



CITY OF DULUTH
PURCHASING DIVISION
Room 120 City Hall
411 West First Street
Duluth, Minnesota 55802-1199
218/730-5340
purchasing@duluthmn.gov

Addendum 2

File # 18-0116E (18-10AA)

Project: Dead Ship Two – Temporary Relocation of the William A. Irvin

This addendum serves to notify all bidders of the following changes to the solicitation documents:

Attached please find a list of answers to contractor questions and an updated planset dated 7.19.18.

Please acknowledge receipt of this Addendum by initialing and dating Addendum #2 at the bottom of the below the bid form.

Posted: 7.19.18



Consulting Engineers P.A.

July 19, 2018

Re: William A. Irvin Dead Ship Tow Bid No. 18-0116E – Addendum #2

AMI Project # 181078

- The Contractor is responsible for coordinating with United States Coast Guard (USCG) to determine if all the ballast tanks and sounding tubes are required to be water-tight prior to the relocation of the vessel SS William A. Irvin (Irvin).
- The Contractor will be responsible for determining if the davit/ job crane for the life boat and bringing materials up to the deck of the vessel on both side of the Irvin will impede the movement of the vessel in and out of MN Slip.
- The plan set for the relocating the Irvin has been updated to include the following:
 - Water depths & bathymetric survey information in the shipping channel and along east sheet pile dock wall outside of MN Slip based on available information from the United States Army Corps of Engineers (USACE). See Sheet S1.1
 - Distances from the temporary guide structure to the existing sheet pile dock wall and the shipping channel on the outside of MN Slip have also been added to sheet S1.1.
 - Additional pictures and locations have been added to Sheets S8.0 & S8.1 for further information on the existing condition of the vessel SS William A. Irvin (Irvin).
 - The name of detail 3/S1.0 has been altered to read “Option 1 – Vertical Piles” instead of “Option 1 – Timber Piles.”
- The prevailing wages included with the Request for Proposal (RFP) are for Commercial Construction. The prevailing wages for Highway & Heavy Construction are required for this project. Those prevailing wages have been attached to this Addendum.
- The temporary guide structure may be left in during the winter. However, any piles or structures placed inside MN Slip shall be within 5’-0” of the bridge abutment. If any piles or other structures are to be placed further than 5’-0” from the bridge abutment, they will be required to be removed prior to the Minnesota Pollution Control Agency (MPCA) cleanup of MN Slip. Contractor will be responsible for verifying the alignment of the temporary guide wall and the requirements of the USCG.
- The Irvin will be placed in dry-dock at Fraser Shipyards (Fraser) during the winter of 2018-2019 where the hull will be blasted & coated. The Contractor will not be responsible for any scrapes or damage to the coating while the vessel is being removed from MN Slip. The Contractor will be responsible for any damage or deterioration to the coatings below the waterline that occur when moving the vessel back into MN Slip in the spring of 2019. The DECC will be responsible for repairing any coating damage above the waterline.
- The maximum beam width of the vessel was documented above the waterline. The Contractor is responsible for verifying this condition.
- The DECC and the City of Duluth anticipate that some of the timber fenders along the

DECC seawall will be damaged during the relocation process. The Contractor will not be responsible for replacing the timber fenders during the relocation process.

- The City of Duluth will be utilizing a Marine Surveyor from North American Marine, Inc. to perform a final survey of the vessel prior to the relocation process. Since the City has already hired a Marine Surveyor, the Contractor will ***not*** be required to hire a third-party marine surveyor per the project specifications. The City's Marine Surveyor will be responsible for inspecting the vessel, towing arrangement & equipment prior to the move per the project specifications. The Contractor will be responsible for certifying any tugs utilized during the project.

If you have any questions or comments, please contact AMI at (715) 718-2193 extension 17.

Respectfully Submitted,



Chase Dewhirst
Marine Engineering Manager

**MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY PREVAILING WAGES FOR STATE
FUNDED CONSTRUCTION PROJECTS**



THIS NOTICE MUST BE POSTED ON THE JOBSITE IN A CONSPICUOUS PLACE

Construction Type: Highway and Heavy

Region Number: 01

Counties within region:

- CARLTON-09
- COOK-16
- ITASCA-31
- KOOCHICHING-36
- LAKE-38
- PINE-58
- ST. LOUIS-69

Effective: 2017-10-30

This project is covered by Minnesota prevailing wage statutes. Wage rates listed below are the minimum hourly rates to be paid on this project.

All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at a rate of one and one half (1 1/2) times the basic hourly rate.

Violations should be reported to:

Department of Transportation
Office of Construction
Transportation Building MS650
John Ireland Blvd
St. Paul, MN 55155
(651) 366-4209

Refer questions concerning the prevailing wage rates to:

Department of Labor and Industry
Prevailing Wage Section
443 Lafayette Road N
St Paul, MN 55155
(651) 284-5091
DLI.PrevWage@state.mn.us

LABOR CODE AND CLASS

		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
LABORERS (101 - 112) (SPECIAL CRAFTS 701 - 730)					
101	LABORER, COMMON (GENERAL LABOR WORK)	2017-10-30	29.93	18.22	48.15
		2018-05-01	30.78	19.32	50.10
102	LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN)	2017-10-30	29.93	18.22	48.15
		2018-05-01	30.78	19.32	50.10
103	LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR)	2017-10-30	22.17	14.89	37.06
		2018-05-01	23.02	15.99	39.01
104	FLAG PERSON	2017-10-30	29.93	18.22	48.15
		2018-05-01	30.78	19.32	50.10
105	WATCH PERSON	2017-10-30	25.68	16.77	42.45
106	BLASTER	2017-10-30	32.23	17.02	49.25
107	PIPELAYER (WATER, SEWER AND GAS)	2017-10-30	32.43	18.22	50.65
		2018-05-01	33.28	19.32	52.60
108	TUNNEL MINER	2017-10-30	30.63	18.22	48.85
		2018-05-01	31.48	19.32	50.80
109	UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL)	2017-10-30	30.63	18.22	48.85
		2018-05-01	31.48	19.32	50.80
110	SURVEY FIELD TECHNICIAN (OPERATE TOTAL STATION, GPS RECEIVER, LEVEL, ROD OR RANGE POLES, STEEL TAPE MEASUREMENT; MARK AND DRIVE STAKES; HAND OR POWER DIGGING FOR AND IDENTIFICATION OF MARKERS OR MONUMENTS;	2017-10-30	29.93	18.22	48.15

PERFORM AND CHECK CALCULATIONS; REVIEW AND UNDERSTAND CONSTRUCTION PLANS AND LAND SURVEY MATERIALS). THIS CLASSIFICATION DOES NOT APPLY TO THE WORK PERFORMED ON A PREVAILING WAGE PROJECT BY A LAND SURVEYOR WHO IS LICENSED PURSUANT TO MINNESOTA STATUTES, SECTIONS 326.02 TO 326.15.

		2018-05-01	30.78	19.32	50.10
111	TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE)	2017-10-30	29.23	17.02	46.25
112	QUALITY CONTROL TESTER (FIELD AND COVERED OFF-SITE FACILITIES; TESTING OF AGGREGATE, ASPHALT, AND CONCRETE MATERIALS); LIMITED TO MN DOT HIGHWAY AND HEAVY CONSTRUCTION PROJECTS WHERE THE MN DOT HAS RETAINED QUALITY ASSURANCE PROFESSIONALS TO REVIEW AND INTERPRET THE RESULTS OF QUALITY CONTROL TESTERS. SERVICES PROVIDED BY THE CONTRACTOR.	2017-10-30	26.40	8.51	34.91

SPECIAL EQUIPMENT (201 - 204)

201	ARTICULATED HAULER	2017-10-30	34.69	19.70	54.39
		2018-05-01	36.04	20.30	56.34
202	BOOM TRUCK	2017-10-30	34.69	19.70	54.39
		2018-05-01	36.04	20.30	56.34
203	LANDSCAPING EQUIPMENT, INCLUDES HYDRO SEEDER OR MULCHER, SOD ROLLER, FARM TRACTOR WITH ATTACHMENT SPECIFICALLY SEEDING, SODDING, OR PLANT, AND TWO-FRAMED FORKLIFT (EXCLUDING FRONT, POSIT-TRACK, AND SKID STEER LOADERS), NO EARTHWORK OR GRADING FOR ELEVATIONS	2017-10-30	30.44	19.70	50.14
		2018-05-01	31.79	20.30	52.09
204	OFF-ROAD TRUCK	2017-10-30	31.37	16.70	48.07
205	PAVEMENT MARKING OR MARKING REMOVAL EQUIPMENT (ONE OR TWO PERSON OPERATORS);	2017-10-30	28.36	20.89	49.25

SELF-PROPELLED TRUCK OR TRAILER MOUNTED
UNITS.

HIGHWAY/HEAVY POWER EQUIPMENT OPERATOR

GROUP 2	2017-10-30	35.54	19.70	55.24
	2018-05-01	36.89	20.30	57.19
302	HELICOPTER PILOT (HIGHWAY AND HEAVY ONLY)			
303	CONCRETE PUMP (HIGHWAY AND HEAVY ONLY)			
304	ALL CRANES WITH OVER 135-FOOT BOOM, EXCLUDING JIB (HIGHWAY AND HEAVY ONLY)			
305	DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR OTHER SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS THREE CUBIC YARDS AND OVER MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)			
306	GRADER OR MOTOR PATROL			
307	PILE DRIVING (HIGHWAY AND HEAVY ONLY)			
308	TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED (HIGHWAY AND HEAVY ONLY)			
GROUP 3	2017-10-30	34.99	19.70	54.69
	2018-05-01	36.34	20.30	56.64
309	ASPHALT BITUMINOUS STABILIZER PLANT			
310	CABLEWAY			
311	CONCRETE MIXER, STATIONARY PLANT (HIGHWAY AND HEAVY ONLY)			
312	DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY) (HIGHWAY AND HEAVY ONLY)			
313	DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS, UP TO THREE CUBIC YARDS MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS (HIGHWAY AND HEAVY ONLY)			
314	DREDGE OR ENGINEERS, DREDGE (POWER) AND ENGINEER			
315	FRONT END LOADER, FIVE CUBIC YARDS AND OVER INCLUDING ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)			
316	LOCOMOTIVE CRANE OPERATOR			
317	MIXER (PAVING) CONCRETE PAVING, ROAD MOLE, INCLUDING MUCKING OPERATIONS, CONWAY OR SIMILAR TYPE			
318	MECHANIC . WELDER ON POWER EQUIPMENT (HIGHWAY AND HEAVY ONLY)			
319	TRACTOR . BOOM TYPE (HIGHWAY AND HEAVY ONLY)			
320	TANDEM SCRAPER			

321 TRUCK CRANE . CRAWLER CRANE (HIGHWAY AND HEAVY ONLY)

322 TUGBOAT 100 H.P AND OVER (HIGHWAY AND HEAVY ONLY)

GROUP 4	2017-10-30	34.69	19.70	54.39
	2018-05-01	36.04	20.30	56.34

323 AIR TRACK ROCK DRILL

324 AUTOMATIC ROAD MACHINE (CMI OR SIMILAR) (HIGHWAY AND HEAVY ONLY)

325 BACKFILLER OPERATOR

326 CONCRETE BATCH PLANT OPERATOR (HIGHWAY AND HEAVY ONLY)

327 BITUMINOUS ROLLERS, RUBBER TIRED OR STEEL DRUMMED (EIGHT TONS AND OVER)

328 BITUMINOUS SPREADER AND FINISHING MACHINES (POWER), INCLUDING PAVERS, MACRO SURFACING AND MICRO SURFACING, OR SIMILAR TYPES (OPERATOR AND SCREED PERSON)

