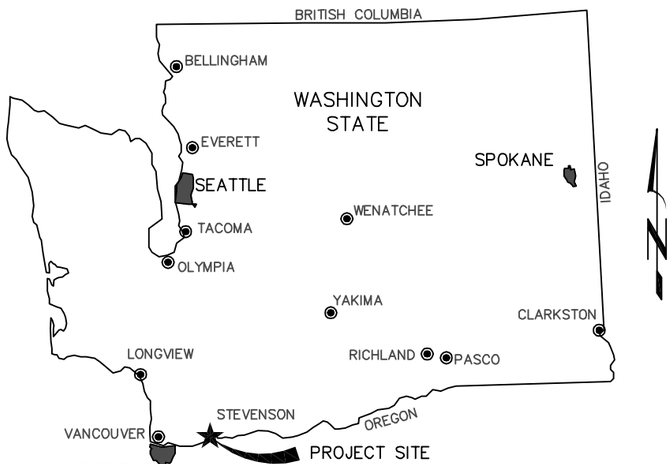
ROCK CREEK DREDGE MITIGATION

STEVENSON SHORELINE ENHANCEMENT
PORT OF SKAMANIA
JUNE 20, 2008



LOCATION MAP
N.T.S.

GENERAL NOTES

1. ALL WORK IS TO CONFORM WITH PROJECT CONTRACT SPECIFICATIONS.
2. THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REGULATIONS INCLUDING NECESSARY PERMITS AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES. THE TERMS OF THE STATE OF WASHINGTON HYDRAULIC PROJECT APPROVAL (HPA) AND THE CORP OF ENGINEERS PERMIT SHALL BE OBSERVED. ALL IN WATER WORK SHALL BE COMPLETED WITHIN GUIDELINES ESTABLISHED IN THE PERMIT DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SCHEDULING AND ALL WORK WITH THE OWNER.
4. THE ENGINEER OR OWNER IS NOT RESPONSIBLE FOR THE SAFETY OF THE CONTRACTOR OR HIS CREW. ALL O.S.H.A. REGULATIONS SHALL BE STRICTLY ADHERED TO IN THE PERFORMANCE OF THE WORK.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ROADWAYS KEEPING THEM CLEAN AND FREE OF CONSTRUCTION MATERIALS AND DEBRIS, AND PROVIDING NECESSARY DUST CONTROL WHERE REQUIRED.
6. WATER LEVELS ARE FOR REFERENCE ONLY. WATER LEVELS AT THE TIME OF CONSTRUCTION ARE NOT GUARANTEED. CONSTRUCTION MEANS, METHODS, AND MATERIALS TO FACILITATE COMPLETION OF PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR.

PROJECT DESCRIPTION

PLACE OWNER PROVIDED ROUND RIVER ROCK/GRAVEL ALONG SHORELINE TO COVER EXISTING RIP-RAP, EXISTING SHEET PILE WALL, AND ERODING BANK, INSTALL ROOT-WAD HABITAT ELEMENTS, AND RIPARIAN PLANTINGS.

OWNER

PORT OF SKAMANIA COUNTY
PO BOX 1099
70 SE CASCADE AVENUE
STEVENSON, WASHINGTON 98648
PHONE: (509) 427-5484
FAX: (509) 427-7984

ENGINEER

FLOWING SOLUTIONS
3305 SW 87TH
PORTLAND, OR 97225
PHONE: (503) 297-6311
FAX: (503) 297-6053

SHEET INDEX

1. COVER
2. SITE
3. PLAN
4. PLAN WEST
5. PLAN EAST
6. PLANTING
7. BANK DETAIL
8. EROSION CONTROL PLAN
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13. SECTIONS 12,13
14. SECTIONS 14,15

NOTE: 11x17 AT FULL SCALE

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COLUMBIA RIVER ELEVATION DATA
HIGH POOL = 80
LOW POOL = 74

NO.	DATE	REVISION	BY	APRVD.

SCALE: PLAN HORIZ. / PROFILE VERT. / 1/2 INCH (REF)

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COVER
Stevenson Shoreline Enhancement, Port of Skamania
P.O Box 1099
Stevenson, Washington 98648

DATE: June 20, 2008 PROJECT Shorline

NOTE: 11x17 AT FULL SCALE

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SHEET 2 OF 14

SITE
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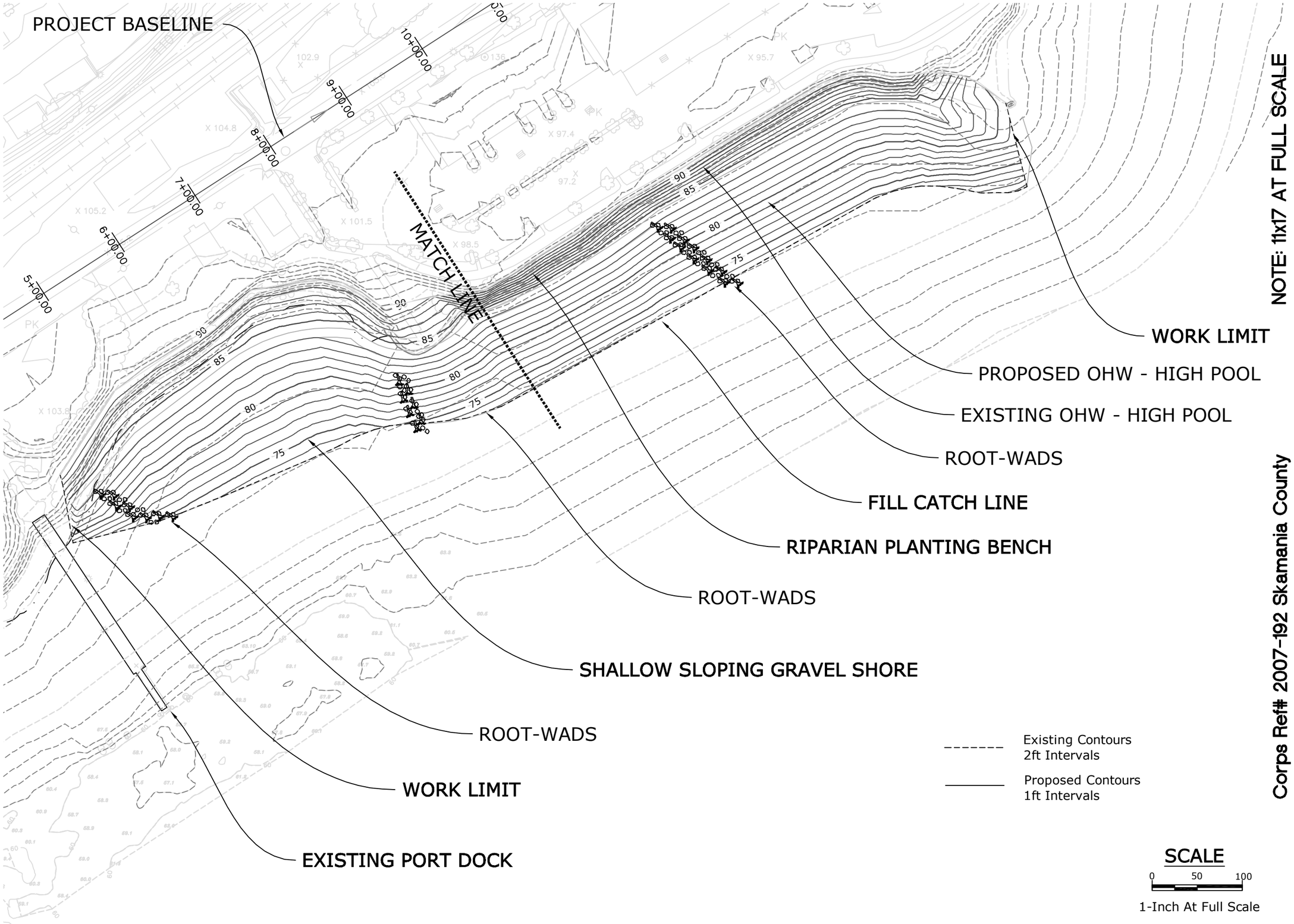

NOTE: 11x17 AT FULL SCALE

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SHEET 3 OF 14

PLAN

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PROFILE	VERT.

