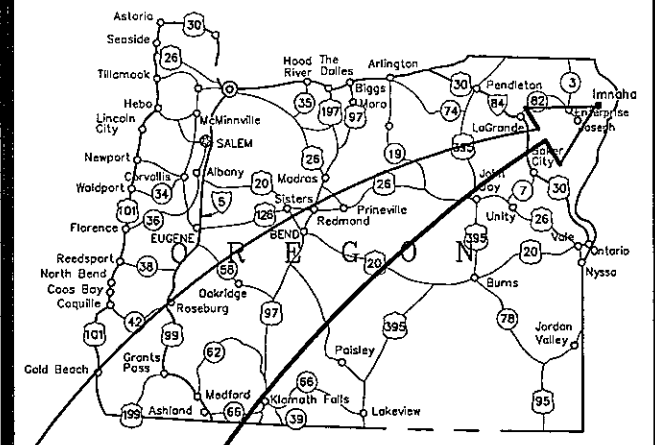


# GRANDE RONDE MODEL WATERSHED

## IMNAHA RIVER MARR HABITAT IMPROVEMENTS - 2011 WALLOWA COUNTY, OREGON

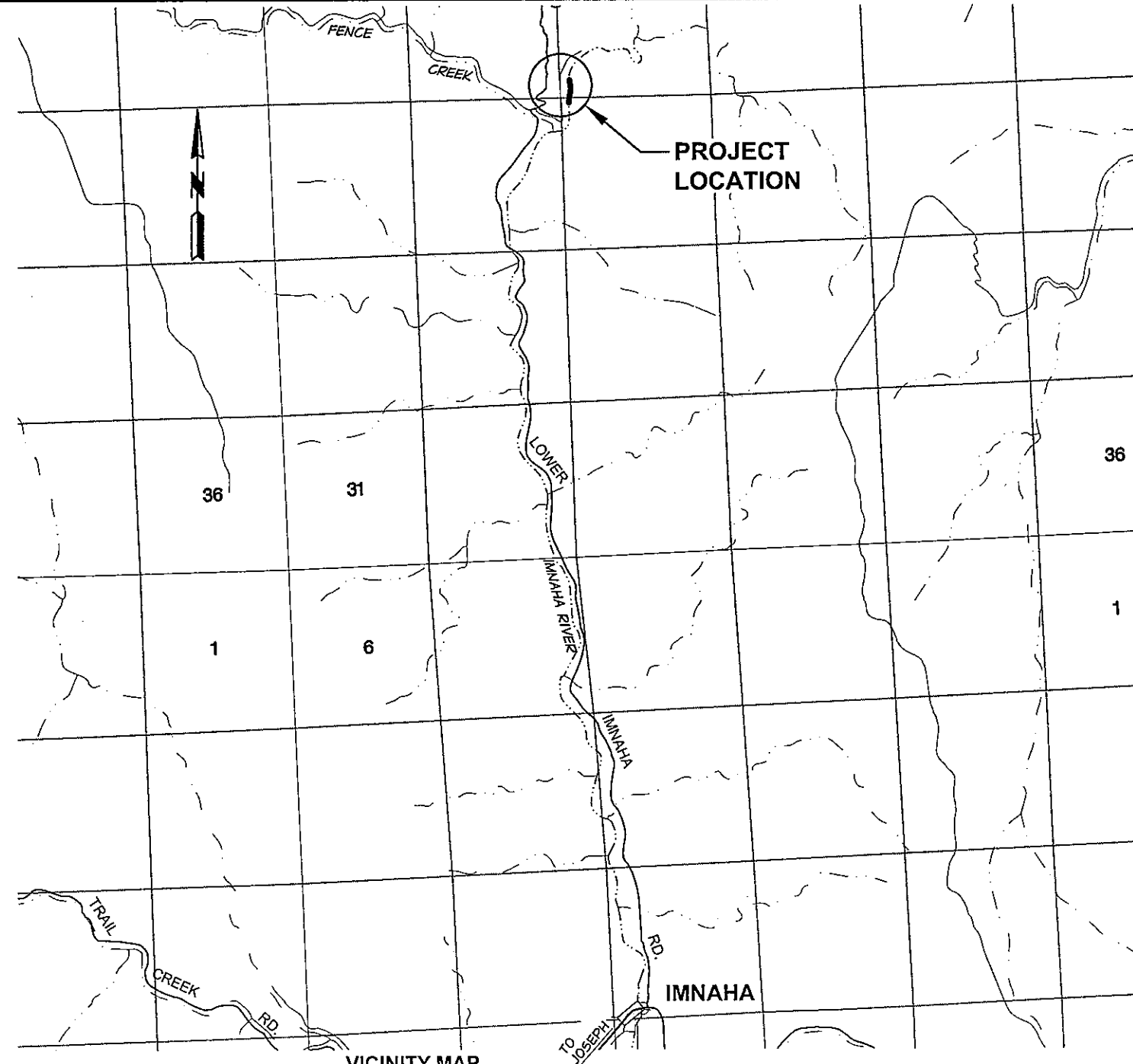


### INDEX

- COVER
- 1 EXISTING SITE PLAN AND LEGEND
- 2 SITE PLAN IMPROVEMENTS
- 3 WOOD DEBRIS AND PLANTING DETAILS
- 4 WOOD HABITAT STRUCTURE DETAILS
- 5 ENGINEERED LOG JAM DETAILS

The Grande Ronde Model Watershed has reviewed these drawings and approved them for construction to fulfill the intended project objectives.

