

# NORTH SHORE PROPERTY RESTORATION PROJECT

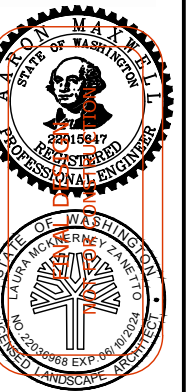
## SAN JUAN COUNTY CONSERVATION LAND BANK



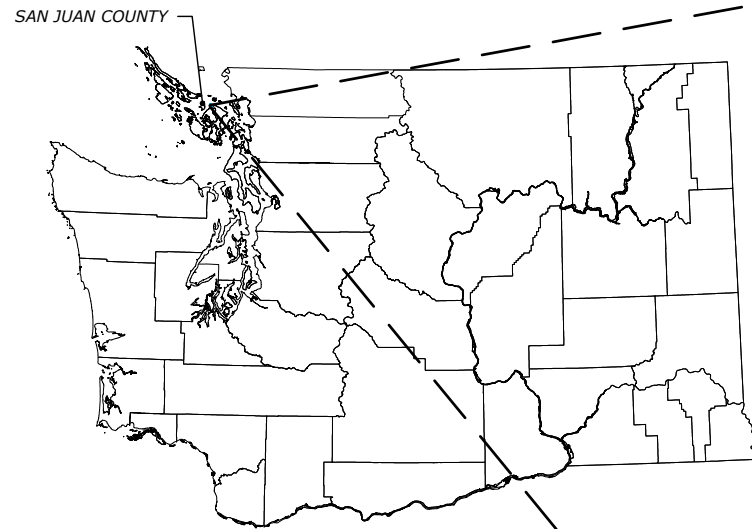
Natural Systems Design  
+ Coastal Geologic Services



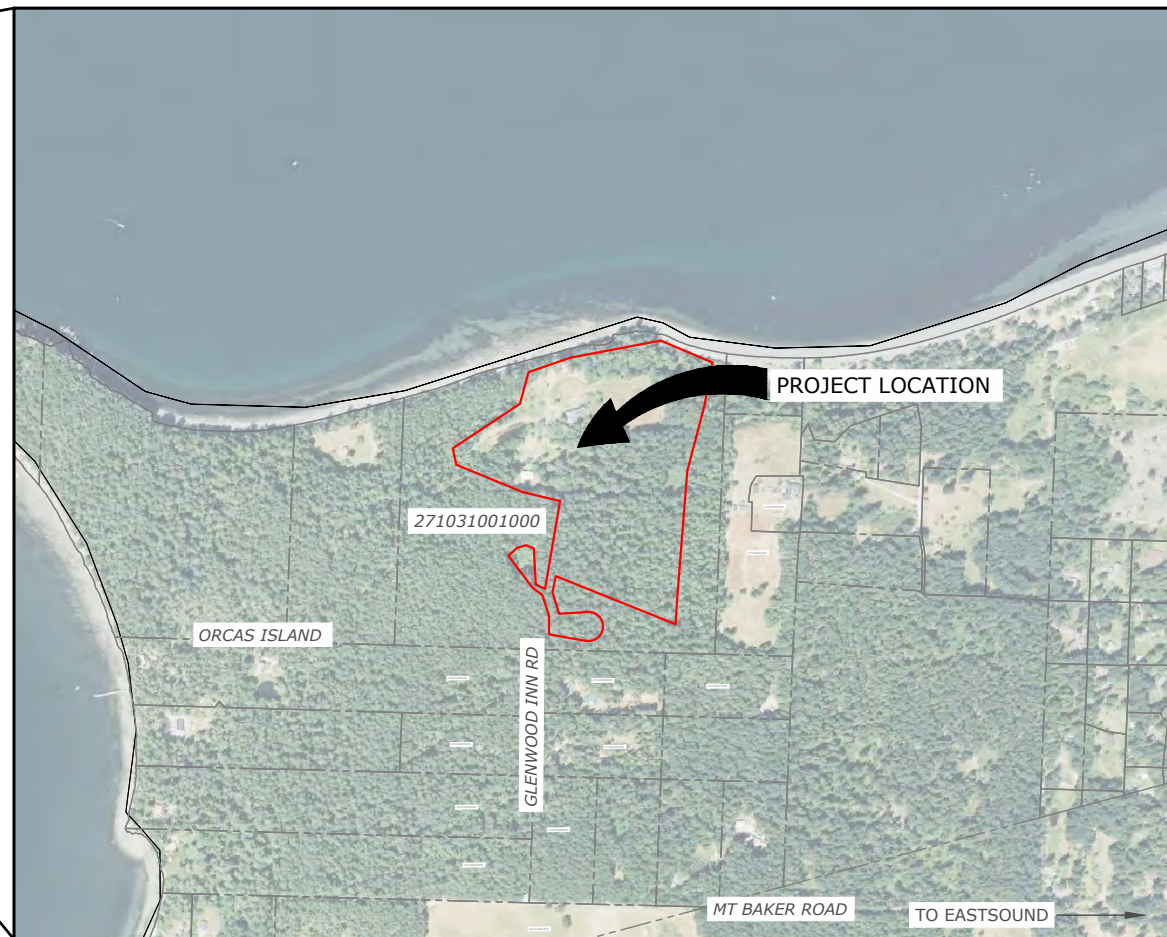
LAND BANK



Sheet List Table	
Sheet Number	Sheet Title
1	COVER
2	LEGEND
3	GENERAL NOTES
4	EXISTING CONDITIONS SITE PLAN
5	SITE ACCESS AND PREP PLAN
6	PROPOSED CONDITIONS - SITE PLAN OVERVIEW
7	PROPOSED CONDITIONS - WETLAND SITE PLAN
8	PROPOSED CONDITIONS - DRIVEWAY SITE PLAN
9	PROPOSED CONDITIONS - PARKING SITE PLAN
10	PROPOSED CONDITIONS - MAIN HOUSE SITE PLAN
11	DETAILS
12	RESTORATION PLANTING PLAN
13	PLANT SCHEDULES
R1	GENERALIZED NON-REINFORCED ROCKERY DETAIL



STATE OF WASHINGTON  
SCALE: 1" = 50 MILES



VICINITY MAP  
SCALE: 1" = 1 MILE



SAN JUAN COUNTY CONSERVATION LAND BANK  
NORTH SHORE PROPERTY RESTORATION PROJECT  
COVER  
FINAL DESIGN

DATE 02/28/2024  
COUNTY SAN JUAN COUNTY  
LATITUDE 48.709557°  
LONGITUDE -122.932852°  
TN/SC/RG 0/10/W  
DESIGN\_KP/AM DRAWN\_KP  
CHECK\_LZ CHECK\_AM

0 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.

SHEET  
1 OF 14

### CONTACT INFORMATION

LANDSCAPE ARCHITECT OR ENGINEER: NATURAL SYSTEMS DESIGN, INC

1900 N NORTHLAKE WAY, SUITE 211  
SEATTLE, WA 98103  
(206) 834-0175




CONTRACTING AGENCY: SAN JUAN COUNTY CONSERVATION LAND BANK

C/O PETER GUILLOZET | ORCAS PRESERVE STEWARD  
(360) 298-0052  
PETERG@SCLANDBANK.ORG














**EXISTING CONDITIONS**

-  PARCEL LINE
-  OPALCO UNDERGROUND POWER
-  GRAVEL ROAD
-  ORDINARY HIGH WATER MARK
-  SHORELINE MANAGEMENT AREA
-  DELINEATED WETLAND
-  ESTIMATED WETLAND
-  WETLAND BUFFER
-  EXISTING STRUCTURE
-  PARCEL NUMBER
-  EXISTING WATER SURFACE



**SITE ACCESS AND STAGING**

-  TEMPORARY ACCESS PATH
-  TEMPORARY STAGING AREA
-  REMOVAL AREA

**PROPOSED CONDITIONS**

-  QUARRY SPALLS BACKFILL
-  GRAVEL SURFACING
-  GRADE LIMIT
-  TEMPORARY FENCE
-  SPLIT RAIL FENCE
-  "STEEL-BACKED TIMBER GUARDRAIL TYPE B"
-  IMPROVED GRAVEL TRAIL
-  WOOD CHIP TRAIL
-  INFORMAL DIRT TRAIL
-  LOCATION OF RETAINING WALL
-  CURB STOP
-  PROPOSED WATER SURFACE
-  DIRECTION OF FLOW






**CROSS-SECTIONS AND PROFILES**

-  NATIVE FILL MATERIAL
-  CUT MATERIAL




CUT AND FILL QUANTITIES		
AREA	QTY (CY)	NET CUT/FILL
WETLAND/POND INCL. BERM	1340	CUT
BARN DRIVEWAY	60	FILL
MAIN HOUSE	900	FILL
LOWER PARKING INCL. BACKSLOPE	350	FILL
TOTAL	30	NET FILL

NOTE: NET CUT MAY BE USED AS FILL IN THE UPPER PARKING AREA, OR SPREAD IN THE STOCKPILE AREA INDICATED IN THE PLANS, AS APPROVED BY OWNER.

**RESTORATION PLANTING**

-  SHORE
-  WETLAND
-  BLUFF
-  SHRUB
-  FOREST

**DETAILS**

-  EXISTING NATIVE ALLUVIUM
-  BARK OR WOOD CHIP MULCH
-  SUBGRADE MATERIAL
-  GRAVEL TOP COURSE
-  GEOTEXTILE FABRIC

**GENERAL**

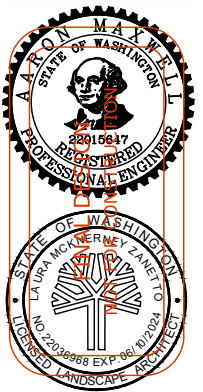
PL PL PROJECT LIMIT



Natural Systems Design  
+ Coastal Geologic Services



LAND BANK



SAN JUAN COUNTY CONSERVATION LAND BANK  
NORTH SHORE PROPERTY RESTORATION PROJECT

LEGEND  
FINAL DESIGN

DATE 02/28/2024  
COUNTY SAN JUAN COUNTY  
LATITUDE 48.709557°  
LONGITUDE -122.932852°  
TN/SC/RG 0/10/W  
DESIGN\_KP/AM DRAWN\_KP  
CHECK\_LZ CHECK\_AM

0 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.

SHEET  
2 OF 14

N:\PROJECTS\SANJUANCOUNTY\_CONSERVATION\LANDBANK\NORTHSHORE\DESIGN\CAD\COVER SHEET.DWG Laura 04/02/2024 11:46:24 AM

**GENERAL NOTES**

1. THESE PLANS HAVE BEEN PREPARED FOR THE EXCLUSIVE USE OF SAN JUAN COUNTY CONSERVATION LAND BANK AND THEIR AUTHORIZED AGENTS, HEREAFTER REFERRED TO AS "OWNER" AND "OWNER'S REPRESENTATIVE."
2. NATURAL SYSTEMS DESIGN IS RESPONSIBLE FOR THE PREPARATION OF THESE ORIGINAL PLANS AND WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGE, OR USE, OF THESE PLANS WHICH INCLUDES ALTERATION, DELETION, OR EDITING OF THIS DOCUMENT WITHOUT EXPLICIT WRITTEN PERMISSION. ANY OTHER UNAUTHORIZED USE OF THIS DOCUMENT IS PROHIBITED.
3. MINOR MODIFICATIONS ARE EXPECTED TO SUIT JOB SITE DIMENSIONS OR CONDITIONS. SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. THE OWNER AND APPROPRIATE REGULATORY AGENCIES SHALL BE NOTIFIED OF ANY OWNER-AUTHORIZED CHANGE RESULTING IN MORE THAN A 10% DESIGN CHANGE OF PROPOSED FOOTPRINT OR THAT SIGNIFICANTLY AFFECTS THE INTENDED BENEFIT OR FUNCTION OF A PROJECT ELEMENT.
4. THE LOCATION OF ALL FEATURES SHOWN IS APPROXIMATE. FINAL LOCATIONS SHALL BE FLAGGED BY THE OWNER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF THE OWNER. ALL REFERENCES TO "STANDARD SPECIFICATIONS" SHALL MEAN THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION, UNLESS OTHERWISE NOTED.

