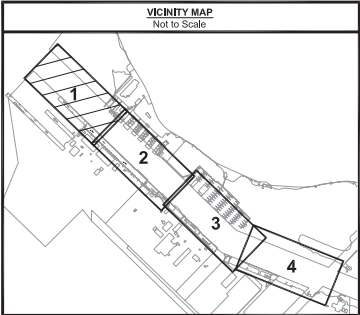
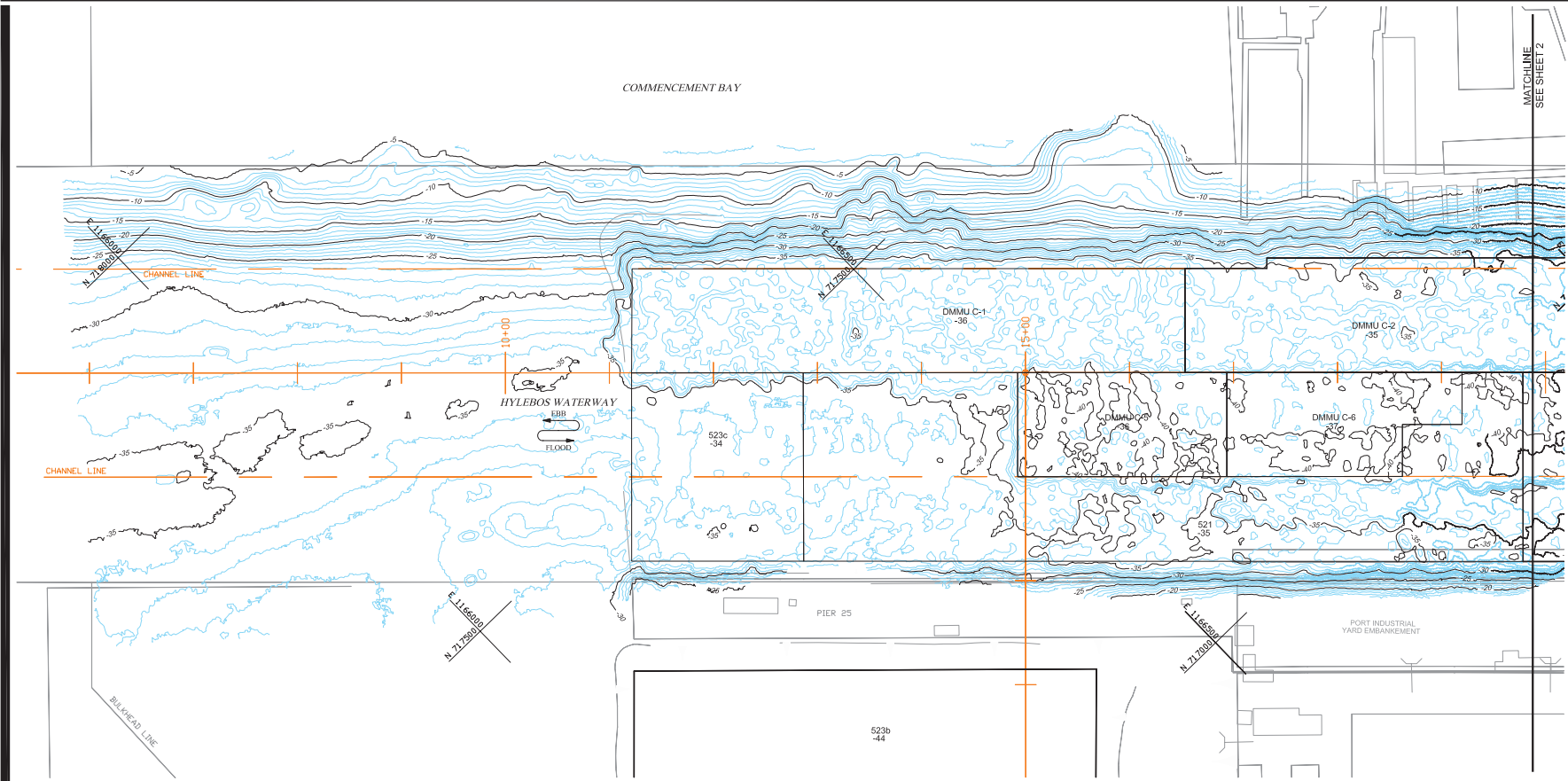