329 BROKK OR R.T.C. REMOTE CONTROL OR SIMILAR TYPE WITH ALL ATTACHMENTS

330 CAT CHALLENGER TRACTORS OR SIMILAR TYPES PULLING ROCK WAGONS, BULLDOZERS AND SCRAPERS

331 CHIP HARVESTER AND TREE CUTTER

332 CONCRETE DISTRIBUTOR AND SPREADER FINISHING MACHINE, LONGITUDINAL FLOAT, JOINT MACHINE, AND SPRAY MACHINE

333 CONCRETE MIXER ON JOBSITE (HIGHWAY AND HEAVY ONLY)

334 CONCRETE MOBIL (HIGHWAY AND HEAVY ONLY)

335 CRUSHING PLANT (GRAVEL AND STONE) OR GRAVEL WASHING, CRUSHING AND SCREENING PLANT

336 CURB MACHINE

337 DIRECTIONAL BORING MACHINE

338 DOPE MACHINE (PIPELINE)

339 DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL (HIGHWAY AND HEAVY ONLY)

340 DUAL TRACTOR

341 ELEVATING GRADER

342 FORK LIFT OR STRADDLE CARRIER (HIGHWAY AND HEAVY ONLY)

343 FORK LIFT OR LUMBER STACKER (HIGHWAY AND HEAVY ONLY)

344 FRONT END, SKID STEER OVER 1 TO 5 C YD

345 GPS REMOTE OPERATING OF EQUIPMENT

346 HOIST ENGINEER (POWER) (HIGHWAY AND HEAVY ONLY)

347 HYDRAULIC TREE PLANTER

348 LAUNCHER PERSON (TANKER PERSON OR PILOT LICENSE)

349 LOCOMOTIVE (HIGHWAY AND HEAVY ONLY)

350 MILLING, GRINDING, PLANING, FINE GRADE, OR TRIMMER MACHINE

- 351 MULTIPLE MACHINES, SUCH AS AIR COMPRESSORS, WELDING MACHINES, GENERATORS, PUMPS (HIGHWAY AND HEAVY ONLY)
- 352 PAVEMENT BREAKER OR TAMPING MACHINE (POWER DRIVEN) MIGHTY MITE OR SIMILAR TYPE
- 353 PICKUP SWEEPER, ONE CUBIC YARD AND OVER HOPPER CAPACITY(HIGHWAY AND HEAVY ONLY)
- 354 PIPELINE WRAPPING, CLEANING OR BENDING MACHINE
- 355 POWER PLANT ENGINEER, 100 KWH AND OVER (HIGHWAY AND HEAVY ONLY)
- 356 POWER ACTUATED HORIZONTAL BORING MACHINE, OVER SIX INCHES
- 357 PUGMILL
- 358 PUMPCRETE (HIGHWAY AND HEAVY ONLY)
- 359 RUBBER-TIRED FARM TRACTOR WITH BACKHOE INCLUDING ATTACHMENTS (HIGHWAY AND HEAVY ONLY)
- 360 SCRAPER
- 361 SELF-PROPELLED SOIL STABILIZER
- 362 SLIP FORM (POWER DRIVEN) (PAVING)
- 363 TIE TAMPER AND BALLAST MACHINE
- 364 TRACTOR, BULLDOZER (HIGHWAY AND HEAVY ONLY)
- 365 TRACTOR, WHEEL TYPE, OVER 50 H.P. WITH PTO UNRELATED TO LANDSCAPING (HIGHWAY AND HEAVY ONLY)
- 366 TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER (HIGHWAY AND HEAVY ONLY)
- 367 TUB GRINDER, MORBARK, OR SIMILAR TYPE
- 368 WELL POINT DISMANTLING OR INSTALLATION (HIGHWAY AND HEAVY ONLY)

GROUP 5	2017-10-30	31.65	19.70	51.35
	2018-05-01	33.00	20.30	53.30

- 369 AIR COMPRESSOR, 600 CFM OR OVER (HIGHWAY AND HEAVY ONLY)
- 370 BITUMINOUS ROLLER (UNDER EIGHT TONS)
- 371 CONCRETE SAW (MULTIPLE BLADE) (POWER OPERATED)
- 372 FORM TRENCH DIGGER (POWER)
- 373 FRONT END, SKID STEER UP TO 1C YD
- 374 GUNITE GUNALL (HIGHWAY AND HEAVY ONLY)
- 375 HYDRAULIC LOG SPLITTER
- 376 LOADER (BARBER GREENE OR SIMILAR TYPE)
- 377 POST HOLE DRIVING MACHINE/POST HOLE AUGER
- 378 POWER ACTUATED AUGER AND BORING MACHINE
- 379 POWER ACTUATED JACK

380	PUMP (HIGHWAY AND HEAVY ONLY)				
381	SELF-PROPELLED CHIP SPREADER (FLAHERTY OR SIMILAR)				
382	SHEEP FOOT COMPACTOR WITH BLADE . 200 H.P. AND OVER				
383	SHOULDERING MACHINE (POWER) APSCO OR SIMILAR TYPE INCLUDING SELF-PROPELLED SAND AND CHIP SPREADER				
384	STUMP CHIPPER AND TREE CHIPPER				
385	TREE FARMER (MACHINE)				

GROUP 6		2017-10-30	30.44	19.70	50.14
		2018-05-01	31.79	20.30	52.09
387	CAT, CHALLENGER, OR SIMILAR TYPE OF TRACTORS, WHEN PULLING DISK OR ROLLER				
388	CONVEYOR (HIGHWAY AND HEAVY ONLY)				
389	DREDGE DECK HAND				
390	FIRE PERSON OR TANK CAR HEATER (HIGHWAY AND HEAVY ONLY)				
391	GRAVEL SCREENING PLANT (PORTABLE NOT CRUSHING OR WASHING)				
392	GREASER (TRACTOR) (HIGHWAY AND HEAVY ONLY)				
393	LEVER PERSON				
394	OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS, AND MILLING MACHINES, OR OTHER SIMILAR HEAVY EQUIPMENT) (HIGHWAY AND HEAVY ONLY)				
395	POWER SWEEPER				
396	SHEEP FOOT ROLLER AND ROLLERS ON GRAVEL COMPACTION, INCLUDING VIBRATING ROLLERS				
397	TRACTOR, WHEEL TYPE, OVER 50 H.P., UNRELATED TO LANDSCAPING				

TRUCK DRIVERS

GROUP 1		2017-10-30	30.25	16.60	46.85
		2018-05-01	30.85	17.50	48.35
601	MECHANIC . WELDER				
602	TRACTOR TRAILER DRIVER				
603	TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)				
GROUP 2		2017-10-30	29.70	16.60	46.30
		2018-05-01	30.30	17.50	47.80
604	FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK				

GROUP 3	2017-10-30	27.82	17.20	45.02
605 BITUMINOUS DISTRIBUTOR DRIVER				
606 BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION)				
607 THREE AXLE UNITS				
GROUP 4	2017-10-30	29.37	15.65	45.02
608 BITUMINOUS DISTRIBUTOR SPRAY OPERATOR (REAR AND OILER)				
609 DUMP PERSON				
610 GREASER				
611 PILOT CAR DRIVER				
612 RUBBER-TIRED, SELF-PROPELLED PACKER UNDER 8 TONS				
613 TWO AXLE UNIT				
614 SLURRY OPERATOR				
615 TANK TRUCK HELPER (GAS, OIL, ROAD OIL, AND WATER)				
616 TRACTOR OPERATOR, UNDER 50 H.P.				
SPECIAL CRAFTS				
701 HEATING AND FROST INSULATORS	2017-10-30	40.31	16.75	57.06
702 BOILERMAKERS	2017-10-30	36.50	26.51	63.01
	2018-01-01	37.85	26.51	64.36
703 BRICKLAYERS	2017-10-30	32.91	22.82	55.73
704 CARPENTERS	2017-10-30	35.34	19.29	54.63
	2018-05-01	37.29	19.29	56.58
705 CARPET LAYERS (LINOLEUM)	2017-10-30	32.13	12.85	44.98
706 CEMENT MASONS	2017-10-30	33.95	18.13	52.08
707 ELECTRICIANS	2017-10-30	35.90	25.64	61.54
	2018-06-03	37.40	25.64	63.04
711 GROUND PERSON	2017-10-30	21.61	11.03	32.64

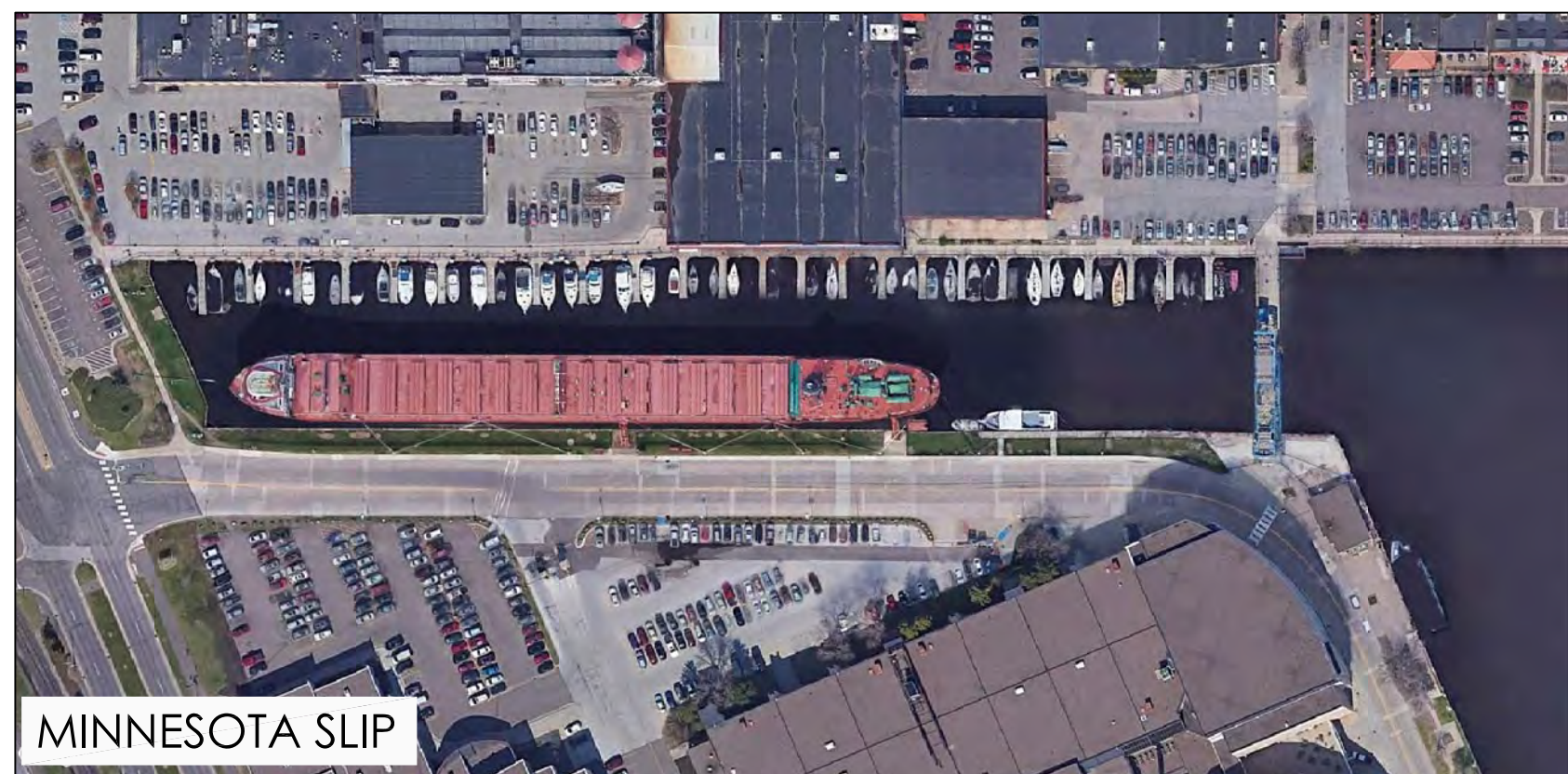
712 IRONWORKERS	2017-10-30	32.04	26.45	58.49
	2018-05-01	34.04	26.45	60.49
713 LINEMAN	2017-10-30	32.27	14.11	46.38
714 MILLWRIGHT	2017-10-30	36.95	16.21	53.16
715 PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT MARKINGS)	2017-10-30	28.01	21.77	49.78
716 PILEDRIVER (INCLUDING VIBRATORY DRIVER OR EXTRACTOR FOR PILING AND SHEETING OPERATIONS)	2017-10-30	37.20	19.94	57.14
	2018-05-01	39.15	19.94	59.09
717 PIPEFITTERS . STEAMFITTERS	2017-10-30	41.60	19.61	61.21
	2018-05-01	43.40	19.61	63.01
719 PLUMBERS	2017-10-30	41.60	19.61	61.21
	2018-05-01	43.40	19.61	63.01
721 SHEET METAL WORKERS	2017-10-30	30.51	24.28	54.79
723 TERRAZZO WORKERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PRE VWAGE@STATE.MN.US			
724 TILE SETTERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PRE VWAGE@STATE.MN.US			
725 TILE FINISHERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PRE VWAGE@STATE.MN.US			
727 WIRING SYSTEM TECHNICIAN	2017-10-30	37.82	15.83	53.65