**PERMIT NOTES**

1. EVERY REASONABLE EFFORT SHALL BE MADE TO CONDUCT THE ACTIVITIES SHOWN IN THESE PLANS, IN A MANNER THAT MINIMIZES THE ADVERSE IMPACT ON WATER QUALITY, FISH AND WILDLIFE, AND THE NATURAL ENVIRONMENT.
2. ALL WORK WILL BE IN COMPLIANCE WITH PERMIT CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE COPIES OF ALL PERMITS ON THE JOB SITE, UNDERSTAND AND COMPLY WITH ALL PERMIT CONDITIONS.
3. IF AT ANY TIME, AS A RESULT OF PROJECT ACTIVITIES, ADVERSE IMPACT TO FISH OR WILDLIFE IS OBSERVED, OR WATER QUALITY PROBLEMS DEVELOP (INCLUDING EQUIPMENT LEAKS OR SPILLS), OPERATIONS SHALL CEASE AND THE OWNER SHALL BE NOTIFIED IMMEDIATELY.

**SURVEY NOTES**

1. ELEVATIONS SHOWN ON THE PLANS ARE BASED UPON THE TOPOGRAPHIC INFORMATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL NECESSARY ELEVATIONS IN THE FIELD AND NOTIFY THE OWNER OF ANY DISCREPANCIES, WHICH MIGHT AFFECT PROPER OPERATION OF THE NEW FACILITIES BEFORE BREAKING GROUND AND PRIOR TO FACILITY INSTALLATION.
2. LIDAR FOR THIS PROJECT WAS OBTAINED FROM WASHINGTON DEPARTMENT OF NATURAL RESOURCES, 2019 SAN JUAN COUNTY LIDAR ACQUISITION, SURVEYED ON 3/21/2019. ADDITIONAL TOPOGRAPHIC AND BATHYMETRIC INFORMATION AROUND THE POND WAS COLLECTED BY OWNER IN MAY 2023 AND INCORPORATED BY NSD INTO THE LIDAR DATA. VERTICAL DATUM IS NAVD88-FT. THE HORIZONTAL DATUM IS WASHINGTON STATE PLANE NORTH, NAD83 (US SURVEY FT).
3. UTILITIES WERE NOT SURVEYED. CONTRACTOR TO VERIFY IN THE FIELD.
4. PARCEL BOUNDARIES ARE FROM SAN JUAN COUNTY PARCEL GIS AND ARE NOT SURVEYED.
5. AERIAL IMAGERY WAS COLLECTED IN 2023 BY MICROSOFT CORPORATION. IMAGERY RETRIEVED FEBRUARY 2023.

**TEMPORARY EROSION, SEDIMENT CONTROL (TESC) NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY EROSION CONTROL MEASURES. THE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT.
2. A SEDIMENT AND EROSION CONTROL PLAN SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED FOR APPROVAL BY THE OWNER BEFORE ANY CONSTRUCTION MAY BEGIN. THE SEDIMENT AND EROSION CONTROL PLAN WILL IDENTIFY BEST MANAGEMENT PRACTICES TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
3. AT NO TIME SHALL SEDIMENT, SEDIMENT-LADEN WATER, PETROLEUM PRODUCTS, HYDRAULIC FLUID, CHEMICALS, OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS BE DISCHARGED OR PUMPED DIRECTLY INTO ANY BODY OF WATER, INCLUDING WETLANDS. WATER SHALL BE DISCHARGED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE PROJECT PERMITS.
4. ALL EXTERNAL GREASE AND OIL SHALL BE PRESSURE-WASHED OFF EQUIPMENT PRIOR TO MOBILIZATION TO THE SITE. ALL EQUIPMENT OPERATING WITHIN ANY BODY OF WATER, INCLUDING WETLANDS, SHALL UTILIZE READILY BIODEGRADABLE VEGETABLE-BASED HYDRAULIC FLUIDS.
5. NO TREES OR WETLAND VEGETATION SHALL BE REMOVED UNLESS THEY ARE NOTED TO BE REMOVED ON THE PLANS OR AS DIRECTLY SPECIFIED ON-SITE BY THE OWNER. ALL TREES CONFLICTING WITH GRADING SHALL BE REMOVED. NO GRADING SHALL TAKE PLACE WITHIN THE DRIP LINE OF TREES NOT TO BE REMOVED UNLESS OTHERWISE APPROVED.
6. MATERIAL SHALL NOT BE STORED OUTSIDE OF IDENTIFIED STAGING AREAS. THE CONTRACTOR SHALL USE ONLY DESIGNATED SITES FOR STORAGE OF EQUIPMENT AND MATERIALS AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS.

**CONSTRUCTION NOTES**

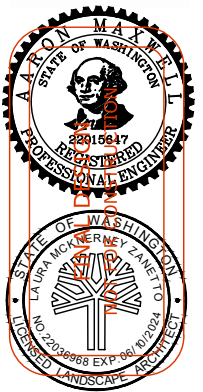
1. CONSTRUCTION HOURS SHALL BE WEEKDAYS BETWEEN 7:00 A.M. AND 6:30 P.M. UNLESS PRIOR APPROVAL IS RECEIVED FROM THE OWNER.
2. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER PRIOR TO PROCEEDING WITH THE WORK.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE OWNER IS RESPONSIBLE FOR FLAGGING THE LOCATIONS OF TREE AND WETLAND PROTECTION AREAS, CONSTRUCTION ACCESS ROUTES AND STAGING AREAS, AND GRAVEL AND SITE DEBRIS REMOVAL AREAS.
4. THE OWNER IS RESPONSIBLE FOR ANY WORK "BY OTHERS" AND WILL COORDINATE WITH THE CONTRACTOR TO MINIMIZE DISRUPTIONS IN WORK SCHEDULE AND SEQUENCING.
5. THE OWNER IS RESPONSIBLE FOR THE IDENTIFICATION OF SUITABLE NATIVE CUT MATERIAL TO BE REPURPOSED ON SITE AS FILL MATERIAL, AS SHOWN IN THESE PLANS.
6. THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, ROADWAY, DRAINAGE WAYS, PRIVATE BRIDGE, CULVERTS, AND VEGETATION UNTIL SUCH ITEMS ARE TO BE DISTURBED OR REMOVED AS INDICATED IN THESE PLANS.
7. THE CONTRACTOR SHALL KEEP THE JOB SITE CLEAN AND HAZARD FREE. CONTRACTOR SHALL DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH FOR THE DURATION OF THE WORK. UPON COMPLETION OF WORK, CONTRACTOR SHALL REMOVE ALL MATERIAL AND EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY.
8. THE PLANS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF ALL CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURES, WORKS, AND THE PUBLIC DURING CONSTRUCTION.
9. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON THE JOB SHOWING "AS-CONSTRUCTED" CHANGES MADE TO DATE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUPPLY TO OWNER A SET OF PLANS, MARKED UP TO THE SATISFACTION OF THE OWNER, REFLECTING THE AS-CONSTRUCTED MODIFICATIONS.



Natural Systems Design + Coastal Geologic Services



LAND BANK



SAN JUAN COUNTY CONSERVATION LAND BANK

NORTH SHORE PROPERTY RESTORATION PROJECT

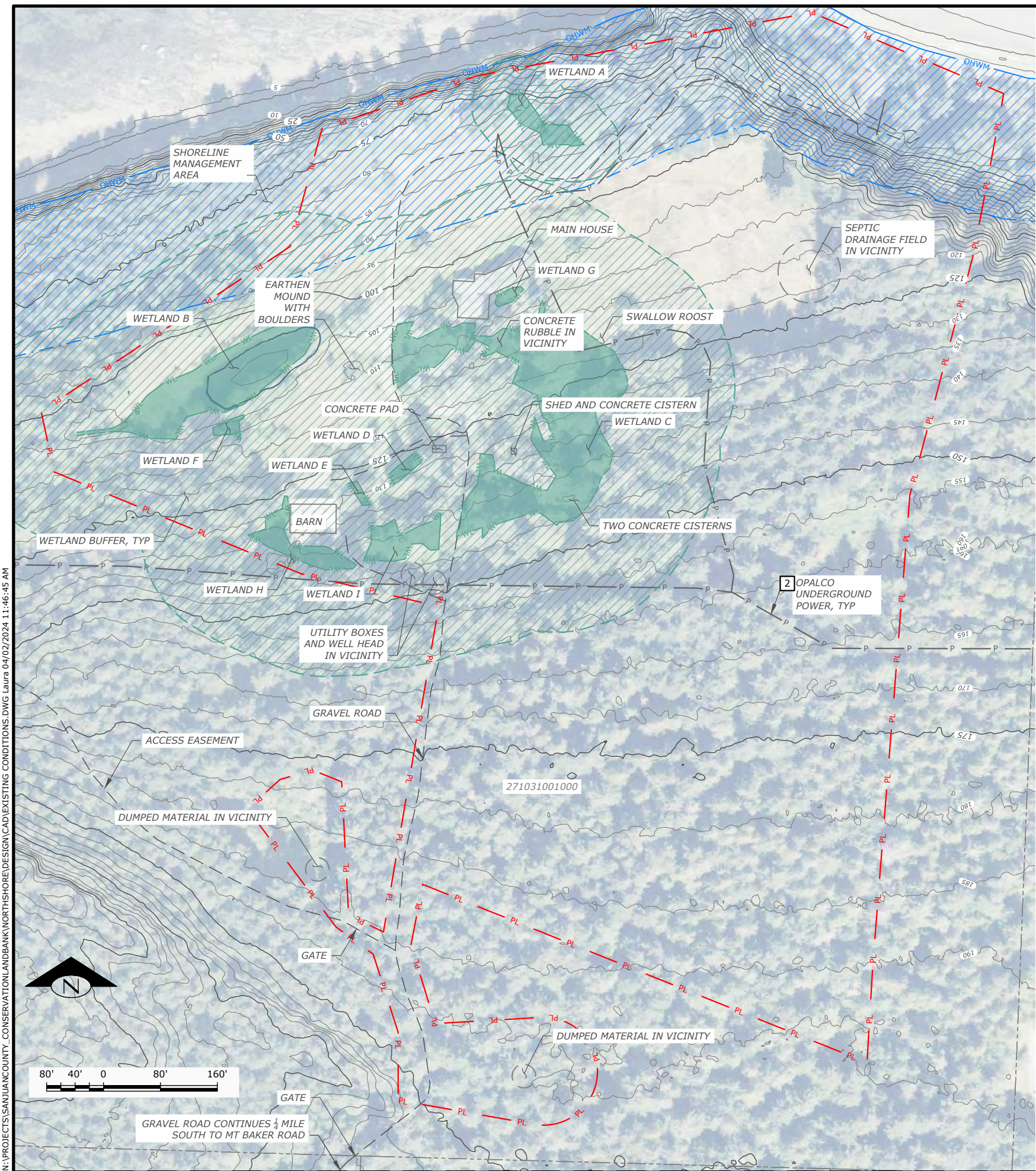
GENERAL NOTES

FINAL DESIGN

DATE 02/28/2024  
 COUNTY SAN JUAN COUNTY  
 LATITUDE 48.709557°  
 LONGITUDE -122.932852°  
 TN/SC/RG 0/10/W  
 DESIGN\_KP/AM DRAWN\_KP  
 CHECK\_LZ CHECK\_AM



IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.



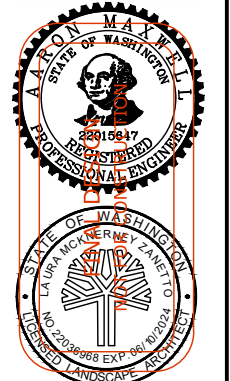
N:\PROJECTS\SANJUAN\COUNTY CONSERVATION\LANDBANK\NORTHSHORE\DESIGN\CAD\EXISTING CONDITIONS.DWG Laura 04/02/2024 11:46:45 AM

**NOTES**

1. THE LOCATIONS OF EXISTING STRUCTURES, UTILITIES, AND SITE INFRASTRUCTURE ARE APPROXIMATE.
2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATIONS AND MAINTAINING EASEMENT ACCESS AS NECESSARY.
3. THERE ARE NO FIRE HYDRANTS OR STORM WATER FACILITIES ON-SITE NOR ON NEIGHBORING PROPERTIES.
4. WETLAND C CONTINUES EAST BEYOND ESTIMATED EDGE. WETLAND B CONTINUES WEST BEYOND ESTIMATED EDGE.

