Memo

DATE: July 29, 2026

TO: Sam Meng

CC: Scott Hooton, Brett Ozolin

FROM: Mark Rettmann

SUBJECT: Outfall Shoreline Impact & Mitigation Memo – Arkema Interim Cleanup Action

The Arkema Interim Action Project (Project) proposes construction associated with a north stormwater outfall and a south stormwater outfall. This memo summarizes the change in rip rap (rock) and concrete/structure surfaces from existing conditions to the proposed conditions associated with the two outfalls.

North Outfall Footprint Summary (Attachment A):
The north outfall has a footprint (rock & structure) increase of 330 SF. See Attachment A for more details.

South Outfall Footprint Summary (Attachment B):
The south outfall has a footprint decrease of -21 SF. See Attachment B for more details.

Overall Project Footprint Change:
The exiting footprint will be relocated to the proposed location as shown on the drawings (Attachment A & B). The overall Project footprint (rock & structure) change is ~309 SF.

Proposed Mitigation:
The Port of Tacoma (Port) proposes the following mitigation to compensate for the increased footprint (309 SF) of the Project outfalls. Mitigation includes direct onsite removal of up to 200 SF of concrete, debris, and trash over a 49,900 SF shoreline area as well as in-kind mitigation by conducting the Arkema Interim Cleanup Action including an environmental cap and a stormwater treatment system; together ensure no-net loss of ecological functions. A location map and representative photos are provided in Attachment C.

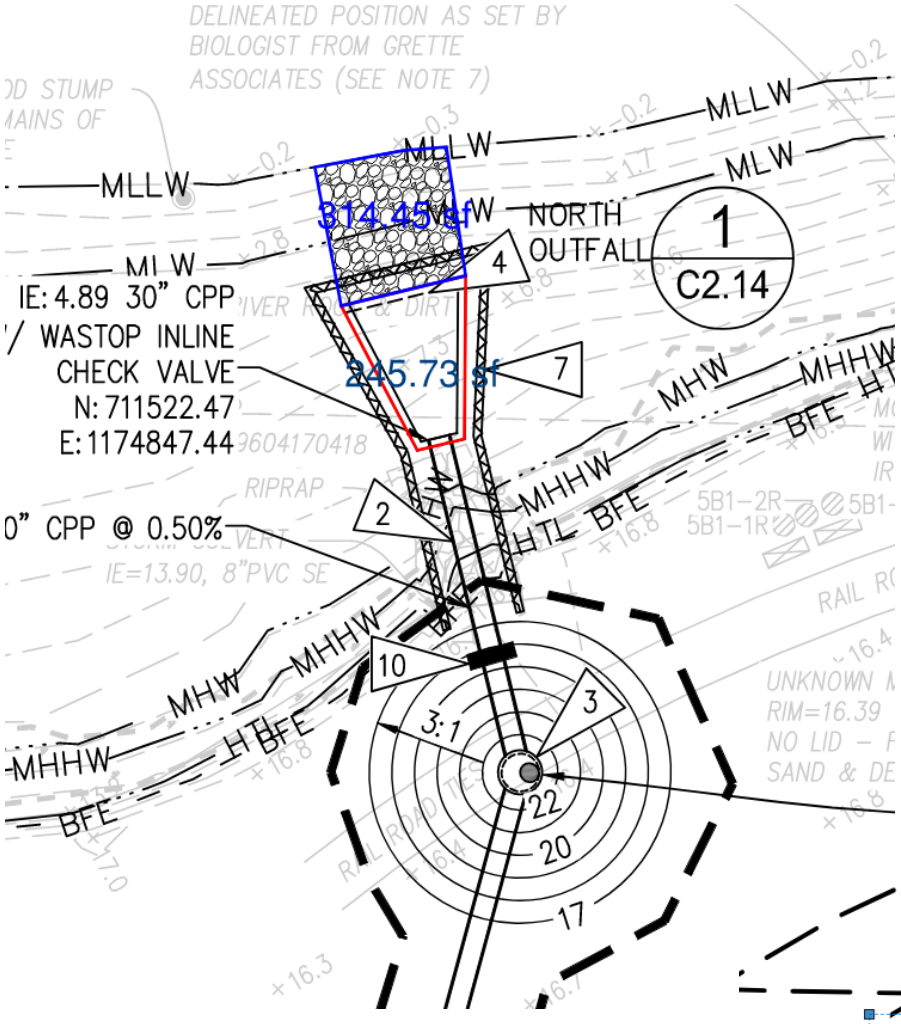
1. On-site Concrete Removal
    a. Removal of nine concrete ecology blocks (~60 SF)as identified on the topographic survey (Sheet SV1.7).
    b. Removal of concrete pipe debris (~40 SF) identified on the topographic survey (Sheet SV1.7) as “Top of 36” Conc. Pipe Continues Into Water”.
2. On-site Trash & Debris Removal along the entire project frontage
    a. A cleanup of the entire shoreline area (49,900 SF) fronting the Former Arkema Manufacturing Area will be conducted to remove trash and surface debris. The amount of trash and debris to be removed is more variable and dependent on the amount of material present at the time of the cleanup. The Port estimates 50-100 SF of trash and debris will be removed. The area is depicted in green on the location map included in Attachment C.

3. Conduct the Arkema Interim Cleanup Action Project (in-kind/innovative mitigation)
   The Project includes caping contamination and isolating and treating stormwater before discharge to the Hylebos Waterway. In addition to preventing migration of on-site contamination, the Project will install a stormwater collection and treatment system where there currently is none for the ~45-acre site. This Project will provide a substantial environmental benefit to prevent contamination migrating through the shoreline to the waterway.

Based on the proposed mitigation, the Project will ensure no-net loss of ecological functions.

Attachment A:

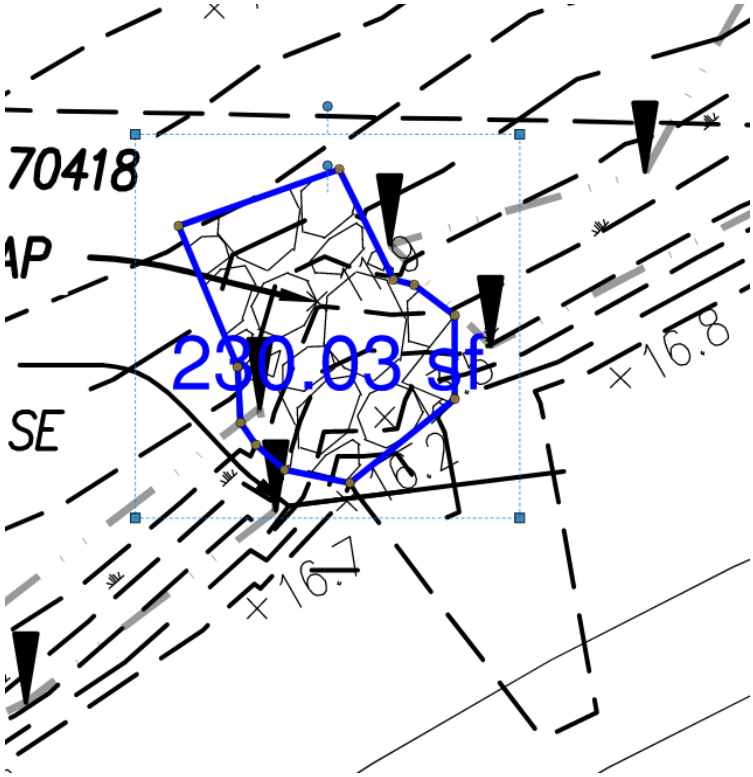
North Outfall
Existing & Proposed Conditions



