

Appendix I

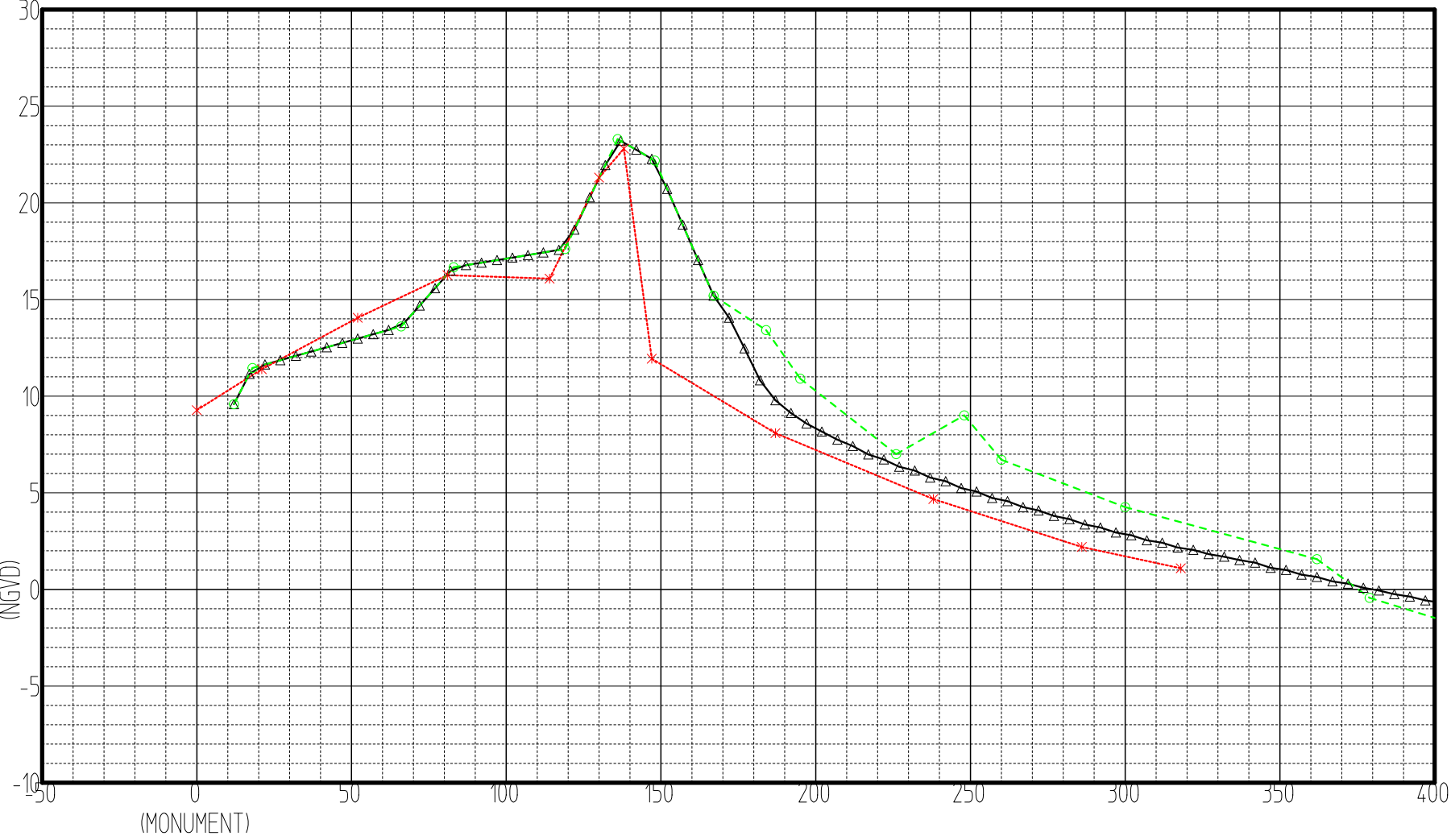
SBEACH Model Calibration Profile Plots

for

Hurricane Ivan – Pre-Storm (June 4, 2004)
Post-Storm (October 4, 2004)
SBEACH Eroded Profiles

and

Hurricane Opal – Pre-Storm (April 1995)
Post-Storm (October 1995)
SBEACH Eroded Profiles



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— SURVEY OCT-95 (POST-OPAL)

—○—○— SURVEY APRIL-95 (PRE-OPAL)

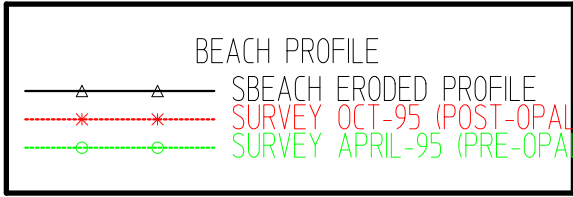
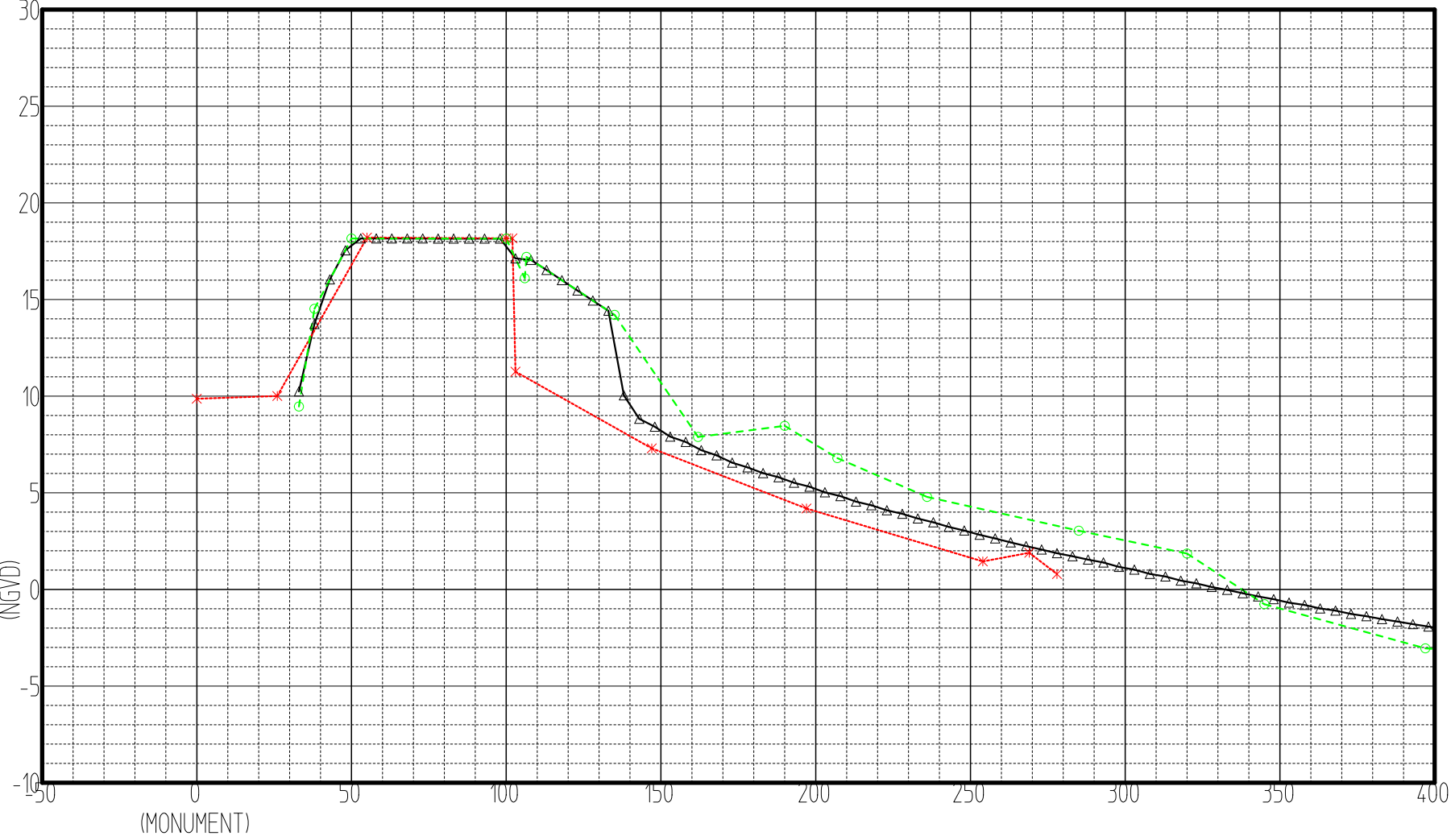
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-3

BEARING: .00

1/2

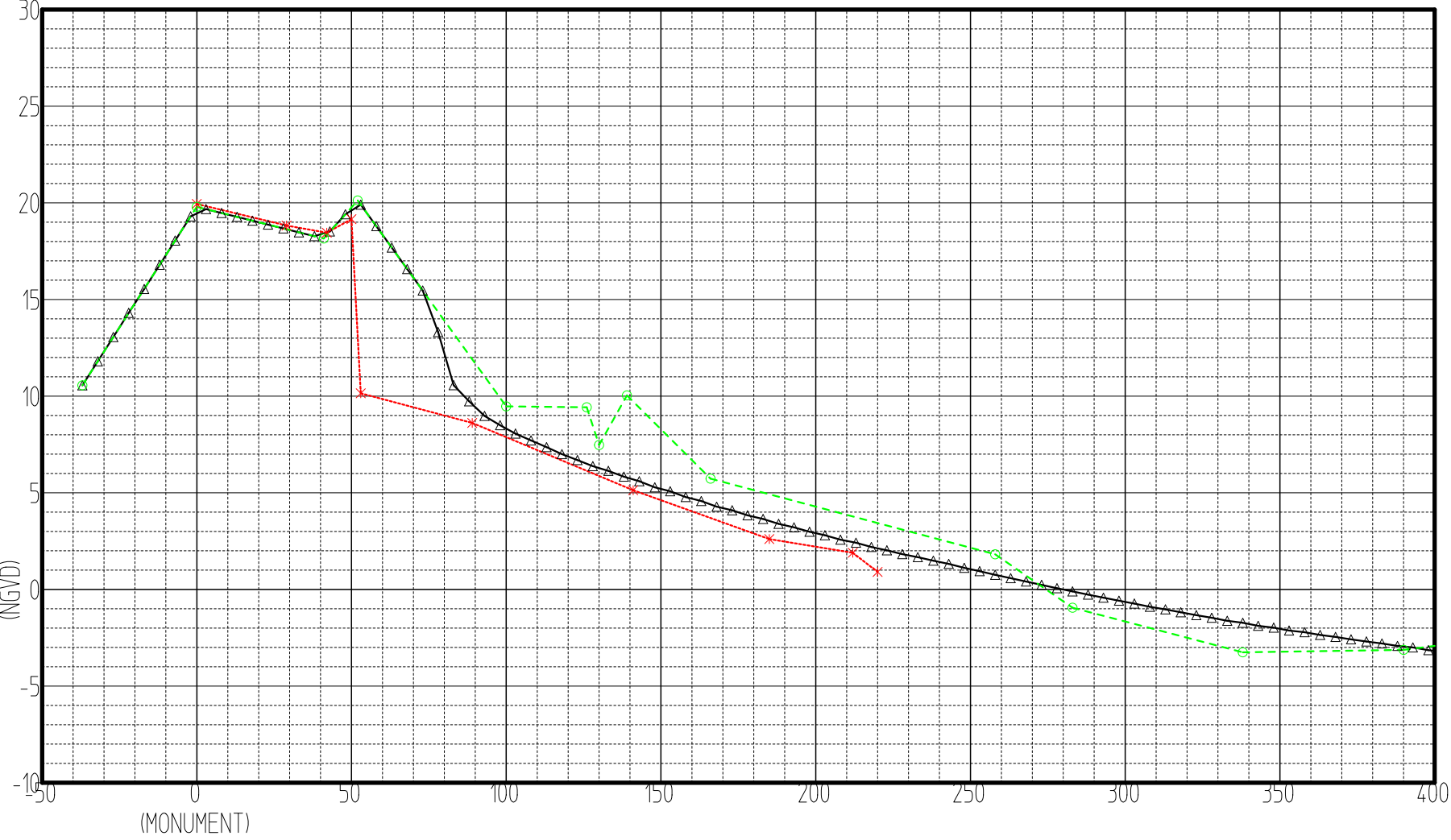


BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-4 1/2

BEARING: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

---○---○--- SURVEY APRIL-95 (PRE-OPAL)

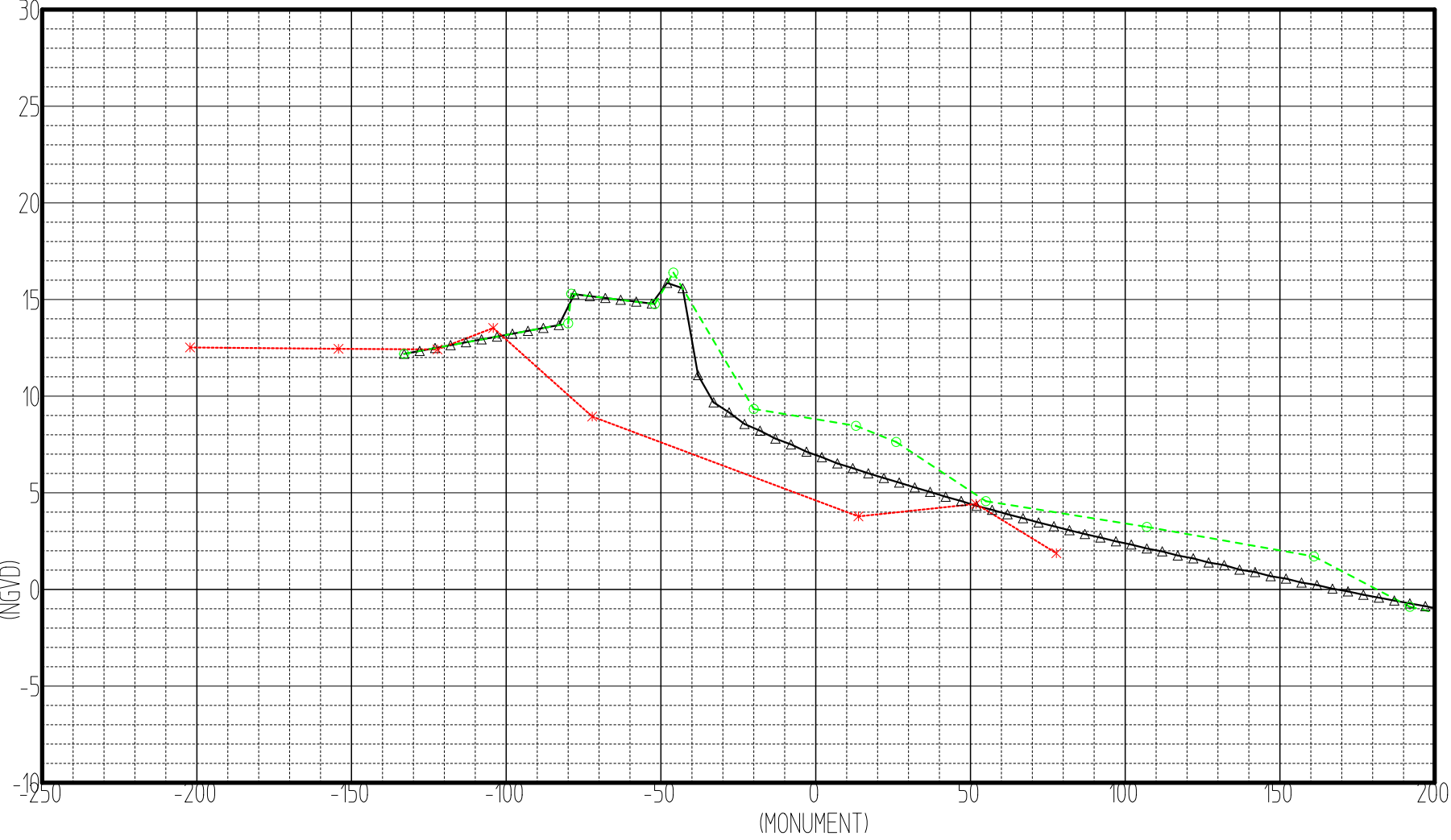
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-5-T

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

---○---○--- SURVEY APRIL-95 (PRE-OPAL)

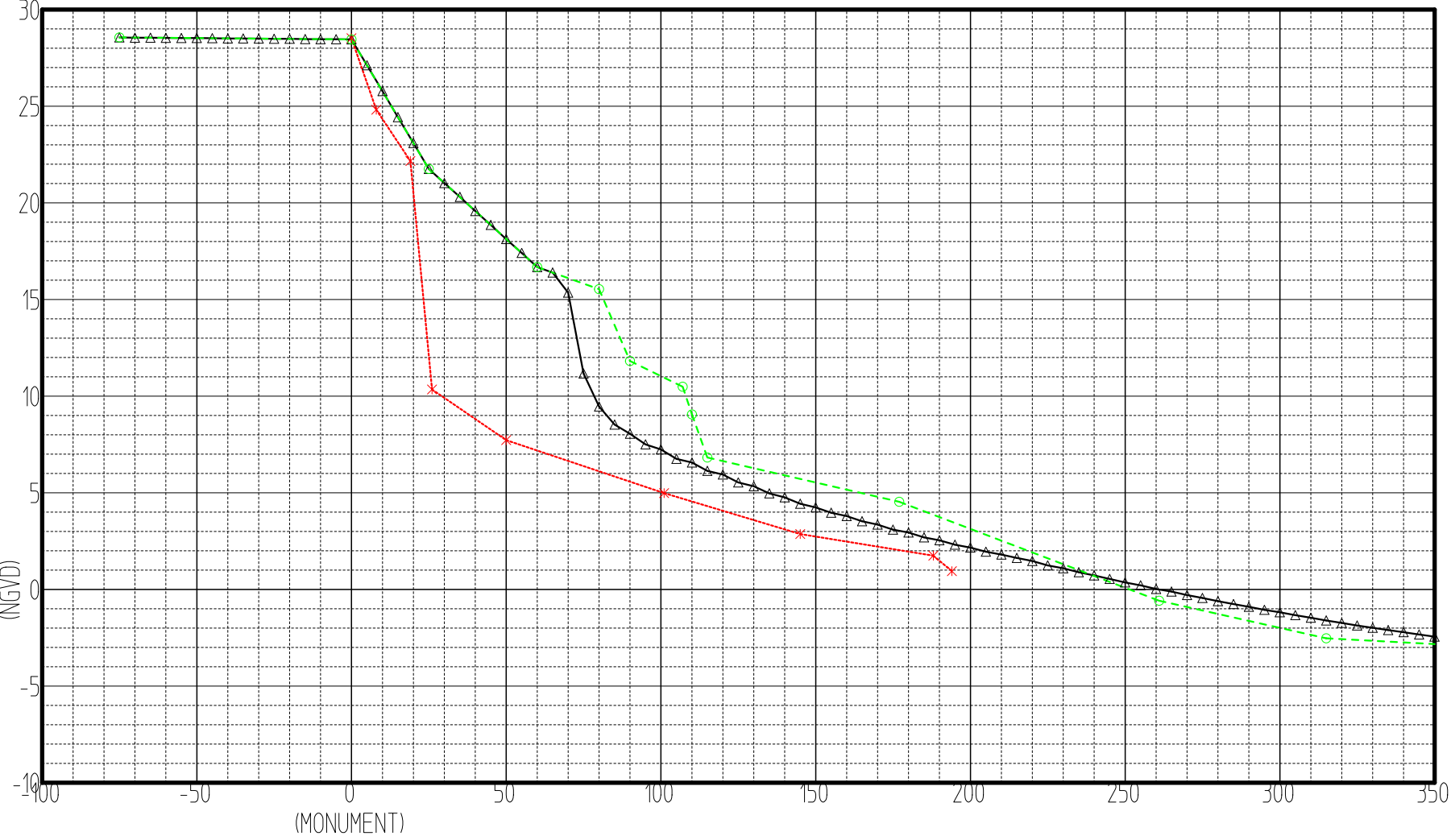
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-7

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

---○---○--- SURVEY APRIL-95 (PRE-OPAL)

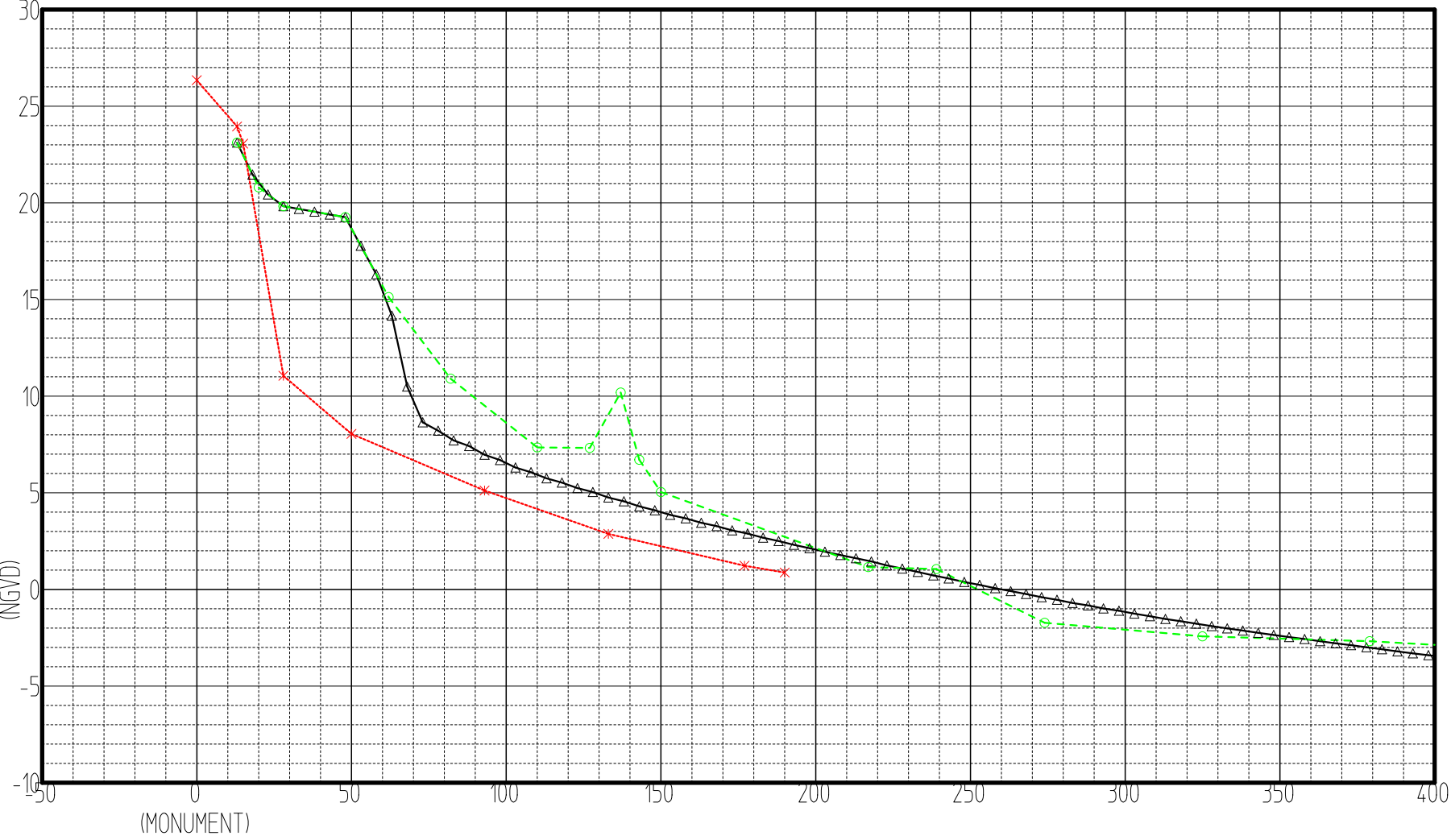
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-10