1/2 INCH (REF.)

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SHEET 4 OF 14

PLAN-WEST

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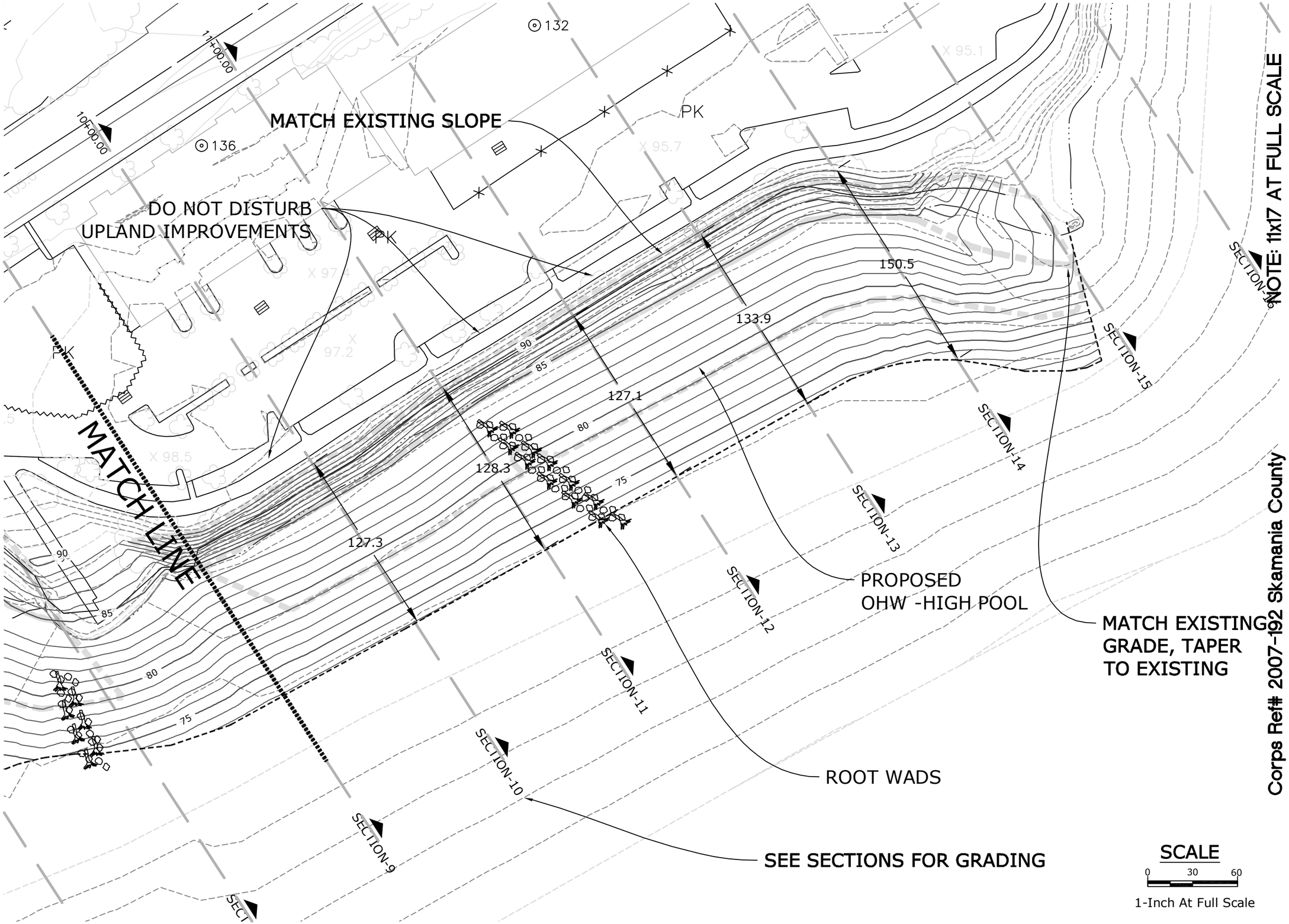

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PLAN-EAST

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SCALE	
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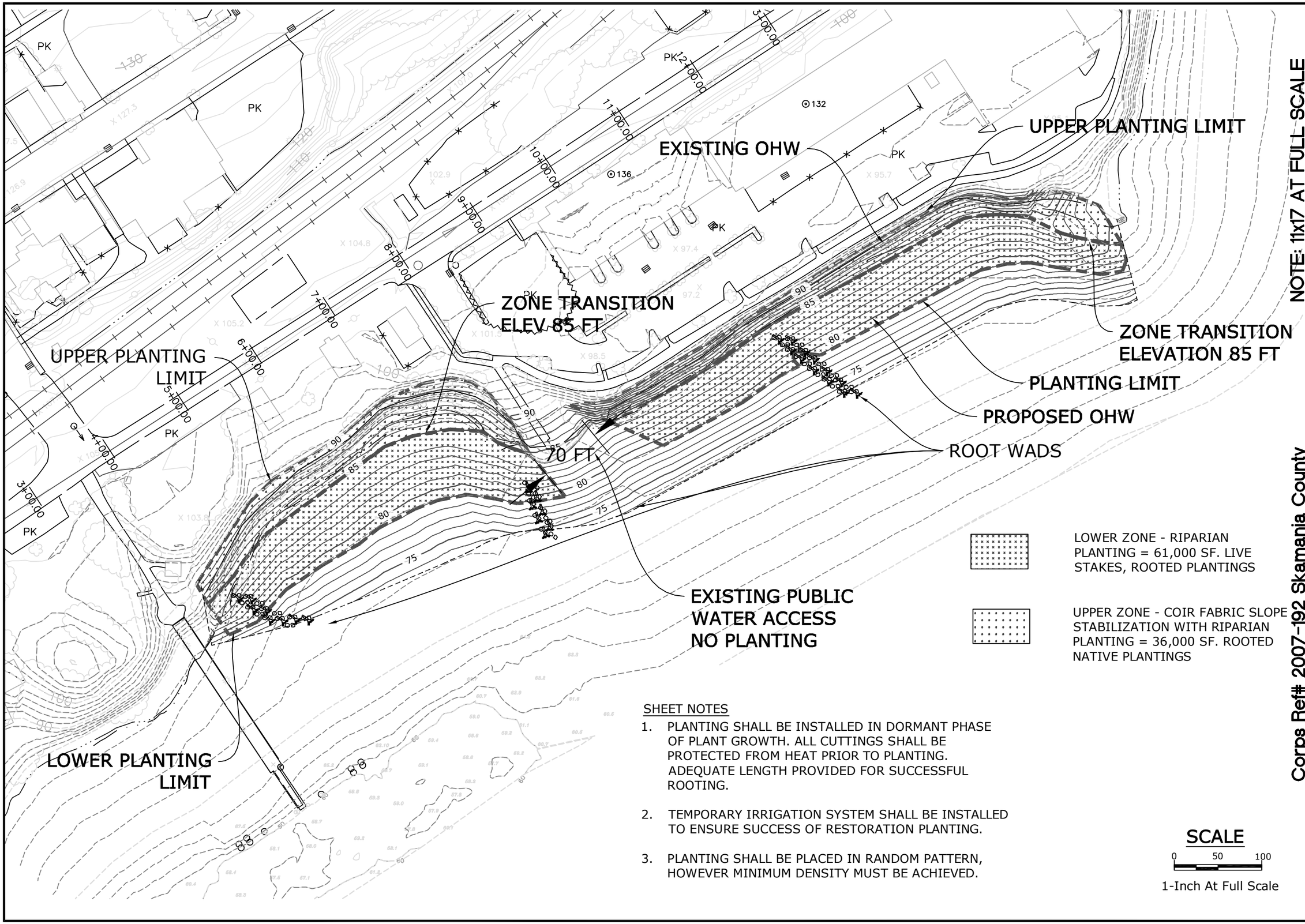

