

PORT OF TACOMA

PIER 4 PHASE 2 RECONFIGURATION PROJECT NO. - 091251 CONTRACT NO. - 070136

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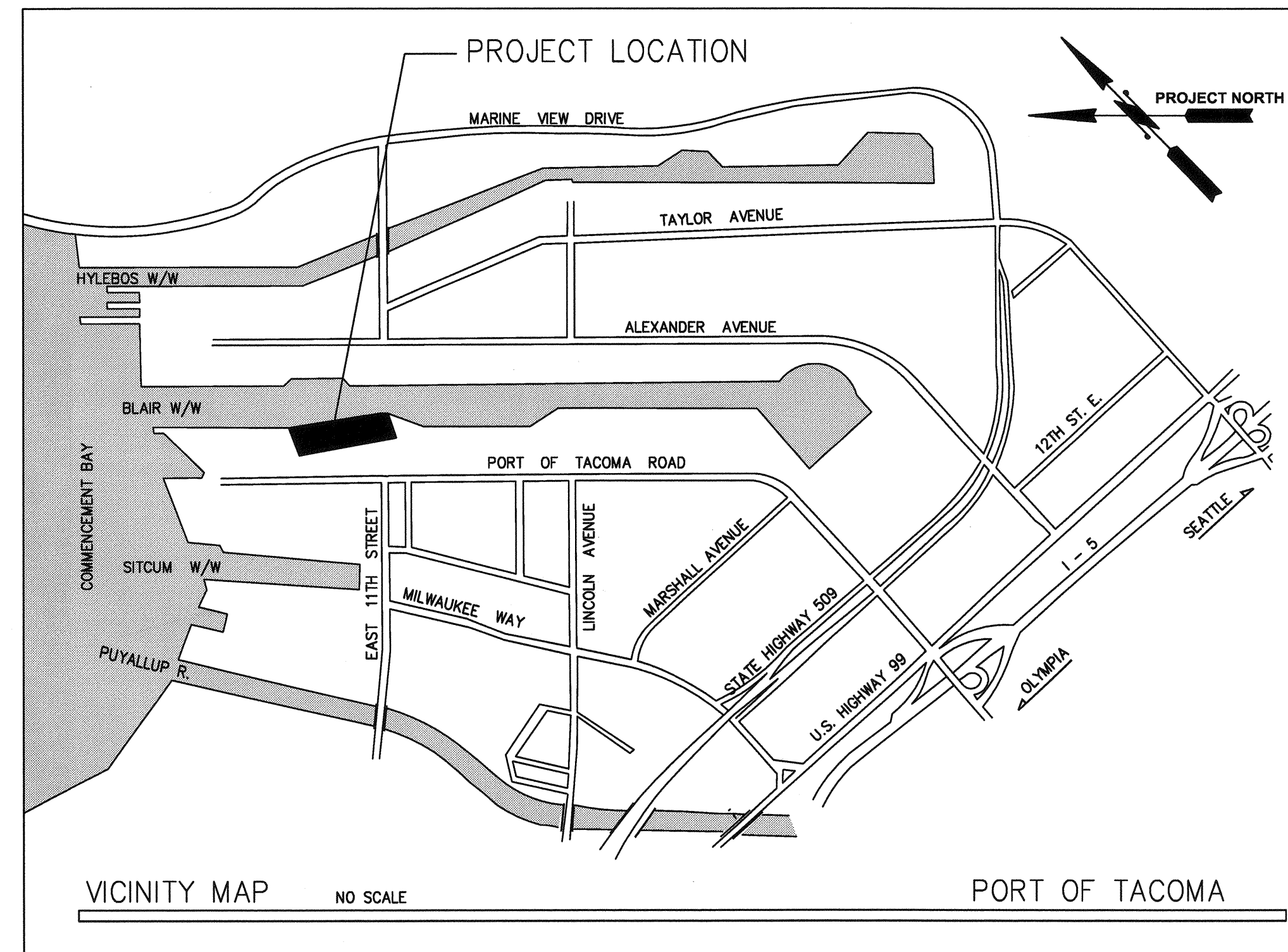
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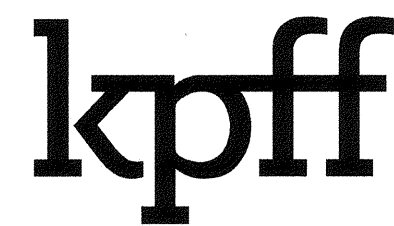
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APPROVED: <i>John Wolfe</i> 3-28-16	PROJ. ENGR DATE: _____
DIRECTOR ENGR. DATE: 3-28-16	PRINTED BY: gcmr Mar 24, 2016
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	DRAWING SCALE: AS NOTED
PIER 4 PHASE 2 RECONFIGURATION COVER SHEET	SECTION: _____ RANGE: _____ VERT: _____ TOWNSHIP: _____ DAT-HRZ: WA83-SF PARCEL: _____
6552 G1.1 SH 1 OF 499	CONT/CONS: 070136 M. ID: 091251 PHASE: BID

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6552
G2.1
SH 2 OF 499

**PIER 4 PHASE 2
RECONFIGURATION
SHEET INDEX - SHEET 1**

CONTR/CONS: 070136
M. ID: 091251
PHASE: BID

RANGE: M.L.W. 19.39' @ Tide 22 1933
VERT: WA83-SF

SECTION: AS NOTED

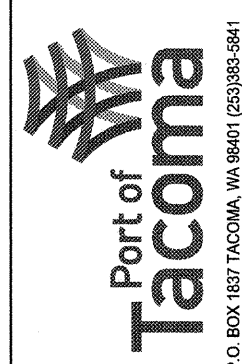
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SHEET #	SHEET DESIGNATION	SHEET TITLE
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301	S27.8	DECK PANEL DETAILS - SHEET 8
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303	S27.10	DECK PANEL DETAILS - SHEET 10
304	S27.11	DECK PANEL DETAILS - SHEET 11
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SHEET #	SHEET DESIGNATION	SHEET TITLE
PIER STRUCTURAL - CONTINUED		
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308	S27.15	DECK PANEL DETAILS - SHEET 15
309	S27.16	DECK PANEL DETAILS - SHEET 16
310	S27.16A	DECK PANEL DETAILS - SHEET 16A
311	S27.17	DECK PANEL DETAILS - SHEET 17
312	S27.18	DECK PANEL DETAILS - SHEET 18
313	S27.19	DECK PANEL DETAILS - SHEET 19
314	S27.20	DECK PANEL DETAILS - SHEET 20
315	S27.21	DECK PANEL DETAILS - SHEET 21
316	S27.22	DECK PANEL DETAILS - SHEET 22
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318	S27.23A	DECK PANEL DETAILS - SHEET 23A
319	S27.24	DECK PANEL DETAILS - SHEET 24
320	S27.25	DECK PANEL DETAILS - SHEET 25
321	S27.26	DECK PANEL DETAILS - SHEET 26
322	S27.27	DECK PANEL DETAILS - SHEET 27
323	S27.28	DECK PANEL DETAILS - SHEET 28
324	S27.29	DECK PANEL DETAILS - SHEET 29
325	S27.30	DECK PANEL DETAILS - SHEET 30
326	S27.31	DECK PANEL DETAILS - SHEET 31
327	S27.32	DECK PANEL DETAILS - SHEET 32
328	S27.33	DECK PANEL DETAILS - SHEET 33
329	S27.34	DECK PANEL DETAILS - SHEET 34
330	S27.35	DECK PANEL DETAILS - SHEET 35
331	S27.36	DECK PANEL DETAILS - SHEET 36
332	S27.37	DECK PANEL DETAILS - SHEET 37
333	S27.38	DECK PANEL DETAILS - SHEET 38
334	S27.39	DECK PANEL DETAILS - SHEET 39
335	S27.40	DECK PANEL DETAILS - SHEET 40
336	S27.41	DECK PANEL DETAILS - SHEET 41
337	S27.42	DECK PANEL DETAILS - SHEET 42
338	S27.43	DECK PANEL DETAILS - SHEET 43
339	S27.44	DECK PANEL DETAILS - SHEET 44
340	S27.45	DECK PANEL DETAILS - SHEET 45
341	S27.46	DECK PANEL DETAILS - SHEET 46
342	S27.47	DECK PANEL DETAILS - SHEET 47
343	S27.48	DECK PANEL DETAILS - SHEET 48
344	S27.49	DECK PANEL DETAILS - SHEET 49
345	S27.50	DECK PANEL DETAILS - SHEET 50
346	S27.51	DECK PANEL DETAILS - SHEET 51
347	S27.52	DECK PANEL DETAILS - SHEET 52
348	S27.53	DECK PANEL DETAILS - SHEET 53
349	S27.54	DECK PANEL DETAILS - SHEET 54
350	S27.55	DECK PANEL DETAILS - SHEET 55
351	S27.56	DECK PANEL DETAILS - SHEET 56
352	S28.1	CRANE RAIL ISOLATION JOINT DETAILS - SHEET 1
353	S28.2	CRANE RAIL ISOLATION JOINT DETAILS - SHEET 2
354	S29.1	WATER VAULT AT PIER 3 TO PIER 4 TRANSITION



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kpff



APPROVED: *J. Carey*

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PROJ. ENGR: _____

DATE: _____

PRINTED BY: jcarey

DATE: Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

PIER 4 PHASE 2
RECONFIGURATION
SHEET INDEX - SHEET 2

6552
SH 3 OF 489
G2.2

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

TOWNSHIP: _____

RANGE: _____

SECTION: _____

DATE-HRZ: WA83-SF

VERT: M.L.W. 19.39' @ Tide 22 1933

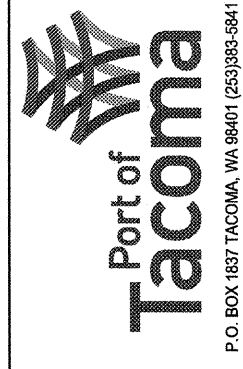
DRAWING SCALE: AS NOTED

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SHEET #	SHEET DESIGNATION	SHEET TITLE
PIER STRUCTURAL - CONTINUED		
355	S30.1	SHORE POWER VAULT DETAILS - SHEET 1
356	S30.2	SHORE POWER VAULT DETAILS - SHEET 2
357	S31.1	CRANE POWER VAULT DETAILS - SHEET 1
358	S31.2	CRANE POWER VAULT DETAILS - SHEET 2
359	S31.3	CRANE POWER VAULT DETAILS - SHEET 3
360	S31.4	CRANE POWER VAULT DETAILS - SHEET 4
361	S31.5	CRANE POWER VAULT DETAILS - SHEET 5
362	S31.6	CRANE POWER VAULT DETAILS - SHEET 6
363	S31.7	FIBER OPTIC VAULT DETAILS
364	S32.1	CRANE CABLE SLOT DETAILS
365	S33.1	BULLRAIL UTILITY VAULT DETAILS
366	S34.1	CRANE PIN SOCKET DETAILS
367	S35.1	CRANE TIE-DOWN DETAILS - SHEET 1
368	S35.2	CRANE TIE-DOWN DETAILS - SHEET 2
369	S36.1	CRANE STOP DETAILS
370	S37.1	MISCELLANEOUS STEEL DETAILS
371	S37.2	LEAD RUBBER BEARING DETAILS
372	S38.1	BOLLARD DETAILS - PIER BOLLARD TYPE 1
373	S38.2	BOLLARD DETAILS - PIER BOLLARD TYPE 2
374	S38.3	BOLLARD DETAILS - PIER DOUBLE BITT BOLLARD
375	S38.4	BOLLARD DETAILS - MOORING DOLPHIN BOLLARD
376	S39.1	FENDER SYSTEM DETAILS
377	S40.1	CRANE RAIL DETAILS - SHEET 1
378	S40.2	CRANE RAIL DETAILS - SHEET 2
379	S41.1	STEEL SHEET PILE DETAILS
380	S42.1	MOORING DOLPHIN DETAILS
381	S43.1	GANGWAY PLATFORM PLAN AND DETAILS
382	S43.2	GANGWAY PLATFORM SECTIONS AND DETAILS
383	S43.3	GANGWAY PLATFORM DETAILS
384	S44.1	STRUCTURAL REPAIR PLANS - SHEET 1
385	S44.2	STRUCTURAL REPAIR PLANS - SHEET 2
386	S44.3	STRUCTURAL REPAIR DETAILS
387	S45.1	HIGH-MAST LIGHT POLE FOUNDATION DETAILS

SHEET #	SHEET DESIGNATION	SHEET TITLE
MARINE BUILDING SET		
388	G1.00	COVER SHEET
389	G2.00	SHEET INDEX
390	G2.01	GENERAL NOTES AND SYMBOLS
391	G2.02	ABBREVIATIONS
392	G2.03	MOUNTING HEIGHT NOTES
393	G3.01	OCCUPANCY TYPES AND LOADS
394	G3.02	BUILDING CODE, FIRE AND LIFE SAFETY SUMMARY
395	G3.03	BUILDING CODE, FIRE AND LIFE SAFETY SUMMARY
396	G3.04	BUILDING CODE, FIRE AND LIFE SAFETY SUMMARY
397	G3.05	BUILDING CODE, FIRE AND LIFE SAFETY SUMMARY
398	G4.01	3D VIEWS
399	A1.01	ENLARGED ARCHITECTURAL / CODE SITE PLAN
400	A2.01	FLOOR PLANS
401	A2.02	DIMENSION PLANS
402	A2.10	ENLARGED FLOOR PLANS
403	A3.01	ROOF PLAN
404	A4.01	REFLECTED CEILING PLANS
405	A5.01	EXTERIOR ELEVATIONS
406	A6.01	BUILDING SECTIONS
407	A6.10	WALL SECTIONS
408	A6.11	WALL SECTIONS
409	A6.12	WALL SECTIONS
410	A7.00	VERTICAL CIRCULATION
411	A7.01	VERTICAL CIRCULATION
412	A8.01	INTERIOR ELEVATIONS
413	A8.02	INTERIOR ELEVATIONS
414	A8.03	INTERIOR ELEVATIONS
415	A8.04	INTERIOR ELEVATIONS
416	A20.00	FOUNDATION DETAILS
417	A21.00	FLOOR TYPES AND FLOOR DETAILS
418	A30.00	WALL TYPE NOTES
419	A31.00	WALL TYPES
420	A31.01	EXTERIOR WALL DETAILS
421	A31.02	EXTERIOR WALL DETAILS
422	A31.03	EXTERIOR WALL DETAILS
423	A31.04	EXTERIOR WALL DETAILS
424	A40.01	ROOF DETAILS AND ROOF TYPES
425	A40.02	ROOF DETAILS
426	A40.03	ROOF DETAILS
427	A40.04	ROOF DETAILS
428	A40.05	ROOF DETAILS
429	A40.06	ROOF DETAILS
430	A50.00	VERTICAL CIRCULATION DETAILS
431	A50.01	VERTICAL CIRCULATION DETAILS
432	A50.02	VERTICAL CIRCULATION DETAILS
433	A50.03	VERTICAL CIRCULATION
434	A60.00	LOUVER, DOOR, FRAME, AND GLAZING NOTES
435	A61.00	DOOR TYPES AND SCHEDULES
436	A61.01	HOLLOW METAL DETAILS
437	A63.00	FRAME TYPES AND SCHEDULES
438	A63.01	ALUMINUM FRAME DETAILS
439	A63.02	ALUMINUM FRAME DETAILS
440	A66.00	OPENING PREPARATION
441	A70.00	ROOM FINISH SCHEDULE
442	A71.00	COLOR AND MATERIAL SCHEDULE
443	A72.00	INTERIOR DETAILS
444	A73.00	SIGNAGE SCHEDULE
445	A80.00	CASEWORK SCHEDULE
446	S1.01	STRUCTURAL NOTES AND DRAWING LIST
447	S1.02	STRUCTURAL NOTES, DRAWING SYMBOLS AND ABBREVIATIONS
448	S1.03	STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING
449	S1.04	STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING
450	S1.05	STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING
451	S1.06	STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING
452	S1.07	LOAD MAP

SHEET #	SHEET DESIGNATION	SHEET TITLE
MARINE BUILDING SET - CONTINUED		
453	S2.01	FOUNDATION AND LEVEL 1 FLOOR PLAN
454	S2.02	LEVEL 2 FLOOR PLAN
455	S2.03	ROOF PLAN
456	S3.01	BUILDING ELEVATIONS
457	S3.02	BUILDING SECTIONS
458	S3.11	BRACE FRAME ELEVATIONS
459	S3.12	BRACE FRAME DETAILS
460	S3.13	BRACE FRAME DETAILS
461	S4.01	CONCRETE DETAILS
462	S5.01	TYPICAL STEEL DETAILS
463	S5.02	TYPICAL STEEL DETAILS
464	S5.03	TYPICAL STEEL DETAILS
465	S5.04	TYPICAL STEEL DETAILS
466	S5.05	STEEL DETAILS
467	S5.06	STEEL DETAILS
468	S5.07	STEEL DETAILS
469	S6.01	TYPICAL WOOD DETAILS
470	M1.01	SCHEDULES
471	M1.02	SCHEDULES
472	M2.01	LEVEL 1 UNDERGROUND PLUMBING PLAN
473	M3.01	LEVEL 1 AND 2 PLUMBING PLAN
474	M4.01	MECHANICAL HVAC PLANS
475	M4.02	REFLECTED CEILING AND HVAC PLAN
476	M4.03	ROOFTOP MECHANICAL HVAC PLAN
477	M6.01	MECHANICAL DETAILS
478	M6.02	MECHANICAL DETAILS
479	M7.01	MECHANICAL CONTROLS
480	FX0.01	FIRE PROTECTION LEGEND, DESIGN CRITERIA AND FLOW TEST INFORMATION
481	FX0.02	FIRE PROTECTION FLOOR PLAN CONST., GENERAL, AND SPECIAL NOTES
482	FX0.03	FIRE PROTECTION RISER DETAIL PLAN, ELEVATIONS, EQUIP. LIST, AND NOTES
483	FX2.01	FIRE PROTECTION FIRST AND SECOND FLOOR PLANS
484	FA0.01	FIRE ALARM LEGEND AND NOTES
485	FA0.02	FIRE ALARM SEQUENCE OF OPERATIONS AND RISER DIAGRAM
486	FA2.01	LEVEL 1 AND LEVEL 2 FIRE ALARM FLOOR PLAN
487	E0.01	ELECTRICAL LEGEND
488	E1.00	ELECTRICAL FIXTURE SCHEDULE AND MECHANICAL CONNECTION SCHEDULE
489	E2.01	LEVEL 1 AND LEVEL 2 LIGHTING PLAN
490	E3.01	LEVEL 1 AND LEVEL 2 POWER PLAN
491	E3.02	ROOF POWER PLAN
492	E4.01	LEVEL 1 AND LEVEL 2 SYSTEMS PLAN
493	E4.02	ROOF SYSTEMS PLAN
494	E5.01	ELECTRICAL DETAILS
495	E5.02	ELECTRICAL DETAILS
496	E5.03	ELECTRICAL DETAILS
497	E5.04	ELECTRICAL DETAILS
498	E6.01	POWER RISER DIAGRAM
499	E6.02	PANEL SCHEDULE



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APPROVED: *[Signature]* 3-28-16

DIRECTOR ENG. DATE: 3-28-16

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PROJ. ENGR: _____ DATE: _____

6552

G2.3

SH 4 OF 489

PIER 4 PHASE 2

RECONFIGURATION

SHEET INDEX - SHEET 3

TOWNSHIP: 070136

CONTR/CONS: 070136

M. ID: 091251

PHASE: BID

RANGE: M.L.W. 19.39'

DATE: 22 1933

SECTION: @ Tide

VERT: WA83-SF

PARCEL: AS NOTED

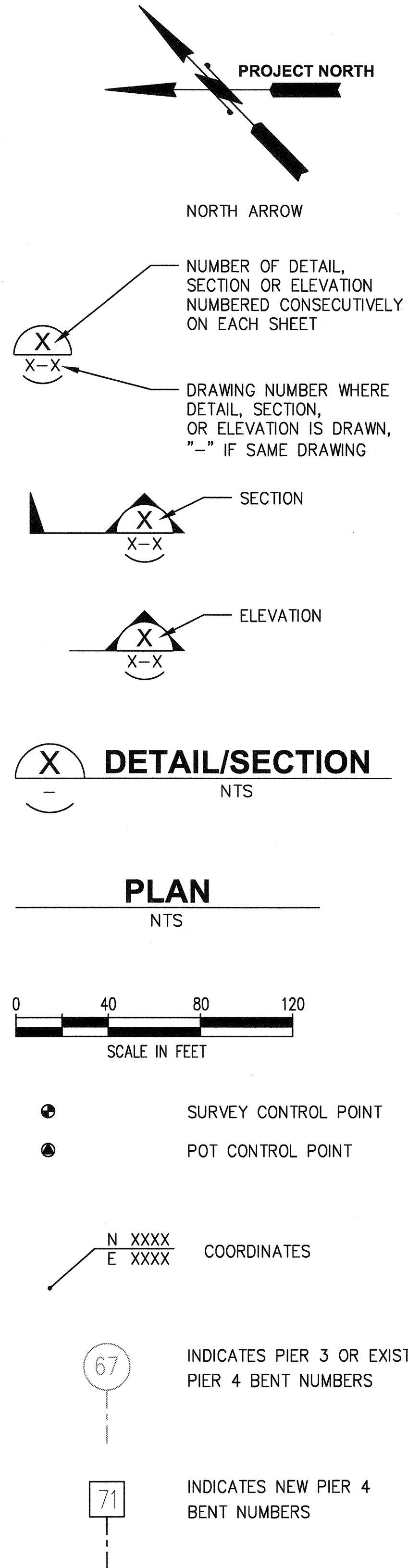
PRINTED BY: gcarey

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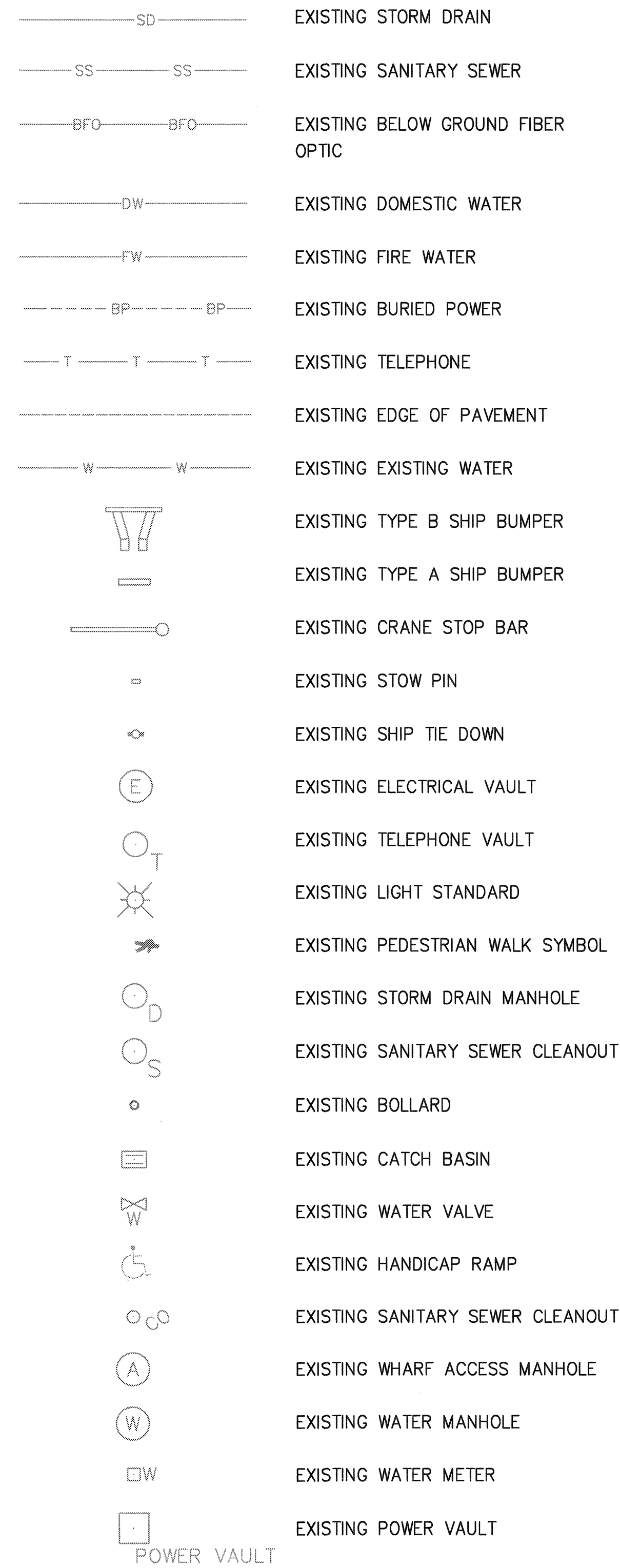
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SYMBOLS



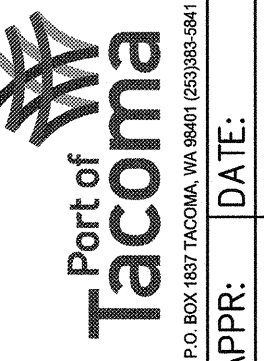
SYMBOLS - CONTINUED



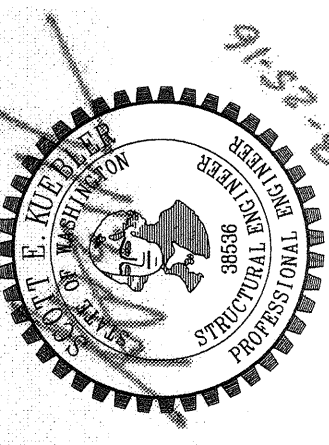
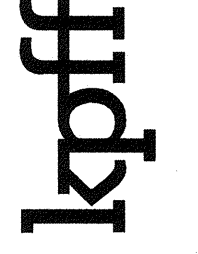
ABBREVIATIONS

#	NUMBER	FH	FINISH
Ø	DIAMETER	FL	FLOW LINE
@	AT	FLGD	FLANGED JOINT
AB	AGGREGATE BASE	FM	FORCE MAIN
AC	ASPHALT CONCRETE	FRP	FIBER REINFORCED PLASTIC
ACI	AMERICAN CONCRETE INSTITUTE	FS	FINISHED SURFACE
ACP	ASBESTOS CONCRETE PIPE OR ASPHALTIC CONCRETE PAVEMENT	FSM	FIRE SERVICE METER
		FT	FOOT, FEET
ACPA	AMERICAN CONCRETE PIPE ASSOCIATION	FW	FIRE WATER
ADDL	ADDITIONAL	G	GAS
ADJ	ADJACENT	GIS	GEOGRAPHIC INFORMATION SYSTEM
ADMIN	ADMINISTRATION	GPS	GLOBAL POSITIONING SYSTEM
AGGR	AGGREGATE	GV	GATE VALVE
ALT	ALTERNATE	H or HORIZ	HORIZONTAL
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	HAZMAT	HAZARDOUS MATERIALS
APP or APPVD	APPROVED	HCS	HOUSE CONNECTION SEWER
APPROX	APPROXIMATE	HDPE	HIGH DENSITY POLYETHYLENE
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	HOWL	HIGHEST OBSERVED WATER LEVEL
AREA	AMERICAN RAILWAY ENGINEERING ASSOCIATION	HP	HIGH PRESSURE or HIGH POINT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	HT	HEIGHT
AVG	AVERAGE	ID	INSIDE DIAMETER
AVR	AIR & VACUUM RELEASE VALVE	IN	INCH
AWS	AMERICAN WELDING SOCIETY	INCL	INCLUDE
AWWA	AMERICAN WATER WORKS ASSOCIATION	INFO	INFORMATION
BLDG	BUILDING	INV	INVERT
BM	BENCH MARK or BEAM	JB	JUNCTION BOX
BMP or BMP'S	BEST MANAGEMENT PRACTICES	JS	JUNCTION STRUCTURE
BOP	BOTTOM OF PIPE	JT	JOINT
BOT	BOTTOM	KIP(S)	KILOPOUND(S)
BRG	BEARING	L	LENGTH
BRZ	BRONZE	LAT	LATERAL
BTW or BTWN	BETWEEN	LCB	LANDSIDE CRANE BEAM
BV	BALL VALVE	LF	LINEAL FOOT
C.Y.	CONTAINER YARD OR CUBIC YARD	LIN	LINEAL or LINEAR
C/L	CENTERLINE	LOL	LAYOUT LINE
CAB	CRUSHED AGGREGATE BASE	LOWL	LOWEST OBSERVED WATER LEVEL
CB	CATCH BASIN	LP	LOW POINT
CC	CENTER TO CENTER	LRB	LEAD-RUBBER BEARING
CDF	CONTROL DENSITY FILL	LT.	LEFT
CFS	CUBIC FEET PER SECOND	LTP	LIGHT POLE
CI	CAST IRON	M&R	MAINTENANCE AND REPAIR
CIP	CAST IRON PIPE	M-ARV	MANUAL AIR RELIEF VALVE
CL	CENTER LINE or CLASS	MAT	MATERIAL
CLF	CHAIN LINK FENCE	MAX	MAXIMUM
CLR	CLEAR or CLEARANCE	ME	MATCH EXISTING
CMB	CRUSHED MISCELLANEOUS BASE	MFR	MANUFACTURER
CMP	CORRUGATED METAL PIPE	MH	MANHOLE
CO	CLEAN OUT	MHHW	MEAN HIGHER HIGH WATER
COMPR	COMPRESSOR	MHW	MEAN HIGH WATER
CONC	CONCRETE	MI	MALLEABLE IRON
CONST	CONSTRUCT	MIN	MINIMUM
CONT	CONTINUE or CONTINUOUS	MISC	MISCELLANEOUS
CONTR	CONTRACTOR	MJ	MECHANICAL JOINT
COORD	COORDINATE	MLLW	MEAN LOWER LOW WATER
COUP	COUPLING	MLW	MEAN LOW WATER
CPT	CONE PENETROMETER TEST	MNSB	MINIMUM SET BACK
CRSI	CONCRETE REINFORCING STEEL INSTITUTE	MSL	MEAN SEA LEVEL
CSBC	CRUSHED SURFACING BASE COURSE	MSP	MANUAL OF STANDARD PRACTICE
CSG	CASING	MUTCD	MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
CSP	CORRUGATED STEEL PIPE	MW	MODULAR WETLAND
CTR	CENTER	N	NORTH or NORTHING
CV	CHECK VALVE	NDT	NON-DESTRUCTIVE TESTING
DET	DETAIL	NE	NORTH-EAST
DI	DUCTILE IRON	NF	NEAR FACE
DIA	DIAMETER	NIC	NOT IN CONTRACT
DIAG	DIAGONAL	No.	NUMBER
DIM	DIMENSION	NS	NEAR SIDE
DIP	DUCTILE IRON PIPE	NTS	NOT TO SCALE
DS	DOWN SPOUT	NW	NORTH-WEST
DW	DOMESTIC WATER	OC	ON CENTER
DWG	DRAWING	OD	OUTSIDE DIAMETER
DWY	DRIVEWAY	OVH	OVERHEAD
E	EAST or EASTING	OHWL	ORDINARY HIGH WATER LINE
EA	EACH	OW	OIL/WATER SEPARATOR
EG	EXISTING GRADE	P/L or PL	PROPERTY LINE
EL or ELEV	ELEVATION	PB	PULL BOX
ELEC or ELECT	ELECTRICAL	PCC	PORTLAND CEMENT CONCRETE
ENGR	ENGINEER	PE	PUSH-ON PLAIN END
EP	EDGE OF PAVEMENT	PERF	PERFORATED
EQ	EQUAL	PERP	PERPENDICULAR
ES	ELECTRICAL SUBSTATION	PJ	PUSH-ON JOINT
ET CETERA		POT	PLATE
EX or EXIST	EXISTING	PP	PORT OF TACOMA
EXP. JT	EXPANSION JOINT	PR	POWER POLE
FF	FINISH FLOOR		PRESSURE RATING
FG	FINISH GRADE		
FIN	PORT FIRE HYDRANT		

PRESS	PRESSURE
PRESS RED	PRESSURE REDUCER
PROP	PROPOSED
PRV	PRESSURE REDUCING VALVE
PRVS	PRESSURE RELIEF VALVE
PSE	PUGET SOUND ENERGY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL CURVE
PVMT	PAVEMENT
R	RIDGE or RADIUS
R/W or ROW	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RED	REDUCER
REF	REFERENCE
REINF	REINFORCE OR REINFORCING
REQ'D	REQUIRED
RP	RADIUS POINT
RR	RAILROAD
RT	RIGHT
S	SLOPE
S	SOUTH
SAHS	SALTCHUK AQUATIC HABITAT SITE
SCH or SCHED	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SE	SOUTH-EAST
SECT	SECTION
SERV	SERVICE
SHT	SHEET
SIM	SIMILAR
SJ	SLIP JOINT
SPECS	SPECIFICATIONS
SQFT	SQUARE FEET
SS	SANITARY SEWER
SSFM	SANITARY SEWER FORCE MAIN
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
STL	STEEL
SW	SOUTH-WEST
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
SYM	SYMMETRIC or SYMBOL
T/R or TOR	TOP OF RAIL
TB	THRUST BLOCK
TBM	TEMPORARY BENCH MARK
TESC	TEMPORARY EROSION AND SEDIMENTATION CONTROL
TG	TOP OF GRATE
TOB	TOP OF BANK
TOS	TOE OF SLOPE
TOP	TOP OF PIPE or TOP OF SLOPE
TOR	TOP OF RAIL
TS	TRANSITION STRUCTURE
TW	TOP OF WALL
TYP	TYPICAL
UB	UPLAND BORING
UNO	UNLESS NOTED OTHERWISE
V	VERTICAL
VAC	VACUUM
VAR	VARIABLE or VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
W	WATER, WEST, WIDTH
W/	WITH
W/O	WITHOUT
WABO	WASHINGTON ASSOCIATION OF BUILDING ASSOCIATES
WCB	WATERSIDE CRANE BEAM
WF	WATER FITTING
WELD	WELDING
WHS	WELDED HEADED STUD
WM	WATER METER
WOB	WHARF OFFSHORE BORING
WP	WORK POINT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WT	PORT WATER TEE
WW	WATER VAULT
WWAY	WALKWAY
WWR	WELD WIRE REINFORCEMENT
XS	EXTRA STRONG



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DIRECTOR ENGR. DATE:	PROJ. ENGR. DATE:	
3-28-16	gcoorey Mar 24, 2016	
PRINTED BY:	PORT ADDRESS: ONE SITCUM PLAZA	
	TACOMA, WA 98401-1837	

PIER 4 PHASE 2 RECONFIGURATION SYMBOLS AND ABBREVIATIONS	
SECTION:	RANGE:
	MLLW 19.39' @ Tide 22 1933
TOWNSHIP:	VERT:
SH 5 OF 489	WA83-SF
CONT/CONS: 070136	DRAWING SCALE: AS NOTED
M. ID: 091251	
PHASE: BID	

6552 G3.1

GENERAL NOTES:

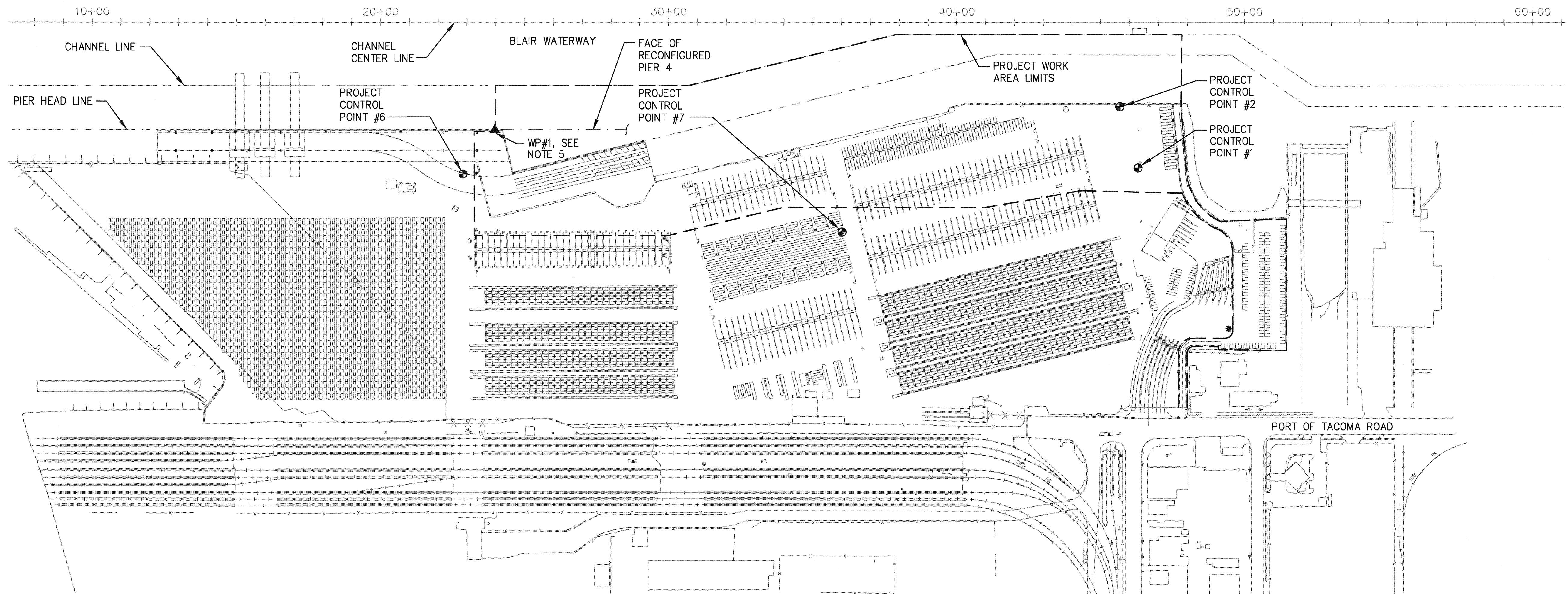
- ALL CONSTRUCTION SHALL CONFORM TO THESE PLANS AND SPECIFICATIONS AND THE CURRENT VERSION OF THE CITY OF TACOMA STANDARDS.
- CONTRACTOR SHALL VERIFY ALL LEVELS, DIMENSIONS, AND EXISTING CONDITIONS IN THE FIELD BEFORE PROCEEDING. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR FIELD CHANGES PRIOR TO INSTALLATION OR FABRICATION. IN CASE OF DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE PLANS, THE CONTRACTOR SHALL OBTAIN DIRECTION FROM THE ENGINEER BEFORE PROCEEDING. DIMENSIONS AND CALLOUTS NOTED AS PLUS OR MINUS (\pm) OR (REF) INDICATE UNVERIFIED DIMENSIONS AND ARE APPROXIMATE. NOTIFY THE ENGINEER IMMEDIATELY OF CONFLICTS OR EXCESSIVE VARIATIONS FROM AS INDICATED. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS – DO NOT SCALE THE PLANS.
- ALL LOCATIONS OF EXISTING UTILITIES SHOWN HEREIN HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD, THEREFORE, BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND AVOID OTHER UTILITIES NOT SHOWN HEREIN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. THE CONTRACTOR SHALL POTHOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS, SPECIFICALLY PIPE SIZES PRIOR TO CONSTRUCTION, AND BRING ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND NEW WORK TO THE ENGINEER'S ATTENTION.
- THE EXISTING PIER 4 STRUCTURE AND SITE UTILITIES HAVE UNDERGONE NUMEROUS REPAIR AND UPGRADE PROJECTS SINCE THE TIME OF THE ORIGINAL CONSTRUCTION. THESE REPAIRS MAY NOT ALL BE REFLECTED IN THESE CONTRACT DOCUMENTS. REFERENCE DRAWINGS FOR THESE CONTRACTS ARE AVAILABLE FROM THE PORT OF TACOMA.
- A COPY OF THE PLANS SHALL BE ON-SITE WHENEVER CONSTRUCTION IS IN PROGRESS. THROUGHOUT THE PROGRESS OF THE WORK OF THIS CONTRACT, MAINTAIN AN ACCURATE RECORD OF ALL CHANGES IN THE CONTRACT DOCUMENTS. UPON THE COMPLETION OF THIS CONTRACT, PROVIDE ONE COMPLETE SET OF RECORD DOCUMENTS TO THE PORT OF TACOMA.
- THE CONTRACTOR SHALL LOCATE ALL UTILITIES WITHIN THE PROJECT SITE PRIOR TO WORK. CONTRACTOR SHALL CONTACT 811 "CALL BEFORE YOU DIG" AND AN INDEPENDENT LOCATING SERVICE TO LOCATE ALL UTILITIES AT LEAST 48 HOURS PRIOR TO WORK.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS OF EXISTING STRUCTURES AND OTHER FEATURES THAT MAY IMPACT THE WORK. CONTRACTOR SHALL BRING ANY CONFLICTS TO THE ENGINEER'S ATTENTION PRIOR TO BEGINNING AFFECTED WORK.
- ANY DAMAGE TO EXISTING UTILITIES, OTHER FACILITIES OR EQUIPMENT DUE TO THE CONTRACTOR'S NEGLIGENCE, EXCEPT FOR ITEMS DESIGNATED FOR DEMOLITION, SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. THIS INCLUDES ITEMS OUTSIDE THE WORK AREA AND WITHIN THE PORT OF TACOMA PROPERTY THAT ARE DAMAGED BY CONSTRUCTION ACTIVITIES DURING EXECUTION OF THIS CONTRACT.
- PRIOR TO LAYING PIPE, THE CONTRACTOR SHALL EXPOSE EXISTING WATER, STORM WATER AND SEWER PIPING AT CONNECTION POINTS TO VERIFY THAT FIELD CONDITIONS MATCH INFORMATION SHOWN ON THE PLANS, SPECIFICALLY THE LOCATION, ELEVATION, DIAMETER, AND MATERIAL OF EXISTING PIPE. CONTRACTOR SHALL CONTACT THE ENGINEER IF DISCREPANCIES ARE DISCOVERED.
- ALL UNDERGROUND AND AT GRADE STRUCTURES INCLUDING MANHOLES, CATCH BASINS, HAND HOLES, VAULTS, CLEANOUTS AND OTHER STRUCTURES, INCLUDING ALL RINGS, COVERS, HATCHES, GRATES AND OTHER FEATURES WHICH MAY APPLY, SHALL BE DESIGNED TO ACCOMMODATE LOADING CRITERIA OUTLINED ON SHEET S1.2. CONTRACTOR SHALL SUBMIT STAMPED AND SIGNED SHOP DRAWINGS AND CALCULATIONS COMPLETED BY A WASHINGTON STATE REGISTERED STRUCTURAL ENGINEER.
- THE GROUNDWATER TABLE RANGES BETWEEN APPROXIMATE ELEVATION +6' TO +11' MLLW, BUT VARIES DEPENDING ON LOCATION, SEASON AND TIDES. DEWATERING MAY BE REQUIRED FOR INSTALLATION OF UTILITY LINES AND STRUCTURES. SEE SPECIFICATIONS FOR REQUIREMENTS. GROUNDWATER ELEVATION FOR THE DESIGN OF ALL PERMANENT UNDERGROUND STRUCTURES SHALL BE AT ELEVATION +11.8 FEET. SEE SPECIFICATIONS FOR REQUIREMENTS.
- ALL ACTIVATION AND DEACTIVATION OF UTILITIES SHALL BE COORDINATED WITH THE ENGINEER IN ADVANCE. PROVIDE A MINIMUM OF 3 DAYS ADVANCE WRITTEN NOTICE TO THE ENGINEER.
- SHORING AND EXCAVATION SHALL BE IN ACCORDANCE WITH STATE AND FEDERAL REQUIREMENTS. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- THE CONTRACTOR SHALL KEEP ALL STREETS AND VEHICULAR TRAFFIC AREAS USED FOR THIS WORK CLEAN AT ALL TIMES, SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR ANY TRAFFIC CONTROLS REQUIRED DURING THE DURATION OF THIS PROJECT, PER CONTRACTOR'S OPERATION. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL

DEVICES.

- MAINTAIN UTILITY SERVICE TO EXISTING BUILDINGS, BULLRAIL UTILITIES AND FIRE HYDRANTS DURING CONSTRUCTION UNLESS NOTED OTHERWISE OR APPROVED BY THE ENGINEER. INSTALL NEW UTILITY LINES TO POINTS OF CONNECTION TO EXISTING UTILITY LINE PRIOR TO DEMOLITION OF THE EXISTING LINES, UNLESS NOTED OTHERWISE. WATER SERVICE SHUTDOWNS WILL BE LIMITED TO 2 HOURS FOR EACH UTILITY CROSSOVER AND SHALL BE COORDINATED WITH THE ENGINEER. POWER AND COMMUNICATION SHUTDOWNS WILL BE LIMITED TO 8 HOUR SHUTDOWNS AND SHALL BE COORDINATED WITH THE ENGINEER, UNLESS NOTED OTHERWISE OR APPROVED BY THE ENGINEER. SEE SPECIFICATIONS FOR FURTHER SHUTDOWN REQUIREMENTS.
- WHERE INDICATED ON THESE PLANS THE PROJECT SPECIFIC ORDINARY HIGH WATER MARK (OHWM) REPRESENTS THE OHWM PRIOR TO THE DREDGING WORK SHOWN HEREIN.

<p>6552 G3.2 SH 6 OF 499</p>	<p>PIER 4 PHASE 2 RECONFIGURATION GENERAL NOTES</p>		<p>APPROVED: <i>[Signature]</i> 3-28-16</p>	<p>CHECKED BY: _____ DATE: _____</p>
	<p>CONT/CONS: 070136 M. ID: 091251 PHASE: BID</p>	<p>TOWNSHIP: _____ DAT-HRZ: WA83-SF PARCEL: _____</p>	<p>RANGE: _____ VERT: _____</p>	<p>SECTION: _____ MLLW 19.39' @ Tide 22 1933 DRAWING SCALE: AS NOTED</p>
<p>2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0150 Fax (253) 396-0162</p>			<p>kpff</p>	<p>Port of Tacoma P.O. Box 1807 Tacoma, WA 98401-1807</p>
			<p>MARK: _____ REVISION: _____</p>	<p>BY: _____ DATE: _____ APPR: _____</p>

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RELATIONSHIP BETWEEN VERTICAL DATUMS:

NAVD 88 = 3.50
 MLLW = 6.17
 NGVD 29 = 0.0

NAVD 88 = 0.0
 MLLW = 2.67
 NGVD 29 = -3.50

NAVD 88 = -2.67
 MLLW = 0.00
 NGVD 29 = -6.17

PORT OF TACOMA VERTICAL DATUM (1960-1978 EPOCH)

SURVEY CONTROL PLAN

SCALE: 1"=200'

SURVEY AND DATUM INFORMATION:

- BATHYMETRIC SURVEY BY SOLMAR HYDRO AND SITTS + HILL ENGINEERS INC. DATED JULY, 2013.
- UPLAND SURVEY BY KPFF CONSULTING ENGINEERS DATED JANUARY 2013.
- DATUM INFORMATION:
 HORIZONTAL DATUM: WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83/07.
 VERTICAL DATUM: TIDAL DATUM MLLW = 0.00'
- UPLAND SURVEY TIES TO PORT OF TACOMA SURVEY CONTROL POINTS AS SHOWN ON PORT OF TACOMA 2007 SURVEY CONTROL MAP TITLED "BLAIR-HYLEBOS PENINSULA CONTROL MAP." PREPARED BY PARAMETRIX DATED JANUARY 7, 2008.
- FACE OF PIER IS DEFINED BY WP#1 AND PROJECT NORTH BEARING, SEE SHEET S4.1 FOR LOCATION OF WP#1, (FACE OF PIER DIFFERS FROM THE PIERHEAD LINE). PROJECT NORTH BEARING IS N 45° 53' 50"W.

TIDAL INFORMATION:

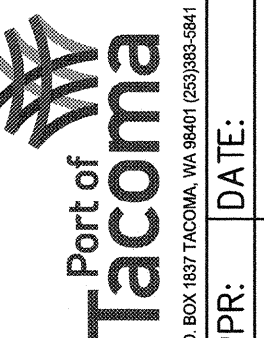
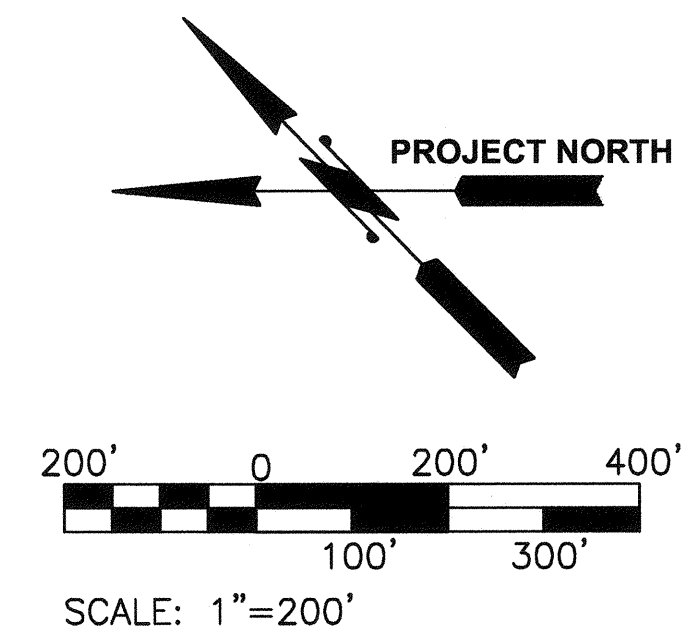
- TIDAL INFORMATION OBTAINED FROM NOAA WEBSITE FOR STATION 9446484 FOR THE 1983-2001 EPOCH.

HOWL	=	14.55'
MHHW	=	11.80'
MHW	=	10.92'
MSL	=	6.85'
MLW	=	2.85'
MLLW	=	0.0'
LOWL	=	-4.71'
- PROJECT SPECIFIC ORDINARY HIGH WATER MARK (OHWM) EL = 12.78', PRIOR TO DREDGING, AS IDENTIFIED BY WASHINGTON DEPARTMENT OF FISH AND WILDLIFE (WDFW).

SURVEY CONTROL POINTS				
PT#	NORTHING	EASTING	ELEV.	DESCRIPTION
SY0536	710149.55	1165758.55	19.39	DISK SET IN CONCRETE SIDEWALK AT THE EAST END OF 11TH ST BRIDGE
925	710501.70	1166151.91	17.30	MNCS-WSDOT MON AT 11TH AVE/THORN
1	712109.00	1167747.77	18.04	MAG NAIL
2	712306.49	1167850.98	17.34	MAG NAIL
6	713723.48	1166048.58	16.73	MAG NAIL
7	712662.85	1166852.22	16.17	MAG NAIL

POT BENCHMARK POINT #925

BENCHMARK #SY0536 (TIDAL 22)



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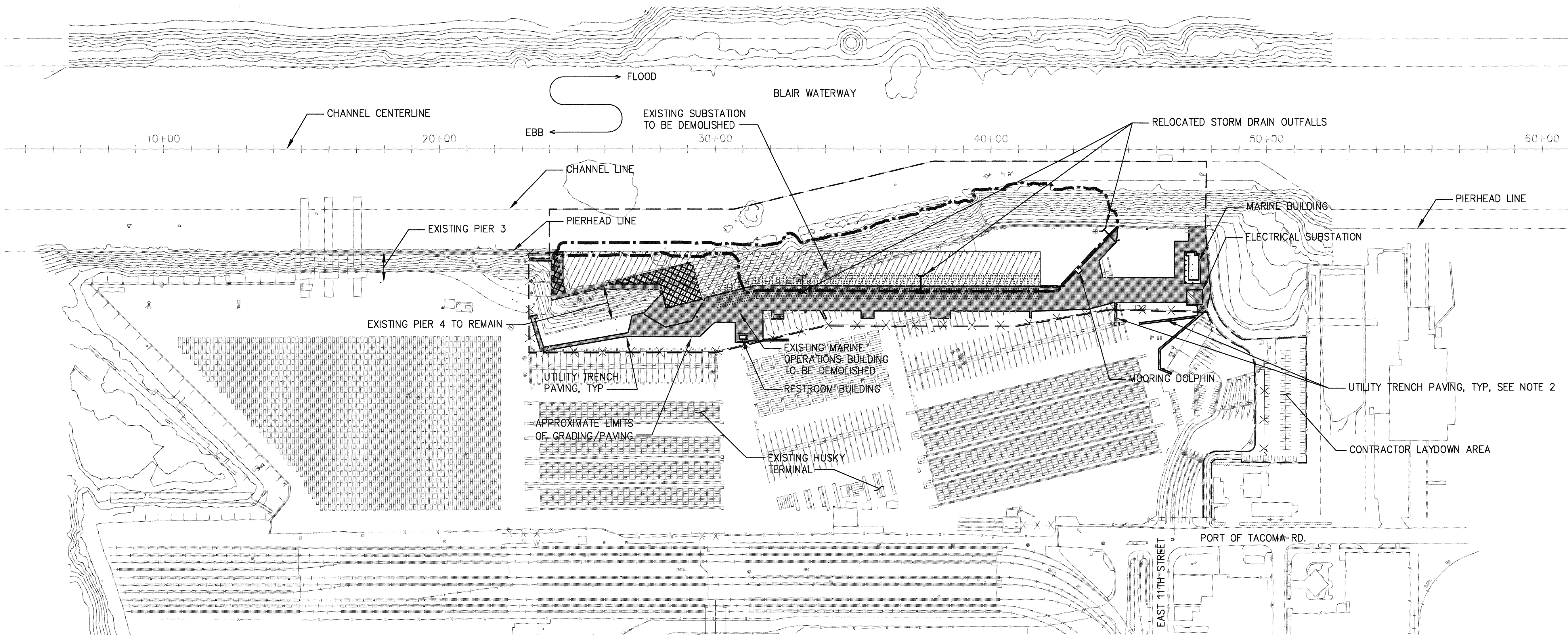


APPROVED: *K. V. Kung*
 3-28-16
 DIRECTOR ENG. DATE: kvang Mar 24, 2016
 PRINTED BY: kvang
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PIER 4 PHASE 2 RECONFIGURATION SURVEY CONTROL AND NOTES

6552
G4.1
 SH 7 OF 489
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

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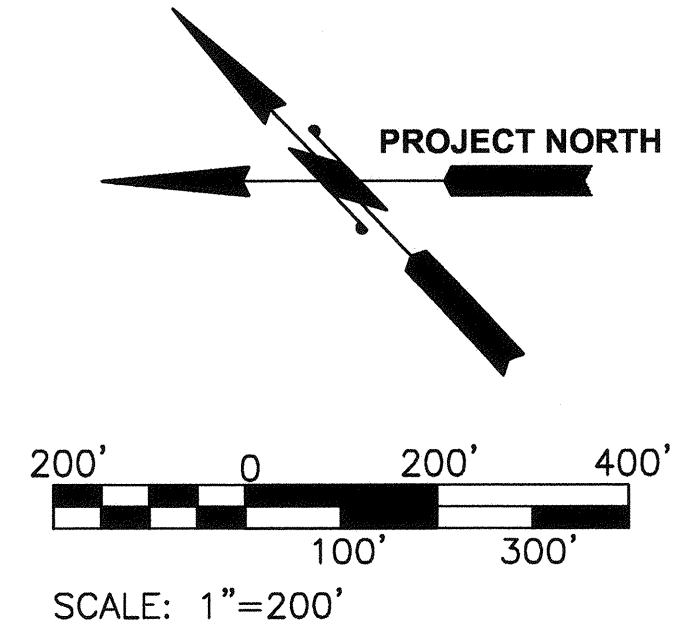
OVERALL SITE PLAN
SCALE: 1"=200'

NOTES

1. THIS PLAN PROVIDES AN OVERVIEW OF THE PROJECT ELEMENTS AND DOES NOT COMPLETELY DESCRIBE THE PROJECT. SEE COMPLETE CONTRACT DOCUMENTS FOR ALL CONTRACT AND PROJECT REQUIREMENTS.
2. FOR WORK LOCATED OUTSIDE OF THE PROJECT WORK AREA LIMITS CONTRACTOR SHALL REFER SHEET G6.2 AND TO SPECIFICATION SECTION 01 14 00 - WORK RESTRICTIONS FOR ADDITIONAL INFORMATION.
3. SLOPE PROTECTION AND UTILITIES NOT SHOWN FOR CLARITY. SEE SHEET C3.1 FOR SLOPE PROTECTION AND SHEETS C5.1-C5.3, C6.1-C6.4, and E3.3-E3.5 FOR UTILITIES.

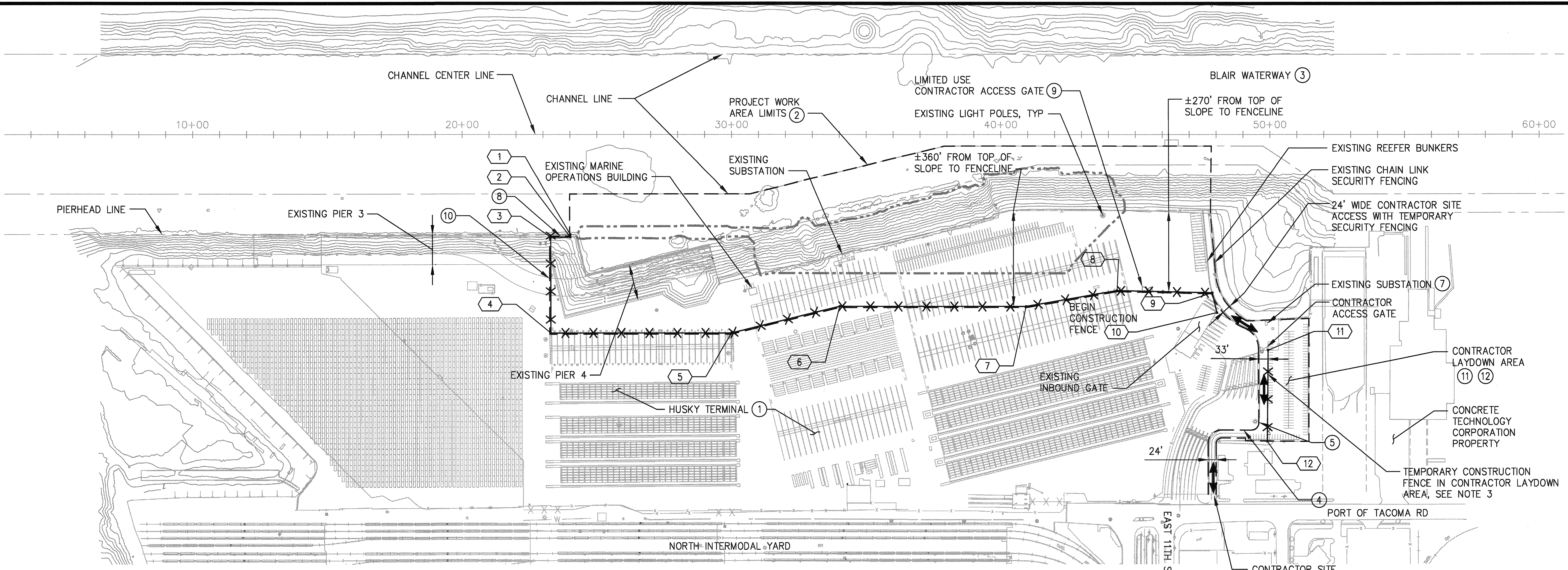
LEGEND

- PROJECT WORK AREA LIMITS
- - - - - LIMITS OF DREDGING (SEE SHEET C2.1)
- [Grid Pattern] APPROXIMATE LIMITS OF GRADING/PAVING (SEE GRADING AND PAVING PLAN)
- [Diagonal Lines] RECONFIGURED PIER 4 (SEE STRUCTURAL DRAWINGS)
- [Cross-hatch] EXISTING PIER 3 AND PIER 4 TO BE DEMOLISHED (SEE DEMOLITION PLAN)
- [Stippled] ELECTRICAL SUBSTATION (SEE ELECTRICAL DRAWINGS)
- [Dotted] GROUND IMPROVEMENTS (SEE GROUND IMPROVEMENT PLAN)



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APPROVED: <i>Gregory</i> 3-28-16	CHECKED BY: _____ DATE: _____	PROJ. ENGR. DATE: _____ DATE: _____	PRINTED BY: gcmr Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
PIER 4 PHASE 2 RECONFIGURATION OVERALL SITE PLAN		RANGE: MLLW 19.39' @ Tide 22 1933 VERT: DAT-HRZ: WA83-SF DRAWING SCALE: AS NOTED	SECTION: _____ TOWNSHIP: _____ DAT-HRZ: _____ PARCEL: _____
6552 G5.1 SH 8 OF 499	CONT/CONS: 070136 M. ID: 091251 PHASE: BID	THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION	

PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-06.1 (Constraints and Access Plan)



CONSTRAINTS AND ACCESS PLAN
SCALE: 1"=200'

KEY NOTES

- ① HUSKY TERMINAL IS A RESTRICTED OPERATING TERMINAL. THE CONTRACTOR SHALL NOT INTERFERE WITH TERMINAL OPERATIONS.
- ② CONTRACTOR SHALL STOCKPILE AND STAGE ALL EQUIPMENT, SUPPLIES AND MATERIALS WITHIN THE PROJECT WORK AREA LIMITS AND LAYDOWN AREA UNLESS NOTED OTHERWISE. WHEN CONTRACT WORK IS COMPLETE CONTRACTOR SHALL CLEAR AND CLEAN THE WORK AND LAYDOWN AREA AND REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS, INCLUDING PAVEMENT.
- ③ THE BLAIR WATERWAY IS AN ACTIVE SHIPPING CHANNEL. THE CONTRACTOR SHALL NOT OBSTRUCT SHIPPING OPERATIONS TO AND FROM THE HUSKY TERMINAL, ANY OTHER TERMINAL, OR ANY OTHER VESSEL TRAFFIC IN THE WATERWAY.
- ④ CONTRACTOR SHALL PROTECT-IN-PLACE EXISTING CONCRETE BARRIERS AND NOT IMPACT INCOMING TERMINAL TRAFFIC OR GATE OPERATIONS.
- ⑤ CONTRACTOR SHALL PROTECT-IN-PLACE EXISTING HIGH MAST LIGHT POLE, ROUTE CONSTRUCTION TRAFFIC SOUTH OF POLE AND NOT IMPACT INCOMING TERMINAL TRAFFIC OR GATE OPERATIONS.
- ⑥ CONTRACTOR SHALL PROVIDE A FLAGGER AT INTERSECTION OF PORT OF TACOMA ROAD AND CONTRACTOR SITE INGRESS/EGRESS ROUTE, IF NECESSARY.
- ⑦ CONTRACTOR SHALL PROTECT IN PLACE EXISTING SUBSTATION.
- ⑧ CONTRACTOR SHALL MAINTAIN ACCESS TO PIER 3 SOUTHERN MOST MOORING BOLLARDS.
- ⑨ LIMITED USE CONTRACTOR ACCESS GATE MAY BE USED AS REQUIRED FOR DELIVERY OF LARGE EQUIPMENT AND MATERIALS. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND TERMINAL TENANT.
- ⑩ THE TEMPORARY CONSTRUCTION FENCE LOCATION SHOWN FOR THE NORTH BOUNDARY OF THE PROJECT WORK AREA IS INTENDED TO REPRESENT THE INITIAL LOCATION OF THE FENCE LINE TO ACCOMMODATE WORK AT THE NORTH END OF THE PROJECT. RELOCATION OF THE NORTH FENCE LINE MAY BE REQUIRED DURING THE DURATION OF THE PROJECT IN ORDER TO ACCOMMODATE TERMINAL OPERATIONS WHEN NOT WORKING ON THE INTERFACE BETWEEN PIER 3 AND PIER 4. THE CONTRACTOR SHALL INCLUDE UP TO 2 RELOCATIONS OF THE NORTH FENCE LINE IN THE BASE BID FOR THE PROJECT. REQUIREMENTS FOR FENCE RELOCATION WILL BE AS DIRECTED BY THE ENGINEER.

KEY NOTES - CONTINUED

- ⑪ THE CONTRACTOR LAYDOWN AREA CONTAINS REMOVABLE CONCRETE WHEEL STOPS THAT MAY BE MOVED BY THE CONTRACTOR TO ACCOMMODATE WORK AREA SET-UP. THE WHEEL STOPS ARE PINNED TO THE PAVEMENT BY STEEL OR REBAR DOWELS. ALL WHEEL STOPS SHALL BE PROTECTED FROM DAMAGE, WHETHER THEY REMAIN IN PLACE OR ARE REMOVED. REMOVED WHEEL STOPS SHALL BE REINSTALLED IN THEIR PRE-PROJECT CONDITION AT THE COMPLETION OF THE PROJECT.
- ⑫ THE CONTRACTOR LAYDOWN AREA SHALL ACCOMMODATE PLACEMENT OF UP TO (3) 40-FOOT SHIPPING CONTAINERS USED FOR STORAGE BY THE TERMINAL TENANT. PRIOR TO MOBILIZATION TO THE SITE, THE CONTRACTOR SHALL COORDINATE THE LAYOUT OF THE LAYDOWN AREA WITH THE PORT TO ACCOMMODATE PLACEMENT OF, ACCESS TO, THE SHIPPING CONTAINERS.

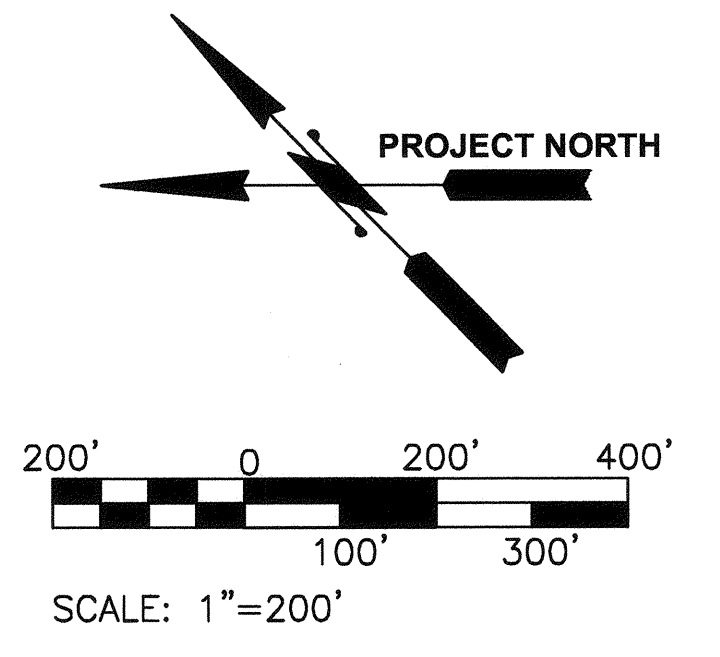
LEGEND

- PROJECT WORK AREA LIMITS
- X---X--- TEMPORARY CONSTRUCTION FENCE 3 G8.6
- ↔ CONTRACTOR ACCESS ROUTE
- LIMITS OF DREDGING

TEMPORARY CONSTRUCTION FENCE COORDINATES		
#	NORTHING	EASTING
①	713754.56	1166239.70
②	713747.55	1166232.72
③	713798.28	1166180.37
④	713542.85	1165932.84
⑤	713075.95	1166414.62
⑥	712866.75	1166771.31
⑦	712384.82	1167268.33
⑧	712191.88	1167552.31
⑨	711939.88	1167800.34
⑩	711875.38	1167761.33
⑪	711643.40	1167801.23
⑫	711403.11	1167563.76

NOTES

- 1. ECOLOGY BLOCKS SHALL BE PLACED INSIDE TEMPORARY CONSTRUCTION FENCE WITHIN THE PROJECT WORK AREA LIMITS, SEE SHEET G8.6 FOR PLACEMENT REQUIREMENTS. THE FENCE COORDINATES REPRESENT THE CENTER LINE OF THE TEMPORARY CONSTRUCTION FENCE. PROJECT WORK AREA LIMITS ARE SHOWN OFFSET FROM TEMPORARY CONSTRUCTION FENCE FOR CLARITY.
- 2. REFER TO SPECIFICATION SECTION 01 14 00, WORK RESTRICTIONS FOR WORK SEQUENCE, SCHEDULE CONSTRAINTS, AND WORK LOCATED OUTSIDE OF THE PROJECT WORK AREA LIMITS.
- 3. TEMPORARY CONSTRUCTION FENCE IN CONTRACTOR LAYDOWN AREA IS OPTIONAL, ECOLOGY BLOCKS NOT REQUIRED FOR TEMPORARY CONSTRUCTION FENCE IN CONTRACTOR LAYDOWN AREA.



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APPROVED: *[Signature]* 3-28-16

DIRECTOR ENG. DATE

PRINTED BY: kvarg Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

6552

G6.1

SH 9 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2

RECONFIGURATION

CONSTRAINTS AND ACCESS PLAN

CHECKED BY: *[Signature]* DATE

PROJ. ENGR DATE

TOWNSHIP: 070136

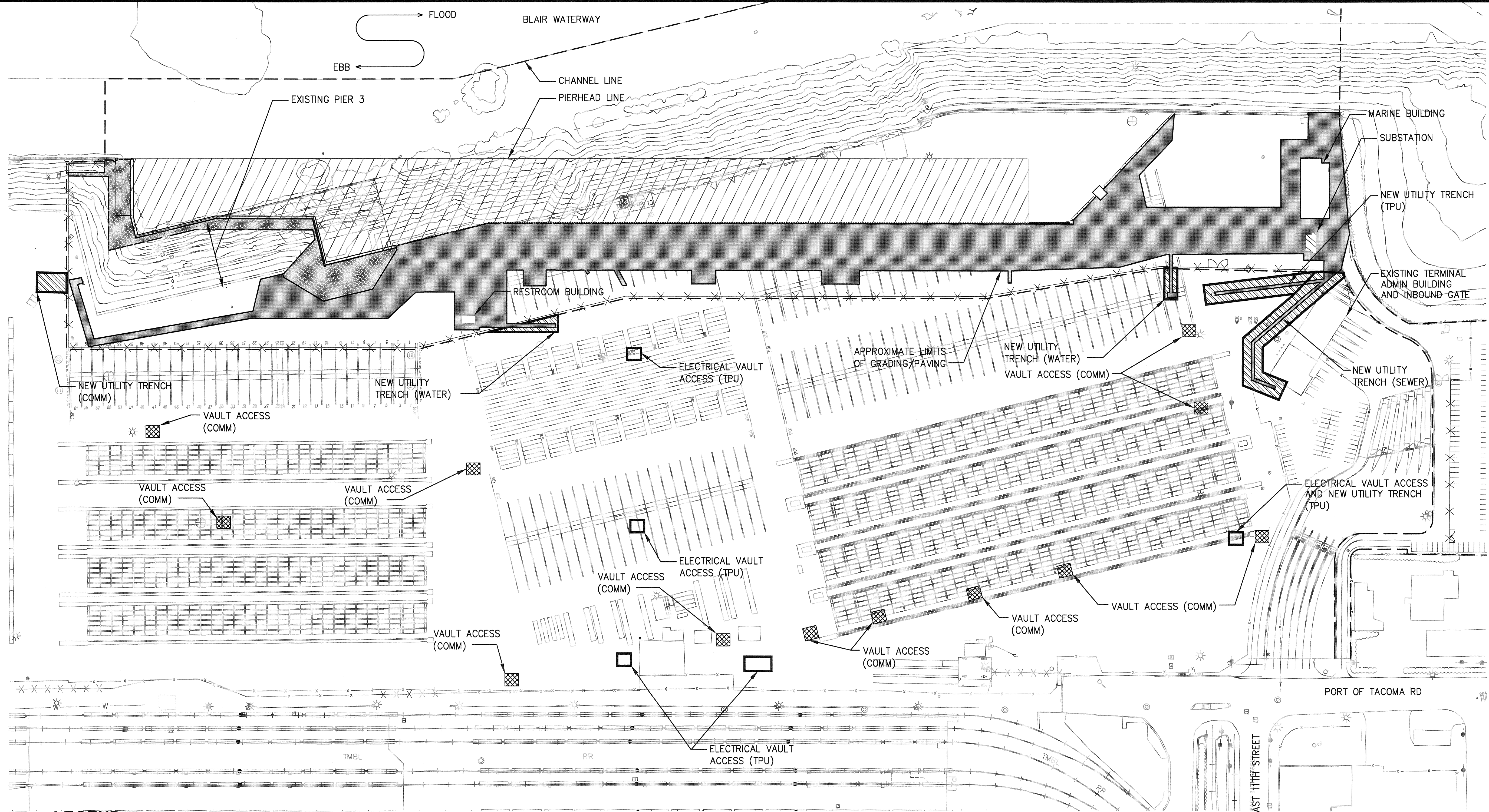
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PARCEL: 091251

MARK: REVISION: BY: DATE:

APPR: DATE:

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LEGEND

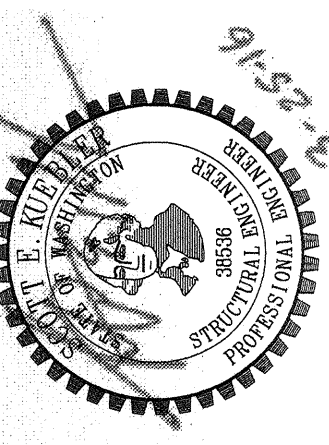
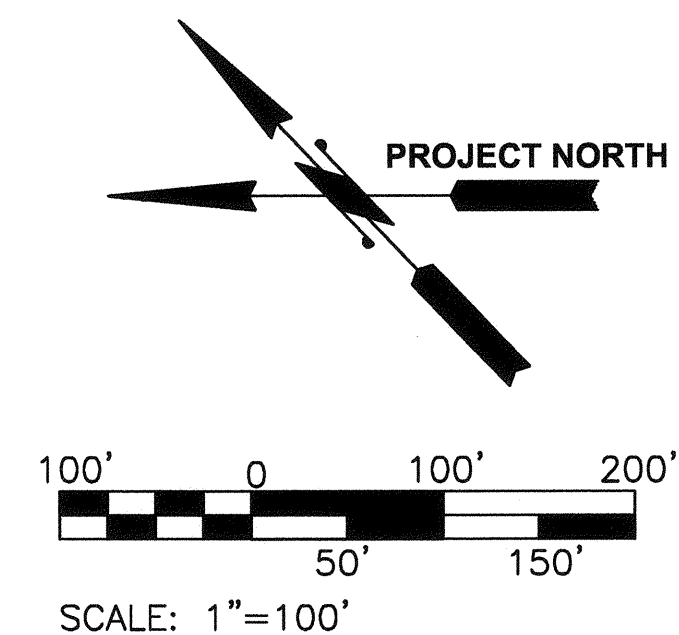
- PROJECT WORK AREA LIMITS
- × × TEMPORARY CONSTRUCTION FENCE
- [Hatched Box] APPROXIMATE LIMITS OF GRADING/PAVING
- [Diagonal Lines Box] RECONFIGURED PIER 4
- [Cross-hatched Box] WEEKEND WORK OUTSIDE PROJECT LIMITS. SEE NOTE 2
- [Grid Box] OUTSIDE PROJECT LIMITS VAULT ACCESS, SEE ELECTRICAL PLANS
- [Empty Box] WORK TO BE COMPLETED BY TACOMA PUBLIC UTILITIES (TPU), SEE NOTE 4
- [Dotted Box] APPROXIMATE LIMITS OF PAVING OVER BALLAST

WORK OUTSIDE PROJECT WORK AREA LIMITS

SCALE: 1"=100'

NOTES

- THE INTENT OF THIS DRAWING IS TO INDICATE AREAS OF CONTRACT WORK THAT OCCUR OUTSIDE OF THE DEFINED PROJECT WORK AREA LIMITS AND IN THE ACTIVE CONTAINER YARD. SPECIAL WORK RESTRICTIONS APPLY TO ALL WORK PERFORMED OUTSIDE OF THE PROJECT WORK AREA LIMITS AS DESCRIBED IN THE SPECIFICATION SECTION 01 14 00 - WORK RESTRICTIONS.
- WEEKEND WORK IN AREA OUTSIDE OF, AND ADJACENT TO, THE TEMPORARY CONSTRUCTION FENCE IS RESTRICTED TO OCCUR DURING WEEKENDS ONLY (6:00PM FRIDAY TO 6:00AM MONDAY). THESE AREAS SHALL BE OPENED TO CONTAINER YARD VEHICULAR TRAFFIC BETWEEN 6:00AM MONDAY AND 6:00PM FRIDAY. IF NECESSARY, APPROPRIATELY SIZED TRENCH COVER PLATING SHALL BE INSTALLED OVER UNFILLED TRENCHES TO ACCOMMODATE CONTAINER YARD OPERATIONS DURING THE WEEK.
- THE CONTRACTOR SHALL NOTIFY THE PORT AT LEAST 2 WEEKS IN ADVANCE OF PERFORMING ANY WORK IN THE CONTAINER YARD TO ALLOW TIME FOR THE PORT TO COORDINATE WITH THE TERMINAL OPERATOR. THE TERMINAL OPERATOR MAY NEED TO CLEAR SOME AREAS OF CONTAINERS OR EQUIPMENT AND/OR TEMPORARILY MODIFY YARD OPERATIONS TO ACCOMMODATE CONTRACTOR WORK.
- AREAS DENOTED AS (TPU) INDICATE AREA OF WORK TO BE PERFORMED BY TACOMA PUBLIC UTILITIES AND ARE SHOWN FOR REFERENCE ONLY. TPU WILL COORDINATE THEIR WORK DIRECTLY WITH THE PORT.

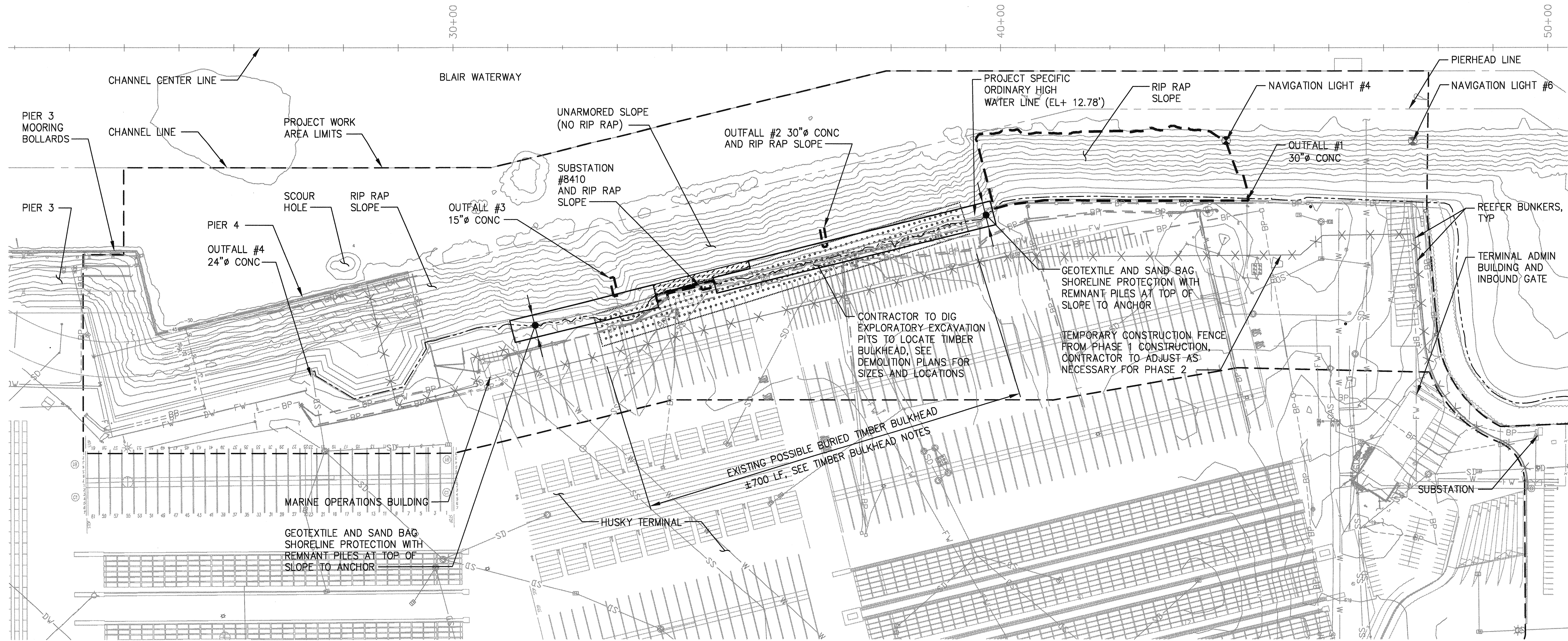


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3-28-16	gcarey	Mar 24, 2016
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		TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION	
WORK OUTSIDE PROJECT WORK AREA LIMITS	
TOWNSHIP:	SECTION:
DAT-HRZ: WA83-SF	MLLW 19.39' @ Tide 22 1933
PARCEL:	DRAWING SCALE: AS NOTED

6552	SH 10 OF 499
G6.2	
CONT/CONS:	070136
M. I.D.:	091251
PHASE:	BID

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TIMBER BULKHEAD NOTES

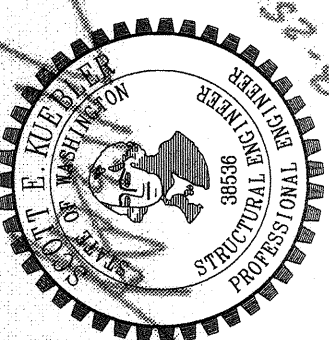
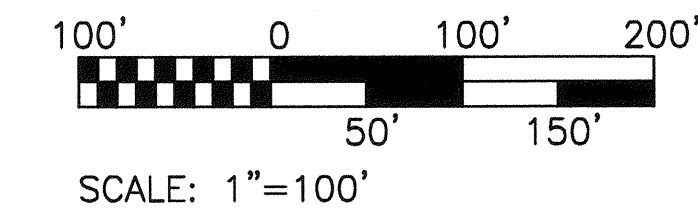
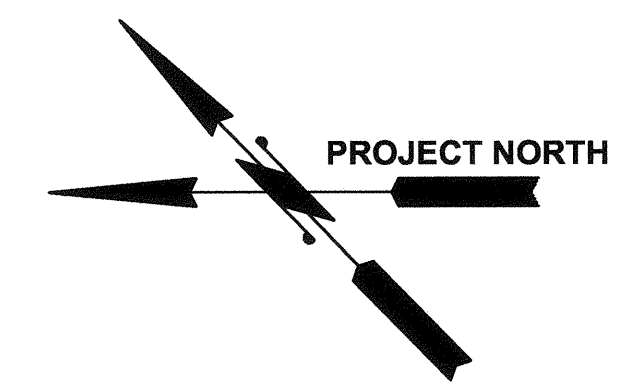
1. PORT OF TACOMA RECORD DRAWINGS INDICATE THAT A BURIED, STEPPED TIMBER BULKHEAD WALL MAY EXIST WITHIN THE PROPOSED DREDGE PRISM AND WITHIN A PORTION OF THE STONE COLUMN INSTALLATION AREA. SEE RECORD DRAWINGS TITLED, PORT OF TACOMA PIER IV BULKHEAD CONSTRUCTION (EP-1318-4, SHEETS 1 THROUGH 3) REFERENCED IN SPECIFICATION SECTION 00 31 00 - AVAILABLE PROJECT INFORMATION. THE EXISTENCE, LOCATION, AND EXTENT OF THE BURIED WALL IS UNKNOWN AND SHALL BE DETERMINED THROUGH EXPLORATORY EXCAVATION AS SHOWN ON DEMOLITION PLANS.
2. THIS DRAWING INDICATES THE ANTICIPATED LOCATION OF THE BURIED WALL SYSTEM IF IT EXISTS, BASED ON CORRELATION BETWEEN THE ABOVE REFERENCED RECORD DRAWINGS AND RECORD DRAWINGS FOR CONSTRUCTION OF THE ORIGINAL PIER 4 STRUCTURE THAT WAS DEMOLISHED IN PHASE 1 OF THE PIER 4 RECONFIGURATION PROJECT.

EXISTING CONDITIONS PLAN

SCALE: 1"=100'

LEGEND

- PROJECT WORK AREA LIMITS
- - - PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL +12.78')
- - - RIP RAP SLOPE AREA AROUND WORK LIMITS
- POSSIBLE BURIED TIMBER BULKHEAD, SEE TIMBER BULKHEAD NOTES
- ▨ CONCRETE BATTER PILES



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Port of Tacoma
 PORT OF TACOMA, WASHINGTON

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DIRECTOR ENG. DATE:	PROJ. ENGR DATE:	
PRINTED BY: kvng Mar 24, 2016	PORT ADDRESS: ONE SITCUM PLAZA	TACOMA, WA 98401-1837

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PIER 4 PHASE 2 RECONFIGURATION EXISTING CONDITIONS PLAN		
TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ Tide 22 1933	DRAWING SCALE: AS NOTED
PARCEL:	PHASE: BID	

6552	G7.1
SH 11 OF 489	
CONT/CONS: 070136	
M. ID: 091251	
PHASE: BID	

TESC NOTES:

1. APPROVAL OF THE TEMPORARY EROSION CONTROL (TESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF PIPES, STRUCTURES, ETC.) OR THE CONTRACTOR MAINTAINED CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
2. THE CONTRACTOR SHALL COMPLY WITH, MAINTAIN, AND MODIFY AS NEEDED THE APPROVED CONSTRUCTION SWPPP IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. THE IMPLEMENTATION OF THESE TESC PLANS AND CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED.
4. THE TESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS ANTICIPATED FOR SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE TESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DOES NOT LEAVE THE SITE.
5. ON-SITE EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF WORK AND SHALL BE MAINTAINED DURING AND AFTER EXCAVATION AND GRADING OPERATIONS TO THE APPROVAL OF THE PORT.
6. IF CONSTRUCTION OCCURS DURING DRY WEATHER PERIODS, DUST FROM CONSTRUCTION SHALL BE MINIMIZED THROUGH USE OF BEST MANAGEMENT PRACTICES (BMPs) OUTLINED IN THE SWPPP AND THE CITY'S STORMWATER MANUAL.
7. THE TESC FACILITIES SHOWN ON THIS PLAN SHALL BE CONSTRUCTED IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE PORT DRAINAGE SYSTEM, THE BLAIR WATERWAY, OR VIOLATE APPLICABLE WATER QUALITY STANDARDS.
8. THE TESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTION. DAILY INSPECTION REPORTS MUST BE REVIEWED BY THE CONTRACTOR, SIGNED AND MADE AVAILABLE TO THE PORT, CITY AND ANY OTHER ENVIRONMENTAL AUTHORITIES AT ALL TIMES. A COPY OF ALL INSPECTION RECORDS SHALL BE KEPT ON SITE.
9. ALL FACILITIES SHALL BE MAINTAINED ON SITE BY SWEEPING TO PREVENT DEBRIS, DUST AND MUD FROM ACCUMULATING ON THE PAVED SURFACES, BANK SLOPE, OR IN THE BLAIR WATERWAY, SITCUM WATERWAY, AND COMMENCEMENT BAY.
10. NON-COMPLIANCE WITH THE EROSION CONTROL AND WATER QUALITY REQUIREMENTS MAY RESULT IN A TEMPORARY STOP-WORK ORDER AT THE CONTRACTORS EXPENSE, UNTIL SAID EROSION CONTROL MEASURES ARE FUNCTIONAL.
11. THE CONTRACTOR SHALL REMOVE MATERIAL DROPPED, WASHED OR TRACKED FROM VEHICLES OUTSIDE OF THE DESIGNATED PROJECT WORK AREA LIMITS OR INTO THE EXISTING STORM DRAINAGE SYSTEM. DEBRIS SHALL NOT BE WASHED INTO THE STORM DRAINAGE SYSTEM, ONTO THE BANK SLOPE, OR INTO THE BLAIR WATERWAY, SITCUM WATERWAY, AND COMMENCEMENT BAY.
12. DEWATERING ACTIVITIES SHALL BE PERFORMED IN A MANNER THAT ENSURES NO SILT-LADEN WATER ENTERS THE BLAIR WATERWAY, SITCUM WATERWAY, COMMENCEMENT BAY, OR STORM DRAINAGE SYSTEM.
13. ALL CATCH BASIN INLET PROTECTION INSTALLED SHALL BE REPLACED AND LEFT IN PLACE AT THE END OF CONSTRUCTION, AFTER FINAL INSPECTION AND ACCEPTANCE.
14. REMOVE SEDIMENT FROM THE STORM SYSTEM ONCE THE SITE IS PERMANENTLY STABILIZED. THE CLEANING AND REMOVAL OPERATION SHALL NOT FLUSH SEDIMENT DOWNSTREAM.
15. COORDINATE TESC PROVISION THAT ARE OUTSIDE OF THE PROJECT WORK AREA WITH THE ENGINEER AND PORT.
16. THE CONTRACTOR SHALL REMOVE MATERIAL AND/OR DEBRIS FROM VEHICLES EXITING THE PROJECT LIMITS, BUT NOT WASH THE DEBRIS INTO THE EXISTING STORM DRAINAGE SYSTEM.
17. IN ADDITION TO INLET PROTECTION SHOWN ON PLAN, CONTRACTOR SHALL INSTALL AND MAINTAIN INLET PROTECTION ON ALL EXISTING CATCH BASINS THAT ARE DISCOVERED IN FIELD WITHIN THE PROJECT WORK AREA LIMITS.
18. THE TEMPORARY FLOATING DEBRIS BOOM SHALL BE INSTALLED AT THE START OF WORK AND MAINTAINED, UPGRADED, REPAIRED OR REPLACED THE ENTIRE CONSTRUCTION PERIOD UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED.
19. APPROXIMATELY 250 SURFACE DECK DRAINS ARE WITHIN PROJECT WORK AREA LIMITS AND 310 SUBSURFACE DECK DRAINS ARE WITHIN THE DEMOLITION LIMITS INTERIOR TO THE PROJECT WORK AREA LIMITS. THESE QUANTITIES ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY. ALL EXPOSED DECK DRAIN HOLES WITHIN THE PROJECT WORK AREA LIMITS SHALL BE COVERED OR TEMPORARILY PLUGGED TO PREVENT DISCHARGE TO WATERWAY.

6552

G8.1

SH 12 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2

RECONFIGURATION

TESC GENERAL NOTES

APPROVED:

[Signature]
3-28-16

DIRECTOR ENG. DATE

PRINTED BY: gcarey

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

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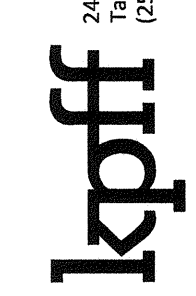
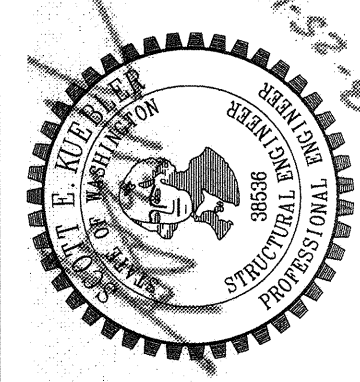
DATE

PROJ. ENGR

DATE

Mar 24, 2016

TACOMA, WA 98401-1837



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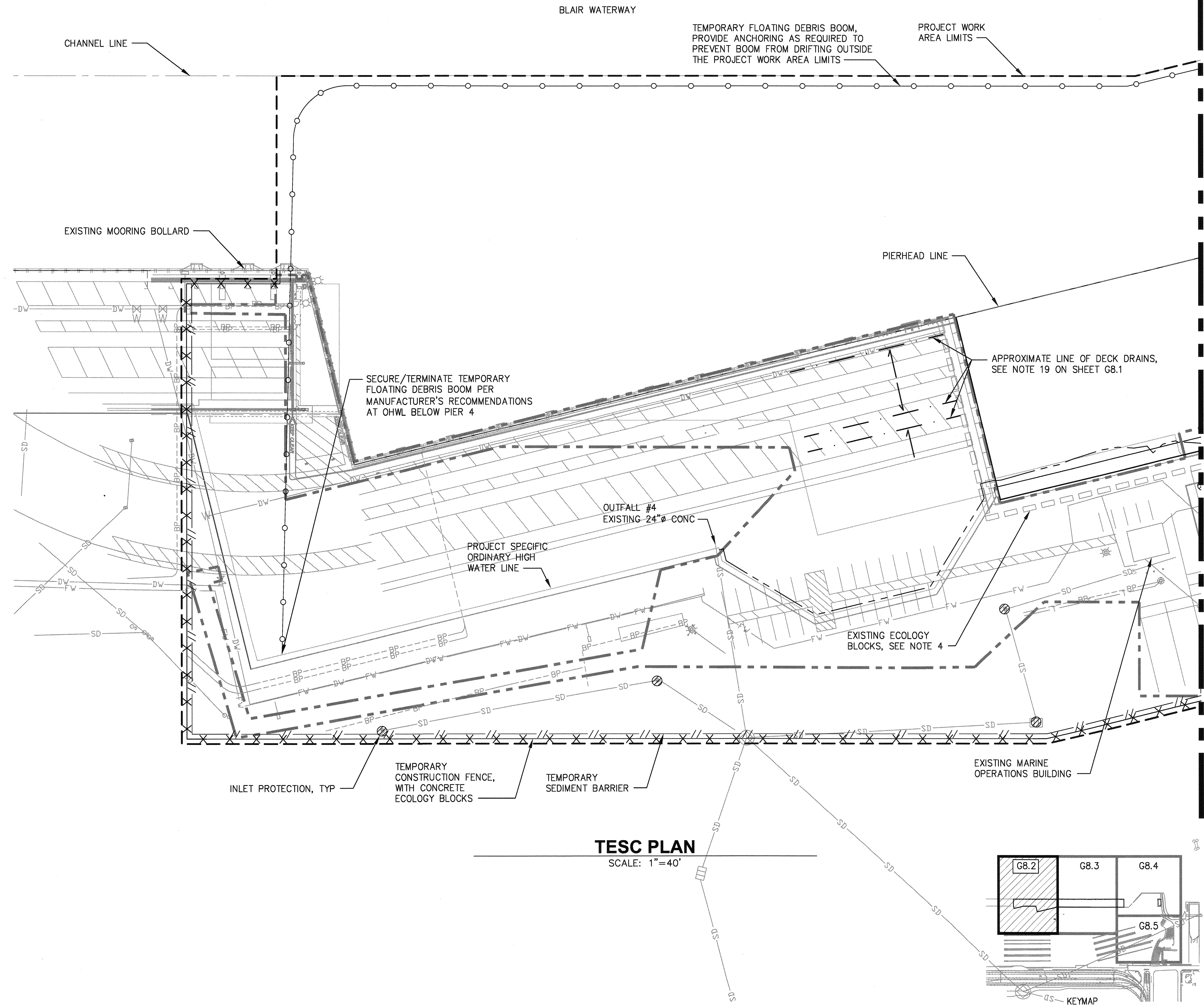


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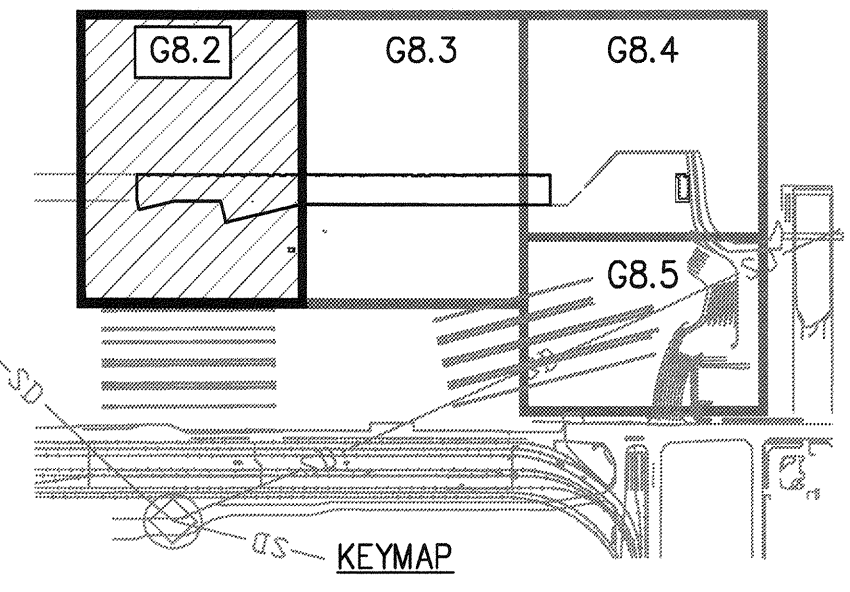
MARK: REVISION: BY: APPR: DATE:

PORT OF TACOMA FILE: M:\2014\14096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-G8.2-G8.3-G8.4-G8.5 (TESC Plan - Sheet X)

BINDING EDGE



TESC PLAN
SCALE: 1"=40'



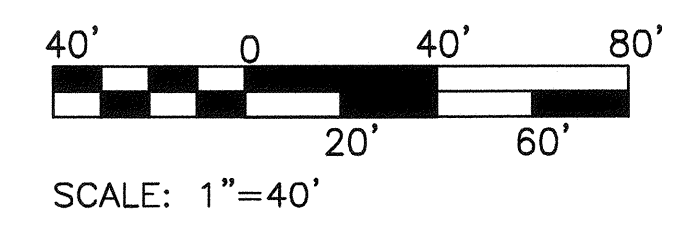
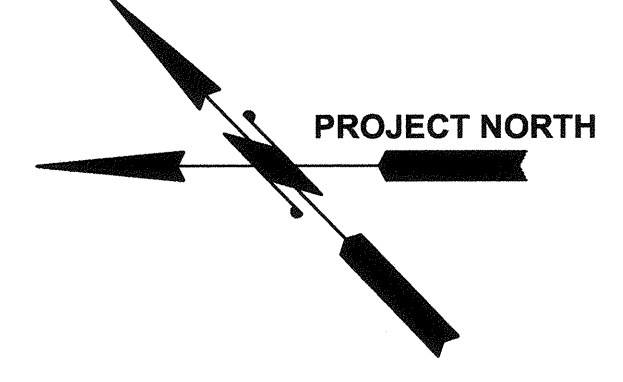
TESC NOTES

- SEE SHEET G8.1 FOR TESC NOTES.
- INDIVIDUAL PIER DECK SURFACE DRAINS ARE NOT SHOWN.
- SEE SHEET G6.1 FOR TEMPORARY CONSTRUCTION FENCE LOCATION COORDINATES.
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- CONTRACTORS SHALL PROVIDE ALL PUMPS, TANKS, SHORING, LABOR, AND EQUIPMENT NECESSARY TO ADEQUATELY DEWATER AND STABILIZE EXCAVATIONS. SEE GEOTECHNICAL REPORT FOR APPROXIMATE GROUNDWATER ELEVATION.
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- TEMPORARY CONSTRUCTION FENCE IN CONTRACTOR LAYDOWN AREA IS OPTIONAL, ECOLOGY BLOCKS NOT REQUIRED TO SECURE TEMPORARY CONSTRUCTION FENCE LOCATED IN CONTRACTOR LAYDOWN AREA.
- CONTRACTOR CAN MAINTAIN SEPARATION BETWEEN CONSTRUCTION STORMWATER AND OFF-SITE STORMWATER. EXISTING TREATMENT FOR OFF-SITE STORMWATER WITHIN PROJECT LIMITS SHALL BE MAINTAINED. CONTRACTOR SHALL PROVIDE TREATMENT SYSTEM AND TANKS TO MEET PERMIT THRESHOLD REQUIREMENTS FOR STORMWATER THAT COMINGLES WITH CONSTRUCTION STORMWATER PRIOR TO TREATMENT.

MATCH LINE SEE SHEET G8.3

LEGEND

- PROJECT WORK AREA LIMITS
- TEMPORARY CONSTRUCTION FENCE, SEE NOTE 4 **(3) G8.6**
- INLET PROTECTION **(1) G8.6**
- TEMPORARY FLOATING DEBRIS BOOM
- TEMPORARY SEDIMENT BARRIER **(2) G8.6**
- PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL. +12.78')
- DEMOLITION LIMIT LINE, SEE DEMOLITION PLANS
- GENERAL DIRECTION OF SURFACE FLOW
- APPROXIMATE LINE OF DECK DRAINS
- EXISTING ECOLOGY BLOCKS

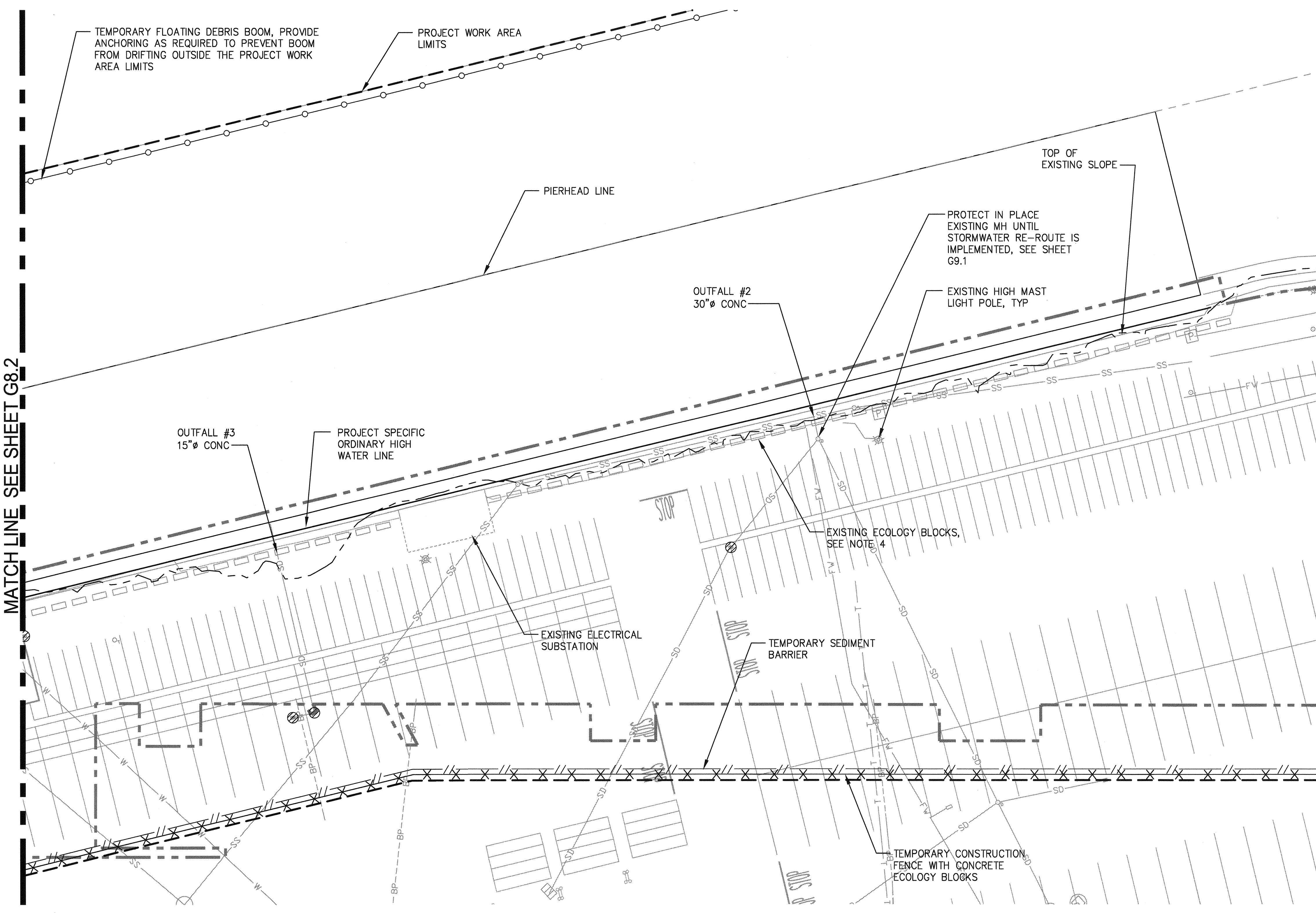


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	DIRECTOR ENG. DATE: 3-28-16 PRINTED BY: gcarey, Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	MARK: REVISION: BY: APPR: DATE:
6552 G8.2 SH 13 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION TESC PLAN - SHEET 1	SECTION: M.L.W 19.39' @ Tide 22 1933 RANGE: WA83-SF TOWNSHIP: DAT-HRZ: 091251 VERT: TIDE 22 1933 DRAWING SCALE: AS NOTED

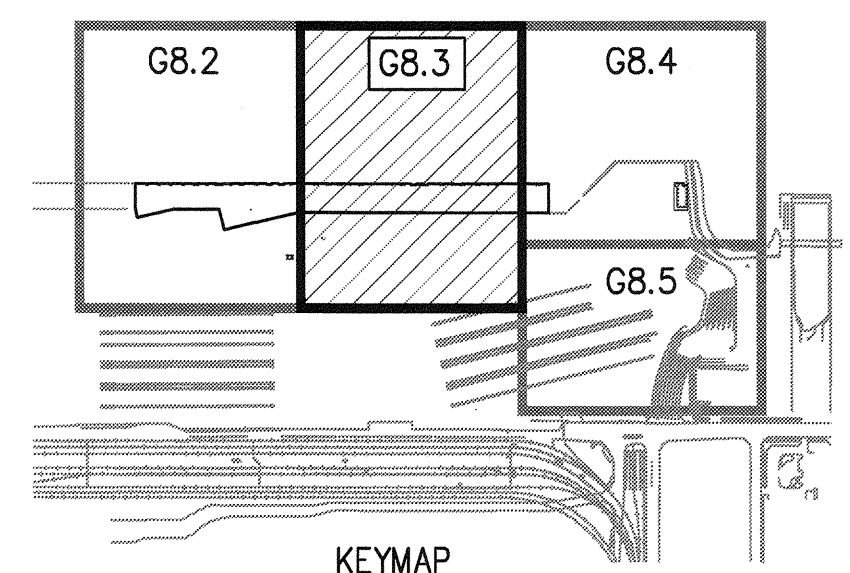
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MATCH LINE SEE SHEET G8.2

MATCH LINE SEE SHEET G8.4



TESC PLAN
SCALE: 1"=40'

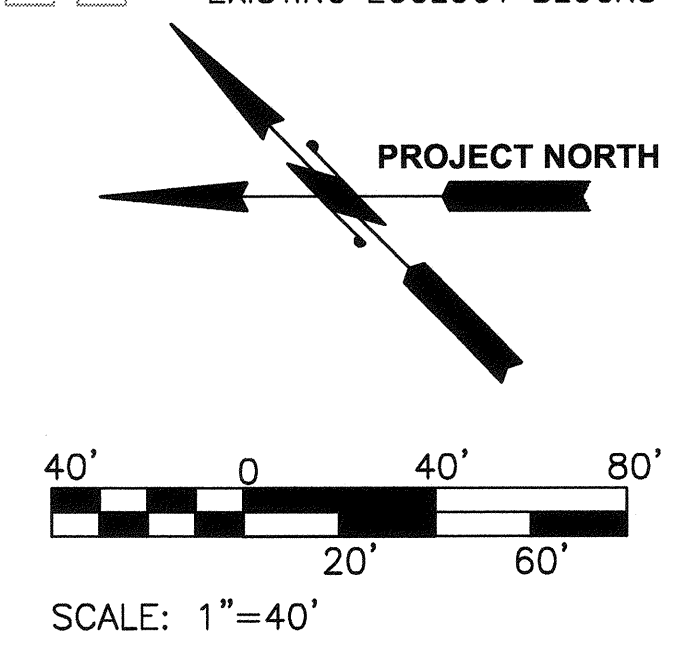


TESC NOTES

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LEGEND

- PROJECT WORK AREA LIMITS
- X X** TEMPORARY CONSTRUCTION FENCE, SEE NOTE 4 **(3) G8.6**
- ⊗** INLET PROTECTION **(1) G8.6**
- TEMPORARY FLOATING DEBRIS BOOM
- ///** TEMPORARY SEDIMENT BARRIER **(2) G8.6**
- - -** PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL. +12.78')
- - - -** DEMOLITION LIMIT LINE, SEE DEMOLITION PLANS
- ←** GENERAL DIRECTION OF SURFACE FLOW
- · -** APPROXIMATE LINE OF DECK DRAINS
- □ □** EXISTING ECLOGY BLOCKS



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PROJ. ENGR. DATE: _____

PRINTED BY: gcoley Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

APPROVED: *G. R. Ruff*

DIRECTOR ENG. DATE: 3-28-16

PIER 4 PHASE 2 RECONFIGURATION

TESC PLAN - SHEET 2

RANGE: MLW 19.39' @ Tide 22 1933

TOWNSHIP: 070136

DAT-HRZ: WA83-SF

SECTION: M.L.W. 19.39' @ Tide 22 1933

VERT: M.L.W. 19.39' @ Tide 22 1933

DRAWING SCALE: AS NOTED

6552

G8.3

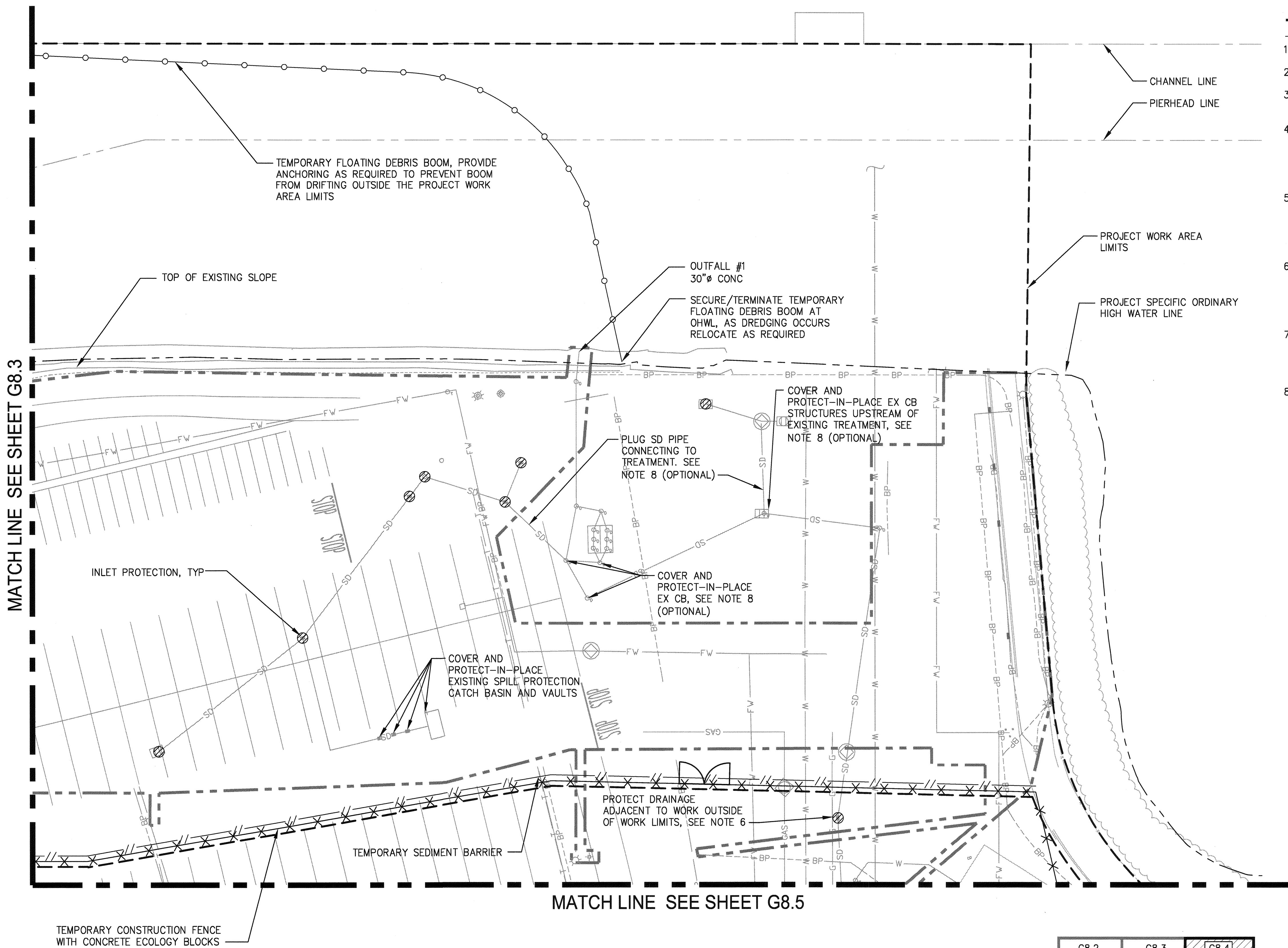
SH 14 OF 499

CONTR/CONS: 070136

M. ID: 091251

PHASE: BID

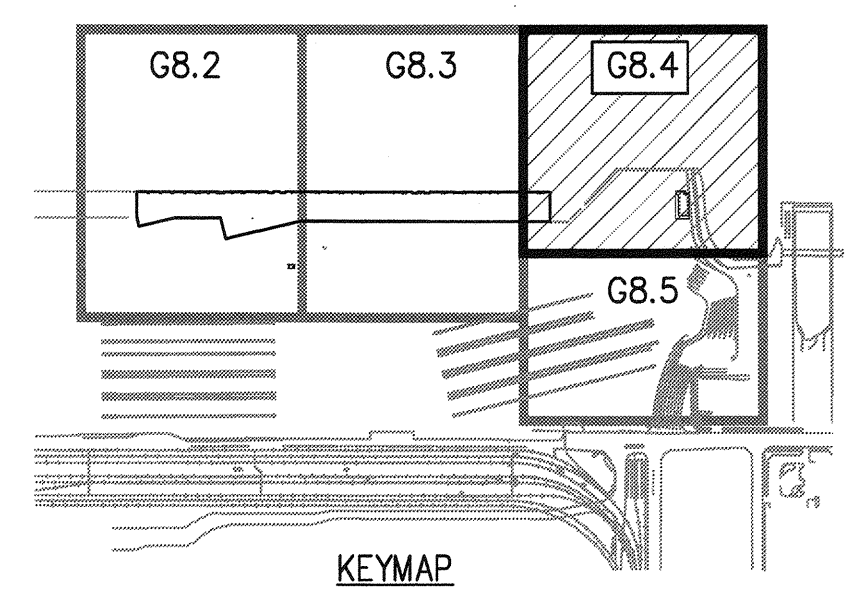
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MATCH LINE SEE SHEET G8.3

MATCH LINE SEE SHEET G8.5

TESC PLAN
SCALE: 1"=40'

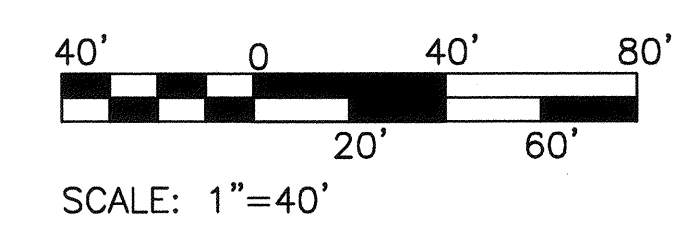
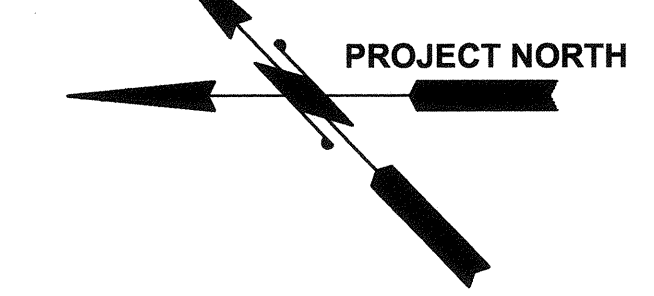


TESC NOTES

- SEE SHEET G8.1 FOR TESC NOTES.
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- SEE SHEET G6.1 FOR TEMPORARY CONSTRUCTION FENCE LOCATION COORDINATES.
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LEGEND

- PROJECT WORK AREA LIMITS
- X X TEMPORARY CONSTRUCTION FENCE, SEE NOTE 4 **3** G8.6
- ⊗ INLET PROTECTION **1** G8.6
- ○ TEMPORARY FLOATING DEBRIS BOOM
- /// TEMPORARY SEDIMENT BARRIER **2** G8.6
- - - PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL. +12.78')
- - - DEMOLITION LIMIT LINE, SEE DEMOLITION PLANS
- GENERAL DIRECTION OF SURFACE FLOW
- - - APPROXIMATE LINE OF DECK DRAINS
- □ EXISTING ECOLOGY BLOCKS



6552 G8.4
SH 15 OF 499
CONT/CONS: 070136
M ID: 091251
PHASE: BID

PIER 4 PHASE 2 RECONFIGURATION
TESC PLAN - SHEET 3

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PROJ. ENGR DATE:
TOWNSHIP: MLW 19.39' @ Tide 22 1933
DAT-HRZ: WA83-SF
PARCEL:
DRAWING SCALE: AS NOTED

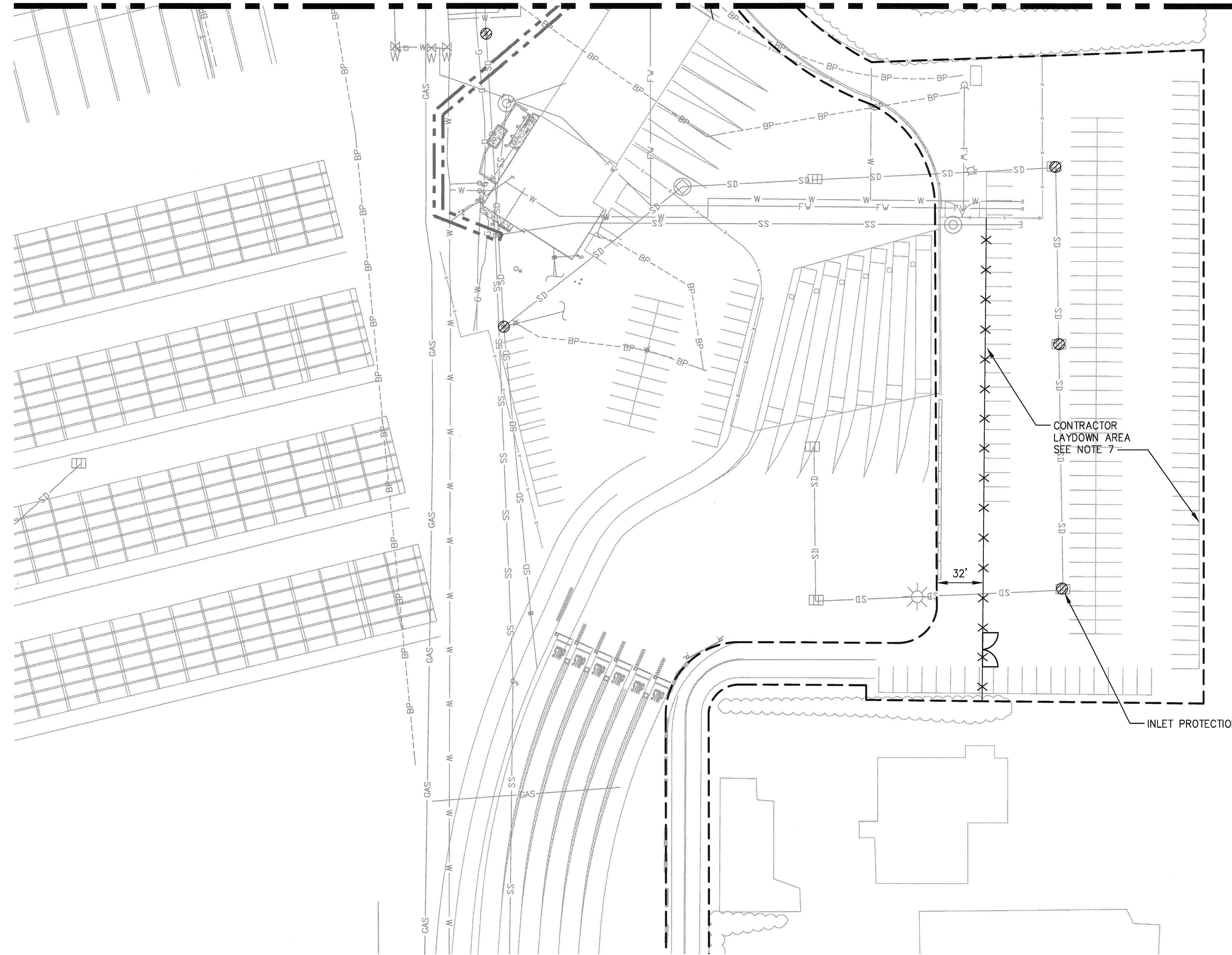
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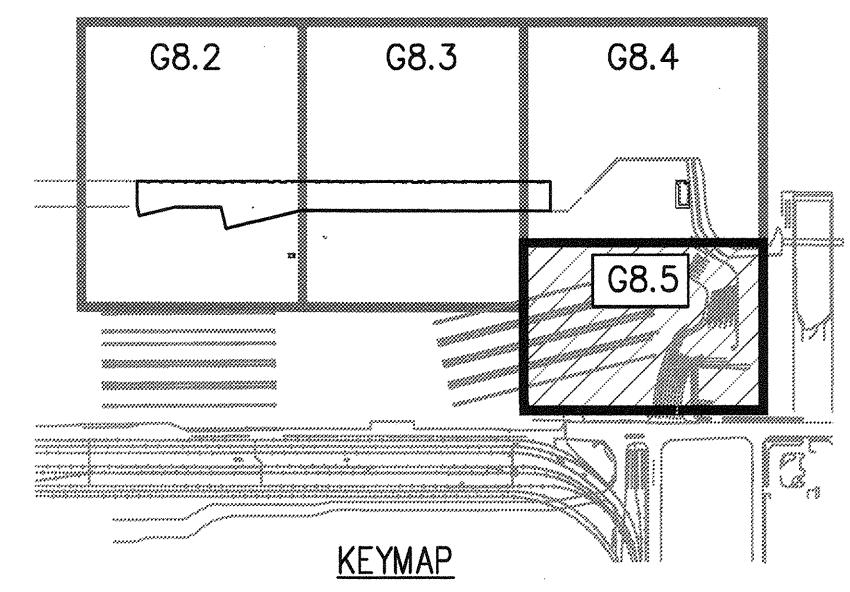
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MATCH LINE SEE SHEET G8.4



TESC PLAN
SCALE: 1"=40'

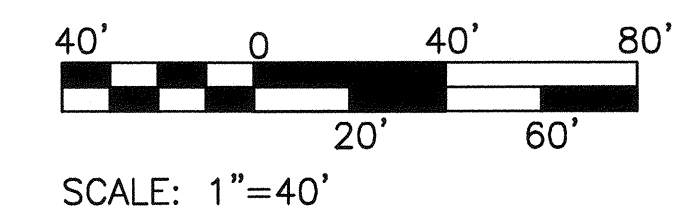
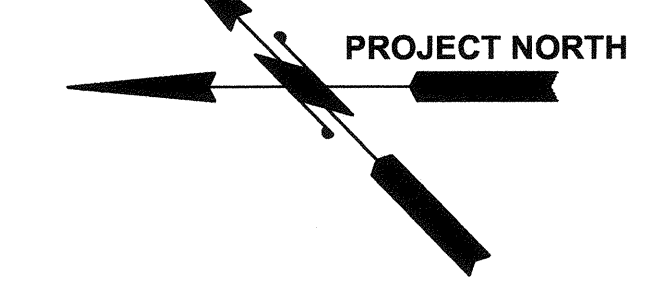


TESC NOTES

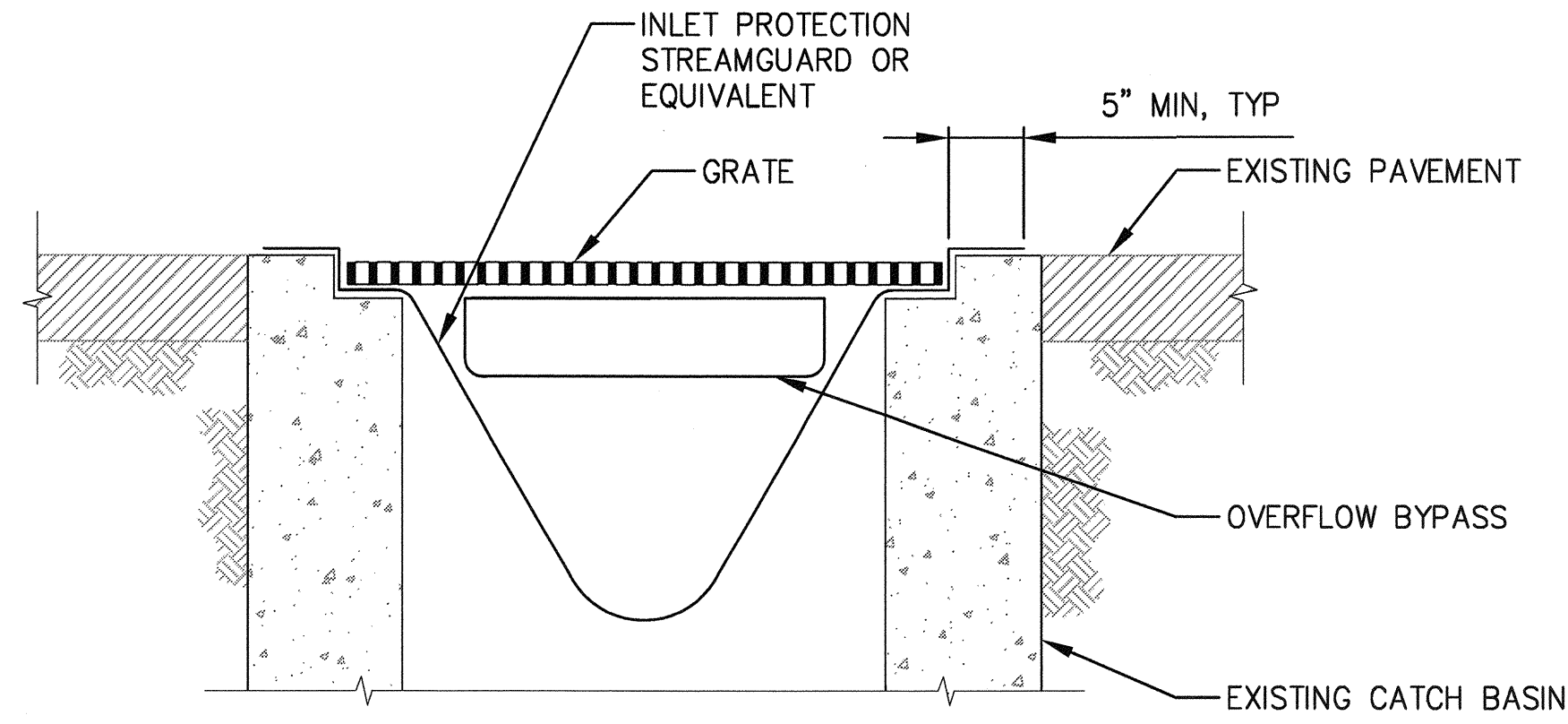
1. SEE SHEET G8.1 FOR TESC NOTES.
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LEGEND

- PROJECT WORK AREA LIMITS
- TEMPORARY CONSTRUCTION FENCE, SEE NOTE 4 **3 G8.6**
- INLET PROTECTION **1 G8.6**
- TEMPORARY FLOATING DEBRIS BOOM
- TEMPORARY SEDIMENT BARRIER **2 G8.6**
- PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL. +12.78')
- DEMOLITION LIMIT LINE, SEE DEMOLITION PLANS
- GENERAL DIRECTION OF SURFACE FLOW
- APPROXIMATE LINE OF DECK DRAINS
- EXISTING ECOLOGY BLOCKS



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	MARK: _____ REVISION: _____	BY: _____ DATE: _____
	CHECKED BY: _____ DATE: _____	PROJECT ENGR: _____ DATE: _____
APPROVED: <i>G. Carey</i> 3-24-16	DIRECTOR ENG. DATE: gcarey Mar 24, 2016 PRINTED BY: gcarey Mar 24, 2016 PORT ADDRESS: ONE SITJUM PLAZA TACOMA, WA 98401-1837	SECTION: _____ RANGE: M.L.W 19.39' @ Tide 22 1933 VERT: WA83-SF DRAWING SCALE: AS NOTED
6552 G8.5 SH 16 OF 489	PIER 4 PHASE 2 RECONFIGURATION TESC PLAN - SHEET 4	TOWNSHIP: _____ DAT-HRZ: WA83-SF PARCEL: _____
CONT/CONS: 070136 M. ID: 091251 PHASE: BID		THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION

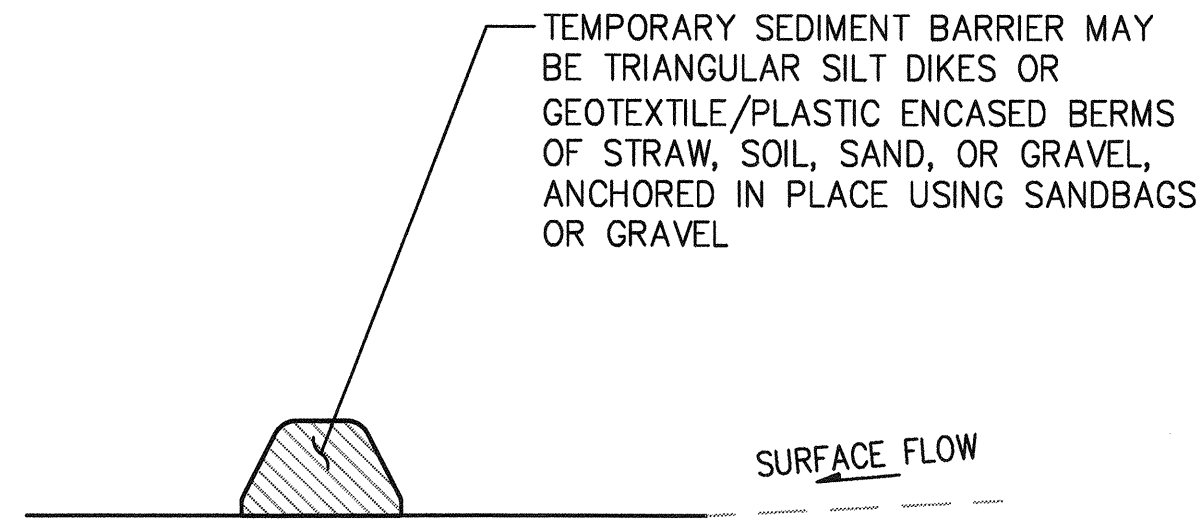


MAINTENANCE STANDARDS:

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED BY FLUSHING. ALL SEDIMENT MUST BE DISPOSED OF OFF-SITE.
2. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY, OR AS DIRECTED BY THE ENGINEER.

1
CATCH BASIN INLET PROTECTION

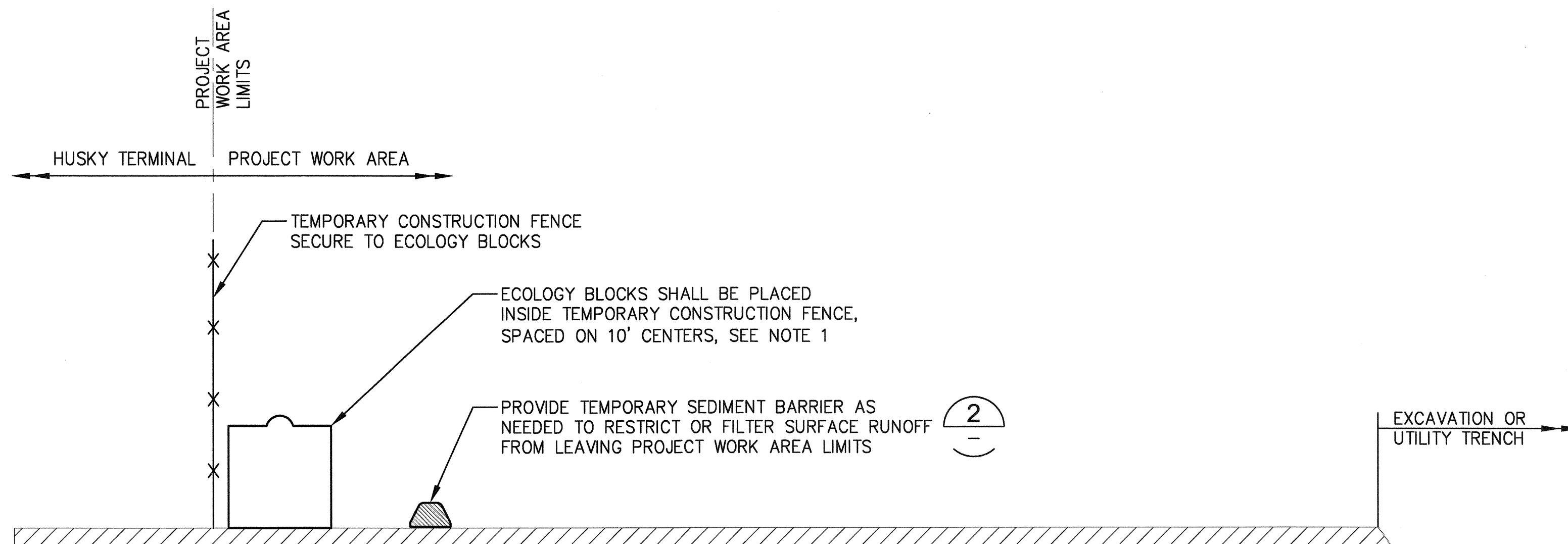
G8.1, G8.2, G8.3, G8.4, G8.5 NTS



2
TEMPORARY SEDIMENT BARRIER

G8.2, G8.3, G8.4

NTS

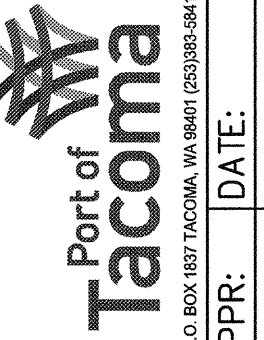


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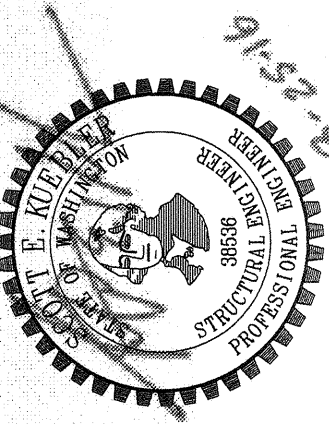
1. PRIOR TO START OF WORK EXISTING ECOLOGY BLOCKS FROM THE TOP OF EXISTING SLOPE AND WITHIN THE PROJECT WORK AREA LIMITS, SHALL BE SALVAGED AND PLACED INSIDE THE TEMPORARY CONSTRUCTION FENCE. CONTRACTOR SHALL ACQUIRE ADDITIONAL ECOLOGY BLOCKS AS NECESSARY.

3
TEMPORARY CONSTRUCTION FENCE

G6.1, G8.2, G8.3, G8.4, G8.5, D1.1, D1.2, D1.3, D1.4 NTS



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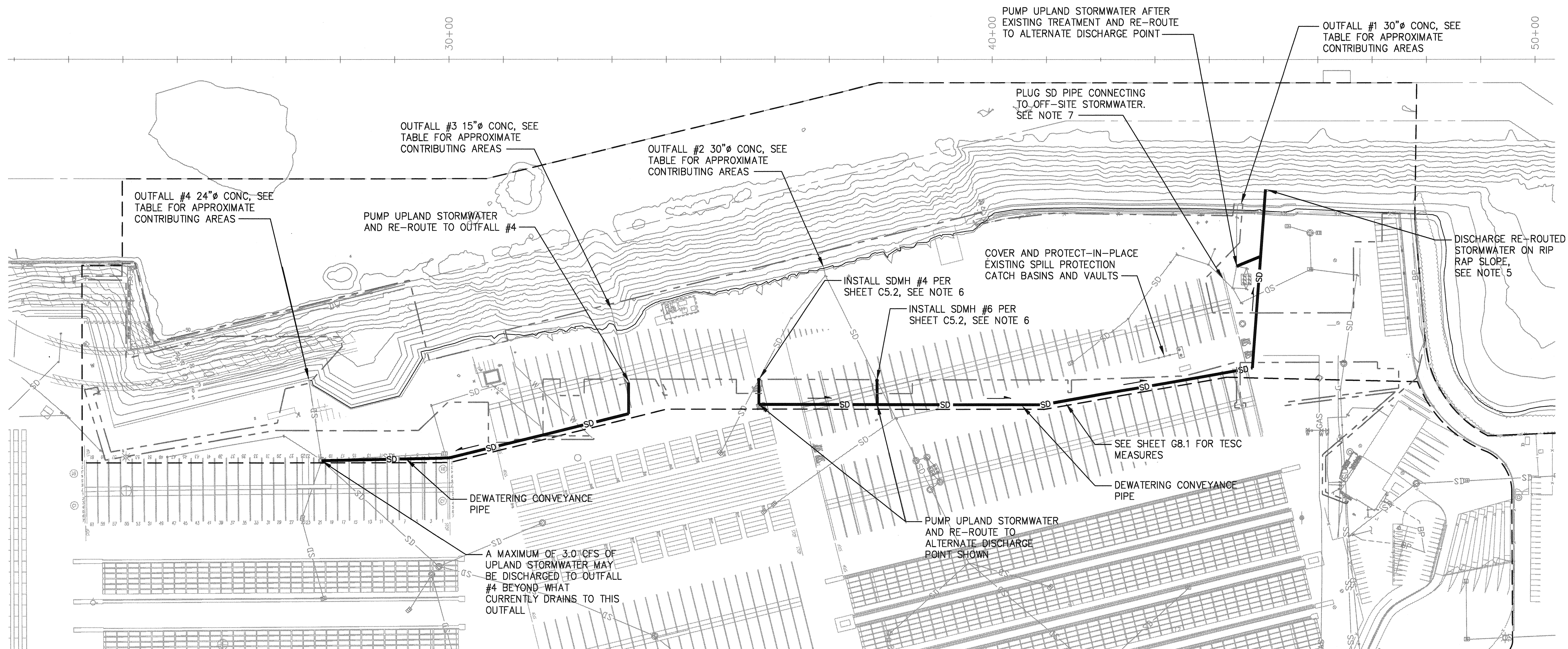


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DIRECTOR ENG. DATE: 3-28-16
PRINTED BY: kvang
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION TESC DETAILS

6552 G8.6
SH 17 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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TEMPORARY OFF-SITE STORMWATER RE-ROUTE PLAN

SCALE: 1"=100'

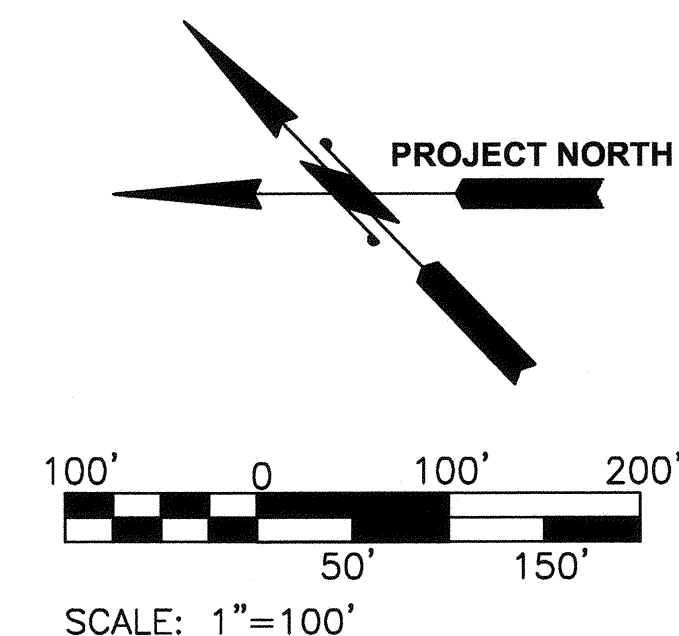
NOTES

1. THE DEWATERING SYSTEM SHOWN ON THIS PLAN IS A RECOMMENDED ALTERNATIVE, CONTRACTOR TO DETERMINE FINAL CONFIGURATION AND SHALL DEVELOP A TEMPORARY OFF-SITE STORMWATER REROUTE PLAN TO REROUTE ALL OFF-SITE STORMWATER DURING CONSTRUCTION. SEE SPECIFICATION SECTION 31 23 19 - DEWATERING FOR FURTHER REQUIREMENTS.
2. CONTRACTOR MAY UTILIZE THE EXISTING UPSTREAM CONVEYANCE SYSTEM FOR DETENTION BUT SHALL PREVENT STORMWATER FROM FLOODING THE YARD. CONTRACTOR SHALL PROVIDE ALL PUMPS, TANKS, PIPES, HOSES, EQUIPMENT AND POWER NECESSARY TO REROUTE OFF-SITE STORMWATER, SEE TABLE FOR CONTRIBUTING AREAS TO EACH OUTFALL. CONTRACTOR SHALL NOT EXCEED THE CAPACITY OF EXISTING OUTFALLS BEING USED FOR DISCHARGE POINTS. CONTRACTOR SHALL INSTALL ALL NECESSARY DEWATERING EQUIPMENT REQUIRED TO REROUTE THE OFF-SITE STORMWATER PRIOR TO DEMOLITION OF THE EXISTING STORMWATER OUTFALLS AND UNTIL THE OUTFALLS AND CONVEYANCE SYSTEMS AS SHOWN ON THE DRAINAGE PLANS HAVE BEEN CONSTRUCTED AND APPROVED BY THE ENGINEERS.
3. CONTRACTOR SHALL COLLECT AND MANAGE ALL STORMWATER RUNOFF FROM WITHIN THE PROJECT WORK AREA PER THE CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN (SWPPP), SEE SPECIFICATION SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL AND CONSTRUCTION STORMWATER POLLUTION PREVENTION FOR FURTHER REQUIREMENTS.
4. CONTRACTOR SHALL VERIFY THAT HIS DEWATERING/STORMWATER RE-ROUTE SYSTEM IS CAPABLE OF PUMPING SURFACE FLOW FROM THE FULL CONTRIBUTING AREA WITHOUT INUNDATING ANY EXISTING OUTFALLS.
5. CONTRACTOR SHALL POT-HOLE AND LOCATE EXISTING STORM DRAIN LINES WHERE INDICATED IN PLAN. CONTRACTOR SHALL INSTALL PERMANENT MANHOLES TO BE USED IN FINAL CONDITION, AND INSTALL TEMPORARY PUMPS THAT PUMP TO AN APPROVED DISCHARGE POINT.
6. CONTRACTOR CAN MAINTAIN SEPARATION BETWEEN CONSTRUCTION STORMWATER AND OFF-SITE STORMWATER. EXISTING TREATMENT FOR OFF-SITE STORMWATER WITHIN PROJECT LIMITS SHALL BE MAINTAINED. CONTRACTOR SHALL PROVIDE TREATMENT SYSTEM AND TANKS TO MEET PERMIT THRESHOLD REQUIREMENTS. FOR STORMWATER WITHIN PROJECT LIMITS OR STORMWATER THAT COMINGLES WITH CONSTRUCTION STORMWATER PRIOR TO TREATMENT.

OUTFALL APPROXIMATE CONTRIBUTING AREAS			
OUTFALL #	CONTRIBUTING AREA PRIOR TO DREDGING	CONTRIBUTING AREA AFTER DREDGING	OUTFALL DIAMETER
1	13.3 AC	12.1 AC	30"Ø
2	21.6 AC	19.5 AC	30"Ø
3	2.7 AC	2.5 AC	15"Ø
4	15.8 AC	15.8 AC	24"Ø

LEGEND

- PROJECT WORK AREA LIMITS
- - - DEMOLITION LIMIT LINE
- SD— DEWATERING CONVEYANCE PIPE
- FLOW DIRECTION



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kpff
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(253) 396-0150 Fax (253) 396-0162

MARK: REVISION: BY: DATE: APPR: DATE:

91-52-16

CHECKED BY: DATE

PROJ. ENGR DATE

DIRECTOR ENG. DATE 3-28-16

PRINTED BY: gcarey Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

6552

G9.1

SH 18 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2 RECONFIGURATION

TEMPORARY OFF-SITE STORMWATER RE-ROUTE PLAN

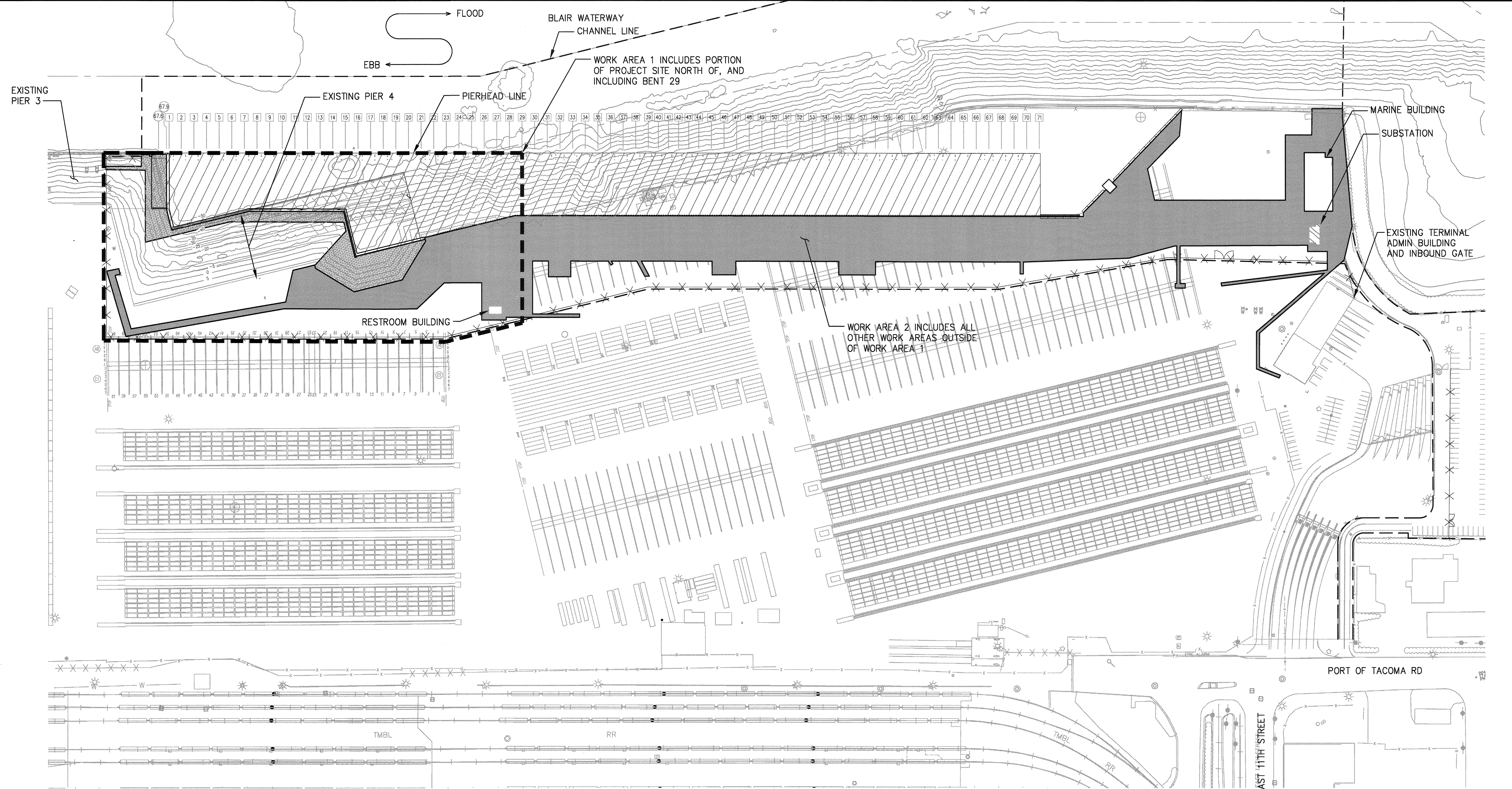
RANGE: MLLW 19.39' @ Tide 22 1933

SECTION: DAT-HRZ: WA83-SF

DRAWING SCALE: AS NOTED

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PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-G10.1 (Work Area Designation)



LEGEND

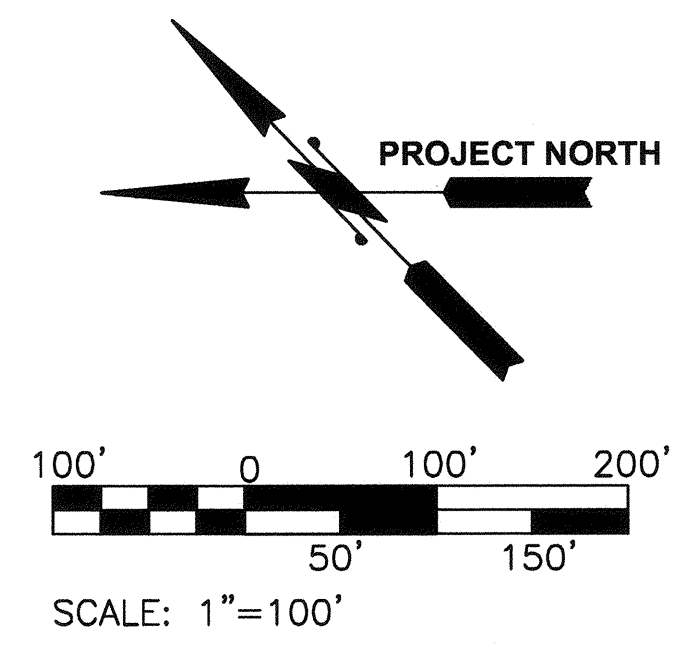
- LIMIT OF WORK AREA 1
- - - PROJECT WORK AREA LIMITS
- × × × TEMPORARY CONSTRUCTION FENCE
- APPROXIMATE LIMITS OF UPLAND GRADING/PAVING
- ▨ RECONFIGURED PIER 4

WORK AREA DESIGNATION PLAN

SCALE: 1"=100'

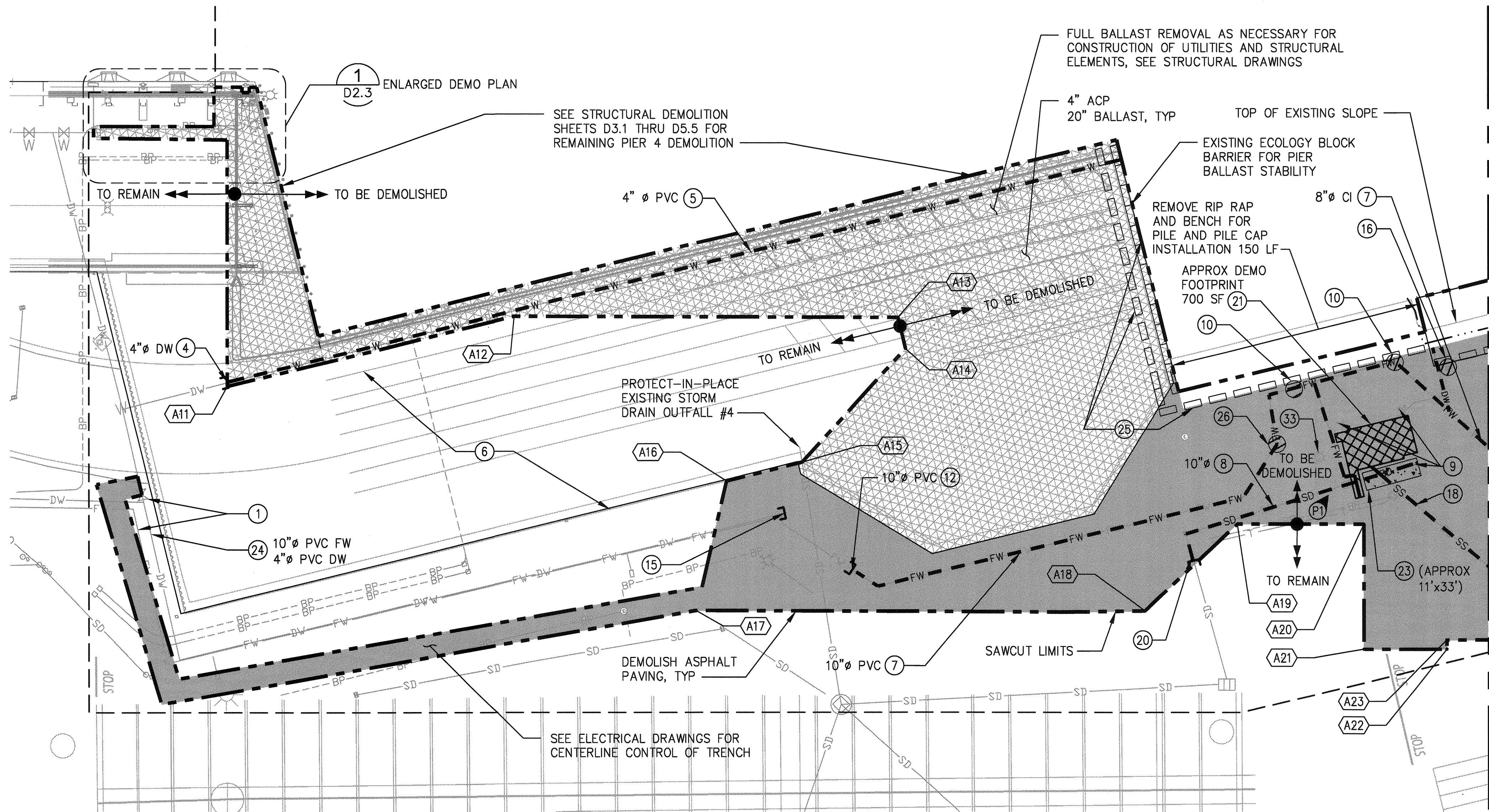
NOTES

1. THE INTENT OF THIS SHEET IS TO ILLUSTRATE THE EXTENT OF THE PROJECT WORK AREAS 1 AND 2 WITH RESPECT TO THE OVERALL PROJECT SITE. MILESTONES FOR SUBSTANTIAL COMPLETION DIFFER FOR AREAS 1 AND 2 AND ARE AS DEFINED IN SECTION 00 52 00 - AGREEMENT FORM. SEE SECTION 01 10 00 - SUMMARY FOR ADDITIONAL INFORMATION REGARDING PROJECT PHASING AND WORK REQUIREMENTS WITHIN EACH AREA. THIS PLAN IS FOR ILLUSTRATIVE PURPOSES ONLY AND DOES NOT INDICATE ALL COMPONENTS OF WORK WITHIN EACH WORK AREA.



 2407 North 31st Street, Suite 100 (253) 396-0150 Fax (253) 396-0162	MARK: _____ REVISION: _____ BY: _____	APPR: _____ DATE: _____
APPROVED: <i>David Howard</i> DIRECTOR ENG. DATE: 3-28-16	CHECKED BY: _____ DATE: _____	PROJ. ENGR. DATE: _____ PRINTED BY: gcoey Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
6552 G10.1 SH 19 OF 499	PIER 4 PHASE 2 RECONFIGURATION WORK AREA DESIGNATION PLAN	SECTION: _____ RANGE: MLLW 19.39' @ Tide 22 1933 TOWNSHIP: _____ DAT-HRZ: WA83-SF VERT: _____ DRAWING SCALE: AS NOTED PARCEL: _____

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UTILITY AND SITE DEMOLITION PLAN
SCALE: 1"=40'

MATCH LINE SEE SHEET D1.2

NOTES

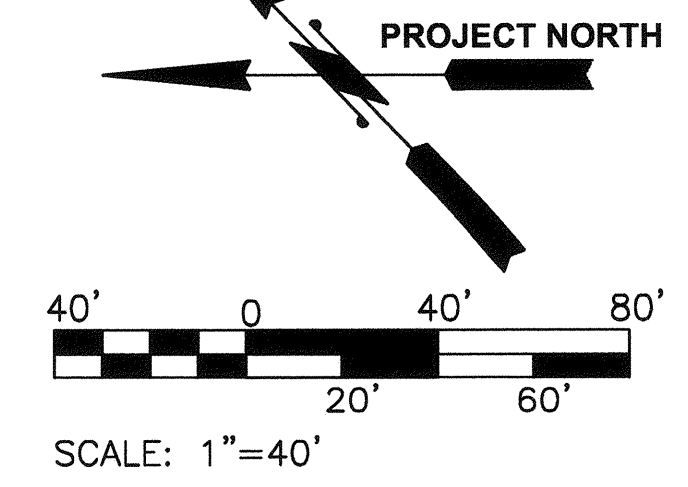
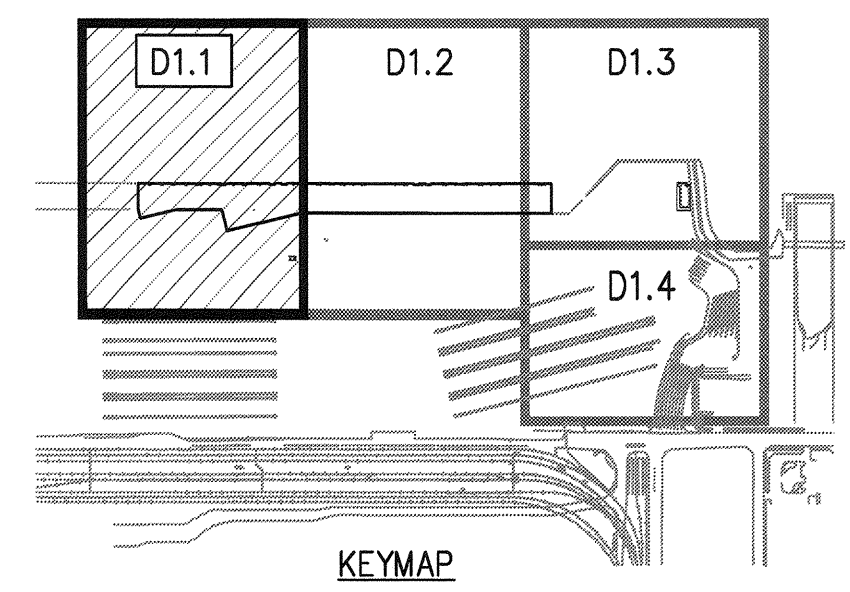
1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DRAWINGS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL POTHOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL DEMOLITION PLANS E2.1 AND E2.2 FOR ELECTRICAL AND COMMUNICATION DEMOLITION REQUIREMENTS, INCLUDING HIGH MAST LIGHT POLE DEMOLITION REQUIREMENTS.
3. UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
4. ALL ITEMS MARKED FOR DEMOLITION SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER THE SPECIFICATIONS, UNLESS OTHERWISE INDICATED FOR SALVAGE IN SPECIFICATIONS, SEE SECTION 02 41 00.
5. SEE SHEET D2.2 FOR SAWCUT CONTROL.
6. REFER TO SPECIFICATION SECTION 01 14 00, WORK RESTRICTIONS FOR WORK SEQUENCE, SCHEDULE CONSTRAINTS, AND WORK LOCATED OUTSIDE OF THE PROJECT WORK AREA LIMITS.

LEGEND

- PROJECT WORK AREA LIMITS
- - - DEMOLITION LIMIT LINE
- DREDGE BOUNDARY / TOP OF SLOPE
- [Hatched Box] DEMOLISH AND REMOVE EXISTING UTILITY STRUCTURE AND APPURTENANCES
- [Solid Grey Box] DEMOLISH ASPHALT PAVING AND BASE COURSE. SAWCUT AS REQUIRED
- [Cross-hatched Box] DEMOLISH EXISTING BUILDING
- [Diagonal Hatched Box] DEMOLISH EXISTING ELECTRICAL SUBSTATION
- [Circular Hatched Box] TIMBER BULKHEAD EXPLORATORY EXCAVATION PIT
- [Vertical Hatched Box] CONC BATTER PILE TO BE DEMOLISHED
- [Wavy Hatched Box] RIP RAP SLOPE TO BE DEMOLISHED
- [Grid Hatched Box] DEMOLISH ASPHALT PAVING AND PIER BALLAST. SAWCUT AS REQUIRED
- [Square with X] CUT AND CAP EXISTING UTILITY (1 D2.1)
- [Dashed Box] EXISTING ECOLOGY BLOCKS
- [SD, SS, DW, FW, W] DEMOLISH AND REMOVE EXISTING UTILITY PER KEY NOTES
- [P1] PHOTO ORIENTATION, SEE SHEET D2.2
- [A3] SAWCUT CONTROL POINT, SEE SHEET D2.2

KEY NOTES

1. PRIOR TO BEGINNING WATER LINE DEMOLITION, FIELD LOCATE AND CLOSE EXISTING GATE VALVES.
2. ABANDON EXISTING WATER LINE.
3. ABANDON EXISTING STORM DRAIN LINE.
4. CUT AND CAP EXISTING WATER LINE PER DETAIL 1 ON SHEET D2.1, SIZE AND MATERIAL PER PLAN.
5. DEMOLISH EXISTING 4" DOMESTIC WATER LINE.
6. REMOVE EXISTING PAVEMENT MARKINGS FROM EXISTING PIER 4 STRUCTURE WHICH IS TO REMAIN IN PLACE.
7. DEMOLISH EXISTING FIRE WATER LINE.
8. DEMOLISH EXISTING STORM DRAIN LINE.
9. DEMOLISH EXISTING CLEAN OUT.
10. DEMOLISH EXISTING GATE VALVE.
11. PROTECT-IN-PLACE EXISTING FIRE WATER LINE.
12. TEMPORARILY CUT AND CAP EXISTING WATER LINE PER DETAIL 1 ON SHEET D2.1, SEE UTILITY SHEETS C6.1 THRU C6.4 FOR FUTURE CONNECTION.
13. TEMPORARILY CUT AND CAP EXISTING STORM DRAIN GRAVITY LINE, SEE SHEETS C5.1 THRU C5.3 FOR FUTURE CONNECTION.
14. DEMOLISH CONCRETE OUTFALL PIPE.
15. DEMOLISH EXISTING AIR RELEASE VALVE, TEMPORARILY CUT AND CAP PRESSURIZED WATER LINE PER DETAIL 1 ON SHEET D2.1. SEE UTILITY SHEETS C6.1 THRU C6.4 FOR FUTURE CONNECTION.
16. DEMOLISH EXISTING STORM DRAIN CATCH BASIN AND BACKFILL HOLE IF OUTSIDE OF DREDGE CUTBACK.
17. DEMOLISH EXISTING STORM DRAIN MANHOLE AND BACKFILL HOLE IF OUTSIDE OF DREDGE CUTBACK.
18. DEMOLISH EXISTING SANITARY SEWER GRAVITY LINE AND CONNECTED STRUCTURES.
19. CUT AND CAP EXISTING SANITARY SEWER GRAVITY LINE PER DETAIL 1 ON D2.1.
20. CUT AND CAP EXISTING STORM DRAIN GRAVITY LINE PER DETAIL 1 ON D2.1.
21. DEMOLISH MARINE OPERATIONS BUILDING, ADJACENT CONCRETE PADS, ASSOCIATED STRUCTURES, BOLLARDS, WHEEL STOPS, AND UTILITIES.
22. DEMOLISH EXISTING ELECTRICAL SUBSTATION, ASSOCIATED CONCRETE PADS, VAULTS AND UTILITY LINES UNLESS NOTED OTHERWISE, ONLY AFTER TEMPORARY POWER SYSTEMS HAVE BEEN INSTALLED, SEE ELECTRICAL PLANS FOR TEMPORARY ELECTRICAL SERVICE AND DEMOLITION.
23. DEMOLISH REMNANT CONCRETE PAD.
24. PROTECT-IN-PLACE EXISTING FIRE AND DOMESTIC WATER LINES AT HIGH MAST LIGHT POLE, SEE UTILITY AND ELECTRICAL PLANS.
25. PRIOR TO START OF WORK SALVAGE EXISTING ECOLOGY BLOCKS AND PLACE INSIDE TEMPORARY CONSTRUCTION FENCE PER DETAIL 3 ON G8.6. SHOWN OFFSET FROM PAVEMENT EDGE FOR CLARITY.
26. DEMOLISH EXISTING FLUSH FIRE HYDRANT, VAULT AND ALL APPURTENANCES. IF HYDRANT IS OUTSIDE DREDGE CUTBACK, CUT AND CAP DRAIN LINE, PER DETAIL 3 ON D2.1.
27. DEMOLISH EXISTING GEOTEXTILE AND SANDBAG SHORELINE PROTECTION SYSTEM.
28. REMOVE RIP RAP AND APPROXIMATELY 1,300 LF OF REMNANT CONCRETE PILE DEBRIS IN FRONT OF THE SUBSTATION, SEE SHEET C2.1 FOR RIP RAP REMOVAL.
29. EXTRACT (33) 16-1/2" CONCRETE BATTER PILES LEFTOVER FROM PHASE 1. APPROXIMATE PILE LENGTH=75' EACH.
30. DEMOLISH REMNANT CONCRETE PILE ANCHORS AT TOP OF SLOPE.
31. 6' DEEP EXPLORATORY EXCAVATION PIT FOR BURIED TIMBER BULKHEAD, SEE SHEET D2.2 FOR HORIZONTAL CONTROL. PITS TO BE BACKFILLED AND COMPACTED PER SPECIFICATIONS.
32. POSSIBLE BURIED TIMBER BULKHEAD OUTLINE, APPROX. 700'x60'. SEE TIMBER BULKHEAD NOTES.
33. REMOVE AND SALVAGE LIGHT POLE. DEMOLISH CONCRETE BASE. SEE DETAIL 1 ON D2.2 AND SEE ELECTRICAL DEMOLITION PLANS FOR SEQUENCING.



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Port of Tacoma
P.O. Box 300 Tacoma, WA 98401

DATE: _____
APPR: _____
BY: _____
REVISION: _____

APPROVED: *[Signature]*
3-28-16
DIRECTOR ENG. DATE: kvang Mar 24, 2016
PRINTED BY: kvang
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

CHECKED BY: _____ DATE: _____
DATE: _____
DATE: _____
DATE: _____

PIER 4 PHASE 2 RECONFIGURATION
UTILITY AND SITE DEMOLITION PLAN - SHEET 1

SECTION: _____
RANGE: MLLW 19.39' @ Tide 22 1933
TOWNSHIP: WA83-SF
DATE-HRZ: _____
M. ID: 091251
DRAWING SCALE: AS NOTED
PARCEL: _____

6552
D1.1
SH 20 OF 499
CONTR/CONS: 070136
M. ID: 091251
PHASE: BID

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PORT OF TACOMA FILE: M:\2014\11-4096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251091251-D1.1-D1.2-D1.3 (Utility and Site Demolition Plan - Sheet X)

TIMBER BULKHEAD NOTES

- EXPLORATORY EXCAVATION PIT #1 SHALL BE EXCAVATED FIRST. BASED ON THE FINDINGS FROM PIT #1, THE ENGINEER WILL DIRECT THE CONTRACTOR TO EITHER CONTINUE TO EXCAVATE AT THAT LOCATION OR TO BEGIN EXCAVATION AT PIT #2. PIT #3 WILL BE EXCAVATED AT THE DIRECTION OF THE ENGINEER BASED ON THE FINDINGS FROM PIT #2.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE WALL AT THE DIRECTION OF THE ENGINEER SHOULD EXPLORATORY EXCAVATION PROVE THAT IT EXISTS. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- CONTRACTOR SHALL ASSUME THAT ALL TIMBER PILES, BRACES, PLANKING, AND MISCELLANEOUS FRAMING ELEMENTS IN THE WALL SYSTEM ARE CREOSOTE TREATED. DISPOSAL OF CREOSOTE TREATED MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- ALL TIMBER PILES WITHIN THE AREA OF WALL REMOVAL SHALL BE COMPLETELY EXTRACTED. (APPROX. 280)

- SOIL EXCAVATED WITHIN THE DREDGE PRISM FOR EXPLORATORY EXCAVATION AND/OR REMOVAL OF THE WALL MAY BE DISPOSED OF AT THE DMPP OPEN WATER DISPOSAL SITE ALONG WITH OTHER DREDGED MATERIAL. SOIL EXCAVATED OUTSIDE OF THE DREDGE PRISM SHALL BE BACKFILLED INTO PIT AND COMPACTED IN ACCORDANCE WITH EARTHWORK SPECIFICATIONS.
- WORK REQUIRED FOR EXPLORATORY EXCAVATIONS AND WALL REMOVAL THAT OCCUR WATERWARD OF THE OHWM (EL 12.78') IS SUBJECT TO IN-WATER WORK RESTRICTIONS FOR THE PROJECT.

NOTES

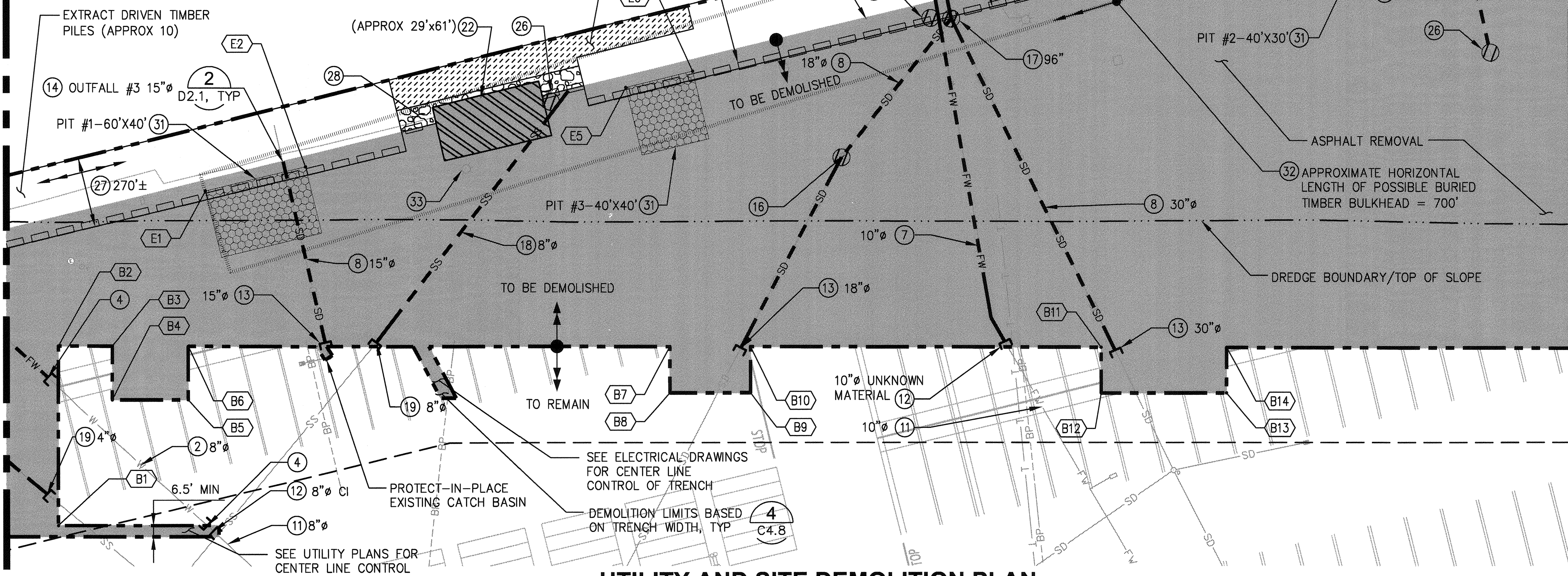
- THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DRAWINGS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL POTHOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- SEE SITE ELECTRICAL DEMOLITION PLANS E2.1 AND E2.2 FOR ELECTRICAL AND COMMUNICATION DEMOLITION REQUIREMENTS, INCLUDING HIGH MAST LIGHT POLE DEMOLITION REQUIREMENTS.
- UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
- ALL ITEMS MARKED FOR DEMOLITION SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER THE SPECIFICATIONS, UNLESS OTHERWISE INDICATED FOR SALVAGE IN SPECIFICATIONS, SEE SECTION 02 41 00.
- SEE SHEET D2.2 FOR SAWCUT CONTROL.
- REFER TO SPECIFICATION SECTION 01 14 00, WORK RESTRICTIONS FOR WORK SEQUENCE, SCHEDULE CONSTRAINTS, AND WORK LOCATED OUTSIDE OF THE PROJECT WORK AREA LIMITS.

LEGEND

- PROJECT WORK AREA LIMITS
- DEMOLITION LIMIT LINE
- DREDGE BOUNDARY / TOP OF SLOPE
- DEMOLISH AND REMOVE EXISTING UTILITY STRUCTURE AND APPURTENANCES
- DEMOLISH ASPHALT PAVING AND BASE COURSE. SAWCUT AS REQUIRED
- DEMOLISH EXISTING BUILDING
- DEMOLISH EXISTING ELECTRICAL SUBSTATION
- TIMBER BULKHEAD EXPLORATORY EXCAVATION PIT
- CONC BATTER PILE TO BE DEMOLISHED
- RIP RAP SLOPE TO BE DEMOLISHED
- DEMOLISH ASPHALT PAVING AND PIER BALLAST. SAWCUT AS REQUIRED
- CUT AND CAP EXISTING UTILITY (D2.1)
- EXISTING ECOLOGY BLOCKS
- DEMOLISH AND REMOVE EXISTING UTILITY PER KEY NOTES
- PHOTO ORIENTATION, SEE SHEET D2.2
- SAWCUT CONTROL POINT, SEE SHEET D2.2

MATCH LINE SEE SHEET D1.1

MATCH LINE SEE SHEET D1.3



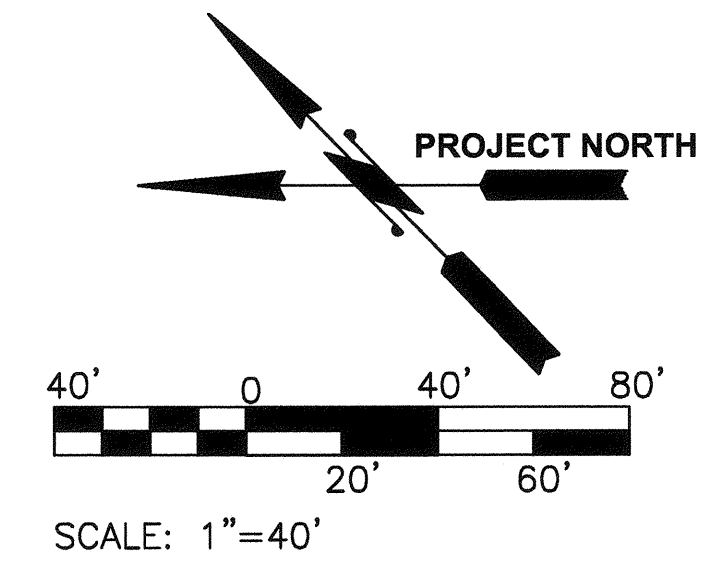
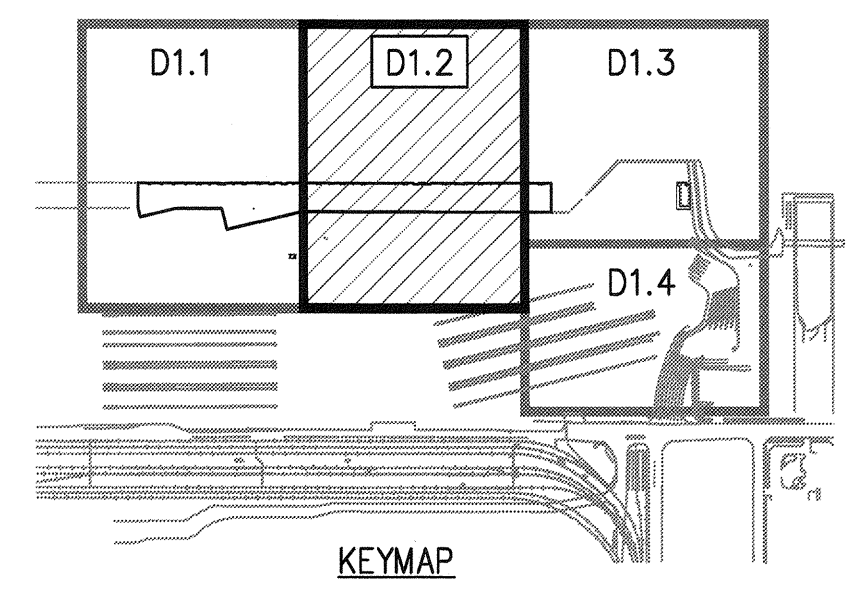
UTILITY AND SITE DEMOLITION PLAN

SCALE: 1"=40'

KEY NOTES

- PRIOR TO BEGINNING WATER LINE DEMOLITION, FIELD LOCATE AND CLOSE EXISTING GATE VALVES.
- ABANDON EXISTING WATER LINE.
- ABANDON EXISTING STORM DRAIN LINE.
- CUT AND CAP EXISTING WATER LINE PER DETAIL 1 ON SHEET D2.1, SIZE AND MATERIAL PER PLAN.
- DEMOLISH EXISTING 4" DOMESTIC WATER LINE.
- REMOVE EXISTING PAVEMENT MARKINGS FROM EXISTING PIER 4 STRUCTURE WHICH IS TO REMAIN IN PLACE.
- DEMOLISH EXISTING FIRE WATER LINE.
- DEMOLISH EXISTING STORM DRAIN LINE.
- DEMOLISH EXISTING CLEAN OUT.
- DEMOLISH EXISTING GATE VALVE.
- PROTECT-IN-PLACE EXISTING FIRE WATER LINE.
- TEMPORARILY CUT AND CAP EXISTING WATER LINE PER DETAIL 1 ON SHEET D2.1, SEE UTILITY SHEETS C6.1 THRU C6.4 FOR FUTURE CONNECTION.
- TEMPORARILY CUT AND CAP EXISTING STORM DRAIN GRAVITY LINE, SEE SHEETS C5.1 THRU C5.3 FOR FUTURE CONNECTION.
- DEMOLISH CONCRETE OUTFALL PIPE.
- DEMOLISH EXISTING AIR RELEASE VALVE, TEMPORARILY CUT AND CAP PRESSURIZED WATER LINE PER DETAIL 1 ON SHEET D2.1. SEE UTILITY SHEETS C6.1 THRU C6.4 FOR FUTURE CONNECTION.
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- DEMOLISH EXISTING STORM DRAIN MANHOLE AND BACKFILL HOLE IF OUTSIDE OF DREDGE CUTBACK.
- DEMOLISH EXISTING SANITARY SEWER GRAVITY LINE AND CONNECTED STRUCTURES.
- CUT AND CAP EXISTING SANITARY SEWER GRAVITY LINE PER DETAIL 1 ON D2.1.
- CUT AND CAP EXISTING STORM DRAIN GRAVITY LINE PER DETAIL 1 ON D2.1.
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- DEMOLISH EXISTING ELECTRICAL SUBSTATION, ASSOCIATED CONCRETE PADS, VAULTS AND UTILITY LINES UNLESS NOTED OTHERWISE, ONLY AFTER TEMPORARY POWER SYSTEMS HAVE BEEN INSTALLED, SEE ELECTRICAL PLANS FOR TEMPORARY ELECTRICAL SERVICE AND DEMOLITION.
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- PROTECT-IN-PLACE EXISTING FIRE AND DOMESTIC WATER LINES AT HIGH MAST LIGHT POLE, SEE UTILITY AND ELECTRICAL PLANS.
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- REMOVE RIP RAP AND APPROXIMATELY 1,300 LF OF REMNANT CONCRETE PILE DEBRIS IN FRONT OF THE SUBSTATION, SEE SHEET C2.1 FOR RIP RAP REMOVAL.
- EXTRACT (33) 16-1/2" CONCRETE BATTER PILES LEFTOVER FROM PHASE 1. APPROXIMATE PILE LENGTH=75' EACH.

- DEMOLISH REMNANT CONCRETE PILE ANCHORS AT TOP OF SLOPE.
- 6' DEEP EXPLORATORY EXCAVATION PIT FOR BURIED TIMBER BULKHEAD, SEE SHEET D2.2 FOR HORIZONTAL CONTROL. PITS TO BE BACKFILLED AND COMPACTED PER SPECIFICATIONS.
- POSSIBLE BURIED TIMBER BULKHEAD OUTLINE, APPROX. 700'x60'. SEE TIMBER BULKHEAD NOTES.
- REMOVE AND SALVAGE LIGHT POLE. DEMOLISH CONCRETE BASE. SEE DETAIL 1 ON D2.2 AND SEE ELECTRICAL DEMOLITION PLANS FOR SEQUENCING.



2407 North 31st Street, Suite 100
(253) 396-0150 Fax (253) 396-0162

DATE: _____

APPR: _____

BY: _____

REVISION: _____

APPROVED: *Mike Howard*
5-28-11

CHECKED BY: _____ DATE: _____

PROJECT ENGR: _____ DATE: _____

PRINTED BY: kvong Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION UTILITY AND SITE DEMOLITION PLAN - SHEET 2

SECTION: _____

RANGE: MLLW 19.39' @ Tide 22 1933

DATE-HRZ: WA83-SF

DRAWING SCALE: AS NOTED

6552 SH 21 OF 489

CONTR/CONS: 070136

M. ID: 091251

PHASE: BID

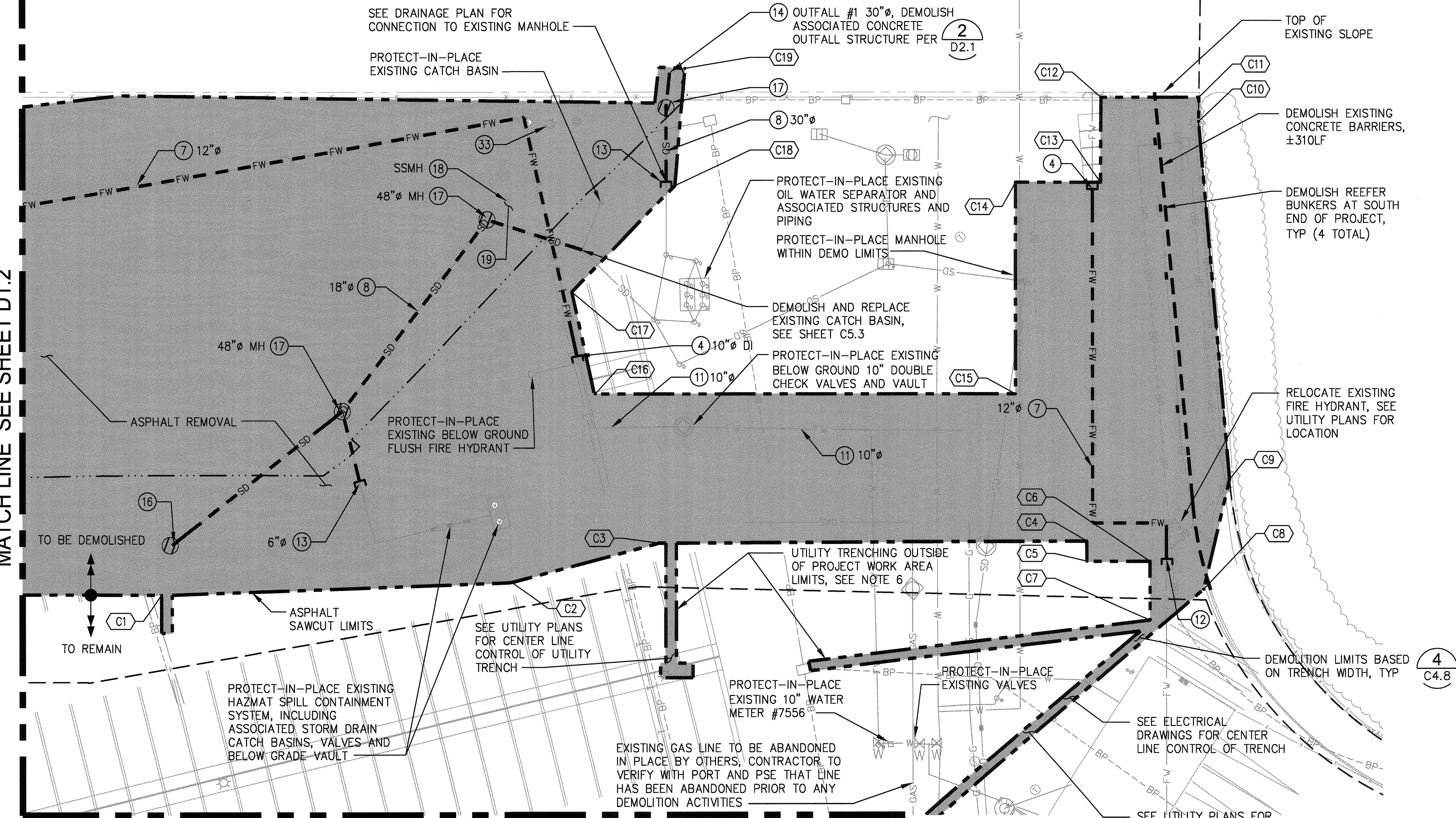
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MATCH LINE SEE SHEET D1.2

MATCH LINE SEE SHEET D1.4

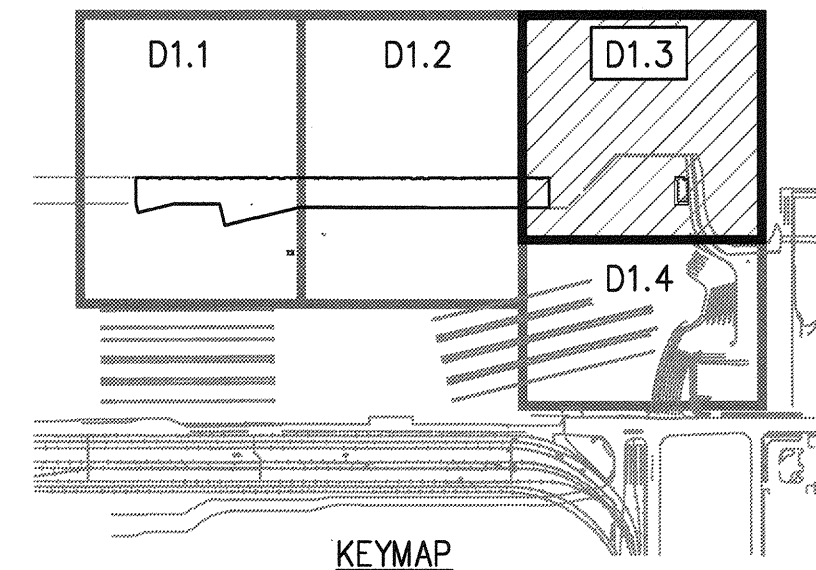
UTILITY AND SITE DEMOLITION PLAN

SCALE: 1"=40'



KEY NOTES

- 1 PRIOR TO BEGINNING WATER LINE DEMOLITION, FIELD LOCATE AND CLOSE EXISTING GATE VALVES.
- 2 ABANDON EXISTING WATER LINE.
- 3 ABANDON EXISTING STORM DRAIN LINE.
- 4 CUT AND CAP EXISTING WATER LINE PER DETAIL 1 ON SHEET D2.1, SIZE AND MATERIAL PER PLAN.
- 5 DEMOLISH EXISTING 4"Ø DOMESTIC WATER LINE.
- 6 REMOVE EXISTING PAVEMENT MARKINGS FROM EXISTING PIER 4 STRUCTURE WHICH IS TO REMAIN IN PLACE.
- 7 DEMOLISH EXISTING FIRE WATER LINE.
- 8 DEMOLISH EXISTING STORM DRAIN LINE.
- 9 DEMOLISH EXISTING CLEAN OUT.
- 10 DEMOLISH EXISTING GATE VALVE.
- 11 PROTECT-IN-PLACE EXISTING FIRE WATER LINE.
- 12 TEMPORARILY CUT AND CAP EXISTING WATER LINE PER DETAIL 1 ON SHEET D2.1, SEE UTILITY SHEETS C6.1 THRU C6.4 FOR FUTURE CONNECTION.
- 13 TEMPORARILY CUT AND CAP EXISTING STORM DRAIN GRAVITY LINE, SEE SHEETS C5.1 THRU C5.3 FOR FUTURE CONNECTION.
- 14 DEMOLISH CONCRETE OUTFALL PIPE.
- 15 DEMOLISH EXISTING AIR RELEASE VALVE, TEMPORARILY CUT AND CAP PRESSURIZED WATER LINE PER DETAIL 1 ON SHEET D2.1. SEE UTILITY SHEETS C6.1 THRU C6.4 FOR FUTURE CONNECTION.
- 16 DEMOLISH EXISTING STORM DRAIN CATCH BASIN AND BACKFILL HOLE IF OUTSIDE OF DREDGE CUTBACK.
- 17 DEMOLISH EXISTING STORM DRAIN MANHOLE AND BACKFILL HOLE IF OUTSIDE OF DREDGE CUTBACK.
- 18 DEMOLISH EXISTING SANITARY SEWER GRAVITY LINE AND CONNECTED STRUCTURES.
- 19 CUT AND CAP EXISTING SANITARY SEWER GRAVITY LINE PER DETAIL 1 ON D2.1.
- 20 CUT AND CAP EXISTING STORM DRAIN GRAVITY LINE PER DETAIL 1 ON D2.1.
- 21 DEMOLISH MARINE OPERATIONS BUILDING, ADJACENT CONCRETE PADS, ASSOCIATED STRUCTURES, BOLLARDS, WHEEL STOPS, AND UTILITIES.
- 22 DEMOLISH EXISTING ELECTRICAL SUBSTATION, ASSOCIATED CONCRETE PADS, VAULTS AND UTILITY LINES UNLESS NOTED OTHERWISE, ONLY AFTER TEMPORARY POWER SYSTEMS HAVE BEEN INSTALLED, SEE ELECTRICAL PLANS FOR TEMPORARY ELECTRICAL SERVICE AND DEMOLITION.
- 23 DEMOLISH REMNANT CONCRETE PAD.
- 24 PROTECT-IN-PLACE EXISTING FIRE AND DOMESTIC WATER LINES AT HIGH MAST LIGHT POLE, SEE UTILITY AND ELECTRICAL PLANS.
- 25 PRIOR TO START OF WORK SALVAGE EXISTING ECOLOGY BLOCKS AND PLACE INSIDE TEMPORARY CONSTRUCTION FENCE PER DETAIL 3 ON G8.6. SHOWN OFFSET FROM PAVEMENT EDGE FOR CLARITY.
- 26 DEMOLISH EXISTING FLUSH FIRE HYDRANT, VAULT AND ALL APPURTENANCES. IF HYDRANT IS OUTSIDE DREDGE CUTBACK, CUT AND CAP DRAIN LINE, PER DETAIL 3 ON D2.1.
- 27 DEMOLISH EXISTING GEOTEXTILE AND SANDBAG SHORELINE PROTECTION SYSTEM.
- 28 REMOVE RIP RAP AND APPROXIMATELY 1,300 LF OF REMNANT CONCRETE PILE DEBRIS IN FRONT OF THE SUBSTATION, SEE SHEET C2.1 FOR RIP RAP REMOVAL.
- 29 EXTRACT (33) 16-1/2"Ø CONCRETE BATTER PILES LEFTOVER FROM PHASE 1. APPROXIMATE PILE LENGTH=75' EACH.
- 30 DEMOLISH REMNANT CONCRETE PILE ANCHORS AT TOP OF SLOPE.
- 31 6' DEEP EXPLORATORY EXCAVATION PIT FOR BURIED TIMBER BULKHEAD, SEE SHEET D2.2 FOR HORIZONTAL CONTROL. PITS TO BE BACKFILLED AND COMPACTED PER SPECIFICATIONS.
- 32 POSSIBLE BURIED TIMBER BULKHEAD OUTLINE, APPROX. 700'x60'. SEE TIMBER BULKHEAD NOTES.
- 33 REMOVE AND SALVAGE LIGHT POLE. DEMOLISH CONCRETE BASE. SEE DETAIL 1 ON D2.2 AND SEE ELECTRICAL DEMOLITION PLANS FOR SEQUENCING.

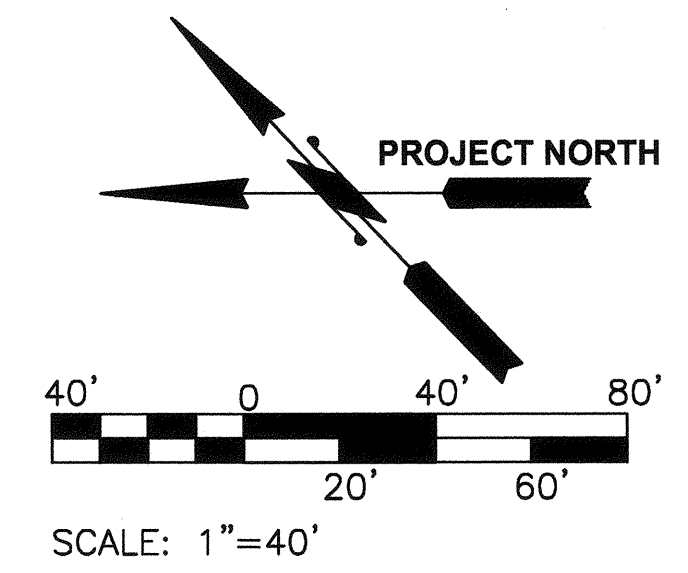


NOTES

- THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DRAWINGS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL POTHOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- SEE SITE ELECTRICAL DEMOLITION PLANS E2.1 AND E2.2 FOR ELECTRICAL AND COMMUNICATION DEMOLITION REQUIREMENTS, INCLUDING HIGH MAST LIGHT POLE DEMOLITION REQUIREMENTS.
- UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
- ALL ITEMS MARKED FOR DEMOLITION SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER THE SPECIFICATIONS, UNLESS OTHERWISE INDICATED FOR SALVAGE IN SPECIFICATIONS, SEE SECTION 02 41 00.
- SEE SHEET D2.2 FOR SAWCUT CONTROL.
- REFER TO SPECIFICATION SECTION 01 14 00, WORK RESTRICTIONS FOR WORK SEQUENCE, SCHEDULE CONSTRAINTS, AND WORK LOCATED OUTSIDE OF THE PROJECT WORK AREA LIMITS.

