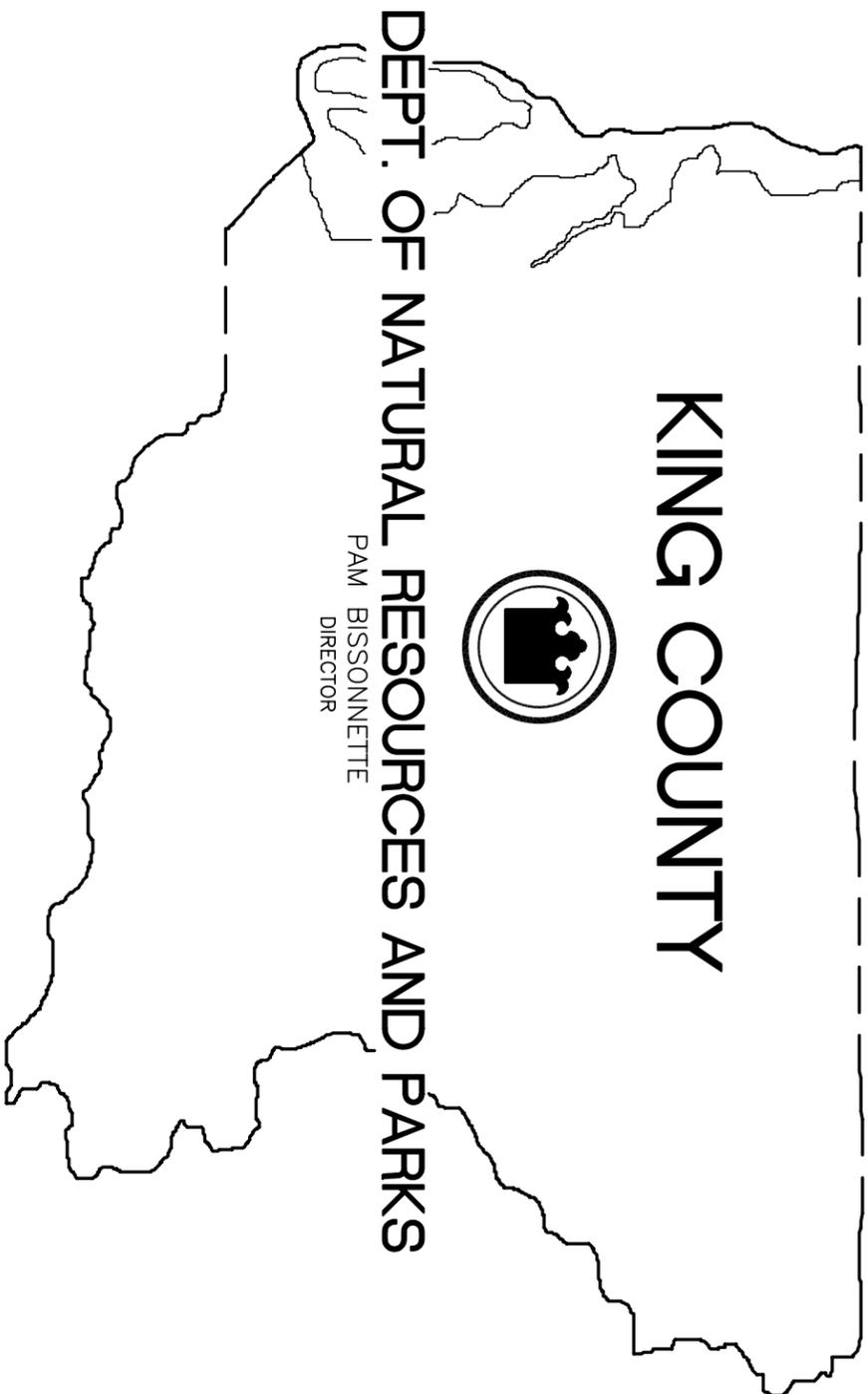


**INDEX**

SHEET	DESCRIPTION
1	VICINITY MAP AND SHEET INDEX
2	LEGEND AND NOTES
3	GRADING PLAN AND NOTES
4	EROSION AND SEDIMENT CONTROL PLAN
5	SECTIONS AND DETAILS
6	PLANTING PLAN, DETAILS AND NOTES

**NORTH WIND'S WEIR INTERTIDAL RESTORATION**



CALL 2 WORKING DAYS  
 BEFORE YOU DIG  
 1-800-424-5555

SURVEYED: APS-TJS	8/03	APPROVED: DON R. ALTHAUSER, P.E.	DATE: 12/23/03	PROJECT NO. 1A1e47	KING COUNTY DEPT. OF NATURAL RESOURCES AND PARKS WATER AND LAND RESOURCES DIVISION CAPITAL PROJECTS AND OPEN SPACE ACQUISITION SECTION SURFACE WATER - ENGINEERING AND ECOLOGICAL SERVICES UNITS <b>NORTH WIND'S WEIR INTERTIDAL RESTORATION</b>	 SHEET 1 OF 6 SHEETS
BASE MAP PLOT: APS-MAGG	8/03	PROJECT MANAGER: JON HANSEN	DATE: 12/23/03			
DESIGN PLOT: L.T.	9/03	DESIGNED: MARK WILGUS	DATE: 12/23/03	SURVEY NO. _____	VICINITY MAP AND SHEET INDEX	MAP-NO 2004-66(1)
CHECKED: APS-TJS	8/03	DRAWN: L. TRAXINGER	DATE: 12/23/03	MAINTENANCE DIVISION NO. 3		
FIELD BOOK: 1075011	8/03					
BY	DATE	BY	DATE	REVISION		