Appendix D

Bathymetric Plots

Table of Contents

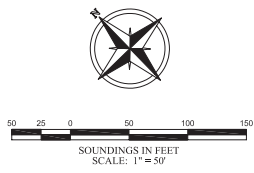
Sheet 1	Bathymetric Contours - Hylebos Segment 5 Multibeam Survey (Sheet 1 of 4)
Sheet 2	Bathymetric Contours – Hylebos Segment 5 Multibeam Survey (Sheet 2 of 4)
Sheet 3	Bathymetric Contours – Hylebos Segment 5 Multibeam Survey (Sheet 3 of 4)
Sheet 4	Bathymetric Contours – Hylebos Segment 5 Multibeam Survey (Sheet 4 of 4)
Sheet 5	Bathymetric Contours – Hylebos Segment 5 Multibeam Survey (Sheets 1 through 4 Combined)



NOTES:

- This drawing presents the results of a multibeam bathymetric survey conducted by David Evans and Associates, Inc. (DEA).
- Date of Survey: March 10, 2004.
- Horizontal Datum: North American Datum of 1983 - 91 adjustment (NAD83/91), State Plane Coordinate System (SPCS), Washington South Zone.
- Units: US Survey Feet.
- Vertical Datum: Mean Lower Low Water (MLLW) National Tidal Datum Epoch (1980-1978). Tide levels were obtained from NOAA Tide Station 9446484 located in Tacoma, Washington.
- Contour Interval: 1 Foot. Contours were derived from a Digital Terrain Model (DTM) based on a one and a half foot grid of multibeam data.
- Horizontal positions were acquired with an Applanix POS/MV, combined Inertial and Differential Global Positioning System (DGPS), augmented with RTK GPS positions.
- Depths were acquired with a Reson Seabat 8101 multibeam bathymetric sonar integrated with an Applanix POS/MV positioning and motion reference system.
- Soundings were not selected by shoal bias and do not represent least depths. This map is not intended for navigation.

NOAA Station ID: 9446484 TACOMA, WASHINGTON COMMENCEMENT BAY 1960-78 Tidal Epoch	
Datum Plane	MLLW
Highest Observed Tide	14.49
Mean Higher High Water	11.82
Mean High Water	10.95
Mean Tide Level	6.90
Mean Sea Level	6.87
Mean Low Water	2.85
Mean Lower Low Water	0.00
Lowest Observed Tide	-3.63



BATHYMETRIC CONTOURS
HYLEBOS SEGMENT 5
MULTIBEAM SURVEY
 MILLER CONTRACTING, INC.
 HYLEBOS WATERWAY, TACOMA, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
 2100 Southland River Parkway
 Portland, Oregon 97201
 Phone: 503.225.6883

