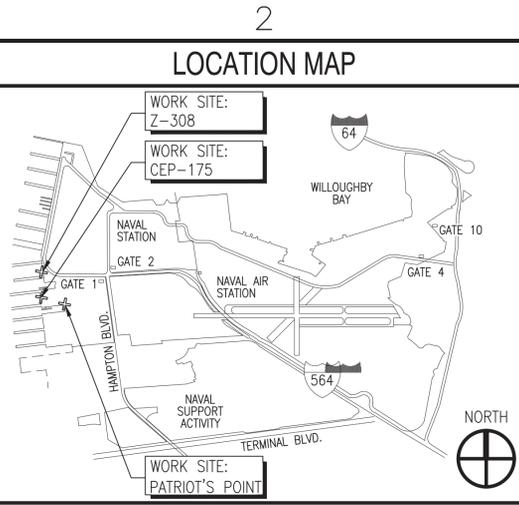
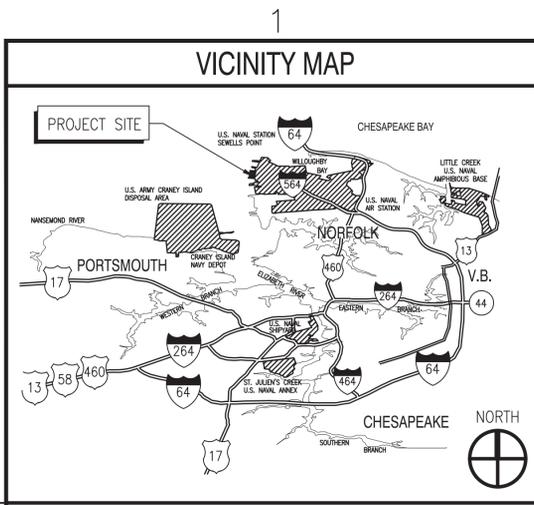


FILE NAME: P:\VA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308repair\B\_Design\Drawings\Sheet\01\_General\1370817\_G-002.dwg PLOTTED: Wednesday, August 10, 2016 - 11:53am USER: chrisline.rulowksi



### GENERAL NOTES

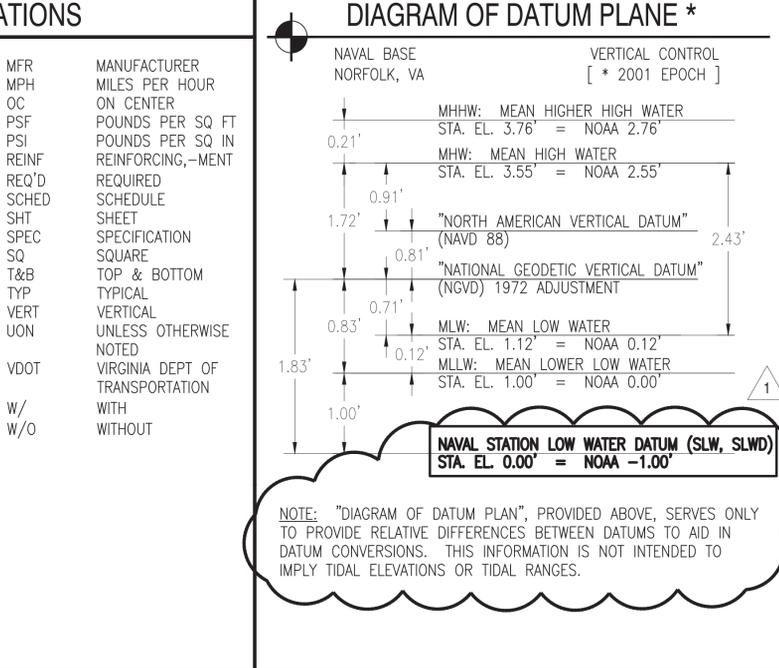
- THESE GENERAL NOTES APPLY TO ALL DISCIPLINES' WORK.
- THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, AND OTHER REQUIREMENTS NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW WORK TO THE EXISTING STRUCTURES TO REMAIN. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION REPAIRS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER PRIOR TO ORDERING OR FABRICATION OF MATERIAL OR BEGINNING WORK.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL ITEMS NOT NOTED AS "EXISTING" UNDER THE REQUIREMENTS OF THIS CONTRACT.
- REFERENCE DRAWINGS WILL BE INCLUDED WITH THE DESIGN PACKAGE. REFER TO SPECIFICATION SECTION 00 01 15, "LIST OF DRAWINGS". NOTE ORIGINAL Z-308 BULKHEAD CONSTRUCTION DOCUMENTS USED METRIC UNITS; THIS DRAWING SET USES ENGLISH UNITS. DIMENSIONS OF EXISTING ARE APPROXIMATE CONVERSIONS FROM ORIGINAL CONSTRUCTION DOCUMENTS AND SHOULD BE FIELD VERIFIED BY CONTRACTOR.

### GENERAL NOTES (CONTINUED)

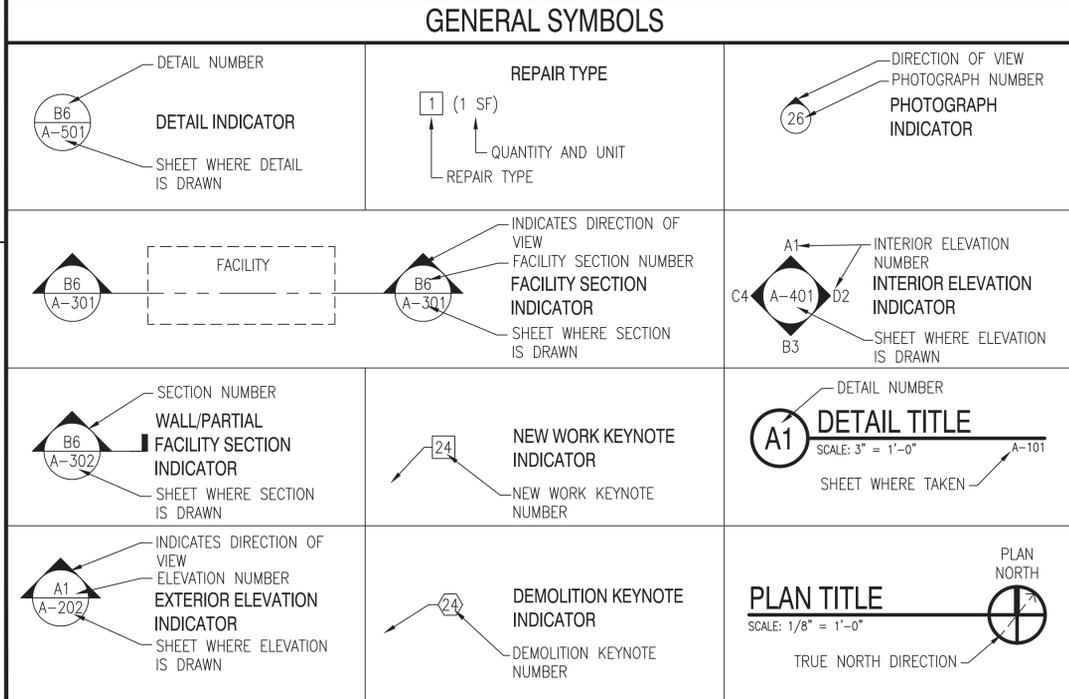
- ALL EXISTING SOIL MATERIAL IS ASSUMED TO FALL UNDER ONE OF THE SOIL CATEGORIES DEFINED AS "SATISFACTORY MATERIAL" PER SPECIFICATION SECTION 31 23 00.00 20. EXCAVATED MATERIAL SHALL BE STOCKPILED AND UTILIZED AS COMPACTED SUBGRADE, BACKFILL, OR FILL TO THE GREATEST EXTENT POSSIBLE. IF "CONTAMINATED SOIL MATERIALS" OR IF "UNSATISFACTORY SUBGRADE SOIL MATERIALS" ARE ENCOUNTERED, NOTIFY THE CONTRACTING OFFICER, IN WHICH CLIN 0001AJ OR CLIN 0001AK MAY BE APPLICABLE. ALL UNUSED, CONTAMINATED, AND UNSATISFACTORY MATERIALS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.

### ABBREVIATIONS

ALUM	ALUMINUM	MFR	MANUFACTURER
B/W	BETWEEN	MPH	MILES PER HOUR
CL	CENTER LINE	OC	ON CENTER
CMU	CONC MASONRY UNIT	PSF	POUNDS PER SQ FT
CONC	CONCRETE	PSI	POUNDS PER SQ IN
DEPT	DEPARTMENT	REINF	REINFORCING, -MENT
Ø or DIA	DIAMETER	REQ'D	REQUIRED
DIM	DIMENSION	SCHED	SCHEDULE
DWGS	DRAWINGS	SHT	SHEET
ELEV	ELEVATION	SPEC	SPECIFICATION
EXIST	EXISTING	SQ	SQUARE
FED	FEDERAL	T&B	TOP & BOTTOM
GALV	GALVANIZED	TYP	TYPICAL
KIP	1000 POUNDS	VERT	VERTICAL
KO	CONTRACTING OFFICER	UON	UNLESS OTHERWISE NOTED
KSI	KIPS PER SQ INCH	VDOT	VIRGINIA DEPT OF TRANSPORTATION
KTR	CONTRACTOR	W/O	WITH
LB	POUNDS	W/O	WITHOUT
LONG	LONGITUDINAL		
MAX	MAXIMUM		
MIN	MINIMUM		



- DISCIPLINE SPECIFIC DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND OTHER ITEMS TO BE PLACED OR SET IN THE WORK OF OTHER DISCIPLINES. IF A CONFLICT OCCURS, NOTIFY THE CONTRACTING OFFICER PRIOR TO PROCEEDING.
- ANY OBSERVED DISCREPANCY BETWEEN THE CONTRACT DOCUMENTS AND THE ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER PRIOR TO PROCEEDING WITH THE RELATED REPAIR WORK. ANY ADJUSTMENTS REQUIRED IN THE CONTRACT PRICE DUE TO VARIATION OF QUANTITIES SHALL BE MADE BY THE CONTRACTING OFFICER.
- IN ADDITION TO SCANNING THE CONSTRUCTION SITE FOR UNDERGROUND UTILITIES, THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING BULKHEAD TIE RODS THAT MAY BE AFFECTED BY THE CONSTRUCTION WORK. TIE RODS DAMAGED BY THE CONTRACTOR'S ACTIONS SHALL BE REPAIRED AT NO COST TO THE GOVERNMENT BY A METHOD APPROVED BY THE CONTRACTING OFFICER.
- WHERE EXISTING STRUCTURES/SLABS/UTILITIES/PAVEMENT MARKINGS TO REMAIN ARE DAMAGED DUE TO NEW CONSTRUCTION OR DEMOLITION REQUIRED BY THESE DOCUMENTS, THE CONTRACTOR SHALL REPAIR THE DAMAGED ITEM(S) WITH NEW MATERIALS TO MATCH THE ADJACENT MATERIAL, TEXTURE, AND COLOR AT NO COST TO THE GOVERNMENT.
- CONTRACTOR SHALL INSPECT AND CLEAN ALL WEEP HOLES PRIOR TO AND POST CONSTRUCTION. ALL WEEP HOLES SHALL BE CLEAR PRIOR TO BACKFILLING.
- EXISTING BACKFILL CONSISTS OF CLAY, SILT, GRAVEL, SELECT FILL, PREVIOUS GROUT REPAIRS AND CONCRETE DEBRIS RANGING IN SIZE UP TO 1 CUBIC YARD. DEMOLISH TO LIMITS INDICATED. TEST AND DISPOSE OF CONTAMINATED EXCAVATED MATERIALS AS REQUIRED BY SPECIFICATIONS.
- EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORDS AND FIELD SURVEY AND ARE APPROXIMATE ONLY. PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL CONTACT NAVFAC MIDLANT UTILITIES AND MISS UTILITY TO HAVE THE EXISTING UNDERGROUND LINES MARKED ON THE PAVEMENT AND CONCRETE IN THE AREAS OF CONSTRUCTION. THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES THAT CROSS THROUGH THE AREAS OF CONSTRUCTION AND HAND EXCAVATE WITHIN 24" OF UTILITIES.
- ALL STORM SEWER PIPES AND DROP INLETS SHALL BE CLEANED OF DEBRIS AND ERODED MATERIALS AT THE LAST STAGES OF CONSTRUCTION.
- ALL UTILITIES THAT PENETRATE THE EXISTING SEAWALL/ BULKHEAD SHALL BE EXTENDED THROUGH THE NEW BULKHEAD.
- CONTRACTOR SHALL ANTICIPATE THAT PORTIONS OF THE WORK, INCLUDING THE REPLACEMENT OF THE CEP-175 SEAWALL WILL ALWAYS BE UNDERWATER. PORTIONS OF THE WORK ARE ALSO IN TIDAL ZONES AND WILL FLUCTUATE BETWEEN SUBMERGED AND DRY CONDITIONS.



DATE	8/17/2016	DATE	
TIME		DESCRIPTION	
APPROVED	<i>App. Sig.</i>	FOR COMMANDER NAVFAC	8-11-16
ACTIVITY	DAVE SEARS	SATISFACTORY TO DATE	6/17/2016
DESIGNER	CMR	DRAWN	CMR
DESIGN MANAGER	EDDY THEISZ	CHECKED	CLT
BRANCH MANAGER	CRT		
CHEF ENGINEER	J. HASTE, P.E.		
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC NORFOLK NAVAL STATION HAMPTON ROADS BT - PWD NORFOLK NORFOLK, VIRGINIA CEP-175 AND Z-308 BULKHEAD REPAIR GENERAL NOTES			
SCALE:	AS NOTED	PROJECT NO.:	1370817
CONSTR. CONTR. NO.:	N/A	NAVFAC DRAWING NO.:	12,729,657
SHEET	2	OF	158
G-002			
DRAWING REVISION: 10 MARCH 2009			

# GENERAL CIVIL NOTES (ALL CIVIL SHEETS)

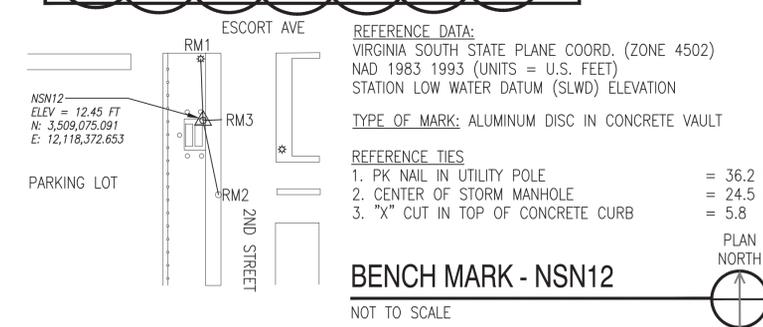
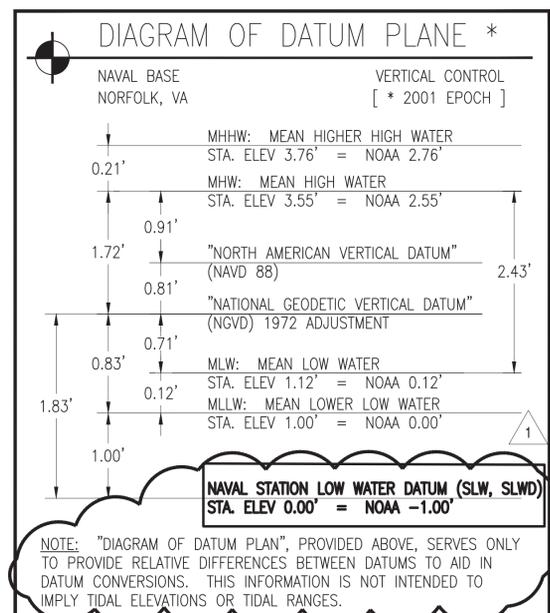
- THE TOPOGRAPHIC SURVEY WAS PERFORMED BY NAVFAC MIDLANT CODE PRW212 IN OCTOBER 2015 AND AMENDED WITH HISTORICAL DATA WHICH HAS NOT BEEN FIELD VERIFIED. ALL EXISTING CONDITIONS INCLUDING UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND NOTIFY THE CONTRACTING OFFICER OF ANY DEVIATIONS WHICH WILL IMPACT THE PROPOSED WORK.
- UTILITY INFORMATION ON THESE DRAWINGS IS FROM BEST AVAILABLE RECORDS AND SURFACE OBSERVATIONS AND DOES NOT GUARANTEE THE EXISTENCE/NON-EXISTENCE, SIZE, TYPE OR LOCATION OF UNDERGROUND UTILITIES. LOCATION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXCAVATED/EXPOSED UTILITIES IN EXCAVATIONS.
- PRIOR TO ANY EXCAVATION, CONTACT MISS UTILITY OF VIRGINIA (TELEPHONE#: 811) TO HAVE THE EXISTING UNDERGROUND LINES MARKED ON THE GROUND SURFACE IN THE AREAS OF CONSTRUCTION.
- COMPLY WITH THE PROVISIONS OF THE "VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT" (SECTION 56-265.14 ET. SEQ., CODE OF VIRGINIA, 1950, AMENDED).
- ITEMS NOTED TO BE DEMOLISHED OR REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVE DEMOLITION DEBRIS FROM GOVERNMENT PROPERTY AND PROPERLY DISPOSE, UNLESS OTHERWISE SPECIFIED. ADHERE TO APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
- ALL GRADE TRANSITIONS SHALL BE SMOOTH AND GRADUAL WITH NO SHARP OR ABRUPT CHANGES UNLESS OTHERWISE NOTED. SUBBASE DRAINAGE SHALL NOT BE RESTRICTED OR IMPEDED.
- ALL DISTURBED AND FINAL PAVED AREAS SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE.
- ALL LAYDOWN AREAS SHALL BE APPROVED BY THE CONTRACTING OFFICER PRIOR TO DELIVERY OF ANY MATERIALS. LAYDOWN AREA PLAN SHALL BE PROVIDED. CONTRACTOR SHALL COORDINATE THE LOCATION(S) OF LAYDOWN AREAS WITH CONTRACTING OFFICER.
- STRIP AND STOCKPILE TOPSOIL WITHIN THE LIMITS OF NEW PAVEMENT AREAS. ASSUME 8" TOPSOIL THICKNESS. DISPOSE OF UNACCEPTABLE EXCAVATED MATERIALS OFF OF GOVERNMENT PROPERTY IN ACCORDANCE WITH TEMPORARY ENVIRONMENTAL SUPPLEMENTARY CONTROLS SPECIFICATION.
- SAWCUT PAVEMENT/SIDEWALKS FULL DEPTH ALONG STRAIGHT LINES PRIOR TO REMOVAL.
- RESTORE SURFACES DISTURBED DURING THE COURSE OF WORK TO MATCH EXISTING CONDITIONS.
- REFERENCE BENCHMARK DETAILS FOR HORIZONTAL AND VERTICAL DATUMS.
- FOR BIDDING PURPOSES, ASSUME THE FOLLOWING EXISTING PAVEMENT SECTIONS UNLESS OTHERWISE NOTED:  
-BITUMINOUS ASPHALT: 6.5" BITUMINOUS ASPHALT OVER 8" STONE BASE  
-CONCRETE: 12" CONCRETE OVER 8" STONE BASE
- FOR BIDDING PURPOSES, ASSUME EXISTING CONCRETE FENCE POST FOUNDATIONS TO BE DEMOLISHED HAVE THE SAME FOUNDATION DIMENSIONS AS SHOWN IN THE FENCE POST DETAIL PROVIDED ON CS501.
- BEGIN EARTHWORK ACTIVITIES ONLY AFTER SOIL EROSION DEVICES ARE IN-PLACE. REFER TO EROSION AND SEDIMENT CONTROL PLANS FOR REQUIRED MINIMUM E&S MEASURES SOIL EROSION ENSURE THAT NO OFFSITE SEDIMENT LOSS OCCURS.
- WHERE EXISTING STRUCTURES TO REMAIN ARE DAMAGED DUE TO CONSTRUCTION OR DEMOLITION REQUIRED BY THESE DOCUMENTS, REPAIR THE DAMAGED ITEM(S) WITH NEW MATERIALS TO MATCH THE ADJACENT MATERIAL, TEXTURE, AND COLOR AT NO ADDITIONAL COST TO THE GOVERNMENT.
- OBSERVE AND MAINTAIN SECURITY REQUIREMENTS AS DIRECTED BY THE CONTRACTING OFFICER.
- SUBMIT A SEQUENCE OF CONSTRUCTION AND PHASING PLAN AND WEEKEND WORK REQUESTS TO THE CONTRACTING OFFICER FOR APPROVAL.
- PROVIDE TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL TRAFFIC CONTROL PLANS SHALL BE APPROVED BY THE CONTRACTING OFFICER.
- PROPERLY STOCKPILE SOIL THAT IS EXCAVATED AND REUSED TO PREVENT OFFSITE SEDIMENT LOSS.
- IF EXCAVATED SOIL IS TO BE SHIPPED OFFSITE IT SHALL HAVE A VALID INSPECTION CERTIFICATE ISSUED BY AN OFFICER OF THE PLANT PROTECTION AND QUARANTINE PROGRAM OF THE U.S. DEPARTMENT OF AGRICULTURE. CONTACT THE PEST MANAGEMENT COORDINATOR AT 757-341-0402, VIA THE CONTRACTING OFFICER, FOR ENVIRONMENTAL COMPLIANCE.
- MAINTAIN LIMITS OF DISTURBANCE SHOWN HEREIN OR, IF DEVIATING FROM LIMITS AS SHOWN, COORDINATE WITH THE CONTRACTING OFFICER PRIOR TO EARTHWORK ACTIVITIES.
- PRIOR TO THE START OF CONSTRUCTION, PREPARE A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE REQUIREMENTS OF THE GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES (VAR10) AND SUBMIT A REGISTRATION STATEMENT AND OBTAIN A GENERAL CONSTRUCTION PERMIT.
- THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, AND OTHER REQUIREMENTS NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW WORK TO THE EXISTING STRUCTURES TO REMAIN. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION REPAIRS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER PRIOR TO ORDERING OR FABRICATION OF MATERIAL OR BEGINNING WORK.

# CIVIL ABBREVIATIONS:

ABDN	ABANDON	MAX	MAXIMUM
AC	ACRE	MG	MATCH GRADE (GRADE)
AFF	AQUEOUS FILM FORMING FOAM	MH	MANHOLE
AG	AGGREGATE (GRADE)	MIN	MINIMUM
APPROX	APPROXIMATE	MON	MONITORING WELL
ASPH	ASPHALT	N.F.	NOT FOUND
AVE	AVENUE	NTS	NOT TO SCALE
A/C	ASBESTOS CEMENT	OHE	OVERHEAD ELECTRIC
AST	ABOVEGROUND STORAGE TANK	ORN	ORNAMENTAL
BC	BOTTOM OF CURB	OWO	OILY-WASTE WASTE-OIL
BOC	BACK OF CURB	P	PAVEMENT (GRADE)
BIT	BITUMINOUS	PC	POINT OF CONNECTION
CI	CURB INLET OR CAST IRON	PED.	PEDESTRIAN
CF	CUBIC FEET	PT	POINT OF TANGENCY
CL	CENTER LINE	PVMT	PAVEMENT
CLF	CHAIN LINK FENCE	RAD	RADIUS
CONC	CONCRETE	RD	ROOF DRAIN
COMB.	COMBINATION	REQ'D	REQUIRED
COMM	COMMUNICATION	SS	SANITARY SEWER
CO	CLEAN OUT	SSCO	SANITARY SEWER CLEANOUT
DI	DROP INLET	SD	STORM DRAIN
DIA	DIAMETER	SF	SILT FENCE
DS	DOWN SPOUT (STORMWATER)	SWM	STORM WATER MANAGEMENT
ELEC	ELECTRICAL	S/W	SIDEWALK
ELEV	ELEVATION	TBM	TEMPORARY BENCH MARK
EOP	EDGE OF PAVEMENT	TC	TOP OF CURB (GRADE)
EX	EXISTING	TP	TREE PROTECTION
FA	FIRE ALARM	TW	TOP OF WALL (GRADE)
FOC	FACE OF CURB	TYP	TYPICAL
FDC	FIRE DEPARTMENT CONNECTION	UG	UNDERGROUND
FF	FINISHED FLOOR	UON	UNLESS OTHERWISE NOTED
FG	FINISHED GRADE	UST	UNDERGROUND STORAGE TANK
		W	WATER
		WV	WATER VALVE

# LEGEND

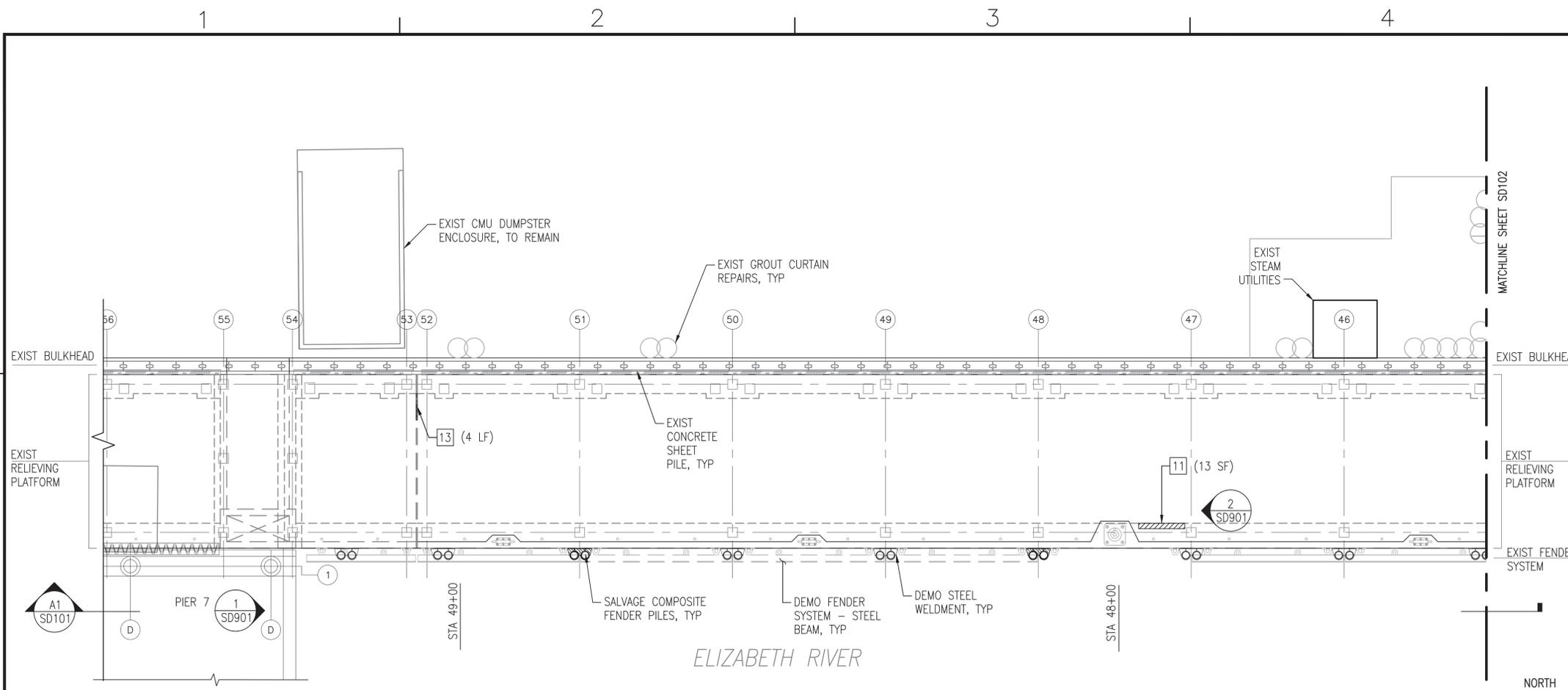
EXISTING		NEW	
	BUILDING		DEMO AND FULL DEPTH REPAIR
	BITUMINOUS PAVEMENT		BITUMINOUS MILL AND OVERLAY
	BITUMINOUS MILL AND OVERLAY		DEMO PAVEMENT
	CONCRETE		GRAVEL
	GRAVEL		BITUMINOUS BUILD UP
	BITUMINOUS BUILD UP		TEMPORARY BENCH MARK
	TEMPORARY BENCH MARK		DROP INLET
	DROP INLET		STORM OUTFALL
	STORM OUTFALL		CURB DROP INLET
	CURB DROP INLET		TRANSFORMER
	TRANSFORMER		SANITARY/OILY WATER MANHOLE
	SANITARY/OILY WATER MANHOLE		STORM MANHOLE
	STORM MANHOLE		VALVE
	VALVE		POST INDICATOR VALVE
	POST INDICATOR VALVE		UTILITY POLE
	UTILITY POLE		LIGHT POLE
	LIGHT POLE		FIRE HYDRANT
	FIRE HYDRANT		METER
	METER		TELEPHONE PEDESTAL
	TELEPHONE PEDESTAL		SPOT ELEVATION
	SPOT ELEVATION		GUY WIRE
	GUY WIRE		ELECTRIC MANHOLE/SWITCH
	ELECTRIC MANHOLE/SWITCH		SEWER CLEANOUT
	SEWER CLEANOUT		TELEPHONE MANHOLE
	TELEPHONE MANHOLE		MISCELLANEOUS SITE FEATURE / BOLLARD
	MISCELLANEOUS SITE FEATURE / BOLLARD		TREE / VEGETATION
	TREE / VEGETATION		SIGN
	SIGN		GEOTECH AUGER BORING
	GEOTECH AUGER BORING		ALARM BOX
	ALARM BOX		OILY WASTE
	OILY WASTE		UNDERGROUND FUEL
	UNDERGROUND FUEL		STORM SEWER
	STORM SEWER		SANITARY SEWER
	SANITARY SEWER		WATER
	WATER		SEWER FORCEMAIN
	SEWER FORCEMAIN		NATURAL GAS
	NATURAL GAS		UNDERGROUND COMMUNICATION
	UNDERGROUND COMMUNICATION		UNDERGROUND ELECTRICAL
	UNDERGROUND ELECTRICAL		OVERHEAD ELECTRICAL
	OVERHEAD ELECTRICAL		UNDERGROUND TELEPHONE
	UNDERGROUND TELEPHONE		UNDERGROUND STEAMLINE
	UNDERGROUND STEAMLINE		TREE PROTECTION
	TREE PROTECTION		SILT FENCE
	SILT FENCE		TURBIDITY CURTAIN
	TURBIDITY CURTAIN		CURB
	CURB		CURB AND GUTTER
	CURB AND GUTTER		CHAIN LINK FENCE
	CHAIN LINK FENCE		



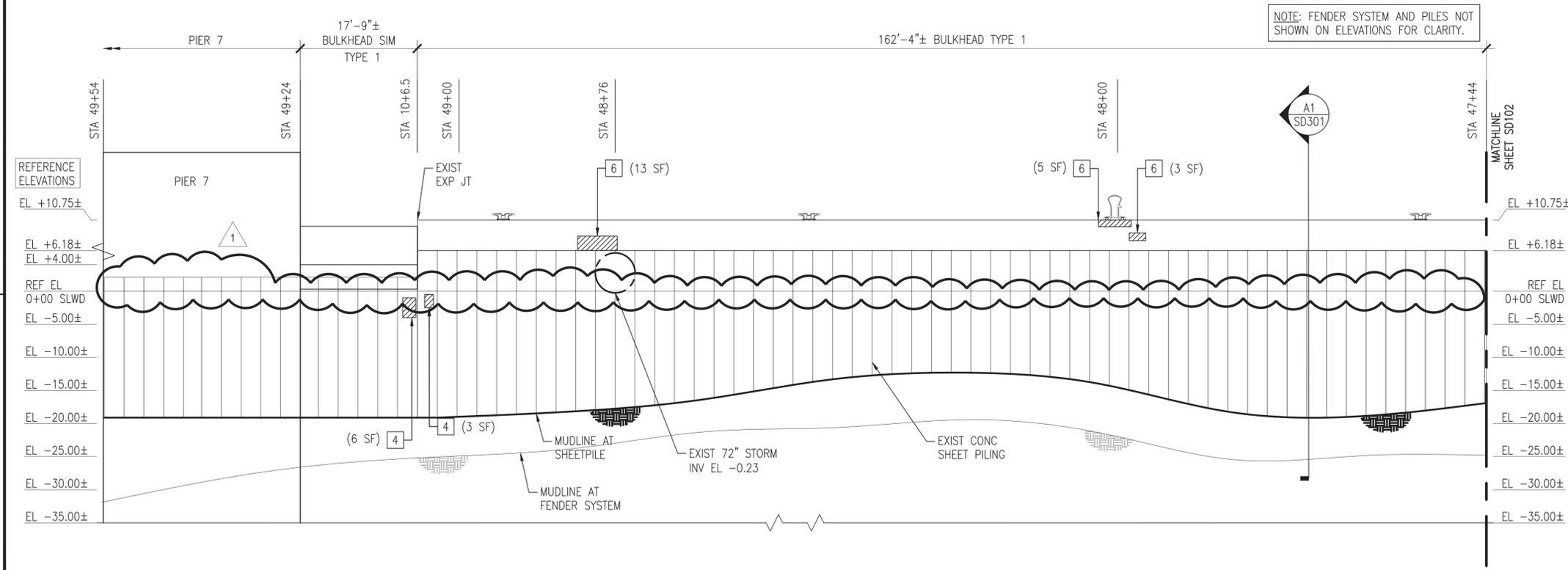
DATE	8/12/2016	DATE	
APPROVED		DATE	6/17/2016
FOR COMMANDER NAVFAC	8-11-16	DESIGNER	FGR
ACTIVITY	DAVE SEARS	DRAWN	FGR
		CHECKED	JWN
		DESIGN MANAGER	EDDY THEISZ
		BRANCH MANAGER	
		CHIEF ENGINEER	J. HASTE, P.E.
		FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC HAMPTON ROADS IPT - PWD NORFOLK NORFOLK, VIRGINIA <b>CEP-175 AND Z-308 BULKHEAD REPAIR</b> CIVIL LEGEND, NOTES AND ABBREVIATIONS			
SCALE:	AS NOTED	PROJECT NO.:	1370817
CONSTR. CONTR. NO.:	N/A	NAVAC DRAWING NO.:	12,729,660
SHEET	5 OF 158		
<b>C-001</b> DRAWING REVISION: 10 MARCH 2009			

FILE NAME: P:\VA\NavalStationNorfolk\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\05\_Civil\1370817-C-LEGEND NOTES ABBREVIATIONS LAYOUT NAME: C-001 CIVIL LEGEND NOTES AND ABBREVIATIONS PLOTTED: Wednesday, August 10, 2016 - 11:53am USER: christine.vukowick

FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structural\SD101\_STRUCTUREAL\_Plan & Elev (1 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:40am USER: christina.calkowski



**C1 PLAN - Z-308 BULKHEAD (1 OF 7)**  
SCALE: 1" = 10'



**A1 ELEVATION**  
SCALE: 1" = 10'

### GENERAL SHEET NOTES @ Z-308

- DEMOLISH Z-308 BULKHEAD COMPOSITE FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHOCKS, WALES, BLOCKING, WELDMENTS, RUBBER COMPONENTS, CHAIN, AND SPACERS.
- FULLY EXTRACT AND SALVAGE ALL IDENTIFIED COMPOSITE PILES.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
- ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.
- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.