**EASEMENT NUMBERS AND DESCRIPTIONS**

1. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:  
 PURPOSE: RIGHT OF WAY FOR ROAD PURPOSES  
 RECORDING NO.: 35177  
 AFFECTS: PORTION OF GOVERNMENT LOT 2
2. EXCEPTIONS AND RESERVATIONS CONTAINED IN DEED WHEREBY THE GRANTOR EXCEPTS AND RESERVES ALL OIL, GASES, COAL, ORES, MINERALS, FOSSILS, ETC., AND THE RIGHT OF ENTRY FOR OPENING, DEVELOPING AND WORKING THE SAME AND PROVIDING THAT SUCH RIGHTS SHALL NOT BE EXERCISED UNTIL PROVISION HAS BEEN MADE FOR FULL PAYMENT OF ALL DAMAGES SUSTAINED BY REASON OF SUCH ENTRY; RIGHT OF THE STATE OF WASHINGTON OR ITS SUCCESSORS, SUBJECT TO PAYMENT OF COMPENSATION, TO ACQUIRE RIGHTS OF WAY FOR PRIVATE RAILROADS, SKID ROADS, FLUMES, CANALS, WATER COURSES OR OTHER EASEMENTS FOR TRANSPORTING AND MOVING TIMBER, STONE, MINERALS AND OTHER PRODUCTS FROM THIS AND OTHER LAND, AS RESERVED IN ABOVE-REFERENCED DEED. GRANTOR: STATE OF WASHINGTON  
 RECORDING NO.: 26135  
 AFFECTS: TIDELANDS OF THE SECOND CLASS
3. AS TO ANY PORTION OF SAID LAND NOW, FORMERLY OR IN THE FUTURE COVERED BY WATER: QUESTIONS OR ADVERSE CLAIMS RELATED TO (1) LATERAL BOUNDARIES OF ANY TIDELANDS OR SHORELANDS; (2) SHIFTING IN COURSE, BOUNDARY OR LOCATION OF THE BODY OF WATER; (3) RIGHTS OF THE STATE OF WASHINGTON IF THE BODY OF WATER IS OR WAS NAVIGABLE; AND (4) PUBLIC REGULATORY AND RECREATIONAL RIGHTS (INCLUDING POWERS OF THE USA) OR PRIVATE RIPARIAN RIGHTS WHICH LIMIT OR PROHIBIT USE OF THE LAND OR WATER.
4. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:  
 GRANTED TO: ORCAS POWER AND LIGHT COMPANY  
 PURPOSE: ELECTRIC TRANSMISSION AND/OR DISTRIBUTION LINE, TOGETHER WITH NECESSARY APPURTENANCES  
 RECORDING DATE: MARCH 17, 1972  
 RECORDING NO: 78162
5. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:  
 PURPOSE: ROADWAY  
 RECORDING DATE: NOVEMBER 30, 1993  
 RECORDING NO.: 93191356
6. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:  
 GRANTED TO: ORCAS POWER AND LIGHT COMPANY (OPALCO)  
 PURPOSE: ELECTRIC TRANSMISSION AND/OR DISTRIBUTION LINE, TOGETHER WITH NECESSARY APPURTENANCES  
 RECORDING DATE: DECEMBER 19, 1994  
 RECORDING NO: 94121916  
 AFFECTS: SAID PREMISES, THE EXACT LOCATION AND EXTENT OF SAID EASEMENT IS UNDISCLOSED OF RECORD

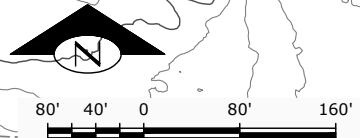
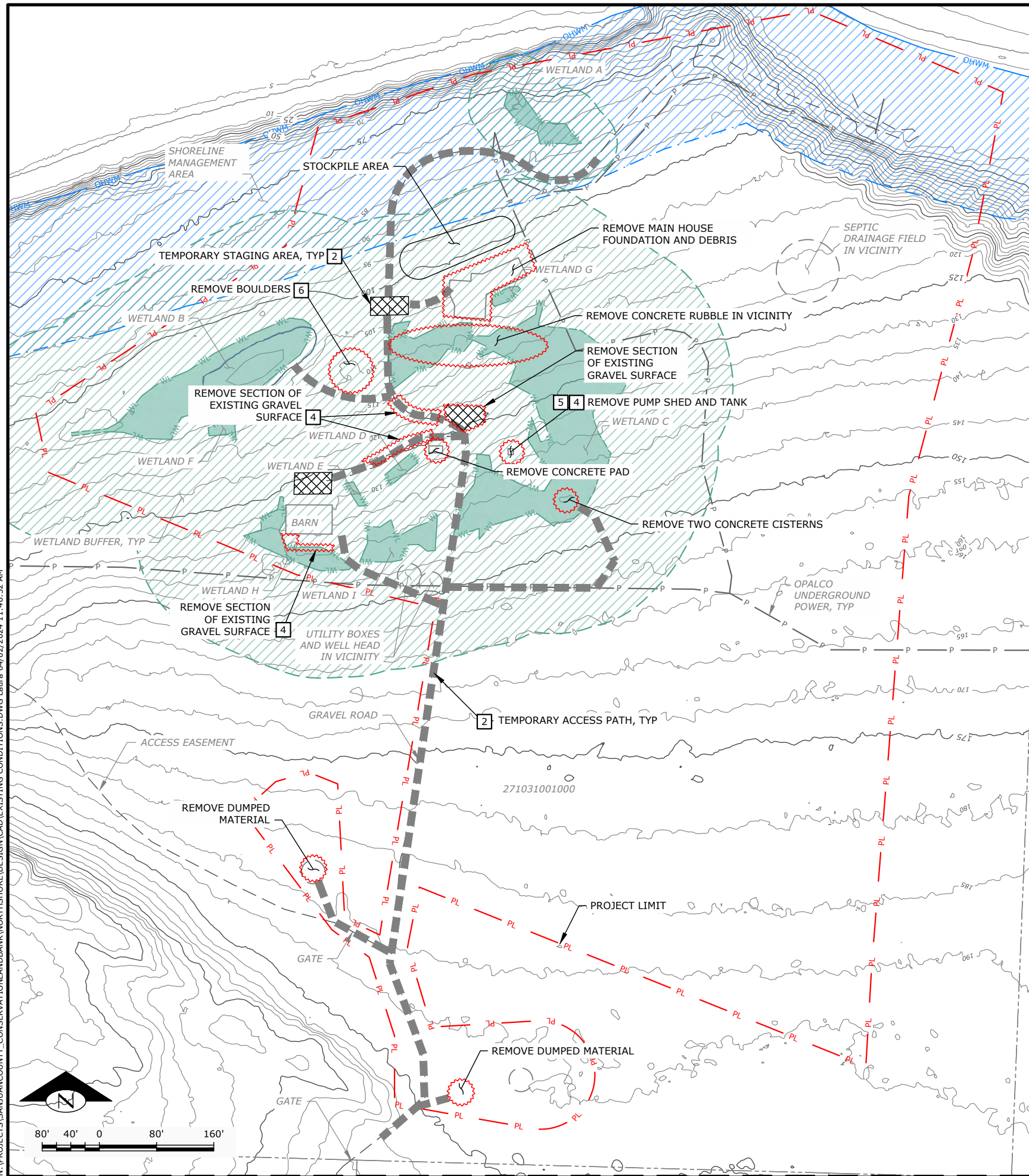


SAN JUAN COUNTY CONSERVATION LAND BANK  
 NORTH SHORE PROPERTY RESTORATION PROJECT  
 EXISTING CONDITIONS SITE PLAN  
 FINAL DESIGN

DATE	02/28/2024
COUNTY	SAN JUAN COUNTY
LATITUDE	48.709557°
LONGITUDE	-122.932852°
TN/SC/RG	0/10/W
DESIGN_KP/AM	DRAWN_KP
CHECK_LZ	CHECK_AM

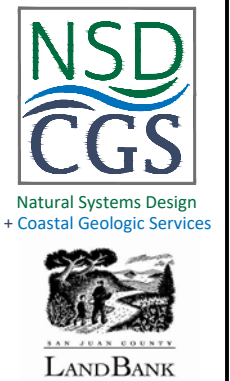
0 1  
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.

N:\PROJECTS\SANJUANCOUNTY\_CONSERVATION\LANDBANK\NORTHSHORE\DESIGN\CAD\EXISTING CONDITIONS.DWG Laura 04/02/2024 11:46:52 AM



### NOTES

1. LIMITED UTILITY INFORMATION IS SHOWN. CONTRACTOR IS RESPONSIBLE FOR LOCATING UTILITIES PRIOR TO CONSTRUCTION.
2. ACCESS AND STAGING AREAS SHALL BE FLAGGED BY OWNER'S REPRESENTATIVE.
3. ALL REMOVAL AREAS SHALL BE FLAGGED AND DIRECTED BY OWNER'S REPRESENTATIVE.
4. REMOVE EXISTING GRAVEL SURFACE AND STOCKPILE MATERIAL ON SITE FOR REUSE PER SPECIFICATION 3-02 "STOCKPILING AGGREGATES". OWNER'S REPRESENTATIVE SHALL FLAG EXTENTS OF GRAVEL TO BE REMOVED. STOCKPILE MATERIAL IN STAGING AREAS OR THE STOCKPILE AREA INDICATED. FOLLOWING GRAVEL REMOVAL DECOMPACT SUBGRADE IN PREPARATION FOR PLANTING PER SPECIFICATION 8-02.3(5)C "PLANTING AREA PREPARATION".
5. USE AS TEMPORARY STAGING AREA TO BE SEQUENCED WITH GRAVEL REMOVAL AND PARKING AREA INSTALLATION.
6. REMOVE EXISTING BOULDERS FROM THE EARTHEN MOUND AND STOCKPILE ON SITE FOR REUSE.
7. ALL MATERIAL REMOVED AND NOT STOCKPILED FOR REUSE SHALL BE HAULED AND DISPOSED OF AT AN APPROPRIATE OFF-SITE FACILITY.

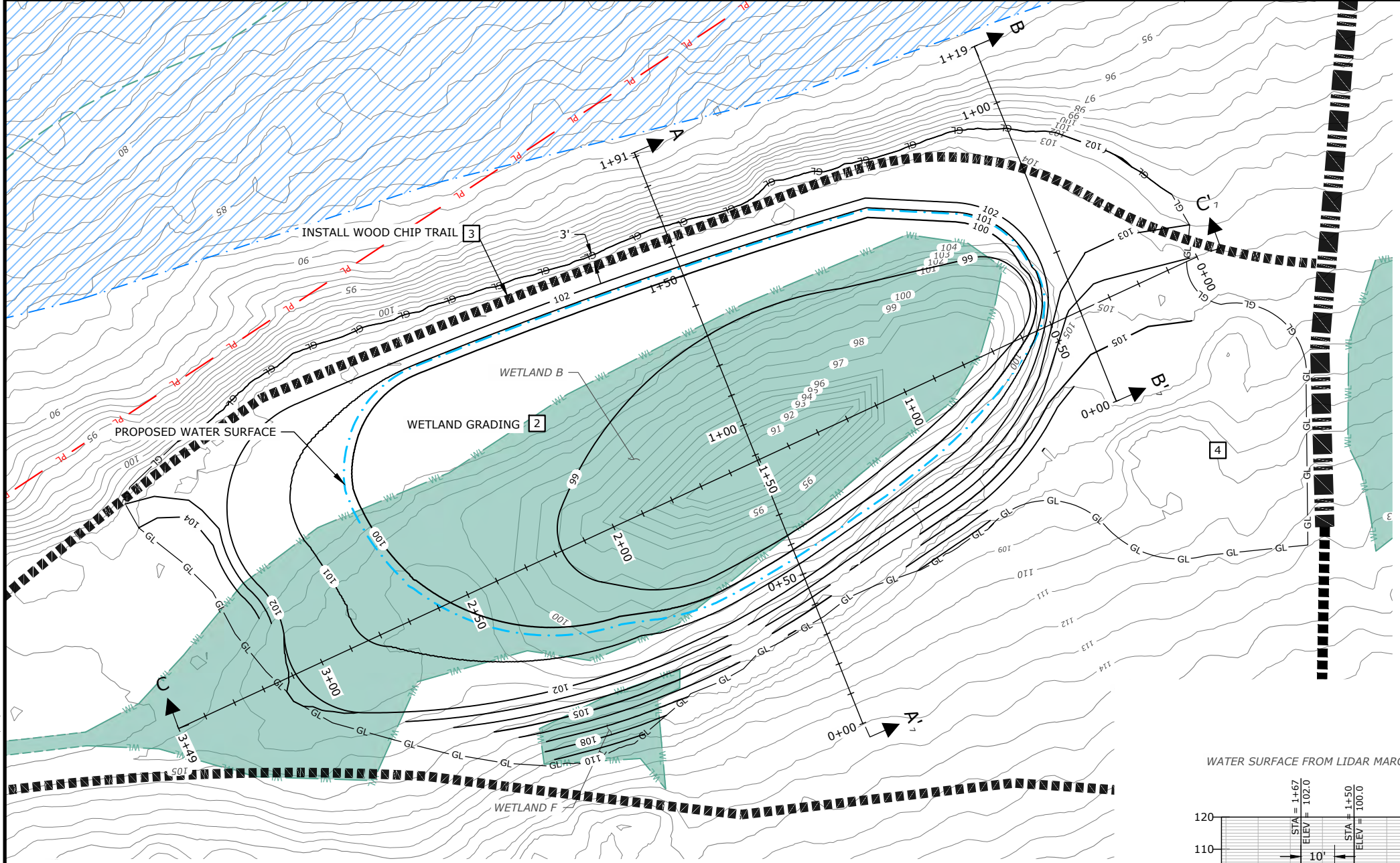


SAN JUAN COUNTY CONSERVATION LAND BANK  
NORTH SHORE PROPERTY RESTORATION PROJECT  
**SITE ACCESS AND PREP PLAN**  
FINAL DESIGN

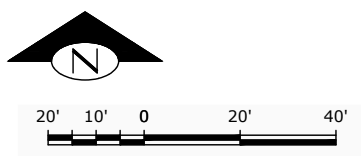
DATE	02/28/2024
COUNTY	SAN JUAN COUNTY
LATITUDE	48.709557°
LONGITUDE	-122.932852°
TN/SC/RG	0/10/W
DESIGN_KP/AM	DRAWN_KP
CHECK_L7	CHECK_AM

0 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.