BEARING: .00

1/2



BEACH PROFILE

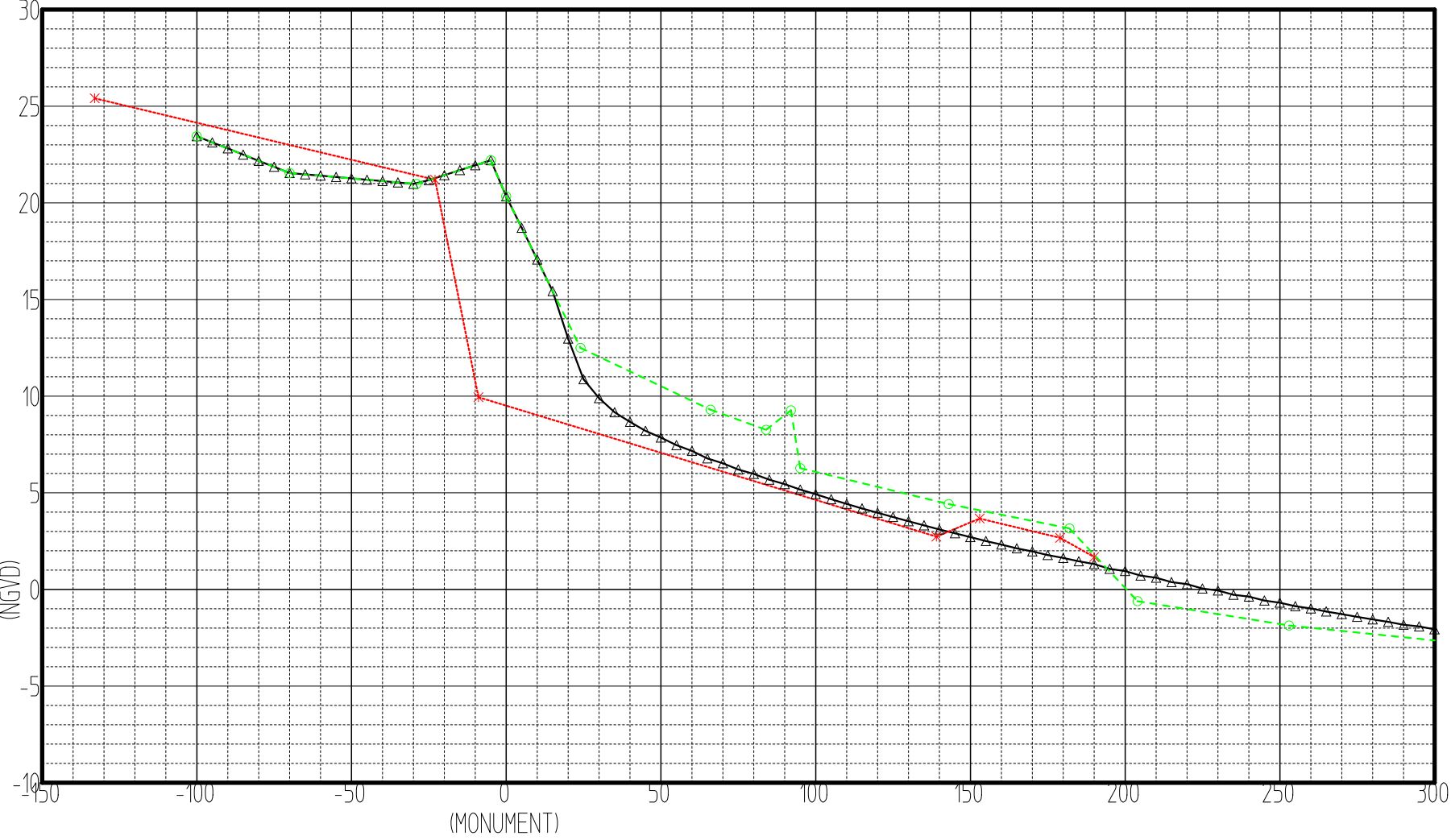
- △—△— SBEACH ERODED PROFILE
- *- SURVEY OCT-95 (POST-OPAL)
- SURVEY APRIL-95 (PRE-OPAL)

BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-11 1/2

Bearing: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— SURVEY OCT-95 (POST-OPAL)

—○—○— SURVEY APRIL-95 (PRE-OPAL)

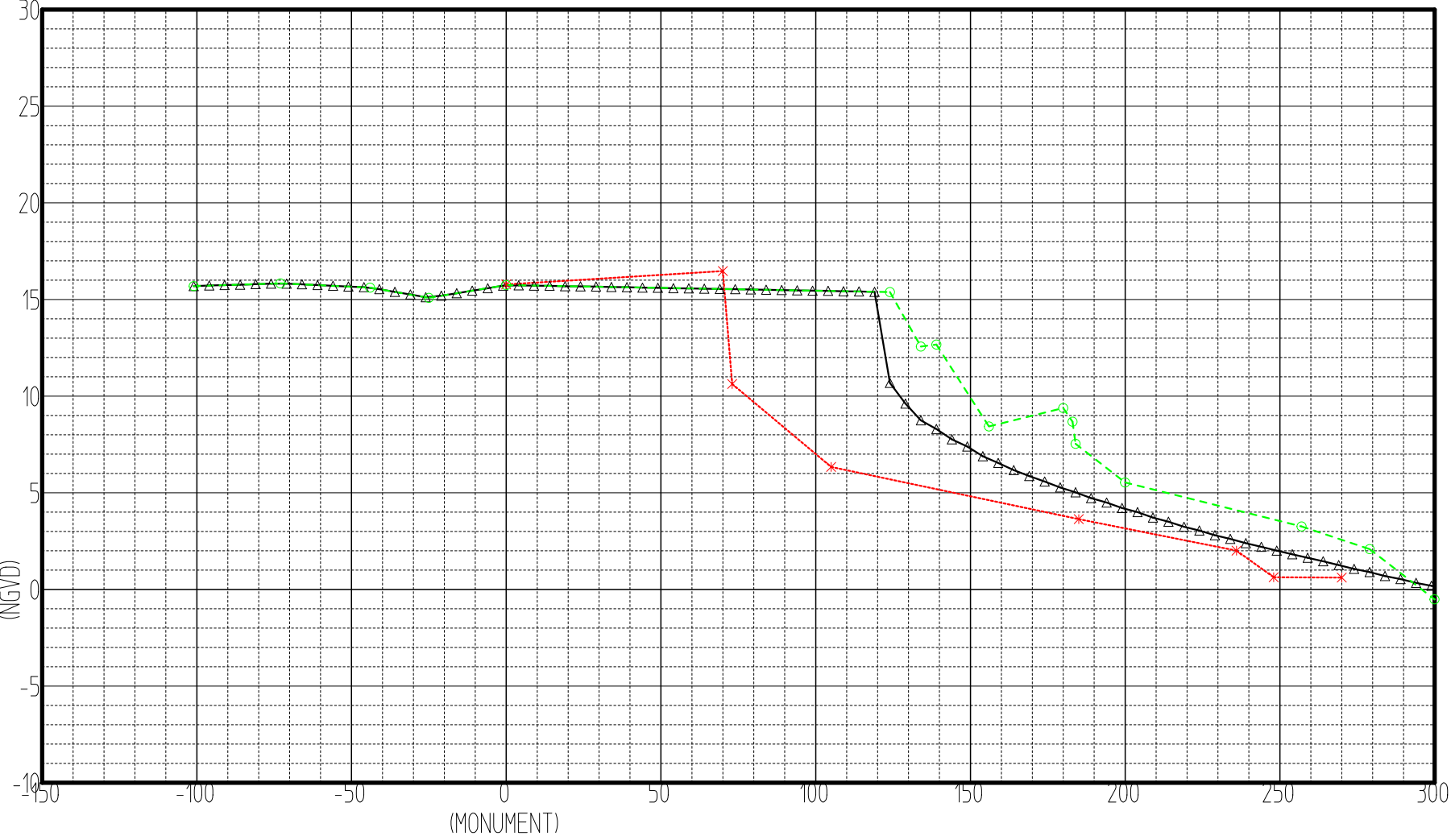
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-12

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— SURVEY OCT-95 (POST-OPAL)

—○—○— SURVEY APRIL-95 (PRE-OPAL)

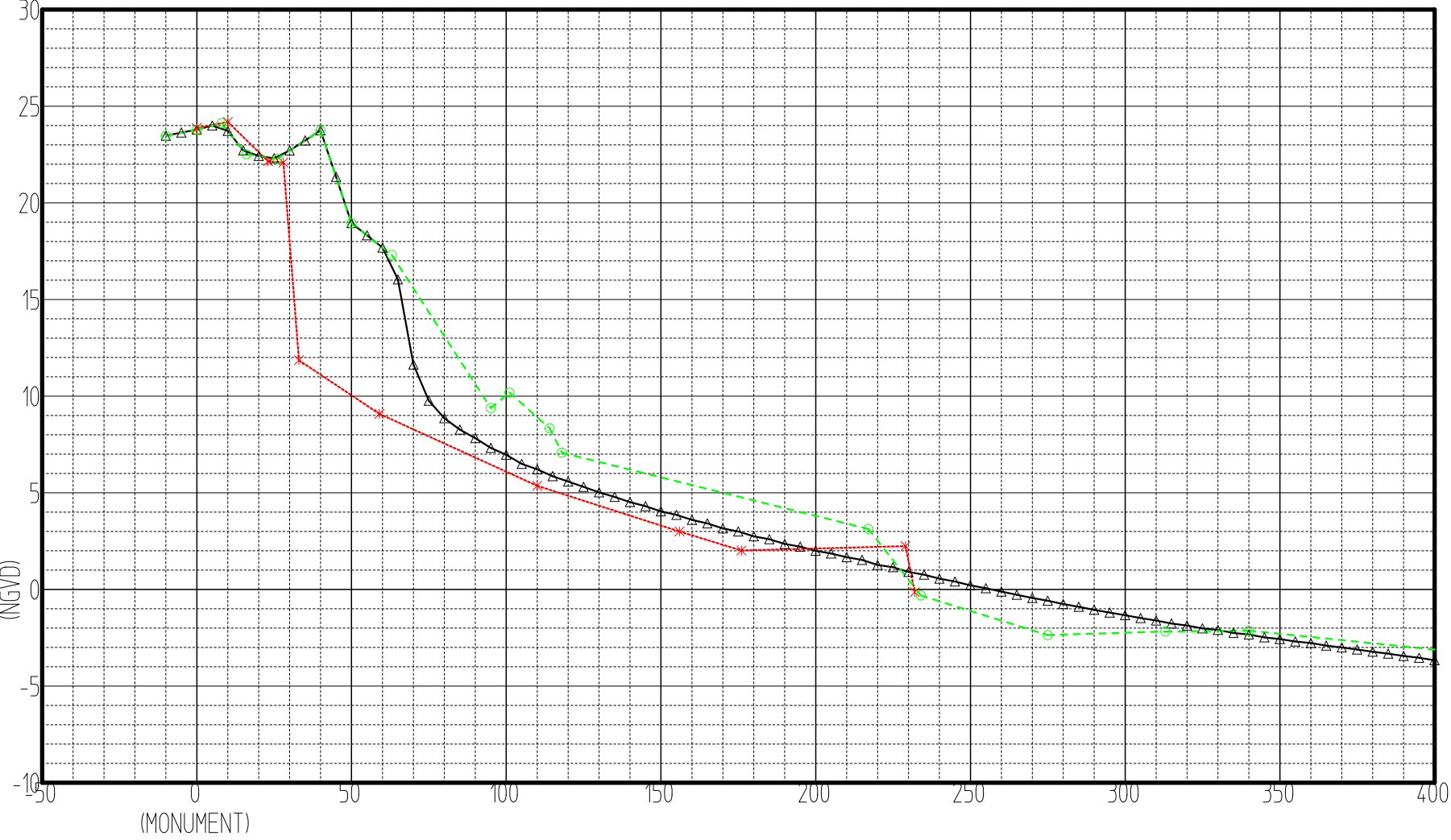
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-13-T

BEARING: .00

1/2



BEACH PROFILE

- △—△— SBEACH ERODED PROFILE
- *---*--- SURVEY OCT-95 (POST-OPAL)
- SURVEY APRIL-95 (PRE-OPAL)

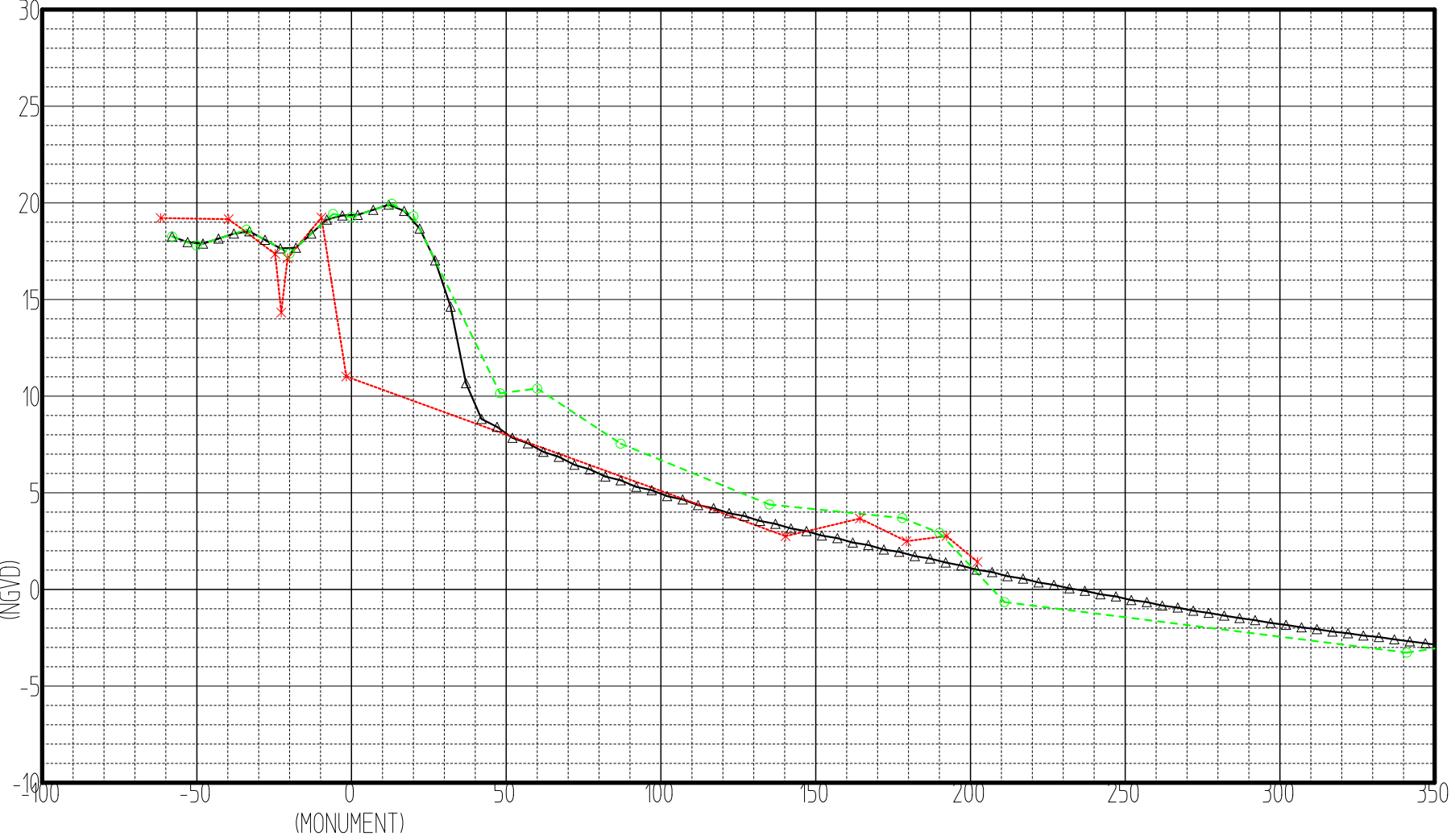
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-14

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

---○---○--- SURVEY APRIL-95 (PRE-OPAL)

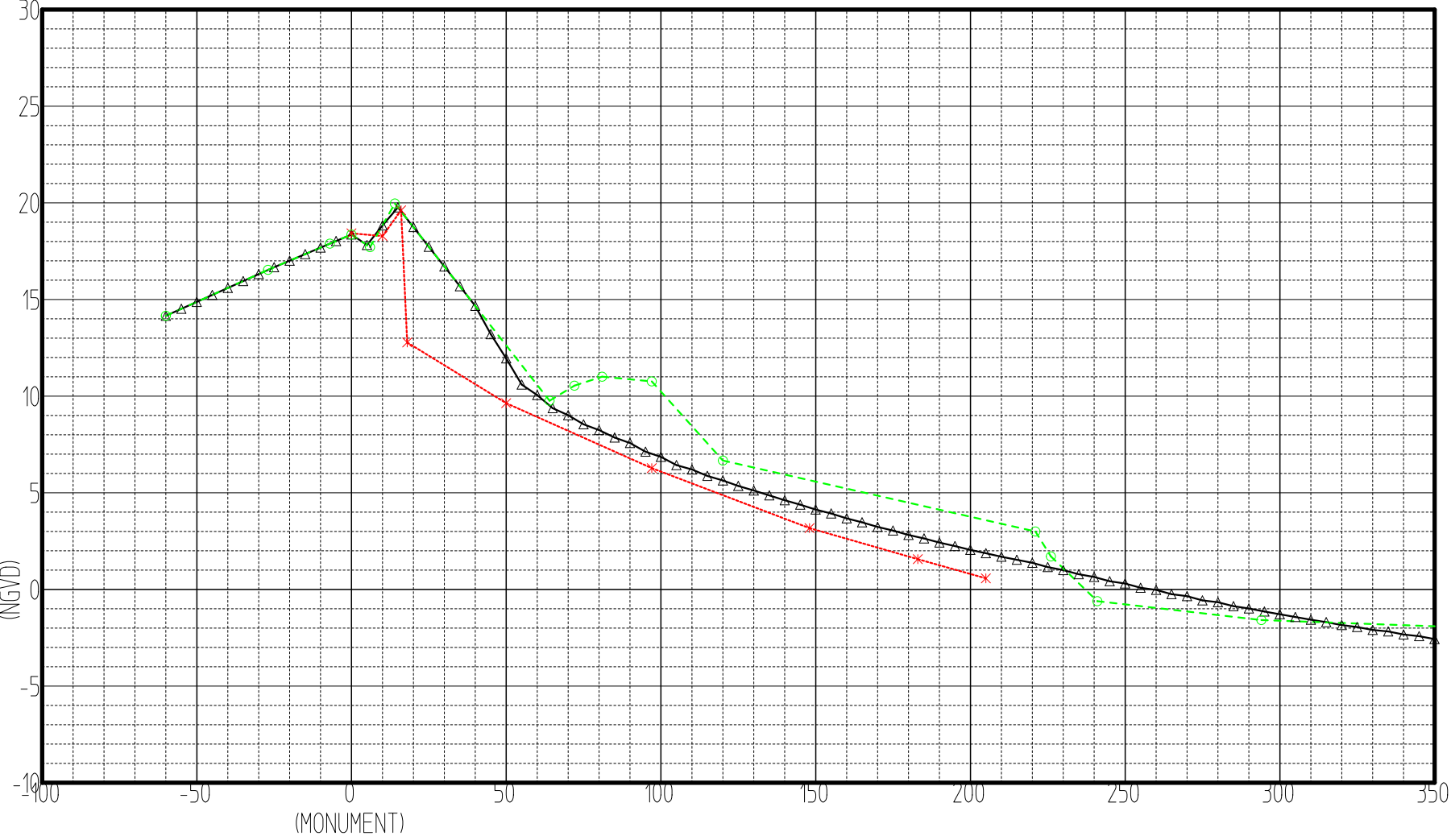
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-15

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

---○---○--- SURVEY APRIL-95 (PRE-OPAL)

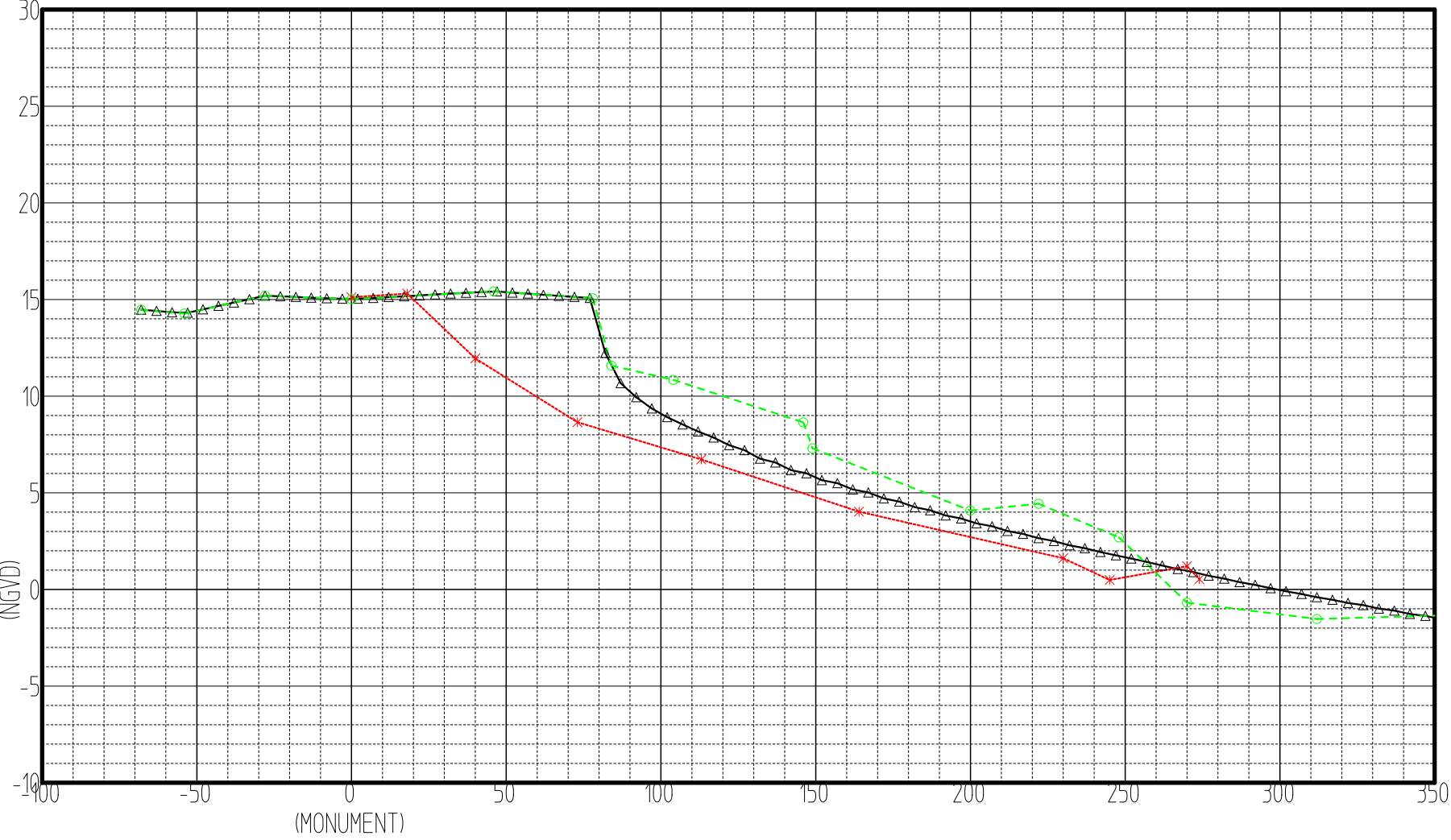
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-16

BEARING: .00

1/2



BEACH PROFILE

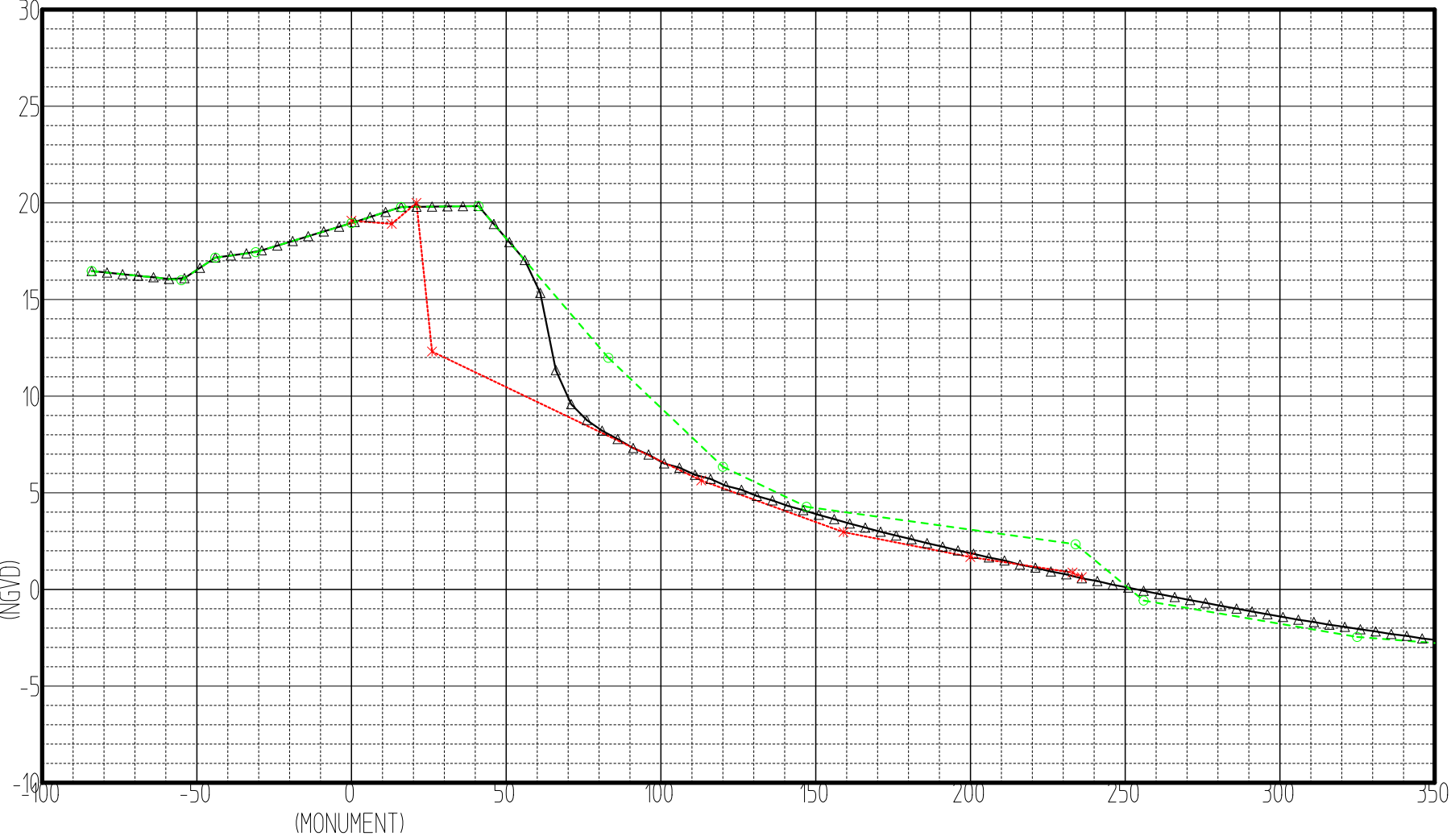
- △—△— SBEACH ERODED PROFILE
- *—*— SURVEY OCT-95 (POST-OPAL)
- SURVEY APRIL-95 (PRE-OPAL)

BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-18 1/2

BEARING: .00



BEACH PROFILE

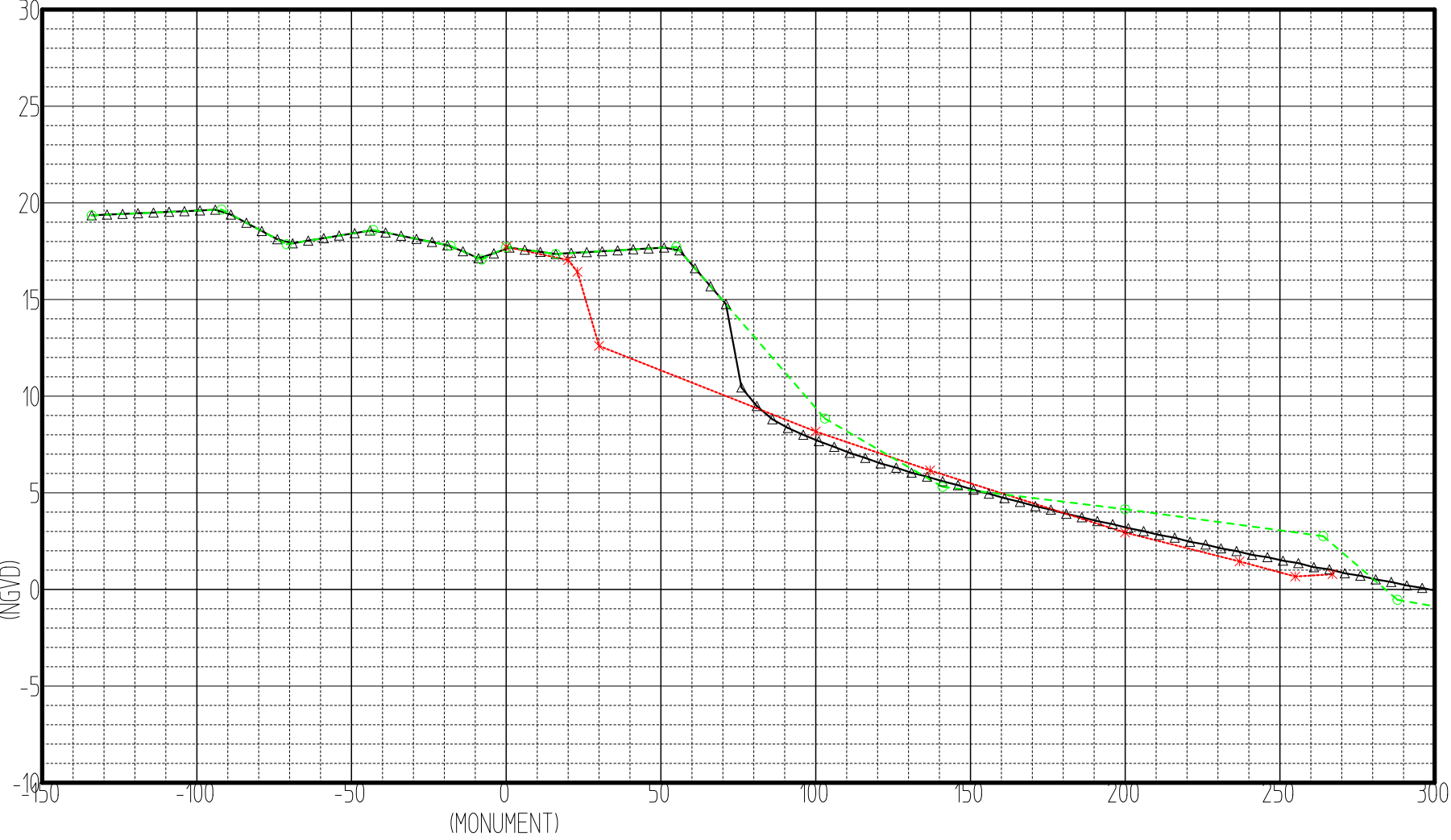
- △—△— SBEACH ERODED PROFILE
- *—*— SURVEY OCT-95 (POST-OPAL)
- SURVEY APRIL-95 (PRE-OPAL)

BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-19-T 1/2

BEARING: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— SURVEY OCT-95 (POST-OPAL)

—○—○— SURVEY APRIL-95 (PRE-OPAL)

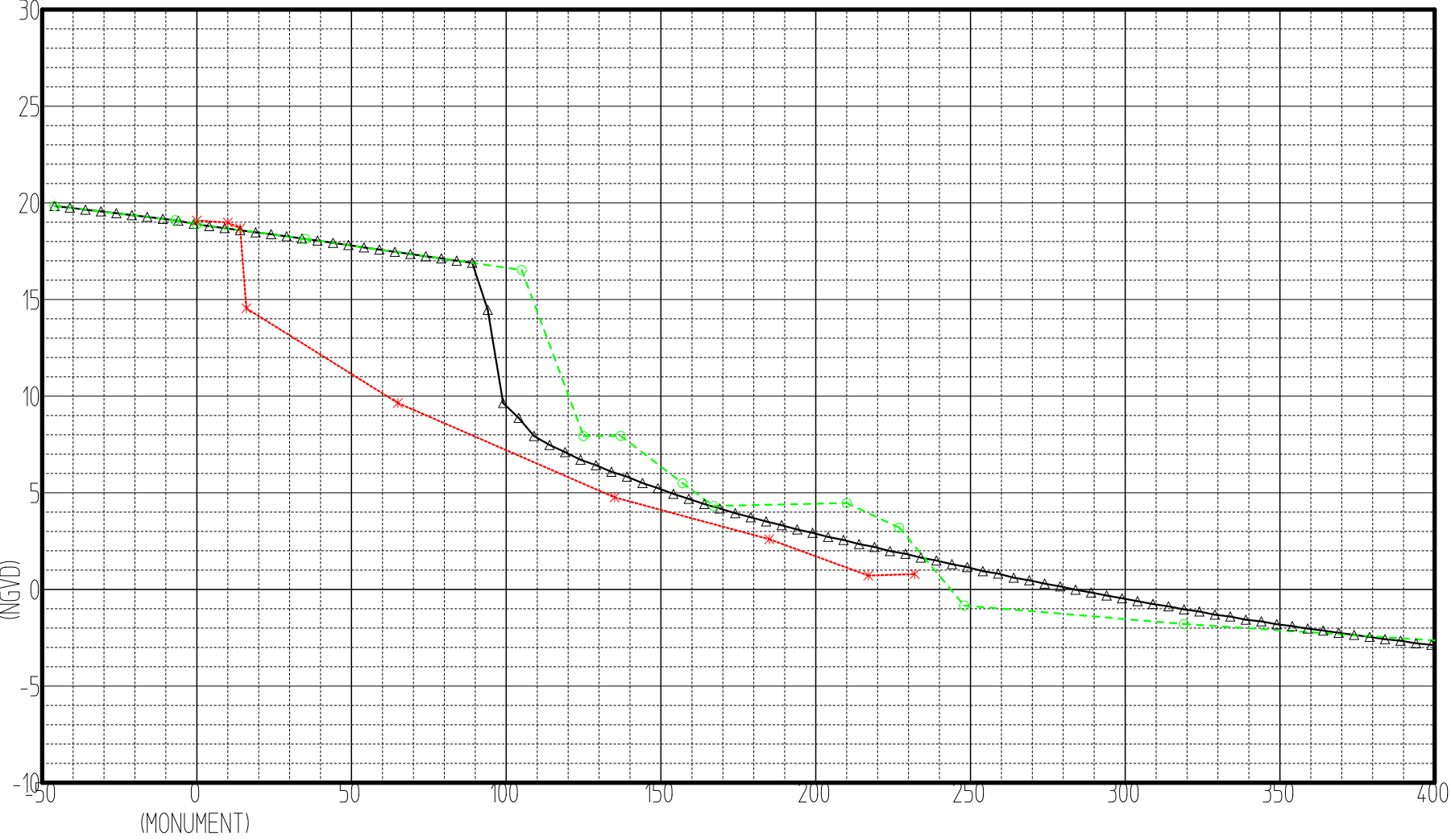
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-20-T

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

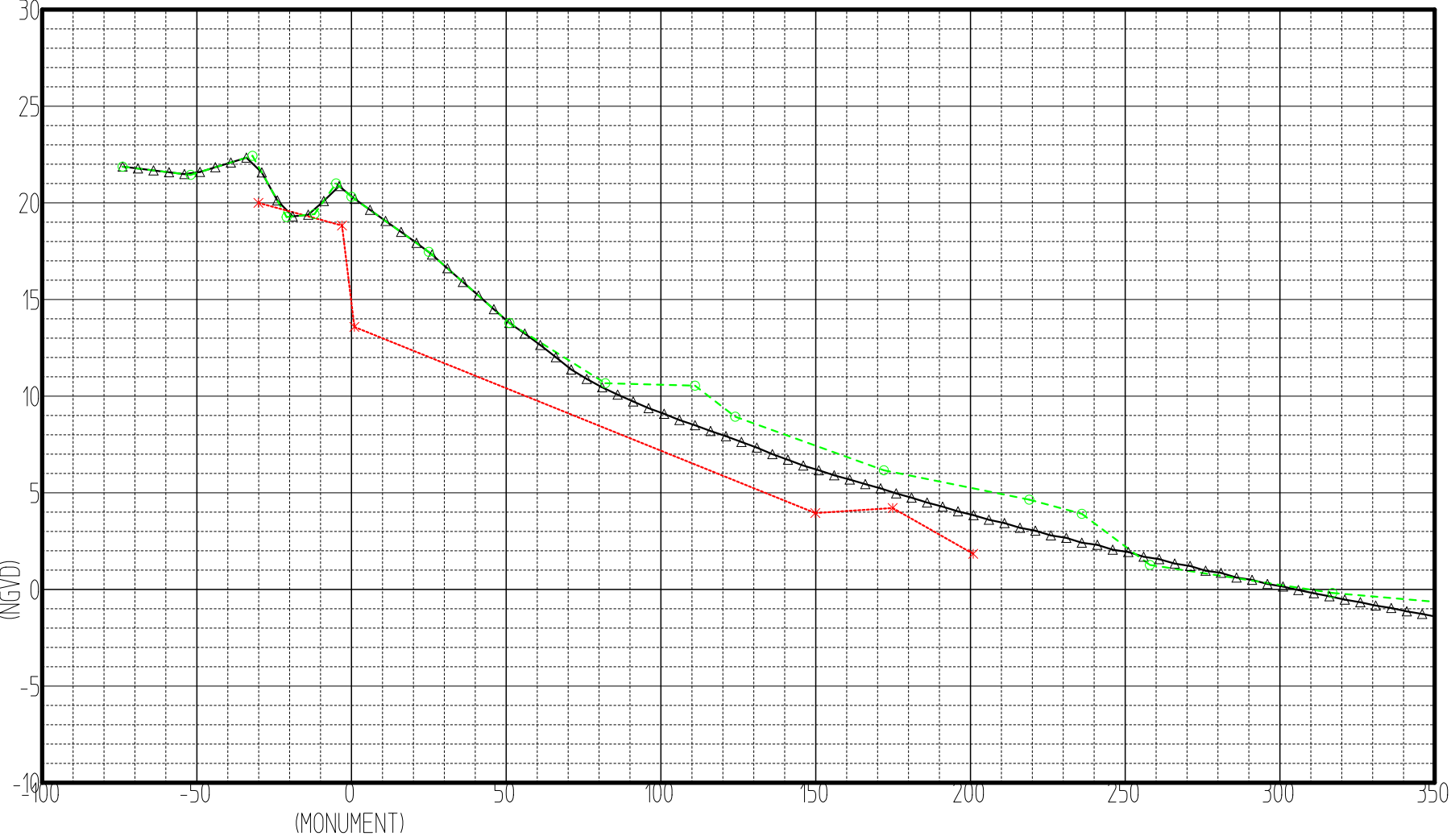
---○---○--- SURVEY APRIL-95 (PRE-OPAL)

BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-21-T 1/2

Bearing: .00



BEACH PROFILE

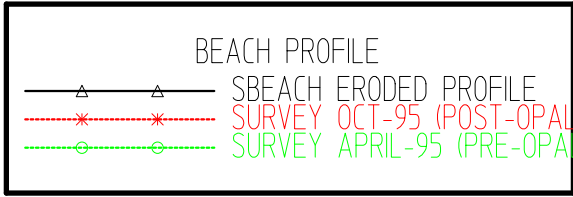
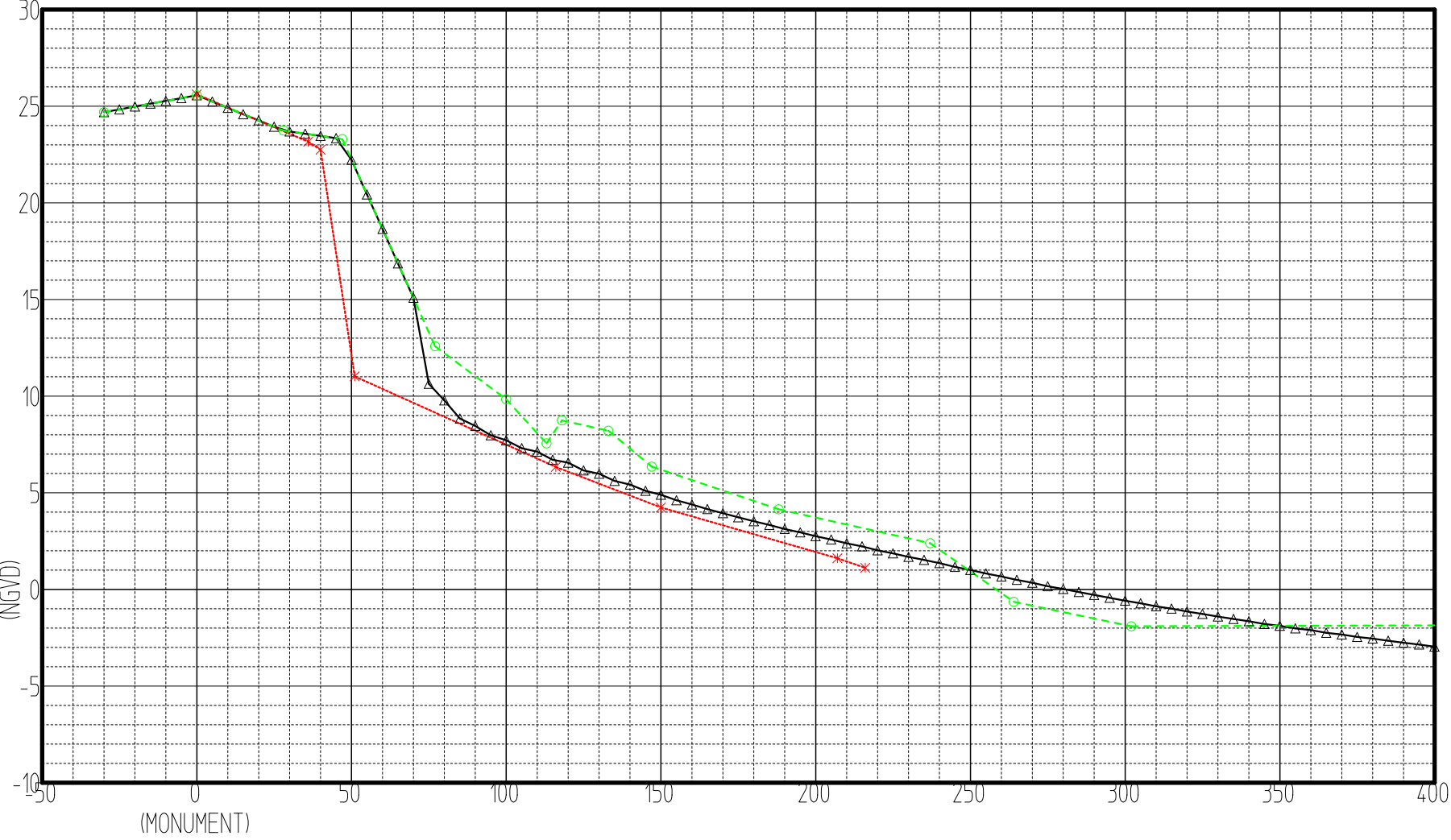
—△—△— SBEACH ERODED PROFILE
 -*- SURVEY OCT-95 (POST-OPAL)
 -○- SURVEY APRIL-95 (PRE-OPAL)

BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-22 1/2

Bearing: .00

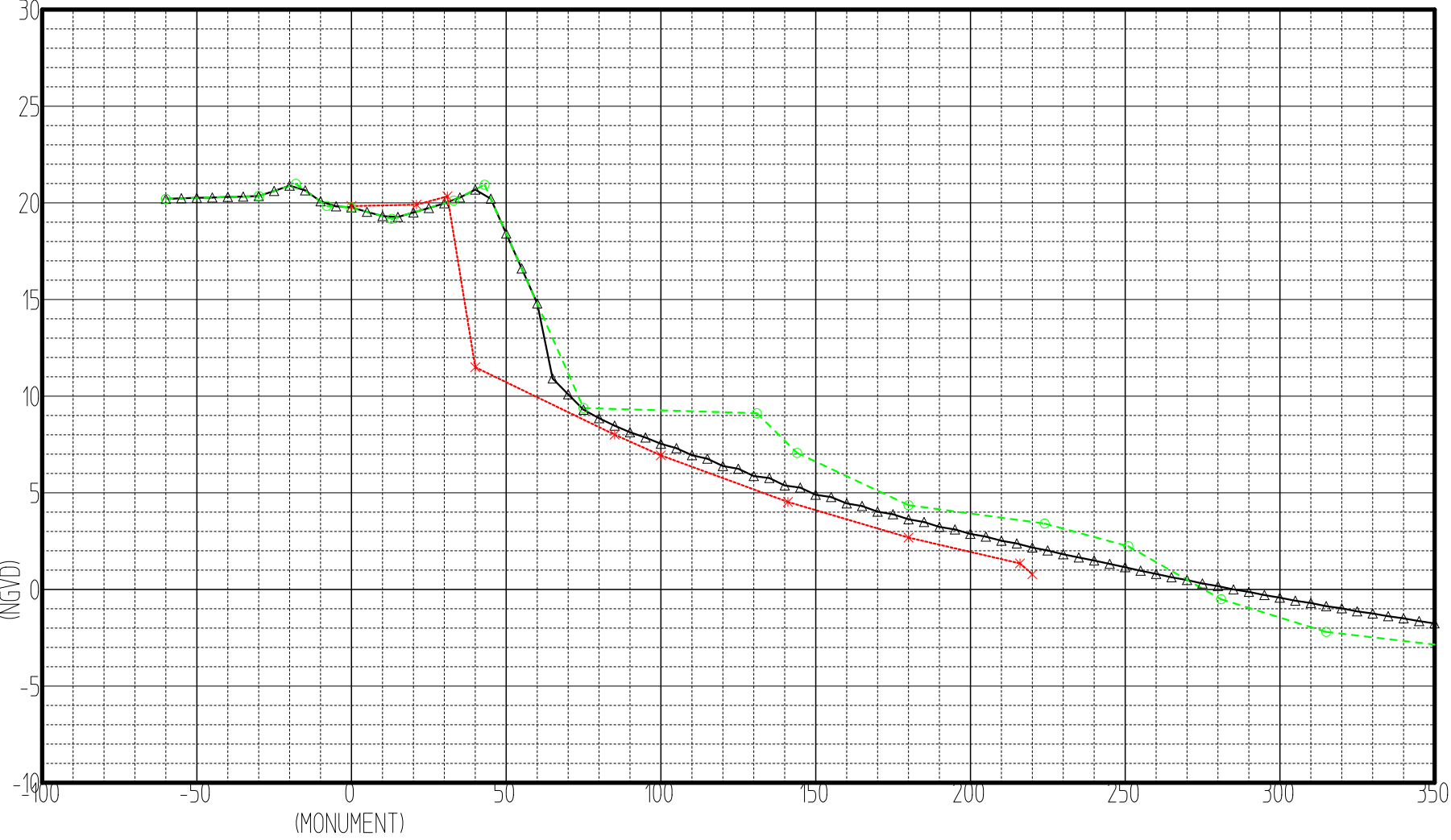


BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-23 1/2

Bearing: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

---○---○--- SURVEY APRIL-95 (PRE-OPAL)

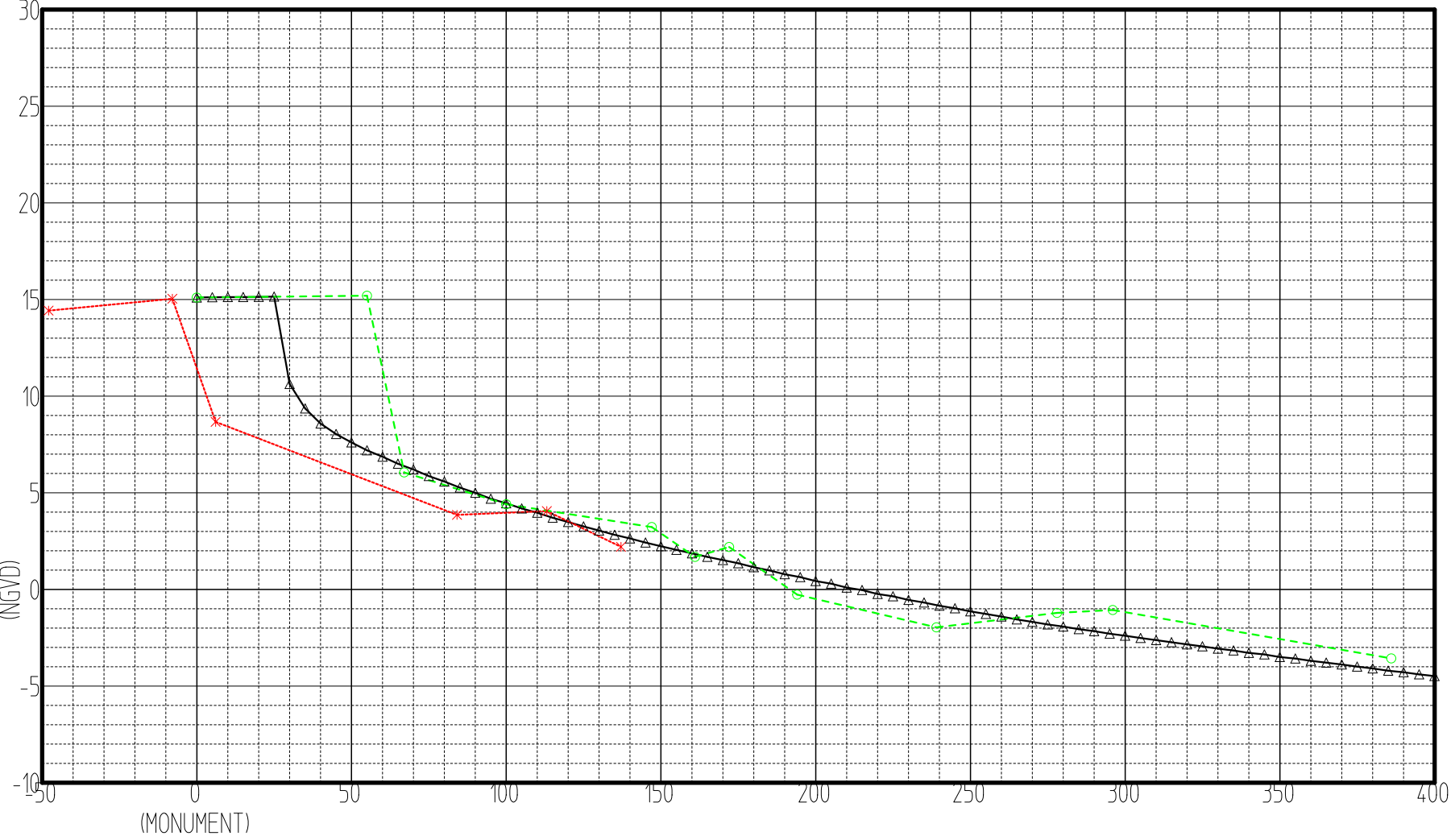
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-24

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

---○---○--- SURVEY APRIL-95 (PRE-OPAL)

