



February 14, 2023

Caleigh Belkoff  
Environmental Manager  
Georgia-Pacific Consumer Operations LLC  
401 NE Adams Street  
Camas, WA 98607

Subject: Frequently Flooded Areas Report and Flood Hazard Assessment for Demolition of Encroachments  
Camas, Washington

This report addresses requirements in Camas Ordinance Chapter 16.57 "Frequently Flooded Areas," including a frequently flooded areas report and flood hazard assessment, pertinent to the proposed demolition of approximately 3,000 pilings plus dolphins and other structures along Camas Slough and the north bank of the Columbia River at the Camas Mill.

The demolition would occur in the special flood hazard area (SFHA) of the Columbia River, including portions in the floodway, as mapped by the Federal Emergency Management Agency (FEMA) in the Flood Insurance Study (FIS) of Clark County, Washington and incorporated areas (two volumes, dated effective January 19, 2018 [FEMA 2018]) and its attached Flood Insurance Rate Maps (FIRMs).

The proposed activity consists entirely of removing existing encroachments to flow, and no new construction of any structures is involved. Almost no ground elevations will change in the channel and floodplain (SFHA). However, small areas of net fill (and others of net cut) would occur within the floodway and result from the demolition.

The project also includes demolition of one dolphin located in unincorporated Clark County approximately 65 feet downstream of the city-county line, which is addressed in a separate no-rise certification submitted to the county.

## FLOOD HAZARD DESCRIPTION

The area of proposed activity lies in the SFHA and floodway on the north bank of the Columbia River (including Camas Slough, which is treated as part of the Columbia River in the FIS). This reach has been studied in detail by the FEMA as part of the FIS dated June 19, 2018 (FEMA, 2018) and the accompanying FIRMs.

The proposed demolitions would be in an area that lies in FIRM Panels 529 (downstream of Lady Island), 533 (most of Lady Island and Camas Slough), and 534 (the eastern portion of Lady Island and upstream) published by FEMA dated effective September 5, 2012 (panels 529 and 533), and January 19, 2018 (panel 534).

The area includes the north bank of the Columbia River and both banks of Camas Slough upstream of FEMA cross-section "AB" (base flood elevation [BFE] 34.2 feet relative to the North American Vertical Datum of 1988 [NAVD88]) and downstream of section "AD" (34.9 feet NAVD88), and includes cross-section "AC" (34.6 feet NAVD88, for the Columbia River, but not Camas Slough).

The reach lies entirely within the City of Camas (FEMA community ID 530026) except for one dolphin being removed about 2,200 feet downstream of section "AB" and 65 feet downstream of the city-county boundary. This single dolphin lies just inside the jurisdiction of unincorporated Clark County (community ID 530024), and a separate certification of no-rise is being made to the County.

The cross-section labels and BFEs are from the latest FEMA national flood hazard map layer (accessed July 2020) and the FEMA FIS report (FEMA 2018).

**Attachment 1** presents the following information reproduced from the FIS:

- FIRM panels 529, 533, and 534. Proposed activity begins at the city boundary near river mile 117.5 (measured at the profile baseline near the river centerline) and extends upstream to about mile 120.4



- Flood Profile 22P of the Columbia River from river mile 117.0 to river mile 122.2, which includes the reach of proposed activity.
- Floodway Data Table (FIS Table 9) highlighting lettered cross-sections AB through AD that includes the reach of proposed activity.

**Attachment 2** presents this same information from the FIS overlaid on site plans for the proposed demolition. Areas of net cut and net fill are also shown (Attachment 2, Figure 5).

**Attachment 3** presents project plan sheets.

## PROJECT DESCRIPTION

Georgia-Pacific Consumer Operations LLC (GP) is planning to remove and/or demolish several structures associated with GP's prior operations in the City of Camas, Washington. The structures to be removed are located in-water and/or over water on the Columbia River and Camas Slough and are located within the City of Camas or Clark County Shoreline Management Zones. The structures to be removed and/or demolished are no longer supporting current operations at the Camas Mill.

The project footprint includes areas along the shoreline at the Camas Mill, several other locations in the Camas Slough, and approximately 3 miles of shoreline near the Camas Mill.

The structures to be removed include approximately 3,000 piles and dolphins, one building-like industrial structure, three docks/piers, an oil storage tank and its pumps, and a conveyor housing. Where piles, dolphins, and structures are to be removed, the river bank will not be changed, except in the area of the PECO Dock, where the bank will be graded back more gradually than existing, and at the large concrete foundation of the former Berger Crane, where the concrete will be removed to well below water surface and the riverbank regraded to bury the remaining obstruction. **Attachment 2** shows in detail the locations of the structures to be removed in relation to the SFHA, floodway boundary, and lettered FIS cross-sections AB and AC.

The proposed project will require work below the ordinary high water of the Columbia River and Camas Slough. Some of the structures to be removed are located on State-owned land currently leased by GP through the Washington Department of Natural Resources (WDNR).

GP is the sole organization responsible for maintaining, developing, removing, and deconstructing facilities at the Camas Mill.

## CITY OF CAMAS REQUIREMENTS FOR FREQUENTLY FLOODED AREAS

The City of Camas Code 16.57 addresses frequently flooded areas. Portions that relate to the proposed demolition project state the following.

### *Chapter 16.57-FREQUENTLY FLOODED AREAS*

#### *16.57.010- Applicability.*

*A. "Frequently Flooded Areas" The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Clark County, Washington, and incorporated areas" dated September 5, 2012, and any revisions thereto, with accompanying Flood Insurance Rate Maps (FIRM). ...*



16.57.020-Uses and activities prohibited.

E Development in Floodways.

1. New Development Requires Certification by an Engineer. Encroachments, including new construction, substantial improvements, fill, and other development, are prohibited within designated floodways unless certified by a registered professional engineer. Such certification shall demonstrate through hydrologic and hydraulic analyses, performed in accordance with standard engineering practice that the proposed encroachment will not result in any increase in flood levels during the occurrence of the base flood discharge. ...

16.57.030-Critical area report-Additional requirements.

In addition to the items listed in CMC 16.51.140 Critical Area Reporting, the following is required:

A. Prepared by a Qualified Professional. A frequently flooded areas report shall be prepared by a qualified professional who is a hydrologist, or engineer, who is licensed in the state of Washington, with experience in preparing flood hazard assessments.

B. Area Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for frequently flooded areas:

1. The site area of the proposed activity;
2. All areas of a special flood hazard area, as indicated on the flood insurance rate map(s), within three hundred feet of the project area; and
3. All other flood areas indicated on the flood insurance rate map(s) within three hundred feet of the project area.

C. Flood Hazard Assessment Required. A critical area report for a proposed activity within a frequently flooded area shall contain a flood hazard assessment, including the following site- and proposal-related information at a minimum:

1. Site and Construction Plans. A copy of the site and construction plans for the development proposal showing:
  - a. Floodplain (one hundred-year flood elevation), ten- and fifty-year flood elevations, floodway, other critical areas, management zones, and shoreline areas;
  - b. Proposed development, including the location of existing and proposed structures, fill, storage of materials, and drainage facilities, with dimensions indicating distances to the floodplain; ...

D. Information Regarding Other Critical Areas. Potential impacts to wetlands, fish and wildlife habitat, and other critical areas shall be addressed in accordance with the applicable sections of these provisions. ...

16.57.050-Performance standards-General requirements.

H Fill and Grading. Fill and grading within the floodplain shall only occur upon a determination from a registered professional engineer that the fill or grading will not block side channels, inhibit channel migration, increase flood hazards to others, or be placed within a channel migration zone, whether or not the City has delineated such zones as of the time of the application. If fill or grading is located in a floodway, CMC Section 16.57.020 applies.



