOR: 0.999939933

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

423.90

PHOTO AT STATION:



STATION DESIGNATION

FX-01

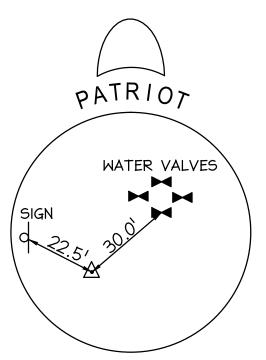
UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. : 83026.043.13 SET BY : M. LOVELAND PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

Date Set: **April 2012**

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP

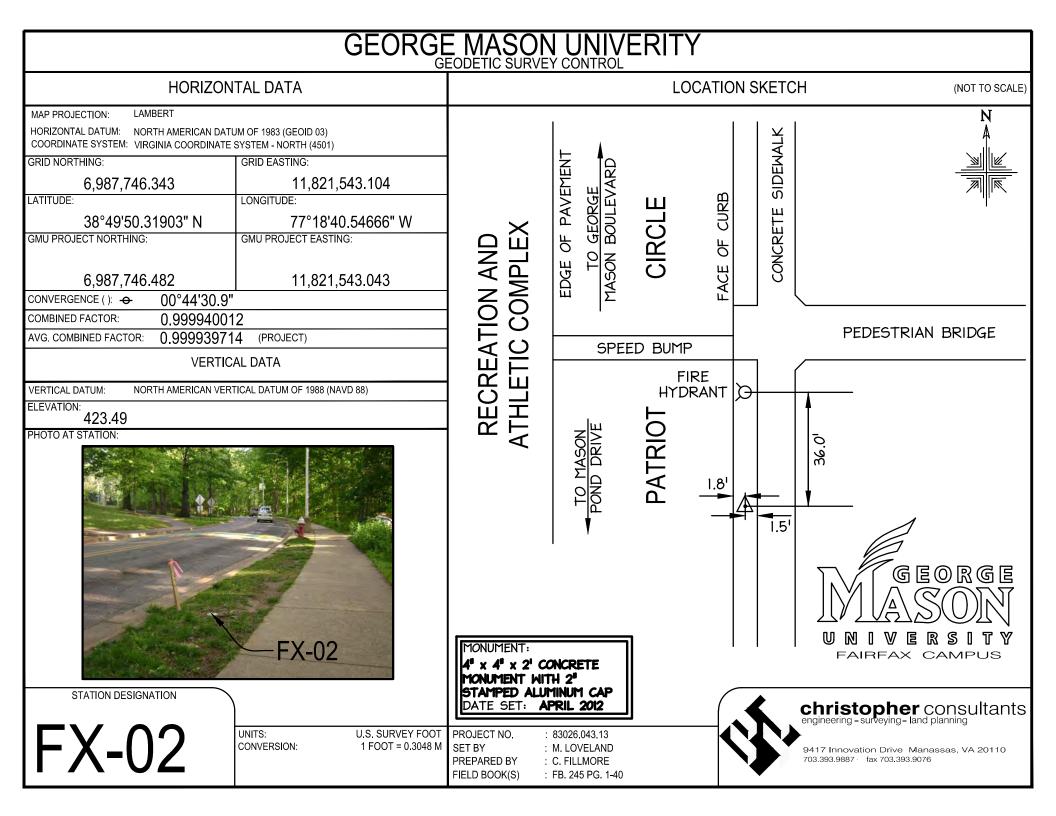
MONUMENT:







christopher consultants engineering - surveying - land planning



HORIZONTAL DATA LOCATION SKETCH (NOT TO SCALE)

ASPHALT TRAIL

CONCRETE SIDEWALK
EDGE OF PAVEMENT

BANISTER CREEK COURT

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

GRID EASTING:

6,988,018.263

11,821,477.976

LATITUDE:

LONGITUDE:

38°49'53.01501" N

77°18'41.32514" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.988.018.419

11,821,477.911

CONVERGENCE (): +

00°44'30.4"

COMBINED FACTOR:

0.999939954

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

425.71

PHOTO AT STATION:



STATION DESIGNATION

FX-03

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO.

SET BY PREPARED BY FIELD BOOK(S)

: M. LOVELAND : C. FILLMORE : FB. 245 PG. 1-40

: 83026.043.13

MONUMENT:

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP DATE SET: APRIL 2012



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NIVERSITY

FAIRFAX CAMPUS

GEORGE

9417 Innovation Drive Manassas, VA 20110

HORIZONTAL DATA LOCATION SKETCH (NOT TO SCALE)

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

> 6,988,258.889 11,821,501.997 LONGITUDE:

38°49'55,39027" N 77°18'40.98223" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 6.988.259.059 11.821.501.933

00°44'30.6" CONVERGENCE (): +

COMBINED FACTOR: 0.999940187

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

LATITUDE:

421.72

PHOTO AT STATION:



STATION DESIGNATION

FX-04

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO.

SET BY PREPARED BY

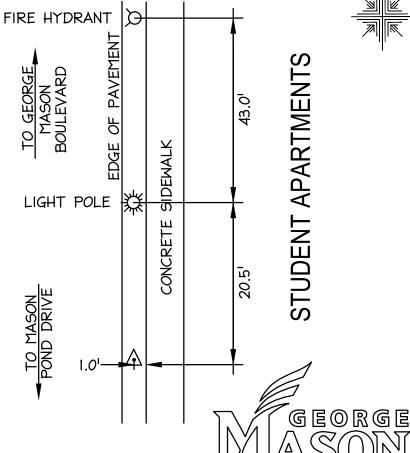
MONUMENT:

: 83026.043.13 : M. LOVELAND : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

x 4" x 2' CONCRETE IONUMENT WITH 2" STAMPED ALUMINUM CAP

DATE SET: APRIL 2012

CIRCLE EDGE OF PAVEMENT **PATRIOT**



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9417 Innovation Drive Manassas, VA 20110

FAIRFAX CAMPUS

ERSITY

703.393.9887 fax 703.393.9076

1 V

HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

LAMBERT

GRID NORTHING:

MAP PROJECTION:

GRID EASTING:

6,988,730.167

11.821.610.599

LATITUDE:

LONGITUDE:

38°50'00.03445" N

77°18'39.53275" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.988.730.366

11.821.610.543

CONVERGENCE (): + COMBINED FACTOR:

00°44'31.5" 0.999939857

0.999939714

AVG. COMBINED FACTOR:

(PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

430.39

PHOTO AT STATION:



STATION DESIGNATION

FX-05

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

SET BY

MONUMENT:

PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

PROJECT NO. : 83026.043.13

Date Set: **April 2012**

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP

: M. LOVELAND

THE THE PARTY OF T

AQUIA CREEK LANK

LOCATION SKETCH

STOP SIGN

GEORGE

 $\mathbb{N} \cup \mathbb{V}$ ERSITY FAIRFAX CAMPUS

(NOT TO SCALE)



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HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

LAMBERT

GRID NORTHING:

MAP PROJECTION:

GRID EASTING:

6,988,968.268

11.821.822.586

LATITUDE:

LONGITUDE:

38°50'02.36068" N

77°18'36.81492" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.988.968.481

11.821.822.542

CONVERGENCE (): +

00°44'33.2"

COMBINED FACTOR:

0.999939545

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

437.80

PHOTO AT STATION:



STATION DESIGNATION

FX-06

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO.