NOTE: 11x17 AT FULL SCALE

LOWER ZONE - RIPARIAN PLANTING = 61,000 SF. LIVE STAKES, ROOTED PLANTINGS

UPPER ZONE - COIR FABRIC SLOPE STABILIZATION WITH RIPARIAN PLANTING = 36,000 SF. ROOTED NATIVE PLANTINGS

SHEET NOTES

1. PLANTING SHALL BE INSTALLED IN DORMANT PHASE OF PLANT GROWTH. ALL CUTTINGS SHALL BE PROTECTED FROM HEAT PRIOR TO PLANTING. ADEQUATE LENGTH PROVIDED FOR SUCCESSFUL ROOTING.
2. TEMPORARY IRRIGATION SYSTEM SHALL BE INSTALLED TO ENSURE SUCCESS OF RESTORATION PLANTING.
3. PLANTING SHALL BE PLACED IN RANDOM PATTERN, HOWEVER MINIMUM DENSITY MUST BE ACHIEVED.

SCALE

0 50 100

1-Inch At Full Scale

Corps Ref# 2007-192 Skamania County

SHEET 6 OF 14

PLANTING

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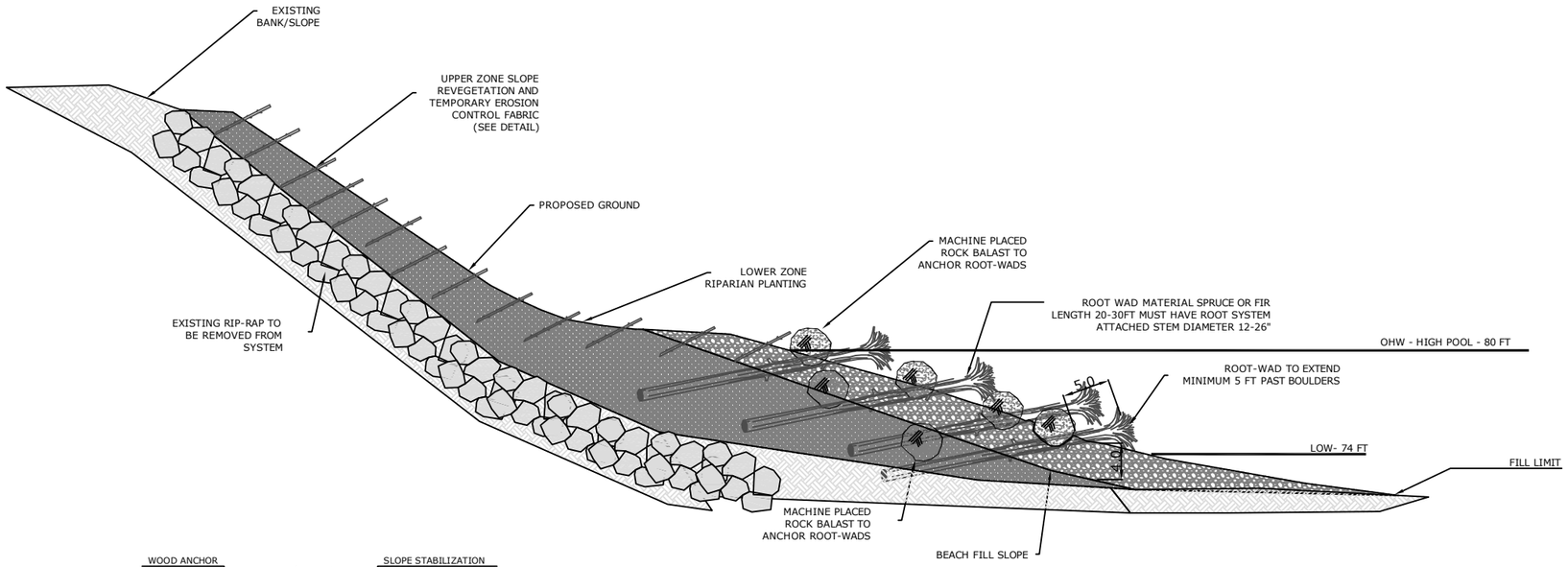
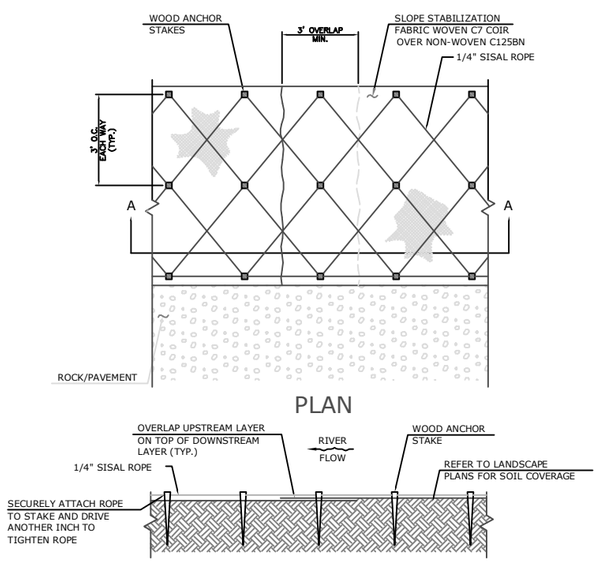
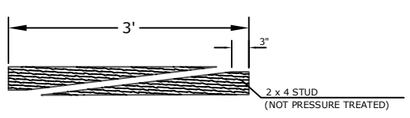


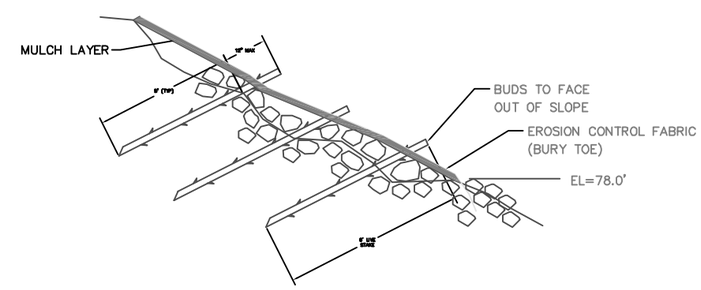
BANK AND ROOT WAD DETAIL
N.T.S.