1

(1 SF)

QUANTITY AND UNIT  
REPAIR TYPE

TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)			
SYMBOL	ITEM	QUANTITY	UNIT
○	SALVAGE COMPOSITE PILE	18	EA
⊖	DEMOLISH "MISSING" COMPOSITE PILE	-	EA
⊖	DEMOLISH STEEL CHOCK W/SPACERS	156	LF
⊖	DEMOLISH RUBBER SECTIONS W/SPACERS	15	EA
⊖	DEMOLISH STEEL WELDMENTS	7	EA
⊖	DEMOLISH "MISSING" STEEL WELDMENTS	2	EA
⊖	DEMOLISH 42" CLEAT	-	EA

TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)			
REPAIR TYPE	ITEM	QUANTITY	UNIT
1	PLATFORM SPALL REPAIR - BOTTOM CORNER	-	SF
2	PLATFORM SPALL REPAIR - UPPER CORNER	-	SF
3	CRACK REPAIR	-	SF
4	SHEET PILE & UNDERWATER SPALL REPAIR	9	SF
5	REINFORCING REPAIR	-	LF
6	PILE CAP SPALL REPAIR - CORNER & FASCIA	21	SF
7	PILE CAP SOFFIT REPAIR - UNDERNEATH	-	SF
8	PILE CAP REPAIR - TOP	-	SF
9	CONCRETE DECK REPAIR - TOP	-	SF
10	CURB REPLACEMENT	-	LF
11	CURB REPAIR	13	SF
12	CLEAT REPLACEMENT	-	EA
13	EXPANSION JOINT REPAIR	4	LF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

### KEY PLAN

### GRAPHIC SCALE

1" = 10'

0' 10' 20'

AS NOTED
PROJECT NO. 1370817
CONSTR. CONTR. NO. N/A
NAVFAC DRAWING NO. 12,729,702
SHEET 47 OF 158
<b>SD101</b>

DRAWFORM REVISION: 10 MARCH 2009

NO. 1	DATE 8/17/2016	BY	APPR.
NO. 2	DATE	BY	APPR.
NO. 3	DATE	BY	APPR.
NO. 4	DATE	BY	APPR.
NO. 5	DATE	BY	APPR.
NO. 6	DATE	BY	APPR.
NO. 7	DATE	BY	APPR.
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NO. 14	DATE	BY	APPR.
NO. 15	DATE	BY	APPR.
NO. 16	DATE	BY	APPR.
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NO. 18	DATE	BY	APPR.
NO. 19	DATE	BY	APPR.
NO. 20	DATE	BY	APPR.

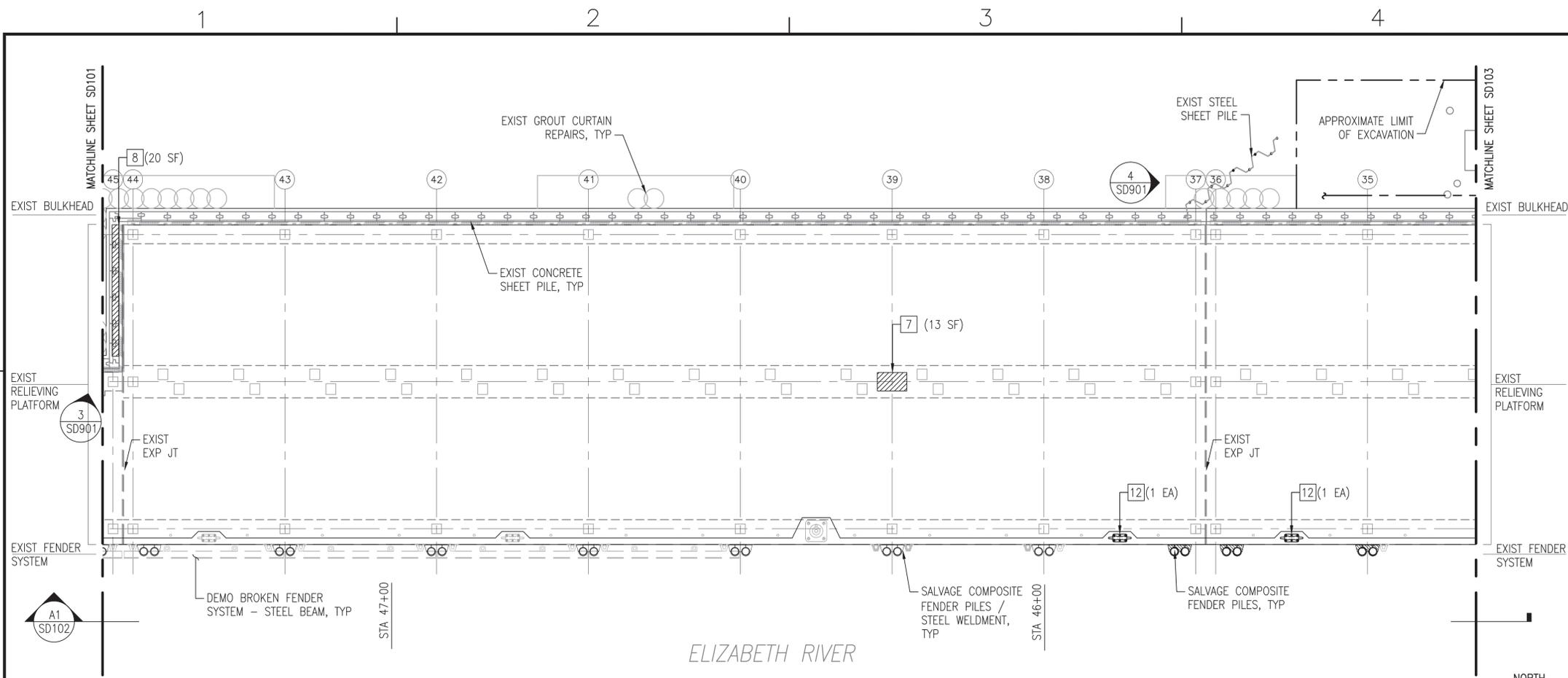
**NAVFAC**

APPROVED: *App. Sig.*  
FOR COMMANDER NAVFAC: **8-11-16**  
ACTIVITY: **DAVE SEARS**  
SATISFACTORY TO DATE: **6/17/2016**  
DES: **ELT** DRW: **KAD** CHK: **CLT**  
DESIGN MANAGER: **EDDY THEISZ**  
BRANCH MANAGER: **CR**  
CHIEF ENGINEER: **J. HASTE, P.E.**

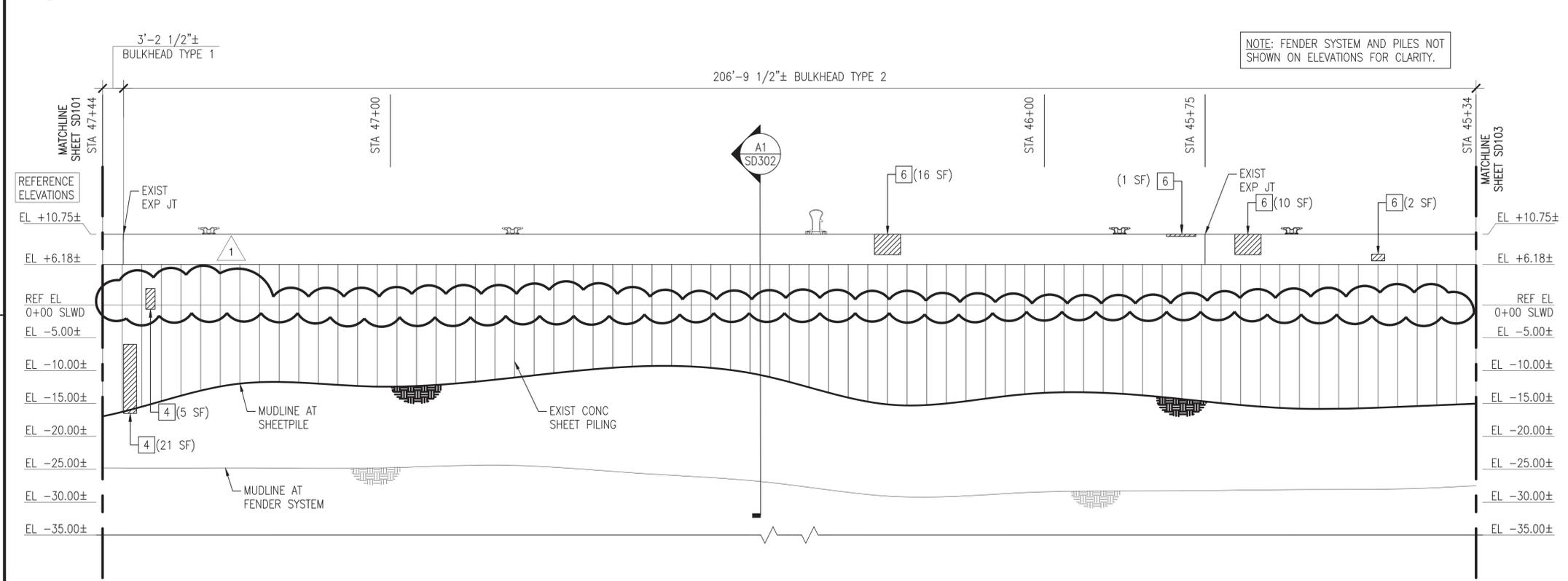
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
HAMPTON ROADS FT - PNO NORFOLK  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA

CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (1 OF 21) - DEMO

FILE NAME: P:\NAVAFAC\Norfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD100\_SERIES.dwg LAYOUT NAME: SD102\_STRUCTURAL PLAN & ELEV (2 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:40am USER: christina.rolkowiak



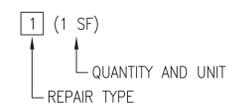
**C1** PLAN - Z-308 BULKHEAD (2 OF 7)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ Z-308**

- DEMOLISH Z-308 BULKHEAD COMPOSITE FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHOCKS, WALES, BLOCKING, WELDMENTS, RUBBER COMPONENTS, CHAIN, AND SPACERS.
- FULLY EXTRACT AND SALVAGE ALL IDENTIFIED COMPOSITE PILES.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
- ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.
- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



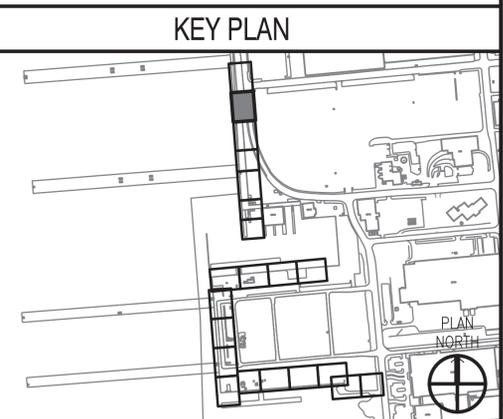
**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
○	SALVAGE COMPOSITE PILE	20	EA
⊖	DEMOLISH "MISSING" COMPOSITE PILE	-	EA
⊖	DEMOLISH STEEL CHOCK W/SPACERS	98	LF
⊖	DEMOLISH RUBBER SECTIONS W/SPACERS	14	EA
⊖	DEMOLISH STEEL WELDMENTS	7	EA
⊖	DEMOLISH "MISSING" STEEL WELDMENTS	3	EA
⊖	DEMOLISH 42" CLEAT	2	EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
1	PLATFORM SPALL REPAIR - BOTTOM CORNER	-	SF
2	PLATFORM SPALL REPAIR - UPPER CORNER	-	SF
3	CRACK REPAIR	-	SF
4	SHEET PILE & UNDERWATER SPALL REPAIR	26	SF
5	REINFORCING REPAIR	-	LF
6	PILE CAP SPALL REPAIR - CORNER & FASCIA	29	SF
7	PILE CAP SOFFIT REPAIR - UNDERNEATH	13	SF
8	PILE CAP REPAIR - TOP	20	SF
9	CONCRETE DECK REPAIR - TOP	-	SF
10	CURB REPLACEMENT	-	LF
11	CURB REPAIR	-	SF
12	CLEAT REPLACEMENT	2	EA
13	EXPANSION JOINT REPAIR	-	LF

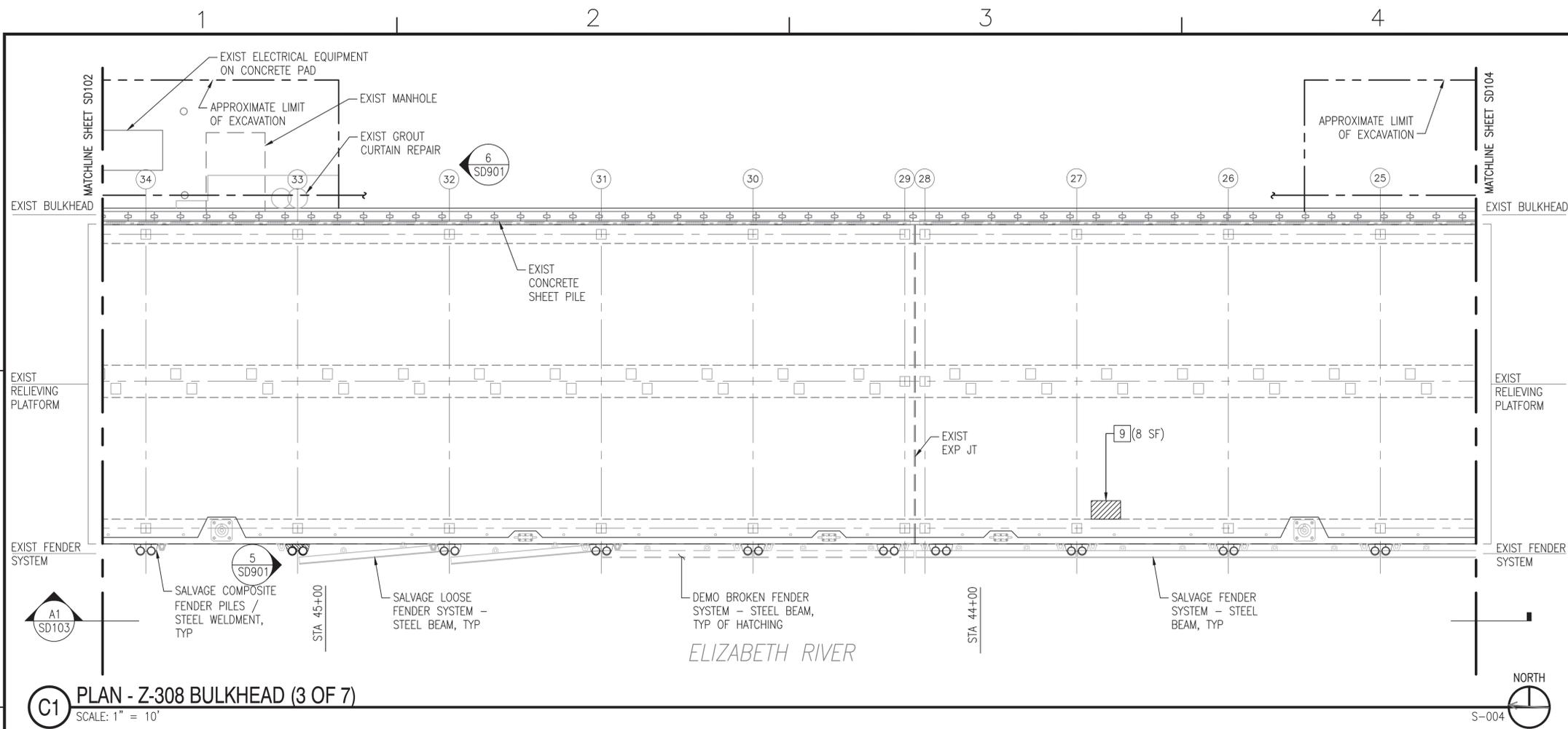
NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.



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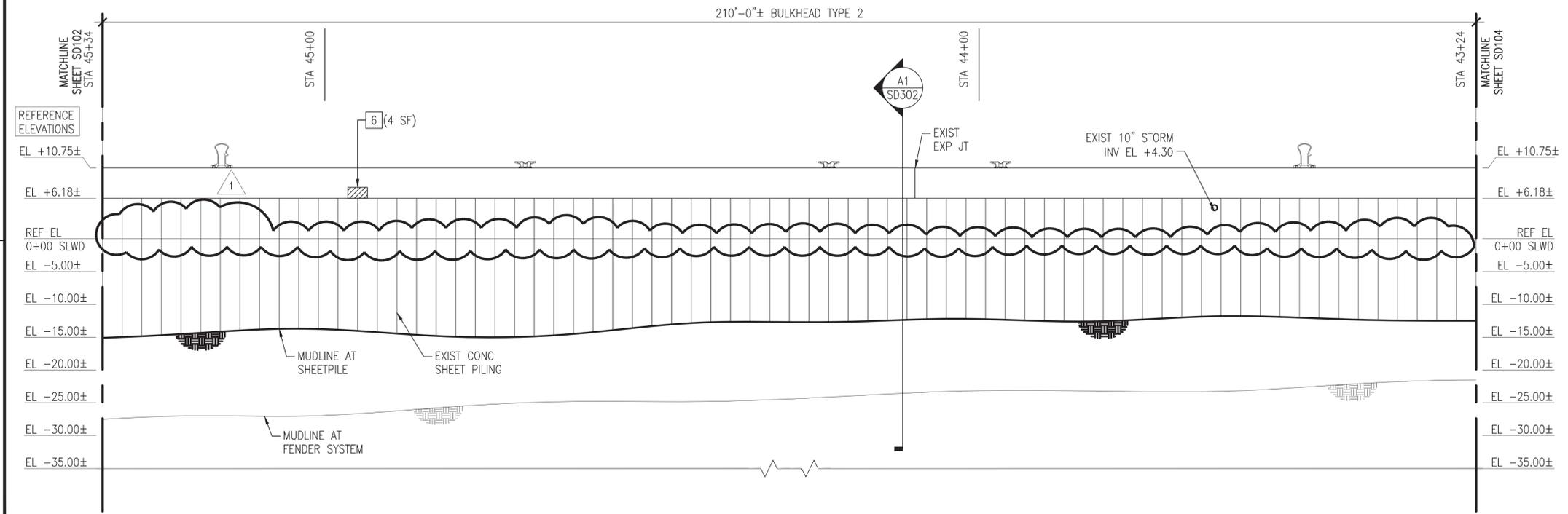
APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: 8-11-16  
ACTIVITY: DAVE SEARS  
SATISFACTORY TO DATE: 6/17/2016  
DESIGNER: ELT KAD CHK: CLT  
DESIGN MANAGER: EDDY THEISZ  
BRANCH MANAGER: CRT  
CHIEF ENGINEER: J. HASTE, P.E.  
FIRE PROTECTION: [Blank]  
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA  
CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (2 OF 21) - DEMO  
SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,703  
SHEET 48 OF 158  
SD102  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NAV (Naval Station Norfolk)\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308\repair\B\_Design\Drawings\Sheet\07\_Structural\1370817\_SD100\_SEDES.dwg LAYOUT NAME: SD103 STRUCTURAL PLAN & ELEV (3 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:40am USER: christina.ckowski



**C1** PLAN - Z-308 BULKHEAD (3 OF 7)  
SCALE: 1" = 10'

NOTE: FENDER SYSTEM AND PILES NOT SHOWN ON ELEVATIONS FOR CLARITY.



**A1** ELEVATION  
SCALE: 1" = 10'

### GENERAL SHEET NOTES @ Z-308

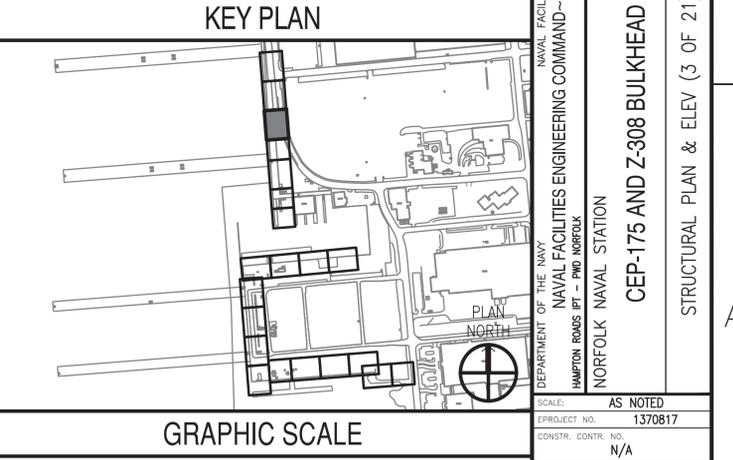
- DEMOLISH Z-308 BULKHEAD COMPOSITE FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHOCKS, WALES, BLOCKING, WELDMENTS, RUBBER COMPONENTS, CHAIN, AND SPACERS.
- FULLY EXTRACT AND SALVAGE ALL IDENTIFIED COMPOSITE PILES.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
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- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.

1 (1 SF)  
↑ QUANTITY AND UNIT  
↑ REPAIR TYPE

TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)			
SYMBOL	ITEM	QUANTITY	UNIT
○	SALVAGE COMPOSITE PILE	20	EA
⊗	DEMOLISH "MISSING" COMPOSITE PILE	-	EA
⊖	DEMOLISH STEEL CHOCK W/SPACERS	134	LF
⊕	DEMOLISH RUBBER SECTIONS W/SPACERS	15	EA
⊗	DEMOLISH STEEL WELDMENTS	9	EA
⊖	DEMOLISH "MISSING" STEEL WELDMENTS	1	EA
⊕	DEMOLISH 42" CLEAT	-	EA

TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)			
REPAIR TYPE	ITEM	QUANTITY	UNIT
1	PLATFORM SPALL REPAIR - BOTTOM CORNER	-	SF
2	PLATFORM SPALL REPAIR - UPPER CORNER	-	SF
3	CRACK REPAIR	-	SF
4	SHEET PILE & UNDERWATER SPALL REPAIR	-	SF
5	REINFORCING REPAIR	-	LF
6	PILE CAP SPALL REPAIR - CORNER & FASCIA	4	SF
7	PILE CAP SOFFIT REPAIR - UNDERNEATH	-	SF
8	PILE CAP REPAIR - TOP	-	SF
9	CONCRETE DECK REPAIR - TOP	8	SF
10	CURB REPLACEMENT	-	LF
11	CURB REPAIR	-	SF
12	CLEAT REPLACEMENT	-	EA
13	EXPANSION JOINT REPAIR	-	LF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.



### GRAPHIC SCALE

1" = 10'

NO.	DATE	DESCRIPTION	BY	CHKD	APPR
1	6/17/2016	ISSUED FOR CONSTRUCTION	EDDY	KAD	J. HASTE, P.E.

REVISIONS

APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: 8-11-16  
ACTIVITY: DAVE SEARS

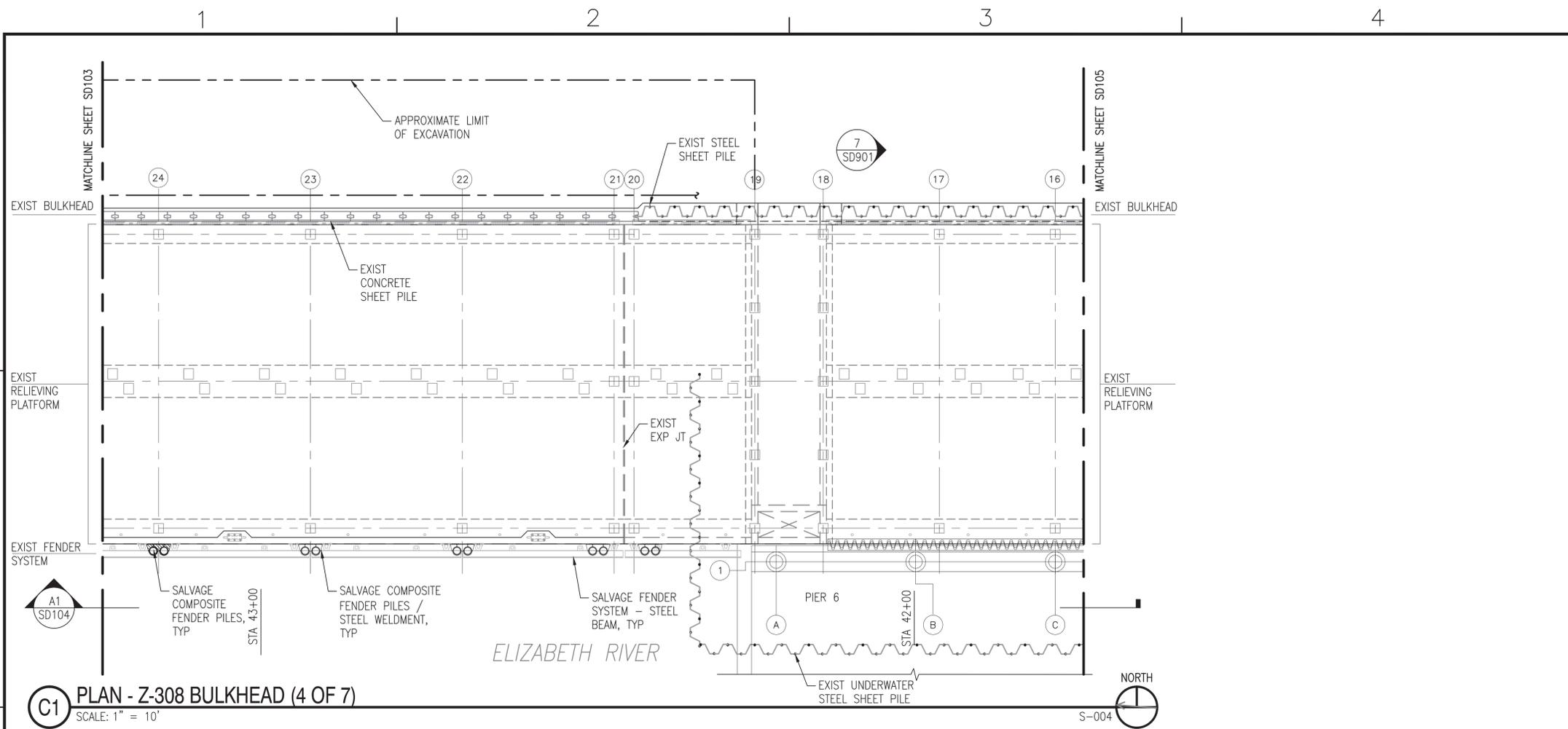
SATISFACTORY TO DATE: 6/17/2016  
DES: ELT | DRW: KAD | CHK: CLT  
DESIGN MANAGER: EDDY THEISZ  
BRANCH MANAGER: CRT  
CHIEF ENGINEER: J. HASTE, P.E.

NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA

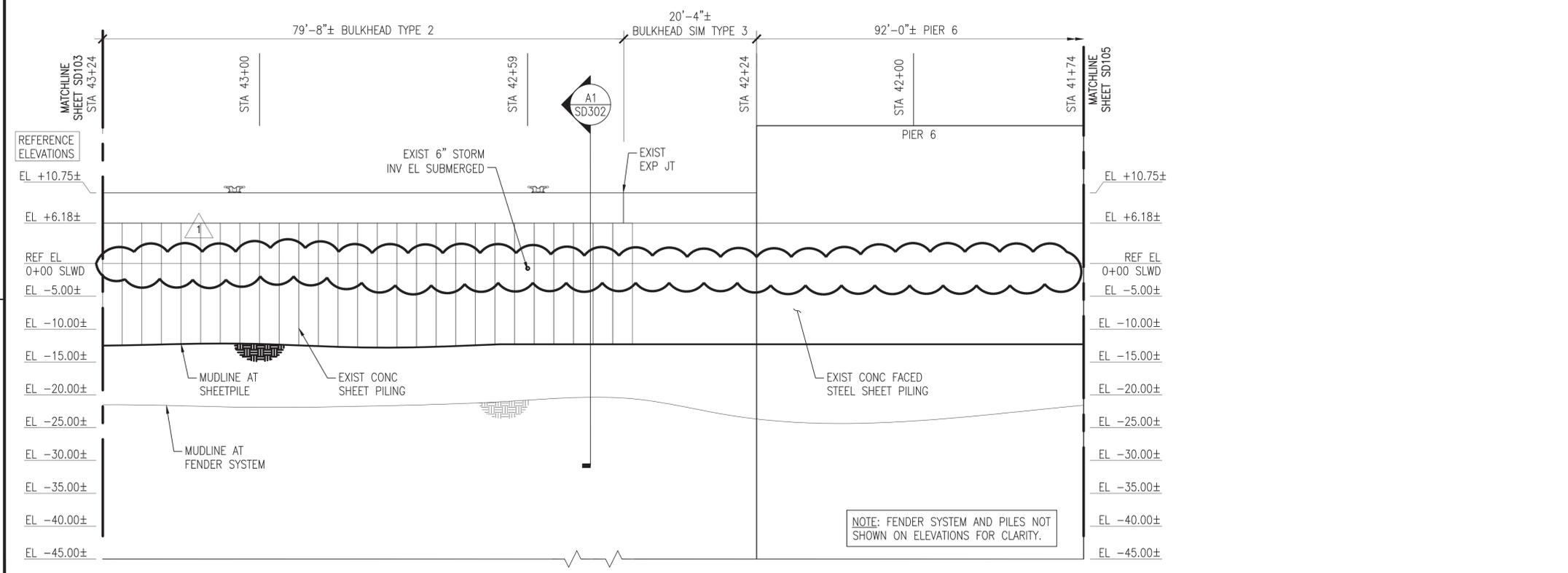
CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (3 OF 21) - DEMO

SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,704  
SHEET 49 OF 158  
SD103  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structural\SD104\_Structural\_Plan & Elev (4 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:40am USER: christina.alkowski



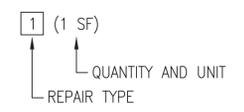
**C1 PLAN - Z-308 BULKHEAD (4 OF 7)**  
SCALE: 1" = 10'



**A1 ELEVATION**  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ Z-308**

- DEMOLISH Z-308 BULKHEAD COMPOSITE FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHOCKS, WALES, BLOCKING, WELDMENTS, RUBBER COMPONENTS, CHAIN, AND SPACERS.
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- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



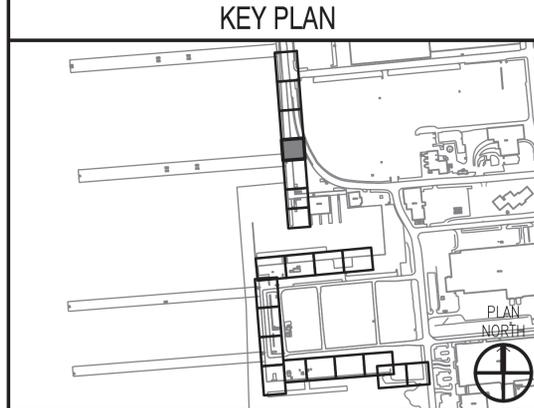
**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
○	SALVAGE COMPOSITE PILE	10	EA
⊗	DEMOLISH "MISSING" COMPOSITE PILE	-	EA
⊖	DEMOLISH STEEL CHOCK W/SPACERS	100	LF
⊕	DEMOLISH RUBBER SECTIONS W/SPACERS	10	EA
⊗	DEMOLISH STEEL WELDMENTS	4	EA
⊖	DEMOLISH "MISSING" STEEL WELDMENTS	1	EA
⊕	DEMOLISH 42" CLEAT	-	EA

**TABULATED 'UNIT PRICED' REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
1	PLATFORM SPALL REPAIR - BOTTOM CORNER	-	SF
2	PLATFORM SPALL REPAIR - UPPER CORNER	-	SF
3	CRACK REPAIR	-	SF
4	SHEET PILE & UNDERWATER SPALL REPAIR	-	SF
5	REINFORCING REPAIR	-	LF
6	PILE CAP SPALL REPAIR - CORNER & FASCIA	-	SF
7	PILE CAP SOFFIT REPAIR - UNDERNEATH	-	SF
8	PILE CAP REPAIR - TOP	-	SF
9	CONCRETE DECK REPAIR - TOP	-	SF
10	CURB REPLACEMENT	-	LF
11	CURB REPAIR	-	SF
12	CLEAT REPLACEMENT	-	EA
13	EXPANSION JOINT REPAIR	-	LF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.



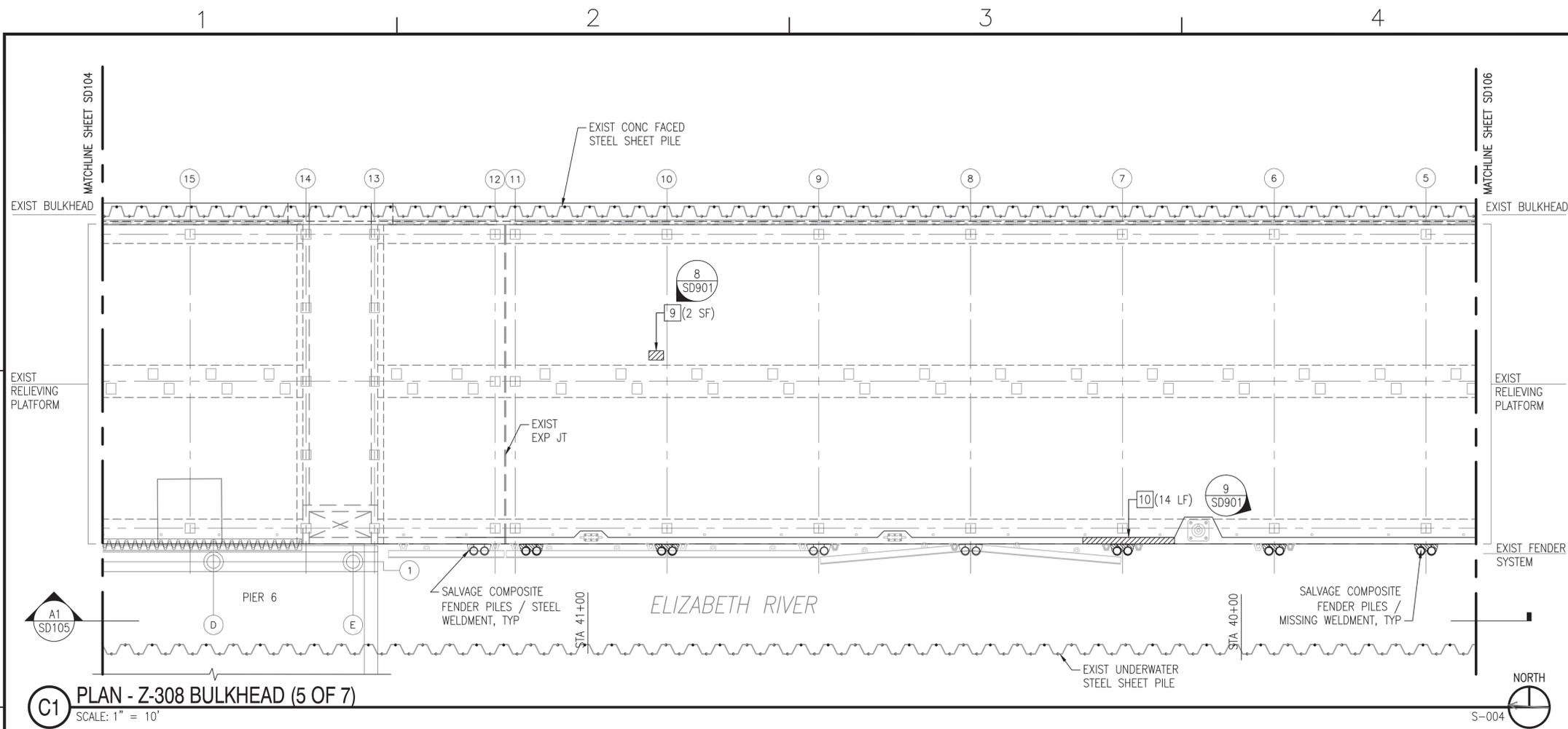
**GRAPHIC SCALE**



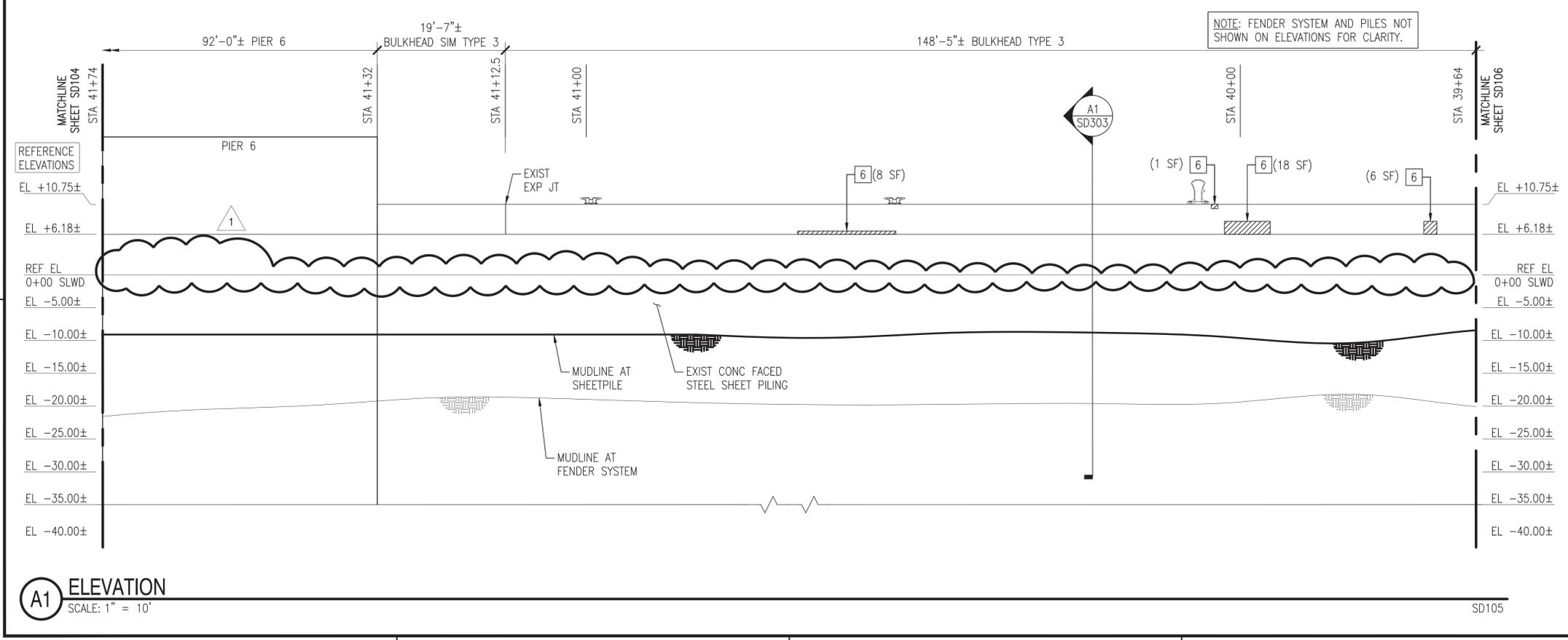
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NO. 50	DATE		BY		APPR	

APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: 8-11-16  
ACTIVITY: DAVE SEARS  
SATISFACTORY TO DATE: 6/17/2016  
DESIGNER: ELT  
DRAWN: KAD  
CHECKED: CLT  
DESIGN MANAGER: EDDY THEISZ  
BRANCH MANAGER: CRT  
CHIEF ENGINEER: J. HASTE, P.E.  
FIRE PROTECTION: [Blank]  
NAVFAC NAVAL STATION  
NORFOLK, VIRGINIA  
CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (4 OF 21) - DEMO  
SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,705  
SHEET 50 OF 158  
SD104  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308repair\B\_Design\Drawings\Sheet\07\_Structural\SD105\_STRUCTUREAL\_Plan & Elev (5 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:40am USER: christine.makowski



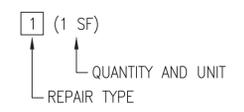
**C1** PLAN - Z-308 BULKHEAD (5 OF 7)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ Z-308**

- DEMOLISH Z-308 BULKHEAD COMPOSITE FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHOCKS, WALES, BLOCKING, WELDMENTS, RUBBER COMPONENTS, CHAIN, AND SPACERS.
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- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

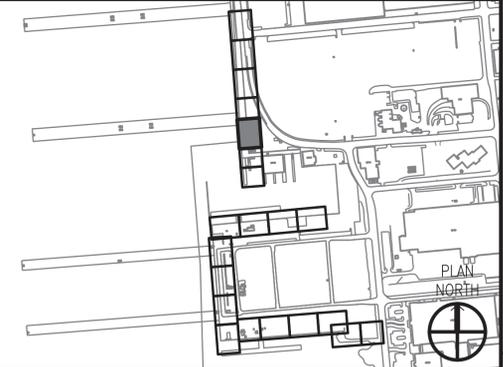
SYMBOL	ITEM	QUANTITY	UNIT
○	SALVAGE COMPOSITE PILE	16	EA
⊗	DEMOLISH "MISSING" COMPOSITE PILE	-	EA
⊖	DEMOLISH STEEL CHOCK W/SPACERS	68	LF
⊘	DEMOLISH RUBBER SECTIONS W/SPACERS	12	EA
⊙	DEMOLISH STEEL WELDMENTS	3	EA
⊚	DEMOLISH "MISSING" STEEL WELDMENTS	5	EA
⊛	DEMOLISH 42" CLEAT	-	EA

**TABULATED 'UNIT PRICED' REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
1	PLATFORM SPALL REPAIR - BOTTOM CORNER	-	SF
2	PLATFORM SPALL REPAIR - UPPER CORNER	-	SF
3	CRACK REPAIR	-	SF
4	SHEET PILE & UNDERWATER SPALL REPAIR	-	SF
5	REINFORCING REPAIR	-	LF
6	PILE CAP SPALL REPAIR - CORNER & FASCIA	33	SF
7	PILE CAP SOFFIT REPAIR - UNDERNEATH	-	SF
8	PILE CAP REPAIR - TOP	-	SF
9	CONCRETE DECK REPAIR - TOP	2	SF
10	CURB REPLACEMENT	14	LF
11	CURB REPAIR	-	SF
12	CLEAT REPLACEMENT	-	EA
13	EXPANSION JOINT REPAIR	-	LF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**



**GRAPHIC SCALE**



NO. 1	DATE	8/17/2016	BY	APPR.
NO. 2	DATE		BY	APPR.
NO. 3	DATE		BY	APPR.
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NO. 17	DATE		BY	APPR.
NO. 18	DATE		BY	APPR.
NO. 19	DATE		BY	APPR.
NO. 20	DATE		BY	APPR.

REVISIONS

REVISE WITH LEVEL MARKINGS

SYMBOL DESCRIPTION

DATE

BY

APPR.

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

DAVE SEARS

SATISFACTORY TO DATE

DESIGNER

DESIGN MANAGER

BRANCH MANAGER

CHEF ENGINEER

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC

NORFOLK NAVAL STATION

NORFOLK, VIRGINIA

CEP-175 AND Z-308 BULKHEAD REPAIR

STRUCTURAL PLAN & ELEV (5 OF 21) - DEMO

SCALE: AS NOTED

PROJECT NO. 1370817

CONSTR. CONTR. NO. N/A

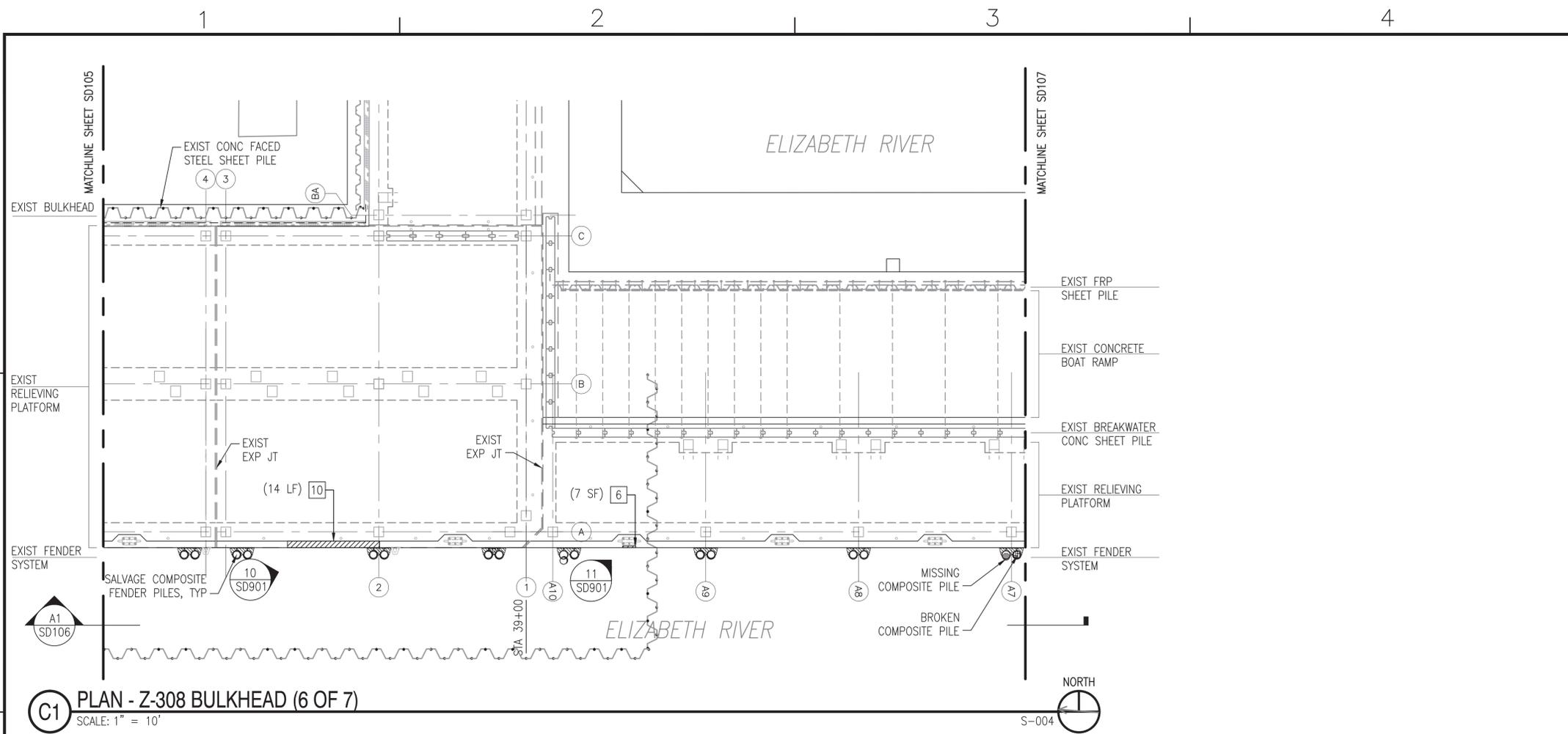
NAVFAC DRAWING NO. 12,729,706

SHEET 51 OF 158

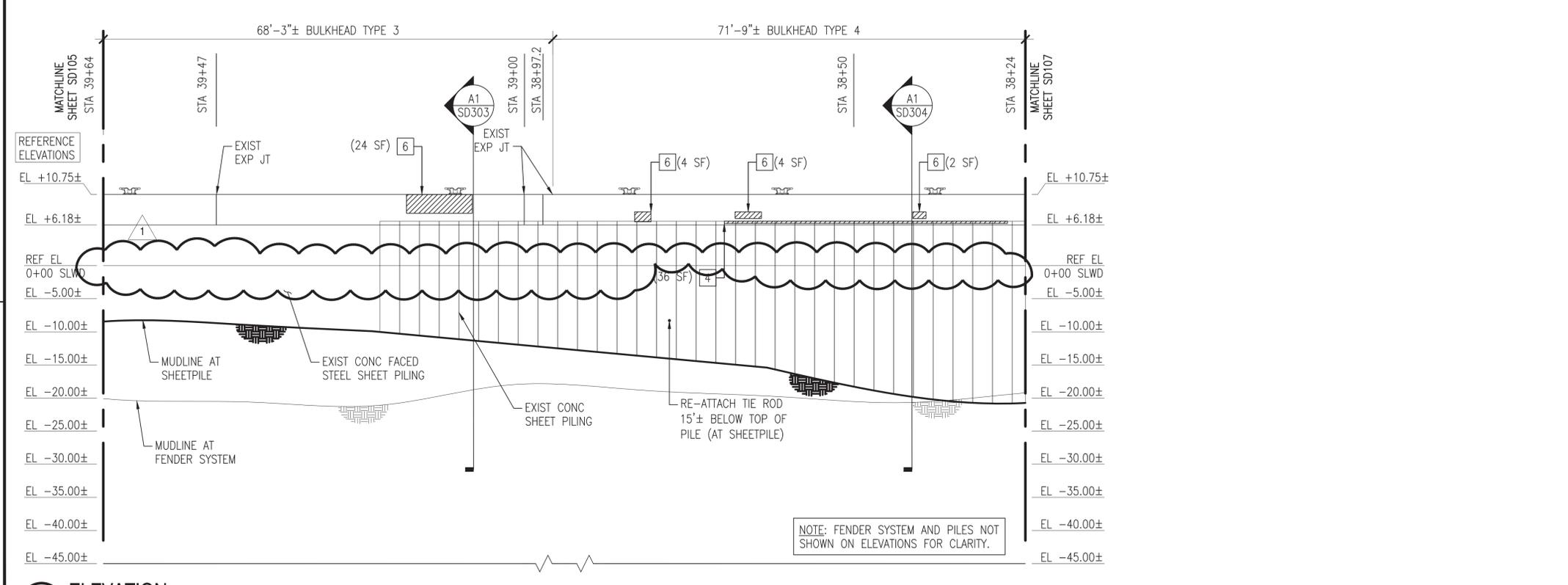
SD105

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structural\SD106\_Structural\_Plan & Elev (6 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:40am USER: christina.rolkowiak



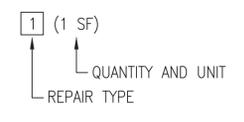
**C1** PLAN - Z-308 BULKHEAD (6 OF 7)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ Z-308**

- DEMOLISH Z-308 BULKHEAD COMPOSITE FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHOCKS, WALES, BLOCKING, WELDMENTS, RUBBER COMPONENTS, CHAIN, AND SPACERS.
- FULLY EXTRACT AND SALVAGE ALL IDENTIFIED COMPOSITE PILES.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
- ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.
- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
○	SALVAGE COMPOSITE PILE	15	EA
⊗	DEMOLISH "MISSING" COMPOSITE PILE	1	EA
⊖	DEMOLISH STEEL CHOCK W/SPACERS	-	LF
⊕	DEMOLISH RUBBER SECTIONS W/SPACERS	2	EA
⊗	DEMOLISH STEEL WELDMENTS	-	EA
⊖	DEMOLISH "MISSING" STEEL WELDMENTS	8	EA
⊕	DEMOLISH 42" CLEAT	-	EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
1	PLATFORM SPALL REPAIR - BOTTOM CORNER	-	SF
2	PLATFORM SPALL REPAIR - UPPER CORNER	-	SF
3	CRACK REPAIR	-	SF
4	SHEET PILE & UNDERWATER SPALL REPAIR	36	SF
5	REINFORCING REPAIR	-	LF
6	PILE CAP SPALL REPAIR - CORNER & FASCIA	41	SF
7	PILE CAP SOFFIT REPAIR - UNDERNEATH	-	SF
8	PILE CAP REPAIR - TOP	-	SF
9	CONCRETE DECK REPAIR - TOP	-	SF
10	CURB REPLACEMENT	14	LF
11	CURB REPAIR	-	SF
12	CLEAT REPLACEMENT	-	EA
13	EXPANSION JOINT REPAIR	-	LF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**



**GRAPHIC SCALE**



NO. 1	DATE	8/17/2016	REVISION	
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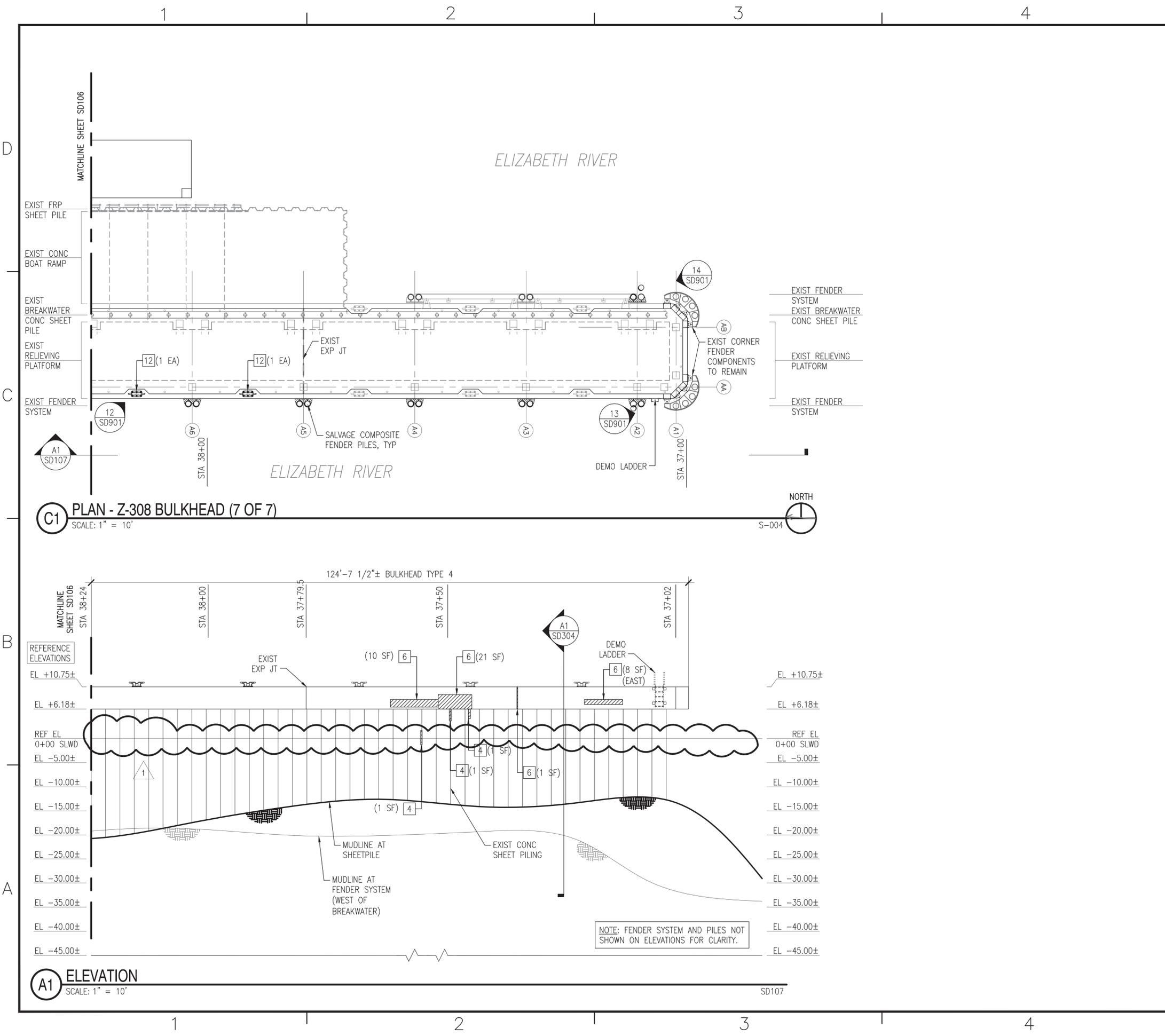
APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: 8-11-16  
ACTIVITY: NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA

NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA

CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (6 OF 21) - DEMO

SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,707  
SHEET 52 OF 158  
SD106  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structural\1370817\_SD100\_SESES.dwg LAYOUT NAME: SD107\_STRUCTURAL\_Plan & Elev (7 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:40am USER: christine.calkowski

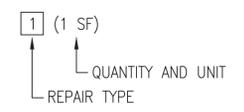


**C1** PLAN - Z-308 BULKHEAD (7 OF 7)  
SCALE: 1" = 10'

**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ Z-308**

- DEMOLISH Z-308 BULKHEAD COMPOSITE FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHOCKS, WALES, BLOCKING, WELDMENTS, RUBBER COMPONENTS, CHAIN, AND SPACERS.
- FULLY EXTRACT AND SALVAGE ALL IDENTIFIED COMPOSITE PILES.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
- ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.
- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
○	SALVAGE COMPOSITE PILE	16	EA
⊖	DEMOLISH "MISSING" COMPOSITE PILE	-	EA
⊖	DEMOLISH STEEL CHOCK W/SPACERS	46	LF
⊖	DEMOLISH RUBBER SECTIONS W/SPACERS	-	EA
⊖	DEMOLISH STEEL WELDMENTS	2	EA
⊖	DEMOLISH "MISSING" STEEL WELDMENTS	6	EA
⊖	DEMOLISH 42" CLEAT	2	EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
1	PLATFORM SPALL REPAIR - BOTTOM CORNER	-	SF
2	PLATFORM SPALL REPAIR - UPPER CORNER	-	SF
3	CRACK REPAIR	-	SF
4	SHEET PILE & UNDERWATER SPALL REPAIR	3	SF
5	REINFORCING REPAIR	-	LF
6	PILE CAP SPALL REPAIR - CORNER & FASCIA	38	SF
7	PILE CAP SOFFIT REPAIR - UNDERNEATH	-	SF
8	PILE CAP REPAIR - TOP	-	SF
9	CONCRETE DECK REPAIR - TOP	-	SF
10	CURB REPLACEMENT	-	LF
11	CURB REPAIR	-	SF
12	CLEAT REPLACEMENT	2	EA
13	EXPANSION JOINT REPAIR	-	LF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**