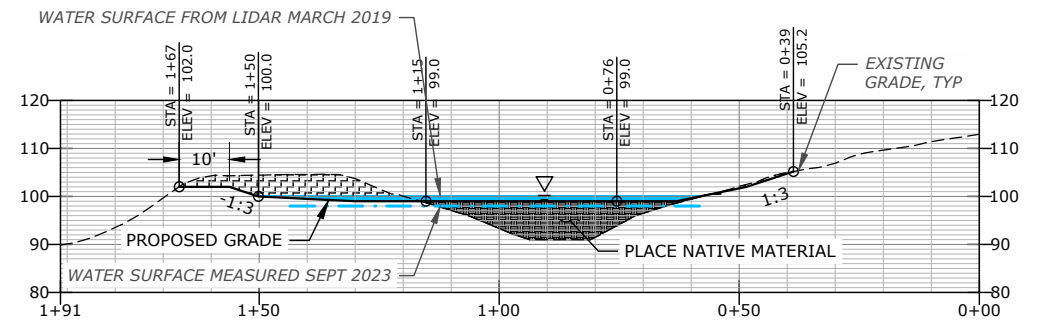




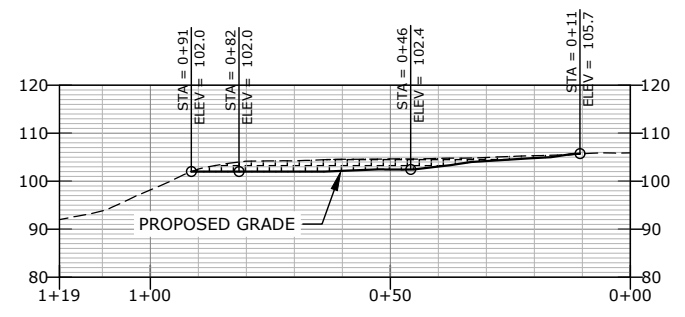
**PROPOSED CONDITIONS - WETLAND SITE PLAN**  
SCALE: 1" = 20'



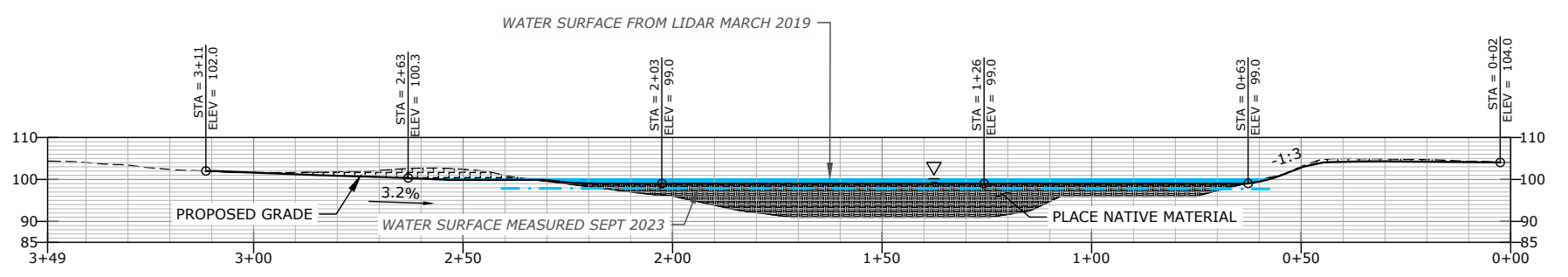
- NOTES**
1. POND BATHYMETRY HAS BEEN ESTIMATED BASED ON DATA PROVIDED BY THE OWNER. EXISTING WATER SURFACE ELEVATION HAS BEEN ESTIMATED BASED ON MARCH 21, 2019 LIDAR, AND DATA PROVIDED BY THE OWNER. POND WATER SURFACE EXTENT MAY DIFFER AT THE TIME OF CONSTRUCTION.
  2. GRADE WETLAND TO THE CONTOURS SHOWN ON THE PLANS. ADD VARIATION TO POND BOTTOM +/- 6" FROM PROPOSED GRADE TO FORM MICROTOPOGRAPHY. SEE SHEET 6 FOR STOCKPILE NOTES. WORK TO BE DIRECTED BY OWNER'S REPRESENTATIVE.
  3. INSTALL WOOD CHIP TRAIL PER DETAIL 2 SHEET 11. TRAIL ALIGNMENT SHALL BE FLAGGED BY OWNER'S REPRESENTATIVE AND SHALL BE SET BACK MINIMUM 3-FT FROM SLOPE.
  4. GRADING EXTENTS GENERALIZED. REGRADE TO A NATURAL FORM AND SLOPE AS DIRECTED BY OWNER'S REPRESENTATIVE.



**CROSS-SECTION A-A'**  
SCALE: 1" = 20'



**CROSS-SECTION B-B'**  
SCALE: 1" = 20'



**CROSS-SECTION C-C'**  
SCALE: 1" = 20'



Natural Systems Design  
+ Coastal Geologic Services



LAND BANK

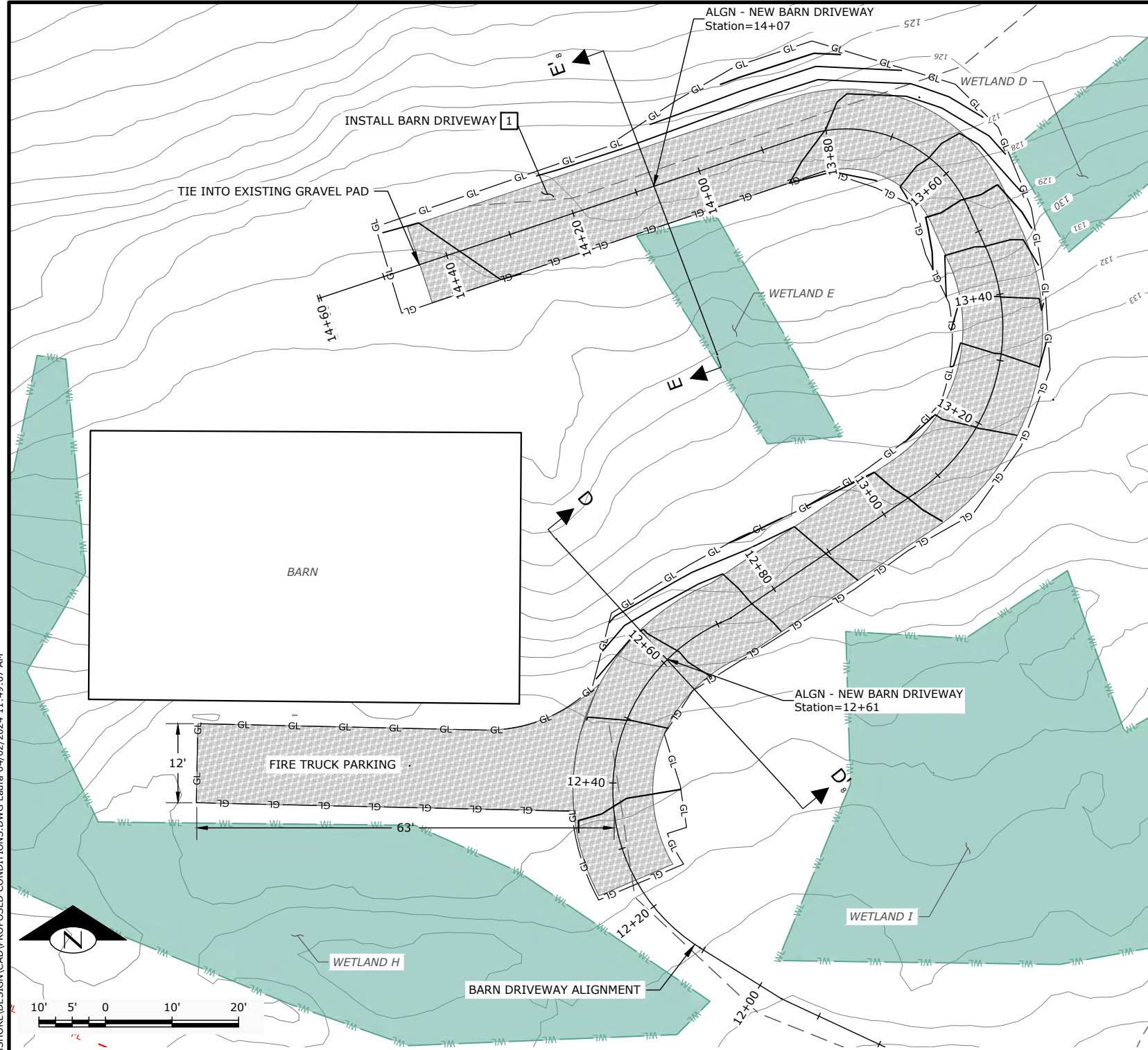


SAN JUAN COUNTY CONSERVATION LAND BANK  
NORTH SHORE PROPERTY RESTORATION PROJECT  
**PROPOSED CONDITIONS - WETLAND SITE PLAN**  
FINAL DESIGN

DATE	02/28/2024
COUNTY	SAN JUAN COUNTY
LATITUDE	48.709557°
LONGITUDE	-122.932852°
TN/SC/RG	0/10/W
DESIGN_KP/AM	DRAWN_KP
CHECK_LZ	CHECK_AM

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.

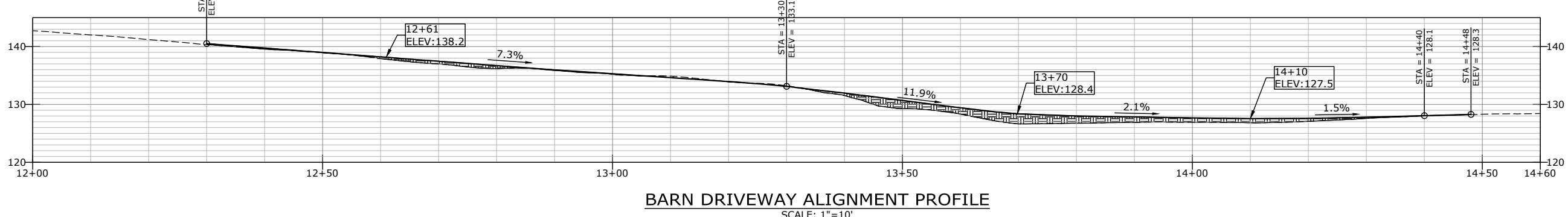
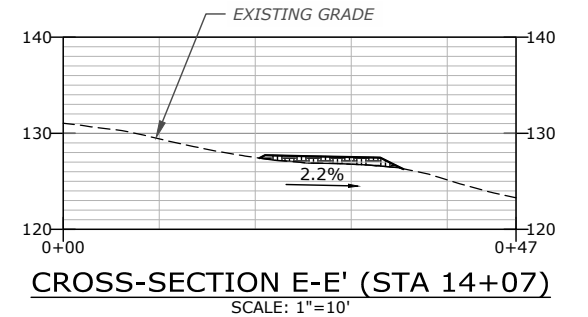
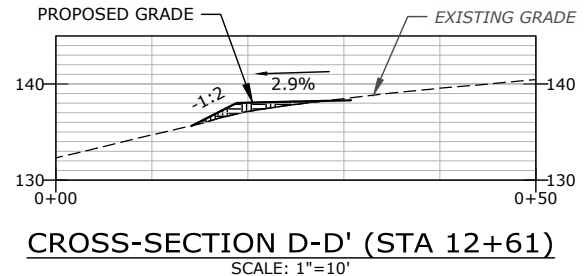
N:\PROJECTS\SANJUANCOUNTY\_CONSERVATION\LANDBANK\NORTHSHORE\DESIGN\CAD\PROPOSED CONDITIONS.DWG Laura 04/02/2024 11:48:03 AM



**PROPOSED CONDITIONS - BARN DRIVEWAY**  
SCALE: AS NOTED

**NOTES**

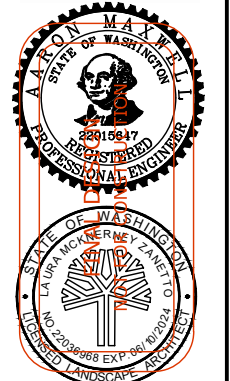
1. GRADE NEW 12-FT DRIVE TO THE CONTOURS SHOWN IN THE PLANS AND INSTALL GRAVEL SURFACE PER DETAIL 1 SHEET 11.
2. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY EROSION CONTROL MEASURES, SEE SHEET 3.