North Outfall - Proposed Work

Rock Work

Concrete Work

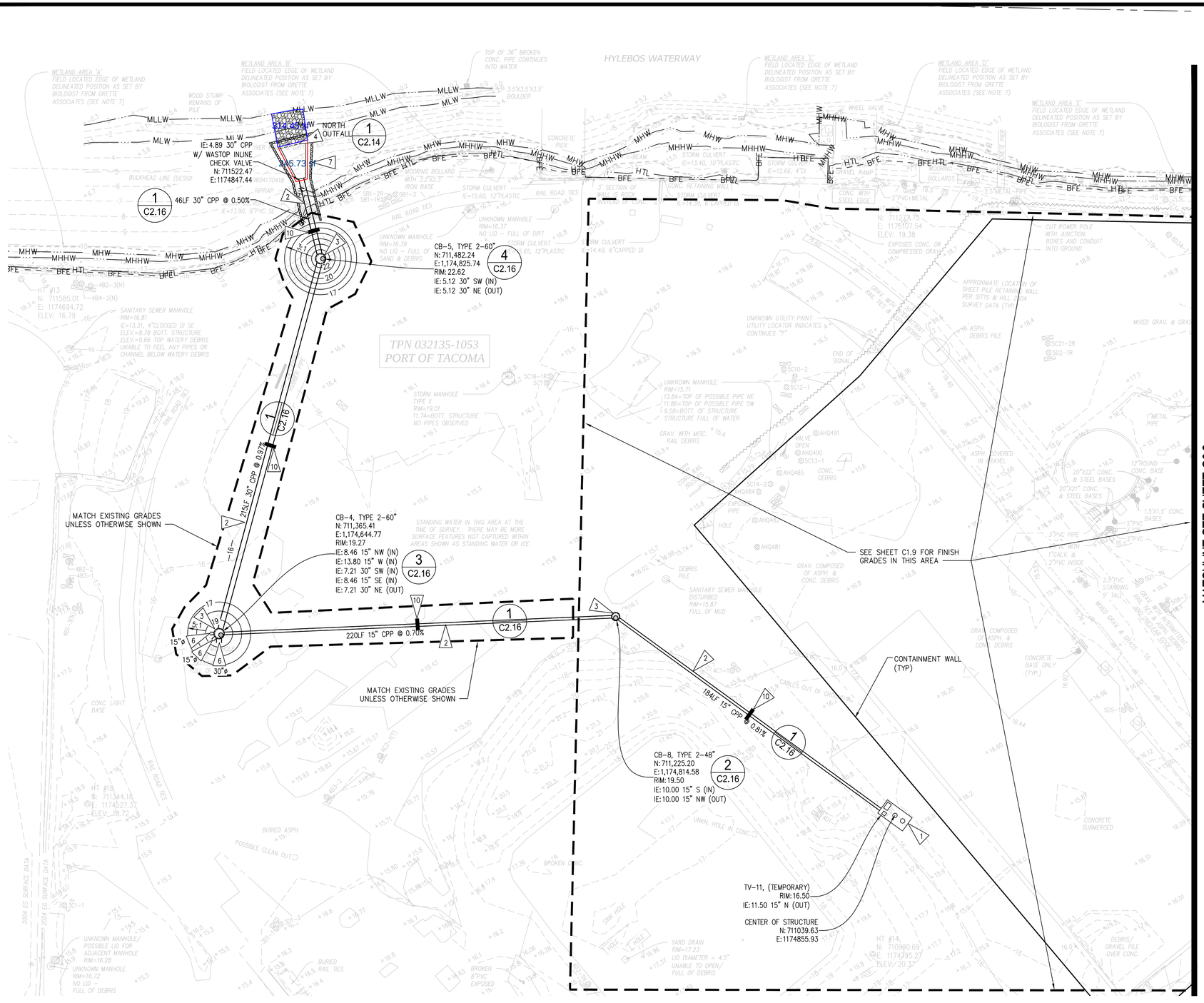


North Outfall - Existing

Rock

	Existing Rock (sf)	Existing Hard Surface (sf)	Proposed Rock (sf)	Rock Delta (sf)	Proposed Hard (sf)	Hard Delta (sf)	Delta Total (sf)	Delta Total (acre)
North Outfall	230	0	314	84	246	246	330	0.008
South Outfall	604	37	364	-240	256	219	-21	0.000
							309	0.00709366

BINDING EDGE



LEGEND

PROPOSED FEATURES-

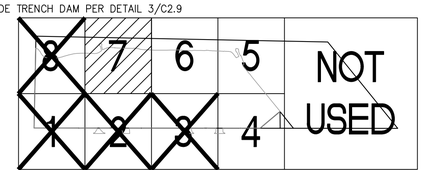
- STORM DRAIN PIPE
- TYPE 2 CATCH BASIN
- TREATMENT VAULT (16'x8')
- 20 — CONTOUR MAJOR
- 19 — CONTOUR MINOR
- RIDGE LINE
- HTL — HIGH TIDE LINE = ELEVATION 13.5
- MHHW — MEAN HIGHER HIGH WATER = ELEVATION 11.80
- MHW — MEAN HIGH WATER = ELEVATION 10.92
- MLW — MEAN LOW WATER = ELEVATION 2.85
- MLLW — MEAN LOWER LOW WATER = ELEVATION 0.00
- BFE — FEMA BASE FLOOD ELEVATION = 14.5±
- GRADING LIMITS
- QUARRY SPALL APRON PAD
- TRENCH DAM

GENERAL NOTES

1. THE BURIED UTILITIES ON THIS PROJECT ARE SHOWN IN THEIR APPROXIMATE LOCATION WHERE KNOWN BASED ON FIELD SURVEY PERFORMED BY SITTS & HILL. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND HAVE THEIR LOCATION MARKED ON THE GROUND PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL PROTECT, OR IMMEDIATELY REPAIR, ANY DAMAGED UTILITY "DISCOVERED" ON THIS PROJECT WITHOUT ADDITIONAL COSTS.
2. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON THE SITE WAS PREPARED AND PROVIDED BY SITTS & HILL ENGINEERS, INC. SEE SHEET SV1.0 FOR HORIZONTAL AND VERTICAL DATUM.
3. SEE SHEETS C2.9–C2.16, C2.19 AND C2.25 FOR STORM DRAINAGE DETAILS AND NOTES, AND STORM DRAIN PROFILES.
4. ALL CATCH BASIN COVERS/LIDS TO BE BOLT-DOWN. THE CONTRACTOR SHALL SET RINGS AS NECESSARY TO MATCH FUTURE FINISHED GRADE AS NOTED.
5. CONTRACTOR AND/OR SURVEYOR SHALL CALCULATE PIPE SLOPES BASED ON THE INVERT ELEVATIONS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO FIELD STAKING AND CONSTRUCTION.
6. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR MAINTAINING ALL STORM SYSTEMS (EXISTING AND PROPOSED) AND TESC FACILITIES THROUGH THE CONSTRUCTION AND PROJECT COMPLETION.
7. REFER TO STORM DRAINAGE SYSTEM NOTES ON SHEET C2.9 AND THE SPECIFICATIONS FOR THE STORM SYSTEM ELEMENTS.
8. REFER TO SHEET C2.0 FOR OVERALL STORM DRAINAGE SYSTEM IN PHASE 1.
9. THE CONTRACTOR SHALL NOT UTILIZE EITHER THE TREATMENT VAULT OR CONVEYANCE PIPELINE INSTALLATIONS FOR CONSTRUCTION STORMWATER DISCHARGES. PROVIDE TEMPORARY PLUGS UPON THEIR RESPECTIVE INSTALLATIONS TO PROTECT AND PREVENT THEIR USE.
10. SEE U.S. ARMY CORPS OF ENGINEERS REFERENCE NUMBER NWS-287-WRD FOR ALL SHORELINE WORK PERMITTED UP TO ORDINARY HIGH WATER MARK (OHW, 13.50' MLLW).