**GRAPHIC SCALE**

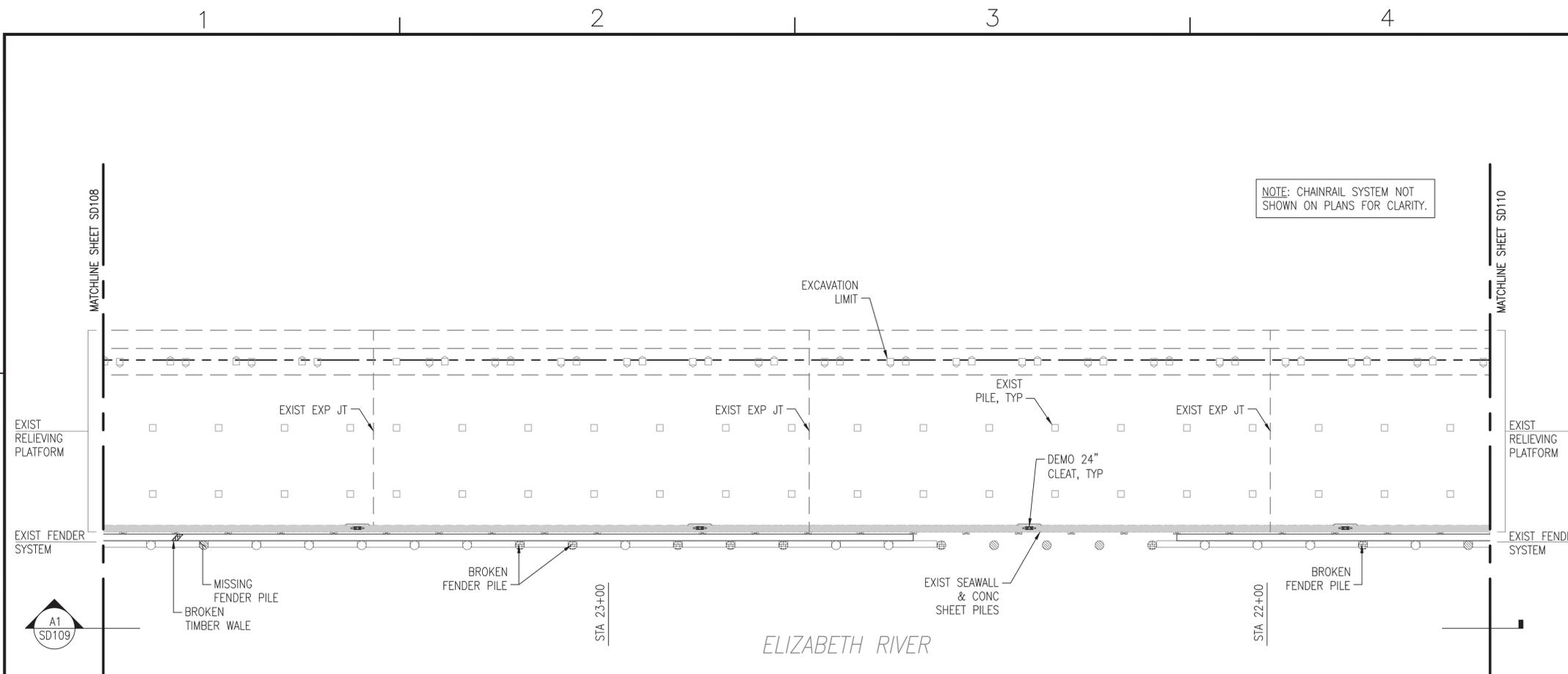


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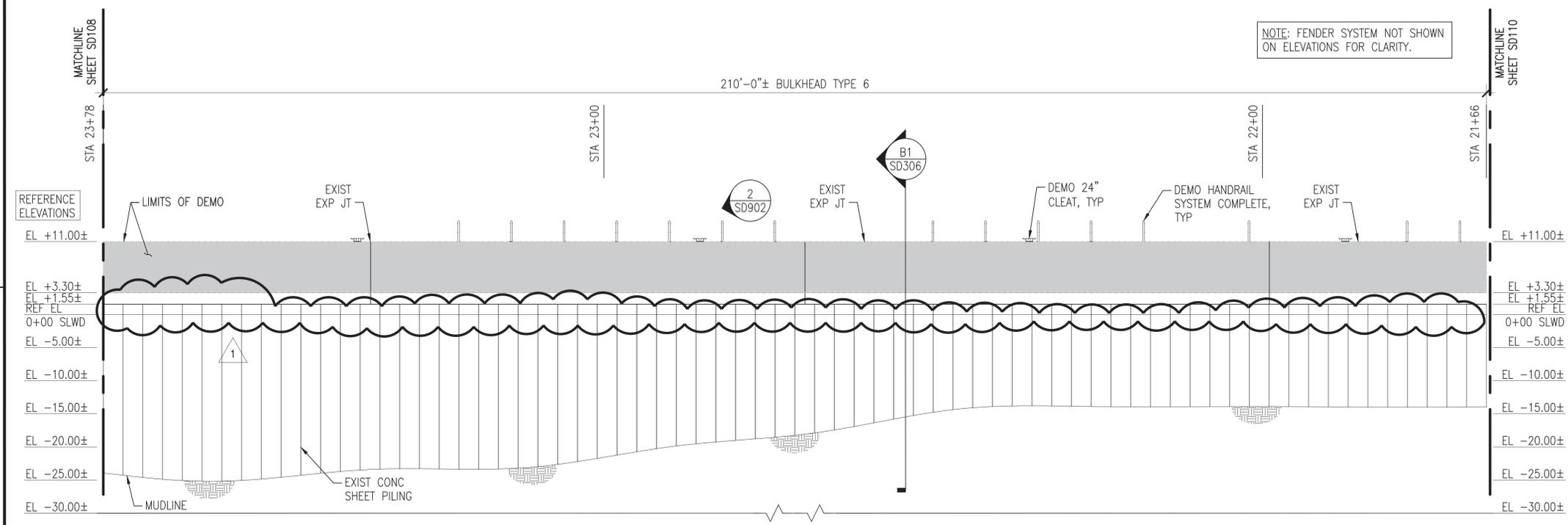
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FOR COMMANDER NAVFAC: **8-11-16**  
ACTIVITY: **DAVE SEARS**  
SATISFACTORY TO DATE: **6/17/2016**  
DES: **ELT** | DRW: **KAD** | CHK: **CLT**  
DESIGN MANAGER: **EDDY THEISZ**  
BRANCH MANAGER: **CRT**  
CHIEF ENGINEER: **J. HASTE, P.E.**  
FIRE PROTECTION: **NORFOLK, VIRGINIA**  
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
NORFOLK NAVAL STATION  
HAMPTON ROADS BT - PWD NORFOLK  
NORFOLK NAVAL STATION  
CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (7 OF 21) - DEMO  
SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,708  
SHEET 53 OF 158  
SD107  
DRAWFORM REVISION: 10 MARCH 2009



FILE NAME: P:\NAVStation\Norfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308repair\B\_Design\Drawings\Sheet\07\_Structural\1370817\_SD100\_SEMES.dwg LAYOUT NAME: SD109\_STRUCTURAL\_Plan & Elev (9 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:47am USER: christina.calkins



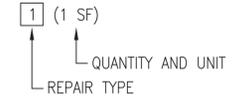
**C1** PLAN - CEP-175 BULKHEAD - NORTH FACE (2 OF 4)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

- DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
- DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
- DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
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- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
—	DEMOLISH 24" CLEAT	4	EA
○	DEMOLISH TIMBER PILE	13	EA
⊗	DEMOLISH "MISSING" TIMBER PILE	13	EA
▭	DEMOLISH TIMBER WALE W/BLOCKING	170	LF
▭	DEMOLISH TIMBER CHOCK W/SPACERS	150	LF
→	DEMOLISH CHAIN / POSTS	0/15	LF/EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
4	SHEET PILE & UNDERWATER SPALL REPAIR	-	SF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**

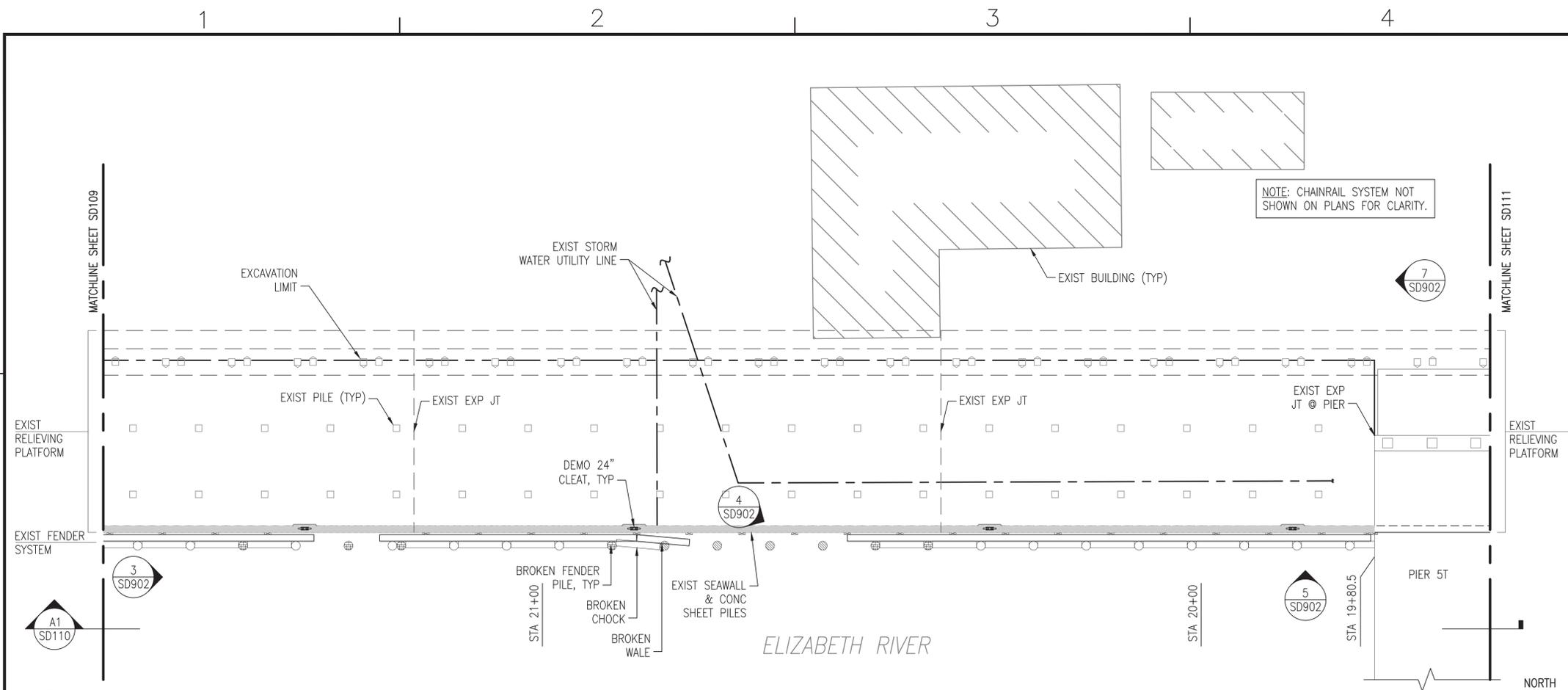


**GRAPHIC SCALE**

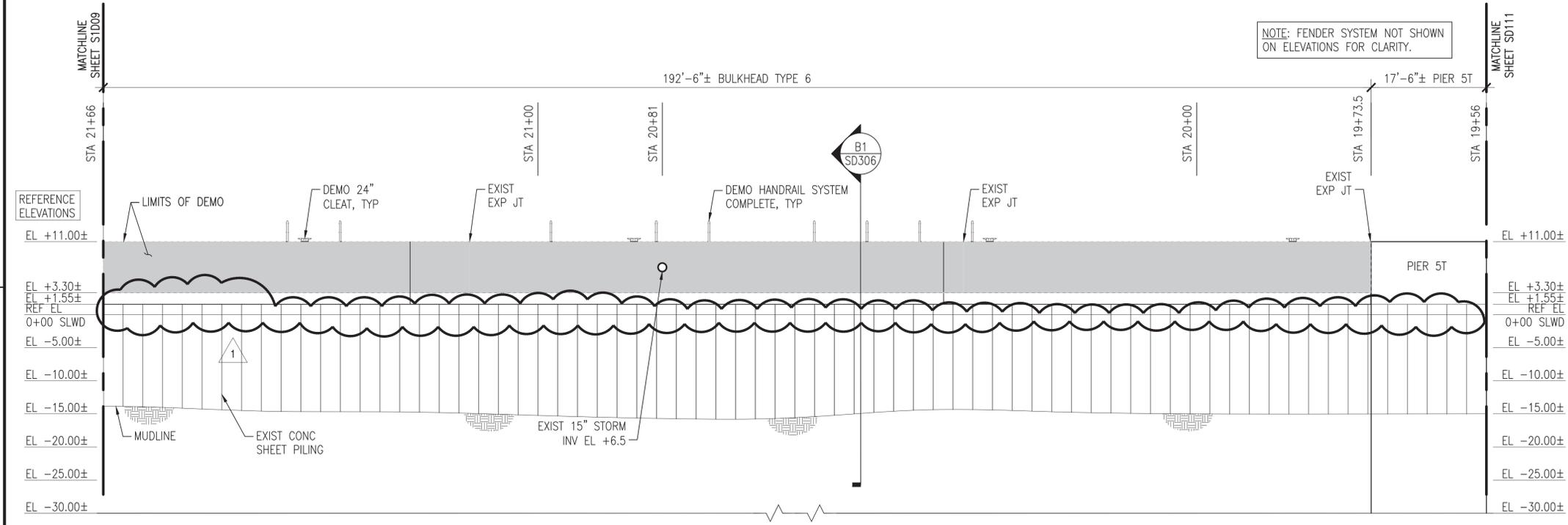


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FILE NAME: P:\NAVStation\Norfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD110\_STRUCTUREAL PLAN & ELEV (10 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:41am USER: chridline.culloway



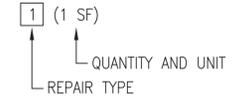
**C1** PLAN - CEP-175 BULKHEAD - NORTH FACE (3 OF 4)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

- DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
- DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
- DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
- ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.
- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
○	DEMOLISH 24" CLEAT	4	EA
○	DEMOLISH TIMBER PILE	15	EA
○	DEMOLISH "MISSING" TIMBER PILE	10	EA
○	DEMOLISH TIMBER WALE W/BLOCKING	159	LF
○	DEMOLISH TIMBER CHOCK W/SPACERS	120	LF
→	DEMOLISH CHAIN / POSTS	0/9	LF/EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
4	SHEET PILE & UNDERWATER SPALL REPAIR	-	SF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**



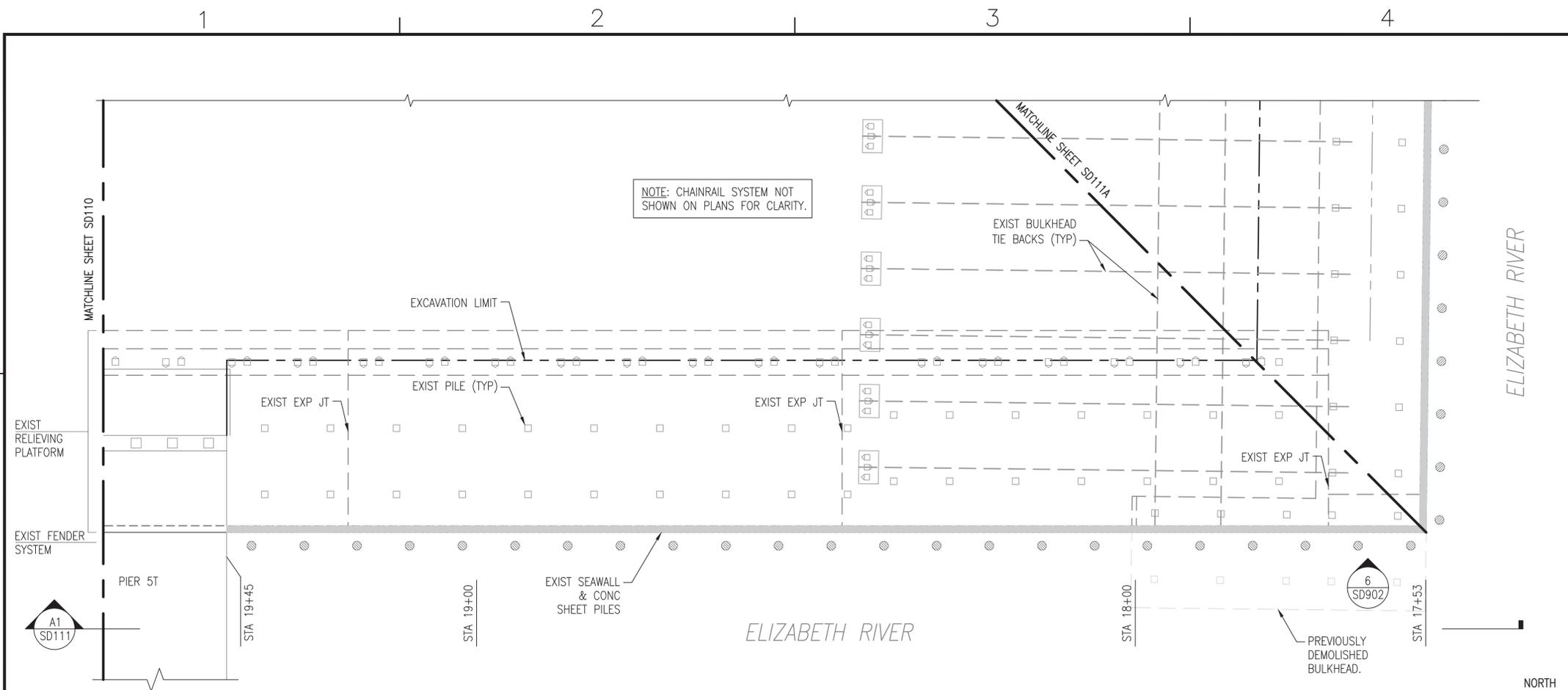
**GRAPHIC SCALE**



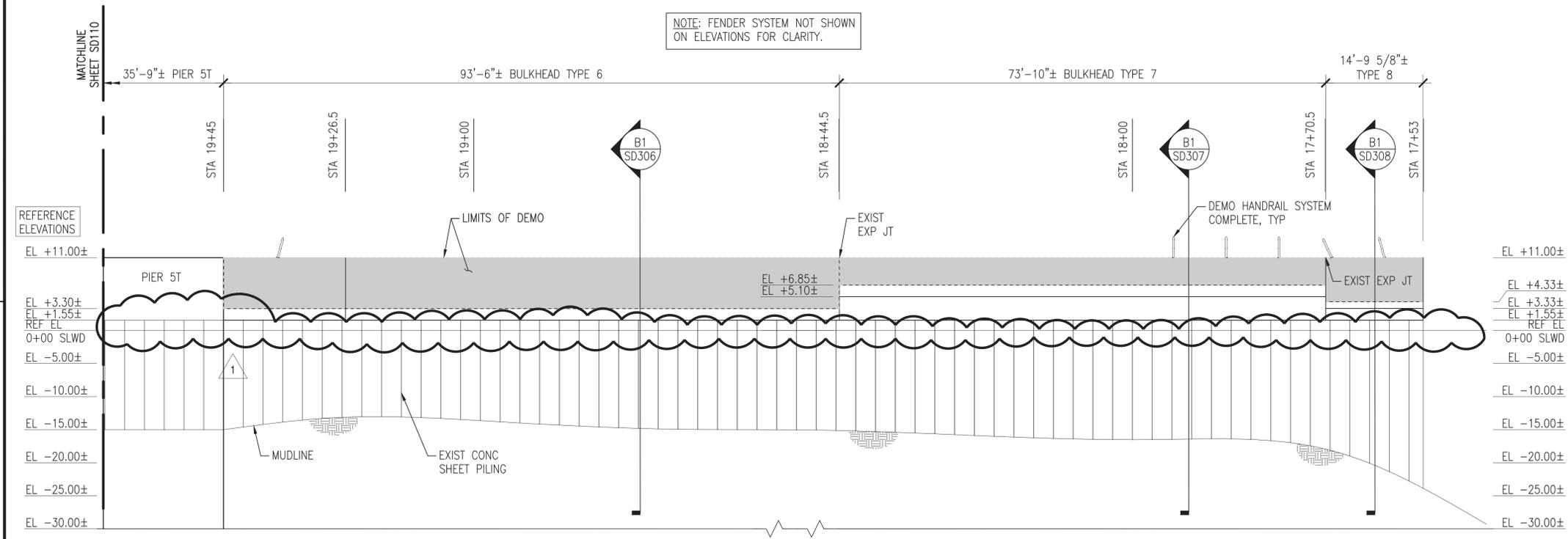
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APPROVED: *App. J. Haste*  
FOR COMMANDER NAVFAC: **J. HASTE**  
ACTIVITY: **CEP-175 AND Z-308 BULKHEAD REPAIR**  
SATISFACTORY TO DATE: **6/17/2016**  
DESIGNER: **ELT** | DRAWN: **KAD** | CHECKED: **CLT**  
DESIGN MANAGER: **EDDY THEISZ**  
BRANCH MANAGER: **CRF**  
CHIEF ENGINEER: **J. HASTE, P.E.**  
FIRE PROTECTION: **J. HASTE, P.E.**  
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA  
CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (10 OF 21) - DEMO  
SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,711  
SHEET 56 OF 158  
SD110  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NAVStation\Norfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structure\SD111\_Structural\PLAN & ELEV (11 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:41am USER: chridline.culloway



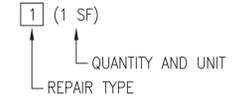
**C1** PLAN - CEP-175 BULKHEAD - NORTH FACE (4 OF 4)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

- DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
- DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
- DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
- ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.
- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
	DEMOLISH 24" CLEAT	-	EA
	DEMOLISH TIMBER PILE	-	EA
	DEMOLISH "MISSING" TIMBER PILE	23	EA
	DEMOLISH TIMBER WALE W/BLOCKING	-	LF
	DEMOLISH TIMBER CHOCK W/SPACERS	-	LF
	DEMOLISH CHAIN / POSTS	0/6	LF/EA

**TABULATED 'UNIT PRICED' REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
	SHEET PILE & UNDERWATER SPALL REPAIR	-	SF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**

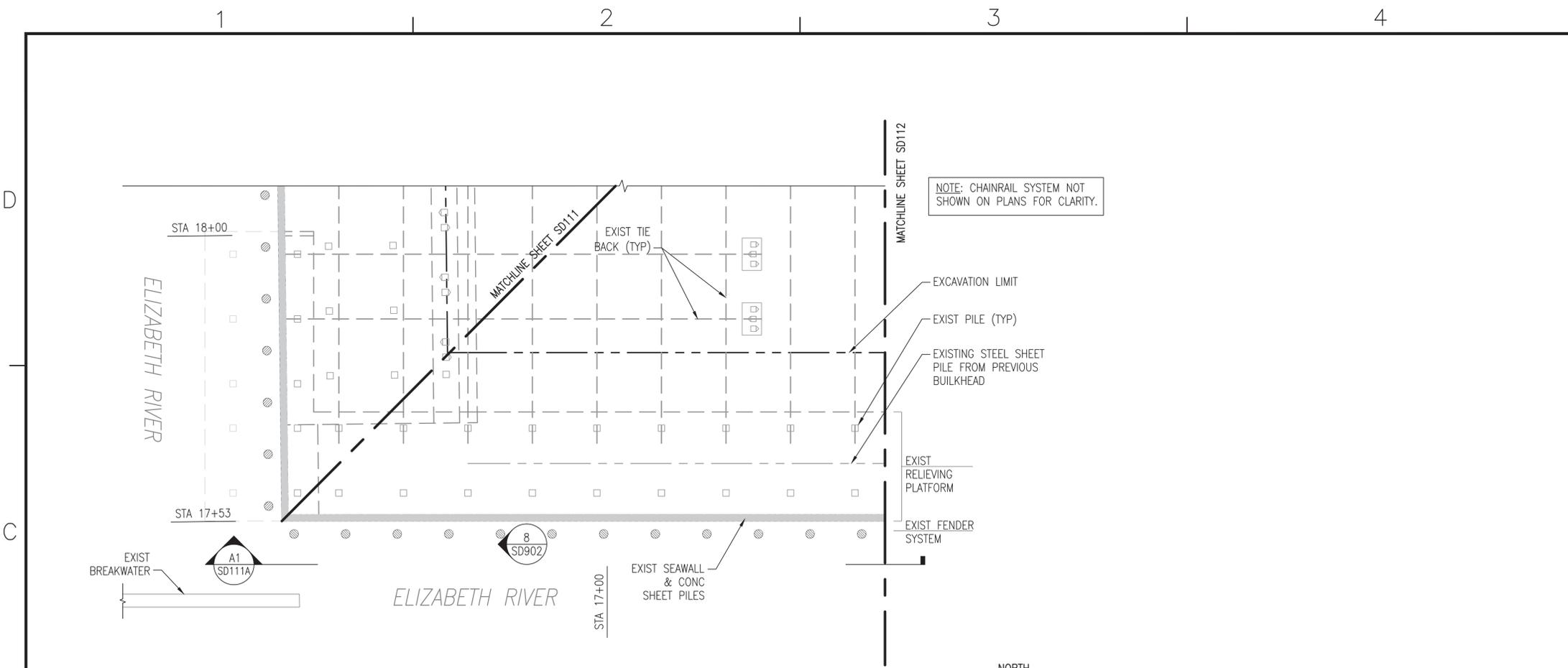


**GRAPHIC SCALE**

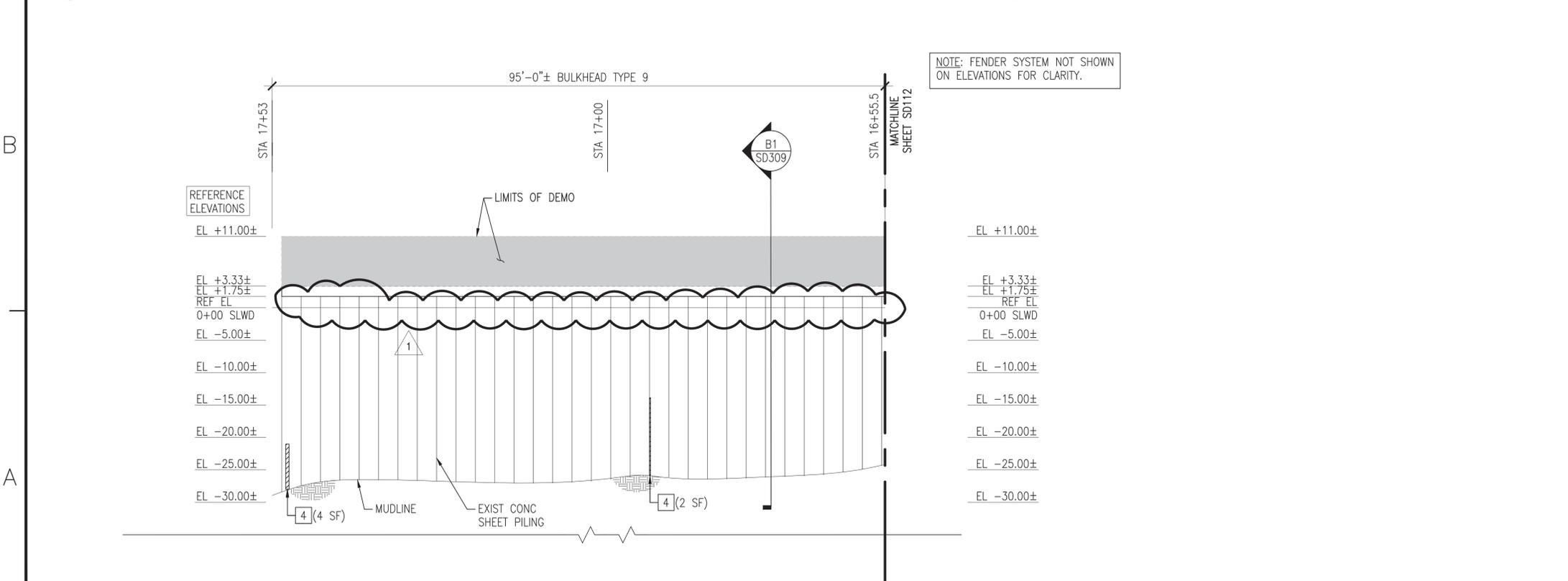


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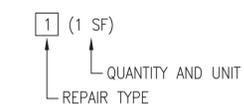
**C1** PLAN - CEP-175 BULKHEAD - WEST FACE (1 OF 5)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

- DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
- DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
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**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
—	DEMOLISH 24" CLEAT	—	EA
○	DEMOLISH TIMBER PILE	—	EA
⊙	DEMOLISH "MISSING" TIMBER PILE	12	EA
—	DEMOLISH TIMBER WALE W/BLOCKING	—	LF
—	DEMOLISH TIMBER CHOCK W/SPACERS	—	LF
—	DEMOLISH CHAIN / POSTS	—	LF/EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
4	SHEET PILE & UNDERWATER SPALL REPAIR	6	SF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**



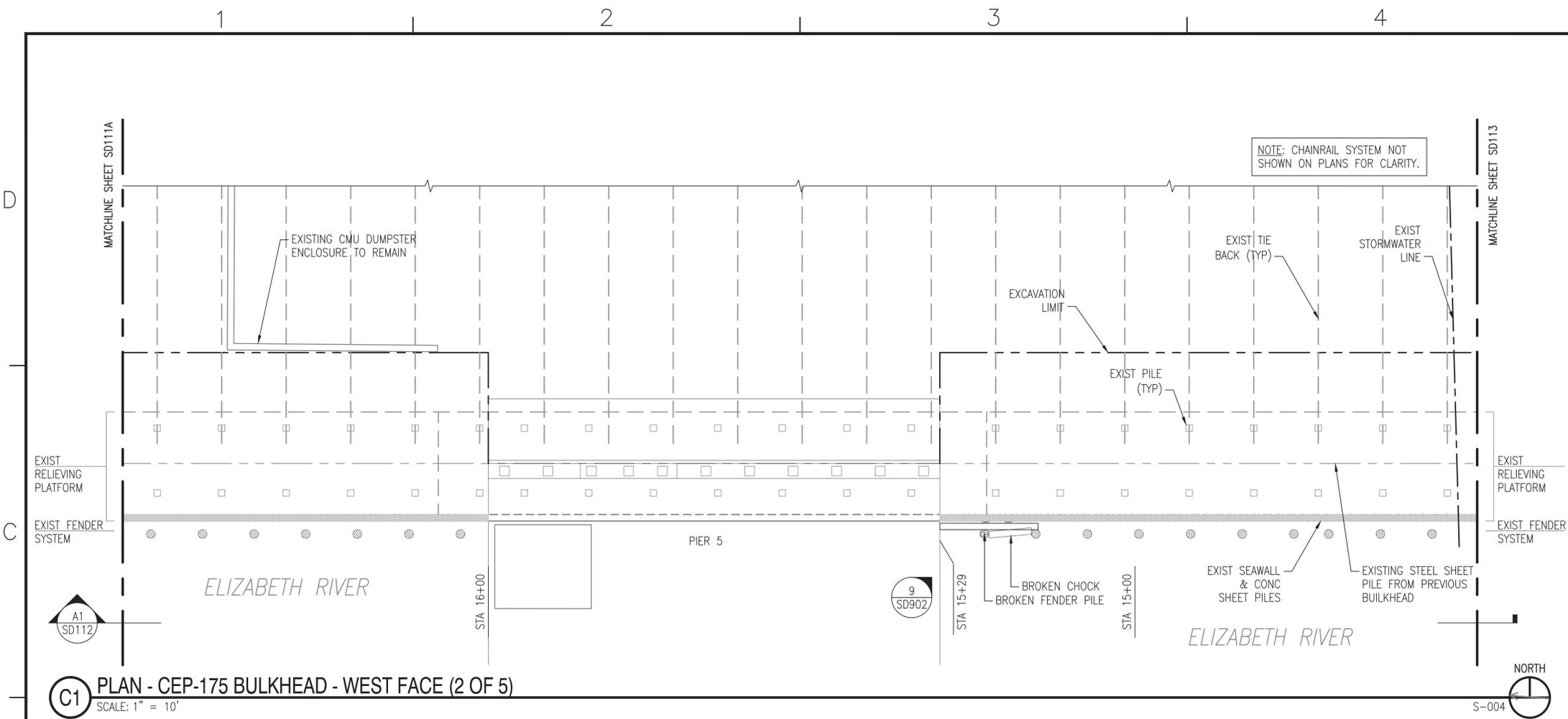
**GRAPHIC SCALE**



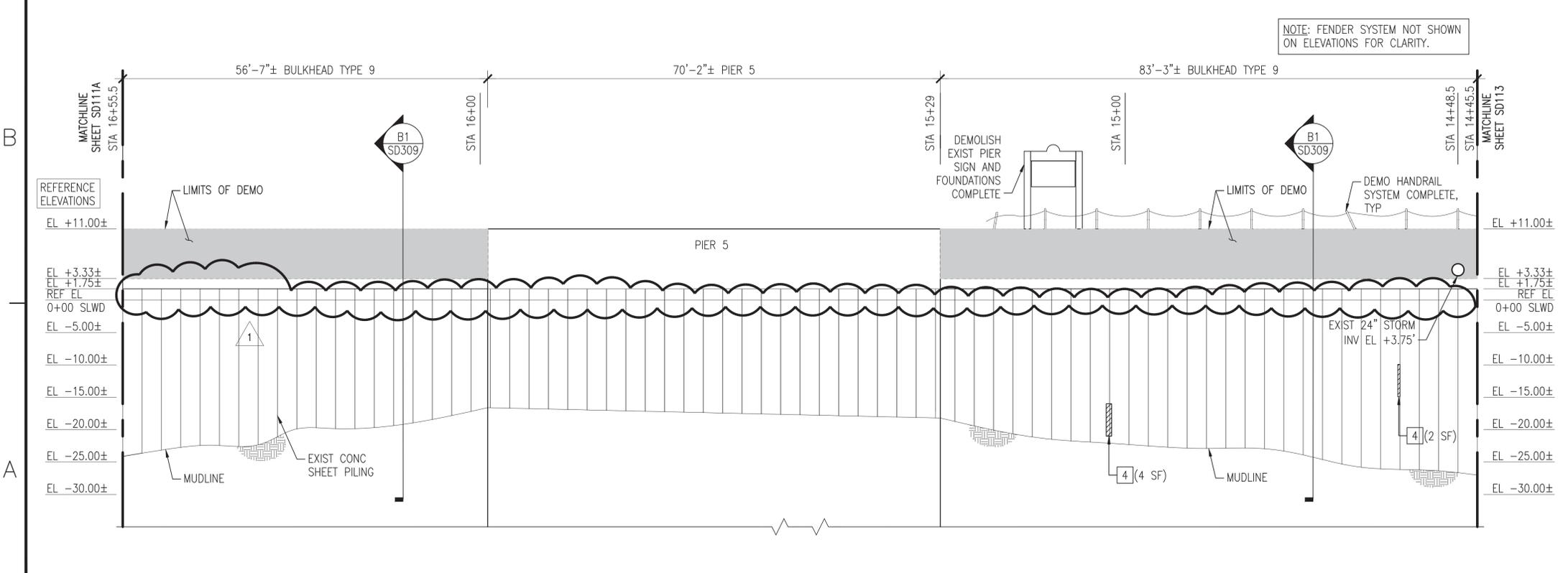
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APPROVED: *App. Sig.*  
FOR COMMANDER NAVFAC: *8-11-16*  
ACTIVITY: DAVE SEARS  
SATISFACTORY TO DATE: 6/17/2016  
DES: ELT DRW: KAD CHK: CLT  
DESIGN MANAGER: EDDY THEISZ  
BRANCH MANAGER: CRT  
CHIEF ENGINEER: J. HASTE, P.E.  
FIRE PROTECTION:  
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
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NORFOLK, VIRGINIA  
CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (11A OF 21) - DEMO  
SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,713  
SHEET 58 OF 158  
SD111A  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NAVStation\Norfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structural\1370817\_SD112\_STRUCTUREAL\_Plan & ELEV (12 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:41am USER: chridline.culikowski