SLOPE STABILIZATION FABRIC PLAN AND SECTION
1
NTS



WOOD ANCHOR STAKE
2
N.T.S.



NOTE: PLANT STAKES ON A 1' GRID

SPECIES	SIZE	QUANTITY	MIN DIAMETER
PACIFIC WILLOW	6' STAKES	MIN 4 IN 16SF AREA	1"
SCOULER WILLOW	6' STAKES	MIN 4 IN 16SF AREA	1"
COLUMBIA RIVER WILLOW	6' STAKES	MIN 4 IN 16SF AREA	1"
RED OSIER DOGWOOD	6' STAKES	MIN 4 IN 16SF AREA	1"

REVEGETATION DETAIL
N.T.S.

NOTE: 11x17 AT FULL SCALE

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BANK DETAIL

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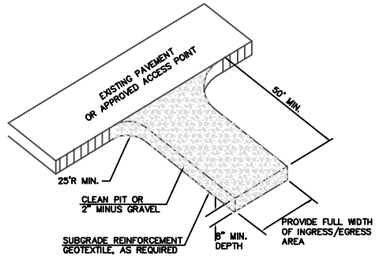
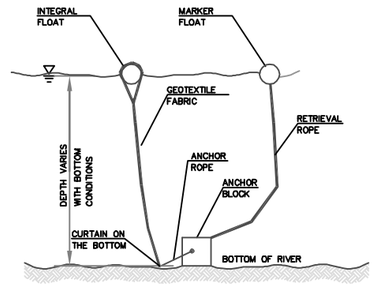


TEMPORARY GRAVEL ENTRANCE

NTS

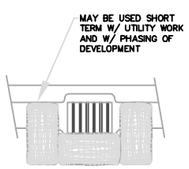


SEDIMENT BOOM

N.T.S.

SEDIMENT BOOM NOTES

1. FLOATING SEDIMENT CURTAIN MUST HAVE BE ANCHORED IN PLACE IN A MANNER TO PREVENT BEACHING DUE TO WIND AND WAVE ENERGY.
2. SUFFICIENT FLOTATION MUST BE INSTALLED TO PREVENT BOOM FROM SINKING DUE TO SEDIMENT LOADING.
3. CURTAIN FABRIC MUST PROVIDE A BARRIER TO SEDIMENT, HOWEVER NEED NOT BE "WATER PROOF".
4. CONTRACTOR RESPONSIBLE TO INSTALL AND MAINTAIN CURTAIN AND MANAGE WORK TO PREVENT SEDIEMNT FROM EXCAPING BOOM. DOWN STREAM DISTURBANCE IS LIMITED PER CITY AND STATE PERMITS LEVELS (10% ABOVE BACK GROUND TYPICALLY).
5. BOOM MUST BE REMOVED AFTER IN-WATER CONSTRUCTION IS COMPLETE.

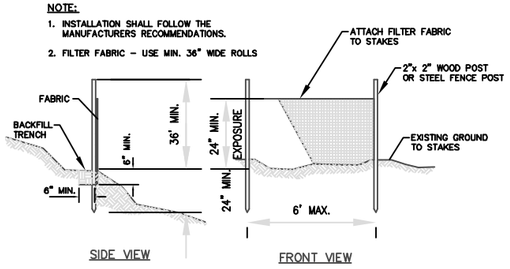


INLET PROTECTION

N.T.S.

NOTE:

1. INSTALLATION SHALL FOLLOW THE MANUFACTURERS RECOMMENDATIONS.
2. FILTER FABRIC – USE MIN. 36" WIDE ROLLS

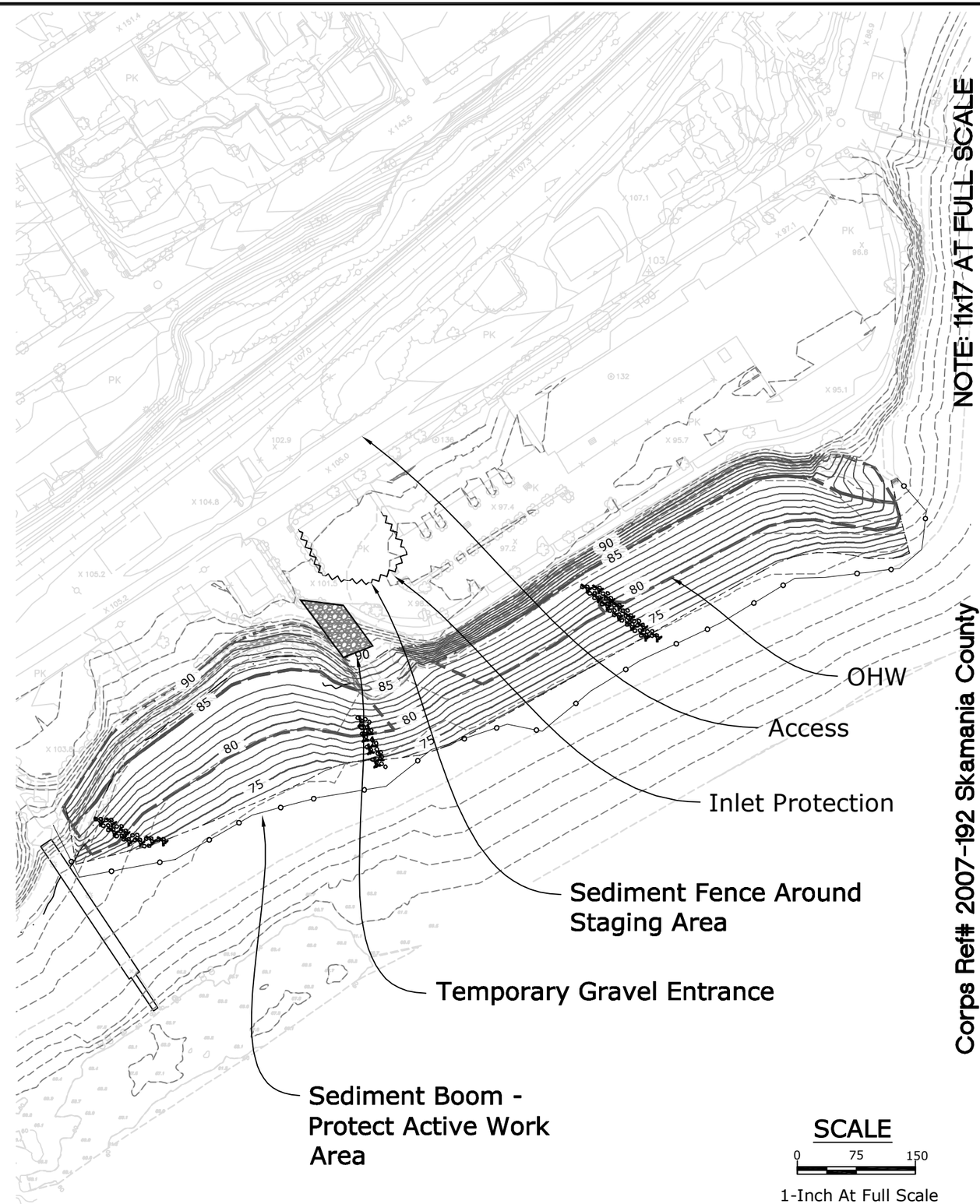


SEDIMENT FENCE

N.T.S.