**LEGEND**

-  BOUNDARY (EXISTING, CURRENT SURVEY)
-  BOUNDARY (REFERENCE, CURRENT SURVEY)
-  CENTERLINE (EXISTING)
-  PROPERTY LINE (EXISTING)
-  ASPHALT CONCRETE PAVEMENT LINE
-  CONCRETE PAVEMENT LINE / AREA
-  CURB
-  FENCE, CHAIN LINK
-  FENCE, WOOD, SPLIT RAIL
-  WETLAND (MARSH/SWAMP) PERIMETER
-  RETAINING WALL
-  CONTOUR (ITERATIVE)
-  CONTOUR (INDEX)
-  RIVERBANK/SHORELINE
-  SANITARY SEWER
-  POWER (AERIAL)
-  STORM DRAINAGE
-  RIGHT-OF-WAY (EXISTING)
-  WATER VALVE
-  TRANSMISSION TOWER
-  UTILITY POLE
-  ANCHOR
-  ROCK WEIR
-  STORM MANHOLE
-  BLOCK CORNER
-  "X" SCRIBE
-  HUB & TACK
-  MONUMENT (SURFACE)
-  TREE (DECIDUOUS)
-  SANITARY SEWER MANHOLE
-  TYPE 1 CATCH BASIN
-  REBAR & CAP
-  PROFILE DIRECTION
-  SET NAIL & SHINER
-  RAILROAD SPIKE
-  SIGN

 NEW LOG w/ROOTWAD

 NEW ROOTWAD

**NOTES:**

1. THE PURPOSE OF THIS SURVEY WAS TO ILLUSTRATE VISIBLE IMPROVEMENTS, SHOWN HEREON.
2. HORIZONTAL CONTROL (BASIS OF BEARING AND COORDINATES) ARE DERIVED FROM A FAST STATIC GPS SURVEY BASED ON THREE(3) WSDOT MONUMENTS.  
2614 N=190033.799, E=1281712.332, ELEV.=23.420, GP17005-72  
3294 N=209324.816, E=1268664.417, ELEV.=16.181, GP17009-239  
2626 N=206301.040, E=1273368.009, ELEV.=17.619, GP17005-184
- ALL VERTICAL CONTROL IS BASE ON NGS #SY0264 APSSM FOUND POSITION:  
N=223028.637, E=269578.098, WITH PUBLISHED ELEVATION OF 16.20
3. VERTICAL DATUM IS NAVD88, BASED ON U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL OCEAN SERVICE TIDAL BENCH MARK PID#SY0284 (USGS TIDAL 16), ELEVATION=16.20
4. THIS SURVEY WAS PERFORMED OCTOBER OF 2002.

**BOUNDARY NOTES:**

THE BOUNDARY SHOWN HEREON IS BASED ON THE KING COUNTY ASSESSOR PLAT OF THE AREA, AUGMENTED BY THE WASHINGTON DEPARTMENT OF TRANSPORTATION DRAWING OF S.R. 99. NO TITLE REPORT WAS FURNISHED TO APS SURVEY&MAPPING, L.L.C. AND ACTUAL PROPERTY LOCATION MAY VARY.

SURVEYED: APS-TJS	8/03	APPROVED: DON R. ALTHAUSER, P.E.	DATE: 12/03			
BASE MAP PLOT: APS-MAGG	8/03	PROJECT MANAGER: JON HANSEN	DATE: 12/03	PROJECT No. 1A1647		
DESIGN PLOT: L.T.	9/03	DESIGNED: MARK WILGUS	DATE: 12/03	SURVEY No. _____		
CHECKED: APS-TJS	8/03	DRAWN: L. TRAXINGER	DATE: 12/03	MAINTENANCE DIVISION No. 3		
FIELD BOOK: 1075011	8/03					
BY	DATE	REVISION	BY	DATE		