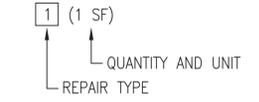
**C1 PLAN - CEP-175 BULKHEAD - WEST FACE (2 OF 5)**  
SCALE: 1" = 10'



**A1 ELEVATION**  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

- DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
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**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
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⊙	DEMOLISH "MISSING" TIMBER PILE	17	EA
▭	DEMOLISH TIMBER WALE W/BLOCKING	15	LF
▭	DEMOLISH TIMBER CHOCK W/SPACERS	7	LF
—	DEMOLISH CHAIN / POSTS	80/10	LF/EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
4	SHEET PILE & UNDERWATER SPALL REPAIR	6	SF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**



**GRAPHIC SCALE**



NO. 1	DATE	8/17/2016	USER	chridline.culikowski
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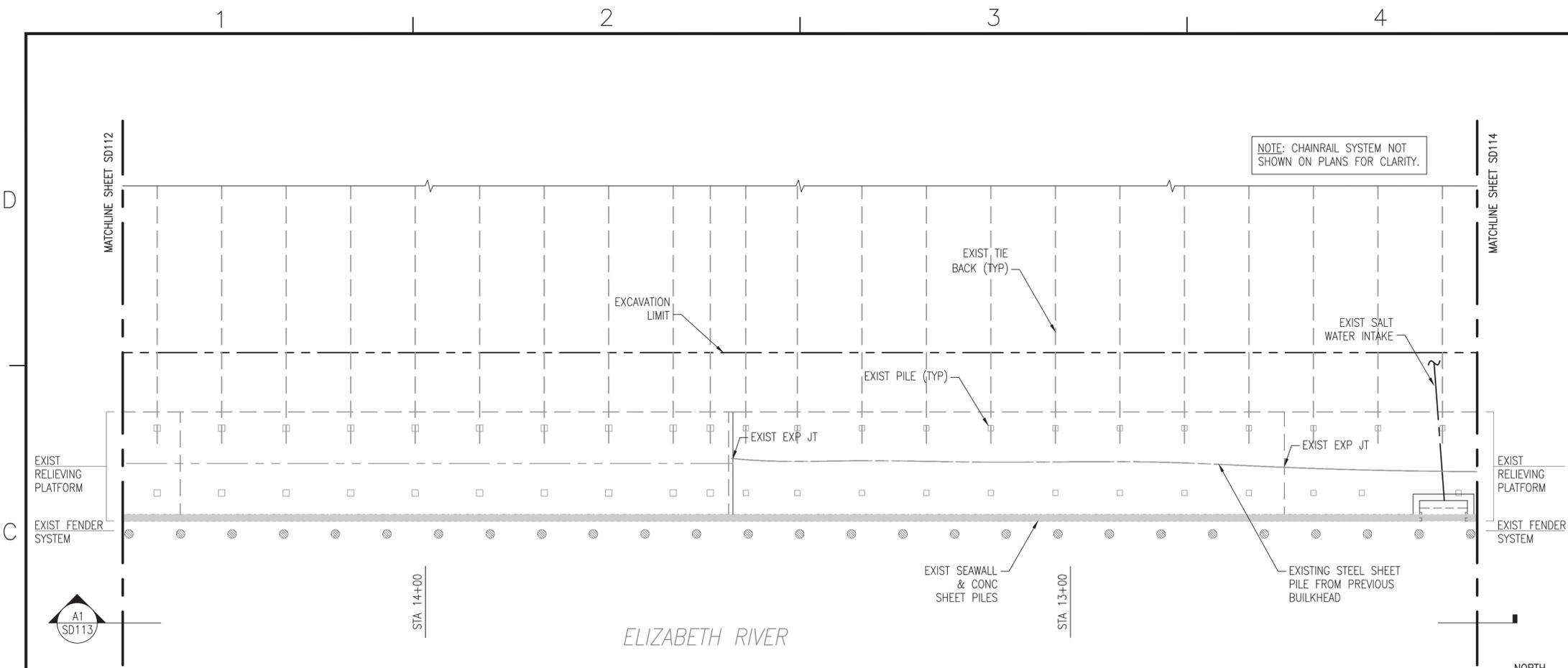
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FOR COMMANDER NAVFAC: **8-11-16**  
ACTIVITY: **DAVE SEARS**  
SATISFACTORY TO DATE: **6/17/2016**  
DESIGNER: **ELT** | DRAWN: **KAD** | CHECKED: **CLT**  
DESIGN MANAGER: **EDDY THEISZ**  
BRANCH MANAGER: **CRT**  
CHIEF ENGINEER: **J. HASTE, P.E.**  
FIRE PROTECTION: **NO**

NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA

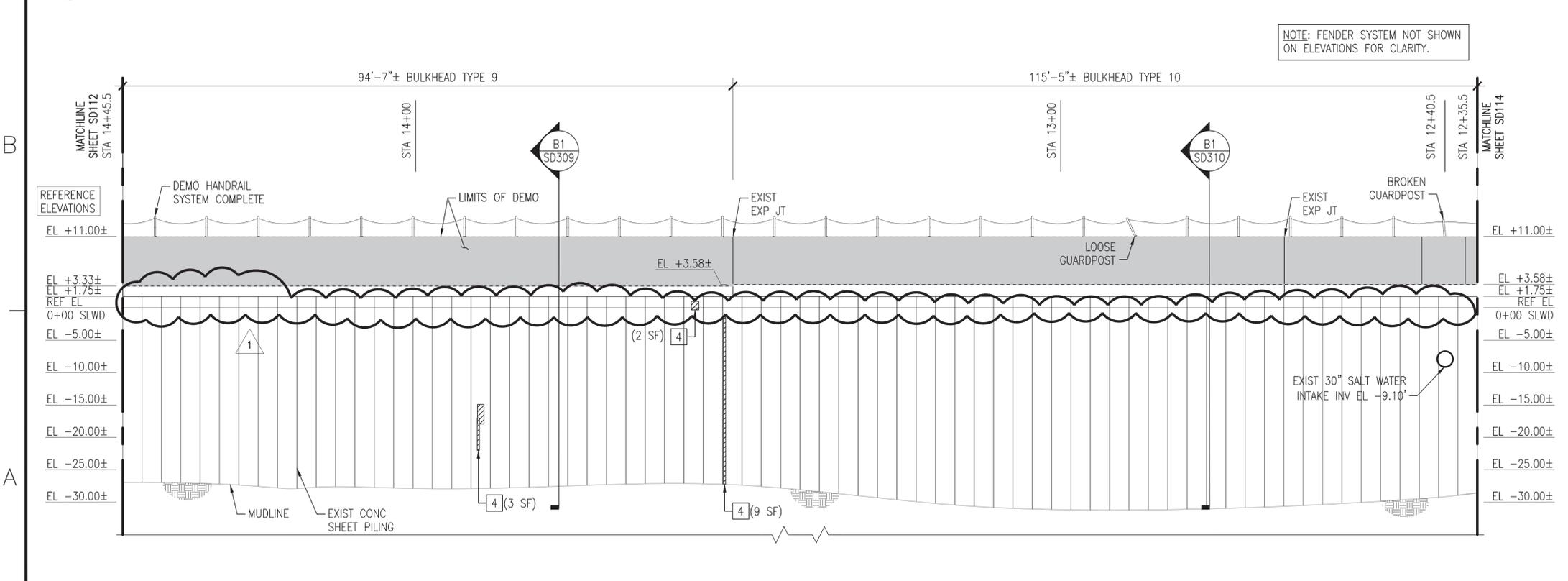
CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (12 OF 21) - DEMO

SCALE: **AS NOTED**  
PROJECT NO.: **1370817**  
CONSTR. CONTR. NO.: **N/A**  
NAVFAC DRAWING NO.: **12,729,714**  
SHEET **59** OF **158**  
**SD112**  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NAVStation Norfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD113\_STRUCTUREAL\_Plan & Elev (13 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:41am USER: chridline.culikowski



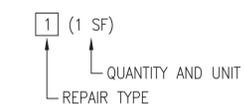
**C1** PLAN - CEP-175 BULKHEAD - WEST FACE (3 OF 5)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

- DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
- DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
- DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
- ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.
- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
	DEMOLISH 24" CLEAT	-	EA
	DEMOLISH TIMBER PILE	-	EA
	DEMOLISH "MISSING" TIMBER PILE	27	EA
	DEMOLISH TIMBER WALE W/BLOCKING	-	LF
	DEMOLISH TIMBER CHOCK W/SPACERS	-	LF
	DEMOLISH CHAIN / POSTS	210/26	LF/EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
	SHEET PILE & UNDERWATER SPALL REPAIR	14	SF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**



**GRAPHIC SCALE**



NO. 1	DATE	8/17/2016	USER	chridline.culikowski
NO. 2	DATE		USER	
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APPROVED:

FOR COMMANDER NAVFAC: **8-11-16**

ACTIVITY: **DAVE SEARS**

SATISFACTORY TO DATE: **6/17/2016**

DRAWN BY: **ELT** | CHECKED BY: **KAD** | CLT

DESIGN MANAGER: **EDDY THEISZ**

BRANCH MANAGER: **CRT**

CHEF ENGINEER: **J. HASTE, P.E.**

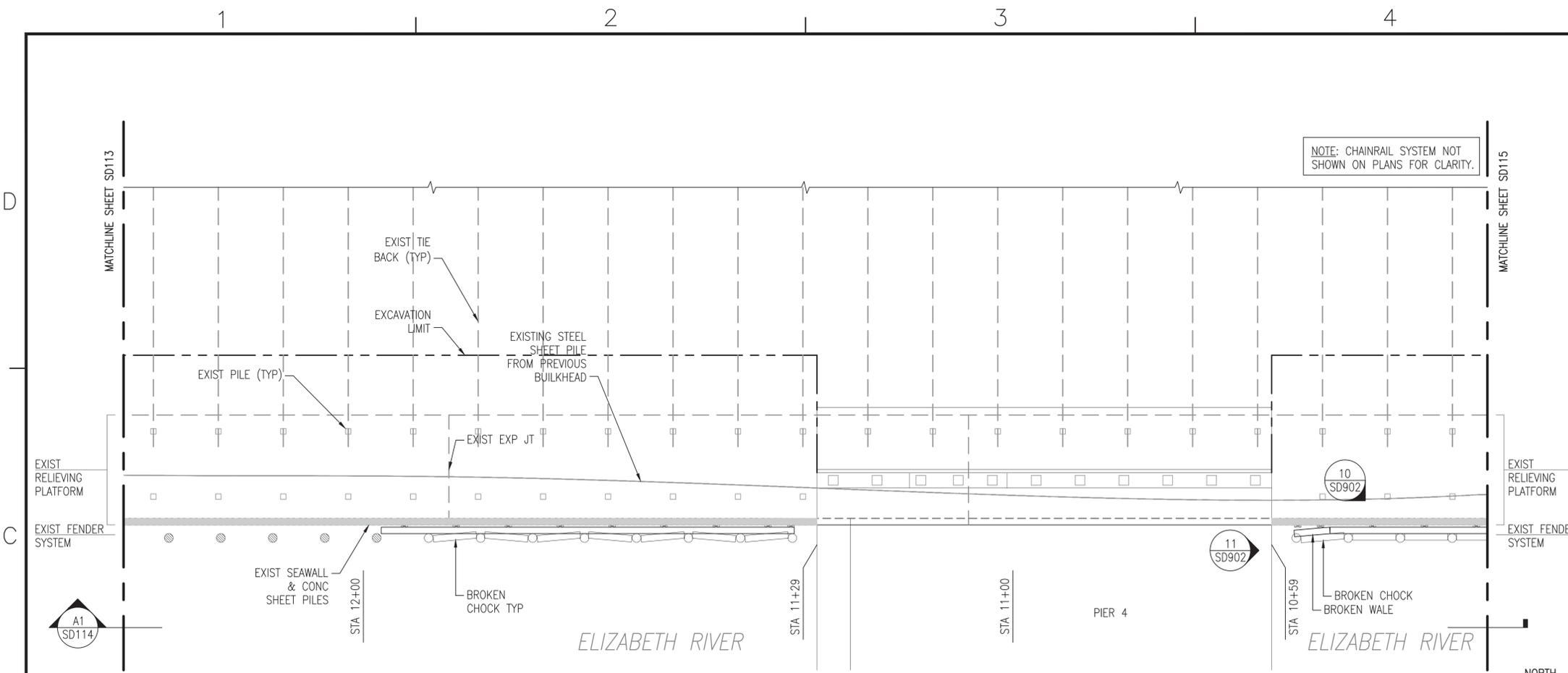
NAVAL FACILITIES ENGINEERING COMMAND  
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
 NORFOLK NAVAL STATION  
 NORFOLK, VIRGINIA

CEP-175 AND Z-308 BULKHEAD REPAIR

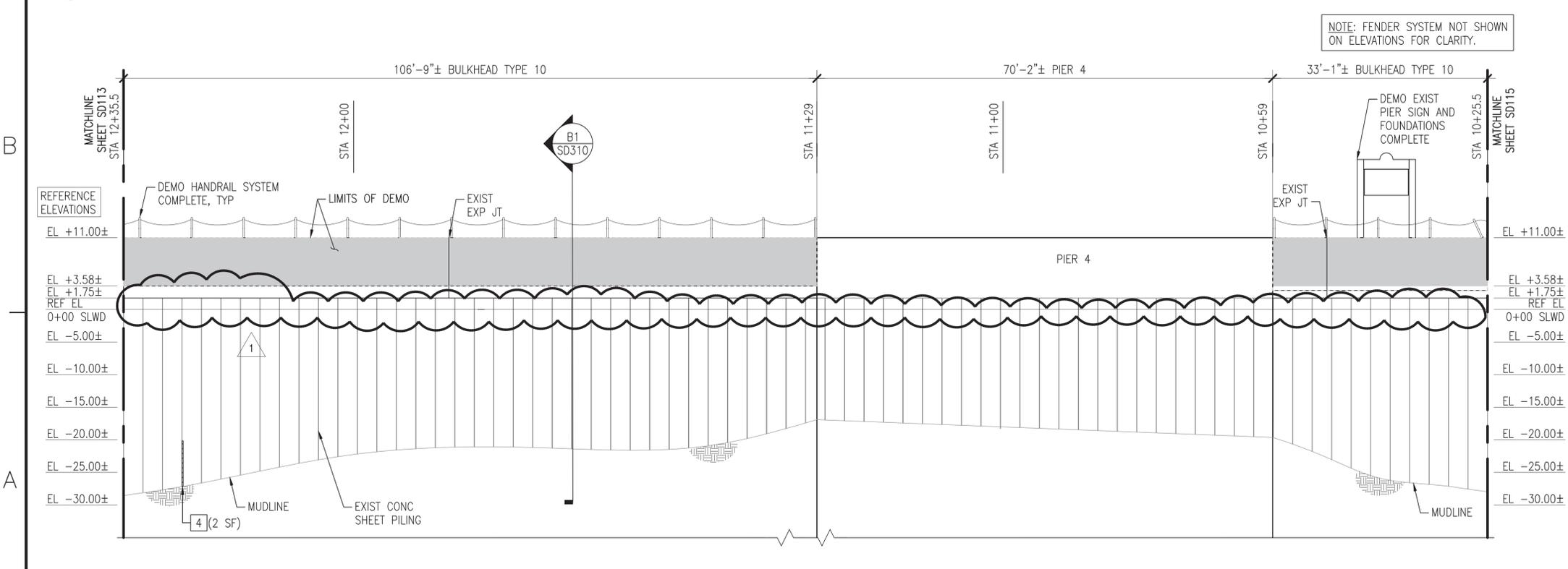
STRUCTURAL PLAN & ELEV (13 OF 21) - DEMO

SCALE: AS NOTED  
 PROJECT NO.: 1370817  
 CONSTR. CONTR. NO.: N/A  
 NAVFAC DRAWING NO.: 12,729,715  
 SHEET 60 OF 158  
**SD113**  
 DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structural\SD114\_Structural\_Plan & Elev (14 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:41am USER: chridline.culloway



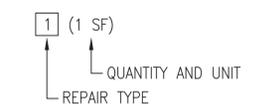
**C1** PLAN - CEP-175 BULKHEAD - WEST FACE (4 OF 5)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

- DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
- DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
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- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
—	DEMOLISH 24" CLEAT	-	EA
○	DEMOLISH TIMBER PILE	12	EA
⊙	DEMOLISH "MISSING" TIMBER PILE	5	EA
▭	DEMOLISH TIMBER WALE W/BLOCKING	69	LF
▭	DEMOLISH TIMBER CHOCK W/SPACERS	69	LF
→	DEMOLISH CHAIN / POSTS	150/19	LF/EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
4	SHEET PILE & UNDERWATER SPALL REPAIR	2	SF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**

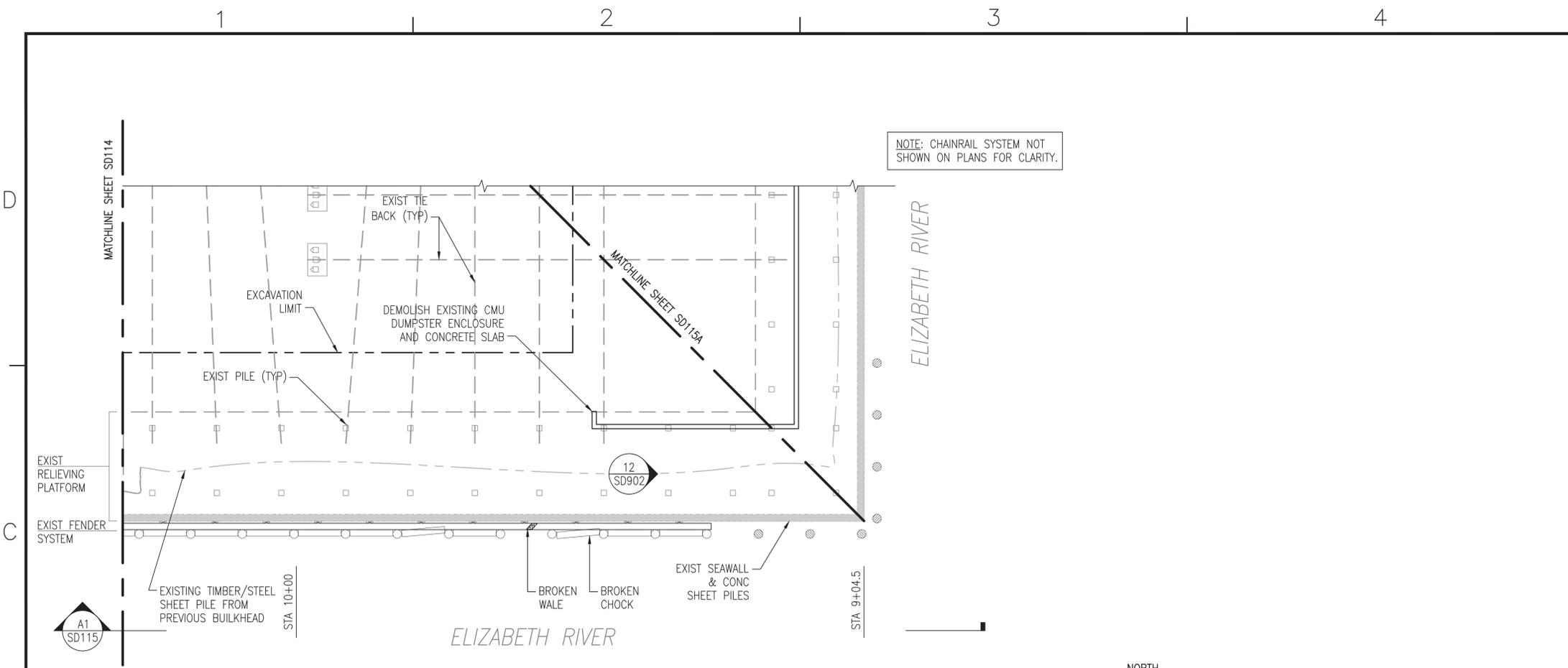


**GRAPHIC SCALE**

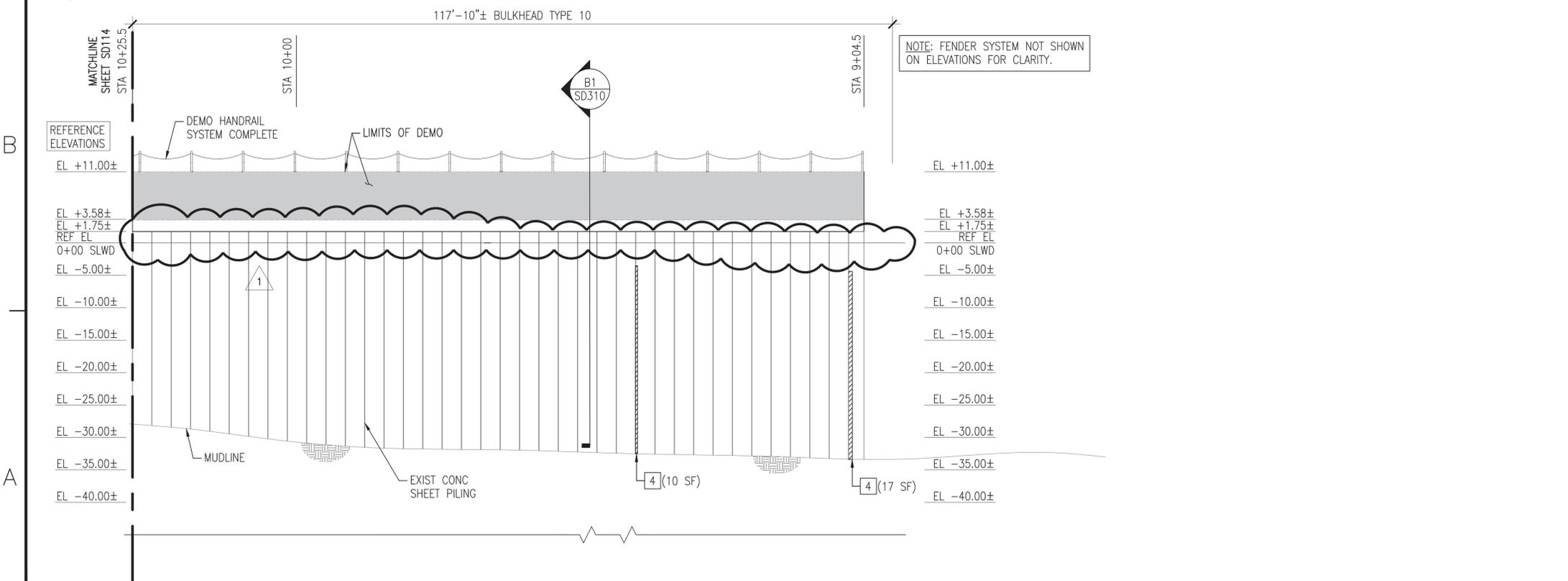


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FILE NAME: P:\NAV (Naval Station Norfolk)\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD115\_STRUCTUREAL\_Plan & ELEV (15 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:41am USER: chridline.culloway



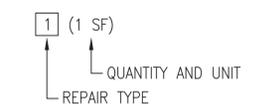
**C1 PLAN - CEP-175 BULKHEAD - WEST FACE (5 OF 5)**  
SCALE: 1" = 10'



**A1 ELEVATION**  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

- DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
- DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
- DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
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**TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)**

SYMBOL	ITEM	QUANTITY	UNIT
—	DEMOLISH 24" CLEAT	—	EA
○	DEMOLISH TIMBER PILE	12	EA
⊗	DEMOLISH "MISSING" TIMBER PILE	3	EA
▬	DEMOLISH TIMBER WALE W/BLOCKING	—	LF
□	DEMOLISH TIMBER CHOCK W/SPACERS	34	LF
→	DEMOLISH CHAIN / POSTS	120/15	LF/EA

**TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)**

REPAIR TYPE	ITEM	QUANTITY	UNIT
4	SHEET PILE & UNDERWATER SPALL REPAIR	27	SF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

**KEY PLAN**

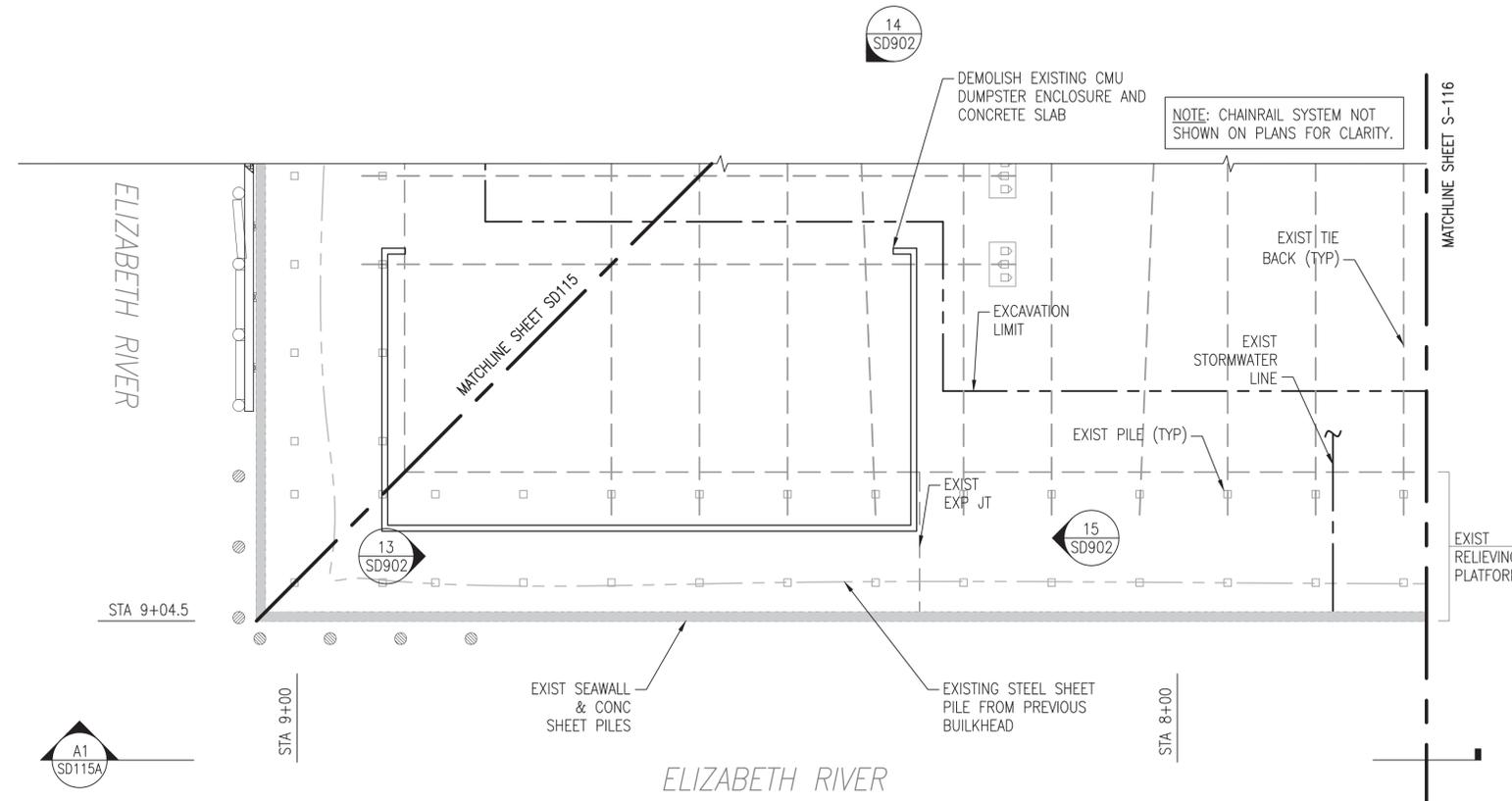


**GRAPHIC SCALE**

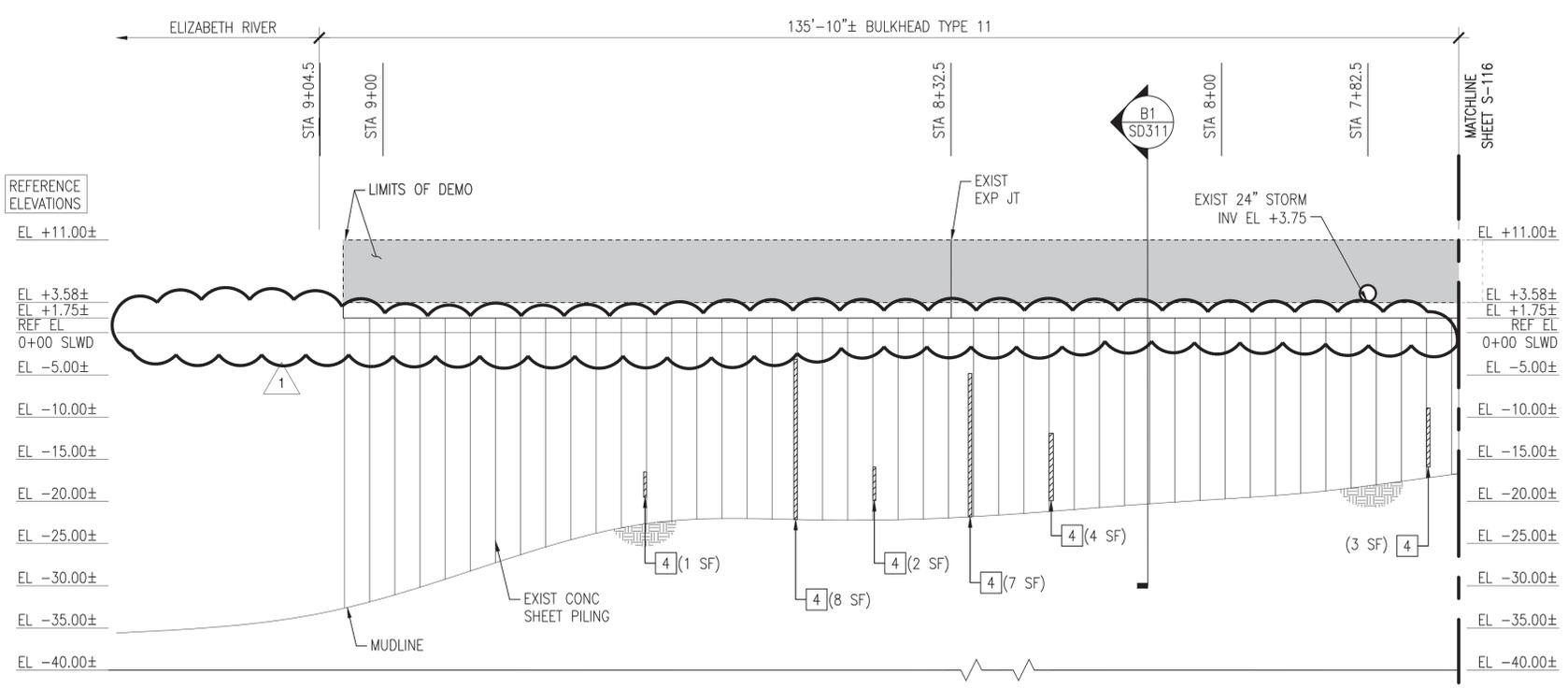


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FILE NAME: P:\NAV (Naval Station Norfolk)\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD115A\_STRUCTUREL PLAN & ELEV (15A OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:41am USER: chrisliemrakowski



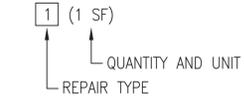
**C1** PLAN - CEP-175 BULKHEAD - SOUTH FACE (1 OF 5)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

- DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
- DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
- DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
- MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
- ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.
- BULKHEAD REPAIR TYPES AND ESTIMATED QUANTITIES ARE IDENTIFIED ON THE PLANS AND ELEVATIONS AS FOLLOWS. REFER TO SHEETS SD502, SD503, AND SD504 FOR THE REPAIR DETAILS.