SEDIMENT FENCE NOTES

1. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST, OR OVERLAP 2"x2" POSTS AND ATTACH AS SHOWN ON DETAIL SHEET.
2. THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS WHERE FEASIBLE. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6-FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24-INCHES.
3. THE FILTER FABRIC SHALL HAVE A MINIMUM VERTICAL BURIAL OF 6-INCHES. ALL EXCAVATED MATERIAL FROM FILTER FABRIC FENCE INSTALLATION, SHALL BE BACKFILLED AND COMPACTED, ALONG THE ENTIRE DISTURBED AREA.
4. STANDARD OR HEAVY DUTY FILTER FABRIC SHALL HAVE MANUFACTURED STITCHED LOOPS FOR 2"x2" POST INSTALLATION. STITCHED LOOPS SHALL BE INSTALLED ON THE UP-HILL SIDE OF THE SLOPED AREA.
5. FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY PROTECTED AND STABILIZED.
6. FILTER FABRIC FENCES SHALL BE INSPECTED BY CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.



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EROSION CONTROL PLAN

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PROFILE	VERT.
(1/2 INCH (REF.)	

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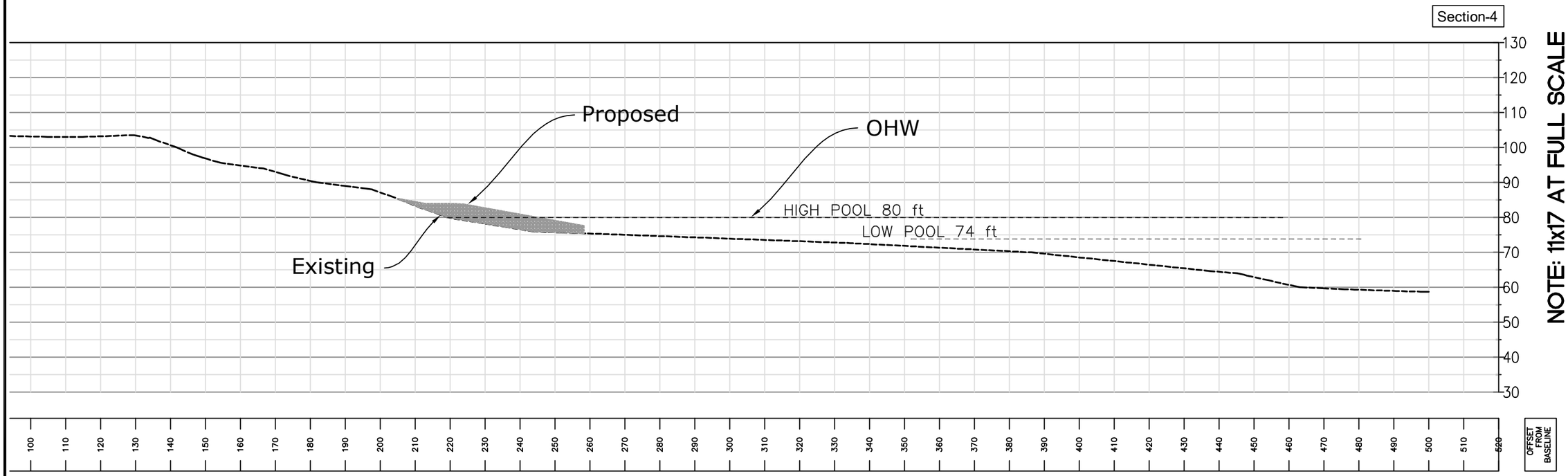

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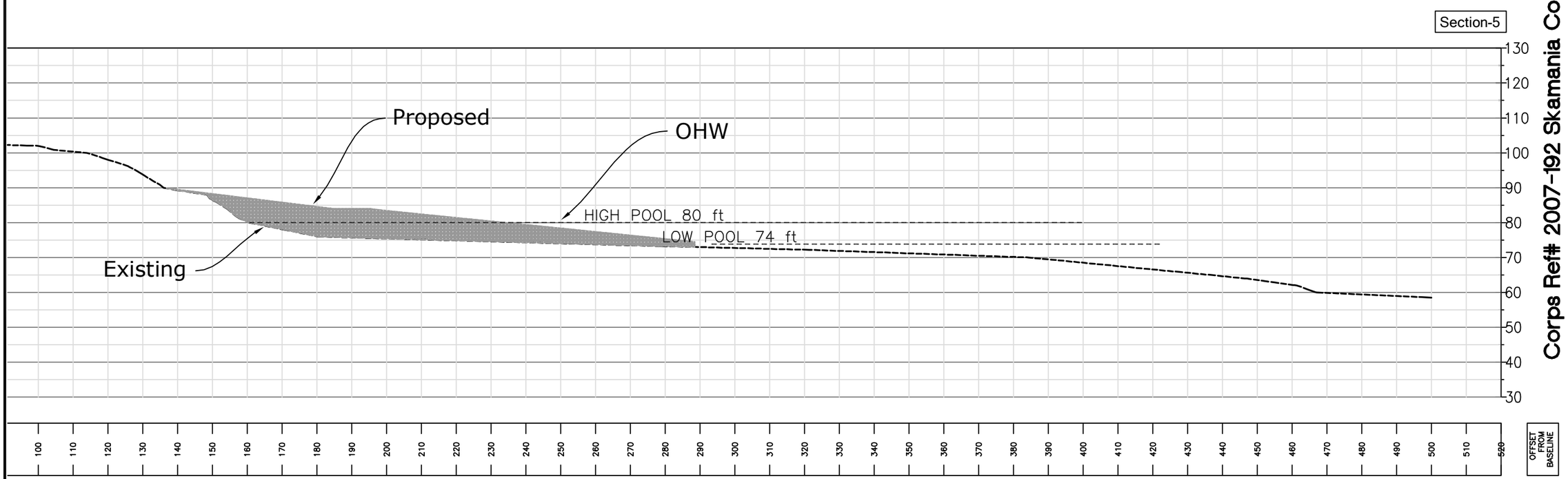