Natural Systems Design  
+ Coastal Geologic Services



LAND BANK



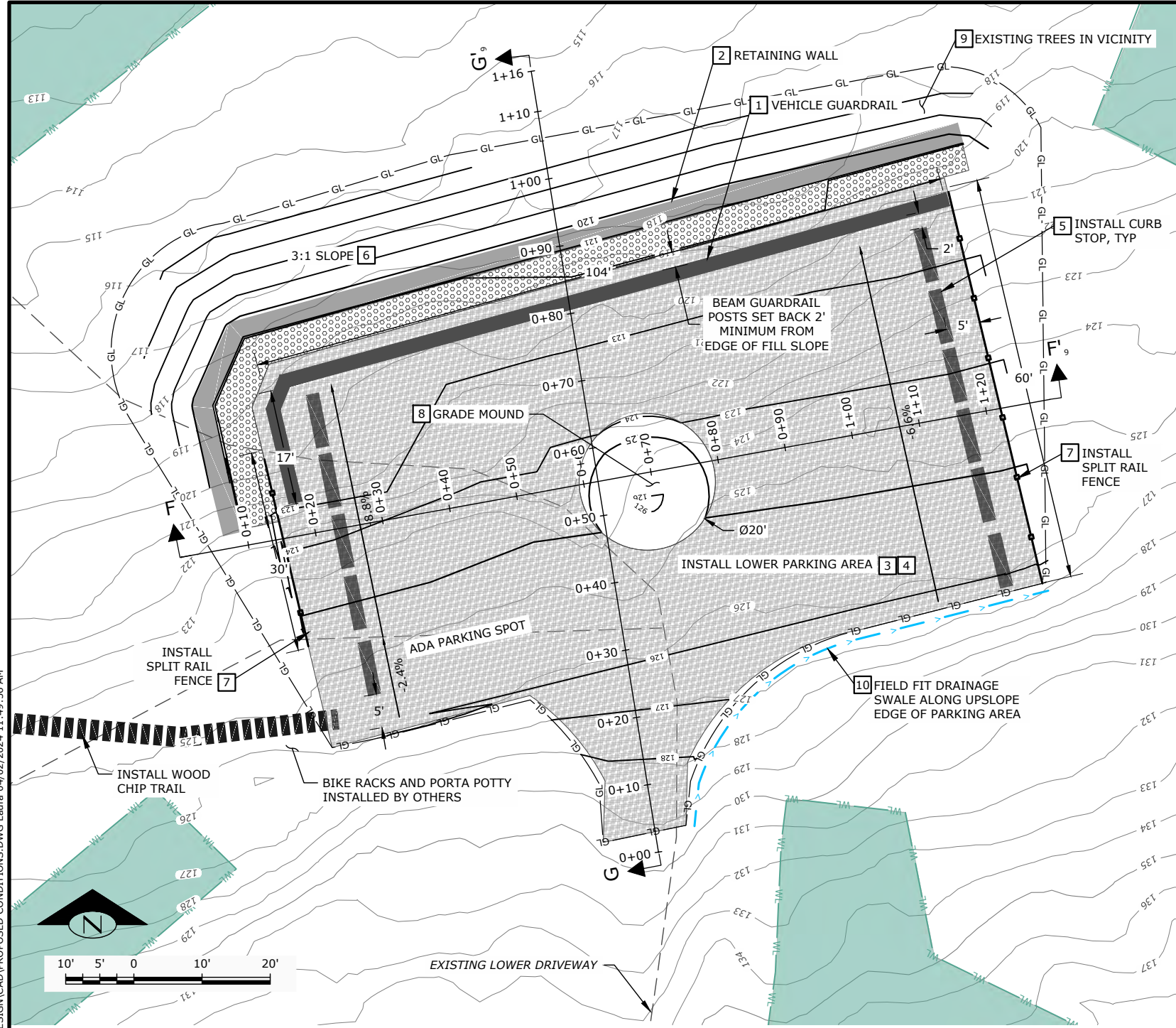
SAN JUAN COUNTY CONSERVATION LAND BANK  
NORTH SHORE PROPERTY RESTORATION PROJECT  
**PROPOSED CONDITIONS - DRIVEWAY SITE PLAN**  
FINAL DESIGN

DATE	02/28/2024
COUNTY	SAN JUAN COUNTY
LATITUDE	48.709557°
LONGITUDE	-122.932852°
TN/SC/RG	0/10/W
DESIGN	KP/AM
DRAWN	KP
CHECK	LZ
CHECK	AM

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.

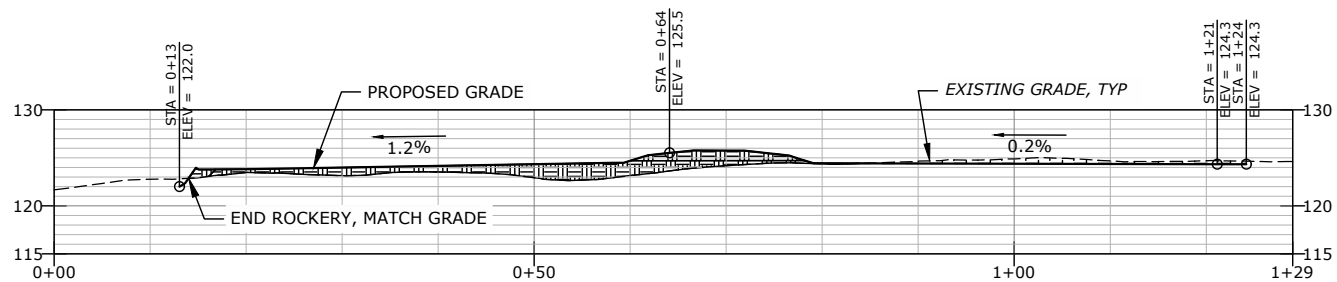
N:\PROJECTS\SANJUANCOUNTY\_CONSERVATIONLANDBANK\NORTHSHORE\DESIGN\CAD\PROPOSED CONDITIONS.DWG Laura 04/02/2024 11:49:07 AM





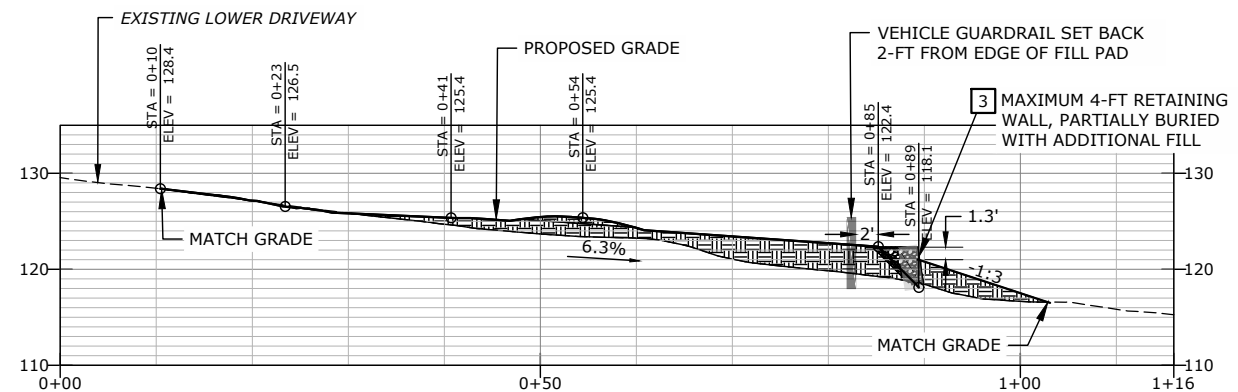
**PROPOSED CONDITIONS - LOWER PARKING SITE PLAN**

SCALE: AS NOTED



**CROSS-SECTION F-F'**

SCALE: 1"=10'



**CROSS-SECTION G-G'**

SCALE: 1"=10'

**NOTES**

- 1 INSTALL BEAM GUARDRAIL TYPE 31 PER SPECIFICATION 8-11.
- 2 INSTALL RETAINING WALL IN THE LOCATION INDICATED PER DETAIL SHEET R1.
- 3 GRADE LOWER PARKING AREA USING SUITABLE NATIVE FILL MATERIAL (APPROX. 300 CY) SALVAGED FROM OTHER GRADING ACTIVITIES ON-SITE. FILL SHALL BE CONSTRUCTED PER SPECIFICATION 2-03.3(14)B AND COMPACTED PER SPECIFICATION 2-03.3(14)C.
- 4 INSTALL GRAVEL SURFACE PER DETAIL 1 SHEET 11.
- 5 CURB STOPS SHALL BE INSTALLED PER DETAIL 3 SHEET 11 IN THE LOCATIONS INDICATED FOR 90 DEGREE PARKING STALLS (9'x18' DIMENSIONS).
- 6 GRADE 3:1 SLOPE EXTENDING FROM FACE OF RETAINING WALL TO EXISTING GRADE.
- 7 INSTALL SPLIT RAIL FENCE PER DETAIL 4 SHEET 11.
- 8 GRADE MOUND AT CENTER OF PARKING AREA TO FACILITATE VEHICULAR TURNAROUND. NO GRAVEL SURFACING PLACEMENT. MOUND PLANTING BY OWNER.
- 9 TWO EXISTING TREES IN VICINITY OF RETAINING WALL BACKFILL. SALVAGE TREES WITH ROOTWAD INTACT PRIOR TO COMPLETING GRADING ACTIVITIES. TREES SHALL BE PLACED WITHIN ADJACENT WETLAND AS DIRECTED BY OWNER. OWNER SHALL FLAG TREES FOR SALVAGE.
- 10 DRAINAGE SWALE SIZE AND LOCATION SHALL BE FILED FIT, AS DIRECTED BY OWNER.



Natural Systems Design  
+ Coastal Geologic Services



LANDBANK



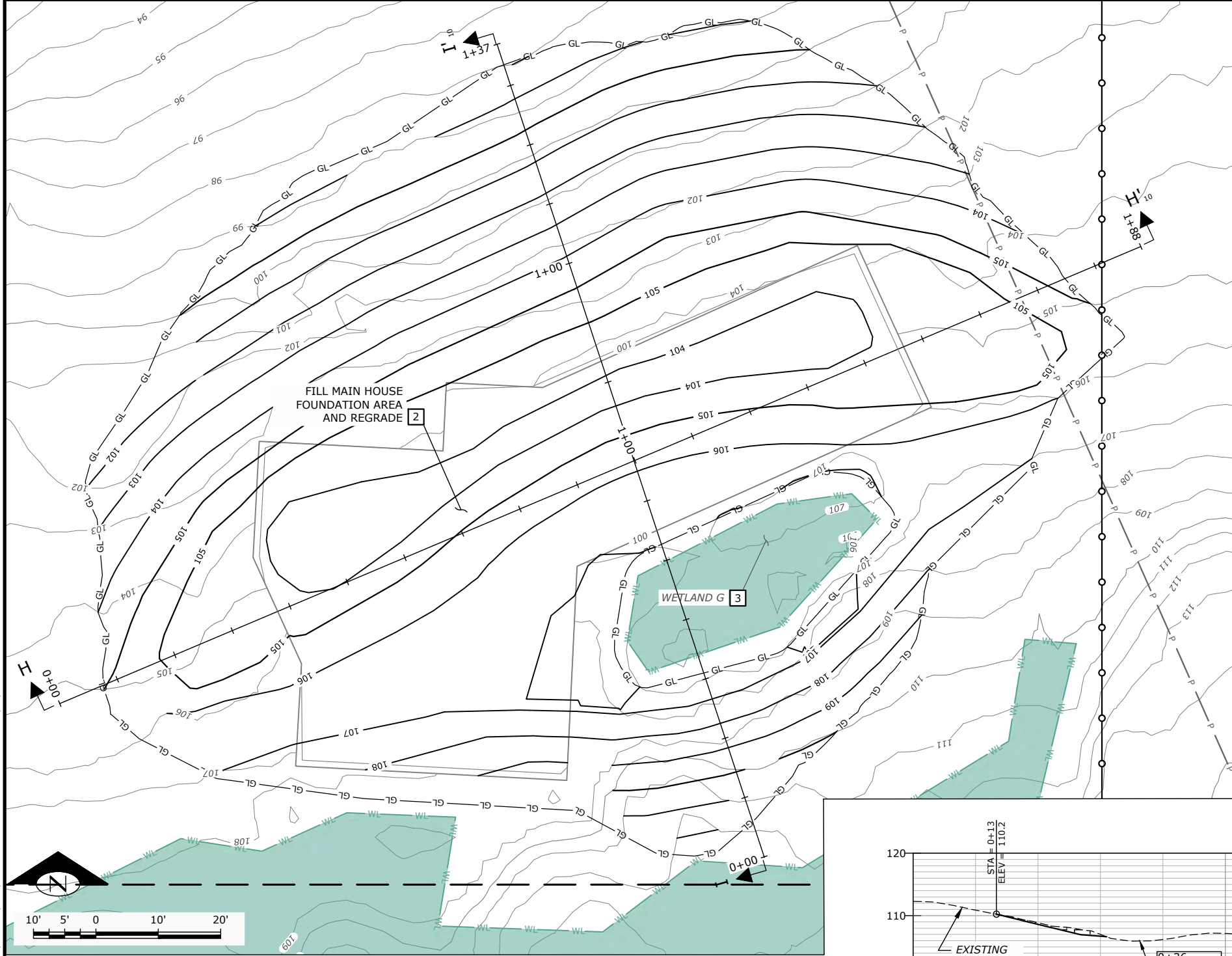
SAN JUAN COUNTY CONSERVATION LAND BANK  
NORTH SHORE PROPERTY RESTORATION PROJECT  
**PROPOSED CONDITIONS - PARKING SITE PLAN**  
FINAL DESIGN