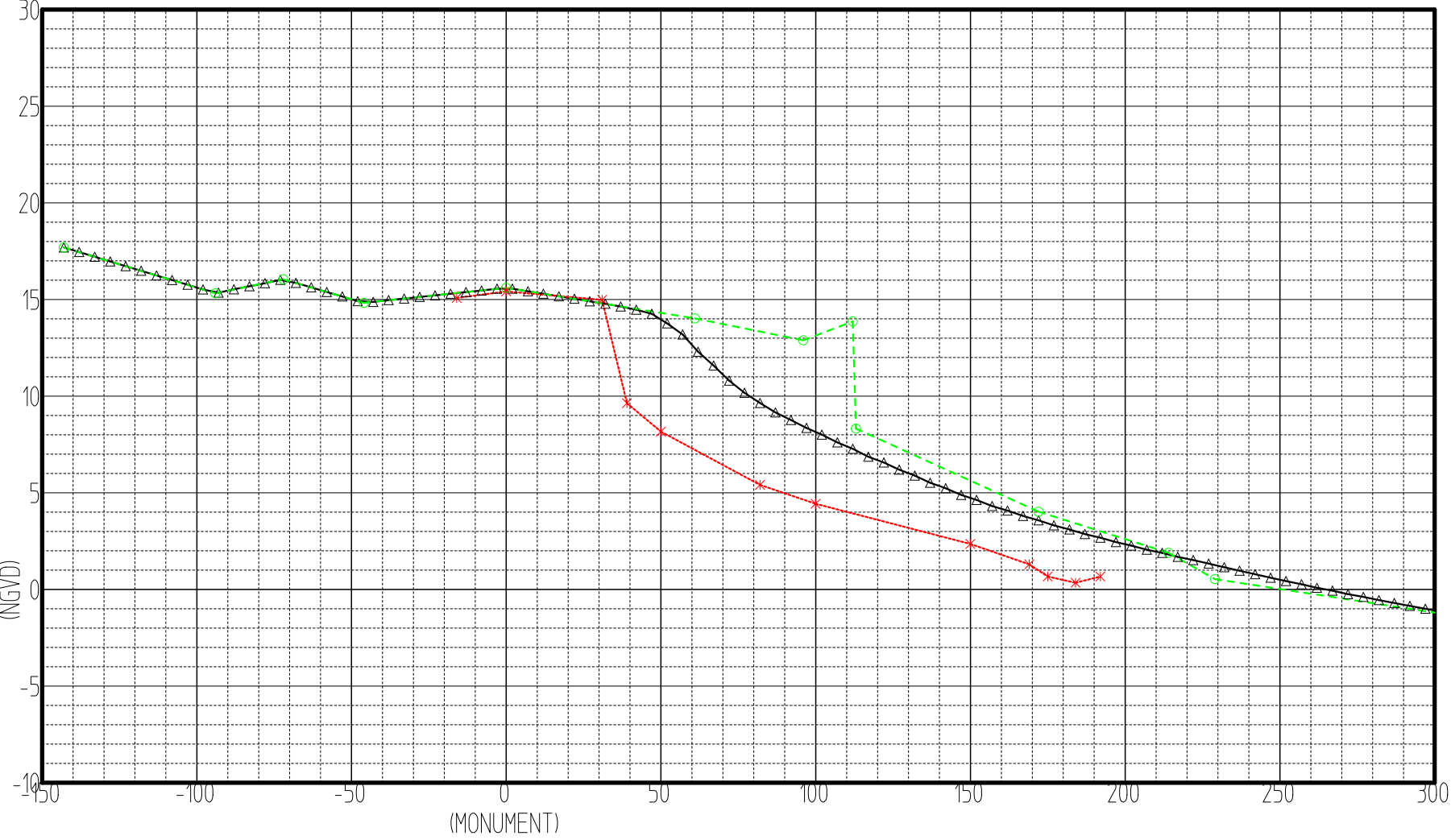
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-29-T

BEARING: .00

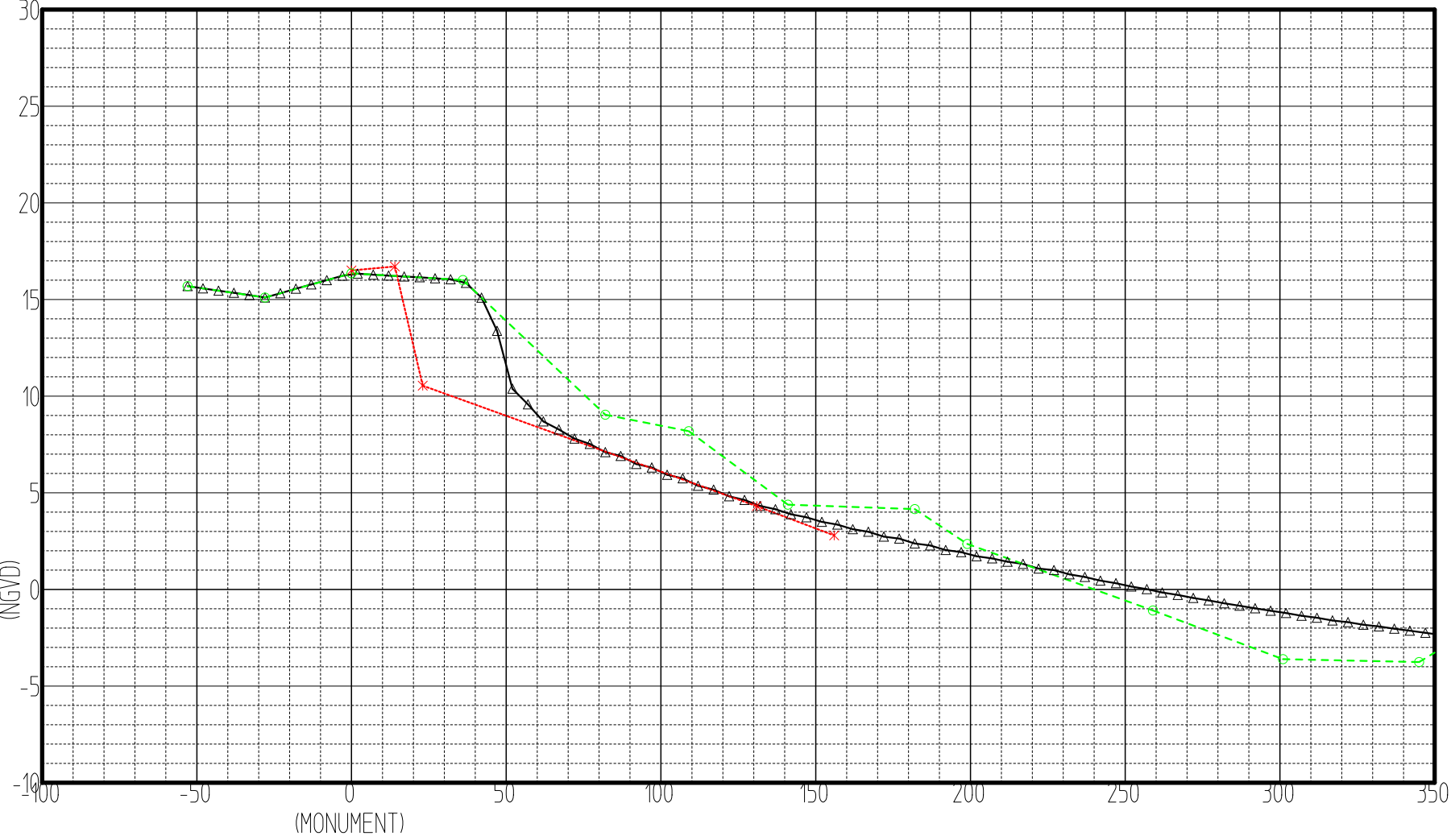
1/2



BEACH PROFILE
 —△—△— SBEACH ERODED PROFILE
 -*- SURVEY OCT-95 (POST-OPAL)
 -o- SURVEY APRIL-95 (PRE-OPAL)

BAY-OPAL
 BUREAU OF BEACHES & COASTAL SYSTEMS
 FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-37-T 1/2
 BEARING: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

---○---○--- SURVEY APRIL-95 (PRE-OPAL)

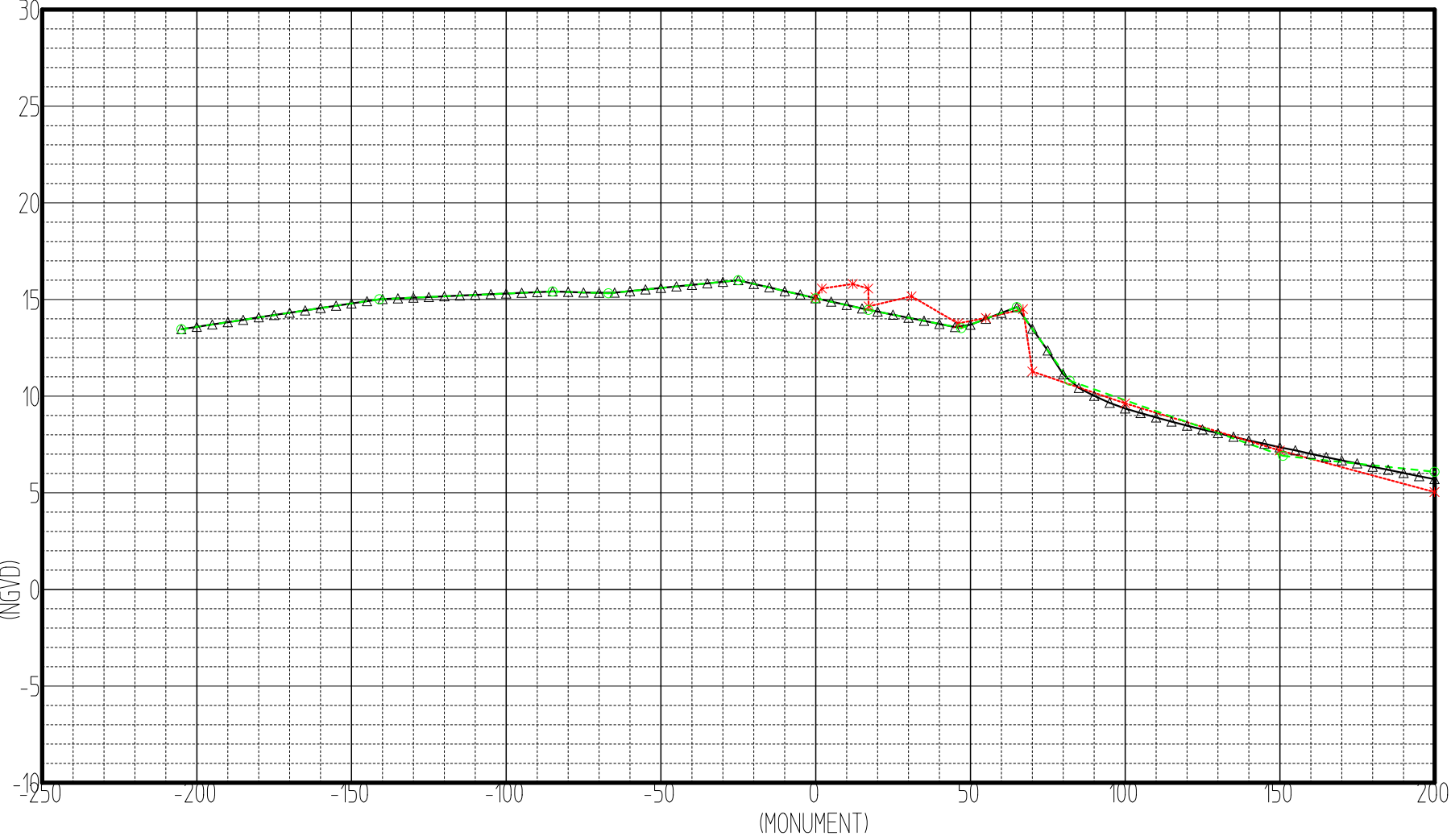
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-39

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— SURVEY OCT-95 (POST-OPAL)

—○—○— SURVEY APRIL-95 (PRE-OPAL)

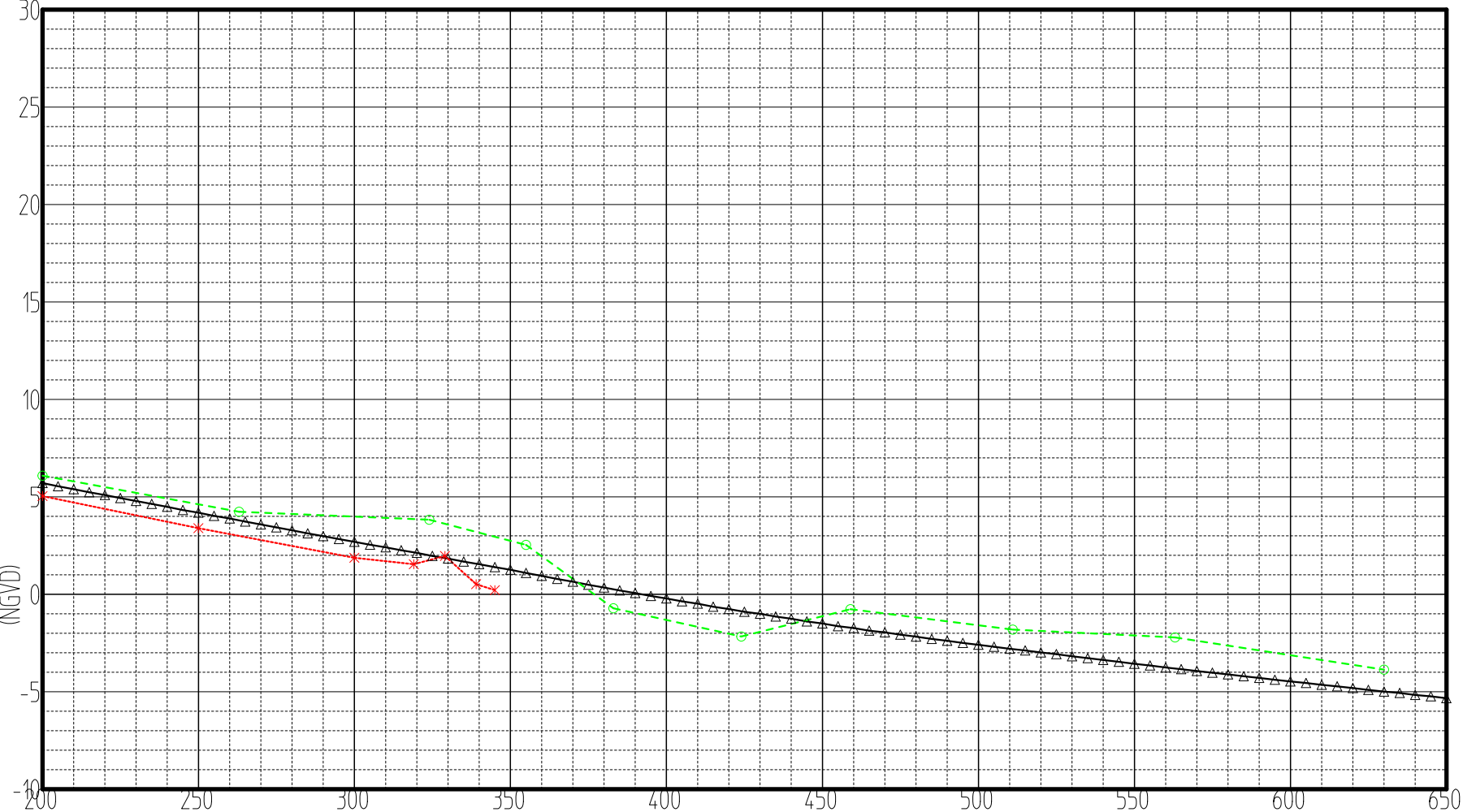
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-40

BEARING: .00

1/3



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— SURVEY OCT-95 (POST-OPAL)

—○—○— SURVEY APRIL-95 (PRE-OPAL)

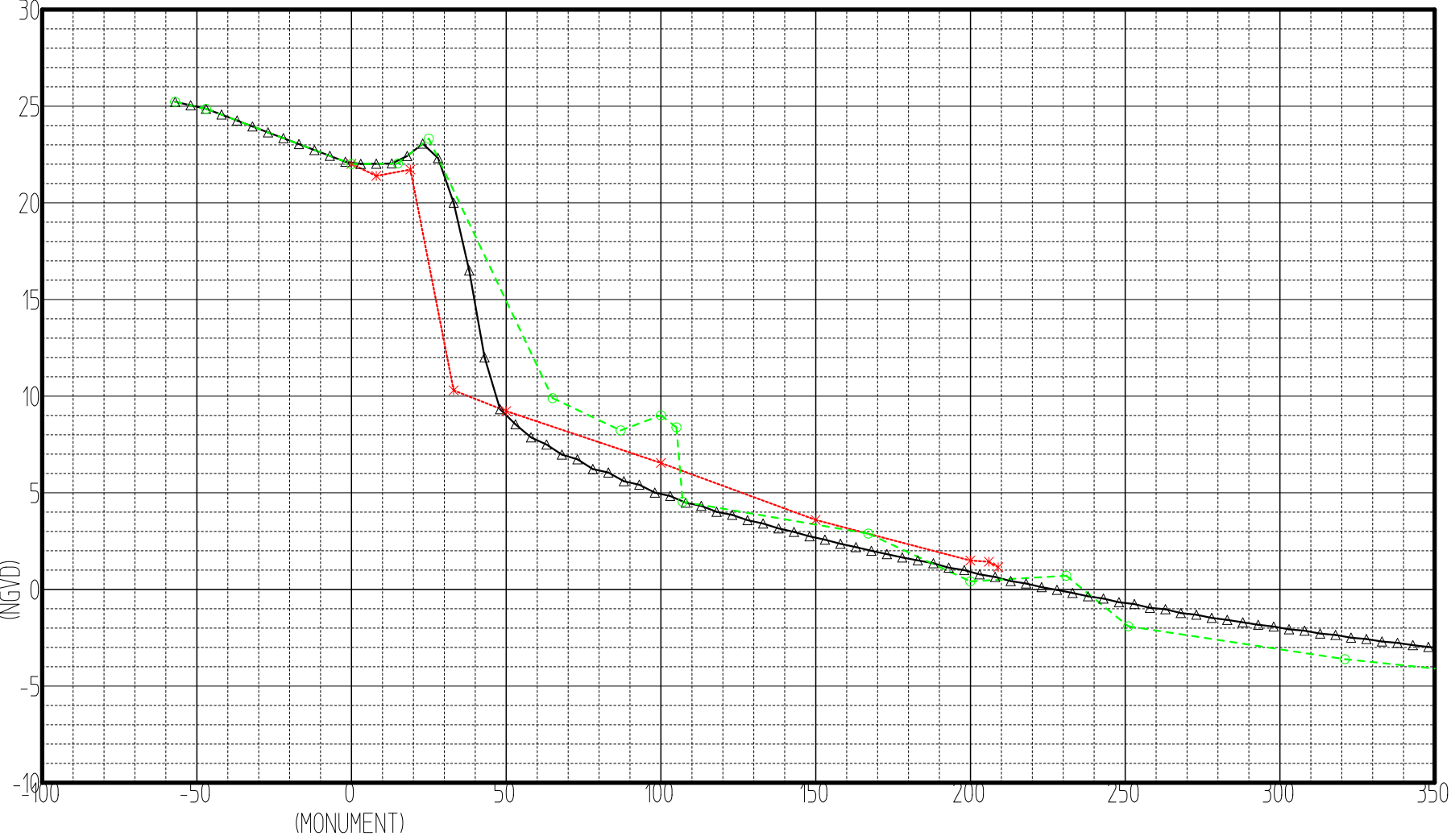
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-40

BEARING: .00

2/3



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- SURVEY OCT-95 (POST-OPAL)

---○---○--- SURVEY APRIL-95 (PRE-OPAL)

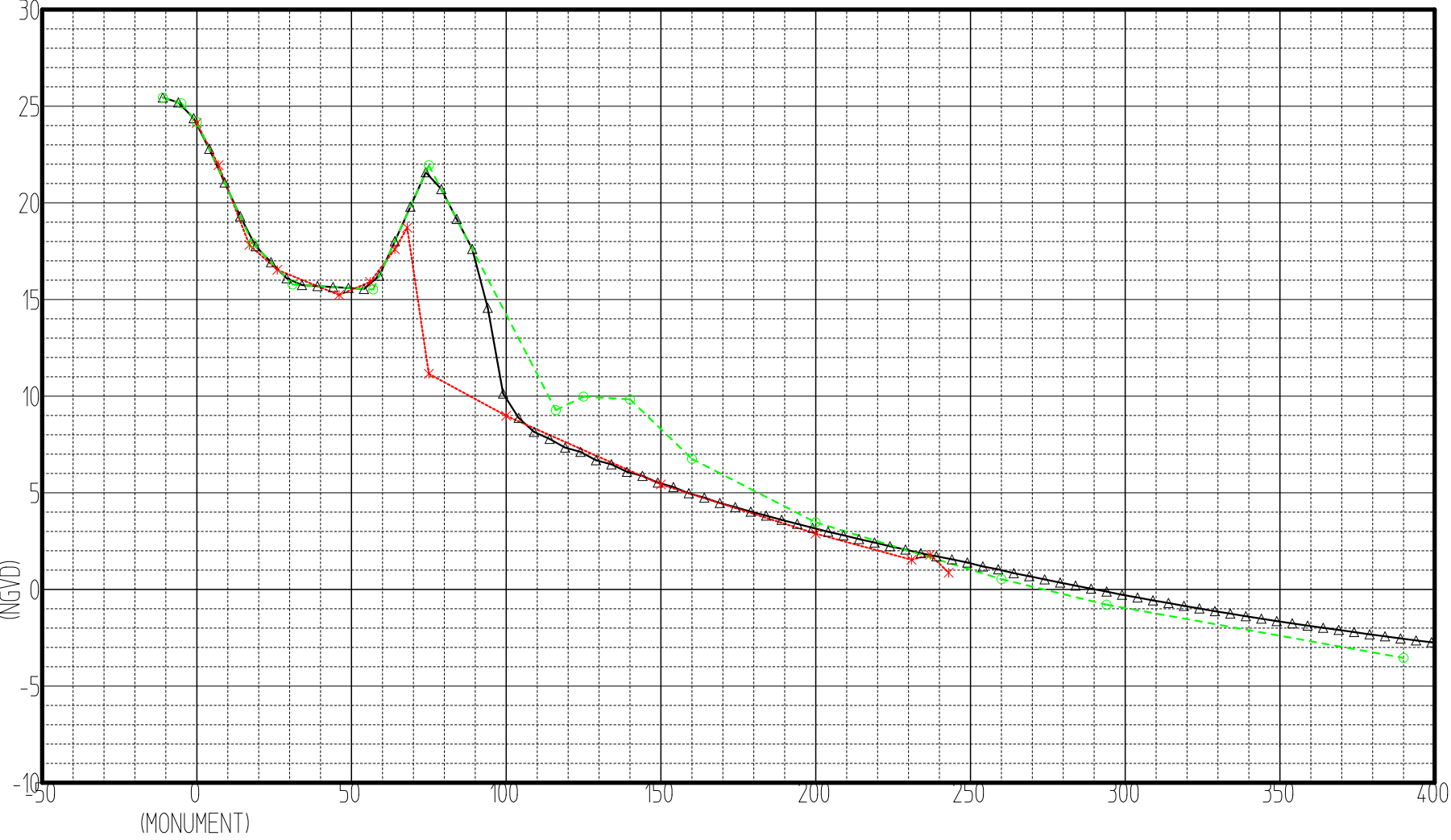
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-49

BEARING: .00

1/2



BEACH PROFILE

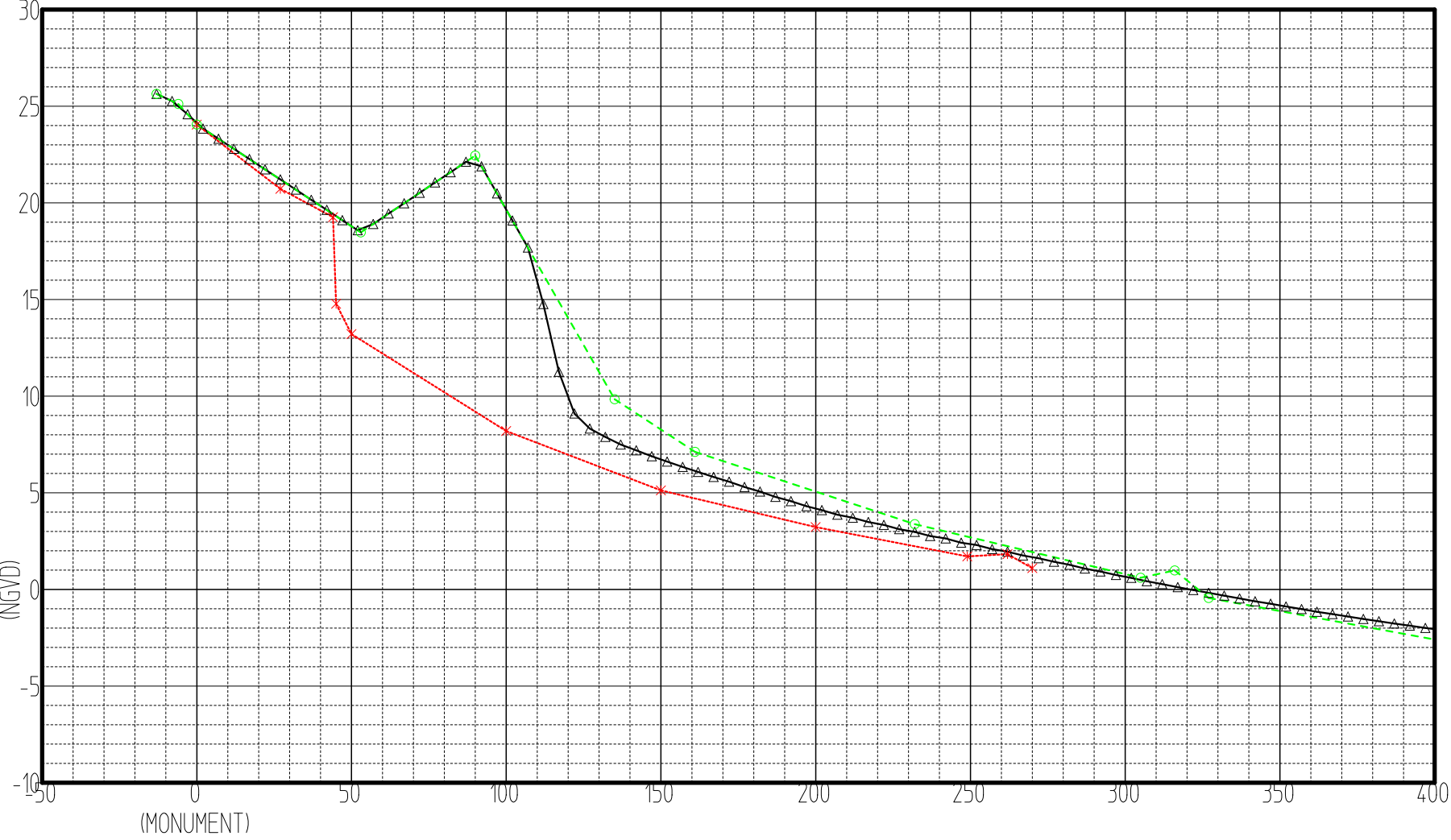
- △—△— SBEACH ERODED PROFILE
- *—*— SURVEY OCT-95 (POST-OPAL)
- SURVEY APRIL-95 (PRE-OPAL)

BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-50-T 1/2

Bearing: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE
 - - * - - * - SURVEY OCT-95 (POST-OPAL)
 - - ○ - - ○ - SURVEY APRIL-95 (PRE-OPAL)

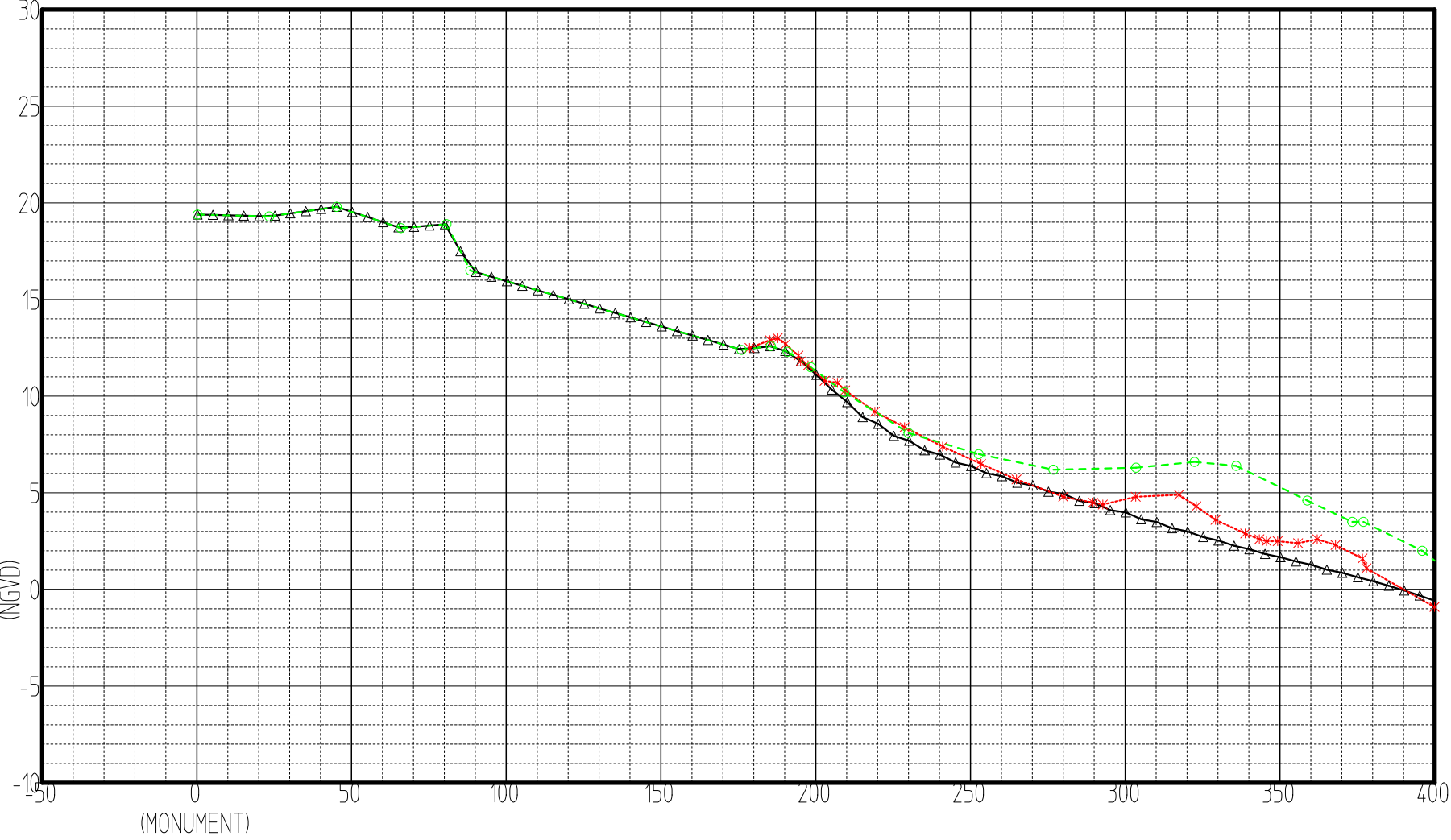
BAY-OPAL

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-51

BEARING: .00

1/2



BEACH PROFILE

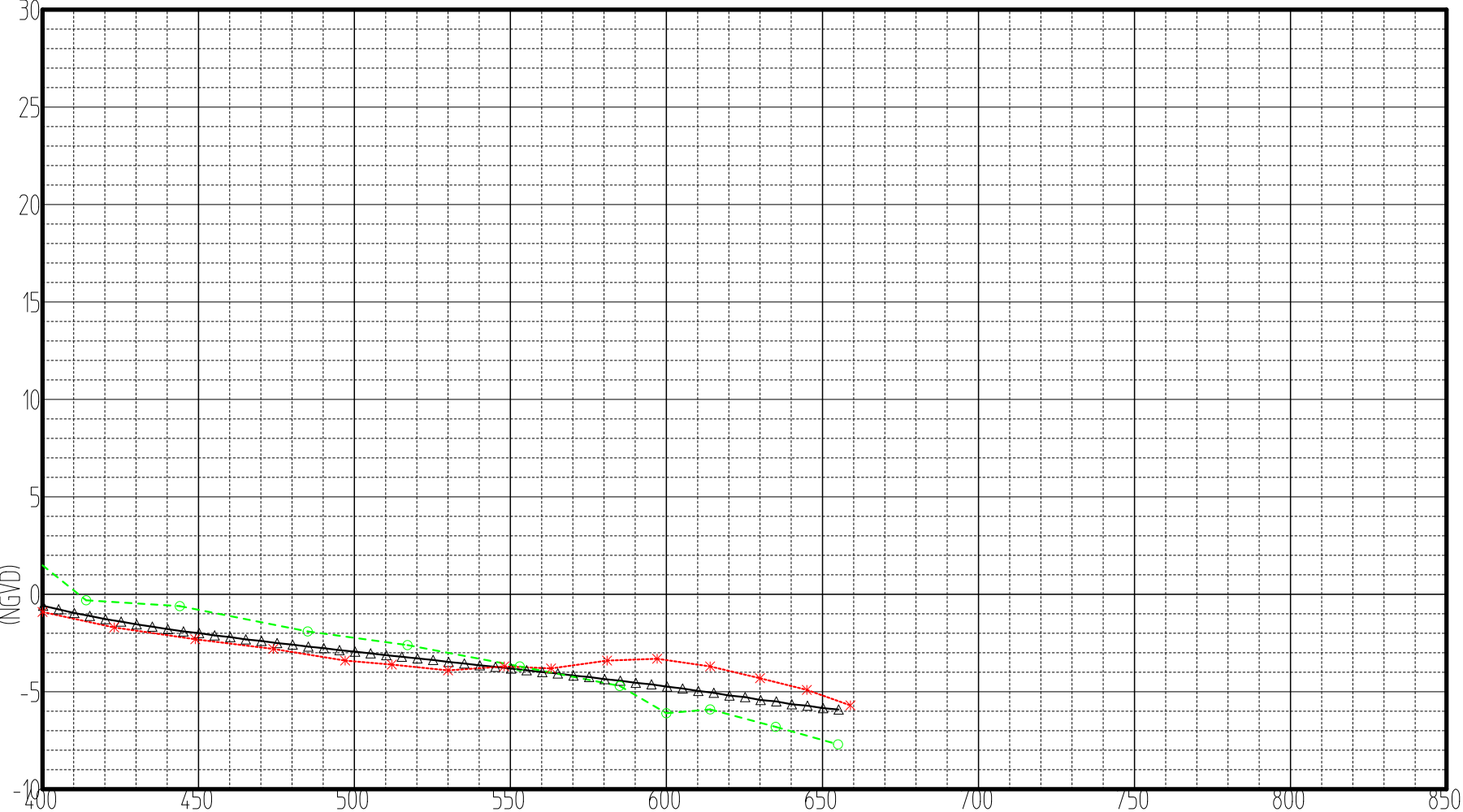
- △—△— SBEACH ERODED PROFILE
- *—*— Survey Oct-04 (Post-Ivan)
- Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-30 1/2

BEARING: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— Survey Oct-04 (Post-Ivan)

—○—○— Survey June-04 (Pre-Ivan)

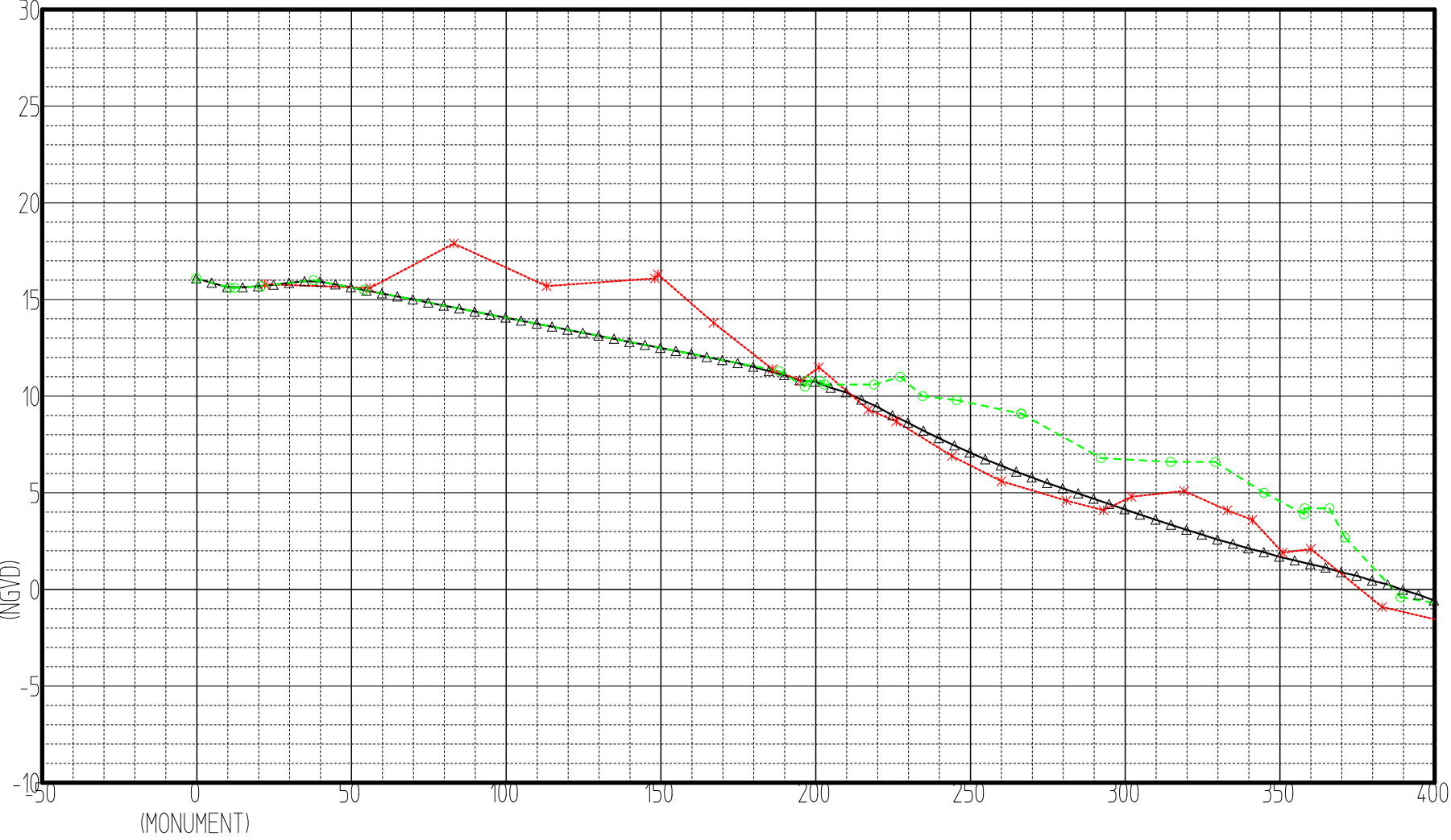
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-30

BEARING: .00

2/2



BEACH PROFILE

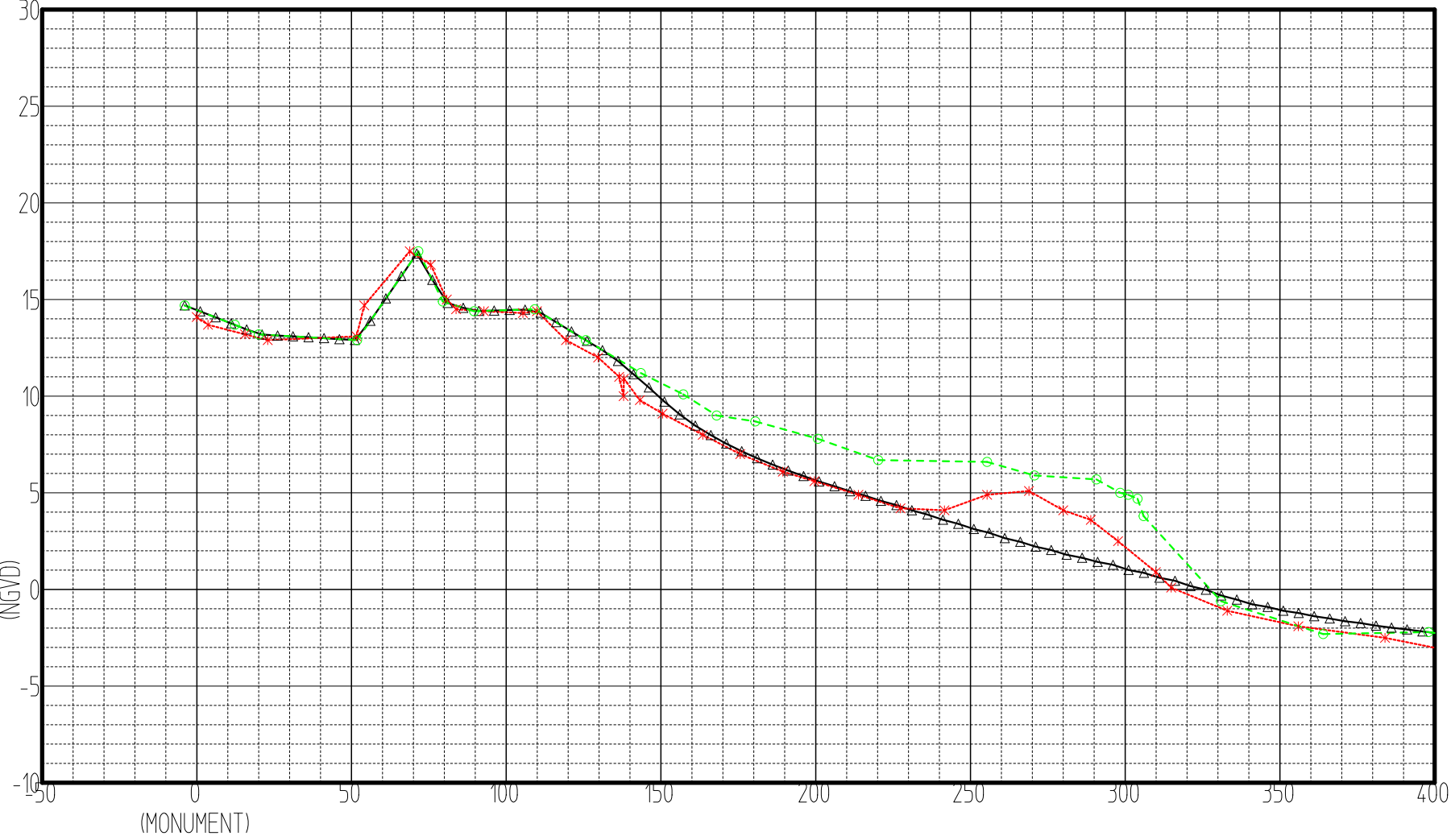
- △—△— SBEACH ERODED PROFILE
- *—*— Survey Oct-04 (Post-Ivan)
- Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-31 1/2

BEARING: .00



BEACH PROFILE

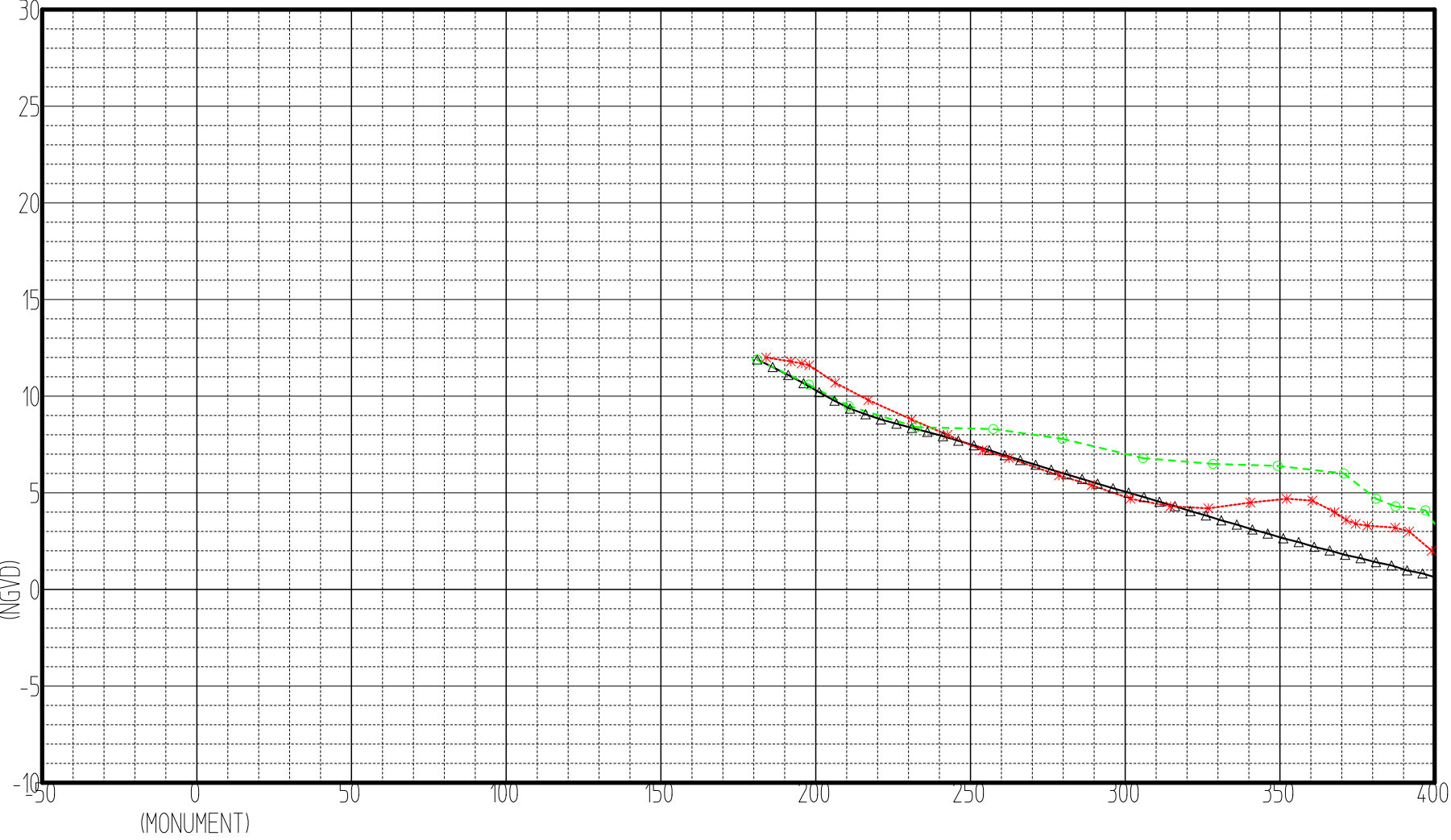
- △—△— SBEACH ERODED PROFILE
- - * - - * - Survey Oct-04 (Post-Ivan)
- - ○ - - ○ - Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-32 1/2

BEARING: .00



BEACH PROFILE

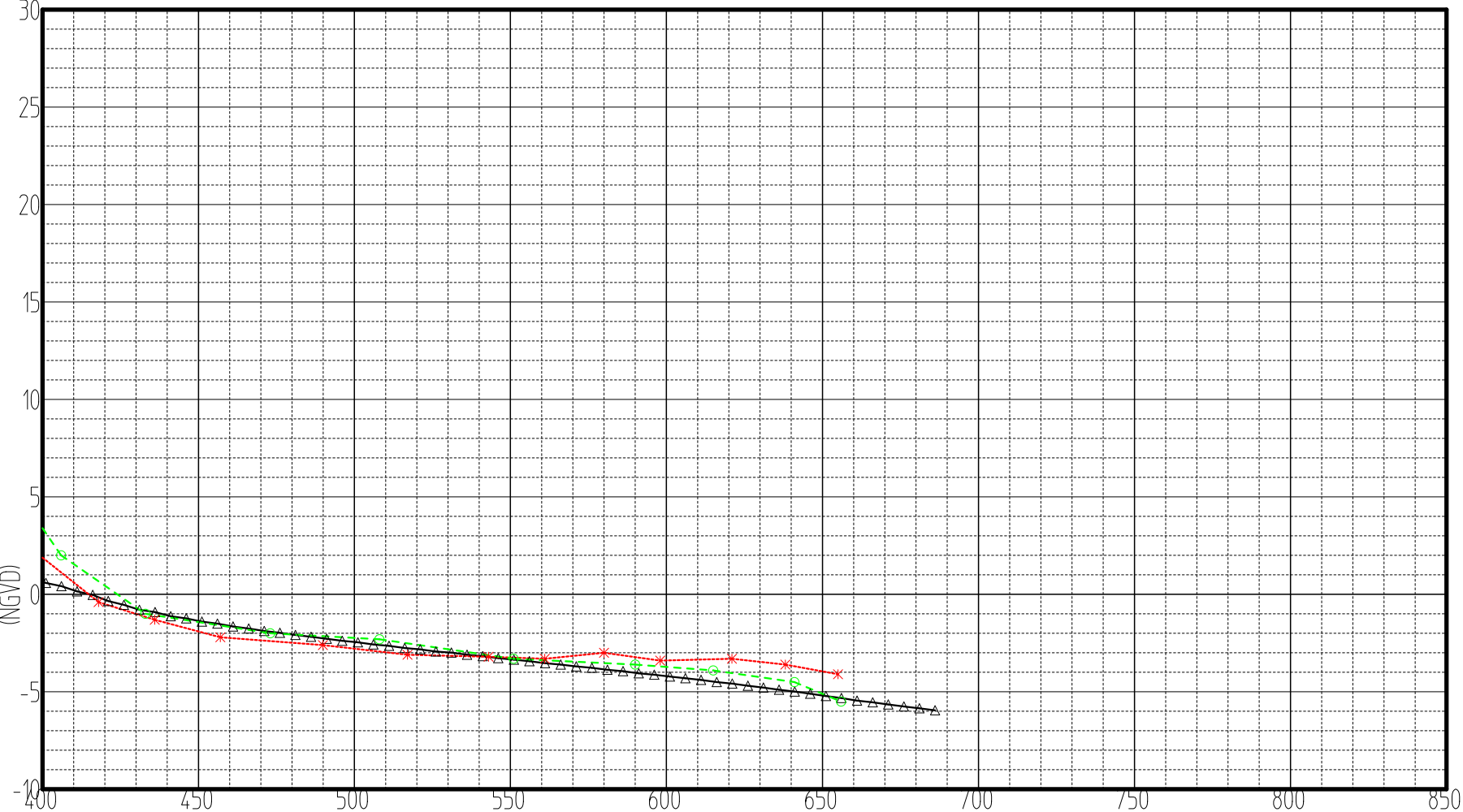
- △—△— SBEACH ERODED PROFILE
- *—*— Survey Oct-04 (Post-Ivan)
- Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-33-T 1/2

Bearing: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— Survey Oct-04 (Post-Ivan)

