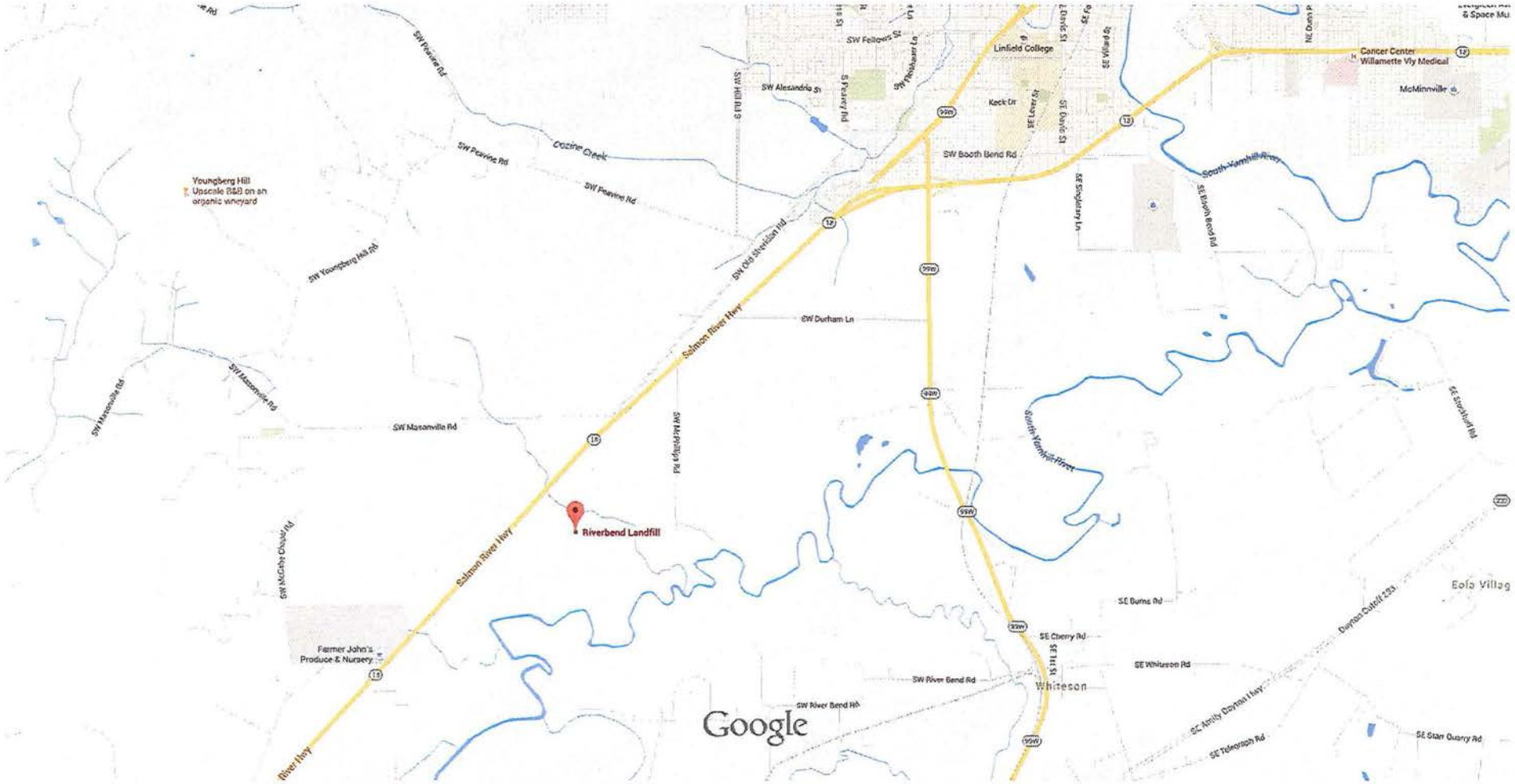
Google Riverbend Landfill



Riverbend Landfill

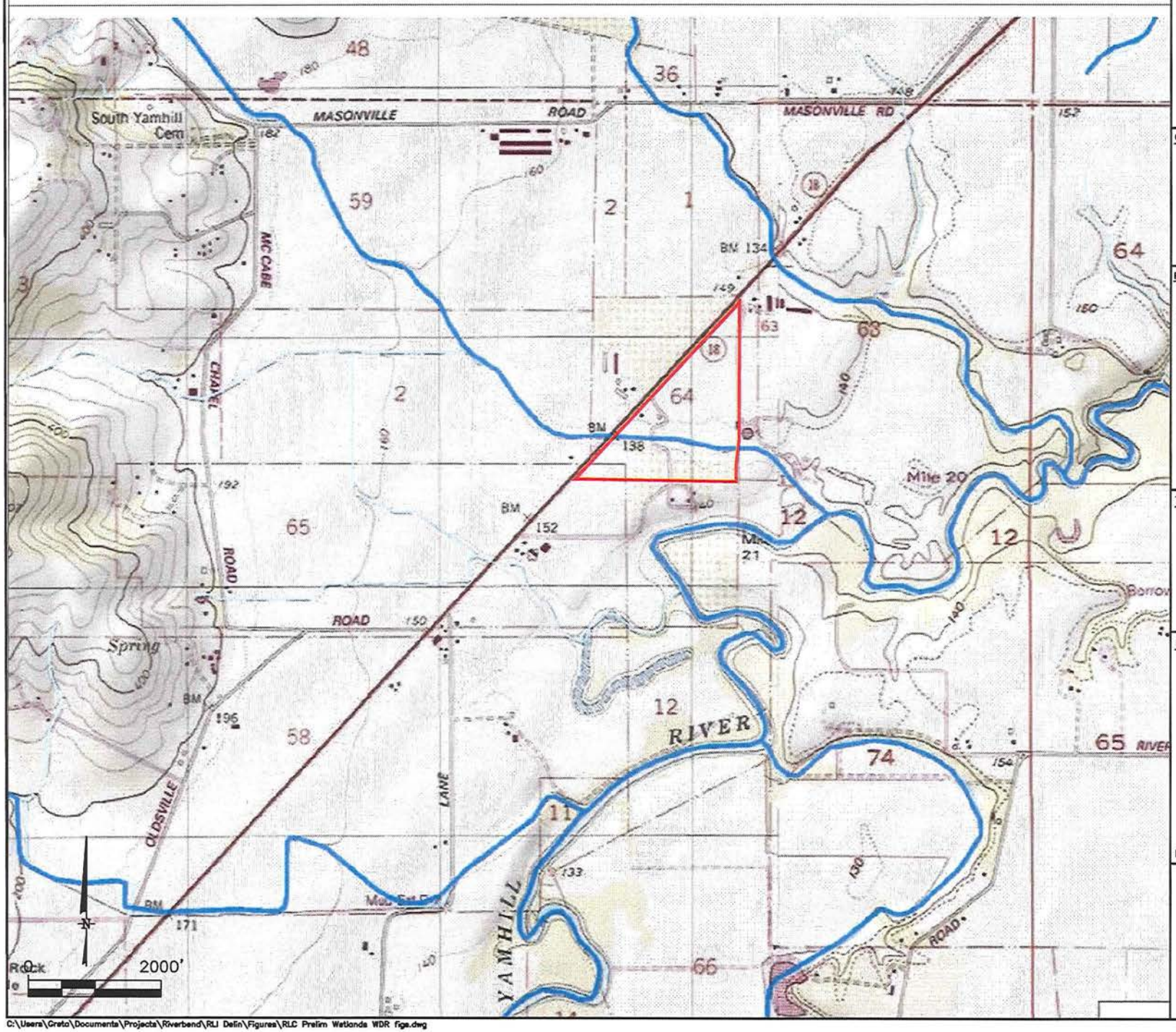
13469 OR-18
McMinnville, OR 97128

Open today 6:00 am – 4:30 pm

wm.com

(503) 472-8788

Map data ©2015 Google 2000 ft



latimer environmental LLC
35 SE 76th Ave
Portland OR 97215
503-208-3706

CLIENT:

WASTE MANAGEMENT

PROJECT:

Site Design Review Application

Riverbend Expansion
Module 11

Riverbend Landfill Company
Yamhill County, Oregon

TITLE:

Wetland Delineation Report Update

Vicinity Map

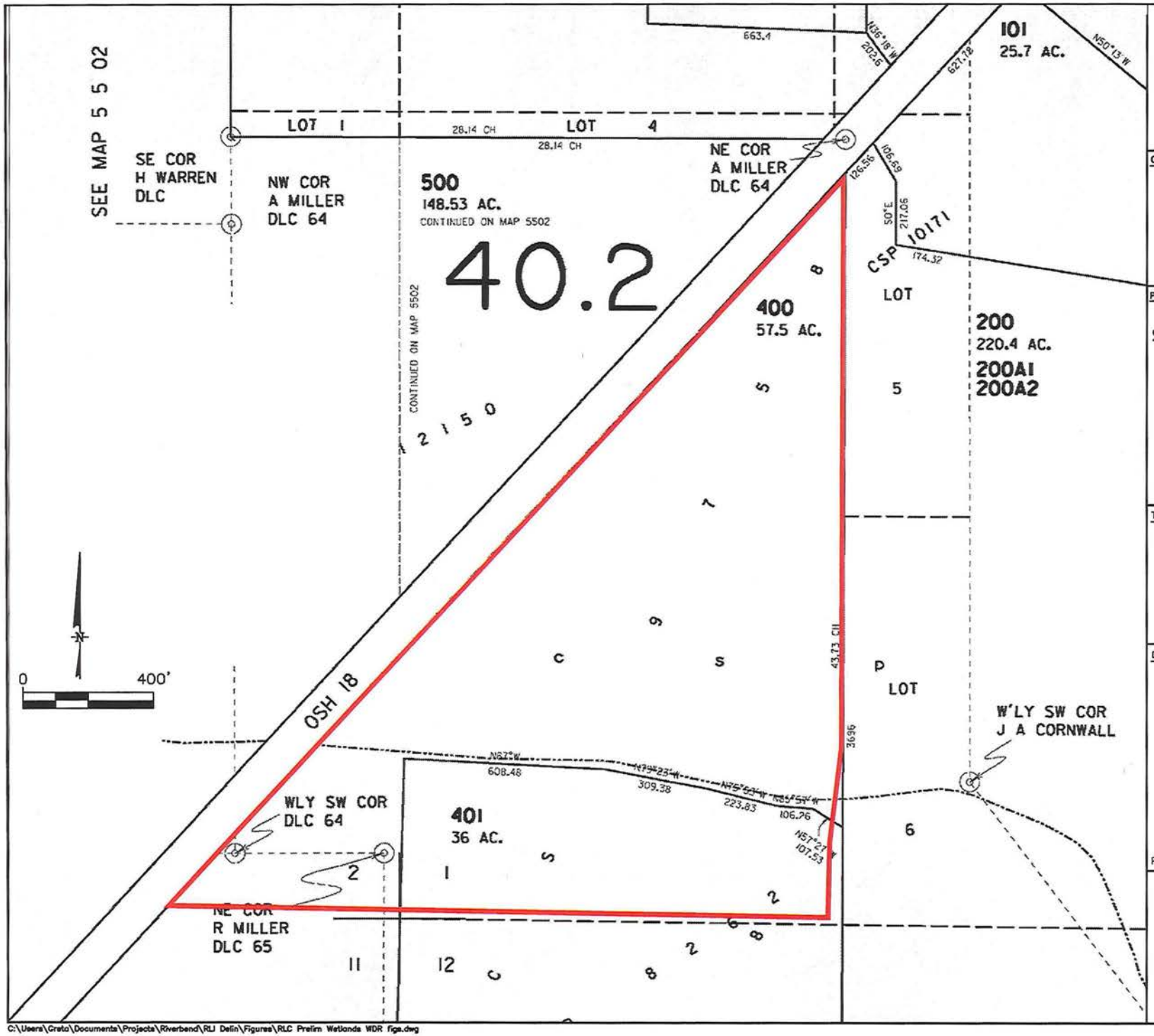
DRAWING DATA:

Plotted: 7/23/2015

FIGURE NO.