DATE 02/28/2024  
COUNTY SAN JUAN COUNTY  
LATITUDE 48.709557°  
LONGITUDE -122.932852°  
TN/SC/RG 0/10/W  
DESIGN\_KP/AM DRAWN\_KP  
CHECK\_LZ CHECK\_AM

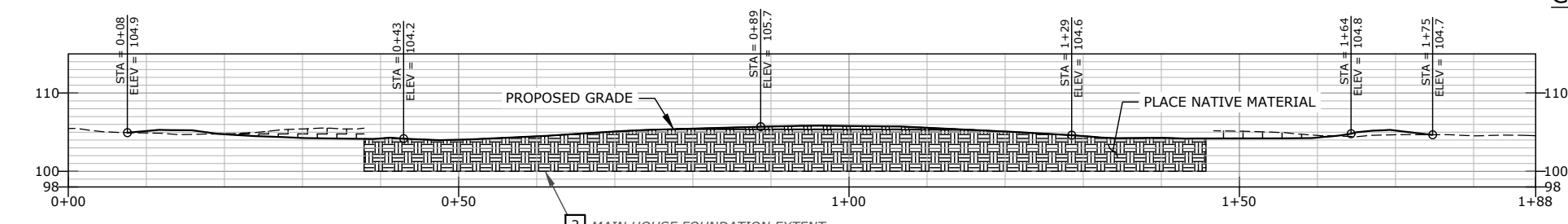
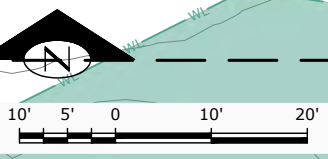
0 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.

SHEET  
9 OF 14

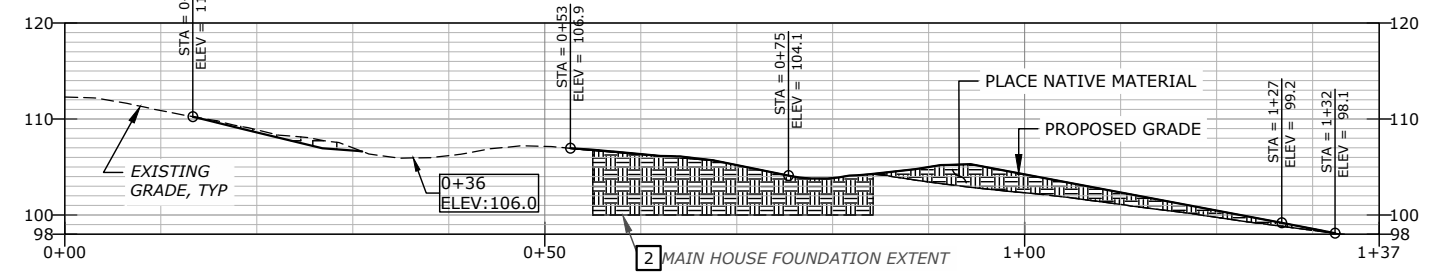
N:\PROJECTS\SANJUANCOUNTY\_CONSERVATION\LANDBANK\NORTHSHORE\DESIGN\CAD\PROPOSED CONDITIONS.DWG Laura 04/02/2024 11:50:43 AM



**PROPOSED CONDITIONS - MAIN HOUSE SITE PLAN**  
SCALE: 1" = 10'

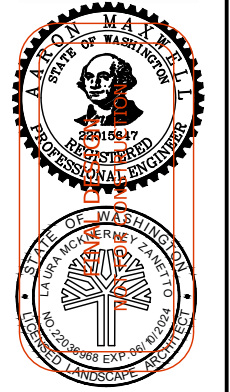
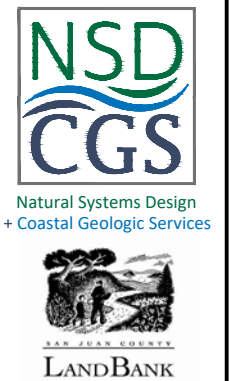


**CROSS-SECTION H-H'**  
SCALE: 1" = 20'



**CROSS-SECTION I-I'**  
SCALE: 1" = 20'

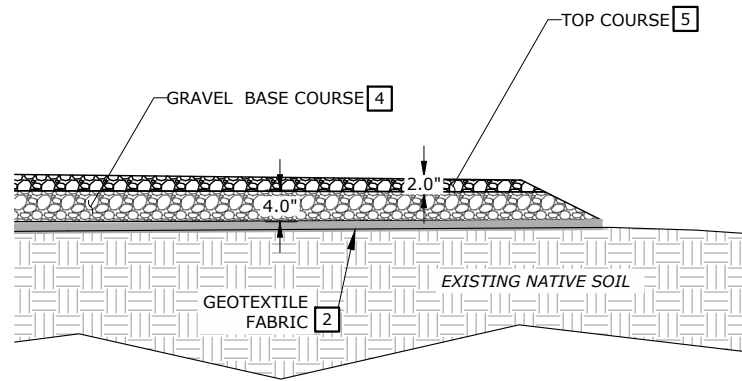
- NOTES**
1. THE EXTENT AND DEPTH AND MATERIAL OF THE MAIN HOUSE FOUNDATION IS UNKNOWN AND HAS BEEN APPROXIMATED.
  2. BACKFILL FOUNDATION AREA AND GRADE TO THE CONTOURS SHOWN AS DIRECTED BY OWNER'S REPRESENTATIVE.
  3. NO GRADING SHALL OCCUR WITHIN WETLAND G.



SAN JUAN COUNTY CONSERVATION LAND BANK  
NORTH SHORE PROPERTY RESTORATION PROJECT  
**PROPOSED CONDITIONS - MAIN HOUSE**  
SITE PLAN  
FINAL DESIGN

DATE 02/28/2024  
COUNTY SAN JUAN COUNTY  
LATITUDE 48.709557°  
LONGITUDE -122.932852°  
TN/SC/RG 0/10/W  
DESIGN\_KP/AM DRAWN\_KP  
CHECK\_LZ CHECK\_AM

0 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.



**NOTES**

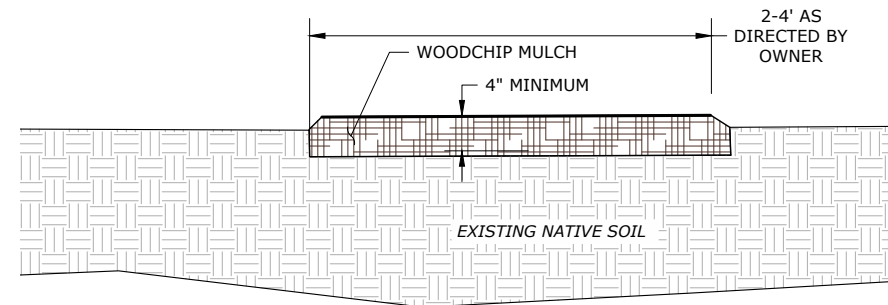
1. PREPARE THE SUBGRADE FOR SURFACING PER SPECIFICATION 2-06 "SUBGRADE PREPARATION".
2. PLACE GEOTEXTILE FABRIC FOR SEPARATION.
3. ESTABLISH DESIGN CROSS-SLOPE OF 2% IN SUBGRADE MATERIALS.
4. PLACE 4" GRAVEL BASE PER SPECIFICATION 4-02 "GRAVEL BASE". PLACE MATERIAL IN 2" LIFTS AND COMPACT TO OWNER'S APPROVAL. MATERIAL SHALL COMPLY WITH SPECIFICATION 9-03.10.
5. PLACE FINAL 2", 3/8" CRUSHED MINUS GRAVEL SURFACING TOP COURSE MATERIAL AND COMPACT TO OWNER'S APPROVAL. COMPACT AND TAPER EDGES.

**GRAVEL SURFACE DETAIL**

SCALE: 1"=1'

1

11



**NOTES**

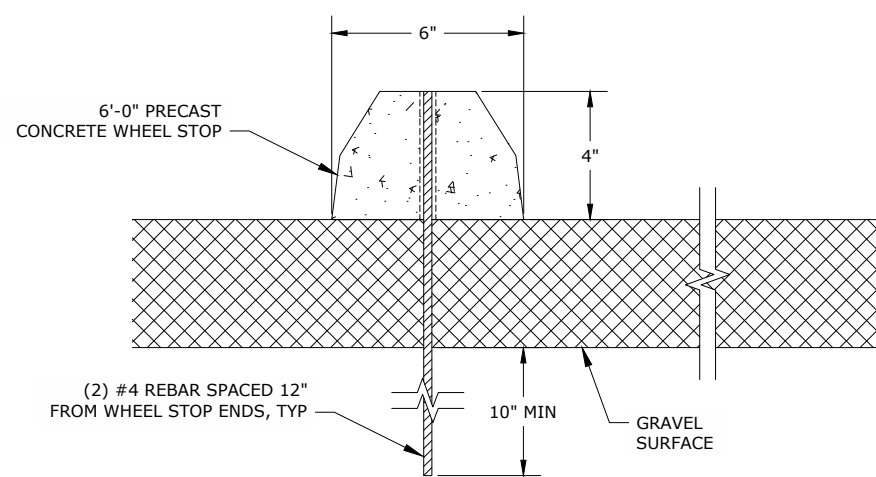
1. WITHIN THE TRAIL CORRIDOR, CLEAR AND GRUB VEGETATION AND COMPACT SOILS.
2. FINISH GRADE OF PATH WILL BE FLUSH OR SLIGHTLY ELEVATED/CROWNED ABOVE ADJACENT SURFACES.
3. WOOD CHIP MULCH SHALL BE "BARK OR WOOD CHIP MULCH" MATERIAL TYPE PER SPECIFICATION 9-14.5(3).