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SECTION 4, 5

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SCALE	
PLAN	HORIZ. 1"=30'
PROFILE	VERT. 1"=30'
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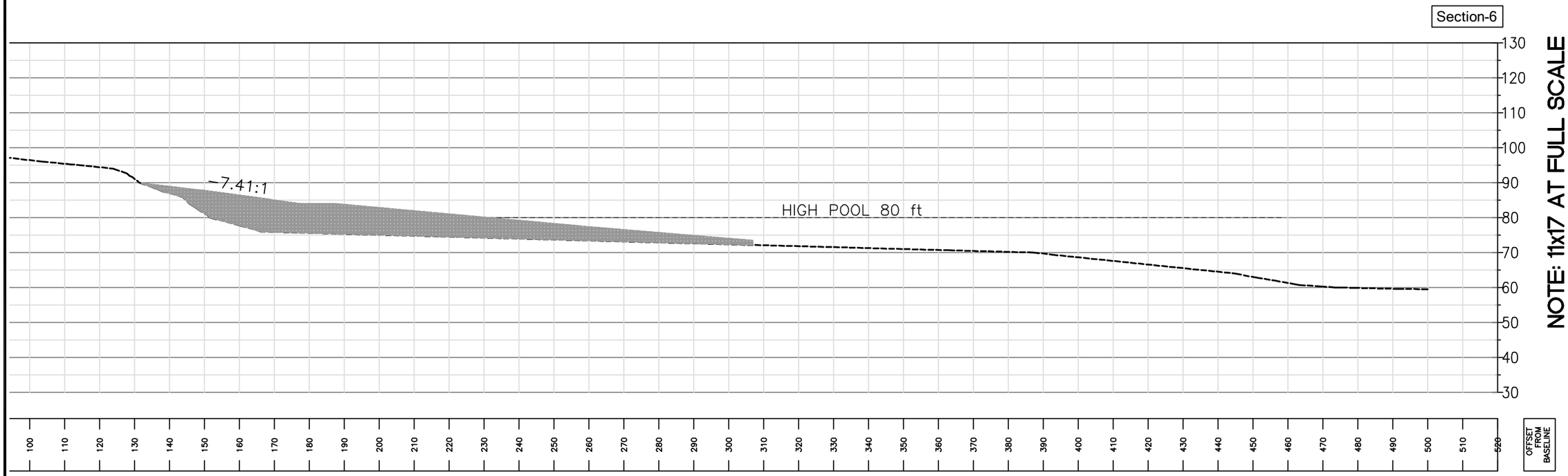

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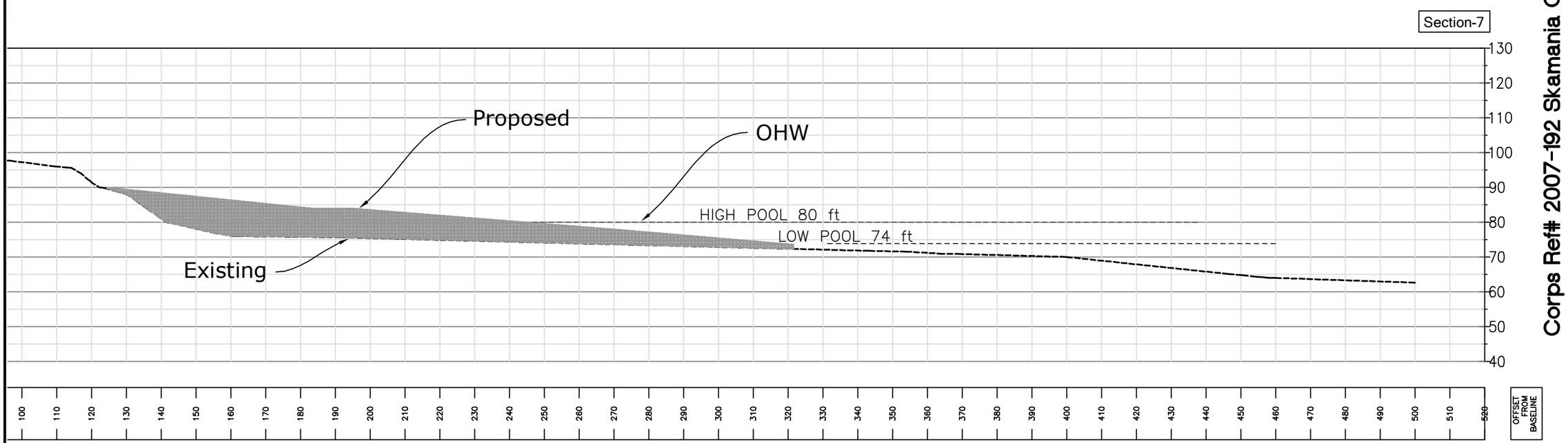

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SECTION 6, 7

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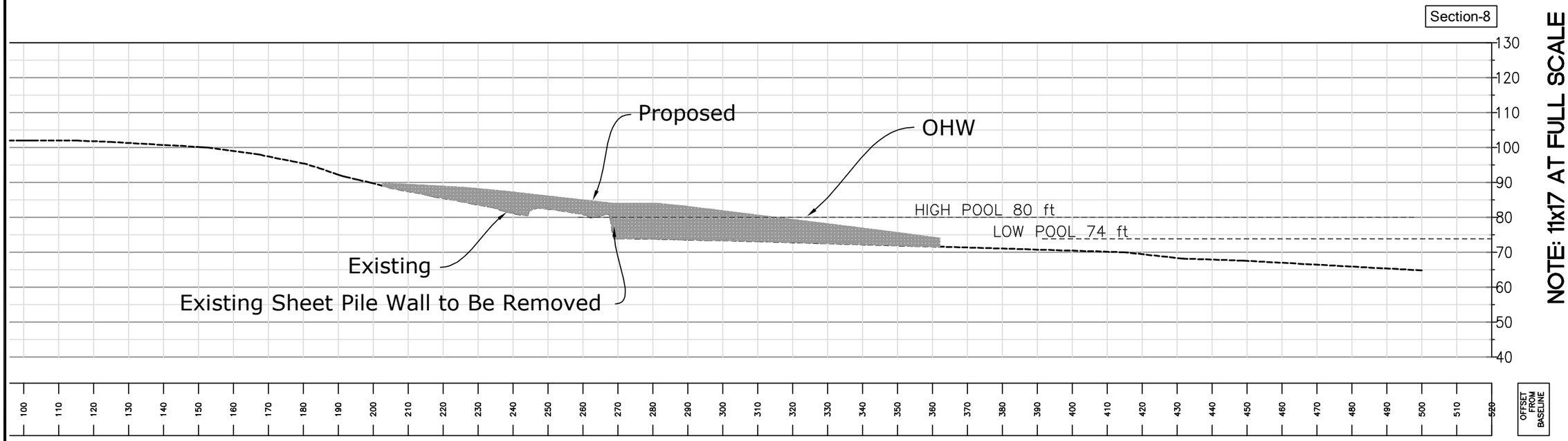