: 83026.043.13 SET BY PREPARED BY FIELD BOOK(S)

MONUMENT:

: M. LOVELAND : C. FILLMORE : FB. 245 PG. 1-40

x 4" x 2' CONCRETE 10NUMENT WITH 2" Stamped aluminum cap

DATE SET: APRIL 2012

EDGE OF PAVEMENT

EDGE OF PAVENENT **PARKING LOT** CONCRETE OCCOQUAN RIVER LANE **STEPS** SIDEWALK (MH) MANHOLE

FACULTY

PATRIOT CIRCLE

LOCATION SKETCH

EDGE OF PAVEMENT GEORGE

NIVERSITY

(NOT TO SCALE)

FAIRFAX CAMPUS

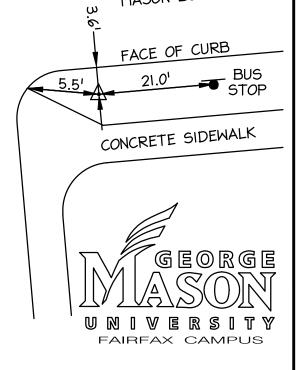
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9417 Innovation Drive Manassas, VA 20110

GEORGE MASON UNIVERITY GEODETIC SURVEY CONTROL HORIZONTAL DATA LOCATION SKETCH MAP PROJECTION: LAMBERT HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501) GRID NORTHING: GRID EASTING: 6,989,346.774 11.821.835.144 LATITUDE: LONGITUDE: EDGE OF PAVEMENT 38°50'06.10020" N 77°18'36.59423" W GMU PROJECT NORTHING: GMU PROJECT EASTING: UNIVERSITY DRIVE 6.989.347.010 11.821.835.101 TO GEORGE MASON BOULEVARD 00°44'33.4" CONVERGENCE (): +

TO OX ROAD

EDGE OF PAVEMENT LANE



(NOT TO SCALE)

FX-07

0.999939051

0.999939714

VERTICAL DATA

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

(PROJECT)

STATION DESIGNATION

FX-07

COMBINED FACTOR:

VERTICAL DATUM:

PHOTO AT STATION:

ELEVATION:

AVG. COMBINED FACTOR:

449.56

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. : 83026.043.13 SET BY PREPARED BY

MONUMENT:

: M. LOVELAND : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

x 4" x 2' CONCRETE 10NUMENT WITH 2" Stamped aluminum cap

DATE SET: APRIL 2012



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HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

LAMBERT

6,989,506.033 11.822.361.555

LATITUDE: LONGITUDE:

> 38°50'07.60682" N 77°18'29.91583" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 6.989.506.278 11.822.361.543

00°44'37.5" CONVERGENCE (): + 0.999938672 COMBINED FACTOR:

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

458.06

PHOTO AT STATION:

MAP PROJECTION:



STATION DESIGNATION

FX-08

UNITS: CONVERSION:

U.S. SURVEY FOOT 1 FOOT = 0.3048 M

SET BY

MONUMENT:

PROJECT NO. : 83026.043.13 : M. LOVELAND PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

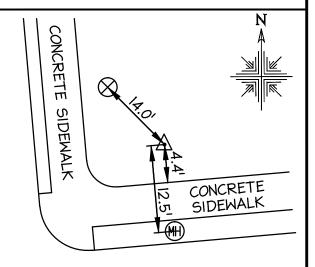
DATE SET: APRIL 2012

x 4" x 2' CONCRETE 10NUMENT WITH 2" Stamped aluminum cap

EDGE 유 PAVEMENT

G

LOCATION SKETCH



(NOT TO SCALE)

UNIVERSITY DRIVE

TO OCCOQUAN LANE

EDGE

유 PAVEMENT

EDGE OF PAVEMENT





christopher consultants engineering - surveying - land planning

LIGHT

POLE

FACE OF CURB

MASON BOULEVARD

HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

LAMBERT

GRID NORTHING: 6,989,557.165

11.823.241.529

LATITUDE:

MAP PROJECTION:

LONGITUDE:

GRID EASTING:

38°50'07.99914" N

77°18'18.78710" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.989.557.413

11.823241.571

CONVERGENCE (): + COMBINED FACTOR:

00°44'44.5" 0.999938446

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

462.94

PHOTO AT STATION:



STATION DESIGNATION

FX-09

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO.

SET BY PREPARED BY

: M. LOVELAND : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

: 83026.043.13

PARKING GARAGE

MONUMENT:

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP DATE SET: APRIL 2012

LOCATION SKETCH

45.0'

2

35.

christopher consultants engineering - surveying - land planning

NIVERSITY

FAIRFAX CAMPUS

GEORGE

(NOT TO SCALE)

9417 Innovation Drive Manassas, VA 20110 703.393.9887 fax 703.393.9076

CHAIN LINK * FENCE CONCRETE SIDEWALK UNIVERSITY DRIVE MH) TANKHOLE

HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

LAMBERT

GRID NORTHING: GRID EASTING:

> 6,989,347,439 11,823,407.078

LATITUDE: LONGITUDE:

38°50'05.90493" N 77°18'16.72955" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 11.823.407.129 6.989.347.675

00°44'45.7" CONVERGENCE (): + COMBINED FACTOR: 0.999938457

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

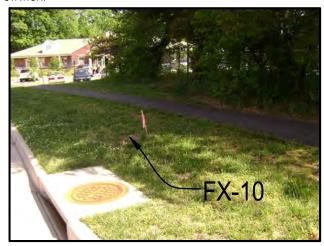
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