LEGEND

- PROJECT WORK AREA LIMITS
- - - DEMOLITION LIMIT LINE
- DREDGE BOUNDARY / TOP OF SLOPE
- [Hatched Box] DEMOLISH AND REMOVE EXISTING UTILITY STRUCTURE AND APPURTENANCES
- [Solid Grey Box] DEMOLISH ASPHALT PAVING AND BASE COURSE. SAWCUT AS REQUIRED
- [Cross-hatched Box] DEMOLISH EXISTING BUILDING
- [Diagonal Hatched Box] DEMOLISH EXISTING ELECTRICAL SUBSTATION
- [Circular Hatched Box] TIMBER BULKHEAD EXPLORATORY EXCAVATION PIT
- [Vertical Hatched Box] CONC BATTER PILE TO BE DEMOLISHED
- [Stippled Box] RIP RAP SLOPE TO BE DEMOLISHED
- [Grid Hatched Box] DEMOLISH ASPHALT PAVING AND PIER BALLAST. SAWCUT AS REQUIRED
- [Square with X] CUT AND CAP EXISTING UTILITY (1 D2.1)
- [Square with Dashed] EXISTING ECOLOGY BLOCKS
- [SD] DEMOLISH AND REMOVE EXISTING UTILITY PER KEY NOTES
- [SS] DEMOLISH AND REMOVE EXISTING UTILITY PER KEY NOTES
- [DW] DEMOLISH AND REMOVE EXISTING UTILITY PER KEY NOTES
- [FW] DEMOLISH AND REMOVE EXISTING UTILITY PER KEY NOTES
- [P1] PHOTO ORIENTATION, SEE SHEET D2.2
- [A3] SAWCUT CONTROL POINT, SEE SHEET D2.2



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Part of Tacoma
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APPROVED: *Kevin Howard*
DATE: 3-20-16

CHECKED BY: [Signature] DATE: [Blank]

PROJECT ENGR: [Blank] DATE: [Blank]

PRINTED BY: kvong Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

SECTION: [Blank]

RANGE: MLW 19.39' @ Tide 22 1933

DATE-HRZ: WA83-SF

DRAWING SCALE: AS NOTED

PIER 4 PHASE 2 RECONFIGURATION

UTILITY AND SITE DEMOLITION PLAN - SHEET 3

CONT/CONS: 070136

M ID: 091251

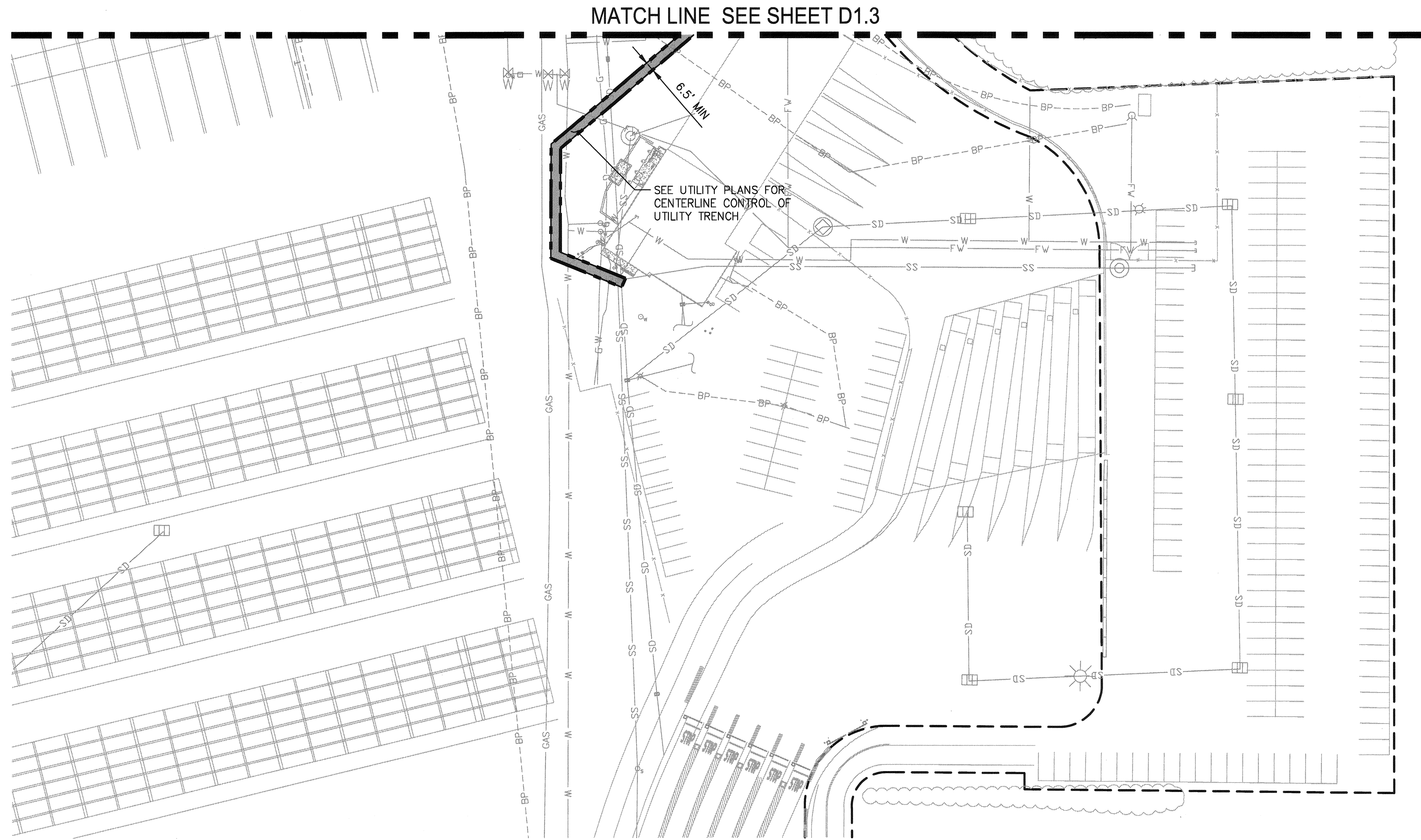
PHASE: BID

6552

D1.3

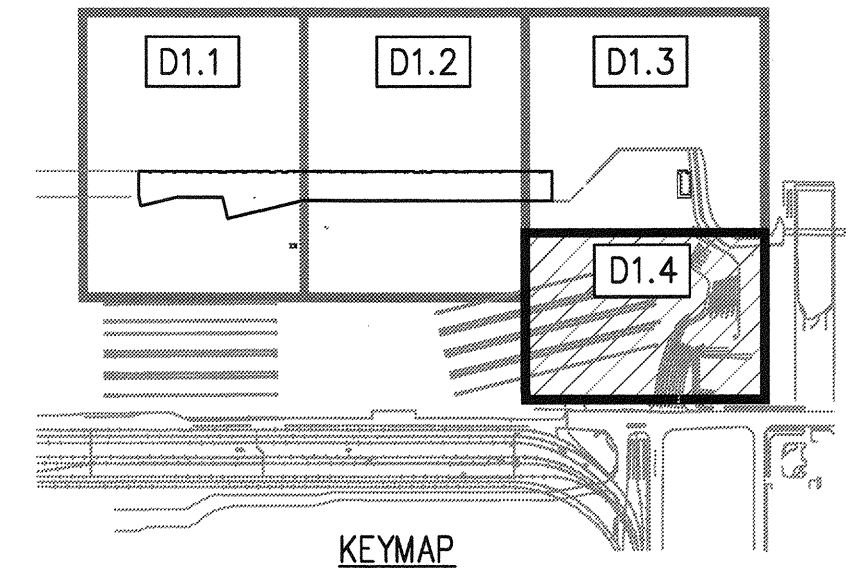
SH 22 OF 499

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KEY NOTES

- ① PRIOR TO BEGINNING WATER LINE DEMOLITION, FIELD LOCATE AND CLOSE EXISTING GATE VALVES
- ② ABANDON EXISTING WATER LINE
- ③ ABANDON EXISTING STORM DRAIN LINE
- ④ CUT AND CAP EXISTING WATER LINE PER DETAIL 1 ON SHEET D2.1, SIZE AND MATERIAL PER PLAN
- ⑤ DEMOLISH EXISTING 4"Ø DOMESTIC WATER LINE
- ⑥ REMOVE EXISTING PAVEMENT MARKINGS FROM EXISTING PIER 4 STRUCTURE WHICH IS TO REMAIN IN PLACE
- ⑦ DEMOLISH EXISTING FIRE WATER LINE
- ⑧ DEMOLISH EXISTING STORM DRAIN LINE
- ⑨ DEMOLISH EXISTING CLEAN OUT
- ⑩ DEMOLISH EXISTING GATE VALVE
- ⑪ PROTECT-IN-PLACE EXISTING FIRE WATER LINE
- ⑫ TEMPORARILY CUT AND CAP EXISTING WATER LINE PER DETAIL 1 ON SHEET D2.1, SEE UTILITY SHEETS C6.1 THRU C6.4 FOR FUTURE CONNECTION
- ⑬ TEMPORARILY CUT AND CAP EXISTING STORM DRAIN GRAVITY LINE, SEE SHEETS C5.1 THRU C5.3 FOR FUTURE CONNECTION
- ⑭ DEMOLISH CONCRETE OUTFALL PIPE
- ⑮ DEMOLISH EXISTING AIR RELEASE VALVE, TEMPORARILY CUT AND CAP PRESSURIZED WATER LINE PER DETAIL 1 ON SHEET D2.1. SEE UTILITY SHEETS C6.1 THRU C6.4 FOR FUTURE CONNECTION
- ⑯ DEMOLISH EXISTING STORM DRAIN CATCH BASIN AND BACKFILL HOLE IF OUTSIDE OF DREDGE CUTBACK
- ⑰ DEMOLISH EXISTING STORM DRAIN MANHOLE AND BACKFILL HOLE IF OUTSIDE OF DREDGE CUTBACK
- ⑱ DEMOLISH EXISTING SANITARY SEWER GRAVITY LINE
- ⑲ CUT AND CAP EXISTING SANITARY SEWER GRAVITY LINE PER DETAIL 1 ON D2.1
- ⑳ CUT AND CAP EXISTING STORM DRAIN GRAVITY LINE PER DETAIL 1 ON D2.1
- ㉑ DEMOLISH MARINE OPERATIONS BUILDING, ADJACENT CONCRETE PADS, ASSOCIATED STRUCTURES, BOLLARDS, WHEEL STOPS, AND UTILITIES
- ㉒ DEMOLISH EXISTING ELECTRICAL SUBSTATION, ASSOCIATED CONCRETE PADS, VAULTS AND UTILITY LINES UNLESS NOTED OTHERWISE, ONLY AFTER TEMPORARY POWER SYSTEMS HAVE BEEN INSTALLED, SEE ELECTRICAL PLANS FOR TEMPORARY ELECTRICAL SERVICE AND DEMOLITION
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- ㉕ PRIOR TO START OF WORK SALVAGE EXISTING ECOLOGY BLOCKS AND PLACE INSIDE TEMPORARY CONSTRUCTION FENCE PER DETAIL 3 ON G8.6. SHOWN OFFSET FROM PAVEMENT EDGE FOR CLARITY
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- ㉗ DEMOLISH EXISTING GEOTEXTILE AND SANDBAG SHORELINE PROTECTION SYSTEM
- ㉘ REMOVE RIP RAP AND APPROXIMATELY 1,300 LF OF REMNANT CONCRETE PILE DEBRIS IN FRONT OF THE SUBSTATION, SEE SHEET C2.1 FOR RIP RAP REMOVAL
- ㉙ EXTRACT (33) 16-1/2"Ø CONCRETE BATTER PILES LEFTOVER FROM PHASE 1. APPROXIMATE PILE LENGTH=75' EACH
- ㉚ DEMOLISH REMNANT CONCRETE PILE ANCHORS AT TOP OF SLOPE
- ㉛ 6' DEEP EXPLORATORY EXCAVATION PIT FOR BURIED TIMBER BULKHEAD, SEE SHEET D2.2 FOR HORIZONTAL CONTROL
- ㉜ POSSIBLE BURIED TIMBER BULKHEAD OUTLINE, APPROX. 700'x60'. SEE TIMBER BULKHEAD NOTES
- ㉝ REMOVE AND SALVAGE LIGHT POLE. DEMOLISH CONCRETE BASE. SEE DETAIL 1 ON D2.2 AND SEE ELECTRICAL DEMOLITION PLANS FOR SEQUENCING

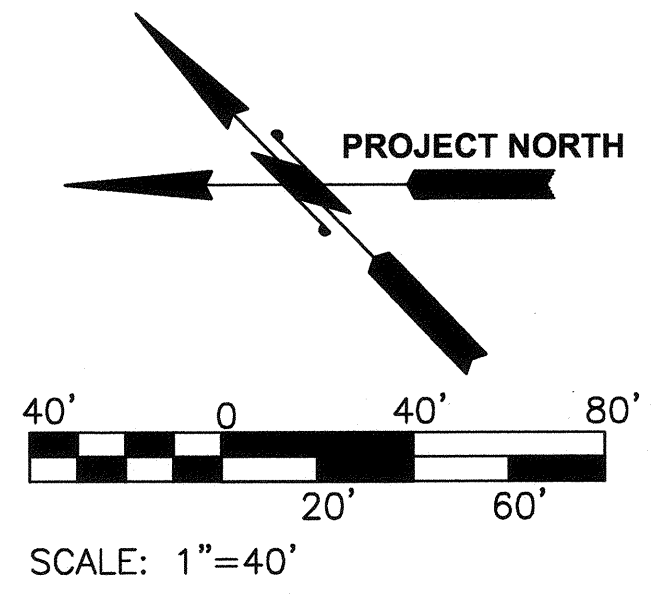


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LEGEND

- PROJECT WORK AREA LIMITS
- DEMOLITION LIMIT LINE
- DEMOLISH AND REMOVE EXISTING UTILITY STRUCTURE AND APPURTENANCES
- DEMOLISH ASPHALT PAVING AND BASE COURSE. SAWCUT AS REQUIRED
- DEMOLISH EXISTING BUILDING
- DEMOLISH EXISTING ELECTRICAL SUBSTATION
- TIMBER BULKHEAD EXPLORATORY EXCAVATION PIT
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- DEMOLISH ASPHALT PAVING AND PIER BALLAST. SAWCUT AS REQUIRED
- CUT AND CAP EXISTING UTILITY (1 D2.1)
- DREDGE BOUNDARY / TOP OF SLOPE
- EXISTING ECOLOGY BLOCKS
- DEMOLISH AND REMOVE EXISTING UTILITY PER KEY NOTES
- PHOTO ORIENTATION, SEE SHEET D2.2
- SAWCUT CONTROL POINT, SEE SHEET D2.2



Port of Tacoma

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APPROVED: *Julie Howard* 3-28-16

DIRECTOR ENG. DATE: 3-28-16

PRINTED BY: gcarey

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

CHECKED BY	DATE	PROJ. ENGR	DATE

6552

D1.4

SH 23 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2

RECONFIGURATION

UTILITY AND SITE DEMOLITION PLAN - SHEET 4

TOWNSHIP: MLLW 19.39' @ Tide 22.1933

RANGE: WAB3-SF

SECTION: 19

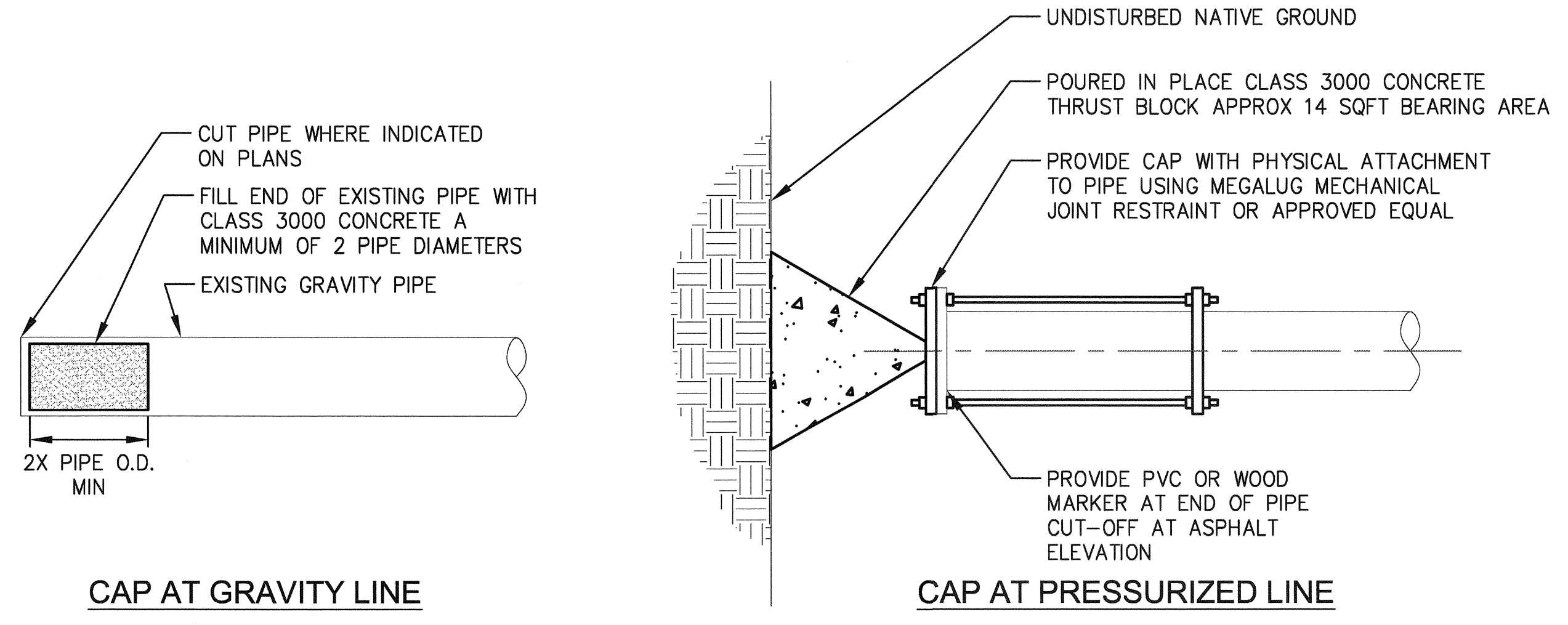
DATE-HRZ: 091251

DRAWING SCALE: AS NOTED

PARCEL: AS NOTED

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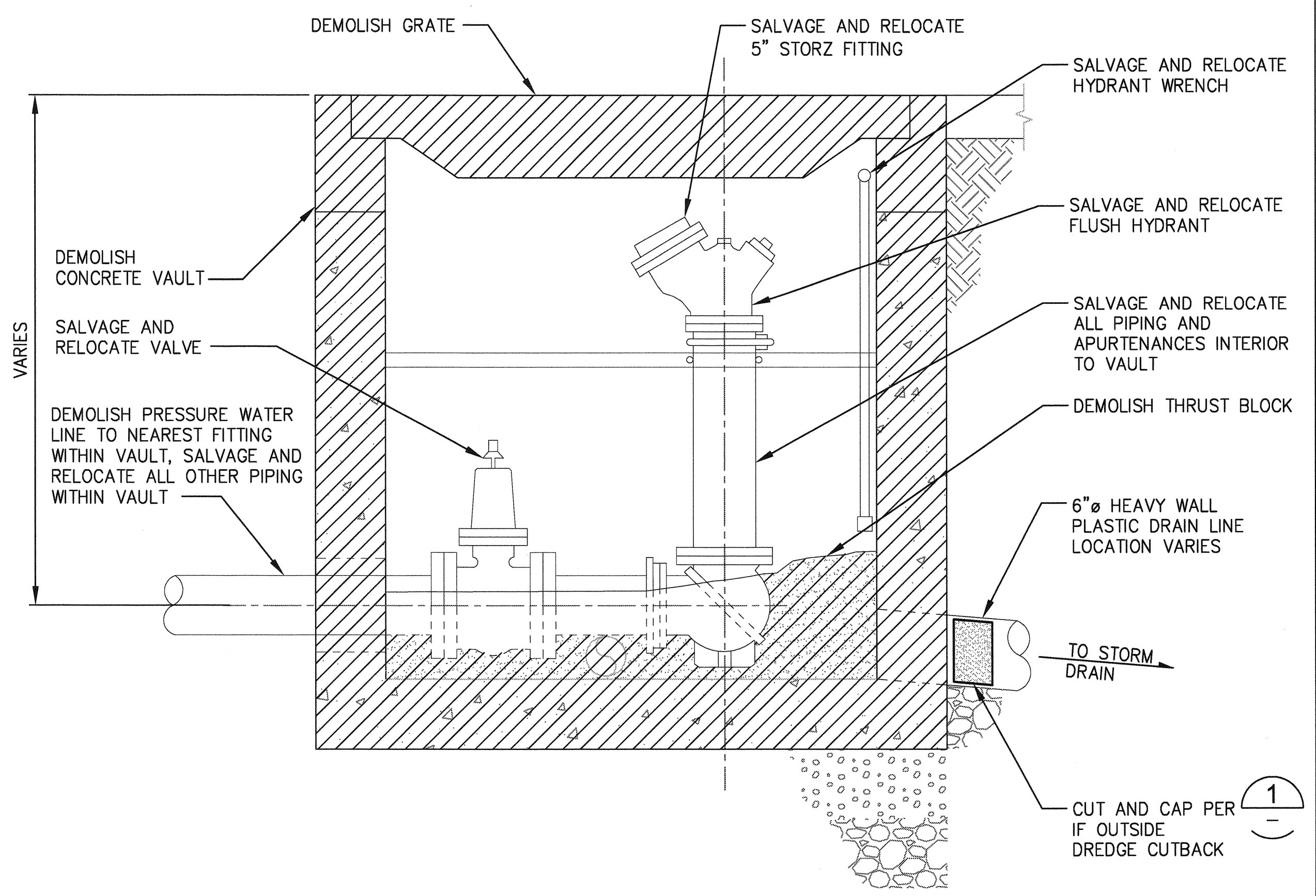
BINDING EDGE



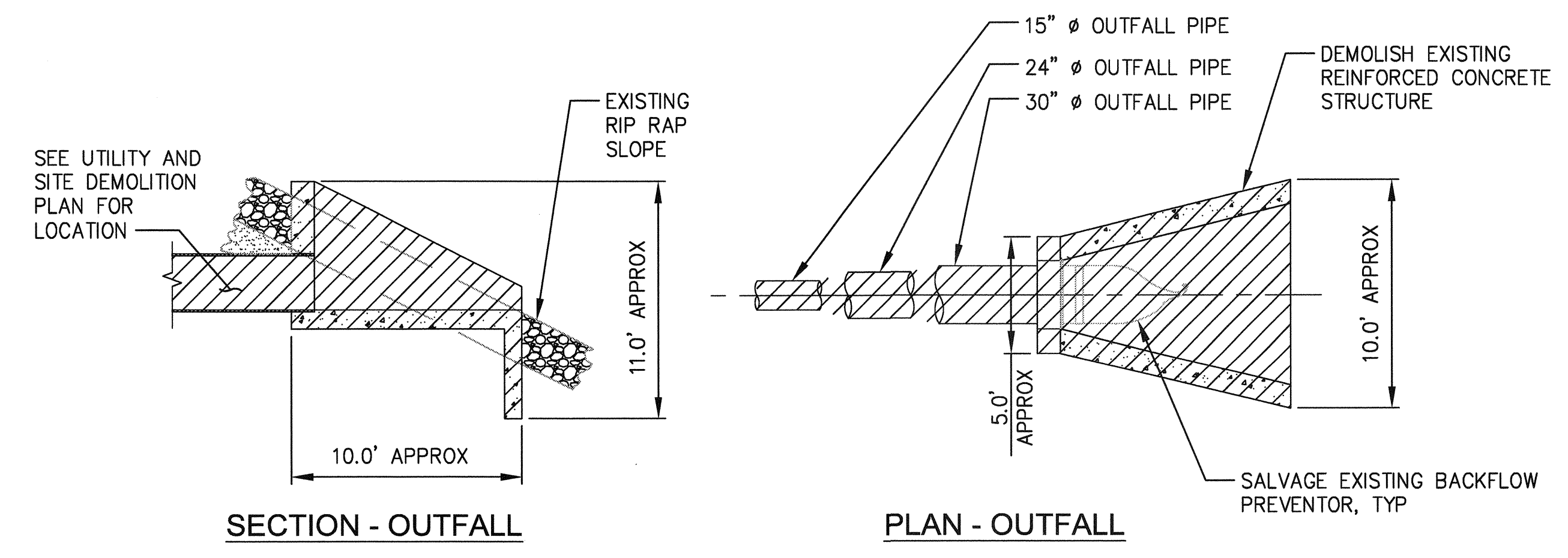
NOTES

- THRUST BLOCK SHALL BEAR AGAINST UNDISTURBED NATIVE GROUND.
- THRUST BLOCK AREA SHALL BE CENTERED ON PIPE.
- CLASS 3000 CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI.
- EXISTING PIPE TYPES VARY, CONTRACTOR TO FIELD VERIFY PRIOR TO BEGINNING DEMOLITION.

1 CUT AND CAP DETAIL
D1.1, D1.2, D1.3 NTS



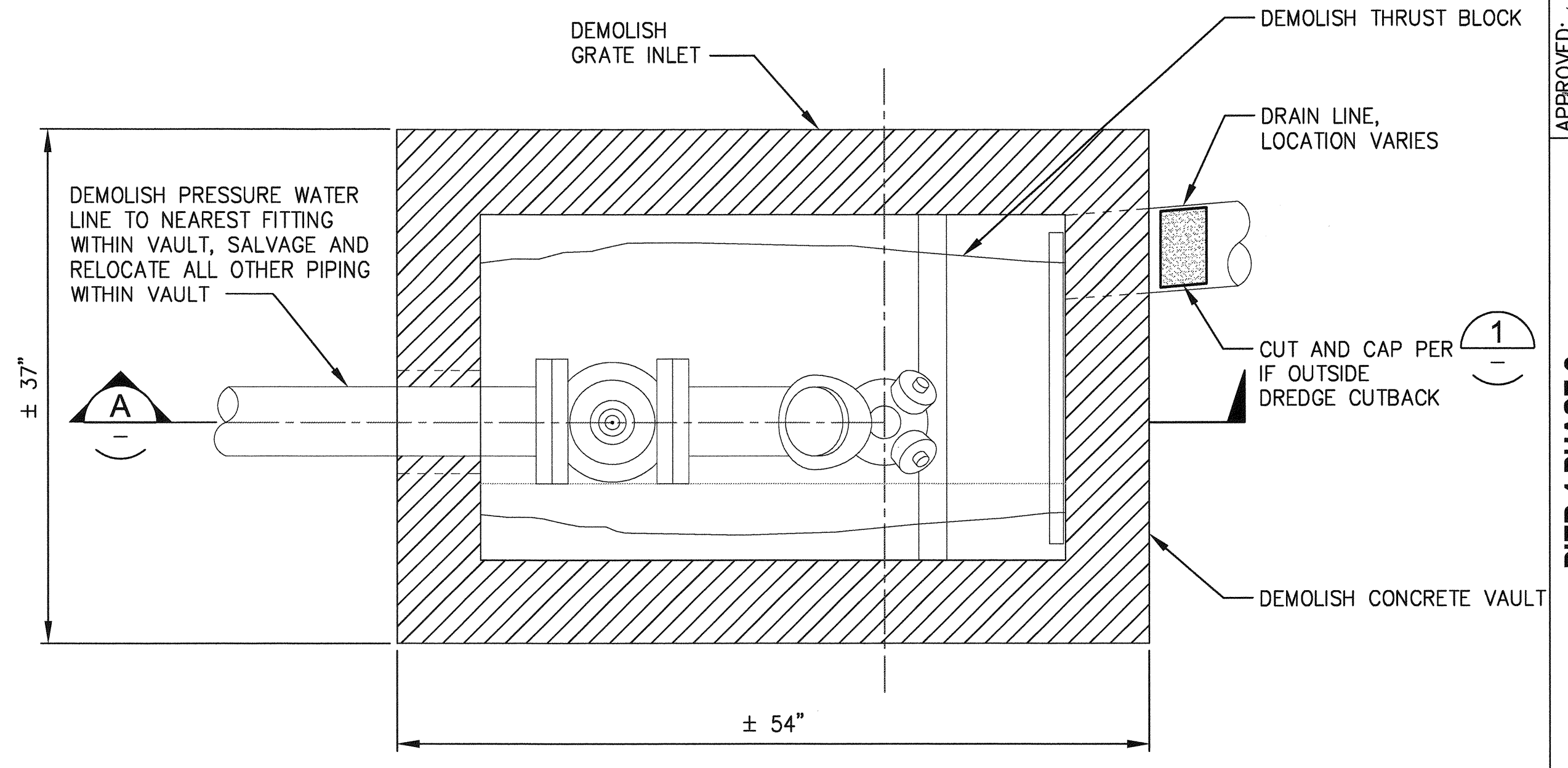
SECTION A



NOTES

- ALL DIMENSIONS PROVIDED FOR REFERENCE ONLY.
- COMPLETELY DEMOLISH OUTFALL PIPING AND REINFORCED CONCRETE WING WALLS AND APRON.

2 OUTFALL DEMOLITION DETAIL
D1.2, D1.3 NTS



3 FLUSH FIRE HYDRANT DEMOLITION DETAIL
D1.1, D1.2 NTS

NOTES

- SEE UTILITY PLAN C6.3 FOR LOCATION OF RELOCATED FLUSH FIRE HYDRANT.

PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-D2.1 (Demolition Details - Sheet 1)

6552 D2.1 SH 24 OF 489

PIER 4 PHASE 2 RECONFIGURATION UTILITY AND SITE DEMOLITION DETAILS - SHEET 1

CONTRACTOR: 070136
M. ID: 091251
PHASE: BID

TOWNSHIP: RANGE: MLLW 19.39' @ Tide 22 19.33
DATE-HRZ: WA83-SF VERT: DRAWING SCALE: AS NOTED

SECTION: PORT ADDRESS: ONE SITCLIM PLAZA
TACOMA, WA 98401-1837

APPROVED: *[Signature]* 3-28-16
DIRECTOR ENG. DATE: PRINTED BY: gcarey
PROJ. ENGR DATE: 2016

CHECKED BY: DATE: PROJECT: DATE: 2016

MARK: REVISION: BY: DATE:

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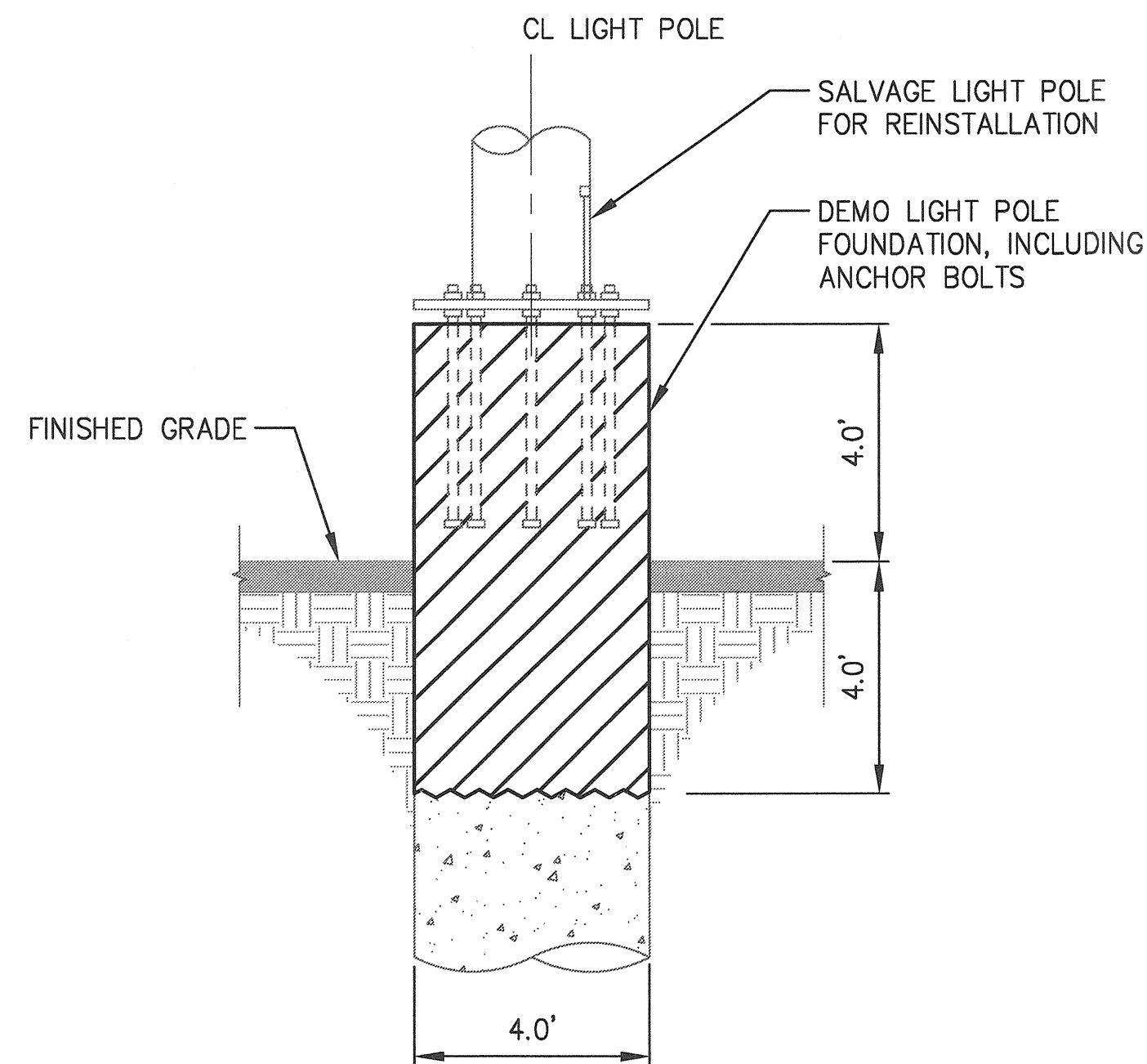
Port of Tacoma

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SAWCUT HORIZONTAL CONTROL		
POINT ID	NORTHING	EASTING
A1	713737.84	1166253.15
A2	713740.64	1166250.06
A3	713738.38	1166247.87
A4	713741.38	1166244.78
A5	713743.64	1166246.97
A6	713754.56	1166235.70
A7	713752.30	1166233.51
A8	713752.80	1166232.99
A9	713738.40	1166219.03
A10	713727.40	1166219.07
A11	713623.66	1166118.53
A12	713536.22	1166267.96
A13	713379.14	1166429.00
A14	713363.07	1166419.59
A15	713357.11	1166329.30
A16	713380.16	1166289.96
A17	713338.14	1166224.24
A18	713154.84	1166413.08
A19	713153.68	1166487.43
A20	713101.94	1166540.79
A21	713049.32	1166489.80
A22	713015.50	1166524.70
A23	713019.40	1166528.43

SAWCUT HORIZONTAL CONTROL		
POINT ID	NORTHING	EASTING
B1	712987.83	1166570.35
B2	713062.71	1166643.12
B3	713040.84	1166665.61
B4	713018.68	1166644.07
B5	712987.95	1166675.80
B6	713010.05	1166697.27
B7	712814.79	1166898.10
B8	712795.56	1166879.49
B9	712762.93	1166913.22
B10	712782.13	1166931.79
B11	712639.90	1167078.01
B12	712620.91	1167059.64
B13	712570.21	1167112.04
B14	712589.01	1167130.34
C1	712389.13	1167335.93
C2	712244.41	1167496.32
C3	712198.79	1167578.31
C4	712016.27	1167768.61
C5	712007.34	1167760.04
C6	711980.23	1167788.00
C7	711954.02	1167762.62
C8	711944.72	1167799.64
C9	711982.20	1167858.28
C10	712154.01	1167998.47
C11	712164.66	1168009.10
C12	712206.70	1167965.72
C13	712169.43	1167929.12
C14	712205.95	1167891.48
C15	712111.72	1167800.06
C16	712292.36	1167613.58
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C18	712350.44	1167739.20
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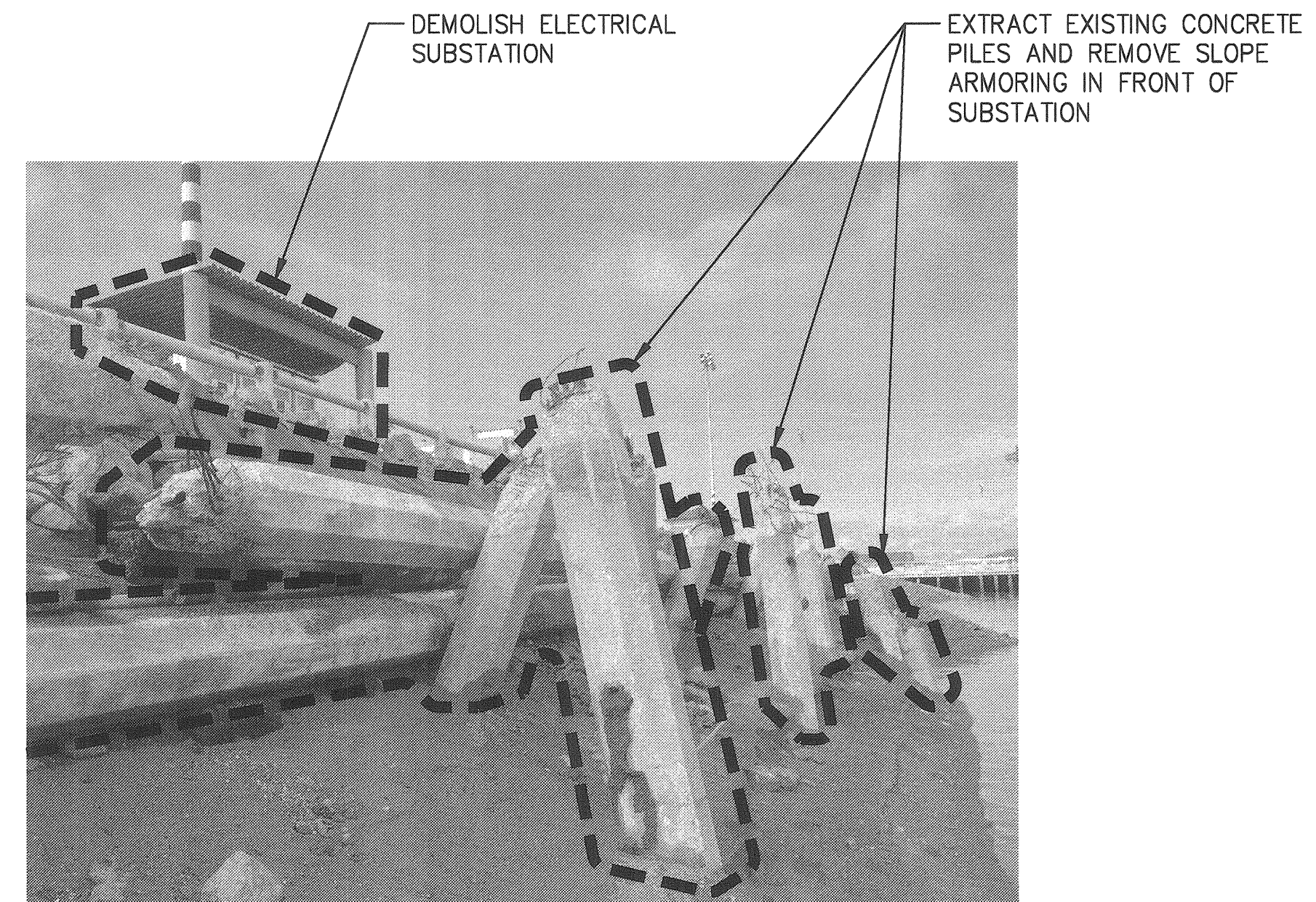
EXPLORATORY EXCAVATION PIT HORIZONTAL CONTROL		
POINT ID	NORTHING	EASTING
E1	713068.16	1166767.47
E2	713037.84	1166819.25
E3	712734.12	1167337.91
E4	712713.91	1167372.43
E5	712940.94	1166984.73
E6	712920.73	1167019.25



1 LIGHT POLE FOUNDATION DEMOLITION

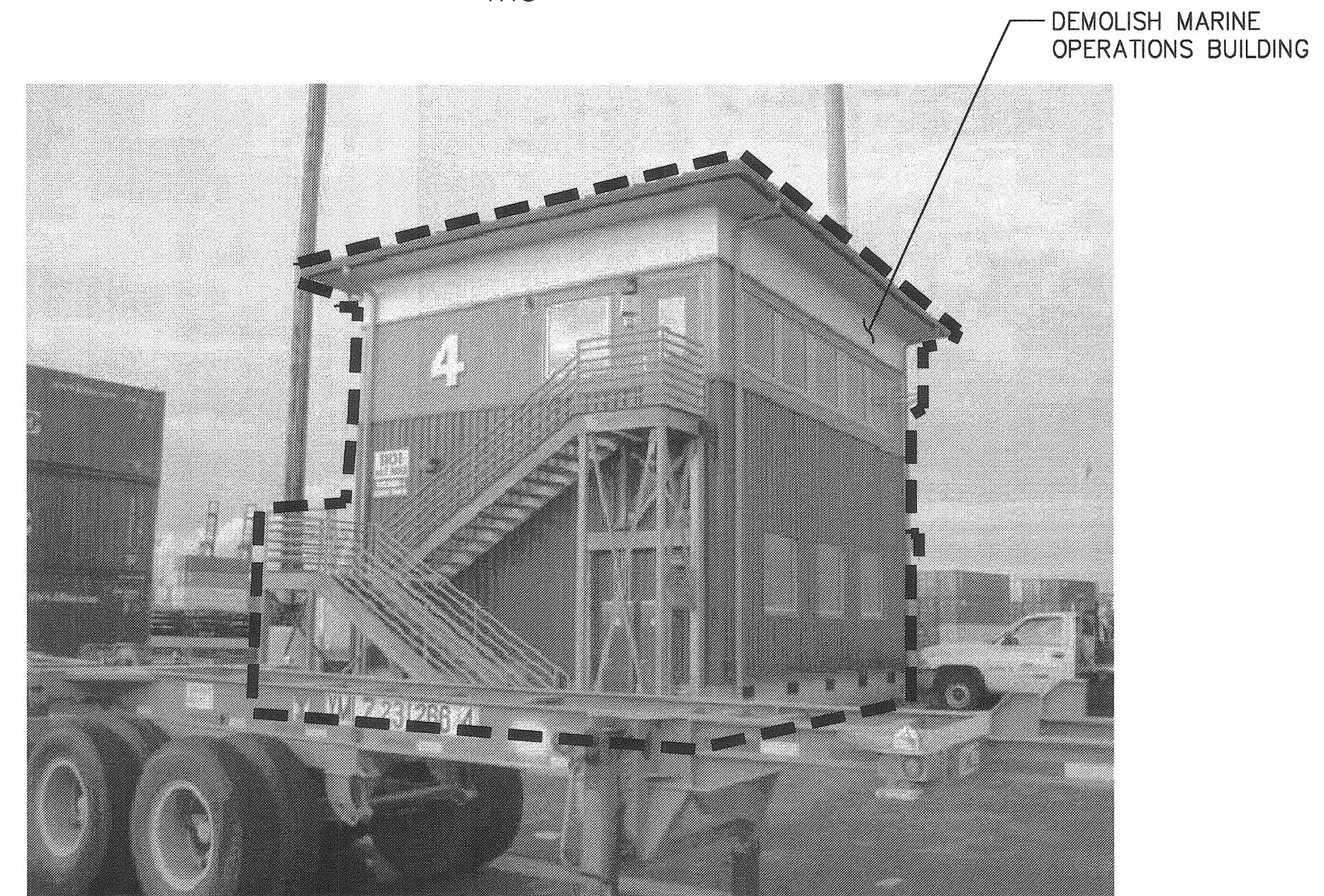
D1.1, D1.2, D1.3

NTS



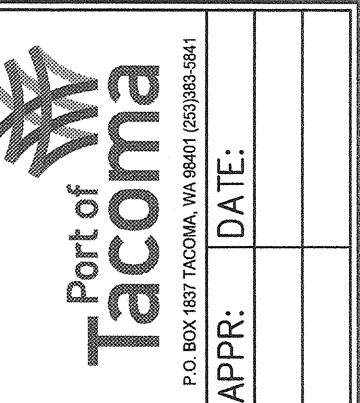
P3 ELECTRICAL SUBSTATION PROTECTION

NTS

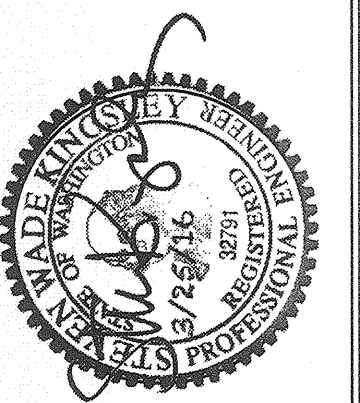


P1 MARINE OPS BUILDING

NTS



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 P.O. BOX 987 TACOMA, WA 98401-0987
 MARK: REVISION: BY: DATE: APPR: DATE:

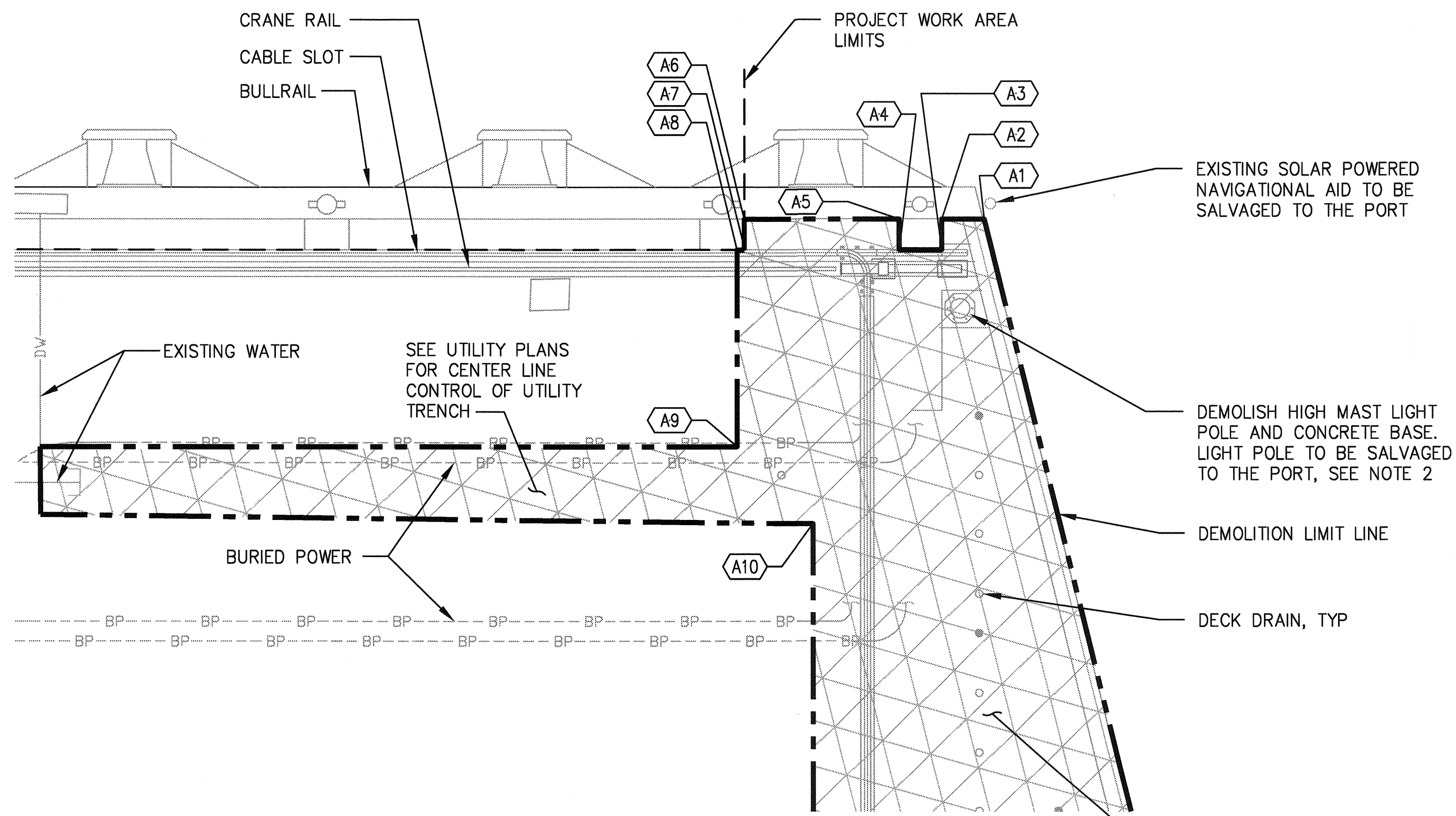


APPROVED: *W. Gregory G.*
 3-28-16
 DIRECTOR ENG. DATE: 3-28-16
 PRINTED BY: gcarey
 PORT ADDRESS: ONE SITCUM PLAZA
 TACOMA, WA 98401-1837

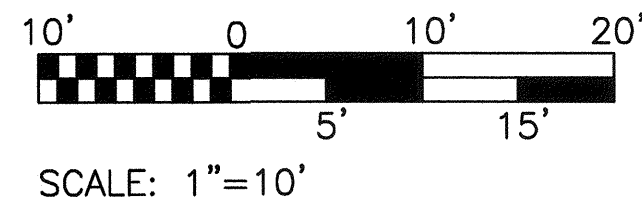
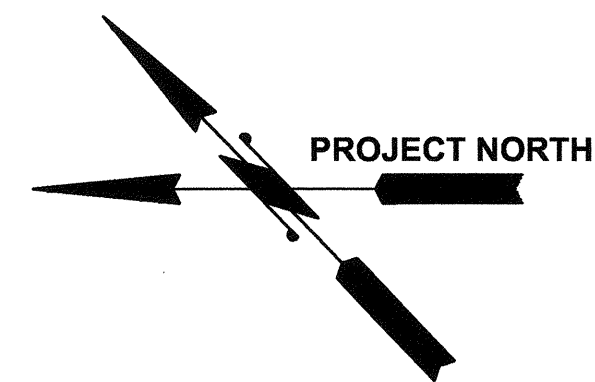
PIER 4 PHASE 2 RECONFIGURATION UTILITY AND SITE DEMOLITION DETAILS - SHEET 2
 TOWNSHIP: 070136
 DAT-HRZ: WA83-SF
 VERT: M.L.W. 19.39' @ Tide 22.19.33
 DRAWING SCALE: AS NOTED
 SECTION: 2
 RANGE: 1
 PARCEL: 1

6552 D2.2
 SH 25 OF 489
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

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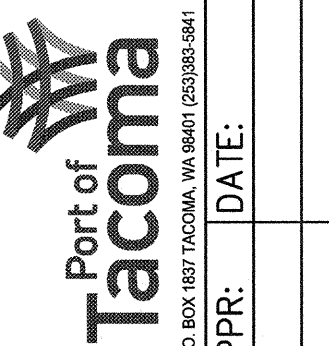


1
D2.1
ENLARGED DEMOLITION PLAN
SCALE: 1"=10'

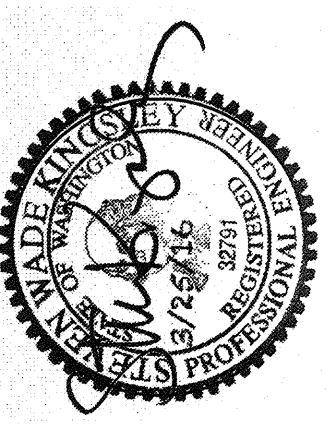
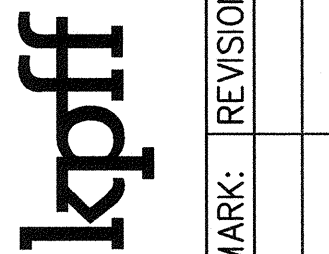


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2. SEE SITE ELECTRICAL DEMOLITION PLANS E2.1, AND E2.2 FOR ELECTRICAL AND COMMUNICATION DEMOLITION REQUIREMENTS, INCLUDING HIGH MAST LIGHT POLE DEMOLITION REQUIREMENTS.
3. UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
4. ALL ITEMS MARKED FOR DEMOLITION SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER THE SPECIFICATIONS, UNLESS OTHERWISE INDICATED FOR SALVAGE IN SPECIFICATIONS, SEE SECTION 02 41 00.
5. SEE SHEET D2.2 FOR SAWCUT CONTROL.



2407 North 31st Street, Suite 100
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(253) 996-0150 Fax (253) 996-0162

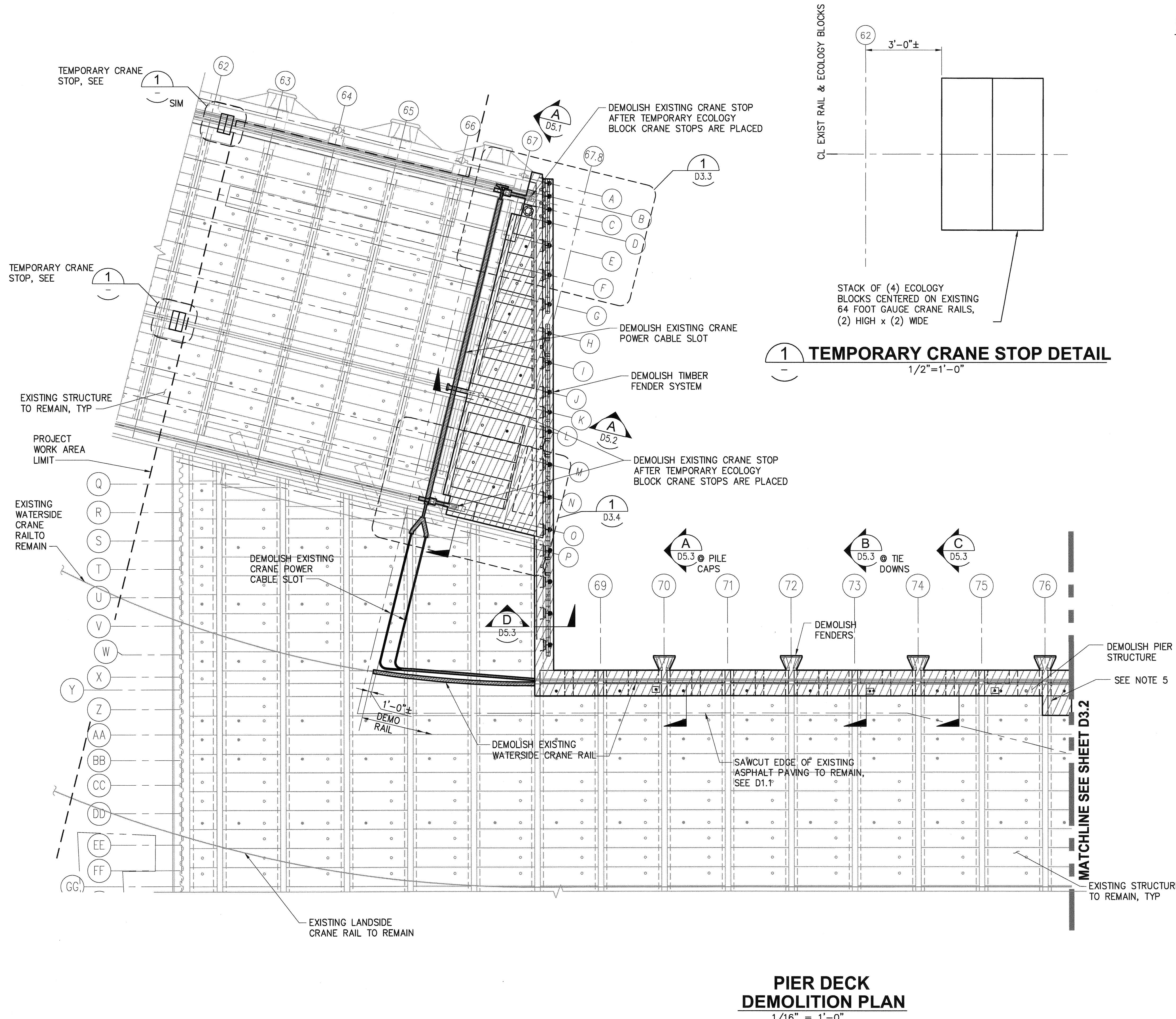


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<i>[Signature]</i>		
DIRECTOR	PROJ. ENGR	DATE
3-28-16	gearey	Mar 24, 2016
PRINTED BY:	PORT ADDRESS:	ONE SITCUM PLAZA
		TACOMA, WA 98401-1837

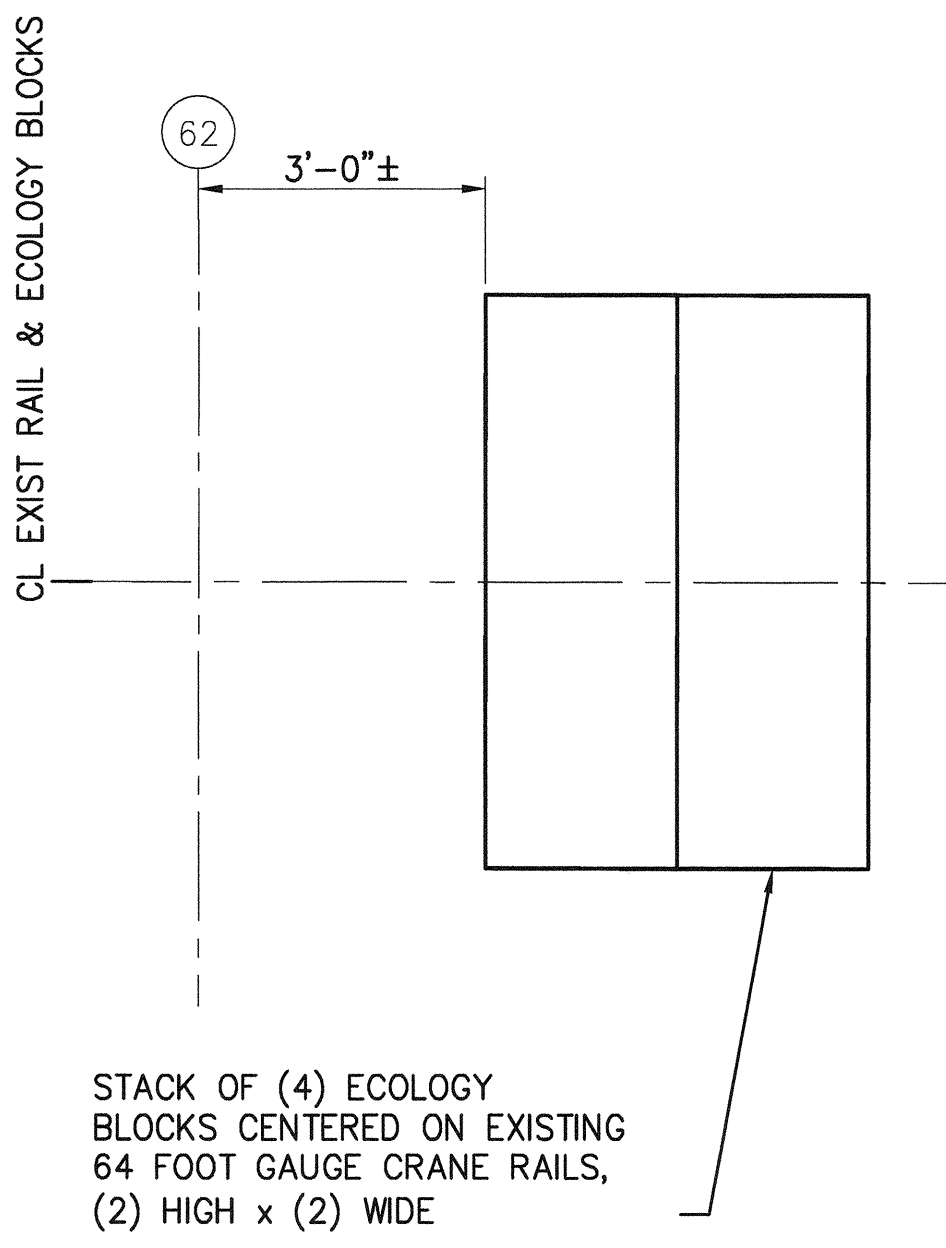
PIER 4 PHASE 2			
RECONFIGURATION			
UTILITY AND SITE DEMOLITION DETAILS - SHEET 3			
TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WAB3-SF	VERT: MLLW 19.39' @ Tide 22 19.33		
PARCEL:	DRAWING SCALE:	AS NOTED	

6552	D2.3
SH 26 OF 499	
CONT/CONS: 070136	
M. ID: 091251	
PHASE: BID	

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1 TEMPORARY CRANE STOP DETAIL
1/2" = 1'-0"

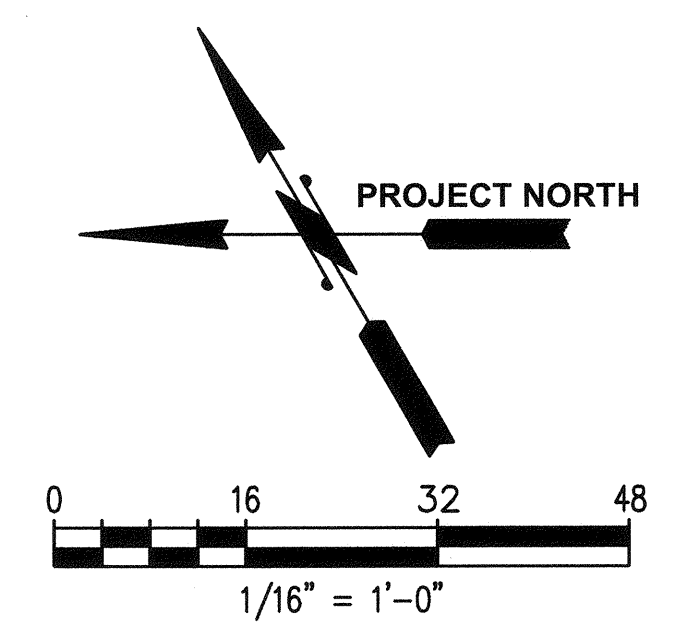


NOTES

- SEE SITE ELECTRICAL DEMOLITION PLAN FOR ELECTRICAL DEMOLITION REQUIREMENTS.
- SEE D1.1-D1.3 FOR ASPHALT PAVING AND BALLAST DEMOLITION AND REMOVAL EVENTS.
- UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
- INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL REVIEW REFERENCE DRAWINGS AND VERIFY ALL EXISTING CONDITIONS IN THE FIELD, SEE SPECIFICATIONS.
- CONTRACTOR SHALL NOT DAMAGE THE TEMPORARILY REMAINING CANTILEVERED PORTION OF THE WHARF STRUCTURE DURING DEMOLITION AND CONSTRUCTION OF THE PILE CAP BEAM ALONG THE FACE OF THE EXISTING PIER. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE PORT.

LEGEND:

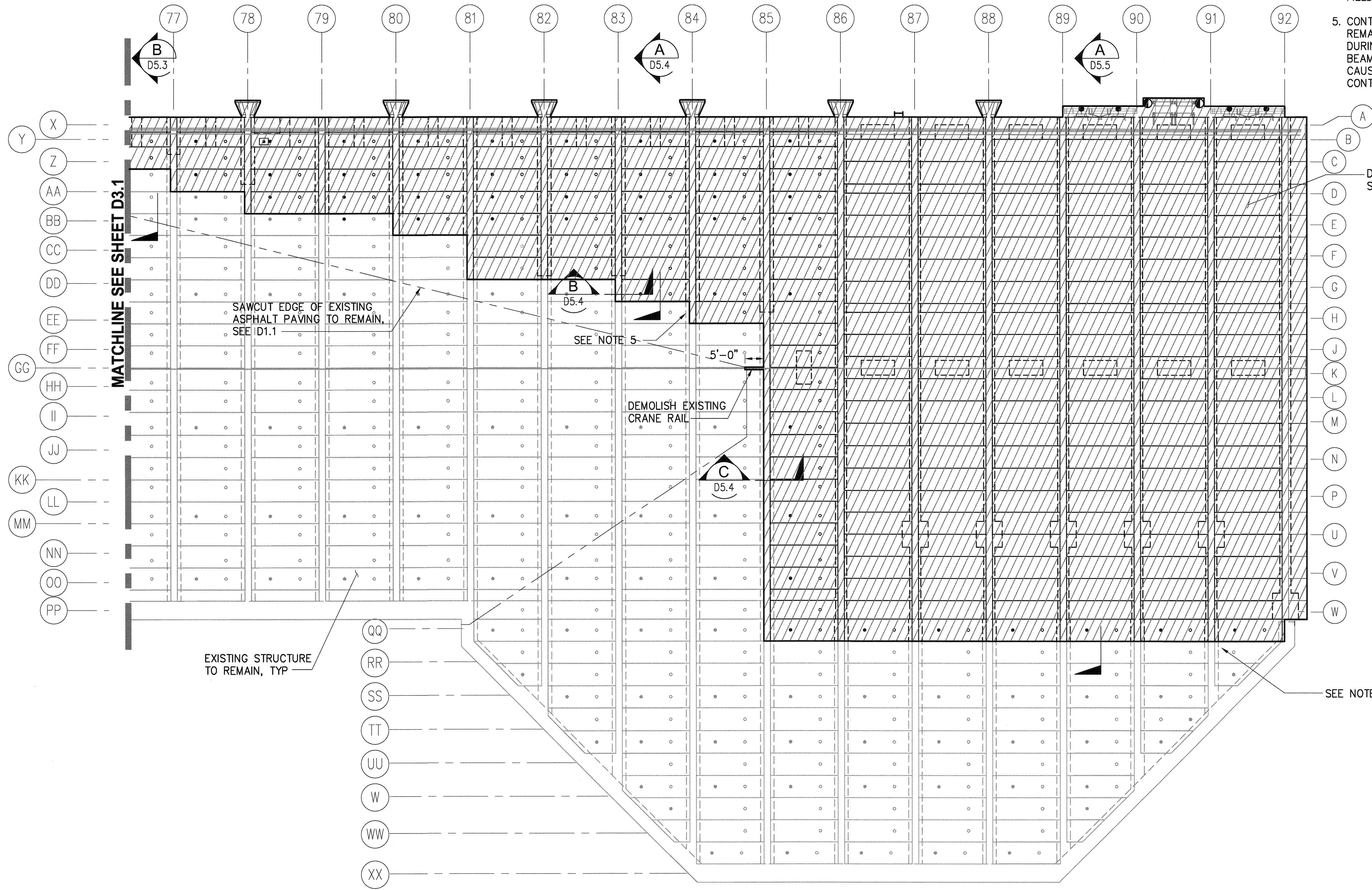
- (dashed line with hatching) OUTLINE OF PILE CAP TO BE DEMOLISHED
- (dashed line) OUTLINE OF PILE CAP TO REMAIN
- - - - PROJECT WORK AREA LIMITS
- XX BENT NUMBER, ROW NUMBER
- 16 1/2" SOLID OCTAGONAL PRECAST PRESTRESSED CONCRETE PILE - PLUMB
- 16 1/2" SOLID OCTAGONAL PRECAST PRESTRESSED - BATTER
- TIMBER FENDER PILE
- STEEL FENDER PILE
- ▽ FENDER
- ▭ DECK PANEL
- ▨ DEMOLISH AND REMOVE EXISTING STRUCTURE AND APPURTENANCES
- ▣ EXISTING CRANE TIE DOWN TO BE DEMOLISHED
- DECK DRAIN
- SUBSURFACE DRAIN



PIER DECK DEMOLITION PLAN
1/16" = 1'-0"

 2407 North 31st Street, Suite 100 Tacoma, WA 98401-1837 (253) 886-0150 Fax: (253) 886-0162	APPROVED: <i>[Signature]</i> 3-28-16	CHECKED BY: <i>[Signature]</i> DATE:
	DIRECTOR: <i>[Signature]</i> DATE: 3-28-16	PROJ. ENGR: <i>[Signature]</i> DATE: 3-28-16
6552	PIER 4 PHASE 2 RECONFIGURATION PIER DECK DEMOLITION PLAN - SHEET 1	SECTION: 27 RANGE: 3E TOWNSHIP: 21N DAT-HRZ: 091251
SH 27 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	DRAWING SCALE: AS NOTED	PARCEL:

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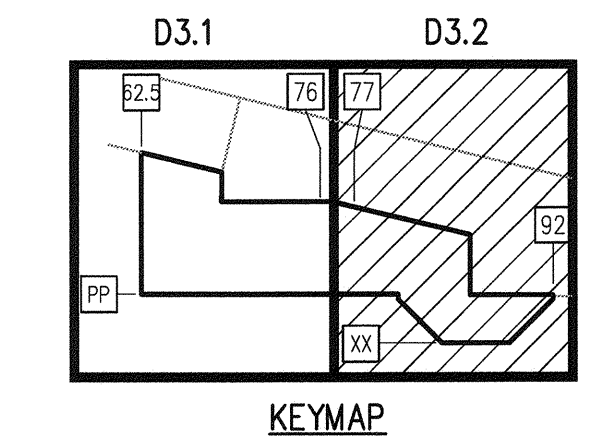
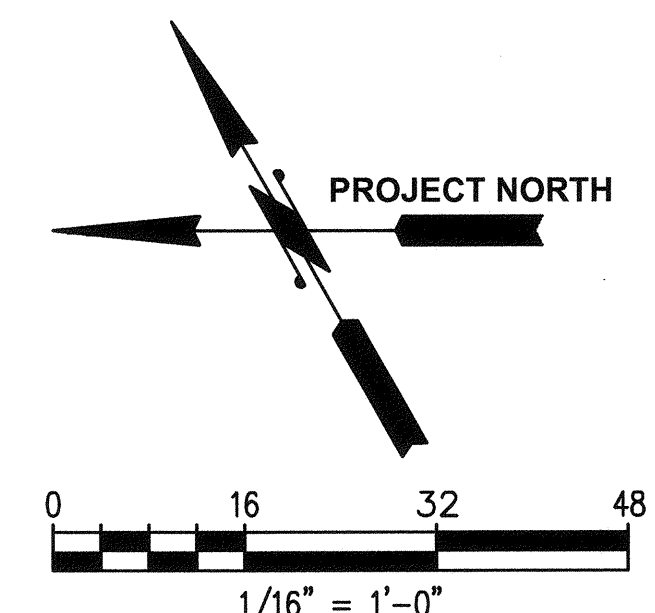
NOTES

1. SEE SITE ELECTRICAL DEMOLITION PLAN FOR ELECTRICAL DEMOLITION REQUIREMENTS.
2. SEE D1.1-D1.3 FOR ASPHALT PAVING AND BALLAST DEMOLITION AND REMOVAL EVENTS.
3. UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
4. INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL REVIEW REFERENCE DRAWINGS AND VERIFY ALL EXISTING CONDITIONS IN THE FIELD, SEE SPECIFICATIONS.
5. CONTRACTOR SHALL NOT DAMAGE THE TEMPORARILY REMAINING CANTILEVERED PORTION OF THE WHARF STRUCTURE DURING DEMOLITION AND CONSTRUCTION OF THE PILE CAP BEAM ALONG THE FACE OF THE EXISTING PIER. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE PORT.

DEMOLISH PIER STRUCTURE, TYP

LEGEND:

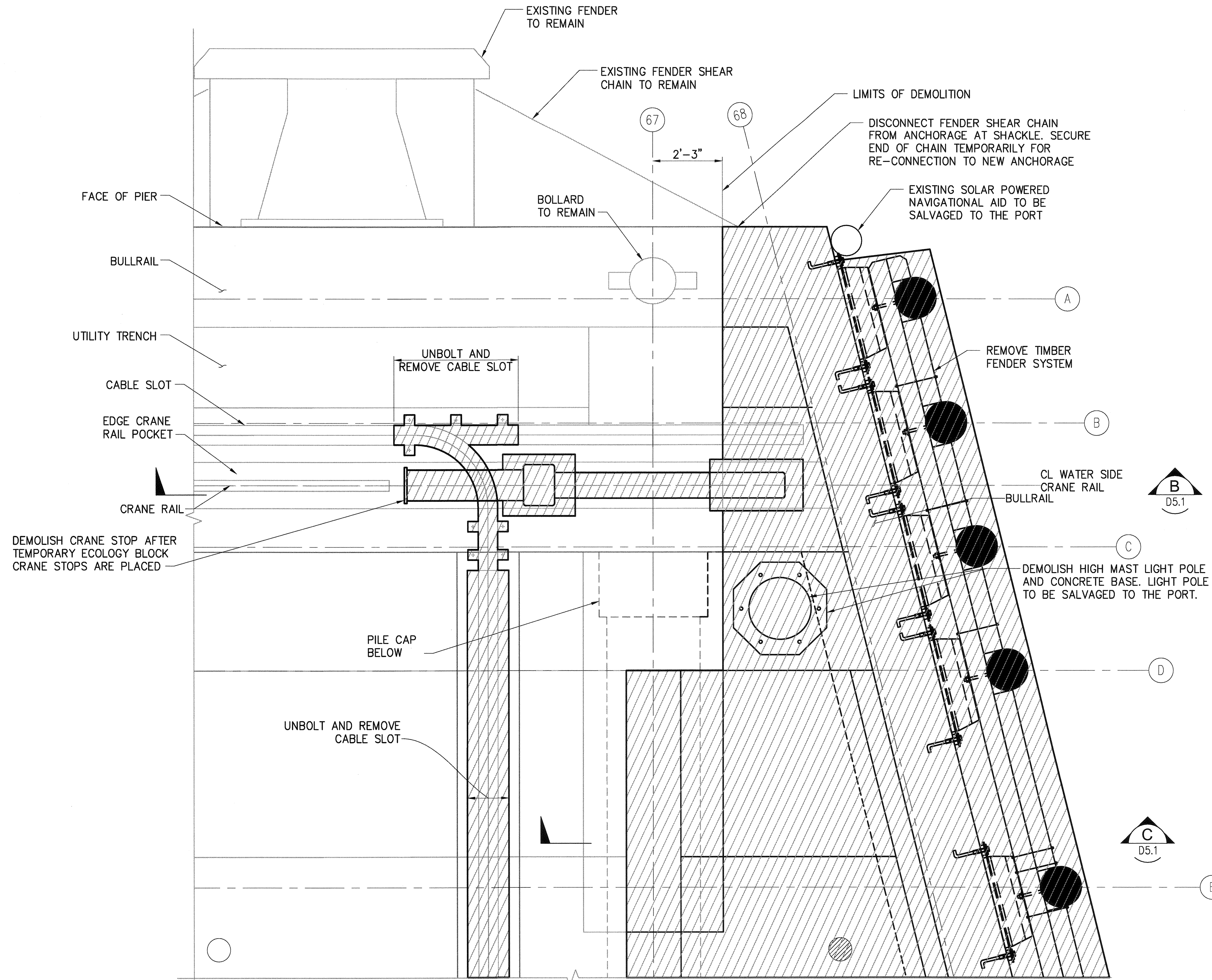
- OUTLINE OF PILE CAP TO BE DEMOLISHED
- OUTLINE OF PILE CAP TO REMAIN
- BENT NUMBER, ROW NUMBER
- 16 1/2" SOLID OCTAGONAL PRECAST PRESTRESSED CONCRETE PILE - PLUMB
- 16 1/2" SOLID OCTAGONAL PRECAST PRESTRESSED - BATTER
- TIMBER FENDER PILE
- STEEL FENDER PILE
- FENDER
- DECK PANEL
- DEMOLISH AND REMOVE EXISTING STRUCTURE AND APPURTENANCES
- CRANE TIE DOWN
- DECK DRAIN
- SUBSURFACE DRAIN



PIER DECK DEMOLITION PLAN
1/16" = 1'-0"

 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0150 Fax (253) 396-0162	DATE: _____ APPR: _____
	BY: _____ REVISION: _____
APPROVED: <i>[Signature]</i> 3-28-16 DIRECTOR ENG. DATE: 3-28-16 PRINTED BY: tlemmons Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	
PIER 4 PHASE 2 RECONFIGURATION PIER DECK DEMOLITION PLAN - SHEET 2	SECTION: 27 RANGE: 3E TOWNSHIP: 21N DAT-HRZ: _____ VERT: _____ DRAWING SCALE: AS NOTED
6552 D3.2 SH 28 OF 489 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	AS NOTED

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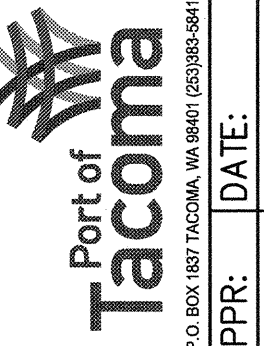
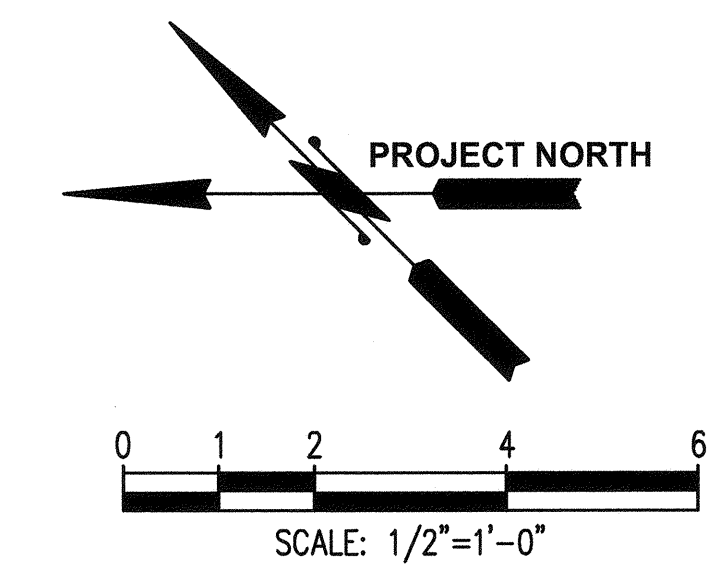
1 PIER DECK DEMOLITION PLAN
 D3.1 1/2" = 1'-0"

NOTES

- SEE SITE ELECTRICAL DEMOLITION PLAN FOR ELECTRICAL DEMOLITION REQUIREMENTS.
- SEE D1.1-D1.3 FOR ASPHALT PAVING AND BALLAST DEMOLITION AND REMOVAL EVENTS.
- UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
- INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL REVIEW REFERENCE DRAWINGS AND VERIFY ALL EXISTING CONDITIONS IN THE FIELD, SEE SPECIFICATIONS.
- CONTRACTOR SHALL NOT DAMAGE THE TEMPORARILY REMAINING CANTILEVERED PORTION OF THE WHARF STRUCTURE DURING DEMOLITION AND CONSTRUCTION OF THE PILE CAP BEAM ALONG THE FACE OF THE EXISTING PIER. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE PORT.

LEGEND:

- XX BENT NUMBER, ROW NUMBER
- DEMOLISH AND REMOVE EXISTING STRUCTURE AND APPURTENANCES
- OUTLINE OF PILE CAP TO BE DEMOLISHED
- OUTLINE OF PILE CAP TO REMAIN
- TIMBER FENDER PILE
- DECK DRAIN
- SUBSURFACE DRAIN



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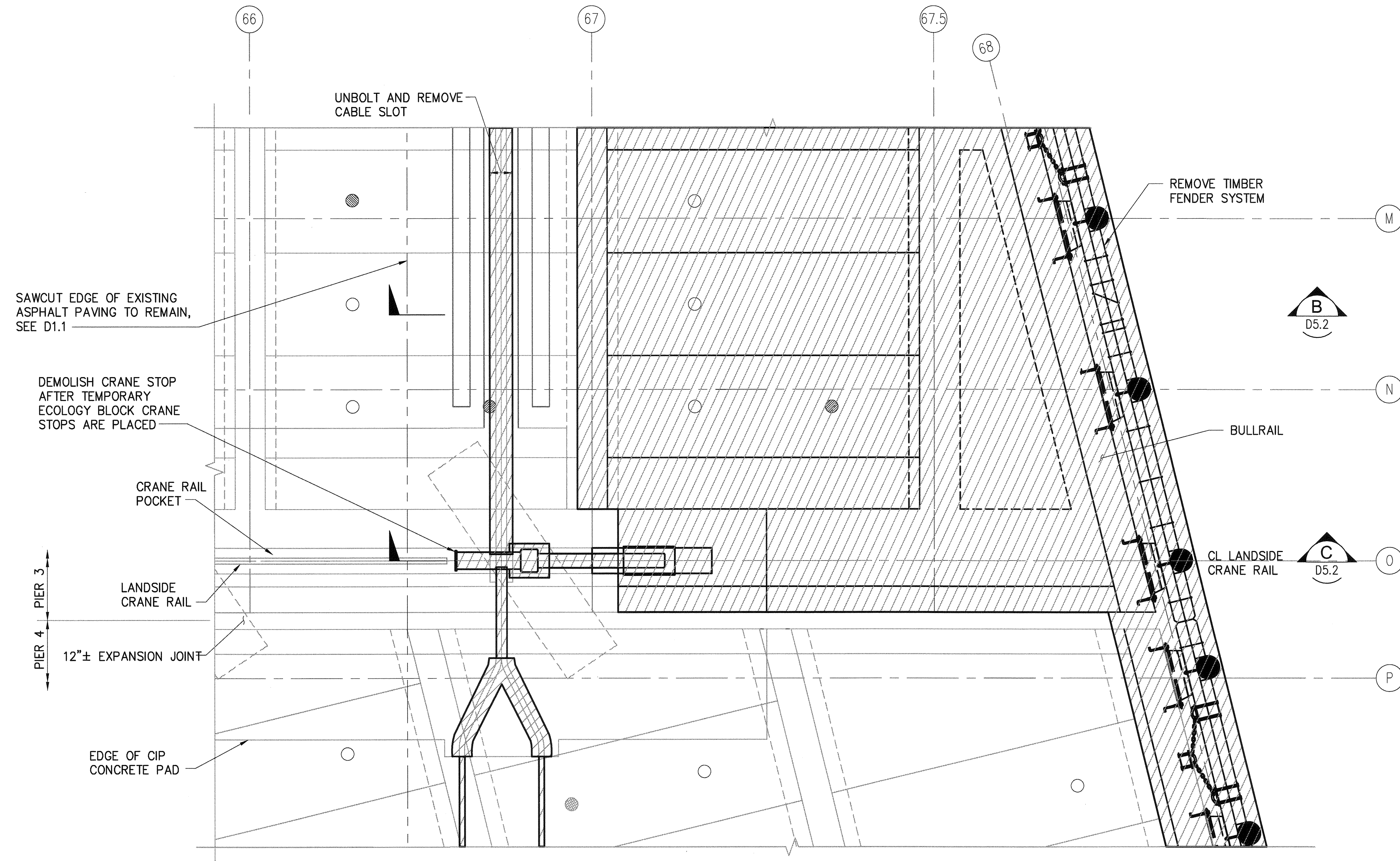


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<i>Julia Howard</i>	TAH	TAH	
DIRECTOR ENG. DATE: 5-28-16	PROJ. ENGR	DATE	
PRINTED BY: tlemoms	Mar 24, 2016		
PORT ADDRESS: ONE SITCUM PLAZA			
TACOMA, WA 98401-1837			

PIER 4 PHASE 2	RANGE: 3E	SECTION: 27
RECONFIGURATION	TOWNSHIP: 21N	
PIER DECK DEMOLITION PLAN - SHEET 3	DAT-HRZ:	
	VERT:	
	DRAWING SCALE: AS NOTED	
	PARCEL:	

6552	SH 29 OF 499
D3.3	CONTR/CONS: 070136
	M. ID: 091251
	PHASE: BID

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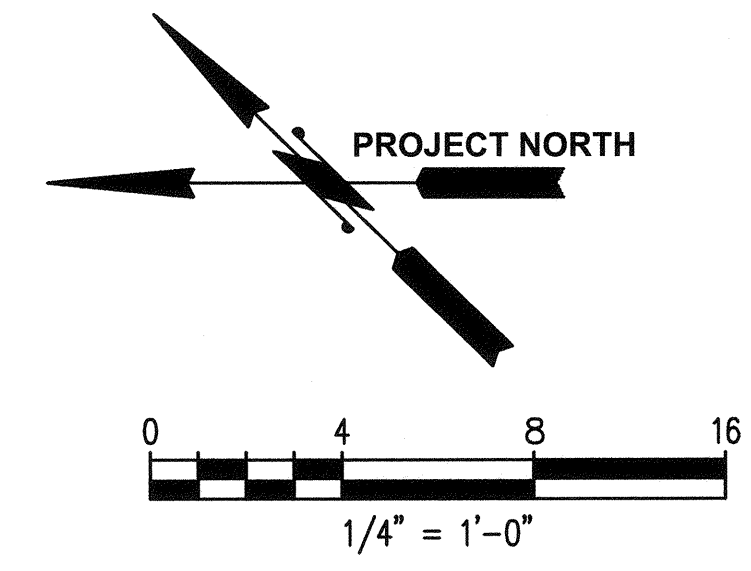
1
D3.1 **PIER DECK DEMOLITION PLAN**
1/4" = 1'-0"

NOTES

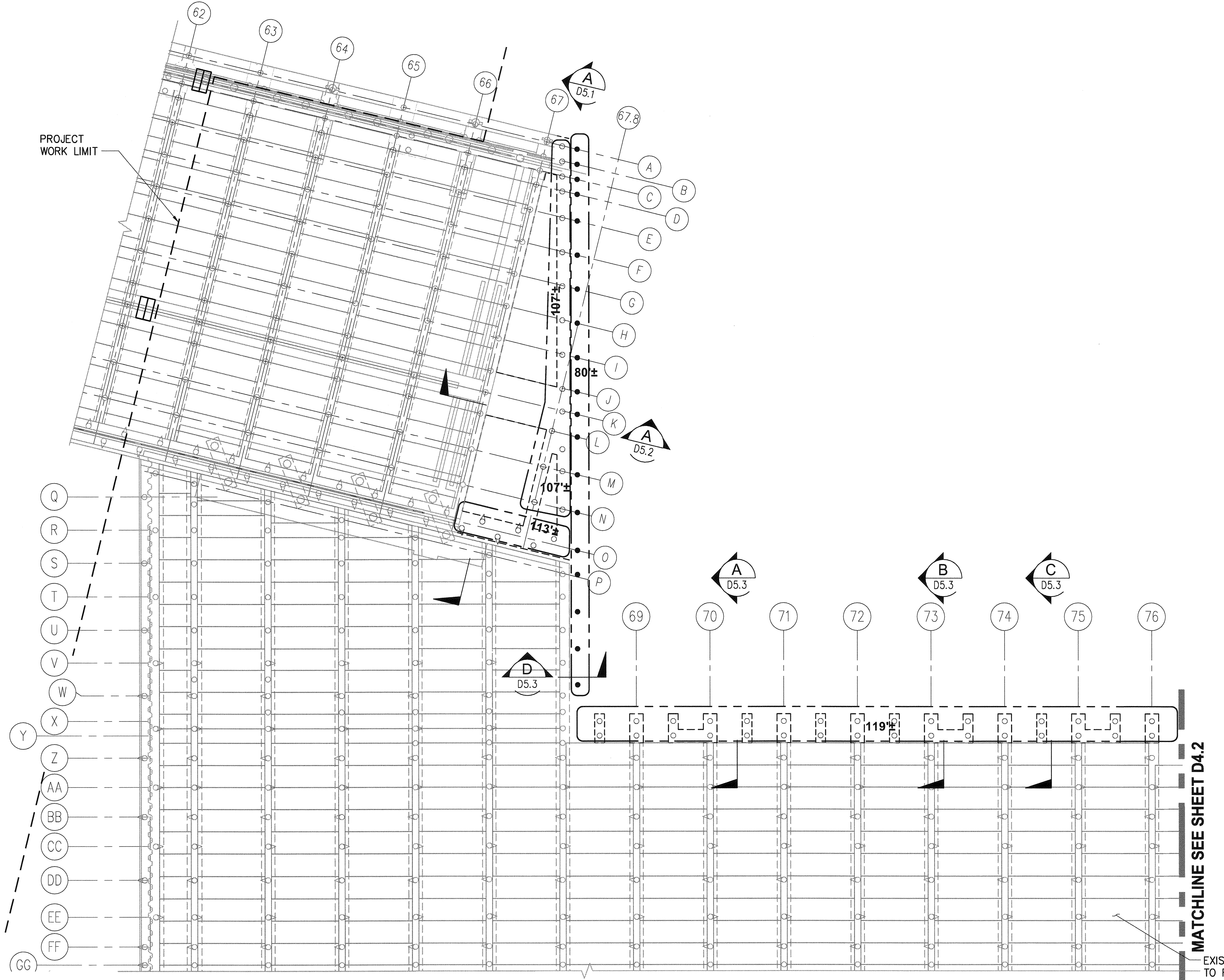
1. SEE SITE ELECTRICAL DEMOLITION PLAN FOR ELECTRICAL DEMOLITION REQUIREMENTS.
2. SEE D1.1-D1.3 FOR ASPHALT PAVING AND BALLAST DEMOLITION AND REMOVAL EVENTS.
3. UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
4. INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL REVIEW REFERENCE DRAWINGS AND VERIFY ALL EXISTING CONDITIONS IN THE FIELD, SEE SPECIFICATIONS.
5. CONTRACTOR SHALL NOT DAMAGE THE TEMPORARILY REMAINING CANTILEVERED PORTION OF THE WHARF STRUCTURE DURING DEMOLITION AND CONSTRUCTION OF THE PILE CAP BEAM ALONG THE FACE OF THE EXISTING PIER. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE PORT.

LEGEND:

- XX BENT NUMBER, ROW NUMBER
- DEMOLISH AND REMOVE EXISTING STRUCTURE AND APPURTENANCES
- OUTLINE OF PILE CAP TO BE DEMOLISHED
- OUTLINE OF PILE CAP TO REMAIN
- TIMBER FENDER PILE
- DECK DRAIN
- SUBSURFACE DRAIN



 2407 North 31st Street, Suite 100 (253) 396-0150 Fax (253) 396-0162	APPR: _____ BY: _____ DATE: _____
	MARK: _____ REVISION: _____
	APPROVED: <i>Julie Howard</i> DIRECTOR ENG. DATE: 3-28-16 PRINTED BY: tlemons Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
6552 D3.4 SH 30 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION PIER DECK DEMOLITION PLAN - SHEET 4 TOWNSHIP: 21N RANGE: 3E SECTION: 27 DAT-HRZ: VERT: DRAWING SCALE: AS NOTED
THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION	

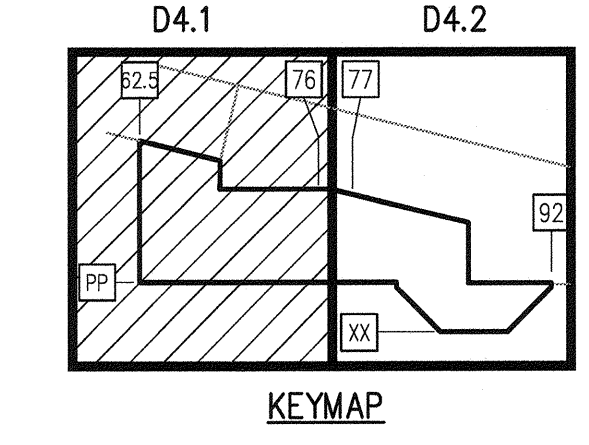
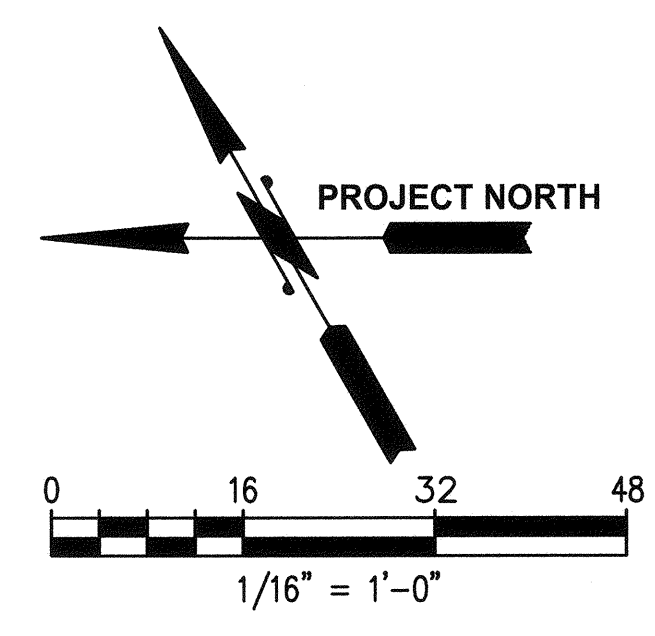


NOTES

- SEE SITE ELECTRICAL DEMOLITION PLAN FOR ELECTRICAL DEMOLITION REQUIREMENTS.
- UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
- INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL REVIEW REFERENCE DRAWINGS AND VERIFY ALL EXISTING CONDITIONS IN THE FIELD, SEE SPECIFICATIONS.

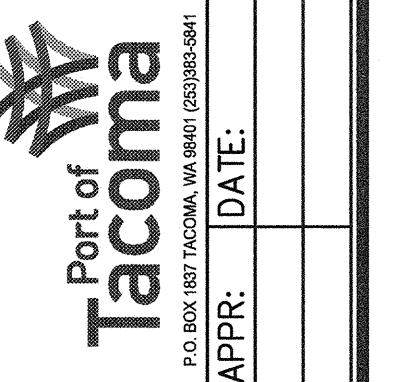
LEGEND:

- OUTLINE OF PILE CAP TO BE DEMOLISHED
- OUTLINE OF PILE CAP TO REMAIN
- PROJECT WORK AREA LIMITS
- BENT NUMBER, ROW NUMBER
- 16 1/2" SOLID OCTAGONAL PRECAST CONCRETE PILE - PLUMB
- 16 1/2" SOLID OCTAGONAL PRECAST CONCRETE PILE - BATTER
- TIMBER FENDER PILE
- STEEL FENDER PILE
- APPROX LENGTH OF PILES TO BE EXTRACTED
- DECK PANEL



PIER PILE CAP DEMOLITION AND PILE EXTRACTION PLAN

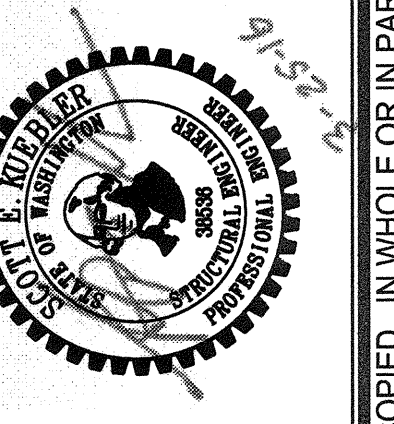
1/16" = 1'-0"



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kpff

MARK: REVISION: BY: DATE: APPR: DATE:

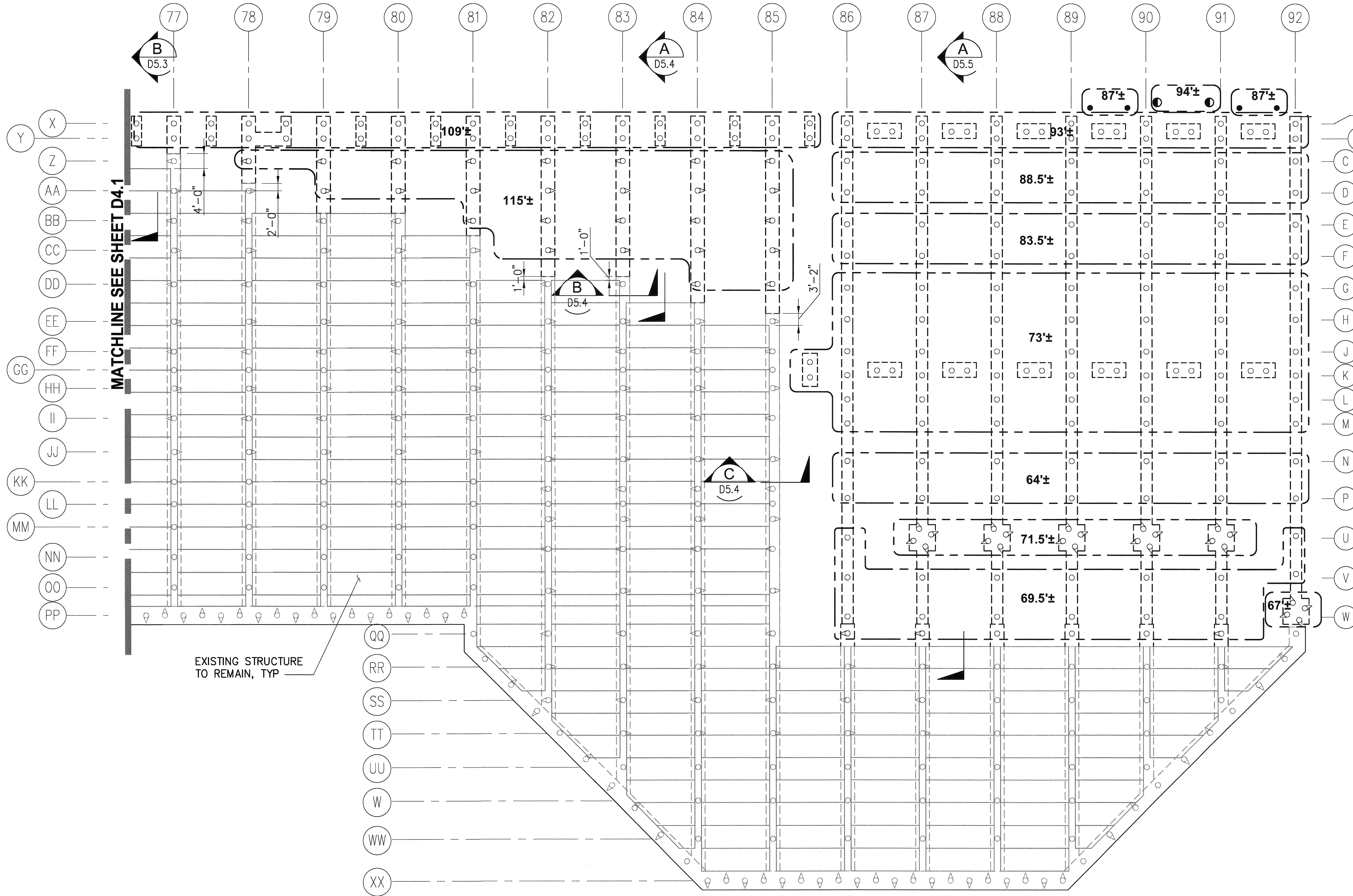


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<i>Shao Brad</i>			
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3-28-16			
PRINTED BY:	TACOMA, WA	SITCLIM PLAZA	
PORT ADDRESS: ONE	TACOMA, WA 98401-1837		

PIER 4 PHASE 2			
RECONFIGURATION			
PIER PILE CAP DEMOLITION AND PILE EXTRACTION PLAN - SHEET 1			
TOWNSHIP: 21N	RANGE: 3E	SECTION: 27	
DATE-HRZ:	VERT:	DRAWING SCALE: AS NOTED	
PARCEL:			

6552	D4.1	SH 31 OF 489
CONT/CONS: 070136		
M. ID: 091251		
PHASE: BID		

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**PIER PILE CAP DEMOLITION
AND PILE EXTRACTION PLAN**

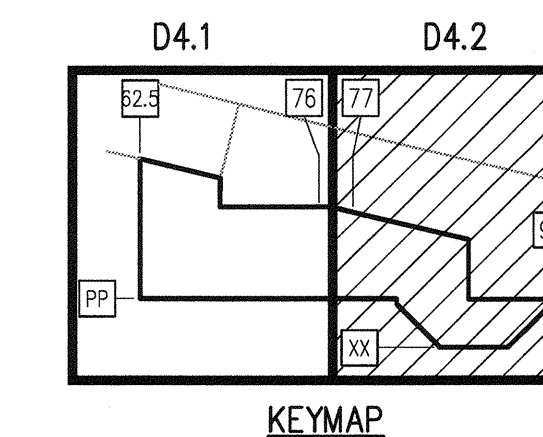
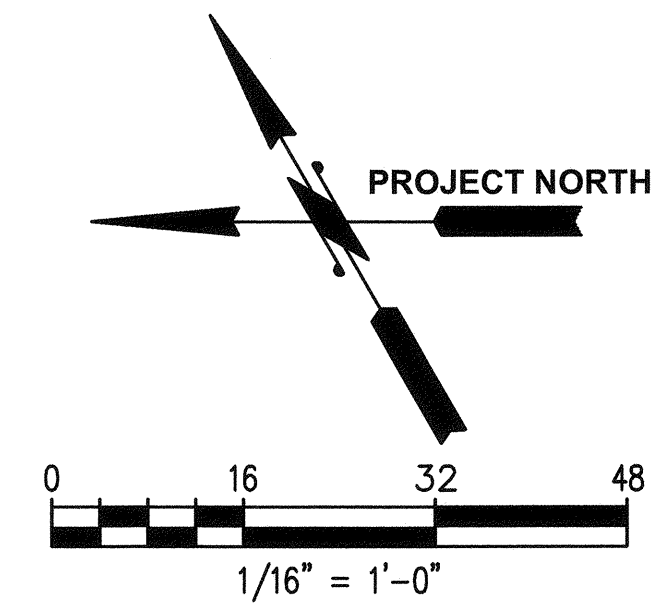
1/16" = 1'-0"

NOTES

1. SEE SITE ELECTRICAL DEMOLITION PLAN FOR ELECTRICAL DEMOLITION REQUIREMENTS.
2. UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
3. INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL REVIEW REFERENCE DRAWINGS AND VERIFY ALL EXISTING CONDITIONS IN THE FIELD, SEE SPECIFICATIONS.
4. SEE SHEET D1.2 FOR ADDITIONAL CONCRETE BATTER PILES TO BE EXTRACTED IN FRONT OF THE EXISTING SUBSTATION AND FOR ADDITIONAL TIMBER PILES TO BE EXTRACTED FROM THE PHASE 1 DREDGE SLOPE.

LEGEND:

- OUTLINE OF PILE CAP TO BE DEMOLISHED
- OUTLINE OF PILE CAP TO REMAIN
- PROJECT WORK AREA LIMITS
- BENT NUMBER, ROW NUMBER
- 16 1/2" SOLID OCTAGONAL PRECAST CONCRETE PILE - PLUMB
- 16 1/2" SOLID OCTAGONAL PRECAST CONCRETE PILE - BATTER
- TIMBER FENDER PILE
- STEEL FENDER PILE
- APPROX LENGTH OF PILES TO BE EXTRACTED
- DECK PANEL



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Kiewit Professional Firm

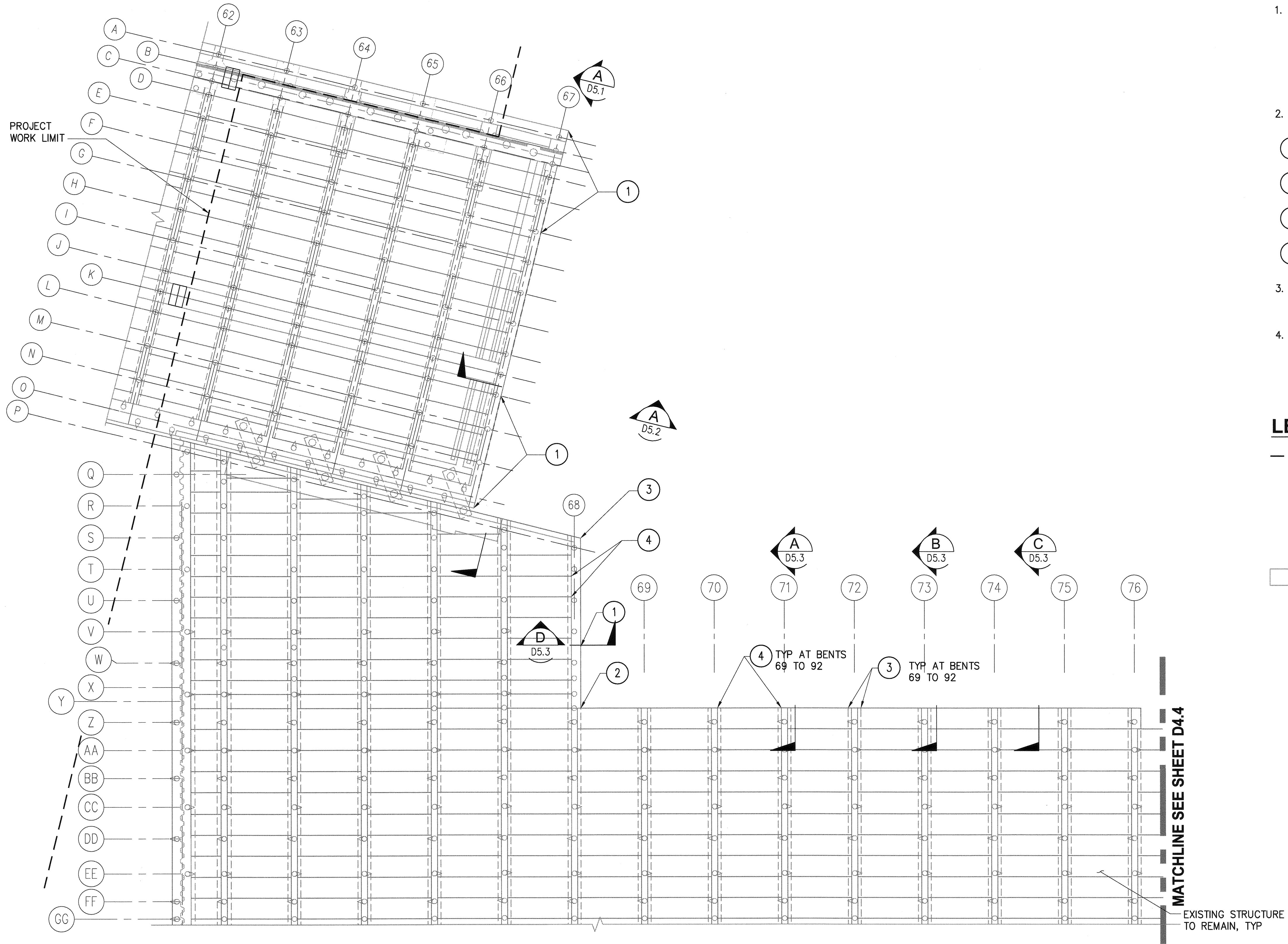


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<i>James Kelly</i>		TAH	
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PORT ADDRESS: ONE SITCUM PLAZA			
	TACOMA, WA 98401-1837		

PIER 4 PHASE 2 RECONFIGURATION PIER PILE CAP DEMOLITION AND PILE EXTRACTION PLAN - SHEET 2	TOWNSHIP: 21N	RANGE: 3E	SECTION: 27
DAT-HRZ:	VERT:	DRAWING SCALE: AS NOTED	PARCEL:

6552	D4.2	SH 32 OF 489
CONTR/CONS:	070136	
M. ID:	091251	
PHASE:	BID	

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MATCHLINE SEE SHEET D4.4

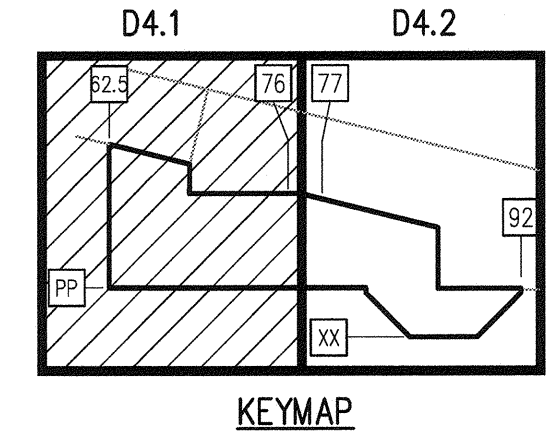
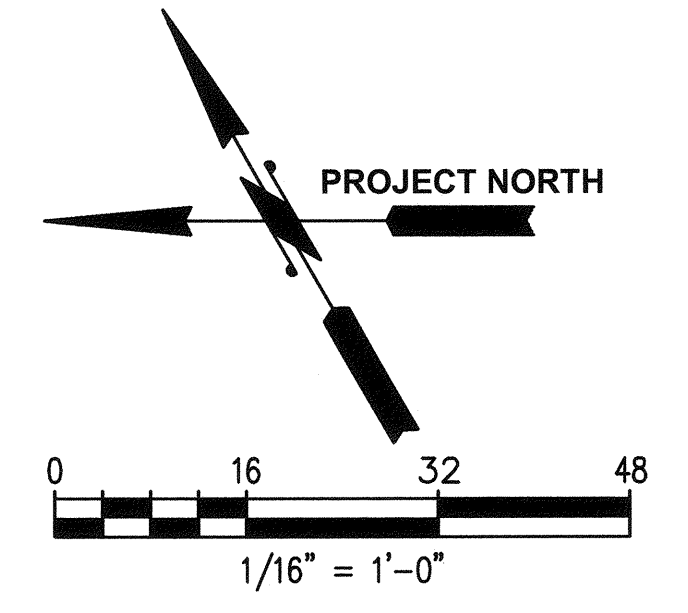
PIER PLAN AT END OF DEMOLITION
1/16" = 1'-0"

NOTES

- CONTRACTOR SHALL PROVIDE A POST DEMOLITION SURVEY TO THE PORT FOR CONFIRMATION OF THE LOCATIONS OF EXPOSED PORTIONS OF ALL EXISTING PILE CAPS AND DECK PANELS WHICH ARE TO BE INCORPORATED INTO THE FINAL CONSTRUCTION. THE SURVEY SHALL BE PERFORMED AFTER COMPLETION OF ALL DEMOLITION, INCLUDING DECK DEMOLITION, PILE EXTRACTION, AND SELECT DEMOLITION TO EXPOSE EXISTING REINFORCING.
- POST DEMOLITION SURVEY SHALL INCLUDE THE EXPOSED PORTIONS OF THE FOLLOWING ELEMENTS:
 - TOP EDGE OF EXISTING PILE CAPS AT A SPACING OF NO MORE THAN 30 FEET OC ALONG THEIR LENGTH.
 - TOP EDGES OF EXISTING PILE CAPS AT INTERSECTIONS WITH EXISTING DECK PANELS.
 - TOP CORNERS AT EXPOSED END OF EXISTING PILE CAPS AFTER COMPLETION OF SELECT DEMO.
 - TOP CORNERS AT EXPOSED END OR EDGE OF EACH DECK PANEL.
- THE CONTRACTOR SHALL COORDINATE THE PERFORMANCE OF THE POST DEMOLITION SURVEY WITH THE PORT. THE ENGINEER SHALL BE PRESENT DURING THE SURVEY WORK.
- INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL REVIEW REFERENCE DRAWINGS AND VERIFY ALL EXISTING CONDITIONS IN THE FIELD, SEE SPECIFICATIONS.

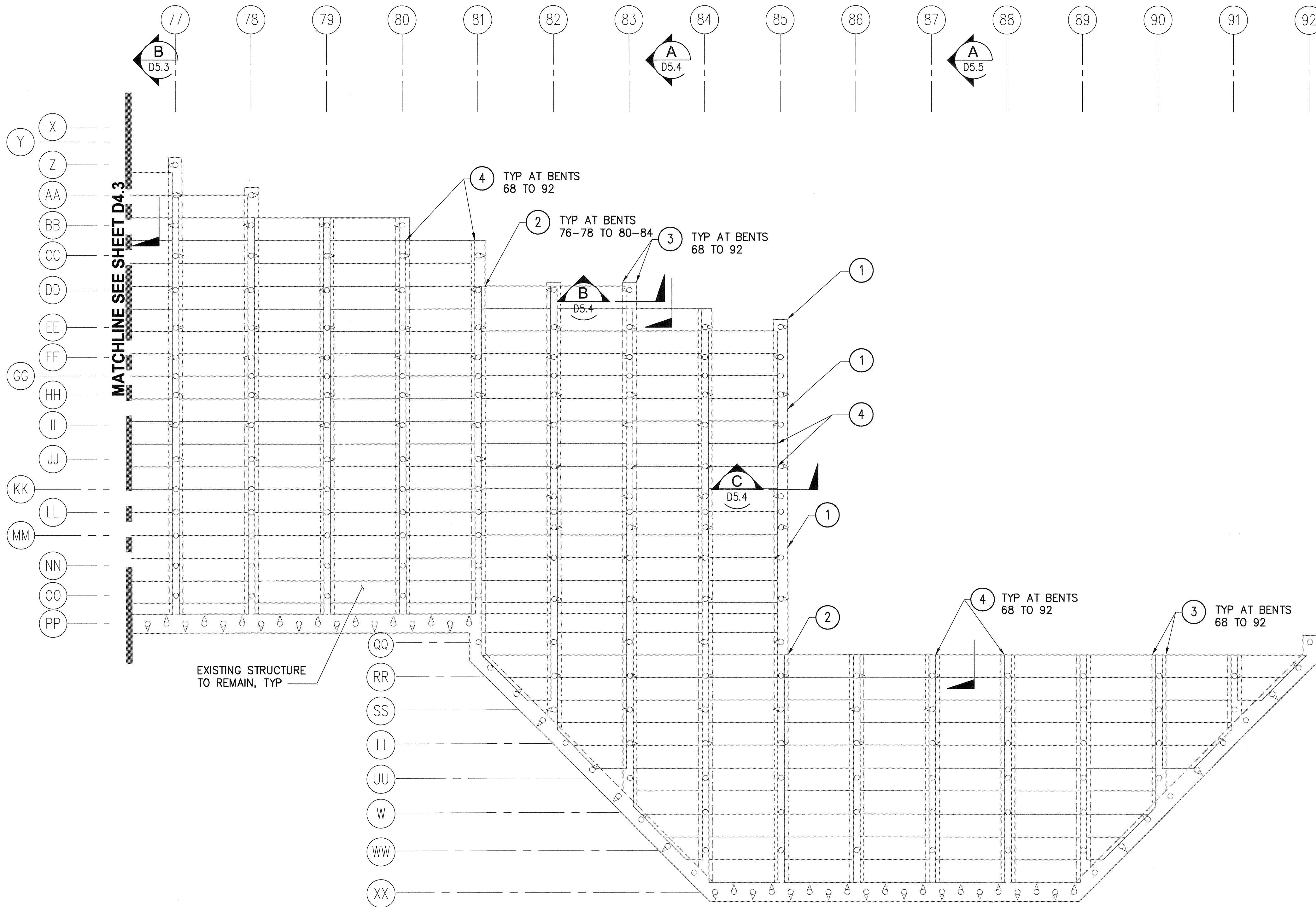
LEGEND:

- PROJECT WORK AREA LIMITS
- (XX) BENT NUMBER, ROW NUMBER
- 16 1/2" SOLID OCTAGONAL PRECAST CONCRETE PILE - PLUMB
- 16 1/2" SOLID OCTAGONAL PRECAST CONCRETE PILE - BATTER
- ▭ DECK PANEL

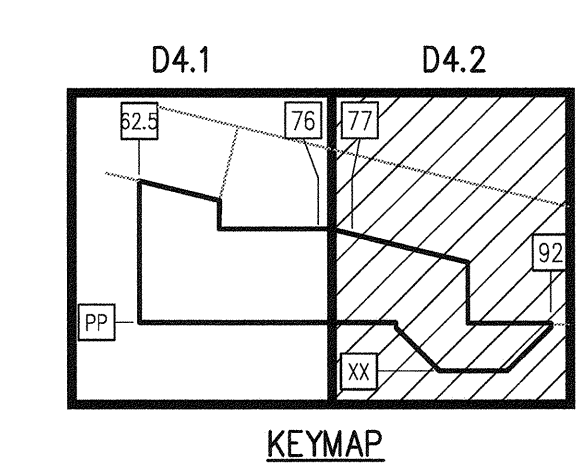
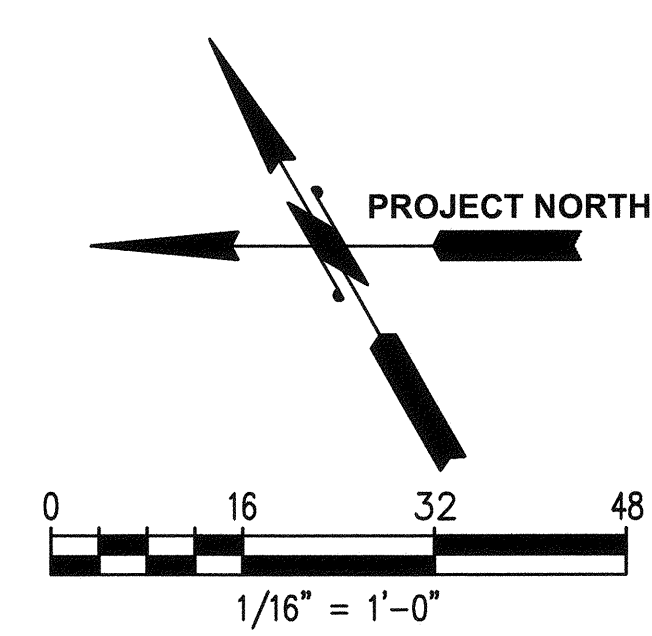


 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0150 Fax (253) 396-0182	APPR: _____ DATE: _____
	MARK: _____ REVISION: _____ BY: _____
	91-251-2
APPROVED: <i>Julio Alvarez</i> DIRECTOR ENG. DATE: 3-28-16 PRINTED BY: tlemoms Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	SEK _____ CHECKED BY _____ DATE _____ TAH _____ PROJ. ENGR _____ DATE _____ SECTION: 27 RANGE: 3E VERT: _____ DRAWING SCALE: AS NOTED
6552 D4.3 SH 33 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION PIER PLAN AT END OF DEMOLITION - SHEET 1

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PIER PLAN AT END OF DEMOLITION
 1/16" = 1'-0"

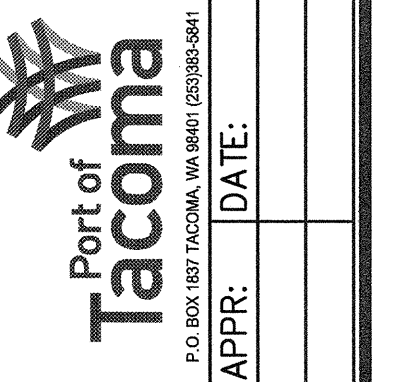


NOTES

1. CONTRACTOR SHALL PROVIDE A POST DEMOLITION SURVEY TO THE PORT FOR CONFIRMATION OF THE LOCATIONS OF EXPOSED PORTIONS OF ALL EXISTING PILE CAPS AND DECK PANELS WHICH ARE TO BE INCORPORATED INTO THE FINAL CONSTRUCTION. THE SURVEY SHALL BE PERFORMED AFTER COMPLETION OF ALL DEMOLITION, INCLUDING DECK DEMOLITION, PILE EXTRACTION, AND SELECT DEMOLITION TO EXPOSE EXISTING REINFORCING.
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 - 2 TOP EDGES OF EXISTING PILE CAPS AT INTERSECTIONS WITH EXISTING DECK PANELS.
 - 3 TOP CORNERS AT EXPOSED END OF EXISTING PILE CAPS AFTER COMPLETION OF SELECT DEMO.
 - 4 TOP CORNERS AT EXPOSED END OR EDGE OF EACH DECK PANEL.
3. THE CONTRACTOR SHALL COORDINATE THE PERFORMANCE OF THE POST DEMOLITION SURVEY WITH THE PORT. THE ENGINEER SHALL BE PRESENT DURING THE SURVEY WORK.
4. INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL REVIEW REFERENCE DRAWINGS AND VERIFY ALL EXISTING CONDITIONS IN THE FIELD, SEE SPECIFICATIONS.

LEGEND:

- PROJECT WORK AREA LIMITS
- xx BENT NUMBER, ROW NUMBER
- 16 1/2" SOLID OCTAGONAL PRECAST CONCRETE PILE - PLUMB
- △ 16 1/2" SOLID OCTAGONAL PRECAST CONCRETE PILE - BATTER
- DECK PANEL

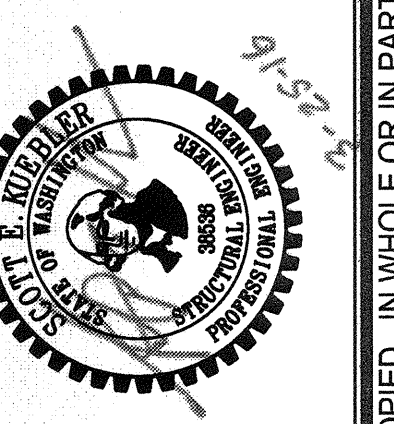


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P.O. BOX 1087 TACOMA, WA 98501-0108

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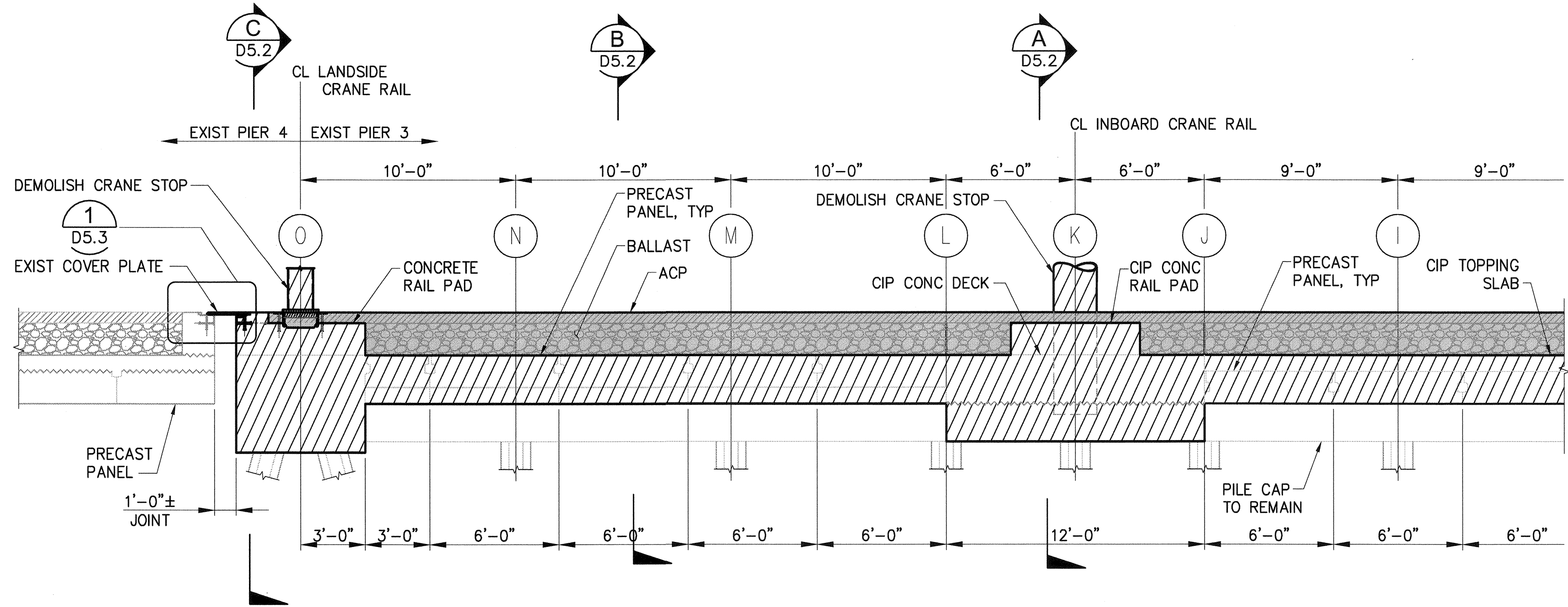
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TAH	TAH	
DIRECTOR	PROJ. ENGR	DATE
3-28-16	tremors	Mar. 24, 2016
PRINTED BY:	PORT ADDRESS: ONE SITCUM PLAZA	
	TACOMA, WA 98401-1837	

PIER 4 PHASE 2 RECONFIGURATION
 PIER PLAN AT END OF DEMOLITION - SHEET 2

TOWNSHIP: 21N RANGE: 3E SECTION: 27
 DAT-HRZ: VERT: DRAWING SCALE: AS NOTED
 PARCEL: TACOMA, WA 98401-1837

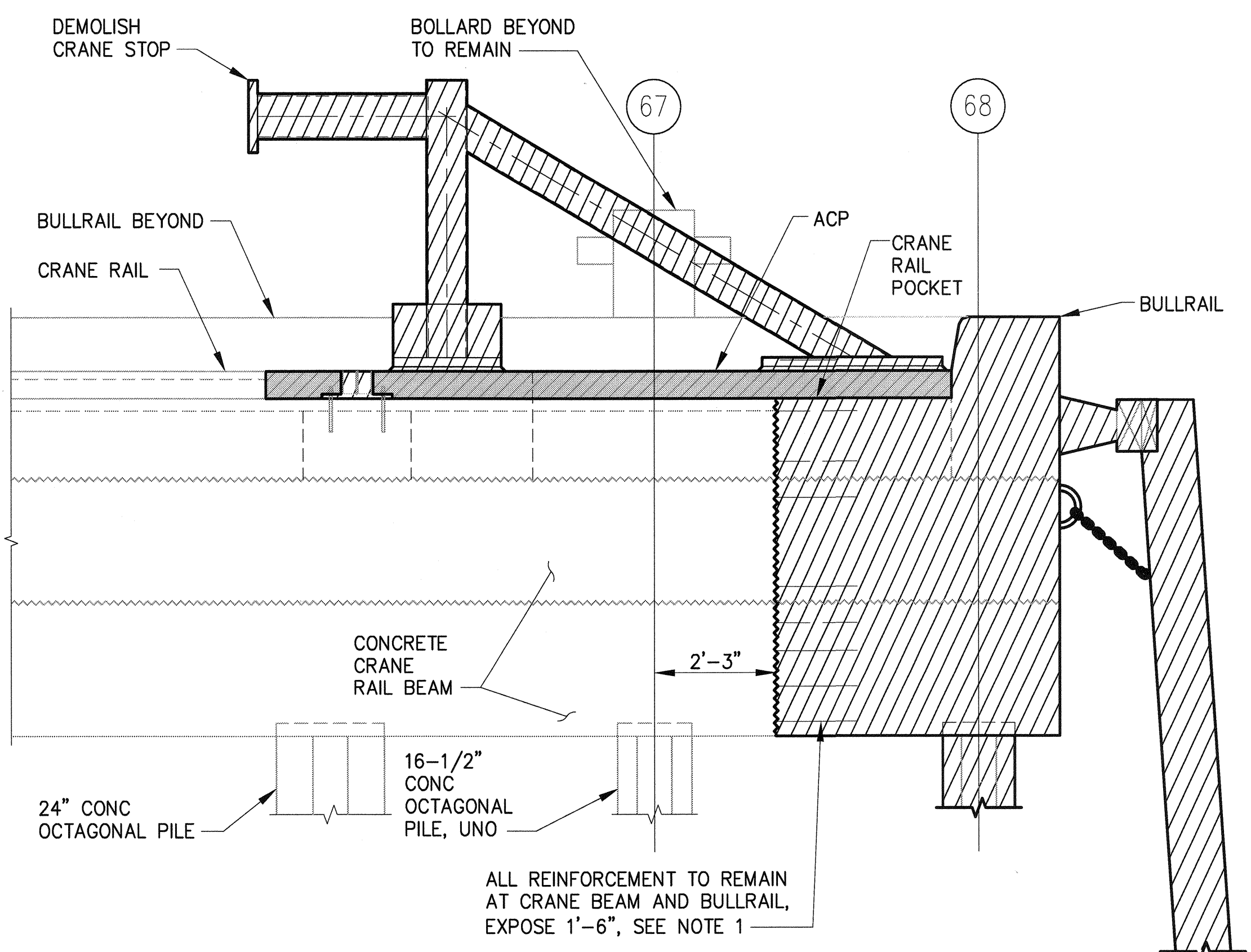
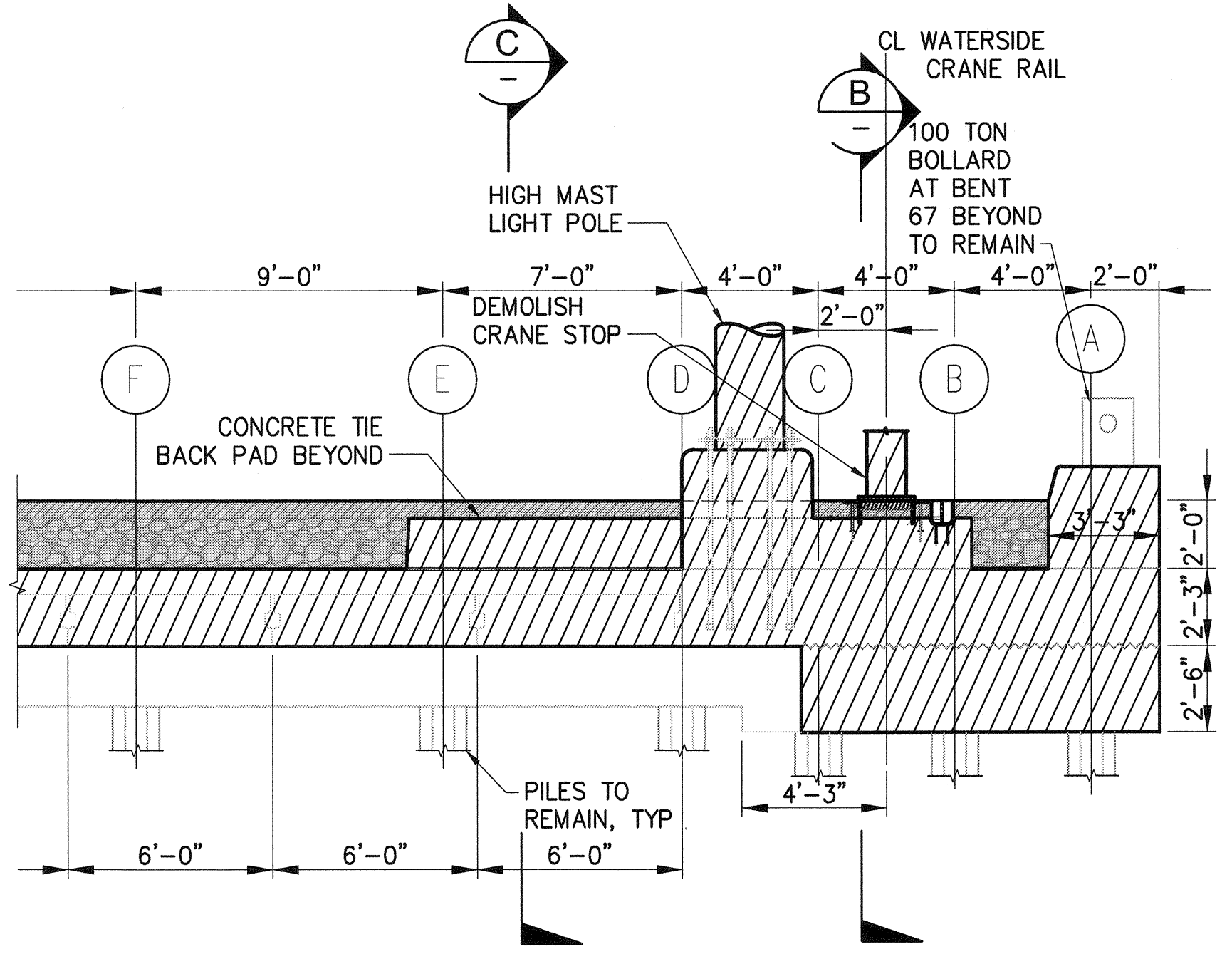
6552
D4.4
 SH 34 OF 499
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

PORT OF TACOMA FILE: N:\Struct1\14-1114096 (POT Pier 4)\Drawings\Current\Phase 2_091251\091251-D5.1



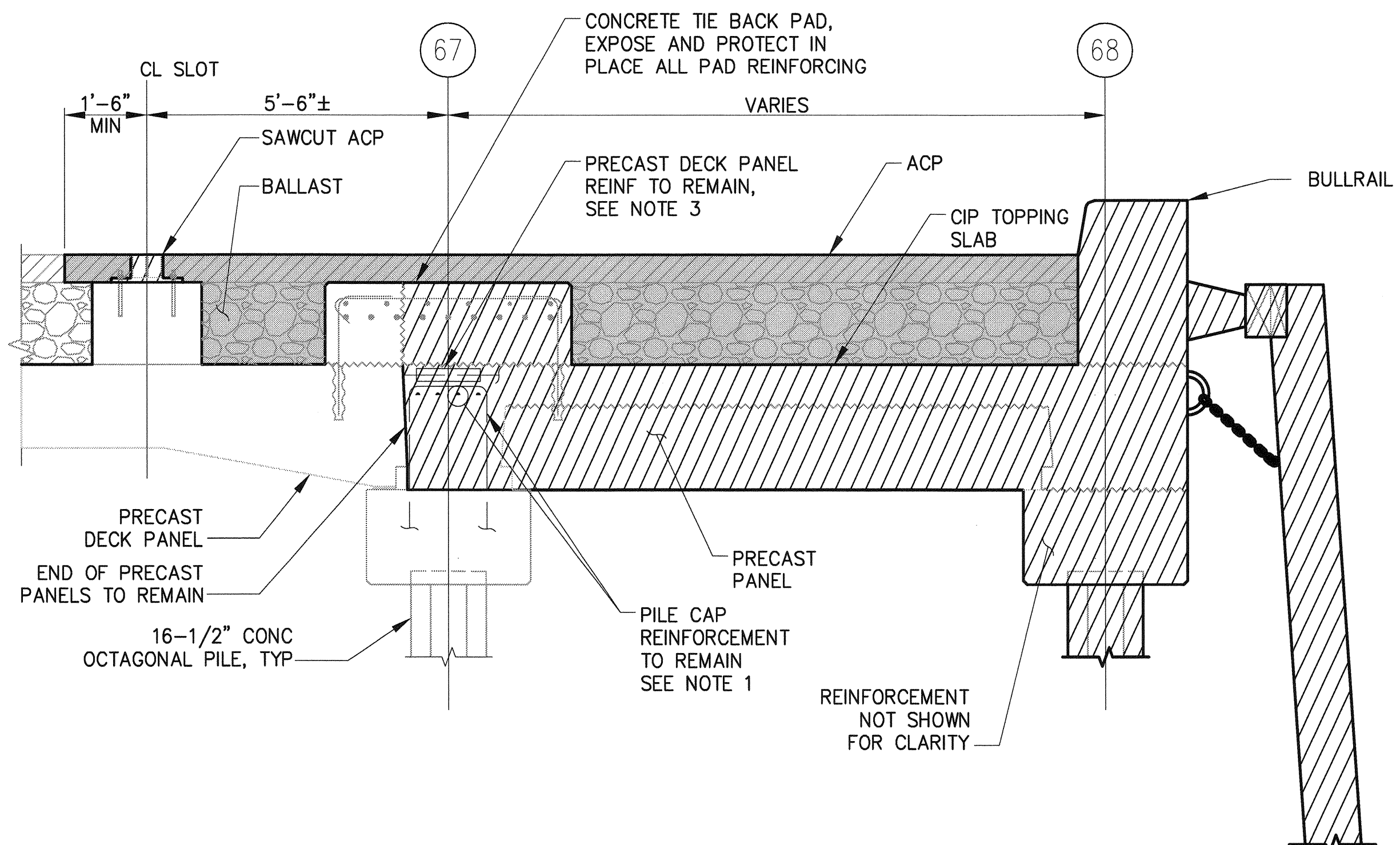
DEMO SECTION AT BENT 67

A
D3.1, D4.1
1/4" = 1'-0"



DEMO SECTION AT WATERSIDE CRANE RAIL

B
D3.3
1/2" = 1'-0"



DEMO SECTION

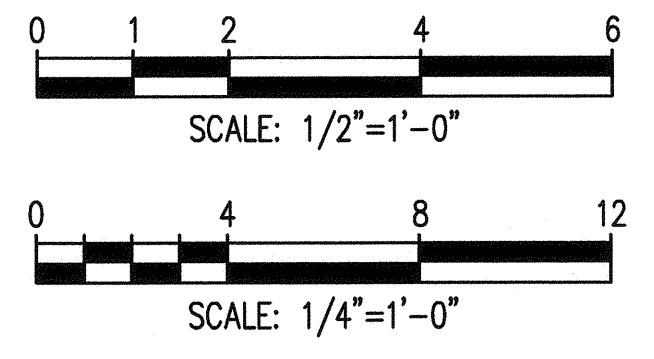
C
D3.3
1/2" = 1'-0"

NOTES:

1. ALL REINFORCEMENT TO REMAIN SHALL NOT BE DEFORMED OR DAMAGED. SELECT DEMOLITION AT REINFORCEMENT TO REMAIN SHALL BE PERFORMED TO PROTECT REINFORCEMENT.
2. INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD.
3. DO NOT DAMAGE OR CUT DECK PANEL REINFORCING. CAREFULLY GRIND SPLICE ANGLE FREE FROM PROJECTING DECK PANEL REINFORCING

LEGEND:

- DEMOLISH AND REMOVE EXISTING STRUCTURE AND APPURTENANCES
- DEMOLISH AND REMOVE EXISTING ACP AND BALLAST
- ACP
- BALLAST



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PRINTED BY: tlemons Mar 24, 2016
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TACOMA, WA 98401-1837

SEK	CHECKED BY	DATE
TAH		

TAH	PROJ. ENGR	DATE

6552

D5.1

SH 35 OF 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2 RECONFIGURATION

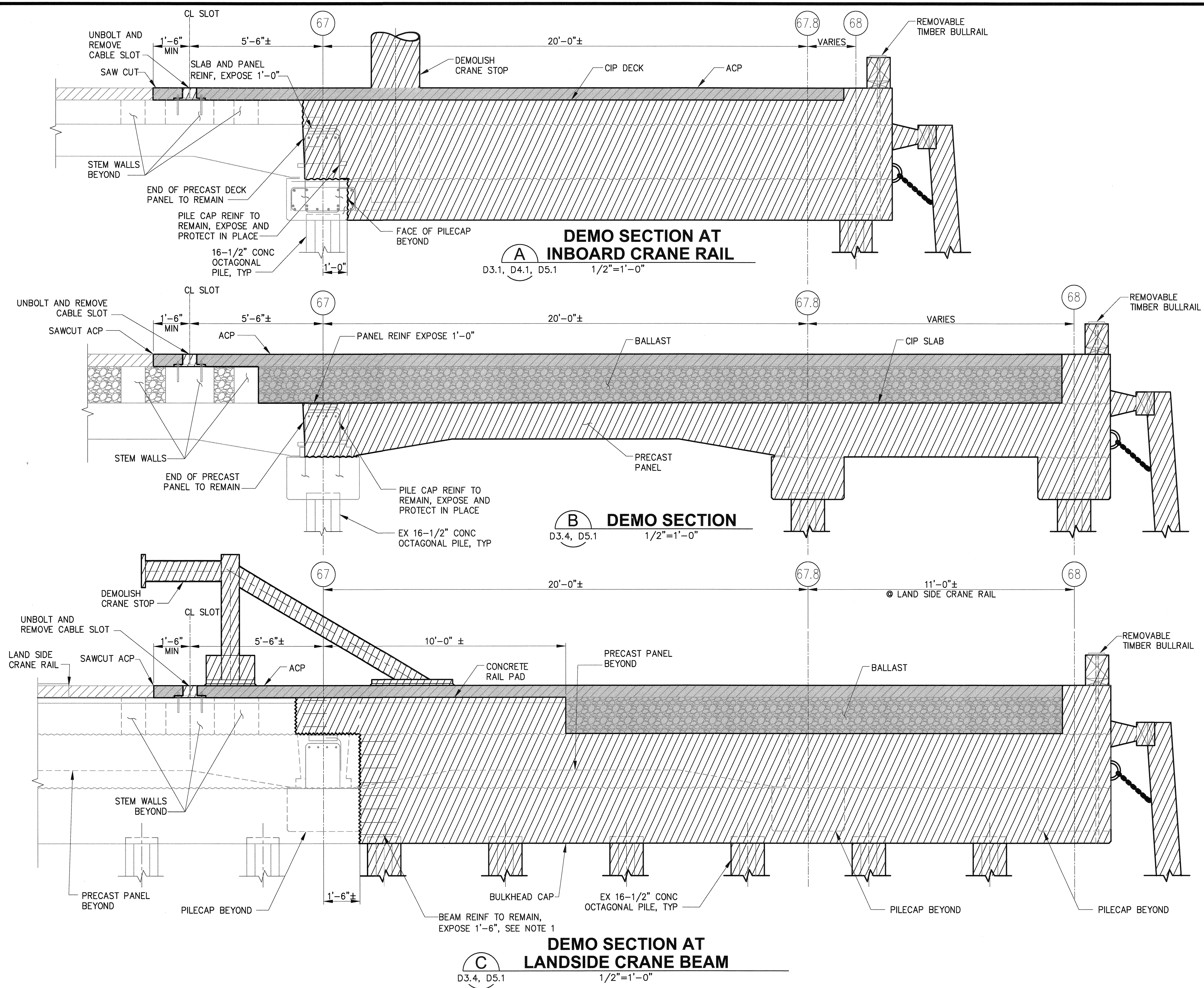
PIER DEMOLITION SECTIONS - SHEET 1

TOWNSHIP: 21N RANGE: 3E SECTION: 27
DAT-HRZ: WA83-SF VERT: MLLW 19.39 @ Tide 22.1933
DRAWING SCALE: AS NOTED

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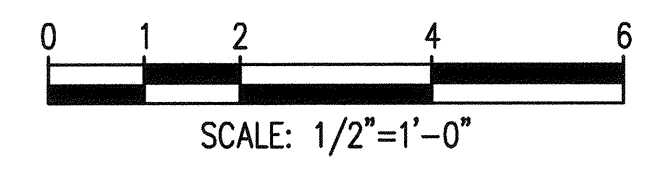
BINDING EDGE

PORT OF TACOMA FILE: N:\Struct\114-114096 (POT Pier 4)\Drawings\Current\Phase 2_091251\091251-D5.2



- NOTES:**
- ALL REINFORCEMENT TO REMAIN SHALL NOT BE DEFORMED OR DAMAGED. SELECT DEMOLITION AT REINFORCEMENT TO REMAIN SHALL BE PERFORMED TO PROTECT REINFORCEMENT.
 - INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD.

- LEGEND:**
- DEMOLISH AND REMOVE EXISTING STRUCTURE AND APPURTENANCES
 - DEMOLISH AND REMOVE EXISTING ACP AND BALLAST
 - ACP
 - BALLAST



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BY: _____
REVISION: _____
MARK: _____

91-52-16

APPROVED:	<i>[Signature]</i>	CHECKED BY:	DATE:	TAH:	DATE:
DIRECTOR ENG. DATE:	3-28-16	PROJ. ENGR DATE:		ITEMS:	Mar 24, 2016
PRINTED BY:	Items	PORT ADDRESS:	ONE SITCUM PLAZA		
DRAWING SCALE:	AS NOTED	TACOMA, WA:	98401-1837		

6552

D5.2

SH 36 OF 499

CONT/CONS: 070136

M. ID: 091251

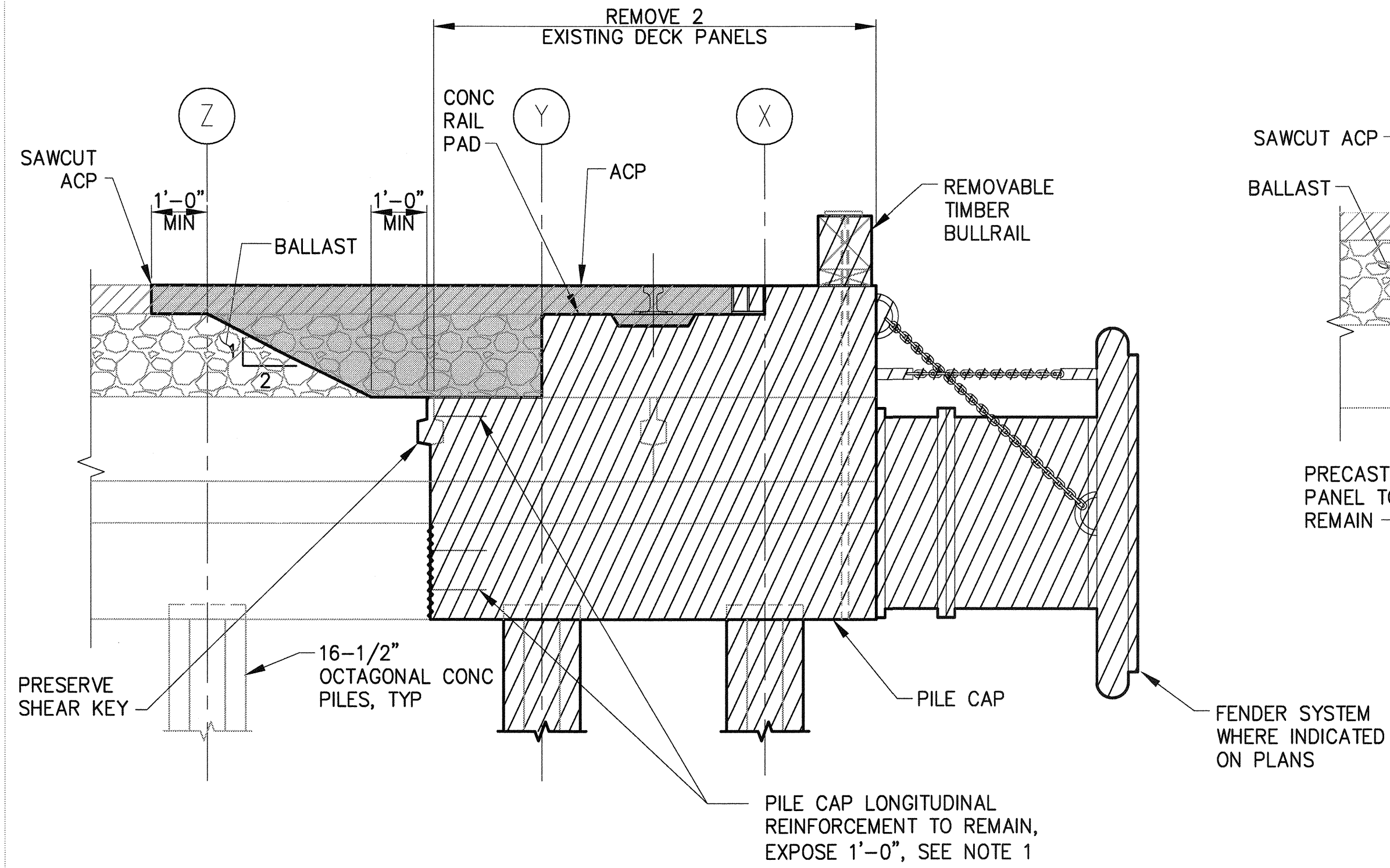
PHASE: BID

PIER 4 PHASE 2

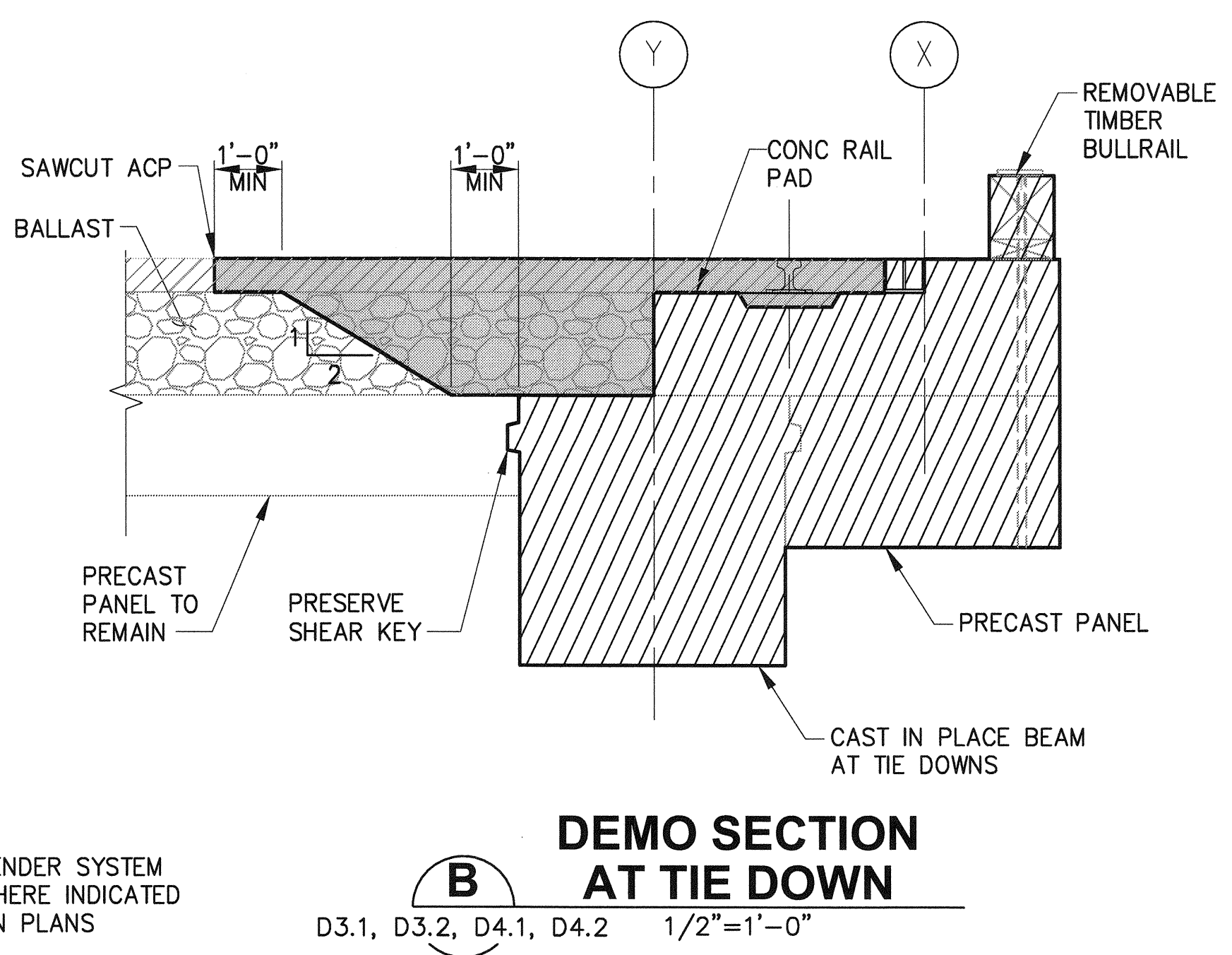
RECONFIGURATION

PIER DEMOLITION SECTIONS - SHEET 2

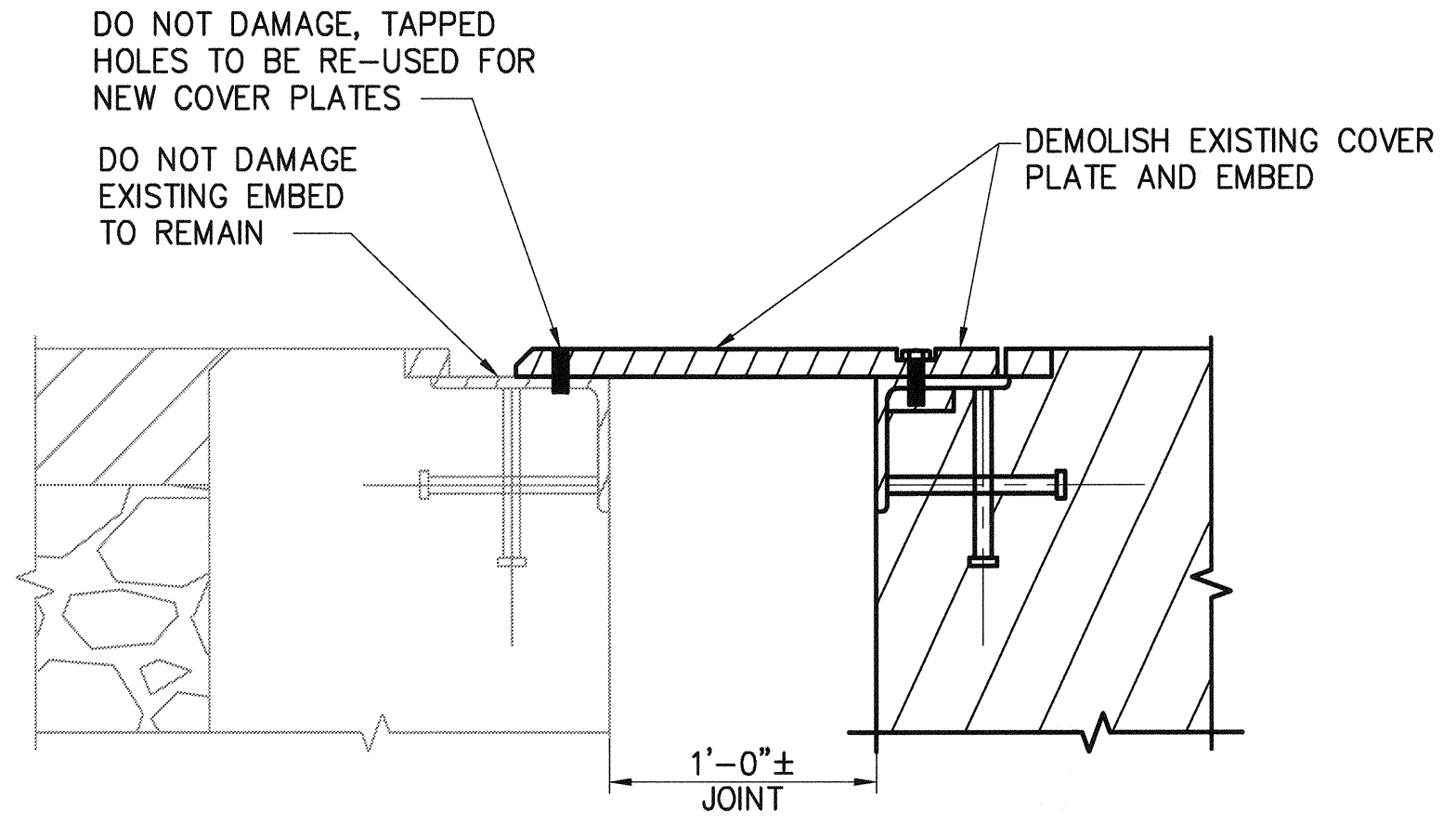
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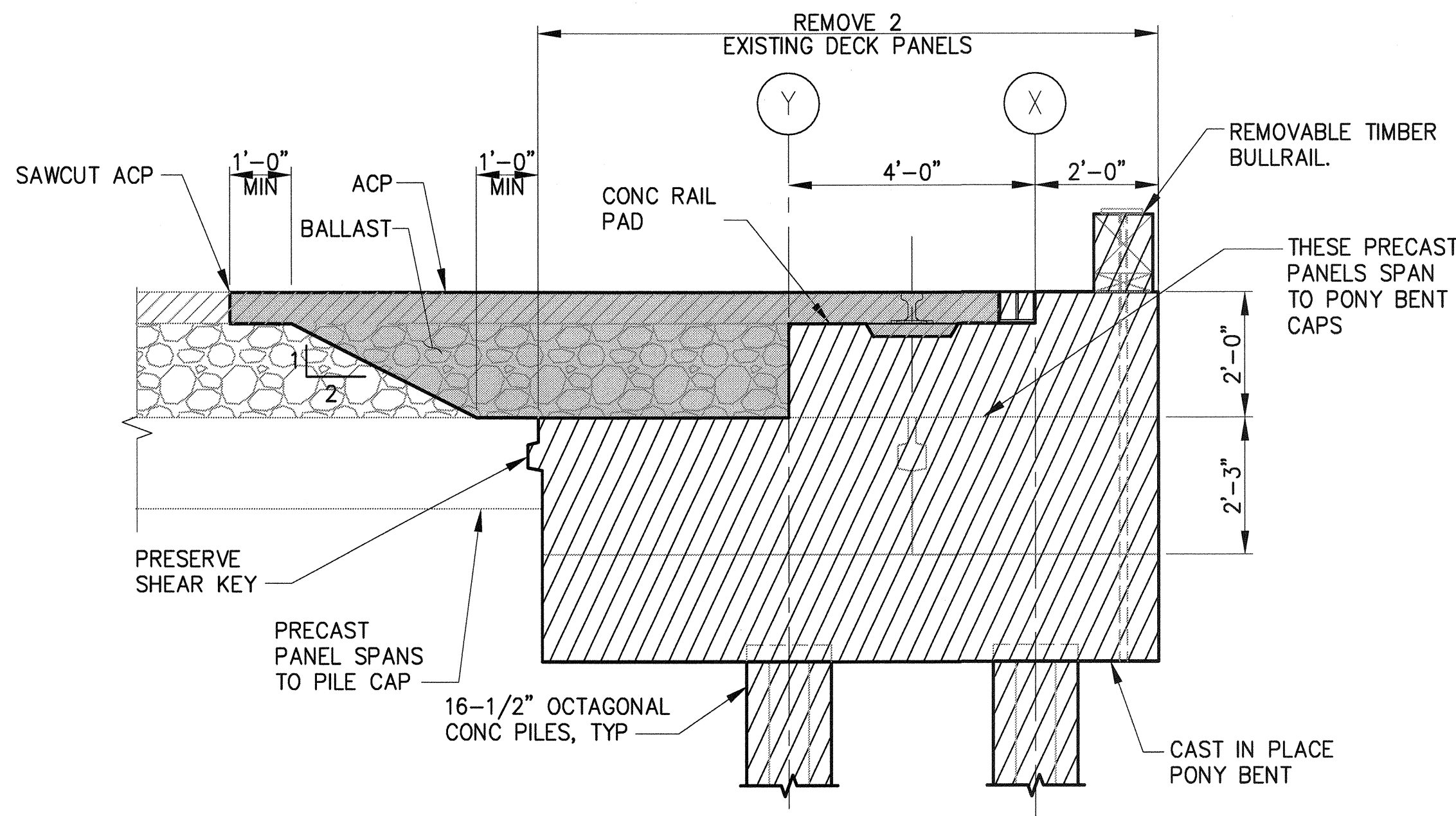
A
DEMO SECTION AT PILE CAP
D3.1, D4.1 1/2"=1'-0"



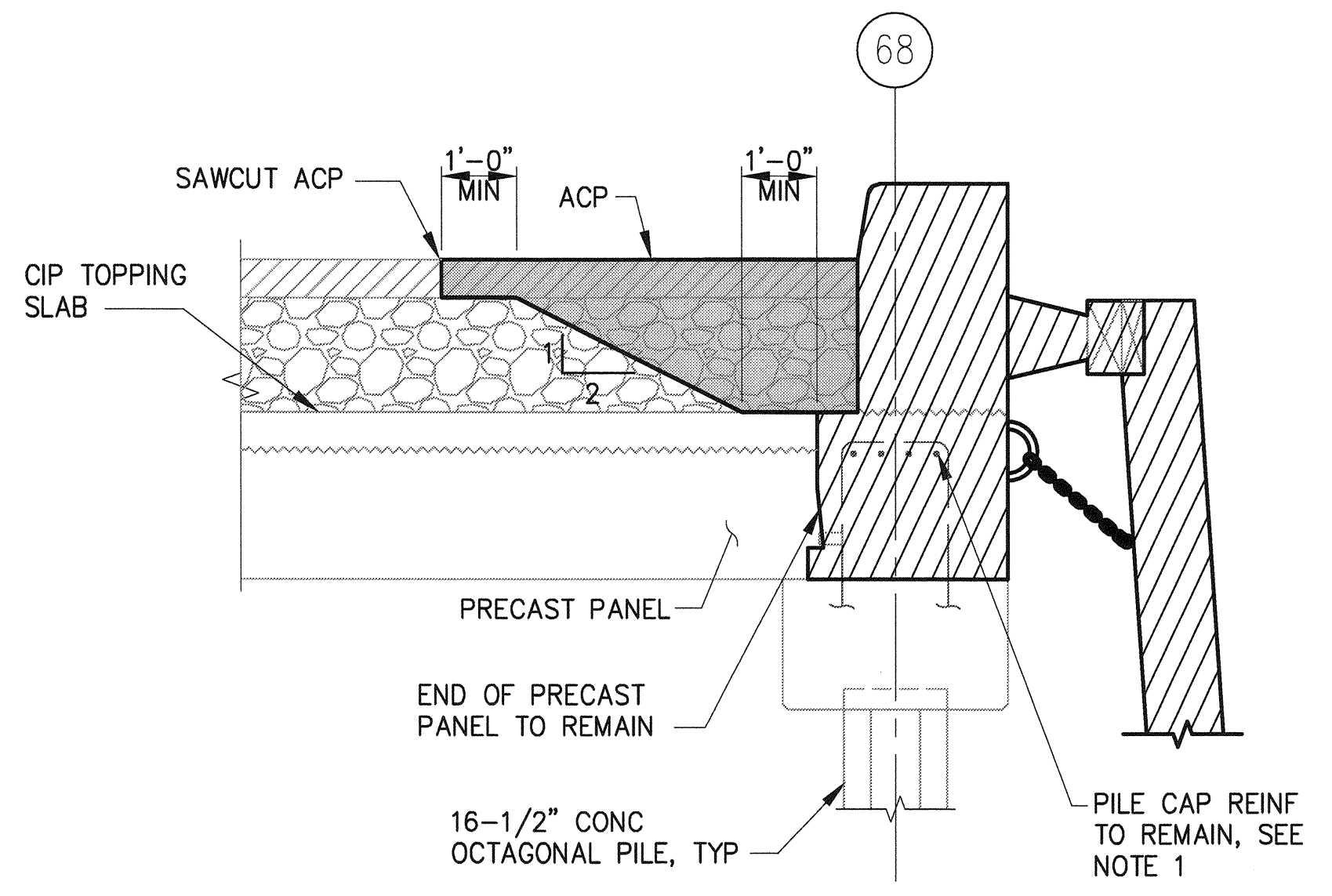
B
DEMO SECTION AT TIE DOWN
D3.1, D3.2, D4.1, D4.2 1/2"=1'-0"



1
DEMO DETAIL @ EXISTING PIER 3-4 JOINT
D5.1 1-1/2"=1'-0"



C
DEMO SECTION AT PONY BENT
D3.1, D4.1 1/2"=1'-0"



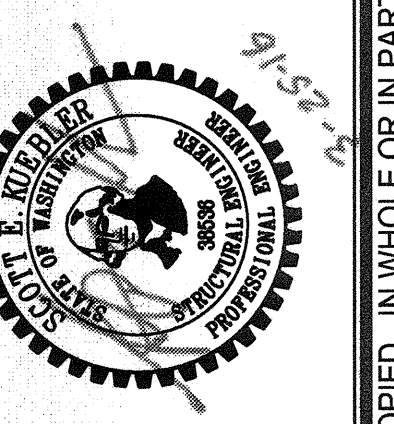
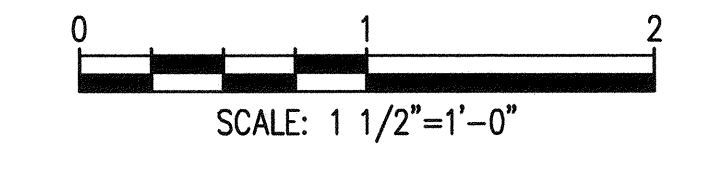
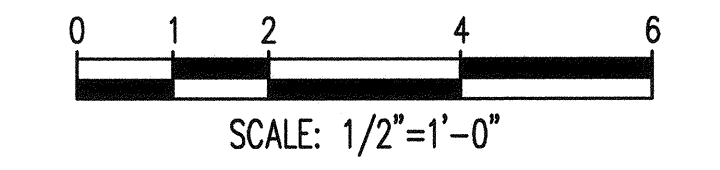
D
DEMO SECTION AT BENT 68
D3.1, D4.1 1/2"=1'-0"

NOTES:

1. ALL REINFORCEMENT TO REMAIN SHALL NOT BE DEFORMED OR DAMAGED. SELECT DEMOLITION AT REINFORCEMENT TO REMAIN SHALL BE PERFORMED TO PROTECT REINFORCEMENT.
2. INFORMATION REGARDING EXISTING CONDITIONS DEPICTED HEREIN WAS OBTAINED FROM RECORD DRAWINGS PROVIDED BY PORT OF TACOMA. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD.

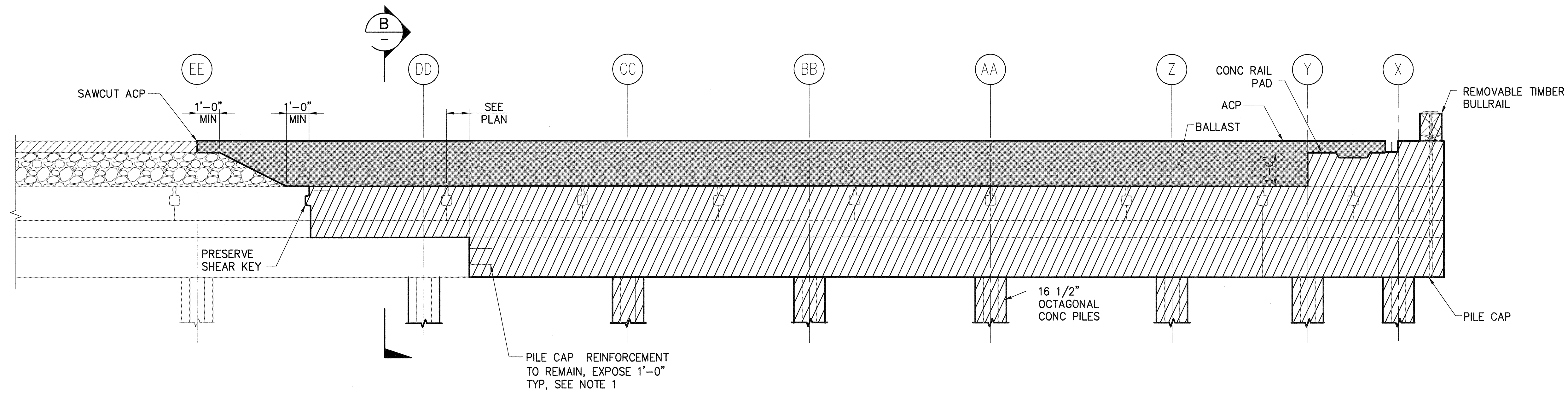
LEGEND:

- [Hatched pattern] DEMOLISH AND REMOVE EXISTING STRUCTURE AND APPURTENANCES
- [Solid grey] DEMOLISH AND REMOVE EXISTING ACP AND BALLAST
- [Diagonal lines] ACP
- [Stippled pattern] BALLAST

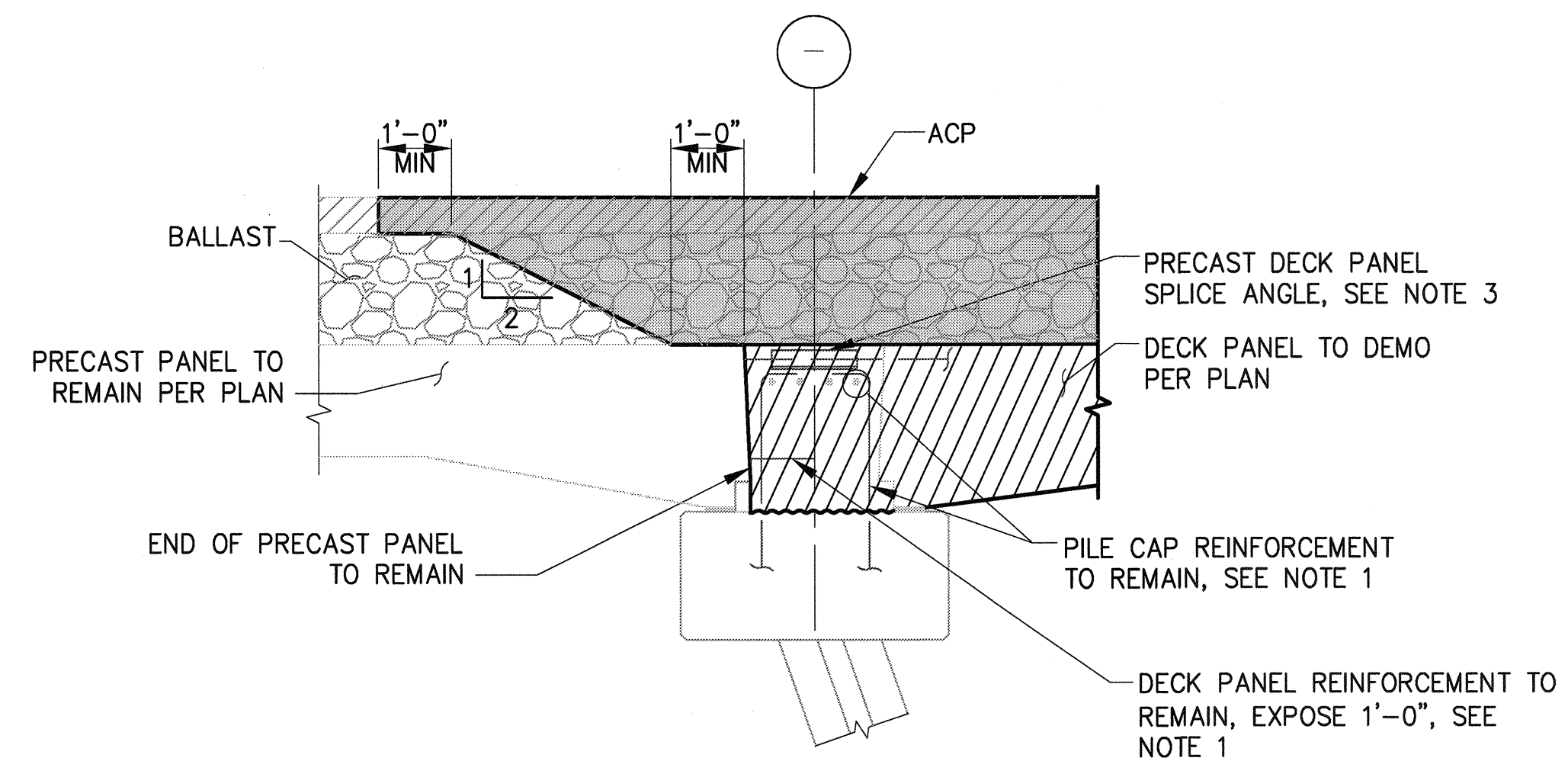


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<i>James Howard</i>	TAH	
DIRECTOR ENG. DATE:	PROJ. ENGR. DATE:	
3-28-16	tlemons Mar 24, 2016	
PRINTED BY:	PORT ADDRESS:	
tlemons ONE SITCUM PLAZA	TACOMA, WA 98401-1837	

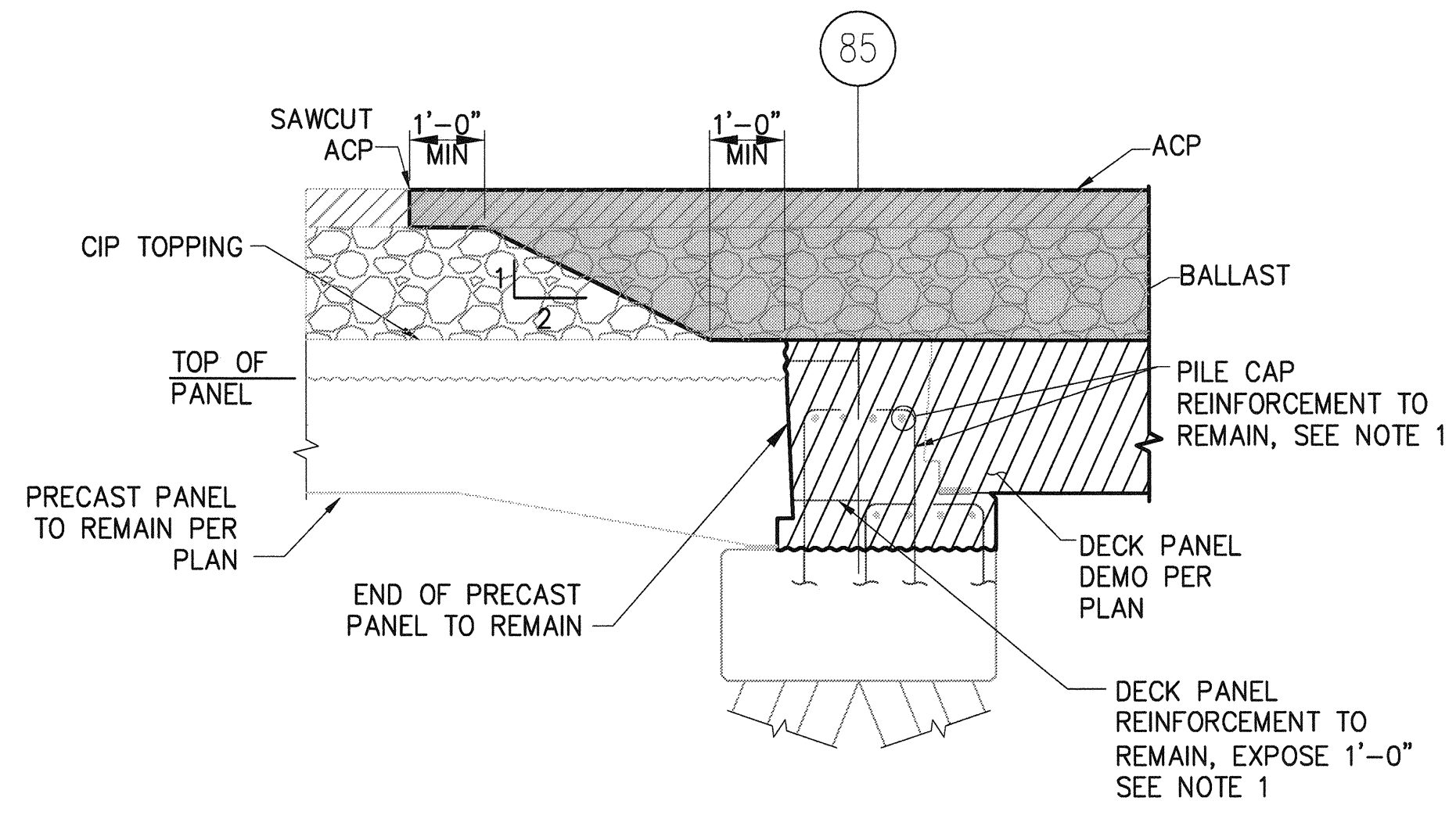
PIER 4 PHASE 2 RECONFIGURATION			
PIER DEMOLITION SECTIONS - SHEET 3			
TOWNSHIP:	RANGE:	SECTION:	
21N	3E	27	
DAT-HRZ:	VERT:		
WA83-SF	MLW 19.39' @ Tide 22 1933		
PARCEL:	DRAWING SCALE:		
BID	AS NOTED		



DEMO SECTION AT BENT 83
 A
 D3.2, D4.2 3/8"=1'-0"



TYPICAL PILE CAP DEMO SECTION AT BENTS 69 TO 84
 B
 D3.2, D4.2 1/2"=1'-0"



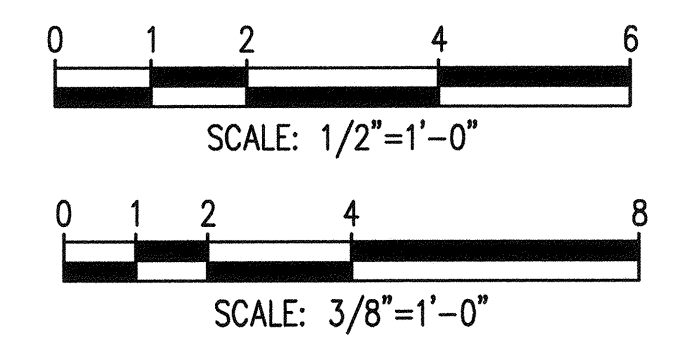
PILE CAP DEMO SECTION AT BENT 85
 C
 D3.2, D4.2 1/2"=1'-0"

NOTES:

1. ALL REINFORCEMENT TO REMAIN SHALL NOT BE DEFORMED OR DAMAGED. SELECT DEMOLITION AT REINFORCEMENT TO REMAIN SHALL BE PERFORMED TO PROTECT REINFORCEMENT.
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LEGEND:

- DEMOLISH AND REMOVE EXISTING STRUCTURE AND APPURTENANCES
- DEMOLISH AND REMOVE EXISTING ACP AND BALLAST
- ACP
- BALLAST



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TAH	PROJ. ENGR	DATE

PIER 4 PHASE 2 RECONFIGURATION
 PIER DEMOLITION SECTIONS - SHEET 4

SECTION: 27
 RANGE: 3E
 TOWNSHIP: 21N
 DAT-HRZ: WA83-SF
 M.L.W. 19.39 @ Tide 22.1933
 DRAWING SCALE: AS NOTED

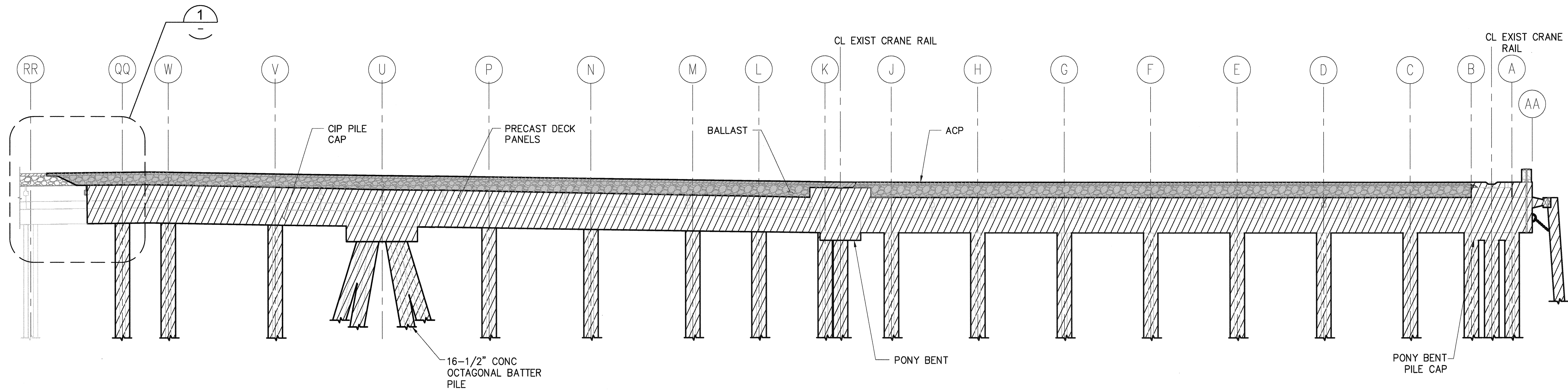
6552
D5.4
 SH 38 OF 499

CONTR/CONS: 070136
 M. ID: 091251
 PHASE: BID

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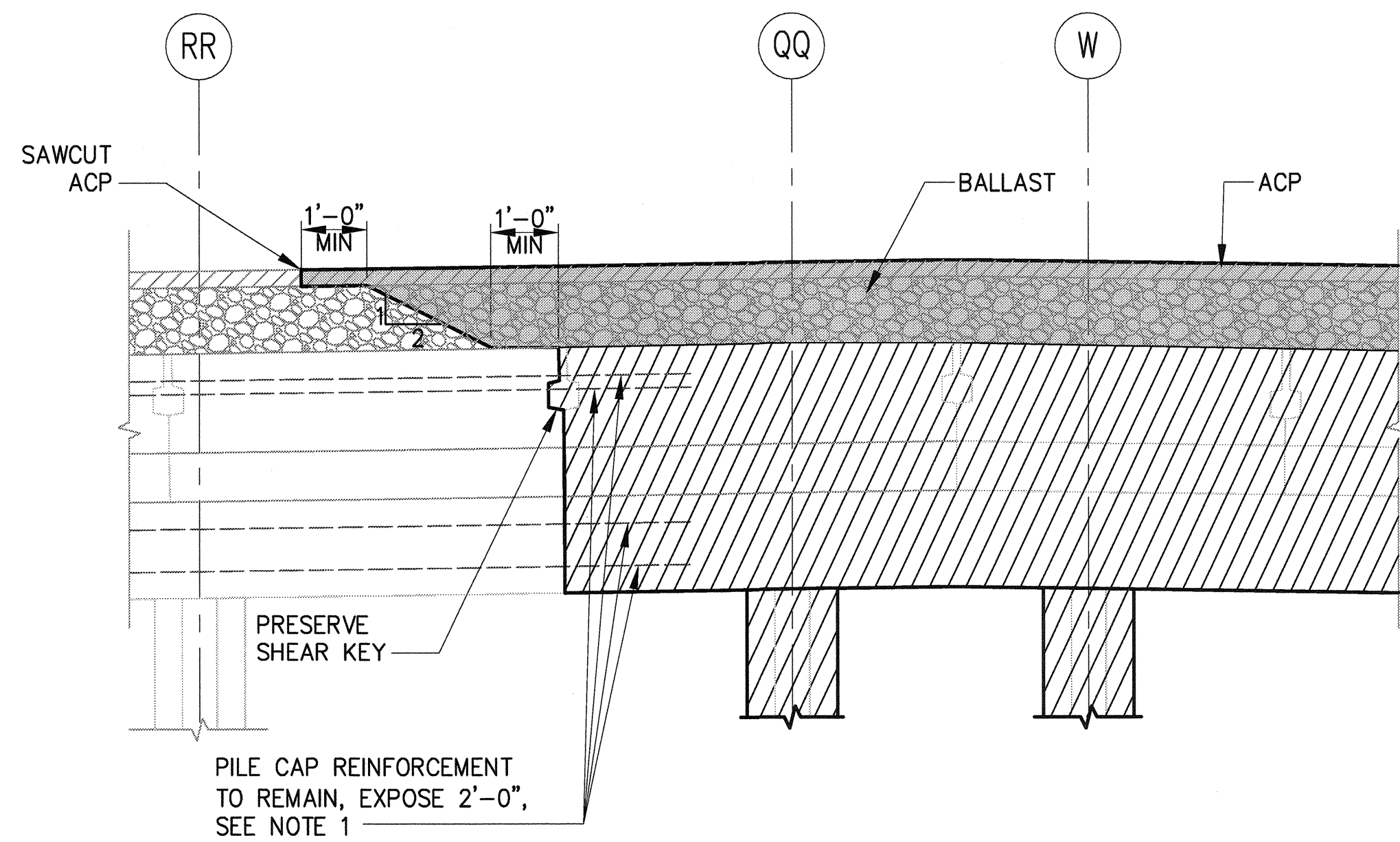
BINDING EDGE

PORT OF TACOMA FILE: N:\Struct\114-114096 (POT Pier 4)\Drawings\Current\Phase 2_091251\091251-D5.5



**PIER DEMOLITION SECTION
BENTS 86 TO 92**

A
D3.2, D4.2 3/16" = 1'-0"



1 DEMO DETAIL

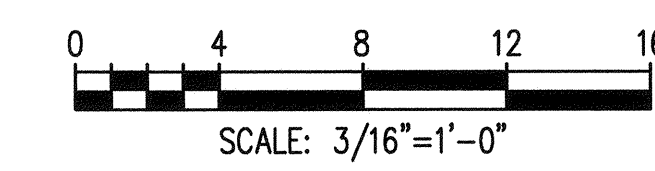
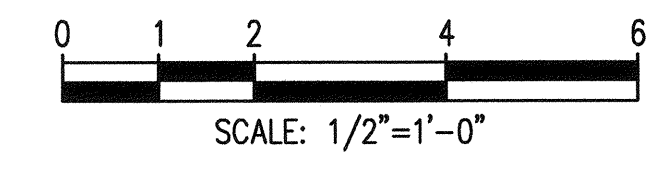
1/2" = 1'-0"

NOTES:

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- DEMOLISH AND REMOVE EXISTING ACP AND BALLAST
- ACP
- BALLAST



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SEAL NO. 10000
EXPIRES 12/31/2019

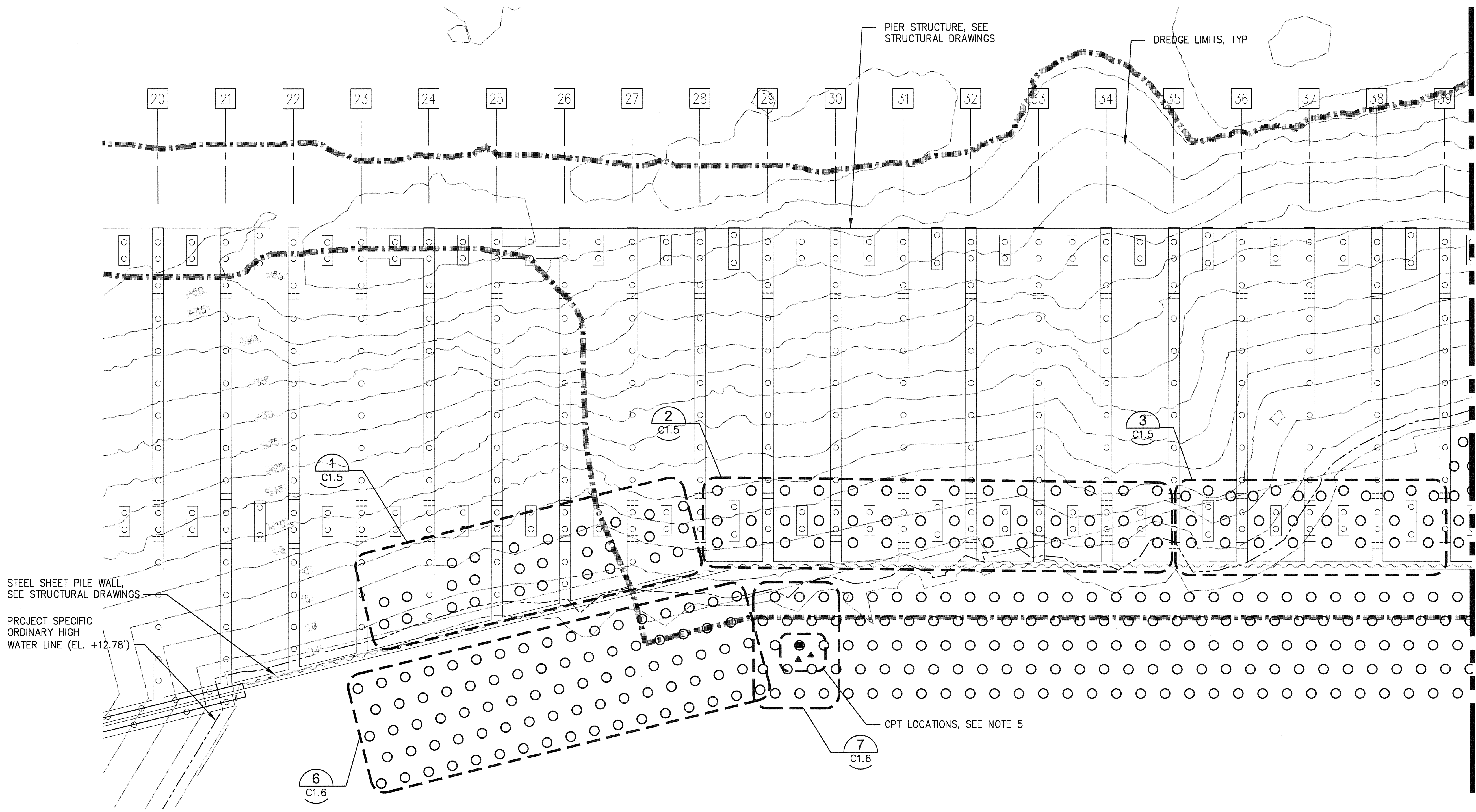
MARK: REVISION: BY: APPR: DATE:

APPROVED:	<i>[Signature]</i>	SEK	CHECKED BY	DATE
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PRINTED BY:	Hemons Mar 24, 2016			
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	TACOMA, WA 98401-1837			

PIER 4 PHASE 2	REMOVAL ACTION PROJECT	TOWNSHIP: 21N	RANGE: 3E	SECTION: 27
	PIER DEMOLITION SECTIONS - SHEET 5	DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ Tide 22.1933	
		PARCEL:	DRAWING SCALE:	AS NOTED

6552	D5.5	SH 39 OF 499	CONTR/CONS: 070136
			M. ID: 091251
			PHASE: BID

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GROUND IMPROVEMENT PLAN

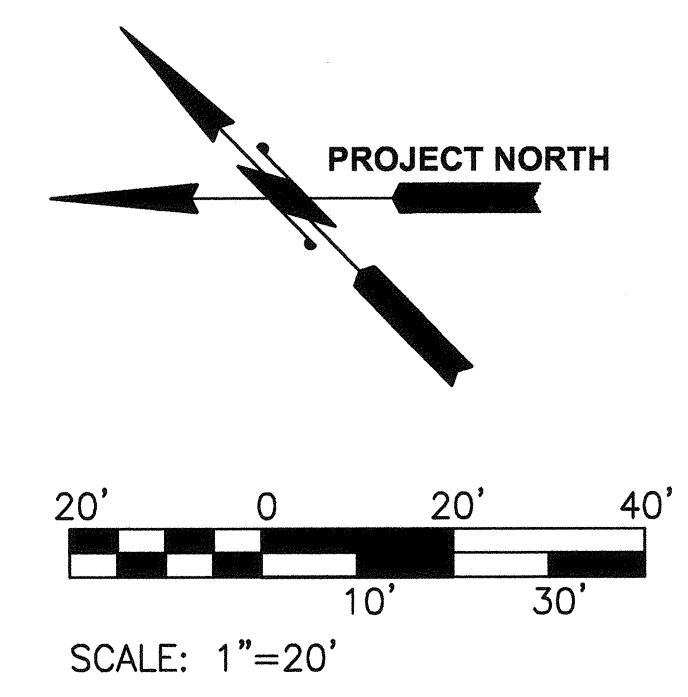
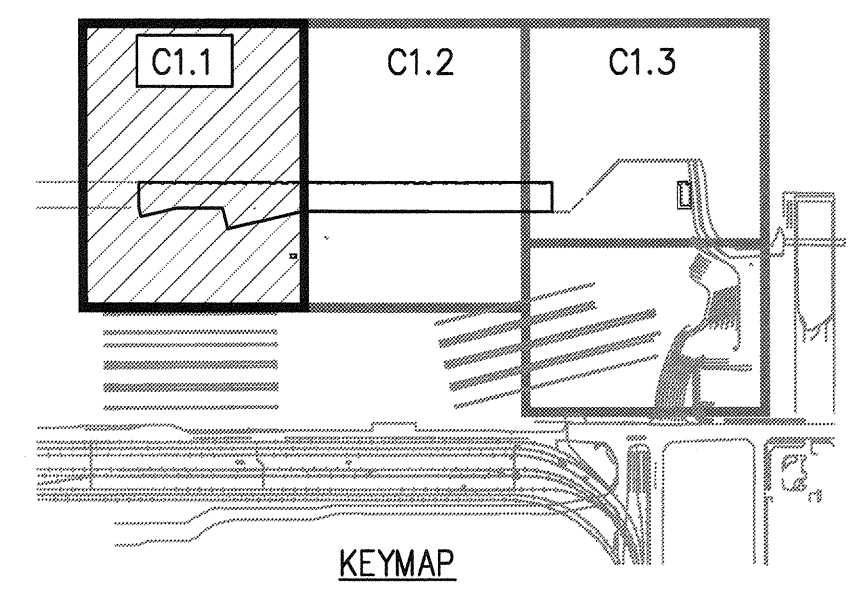
SCALE: 1"=20'

LEGEND

- DREDGE LIMITS, SEE DREDGE PLAN C2.1
- PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL. +12.78')
- 3.5'Ø STONE COLUMNS INSTALLED PRIOR TO DREDGE CUTBACK
- PIER BENTS, SEE STRUCTURAL DRAWINGS
- INDICATES LOCATION OF PRE-IMPROVEMENT CPT. PRE-IMPROVEMENT CPTS SHALL BE ADVANCED BEFORE STARTING ANY STONE COLUMN INSTALLATION.
- INDICATES LOCATION OF POST-IMPROVEMENT CPT. POST-IMPROVEMENT CPTS SHALL BE ADVANCED NO SOONER THAN 14 DAYS AFTER COMPLETION OF ALL STONE COLUMN INSTALLATION.

NOTES

1. SEE SPECIFICATIONS FOR REQUIREMENTS ON SEQUENCING OF STONE COLUMN INSTALLATION WORK IN RELATION TO DREDGING AND SHEET PILE WALL INSTALLATION.
2. STONE COLUMNS INSTALLED WATERWARD OF OHWL SHALL BE INSTALLED DURING THE IN-WATER WORK SEASON.
3. STONE COLUMNS WATERSIDE OF STEEL SHEET PILE WALL SHALL NOT BE INSTALLED WHERE THEY DIRECTLY CONFLICT WITH PIER PILES, SEE STRUCTURAL PILE AND PILE CAP PLANS.
4. ALL UTILITY DEACTIVATION AND DEMOLITIONS WITHIN GROUND IMPROVEMENT AREA SHALL OCCUR PRIOR TO THE INSTALLATION OF STONE COLUMNS.
5. CONE PENETRATION TESTS (CPT) SHALL BE PERFORMED AT THE LOCATIONS SHOWN ON THE PLAN AND PER THE SPECIFICATIONS.



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3-20-16
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PRINTED BY: kvang Mar 24, 2016
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TACOMA, WA 98401-1837

PIER 4 PHASE 2
RECONFIGURATION
GROUND IMPROVEMENT PLAN - SHEET 1

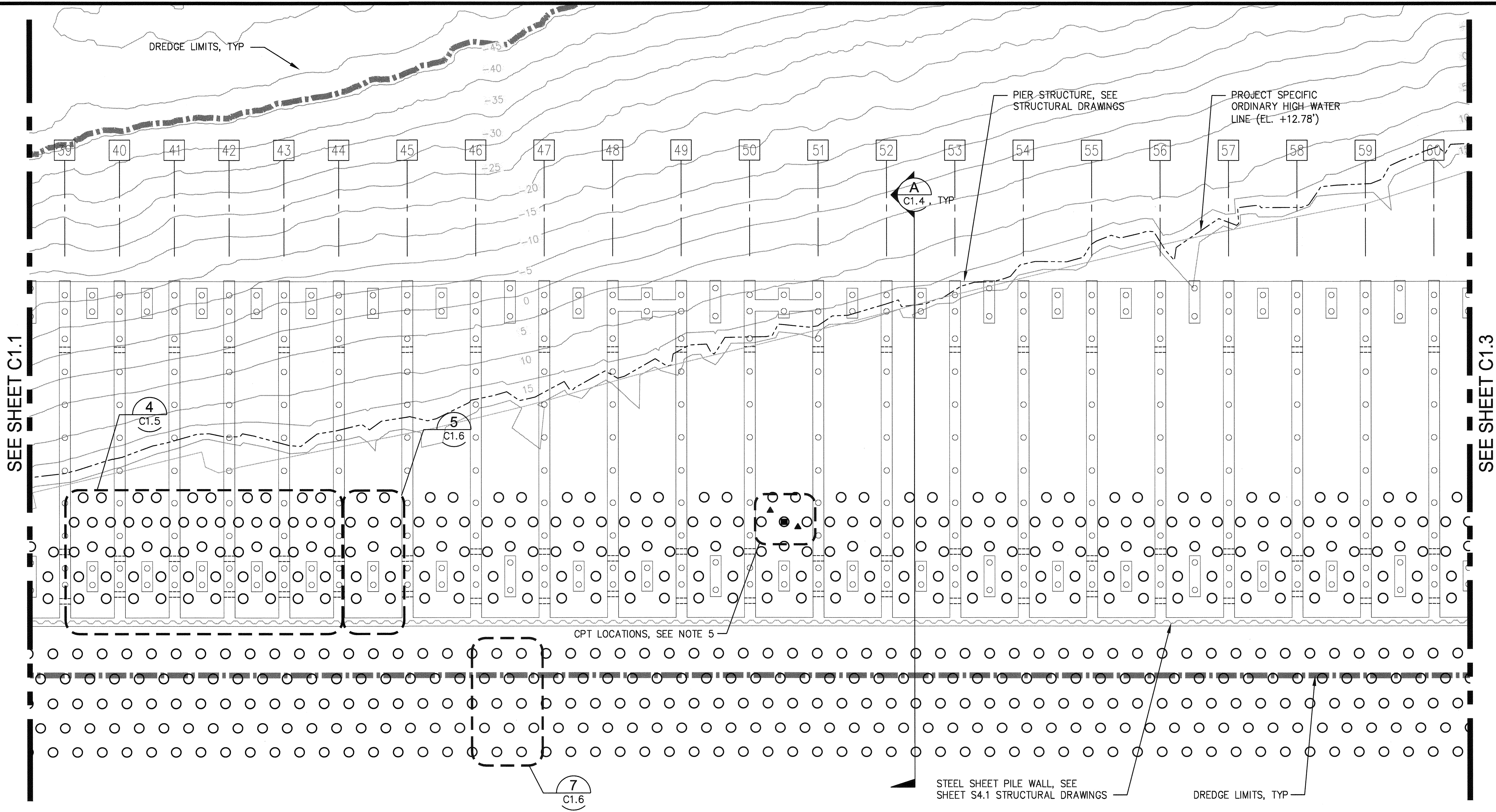
CHECKED BY	DATE

6552
C1.1
SH 40 OF 499
CONTY/CONS: 070136
M. ID: 091251
PHASE: BID

TOWNSHIP:	RANGE:	SECTION:

DAT-HRZ:	VERT:	DRAWING SCALE:

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SEE SHEET C1.1

SEE SHEET C1.3

GROUND IMPROVEMENT PLAN

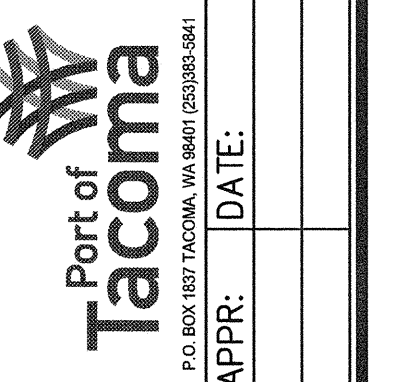
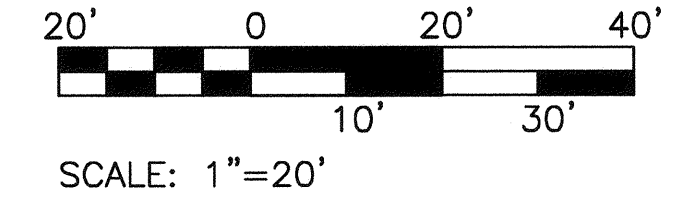
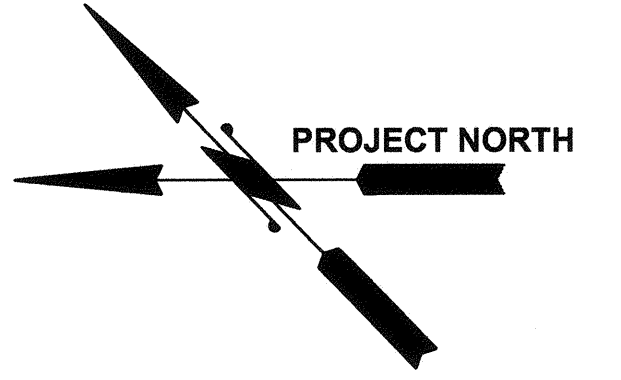
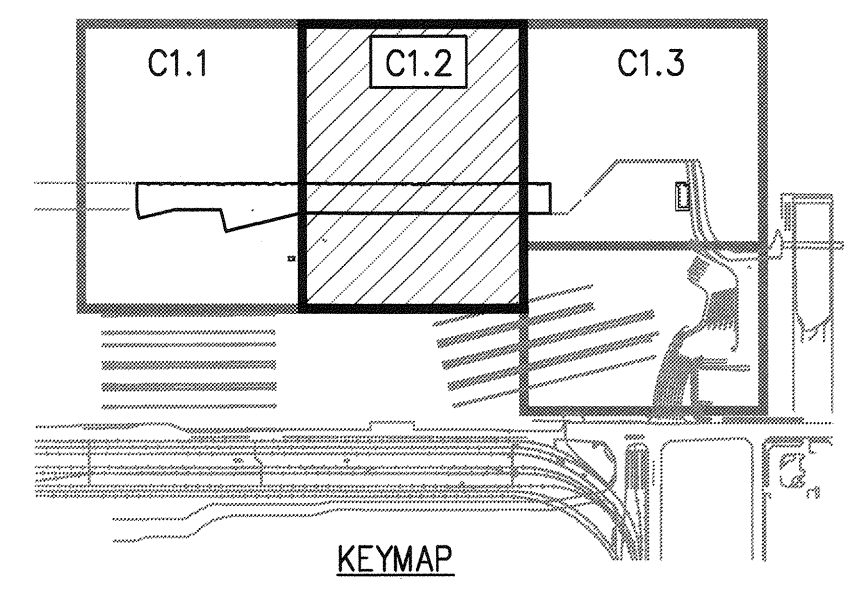
SCALE: 1"=20'

LEGEND

- DREDGE LIMITS, SEE DREDGE PLAN C2.1
- PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL. +12.78')
- 3.5'Ø STONE COLUMNS INSTALLED PRIOR TO DREDGE CUTBACK
- PIER BENTS, SEE STRUCTURAL DRAWINGS
- INDICATES LOCATION OF PRE-IMPROVEMENT CPT. PRE-IMPROVEMENT CPTS SHALL BE ADVANCED BEFORE STARTING ANY STONE COLUMN INSTALLATION.
- INDICATES LOCATION OF POST-IMPROVEMENT CPT. POST-IMPROVEMENT CPTS SHALL BE ADVANCED NO SOONER THAN 14 DAYS AFTER COMPLETION OF ALL STONE COLUMN INSTALLATION.