1

C:\Users\Greto\Documents\Projects\Riverbend\RLI Delin\Figures\RLC Prelim Wetlands WDR figs.dwg



C:\Users\Greto\Documents\Projects\Riverbend\RLI Delin\Figures\RLC Prelim Wetlands WDR Figs.dwg

latimer environmental LLC
35 SE 76th Ave
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503-208-3706

CLIENT:

WASTE MANAGEMENT

PROJECT:

Site Design Review Application

Riverbend Expansion
Module 11

Riverbend Landfill Company
Yamhill County, Oregon

TITLE:

Wetland Delineation Report
Update

Tax Lot Map

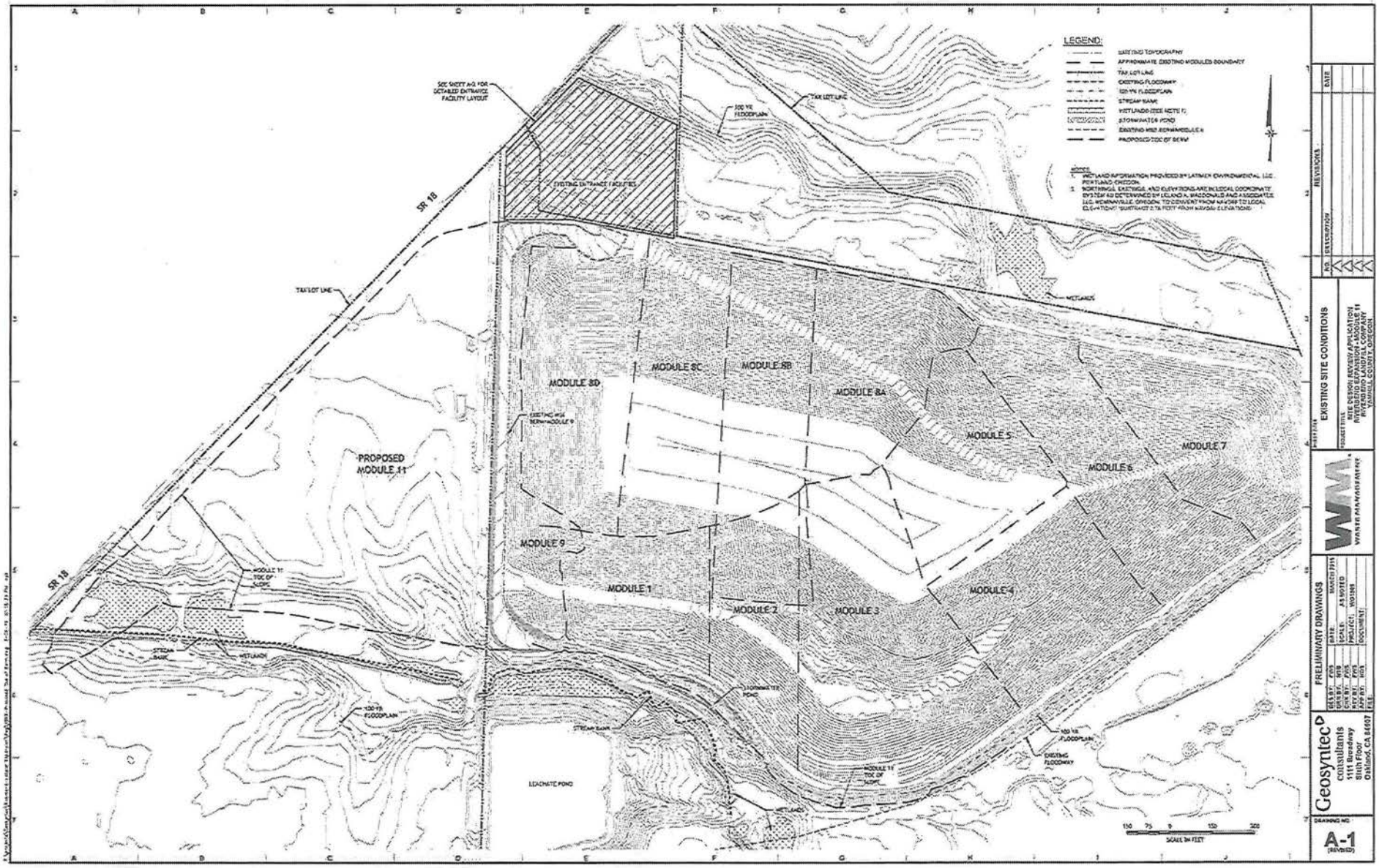
DRAWING DATA:

Tax Map 5S-5W-1

Plotted: 7/23/2015

FIGURE NO.

2



REVISIONS

NO.	DESCRIPTION	DATE

EXISTING SITE CONDITIONS

PROJECT TITLE
SITE DESIGN REVIEW APPLICATION
RIVERGROVE EXPANSION - MODULE 11
RIVERGROVE LANDFILL COMPANY
YAMHILL COUNTY, OREGON