728	WIRING SYSTEMS INSTALLER	2017-10-30	26.49	13.23	39.72
729	ASBESTOS ABATEMENT WORKER	2017-10-30	29.95	18.03	47.98
730	SIGN ERECTOR	FOR RATE CALL 651-284-5091 OR EMAIL <u>DLI.PREVVAGE@STATE.MN.US</u>			

CITY OF DULUTH, MINNESOTA

IRVIN RELOCATION DESIGN

ST. LOUIS COUNTY
DULUTH, MINNESOTA



OWNERS

CITY OF DULUTH

ERIC BIRKELAND
PROJECT MANAGER
ERIKBIRKELAND@DULUTHMN.GOV
218.730.4435

DECC

CHELLY TOWNSEND
EXECUTIVE DIRECTOR
CTOWNSEND@DECC.ORG
218.623.1209

DESIGN TEAM

AMI CONSULTING ENGINEERS

91 MAIN STREET
SUPERIOR, WI 54880
715.718.2193

STRUCTURAL/ MARINE ENGINEER

CHASE DEWHIRST
CHASE.DEWHIRST@AMIENGINEERS.COM

BARR ENGINEERING

325 SOUTH LAKE AVE
DULUTH, MN 55802
218.529.8200

PERMITTING

JULIE A. KLOSS MOLINA
JKLOSSMOLINA@BARR.COM

SURVEY/LAYOUT INFORMATION:

COORDINATE SYSTEM: MN COUNTY COORDINATE SYSTEM
DATUM: ST. LOUIS TRANSVERSE MERCATOR 96
GEOID: G12B
BENCHMARK HELD: AA9913

GENERAL PROJECT NOTES:

1. BIDDER WILL VISIT THE SITE TO UNDERSTAND THE SCOPE OF WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ITEMS THAT COULD HAVE BEEN IDENTIFIED BY A SITE VISIT, STUDYING THE TOPOGRAPHIC & BATHYMETRIC SURVEYS, THOROUGHLY REVIEWING ALL PLANS AND REPORTS, AND ADDITIONAL INFORMATION REQUESTED FOR CLARIFICATION PRIOR TO BIDDING.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS PRIOR TO STARTING WORK.
3. EXISTING SHIP MEASUREMENT & TOPOGRAPHIC INFORMATION TAKEN FROM SURVEYS DATED 4/23/18 AND 5/7/18 RESPECTIVELY, BATHYMETRIC SURVEYS PRODUCED BY THE USACE. SUPPLEMENTAL INFORMATION GATHERED FROM SITE VISITS, RECORD DRAWINGS AND PLANS OBTAINED FROM CLIENT, ARE SHOWN AS APPROXIMATE LOCATIONS ONLY AND SHALL BE FIELD VERIFIED PRIOR TO OR DURING CONSTRUCTION. CONTACT ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED.
4. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE.
5. PROVIDE AND MAINTAIN TRAFFIC CONTROL DEVICES WHERE NECESSARY (INCIDENTAL). PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE CITY AND ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE WMUTCO, CURRENT ADDITION.
6. CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES.
7. ALL CONSTRUCTION WORK SHALL BE COMPLETED WITHIN CITY APPROVED WORKING HOURS.
8. INSTALL CONTROL FENCING AND BARRICADING AS NECESSARY TO PROTECT THE PUBLIC.

SHEET INDEX

COV	Cover Sheet
\$1.0	Plans & Sections
\$1.1	Existing ACOE Survey Info
\$2.0	Irvin Section 1+53
\$3.0	Irvin Section 2+65
\$4.0	Irvin Section 3+86
\$5.0	Irvin Section 4+82
\$6.0	MN Slip Ped. Bridge Survey
\$7.0	Dock Wall Details
\$8.0	Irvin Plan - Anchor & Mooring
\$8.1	Irvin Anchors & Mooring Photos

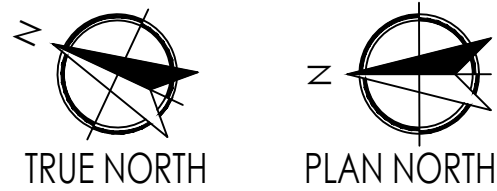
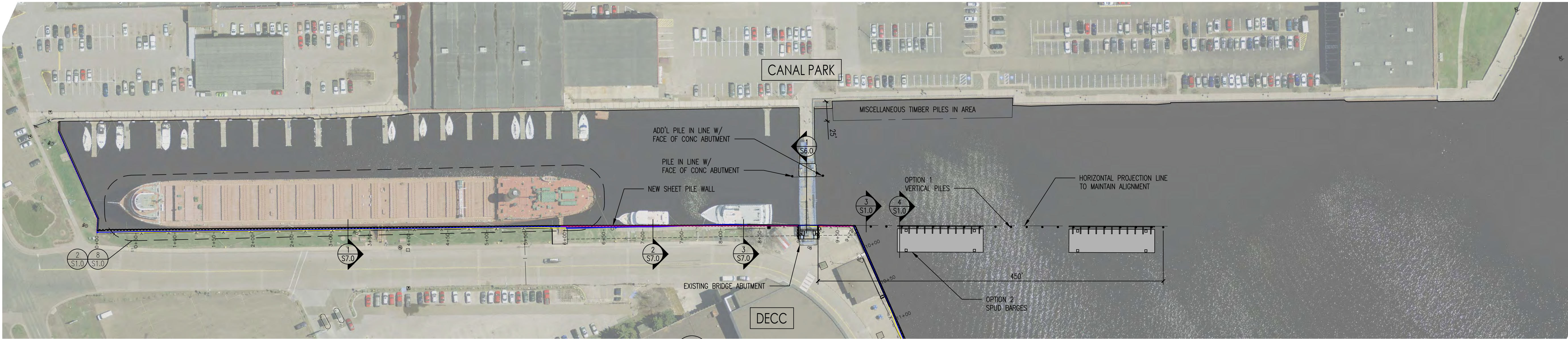


Know what's below.
Call before you dig.

GOVERNING SPECIFICATIONS

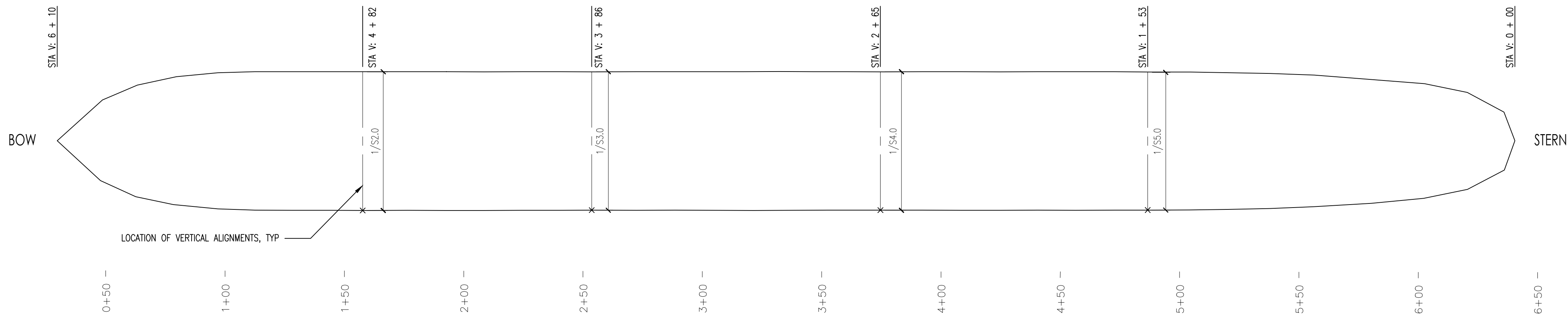
THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE 2017 VERSION OF THE DULUTH STANDARD CONSTRUCTION SPECIFICATIONS SHALL GOVERN.

THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN PROVIDED BY THE UTILITY OWNER, ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING CONSTRUCTION PER STATE LAW.

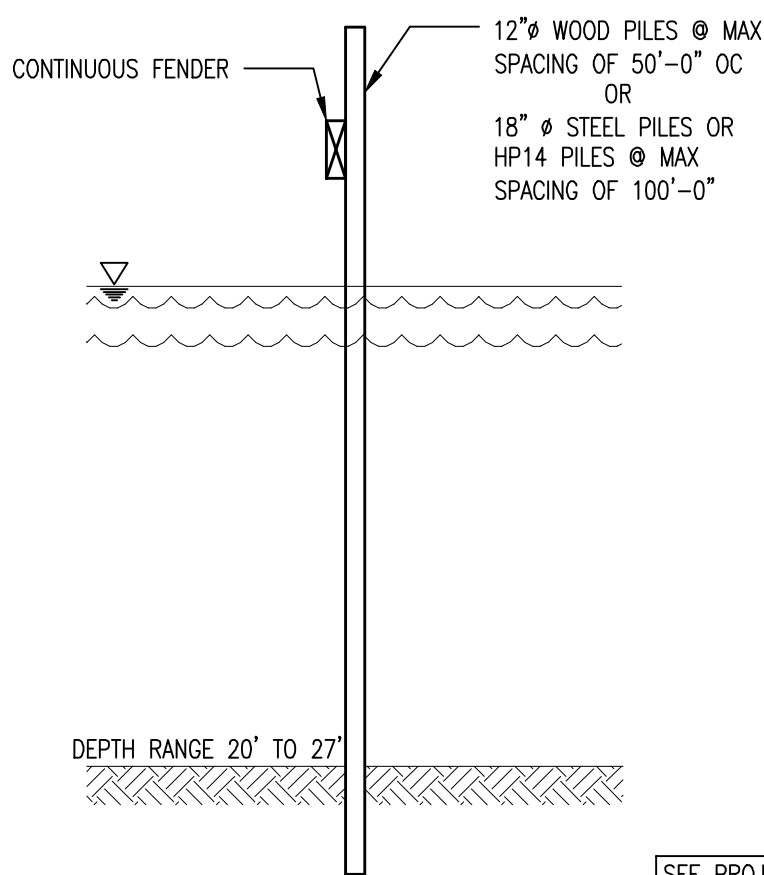


1 Minnesota Slip - Plan
SCALE: 1" = 70' - 0" ON 22" X 34" PLOT
1. REFER TO MN SLIP PEDESTRIAN BRIDGE HISTORICAL DRAWINGS FOR DETAILS ON BRIDGE FOUNDATION BETWEEN STA 9+00 & 9+25
2. SEE SHEET S1.1 FOR DETAILED BATHYMETRIC INFORMATION ON DULUTH - SUPERIOR HARBOR

TEMPORARY GUIDE WALL MAY BE LEFT IN PLACE DURING THE WINTER. CONTRACTOR IS RESPONSIBLE FOR COORDINATING NAVIGATION REQUIREMENTS WITH USCG & RE-VERIFICATION OF ALIGNMENT PRIOR TO THE IRVIN MOVE IN THE SPRING OF 2019.

