

**LEGEND:**

EXISTING CONTOUR	EXISTING BOLLARD AND CHAIN TO REMAIN	PROPOSED TREE
EXISTING TREE TO RETAIN	HABITAT GRAVEL	PROPOSED SHRUBS/GROUNDCOVERS
EXISTING TREE TO REMOVE	GRAVEL OVER COBBLE	RIPARIAN SHRUBS
EXISTING UPLAND EDGE OF SHORELINE HABITAT GRAVEL	ROCK TERRACE	NATIVE UPLAND PLANTING/GROUNDCOVER
EXISTING BOULDER TO RETAIN	GRATED WATER ACCESS STEPS	STORMWATER CONVEYANCE PLANTING
PROPOSED CONTOUR	HANDRAIL	
PERVIOUS PAVERS	SPLIT RAIL FENCING	
CONCRETE PAVING WITH SAWCUT JOINT SCORING	PICNIC TABLE	
GRAVEL PATHWAY	BENCH	
GRAVEL DRIVEWAY PAVING	EXISTING LARGE WOODY DEBRIS RELOCATED	

**NOTES:**

- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83 (2011), U.S. SURVEY FEET
- VERTICAL DATUM: NAVD88

**kpff**  
 1601 5th Avenue, Suite 1000  
 Seattle, WA 98101  
 206.622.5822  
 www.kpff.com



NO.	DATE	BY	REVISION

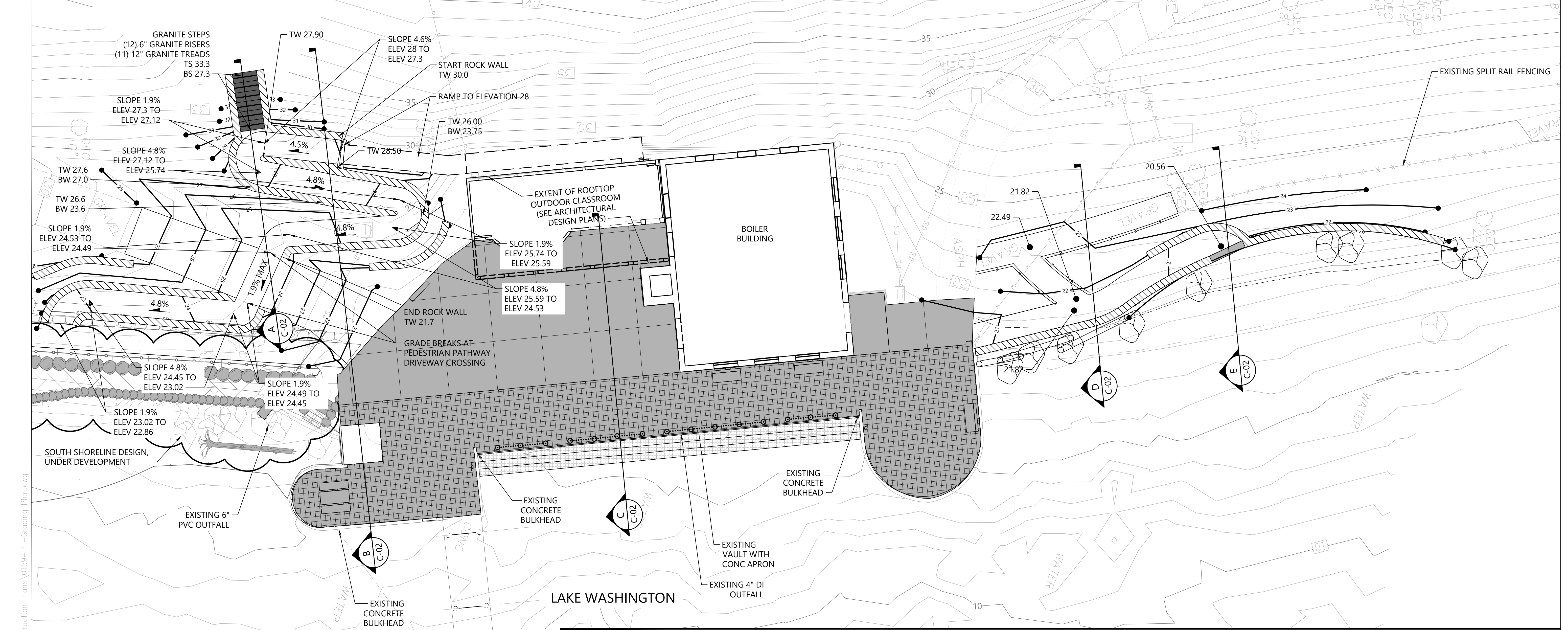


**LUTHER BURBANK PARK PIER REPAIR**  
 CITY OF MERCER ISLAND

**COMPOSITE SITE PLAN**

DRAWN: TG/CW	PROJECT NO.: 2000291
DESIGN: AS	SCALE: AS NOTED
CHECKED: PH	DATE: 09/08/2021
DRAWING NO.	<b>G-021</b>
SHEET NO. 5	OF 52

30% SUBMITTAL



**LEGEND:**

- EXISTING CONTOUR
- EXISTING TREE
- PROPOSED CONTOUR
- PERVIOUS PAVERS
- CONCRETE PAVING WITH SCORING
- EXISTING BOLLARD AND CHAIN TO REMAIN
- ROCK TERRACE
- GRATED WATER ACCESS STEPS
- SECTION LOCATION
- TW TOP OF WALL
- BW BOTTOM OF WALL
- TS TOP OF STAIRS
- BS BOTTOM OF STAIRS

0 10 20  
 SCALE IN FEET

**NOTES:**  
 1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83 (2011), U.S. SURVEY FEET  
 2. VERTICAL DATUM: NAVD88

CAD USER: cwee PLOT DATE: Oct 22, 2021 03:12pm  
 PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island\Luther Burbank Dock Repair\Construction Plans\0159-PL-Grading\_Plan.dwg