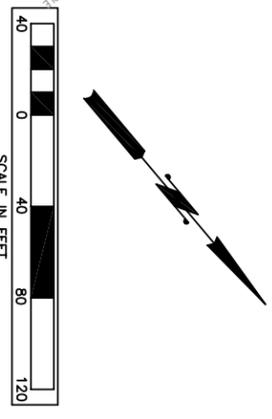
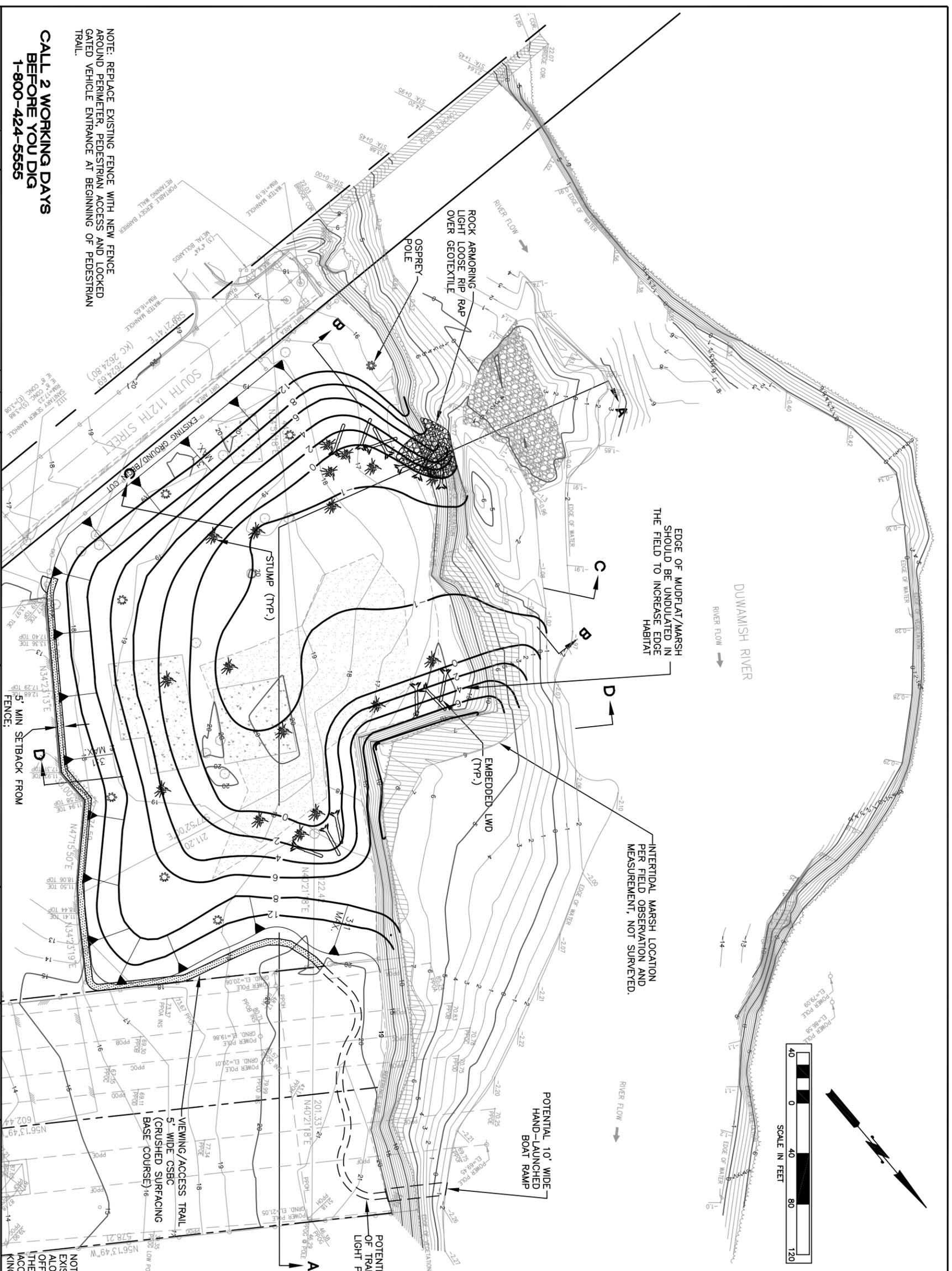
**CALL 2 WORKING DAYS  
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1-800-424-5555**

**KING COUNTY DEPT. OF NATURAL RESOURCES AND PARKS  
WATER AND LAND RESOURCES DIVISION  
CAPITAL PROJECTS AND OPEN SPACE ACQUISITION SECTION  
SURFACE WATER – ENGINEERING AND ECOLOGICAL SERVICES UNITS  
NORTH WINDS WEIR INTERTIDAL RESTORATION  
GRADING PLAN, NOTES AND LEGEND**

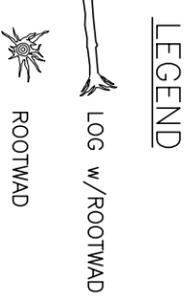


SHEET  
**2**  
OF  
**6**  
SHEETS

**MAP-NO 2004-66(2)**



- CONSTRUCTION SEQUENCES**
1. IMPLEMENT THE TESC CONSTRUCTION SEQUENCE
  2. CLEAR AND GRUB EXISTING VEGETATION AND REMOVE EXISTING CONCRETE PADS
  3. EXCAVATE THE INTERIOR OF THE SITE TO DESIGN GRADES LEAVING AN EARTHEN BERM OF EXISTING SOIL AS A BARRIER BETWEEN THE EXCAVATION AND THE DUWAMISH RIVER
  4. THE EARTHEN BERM WILL HAVE A MINIMUM TOP WIDTH THAT IS THE GREATER OF 15 FT. OR AS DETERMINED BY THE GEOTECHNICAL ENGINEER. SIDE SLOPE OF THE BERM SHALL BE A MINIMUM OF 2H : 1V OR AS DETERMINED BY THE GEOTECHNICAL ENGINEER. THE TOP ELEVATION OF THE EARTHEN BERM WILL BE A MINIMUM OF 1 FOOT HIGHER THAN THE EXPECTED HIGH TIDE ELEVATION THROUGH THE DURATION OF CONSTRUCTION
  5. WHERE PETROLEUM CONTAMINATED SOILS ARE ENCOUNTERED, OVER EXCAVATE A MINIMUM OF 2 FEET BELOW PETROLEUM TAINTED SOILS AS DIRECTED BY CORPS OR KING COUNTY CONSTRUCTION MANAGER. LIMITS OF CONTAMINATED SOILS WILL BE VERIFIED IN THE FIELD AND/OR WITH LAB TESTING PRIOR TO FINAL GRADING
  6. CONTAMINATED SOILS WILL BE STOCKPILED SEPARATELY AND BE TRANSPORTED TO AN APPROVED DISPOSAL SITE IN ACCORDANCE WITH APPLICABLE FEDERAL AND STATE REGULATIONS
  7. IN AREAS OF OVER EXCAVATION, BACKFILL WITH CLEAN NATIVE MATERIAL APPROVED BY THE CORPS OR KING COUNTY BIOLOGISTS. BACKFILL MATERIAL SHALL BE SUITABLE FOR PLANTING BUT NEED NOT BE CLASSIFIED AS TOPSOIL. IF SUITABLE NATIVE SOIL IS NOT AVAILABLE, BACKFILL WITH TOPSOIL OR EQUIVALENT MIX AS APPROVED BY KC OR COE BIOLOGIST
  8. AREAS SHOWN ON THE PLANTING PLAN FOR VEGETATION, UNSUITABLE EXISTING MATERIAL WILL BE OVEREXCAVATED BELOW DESIGN GRADE TO A DEPTH AS DIRECTED BY CORPS OR KING COUNTY BIOLOGISTS AND BACKFILLED WITH MATERIAL SUITABLE FOR PLANTING
  9. INSTALL LWD PER THE SITE PLAN
  10. HYDROPOSE ABOVE MHW. PLACE JUTE/CORR FABRIC ON 3:1 SLOPES BELOW MHW.
  11. INSTALL PLANTINGS PER THE PLANTING PLAN
  12. REMOVE THE EARTHEN BERM, MAKING THE CONNECTION BETWEEN THE SITE AND THE DUWAMISH RIVER
  13. THE EXCAVATION OF THE EARTHEN BERM SHALL BE TIMED WITH TIDAL CYCLE TO MINIMIZE EROSION. THIS MAY REQUIRE THE BERM TO BE REMOVED IN STAGES. IF THE ENTIRE BERM CANNOT BE REMOVED WHILE THE TIDE IS OUT, THE EXPOSED OPENING AND SIDE SLOPES WILL BE COVERED WITH PLASTIC SHEETING AND ANCHORED DOWN WITH SAND BAGS TO PREVENT EROSION WHEN THE TIDE COMES BACK IN
  14. IF THE EXCAVATION OF THE EARTHEN BERM MUST BE DONE IN STAGES, THEN THE OPENING IN THE EARTHEN BERM MUST BE A MINIMUM OF X FEET WIDE PRIOR TO THE RETURN OF THE HIGHER TIDES (DETERMINED BY HYDRAULICS ENGINEER). OTHERWISE ANOTHER METHOD MUST BE CHOSEN. THIS IS TO PREVENT SIDE CUTTING OF THE SLOPES AND EROSION CAUSED BY HIGHER VELOCITIES OF THE TIDE FLOWING IN AND OUT OF AN OPENING CHANNEL THAT IS TOO SMALL IN SIZE
  15. INSTALL ACCESS/VIEWING PATH
  16. INSTALL OSPREY POLE
  17. INSTALL HAND LAUNCHED BOAT RAMP