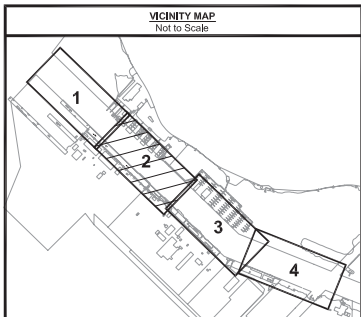
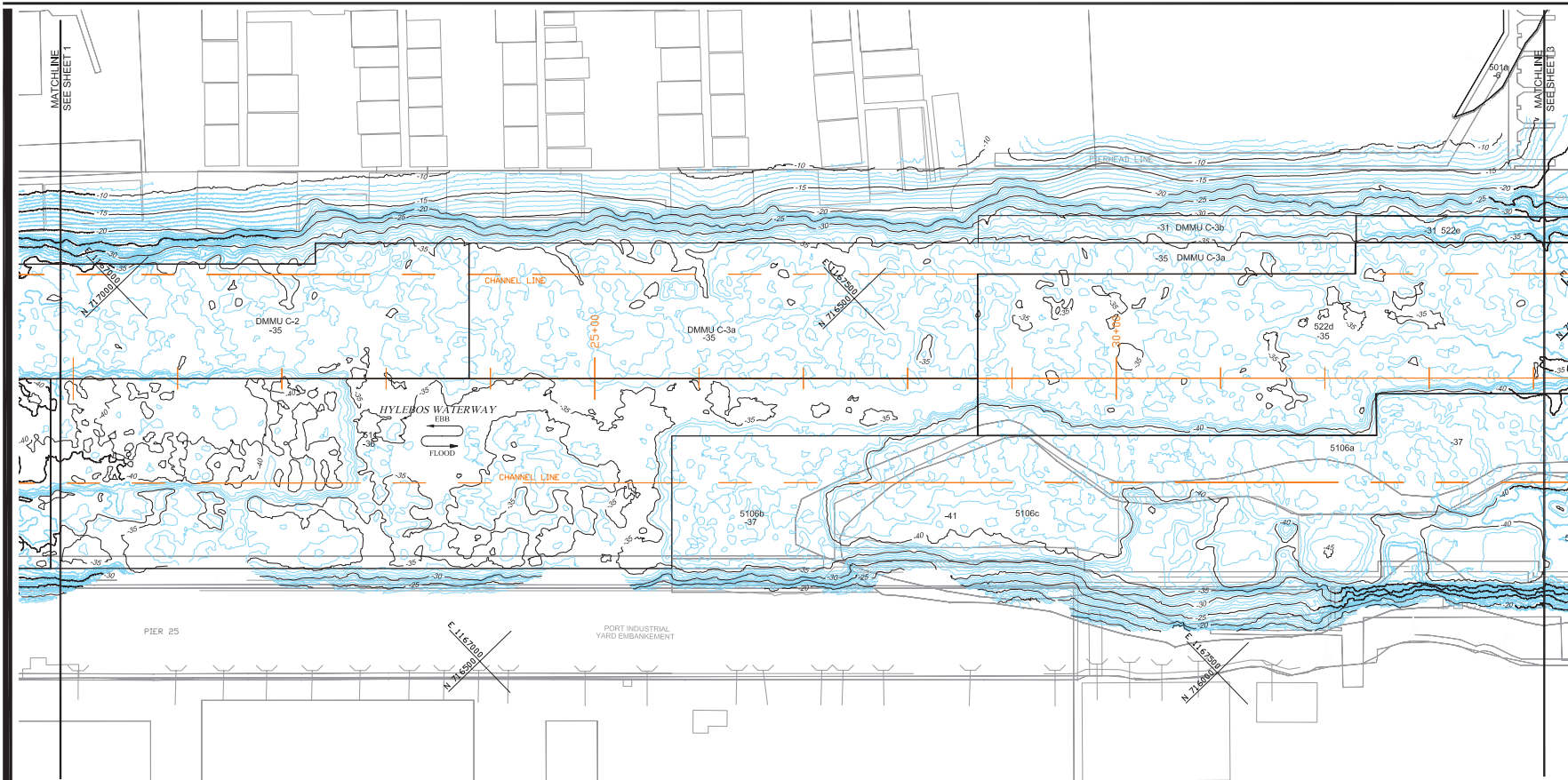
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DRAWING FILE:
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 OF 4

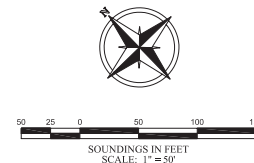


NOTES:

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- Units: US Survey Feet.
- Vertical Datum: Mean Lower Low Water (MLLW) National Tidal Datum Epoch (1960-1978). Tide levels were obtained from NOAA Tide Station 9446484 located in Tacoma, Washington.
- Contour Interval: 1 Foot. Contours were derived from a Digital Terrain Model (DTM) based on a one and a half foot grid of multibeam data.
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- Depths were acquired with a Reson Seabat 8101 multibeam bathymetric sonar integrated with an Applanix POSMV positioning and motion reference system.
- Soundings were not selected by shoal bias and do not represent best depths. This map is not intended for navigation.

