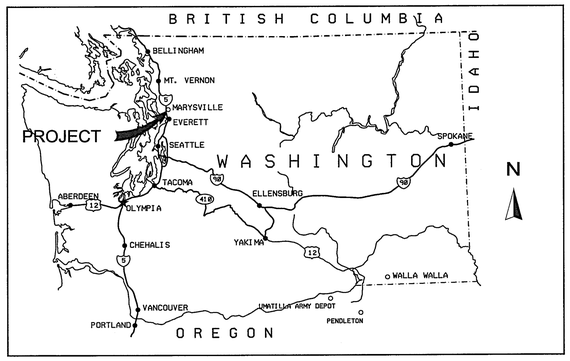
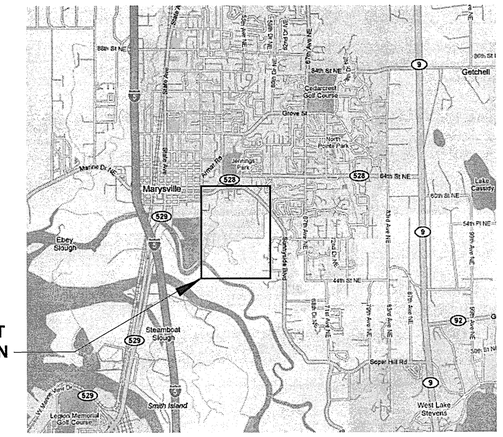
QWULOOLT
TIDAL WETLAND RESTORATION
MARYSVILLE, WASHINGTON



VICINITY MAP
N. T. S.



LOCATION MAP
MARYSVILLE N. T. S.

ABBREVIATIONS

APPROX.	APPROXIMATE	MIN.	MINIMUM
℄	CENTERLINE	MAX.	MAXIMUM
(D), DEMO	DEMOLISH	NIC	NOT IN CONTRACT
DS	DOWNSTREAM	NTS	NOT TO SCALE
EL, ELEV.	ELEVATION	PIP	PROTECT IN PLACE
(E)	EXISTING	PWA	PHILIP WILLIAMS & ASSOCIATES
EG	EXISTING GRADE	RC	RELATIVE COMPACTION
FG	FINISHED GRADE	SPECS	SPECIFICATIONS
FT	FOOT, FEET	3:1	SLOPE, HORIZONTAL:VERTICAL
GB	GRADE BREAK	TBD	TO BE DETERMINED
LF	LINEAR FEET	TYP.	TYPICAL
		VIF	VERIFY IN FIELD

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SITE MAP
3	NORTHWEST SITE PLAN
4	SOUTHWEST SITE PLAN
5	SOUTHEAST SITE PLAN
6	STORMWATER DETENTION AREA - SECTIONS
7	NEW LEVEE - PROFILE & SECTIONS
8	LEVEE LOWERING & BREACH - PROFILE & SECTIONS
9	CHANNELS AND BERMS - TYPICAL SECTIONS.

LEGEND

- SD — (E) STORM DRAIN
- SS — (E) SANITARY SEWERS LINE
- W — W — (E) WATER LINE
- EXISTING GRADE
- CENTERLINE
- DESIGN GRADE
- LOW BERM
- HIGH BERM
- SECOND ORDER CHANNEL (WORK DONE BY OTHERS)
- PREVIOUSLY FILLED DITCH
- x — x — FENCE
- TREELINE
- RR TRACKS
- 4 NEW CONTOUR
- 4 EXISTING CONTOUR
- ROCK FILL
- BREACH
- TOP OF SLOPE / TOE OF SLOPE
- CONSTRUCTION STAGING AREA
- × 9.36 SPOT ELEVATION
- 203 CONTROL POINT
- APPROXIMATE WATER LEVEL
- 1 INDICATES DETAIL NUMBER
- 2 INDICATES SHEET NUMBER ON WHICH SECTION OR DETAIL APPEARS
- EXISTING GROUND (PLAN & SECTION)
- EXCAVATION (PLAN & SECTION)
- FILL (PLAN & SECTION)
- 4 1 , 4:1 BANK SLOPE
- ACCESS CONSTRUCTION ACCESS

PN ##### FY 09

35% SUBMITTAL

SAFETY PAYS

IF SHEET MEASURES LESS THAN 22" X 34" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

US Army Corps of Engineers
Seattle District

File #
Invitation # Date

Recommended by
GUY L. GREEN, P.E.
CHIEF, DESIGN BRANCH DATE:
Approved by
MARK A. OHLSTROM, P.E.
CH. ENG. AND CONST. DIV DATE:

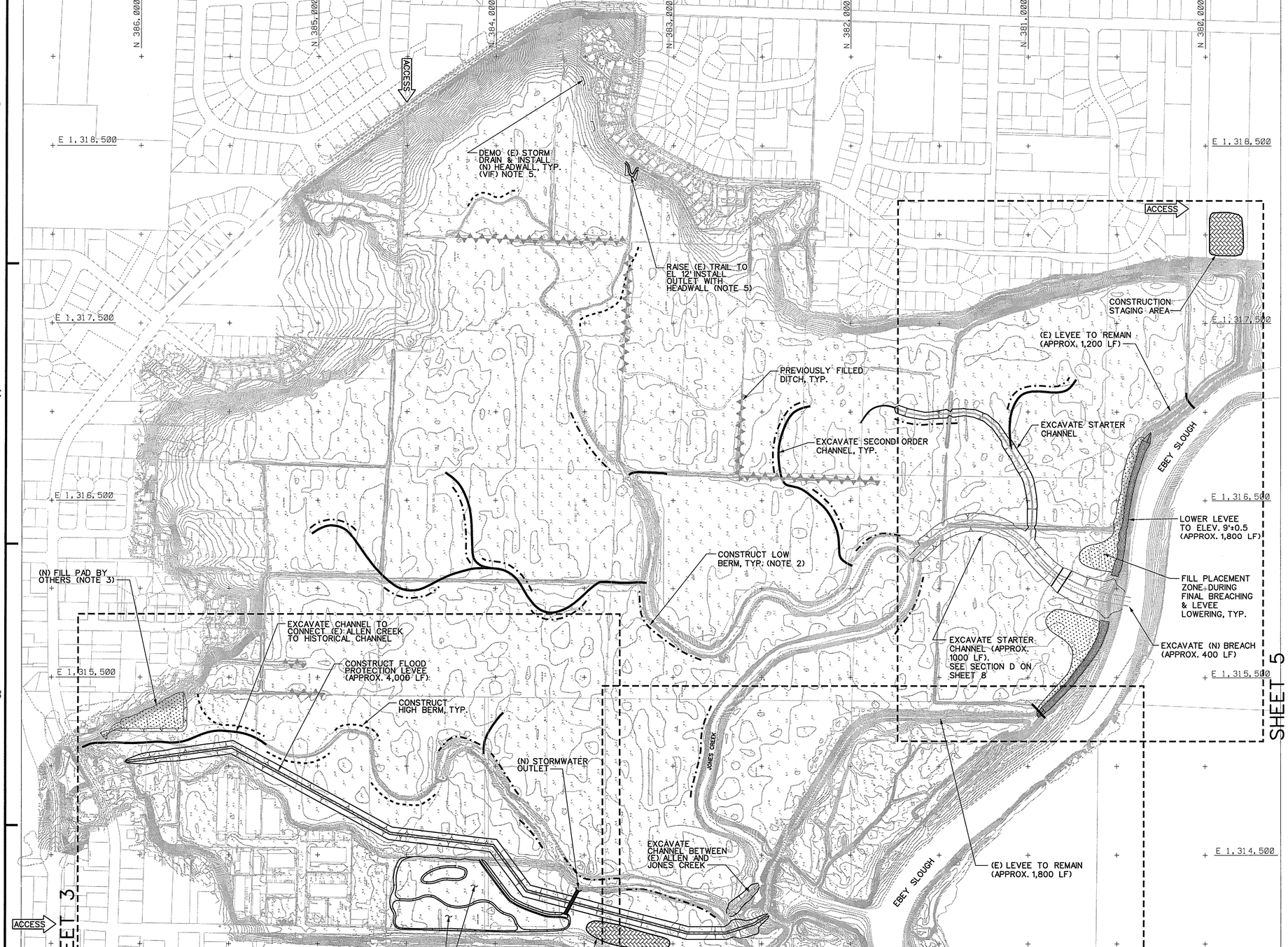
Submitted by
PAT CAGNEY
DESIGN MANAGER
Reviewed by
DENNIS SCALF, P.E.
CH. TECH. ENG. AND REVIEW SEC DATE:

U.S.ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON
Prepared by
DENNIS A. FISCHER, P.E.
CHIEF, CIVIL/SOILS SECTION DATE:

QWULOOLT TIDAL WETLAND RESTORATION
COVER SHEET
MARYSVILLE WASHINGTON

Plate number:
G-001
Sheet 1 of 9

DESIGN FILE: V:\CIVIL\PSAWR PUGET SOUND AND ADJACENT WATERS RESTORATION PROGRAM\QWULOOLT PROJECT\35% DESIGN
DATE AND TIME PLOTTED: 14-APR-2009 13:03



GENERAL NOTES:

1. TOPOGRAPHIC MAPPING PREPARED BY DUANE HARTMAN AND ASSOCIATES USING AERIAL PHOTOGRAMMETRIC METHODS. AERIAL PHOTOGRAPH DATED JUNE 19, 2005. ELEVATIONS ARE APPROXIMATE, AND MAY NOT BE SHOWN ACCURATELY IN AREAS PONDED WHEN PHOTOGRAPH WAS TAKEN. MAPPING SHOULD BE FIELD CHECKED BEFORE FINAL DESIGN, AND CRITICAL GRADES SURVEYED IN THE FIELD BEFORE CONSTRUCTION. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) IN FEET. HORIZONTAL DATUM AT SITE IS NORTH AMERICAN DATUM OF 1983 (NAD83) STATE PLANE WASHINGTON NORTH IN FEET.

2. CONSTRUCT BERMS WITH MATERIAL GENERATED FROM EXCAVATION OF CHANNELS, NEW STORMWATER DETENTION PONDS, AND LEVEE LOWERING.

3. FILL PAD DESIGN BY OTHERS. LOCATION AND EXTENT SHOWN ON DRAWINGS IS APPROXIMATE.

4. INFRASTRUCTURE BELOW ELEVATION 15' MAY BE SUSCEPTIBLE TO EROSION AND FLOODING. VERIFY ELEVATIONS OF EXISTING PROPERTY, UTILITIES, AND PATHWAYS.

5. DRAINAGE PIPE AT STORMWATER DETENTION OUTLET DISCHARGES TO THE EXISTING THALWEG OF ALLEN CREEK.

6. STORMWATER OUTLET FACIITY WILL REQUIRE ADDITIONAL DETAILS AT LATER LEVELS OF DESIGN (i.e. HEADWALL DESIGN, EMERGENCY CLOSURE GATE, ETC.)

7. FILL PLACEMENT AREAS TO BE UTILIZED DURING FINAL BREACHING AND LEVEE LOWERING. OTHERWISE, MATERIAL GENERATED SHALL BE RE-USED IN HABITAT BERMS AND DITCH FILL.

8. ACCESS IS LIMITED. CONTRACTOR TO USE CAUTION MOBILIZING AND DEMOBILIZING. OVERHEAD ELECTRIC LINES NOT SHOWN.

9. CONSTRUCTION WORK SHALL CONFORM TO REGULATIONS SET BY LOCAL, STATE, AND FEDERAL AGENCIES. THE APPROVED WORK WINDOW FOR FISHERIES IS LIMITED TO JULY 16 THROUGH OCTOBER 14. DURING THIS PERIOD. NO WORK SHALL TAKE PLACE WITHIN 200 FEET LANDWARD OF THE STATE'S HIGH WATER LINE.