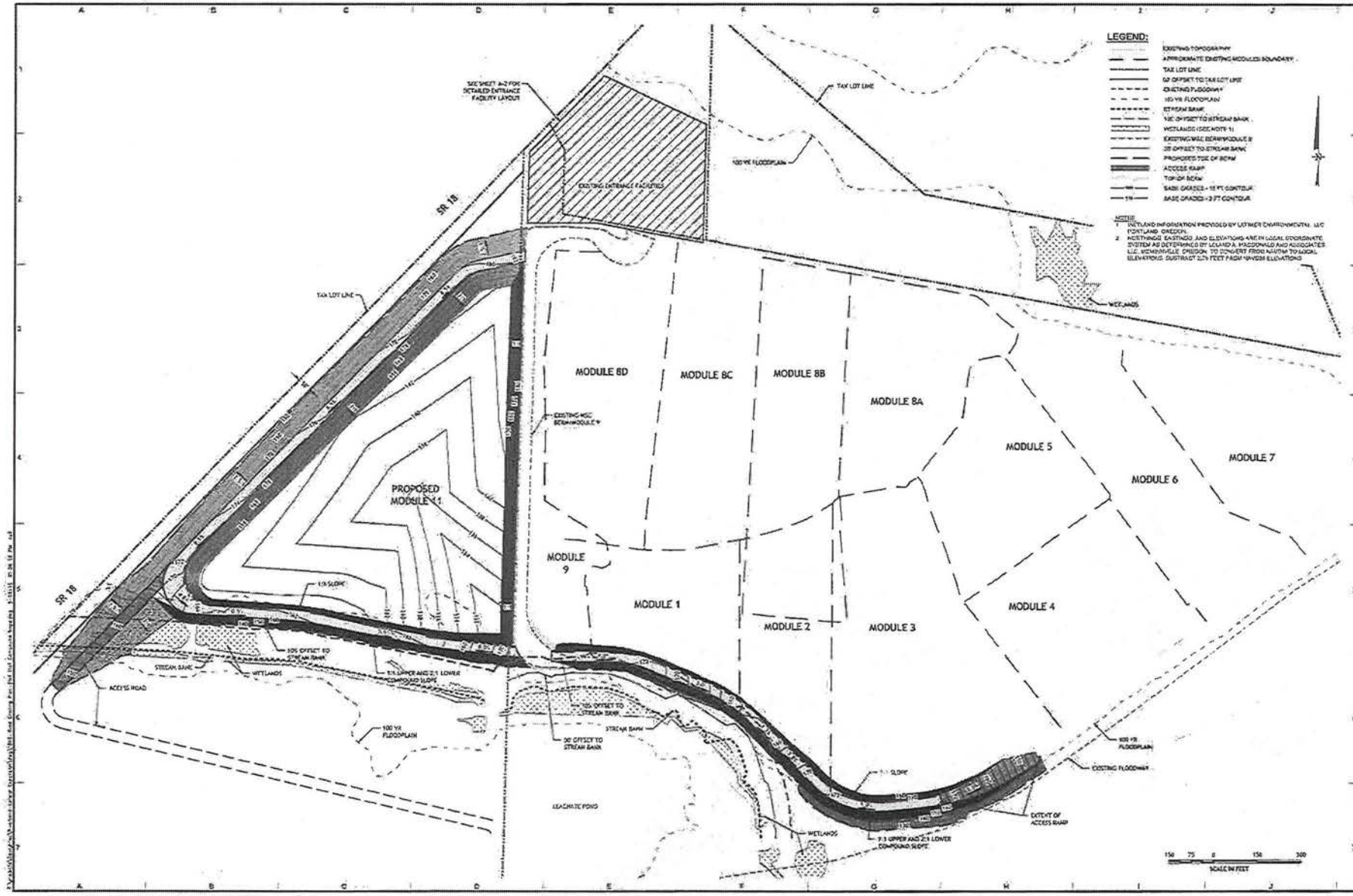
WASTE MANAGEMENT

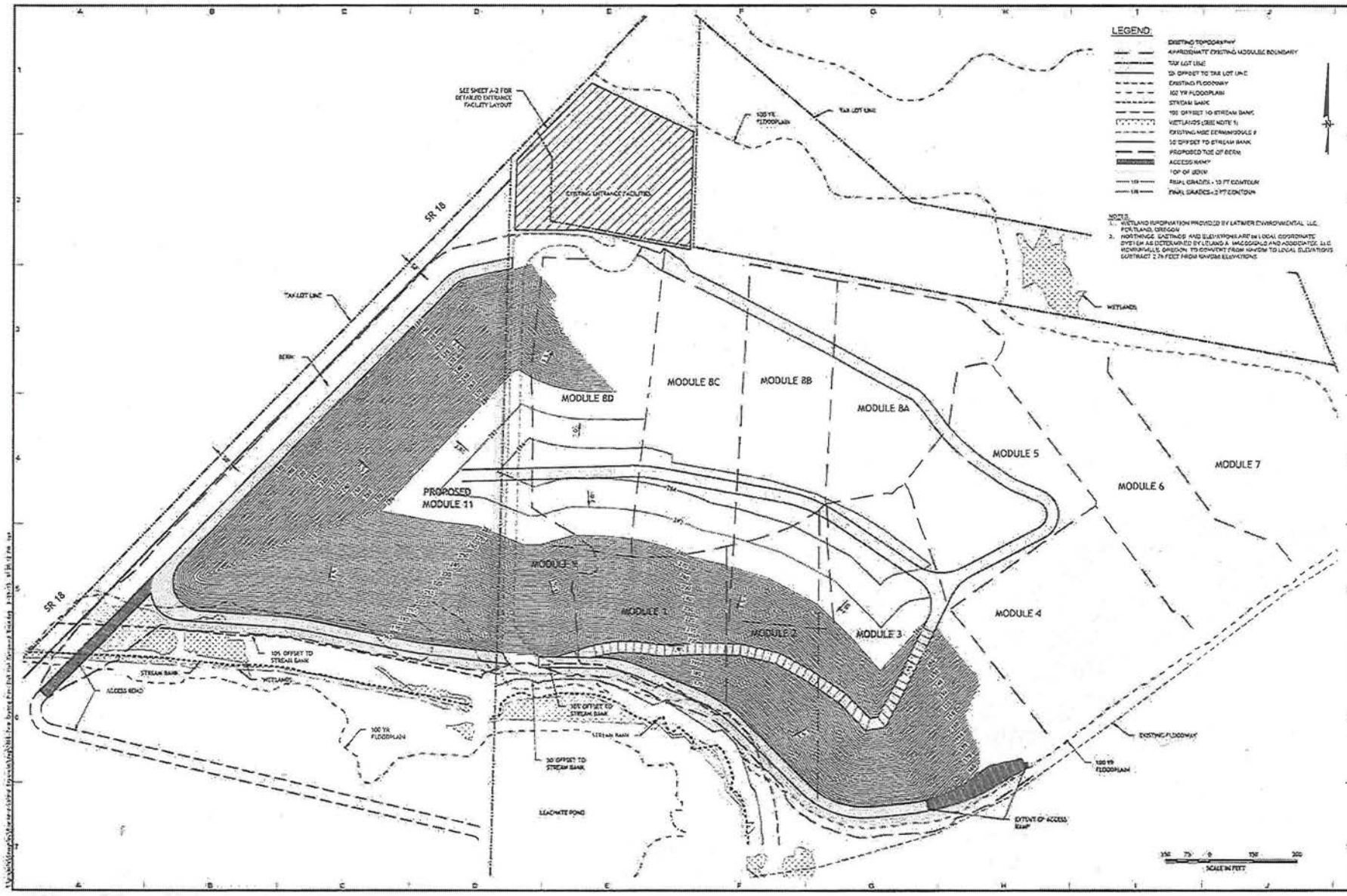
PRELIMINARY DRAWINGS

DES BY:	FOB	DATE:	MARCH 2015
DR'N BY:	RTB	SCALE:	AS NOTED
CK'D BY:	FOB	PROJ. NO.:	1103385
APP'D BY:	FOB	DOCUMENT:	
APP'D BY:	FOB		
REV:			

Geosyntec consultants
1111 Broadway
Sixth Floor
Oakland, CA 94607

DRAWING NO.
A-1
(REVISED)


LEGEND:
SR 18
TAX LOT LINE
EXISTING ENTRANCE FACILITIES
100 YR FLOODPLAIN
WETLANDS
MODULE 8D
MODULE 8C
MODULE 8B
MODULE 8A
MODULE 5
MODULE 6
MODULE 7
MODULE 9
MODULE 1
MODULE 2
MODULE 3
MODULE 4
PROPOSED MODULE 11
1.5:1 SLOPE
STREAM BANK
ACCESS ROAD
LEACHATE POND
EXISTING FLOODWAY
EXTENT OF ACCESS RAMP
SCALE IN FEET
PRELIMINARY DRAWINGS
BASE GRADING PLAN
REVISIONS
DATE
DESCRIPTION
NO.
Geosyntec consultants
1111 Broadway
Suite 1100
Oakland, CA 94607
DRAWING NO.
A-3
(REVISED)



NO.	DESCRIPTION	DATE

REVISIONS

TITLE: FINAL GRADING PLAN

PROJECT TITLE: SITE DESIGN REVIEW APPLICATION, NORTHWEST EXPANSION - MODULE 11, PROPOSED LANDFILL, COOS COUNTY, OREGON

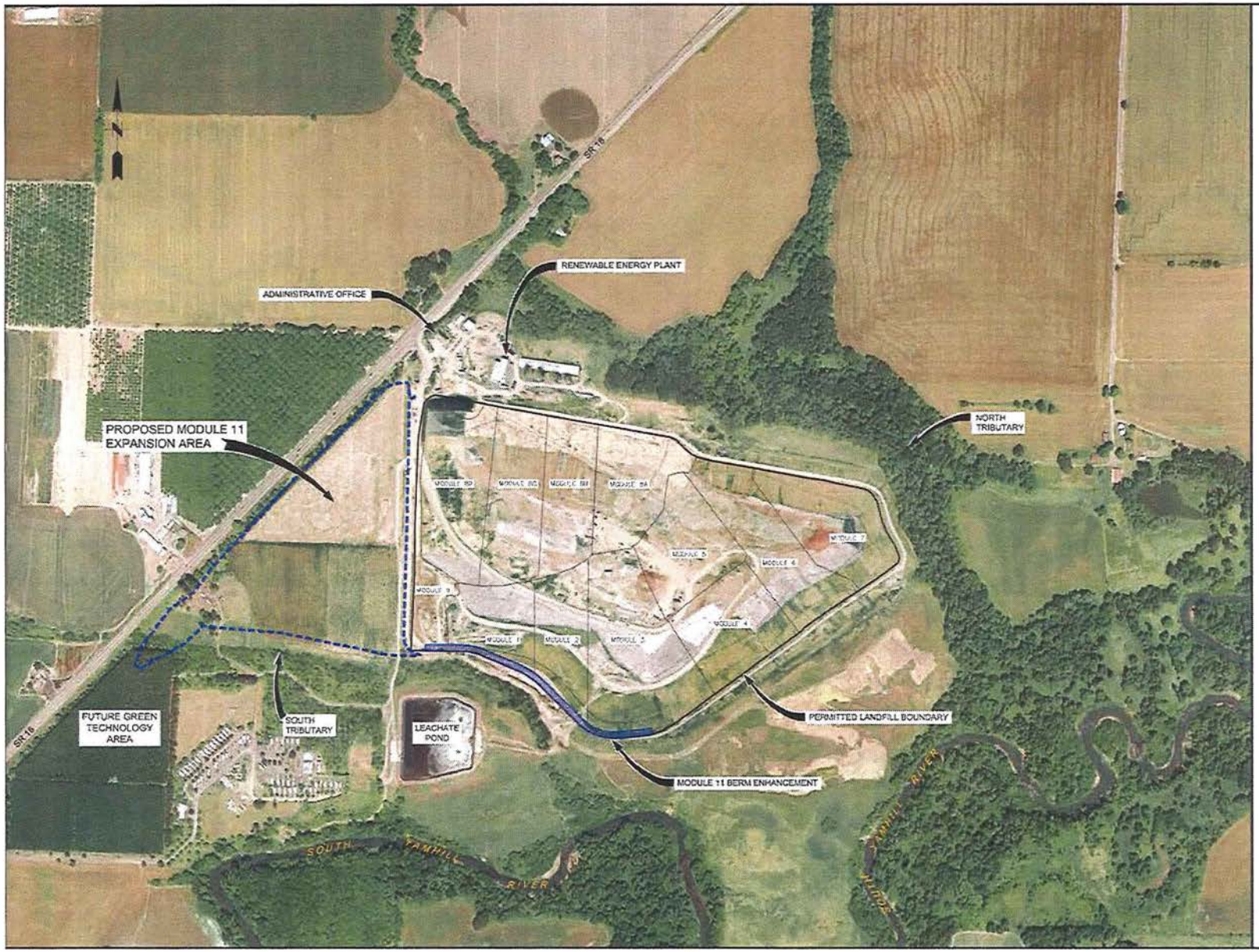
WASTE MANAGEMENT

PRELIMINARY DRAWINGS

DES BY:	FPS	DATE:	MAR-04-2015
DRN BY:	NTB	SCALE:	AS SHOWN
CHK BY:	FPS	PROJECT:	1191169
APV BY:	FPS	DOCUMENT:	
REV BY:	FPS		
FILE:	1169		

Geosyntec consultants
1111 Broadway
8th Floor
Oakland, CA 94607

DRAWING NO.
A-4
(REVISED)

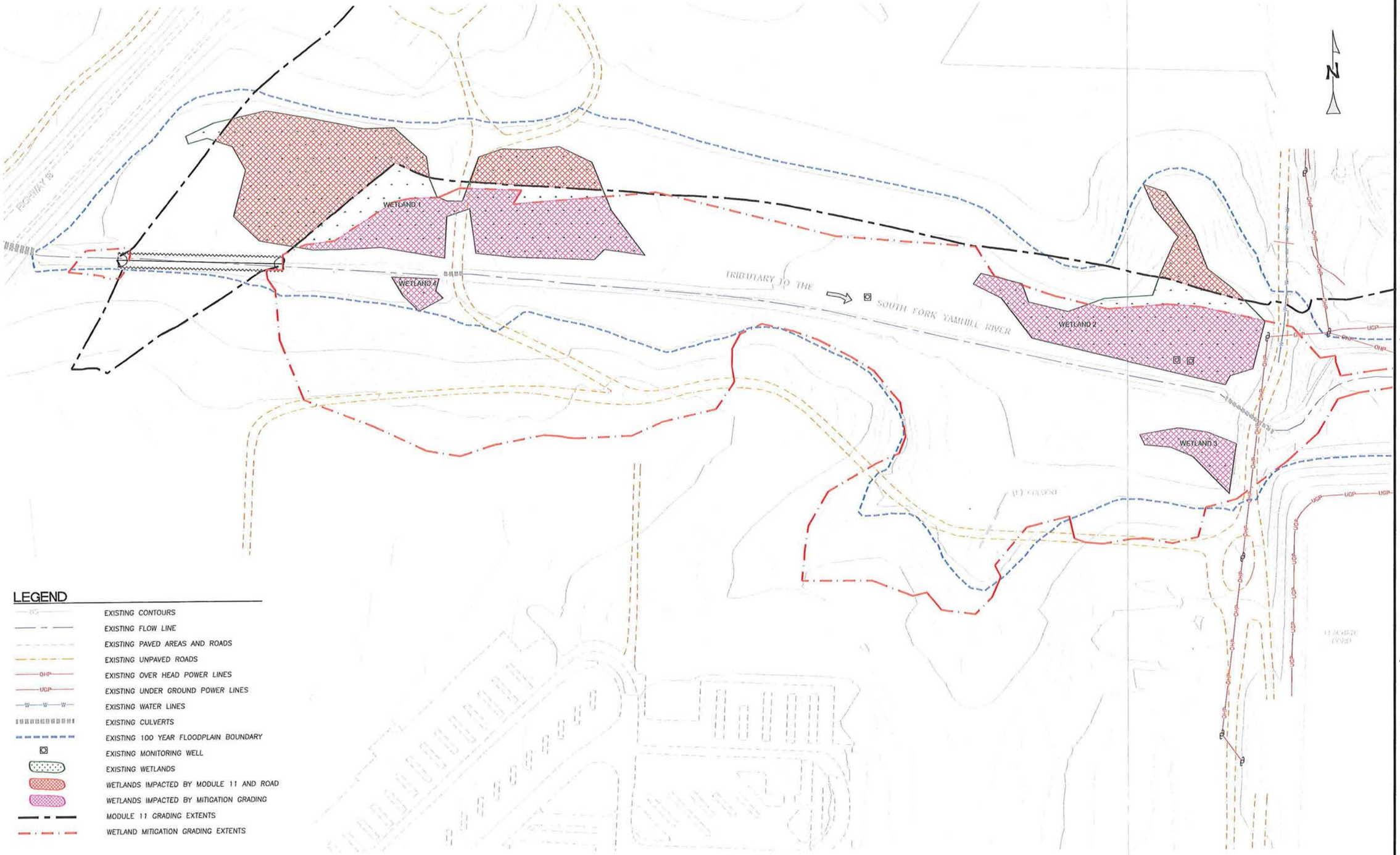


LEGEND:

Proposed Lateral Expansion Area

Module 11 Berm Enhancement

SOURCE:
1. Satellite image ©2012, Google Earth and Riverbend image ©2014, Waste Management (Landfill Footprint).