KEY NOTES

1. INSTALL STORM TREATMENT VAULT PER DETAILS ON SHEETS C2.10 AND C2.11. PROVIDE STRUCTURE SUPPORT PER DETAIL 2/C2.9.
2. INSTALL STORM DRAINAGE PIPE. PIPE SIZE, MATERIAL AND SLOPE PER CALLOUT. REFER TO STORM DRAINAGE SYSTEM NOTES ON C2.9 FOR SPECIFICATIONS. PIPE BEDDING PER DETAIL 1/C2.9.
3. INSTALL CATCH BASIN TYPE 2, STRUCTURE SIZE AND COVER LOCATION PER PLAN, SEE SHEET C2.25 FOR CATCH BASIN DETAILS. PROVIDE STRUCTURE SUPPORT PER DETAIL 2/C2.9. REFER TO STORM DRAINAGE SYSTEM NOTES ON C2.9 FOR SPECIFICATIONS.
4. INSTALL OUTFALL PER SECTIONS ON SHEET C2.12 AND DETAILS ON SHEETS C2.14 AND C2.15
5. CUT 32" ø HOLE IN EXISTING STEEL SHEET PILE WALL. PROVIDE TRENCH DAM ON WEST SIDE OF EXISTING SHEET PILE WALL
6. INSTALL 5-FT LONG CPP PIPE STUB WITH TEMPORARY CAP FOR FUTURE PIPE EXTENSION, PIPE SIZE AND DIRECTION AS SHOWN IN PLAN VIEW. PROVIDE COR-N-SEAL ADAPTER PER DETAIL 1/C2.25
7. PROVIDE TEMPORARY SHEET PILE WALL COFFER DAM FOR OUTFALL CONSTRUCTION. SEE SPECIFICATIONS FOR SHEET PILE WALL DESIGN, CONSTRUCTION, DEWATERING DESIGN AND EXECUTION REQUIREMENTS.
8. PROVIDE (1) TEMPORARY 6" DIAMETER PUMP DISCHARGE PIPELINE. CONTRACTOR TO PROVIDE ALL PIPE, FITTNGS AND ALIGNMENT. THE ALIGNMENT SHOWN IS ABOVE GROUND ALONG THE EXISTING FENCE LINE EXCEPT AT THE ACCESS CROSSING. THE ACCESS CROSSING IS BURIED WITH A SLEEVE. THE TEMPORARY DISCHARGE PIPELINE SHALL BE INSTALLED ABOVE GROUND OVER THE WETLAND AND TERMINATE AT THE PERMANENT QUARRY SPALL APRON PAD. THE PERMANENT QUARRY SPALL APRON PAD SHALL BE INSTALLED PRIOR TO TEMPORARY PUMP SYSTEM WORK, PERMANENT OUTFALL AND OUTFALL PIPELINE WORK.
9. PROVIDE A TEMPORARY PUMP SYSTEM THAT CONFORMS TO SPECIFICATION REQUIREMENTS.
10. PROVIDE TRENCH DAM PER DETAIL 3/C2.9



KEY PLAN
SCALE: NTS

NORTH

GRADING AND DRAINAGE PLAN - AREA 7
SCALE: 1" = 30'

HORIZONTAL SCALE: 1"=30'
30 0 30' 30 60

NORTH

PORT OF TACOMA FILE: N:\20300\20347\Drawings\PHASE 1 Drawings\101585-C2.X

Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841

sitts & hill ENGINEERS, INC. CIVIL | STRUCTURAL | ARCHITECTURAL | SURVEY 415 STATION STREET | TACOMA, WA. 98409 PHONE: (253) 474-9449 | FAX: (253) 474-0153 www.sittshill.com

MARK:	REVISION:	BY:	APPR:	DATE:

RICHARD C. HAND STATE OF WASHINGTON 20780 REGISTERED PROFESSIONAL ENGINEER PRELIMINARY SIGNATURE DATE

CHECKED BY	RCH	05/12/26		
PROJ. ENGR	RCH	05/12/26		
srebrob	May 13, 2026			

APPROVED:

DIRECTOR ENG. DATE

PRINTED BY: srebrob

PORT ADDRESS:ONE SITCUM PLAZA

TACOMA, WA 98401-1837

ARKEMA INTERIM ACTION - PHASE 1
CONTAINMENT WALL
GRADING AND DRAINAGE PLAN - AREA 7

TOWNSHIP: 21 NORTH	RANGE: 3 EAST	SECTION: 36	
DAT-HRZ: WA83/2011	VERT: MLLW 15.73' @ POT MON #178		
PARCEL: 0321351053	DRAWING SCALE: AS NOTED		