NOAA Station ID: 9446484
TACOMA, WASHINGTON
COMMENCEMENT BAY
1960-78 Tidal Epoch

Datum Plane	MLLW
Highest Observed Tide	14.49
Mean Higher High Water	11.82
Mean High Water	10.95
Mean Tide Level	6.90
Mean Sea Level	6.87
Mean Low Water	2.85
Mean Lower Low Water	0.00
Lowest Observed Tide	-3.63



BATHYMETRIC CONTOURS
HYLEBOS SEGMENT 5
MULTIBEAM SURVEY
MILLER CONTRACTING, INC.
HYLEBOS WATERWAY, TACOMA, WASHINGTON

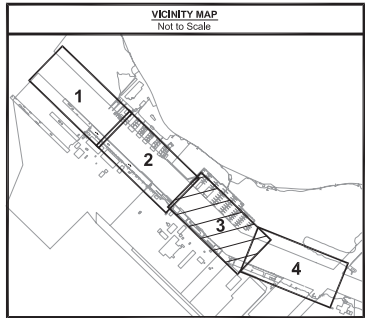
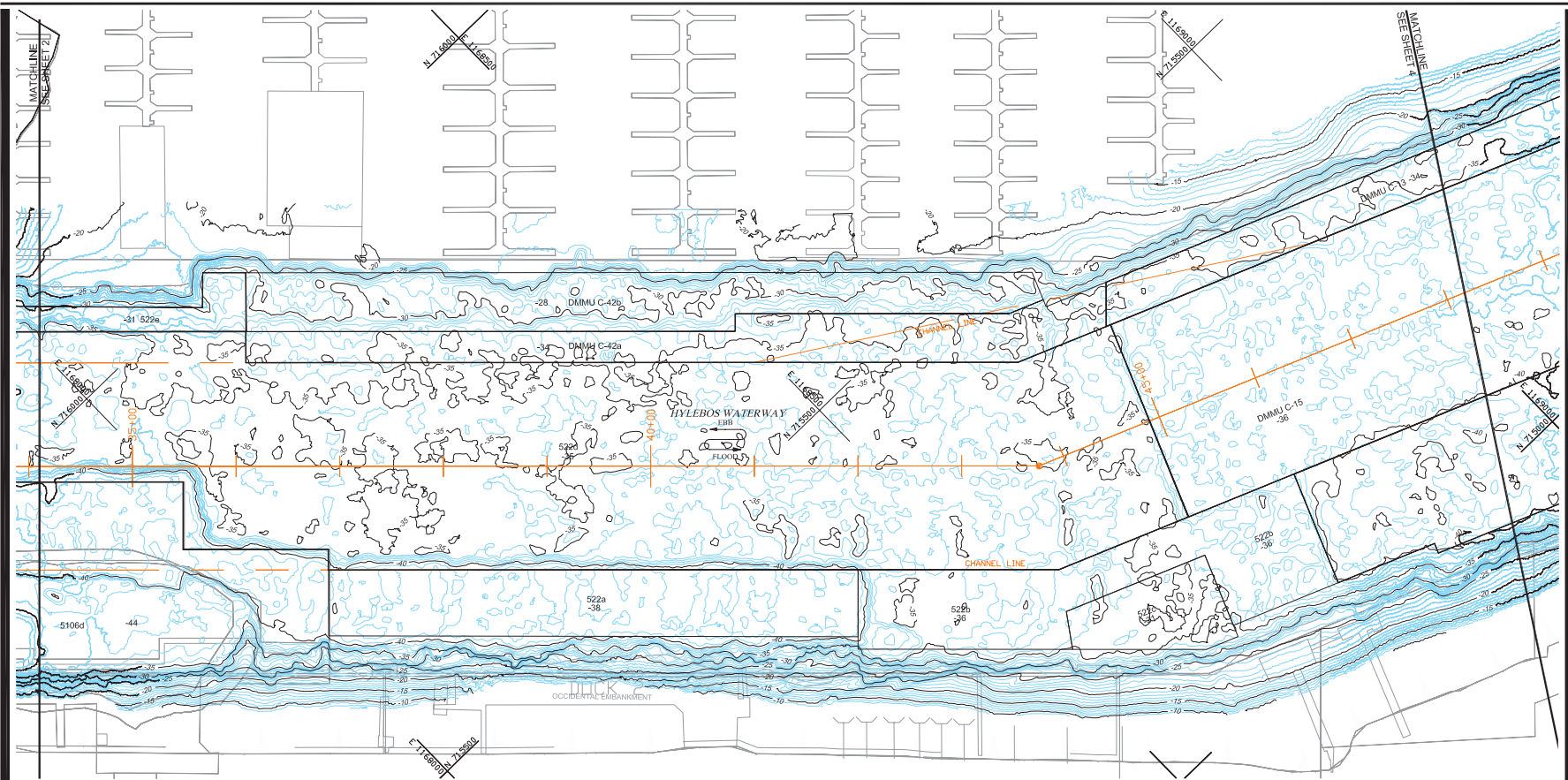
DAVID EVANS AND ASSOCIATES INC.
2100 Southwest River Parkway
Portland, Oregon 97201
Phone: (503) 263-0663