**WOODCHIP TRAIL DETAIL**

SCALE: 1"=1'

2

11

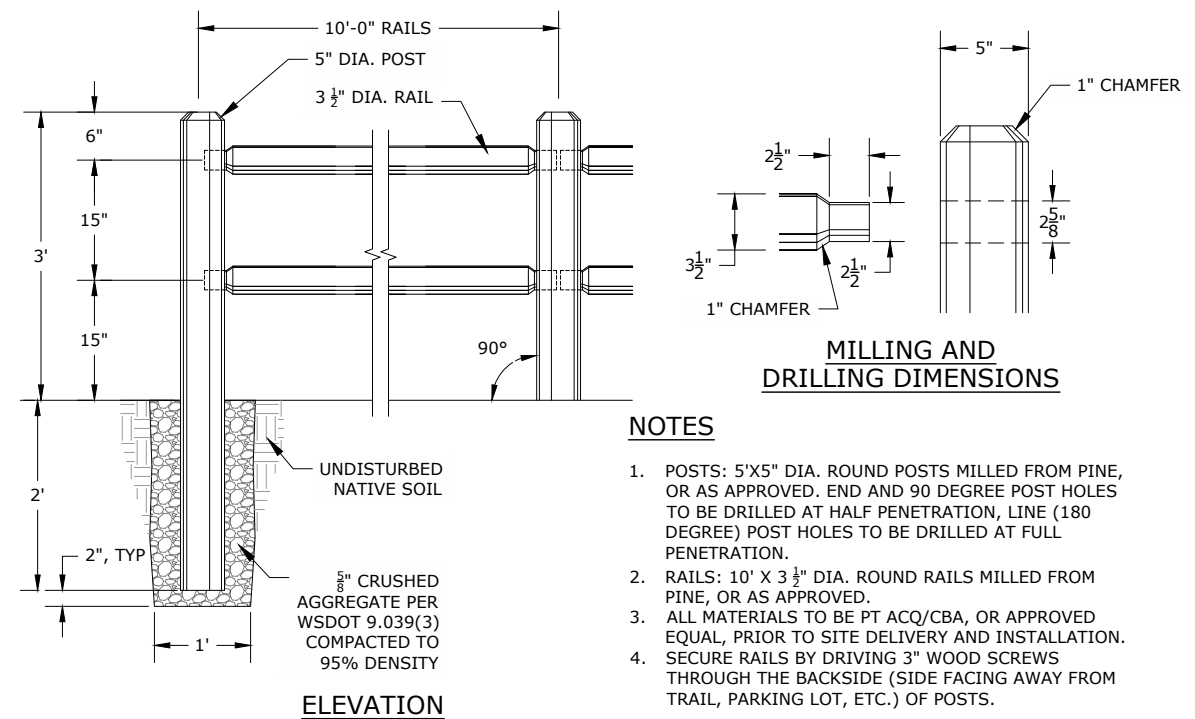


**CURB STOP INSTALLATION DETAIL**

SCALE: 1"=0.25'

3

11



**SPLIT RAIL FENCE DETAIL**

SCALE: NOT TO SCALE

4

11

**NOTES**

1. POSTS: 5'X5" DIA. ROUND POSTS MILLED FROM PINE, OR AS APPROVED. END AND 90 DEGREE POST HOLES TO BE DRILLED AT HALF PENETRATION, LINE (180 DEGREE) POST HOLES TO BE DRILLED AT FULL PENETRATION.
2. RAILS: 10' X 3 1/2" DIA. ROUND RAILS MILLED FROM PINE, OR AS APPROVED.
3. ALL MATERIALS TO BE PT ACQ/CBA, OR APPROVED EQUAL, PRIOR TO SITE DELIVERY AND INSTALLATION.
4. SECURE RAILS BY DRIVING 3" WOOD SCREWS THROUGH THE BACKSIDE (SIDE FACING AWAY FROM TRAIL, PARKING LOT, ETC.) OF POSTS.



Natural Systems Design  
+ Coastal Geologic Services



LAND BANK



SAN JUAN COUNTY CONSERVATION LAND BANK  
NORTH SHORE PROPERTY RESTORATION PROJECT

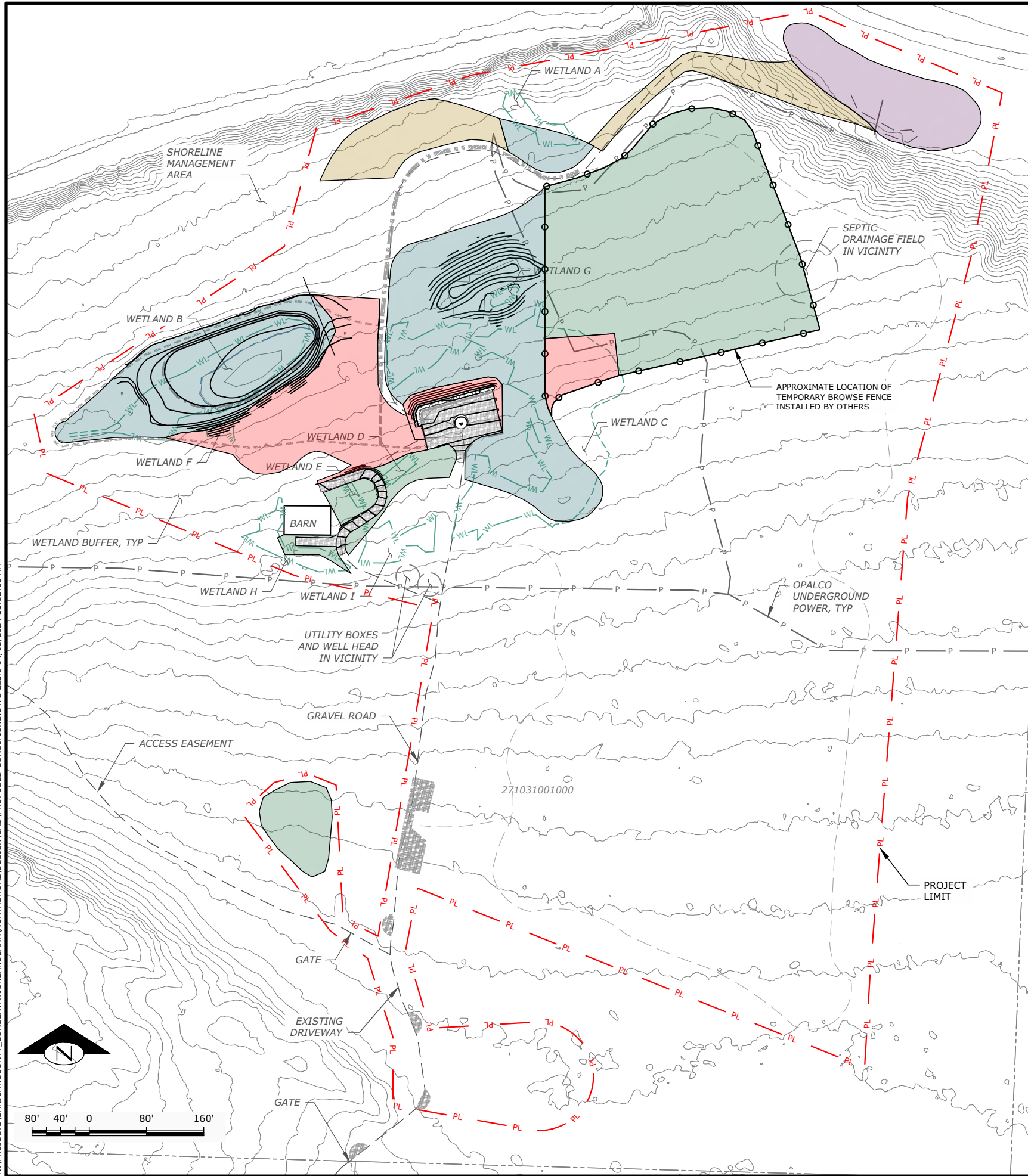
DETAILS  
FINAL DESIGN

DATE	02/28/2024
COUNTY	SAN JUAN COUNTY
LATITUDE	48.709557°
LONGITUDE	-122.932852°
TN/SC/RG	0/10/W
DESIGN_KP/AM	DRAWN_KP
CHECK_LZ	CHECK_AM

0 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.

SHEET  
11 OF 14






N:\PROJECTS\SANJUAN\COUNTY CONSERVATION\LANDBANK\NORTHSHORE\DESIGN\CAD\PROPOSED CONDITIONS.DWG Laura 04/02/2024 11:52:35 AM

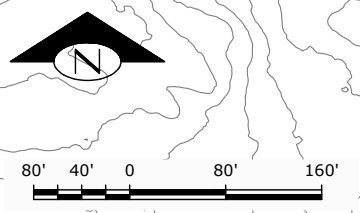


**NOTES**

1. EXISTING CONTOURS ARE SHOWN AT 5' INTERVALS; PROPOSED CONTOURS ARE SHOWN AT 1' AND 5' INTERVALS THIS SHEET ONLY.
2. RESTORATION PLANTINGS WILL BE INSTALLED BY OTHERS PER SHEET 13 - PLANT SCHEDULES.

**RESTORATION PLANTING LEGEND**

-  SHORE
-  WETLAND
-  BLUFF
-  SHRUB
-  FOREST



**RESTORATION PLANTING PLAN**  
SCALE: 1" = 80'



Natural Systems Design  
+ Coastal Geologic Services



LANDBANK



SAN JUAN COUNTY CONSERVATION LAND BANK  
NORTH SHORE PROPERTY RESTORATION PROJECT  
**RESTORATION PLANTING PLAN**  
FINAL DESIGN

DATE	02/28/2024
COUNTY	SAN JUAN COUNTY
LATITUDE	48.709557°
LONGITUDE	-122.932852°
TN/SC/RG	0/10/W
DESIGN_KP/AM	DRAWN_KP
CHECK_LZ	CHECK_AM

0 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT PLOTTED TO ORIGINAL SCALE.

**SHORE**

LAYER	SCIENTIFIC NAME	COMMON NAME
Tree	<i>Alnus rubra</i>	Red alder
Tree	<i>Picea sitchensis</i>	Sitka spruce
Shrub	<i>Holodiscus discolor</i>	Ocean spray
Shrub	<i>Philadelphus lewisii</i>	mock-orange
Shrub	<i>Physocarpus capitatus</i>	Pacific ninebark
Shrub	<i>Ribes divarcatum</i>	Coast black gooseberry
Shrub	<i>Rubus parviflorus</i>	Thimbleberry
Shrub	<i>Rubus spectabilis</i>	Salmonberry
Shrub	<i>Sambucus racemosa</i>	red elderberry
Shrub	<i>Spirea douglasii</i>	Hardhack
Shrub	<i>Symphoricarpos albus</i>	Snowberry
Ground	<i>Mahonia nervosa</i>	Low Oregon-grape
Herb	<i>Aquilegia formosa</i>	Red columbine
Herb	<i>Carex hendersonii</i>	Henderson's sedge
Herb	<i>Carex obnupta</i>	Slough sedge
Herb	<i>Fragaria vesca</i>	Woodland strawberry
Herb	<i>Grindelia integrifolia</i>	Coastal gumweed
Herb	<i>Prunella vulgaris var lanceolata</i>	Self heal
Herb	<i>Sanicula crassicaulis</i>	Pacific sanicle
Herb	<i>Viola adunca</i>	Early blue violet

**WETLAND AND WETLAND BUFFERS**

LAYER	SCIENTIFIC NAME	COMMON NAME
Tree	<i>Crataegus douglasii</i>	Douglas' hawthorn
Tree	<i>Malus fusca</i>	Pacific crabapple
Tree/Shrub	<i>Salix lasiandra</i>	Pacific willow
Tree/Shrub	<i>Salix sitchensis</i>	Sitka willow
Shrub	<i>Cornus sericea</i>	Red-osier dogwood
Shrub	<i>Lonicera involucrata</i>	Black twinberry
Shrub	<i>Mahonia aquifolium</i>	Tall Oregon-grape
Shrub	<i>Philadelphus lewisii</i>	mock-orange
Shrub	<i>Ribes sanguineum</i>	Red-flowering currant
Shrub	<i>Rosa pisocarpa</i>	Swamp rose
Shrub	<i>Rubus leucodermis</i>	Blackcap
Shrub	<i>Rubus parviflorus</i>	Thimbleberry
Shrub	<i>Rubus spectabilis</i>	Salmonberry
Shrub	<i>Sambucus racemosa</i>	red elderberry
Shrub	<i>Spirea douglasii</i>	Hardhack
Shrub	<i>Symphoricarpos albus</i>	Snowberry
Herb	<i>Achillea millefolium</i>	Yarrow
Herb	<i>Alisma plantago-aquatica var. americanum</i>	American water-plantain
Herb	<i>Aquilegia formosa</i>	Red columbine
Herb	<i>Camassia leichtlinii</i>	Great camas
Herb	<i>Camassia quamash</i>	Common camas
Herb	<i>Carex hendersonii</i>	Henderson's sedge
Herb	<i>Carex obnupta</i>	Slough sedge
Herb	<i>Carex stipata</i>	Sawbeak sedge
Herb	<i>Carex utriculata</i>	Beaked sedge
Herb	<i>Carex vesicaria</i>	Blister sedge
Herb	<i>Carex viridula</i>	Green sedge
Herb	<i>Clarkia amoena</i>	Farewell-to-spring
Herb	<i>Eleocharis ovatus</i>	Ovate spike-rush
Herb	<i>Eleocharis palustris</i>	Creeping spike-rush
Herb	<i>Fragaria vesca</i>	Woodland strawberry
Herb	<i>Grindelia integrifolia</i>	Coastal gumweed
Herb	<i>Juncus accuminatus</i>	Tapered rush
Herb	<i>Juncus articulatus</i>	Jointed rush
Herb	<i>Juncus ensifolius</i>	Dagger-leaf rush
Herb	<i>Juncus tenuis</i>	Slender rush
Herb	<i>Prunella vulgaris var lanceolata</i>	Self heal
Herb	<i>Sagittaria latifolia</i>	Wapato
Herb	<i>Schoenoplectus tabernaemontani</i>	Softstem bulrush
Herb	<i>Solidago canadensis</i>	Meadow goldenrod
Herb	<i>Sparganium emersum</i>	Bur-reed