\_\_\_\_\_  
Date



### GRANDE RONDE MODEL WATERSHED

#### EXECUTIVE DIRECTOR

JEFF OVESON

#### BOARD OF DIRECTORS

- MIKE HAYWARD - Chair
- STEVE McCLURE - Vice Chair
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Q:\Grande\_Ronde\_MW2011\81-34\_Imnaha\_River\_MarrDWGSITEPLAN.dwg, EXTG-SITE, 4/11/2011 8:44:37 AM, prichardson

PLAN LEGEND

**GENERAL**

EXISTING      PROPOSED

FENCE LINE/GATE      —\*—\*—\*—

ORDINARY HIGH WATER      - - - - -

EDGE OF WATER      - . . . . -

CREEK THALWEG      ————

FLOW      ————>

ROCK      ○

ROOT WAD      ————

**DRAFTING**

NORTH ARROW      ↑

SECTION DESIGNATION      A  
2

SHEET WHERE SECTION WAS TAKEN OR WHERE SECTION IS SHOWN.

SHEET CONTINUATION REFERENCE      3

WATER SURFACE ELEVATION      ▽

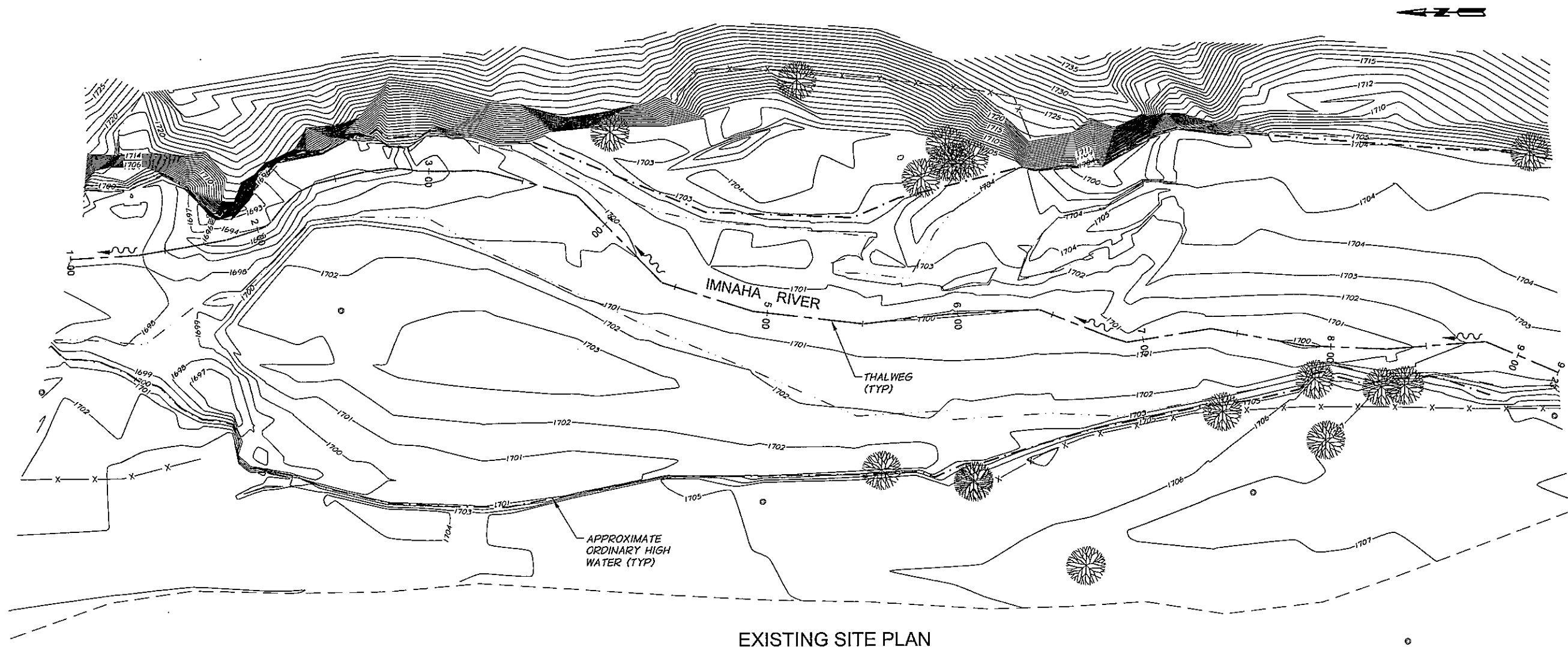
**SITE SURVEY**

INDEX CONTOUR      ————750———

INTERMEDIATE CONTOUR      - - - - -750- - - - -

CENTERLINE      ————

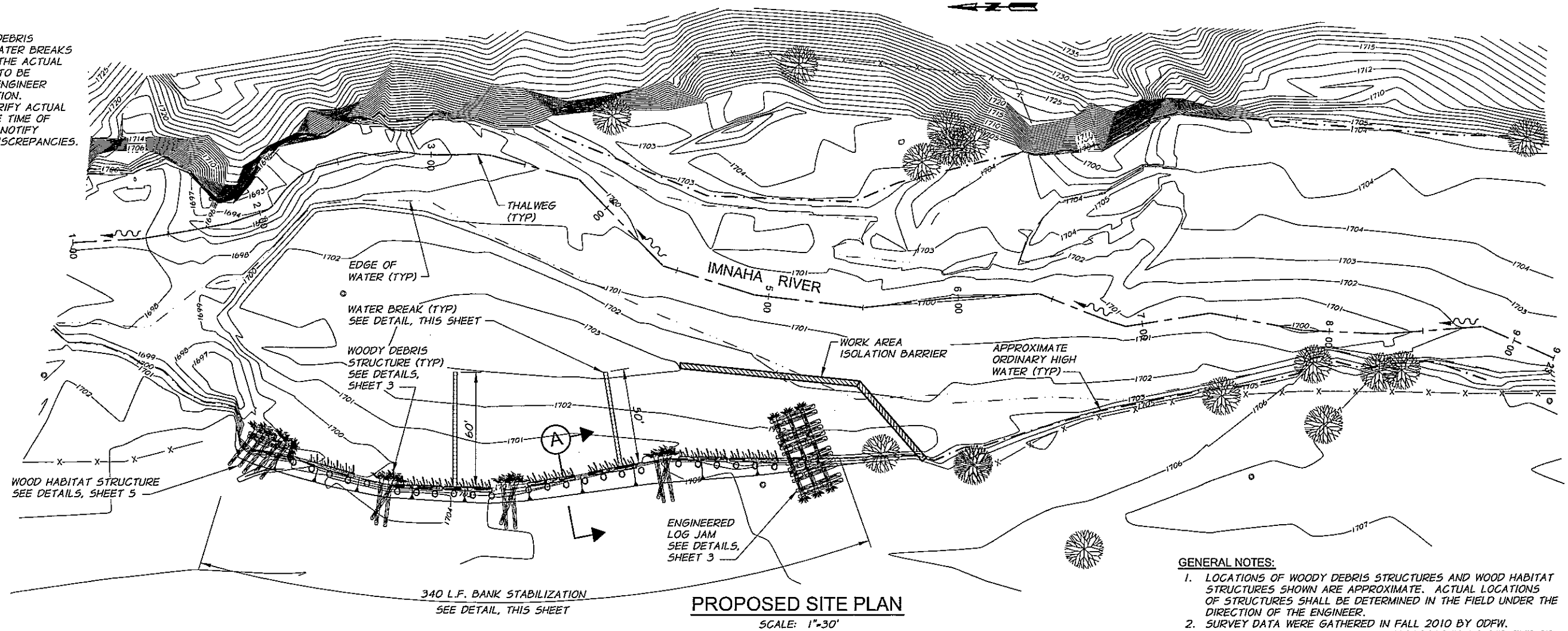
