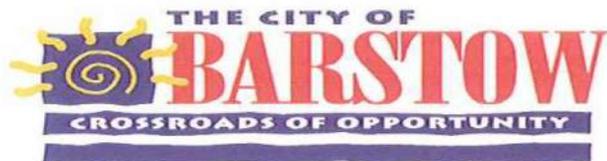




CITY OF BARSTOW  
BENCHMARK CIRCUIT  
AS OF 2013



**CITY OF BARSTOW  
BENCHMARK CIRCUIT  
AS OF 2013**

<b>BENCHMARK</b>	<b>LOCATION</b>	<b>ELEVATION</b>
BM 1-1	2" BRASS CAP AT INTERSECTION OF SECOND AND MAIN	2171.36
BM 2-1	2" BRASS CAP AT INTERSECTION OF SEVENTH AND MAIN	2168.78
BM 3-1	2" BRASS CAP AT INTERSECTION OF MURIEL AND MAIN	2261.10
BM 4-1	2" BRASS CAP AT INTERSECTION OF YUCCA AND MAIN	2211.94
BM 5-1	2" BRASS CAP AT INTERSECTION OF MURIEL AND MOUNTAIN VIEW	2301.92
BM 6-1	2" BRASS CAP AT INTERSECTION OF SEVENTH/HELEN RUNYON AND MOUNTAIN VIEW	2263.45
BM 7-1	2" BRASS CAP AT INTERSECTION OF MOUNTAIN VIEW AND SECOND	2290.66
BM 8-1	2" BRASS CAP AT INTERSECTION OF VIRGINIA WAY AND BARSTOW ROAD	2395.66
BM 9-1	2" BRASS CAP AT INTERSECTION OF RIMROCK AND BARSTOW ROADS	2418.90
BM 10-1	2" BRASS CAP AT INTERSECTION OF MURIEL AND ARMORY	2662.00
BM 11-1	2" BRASS CAP AT INTERSECTION OF ARMORY AND FOREST	2220.63
BM 12-1	2" BRASS CAP AT INTERSECTION OF ARMORY AND BARSTOW ROAD	2378.96
BM 13-1	2" BRASS CAP AT INTERSECTION OF MAIN AND AVENUE A	2202.17
BM 14-1	2" BRASS CAP AT INTERSECTION OF BRADSHAW AND MAIN	2159.27

ELEVATIONS ARE BASED ON UNITED STATES COAST AND GEODETIC SURVEY BENCHMARK A 687 AS PUBLISHED BY THE NATIONAL GEODETIC SURVEY UNDER PID EV0027 HAVING A NAVD88 ELEVATION OF 2106.51. BENCHMARK IS ON TOP OF THE SOUTHWEST END OF A CONCRETE BRIDGE STRUCTURE ON FIRST STREET APPROXIMATELY 190' NORTHEAST OF THE INTERSECTION OF FIRST STREET AND FT IRWIN ROAD. THE NGS DATA SHEET IS CONTAINED WITHIN THE ATTACHED DOCUMENT.

# The NGS Data Sheet

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

```
PROGRAM = datasheet95, VERSION = 8.5
1      National Geodetic Survey,  Retrieval Date = AUGUST 22, 2014
EV0027
*****
EV0027  DESIGNATION -  A 687
EV0027  PID          -  EV0027
EV0027  STATE/COUNTY-  CA/SAN BERNARDINO
EV0027  COUNTRY      -  US
EV0027  USGS QUAD    -  BARSTOW (1993)
EV0027
EV0027                      *CURRENT SURVEY CONTROL
EV0027  _____
-----
EV0027*  NAD 83(1986) POSITION- 34 54 29.9      (N) 117 01
14.2      (W)      HD_HELD2
EV0027*  NAVD 88 ORTHO HEIGHT -   642.066 (meters)      2106.51 (feet)
ADJUSTED
EV0027  _____
-----
EV0027  GEOID HEIGHT      -      -
31.45 (meters)              GEOID12A
EV0027  DYNAMIC HEIGHT   -      641.347 (meters)      2104.15 (feet) COMP
EV0027  MODELED GRAVITY  -      979,495.2 (mgal)              NAVD 88
EV0027
EV0027  VERT ORDER       -  FIRST      CLASS II
EV0027
EV0027.The horizontal coordinates were established by autonomous hand held
GPS
EV0027.observations and have an estimated accuracy of +/- 10 meters.
EV0027.
EV0027.The orthometric height was determined by differential leveling and
EV0027.adjusted by the NATIONAL GEODETIC SURVEY
EV0027.in June 1991.
EV0027
EV0027.WARNING-Repeat measurements at this control monument indicate possible
EV0027.vertical movement.
EV0027
EV0027.Photographs are available for this station.
EV0027
EV0027.The dynamic height is computed by dividing the NAVD 88
EV0027.geopotential number by the normal gravity value computed on the
EV0027.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
EV0027.degrees latitude (g = 980.6199 gals.).
EV0027
EV0027.The modeled gravity was interpolated from observed gravity values.
EV0027
EV0027;
EV0027;SPC CA 5      -      North      East      Units  Estimated Accuracy
EV0027;GPS)
EV0027
EV0027                      SUPERSEDED SURVEY CONTROL
EV0027
```

EV0027 NGVD 29 (??/??/92) 641.320 (m) 2104.06 (f) ADJ UNCH 1  
2

EV0027

EV0027.Superseded values are not recommended for survey control.

EV0027

EV0027.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

EV0027.[See file dsdata.txt](#) to determine how the superseded data were derived.

EV0027

EV0027\_U.S. NATIONAL GRID SPATIAL ADDRESS: 11SMU9811762874(NAD 83)

EV0027

EV0027\_MARKER: DB = BENCH MARK DISK

EV0027\_SETTING: 36 = SET IN A MASSIVE STRUCTURE

EV0027\_SP\_SET: BRIDGE

EV0027\_STAMPING: A 687 1943

EV0027\_MARK LOGO: NONE

EV0027\_MAGNETIC: N = NO MAGNETIC MATERIAL

EV0027\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

EV0027\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

EV0027+SATELLITE: SATELLITE OBSERVATIONS - July 28, 2003

EV0027

EV0027	HISTORY	- Date	Condition	Report By
EV0027	HISTORY	- 1943	MONUMENTED	CGS
EV0027	HISTORY	- 1974	GOOD	NGS
EV0027	HISTORY	- 1977	GOOD	NGS
EV0027	HISTORY	- 20030728	GOOD	JOHFRA
EV0027	HISTORY	- 20030728	GOOD	JOHFRA

EV0027

STATION DESCRIPTION

EV0027

EV0027'DESCRIBED BY NATIONAL GEODETIC SURVEY 1974

EV0027'0.3 MI NE FROM BARSTOW.

EV0027'0.3 MILE NORTHEAST ALONG FIRST STREET FROM THE ATCHISON, TOPEKA  
EV0027'AND SANTA FE RAILWAY STATION AT BARSTOW, AT THE JUNCTION OF IRWIN  
EV0027'ROAD, 188 1/2 FEET NORTHEAST OF THE JUNCTION, IN THE TOP OF THE  
EV0027'SOUTHWEST END OF THE NORTHWEST CONCRETE WALKWAY OF A CONCRETE  
EV0027'BRIDGE, 14 FEET NORTHWEST OF THE CENTER LINE OF THE STREET, 0.5  
EV0027'FOOT NORTHEAST OF THE SOUTHWEST END OF THE WALKWAY, AND ABOUT  
EV0027'1/2 FOOT HIGHER THAN THE STREET. SECTION 31, T 10N, R 1W.

EV0027

STATION RECOVERY (1977)

EV0027

EV0027'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1977

EV0027'RECOVERED IN GOOD CONDITION.