10. CONSTRUCTION OF NEW LEVEE REQUIRES MINIMUM COMPACTION OF 90% MAXIMUM DRY DENSITY, CONSTRUCTED IN 9 INCH LIFTS. APPROXIMATELY 50% SETTLEMENT IS EXPECTED DUE TO WEAK SUBGRADE, AND THEREFORE AN ADDITIONAL FIVE FOOT LIFT WILL BE REQUIRED AFTER INITIAL SETTLEMENT.

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Seattle District

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Checked by:
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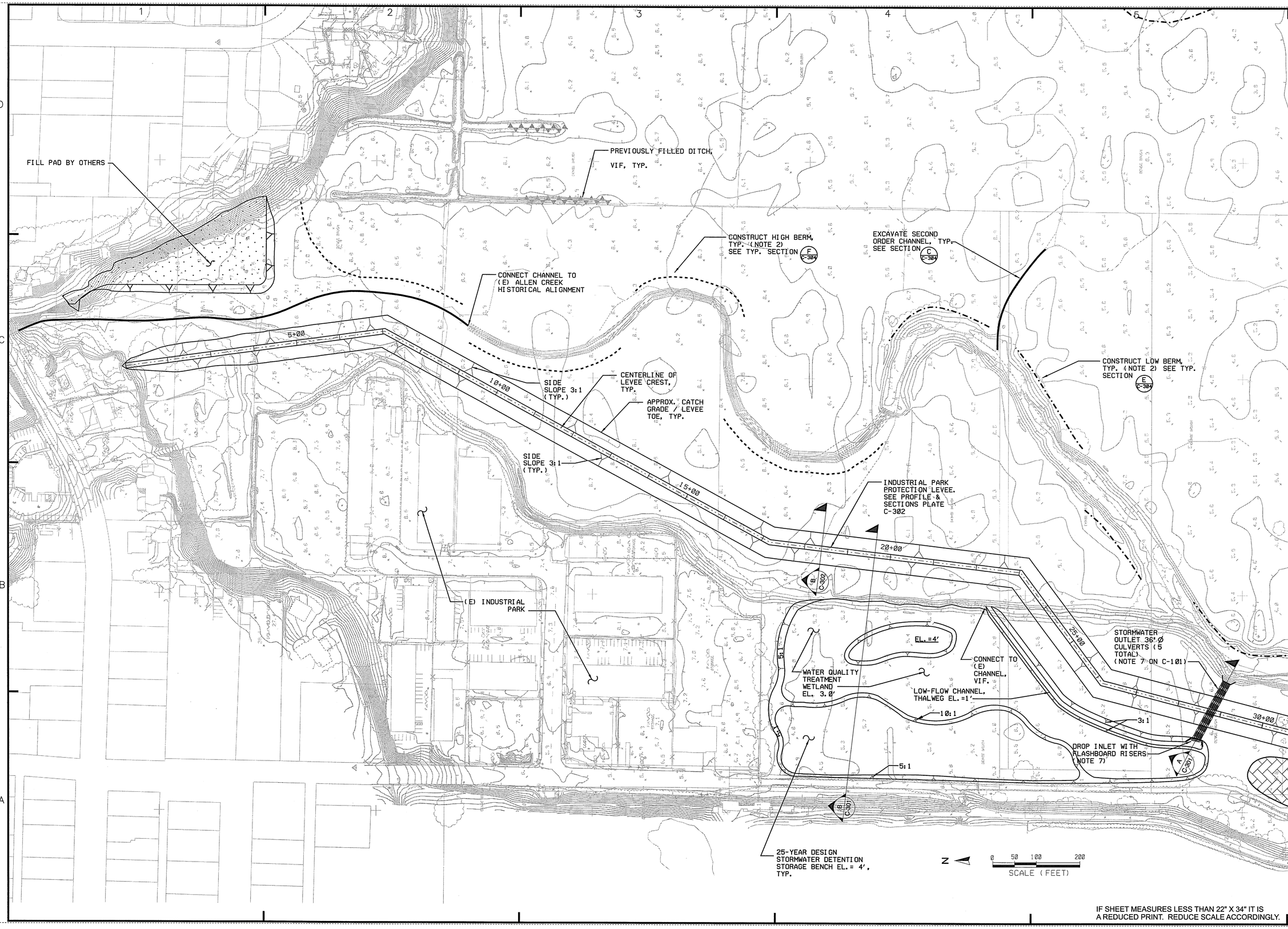
SEATTLE, WASHINGTON
Prepared by:

QWULOOLT TIDAL WETLAND RESTORATION
GENERAL SITE PLAN
MARYSVILLE WASHINGTON

Plate number:
C-101
Sheet 2 of 9

DATE AND TIME PLOTTED: 14-APR-2009 11:53 DESIGN FILE: V:\CIVIL\PSAWR PUGET SOUND AND ADJACENT WATERS RESTORATION PROGRAM\QWULOOLT PROJECT\35% DESIGN AND RELATED INFORMATION\PWA CAD FILES\DGN 3-24-09\QWLTC-101



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QWULOOLT TIDAL WETLAND RESTORATION