LEGEND

- EXISTING CONTOURS
- EXISTING FLOW LINE
- EXISTING PAVED AREAS AND ROADS
- EXISTING UNPAVED ROADS
- OHP — EXISTING OVER HEAD POWER LINES
- UGP — EXISTING UNDER GROUND POWER LINES
- W — EXISTING WATER LINES
- EXISTING CULVERTS
- EXISTING 100 YEAR FLOODPLAIN BOUNDARY
- EXISTING MONITORING WELL
- EXISTING WETLANDS
- WETLANDS IMPACTED BY MODULE 11 AND ROAD
- WETLANDS IMPACTED BY MITIGATION GRADING
- MODULE 11 GRADING EXTENTS
- WETLAND MITIGATION GRADING EXTENTS

IMPACTS TO WETLANDS

SCALE: 1" = 60'

WATERWAYS CONSULTING INC.
Santa Cruz, CA | waterways.com | Portland, OR

SOUTH TRIBUTARY RESTORATION

RIVERBEND LANDFILL

IMPACTS TO WETLANDS

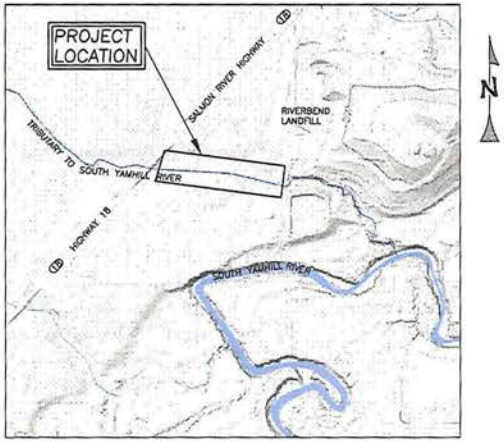
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS

0 1"

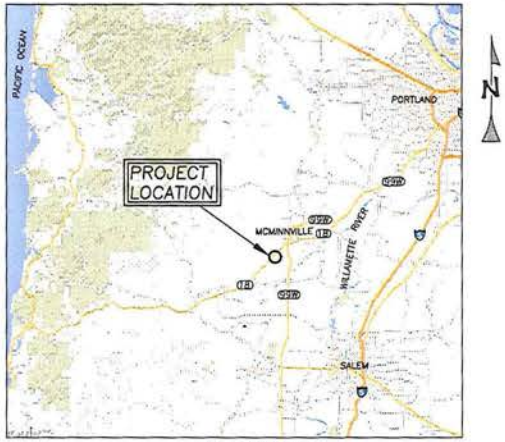
FIGURE

RIVERBEND LANDFILL SOUTH TRIBUTARY CHANNEL AND FLOODPLAIN ENHANCEMENT

60% DESIGN SUBMITTAL



VICINITY MAP
N.T.S. (GOOGLE)



REGIONAL MAP
N.T.S. (GOOGLE)

SHEET INDEX

C1	COVER SHEET
C2	EXISTING CONDITIONS
C3	SITE PLAN AND PROFILE WEST
C4	SITE PLAN AND PROFILE EAST
C5	SECTIONS
C6	SECTIONS
C7	CULVERT PROFILE AND SECTIONS
C8	LOG STRUCTURE DETAILS
C9	EROSION CONTROL AND REVEGETATION PLAN
C10	EROSION CONTROL AND REVEGETATION DETAILS

GENERAL NOTES

1. TOPOGRAPHIC MAPPING WAS PERFORMED BY:
   AEROMETRIC GEOSPACIAL SOLUTIONS
   FLIGHT DATE: APRIL 22, 2011

   SUPPLEMENTAL GROUND SURVEY BY:
   WATERWAYS CONSULTING, INC.
   DATE: OCTOBER 9, 2014

   WASTE MANAGEMENT
   DATE: MAY 19, 2015
2. ELEVATION DATUM: AN ELEVATION OF 155.78' WAS ESTABLISHED BY LELAND MACDONALD AND ASSOC., LLC AT SURVEY CONTROL POINT #139 (MAG NAIL) SHOWN ON SHT. C2.
3. BASIS OF BEARINGS: BASIS OF BEARINGS BETWEEN POINTS #139 AND #453 IS N8°03'17.57"W, AS SHOWN ON SHT. C2.
4. AERIAL PHOTO SOURCE:
   DATA COLLECTED BY OTHERS
   PROVIDED BY LATIMER ENVIRONMENTAL, LLC
   PHOTOGRAPH DATE: MARCH 22, 2014
5. CONTOUR INTERVAL IS ONE FOOT. ELEVATIONS AND DISTANCES SHOWN ARE IN DECIMAL FEET.
6. THIS IS NOT A BOUNDARY SURVEY. PROPERTY LINES ARE NOT SHOWN HEREON.
7. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE CURRENT EDITION OF THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT) STANDARD SPECIFICATIONS (HEREAFTER REFERRED TO AS "STANDARD SPECIFICATIONS").

ABBREVIATIONS

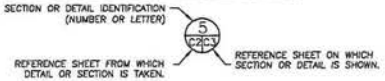
AVG.	AVERAGE
CC	CONCRETE
CY	CUBIC YARDS
DIA.	DIAMETER
E	EXISTING
E.G.	EXISTING GROUND
ELEV.	ELEVATION
ESM	ENGINEERED STREAMBED MATERIAL
DI	DRAINAGE INLET
FG	FINISHED GRADE
FT	FEET
INV	INVERT
N	NEW
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OHW	ORDINARY HIGH WATER
R.C.	RELATIVE COMPACTION
RSP	ROCK SLOPE PROTECTION
SPK	SPIKE
SQ.FT.	SQUARE FOOT
T	TREE
T.B.D.	TO BE DETERMINED
TYP	TYPICAL
UNK	UNKNOWN
WSE	WATER SURFACE ELEVATION
YR	YEAR

PROJECT DESCRIPTION

THESE DRAWINGS PROVIDE 60% DESIGN LEVEL DETAILS FOR THE ADDITION OF A NEW CULVERT AND RESTORATION OF A TRIBUTARY TO THE SOUTH YAMHILL RIVER TO STABILIZE THE CHANNEL AND IMPROVE HABITAT CONDITIONS.

WORK SHALL CONSIST OF REMOVING TWO EXISTING CULVERTS AND ROAD CROSSINGS, ADDING A NEW CULVERT AS PART OF A NEW ROAD CROSSING (BY OTHERS), AND GRADING TO LOWER THE EXISTING FLOODPLAIN AND MEANDER THE CHANNEL.

SECTION AND DETAIL CONVENTION



WATERWAYS CONSULTING INC.
1020 SW TAYLOR STREET, STE. 380
PORTLAND, OR 97205
PH(503)227-5979 / FAX(503)919-6847
WWW.WATERWAYS.COM

PRELIMINARY
NOT FOR CONSTRUCTION

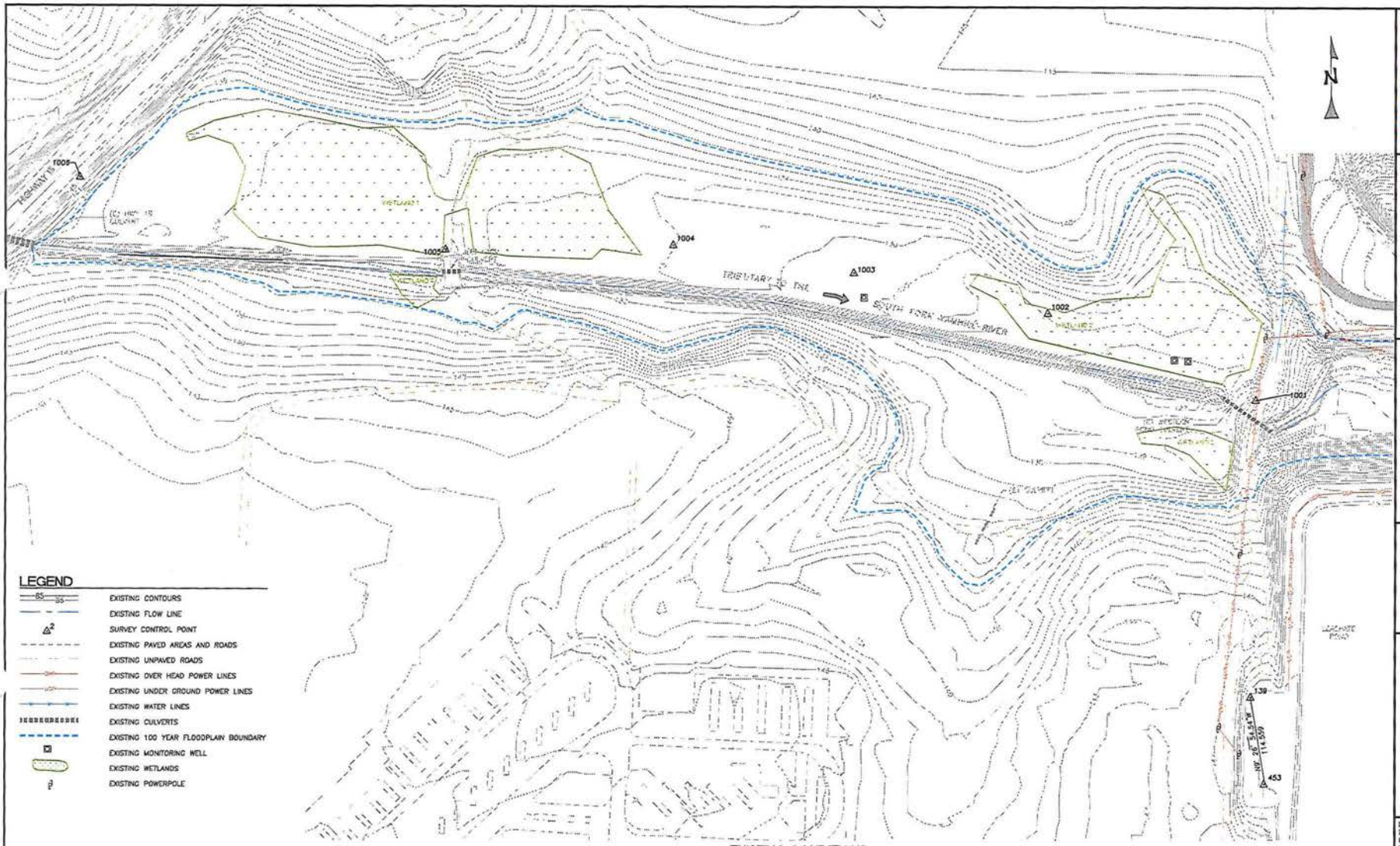
PREPARED AT THE REQUEST OF:
RIVERBEND LANDFILL COMPANY

COVER SHEET

RIVERBEND LANDFILL SOUTH TRIBUTARY CHANNEL AND FLOODPLAIN ENHANCEMENT 60% DESIGN

DESIGNED BY:	J.D.H.
DRAWN BY:	A.M.L.
CHECKED BY:	M.W.W.
DATE:	07/24/15
JOB NO.:	12-017D

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"



LEGEND

85 / 85	EXISTING CONTOURS
	EXISTING FLOW LINE
$\triangle^2$	SURVEY CONTROL POINT
	EXISTING PAVED AREAS AND ROADS
	EXISTING UNPAVED ROADS
	EXISTING OVER HEAD POWER LINES
	EXISTING UNDER GROUND POWER LINES
	EXISTING WATER LINES
	EXISTING CULVERTS
	EXISTING 100 YEAR FLOODPLAIN BOUNDARY
	EXISTING MONITORING WELL
	EXISTING WETLANDS
	EXISTING POWERPOLE

CONTROL POINTS

POINT	NORTHING	EASTING	ELEV.	DESC.
139	2052.1359	3857.9266	153	MAGNAIL
453	1938.8902	3875.3102	153.42	BRASS NAIL WITH WASHER
1001	2439.2938	3863.9527	133.13	REBAR
1002	2552.1158	3596.7182	127.68	REBAR
1003	2604.5473	3347.4831	129.38	REBAR
1004	2640.0892	3114.8940	131.06	REBAR
1005	2633.9537	2822.3509	134.76	REBAR
1006	2726.6598	2650.7706	147.12	REBAR