NOTE: TO CONVERT TO SEATTLE AREA TIDE TABLES DATUM, ADD 2.35 FT.

NAVD 88	SEATTLE AREA TIDE TABLES
MHHW 8.97	11.32
MHW 8.12	10.47
MLW 4.7	2.82
MLLW -2.35	0

NOTE: WHERE POSSIBLE, SAVE EXISTING SIGNIFICANT TREES ALONG THE FENCELINE BY OFFSETTING THE BEGINNING OF THE CUT AND LOCATING THE ACCESS PATH AS DIRECTED BY KING COUNTY ECOLOGIST.

**KING COUNTY DEPT. OF NATURAL RESOURCES AND PARKS  
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CAPITAL PROJECTS AND OPEN SPACE ACQUISITION SECTION  
SURFACE WATER - ENGINEERING AND ECOLOGICAL SERVICES UNITS  
**NORTH WINDS WEIR INTERTIDAL RESTORATION  
GRADING PLAN, NOTES AND LEGEND**



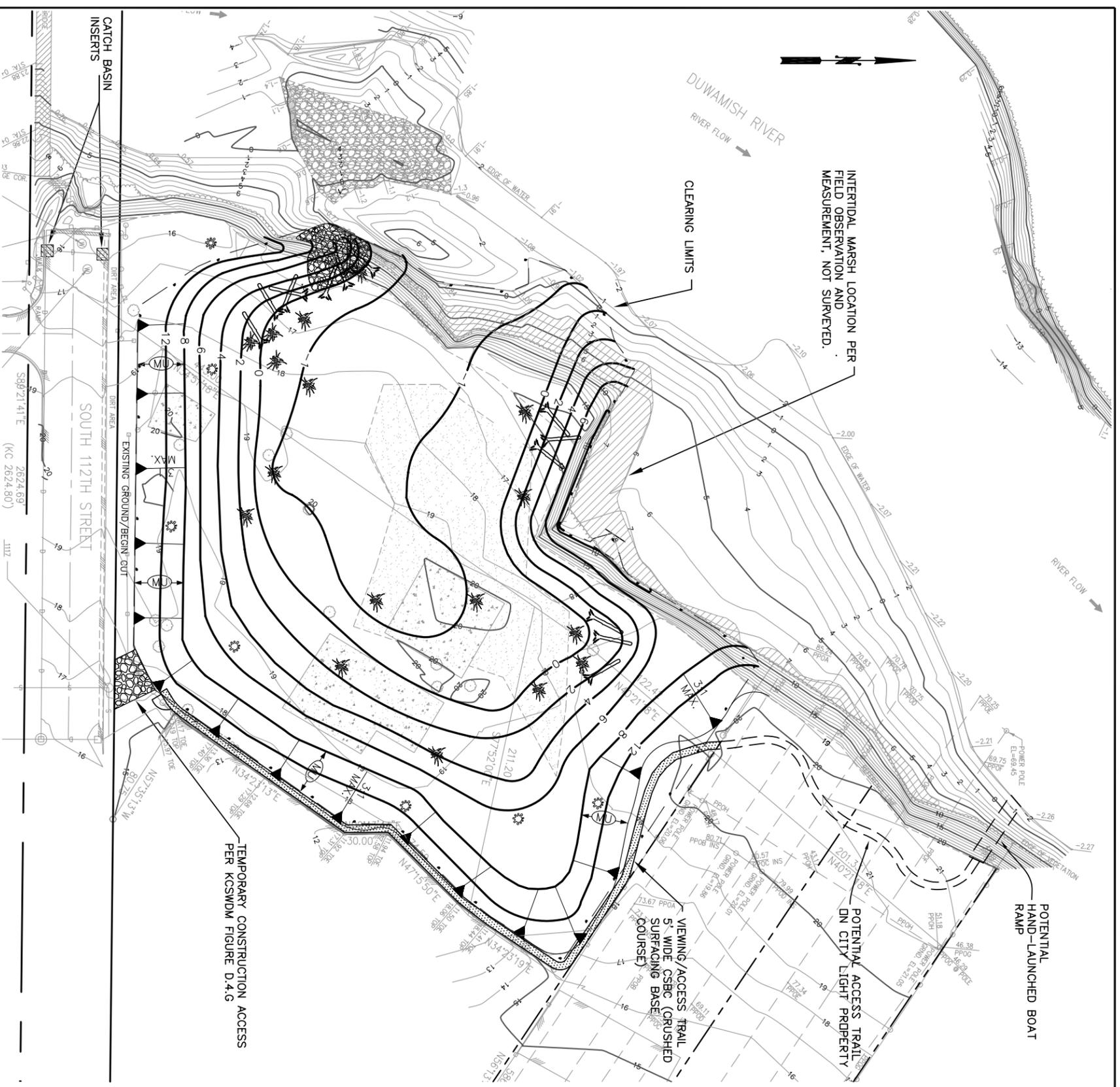
SHEET **3** OF **6** SHEETS  
MAP-NO 2004-66(3)