NORTHWEST SITE PLAN

MARYSVILLE WASHINGTON

Plate number: C-102

Sheet 3 of 9

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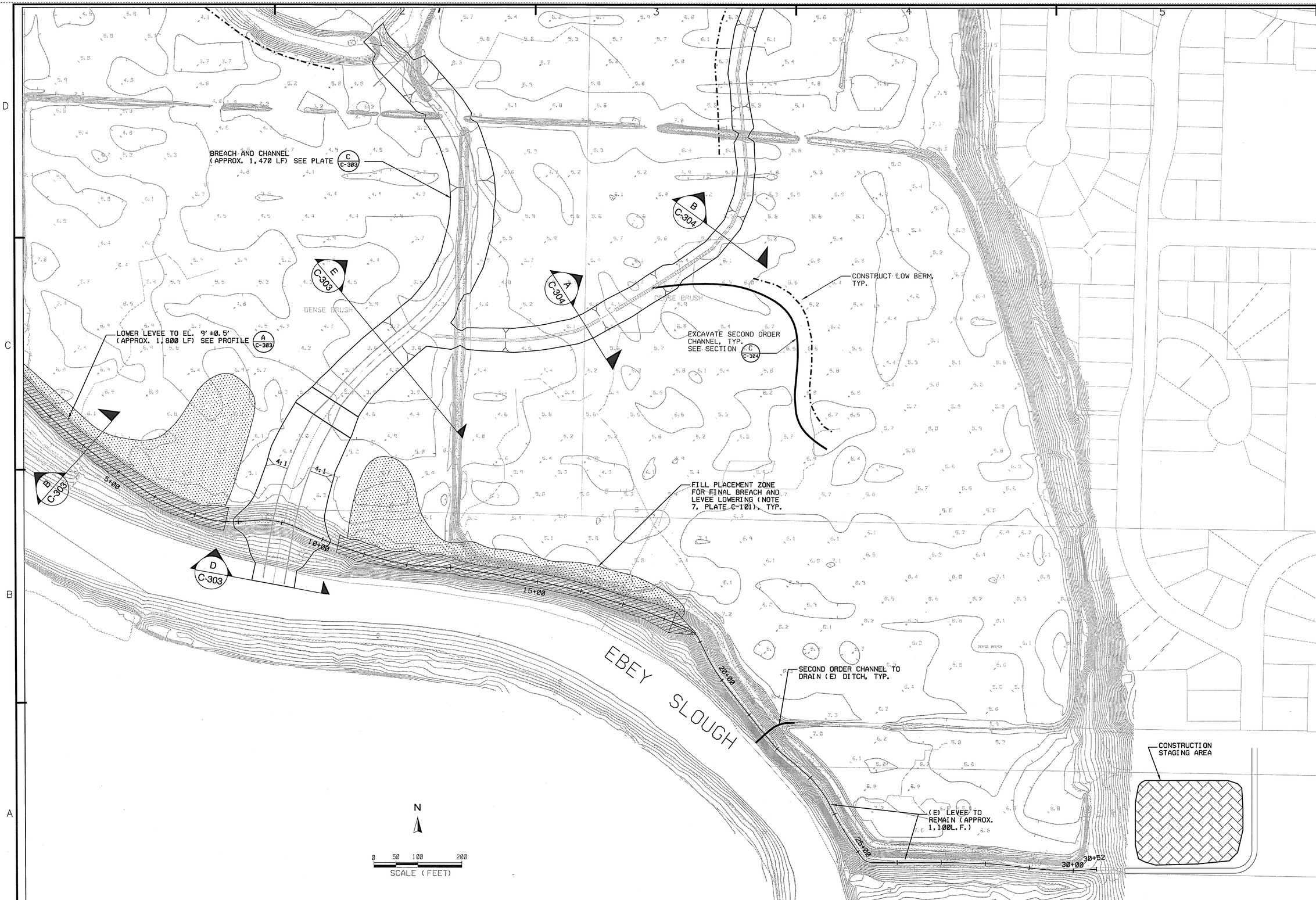

IF SHEET MEASURES LESS THAN 22" X 34" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

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QWULOOLT TIDAL WETLAND RESTORATION