EXISTING CONDITIONS

SCALE: 1" = 60'

NOTES:

1. UTILITIES SURVEYED BY OTHERS, NOT ALL UTILITIES SHOWN.

EXISTING CULVERT INFORMATION

CULVERT	TYPE	INLET I.E.	OUTLET I.E.
(E) HWY 18 CULVERT	10' X 5.8' CC BOX CULVERT	131.184'	130.917'
(E) FARM ROAD CULVERT	72" CMP	128.692'	127.083'
(E) WESTERN POND ROAD CULVERT	9' X 6.2' ARCH PIPE CULVERT	121.378'	120.840'

WATERWAYS CONSULTING INC.
1020 SW TAYLOR STREET, STE. 380
PORTLAND, OR 97205
PH:(503)227-5979 // FAX:(503)819-5847
WWW.WATWAYS.COM

PRELIMINARY

NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:

RIVERBEND LANDFILL COMPANY

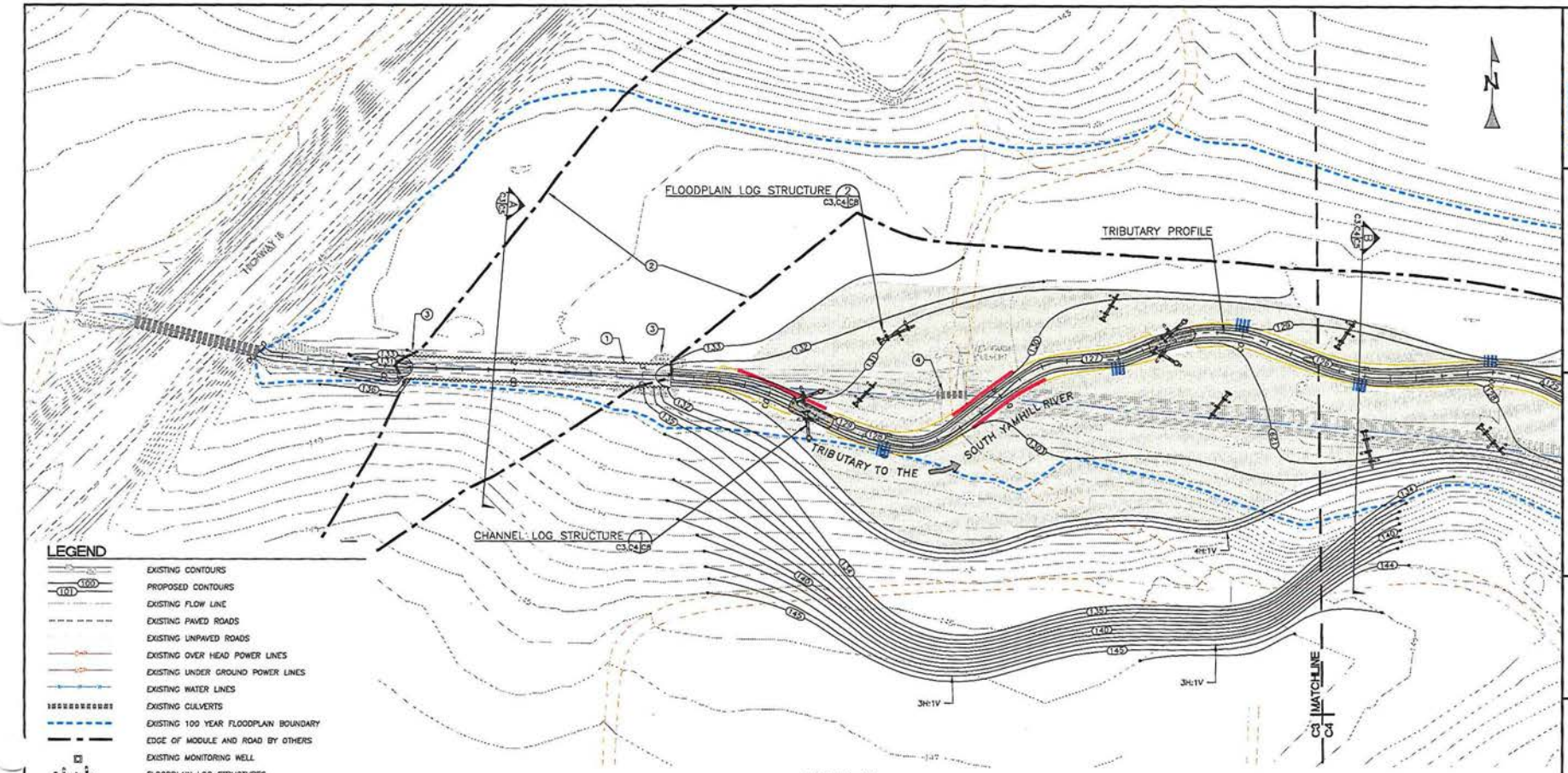
EXISTING CONDITIONS

RIVERBEND LANDFILL
SOUTH TRIBUTARY CHANNEL
AND FLOODPLAIN
ENHANCEMENT
60% DESIGN

DESIGNED BY: J.D.H.
DRAWN BY: A.M.L.
CHECKED BY: M.W.W.
DATE: 07/24/15
JOB NO.: 12-0170

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS
0 1"

C2



LEGEND

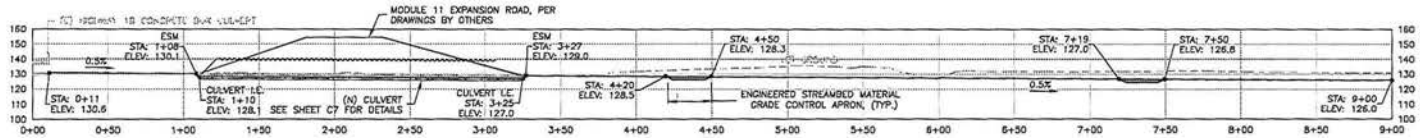
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING FLOW LINE
- EXISTING PAVED ROADS
- EXISTING UNPAVED ROADS
- EXISTING OVER HEAD POWER LINES
- EXISTING UNDER GROUND POWER LINES
- EXISTING WATER LINES
- EXISTING CULVERTS
- EXISTING 100 YEAR FLOODPLAIN BOUNDARY
- EDGE OF MODULE AND ROAD BY OTHERS
- EXISTING MONITORING WELL
- FLOODPLAIN LOG STRUCTURES
- CHANNEL LOG STRUCTURES
- FABRIC ENCAPSULATED SOIL LIFTS
- CHANNEL-WETLAND CONNECTION
- ESM GRADE CONTROL APRONS
- WETLAND AREAS
- SLOPE PROTECTION FABRIC

SITE PLAN

SCALE: 1" = 40'

KEY NOTES:

1. NEW CULVERT UNDER MODULE 11 EXPANSION ROAD
2. APPROXIMATE EXTENTS OF FILL FOR THE MODULE 11 EXPANSION ROAD, PER DRAWINGS BY OTHERS
3. ROCK SLOPE PROTECTION AT CULVERT INLET AND OUTLET.
4. DEMOLISH (E) FARM CULVERT



TRIBUTARY PROFILE

SCALE: 1" = 40'

WATERWAYS CONSULTING INC.
1020 SW TAYLOR STREET, STE. 380
PORTLAND, OR 97205
PH:(503)227-5979 // FAX:(503)819-0947
WWW.WATWAYS.COM

PRELIMINARY
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
RIVERBEND LANDFILL COMPANY

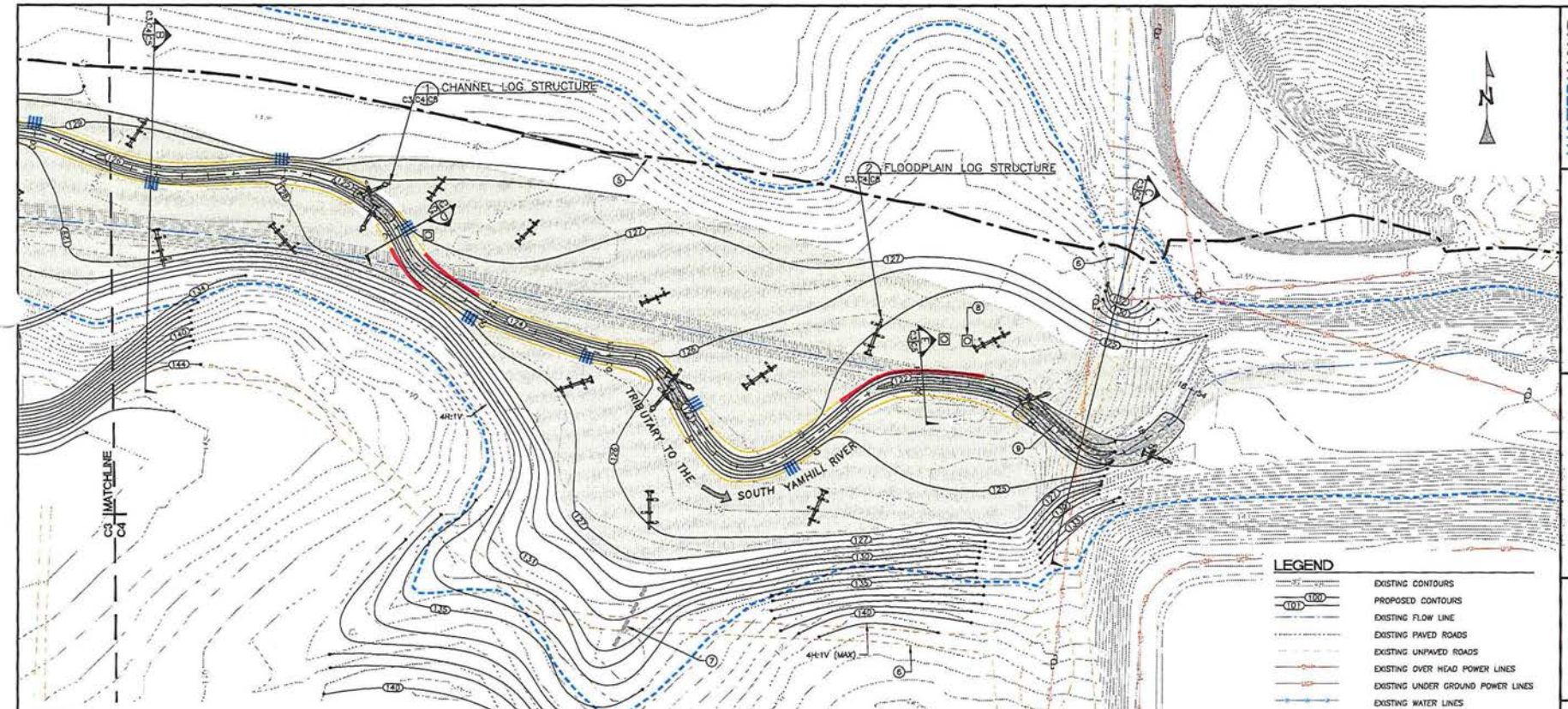
SITE PLAN AND PROFILE WEST

RIVERBEND LANDFILL
SOUTH TRIBUTARY CHANNEL AND FLOODPLAIN ENHANCEMENT
60% DESIGN

DESIGNED BY:	J.D.H.
DRAWN BY:	A.M.L.
CHECKED BY:	M.W.W.
DATE:	07/24/15
JOB NO.:	12-0170

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS
0 1"