1601 5th Avenue, Suite 1600  
 Seattle, WA 98101  
 206.622.5822  
 www.kpff.com

NO.	DATE	BY	REVISION



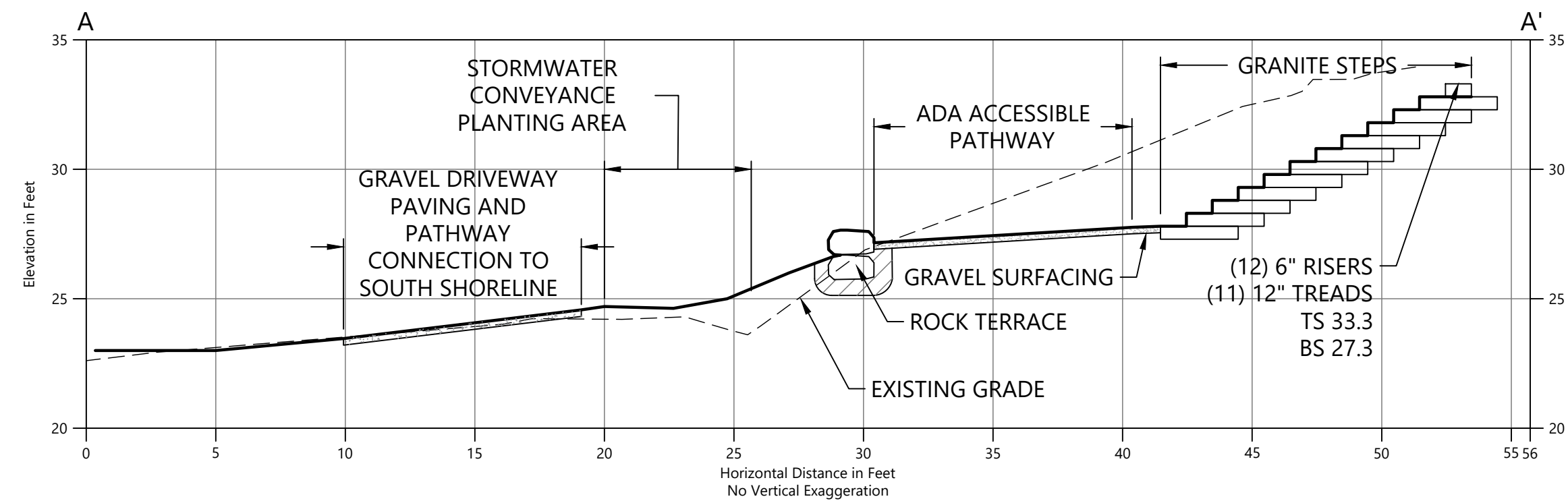
**LUTHER BURBANK PARK PIER REPAIR**  
 CITY OF MERCER ISLAND

**GRADING PLAN**

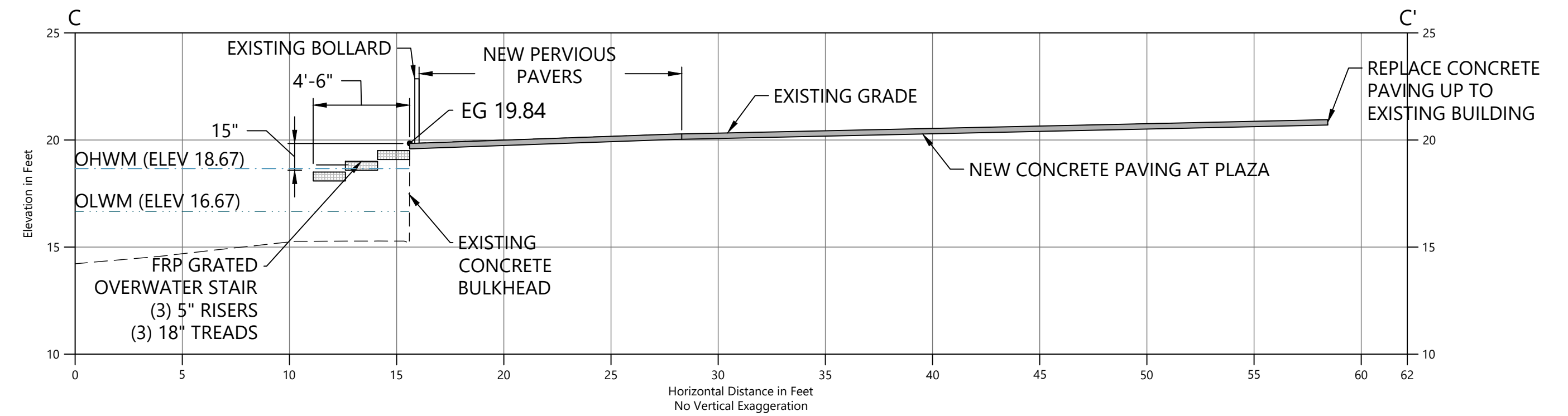
DRAWN: TG/CW	PROJECT NO.: 2000291
DESIGN: AS	SCALE: AS NOTED
CHECKED: PH	DATE: 09/08/2021
DRAWING NO.	<b>C-020</b>
SHEET NO. 11	OF 52

30% SUBMITTAL

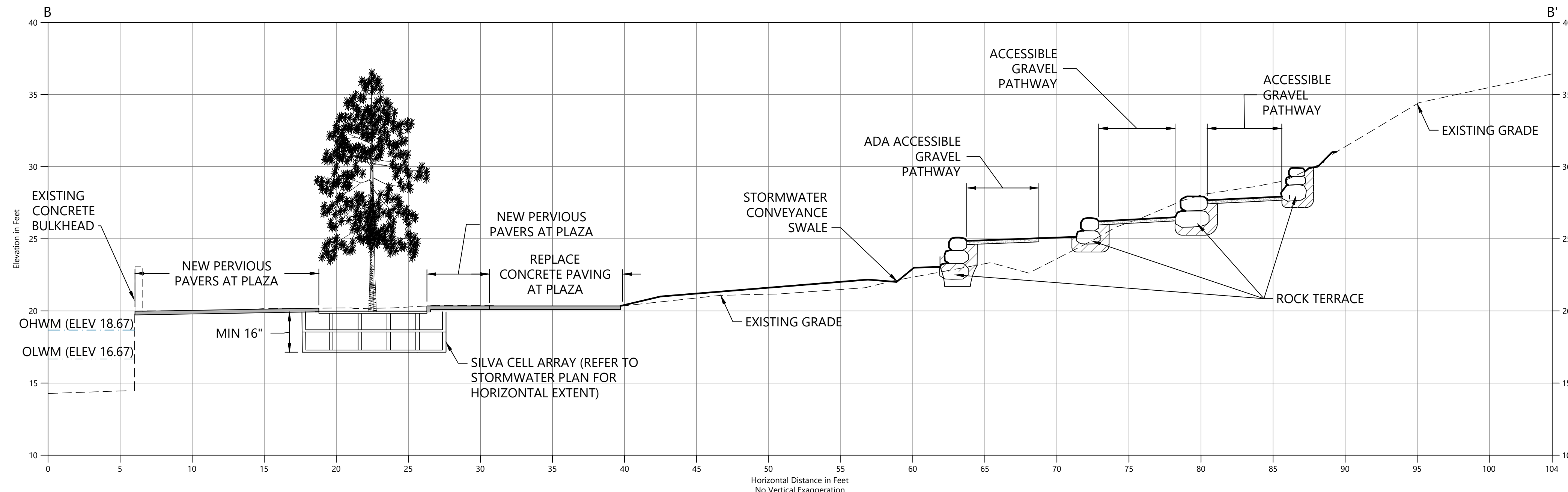
CAD USER: cwee PLOT DATE: Oct 22, 2021 03:12pm  
 PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island Luther Burbank Dock Repair\Construction Plans\0159-PI-Grading\_Plan.dwg



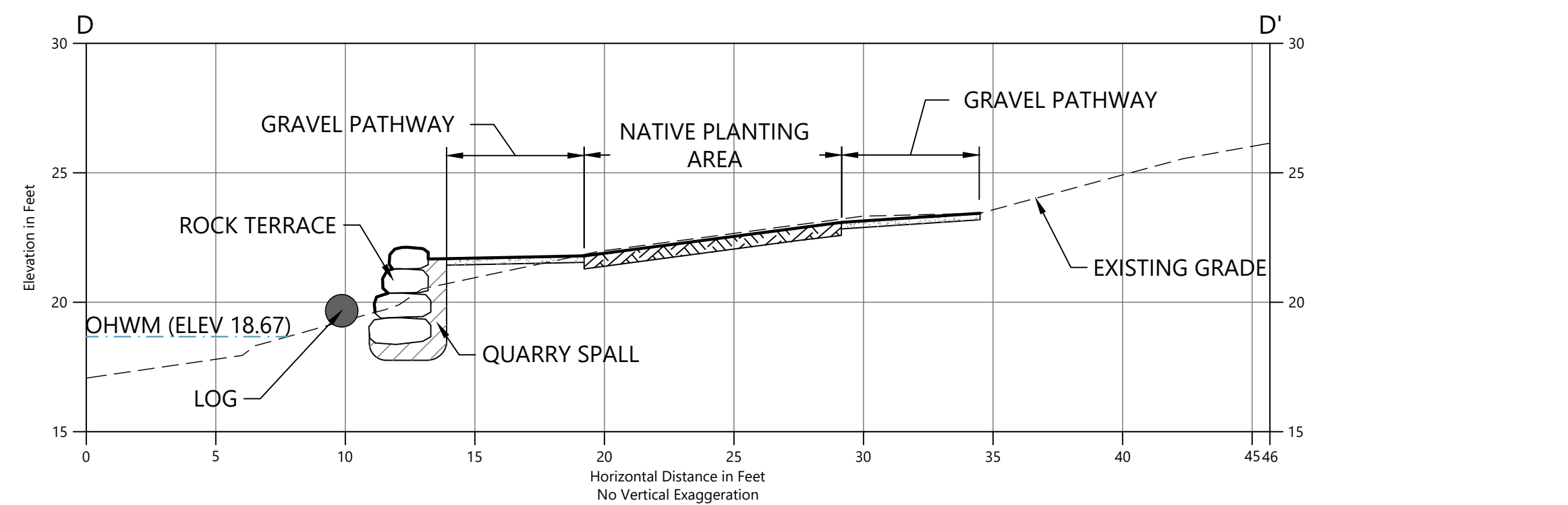
**A** SECTION A  
 C-1 SCALE: 1" = 5'