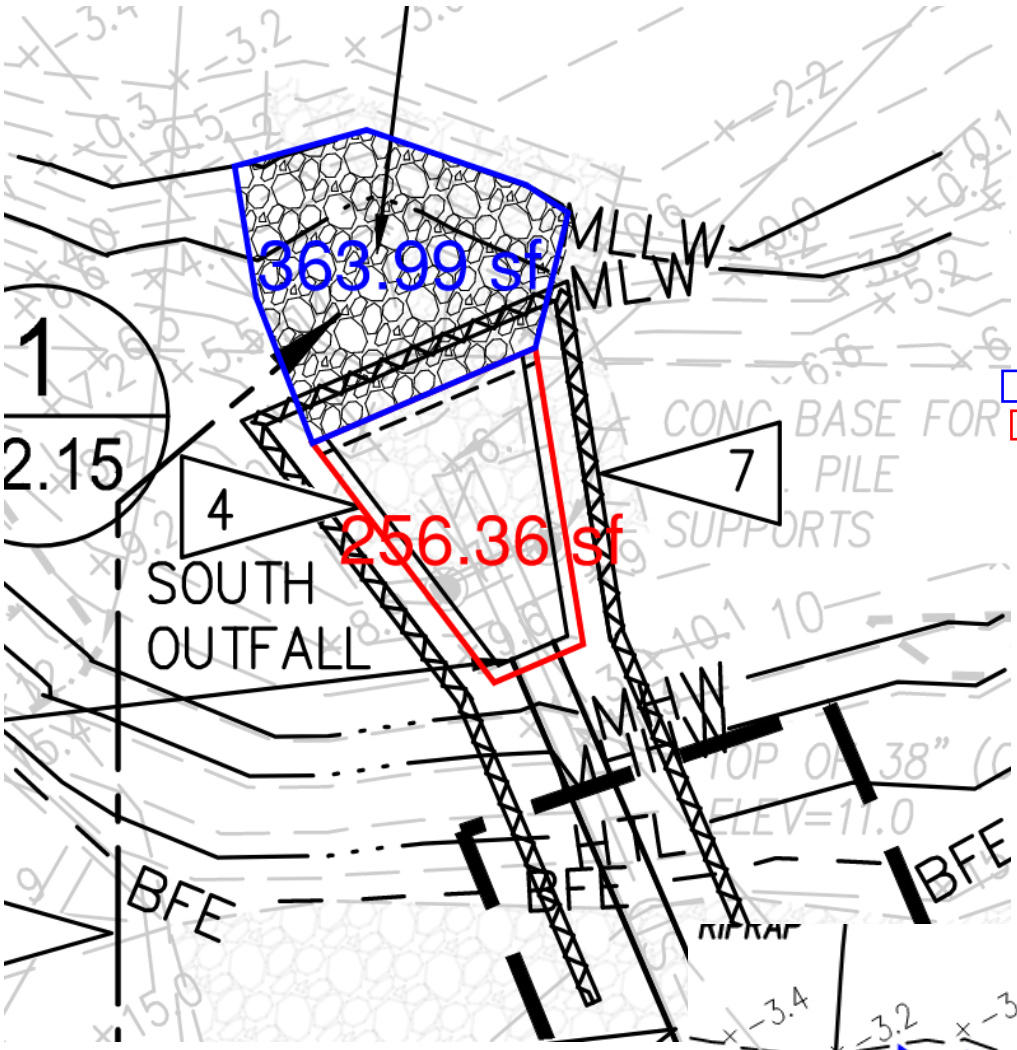
6697
C2.7
SH# 34 OF 44

CONT/CONS: PA00000403
M. ID: 101585.01
PHASE: 100%

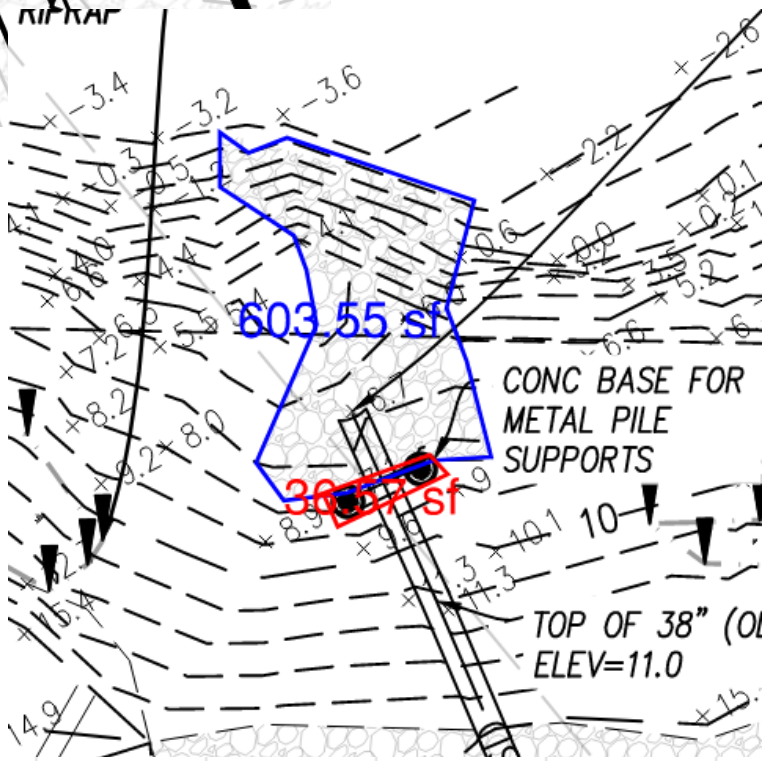
THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION

Attachment B:

South Outfall
Existing & Proposed Conditions

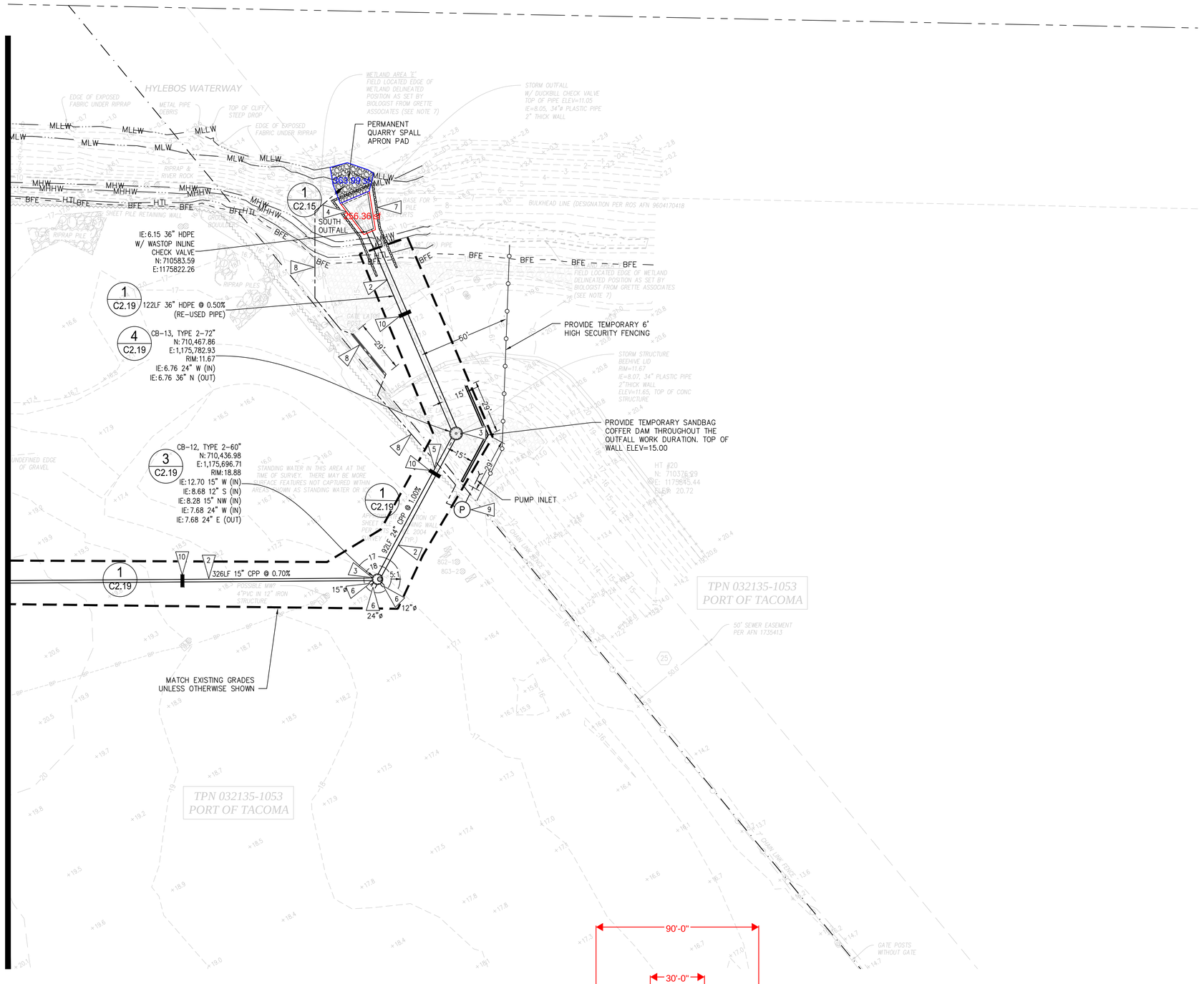


South Outfall - Proposed Work
Rock Work
Concrete Work



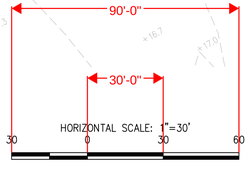
South Outfall - Existing
Rock Work
Structure

	Existing Rock (sf)	Existing Hard Surface (sf)	Proposed Rock (sf)	Rock Delta (sf)	Proposed Hard (sf)	Hard Delta (sf)	Delta Total (sf)	Delta Total (acre)
North Outfall	230	0	314	84	246	246	330	0.008
South Outfall	604	37	364	-240	256	219	-21	0.000
							309	0.00709366



GRADING AND DRAINAGE PLAN - AREA 5

SCALE: 1" = 30'



LEGEND

PROPOSED FEATURES-

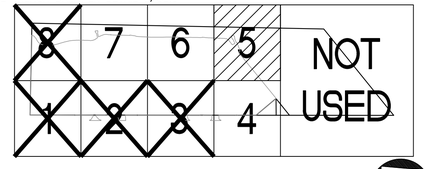
- STORM DRAIN PIPE
- TYPE 2 CATCH BASIN
- TREATMENT VAULT (16'x8')
- 20 — CONTOUR MAJOR
- 19 — CONTOUR MINOR
- RIDGE LINE
- HTL — HIGH TIDE LINE = ELEVATION 13.5
- MHHW — MEAN HIGHER HIGH WATER = ELEVATION 11.80
- MHW — MEAN HIGH WATER = ELEVATION 10.92
- MLW — MEAN LOW WATER = ELEVATION 2.85
- MLLW — MEAN LOWER LOW WATER = ELEVATION 0.00
- BFE — FEMA BASE FLOOD ELEVATION = 14.5±
- GRADING LIMITS
- QUARRY SPALL APRON PAD
- TRENCH DAM