NOTE: REPLACE EXISTING FENCE WITH NEW FENCE AROUND PERIMETER, PEDESTRIAN ACCESS AND LOCKED GATED VEHICLE ENTRANCE AT BEGINNING OF PEDESTRIAN TRAIL.

**CALL 2 WORKING DAYS BEFORE YOU DIG  
1-800-424-5555**

SURVEYED:	APS-TJS	8/03	APPROVED:	DON R. ALTHAUSER, P.E.	DATE:	12/23/03
BASE MAP PLOT:	APS-MAGG	8/03	PROJECT MANAGER:	JON HANSEN	DATE:	12/23/03
DESIGN PLOT:	L.T.	9/03	DESIGNED:	MARK WILGUS	DATE:	12/23/03
CHECKED:	APS-TJS	8/03	DRAWN:	L. TRAXINGER	DATE:	12/23/03
FIELD BOOK:	1075011	8/03				
BY	DATE		REVISION	BY	DATE	

PROJECT No. **1A1647**  
SURVEY No. \_\_\_\_\_  
MAINTENANCE DIVISION No. **3**



INTERTIDAL MARSH LOCATION PER FIELD OBSERVATION AND MEASUREMENT, NOT SURVEYED.

CLEARING LIMITS

TEMPORARY CONSTRUCTION ACCESS PER KOSWDM FIGURE D.4.G

POTENTIAL HAND-LAUNCHED BOAT RAMP

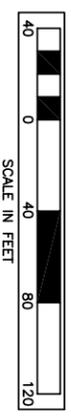
POTENTIAL ACCESS TRAIL ON CITY LIGHT PROPERTY

VIEWING/ACCESS TRAIL 5' WIDE CSBG (GRUSHED SURFACING BASE COURSE)

SURVEYED:	APS-TJS	8/03
BASE MAP PLOT:	APS-MGG	8/03
DESIGN PLOT:	L.T.	9/03
CHECKED:	APS-TJS	8/03
FIELD BOOK:	1075011	8/03
BY	DATE	
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DRAWN:	L. TRAXINGER	DATE:	12/23/03

PROJECT No. 1A1647  
SURVEY No. \_\_\_\_\_  
MAINTENANCE DIVISION No. 3



LEGEND: TEMPORARY SEDIMENT CONTROL

SYMBOL	NAME	* REFERENCE
	MULCH	(D-6)
	SILT FENCE	(D-15)
	CONSTRUCTION ACCESS ROAD	
	STABILIZED CONST. ENTRANCE	(D-18)
	SP SEDIMENT POND	(D-23)

\* REFERENCE PAGE REFERS TO EROSION AND SEDIMENT CONTROL STANDARDS APPENDIX D OF THE KING COUNTY SURFACE WATER MANUAL 1998.

SPECIAL TESC NOTES:

1. SEDIMENT PONDS WILL BE PLACED ON SITE AS NECESSARY TO CAPTURE SEDIMENT AND SETTLE FINES.
2. CLEAN WATER IN THE EXCAVATION, AS DETERMINED BY THE APPROPRIATE STANDARDS, MAY BE PUMPED DIRECTLY TO THE DUWAMISH RIVER.
3. EXISTING DRAINAGE PIPE THROUGH THE PROJECT EXCAVATION MAY BE ENCOUNTERED. THIS PIPE SHOULD BE REMOVED SO THAT IT IS FLUSH WITH THE GROUND AT DESIGN GRADE AND A ROCK PAD PROVIDED TO DISSIPATE ENERGY TO A POINT OF FLAT GRADIENT (LESS THAN 3:1). TEMPORARY PIPING SHOULD DIRECT THIS STORMWATER DIRECTLY TO THE DUWAMISH RIVER WHILE THE PROJECT IS UNDER CONSTRUCTION.

TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) NOTES

1. The implementation of these TESC plans and the construction, maintenance, replacement, and upgrading of these TESC facilities is the responsibility of the TESC supervisor until all construction is approved.
2. The boundaries of the clearing limits shown on this plan shall be clearly identified by a continuous length of survey tape (or fencing, if required) prior to construction. During the construction period, no disturbance beyond the clearing limits shall be permitted. The clearing limits shall be maintained by the TESC supervisor for the duration of construction.
3. The TESC facilities shown on this plan must be constructed prior to or in conjunction with all clearing and grading so as to ensure that the transport of sediment to surface waters, drainage systems, and adjacent properties is minimized.
4. The TESC facilities shown on this plan are the minimum requirements for anticipated site conditions. During the construction period, these TESC facilities shall be upgraded as needed for unexpected storm events and modified to account for changing site conditions (e.g. additional sump pumps, relocation of ditches and silt fences, etc.)
5. The TESC facilities shall be inspected daily by the TESC supervisor and maintained to ensure continued proper functioning. Written records shall be kept of weekly reviews of TESC facilities during wet season (Oct. 1 to March 31) and monthly reviews during the dry season (April 1 to Sept. 30)
6. Any areas of exposed soils, including roadway embankments, that will not be disturbed for two days during the wet season or seven days during the dry season shall be immediately stabilized with the approved TESC methods (e.g., seeding, mulching, plastic covering, etc.).
7. Any area needing TESC measures, not requiring immediate attention, shall be addressed within fifteen (15) days.
8. The TESC facilities on inactive sites shall be inspected and maintained a minimum of once a month or 48 hours following a storm event.
9. The clearing operation shall not flush sediment-laden water into the downstream system.
10. Stabilized construction entrances and roads shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures, such as wash pads may be required to ensure that all paved areas are kept clean for the duration of the project.
11. Where straw mulch for temporary erosion control is required, it shall be applied at a minimum thickness.

TESC CONSTRUCTION SEQUENCE

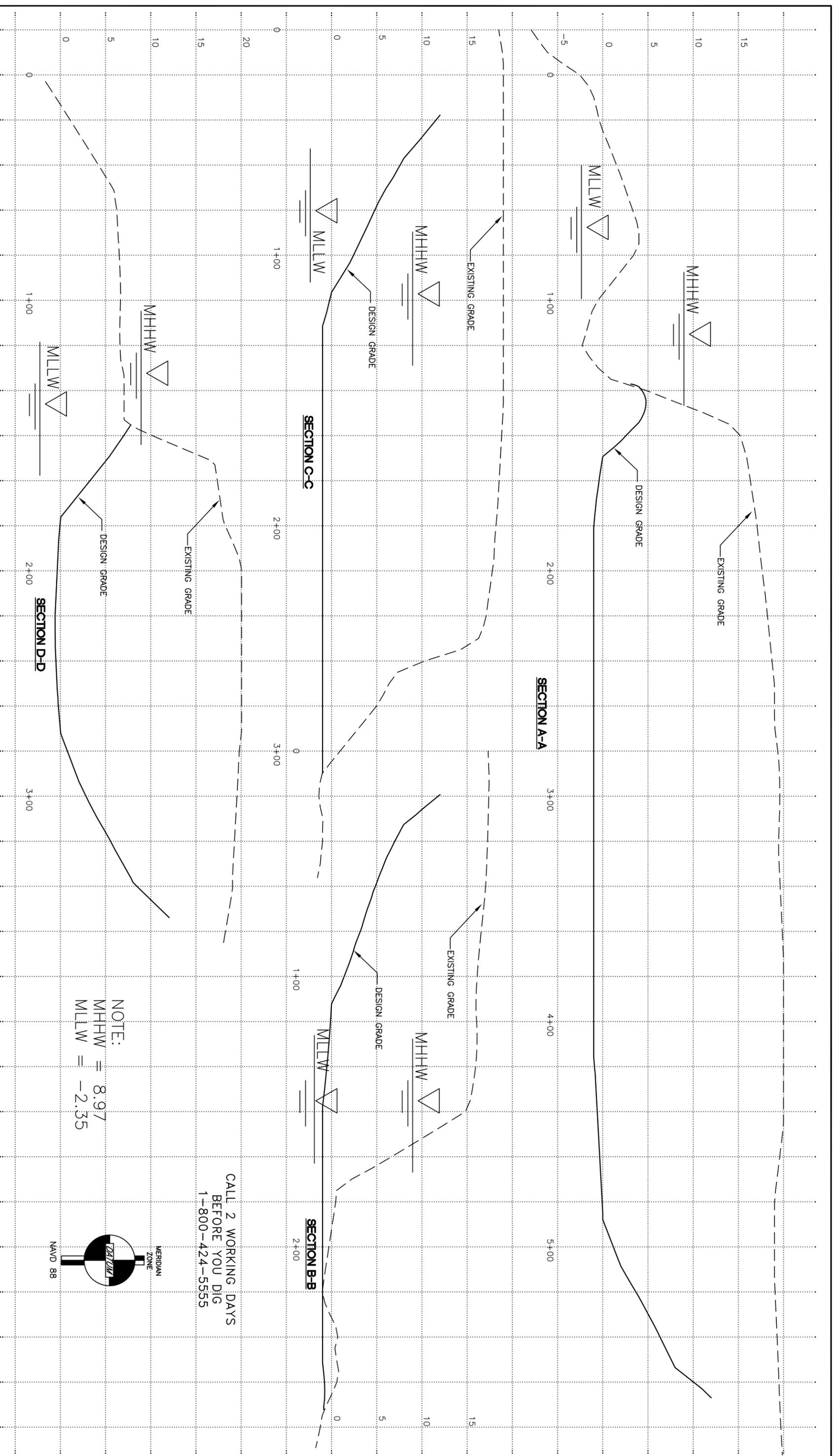
1. Pre-construction
2. Flag or fence clearing limits.
3. Post sign with name and phone number of TESC supervisor.
4. Grade and install construction entrance(s).
5. Install perimeter protection (silt fence, brush barrier, etc.).
6. Construct sediment ponds and traps.
7. Grade and stabilize construction roads.
8. Construct surface water controls (interceptor dikes, pipe slope drains, etc.) simultaneously with clearing and grading for project development.
9. Maintain erosion control measures in accordance with King County standards and manufacturer's recommendations.
10. Relocate erosion control measures or install new measures so that as site conditions change the erosion and sediment control is always in accordance with the King County TESC minimum requirements.
11. Cover all areas that will be unworked for more than seven days during the dry season or two days during the wet season with straw, wood fiber mulch, compost, plastic sheeting or equivalent.
12. Stabilize all areas that reach final grade within seven days.
13. Seed or sod any areas to remain unworked for more than 30 days.
14. Upon completion of project, all disturbed areas must be stabilized and burns removed if appropriate.