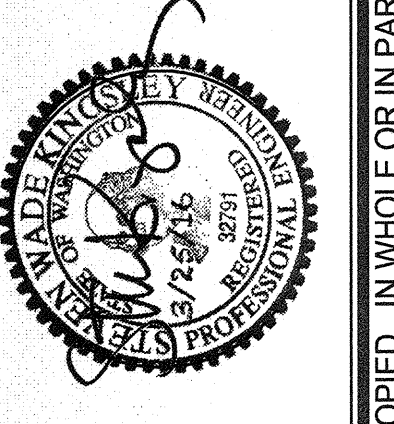
NOTES

1. SEE SPECIFICATIONS FOR REQUIREMENTS ON SEQUENCING OF STONE COLUMN INSTALLATION WORK IN RELATION TO DREDGING AND SHEET PILE WALL INSTALLATION.
2. STONE COLUMNS INSTALLED WATERWARD OF OHWL SHALL BE INSTALLED DURING THE IN-WATER WORK SEASON.
3. STONE COLUMNS WATERSIDE OF STEEL SHEET PILE WALL SHALL NOT BE INSTALLED WHERE THEY DIRECTLY CONFLICT WITH PIER PILES, SEE STRUCTURAL PILE AND PILE CAP PLANS.
4. ALL UTILITY DEACTIVATION AND DEMOLITIONS WITHIN GROUND IMPROVEMENT AREA SHALL OCCUR PRIOR TO THE INSTALLATION OF STONE COLUMNS.
5. CONE PENETRATION TESTS (CPT) SHALL BE PERFORMED AT THE LOCATIONS SHOWN ON THE PLAN AND PER THE SPECIFICATIONS.



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MARK: REVISION: BY: APPR: DATE:

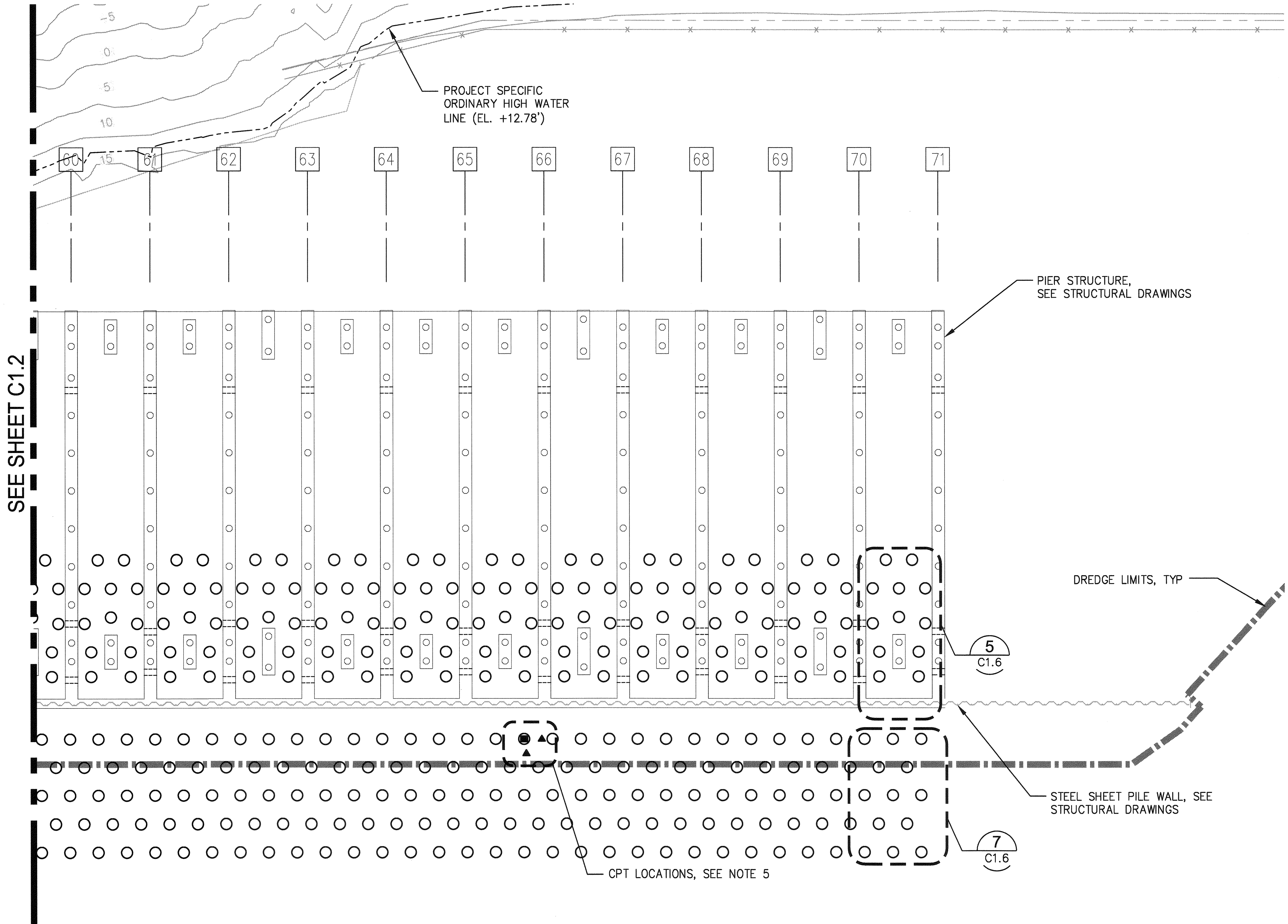


APPROVED: <i>K. Wang</i>	CHECKED BY: _____	DATE: _____
DIRECTOR ENGR. DATE: 3-24-16	PROJ. ENGR. DATE: _____	DATE: _____
PRINTED BY: kwang	PORT ADDRESS: ONE SITCUM PLAZA	TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION		
GROUND IMPROVEMENT PLAN - SHEET 2		
TOWNSHIP: _____	RANGE: _____	SECTION: _____
DATE-HRZ: WA83-SF	VERT: MLLW 19.39' @ Tide 22 1933	DRAWING SCALE: AS NOTED
PARCEL: _____	TACOMA, WA 98401-1837	

6552	C1.2
SH 41 OF 489	
CONT/CONS: 070136	
M. ID: 091251	
PHASE: BID	

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SEE SHEET C1.2

PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL. +12.78')

PIER STRUCTURE, SEE STRUCTURAL DRAWINGS

DREDGE LIMITS, TYP

STEEL SHEET PILE WALL, SEE STRUCTURAL DRAWINGS

CPT LOCATIONS, SEE NOTE 5

GROUND IMPROVEMENT PLAN

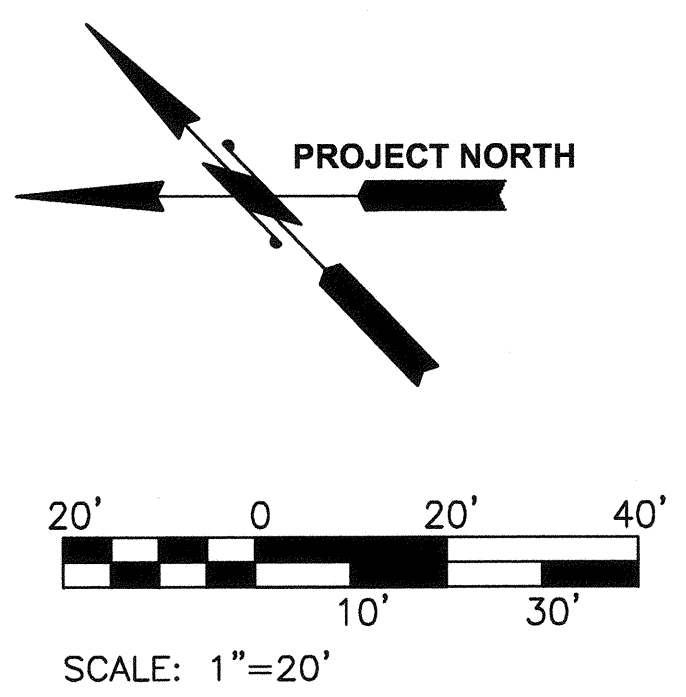
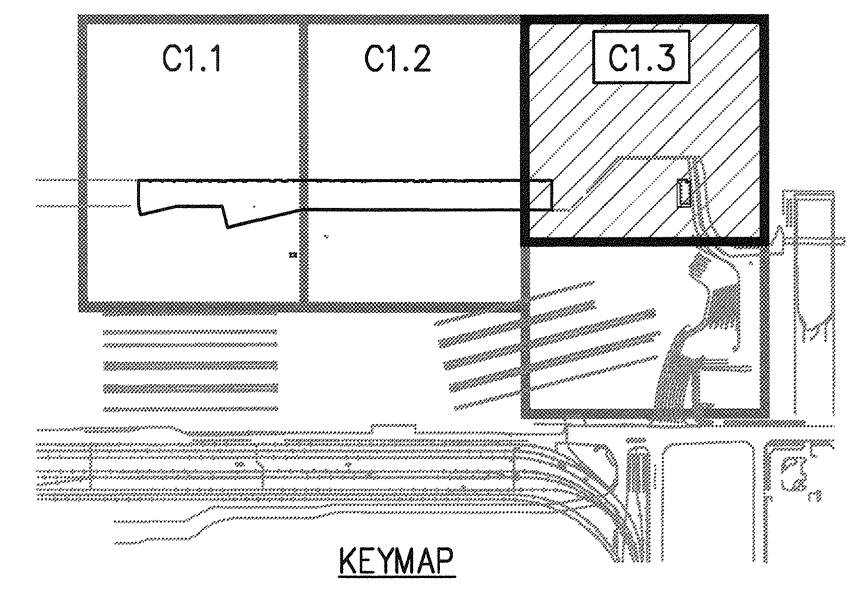
SCALE: 1"=20'

LEGEND

- DREDGE LIMITS, SEE DREDGE PLAN C2.1
- PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL. +12.78')
- 3.5'Ø STONE COLUMNS INSTALLED PRIOR TO DREDGE CUTBACK
- PIER BENTS, SEE STRUCTURAL DRAWINGS
- INDICATES LOCATION OF PRE-IMPROVEMENT CPT. PRE-IMPROVEMENT CPTS SHALL BE ADVANCED BEFORE STARTING ANY STONE COLUMN INSTALLATION.
- INDICATES LOCATION OF POST-IMPROVEMENT CPT. POST-IMPROVEMENT CPTS SHALL BE ADVANCED NO SOONER THAN 14 DAYS AFTER COMPLETION OF ALL STONE COLUMN INSTALLATION.

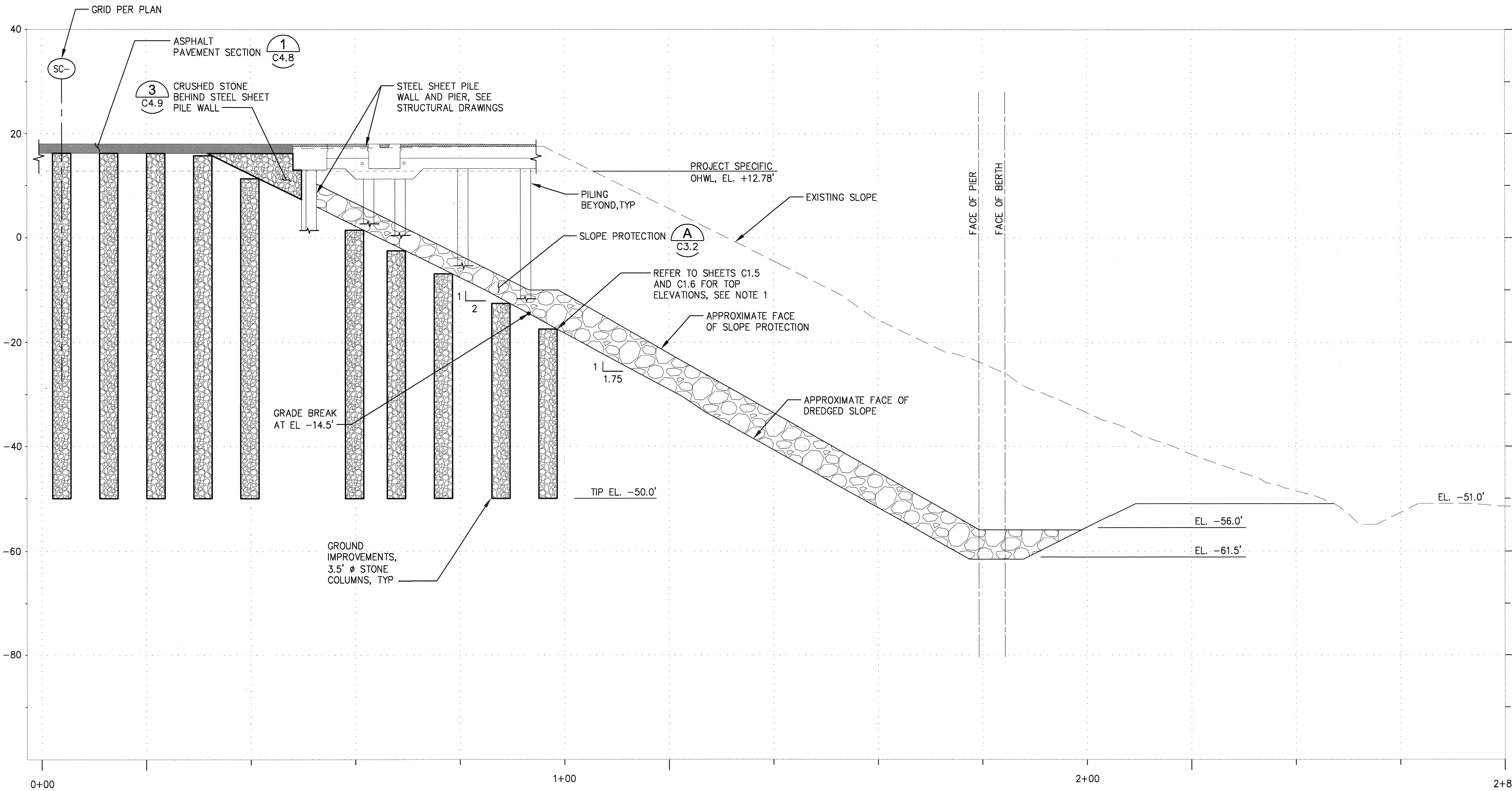
NOTES

1. SEE SPECIFICATIONS FOR REQUIREMENTS ON SEQUENCING OF STONE COLUMN INSTALLATION WORK IN RELATION TO DREDGING AND SHEET PILE WALL INSTALLATION.
2. STONE COLUMNS INSTALLED WATERWARD OF OHWL SHALL BE INSTALLED DURING THE IN-WATER WORK SEASON.
3. STONE COLUMNS WATERSIDE OF STEEL SHEET PILE WALL SHALL NOT BE INSTALLED WHERE THEY DIRECTLY CONFLICT WITH PIER PILES, SEE STRUCTURAL PILE AND PILE CAP PLANS.
4. ALL UTILITY DEACTIVATION AND DEMOLITIONS WITHIN GROUND IMPROVEMENT AREA SHALL OCCUR PRIOR TO THE INSTALLATION OF STONE COLUMNS.
5. CONE PENETRATION TESTS (CPT) SHALL BE PERFORMED AT THE LOCATIONS SHOWN ON THE PLAN AND PER THE SPECIFICATIONS.




 2407 North 31st Street, Suite 100 (253) 396-0150 Fax (253) 396-0162		CHECKED BY: _____ DATE: _____ PROJECT ENGR: _____ DATE: _____
	APPROVED: <i>K. Wang</i> 3-28-16 DIRECTOR ENGR. DATE: 3-28-16 PRINTED BY: kvang Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	MARK: _____ REVISION: _____ BY: _____ DATE: _____
6552 C1.3 SH 42 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION GROUND IMPROVEMENT PLAN - SHEET 3	TOWNSHIP: _____ SECTION: _____ RANGE: M.L.W. 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF VERT: _____ DRAWING SCALE: AS NOTED

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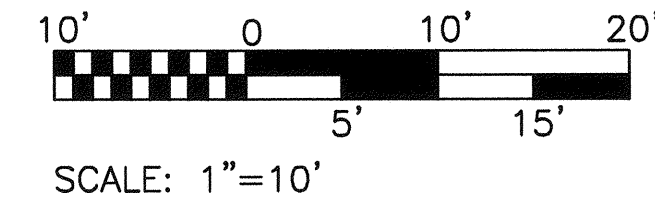
A
C1.2
**GROUND IMPROVEMENT
TYPICAL SECTION**
SCALE: 1"=10'

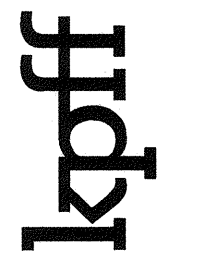
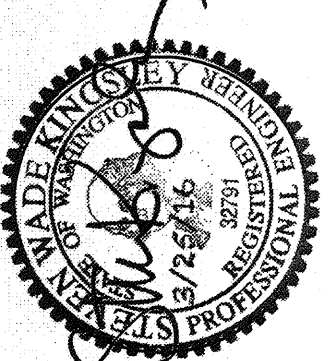
LEGEND

 3.5' Ø STONE COLUMNS INSTALLED PRIOR TO DREDGING

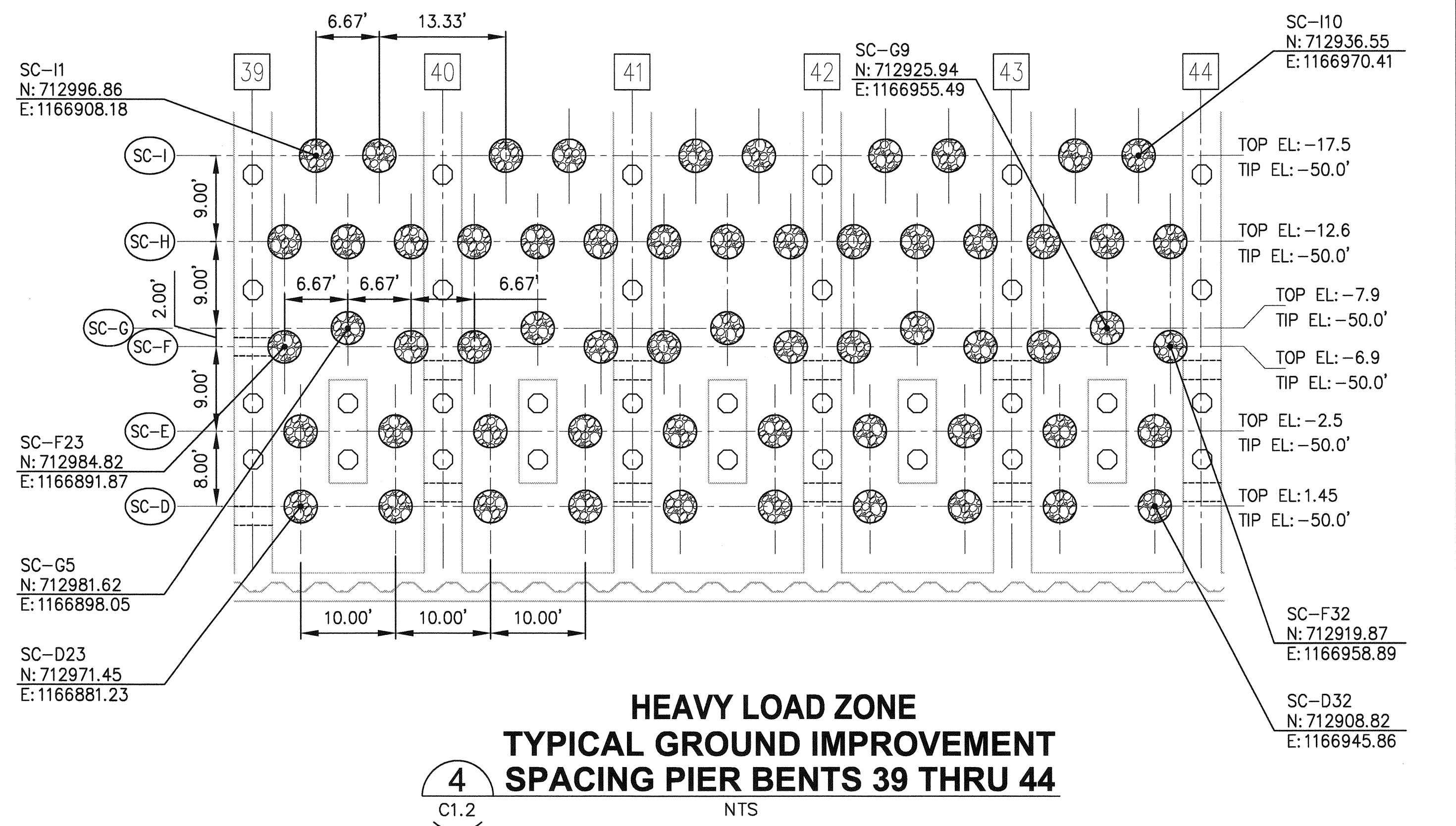
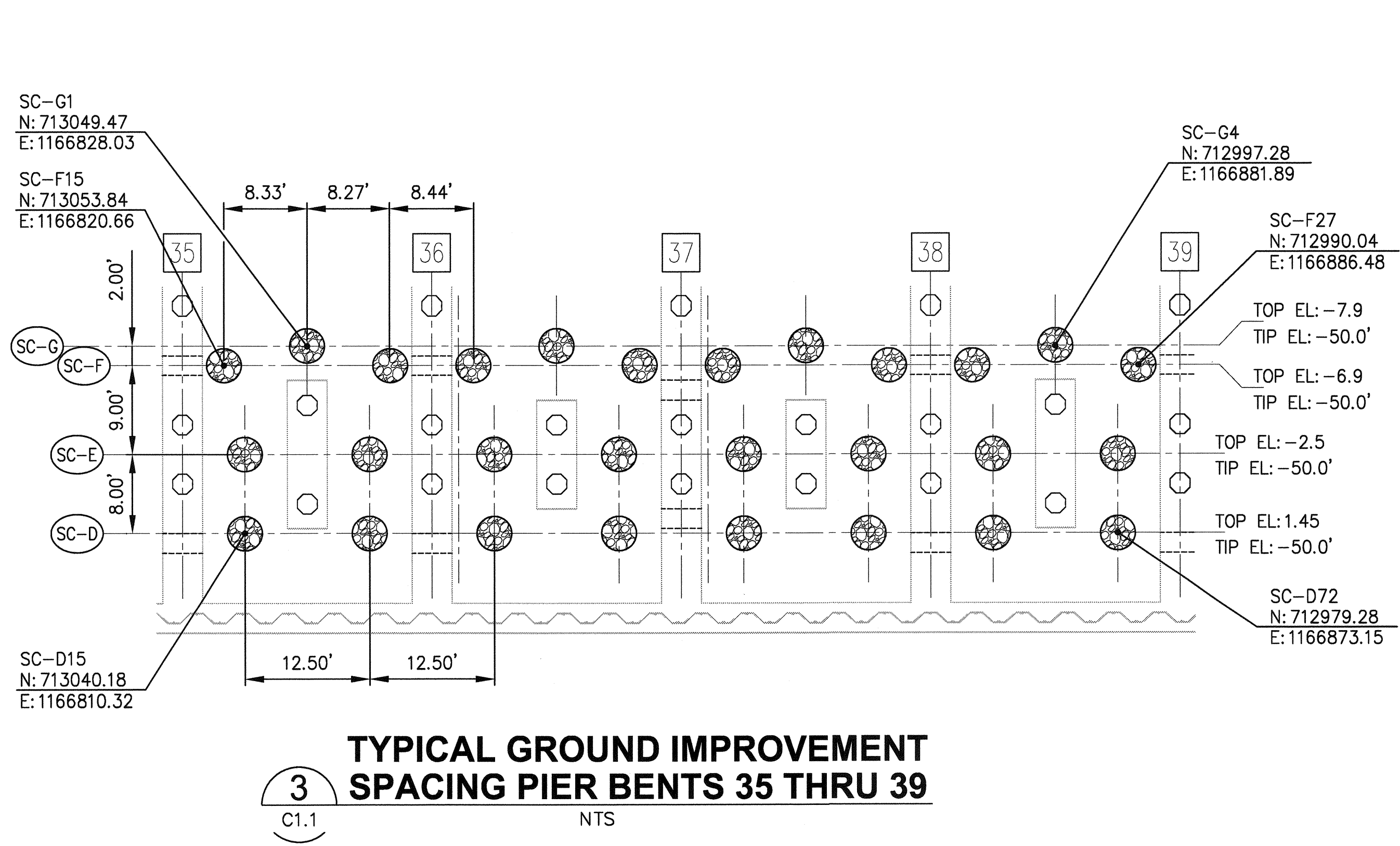
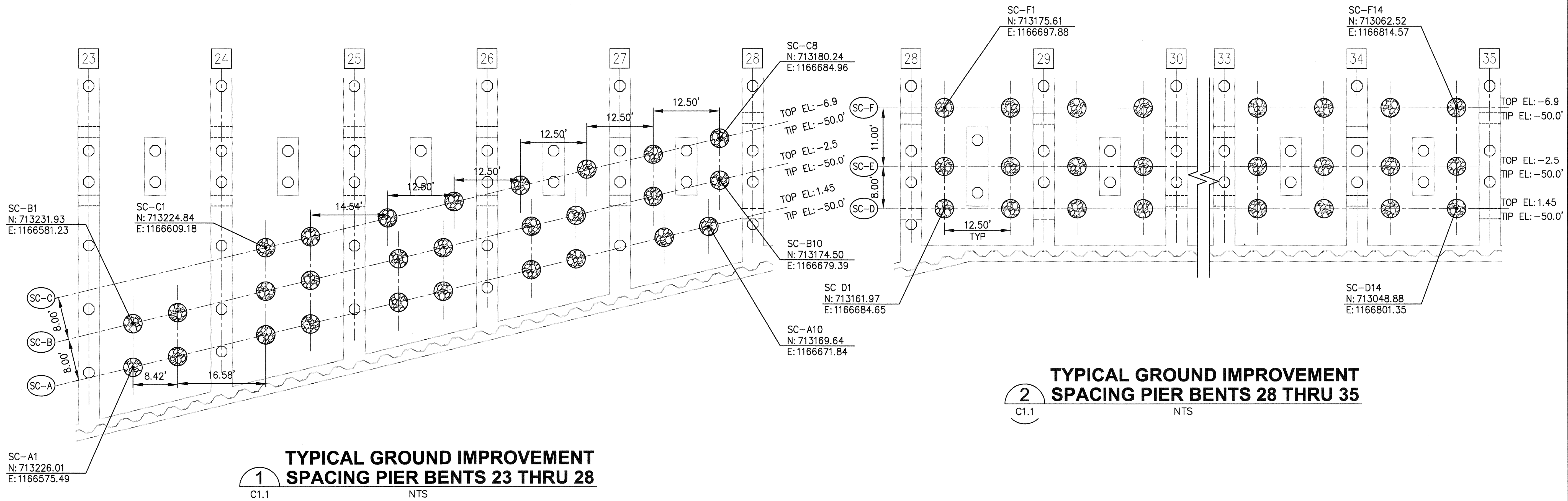
NOTES:

- VIBRO-COMPACTION OF STONE COLUMN MATERIAL SHALL NOT OCCUR ABOVE TOP ELEVATIONS SHOWN ON SHEETS C1.5 AND C1.6.



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		CHECKED BY: _____ DATE: _____ PROJ. ENGR: _____ DATE: _____ DIRECTOR ENGR. DATE: 3-24-16 PRINTED BY: kvang Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
6552 C1.4 SH 43 OF 499 CONT/CONS: 070736 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION GROUND IMPROVEMENT TYPICAL SECTION	SECTION: _____ RANGE: _____ TOWNSHIP: _____ DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933 DRAWING SCALE: AS NOTED

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2
C1.1
NTS

TYPICAL GROUND IMPROVEMENT SPACING PIER BENTS 28 THRU 35

6552
C1.5
SH 44 OF 499

CONTRACT NO: 070136
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2 RECONFIGURATION GROUND IMPROVEMENT DETAILS - SHEET 1

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TACOMA, WA 98401-1837

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PROJ. ENGR: DATE: _____
SECTION: _____
RANGE: MLLW 19.39' @ Tide 22 1933
TOWNSHIP: _____
DAT-HRZ: WA83-SF
VERT: _____
DRAWING SCALE: AS NOTED
PARCEL: _____

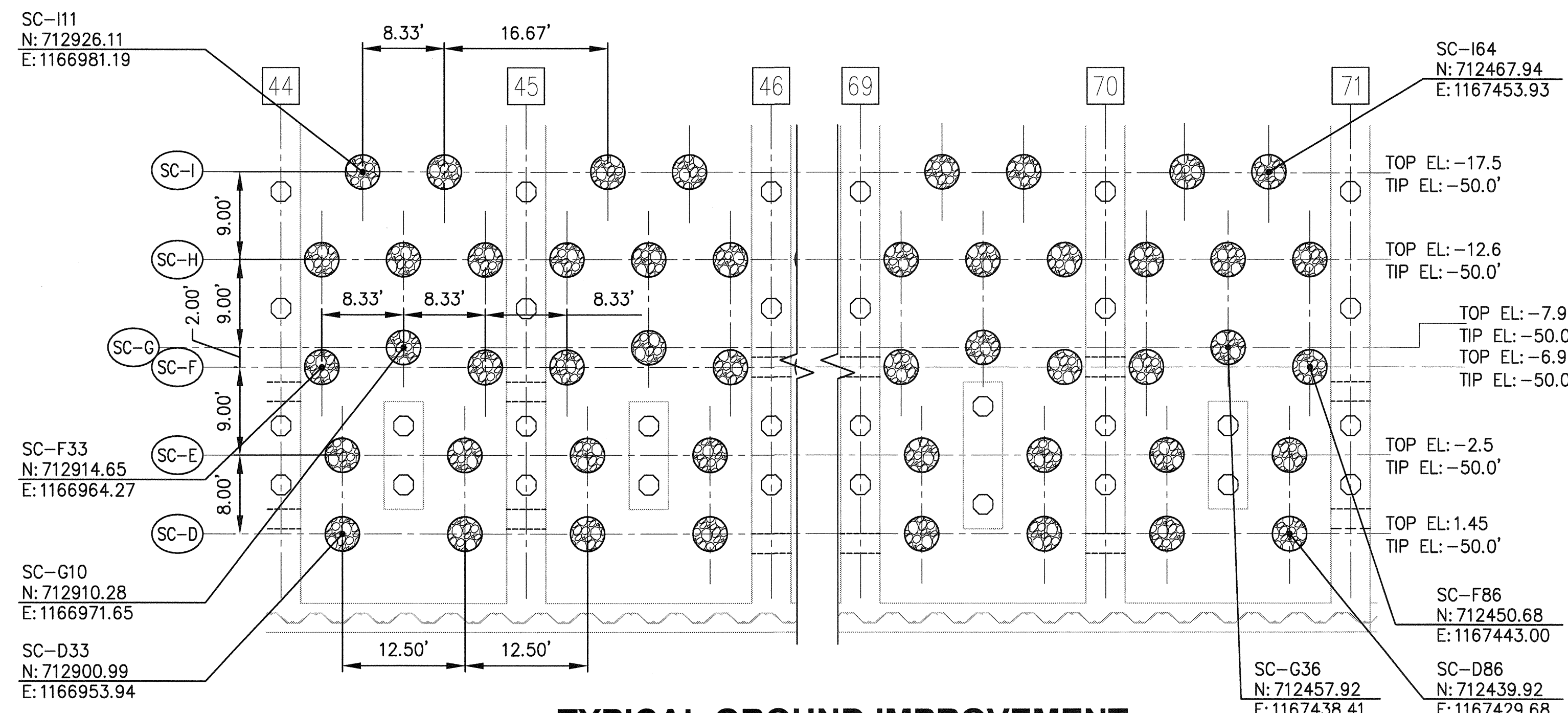
Part of Tacoma
2407 North 31st Street, Suite 100
(253) 396-0350 Fax (253) 396-0162
P.O. BOX 1007 TACOMA, WA 98403-1007

kpff
KIMBERLY W. WARDEN
REGISTERED PROFESSIONAL ENGINEER
NO. 12516
EXPIRES 12/31/2016

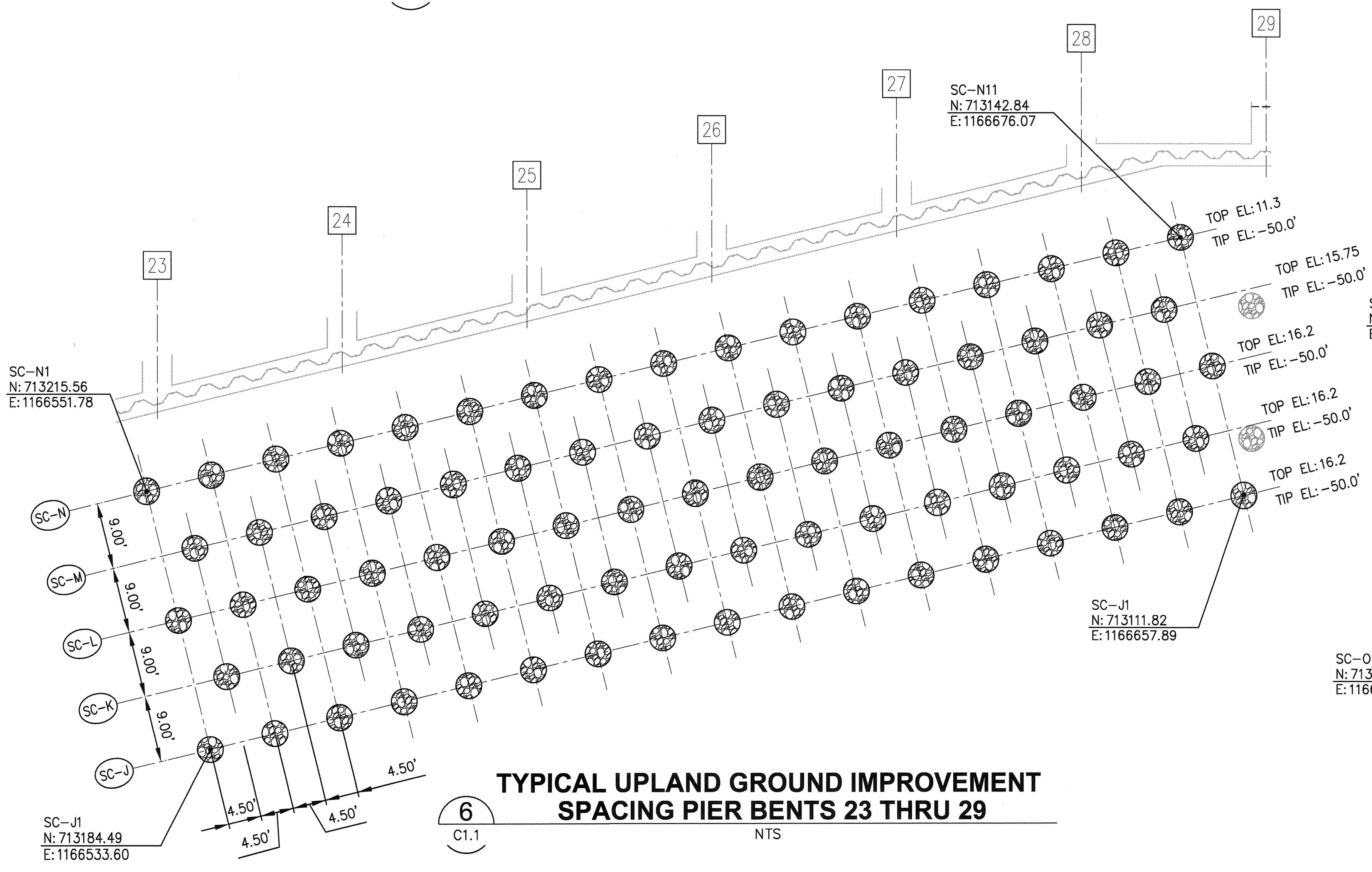
MARK: REVISION: BY: APPR: DATE:

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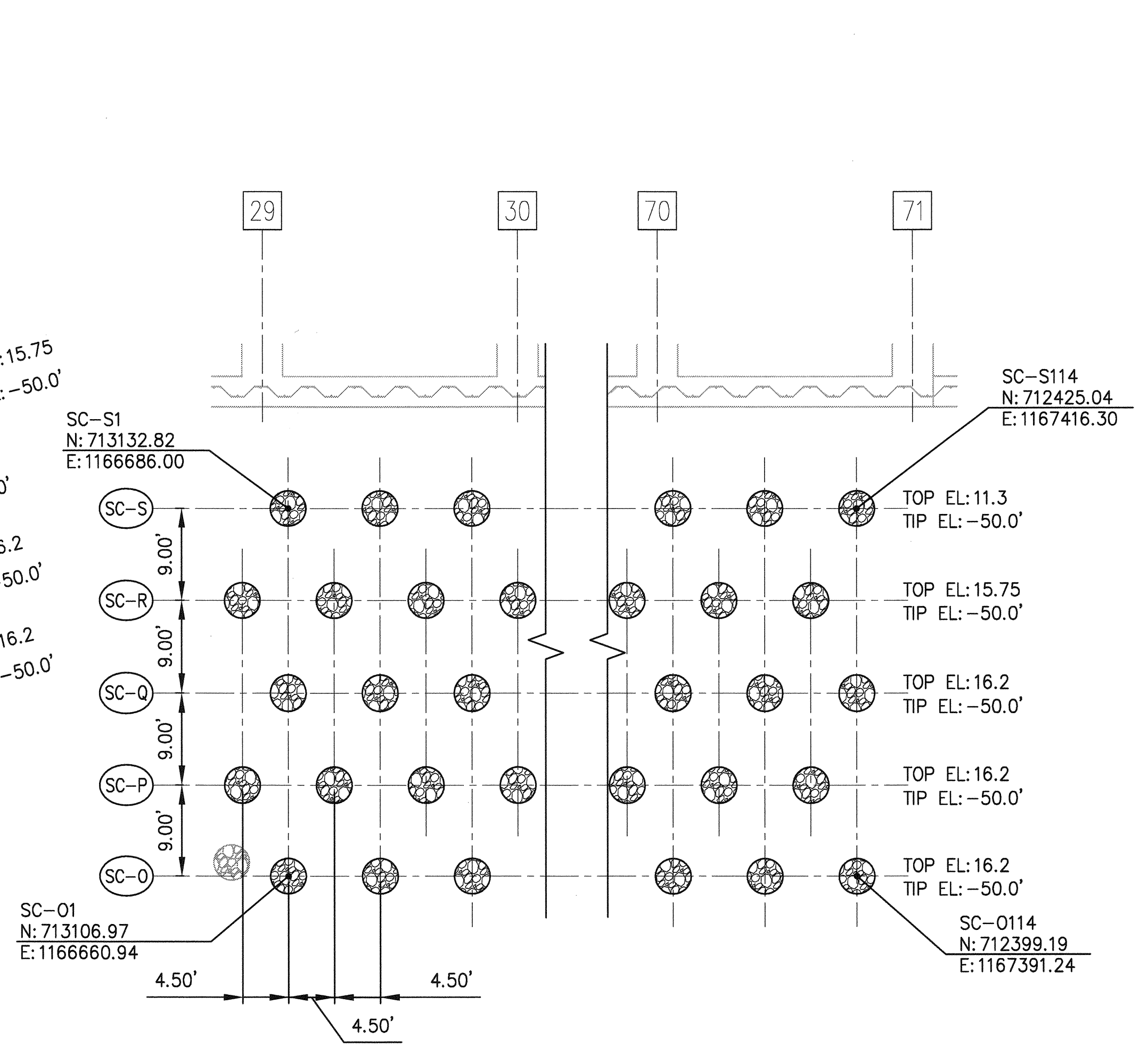
PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C1.6 (Ground Improvement Details)



5 TYPICAL GROUND IMPROVEMENT SPACING PIER BENTS 44 THRU 71
C1.2, C1.3 NTS



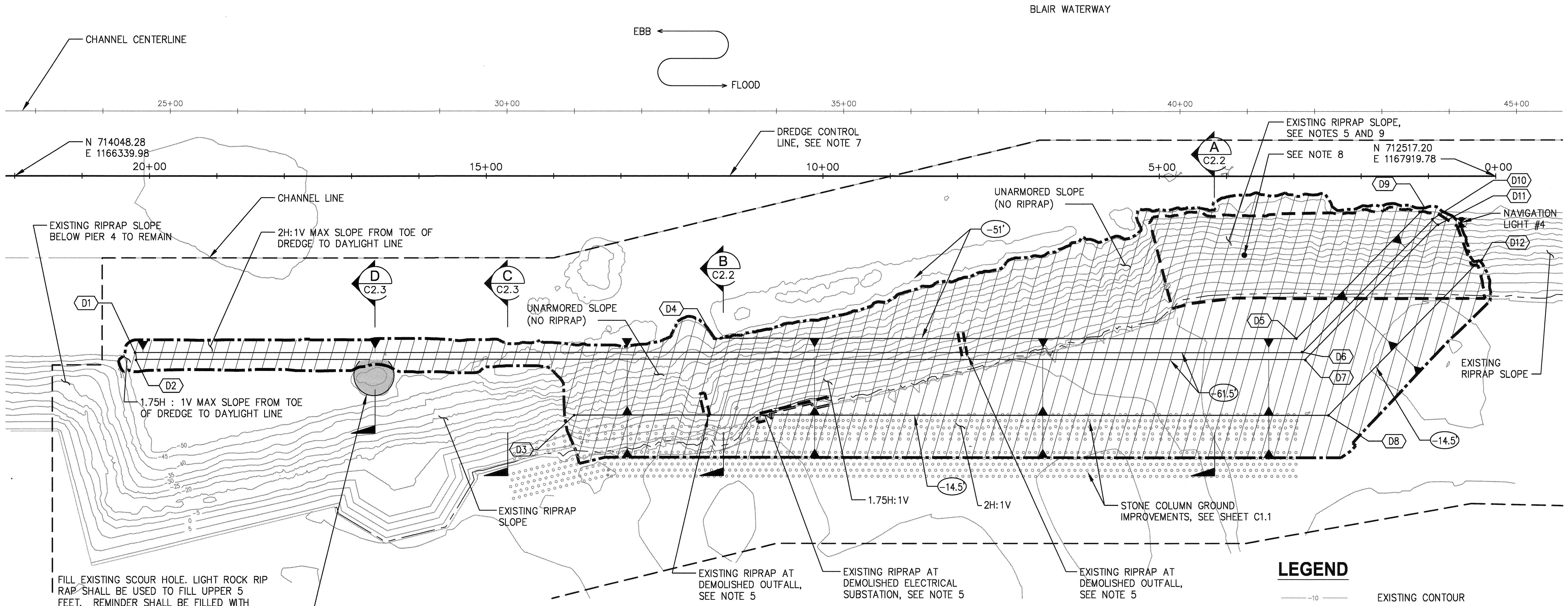
6 TYPICAL UPLAND GROUND IMPROVEMENT SPACING PIER BENTS 23 THRU 29
C1.1 NTS



7 TYPICAL UPLAND GROUND IMPROVEMENT SPACING PIER BENTS 29 THRU 71
C1.1, C1.2, C1.3 NTS


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6552 C1.6 SH 45 OF 499	TOWNSHIP: 070136 M. ID: 091251 PHASE: BID	RANGE: MLLW 19.39' @ Tide 22.19.33 DAT-HRZ: WA83-SF VERT: _____ DRAWING SCALE: AS NOTED	CHECKED BY: _____ DATE: _____ PROJ. ENGR: _____ DATE: _____ SECTION: _____ PIER 4 PHASE 2 RECONFIGURATION GROUND IMPROVEMENT DETAILS - SHEET 2

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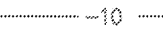

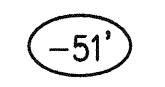
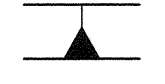
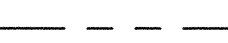



DREDGE PLAN
SCALE: 1"=80'

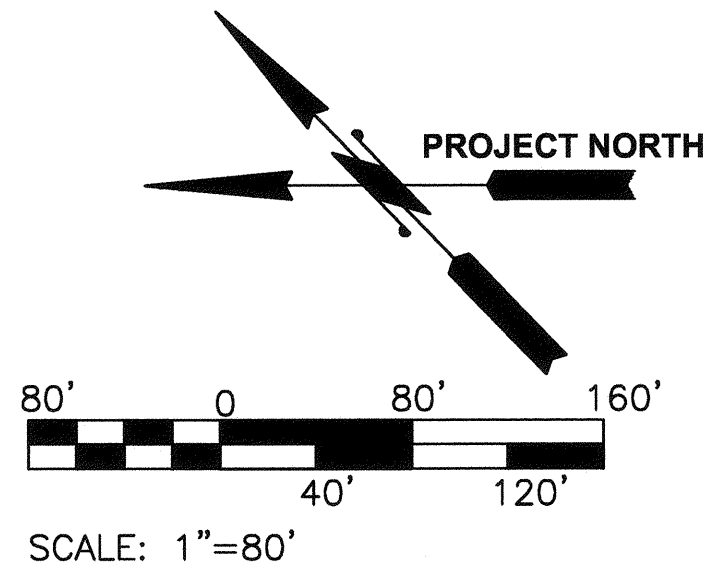
NOTES


- SEE SPECIFICATIONS FOR REQUIREMENTS ON SEQUENCING OF STONE COLUMN INSTALLATION WORK IN RELATION TO DREDGING AND SHEET PILE WALL INSTALLATION.
- CONTRACTOR SHALL DREDGE ALL SEDIMENT AND RIP RAP INDICATED ON THIS PLAN AND SECTIONS. DREDGING SHALL NOT EXTEND BEYOND LIMITS SHOWN.
- CONTRACTOR SHALL COORDINATE ALL DREDGING ACTIVITIES AND SCHEDULE WITH THE PORT AND EXISTING TERMINAL OPERATIONS.
- SEE SPECIFICATIONS FOR ADDITIONAL DREDGING AND DISPOSAL REQUIREMENTS.
- REMOVE APPROXIMATELY 5,600 CY OF EXISTING RIP RAP PRIOR TO DREDGING SEDIMENT. RIP RAP AND DEBRIS SHALL BE REMOVED AND DISPOSED OF SEPARATELY IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS, SEE SPECIFICATIONS.
- ALL SEDIMENT SHALL BE DISPOSED OF AT THE COMMENCEMENT BAY OPEN WATER DREDGE MATERIAL DISPOSAL SITE (DMPP SITE) AND IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. FOR DISPOSAL SITE LOCATION SEE  C2.6
- SEE SHEETS C2.2 THRU C2.5 FOR DREDGE SECTIONS.
- EXISTING 6" DIAMETER x20' LONG (APPROXIMATE) STEEL CORE BARREL IS LOCATED IN THE RIP RAP SLOPE AT THE FOLLOWING APPROXIMATE COORDINATES:
NORTHING: 712688.60
EASTING: 1167565.50
THE CORE BARREL BROKE DURING SOIL SAMPLING APPROXIMATELY 1-FOOT ABOVE THE MUDLINE AND EXTENDS UP TO 19 FEET BELOW MUDLINE. THE CORE BARREL SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO, OR DURING, DREDGING & SHALL BE CONSIDERED AS DEBRIS FOR THE PURPOSE OF HANDLING AND DISPOSAL.
- A DEBRIS SCREEN SHALL BE USED DURING THE FIRST PASS OF DREDGING IN THIS AREA (AFTER REMOVAL OF RIPRAP AND SURFACE DEBRIS). SEE SPECIFICATIONS.

DREDGE CONTROL POINTS		
POINT ID	NORTHING	EASTING
D1	713731.47	1166281.38
D2	713722.67	1166274.76
D3	713211.42	1166685.17
D4	713148.44	1166913.08
D5	712545.99	1167534.69
D6	712525.79	1167526.79
D7	712513.80	1167522.11
D8	712431.47	1167489.94
D9	712552.75	1167807.51
D10	712532.65	1167803.52
D11	712520.77	1167803.82
D12	712437.51	1167813.89

LEGEND

-  EXISTING CONTOUR
-  DREDGE AREA
-  REQUIRED DREDGE DEPTH
-  DREDGE SLOPE
-  EXISTING PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL +12.78')
-  STONE COLUMN GROUND IMPROVEMENTS, SEE SHEET C1.1
-  LIMITS OF EXISTING RIP RAP SLOPE WITHIN OR ADJACENT TO WORK LIMITS. SEE NOTES 5 AND 9
-  PROJECT WORK AREA LIMITS





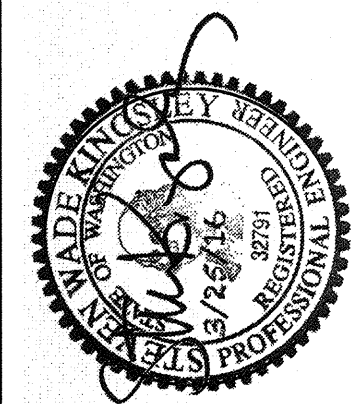
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DATE: _____

APPR: _____

BY: _____

REVISION: _____



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<i>[Signature]</i>	<i>[Signature]</i>	3-28-16

DIRECTOR ENGR. DATE:	PROJ. ENGR. DATE:
PRINTED BY: kvang	Mar 24, 2016
PORT ADDRESS: ONE SITCUM PLAZA	
TACOMA, WA 98401-1837	

PIER 4 PHASE 2 RECONFIGURATION DREDGE PLAN

SECTION: _____

RANGE: M.L.W 19.39' @ Tide 22 1933

VERT: WA83-SF

PARCEL: _____

6552

C2.1

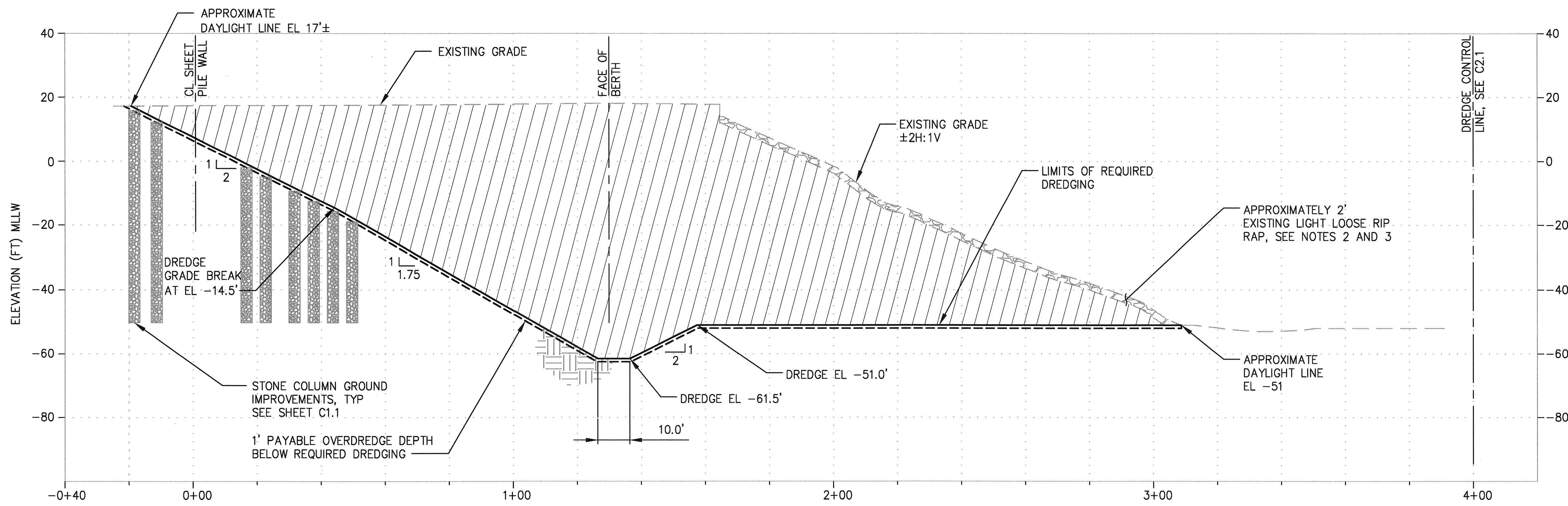
SH 46 OF 499

CONTR/CONS: 070136

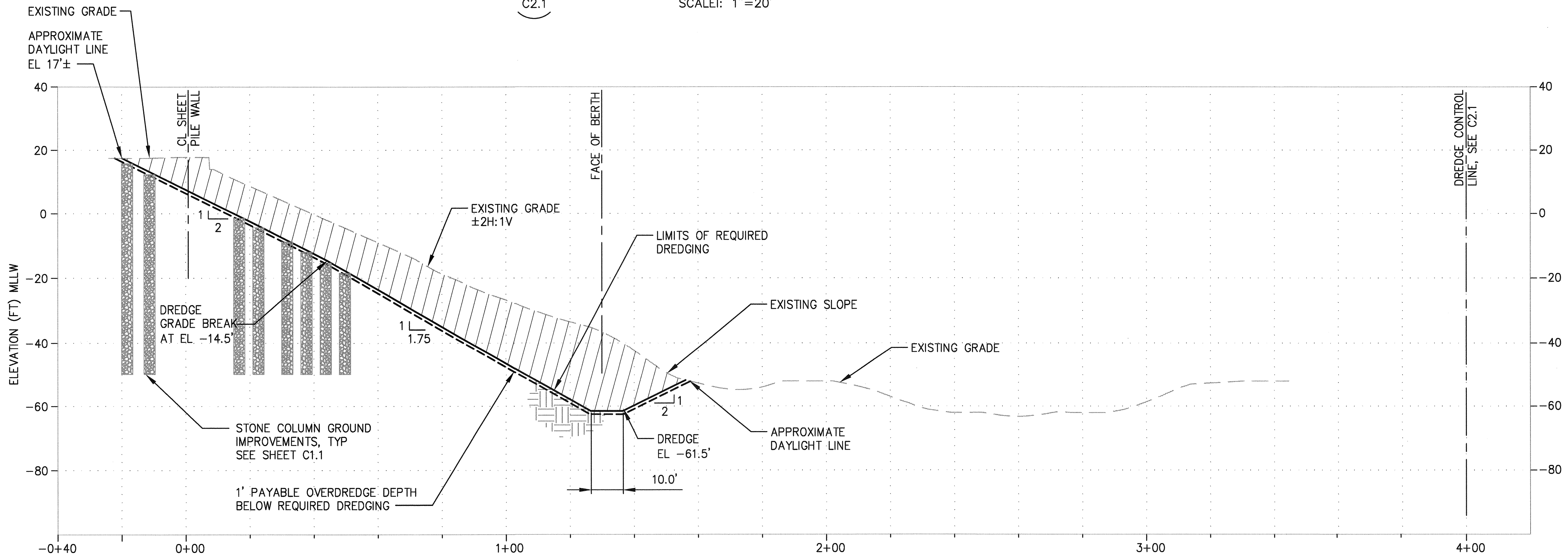
M. ID: 091251

PHASE: BID

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A DREDGE SECTION - STA 4+20
 C2.1 SCALE: 1"=20'



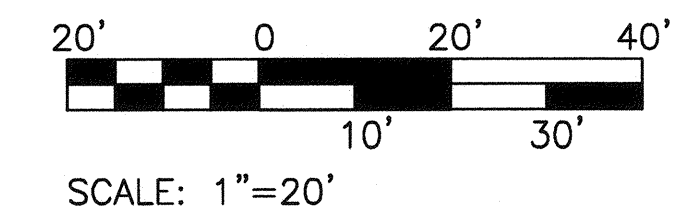
B DREDGE SECTION - STA 11+50
 C2.1 SCALE: 1"=20'

NOTES

1. DEMOLISH ALL UTILITIES WITHIN THE LIMITS OF DREDGE, SEE UTILITY AND SITE DEMOLITION PLANS.
2. WHERE APPLICABLE, REMOVE EXISTING RIP RAP PRIOR TO DREDGING SEDIMENT. RIP RAP SHALL BE REMOVED AND DISPOSED OF SEPARATELY IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. SEE SPECIFICATIONS. SEE DREDGE PLAN FOR APPROXIMATE EXTENTS.
3. A DEBRIS SCREEN SHALL BE USED DURING THE FIRST PASS OF DREDGING IN THIS AREA (AFTER REMOVAL OF RIPRAP AND SURFACE DEBRIS). SEE SPECIFICATIONS.

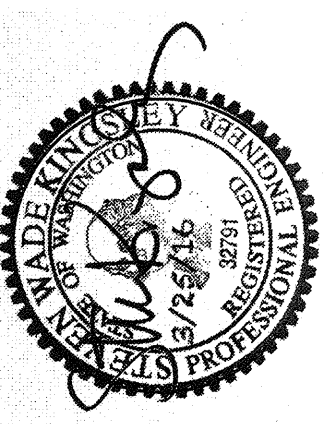
LEGEND

DREDGE AREA



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kppf
 Kiewit Professional Firm
 3725 15th Avenue, Tacoma, WA 98401-1837

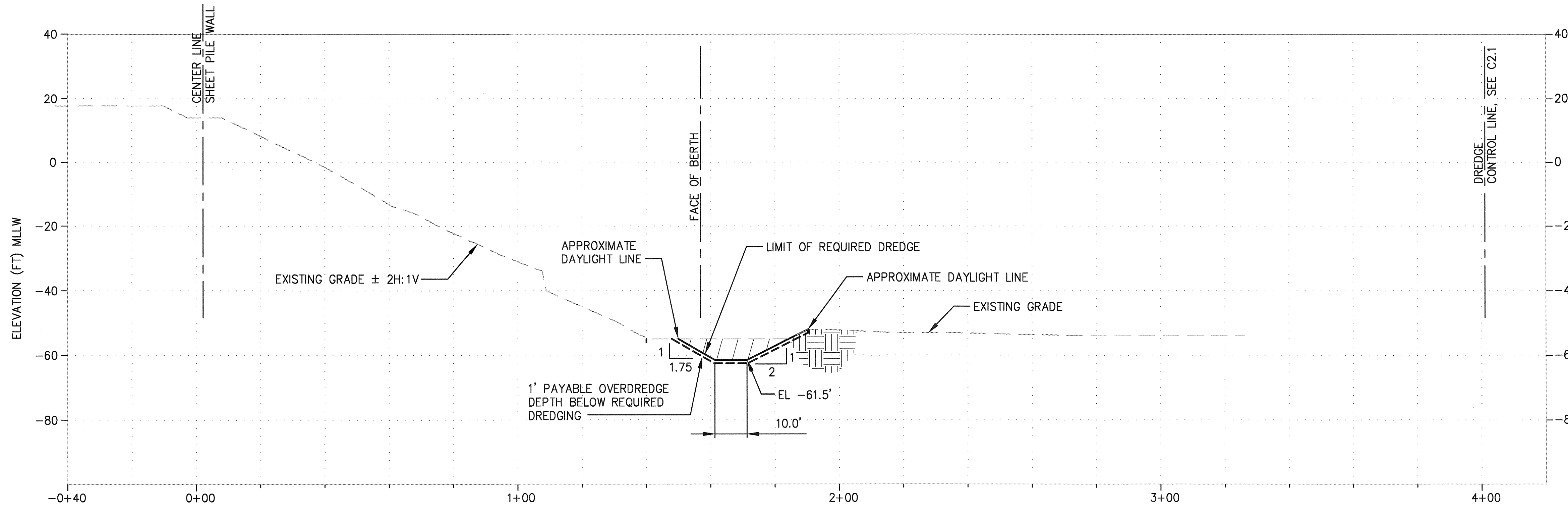


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DIRECTOR ENGR. DATE:	PROJ. ENGR. DATE:	
kwang Mar 24, 2016		
PRINTED BY:	PORT ADDRESS:	
ONE SITCUM PLAZA	TACOMA, WA 98401-1837	

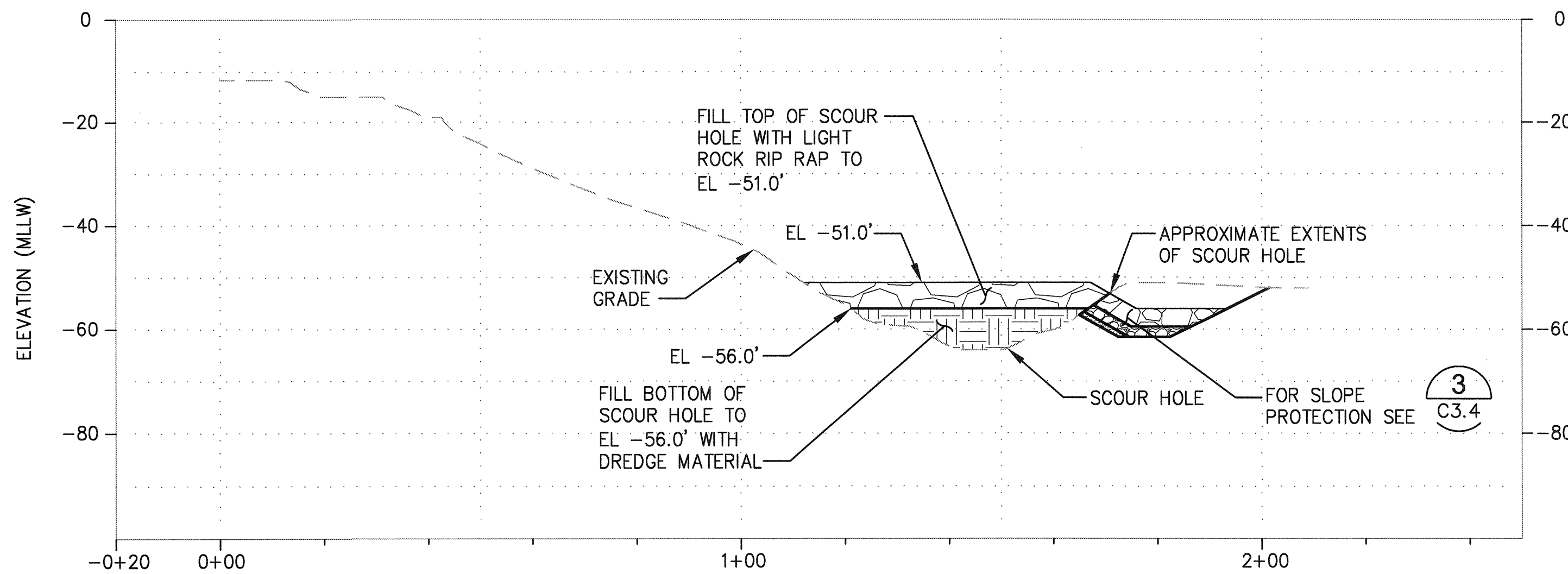
**PIER 4 PHASE 2
 RECONFIGURATION
 TYPICAL DREDGE SECTIONS - SHEET 1**

6552	SECTION:
C2.2	SH 47 OF 499
CONT/CONS:	TOWNSHIP:
070136	091251
M. ID:	RANGE:
091251	WAB3-SF
PHASE: BID	VERT:
	MLLW 19.39' @ Tide 22 1933
	DRAWING SCALE: AS NOTED

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C DREDGE SECTION - STA 14+70
 C2.1 SCALE: 1"=20'



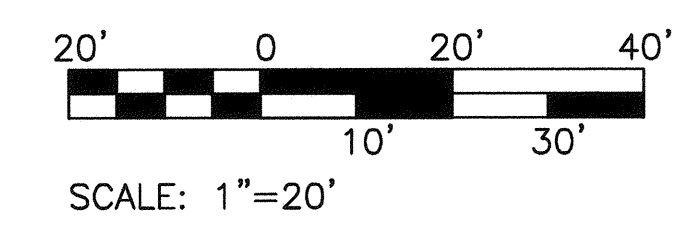
D SCOUR HOLE FILL SECTION
 C2.1, C3.1 SCALE: 1"=20'

NOTES

- DEMOLISH ALL UTILITIES WITHIN THE LIMITS OF DREDGE, SEE UTILITY AND SITE DEMOLITION PLANS.
- REMOVE EXISTING RIP RAP PRIOR TO DREDGING SEDIMENT, RIP RAP SHALL BE REMOVED AND DISPOSED OF SEPARATELY IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS, SEE SPECIFICATIONS. SEE DREDGE PLAN FOR APPROXIMATE EXTENTS.

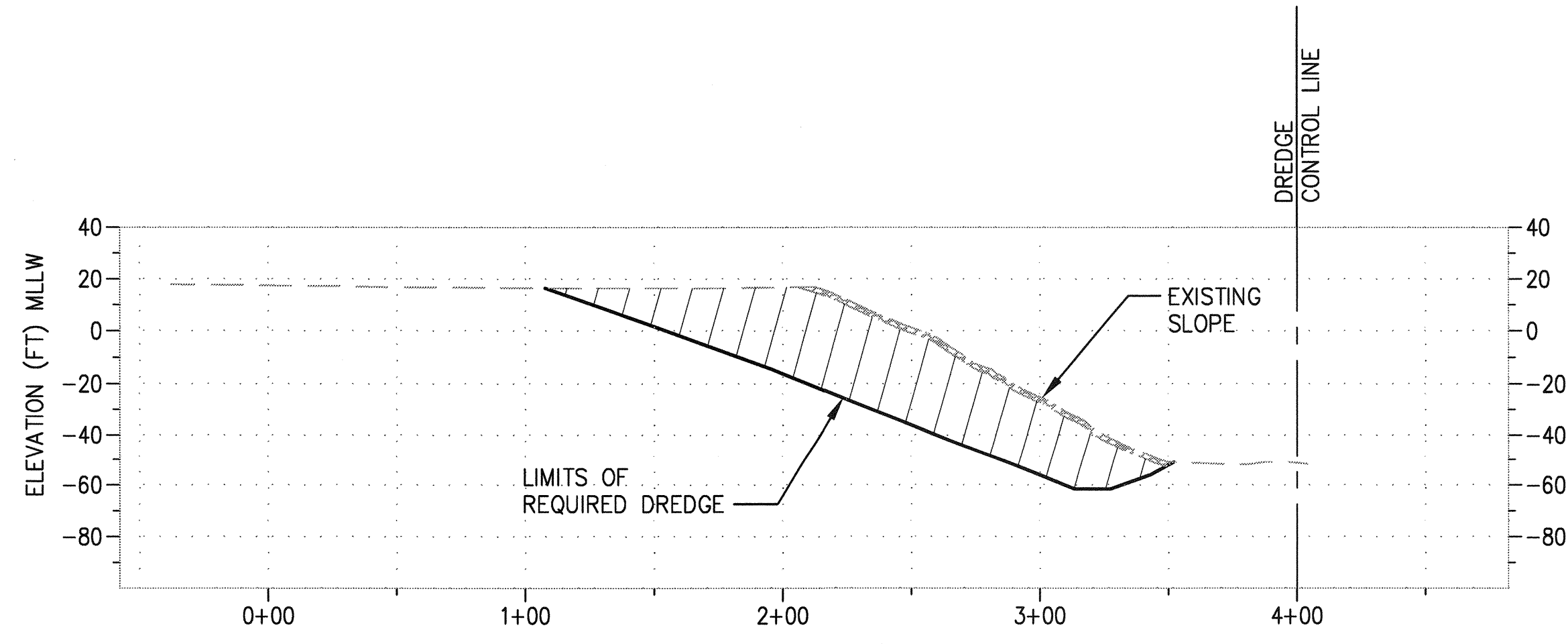
LEGEND

DREDGE AREA

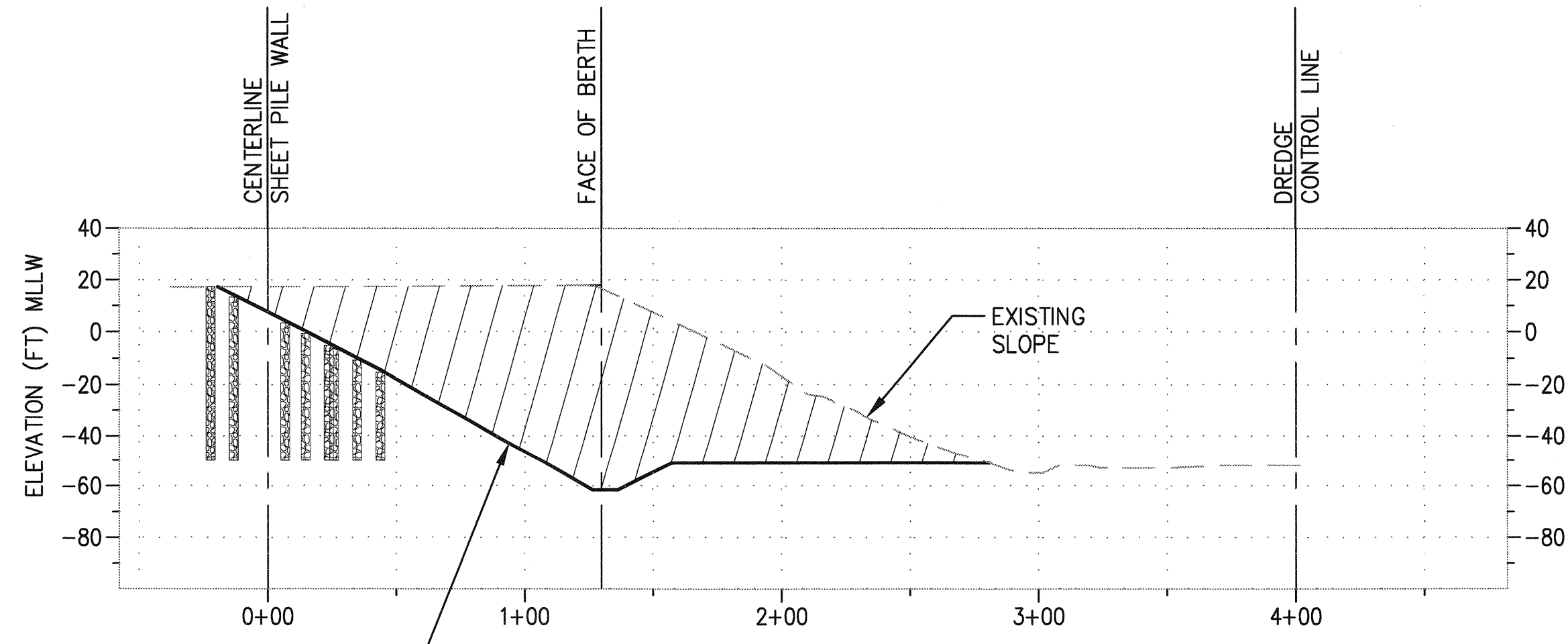


 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0150 Fax (253) 396-0162	DATE: _____ APPR: _____ BY: _____
	REVISION: _____ MARK: _____
	CHECKED BY: _____ DATE: _____ PROJ. ENGR DATE: _____ PRINTED BY: Kevin M. Krong Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
6552 C2.3 SH 48 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION TYPICAL DREDGE SECTIONS - SHEET 2 RANGE: MLLW 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF SECTION: _____ VERT: _____ DRAWING SCALE: AS NOTED

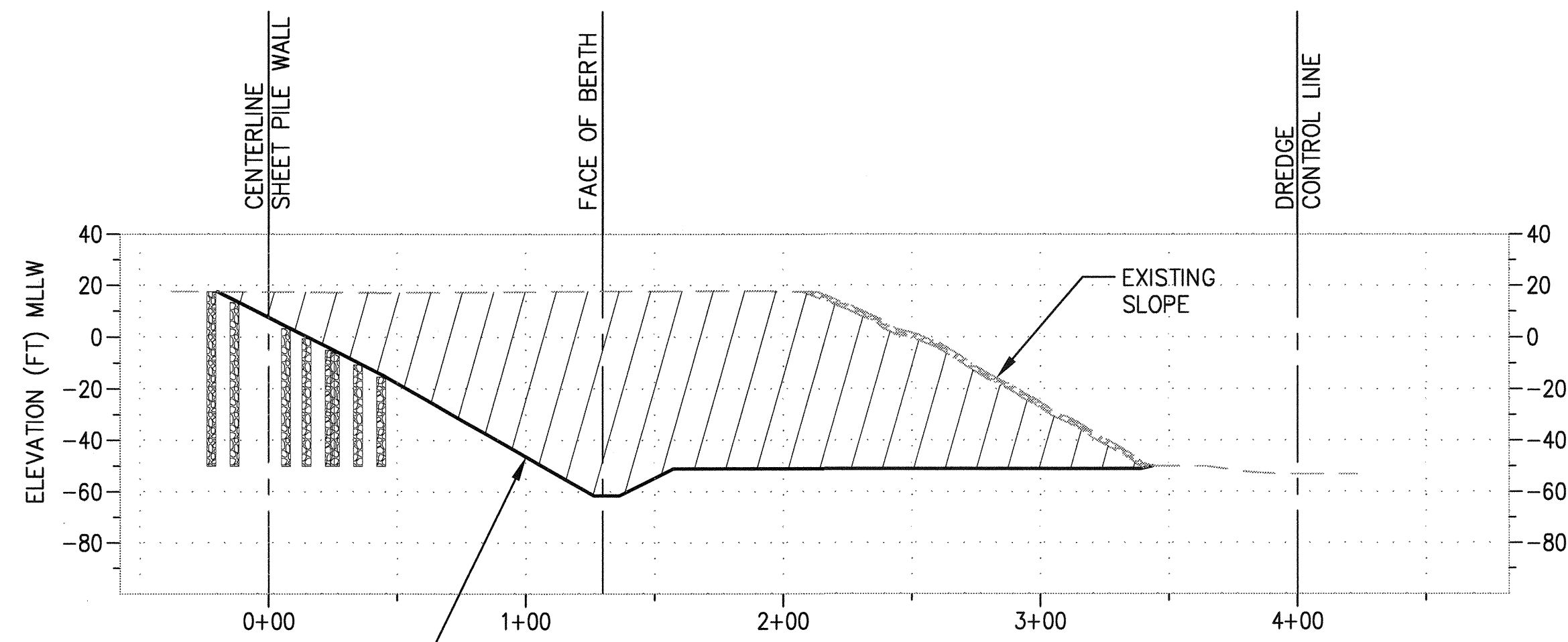
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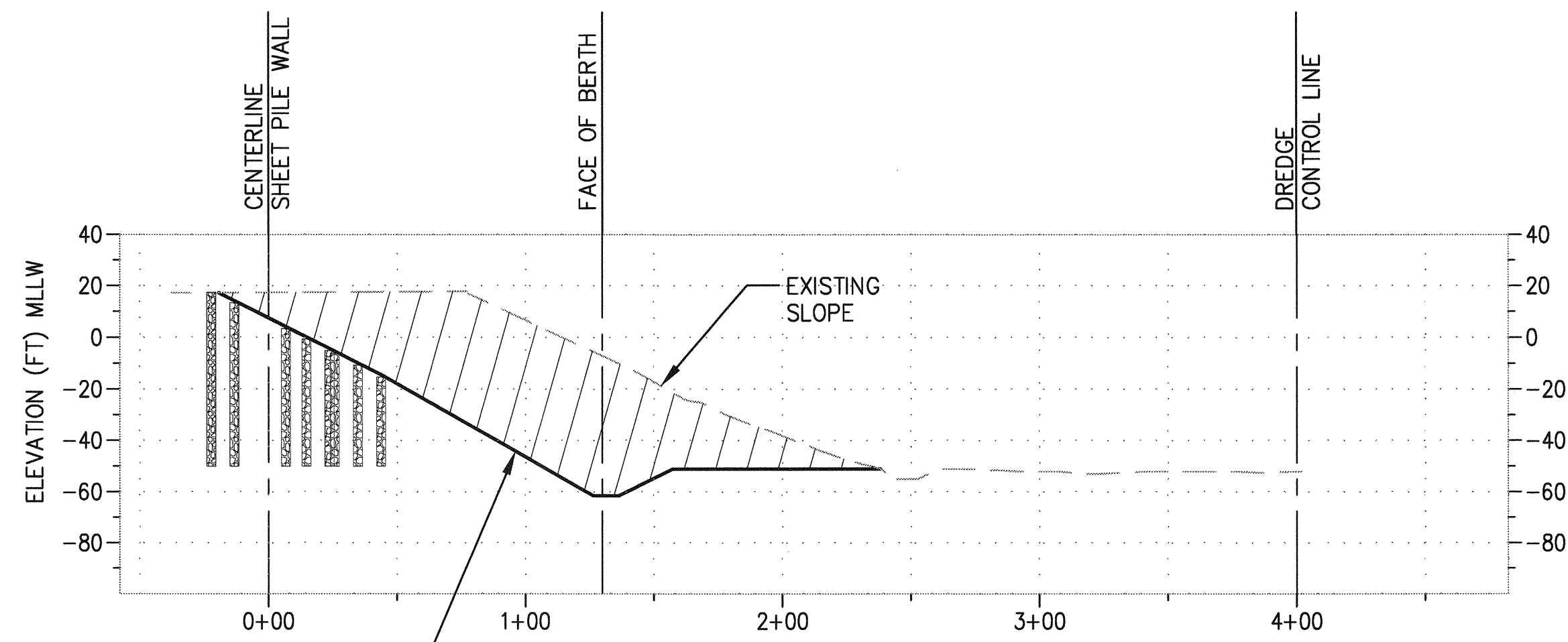
STA 1+00 SECTION



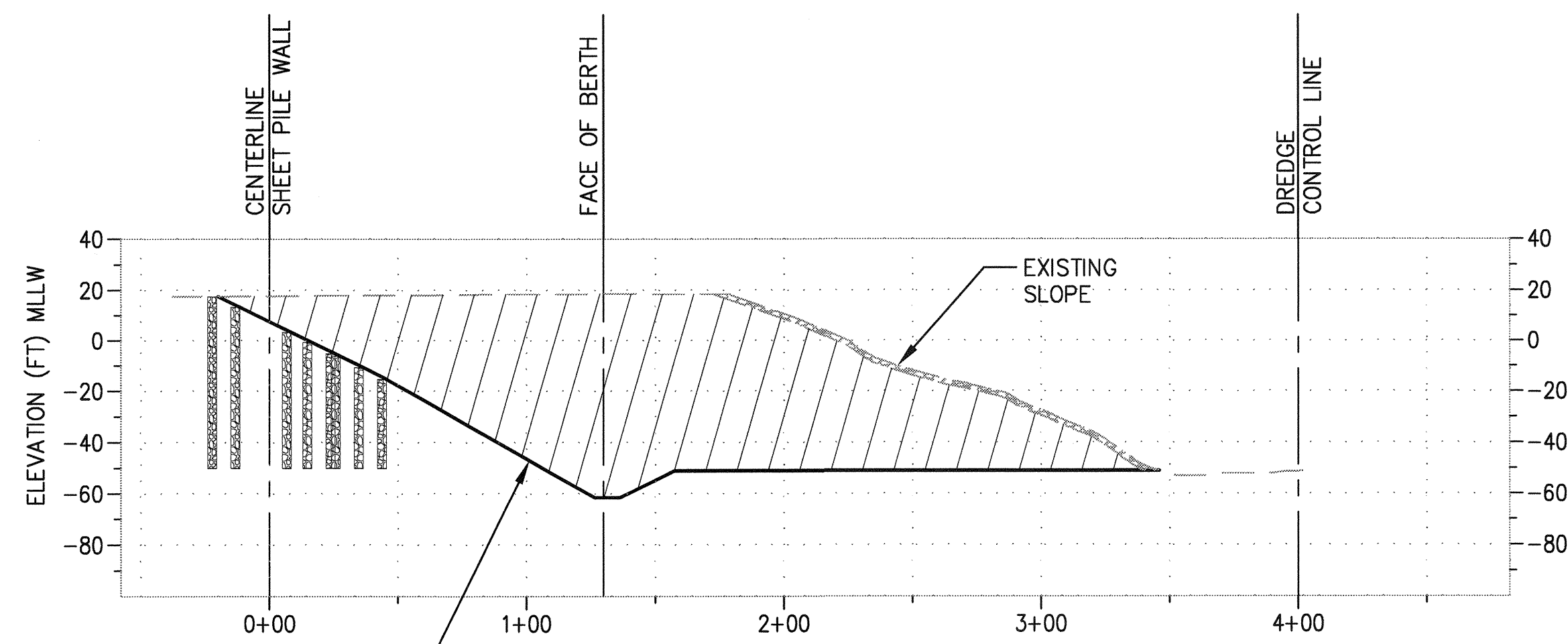
STA 7+00 SECTION



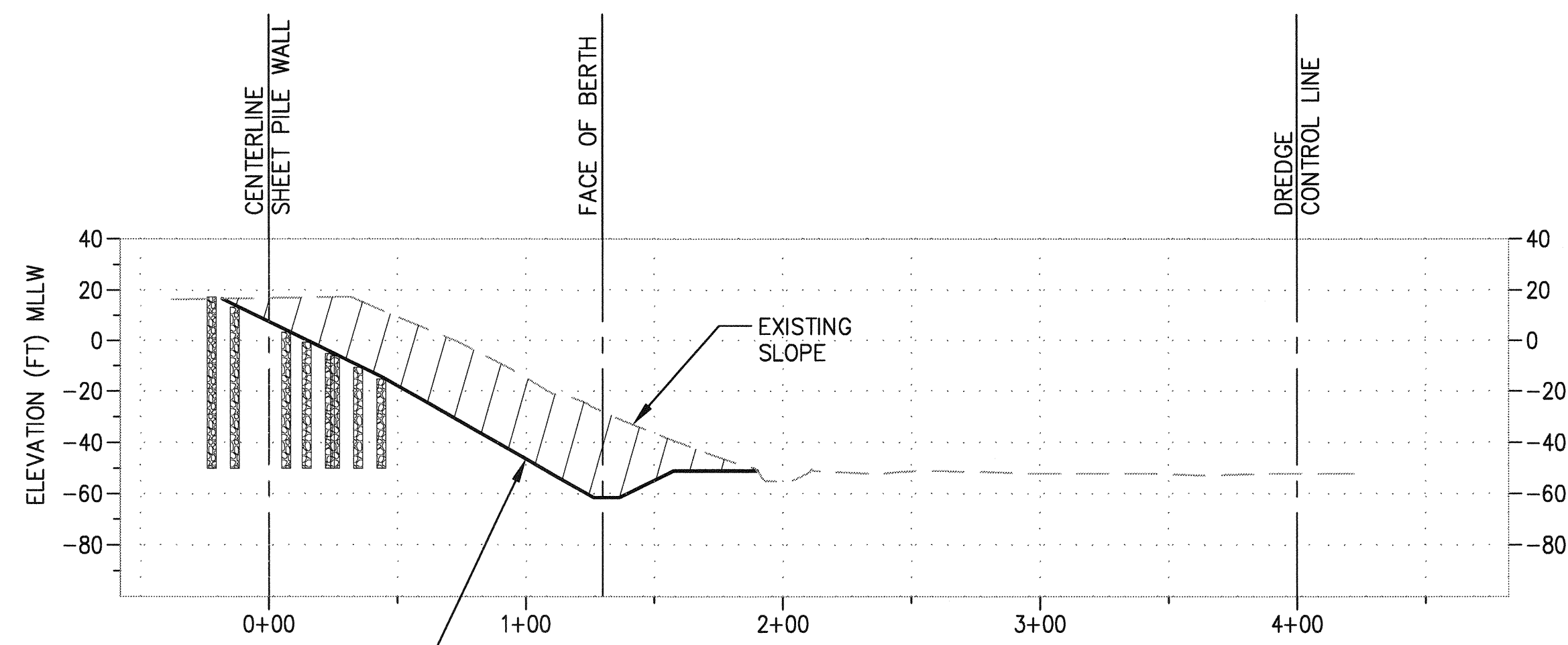
STA 3+00 SECTION



STA 9+00 SECTION

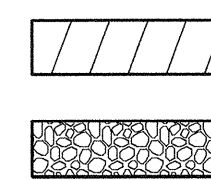


STA 5+00 SECTION



STA 11+00 SECTION

LEGEND



DREDGE AREA
 STONE COLUMN GROUND IMPROVEMENTS, SEE C1.1 THRU C1.3

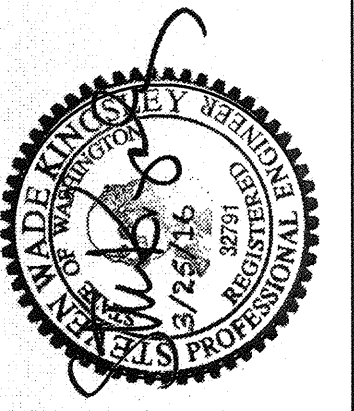
NOTES

1. SEE SHEET C2.1 FOR DREDGE CONTROL LINE DEFINITION.
2. FOR CLARITY THE 1' PAYABLE OVERDREDGE DEPTH BELOW REQUIRED DREDGING IS NOT SHOWN.



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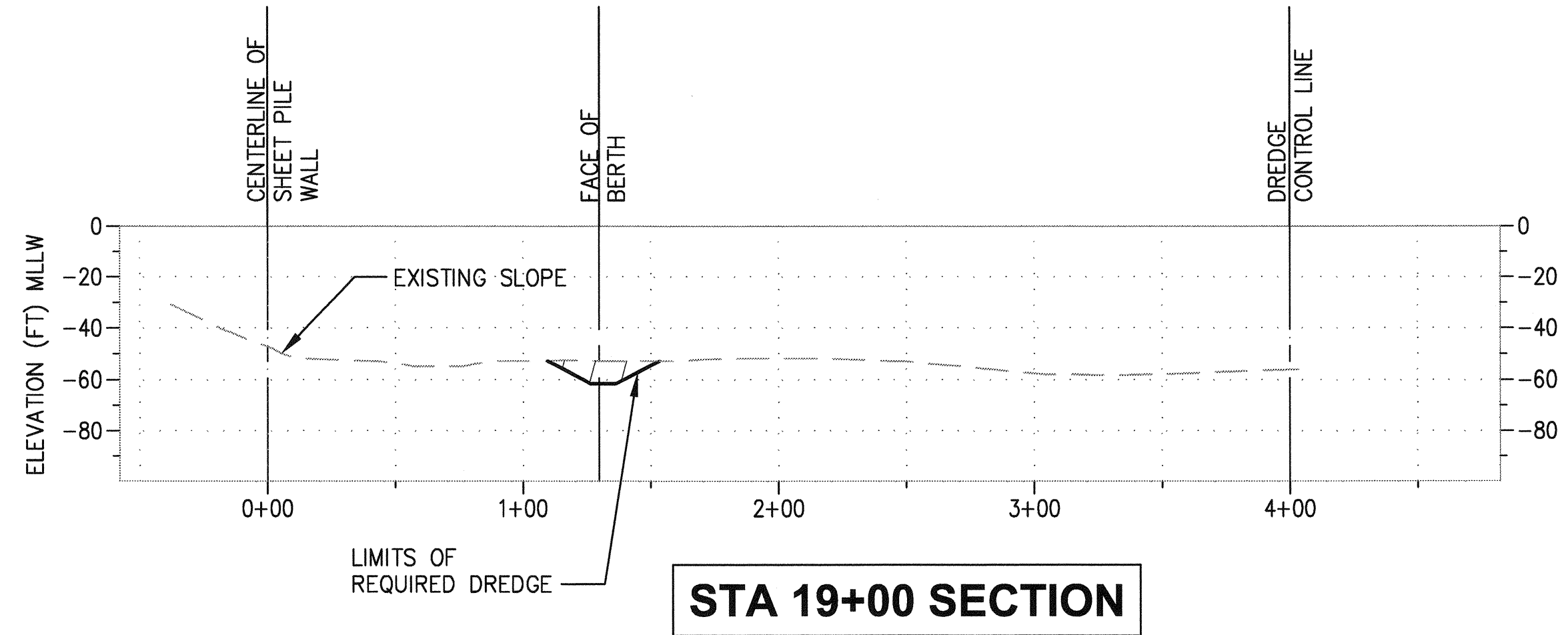
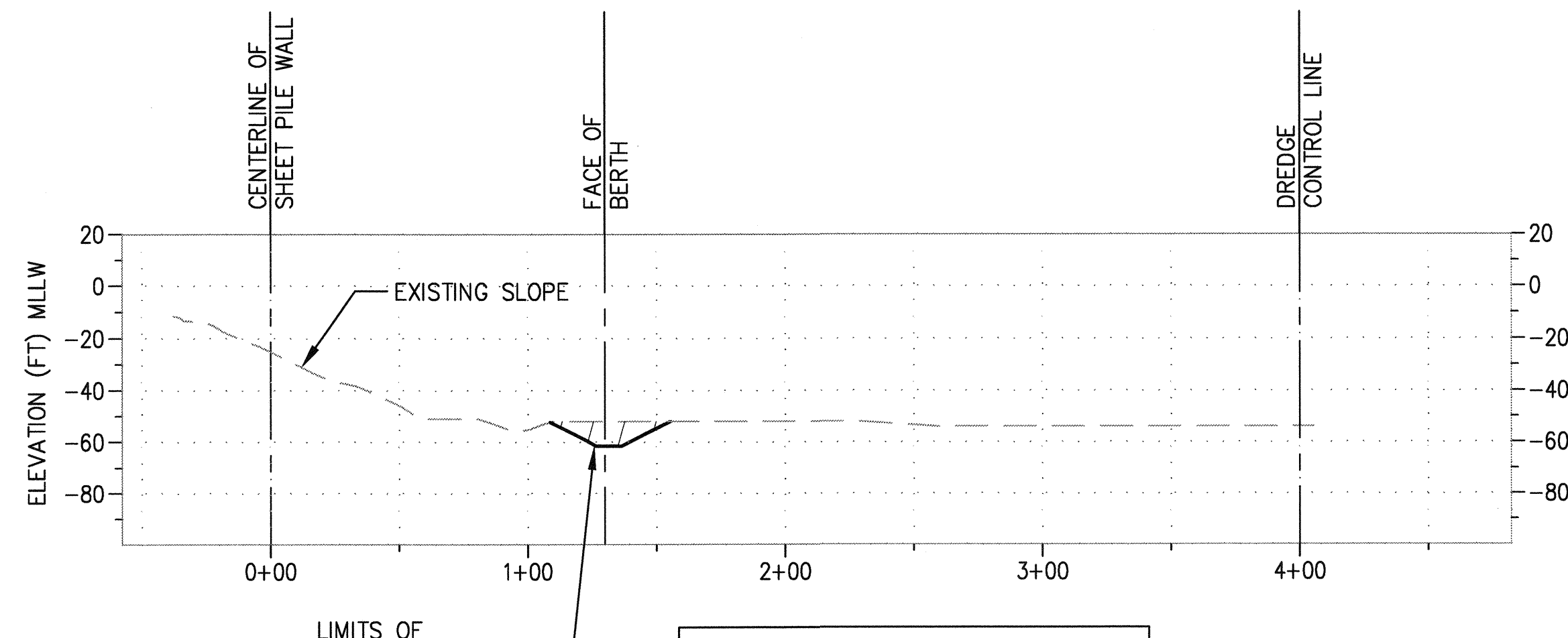
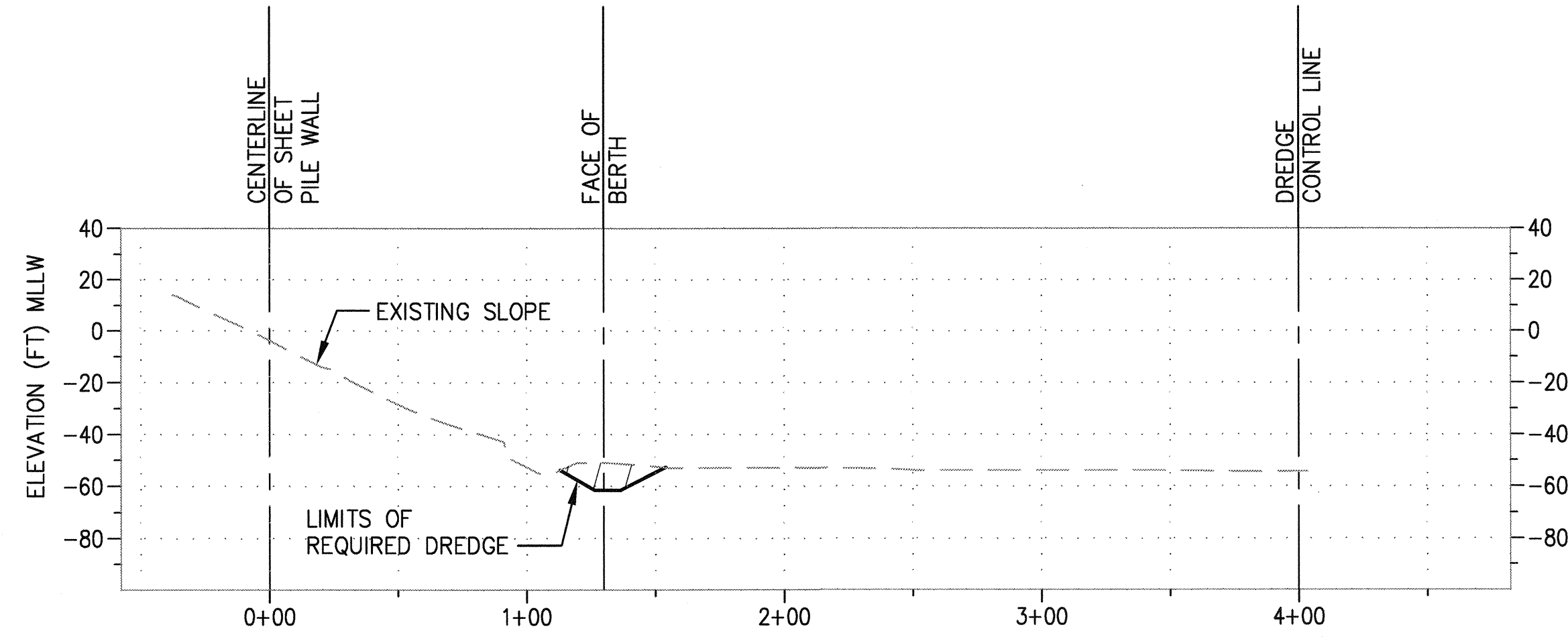
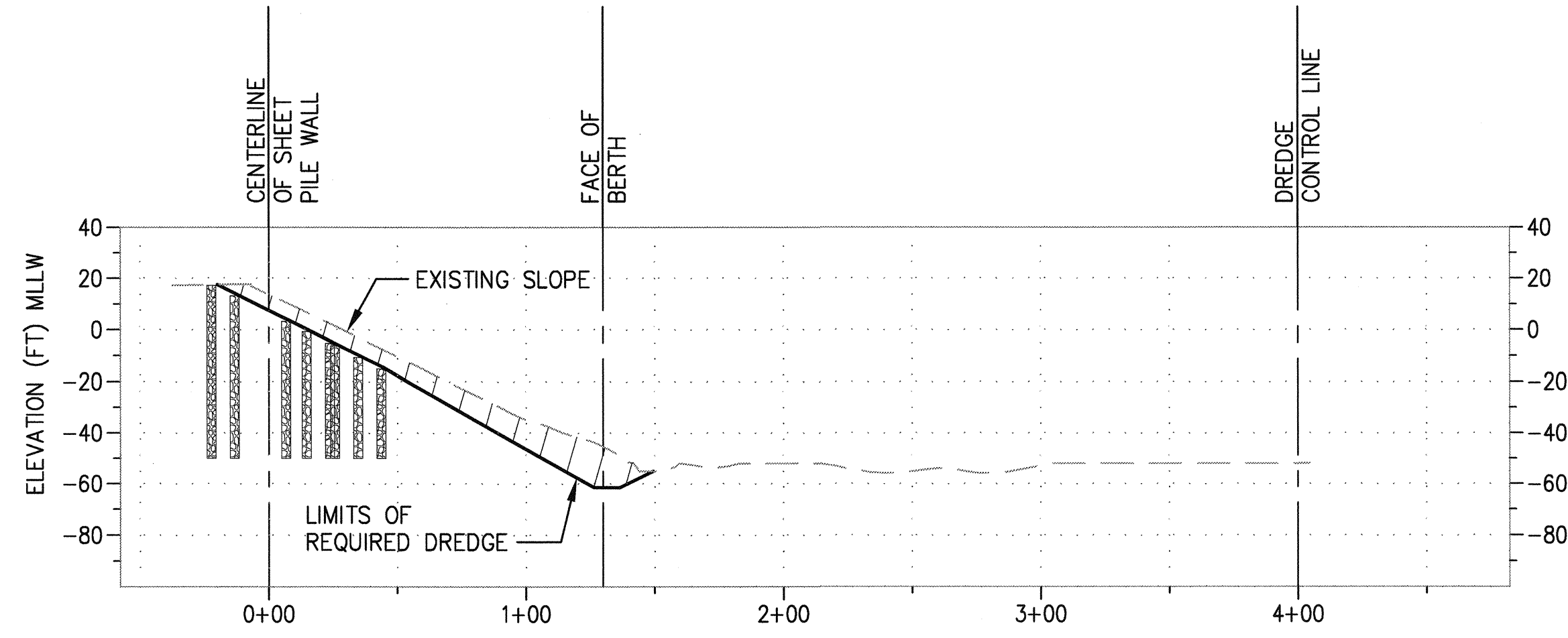


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 DIRECTOR ENG. DATE: 3-28-16
 PRINTED BY: kvang
 PORT ADDRESS: ONE SITCUM PLAZA
 TACOMA, WA 98401-1837

PIER 4 PHASE 2
 RECONFIGURATION
 DREDGE SECTIONS - SHEET 1

TOWNSHIP: SECTION:
 DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933
 RANGE: M. ID: 091251
 PARCEL: PHASE: BID

6552
 SH 49 OF 499
 C2.4

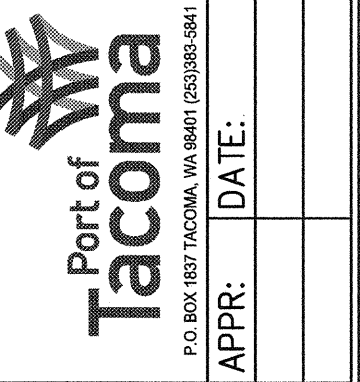


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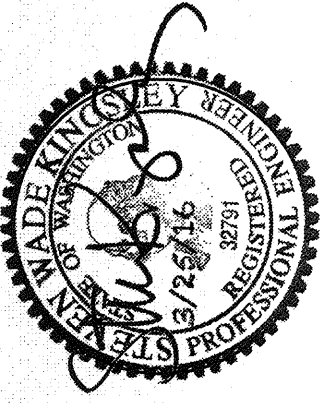
- DREDGE AREA
- STONE COLUMN GROUND IMPROVEMENTS, SEE C1.1 THRU C1.3

NOTES

1. SEE SHEET C2.1 FOR DREDGE CONTROL LINE DEFINITION.
2. FOR CLARITY THE 1' PAYABLE OVERDREDGE DEPTH BELOW REQUIRED DREDGING IS NOT SHOWN.



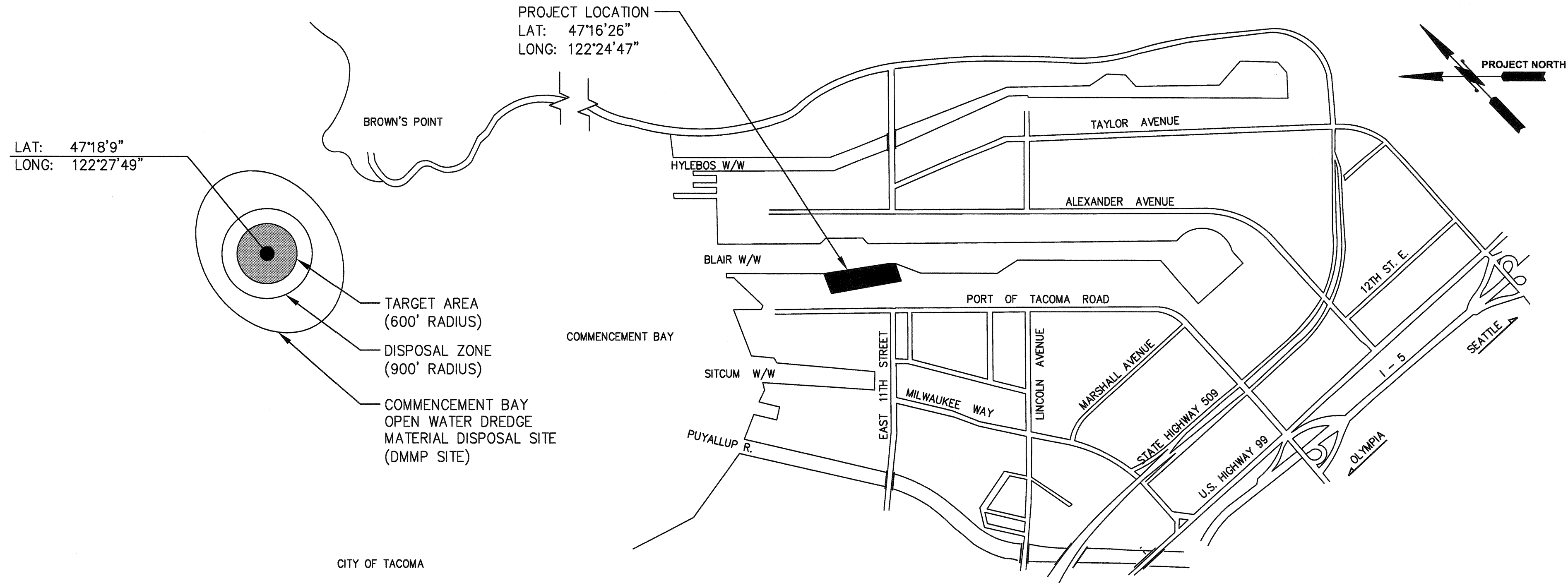
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APPROVED:	<i>W. B. Howard</i>	CHECKED BY	DATE
DIRECTOR	3-28-16	PROJ. ENGR	DATE
PRINTED BY:	kwang	PORT ADDRESS: ONE SITCUM PLAZA	TACOMA, WA 98401-1837

6552 C2.5 SH 50 OF 499	PIER 4 PHASE 2 RECONFIGURATION DREDGE SECTIONS - SHEET 2			
	CONT/CONS:	070136	TOWNSHIP:	
	M. ID:	091251	DAT-HRZ:	WA83-SF
	PHASE:	BID	VERT:	MLLW 19.39' @ Tide 22.1933
			DRAWING SCALE:	AS NOTED

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NOTES:

1. THE DMMP DISPOSAL SITE IS SHOWN CLOSER THAN THE ACTUAL SITE DISTANCE.

1
C1.1

DMMP OPEN WATER DISPOSAL SITE

NTS

6552

C2.6

SH 51 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2 RECONFIGURATION DREDGE DETAILS

TOWNSHIP: DAT-HRZ: WA83-SF

RANGE: VERT: MLLW 19.39' @ Tide 22 19.33

SECTION: DRAWING SCALE: AS NOTED

APPROVED:

J. Dale Howard
3-28-16

DIRECTOR ENG. DATE

PRINTED BY: kvarg Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

CHECKED BY

DATE

PROJ. ENGR

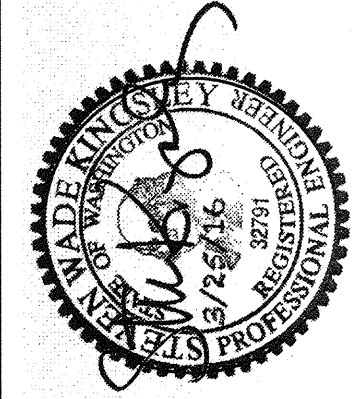
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MARK: REVISION:

BY:

APPR:

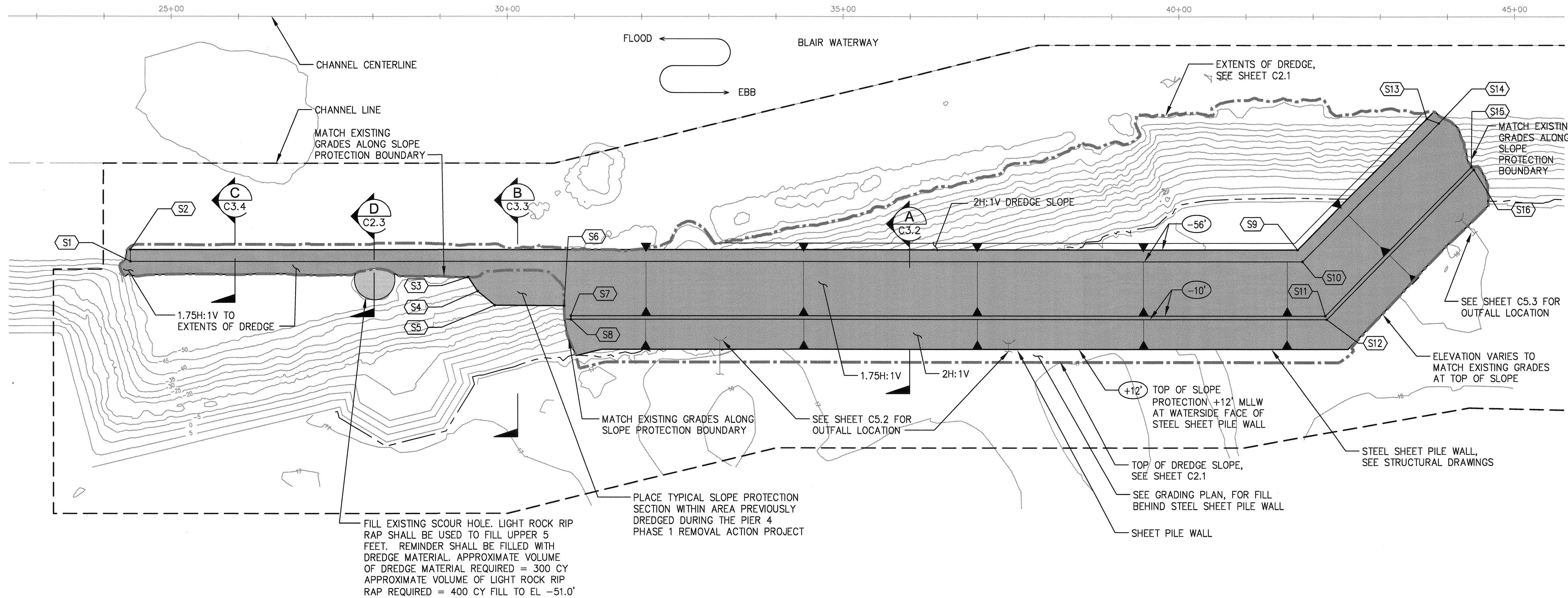
DATE:



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SLOPE PROTECTION PLAN

SCALE: 1"=80'

NOTES

- 1. SEE SHEET C3.2, TYPICAL SLOPE PROTECTION FOR SLOPE PROTECTION MATERIALS AND THICKNESSES.

LEGEND

- 10 - EXISTING CONTOUR
- PROJECT WORK AREA LIMITS
- (SX) SLOPE PROTECTION CONTROL POINT
- STORM DRAIN OUTFALL, SEE DRAINAGE PLANS
- (-10') FINISH GRADE ELEVATION
- ▲ REVETMENT SLOPE
- PROJECT SPECIFIC ORDINARY HIGH WATER LINE (EL. +12.78')
- █ LIMITS OF SLOPE PROTECTION
- EXTENTS OF DREDGE, SEE SHEET C2.1

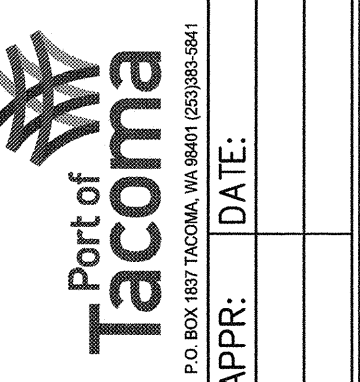
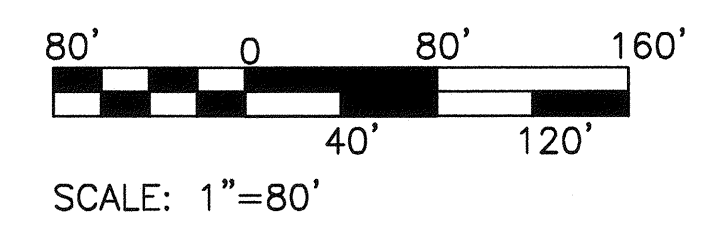
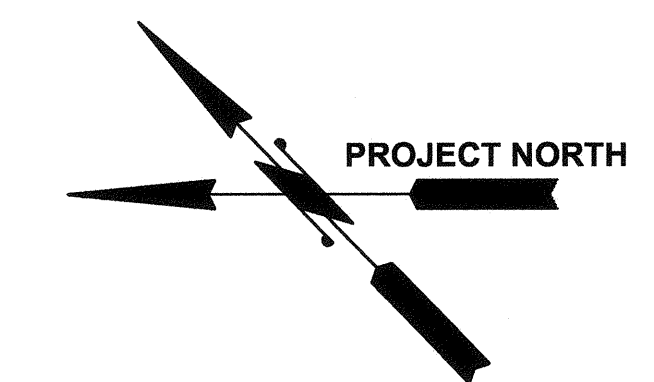
SLOPE PROTECTION CONTROL POINTS

POINT ID	NORTHING	EASTING
(S1)	713732.71	1166270.69
(S2)	713745.28	1166282.87
(S3)	713365.81	1166615.33
(S4)	713341.47	1166611.06
(S5)	713308.56	1166614.74
(S6)	713236.42	1166688.35
(S7)	713218.73	1166685.30
(S8)	713214.88	1166681.56
(S9)	712535.89	1167530.74

- NOTES:
- 1. CONTROL POINTS REPRESENT TOP OF FINISHED ROCK FACE..

SLOPE PROTECTION CONTROL POINTS

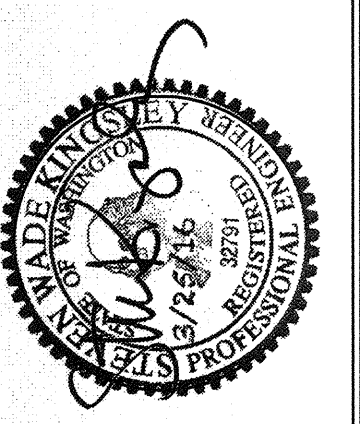
POINT ID	NORTHING	EASTING
(S10)	712518.22	1167523.83
(S11)	712436.90	1167492.06
(S12)	712431.48	1167489.95
(S13)	712542.70	1167805.67
(S14)	712525.40	1167813.75
(S15)	712444.60	1167802.82
(S16)	712439.24	1167802.95



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MARK: REVISION: BY: DATE: APPR: DATE:



APPROVED: *[Signature]* 3-28-16

DIRECTOR ENG. DATE: kvang Mar 24, 2016

PRINTED BY: kvang Mar 24, 2016

PORT ADDRESS: ONE SITUM PLAZA

TACOMA, WA 98401-1837

CHECKED BY: DATE: PROJ. ENGR: DATE: TOWNSHIP: SECTION: RANGE: MLLW 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF VERT: PARCEL: DRAWING SCALE: AS NOTED

PIER 4 PHASE 2 RECONFIGURATION SLOPE PROTECTION PLAN

6552 OF 489

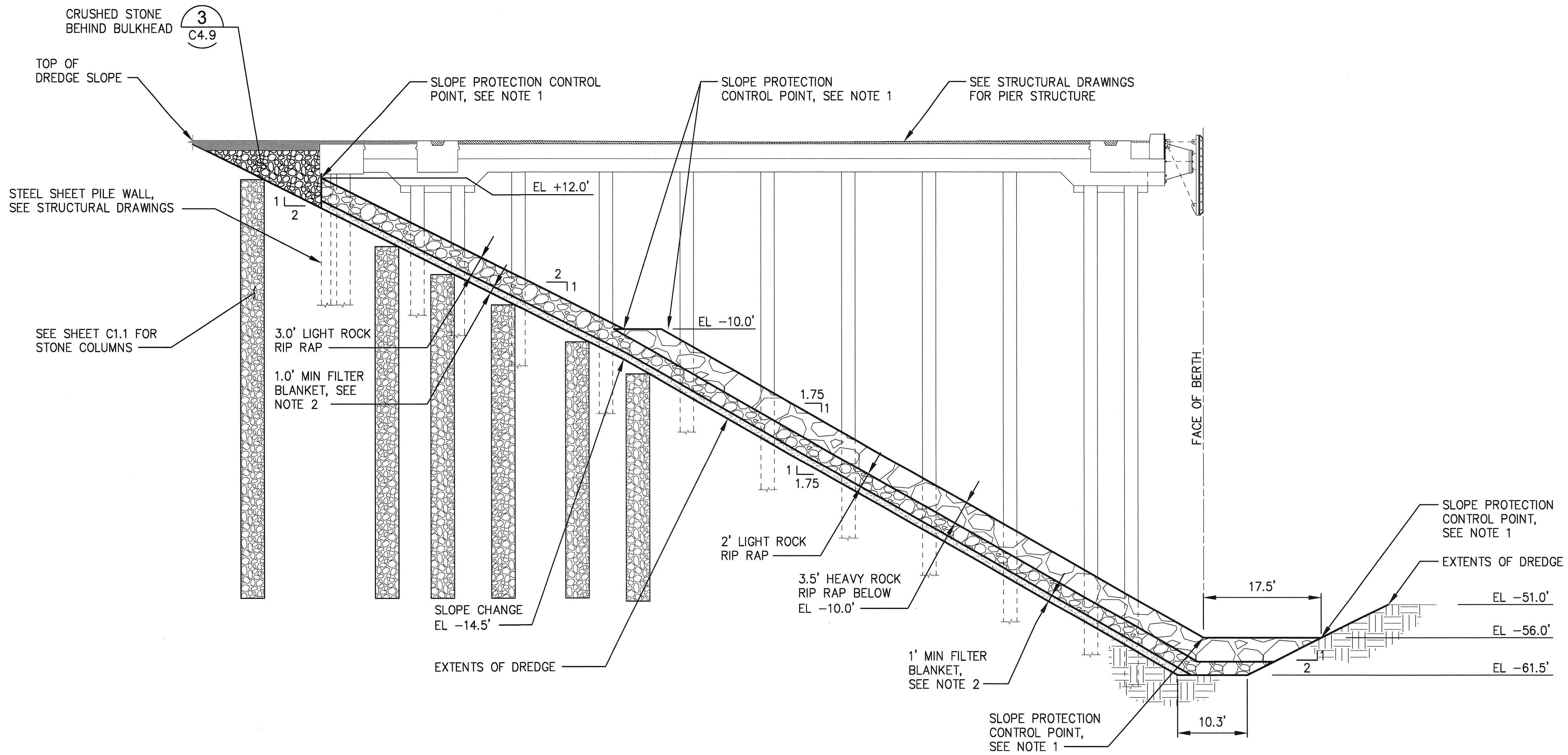
C3.1

CONTR./CONS: 070136

M. ID: 091251

PHASE: BID

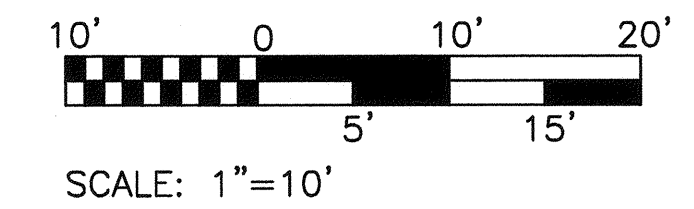
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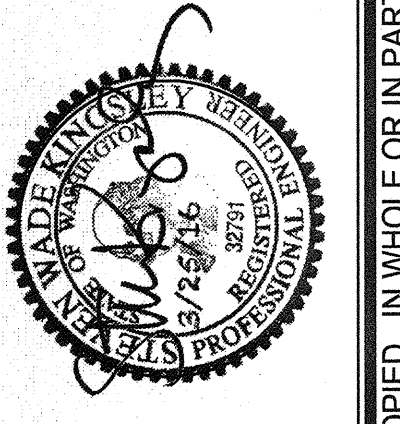
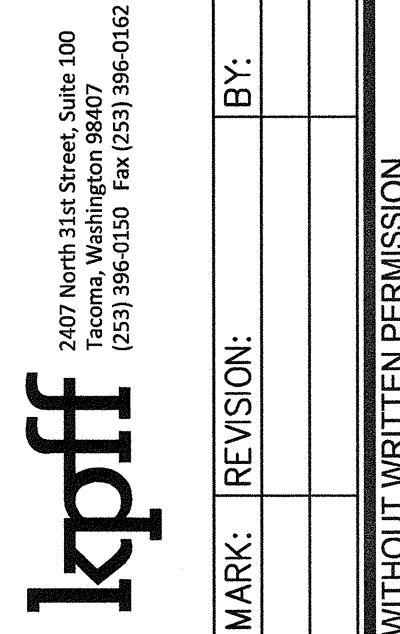
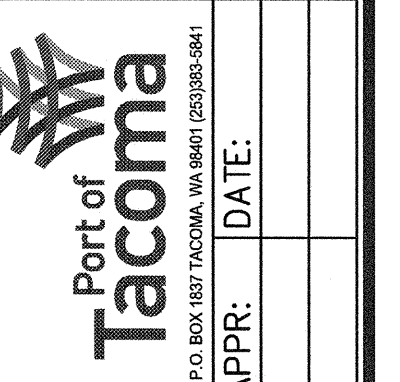
A SLOPE PROTECTION SECTION
 C1.4, C3.1 SCALE: 1"=10'

NOTES

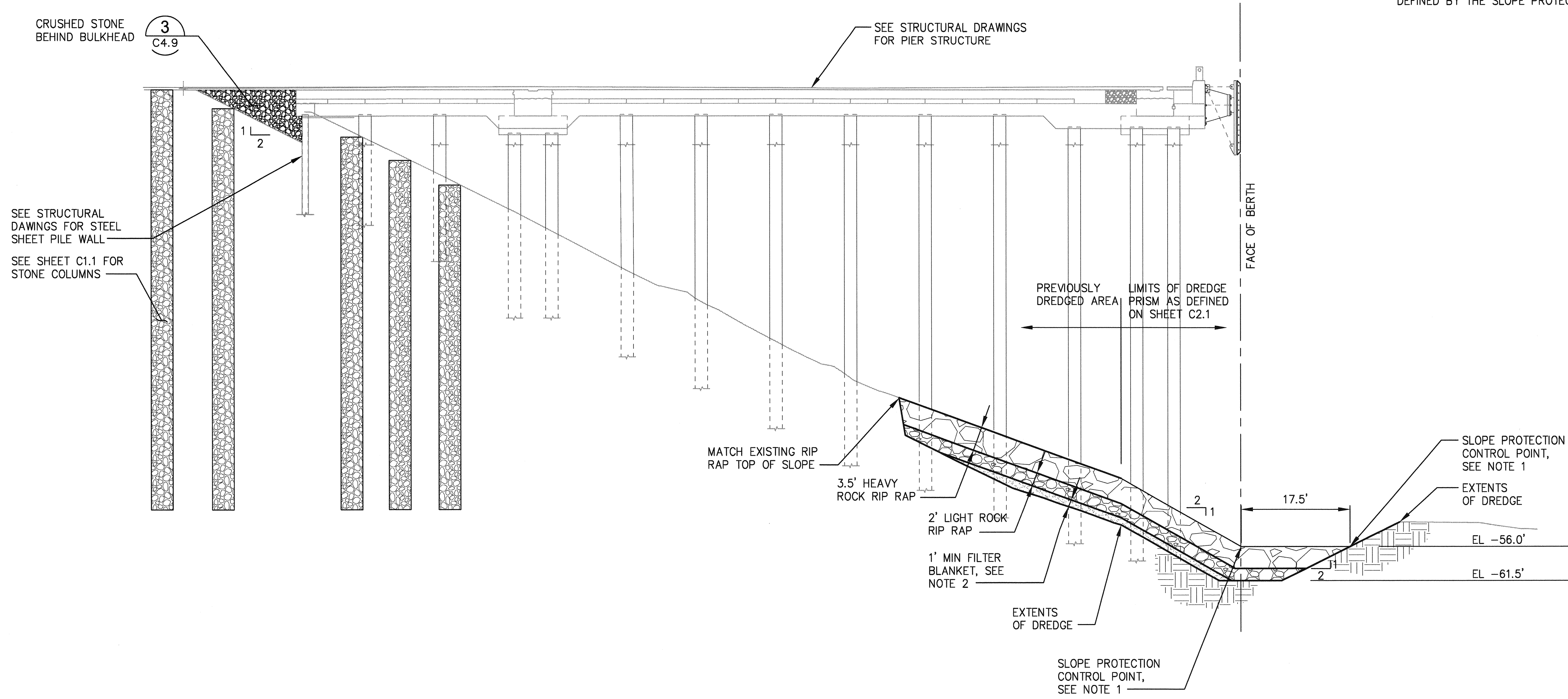
1. SEE C3.1 FOR SLOPE PROTECTION CONTROL POINT COORDINATES.
2. FILTER BLANKET THICKNESS MAY VARY TO ACHIEVE THE TOP SURFACE OF FINISHED ROCK FACE AS DEFINED BY THE SLOPE PROTECTION CONTROL POINTS.



6552	PIER 4 PHASE 2 RECONFIGURATION				CHECKED BY	DATE
	SLOPE PROTECTION SECTIONS - SHEET 1				PROJ. ENGR	DATE
C3.2	SH 53 OF 499	TOWNSHIP:	RANGE:	SECTION:	APPROVED: <i>[Signature]</i>	
CONT/CONS: 070136	M. ID: 091251	DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ Tide 22 1933	PRINTED BY: kvong	DATE: Mar 24, 2016	DIRECTOR ENGR. DATE: 3-28-16
PHASE: BID	DRAWING SCALE: AS NOTED		PORT ADDRESS: ONE SITCUM PLAZA		BY:	DATE:
			TACOMA, WA 98401-1837		REVISION:	APPR:



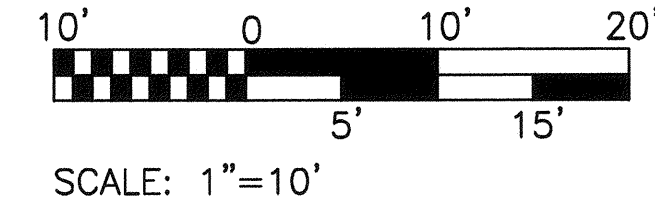
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B SLOPE PROTECTION SECTION
 C3.1 SCALE: 1"=10'

NOTES

1. SEE C3.1 FOR SLOPE PROTECTION CONTROL POINT COORDINATES.
2. FILTER BLANKET THICKNESS MAY VARY TO ACHIEVE THE TOP SURFACE OF FINISHED ROCK FACE AS DEFINED BY THE SLOPE PROTECTION CONTROL POINTS.



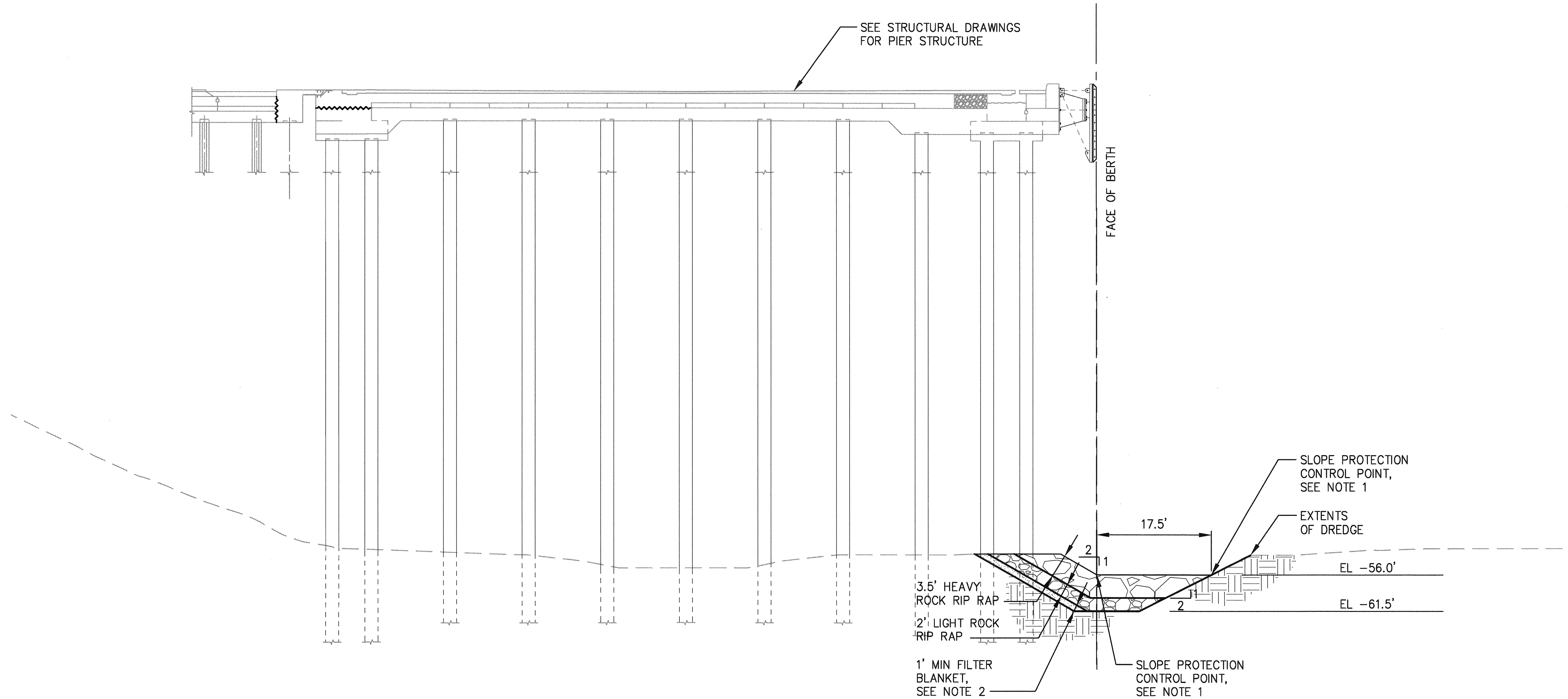
<p>6552 C3.3 SH 54 OF 489</p>	<p>PIER 4 PHASE 2 RECONFIGURATION SLOPE PROTECTION SECTIONS - SHEET 2</p>		<p>CHECKED BY: <i>J. Howard</i></p>	<p>DATE: _____</p>
	<p>APPROVED: <i>J. Howard</i></p>	<p>DIRECTOR ENG. DATE: 3-28-16</p>	<p>PROJ. ENGR DATE: _____</p>	<p>DATE: _____</p>
<p>CONT/CONS: 070136</p>	<p>TOWNSHIP: _____</p>	<p>RANGE: _____</p>	<p>SECTION: _____</p>	
<p>M. ID: 091251</p>	<p>DAT-HRZ: WA83-SF</p>	<p>VERT: MLLW 19.39' @ Tide 22 1933</p>	<p>PRINTED BY: kvng Mar 24, 2016</p>	
<p>PHASE: BID</p>	<p>PARCEL: _____</p>	<p>DRAWING SCALE: AS NOTED</p>	<p>PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837</p>	

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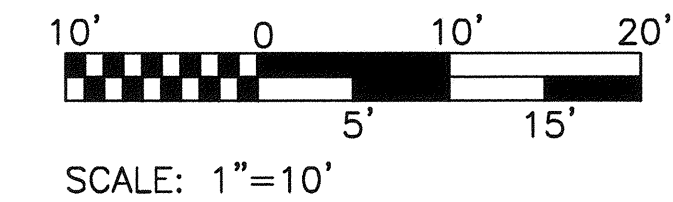
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C SLOPE PROTECTION SECTION
 C2.3, C3.1 SCALE: 1"=10'

NOTES

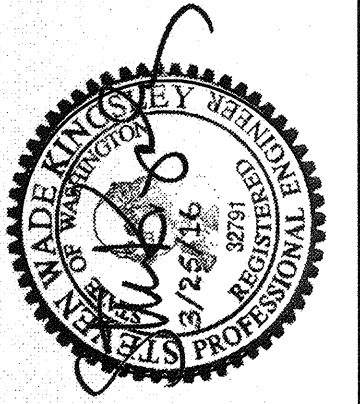
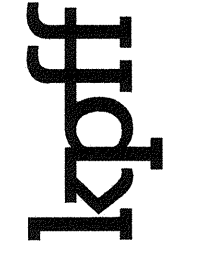
- SEE C3.1 FOR SLOPE PROTECTION CONTROL POINT COORDINATES.
- FILTER BLANKET THICKNESS MAY VARY TO ACHIEVE THE TOP SURFACE OF FINISHED ROCK FACE AS DEFINED BY THE SLOPE PROTECTION CONTROL POINTS.



<p>6552 C3.4 SH 55 OF 499</p>	<p>PIER 4 PHASE 2 RECONFIGURATION SLOPE PROTECTION SECTIONS - SHEET 3</p>		<p>APPROVED: <i>Kevin Howard</i> 3-28-16</p>	<p>CHECKED BY: [] DATE: []</p>
	<p>CON/CONS: 070136 M. ID: 091251 PHASE: BID</p>	<p>TOWNSHIP: [] DAT-HRZ: WA83-SF PARCEL: []</p>	<p>RANGE: [] VERT: MLLW 19.39' @ Tide 22 1933 DRAWING SCALE: AS NOTED</p>	<p>DIRECTOR ENG. DATE: [] PRINTED BY: kvang Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837</p>



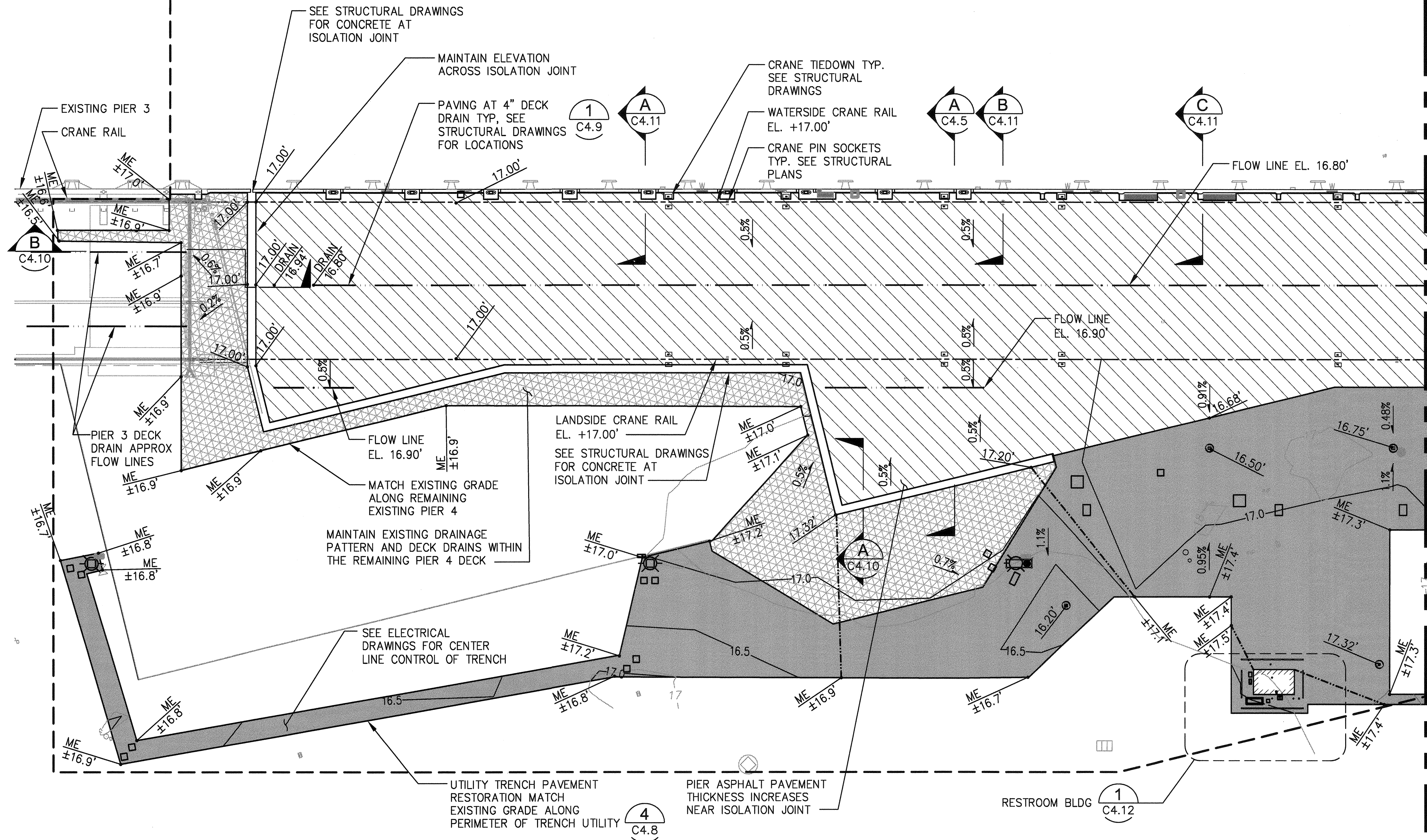
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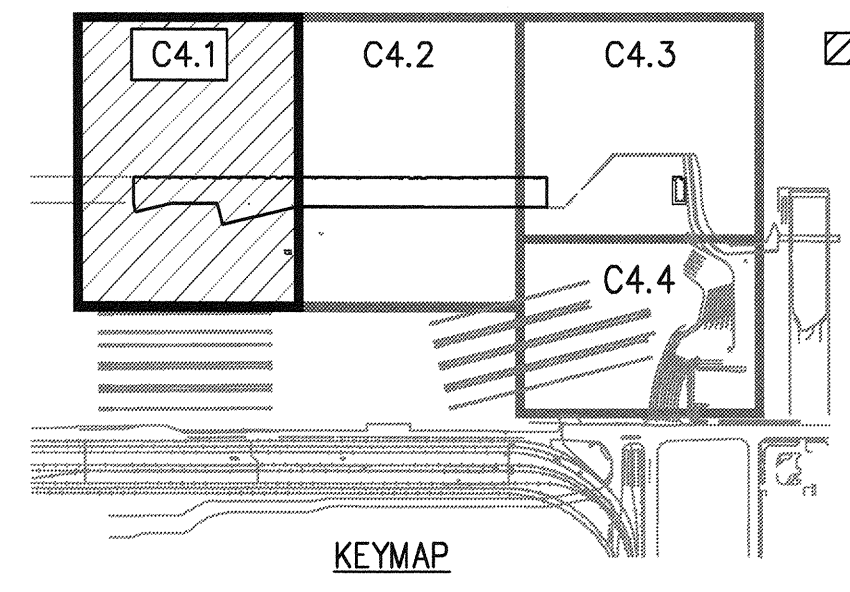
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BINDING EDGE

PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C4.1-C4.2-C4.3-C4.4 (Grading and Paving Plan)



GRADING AND PAVING PLAN
SCALE: 1"=40'

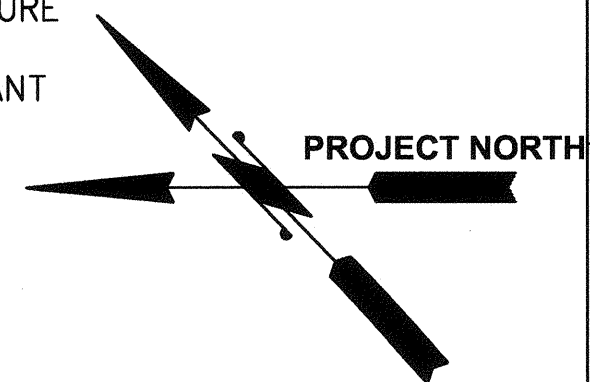
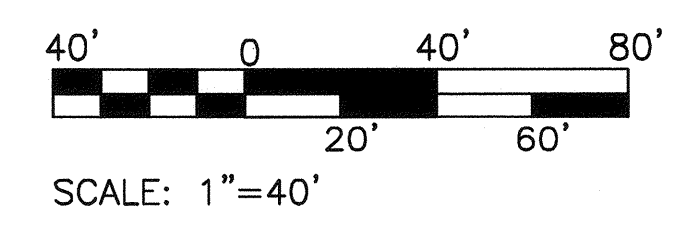


NOTES

1. ALL SPOT ELEVATIONS REPRESENT TOP OF PAVEMENT.
2. STRAIGHT GRADES SHALL BE MAINTAINED BETWEEN SPOT ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED OR OVER-EXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED PER SECTION 31 00 00 - EARTHWORK SPECIFICATION.
4. EXCAVATE TO SUBGRADE, PLACE AND COMPACT BASE COURSE AND PAVE WHERE ASPHALT PAVEMENT IS INDICATED.
5. SAWCUT AND APPLY TACK COAT AT ALL ASPHALT PAVEMENT JOINTS. APPLY TACK COAT AT LOCATIONS WHERE ASPHALT PAVEMENT IS PLACED AGAINST CONCRETE.
6. TOP OF FINISH GRADE OF PAVEMENT RESTORATION AREAS SHALL BE FLUSH WITH EXISTING PAVEMENT FOR SMOOTH TRANSITION AT PAVEMENT EDGES.
7. CONTRACTOR SHALL STOCKPILE AND STAGE ALL EQUIPMENT, SUPPLIES AND MATERIALS WITHIN THE PROJECT WORK AREA LIMITS UNLESS NOTED OTHERWISE. WHEN CONTRACT WORK IS COMPLETE CONTRACTOR SHALL CLEAR AND CLEAN THE WORK AREA AND REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS, INCLUDING PAVEMENT.
8. ALL ELECTRICAL VAULTS SHALL BE SET SUCH THAT THERE IS POSITIVE DRAINAGE AWAY FROM THE VAULT LIDS. NO VAULTS SHALL BE SET PROUD OF THE ADJACENT PAVEMENT.

LEGEND

- PROJECT WORK AREA LIMITS
- - - EXISTING GRADE CONTOUR
- - - PREFINISH GRADE CONTOUR
- [Pattern] ASPHALT PAVEMENT (1) C4.8
- [Pattern] ASPHALT PAVEMENT OVER NON-BALLAST PIER (2) C4.8
- [Pattern] CONCRETE PAVEMENT
- [Pattern] ASPHALT PAVEMENT OVER BALLAST PIER (5) C4.8
- - - FLOW LINE
- - - RIDGE LINE
- [Symbol] STORM DRAINAGE STRUCTURES, SEE DRAINAGE DRAWINGS
- [Symbol] SPOT ELEVATION
- [Symbol] GROUND SLOPE
- [Symbol] CONCRETE TRAFFIC BARRIERS, SEE STRIPING AND FENCING DRAWINGS
- [Symbol] LIGHT POLE, SEE ELECTRICAL DRAWINGS
- [Symbol] ELECTRICAL AND COMMUNICATIONS VAULTS, SEE ELECTRICAL DRAWINGS
- [Symbol] ABOVE GROUND FIRE HYDRANT
- [Symbol] EXISTING STORM DRAIN LID/STRUCTURE
- [Symbol] FLUSH FIRE HYDRANT



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P.O. BOX 887 TACOMA, WA 98401 (202)934-9441

WADE KING
PROFESSIONAL ENGINEER
No. 125416
3/25/16

APPROVED: *Wade King*
3-28-16
DIRECTOR ENG. DATE: 3-28-16
PRINTED BY: kvong
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

PIER 4 PHASE 2
RECONFIGURATION
GRADING AND PAVING PLAN - SHEET 1

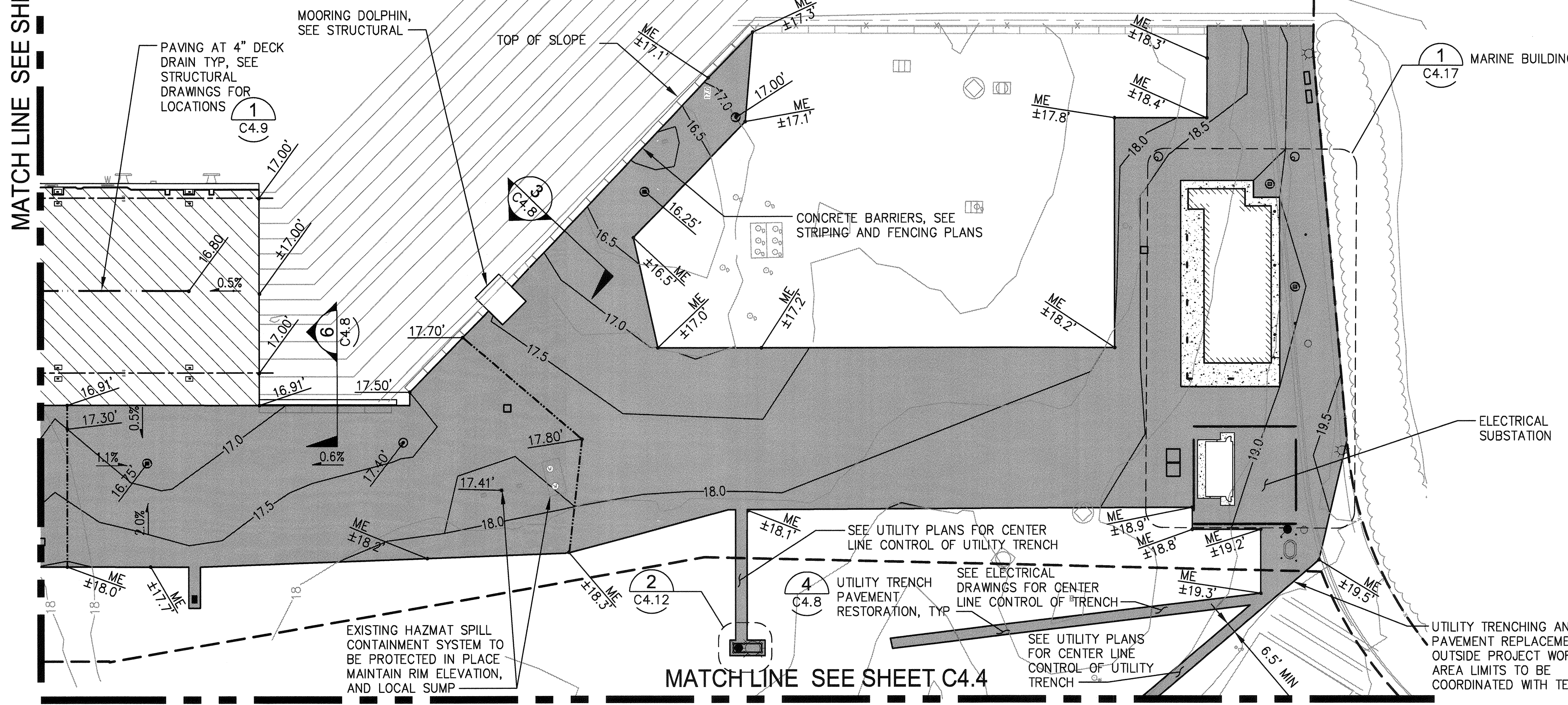
CHECKED BY: DATE
PROJ. ENGR DATE
SECTION: MLLW 19.39' @ Tide 22 1933
RANGE: WA83-SF
TOWNSHIP: 070136
DATE-HRZ: 091251
DRAWING SCALE: AS NOTED
PARCEL: PHASE: BID

6552
C4.1
SH 56 OF 499

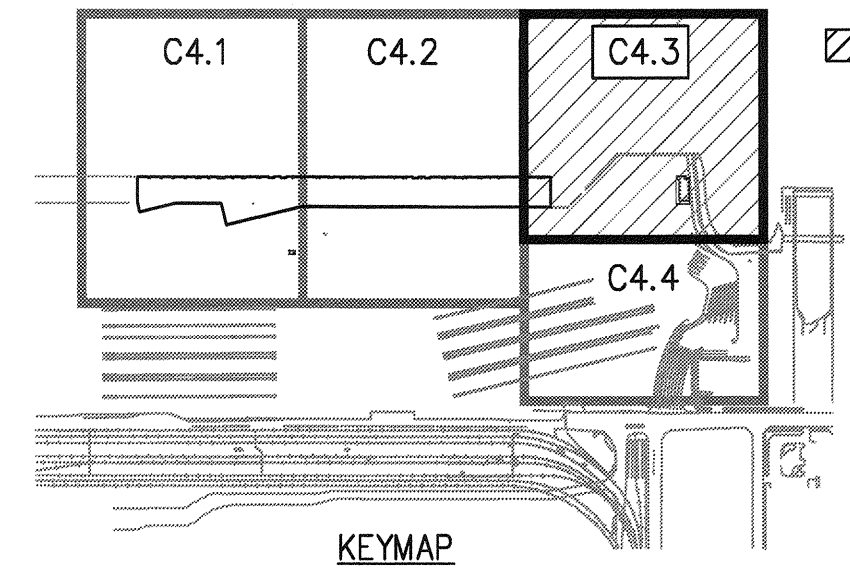
CON/CONS: 070136
M. ID: 091251
PHASE: BID

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MATCH LINE SEE SHEET C4.2



GRADING AND PAVING PLAN
SCALE: 1"=40'

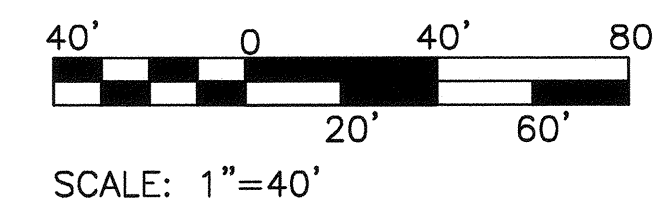


NOTES

1. ALL SPOT ELEVATIONS REPRESENT TOP OF PAVEMENT.
2. STRAIGHT GRADES SHALL BE MAINTAINED BETWEEN SPOT ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED OR OVER-EXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED PER SECTION 31 00 00 - EARTHWORK SPECIFICATION.
4. EXCAVATE TO SUBGRADE, PLACE AND COMPACT BASE COURSE AND PAVE WHERE ASPHALT PAVEMENT IS INDICATED.
5. SAWCUT AND APPLY TACK COAT AT ALL ASPHALT PAVEMENT JOINTS. APPLY TACK COAT AT LOCATIONS WHERE ASPHALT PAVEMENT IS PLACED AGAINST CONCRETE.
6. TOP OF FINISH GRADE OF PAVEMENT RESTORATION AREAS SHALL BE FLUSH WITH EXISTING PAVEMENT FOR SMOOTH TRANSITION AT PAVEMENT EDGES.
7. CONTRACTOR SHALL STOCKPILE AND STAGE ALL EQUIPMENT, SUPPLIES AND MATERIALS WITHIN THE PROJECT WORK AREA LIMITS UNLESS NOTED OTHERWISE. WHEN CONTRACT WORK IS COMPLETE CONTRACTOR SHALL CLEAR AND CLEAN THE WORK AREA AND REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS, INCLUDING PAVEMENT.
8. ALL ELECTRICAL VAULTS SHALL BE SET SUCH THAT THERE IS POSITIVE DRAINAGE AWAY FROM THE VAULT LIDS. NO VAULTS SHALL BE SET PROUD OF THE ADJACENT PAVEMENT.

LEGEND

- PROJECT WORK AREA LIMITS
- ~ EXISTING GRADE CONTOUR
- ~ PREFINISH GRADE CONTOUR
- ASPHALT PAVEMENT (1) C4.8
- ASPHALT PAVEMENT OVER NON-BALLAST PIER (2) C4.8
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT OVER BALLAST PIER (5) C4.8
- FLOW LINE
- RIDGE LINE
- □ ○ STORM DRAINAGE STRUCTURES, SEE DRAINAGE DRAWINGS
- 16.43' SPOT ELEVATION
- 0.5% GROUND SLOPE
- CONCRETE TRAFFIC BARRIERS, SEE STRIPING AND FENCING DRAWINGS
- ☀ LIGHT POLE, SEE ELECTRICAL DRAWINGS
- □ ELECTRICAL AND COMMUNICATIONS VAULTS, SEE ELECTRICAL DRAWINGS
- ABOVE GROUND FIRE HYDRANT
- □ EXISTING STORM DRAIN LID/STRUCTURE
- FLUSH FIRE HYDRANT



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kpff
KYLE P. KENNEDY
REGISTERED PROFESSIONAL ENGINEER
NO. 12516
EXPIRES 12/31/16

APPROVED: *[Signature]*
3-28-16
DIRECTOR ENG. DATE: 3-28-16
PRINTED BY: kvarg Mar 24, 2016
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION GRADING AND PAVING PLAN - SHEET 3

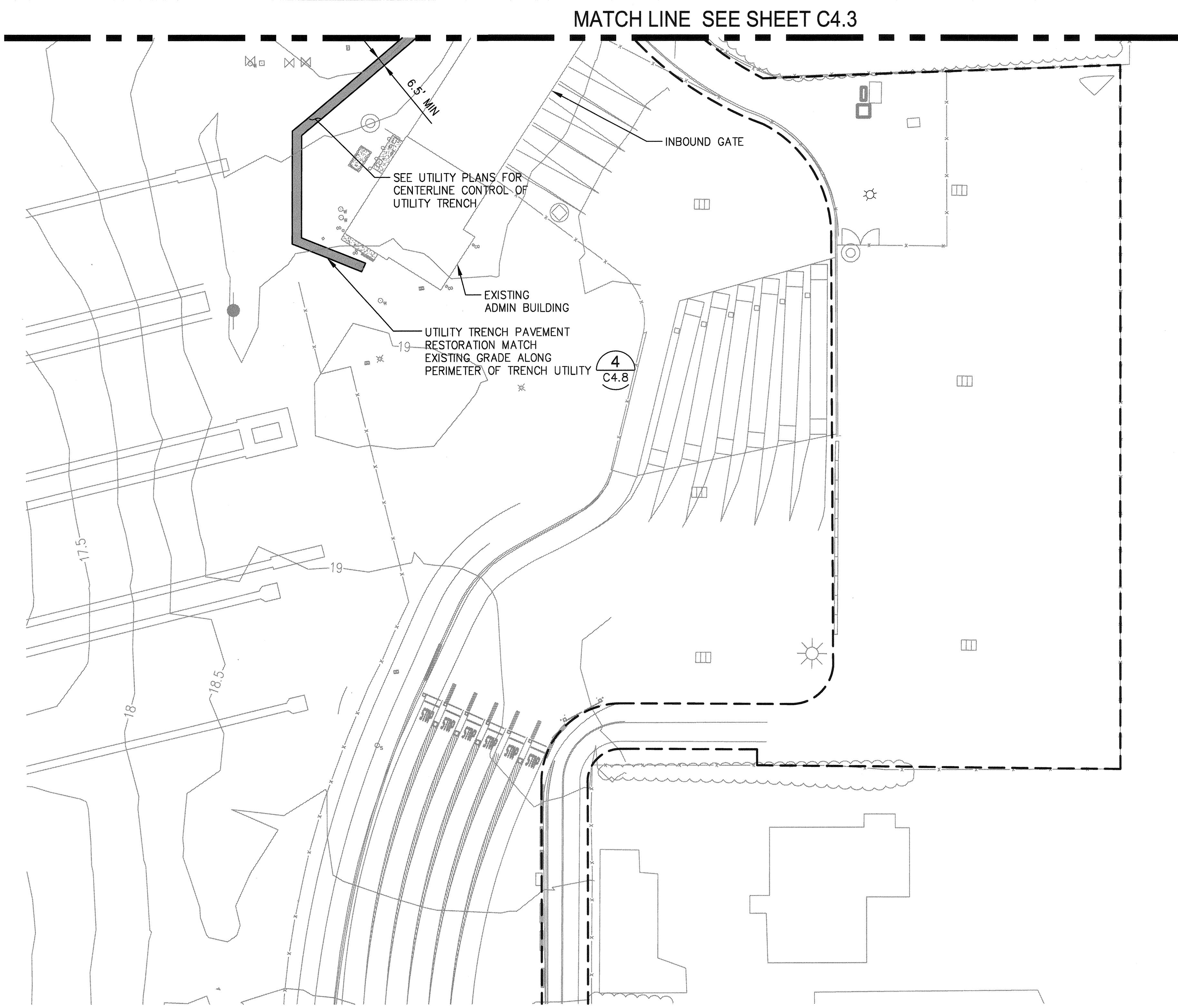
6552
C4.3
SH 58 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

CHECKED BY	DATE	PROJ. ENGR	DATE
kvarg	3-28-16	kvarg	Mar 24, 2016

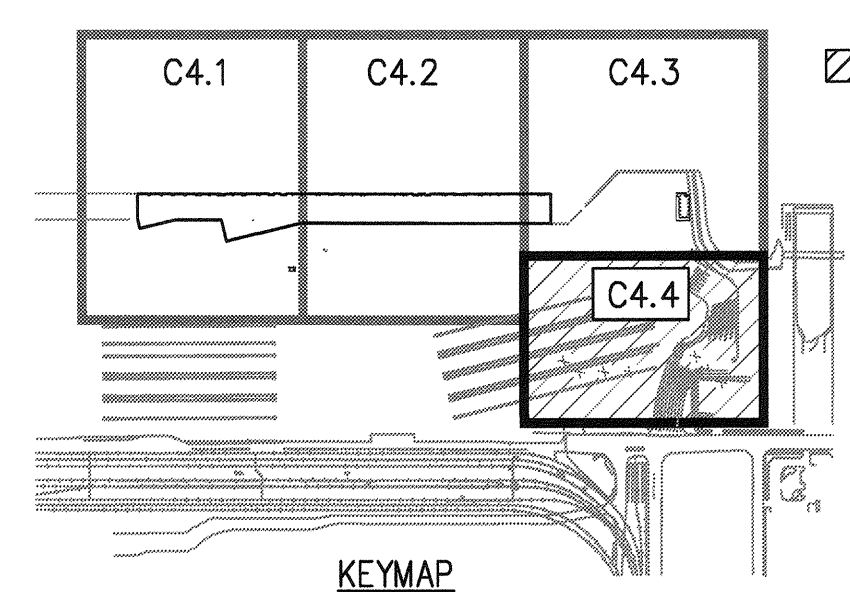
TOWNSHIP: DAT-HRZ: WAB3-SF
RANGE: MLLW 19.39' @ Tide 22 19.33
VERT: DRAWING SCALE: AS NOTED
PARCEL: TACOMA, WA 98401-1837

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PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C4.1-C4.2-C4.3-C4.4 (Grading and Paving Plan)



GRADING AND PAVING PLAN
SCALE: 1"=40'

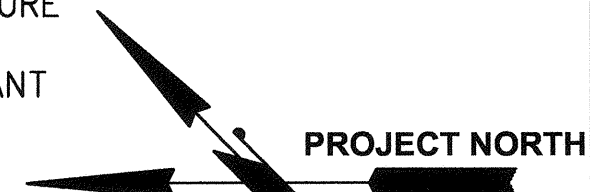
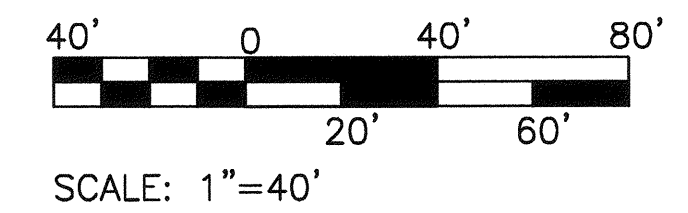


NOTES

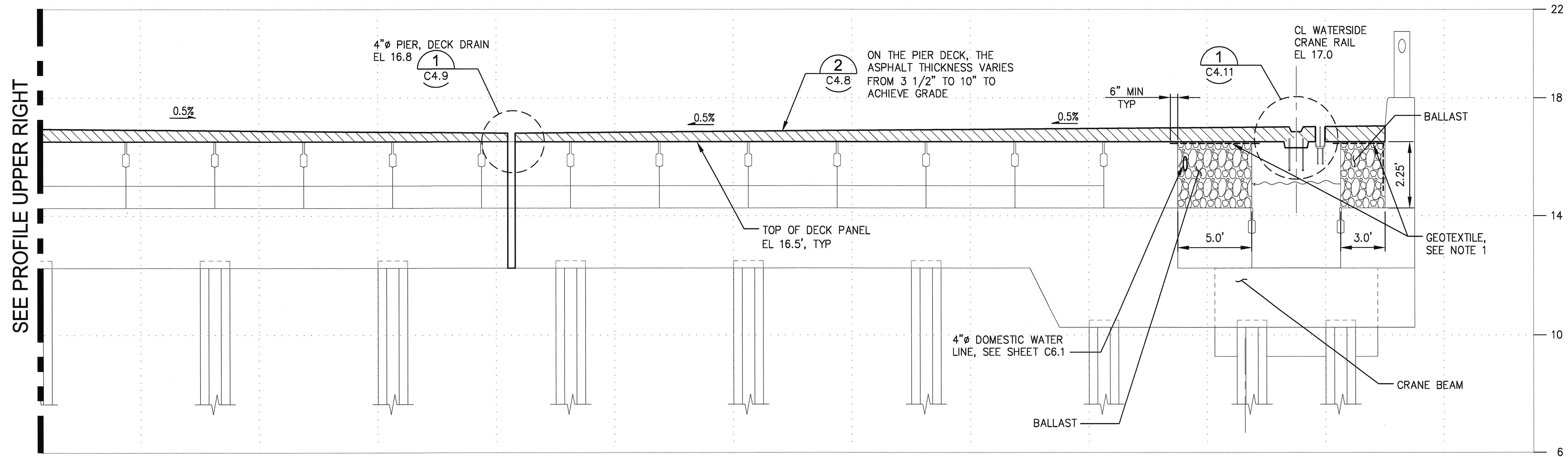
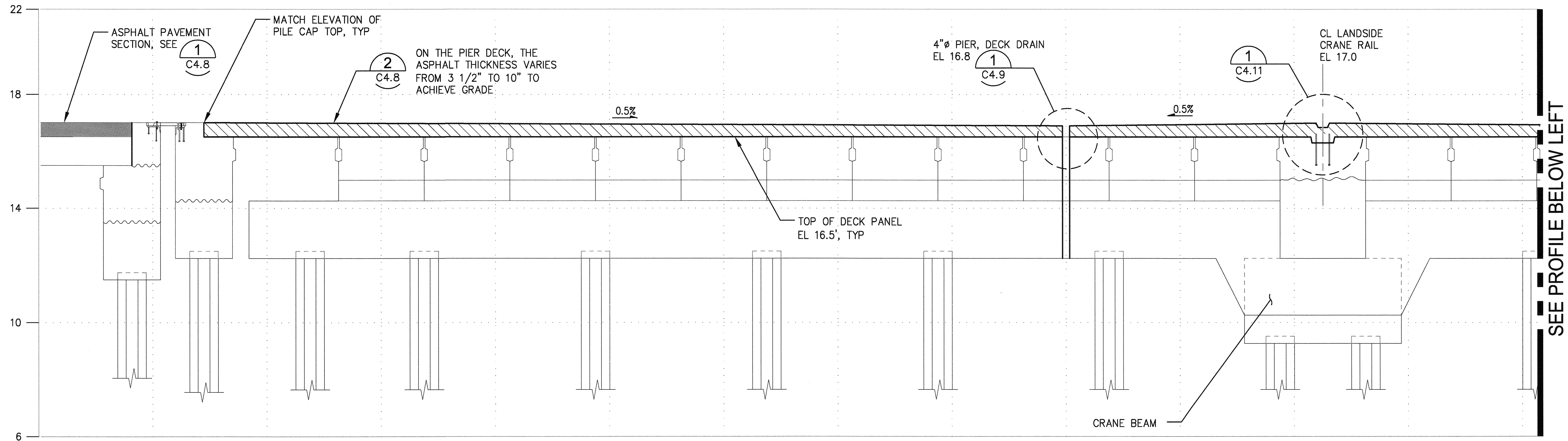
1. ALL SPOT ELEVATIONS REPRESENT TOP OF PAVEMENT.
2. STRAIGHT GRADES SHALL BE MAINTAINED BETWEEN SPOT ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED OR OVER-EXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED PER SECTION 31 00 00 - EARTHWORK SPECIFICATION.
4. EXCAVATE TO SUBGRADE, PLACE AND COMPACT BASE COURSE AND PAVE WHERE ASPHALT PAVEMENT IS INDICATED.
5. SAWCUT AND APPLY TACK COAT AT ALL ASPHALT PAVEMENT JOINTS. APPLY TACK COAT AT LOCATIONS WHERE ASPHALT PAVEMENT IS PLACED AGAINST CONCRETE.
6. TOP OF FINISH GRADE OF PAVEMENT RESTORATION AREAS SHALL BE FLUSH WITH EXISTING PAVEMENT FOR SMOOTH TRANSITION AT PAVEMENT EDGES.
7. CONTRACTOR SHALL STOCKPILE AND STAGE ALL EQUIPMENT, SUPPLIES AND MATERIALS WITHIN THE PROJECT WORK AREA LIMITS UNLESS NOTED OTHERWISE. WHEN CONTRACT WORK IS COMPLETE CONTRACTOR SHALL CLEAR AND CLEAN THE WORK AREA AND REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS, INCLUDING PAVEMENT.
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LEGEND

- PROJECT WORK AREA LIMITS
- EXISTING GRADE CONTOUR
- PREFINISH GRADE CONTOUR
- ASPHALT PAVEMENT 1
C4.8
- ASPHALT PAVEMENT OVER NON-BALLAST PIER 2
C4.8
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT OVER BALLAST PIER 5
C4.8
- FLOW LINE
- RIDGE LINE
- STORM DRAINAGE STRUCTURES, SEE DRAINAGE DRAWINGS
- SPOT ELEVATION
- GROUND SLOPE
- CONCRETE TRAFFIC BARRIERS, SEE STRIPING AND FENCING DRAWINGS
- LIGHT POLE, SEE ELECTRICAL DRAWINGS
- ELECTRICAL AND COMMUNICATIONS VAULTS, SEE ELECTRICAL DRAWINGS
- ABOVE GROUND FIRE HYDRANT
- EXISTING STORM DRAIN LID/STRUCTURE
- FLUSH FIRE HYDRANT



 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0150 Fax (253) 396-0162	Port of Tacoma <small>P.O. BOX 1837 TACOMA, WA 98401-1837</small>	APPROVED: <i>[Signature]</i> DIRECTOR ENG. DATE: 3-24-16	CHECKED BY: <i>[Signature]</i> DATE:
	MADE BY: <i>[Signature]</i> DATE: 3/24/16 PROFESSIONAL	MARK: REVISION: BY: DATE:	PROJECT: PIER 4 RECONFIGURATION SHEET: GRADING AND PAVING PLAN - SHEET 4
6552 C4.4 SH 59 OF 499	CONT/CONS: 070136 M. ID: 091251 PHASE: BID	TACOMA, WA 98401-1837	THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION



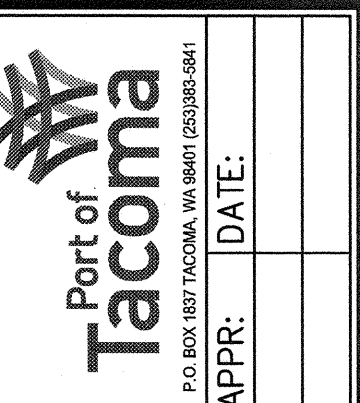
NOTES

1. GEOTEXTILE SHALL BE PETROMAT 4598 BY PROPEX OR APPROVED EQUAL. GEOTEXTILE SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS BENEATH ASPHALT PAVEMENT AND OVER PIPE ZONE BEDDING/CONCRETE.

A
C4.1

GRADING SECTION

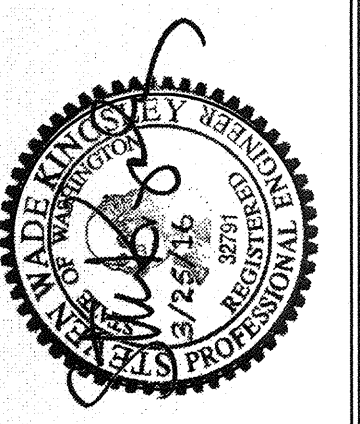
SCALE: HORIZ: 1"=4', VERT: 1"=2'



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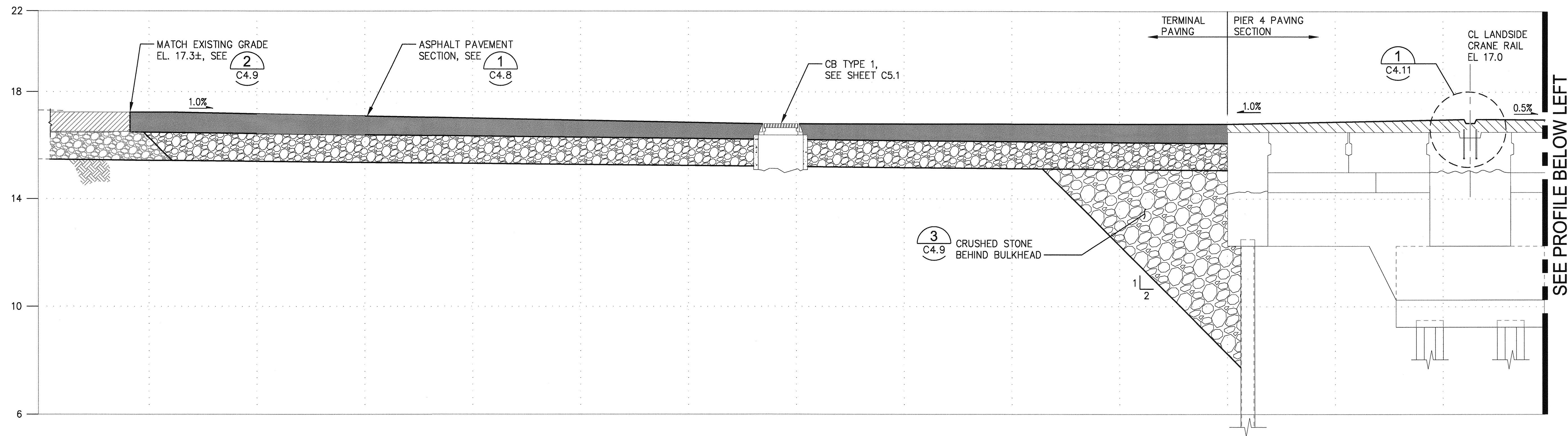
MARK: REVISION: BY: APPR: DATE:



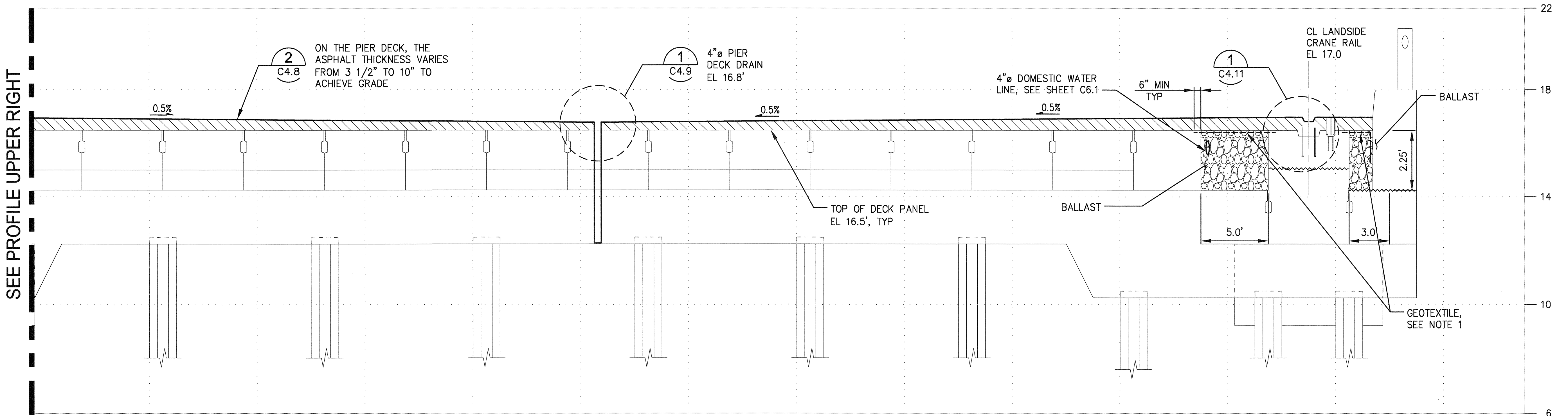
APPROVED:	CHECKED BY:	DATE:
<i>K. Vang</i>		
DIRECTOR ENG. DATE:	PROJ. ENGR DATE:	
3-28-16	kvang Mar 24, 2016	
PRINTED BY:	PORT ADDRESS:	
kvang	ONE SITGUM PLAZA	
DRAWING SCALE:	TACOMA, WA	98401-1837

PIER 4 PHASE 2 RECONFIGURATION		
GRADING AND PAVING SECTIONS - SHEET 1		
TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ Tide	22 1933
PARCEL:	DRAWING SCALE:	AS NOTED

6552	C4.5	SH 80 OF 489
CONT/CONS:	070136	
M. ID:	091251	
PHASE:	BID	



SEE PROFILE BELOW LEFT



SEE PROFILE UPPER RIGHT

B
C4.2

GRADING SECTION
SCALE: HORIZ: 1"=4', VERT: 1"=2'

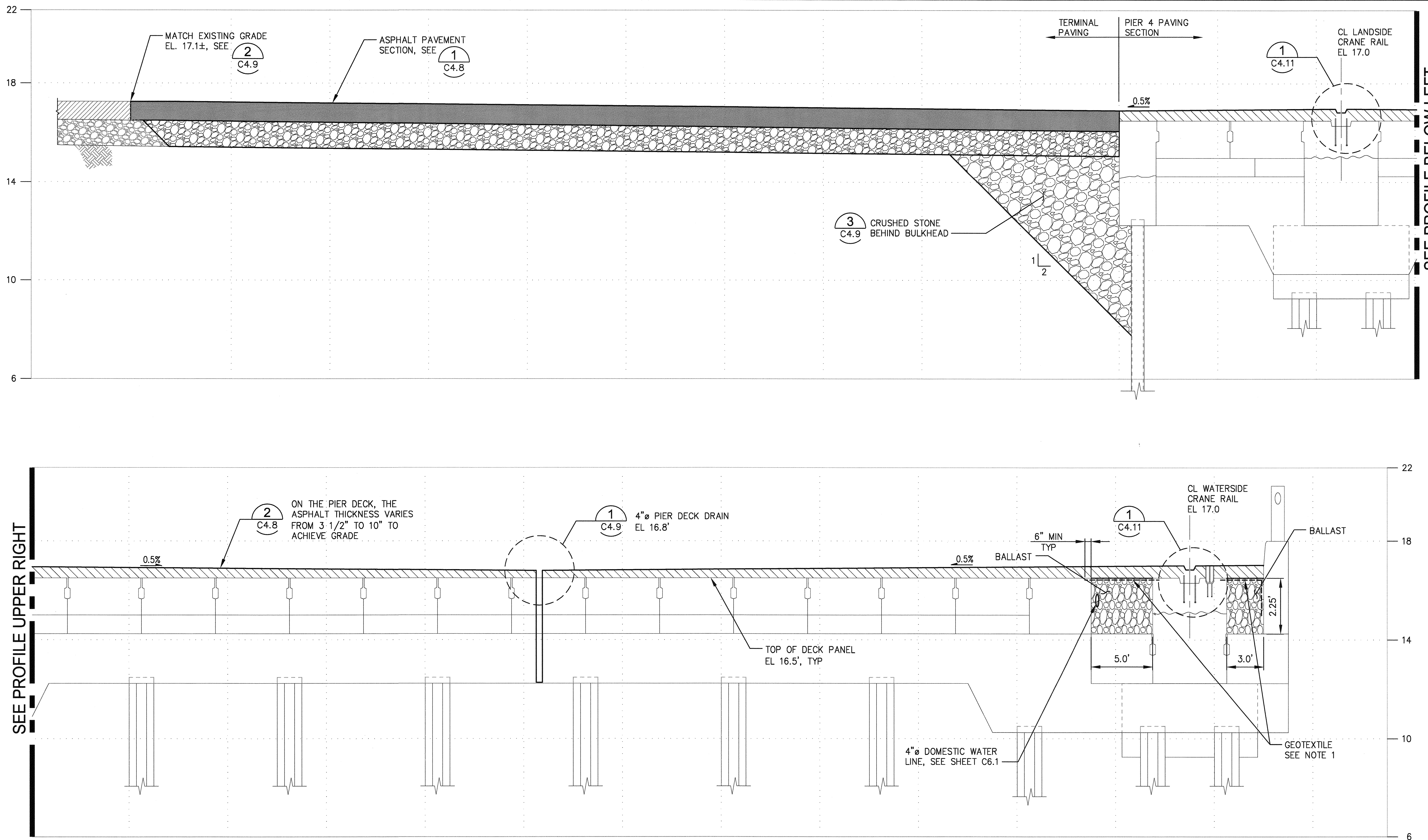
NOTES

- 1. GEOTEXTILE SHALL BE PETROMAT 4598 BY PROPEX OR APPROVED EQUAL. GEOTEXTILE SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS BENEATH ASPHALT PAVEMENT AND OVER PIPE ZONE BEDDING/CONCRETE.

6552 C4.6 SH 61 OF 499	PIER 4 PHASE 2		CHECKED BY	DATE
	RECONFIGURATION		PROJECT ENGR	DATE
GRADING AND PAVING SECTIONS - SHEET 2		DIRECTOR ENG. DATE	3-28-16	
CONT/CONS: 070136	TOWNSHIP: WA83-SF	RANGE: MLLW 19.39' @ Tide 22.19.33	PRINTED BY: kvarg	Mar 24, 2016
M. ID: 091251	DATE-HRZ: 091251	VERT: 091251	PORT ADDRESS: ONE SITCUM PLAZA	
PHASE: BID	PARCEL:	DRAWING SCALE: AS NOTED	TACOMA, WA 98401-1837	
2407 North 31st Street, Suite 100 (253) 396-0150 Fax (253) 396-0162 P.O. BOX 687 TACOMA, WA 98401-0687		MARK:	REVISION:	BY:
		APPR:	DATE:	

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PORT OF TACOMA FILE: M:\2014\114086 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C4.5-C4.6-C4.7 (Grading and Paving Sections - Sheet 1)



NOTES

1. GEOTEXTILE SHALL BE PETROMAT 4598 BY PROPEX OR APPROVED EQUAL. GEOTEXTILE SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS BENEATH ASPHALT PAVEMENT AND OVER PIPE ZONE BEDDING/CONCRETE.

C
C4.2 **GRADING SECTION**
SCALE: HORIZ: 1"=4', VERT: 1"=2'

6552 C4.7 SH 62 OF 499	PIER 4 PHASE 2 RECONFIGURATION		CHECKED BY: <i>Steve Howard</i>	DATE: 3-28-16
	GRADING AND PAVING SECTIONS- SHEET 3		DIRECTOR ENG. DATE: 3/28/16	PROJ. ENGR DATE: 3/28/16
CONT/CONS: 070136	TOWNSHIP: WA83-SF	RANGE: M.L.W. 19.39' @ Tide 22 19.33	SECTION: ONE SITCUM PLAZA	
M. ID: 091251	DAT-HRZ: 091251	VERT: AS NOTED	PRINTED BY: kvang Mar 24, 2016	
PHASE: BID	PARCEL:	TACOMA, WA 98401-1837	PORT ADDRESS: ONE SITCUM PLAZA	

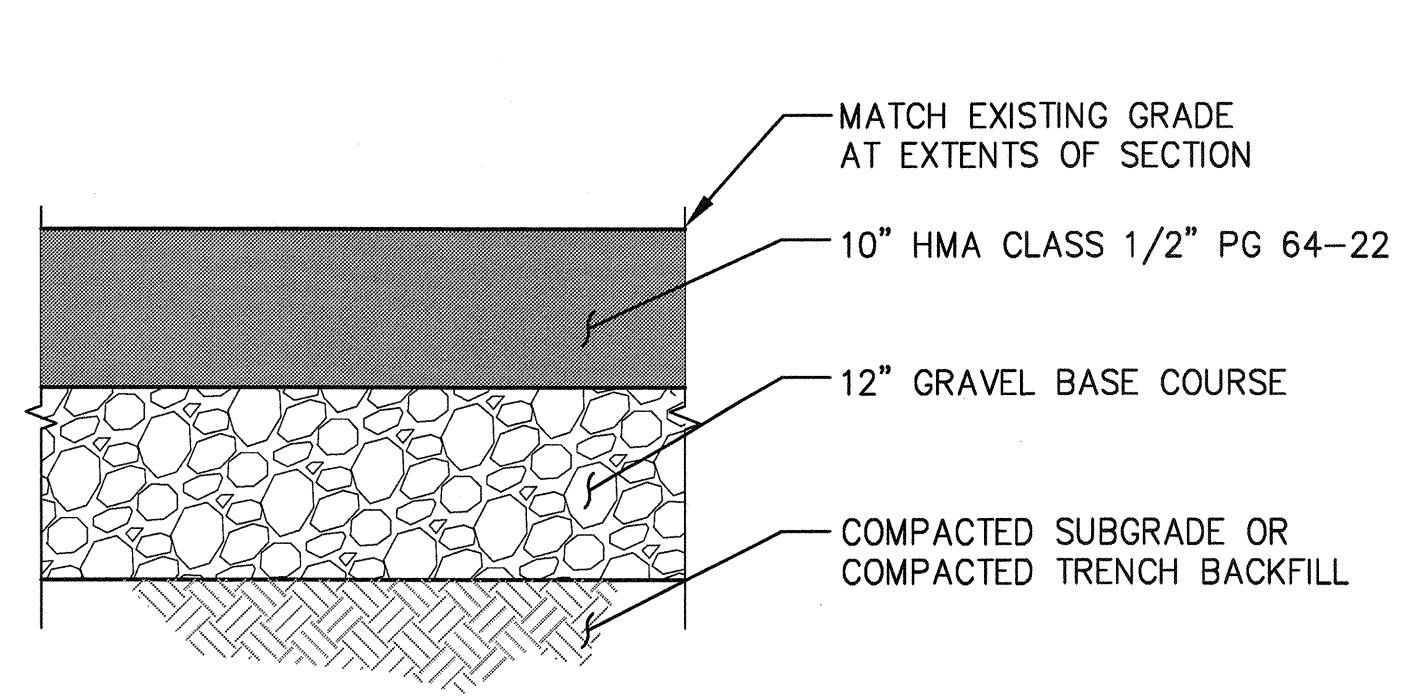
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(253) 896-0150 Fax (253) 896-0162

kpff
2407 North 31st Street, Suite 100
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MADE KINOSLEBY WASHINGTON
3/28/16
REGISTERED PROFESSIONAL
SEAL

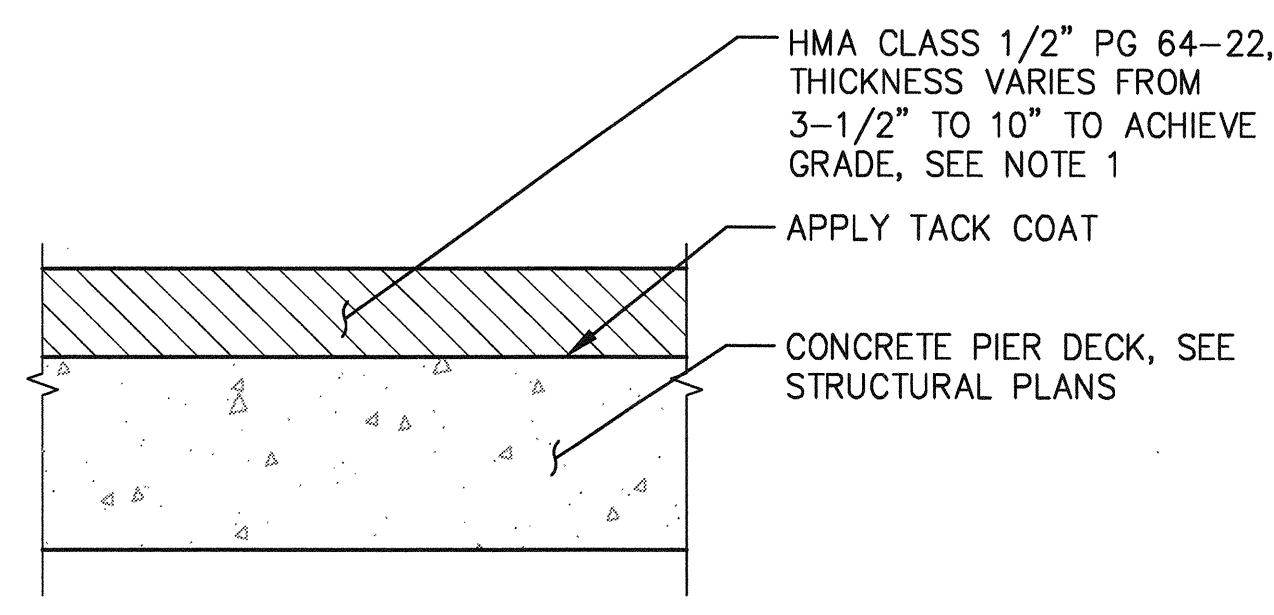
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PORT OF TACOMA FILE: M:\20141114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251091251-C4.8 (Grading and Paving Details - Sheet 1)



1 ASPHALT PAVEMENT SECTION

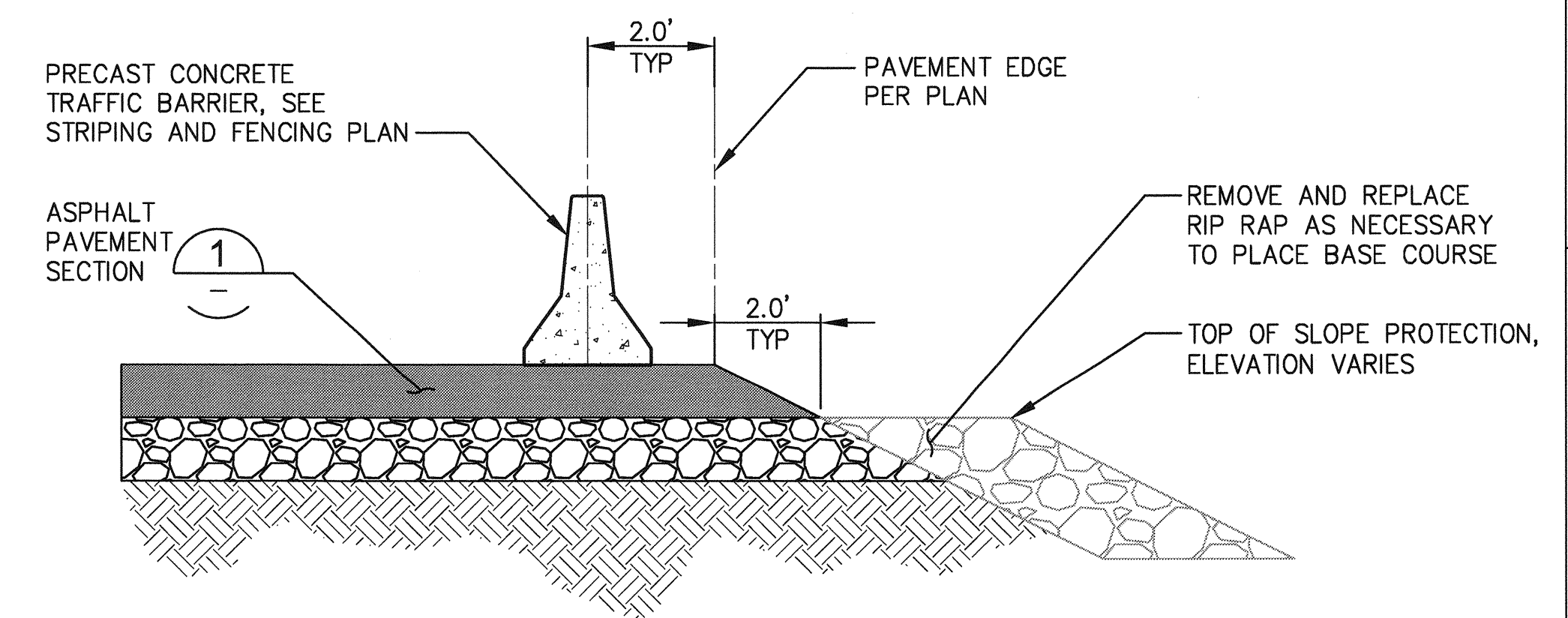
C1.4, C4.1 TO C4.3, C4.5 TO C4.9, C4.17 TO C4.20, C5.9 TO C5.12, C6.8, C6.9, C6.10
NTS



2 PIER ASPHALT PAVEMENT SECTION

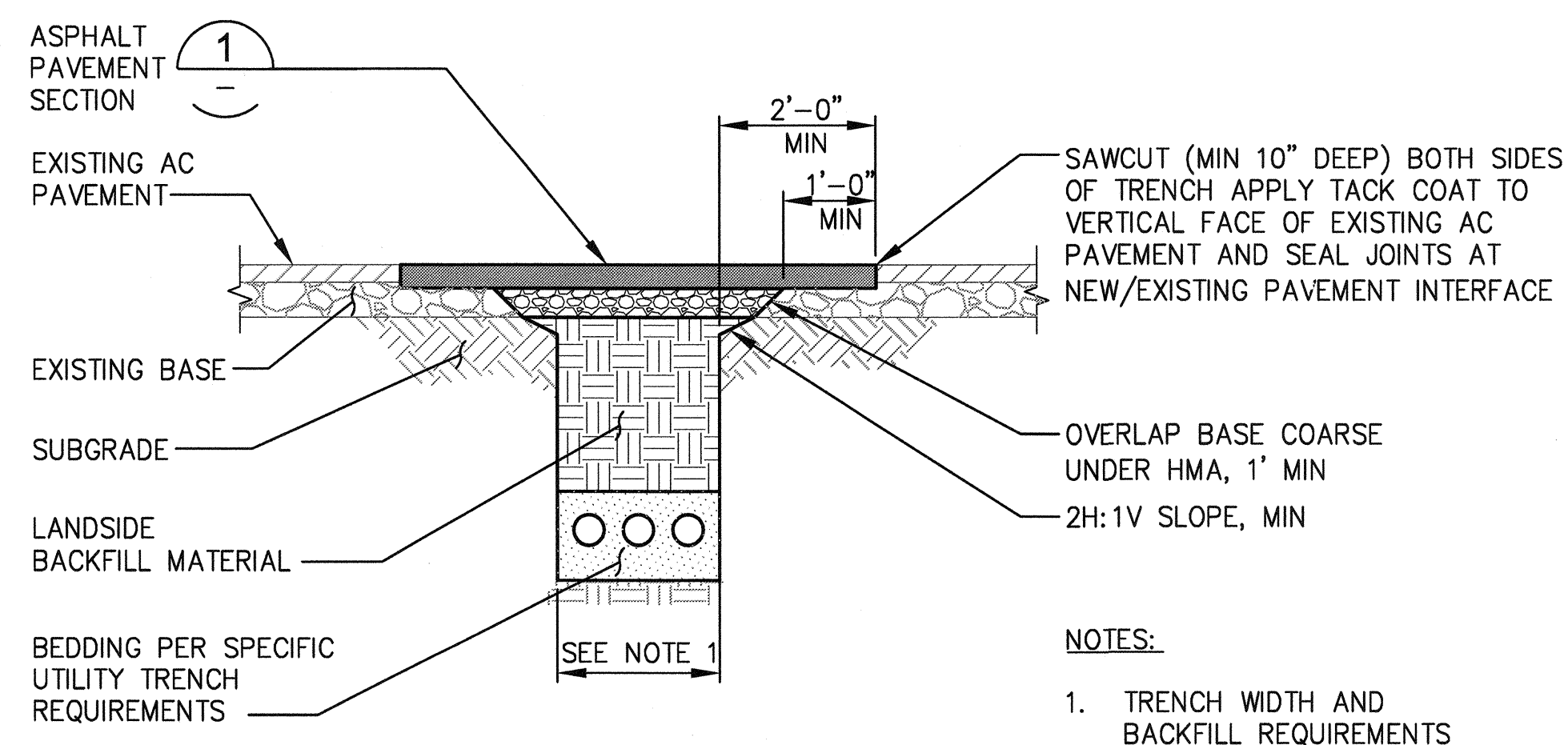
C4.1 TO C4.3, C4.5 TO C4.7, C4.9 & C4.10
NTS

NOTES:
1. AT THE ISOLATION JOINTS BETWEEN PIER 3 AND PIER 4 HMA THICKNESS INCREASES TO AS MUCH AS 10". TYPICALLY ACP THICKNESS VARIES FROM 3-1/2" TO 6", SEE GRADING PLAN C4.1 FOR SPOT ELEVATIONS.



3 TYPICAL PAVEMENT EDGE SECTION

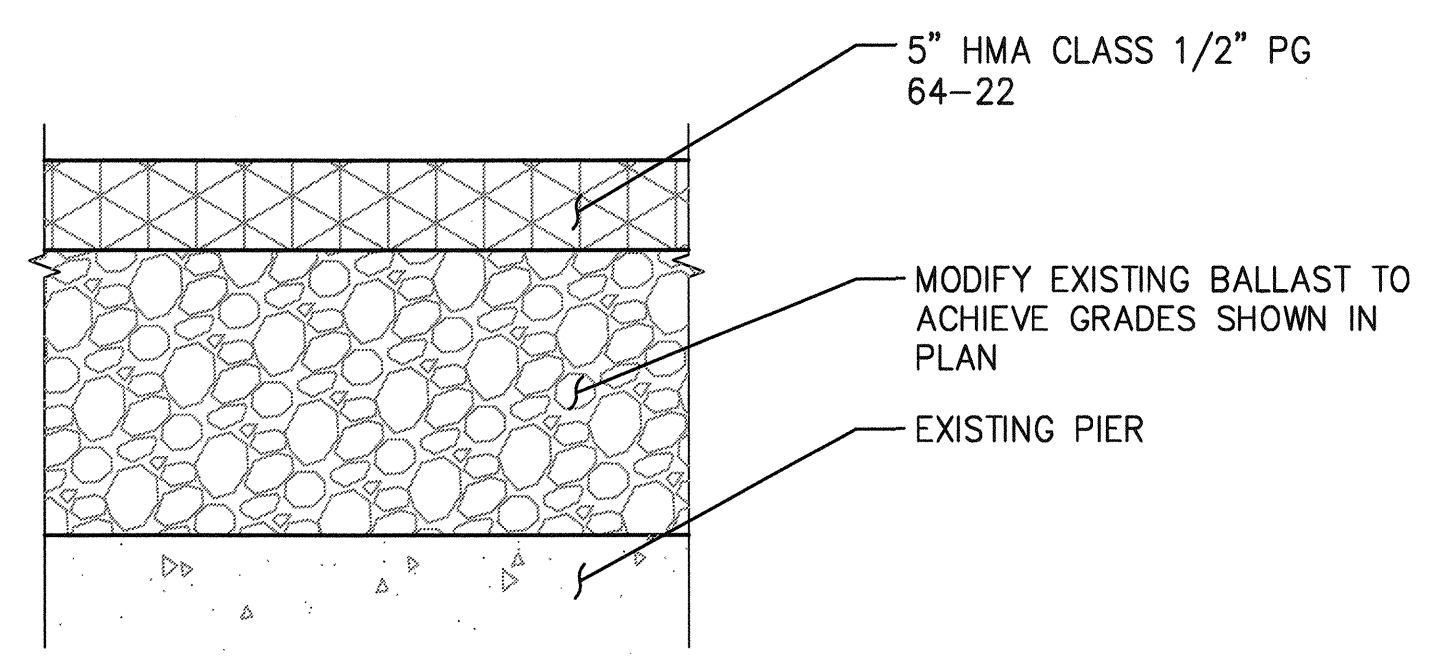
C4.3, C7.3
NTS



4 UTILITY TRENCH PAVEMENT RESTORATION

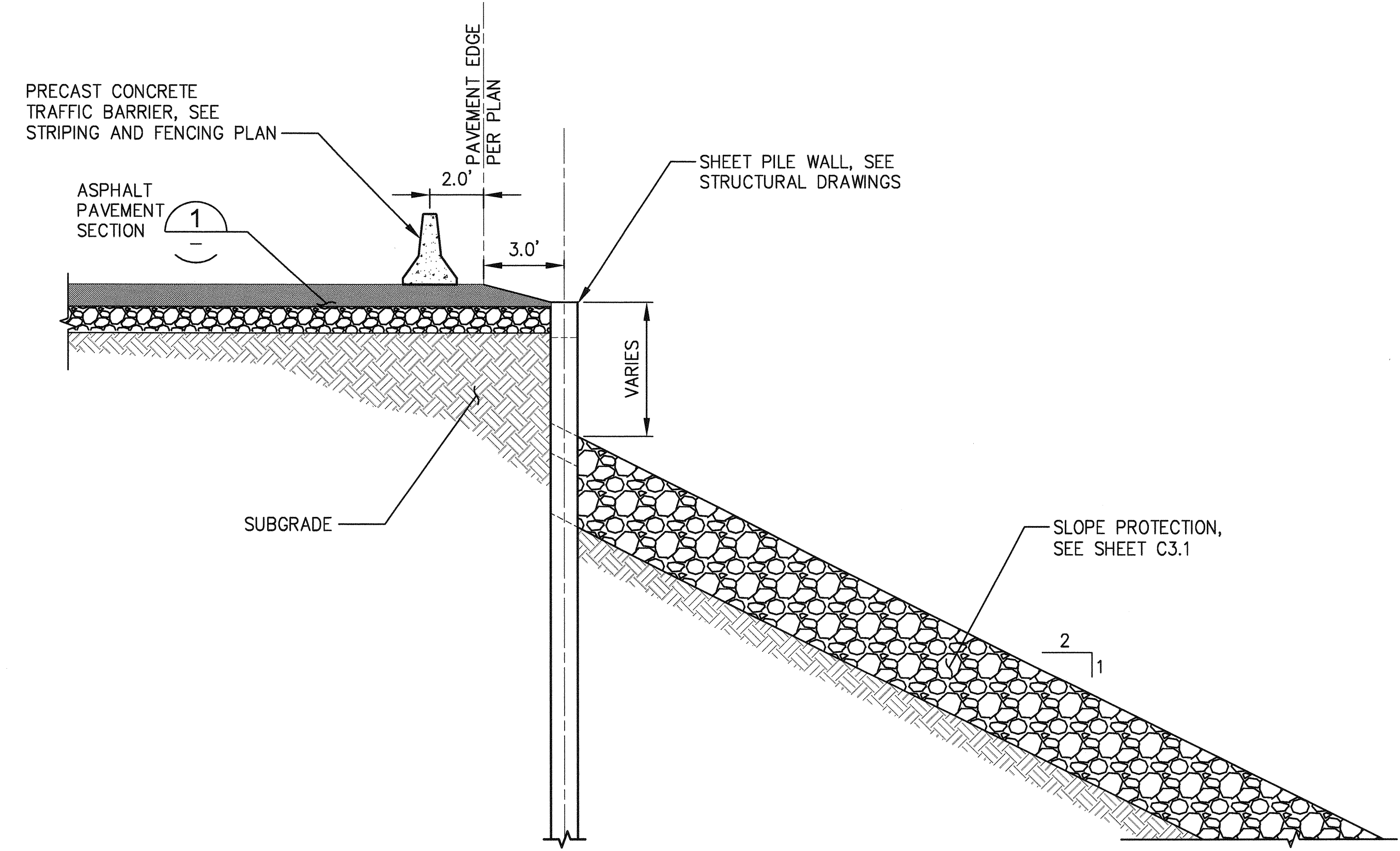
C4.1, C4.2, C4.3, C4.4
NTS

NOTES:
1. TRENCH WIDTH AND BACKFILL REQUIREMENTS PER DRAINAGE PLANS, UTILITY PLANS, AND ELECTRICAL DRAWINGS.