*16.57.080-Variations-Additional considerations for frequently flooded areas.*

*A. Additional Variation Considerations. In review of variation requests for activities within frequently flooded areas, the City shall consider all technical evaluations, relevant factors, standards specified in this chapter, and:*

*1. The danger to life and property due to flooding, erosion damage, or materials swept onto other lands during flood events;*

*B. Variations shall only be issued upon a determination that the granting of a variation will not result in increased flood heights, additional threats to public safety, ...*

*C. Variations shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.*

Summarized below are our conclusions regarding how these sections of the Camas Code relate to GP's proposed demolition:

- The demolition affects frequently flooded areas because proposed fill (defined as "Development" in Camas Code) would occur in the SFHA and the floodway of the Columbia River. No other development is proposed because no construction is proposed, and the removal of encroachments in the floodway and SFHA are not defined as development by Camas Code.
- Certification by a registered professional engineer will be required that the proposed fill, together with proposed cut and removal of encroaching piles and structures, will not result in any increase in flood levels during the occurrence of the base flood (100-year) discharge. This certification will be based on hydraulic analysis comparing the existing regulatory model to one that incorporates the proposed activity. This certification will be documented separate from this memorandum.
- A frequently flooded areas report prepared by a qualified professional engineer or hydrologist will be required that includes site plans showing location of the proposed activity in relation to the FEMA SFHA (floodplain) and floodway, other critical areas, management zones, and shoreline areas. **This memorandum is intended to satisfy this requirement.**
- This proposed project consists only of demolition with no new development or redevelopment and no construction of new structures. As such, the project does not represent a "Development Proposal" as described by Camas Code 16.57.030 CI, and no development is proposed for which a flood hazard assessment is required beyond the frequently flood areas report included in this memorandum.
- Information regarding other critical areas shall be addressed in separate documents in accordance with the applicable sections of those provisions, including potential impacts to wetlands, fish and wildlife habitat, and other critical areas.
- Fill and grading within the SFHA (floodplain), both inside and outside the floodway, will require determination from a registered professional engineer that the fill or grading will not block side channels, inhibit channel migration, increase flood hazards to others, or be placed within a channel migration zone. This determination will be documented separate from this memorandum.
- A variation to the Camas Code (variance) cannot be issued to avoid determination of the no-rise requirement for fill in the floodway. <sup>1</sup>

## FREQUENTLY FLOODED AREAS REPORT

**Attachment 2** presents site and construction plans that show the location of the proposed activity in relation to the FEMA SFHA (floodplain) and floodway. The figures in **Attachment 2** show the same FEMA information shown

<sup>1</sup> Camas, Washington. May 19, 2020. Code of Ordinances. Title 16-Environment Critical Areas. Chapter 16.57-Frequently Flooded Areas. Retrieved July 21, 2020, from: [https://library.municode.com/wa/camas/codes/code\\_of\\_ordinances?nodeid=TIT16EN\\_CRAR\\_CH16.57FRFLAR](https://library.municode.com/wa/camas/codes/code_of_ordinances?nodeid=TIT16EN_CRAR_CH16.57FRFLAR)





in **Attachment 1** but projected onto the site plans. **Attachment 2** shows the FEMA SFHA information within at least 300 feet of areas of proposed activity.

The site plans in **Attachment 2** includes the following sheets, numbered as **Figure 1** through **Figure 6**:

- **Figure 1** shows the full extent of the site plans; demolition extends from approximately river mile 117.51 (the boundary of Camas and unincorporated Clark County) to river mile 121.1. **Figure 1** also provides a spatial index for the other site plans shown in **Figures 2** through **6**.
- **Figure 2** shows approximately river mile 117.51 to 118.2, downstream of Lady Island, including project demolition sites LA-2 (dolphin removal) and LA-3 (area of piles and dolphin removals). Area LA-1 is also shown, but it is a pile demolition outside the city limit that will be addressed under a separate application to Clark County; its removal will be included in the no-rise analysis for the City of Camas. Figure 2 also shows FEMA cross-section "AB" and the boundary of the City of Camas and unincorporated Clark County. The sites shown are only removals of encroaching structures with no change in grade and no construction.
- **Figure 3** shows approximately river mile 118.2 to 118.7, mostly showing Camas Slough and the downstream portion of Lady Island, including project demolition sites LA-4, LA-5, and LA-6, where dolphin structures will be removed along with a floating wooden walkway. An area of temporary fill will occur in the lower-right, outside (above) the SFHA. The sites shown are only removals of encroaching structures with no change in grade and no construction.
- **Figure 4** shows approximately river mile 118.7 to 119.6 along Camas Slough, including project demolition sites LA-8 through LA-13. Site LA-12 is an area of dolphins and piles; the other sites are single dolphins. The sites shown are only removals of encroaching structures with no change in grade and no construction.
- **Figure 5** shows approximately river mile 119.6 to 120.4 (the upstream extent of the project) along Camas Slough, including project demolition sites LA-14 through LA-19 plus three wastewater lines that will not be removed. Sites LA-17 and LA-19 are areas of dolphins and piles; the other sites are single dolphins. The three wastewater lines protrude above the bottom to various degrees and are included in the existing conditions. Areas that will be dredged as part of the removal are shown in green hatching. In addition, small areas of net fill are shown. In the western portion of LA 17, the large concrete foundation of the Berger Crane will be mostly removed, and the remainder buried by fill. The Tug Dock just west of the Berger Crane foundation will also be removed. Grading, including cut and fill, is proposed to smooth a bank underneath where an existing encroaching structure (the POCO dock) and associated buildings will be removed in part of the central and eastern portion of LA-17. No construction is proposed at these sites.
- **Figure 6** shows approximately river mile 120.3 to 121.0 along Camas Slough including project LA-21, where an existing water intake structure and building will not be removed but are included as part of existing conditions. The figure shows the confluence with the Washougal River, which is upstream of the area of activity. The figure is for context.



If you have any questions, please do not hesitate to contact me.

Sincerely,

**WSP USA Environment & Infrastructure Inc.**



Seth Jelen, PE, CFM, CWRE  
Principal Engineer-Water Resources  
E-mail: sethJelen@wsp.com

Project Review by:

A handwritten signature in blue ink, appearing to read 'Tyler Marley'.

Tyler Marley, PE  
Senior Project Engineer - Water Resources  
E-mail: tyler.marley@wsp.com

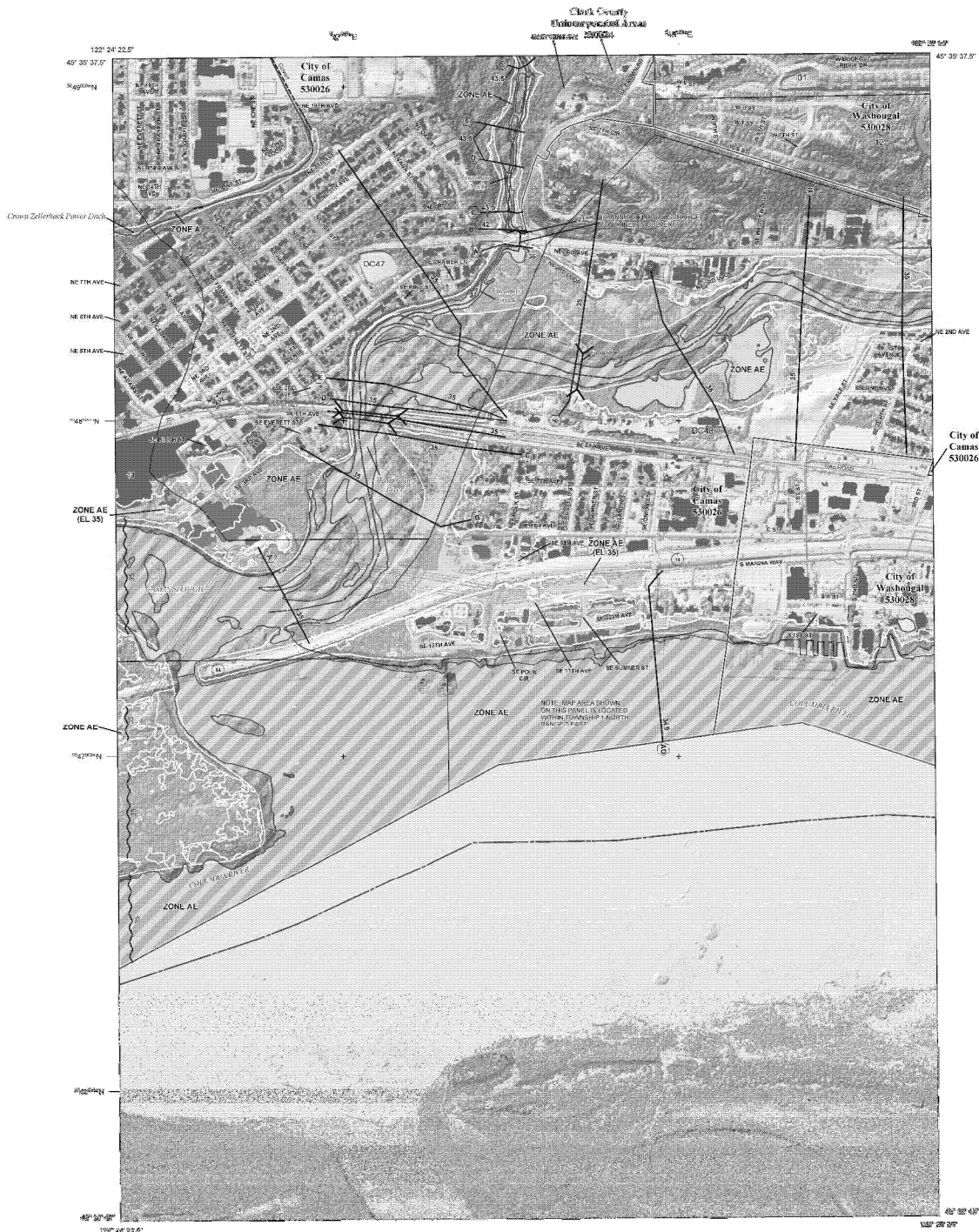
Attachments:     Attachment 1: Flood Insurance Study Information  
                         Attachment 2: Flood Hazard Areas and Project Locations  
                         Attachment 3: Demo Plan Sheets