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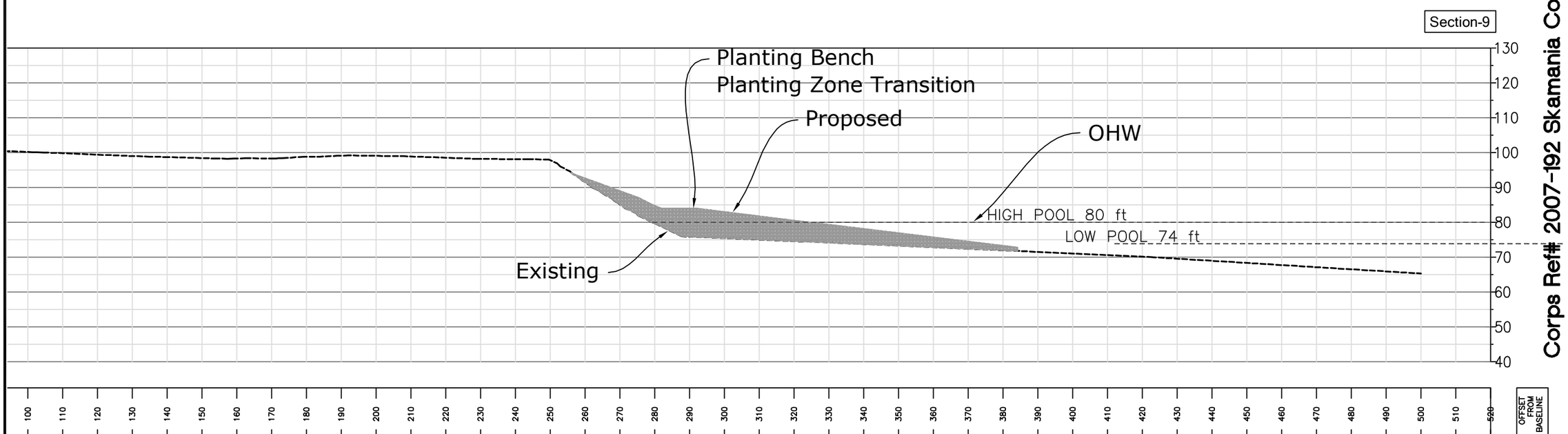

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SECTION 8, 9

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SCALE

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PROFILE	VERT. 1"=30'

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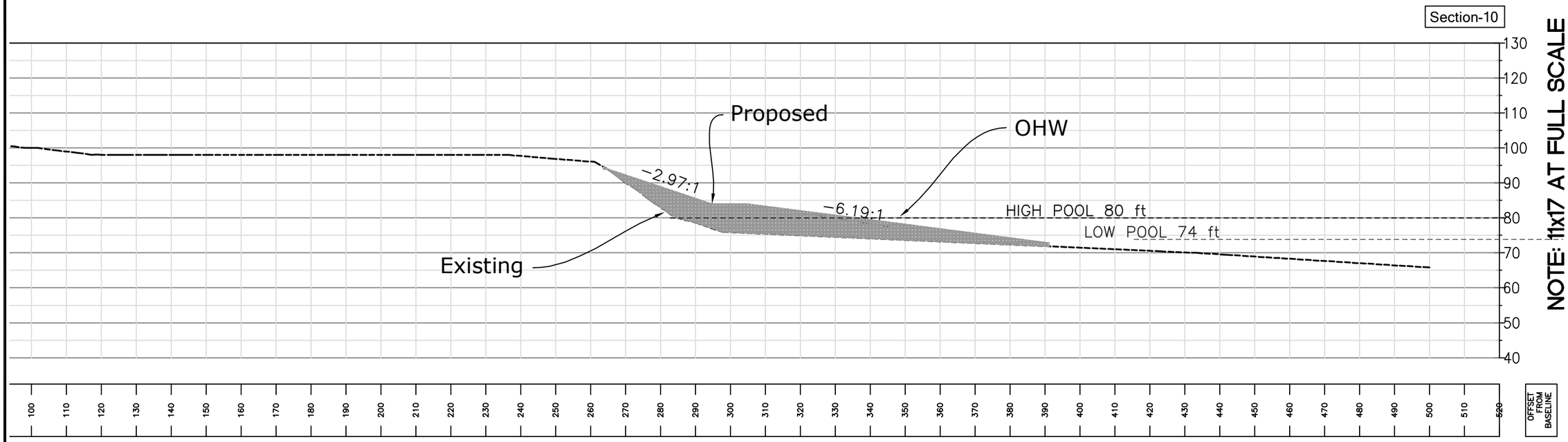

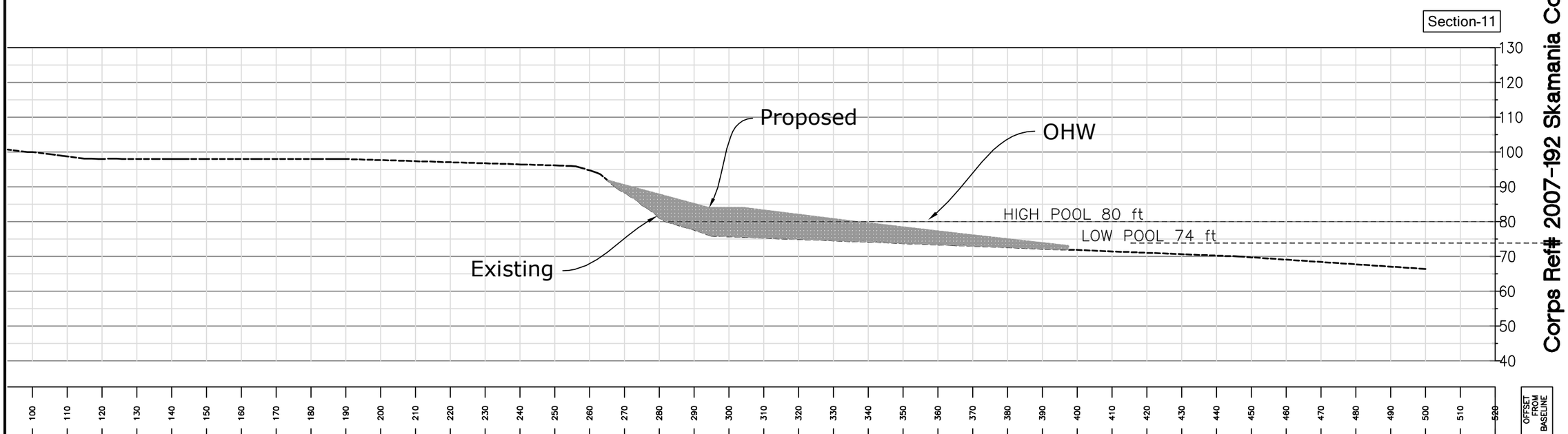

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SECTION 10, 11

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SCALE
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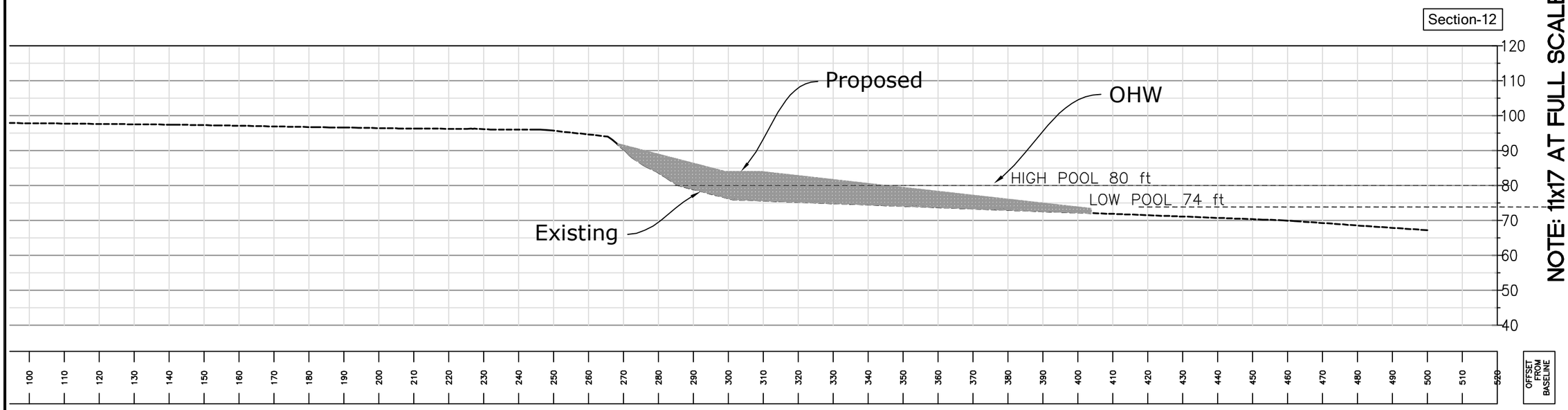