C3



NOTES:
1. UTILITIES SURVEYED BY OTHERS, NOT ALL UTILITIES SHOWN.
2. UTILITIES TO BE ABANDONED OR RELOCATED AT THE DIRECTION OF THE OWNER.
3. GRADING SUMMARY:
   TOTAL CUT VOLUME = 40,754.0 CY
   TOTAL FILL VOLUME = 1,215.8 CY

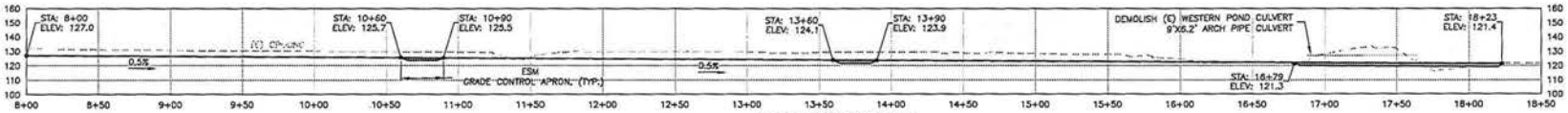
THE ABOVE QUANTITIES ARE APPROXIMATE IN-PLACE VOLUMES CALCULATED AS THE DIFFERENCE BETWEEN EXISTING GROUND AND THE PROPOSED FINISH GRADE, PREPARED FOR PERMITTING PURPOSES ONLY. EXISTING GROUND IS DEFINED BY THE TOPOGRAPHIC CONTOURS AND/OR SPOT ELEVATIONS ON THE PLAN. PROPOSED FINISH GRADE IS DEFINED AS THE DESIGN SURFACE ELEVATION OF WORK TO BE CONSTRUCTED. THE QUANTITIES HAVE NOT BEEN FACTORED TO INCLUDE ALLOWANCES FOR BULKING, CLEARING AND GRUBBING, SUBSIDENCE, SHRINKAGE, OVER EXCAVATION, AND RECOMPACTION, UNDERGROUND UTILITY AND SUBSTRUCTURE SPOILS AND CONSTRUCTION METHODS.

THE CONTRACTOR SHALL PERFORM AN INDEPENDENT EARTHWORK ESTIMATE FOR THE PURPOSE OF PREPARING BID PRICES FOR EARTHWORK. THE BID PRICE SHALL INCLUDE COSTS FOR ANY NECESSARY IMPORT AND PLACEMENT OF EARTH MATERIALS OR THE EXPORT AND PROPER DISPOSAL OF EXCESS OR UNSUITABLE EARTH MATERIALS.

SITE PLAN
SCALE: 1" = 40'

NOTES:
5. PROPOSED TOE OF MODULE 11 EXPANSION, PER DRAWINGS BY OTHERS
6. DECOMMISSION ROAD
7. DEMOLISH (E) CULVERT
8. DECOMMISSIONED BY OTHERS (N.I.C.)
9. DEMOLISH (E) WESTERN POND CULVERT

LEGEND
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING FLOW LINE
- EXISTING PAVED ROADS
- EXISTING UNPAVED ROADS
- EXISTING OVER HEAD POWER LINES
- EXISTING UNDER GROUND POWER LINES
- EXISTING WATER LINES
- EXISTING CULVERTS
- EXISTING 100 YEAR FLOODPLAIN BOUNDARY
- EDGE OF MODULE AND ROAD BY OTHERS
- EXISTING MONITORING WELL
- FLOODPLAIN LOG STRUCTURES
- CHANNEL LOG STRUCTURES
- FABRIC ENCAPSULATED SOIL LIFTS
- CHANNEL-WETLAND CONNECTION
- ESM GRADE CONTROL APRONS
- PROPOSED WETLAND AREAS
- CHANNEL FABRIC



TRIBUTARY PROFILE
SCALE: 1" = 40'

WATERWAYS CONSULTING INC.
1020 SW TAYLOR STREET, STE. 380
PORTLAND, OR 97205
PH:(503)227-5979 // FAX:(888)819-6847
WWW.WATWAYS.COM

PRELIMINARY
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
RIVERBEND LANDFILL COMPANY

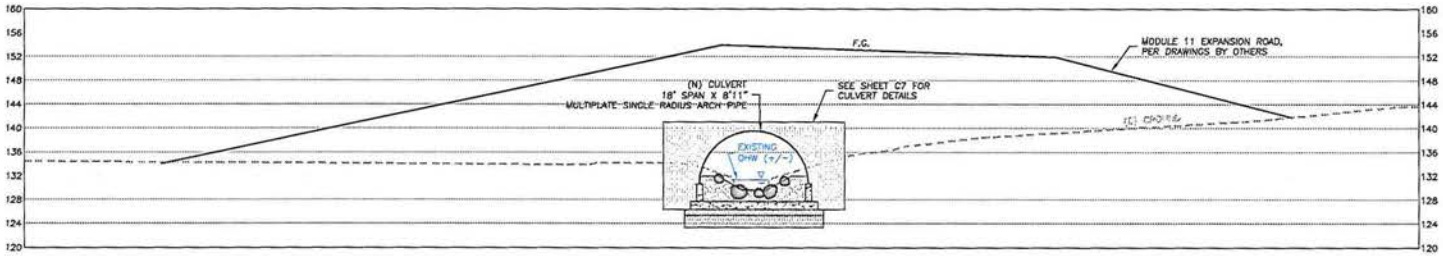
SITE PLAN AND PROFILE EAST

RIVERBEND LANDFILL
SOUTH TRIBUTARY CHANNEL AND FLOODPLAIN ENHANCEMENT
60% DESIGN

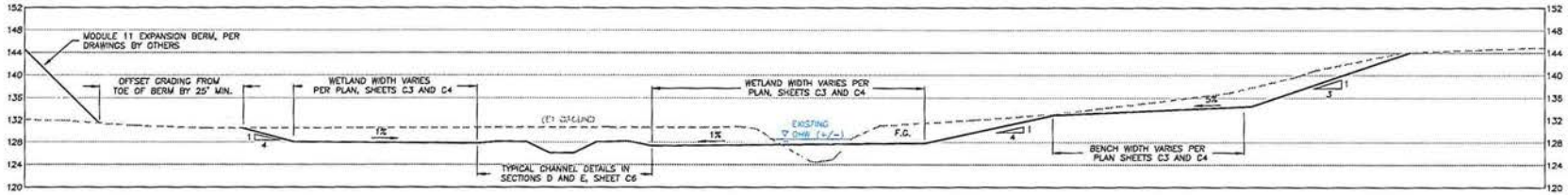
DESIGNED BY: J.D.H.
DRAWN BY: A.M.L.
CHECKED BY: M.W.W.
DATE: 07/24/15
JOB NO.: 12-017D

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS
0 1"

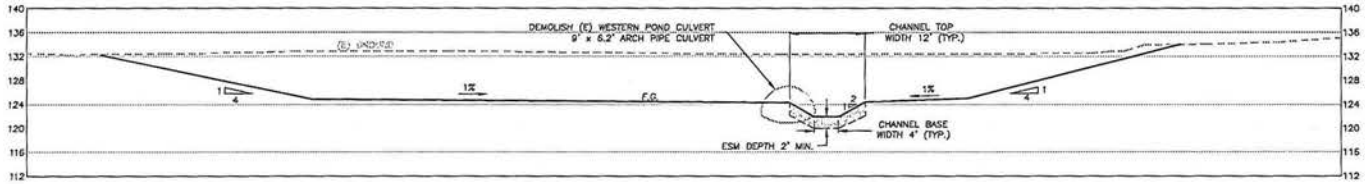
C4



TYPICAL SECTION OF CULVERT (A C3,C5)
SCALE: 1" = 10'



TYPICAL SECTION OF FLOODPLAIN (B C3,C4,C5)
SCALE: 1" = 10'



TYPICAL SECTION OF FLOODPLAIN (C C4,C5)
SCALE: 1" = 10'

WATERWAYS CONSULTING INC.
1020 SW TAYLOR STREET, STE. 300
PORTLAND, OR 97205
PH:(503)227-5979 // FAX:(503)919-8847
WWW.WATWAYS.COM

PRELIMINARY
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
RIVERBEND LANDFILL COMPANY

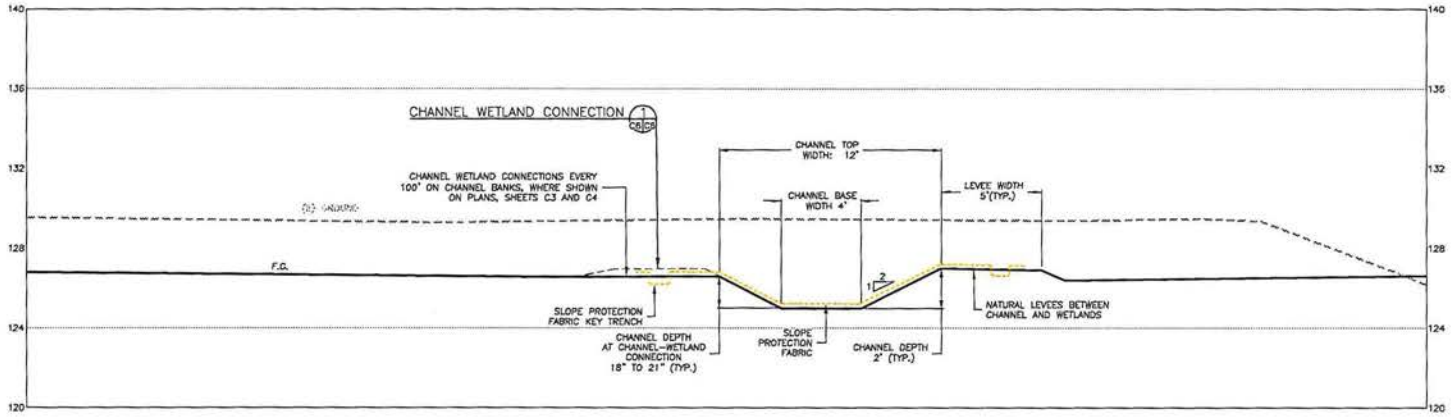
SECTIONS

RIVERBEND LANDFILL
SOUTH TRIBUTARY CHANNEL AND FLOODPLAIN ENHANCEMENT
60% DESIGN

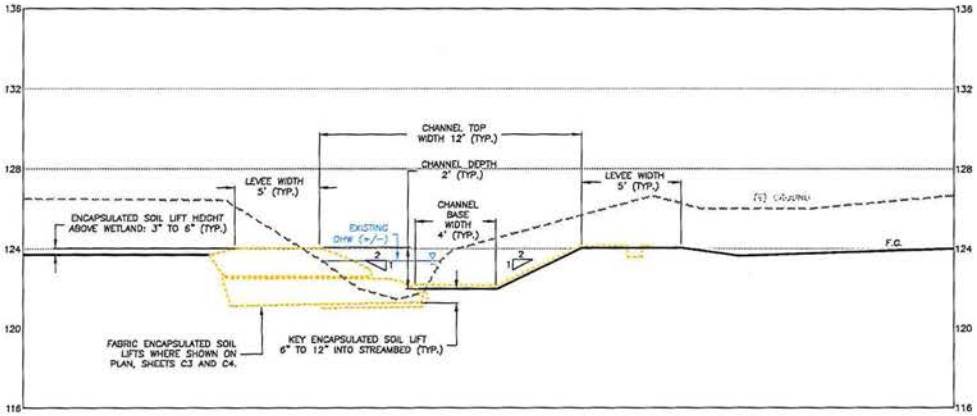
DESIGNED BY: J.D.H.
DRAWN BY: A.M.L.
CHECKED BY: M.W.W.
DATE: 07/24/15
JOB NO.: 12-0170