# ATTACHMENT 1: FLOOD INSURANCE STUDY INFORMATION

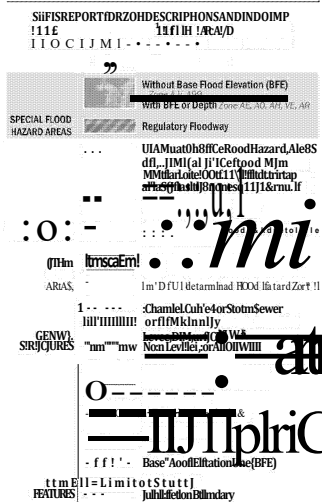








# FLOOD HAZARD INFORMATION:



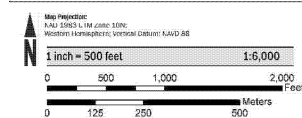
# NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including National Flood Insurance Program (NFIP) maps, please call the FEMA Map Information Exchange at 1-877-FEMA-MAP (1-877-362-6273) or visit the FEMA Map Information Exchange website at [www.fema.gov/firm](http://www.fema.gov/firm). Please note that the FEMA Map Information Exchange website provides information on the current status of the map. Many of the maps are being updated and the information on the website may be out of date. Please check the FEMA Map Information Exchange website for the most current information.

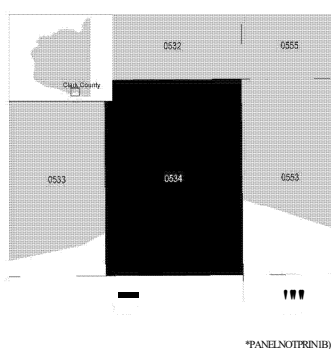
Communities seeking land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the legend and notes. These may be obtained directly from the Map Service Center at the number listed above.

For more information, please visit the FEMA Map Information Exchange website at [www.fema.gov/firm](http://www.fema.gov/firm).

# SCALE



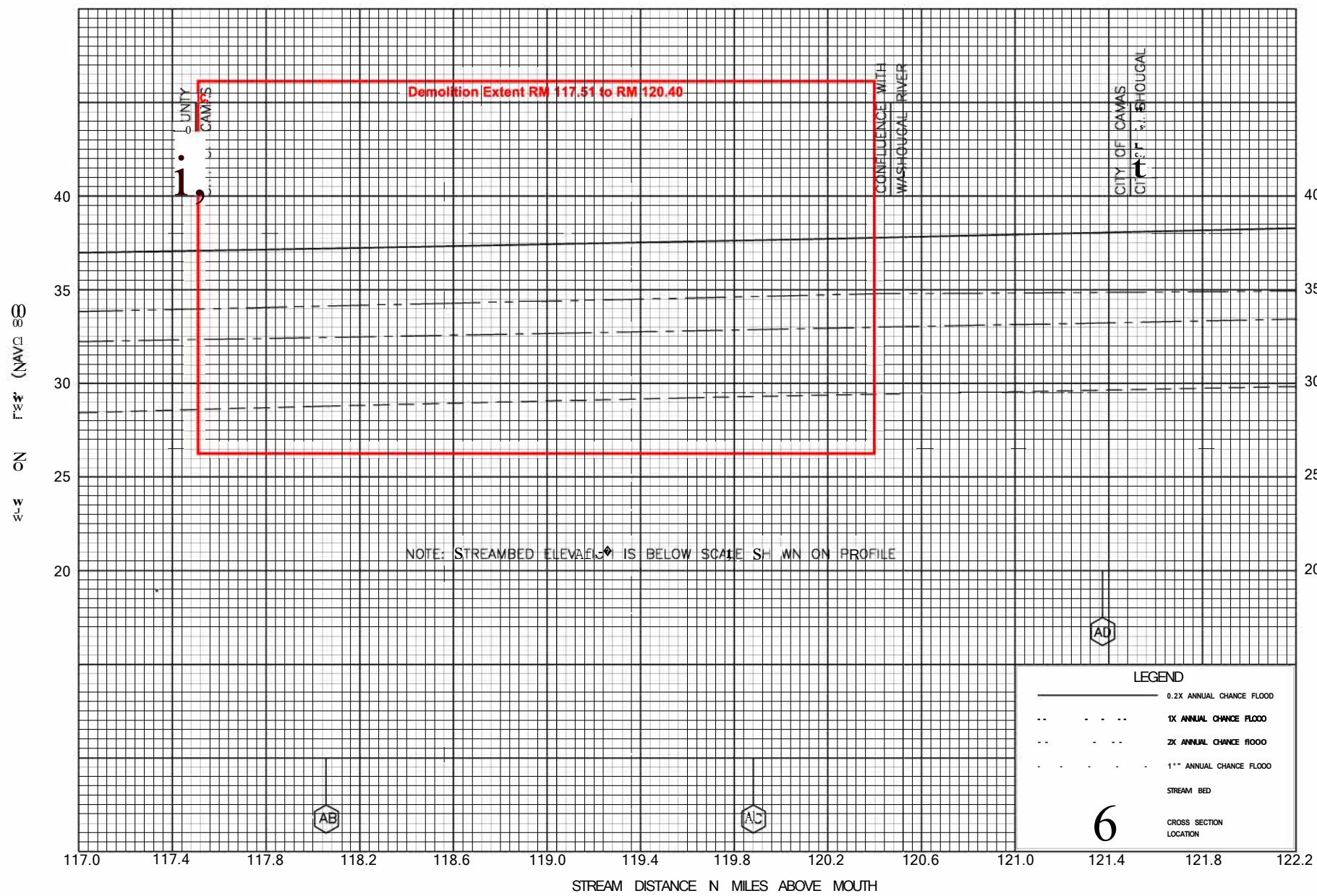
# PANEL LOCATION



**FEMA**  
National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM  
FLOOD INSURANCE RATE MAP  
WASHINGTON  
q 34 .000-  
FEMA  
Public Comments:  
COMMUNITY  
MINOR PMa SURF  
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2016年11月

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FT.)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (F. P.S.)	REGULATORY (NAVD88)	WITHOUT FLOODWAY (NAVD88)	WITH FLOODWAY (NAVD88)	INCREASE
COLUMBIA RIVER								
AA	116.10	4,773 / 1,206 <sup>2</sup>	178,406	3.2	33.7	33.2	34.1	0.9
AB	118.06	6,731 / 3,745 <sup>2</sup>	210,779	2.7	34.2	33.6	34.4	0.8
AC	119.88	2,280 / 1,367 <sup>2</sup>	127,035	4.4	34.6	33.9	35.0	0.9
AD	121.37	4,250 / 1,101 <sup>2</sup>	157,277	3.6	34.9	34.3	35.1	0.8
AE	122.86	5,500 / 1,856 <sup>2</sup>	189,310	2.9	35.1	34.7	35.5	0.8
AF	123.43	5,700 / 2,039 <sup>2</sup>	197,499	2.8	35.3	34.8	35.7	0.9
AG	123.98	5,800 / 2,475 <sup>2</sup>	206,916	2.7	35.4	34.8	35.7	0.9
AH	125.53	6,950 / 4,728 <sup>2</sup>	198,505	2.8	35.6	35.1	36.0	0.9
AI	126.58	5,900 / 5,498 <sup>2</sup>	173,646	3.2	35.8	35.2	36.1	0.9

<sup>1</sup>!stream distance in miles above mouth<sup>4</sup>!width/width within county limits<sup>(2)</sup>Elevations computed without consideration of backwater from Columbia River<sup>5</sup>!width excluding island/right channel width looking downstream/width of right channel within corporate limits<sup>3</sup>!Elevations based on HEC-2 hydraulic model

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FEDERAL EMERGENCY MANAGEMENT AGENCY  
**CLARK COUNTY, WASHINGTON**  
 AND INCORPORATED AREAS