CONTROL POINT      ⊙



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NOTES:

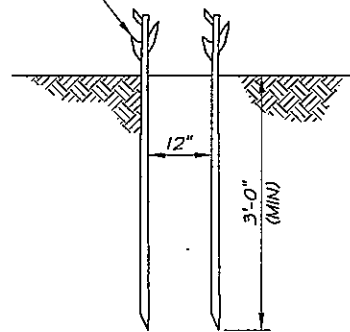
1. LOCATIONS WOODY DEBRIS STRUCTURES AND WATER BREAKS ARE APPROXIMATE. THE ACTUAL LOCATION OF EACH TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
2. CONTRACTOR TO VERIFY ACTUAL TOPOGRAPHY AT THE TIME OF CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



GENERAL NOTES:

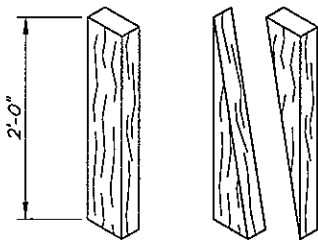
1. LOCATIONS OF WOODY DEBRIS STRUCTURES AND WOOD HABITAT STRUCTURES SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS OF STRUCTURES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE ENGINEER.
2. SURVEY DATA WERE GATHERED IN FALL 2010 BY ODFW. CONTRACTOR TO VERIFY ACTUAL TOPOGRAPHY AT THE TIME OF CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

WILLOW PLANTING. SEE DETAIL, SHEET 3. PLANTS SHALL BE SPACED AT 12" O.C. THROUGHOUT LENGTH OF WATER BREAK.