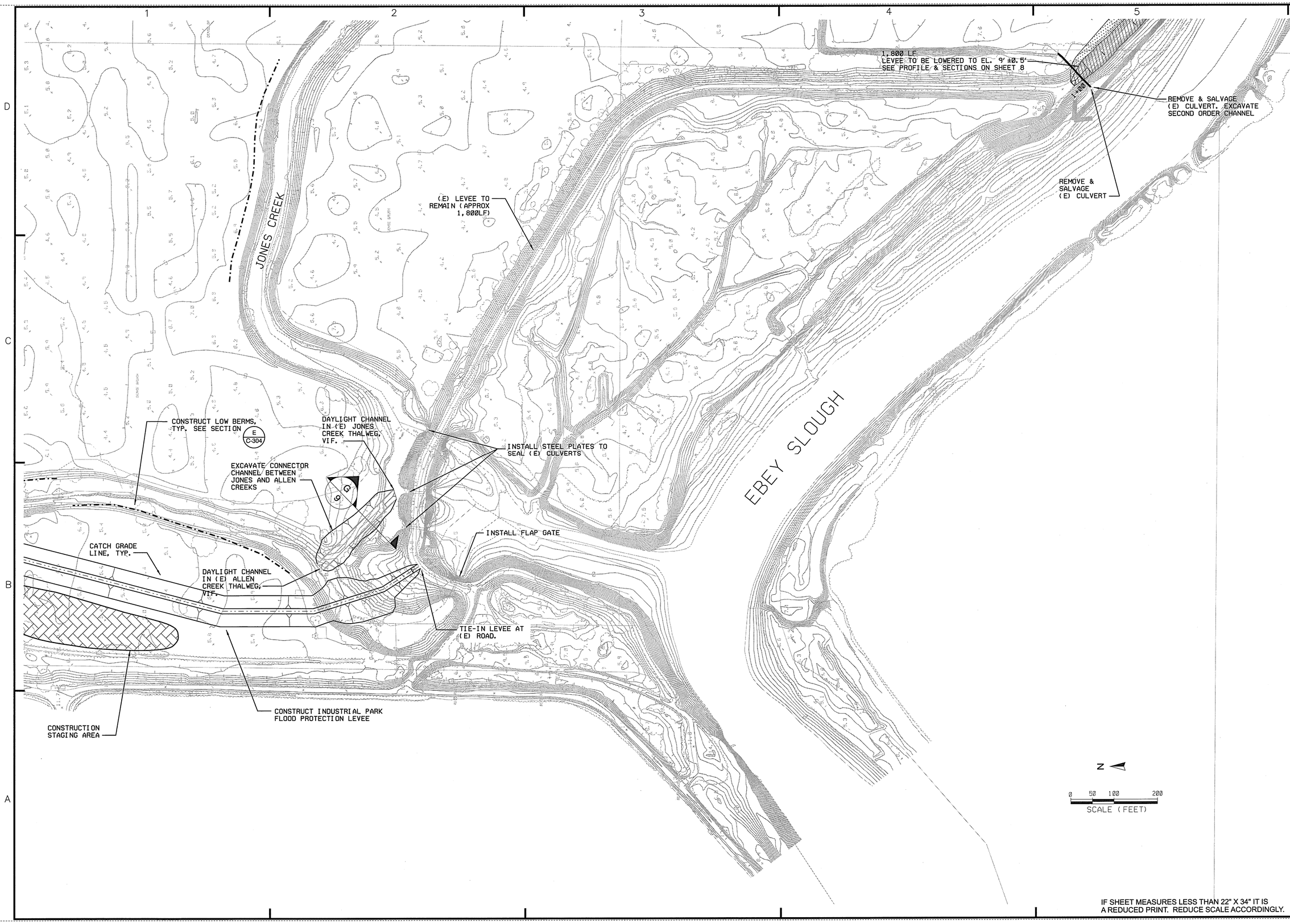
NORTHWEST SITE PLAN

MARYSVILLE WASHINGTON

Plate number: C-104

Sheet 5 of 9

DATE AND TIME PLOTTED: 14-APR-2009 12:19 DESIGN FILE: V:\CIVIL\PSAWR PUGET SOUND AND ADJACENT WATERS RESTORATION PROGRAM\QWULOOLT PROJECT\35% DESIGN AND RELATED INFORMATION\PWA CAD FILES\DGN 3-24-09\QWLTC-104



IF SHEET MEASURES LESS THAN 22" X 34" IT IS
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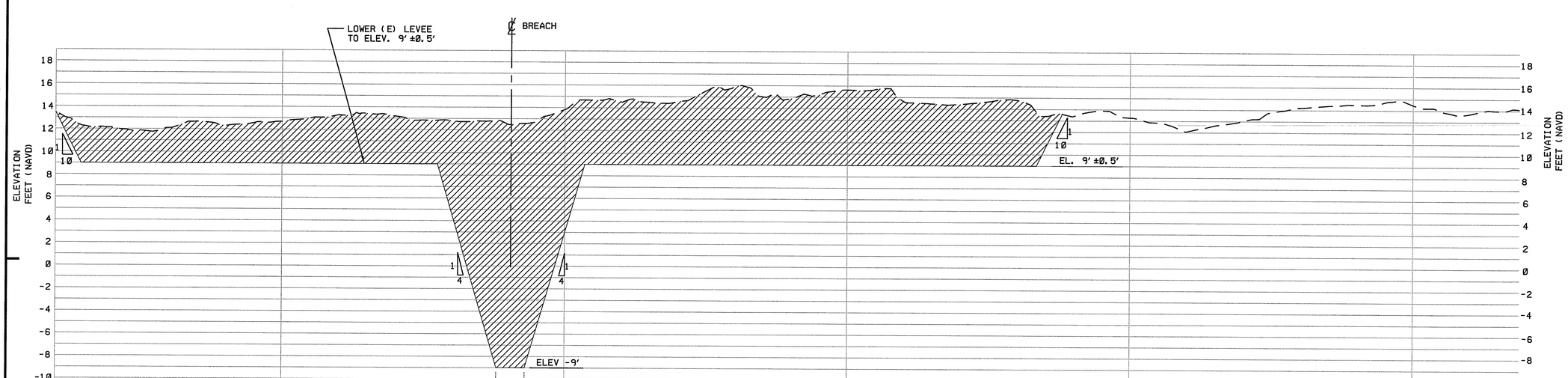
QWULOOLT TIDAL WETLAND RESTORATION
SOUTHWEST SITE PLAN
MARYSVILLE WASHINGTON

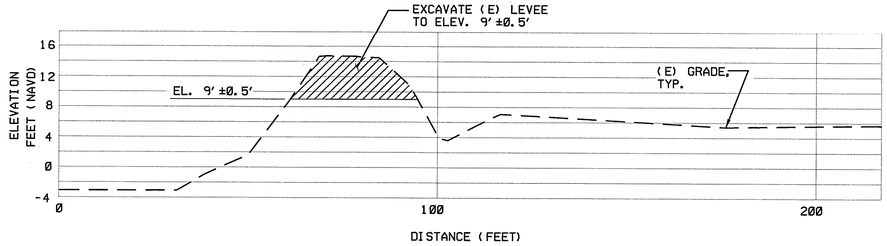
Plate number:
C-103
Sheet 4 of 9

DATE AND TIME PLOTTED: 14-APR-2009 12:18 DESIGN FILE: V:\CIVIL\PSAWR PUGET SOUND AND ADJACENT WATERS RESTORATION PROGRAM\QWULOOLT PROJECT\35X DESIGN AND RELATED INFORMATION\PWA CAD FILES\DGN 3-24-09\QWLTC-103



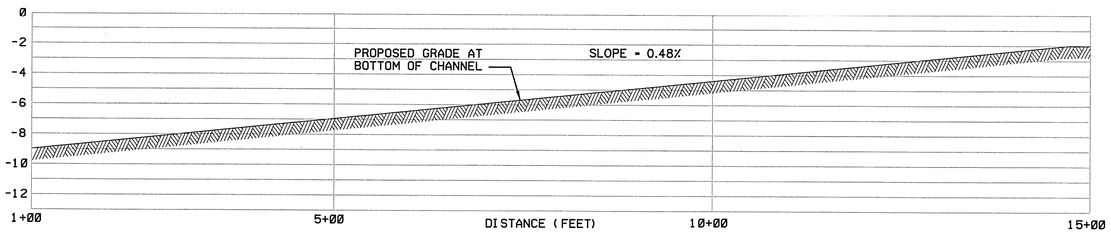
A **LEVEE LOWERING & BREACH PROFILE**

SCALE:
HORIZ. 1"=100'
VERT. 1"=5'