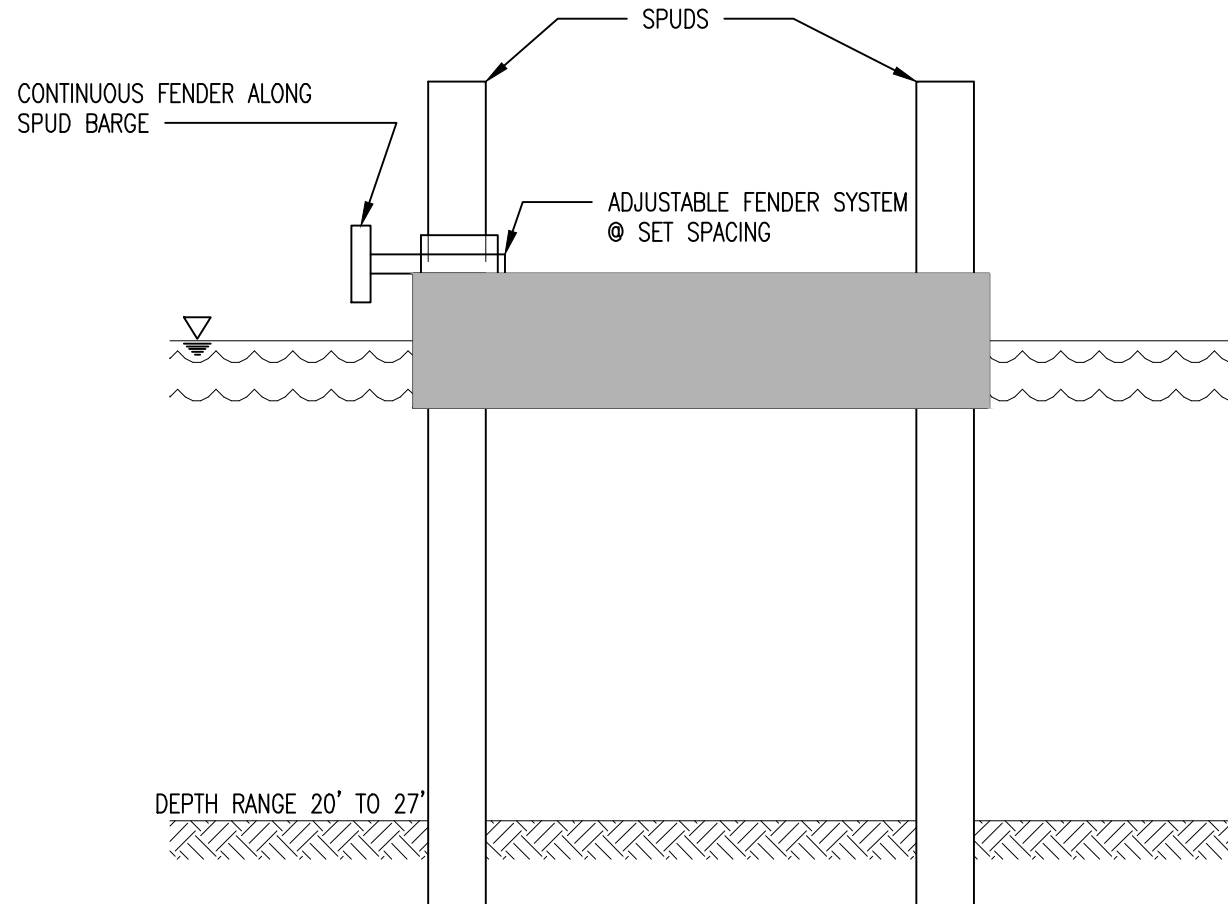


2 S.S. William A. Irvin - Plan
SCALE: 1" = 30' - 0" ON 22" X 34" PLOT



3 Option 1 - Vertical Piles
SCALE: 1" = 10' - 0" ON 22" X 34" PLOT

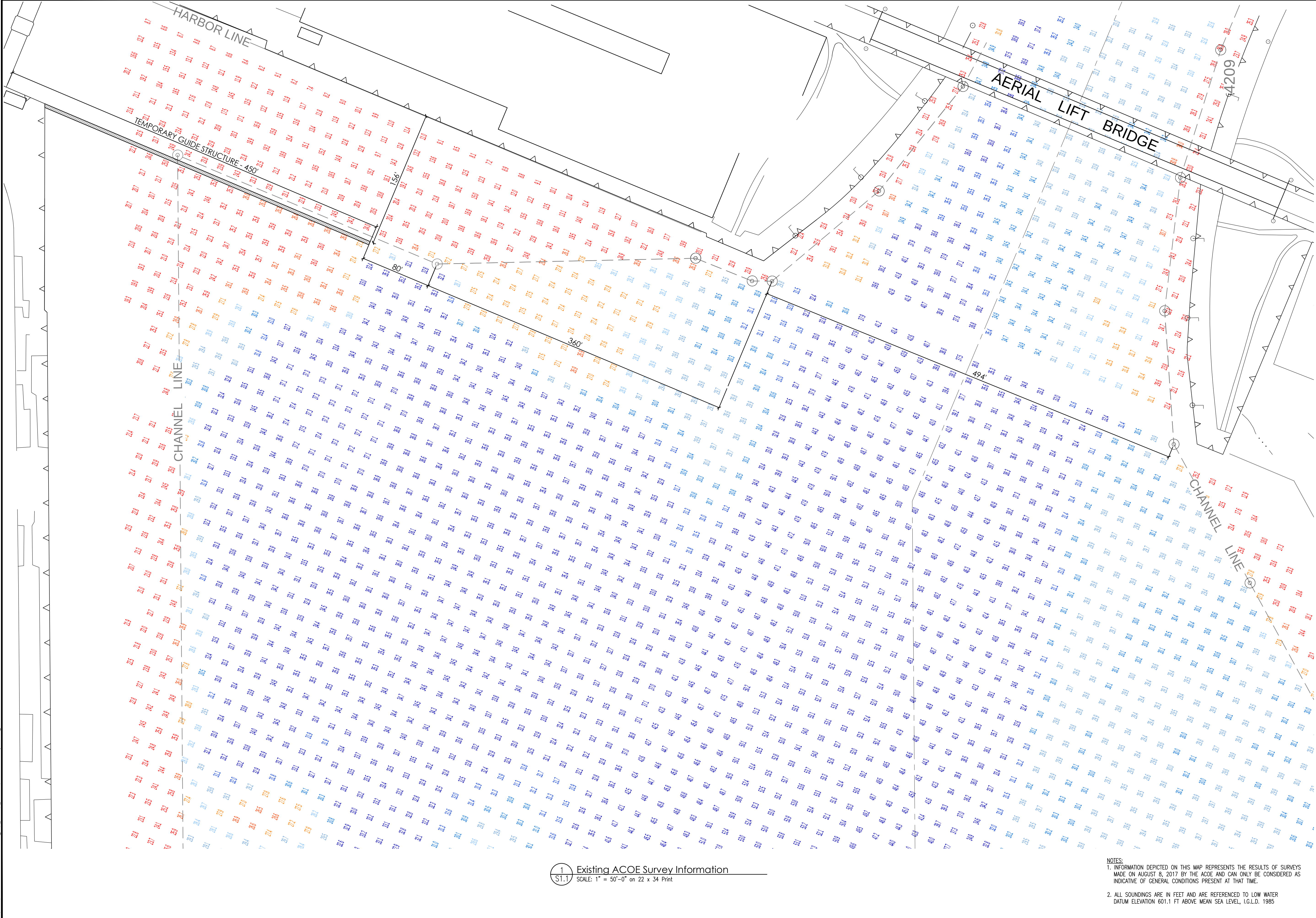
SEE PROJECT SPECIFICATIONS FOR MAX OVERALL DEFLECTION OF STRUCTURAL COMPONENTS OF GUIDE WALL



4 Option 2 - Spud Barges
SCALE: 1" = 10' - 0" ON 22" X 34" PLOT

SEE PROJECT SPECIFICATIONS FOR MAX OVERALL DEFLECTION OF STRUCTURAL COMPONENTS OF GUIDE WALL

MAX VELOCITY OF VESSEL DURING MOVEMENT = 1FT PER EVERY 4 SECONDS
MAX SUSTAINED WIND SPEED = 5 MPH
MAX WIND GUST SPEED = 10 MPH
MAX WAVE HEIGHT = 6 INCHES
MAX CURRENT = 0.5 FT / SEC



1 Existing ACOE Survey Information
S1.1 SCALE: 1" = 50'-0" on 22 x 34 Print

NOTES:
1. INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON AUGUST 8, 2017 BY THE ACOE AND CAN ONLY BE CONSIDERED AS INDICATIVE OF GENERAL CONDITIONS PRESENT AT THAT TIME.
2. ALL SOUNDINGS ARE IN FEET AND ARE REFERENCED TO LOW WATER DATUM ELEVATION 601.1 FT ABOVE MEAN SEA LEVEL, I.G.L.D. 1985

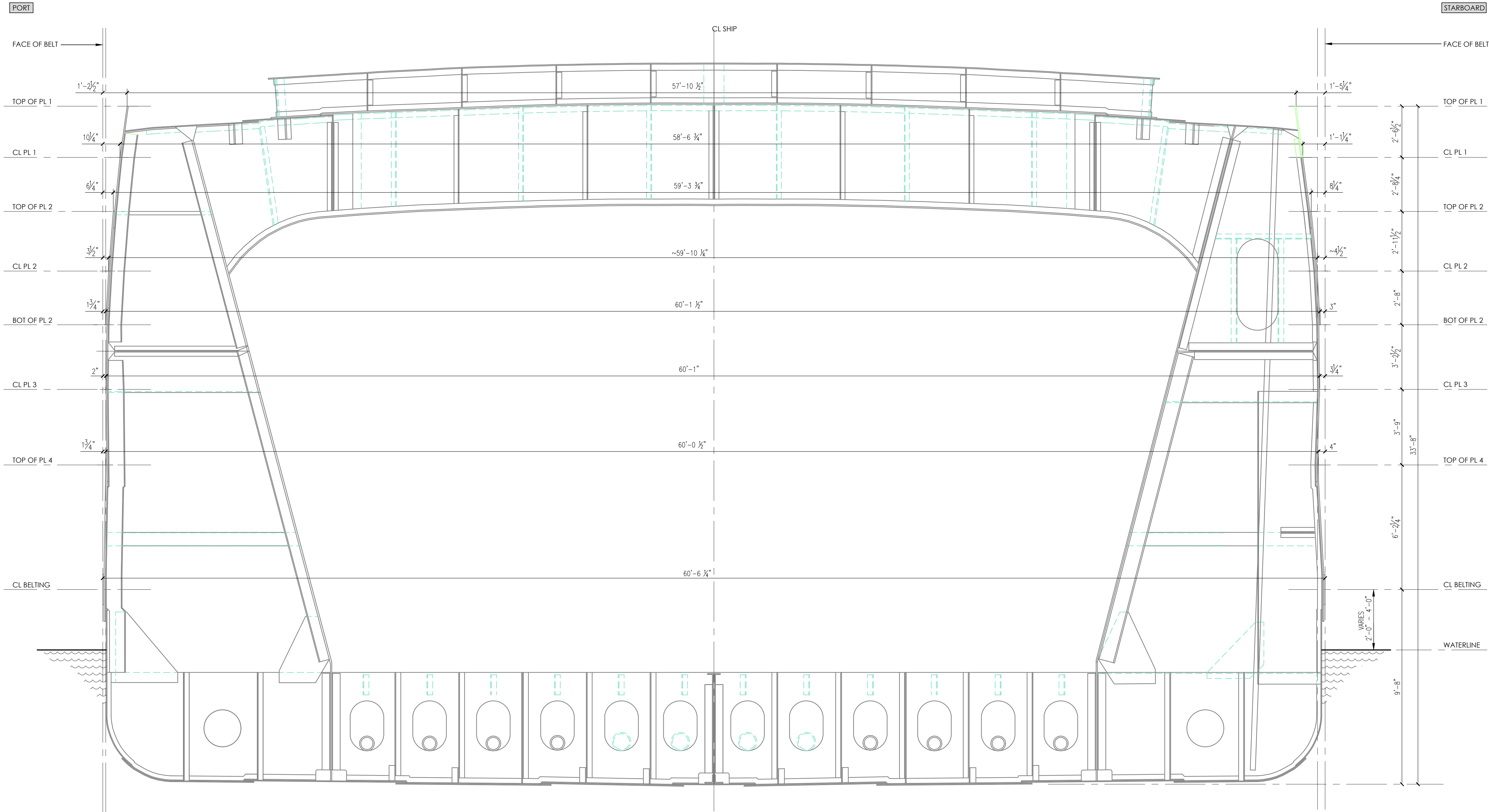
DATE:	REV:	DESCRIPTION	REV. BY:

Irvin Relocation Design
City of Duluth
350 Harbor Drive
Duluth, Minnesota

Existing ACOE Survey Information

JOB No: 181078
DATE: 7/19/18
DRAWN BY: SAJ
DESIGNED BY: CAD

SHEET:
S1.1



1
S2.0 IRVIN SECTION AT STA V: 1 + 53
3/8" = 1'-0" (24 X 36 PLOT)

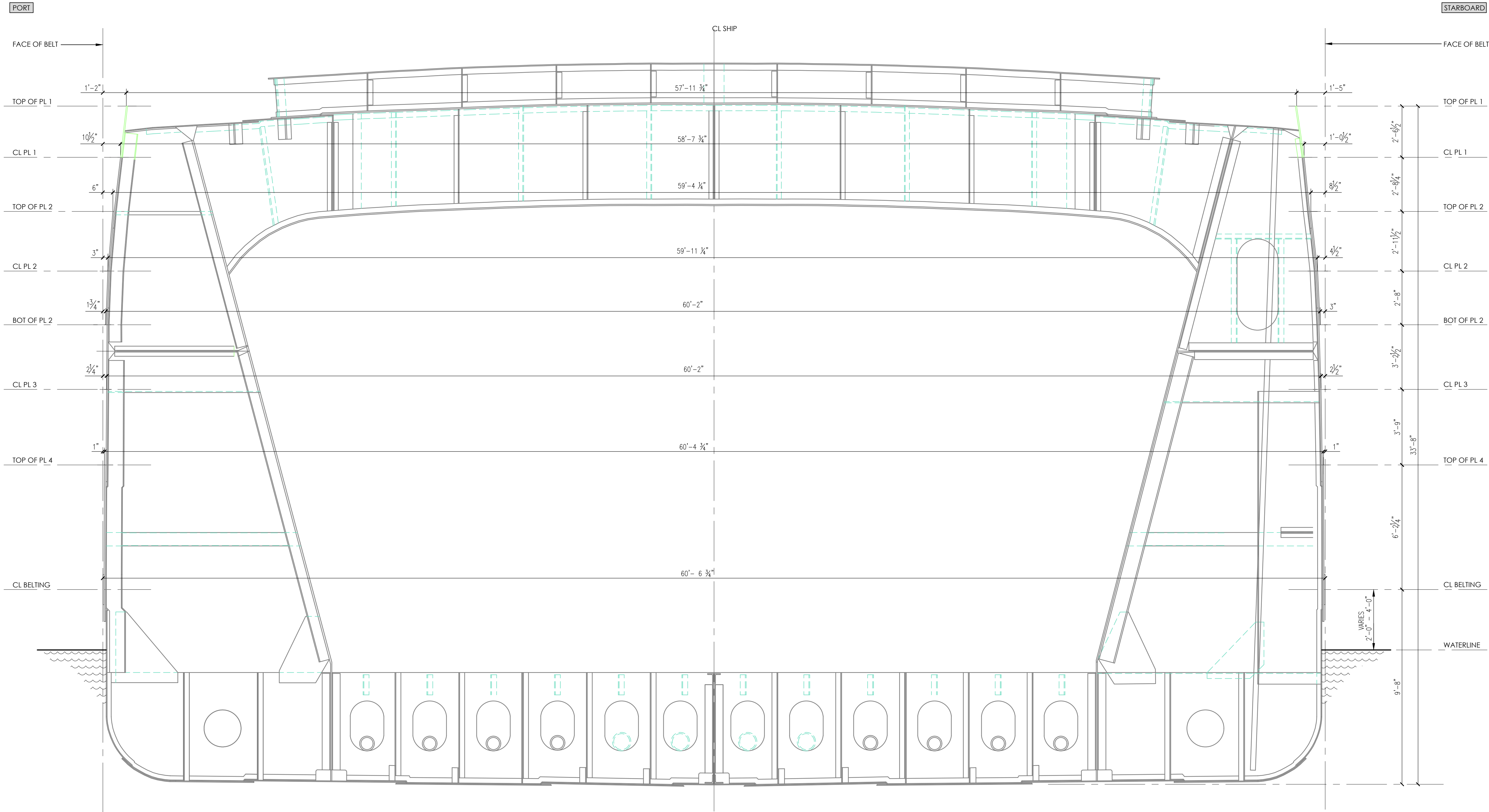
- NOTES:
1. STATIONING BEGINS AT THE STERN OF THE IRVIN AT THE EXTREME MEASUREMENT OF TOP OF PLATE 1. SEE 2/S1.0.
 2. ALL MEASUREMENTS HAVE AN ACCURACY OF 1"±.

REV. BY:					
DESCRIPTION					
REV:					
DATE:					

Irvin Relocation Design
City of Duluth
350 Harbor Drive
Duluth, Minnesota
Irvin Section at Sta 1 + 53
Section 1

JOB No: 181078
DATE: 07.10.18
DRAWN BY: DLB
DESIGNED BY: CAD

SHEET:
S2.0



1
S3.0 IRVIN SECTION AT STA V: 2 + 65
3/8" = 1'-0" (24 X 36 PLOT)

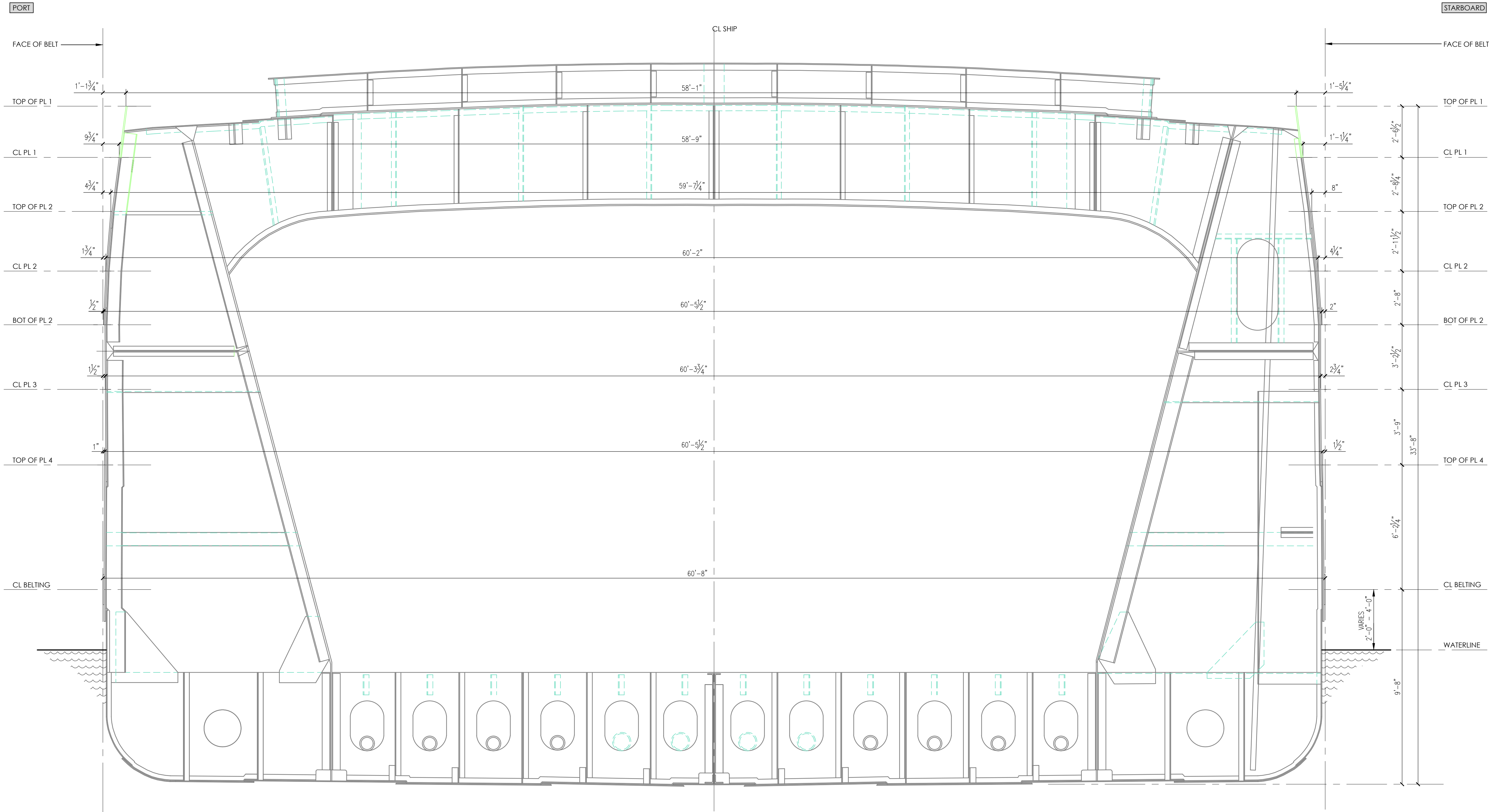
- NOTES:
1. STATIONING BEGINS AT THE STERN OF THE IRVIN AT THE EXTREME MEASUREMENT OF TOP OF PLATE 1. SEE 2/S1.0.
2. ALL MEASUREMENTS HAVE AN ACCURACY OF 1"±.