**WATER BREAK DETAIL**

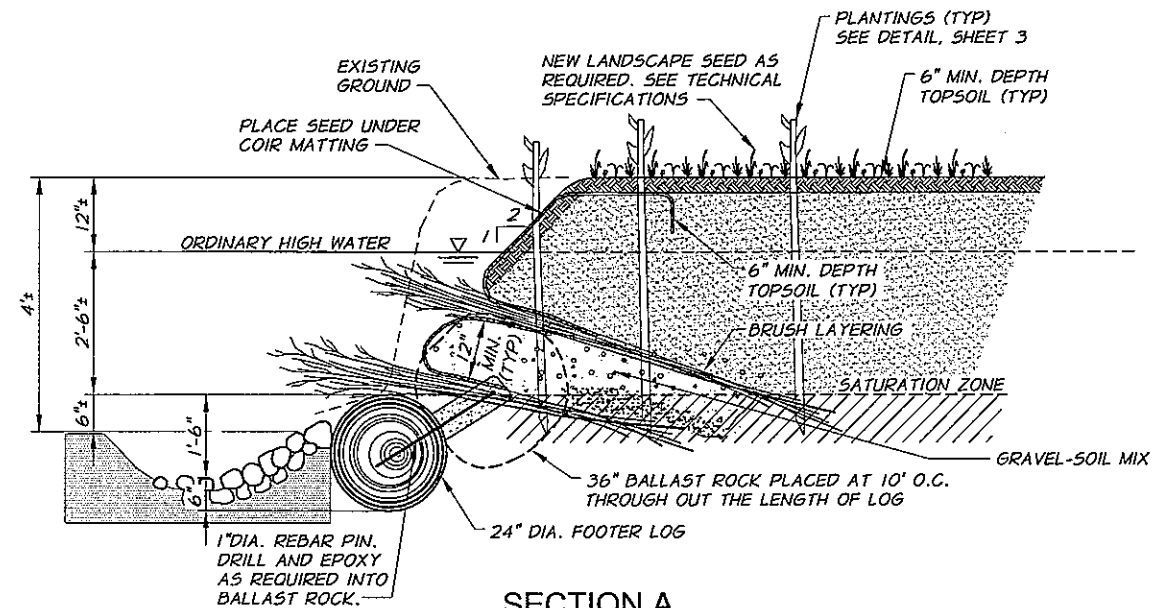
N.T.S.




NOTE:  
SAW A 2"x4" DIAGONALLY TO PRODUCE 2 STAKES.

**TYPICAL STAKE DETAIL**

N.T.S.



**SECTION A**  
**BANK STABILIZATION**  
N.T.S.

						
					SCALE IN FEET	
REVISION				BY	DATE	HORIZ. SCALE 1" = 30'
						VERT. SCALE
DESIGNED BY C. HUTCHINS		XREFS: GRMW MarrTB.dwg			JOB NUMBER 81-34	DATE 2011
DRAWN BY P. RICHARDSON					ACAD FILE: SITEPLAN.DWG	
REVIEWED BY B. MOORE					COPYRIGHT 2011 BY ANDERSON-PERRY & ASSOC., INC.	

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**PRELIMINARY**

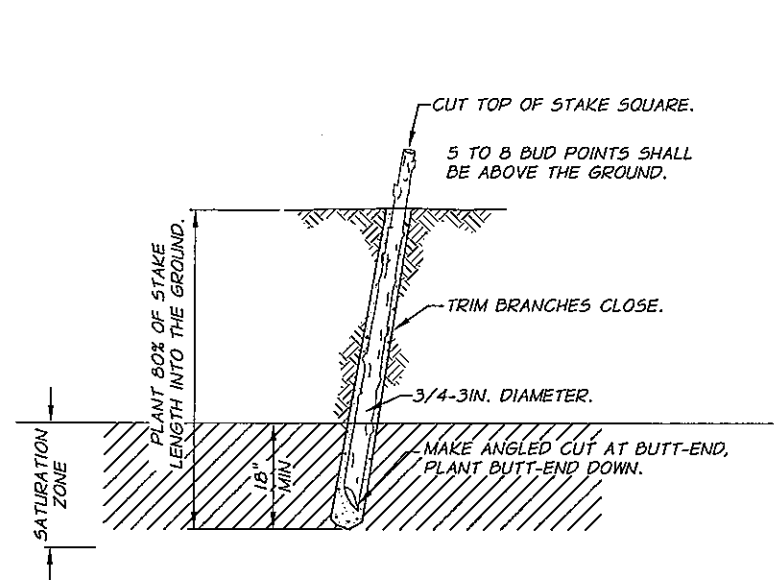
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**GRANDE RONDE MODEL WATERSHED**  
IMNAHA RIVER  
MARR HABITAT IMPROVEMENTS

SITE PLAN IMPROVEMENTS

SHEET

2



#### NOTES:

1. HARVEST AND PLANT STAKES DURING THE DORMANT SEASON.
2. USE HEALTHY, STRAIGHT AND LIVE WOOD AT LEAST 1 YEAR OLD.
3. MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT ENDS DURING INSTALLATION, USE A PILOT BAR IN FIRM SOILS.
4. CUTTINGS HARVESTED FRESH AT THE TIME OF INSTALLATION SHALL BE SOAKED FOR A MINIMUM OF 24 HOURS PRIOR TO INSTALLATION PLANTING. CUTTINGS HARVESTED AND STORED SHALL BE SOAKED FOR A MINIMUM OF 10 DAYS PRIOR TO PLANTING.
5. TAMP THE SOIL AROUND THE STAKE.
6. EXTEND STAKES IN TO WATER SATURATION ZONE.
7. SEE APPROVED SPECIES, THIS SHEET.