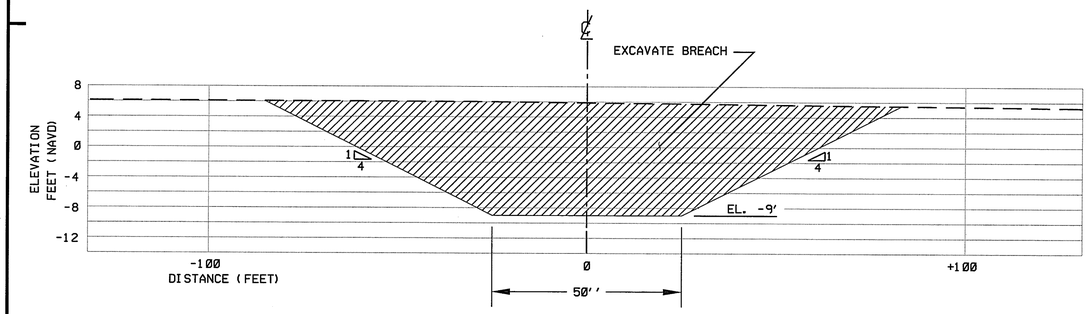
B **LEVEE LOWERING TYPICAL SECTION**

SCALE:
HORIZ. 1"=20'
VERT. 1"=10'



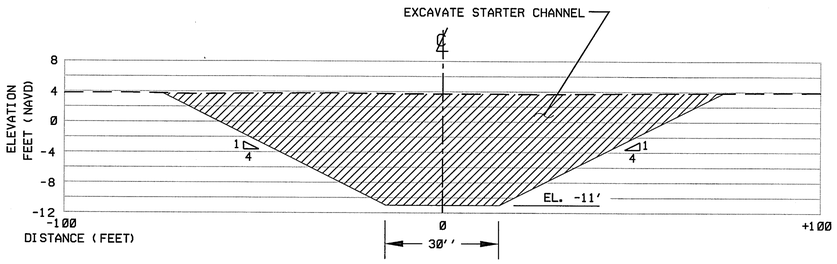
C **BREACH AND STARTER CHANNEL PROFILE AT BREACH**

SCALE:
HORIZ. 1"=100'
VERT. 1"=5'



D **BREACH TYPICAL SECTION**

SCALE:
HORIZ. 1"=20'
VERT. 1"=10'



E **STARTER CHANNEL TYPICAL SECTION**

SCALE:
HORIZ. 1"=20'
VERT. 1"=10'

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Prepared by:

QWULOOLT TIDAL WETLAND RESTORATION
MARYSVILLE WASHINGTON

LEVEE LOWERING AND BREACH PROFILE AND SECTIONS

Plate number: C-303

Sheet 8 of 9

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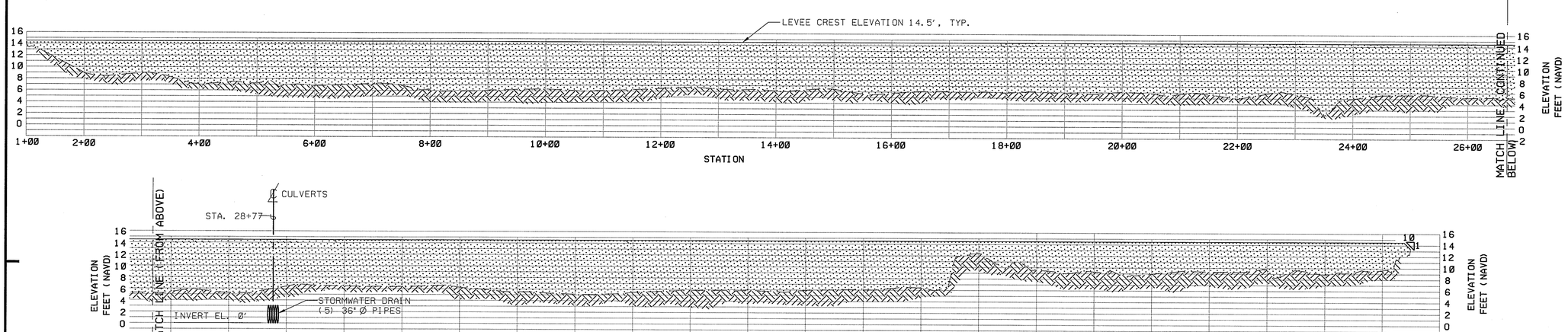
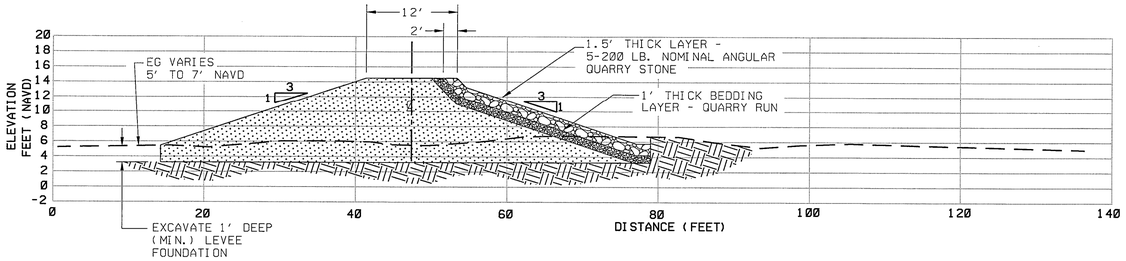


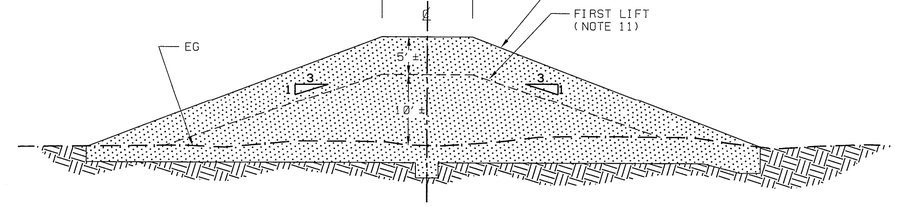
A INDUSTRIAL PARK FLOOD PROTECTION LEVEE PROFILE