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

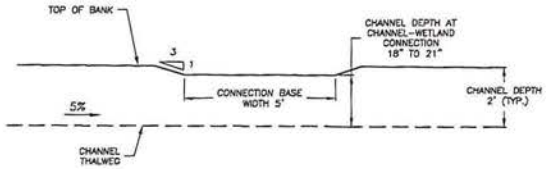
C5



TYPICAL CHANNEL AT WETLAND CONNECTIONS SECTION D C4|C6
SCALE: 1" = 3'



TYPICAL CHANNEL AT SOIL LIFT SECTION 1 C4|C6
SCALE: 1" = 3'



CHANNEL-WETLAND CONNECTION 1 C6|C6
SCALE: 1" = 2'

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PREPARED AT THE REQUEST OF:
RIVERBEND LANDFILL COMPANY

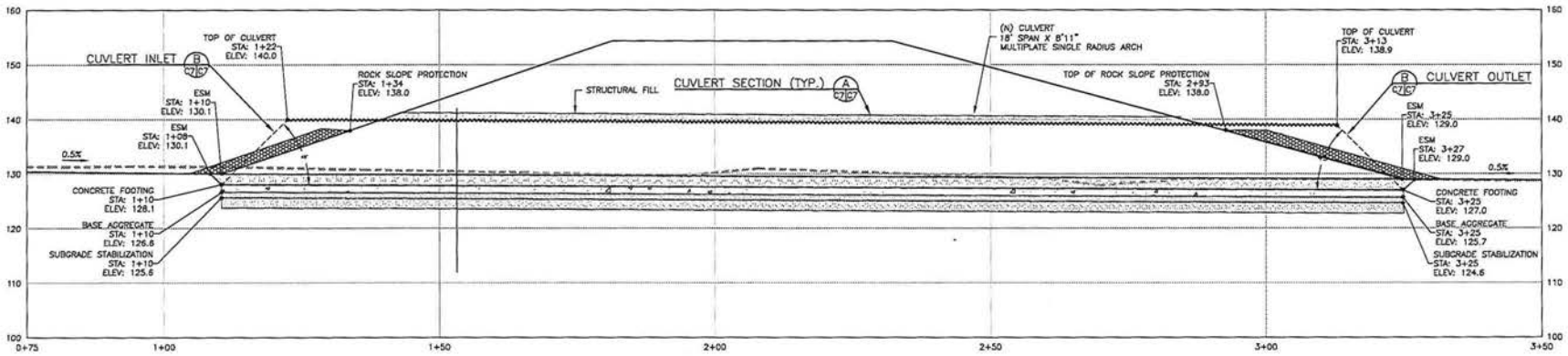
SECTIONS

RIVERBEND LANDFILL
SOUTH TRIBUTARY CHANNEL AND FLOODPLAIN ENHANCEMENT
60% DESIGN

DESIGNED BY: J.D.H.
DRAWN BY: A.M.L.
CHECKED BY: M.W.W.
DATE: 07/24/15
JOB NO.: 12-017D

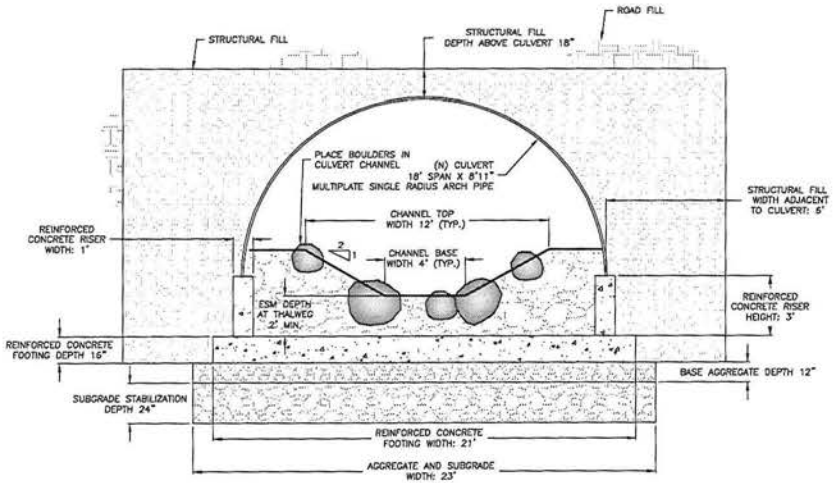
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C6



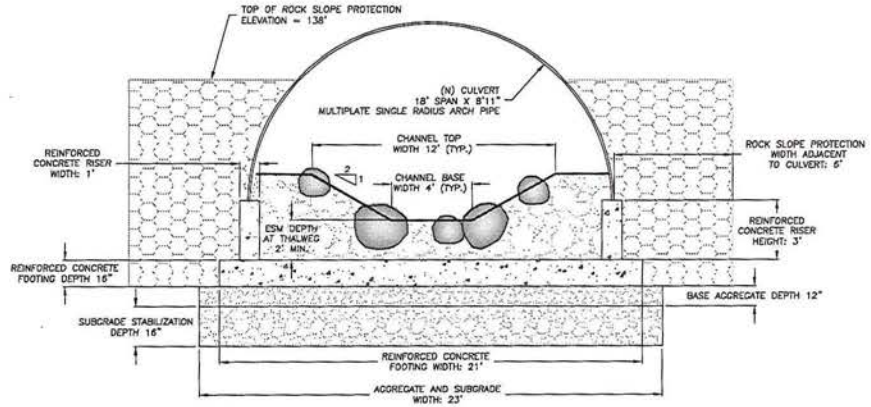
CULVERT PROFILE

SCALE: 1" = 10'



TYPICAL SECTION OF CULVERT (A)

SCALE: 1" = 3'



CULVERT INLET AND OUTLET (B)

SCALE: 1" = 3'

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CULVERT PROFILE AND SECTIONS

RIVERBEND LANDFILL SOUTH TRIBUTARY CHANNEL AND FLOODPLAIN ENHANCEMENT 60% DESIGN

DESIGNED BY:	J.D.H.
DRAWN BY:	A.M.L.
CHECKED BY:	M.W.W.
DATE:	07/24/15
JOB NO.:	12-0170

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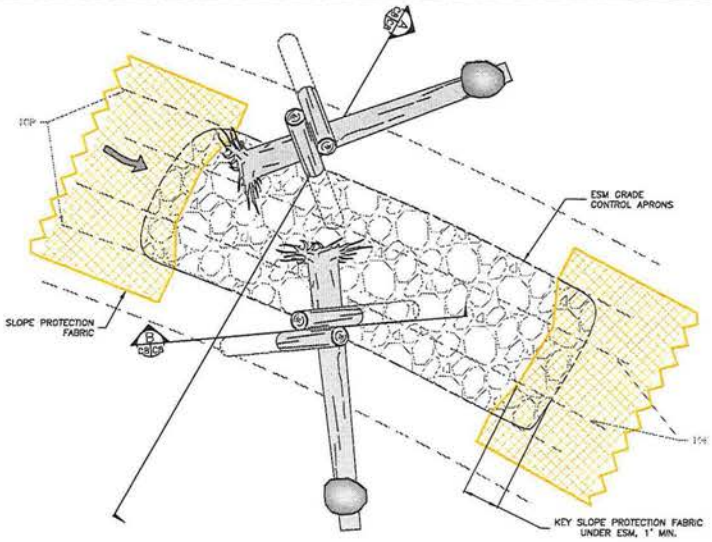
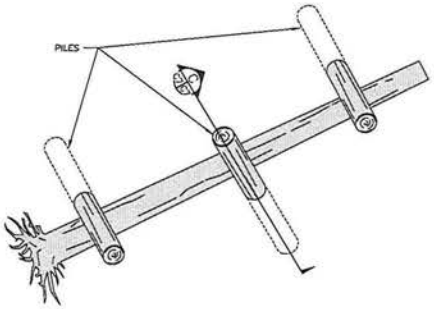
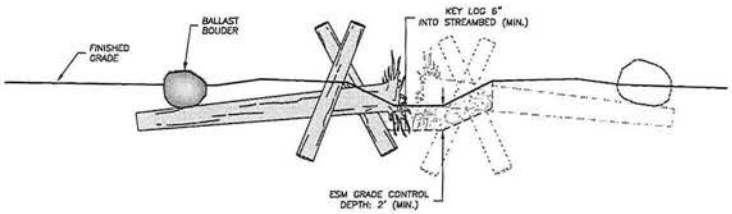
0 1"



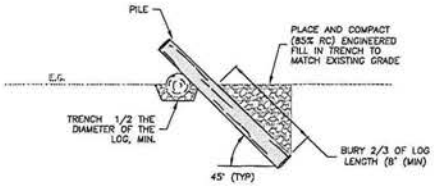
CHANNEL LOG STRUCTURE (1 C3,C4|C8)
SCALE: 1" = 5'



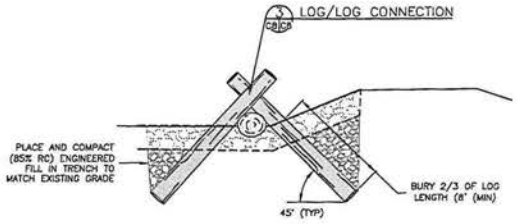
FLOODPLAIN LOG STRUCTURE (7 C3,C4|C8)
SCALE: 1" = 5'



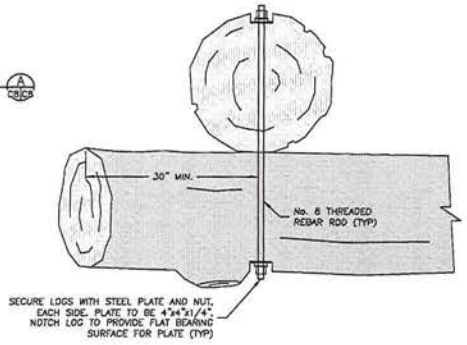
CHANNEL LOG STRUCTURE SECTION (A C8|C8)
SCALE: 1" = 5'



FLOODPLAIN LOG STRUCTURE SECTION (C C8|C8)
SCALE: 1" = 5'



CHANNEL LOG STRUCTURE SECTION (B C8|C8)
SCALE: 1" = 5'



LOG/LOG CONNECTION (3 C8|C8)
SCALE: 1"=1'

LOG STRUCTURE NOTES

TYPE OF STRUCTURE	NUMBER	LOGS WITH ROOTWAD PER STRUCTURE	PILE LOGS PER STRUCTURE	BOULDERS PER STRUCTURE	LOG/LOG CONNECTIO PER STRUCTURE
CHANNEL LOG STRUCTURES	10	1	2	2	1
FLOODPLAIN LOG STRUCUTRES	16	1	3	0	0

TOTALS	DIAMETER	LENGTH	TOTAL COUNT
LOG WITH ROOTWAD	18"–24" (MIN. 18" AT ANY POINT)	25'–35'	25
PILE LOGS	12"–18" (MIN. 12" AT ANY POINT)	10'–15'	65