TABULATED DEMOLITION / SALVAGE QUANTITIES (THIS SHEET)

SYMBOL	ITEM	QUANTITY	UNIT
—	DEMOLISH 24" CLEAT	—	EA
○	DEMOLISH TIMBER PILE	—	EA
⊙	DEMOLISH "MISSING" TIMBER PILE	4	EA
▬	DEMOLISH TIMBER WALE W/BLOCKING	—	LF
□	DEMOLISH TIMBER CHOCK W/SPACERS	—	LF
→	DEMOLISH CHAIN / POSTS	—	LF/EA

TABULATED "UNIT PRICED" REPAIR QUANTITIES (THIS SHEET)

REPAIR TYPE	ITEM	QUANTITY	UNIT
4	SHEET PILE & UNDERWATER SPALL REPAIR	25	SF

NOTE: ALL QUANTITIES (BOTH TABLES) ARE APPROXIMATE AND REPRESENT THE OVERALL EXTENT OF WORK REQUIRED AT THAT LOCATION.

NOTE: FENDER SYSTEM NOT SHOWN ON ELEVATIONS FOR CLARITY.

**KEY PLAN**



**GRAPHIC SCALE**



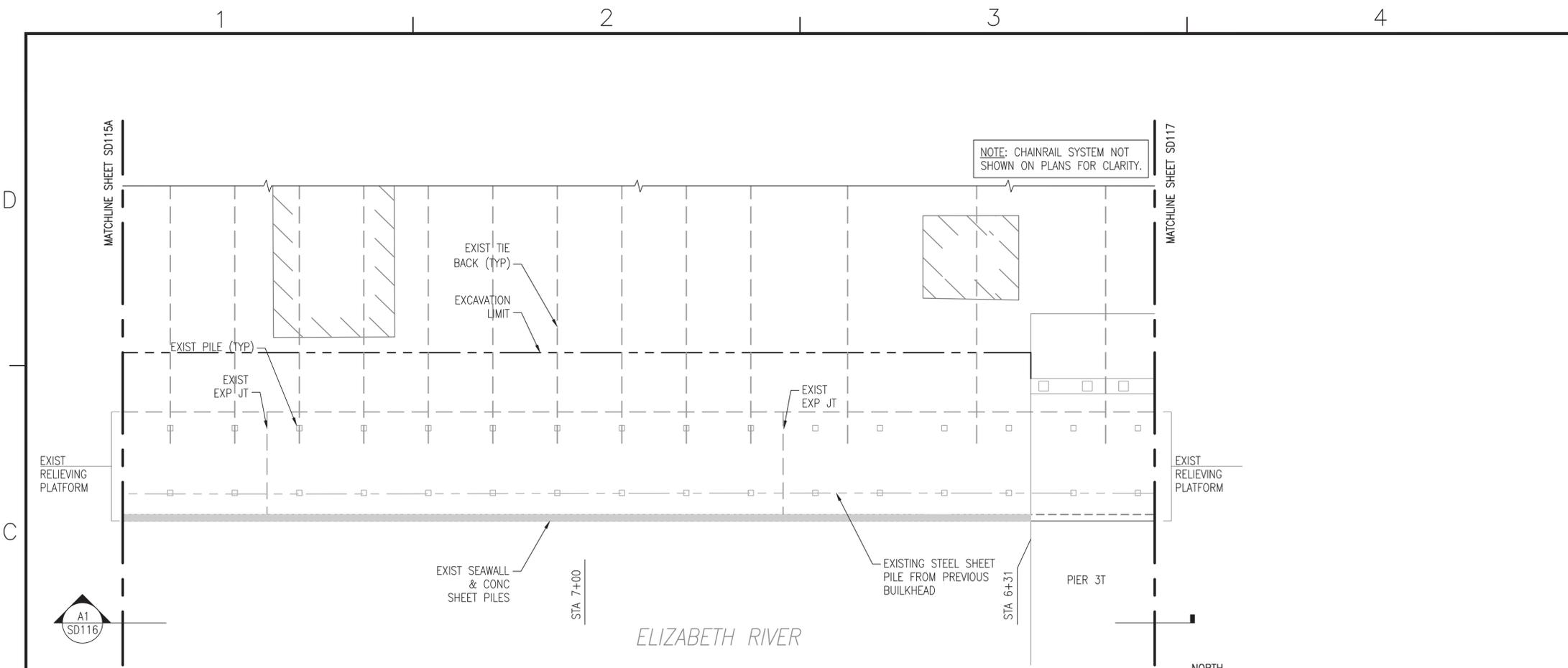
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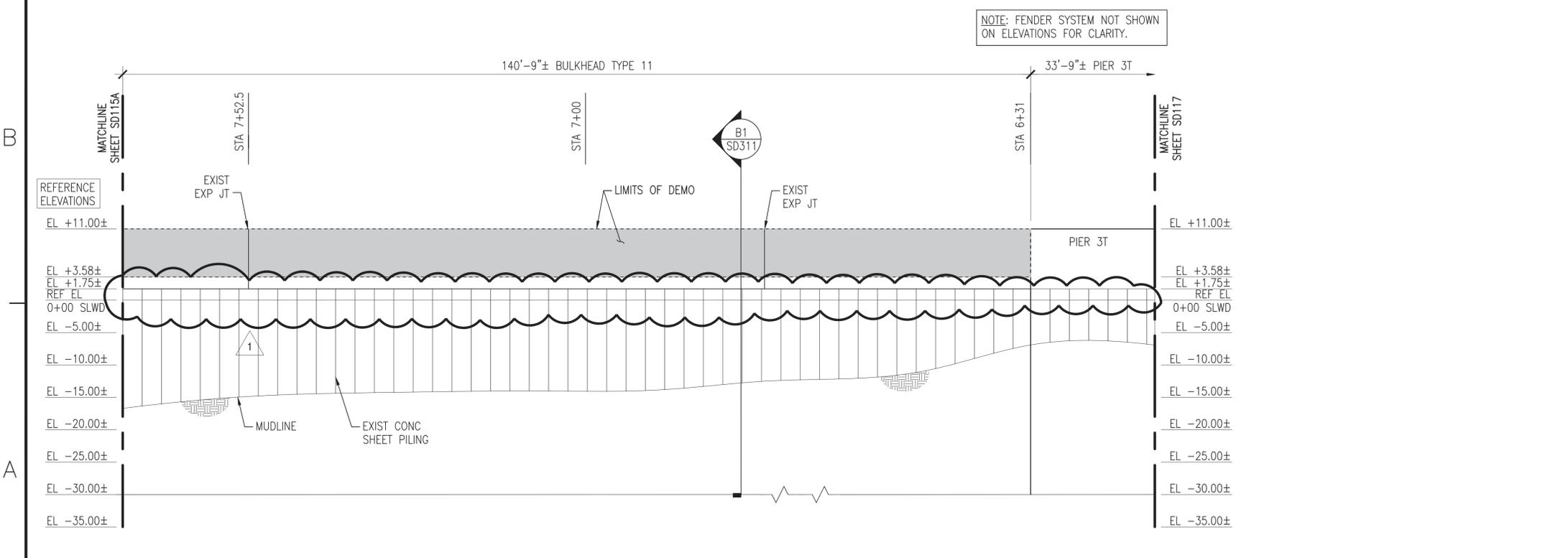
APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: *[Signature]*  
ACTIVITY: DAVE SEARS  
SATISFACTORY TO DATE: 6/17/2016  
DESIGNER: ELD  
DRAWN: KAD  
CHECKED: CLT  
DESIGN MANAGER: EDDY THEISZ  
BRANCH MANAGER: CRT  
CHIEF ENGINEER: J. HASTE, P.E.  
FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA  
CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (15A OF 21) - DEMO  
SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,718  
SHEET 63 OF 158  
SD115A  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structural\SD116\_STRUCTUREAL\_Plan & ELEV (16 OF 21) - DEMO\_PLOTTED: Wednesday, August 10, 2016 - 11:54am USER: chridline.culloway



**C1** PLAN - CEP-175 BULKHEAD - SOUTH FACE (2 OF 5)  
SCALE: 1" = 10'



**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

1. DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
2. DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
3. DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
4. MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
5. ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.

NO.	DATE	DESCRIPTION	BY	CHK	APP
1	6/17/2016	REVISE WATER LEVEL MARKINGS			



APPROVED	<i>[Signature]</i>
FOR COMMANDER NAVFAC	8-11-16
ACTIVITY	DAVE SEARS
SATISFACTORY TO DATE	6/17/2016
DRAWN	ELT
CHECKED	KAD
DESIGN MANAGER	EDDY THEISZ
BRANCH MANAGER	CRT
CHIEF ENGINEER	J. HASTE, P.E.

**KEY PLAN**



**GRAPHIC SCALE**

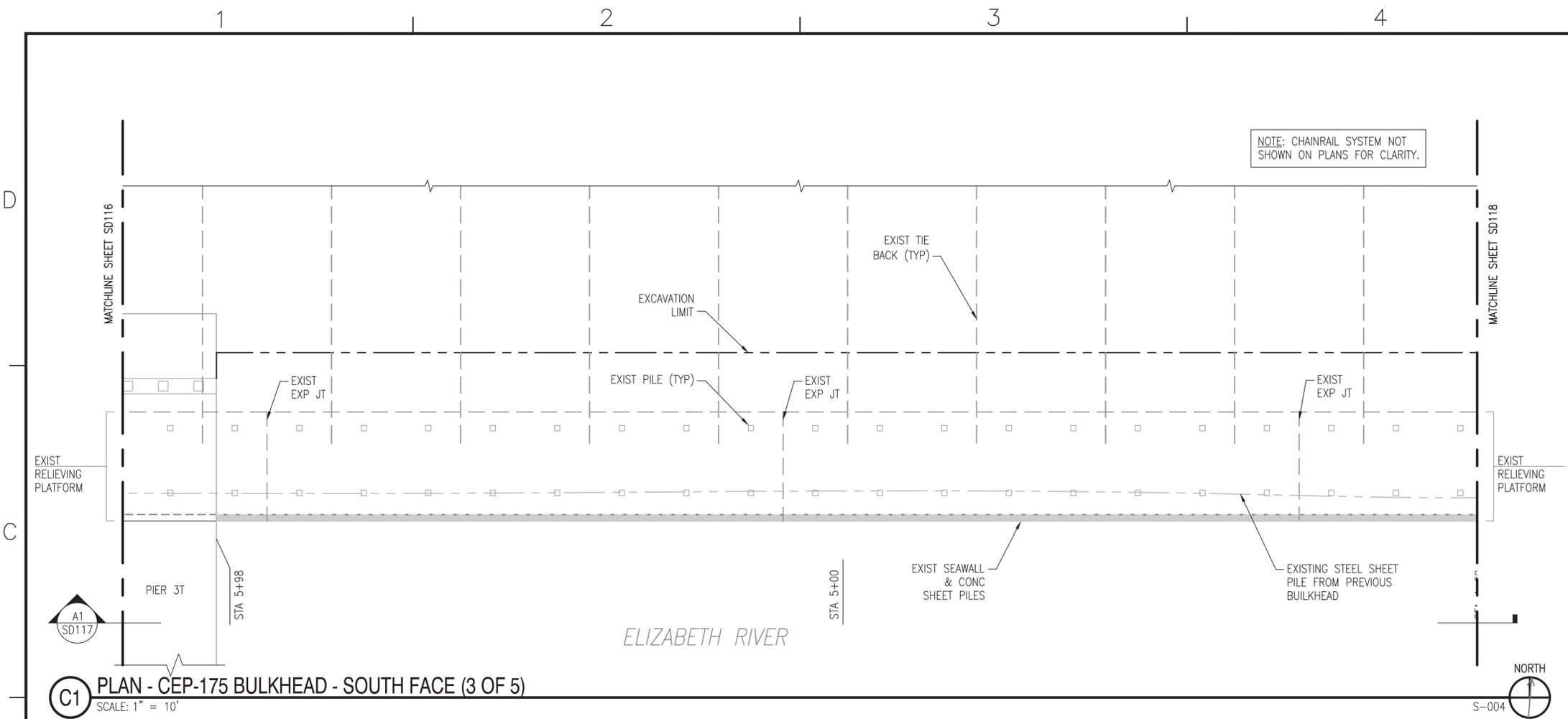


DEPARTMENT OF THE NAVY  
 NAVAL FACILITIES ENGINEERING COMMAND  
 NORFOLK NAVAL STATION  
 NORFOLK, VIRGINIA  
 CEP-175 AND Z-308 BULKHEAD REPAIR  
 STRUCTURAL PLAN & ELEV (16 OF 21) - DEMO

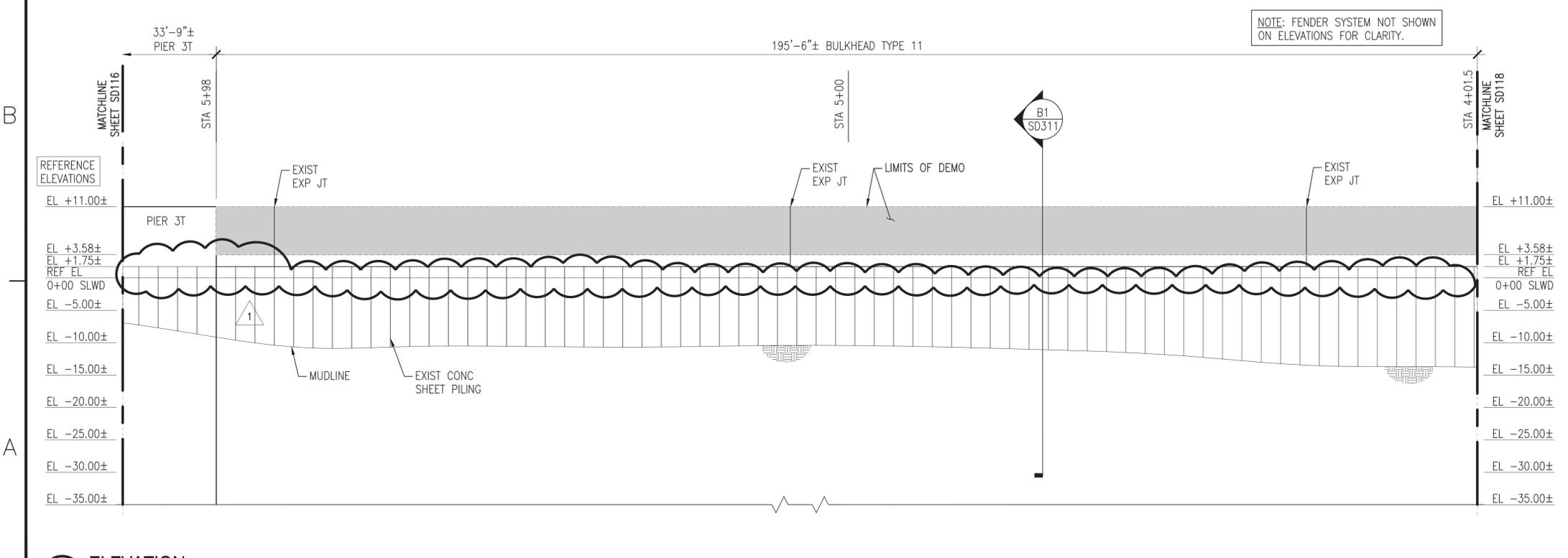
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PROJECT NO.:	1370817
CONSTR. CONTR. NO.:	N/A
NAVFAC DRAWING NO.:	12,729,719
SHEET	64 OF 158
<b>SD116</b>	

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NAVStation Norfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structural\1370817\_SD117\_STRUCTUREAL PLAN & ELEV (17 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:41am USER: chridline.culikowski



**C1** PLAN - CEP-175 BULKHEAD - SOUTH FACE (3 OF 5)  
SCALE: 1" = 10'

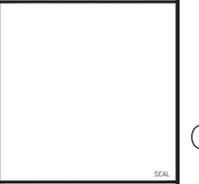


**A1** ELEVATION  
SCALE: 1" = 10'

**GENERAL SHEET NOTES @ CEP-175**

1. DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
2. DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
3. DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
4. MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
5. ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.

NO.	DATE	DESCRIPTION	BY	CHK	APP
1	8/17/2016	REVISE WATER LEVEL WARNINGS			



APPROVED  
FOR COMMANDER NAVFAC  
ACTIVITY  
DAVE SEARS  
SATISFACTORY TO DATE 6/17/2016  
DESIGN MANAGER EDDY THEISZ  
BRANCH MANAGER CRT  
CHIEF ENGINEER J. HASTE, P.E.

**KEY PLAN**



**GRAPHIC SCALE**



DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND  
HAMPTON ROADS BT - PMD NORFOLK  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA

CEP-175 AND Z-308 BULKHEAD REPAIR  
STRUCTURAL PLAN & ELEV (17 OF 21) - DEMO

SCALE: AS NOTED  
PROJECT NO. 1370817  
CONSTR. CONTR. NO. N/A  
NAVFAC DRAWING NO. 12,729,720  
SHEET 65 OF 158  
SD117  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structural\1370817\_SD100\_SESES.dwg LAYOUT NAME: SD118\_STRUCTURAL\_Plan & ELEV (18 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:41am USER: chridline.cullowski

**GENERAL SHEET NOTES @ CEP-175**

1. DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
2. DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
3. DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
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5. ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.

NO.	DATE	DESCRIPTION	BY	CHK	APP
1	8/17/2016	REVISE WATER LEVEL MARKINGS			

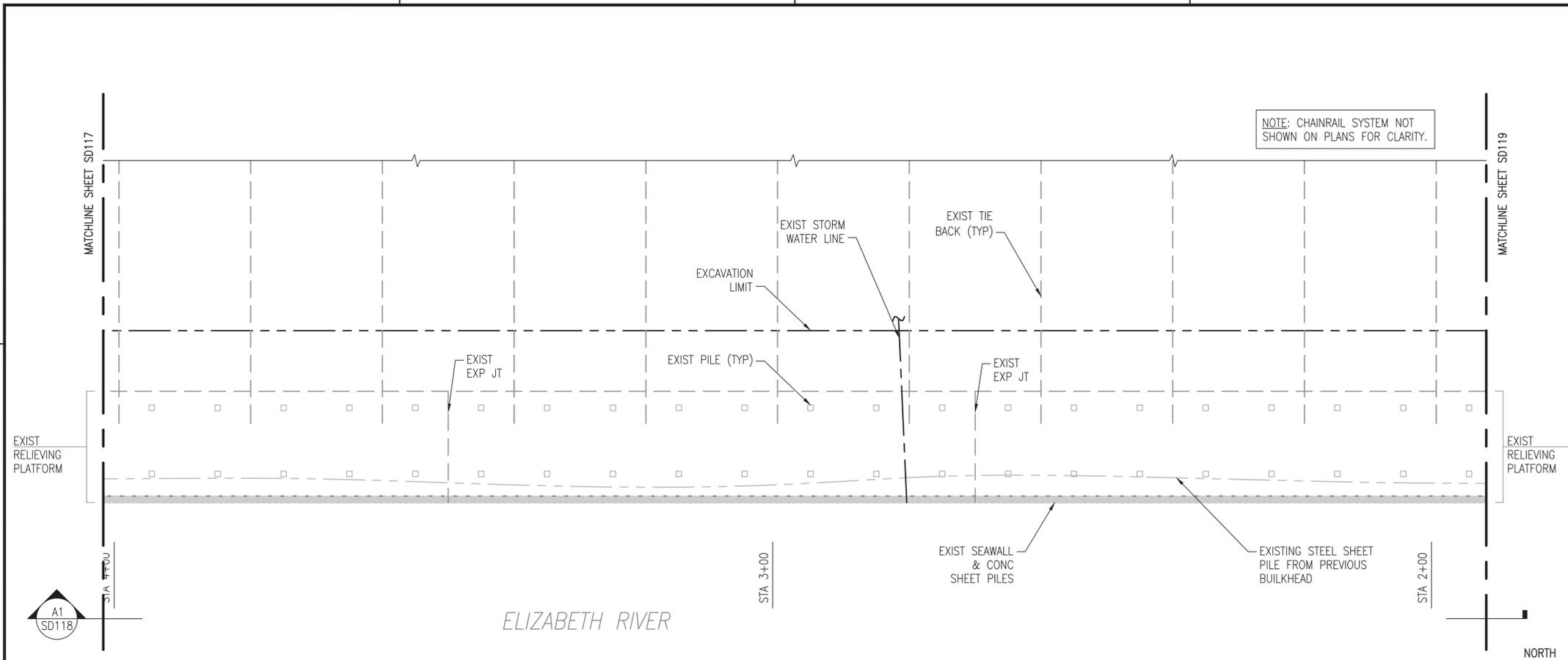


APPROVED	<i>[Signature]</i>
FOR COMMANDER NAVFAC	8-11-16
ACTIVITY	DAVE SEARS
SATISFACTORY TO DATE	6/17/2016
DRAWN	ELT
DESIGN MANAGER	EDDY THEISZ
BRANCH MANAGER	CRF
CHEF ENGINEER	J. HASTE, P.E.

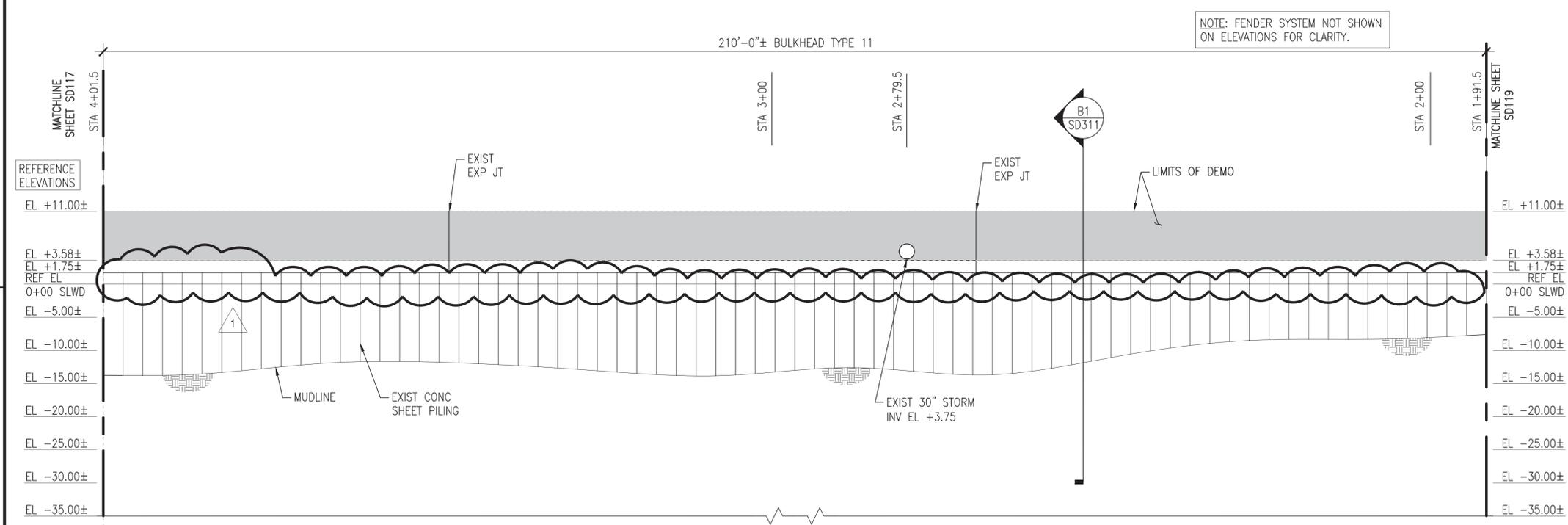
DEPARTMENT OF THE NAVY  
 NAVAL FACILITIES ENGINEERING COMMAND  
 NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
 NORFOLK NAVAL STATION  
 HAMPTON ROADS FT - PWD NORFOLK  
 NORFOLK NAVAL STATION  
 NORFOLK, VIRGINIA  
**CEP-175 AND Z-308 BULKHEAD REPAIR**  
 STRUCTURAL PLAN & ELEV (18 OF 21) - DEMO

SCALE:	AS NOTED
PROJECT NO.	1370817
CONSTR. CONTR. NO.	N/A
NAVFAC DRAWING NO.	12,729,721
SHEET	66 OF 158
<b>SD118</b>	

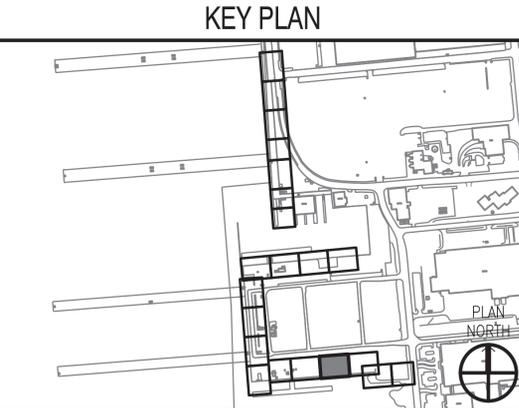
DRAWFORM REVISION: 10 MARCH 2009



**C1 PLAN - CEP-175 BULKHEAD - SOUTH FACE (4 OF 5)**  
 SCALE: 1" = 10'



**A1 ELEVATION**  
 SCALE: 1" = 10'



**GRAPHIC SCALE**  
 1" = 10'

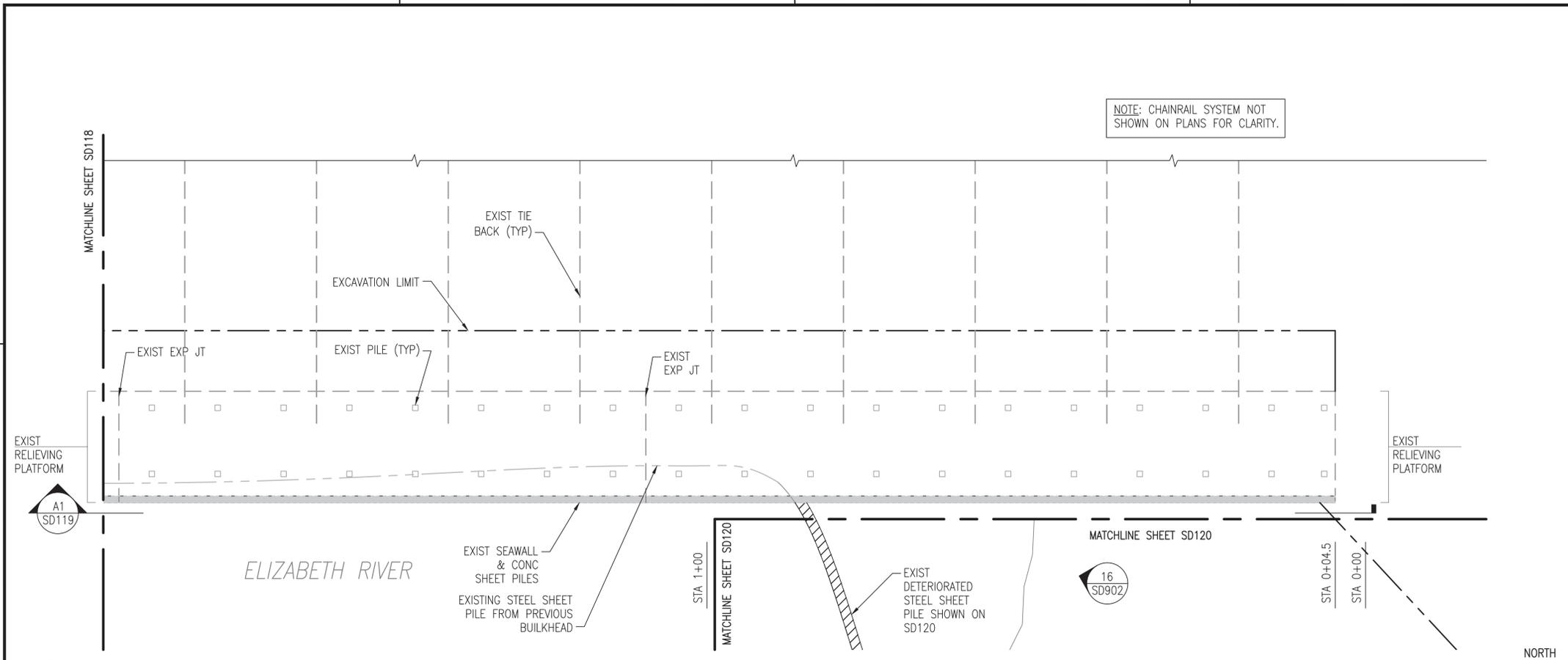


FILE NAME: P:\NA\NewStation Norfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structural\1370817\_SD119\_STRUCTUREAL\_Plan & Elev (19 OF 21) - DEMO PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: chridline.culloway

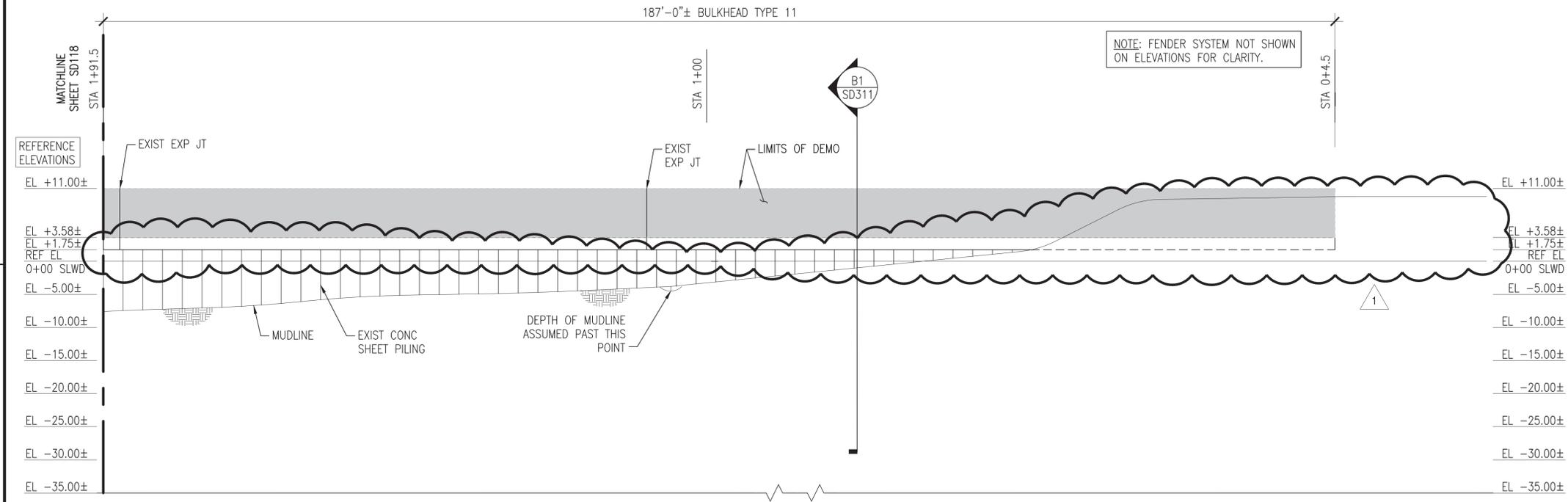
**GENERAL SHEET NOTES @ CEP-175**

1. DEMOLISH CEP-175 BULKHEAD TIMBER FENDER SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, PILES, CHOCKS, WALES, BLOCKING, AND SPACERS.
2. DEMOLISH EXISTING HANDRAIL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, CHAIN, POSTS, ANCHORS, AND FOUNDATIONS.
3. DEMOLISH EXISTING SEAWALL SYSTEM COMPLETE, TO INCLUDE, BUT NOT LIMITED TO, EXISTING CURBING, CLEATS, AND SEAWALL. NOTE: PRESERVE EXISTING TURNED-UP REBAR FROM THE RELIEVING PLATFORM FOR REUSE IN THE NEW SEAWALL.
4. MUDLINE INFORMATION IS BASED UPON NAVFAC HYDROLOGICAL SURVEY DATA FROM JANUARY 2015 AND IS PROVIDED FOR REFERENCE ONLY.
5. ELEVATIONS SHOWN ON THE SD SERIES DRAWINGS ARE NOTED AS REFERENCE ELEVATIONS, AND CORRESPOND TO THE PROVIDED AS-BUILT DRAWINGS FOR THE BULKHEAD, WITH THE TOP OF CURBING ELEVATION AT +11.0 FEET ABOVE MLW. THE CONTRACTOR SHALL SET UP TEMPORARY BENCHMARKS AND COORDINATE REAL TIME ELEVATIONS WITH THE CIVIL DRAWINGS AND DATUM PROVIDED ON G-002.