#### TYPICAL PLANTING DETAIL

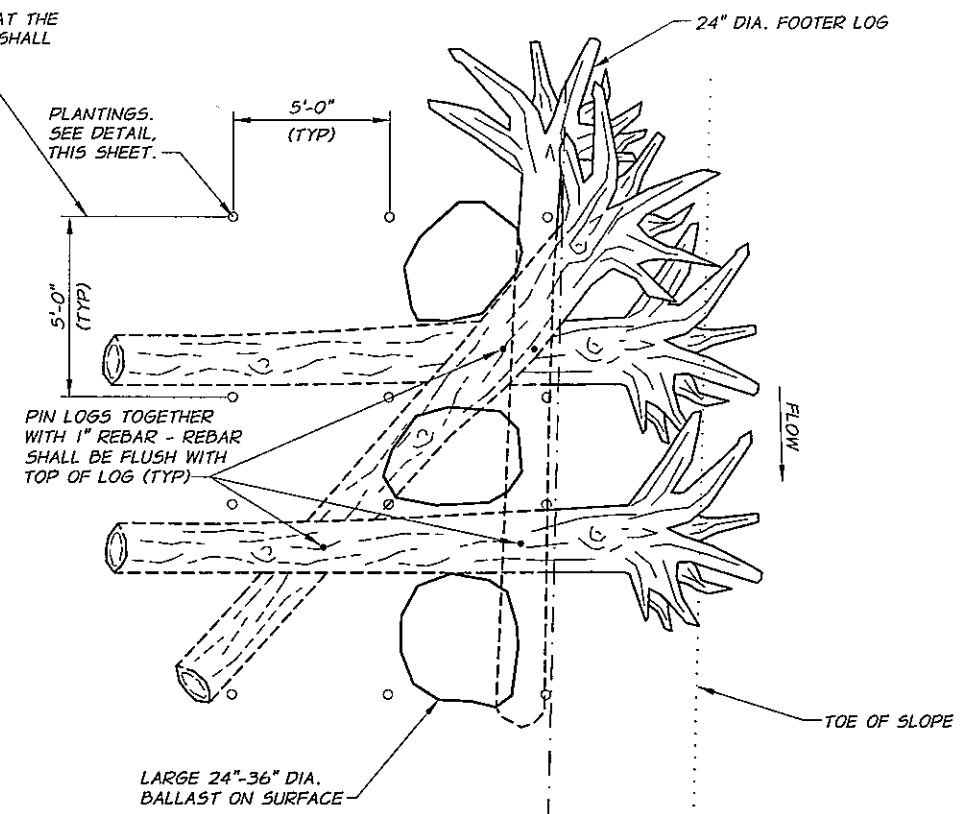
N.T.S.

#### APPROVED BRUSH SPECIES

BELOW ORDINARY HIGH WATER:

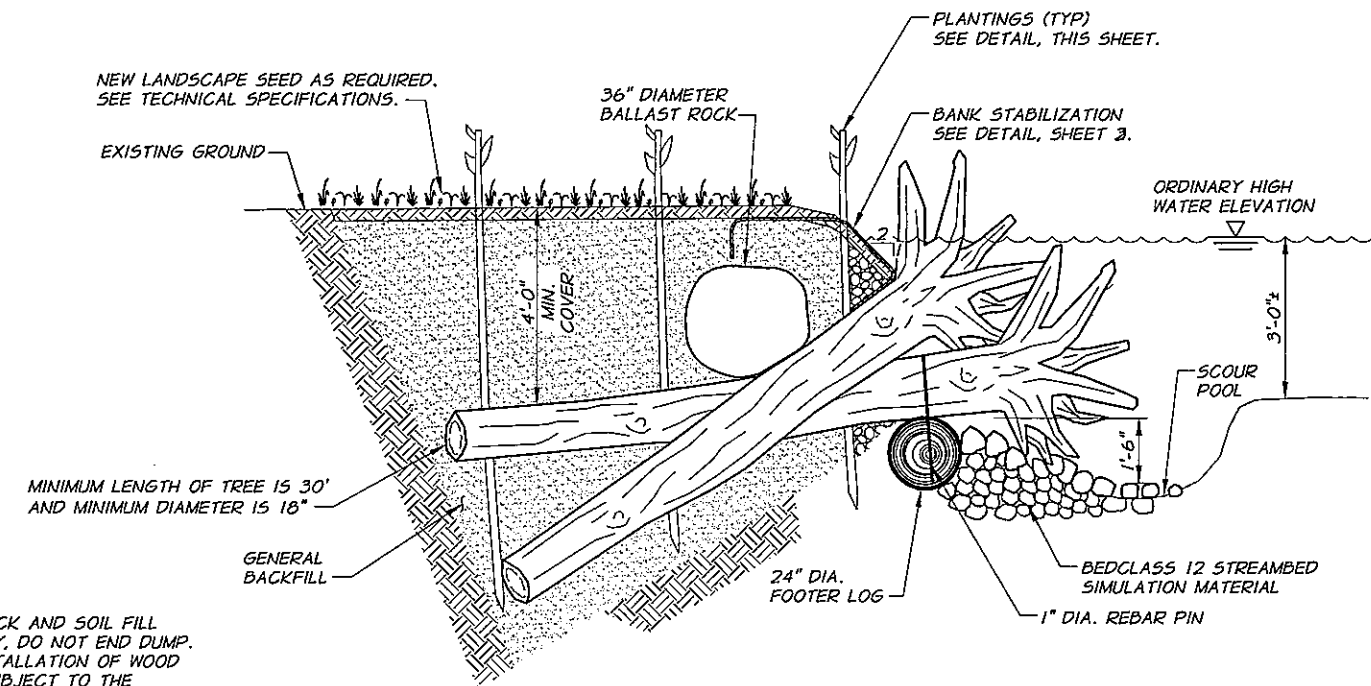
- SALIX EXIGUA (COYOTE WILLOW)
- SALIX LASIOLEPSIS (ARROYO WILLOW)
- CORNUS SERICEA (REDOSIER DOGWOOD)

FIRST ROW OF PLANTINGS SHALL BE PLACED AT THE ORDINARY HIGH WATER ELEVATION. ENGINEER SHALL APPROVE LOCATION PRIOR TO PLANTING.