REVISIONS: APPD.

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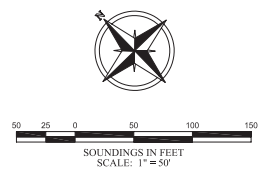
SHEET NO.
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OF 4



NOTES:

- This drawing presents the results of a multibeam bathymetric survey conducted by David Evans and Associates, Inc. (DEA).
- Date of Survey: March 10, 2004.
- Horizontal Datum: North American Datum of 1983 - 91 adjustment (NAD83/91), State Plane Coordinate System (SPCS), Washington South Zone.
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- Depths were acquired with a Reson Seabat 8101 multibeam bathymetric sonar integrated with an Applanix POS/MV positioning and motion reference system.
- Soundings were not selected by shoal bias and do not represent least depths. This map is not intended for navigation.

NOAA Station ID: 9446484 TACOMA, WASHINGTON COMMENCEMENT BAY 1960-78 Tidal Epoch	
Datum Plane	MLLW
Highest Observed Tide	14.49
Mean Higher High Water	11.82
Mean High Water	10.95
Mean Tide Level	6.50
Mean Sea Level	6.87
Mean Low Water	2.85
Mean Lower Low Water	0.00
Lowest Observed Tide	-3.83

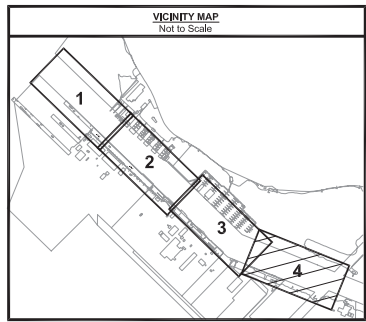
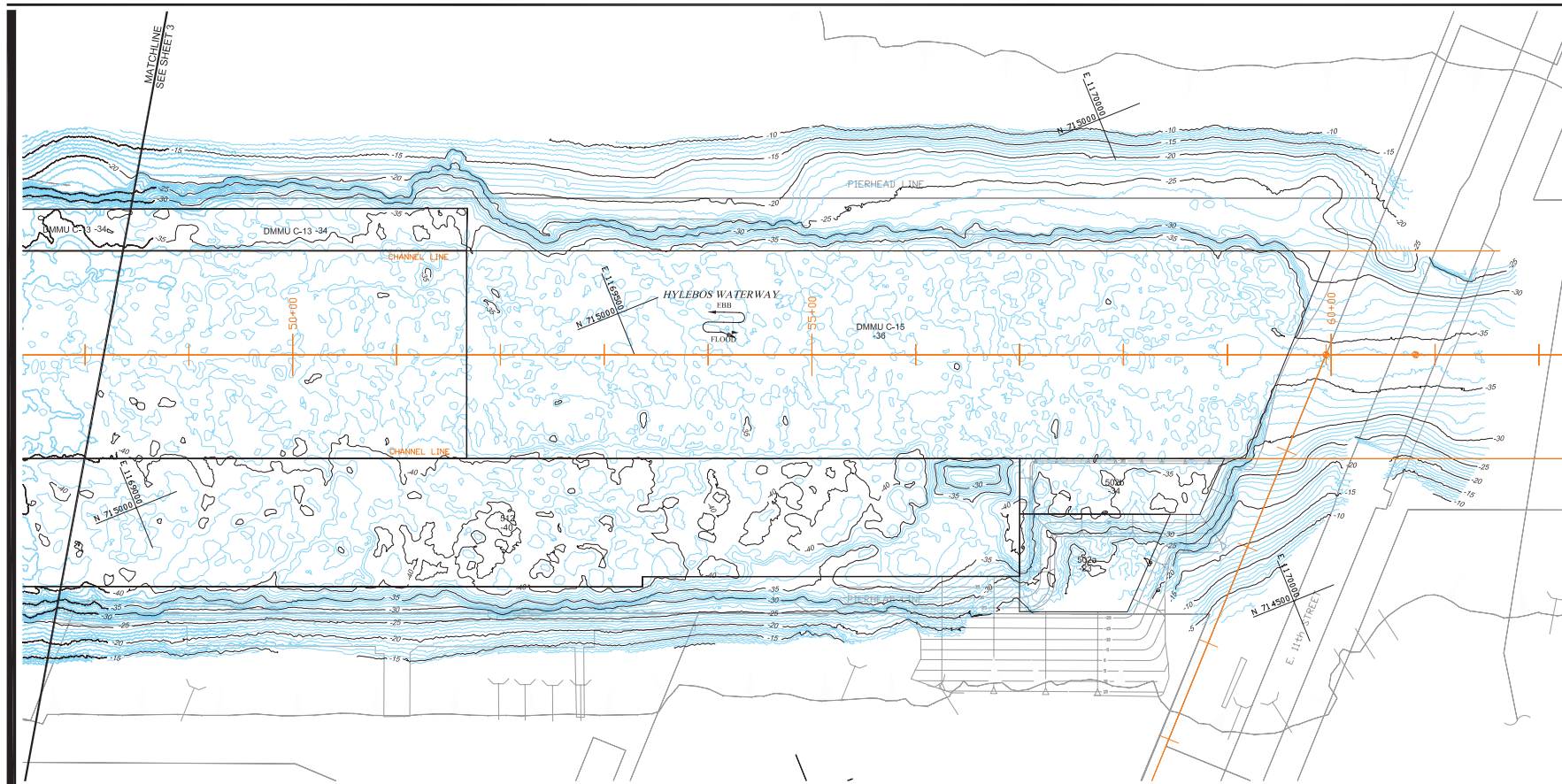


BATHYMETRIC CONTOURS
HYLEBOS SEGMENT 5
MULTIBEAM SURVEY
 MILLER CONTRACTING, INC.