CALL 2 WORKING DAYS BEFORE YOU DIG  
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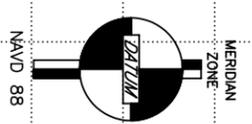
KING COUNTY DEPT. OF NATURAL RESOURCES AND PARKS  
WATER AND LAND RESOURCES DIVISION  
CAPITAL PROJECTS AND OPEN SPACE ACQUISITION SECTION  
SURFACE WATER - ENGINEERING AND ECOLOGICAL SERVICES UNITS  
NORTH WINDS WEIR INTERTIDAL RESTORATION  
EROSION AND SEDIMENT CONTROL PLAN



SHEET 4 OF 6 SHEETS  
MAP-NO 2004-66(4)

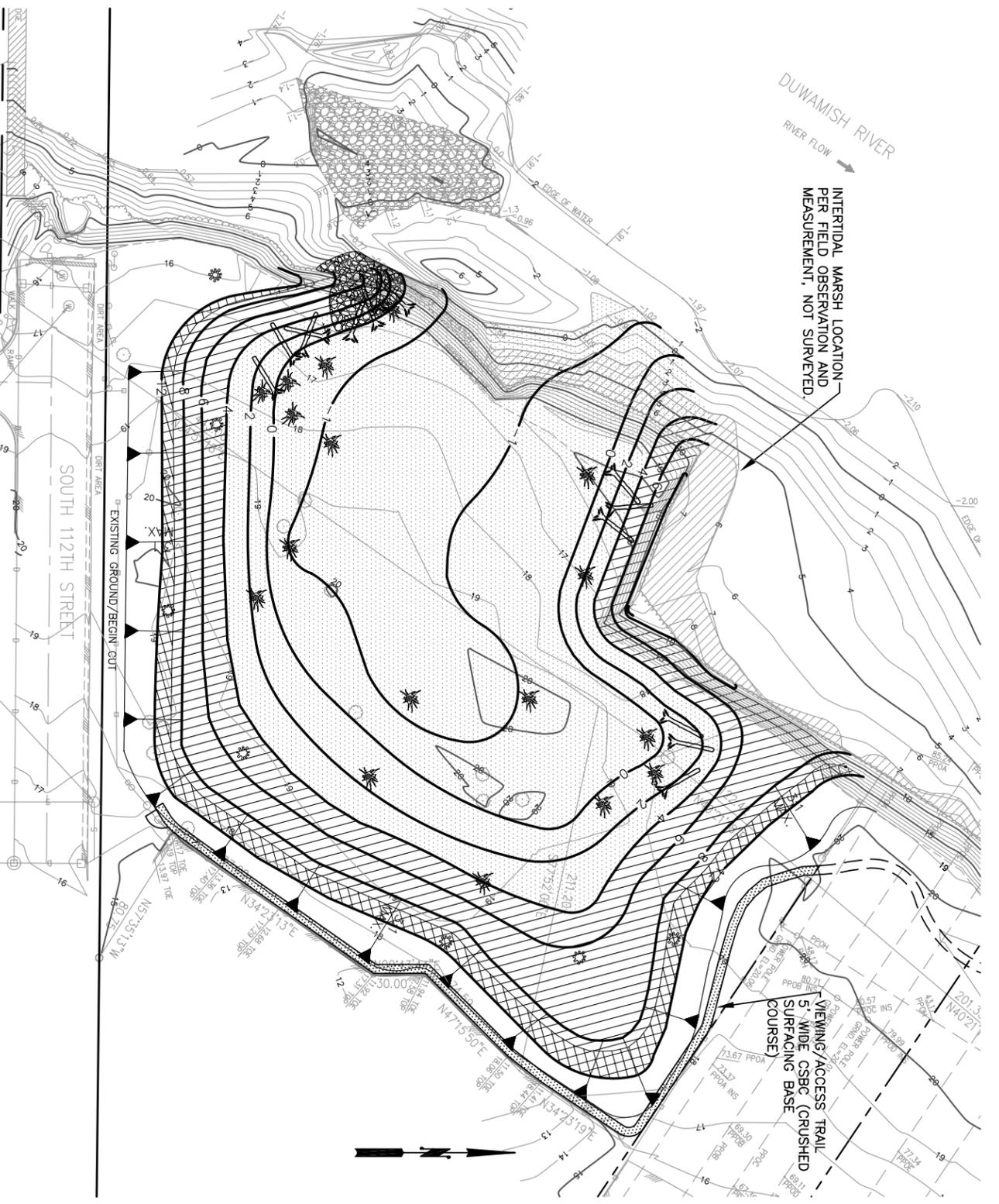


NOTE:  
 MHHW = 8.97  
 MLLW = -2.35



CALL 2 WORKING DAYS  
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BASE MAP PLOT: APS-MAGG	8/03	DESIGNED: MARK WILGUS	DATE: 12/23/03	SURVEY NO.				
DESIGN PLOT: L.T.	9/03	DRAWN: L. TRAXINGER	DATE: 12/23/03	MAINTENANCE DIVISION NO. 3				
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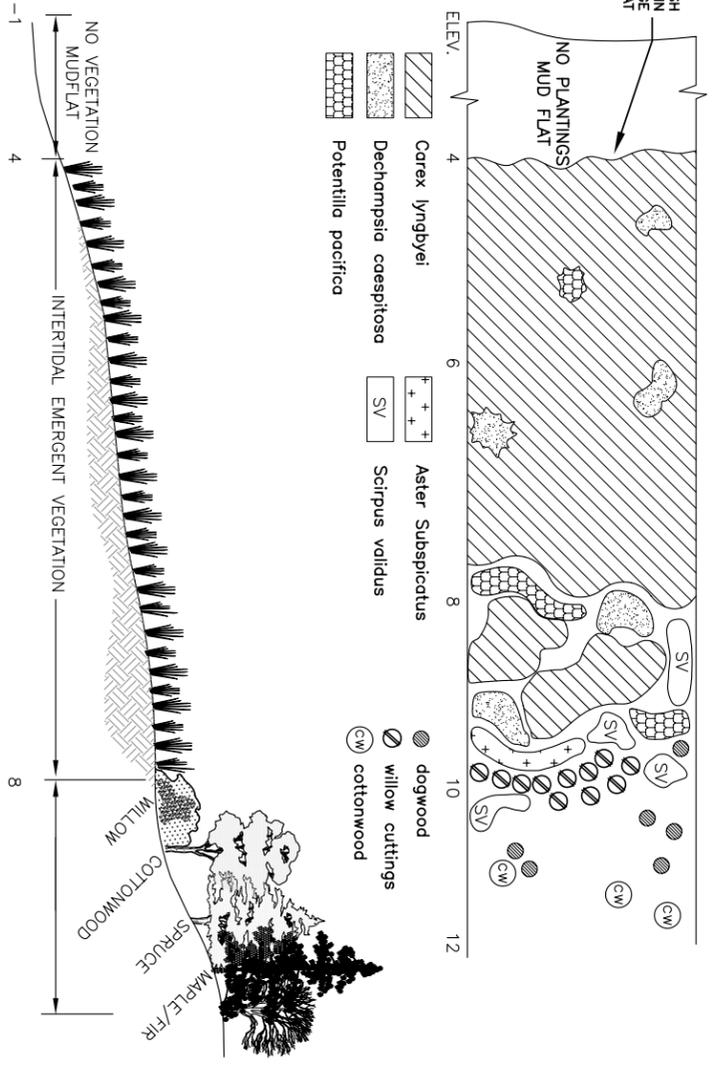


DUWAMISH RIVER  
RIVER FLOW

INTERTIDAL MARSH LOCATION PER FIELD OBSERVATION AND MEASUREMENT, NOT SURVEYED.

VIEWING/ACCESS TRAIL 5' WIDE CSBG (CRUSHED SURFACING BASE COURSE)

EDGE OF MUDFLAT/MARSH SHOULD BE UNDULATED IN THE FIELD TO INCREASE EDGE HABITAT



ELEV.	NO PLANTINGS MUD FLAT	EMERGENT AREAS	SCRUB SHRUB	RIPARIAN/ UPLAND
-1				
4		Carex lyngbyei 60% Deschampsia caespitosa 15% Potentilla pacifica 10% Aster subspp. 10%		