#### WOODY DEBRIS PLAN

N.T.S.



#### NOTES:

1. PLACE ROCK AND SOIL FILL CAREFULLY, DO NOT END DUMP.
2. FINAL INSTALLATION OF WOOD DEBRIS SUBJECT TO THE APPROVAL OF ENGINEER.

#### WOODY DEBRIS SECTION

N.T.S.

REVISION	BY	DATE	HORIZ. SCALE	NO SCALE	VERT. SCALE
DESIGNED BY	C. HUTCHINS		JOB NUMBER	81-34	DATE
DRAWN BY	P. RICHARDSON		ACAD FILE:	VaneDet1.dwg	
REVIEWED BY	B. MOORE				
XREFS: GRMW MarrTB.dwg					
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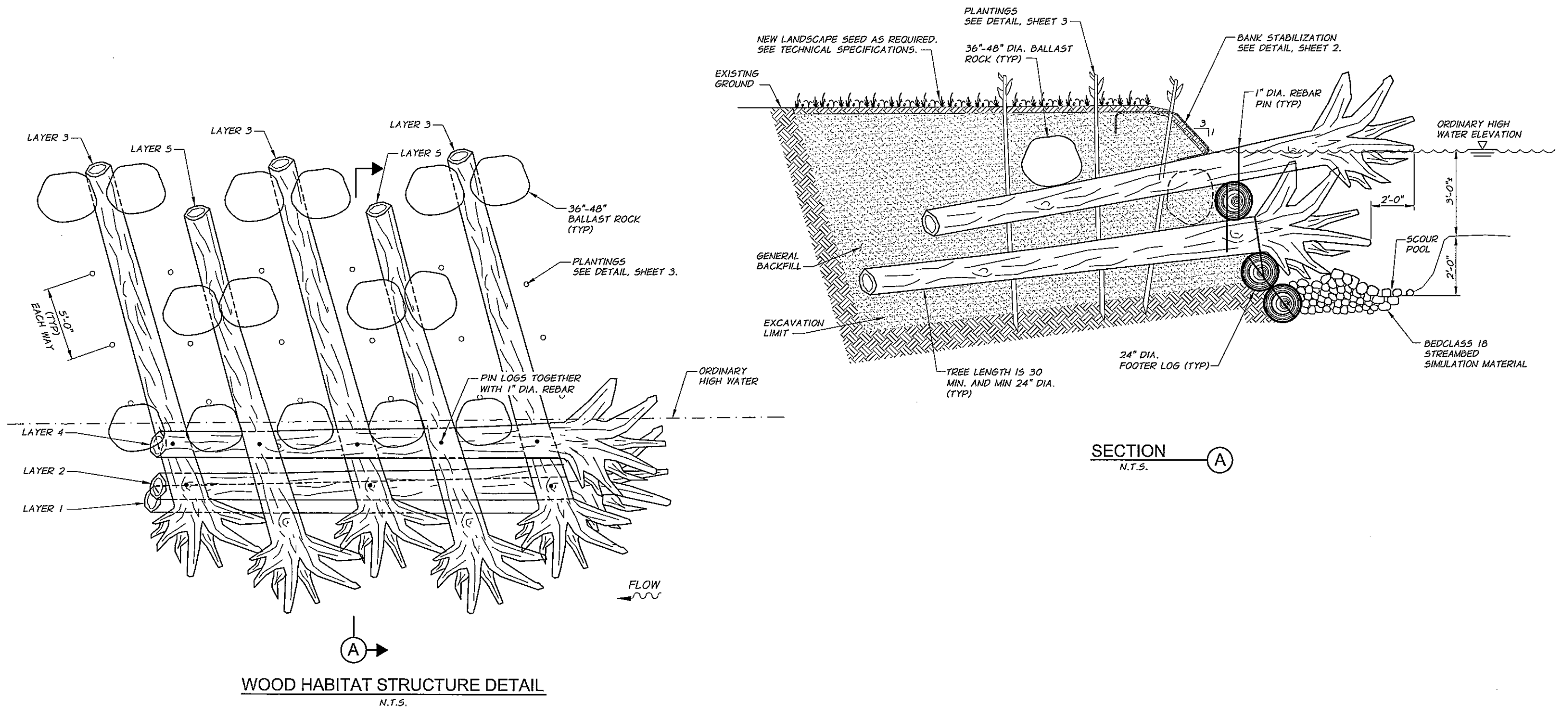
**GRANDE RONDE MODEL WATERSHED**  
IMNAHA RIVER  
MARR HABITAT IMPROVEMENTS