REV. BY:					
DESCRIPTION					
REV:					
DATE:					

Irvin Relocation Design
City of Duluth
350 Harbor Drive
Duluth, Minnesota
Irvin Section at Sta 2 + 65
Section 2

JOB No: 181078
DATE: 07.10.18
DRAWN BY: DLB
DESIGNED BY: CAD

SHEET:
S3.0



1
S4.0 IRVIN SECTION AT STA V: 3 + 86
3/8\" = 1'-0\" (24 X 36 PLOT)

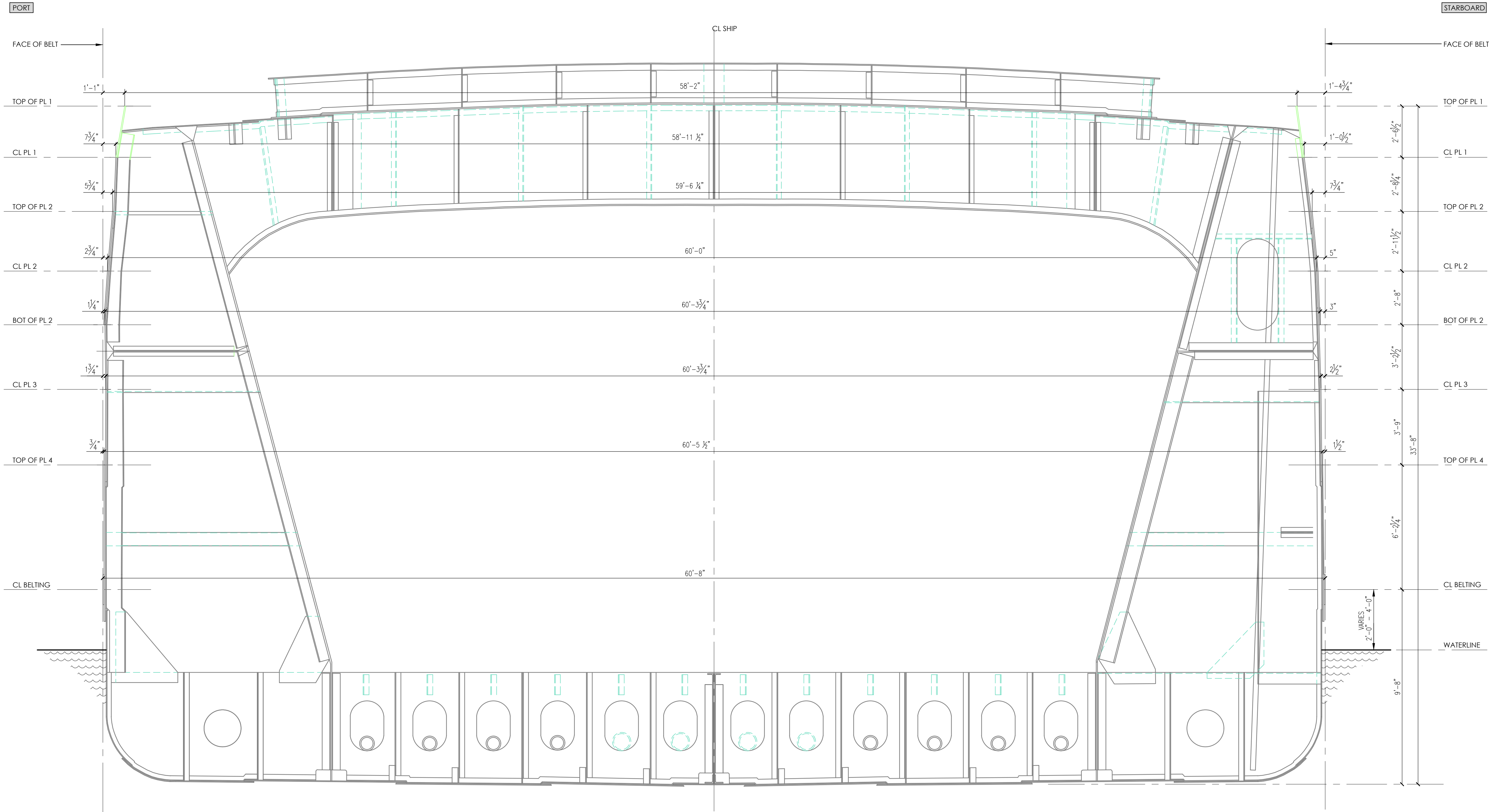
- NOTES:
1. STATIONING BEGINS AT THE STERN OF THE IRVIN AT THE EXTREME MEASUREMENT OF TOP OF PLATE 1. SEE 2/S1.0.
2. ALL MEASUREMENTS HAVE AN ACCURACY OF 1\"±.

REV. BY:					
DESCRIPTION					
REV:					
DATE:					

Irvin Relocation Design
City of Duluth
350 Harbor Drive
Duluth, Minnesota
Irvin Section at Sta 3 + 86
Section 3

JOB No: 181078
DATE: 07.10.18
DRAWN BY: DLB
DESIGNED BY: CAD

SHEET:
S4.0



1
S5.0 IRVIN SECTION AT STA V: 4 + 85
3/8" = 1'-0" (24 X 36 PLOT)

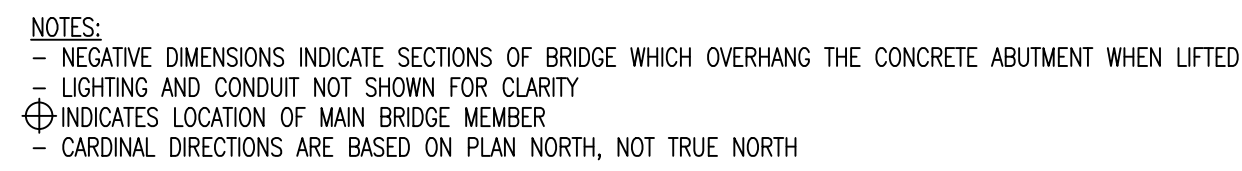
- NOTES:
1. STATIONING BEGINS AT THE STERN OF THE IRVIN AT THE EXTREME MEASUREMENT OF TOP OF PLATE 1. SEE 2/S1.0.
 2. ALL MEASUREMENTS HAVE AN ACCURACY OF 1"±.

REV. BY:					
DESCRIPTION					
REV:					
DATE:					

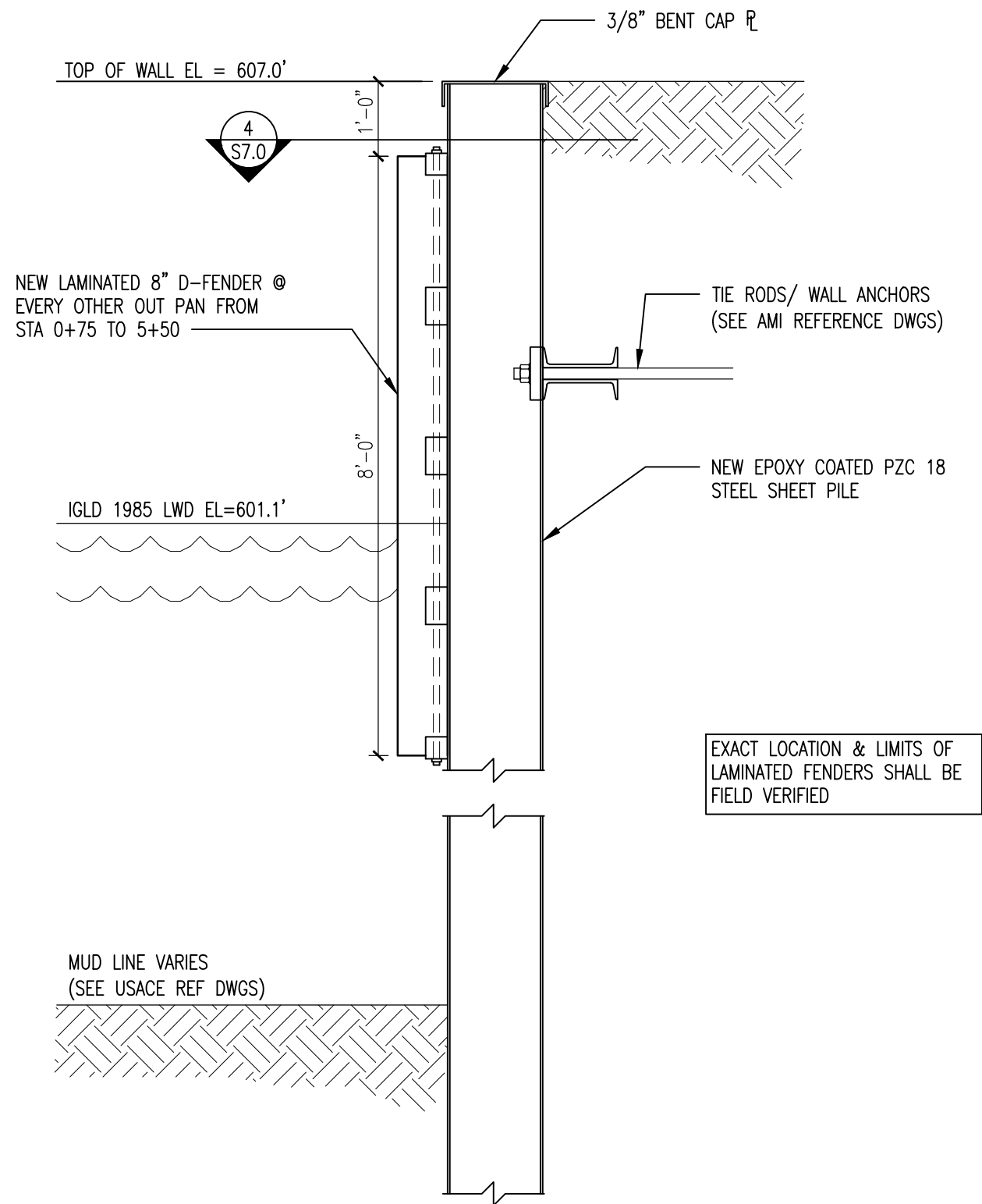
Irvin Relocation Design
City of Duluth
350 Harbor Drive
Duluth, Minnesota
Irvin Section at Sta 4 + 82
Section 4