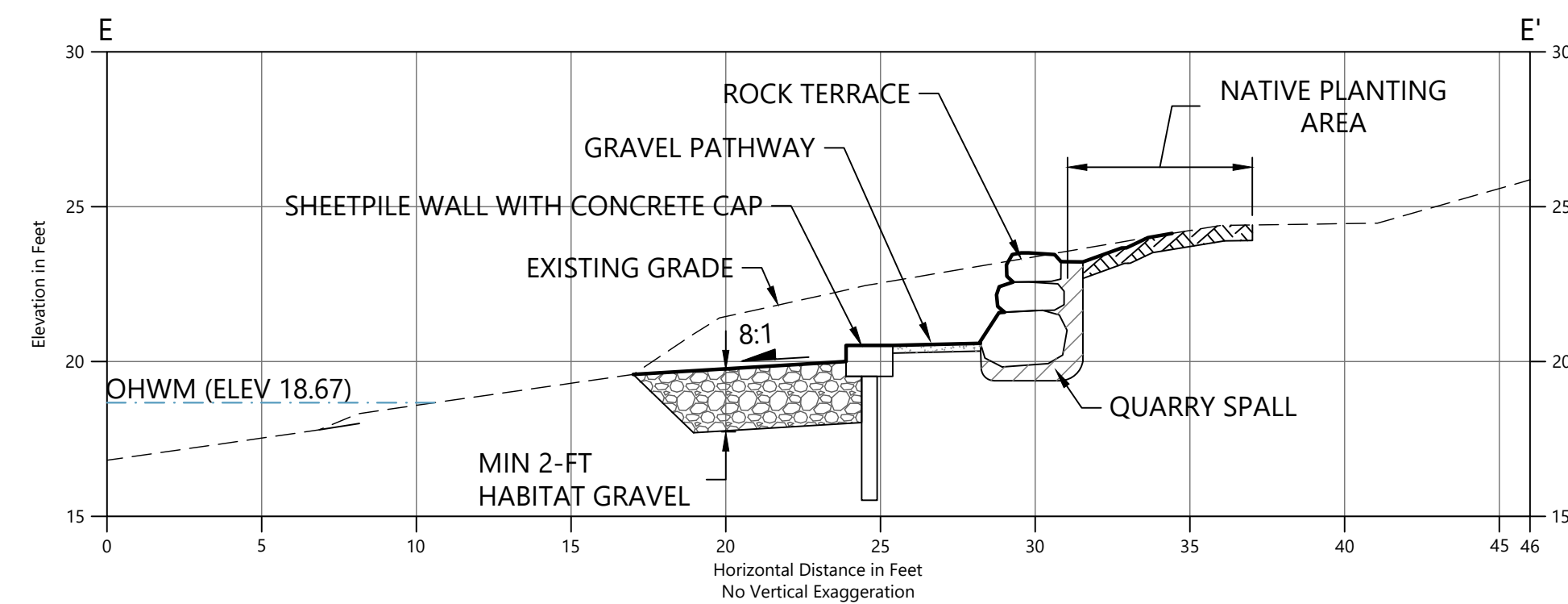
**C** SECTION C  
 C-1 SCALE: 1" = 5'



**B** SECTION B  
 C-1 SCALE: 1" = 5'

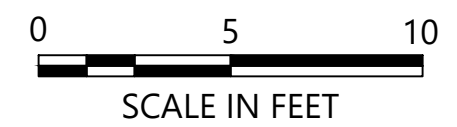


**D** SECTION D  
 C-1 SCALE: 1" = 5'



**E** SECTION E  
 C-1 SCALE: 1" = 5'

- LEGEND:**
- - - EXISTING GRADE
  - PROPOSED GRADE
  - [Pattern] HABITAT GRAVEL
  - [Pattern] QUARRY SPALL
  - [Symbol] ROCK TERRACE
  - [Pattern] TOPSOIL
  - [Pattern] GRAVEL PATHWAY
  - [Pattern] CONCRETE PAVING
  - [Pattern] GRATED STAIRS
  - TS TOP OF STAIRS
  - BS BOTTOM OF STAIRS



- NOTES:**
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83 (2011), U.S. SURVEY FEET
  - VERTICAL DATUM: NAVD88



1601 5th Avenue, Suite 1600  
 Seattle, WA 98101  
 206.622.5822  
 www.kpff.com

NO.	DATE	BY	REVISION



**LUTHER BURBANK PARK PIER REPAIR**  
 CITY OF MERCER ISLAND

**GRADING CROSS-SECTIONS**

DRAWN: TG/CW	PROJECT NO.: 2000291
DESIGN: AS	SCALE: AS NOTED
CHECKED: PH	DATE: 09/08/2021
DRAWING NO.	<b>C-021</b>
SHEET NO. 12	OF 52