461.90

PHOTO AT STATION:

MAP PROJECTION:



STATION DESIGNATION

FX-10

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY

: M. LOVELAND PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

: 83026.043.13

FACE

유

CURB

5.81 A 6.3

(MH)

MANHOLE

LOCATION SKETCH

ASPHALT

TRAIL

GEORGE BOULEVARD UNIVERSITY

MASON

EDGE 유 PAVEMENT

TO STAFFORDSHIRE LANE

MONUMENT:

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP DATE SET: APRIL 2012



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FAIRFAX CAMPUS

GEORGE

ERSITY

CHAIN LINK FENCE

(NOT TO SCALE)

WATER

TANK

9417 Innovation Drive Manassas, VA 20110

703.393.9887 fax 703.393.9076

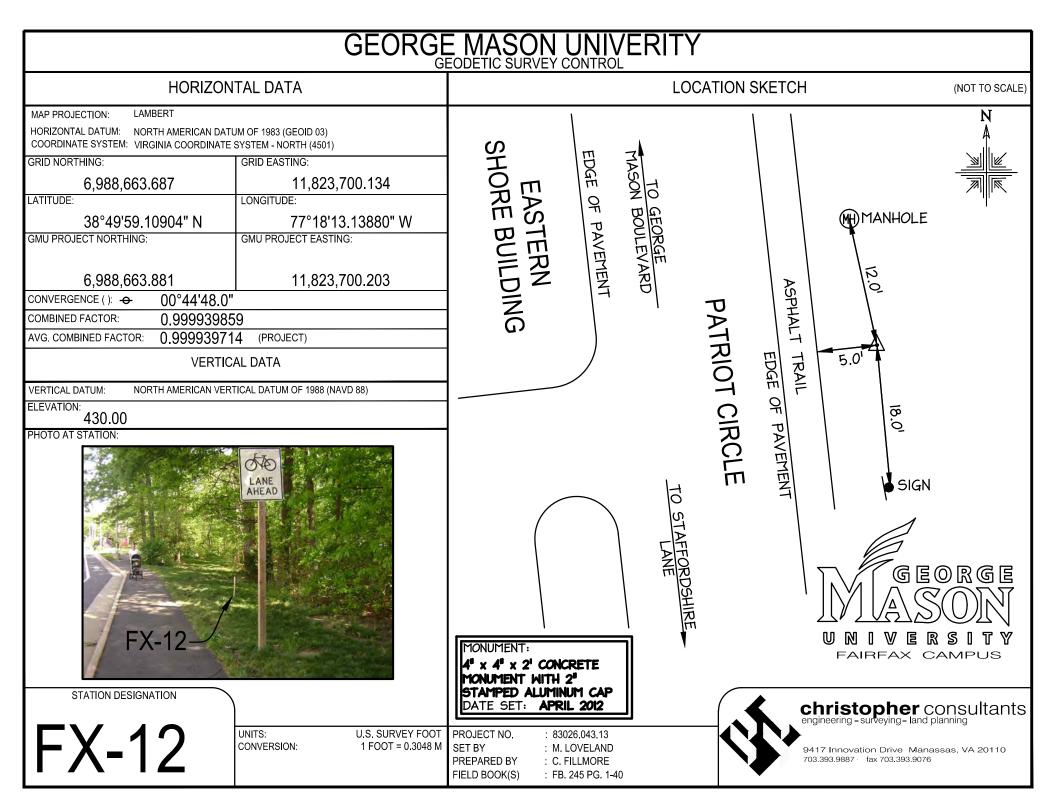
1 V

GEORGE MASON UNIVERITY GEODETIC SURVEY CONTROL HORIZONTAL DATA LOCATION SKETCH (NOT TO SCALE) MAP PROJECTION: LAMBERT HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) TO GEORGE MASON BOULEVARD COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501) GRID NORTHING: GRID EASTING: 6,989,070.988 11.823.452.037 LATITUDE: LONGITUDE: PATRIOT CIRCLE 38°50'03.16672" N 77°18'16,20690" W GMU PROJECT NORTHING: GMU PROJECT EASTING: EDGE 6.989.071.207 11.823.452.091 유 00°44'46.1" EDGE OF PAVEMENT CONVERGENCE (): + PAVEMENT 0.999938932 COMBINED FACTOR: PATRIOT CIRCLE 0.999939714 AVG. COMBINED FACTOR: (PROJECT) **VERTICAL DATA** VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) EDGE OF PAVEMENT ELEVATION: 450.94 PHOTO AT STATION: MANHOLE (M) STAFFORDSHIRE LANE CONCRETE EDGE 유 PAVEMENT GEORGE SIDEWALK MANHOLE IVERSITY MONUMENT: FAIRFAX CAMPUS x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP STATION DESIGNATION Date Set: **April 2012**

FX-11

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO. : 83026.043.13
SET BY : M. LOVELAND
PREPARED BY : C. FILLMORE
FIELD BOOK(S) : FB. 245 PG. 1-40

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GEORGE MASON UNIVERITY GEODETIC SURVEY CONTROL HORIZONTAL DATA LOCATION SKETCH (NOT TO SCALE) MAP PROJECTION: LAMBERT HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) **EDGE** COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501) CONCRETE SIDEWALK 17 GRID NORTHING: GRID EASTING: STAFFORDSHIRE LANE 6,988,303.556 11.823.792.828 유 LATITUDE: LONGITUDE: PAVEMENT 38°49'55.53758" N 77°18'12.02678" W **MANHOLE** 12.5 8.61 GMU PROJECT NORTHING: GMU PROJECT EASTING: MANHOLE (MH) CONCRETE SIDEWALK 11.823.792.902 6.988.303.729 00°44'48.7" CONVERGENCE (): + EDGE OF PAVEMENT COMBINED FACTOR: 0.999940426 0.999939714 AVG. COMBINED FACTOR: (PROJECT) RIVANNA RIVER WAY **VERTICAL DATA** VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) ELEVATION: 416.81 EDGE OF PAVEMENT PHOTO AT STATION: EDGE 유 GEORGE PAVEMENT NIVERSITY MONUMENT: FAIRFAX CAMPUS x 4" x 2' CONCRETE 10NUMENT WITH 2" Stamped aluminum cap STATION DESIGNATION DATE SET: APRIL 2012

