CONTROL REPORT
PIN SABP08
BIN 1044430
NY 281 OVER COLD BROOK
TOWN OF HOMER
CORTLAND COUNTY
2012

NYS DOT REGION 3       COPY
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**PIN SABP08 - ACCELERATED BRIDGES**
**BIN 1044430**
**NY 281 OVER COLD BROOK**
**TOWN OF HOMER – CORTLAND COUNTY**

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INTRODUCTION

PIN SABP08 – ACCELERATED BRIDGES
BIN 1044430
NY 281 OVER COLD BROOK
TOWN OF HOMER – CORTLAND COUNTY

THE CONTROL SURVEY FOR THE FOLLOWING PROJECT WAS CONDUCTED BY THE NYSDOT, REGION THREE DESIGN - SURVEY UNIT. THE PURPOSE OF THIS SURVEY IS TO PROVIDE HORIZONTAL AND VERTICAL CONTROL DATA FOR MAPPING AND FUTURE CONSTRUCTION ACTIVITIES AT THIS LOCATION.

THE HORIZONTAL DATUM IS REFERENCED TO NAD 83(CORS 96), CENTRAL ZONE, NEW YORK STATE PLANE COORDINATE SYSTEM.

THE VERTICAL DATUM IS REFERENCED TO NAVD88.

ALL UNITS OF MEASURE FOR THE SURVEY ARE IN U.S. SURVEY FEET.

EQUIPMENT UTILIZED:

TOTAL STATION
MAKE: LEICA
MODEL: TS15 P
SERIAL # 1610444

DATA COLLECTOR (FIELD CONTROLLER)
MAKE: LEICA
MODEL: CS15
SERIAL# 1593317

DIGITAL LEVEL
MAKE: LEICA
MODEL: DNA03
SERIAL# 341729

GPS EQUIPMENT
RECEIVER
MAKE: LEICA
MODEL: GS15
SERIAL# 1505324

CONTROLLER
MAKE: LEICA
MODEL: CS15
SERIAL# 1593321
A NEW PROJECT BASELINE WAS ESTABLISHED FOR THIS PROJECT AND CONSISTS OF NEW PROJECT BASELINE POINTS 300 AND 301.

THE AZIMUTH OF THE BASELINE WAS DERIVED FROM RTK ROVER CELL OBSERVATIONS OF BASELINE POINTS 300 AND 301.

THE RTK ROVER CELL COORDINATES OF BASELINE POINT 300 WERE HELD.

THE PROCEDURE FOR ESTABLISHING COORDINATES FOR BASELINE POINT 301 ARE AS FOLLOWS:

1. A TOTAL STATION INSTRUMENT WAS SET UP ON BASELINE POINT 300.

2. THE GPS DERIVED AZIMUTH FROM BASELINE POINT 300 TO BASELINE POINT 301 WAS HELD.

3. A TPS MEASURED DISTANCE FROM BASELINE POINT 300 TO BASELINE POINT 301 WAS THEN RECORDED TO ESTABLISH THE FINAL COORDINATES OF BASELINE POINT 301.

A TRAVERSE WAS NOT UTILIZED FOR THIS PROJECT LOCATION.

ALL COORDINATES ARE REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE BASED ON NAD 83 (CORS 96).

ALL AZIMUTHS AND BEARINGS ARE REFERRED TO GRID NORTH.
### Points of Project: SABP08 NY281 OVER COLD BROOK CONTROL

(Coordinate System: NY CENTRAL NAD83 G09 (2), Units: fts)

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PIN SABP08
APPLIED PROJECT COMBINED SCALE FACTOR
EQUALS 1.00000000000

Page: 1 of 1  Date: 04/17/2012  Time: 10:36:35
Cogo Points

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Horizontal and Vertical Alignment Review Report

Project: SABP08_BIN_1044430_MAP_SUR_S

Horizontal Alignment: SABP08_BIN1044430_BL
Horizontal Description: 2012 SURVEY BASELINE
Horizontal Style: CB

Element: Linear
POB (300) 10+00.000 978643.1960 931453.8090
POE (301) 15+89.606 979209.6078 931617.5542
Tangential Direction: N 16°07'27" E
Tangential Length: 589.606
NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
CONTROL SURVEY DATA
BASED ON THE
NEW YORK STATE PLANE COORDINATE SYSTEM
VALUES IN SURVEY FEET

CITY, VILLAGE OR TOWN | COUNTY | S.H. No. | STATION NAME | @ STATION | MONUMENT TYPE
--- | --- | --- | --- | --- | ---
HOMER | CORTLAND | 300 | | | 2 FOOT LONG REBAR W/CAP
NORTHING: 978643.196 FT |
EASTING: 931453.809 FT |

VERTICAL DATUM: NAVD 88 |
SURVEYING METHOD: GPS |

DISTANCES & DIRECTIONS TO BACKSIGHTS AND ForesIGHTS |
OBJECT: | GRID BEARING: | GRID DISTANCE

ELEVATION: |

ESTABLISHED BY: NYSDOT |
YEAR: 2012 |

DETAILED DESCRIPTION AT STATION: BASELINE POINT 300 IS A 2 FOOT LONG REBAR WITH CAP AND IS LOCATED ON THE EAST SIDE OF NEW YORK STATE ROUTE 281, 243 FT SOUTH OF THE INTERSECTION OF WHITE BRIDGE RD AND NEW YORK STATE ROUTE 281.
**NEW YORK STATE**  
**DEPARTMENT OF TRANSPORTATION**  
**CONTROL SURVEY DATA**  
**BASED ON THE**  
**NEW YORK STATE PLANE COORDINATE SYSTEM**  
**VALUES IN SURVEY FEET**

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<td>301</td>
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<td>2 ft. long rebar w/cap</td>
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North: 97° 209.608 ft  
Horizontal Datum: NAD 83/CORS 96  
Surveying Method: □ GPS □ Conventional

East: 93° 617.554 ft  
Surveying Method: □ GPS □ Conventional

**ELEVATION:**

Vertical Datum: NAVD 88  
Surveying Method: □ GPS □ Conventional

Combined Factor: 
Grid Scale Factor:  
Ellips. Reduction Factor:

Established by:  
Year:  
NYSdot: 2012

Detailed Description at Station: Baseline Point 301 is a two-foot long rebar with cap and is located on the west side of New York State Route 281, 258 ft. ± south of the intersection of Cold Brook Rd and New York State Route 281.