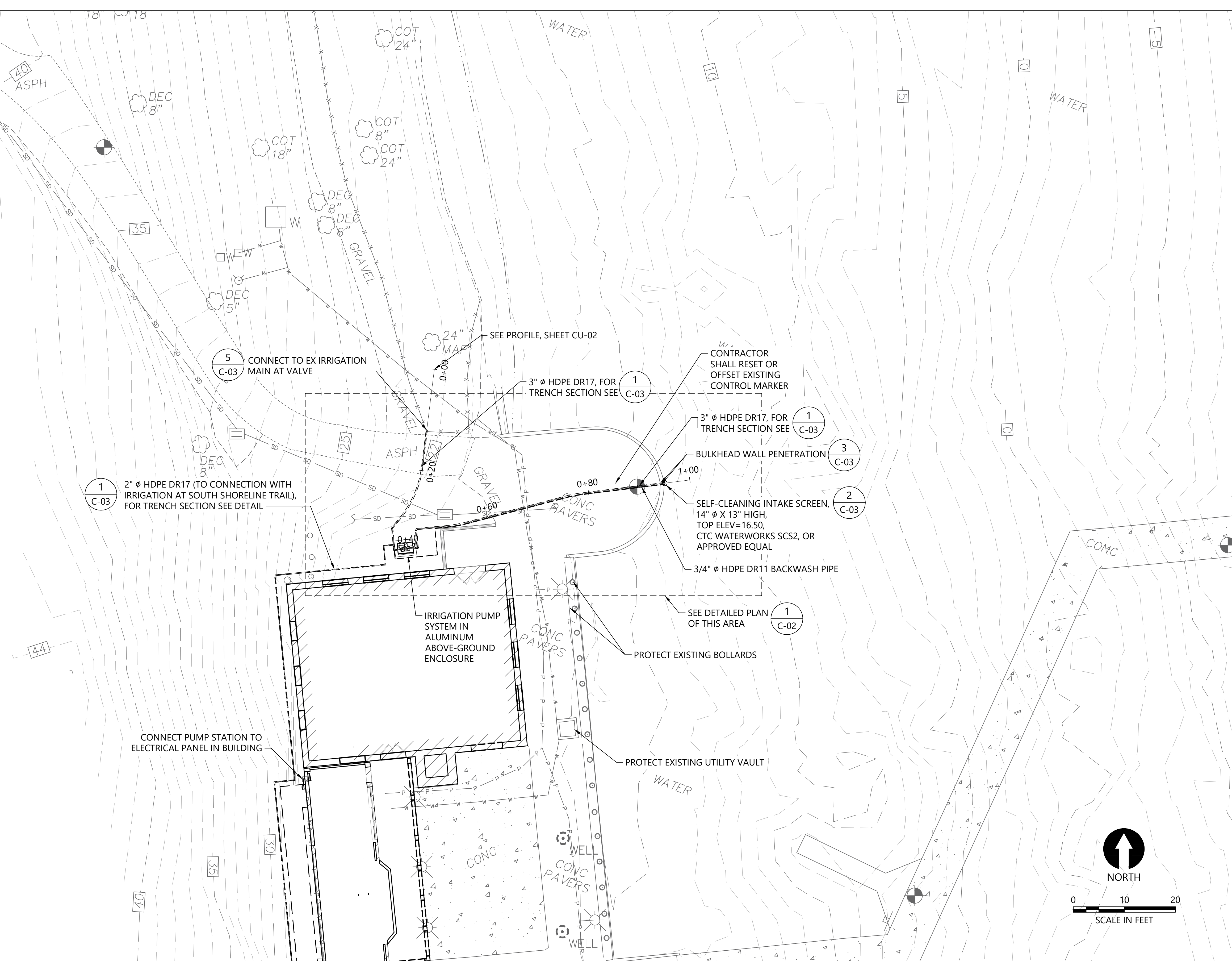
30% SUBMITTAL

**LEGEND**

- FOUND MONUMENT (AS NOTED)
- FOUND REBAR (AS NOTED)
- BOLLARD
- SIGN - WOODEN POST
- DECIDUOUS TREE
- CONCRETE
- IRRIGATION VALVE
- WATER VALVE
- WATER METER
- INVERT ELEVATION
- CONCRETE PIPE
- ELECTRIC METER
- LIGHT POLE
- CLEANOUT
- CATCH BASIN
- SUBSURFACE DRAIN
- FENCE LINE
- WATER LINE
- UNDERGROUND POWER
- UNDERGROUND COMMUNICATIONS LINE
- STORM DRAIN LINE
- SEWER LINE
- EXISTING CONTOUR, MAJOR
- EXISTING CONTOUR, MINOR
- PROPOSED PIPE (BURIED)
- PROPOSED PIPE (ABOVE GROUND)
- PROPOSED INTAKE SCREEN
- PROPOSED PUMP SYSTEM

**NOTES:**

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), U.S. SURVEY FEET
2. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. SURVEY BASE MAP FROM PACIFIC GEOMATIC SERVICES, DATED OCTOBER 28, 2019.



CAD USER: cwee PLOT DATE: Oct 22, 2021 03:13pm  
 PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island Luther Burbank Dock Repair\Construction Plans\0159-PL-Intake-Overall-Site-Plan.dwg

1601 5th Avenue, Suite 1600  
Seattle, WA 98101  
206.622.5822  
www.kpff.com

NO.	DATE	BY	REVISION



**LUTHER BURBANK PARK PIER REPAIR**  
 CITY OF MERCER ISLAND

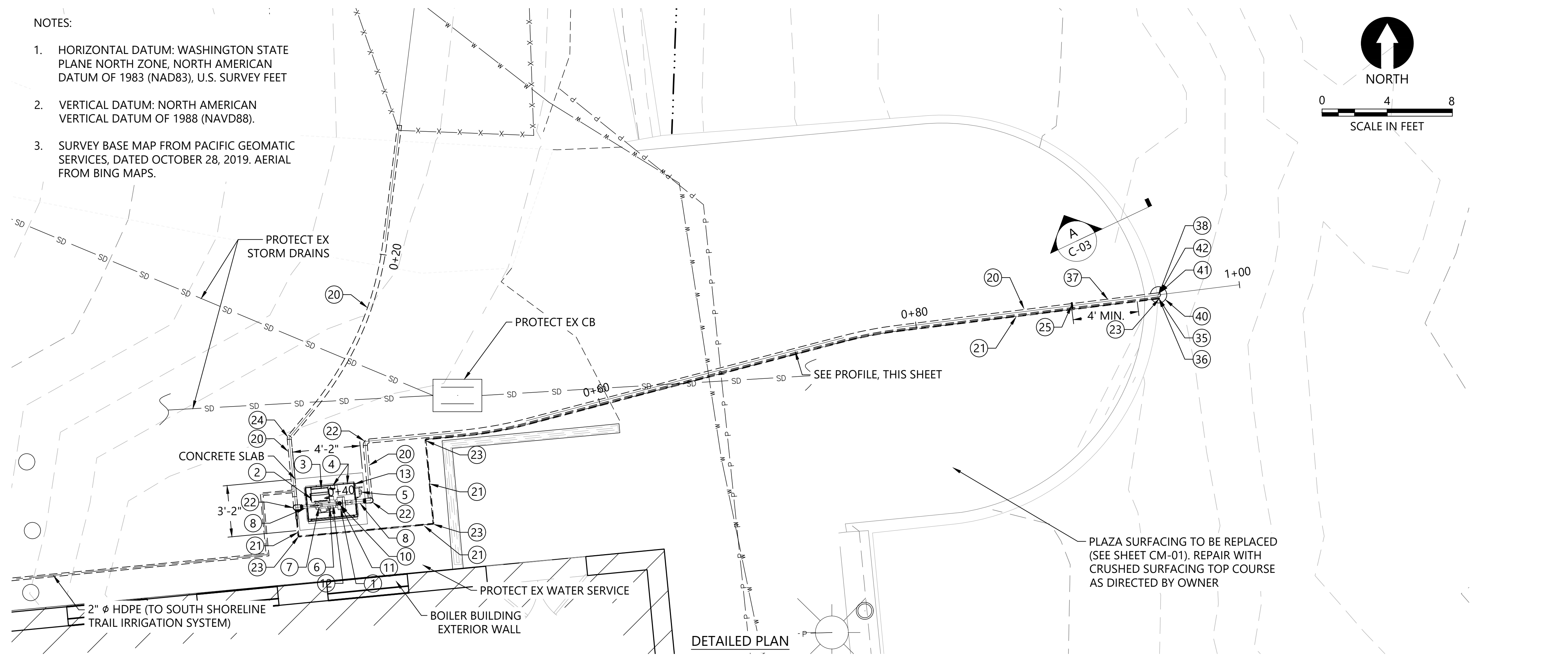
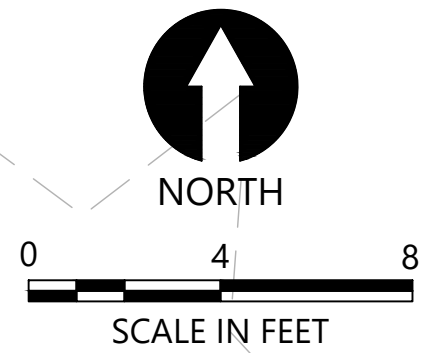
**INTAKE AND PUMPING FACILITIES -  
 OVERALL SITE PLAN**

DRAWN: TG/CW	PROJECT NO.: 2000291
DESIGN: AS	SCALE: AS NOTED
CHECKED: PH	DATE: 09/08/2021
<b>DRAWING NO. CU-010</b>	
SHEET NO. 13	OF 52

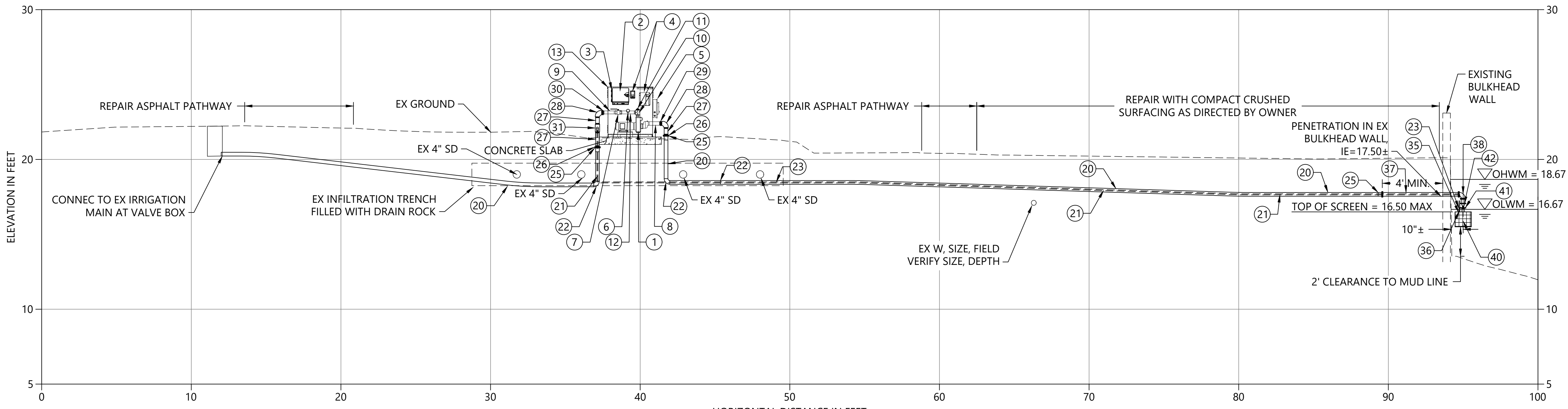
**30% SUBMITTAL**

NOTES:

- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), U.S. SURVEY FEET
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- SURVEY BASE MAP FROM PACIFIC GEOMATIC SERVICES, DATED OCTOBER 28, 2019. AERIAL FROM BING MAPS.



DETAILED PLAN



HORIZONTAL DISTANCE IN FEET  
NO VERTICAL EXAGGERATION

A PIPE PROFILE  
SCALE: 1" = 4'

EQUIPMENT LEGEND	
<b>PACKAGED PUMP SYSTEM (RAINBIRD CLP5VAAS OR APPROVED EQUAL):</b>	
NUMBER	DESCRIPTION
1	"SELF-PRIMING, END-SUCTION, CENTRIFUGAL PUMP W/ VFD, 50 GPM @ 150 FEET TDH, ~ 5 HP"
2	IRRIGATION SYSTEM CONTROLLER
3	MOUNTING BRACKET FOR IRRIGATION SYSTEM CONTROLLER
4	208V 1-PHASE POWER DISCONNECT, PUMP START RELAY
5	MANUAL SWITCH (PROGRAMMABLE CONTROLLER OVERRIDE)
6	LIQUID-FILLED PRESSURE GAUGE, SST, DISCHARGE
7	2" ISOLATION VALVE
8	2-1/2" THREADED PIPE NIPPLE, SST, MNPT
9	2" THREADED NIPPLE, SST, MNPT
10	2" THREADED TEE, SST, FNPT
11	2" THREADED PLUG, SST, MNPT
12	2" THREADED NIPPLE, SST, MNPT, WITH WELDED OUTLET FOR PRESSURE GAGE AND AIR RELEASE VALVE
13	MARINE GRADE ALUMINUM DECK AND ENCLOSURE
<b>SUCTION AND DISCHARGE PIPE AND FITTINGS:</b>	
NUMBER	DESCRIPTION
20	3" HDPE PIPE, DR 17, BUTT-FUSED
21	3/4" HDPE PIPE, DR 11, BUTT-FUSED (BACKWASH LINE)
22	3" HDPE 90° BEND, DR 17, BUTT-FUSED
23	3/4" HDPE 90° BEND, DR11, BUTT-FUSED
24	3" HDPE 45° BEND, DR 17, BUTT-FUSED
25	3" HDPE FLANGE ADAPTER W/ DI BACKING RING
26	3" COMPANION FLANGE, SST, FNPT X FL
27	3" THREADED NIPPLE, SST, MNPT
28	3" 90° BEND, SST, FNPT
29	3" X 2-1/2" HEX BUSHING, SST, MNPT X FNPT
30	3" X 2" HEX BUSHING, SST, MNPT X FNPT
31	3" X 1" TEE, SST, FNPT
32	1" THREADED NIPPLE, SST, MNPT
33	1" 90° BEND, SST, FNPT
34	1" X 3/4" COUPLING, SST, MNPT X PACK JOINT
35	3/4" COUPLING, SST, MNPT X PACK JOINT
36	3/4" UNION, FNPT X FNPT
37	3" PIPE SPOOL, SST, FL X FL
38	3" 90° BEND, SST, FL X FL
<b>FISH SCREEN AND ASSOCIATED FITTINGS:</b>	
NUMBER	DESCRIPTION
40	CTC WATERWORKS SCS2, 100 GPM MAX., SELF-CLEANING INTAKE SCREEN, OR APPROVED EQUAL
41	3" COMPANION FL, SST
42	3" DOUBLE DOOR CHECK VALVE, WAFER STYLE

CAD USER: cwee PLOT DATE: Oct 22, 2021-03:13pm  
PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island\Construction Plans\0159-PI-Intake-Overall-Site-Plan.dwg

1601 5th Avenue, Suite 1600  
Seattle, WA 98101  
206.622.5822  
www.kpff.com

NO.	DATE	BY	REVISION



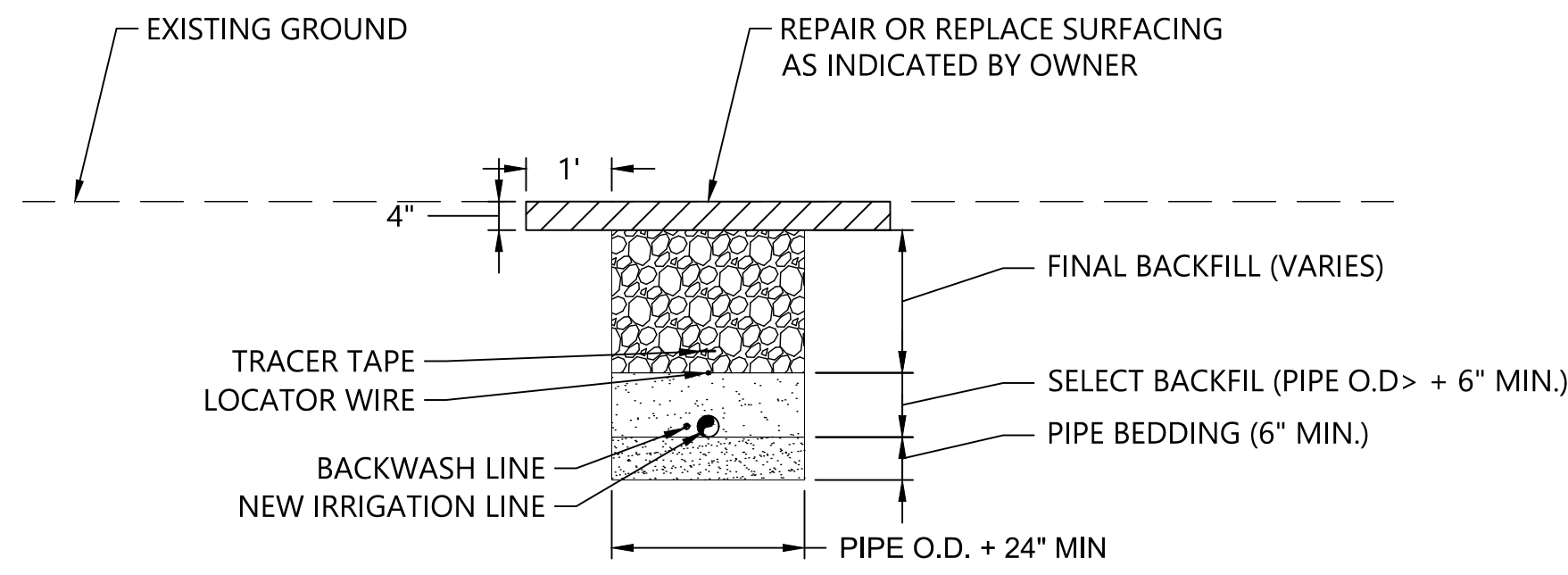
**LUTHER BURBANK PARK PIER REPAIR**  
CITY OF MERCER ISLAND