**FLOODWAY DATA**

**COLUMBIA RIVER**

# **ATTACHMENT 2: FLOOD HAZARD AREAS AND PROJECT LOCATIONS**

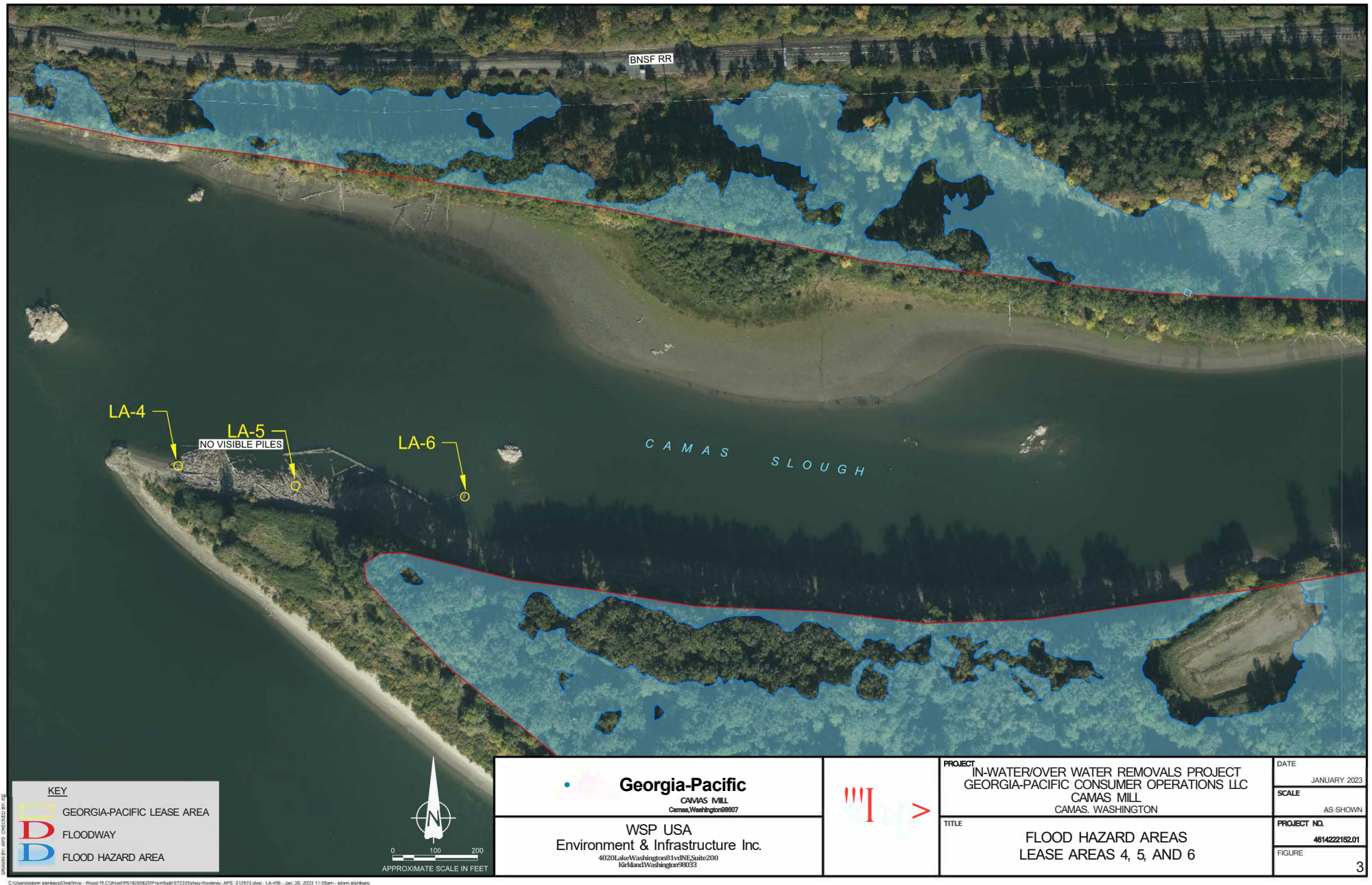




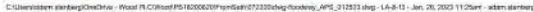














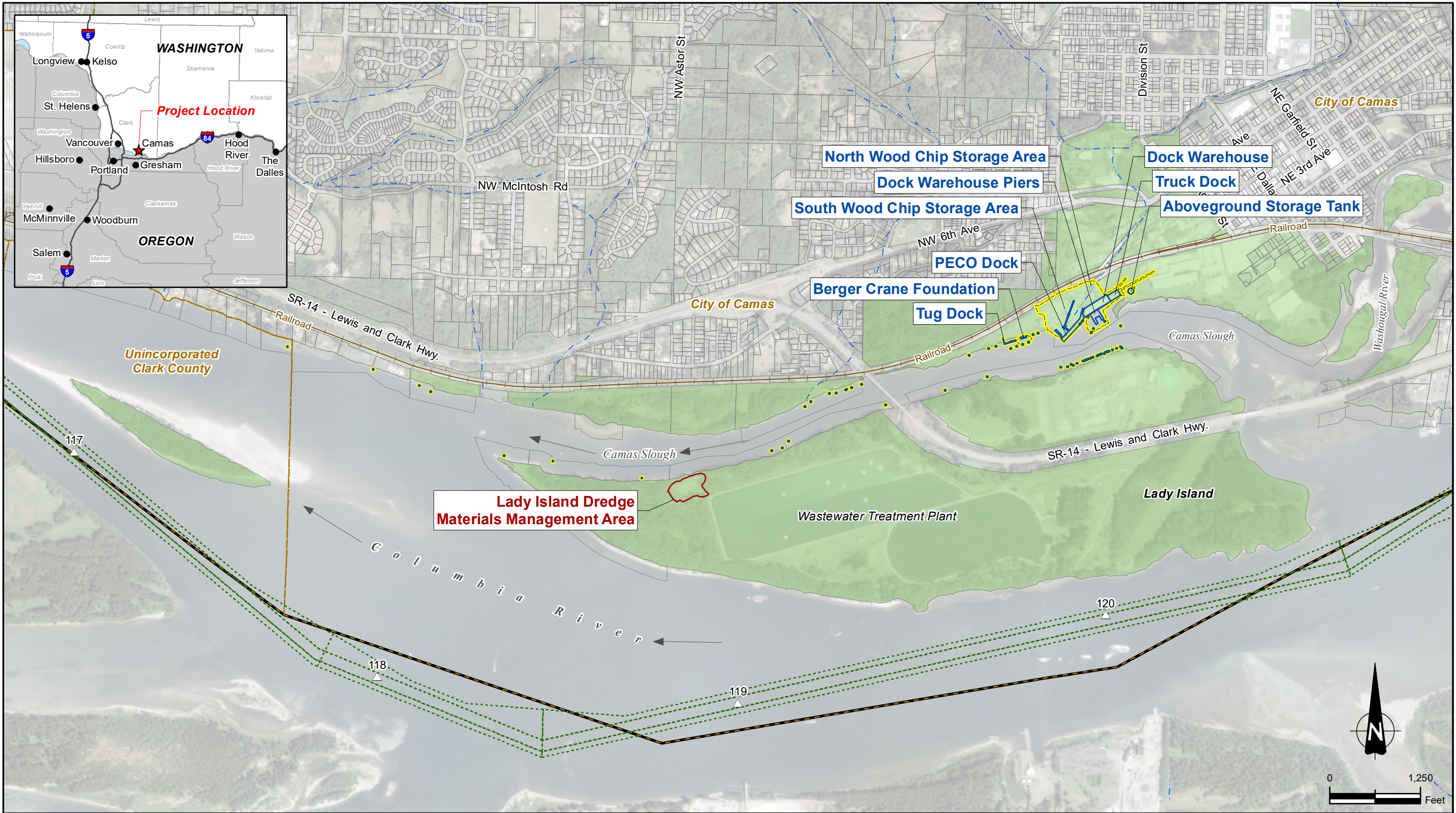






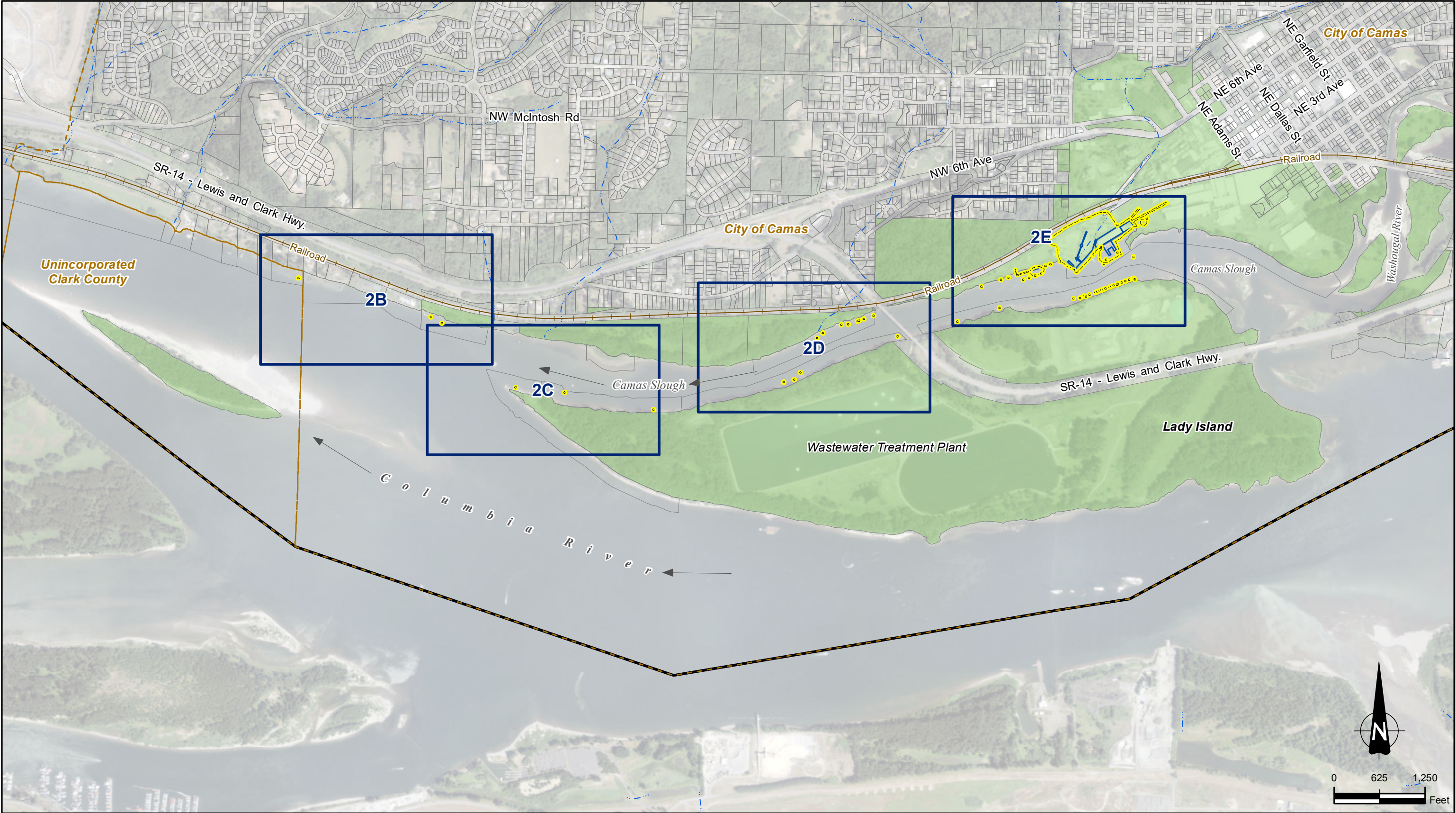
# **ATTACHMENT 3: DEMO PLAN SHEETS**





<div><div><div></div><div>Project Limits</div></div><div><div></div><div>Columbia River Mile Marker</div></div><div><div></div><div>Stream/River</div></div><div><div></div><div>Structure To Be Removed</div></div><div><div></div><div>Dolphin To Be Removed</div></div><div><div></div><div>Lady Island Dredge Materials Management Area</div></div><div><div></div><div>Tax Lot</div></div><div><div></div><div>Tax Lot Owned by Georgia-Pacific</div></div><div><div></div><div>City Boundary</div></div><div><div></div><div>County Boundary</div></div><div><div></div><div>Federal Navigation Channel</div></div></div>	<div>GEORGIA-PACIFIC CONSUMER OPERATIONS LLC</div>	<div><div></div><div>TETRA TECH</div></div>	<div>IN-WATER &amp; OVERWATER STRUCTURES REMOVAL PROJECT CAMAS MILL, CAMAS, WASHINGTON</div>	<div>DATE OCTOBER 2022</div>
	<div>Tetra Tech</div>			<div>SCALE 1" = 1,250'</div>
			<div>PROJECT LOCATION</div>	<div>PROJECT NO.</div>
				<div>FIGURE 1</div>





- |                         |                                  |
|-------------------------|----------------------------------|
| Project Limits          | Tax Lot Owned by Georgia-Pacific |