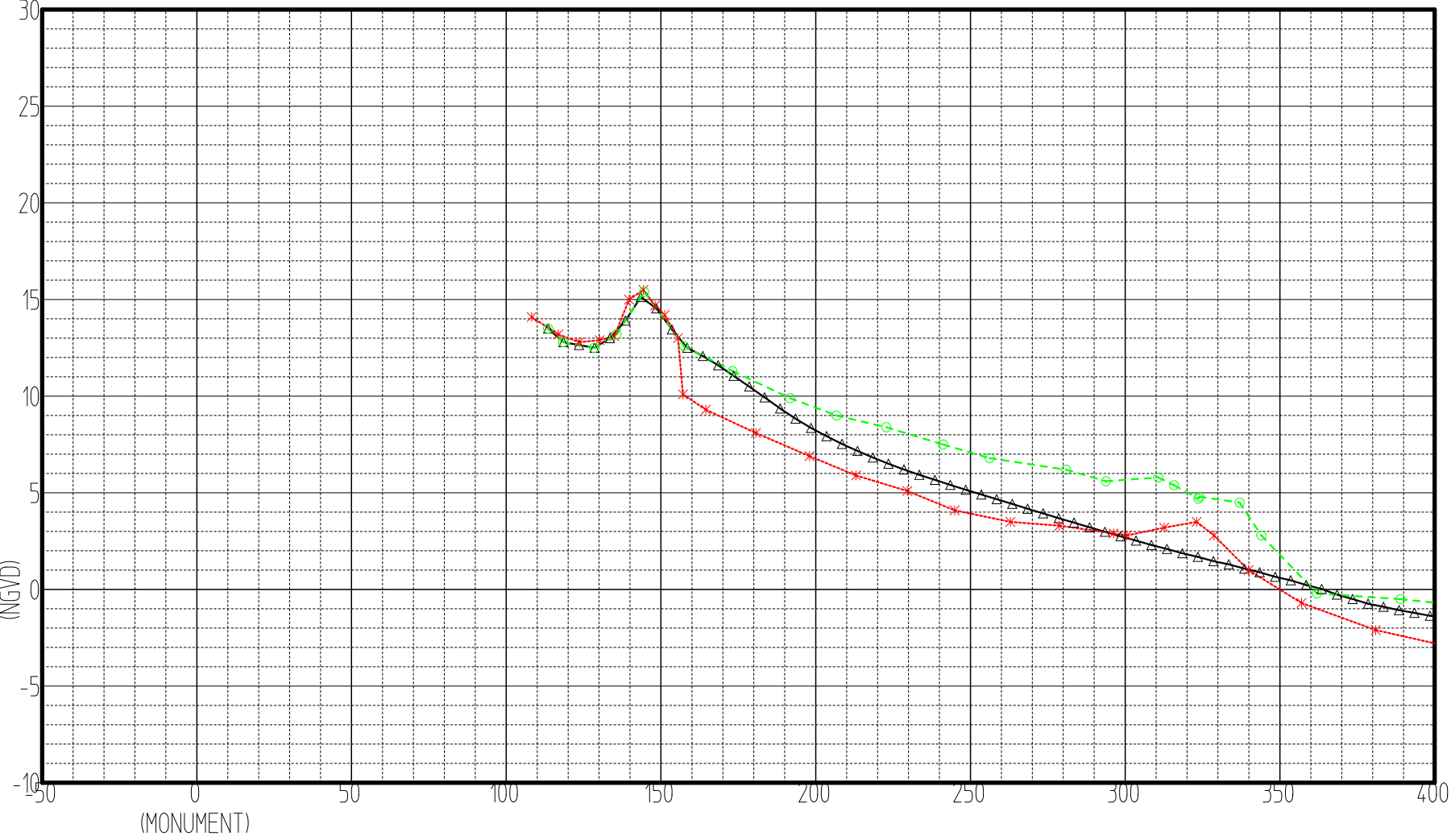
—○—○— Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-33-T 2/2

BEARING: .00



BEACH PROFILE

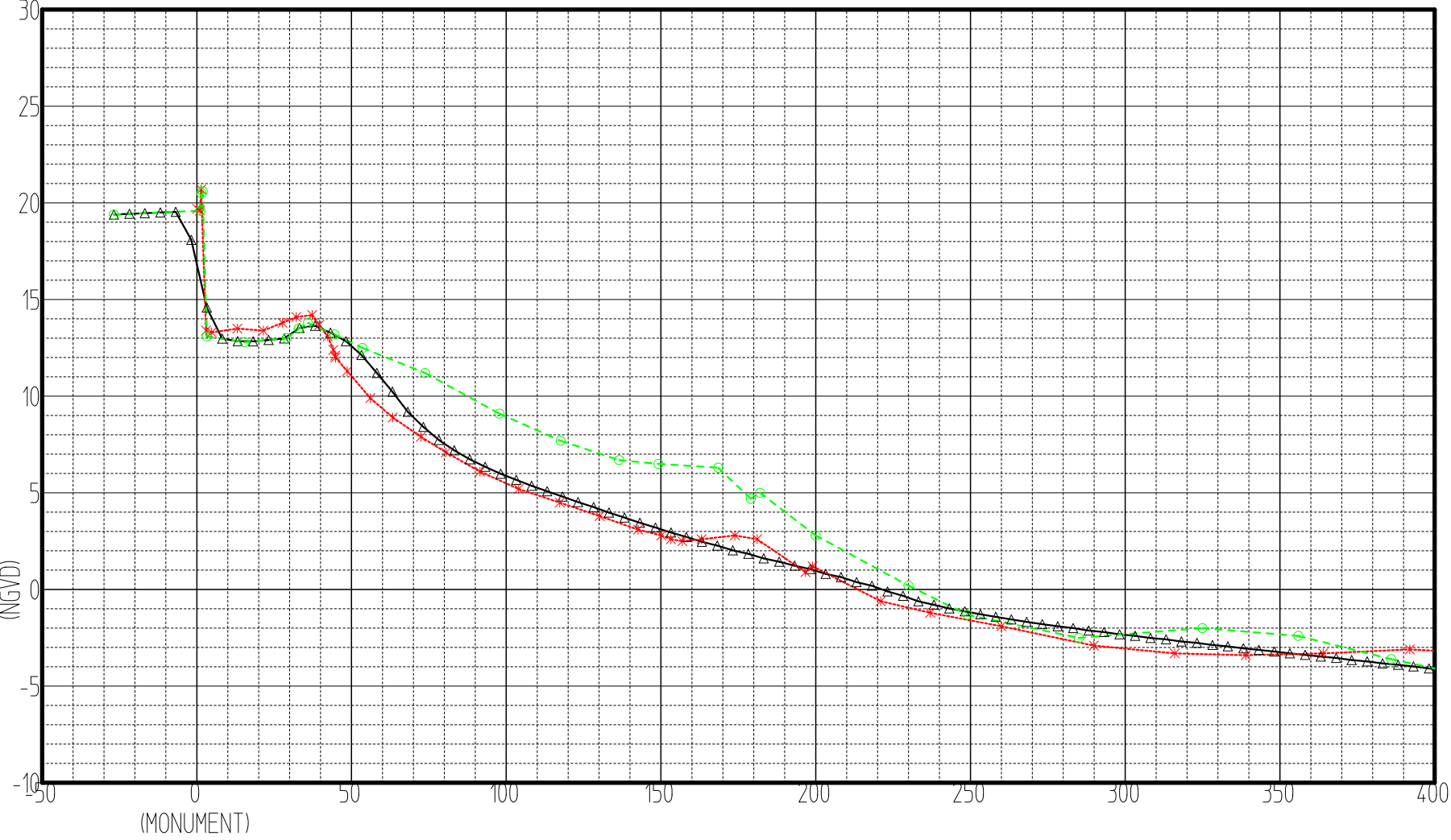
- △—△— SBEACH ERODED PROFILE
- *—*— Survey Oct-04 (Post-Ivan)
- Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-34-T 1/2

BEARING: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- Survey Oct-04 (Post-Ivan)

---○---○--- Survey June-04 (Pre-Ivan)

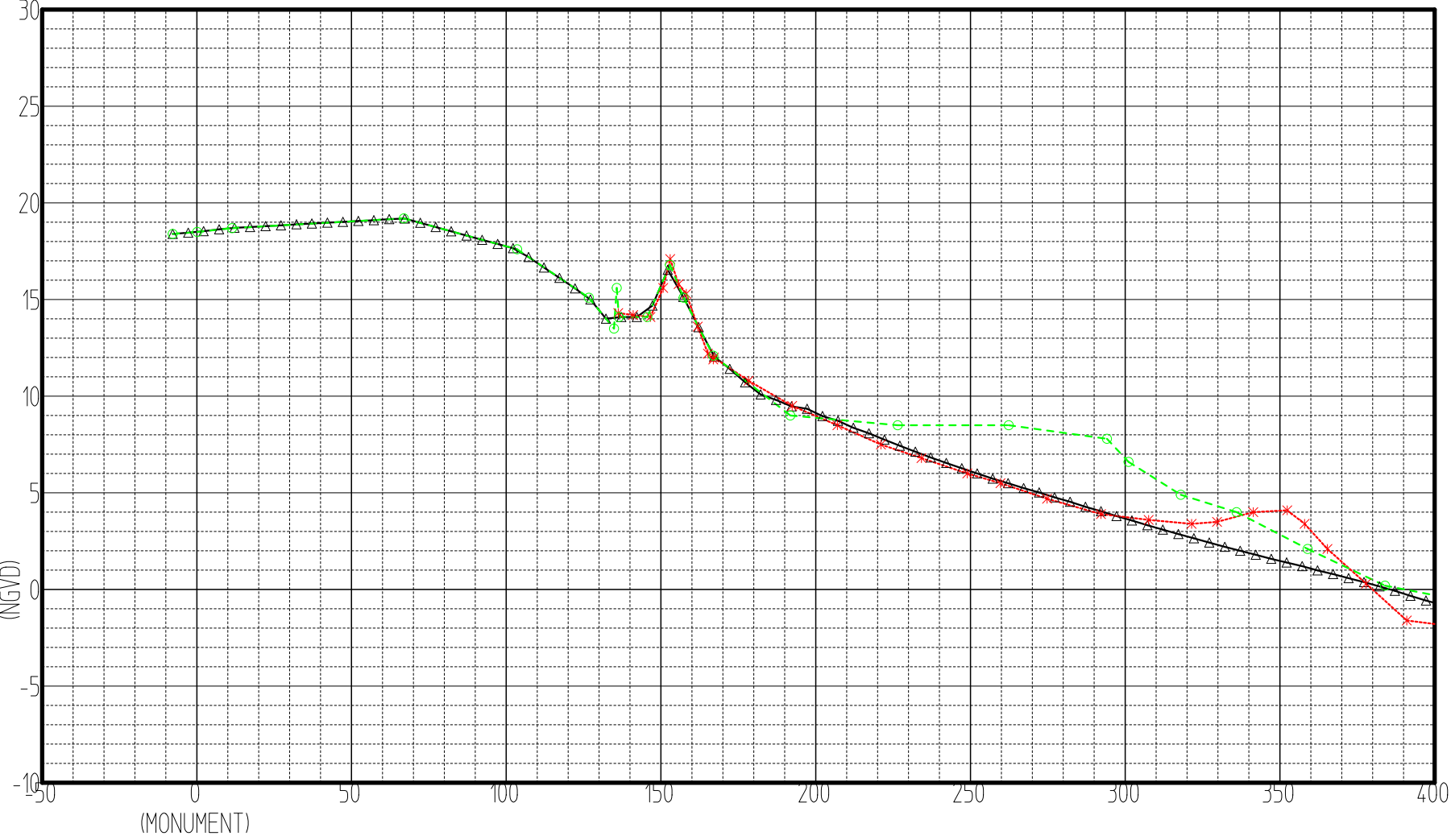
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-35

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— Survey Oct-04 (Post-Ivan)

—○—○— Survey June-04 (Pre-Ivan)

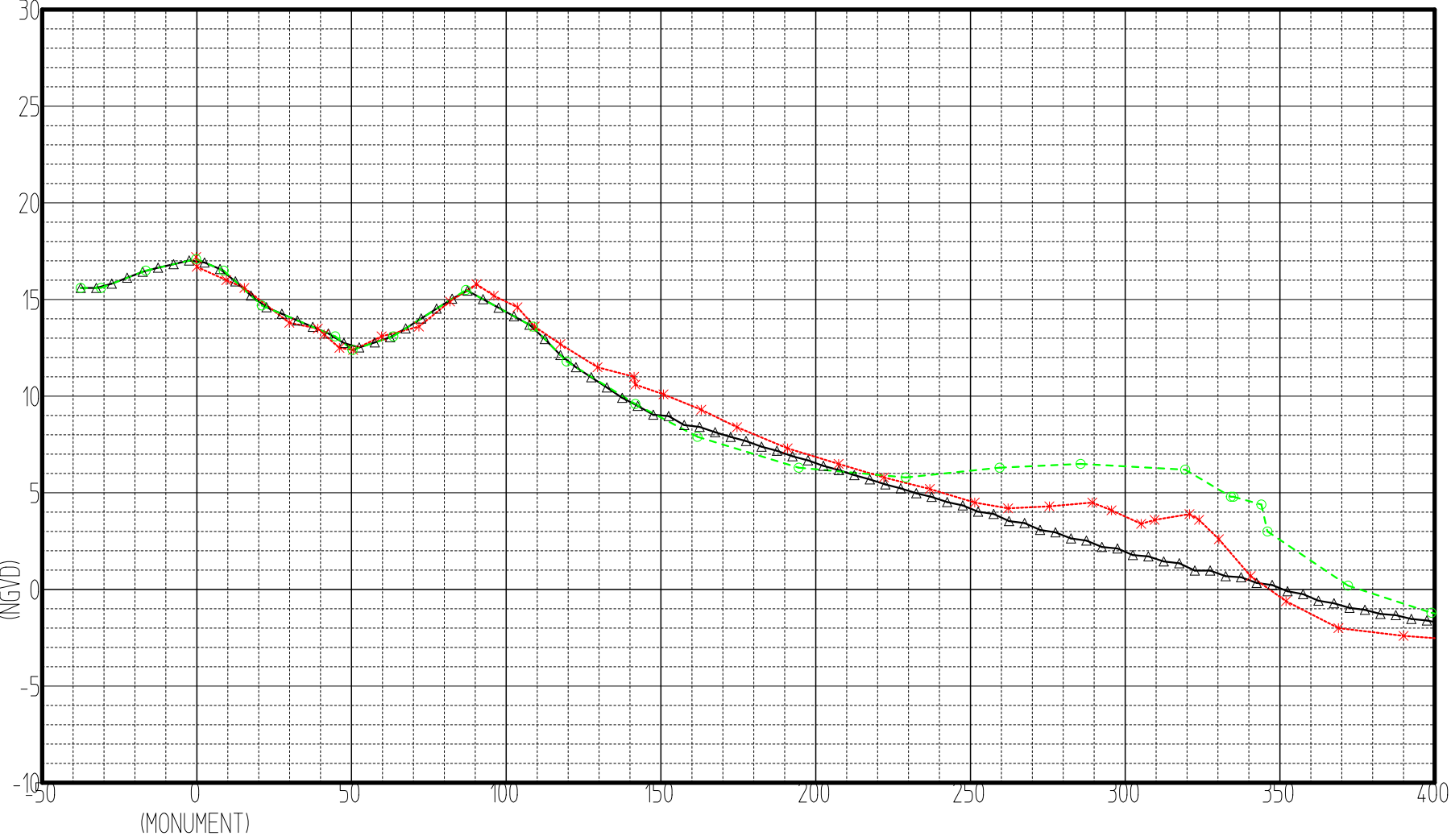
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-38

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- Survey Oct-04 (Post-Ivan)

---○---○--- Survey June-04 (Pre-Ivan)

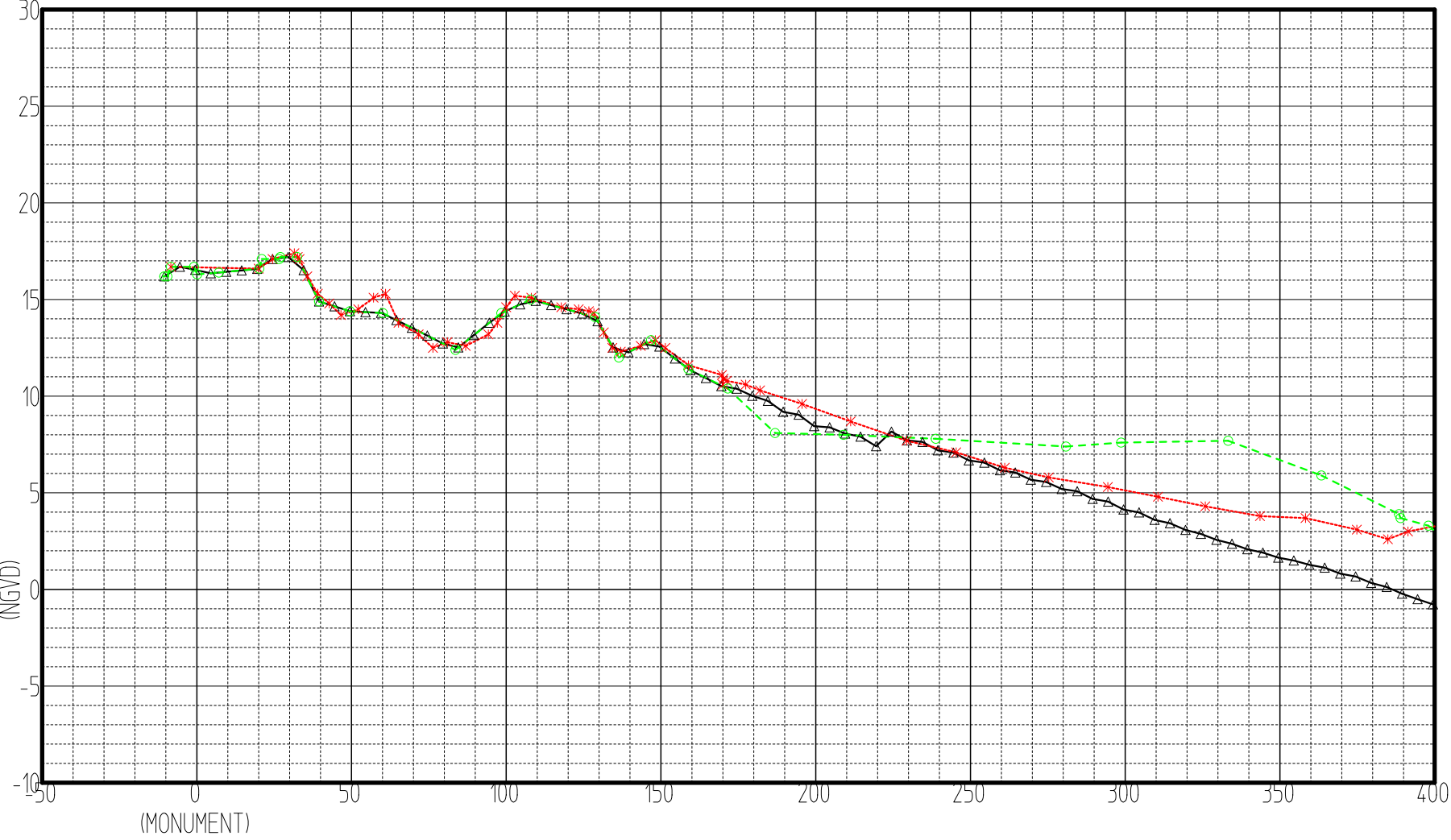
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-39

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- Survey Oct-04 (Post-Ivan)

---○---○--- Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-40

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE
 - - * - - * - - Survey Oct-04 (Post-Ivan)
 - - ○ - - ○ - - Survey June-04 (Pre-Ivan)

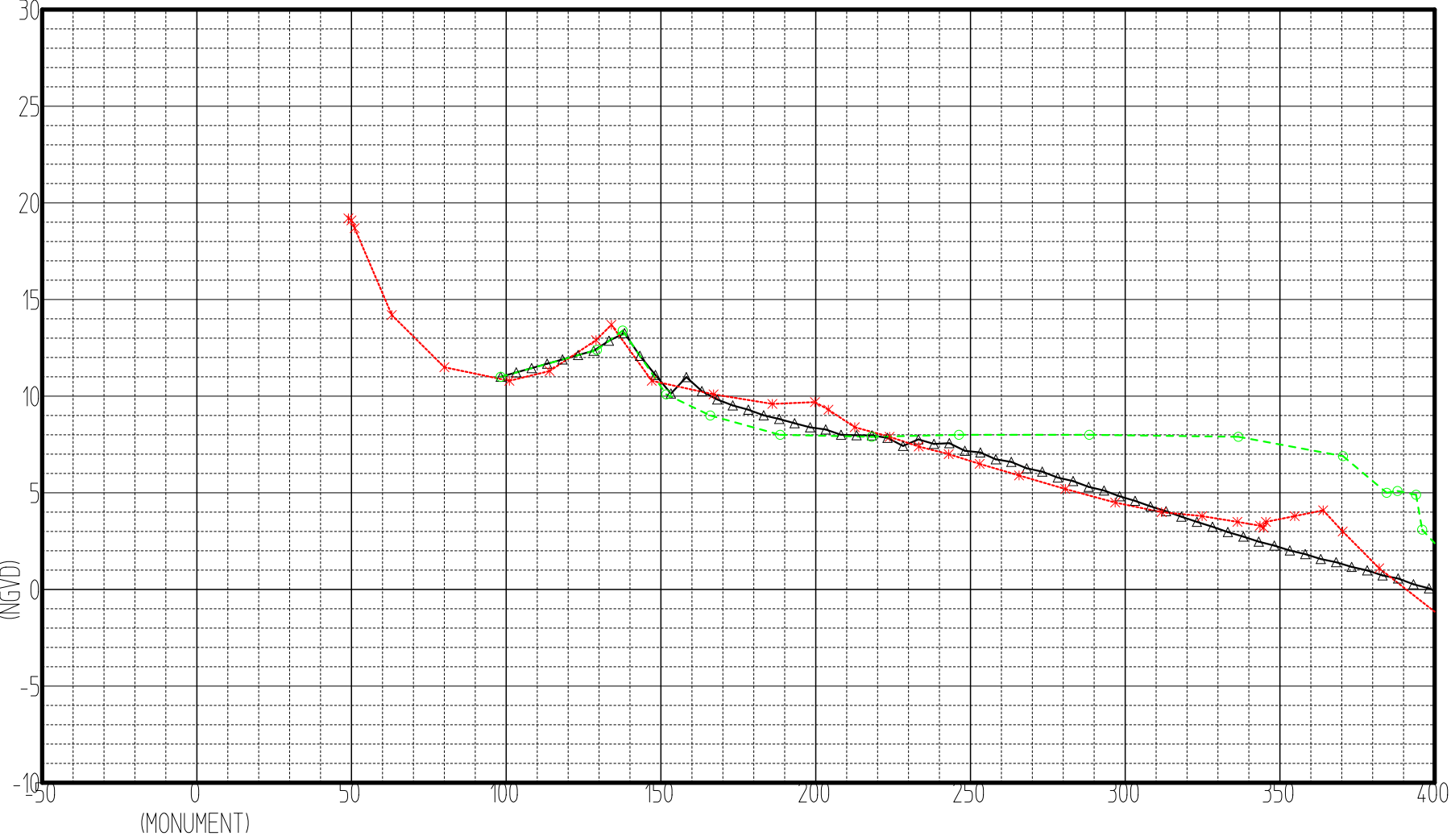
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-40

BEARING: .00

2/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- Survey Oct-04 (Post-Ivan)

---○---○--- Survey June-04 (Pre-Ivan)