**INTAKE AND PUMPING FACILITIES - EQUIPMENT PLAN AND SECTIONS**

DRAWN: TG/CW	PROJECT NO.: 2000291
DESIGN: AS	SCALE: AS NOTED
CHECKED: PH	DATE: 09/08/2021
DRAWING NO.	<b>CU-011</b>
SHEET NO. 14	OF 52

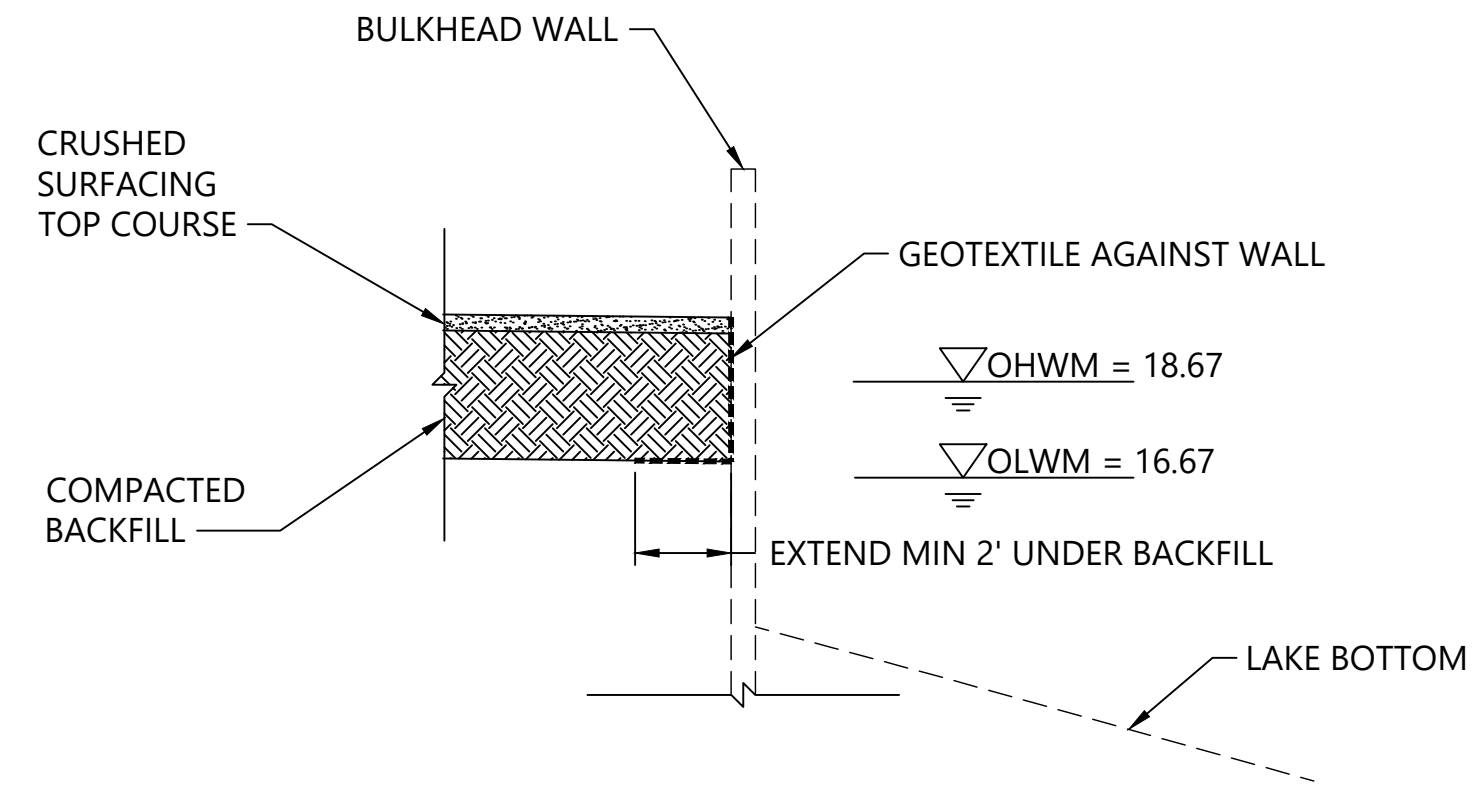
30% SUBMITTAL

CAD USER: cwee PLOT DATE: Oct 22, 2021-03:13pm  
 PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island Luther Burbank Dock Repair\Construction Plans\0159-PL-Intake-Overall-Site-Plan.dwg



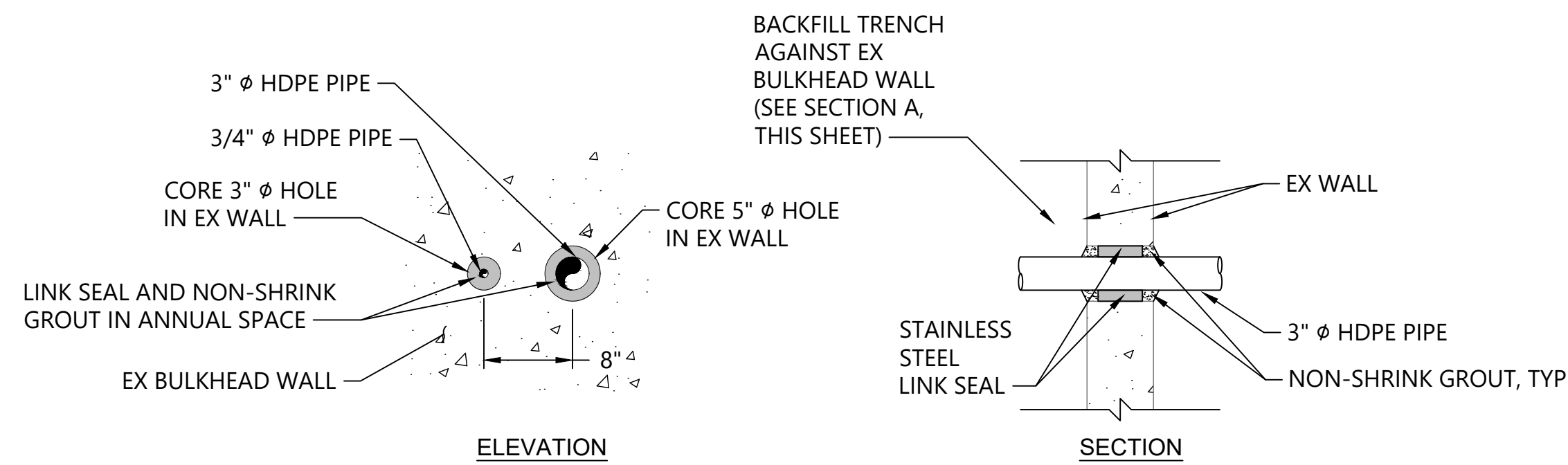
1 TYPICAL TRENCH SECTION  
 ##### SCALE: NTS

- TYPICAL TRENCH SECTION NOTES:**
1. PIPE BEDDING - PIPE BEDDING SHALL BE AT LEAST 6 INCHES DEEP AND SHALL MEET THE REQUIREMENTS OF SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS. IF EXCAVATED TRENCH BOTTOM IS UNSTABLE OR NOT SUITABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND BACKFILL WITH PIPE BEDDING. PLACE PIPE BEDDING IN MAXIMUM 6-INCH LIFTS AND COMPACT TO 90% OF MAXIMUM DRY DENSITY.
  2. SELECT BACKFILL - SELECT FILL SHALL ALSO MEET THE REQUIREMENTS OF SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS. PLACE SELECT BACKFILL IN 6-INCH LIFTS TO A MINIMUM DEPTH OF 6 INCHES ABOVE THE CROWN OF THE PIPE AND COMPACT TO 90% OF MAXIMUM DRY DENSITY.
  3. FINAL BACKFILL - UNDER PATHWAYS AND OTHER HARD SURFACES, THE CONTRACTOR SHALL BACKFILL THE REMAINING PORTION OF THE TRENCH TO THE LINES AND GRADES SHOW WITH 5/8-INCH MINUS CRUSHED ROCK SURFACING COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
  4. TRACER TAPE AND LOCATOR WIRE - TRACER TAPE SHALL MEET THE REQUIREMENTS OF SECTION 9-15.18 OF THE STANDARD SPECIFICATIONS. LOCATOR WIRE SHALL BE 12 GA. COPPER MULTI-STRAND RHW, CERTIFIED FOR DIRECT BURIAL. THE TRACER TAPE AND LOCATOR WIRE SHALL BE INSTALLED ALONG THE ENTIRE PROFILE OF THE PIPE.
  5. DRAIN ROCK - WHERE THE PIPE IS INSTALLED ACROSS OR UNDER DRAIN ROCK PLACED AS PART OF AN INFILTRATION TRENCH ADJACENT TO THE BOILER BUILDING, THE CONTRACTOR SHALL BACKFILL THE TRENCH WITH DRAIN ROCK AND OTHER MATERIALS TO MATCH THE MATERIALS EXCAVATED TO PLACE THE IRRIGATION PIPE.