GENERAL NOTES

1. THE BURIED UTILITIES ON THIS PROJECT ARE SHOWN IN THEIR APPROXIMATE LOCATION WHERE KNOWN BASED ON FIELD SURVEY PERFORMED BY SITTS & HILL. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND HAVE THEIR LOCATION MARKED ON THE GROUND PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL PROTECT, OR IMMEDIATELY REPAIR, ANY DAMAGED UTILITY "DISCOVERED" ON THIS PROJECT WITHOUT ADDITIONAL COSTS.
2. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON THE SITE WAS PREPARED AND PROVIDED BY SITTS & HILL ENGINEERS, INC. SEE SHEET SV1.0 FOR HORIZONTAL AND VERTICAL DATUM.
3. SEE SHEETS C2.9–C2.16, C2.19 AND C2.25 FOR STORM DRAINAGE DETAILS AND NOTES, AND STORM DRAIN PROFILES.
4. ALL CATCH BASIN COVERS/LIDS TO BE BOLT–DOWN. THE CONTRACTOR SHALL SET RINGS AS NECESSARY TO MATCH FUTURE FINISHED GRADE AS NOTED.
5. CONTRACTOR AND/OR SURVEYOR SHALL CALCULATE PIPE SLOPES BASED ON THE INVERT ELEVATIONS SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO FIELD STAKING AND CONSTRUCTION.
6. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR MAINTAINING ALL STORM SYSTEMS (EXISTING AND PROPOSED) AND TESC FACILITIES THROUGH THE CONSTRUCTION AND PROJECT COMPLETION.
7. REFER TO STORM DRAINAGE SYSTEM NOTES ON SHEET C2.9 AND THE SPECIFICATIONS FOR THE STORM SYSTEM ELEMENTS.
8. REFER TO SHEET C2.0 FOR OVERALL STORM DRAINAGE SYSTEM IN PHASE 1.
9. THE CONTRACTOR SHALL NOT UTILIZE EITHER THE TREATMENT VAULT OR CONVEYANCE PIPELINE INSTALLATIONS FOR CONSTRUCTION STORMWATER DISCHARGES. PROVIDE TEMPORARY PLUGS UPON THEIR RESPECTIVE INSTALLATIONS TO PROTECT AND PREVENT THEIR USE.
10. SEE U.S. ARMY CORPS OF ENGINEERS REFERENCE NUMBER NWS–287–WRD FOR ALL SHORELINE WORK PERMITTED UP TO ORDINARY HIGH WATER MARK (OHW, 13.50' MLLW).

KEY NOTES

1. INSTALL STORM TREATMENT VAULT PER DETAILS ON SHEETS C2.10 AND C2.11. PROVIDE STRUCTURE SUPPORT PER DETAIL 2/C2.9.
2. INSTALL STORM DRAINAGE PIPE. PIPE SIZE, MATERIAL AND SLOPE PER CALLOUT. REFER TO STORM DRAINAGE SYSTEM NOTES ON C2.9 FOR SPECIFICATIONS. PIPE BEDDING PER DETAIL 1/C2.9.
3. INSTALL CATCH BASIN TYPE 2, STRUCTURE SIZE AND COVER LOCATION PER PLAN, SEE SHEET C2.25 FOR CATCH BASIN DETAILS. PROVIDE STRUCTURE SUPPORT PER DETAIL 2/C2.9. REFER TO STORM DRAINAGE SYSTEM NOTES ON C2.9 FOR SPECIFICATIONS.
4. INSTALL OUTFALL PER SECTIONS ON SHEET C2.12 AND DETAILS ON SHEETS C2.14 AND C2.15
5. CUT 32" ø HOLE IN EXISTING STEEL SHEET PILE WALL. PROVIDE TRENCH DAM ON WEST SIDE OF EXISTING SHEET PILE WALL
6. INSTALL 5–FT LONG CPP PIPE STUB WITH TEMPORARY CAP FOR FUTURE PIPE EXTENSION, PIPE SIZE AND DIRECTION AS SHOWN IN PLAN VIEW. PROVIDE COR–N–SEAL ADAPTER PER DETAIL 1/C2.25
7. PROVIDE TEMPORARY SHEET PILE WALL COFFER DAM FOR OUTFALL CONSTRUCTION. SEE SPECIFICATIONS FOR SHEET PILE WALL DESIGN, CONSTRUCTION, DEWATERING DESIGN AND EXECUTION REQUIREMENTS.
8. PROVIDE (1) TEMPORARY 6" DIAMETER PUMP DISCHARGE PIPELINE. CONTRACTOR TO PROVIDE ALL PIPE, FITTNGS AND ALIGNMENT. THE ALIGNMENT SHOWN IS ABOVE GROUND ALONG THE EXISTING FENCE LINE EXCEPT AT THE ACCESS CROSSING. THE ACCESS CROSSING IS BURIED WITH A SLEEVE. THE TEMPORARY DISCHARGE PIPELINE SHALL BE INSTALLED ABOVE GROUND OVER THE WETLAND AND TERMINATE AT THE PERMANENT QUARRY SPALL APRON PAD. THE PERMANENT QUARRY SPALL APRON PAD SHALL BE INSTALLED PRIOR TO TEMPORARY PUMP SYSTEM WORK, PERMANENT OUTFALL AND OUTFALL PIPELINE WORK.
9. PROVIDE A TEMPORARY PUMP SYSTEM THAT CONFORMS TO SPECIFICATION REQUIREMENTS.
10. PROVIDE TRENCH DAM PER DETAIL 3/C2.9



KEY PLAN

SCALE: NTS

NORTH

Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841

sitts & hill
CIVIL | STRUCTURAL | ARCHITECTURAL | SURVEY
615 STATION STREET | TACOMA, WA. 98405
PHONE: (253) 474-9449 | FAX: (253) 474-0153
www.sitts-hill.com

MARK:	REVISION:	BY:	APPR:	DATE:

RICHARD C. HAND — STATE OF WASHINGTON — 20780 — REGISTERED PROFESSIONAL ENGINEER
PRELIMINARY — NOT FOR CONSTRUCTION

RCH	05/12/26	RCH	05/12/26
CHECKED BY	DATE	PROJ. ENGR	DATE

APPROVED:

DIRECTOR ENG.: DATE

PRINTED BY: srebrob May 13, 2026

PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

ARKEMA INTERIM ACTION - PHASE 1
CONTAINMENT WALL
GRADING AND DRAINAGE PLAN - AREA 5

CONT/CONS:	PA00000403	TOWNSHIP: 21 NORTH	RANGE: 3 EAST | SECTION: 36
M. ID:	101585.01	DAT–HRZ: WA83/2011	VERT: MLLW 15.73' @ POT MON #178
PHASE:	100%	PARCEL:	0321351053
		DRAWING SCALE:	AS NOTED