SCALE:
HORIZ. 1"=100'
VERT. 1"=10'



B INDUSTRIAL PARK FLOOD PROTECTION LEVEE - POST SETTLEMENT TYPICAL SECTION

SCALE: 1"=10'



C INDUSTRIAL PARK FLOOD PROTECTION LEVEE - PRE SETTLEMENT TYPICAL SECTION

SCALE: 1"=10'

PRELIMINARY
NOT FOR CONSTRUCTION

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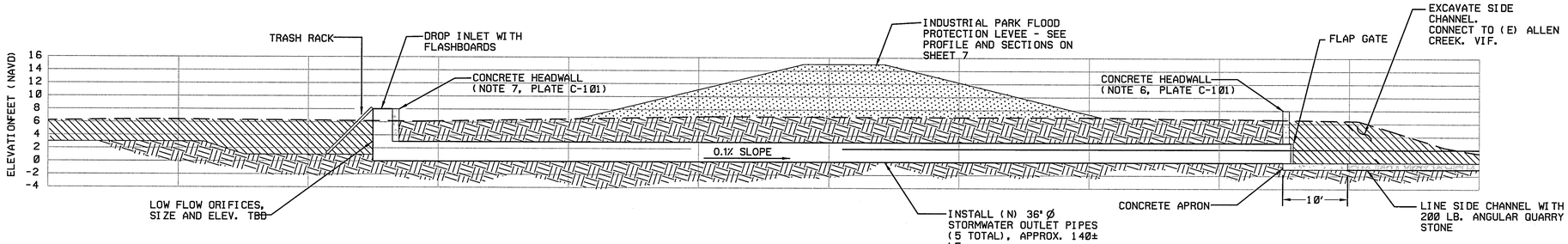
QWULOOLT TIDAL WETLAND RESTORATION
NEW LEVEE PROFILE
MARYSVILLE WASHINGTON

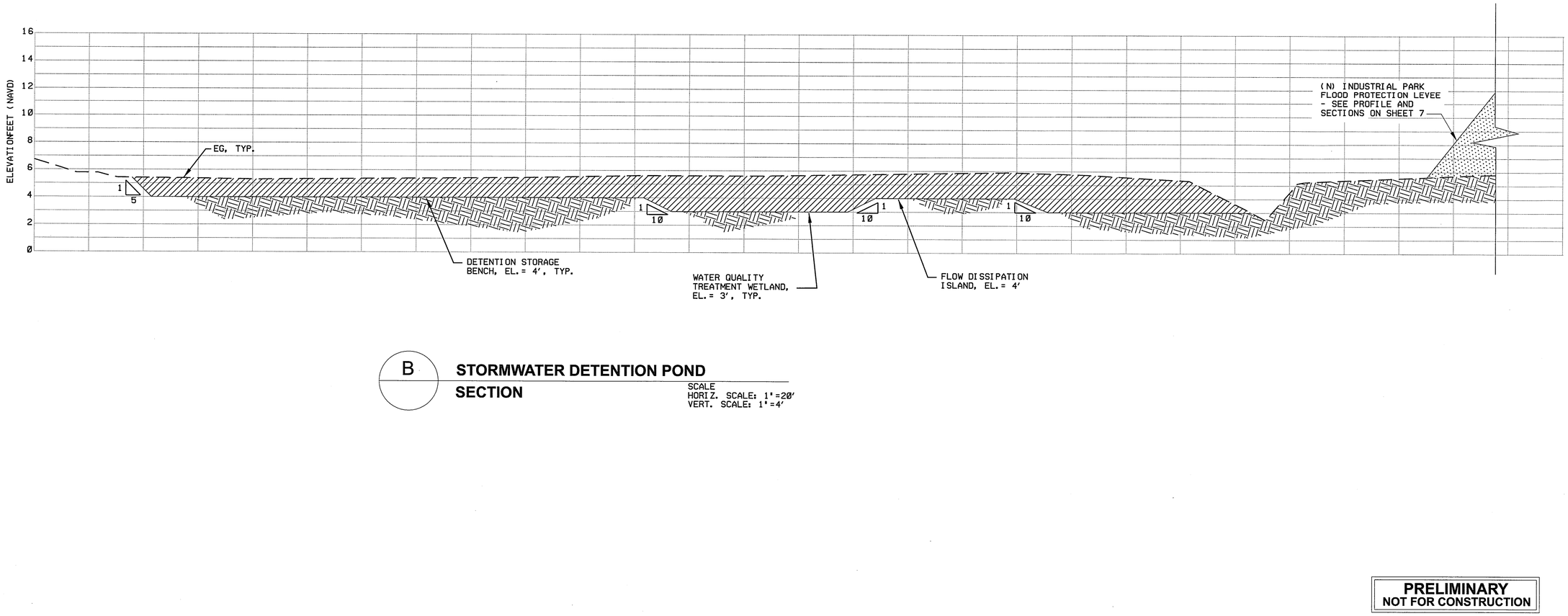
Plate number:
C-302
Sheet 7 of 9

DATE AND TIME PLOTTED: 14-APR-2009 13:00 DESIGN FILE: V:\CIVIL\PSAWR PUGET SOUND AND ADJACENT WATERS RESTORATION PROGRAM\QWULOOLT PROJECT\35% DESIGN AND RELATED INFORMATION\PWA CAD FILES\DGN 3-24-09\QWLTC-302



A **STORMWATER DETENTION OUTLET PROFILE**

SCALE: 1"=10'



B **STORMWATER DETENTION POND SECTION**

SCALE
HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=4'