A BACKFILL AGAINST BULKHEAD WALL  
 ##### SCALE: NTS

2 INTAKE SCREEN DETAIL  
 ##### SCALE: NTS



3 BULKHEAD WALL PENETRATION DETAIL  
 ##### SCALE: 1" = 1'

PLACEHOLDER - DETAIL TO BE ADDED AT 90% DESIGN

PLACEHOLDER - DETAIL TO BE ADDED AT 90% DESIGN

4 DRAIN VALVE DETAIL  
 ##### SCALE: NTS

5 EXISTING IRRIGATION MAIN CONNECTION DETAIL  
 ##### SCALE: NTS



1601 5th Avenue, Suite 1600  
 Seattle, WA 98101  
 206.622.5822  
 www.kpff.com

NO.	DATE	BY	REVISION

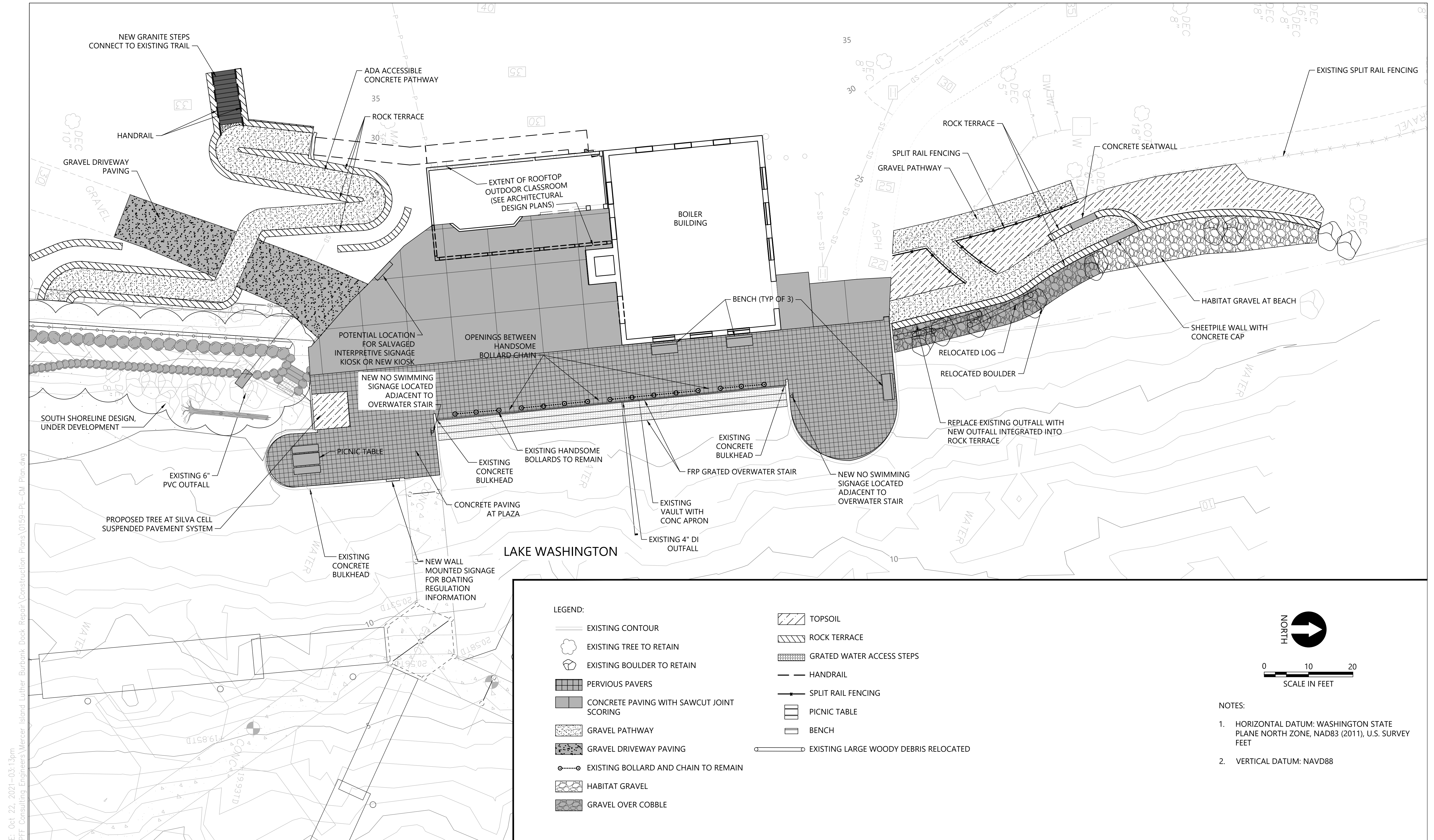


LUTHER BURBANK PARK PIER REPAIR  
 CITY OF MERCER ISLAND

INTAKE AND PUMPING FACILITIES -  
 DETAILS

DRAWN: TG/CW	PROJECT NO.: 2000291
DESIGN: AS	SCALE: AS NOTED
CHECKED: PH	DATE: 09/08/2021
DRAWING NO.	<b>CU-012</b>
SHEET NO. 15	OF 52

30% SUBMITTAL

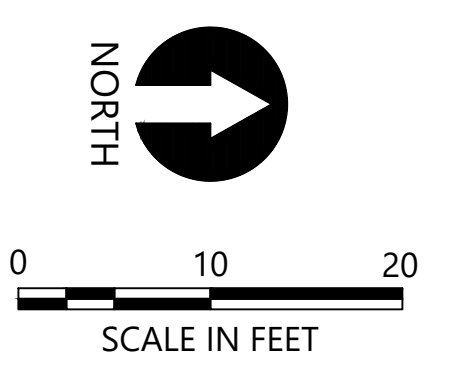


**LEGEND:**

EXISTING CONTOUR	TOPSOIL
EXISTING TREE TO RETAIN	ROCK TERRACE
EXISTING BOULDER TO RETAIN	GRATED WATER ACCESS STEPS
PERVIOUS PAVERS	HANDRAIL
CONCRETE PAVING WITH SAWCUT JOINT SCORING	SPLIT RAIL FENCING
GRAVEL PATHWAY	PICNIC TABLE
GRAVEL DRIVEWAY PAVING	BENCH
EXISTING BOLLARD AND CHAIN TO REMAIN	EXISTING LARGE WOODY DEBRIS RELOCATED
HABITAT GRAVEL	
GRAVEL OVER COBBLE	

**NOTES:**

- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83 (2011), U.S. SURVEY FEET
- VERTICAL DATUM: NAVD88