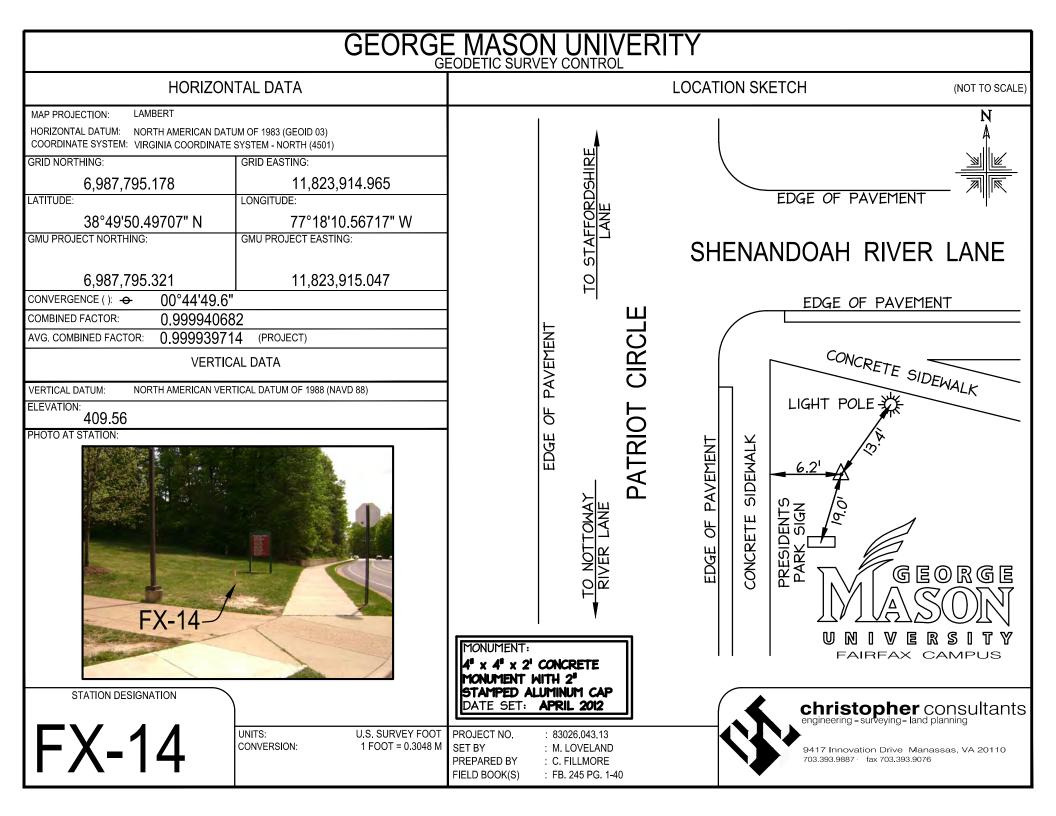
FX-13

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY PREPARED BY

: 83026.043.13 : M. LOVELAND : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

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HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03)

LAMBERT

COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501) GRID NORTHING: GRID EASTING:

6,987,455.045 11.823.756.777

LATITUDE: LONGITUDE:

> 38°49'47.15560" N 77°18'12.62210" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 11.823.756.849 6.987.455.167

00°44'48.3" CONVERGENCE (): + COMBINED FACTOR: 0.999941012

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

401.42

PHOTO AT STATION:

MAP PROJECTION:



STATION DESIGNATION

FX-15

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY

MONUMENT:

: 83026.043.13 : M. LOVELAND PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

x 4" x 2' CONCRETE IONUMENT WITH 2"

LOCATION SKETCH

CONCRETE SIDEMALK **PAVEMENT** LIGHT POLE P EDGE 7.3

CONCRETE SIDEWALK

EDGE OF PAVEMENT

SANDY **CREEK WAY**

EDGE OF PAVEMENT

GEORGE IVERSITY

FAIRFAX CAMPUS

(NOT TO SCALE)



CIRCLE

OF PAVEMENT EDGE

O NOTTOWAY RIVER LANE

STAMPED ALUMINUM CAP DATE SET: APRIL 2012

GEORGE MASON UNIVERITY GEODETIC SURVEY CONTROL HORIZONTAL DATA LOCATION SKETCH (NOT TO SCALE) MAP PROJECTION: LAMBERT HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501) STAFFORDSHIRE GRID NORTHING: GRID EASTING: 6,987,024.096 11.823.822.461 LATITUDE: LONGITUDE: 38°49'42.88766" N 77°18'11.86309" W EDGE OF PAVEMENT GMU PROJECT NORTHING: GMU PROJECT EASTING: **PRESIDENTS T**0 11.823.822.537 6.987.024.193 PARK DRIVE **PAVEMENT** 00°44'48.8" CONVERGENCE (): + COMBINED FACTOR: 0.999941362 EDGE OF PAVEMENT 0.999939714 AVG. COMBINED FACTOR: (PROJECT) (MH) MANHOLE **VERTICAL DATA** R CONCRETE SIDEWALK EDGE VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) ELEVATION: 392.50 **PAVEMENT** PHOTO AT STATION: SIDEMALK **LIBERTY** CONCRETE **SQUARE** SIGN GEORGE FX-16 1 W ERSITY MONUMENT: FAIRFAX CAMPUS x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP STATION DESIGNATION DATE SET: APRIL 2012 **christopher** consultants engineering - surveying - land planning FX-16 UNITS: U.S. SURVEY FOOT PROJECT NO. : 83026.043.13 CONVERSION: 1 FOOT = 0.3048 M SET BY : M. LOVELAND 9417 Innovation Drive Manassas, VA 20110 703.393.9887 fax 703.393.9076 PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

HORIZONTAL DATA

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

GRID EASTING:

6,986,613.758

11.823.656.422

LATITUDE:

LONGITUDE:

38°49'38.85330" N

77°18'14.02871" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.986.613.830

11.823.656.488

CONVERGENCE (): + COMBINED FACTOR:

00°44'47.4"

0.999941702

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

383.90

PHOTO AT STATION:



STATION DESIGNATION

FX-17

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO.