| Structure To Be Removed | City Boundary                    |
| Dolphin To Be Removed   | County Boundary                  |
| Stream/River            |                                  |
| Tax Lot                 |                                  |

GEORGIA-PACIFIC  
CONSUMER OPERATIONS LLC

Tetra Tech



IN-WATER & OVERWATER  
STRUCTURES REMOVAL PROJECT  
CAMAS MILL, CAMAS, WASHINGTON

STRUCTURES TO BE REMOVED  
AND STUDY AREA MAP  
OVERVIEW

DATE  
OCTOBER 2022

SCALE  
1" = 1,250'

PROJECT NO.

FIGURE  
2A





<div><div><div></div><div>Project Limits</div></div><div><div></div><div>City Boundary</div></div><div><div></div><div>Structure To Be Removed</div></div><div><div></div><div>Dolphin To Be Removed</div></div><div><div></div><div>Tax Lot</div></div><div><div></div><div>Tax Lot Owned by Georgia-Pacific</div></div></div> <div><div><div></div><div>City Boundary</div></div></div>	GEORGIA-PACIFIC CONSUMER OPERATIONS LLC		<div><div></div><div>TETRA TECH</div></div>	IN-WATER & OVERWATER STRUCTURES REMOVAL PROJECT CAMAS MILL, CAMAS, WASHINGTON		DATE OCTOBER 2022	
				STRUCTURES TO BE REMOVED AND STUDY AREA MAP		SCALE 1" = 200'	
						PROJECT NO.	
						FIGURE 2B	





- Project Limits
- Structure To Be Removed
- Dolphin To Be Removed
- Tax Lot
- Tax Lot Owned by Georgia-Pacific

GEORGIA-PACIFIC  
CONSUMER OPERATIONS LLC

Tetra Tech



IN-WATER & OVERWATER  
STRUCTURES REMOVAL PROJECT  
CAMAS MILL, CAMAS, WASHINGTON

STRUCTURES TO BE REMOVED  
AND STUDY AREA MAP

DATE  
OCTOBER 2022

SCALE  
1" = 200'

PROJECT NO.