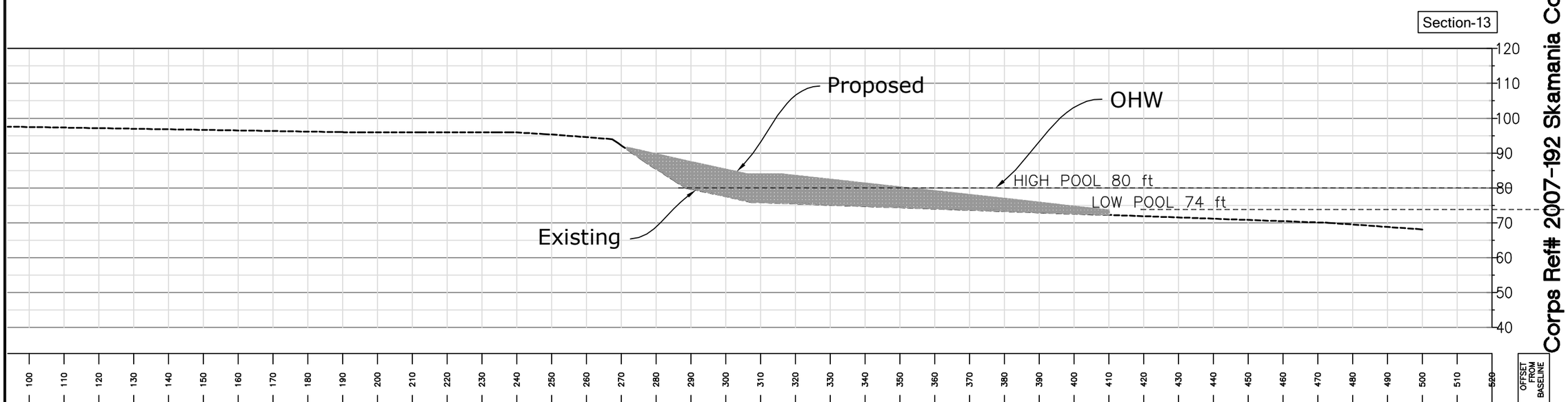

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SECTION 12, 13

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SCALE	
PLAN	HORIZ. 1"=30'
PROFILE	VERT. 1"=30'
	1/2 INCH (REF.)

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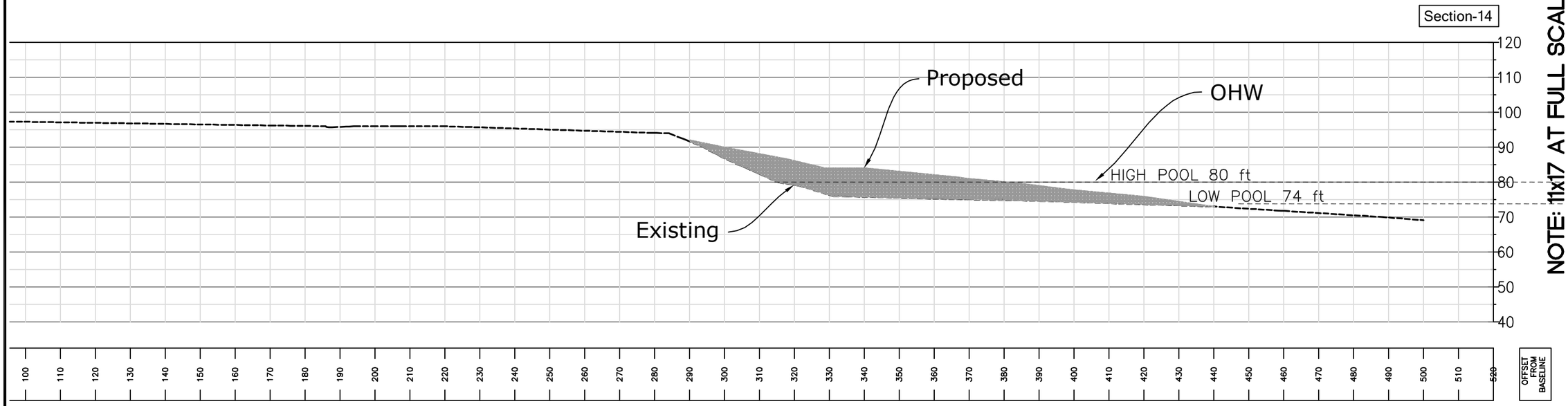

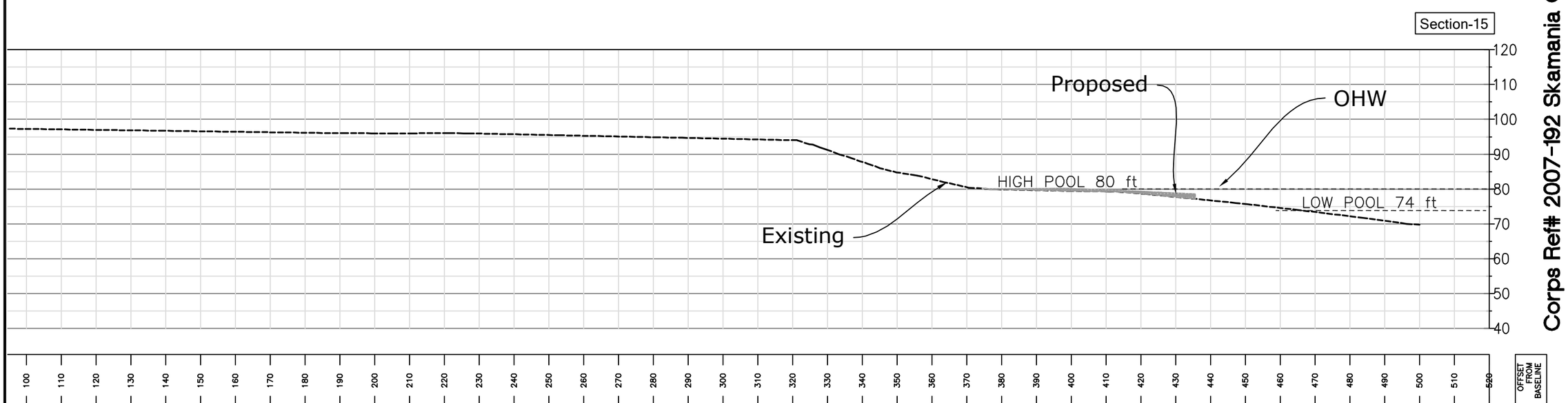

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SCALE

PLAN	HORIZ. 1"=30'
PROFILE	VERT. 1"=30'

1/2 INCH (REF.)