**kpff**  
 1601 5th Avenue, Suite 1600  
 Seattle, WA 98101  
 206.622.5822  
 www.kpff.com

**ANCHOR QEA**

NO.	DATE	BY	REVISION

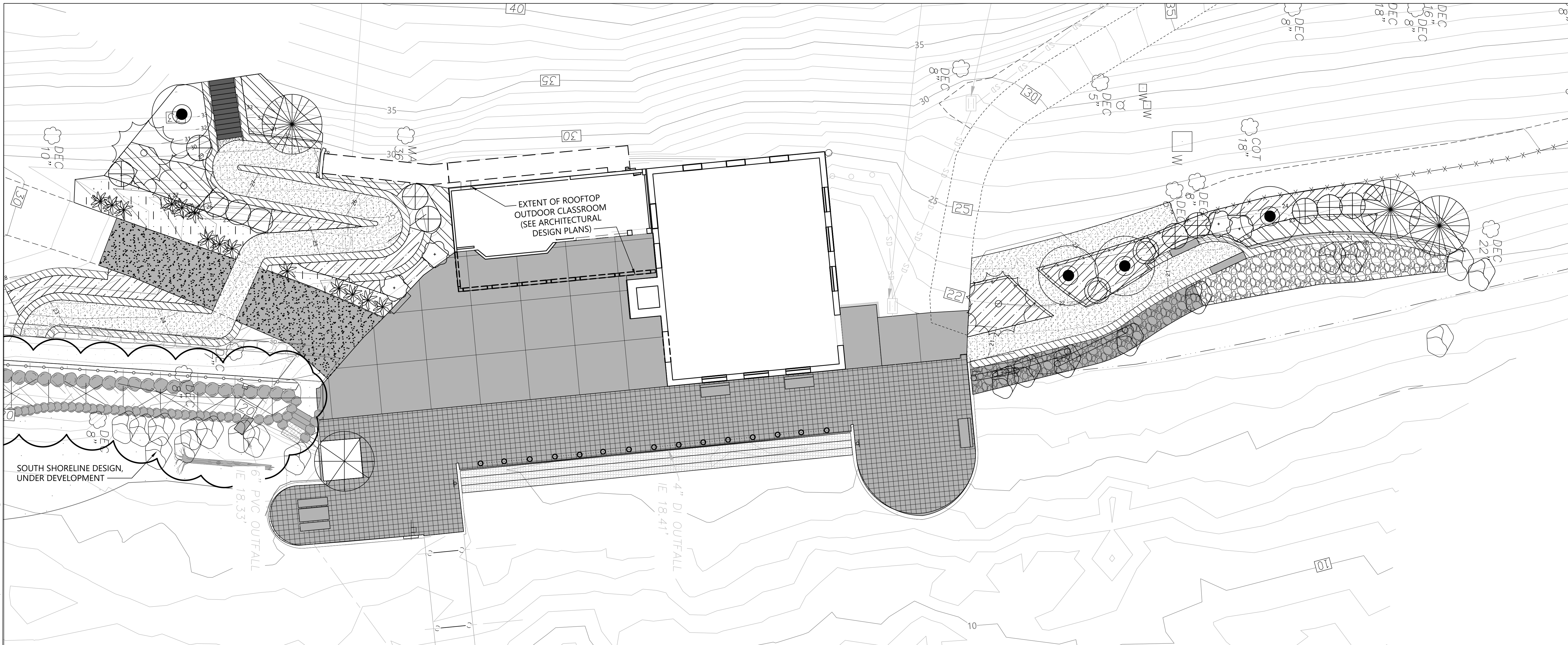


**LUTHER BURBANK PARK PIER REPAIR**  
 CITY OF MERCER ISLAND

**MATERIALS PLAN**

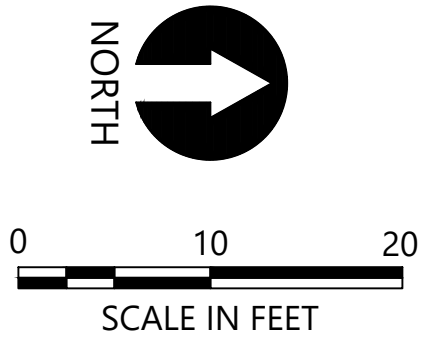
DRAWN: TG/CW	PROJECT NO.: 2000291
DESIGN: AS	SCALE: AS NOTED
CHECKED: PH	DATE: 09/08/2021
DRAWING NO.	<b>CM-010</b>
SHEET NO. 16	OF 52

30% SUBMITTAL



**LEGEND:**

- EXISTING CONTOUR
- EXISTING TREE TO RETAIN
- EXISTING LARGE WOODY DEBRIS RELOCATED
- PROPOSED TREE
- PROPOSED SHRUBS/GROUNDCOVERS
- RIPARIAN SHRUBS
- GROUNDCOVER
- STORMWATER CONVEYANCE PLANTING



- NOTES:**
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83 (2011), U.S. SURVEY FEET
  - VERTICAL DATUM: NAVD88
  - SEE SHEET L02 FOR PLANT SCHEDULE

CAD USER: cwee PLOT DATE: Oct 22, 2021 03:13pm  
 PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island Luther Burbank Dock Repair\Construction Plans\0159-PL-PLANTING.dwg

1601 5th Avenue, Suite 1600  
 Seattle, WA 98101  
 206.622.5822  
 www.kpff.com

NO.	DATE	BY	REVISION



**LUTHER BURBANK PARK PIER REPAIR**  
 CITY OF MERCER ISLAND

**PLANTING PLAN**

DRAWN: TG/CW	PROJECT NO.: 2000291
DESIGN: AS	SCALE: AS NOTED
CHECKED: PH	DATE: 09/08/2021
DRAWING NO.	<b>L-010</b>
SHEET NO. 17	OF 52

30% SUBMITTAL



CAD USER: cwee PLOT DATE: Oct 22, 2021-03:13pm  
 PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island Luther Burbank Dock Repair\Construction Plans\0159-PL-PLANTING.dwg

PLANT SCHEDULE					
COMMON NAME	SCIENTIFIC NAME	SIZE	SPACING	QUANTITY	NOTES
TREES					
 GRAND FIR	ABIES GRANDIS	5-6' HT	AS SHOWN	3	
 WESTERN RED CEDAR	THUJA PLICATA	5-6' HT	AS SHOWN	3	
 BIG LEAF MAPLE	ACER MACROPHYLLUM	1.5" CAL	AS SHOWN	4	
 DAWN REDWOOD	METASEQUOIA GLYPTOSTROBOIDES	2" CAL	AS SHOWN	1	
 VINE MAPLE	ACER CIRCINATUM	5 GAL	AS SHOWN	9	
HIGH SHRUBS					
 INDIAN PLUM	OEMLERIA CERASIFORMIS	2 GAL	AS SHOWN	2	
 MOCK ORANGE	PHILADELPHUS LEWISII	2 GAL	AS SHOWN	4	
SHRUBS - RIPARIAN					
 SWORD FERN	POLYSTICHUM MUNITUM	1 GAL	3' O.C.		
 RED FLOWERING CURRANT	RIBES SANGUINEUM	1 GAL	3' O.C.		
 NOOTKA ROSE	ROSA NUTKANA	1 GAL	3' O.C.		
 THIMBLEBERRY	RUBUS PARVIFLORUS	1 GAL	3' O.C.		
 SNOWBERRY	SYMPHORICARPOS ALBUS	1 GAL	3' O.C.		
GROUNDCOVERS					
 SWORD FERN	POLYSTICHUM MUNITUM	1 GAL	3' O.C.		
 OREGON GRAPE	MAHONIA NERVOSA	1 GAL	3' O.C.		
SHRUBS/GROUNDCOVERS - STORMWATER CONVEYANCE AREA					
 RED OSIER DOGWOOD	CORNUS SERICEA	1 GAL	AS SHOWN	3	
 LADY FERN	ATHYRIUM FELIX FEMINA	1 GAL	AS SHOWN	14	
SEED MIX - STORMWATER CONVEYANCE AREA					



NO.	DATE	BY	REVISION



LUTHER BURBANK PARK PIER REPAIR  
 CITY OF MERCER ISLAND

PLANT SCHEDULE

DRAWN: TG/CW	PROJECT NO.: 2000291
DESIGN: AS	SCALE: AS NOTED
CHECKED: PH	DATE: 09/08/2021
DRAWING NO.	<b>L-011</b>
SHEET NO. 18	OF 52

30% SUBMITTAL