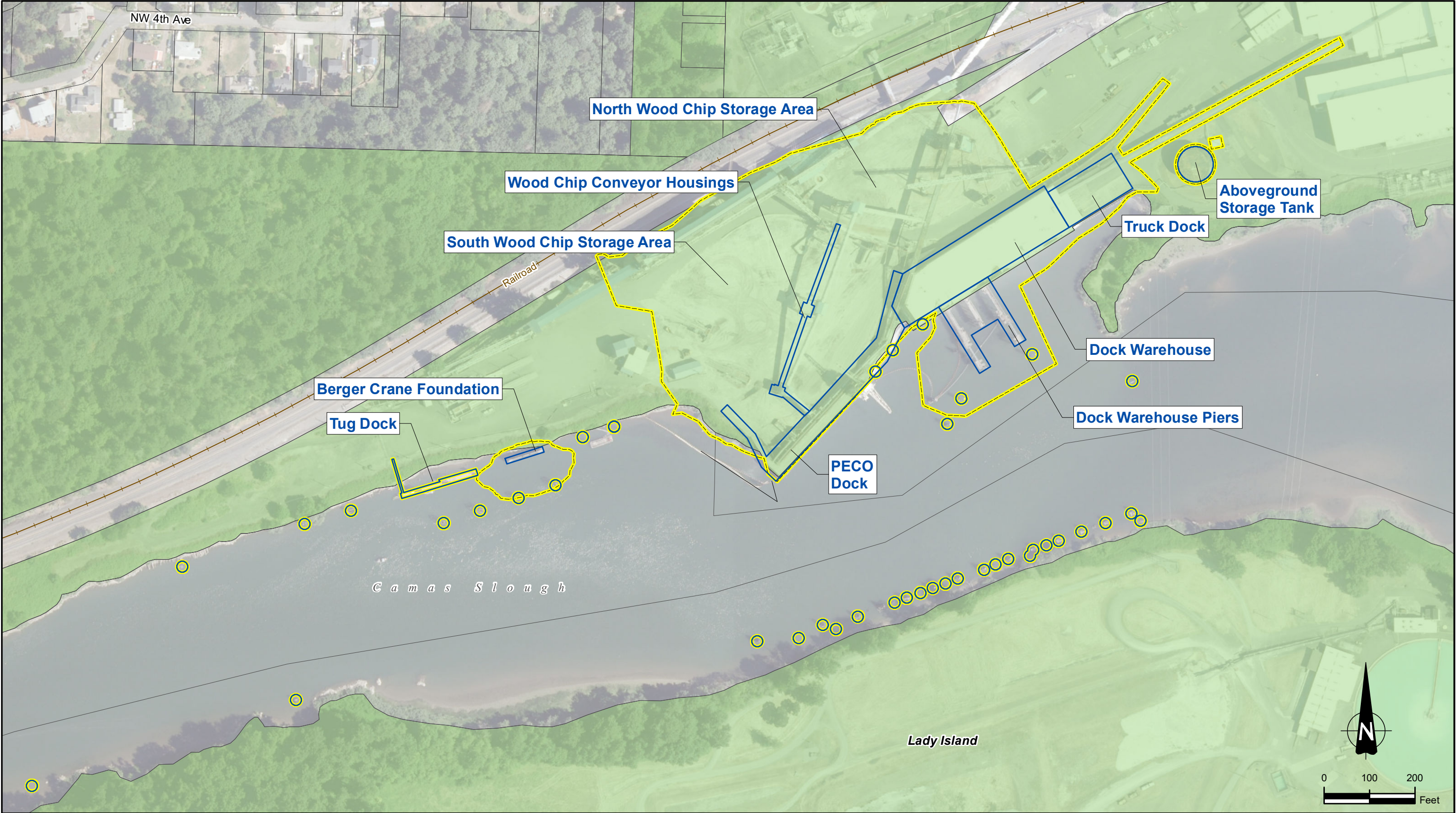
FIGURE  
2C





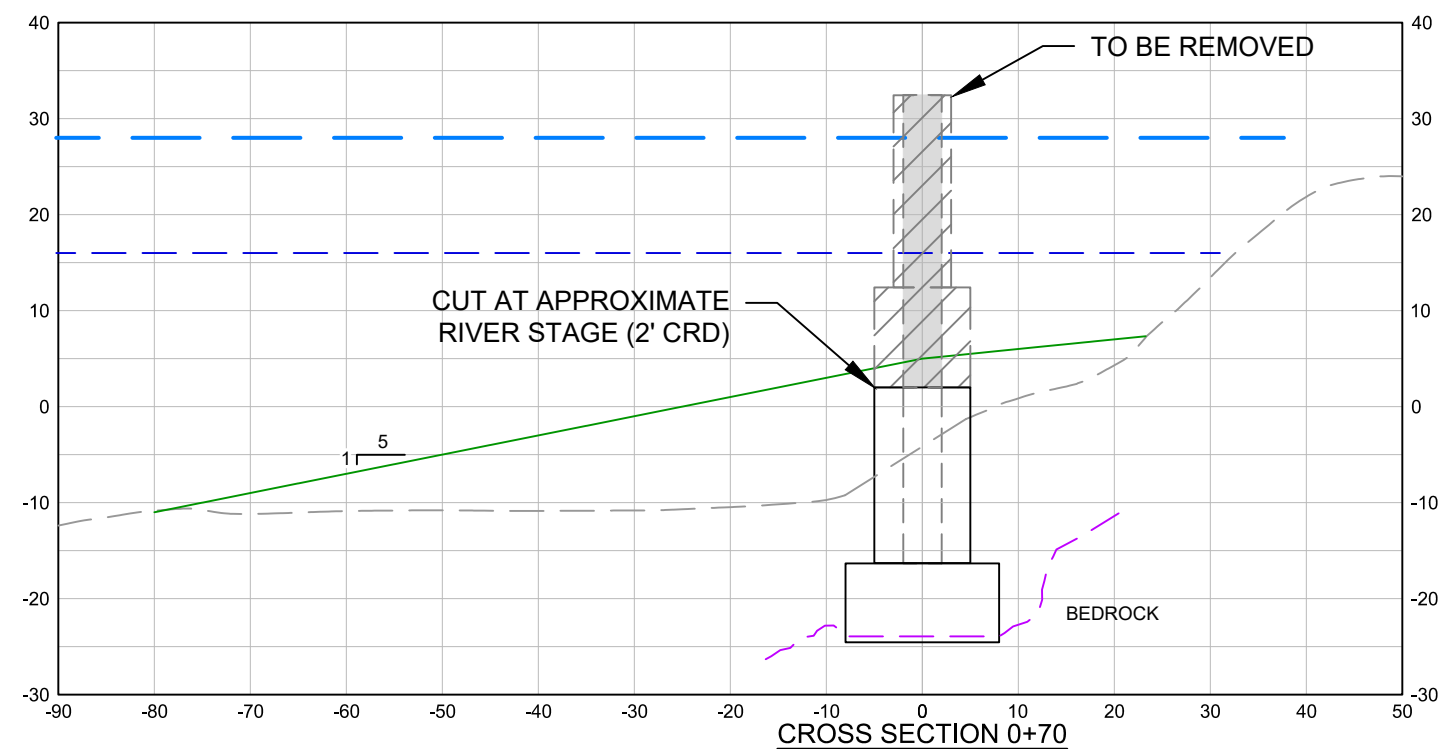
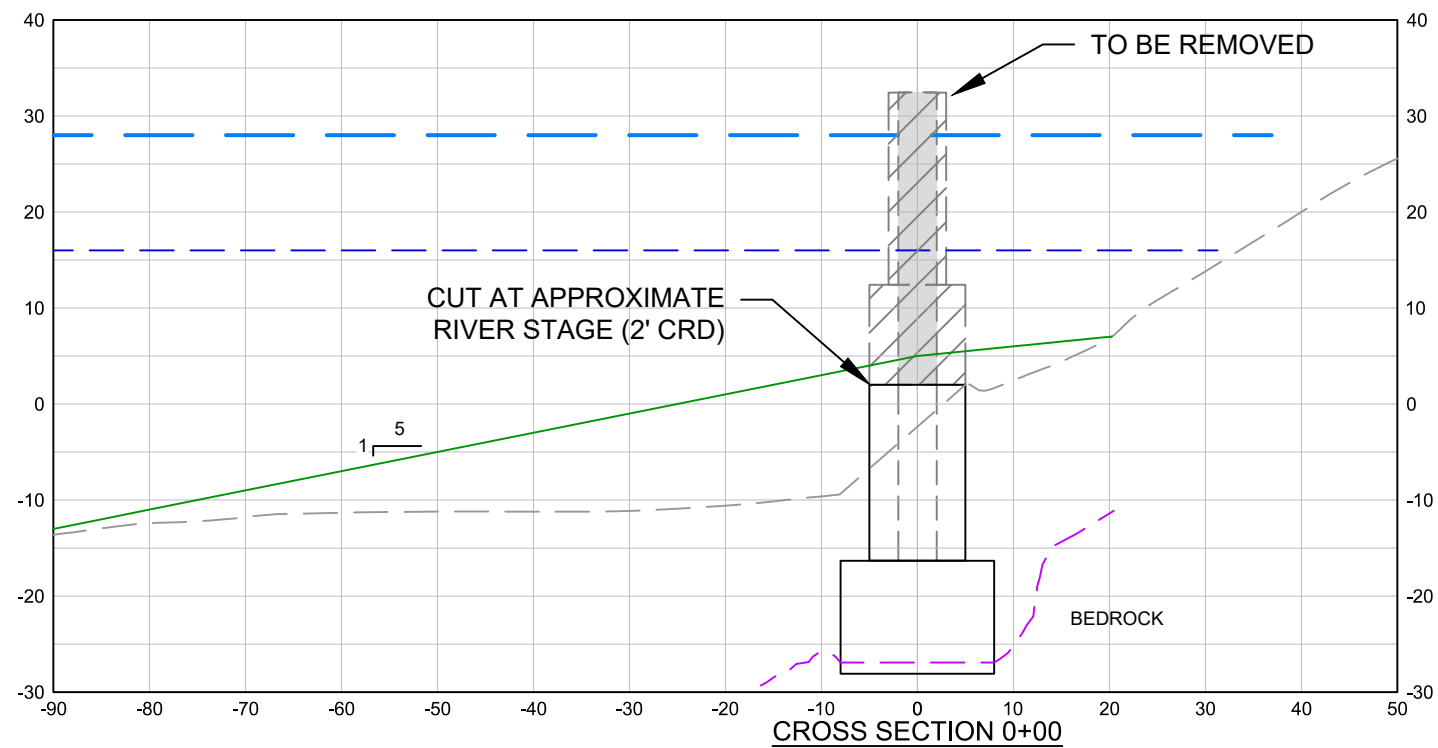
<div><div></div>Project Limits</div> <div><div></div>Structure To Be Removed</div> <div><div></div>Dolphin To Be Removed</div> <div><div></div>Tax Lot</div> <div><div></div>Tax Lot Owned by Georgia-Pacific</div>	GEORGIA-PACIFIC CONSUMER OPERATIONS LLC		<div><div></div>TETRA TECH</div>	IN-WATER & OVERWATER STRUCTURES REMOVAL PROJECT CAMAS MILL, CAMAS, WASHINGTON		DATE OCTOBER 2022	
	Tetra Tech			STRUCTURES TO BE REMOVED AND STUDY AREA MAP		SCALE 1" = 200'	
						PROJECT NO.	
						FIGURE 2D	