6		Carex lyngbyei 95% Potentilla pacifica 5% NOTE: OTHER POTENTIAL SPECIES Carex microcarpus Carex ohrnupta Eleocharis spp	Willow Dogwood Cottonwood Nootka rose salmonberry black twinberry hawthorn	
10				Alder Cottonwood Ash Big Leaf Maple Spruce Fir shorepine
12				Snowberry Thimbleberry Ocean Spray Indian Plum Hazelnut Nootka rose hawthorn

NOTE: TO CONVERT TO SEATTLE AREA TIDE TABLES DATUM, ADD 2.35 FT.

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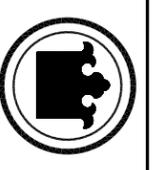
- RIPARIAN/ UPLAND PLANTINGS 12-TOP OF SLOPE
- TRANSITION: SCRUB/SHRUBS (ELEV. 10--12)
- INTERTIDAL EMERGENT COMMUNITY (ELEV. 4-10)
- MUDFLAT AREA: NO PLANTING PROPOSED (ELEV. -1 TO 4)
- WILDLIFE NESTING BOX

GENERAL NOTES:  
1. ADD 6 INCHES OF TOPSOIL TO ALL PLANTING AREAS. TOPSOIL IS TO BE WORKED/TILLED INTO TOP 12 INCHES OF EXISTING SOIL.  
2. MULCH AREAS ABOVE ELEV. 10 WITH 3 INCHES WOOD MULCH.

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PROJECT No. 141e47	PROJECT No. 141e47
SURVEY No. _____	SURVEY No. _____
MAINTENANCE DIVISION No. 3	MAINTENANCE DIVISION No. 3

**KING COUNTY DEPT. OF NATURAL RESOURCES AND PARKS**  
**WATER AND LAND RESOURCES DIVISION**  
CAPITAL PROJECTS AND OPEN SPACE ACQUISITION SECTION  
SURFACE WATER - ENGINEERING AND ECOLOGICAL SERVICES UNITS  
**NORTH WIND'S WEIR INTERTIDAL RESTORATION**  
**PLANTING PLAN DETAILS AND NOTES**



SHEET 6 OF 6 SHEETS  
MAP-NO 2004-66(6)