 HYLEBOS WATERWAY, TACOMA, WASHINGTON


DAVID EVANS
AND ASSOCIATES, INC.
 2710 Sunnyside Highway
 Tacoma, WA 98403
 Phone: 253.223.8863

REVISIONS: APPD.

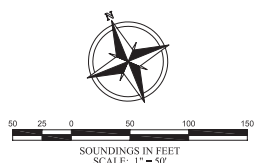
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SHEET NO.
3
OF 4



NOTES:

- This drawing presents the results of a multibeam bathymetric survey conducted by David Evans and Associates, Inc. (DEA).
- Date of Survey: March 10, 2004.
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- Units: US Survey Feet.
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NOAA Station ID: 9446484 TACOMA, WASHINGTON COMMENCEMENT BAY 1960-78 Tidal Epoch	
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Mean Tide Level	6.90
Mean Sea Level	6.87
Mean Low Water	2.85
Mean Lower Low Water	0.00
Lowest Observed Tide	-3.63



BATHYMETRIC CONTOURS
HYLEBOS SEGMENT 5
 MULTIBEAM SURVEY
 MILLER CONTRACTING, INC.
 HYLEBOS WATERWAY, TACOMA, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
 2100 Southview Parkway
 Phone: 509.223.6663

REVISIONS: APPD.

DATE: 03/30/04
 DESIGN: DKPI
 DRAWN: DKPI
 CHECKED:
 REVISION NUMBER:

SCALE: 1" = 50'

PROJECT NUMBER:
MLRC0000-0001

DRAWING FILE:
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SHEET NO.
4
 OF 4