6697
C2.5
SH # 32 OF 44

THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION

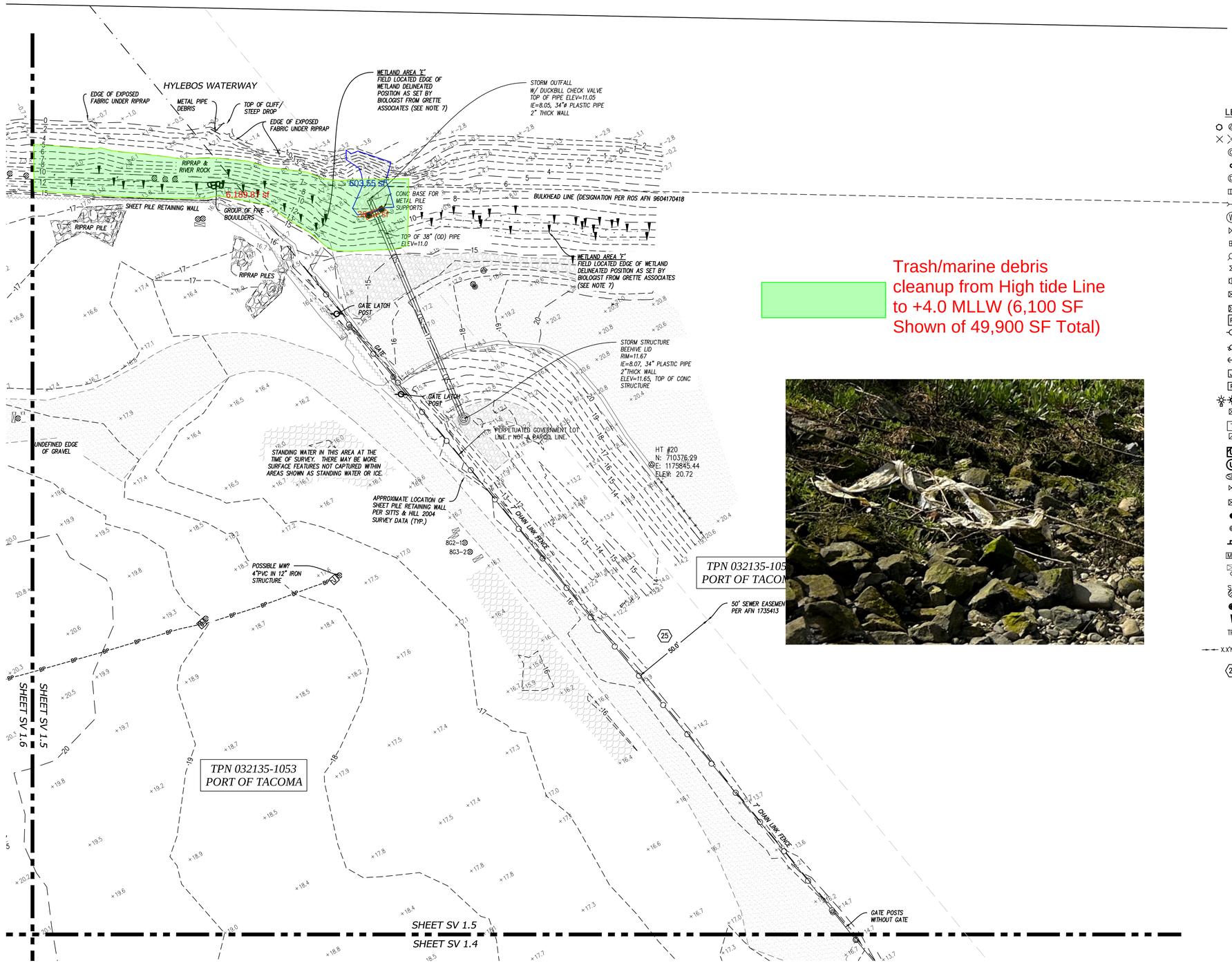
BINDING EDGE

PORT OF TACOMA FILE: N:\2030\20347\Drawings\PHASE 1 Drawings\101585-C2.X

Attachment C:

Proposed On-site Mitigation

BINDING EDGE



TOPOGRAPHIC SURVEY - AREA 5

SCALE: 1" = 30'

Trash/marine debris cleanup from High tide Line to +4.0 MLLW (6,100 SF Shown of 49,900 SF Total)

30'-1/2"

30'-1/2"

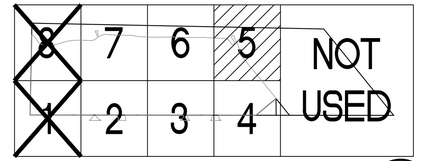
HORIZONTAL SCALE: 1"=30'

30 0 30 60

LEGEND

- FOUND MONUMENT/ REBAR AS NOTED
- SURVEY CONTROL POINT
- SANITARY SEWER MANHOLE
- UTILITY CLEAN OUT
- STORM MANHOLE
- STORM CATCH BASIN
- STORM CULVERT
- WATER MANHOLE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- GAS VALVE
- GAS RISER
- POWER METER
- POWER CABINET
- UTILITY POLE
- UTILITY POLE WITH DROP(S)
- GUY ANCHOR
- JUNCTION BOX
- POWER VAULT
- LIGHT POLE
- TELECOM RISER
- TELECOM VAULT
- TELECOM JUNCTION BOX
- UTILITY VAULT
- UTILITY MANHOLE
- UNKNOWN STAND PIPE
- UNKNOWN VALVE
- UNKNOWN RISER
- COLUMN
- BOLLARD
- SIGN
- MAILBOX
- ECOLOGY BLOCK
- RAILROAD SWITCH
- MONITORING WELL
- PILE
- WETLAND FLAG
- TPN TAX PARCEL NUMBER
- X.X'N.E. DISTANCE AND DIRECTION OF NOTED OBJECT FROM PROPERTY LINE
- 25 SCHED. B EXCEPTION NUMBER

- PARCEL LINE
- ROAD CENTERLINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- STORM DRAIN LINE
- RECORD STORM LINE
- SANITARY SEWER LINE
- RECORD SANITARY LINE
- BURIED WATER LINE
- RECORD WATER LINE
- BURIED GAS LINE
- RECORD GAS LINE
- BURIED POWER LINE
- RECORD BURIED POWER
- OVERHEAD POWER LINE
- BURIED TELECOM LINE
- RECORD TELECOM LINE
- CHAIN LINK FENCE
- RAILROAD TRACKS
- WETLAND DELINEATION
- ASPHALT SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE
- RIP-RAP SURFACE
- AREA OF STANDING WATER/ ICE AT TIME OF SURVEY
- WETLAND AREA



KEY PLAN

SCALE: NTS

NORTH

Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841

sitts&hill
CIVIL | PROFESSIONAL | ARCHITECTURAL | SURVEY
615 CENTER STREET | TACOMA, WA. 98409
PHONE: (253) 474-9449 | FAX: (253) 474-9755
www.sittshill.com

MARK:	REVISION:	BY:	APPR:	DATE:

PRELIMINARY
NOT FOR CONSTRUCTION
BRADLEY SCHILLING
STATE OF WASHINGTON
18589
REGISTERED PROFESSIONAL LAND SURVEYOR

APPROVED:

DIRECTOR_ENG. DATE

DS	04/09/26
CHECKED BY	DATE
DS	04/09/26
PROJ. ENGR	DATE

PRINTED BY: KreischerK Apr 24, 2026
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

ARKEMA INTERIM ACTION - PHASE 1
CONTAINMENT WALL
TOPOGRAPHIC SURVEY - AREA 5

CONT/CONS:	PA00000403	TOWNSHIP: 21 NORTH	RANGE: 3 EAST
M. ID:	101585.01	DAT–HRZ: WA83/2011	VERT: MLLW 15.73' @ POT MON #178
PHASE:	90%	PARCEL: 0321351053	DRAWING SCALE: AS NOTED

SECTION: 36

6697
SV1.5
SH # 7 OF 44

THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION

PORT OF TACOMA FILE: N:\20300\20347\Drawings\PHASE 1 Drawings\101585-SV1.X

BINDING EDGE

HYLEBOS WATERWAY

WETLAND AREA 'E'
FIELD LOCATED EDGE OF WETLAND DELINEATED POSITION AS SET BY BIOLOGIST FROM GRETTE ASSOCIATES (SEE NOTE 7)

BULKHEAD LINE (DESIGNATION PER ROS AFN 9604170418

11,249.61 sf

BOULDERS

APPROXIMATE LOCATION OF SHEET PILE RETAINING WALL PER SITTS & HILL 2004 SURVEY DATA (TYP.)