EV0027

STATION RECOVERY (2003)

EV0027

EV0027'RECOVERY NOTE BY JOHNSON-FRANK 2003 (RAF)

EV0027'FOUND AS DESCRIBED IN 1974 RECOVERY NOTE. MARK APPEARS TO HAVE BEEN  
EV0027'RE-CEMENTED INTO THE BRIDGE AT SOME POINT IN THE NOT DISTANT PAST AS  
EV0027'SOME OF THE CEMENT APPEARS TO COVER OLD PAINT MARKINGS ON THE  
EV0027'CONCRETE. ELEVATION MAY BE SUSPECT. HANDHELD GPS POSITION - N  
EV0027'34-54-29.7, W 117-01-14.1

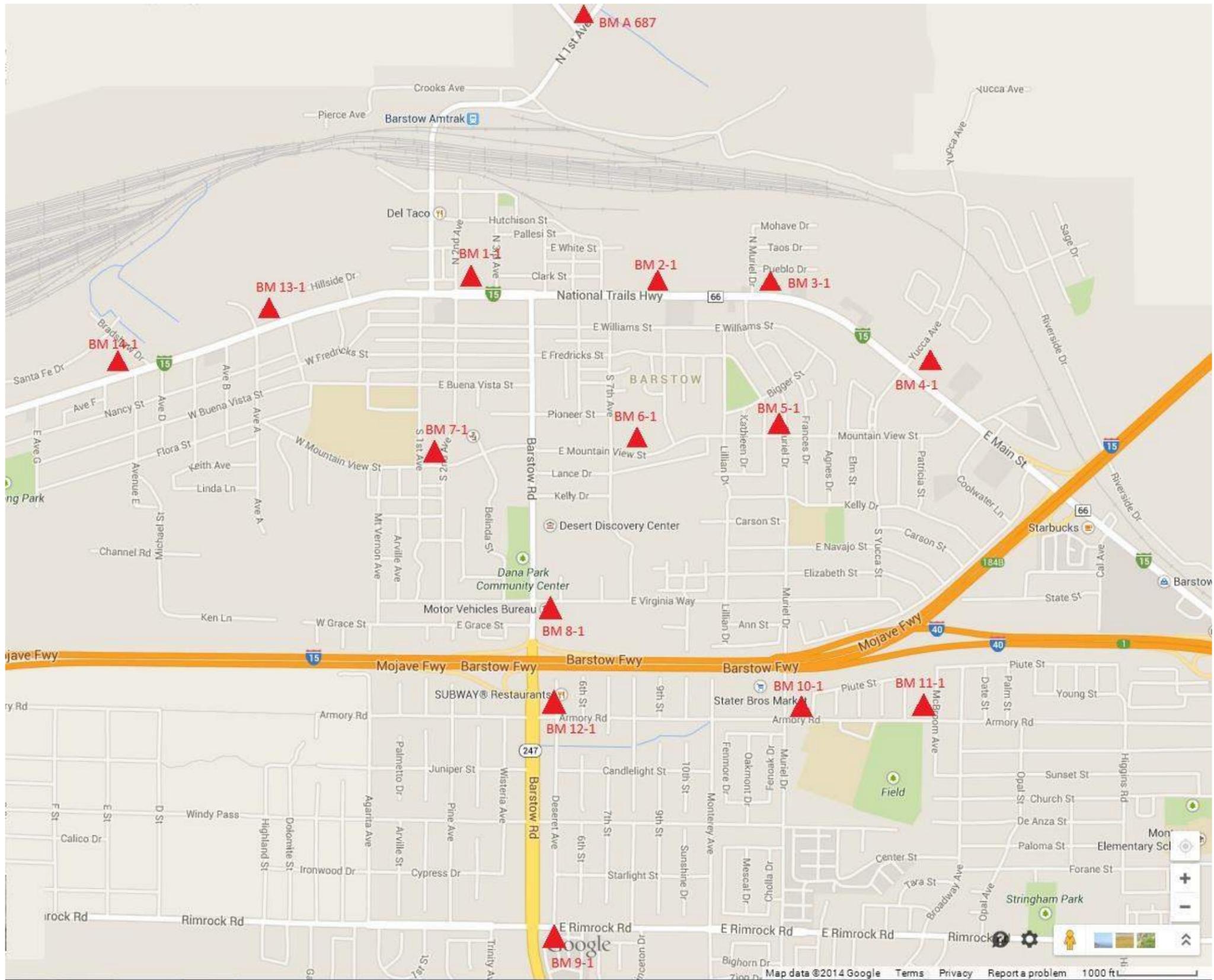
EV0027

STATION RECOVERY (2003)

EV0027

EV0027'RECOVERY NOTE BY JOHNSON-FRANK 2003

EV0027'RECOVERED IN GOOD CONDITION.





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DATE: 3-10-14

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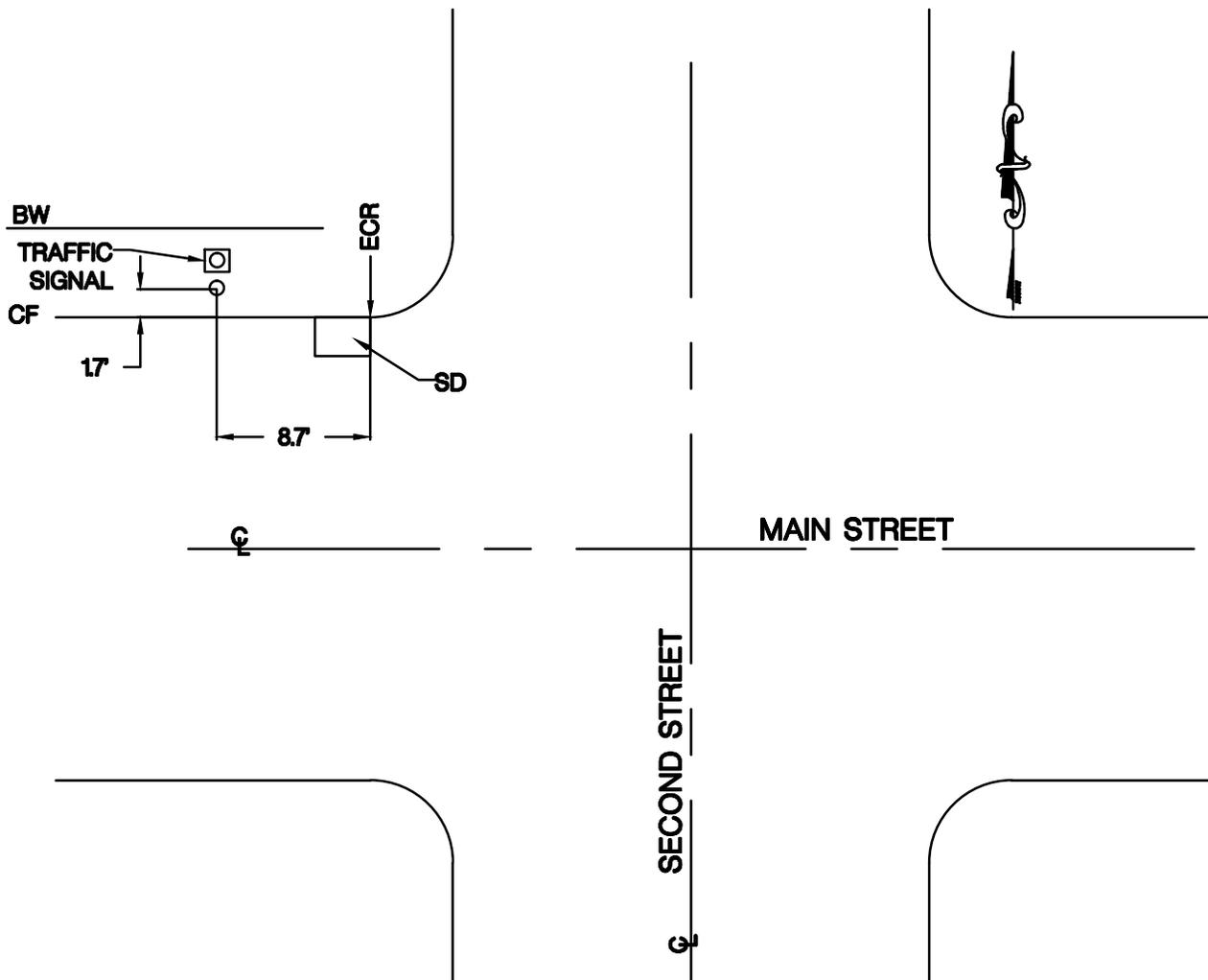
PROJECT NAME:

JOB NO: 2089-69

SM  
AT

# BM 1-1

2" BRASS CAP AT INTERSECTION OF SECOND AND MAIN  
ELEV. 2171.36



  
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(760) 256-0418 FAX



O.B.  
11-2171.361  
B.M.