5 PIER ASPHALT OVER BALLAST PAVEMENT SECTION

C4.1
NTS



6 SECTION AT SHEETPILE RETAINING WALL

C4.3, C7.3
NTS

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3-28-16

CHECKED BY: _____ DATE: _____

DIRECTOR ENGR. DATE: 3/25/16

PROJ. ENGR DATE: _____

PRINTED BY: kvang Mar 24, 2016

PORT ADDRESS: ONE SITGUM PLAZA

TACOMA, WA 98401-1837

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3-28-16

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DIRECTOR ENGR. DATE: 3/25/16

PROJ. ENGR DATE: _____

PRINTED BY: kvang Mar 24, 2016

PORT ADDRESS: ONE SITGUM PLAZA

TACOMA, WA 98401-1837

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PORT ADDRESS: ONE SITGUM PLAZA

TACOMA, WA 98401-1837

6552
C4.8
SH 63 OF 499

PIER 4 PHASE 2
RECONFIGURATION
GRADING AND PAVING DETAILS - SHEET 1

CONTRACTOR: 070136

SECTION: _____

M. ID: 091251

RANGE: M.L.W. 19.39' @ Tide 22 1933

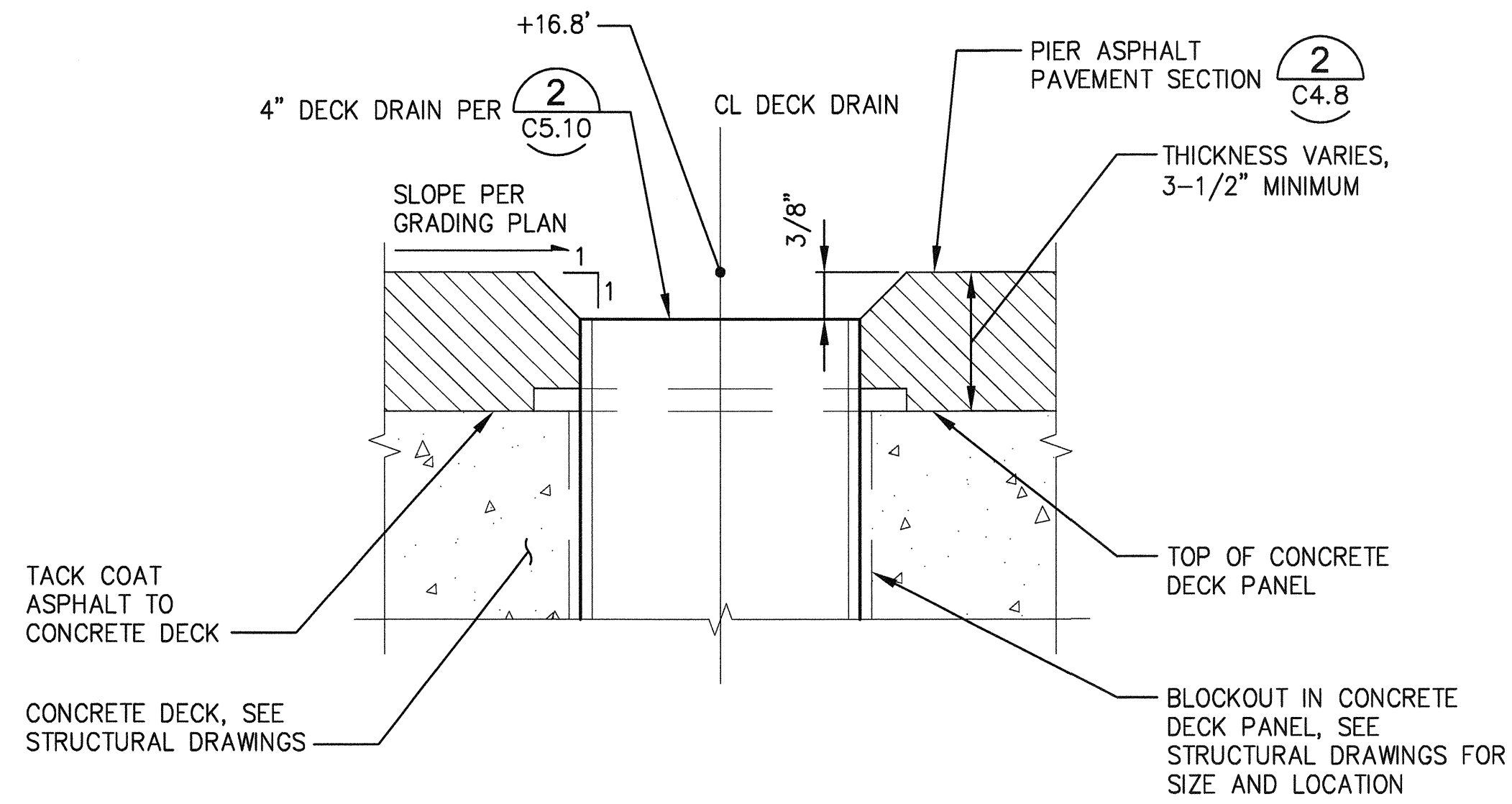
PHASE: BID

VERT: WA83-SF

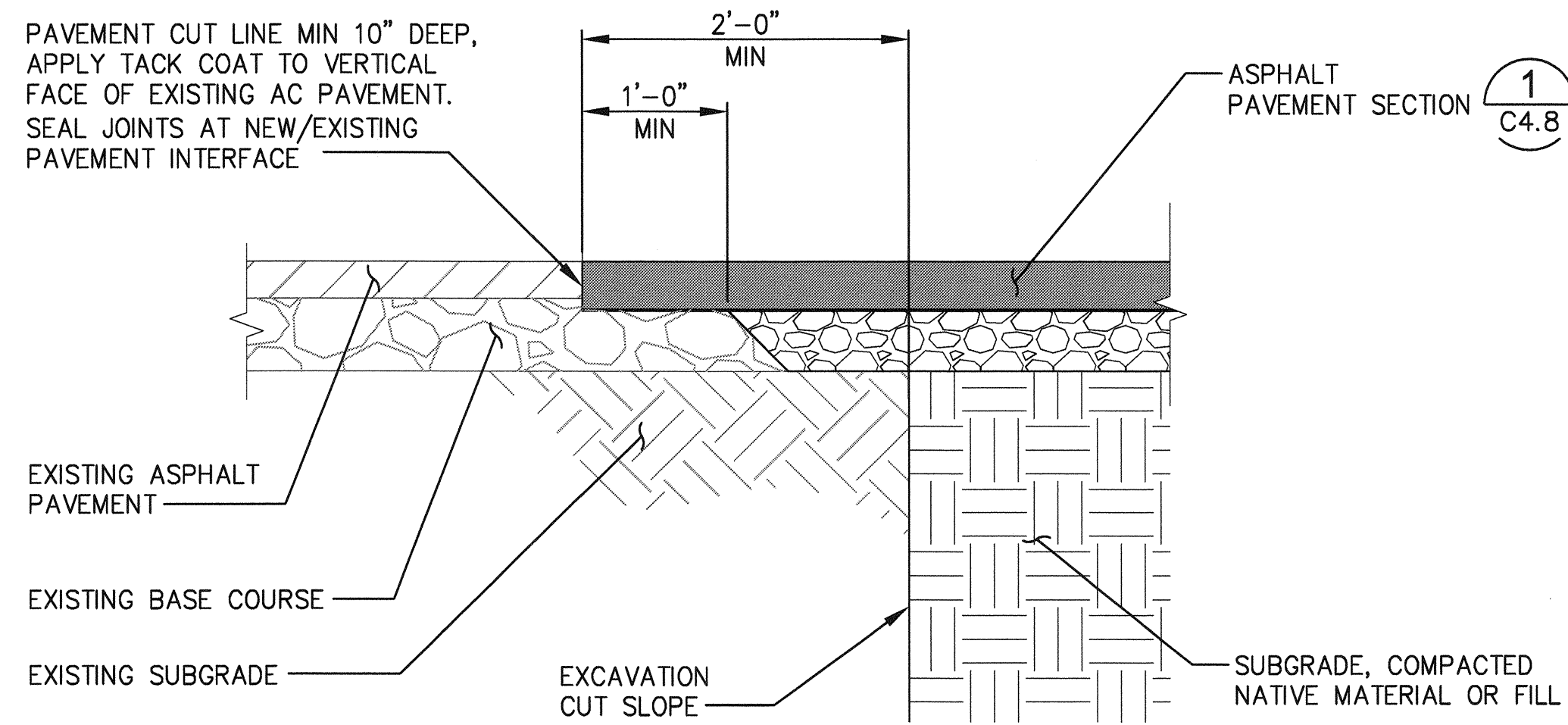
PARCEL: _____

DRAWING SCALE: AS NOTED

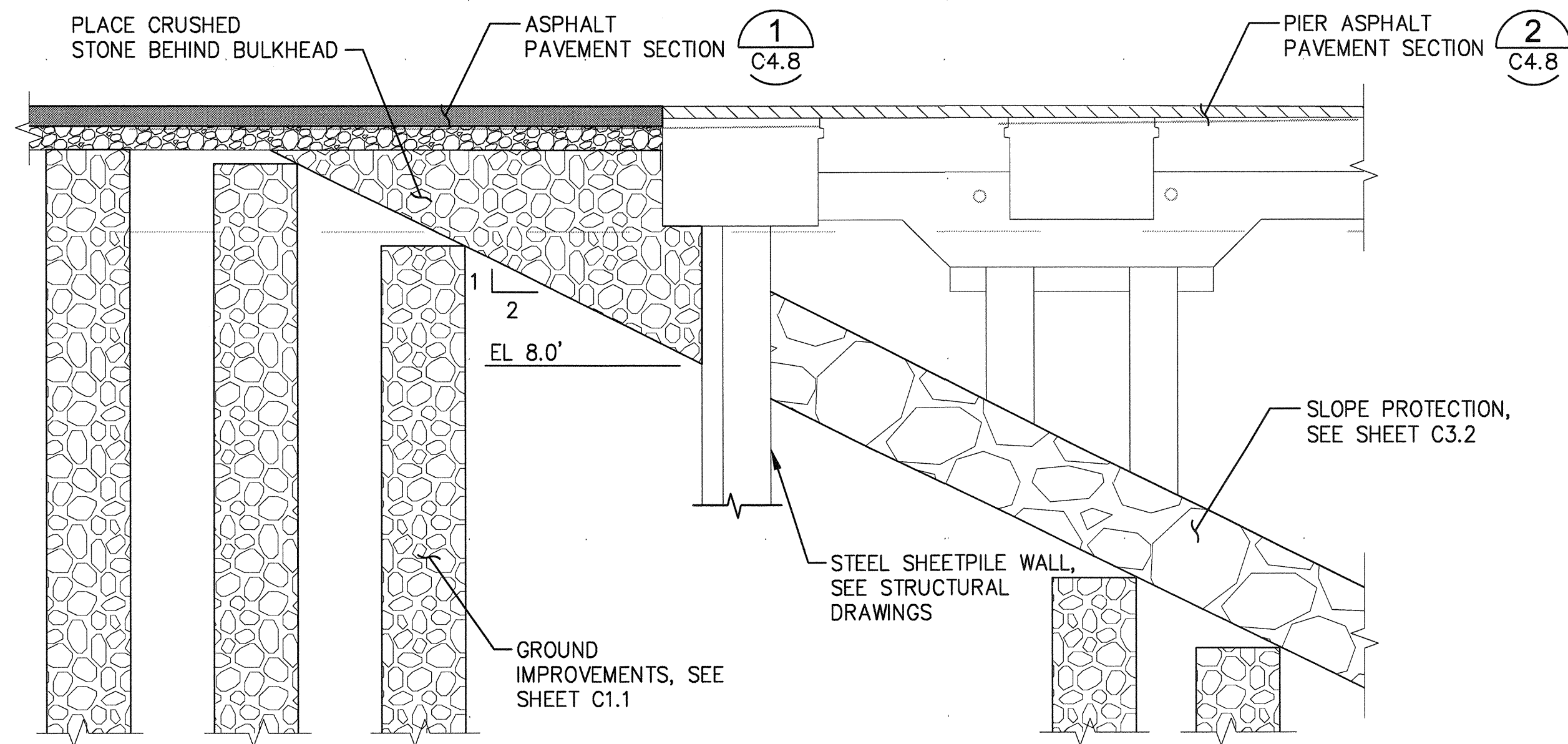
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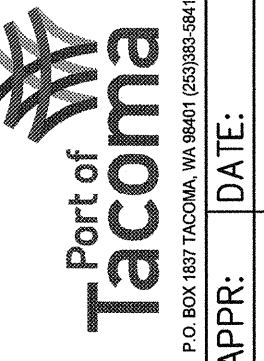
1
ASPHALT PAVING AT DECK DRAIN
 C4.1 TO C4.7, C5.10 NTS



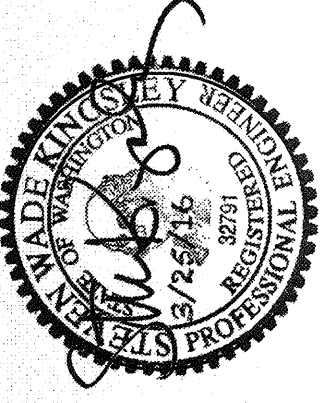
2
MATCH EXISTING PAVEMENT DETAIL
 C4.6, C4.7, C4.18, C4.19 NTS



3
CRUSHED STONE BEHIND BULKHEAD
 C1.4, C3.2, C3.3, C4.6, C4.7 SCALE: 1"=5'



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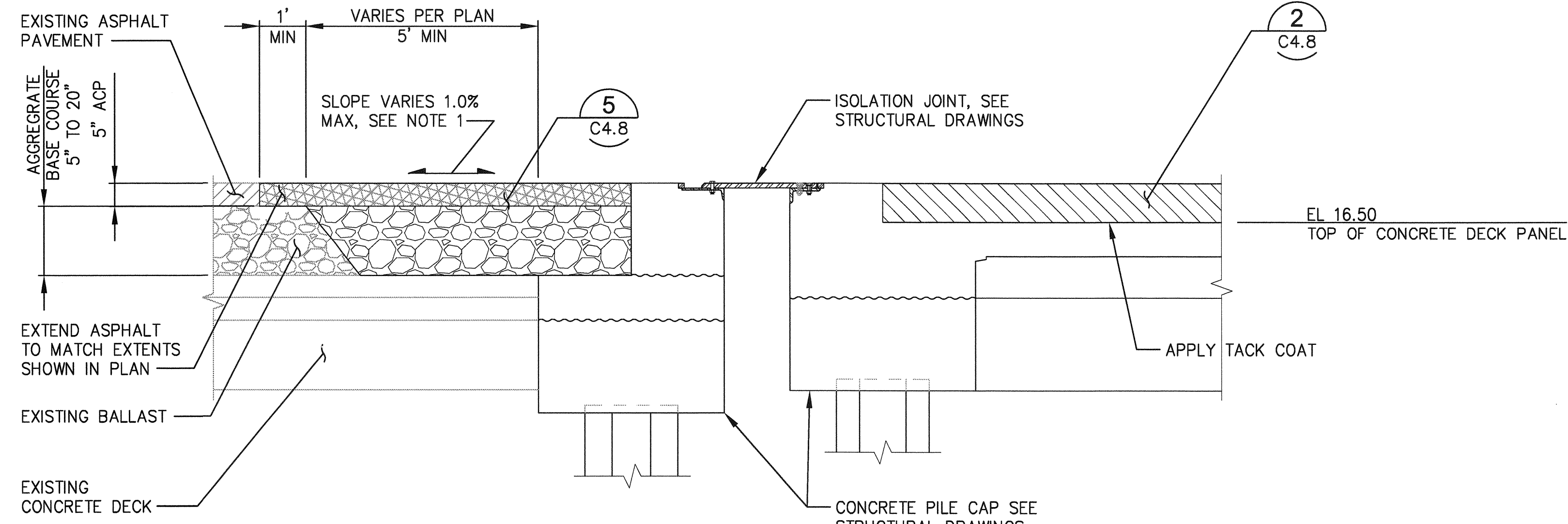


APPROVED:	CHECKED BY:	DATE:
<i>Michael J. Kpff</i>		
DIRECTOR ENGR. DATE:	PROJ. ENGR. DATE:	
3-28-16	kvang	Mar 24, 2016
PRINTED BY:	PORT ADDRESS:	
ONE SITGUM PLAZA	TACOMA, WA	98401-1837

PIER 4 PHASE 2 RECONFIGURATION		
GRADING AND PAVING DETAILS - SHEET 2		
TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ Tide 22 1933	
PARCEL:	DRAWING SCALE:	AS NOTED

6552	C4.9	SH 64 OF 489
CON/CONS:	070136	
M. ID:	091251	
PHASE:	BID	

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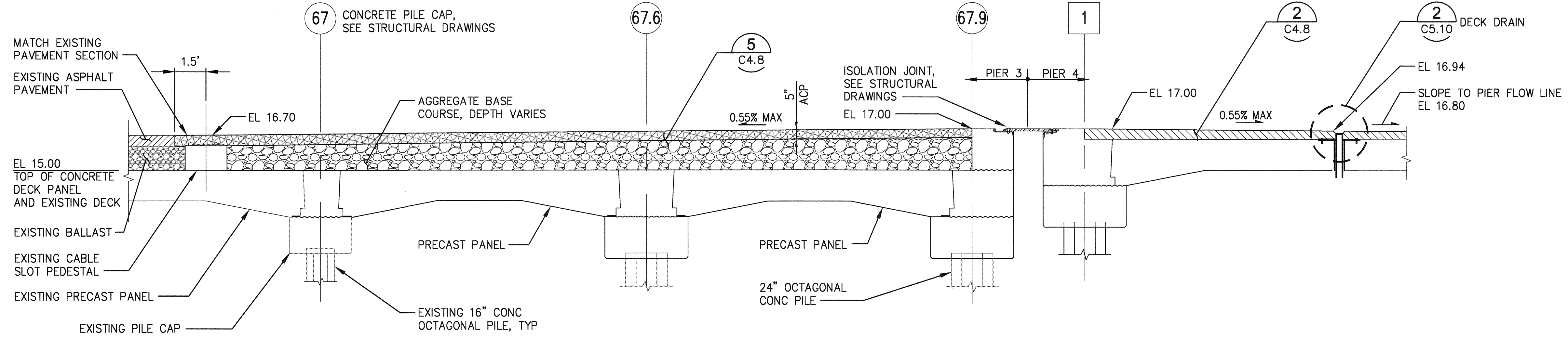
NOTES:

- 1. CONTRACTOR TO FIELD VERIFY SLOPE REQUIRED TO CONNECT TO EXISTING ASPHALT. IF ANTICIPATED SLOPE TO EXCEED SLOPES SHOWN IN PLAN AND SECTION, CONTRACTOR SHALL NOTIFY ENGINEER.

A
C4.1

ASPHALT SECTION AT ISOLATION JOINT

SCALE: NTS



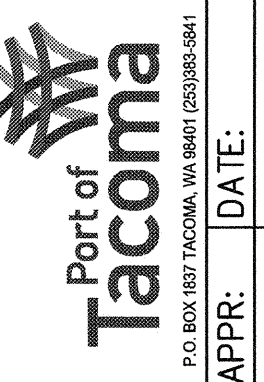
NOTES:

- 1. CONTRACTOR TO FIELD VERIFY SLOPE REQUIRED TO CONNECT TO EXISTING ASPHALT. IF ANTICIPATED SLOPE TO EXCEED SLOPES SHOWN IN PLAN AND SECTION, CONTRACTOR SHALL NOTIFY ENGINEER.

B
C4.1

ASPHALT SECTION AT PIER 3/4 TRANSITION

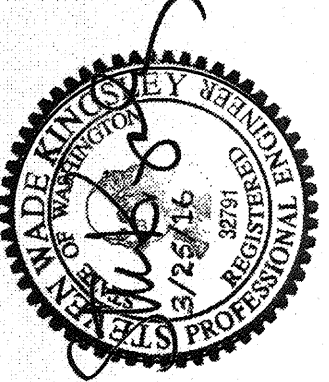
SCALE: NTS



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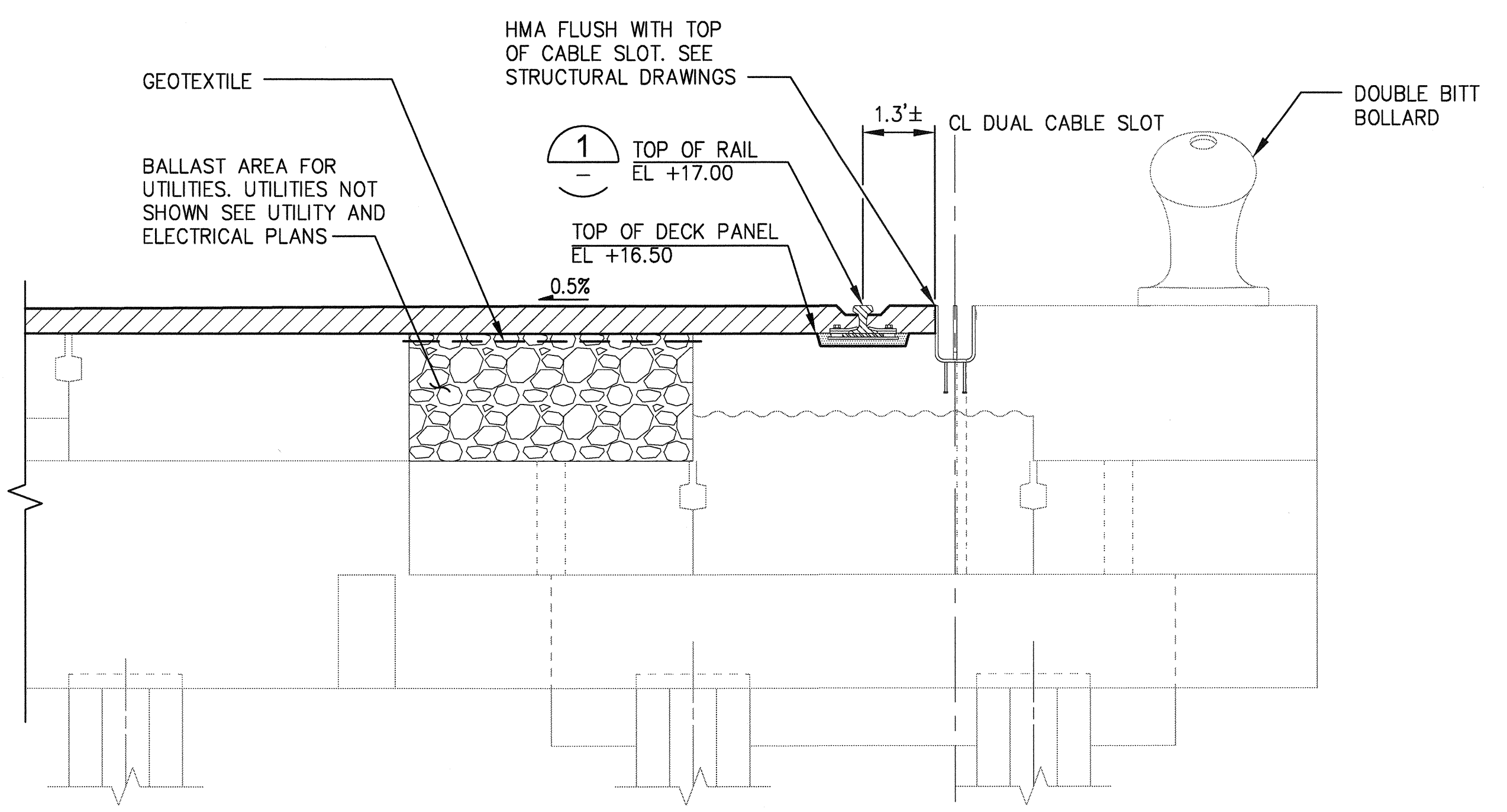
APPROVED: <i>K. V. Kwan</i>	CHECKED BY: _____	DATE: _____
DIRECTOR ENG. DATE: 3-28-16	PROJ. ENGR: _____	DATE: _____
PRINTED BY: kvang	Mar 24, 2016	
PORT ADDRESS: ONE SITCUM PLAZA	TACOMA, WA 98401-1837	

PIER 4 PHASE 2 RECONFIGURATION GRADING AND PAVING DETAILS - SHEET 3		
TOWNSHIP: _____	RANGE: _____	SECTION: _____
DATE-HRZ: WA83-SF	VERT: M.L.W. 19.39' @ Tide 22 19.33	
PARCEL: _____	DRAWING SCALE: AS NOTED	

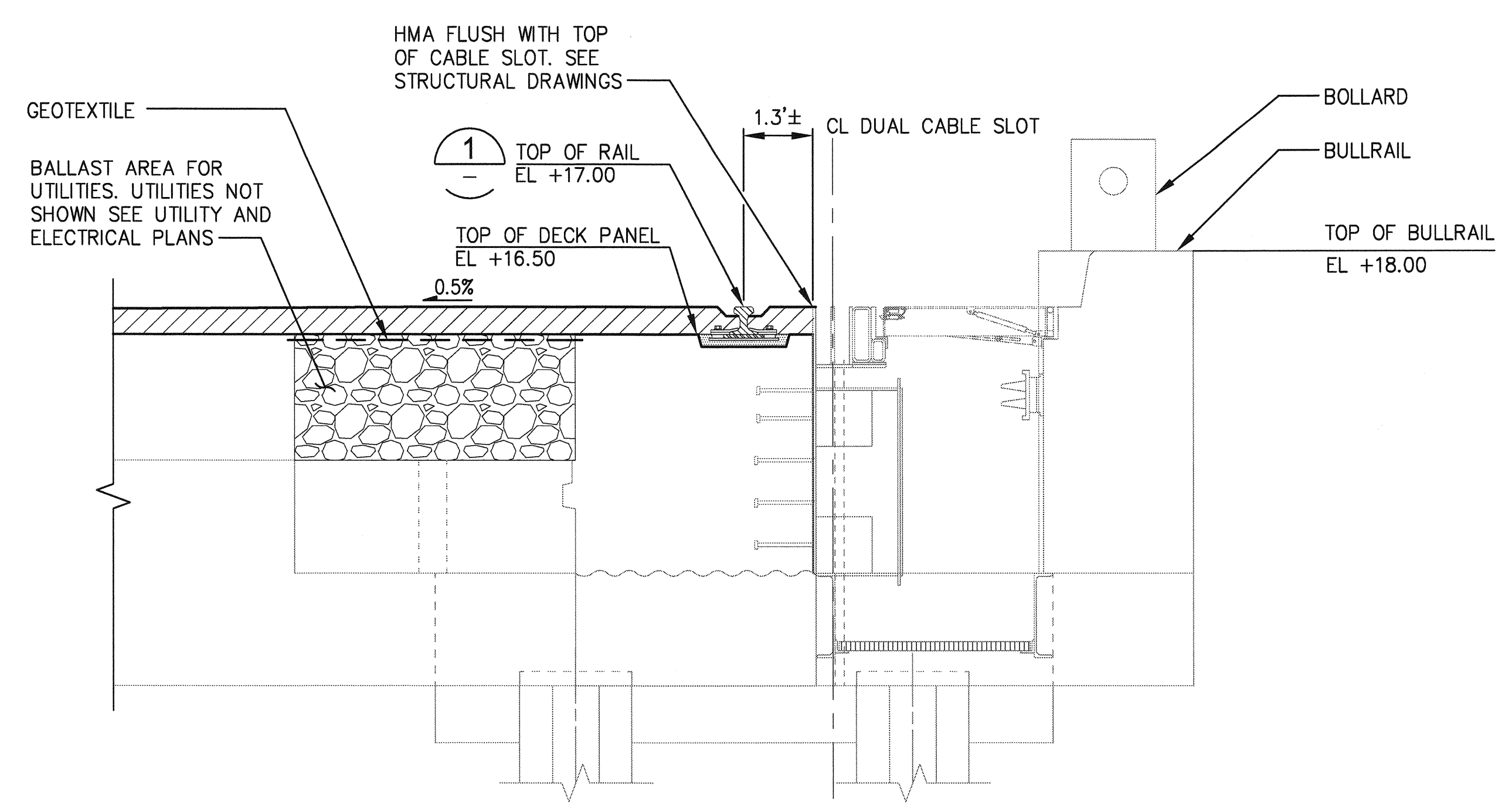
6552	C4.10
SH 65 OF 499	
CONT/CONS: 070136	
M. ID: 091251	
PHASE: BID	

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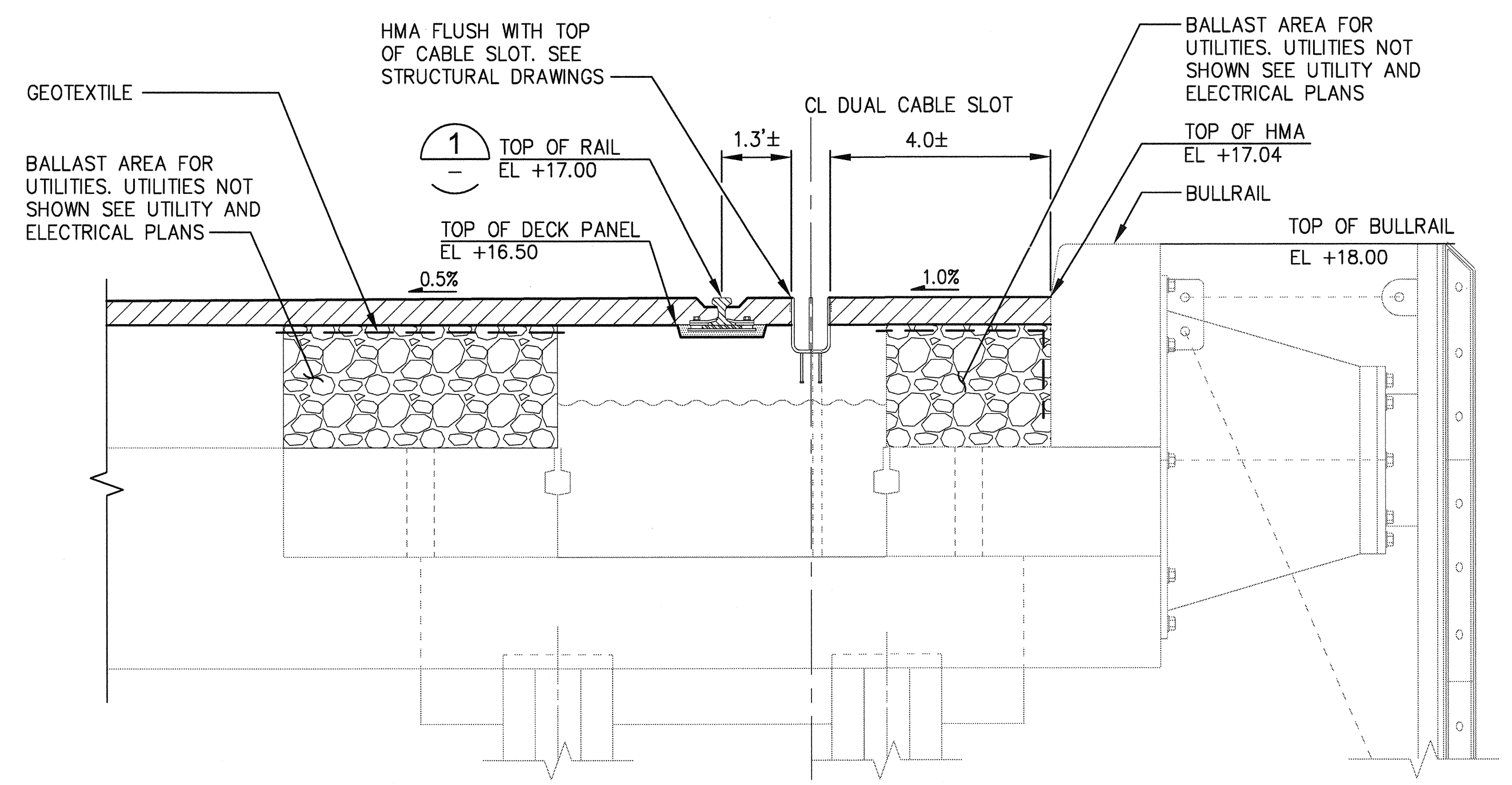
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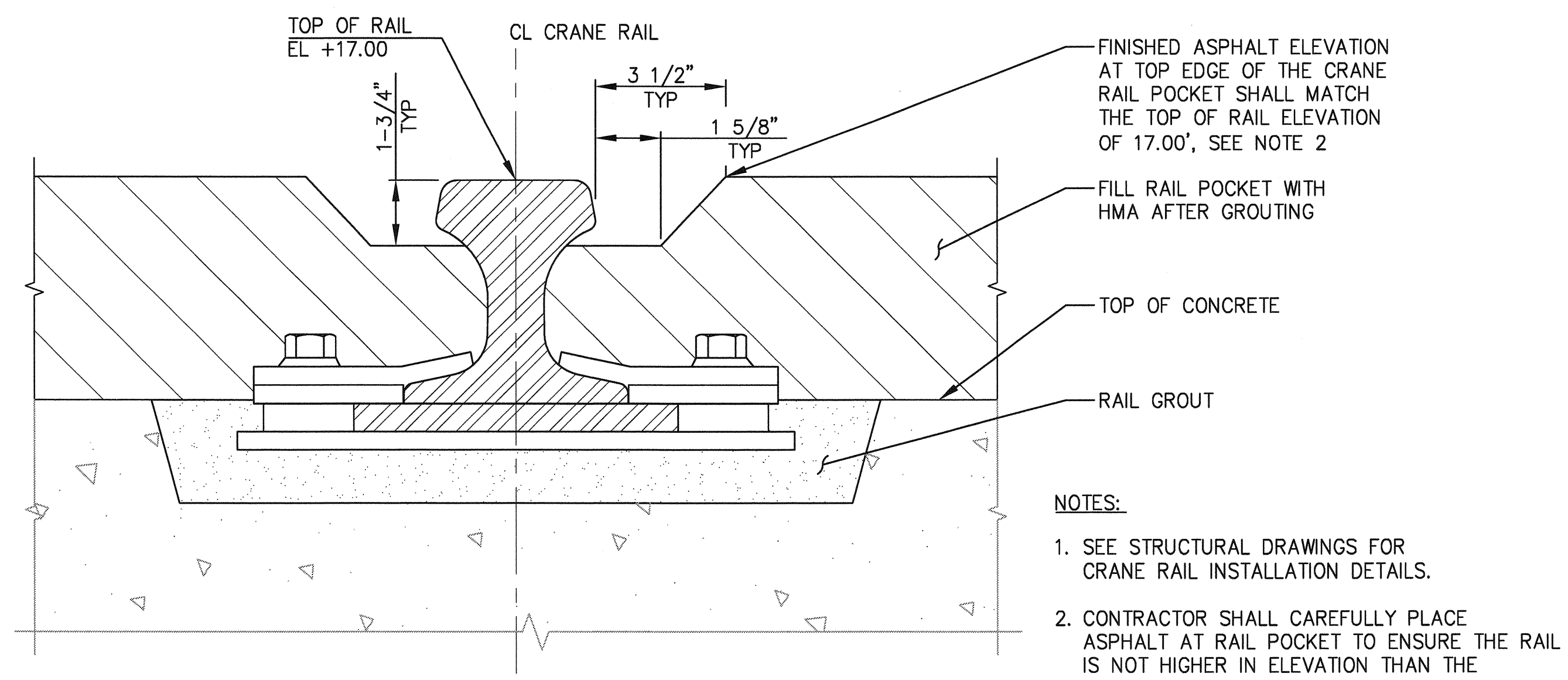
A
C4.1
PAVEMENT SECTION AT BOLLARDS
NTS



C
C4.1
PAVEMENT SECTION AT CRANE POWER VAULT
NTS



B
C4.1
PAVEMENT SECTION AT BULLRAIL
NTS



1
C4.5, C4.6, C4.7
PAVEMENT AT CRANE RAIL
NTS

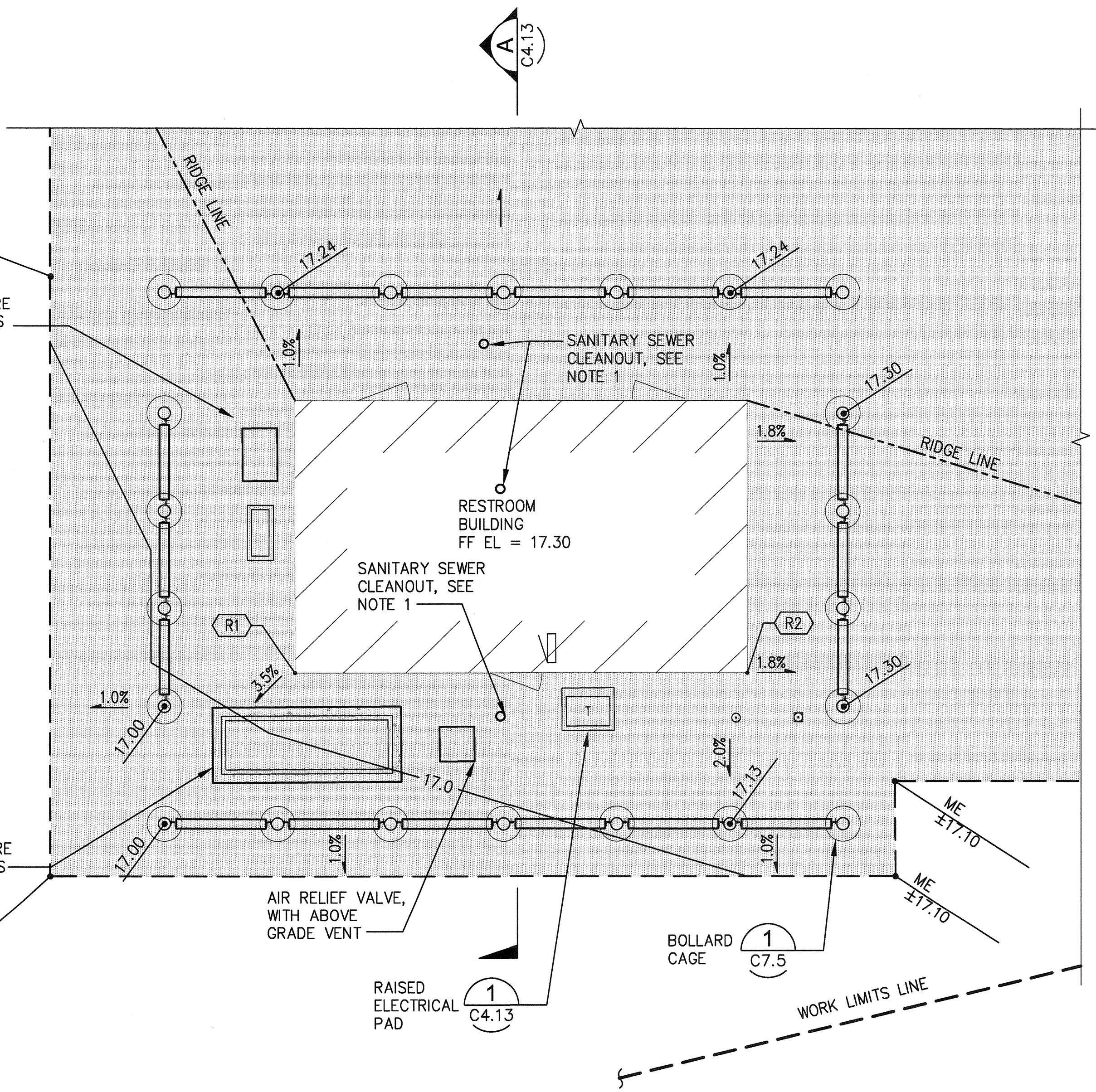
- NOTES:**
- SEE STRUCTURAL DRAWINGS FOR CRANE RAIL INSTALLATION DETAILS.
 - CONTRACTOR SHALL CAREFULLY PLACE ASPHALT AT RAIL POCKET TO ENSURE THE RAIL IS NOT HIGHER IN ELEVATION THAN THE ADJACENT ASPHALT.

 Port of Tacoma P.O. BOX 187 TACOMA, WA 98401-0187	2007 North 31st Street, Suite 100 (253) 396-0150 Fax (253) 396-0152	kppff KENNETH P. PETERSON PROFESSIONAL ENGINEER No. 12516 3/25/16	APPROVED: <i>[Signature]</i> 3-28-16 DIRECTOR PRINTED BY: kvong PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	CHECKED BY: <i>[Signature]</i> DATE:	PROJ. ENGR: <i>[Signature]</i> DATE:	
	PIER 4 PHASE 2 RECONFIGURATION GRADING AND PAVING DETAILS - SHEET 4		TOWNSHIP: 070136 DAT-HRZ: WA83-SF PARCEL: 091251	RANGE: M.L.W. 19.39' @ Tide 22 1933 VERT: M.L.W. 19.39' @ Tide 22 1933 DRAWING SCALE: AS NOTED	MARK: REVISION:	BY: DATE:
6552 C4.11 SH 66 OF 499	CONT/CONS: 070136 M. ID: 091251 PHASE: BID		THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION			

PORT OF TACOMA FILE: M:\2014\14096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C4.12 (RR Bldg Partial Plan)

ME
E17.15
ABOVE GROUND
HEATED ENCLOSURE
SEE UTILITY PLANS

ME
H 16.7
ABOVE GROUND
HEATED ENCLOSURE
SEE UTILITY PLANS



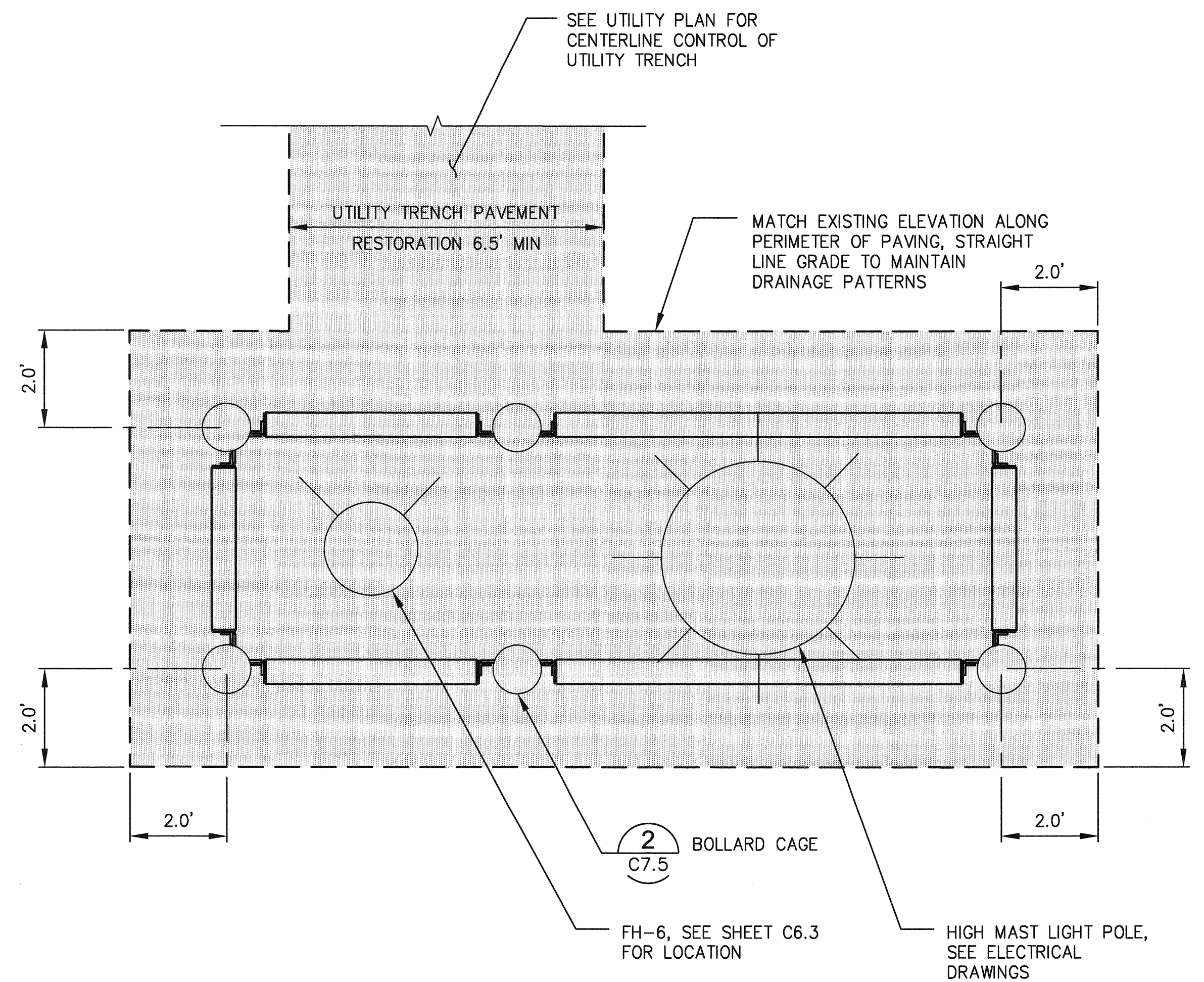
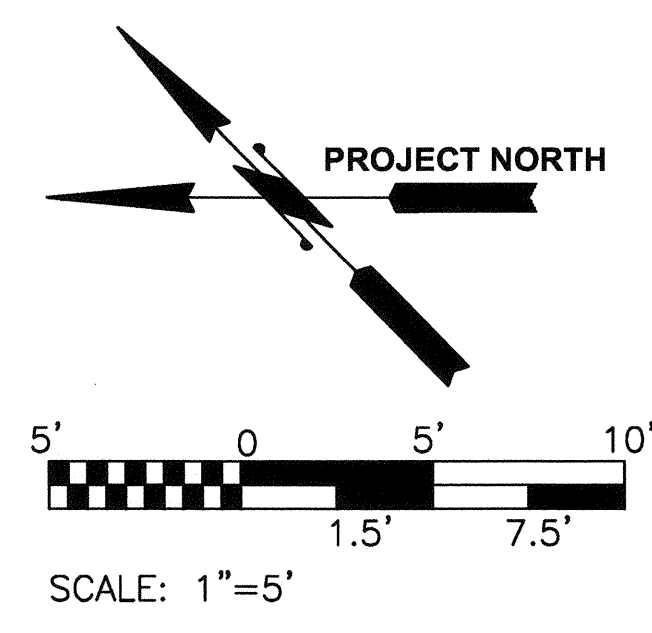
1 ENLARGED RESTROOM BLDG GRADING PLAN

C4.1 SCALE: 1" = 5'

- NOTES:
1. SEE UTILITY PLANS AND PROFILES FOR LOCATION AND SIZING OF UTILITY STRUCTURES.

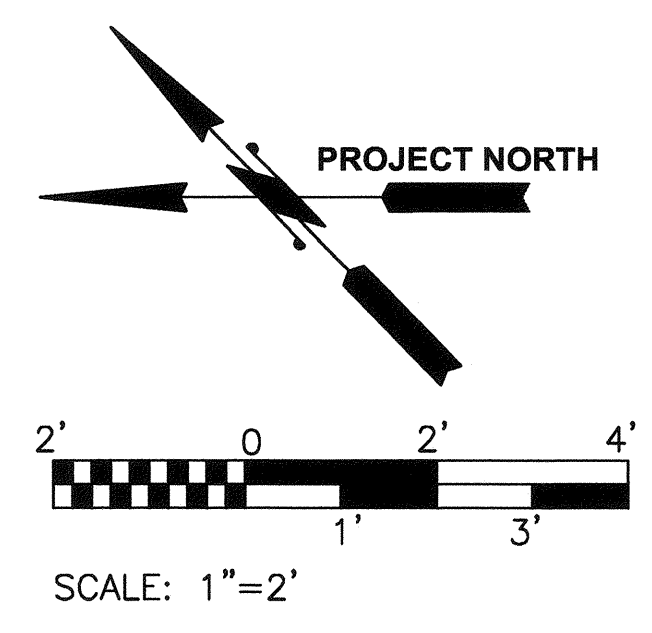
RESTROOM BUILDING HORIZONTAL CONTROL

POINT ID	NORTHING	EASTING
R1	713047.89	1166508.02
R2	713029.80	1166526.69



2 PAVING AT BOLLARD CAGE

C4.1 SCALE: 1" = 2'



6552
C4.12
SH 67 OF 499

CONTR/CONS: 070136
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2
RECONFIGURATION
SITE ENLARGED GRADING PLANS

RANGE: MLLW 19.39' @ Tide 22.1933
DAT-HRZ: WA83-SF
PARCEL: AS NOTED

APPROVED: *[Signature]*
3-28-16
DIRECTOR ENG. DATE: kvang Mar 24, 2016
PRINTED BY: kvang
PORT ADDRESS: ONE SITCLIM PLAZA
TACOMA, WA 98401-1837

CHECKED BY: DATE
PROJ. ENGR: DATE
TACOMA, WA 98401-1837

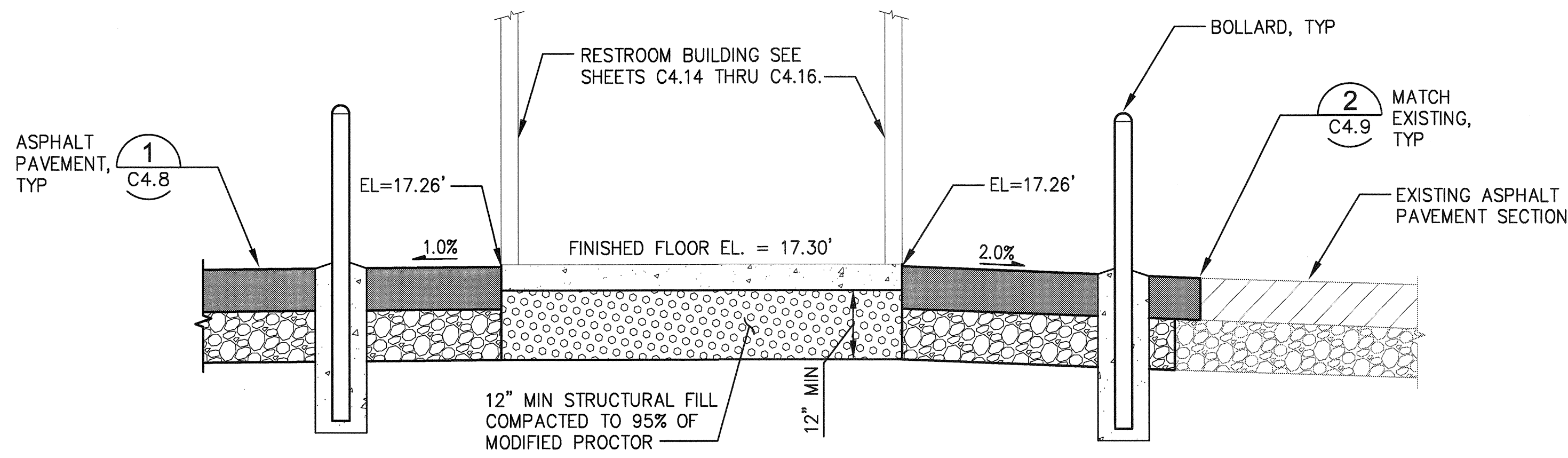
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Tacoma, WA 98401-1837
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Tel: (253) 396-4130 Fax: (253) 396-0162

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Tel: (253) 396-4130 Fax: (253) 396-0162

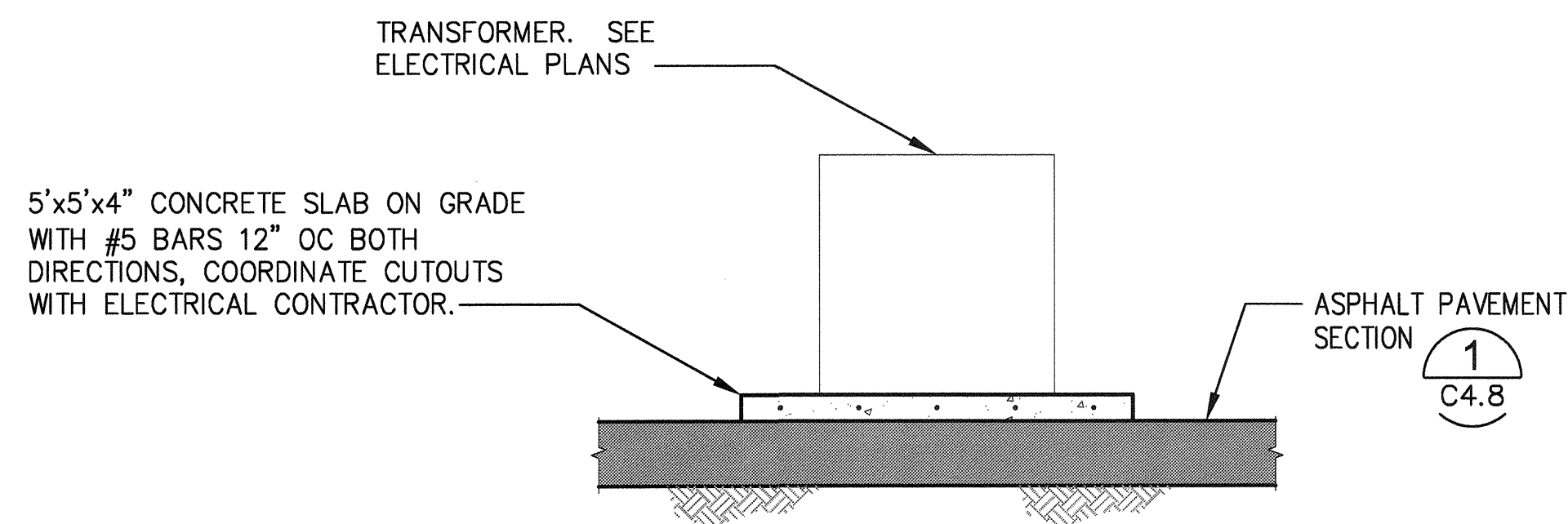
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A
C4.12 **RESTROOM BUILDING GRADING SECTION**
SCALE: HORIZ: 1"=4', VERT: 1"=2'

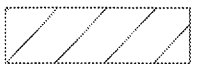


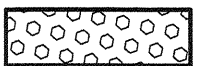
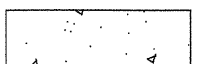


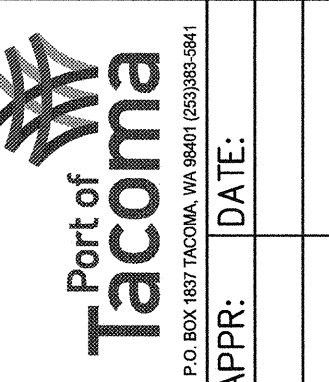
1
C4.12 **RAISED ELECTRICAL PAD**
NTS

NOTES

1. THE RESTROOM BUILDING IS A PREMANUFACTURED CONCRETE STRUCTURE THAT WILL BE PROCURED SEPARATELY BY THE PORT. PROCUREMENT AND PLACEMENT OF THE BUILDING ARE NOT INCLUDED IN THE CONTRACT. THE DRAWINGS INCLUDED ON SHEETS C4.15 AND C4.16 ARE FOR REFERENCE ONLY AND ARE ONLY INTENDED TO PROVIDE INFORMATION REGARDING THE BUILDING THAT WILL BE INSTALLED.
2. CONTRACTOR IS RESPONSIBLE FOR ALL SUB-BASE PREPARATION AND UTILITY WORK REQUIRED TO SET RESTROOM BUILDING. THE MANUFACTURER IS RESPONSIBLE FOR SETTING THE BUILDING AND CONNECTION TO THE CONTRACTOR PROVIDED UTILITY STUBS. SEE DRAWING C6.15 FOR REQUIRED UTILITY WORK.
3. SPECIAL WORK RESTRICTIONS APPLY TO WORK ASSOCIATED WITH PREPARATION OF SUBGRADE AND INSTALLATION OF UTILITIES FOR THE RESTROOM BUILDING. SEE SPECIFICATIONS SECTIONS 01 14 00 - WORK RESTRICTIONS.
4. THIS FACTORY ASSEMBLED BUILDING AS CONSTRUCTED PROVIDES A RIGID BOX TYPE STRUCTURAL SYSTEM. VERTICAL LOADS ARE TRANSFERRED PRIMARILY THROUGH BEARING WALLS TO A PREPARED GRANULAR SUB-BASE WHICH DISSIPATES VERTICAL LOADS UNIFORMLY TO THE NATIVE SUBGRADE AND ALSO ACTS AS A FROST BARRIER.
5. A FULL DEPTH FOUNDATION WALL AT THE BUILDING PERIMETER, TYPICAL FOR OTHER TYPES OF BUILDING CONSTRUCTION, IS NOT REQUIRED FOR THIS BUILDING.

LEGEND

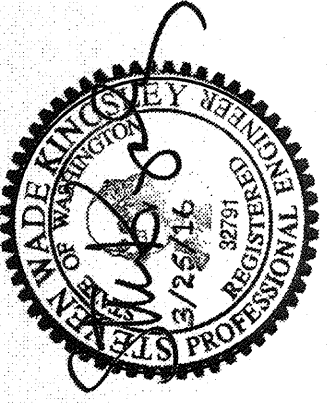
-  EXISTING ASPHALT PAVEMENT
-  AGGREGATE BASE COURSE
-  ASPHALT PAVEMENT
-  COMPACTED SUBBASE
-  CONCRETE



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Tacoma, WA 98401
(253) 396-6100 Fax (253) 396-0162

kpff

MARK: REVISION: BY: APPR: DATE:



APPROVED: *Kyoung Mar*
3-28-16

DIRECTOR ENG. DATE: kyoung Mar 24, 2016
PRINTED BY: kyoung Mar 24, 2016
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

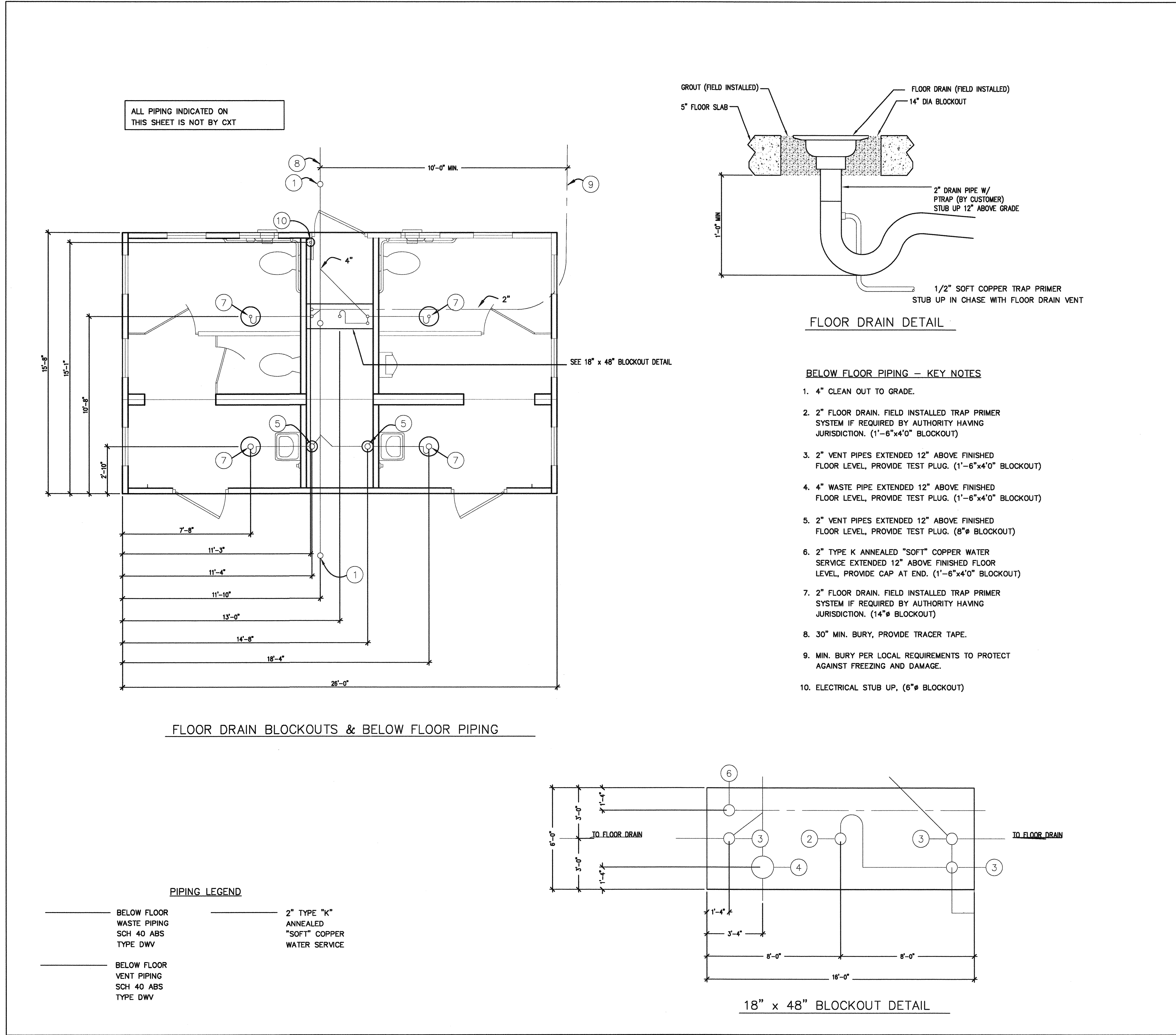
CHECKED BY: DATE
PROJ. ENGR DATE
TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION
RESTROOM BUILDING DETAILS - SHEET 1

TOWNSHIP: SECTION:
DAT-HRZ: WA83-SF VERT: MLW 19.39' @ Tide 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
C4.13
SH 68 OF 489
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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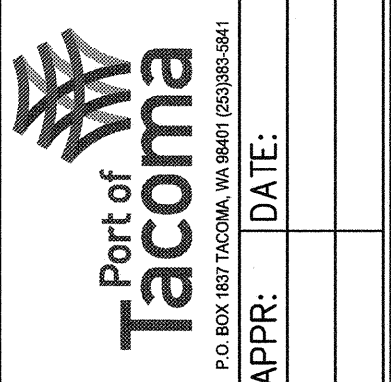


PROJECT TITLE: MONTROSE
CXT STANDARD BUILDING

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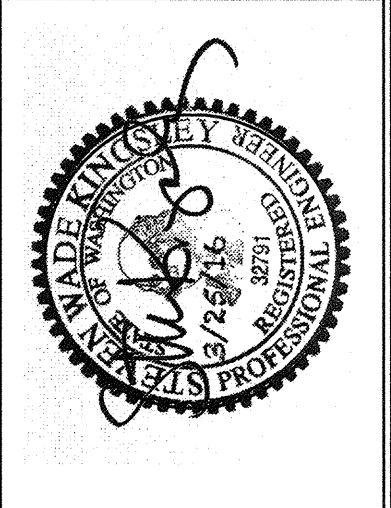
REV.	DESCRIPTION	DATE	APPROVAL
SCALE	1/4"=1'-0"	DATE	04-28-08
DRAWN	FILE NO.	M-STUB	
CHECKED	PLOT	48	

DWG NO.	SHEET	REV.
M-STUB		



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MARK: REVISION: BY: APPR: DATE:



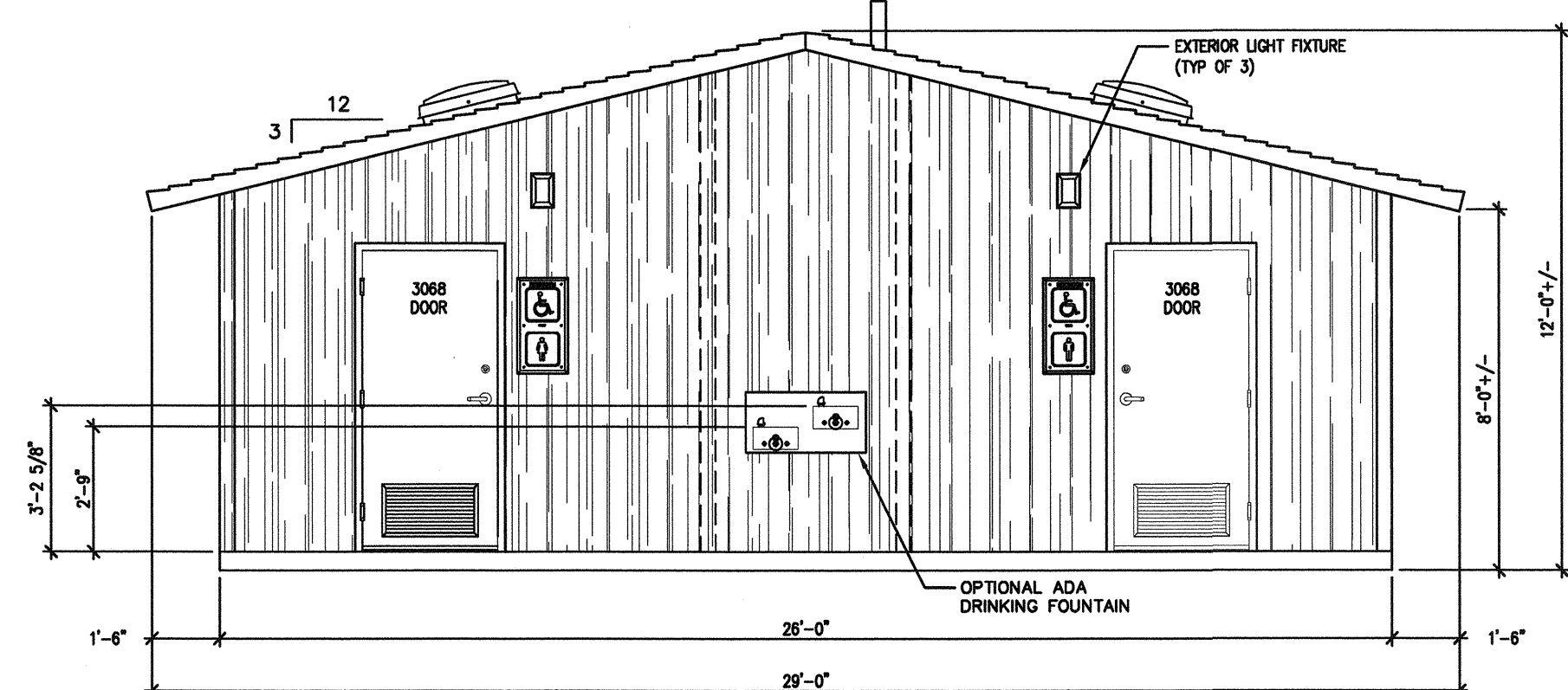
APPROVED:	CHECKED BY	DATE
DIRECTOR ENG. DATE	PROJ. ENGR	DATE
PRINTED BY: k.wang	Mar 24, 2016	
PORT ADDRESS: ONE SITCUM PLAZA		
TACOMA, WA 98401-1837		

PIER 4 PHASE 2	SECTION:
RESTROOM BUILDING DETAILS - SHEET 2	MLLW 19.39' @ Tide 22.19.33
RANGE:	DRAWING SCALE: AS NOTED
TOWNSHIP:	
DAT-HRZ: WAB3-SF	
PARCEL:	

6552	SH 69 OF 499
C4.14	
CONTR/CONS: 070136	
M. ID: 091251	
PHASE: BID	

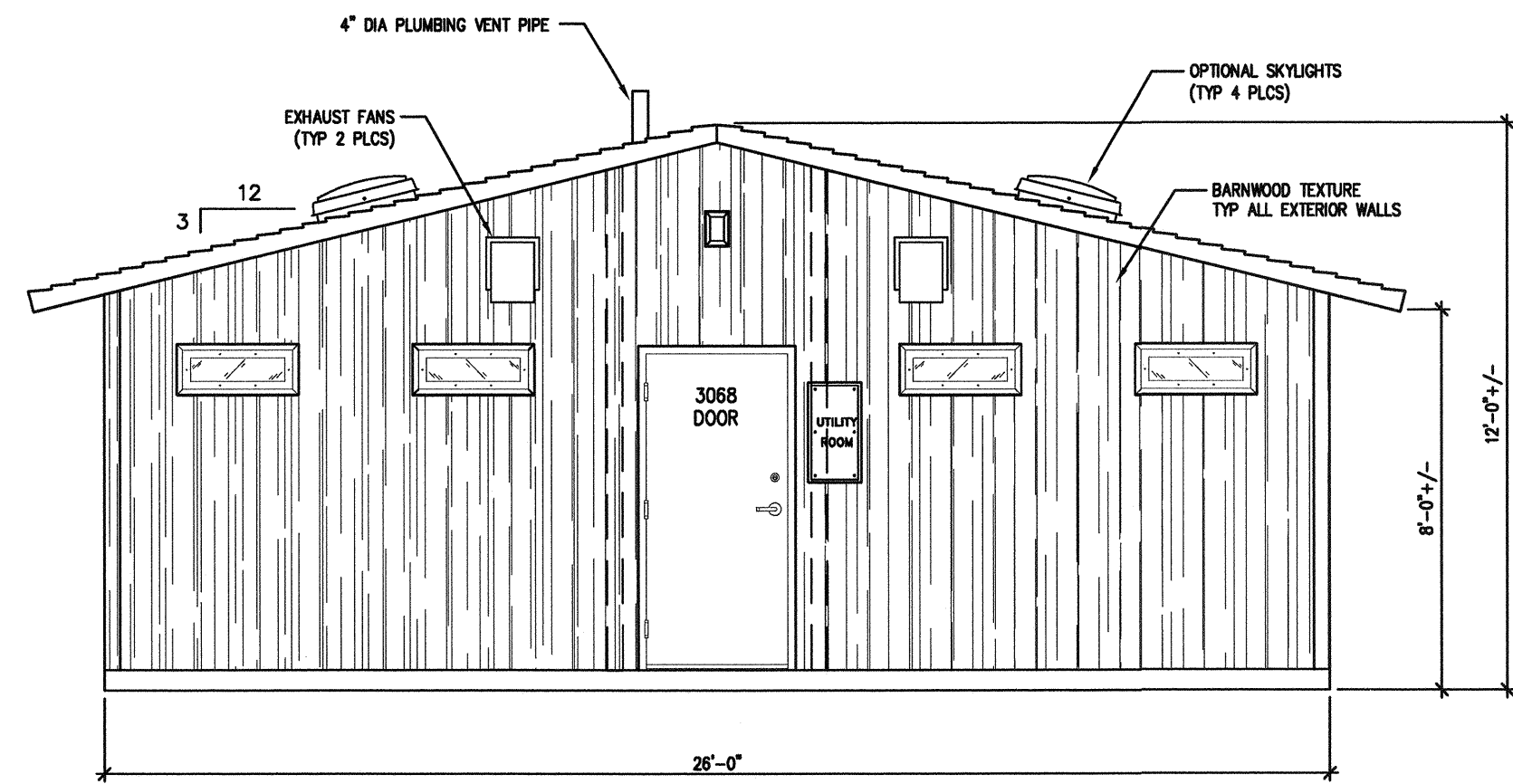
1 RESTROOM BUILDING UTILITY CONNECTIONS
C4.1 NTS

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FRONT ELEVATION - (WEST)

FOR REFERENCE ONLY



REAR ELEVATION - (EAST)



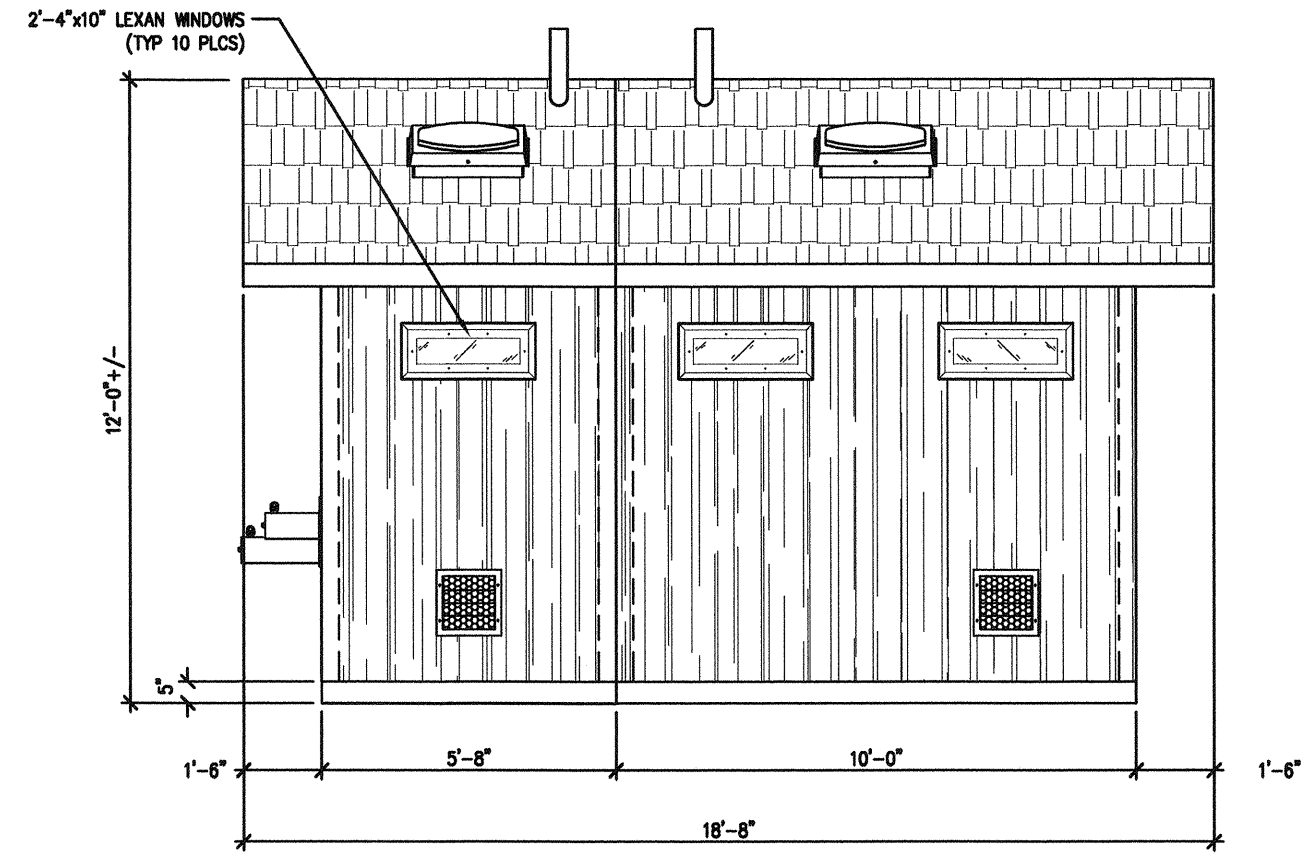
PROJECT NO: MONTROSE
CXT STANDARD BUILDING

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SCALE	DATE	BY	CHK
3/8"=1'-0"	03-28-08		
1/4"=1'-0"	03-28-08		

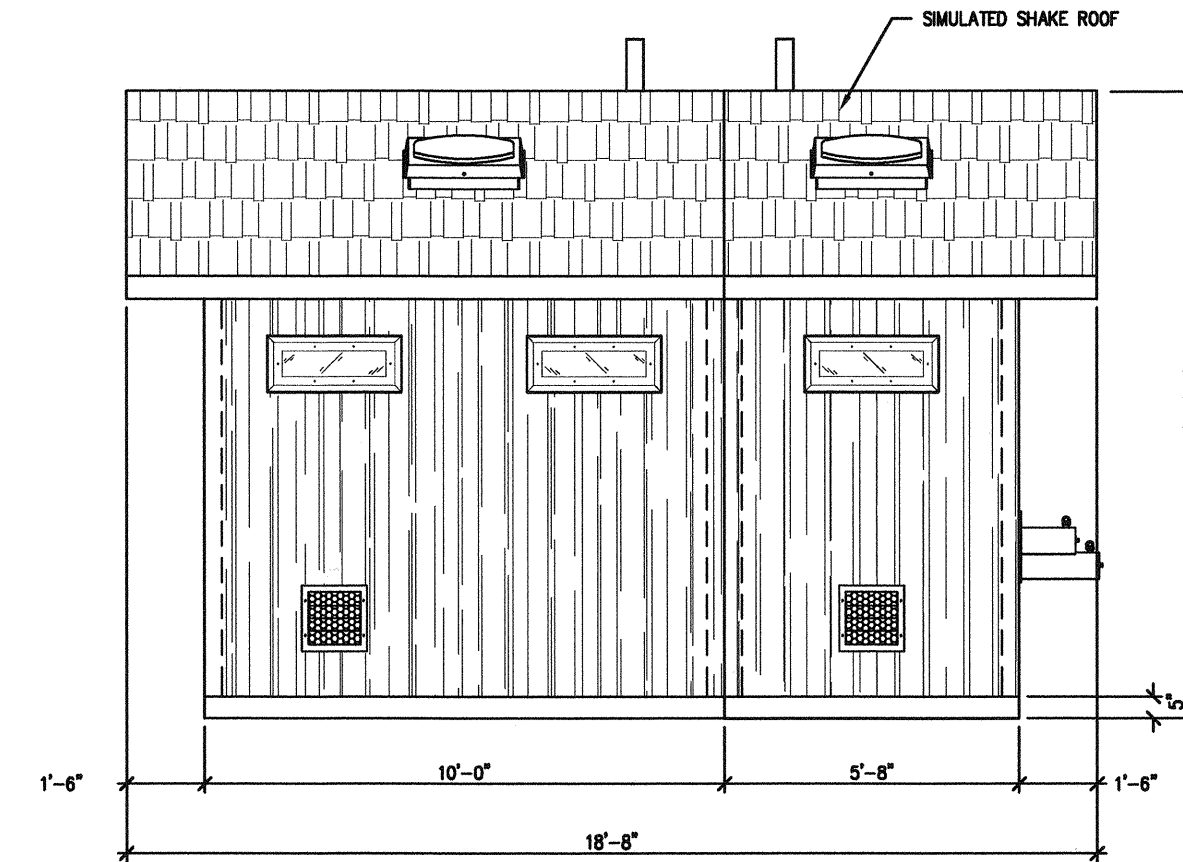
BUILDING ELEVATIONS

DWG. NO.	SHEET	REV.
M-04		



RH SIDE ELEVATION - (NORTH)

FOR REFERENCE ONLY



LH SIDE ELEVATION - (SOUTH)



PROJECT NO: MONTROSE
CXT STANDARD BUILDING

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SCALE	DATE	BY	CHK
3/8"=1'-0"	03-28-08		
1/4"=1'-0"	03-28-08		

BUILDING ELEVATIONS

DWG. NO.	SHEET	REV.
M-05		

1

MONTROSE RESTROOM BUILDING ELEVATIONS

NTS

6552
SH 70 OF 499
C4.15

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

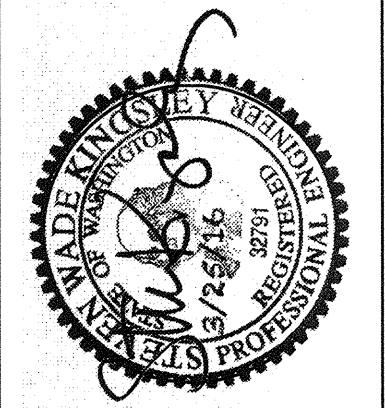
PIER 4 PHASE 2
RECONFIGURATION
RESTROOM BUILDING DETAILS - SHEET 3

TOWNSHIP: RANGE: SECTION:
M. ID: 091251
DATE-HRZ: WAB3-SF
PARCEL: VERT: MLLW 19.39' @ Tide 22 19.33
DRAWING SCALE: AS NOTED
TACOMA, WA 98401-1837

APPROVED:
[Signature]
3-28-16

DIRECTOR ENGR. DATE: kvang Mar 24, 2016
PRINTED BY: kvang
PORT ADDRESS: ONE SITCUM PLAZA

CHECKED BY: DATE
PROJ. ENGR: DATE

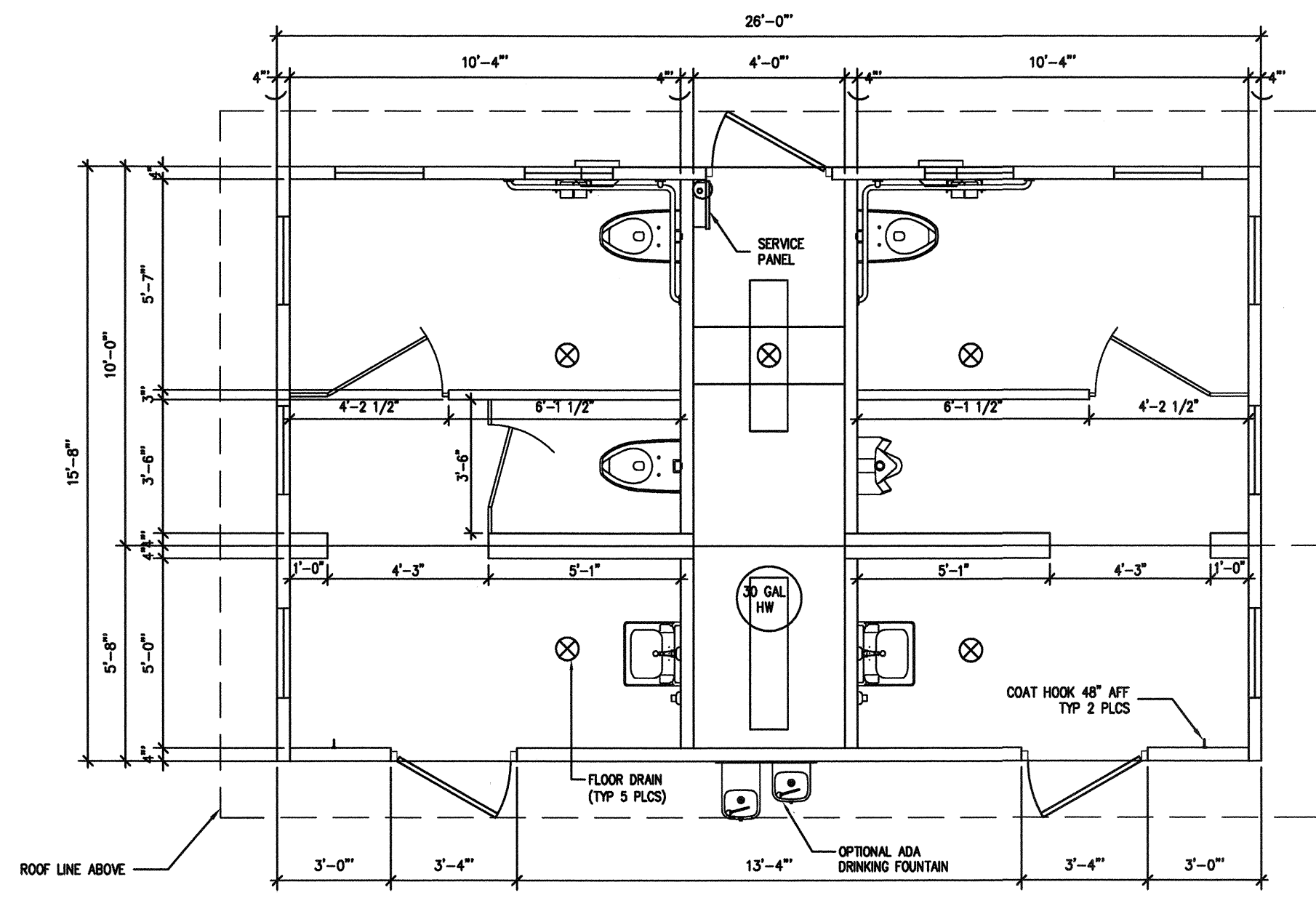


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NOTES: 1. SEE DRAWING M-27 FOR SIZE AND LOCATION OF FLOOR BLOCKOUTS

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MONTRÖSE
CXT STANDARD BUILDING

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DATE	3/22/16	DATE	3/22/16
DESIGN	FILE NO. PD-003	CHECKED	FILE NO. PD-003

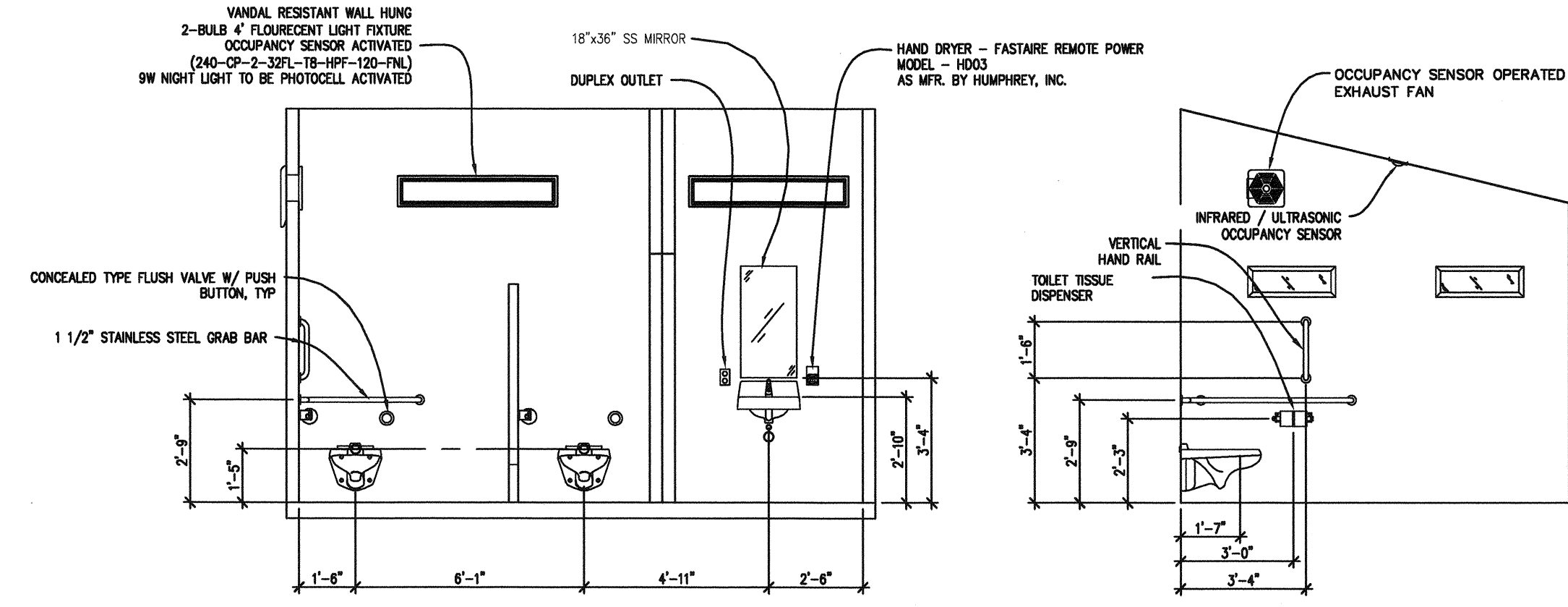
FLOOR PLAN

DWG NO.	M-03	SHEET	REV.
---------	------	-------	------

1

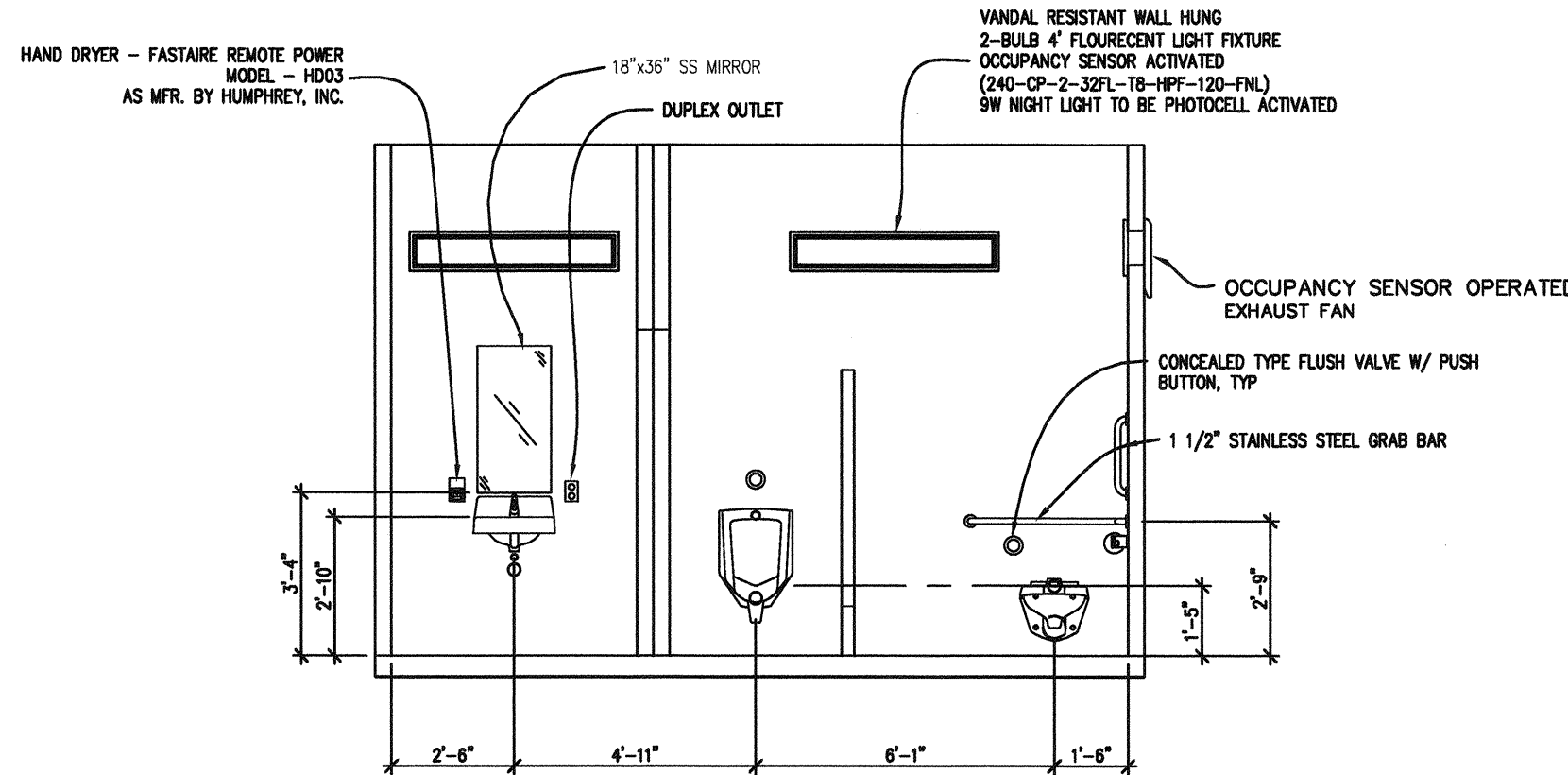
MONTROSE RESTROOM BUILDING DETAILS

NTS



INTERIOR ELEVATION - WOMEN'S RESTROOM

INTERIOR ELEVATION - MEN'S RESTROOM
WOMEN'S OPPOSITE HAND



INTERIOR ELEVATION - MEN'S RESTROOM

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MONTRÖSE
CXT STANDARD BUILDING

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DATE	3/22/16	DATE	3/22/16
DESIGN	FILE NO. PD-003	CHECKED	FILE NO. PD-003

INTERIOR ELEVATIONS

DWG NO.	M-06	SHEET	REV.
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6552
C4.16
SH 71 OF 499

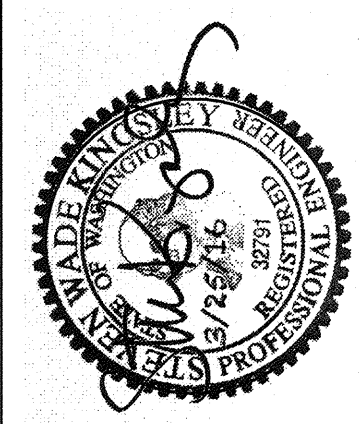
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2
RECONFIGURATION
RESTROOM BUILDING DETAILS - SHEET 4

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933
PARCEL: DRAWING SCALE: AS NOTED

APPROVED: *[Signature]*
3-28-16
DIRECTOR ENG. DATE: 3-28-16
PRINTED BY: kvong Mar 24, 2016
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

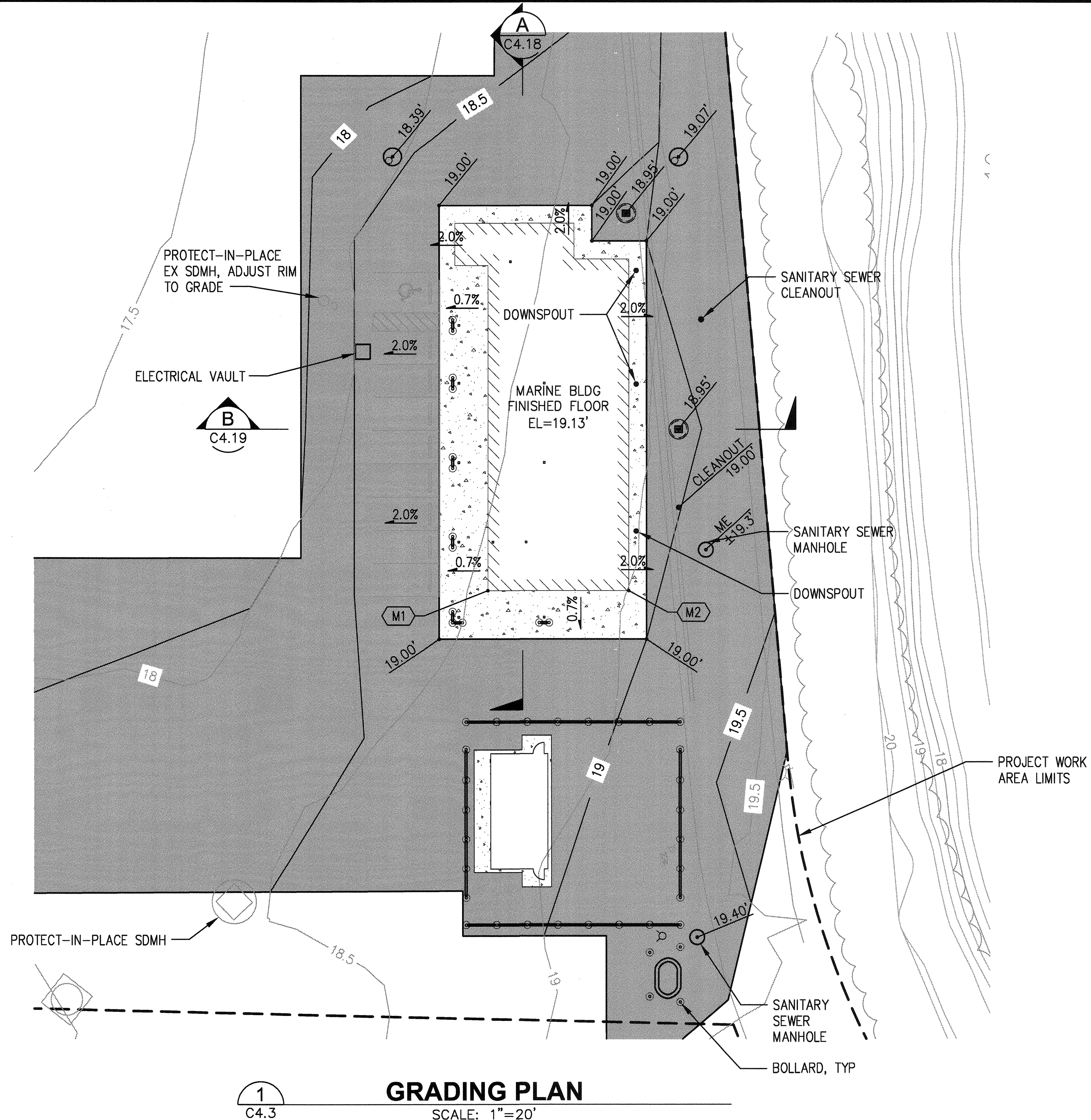
CHECKED BY: DATE
PROJ. ENGR DATE
DATE



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PO Box 607 Tacoma, WA 98401-0607

Part of Tacoma
APPR: DATE:
BY:
REVISION:

PORT OF TACOMA FILE: M:20141114096 POT Pier 4 Reconfiguration/Drawings/Current/Phase 2_091251091251-C4.17 (Marine Ops Grading Plan)



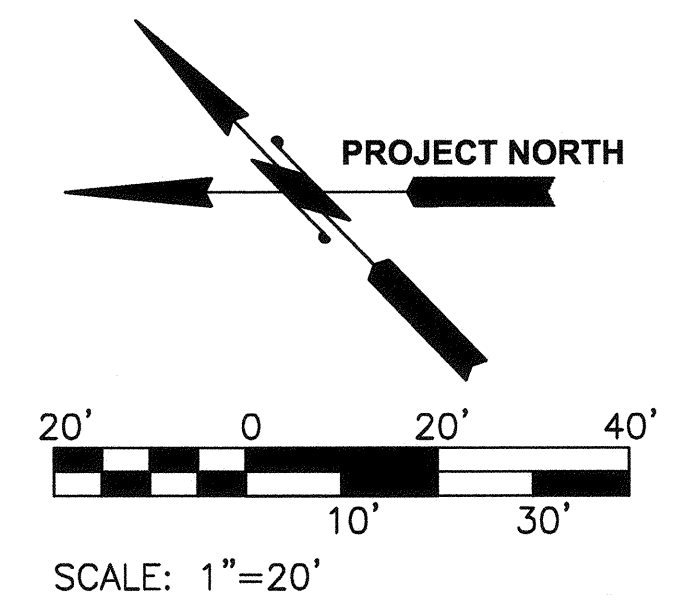
MARINE BUILDING HORIZONTAL CONTROL		
POINT ID	NORTHING	EASTING
M1	713749.31	1166245.30
M2	712043.42	1167857.82

NOTES

1. ALL SPOT ELEVATIONS REPRESENT TOP OF PAVEMENT.
2. STRAIGHT GRADES SHALL BE MAINTAINED BETWEEN SPOT ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED OR OVER-EXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED PER SECTION 31 00 00 - EARTHWORK SPECIFICATION.
4. EXCAVATE TO SUBGRADE, PLACE AND COMPACT BASE COURSE AND PAVE WHERE ASPHALT PAVEMENT IS INDICATED.
5. SAWCUT AND APPLY TACK COAT AT ALL JOINTS.
6. TOP OF FINISH GRADE OF PAVEMENT RESTORATION AREAS SHALL BE FLUSH WITH EXISTING PAVEMENT FOR SMOOTH TRANSITION AT PAVEMENT EDGES.
7. CONTRACTOR SHALL STOCKPILE AND STAGE ALL EQUIPMENT, SUPPLIES AND MATERIALS WITHIN THE PROJECT WORK AREA LIMITS UNLESS NOTED OTHERWISE. WHEN CONTRACT WORK IS COMPLETE CONTRACTOR SHALL CLEAR AND CLEAN THE WORK AREA AND REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS, INCLUDING PAVEMENT.

LEGEND

- PROJECT WORK AREA LIMITS
- EXISTING GRADE CONTOUR
- FINISH GRADE CONTOUR
- ASPHALT PAVEMENT (1 C4.8)
- CONCRETE PAVEMENT
- BOLLARD CAGE (1 C7.4)
- FLOW LINE
- RIDGE LINE
- STORM DRAINAGE STRUCTURES, SEE DRAINAGE DRAWINGS
- SPOT ELEVATION (16.43')
- GROUND SLOPE (0.5%)
- LIGHT POLE, SEE ELECTRICAL DRAWINGS
- ELECTRICAL AND COMMUNICATIONS VAULTS, SEE ELECTRICAL DRAWINGS
- FIRE HYDRANT
- EXISTING STORM DRAIN LID/STRUCTURE
- SANITARY SEWER LIFT STATION



6552

C4.17

SH 72 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2

RECONFIGURATION

MARINE BUILDING ENLARGED GRADING PLAN

TOWNSHIP: SECTION: MLW 19.39' @ Tide 22 1933

DAT-HRZ: WAB3-SF | VERT: AS NOTED

PARCEL: TACOMA, WA 98401-1837

APPROVED: *[Signature]* 3-28-16

DIRECTOR ENG. DATE: 3/28/16

PRINTED BY: kvang Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

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PROJ. ENGR:	DATE:

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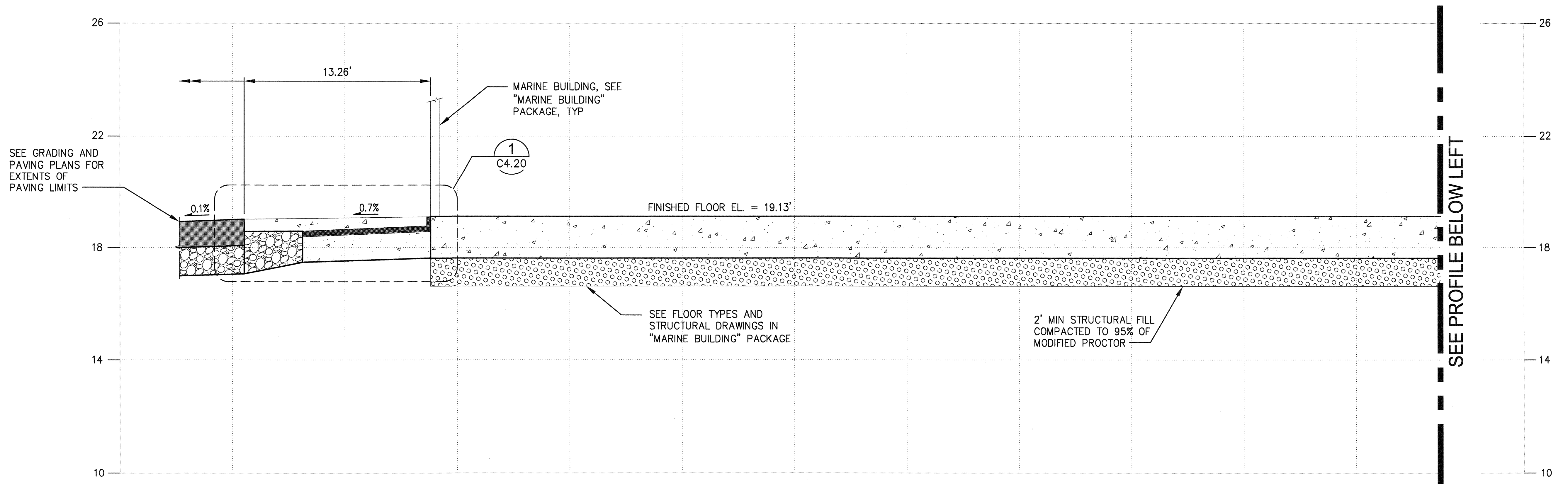
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MARK: REVISION: BY: DATE: APPR:

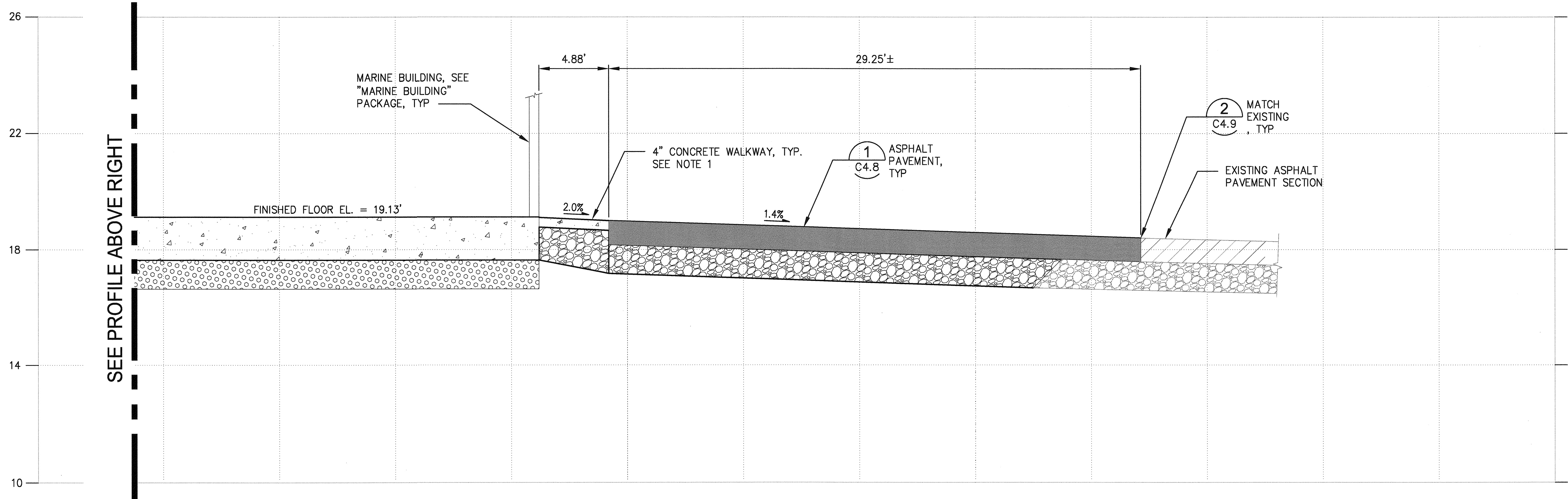
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BINDING EDGE

PORT OF TACOMA FILE: M\201411\4096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C4.18-4.19-4.20 (Grading and Paving Sections)



SEE PROFILE BELOW LEFT



SEE PROFILE ABOVE RIGHT

A
C4.17

GRADING SECTION

SCALE: HORIZ: 1"=4', VERT: 1"=2'

NOTES

1. CONCRETE WALKWAYS SHALL BE CONSTRUCTED PER CITY OF TACOMA STANDARD PLANS AND TO THE DIMENSIONS SHOWN HEREIN.

6552

C4.18

SH 73 OF 499

CONT/CONS: 070136

M. ID: 091251

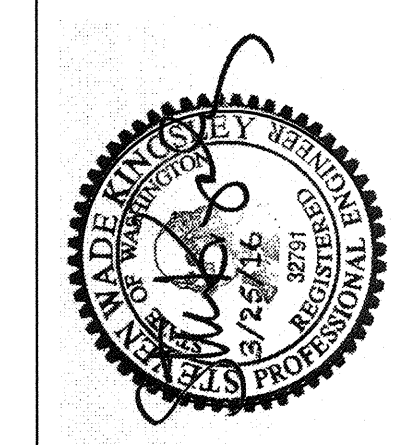
PHASE: BID

PIER 4 PHASE 2
RECONFIGURATION
 MARINE BUILDING GRADING AND PAVING SECTIONS - SHEET 1

TOWNSHIP: RANGE: SECTION:
 DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933
 PARCEL: DRAWING SCALE: AS NOTED

APPROVED: *[Signature]*
 DIRECTOR ENG. DATE: 3-28-16
 PRINTED BY: kvang Mar 24, 2016
 PORT ADDRESS: ONE SITCUM PLAZA
 TACOMA, WA 98401-1837

CHECKED BY: DATE
 PROJ. ENGR DATE
 Mar 24, 2016

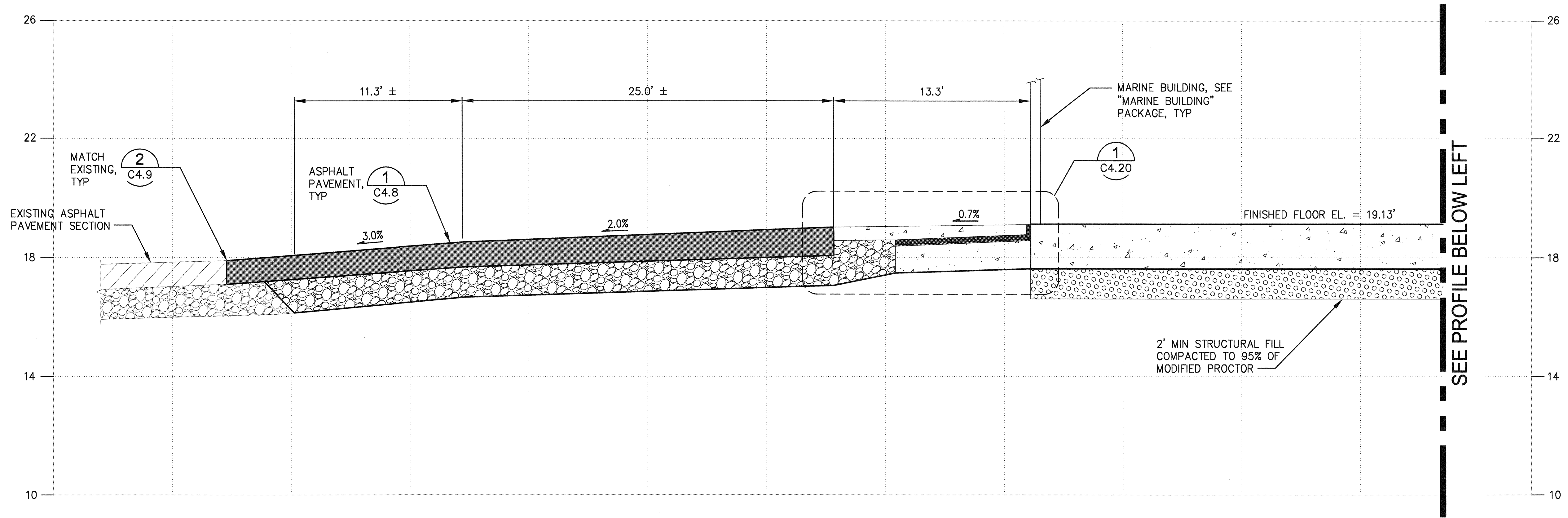


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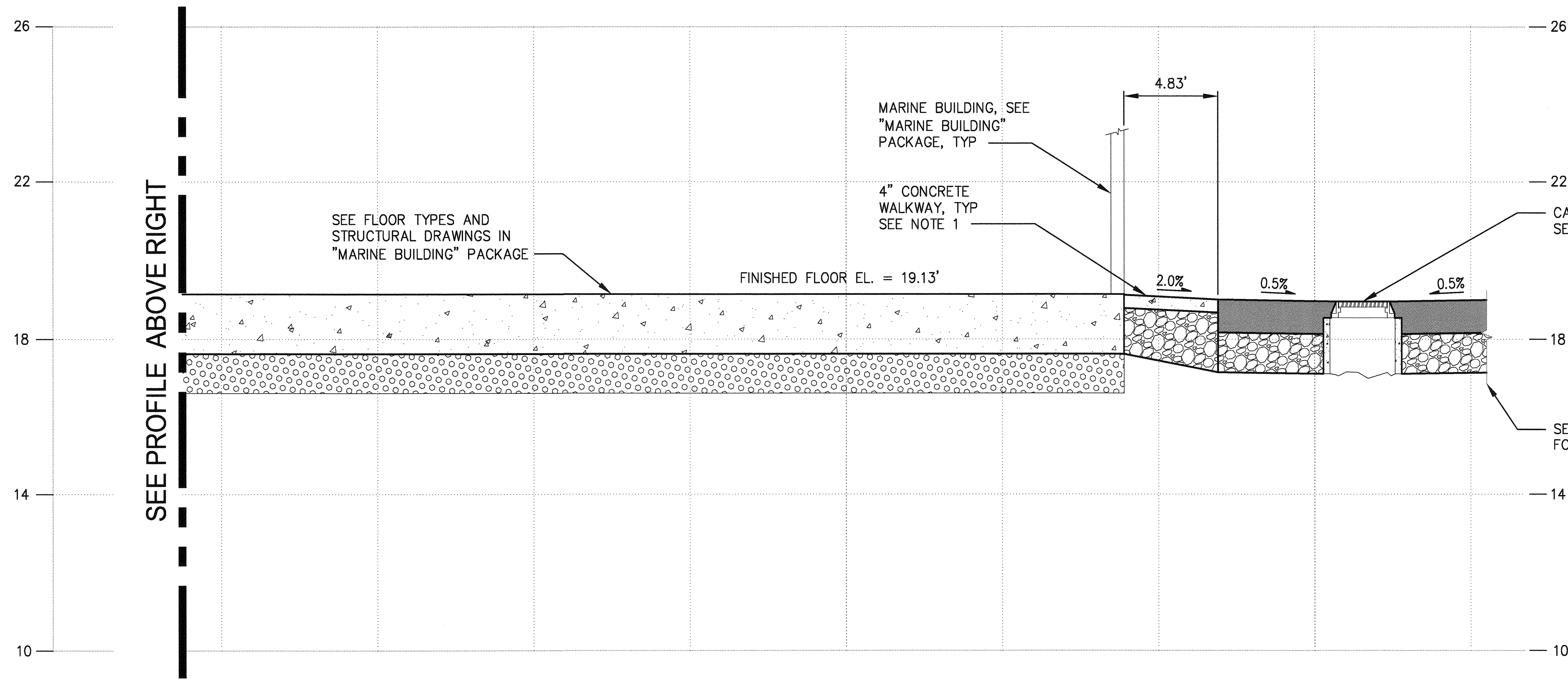
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 PORT OF TACOMA, WASHINGTON

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SEE PROFILE BELOW LEFT



SEE PROFILE ABOVE RIGHT

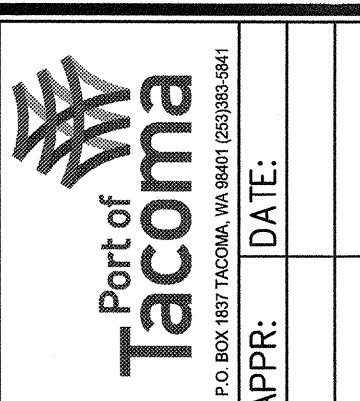
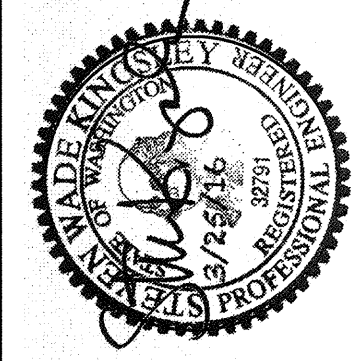
B
C4.17

GRADING SECTION

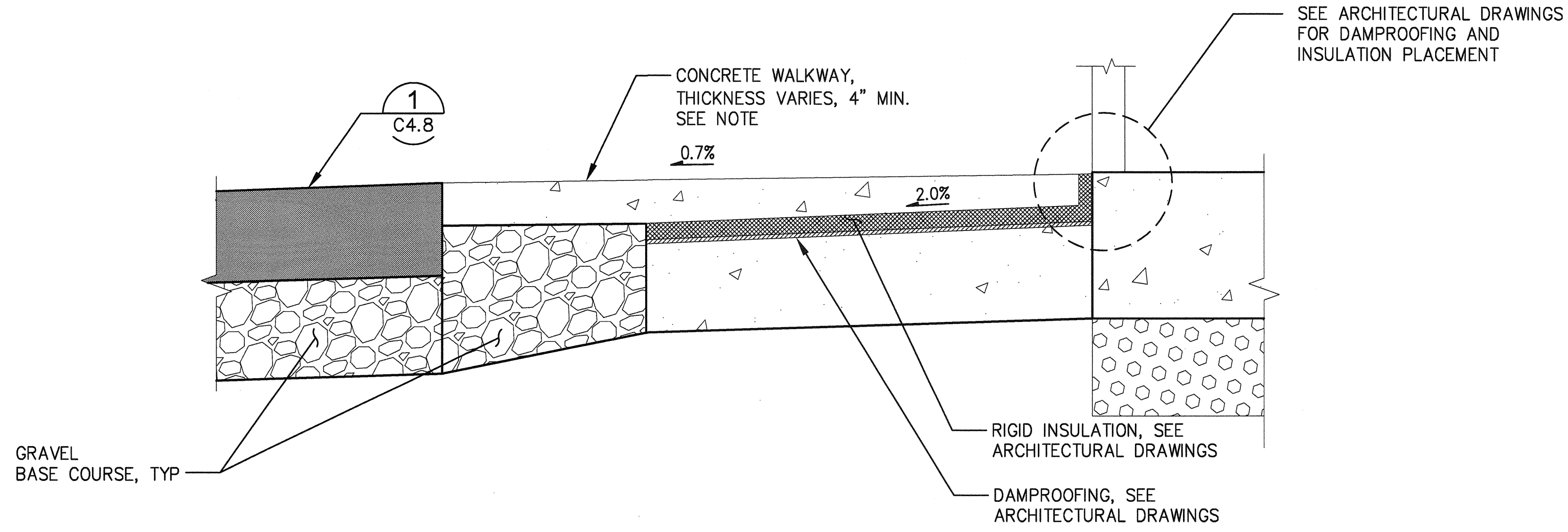
SCALE: HORIZ: 1"=4', VERT: 1"=2'

- NOTES**
- CONCRETE WALKWAYS SHALL BE CONSTRUCTED PER CITY OF TACOMA STANDARD PLANS AND TO THE DIMENSIONS SHOWN HEREIN.

<p>6552 C4.19 SH 74 OF 499</p>	<p>PIER 4 PHASE 2 RECONFIGURATION</p>		<p>CHECKED BY: [Signature] DATE: []</p>	
	<p>MARINE BUILDING GRADING AND PAVING SECTIONS - SHEET 2</p>		<p>PROJ. ENGR DATE: []</p>	
<p>CONT/CONS: 070136</p>	<p>TOWNSHIP: []</p>	<p>RANGE: []</p>	<p>SECTION: []</p>	<p>DATE: []</p>
<p>M. ID: 091251</p>	<p>DAT-HRZ: WAB3-SF</p>	<p>VERT: MLLW 19.39' @ Tide 22.1933</p>	<p>PRINTED BY: kvang Mar 24, 2016</p>	<p>BY: []</p>
<p>PHASE: BID</p>	<p>PARCEL: []</p>	<p>DRAWING SCALE: AS NOTED</p>	<p>PORT ADDRESS: ONE SITCUM PLAZA</p>	<p>APPR: []</p>
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kpf
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Tacoma, WA 98401-1837
Tel: (253) 896-0150 Fax: (253) 896-0162



A PAVING AND GRADING DETAILS
C4.18, C4.19 1"=2'

NOTES:

1. CONCRETE WALKWAYS SHALL BE CONSTRUCTED PER CITY OF TACOMA STANDARD PLANS AND TO THE DIMENSIONS SHOWN HEREIN.

6552
C4.20
SH 75 OF 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

**PIER 4 PHASE 2
RECONFIGURATION
MARINE BUILDING GRADING AND PAVING DETAILS**

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 19.33
PARCEL: DRAWING SCALE: AS NOTED

APPROVED:

Shirley Howard
3-28-16

DIRECTOR ENG. DATE

PRINTED BY: kvtarg

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

CHECKED BY

DATE

PROJ. ENGR

DATE

TACOMA, WA 98401-1837



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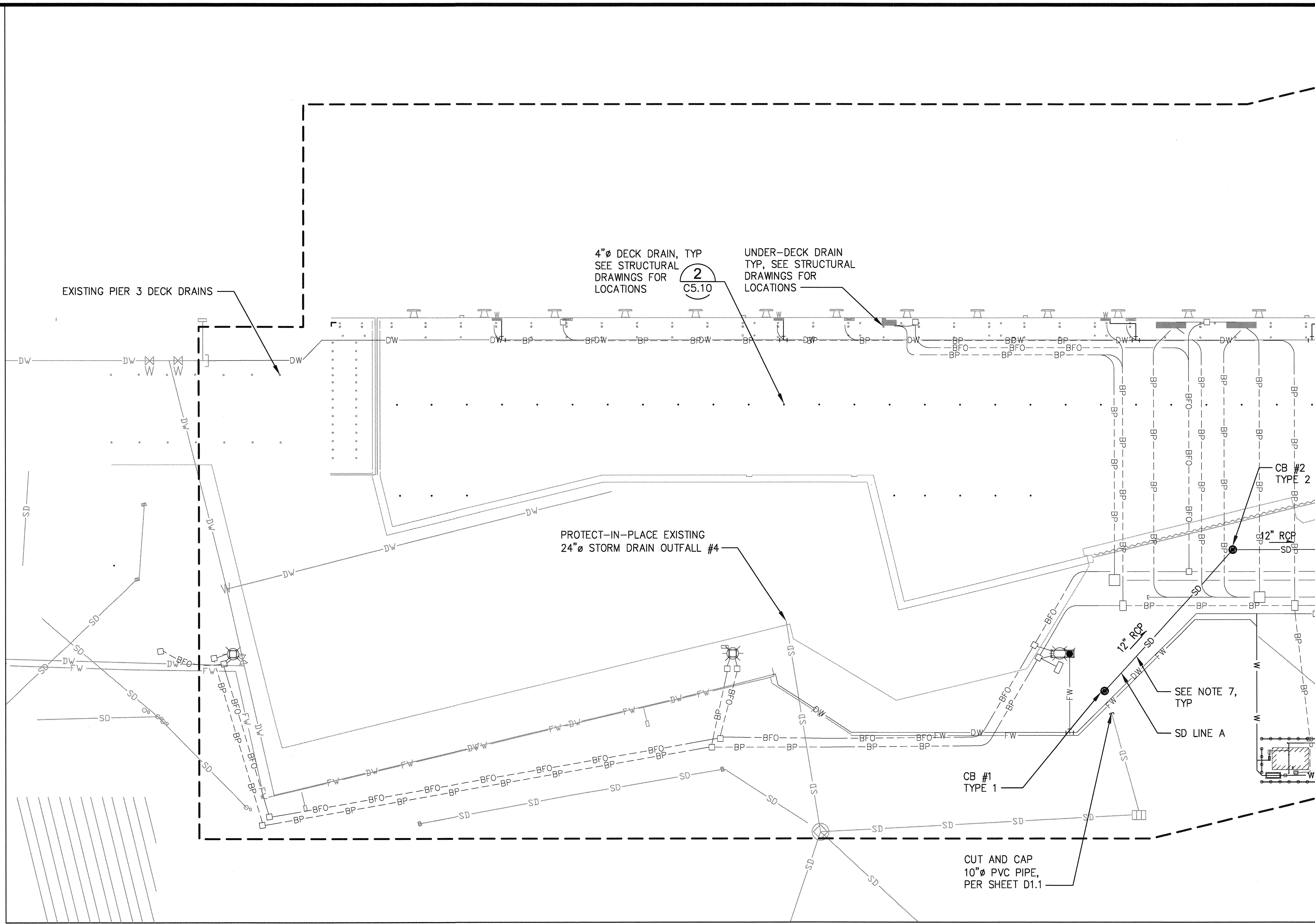
2407 North 31st Street, Suite 100
Tacoma, WA 98401
(253) 386-0130 Fax (253) 386-0162

Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401-1837

MARK: REVISION:

BY:

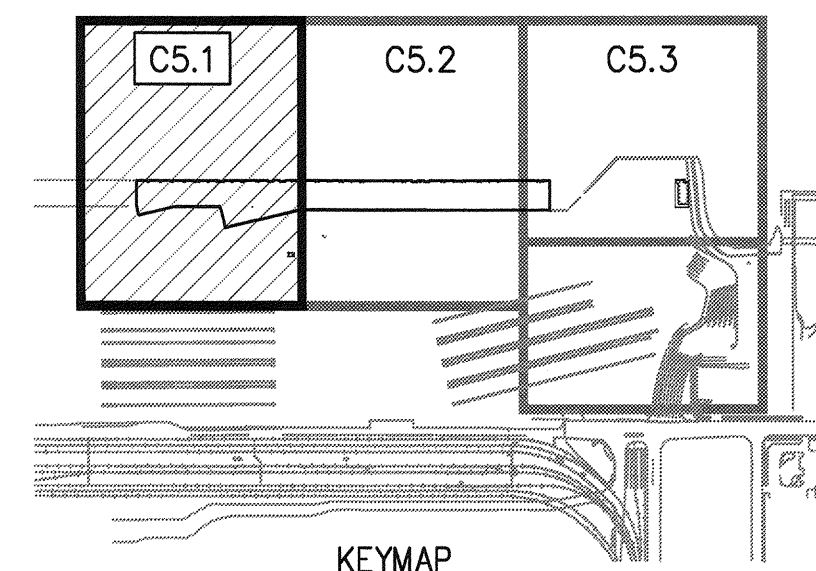
DATE:



MATCH LINE SEE SHEET C5.2

DRAINAGE PLAN

SCALE: 1"=40'

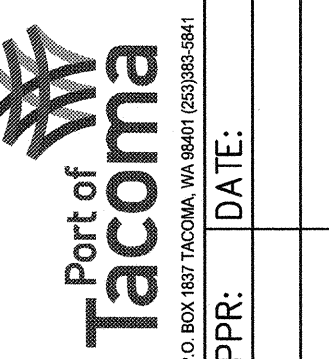
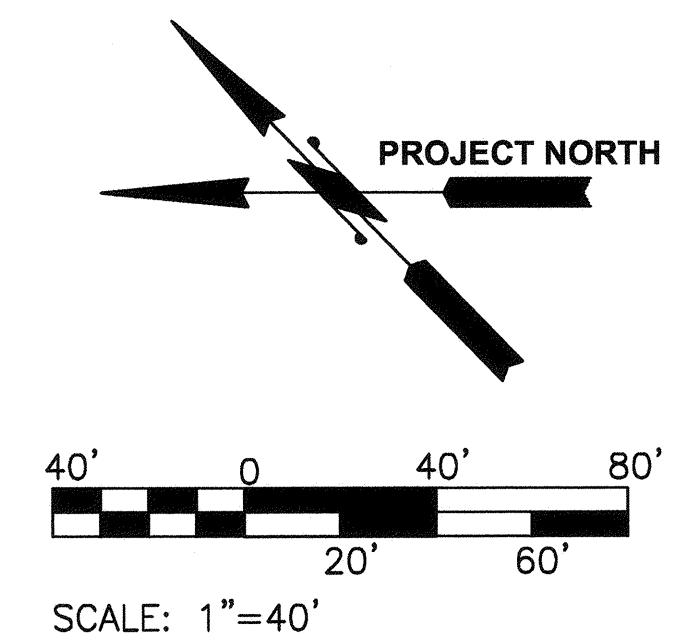


NOTES

- SEE STRUCTURAL DRAWINGS FOR DRAINAGE ELEMENTS WITHIN UTILITY VAULTS ALONG THE BULLRAIL.
- THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DRAWINGS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL POTHOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- UNLESS OTHERWISE NOTED, CATCH BASINS AND MANHOLES SHALL CONFORM TO WSDOT STANDARD PLANS AND SPECIFICATIONS, MODIFIED TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.
- FOR MANHOLE AND CATCH BASIN INSTALLATION REQUIREMENTS, SEE **1** AND **2**
(C5.12) (C5.12)
- UTILITY VAULTS AND STORMWATER TREATMENT STRUCTURES SHALL BE CONSTRUCTED TO THE INTERIOR DIMENSIONS SHOWN ON THE PLANS AND DETAILS AND DESIGNED BY THE CONTRACTOR TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.
- SEE SHEETS C5.5-C5.7 FOR STORM DRAIN PROFILES.
- FOR TYPICAL STORM DRAINAGE TRENCH DETAIL, SEE **1**
(C5.8)

LEGEND

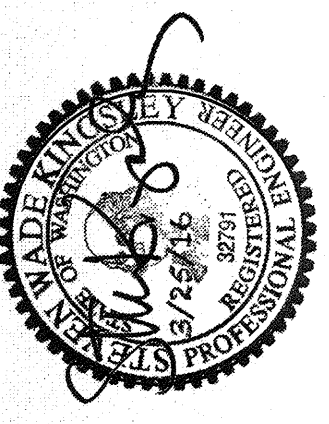
- PROJECT WORK AREA LIMITS
- SD STORM DRAIN PIPE, SIZE PER PLAN
- STORM DRAIN MANHOLE, SEE NOTE 3
- CATCH BASIN, SEE NOTE 3
- 4" DECK DRAIN
- ENHANCED STORMWATER TREATMENT VAULT, OIL/WATER SEPARATOR, SEE NOTE 5



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<i>Wade King</i>		
DIRECTOR ENG. DATE:	PROJ. ENGR.	DATE:
3-28-16	kvang	Mar 24, 2016
PRINTED BY: kvang		
PORT ADDRESS: ONE SITCUM PLAZA		
TACOMA, WA 98401-1837		

PIER 4 PHASE 2 RECONFIGURATION DRAINAGE PLAN - SHEET 1

RANGE: M.L.W. 19.39' @ Tide 22 1933

SECTION: AS NOTED

TOWNSHIP: WA83-SF

DATE: 091251

PARCEL: TACOMA, WA 98401-1837

6552

C5.1

SH 76 OF 499

CONTR/CONS: 070136

M. ID: 091251

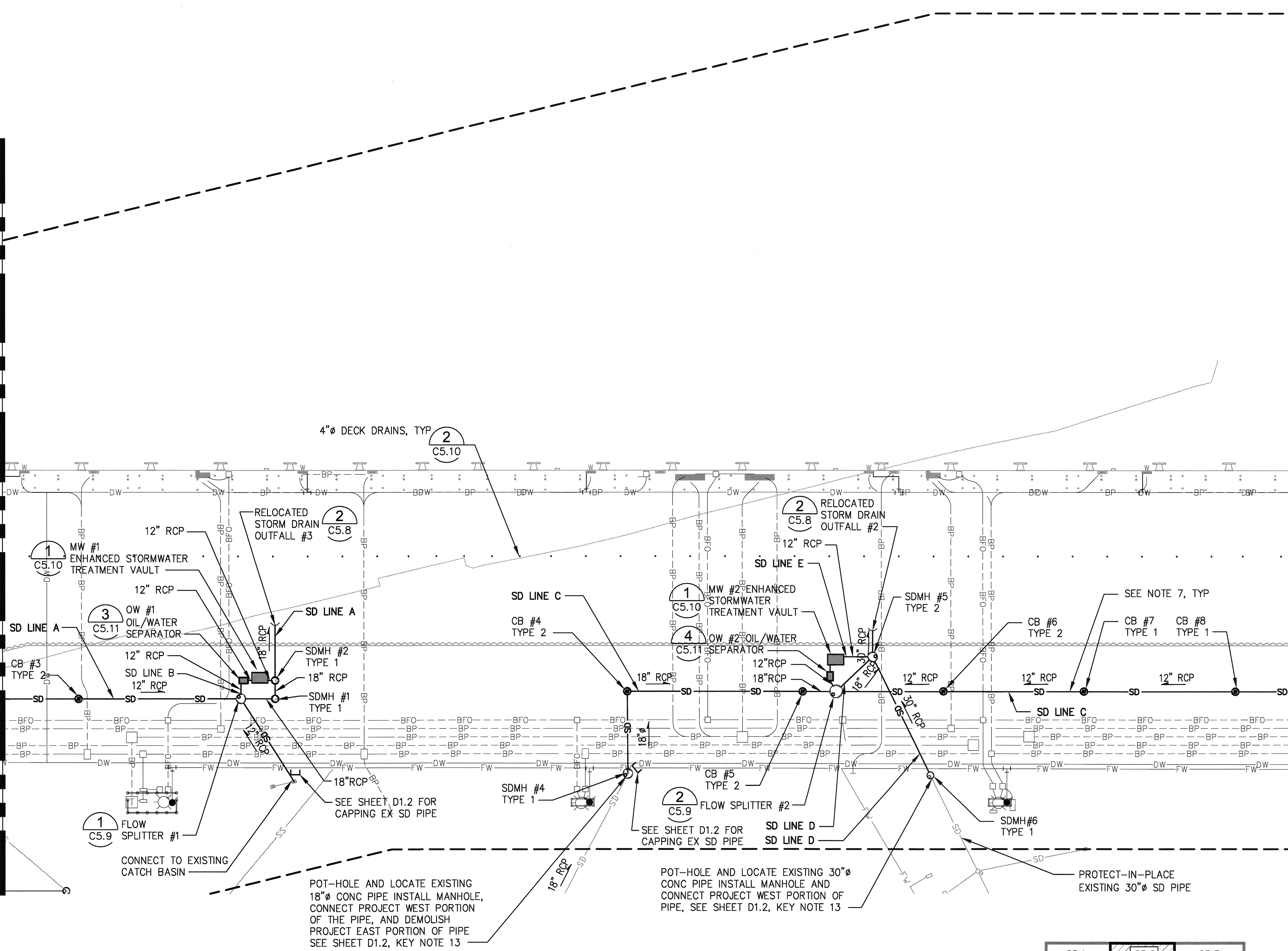
PHASE: BID

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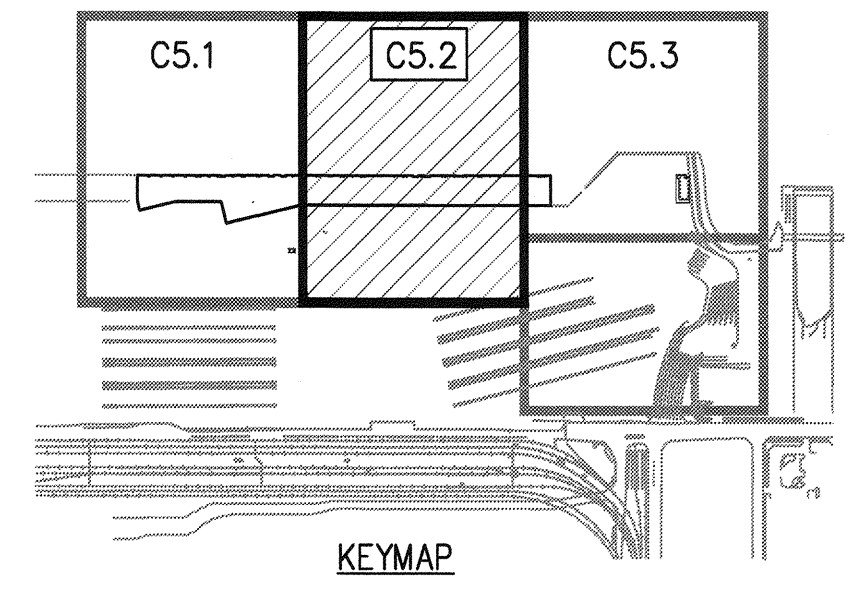
PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C5.1-C5.2-C5.3 (Drainage Plan - Sheet X)

BINDING EDGE

MATCH LINE SEE SHEET C5.1



DRAINAGE PLAN
SCALE: 1"=40'

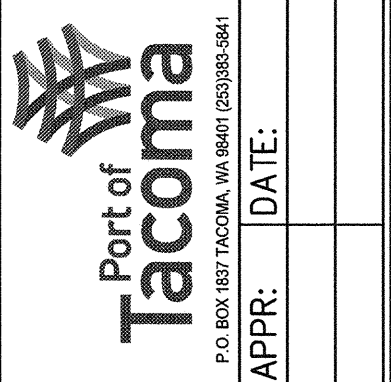
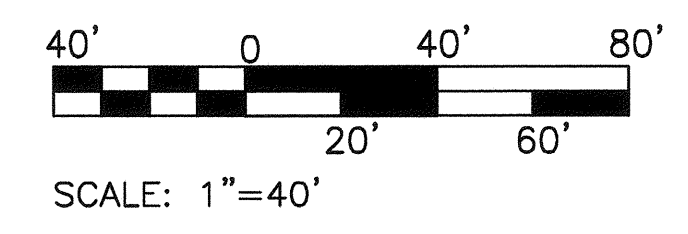
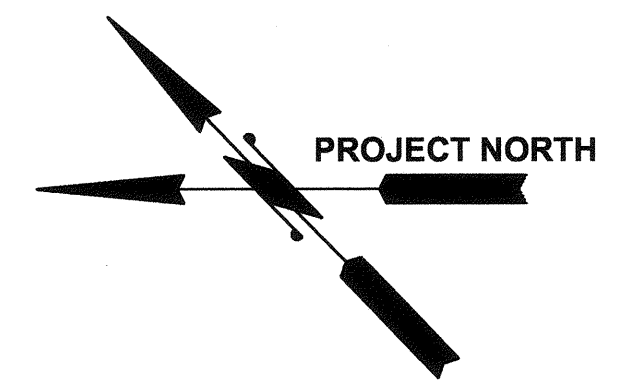


NOTES

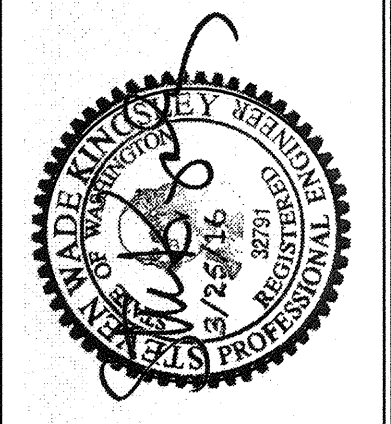
- SEE STRUCTURAL PLANS DRAWINGS DRAINAGE ELEMENTS WITHIN UTILITY VAULTS ALONG THE BULLRAIL.
- THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DRAWINGS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL POT-HOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- UNLESS OTHERWISE NOTED, CATCH BASINS AND MANHOLES SHALL CONFORM TO WSDOT STANDARD PLANS AND SPECIFICATIONS, MODIFIED TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.
- FOR MANHOLE AND CATCH BASIN INSTALLATION REQUIREMENTS, SEE **1** AND **2**
C5.12 C5.12
- UTILITY VAULTS AND STORMWATER TREATMENT STRUCTURES SHALL BE CONSTRUCTED TO THE INTERIOR DIMENSIONS SHOWN ON THE PLANS AND DETAILS AND DESIGNED BY THE CONTRACTOR TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.
- SEE SHEETS C5.5-C5.7 FOR STORM DRAIN PROFILES.
- FOR TYPICAL STORM DRAINAGE TRENCH DETAIL, SEE **1**
C5.8

LEGEND

- PROJECT WORK AREA LIMITS
- STORM DRAIN PIPE, SIZE PER PLAN
- STORM DRAIN MANHOLE, SEE NOTE 3
- CATCH BASIN, SEE NOTE 3
- 4" DECK DRAIN
- ENHANCED STORMWATER TREATMENT VAULT, OIL/WATER SEPARATOR, SEE NOTE 5



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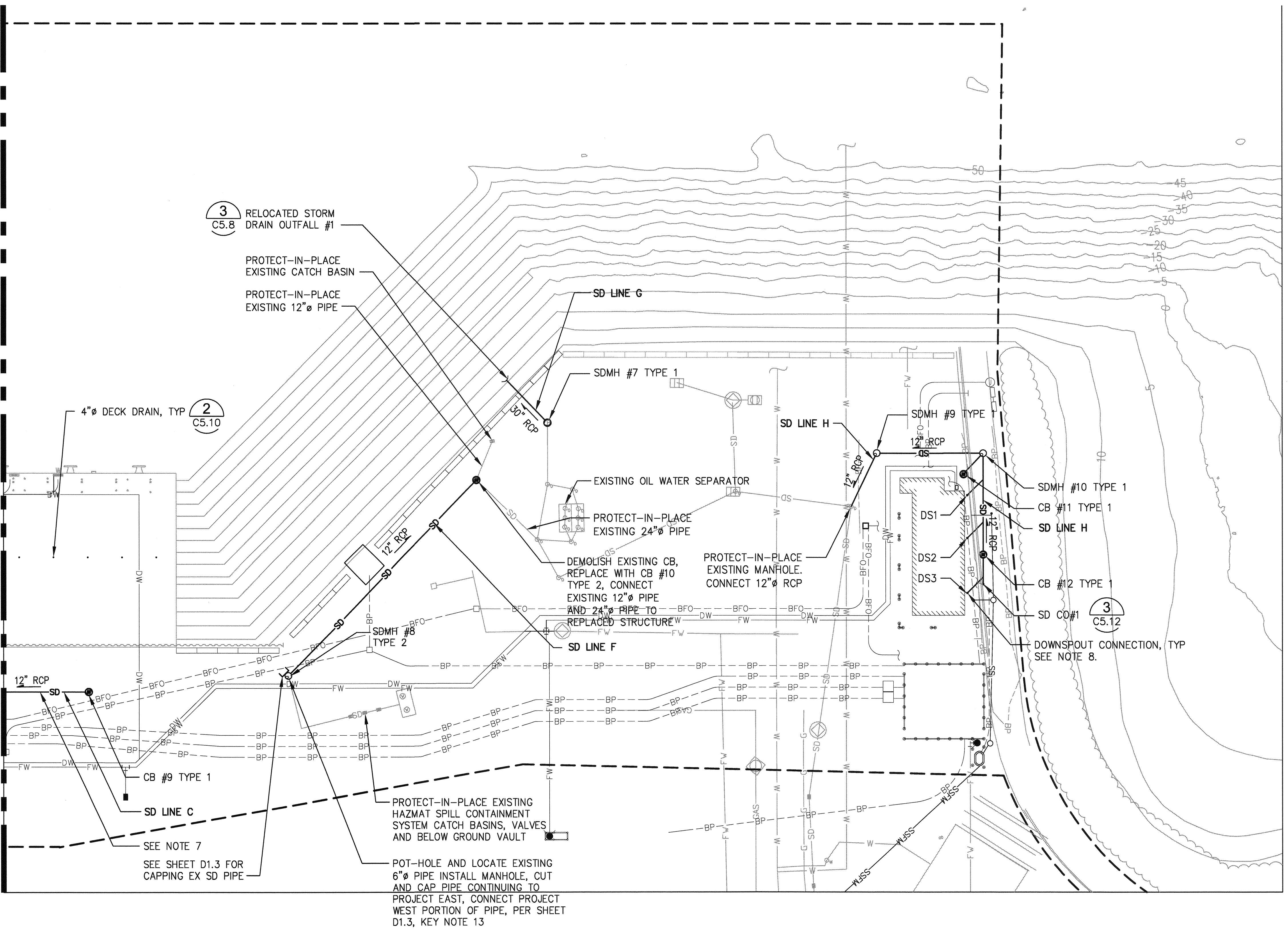
APPROVED:	CHECKED BY	DATE
<i>[Signature]</i>		
DIRECTOR ENG. DATE	PROJ. ENGR	DATE
3-20-16	kvang	Mar 24, 2016
PRINTED BY:	PORT ADDRESS:	ONE SITCUM PLAZA
		TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION DRAINAGE PLAN - SHEET 2

6552 C5.2
SH 77 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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MATCH LINE SEE SHEET C5.2

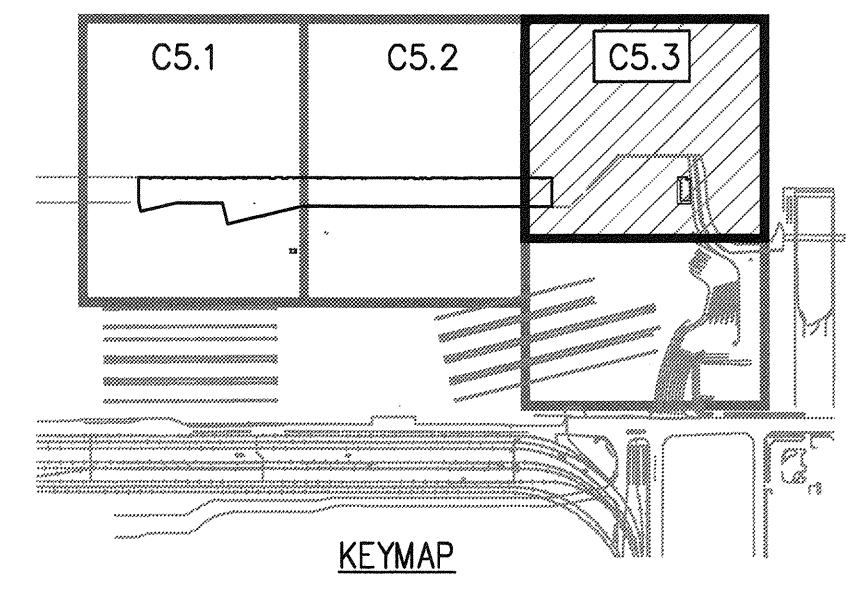


3 RELOCATED STORM DRAIN OUTFALL #1
C5.8

2 4" DECK DRAIN, TYP
C5.10

3 SD CO #1
C5.12

DRAINAGE PLAN
SCALE: 1"=40'

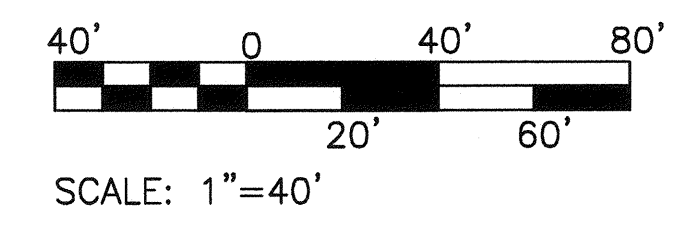
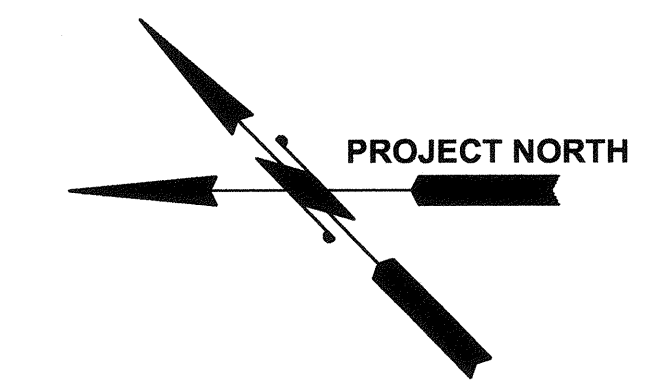


NOTES

- SEE STRUCTURAL PLANS DRAWINGS DRAINAGE ELEMENTS WITHIN UTILITY VAULTS ALONG THE BULLRAIL.
- THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DRAWINGS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL POTHOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- UNLESS OTHERWISE NOTED, CATCH BASINS AND MANHOLES SHALL CONFORM TO WSDOT STANDARD PLANS AND SPECIFICATIONS, MODIFIED TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.
- FOR MANHOLE AND CATCH BASIN INSTALLATION REQUIREMENTS, SEE 1 AND 2
C5.12 C5.12
- UTILITY VAULTS AND STORMWATER TREATMENT STRUCTURES SHALL BE CONSTRUCTED TO THE INTERIOR DIMENSIONS SHOWN ON THE PLANS AND DETAILS AND DESIGNED BY THE CONTRACTOR TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.
- SEE SHEETS C5.5-C5.7 FOR STORM DRAIN PROFILES.
- FOR TYPICAL STORM DRAINAGE TRENCH DETAIL, SEE 1
C5.8
- DOWNSPOUT CONNECTIONS SHALL BE COORDINATED WITH THE PORT AND ENGINEER PRIOR TO STARTING WORK IN THIS AREA.

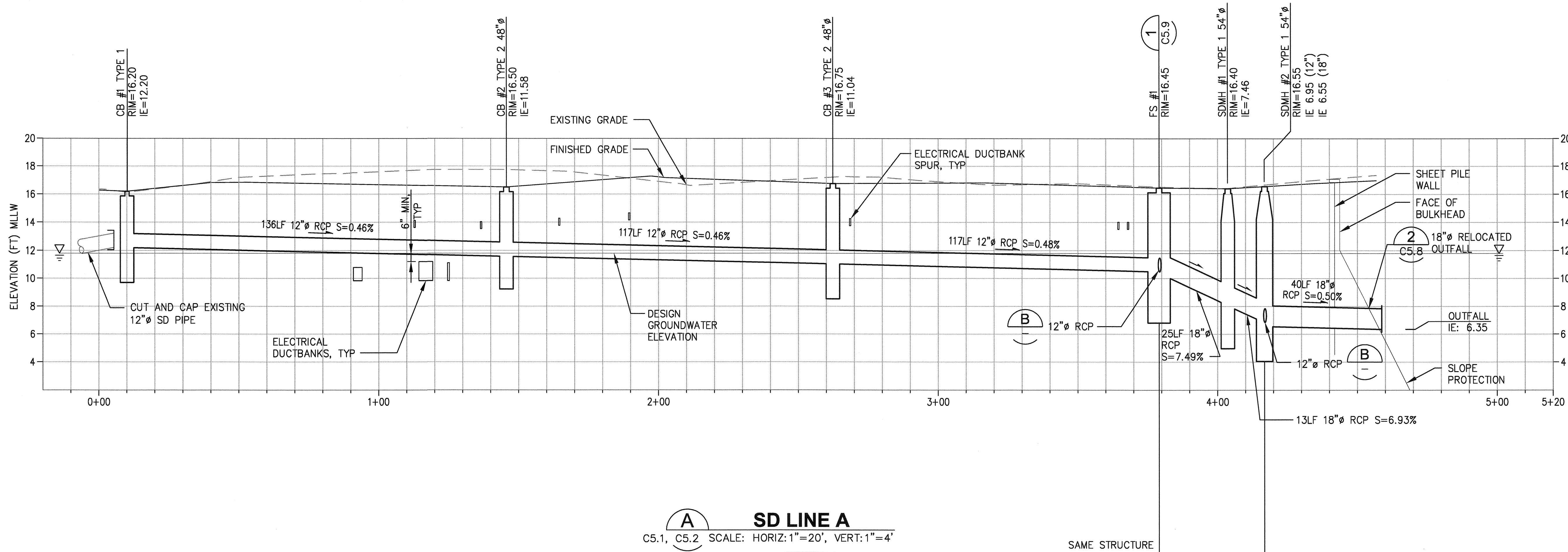
LEGEND

- PROJECT WORK AREA LIMITS
- SD STORM DRAIN PIPE, SIZE PER PLAN
- STORM DRAIN MANHOLE, SEE NOTE 3
- CATCH BASIN, SEE NOTE 3
- 4" DECK DRAIN
- ENHANCED STORMWATER TREATMENT VAULT, OIL/WATER SEPARATOR, SEE NOTE 5

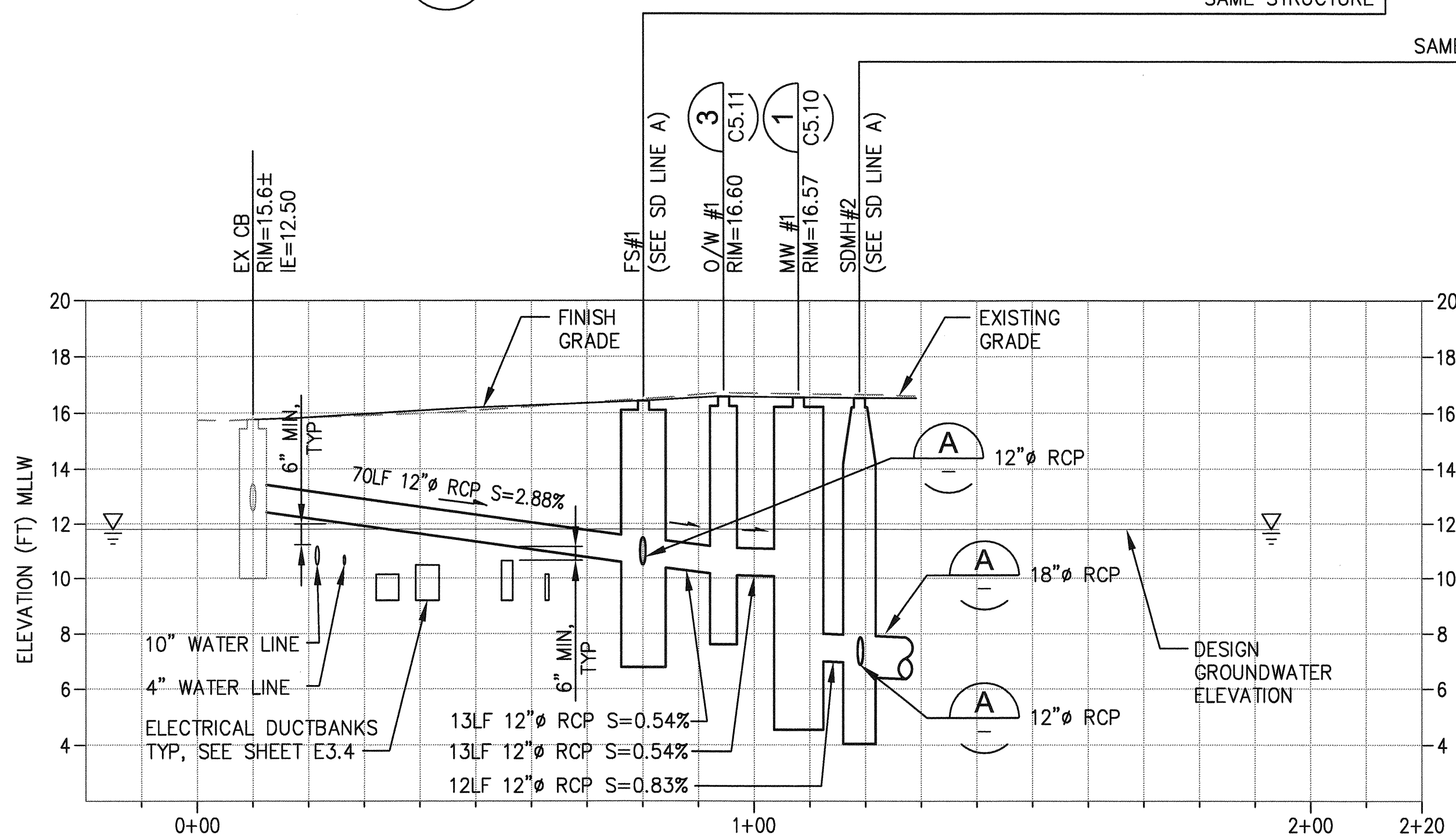


 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-4150 Fax (253) 396-0162	CHECKED BY: _____ DATE: _____ PROJECT ENGR: _____ DATE: _____ DIRECTOR ENGR: _____ DATE: _____ PRINTED BY: kvang Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
	MARK: _____ REVISION: _____ BY: _____ APPR: _____ DATE: _____
6552 C5.3 SH 78 OF 499	PIER 4 PHASE 2 RECONFIGURATION DRAINAGE PLAN - SHEET 3
CONT/CONS: 070136 M. ID: 091251 PHASE: BID	TOWNSHIP: _____ SECTION: _____ RANGE: _____ DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933 DRAWING SCALE: AS NOTED

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A SD LINE A
 C5.1, C5.2 SCALE: HORIZ: 1"=20', VERT: 1"=4'



B SD LINE B
 C5.2 SCALE: HORIZ: 1"=20', VERT: 1"=4'

6552
C5.5
 SH 80 OF 499

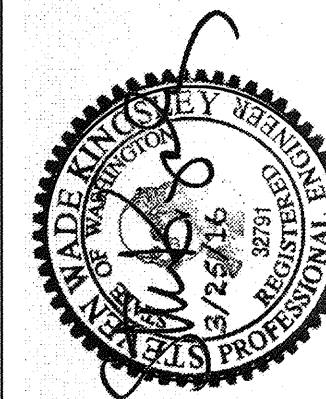
CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

PIER 4 PHASE 2
 RECONFIGURATION
 DRAINAGE PROFILES - SHEET 1

TOWNSHIP: RANGE: SECTION:
 DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933
 PARCEL: DRAWING SCALE: AS NOTED

APPROVED: *[Signature]*
 DIRECTOR ENG. DATE: 3-28-16
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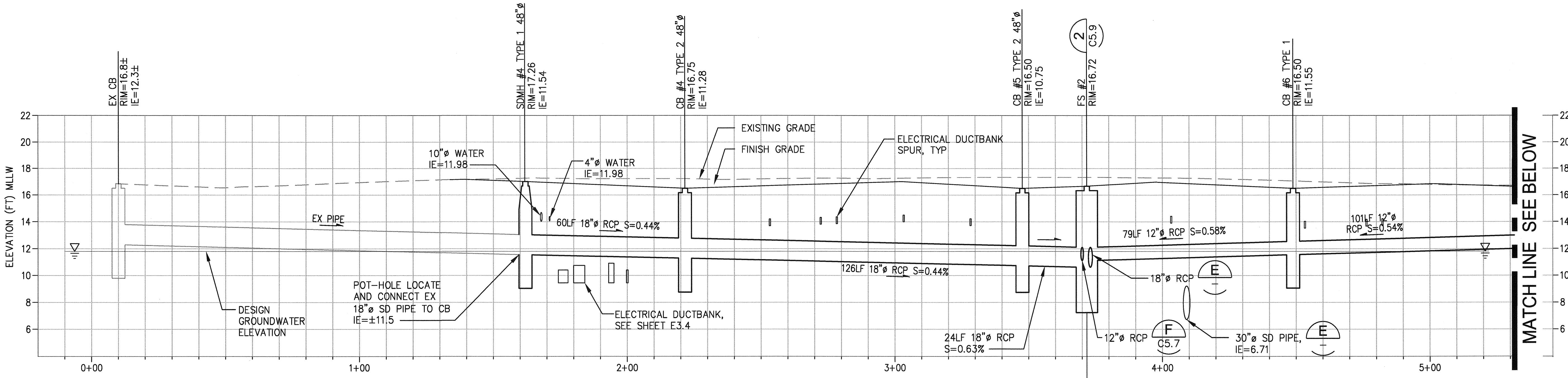
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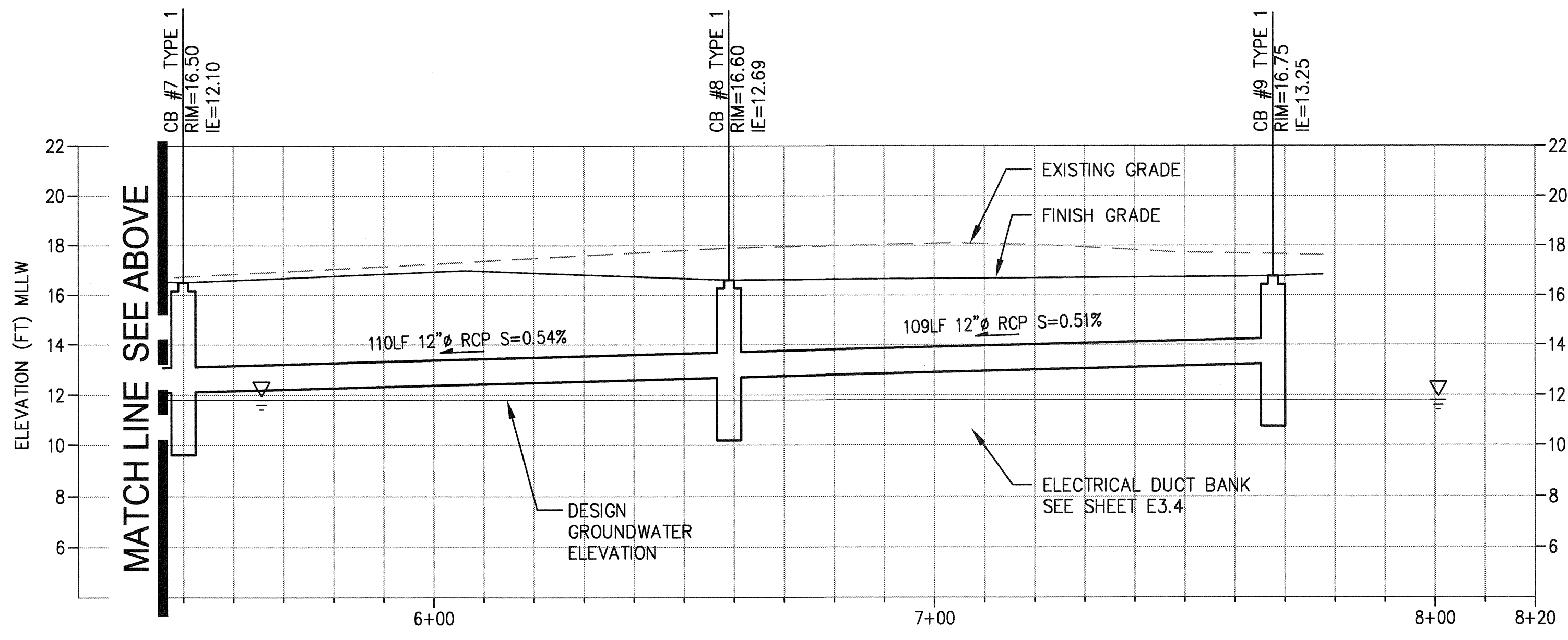
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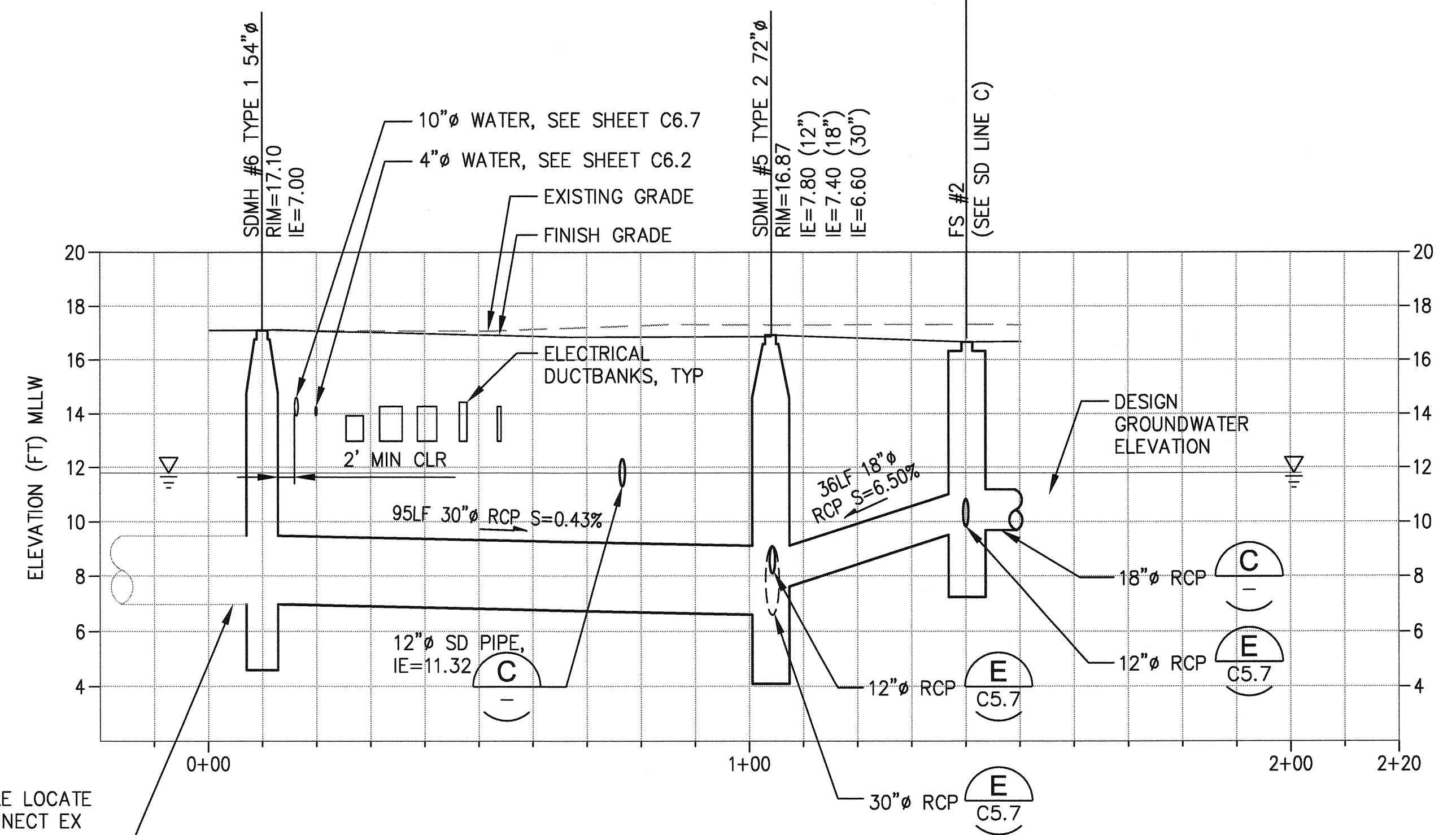
C SD LINE C
C5.2C5.3 SCALE: HORIZ: 1"=20', VERT: 1"=4'

NOTES

- POT-HOLE AND LOCATE EXISTING STORM DRAIN PIPING TO BE CONNECTED TO STORM DRAIN STRUCTURES. VERIFY INVERT ELEVATIONS. NOTIFY ENGINEER IF CONDITIONS DIFFER THAN WHAT IS INDICATED.



C SD LINE C CONT.
C5.2 SCALE: HORIZ: 1"=20', VERT: 1"=4'



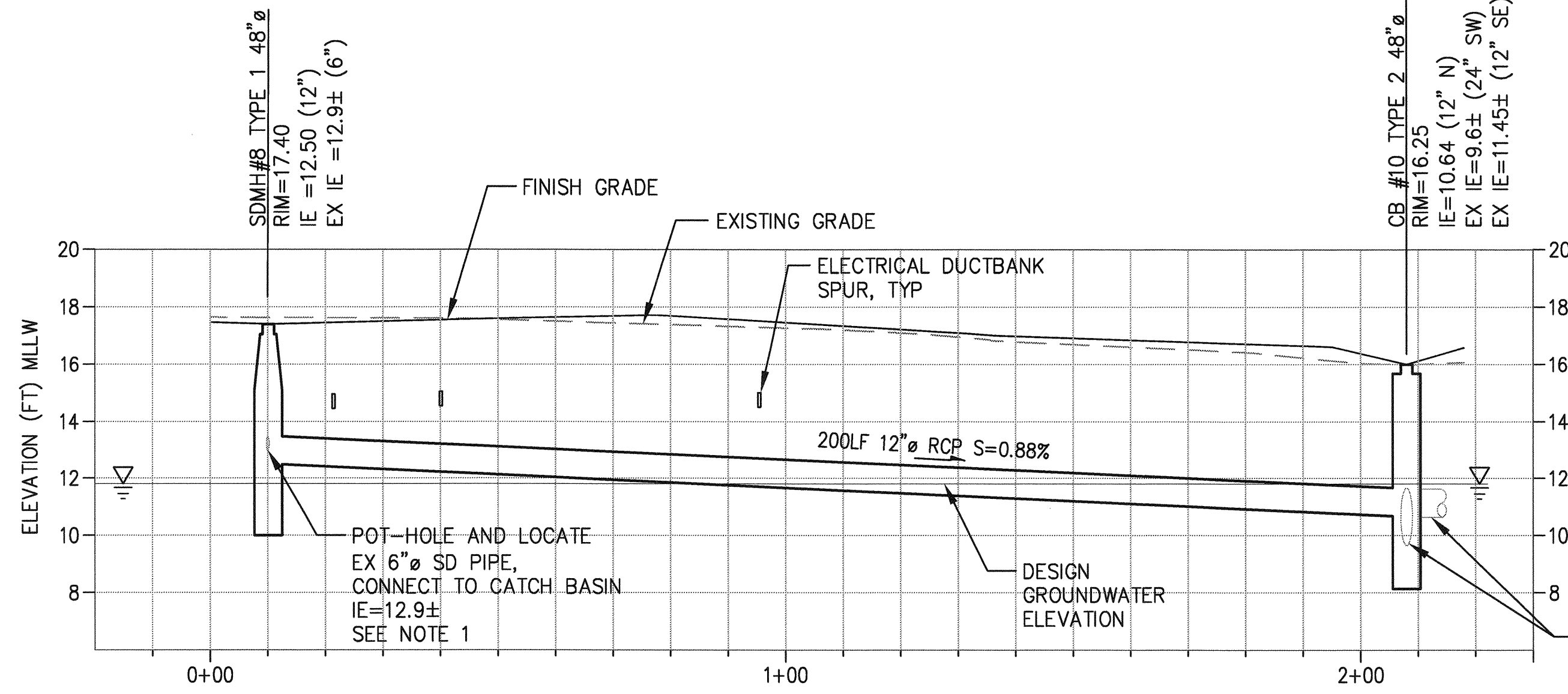
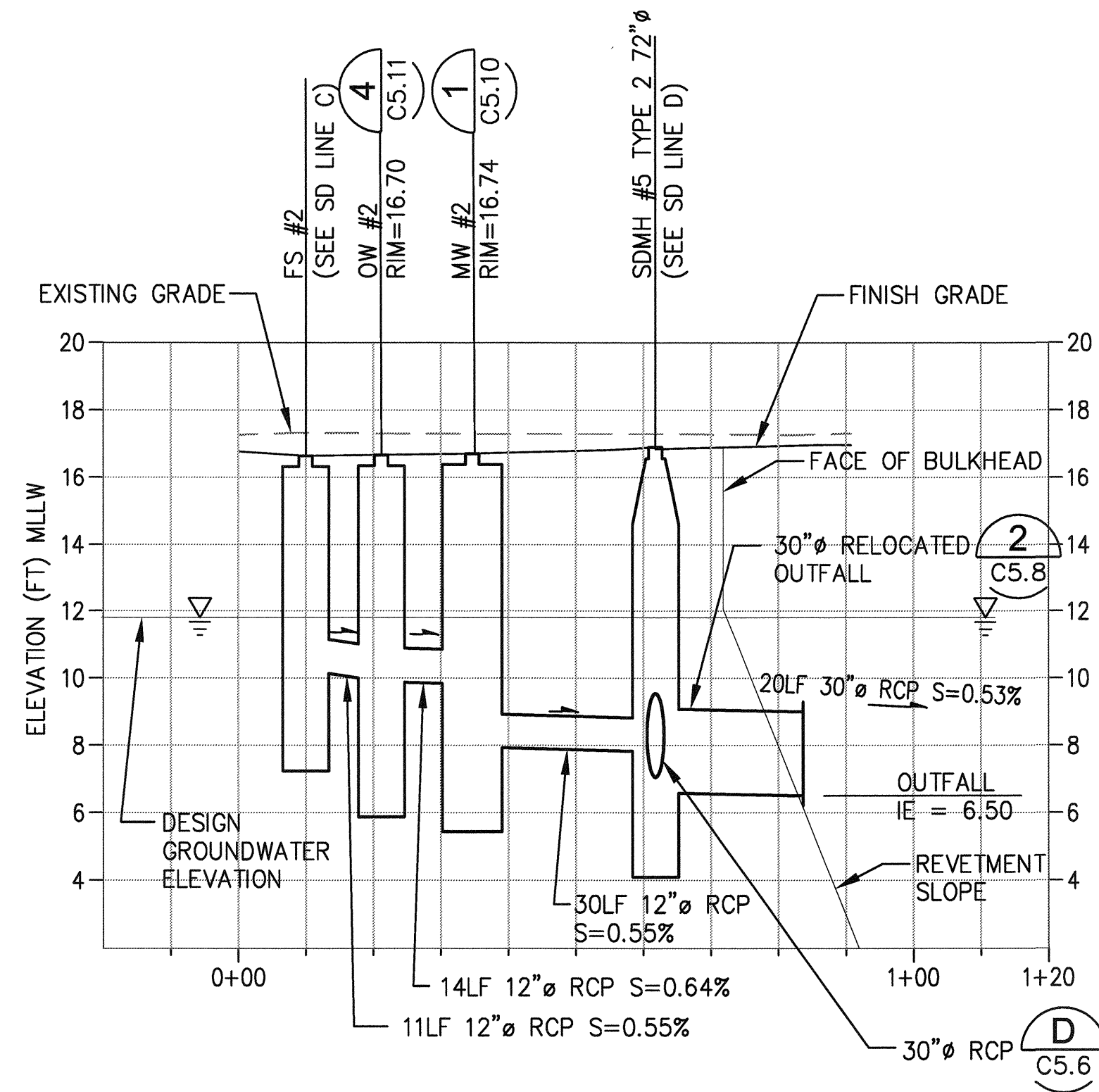
D SD LINE D
C5.2 SCALE: HORIZ: 1"=20', VERT: 1"=4'

MATCH LINE SEE BELOW

MATCH LINE SEE ABOVE

 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0150 Fax (253) 396-0162		Port of Tacoma <small>P.O. BOX 1887 TACOMA, WA 98401 (253) 396-5441</small>
	MARK: REVISION: BY: DATE:	APPROVED: <i>Mike Howard</i> DIRECTOR ENG. DATE: 3-28-16
6552 C5.6 SH 81 OF 499	PIER 4 PHASE 2 RECONFIGURATION DRAINAGE PROFILES - SHEET 2	TOWNSHIP: 070136 DAT-HRZ: WA83-SF PARCEL:
CONT/CONS: 070136 M. ID: 091251 PHASE: BID	RANGE: MLW 19.39' @ Tide 22 1933 VERT:	SECTION: DATE: 091251 DRAWING SCALE: AS NOTED
PRINTED BY: kvang Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837		

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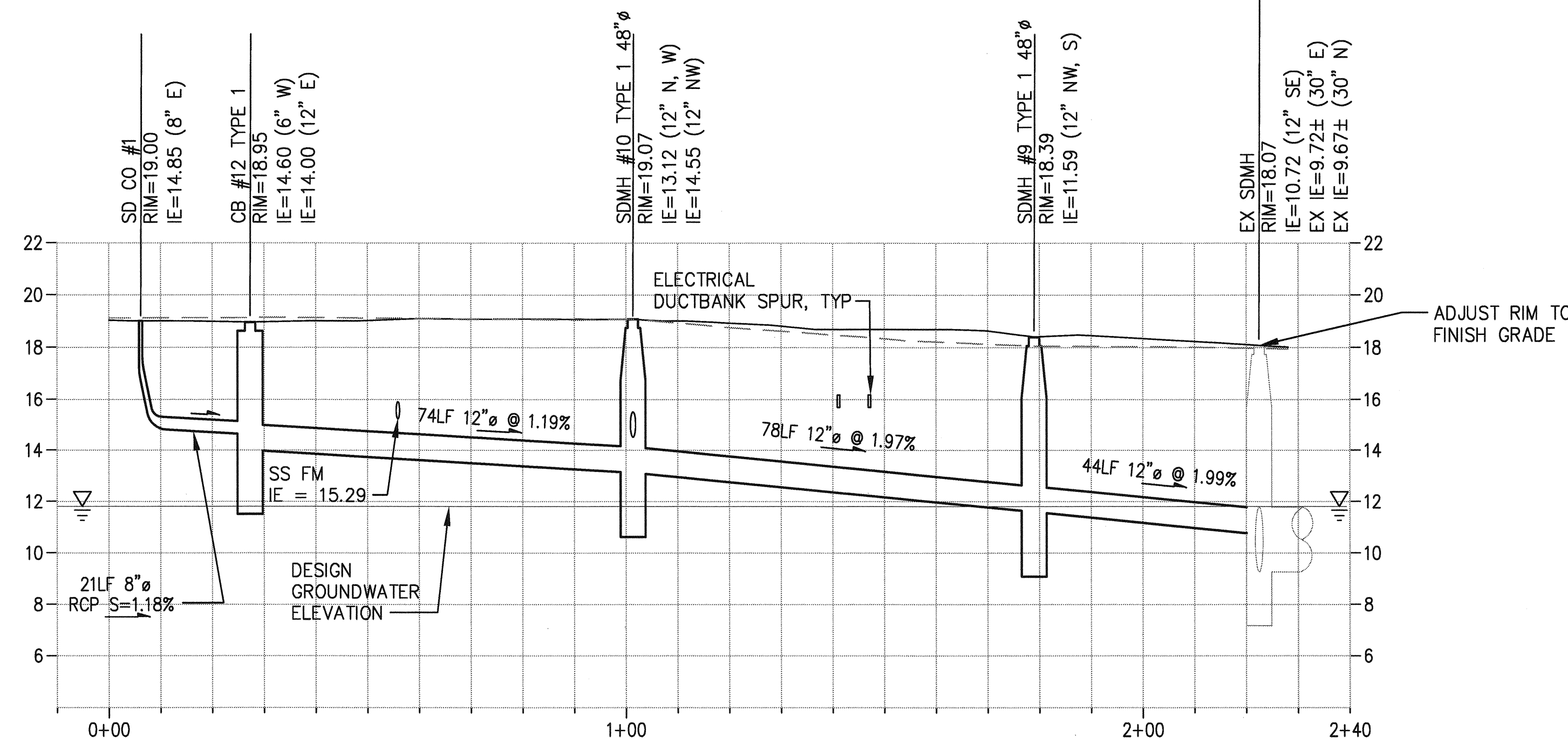
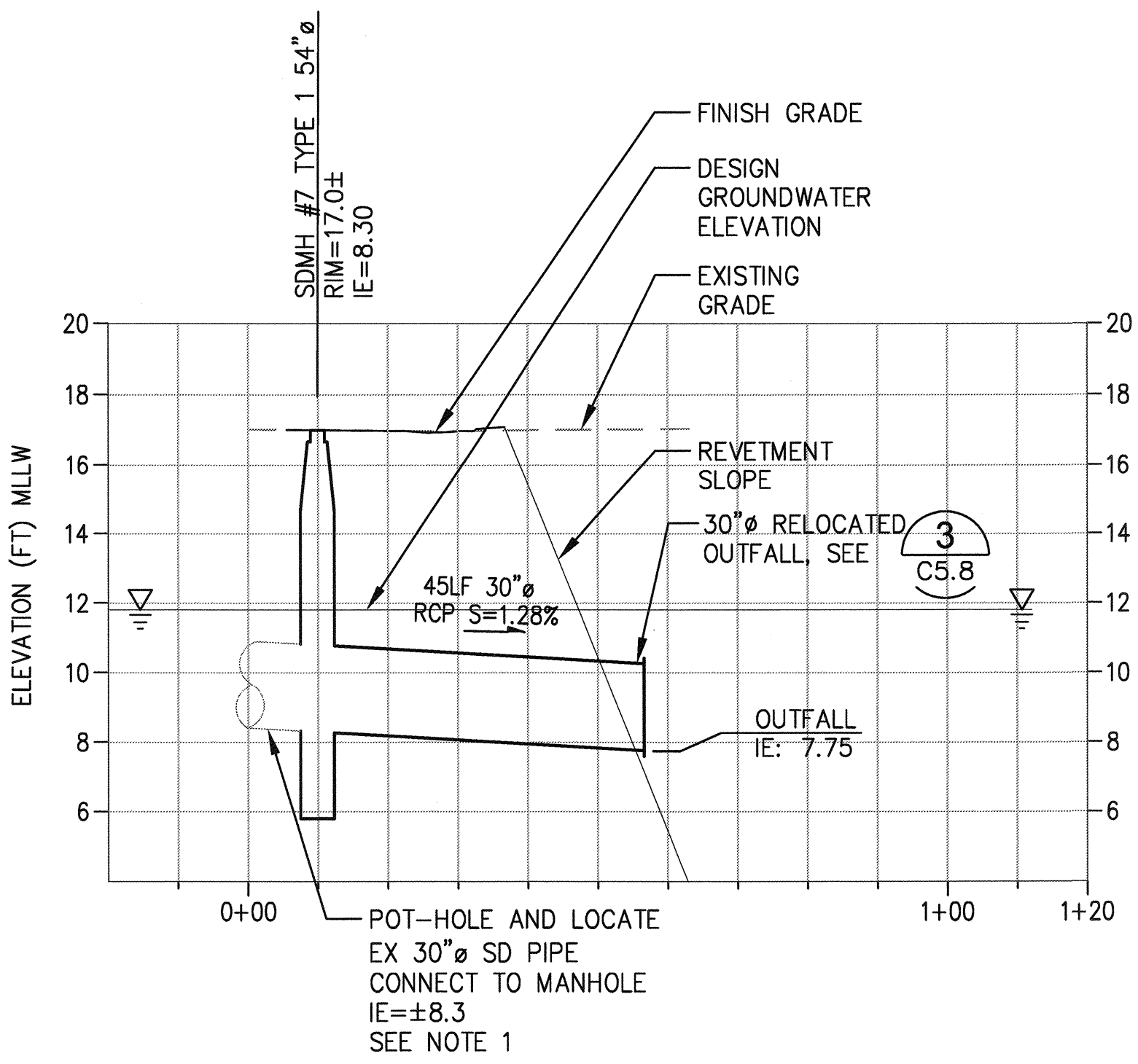


NOTES

- POT-HOLE AND LOCATE EXISTING STORM DRAIN PIPING TO BE CONNECTED TO STORM DRAIN STRUCTURES. VERIFY INVERT ELEVATIONS. NOTIFY ENGINEER IF CONDITIONS DIFFER THAN WHAT IS INDICATED.

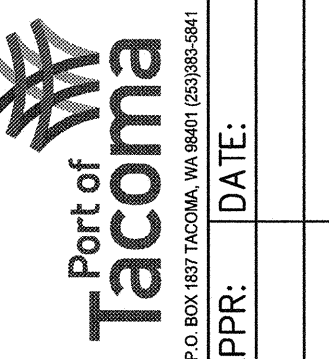
E SD LINE E
C5.2 SCALE: HORIZ: 1"=20', VERT: 1"=4'

F SD LINE F
C5.3 SCALE: HORIZ: 1"=20', VERT: 1"=4'



G SD LINE G
C5.3 SCALE: HORIZ: 1"=20', VERT: 1"=4'

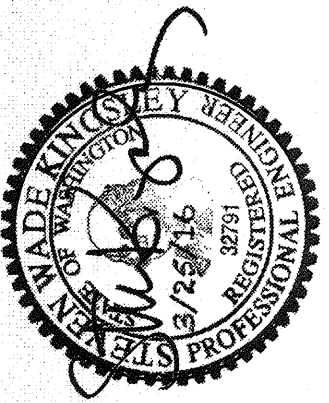
H SD LINE H
C5.3 SCALE: HORIZ: 1"=20', VERT: 1"=4'



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No. 1215
9/25/15
EXPIRES 9/25/20



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DIRECTOR	DATE
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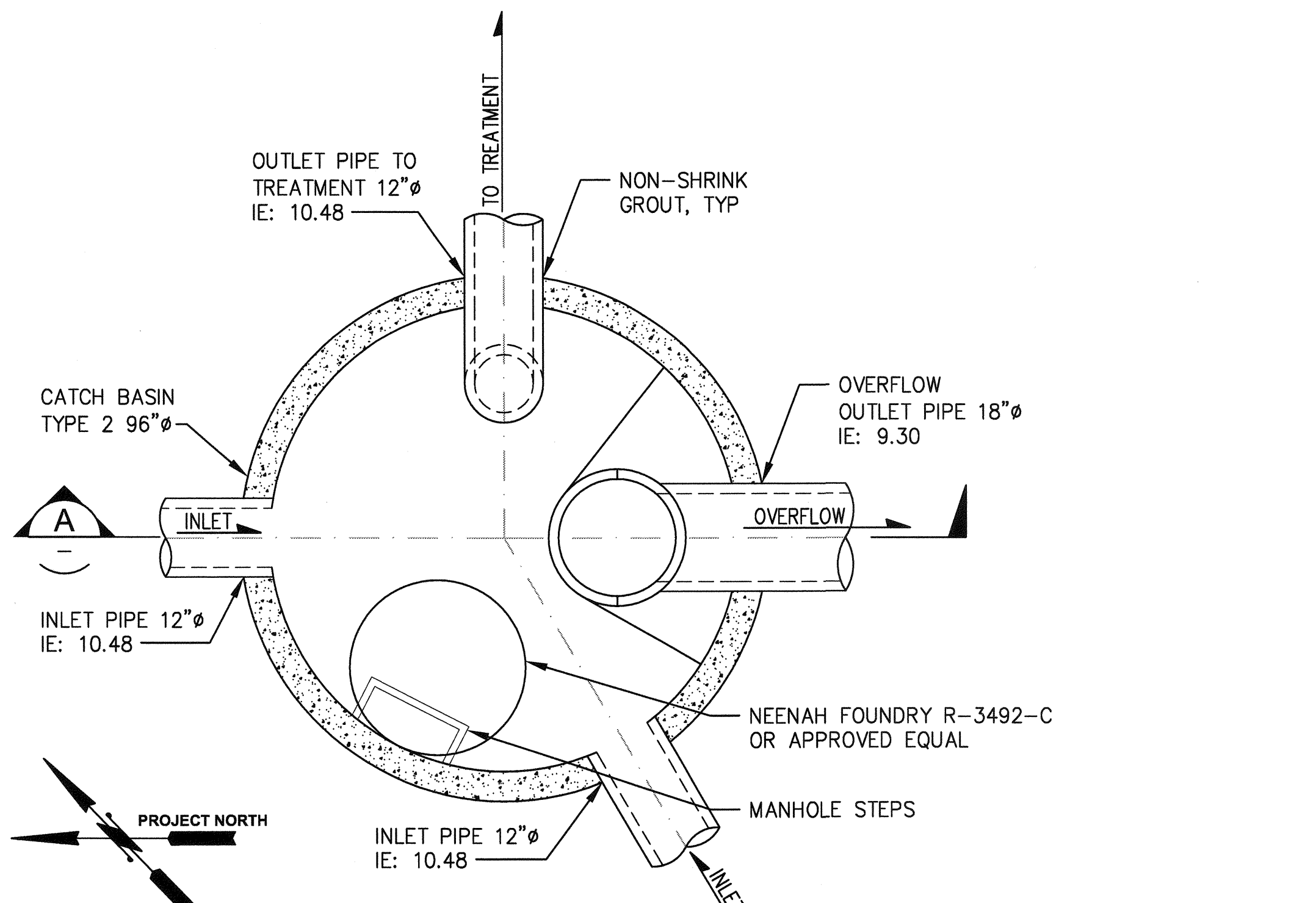
PIER 4 PHASE 2 RECONFIGURATION DRAINAGE PROFILES - SHEET 3

TOWNSHIP: 070136
RANGE: MLLW 19.39' @ Tide 22 19.33
DATE-HRZ: WAB3-SF
DATE: 091251
VERT: 22 19.33
PARCEL: DRAWING SCALE: AS NOTED

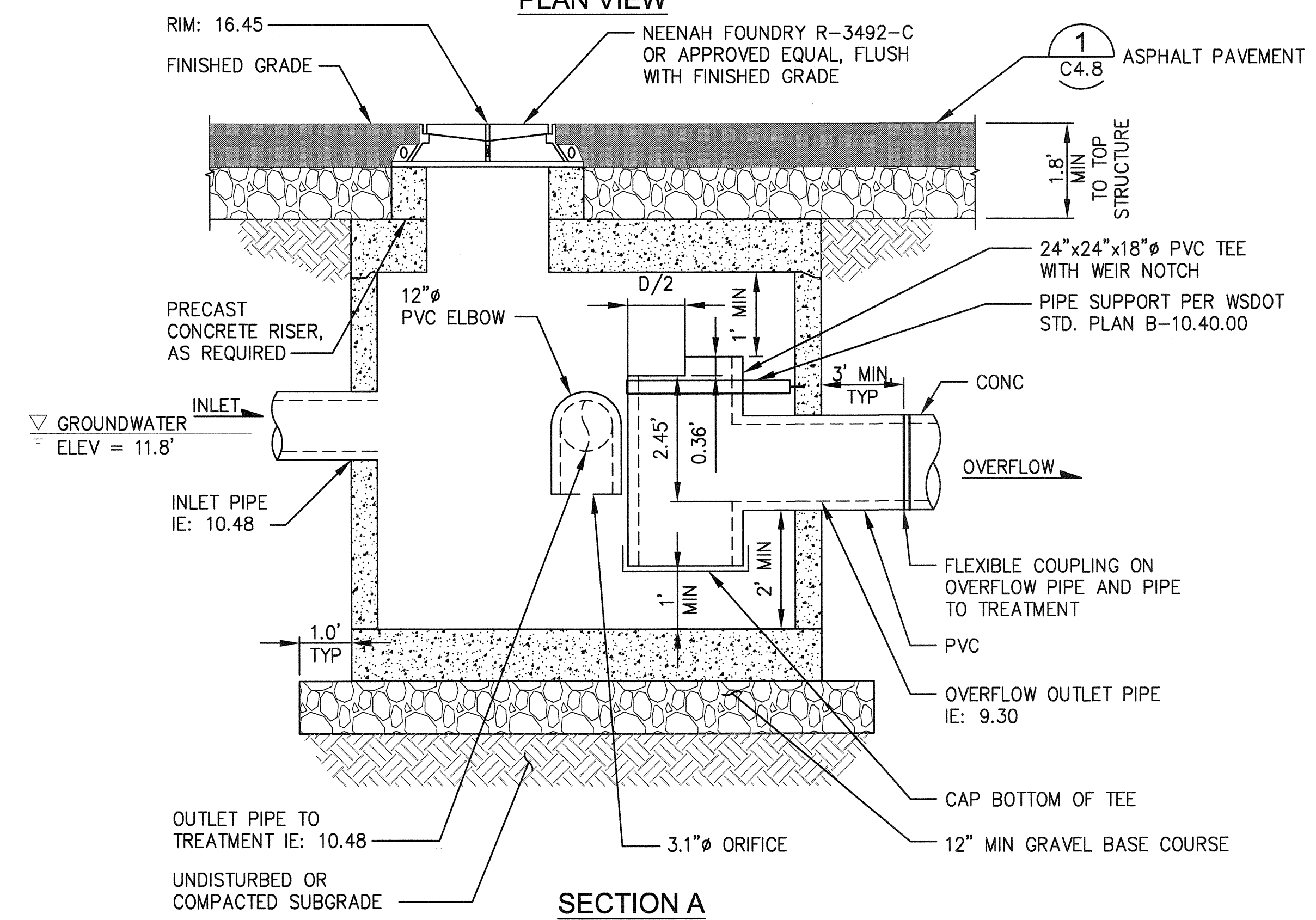
6552
C5.7
SH 82 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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PLAN VIEW



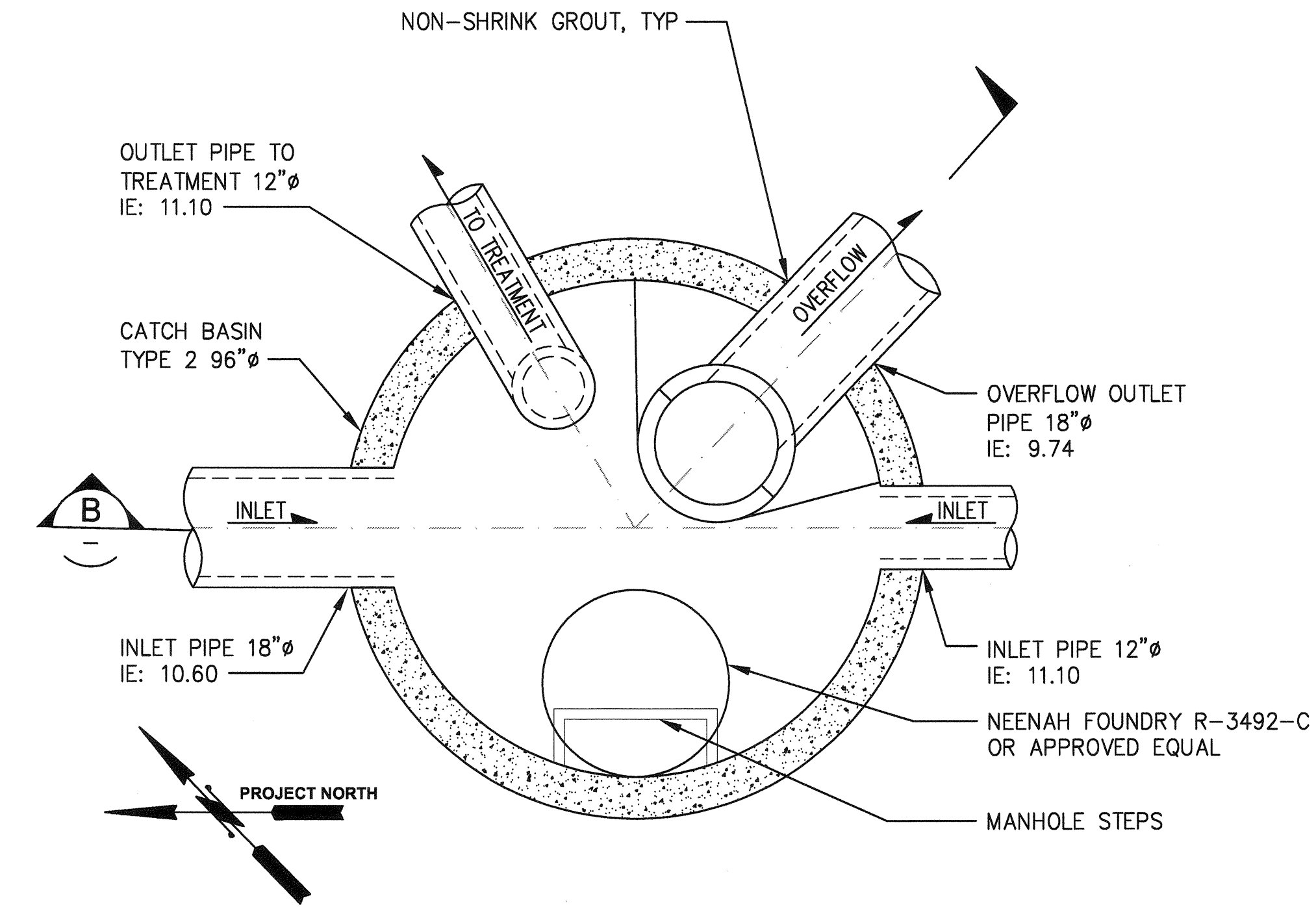
SECTION A

- NOTES:**
1. FLOW SPLITTER SHALL BE CONTRACTOR DESIGNED TO THE INTERIOR DIMENSIONS SHOWN AND TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.
 2. LOCATION SHALL BE PER PLAN.
 3. THE RISER SHALL NOT BLOCK OR RESTRICT THE CLIMBING SPACE AREA.

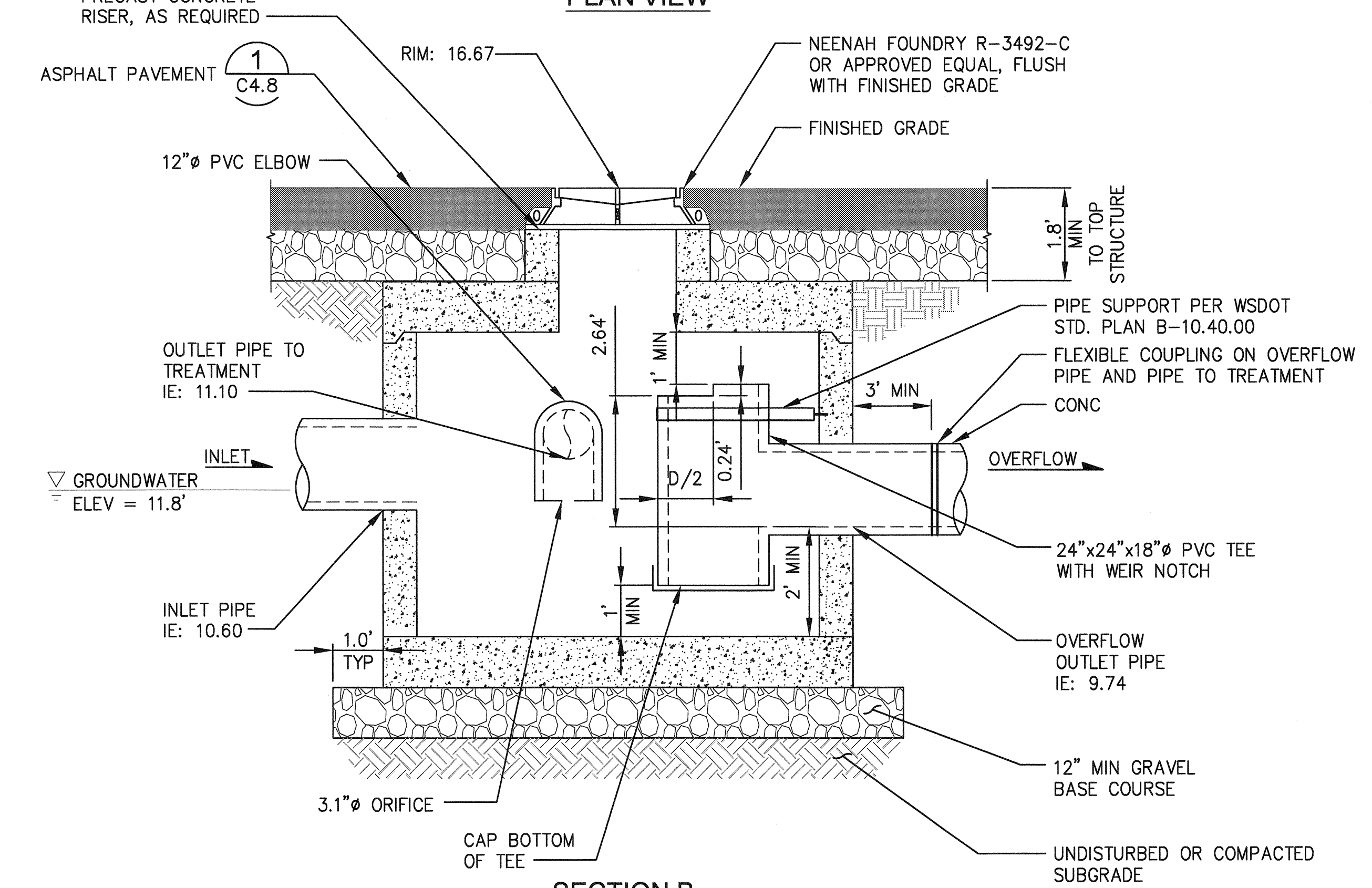
**FLOW SPLITTER #1
STRUCTURE DETAIL**

1
C5.2, C5.5, C5.7

SCALE: 1"=2'



PLAN VIEW



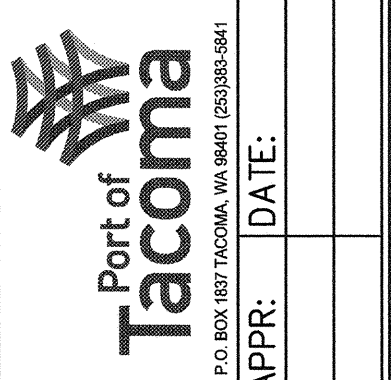
SECTION B

- NOTES:**
1. FLOW SPLITTER SHALL BE CONTRACTOR DESIGNED TO THE INTERIOR DIMENSIONS SHOWN AND TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.
 2. LOCATION SHALL BE PER PLAN.
 3. THE RISER SHALL NOT BLOCK OR RESTRICT THE CLIMBING SPACE AREA.