NO.	DATE	DESCRIPTION	BY	CHK	APP
1	8/17/2016	REVISE WATER LEVEL WARNINGS			
2					
3					
4					
5					



**C1 PLAN - CEP-175 BULKHEAD - SOUTH FACE (5 OF 5)**  
SCALE: 1" = 10'



**A1 ELEVATION**  
SCALE: 1" = 10'

**KEY PLAN**



**GRAPHIC SCALE**



APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: **8-11-16**  
ACTIVITY: **DAVE SEARS**  
SATISFACTORY TO DATE: **6/17/2016**  
DES: **ELT** DRW: **KAD** CHK: **CLT**  
DESIGN MANAGER: **EDDY THEISZ**  
BRANCH MANAGER: **CRF**  
CHIEF ENGINEER: **J. HASTE, P.E.**

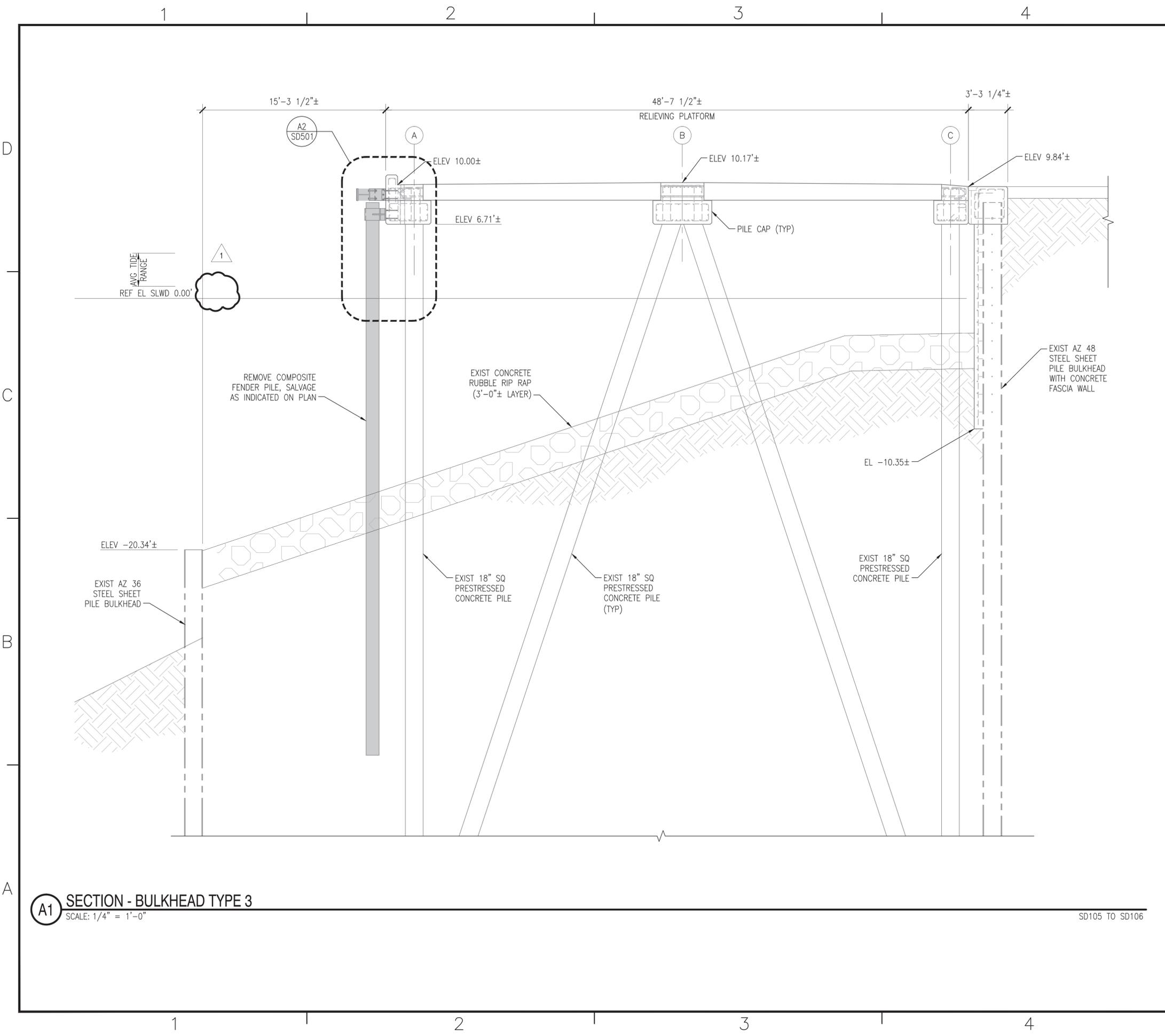
DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
HAMPTON ROADS FT - PWD NORFOLK  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA  
**CEP-175 AND Z-308 BULKHEAD REPAIR**  
STRUCTURAL PLAN & ELEV (19 OF 21) - DEMO

SCALE:	AS NOTED
PROJECT NO.:	1370817
CONSTR. CONTR. NO.:	N/A
NAVFAC DRAWING NO.:	12,729,722
SHEET:	67 OF 158
<b>SD119</b>	





FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD300\_SERIES.dwg LAYOUT NAME: SD303 DEMOLITION SECTIONS PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: cns@niner.okowski

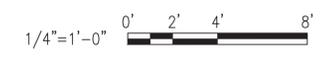


**A1 SECTION - BULKHEAD TYPE 3**  
SCALE: 1/4" = 1'-0"

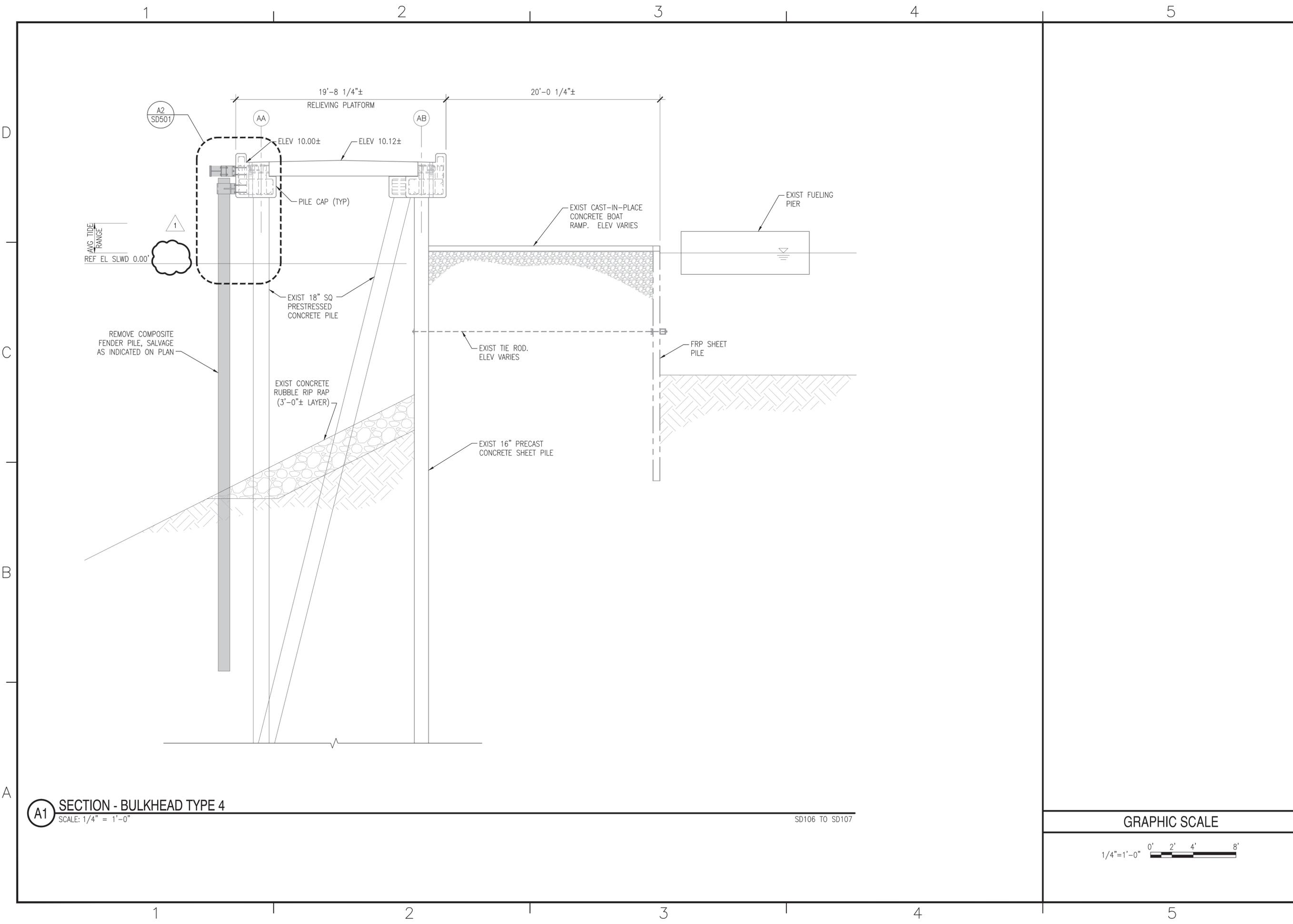
SD105 TO SD106

<p>APPROVED</p> <p>FOR COMMANDER NAVFAC</p> <p>ACTIVITY</p> <p>DAVE SEARS</p> <p>SATISFACTORY TO DATE 6/17/2016</p> <p>DRAWN BY ELD CMR</p> <p>DESIGN MANAGER EDDY THEISZ</p> <p>BRANCH MANAGER CRT</p> <p>CHEF ENGINEER J. HASTE, P.E.</p>	<p>DATE</p> <p>8/17/2016</p> <p>DESCRIPTION</p> <p>DEMOLITION SECTIONS</p>
<p>DEPARTMENT OF THE NAVY</p> <p>NAVAL FACILITIES ENGINEERING COMMAND</p> <p>NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC</p> <p>HAMPTON ROADS FT - PWD NORFOLK</p> <p>NORFOLK NAVAL STATION</p> <p>NORFOLK, VIRGINIA</p> <p>CEP-175 AND Z-308 BULKHEAD REPAIR</p> <p>DEMOLITION SECTIONS</p>	
<p>SCALE: AS NOTED</p> <p>PROJECT NO. 1370817</p> <p>CONSTR. CONTR. NO. N/A</p> <p>NAVFAC DRAWING NO. 12,729,727</p> <p>SHEET 72 OF 158</p> <p><b>SD303</b></p> <p>DRAWFORM REVISION: 10 MARCH 2009</p>	

GRAPHIC SCALE



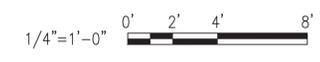
FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD300\_SEDES.dwg LAYOUT NAME: SD304 - DEMOLITION SECTIONS PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: cns@delmar.dhkwski



**A1 SECTION - BULKHEAD TYPE 4**  
SCALE: 1/4" = 1'-0"

SD106 TO SD107

GRAPHIC SCALE



DATE	8/17/2016	DATE	8/17/2016
REVISION		DESCRIPTION	
NO.		BY	
1		DATE	
2		DATE	
3		DATE	
4		DATE	
5		DATE	
6		DATE	
7		DATE	
8		DATE	
9		DATE	
10		DATE	

APPROVED: *App. Sig.*  
FOR COMMANDER NAVFAC: 8-11-16

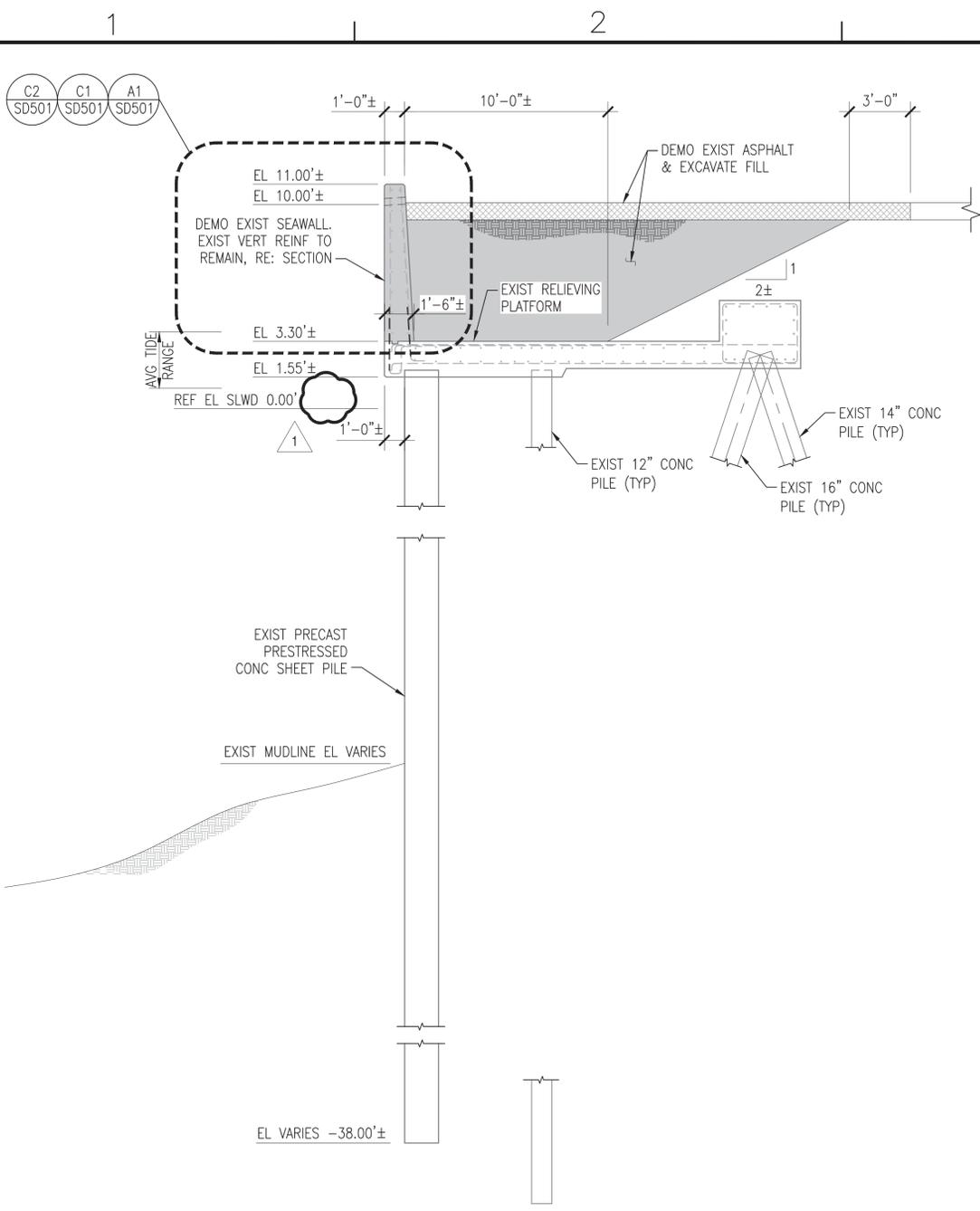
ACTIVITY: DAVE SEARS  
SATISFACTORY TO DATE: 6/17/2016  
DES: ELT | DRW: CMR | CHK: CLT  
DESIGN MANAGER: EDDY THEISZ  
BRANCH MANAGER: CRT  
CHIEF ENGINEER: J. HASTE, P.E.

NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
HAMPTON ROADS FT - PWD NORFOLK  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA

CEP-175 AND Z-308 BULKHEAD REPAIR  
DEMOLITION SECTIONS

SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,728  
SHEET 73 OF 158  
**SD304**  
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD305 DEMOLITION SECTIONS PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: cns@aliner.dtkowski



**B1 SECTION - BULKHEAD TYPE 5**  
SCALE: 1/4" = 1'-0"

SD108

**GENERAL SHEET NOTES**

- EXISTING FENDERING SYSTEM NOT SHOWN. REFER TO PLANS AND SECTIONS FOR FENDERING TO BE DEMOLISHED.
- TYPICAL EXCAVATION NOTES:
- ABANDONED UTILITIES ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED TO THE LIMIT OF EXCAVATION. PLUG ALL REMAINING ENDS WATER TIGHT.
  - EXISTING ACTIVE UTILITIES SHALL BE TEMPORARILY SUPPORTED DURING CONSTRUCTION UNLESS OTHERWISE NOTED ON CIVIL OR ELECTRICAL PLANS. TEMPORARY SUPPORTS SHOULD BE SUFFICIENT TO WITHSTAND ALL CONDITIONS FOR LENGTH OF TIME THE UTILITY IS EXPOSED.
  - THE EXCAVATION SLOPE SHOWN IS APPROXIMATE. PROVIDE SLOPE/ EXCAVATION SHORING IN ACCORDANCE WITH COE-EM385.

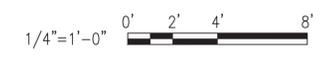
DATE	DESCRIPTION	BY	APP'D
8/17/2016	REVISE WATER MARKINGS		



APPROVED  
*App. Sig.*  
FOR COMMANDER NAVFAC 8-11-16  
ACTIVITY  
DAVE SEARS  
SATISFACTORY TO DATE 6/17/2016  
DESIGNER: ELT | DRAWN: CMR | CHECKED: CLT  
DESIGN MANAGER: EDDY THEISZ  
BRANCH MANAGER: CRT  
CHIEF ENGINEER: J. HASTE, P.E.

DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
HAMPTON ROADS FT - PWD NORFOLK  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA  
CEP-175 AND Z-308 BULKHEAD REPAIR  
DEMOLITION SECTIONS

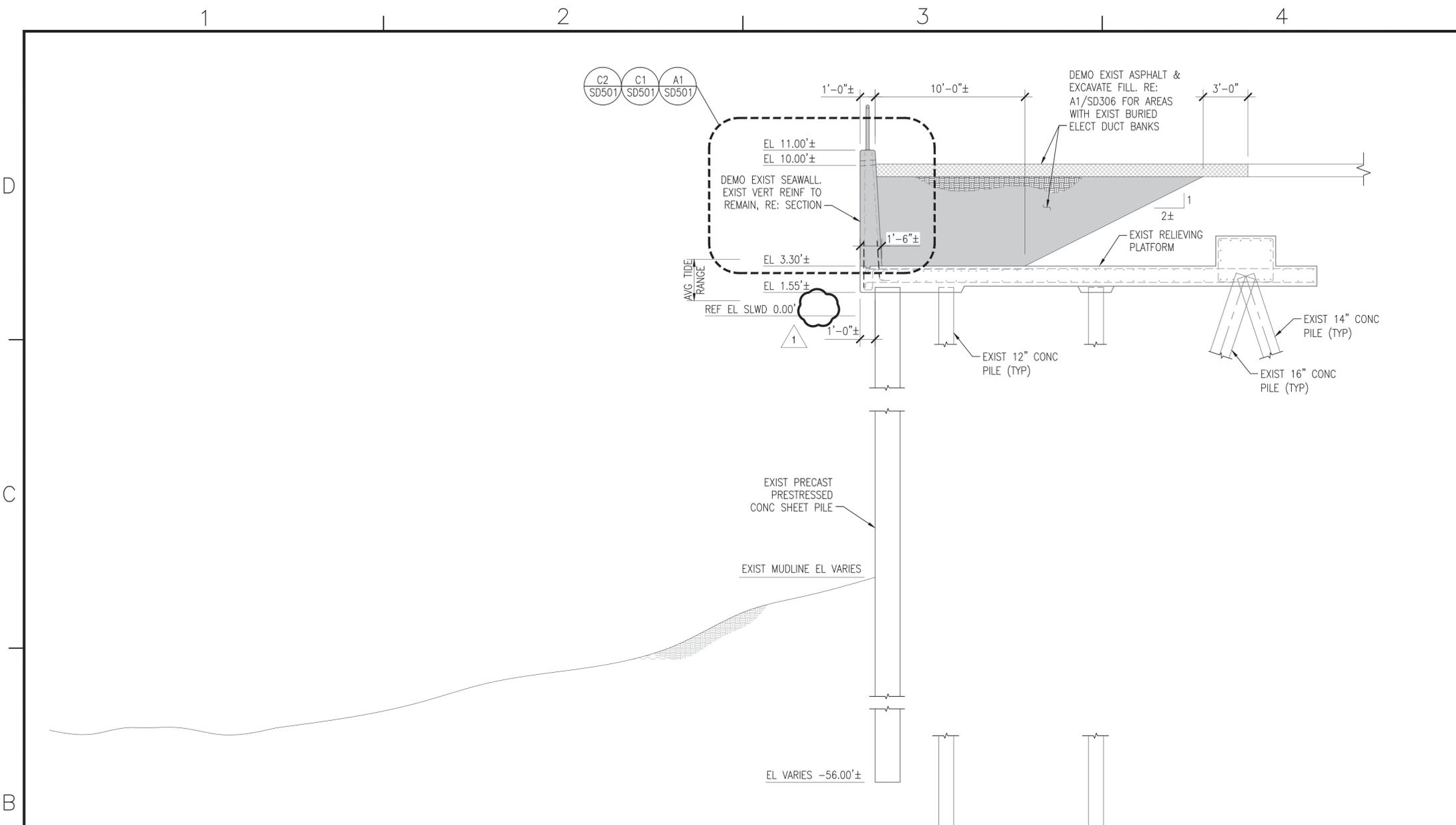
**GRAPHIC SCALE**



SCALE:	AS NOTED
PROJECT NO.:	1370817
CONSTR. CONTR. NO.:	N/A
NAVFAC DRAWING NO.:	12,729,729
SHEET:	74 OF 158
<b>SD305</b>	

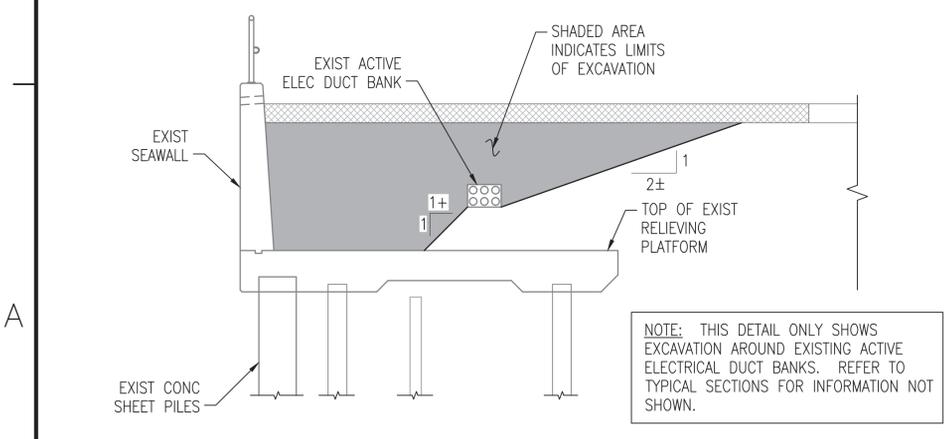
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NAVStation\Norfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structural\1370817\_SD306\_DEMOLITION SECTIONS\_PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: cns\cns\cns\kowi



**B1** SECTION - BULKHEAD TYPE 6  
SCALE: 1/4" = 1'-0"

SD108 TO SD111



**A1** TYP EXCAVATION AT ELEC DUCT BANK  
SCALE: 1/4" = 1'-0"

SD306

**GENERAL SHEET NOTES**

- EXISTING FENDERING SYSTEM NOT SHOWN. REFER TO PLANS AND SECTIONS FOR FENDERING TO BE DEMOLISHED.
- TYPICAL EXCAVATION NOTES:
- ABANDONED UTILITIES ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED TO THE LIMIT OF EXCAVATION. PLUG ALL REMAINING ENDS WATER TIGHT.
  - EXISTING ACTIVE UTILITIES SHALL BE TEMPORARILY SUPPORTED DURING CONSTRUCTION UNLESS OTHERWISE NOTED ON CIVIL OR ELECTRICAL PLANS. TEMPORARY SUPPORTS SHOULD BE SUFFICIENT TO WITHSTAND ALL CONDITIONS FOR LENGTH OF TIME THE UTILITY IS EXPOSED.
  - THE EXCAVATION SLOPE SHOWN IS APPROXIMATE. PROVIDE SLOPE/ EXCAVATION SHORING IN ACCORDANCE WITH COE-EM385.

DATE	8/17/2016	DATE	
REVISION		DESCRIPTION	
NO.		SYMBOL	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: 8-11-16

ACTIVITY: DAVE SEARS

SATISFACTORY TO DATE: 6/17/2016

DRAWN BY: ELT | DRW: CMR | CHK: CLT

DESIGN MANAGER: EDDY THEISZ

BRANCH MANAGER: CRT

CHEF ENGINEER: J. HASTE, P.E.

NAVAL FACILITIES ENGINEERING COMMAND  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA

DEMOLITION SECTIONS  
CEP-175 AND Z-308 BULKHEAD REPAIR

SCALE: AS NOTED

PROJECT NO.: 1370817

CONSTR. CONTR. NO.: N/A

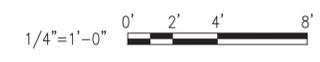
NAVFAC DRAWING NO.: 12,729,730

SHEET 75 OF 158

**SD306**

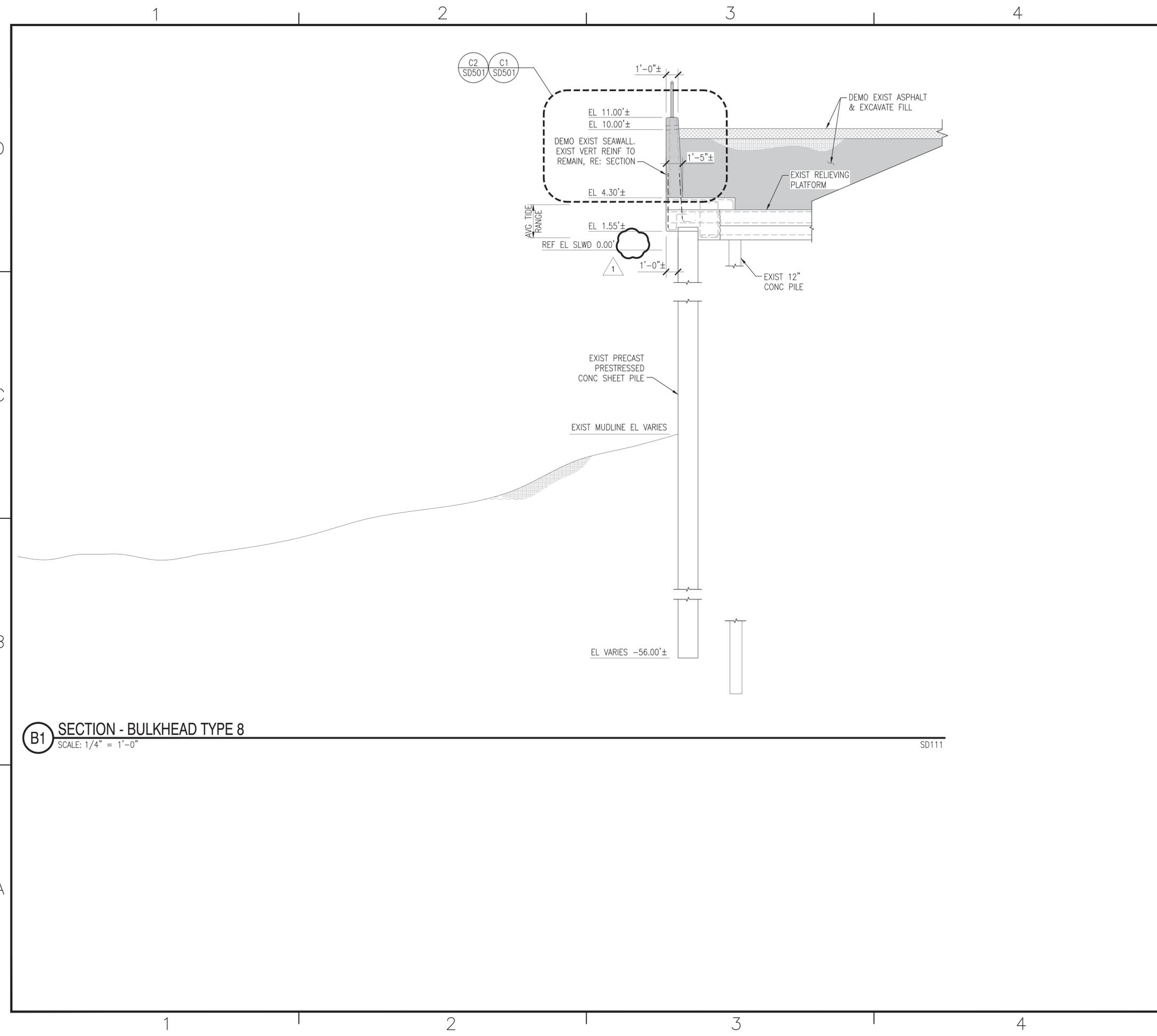
DRAWFORM REVISION: 10 MARCH 2009

**GRAPHIC SCALE**





FILE NAME: F:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175Z-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD308 DEMOLITION SECTIONS PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: cns1diner@hkwski



**B1 SECTION - BULKHEAD TYPE 8**  
SCALE: 1/4" = 1'-0"

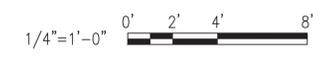
SD111

**GENERAL SHEET NOTES**

- EXISTING FENDERING SYSTEM NOT SHOWN. REFER TO PLANS AND SECTIONS FOR FENDERING TO BE DEMOLISHED.
- TYPICAL EXCAVATION NOTES:
- ABANDONED UTILITIES ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED TO THE LIMIT OF EXCAVATION. PLUG ALL REMAINING ENDS WATER TIGHT.
  - EXISTING ACTIVE UTILITIES SHALL BE TEMPORARILY SUPPORTED DURING CONSTRUCTION UNLESS OTHERWISE NOTED ON CIVIL OR ELECTRICAL PLANS. TEMPORARY SUPPORTS SHOULD BE SUFFICIENT TO WITHSTAND ALL CONDITIONS FOR LENGTH OF TIME THE UTILITY IS EXPOSED.
  - THE EXCAVATION SLOPE SHOWN IS APPROXIMATE. PROVIDE SLOPE/ EXCAVATION SHORING IN ACCORDANCE WITH COE-EM385.