MONUMENT:

EDGE OF PAVEMENT

SET BY PREPARED BY

: M. LOVELAND : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

: 83026.043.13

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP

Date Set: **April 2012**

PATRIOT CIRCLE

LOCATION SKETCH

YORK RIVER ROAD

EDGE OF PAVEMENT

EDGE OF PAVEMENT

CONCRETE SIDEWALK

GUARD RAIL

CONCRETE **HEADWALL**

(NOT TO SCALE)

TO STAFFORDSHIRE EDGE OF PAVEMENT CONCRETE SIDEWALK RAIL

GEORGE

SITY E FAIRFAX CAMPUS

christopher consultants engineering - surveying - land planning

9417 Innovation Drive Manassas, VA 20110

HORIZONTAL DATA

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

GRID EASTING:

6,986,388.463

11.823.508.009

LATITUDE:

LONGITUDE:

38°49'36.64560" N

77°18'15.94108" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.986.388.522

11.823.508.066

CONVERGENCE (): + COMBINED FACTOR:

00°44'46.2"

0.999941440

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

388.56

PHOTO AT STATION:



STATION DESIGNATION

FX-18

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY

MONUMENT:

PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

x 4" x 2' CONCRETE IONUMENT WITH 2" STAMPED ALUMINUM CAP

DATE SET: APRIL 2012

: 83026.043.13

: M. LOVELAND

PATRIOT CIRCLE EDGE OF PAVEMENT EDGE OF PAVEMENT EDGE OF PAVEMENT **AQUATIC AND FITNESS CENTER**

LOCATION SKETCH



(NOT TO SCALE)



HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

LAMBERT

GRID NORTHING:

MAP PROJECTION:

GRID EASTING:

6,986,305.022

11.823.266.136

LATITUDE:

LONGITUDE:

38°49'35.85200" N

77°18'19.01101" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.986.305.075

11.823.266.179

CONVERGENCE (): +

00°44'44.3"

COMBINED FACTOR:

0.999941461

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

387.82

PHOTO AT STATION:



STATION DESIGNATION

FX-19

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY

PREPARED BY FIELD BOOK(S)

MONUMENT:

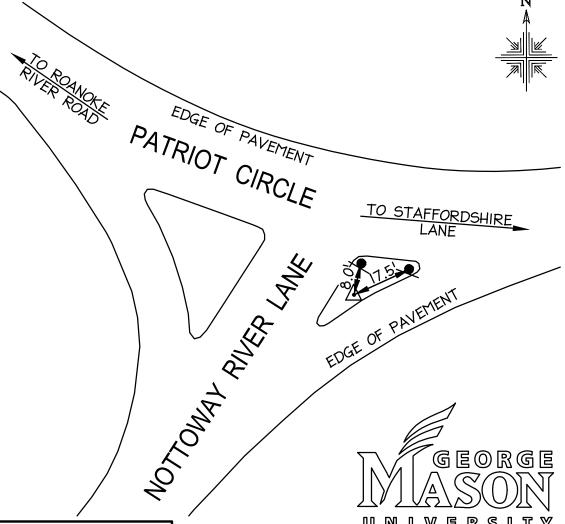
: C. FILLMORE : FB. 245 PG. 1-40

: 83026.043.13

DATE SET: APRIL 2012

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP

: M. LOVELAND



LOCATION SKETCH



(NOT TO SCALE)



HORIZONTAL DATA

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

11.822.863.878

6,986,565.553 LATITUDE:

LONGITUDE:

GRID EASTING:

38°49'38.47879" N

77°18'24.05097" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.986.565.621

11.822.863.896

CONVERGENCE (): +

00°44'41.2"

COMBINED FACTOR:

0.999941878

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

380.07

PHOTO AT STATION:



STATION DESIGNATION

FX-20

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO. : 83026.043.13

PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

SET BY : M. LOVELAND

LOCATION SKETCH (NOT TO SCALE) MANHOLE ASPHALT' TRAIL 30.51 5.01 BRICK CROSSING SPEED BUITE CONCRETE EDGE OF PAVEMENT MANHOLE SPED BUMP PATRIOT CIRCLE GEORGE NIVERSITY

MONUMENT:

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP DATE SET: APRIL 2012



christopher consultants engineering - surveying - land planning

FAIRFAX CAMPUS

HORIZONTAL DATA

MAP PROJECTION: LAMBERT HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03)

COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

> 6,986,823.929 11.822.147.812

LATITUDE: LONGITUDE:

> 38°49'41.12447" N 77°18'33.05661" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 6.986.824.014 11.822.147.788

00°44'35.6" CONVERGENCE (): + COMBINED FACTOR: 0.999941293

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

393.28

PHOTO AT STATION:



STATION DESIGNATION

FX-21

UNITS: CONVERSION:

U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY

: M. LOVELAND PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40 LOCATION SKETCH

MANHOLE (MH) MASON **POND**

CONCRETE SIDEWALK

EDGE OF PAVEMENT

TO NOTTOWAY

(NOT TO SCALE)

PATRIOT CIRCLE

TO ROANOKE RIVER ROAD

EDGE OF PAVEMENT

PATRIOT CENTER



MONUMENT: x 4" x 2' CONCRETE 10NUMENT WITH 2" Stamped aluminum cap

DATE SET: APRIL 2012

: 83026.043.13



christopher consultants engineering - surveying - land planning

HORIZONTAL DATA

LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03)

COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

MAP PROJECTION:

GRID EASTING:

6,986,645.227

11.821.846.396

LATITUDE:

LONGITUDE:

38°49'39.39682" N

77°18'36.89451" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.986.645.300

11.821.846.354

CONVERGENCE (): +

00°44'33.2"

COMBINED FACTOR:

0.999940766

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

403.65

PHOTO AT STATION:



STATION DESIGNATION

FX-22

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO.

FIELD BOOK(S)

SET BY PREPARED BY

MONUMENT:

EDGE OF

PAVEMENT

CIRCLE

x 4" x 2' CONCRETE 10NUMENT WITH 2" Stamped aluminum cap

DATE SET: APRIL 2012

: M. LOVELAND : C. FILLMORE : FB. 245 PG. 1-40

: 83026.043.13

EDGE OF PAVEMENT PATRIOT CIRCLE PATRIOT CIRCLE

LOCATION SKETCH

MASON POND

PATRIOT CENTER

LIGHT

POLE

(NOT TO SCALE)

ON OF THE STREET GEORGE

IVERSITY FAIRFAX CAMPUS

christopher consultants engineering - surveying - land planning

9417 Innovation Drive Manassas, VA 20110

HORIZONTAL DATA

LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

MAP PROJECTION:

GRID EASTING:

6,986,839.095

11,821,486.090

LATITUDE:

LONGITUDE:

38°49'41.35913" N

77°18'41.41553" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.986.839.180

11,821,486.025

CONVERGENCE (): + COMBINED FACTOR:

00°44'30.3"

0.999940655

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

406.71

PHOTO AT STATION:



STATION DESIGNATION

FX-23

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

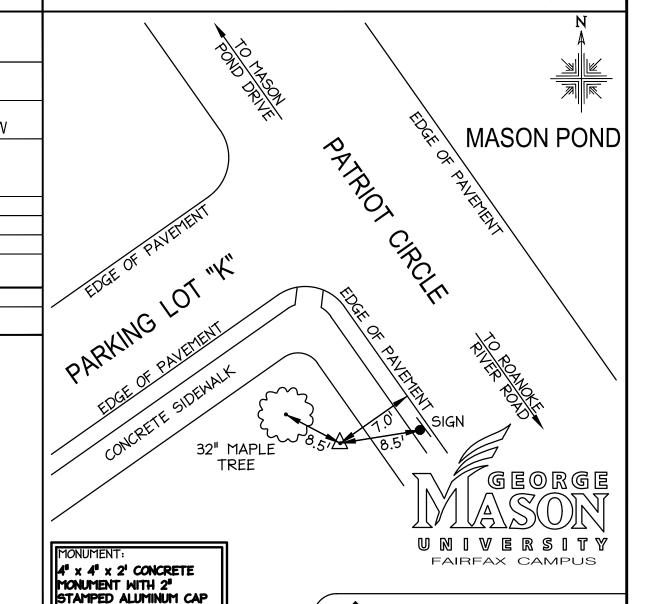
SET BY FIELD BOOK(S)

: C. FILLMORE : FB. 245 PG. 1-40

PROJECT NO.

Date Set: **April 2012**

: 83026.043.13 : M. LOVELAND PREPARED BY



LOCATION SKETCH

(NOT TO SCALE)

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9417 Innovation Drive Manassas, VA 20110

GEORGE MASON UNIVERITY GEODETIC SURVEY CONTROL HORIZONTAL DATA LOCATION SKETCH (NOT TO SCALE) MAP PROJECTION: LAMBERT HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501) GRID NORTHING: GRID EASTING: **PAVEMENT** 6,987,130.791 24" OAK 11,821,410.020 LATITUDE: LONGITUDE: TREE 38°49'44,25198" N 77°18'42,32902" W GMU PROJECT NORTHING: GMU PROJECT EASTING: 9 EDGE **PAVEMENT** 11.821.409.951 6.987.130.893 00°44'29.8" CONVERGENCE (): + COMBINED FACTOR: 0.999940368 MASON POND 0.999939714 AVG. COMBINED FACTOR: (PROJECT) R **VERTICAL DATA** EDGE SIGN VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) EDGE OF PAVEMENT ELEVATION: 413.77 PHOTO AT STATION: PARKING LOT "J" EDGE OF PAVEMENT GEORGE ERSITY **FX-24** MONUMENT: FAIRFAX CAMPUS x 4" x 2' CONCRETE

FX-24

STATION DESIGNATION

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY

: 83026.043.13 : M. LOVELAND PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

IONUMENT WITH 2" STAMPED ALUMINUM CAP

DATE SET: APRIL 2012

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HORIZONTAL DATA LOCATION SKETCH (NOT TO SCALE)

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

> 6,988,392.482 11.821.895.752

LATITUDE: LONGITUDE:

> 38°49'56.66027" N 77°18'35.98466" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 11821895,696 6.988392.681

00°44'33.7" CONVERGENCE (): + 0.999939411 COMBINED FACTOR:

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

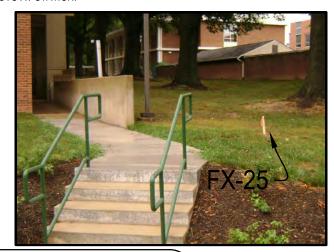
VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

438.70

PHOTO AT STATION:



STATION DESIGNATION

FX-25

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. : 83026.043.13 SET BY : M. LOVELAND

PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

4" x 2' CONCRETE MONUMENT WITH 2º STAMPED ALUMINUM CAP DATE SET: APRIL 2012

ROUR RIVER OF DEVERTER SIDENARY

GEORGE 7

NIVERSITY FAIRFAX CAMPUS



THOMPSON HALL
CONCRETE SIDEWALK

22.801

PT. 5236/30

christopher consultants engineering - surveying - land planning

HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03)

LAMBERT

COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

> 6,987,954.427 11.822.047.557

LATITUDE: LONGITUDE:

> 38°49'52,31111" N 77°18'34.13815" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 6.987.954.626 11.822.047.501

00°44'34.9" CONVERGENCE (): + COMBINED FACTOR: 0.999940290

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

418.68

PHOTO AT STATION:

MAP PROJECTION:



STATION DESIGNATION

FX-26

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO.

SET BY PREPARED BY FIELD BOOK(S)

MONUMENT:

: M. LOVELAND : C. FILLMORE : FB. 245 PG. 1-40

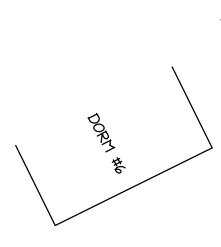
: 83026.043.13

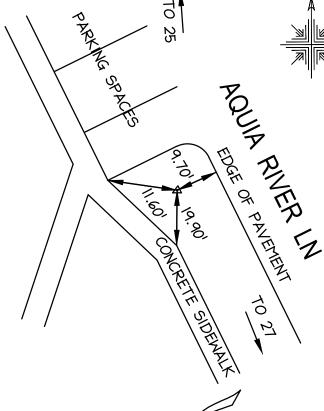
x 4" x 2' CONCRETE IONUMENT WITH 2º STAMPED ALUMINUM CAP

DATE SET: APRIL 2012

LOCATION SKETCH

(NOT TO SCALE)







NIVERSITY

FAIRFAX CAMPUS



9417 Innovation Drive Manassas, VA 20110

THASON POND DECK

HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

LAMBERT

GRID NORTHING:

MAP PROJECTION:

GRID EASTING:

6,987,634.008

11.822.205.523

LATITUDE:

LONGITUDE:

38°49'49.12385" N

77°18'32.19457" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.987.634.207

11.822.205.466

CONVERGENCE (): +

00°44'36.1"

COMBINED FACTOR:

0.999939478

AVG. COMBINED FACTOR:

0.999939714

(PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

434.46

PHOTO AT STATION:



STATION DESIGNATION

FX-27

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO. : 83026.043.13

SET BY PREPARED BY

: M. LOVELAND : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

MONUMENT: x 4" x 2' CONCRETE MONUMENT WITH 2º

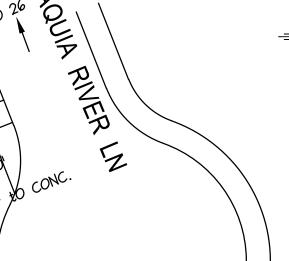
STAMPED ALUMINUM CAP DATE SET: APRIL 2012



EDGE OF PAVEMENT

christopher consultants engineering - surveying - land planning

9417 Innovation Drive Manassas, VA 20110 703.393.9887 fax 703.393.9076



(NOT TO SCALE)

LOCATION SKETCH

GEORGE

NIVERSITY FAIRFAX CAMPUS

HORIZONTAL DATA

LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

MAP PROJECTION:

GRID EASTING:

6,987,832.812

11.822.711.399

LATITUDE:

LONGITUDE:

38°49'51.02389" N

77°18'25.76958" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.987.832.957

11.822.711.409

CONVERGENCE (): + COMBINED FACTOR:

00°44'40.1"

0.999938983

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

445.27

PHOTO AT STATION:



STATION DESIGNATION

FX-28

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO. : 83026.043.13

10NUMENT WITH 2" STAMPED ALUMINUM CAP

PREPARED BY FIELD BOOK(S)

: C. FILLMORE : FB. 245 PG. 1-40

SET BY : M. LOVELAND

Date Set: **April 2012**

CONCRETE AREA CONCRETE AREA **DAVID** KING HALL GEORGE NIVERSITY MONUMENT: FAIRFAX CAMPUS x 4" x 2' CONCRETE

LOCATION SKETCH

christopher consultants engineering - surveying - land planning

9417 Innovation Drive Manassas, VA 20110

(NOT TO SCALE)

HORIZONTAL DATA

LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

MAP PROJECTION:

GRID EASTING:

6,988,032.005

11.823.076.440

LATITUDE:

LONGITUDE:

38°49'52.94580" N

77°18'21.12407" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.988.032.162

11.823.076.471

CONVERGENCE (): +

00°44'43.0"

COMBINED FACTOR:

0.999939370

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

437.91

PHOTO AT STATION:



STATION DESIGNATION

FX-29

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY

: 83026.043.13

Stamped aluminum cap

Date Set: **April 2012**

: M. LOVELAND PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

CONCRETE AREA SKYLINE **FITNESS CENTER** LIGHT POLE CONCRETE AREA **OVERHANG** GEORGE UNIVERSITY MONUMENT: FAIRFAX CAMPUS x 4" x 2' CONCRETE 10NUMENT WITH 2"

LOCATION SKETCH

(NOT TO SCALE)

christopher consultants engineering - surveying - land planning

9417 Innovation Drive Manassas, VA 20110

HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

LAMBERT

6,988,340.204 11.822.929.052

LATITUDE: LONGITUDE:

> 38°49'56.01096" N 77°18'22.93588" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 11.822.929.075 6.988.340.379

00°44'41.9" CONVERGENCE (): + COMBINED FACTOR: 0.999939253

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

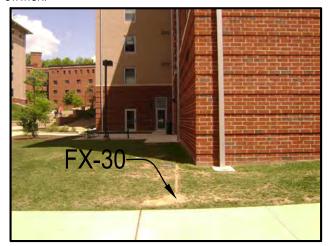
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

441.50

PHOTO AT STATION:

MAP PROJECTION:



STATION DESIGNATION

FX-30

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. : 83026.043.13 SET BY : M. LOVELAND

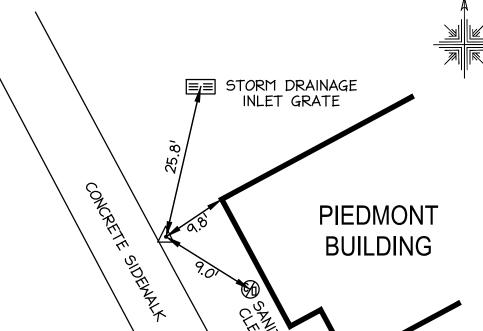
Date Set: **April 2012**

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP

MONUMENT:

PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

LOCATION SKETCH



6



FAIRFAX CAMPUS

PIEDMONT

BUILDING

(NOT TO SCALE)



christopher consultants engineering - surveying - land planning

9417 Innovation Drive Manassas, VA 20110

HORIZONTAL DATA

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

> 6,988,602.918 11.822.760.178

LATITUDE: LONGITUDE:

> 38°49'58.62931" N 77°18'25.02672" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 11.822.760.187 6.988.603.108

00°44'40.6" CONVERGENCE (): +

COMBINED FACTOR: 0.999960430

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

445.61

PHOTO AT STATION:



STATION DESIGNATION

FX-31

UNITS: CONVERSION:

U.S. SURVEY FOOT 1 FOOT = 0.3048 M

SET BY PREPARED BY

: M. LOVELAND : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

CONCRETE SIDEWALK **BLUERIDGE BUILDING TEMPORARY** REGISTRATION GEORGE BUILDING

LOCATION SKETCH

(NOT TO SCALE)

MONUMENT: x 4" x 2' CONCRETE

10NUMENT WITH 2" Stamped aluminum cap

DATE SET: APRIL 2012

PROJECT NO. : 83026.043.13

9417 Innovation Drive Manassas, VA 20110 703.393.9887 fax 703.393.9076

NIVERSITY

FAIRFAX CAMPUS

christopher consultants engineering - surveying - land planning

HORIZONTAL DATA LOCATION SKETCH (NOT TO SCALE)

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

> 6,989,000.557 11.822.579.141

LATITUDE: LONGITUDE:

> 38°50'02.58280" N 77°18'27,24915" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 6.989.000.772 11.822.579.142

00°44'39.2" CONVERGENCE (): +

COMBINED FACTOR: 0.999938450

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

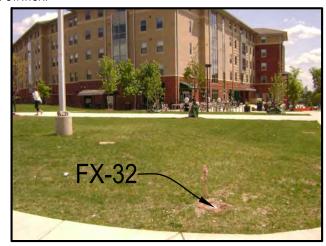
VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

460.77

PHOTO AT STATION:



STATION DESIGNATION

FX-32

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY

MONUMENT:

: 83026.043.13 : M. LOVELAND PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

x 4" x 2' CONCRETE 10NUMENT WITH 2" Stamped aluminum cap

DATE SET: APRIL 2012

EDGE OF PAVEMENT

TO GEORGE MASON BOULEVARD TO RAPPAHANNOCK RIVER LANE

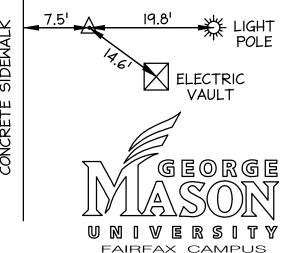
PATRIOT CIRCLE

EDGE OF PAVEMENT

CONCRETE SIDEWALK

SIDEMALK CONCRETE

CHESAPEAKE RIVER LANE





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CONCRETE

SIDEWALK

LIGHT\POLE

HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

LAMBERT

GRID NORTHING:

MAP PROJECTION:

6,987,323.913 11.823.006.258

LATITUDE:

LONGITUDE:

38°49'45.95608" N GMU PROJECT NORTHING:

77°18'22.12728" W GMU PROJECT EASTING:

GRID EASTING:

6.987.324.027

11.823.006.285

CONVERGENCE (): + COMBINED FACTOR:

00°44'42.4" 0.999939473

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

433.14

PHOTO AT STATION



STATION DESIGNATION

FX-34

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO.

SET BY PREPARED BY

: M. LOVELAND : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

MONUMENT: x 4" x 2' CONCRETE 10NUMENT WITH 2" Stamped aluminum cap DATE SET: APRIL 2012



CONCRETE SIDEWALK

LOCATION SKETCH

SCIENCE AND

TECH I BUILDING

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FAIRFAX CAMPUS

GEORGE

IVERSITY

(NOT TO SCALE)

9417 Innovation Drive Manassas, VA 20110 703.393.9887 fax 703.393.9076

: 83026.043.13

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

GRID EASTING:

6,987,270.839

11.823.337.625

LATITUDE:

LONGITUDE:

38°49'45.38888" N

77°18'17.94884" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.987.270.950

11.823.337.672

CONVERGENCE (): +

00°44'45.0"

COMBINED FACTOR:

0.999940264

AVG. COMBINED FACTOR:

0.999939714 (PROJECT)

HORIZONTAL DATA

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

416.39

PHOTO AT STATION:



STATION DESIGNATION

FX-35

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. SET BY

PREPARED BY FIELD BOOK(S)

: C. FILLMORE : FB. 245 PG. 1-40

CONCRETE SIDEWALK EDGE OF PAVENENT CREEK WAY

EDGE OF PAVENENT

EDGE OF PAVENENT SHENANDOAH 8,2 LIGHT POLE CONCRETE SIDEWALK GEORGE ERSITY $\mathbb{N} \cup \mathbb{V}$

LOCATION SKETCH

(NOT TO SCALE)

MONUMENT:

x 4" x 2' CONCRETE 10NUMENT WITH 2" Stamped aluminum cap

DATE SET: APRIL 2012

: 83026.043.13

: M. LOVELAND

9417 Innovation Drive Manassas, VA 20110 703.393.9887 fax 703.393.9076

FAIRFAX CAMPUS

christopher consultants engineering - surveying - land planning

HORIZONTAL DATA

MAP PROJECTION: LAMBERT

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING:

GRID EASTING:

6,987,431.202

11.823.476.409

LATITUDE:

LONGITUDE:

38°49'46.95604" N

77°18'16.16878" W

GMU PROJECT NORTHING:

GMU PROJECT EASTING:

6.987.431.322

11,823,476.465

CONVERGENCE (): + COMBINED FACTOR:

00°44'46.1"

0.999940837

AVG. COMBINED FACTOR:

0.999939714

(PROJECT)

VERTICAL DATA

VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

405.00

PHOTO AT STATION:



STATION DESIGNATION

FX-36

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M PROJECT NO.

MONUMENT:

x 4" x 2' CONCRETE 10NUMENT WITH 2" STAMPED ALUMINUM CAP

Date Set: **April 2012**

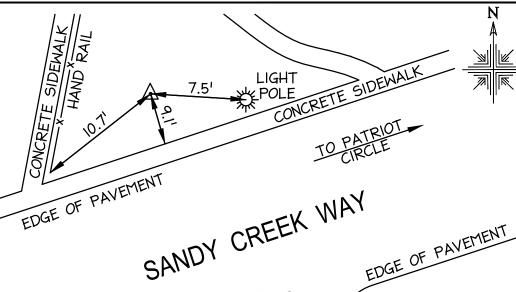
SET BY PREPARED BY

: M. LOVELAND : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

: 83026.043.13

LOCATION SKETCH

(NOT TO SCALE)



PARKING DECK

GEORGE NIVERSITY

FAIRFAX CAMPUS

christopher consultants engineering - surveying - land planning

9417 Innovation Drive Manassas, VA 20110

HORIZONTAL DATA

HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (GEOID 03) COORDINATE SYSTEM: VIRGINIA COORDINATE SYSTEM - NORTH (4501)

GRID NORTHING: GRID EASTING:

> 6,988,591.807 11.821.810.498

LATITUDE: LONGITUDE:

LAMBERT

38°49'58.64131" N 77°18'37.02933" W

GMU PROJECT NORTHING: GMU PROJECT EASTING:

> 11,821,810.442 6.988.592.006

00°44'33.1" CONVERGENCE (): + COMBINED FACTOR: 0.999939684

0.999939714 AVG. COMBINED FACTOR: (PROJECT)

VERTICAL DATA

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ELEVATION:

433.74

PHOTO AT STATION:

MAP PROJECTION:



STATION DESIGNATION

FX-37

UNITS: CONVERSION: U.S. SURVEY FOOT 1 FOOT = 0.3048 M

PROJECT NO. : 83026.043.13 SET BY : M. LOVELAND

Date Set: **April 2012**

10NUMENT WITH 2" STAMPED ALUMINUM CAP

PREPARED BY : C. FILLMORE FIELD BOOK(S) : FB. 245 PG. 1-40

AQUIA RIVER LN 18" TREE SIDEWALK STAND PIPE THOMPSON HALL GEORGE NIVERSITY MONUMENT: FAIRFAX CAMPUS x 4" x 2' CONCRETE

LOCATION SKETCH

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9417 Innovation Drive Manassas, VA 20110

(NOT TO SCALE)