**FLOW SPLITTER #2
STRUCTURE DETAIL**

2
C5.2, C5.6, C5.7

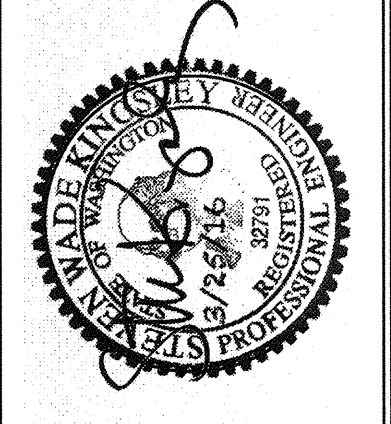
SCALE: 1"=2'



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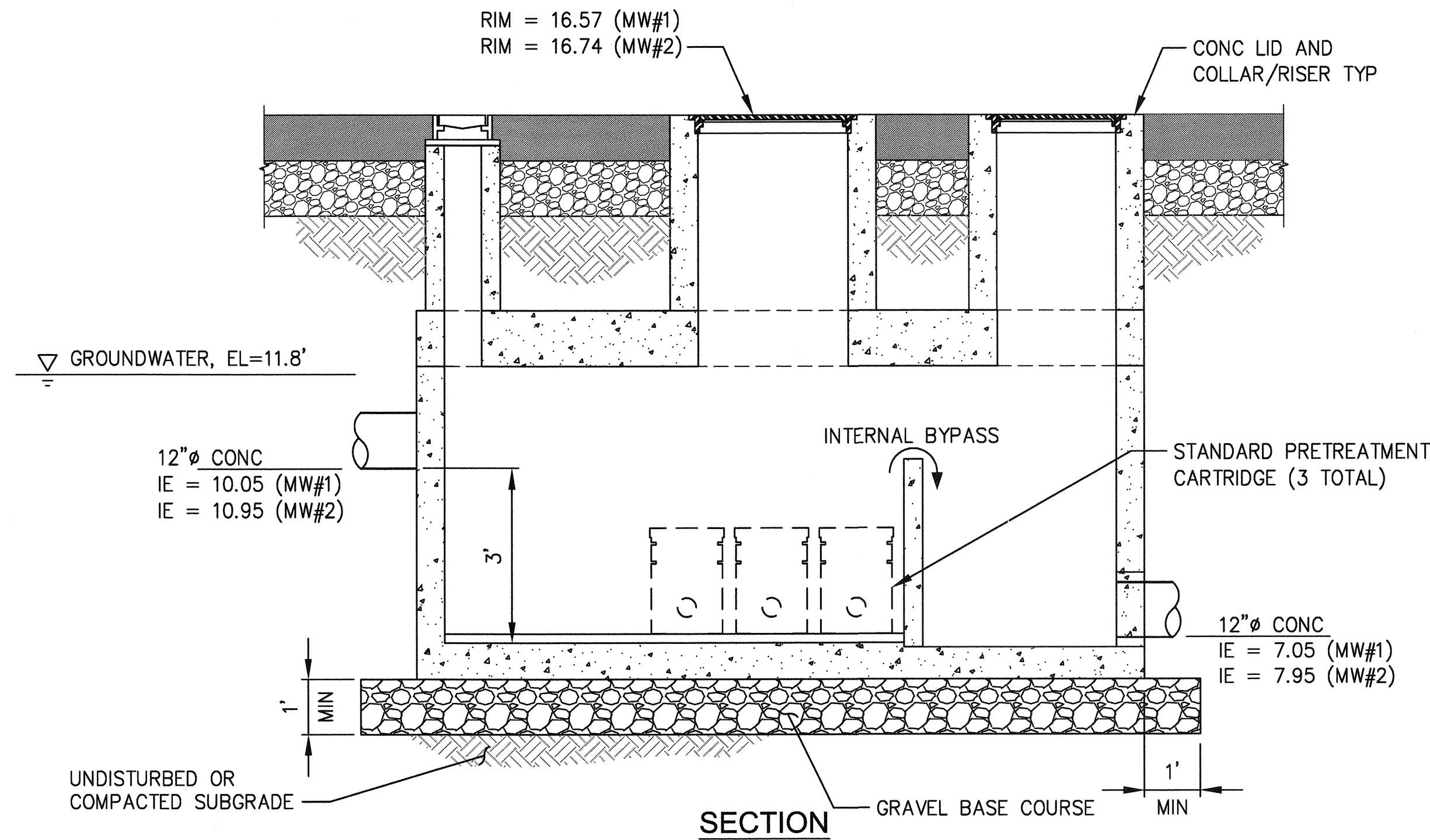
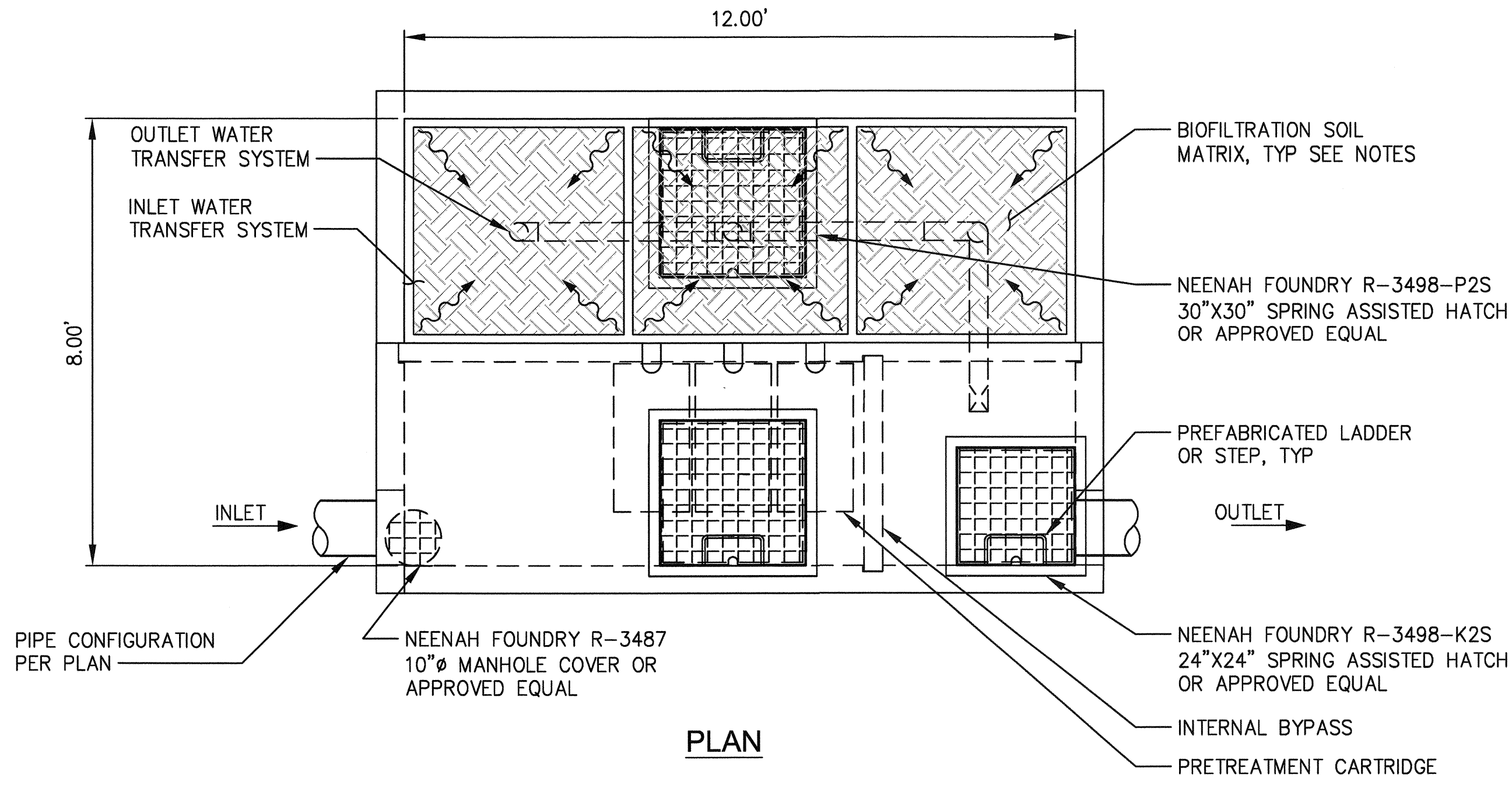


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<i>K. Wang</i>		
DIRECTOR ENG. DATE	PROJ. ENGR	DATE
3-28-16	kwang	Mar 24, 2016
PRINTED BY:	PORT ADDRESS:	
ONE SITCUM PLAZA	TACOMA, WA 98401-1837	

PIER 4 PHASE 2 RECONFIGURATION DRAINAGE DETAILS - SHEET 2	TOWNSHIP:	SECTION:
	M.L.W. 19.39	@ Tide 22 19.33
RANGE:	VERT:	DRAWING SCALE:
WAB3-SF	AS NOTED	AS NOTED

6552	SH 84 OF 499
C5.9	
CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

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MODULAR WETLANDS TREATMENT REQUIREMENTS	
FLOW RATES	
PEAK TREATMENT FLOW RATE = 0.33 CFS OR 151 GPM	
BIOFILTRATION CHAMBER SURFACE AREA CALCS	
WETLAND MEDIA LOADING RATE 151 GPM / 150.96 SF = 1.00 GPM/SF	
PRETREATMENT FILTER SURFACE AREA CALCS	
PRETREATMENT FILTER LOADING RATE 151 GPM / 75 SF = 2.1 GPM/SF	

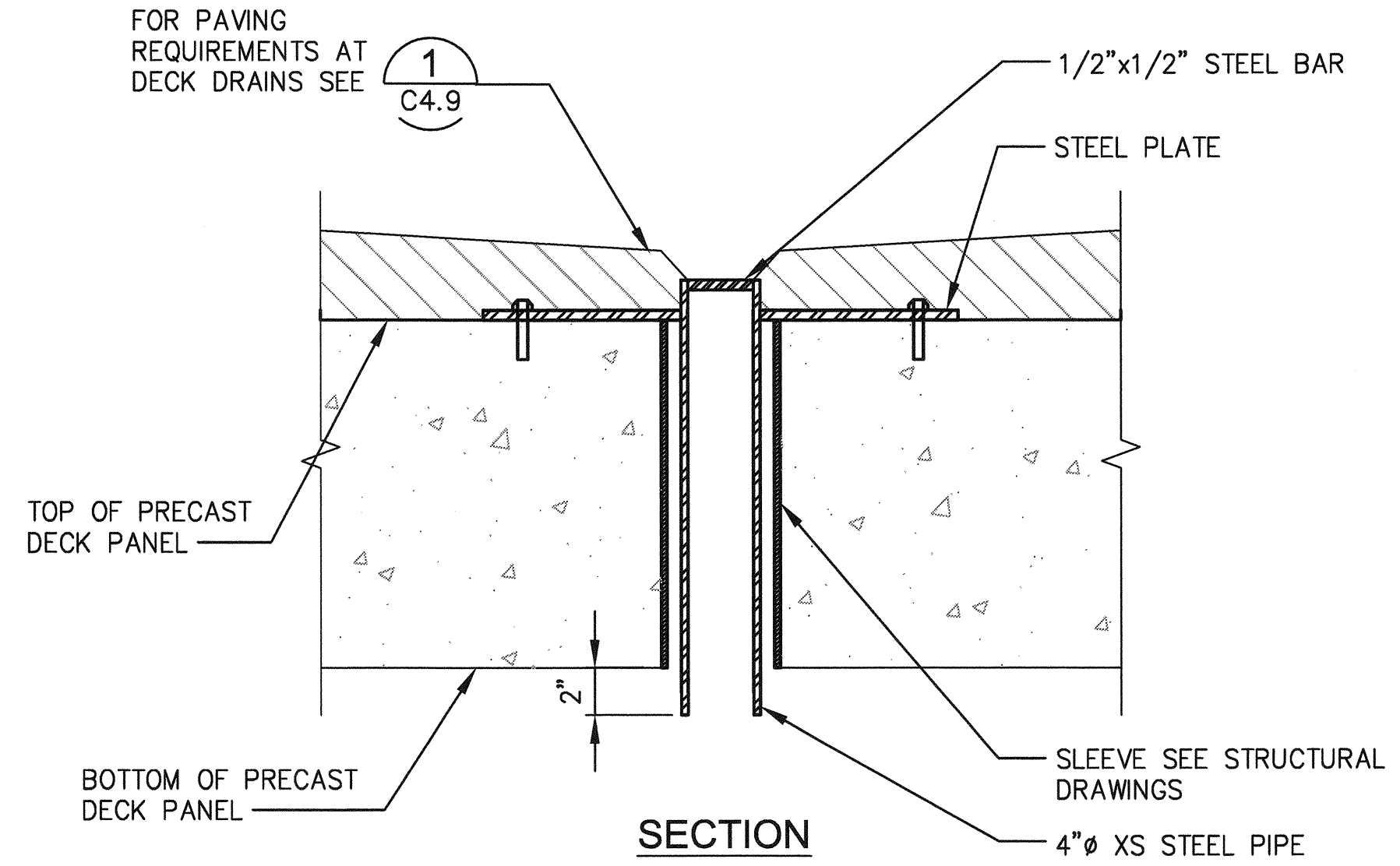
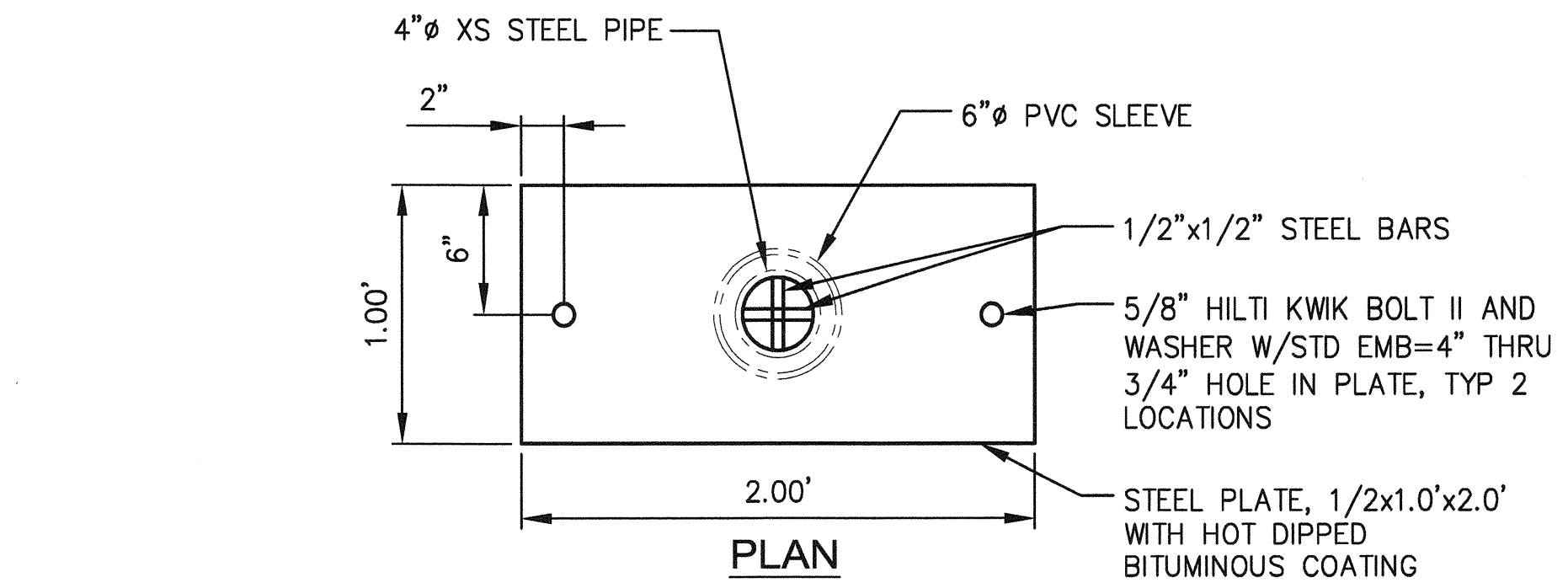
NOTES:

- INSTALL UNIT ON LEVEL BED OF GRAVEL BASE COURSE OF AT LEAST 1' IN DEPTH ON COMPACTED SUBGRADE WITH 1' MINIMUM OVER EXCAVATION AROUND ENTIRE UNIT.
- MODULAR WETLAND STRUCTURE SHALL BE MANUFACTURER DESIGNED TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4, AND WEIGHTED TO WITHSTAND THE BUOYANCY FORCE WHEN THE STRUCTURE IS EMPTY AND GROUNDWATER ELEVATION IS AS SHOWN.
- ALL INTERNAL COMPONENTS INCLUDING PRETREATMENT CARTRIDGE, WATER TRANSFER SYSTEM, AND BIOFILTRATION CHAMBER SORPTIVE MEDIA SHALL BE DESIGNED BY THE MANUFACTURER PER THE TREATMENT REQUIREMENTS INDICATED.

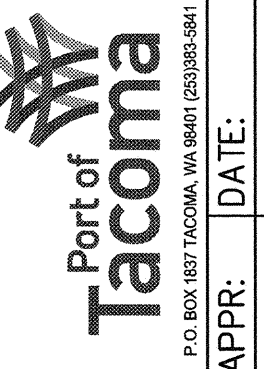
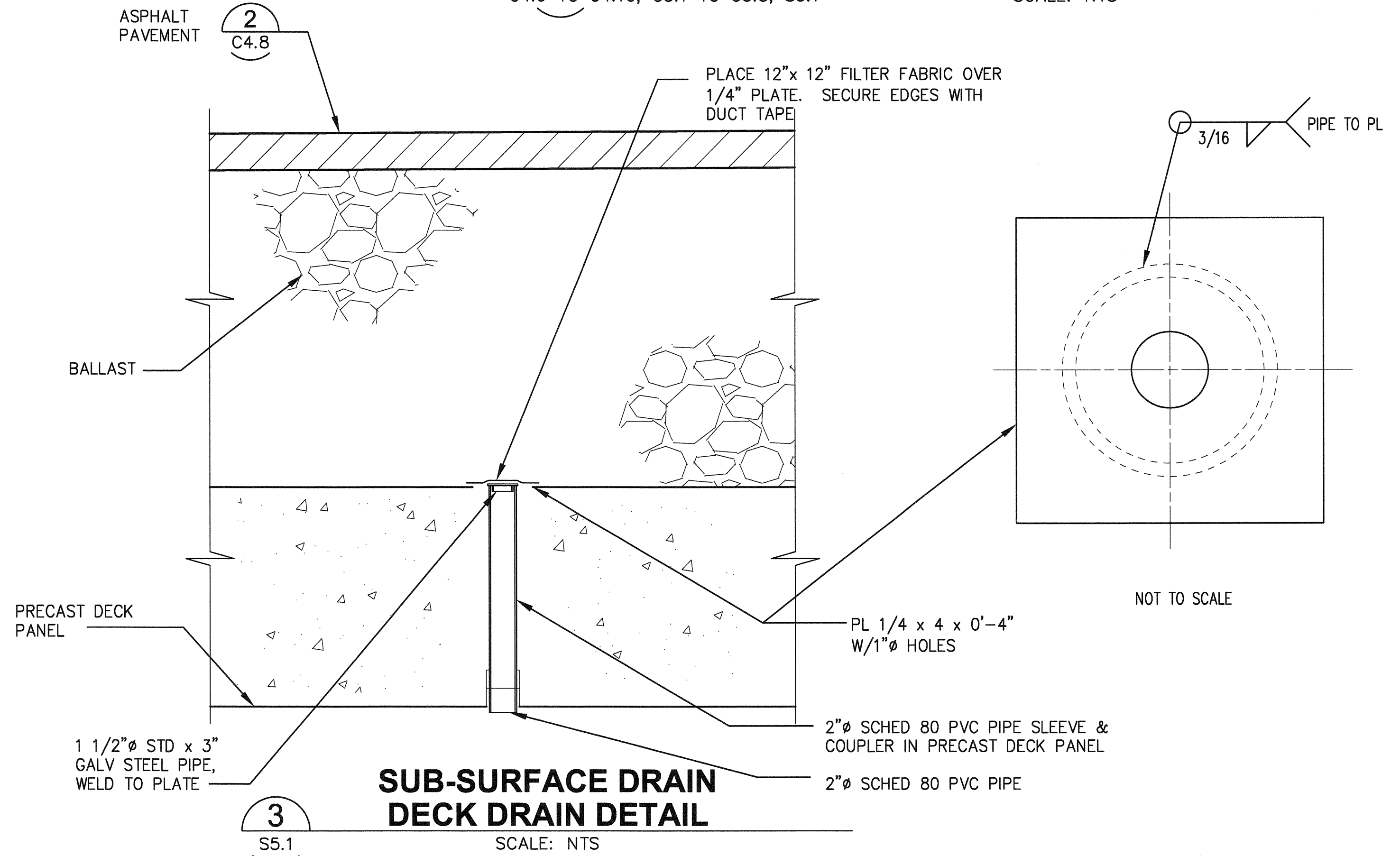
MW # 1 & 2
MODULAR WETLAND
MWS-L-8-12-UG-V

1
 C5.2, C5.5, C5.7

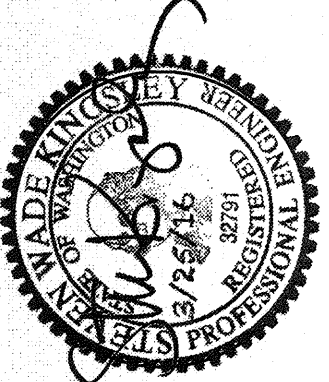
SCALE: 1"=2'



2 **DECK DRAIN DETAIL**
 C4.9 TO C4.10, C5.1 TO C5.3, S5.1 SCALE: NTS



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APPROVED: *[Signature]*
 3-28-16
 DIRECTOR ENG. DATE: 3-28-16
 PRINTED BY: kvong Mar 24, 2016
 PORT ADDRESS: ONE SITCUM PLAZA
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PIER 4 PHASE 2
 RECONFIGURATION
 DRAINAGE DETAILS - SHEET 3

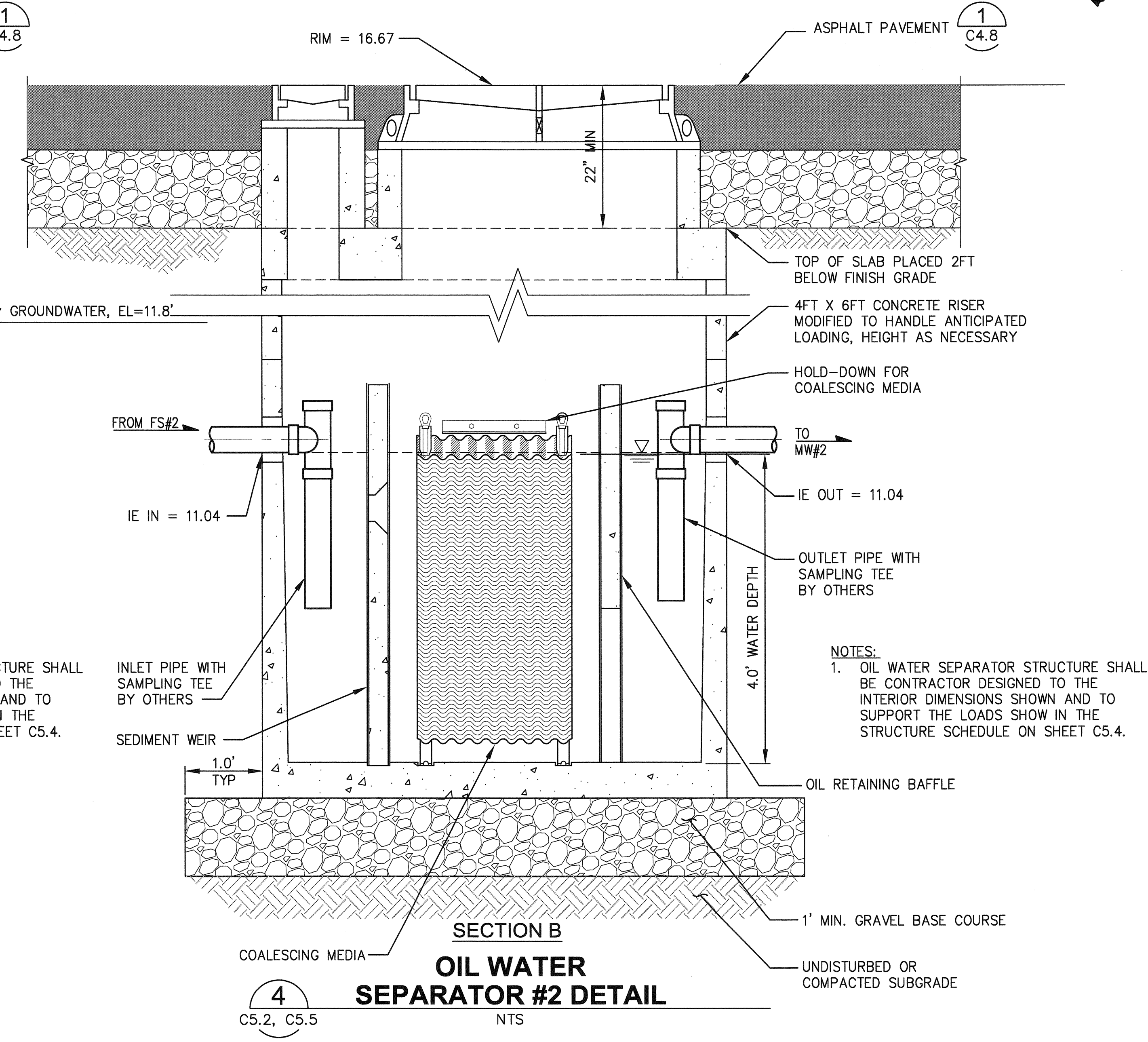
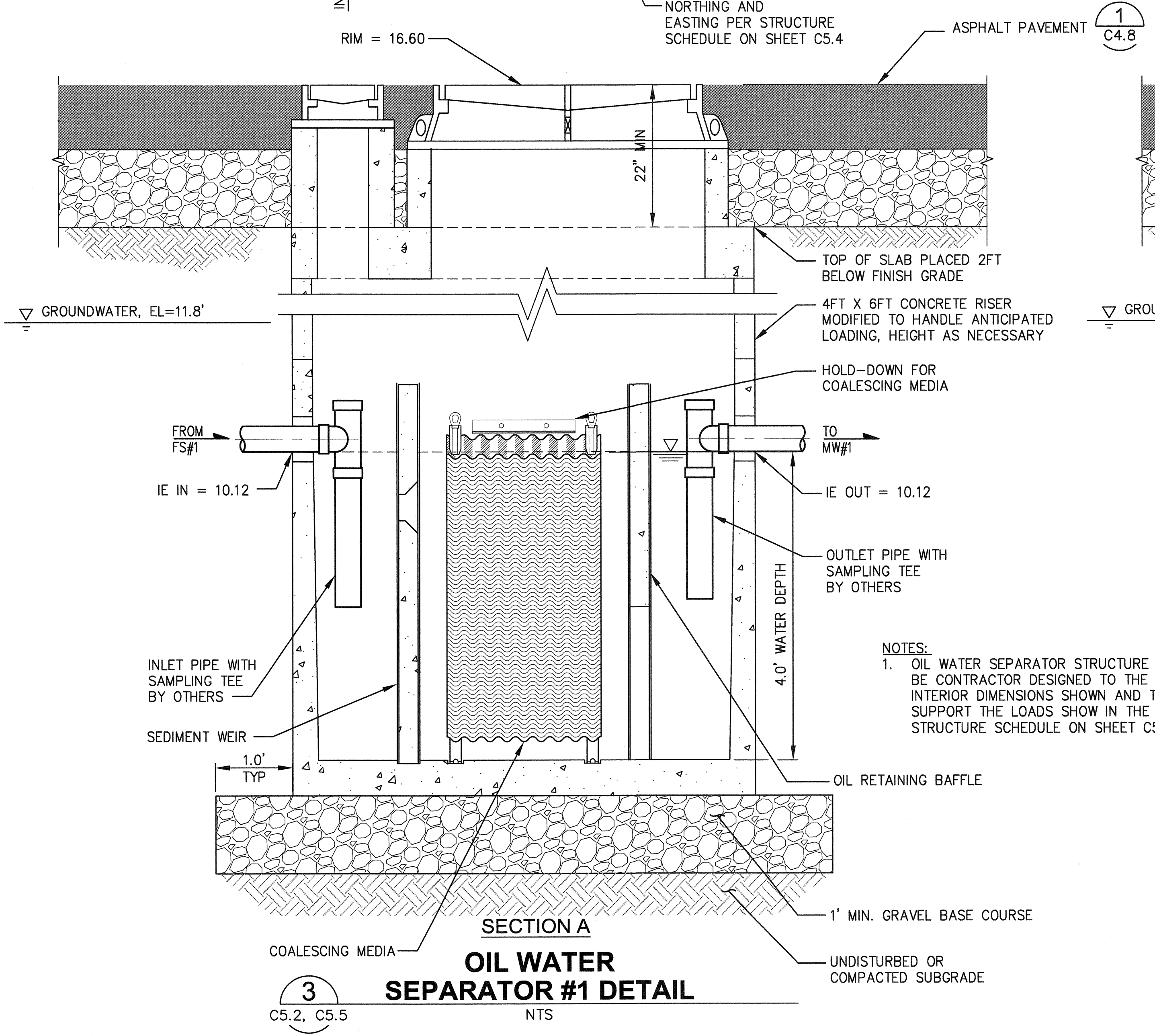
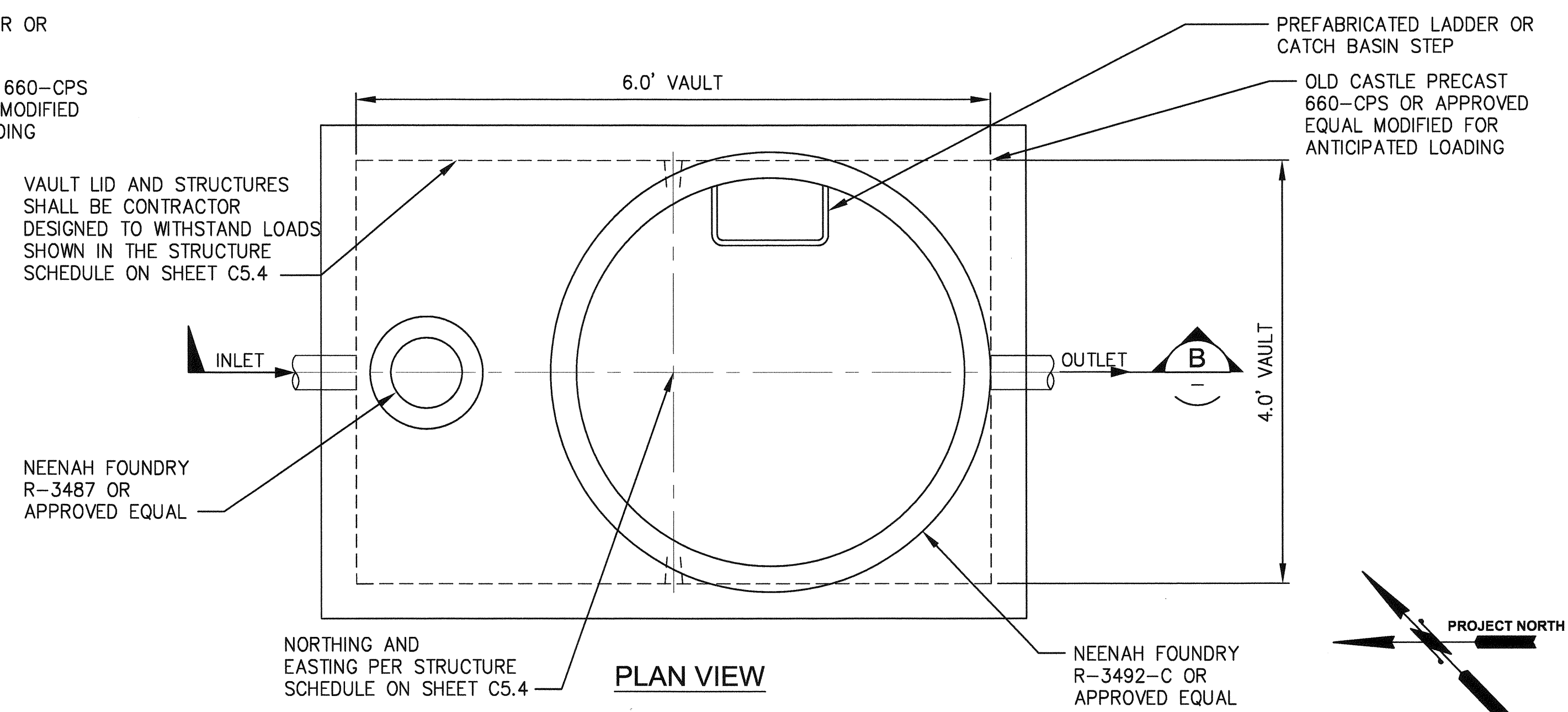
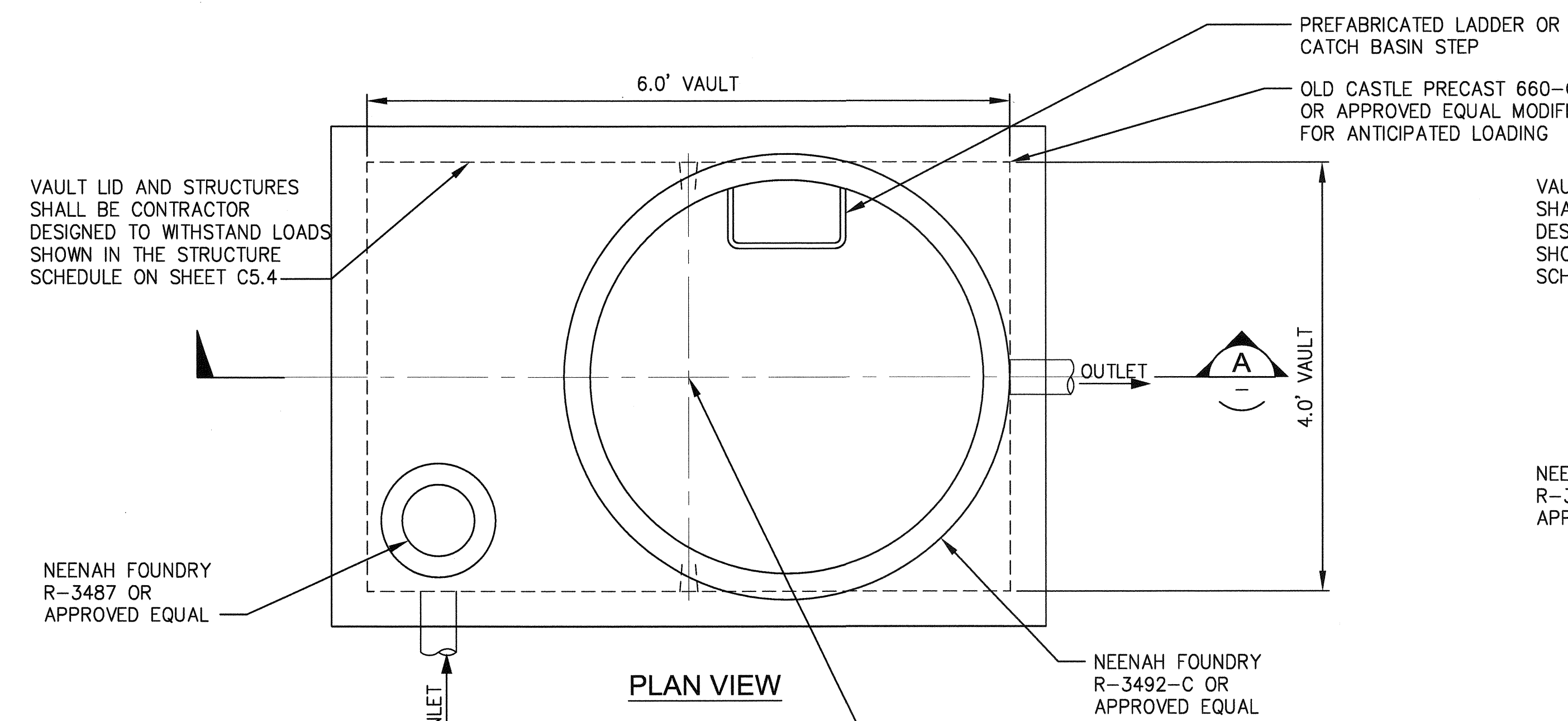
RANGE: MLLW 19.39' @ Tide 22 1933
 DAT-HRZ: WA83-SF
 VERT: MLLW 19.39' @ Tide 22 1933
 DRAWING SCALE: AS NOTED

6552
C5.10
 SH 85 OF 489
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

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BINDING EDGE

PORT OF TACOMA FILE: M:2014114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C5.8-C5.9-C5.10-C5.11-C5.12 (Drainage Details)

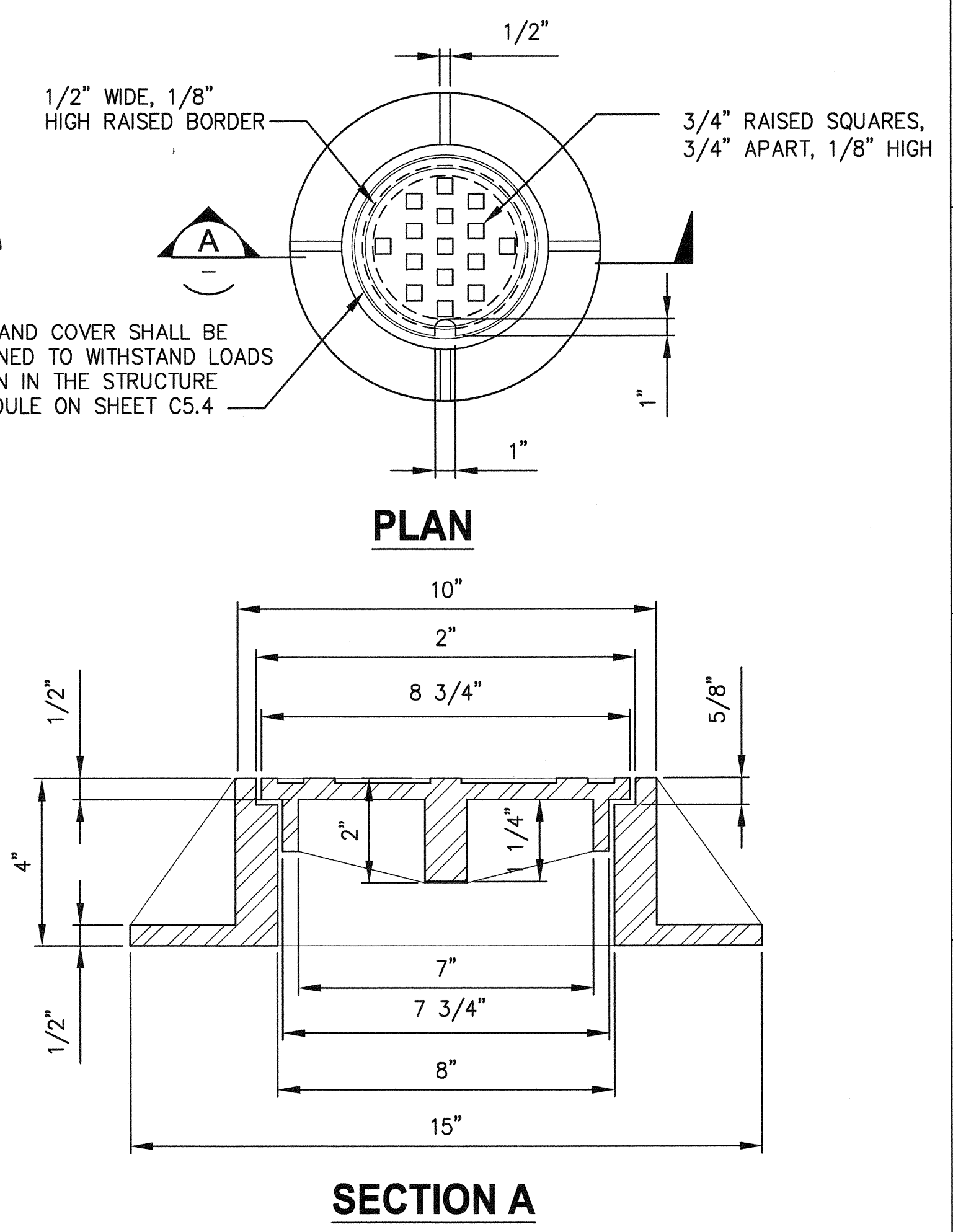
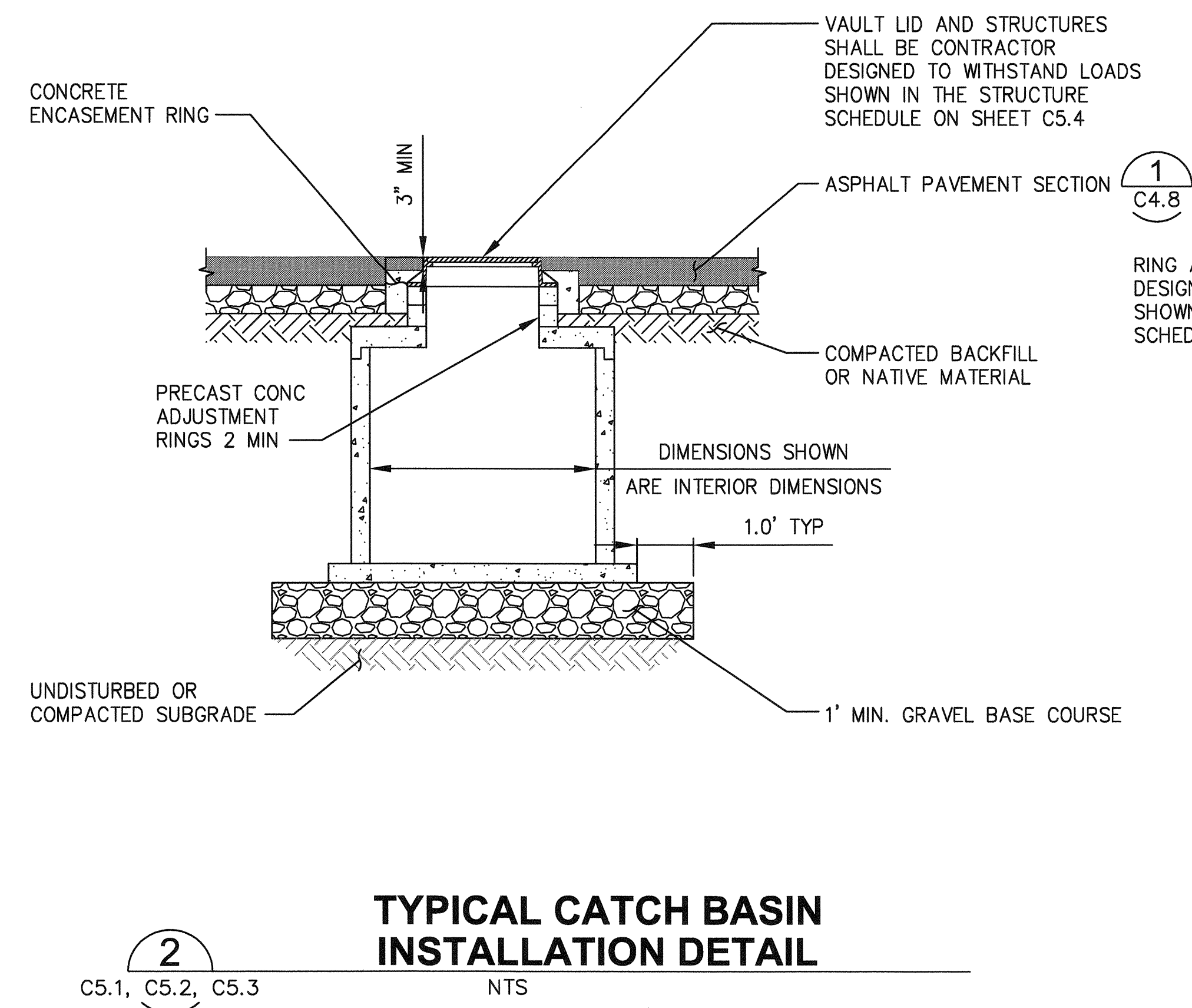
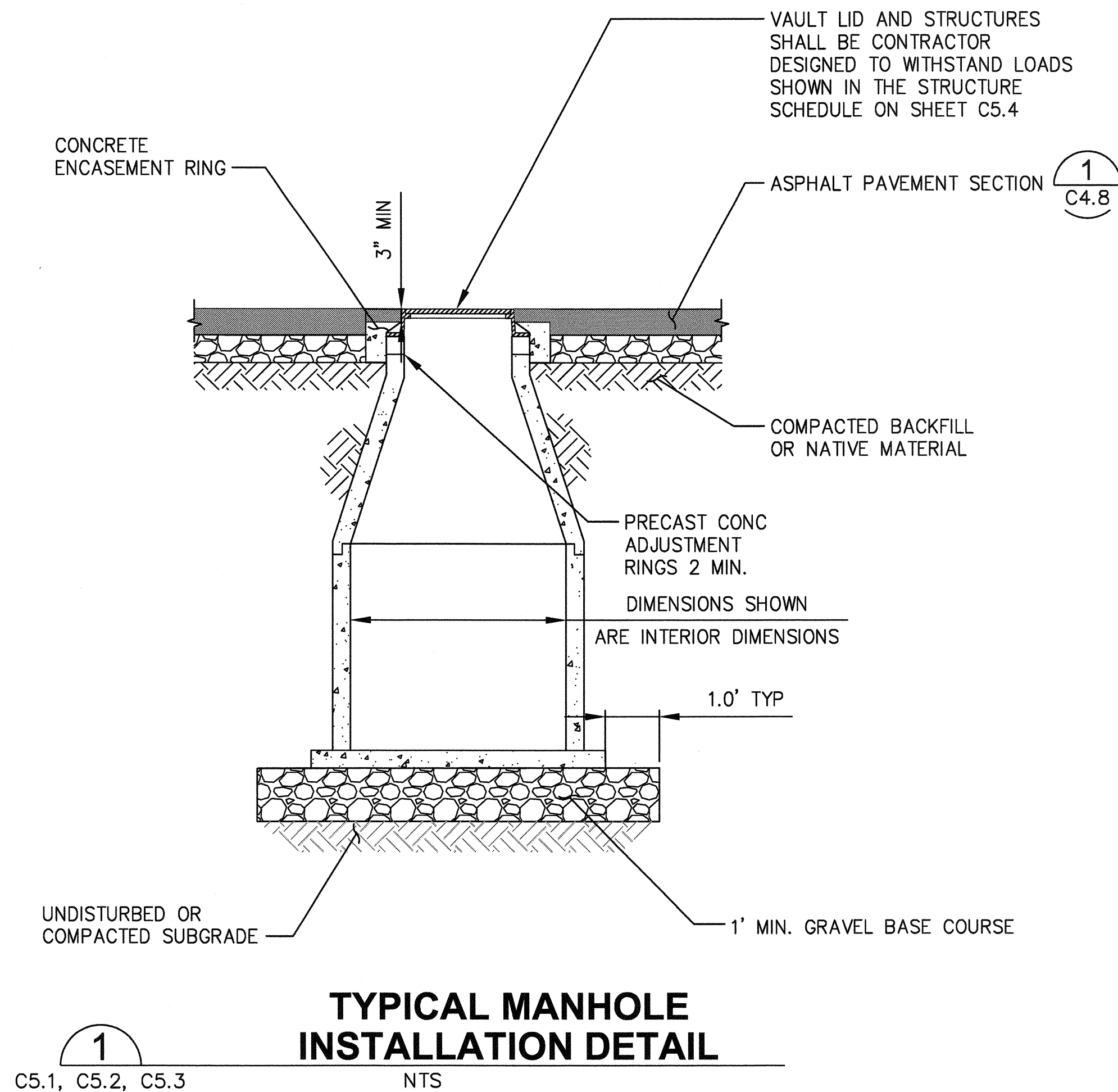


NOTES:
 1. OIL WATER SEPARATOR STRUCTURE SHALL BE CONTRACTOR DESIGNED TO THE INTERIOR DIMENSIONS SHOWN AND TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.

NOTES:
 1. OIL WATER SEPARATOR STRUCTURE SHALL BE CONTRACTOR DESIGNED TO THE INTERIOR DIMENSIONS SHOWN AND TO SUPPORT THE LOADS SHOWN IN THE STRUCTURE SCHEDULE ON SHEET C5.4.

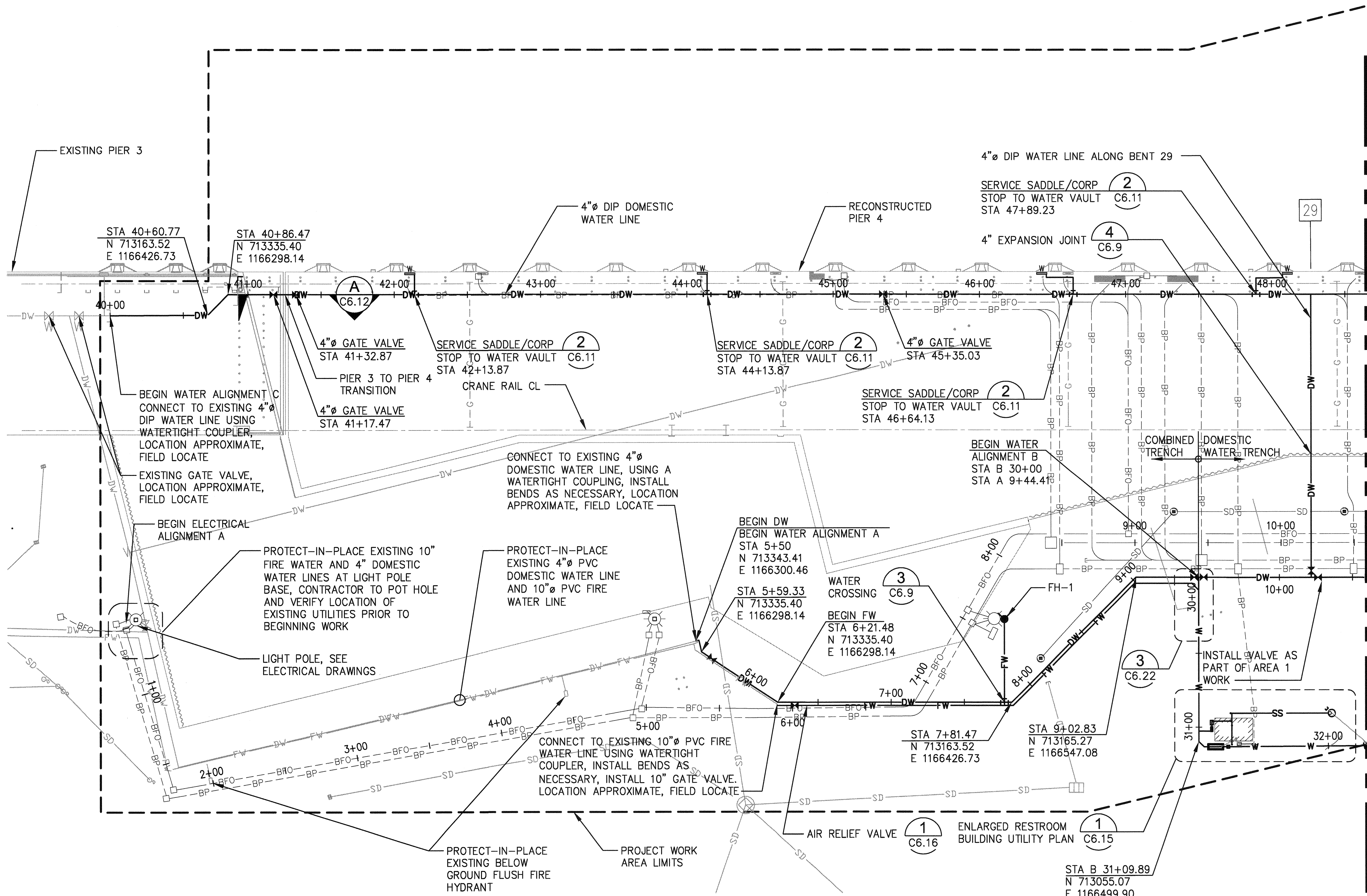
 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0150 Fax (253) 396-0162	DATE: _____ APPR: _____
	BY: _____ REVISION: _____
	CHECKED BY: _____ DATE: _____ PROJECT ENGR: _____ DATE: _____ PRINTED BY: kvang Mar 24, 2016 PORT ADDRESS: ONE SITTUM PLAZA TACOMA, WA 98401-1837
6552 SH 86 OF 499 C5.11	PIER 4 PHASE 2 RECONFIGURATION DRAINAGE DETAILS - SHEET 4
CONT/CONS: 070136 M. ID: 091251 PHASE: BID	RANGE: MLLW 19.39' @ Tide 22.1933 DAT-HRZ: WA83-SF TOWNSHIP: _____ SECTION: _____ DRAWING SCALE: AS NOTED

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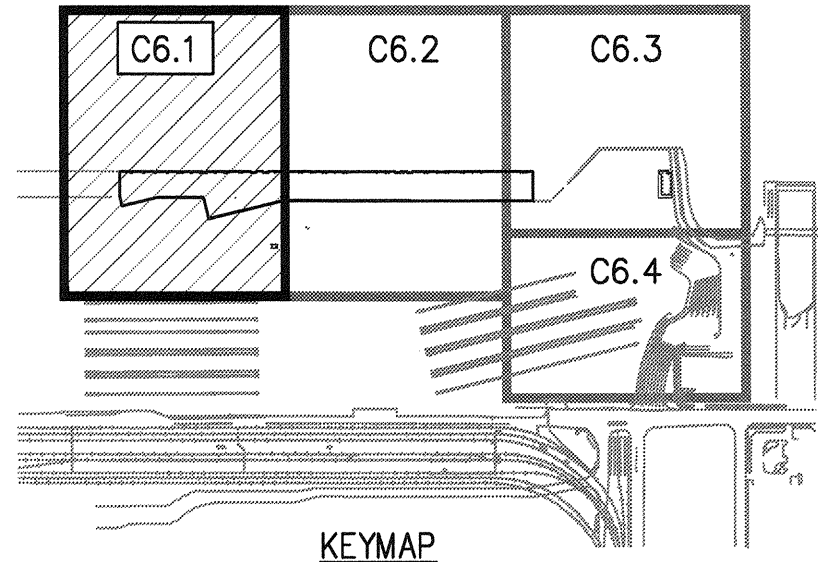


 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0350 Fax (253) 396-0162 P.O. BOX 1037 TACOMA, WA 98401 (253) 396-5041	 WA 0000000000 KEVIN KWANG CIVIL ENGINEER 12/25/16	CHECKED BY: DATE:	DATE:
	APPROVED: <i>Kevin Kwang</i> 3-28-16 DIRECTOR ENG. DATE: 3-28-16 PRINTED BY: kvang PROJ. ENGR. DATE: Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	MARK: REVISION: BY: APPR: DATE:	
6552 C5.12 SH 87 OF 499	PIER 4 PHASE 2 RECONFIGURATION DRAINAGE DETAILS - SHEET 5	TOWNSHIP: 070136 DAT-HRZ: WA83-SF PARCEL: 091251 PHASE: BID	RANGE: MLLW 19.39' @ Tide 22 19.33 VERT: MLLW 19.39' @ Tide 22 19.33 SECTION: DRAWING SCALE: AS NOTED

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UTILITY PLAN
SCALE: 1"=40'

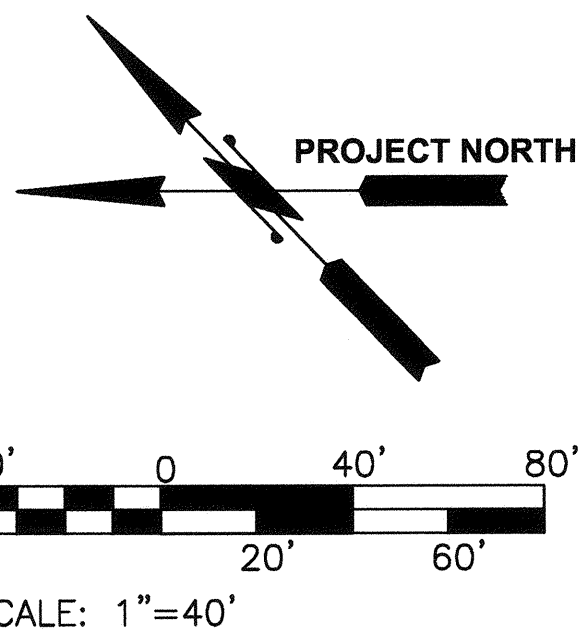


NOTES

- SEE SHEET C6.5 FOR HYDRANT SCHEDULE. SEE PROFILES FOR FITTING TYPES.
- FIRE HYDRANT GATE VALVES ARE NOT SHOWN FOR CLARITY. SEE (2) C6.10 FOR VALVE LOCATION.
- CONCRETE THRUST BLOCKS ARE NOT SHOWN FOR CLARITY. THRUST BLOCKS TO BE CONSTRUCTED PER (1) AND (2) C6.14 AND C6.14.
- LANDSIDE OF THE BULKHEAD WHERE THE DOMESTIC WATER LINE CLOSELY PARALLELS THE FIRE LINE, THE PIPE SHALL BE CONSTRUCTED IN A COMBINED WATER PIPE TRENCH PER (1) C6.10.
- LANDSIDE OF THE BULKHEAD WHERE THERE IS A SINGLE DOMESTIC OR FIRE WATER LINE THE PIPE SHALL BE CONSTRUCTED PER (1) C6.9.
- SEE SHEETS C6.6 - C6.8 FOR WATER LINE PROFILES.
- CONTRACTOR SHALL RECHANNEL EXISTING MANHOLE TO ACCOMMODATE NEW 6" DIP PENETRATION.
- SEE SHEET C6.18 FOR SANITARY SEWER PROFILE.
- SEE SHEETS C6.19-C6.21 FOR TYPICAL ELECTRICAL DUCT BANK PROFILE.

LEGEND

- PROJECT WORK AREA LIMITS
- FW FIRE WATER LINE
- DW DOMESTIC WATER LINE
- W COMBINED WATER LINE
- SS SANITARY SEWER GRAVITY LINE
- SSFM SANITARY SEWER FORCE MAIN
- 6" FIRE HYDRANT ASSEMBLY (2) C6.10
- BULL RAIL UTILITY VAULT - WATER (1) C6.13
- GATE VALVE (2) C6.9
- STORM DRAINAGE STRUCTURES AND PIPING, SEE DRAINAGE PLANS
- LIGHT POLE, SEE ELECTRICAL PLANS
- ELECTRICAL AND COMMUNICATION VAULTS AND DUCTBANKS, SEE ELECTRICAL PLANS



MATCH LINE SEE SHEET C6.2

2407 North 31st Street, Suite 100
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DATE: _____

APPR: _____

BY: _____

REVISION: _____

APPROVED: *[Signature]*

2-28-16

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PROJ. ENGR: _____ DATE: _____

PRINTED BY: kvong Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION UTILITY PLAN - SHEET 1

SECTION: _____

RANGE: MLLW 19.39' @ Tide 22 1933

DATE-HRZ: WA83-SF

VERT: _____

DRAWING SCALE: AS NOTED

6552

C6.1

SH 88 OF 489

CONT/CONS: 070136

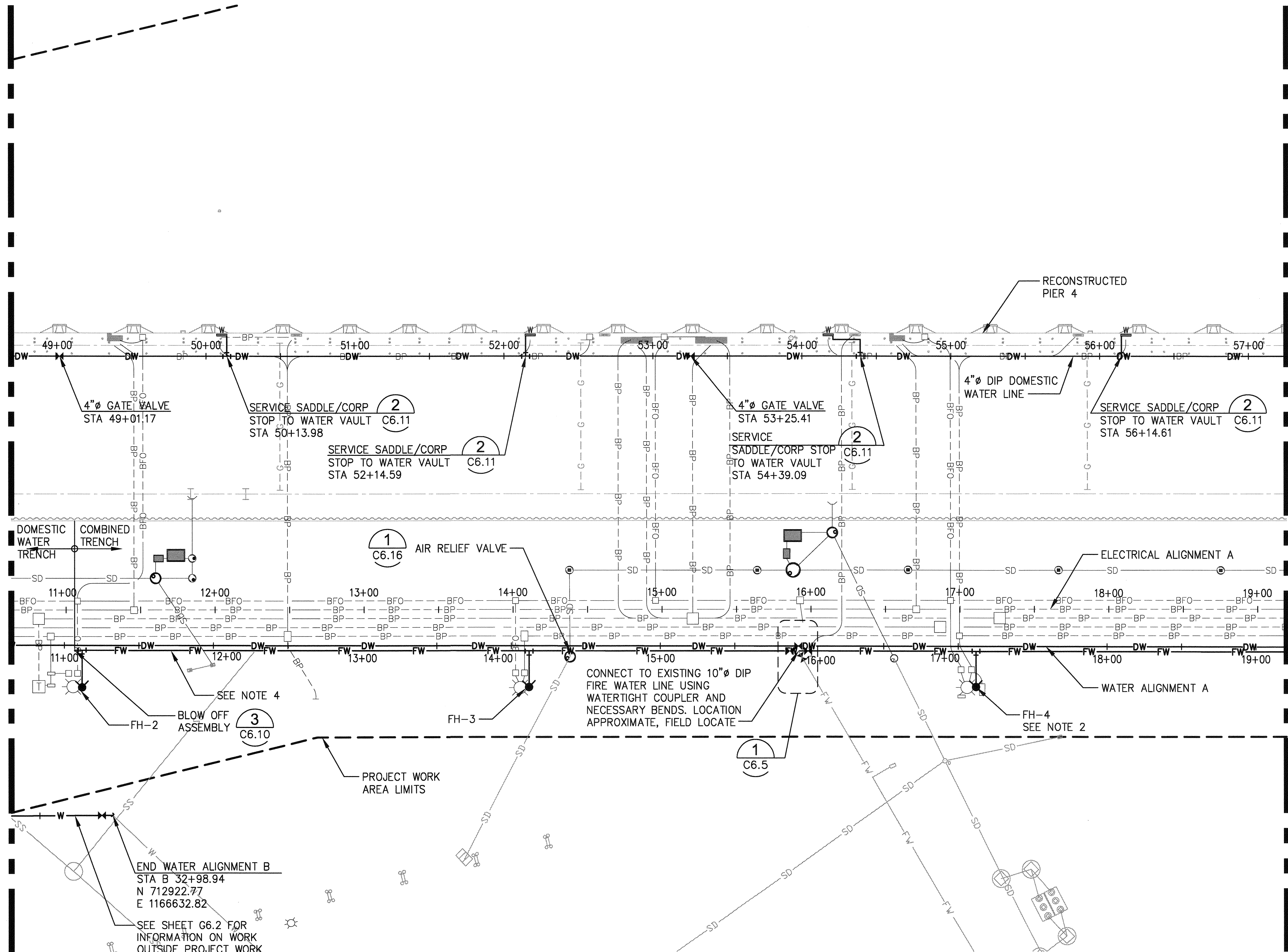
M. ID: 091251

PHASE: BID

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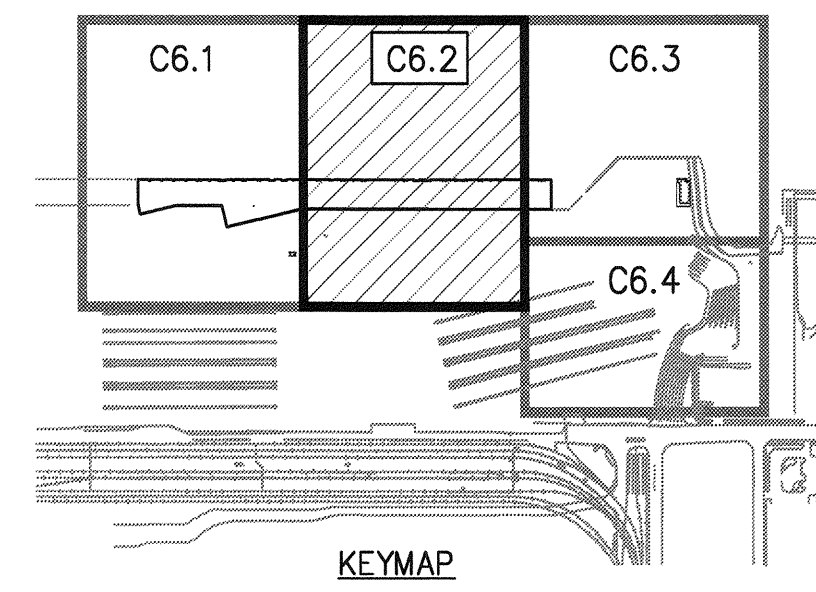
MATCH LINE SEE SHEET C6.1

MATCH LINE SEE SHEET C6.3



UTILITY PLAN

SCALE: 1"=40'

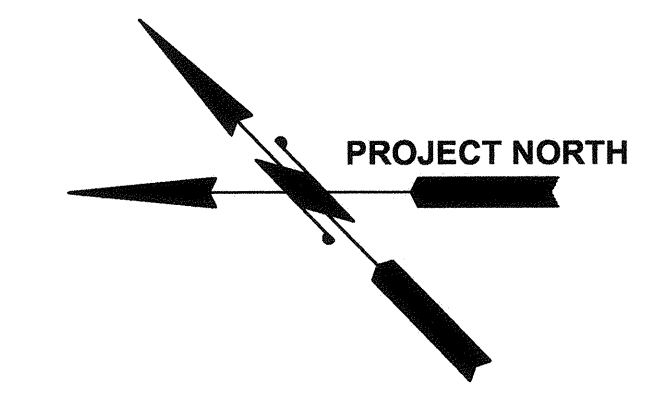


NOTES

- SEE SHEET C6.5 FOR HYDRANT SCHEDULE. SEE PROFILES FOR FITTING TYPES.
- FIRE HYDRANT GATE VALVES ARE NOT SHOWN FOR CLARITY. SEE **(2)** FOR VALVE LOCATION.
(2)
C6.10
- CONCRETE THRUST BLOCKS ARE NOT SHOWN FOR CLARITY. THRUST BLOCKS TO BE CONSTRUCTED PER **(1)** AND **(2)**
(1) AND **(2)**
C6.14 C6.14
- LANDSIDE OF THE BULKHEAD WHERE THE DOMESTIC WATER LINE CLOSELY PARALLELS THE FIRE LINE, THE PIPE SHALL BE CONSTRUCTED IN A COMBINED WATER PIPE TRENCH PER **(1)**
(1)
C6.10
- LANDSIDE OF THE BULKHEAD WHERE THERE IS A SINGLE DOMESTIC OR FIRE WATER LINE THE PIPE SHALL BE CONSTRUCTED PER **(1)**
(1)
C6.9
- SEE SHEETS C6.6 - C6.8 FOR WATER LINE PROFILES.
- CONTRACTOR SHALL RECHANNEL EXISTING MANHOLE TO ACCOMMODATE NEW 6" DIP PENETRATION.
- SEE SHEET C6.18 FOR SANITARY SEWER PROFILE.
- SEE SHEETS C6.19-C6.21 FOR TYPICAL ELECTRICAL DUCT BANK PROFILE.

LEGEND

- PROJECT WORK AREA LIMITS
- FIRE WATER LINE
- DOMESTIC WATER LINE
- COMBINED WATER LINE
- SANITARY SEWER GRAVITY LINE
- SANITARY SEWER FORCE MAIN
- 6" FIRE HYDRANT ASSEMBLY **(2)**
C6.10
- BULL RAIL UTILITY VAULT - WATER **(1)**
C6.13
- GATE VALVE **(2)**
C6.9
- STORM DRAINAGE STRUCTURES AND PIPING, SEE DRAINAGE PLANS
- LIGHT POLE, SEE ELECTRICAL PLANS
- ELECTRICAL AND COMMUNICATION VAULTS AND DUCTBANKS, SEE ELECTRICAL PLANS



SCALE: 1"=40'

6552

C6.2

SH 89 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2

RECONFIGURATION

UTILITY PLAN - SHEET 2

APPROVED:		CHECKED BY:	DATE:
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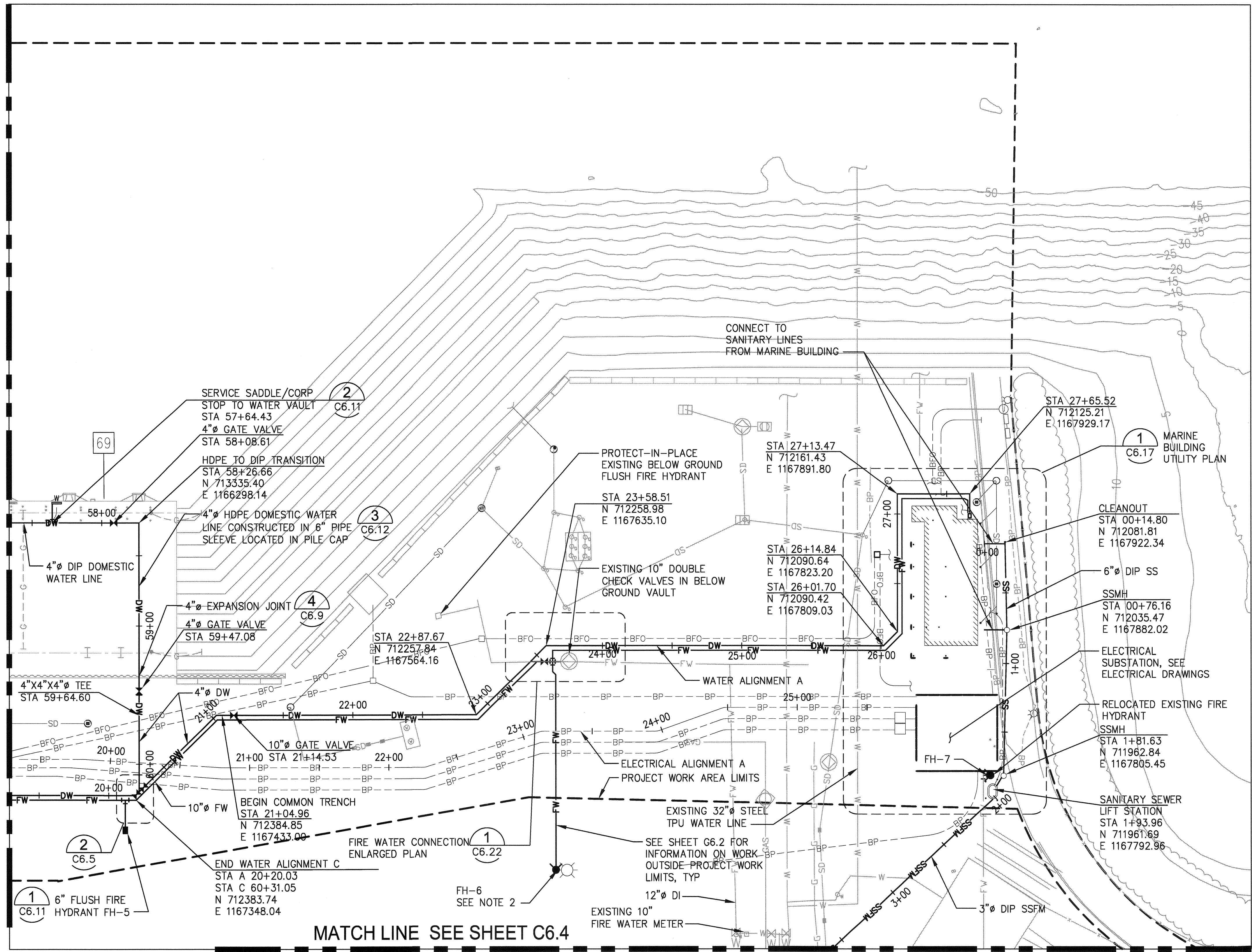
kpff

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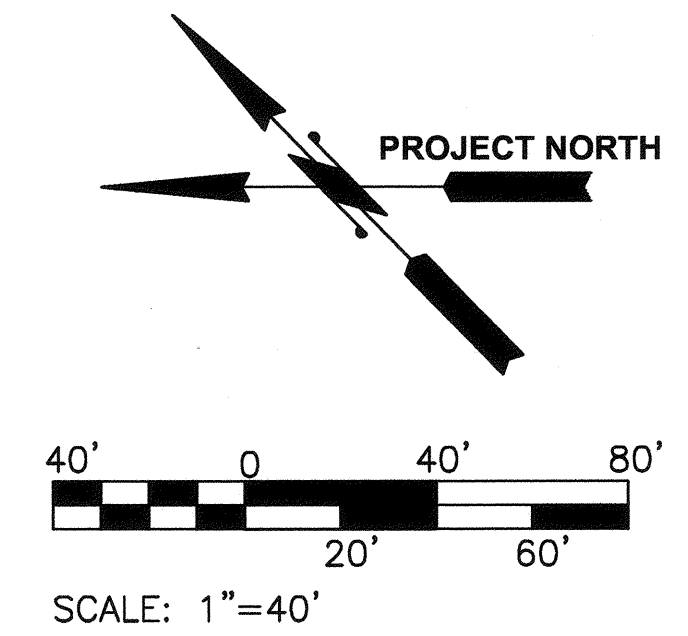
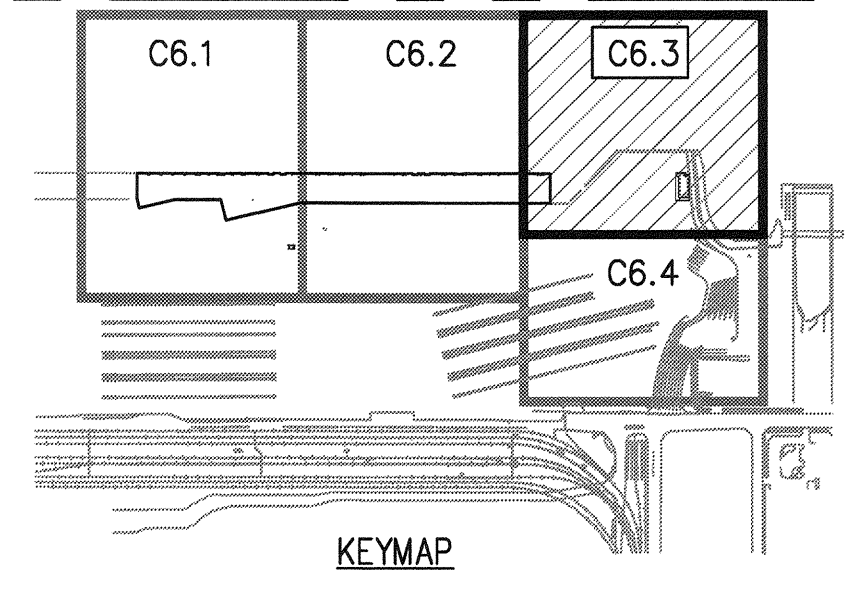
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PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C6.1-C6.2-C6.3-C6.4 (Water Plan)

MATCH LINE SEE SHEET C6.2



UTILITY PLAN
SCALE: 1"=40'



NOTES

- SEE SHEET C6.5 FOR HYDRANT SCHEDULE. SEE PROFILES FOR FITTING TYPES.
- FIRE HYDRANT GATE VALVES ARE NOT SHOWN FOR CLARITY. SEE (2) C6.10 FOR VALVE LOCATION.
- CONCRETE THRUST BLOCKS ARE NOT SHOWN FOR CLARITY. THRUST BLOCKS TO BE CONSTRUCTED PER (1) C6.14 AND (2) C6.14.
- LANDSIDE OF THE BULKHEAD WHERE THE DOMESTIC WATER LINE CLOSELY PARALLELS THE FIRE LINE, THE PIPE SHALL BE CONSTRUCTED IN A COMBINED WATER PIPE TRENCH PER (1) C6.10.
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- CONTRACTOR SHALL RECHANNEL EXISTING MANHOLE TO ACCOMMODATE NEW 6" DIP PENETRATION.
- SEE SHEET C6.18 FOR SANITARY SEWER PROFILE.
- SEE SHEETS C6.19-C6.21 FOR TYPICAL ELECTRICAL DUCT BANK PROFILE.

LEGEND

- PROJECT WORK AREA LIMITS
- FIRE WATER LINE
- DOMESTIC WATER LINE
- COMBINED WATER LINE
- SANITARY SEWER GRAVITY LINE
- SANITARY SEWER FORCE MAIN
- 6" FIRE HYDRANT ASSEMBLY (2) C6.10
- BULL RAIL UTILITY VAULT - WATER (1) C6.13
- GATE VALVE (2) C6.9
- STORM DRAINAGE STRUCTURES AND PIPING, SEE DRAINAGE PLANS
- LIGHT POLE, SEE ELECTRICAL PLANS
- ELECTRICAL AND COMMUNICATION VAULTS AND DUCTBANKS, SEE ELECTRICAL PLANS

6552
C6.3
SH 90 OF 499

Port of Tacoma
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DATE: 3-28-16

DIRECTOR ENG. DATE: 3-28-16

PROJ. ENGR. DATE: 3-28-16

PRINTED BY: kvarg

PORT ADDRESS: ONE SITCLIM PLAZA

TACOMA, WA 98401-1837

SECTION: MLLW 19.39' @ Tide 22.19.33

RANGE: WA83-SF

VERT: 22.19.33

PHASE: BID

PARCEL: 091251

PIER 4 PHASE 2 RECONFIGURATION UTILITY PLAN - SHEET 3

DATE: 3-28-16

DATE: 3-28-16

DATE: 3-28-16

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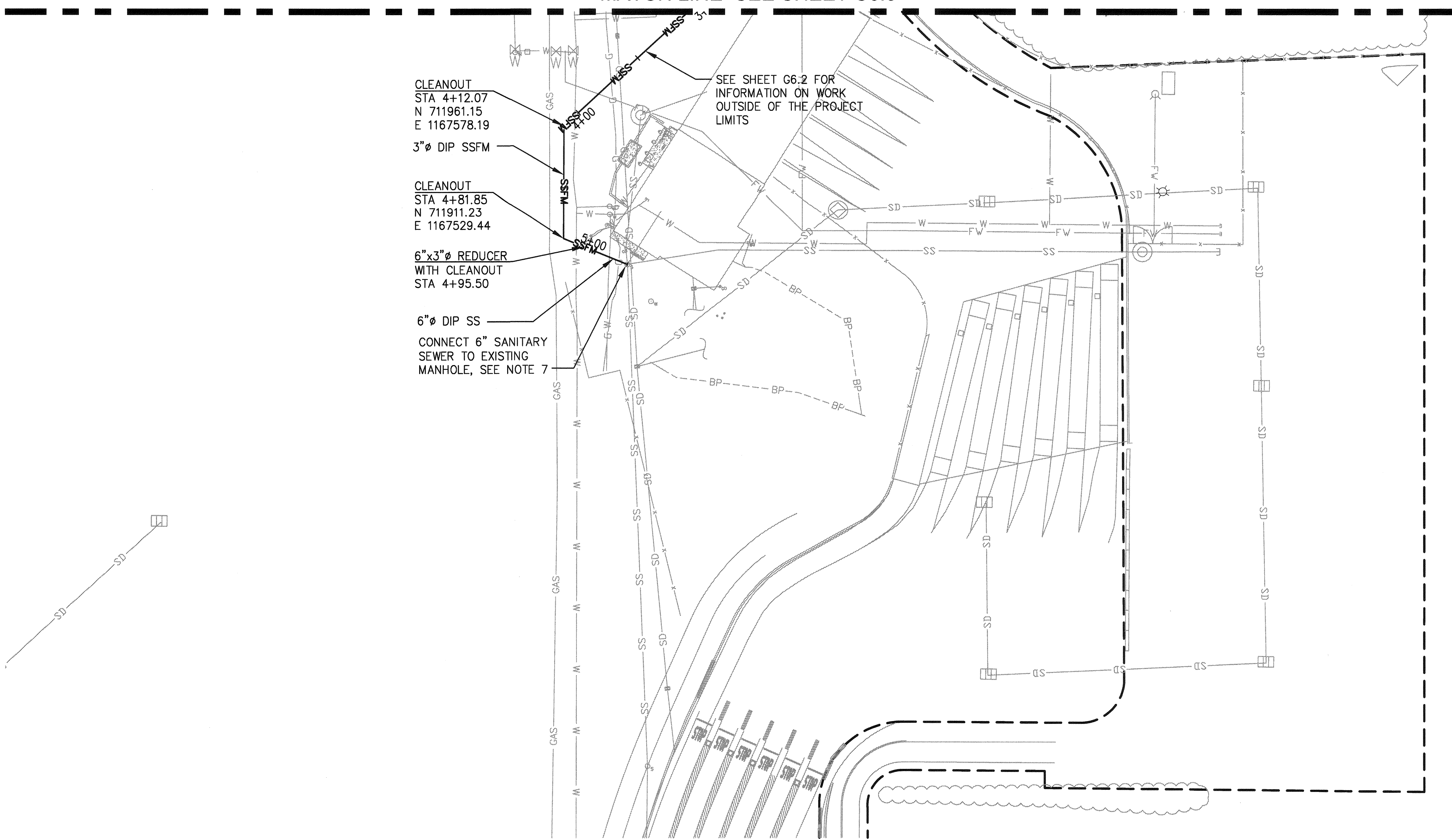
MATCH LINE SEE SHEET C6.3

CLEANOUT
STA 4+12.07
N 711961.15
E 1167578.19
3"Ø DIP SSFM

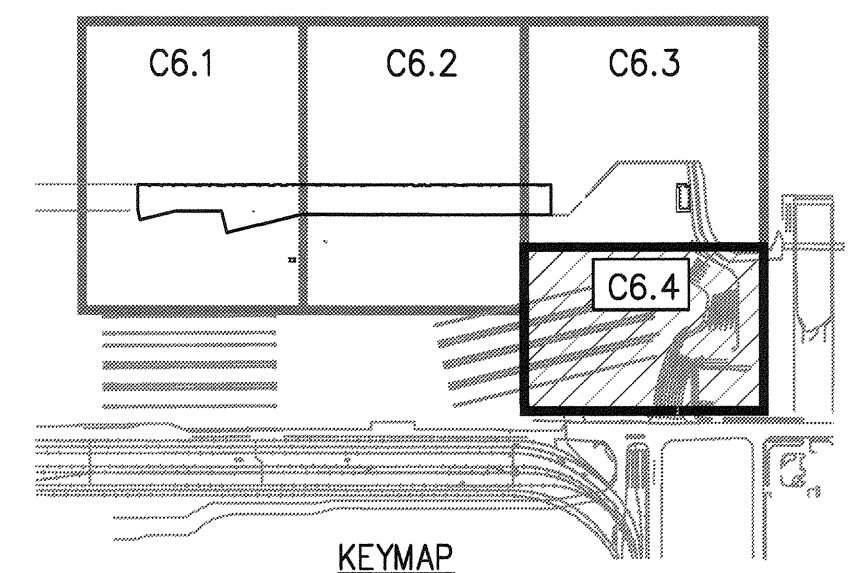
CLEANOUT
STA 4+81.85
N 711911.23
E 1167529.44
6" x 3"Ø REDUCER
WITH CLEANOUT
STA 4+95.50

6"Ø DIP SS
CONNECT 6" SANITARY
SEWER TO EXISTING
MANHOLE, SEE NOTE 7

SEE SHEET C6.2 FOR INFORMATION ON WORK OUTSIDE OF THE PROJECT LIMITS



UTILITY PLAN
SCALE: 1"=40'

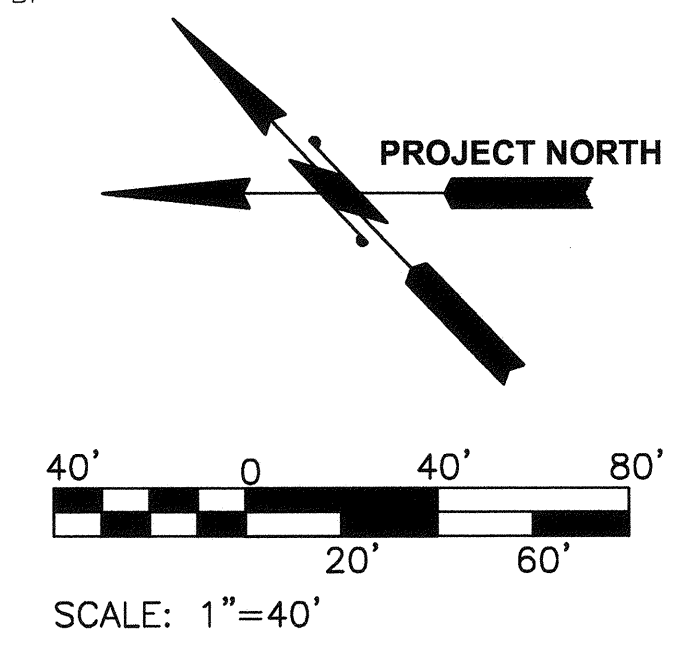


NOTES

- SEE SHEET C6.5 FOR HYDRANT SCHEDULE. SEE PROFILES FOR FITTING TYPES.
- FIRE HYDRANT GATE VALVES ARE NOT SHOWN FOR CLARITY. SEE (2) C6.10 FOR VALVE LOCATION.
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- LANDSIDE OF THE BULKHEAD WHERE THERE IS A SINGLE DOMESTIC OR FIRE WATER LINE THE PIPE SHALL BE CONSTRUCTED PER (1) C6.9
- SEE SHEETS C6.6 - C6.8 FOR WATER LINE PROFILES.
- CONTRACTOR SHALL RECHANNEL EXISTING MANHOLE TO ACCOMMODATE NEW 6"Ø DIP PENETRATION.
- SEE SHEET C6.18 FOR SANITARY SEWER PROFILE.
- SEE SHEETS C6.19-C6.21 FOR TYPICAL ELECTRICAL DUCT BANK PROFILE.

LEGEND

- PROJECT WORK AREA LIMITS
- FW FIRE WATER LINE
- DW DOMESTIC WATER LINE
- W COMBINED WATER LINE
- SS SANITARY SEWER GRAVITY LINE
- SSFM SANITARY SEWER FORCE MAIN
- 6" FIRE HYDRANT ASSEMBLY (2) C6.10
- WATER VAULT (1) C6.13
- GATE VALVE (2) C6.9
- 6" FLUSH FIRE HYDRANT (1) C6.11
- STORM DRAINAGE STRUCTURES AND PIPING, SEE DRAINAGE PLANS
- LIGHT POLE, SEE ELECTRICAL PLANS
- ELECTRICAL AND COMMUNICATION VAULTS AND DUCTBANKS, SEE ELECTRICAL PLANS

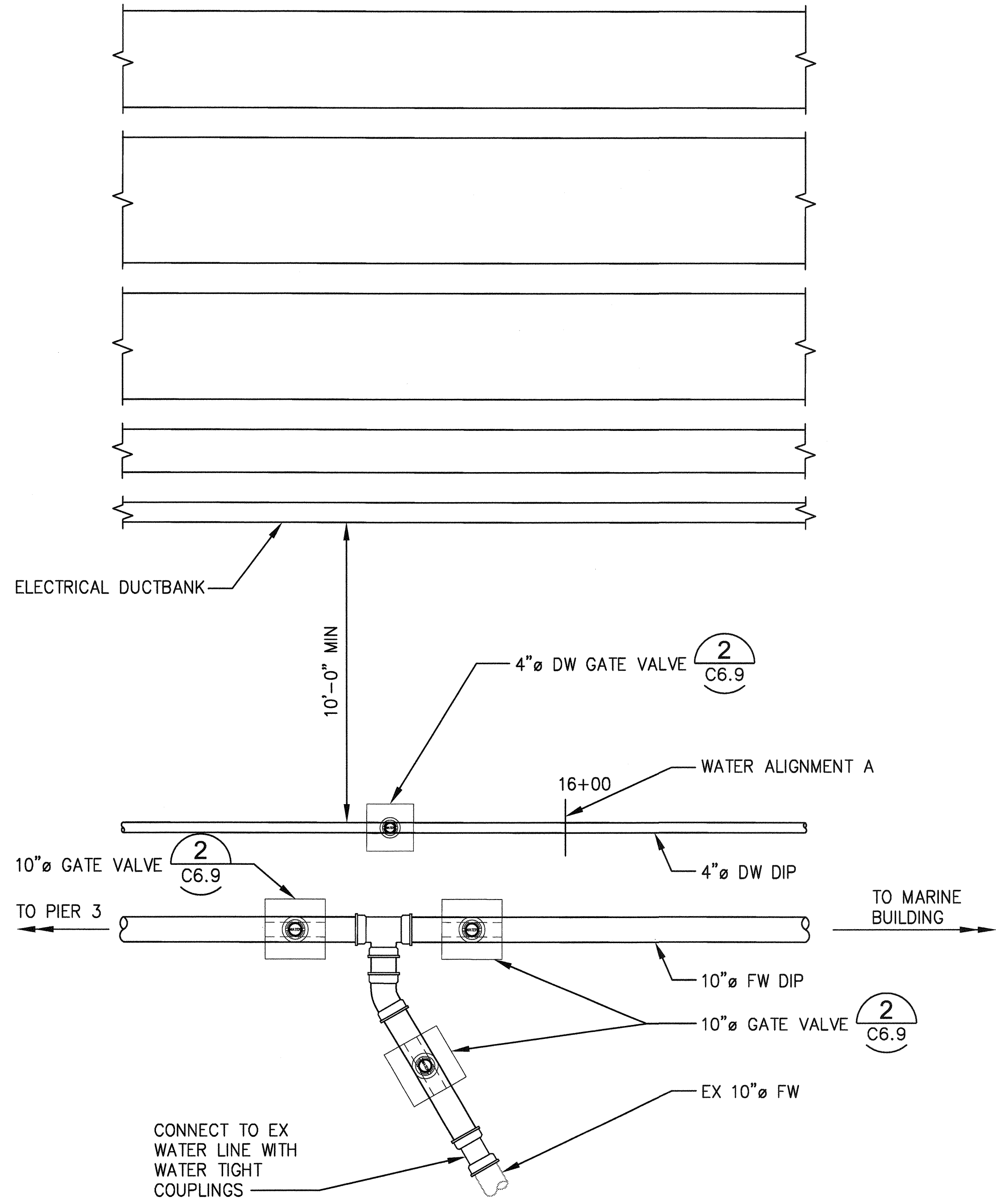


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			MARK: _____ REVISION: _____
APPROVED: <i>Kevin Kwang</i> DIRECTOR ENG. DATE: 3-28-16	CHECKED BY: _____ DATE: _____ PROJ. ENGR DATE: _____ DATE: _____	PRINTED BY: kvang Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	
6552 C6.4 SH 91 OF 499	PIER 4 PHASE 2 RECONFIGURATION UTILITY PLAN - SHEET 4	RANGE: MLLW 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933 DRAWING SCALE: AS NOTED	SECTION: _____ TOWNSHIP: _____ M. ID: 091251 PHASE: BID

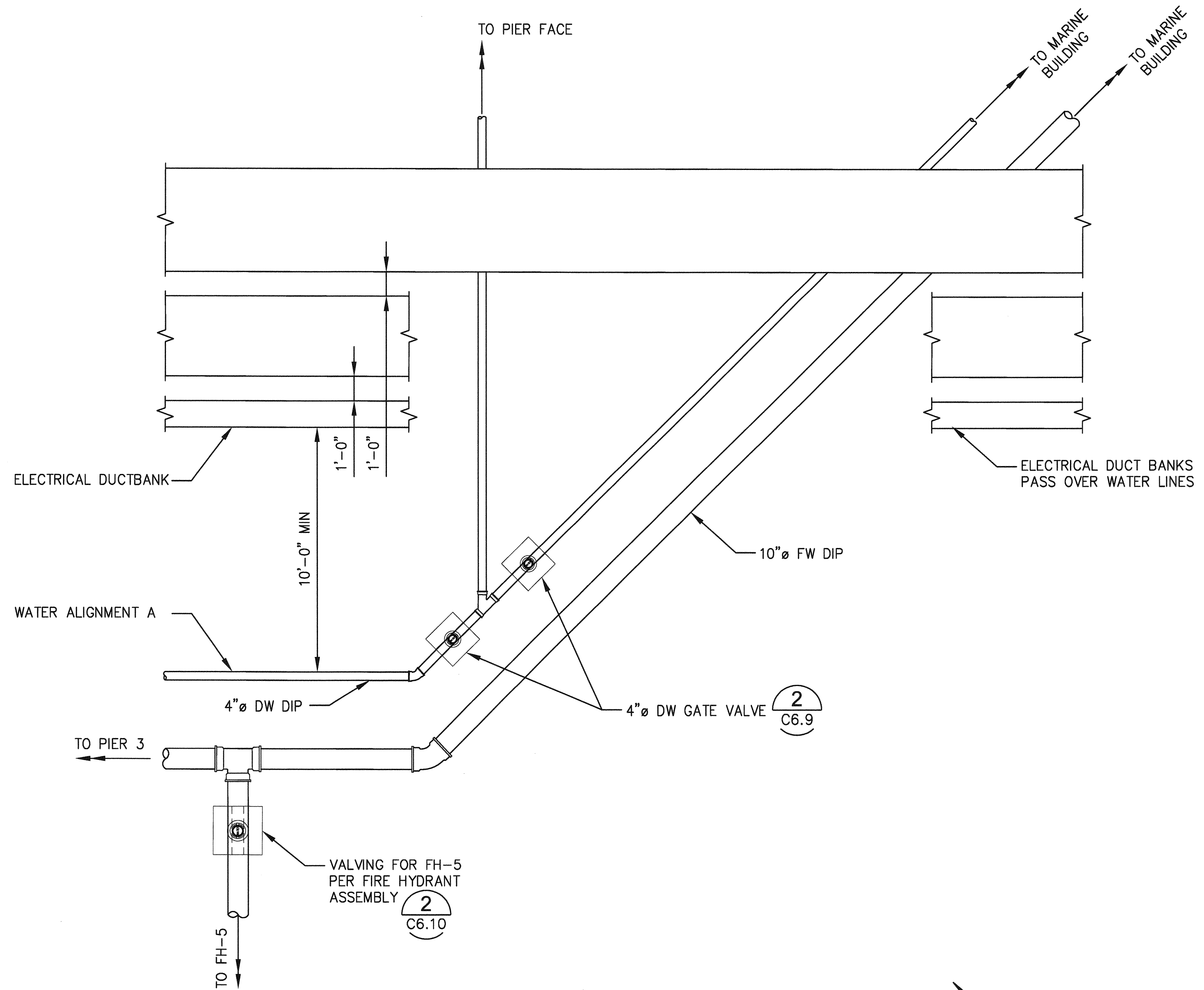
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FIRE HYDRANT SCHEDULE

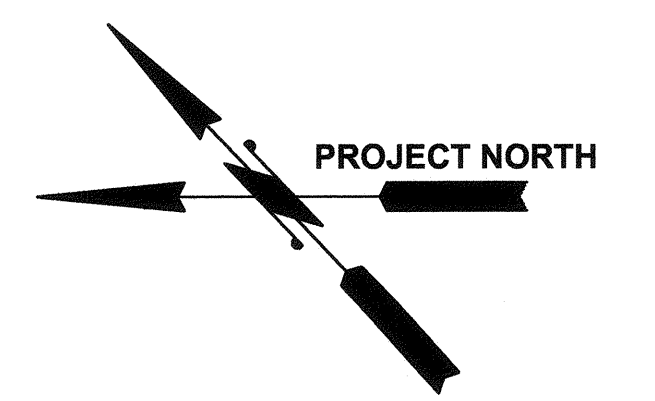
STRUCTURE I.D.	FITTING TYPE	NORTHING	EASTING	HYDRANT FACING
FH-1	FIRE HYDRANT ASSEMBLY	713207.48	1166462.42	EAST
FH-2	FIRE HYDRANT ASSEMBLY	712998.63	1166677.86	EAST
FH-3	FIRE HYDRANT ASSEMBLY	712789.86	1166893.28	EAST
FH-4	FIRE HYDRANT ASSEMBLY	712580.80	1167108.42	EAST
FH-5	FLUSH FIRE HYDRANT ASSEMBLY	712373.70	1167325.50	
FH-6	FIRE HYDRANT ASSEMBLY	712138.08	1167527.62	EAST
FH-7	FIRE HYDRANT ASSEMBLY	711969.64	1167798.93	EAST



1
C6.2
CONNECTION TO EXISTING STA 15+93.96
NTS

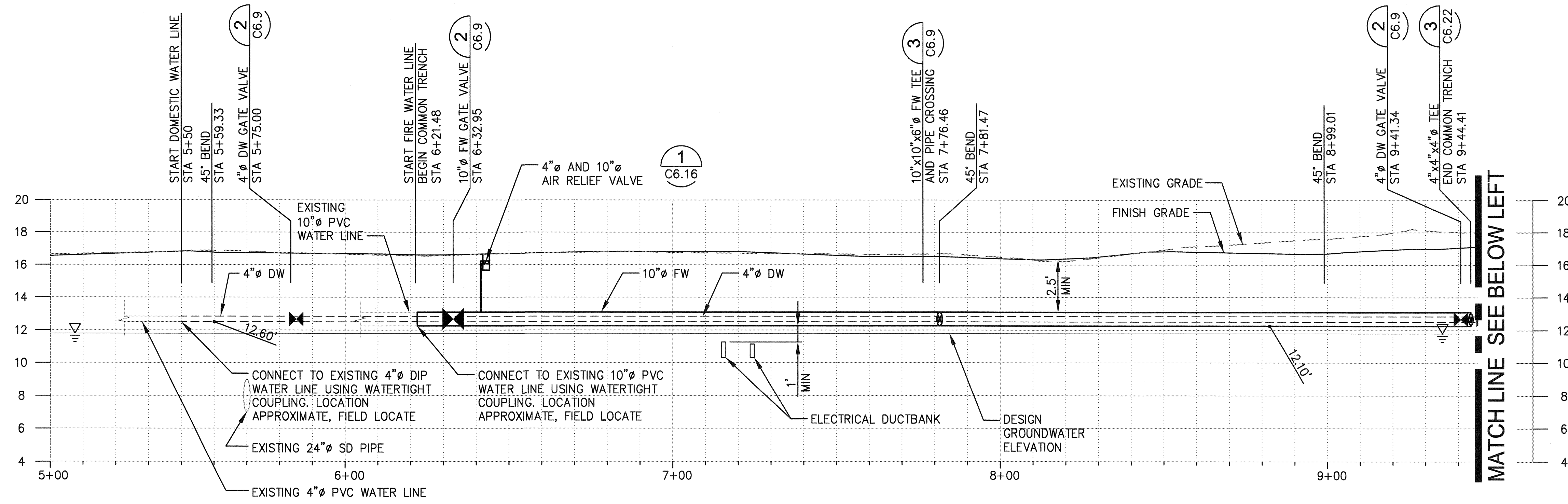


2
C6.3
FIRE HYDRANT AND PIER WATER SERVICE CONNECTION
NTS

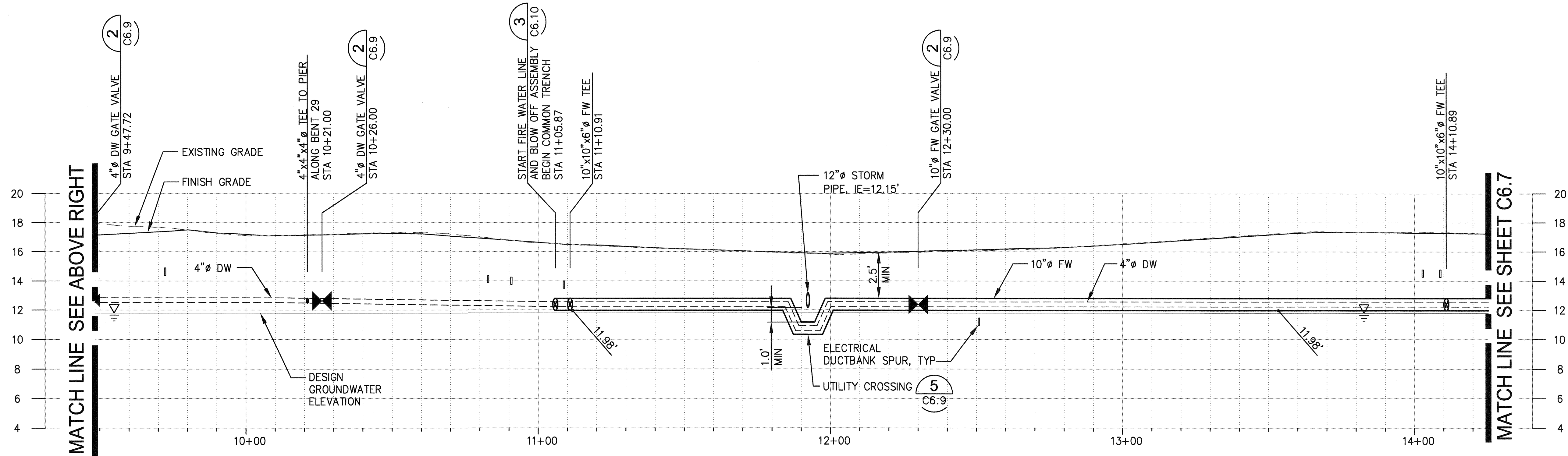


	MARK:	REVISION:	BY:	DATE:
	APPR:			
	CHECKED BY:	DATE:	PROJ. ENGR:	DATE:
	APPROVED:	DATE:	PRINTED BY:	SECTION:
6552 C6.5 SH 92 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION HYDRANT SCHEDULE AND ENLARGED PLAN		RANGE:	SECTION:
	TOWNSHIP:		MLW 19.39'	@ Tide 22 1933
	DAT-HRZ: WA83-SF		VERT:	AS NOTED
	PARCEL:		DRAWING SCALE:	TACOMA, WA 98401-1837

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A WATER PROFILE A
C6.1, C6.2, C6.3 SCALE: HORIZ: 1"=20', VERT: 1"=4'



A WATER PROFILE A
C6.1, C6.2, C6.3 SCALE: HORIZ: 1"=20', VERT: 1"=4'

NOTES

- ELEVATIONS ARE IN MLLW.
- POT-HOLE AND LOCATE EXISTING WATER PIPING TO BE CONNECTED TO. VERIFY INVERT ELEVATIONS. NOTIFY ENGINEER IF CONDITIONS DIFFER THAN WHAT IS INDICATED.

6552

C6.6

SH 93 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2

RECONFIGURATION

WATER LINE PROFILES - SHEET 1

APPROVED: *[Signature]*

DIRECTOR ENG. DATE: 3-28-16

PRINTED BY: kvarg Mar 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

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BY: []

APPR: [] DATE: []

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(253) 396-0150 Fax (253) 396-0162

kpff

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P.O. BOX 9817 TACOMA, WA 98401-0017

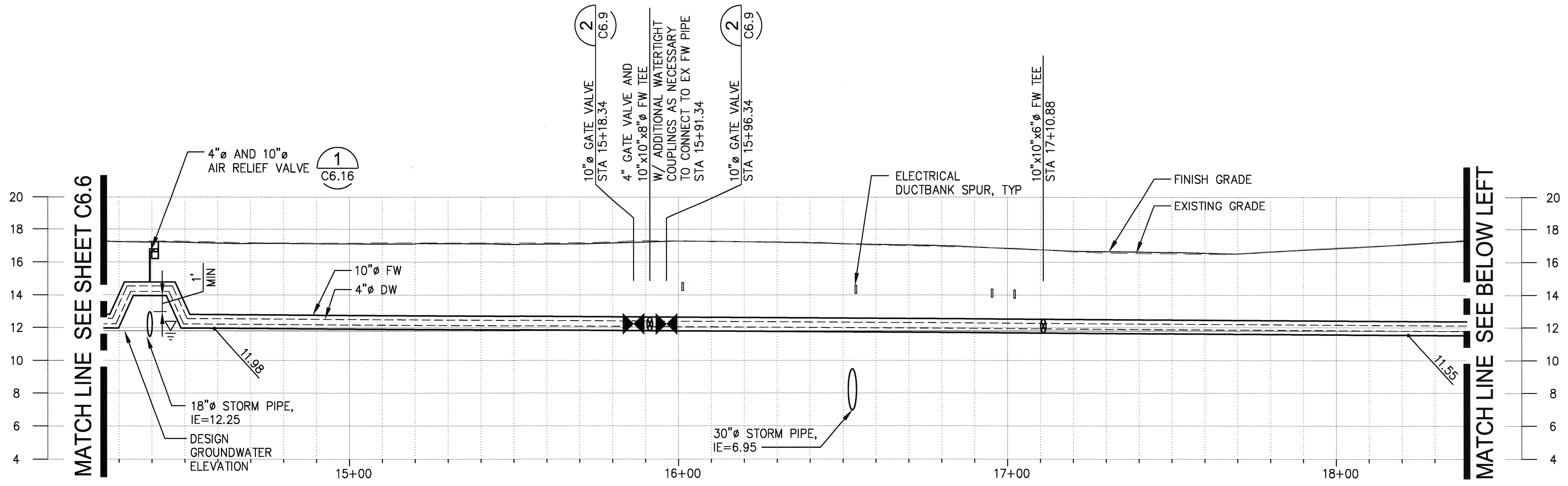
MADE IN THE U.S.A.
REGISTERED PROFESSIONAL ENGINEER
NO. 37515
3/25/15
STATE OF WASHINGTON

1"=4'-0" Vertical Scale

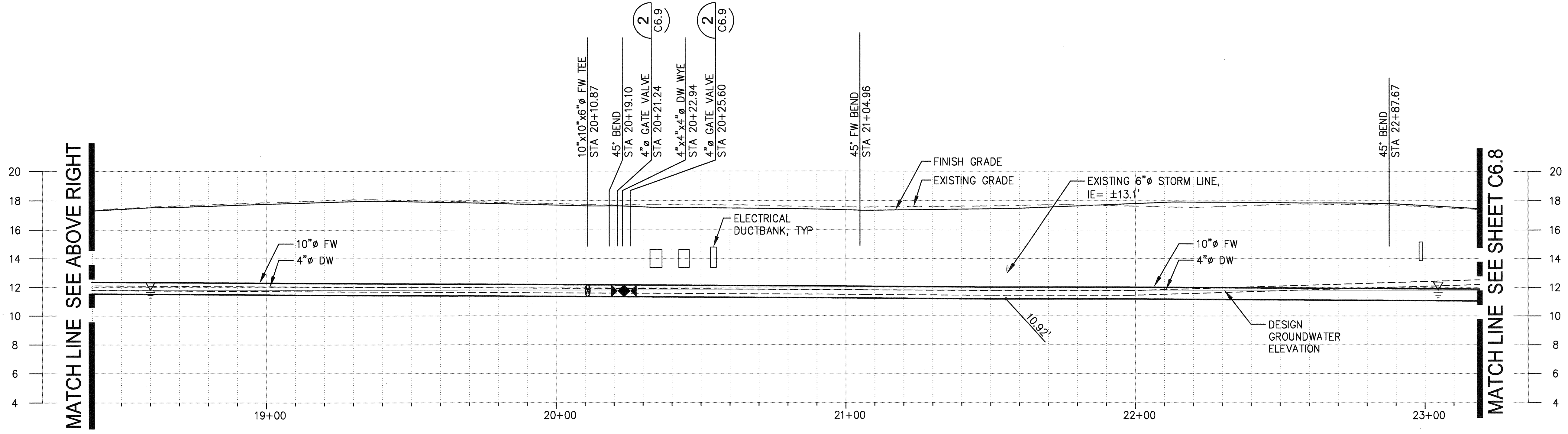
1"=20'-0" Horizontal Scale

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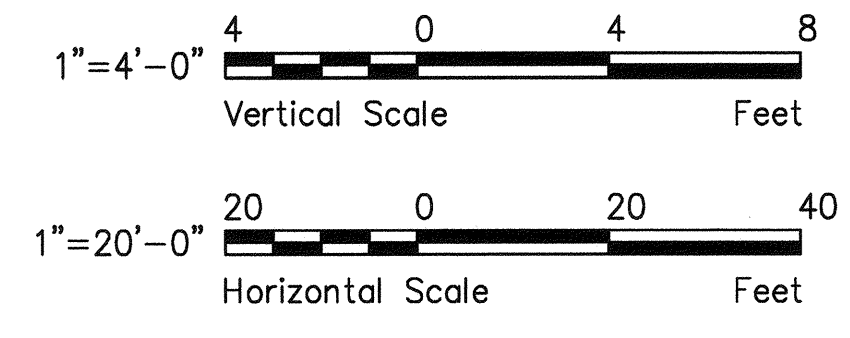
PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C6.6-C6.7-C6.8 (Water Profiles)



A WATER PROFILE A
C6.1, C6.2, C6.3 SCALE: HORIZ: 1"=20', VERT: 1"=4'



A WATER PROFILE A
C6.1, C6.2, C6.3 SCALE: HORIZ: 1"=20', VERT: 1"=4'



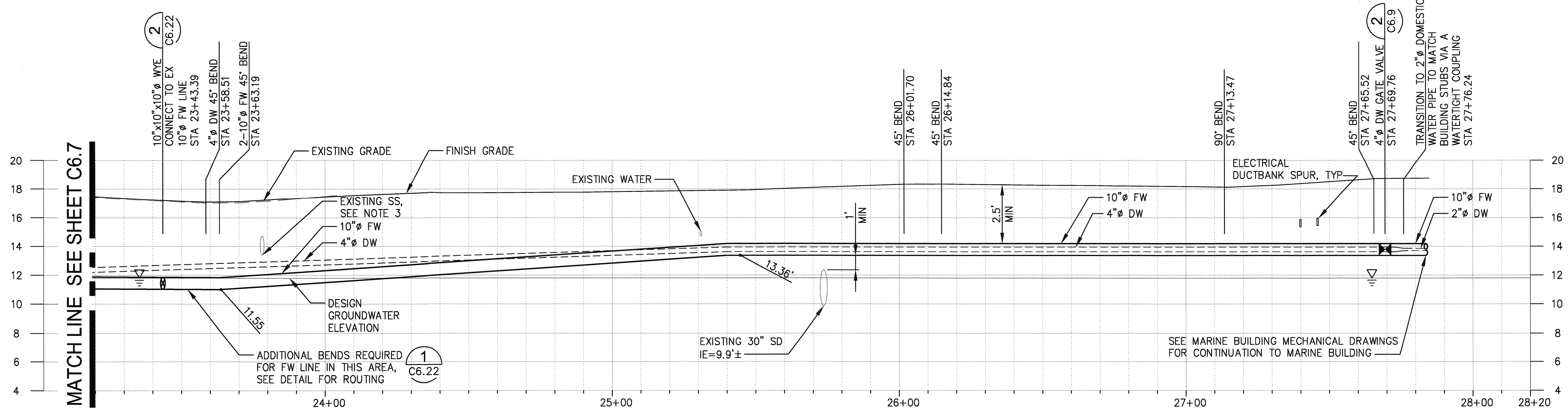
NOTES

- ELEVATIONS ARE IN MLLW.
- POT-HOLE AND LOCATE EXISTING WATER PIPING TO BE CONNECTED TO. VERIFY INVERT ELEVATIONS. NOTIFY ENGINEER IF CONDITIONS DIFFER THAN WHAT IS INDICATED.

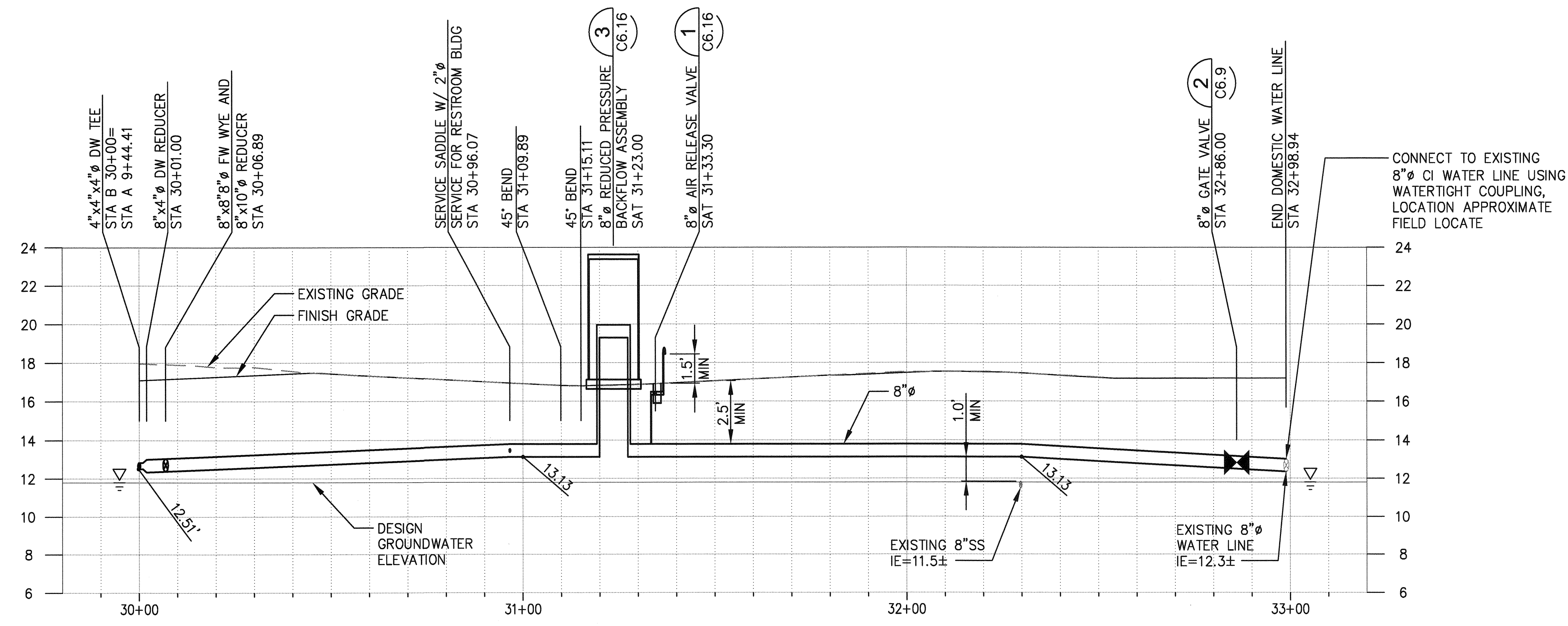
 	2407 North 31st Street, Suite 100 Tacoma, WA 98401-1837 (253) 396-6150 Fax (253) 396-0152	P.O. BOX 1837 TACOMA, WA 98401-1837 MARK: REVISION: BY: DATE:
	CHECKED BY: DATE:	PROJ. ENGR: DATE:
PIER 4 PHASE 2 RECONFIGURATION WATER LINE PROFILES - SHEET 2	APPROVED: <i>[Signature]</i> DIRECTOR: 3-29-16 PRINTED BY: kvarng PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	SECTION:
TOWNSHIP:	RANGE:	SECTION:
M. ID: 091251	DAT-HRZ: WAB3-SF	VERT: MLLW 19.39' @ Tide 22 1933
PHASE: BID	PARCEL:	DRAWING SCALE: AS NOTED

6552
C6.7
 SH 94 OF 499
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

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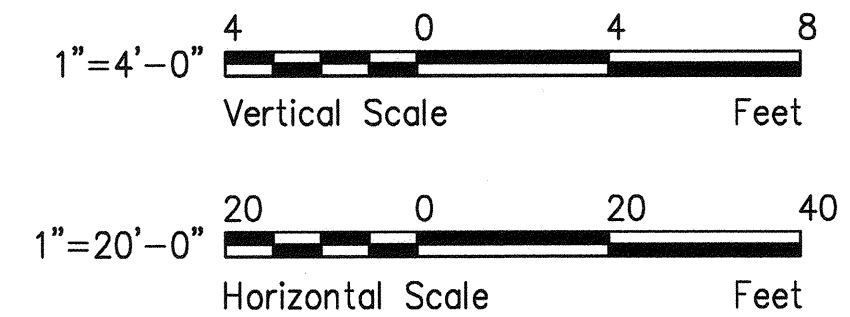
A WATER PROFILE A
 C6.1, C6.2, C6.3 SCALE: HORIZ: 1"=20', VERT: 1"=4'



B WATER PROFILE B
 C6.1 SCALE: HORIZ: 1"=20', VERT: 1"=4'

NOTES

- ELEVATIONS ARE IN MLLW.
- POT-HOLE AND LOCATE EXISTING WATER PIPING TO BE CONNECTED TO. VERIFY INVERT ELEVATIONS. NOTIFY ENGINEER IF CONDITIONS DIFFER THAN WHAT IS INDICATED.
- SS LINE MAY EXIST NEAR THIS LOCATION. SIZE AND INVERT UNKNOWN.



<p>6552 SH 95 OF 499 C6.8</p>	<p>PIER 4 PHASE 2 RECONFIGURATION WATER LINE PROFILES - SHEET 3</p>		<p>APPROVED: <i>[Signature]</i> 3-29-16</p>	<p>CHECKED BY: <i>[Signature]</i> DATE: 3/24/16</p>
	<p>CONT/CONS: 070136 M. ID: 091251 PHASE: BID</p>	<p>TOWNSHIP: MLLW 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF PARCEL: AS NOTED</p>	<p>SECTION: RANGE: MLLW 19.39' @ Tide 22 1933 PRINTED BY: kvang Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837</p>	<p>PROJ. ENGR DATE: 3/24/16 DATE: 3/24/16</p>

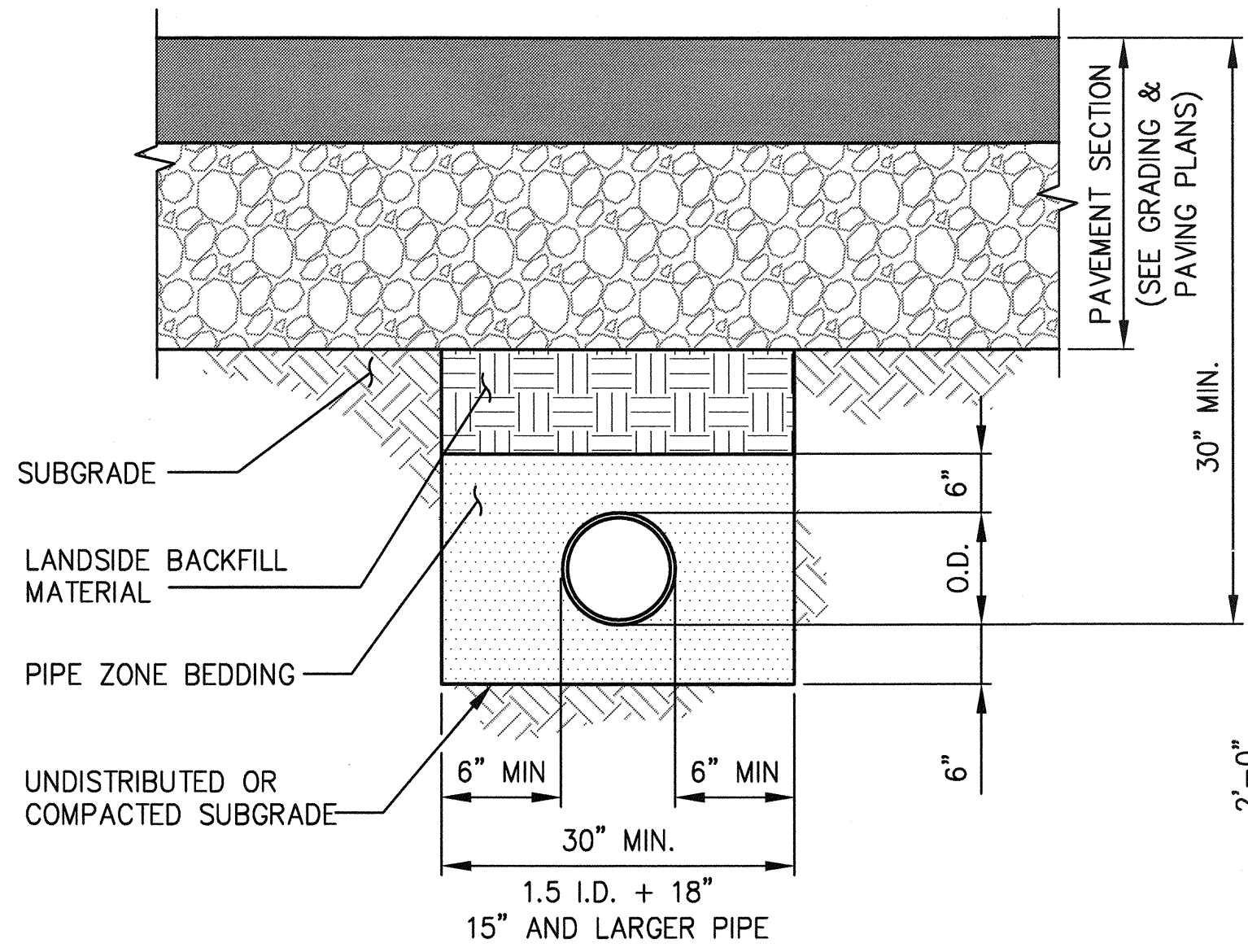
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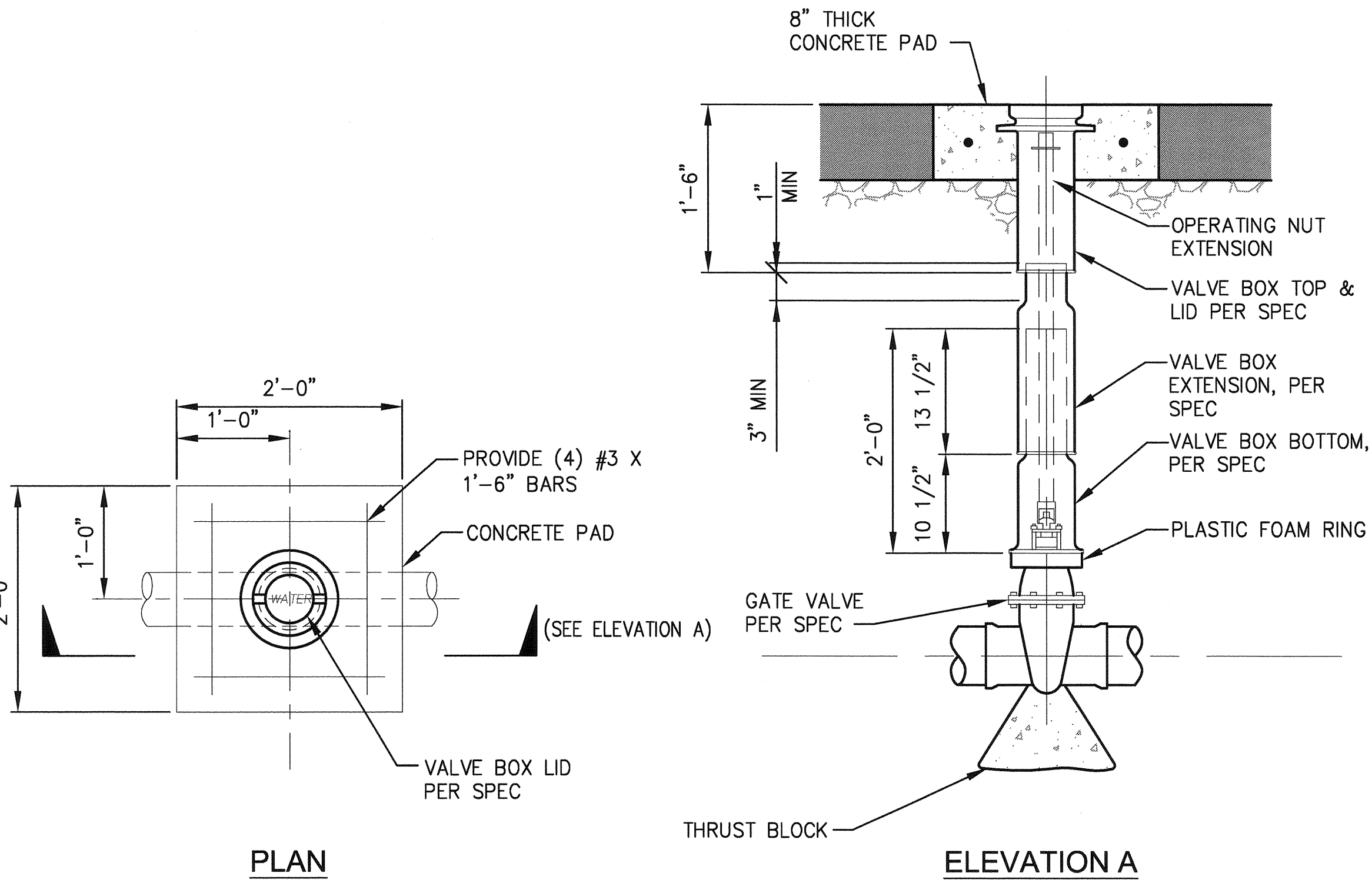
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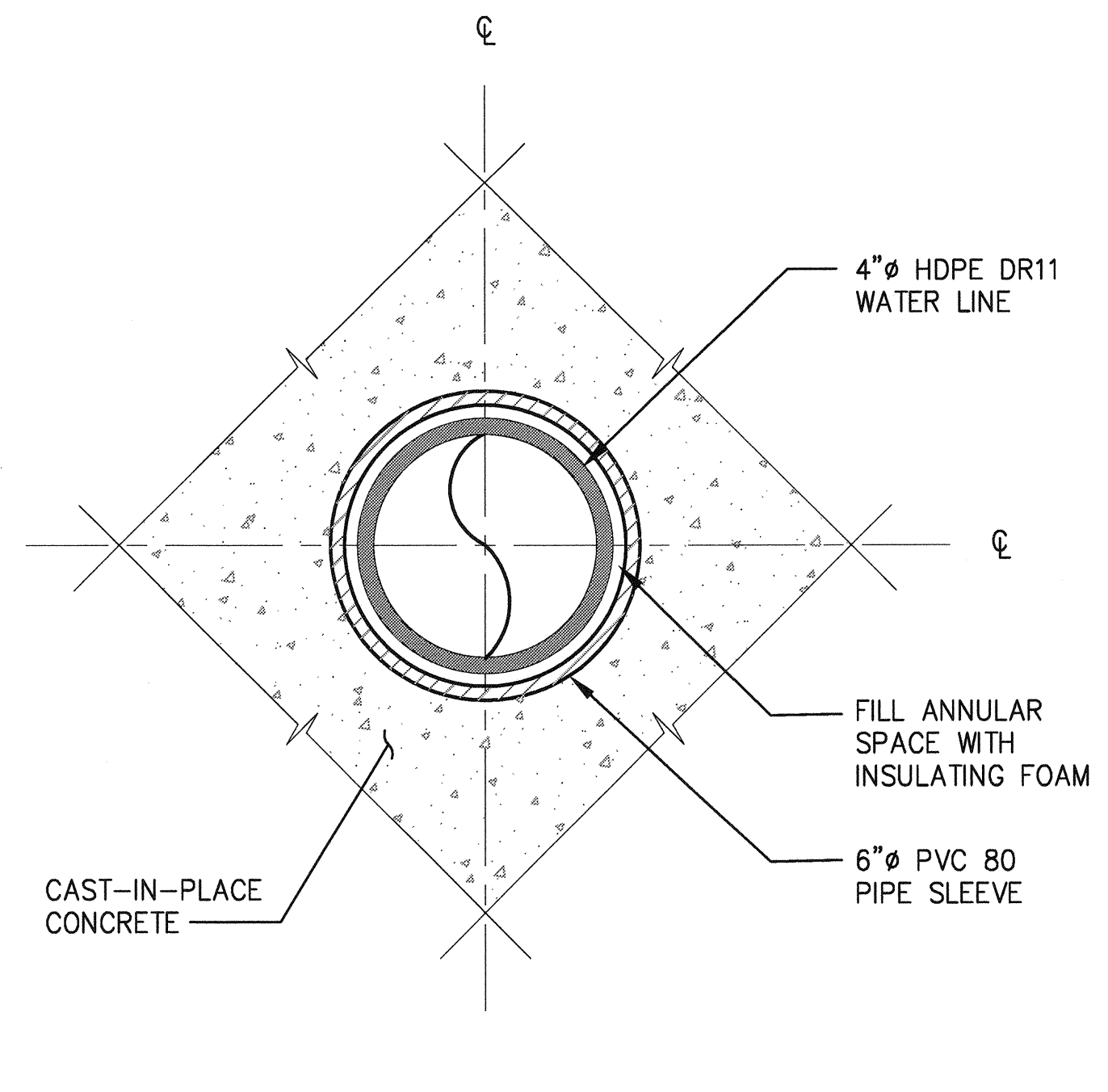
NOTES:

- 1. CONTRACTOR SHALL PROVIDE DEWATERING SYSTEMS AS REQUIRED DURING PIPE INSTALLATIONS.

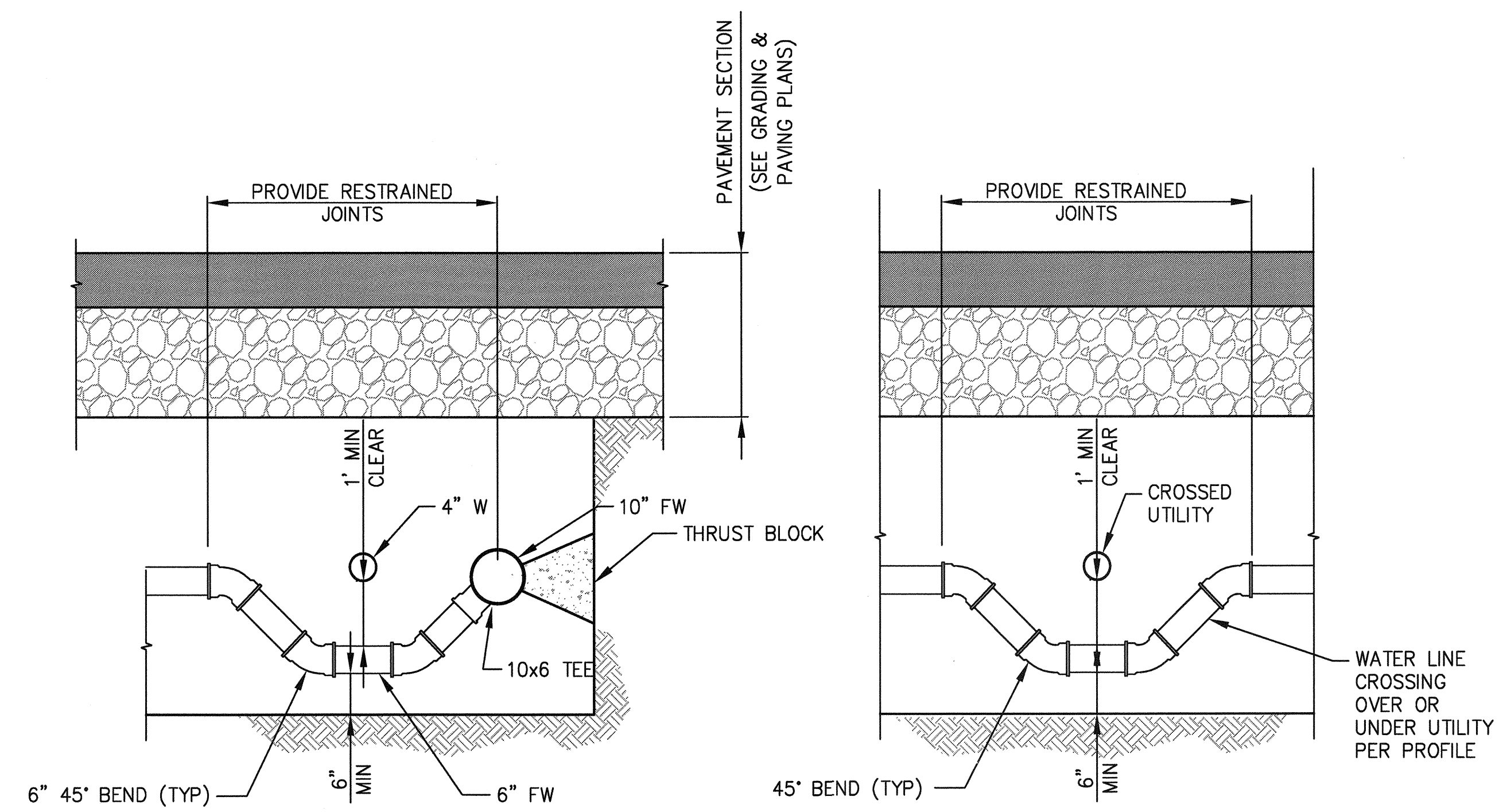
1 WATER PIPE BEDDING
C4.8, C6.1, C6.2, C6.3 NTS



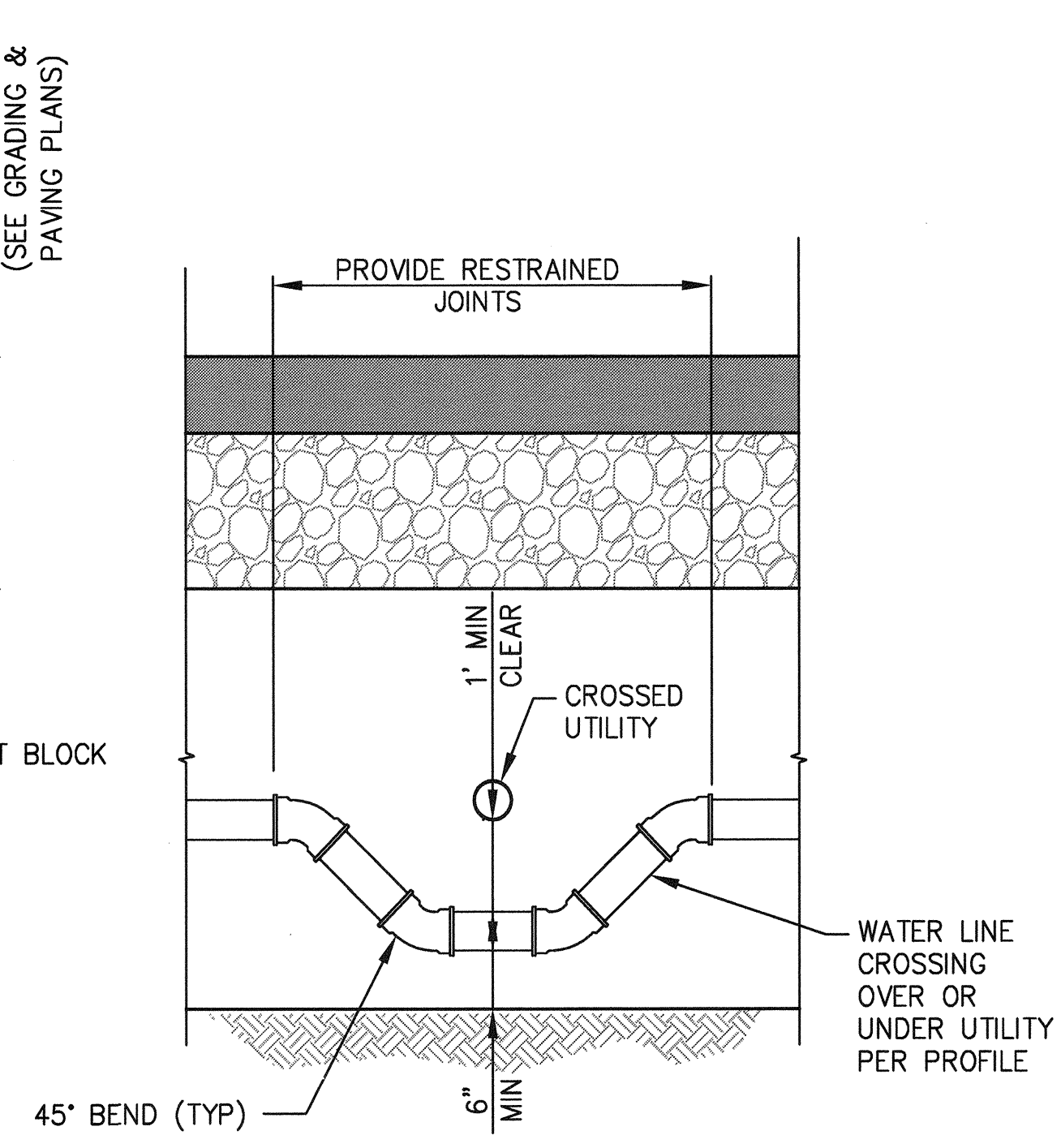
2 GATE VALVE/VALVE BOX
C6.1, C6.2, C6.3, C6.5, C6.10, C6.17 NTS



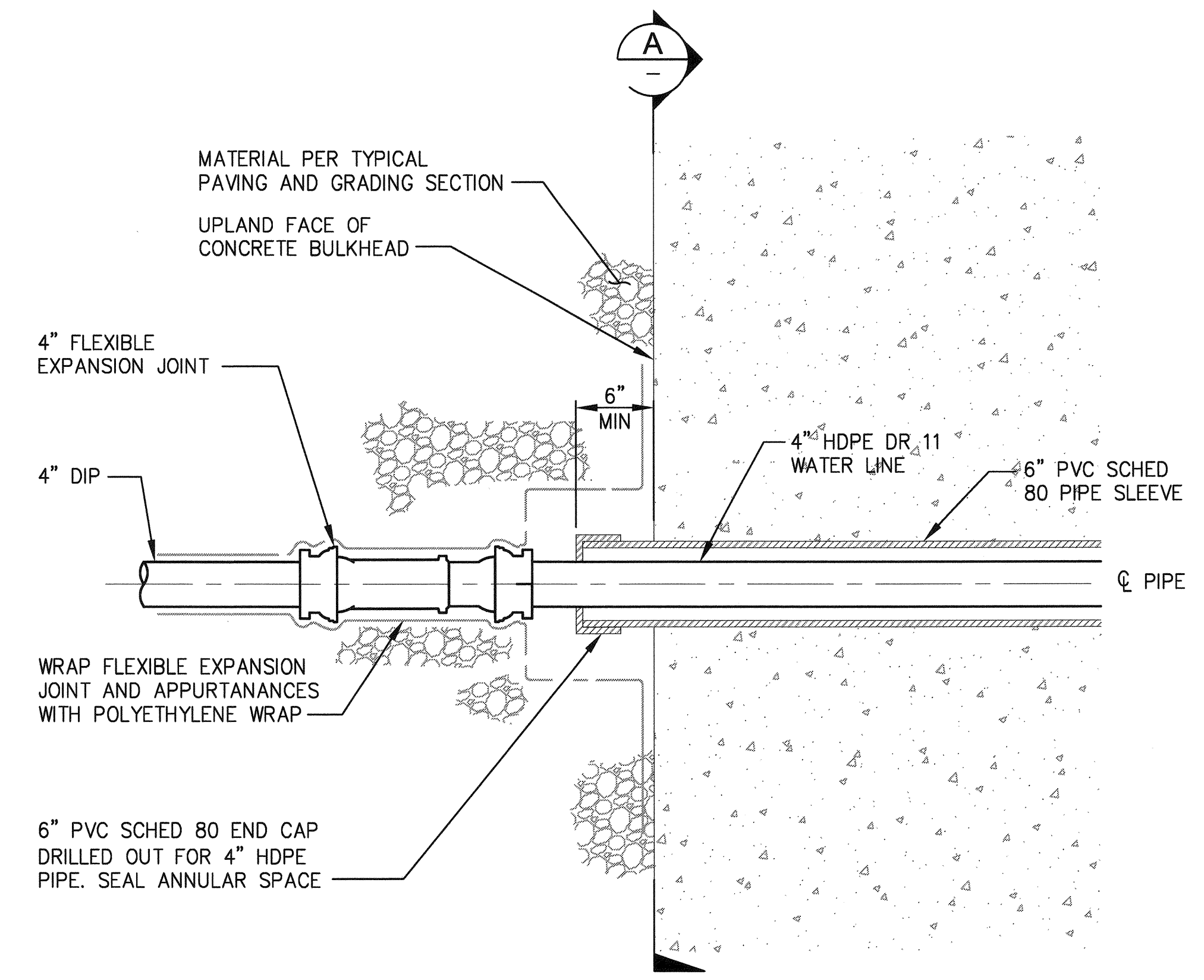
A BULKHEAD PENETRATION FOR WATERLINE
NTS



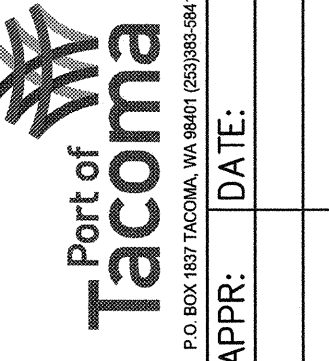
3 WATER CROSSING TO HYDRANT
C6.1, C6.6 NTS



5 UTILITY CROSSING
C6.6 NTS

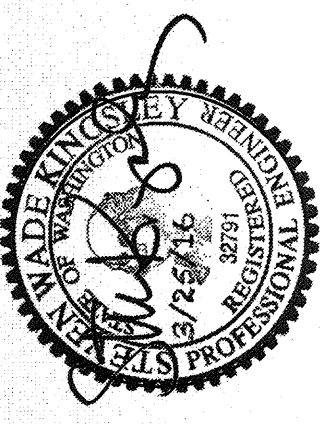


4 FLEXIBLE EXPANSION JOINT DETAIL
C6.3 C6.12 NTS



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<i>[Signature]</i>	3-28-16	gearrey	Mar 24, 2016

DIRECTOR	ENG. DATE	PRINTED BY	PORT ADDRESS
<i>[Signature]</i>	3-28-16	gearrey	ONE SITCUM PLAZA

APPROVED:	TACOMA, WA
<i>[Signature]</i>	98401-1837

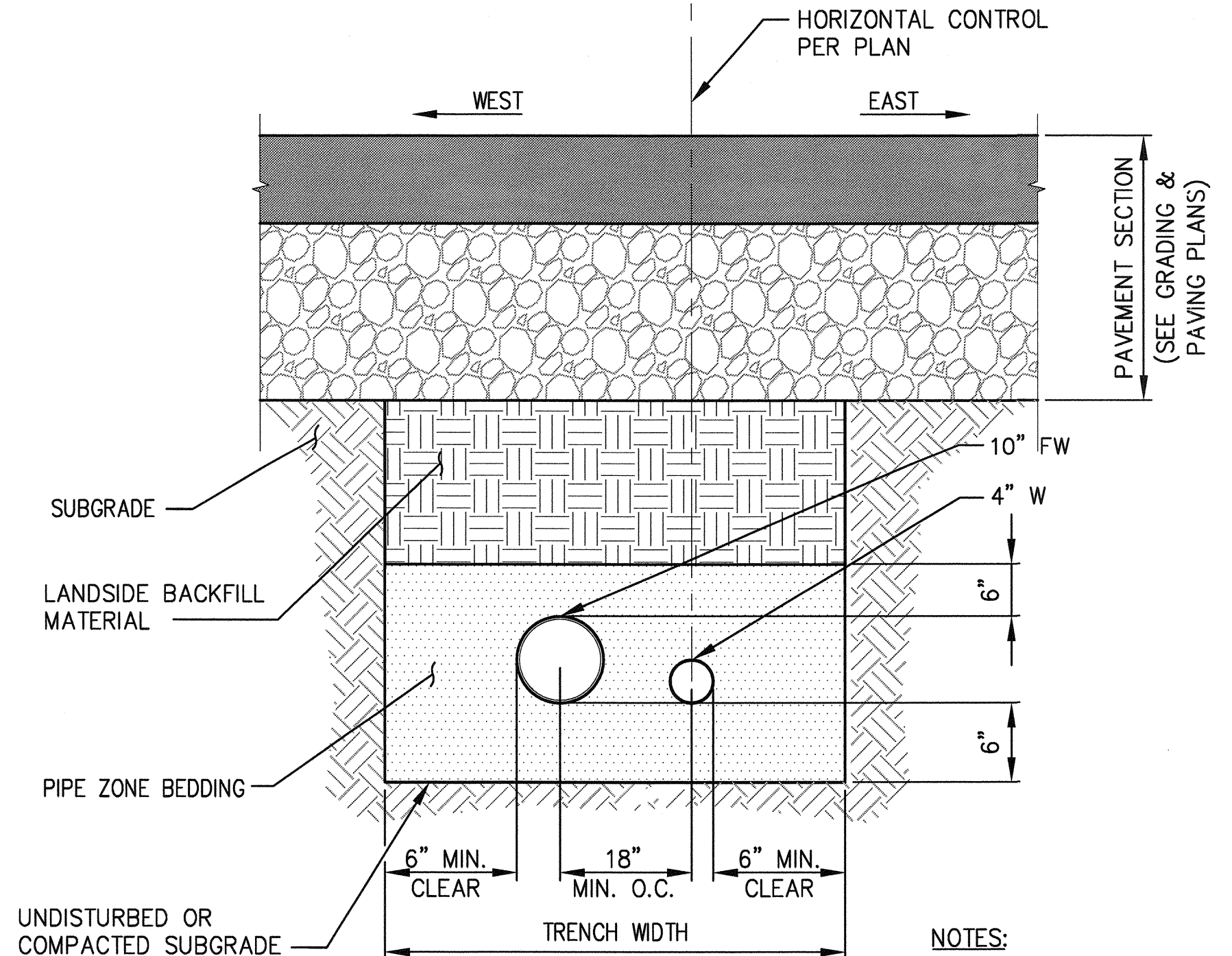
PIER 4 PHASE 2 RECONFIGURATION UTILITY DETAILS - SHEET 1	
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TOWNSHIP:	RANGE:	SECTION:
070136	MLLW 19.39' @ Tide 22.19.33	

6552	SH 96 OF 499
CONT/CONS:	M. ID:
070136	091251
PHASE: BID	PARCEL:

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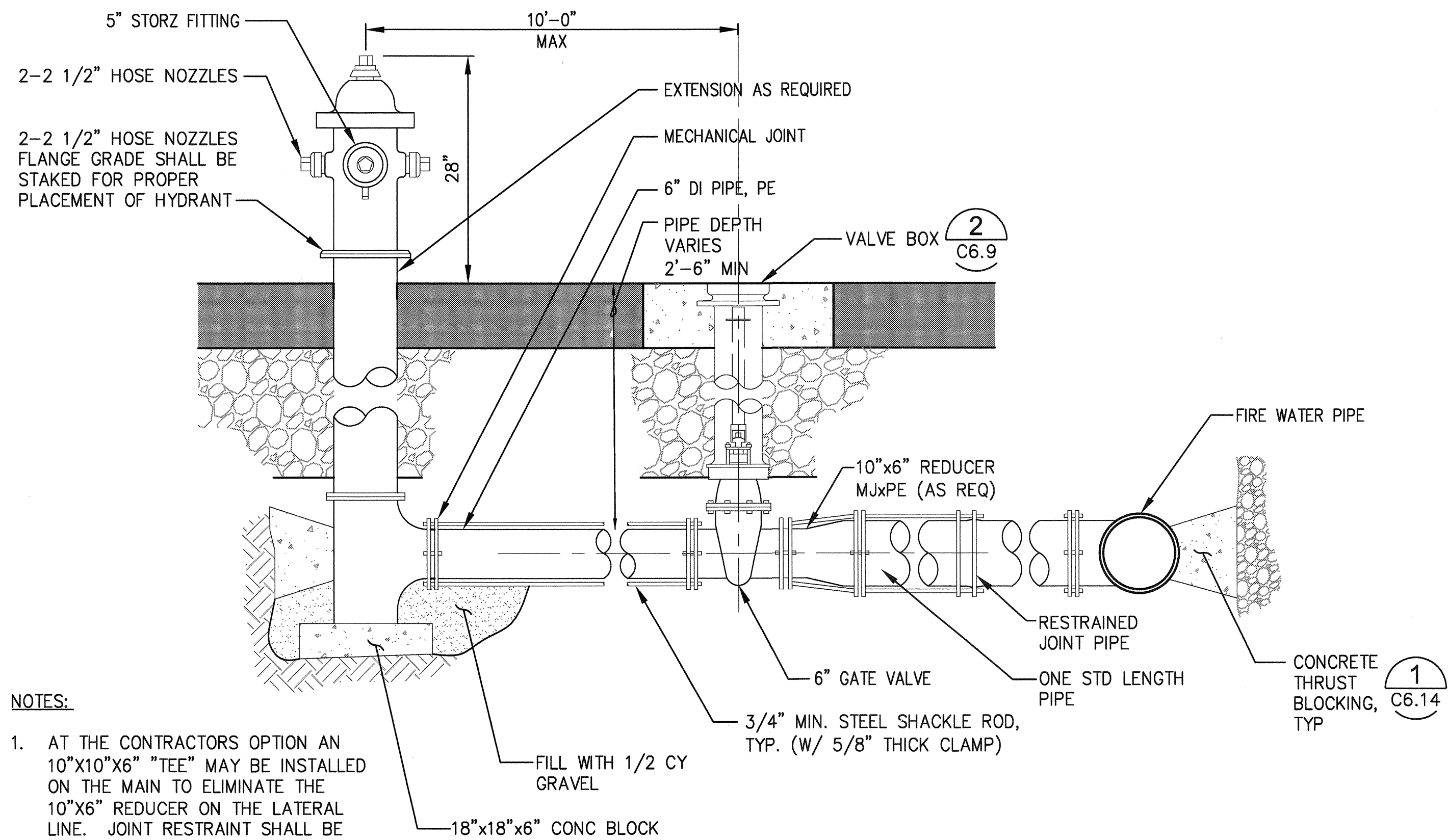
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NOTES:
1. CONTRACTOR SHALL PROVIDE DEWATERING SYSTEMS AS REQUIRED DURING PIPE INSTALLATIONS.

DOUBLE WATER PIPE TRENCH

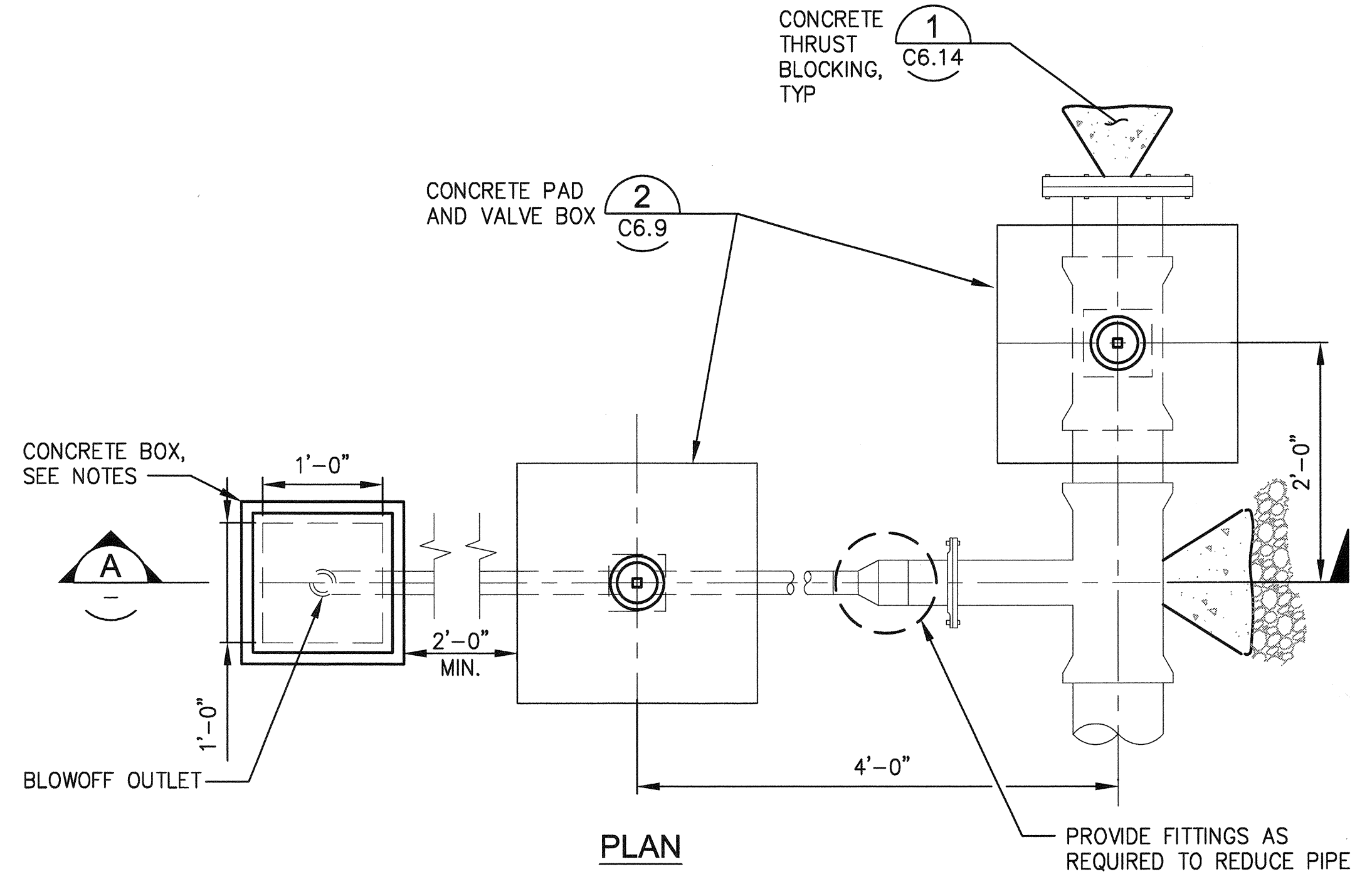
1
C6.1, C6.2, C6.3, C6.17 NTS



NOTES:
1. AT THE CONTRACTORS OPTION AN 10"x10"x6" "TEE" MAY BE INSTALLED ON THE MAIN TO ELIMINATE THE 10"x6" REDUCER ON THE LATERAL LINE. JOINT RESTRAINT SHALL BE PROVIDED ON THE FULL LENGTH OF THE 6" LINE, INCLUDING END FITTINGS.

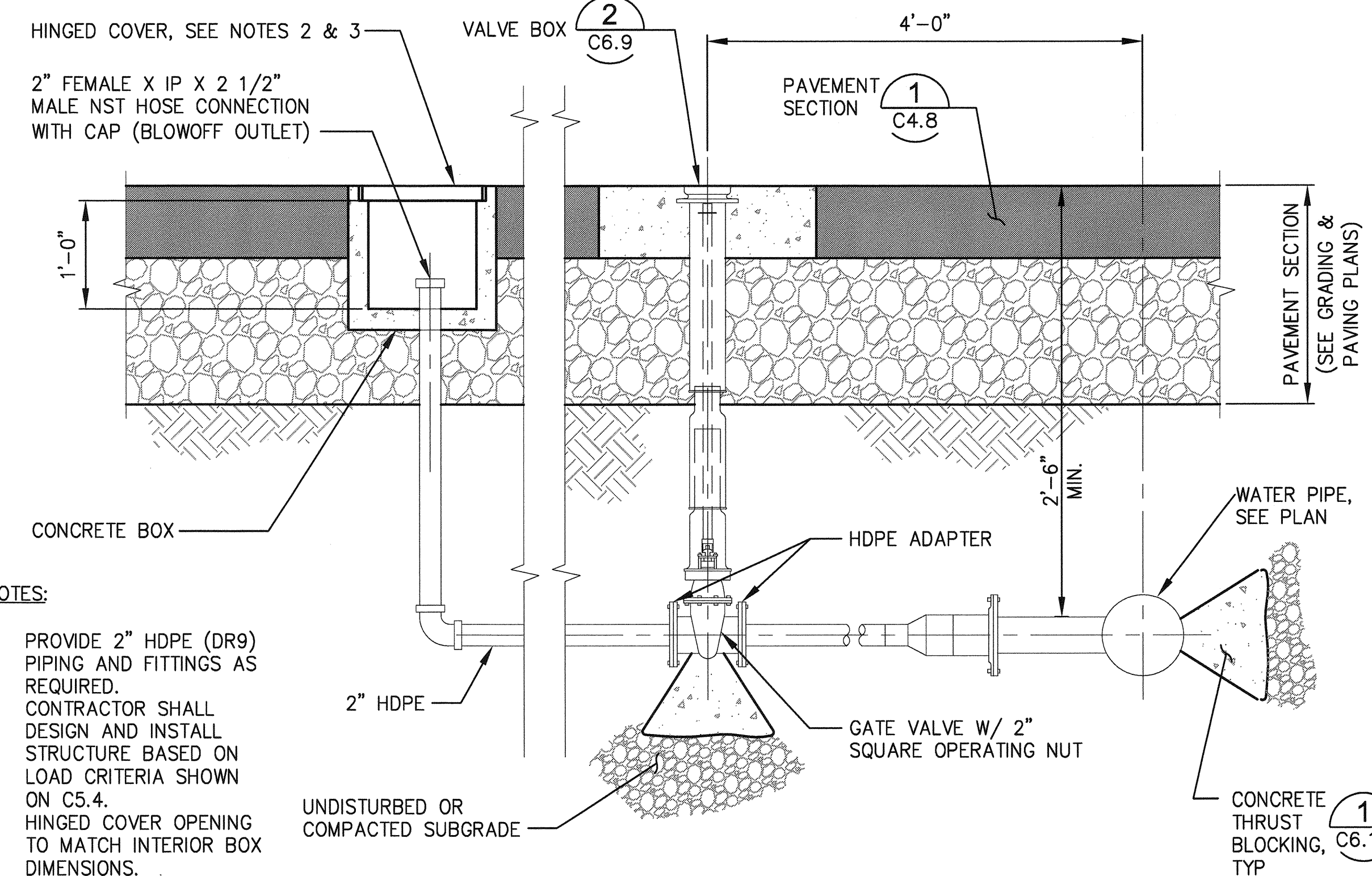
FIRE HYDRANT ASSEMBLY

2
C6.1, C6.2, C6.3, C6.5, C6.17, C7.5 NTS



PLAN

PROVIDE FITTINGS AS REQUIRED TO REDUCE PIPE FOR 2" BLOWOFF ASSEMBLY

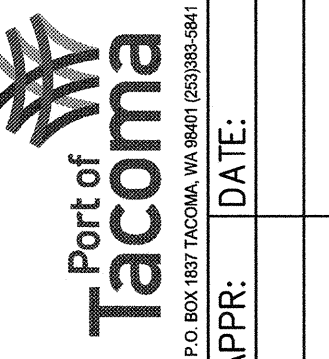


SECTION A

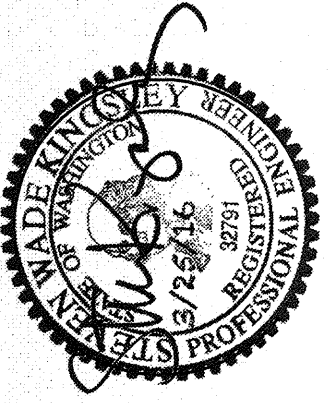
NOTES:
1. PROVIDE 2" HDPE (DR9) PIPING AND FITTINGS AS REQUIRED.
2. CONTRACTOR SHALL DESIGN AND INSTALL STRUCTURE BASED ON LOAD CRITERIA SHOWN ON C5.4.
3. HINGED COVER OPENING TO MATCH INTERIOR BOX DIMENSIONS.

BLOWOFF ASSEMBLY

3
C6.2 NTS



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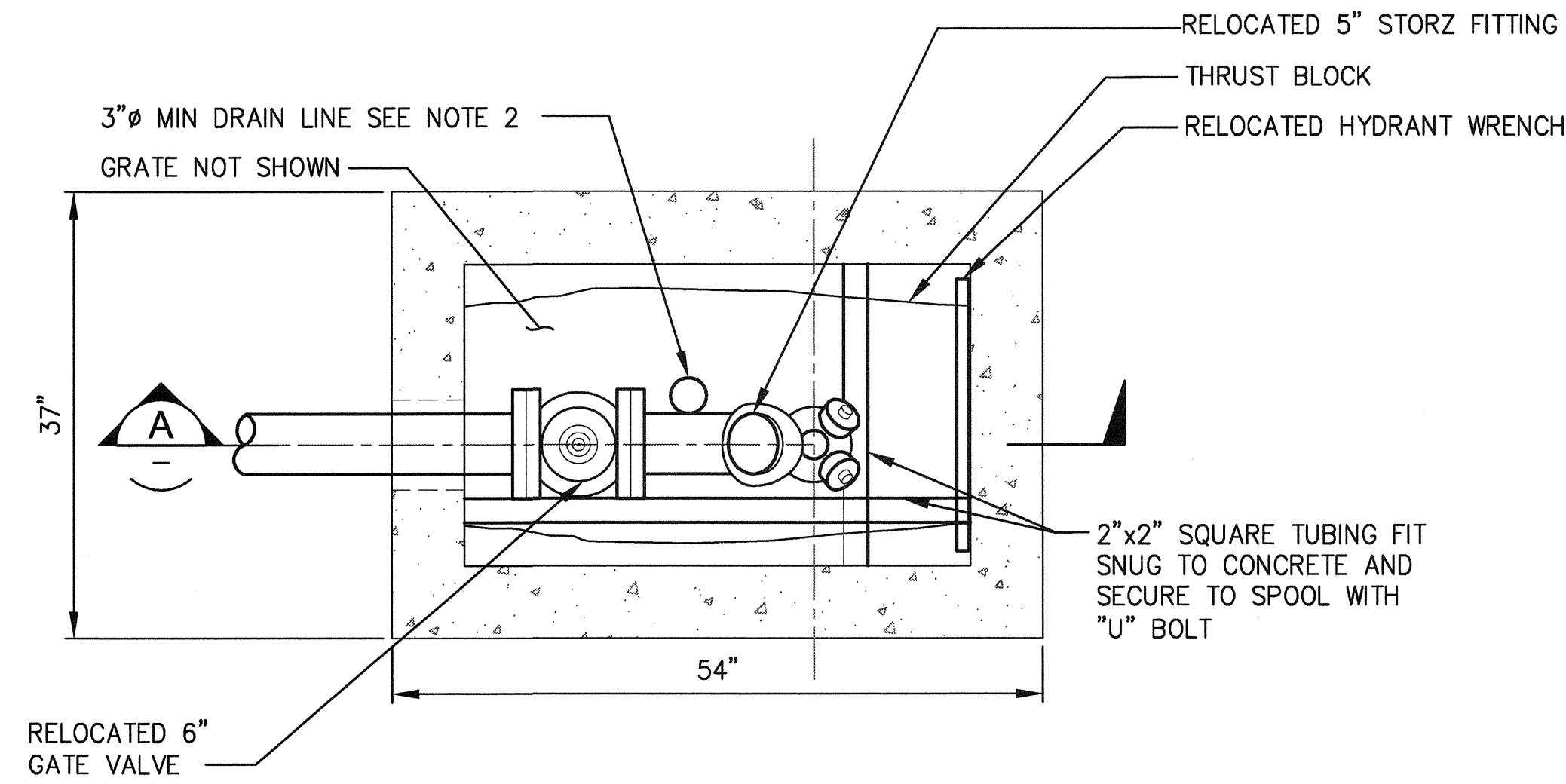


APPROVED:	CHECKED BY:	DATE:
<i>Wesley B. Johnson</i>		
DIRECTOR ENG. DATE:	PROJ. ENGR DATE:	
3-28-16	5/2/16	
PRINTED BY:	PORT ADDRESS:	ONE SITCUM PLAZA
	TACOMA, WA	98401-1837

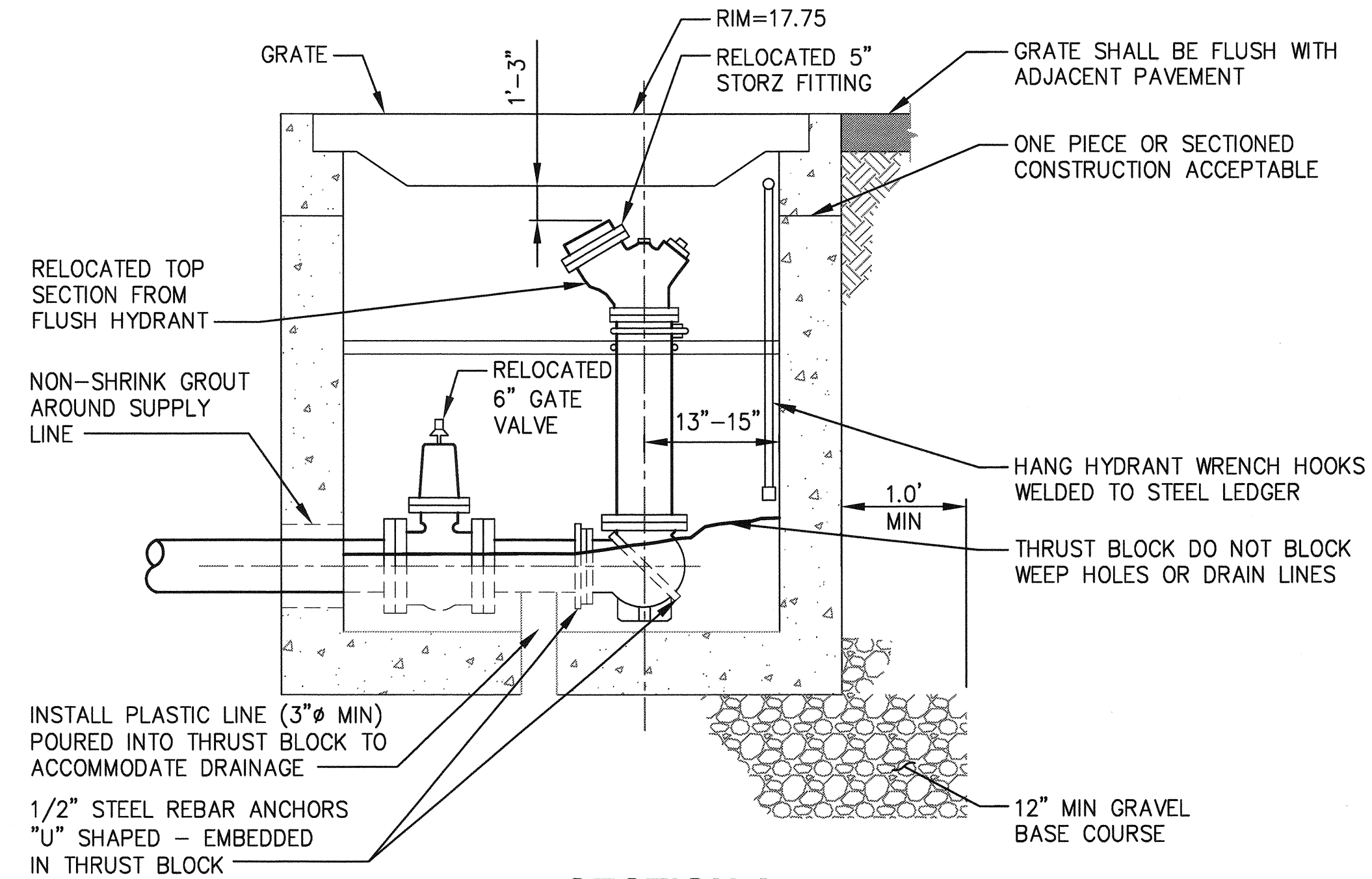
PIER 4 PHASE 2 RECONFIGURATION UTILITY DETAILS - SHEET 2

6552
C6.10
SH 97 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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PLAN



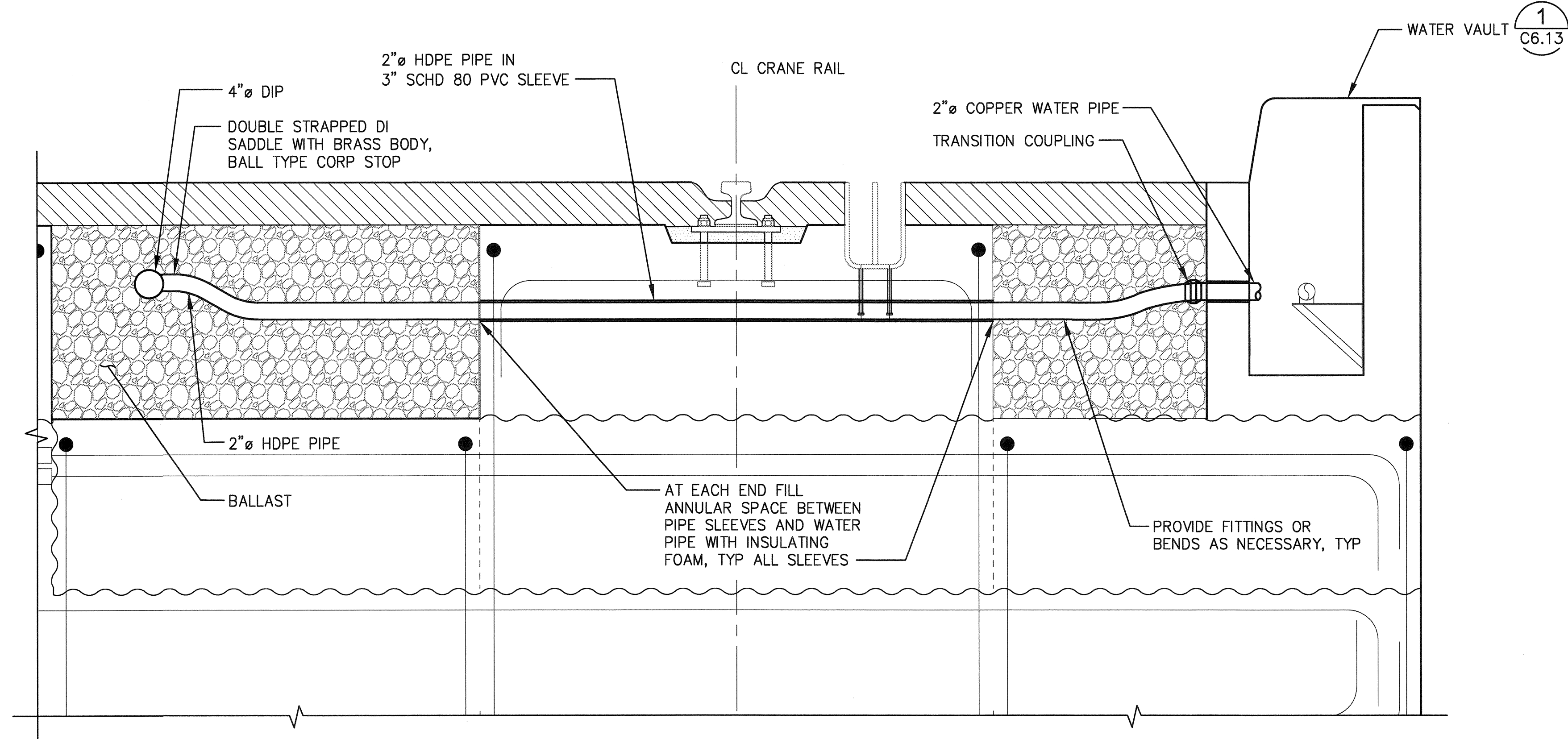
SECTION A

FLUSH FIRE HYDRANT ASSEMBLY

1 6.3 NTS

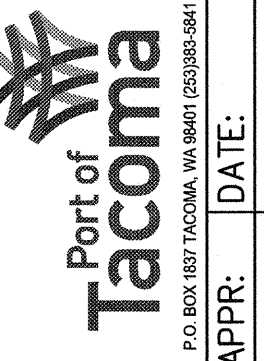
NOTES:

- 1. VAULT AND GRATE SHALL BE CONTRACTOR DESIGNED TO THE INSIDE DIMENSIONS SHOWN AND TO WITHSTAND THE LOADING CONDITIONS ON SHEET S1.2.
- 2. DRAIN LINE SHALL BE CENTERED IN THE HYDRANT VAULT. THRUST BLOCK TOP SURFACE SHALL BE SLOPED TO DRAIN TO THE DRAINLINE.



SHIP SERVICE TO WATER VAULT

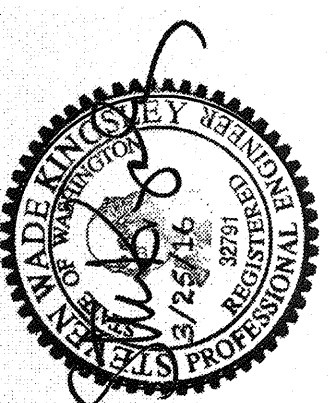
2 C6.1, C6.2, C6.3 NTS



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APPROVED: *Lisa Howard*

DIRECTOR ENG. DATE: 3-28-16

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PIER 4 PHASE 2 RECONFIGURATION UTILITY DETAILS - SHEET 3

TOWNSHIP: RANGE: SECTION:

DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933

PARCEL: DRAWING SCALE: AS NOTED

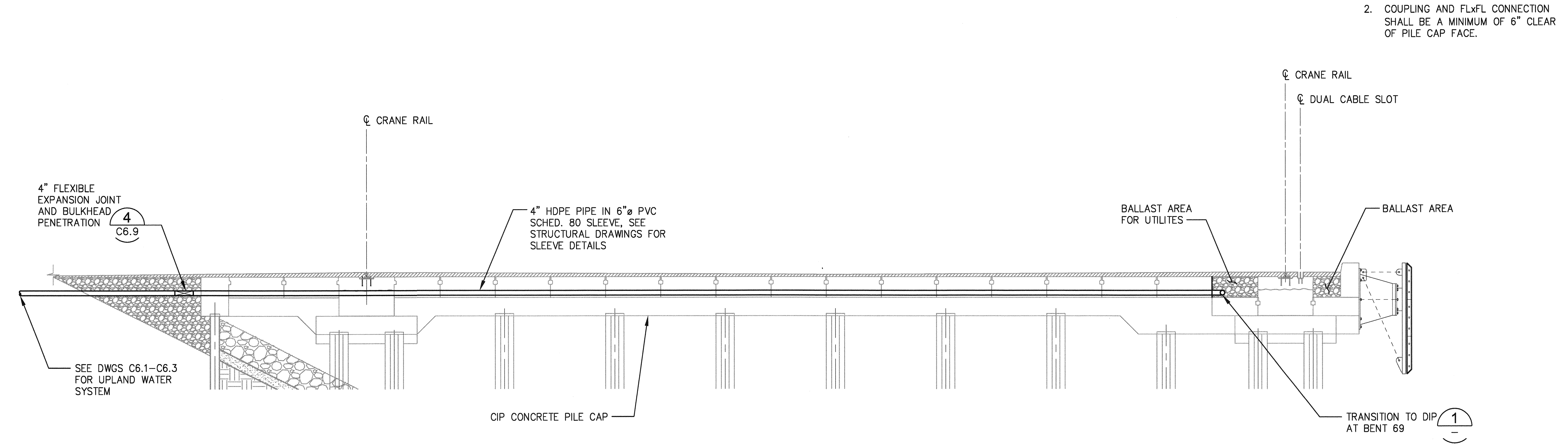
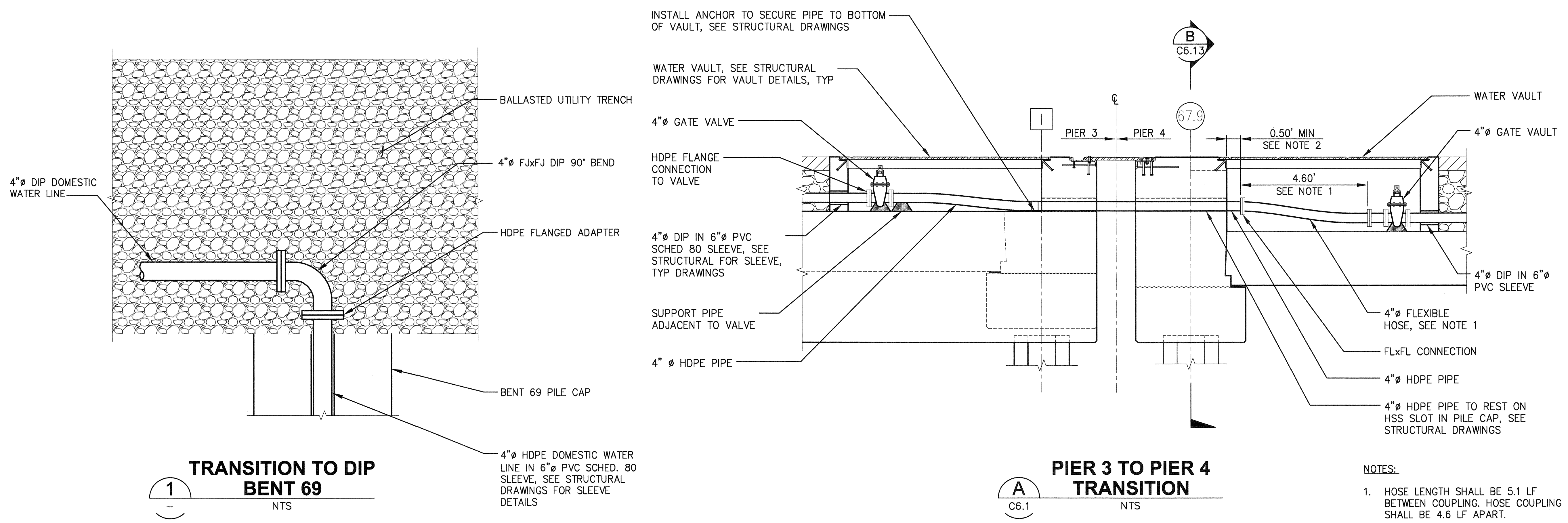
6552 SH 98 OF 489 C6.11

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C6.9-C6.10-C6.11-C.6.12-C6.13-C6.14 (Utility Details)



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PRINTED BY: gcarey
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CHECKED BY: DATE
PROJ. ENGR DATE

DATE: 3/28/16
BY: gcarey
REVISION: 091251
APPR: DATE:

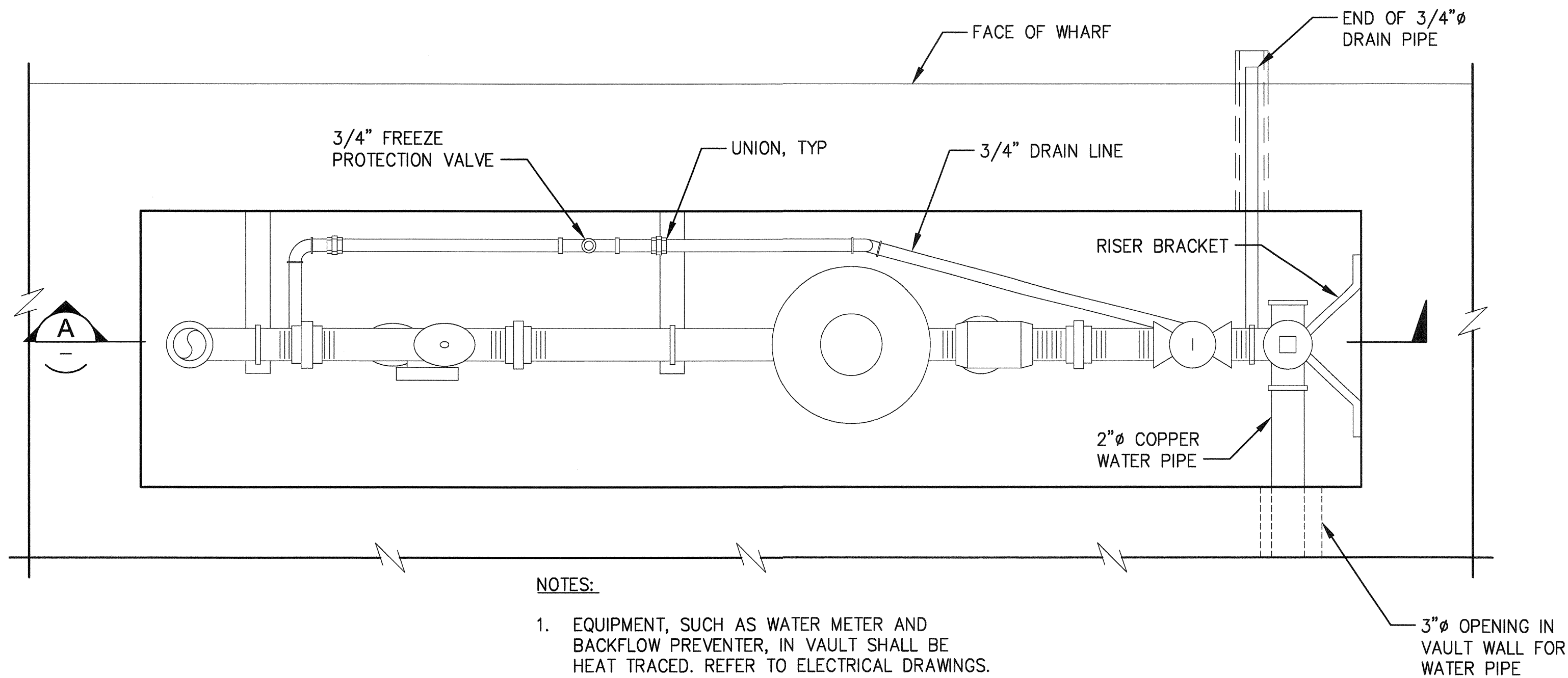
PIER 4 PHASE 2 RECONFIGURATION UTILITY DETAILS - SHEET 4

SECTION: RANGE: MLLW 19.39' @ Tide 22.19.33
DATE-HRZ: WA83-SF VERT: AS NOTED
DRAWING SCALE: AS NOTED

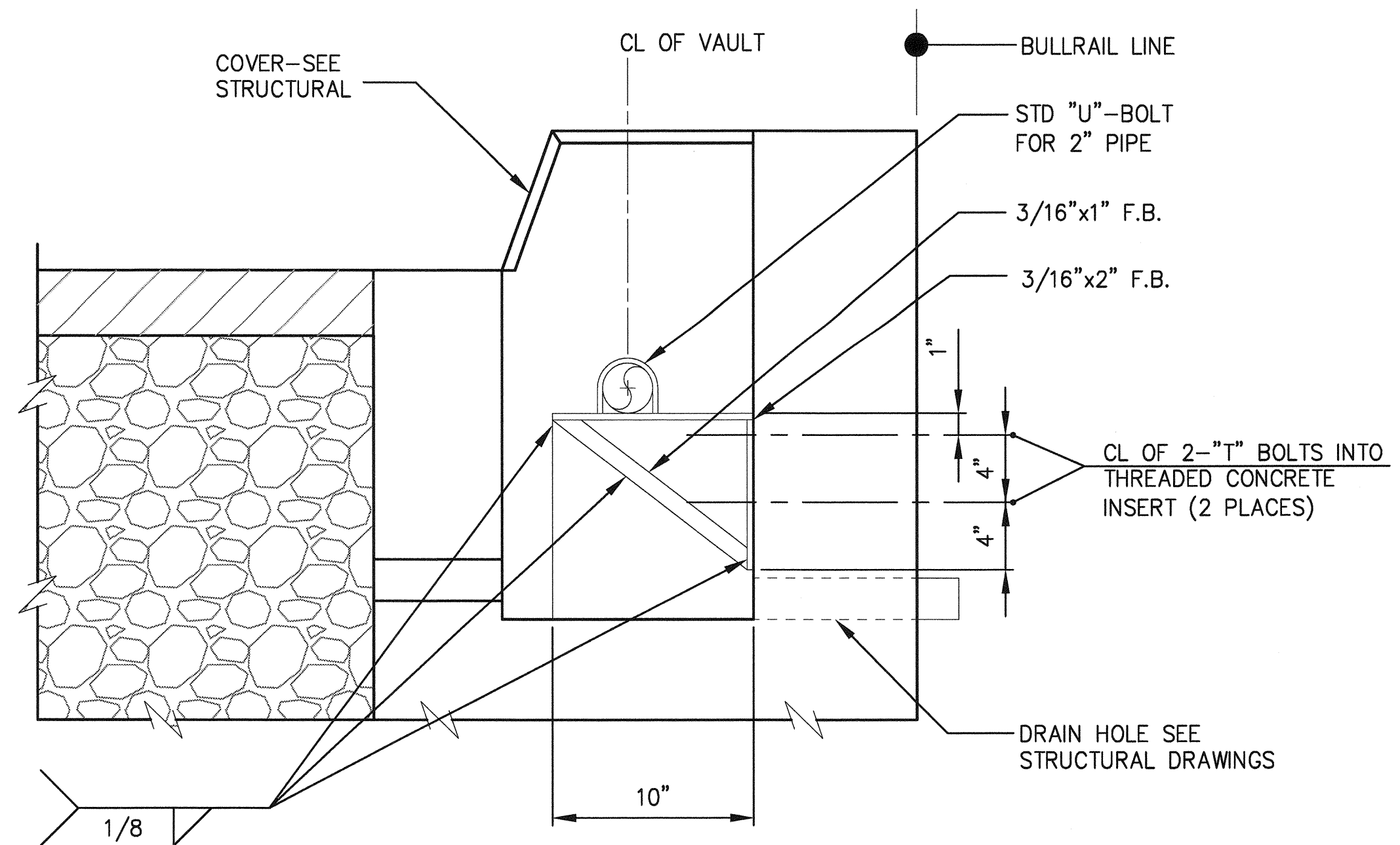
6552
C6.12
SH 99 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

TOWNSHIP: SECTION:
DATE-HRZ: RANGE: MLLW 19.39' @ Tide 22.19.33
VERT: AS NOTED
DRAWING SCALE: AS NOTED

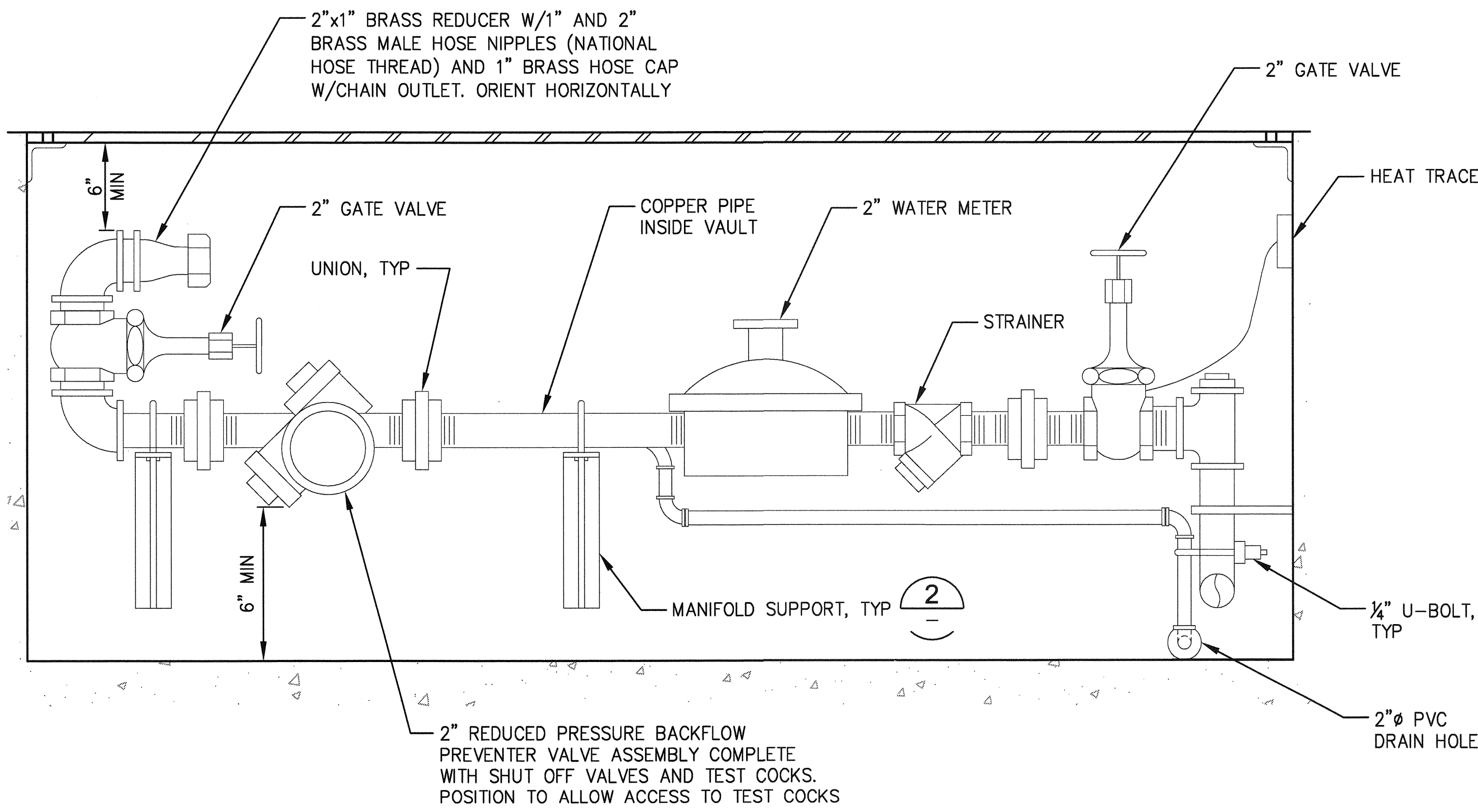
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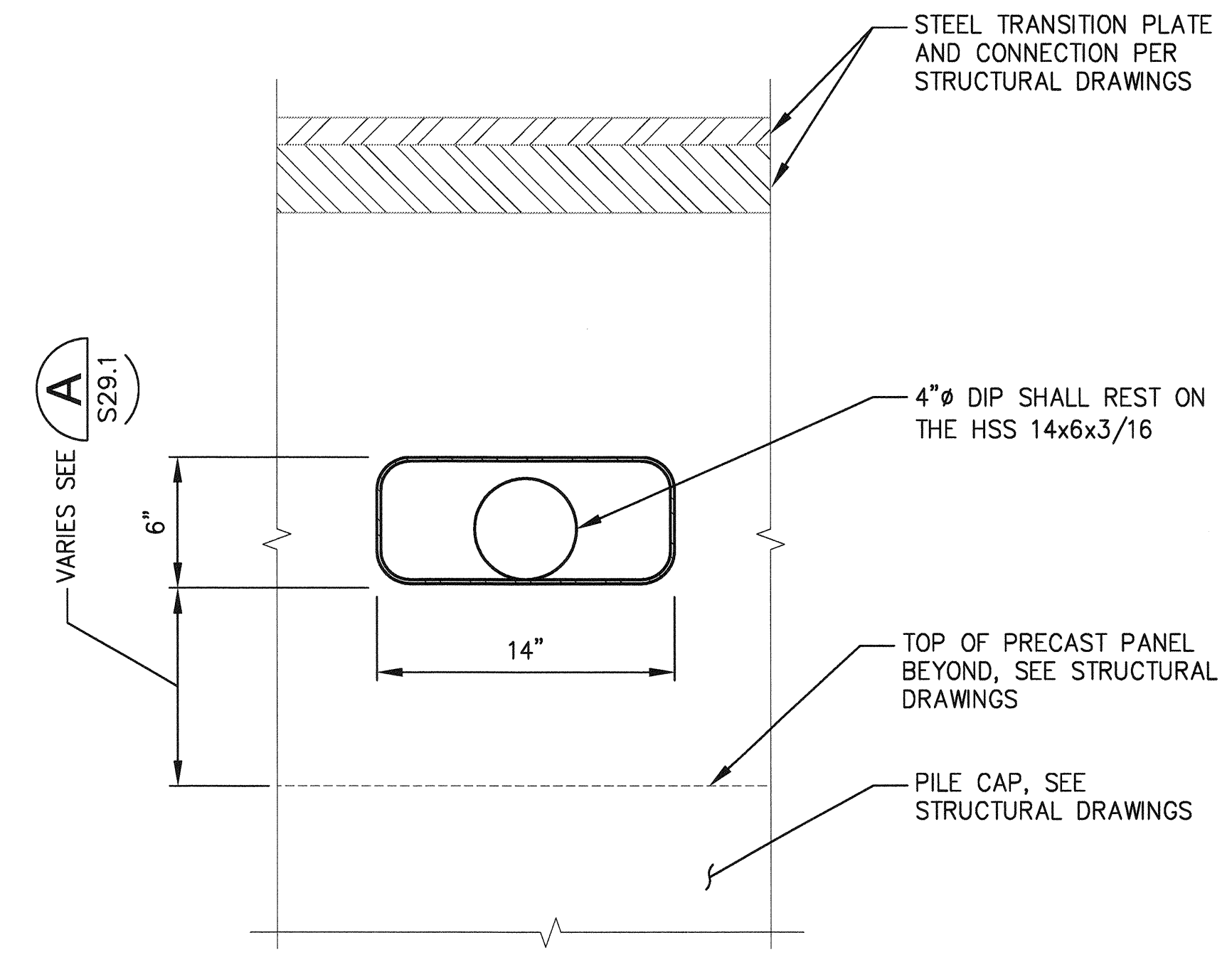
1 BULLRAIL UTILITY VAULT - WATER
C6.1, C6.2, C6.3 NTS



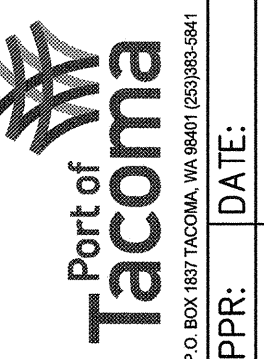
2 MANIFOLD SUPPORT
NTS



A BULLRAIL UTILITY VAULT - WATER
NTS



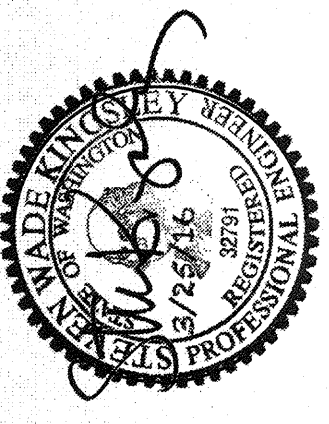
B PIER 3 TO PIER 4 TRANSITION SECTION
C6.12 NTS



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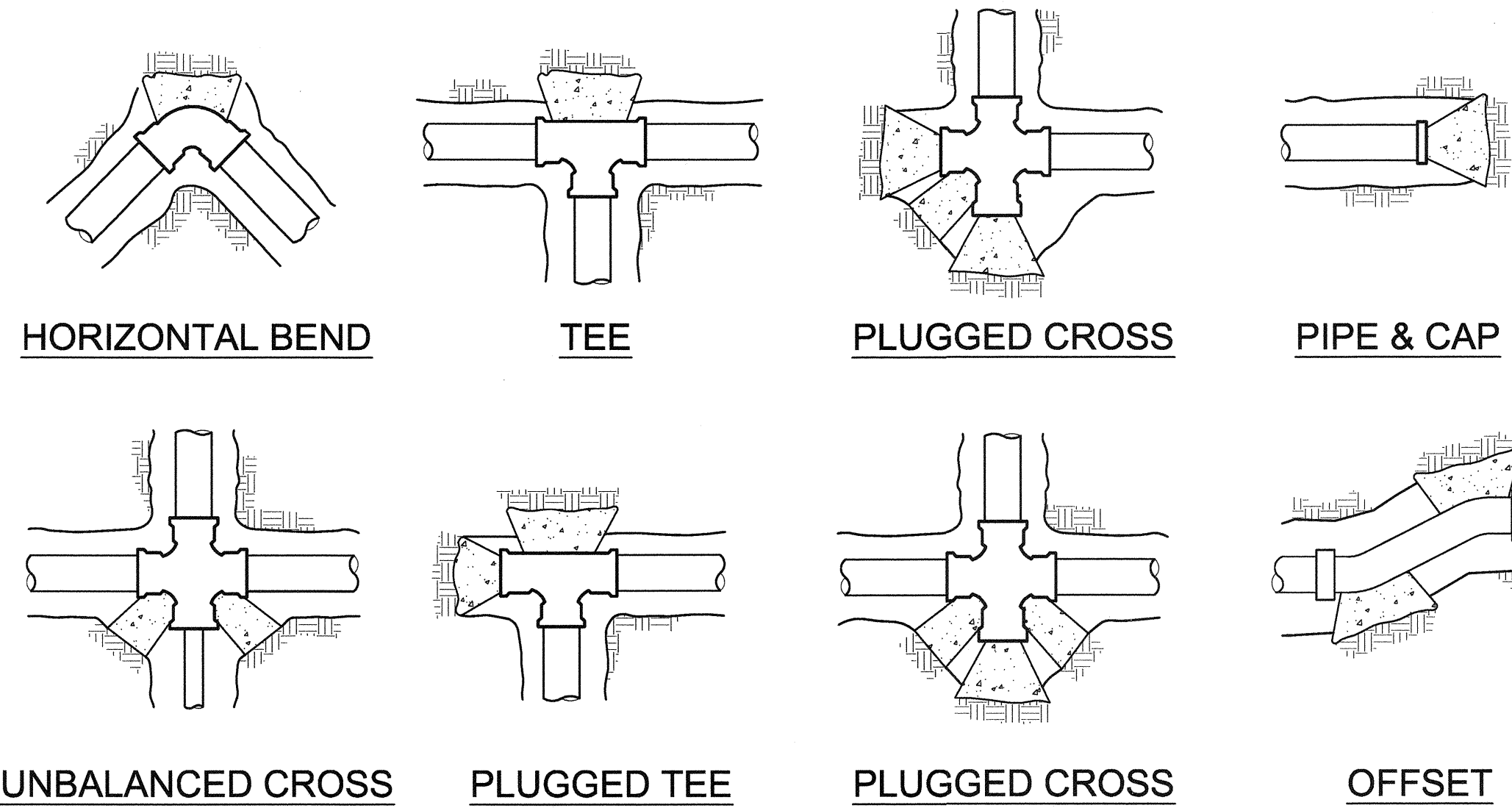


APPROVED: *Gregory Mar 24, 2016*
DIRECTOR ENG. DATE: 3-24-16
PRINTED BY: gcmr
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION UTILITY DETAILS - SHEET 5

TOWNSHIP: MLW 19.39' @ Tide 22 1933
DATE-HRZ: WA83-SF
PARCEL: AS NOTED

6552
C6.13
SH 100 OF 489
CONT/CONS: 070136
M. ID: 091251
PHASE: BID



1 **TYPICAL CONCRETE HORIZONTAL THRUST BLOCK**
C6.1, C6.2, C6.3 NTS

- NOTES:
- CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE.
 - CAST-IN-PLACE THRUST BLOCKING SHALL BE CURED FOR A MINIMUM OF 1 DAY PRIOR TO BACKFILLING. PIPE PRESSURE TESTING SHALL NOT BE CONDUCTED UNTIL BLOCKING HAS REACHED DESIGN COMPRESSION STRENGTH.
 - BLOCKING FOR HORIZONTAL FITTINGS SHALL BEAR AGAINST UNDISTURBED NATIVE GROUND OR STRUCTURAL FILL COMPACTED TO 95% OF MODIFIED PROCTOR. SEE TABLES FOR REQUIRED BEARING AREAS.
 - HORIZONTAL BLOCKING THRUST AREAS SHALL BE CENTERED ON PIPE.
 - MINIMUM AREA IS COMPUTED BY DIVIDING THRUST BY SAFE BEARING LOAD.
 - THRUST BLOCK AREA MUST BE ADJUSTED FOR PRESSURE CONDITIONS NOT SHOWN IN TABLE.
 - PROVIDE 20 LB TAR PAPER OR 10 MIL PLASTIC BETWEEN CONCRETE THRUST BLOCK AND PIPE.