WOOD DEBRIS AND PLANTING DETAILS

SHEET

**3**

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REVISION		BY	DATE	HORIZ. SCALE	NO SCALE	VERT. SCALE
DESIGNED BY C. HUTCHINS		XREFS: GRMW MarrTB.dwg		JOB NUMBER	81-34	DATE 2011
DRAWN BY P. RICHARDSON				ACAD FILE:	VaneDet1.dwg	
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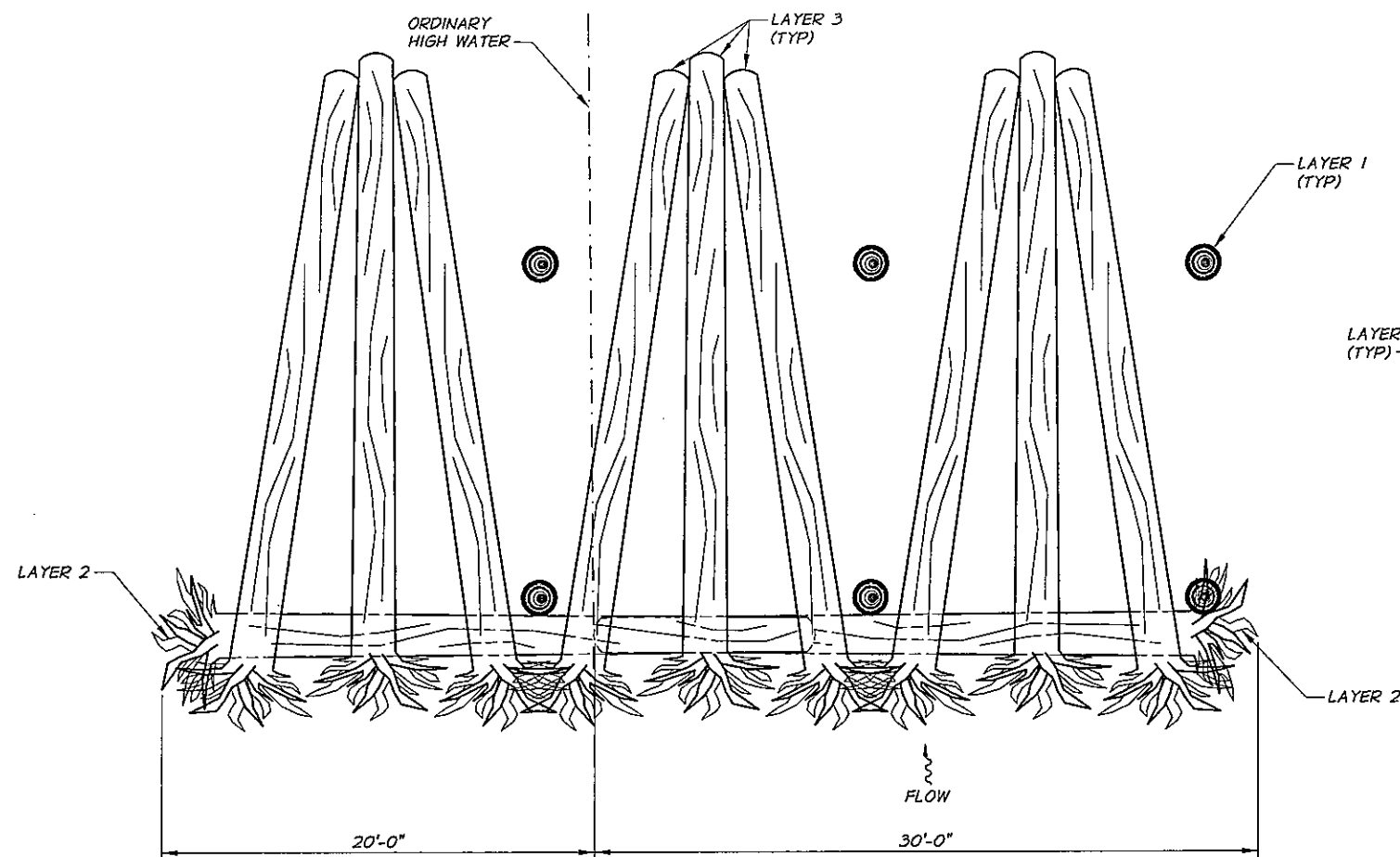
GRANDE RONDE MODEL WATERSHED  
IMNAHA RIVER  
MARR HABITAT IMPROVEMENTS