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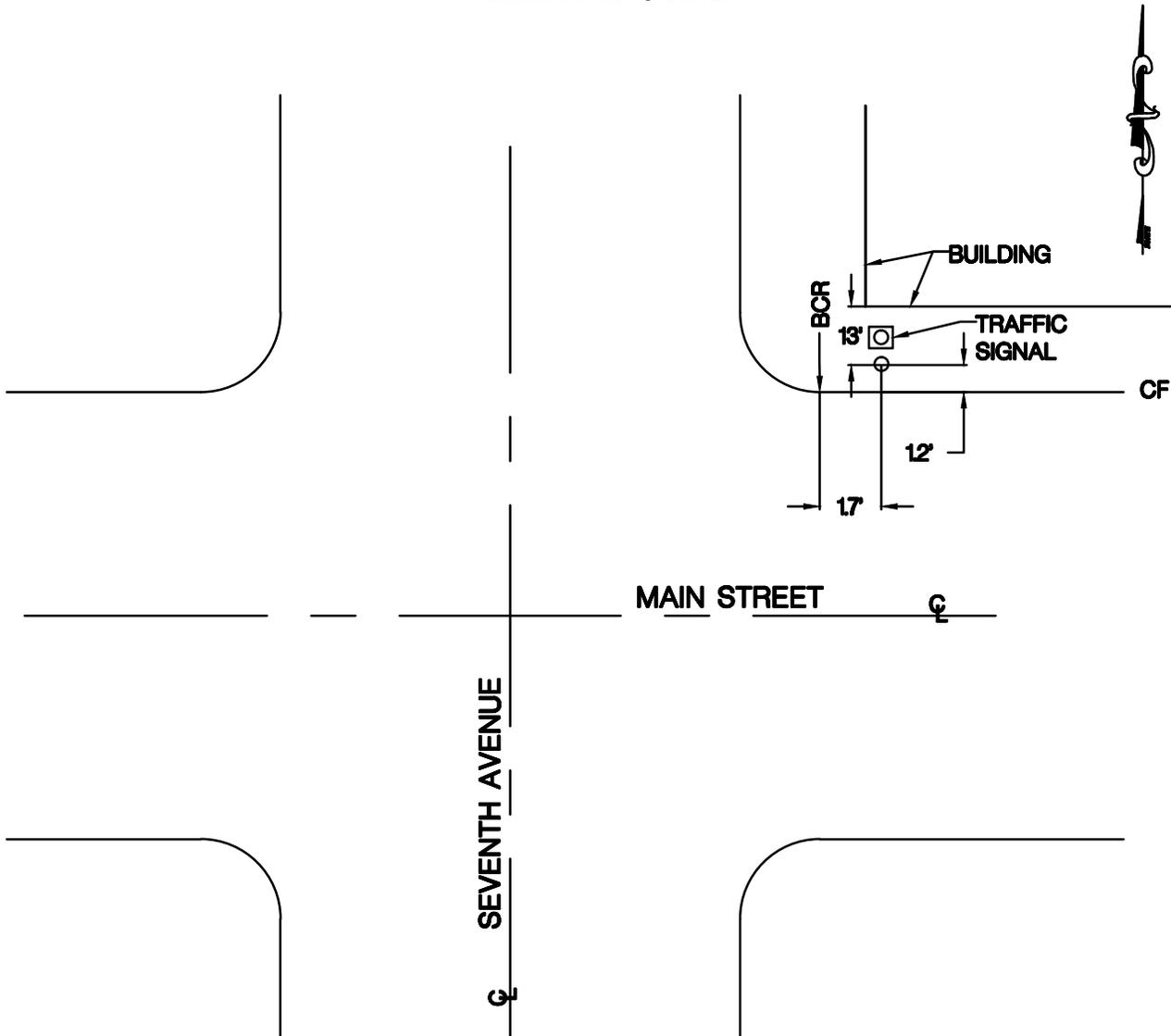
PROJECT NAME:

JOB NO: 2089-69

SM  
AT

# BM 2-1

## 2" BRASS CAP AT INTERSECTION OF SEVENTH AND MAIN ELEV. 2168.78



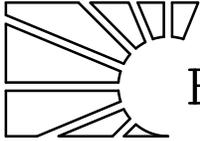
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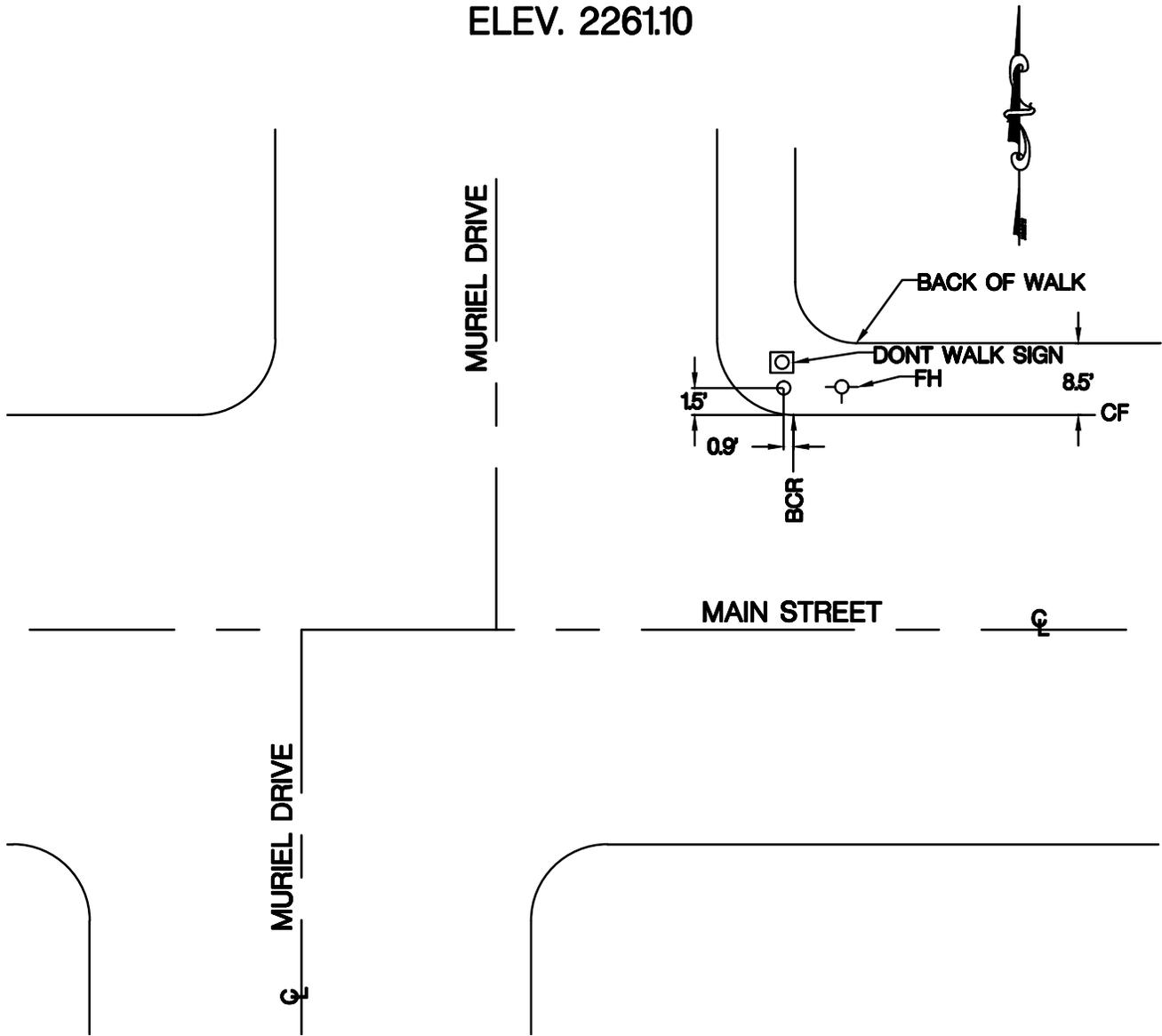
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PROJECT NAME:

JOB NO: 2089-69

SM  
AT

**BM 3-1  
2" BRASS CAP AT INTERSECTION OF MURIEL AND MAIN  
ELEV. 2261.10**



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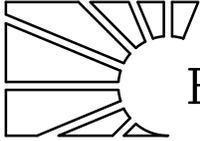
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SAWN SHOP

NO  
OUTLET

XXXX

SAW  
SHOP



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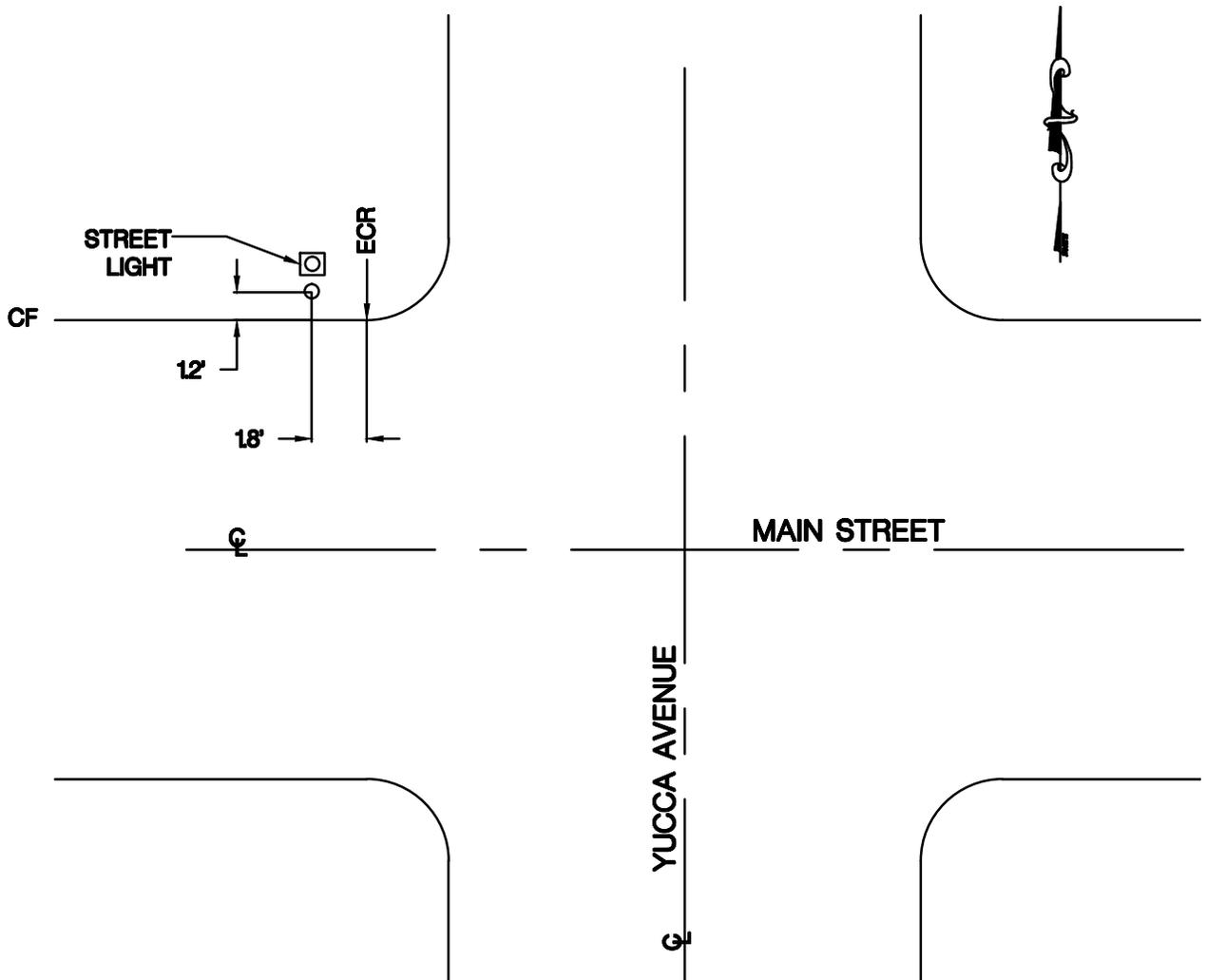
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PROJECT NAME:

JOB NO: 2089-69

SM  
AT

**BM 4-1  
2" BRASS CAP AT INTERSECTION OF YUCCA AND MAIN  
ELEV. 2211.94**



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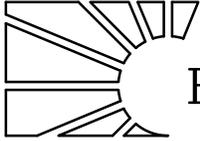
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GOOD B.M. 1  
MAY 1901  
E.L. 2211, 22

BM





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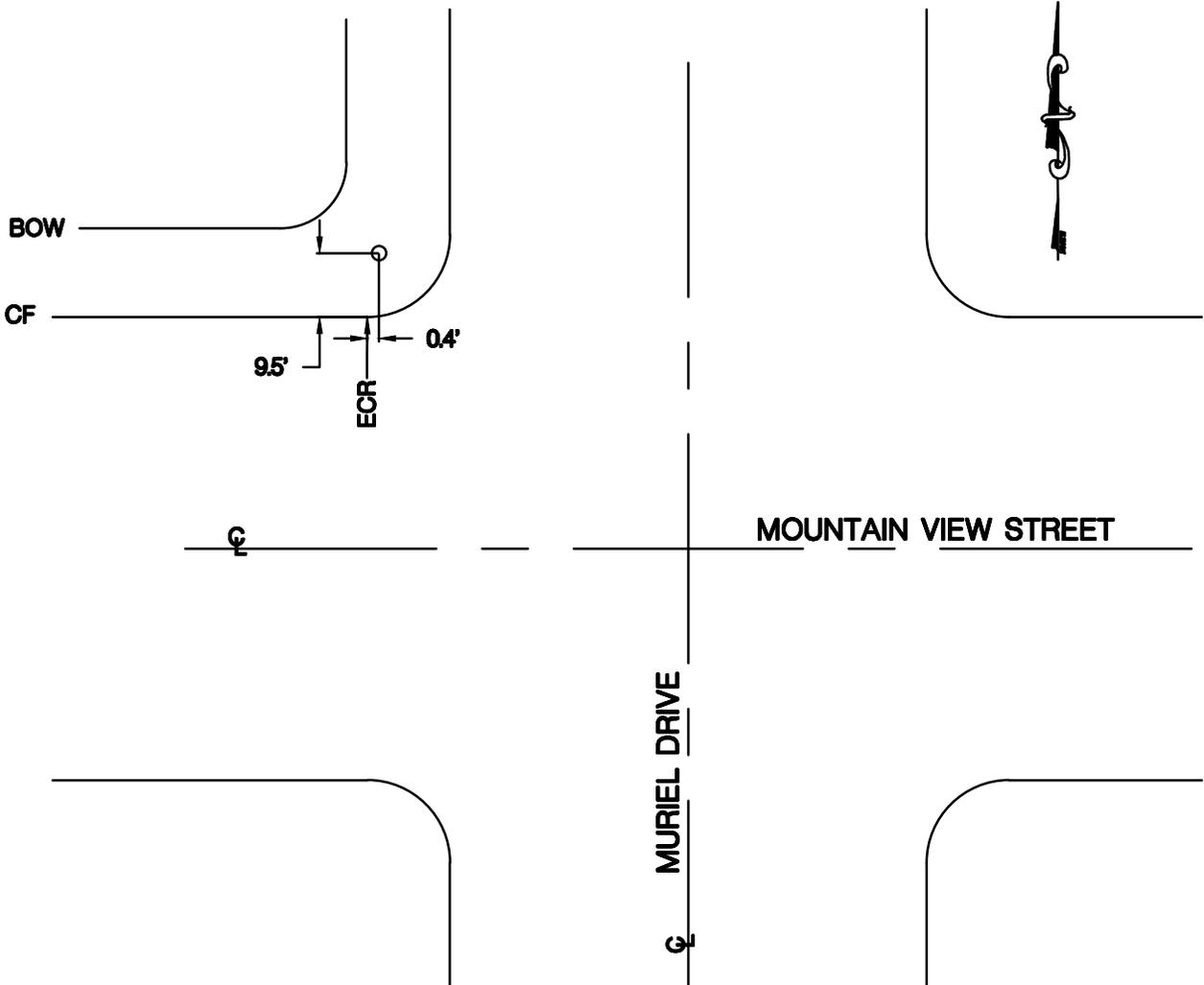
PROJECT NAME:

JOB NO: 2089-69

SM  
AT

# BM 5-1

**2" BRASS CAP AT INTERSECTION OF MURIEL AND MOUNTAIN VIEW  
ELEV. 2301.92**



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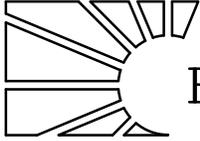
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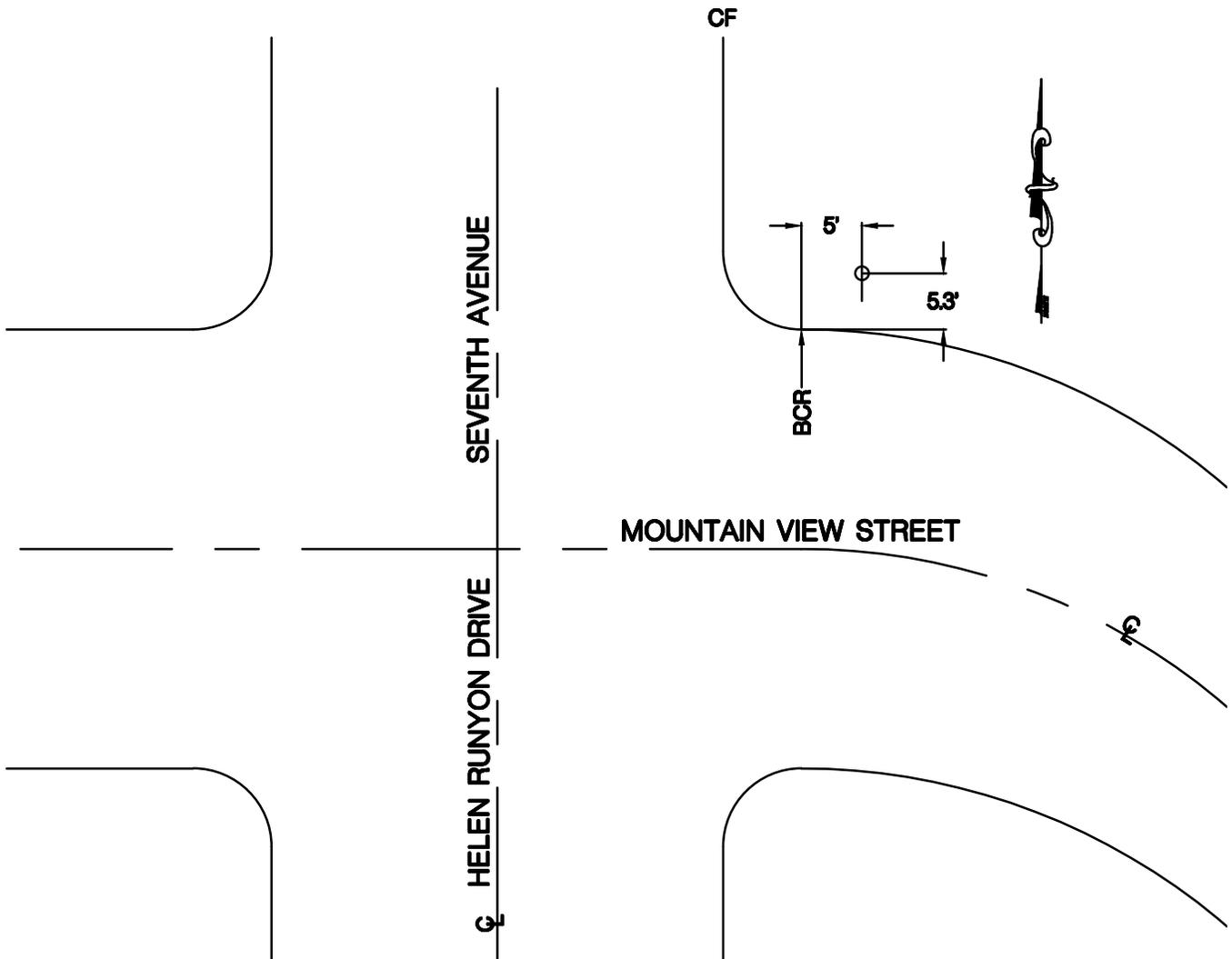
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PROJECT NAME:

JOB NO: 2089-69

SM  
AT

**BM 6-1**  
**2" BRASS CAP AT INTERSECTION OF SEVENTH/HELEN**  
**RUNYON AND MOUNTAIN VIEW**  
**ELEV. 2263.45**



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MJC-2014

ELEV 12265.46

COPPER B.M. 81

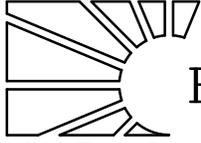
↑ Main Entrance



PROB  
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+ 104 43

BM

2008 22  
+ 104 43



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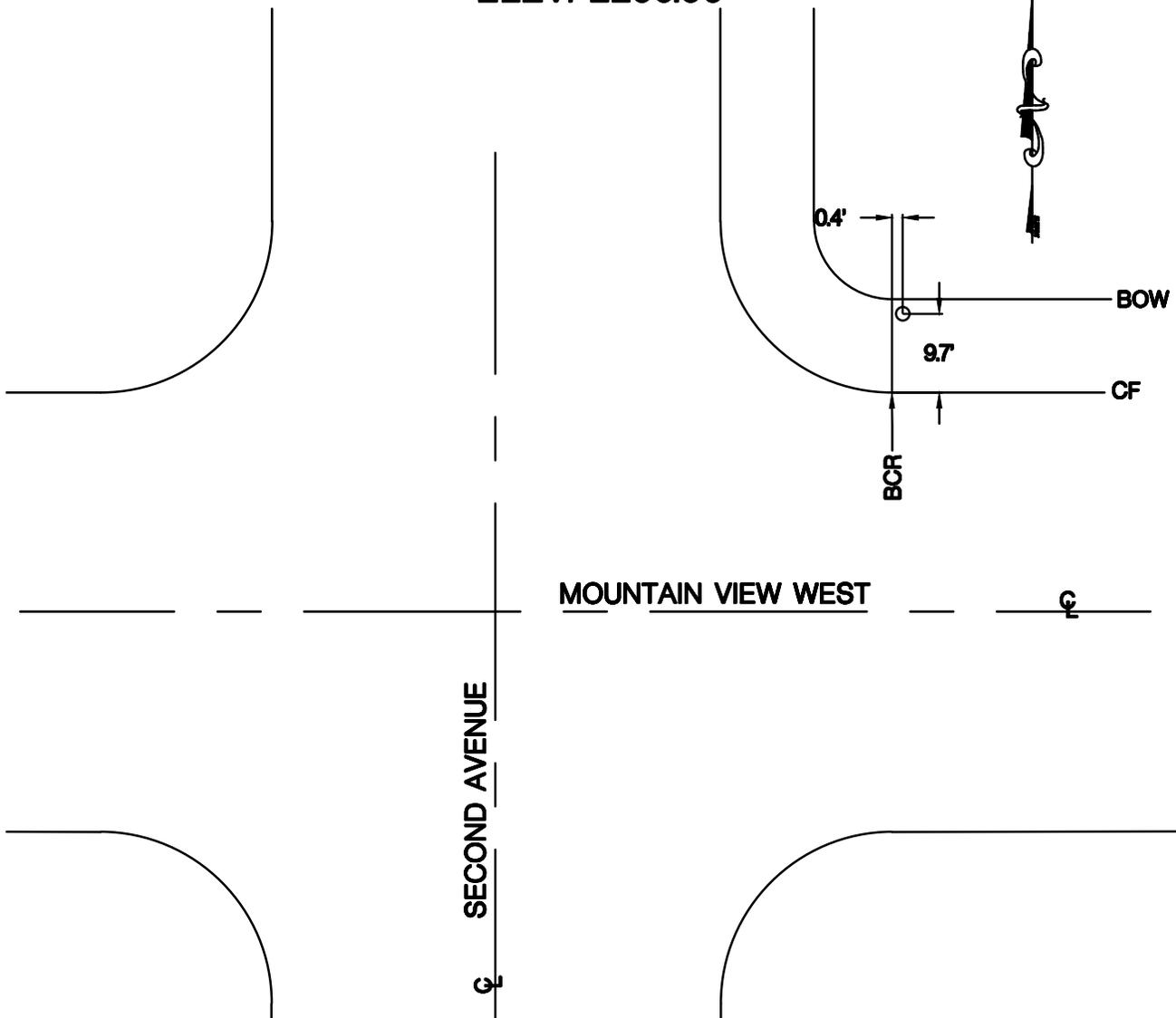
PROJECT NAME:

JOB NO: 2089-69

SM  
AT

# BM 7-1

**2" BRASS CAP AT INTERSECTION OF MOUNTAIN VIEW AND SECOND  
ELEV. 2290.66**



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1901  
J.C. - 2011

1901  
J.C. - 2011

1901  
J.C. - 2011



B14





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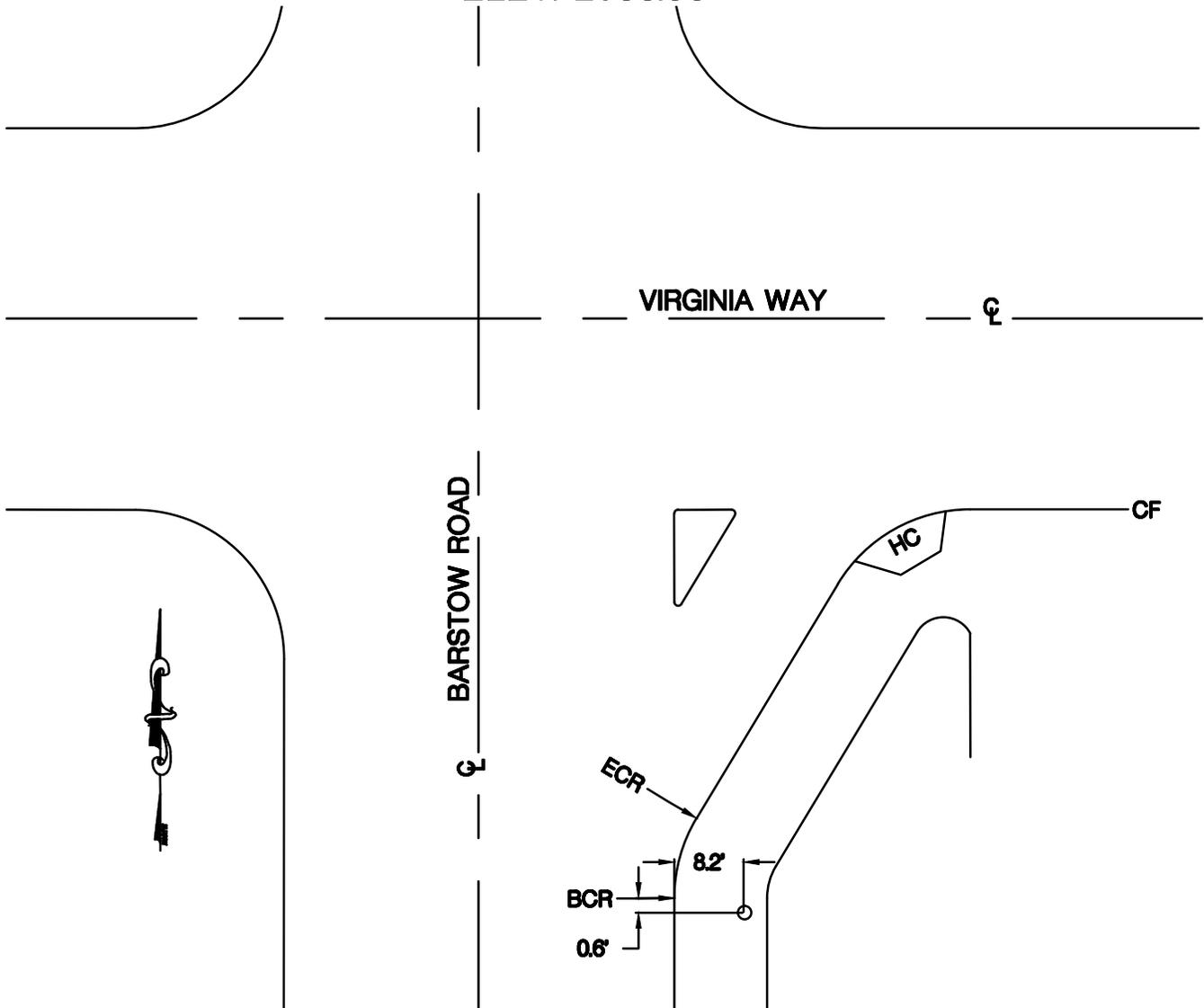
PROJECT NAME:

JOB NO: 2089-69

SM  
AT

# BM 8-1

2" BRASS CAP AT INTERSECTION OF VIRGINIA WAY AND BARSTOW  
ELEV. 2395.66



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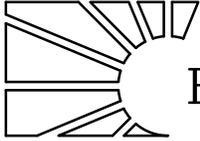


GOOD P BM 81

EL = 2395.66

M JCC = 2014





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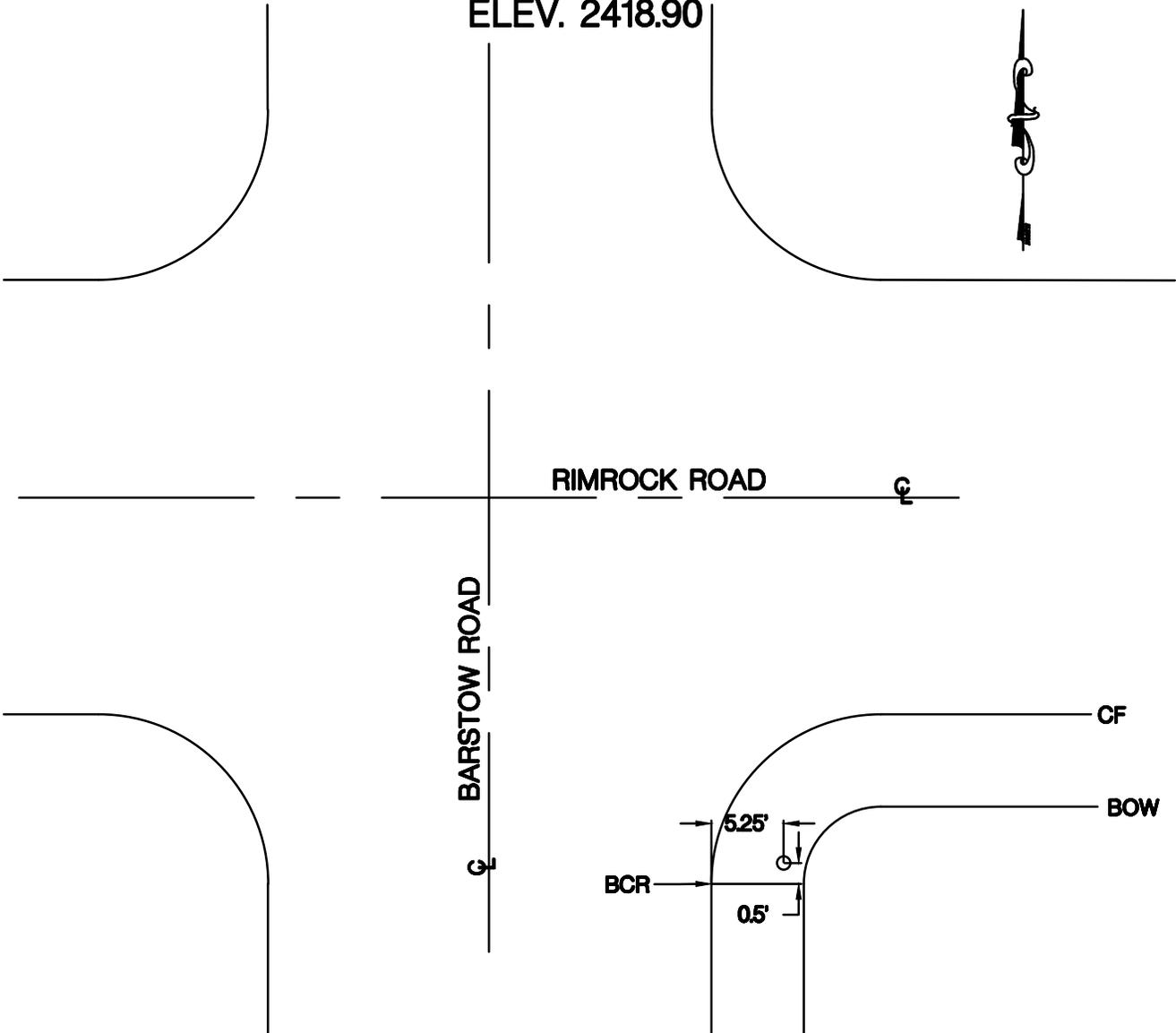
PROJECT NAME:

JOB NO: 2089-69

SM  
AT

# BM 9-1

**2" BRASS CAP AT INTERSECTION OF RIMROCK AND BARSTOW  
ELEV. 2418.90**



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MAD-2014

EL = 2418.90

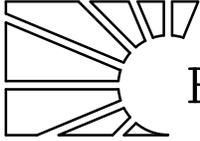
COPPER BM 9-1-11



BM



Premium 402  
GASOLINE



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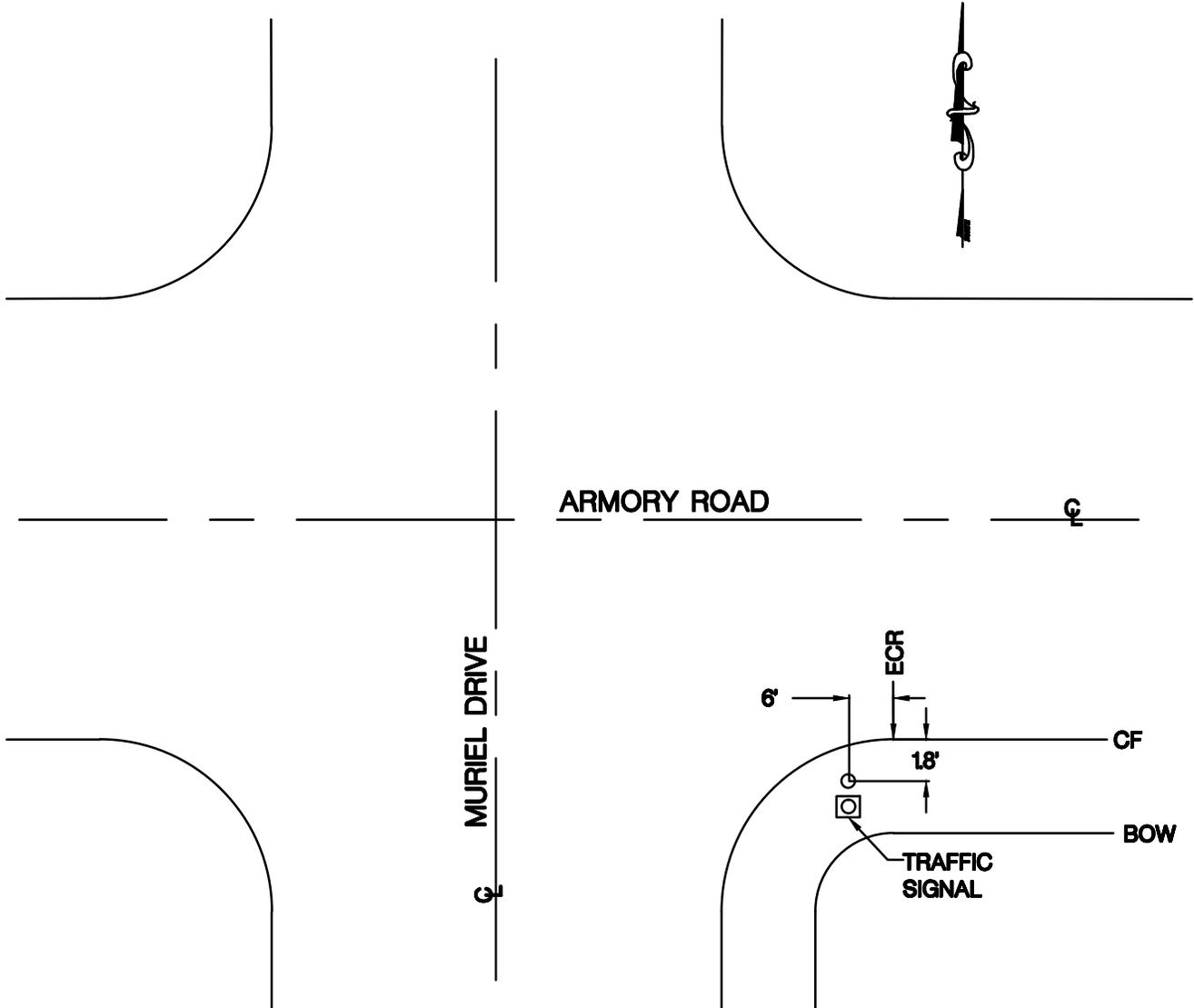
PROJECT NAME:

JOB NO: 2089-69

SM  
AT

# BM 10-1

## 2" BRASS CAP AT INTERSECTION OF MURIEL AND ARMORY ELEV. 2662.00



**Merrell Johnson**  
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C.O.B

BM

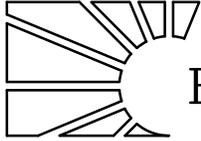
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EL=2662.00

MJC-2014

BM





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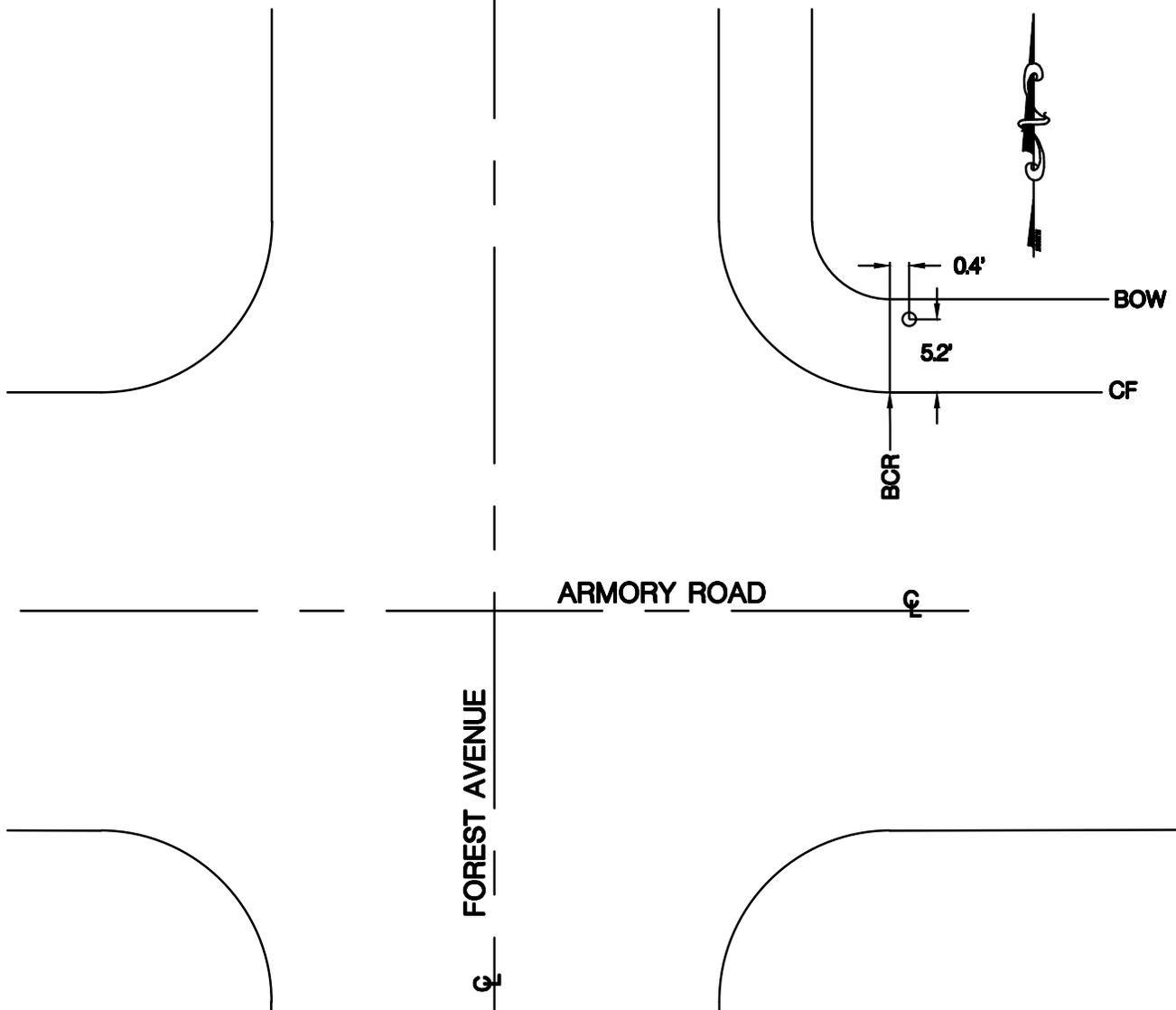
PROJECT NAME:

JOB NO: 2089-69

SM  
AT

## BM 11-1

2" BRASS CAP AT INTERSECTION OF ARMORY AND FOREST  
ELEV. 2220.63



  
**Merrell Johnson**  
COMPANIES

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BARSTOW, CALIFORNIA 92311  
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(760) 256-0418 FAX



1 = 22220.63

C. O. B.

BM

11-11

MUG-2011



BM



PK  
BPT



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DATE: 3-10-14

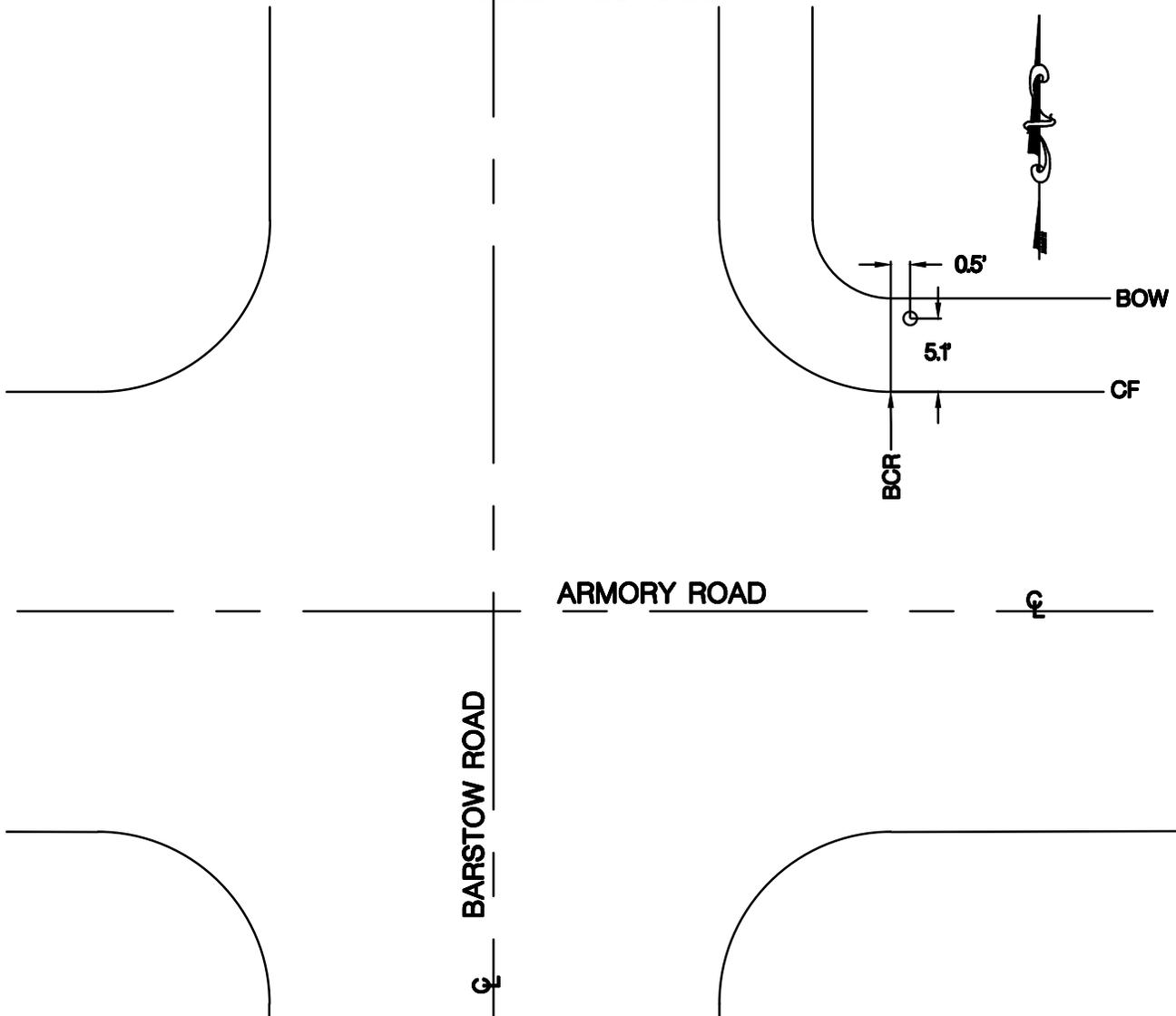
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PROJECT NAME:

JOB NO: 2089-69

SM  
AT

**BM 12-1  
2" BRASS CAP AT INTERSECTION OF ARMORY AND BARSTOW  
ELEV. 2378.96**



**Merrell Johnson**  
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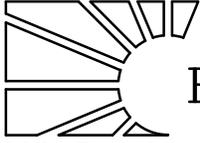


EM 7217  
ELEV 2378.95  
MCC-2014



BMW





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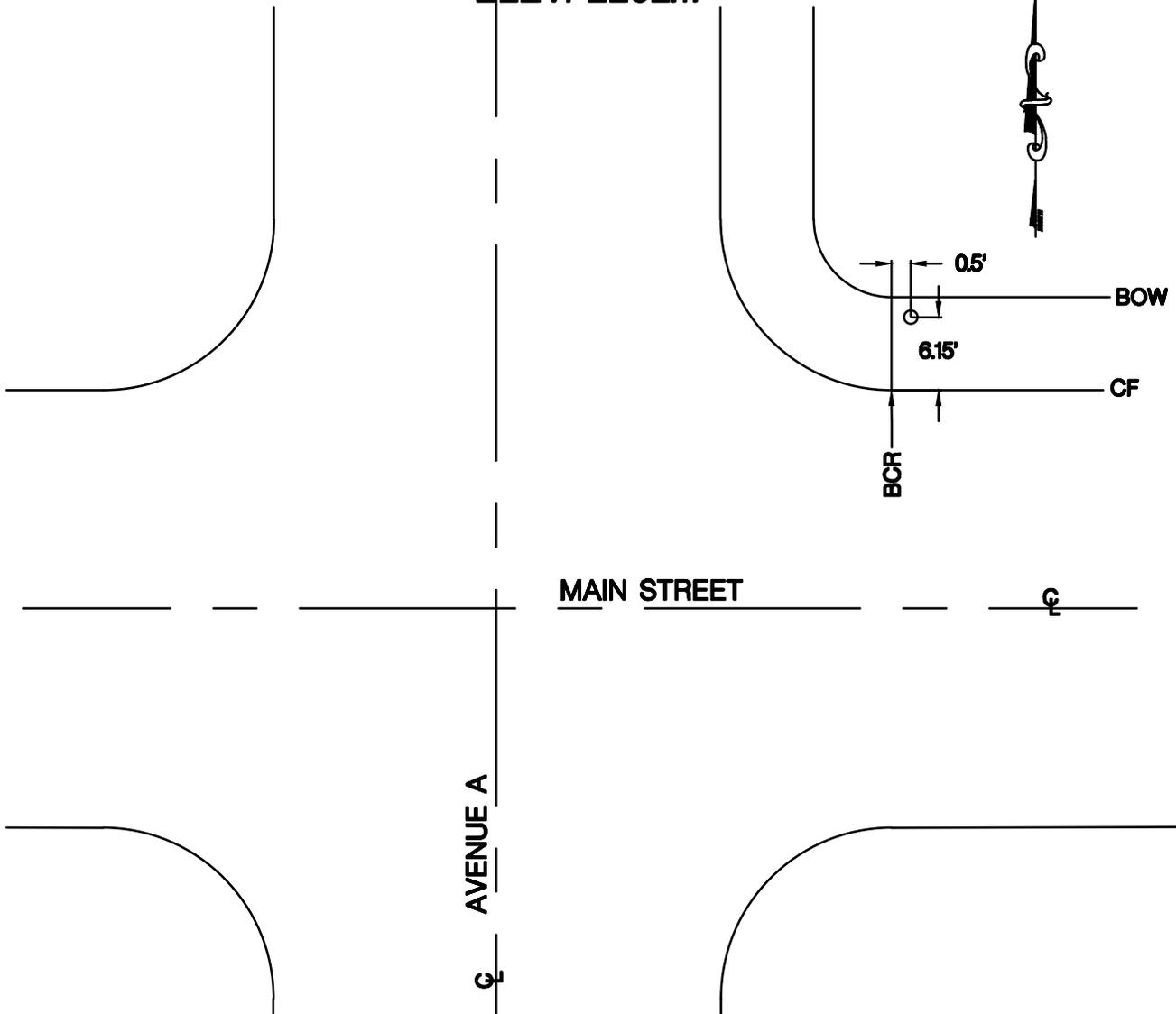
PROJECT NAME:

JOB NO: 2089-69

SM  
AT

# BM 13-1

2" BRASS CAP AT INTERSECTION OF MAIN AND AVENUE A  
ELEV. 2202.17



**Merrell Johnson**  
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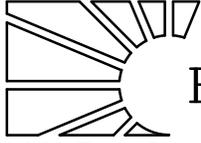
128 E. FREDRICKS STREET  
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BM

DEC. SOUTHERN'S 2013  
USED CARS



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FAX: (760) 256-1750

DATE: 3-10-14

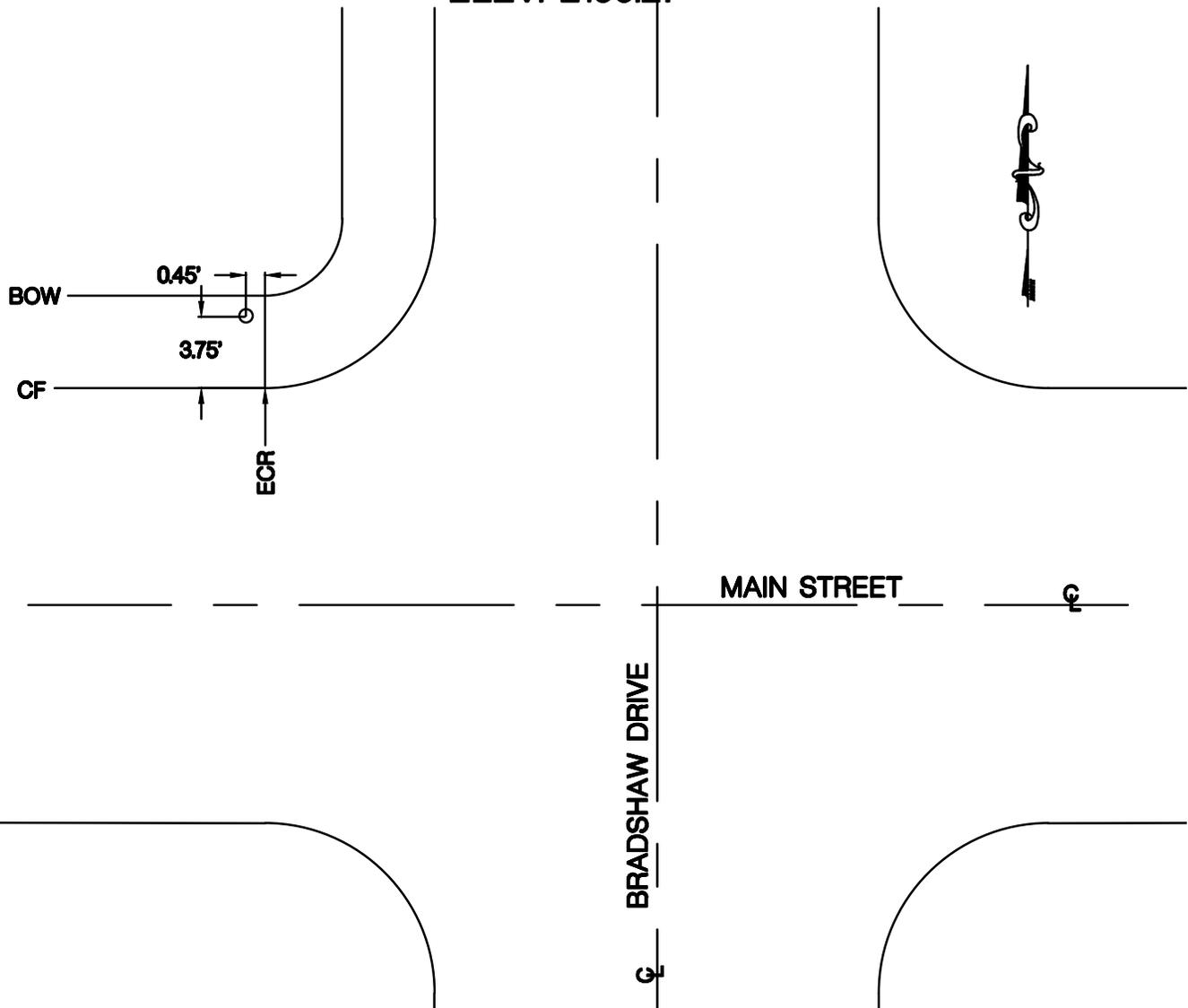
PAGE:

PROJECT NAME:

JOB NO: 2089-69

SM  
AT

**BM 14-1**  
**2" BRASS CAP AT INTERSECTION OF BRADSHAW AND MAIN**  
**ELEV. 2159.27**



**Merrell Johnson**  
COMPANIES

22221 HIGHWAY 18  
APPLE VALLEY, CALIFORNIA 92307  
(760) 240-8000  
(760) 240-1400 FAX

128 E. FREDRICKS STREET  
BARSTOW, CALIFORNIA 92311  
(760) 256-2068  
(760) 256-0418 FAX



W0-201

E=2159.27

E=203

E=247



BM

Faint red markings on the concrete curb, possibly including the number "1212".