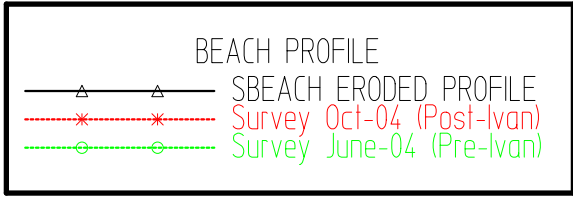
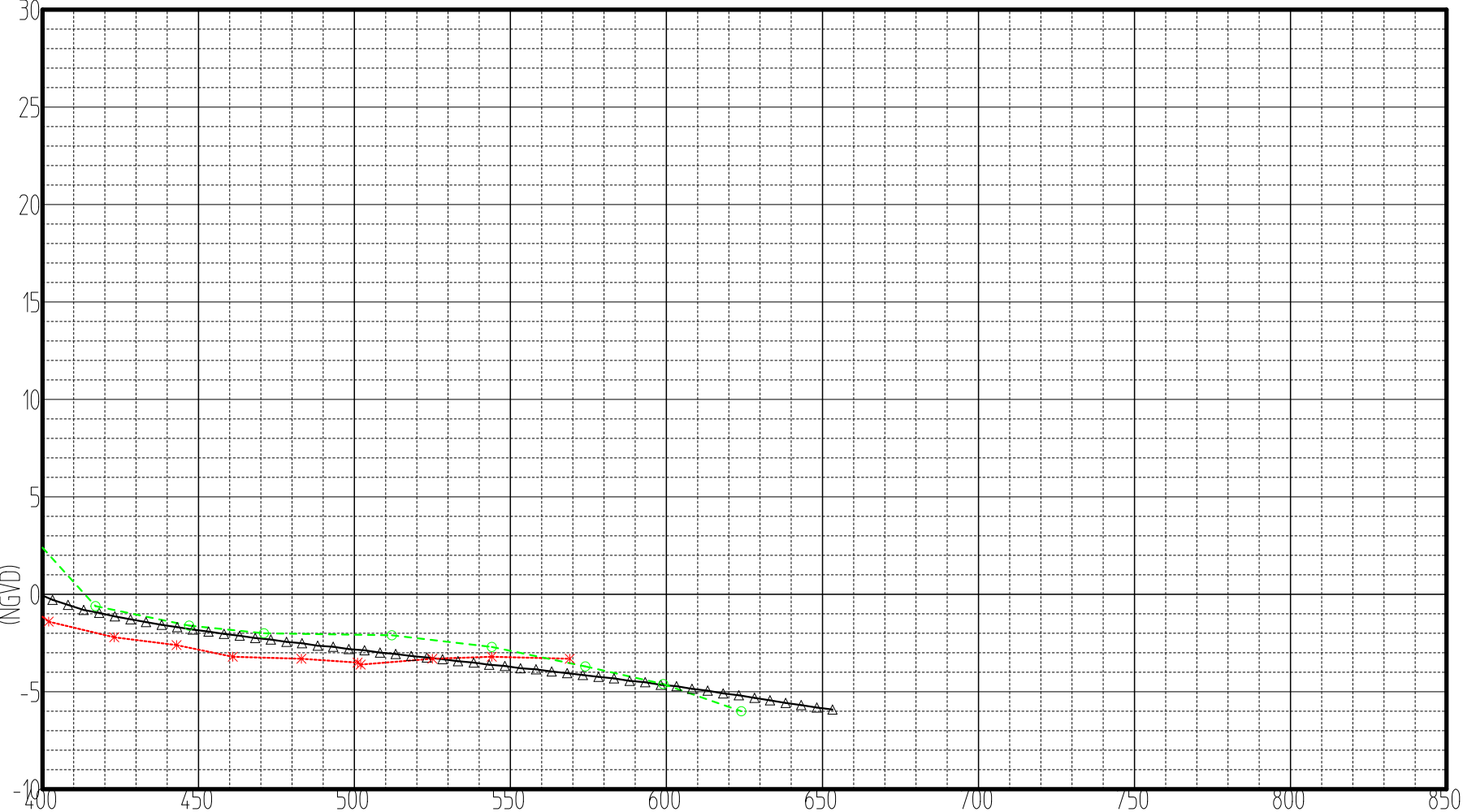
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-41

BEARING: .00

1/2

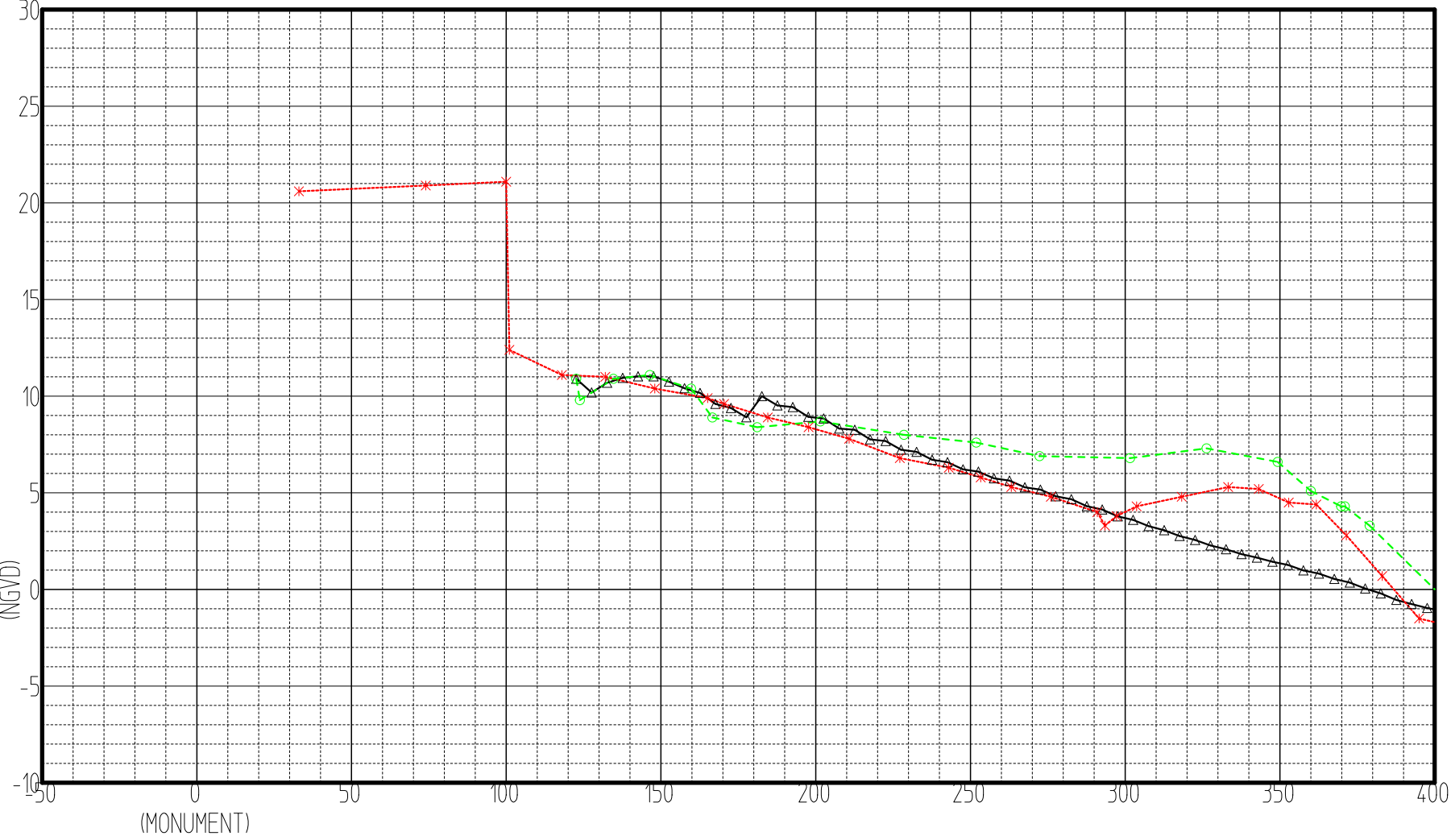


BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-41 2/2

BEARING: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— Survey Oct-04 (Post-Ivan)

—○—○— Survey June-04 (Pre-Ivan)

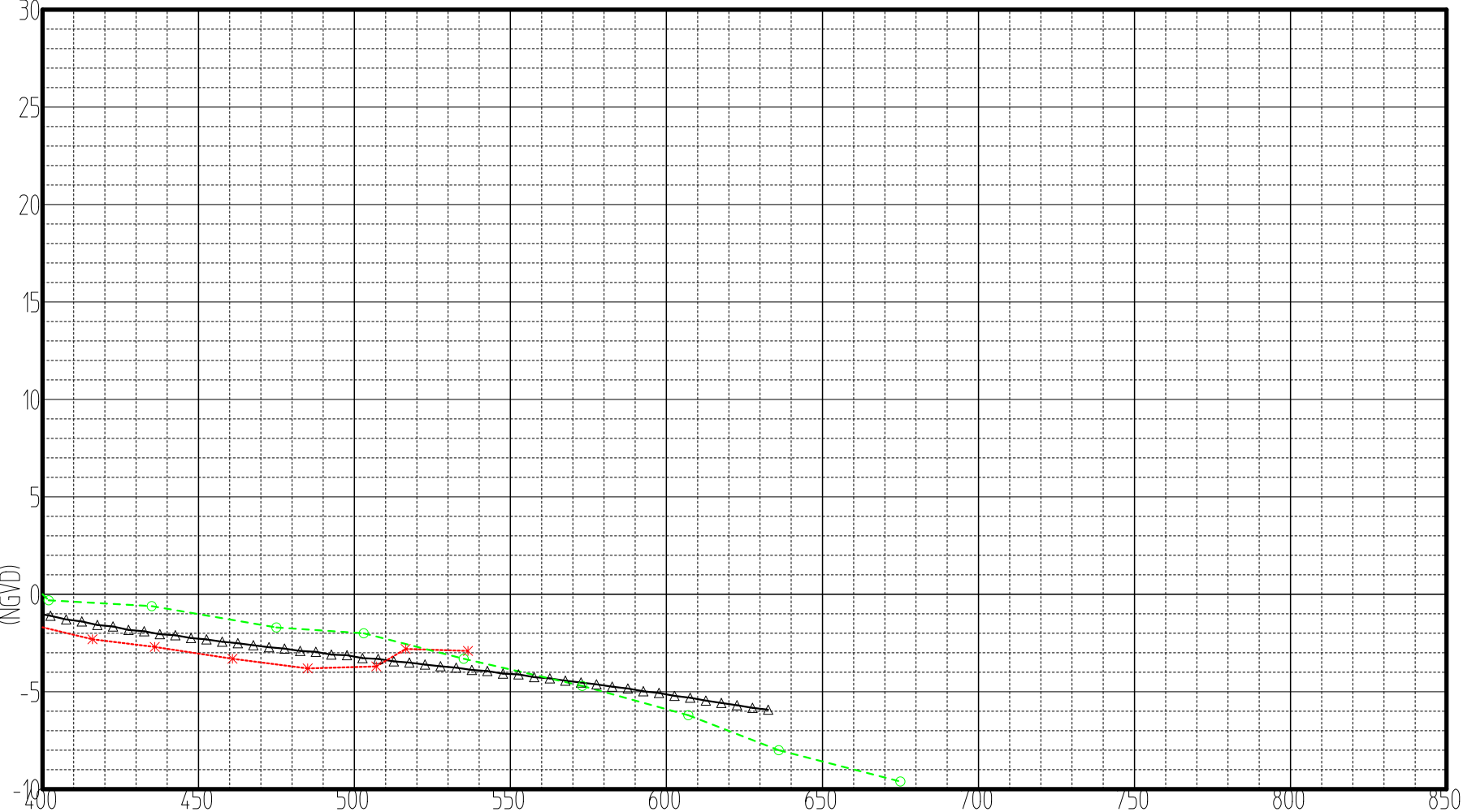
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-42

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- Survey Oct-04 (Post-Ivan)

---○---○--- Survey June-04 (Pre-Ivan)

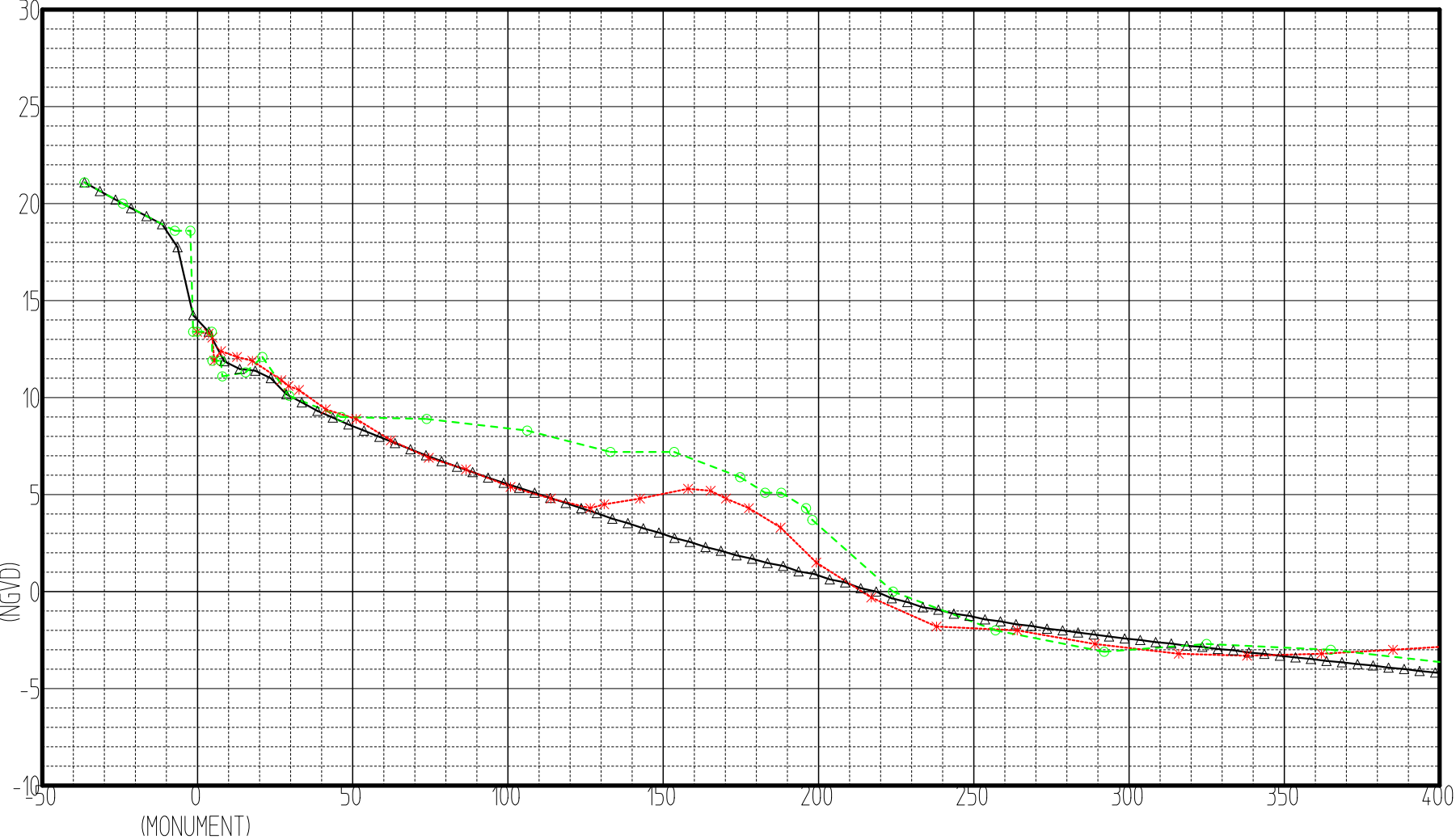
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-42

BEARING: .00

2/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— Survey Oct-04 (Post-Ivan)

—○—○— Survey June-04 (Pre-Ivan)

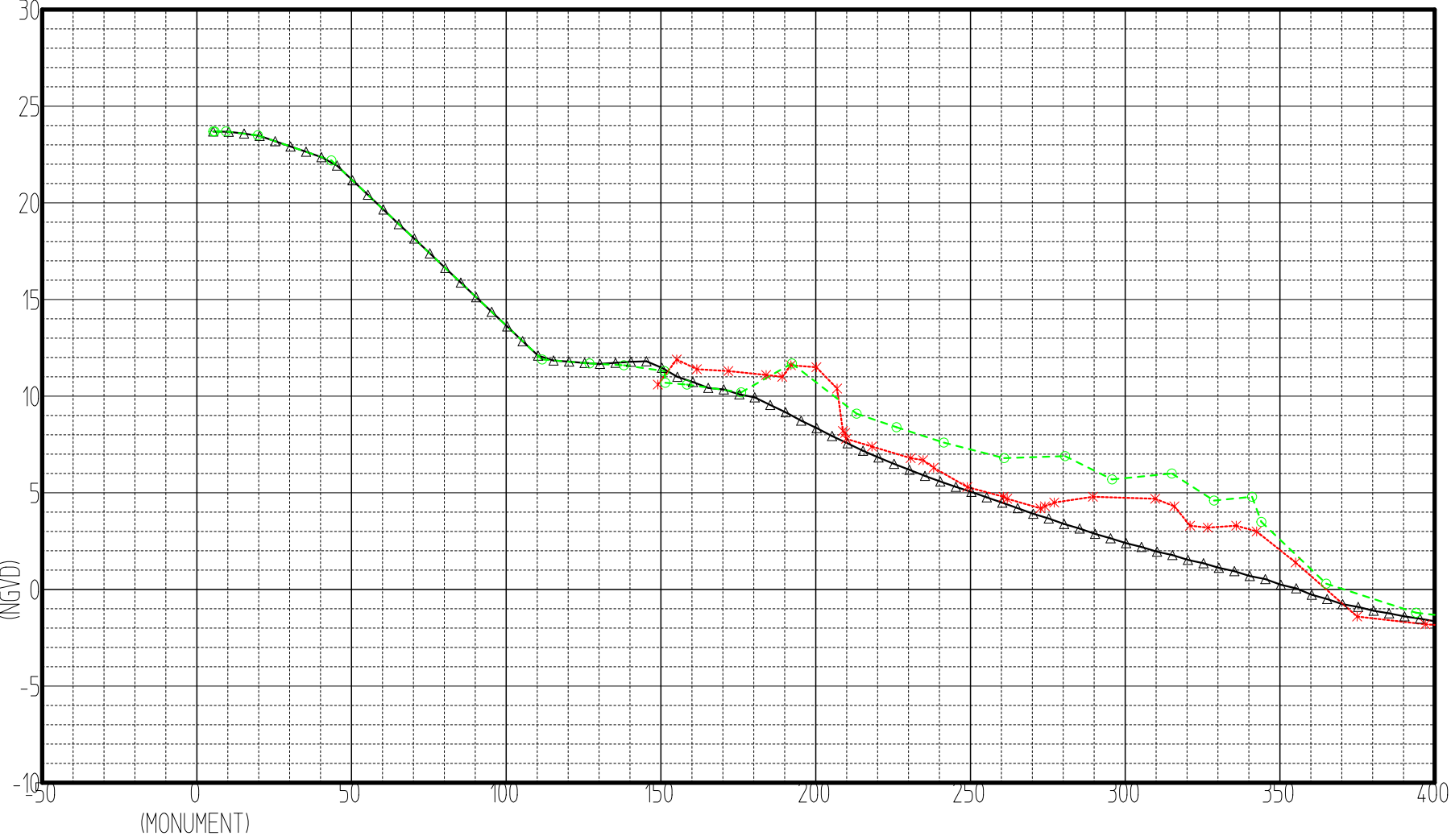
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-43

BEARING: .00

1/2



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- Survey Oct-04 (Post-Ivan)

---○---○--- Survey June-04 (Pre-Ivan)

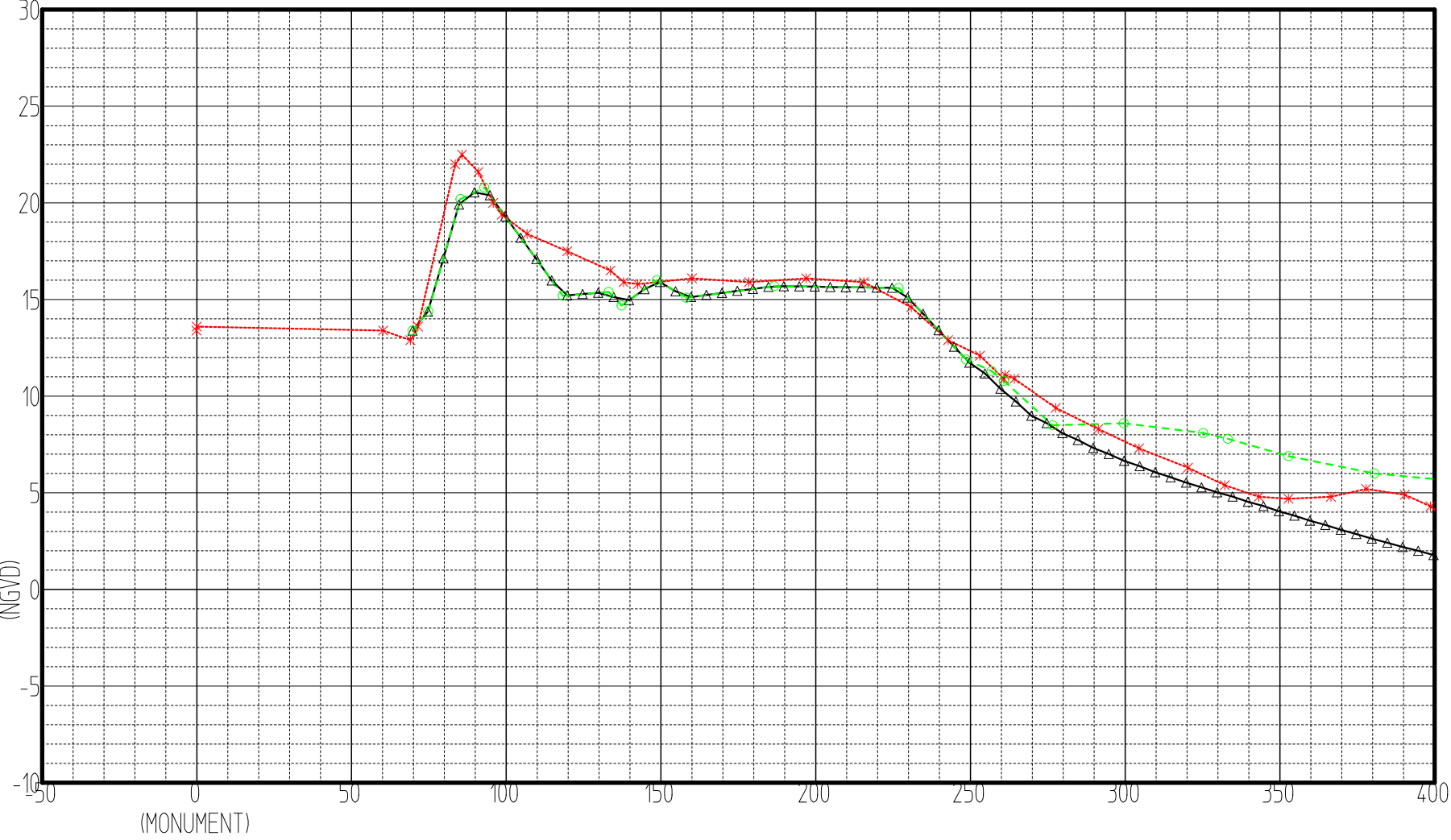
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-44

BEARING: .00

1/2



BEACH PROFILE

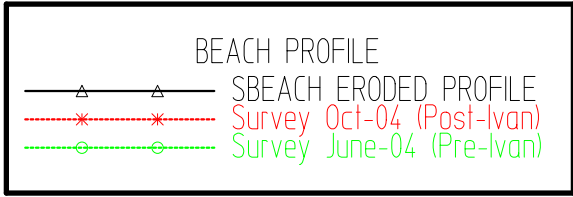
- △—△— SBEACH ERODED PROFILE
- *—*— Survey Oct-04 (Post-Ivan)
- Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-45 1/2