WOOD HABITAT STRUCTURE DETAILS

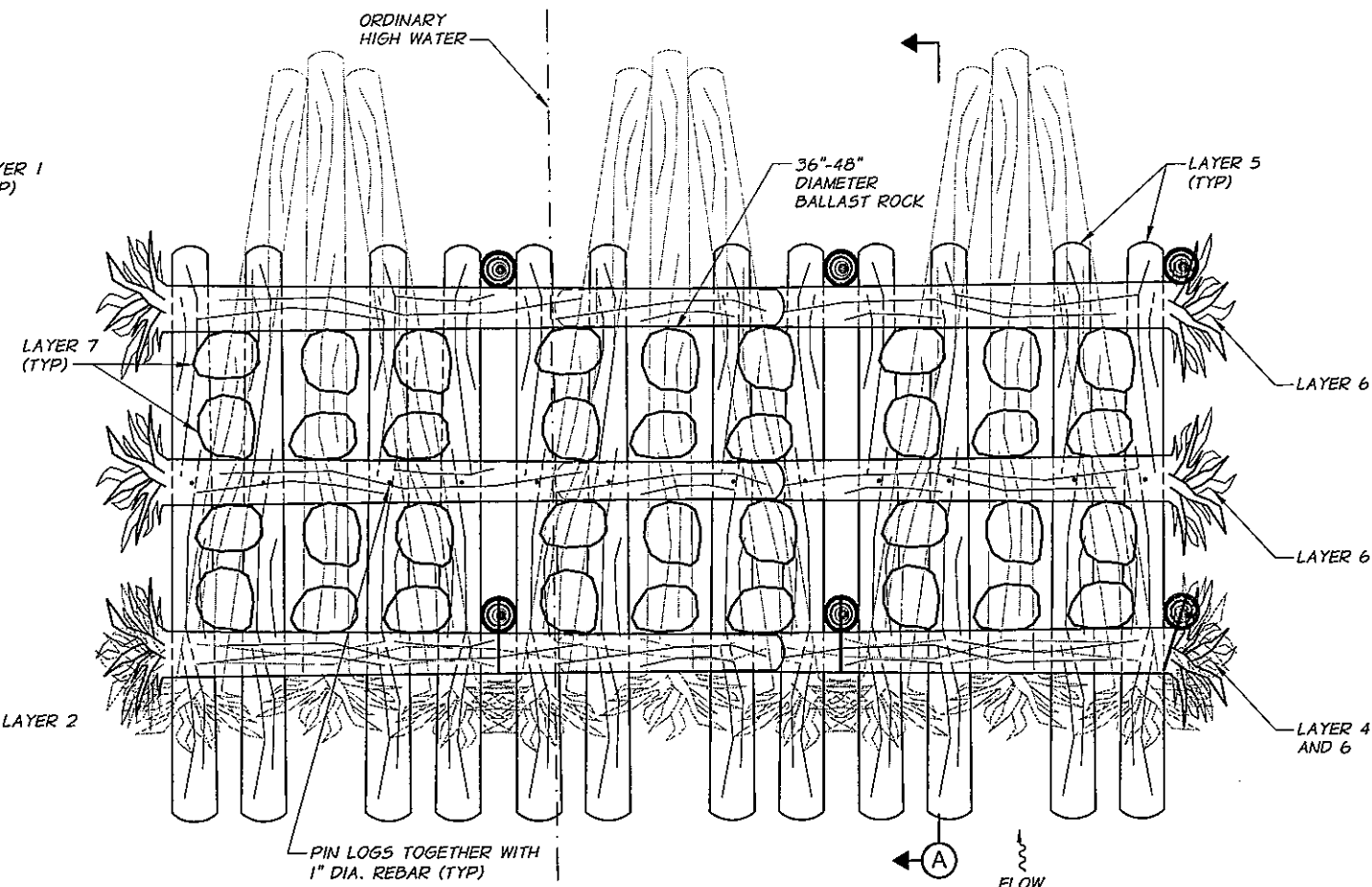
SHEET

4

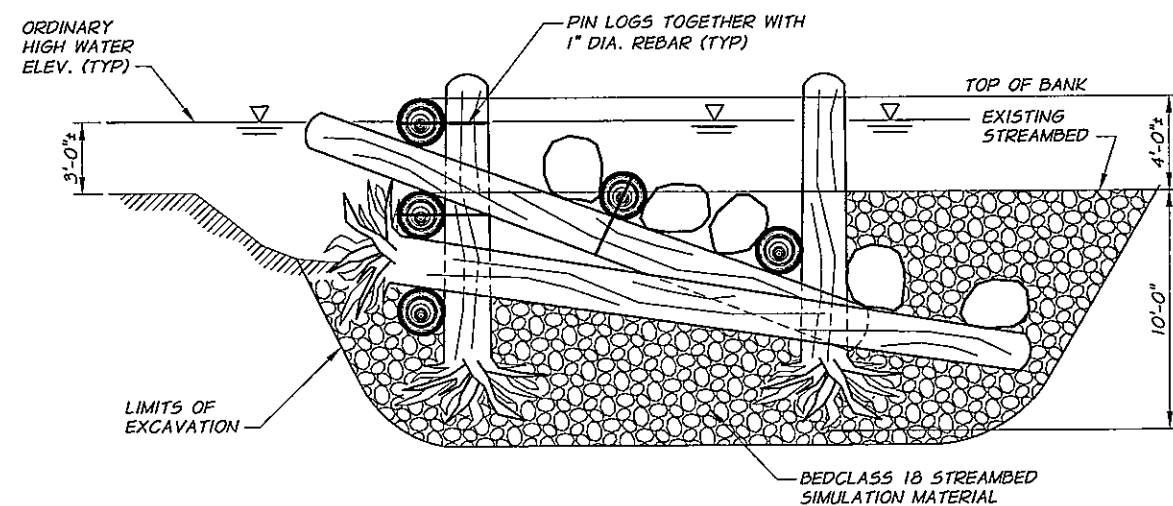
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ENGINEERED LOG JAM PLAN  
FIRST LEVEL  
N.T.S.



ENGINEERED LOG JAM PLAN  
SECOND LEVEL  
N.T.S.



SECTION A  
N.T.S.

REVISION	BY	DATE	HORIZ. SCALE	NO SCALE	VERT. SCALE
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GRANDE RONDE MODEL WATERSHED  
IMNAHA RIVER  
MARR HABITAT IMPROVEMENTS

ENGINEERED LOG JAM DETAILS

SHEET

5