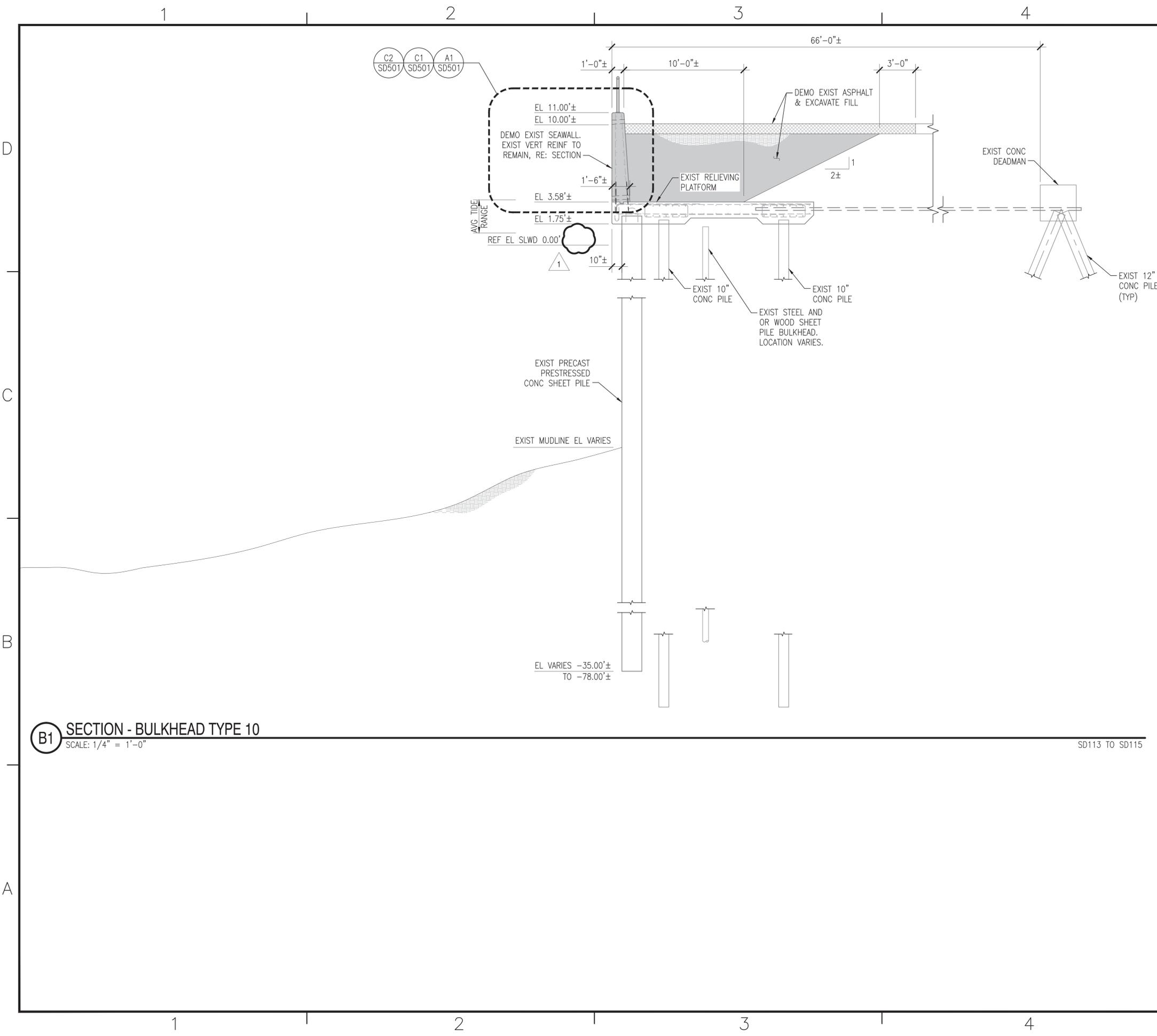
DATE	8/17/2016	DATE	
DR		DATE	
REVISION		DATE	
SYMBOL		DESCRIPTION	
SCALE		SCALE	
APPROVED	<i>[Signature]</i>	APPROVED	
FOR COMMANDER NAVFAC	8-11-16	FOR COMMANDER NAVFAC	
ACTIVITY	DAVE SEARS	ACTIVITY	
SATISFACTORY TO DATE	6/17/2016	SATISFACTORY TO DATE	
DRAWN	ELT	CHECKED	CLT
DESIGN MANAGER	EDDY THEISZ	DESIGN MANAGER	
BRANCH MANAGER	CRT	BRANCH MANAGER	
CHEF ENGINEER	J. HASTE, P.E.	CHEF ENGINEER	
FIRE PROTECTION		FIRE PROTECTION	
DEPARTMENT OF THE NAVY		DEPARTMENT OF THE NAVY	
NAVAL FACILITIES ENGINEERING COMMAND		NAVAL FACILITIES ENGINEERING COMMAND	
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC		NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC	
HAMPTON ROADS FT - PNO NORFOLK		HAMPTON ROADS FT - PNO NORFOLK	
NORFOLK NAVAL STATION		NORFOLK NAVAL STATION	
NORFOLK, VIRGINIA		NORFOLK, VIRGINIA	
CEP-175 AND Z-308 BULKHEAD REPAIR		CEP-175 AND Z-308 BULKHEAD REPAIR	
DEMOLITION SECTIONS		DEMOLITION SECTIONS	
SCALE	AS NOTED	SCALE	
PROJECT NO.	1370817	PROJECT NO.	
CONSTR. CONTR. NO.	N/A	CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12,729,732	NAVFAC DRAWING NO.	
SHEET	77 OF 158	SHEET	
<b>SD308</b>		<b>SD308</b>	
DRAWFORM REVISION:	10 MARCH 2009	DRAWFORM REVISION:	

**GRAPHIC SCALE**





FILE NAME: F:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_30300\_SERIES.dwg LAYOUT NAME: SD310 DEMOLITION SECTIONS PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: cns1diner@hkwski



**B1 SECTION - BULKHEAD TYPE 10**  
SCALE: 1/4" = 1'-0"

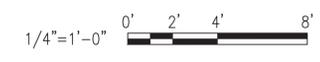
SD113 TO SD115

**GENERAL SHEET NOTES**

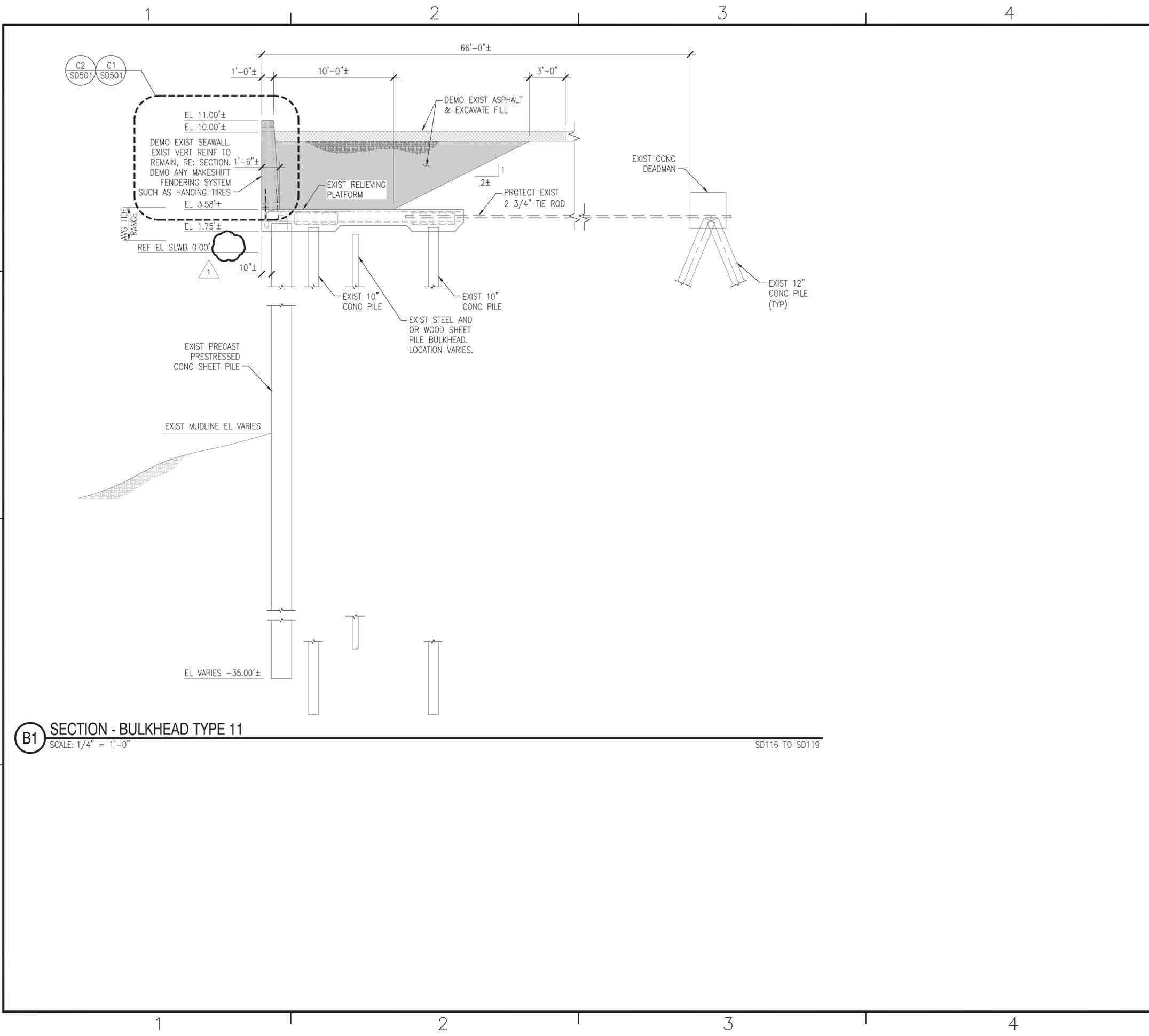
- EXISTING FENDERING SYSTEM NOT SHOWN. REFER TO PLANS AND SECTIONS FOR FENDERING TO BE DEMOLISHED.
- TYPICAL EXCAVATION NOTES:
- ABANDONED UTILITIES ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED TO THE LIMIT OF EXCAVATION. PLUG ALL REMAINING ENDS WATER TIGHT.
  - EXISTING ACTIVE UTILITIES SHALL BE TEMPORARILY SUPPORTED DURING CONSTRUCTION UNLESS OTHERWISE NOTED ON CIVIL OR ELECTRICAL PLANS. TEMPORARY SUPPORTS SHOULD BE SUFFICIENT TO WITHSTAND ALL CONDITIONS FOR LENGTH OF TIME THE UTILITY IS EXPOSED.
  - THE EXCAVATION SLOPE SHOWN IS APPROXIMATE. PROVIDE SLOPE/ EXCAVATION SHORING IN ACCORDANCE WITH COE-EM385.

DATE	8/17/2016	DATE	
REVISION		DESCRIPTION	
			
APPROVED	 FOR COMMANDER NAVFAC 8-11-16		
ACTIVITY	DAVE SEARS		
SATISFACTORY TO DATE	6/17/2016		
DRAWN	ELT	DRW	CMR
DESIGN MANAGER	EDDY THEISZ		
BRANCH MANAGER	CRT		
CHEF ENGINEER	J. HASTE, P.E.		
NAVAL FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC NORFOLK NAVAL STATION NORFOLK, VIRGINIA			
CEP-175 AND Z-308 BULKHEAD REPAIR DEMOLITION SECTIONS			
SCALE:	AS NOTED		
PROJECT NO.	1370817		
CONSTR. CONTR. NO.	N/A		
NAVFAC DRAWING NO.	12,729,734		
SHEET	79	OF	158
<b>SD310</b>			
DRAWFORM REVISION: 10 MARCH 2009			

**GRAPHIC SCALE**



FILE NAME: P:\NA\NavalStationNorfolk\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_30300\_SERIES.dwg LAYOUT NAME: SD311 DEMOLITION SECTIONS PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: cindia@norfolk.com



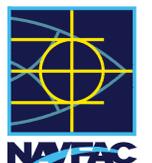
**B1** SECTION - BULKHEAD TYPE 11  
SCALE: 1/4" = 1'-0"

SD116 TO SD119

**GENERAL SHEET NOTES**

- EXISTING FENCING SYSTEM NOT SHOWN. REFER TO PLANS AND SECTIONS FOR FENCING TO BE DEMOLISHED.
- TYPICAL EXCAVATION NOTES:
- ABANDONED UTILITIES ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED TO THE LIMIT OF EXCAVATION. PLUG ALL REMAINING ENDS WATER TIGHT.
  - EXISTING ACTIVE UTILITIES SHALL BE TEMPORARILY SUPPORTED DURING CONSTRUCTION UNLESS OTHERWISE NOTED ON CIVIL OR ELECTRICAL PLANS. TEMPORARY SUPPORTS SHOULD BE SUFFICIENT TO WITHSTAND ALL CONDITIONS FOR LENGTH OF TIME THE UTILITY IS EXPOSED.
  - THE EXCAVATION SLOPE SHOWN IS APPROXIMATE. PROVIDE SLOPE/ EXCAVATION SHORING IN ACCORDANCE WITH COE-EM385.

DATE	8/17/2016	DATE	
REVISION		DESCRIPTION	
NO.		BY	
1			
2			
3			
4			
5			



APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: 8-11-16

ACTIVITY: DAVE SEARS

SATISFACTORY TO DATE: 6/17/2016

DRAWN BY: ELT | DRW: CMR | CHK: CLT

DESIGN MANAGER: EDDY THEISZ

BRANCH MANAGER: CRT

CHEF ENGINEER: J. HASTE, P.E.

DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
HAMPTON ROADS FT - PWD NORFOLK  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA

CEP-175 AND Z-308 BULKHEAD REPAIR

DEMOLITION SECTIONS

SCALE: AS NOTED

PROJECT NO.: 1370817

CONSTR. CONTR. NO.: N/A

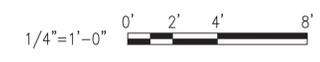
NAVFAC DRAWING NO.: 12,729,735

SHEET 80 OF 158

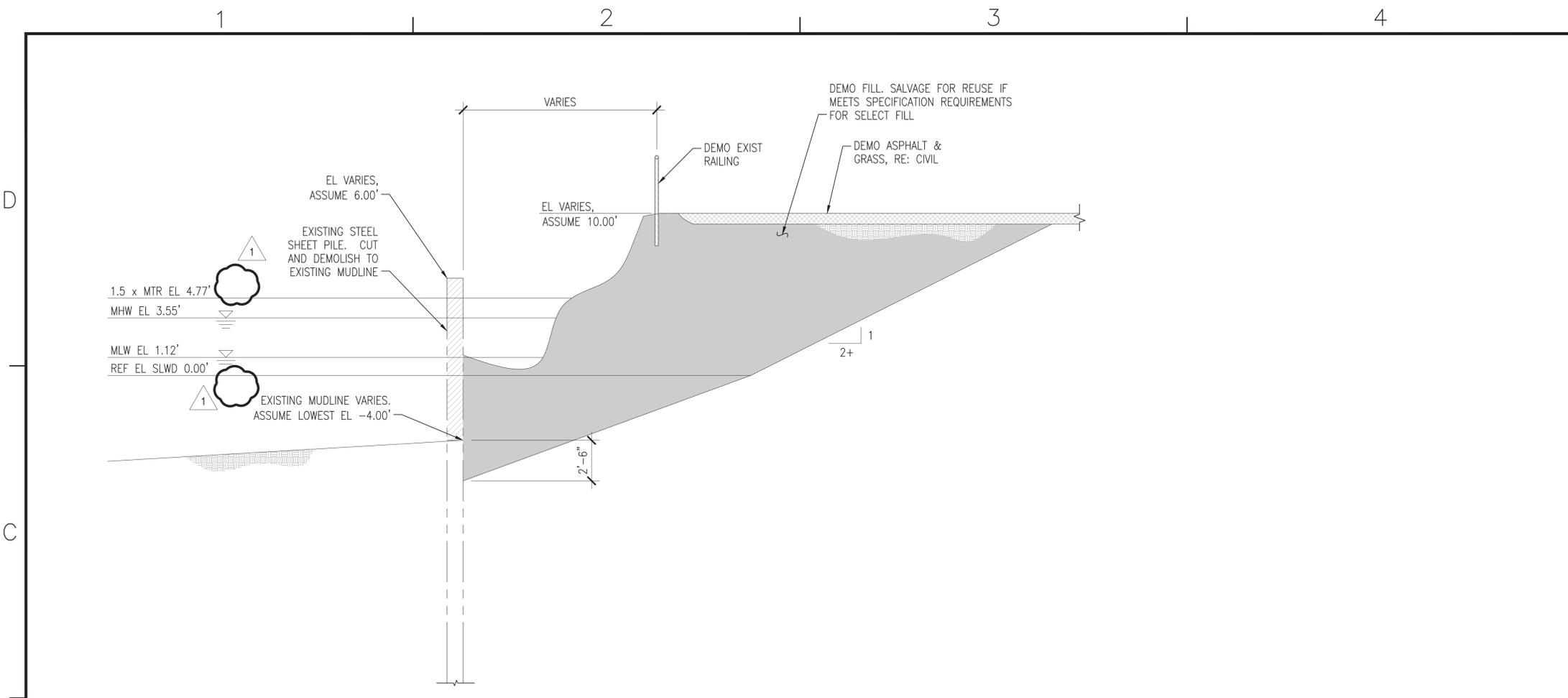
**SD311**

DRAWING REVISION: 10 MARCH 2009

**GRAPHIC SCALE**

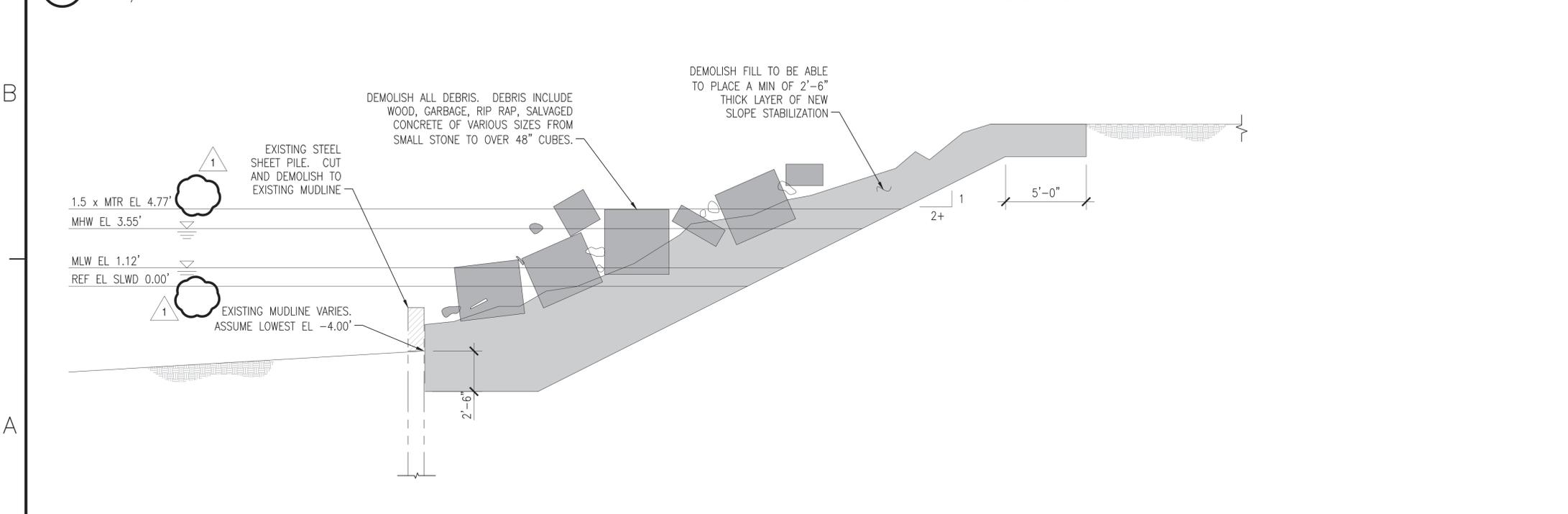


FILE NAME: P:\NAV (Naval Station Norfolk)\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structural\1370817\_SD312 DEMOLITION SECTIONS PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: cns\cns\erickson.kowski



**C1** DEMO - SECTION PATRIOT'S POINT  
SCALE: 1/4" = 1'-0"

SD120 TO SD121



**A1** DEMO - SECTION PATRIOT'S POINT SLOPE PROTECTION  
SCALE: 1/4" = 1'-0"

SD120

**GENERAL SHEET NOTES**

- TYPICAL EXCAVATION NOTES:**
1. ABANDONED UTILITIES ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED TO THE LIMIT OF EXCAVATION. PLUG ALL REMAINING ENDS WATER TIGHT.
  2. EXISTING ACTIVE UTILITIES SHALL BE TEMPORARILY SUPPORTED DURING CONSTRUCTION UNLESS OTHERWISE NOTED ON CIVIL OR ELECTRICAL PLANS. TEMPORARY SUPPORTS SHOULD BE SUFFICIENT TO WITHSTAND ALL CONDITIONS FOR LENGTH OF TIME THE UTILITY IS EXPOSED.
  3. THE EXCAVATION SLOPE SHOWN IS APPROXIMATE. PROVIDE SLOPE/ EXCAVATION SHORING IN ACCORDANCE WITH COE-EM385.

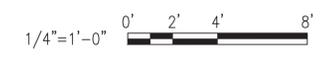
DATE	DESCRIPTION	BY	APPR
8/17/2016	REMOVE WATER MARKINGS		



APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: 8-11-16  
ACTIVITY: DAVE SEARS  
SATISFACTORY TO DATE: 6/17/2016  
DES: CMR | DRW: CMR | CHK: CLT  
DESIGN MANAGER: EDDY THEISZ  
BRANCH MANAGER: CRT  
CHIEF ENGINEER: J. HASTE, P.E.

DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
HAMPTON ROADS FT - PWD NORFOLK  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA  
CEP-175 AND Z-308 BULKHEAD REPAIR  
DEMOLITION SECTIONS

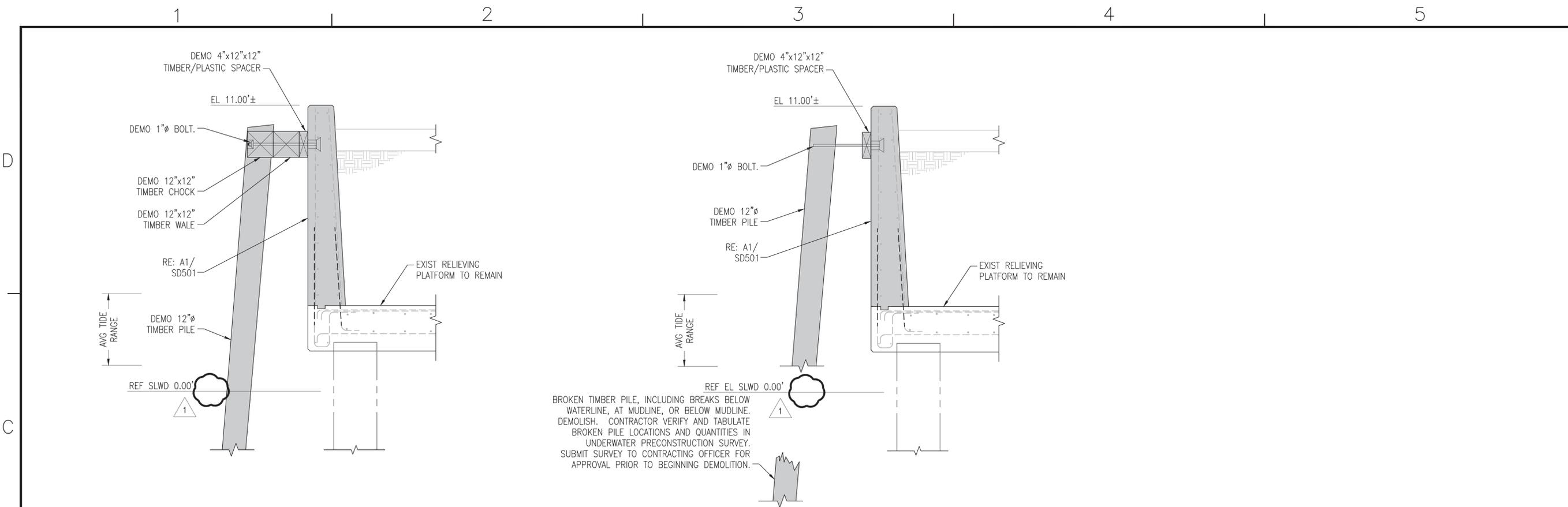
**GRAPHIC SCALE**



SCALE:	AS NOTED
PROJECT NO.:	1370817
CONSTR. CONTR. NO.:	N/A
NAVFAC DRAWING NO.:	12,729,736
SHEET	81 OF 158
<b>SD312</b>	

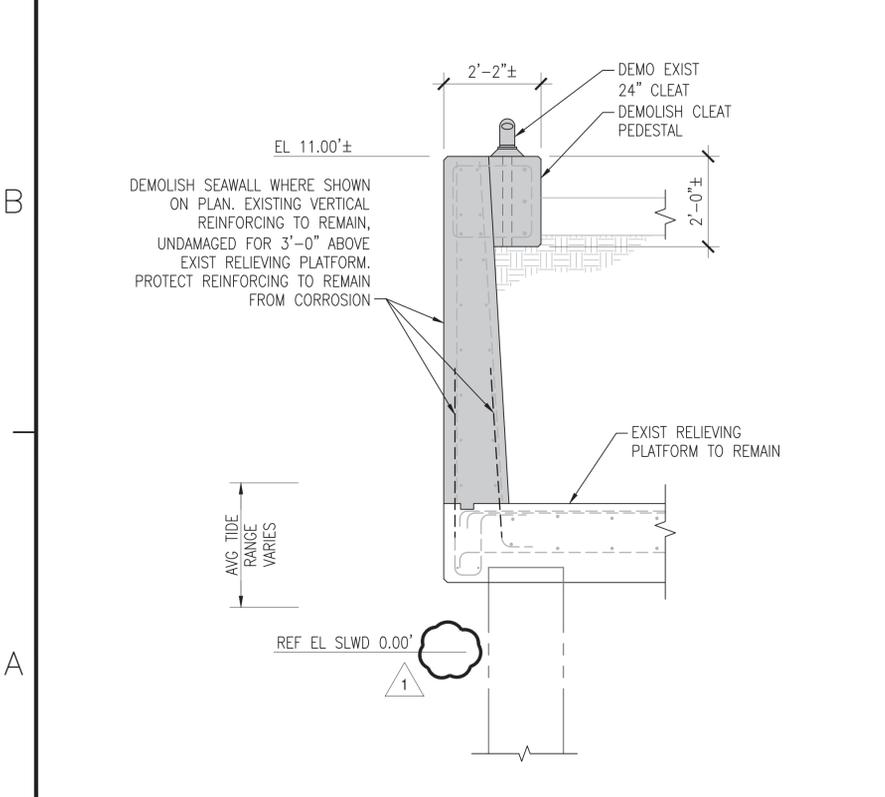
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\NAV (Naval Station Norfolk)\Waterfront\Bulkheads\2015\_1370817\_CEP-175-308Repair\B\_Design\Drawings\Sheet\07\_Structure\1370817\_SD500\_SEWALL & CLEAT DEMO DETAILS.dwg LAYOUT NAME: SD501\_FENDER SEAWALL & CLEAT DEMO DETAILS PLOTTED: Wednesday, August 10, 2016 - 11:42am USER: chrislinn@navfac.com

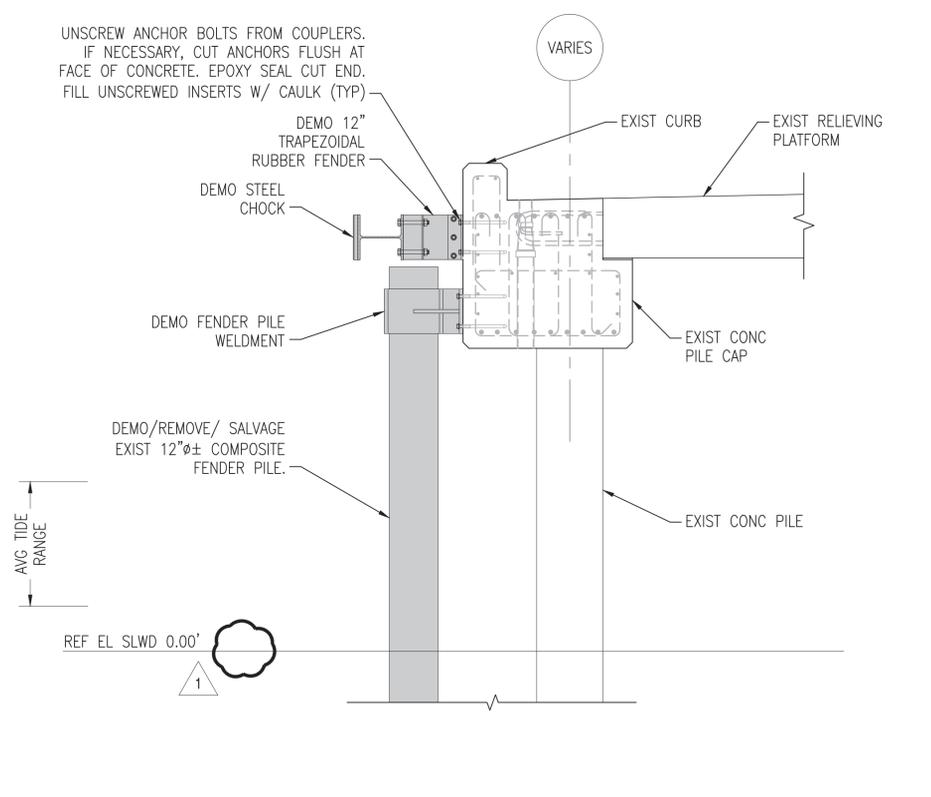


**C1 DEMO - TIMBER FENDER FULL**  
SCALE: 1/2" = 1'-0" SD305 TO SD311

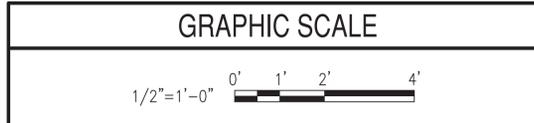
**C2 DEMO - TIMBER FENDER PARTIAL**  
SCALE: 1/2" = 1'-0" SD305 TO SD311



**A1 DEMO - CLEAT AND SEAWALL**  
SCALE: 1/2" = 1'-0" SD305, SD306, SD309, SD310



**A2 DEMO - COMPOSITE FENDER SYSTEM**  
SCALE: 1/2" = 1'-0" SD301 TO SD304



DATE	8/17/2016	DATE	
REV		DESCRIPTION	
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APPROVED: *[Signature]*  
FOR COMMANDER NAVFAC: 8-11-16  
ACTIVITY: DAVE SEARS  
SATISFACTORY TO DATE: 6/17/2016  
DES: ELT | DRW: CMR | CHK: CLT  
DESIGN MANAGER: EDDY THEISZ  
BRANCH MANAGER: CRT  
CHIEF ENGINEER: J. HASTE, P.E.  
FIRE PROTECTION: [Blank]

NAVAL FACILITIES ENGINEERING COMMAND  
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC  
NORFOLK NAVAL STATION  
NORFOLK, VIRGINIA  
CEP-175 AND Z-308 BULKHEAD REPAIR  
FENDER, SEAWALL & CLEAT DEMO DETAILS

SCALE: AS NOTED  
PROJECT NO.: 1370817  
CONSTR. CONTR. NO.: N/A  
NAVFAC DRAWING NO.: 12,729,738  
SHEET 83 OF 158  
SD501  
DRAWFORM REVISION: 10 MARCH 2009