BEARING: .00

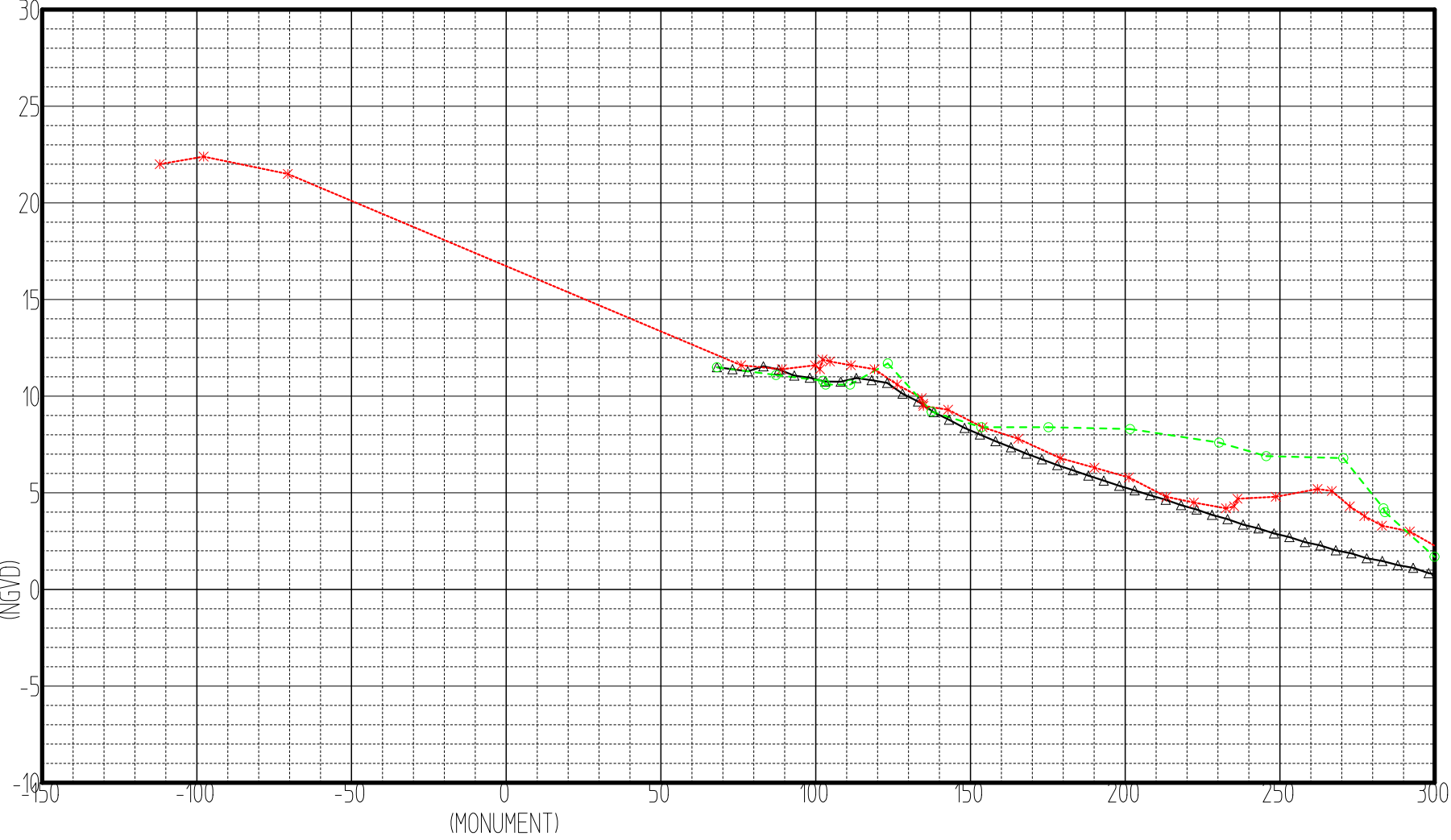


BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-45 2/2

Bearing: .00



BEACH PROFILE

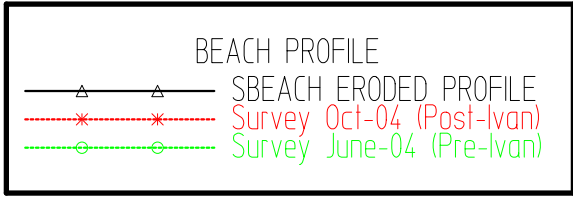
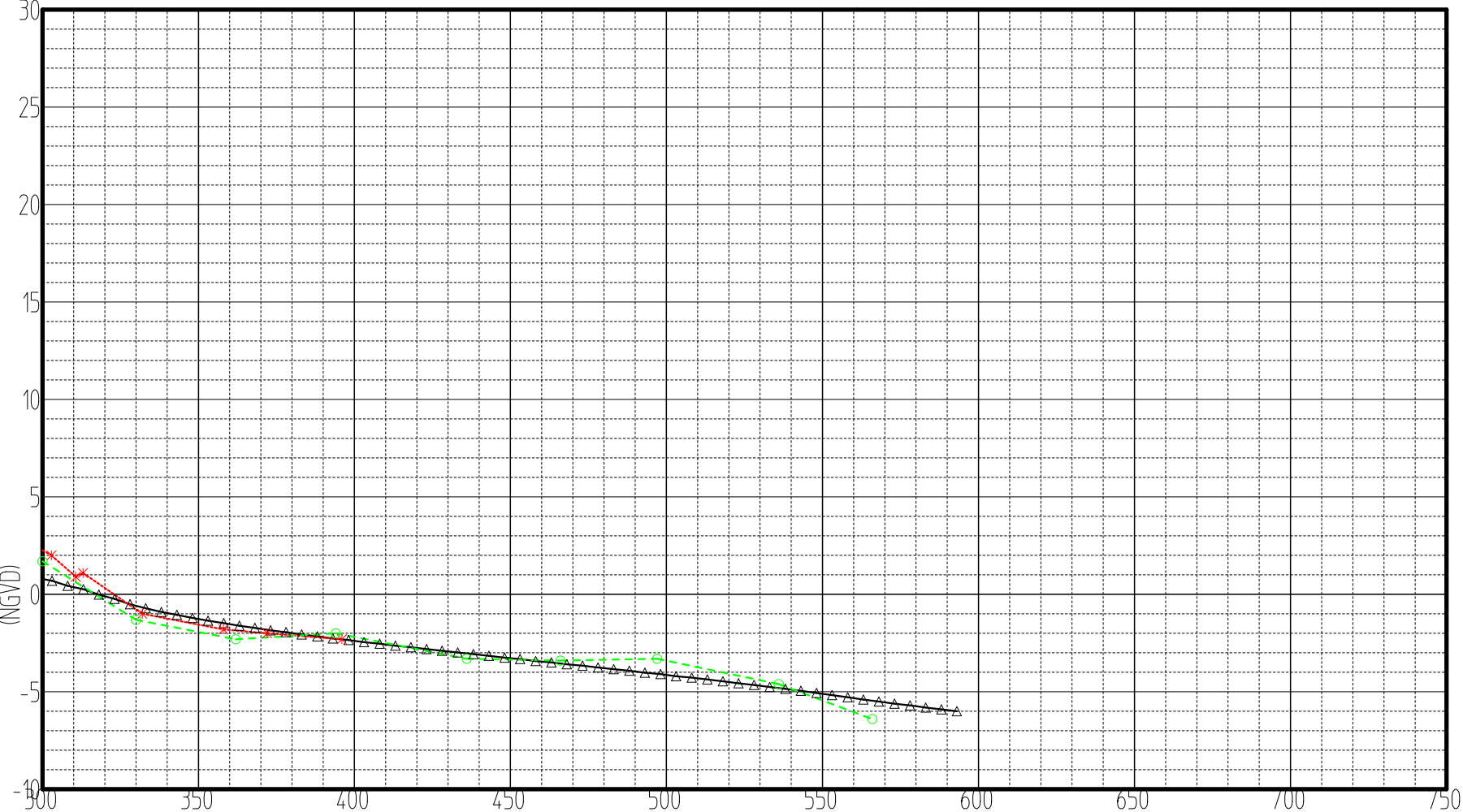
—△—△— SBEACH ERODED PROFILE
 - - * - - * - Survey Oct-04 (Post-Ivan)
 - - ○ - - ○ - Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-46 1/2

BEARING: .00

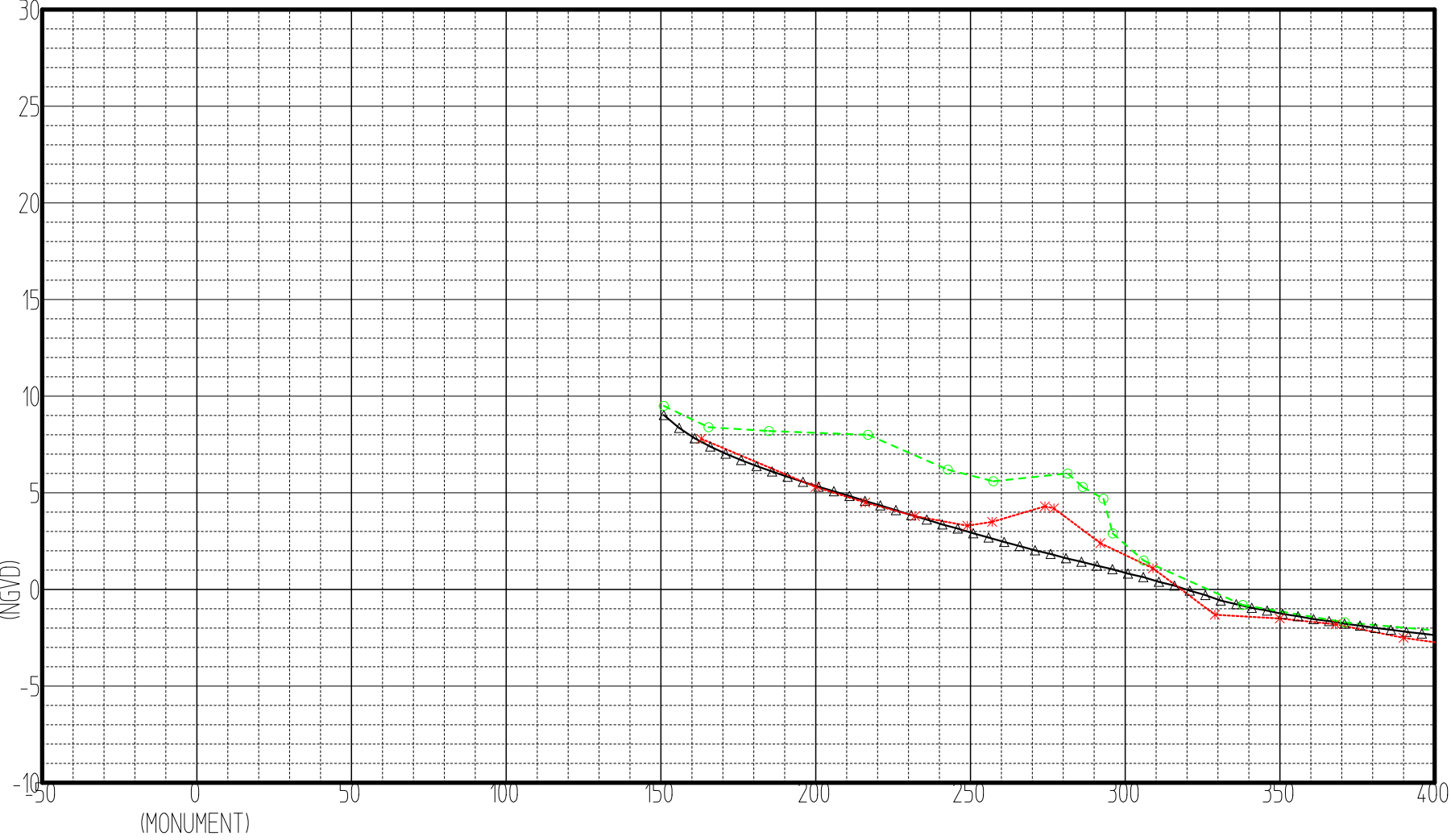


BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-46 2/2

BEARING: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

---*---*--- Survey Oct-04 (Post-Ivan)

---○---○--- Survey June-04 (Pre-Ivan)

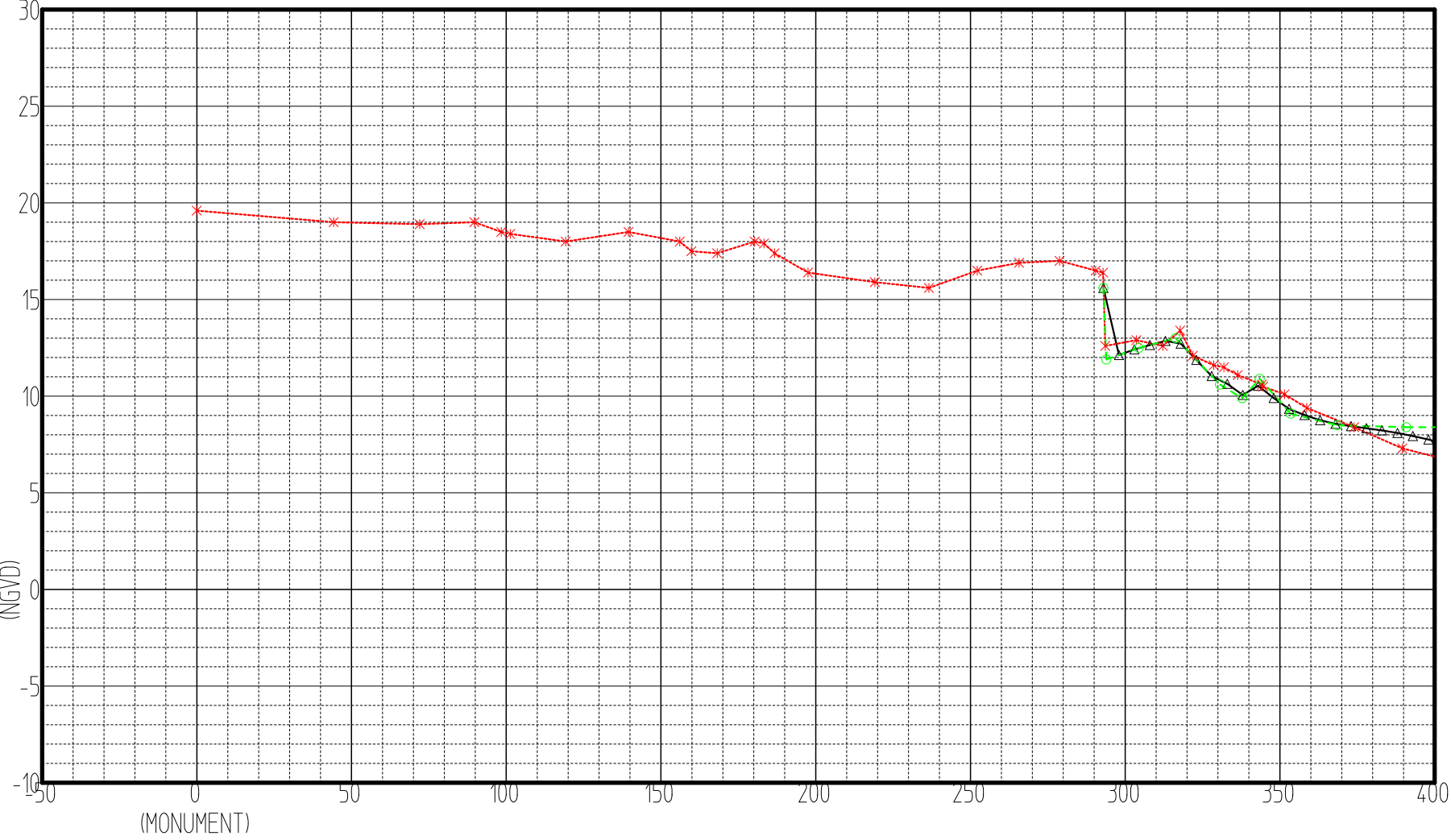
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-47

BEARING: .00

1/2



BEACH PROFILE

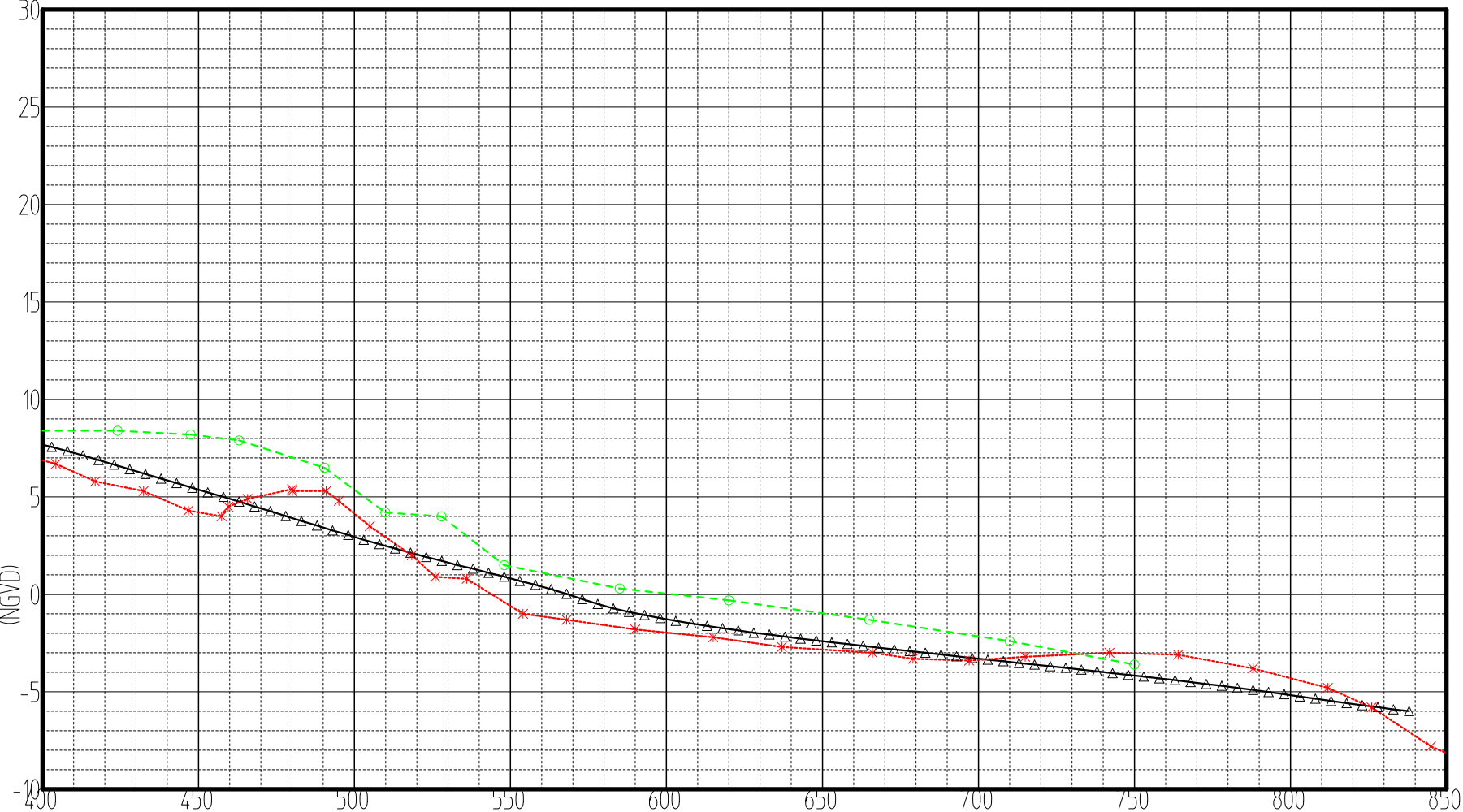
- △—△— SBEACH ERODED PROFILE
- *—*— Survey Oct-04 (Post-Ivan)
- Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-48 1/3

BEARING: .00



BEACH PROFILE

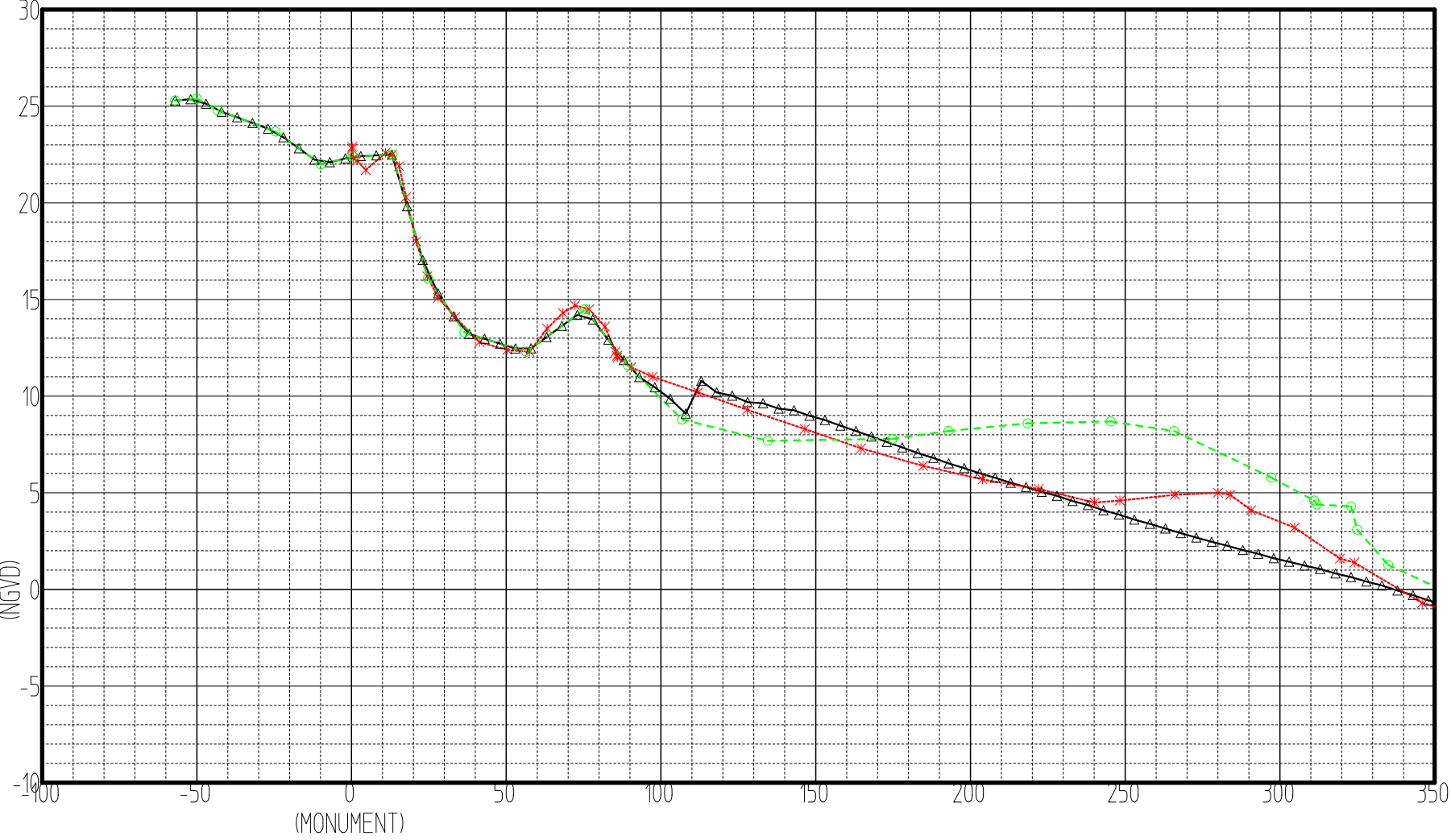
—△—△— SBEACH ERODED PROFILE
 - - * - - * - - Survey Oct-04 (Post-Ivan)
 - - ○ - - ○ - - Survey June-04 (Pre-Ivan)

BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-48 2/3

Bearing: .00



BEACH PROFILE

—△—△— SBEACH ERODED PROFILE

—*—*— Survey Oct-04 (Post-Ivan)

—○—○— Survey June-04 (Pre-Ivan)

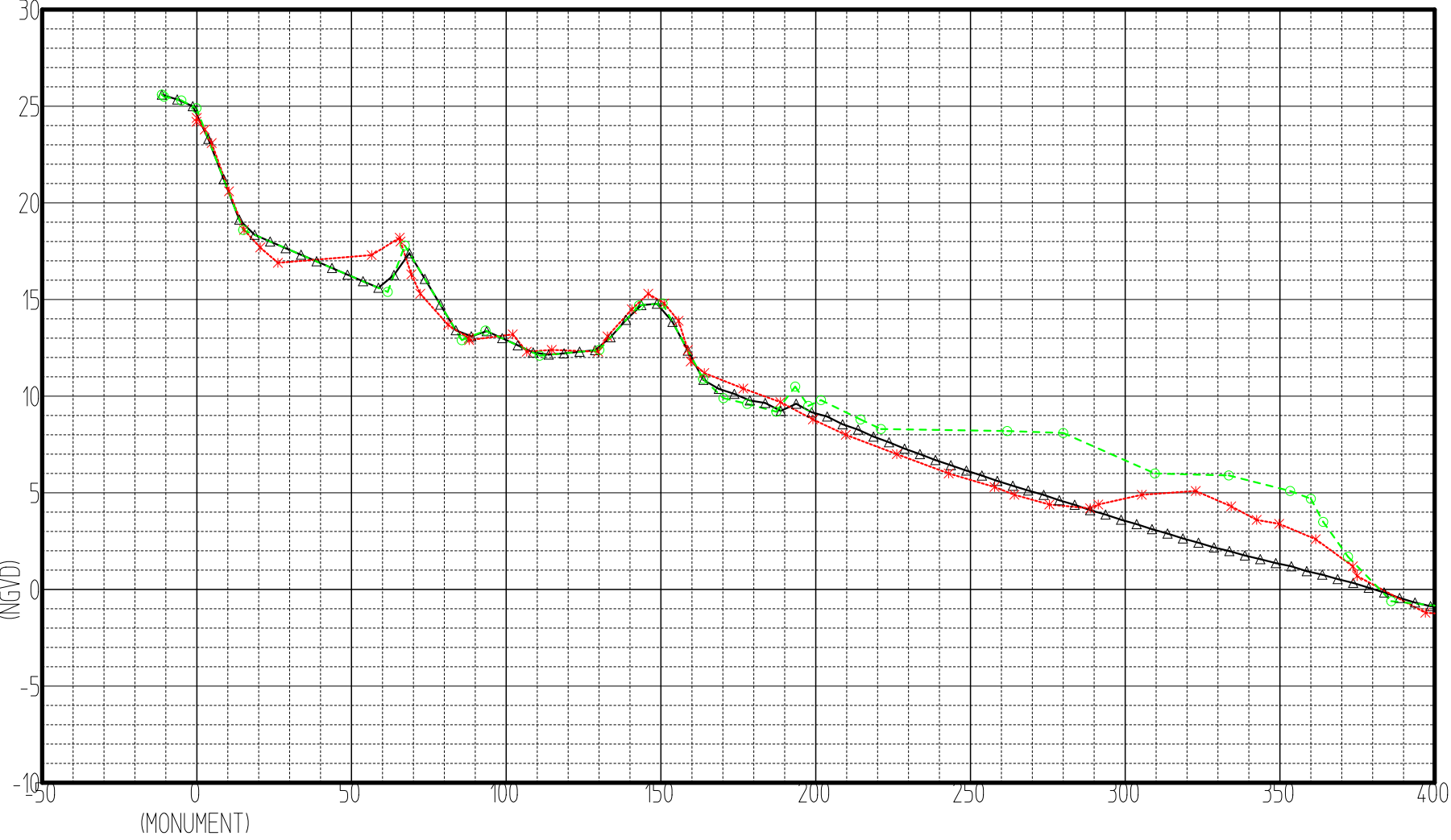
BAY-IVAN

BUREAU OF BEACHES & COASTAL SYSTEMS
FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-49

BEARING: .00

1/2



BEACH PROFILE
 —△—△— SBEACH ERODED PROFILE
 - - * - - * - Survey Oct-04 (Post-Ivan)
 - - ○ - - ○ - Survey June-04 (Pre-Ivan)

BAY-IVAN
 BUREAU OF BEACHES & COASTAL SYSTEMS
 FLA. DEPT OF ENVIRONMENTAL PROTECTION

Range: R-50-T 1/2
 BEARING: .00