JOB No: 181078
DATE: 07.10.18
DRAWN BY: DLB
DESIGNED BY: CAD

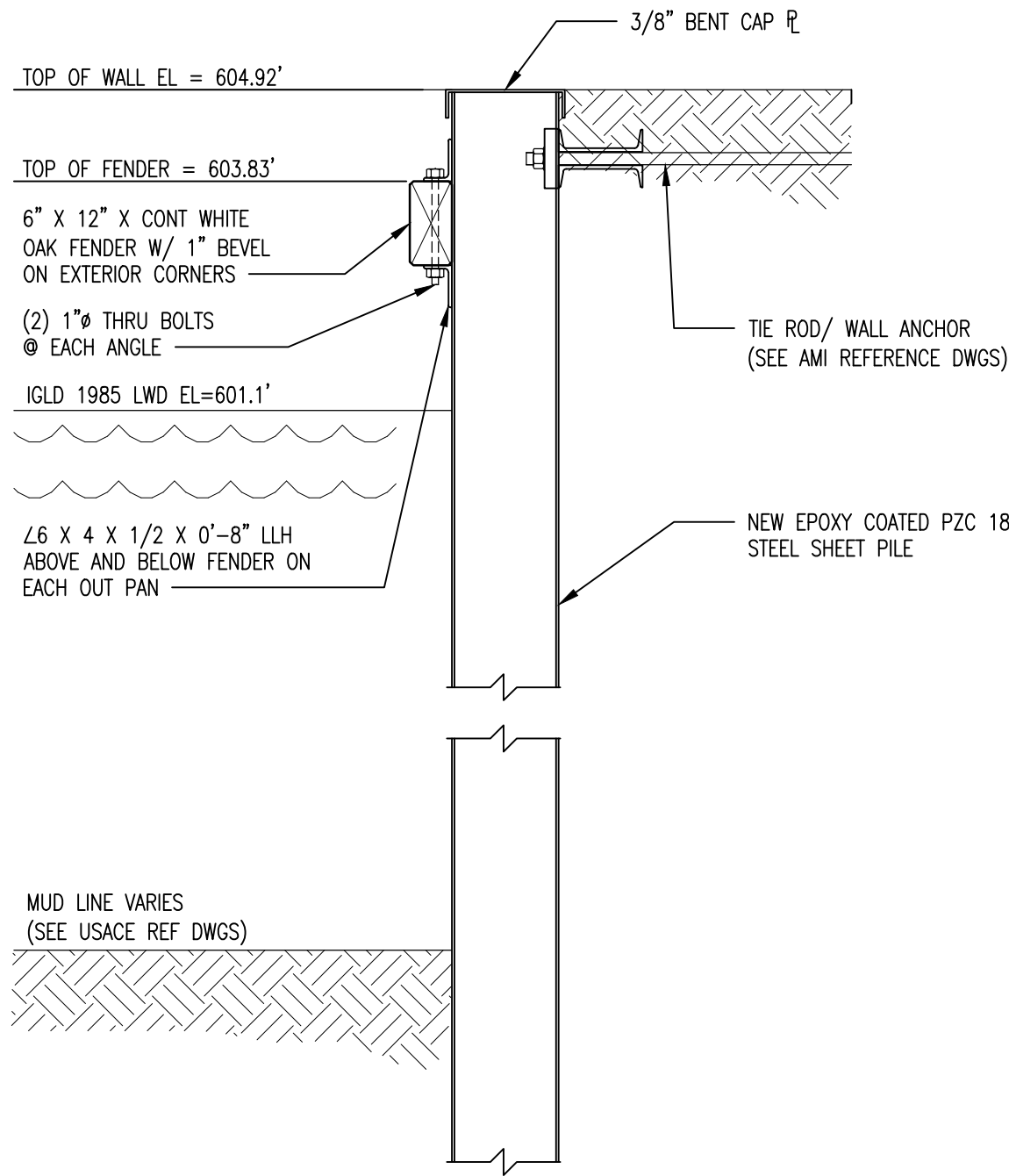
SHEET:
S5.0



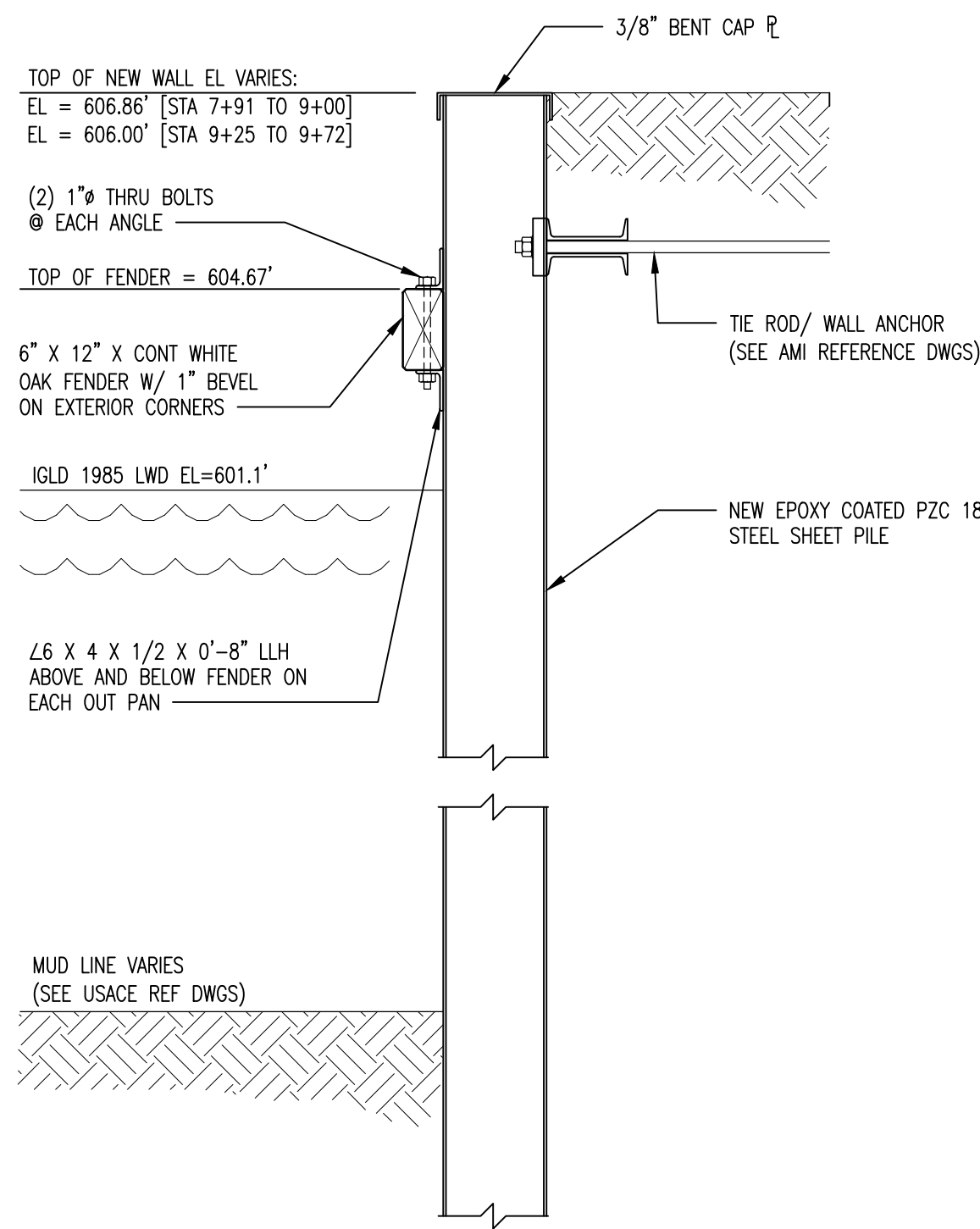
THE CITY OF DULUTH WILL PARTIALLY DISASSEMBLE THE BRIDGE ON THE CANAL PARK (EAST) SIDE SO THAT ALL COMPONENTS ARE BEHIND OR INLINE WITH THE FACE OF THE CONCRETE ABUTMENT. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THIS CONDITION PRIOR TO IRVIN MOVE.



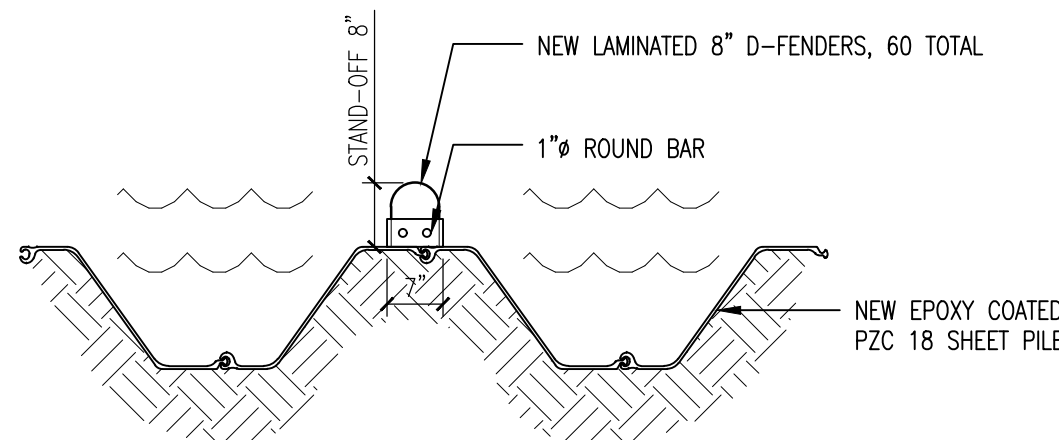
1
S7.0
Typical Dock Wall - STA 0 + 00 TO 6 + 65
SCALE: 1/2" = 1' - 0"



2
S7.0
Typical Dock Wall - STA 6 + 65 TO 7 + 91
SCALE: 1/2" = 1' - 0"



3
S7.0
Typical Dock Wall - STA 7 + 91 TO 9 + 00 & 9 + 25 TO 9 + 72
SCALE: 1/2" = 1' - 0"
1. REFER TO MN SLIP PEDESTRIAN BRIDGE HISTORICAL DRAWINGS FOR DETAILS ON BRIDGE FOUNDATION BETWEEN STATION 9+00 AND 9+25



4
S7.0
Typical Dock Wall Plan - STA 0 + 00 TO 6 + 65
SCALE: 1/2" = 1' - 0"

REV. BY:					
DESCRIPTION					
REV:					
DATE:					

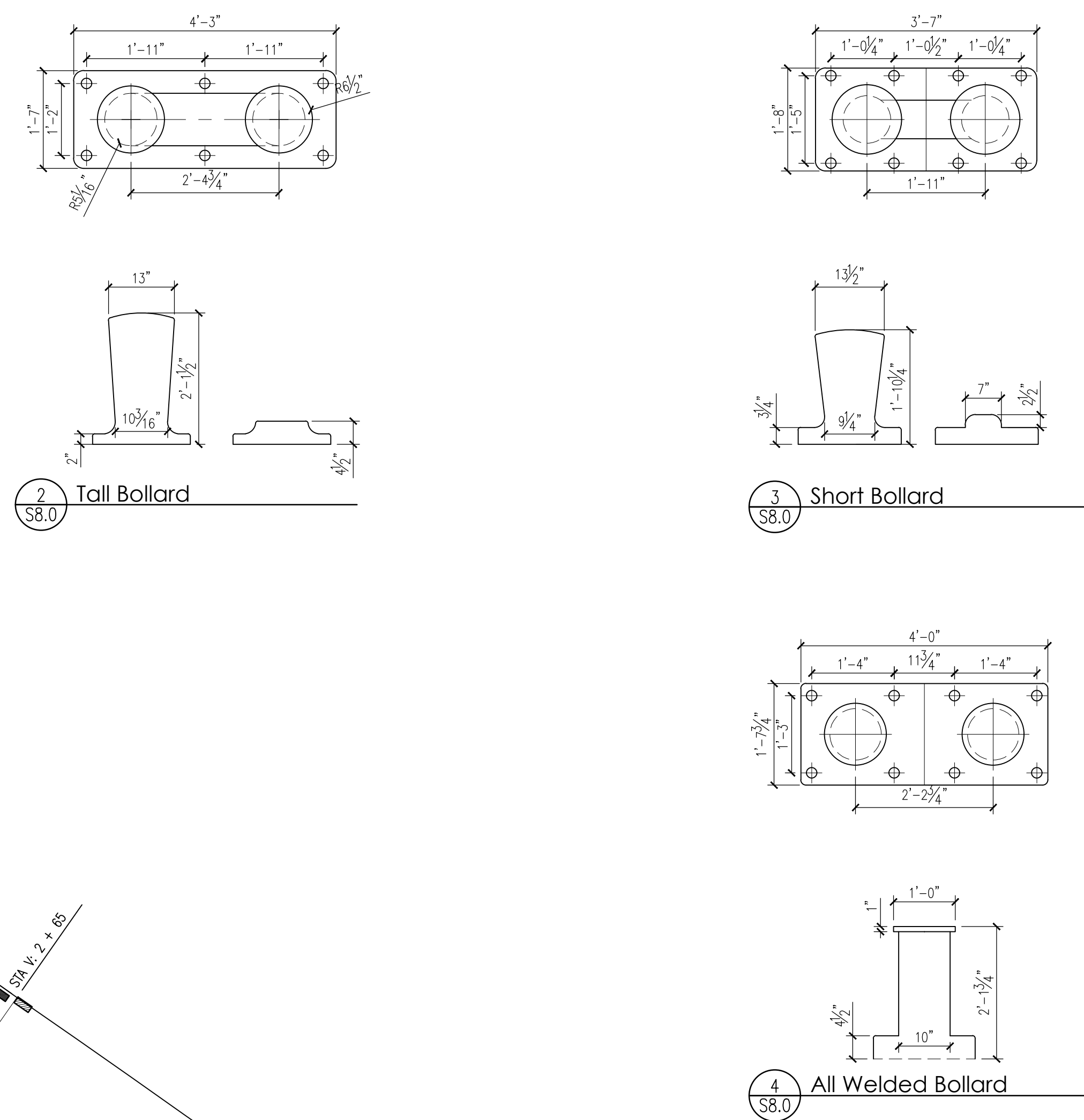
Irvin Relocation Design
City of Duluth
350 Harbor Drive
Duluth, Minnesota