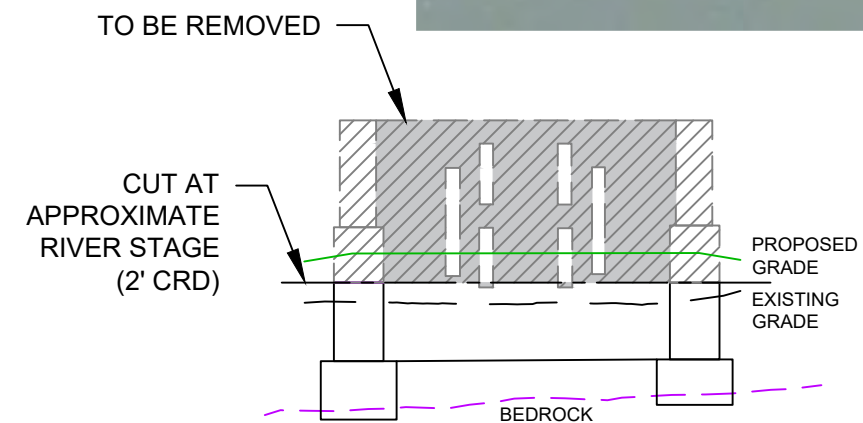
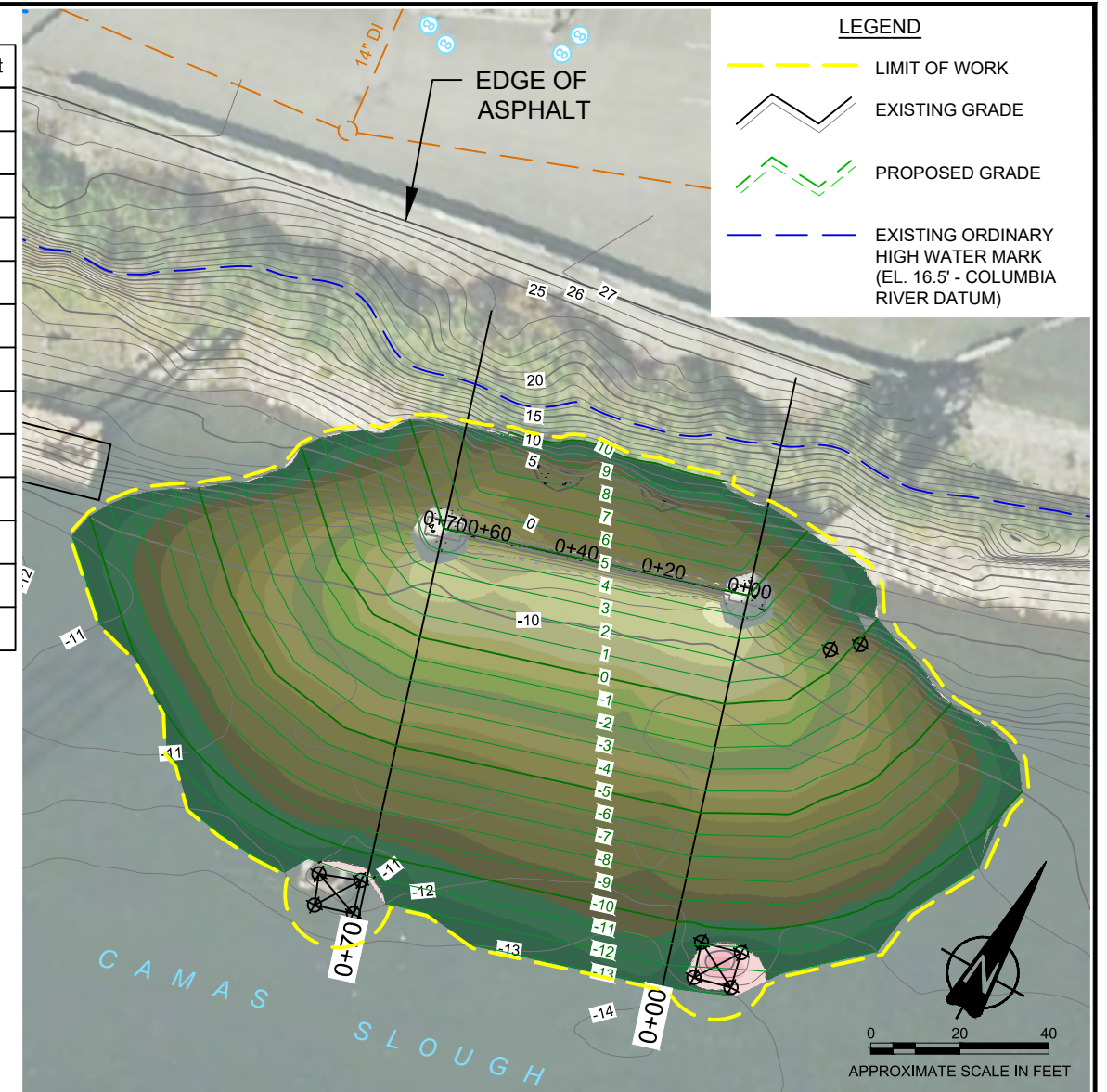
<div><div></div> Project Limits</div> <div><div></div> Structure To Be Removed</div> <div><div></div> Dolphin To Be Removed</div> <div><div></div> Tax Lot</div> <div><div></div> Tax Lot Owned by Georgia-Pacific</div>	GEORGIA-PACIFIC CONSUMER OPERATIONS LLC		<div><div></div> TETRA TECH</div>	IN-WATER & OVERWATER STRUCTURES REMOVAL PROJECT CAMAS MILL, CAMAS, WASHINGTON		DATE OCTOBER 2022	
				STRUCTURES TO BE REMOVED AND STUDY AREA MAP		SCALE 1" = 200'	
						PROJECT NO.	
						FIGURE 2E	



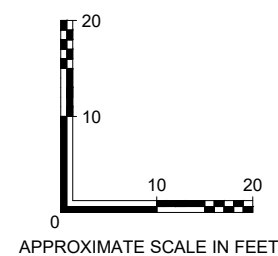


Depth Thickness Table in Ft		
MIN	MAX	Color
0	+1	Dark Green
+1	+2	Dark Green
+2	+3	Dark Brown
+3	+4	Dark Brown
+4	+5	Dark Brown
+5	+6	Dark Brown
+6	+7	Dark Brown
+7	+8	Dark Brown
+8	+9	Dark Brown
+9	+10	Dark Brown
+10	+11	Dark Brown
+11	+12	Dark Brown

3,500 c<sup>3</sup> FILL



BERGER CRANE FOUNDATION PHOTO



CROSS SECTION LEGEND

- ORDINARY HIGH WATER MARK (EL. 16.5' - COLUMBIA RIVER DATUM)
- 100-YEAR FLOOD PLAIN (EL. 28' - COLUMBIA RIVER DATUM)
- EXISTING GRADE
- PROPOSED FINAL GRADE