THRUST BLOCK AREA IN SQUARE FEET

PIPE FITTING SIZE	FIRM SILT OR FIRM SILTY SAND				COMPACT SAND				COMPACT SAND & GRAVEL			
	90° BEND	TEE	45° BEND CAP OR PLUG	11 1/4" & 22 1/2" BEND	90° BEND	TEE	45° BEND CAP OR PLUG	11 1/4" & 22 1/2" BEND	90° BEND	TEE	45° BEND CAP OR PLUG	11 1/4" & 22 1/2" BEND
4"	7.0	4.2	4.2	1.7	2.9	2.1	2.1	1.0	2.2	1.6	1.6	1.0
6"	13.3	9.4	9.4	3.8	6.7	4.7	4.7	1.9	5.0	3.5	3.5	1.4
8"	23.3	16.7	16.7	6.7	11.7	8.40	8.4	3.4	8.8	6.3	6.3	2.5
12"	53.0	37.5	37.5	15.0	26.5	18.8	18.8	7.5	20.0	14.0	14.0	5.6

AREAS CALCULATED ON 300 PSI TEST PRESSURE AND 3'-0" MIN. COVER OVER WATERMAIN

TYPE 1 BLOCKING FOR THRUST BLOCK AREA IN SQUARE FEET

PIPE FITTING SIZE	FIRM SILT OR FIRM SILTY SAND			COMPACT SAND			COMPACT SAND & GRAVEL		
	90° BEND	TEE, 45° BEND & DEAD END	11 1/4" & 22 1/2" BEND	90° BEND	TEE, 45° BEND & DEAD END	11 1/4" & 22 1/2" BEND	90° BEND	TEE, 45° BEND & DEAD END	11 1/4" & 22 1/2" BEND
4"	5.8	4.2	1.7	2.9	2.1	1.0	2.2	1.6	1.0
6"	13.3	9.4	3.8	6.7	4.7	1.9	5.0	3.5	1.4
8"	23.3	16.7	6.7	11.7	8.4	3.4	8.8	6.3	2.5
12"	53.0	37.5	15.0	26.5	18.8	7.5	20.0	14.0	5.6

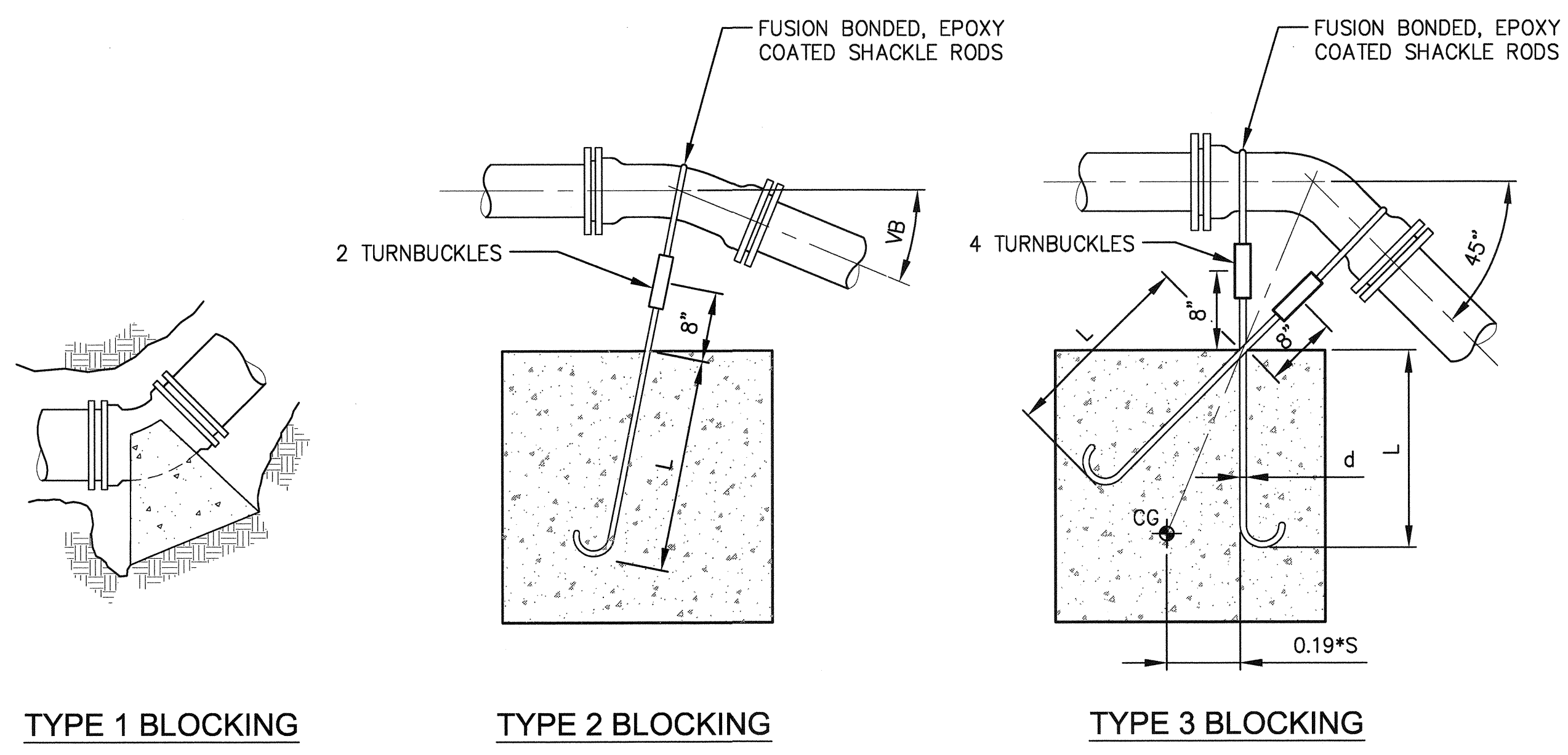
AREAS CALCULATED ON 300 PSI TEST PRESSURE AND 3'-0" MIN. COVER OVER WATERMAIN

TYPE 2 BLOCKING

PIPE SIZE (IN)	VB	S	d	L
	VOLUME OF BLOCK (CF)			
4"	11 1/4	8	2	18
	22 1/2	12	2 1/4	24
6"	11 1/4	12	2 1/4	24
	22 1/2	27	3	24
8"	11 1/4	16	2 1/2	24
	22 1/2	43	3 1/2	24
12"	11 1/4	64	4	24
	22 1/2	125	5	36

TYPE 3 BLOCKING FOR 45° VERTICAL BENDS

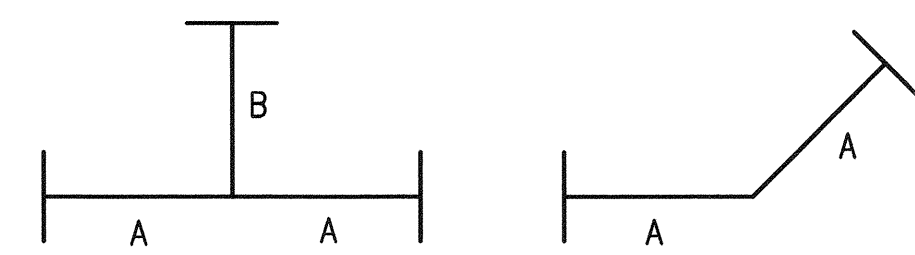
PIPE SIZE (IN)	VOLUME OF BLOCK (CF)	S	d	L
4"	27	3	3/4	20
6"	64	4	3/4	20
8"	125	5	3/4	20
12"	216	6	1	30



2 **TYPICAL CONCRETE VERTICAL THRUST BLOCK**
C6.1, C6.2, C6.3, C6.17 NTS

- NOTES:
- BLOCKING FOR VERTICAL FITTINGS SHALL BEAR AGAINST UNDISTURBED NATIVE GROUND OR COMPACTED STRUCTURAL FILL
 - PROVIDE 20 LB TAR PAPER OR 10 MIL PLASTIC BETWEEN CONCRETE THRUST BLOCK AND PIPE.

- NOTE:
- JOINT RESTRAINT SYSTEM SHALL HAVE A MINIMUM OF TWO JOINT FITTINGS BUT NOT BE LESS THAN MINIMUM LENGTH SHOWN.



3 **RESTRAINED JOINT LENGTH DIAGRAM**
NTS

Part of Tacoma

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APPROVED: *Gregory Mgr.*

3-28-16

PIER 4 PHASE 2 RECONFIGURATION UTILITY DETAILS - SHEET 6

SECTION: MLLW 19.39' @ Tide 22 1933

RANGE: WA83-SF

TOWNSHIP: 091251

DATE-HRZ: 091251

CONTR/CONS: 070136

M. ID: 091251

PHASE: BID

CHECKED BY: DATE

PROJ. ENGR: DATE

gcmgr 24, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

6552

C6.14

SH 101 OF 489

DATE: DATE

APPR: DATE

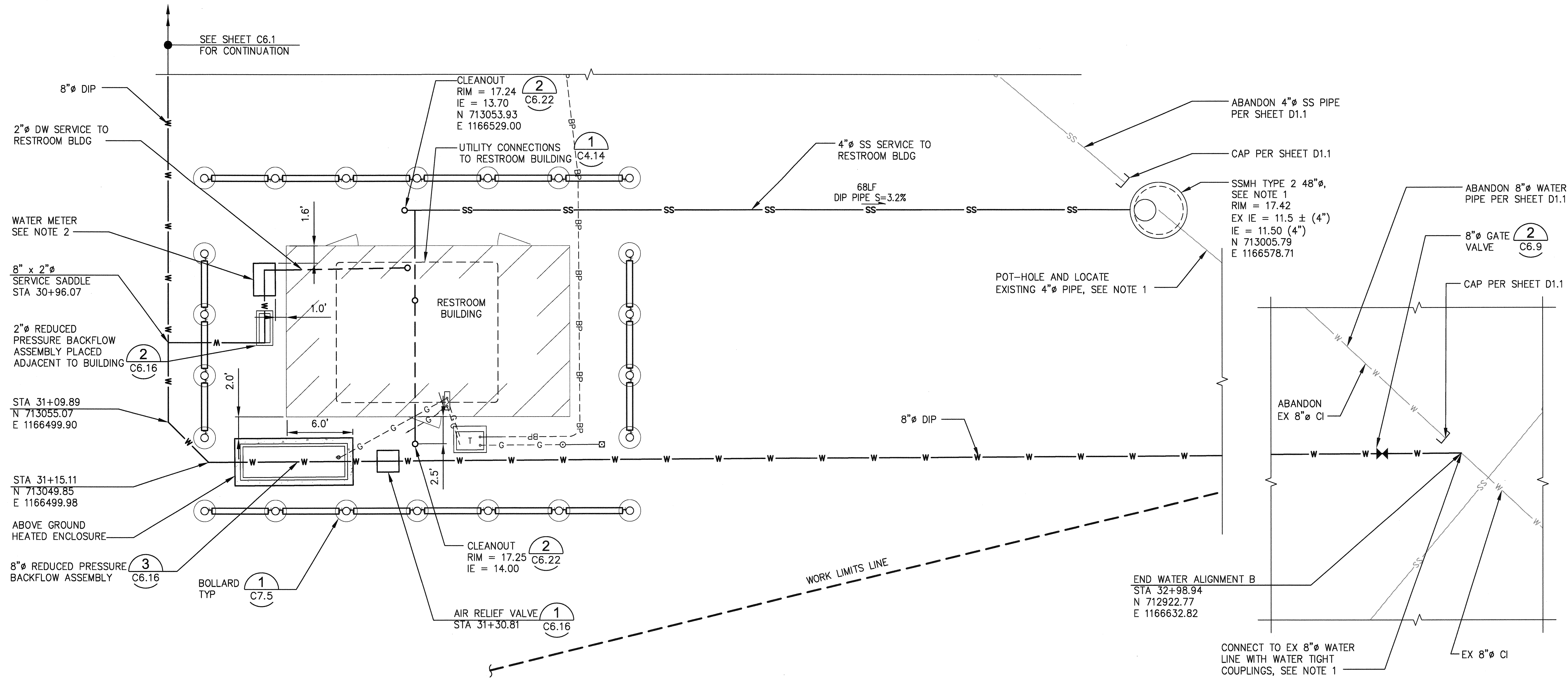
BY: DATE

REVISION: DATE

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PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C6.15-(Re)configuration - Enlarged RR Bldg Utility Plan

BINDING EDGE

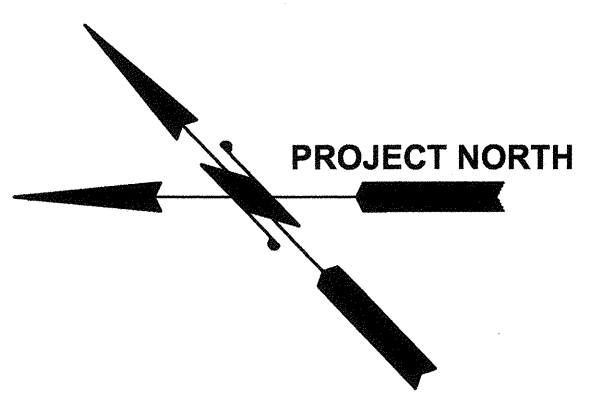
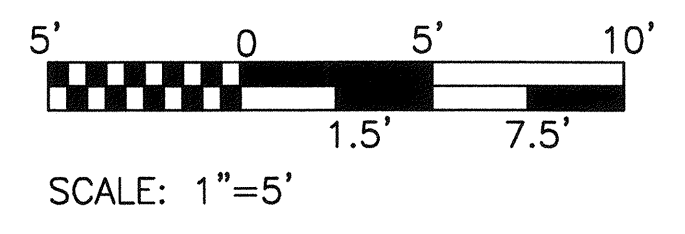


1
C6.1

ENLARGED RESTROOM BLDG UTILITY PLAN

1" = 5'

- NOTES:**
- POT-HOLE AND LOCATE EXISTING SANITARY SEWER AND WATER LINES TO BE CONNECTED TO BY PROPOSED SYSTEMS. VERIFY INVERT ELEVATIONS. NOTIFY ENGINEER IF CONDITIONS DIFFER THAN WHAT IS INDICATED.
 - WATER METER SHALL BE 1" NEPTUNE T-10 DIRECT READ OR APPROVED EQUAL WITHIN AN OLDCASTLE H-SERIES 2436 WATER METER BOX OR APPROVED EQUAL. INSTALL FITTINGS AS NECESSARY TO CONNECT TO 2" WATER SERVICE.



Port of Tacoma
P.O. BOX 1857 TACOMA, WA 98401-1857

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TACOMA, WA 98401-1850 FAX (253) 396-0150

kpff
MADE KINSHIP BY REINFORCING
8/2/15
PROFESSIONAL

APPROVED: <i>[Signature]</i>	CHECKED BY: <i>[Signature]</i>	DATE: 3-28-16
DIRECTOR: <i>[Signature]</i>	PROJ. ENGR: <i>[Signature]</i>	DATE: 3-28-16
PRINTED BY: gcoorey	PRINTED BY: gcoorey	Mar 24, 2016
PORT ADDRESS: ONE SITCUM PLAZA	PORT ADDRESS: ONE SITCUM PLAZA	
TACOMA, WA 98401-1837	TACOMA, WA 98401-1837	

PIER 4 PHASE 2
RECONFIGURATION
RESTROOM BUILDING ENLARGED UTILITY PLAN

6552
C6.15
SH 102 OF 499

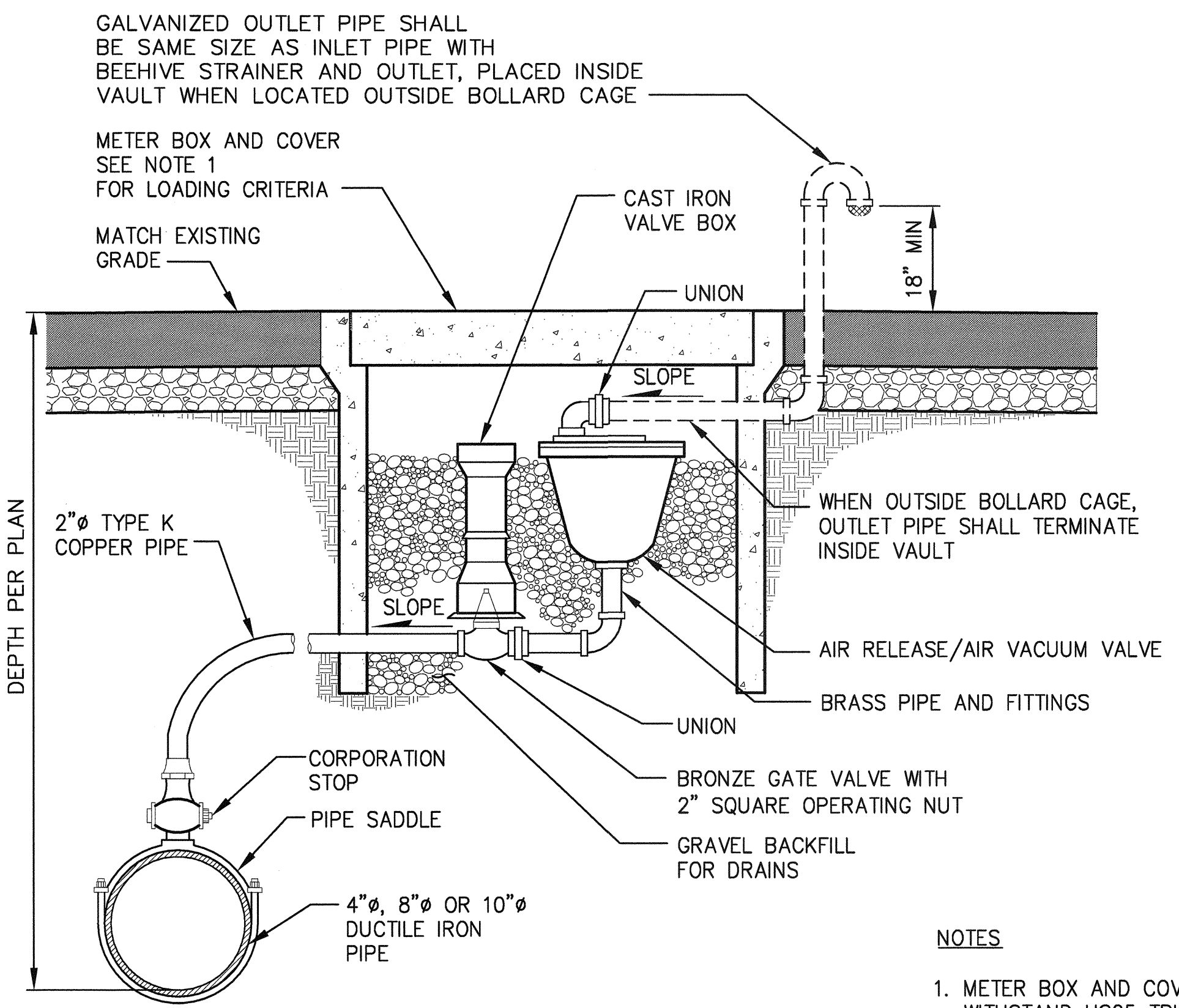
TOWNSHIP: 070136
M. ID: 091251
PHASE: BID

RANGE: MLLW 19.39' @ Tide 22 19.33
VERT: WAB3-SF
DRAWING SCALE: AS NOTED

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BINDING EDGE

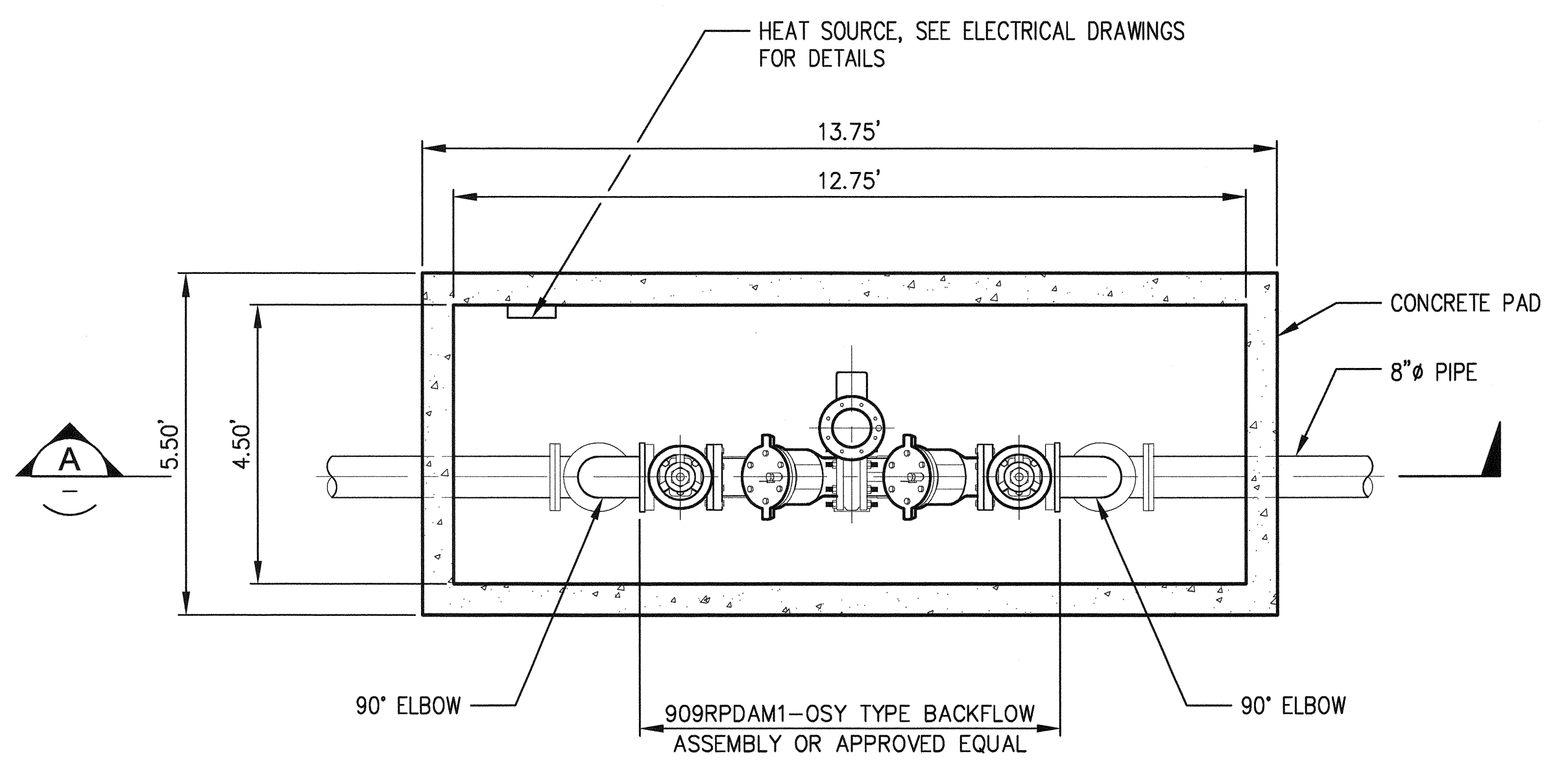
PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C6.16(Utility Details)



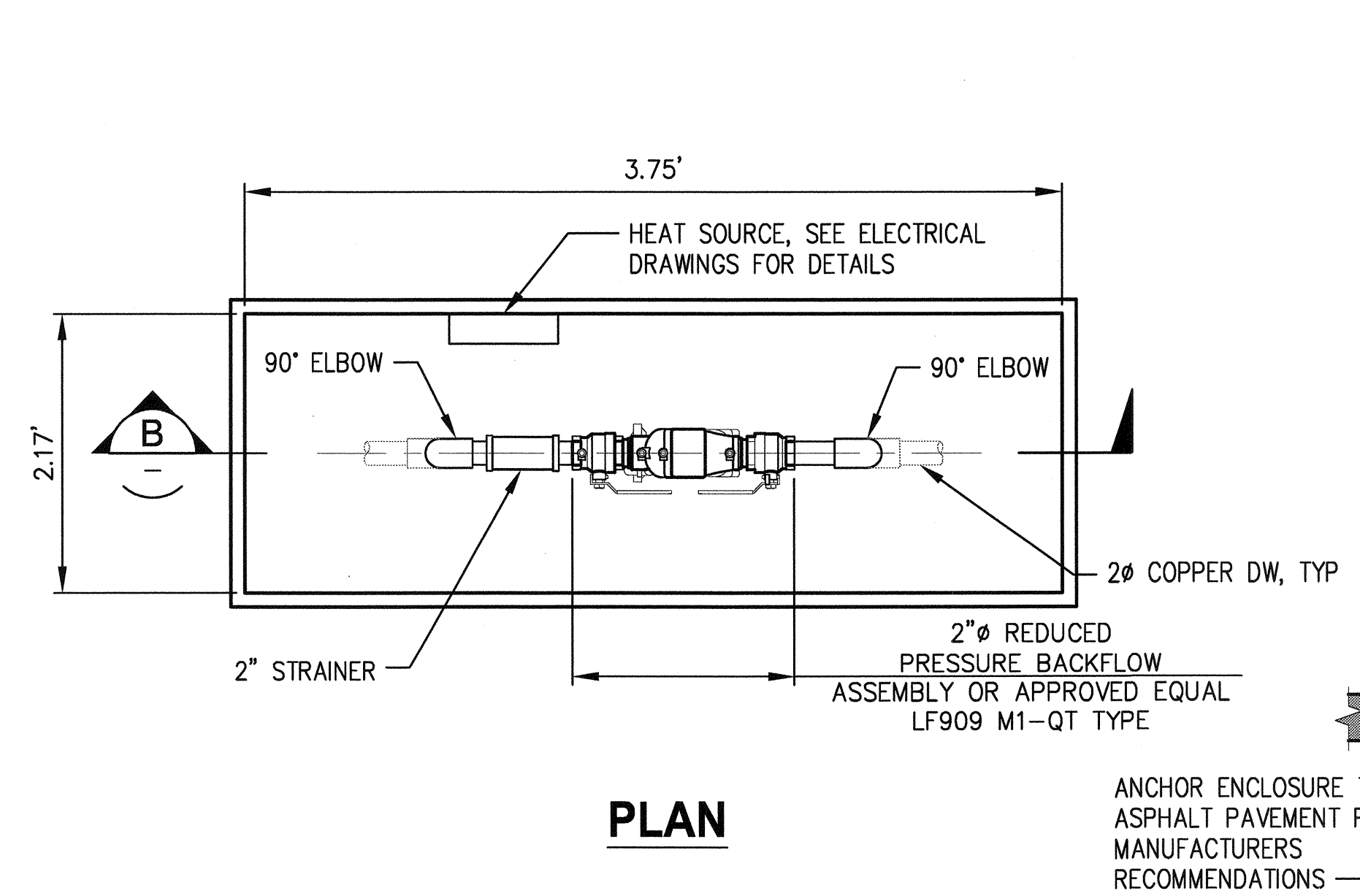
NOTES

1. METER BOX AND COVER SHALL BE DESIGNED TO WITHSTAND HS25 TRUCK, KALAMAR AND NOELL STRADDLE CARRIERS AND TAYLOR CONTAINER HANDLER, SEE SHEET S1.2 FOR LOADING DEFINITIONS.

1 AIR RELIEF VALVE
C6.1, C6.2, C6.6, C6.7, C6.8, C6.15 SCALE: NTS

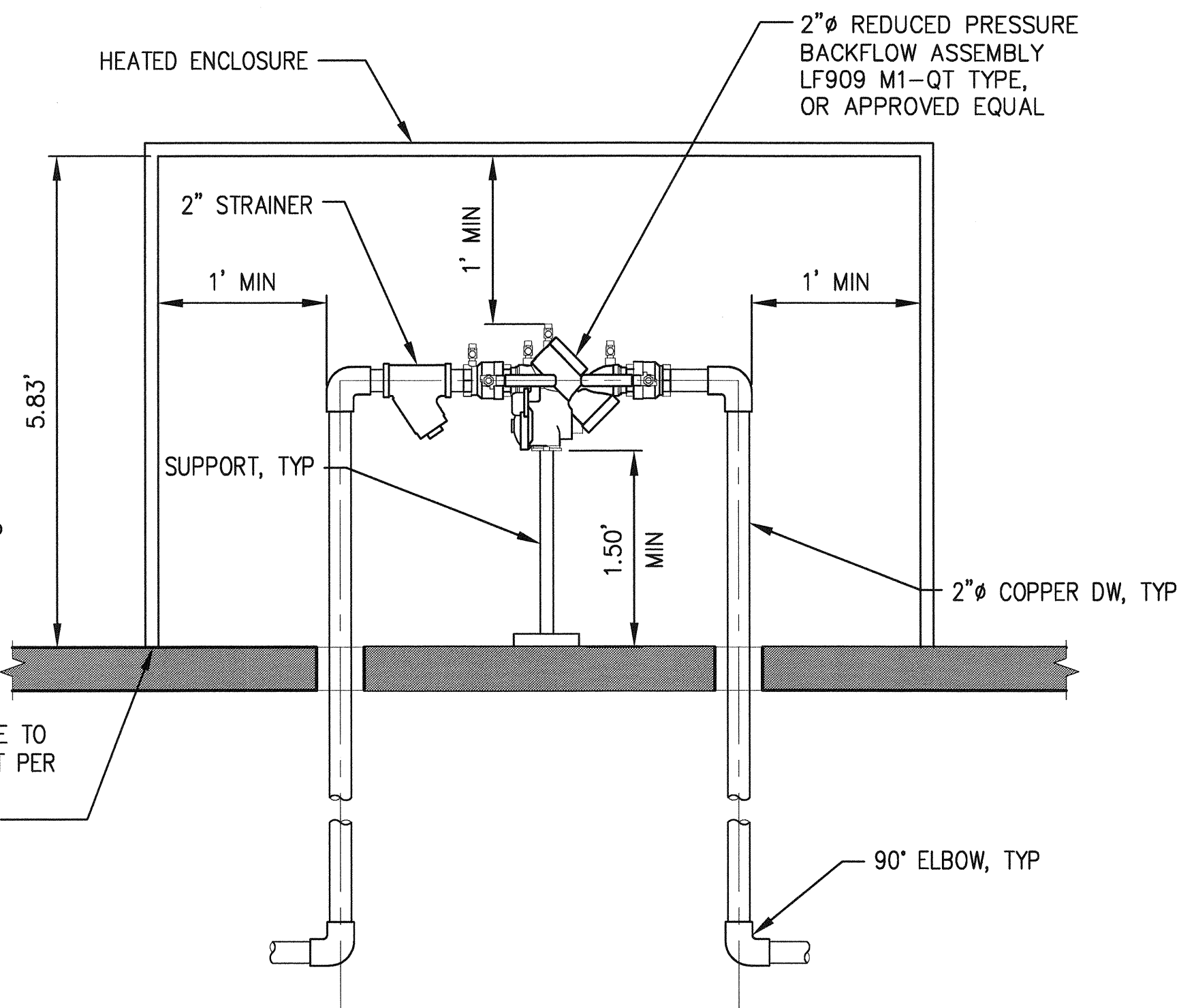


PLAN

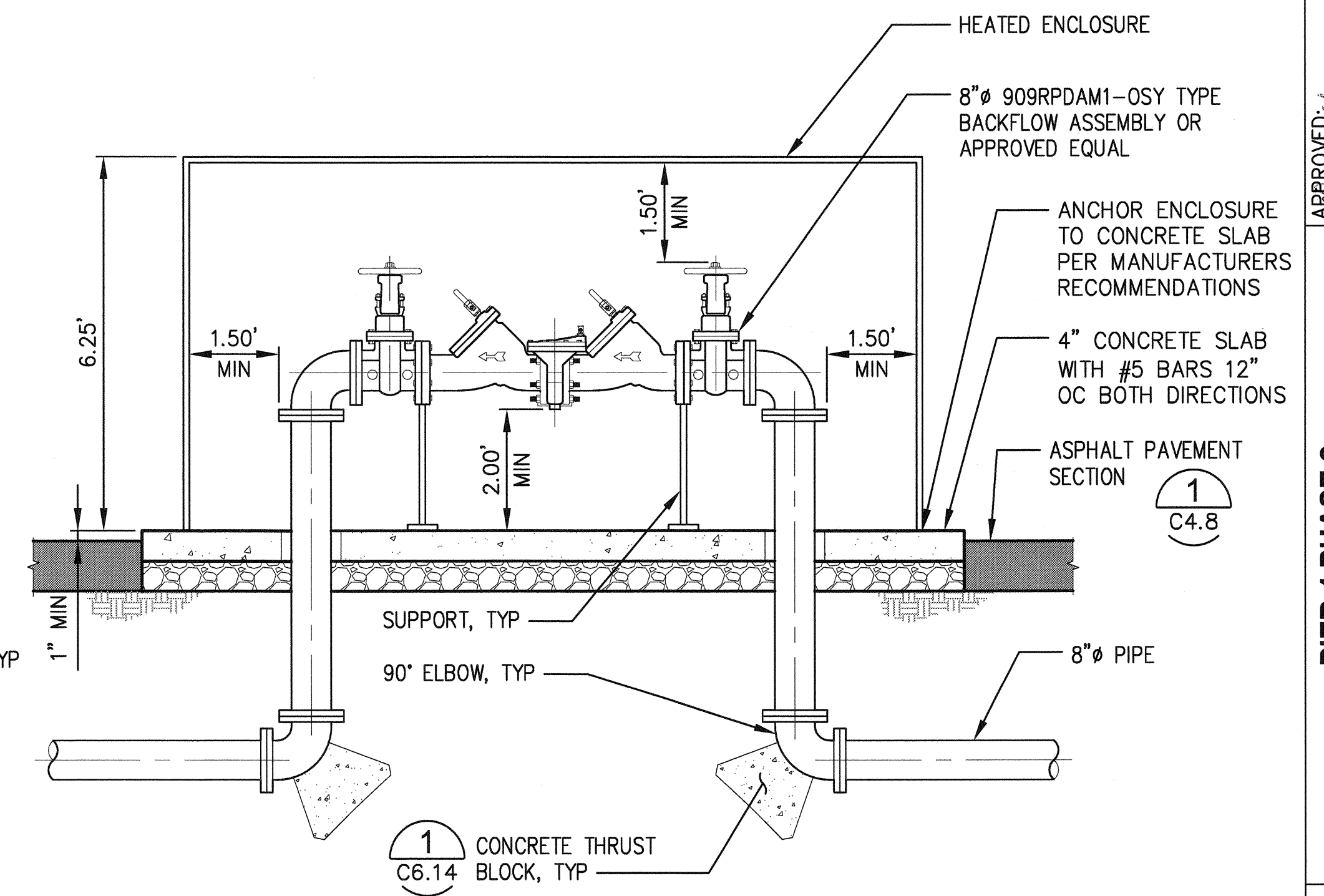


PLAN

2 2" Ø REDUCED PRESSURE BACKFLOW ASSEMBLY
C6.15 NTS

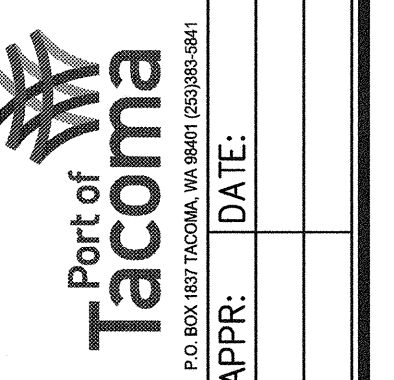


SECTION B



SECTION A

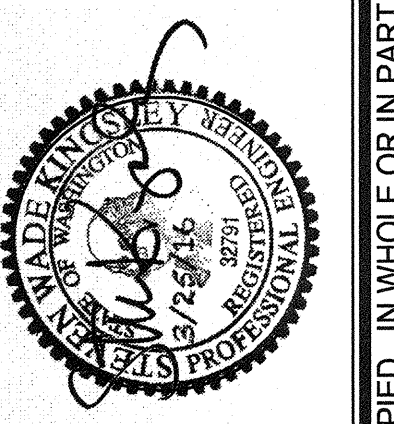
3 8" Ø REDUCED PRESSURE BACKFLOW ASSEMBLY
C6.8, C6.15 NTS



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DATE: _____
BY: _____
REVISION: _____
APPR: _____

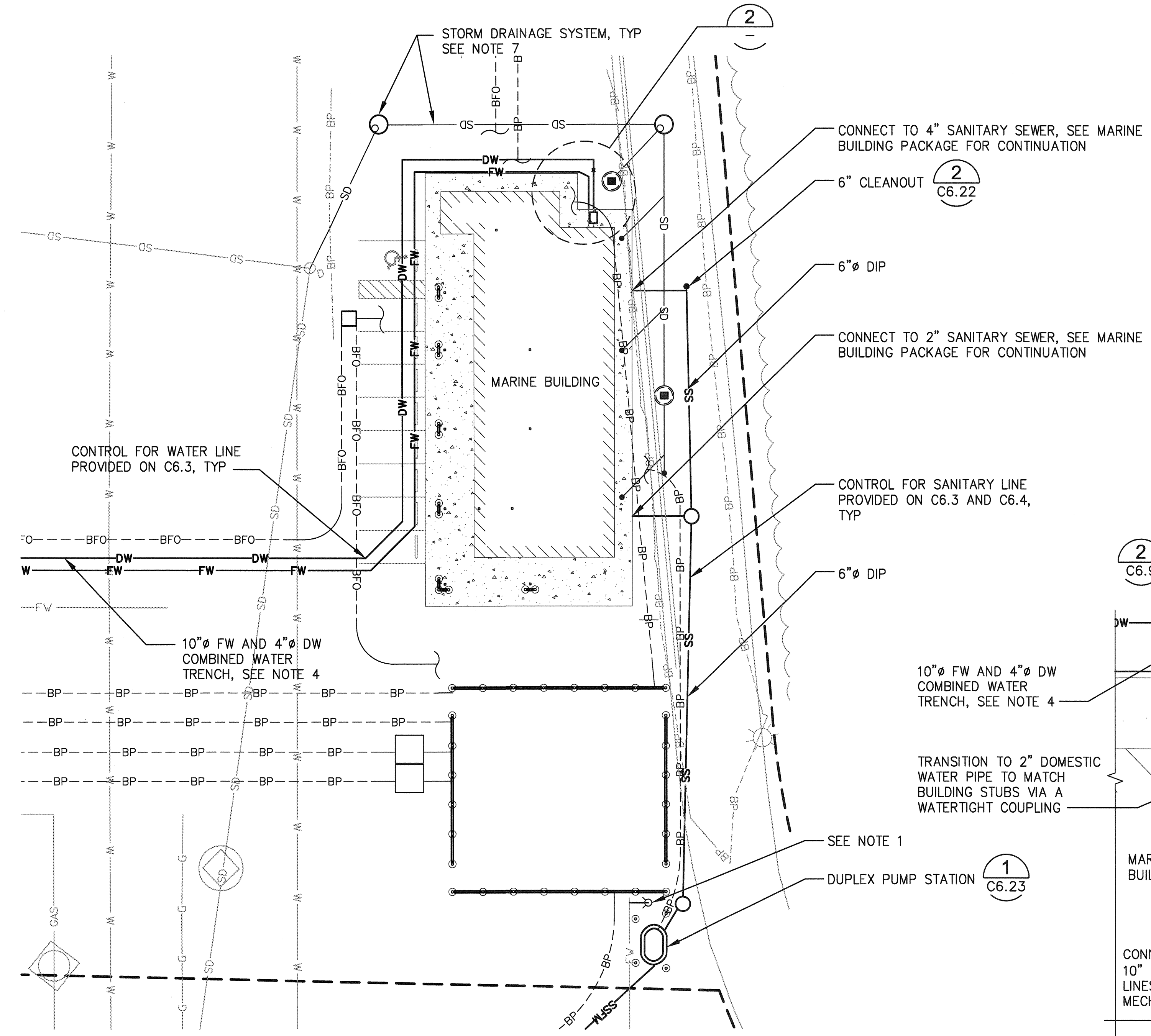


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APPROVED:	DATE	PRINTED BY:	PORT ADDRESS:
3-28-16	3/28/16	gcarrey	ONE SITCUM PLAZA
TACOMA, WA	98401-1837		

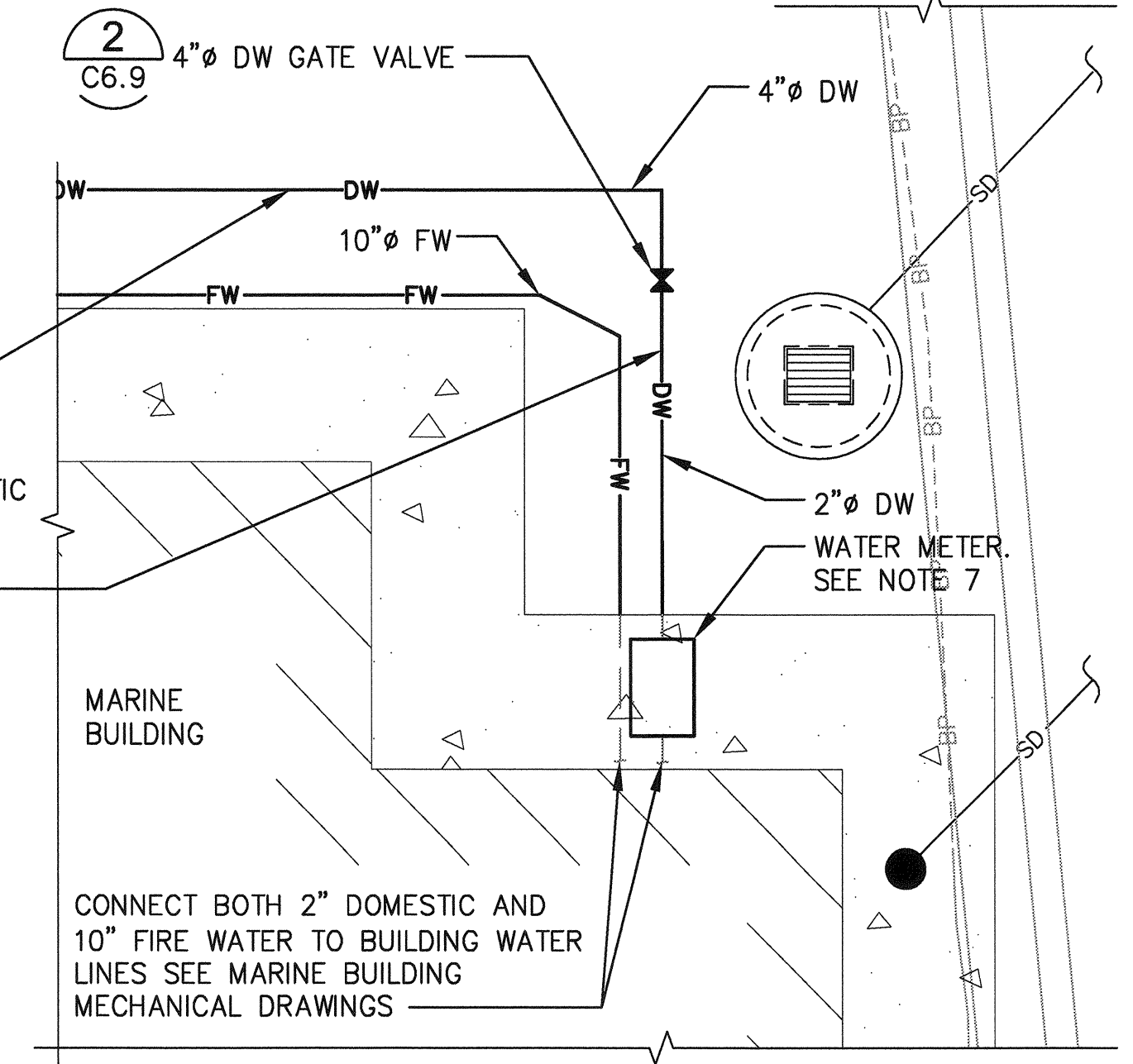
PIER 4 PHASE 2 RECONFIGURATION UTILITY DETAILS - SHEET 7

6552	SH 103 OF 499	RANGE:	SECTION:
C6.16	070136	MLLW 19.39' @ Tide	22 1933
CONT/CONS:	091251	DATE-HRZ:	WAB3-SF
M. ID:		DRAWING SCALE:	AS NOTED
PHASE:	BID	PARCEL:	

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1
C6.3
UTILITY PLAN
SCALE: 1"=20'



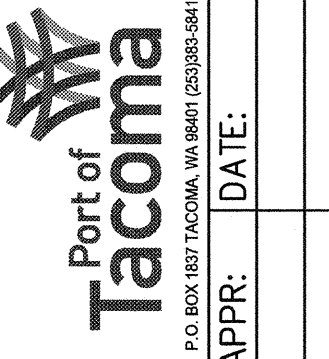
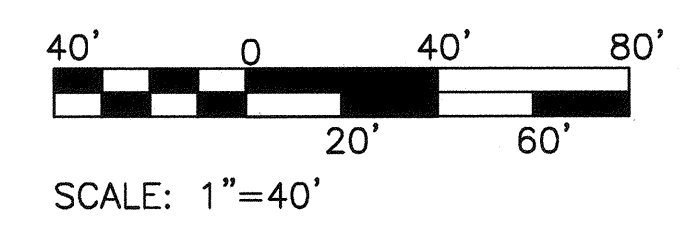
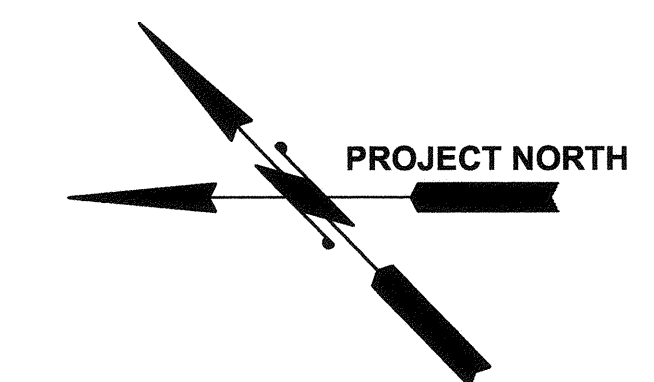
2
-
WATER SERVICE TO MARINE BUILDING
SCALE: NTS

NOTES

- SEE SHEET C6.5 FOR SCHEDULE OF HYDRANTS.
- FIRE HYDRANT GATE VALVES ARE NOT SHOWN FOR CLARITY. SEE (2) C6.10 FOR VALVE LOCATION.
- CONCRETE THRUST BLOCKS ARE NOT SHOWN FOR CLARITY. THRUST BLOCKS TO BE CONSTRUCTED PER (1) C6.14 AND (2) C6.14
- LANDSIDE OF THE BULKHEAD WHERE THE DOMESTIC WATER LINE CLOSELY PARALLELS THE FIRE LINE, THE PIPE SHALL BE CONSTRUCTED IN A COMBINED WATER PIPE TRENCH PER (1) C6.10
- SEE SHEETS C6.6 - C6.7 FOR WATER LINE PROFILES.
- STORM DRAINAGE SYSTEM SHOWN FOR REFERENCE. SEE DRAINAGE PLANS FOR COMPLETE INFORMATION.
- WATER METER SHALL BE 1-1/2" NEPTUNE T-10 DIRECT READ OR APPROVED EQUAL WITHIN AN OLDCASTLE H-SERIES 2436 WATER METER BOX OR APPROVED EQUAL.

LEGEND

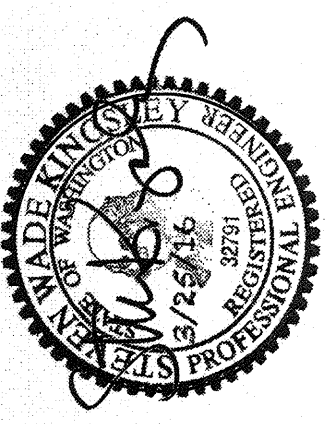
- PROJECT WORK AREA LIMITS
- FW FIRE WATER LINE, SIZE PER PLAN
- DW DOMESTIC WATER LINE, SIZE PER PLAN
- W DOMESTIC AND FIRE COMBINED WATER TRENCH (1) C6.10
- SS SANITARY SEWER GRAVITY LINE, SIZE PER PLAN
- SSFM SANITARY SEWER FORCE MAIN, SIZE PER PLAN
- 6" FIRE HYDRANT ASSEMBLY (2) C6.10
- GATE VALVE (2) C6.9
- SD STORM DRAINAGE STRUCTURES AND PIPING, SEE DRAINAGE PLANS
- BOLLARD CAGE
- LIGHT POLE
- ELECTRICAL AND COMMUNICATION VAULTS AND DUCTBANKS, SEE ELECTRICAL PLANS



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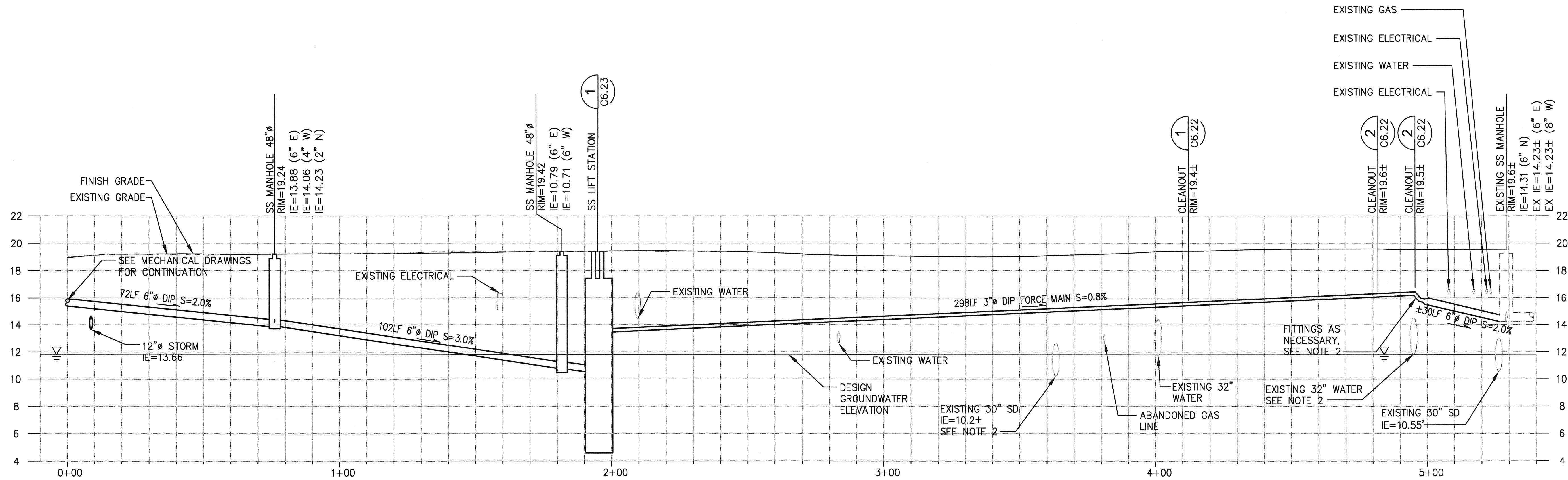
MARK: REVISION: BY: DATE: APPR:



APPROVED:	CHECKED BY	DATE
<i>Gregory</i>	<i>Gregory</i>	
DIRECTOR ENG. DATE	PROJ. ENGR	DATE
3-24-16	gmar	Mar 24, 2016
PRINTED BY:	PORT ADDRESS: ONE SITCUM PLAZA	
	TACOMA, WA 98401-1837	

**PIER 4 PHASE 2
RECONFIGURATION
MARINE BUILDING ENLARGED UTILITY PLAN**

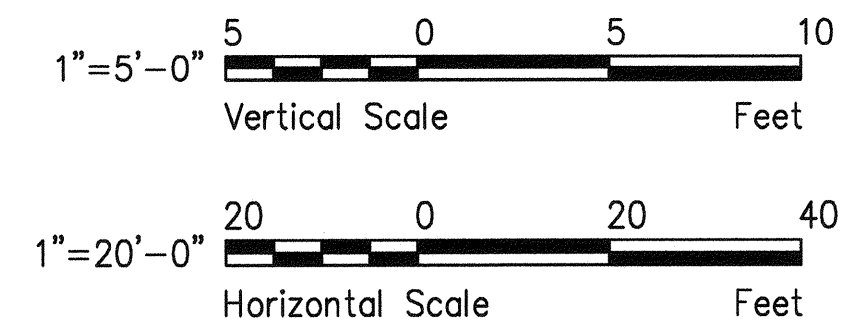
6552	SECTION:	RANGE:	VERT:	DRAWING SCALE:
C6.17		M.L.W. 19.39' @ Tide 22.1933	AS NOTED	
SH 104 OF 499	TOWNSHIP:	DATE-HRZ:	PARCEL:	
CONT/CONS: 070136	091251	WAB3-SF		
M. ID:	PHASE:	BID		



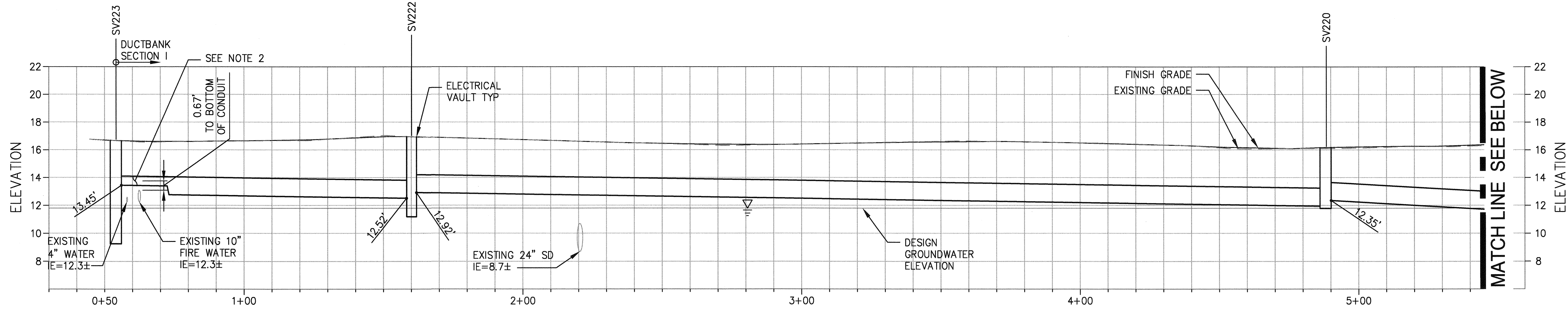
A MARINE BLDG SEWER PROFILE
 C6.3, C6.17 SCALE: HORIZ: 1"=20', VERT: 1"=4'

NOTES

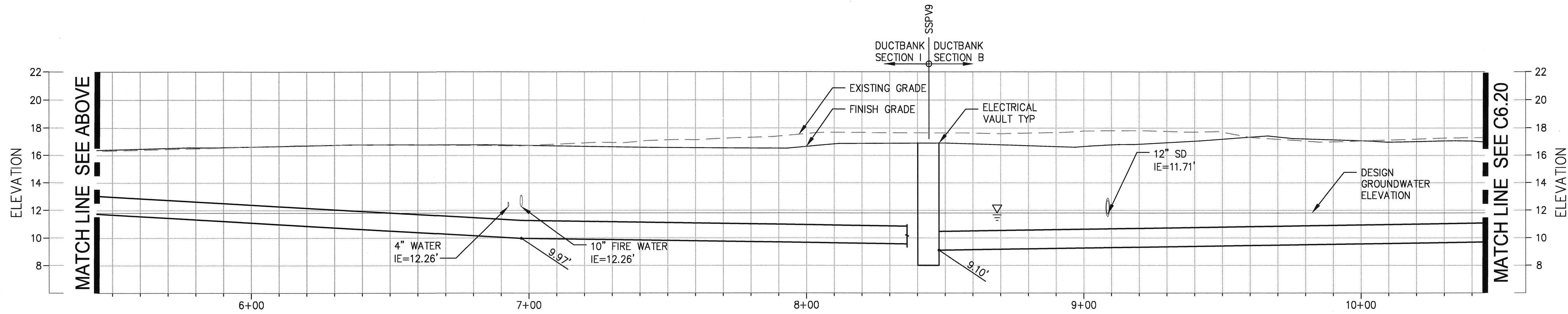
- CONTRACTOR SHALL POTHOLE EXISTING UTILITIES PRIOR TO STARTING EXCAVATION FOR ANY PORTION OF THE SANITARY SEWER FORCE MAIN. IF EXISTING UTILITIES ARE IN CONFLICT ENGINEER SHALL BE NOTIFIED IMMEDIATELY. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS ON THIS AREA.



 2407 North 31st Street, Suite 100 Tacoma, WA 98401-1837 (253) 396-0150 Fax: (253) 396-0162	APPROVED: <i>Shirley Howard</i> DIRECTOR 3-28-16	CHECKED BY: _____ DATE: _____
	PRINTED BY: gcarrey PROJECT: Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	PROJECT ENGR: _____ DATE: _____
TOWNSHIP: _____ DAT-HRZ: WAB3-SF PARCEL: _____	RANGE: _____ VERT: MILLW 19.39' @ Tide 22.1933 DRAWING SCALE: AS NOTED	REVISION: _____ MARK: _____
6552 C6.18 SH 105 OF 499	CONT/CONS: 070136 M. ID: 091251 PHASE: BID	THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION



A ELECTRICAL ALIGNMENT A
TYPICAL DUCTBANK PROFILE
C6.1, C6.2, C6.3, C6.17 SCALE: HORIZ:1"=20', VERT:1"=4'

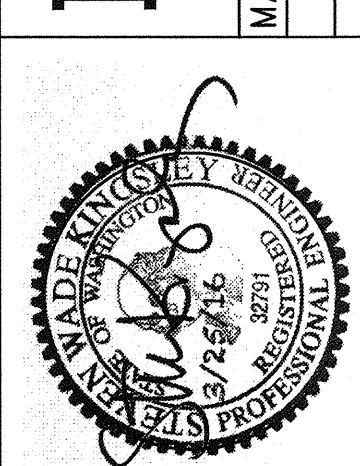
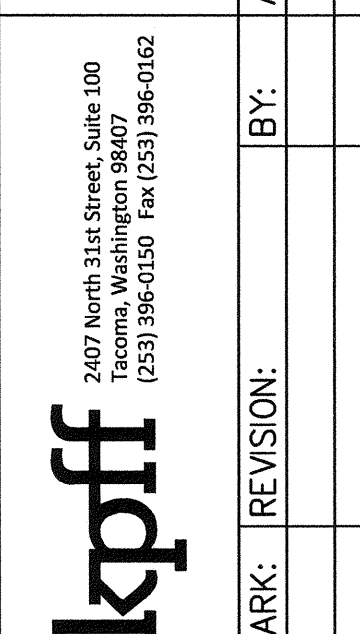
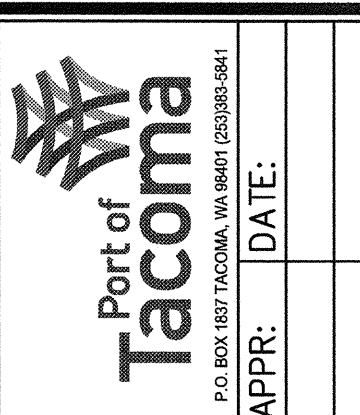


A ELECTRICAL ALIGNMENT A
TYPICAL DUCTBANK PROFILE (CONTINUED)
C6.1, C6.2, C6.3, C6.17 SCALE: HORIZ:1"=20', VERT:1"=4'

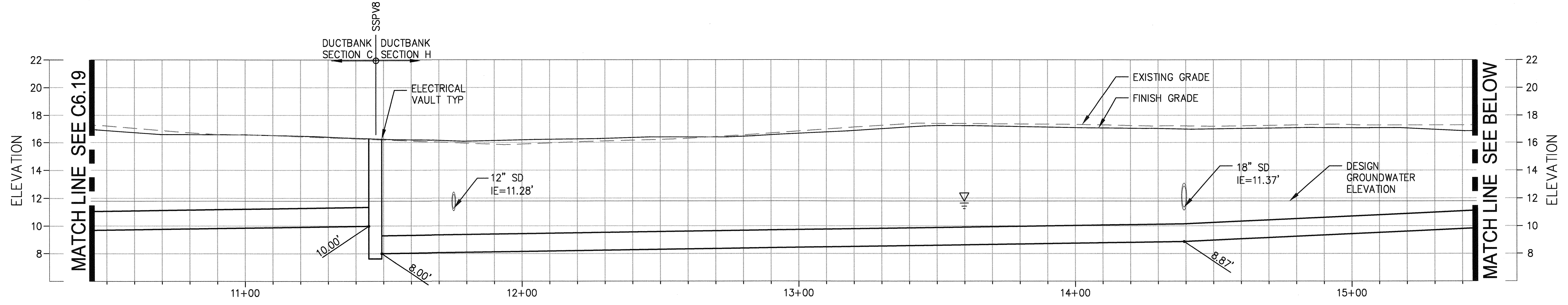
NOTES:

1. DUCTBANK PROFILES SHOWN DEPICT THE BOTTOM OF CONCRETE TO THE UPPER LIMIT OF THE CONDUIT FOR THE TALLEST RACEWAY WITHIN THE OVERALL SECTION.
2. CONDUIT CROSS SECTION IN THIS AREA IS A SINGLE CONDUIT TALL IN ORDER TO PASS OVER THE WATER LINES. CONTRACTOR TO VERIFY ELEVATIONS IN THIS LOCATION AND NOTIFY ENGINEER IF CONDITIONS VARY.

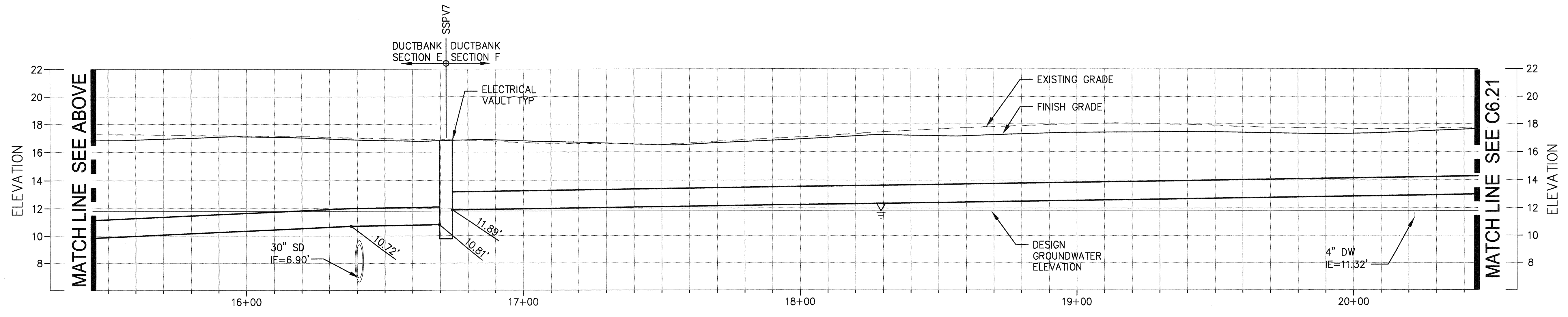
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	<p>TOWNSHIP: MLLW 19.39' @ Tide 22 19.33</p> <p>DAT-HRZ: WAB3-SF</p> <p>PARCEL: 091251</p>		<p>DIRECTOR ENG. DATE</p> <p>3-28-16</p>	<p>PROJ. ENGR</p> <p>DATE</p>
<p>PHASE: BID</p>		<p>RANGE: MLLW 19.39' @ Tide 22 19.33</p> <p>VERT: MLLW 19.39' @ Tide 22 19.33</p> <p>DRAWING SCALE: AS NOTED</p>	<p>PRINTED BY: gearney Mar 24, 2016</p> <p>PORT ADDRESS: ONE SITCUM PLAZA</p> <p>TACOMA, WA 98401-1837</p>	<p>MARK: REVISION:</p> <p>BY:</p> <p>APPR: DATE:</p>



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Tacoma, WA 98401-1837
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A TYPICAL DUCTBANK PROFILE (CONTINUED)
 C6.1, C6.2, C6.3, C6.17 SCALE: HORIZ: 1"=20', VERT: 1"=4'



A TYPICAL DUCTBANK PROFILE (CONTINUED)
 C6.1, C6.2, C6.3, C6.17 SCALE: HORIZ: 1"=20', VERT: 1"=4'

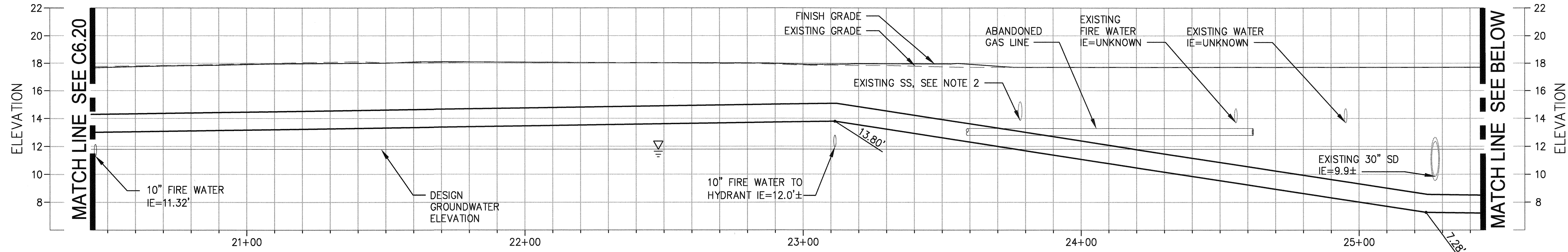
- NOTES:
- DUCTBANK PROFILES SHOWN DEPICT THE BOTTOM OF CONCRETE TO THE UPPER LIMIT OF THE CONDUIT FOR THE TALLEST RACEWAY WITHIN THE OVERALL SECTION.

<p>6552</p> <p>C6.20</p> <p>SH 107 OF 499</p>	<p>PIER 4 PHASE 2</p> <p>RECONFIGURATION</p> <p>TYPICAL ELECTRICAL DUCTBANK PROFILE - SHEET 2</p>		<p>APPROVED:</p> <p><i>[Signature]</i></p> <p>3-28-16</p>	<p>CHECKED BY: DATE</p> <p>PROJ. ENGR DATE</p>
	<p>TOWNSHIP: RANGE: SECTION:</p> <p>DATE-HRZ: WAB3-SF VERT: M.L.W 19.39' @ Tide 22 19.33</p> <p>PARCEL: DRAWING SCALE: AS NOTED</p>		<p>DIRECTOR ENG. DATE</p> <p>PRINTED BY: gcarey Mar 24, 2016</p> <p>PORT ADDRESS: ONE SITCUM PLAZA</p> <p>TACOMA, WA 98401-1837</p>	<p>MARK: REVISION: BY: DATE:</p> <p>APPR: DATE:</p>

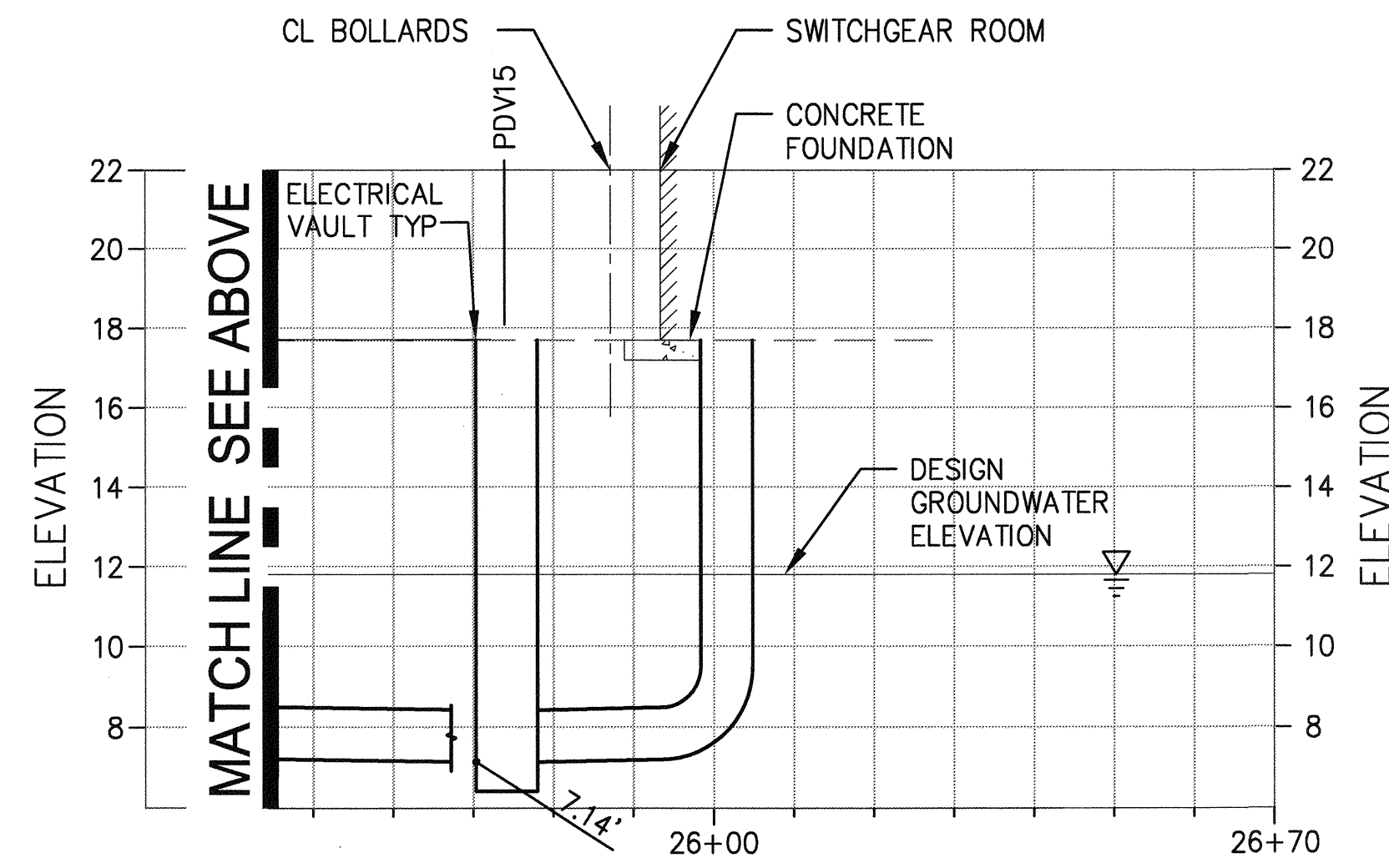
2407 North 31st Street, Ste 100
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A TYPICAL DUCTBANK PROFILE (CONTINUED)
 C6.1, C6.2, C6.3, C6.17 SCALE: HORIZ: 1"=20', VERT: 1"=4'

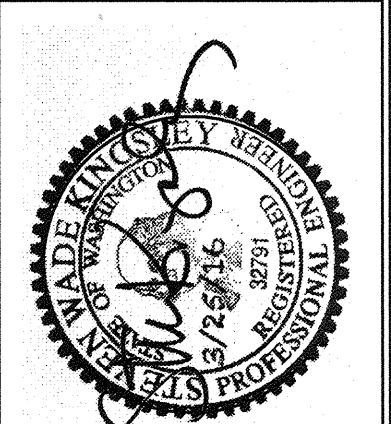
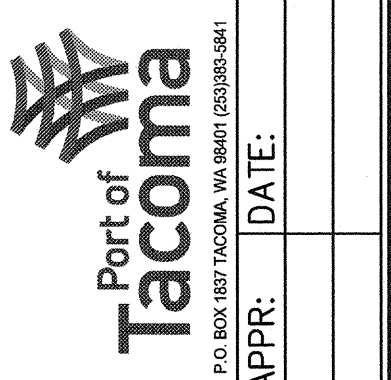


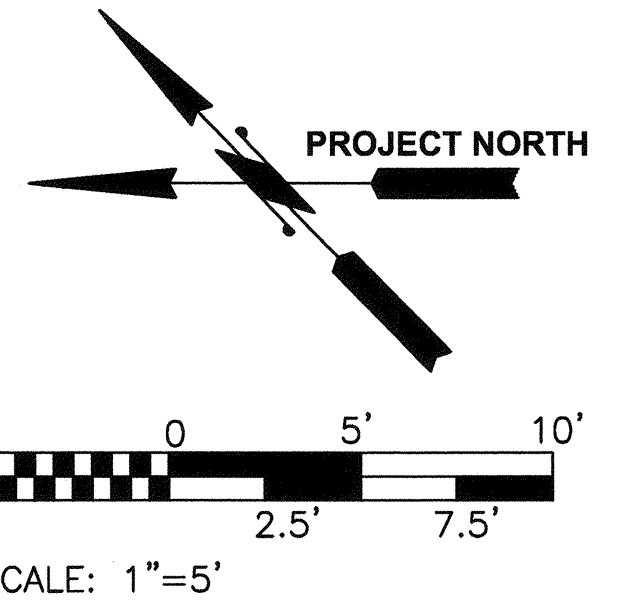
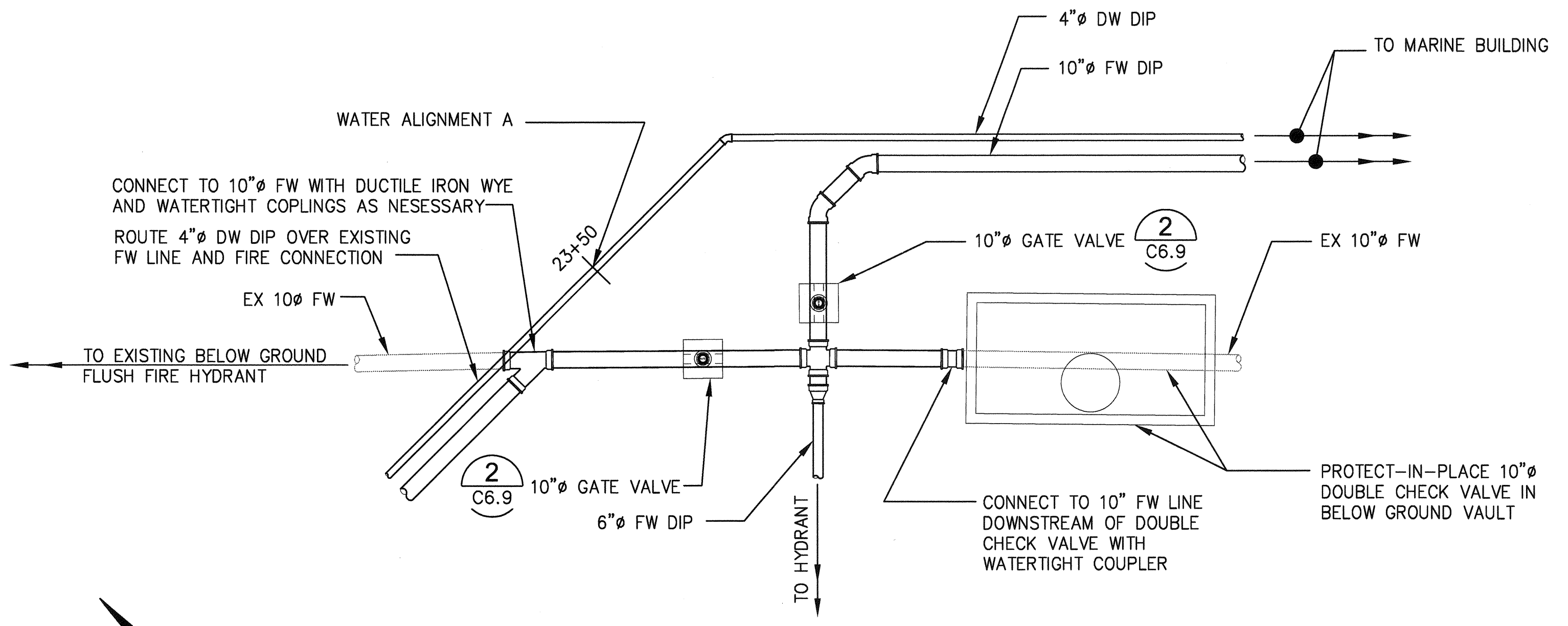
A TYPICAL DUCTBANK PROFILE (CONTINUED)
 C6.1, C6.2, C6.3, C6.17 SCALE: HORIZ: 1"=20', VERT: 1"=4'

NOTES:

- DUCTBANK PROFILES SHOWN DEPICT THE BOTTOM OF CONCRETE TO THE UPPER LIMIT OF THE CONDUIT FOR THE TALLEST RACEWAY WITHIN THE OVERALL SECTION.
- SS LINE MAY EXIST NEAR THIS LOCATION. SIZE AND INVERT UNKNOWN.

6552 C6.21 SH 108 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION TYPICAL ELECTRICAL DUCTBANK PROFILE - SHEET 3		APPROVED: <i>[Signature]</i> DIRECTOR ENG. DATE: 3-28-16	CHECKED BY: <i>[Signature]</i> DATE:
	TOWNSHIP: MLW 19.39 @ Tide 22 1933 DAT-HRZ: WA83-SF PARCEL:	RANGE: SECTION: PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	PROJ. ENGR DATE: gearney Mar 24, 2016 PRINTED BY: gearney	MARK: REVISION: BY: APPR: DATE:





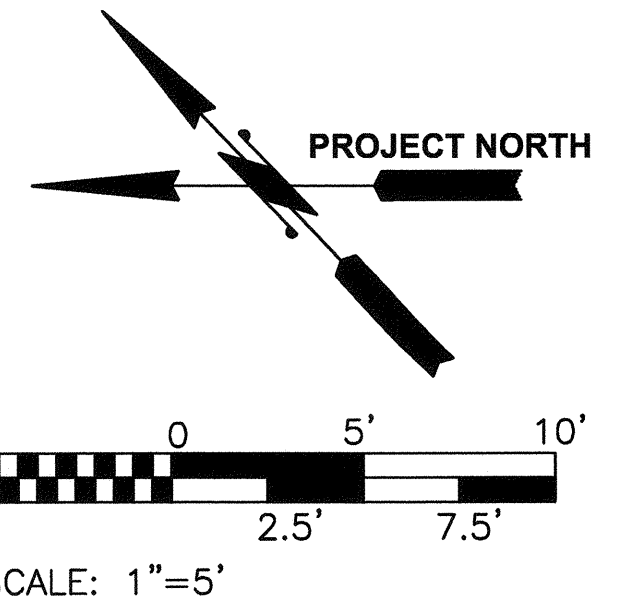
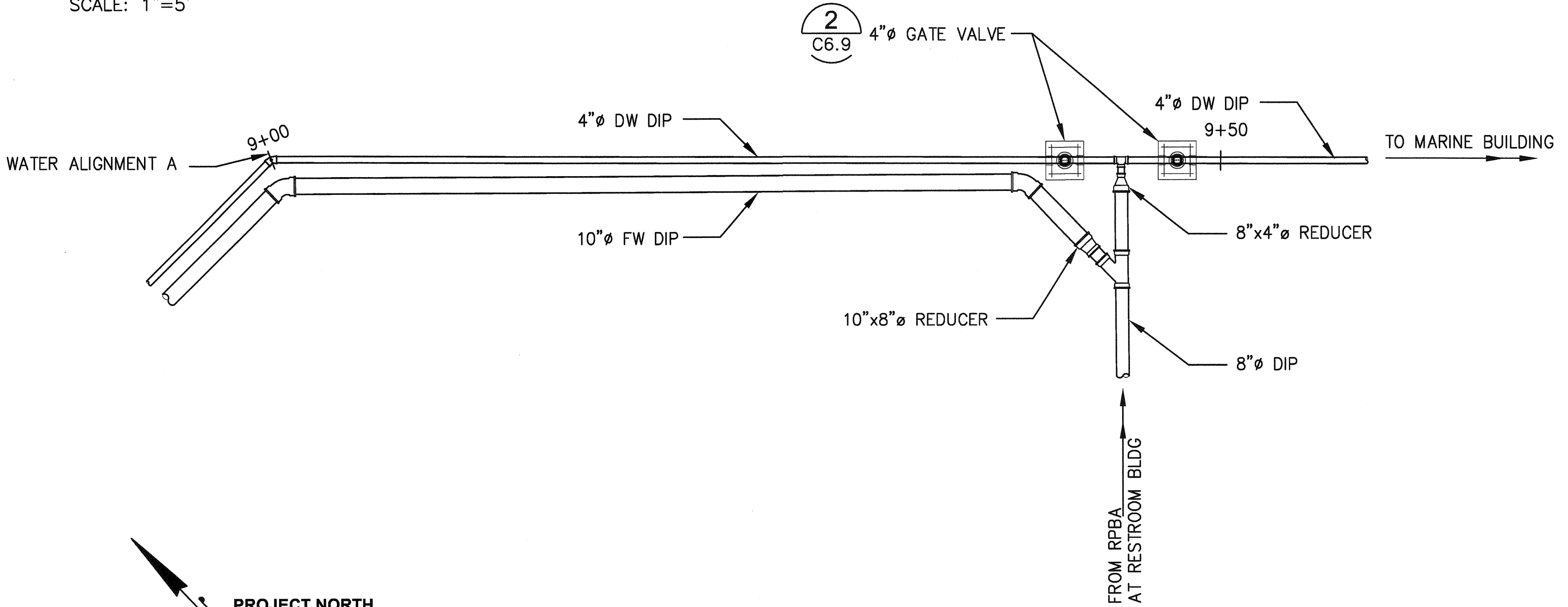
1
FIRE WATER CONNECTION BLDG UTILITY PLAN

C6.3, C6.8

NOTES

1. POT-HOLE AND LOCATE EXISTING WATER PIPING. VERIFY INVERT ELEVATIONS. NOTIFY ENGINEER IF CONDITIONS DIFFER THAN WHAT IS INDICATED.

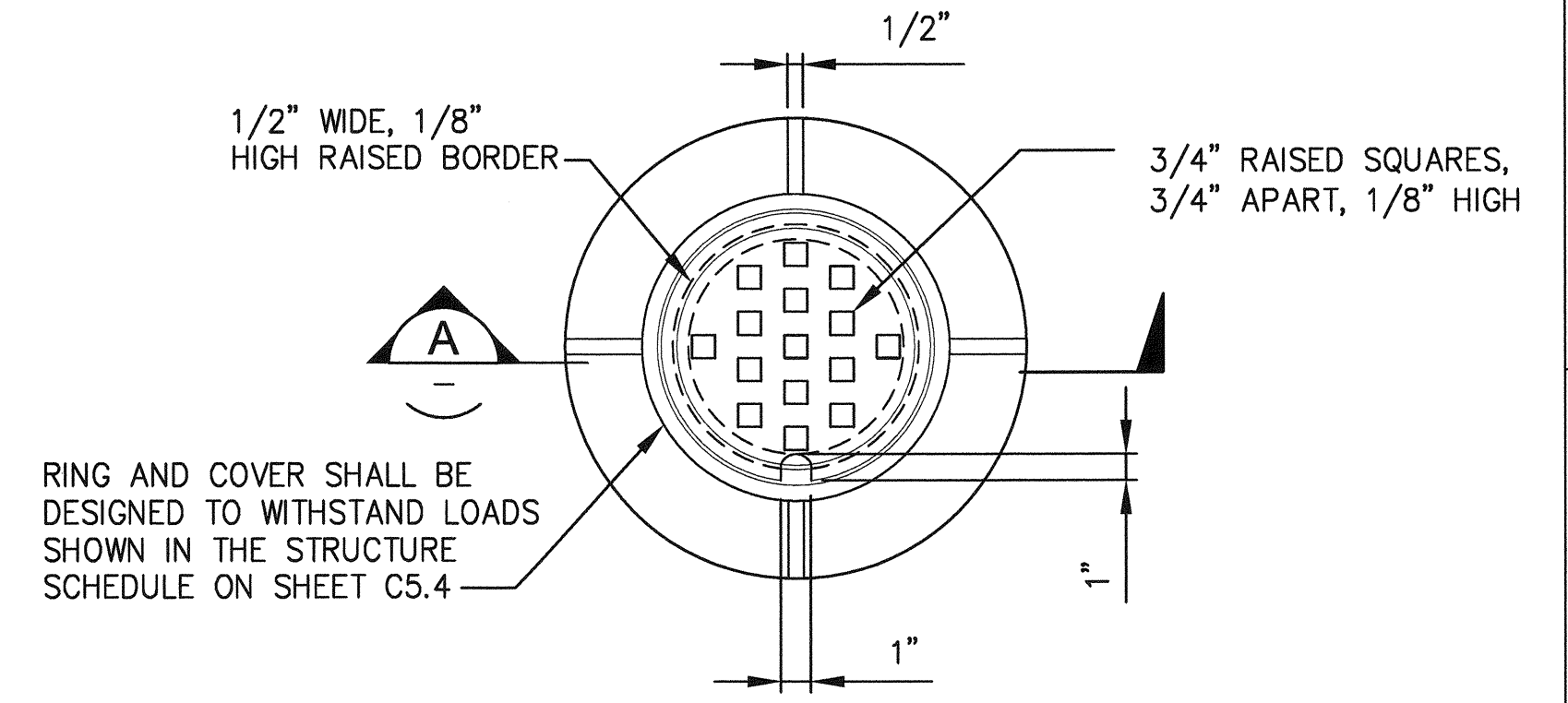
1" = 5'



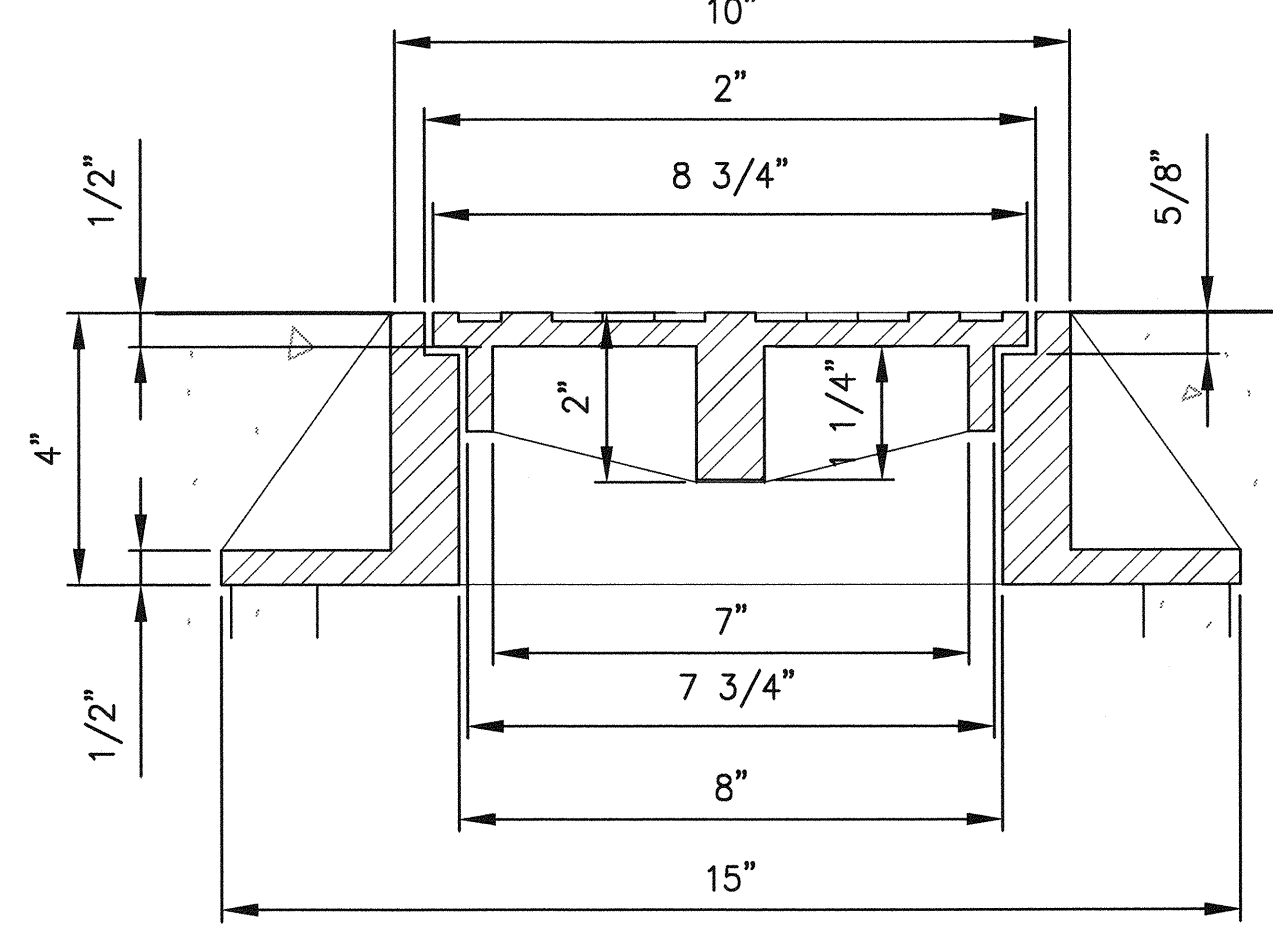
3
8" CONNECTION TO FIRE WATER AND DOMESTIC WATER

C6.1

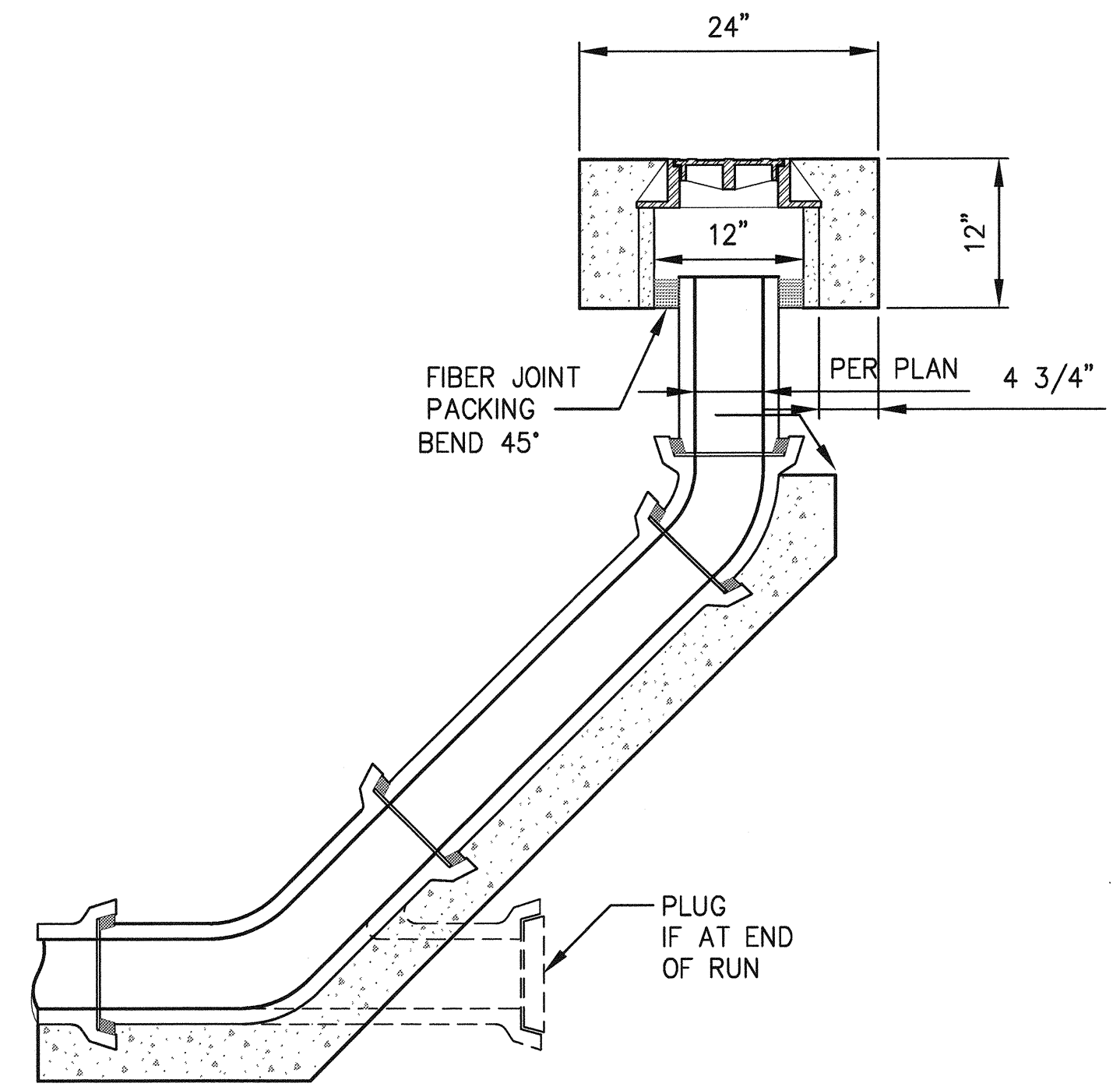
1" = 5'



PLAN



SECTION A



2

SANITARY CLEANOUT

C6.15, C6.17, C6.18

NTS

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CHECKED BY: _____ DATE: _____	PROJ. ENGR: _____ DATE: _____	TACOMA, WA 98401-1837	
APPROVED: _____ 3-28-16	DIRECTOR ENG. DATE: _____	PRINTED BY: gmar24 PORT ADDRESS: ONE SITCUM PLAZA	TACOMA, WA 98401-1837
PIER 4 PHASE 2 RECONFIGURATION UTILITY DETAILS - SHEET 8			
TOWNSHIP: 070136 M. ID: 091251 PHASE: BID	RANGE: MLLW 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF PARCEL:	SECTION: _____ VERT: _____ DRAWING SCALE: AS NOTED	THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION
6552 C6.22 SH 109 OF 499			

PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C6.23 (Sanitary Sewer Lift Station)

EQUIPMENT LIST

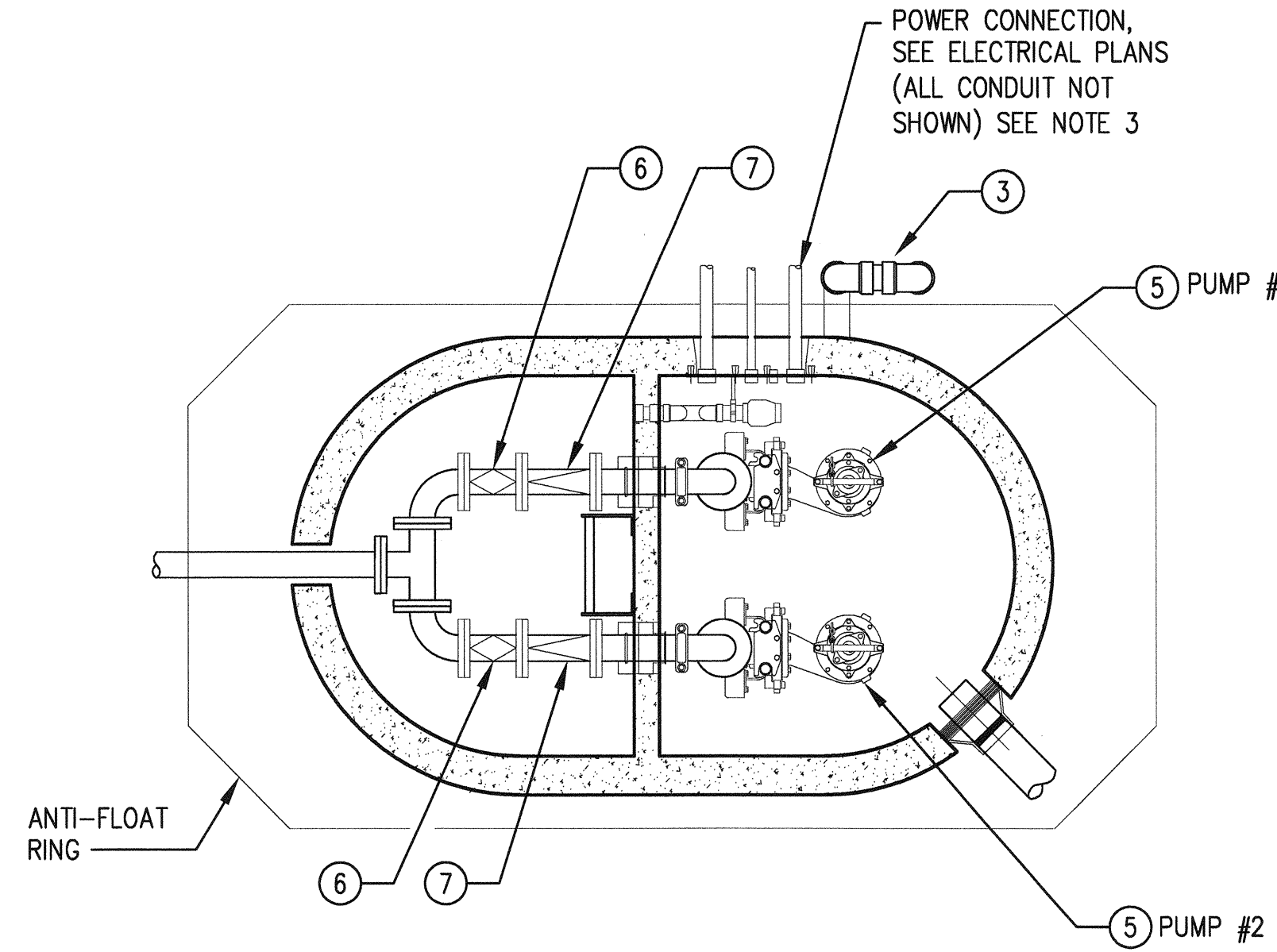
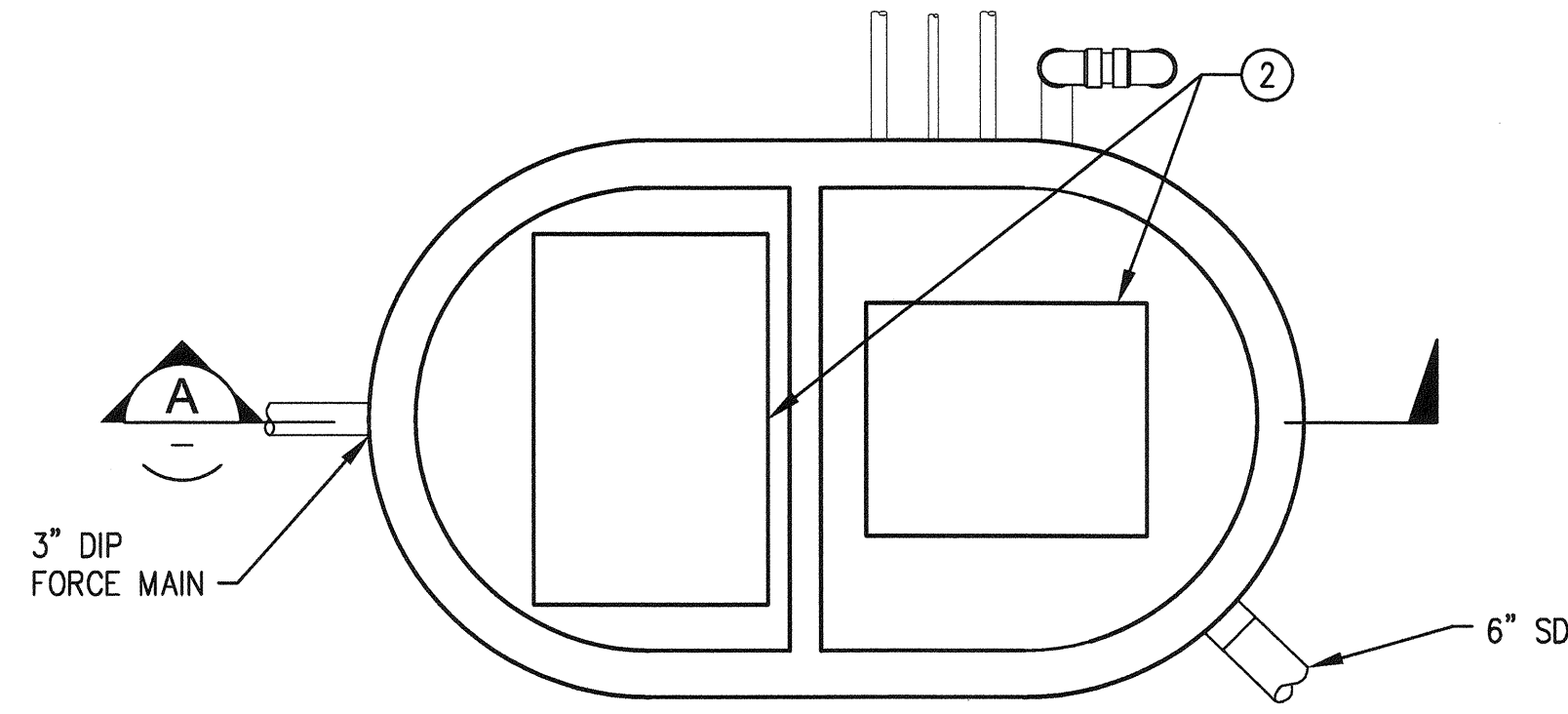
①	OLDCASTLE ONELIFT RC509 PRECAST WET WELL	1	SEE SPECS
②	HS-20 LOAD RATED ACCESS HATCHES	2	SEE SPECS
③	4" DI VENT WITH GOOSENECK AND BUG SCREEN	1	SEE SPECS
④	EXTERIOR DAMPPROOFING (BELOW GROUND WATER)	1	SEE SPECS
⑤	FLYGT SUBMERSIBLE NON-CLOG SEWAGE FP 3068 LT 3	2	SEE SPECS
⑥	3" CHECK VALVE	2	SEE SPECS
⑦	3" ECCENTRIC PLUG VALVE	2	SEE SPECS
⑧	3" CL 53 SPOOL FLG X FLG ASPHALT COATED LENGTH AS REQD	PER MFR	SEE SPECS
⑨	STAINLESS STEEL GUIDE BARS	2	SEE SPECS
⑩	2" PVC VALVE VAULT FLOOR DRAIN WITH BACK CHECK VALVE	1	SEE SPECS
⑪	ALUMINUM ACCESS LADDER	1	SEE SPECS
⑫	FLOOR STAND PIPE SUPPORTS, STAINLESS STEEL	1	SEE SPECS
⑬	PIPE SUPPORT	2	SEE SPECS

ELEVATIONS

DESCRIPTION	REF	PUMP STA ELEV.
MANHOLE RIM	A	19.30
TOP OF WET WELL	B	17.45
FORCE MAIN OUT	C	13.45
HIGH WATER ALARM	D	12.30
PUMP 2 ON	E	10.85
GRAVITY LINE IN	F	10.53
LPUMP 1 ON	G	8.85
ALL PUMPS OFF	H	5.85
BOTTOM OF WET WELL	I	4.60

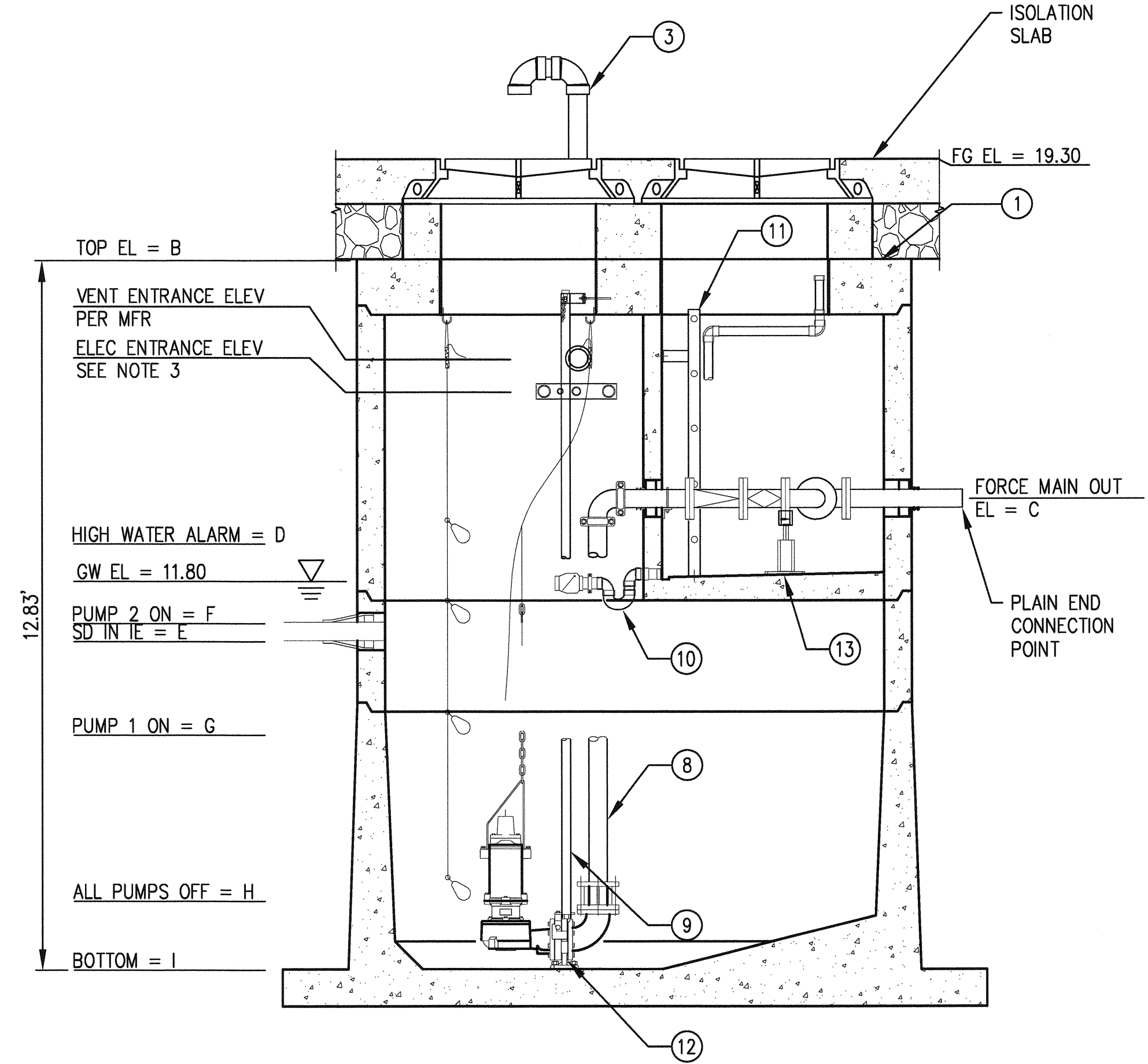
PUMP CHARACTERISTICS

	MIN EFF %	PUMP RATING GPM	RATING PASS ϕ	TDH FT	MOTOR RATING		
					RPM	HP	VOLTS
PUMP 1, PUMP 2 & MOTORS	37%	115	-	21.5	VARIES	2.7	460



PLAN

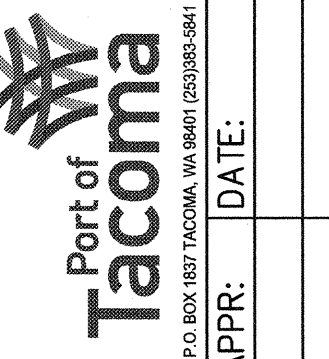
1 SANITARY SEWER LIFT STATION
C6.17, C6.18 SCALE: NTS



A DETAIL/SECTION
SCALE: NTS DUPLEX PUMP STATION

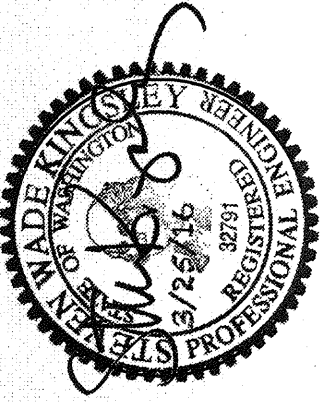
NOTES:

- SANITARY SEWER LIFT STATION WET WELL, PUMPS, VALVES, AND ALL OTHER COMPONENTS SHALL BE SUPPLIED FROM THE SAME MANUFACTURER OR VENDOR AND SHALL HAVE BEEN COMPLETELY ASSEMBLED OFFSITE TO ENSURE COMPONENT COMPATABILITY PRIOR TO SHIPPING TO PROJECT SITE. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- ALL PENETRATIONS INTO WET WELL SHALL BE MADE WATERTIGHT.
- ALARM LIGHT AND HORN SHALL BE MOUNTED OUTSIDE OF THE FIRE RISER ROOM ON THE SOUTHEAST SIDE OF THE MARINE BUILDING. SEE MARINE BUILDING PACKAGE.
- WET WELL, MANHOLE FRAMES AND LIDS SHALL BE CONTRACTOR DESIGNED TO WITHSTAND HS20 LOADING. SEE SPECIFICATIONS FOR FURTHER DESIGN REQUIREMENTS.



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(253) 396-0150 Fax (253) 396-0162

kpff
KING COUNTY PROFESSIONAL ENGINEERS
4/25/15
REGISTERED PROFESSIONAL ENGINEER



CHECKED BY	DATE	PROJ. ENGR	DATE
<i>Eric Howard</i>		gcarey	Mar 24, 2016
DIRECTOR ENG. DATE	3-28-16	PRINTED BY:	gcarey
		PORT ADDRESS:	ONE SITCUM PLAZA

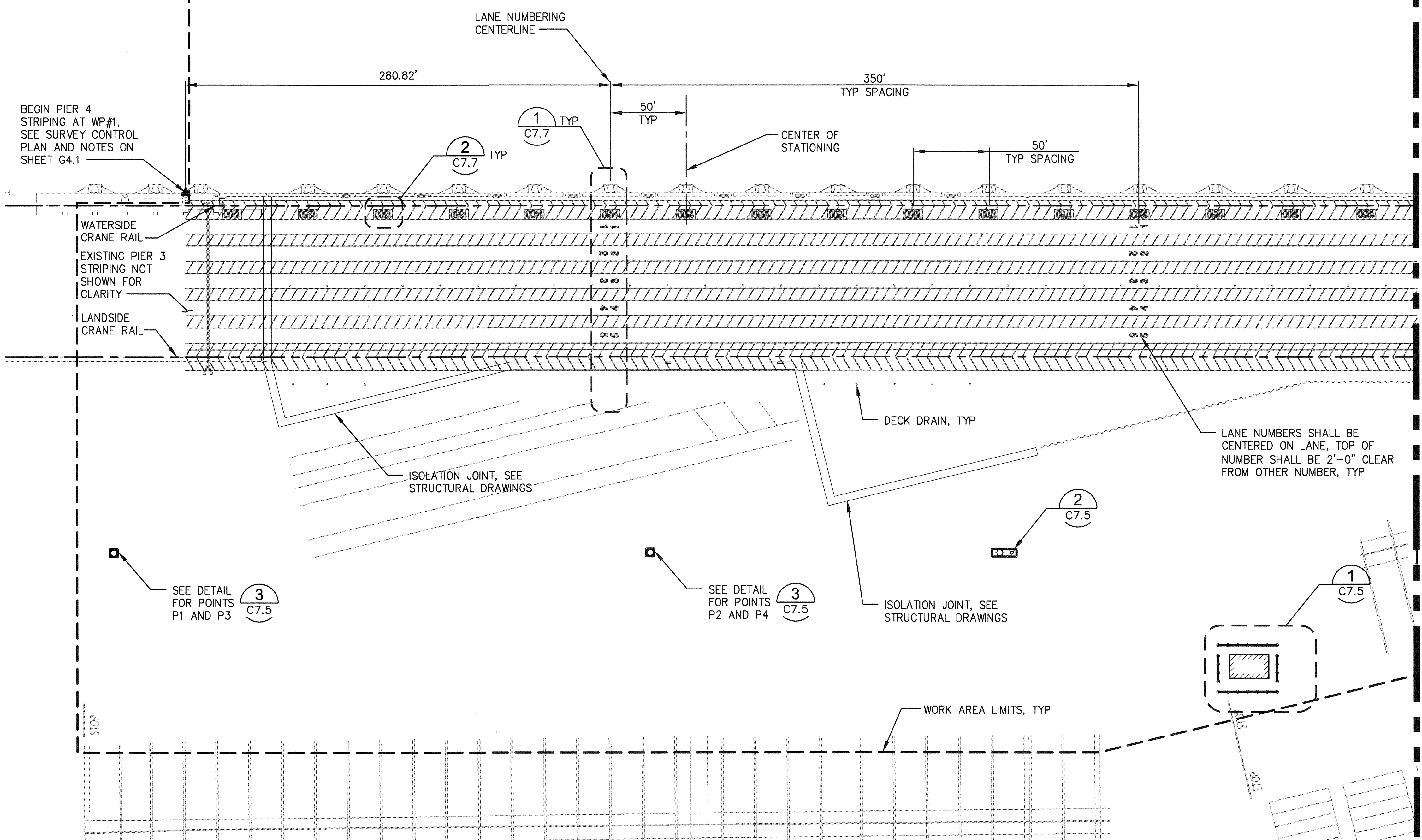
APPROVED:	<i>Eric Howard</i>	TACOMA, WA 98401-1837
PIER 4 PHASE 2 RECONFIGURATION		
SANITARY SEWER LIFT STATION PLAN AND SECTION		
TOWNSHIP:	RANGE:	SECTION:
070136	MLLW 19.39'	@ Tide 22 1933
M. ID:	VERT:	DRAWING SCALE:
091251	WA83-SF	AS NOTED
PHASE:	BID	

6552
C6.23
SH 110 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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PORT OF TACOMA FILE: M:\2014\114086 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C7.1-C7.2-C7.3 (Striping and Fencing Plan - Sheet X)

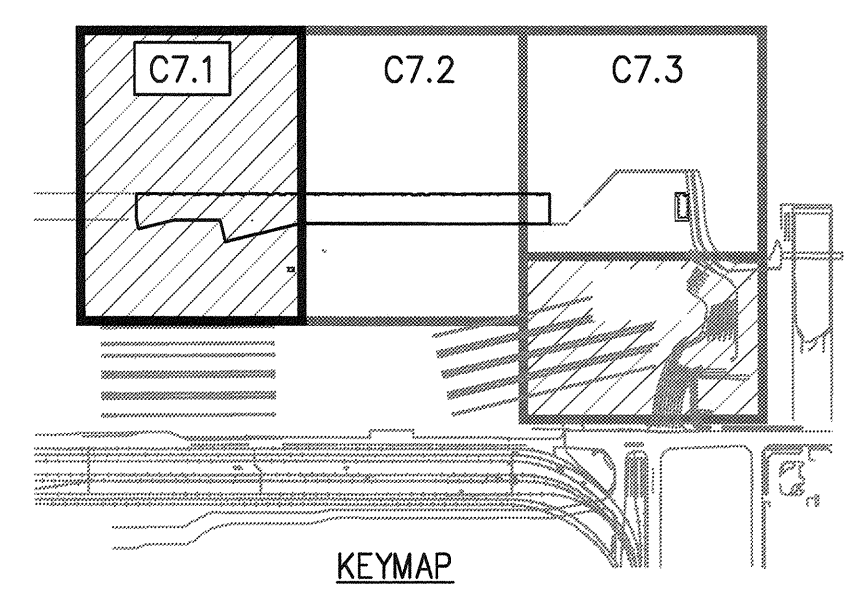
BLAIR WATERWAY



MATCH LINE SEE SHEET C7.2

STRIPING AND FENCING PLAN

SCALE: 1"=40'

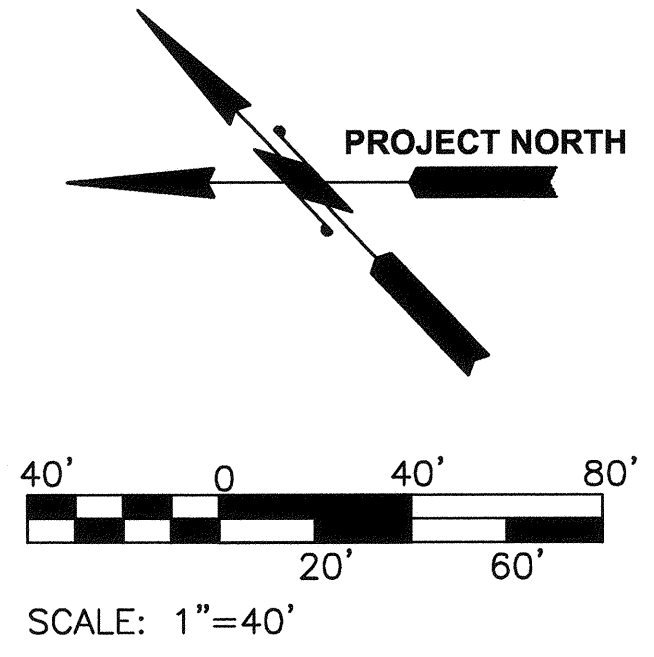


NOTES

- BEGIN STATIONING WITH NUMBER 1200. CONTRACTOR TO VERIFY LAST STATION NUMBER FROM PIER 3 AND CONTINUE STATIONING EVERY 50'.
- PRECAST TYPE 2, CONCRETE BARRIER SEGMENTS SHALL BE 10 FT IN LENGTH. MATERIALS AND INSTALLATION SHALL BE PER THE LATEST VERSION OF THE WSDOT STANDARD PLANS AND SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. BARRIERS ARE TO BE PINNED TO GROUND.
- CONTRACTOR SHALL COORDINATE WORK WITH PORT FOR ANY RESTRICTED WORK OUTSIDE WORK LIMITS.
- STRIPES SHALL START AT EDGE OF NEW PAVEMENT AND TIE INTO THE EXISTING STRIPES WHERE APPLICABLE. CONTRACTOR SHALL LAYOUT ALL STRIPING IN THIS AREA FOR APPROVAL PRIOR TO PLACING ANY PAVEMENT MARKINGS.

LEGEND

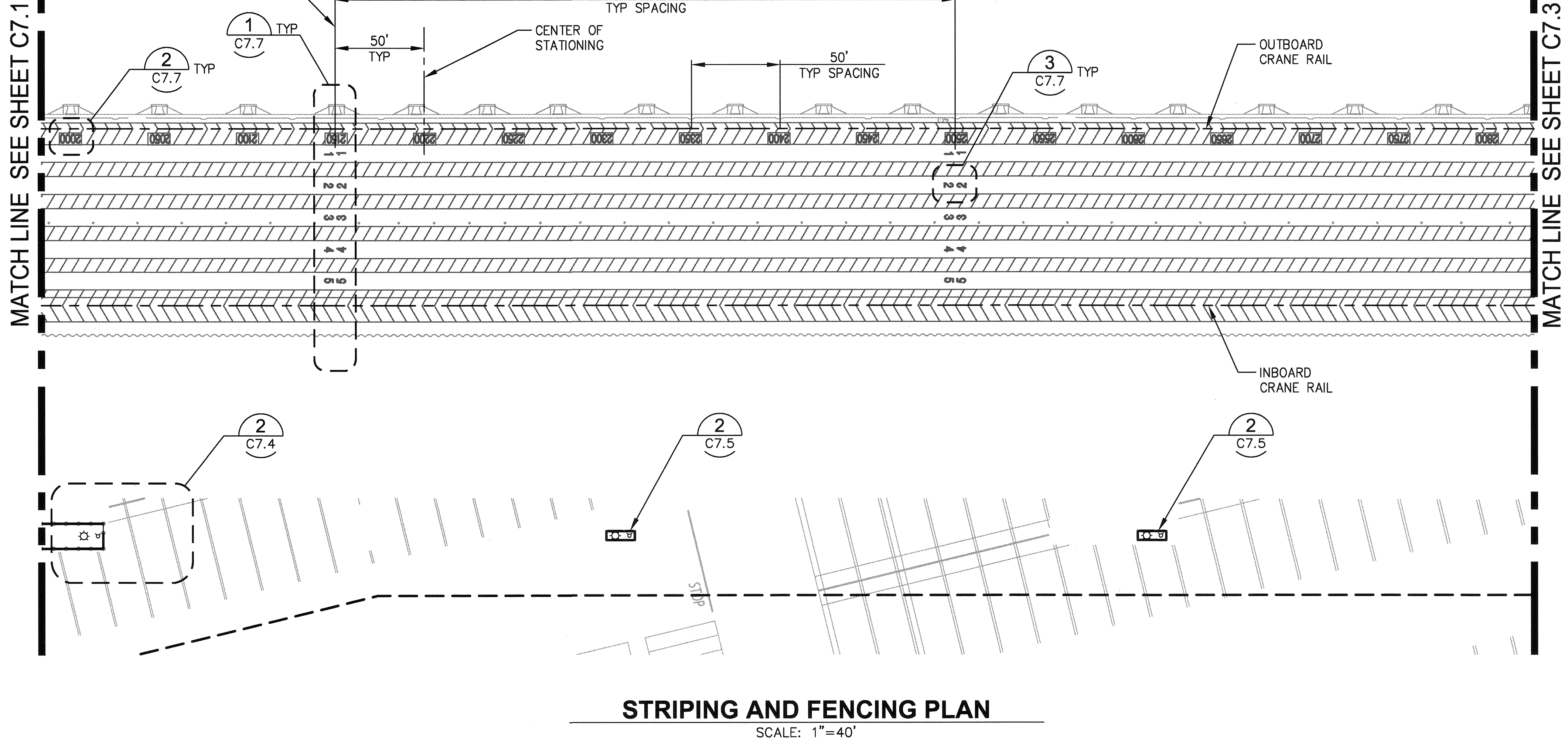
- PROJECT WORK AREA LIMITS
- PRECAST WSDOT CONCRETE BARRIER, TYPE 2, SEE NOTE 2
- ABOVE GROUND FIRE HYDRANT, SEE UTILITY PLANS
- LIGHT POLE, SEE ELECTRICAL PLANS
- WATERSIDE/LANDSIDE CRANE RAIL
- BOLLARD



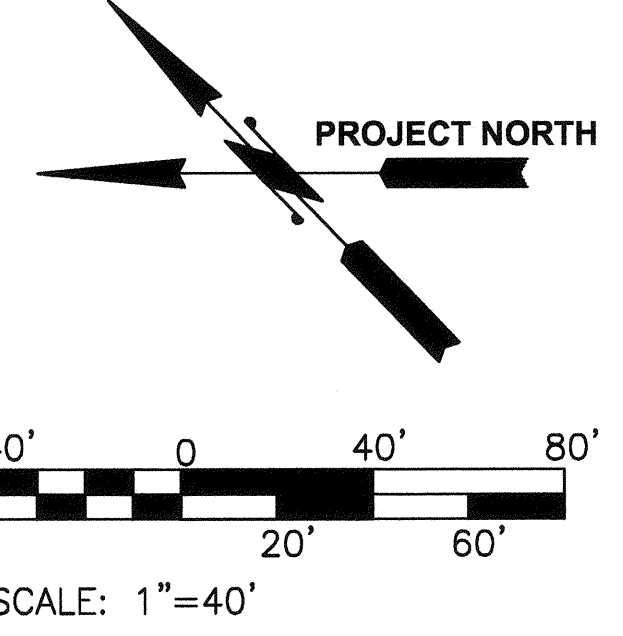
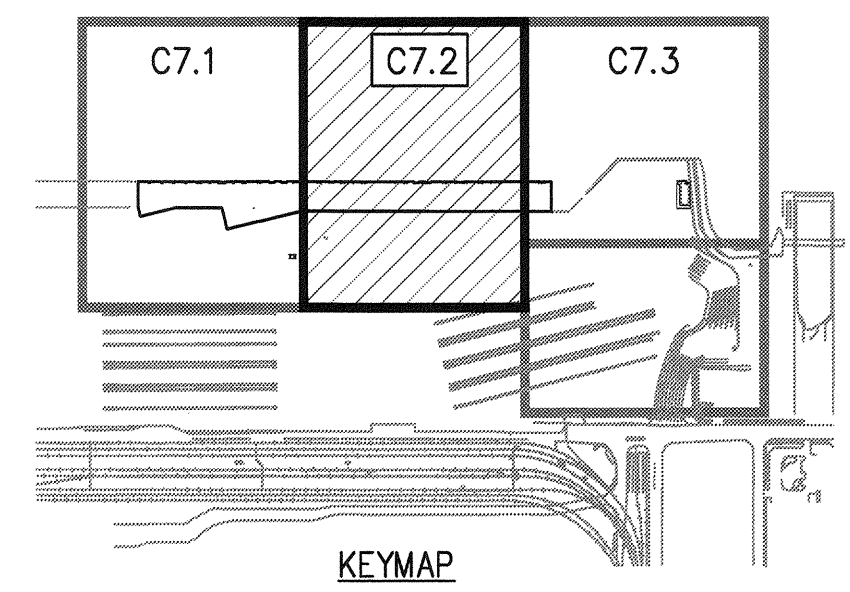
 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0150 Fax (253) 396-0162	Port of Tacoma <small>P.O. BOX 1837 TACOMA, WA 98401-1837</small>	APPROVED: 3-28-16 DIRECTOR ENG. DATE PRINTED BY: gcorey PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	CHECKED BY: DATE:
	MARK: REVISION:	BY: DATE:	
6552 C7.1 SH 111 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION STRIPING AND FENCING PLAN - SHEET 1	RANGE: MLW 19.39' @ Tide 22 1933 VERT: WA83-SF DRAWING SCALE: AS NOTED	SECTION: TOWNSHIP: DAT-HRZ:

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BLAIR WATERWAY



STRIPING AND FENCING PLAN
SCALE: 1"=40'



NOTES

- BEGIN STATIONING WITH NUMBER 1200. CONTRACTOR TO VERIFY LAST STATION NUMBER FROM PIER 3 AND CONTINUE STATIONING EVERY 50'.
- PRECAST TYPE 2, CONCRETE BARRIER SEGMENTS SHALL BE 10 FT IN LENGTH. MATERIALS AND INSTALLATION SHALL BE PER THE LATEST VERSION OF THE WSDOT STANDARD PLANS AND SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. BARRIERS ARE TO BE PINNED TO GROUND.
- CONTRACTOR SHALL COORDINATE WORK WITH PORT FOR ANY RESTRICTED WORK OUTSIDE WORK LIMITS.
- STRIPES SHALL START AT EDGE OF NEW PAVEMENT AND TIE INTO THE EXISTING STRIPES WHERE APPLICABLE. CONTRACTOR SHALL LAYOUT ALL STRIPING IN THIS AREA FOR APPROVAL PRIOR TO PLACING ANY PAVEMENT MARKINGS.

LEGEND

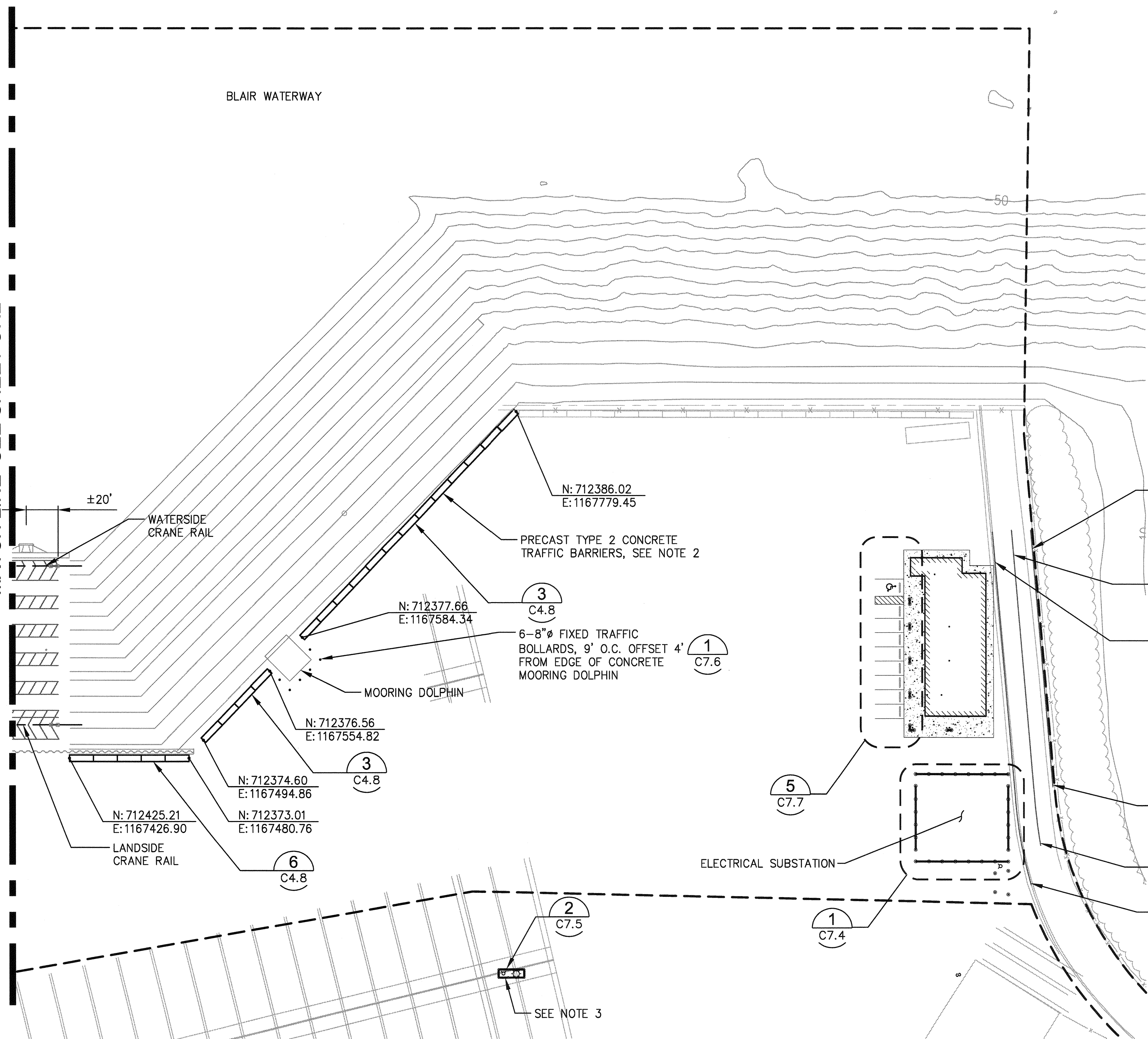
- PROJECT WORK AREA LIMITS
- ▬ PRECAST WSDOT CONCRETE BARRIER, TYPE 2, SEE NOTE 2
- ⊙ ABOVE GROUND FIRE HYDRANT, SEE UTILITY PLANS
- ⊙ LIGHT POLE, SEE ELECTRICAL PLANS
- - - WATERSIDE/LANDSIDE CRANE RAIL
- BOLLARD

 2407 North 31st Street, Suite 100 (253) 396-0150 Fax (253) 396-0162	MARK: _____ REVISION: _____ BY: _____ DATE: _____
	APPR: _____ DATE: _____
 JULIE HOWARD LICENSE NO. 37515 PROFESSIONAL ENGINEER STATE OF WASHINGTON	CHECKED BY: _____ DATE: _____ PROJECT ENGR: _____ DATE: _____ DIRECTOR ENG. DATE: 3-28-16 PRINTED BY: gcarey PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
6552 C7.2 SH 112 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION STRIPING AND FENCING PLAN - SHEET 2 TOWNSHIP: _____ SECTION: _____ RANGE: M.L.W. 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF VERT: _____ DRAWING SCALE: AS NOTED

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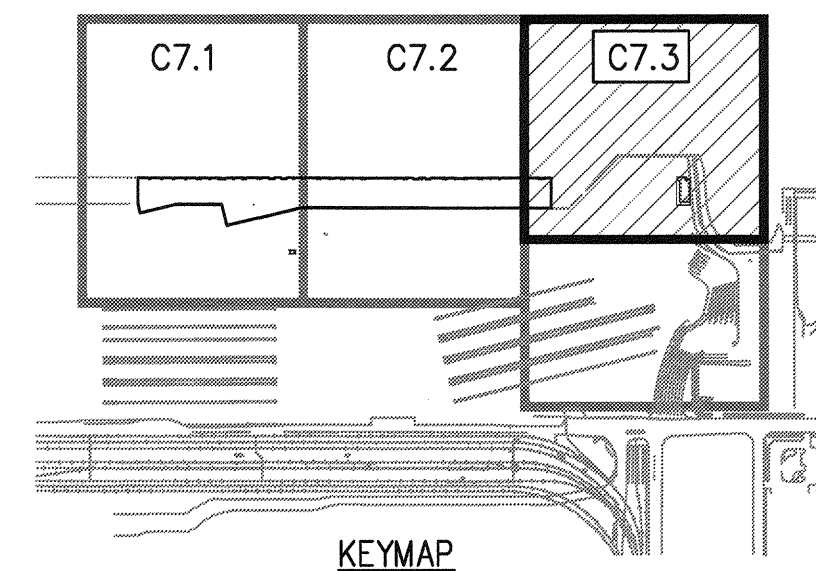
MATCHLINE SEE SHEET C7.2

BLAIR WATERWAY



STRIPING AND FENCING PLAN

SCALE: 1"=40'

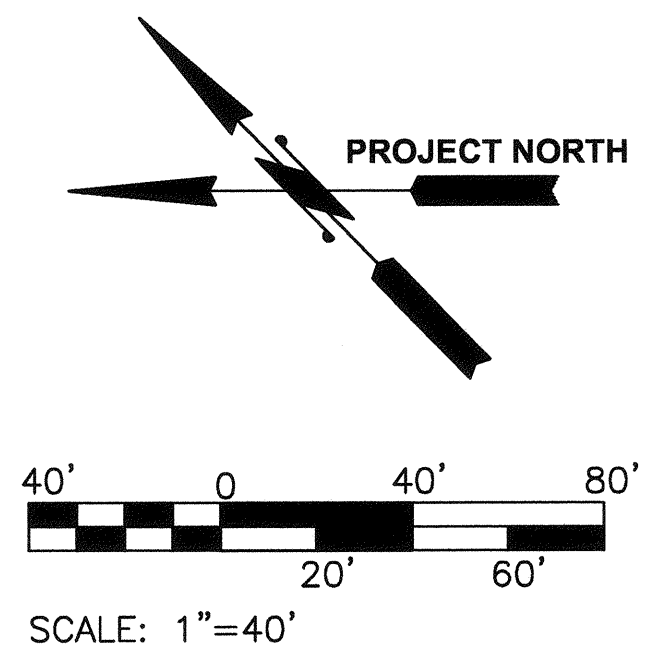


NOTES

- BEGIN STATIONING WITH NUMBER 1200. CONTRACTOR TO VERIFY LAST STATION NUMBER FROM PIER 3 AND CONTINUE STATIONING EVERY 50'.
- PRECAST TYPE 2, CONCRETE BARRIER SEGMENTS SHALL BE 10 FT IN LENGTH. MATERIALS AND INSTALLATION SHALL BE PER THE LATEST VERSION OF THE WSDOT STANDARD PLANS AND SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION. BARRIERS ARE TO BE PINNED TO GROUND, AND PAINTED AND PRIMED WITH TWO COATS OF "SAFETY YELLOW"
- CONTRACTOR SHALL COORDINATE WORK WITH PORT FOR ANY RESTRICTED WORK OUTSIDE WORK LIMITS.
- STRIPES SHALL START AT EDGE OF NEW PAVEMENT AND TIE INTO THE EXISTING STRIPES WHERE APPLICABLE. CONTRACTOR SHALL LAYOUT ALL STRIPING IN THIS AREA FOR APPROVAL PRIOR TO PLACING ANY PAVEMENT MARKINGS.

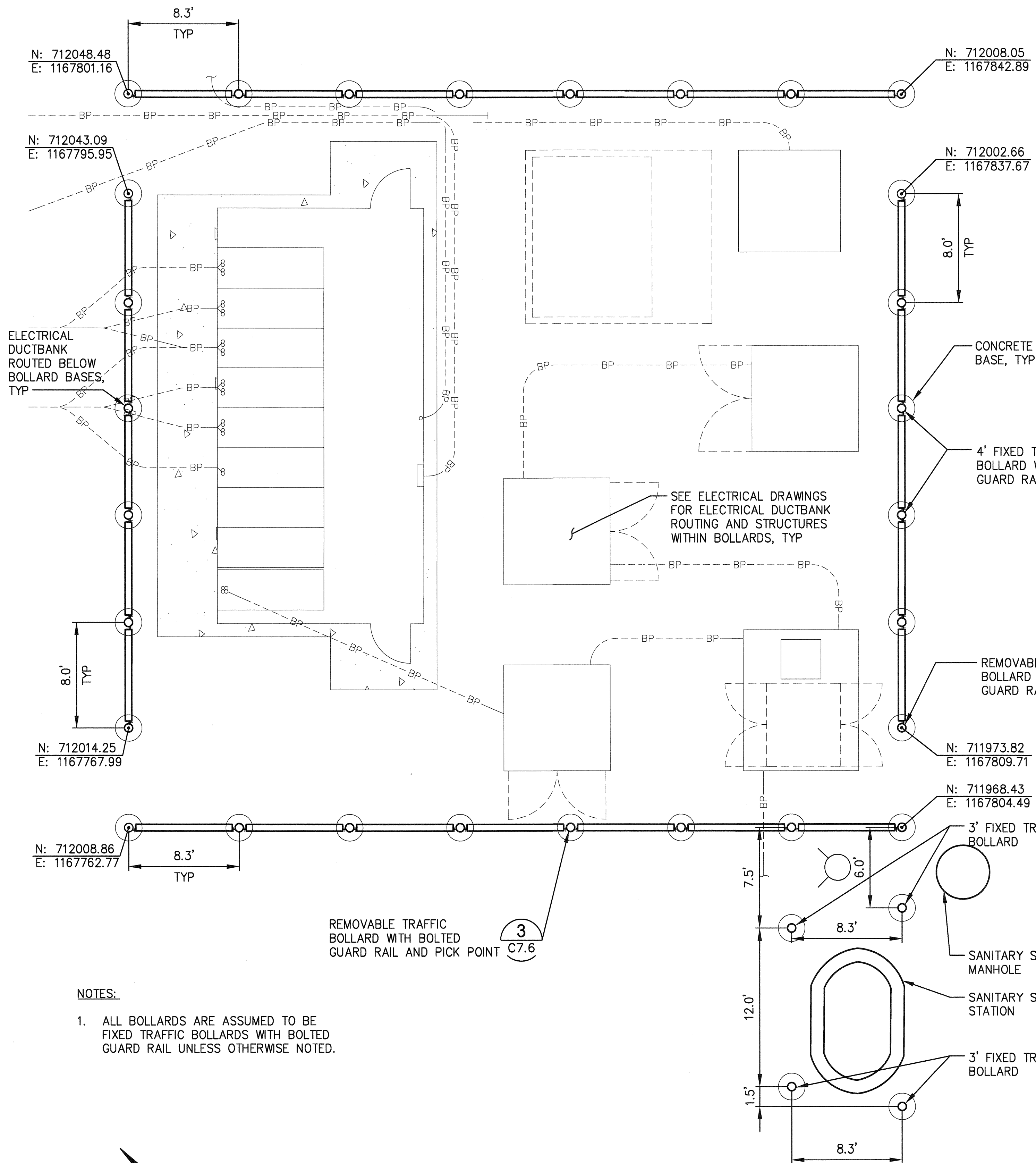
LEGEND

- PROJECT WORK AREA LIMITS
- ▬▬▬ PRECAST WSDOT CONCRETE BARRIER, TYPE 2, SEE NOTE 2
- ⋄ ABOVE GROUND FIRE HYDRANT, SEE UTILITY PLANS
- ⊙ LIGHT POLE, SEE ELECTRICAL PLANS
- - - WATERSIDE/LANDSIDE CRANE RAIL
- BOLLARD



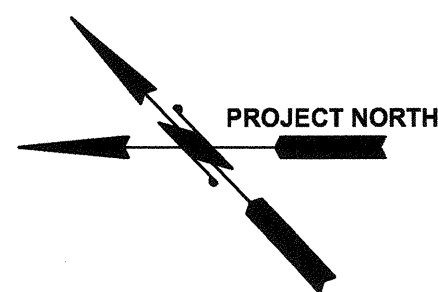
	2407 North 31st Street, Suite 100 (253) 396-0150 Fax (253) 396-0162	BY: _____ REVISION: _____ DATE: _____
6552 C7.3 SH 113 OF 499	PIER 4 PHASE 2 RECONFIGURATION STRIPING AND FENCING PLAN - SHEET 3	APPROVED: <i>G. Carey</i> DIRECTOR ENG. DATE: 3-28-16 PRINTED BY: gcarey PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
CONT./CONS: 070136 M. ID: 091251 PHASE: BID	TOWNSHIP: _____ RANGE: _____ DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933 SECTION: _____ DRAWING SCALE: AS NOTED	CHECKED BY: _____ DATE: _____ PROJ. ENGR DATE: _____ DATE: Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

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NOTES:

- 1. ALL BOLLARDS ARE ASSUMED TO BE FIXED TRAFFIC BOLLARDS WITH BOLTED GUARD RAIL UNLESS OTHERWISE NOTED.



1
C4.17, C7.3

BOLLARD LAYOUT AT SUBSTATION

SCALE: 1"=5'

ELECTRICAL DUCTBANK ROUTED BELOW BOLLARD BASES, TYP

SEE ELECTRICAL DRAWINGS FOR ELECTRICAL DUCTBANK ROUTING AND STRUCTURES

CONCRETE BASE, TYP
4' FIXED TRAFFIC BOLLARD WITH BOLTED GUARD RAIL, TYP

REMOVABLE TRAFFIC BOLLARD WITH BOLTED GUARD RAIL AND PICK POINT

3' FIXED TRAFFIC BOLLARD

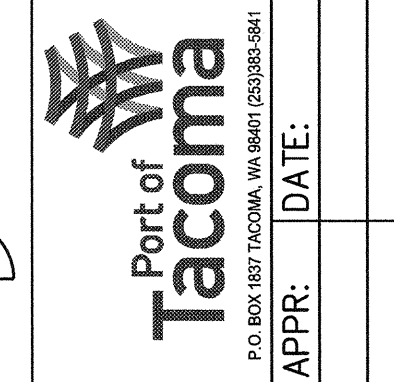
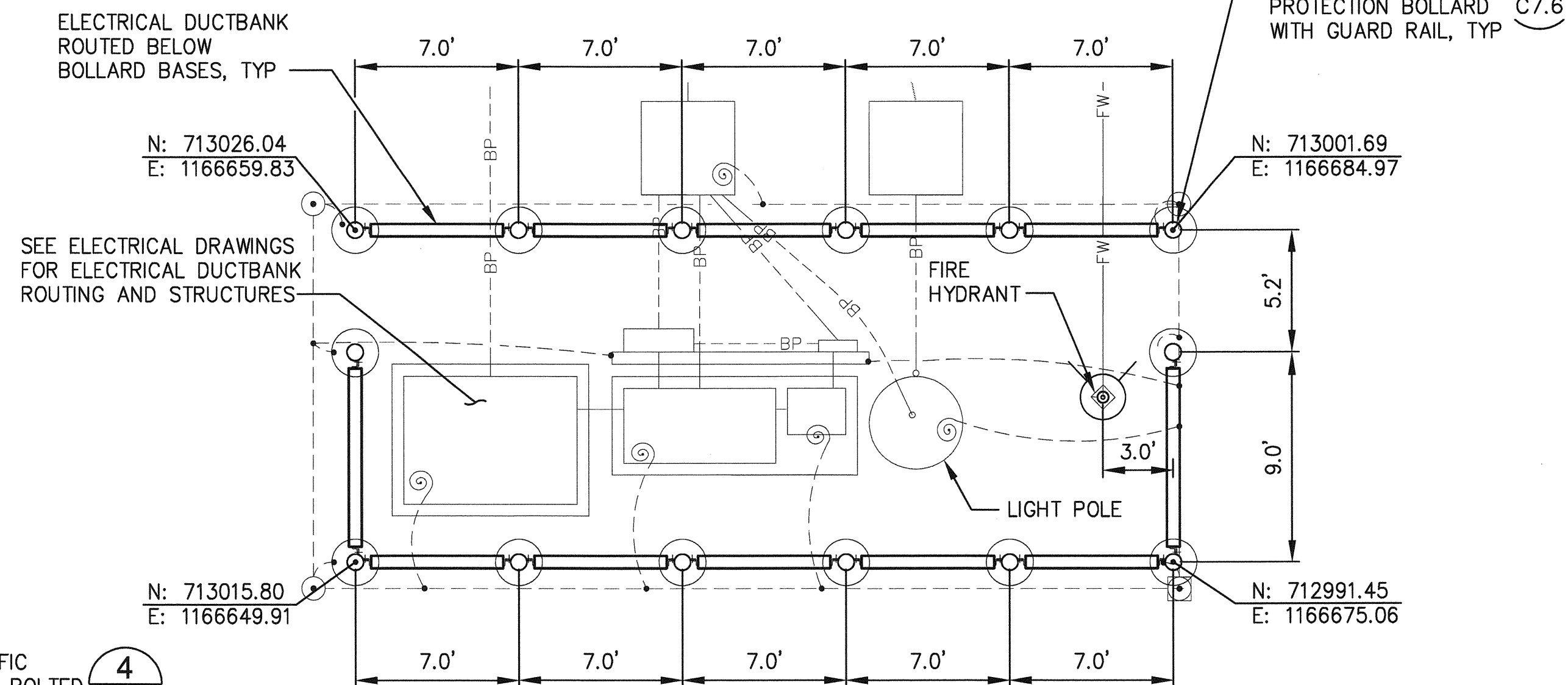
SANITARY SEWER MANHOLE
SANITARY SEWER LIFT STATION

3' FIXED TRAFFIC BOLLARD

2
C7.2

BOLLARD LAYOUT AT YARD ELECTRICAL DISTRIBUTION

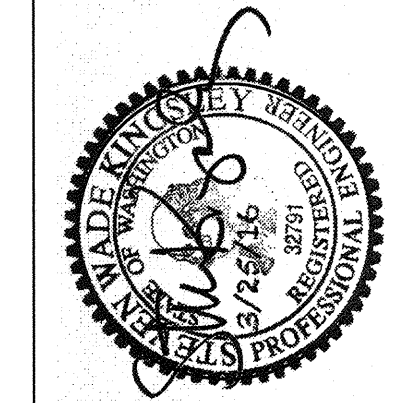
SCALE: 1"=5'



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kpff

REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
No. 37254
EXPIRES 12/31/15



APPROVED:	DATE
<i>[Signature]</i>	
DIRECTOR ENG. DATE:	PROJ. ENGR. DATE
3-28-16	
PRINTED BY:	PORT ADDRESS: ONE SITCLIM PLAZA
gcarey	TACOMA, WA 98401-1837

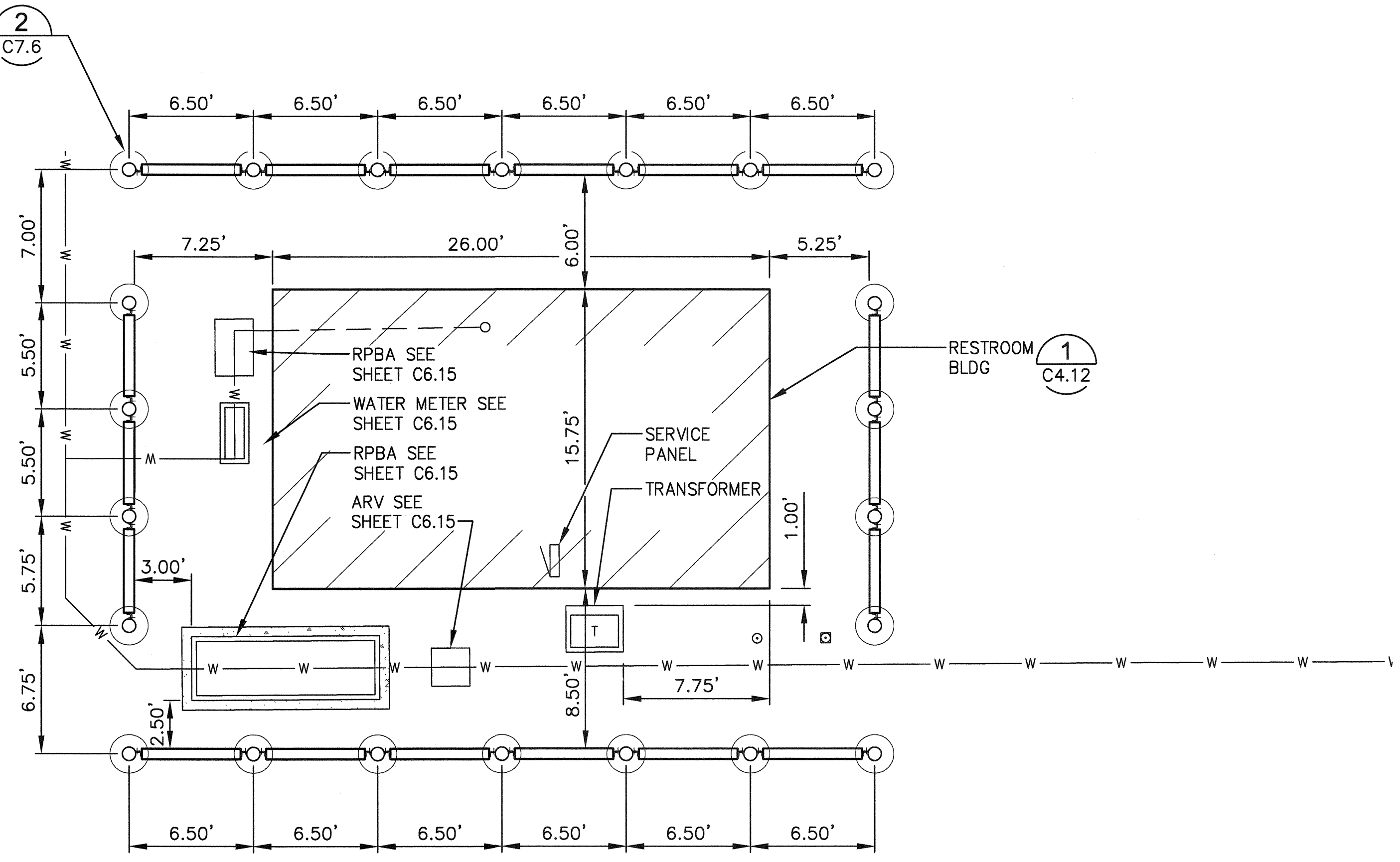
PIER 4 PHASE 2 RECONFIGURATION ENLARGED FENCING PLANS	
TOWNSHIP:	SECTION:
070136	
DATE-HRZ:	RANGE:
091251	MLLW 19.39' @ Tide 22 19.33
PARCEL:	DRAWING SCALE:
	AS NOTED

6552
C7.4
SH 114 OF 489
CONT./CONS: 070136
M. ID: 091251
PHASE: BID

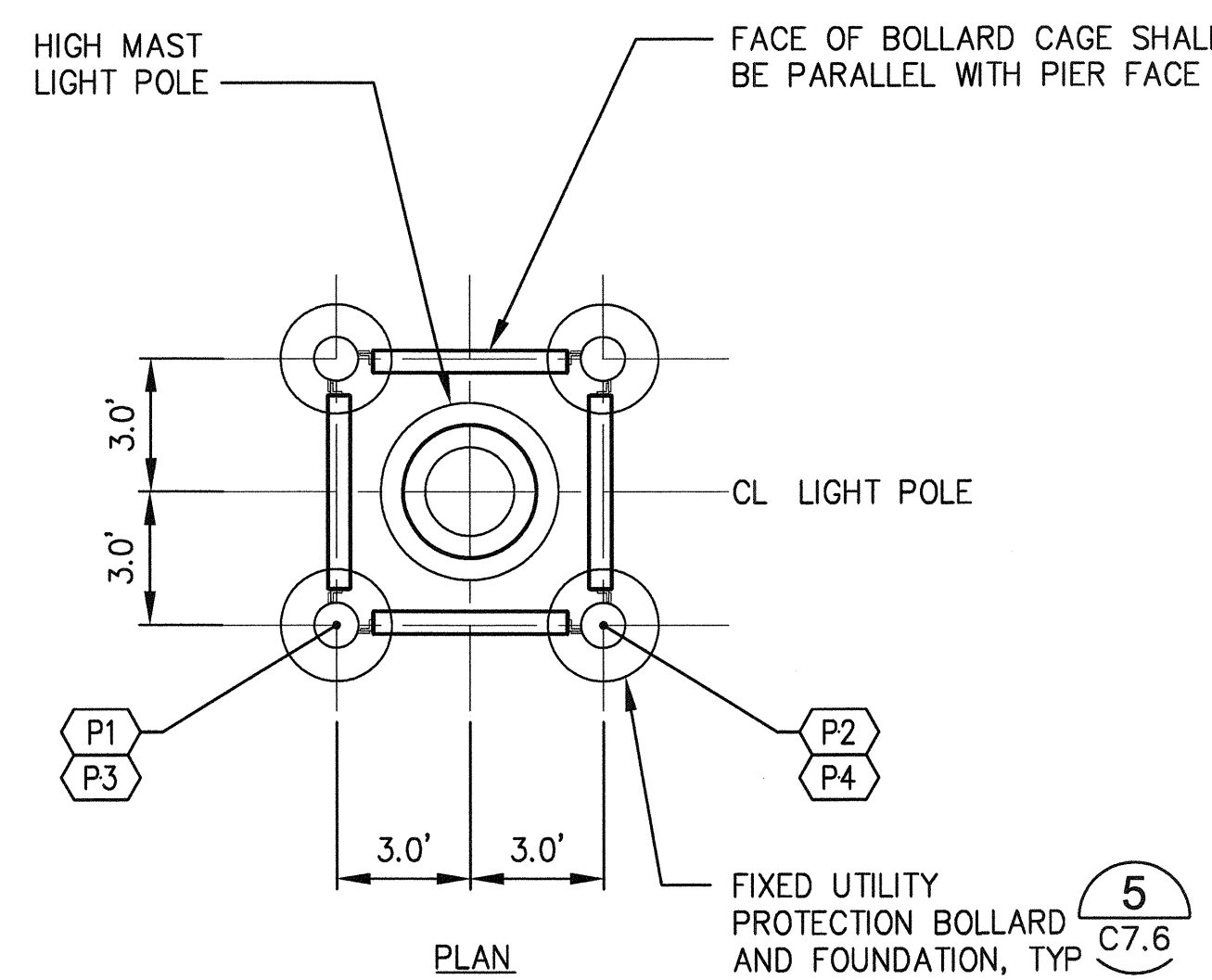
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PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C7.5-C7.6 (Striping and Fencing Details - Sheet X)

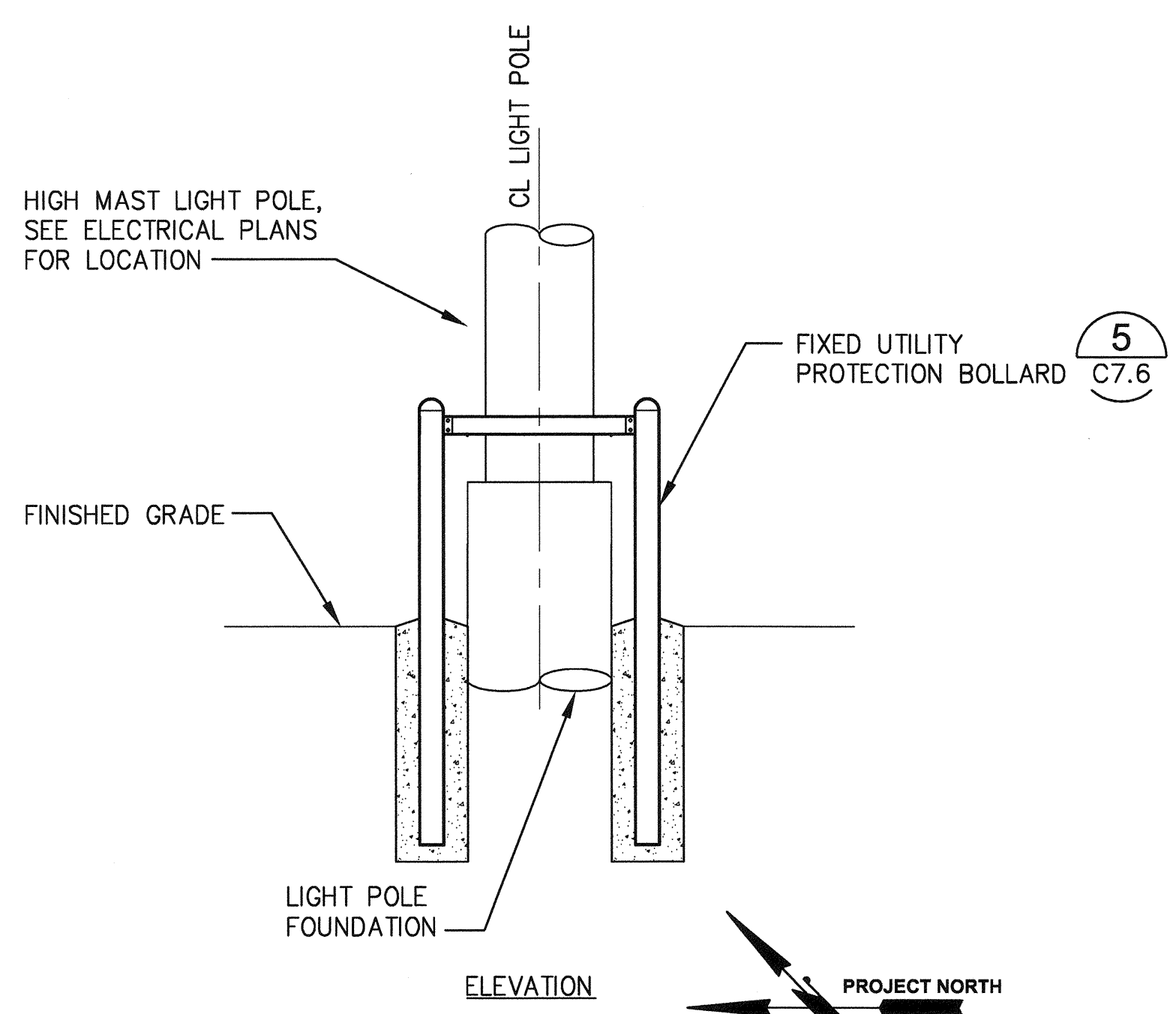
3' FIXED TRAFFIC BOLLARD WITH BOLTED GUARD RAIL, TYP SEE C7.6



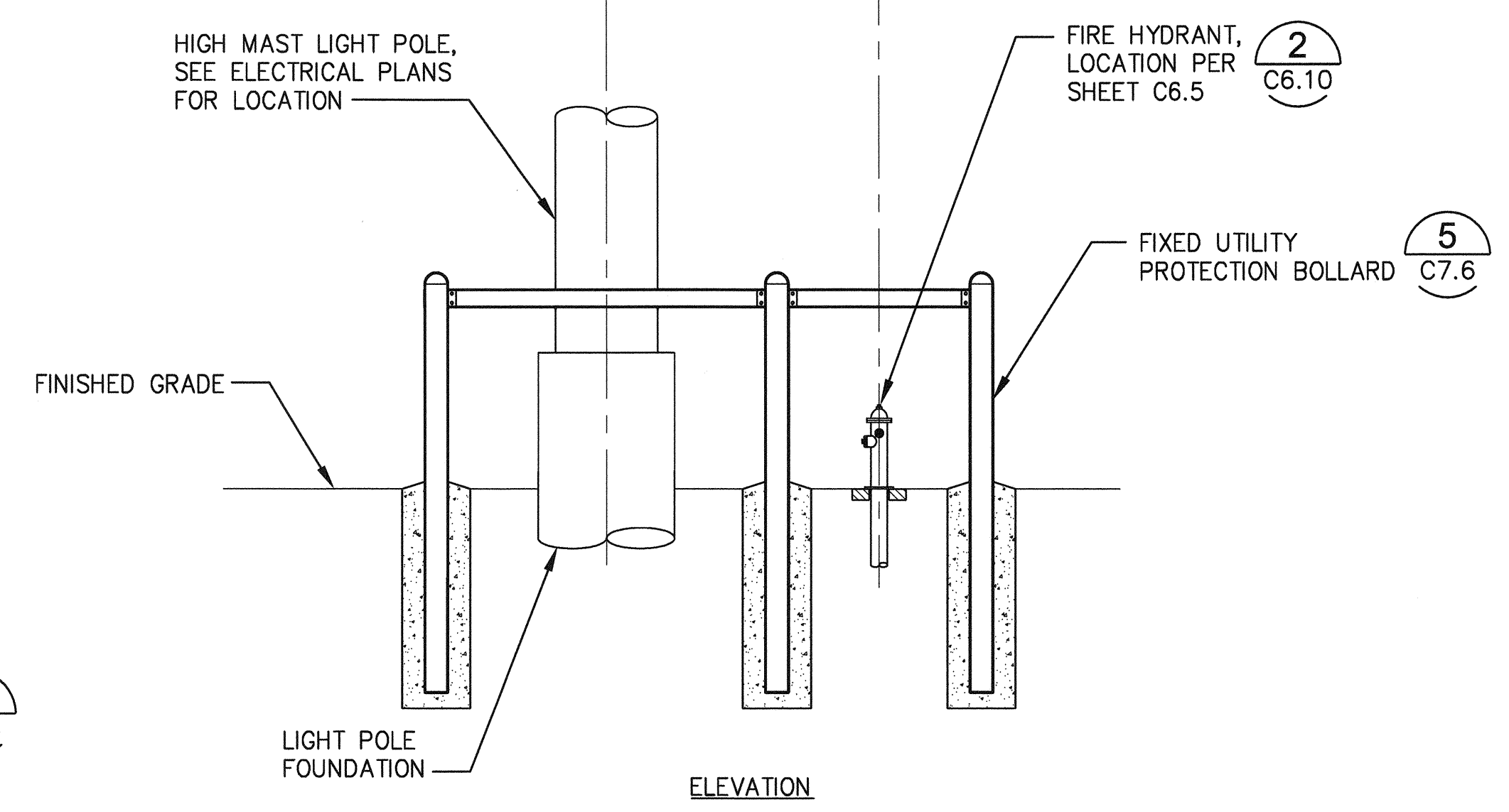
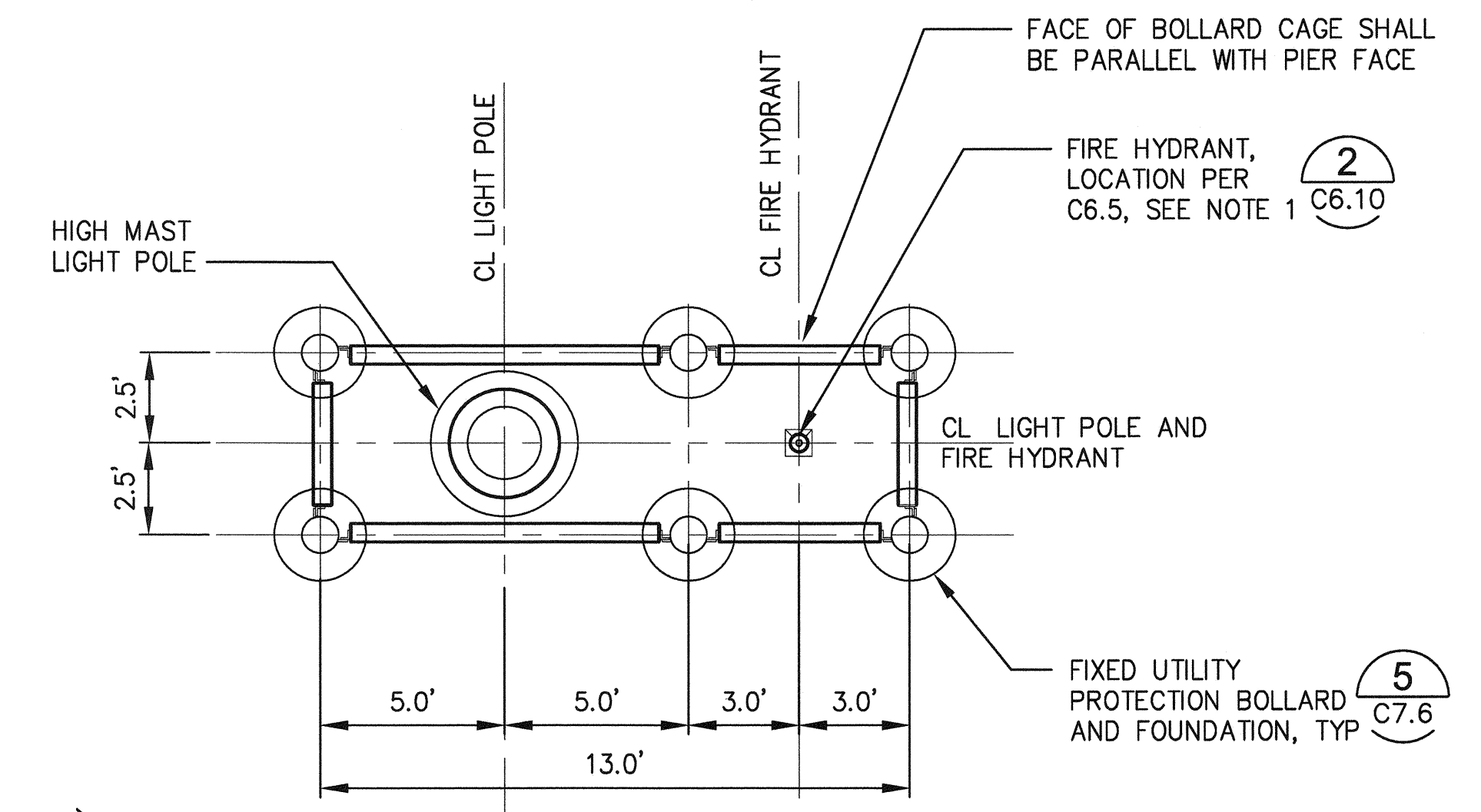
1 RESTROOM BUILDING BOLLARD LAYOUT AND STRIPING PLAN
C6.15, C7.2 SCALE: 1"=5'



BOLLARD HORIZONTAL CONTROL		
POINT ID	NORTHING	EASTING
P1	713620.49	1166032.68
P2	713617.01	1166036.27
P3	713373.92	1166287.33
P4	713370.44	1166290.92



3 BOLLARD LAYOUT AT LIGHT POLES WITHOUT HYDRANTS
C7.1, C7.2, C7.3 SCALE: NTS



2 BOLLARD LAYOUT AT ABOVE GROUND FIRE HYDRANTS
C7.1, C7.2, C7.3 SCALE: NTS

- NOTES:
- HYDRANT FH-6 IS PLACED TO NORTH OF EXISTING LIGHT POLE, SEE UTILITY PLAN FOR ORIENTATION AND HORIZONTAL CONTROL OF HYDRANT.
 - SEE STRUCTURAL DRAWINGS FOR LIGHT POLE AND AUXILIARY POLE FOUNDATION DETAILS.

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(253) 396-0130 Fax (253) 396-0162

Port of Tacoma
P.O. BOX 987 TACOMA, WA 98401-0097

APPROVED: *Greg Carey*
3-28-16
DIRECTOR ENG. DATE
PRINTED BY: gcarey
MAR 24, 2016
PORT ADDRESS: ONE SITCLIM PLAZA
TACOMA, WA 98401-1837

PIER 4 PHASE 2
RECONFIGURATION
STRIPING AND FENCING DETAILS - SHEET 1

CHECKED BY: DATE
PROJ. ENGR: DATE
3-28-16
MAR 24, 2016

6552
C7.5
SH 115 OF 489

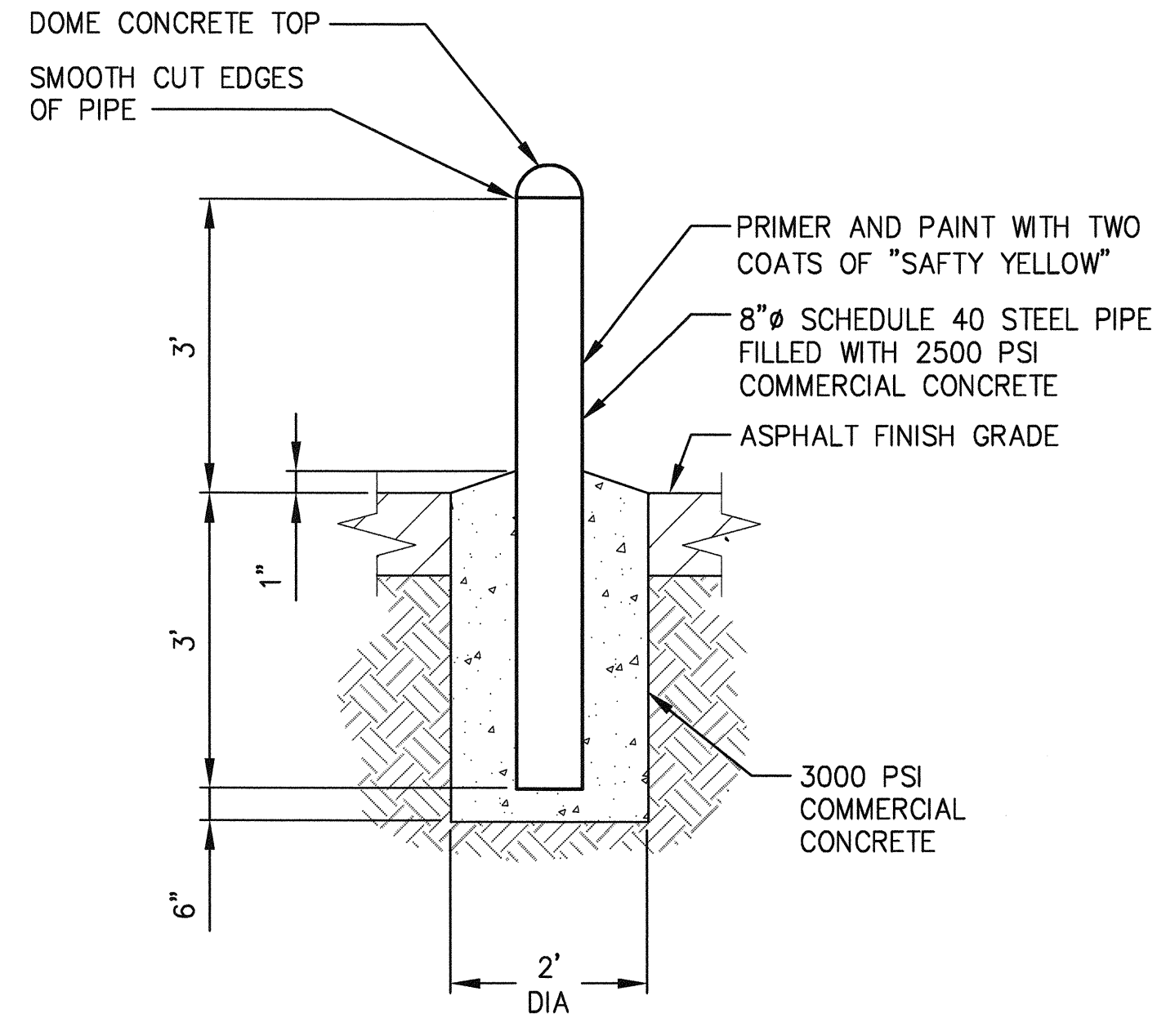
CONTR/CONS: 070136
M. ID: 091251
PHASE: BID

MARK: REVISION: BY: DATE:

APPR: DATE:

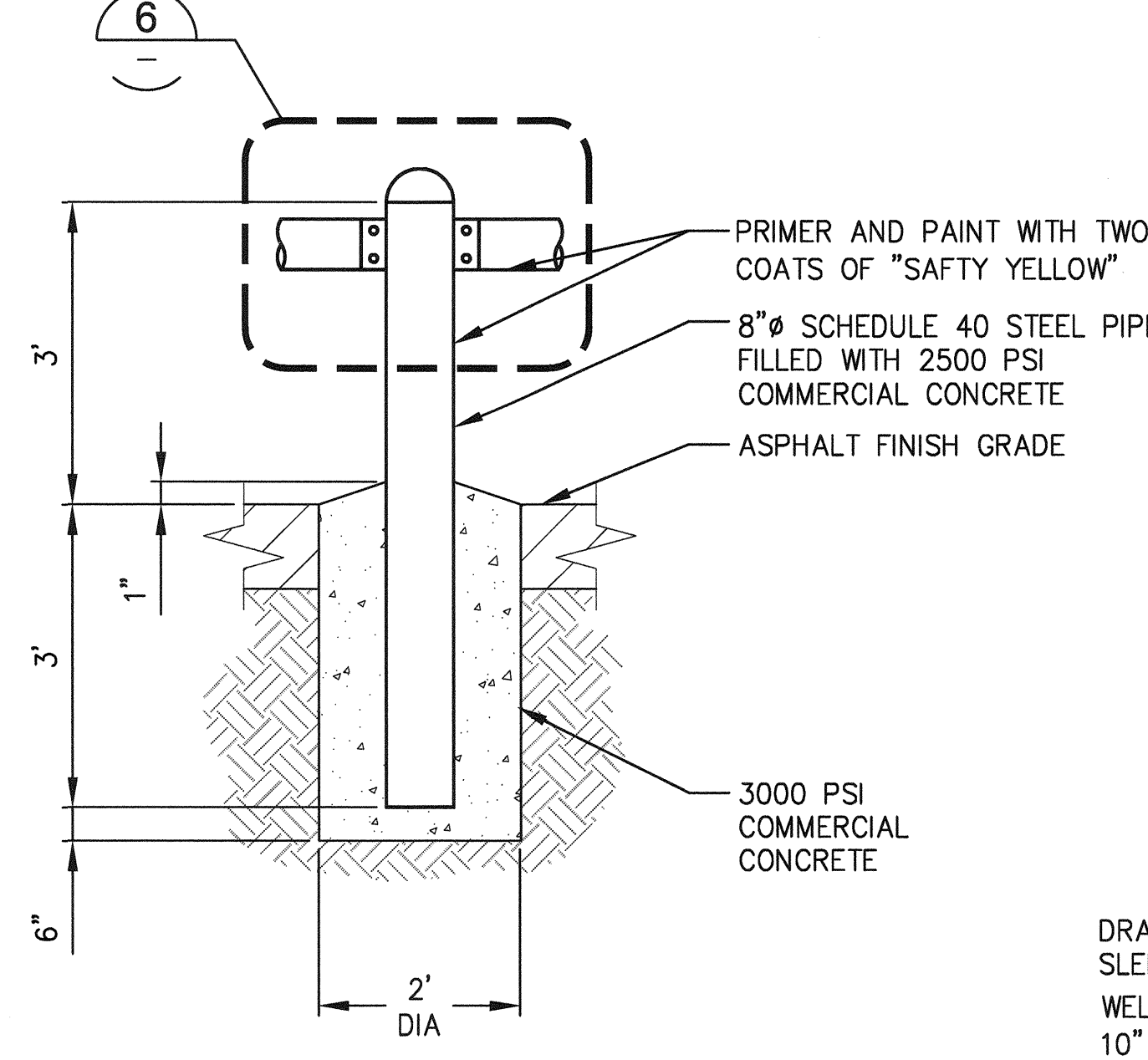
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PORT OF TACOMA FILE: M:\2014\114096 POT Pier 4 Reconfiguration\Drawings\Current\Phase 2_091251\091251-C7.5-C7.6 (Striping and Fencing Details - Sheet X)



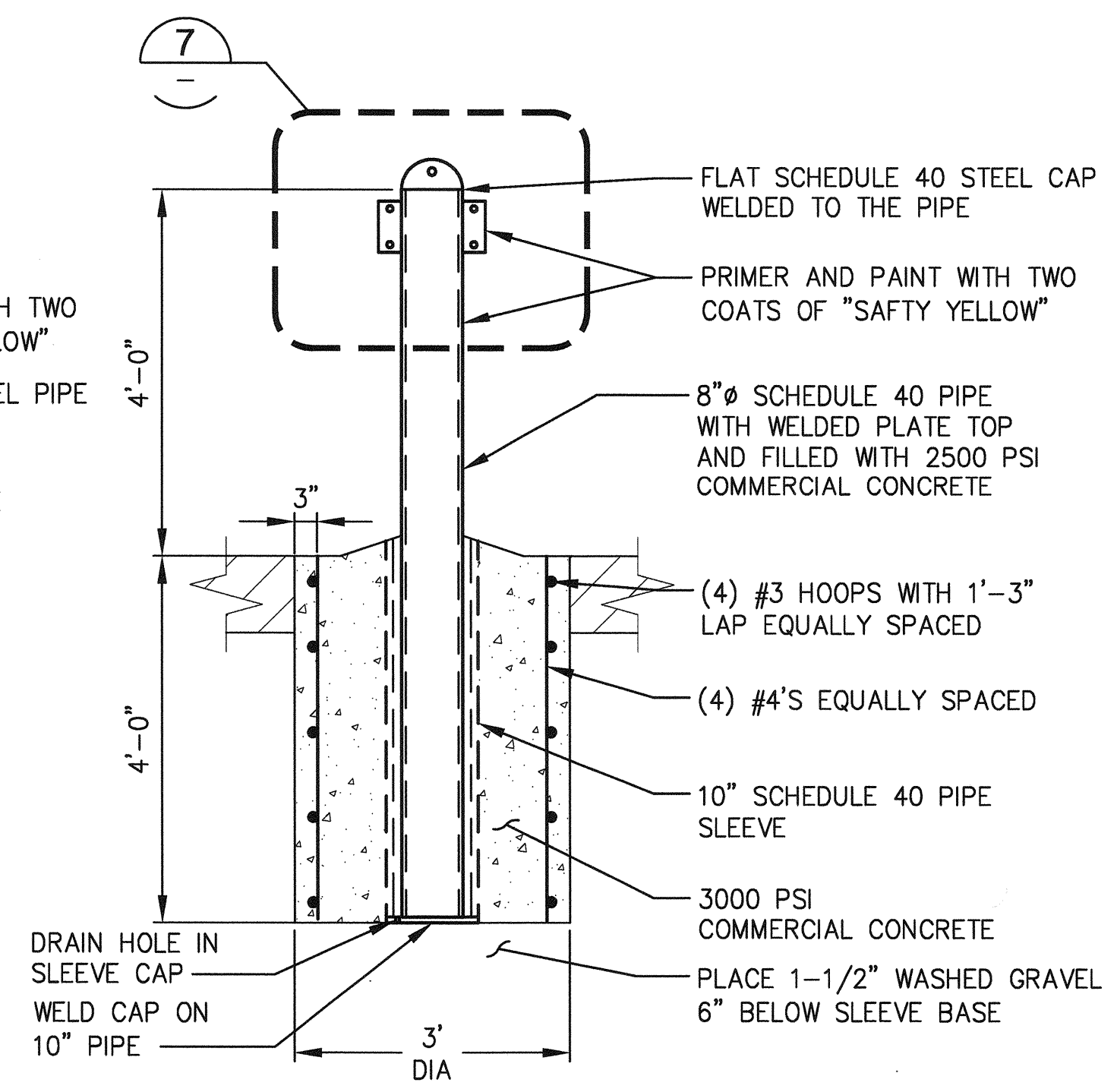
1
FIXED TRAFFIC BOLLARD

C7.3
NTS



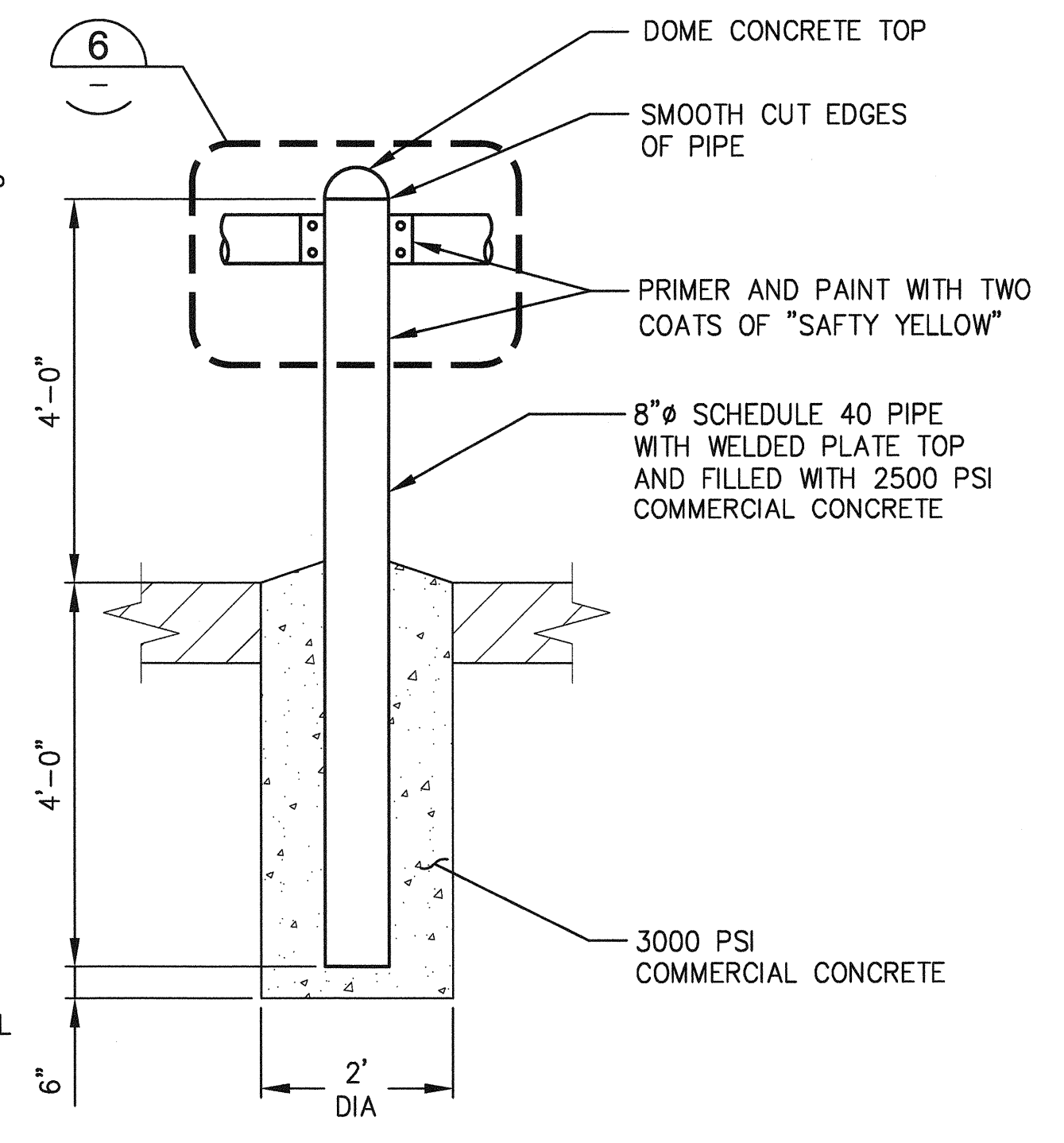
2
3' FIXED TRAFFIC BOLLARD WITH BOLTED GUARD RAIL

C7.4
NTS



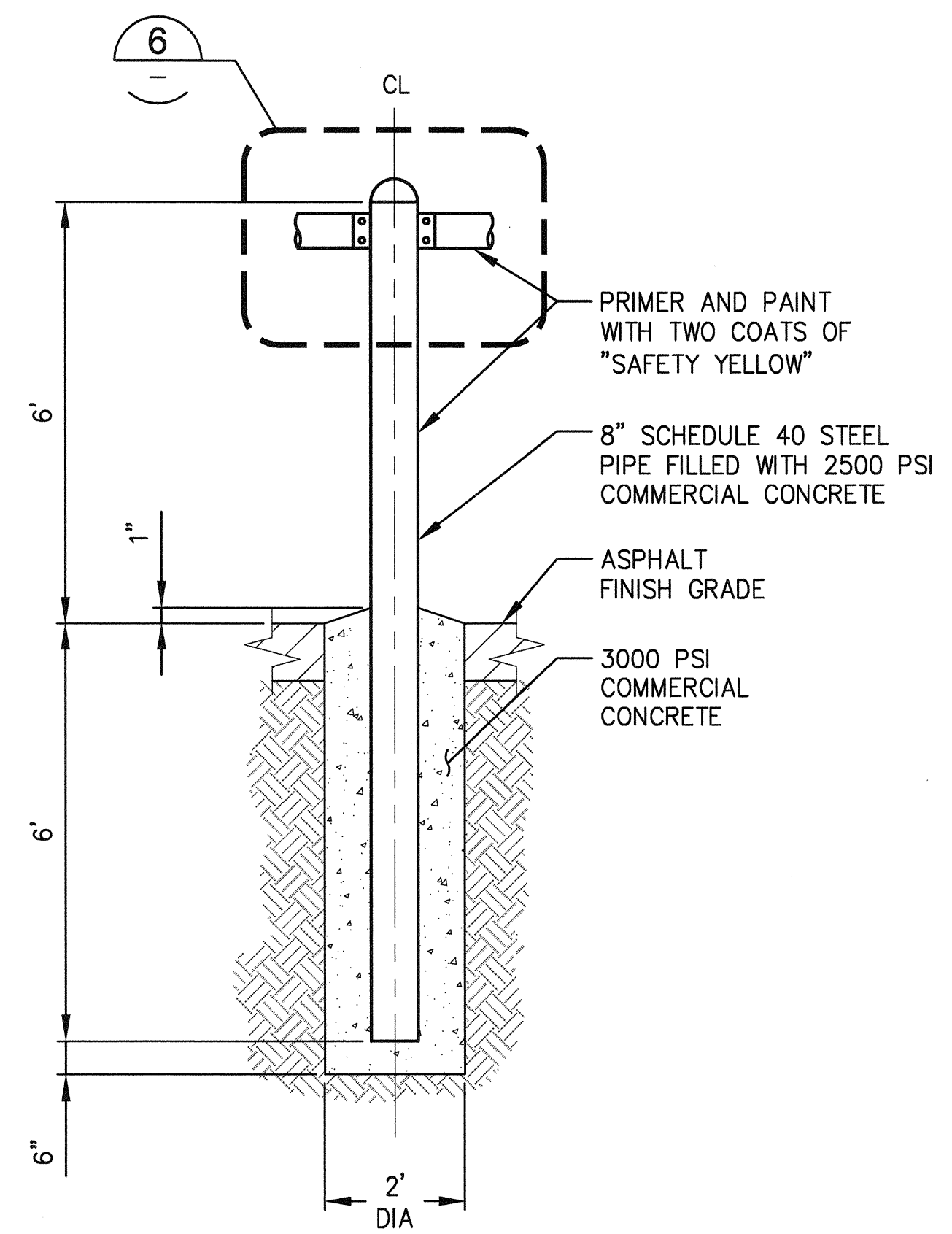
3
REMOVABLE TRAFFIC BOLLARD WITH BOLTED GUARD RAIL

C7.4
NTS



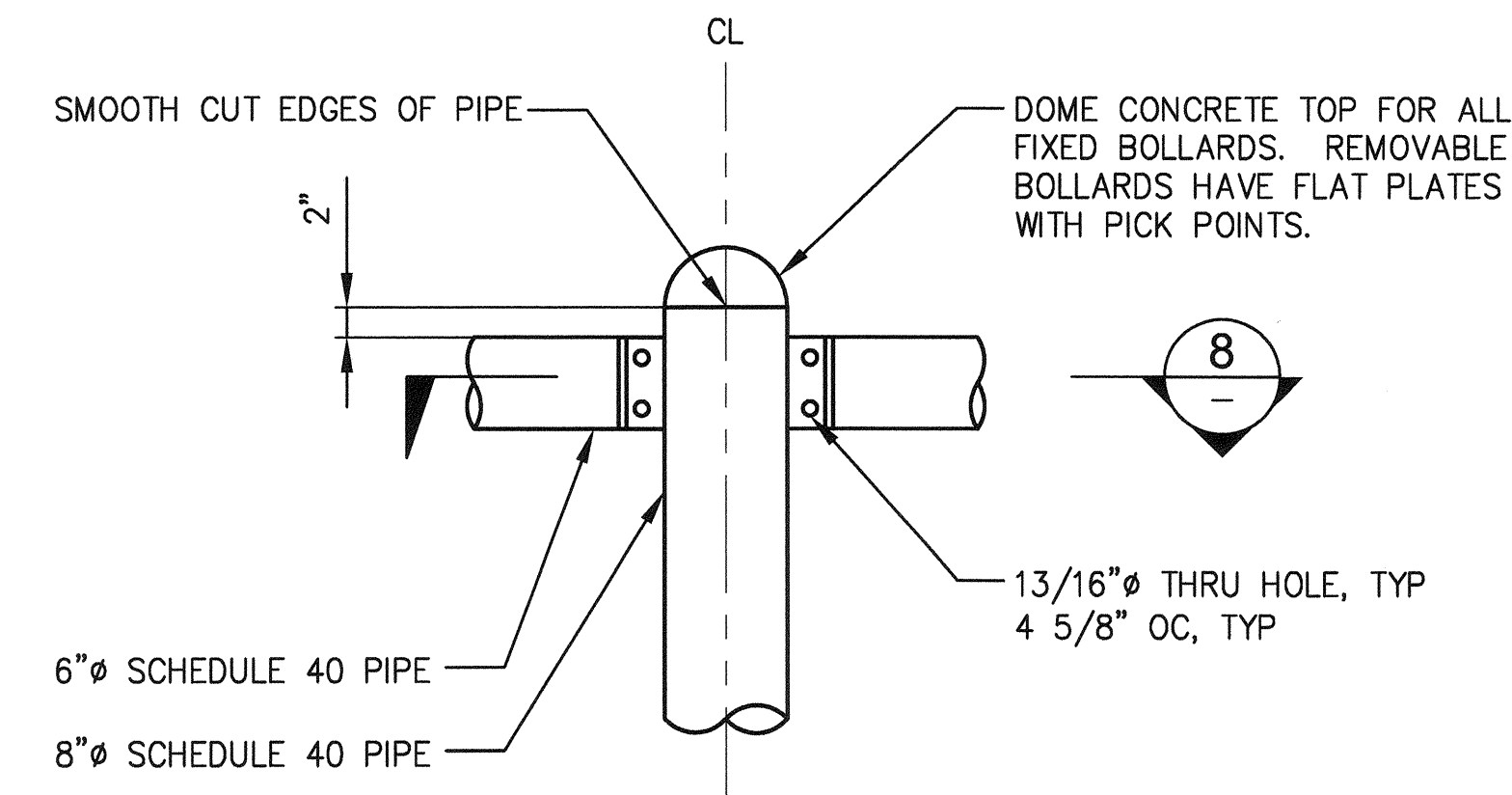
4
4' FIXED TRAFFIC BOLLARD WITH BOLTED GUARD RAIL

C7.4
NTS



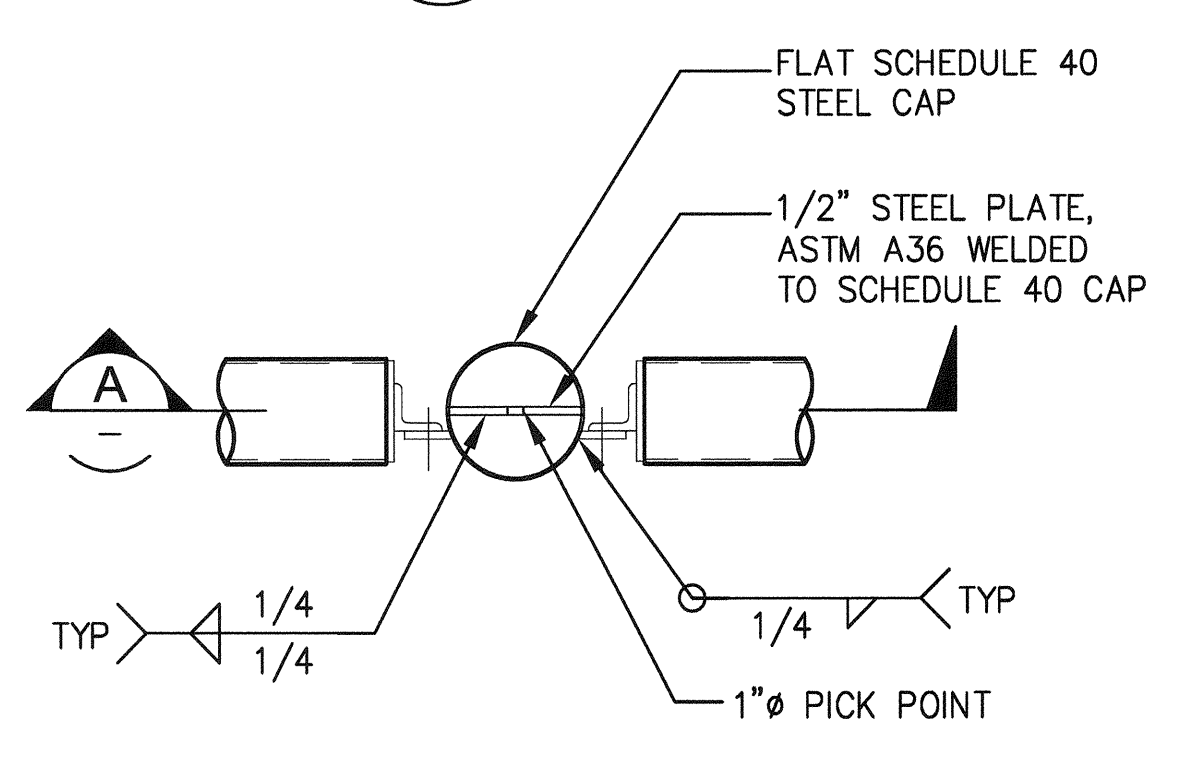
5
FIXED UTILITY PROTECTION BOLLARD WITH BOLTED GUARD RAIL

C7.4, C7.5
NTS



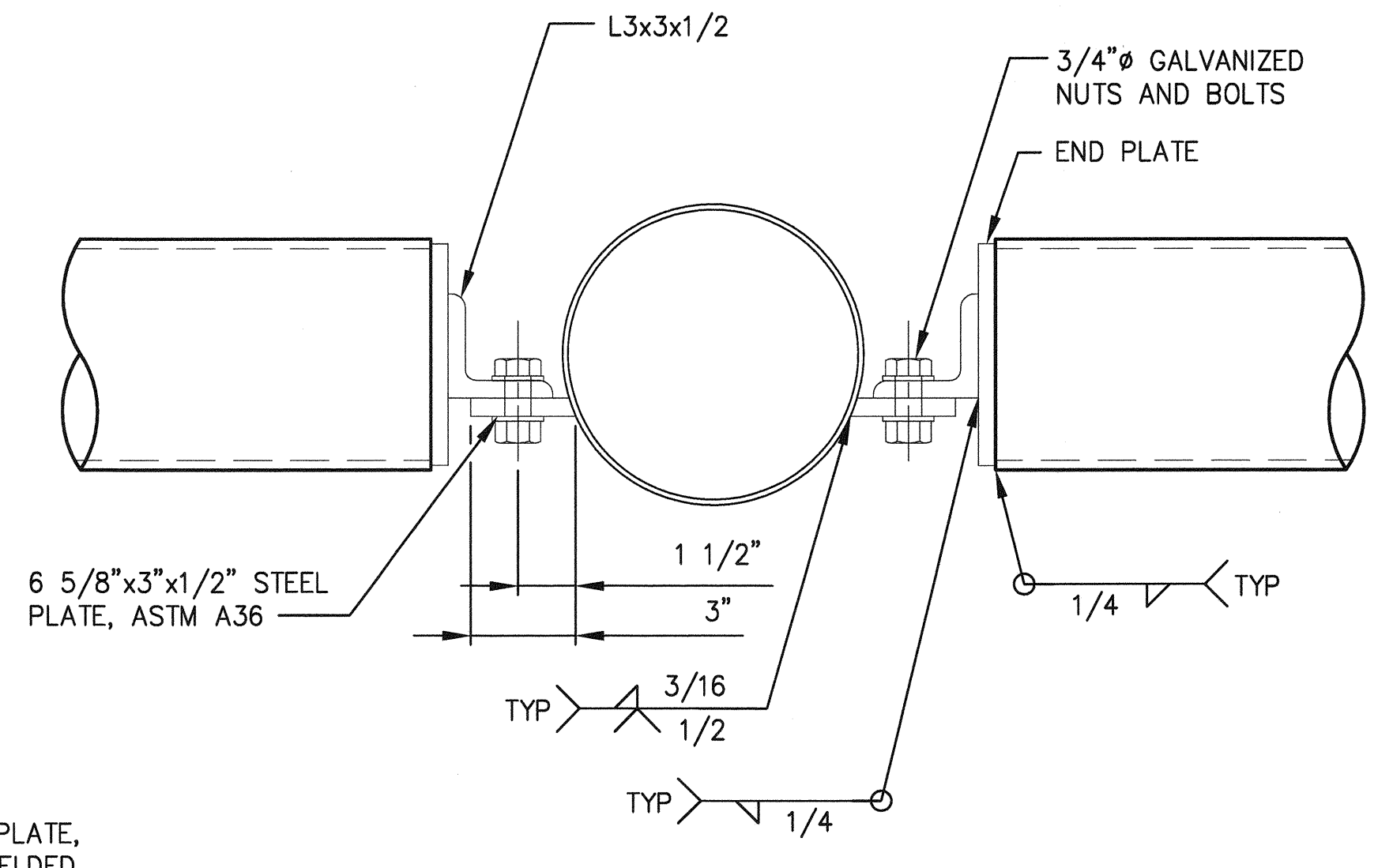
6
BOLTED GUARD RAIL

NTS



7
REMOVABLE BOLLARD CAP

NTS



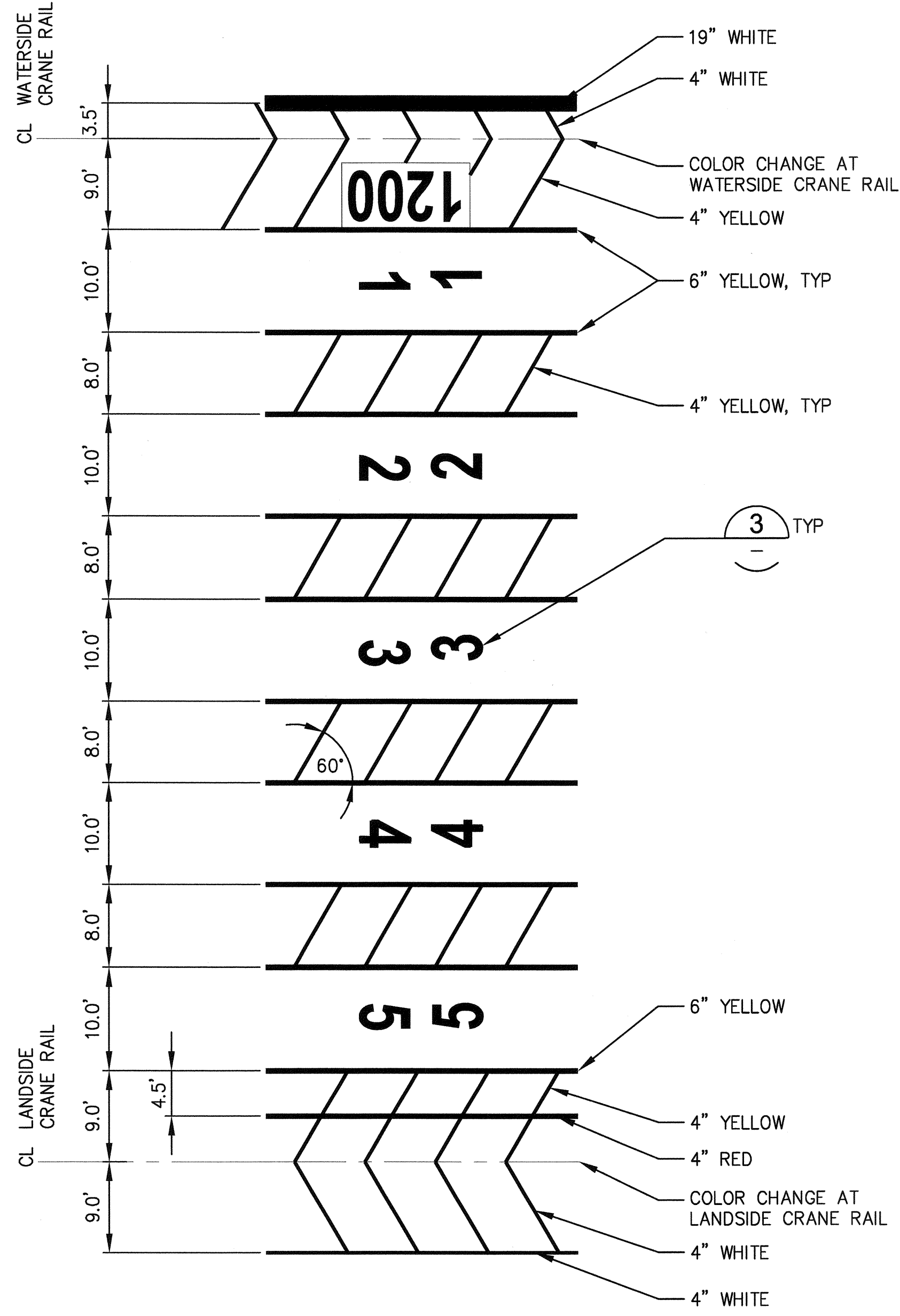
8
BOLTED GUARD RAIL SECTION

NTS

NOTES:
1. CORNER BOLLARDS SHALL HAVE GUARD RAILS CONSTRUCTED SIMILARLY BUT HAVE ONE RAIL ROTATED 90° HORIZONTALLY.