**BLUFF**

LAYER	SCIENTIFIC NAME	COMMON NAME
Tree/Shrub	<i>Amelanchier alnifolia</i>	Western serviceberry
Shrub	<i>Holodiscus discolor</i>	Ocean spray
Shrub	<i>Mahonia aquifolium</i>	Tall Oregon-grape
Shrub	<i>Philadelphus lewisii</i>	mock-orange
Shrub	<i>Ribes sanguineum</i>	Red-flowering currant
Shrub	<i>Rosa nutkana</i>	Nootka rose
Shrub	<i>Rubus leucodermis</i>	Blackcap
Shrub	<i>Rubus parviflorus</i>	Thimbleberry
Shrub	<i>Shepherdia canadensis</i>	Soopalallie
Shrub	<i>Symphoricarpos albus</i>	Snowberry

**SHRUB**

LAYER	SCIENTIFIC NAME	COMMON NAME
Shrub	<i>Holodiscus discolor</i>	Ocean spray
Shrub	<i>Lonicera involucrata</i>	Black twinberry
Shrub	<i>Mahonia aquifolium</i>	Tall Oregon-grape
Shrub	<i>Ribes sanguineum</i>	Red-flowering currant
Shrub	<i>Rosa nutkana</i>	Nootka rose
Shrub	<i>Rosa pisocarpa</i>	Swamp rose
Shrub	<i>Rubus leucodermis</i>	Blackcap
Shrub	<i>Rubus parviflorus</i>	Thimbleberry
Shrub	<i>Shepherdia canadensis</i>	Soopalallie
Shrub	<i>Symphoricarpos albus</i>	Snowberry

**FOREST**

LAYER	SCIENTIFIC NAME	COMMON NAME
Tree	<i>Abies grandis</i>	Grand fir
Tree	<i>Acer macrophyllum</i>	Bigleaf maple
Tree	<i>Alnus rubra</i>	Red alder
Tree	<i>Crataegus douglasii</i>	Douglas' hawthorn
Tree	<i>Malus fusca</i>	Pacific crabapple
Tree	<i>Pinus contorta contorta</i>	Shorepine
Tree	<i>Pseudotsuga menziesii</i>	Douglas-fir
Tree	<i>Thuja plicata</i>	Western red cedar
Tree	<i>Tsuga heterophylla</i>	Western hemlock
Tree/Shrub	<i>Acer glabrum</i>	Douglas maple
Tree/Shrub	<i>Amelanchier alnifolia</i>	Western serviceberry
Tree/Shrub	<i>Prunus emarginata</i>	Bitter cherry
Tree/Shrub	<i>Salix scouleriana</i>	Scouler's willow
Shrub	<i>Holodiscus discolor</i>	Ocean spray
Shrub	<i>Lonicera involucrata</i>	Black twinberry
Shrub	<i>Mahonia aquifolium</i>	Tall Oregon-grape
Shrub	<i>Oemleria cerasiformis</i>	Osoberry
Shrub	<i>Philadelphus lewisii</i>	mock-orange
Shrub	<i>Ribes divarcatum</i>	Coast black gooseberry
Shrub	<i>Ribes sanguineum</i>	Red-flowering currant
Shrub	<i>Rosa nutkana</i>	Nootka rose
Shrub	<i>Rosa pisocarpa</i>	Swamp rose
Shrub	<i>Rubus leucodermis</i>	Blackcap
Shrub	<i>Rubus parviflorus</i>	Thimbleberry
Shrub	<i>Rubus spectabilis</i>	Salmonberry
Shrub	<i>Sambucus racemosa</i>	red elderberry
Shrub	<i>Shepherdia canadensis</i>	Soopalallie
Shrub	<i>Symphoricarpos albus</i>	Snowberry
Shrub	<i>Vaccinium parviflorum*</i>	Red huckleberry
Ground	<i>Mahonia nervosa</i>	Low Oregon-grape

**NOTES**

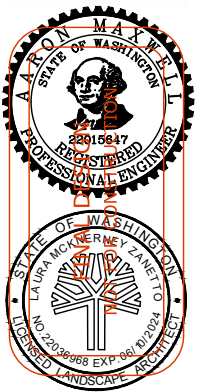
1. PLANTS WILL BE PURCHASED AND INSTALLED BY OWNER.



Natural Systems Design  
+ Coastal Geologic Services



LAND BANK



SAN JUAN COUNTY CONSERVATION LAND BANK

NORTH SHORE PROPERTY RESTORATION PROJECT

PLANT SCHEDULES

FINAL DESIGN

DATE 02/28/2024  
COUNTY SAN JUAN COUNTY  
LATITUDE 48.709557°  
LONGITUDE -122.932852°  
TN/SC/RG 0/10/W  
DESIGN\_KP/AM DRAWN\_KP  
CHECK\_LZ CHECK\_AM

0 1

IF THIS BAR DOES NOT MEASURE  
1" THEN DRAWING IS NOT  
PLOTTED TO ORIGINAL SCALE.

SHEET

13 OF 14

**ROCKERY CONSTRUCTION NOTES:**

1. ROCK SHALL BE HARD, SOUND, DURABLE, AND NON-WEATHERED. ROCK SHALL BE FREE OF SEAMS, CRACKS, AND OTHER DEFECTS TENDING TO REDUCE ITS RESISTANCE TO WEATHERING. ROCK SHALL HAVE A MINIMUM DENSITY OF 160 POUNDS PER CUBIC FOOT.

2. PLACE BOTTOM ROCK ON FIRM AND UNYIELDING SUBGRADE. SUBGRADE CONDITIONS SHALL BE EVALUATED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO WALL CONSTRUCTION.

3. THE ROCKERY BATTER SHALL BE 6 VERTICAL TO 1 HORIZONTAL, OR FLATTER.

4. FACING ROCK SHALL INCREASE IN SIZE FROM THE TOP OF THE WALL TO THE BOTTOM AT A UNIFORM RATE. ROCK AT THE TOP SHALL BE TWO-MAN OR LARGER. FOR ROCKERIES UP TO 6 FEET TALL, THE BOTTOM ROCK SHALL BE MINIMUM THREE-MAN. FOR WALLS BETWEEN 6 AND 8 FEET IN HEIGHT, THE BOTTOM ROCK SHALL BE MINIMUM FOUR-MAN. APPROXIMATE ROCK SIZE IS PRESENTED IN THE TABLE BELOW.

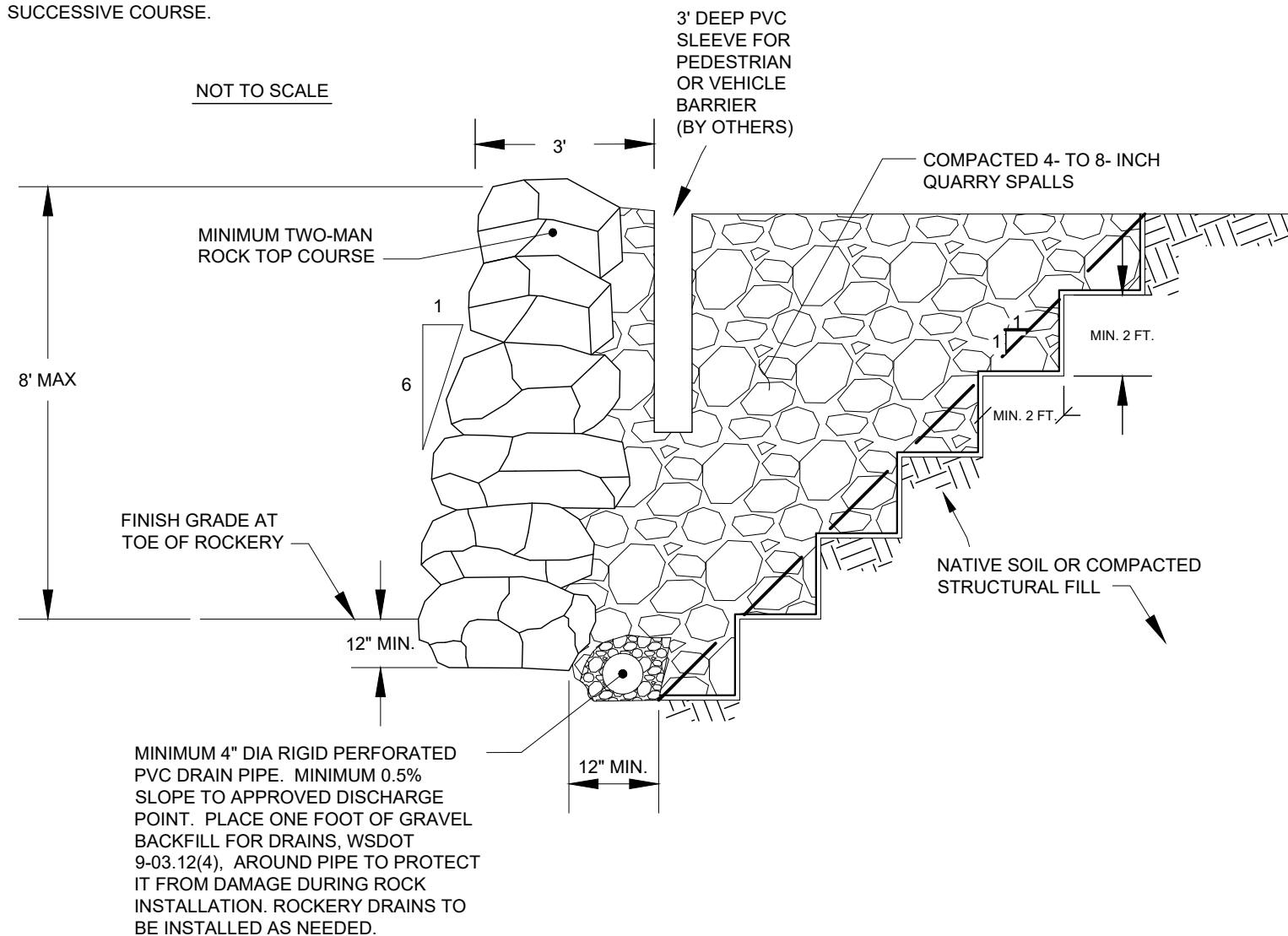
APPROXIMATE ROCK SIZES		
ROCK SIZE	ROCK WEIGHT (LBS)	AVERAGE DIMENSION (IN)
TWO-MAN	200-700	18-28
THREE-MAN	700-2,000	28-36
FOUR-MAN	2,000-4,000	36-48

5. EMBEDMENT OF THE LOWEST COURSE OF ROCK SHALL BE A MINIMUM OF 12 INCHES .

6. THE LONG DIMENSION OF THE ROCK SHALL EXTEND PERPENDICULAR TO THE ROCK FACE.

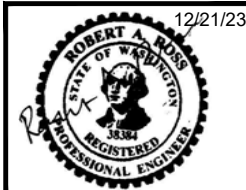
7. ROCKS SHALL BE PLACED TO AVOID CONTINUOUS JOINT PLANES IN VERTICAL OR LATERAL DIRECTIONS. EACH ROCK SHALL BEAR ON TWO OR MORE ROCKS BELOW IT, WITH GOOD FLAT-TO-FLAT CONTACT.

8. BACKFILL SHALL BE PLACED BEHIND EACH COURSE PRIOR TO PLACING ROCKS FOR THE NEXT SUCCESSIVE COURSE.



SUBMITTAL RECORD			
NO.	DATE	BY	DESCRIPTION

DESIGNED:	RAR
DRAWN:	RAR
CHECKED:	DCW
SCALE:	NOT TO SCALE
DATE:	12-21-23
JOB NO.:	2624.01A
PLOT DATE:	12/21/23
LAST EDIT:	trross



**ZipperGeo**  
Geoprosessional Consultants

19019 36th Avenue West, Suite E | Lynnwood, WA 98036  
PH: 425.582.9920 | Fax: 425.582.9930 | www.zippergeo.com

**NORTH SHORE PROPERTY  
RESTORATION PROJECT**  
EASTSOUND, ORCAS ISLAND, WASHINGTON

---

**GENERALIZED NON-REINFORCED ROCKERY DETAIL**

DRAWING
<b>R1</b>
SHEET
14
OF
14