ITEM	TOTAL COUNT
BALLAST BOULDERS	20
LOG/LOG CONNECTIONS	10

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LOG STRUCTURE DETAILS

RIVERBEND LANDFILL
SOUTH TRIBUTARY CHANNEL AND FLOODPLAIN ENHANCEMENT
60% DESIGN

DESIGNED BY: J.D.H.
DRAWN BY: A.M.L.
CHECKED BY: M.W.W.
DATE: 07/24/15
JOB NO.: 12-017D

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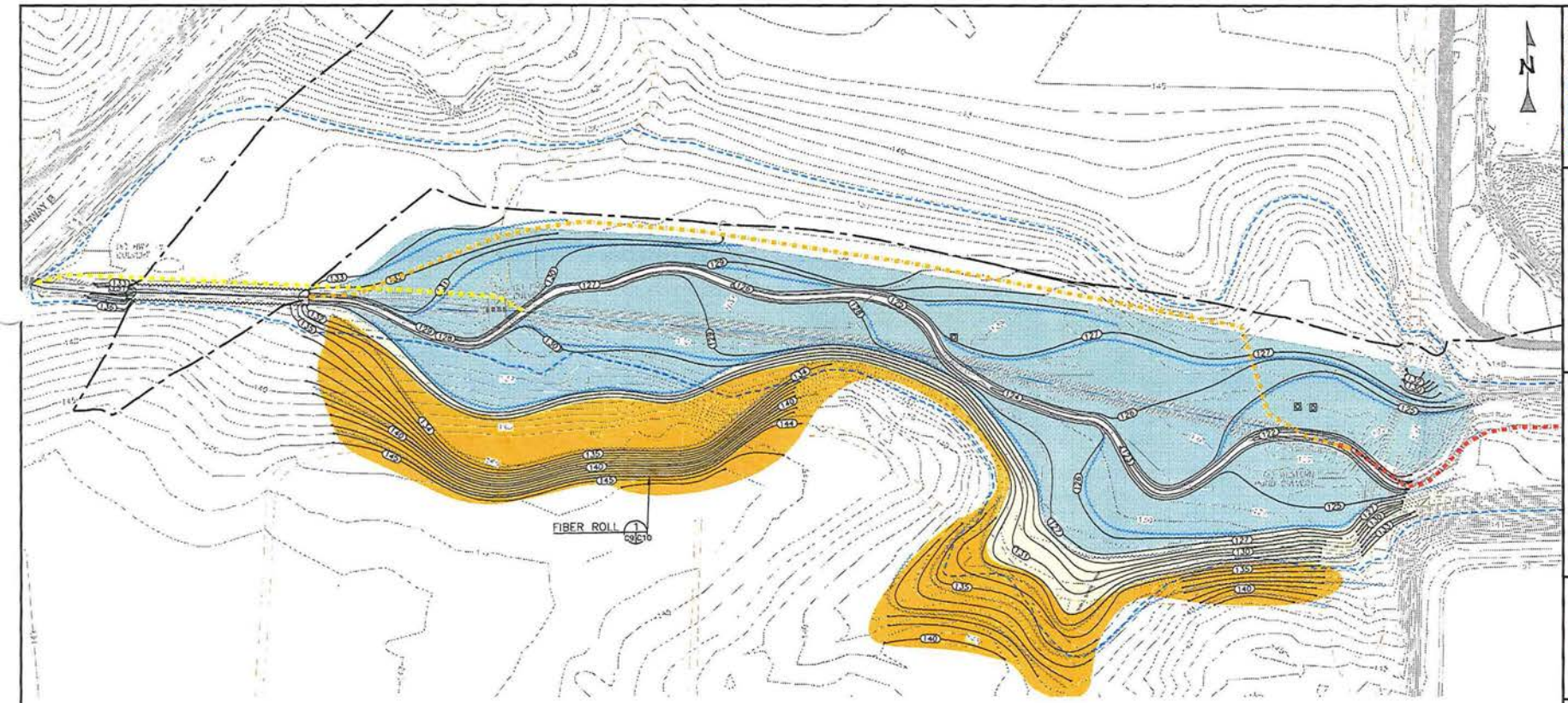
0 1"



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING FLOW LINE
- EXISTING PAVED ROADS
- EXISTING UNPAVED ROADS
- EXISTING CULVERTS
- EXISTING 100 YEAR FLOODPLAIN BOUNDARY
- EDGE OF MODULE AND ROAD BY OTHERS
- FIBER ROLL
- PHASE 1 DIVERSION PIPE
- PHASE 2 DIVERSION PIPE
- PHASE 3 DIVERSION PIPE
- EXISTING MONITORING WELL
- REVEGETATION AREA A
- REVEGETATION AREA B
- REVEGETATION AREA C

EROSION CONTROL AND REVEGETATION PLAN

SCALE: 1" = 60'

CONSTRUCTION PHASING NOTES:

1. PHASE 1: CULVERT CONSTRUCTION
   a. INSTALL DIVERSION SYSTEM AT OUTLET OF HIGHWAY 18 CULVERT TO DIVERT CREEK FLOW AROUND PROPOSED CULVERT TO DOWNSTREAM OF THE EXISTING FARM ROAD CULVERT.
   b. INSTALL NEW CULVERT AND BACKFILL WITH ESM.
   c. CONSTRUCT PORTION OF TRIBUTARY CHANNEL BETWEEN HIGHWAY 18 CULVERT AND NEW CULVERT.
   d. REMOVE DIVERSION SYSTEM FROM HIGHWAY 18 CULVERT OUTLET.
2. PHASE 2: NEW CHANNEL AND FLOODPLAIN BENCH GRADING
   a. INSTALL DIVERSION SYSTEM AT OUTLET OF THE NEW CULVERT TO DIVERT FLOW AROUND THE LIMITS OF GRADING TO THE INLET OF THE WESTERN POND CULVERT.
   b. EXCAVATE FLOODPLAIN BENCHES.
   c. EXCAVATE NEW CHANNELS.
   d. INSTALL FABRIC ENCAPSULATED SOIL LIFTS, ESM GRADE CONTROL APRONS, AND LOG STRUCTURES.
   e. REMOVE DIVERSION SYSTEM FROM OUTLET OF NEW CULVERT.
3. PHASE 3: WESTERN POND CULVERT DEMOLITION
   a. INSTALL DIVERSION SYSTEM IN CHANNEL UPSTREAM OF WESTERN POND CULVERT TO DIVERT FLOW TO DOWNSTREAM OF THE POND CULVERT OUTSIDE THE LIMITS OF GRADING.
   b. EXCAVATE ROAD FILL AND DEMOLISH CULVERT.
   c. INSTALL ESM GRADE CONTROL APRON.
   d. HYDROSEED AND REVEGETATE ALL EXPOSED SOILS AND INSTALL FIBER ROLLS.
   e. REMOVE DIVERSION SYSTEM

NOTES:

1. SEE TABLE 1 AND TABLE 2 ON SHEET C10 FOR PLANTING AND SEEDING SPECIES AND QUANTITIES ASSOCIATED WITH THE REVEGETATION.

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EROSION CONTROL AND REVEGETATION PLAN

RIVERBEND LANDFILL
SOUTH TRIBUTARY CHANNEL AND FLOODPLAIN ENHANCEMENT
60% DESIGN

DESIGNED BY:	J.D.H.
DRAWN BY:	A.M.L.
CHECKED BY:	M.W.W.
DATE:	07/24/15
JOB NO.:	12-0170

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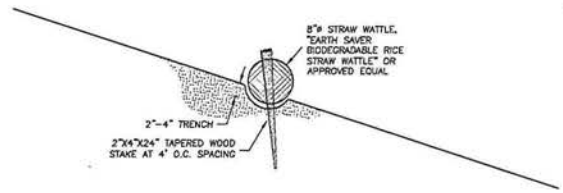
0 1"

TABLE 1: PLANTING LIST

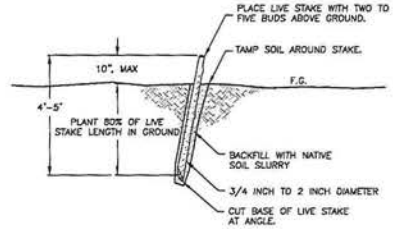
AREA A: ASH FORESTED WETLAND			
SCIENTIFIC NAME	COMMON NAME	SPACING (FT ON CENTER)	PROPAGATION METHOD
PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	4	BARE ROOT
CORNUS STOLONIFERA	RED-OSIER DOGWOOD	4	BARE ROOT
SYMPHORICARPOS ALBUS	SNOWBERRY	4	BARE ROOT
FRAXINUS LATIFOLIA	OREGON ASH	6	BARE ROOT
SPIREA DOUGLASII	DOUGLAS SPIREA	4	BARE ROOT
AREA B: SCRUB / SHRUB WETLAND			
SCIENTIFIC NAME	COMMON NAME	SPACING (FT ON CENTER)	PROPAGATION METHOD
SALIX SCOULERIANA	SCOULER WILLOW	4	BARE ROOT
CORNUS STOLONIFERA	RED-OSIER DOGWOOD	4	STAKES
SPIRAEA DOUGLASII	DOUGLAS SPIRAEA	4	BARE ROOT
SALIX LASIANDRA	PACIFIC WILLOW	6	STAKES
SALIX SITCHENSIS	SITKA WILLOW	6	STAKES
AREA C: RIPARIAN FOREST			
SCIENTIFIC NAME	COMMON NAME	SPACING (FT ON CENTER)	PROPAGATION METHOD
CORNUS STOLONIFERA	RED-OSIER DOGWOOD	4	BARE ROOT
OEMLERIA CERASIFORMIS	INDIAN PLUM	4	BARE ROOT
PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	4	BARE ROOT
SYMPHORICARPOS ALBUS	SNOWBERRY	4	BARE ROOT
RUBUS SPECTABILIS	SALMONBERRY	4	BARE ROOT
ABIES GRANDIS	GRAND FIR	6	BARE ROOT
PSEUDOTSUGA MENSIESII	DOUGLAS FIR	6	BARE ROOT

TABLE 2: SEEDING LIST

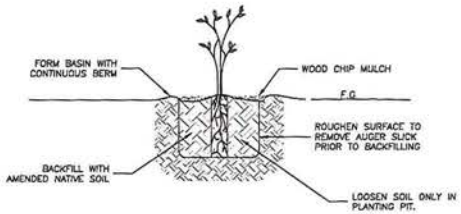
AREA A		
SUNMARK NATIVE EROSION CONTROL MIX (1 LB/1000 SQ FT)		
SCIENTIFIC NAME	COMMON NAME	% BY WEIGHT
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	35%
GLYCERIA ACCIDENTALLIS	NORTHWESTERN MANNAGRASS	20%
FESTUCA RUBRA RUBRA	NATIVE RED FESCUE	20%
ALOPECURUS GENICAULTIUS	WATER FOXTAIL	13%
ELEOCHARIS PALLUSTRIS	COMMON SPIKERUSH	5%
BECKMANNIA SYZIGANCHE	AMERICAN SLOUGHGRASS	4%
DESCHAMPSIA CAESPITOSA	TUFTED HAIRGRASS	2.50%
AGROSTIS EXARATA	SPIKE BENTGRASS	0.50%
AREA B & AREA C		
SUNMARK NATIVE WETLAND MIX (1 LB/1000 SQ FT)		
SCIENTIFIC NAME	COMMON NAME	% BY WEIGHT
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	40%
BROMUS CARINATUS	CALIFORNIA BROME	35%
FESTUCA RUBRA RUBRA	NATIVE RED FESCUE	20%
DESCHAMPSIA CESPITOSA	TUFTED HAIRGRASS	3%
AGROSTIS EXERATA	SPIKE BENTGRASS	2%



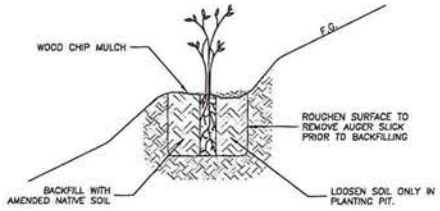
FIBER ROLL
SCALE: 1"=1'
1 C9|C10



LIVE STAKE
N.T.S.



BARE ROOT PLANTING
SCALE: N.T.S.



BARE ROOT PLANTING ON SLOPES
SCALE: N.T.S.

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