Dock Wall Details

JOB No: 181078
DATE: 07.10.18
DRAWN BY: SAJ
DESIGNED BY: CAD

SHEET:

S7.0



1 Irvin Plan - Anchors & Mooring
S8.0 SCALE: 1" = 25' - 0"

[illegible]

Irvin Relocation Design
City of Duluth
350 Harbor Drive
Duluth, Minnesota

Irvin Plan - Anchors & Mooring

JOB No: 181078
DATE: 07.10.18
DRAWN BY: SAJ
DESIGNED BY: CWS

SHEET:
\$8.0

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7/10/2018 3:08 PM
2/3/2018 18:078 Irvin Relocation Design's, CADD, L. Marini, S.D. Irvin, Temp Location.dwg



PHOTO 1

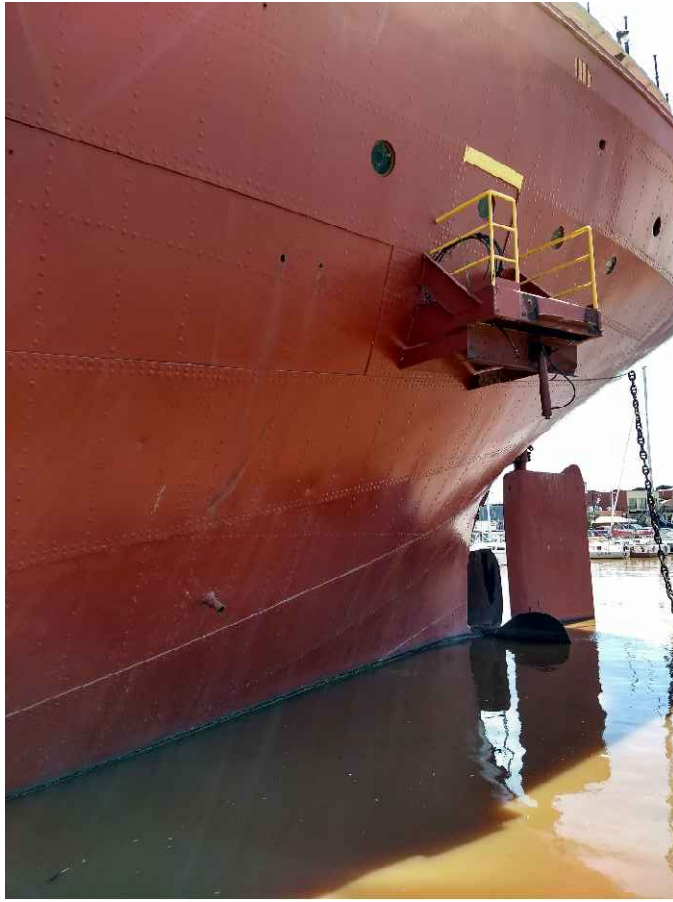


PHOTO 2

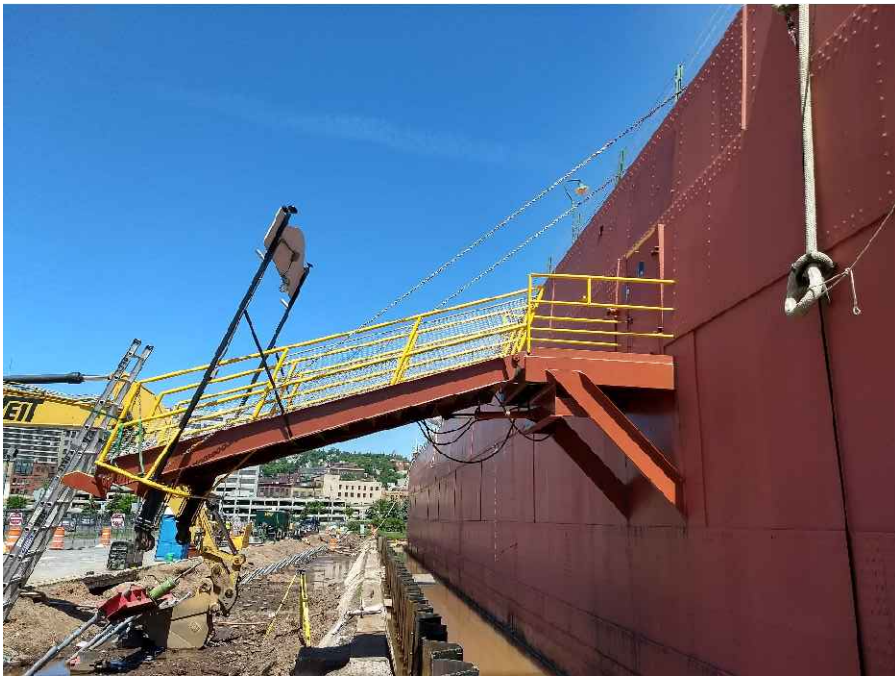


PHOTO 3



PHOTO 4



PHOTO 5



PHOTO 6



PHOTO 7

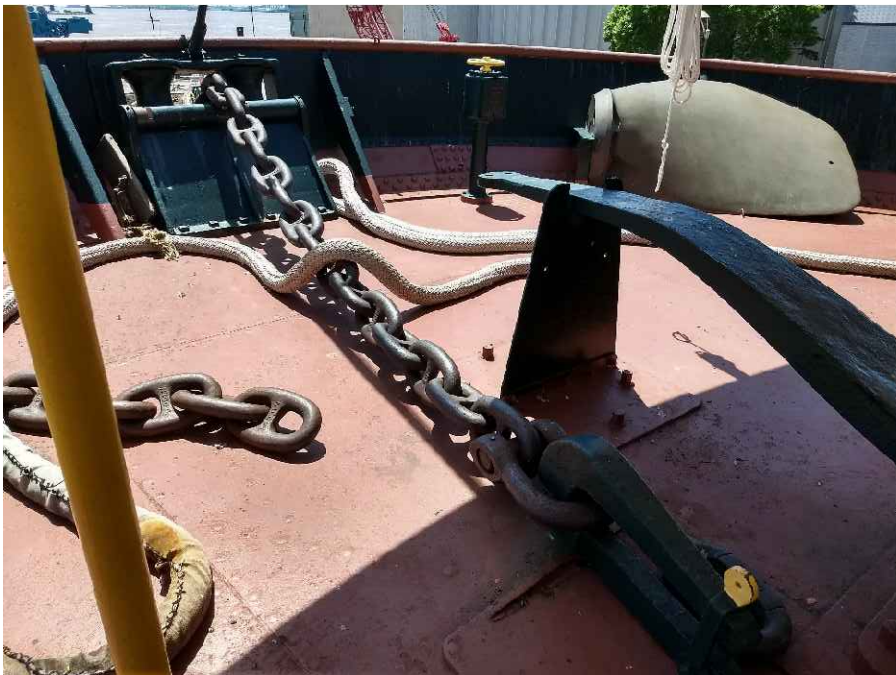


PHOTO 8



PHOTO 9

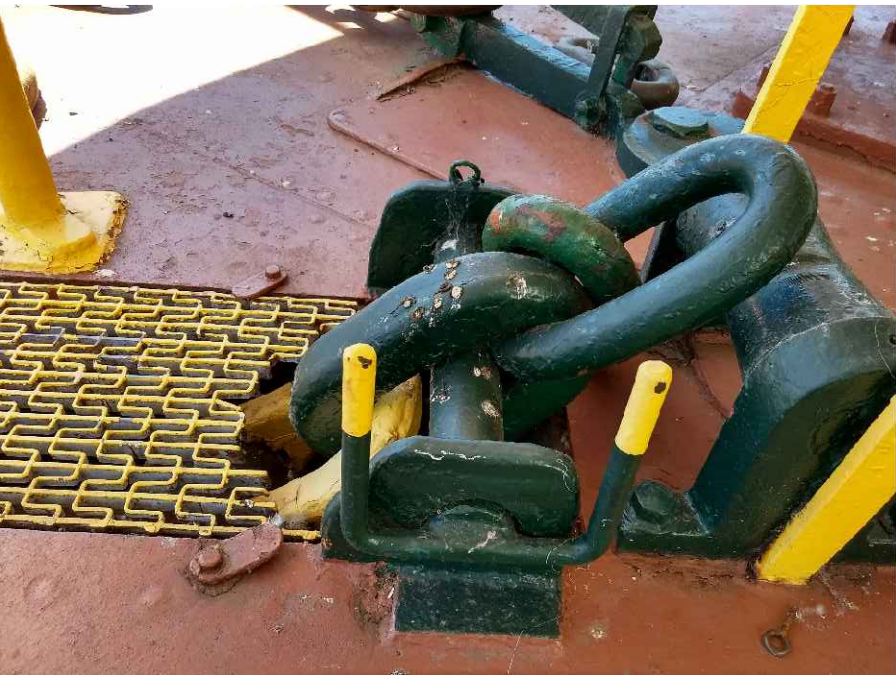


PHOTO 10



PHOTO 11



PHOTO 12



PHOTO 13



PHOTO 14



PHOTO 15



PHOTO 16

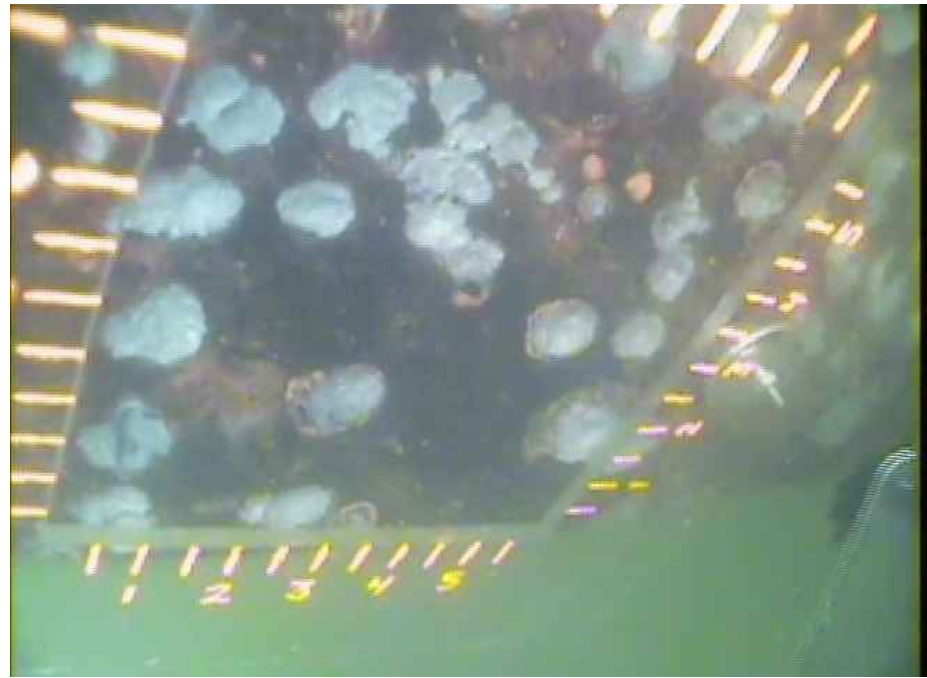


PHOTO 17



PHOTO 18



PHOTO 19



Consulting Engineers P.A.
91 Main Street SUPERIOR, WI
715.718.2193 - amingeners.com
TWIN CITIES - IRON RANGE

REV.	BY:

DATE	REV.	DESCRIPTION

Irvin Relocation Design
City of Duluth
350 Harbor Drive
Duluth, Minnesota

Irvin Anchors & Mooring Photos

JOB No: 181078
DATE: 07.10.18
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DESIGNED BY: CWS

SHEET:
S8.1