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**Diagram:**

- **Cold Brook Rd**
- **N9R in Corner Fence Post**
- **24.60 ft**
- **69.73 ft**
- **70.16 ft**
- **Chisel Cut In Sign Post**
- **Speed Limit 30**
- **NY 281**
- **White Bridge Rd**
- **N9R IN U.P.**
- **NM 63**
- **25060**
- **NYT 90**
- **RM 281**
- **3201**
- **3054**
VERTICAL CONTROL SUMMARY

PIN SABP08 – ACCELERATED BRIDGES
BIN 1044430
NY 281 OVER COLD BROOK
TOWN OF HOMER – CORTLAND COUNTY

RTK ROVER CELL SOLUTIONS WERE USED TO ESTABLISH THE ELEVATION OF NEW PROJECT BASELINE POINT 300.

THE REMAINING VERTICAL CONTROL FOR THIS PROJECT LOCATION WAS ESTABLISHED BY PERFORMING A LEVEL RUN WHICH UTILIZED A DIGITAL LEVEL AND BAR CODED STAFF.

THIS LEVEL RUN BEGAN AT NEW PROJECT BASELINE 300 AND PASSED THROUGH NEW PROJECT BASELINE POINT 301, NEW PROJECT BENCHMARKS; 1 AND 2, AND CLOSED BACK ON NEW PROJECT BASELINE POINT 300.

THIS LEVEL RUN CLOSED WITH AN ERROR OF 0.002 FEET, WITH AN ALLOWABLE ERROR OF 0.023 FEET AND MEASURED 1250± FEET IN LENGTH.

THE LEVEL RUN WAS ADJUSTED UTILIZING "LEICA GEO OFFICE" PROCESSING SOFTWARE.
NEW YORK STATE PROJECT:

DEPARTMENT OF TRANSPORTATION

ORDER OF SURVEY: THIRD

CONTROL SURVEY DATA

ZONE: NY CENTRAL

BASED ON THE

CHIEF OF PARTY: R. KOKOSINSKI

NEW YORK STATE PLANE COORDINATE SYSTEM

USGS QUAD:

VALUES IN SURVEY FEET

NYSDOT REGION No. 3, SYRACUSE

CITY, VILLAGE OR TOWN: HOMER

COUNTY: CORTLAND

S.H. No.: BM1

STATION NAME: BM1

MONUMENT TYPE: BENCH TIE

Spke in U.P.

NORTHING:

HORIZONTAL DATUM: NAD 83/CORS 96

SURVEYING METHOD: CONVENTIONAL

EASTING:

VERTICAL DATUM: NAVD 88

SURVEYING METHOD: CONVENTIONAL

ELEVATION: 1157.17 FT

COMBINED FACTOR: DISTANCES & DIRECTIONS TO BACKSIGHTS AND FORESIGHTS

GRID SCALE FACTOR: OBJECT

ELLIPS. REDUCTION FACTOR:

ESTABLISHED BY YEAR

NYSDOT 2012

DETAILED DESCRIPTION AT STATION: BM1 IS A "BENCH TIE" SPIKE SET IN UTILITY POLE NM/60/NYT/87 AND IS LOCATED ON THE EAST SIDE OF NEW YORK STATE ROUTE 281, 242 FT SOUTH OF THE INTERSECTION OF WHITE BRIDGE RD AND NEW YORK STATE ROUTE 281.
NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
CONTROL SURVEY DATA
BASED ON THE
NEW YORK STATE PLANE COORDINATE SYSTEM
VALUES IN SURVEY FEET

CITY, VILLAGE OR TOWN | COUNTY | S.H. NO. | STATION NAME | @ STATION | MONUMENT TYPE
---|---|---|---|---|---
HOMER | CORTLAND | BM 2 | | BENCH TIE SPIKE IN U.P.

NORTHING: HORIZONTAL DATUM: NAD 83/CORS 96 SURVEYING METHOD □GPS □CONVENTIONAL

EASTING: VERTICAL DATUM: NAVD 88 SURVEYING METHOD □GPS □CONVENTIONAL

ELEVATION: 1157.81 FT. COMBINED FACTOR: DISTANCES & DIRECTIONS TO BACKSIGHTS AND FORESIGHTS

GRID SCALE FACTOR: OBJECT GRID BEARING GRID DISTANCE

ELLIPS. REDUCTION FACTOR: ESTABLISHED BY YEAR

NYSDOT 2012

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Level Summary
SABP.08_NY281 OVER COLD BROOK_LEVEL RUN
04/04/2012 14:38:41

Project Information

Project name: SABP.08_NY281 OVER COLD BROOK_LEVEL RUN
Date created: 04/04/2012 14:28:51
Application software: LEICA Geo Office 8.0

Line 001

Line length: 1250.771 fts
Method: BF
Start point id: CBP300
Number of stations: 4
Date/time: 04/04/2012 21:14:44
Number of observations: 8

Processing Parameters

Adjustment method: by distance
Processed with Staff Corrections: No
Height difference: 0.002 fts

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