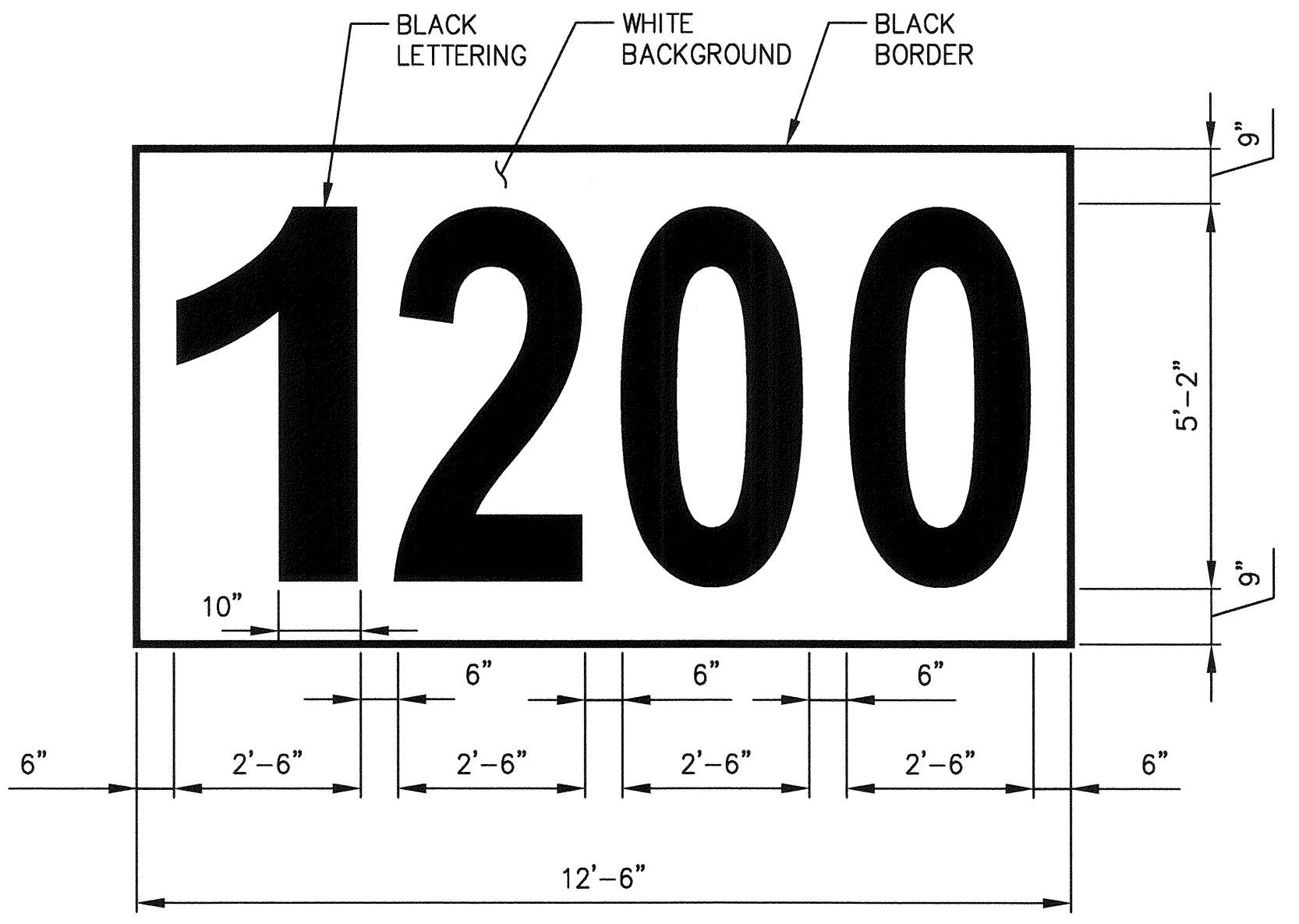
 2407 North 31st Street, Suite 100 Tacoma, WA 98401 (253) 396-0150 Fax: (253) 396-0162 P.O. BOX 1007 TACOMA, WA 98401	Part of Tacoma	DATE: _____ APPR: _____
	MARK: _____ REVISION: _____ BY: _____	
6552 C7.6 SH 116 OF 499	PIER 4 PHASE 2 RECONFIGURATION STRIPING AND FENCING DETAILS - SHEET 2	APPROVED: <i>[Signature]</i> 3-28-16 DIRECTOR ENG. DATE: _____ PRINTED BY: gearey Mar 24, 2016 SECTION: _____ RANGE: MLW 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF VERT: _____ DRAWING SCALE: AS NOTED PARCEL: _____
CONT/CONS: 070136 M. ID: 091251 PHASE: BID	THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION	

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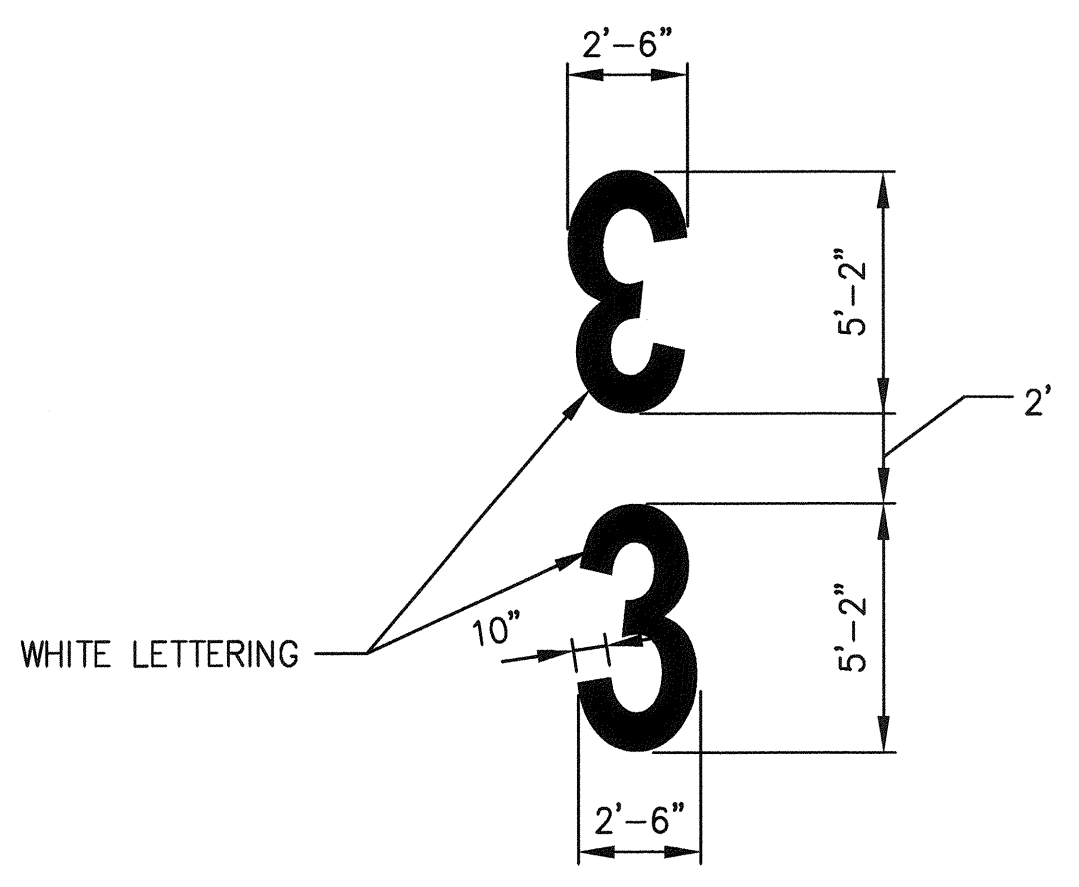
NOTES:
1. DIMENSIONS ARE TO CENTERLINE OF STRIPE.

1 TYPICAL STRIPING PATTERN
C7.1, C7.2, C7.3 1"=10'-0"

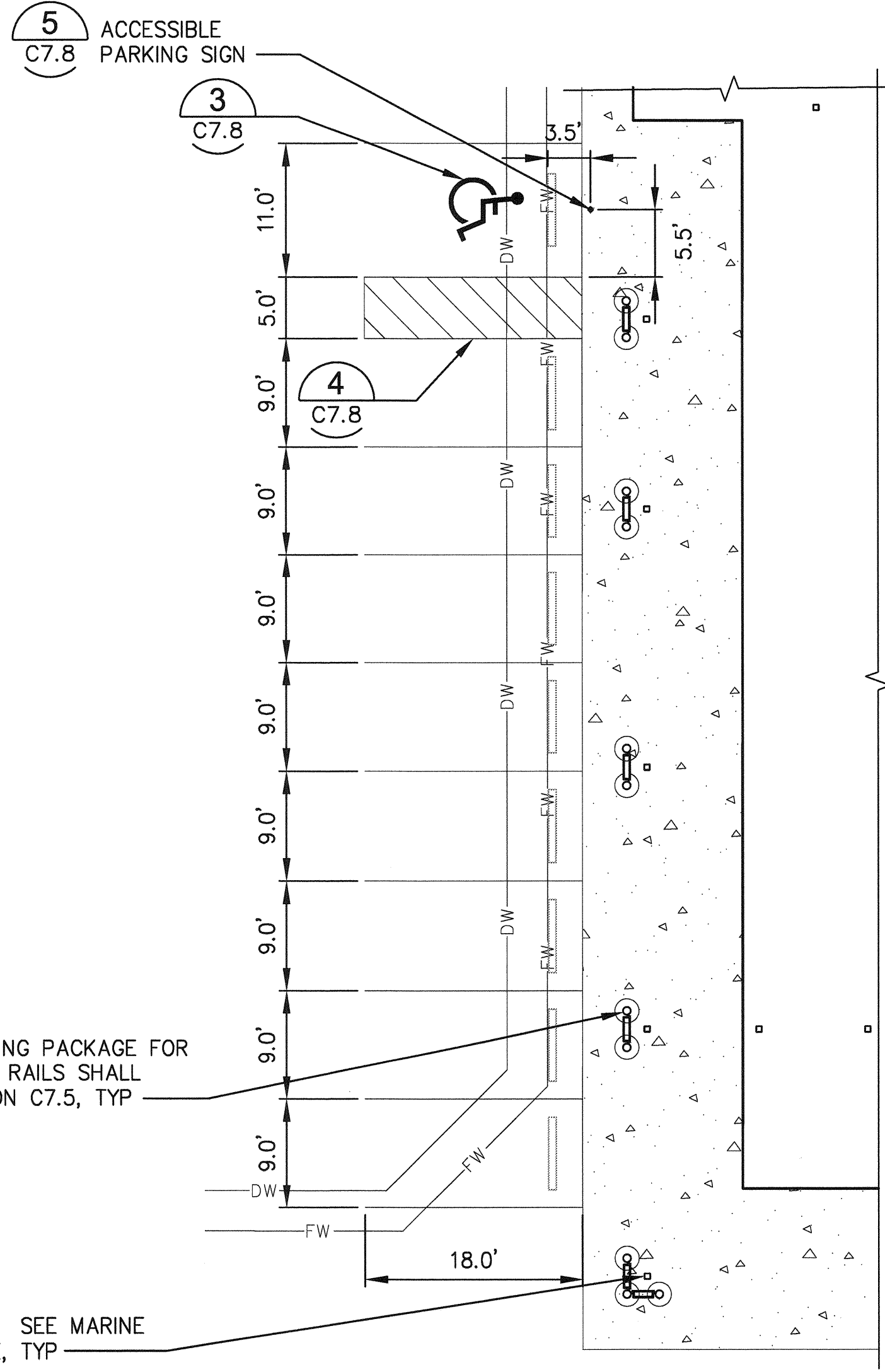


NOTES:
1. CENTER NUMBERS AT 50' INCREMENTS.
2. BEGIN PIER 4 STATIONING AT 1200.
3. NUMBERS SHALL HAVE 10" WIDE STRIPES.

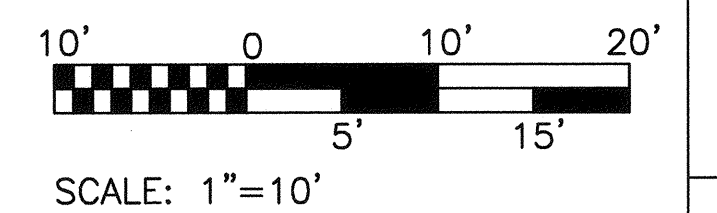
2 STATION STRIPING DETAIL
C7.1, C7.2, C7.3 SCALE: NTS



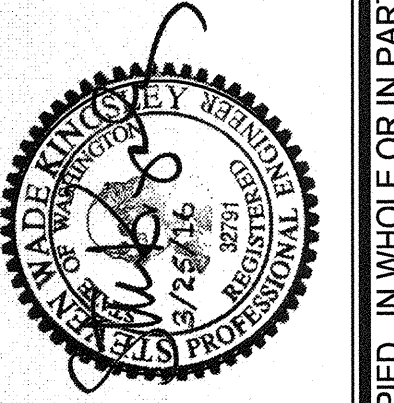
3 LANE NUMBER DETAIL
C7.1, C7.2, C7.3, C7.5 NTS



NOTES:
1. ALL DIMENSIONS ARE GIVEN TO THE CENTERLINE OF THE STRIPE.
2. ALL STRIPING SHALL BE A 4" WIDE WHITE STRIPE, UNLESS NOTED OTHERWISE.
3. STOPS SHALL BE PLACED SUCH THAT THE SLOTS FOR BOLT CONNECTIONS ARE 2.5' FROM THE EDGE OF THE CONCRETE WALKWAY.



5 STRIPING AT MARINE OPS BUILDING
C7.3 1"=10'

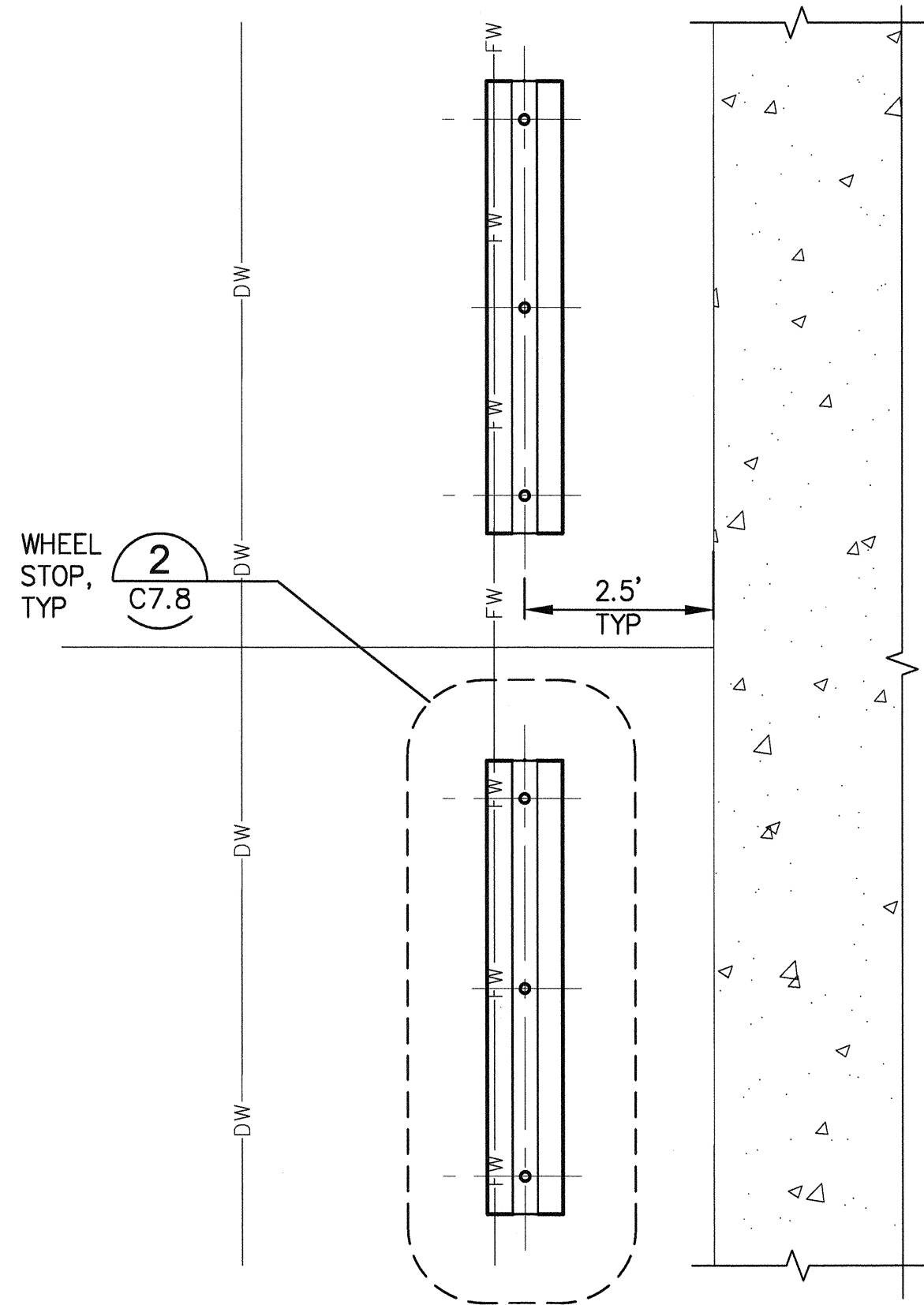


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<i>W. J. ...</i>		
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PORT ADDRESS: ONE SITCUM PLAZA		
TACOMA, WA 98401-1837		

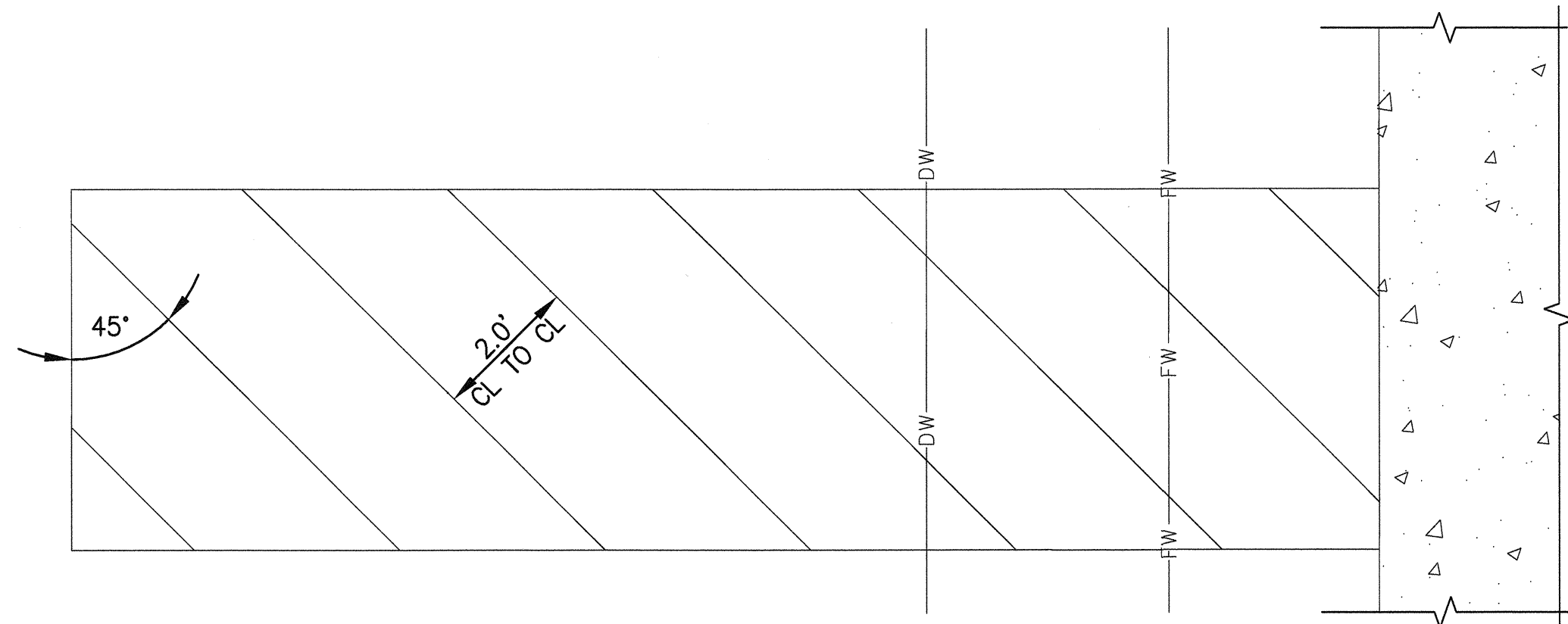
PIER 4 PHASE 2 RECONFIGURATION STRIPING AND FENCING DETAILS - SHEET 3			
RANGE:	SECTION:	TOWNSHIP:	
WA83-SF	MLLW 19.39' @ Tide 22, 1933	070136	
DATE-HRZ:	VERT:	DRAWING SCALE:	
091251	AS NOTED	1"=10'	
PHASE:	BID		

6552	SH 117 OF 499
C7.7	
CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

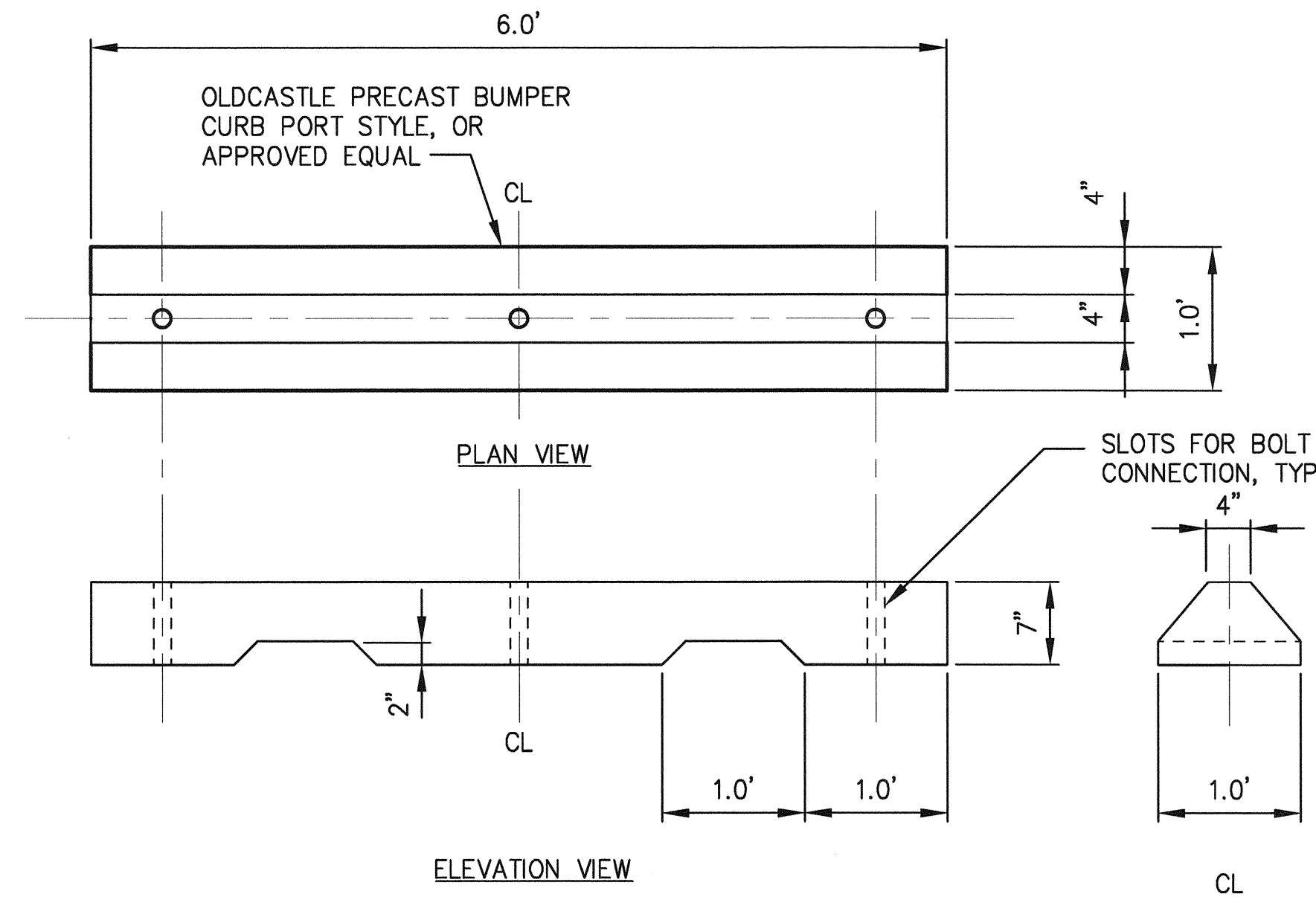
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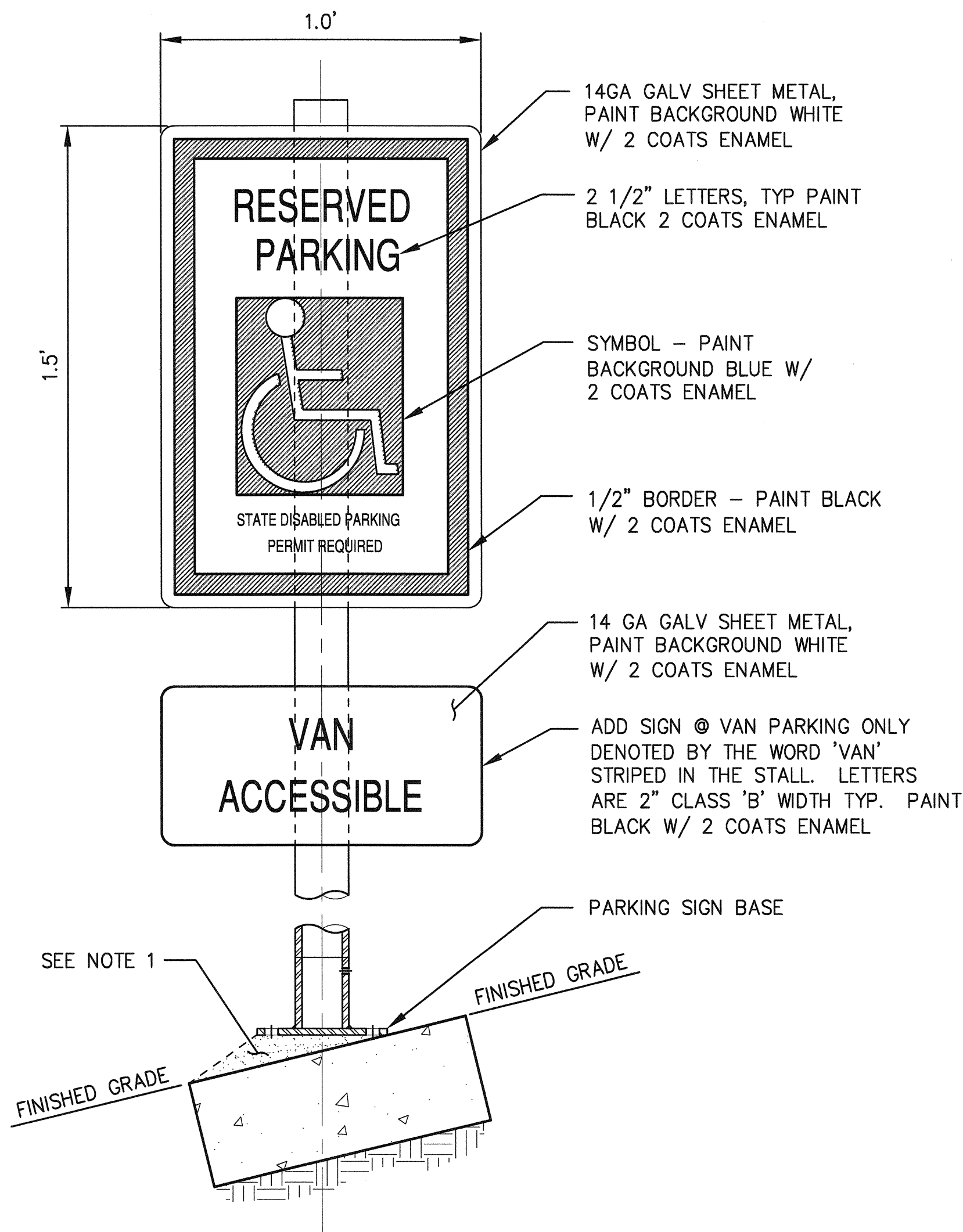
1 WHEEL STOP PLACEMENT
C7.7 SCALE: 1" = 2'



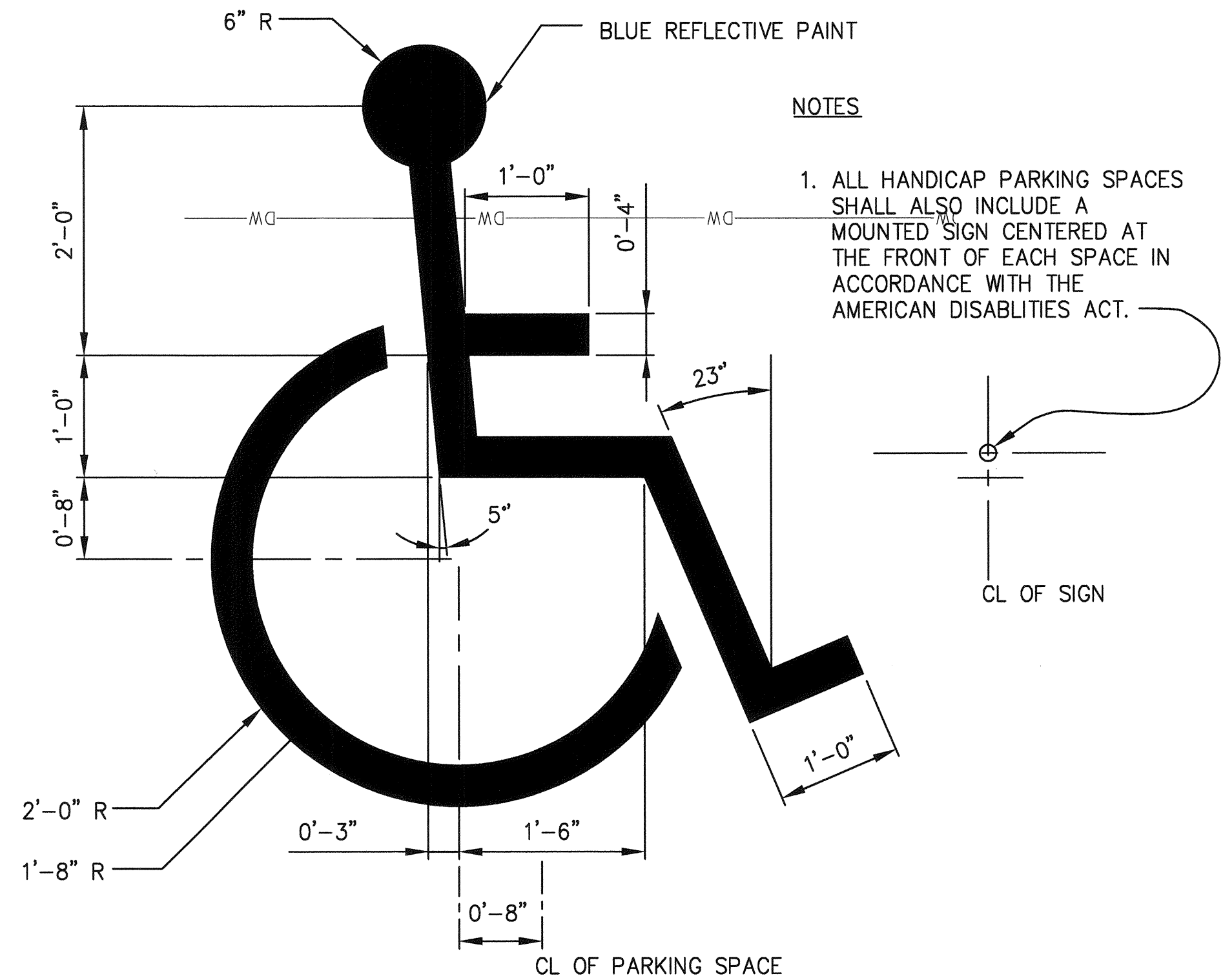
4 ACCESS AISLE STRIPING
C7.7 SCALE: 1" = 4'



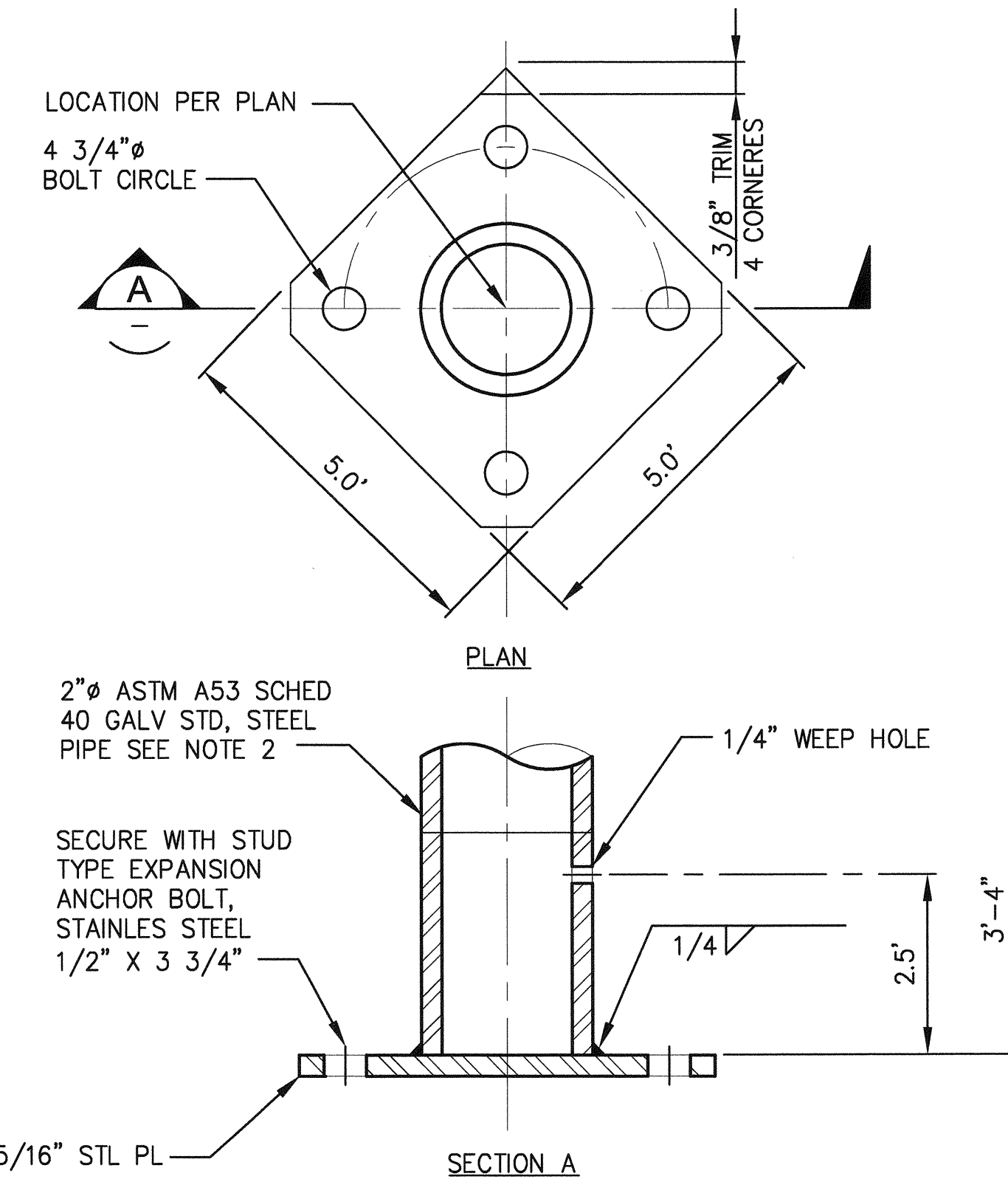
2 WHEEL STOP
C7.5, C7.8 SCALE: NTS



5 ACCESSIBLE PARKING SIGN
C7.7 SCALE: NTS



3 ADA PARKING SYMBOL
C7.7 SCALE: 1" = 1'



6 PARKING SIGN BASE
SCALE: NTS

NOTES
1. ALL HANDICAP PARKING SPACES SHALL ALSO INCLUDE A MOUNTED SIGN CENTERED AT THE FRONT OF EACH SPACE IN ACCORDANCE WITH THE AMERICAN DISABILITIES ACT.

 2407 North 31st Street, Suite 100 (253) 396-0150 Fax (253) 396-0162 P.O. BOX 1007 TACOMA, WA 98401-1007	APPROVED: <i>[Signature]</i> 3-28-16	CHECKED BY: <i>[Signature]</i> DATE:
	DIRECTOR ENG. DATE: 3-28-16 PRINTED BY: gcorey Mar 24, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	PROJ. ENGR DATE: DATE: DATE:
6552 SH 118 OF 499 C7.8 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION STRIPING AND FENCING DETAILS - SHEET 4	RANGE: MLW 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF SECTION: TOWNSHIP: DAT-HRZ: WA83-SF RANGE: MLW 19.39' @ Tide 22 1933 VERT: M.L.W. 19.39' @ Tide 22 1933 DRAWING SCALE: AS NOTED PARCEL:

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ONE-LINE DIAGRAM

	FUSE
	GROUND
	TRANSFORMER, SECONDARY VOLTAGE, PHASE AND RATING AS INDICATED
	CIRCUIT BREAKER, TRIP SHOWN, 3 POLE UNLESS OTHERWISE NOTED
	FUSED SWITCH, SWITCH AND FUSE CURRENT RATING AS INDICATED, 3 POLE UNLESS OTHERWISE NOTED
	SWITCH, CURRENT RATING AS INDICATED, 3 POLE UNLESS OTHERWISE NOTED
	REVENUE GRADE METER AND ENCLOSURE
	DRAW-OUT TYPE AC CIRCUIT BREAKER 1200 = FRAME SIZE 200 = TRIP SIZE
	AMMETER
	GROUND CURRENT
	VOLTMETER
	INSTANTANEOUS OVERCURRENT RELAY
	INSTANTANEOUS OVERCURRENT GROUND RELAY
	AC INVERSE TIME OVERCURRENT RELAY
	INVERSE TIME OVERCURRENT GROUND RELAY
	LOCKOUT RELAY
	POTENTIAL TRANSFORMER 3 = QUANTITY
	CURRENT TRANSFORMER 3 = QUANTITY 200:5 = CT RATIO
	CRANE RECEPTACLE, 480V, 200A
	COMBINATION MOTOR STARTER
	ENCLOSED CIRCUIT BREAKER. 200 = AMP RATING
	SURGE PROTECTION DEVICE

POWER

	GROUND ROD
	JUNCTION BOX
	DUPLEX RECEPTACLE
	EQUIPMENT CONNECTION
	COMBINATION MOTOR STARTER
	PULLBOX
	GROUND ROD IN TEST WELL
	WOOD UTILITY POLE

LIGHTING

	HIGH MAST LIGHTING POLE WITH MULTIPLE FIXTURES
--	--

CONDUIT AND RACEWAY

	UNDERGROUND PVC OR GRS CONDUIT, AND CONDUCTORS. AC = ABOVE GROUND COMM AP = ABOVE GROUND POWER BP = BURIED POWER G = BURIED GROUNDING T = BURIED COMM
	BURIED FIBER OPTIC
	BURIED LIGHTING
	ABOVE GROUND POWER
	CONDUIT CONTINUED
	FLEX CONDUIT
	HEAVY LINE INDICATES ELECTRICAL OR COMMUNICATIONS
	CONDUITS/DUCTBANK AND WIRING/CABLES TO BE REMOVED. REFER TO KEY NOTES.

DRAWING CONVENTIONS

	DETAIL E1 = SHEET WHERE SHOWN	DETAIL/SECTION TITLE UNDERLINE, E1 = SHEET WHERE SHOWN
	A E1 = SHEET WHERE SHOWN	A = DETAIL NUMBER E1 = SHEET WHERE SHOWN
	1 E1 = SHEET WHERE SHOWN	1 = DETAIL NUMBER E1 = SHEET WHERE SHOWN
	PROJECT NORTH	NORTH ARROW
	3	KEY NOTE
	2	FOR INFORMATION ONLY NOTE
	1	REVISION REFERENCE
	XXX	EQUIPMENT ID TAG - SEE SCHEDULE REFERENCED ON EQUIPMENT AND MECHANICAL DWGS (EQ.XX, MX.X, PX.X) COORDINATE EQUIPMENT LOCATION WITH ASSOCIATED MECHANICAL AND EQUIPMENT PLANS.
	FTP-1	COORDINATE EQUIPMENT LOCATION WITH ASSOCIATED MECHANICAL AND EQUIPMENT PLANS.
	SL58, WIFIP15	HATCHING INDICATES WIRING/CABLES TO BE REMOVED AND CONDUITS/DUCTBANKS TO BE ABANDONED. REFER TO KEY NOTES.
	SL58, WIFIP15	CONDUIT DESIGNATIONS

ABBREVIATIONS

A	AMMETER, AMPERE	E	EMPTY, EXISTING	LC	LIGHTING CONTACTOR	R	RELAY, RADIUS
AF	AMP FUSE, AMP FRAME	EF	EXHAUST FAN	LCD	LIQUID CRYSTAL DISPLAY	REC	RECEPTACLE
AFF	ABOVE FINISHED FLOOR	ELEC	ELECTRICAL	LED	LIGHT EMITTING DIODE	RGS	RIGID GALVANIZED STEEL
AFG	ABOVE FINISHED GRADE	ELEV	ELEVATION, ELEVATOR	LTG	LIGHTING	RM	ROOM
AIC	AMPERE INTERRUPTING CAPACITY	EMT	ELECTRICAL METALLIC EMT TUBING	M	MAGNETIC COIL	SCHED	SCHEDULE
ANN	ANNUNCIATOR	EXIST	EXISTING	MCC	MOTOR CONTROL CENTER	SD	SMOKE DETECTOR
AS	AMP SWITCH			MH	MANHOLE, METAL HALIDE	SHT	SHEET
ASYM	ASYMMETRICAL	F	FAHRENHEIT	MIN	MINIMUM	SIM	SIMILAR
AT	AMP TRIP	FACP	FIRE ALARM CONTROL PANEL	MM	MULTI-MODE	SM	SINGLE-MODE
ATS	AUTOMATIC TRANSFER SWITCH	F,FU	FUSE	MOV	METAL OXIDE VARISTOR	SUB	SUBSTATION
AUX	AUXILIARY	FLUOR	FLUORESCENT FLUOR	MPZ	MINI POWER ZONE	SUPV	SUPERVISOR
		FO	FIBER OPTIC	MTG	MOUNTING	SW	SWITCH
BF	BALLAST FACTOR	FSA	FIRE SYSTEM ANUNCIATOR	MV	MEDIUM VOLTAGE	SYM	SYMMETRICAL
BLDG	BUILDING	FT	FOOT	N	NEUTRAL, NEW	T	THERMOSTAT
BRKR	BREAKER	FVNR	FULL VOLTAGE NON-REVERSING	NC	NORMALLY CLOSED	TB	TERMINAL BLOCK, TRANSFORMER BANK
				NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	TEL	TELEPHONE
C	CONDUIT	G,GRD	GROUND	NEUT	NEUTRAL	THRU	THROUGH
CB	CIRCUIT BREAKER	GALV	GALVANIZED	NO	NORMALLY OPEN, NUMBER	TP	TACOMA POWER
CCTV	CLOSED CIRCUIT TELEVISION	GFI	GROUND FAULT INTERRUPTER	NP	NAMEPLATE	TTB	TELEPHONE TERMINAL BOARD
CKT	CIRCUIT	GO	GANG OPERATED	NREC	NON-RESIDENTIAL ENERGY CODE	TYP	TYPICAL
CL	CENTER LINE	GRC,GRS	GALVANIZED RIGID STEEL			TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
CLF	CURRENT LIMITING FUSE						
CLR	CLEAR	HH	HANDHOLE			UG	UNDERGROUND
CM	CIRCULAR MILS	HP	HORSEPOWER	Ø	PHASE, DIAMETER	UH	UNIT HEATER
C.O.	CONDUIT ONLY	HPS	HIGH PRESSURE SODIUM	P	PANEL, POLE	UNO	UNLESS NOTED OTHERWISE
COMM	COMMUNICATIONS	HWH	HOT WATER HEATER	PB	PUSH-BUTTON	UPS	UNINTERRUPTIBLE POWER SUPPLY
CONC	CONCRETE			PF	POWER FACTOR		
CONT	CONTINUED	IC	INTERRUPTING CAPACITY	PH	PHASE		
CPT	CONTROL POWER TRANSFORMER	J-BOX	JUNCTION BOX	PIV	POST INDICATOR VALVE	V	VOLTMETER, VOLT
CR	CONTROL RELAY			PMH	MODEL OF S&C SWITCHGEAR		
CT	CURRENT TRANSFORMER	K	KEY OPERATOR	PNL	PANEL		
CTRL	CONTROL	KCM	THOUSAND CIRCULAR MILS	POMB	POSITION ORIENTED MOGUL	W	WIRE, WATT
CU	COPPER	KV	KILOVOLT(S)			W/	WITH
		KVA	KILOVOLT AMPERE(S)	PS	BASE (SOCKET)	WHD	WATTHOUR DEMAND METER
DDC	DEDICATED DIALER CIRCUIT	KVAR	KILOVAR(S)	PSE	PRESSURE SWITCH	W/O	WITHOUT
DEM	DEMAND	KVARH	KILOVARHOURS	PT	POTENTIAL TRANSFORMER	WP	WEATHERPROOF
DEMO	DEMOLITION	KW	KILOWATT(S)	PVC	POLYVINYL CHLORIDE		
DIM	DIMENSION	KWHR	KILOWATTHOURS			XFMR	TRANSFORMER
DISC	DISCONNECT						
DN	DOWN						
DS	DISCONNECT SWITCH						
DWG	DRAWING						

GENERAL NOTES

- CONTRACTOR TO VERIFY ALL WIRING IN VAULTS, PULLBOXES, ETC. WITHIN AREA OF DEMOLITION TO VERIFY IT IS DE-ENERGIZED PRIOR TO PROCEEDING WITH ANY DEMOLITION WORK.
- SEE GENERAL NOTES ON SHEET G3.2.
- REFER TO CIVIL/STRUCTURAL DEMOLITION DRAWINGS, D SERIES, FOR DEMOLITION OF EXISTING UTILITIES. SEE CIVIL DRAWINGS, C5 AND C6 SERIES, FOR NEW UTILITIES.
- CONTRACTOR SHALL NOT DISCONNECT POWER TO EXISTING LIGHTING FIXTURES ON HIGH MAST POLES UNTIL TEMPORARY LIGHTING INSTALLATION INDICATED ON SHEET E3.10 IS ENERGIZED. WHEN EXISTING LIGHTING POLES ARE RELOCATED AND RECONNECTED, REMOVE TEMPORARY LIGHTING INSTALLATION.

6552

E1.1

SH 119 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2

RECONFIGURATION

ELECTRICAL SYMBOLS, ABBREVIATIONS

AND GENERAL NOTES

APPROVED:

DIRECTOR ENG. DATE: 3-28-16

PRINTED BY: Curtis Mar 22, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

CHECKED BY:

DATE: 3-28-16

PROJ. ENGR: Curtis Mar 22, 2016

SECTION: ONE SITCUM PLAZA

DATE: 2/19/16

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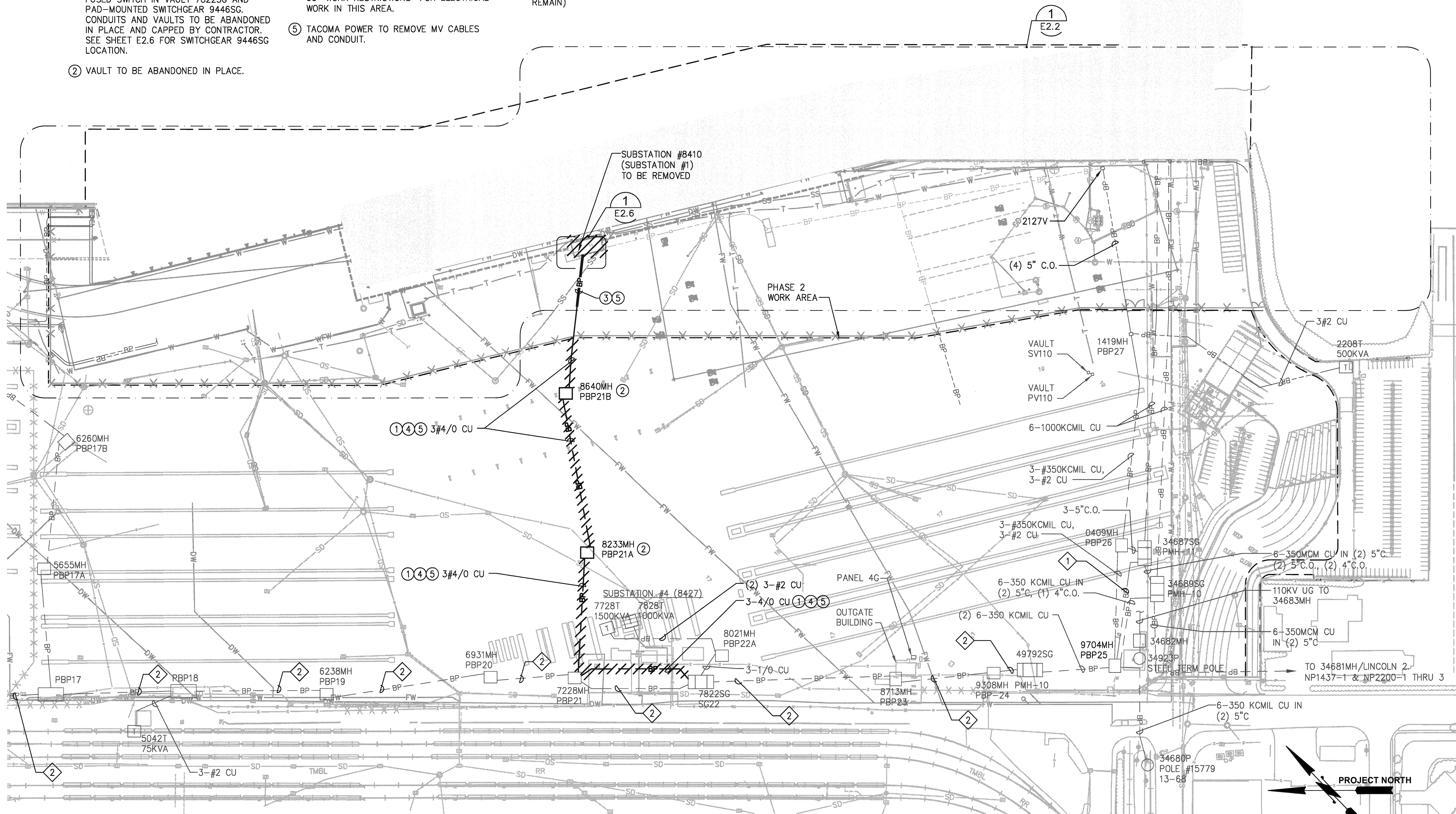
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KEY NOTES

- ① CONTRACTOR TO COORDINATE WITH TACOMA POWER (SEE SPEC. 26 05 00, 1.07) FOR TACOMA POWER'S DISCONNECTION AND REMOVAL OF THE MEDIUM VOLTAGE CABLES BETWEEN THE FUSED SWITCH IN VAULT 7822SG AND PAD-MOUNTED SWITCHGEAR 9446SG. CONDUITS AND VAULTS TO BE ABANDONED IN PLACE AND CAPPED BY CONTRACTOR. SEE SHEET E2.6 FOR SWITCHGEAR 9446SG LOCATION.
- ② VAULT TO BE ABANDONED IN PLACE.
- ③ CONDUIT TO BE REMOVED BY CONTRACTOR AFTER TACOMA POWER REMOVES THE MV CABLES. CAP CONDUITS.
- ④ REFER TO SPECIFICATION SECTION 01 40 00 "WORK RESTRICTIONS" FOR ELECTRICAL WORK IN THIS AREA.
- ⑤ TACOMA POWER TO REMOVE MV CABLES AND CONDUIT.

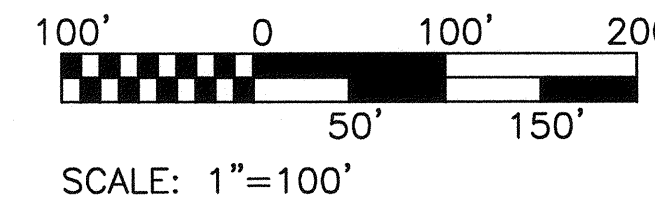
FOR INFORMATION ONLY NOTES

- ① 3-350 KCMIL CU IN 5" C., AND 3-#2 IN 5" C. (EXISTING TO REMAIN)
- ② 3-350MCM CU, 3-#1/0 CU (TACOMA POWER LOOP FEEDERS). (EXISTING TO REMAIN)



SITE ELECTRICAL DEMOLITION PLAN

SCALE: 1"=100'



PROJECT NORTH

PORT OF TACOMA FILE: R:\5650-041.01\Drawings\09125-E201

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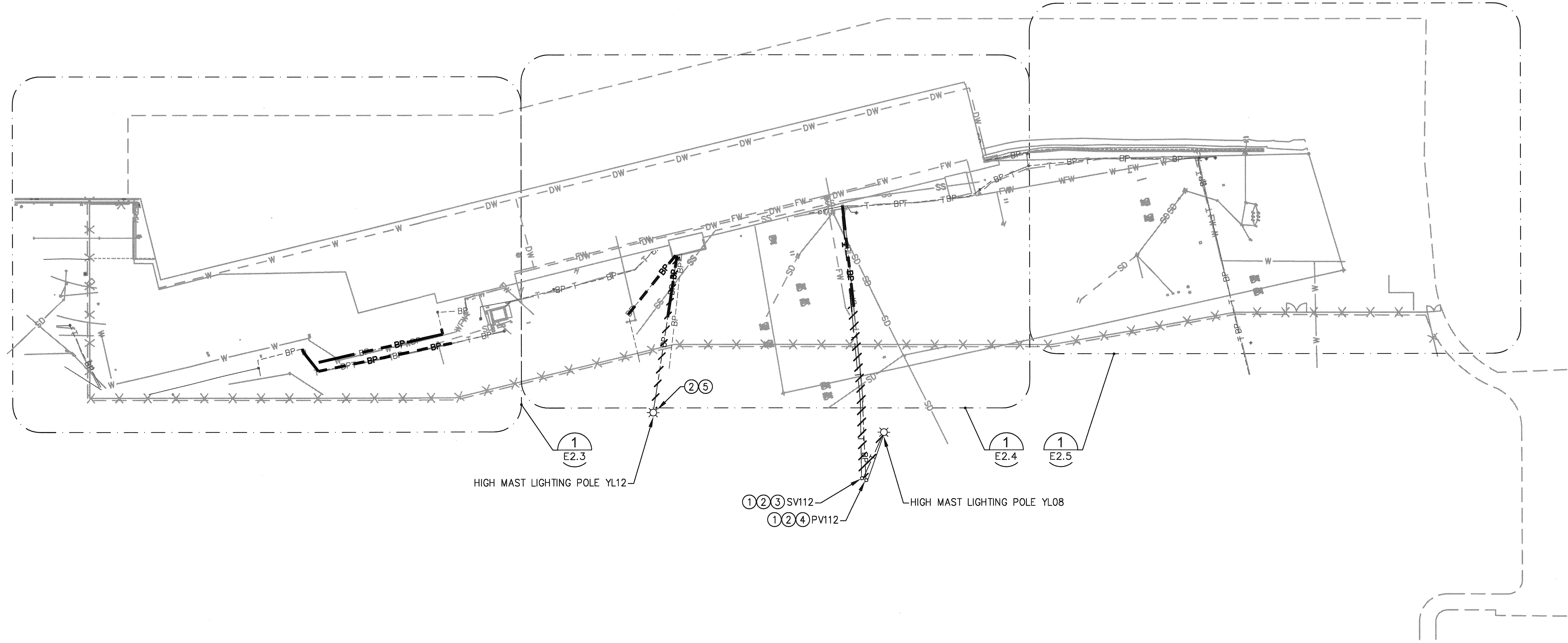
PIER 4 PHASE 2
RECONFIGURATION
SITE ELECTRICAL DEMOLITION PLAN

SECTION: _____
RANGE: MLW 19.39' @ Tide 22 19.33
TOWNSHIP: _____
DATE-HRZ: WAB3-SF
M. ID: 091251
PARCEL: _____
DRAWING SCALE: AS NOTED
TACOMA, WA 98401-1837

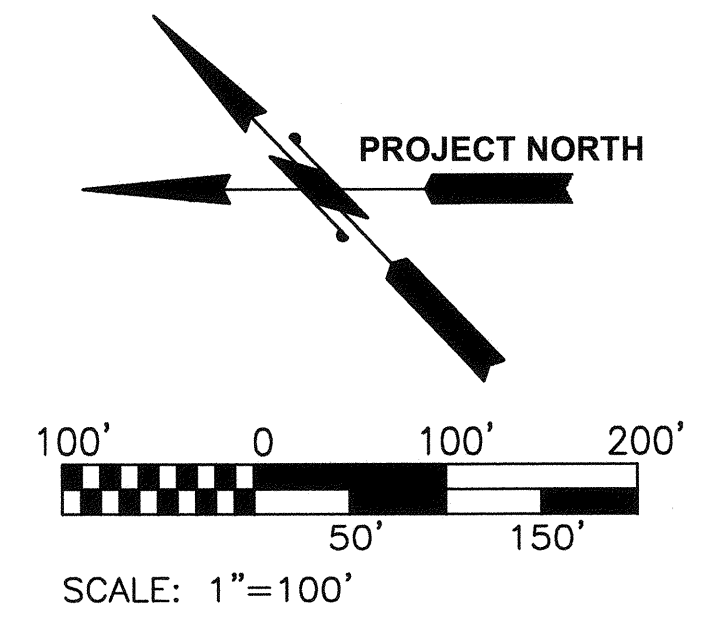
6552
SH 120 OF 489
E2.1

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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1
E2.1
SITE ELECTRICAL DEMOLITION KEY PLAN
SCALE: 1"=100'



KEY NOTES

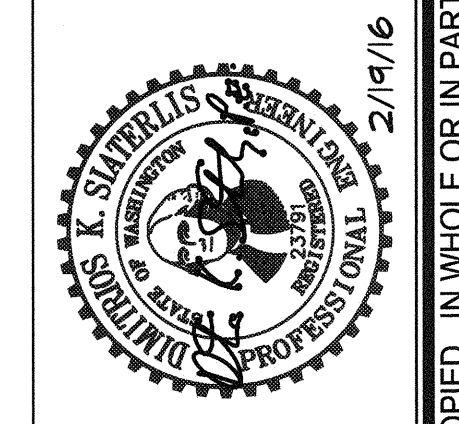
- ① SEE KEY NOTE #19 ON SHEET E2.4 REGARDING WIRING TO THIS POLE.
- ② REFER TO SPECIFICATION SECTION 01 14 00 "WORK RESTRICTIONS" FOR ELECTRICAL WORK IN THIS AREA.
- ③ SEE KEY NOTES #16 AND #19 ON SHEET E2.4 REGARDING WIRING TO THIS VAULT.
- ④ SEE KEY NOTE #15 ON SHEET E2.4 REGARDING WIRING TO THIS VAULT.
- ⑤ SEE KEY NOTE #17 ON SHEET E2.4 REGARDING WIRING TO THIS POLE.

6552
E2.2
SH 121 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2
RECONFIGURATION
SITE ELECTRICAL DEMOLITION KEY PLAN

TOWNSHIP: DAT-HRZ: WAB3-SF
RANGE: MLLW 19.39' @ Tide 22 19.33
SECTION: VERT: SITCLIM PLAZA
DRAWING SCALE: AS NOTED

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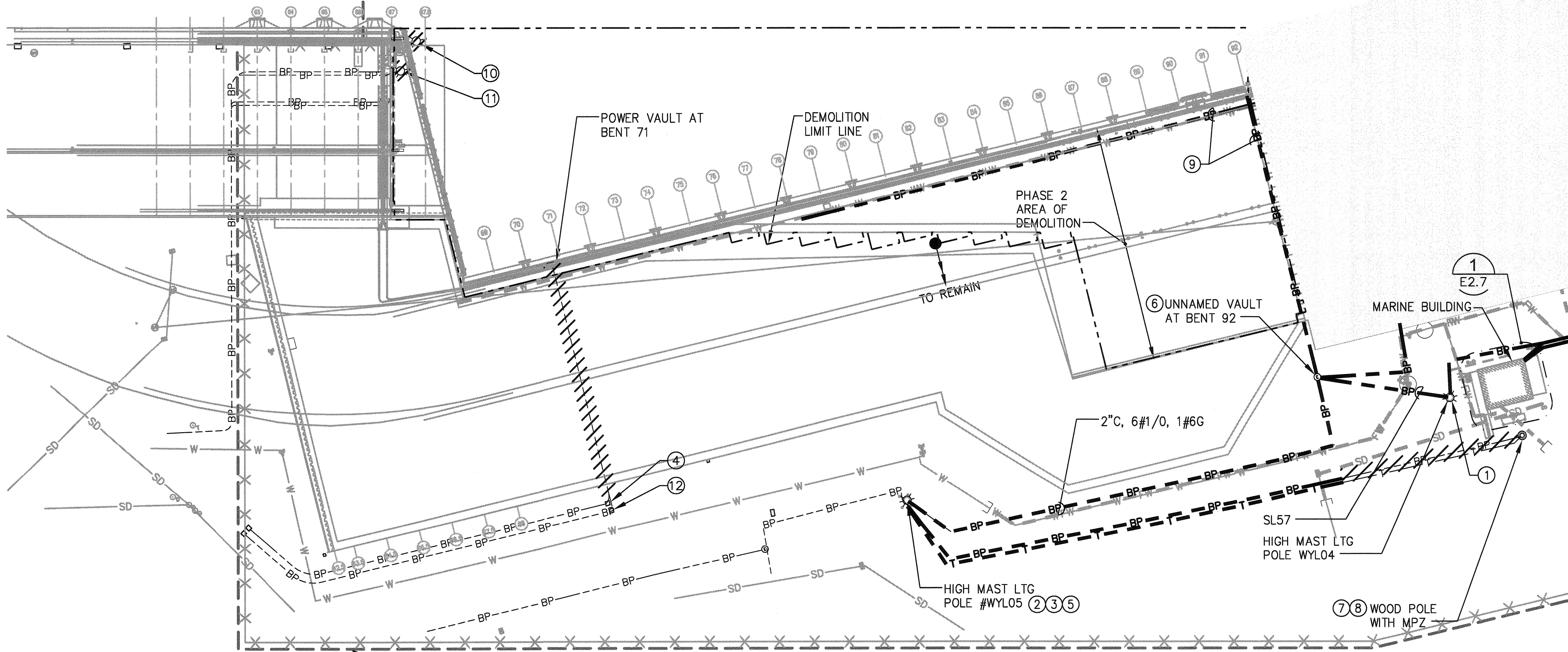
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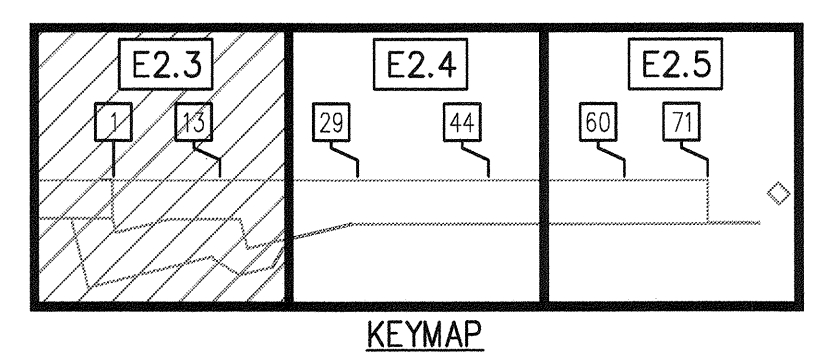


MATCH LINE SEE SHEET E2.4

1
E2.2
ELECTRICAL DEMOLITION PLAN - SHEET 1
SCALE: 1"=40'

KEY NOTES

- ⑪ DISCONNECT LIGHTING CIRCUITS AT HIGH MAST LIGHTING POLE AND REMOVE WIRING BACK TO CLOSEST VAULT OR J-BOX WHERE THE CIRCUIT NEEDS TO REMAIN IN SERVICE. REMOVE HIGH MAST LIGHTING POLE FROM SITE. REMOVE LIGHTING FIXTURES AND STORE FOR REINSTALLATION. SEE SPECIFICATION 26 56 36 FLOOD LIGHTING FIXTURES. REMOVE LIGHT POLE CONCRETE BASE AS REQUIRED TO COORDINATE WITH STRUCTURAL DEMOLITION SHOWN IN DETAIL 1/D3.3 AND SECTION A/D5.1, AND NEW STRUCTURE SHOWN IN DETAIL 2/S5.6. CAP CONDUITS.
- ⑫ DISCONNECT WIRING ROUTED TO 100A RECEPTACLE AND 120V RECEPTACLE IN POWER VAULT AT BENT 71. CUT WIRES IN THIS VAULT AND REMOVE WIRES BETWEEN THIS VAULT AND POWER VAULT AT BENT 71. ABANDON CONDUIT. SHORE POWER RECEPTACLE IS FED FROM SHORE POWER PANEL ADJACENT TO PIER 3 OPERATIONS BUILDING 3 (APPROX 430-FT TO THE NORTH). 120V REC IS FED FROM PANEL ADJACENT TO SHORE POWER PANEL. REFER TO PIER 3 UPGRADE REFERENCE DRAWINGS.



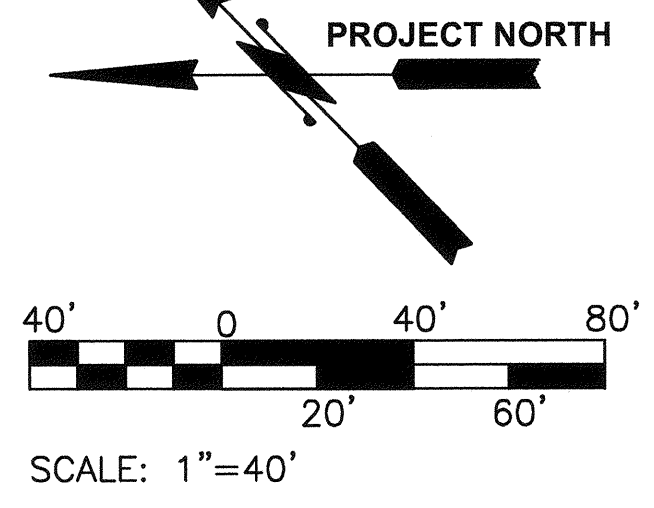
GENERAL NOTES

- 1. REFER TO CIVIL DRAWINGS FOR WATER, STORM DRAIN, AND SANITARY SEWER UTILITIES.
- 2. SEE E8 SERIES SHEETS FOR CONDUIT AND WIRE SCHEDULES FOR SPECIFIC INFORMATION PERTAINING TO EACH CONDUIT.
- 3. ALL CONDUITS/DUCTBANKS WITHIN THE PHASE 2 WORK AREA THAT ARE NOT INDICATED TO BE DISCONNECTED OR REMOVED ARE TO REMAIN IN SERVICE AND PROTECTED IN PLACE.

KEY NOTES

- ① DISCONNECT LIGHTING BRANCH CIRCUITS AT HIGH MAST LIGHTING POLE AND REMOVE CONDUIT AND WIRING BACK TO VAULT PV106. REMOVE CONCRETE POLE BASE DOWN TO 4- FEET BELOW GRADE. REMOVE LIGHT POLE AND STORE FOR FUTURE REINSTALLATION. SEE SHEET E2.4 FOR VAULT PV106 LOCATION. SEE SHEET E3.3 FOR NEW LOCATION OF POLE. REFER TO TERMINAL 3 & 4 REDEVELOPMENT REFERENCE DWGS FOR EXISTING POLE BASE DETAILS.
- ② DISCONNECT BRANCH CIRCUIT AT CONTROL CABINET LS5 ON HIGH MAST LIGHTING POLE AND REMOVE WIRING BACK TO MPZ ON WOOD POLE LOCATED ON THE WEST SIDE OF THE MARINE BUILDING. REMOVE CONDUIT AS INDICATED, ABANDON REMAINING CONDUIT AND CAP THE CONDUIT.
- ③ DISCONNECT COMMUNICATIONS CABLES IN CONTROL CABINET LS5 AND REMOVE BACK TO CONTROL CABINET ON WOOD POLE. REMOVE CONDUIT AS INDICATED, ABANDON REMAINING CONDUIT AND CAP THE CONDUIT.
- ④ DISCONNECT TELEPHONE CABLE ROUTED TO TELEPHONE TERMINAL CABINET IN POWER VAULT AT BENT 71. CONDUIT TO BE ABANDONED. REMOVE CABLE CATCH TO THIS J-BOX AND CAP.
- ⑤ DISCONNECT LIGHTING BRANCH CIRCUITS AT HIGH MAST LIGHTING POLE AND REMOVE WIRING BACK TO HIGH MAST LIGHTING POLE #WYL04. REMOVE CONDUIT AS INDICATED, ABANDON REMAINING CONDUIT AND CAP THE CONDUIT. REMOVE CONCRETE POLE BASE DOWN TO 4- FEET BELOW GRADE. SEE REFERENCE DWGS FOR EXISTING POLE BASE DETAILS. REMOVE LIGHT POLE AND STORE FOR FUTURE INSTALLATION. SEE SHEET E3.3 FOR NEW LOCATION OF POLE.
- ⑥ REMOVE POWER VAULT, AND ASSOCIATED CONDUITS.
- ⑦ DISCONNECT FEEDER TO MPZ AT WOOD POLE AND REMOVE WIRING BACK TO PANEL 4MB. CUT POLE FLUSH WITH TOP OF CONCRETE BASE AND REMOVE. CUT CONDUITS PRIOR TO UNDERGROUND ELBOW AT POLE BASE AND CAP. SEE REFERENCE DWGS FOR EXISTING POLE BASE DETAILS. REMOVE CONCRETE POLE BASE DOWN TO 4- FEET BELOW GRADE.
- ⑧ DISCONNECT COMMUNICATIONS CABLES ENTERING CONTROL CABINET FROM UNDERGROUND AND REMOVE BACK TO SOURCE IN MARINE BUILDING. CUT CONDUIT PRIOR TO UNDERGROUND ELBOW AT POLE BASE AND CAP.
- ⑨ REMOVE ABANDONED CONDUITS, WIRES AND CABLES.
- ⑩ SOLAR POWERED NAVIGATION LIGHT TO BE REMOVED AND TURNED OVER TO THE ENGINEER.

(KEY NOTES CONTINUED AT LEFT)



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3-28-16
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PRINTED BY: Curtiss Mar 22, 2016

DATE: _____
DATE: _____
DATE: _____
DATE: _____
DATE: _____

PROJECT: PIER 4 PHASE 2
RECONFIGURATION
ELECTRICAL DEMOLITION PLAN
SHEET 1

SECTION: _____
TOWNSHIP: _____
RANGE: _____
VERT: _____
DRAWING SCALE: AS NOTED

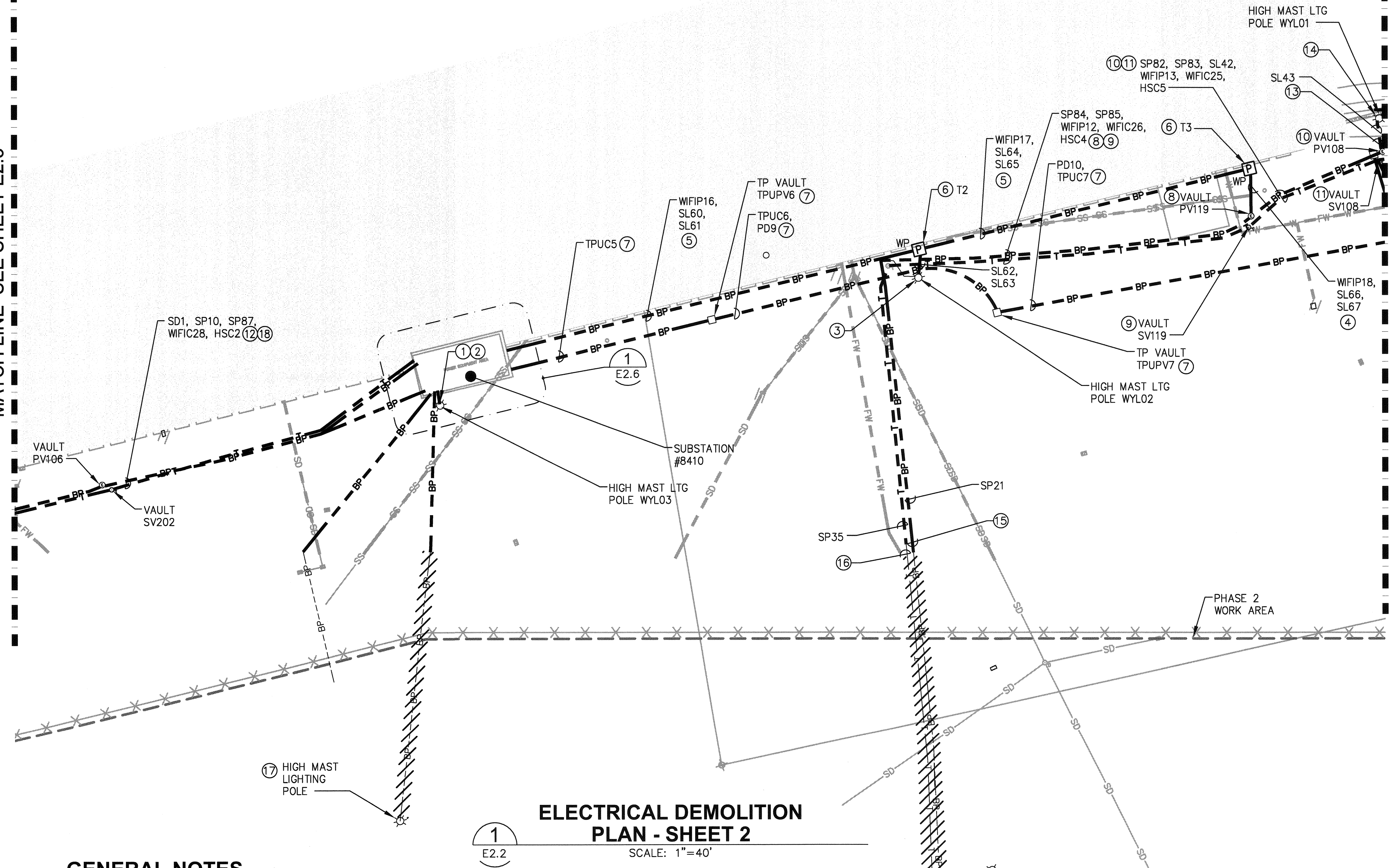
6552
E2.3
SH 122 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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MATCH LINE SEE SHEET E2.3

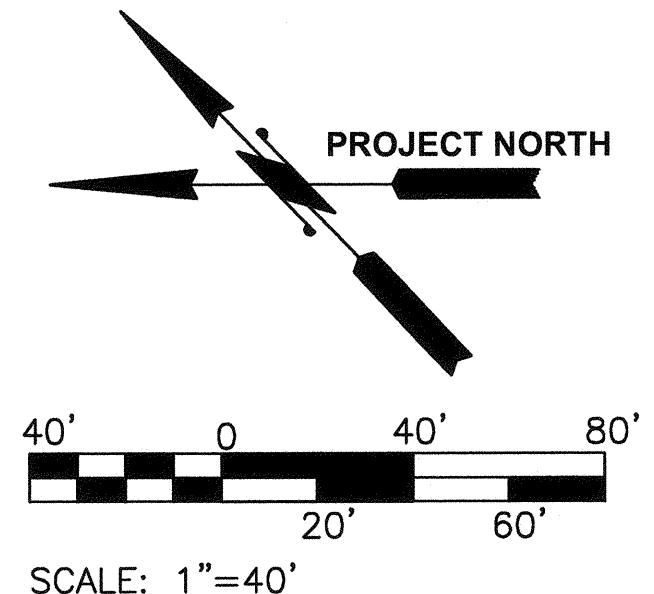
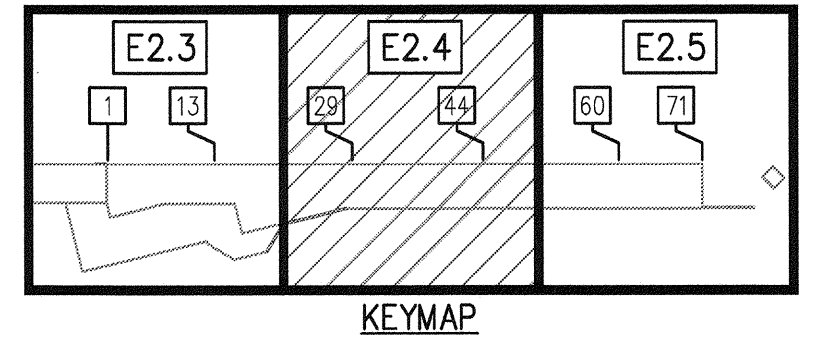
MATCH LINE SEE SHEET E2.5



ELECTRICAL DEMOLITION PLAN - SHEET 2
 SCALE: 1"=40'

- GENERAL NOTES**
- REFER TO CIVIL DRAWINGS FOR WATER, STORM DRAIN, AND SANITARY SEWER UTILITIES.
 - SEE E8 SERIES SHEETS FOR CONDUIT AND WIRE SCHEDULES FOR SPECIFIC INFORMATION PERTAINING TO EACH CONDUIT.
 - ALL CONDUITS/DUCTBANKS WITHIN THE PHASE 2 WORK AREA THAT ARE NOT INDICATED TO BE DISCONNECTED OR REMOVED ARE TO REMAIN IN SERVICE AND PROTECTED IN PLACE.

- KEY NOTES**
- DISCONNECT LIGHTING BRANCH CIRCUITS AT HIGH MAST LIGHTING POLE AND REMOVE WIRING BACK TO 480V PULLBOX. REMOVE CONDUIT AS INDICATED AND CAP FOR FUTURE EXTENSION. SEE SHEET E2.6 FOR PULLBOX LOCATION. SEE SHEET E3.4 FOR NEW WIRING TO THIS POLE.
 - REMOVE ASSOCIATED WIRING, VAULT AND DUCTBANK.
 - REMOVE CABLES BETWEEN VAULT SV112 AND CONTROL CABINET LS6. CONDUIT TO REMAIN.



KEY NOTES

- DISCONNECT LIGHTING BRANCH CIRCUITS AT HIGH MAST LIGHTING POLE AND REMOVE WIRING BACK TO LIGHTING CONTROL PANEL. REMOVE LIGHT POLE AND STORE FOR FUTURE REINSTALLATION. REMOVE CONCRETE POLE BASE DOWN TO 4- FEET BELOW GRADE, AND REMOVE CONDUITS. SEE SHEET E3.3 FOR NEW LOCATION OF POLE. SEE SHEET E2.6 FOR LOCATION OF LIGHTING CONTROL PANEL. REFER TO TERMINAL 3 & 4 REDEVELOPMENT REFERENCE DWGS FOR EXISTING POLE BASE DETAILS.
- DISCONNECT BRANCH CIRCUIT AT CONTROL CABINET LS12 ON HIGH MAST LIGHTING POLE AND REMOVE WIRING BACK TO PANEL 2WA. SEE SHEET E2.6 FOR LOCATION OF PANEL 2WA. REMOVE CONDUITS.
- DISCONNECT LIGHTING BRANCH CIRCUITS AT HIGH MAST LIGHTING POLE #WYL02 AND REMOVE WIRING BACK TO PULLBOX T2. REMOVE LIGHT POLE AND STORE FOR FUTURE REINSTALLATION. SEE SHEET E3.4 FOR NEW LOCATION OF POLE. REMOVE CONCRETE POLE BASE DOWN TO 4- FEET BELOW GRADE AND REMOVE CONDUITS. REFER TO TERMINAL 3 & 4 REDEVELOPMENT REFERENCE DWGS FOR EXISTING POLE BASE DETAILS.
- CUT WIRES IN VAULT PV119 AND REMOVE BACK TO PULLBOX T3. ABANDON CONDUIT AND CAP CONDUITS.
- REMOVE CONDUIT AND WIRE.
- REMOVE PULLBOX AND PULLBOX SUPPORTS.
- REMOVE DUCTBANK AND VAULTS.
- REMOVE DUCTBANK AND ASSOCIATED WIRES, AND VAULT PV119.
- CUT COMMUNICATIONS CABLES IN VAULT SV119. REMOVE CABLES, DUCTBANK, AND VAULT.
- REMOVE DUCTBANK AND ASSOCIATED WIRES AND VAULT PV108.
- CUT COMMUNICATION CABLES IN VAULT SV108. REMOVE CABLES, DUCTBANK, AND VAULT.
- REMOVE ASSOCIATED CABLES, VAULT AND DUCTBANK.
- REMOVE 3#6, 1#6G FROM CONTROL CABINET ON POLE #WYL01 TO VAULT PV108. REMOVE DUCTBANK.
- DISCONNECT LIGHTING BRANCH CIRCUITS AT HIGH MAST LIGHTING POLE AND REMOVE WIRING BACK TO VAULT PV108. REMOVE LIGHT POLE AND STORE FOR FUTURE REINSTALLATION. SEE SHEET E3.4 FOR NEW LOCATION OF POLE. REMOVE CONCRETE POLE BASE DOWN TO 4- FEET BELOW GRADE AND REMOVE CONDUITS.
- REMOVE WIRING BACK TO VAULT PV112. REMOVE DUCTBANK AS INDICATED AND CAP CONDUITS FOR FUTURE EXTENSION. SEE KEY NOTE #22 ON SHEET E3.4 FOR EXTENDING EXISTING DUCTBANK TO NEW VAULT.
- CUT COMMUNICATION CABLES IN VAULT SV112 AND REMOVE CABLES ROUTED EASTWARD. REMOVE DUCTBANK AS INDICATED AND CAP CONDUITS FOR FUTURE EXTENSION. SEE KEY NOTE #2 ON SHEET E3.4 FOR EXTENDING EXISTING DUCTBANK TO NEW VAULT SV212.

(KEY NOTES CONTINUED AT LEFT)

6552

E2.4

SH 123 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2

RECONFIGURATION

ELECTRICAL DEMOLITION PLAN

SHEET 2

SECTION: MLW 19.39' @ Tide 22 1933

RANGE: DAT-HRZ: WA83-SF

VERT: DRAWING SCALE: AS NOTED

TACOMA, WA 98401-1837

APPROVED: *[Signature]*

DIRECTOR ENG. DATE: 3-28-16

PRINTED BY: Curtis Mar 22, 2016

PORT ADDRESS: ONE SITCUM PLAZA

CHECKED BY: *[Signature]*

DATE: 2/19/16

PROJ. ENGR DATE: 2/19/16

DATE: 2/19/16

BY: []

REVISION: []

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ECON ASSOCIATES, INC

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16800 CHRISTENSEN ROAD, SUITE 330

SEATTLE, WASHINGTON 98188

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Port of Tacoma

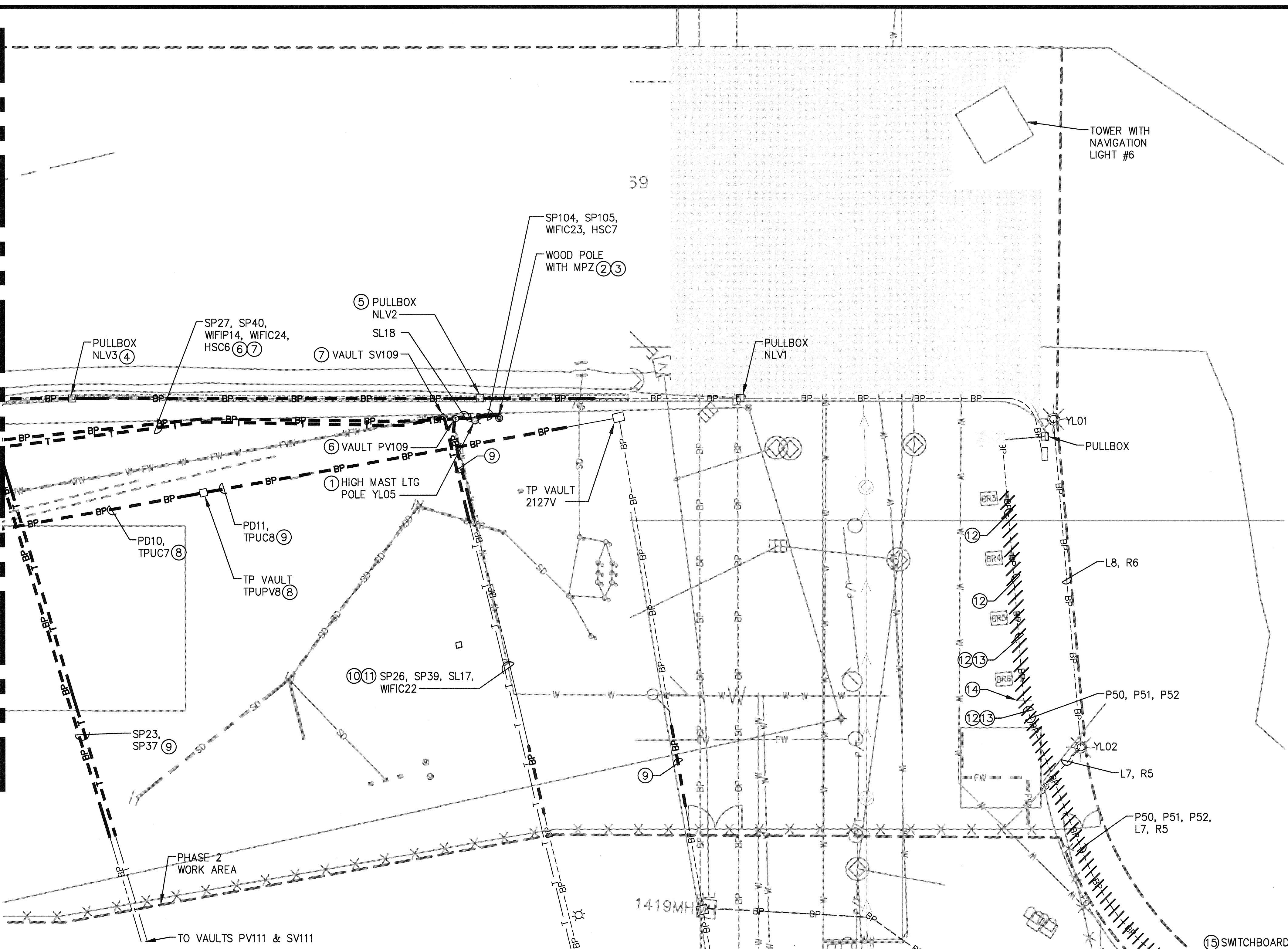
1000 WEST TACOMA WAY, SEASIDE CENTER BLDG

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BINDING EDGE

MATCH LINE SEE SHEET E2.4



GENERAL NOTES

- REFER TO CIVIL DRAWINGS FOR WATER, STORM DRAIN, AND SANITARY SEWER UTILITIES.
- SEE E8 SERIES SHEETS FOR CONDUIT AND WIRE SCHEDULES FOR SPECIFIC INFORMATION PERTAINING TO EACH CONDUIT.
- ALL CONDUITS/DUCTBANKS WITHIN THE PHASE 2 WORK AREA THAT ARE NOT INDICATED TO BE DISCONNECTED OR REMOVED ARE TO REMAIN IN SERVICE AND PROTECTED IN PLACE.

KEY NOTES

- DISCONNECT LIGHTING BRANCH CIRCUITS AT HIGH MAST LIGHTING POLE AND REMOVE WIRING BACK TO ADJACENT VAULT. THIS LIGHTING POLE IS SERVED FROM PANEL 4G LOCATED ADJACENT TO OUTGATE BUILDING. REMOVE LIGHT POLE AND STORE FOR FUTURE REINSTALLATION. SEE SHEET E3.4 FOR NEW LOCATION OF POLE. REMOVE CONCRETE POLE BASE DOWN TO 4- FEET BELOW GRADE AND REMOVE CONDUITS. REFER TO TERMINAL 3 & 4 REDEVELOPMENT REFERENCE DWGS FOR EXISTING POLE BASE DETAILS.
- DISCONNECT FEEDER TO MPZ AT WOOD POLE AND REMOVE WIRING BACK TO VAULT PV109. CUT POLE FLUSH WITH TOP OF CONCRETE BASE AND REMOVE POLE. REMOVE CONCRETE POLE BASE DOWN TO 4- FEET BELOW GRADE AND REMOVE CONDUITS. REFER TO TERMINAL 3 & 4 REDEVELOPMENT REFERENCE DWGS FOR EXISTING POLE BASE DETAILS.
- DISCONNECT COMMUNICATIONS CABLES ENTERING CONTROL CABINET FROM UNDERGROUND, AND REMOVE CABLES BACK TO VAULT SV109. REMOVE CONDUITS.
- REMOVE PULLBOX NLV3 (2'x2'x2') AND UNDERGROUND CONDUIT ROUTED SOUTH TO PULLBOX NLV2.
- REMOVE PULLBOX NLV2 (2'x2'x2') AND CONDUIT AS INDICATED.
- REMOVE DUCTBANK AND ASSOCIATED WIRING, AND VAULT PV109.
- CUT COMMUNICATIONS CABLES IN VAULT SV109. REMOVE CABLES, DUCTBANK AND VAULT.
- REMOVE DUCTBANK AND VAULT TPUPV8.
- REMOVE DUCTBANK AS INDICATED AND ABANDON REMAINING DUCTBANK AND CAP CONDUITS.
- REMOVE LIGHTING BRANCH CIRCUITS BACK TO VAULT PV110. CIRCUITS SERVED FROM PANEL 4G LOCATED ADJACENT TO OUTGATE BUILDING AND VAULT PV110. REMOVE DUCTBANK AS INDICATED AND ABANDON REMAINING DUCTBANK AND CAP CONDUITS.
- REMOVE COMMUNICATIONS CABLES BACK TO MAIN COMM. ROOM IN HUSKY ADMIN. BUILDING. SEE SHEET E3.5 FOR NEW COMM. CABLES IN THIS DUCTBANK. DUCTBANK CONTAINS (1) 50-PR. COPPER CABLE, (1) 12-FIBER FO CABLE, (3) 6-FIBER FO CABLES.
- DISCONNECT AND REMOVE THE FEEDER BETWEEN REEFER BUNKERS #BR3 AND #BR4. DISCONNECT THE FEEDER TO REEFER BUNKER #BR4 AT SWITCHBOARD #1 AND REMOVE THE FEEDER TO BUNKER #BR4. REMOVE THE REEFER BUNKERS. SEE KEY NOTE #14 REGARDING REMOVAL OF CONDUITS.

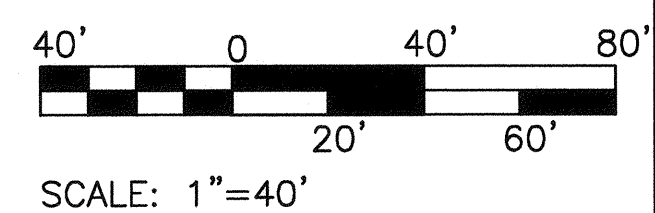
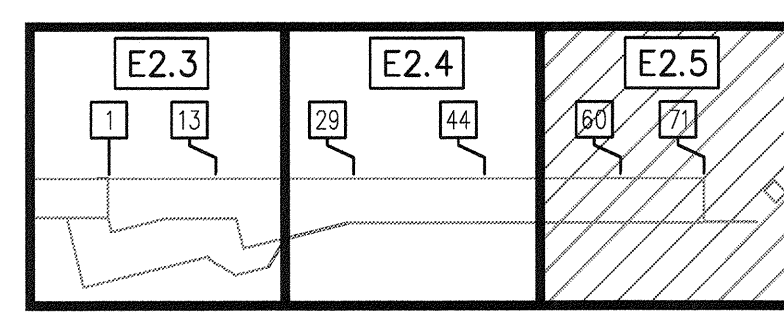
(KEY NOTES CONTINUED AT LEFT)

KEY NOTES (CONTINUED)

- DISCONNECT AND REMOVE THE FEEDER BETWEEN REEFER BUNKERS #BR5 AND #BR6. DISCONNECT THE FEEDER TO REEFER BUNKER #BR6 AT SWITCHBOARD #1 AND REMOVE THE FEEDER TO BUNKER #BR6. REMOVE THE REEFER BUNKERS. SEE KEY NOTE #14 REGARDING REMOVAL OF CONDUITS.
- CUT (3) 2-1/2" CONDUITS AT THIS LOCATION AND CAP THE CONDUITS FOR FUTURE USE. SEE SHEET E3.5 FOR EXTENDING CONDUITS TO NEW MARINE OPS BUILDING. CONDUITS SERVED REEFER BUNKERS #BR2, #BR3, #BR4, #BR5 AND #BR6.
- REPLACE NAMEPLATES AT SWITCHBOARD #1 WITH TEMPORARY LABEL TO CHANGE BREAKERS FOR REEFER BUNKERS #BR3/#BR4 AND #BR5/#BR6 TO INDICATE BREAKERS ARE SPARE.

ELECTRICAL DEMOLITION PLAN - SHEET 3

SCALE: 1"=40'



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3-28-16

CHECKED BY: *[Signature]* DATE: 2/19/16

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PROJ. ENGR DATE: 2/19/16

PRINTED BY: Curtis Mar 22, 2016

DATE: 2/19/16

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

SECTION: SHEET 3

DATE: 2/19/16

RANGE: MLLW 19.39' @ Tide 22 1933

SECTION: SHEET 3

DRAWING SCALE: AS NOTED

DATE: 2/19/16

TOWNSHIP: 070136

DATE: 2/19/16

M. ID: 091251

DATE: 2/19/16

PHASE: BID

DATE: 2/19/16

6552

DATE: 2/19/16

E2.5

DATE: 2/19/16

SH 124 OF 499

DATE: 2/19/16

CONT/CONS: 070136

DATE: 2/19/16

M. ID: 091251

DATE: 2/19/16

PHASE: BID

DATE: 2/19/16

PROJECT NORTH

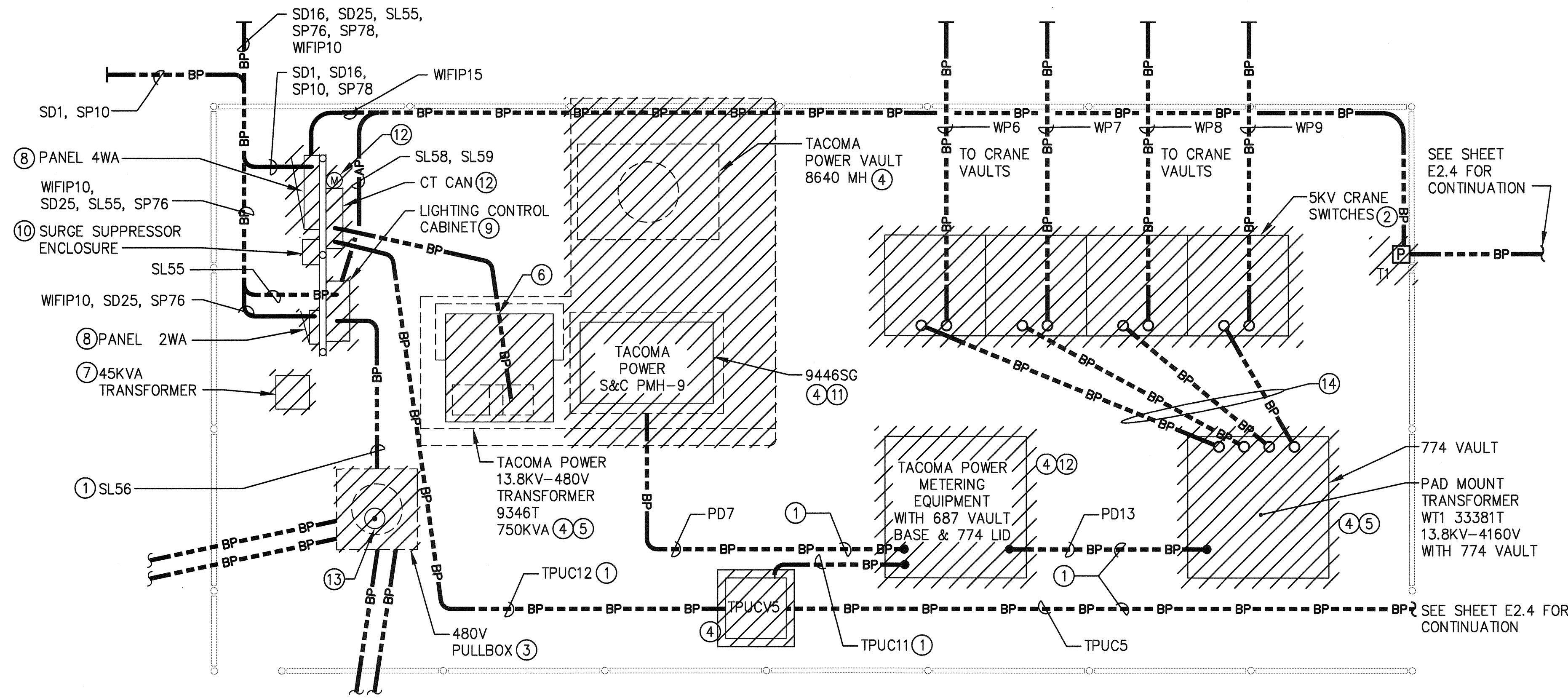
DATE: 2/19/16

SCALE: 1"=40'

DATE: 2/19/16

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DATE: 2/19/16



ENLARGED ELECTRICAL DEMOLITION PLAN - SUBSTATION #8410

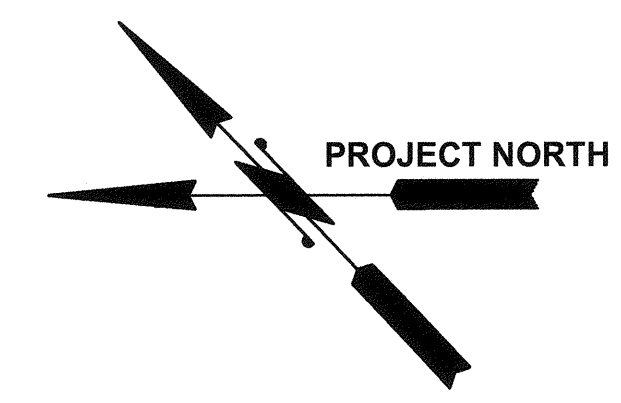
NO SCALE

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR WATER, STORM DRAIN, AND SANITARY SEWER UTILITIES.
2. SEE E8 SERIES SHEETS FOR CONDUIT AND WIRE SCHEDULES FOR SPECIFIC INFORMATION PERTAINING TO EACH CONDUIT.
3. ALL CONDUITS/DUCTBANKS WITHIN THE PHASE 2 WORK AREA THAT ARE NOT INDICATED TO BE DISCONNECTED OR REMOVED ARE TO REMAIN IN SERVICE AND PROTECTED IN PLACE.

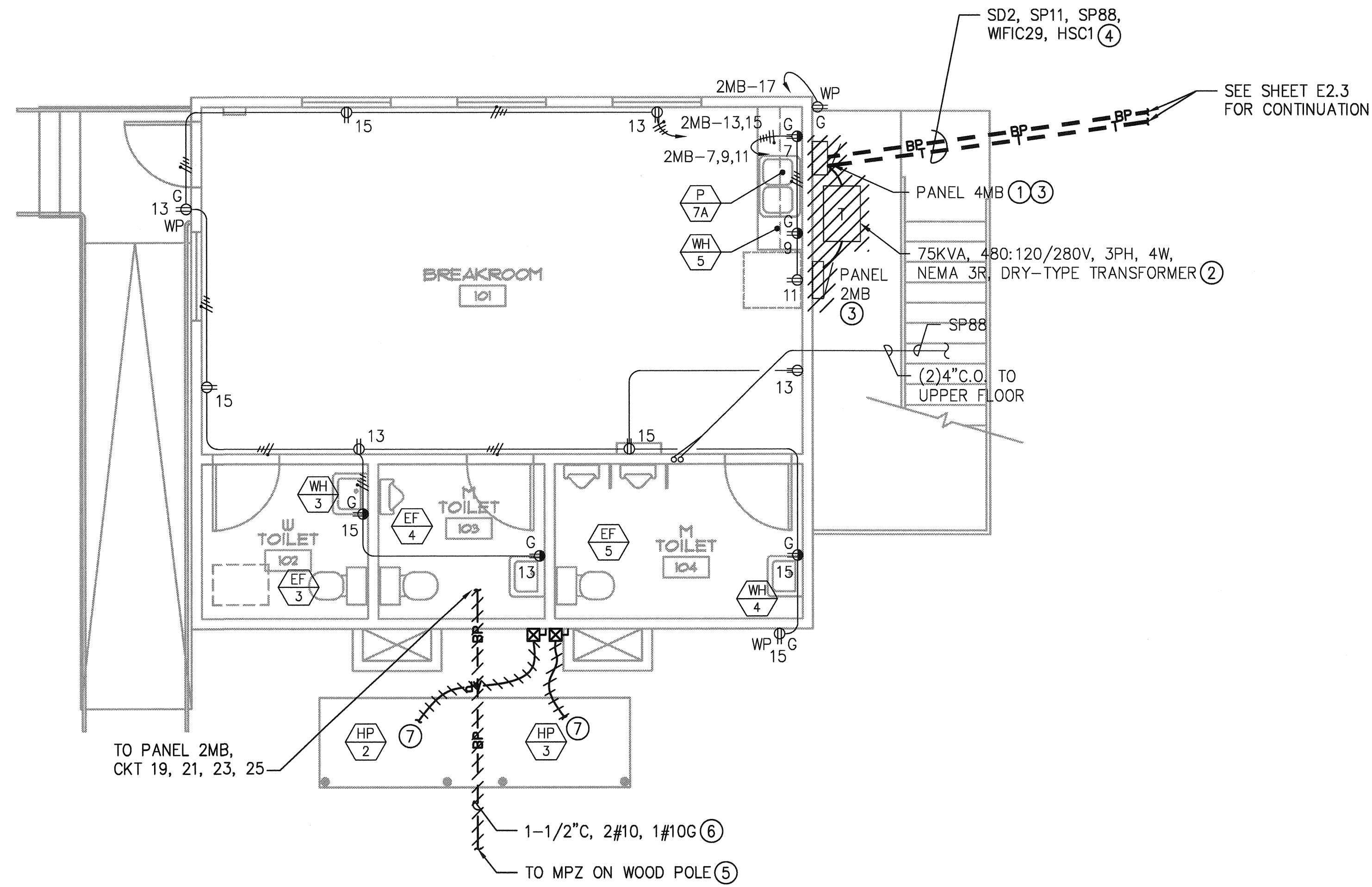
KEY NOTES

- 1 TACOMA POWER TO REMOVE CABLES, CONTRACTOR TO REMOVE DUCTBANK.
- 2 CONTRACTOR TO REMOVE 5KV CRANE SWITCHES.
- 3 CONTRACTOR TO CUT BRANCH CIRCUITS IN PULLBOX. REMOVE PULLBOX.
- 4 CONTRACTOR TO REMOVE VAULT.
- 5 TACOMA POWER TO DISCONNECT POWER TO PAD-MOUNTED TRANSFORMER AND REMOVE TRANSFORMER.
- 6 CONTRACTOR TO DISCONNECT FEEDER TO PANEL 4WA. REMOVE WIRING AND DUCTBANK.
- 7 CONTRACTOR TO DISCONNECT FEEDER TO 45KVA TRANSFORMER AND REMOVE BACK TO PANEL 4WA. DISCONNECT FEEDER FROM TRANSFORMER TO PANEL 2WA AND REMOVE. REMOVE TRANSFORMER.
- 8 CONTRACTOR TO DISCONNECT BRANCH CIRCUITS AT PANELBOARD AND REMOVE PANELBOARD AND MOUNTING HARDWARE.
- 9 CONTRACTOR TO DISCONNECT LIGHTING BRANCH CIRCUITS FROM LIGHTING CONTACTORS AND REMOVE LIGHTING CONTROL CABINET.
- 10 CONTRACTOR TO DISCONNECT AND REMOVE SURGE SUPPRESSION DEVICE, WIRING AND ENCLOSURE.
- 11 CONTRACTOR TO COORDINATE WITH TACOMA POWER FOR TACOMA POWER'S DISCONNECTION OF SERVICE FEEDER TO PMH-9 SWITCHES. TACOMA POWER TO REMOVE SWITCH ENCLOSURE.
- 12 CONTRACTOR TO COORDINATE WITH TACOMA POWER FOR TACOMA POWER'S DISCONNECTION AND REMOVAL OF WIRING TO METERING EQUIPMENT. TACOMA POWER TO REMOVE METERING EQUIPMENT.
- 13 CONTRACTOR TO REMOVE GROUND ROD AND ASSOCIATED WIRING.
- 14 CONTRACTOR TO REMOVE CABLES AND DUCTBANK.



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3-28-16	Curtis Mgr 22, 2016	
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PIER 4 PHASE 2 RECONFIGURATION			
ENLARGED ELECTRICAL DEMOLITION PLAN			
SECTION:	DATE:	SCALE:	AS NOTED
SUBSTATION #8410	MLLW 19.39' @ Tide 22 19.33	DRAWING SCALE:	
RANGE:	VERT:		
WAB3-SF			
TOWNSHIP:	DATE-HRZ:	PARCEL:	
070136	091251		
CONTR/CONS:	PHASE:	BID	



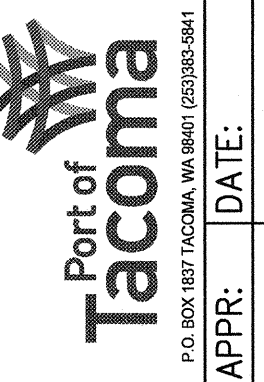
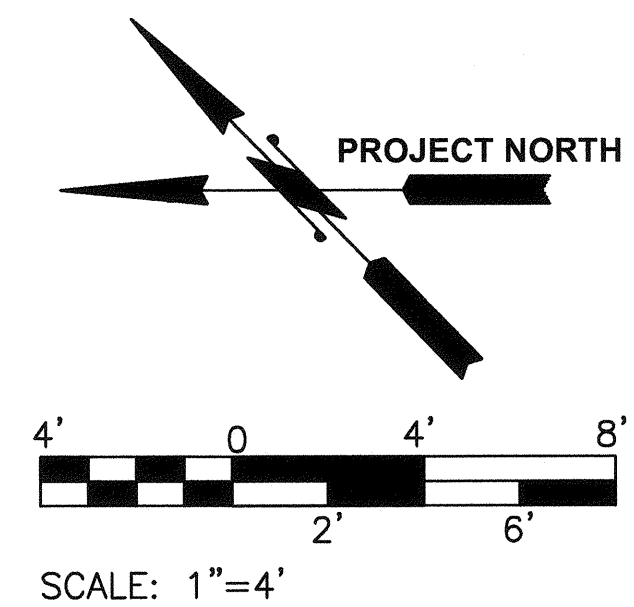
ENLARGED ELECTRICAL DEMOLITION PLAN - MARINE BUILDING T4
 1 E2.3 SCALE: 1/4"=1'-0"

GENERAL NOTES

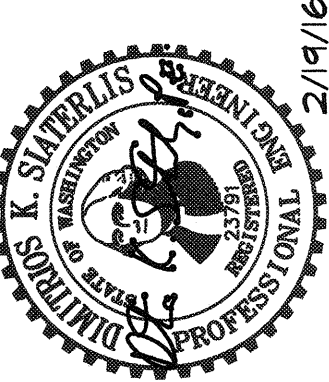
1. REFER TO CIVIL DRAWINGS FOR WATER, STORM DRAIN, AND SANITARY SEWER UTILITIES.
2. SEE E8 SERIES SHEETS FOR CONDUIT AND WIRE SCHEDULES FOR SPECIFIC INFORMATION PERTAINING TO EACH CONDUIT.
3. ALL CONDUITS/DUCTBANKS WITHIN THE PHASE 2 WORK AREA THAT ARE NOT INDICATED TO BE DISCONNECTED OR REMOVED ARE TO REMAIN IN SERVICE AND PROTECTED IN PLACE.

KEY NOTES

- 1 DISCONNECT FEEDER AT PANEL 4MB AND AT PANEL 4WA AND REMOVE BACK FROM PANEL 4MB TO VAULT PV106. CONDUITS TO BE REMOVED. SEE SHEET E2.6 FOR PANEL 4WA LOCATION AND SHEET E2.4 FOR VAULT PV106 LOCATION.
- 2 DISCONNECT FEEDER TO 75KVA TRANSFORMER AND REMOVE BACK TO PANEL 4MB. DISCONNECT FEEDER FROM TRANSFORMER TO PANEL 2MB AND REMOVE. REMOVE TRANSFORMER.
- 3 DISCONNECT BRANCH CIRCUITS AT PANELBOARD, AND REMOVE PANELBOARD AND MOUNTING HARDWARE.
- 4 REMOVE ASSOCIATED CABLES AND DUCTBANK.
- 5 SEE SHEET E2.3 FOR WOOD POLE LOCATION.
- 6 CUT ABANDONED CONDUIT AT WOOD POLE AND AT PANEL 4MB FLUSH WITH GRADE AND CAP.
- 7 DISCONNECT WIRING AT DISCONNECT SWITCH FOR SERVICE TO EXTERIOR MECHANICAL EQUIPMENT. REMOVE CONDUIT AND WIRE.



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PIER 4 PHASE 2 RECONFIGURATION
 ENLARGED ELECTRICAL DEMOLITION PLAN
 MARINE BUILDING
 RANGE: MLLW 19.39' @ Tide 22.19.33
 VERT: DAT-HRZ: WA83-SF
 SECTION: DATE: 22.19.33
 DRAWING SCALE: AS NOTED

6552
E2.7
 SH 126 OF 499
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

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BINDING EDGE

FOR INFORMATION ONLY NOTES

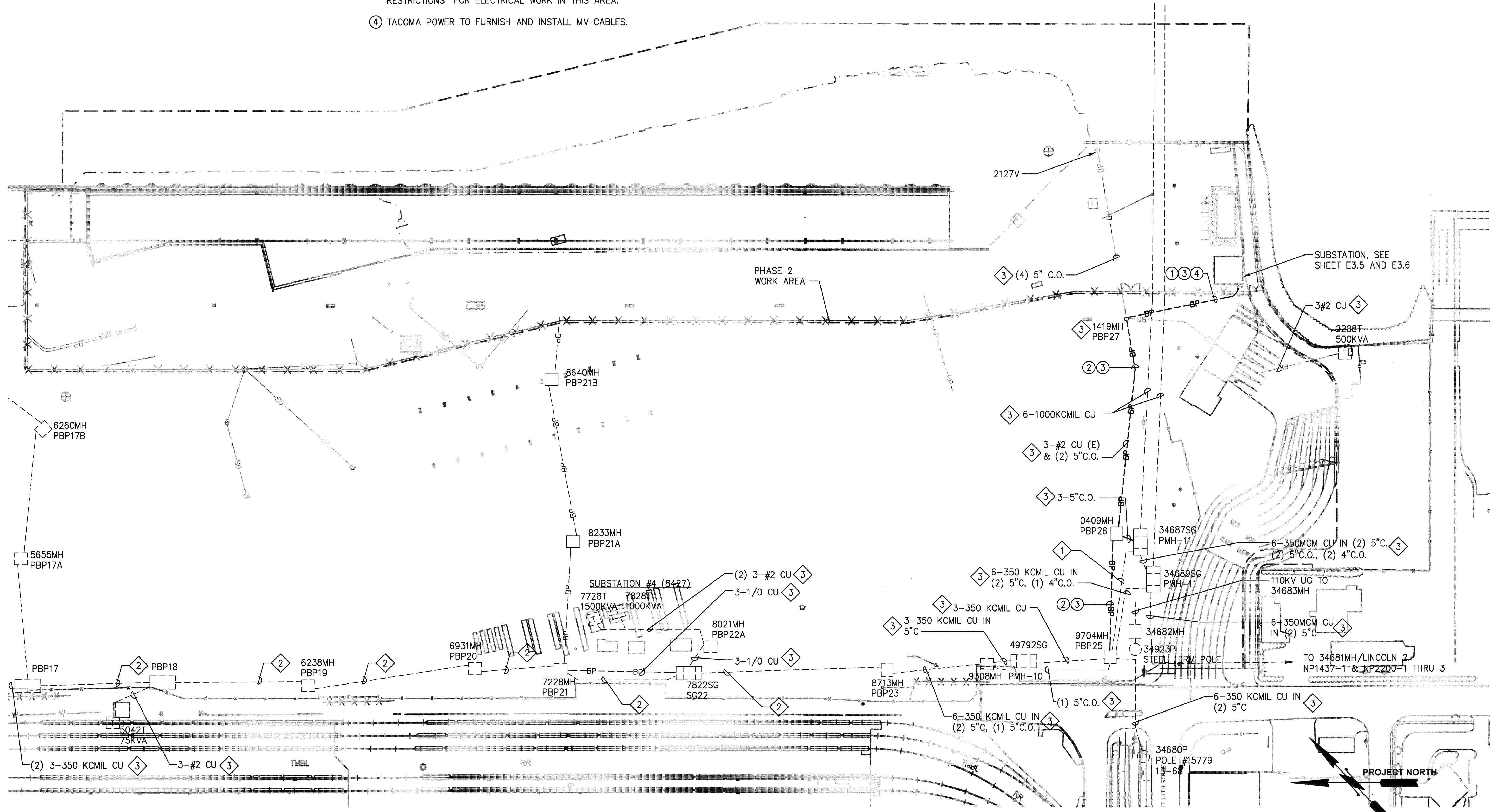
- 1 3-350 KCMIL CU, 3-#2 CU. (EXISTING TO REMAIN)
- 2 3-350MCM CU, 3-#1/0 CU (TACOMA POWER LOOP FEEDERS). (EXISTING TO REMAIN)
- 3 EXISTING TO REMAIN.

KEY NOTES

- 1 TACOMA POWER APPROVED ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL (4) 5"C.
- 2 MV CABLES FURNISHED AND INSTALLED BY TACOMA POWER IN EXISTING 5" CONDUIT.
- 3 REFER TO SPECIFICATION SECTION 01 14 00 "WORK RESTRICTIONS" FOR ELECTRICAL WORK IN THIS AREA.
- 4 TACOMA POWER TO FURNISH AND INSTALL MV CABLES.

GENERAL NOTES

- 1. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.



SITE ELECTRICAL PLAN
SCALE: 1"=100'

<p>Port of Tacoma P.O. BOX 1807 TACOMA, WA 98401 (206)881-8841</p>	<p>APPR: DATE:</p>
	<p>BY:</p>
<p>MARK: REVISION:</p>	<p>DATE: 2/19/16</p>
<p>ELCON ASSOCIATES, INC ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 245-5022 FAX (206) 245-5205</p>	<p>CHECKED BY: DATE:</p>
<p>APPROVED: <i>[Signature]</i> 3-28-16</p>	<p>PROJ. ENGR. DATE: Mar 22, 2016</p>
<p>DIRECTOR: Curtis Mar 22, 2016</p>	<p>DATE: Mar 22, 2016</p>
<p>PRINTED BY: Curtis Mar 22, 2016</p>	<p>PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837</p>
<p>PIER 4 PHASE 2 RECONFIGURATION SITE ELECTRICAL PLAN</p>	<p>SECTION: TOWNSHIP: RANGE: DATE: 07/01/36</p>
<p>6552 E3.1 SH 127 OF 499</p>	<p>DATE: 09/12/51</p>
<p>CON/CONS: 07/01/36</p>	<p>DRAWING SCALE: AS NOTED</p>
<p>M. ID: 091251</p>	<p>PARCEL:</p>
<p>PHASE: BID</p>	

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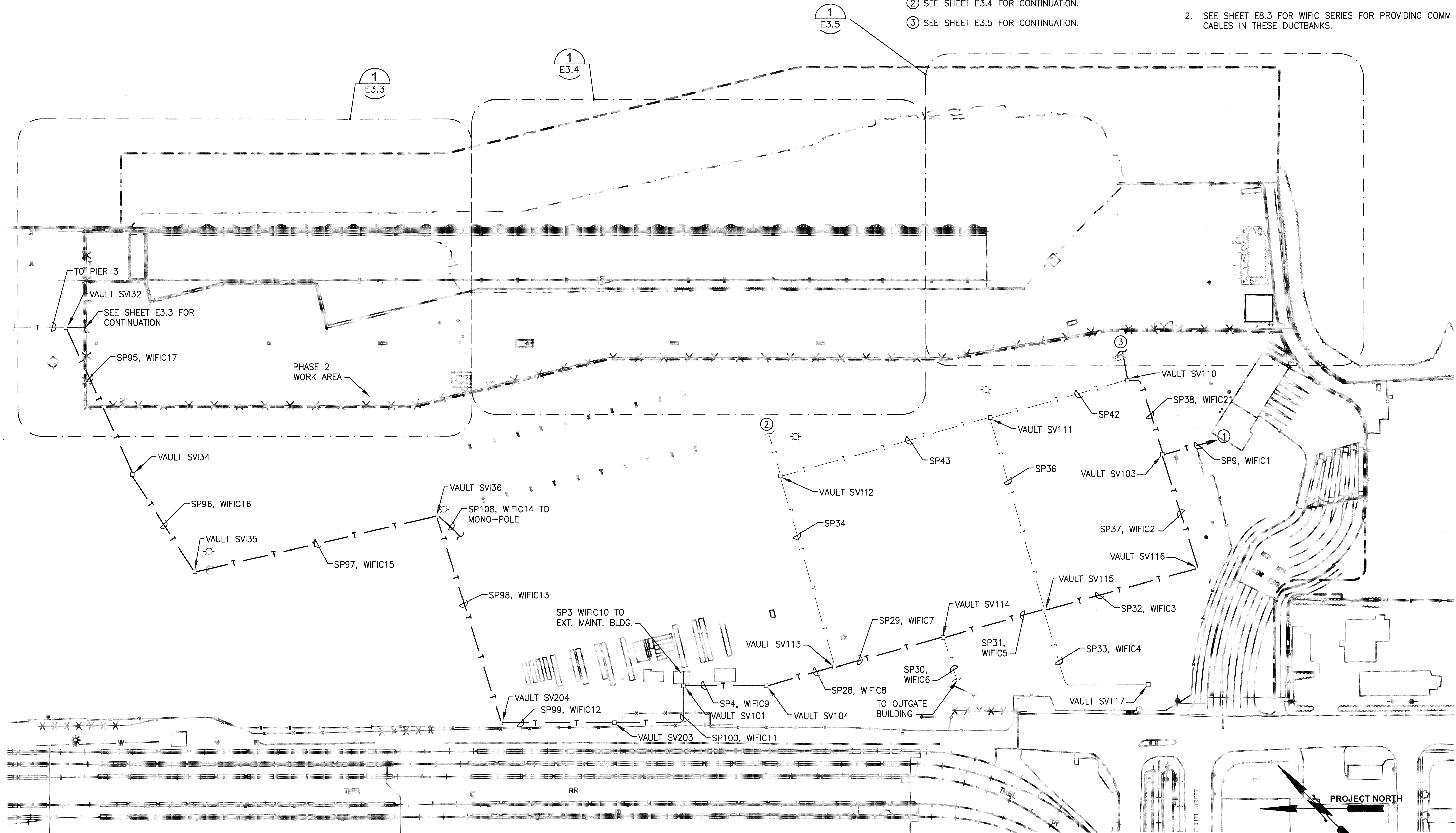
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KEY NOTES

- ① TO MAIN COMM. ROOM IN HUSKY ADMIN. BUILDING.
- ② SEE SHEET E3.4 FOR CONTINUATION.
- ③ SEE SHEET E3.5 FOR CONTINUATION.

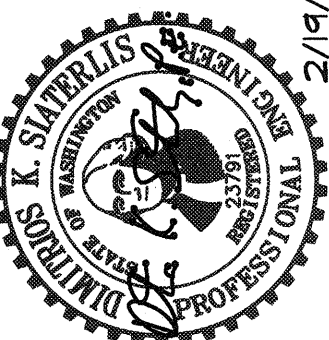
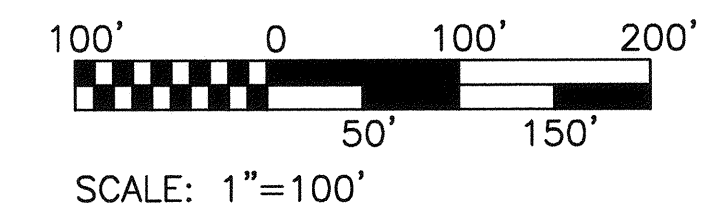
GENERAL NOTES

- 1. REFER TO SPECIFICATION SECTION 01 14 00 "WORK RESTRICTIONS" FOR ELECTRICAL WORK ON THIS DRAWING.
- 2. SEE SHEET E8.3 FOR WIFIC SERIES FOR PROVIDING COMM CABLES IN THESE DUCTBANKS.



SITE ELECTRICAL KEY PLAN

SCALE: 1"=100'



Port of Tacoma
 P.O. BOX 3887 TACOMA, WA 98401-3887

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<i>John Howard</i>		
DIRECTOR ENGR. DATE:	PROJ. ENGR.	DATE:
3-28-16		
PRINTED BY:	PORT ADDRESS:	TACOMA, WA 98401-1837
Curtis Mar 22, 2016	ONE SITCUM PLAZA	

PIER 4 PHASE 2 RECONFIGURATION SITE ELECTRICAL KEY PLAN	
SECTION:	
RANGE:	
TOWNSHIP:	
DATE-HRZ:	WA83-SF
PARCEL:	091251
DRAWING SCALE:	AS NOTED
VERT:	MLLW 19.39' @ Tide 22 1933
CONTR/CONS:	070136
M. ID:	091251
PHASE:	BID

6552 E3.2
 SH 128 OF 499

GENERAL NOTES

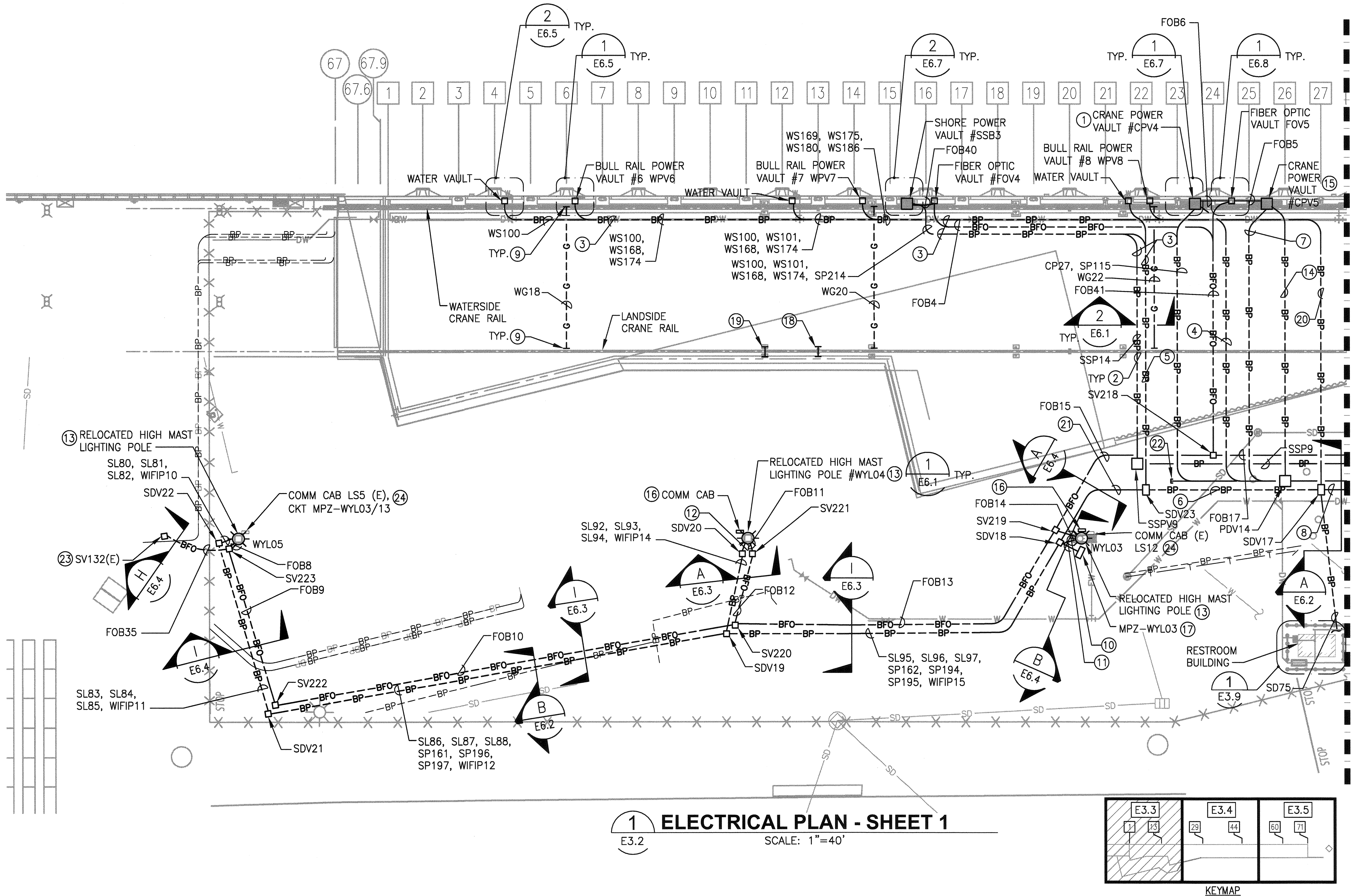
1. ALL ELECTRICAL CONNECTIONS IN BULLRAIL VAULTS TO USE NO-OX CORROSION INHIBITING LUBRICANT, OR APPROVED EQUAL.
2. REFER TO CIVIL DRAWINGS FOR DUCTBANK PLAN AND PROFILE INFORMATION.
3. SEE SHEETS E6.9 AND E6.10 FOR ROUTING CONDUITS IN UTILITY TRENCHES AT BULLRAIL.

- ① CRANE POWER VAULT TO SUPPLY CRANES #1, #2.
- ② CONDUITS TO BE RUN IN PILE CAP PER DETAILS ON SHEETS E6.22, E6.23.
- ③ CONDUITS TO BE RUN IN UTILITY TRENCH. SEE SHEETS E6.9, E6.10.
- ④ CP30, SP118
- ⑤ WS138, WS176, WS197, SP217

KEY NOTES

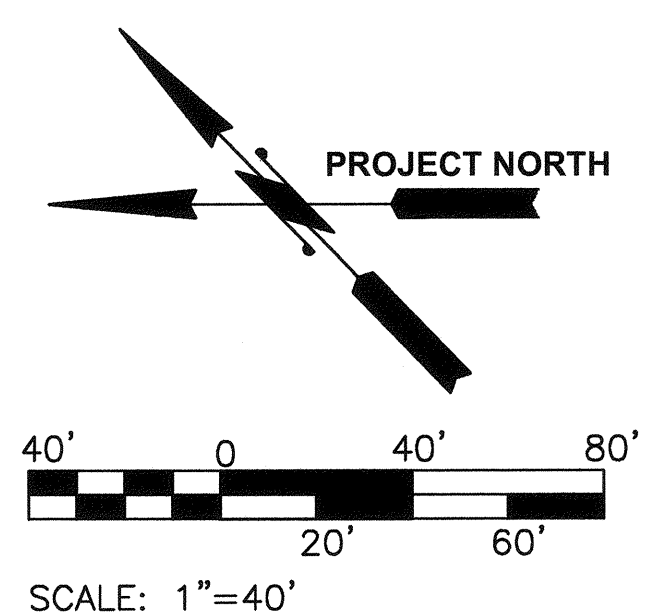
- ⑥ SD62, SL101, SL102, SL103, SP163, SP192, SP193, WS174, WS185, WS196
- ⑦ CP33, SP121
- ⑧ SD63, SD76, SL104, SL105, SL106, SP164, SP190, SP191, SP213, WS170, WS181, WS192
- ⑨ GROUND WIRE CONNECTION AT CRANE RAILS TO BE EXOTHERMIC WELD. SEE STRUCTURAL SHEETS FOR CRANE RAIL DETAILS.
- ⑩ SL98, SL99, SL100
- ⑪ SD61, SP182, SP183, WS104, WS178, WS199, WIFIP16
- ⑫ SL89, SL90, SL91, WIFIP13
- ⑬ SEE SPECIFICATION 26 56 36 FLOOD LIGHTING FIXTURES FOR QUANTITY OF LIGHTING FIXTURES EXISTING ON THE POLE AND QUANTITY OF FIXTURES REQUIRED AT POLE. SEE SHEET S45.1 FOR LIGHTING POLE BASE DETAIL.
- ⑭ CP36, SP124

- ⑮ CRANE POWER VAULT TO SUPPLY CRANES #3, #4.
- ⑯ PROVIDE COMMUNICATIONS CABINET, 36"Hx30"Wx8"D, 316L STAINLESS STEEL, WITH PAINTED STEEL PANEL, GASKETING, CONTINUOUS HINGE ON DOOR AND STAINLESS STEEL DOOR CLAMPS. CONNECT TO CIRCUIT MPZ-WYL03/15. MOUNT CABINET AT POLE TO STRUT CHANNELS MOUNTED VERTICALLY AND HORIZONTALLY, WITH VERTICAL CHANNELS ANCHORED TO THE POLE WITH STAINLESS STEEL STRAPS. STRAPS TO BE BY PANDUIT, OR APPROVED EQUAL, LENGTH AS REQUIRED. PROVIDE CORNING TYPE SPH, WALL MOUNTABLE HOUSING WITH ONE CORNING TYPE CCH PANEL, MOUNTED IN CABINET.
- ⑰ PROVIDE 3/4"C, 2#12, #12G FROM MPZ TO ADJACENT COMM CABINET AND CONNECT TO DUPLEX RECEPTACLE IN CABINET. CONNECT TO CIRCUIT MPZ-WYL03/17. PROVIDE GROUND ROD IN GROUND WELL ADJACENT TO POLE AND CONNECT TO MPZ WITH 1"C, 1#6G. MOUNT MPZ AT POLE TO STRUT CHANNELS MOUNTED VERTICALLY AND HORIZONTALLY, WITH THE VERTICAL CHANNELS ANCHORED TO THE POLE WITH STAINLESS STEEL STRAPS. STRAPS TO BE BY PANDUIT, OR APPROVED EQUAL, LENGTH AS REQUIRED.
- ⑱ 3/4"C, 1#4G FROM CRANE RAILS TO CRANE PIN SOCKETS, TYPICAL. SEE SHEET S3.1 FOR PIN SOCKET LOCATIONS.
- ⑲ 3/4"C, 1#4G FROM CRANE RAILS TO CRANE TIE DOWNS, TYPICAL. SEE SHEET S3.1 FOR TIE DOWN LOCATIONS.
- ⑳ WS169, WS180, WS191
- ㉑ SD82, SL145, SL146, SL147, SP175, SP180, SP181, WS103, WS177, WS198
- ㉒ CAP (5) 4" C.O. FOR FUTURE USE FOR REEFER TRANSFORMER, CRANE (SPARE) AND FUTURE LOAD.
- ㉓ REFER TO SPECIFICATION SECTION 01 14 00 "WORK RESTRICTIONS" FOR ELECTRICAL WORK IN THIS AREA.
- ㉔ REMOVE EXISTING FIBER OPTIC TERMINATION HOUSING IN CABINET AND PROVIDE A CORNING TYPE SPH WALL MOUNTABLE HOUSING WITH ONE CORNING TYPE CCH PANEL MOUNTED IN CABINET.



1 ELECTRICAL PLAN - SHEET 1
SCALE: 1"=40'

MATCH LINE SEE SHEET E3.4



6552 E3.3 SH 129 OF 489 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION ELECTRICAL PLAN - SHEET 1		APPROVED: <i>[Signature]</i> DIRECTOR ENG. DATE: 3-28-16	CHECKED BY: <i>[Signature]</i> DATE:
	RANGE: MLLW 19.39' @ Tide 22 1933 VERT: DAT-HRZ: WA83-SF PARCEL: DRAWING SCALE: AS NOTED	SECTION: TOWNSHIP:	DATE:	DATE:
PROJECT NORTH		SCALE: 1"=40'		
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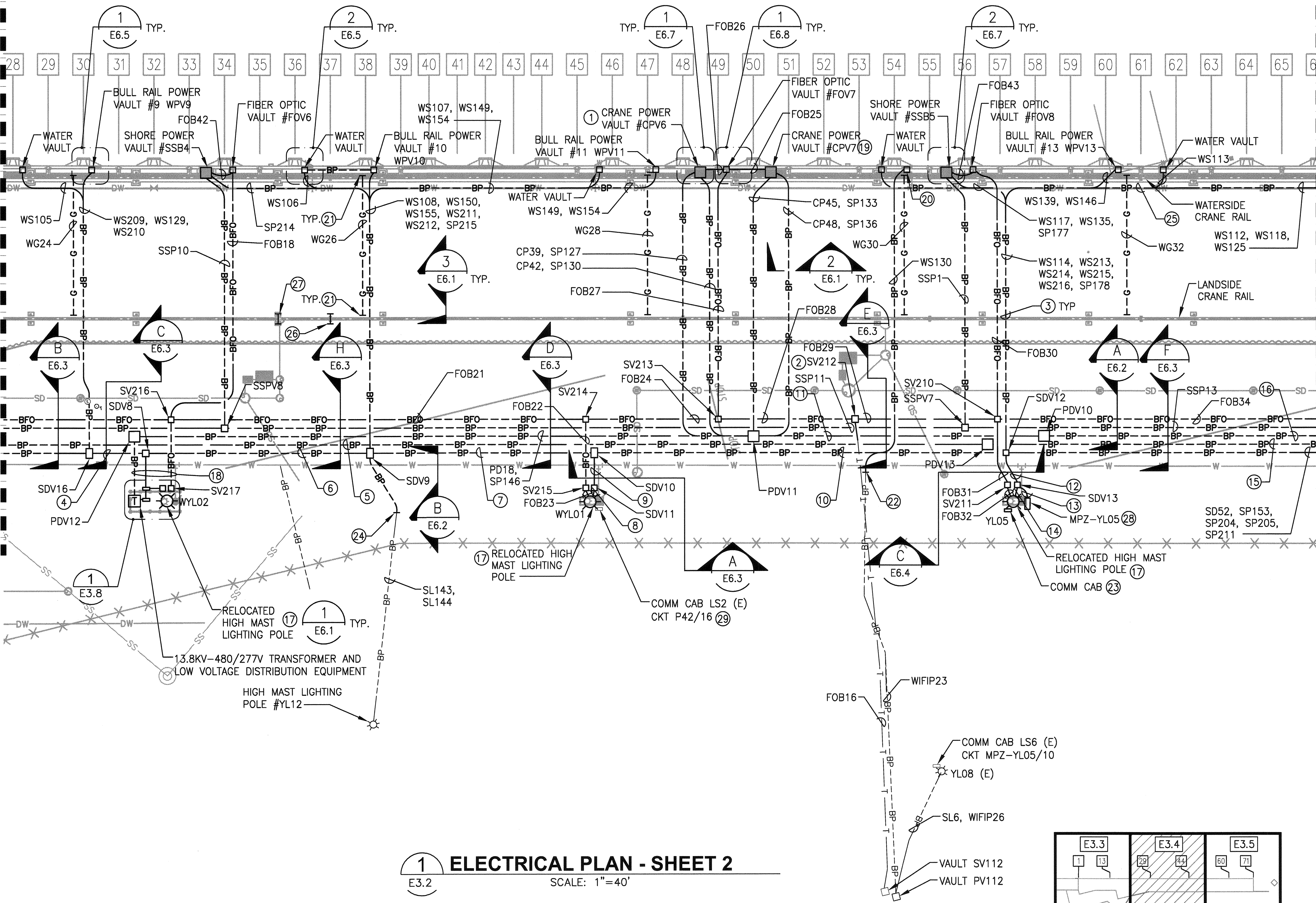
GENERAL NOTES

- ALL ELECTRICAL CONNECTIONS IN BULLRAIL VAULTS TO USE NO-OX CORROSION INHIBITING LUBRICANT, OR APPROVED EQUAL.
- REFER TO CIVIL DRAWINGS FOR DUCTBANK AND PROFILE INFORMATION.
- SEE SHEETS E6.10-E6.13 FOR ROUTING CONDUITS IN UTILITY TRENCHES AT BULLRAIL.

KEY NOTES

- CRANE POWER VAULT TO SUPPLY CRANES #5, #6.
- INTERCEPT ABANDONED COMMUNICATION DUCTBANK, CUT DUCTBANK AND REMOVE DUCTBANK AS NEEDED TO PROVIDE VAULT. EXTEND DUCTBANK THAT WAS CUT TO TERMINATE AT VAULT. SEE KEY NOTE #16 ON SHEET E2.4 FOR LOCATION WHERE THE DUCTBANK WAS CUT.
- CONDUITS TO BE RUN IN PILE CAP PER DETAIL D, DWG S10.1.
- SD64, SD77, SL107, SL108, SL109, SP165, SP188, SP189, SP212, WS171, WS182, WS193, WS202, WS206
- CP28, CP31, CP34, CP37, PD21, SP116, SP119, SP122, SP125, SP139, SP143, SP149
- SD55, SD71, SL128, SL129, SL130, SP156, SP168, SP198, SP199, SP208, WS109, WS122, WS132, WS142, WS151, WS156, WS161, WS165, WIFIP20
- SD54, SD70, SL125, SL126, SL127, SP155, SP167, SP200, SP201, SP209, WS121, WS131, WS141, WIFIP19
- SL119, SL120, SL121, WIFIP17
- SL122, SL123, SL124, WIFIP18
- SD53, SD69, SL116, SL117, SL118, SP154, SP166, SP203, SP204, SP210, WS120, WS130, WS140
- CP40, CP43, CP46, CP49, PD19, SP128, SP131, SP134, SP137, SP141, SP147
- SD68, SL113, SL114, SL115, SP173, SP174, WS115, WS127, WS136, WS147, WIFIP24
- SD67, SP171, SP172, WS116, WS128, WS137, WS148, WIFIP25
- SL110, SL111, SL112
- CP29, CP32, CP35, CP38, PD22, SP117, SP120, SP123, SP126, SP140, SP144, SP150
- CP41, CP44, CP47, CP50, PD20, SP129, SP132, SP135, SP138, SP142, SP148
- SEE SPECIFICATION 26 56 36 FLOOD LIGHTING FIXTURES FOR QUANTITY OF LIGHTING FIXTURES EXISTING ON THE POLE AND QUANTITY OF FIXTURES REQUIRED AT POLE. SEE SHEET S45.1 FOR LIGHTING POLE BASE DETAIL.
- SEE SHEET E3.8 FOR CONDUIT TAGS FOR THESE CONDUITS.
- CRANE POWER VAULT TO SUPPLY CRANES #7, #8.
- BULL RAIL POWER VAULT #12, WPV12.
- GROUND WIRE CONNECTION AT CRANE RAILS TO BE EXOTHERMIC WELD. SEE STRUCTURAL SHEETS FOR CRANE RAIL DETAILS.
- EXTEND EXISTING POWER DUCTBANK TO VAULT SDV12. SEE KEY NOTE #15 ON SHEET E2.4 FOR LOCATION WHERE THE DUCTBANK WAS CUT. CAP ONE CONDUIT AND ABANDON CONDUIT. EXTEND OTHER CONDUIT TO VAULT SDV12.
- PROVIDE COMMUNICATIONS CABINET, 36"Hx30"Wx8"D, 316L STAINLESS STEEL, WITH PAINTED STEEL PANEL, GASKETING, CONTINUOUS HINGE ON DOOR AND STAINLESS STEEL DOOR CLAMPS. CONNECT TO CIRCUIT MPZ-YL05/8. 3/4"C, 2#12, #12G. MOUNT CABINET AT POLE TO STRUT CHANNELS MOUNTED VERTICALLY AND HORIZONTALLY, WITH VERTICAL CHANNELS ANCHORED TO THE POLE WITH STAINLESS STEEL STRAPS. STRAPS TO BE BY PANDUIT, OR APPROVED EQUAL, LENGTH AS REQUIRED. PROVIDE CORNING TYPE SPH, WALL MOUNTABLE HOUSING WITH ONE CORNING TYPE CCH PANEL, MOUNTED IN CABINET.
- EXTEND EXISTING RACEWAYS FROM THIS LOCATION TO VAULT SDV9 AND PROVIDE WIRING TO RECONNECT LIGHTING POLE #YL12.
- WS112, WS113, WS118, WS125, WS139, WS146
- 3/4"C, 1#4G FROM CRANE RAILS TO CRANE PIN SOCKETS, TYPICAL. SEE SHEET S3.1 FOR PIN SOCKET LOCATIONS.
- 3/4"C, 1#4G FROM CRANE RAILS TO CRANE TIE DOWNS, TYPICAL. SEE SHEET S3.1 FOR TIE DOWN LOCATIONS.
- MOUNT MPZ AT POLE TO STRUT CHANNELS MOUNTED VERTICALLY AND HORIZONTALLY, WITH THE VERTICAL CHANNELS ANCHORED TO THE POLE WITH STAINLESS STEEL STRAPS. STRAPS TO BE BY PANDUIT, OR APPROVED EQUAL, LENGTH AS REQUIRED. PROVIDE GROUND ROD IN GROUND WELL ADJACENT TO POLE AND CONNECT TO MPZ WITH 1"C, 1#6G.
- REMOVE EXISTING FIBER OPTIC TERMINATION HOUSING IN CABINET AND PROVIDE A CORNING TYPE SPH WALL MOUNTABLE HOUSING WITH ONE CORNING TYPE CCH PANEL MOUNTED IN CABINET.

MATCH LINE SEE SHEET E3.3



MATCH LINE SEE SHEET E3.5

1 ELECTRICAL PLAN - SHEET 2
 SCALE: 1" = 40'

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SEATTLE, WASHINGTON 98188
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DATE: _____
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 BY: _____
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 SEATTLE, WASHINGTON 98188
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DATE: _____
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 DATE: _____
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 DATE: _____
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 PORT ADDRESS: ONE SITCOM PLAZA
 TACOMA, WA 98401-1837

PIER 4 PHASE 2
 RECONFIGURATION
 ELECTRICAL PLAN - SHEET 2

SECTION: _____
 RANGE: _____
 TOWNSHIP: _____
 DAT-HRZ: _____
 VERT: _____
 DRAWING SCALE: AS NOTED

6552
E3.4
 SH 130 OF 499

CONTR/CONS: 070136
 M. ID: 091251
 PHASE: BID

PORT OF TACOMA FILE: R:\5650-041.01\DWG\091251-E305

KEY NOTES

- ⑭ PROVIDE COMMUNICATIONS CABINET, 36"Hx30"Wx8"D, 316 STAINLESS STEEL, WITH PAINTED STEEL PANEL, GASKETING, CONTINUOUS HINGE ON DOOR AND STAINLESS STEEL DOOR CLAMPS. CONNECT TO CIRCUIT 2R/4 IN CABINET LS1 ON POLE. MOUNT CABINET AT POLE TO STRUT CHANNELS MOUNTED VERTICALLY AND HORIZONTALLY, WITH VERTICAL CHANNELS ANCHORED TO THE POLE WITH STAINLESS STEEL STRAPS. STRAPS TO BE BY PANDUIT, OR APPROVED EQUAL, LENGTH AS REQUIRED. PROVIDE CORNING TYPE SPH. WALL MOUNTABLE HOUSING WITH ONE CORNING TYPE CCH PANEL, MOUNTED IN CABINET.
- ⑮ SEE CONSTRUCTION NOTES #1 AND #4 ON SHEET E3.1 REGARDING THIS WORK.

LOAD STUDY SWITCHBOARD #1 AT SUBSTATION #3 (#8431)	
PEAK DEMAND LOAD (PER TACOMA POWER) (ASSUME PF=0.85) 178KW = 209kVA	252 A
REMOVE (4) REEFER BUNKERS @ 7.5kVA EACH	-36 A
NET DEMAND LOAD	216 A
PER NEC 220.87 x 1.25	270 A
MARINE OPS BUILDING 225kVA	271 A
TOTAL LOAD	541 A
SWITCHBOARD #1 HAS A 1600A MAIN CIRCUIT BREAKER	

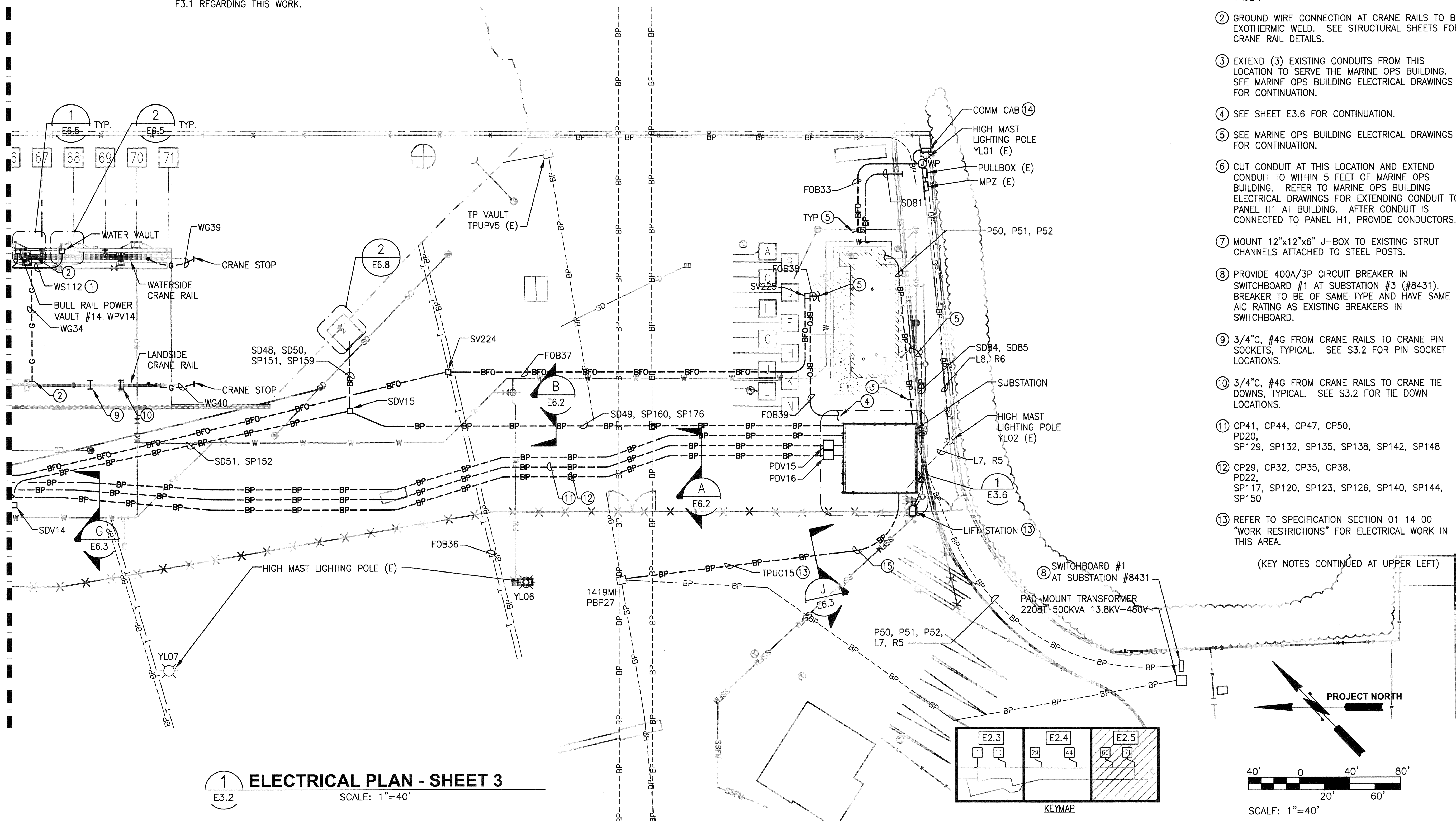
GENERAL NOTES

- 1. ALL ELECTRICAL CONNECTIONS IN BULLRAIL VAULTS TO USE NO-OX CORROSION INHIBITING LUBRICANT, OR APPROVED EQUAL.
- 2. REFER TO CIVIL DRAWINGS FOR DUCTBANK PLAN AND PROFILE INFORMATION.
- 3. SEE SHEET E6.13 FOR ROUTING CONDUITS IN UTILITY TRENCHES AT BULLRAIL.

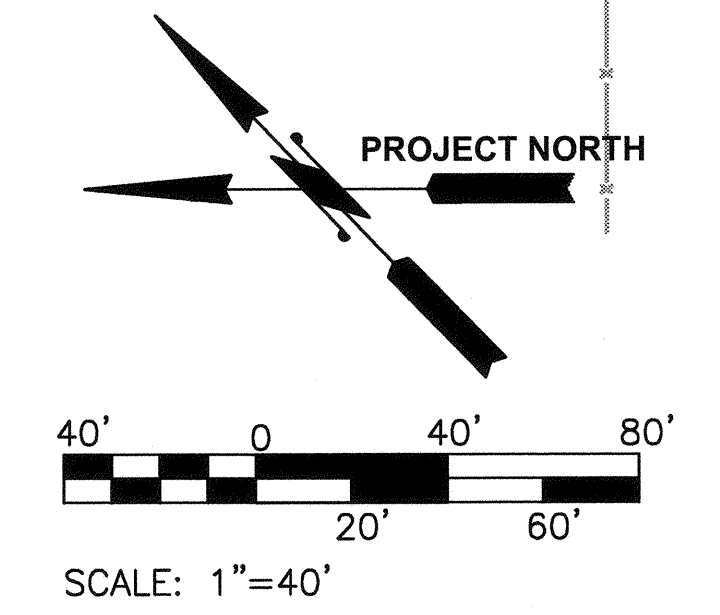
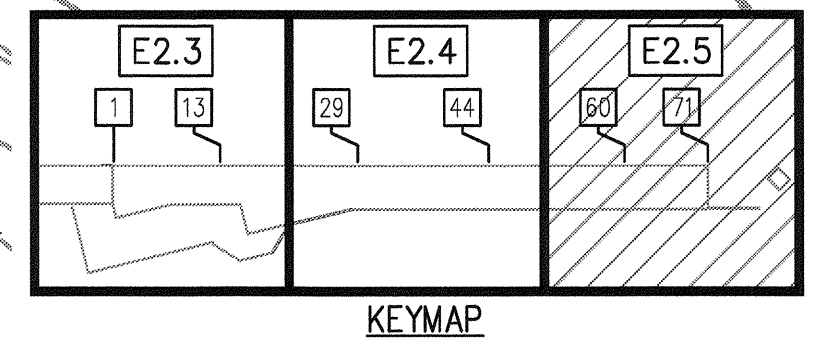
KEY NOTES

- ① ROUTE IN LANDSIDE UTILITY TRENCH, THEN TO VAULT.
- ② GROUND WIRE CONNECTION AT CRANE RAILS TO BE EXOTHERMIC WELD. SEE STRUCTURAL SHEETS FOR CRANE RAIL DETAILS.
- ③ EXTEND (3) EXISTING CONDUITS FROM THIS LOCATION TO SERVE THE MARINE OPS BUILDING. SEE MARINE OPS BUILDING ELECTRICAL DRAWINGS FOR CONTINUATION.
- ④ SEE SHEET E3.6 FOR CONTINUATION.
- ⑤ SEE MARINE OPS BUILDING ELECTRICAL DRAWINGS FOR CONTINUATION.
- ⑥ CUT CONDUIT AT THIS LOCATION AND EXTEND CONDUIT TO WITHIN 5 FEET OF MARINE OPS BUILDING. REFER TO MARINE OPS BUILDING ELECTRICAL DRAWINGS FOR EXTENDING CONDUIT TO PANEL H1 AT BUILDING. AFTER CONDUIT IS CONNECTED TO PANEL H1, PROVIDE CONDUCTORS.
- ⑦ MOUNT 12"x12"x6" J-BOX TO EXISTING STRUT CHANNELS ATTACHED TO STEEL POSTS.
- ⑧ PROVIDE 400A/3P CIRCUIT BREAKER IN SWITCHBOARD #1 AT SUBSTATION #3 (#8431). BREAKER TO BE OF SAME TYPE AND HAVE SAME AIC RATING AS EXISTING BREAKERS IN SWITCHBOARD.
- ⑨ 3/4"C, #4G FROM CRANE RAILS TO CRANE PIN SOCKETS, TYPICAL. SEE S3.2 FOR PIN SOCKET LOCATIONS.
- ⑩ 3/4"C, #4G FROM CRANE RAILS TO CRANE TIE DOWNS, TYPICAL. SEE S3.2 FOR TIE DOWN LOCATIONS.
- ⑪ CP41, CP44, CP47, CP50, PD20, SP129, SP132, SP135, SP138, SP142, SP148
- ⑫ CP29, CP32, CP35, CP38, PD22, SP117, SP120, SP123, SP126, SP140, SP144, SP150
- ⑬ REFER TO SPECIFICATION SECTION 01 14 00 "WORK RESTRICTIONS" FOR ELECTRICAL WORK IN THIS AREA.

MATCH LINE SEE SHEET E3.4



1 ELECTRICAL PLAN - SHEET 3
 SCALE: 1"=40'



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PORT OF
Tacoma
P.O. BOX 1087 TACOMA, WA 98401-0108

APPROVED: *[Signature]*
 DIRECTOR ENGR. DATE: 3-28-16

CHECKED BY: *[Signature]* DATE:
 PROJ. ENGR. DATE:
 PRINTED BY: Curtis Mar 22, 2016
 PORT ADDRESS: ONE SITCLIM PLAZA
 TACOMA, WA 98401-1837

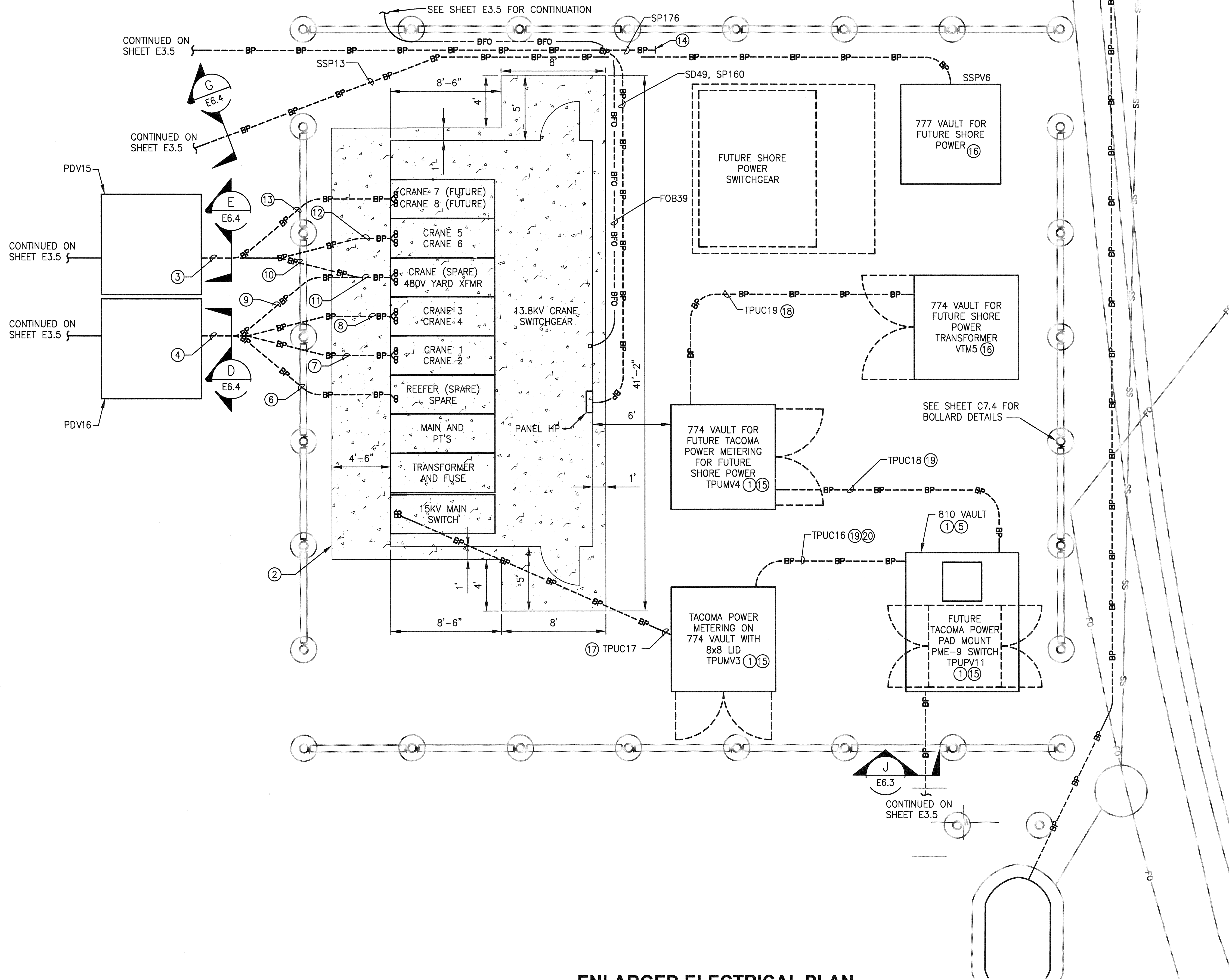
PIER 4 PHASE 2
 RECONFIGURATION
 ELECTRICAL PLAN - SHEET 3

SECTION:
 RANGE: MLW 19.39' @ Tide 22 1933
 TOWNSHIP: 070136
 DAT-HRZ: WAB3-SF
 VERT:
 DRAWING SCALE: AS NOTED

6552
E3.5
 SH 131 OF 499
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

DATE:
 APPR:
 BY:
 REVISION:
 MARK:

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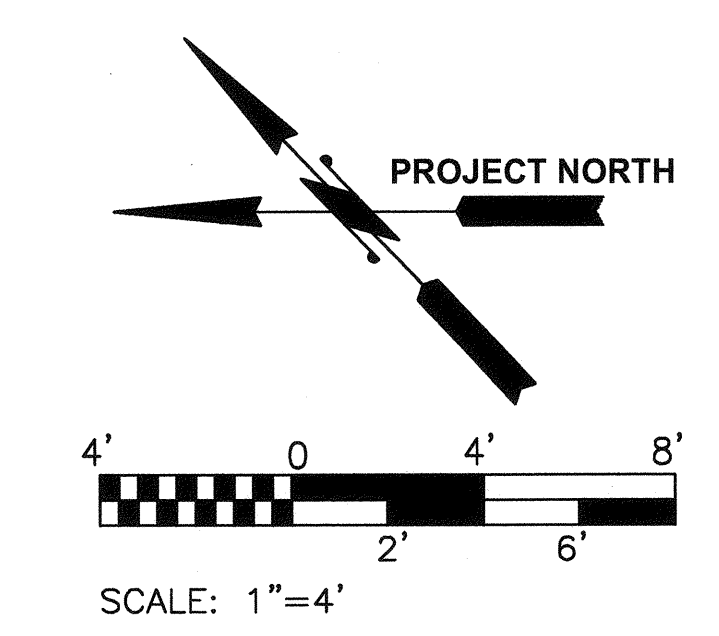
ENLARGED ELECTRICAL PLAN
SUBSTATION #8410
 1
 E3.5
 1/4" = 1'-0"

GENERAL NOTES

1. THE PROPOSED SERVICE INDICATED IS SUBJECT TO REVIEW AND REVISION BY TACOMA POWER.

KEY NOTES

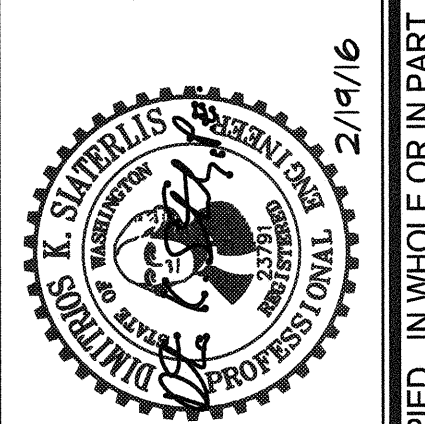
- ① VAULT TO BE PER TACOMA POWER STANDARDS.
- ② PROVIDE MINIMUM 9" ABOVE FINISHED GRADE, RE-BAR REINFORCED, CONCRETE PAD BELOW SWITCHGEAR BUILDING. PROVIDE BLOCK-OUTS IN CONCRETE PAD BELOW SWITCHGEAR FOR CONDUIT ACCESS. CONTRACTOR AS PART OF THE SHOP DRAWINGS SHALL PROVIDE CONCRETE PAD SUBMITTAL THAT HAS BEEN DESIGNED AND STAMPED BY THE STRUCTURAL ENGINEER. SEE SPECIFICATIONS 03 10 00, 03 20 00, AND 03 30 00 FOR CONCRETE SLAB AND REINFORCING CONSTRUCTION REQUIREMENTS.
- ③ CP55, CP56, CP57, CP58, PD24, SP222, SP223, SP224, SP225, SP227, SP229, SP230
- ④ CP51, CP52, CP53, CP54, PD23, SP218, SP219, SP220, SP221, SP226, SP228
- ⑤ PROVIDE 64"x70" BLOCKOUT IN LID.
- ⑥ PD23, SP228, SP230
- ⑦ CP51, CP52, SP218, SP219
- ⑧ CP53, CP54, SP220, SP221
- ⑨ SP226
- ⑩ PD24, SP227, SP229
- ⑪ PD24, SP226, SP227, SP148
- ⑫ CP55, CP56, SP222, SP223
- ⑬ CP57, CP58, SP224, SP225
- ⑭ CAP CONDUIT FOR FUTURE EXTENSION TO SHORE POWER SWITCHGEAR.
- ⑮ TACOMA POWER APPROVED ELECTRICAL CONTRACTOR TO PROVIDE VAULT.
- ⑯ CONTRACTOR TO PROVIDE VAULT.
- ⑰ CONTRACTOR TO PROVIDE CONDUITS AND MV CABLES.
- ⑱ CONTRACTOR TO PROVIDE CONDUITS.
- ⑲ TACOMA POWER APPROVED ELECTRICAL CONTRACTOR TO PROVIDE CONDUITS.
- ⑳ TACOMA POWER TO PROVIDE MV CABLES.

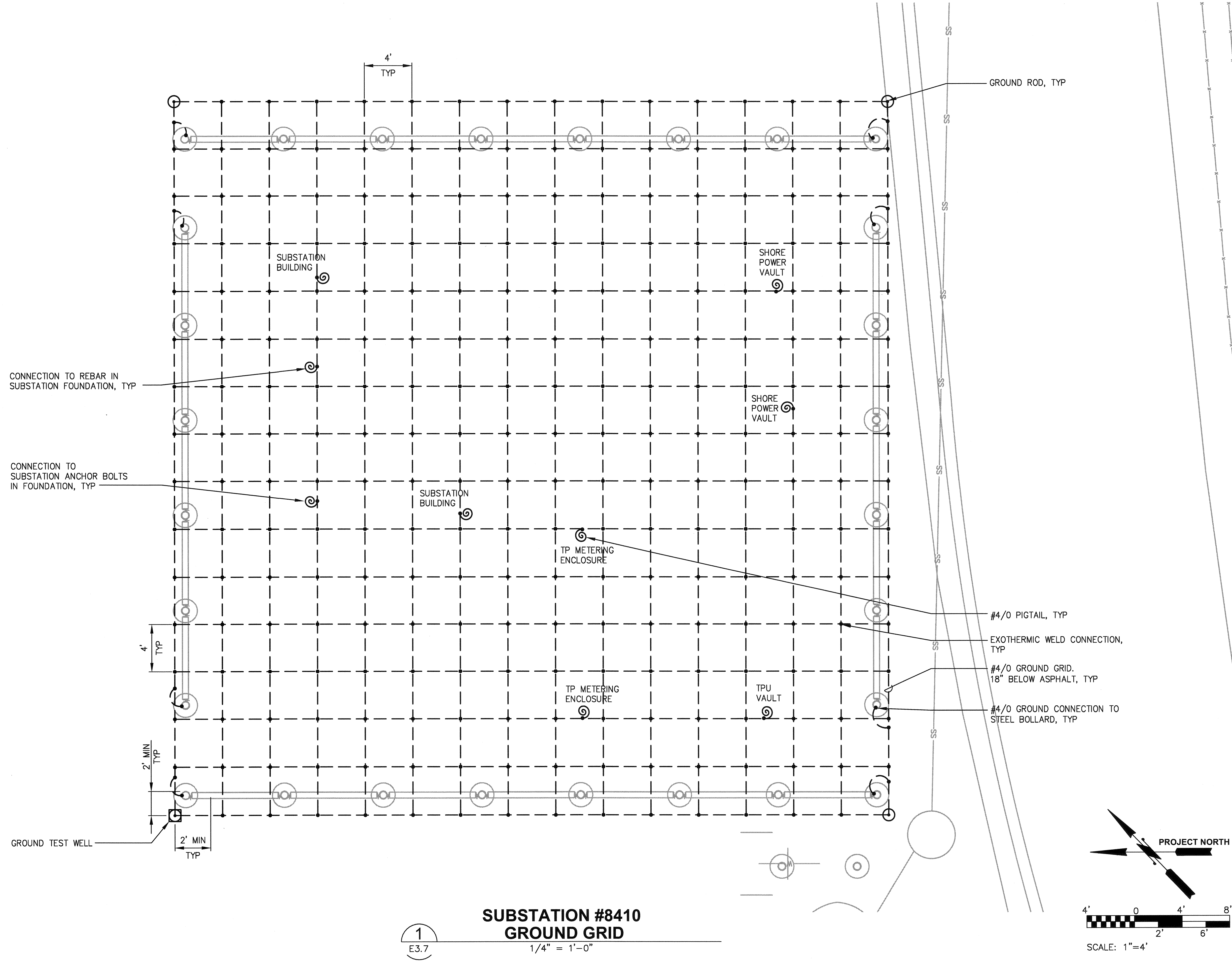


<p>6552 E3.6 SH 132 OF 489 CONT/CONS: 070136 M. ID: 091251 PHASE: BID</p>	<p>PIER 4 PHASE 2 RECONFIGURATION ENLARGED ELECTRICAL PLAN SUBSTATION #8410</p>		<p>APPROVED: <i>[Signature]</i> 3-28-16</p>	<p>CHECKED BY: <i>[Signature]</i> DATE: 3-28-16</p>	<p>DATE: 3-28-16</p>
	<p>SECTION: 19.39 RANGE: MLLW 19.39' @ Tide 22.19.33 VERT: WAB3-SF TOWNSHIP: DAT-HRZ: WAB3-SF PARCEL: 091251</p>	<p>PRINTED BY: Curtis Mar 22, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837</p>	<p>DATE: 3-28-16</p>	<p>DATE: 3-28-16</p>	<p>DATE: 3-28-16</p>
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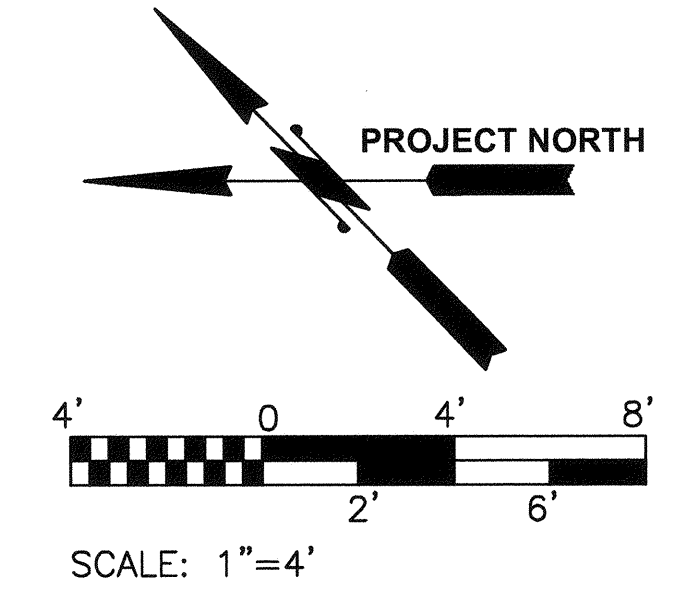




1
E3.7

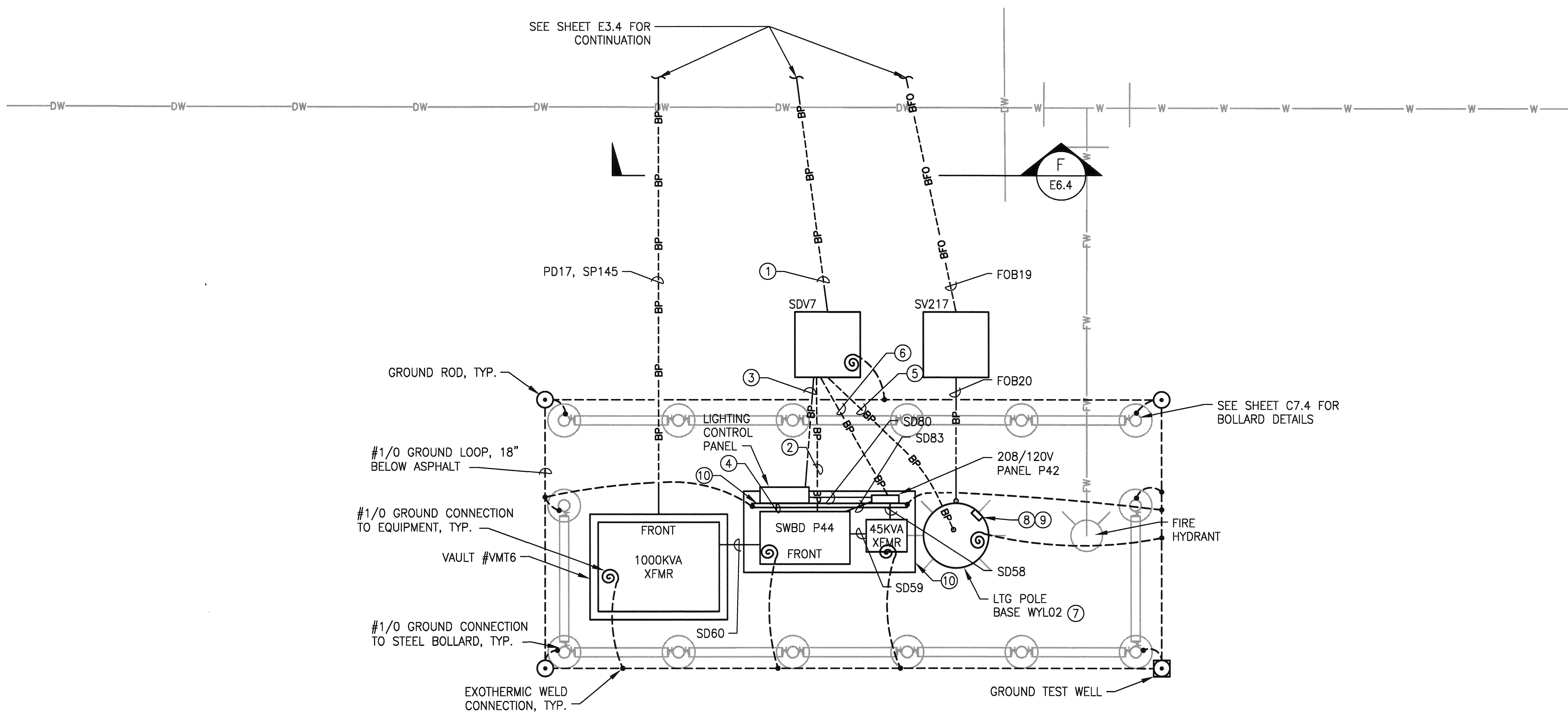
**SUBSTATION #8410
GROUND GRID**

1/4" = 1'-0"

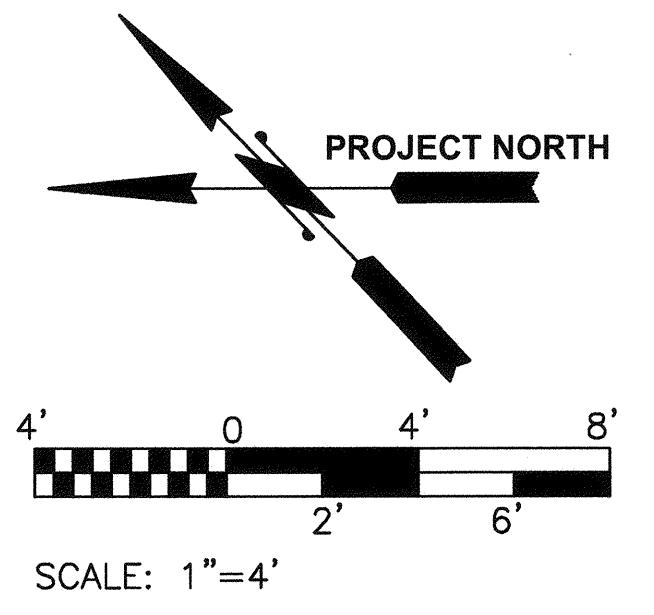


6552 E3.7 SH 133 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION SUBSTATION #8410 GROUND GRID		APPROVED: <i>[Signature]</i> DIRECTOR: 3-28-16 DATE: 2/1/16	CHECKED BY: <i>[Signature]</i> DATE:
	TOWNSHIP: MLW 19.39' @ Tide 22.19.33 DAT-HRZ: WA83-SF RANGE: M.L.W. 19.39' @ Tide 22.19.33 VERT: M.L.W. 19.39' @ Tide 22.19.33 SECTION: ONE SITCUM PLAZA PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837 DRAWING SCALE: AS NOTED	ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD SUITE 380 SEATTLE, WASHINGTON 98188 TEL: (206) 243-5022 FAX: (206) 243-5005	Port of Tacoma P.O. BOX 1887 TACOMA, WA 98401-1887	MARK: REVISION: BY: DATE: APPR: DATE:

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1
ENLARGED ELECTRICAL PLAN
YARD ELEC DISTRIBUTION
 1/4" = 1'-0"



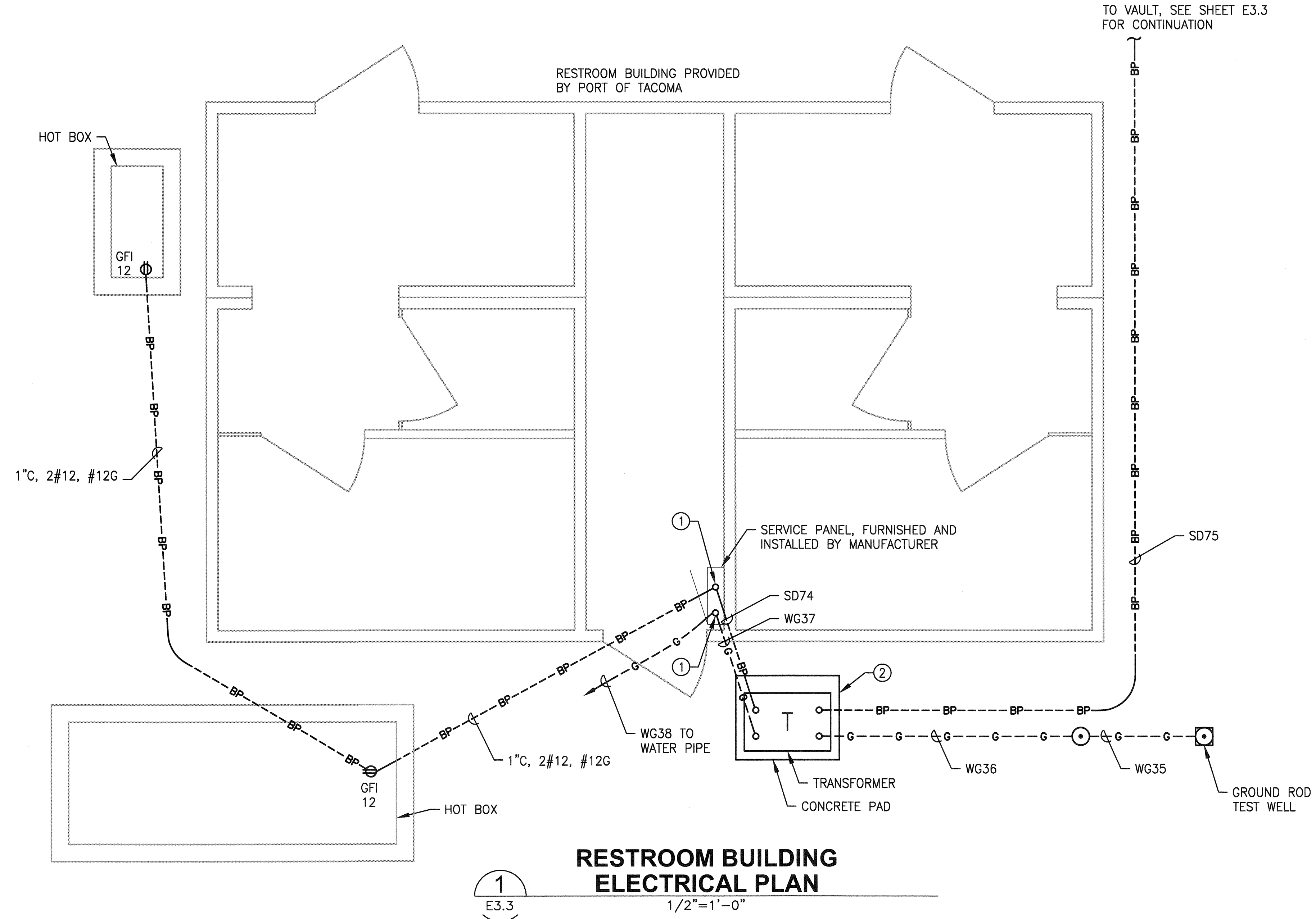
KEY NOTES

- ① SL131, SL132, SL133, SD56, SD65, SD72, SD78, SP157, SP169, SP186, SP187, SP206, WS110, WS123, WS133, WS143, WS152, WS157, WS162, WS166, WS172, WS183, WS194, WS203, WS207, WIFIP21
- ② SD57, SD66, SD73, SD79, SP158, WS124, WS134, WS144, WS153, WS163, WS173, WS184, WS195, WS204
- ③ SL137, SL138, SL139, SP170
- ④ SL140, SL141, SL142
- ⑤ SL134, SL135, SL136
- ⑥ SP184, SP185, WIFIP22, WS111, WS158, WS167, WS208
- ⑦ SEE SPECIFICATION 26 56 36 FLOOD LIGHTING FIXTURES FOR QUANTITY OF LIGHTING FIXTURES EXISTING ON THE POLE AND QUANTITY OF FIXTURES REQUIRED AT POLE. SEE SHEET S45.1 FOR LIGHTING POLE BASE DETAIL.
- ⑧ PROVIDE COMMUNICATIONS CABINET, 36"x30"Wx8"D, 316L STAINLESS STEEL, WITH PAINTED STEEL PANEL, GASKETING, CONTINUOUS HINGE ON DOOR AND STAINLESS STEEL DOOR CLAMPS. CONNECT TO CIRCUIT P42/14. 3/4"C, 2#12, #12G. MOUNT CABINET AT POLE TO STRUT CHANNELS MOUNTED VERTICALLY AND HORIZONTALLY, WITH VERTICAL CHANNELS ANCHORED TO THE POLE WITH STAINLESS STEEL STRAPS. STRAPS TO BE BY PANDUIT, OR APPROVED EQUAL, LENGTH AS REQUIRED. PROVIDE CORNING TYPE SPH, WALL MOUNTABLE HOUSING WITH ONE CORNING TYPE CCH PANEL, MOUNTED IN CABINET.
- ⑨ PROVIDE 3/4"C, 2#12, #12G FROM PANEL P42 TO ADJACENT COMM CABINET AND CONNECT TO DUPLEX RECEPTACLE IN CABINET. CONNECT TO CIRCUIT P42/14.
- ⑩ SEE CIVIL/STRUCTURAL DRAWINGS FOR SLAB AND SUPPORT STRUCTURE DETAILS.

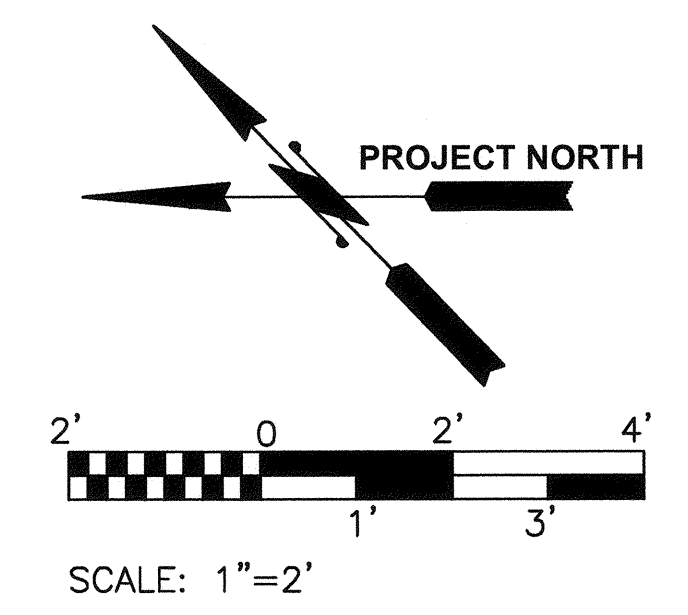
 ELCON ASSOCIATES, INC ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD SUITE 330 SEATTLE WASHINGTON 98188 TEL (206) 243-5022 FAX (206) 243-5205	MARK: _____ REVISION: _____ BY: _____ DATE: _____
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PIER 4 PHASE 2 RECONFIGURATION ENLARGED ELECTRICAL PLAN YARD ELECTRICAL DISTRIBUTION	CHECKED BY: _____ DATE: _____ PROJ. ENGR. DATE: _____ DATE: _____ DIRECTOR ENGR. DATE: 7-28-16 PRINTED BY: Curtis Mar 22, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
RANGE: MLLW 19.39' @ Tide 22 1933 VERT: WA83-SF DRAWING SCALE: AS NOTED	TOWNSHIP: _____ DAT-HRZ: _____ PARCEL: _____
6552 E3.8 SH 134 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION

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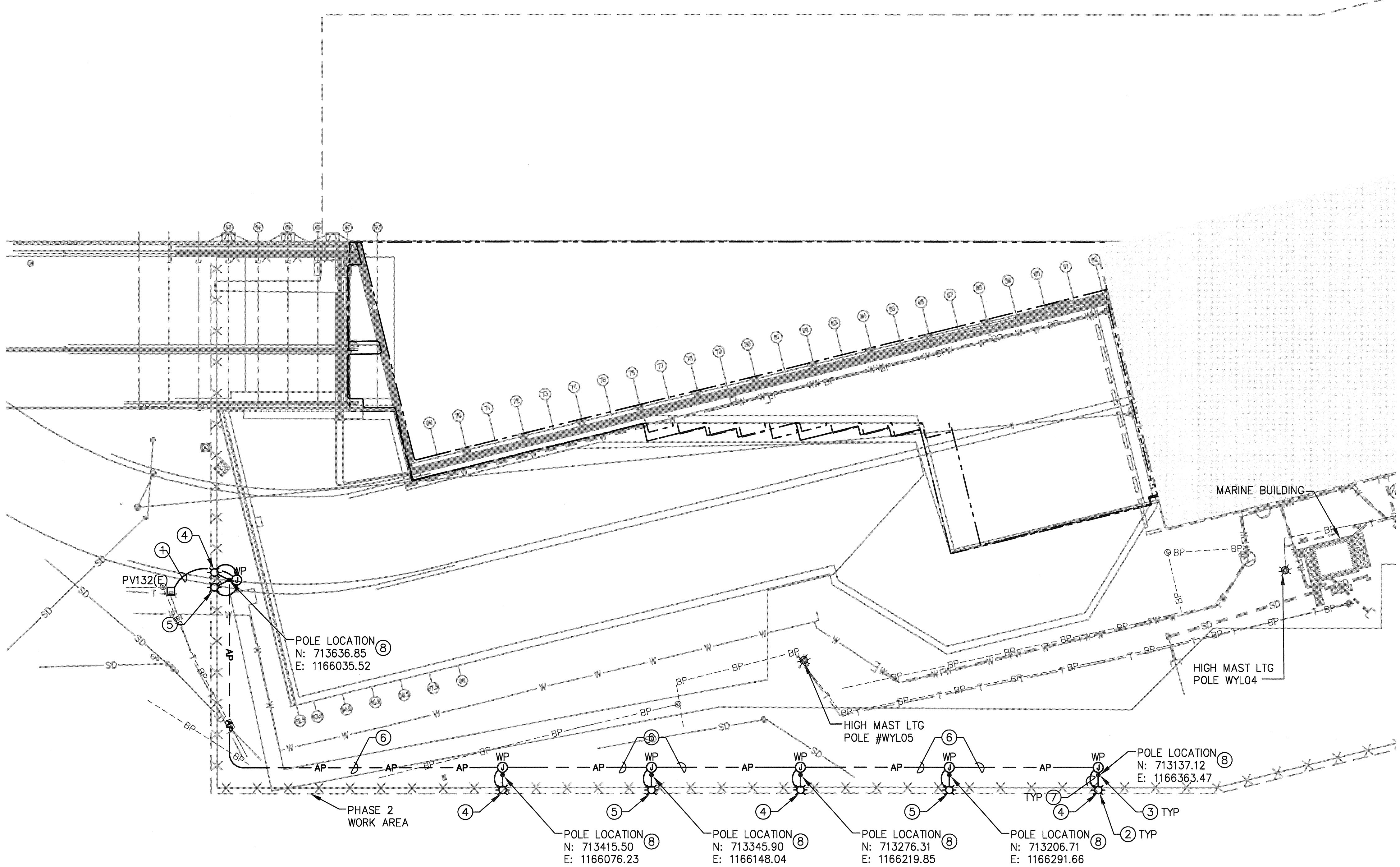


- KEY NOTES**
- STUB UP THROUGH BLOCKOUT IN FLOOR BENEATH PANEL, WITH SUFFICIENT LENGTH OF SPARE WIRES FOR RESTROOM BLDG CONTRACTOR TO EXTEND CONDUITS TO PANEL AND CONNECT WIRING.
 - SEE CIVIL SHEET C4.12 FOR EQUIPMENT PAD DETAILS.

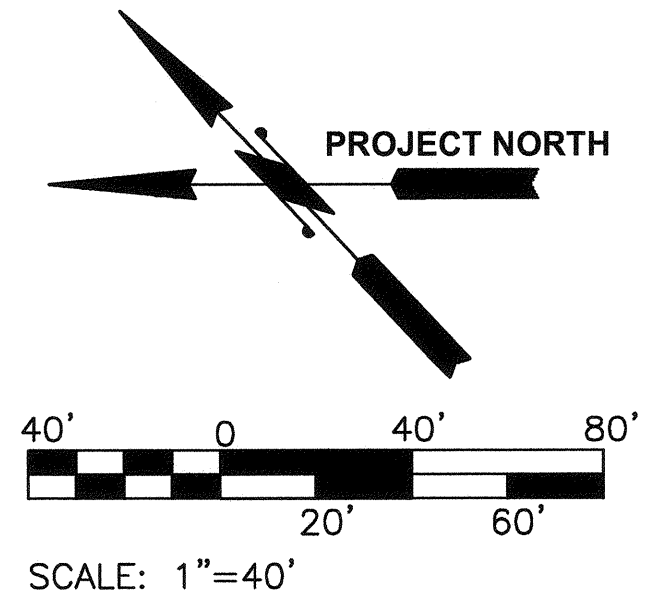
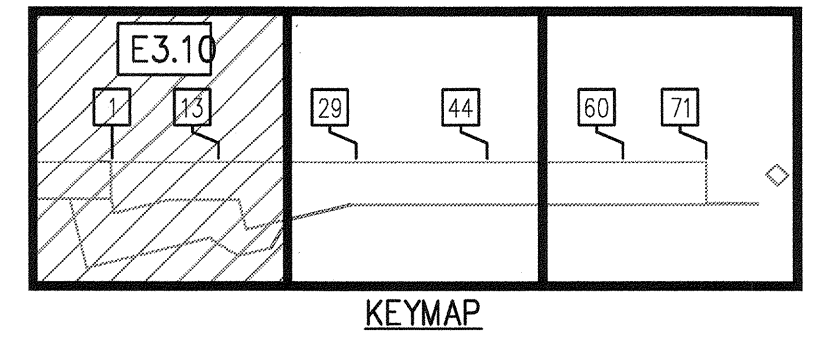


6552 E3.9 SH 135 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION RESTROOM BUILDING ELECTRICAL PLAN				APPROVED: <i>[Signature]</i> DIRECTOR ENG. DATE: 3-28-16	CHECKED BY: <i>[Signature]</i> PROJ. ENGR DATE:	
	TOWNSHIP: MLLW 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF RANGE: MLLW 19.39' @ Tide 22 1933 VERT: MLLW 19.39' @ Tide 22 1933 SECTION:	PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837 DRAWING SCALE: AS NOTED	PRINTED BY: Curtis Mar 22, 2016 TACOMA, WA 98401-1837	DATE:	DATE:	BY:	APPR:
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1
E2.2
PARTIAL SITE TEMPORARY LIGHTING PLAN
SCALE: 1"=40'



GENERAL NOTES

- REFER TO CIVIL DRAWINGS FOR WATER, STORM DRAIN, AND SANITARY SEWER UTILITIES.
- CONTRACTOR SHALL NOT DISCONNECT POWER TO EXISTING LIGHTING FIXTURES ON HIGH MAST POLES UNTIL TEMPORARY LIGHTING INSTALLATION INDICATED ON SHEET E3.10 IS ENERGIZED. WHEN EXISTING LIGHTING POLES ARE RELOCATED AND RECONNECTED, REMOVE TEMPORARY LIGHTING INSTALLATION.

KEY NOTES

- (2) 2" C, 3#1/0, #6G EACH.
- ROADWAY LIGHTING FIXTURE, GE #M-400-MSCL-40-E-5-A-1-2-F-MC3, OR ENGINEER APPROVED EQUAL, MOUNTED ON STEEL MAST ARM AT +35' ABOVE GRADE. MAST ARM TO BE MACLEAN POWER SYSTEMS #S-125-6SG OR APPROVED EQUAL.
- LIGHTING POLE INSTALLATION, POLE WIRING AND GROUNDING TO BE PER WSDOT STANDARD PLAN, J-15-10.01.
- CONNECT FIXTURE TO SECURITY LIGHTING CIRCUIT, SERVED FROM PIER 3 PANEL 4P1.
- CONNECT FIXTURE TO YARD LIGHTING CIRCUIT, SERVED FROM PIER 3 PANEL 4P1.
- (2) 1-1/2" C, 3#1/0, #6G.
- 1-1/4" C, 2#1/0, #6G.
- BURIAL DEPTH OF POLE TO BE A MINIMUM OF 10% OF THE TOTAL POLE LENGTH PLUS 2 FEET, PER THE WSDOT STANDARD SPECIFICATIONS.

6552 E3.10 SH 136 OF 489 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION PARTIAL SITE TEMPORARY LIGHTING PLAN		CHECKED BY: <i>[Signature]</i> DATE: 3-28-16	DATE: 2/19/16
	APPROVED: <i>[Signature]</i> DIRECTOR ENG. DATE: 3-28-16 PRINTED BY: Curtis Mar 22, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	SECTION: MLW 19.39' @ Tide 22 1933 RANGE: WA83-SF DAT-HRZ: AS NOTED DRAWING SCALE: AS NOTED	PROJ. ENGR DATE: 2/19/16 DATE: 2/19/16	BY: [] APPR: [] DATE: []

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GENERAL NOTES

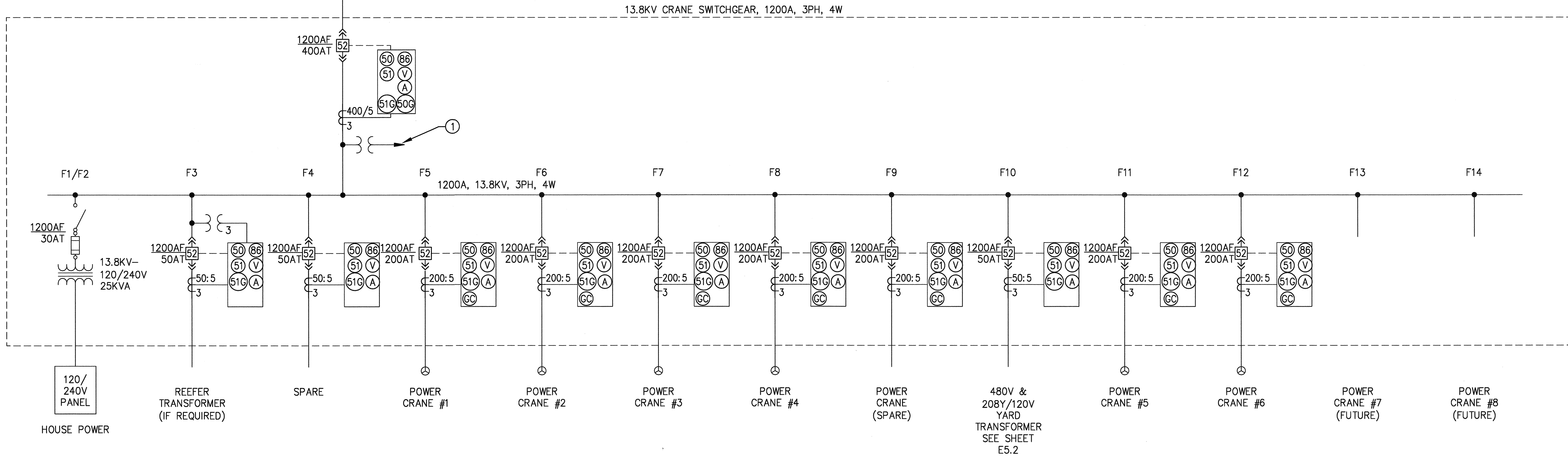
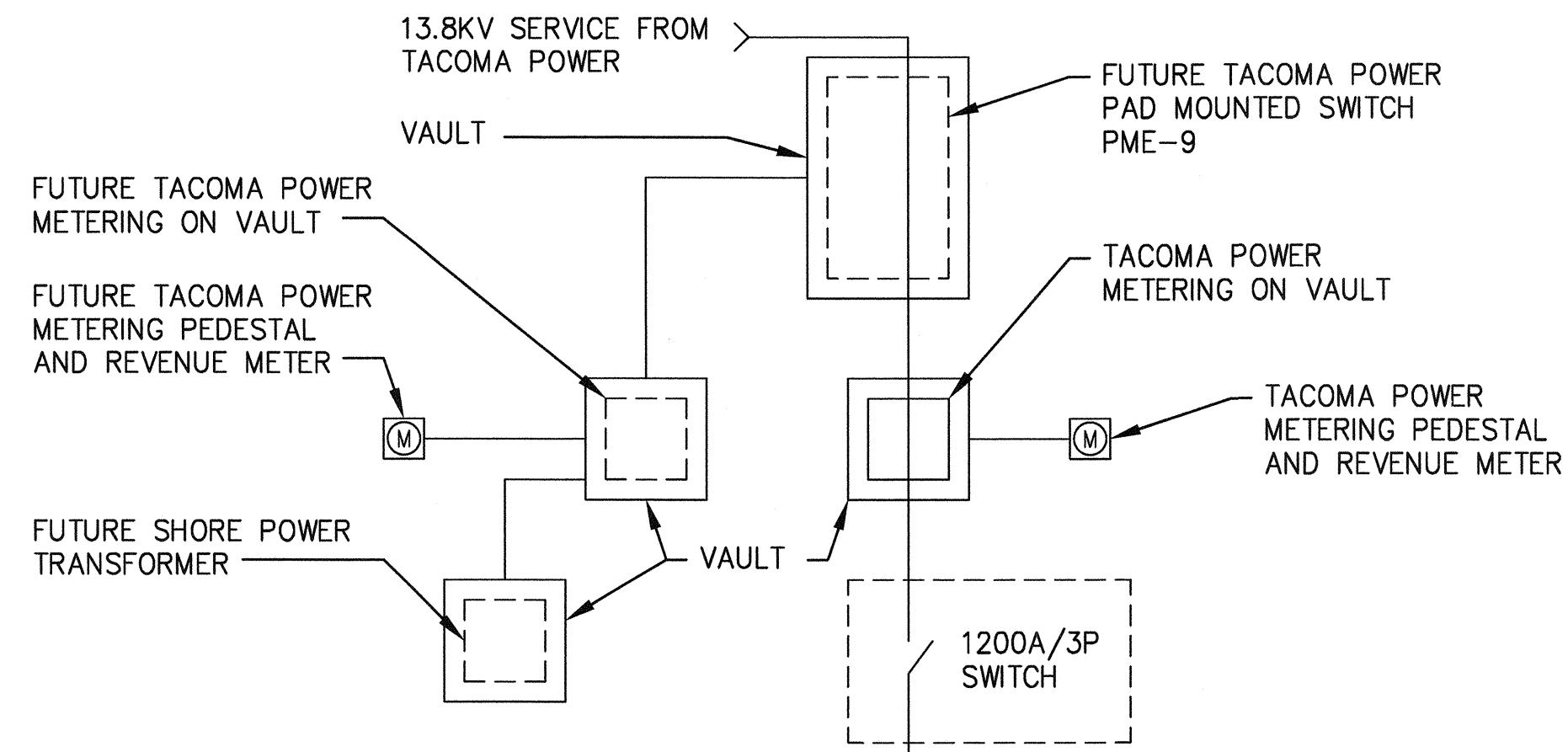
- 1. THE PROPOSED SERVICE INDICATED IS SUBJECT TO REVIEW AND REVISION BY TACOMA POWER.