PRELIMINARY
NOT FOR CONSTRUCTION

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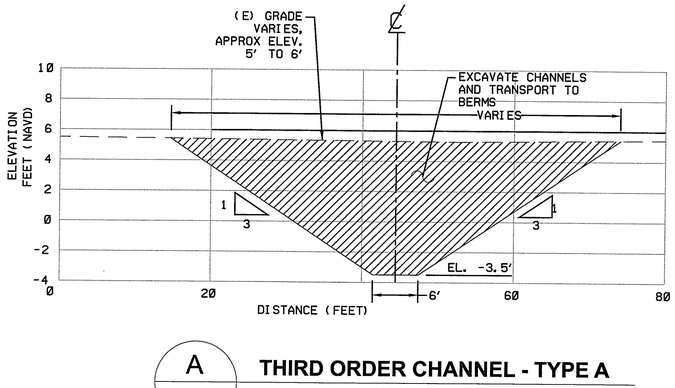
Prepared by:

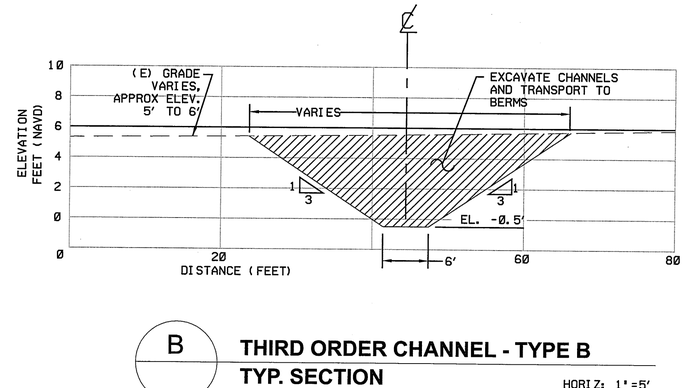
QWULOOLT TIDAL WETLAND RESTORATION
STORMWATER DETENTION AREA SECTIONS
MARYSVILLE WASHINGTON

Plate number:
C-301
Sheet 6 of 9

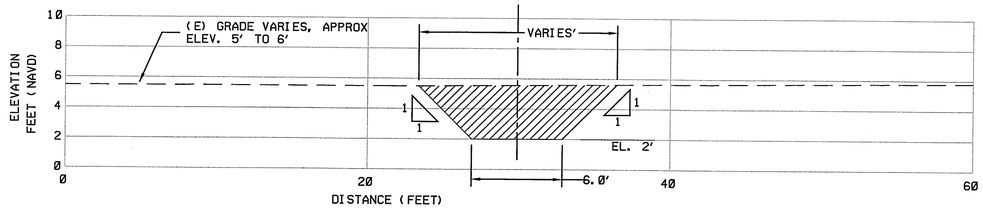
DATE AND TIME PLOTTED: 14-APR-2009 13:02 DESIGN FILE: V:\CIVIL\PSAWR PUGET SOUND AND ADJACENT WATERS RESTORATION PROGRAM\QWULOOLT PROJECT\35% DESIGN AND RELATED INFORMATION\PWA CAD FILES\DGN 3-24-09\QWLTC-301



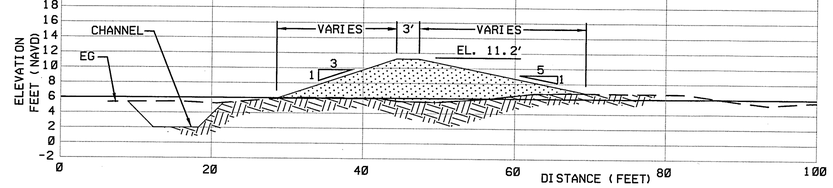
A THIRD ORDER CHANNEL - TYPE A
TYP. SECTION
HORIZ: 1"=10'
VERT: 1"=5'



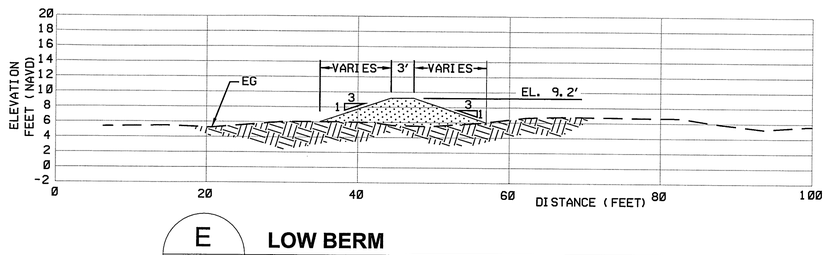
B THIRD ORDER CHANNEL - TYPE B
TYP. SECTION
HORIZ: 1"=5'
VERT: 1"=5'



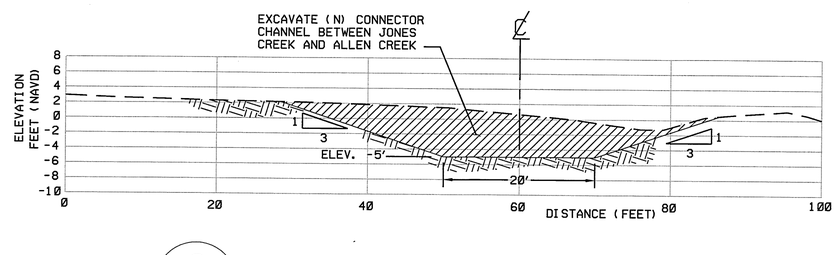
C SECOND ORDER CHANNEL
TYP. SECTION
SCALE: 1"=5'
(WORK DONE BY OTHERS)



F HIGH BERM
TYP. SECTION
SCALE: 1"=10'



E LOW BERM
TYP. SECTION
SCALE: 1"=10'



G JONES/ALLEN CREEK CONNECTOR CHANNEL
TYP. SECTION
SCALE: 1"=10'

IF SHEET MEASURES LESS THAN 22" X 34" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

US Army Corps of Engineers
Seattle District

Symbol	Description	Date	Appr.	Symbol	Description
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Date: 13 APR 09
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CORPS OF ENGINEERS
SEATTLE, WASHINGTON
Prepared by:

QWULOOLT TIDAL WETLAND RESTORATION
CHANNELS AND BERMS
TYPICAL SECTIONS
MARYSVILLE WASHINGTON

Plate number:
C-304
Sheet 9 of 9

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