GEORGIA-PACIFIC  
CONSUMER OPERATIONS LLC

Tetra Tech

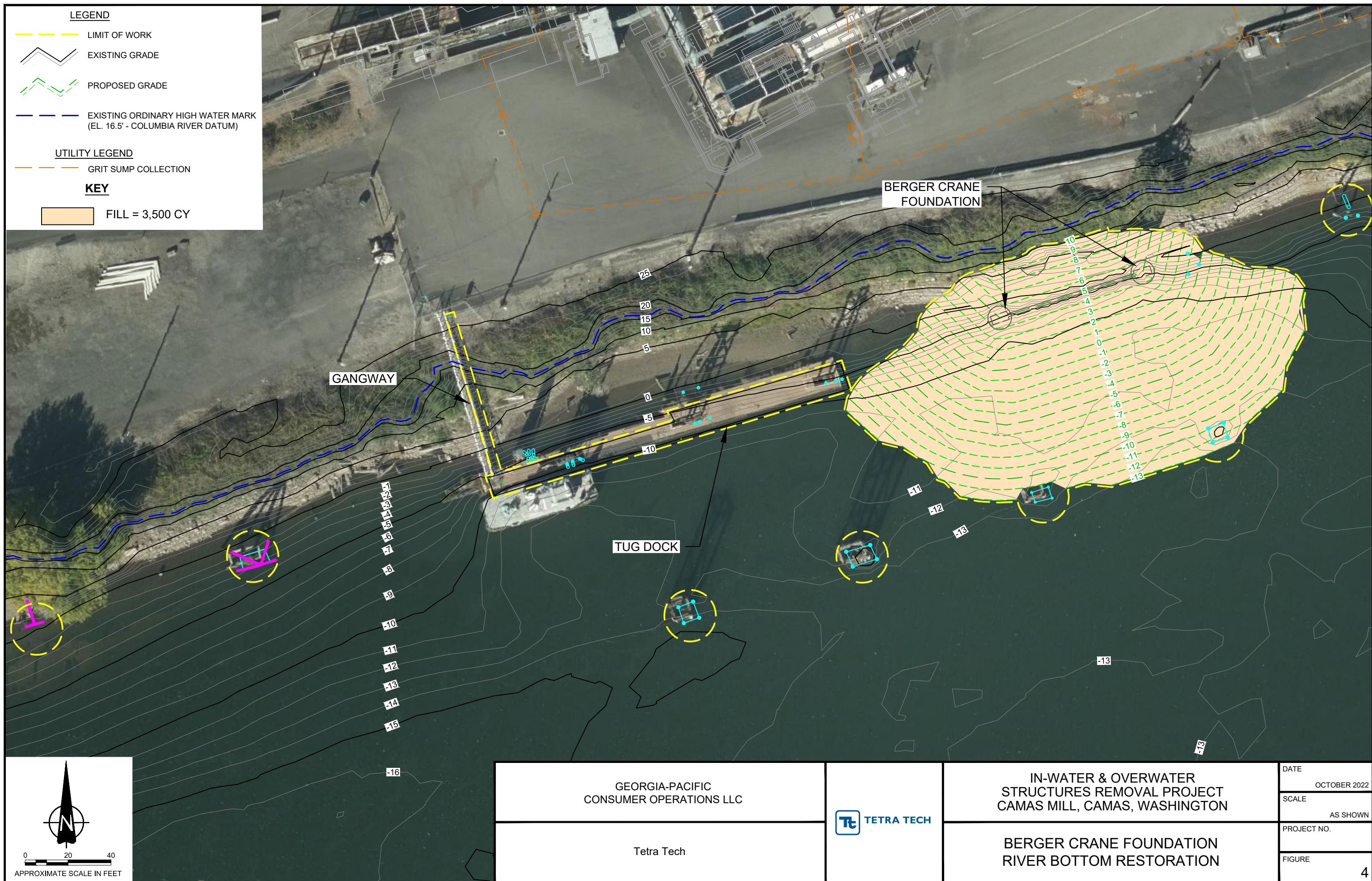


IN-WATER & OVERWATER  
STRUCTURES REMOVAL PROJECT  
CAMAS MILL, CAMAS, WASHINGTON

GRADING PLAN  
BERGER CRANE FOUNDATION

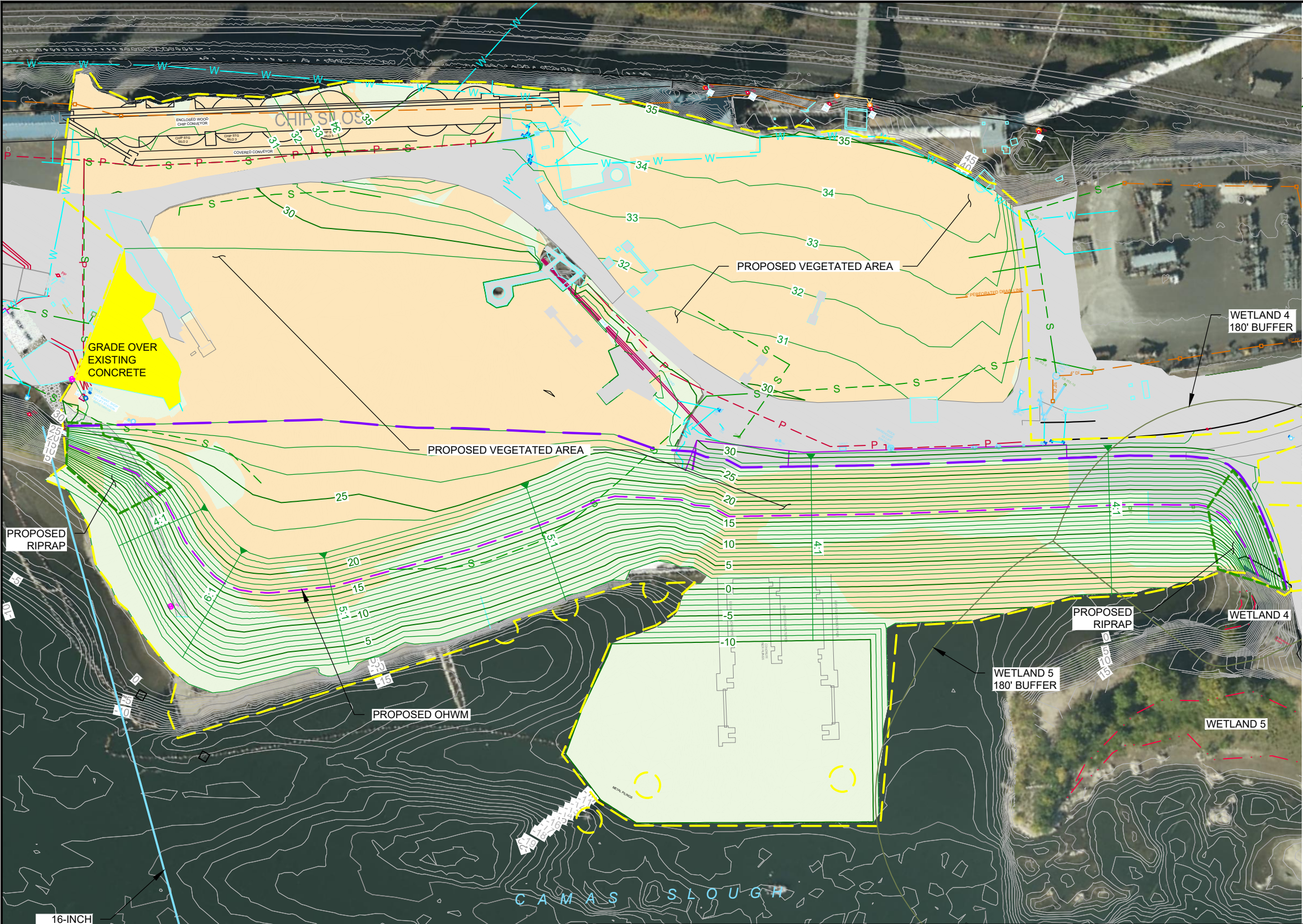
DATE	OCTOBER 2022
SCALE	AS SHOWN
PROJECT NO.	
FIGURE	3







Plot Date: 10/19/22 - 5:03pm. Plotted by: joel.cameron  
Drawing Path: P:\194-0117-0064 Camas Permitting Support\CAD\Sheet Files\, Drawing Name: GP-Camas-Figure\_05-2022.10.19.dwg



LEGEND

- LIMIT OF WORK
- EXISTING GRADE CONTOURS (SITEWIDE LAND SURVEYING 7/07/20)
- PROPOSED FINAL GRADE CONTOURS
- PROPOSED ORDINARY HIGH WATER MARK (OHWM) (EL. 16.5' - COLUMBIA RIVER DATUM)
- PROPOSED 100-YEAR FLOOD PLAIN (EL. 28' - COLUMBIA RIVER DATUM)
- EXISTING WETLAND

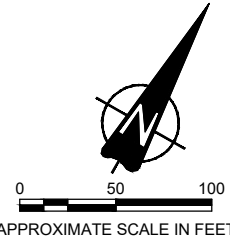
UTILITY LEGEND

- FIRE MAIN
- WATER
- PROCESS SEWER
- GRIT SUMP COLLECTION
- OVERHEAD POWER LINE
- UNDERGROUND POWER LINE
- NATURAL GAS

EARTHWORK QUANTITIES

NORTH WOOD CHIP AREA: 130,730 SF (3.00 ACRE)		
CUT =	5,678 CY	
FILL =	32,943 CY	
SOUTH WOOD CHIP AREA, PECO DOCK, WAREHOUSE, AND PIERS: 340,088 SF (7.81 ACRE)		
CUT =	32,676 CY	
FILL =	20,788 CY	

**DRAFT**



CLIENT		GEORGIA-PACIFIC CONSUMER OPERATIONS LLC CAMAS MILL CAMAS, WASHINGTON		DATE 10/19/22
 Camas, Washington 98607				SCALE AS SHOWN
 www.tetratech.com 19803 North Creek Parkway Bothell, Washington 98011 Phone: 425-482-7600 Fax: 425-482-7652		GRADING PLAN - PECO DOCK, DOCK WAREHOUSE, AND DOCK WAREHOUSE PIERS		PROJECT No. 194-0117
				FIGURE 5