STEEL PLATE

BROKEN "NO TRESSPASSING"

BURIED SHEET PILE WALL EXPOSED

BURIED STEEL PLATE

PLYWOOD

5"PVC SPU

HT #11
N: 710899.17
E: 1175500.21
ELEV: 16.96

TEE POST

2.5"METAL PIPE CONTINUES UNDER GROUND

APPROXIMATE LOCATION OF SHEET PILE RETAINING WALL PER SITTS & HILL 2004 SURVEY DATA (TYP.)

STORM CATCH BASIN TYPE I – SOLID LID
RIM=18.27
IE=15.02, 4"PVC NW
IE=14.97, 4"PVC SE
BOTH PIPES SUBMERGED

SMTCH

2"PVC PIPE

PILE OF SMALL BOULDERS

GRAV. MOUND

GRASS

MIXED GRAV. & GRASS

GRAV. ACCESS ROAD

SANITARY SEWER MANHOLE "P–5"
RIM=16.28
FULL OF MUD

UNKNOWN MANHOLE
RIM=16.18
NO LID – BURIED & SUBMERGED

JUNCTION BOX ON MW

DIRT STORAGE

1.5"X1.5" CONC. BASES (TYP.)

POWER PAINT

POSSIBLE BURIED CONC.

DISTURBED CONC. BASE IN 4'X4' FOOTING

1"PVC+WIRES

CONDUIT+WIRES

POSSIBLE STORM CATCH BASIN
RIM=16.60
PLASTIC GRATE, FULL OF WATER
ELEV.=16.15 TOP 3"VERT. PVC
IE=13.43 IE/TOP MUCK, 3" VERT. PVC
ELEV.=15.59 TOP DEBRIS

WATER MANHOLE
RIM=18.43
5.25" PLASTIC LID

STORM MANHOLE TYPE II
RIM=20.80
ELEV.=19.00, TOP 4" VERTICAL CAPPED PVC

EMPTY VAULT

16"METAL BOLLARDS

JERSEY BARRIER

ECOLOGY BLOCKS WITH BOULDERS

STORM CULVERT IE=17.95, 6"DI S

STORM CULVERT IE=17.94, 6"DI S

STORM CULVERT IE=18.46, 6"DI N

STORM CULVERT IE=18.43, 6"DI N

LOOSE GRAV./DIRT

GRAV. ACCESS ROAD

TPN 032135-1053
PORT OF TACOMA

MIXED GRAV. & GRASS

STORM CULVERT IE=19.35, 6"DI N

CONDUIT–OUT–OF–GROUND

1"METAL

1"X1"CONC. BASES WITHOUT COLUMNS (TYP.)

UNKNOWN MANHOLE
5'BURIED PLASTIC LID
RIM=19.56
LABELED "DB–3"
UNABLE TO OPEN

SWITCH

ASPH. W/ GRAV. COVER

ASPH. EDGE COVERED W/ GRAV.

SANITARY SEWER MANHOLE
RIM=17.84
UNABLE TO OPEN – LID WEDGED SHUT

CONC. BASES WITHOUT COLUMNS (TYP.)

CENTER OF 4 VERT. PIPES

CENTER OF 8–3"METAL PIPES

2 PIPES

5 PIPES

6 PIPES

2 PIPES

STEEL BASE OF REMOVED COLUMN?

STORM CULVERT IE=16.94, 1"PVC S

STEEL PLATE

BURIED GRATE

ASPH. DEBRIS PILE

UNKNOWN MANHOLE
6.7' DIAMETER GRATE
OVER PLASTIC STRUCTURE
RIM=16.96
FULL OF DEBRIS & VEGETATION

1"DI–UP

6"PVC

CONC. CONTINUES

TRENCH DRAIN RIM=17.51

TRENCH DRAIN RIM=17.37

HT #10
N: 710478.77
E: 1175405.75
ELEV: 20.49

CONCRETE AT VARIABLE GRADES

STANDING WATER IN THIS AREA AT THE TIME OF SURVEY. THERE MAY BE MORE SURFACE FEATURES NOT CAPTURED WITHIN AREAS SHOWN AS STANDING WATER OR ICE.

1.3'X1.3"CONCRETE BASE ONLY (TYP.)

1.5"GALV. PIPE

6"PVC PIPE

HAND RAIL GUARD

CONC. STEPS

3"PLASTIC PIPE

4"PVC PIPE

GRAV. WITH INTERMITTENT RAIL TIES & DEBRIS

ASPHALT WITH ASPH. DEBRIS

UNKNOWN UTILITY PAINT

SHEET SV 1.7

SHEET SV 1.6

SHEET SV 1.5

SHEET SV 1.3

SUBMERGED

EDGE OF

CONC. BASE ONLY (TYP.)

Trash/marine debris cleanup from High tide Line to +4.0 MLLW (16,200 SF Shown of 49,900 SF Total)

HORIZONTAL SCALE: 1"=30'
30 0 30 60

LEGEND

- FOUND MONUMENT/ REBAR AS NOTED
- SURVEY CONTROL POINT
- SANITARY SEWER MANHOLE
- UTILITY CLEAN OUT
- STORM MANHOLE
- STORM CATCH BASIN
- STORM CULVERT
- WATER MANHOLE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- GAS VALVE
- GAS RISER
- POWER METER
- POWER CABINET
- UTILITY POLE
- UTILITY POLE WITH DROP(S)
- GUY ANCHOR
- JUNCTION BOX
- POWER VAULT
- LIGHT POLE
- TELECOM RISER
- TELECOM VAULT
- TELECOM JUNCTION BOX
- UTILITY VAULT
- UTILITY MANHOLE
- UNKNOWN STAND PIPE
- UNKNOWN VALVE
- UNKNOWN RISER
- COLUMN
- BOLLARD
- SIGN
- MAILBOX
- ECOLOGY BLOCK
- RAILROAD SWITCH
- MONITORING WELL
- PILE
- WETLAND FLAG
- TPN TAX PARCEL NUMBER
- X.X'N.E. DISTANCE AND DIRECTION OF NOTED OBJECT FROM PROPERTY LINE
- 25 SCHED. B EXCEPTION NUMBER

- PARCEL LINE
- ROAD CENTERLINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- STORM DRAIN LINE
- RECORD STORM LINE
- SANITARY SEWER LINE
- RECORD SANITARY LINE
- BURIED WATER LINE
- RECORD WATER LINE
- BURIED GAS LINE
- RECORD GAS LINE
- BURIED POWER LINE
- RECORD BURIED POWER
- OVERHEAD POWER LINE
- BURIED TELECOM LINE
- RECORD TELECOM LINE
- CHAIN LINK FENCE
- RAILROAD TRACKS
- WETLAND DELINEATION
- ASPHALT SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE
- RIP–RAP SURFACE
- AREA OF STANDING WATER/ ICE AT TIME OF SURVEY
- WETLAND AREA

TOPOGRAPHIC SURVEY - AREA 6
SCALE: 1" = 30'

KEY PLAN
SCALE: NTS

NORTH

Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841

sitts & hill
CIVIL | STRUCTURAL | ARCHITECTURAL | SURVEY
813 STATION STREET | TACOMA, WA. 98405
PHONE: (253) 474-0449 | FAX: (253) 474-0153
WWW.SITTSHILL.COM

MARK:	REVISION:	BY:	APPR:	DATE:

PRELIMINARY
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF WASHINGTON
JEFFREY B. SCHILLING
18589
REGISTERED PROFESSIONAL LAND SURVEYOR

DS	04/09/26	
CHECKED BY	DATE	
DS	04/09/26	
PROJ. ENGR	DATE	

APPROVED:

DIRECTOR ENG. DATE

PRINTED BY: KreischerK Apr 24, 2026
PORT ADDRESS:ONE SITCUM PLAZA
TACOMA, WA 98401-1837

ARKEMA INTERIM ACTION - PHASE 1
CONTAINMENT WALL
TOPOGRAPHIC SURVEY - AREA 6

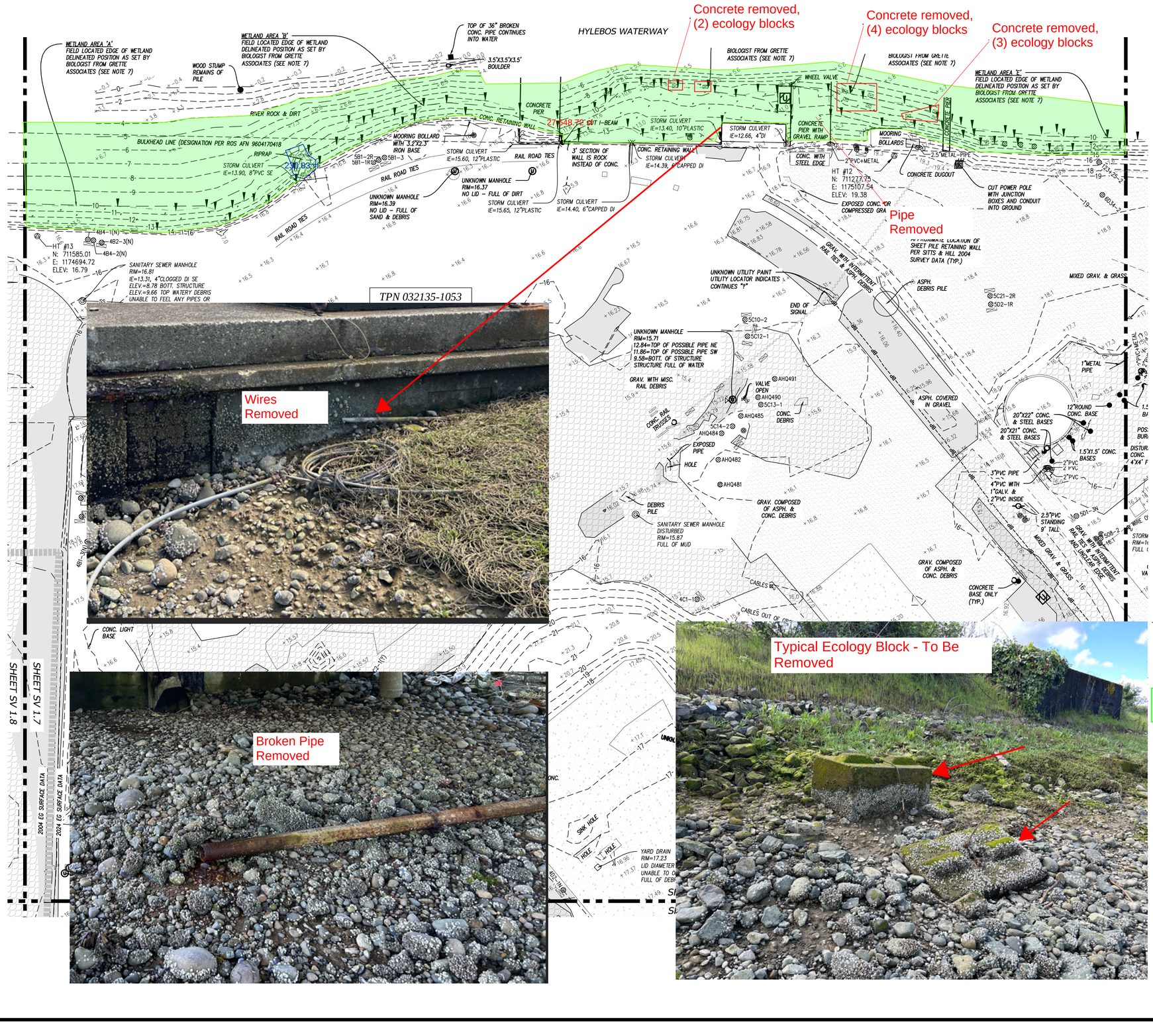
CONT/CONS:	PA000000403	TOWNSHIP: 21 NORTH	RANGE: 3 EAST SECTION: 36
M. ID:	101585.01	DAT–HRZ: WA83/2011	VERT: MLLW 15.73' @ POT MON #178
PHASE:	90%	PARCEL: 0321351053	DRAWING SCALE: AS NOTED

THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION

6697
SV1.6
SH # 8 OF 44

PORT OF TACOMA FILE: N:\20300\20347\Drawings\PHASE 1 Drawings\101585-SV1.X

BINDING EDGE



90'-1/2"

HORIZONTAL SCALE: 1"=30'

30 0 30 60

LEGEND

- FOUND MONUMENT/ REBAR AS NOTED
- SURVEY CONTROL POINT
- SANITARY SEWER MANHOLE
- UTILITY CLEAN OUT
- STORM MANHOLE
- STORM CATCH BASIN
- STORM CULVERT
- WATER MANHOLE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- GAS VALVE
- GAS RISER
- POWER METER
- POWER CABINET
- UTILITY POLE
- UTILITY POLE WITH DROP(S)
- GUY ANCHOR
- JUNCTION BOX
- POWER VAULT
- LIGHT POLE
- TELECOM RISER
- TELECOM VAULT
- TELECOM JUNCTION BOX
- UTILITY VAULT
- UTILITY MANHOLE
- UNKNOWN STAND PIPE
- UNKNOWN VALVE
- UNKNOWN RISER
- COLUMN
- BOLLARD
- SIGN
- MAILBOX
- ECOLOGY BLOCK
- RAILROAD SWITCH
- MONITORING WELL
- PILE
- WETLAND FLAG
- TPN TAX PARCEL NUMBER
- X.X'N.E. DISTANCE AND DIRECTION OF NOTED OBJECT FROM PROPERTY LINE
- (25) SCHED. B EXCEPTION NUMBER

- PARCEL LINE
- ROAD CENTERLINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- STORM DRAIN LINE
- RECORD STORM LINE
- SANITARY SEWER LINE
- RECORD SANITARY LINE
- BURIED WATER LINE
- RECORD WATER LINE
- BURIED GAS LINE
- RECORD GAS LINE
- BURIED POWER LINE
- RECORD BURIED POWER
- OVERHEAD POWER LINE
- BURIED TELECOM LINE
- RECORD TELECOM LINE
- CHAIN LINK FENCE
- RAILROAD TRACKS
- WETLAND DELINEATION
- ASPHALT SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE
- RIP-RAP SURFACE
- AREA OF STANDING WATER/ ICE AT TIME OF SURVEY
- WETLAND AREA

KEY PLAN
SCALE: NTS

NORTH

Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841

sitts & hill
CIVIL | STRUCTURAL | ARCHITECTURAL | SURVEY
413 CENTER STREET | TACOMA, WA. 98409
PHONE: (253) 474-9449 | FAX: (253) 474-0153
WWW.SITTSHILL.COM

MARK:	REVISION:	BY:	APPR:	DATE:

REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF WASHINGTON
SCHILLING
18599
PRELIMINARY

DS	04/09/26	APPROVED:	
CHECKED BY	DATE		
DS	04/09/26	DIRECTOR_ENG.	DATE
PROJ. ENGR	DATE	PRINTED BY:	KreischerK Apr 24, 2026

ARKEMA INTERIM ACTION - PHASE 1
CONTAINMENT WALL
TOPOGRAPHIC SURVEY - AREA 7

CONT/CONS:	PA0000000403	TOWNSHIP: 21 NORTH	RANGE: 3 EAST SECTION: 36
M. ID:	101585.01	DAT–HRZ: WA83/2011	VERT: MLLW 15.73' @ POT MON #1178
PHASE:	90%	PARCEL: 0321351053	DRAWING SCALE: AS NOTED

PORT ADDRESS:ONE SITCUM PLAZA
TACOMA, WA 98401-1837

6697
SV1.7
SH # 9 OF 44

8 7 6 5 NOT USED
1 2 3 4

THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION

PORT OF TACOMA FILE: N:\20300\20347\Drawings\PHASE 1 Drawings\101585-SV1.X