KEY NOTES

- ① PT FOR CLOSING CIRCUIT BREAKERS AND (3) PT'S FOR TRIPPING RELAYS.

DESIGN BASIS LOAD ESTIMATE (MVA)

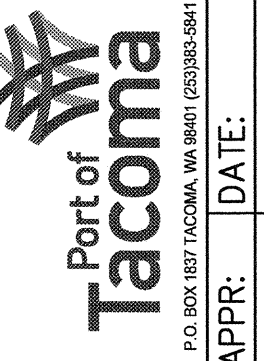
LOAD DESCRIPTION	EACH	% DIVERSITY	TOTAL	
			2015	FUTURE
FOUR 100 GAGE CRANES	2.2	18.00%	1.58	1.58
FOUR 100 GAGE CRANES (FUTURE)	2.2	18		1.58
LIGHTING AND MISC. POWER	0.5	100	0.50	0.50
ONE SHORE POWER BERTH	1.0	60		0.60
180 REEFERS (IF REQUIRED)	0.0075	80	1.08	1.08
TOTAL			3.16	5.34
AMPS @ 13.8kV			132A	223A



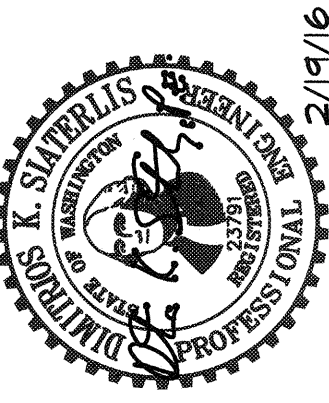
SUBSTATION #8410 ONE-LINE DIAGRAM

NO SCALE

①



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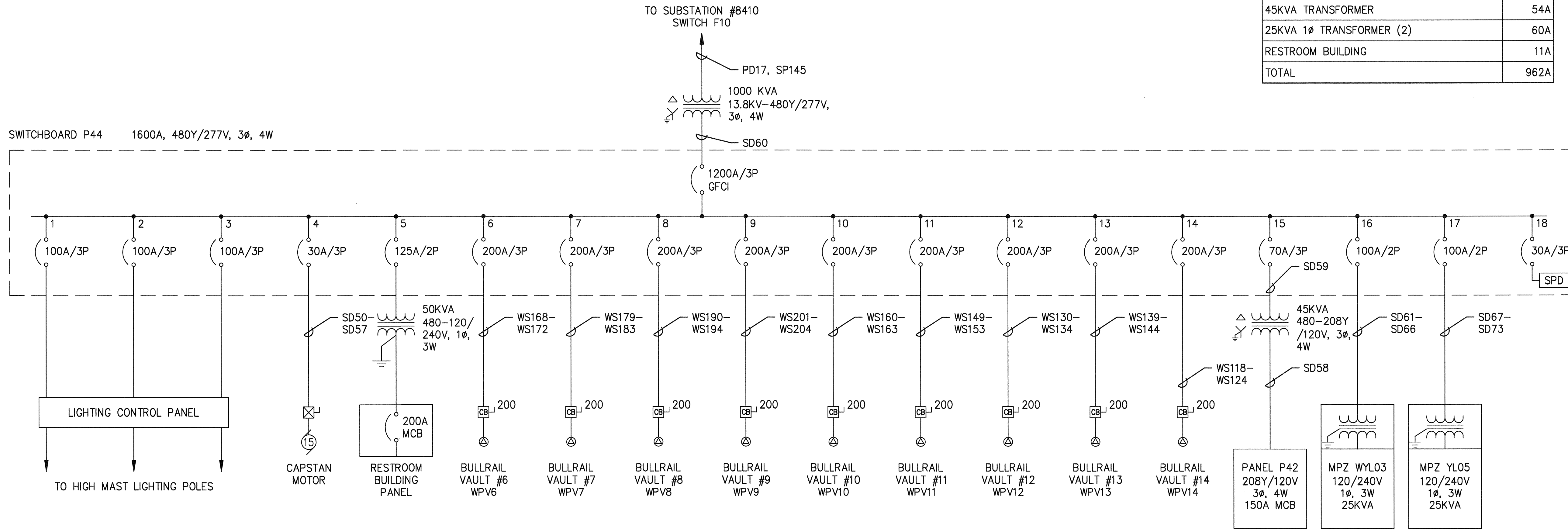
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 DIRECTOR ENGR. DATE: 3-28-16
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 PORT ADDRESS: ONE SITCUM PLAZA
 TACOMA, WA 98401-1837

PIER 4 PHASE 2 RECONFIGURATION
 SUBSTATION #8410 ONE-LINE DIAGRAM

TOWNSHIP: RANGE: SECTION:
 DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933
 DRAWING SCALE: AS NOTED

6552
E5.1
 SH 137 OF 499
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

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LOAD STUDY SWBD P44	
LIGHTING (157 @ 1.95A)	176A
CAPSTAN MOTOR (15HP)	21A
BULLRAIL 200A RECEPT. (MAX 4 IN USE)	640A
45KVA TRANSFORMER	54A
25KVA 1φ TRANSFORMER (2)	60A
RESTROOM BUILDING	11A
TOTAL	962A

1
YARD ELECTRICAL ONE-LINE DIAGRAM
NO SCALE

6552
E5.2
SH 138 OF 489
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2 RECONFIGURATION
YARD ELECTRICAL ONE-LINE DIAGRAM

TOWNSHIP: MLLW 19.39' @ Tide 22 1933
DAT-HRZ: WA83-SF
PARCEL: DRAWING SCALE: AS NOTED

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DIRECTOR ENG. DATE: 3-28-16
PRINTED BY: Curtis Mar 22, 2016
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TACOMA, WA 98401-1837

CHECKED BY: DATE: _____
PROJ. ENGR DATE: _____
SECTION: _____
RANGE: _____
VERT: _____

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GENERAL NOTES

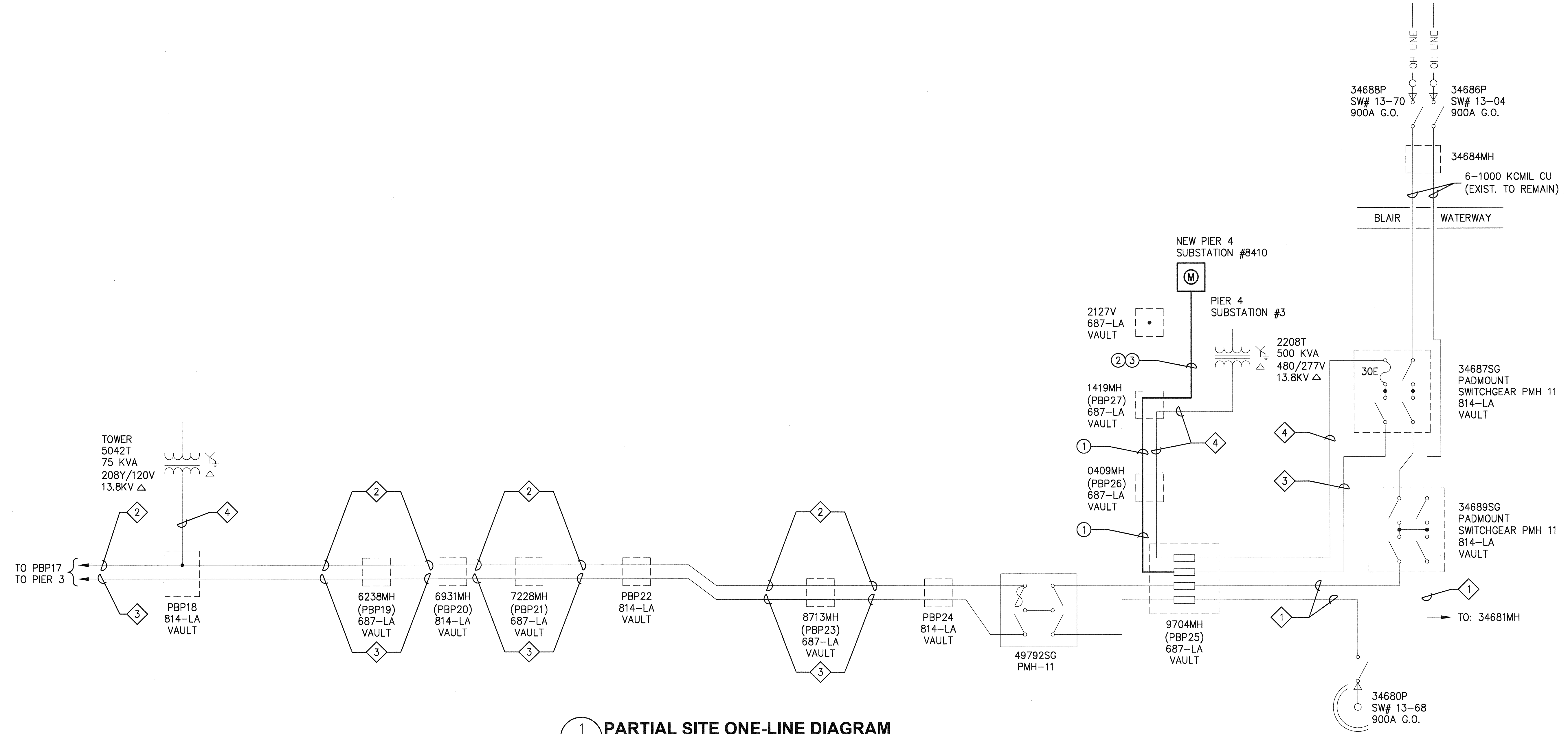
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KEYED NOTES

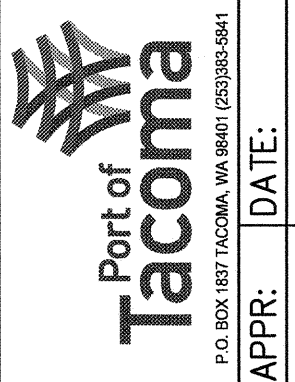
- ① 3-350KCML CU PROVIDED BY TPU IN EXISTING DUCTBANK.
- ② TACOMA POWER APPROVED ELECTRICAL CONTRACTOR TO PROVIDE CONDUITS.
- ③ TACOMA POWER TO PROVIDE 3-350KCML CU CABLES.

FOR INFORMATION ONLY NOTES

- ① 6-350KCML CU (EXISTING TO REMAIN)
- ② 3-1/0 CU (EXISTING TO REMAIN)
- ③ 3-350KCML CU (EXISTING TO REMAIN)
- ④ 3-#2 CU (EXISTING TO REMAIN)



① **PARTIAL SITE ONE-LINE DIAGRAM**
NO SCALE



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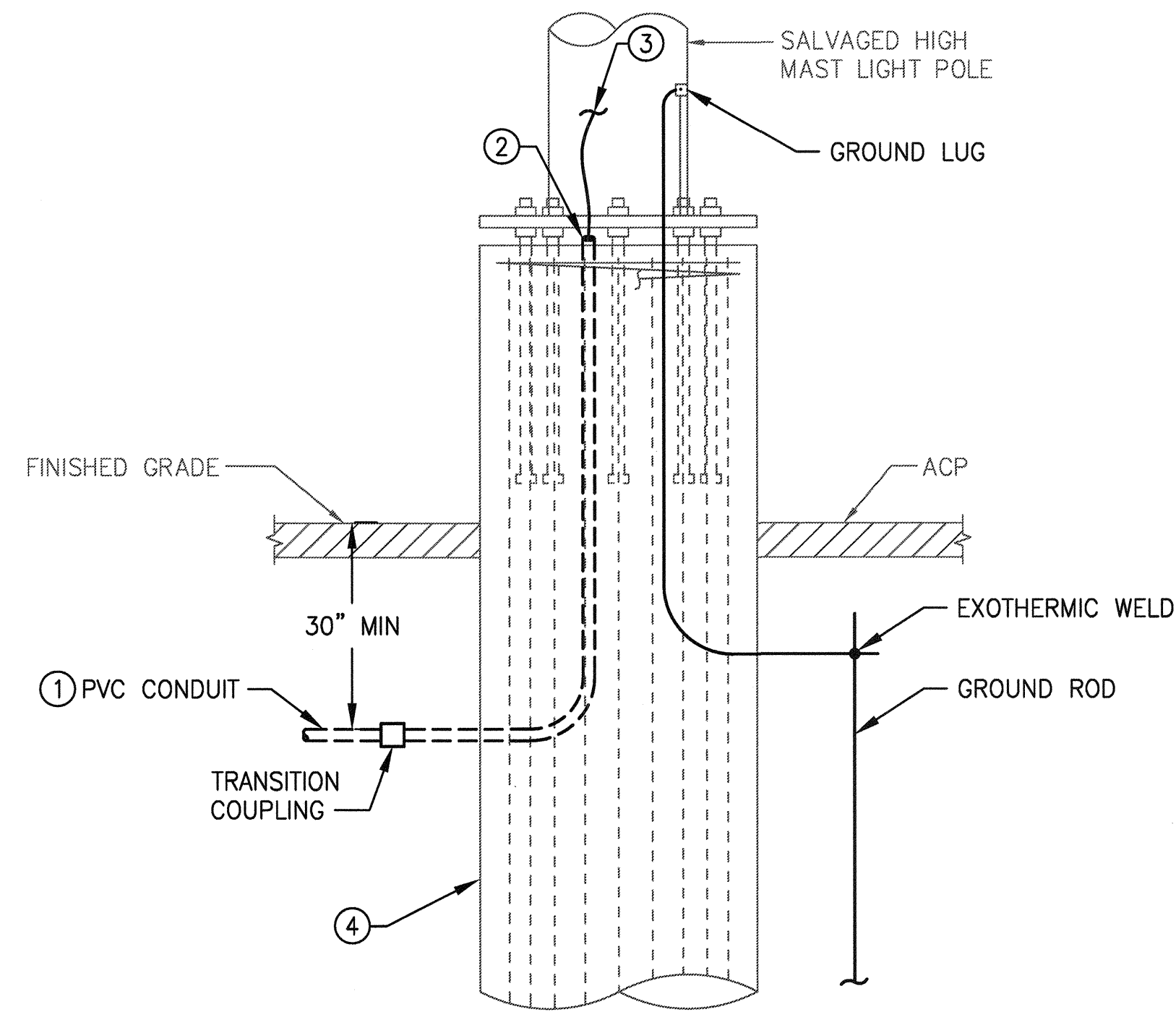
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 PORT ADDRESS: ONE SITCUM PLAZA
 TACOMA, WA 98401-1837

PIER 4 PHASE 2
RECONFIGURATION
 PARTIAL-SITE ONE-LINE DIAGRAM

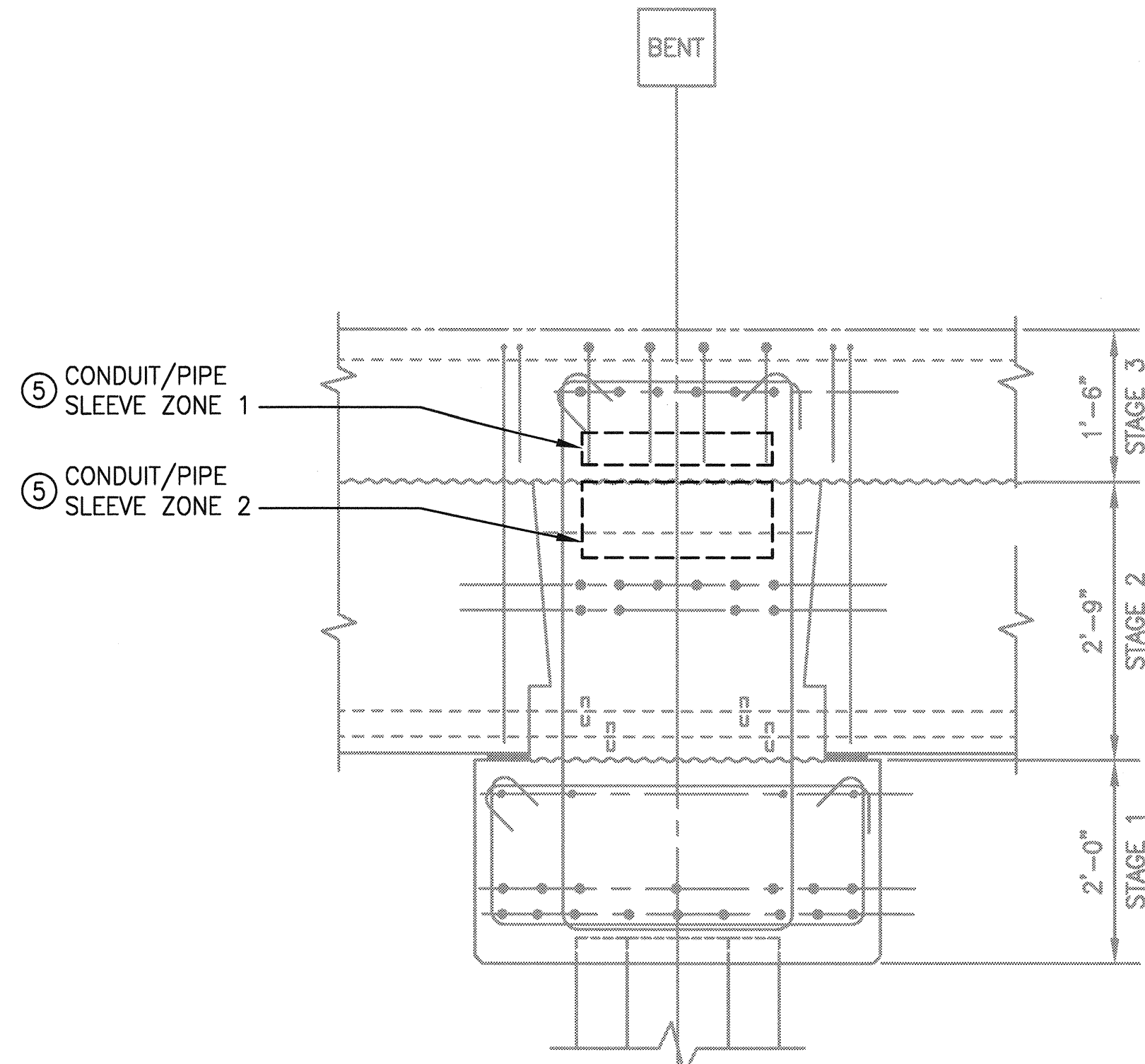
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 PROJ. ENGR: DATE: _____
 SECTION: _____
 RANGE: M.L.W. 19.39' @ Tide 22 1933
 TOWNSHIP: _____
 DAT-HRZ: WA83-SF
 VERT: _____
 DRAWING SCALE: AS NOTED
 PARCEL: _____

6552
E5.3
 SH 139 OF 499
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

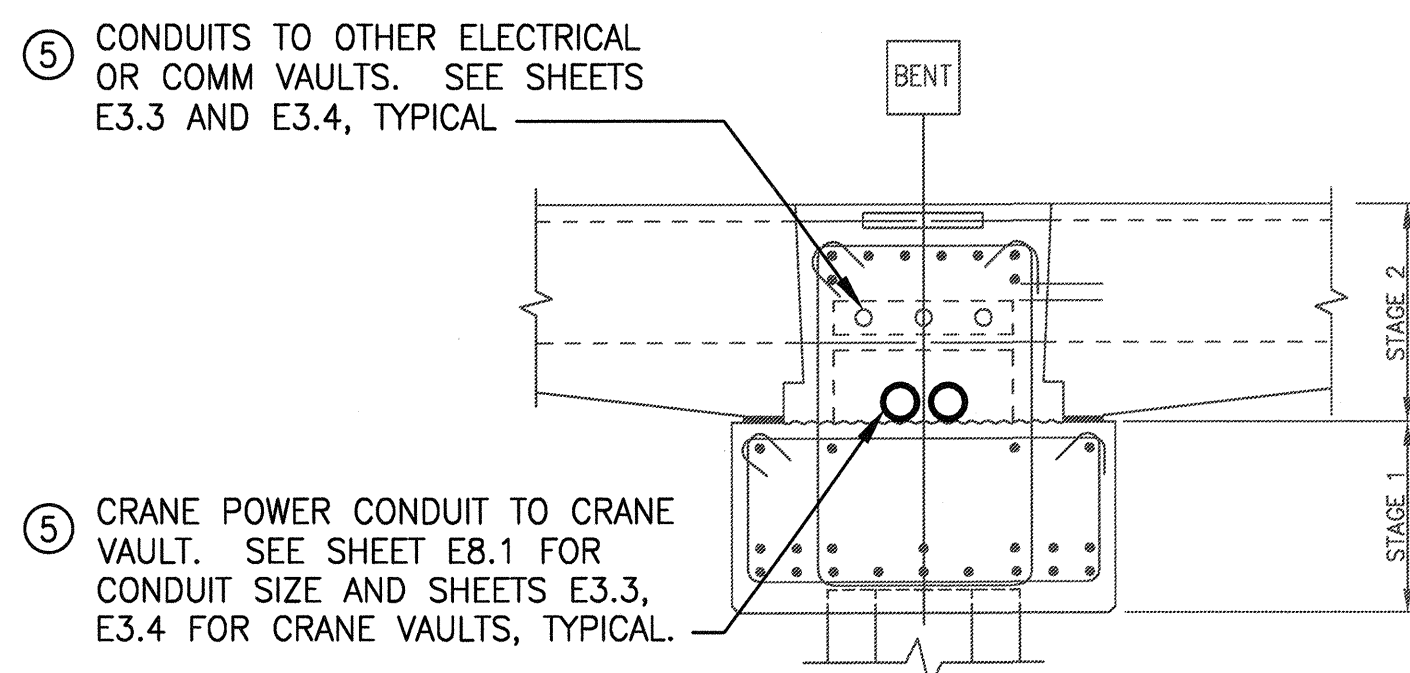
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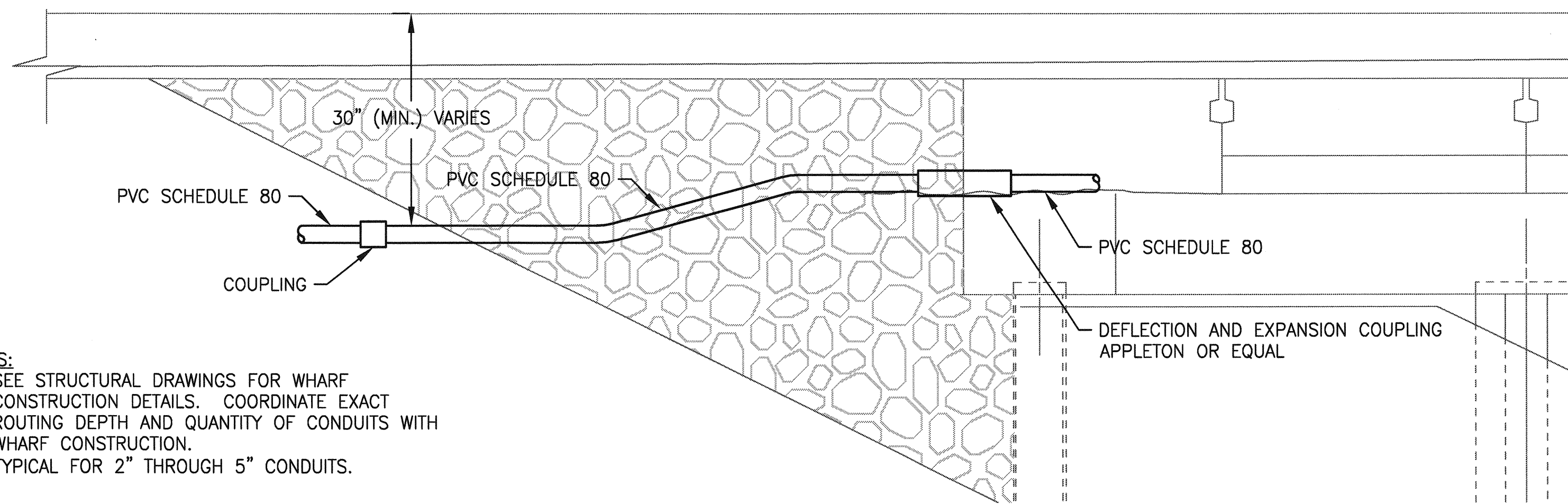
1
SITE LIGHTING POLE FOUNDATION DETAIL
 E3.3, E3.4 NO SCALE



4
PILE CAP SECTION AT WATERSIDE CRANE BEAM
 E6.9-E6.13 NO SCALE



2
SECTION THROUGH PILECAP FOR SERVICE TO CRANE VAULTS
 E3.3, E3.4 NO SCALE



NOTES:
 1. SEE STRUCTURAL DRAWINGS FOR WHARF CONSTRUCTION DETAILS. COORDINATE EXACT ROUTING DEPTH AND QUANTITY OF CONDUITS WITH WHARF CONSTRUCTION.
 2. TYPICAL FOR 2" THROUGH 5" CONDUITS.

3
DEFLECTION AND EXPANSION COUPLING
 E3.4, E6.10-E6.12 NO SCALE

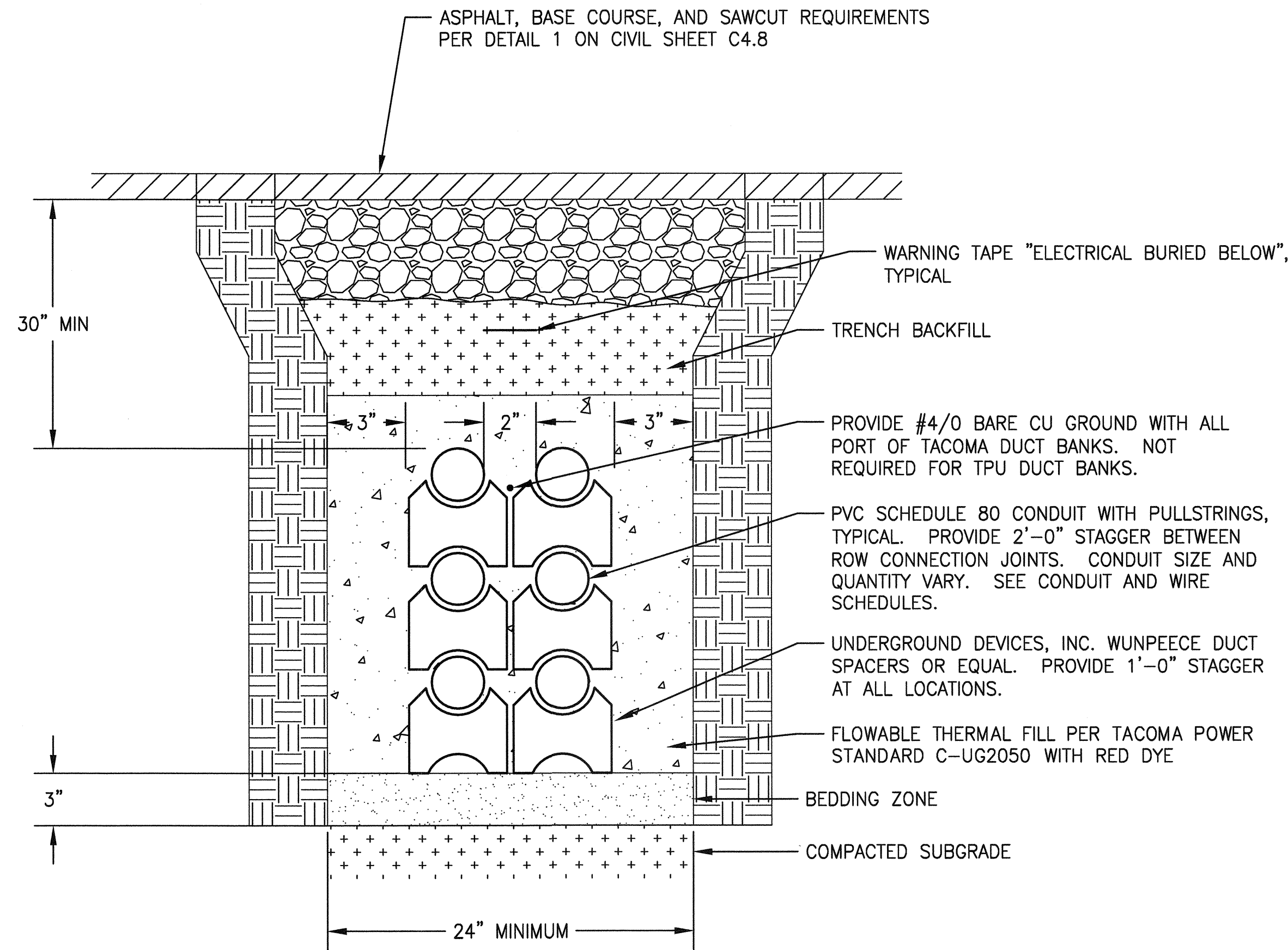
KEY NOTES

- 1 SEE SHEETS E3.2, E3.3 AND E3.4 FOR QUANTITY OF LIGHTING CONDUITS ROUTED TO EACH LIGHTING POLE.
- 2 STUB UP CONDUITS MIN. 1" ABOVE TOP OF CONCRETE POLE BASE AND TERMINATE WITH AN INSULATED BUSHING.
- 3 ROUTING OF WIRING AND TERMINATIONS TO MATCH EXISTING INSTALLATIONS.
- 4 SEE SHEET S45.1 FOR LIGHTING POLE BASE DETAILS.
- 5 SEE STRUCTURAL SHEET S10.1 FOR INFORMATION REGARDING THE CONDUIT/PIPE SLEEVE ZONES.

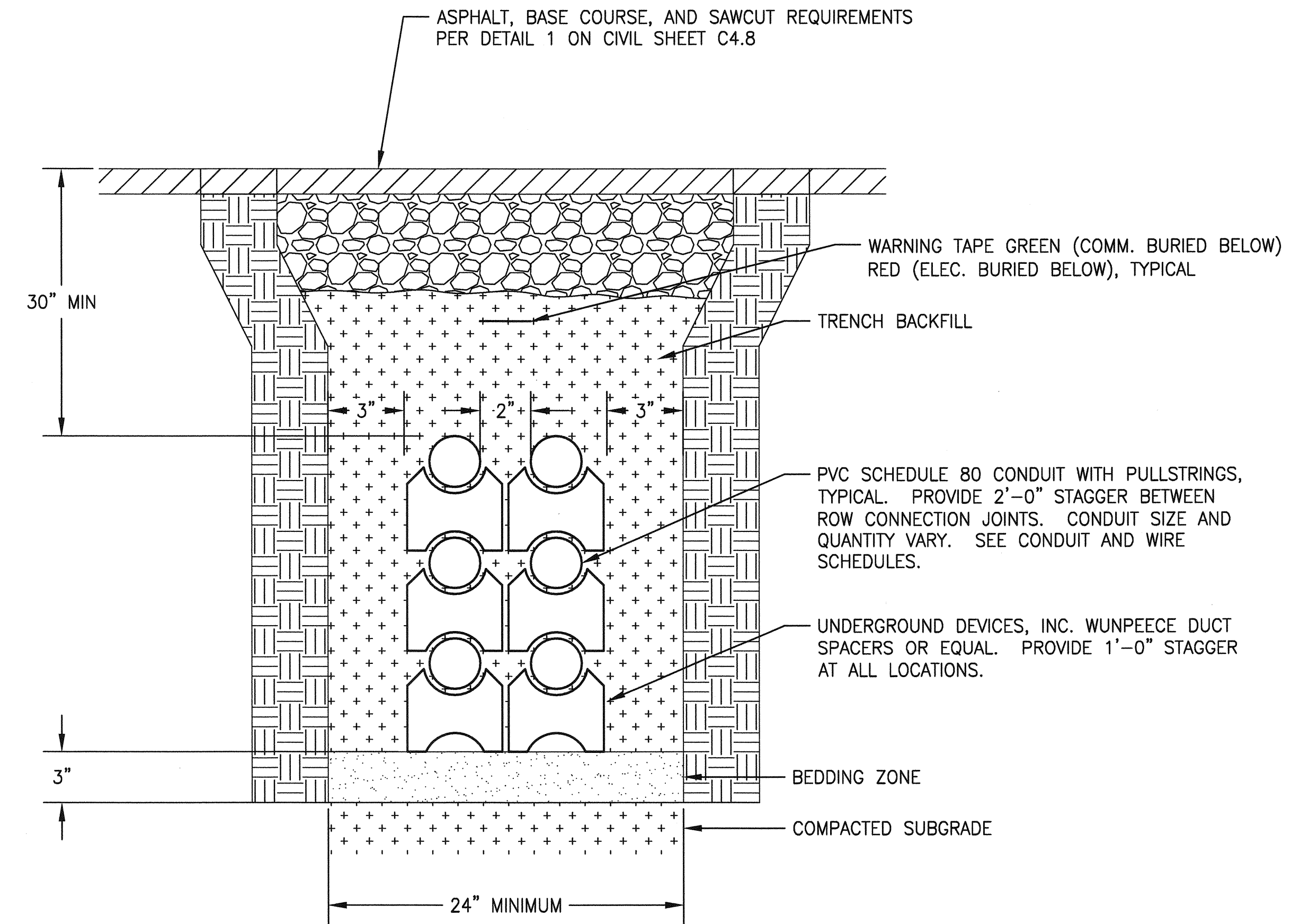
	ELCON ASSOCIATES, INC ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-5022 FAX (206) 243-5205	MARK: _____ REVISION: _____ BY: _____ APPR: _____ DATE: _____
		CHECKED BY: _____ DATE: _____ PROJECT ENGR: _____ DATE: _____ DIRECTOR ENGR. DATE: 3-28-16 PRINTED BY: Curtis Mar 22, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
6552 E6.1 SH 140 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION ELECTRICAL DETAILS	SECTION: _____ RANGE: MLW 19.39' @ Tide 22 1933 DAT-HRZ: WA83-SF VERT: _____ DRAWING SCALE: AS NOTED PARCEL: _____

GENERAL NOTES

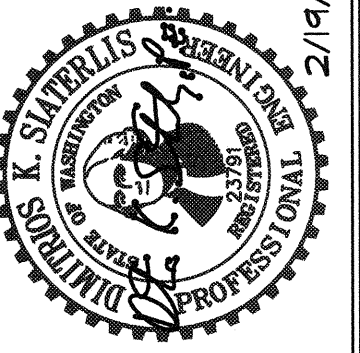
- SEE SHEET E6.3 FOR CONDUIT SPECIFIC DUCTBANK CONFIGURATIONS.



A
TYPICAL 15KV CONDUIT TRENCHING
 E3.3, E3.4, E3.5
 NO SCALE



B
TYPICAL COMMUNICATIONS AND 600V CONDUIT TRENCHING
 E3.3, E3.4, E3.5
 NO SCALE



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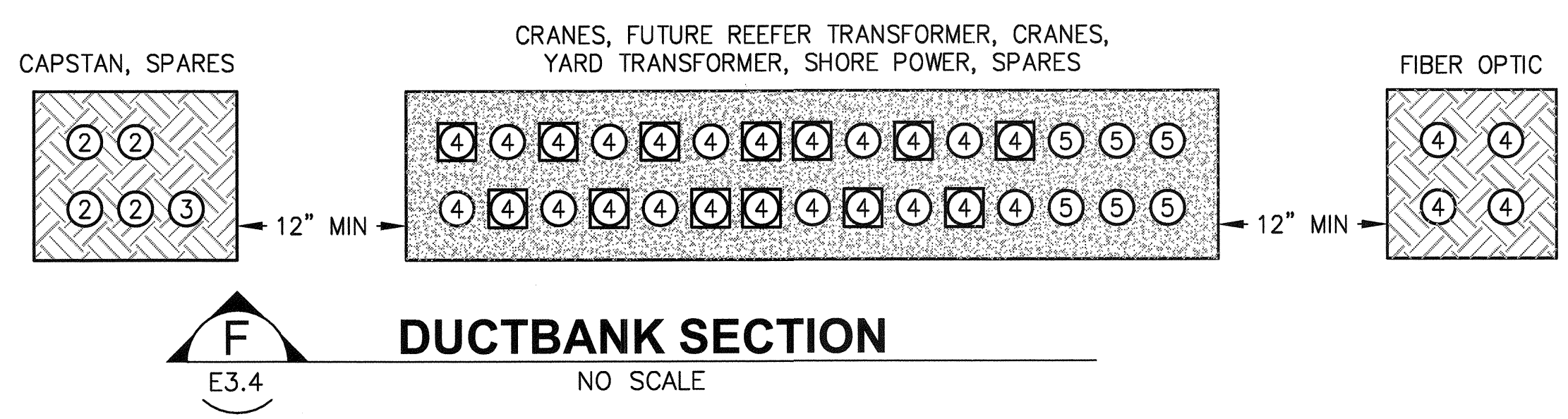
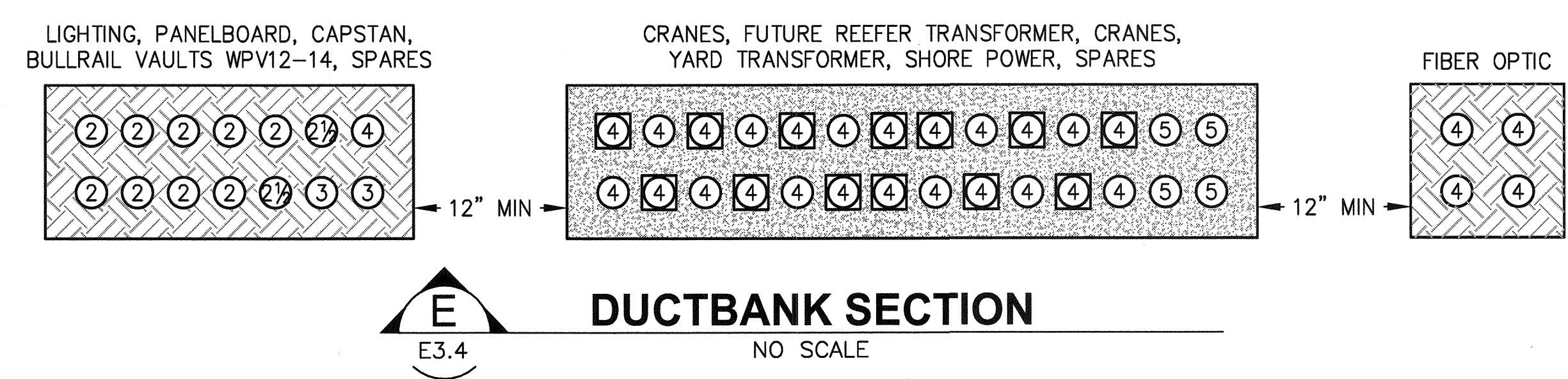
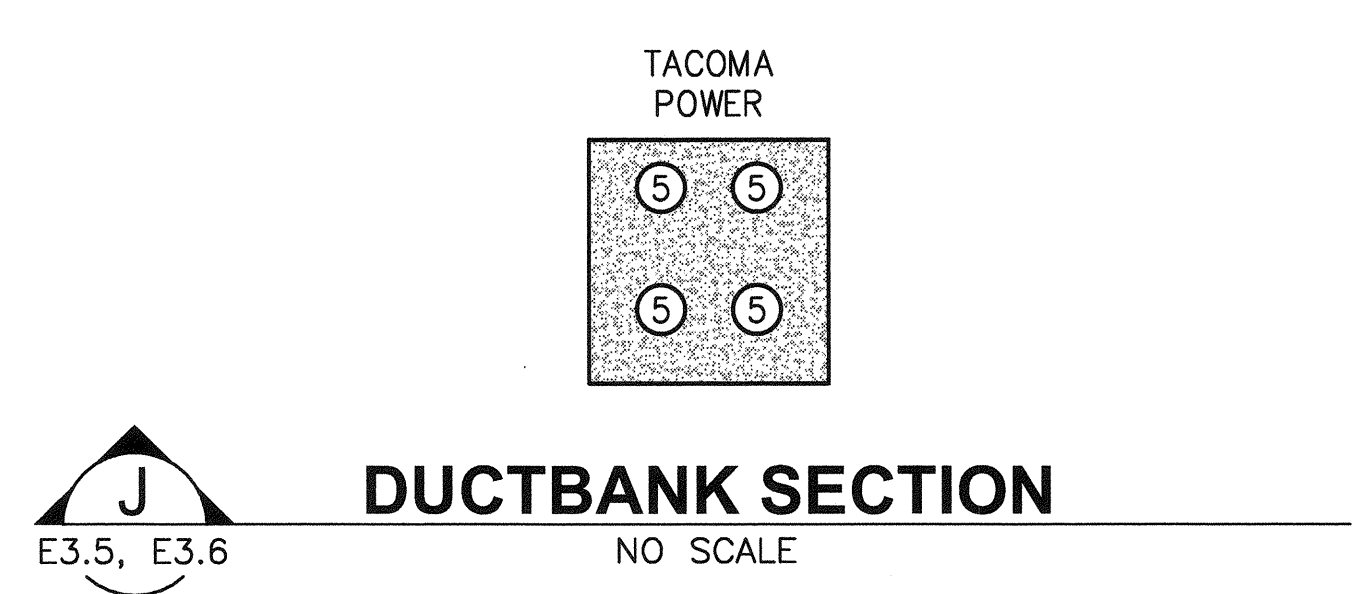
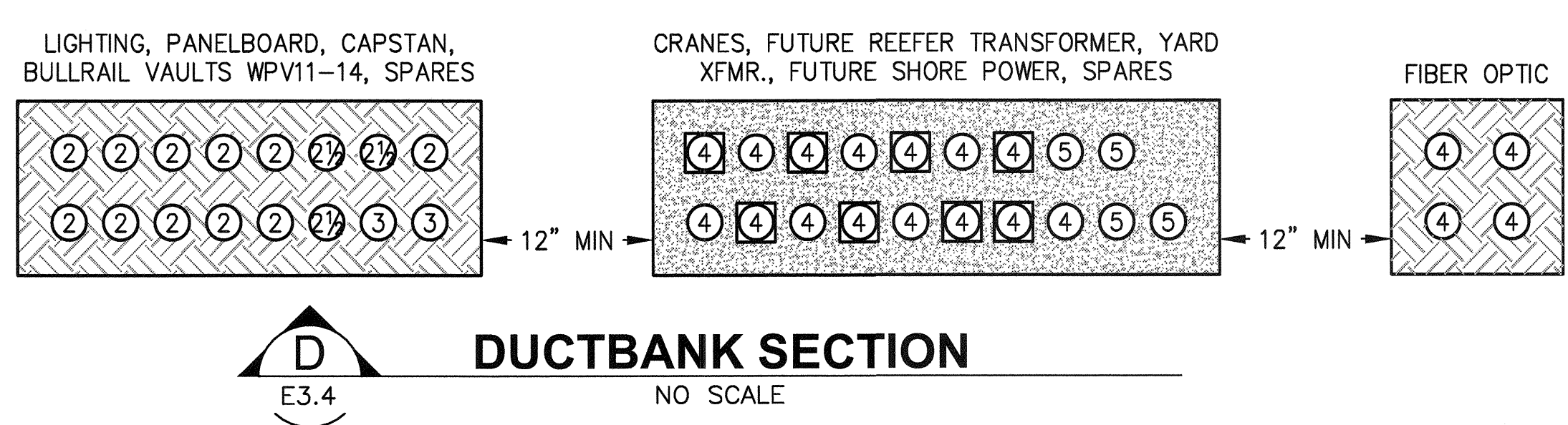
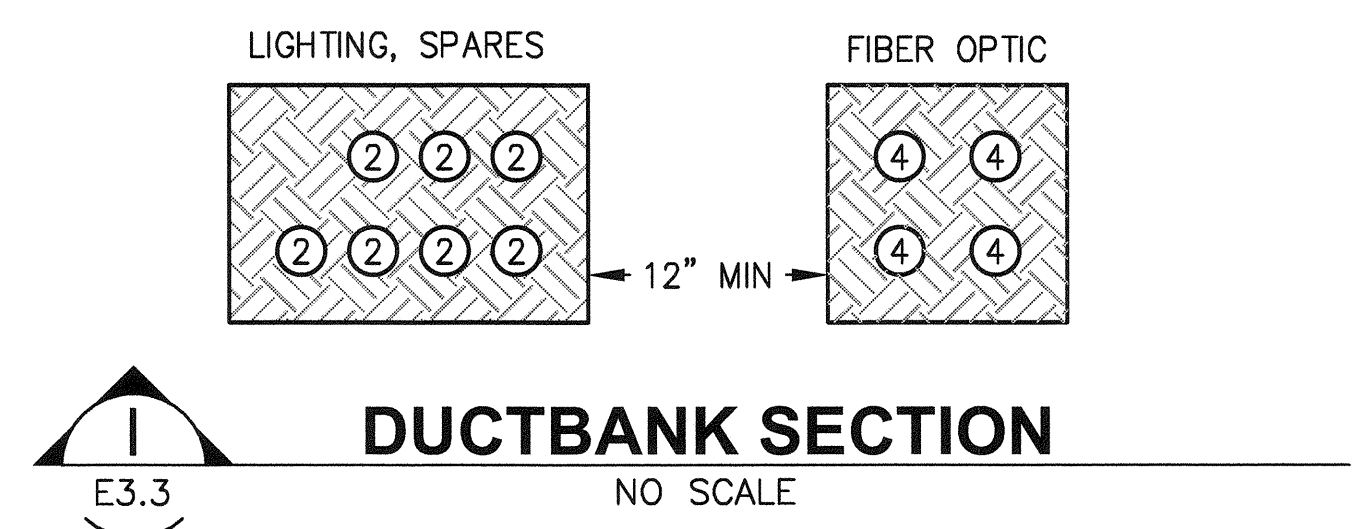
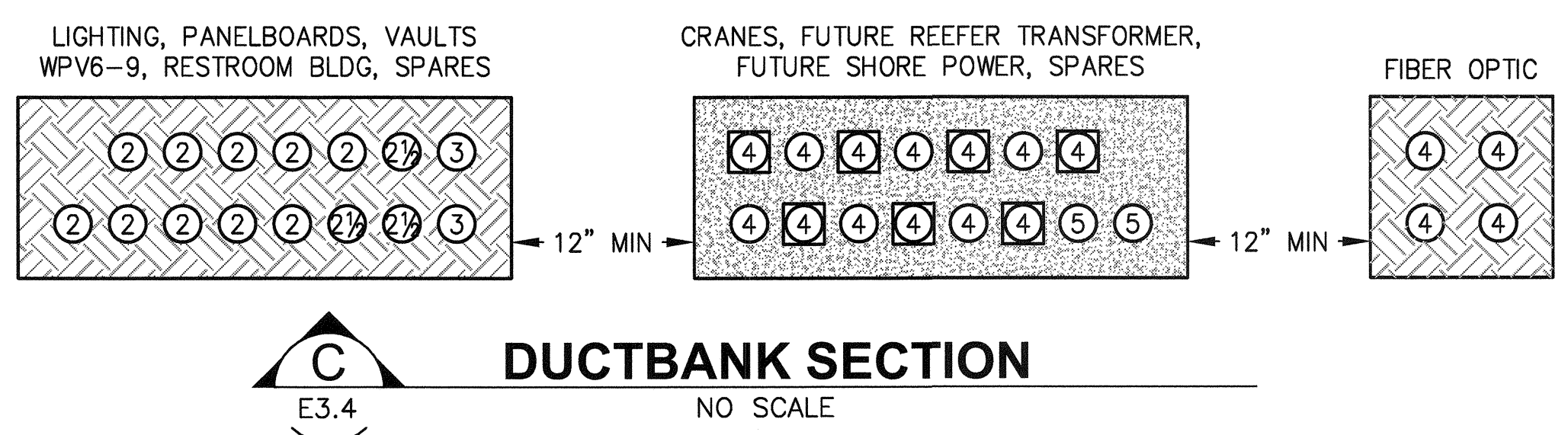
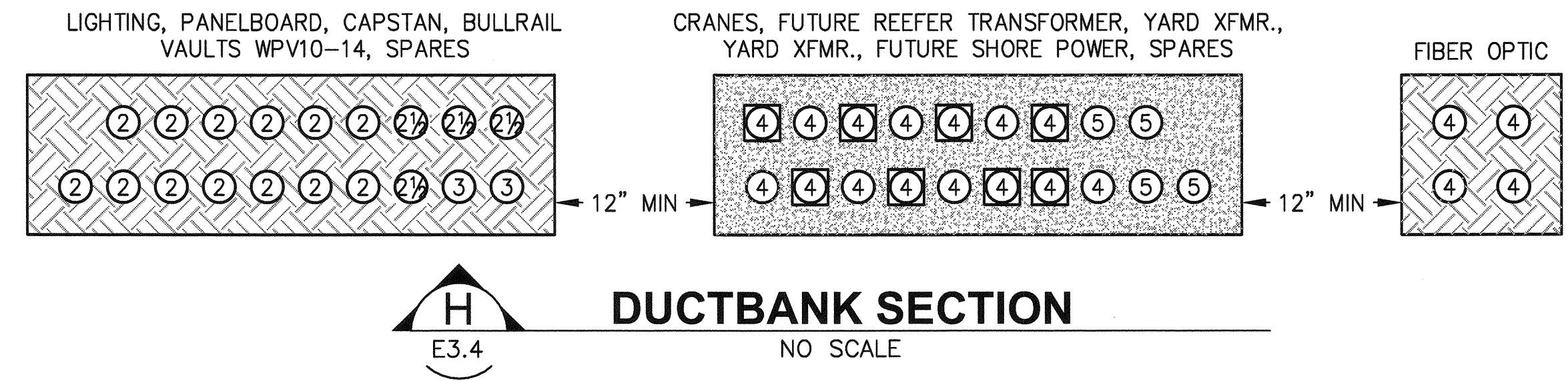
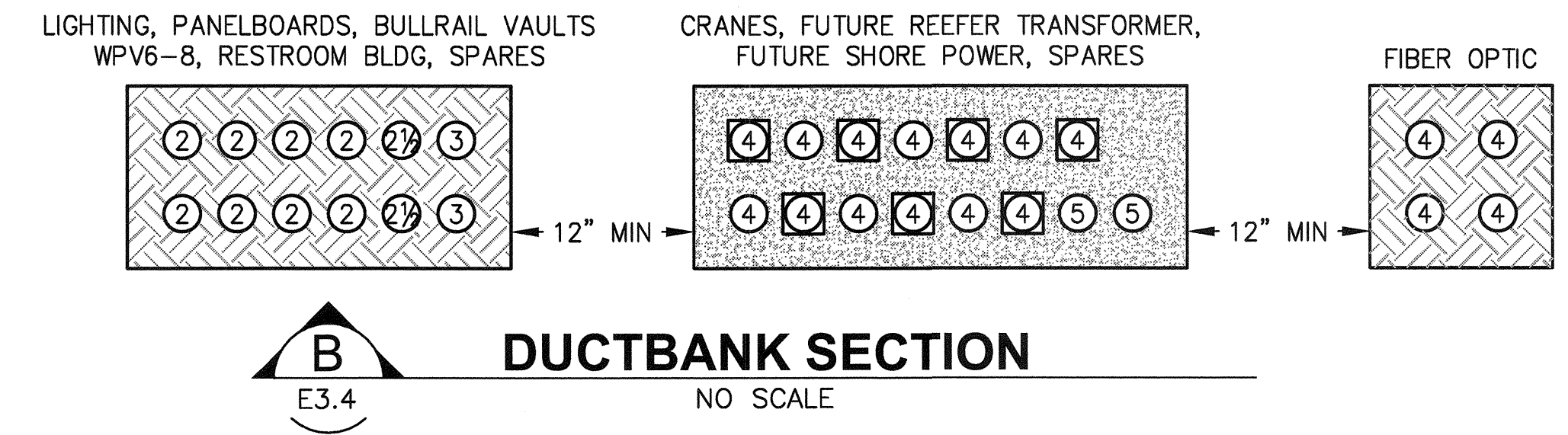
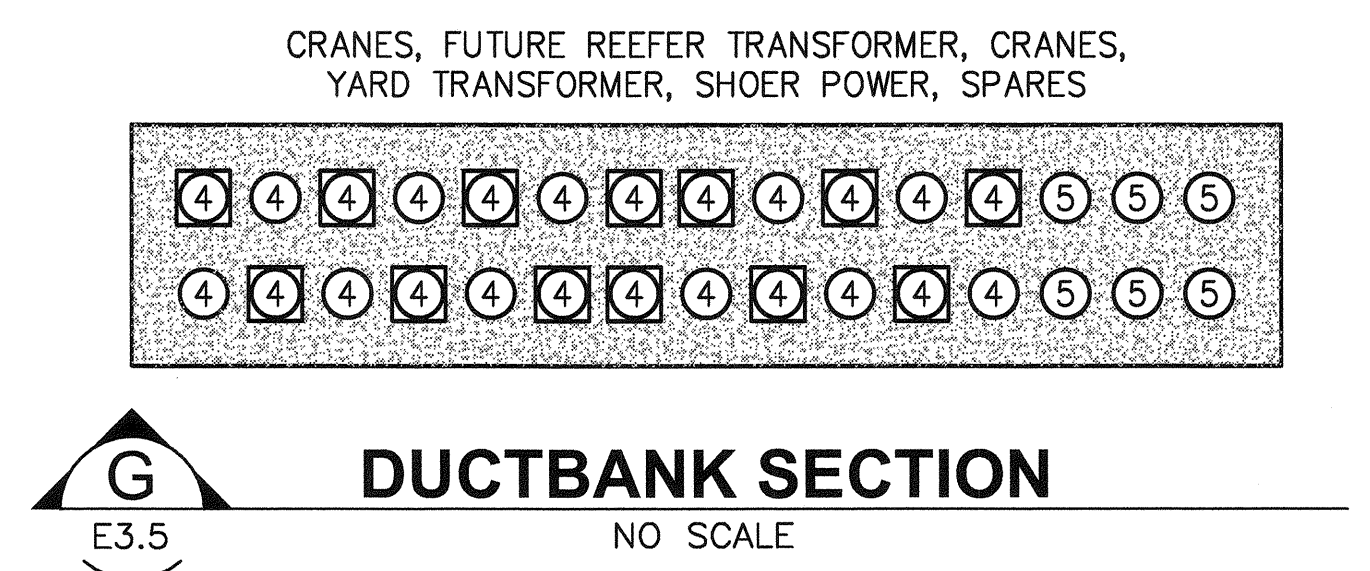
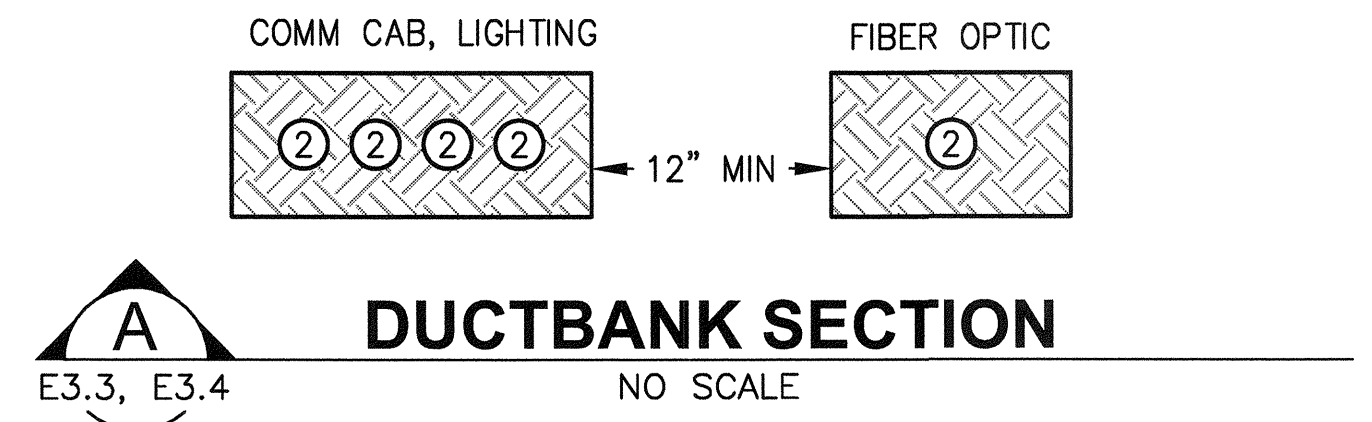
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<i>[Signature]</i>		
DIRECTOR ENG. DATE: 3-28-16	PROJ. ENGR	DATE
PRINTED BY: Curtis Mar 22, 2016		
PORT ADDRESS: ONE SITCUM PLAZA		
TACOMA, WA 98401-1837		

PIER 4 PHASE 2 RECONFIGURATION ELECTRICAL DETAILS	SECTION:	
RANGE:	MLW 19.39' @ Tide 22 1933	
VERT:		
DRAWING SCALE:	AS NOTED	

6552 E6.2	SH 141 OF 499
CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

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BINDING EDGE



LEGEND

- ② CONDUIT SIZE
- SPARE MV CONDUIT WILL ONLY BE USED IF FAILURE OCCURS IN PRIMARY FEEDER MAKING FEEDER UNUSABLE
- Maximum 1/4" SELECT FILL, COMPACTED
- FLOWABLE THERMAL FILL PER TACOMA POWER STANDARD C-UG2050

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6552 E6.3 OF 499

PIER 4 PHASE 2 RECONFIGURATION DUCTBANK SECTIONS

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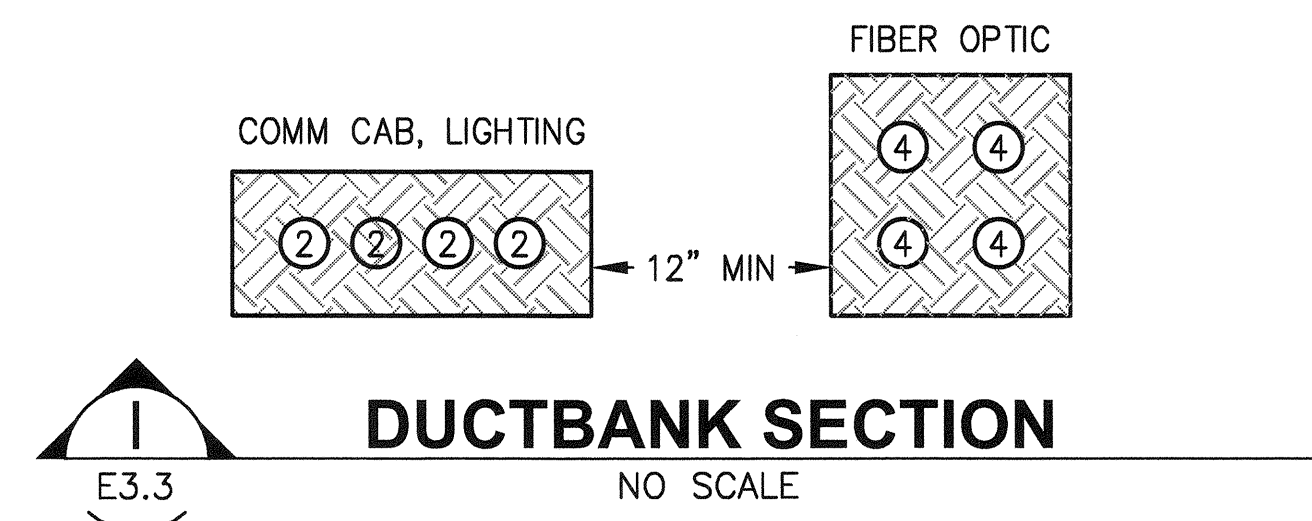
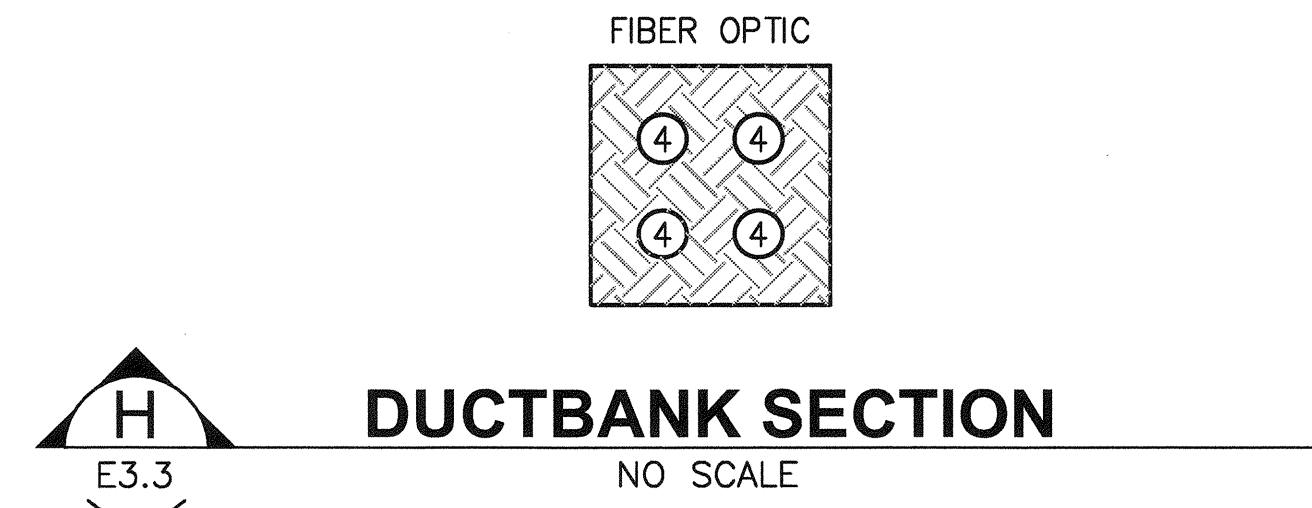
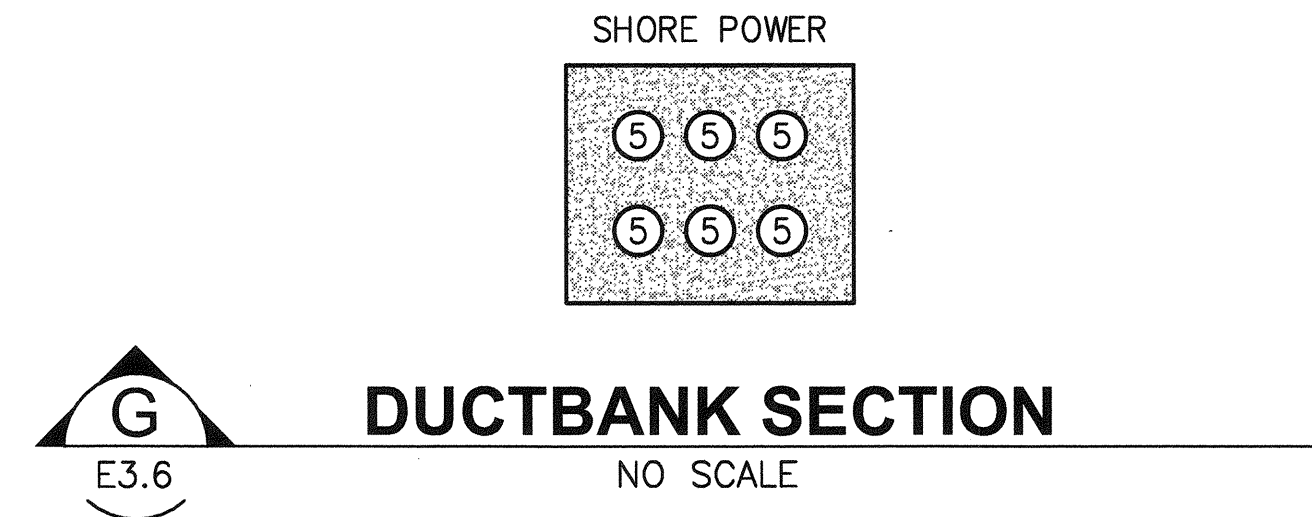
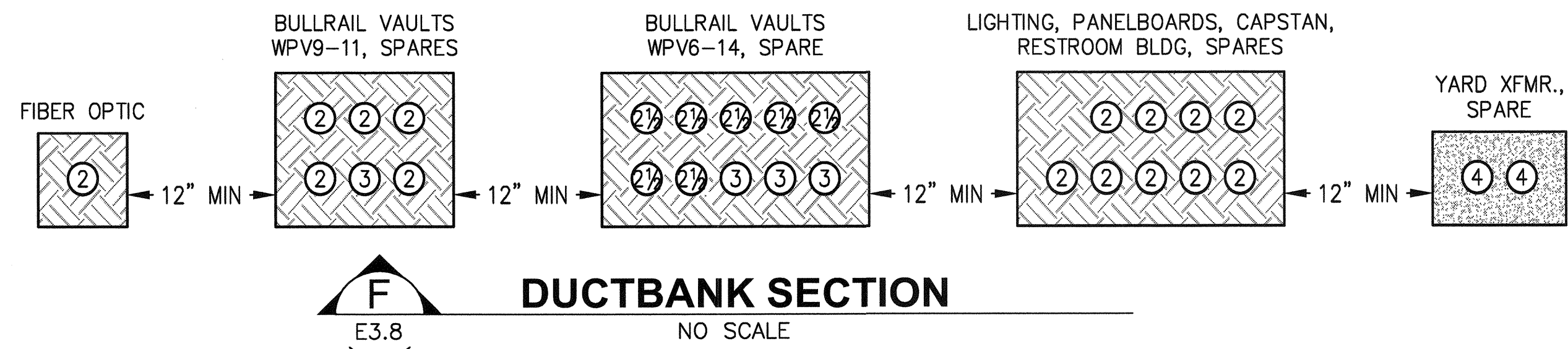
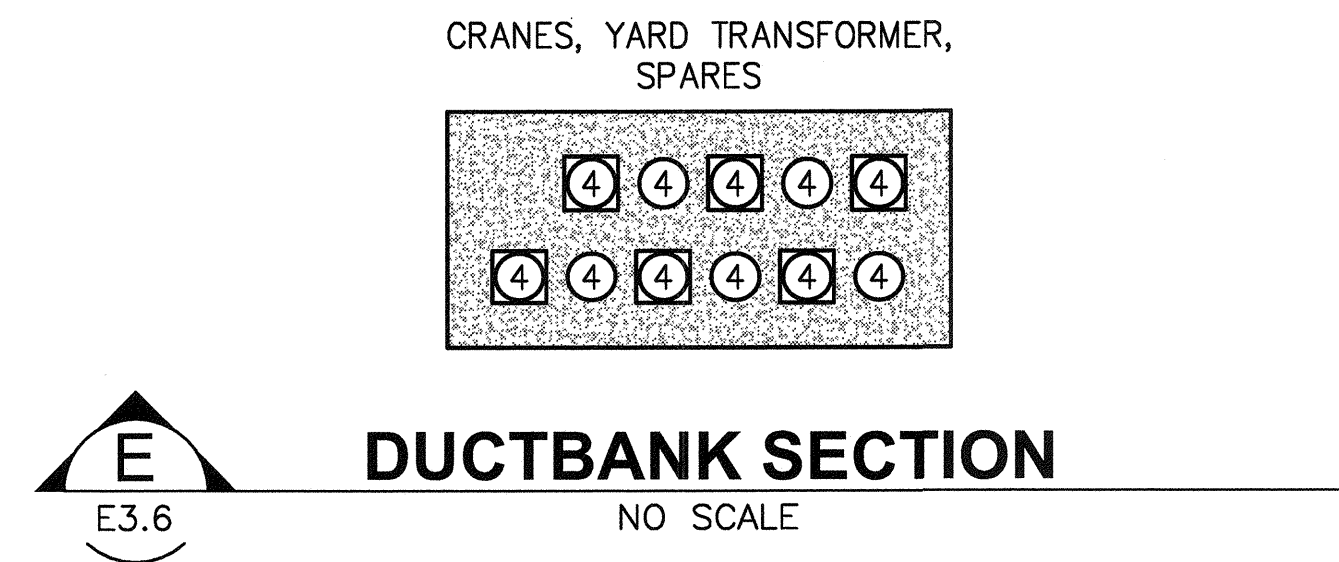
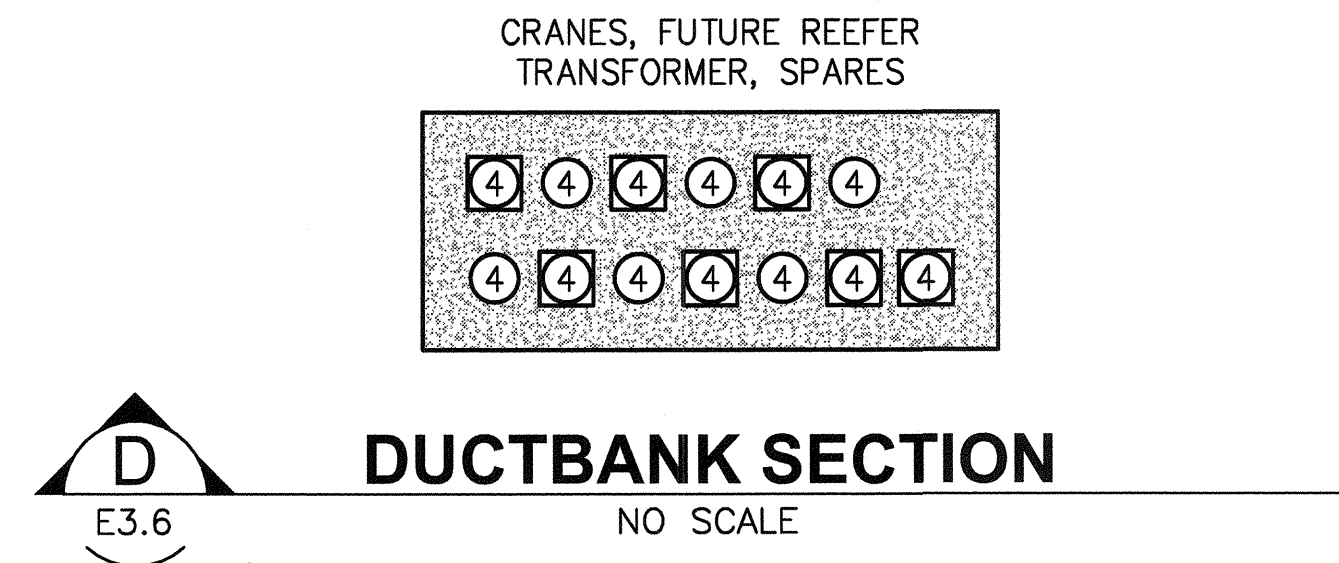
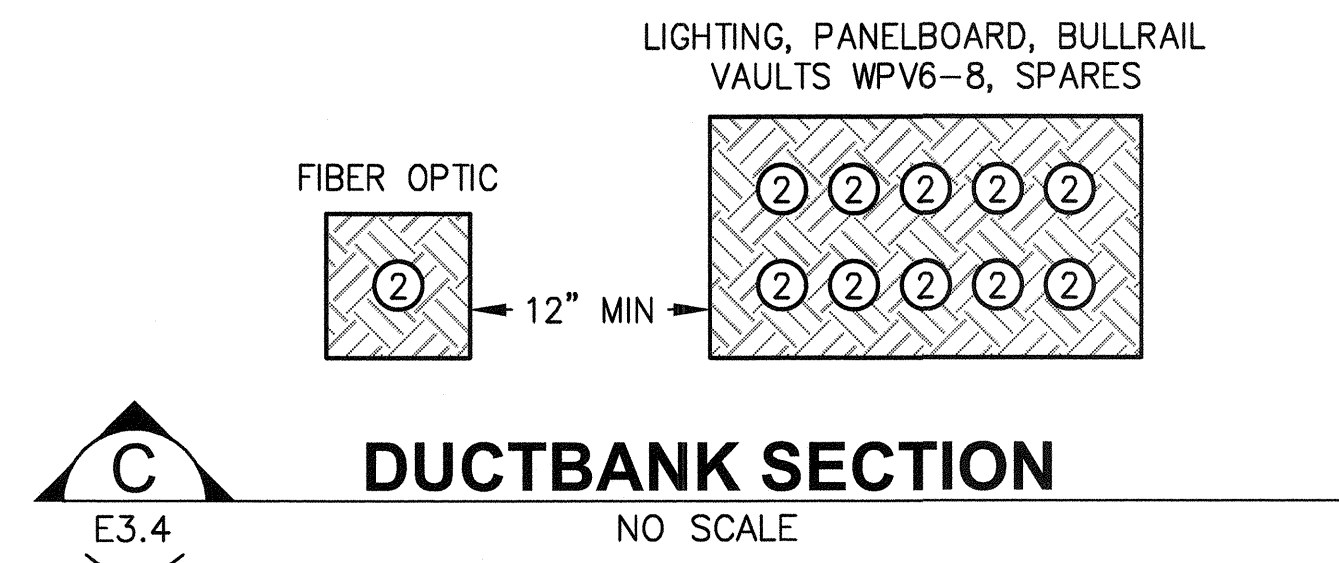
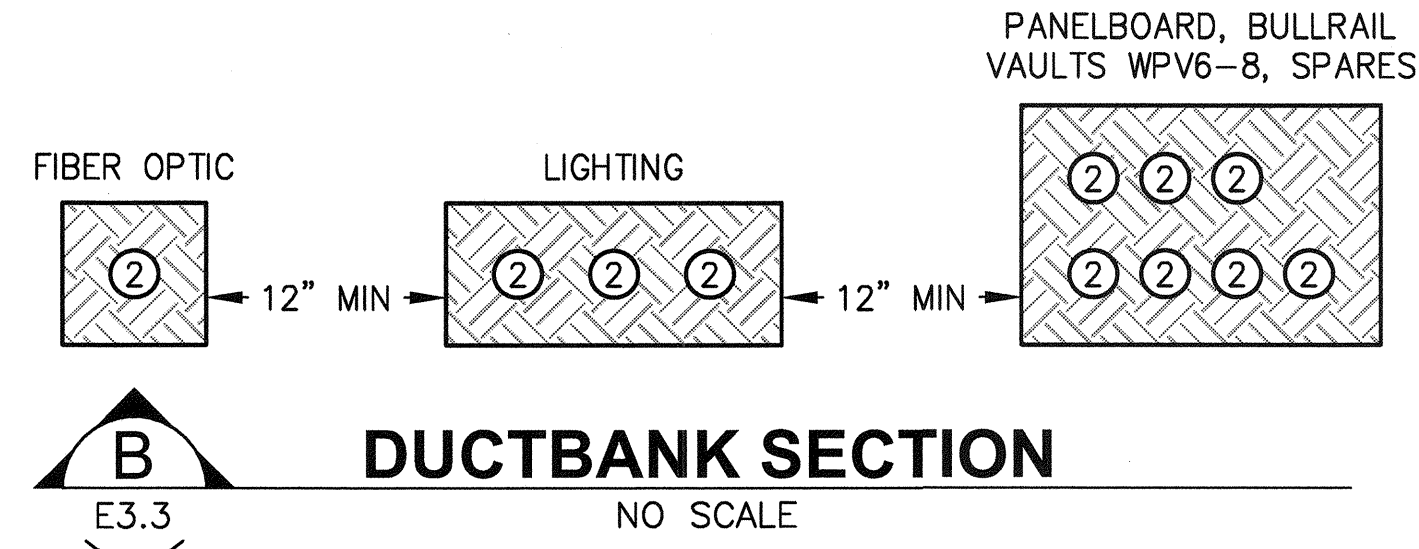
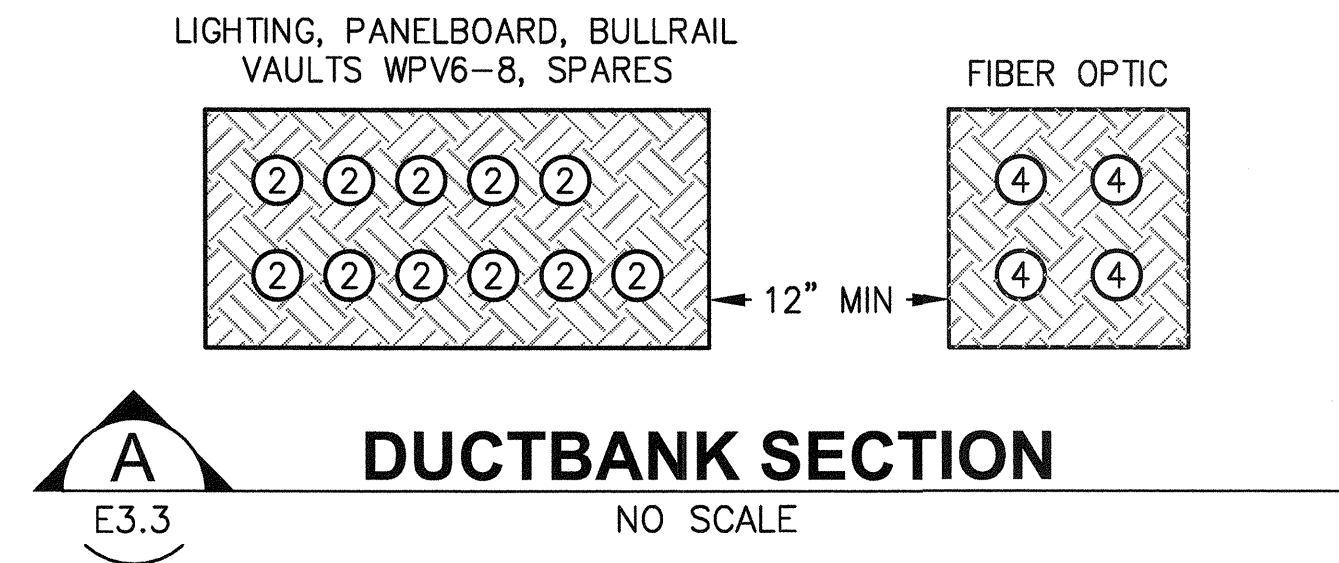
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LEGEND

	CONDUIT SIZE
	SPARE MV CONDUIT WILL ONLY BE USED IF FAILURE OCCURS IN PRIMARY FEEDER MAKING FEEDER UNUSABLE
	MAXIMUM 1/4" SELECT FILL, COMPACTED
	FLOWABLE THERMAL FILL PER TACOMA POWER STANDARD C-UG2050

6552 E6.4
SH 143 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2 RECONFIGURATION DUCTBANK SECTIONS

APPROVED: *[Signature]*
3-28-16
DIRECTOR ENG. DATE: 3-28-16
PRINTED BY: Curtis Mar 22, 2016
TOWNSHIP: MLLW 19.39' @ Tide 22 1933
DATE-HRZ: WA83-SF
SECTION: RANGE:
VERT: VERT: MLLW 19.39' @ Tide 22 1933
DRAWING SCALE: AS NOTED
TACOMA, WA 98401-1837

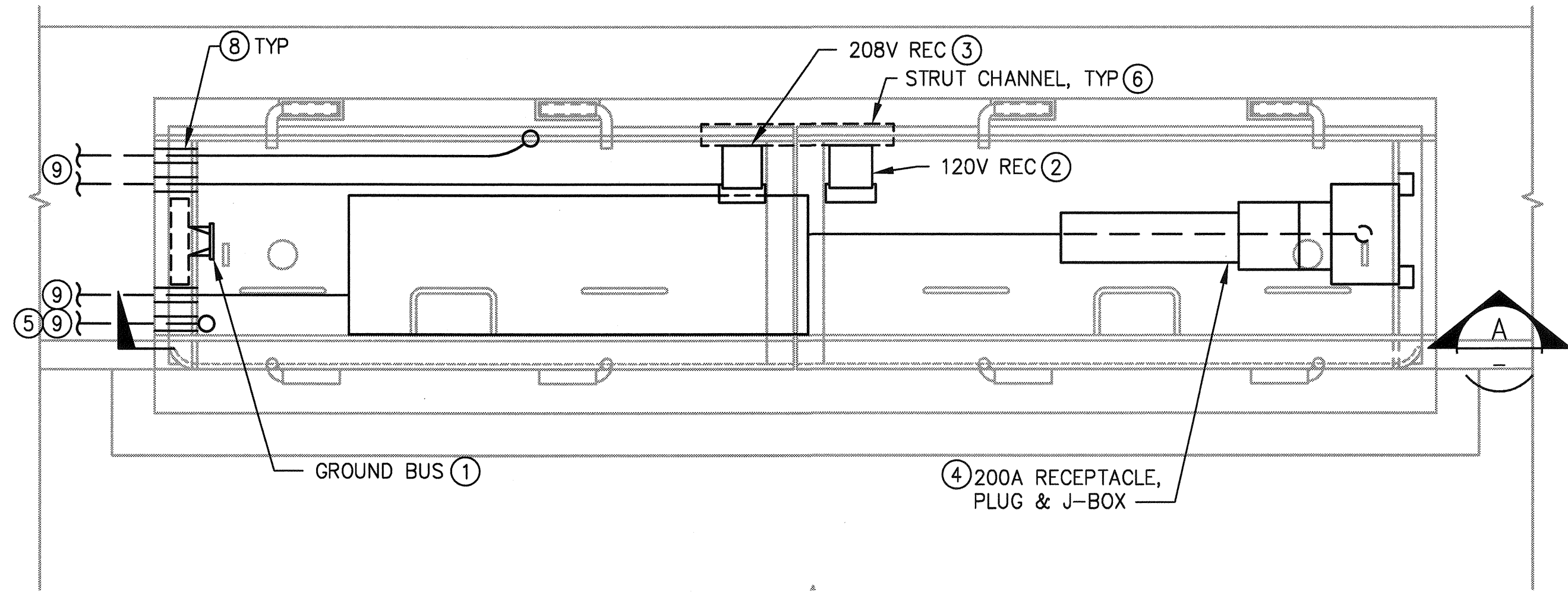
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DATE

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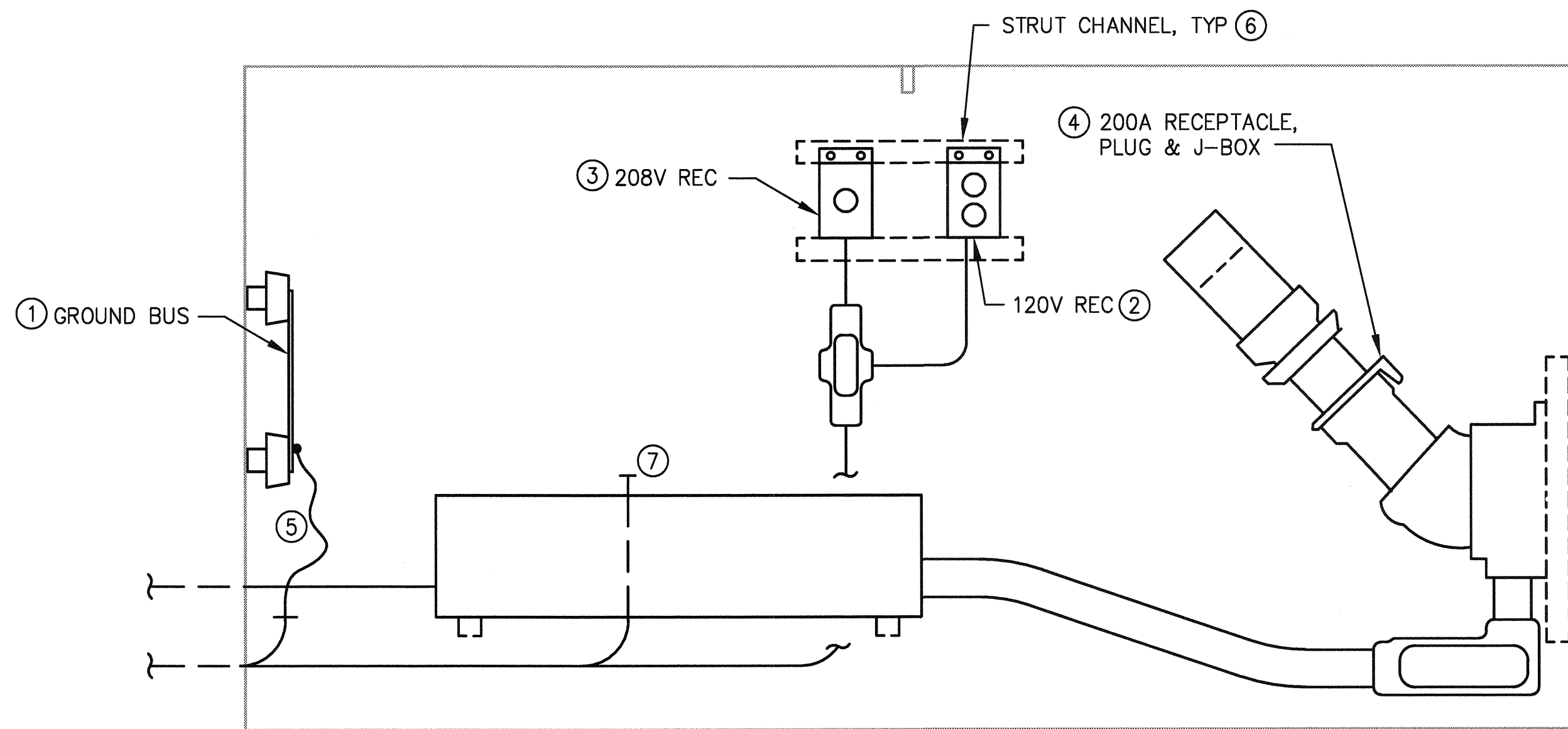
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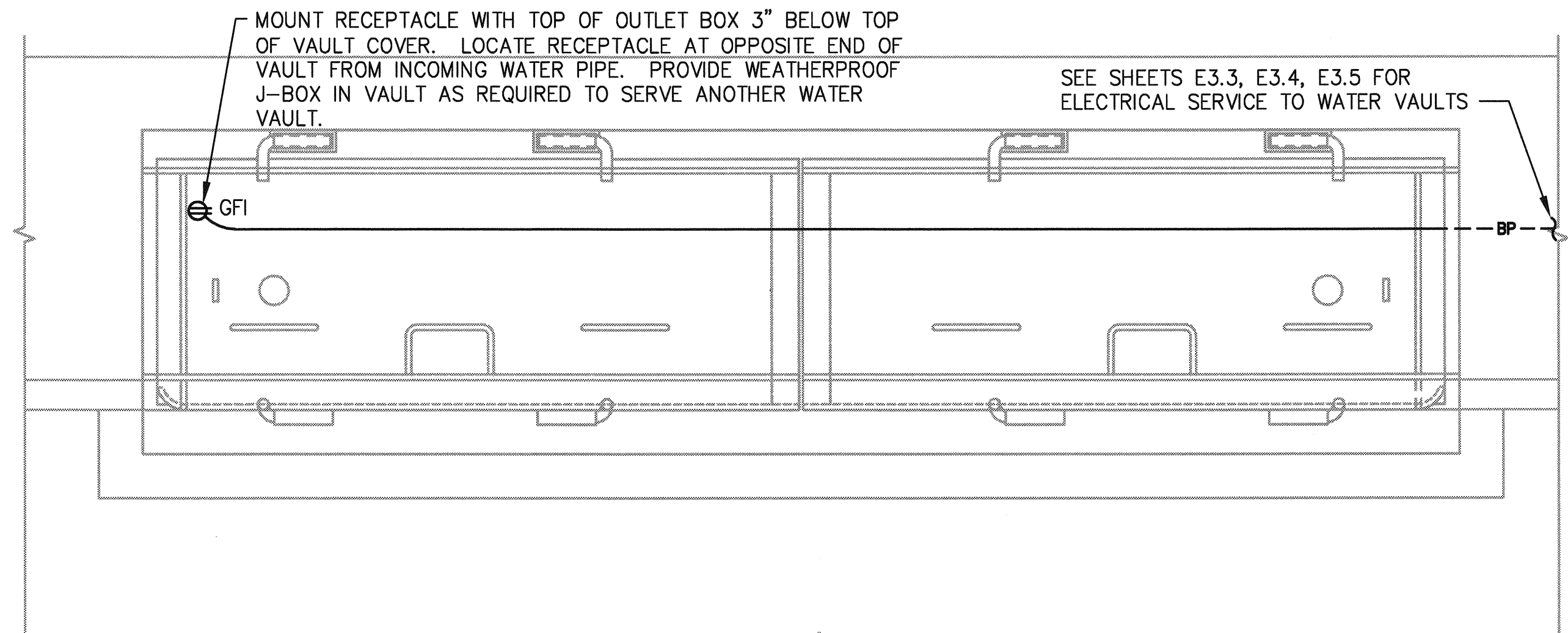
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1 BULLRAIL VAULT PLAN
 E3.3, E3.4, E3.5
 1-1/2" = 1'-0"
 scale feet



A BULLRAIL VAULT SECTION
 1-1/2" = 1'-0"
 scale feet



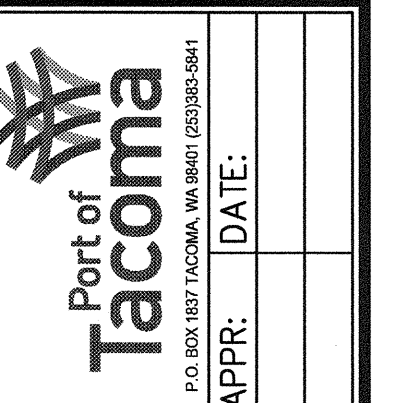
2 WATER VAULT PLAN
 E3.3, E3.4, E3.5
 1-1/2" = 1'-0"
 scale feet

GENERAL NOTES

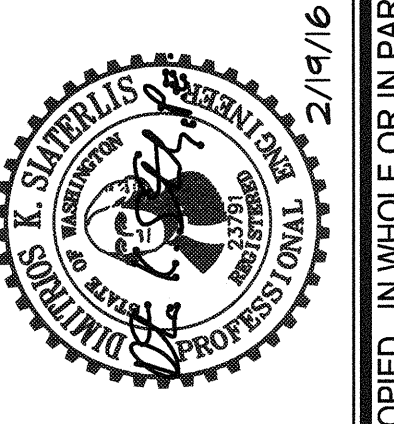
1. SEE CONDUIT AND WIRE SCHEDULES ON E8 SERIES SHEETS.
2. SEE STRUCTURAL S5 SERIES DRAWINGS TO DETERMINE IF CONDUITS ENTER VAULTS AS SHOWN ON THIS SHEET OR AN "OPPOSITE" LAYOUT WITH THE INSTALLATION A MIRROR IMAGE OF THE DETAILS SHOWN ON THIS DWG.

KEYED NOTES

- 1 4" W X 1/4" THICK X 12" SOLID BARE COPPER GROUND BUS WITH (10) 7/16" DIA HOLES, 2" X 1" ON CENTER PATTERN. PROVIDE #6 CU GROUND WIRE FROM THE GROUND BUS TO THE VAULT LID AND FRAME, AND ANY ADDITIONAL EXPOSED METAL PARTS WITHIN VAULT.
- 2 120V, 1 PHASE, 20 AMP GFI DUPLEX RECEPTACLE WITH NEMA 3R "IN USE" COVER.
- 3 208V, 1 PHASE, 20 AMP RECEPTACLE.
- 4 200A, 480V 3 PHASE, 4 WIRE, PIN AND SLEEVE RECEPTACLE AND FOURWAY FEED THRU BACK BOX.
- 5 3/4"C, #4 CU GROUND WIRE BACK TO CRANE RAIL. PROVIDE EXOTHERMIC WELD TO CRANE RAIL. PROVIDE 1#4G FROM CRANE RAIL TO CRANE CABLE SLOT.
- 6 TYPICAL, PROVIDE MINIMUM 1-5/8" X 1-5/8" FIBERGLASS STRUT FOR MOUNTING ALL ELECTRICAL EQUIPMENT IN VAULT. PROVIDE 316 STAINLESS STEEL DROP IN ANCHOR, FLAT WASHER AND HEX HEAD CAP SCREWS FOR MOUNTING FIBERGLASS STRUT.
- 7 TERMINATE CONDUIT AT WATERSIDE VAULT WALL.
- 8 4" PVC SCHEDULE 80 SLEEVE. GROUT AFTER INSTALLED. SEAL BETWEEN CONDUIT AND SLEEVE WITH HANDY FOAM OR EQUAL.
- 9 SEE CONDUIT AND WIRE SCHEDULES ON E8 SERIES SHEETS.



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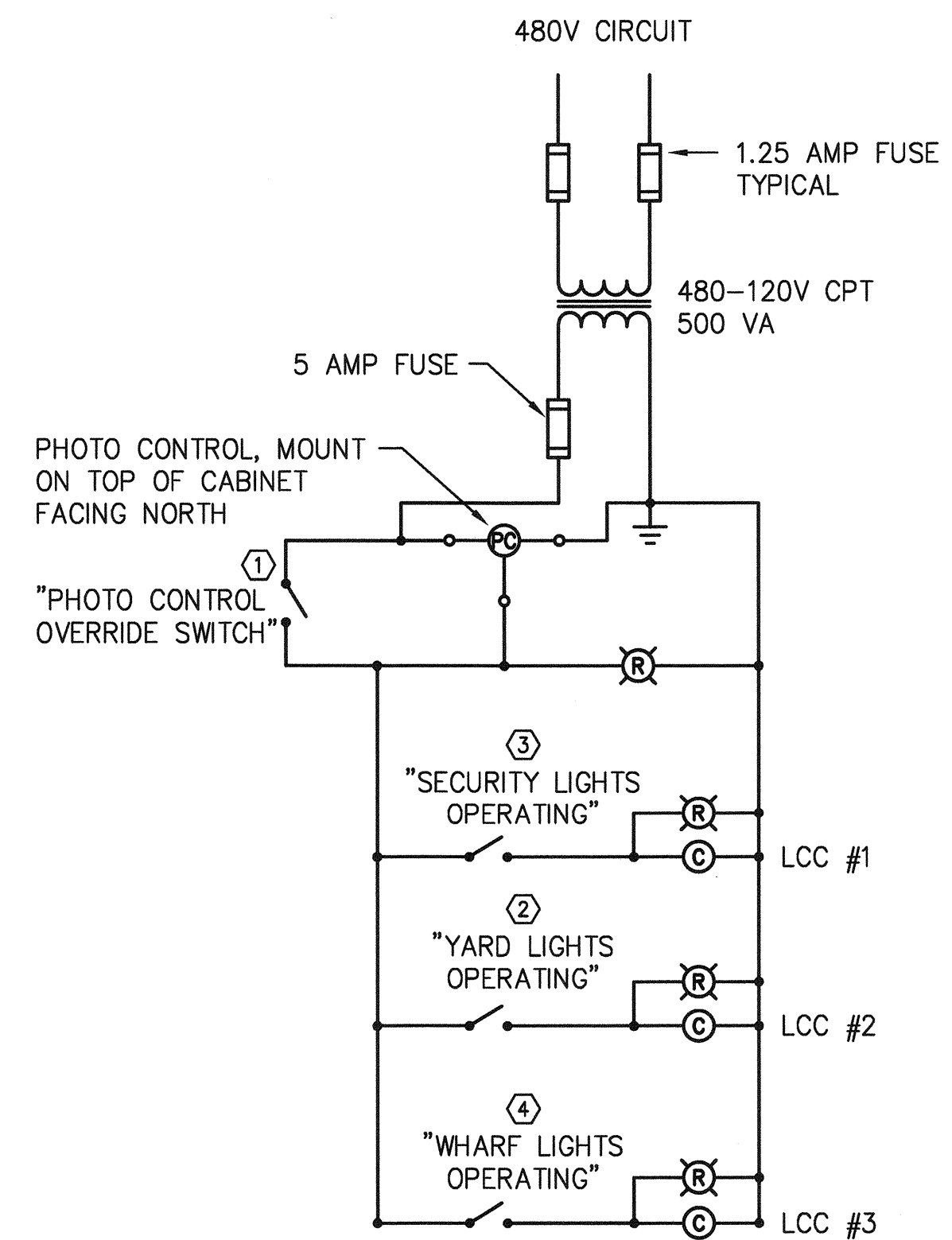
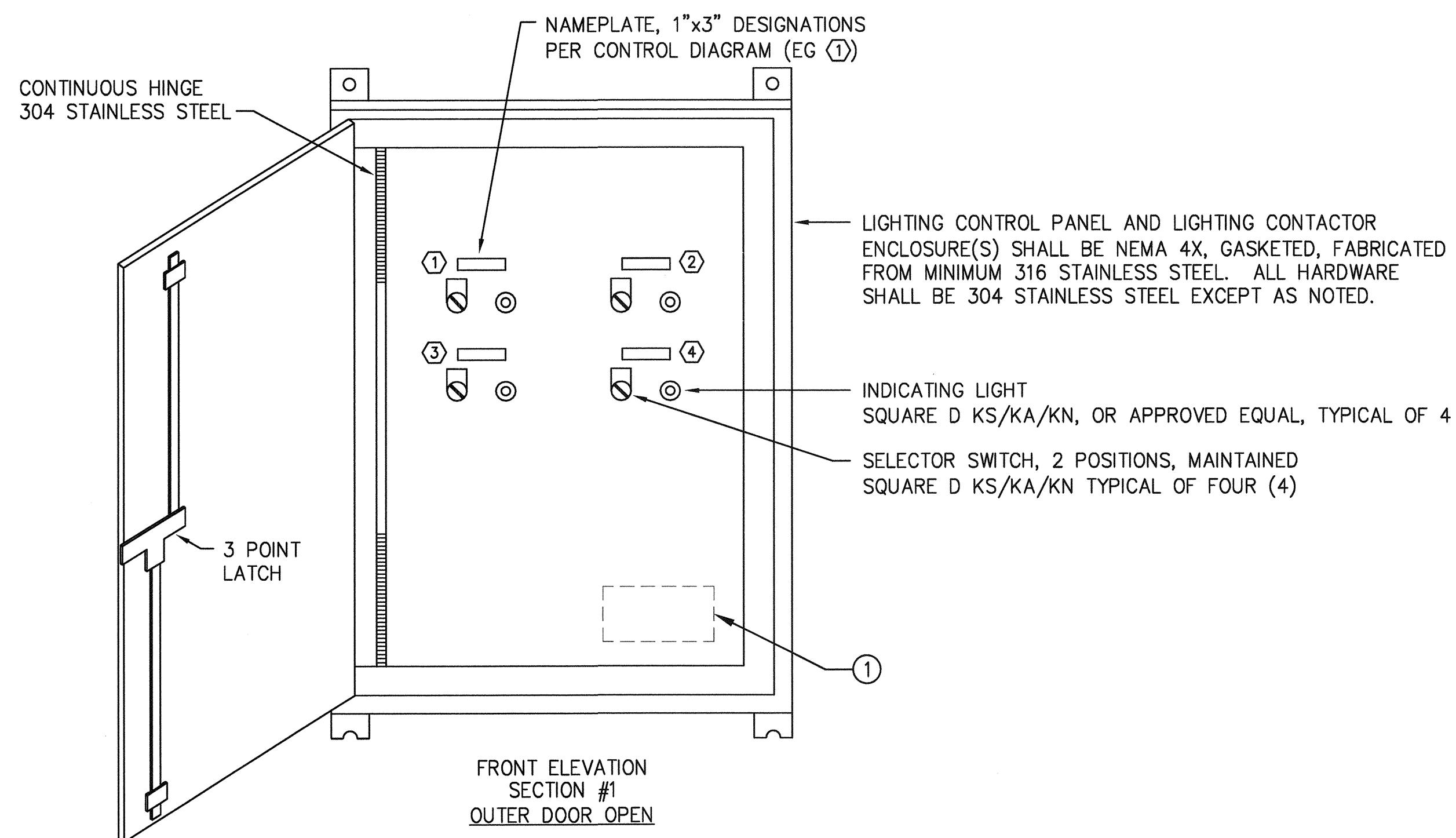
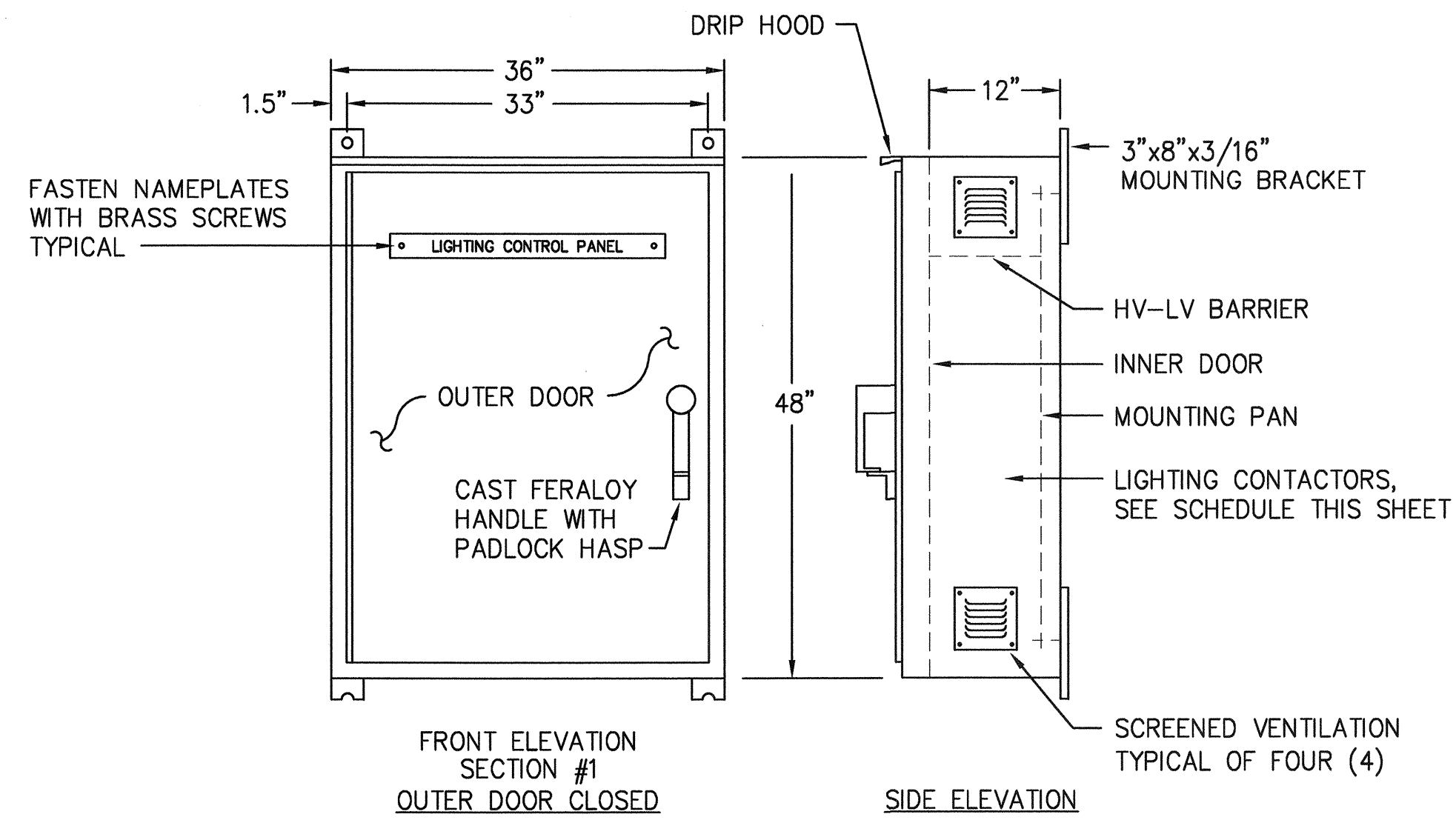


APPROVED:	Curtis Mar 22, 2016
DIRECTOR ENG. DATE:	3-28-16
PRINTED BY:	Curtis Mar 22, 2016
PORT ADDRESS:	ONE SITCUM PLAZA
TACOMA, WA	98401-1837

PIER 4 PHASE 2	RECONFIGURATION	ELECTRICAL DETAILS
TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ Tide 22 1933	
PARCEL:	DRAWING SCALE:	AS NOTED

6552
E6.5
 SH 144 OF 499
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

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PIER 4 YARD LIGHTING CONTROL PANEL
NO SCALE

GENERAL NOTES

- 1. SEE SHEET E6.19 FOR LIGHTING CONTROL CIRCUITS.

KEYED NOTES

- ① PROVIDE 200 WATT SELF-REGULATING INTEGRAL HEATER SET AT 42°F TO 50°F.

LIGHTING CONTACTOR SCHEDULE (480V)

- (1) 100A/3P CONTACTOR - SECURITY LIGHTS
- (1) 100A/3P CONTACTOR - YARD LIGHTS
- (1) 100A/3P CONTACTOR - WHARF LIGHTS

6552 E6.6 SH 145 OF 489 CONT/CONS: 070136 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION PIER 4 YARD LIGHTING CONTROL PANEL		CHECKED BY: <i>[Signature]</i> DATE: PROJECT ENGR: DATE: DIRECTOR ENGR. DATE: <i>3-28-16</i>	DATE: DATE: DATE: DATE:
	RANGE: MLW 19.39' @ Tide 22, 1933 TOWNSHIP: DAT-HRZ: WA83-SF SECTION: VERT: M.L.W. 19.39' @ Tide 22, 1933 PRINTED BY: Curtis Mar 22, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837		DRAWING SCALE: AS NOTED	APPROVED: <i>[Signature]</i> DATE: DIRECTOR ENGR. DATE: PROJECT ENGR. DATE: DATE:

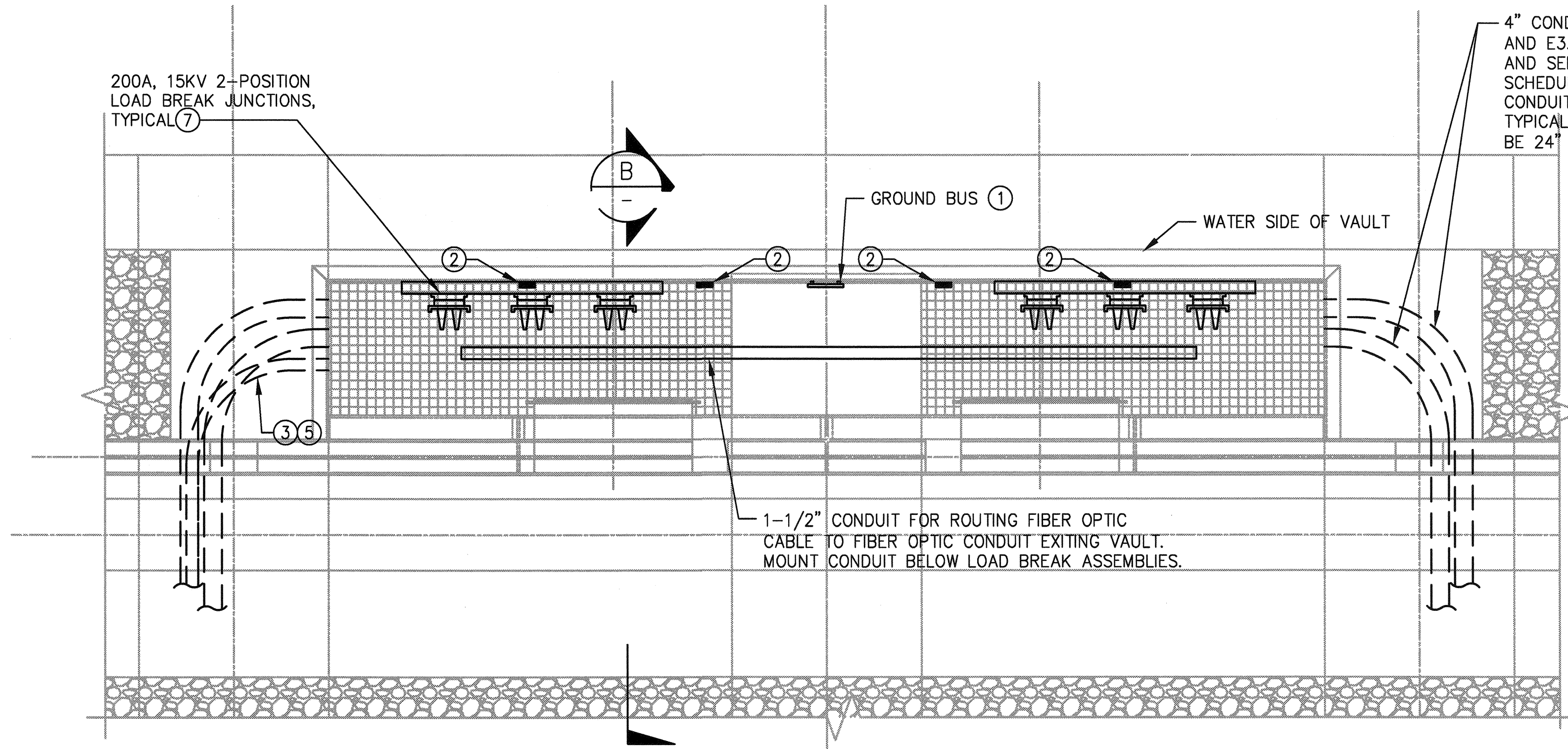
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 P.O. BOX 1837 TACOMA, WA 98401

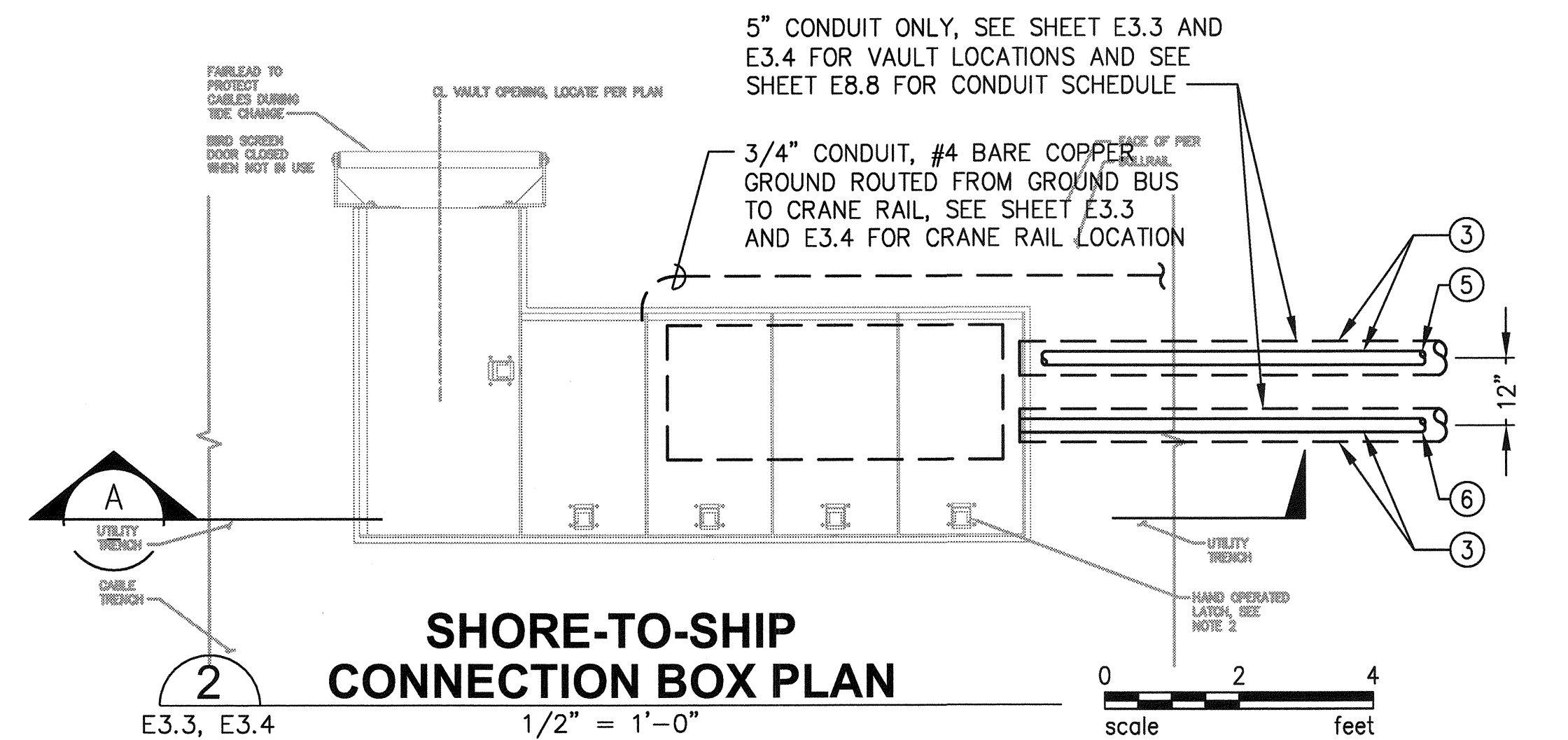
MARK: REVISION: BY: DATE: APPR: DATE:

PROFESSIONAL SEAL: *[Seal]* 2/19/16

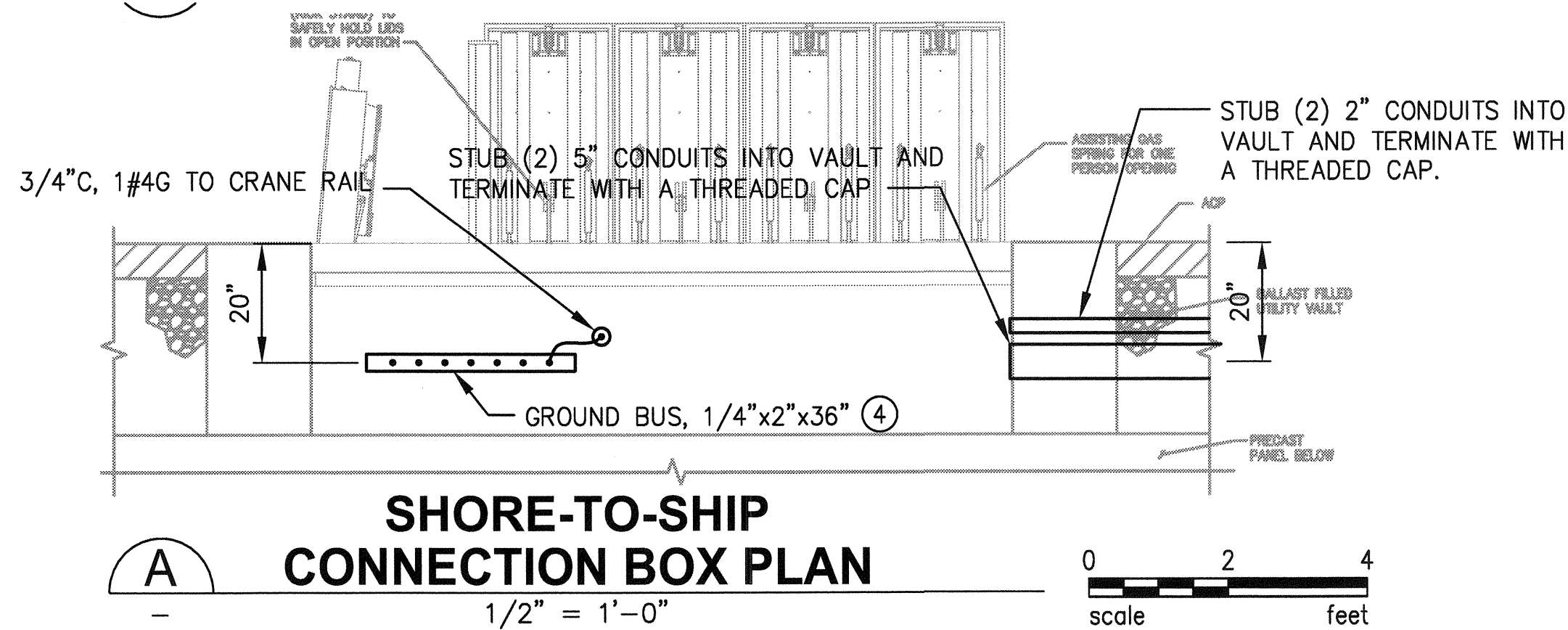
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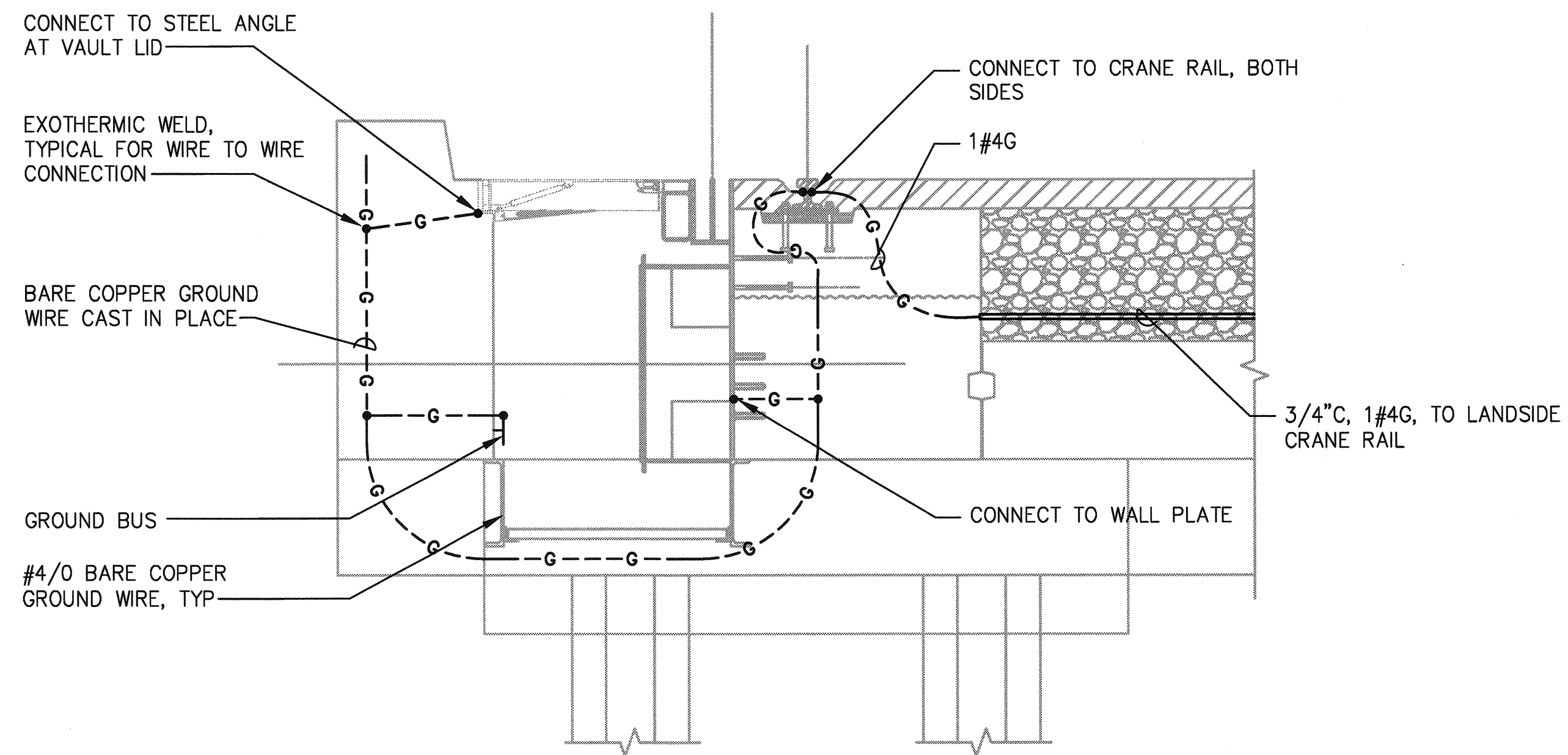
1 CRANE POWER VAULT PLAN
 E3.3, E3.4 1/2" = 1'-0" scale feet



2 SHORE-TO-SHIP CONNECTION BOX PLAN
 E3.3, E3.4 1/2" = 1'-0" scale feet



A SHORE-TO-SHIP CONNECTION BOX PLAN
 1/2" = 1'-0" scale feet



B GROUNDING DETAIL AT CRANE VAULT
 1/2" = 1'-0" scale feet

- KEY NOTES**
- CONTRACTOR SHALL PROVIDE #4 BARE COPPER GROUND WIRE BETWEEN GROUND BUS AND TO ALL METAL PARTS (CABLE DRUM, FUNNEL BOTTOM, LIDS, FRAMES, LOAD BREAK JUNCTIONS, ETC.) IN VAULT. CADWELD GROUND WIRE(S) TO ALL METAL PARTS WHERE GROUND STUDS OR HOLES FOR BOLTING GROUND WIRE(S) IS NOT AVAILABLE. ATTACH GROUND WIRE(S) ROUTED IN VAULT TO VAULT CABLE RACKS WITH PLASTIC TIE WRAPS. PROVIDE FIELD INSTALLED CONCRETE ANCHORS FOR MOUNTING CABLE SUPPORT RACKS. GROUND BUS TO BE ERICO #ECBA14418AA, OR APPROVED EQUAL. MOUNT AT 12" ABOVE GRADE BEAM.
 - CONTRACTOR SHALL PROVIDE FIBERGLASS CABLE RACK 36" LENGTH WITHIN VAULT FOR MOUNTING ELECTRICAL EQUIPMENT. PROVIDE FIBERGLASS OR STAINLESS STEEL MOUNTING HARDWARE TO ATTACH FIBERGLASS CABLE RACKS TO VAULT WALL. PROVIDE TWO 9" ARMS/RACK.
 - STUB CONDUIT INTO VAULT AND TERMINATE WITH A THREADED CAP.
 - PROVIDE #4 AWG BARE COPPER WIRE TO ALL METAL PARTS (LIDS, FRAME, ETC.) IN VAULT. PROVIDE PVC PIPE STRAPS, MAXIMUM 24" ON CENTER TO AVOID OBSTRUCTIONS FOR ROUTING OF GROUND WIRE WITHIN VAULT. ATTACH GROUND WIRE TO PIPE STRAPS WITH PLASTIC TIE WRAPS.
 - 2" FIBER OPTIC CONDUIT TO FIBER VAULT. SEE SHEETS E3.3 AND E3.4 FOR VAULT LOCATIONS, AND SHEET E8.2 FOR CONDUIT SCHEDULE.
 - 2" SPARE CONDUIT SHORE POWER CONTROL. SEE SHEETS E3.3 AND E3.4 FOR VAULT LOCATIONS, AND SHEET E8.7 FOR CONDUIT SCHEDULE.
 - JUNCTION TO BE ADJUSTABLE TYPE SET AT 45 DEGREES UP. MOUNT AT +46" ABOVE GRATING.

6552 E6.7
 SH 146 OF 499
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

PIER 4 PHASE 2 RECONFIGURATION ELECTRICAL DETAILS

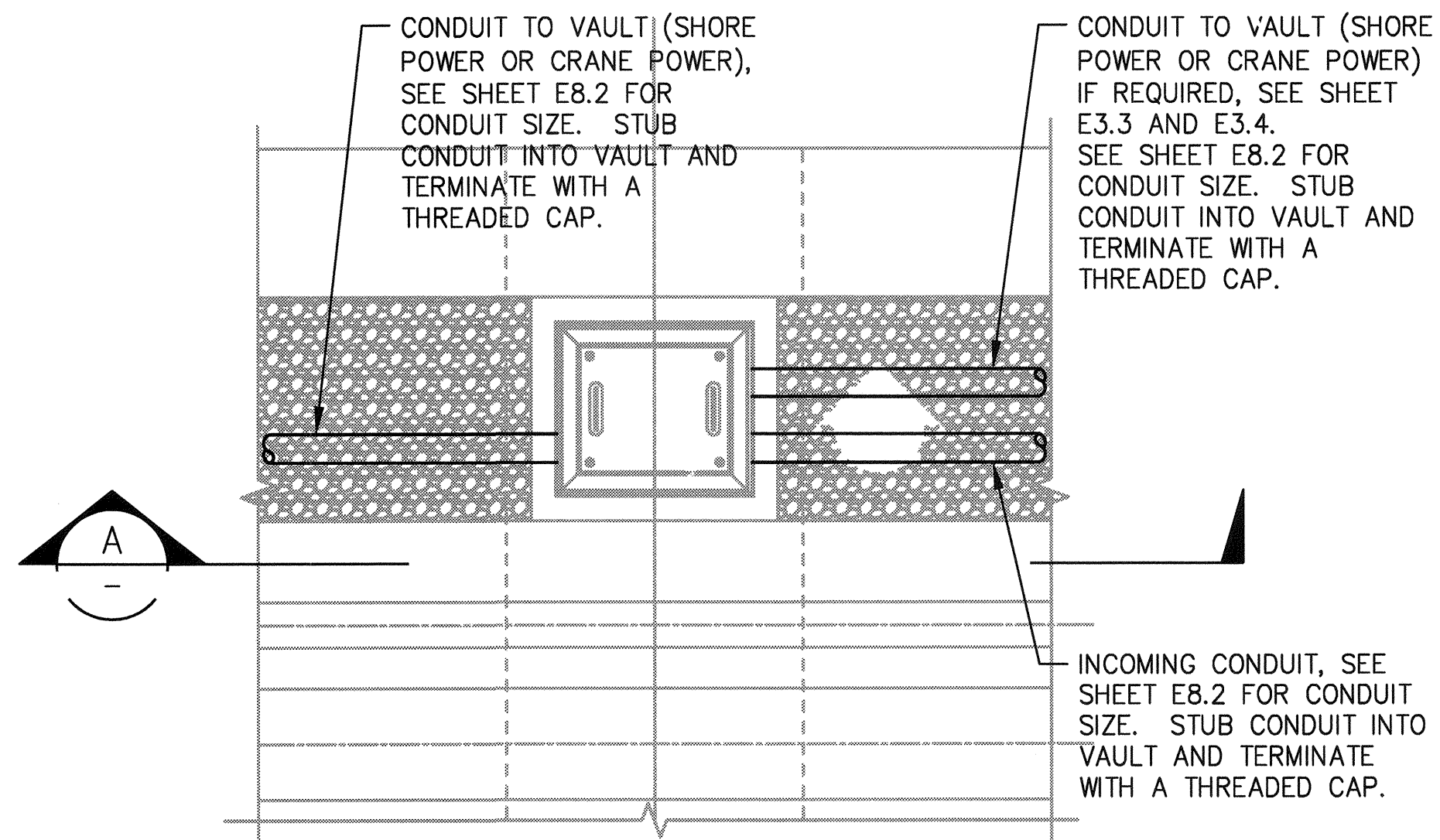
APPROVED: *[Signature]*
 DIRECTOR ENG. DATE: 3-28-16
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 PORT ADDRESS: ONE SITCUM PLAZA
 TACOMA, WA 98401-1837

CHECKED BY: DATE
 PROJ. ENGR DATE
 TOWNSHIP: RANGE: SECTION:
 DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ Tide 22 1933
 DRAWING SCALE: AS NOTED

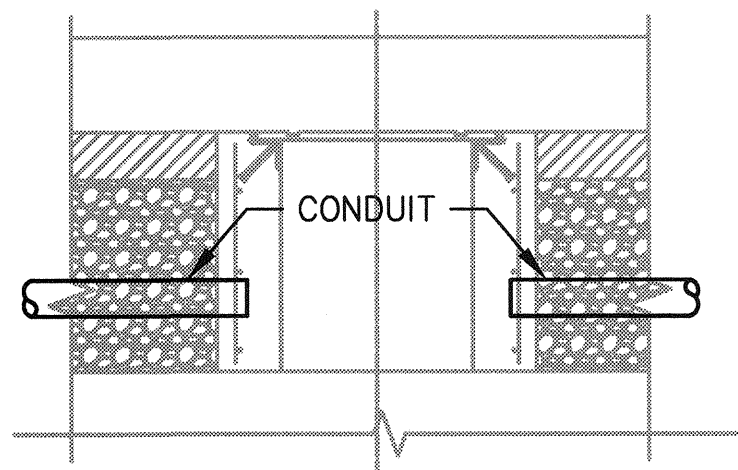
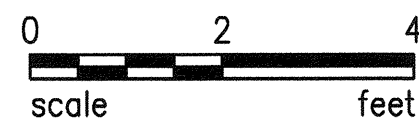
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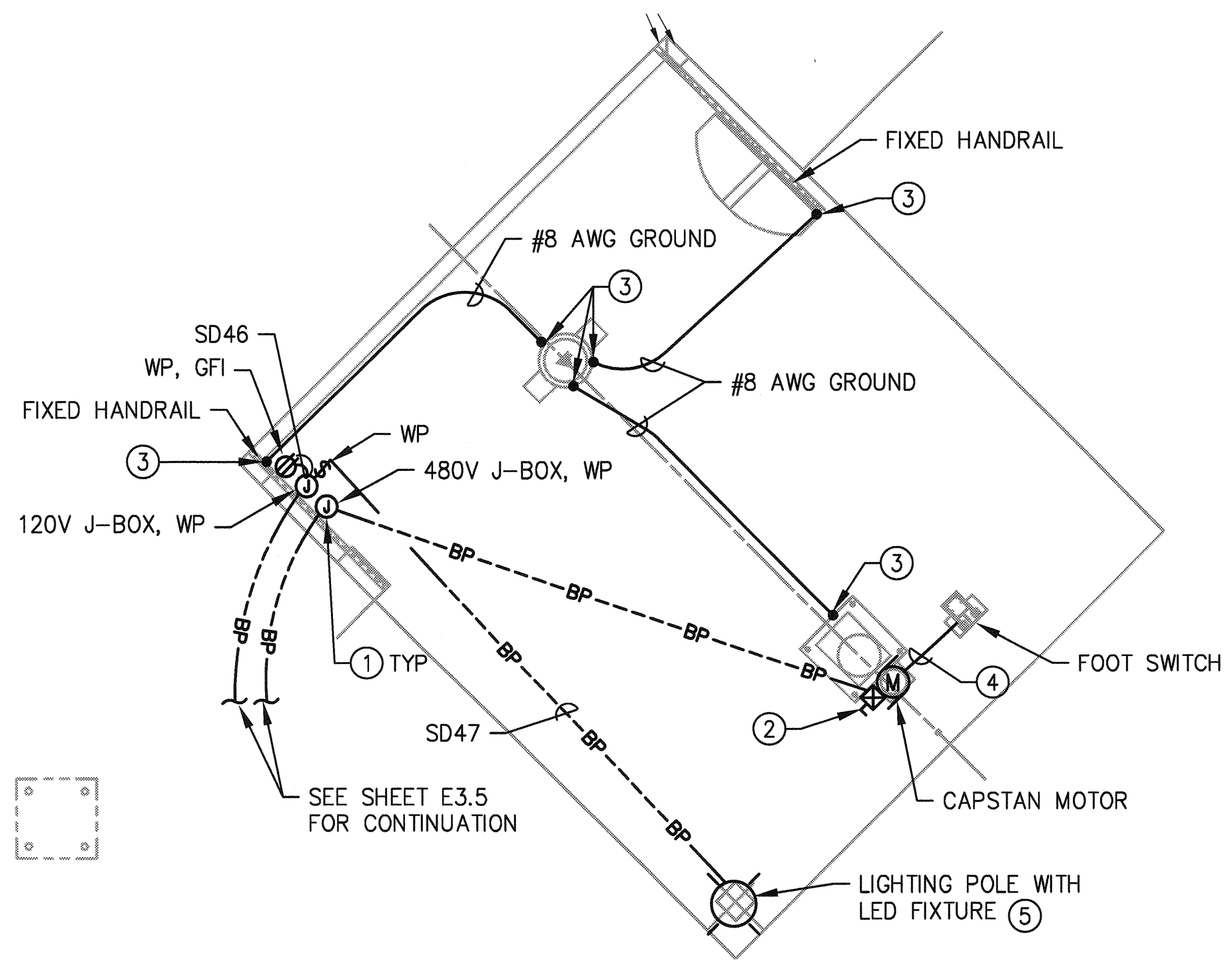
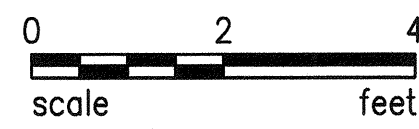
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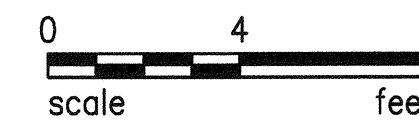
1 FIBER OPTIC VAULT PLAN
E3.3, E3.4
1/2" = 1'-0"



A FIBER OPTIC VAULT SECTION AT BENT
1/2" = 1'-0"



2 MOORING DOLPHIN PLAN
E3.5
1/4" = 1'-0"



KEY NOTES

- ① MOUNT EQUIPMENT AND DEVICES ON STRUT CHANNEL ANCHORED TO GUARDRAIL.
- ② MOTOR STARTER FURNISHED WITH CAPSTAN MOTOR. CONTRACTOR TO INSTALL AND CONNECT.
- ③ USE EXOTHERMIC WELD FOR GROUND WIRE CONNECTIONS.
- ④ CONTRACTOR SHALL ATTACH SURFACE MOUNTED CONDUIT TO CONCRETE MOORING DOLPHIN DECK WITH STAINLESS STEEL MOUNTING HARDWARE. CONDUIT SHALL NOT BE INSTALLED UNTIL LOCATION OF FOOT SWITCH HAS BEEN FIELD VERIFIED BY THE PORT.
- ⑤ POLE MOUNTED LED FIXTURE WITH MARINE GRADE ALUMINUM POLE, 120V, FIXTURE MOUNTS DIRECTLY TO POLE TOP TENON, BLACK FINISH. WE-EF #661-6435 WITH #661-9362 POLE BRACKET, OR APPROVED EQUAL.

6552
E6.8
SH 147 OF 489
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2 RECONFIGURATION ELECTRICAL DETAILS

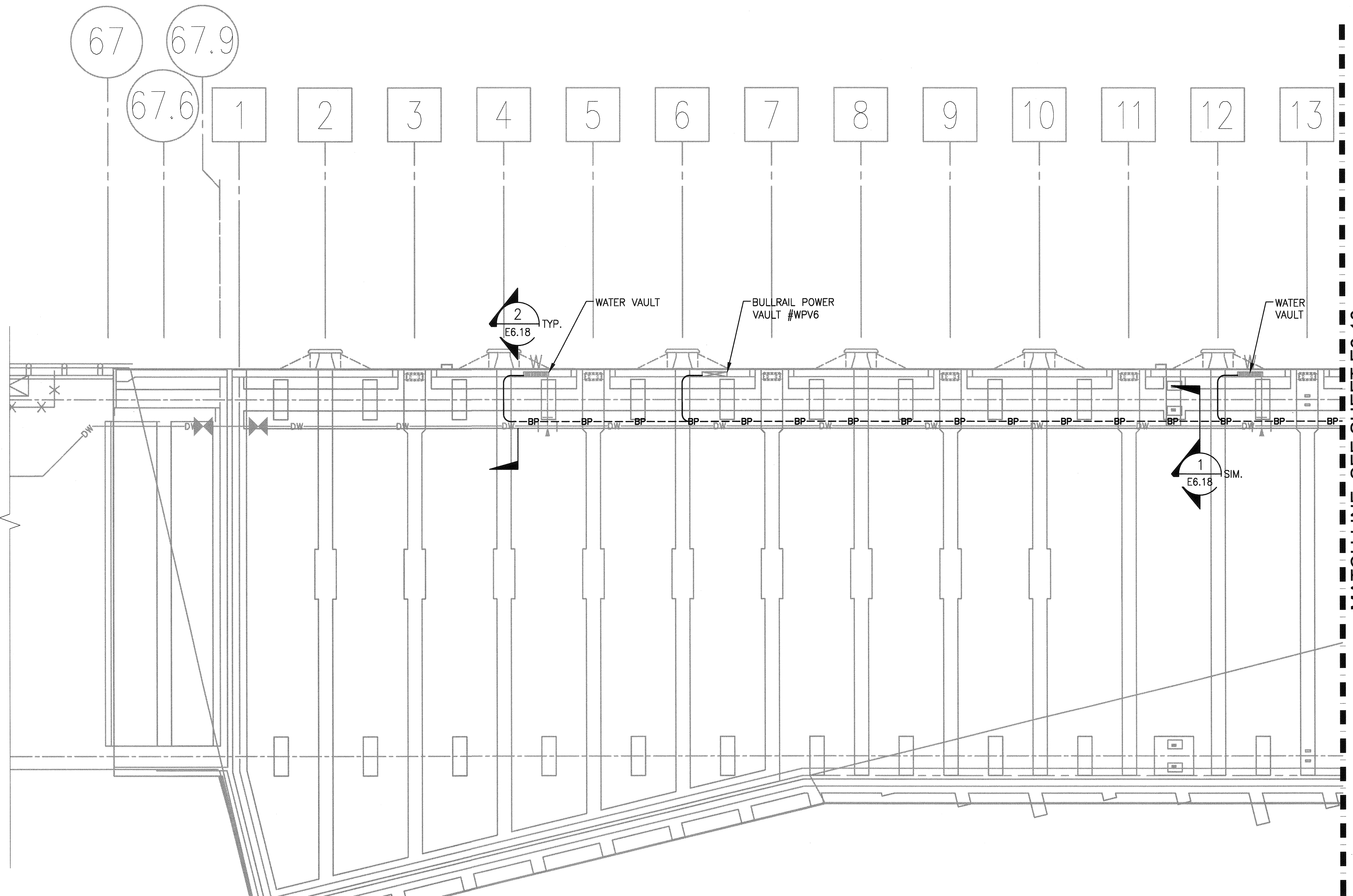
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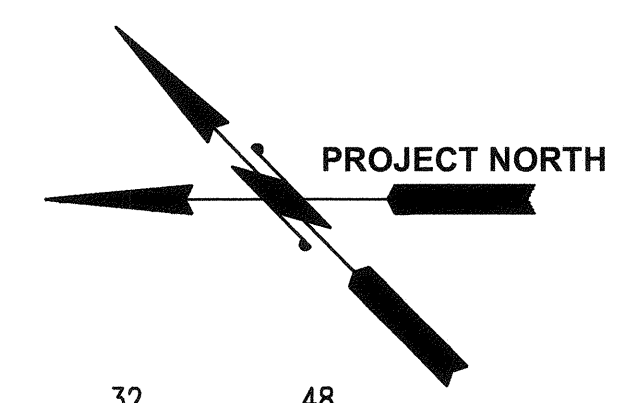
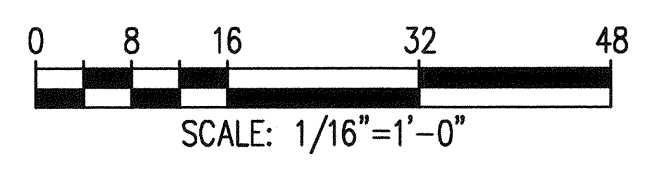
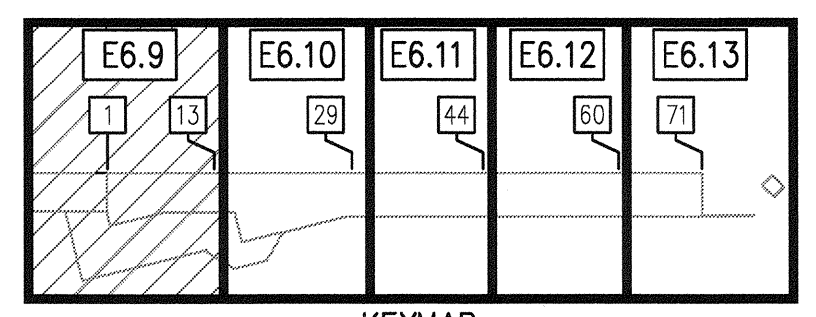
GENERAL NOTES

1. SEE E3 SERIES SHEETS FOR CONDUIT NUMBERS.

1
E6.9

PARTIAL ELECTRICAL WHARF PLAN

SCALE: 1/16" = 1'-0"

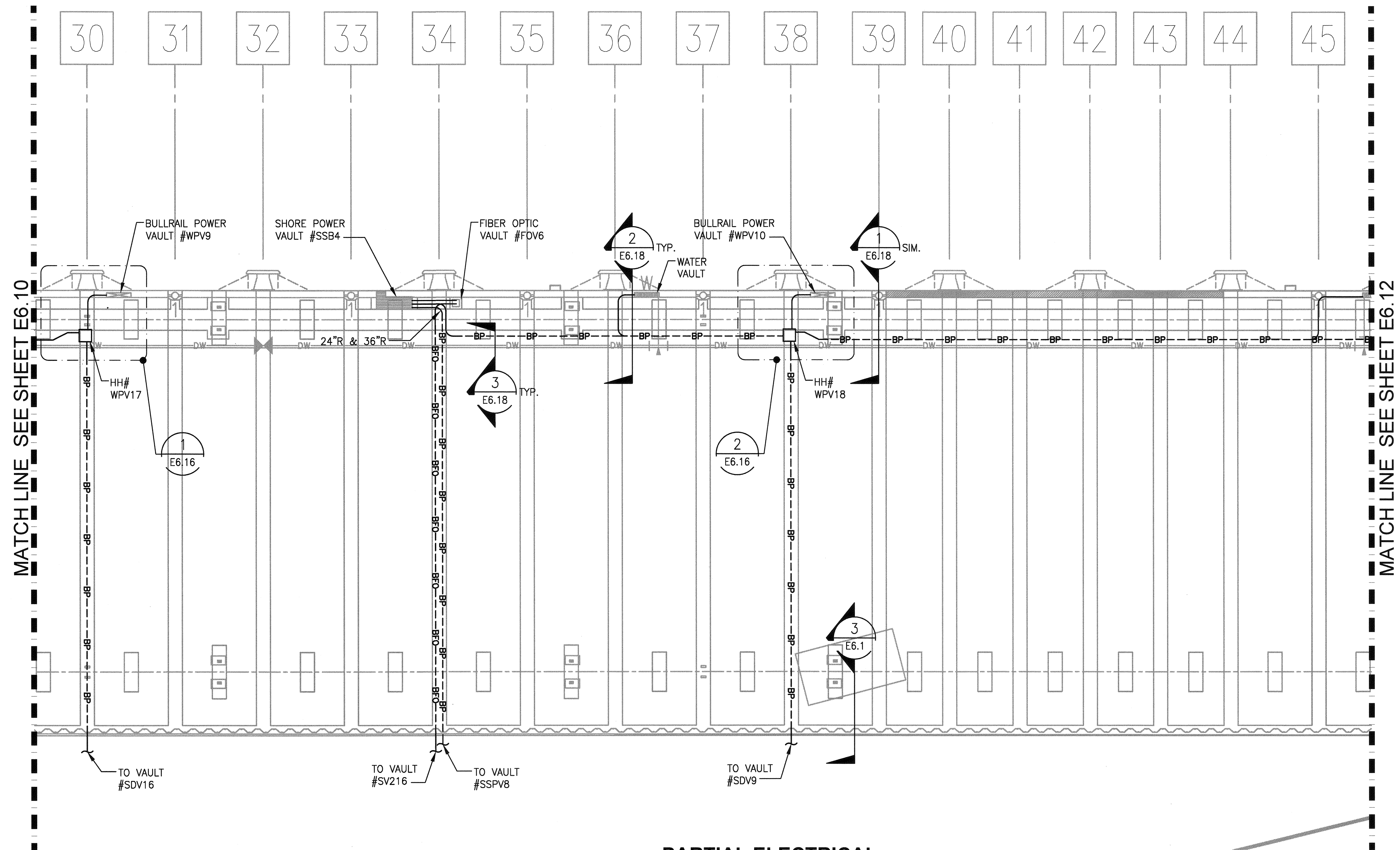


6552 E6.9 SH 148 OF 499	PIER 4 PHASE 2 RECONFIGURATION		APPROVED: <i>[Signature]</i> 3-28-16	
	CONT/CONS: 070136	TOWNSHIP: MLLW 19.39' @ Tide 22 1933	SECTION: WA83-SF	DATE: 091251
M. ID: 091251	DATE-HRZ: WA83-SF	VERT: MLLW 19.39' @ Tide 22 1933	PORT ADDRESS: ONE SITCUM PLAZA	TACOMA, WA 98401-1837
PHASE: BID	DRAWING SCALE: AS NOTED	TACOMA, WA 98401-1837		
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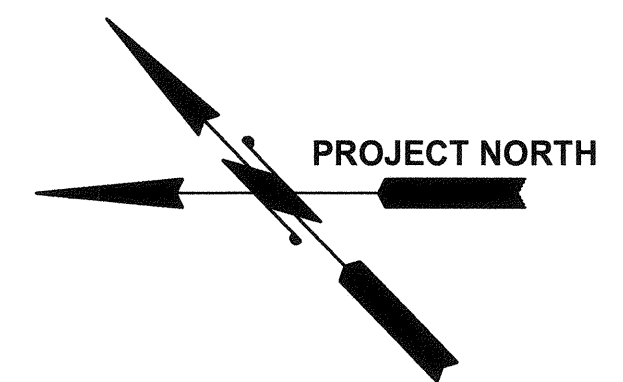
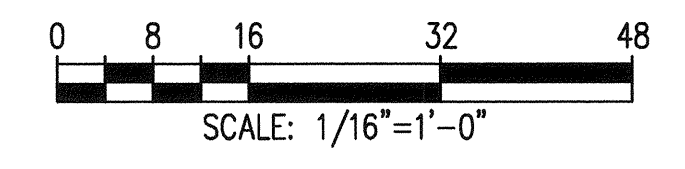
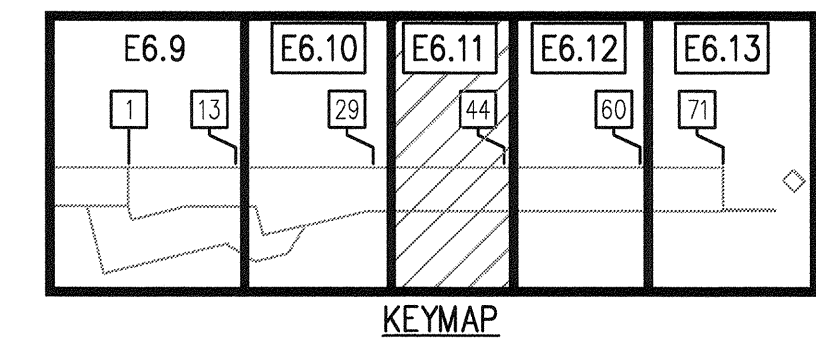
PORT OF TACOMA FILE: R:\6650-041\01\dwg\091251-E611



1
E6.11
PARTIAL ELECTRICAL WHARF PLAN
SCALE: 1/16" = 1'-0"

GENERAL NOTES

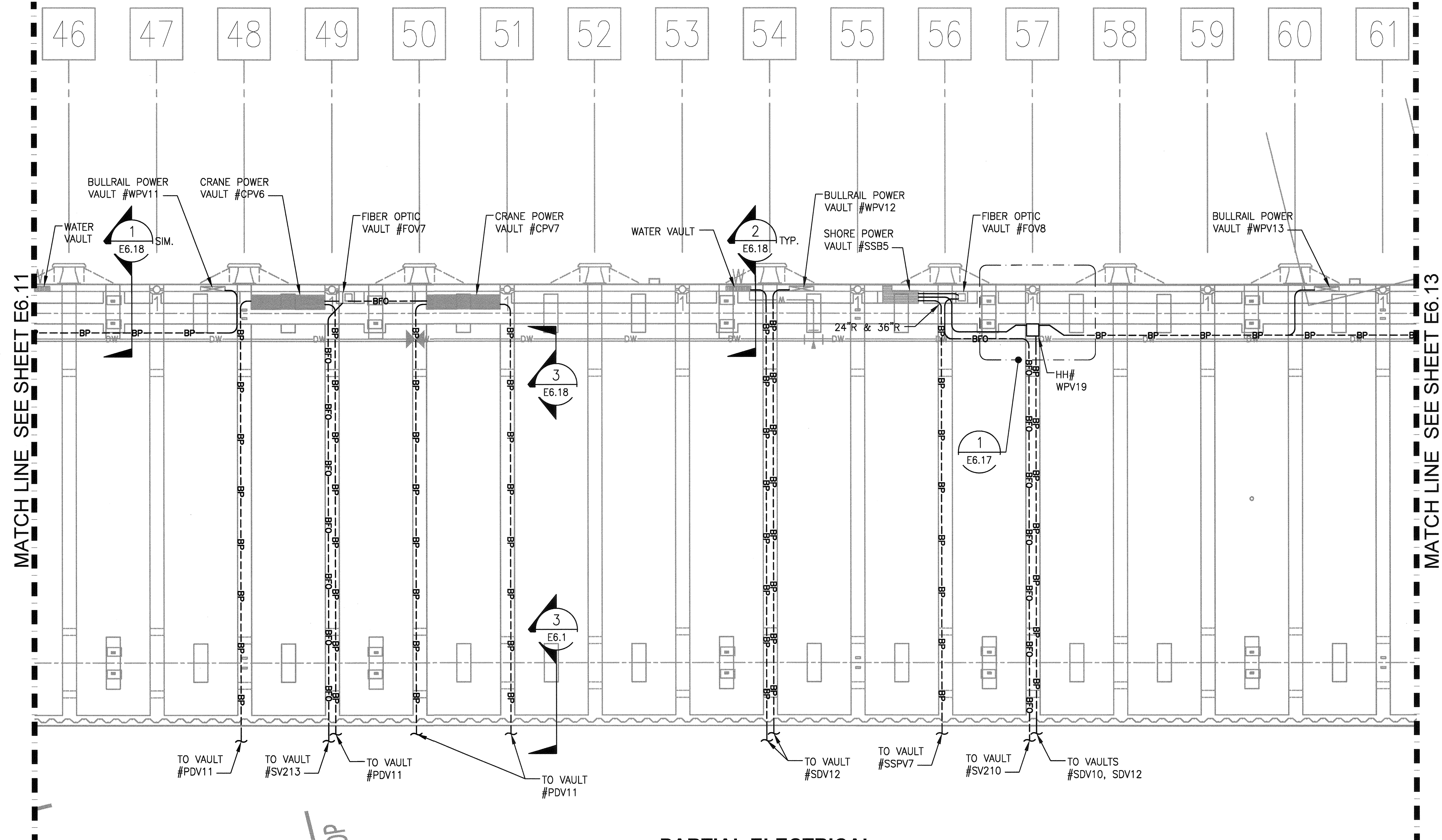
- SEE E3 SERIES SHEETS FOR CONDUIT NUMBERS.



6552 E6.11 SH 150 OF 499	PIER 4 PHASE 2 RECONFIGURATION			
	PARTIAL ELECTRICAL WHARF PLAN - SHEET 3			
CONT/CONS: 070136	TOWNSHIP: MILLW 19.39' @ Tide 22 1933	RANGE: SECTION:	PROJ. ENGR DATE	CHECKED BY DATE
M. ID: 091251	DATE-HRZ: WA83-SF	VERT: MLW 19.39' @ Tide 22 1933	PRINTED BY: Curtis Mar 22, 2016	PROJ. ENGR DATE
PHASE: BID	PARCEL:	DRAWING SCALE: AS NOTED	PORT ADDRESS: ONE SITCUM PLAZA	TACOMA, WA 98401-1837
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MARK:	REVISION:	BY:	DATE:	APPR:
APPROVED: <i>Curtis Mar</i> 2-28-16				
DIRECTOR ENG. DATE: 2-28-16				
PRINTED BY: Curtis Mar 22, 2016				
PORT ADDRESS: ONE SITCUM PLAZA				
TACOMA, WA 98401-1837				
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TACOMA, WA 98401-1837				
2/19/16				
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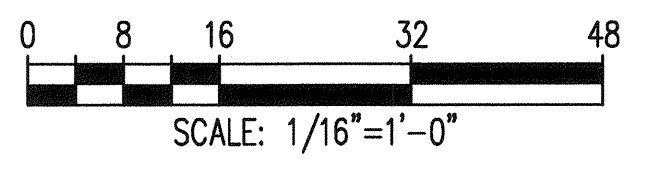
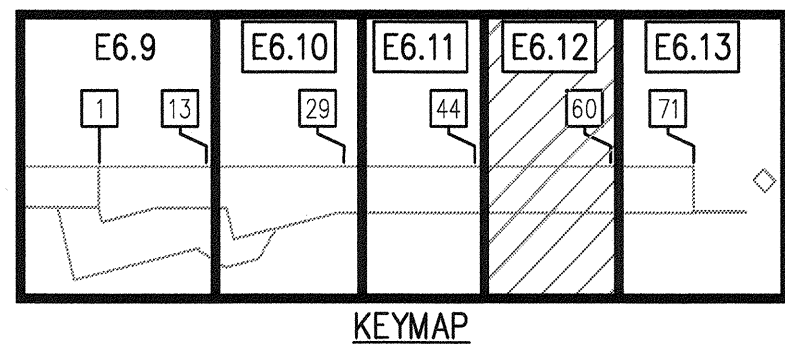


PARTIAL ELECTRICAL WHARF PLAN

SCALE: 1/16" = 1'-0"

GENERAL NOTES

- SEE E3 SERIES SHEETS FOR CONDUIT NUMBERS.

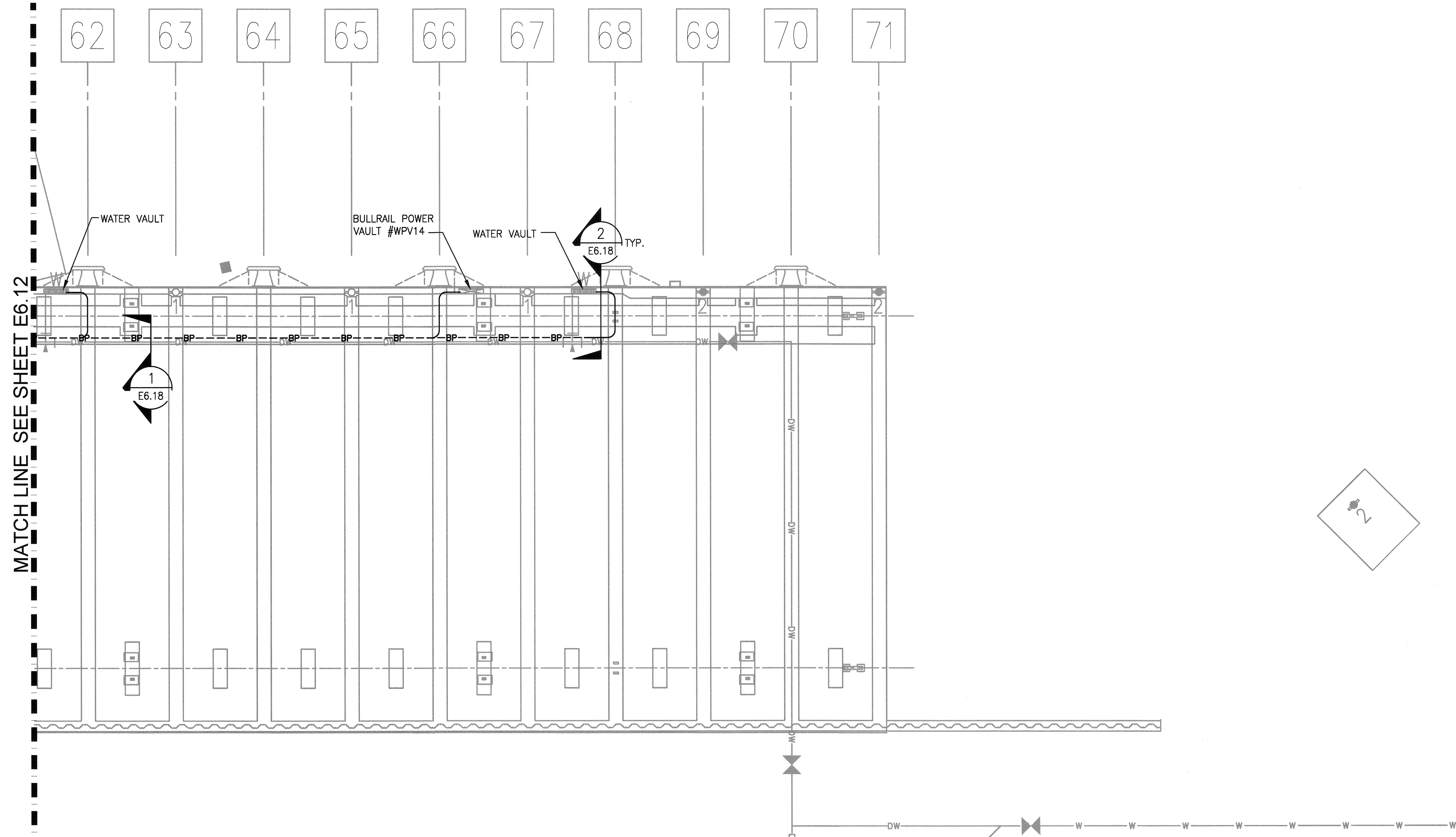


<p>6552 E6.12 SH 151 OF 499</p>	<p>PIER 4 PHASE 2 RECONFIGURATION PARTIAL ELECTRICAL WHARF PLAN - SHEET 4</p>		<p>CHECKED BY: <i>[Signature]</i> DATE: 3-28-16</p>	<p>DATE: 2/19/16</p>
	<p>CONT./CONS: 070136</p>	<p>TOWNSHIP: MLLW 19.39'</p>	<p>SECTION: @ Tide 22 1933</p>	<p>PROJ. ENGR: Curtis Mar 22, 2016</p>
<p>M. ID: 091251</p>	<p>DAT-HRZ: WAB3-SF</p>	<p>VERT: MLLW 19.39'</p>	<p>PRINTED BY: Curtis Mar 22, 2016</p>	<p>DATE: 2/19/16</p>
<p>PHASE: BID</p>	<p>PARCEL: AS NOTED</p>	<p>DRAWING SCALE: AS NOTED</p>	<p>PORT ADDRESS: ONE SITCUM PLAZA</p>	<p>DATE: 2/19/16</p>
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<p>ELCON ASSOCIATES, INC ENGINEERS - CONSULTANTS 16800 WASHINGTON AVE., SUITE 330 SEASIDE, WASHINGTON 98148 TEL (206) 243-5022 FAX (206) 243-5205</p>			<p>BY:</p>	<p>DATE:</p>

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MATCH LINE SEE SHEET E6.12

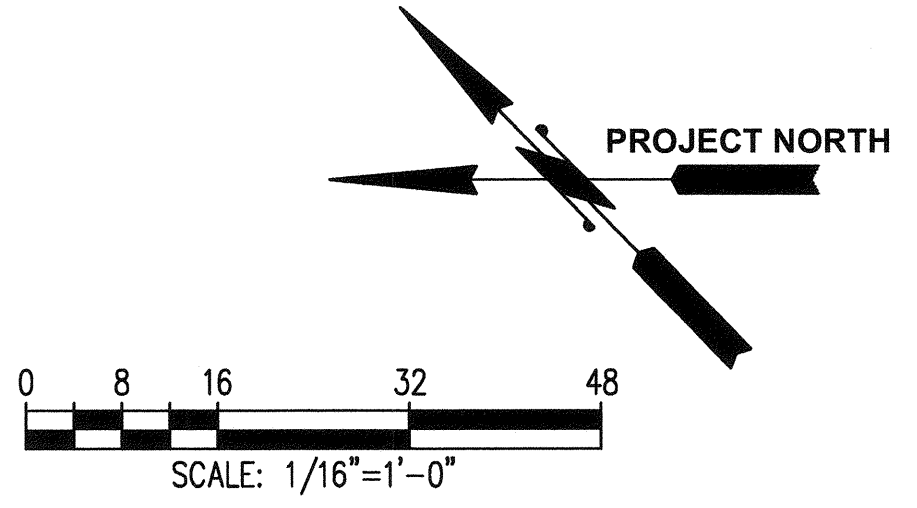
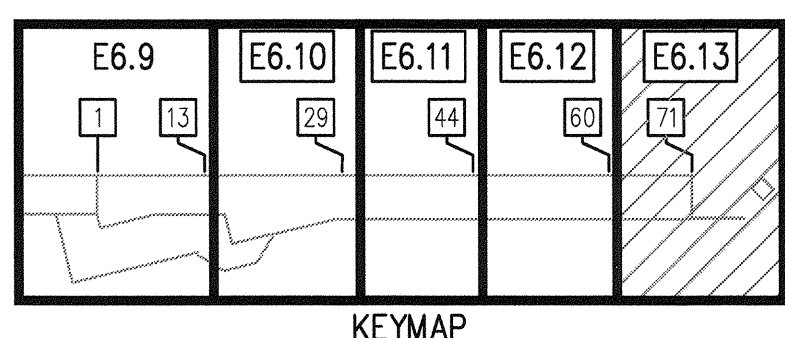
1
E6.13

PARTIAL ELECTRICAL WHARF PLAN

SCALE: 1/16" = 1'-0"

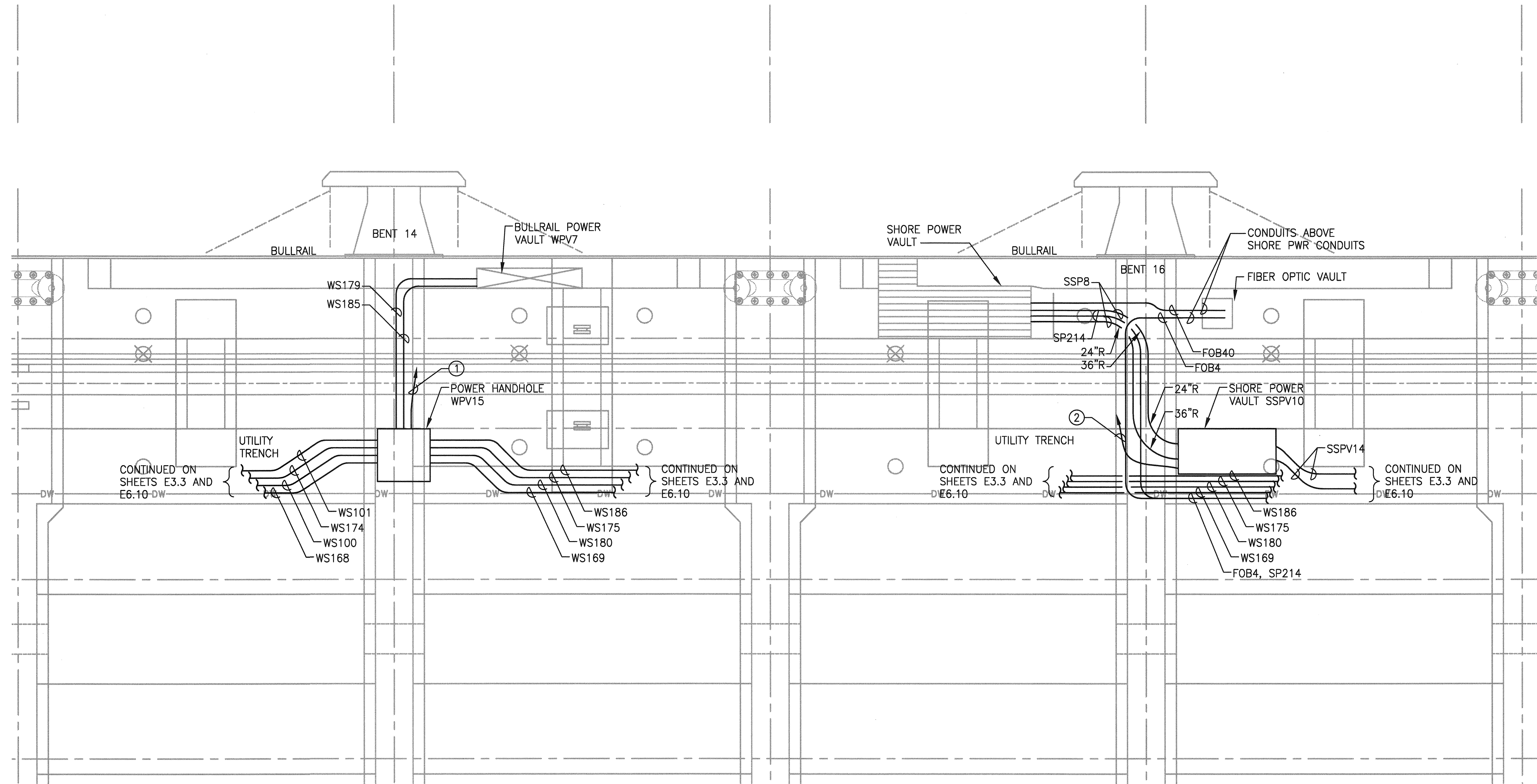
GENERAL NOTES

- SEE E3 SERIES SHEETS FOR CONDUIT NUMBERS.



6552 E6.13 SH 152 OF 489	PIER 4 PHASE 2 RECONFIGURATION PARTIAL ELECTRICAL WHARF PLAN - SHEET 5		APPROVED: <i>Julia Howard</i> DIRECTOR ENG. DATE: 3-28-16	CHECKED BY: <i>[Signature]</i> DATE:
	CONT./CONS: 070136 M. ID: 091251 PHASE: BID	TOWNSHIP: MLLW 19.39' @ Tide 22 19.33 DAT-HRZ: WA83-SF PARCEL: AS NOTED	RANGE:	PRINTED BY: Curtis Mar 22, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
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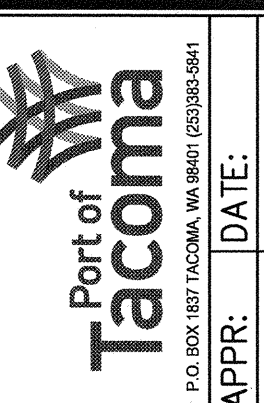
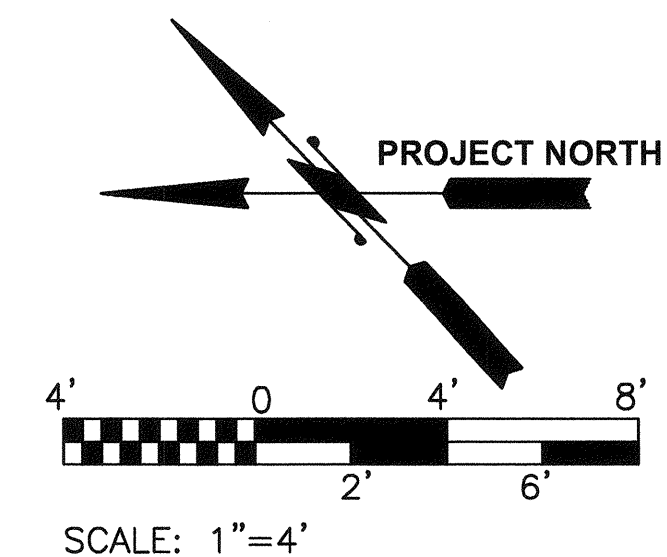


1
E6.10
ENLARGED VAULT AND UTILITY TRENCH PLAN
SCALE: 1/4" = 1'-0"

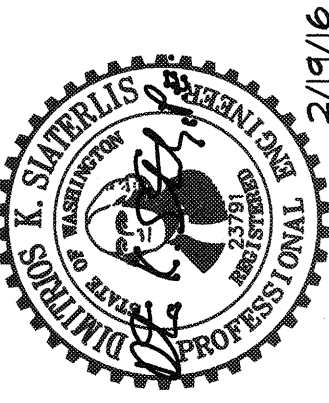
2
E6.10
ENLARGED VAULT AND UTILITY TRENCH PLAN
SCALE: 1/4" = 1'-0"

KEYED NOTES

- ① 3/4" C, #4 CU GROUND WIRE TO GROUND BUS IN BULLRAIL VAULT. CONNECT TO GROUNDING INSERT IN HANDHOLE AND GROUND BUS IN VAULT.
- ② 3/4" C, #4 CU GROUND WIRE TO GROUND BUS IN SHORE POWER VAULT. CONNECT TO GROUNDING INSERT IN HANDHOLE AND GROUND BUS IN VAULT.



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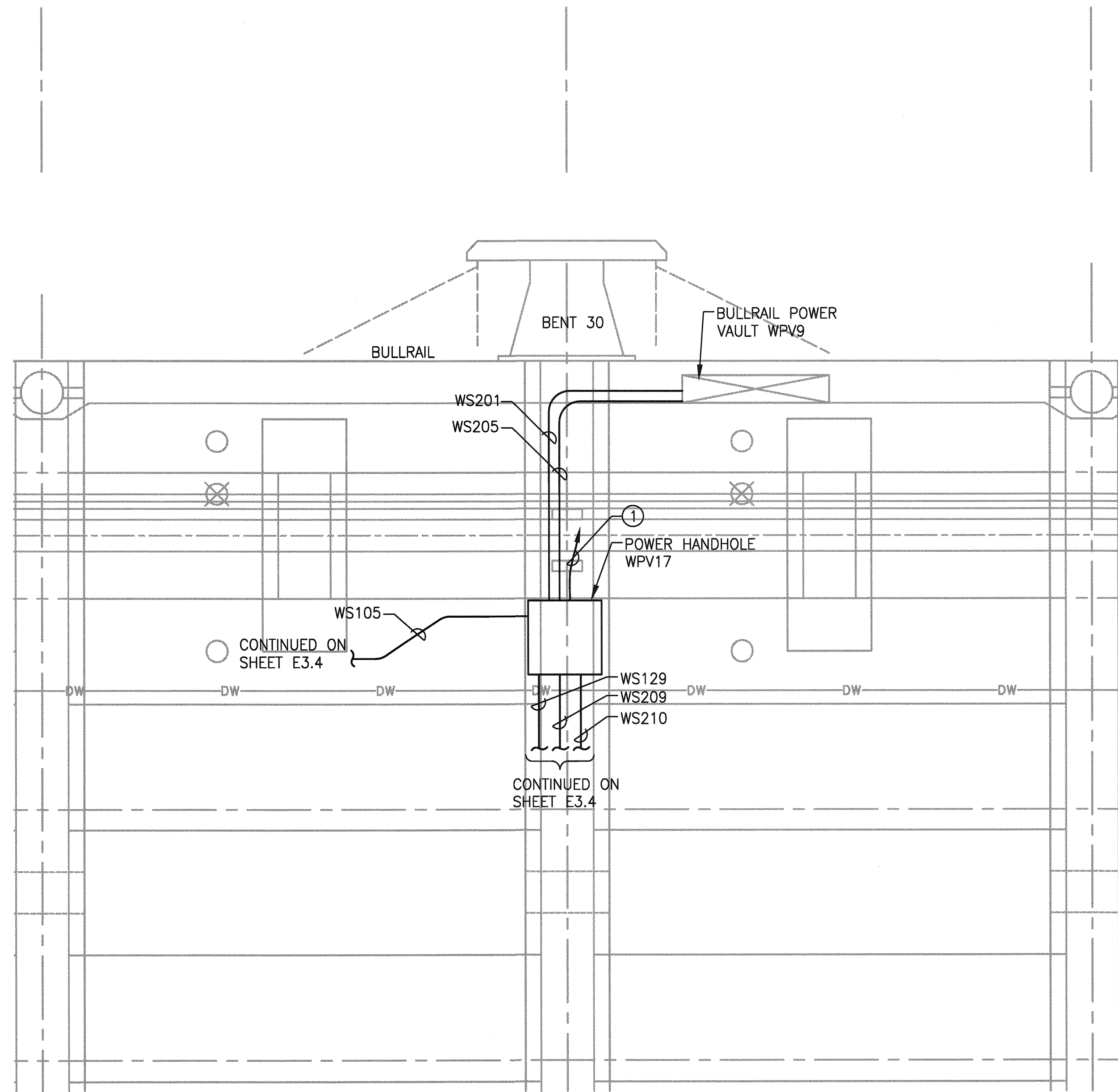


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3-28-16
DIRECTOR ENG. DATE: 3-28-16
PRINTED BY: Curtis Mar 22, 2016
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

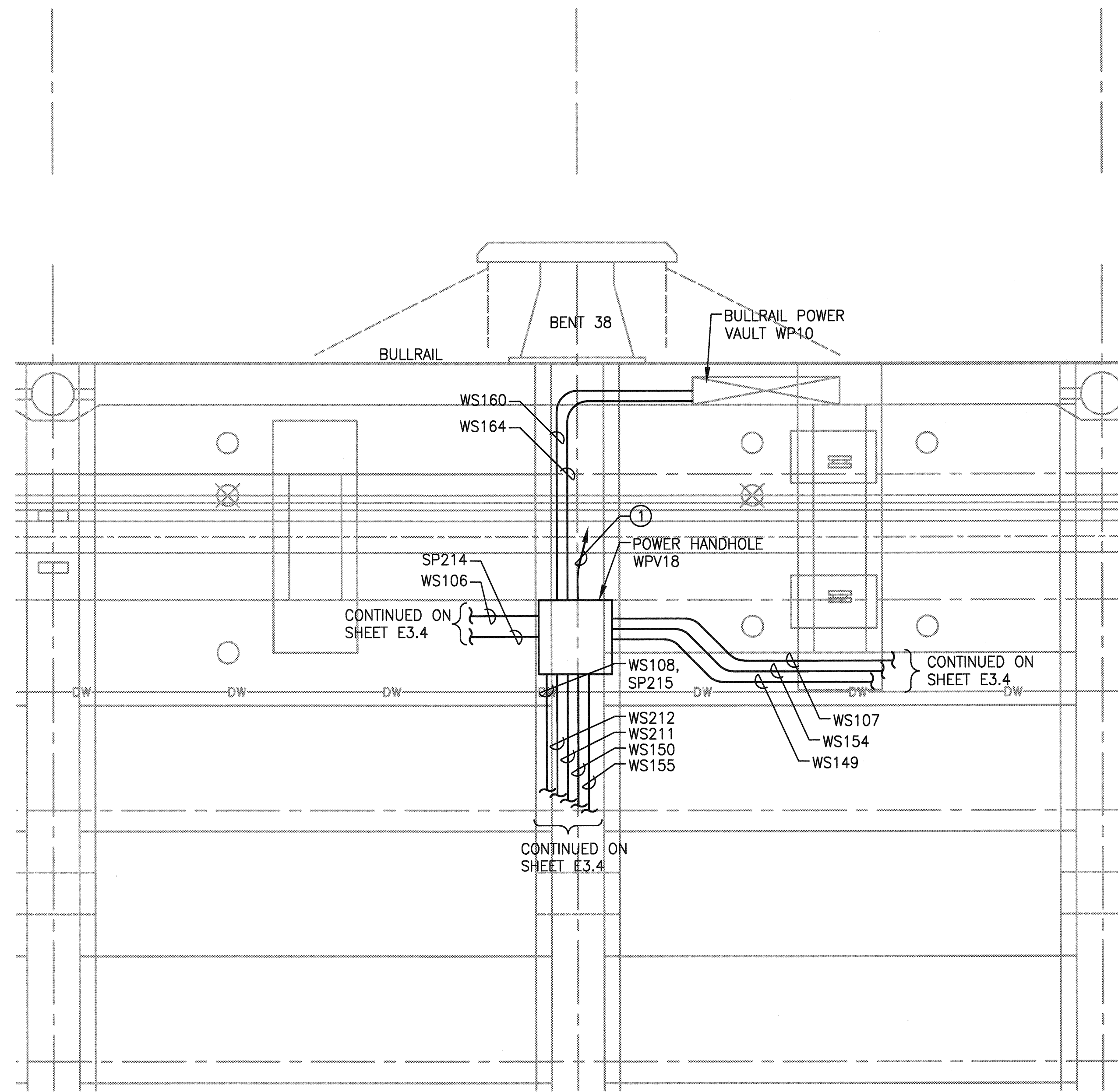
PIER 4 PHASE 2
RECONFIGURATION
ENLARGED VAULT AND UTILITY TRENCH PLANS

6552
E6.14
SH 153 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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1
E6.11
ENLARGED VAULT AND UTILITY TRENCH PLAN
SCALE: 1/4" = 1'-0"



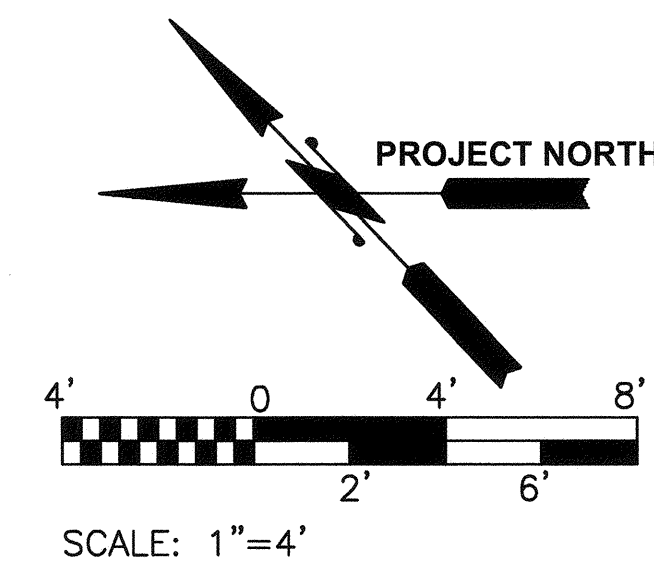
2
E6.11
ENLARGED VAULT AND UTILITY TRENCH PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES

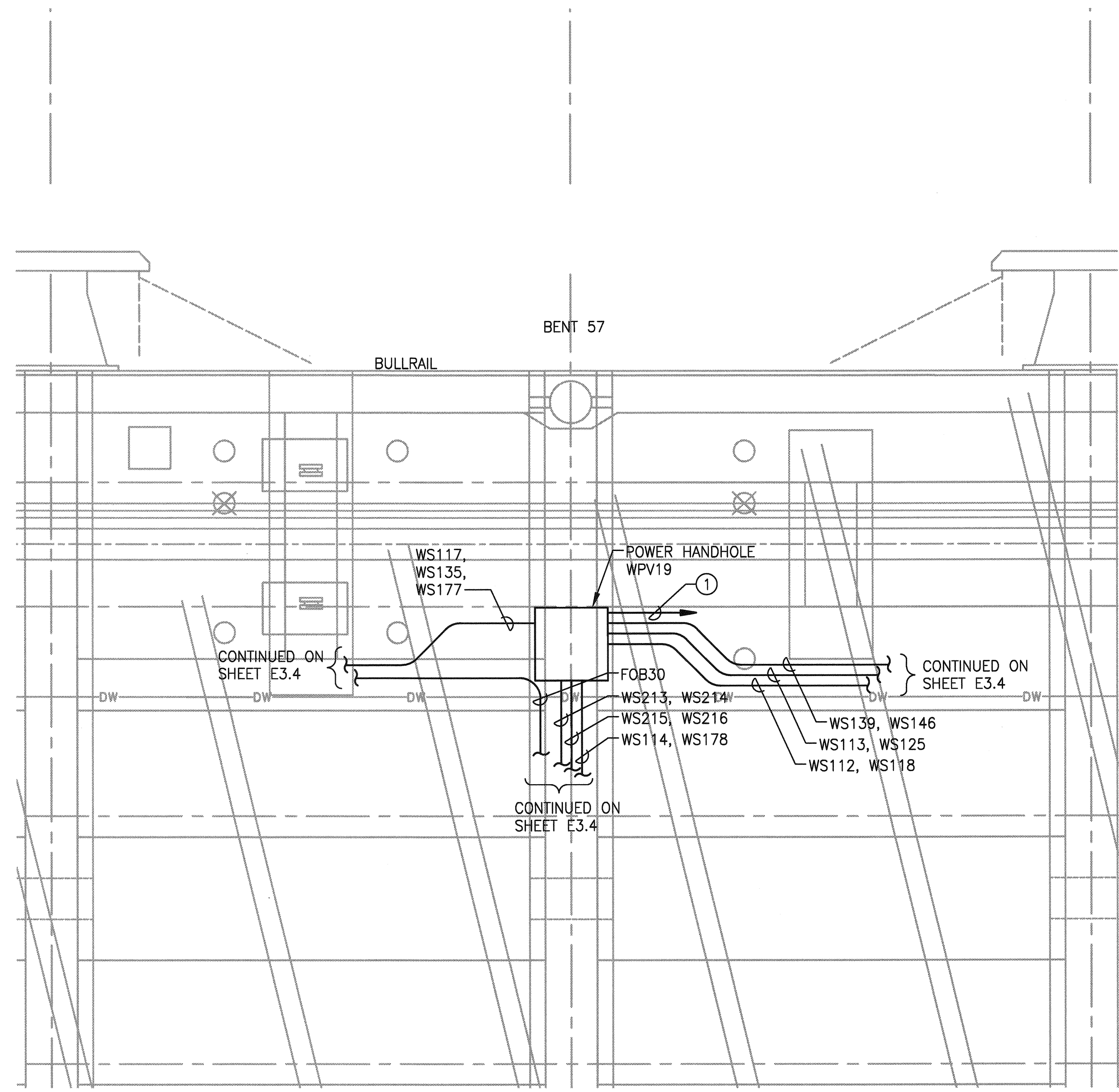
- SEE SHEETS E6.22 FOR CONDUIT ROUTING IN PILE CAPS.

KEYED NOTES

- 3/4" C, #4 CU GROUND WIRE TO GROUND BUS IN BULLRAIL VAULT. CONNECT TO GROUNDING INSERT IN HANDHOLE AND GROUND BUS IN VAULT.



<p>6552 E6.16 SH 155 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID</p>	<p>PIER 4 PHASE 2 RECONFIGURATION ENLARGED VAULT AND UTILITY TRENCH PLANS</p>		<p>APPROVED: <i>[Signature]</i> 3-28-16</p>	<p>CHECKED BY: <i>[Signature]</i> DATE: 2/19/16</p>
	<p>TOWNSHIP: DAT-HRZ: WA83-SF</p>	<p>RANGE: MLLW 19.39' @ Tide 22 1933</p>	<p>SECTION: PORT ADDRESS: ONE SITCUM PLAZA</p>	<p>PROJ. ENGR: CURTIS MGR 22, 2016</p>
<p>ELCON ASSOCIATES, INC ENGINEERS - CONSULTANTS 16800 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-5022 FAX (206) 243-5205</p>		<p>ELCON ASSOCIATES, INC P.O. BOX 1807 TACOMA, WA 98401-1807</p>		<p>MARK: REVISION: BY: APPR: DATE:</p>



1
E6.12

ENLARGED VAULT AND UTILITY TRENCH PLAN

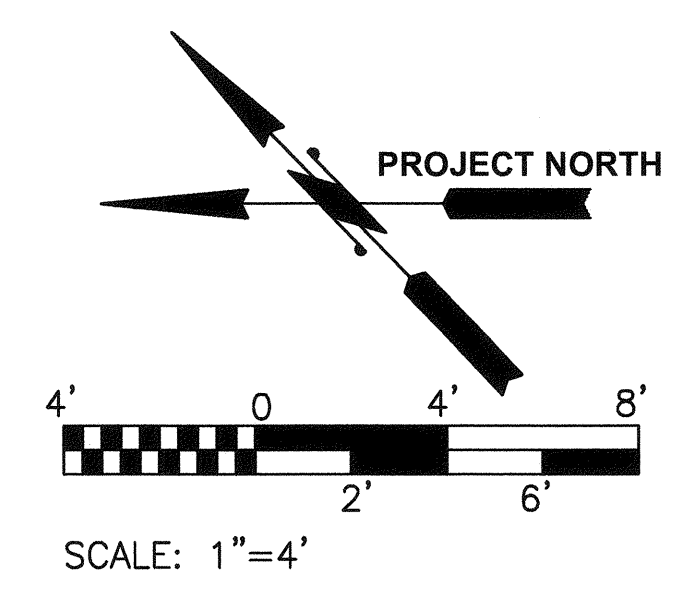
SCALE: 1/4" = 1'-0"

GENERAL NOTES

- SEE SHEETS E6.23 FOR CONDUIT ROUTING IN PILE CAPS.

KEYED NOTES

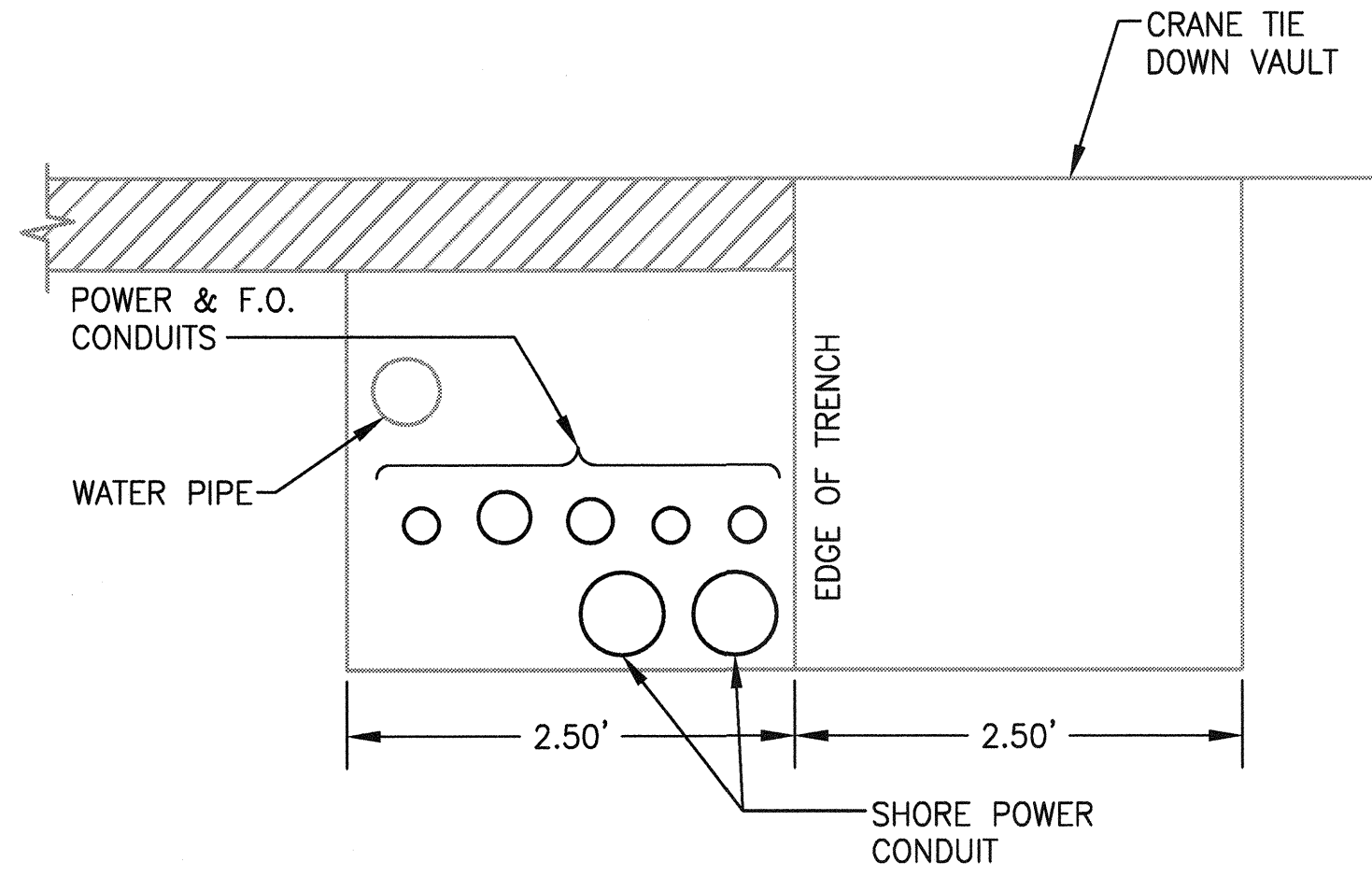
- 3/4"C, #4 CU GROUND WIRE TO GROUND BUS IN BULLRAIL VAULT WPU13. CONNECT TO GROUNDING INSERT IN HANDHOLE AND GROUND BUS IN VAULT. SEE SHEET E3.4 FOR VAULT WPV13 LOCATION.



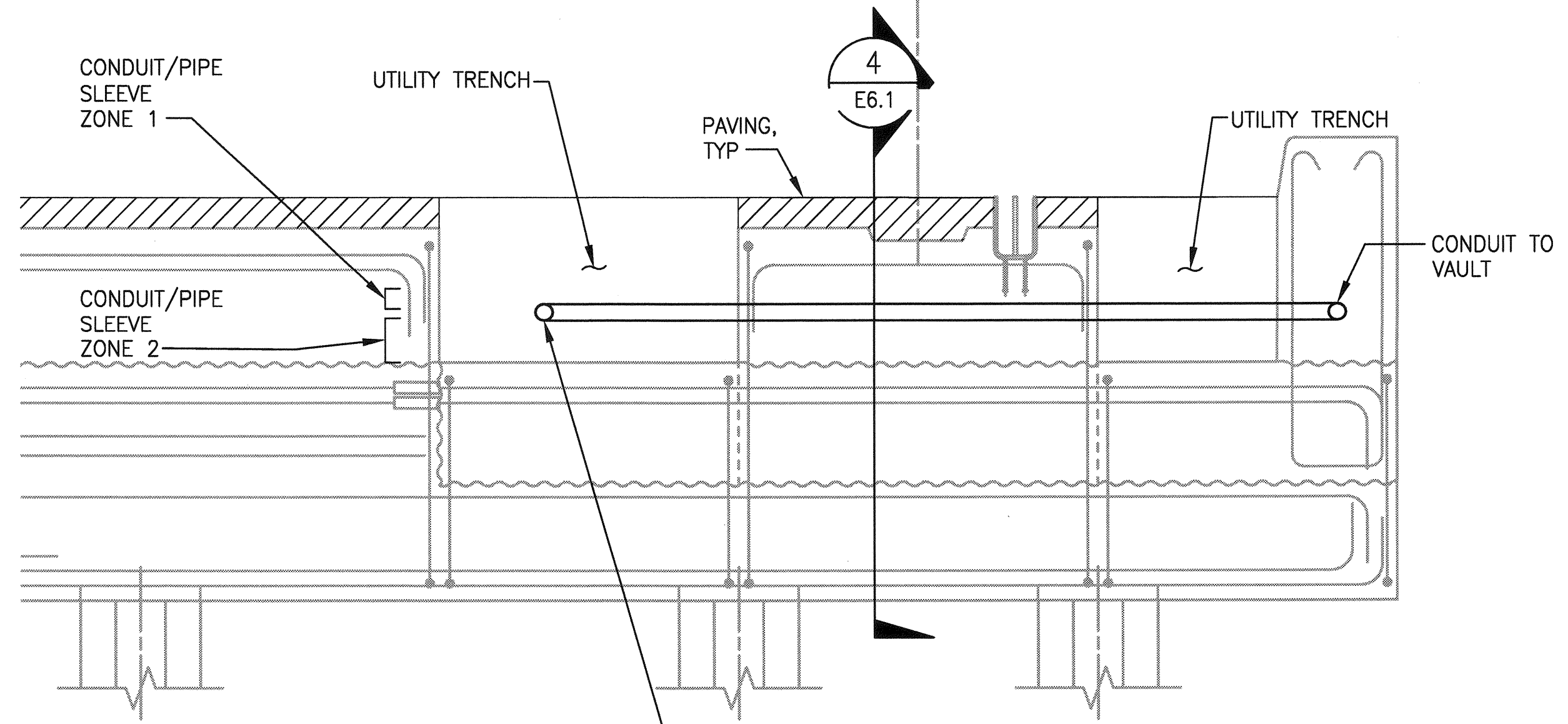
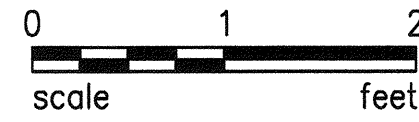
<p>6552 E6.17 SH 156 OF 499 CONT/CONS: 070136 M. ID: 091251 PHASE: BID</p>	<p>PIER 4 PHASE 2 RECONFIGURATION ENLARGED VAULT AND UTILITY TRENCH PLAN</p>		<p>APPROVED: <i>[Signature]</i> 3-28-16</p>	<p>CHECKED BY: [Blank] DATE: [Blank]</p>
	<p>TOWNSHIP: [Blank] DAT-HRZ: WA83-SF PARCEL: [Blank]</p>	<p>RANGE: [Blank] VERT: MLLW 19.39' @ Tide 22.1933 DRAWING SCALE: AS NOTED</p>	<p>SECTION: [Blank] PRINTED BY: Curtis McGr 22, 2016 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837</p>	<p>PROJ. ENGR: [Blank] DATE: [Blank]</p>
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UTILITY TRENCH AT TIE DOWN (BENT 18.5)



1 **UTILITY TRENCH SECTION**
E6.9-E6.13 SCALE: 1" = 1'-0"

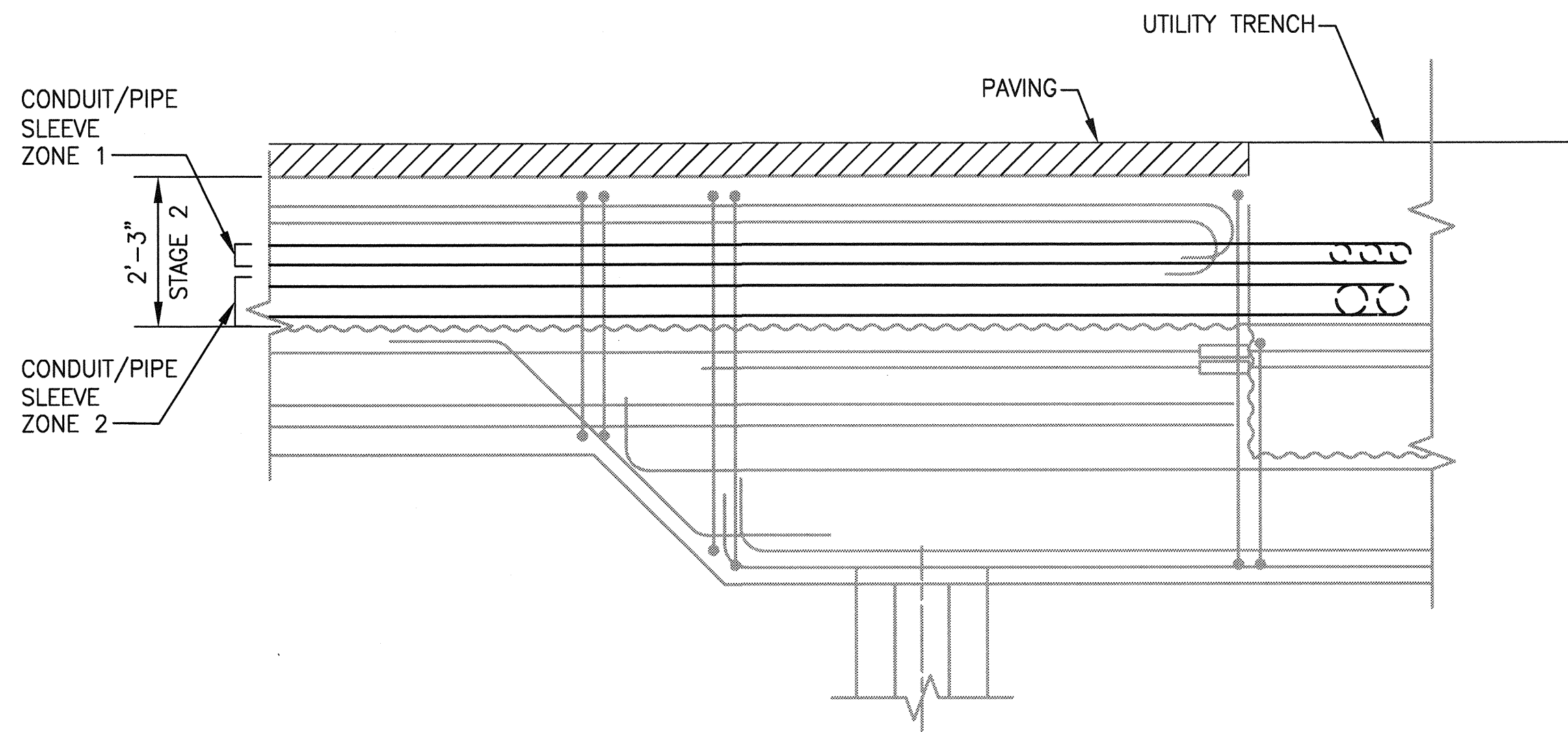


SECTION THROUGH WATERSIDE CRANE BEAM

2
E6.9-E6.13

SCALE: NTS

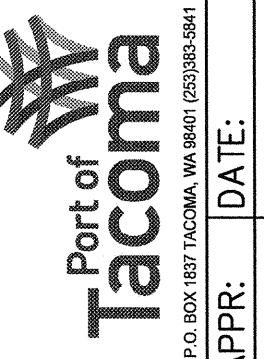
SEE **1** E6.18 FOR LOCATION OF CONDUITS IN TRENCH. QTY OF CONDUITS VARIES, SEE PLANS



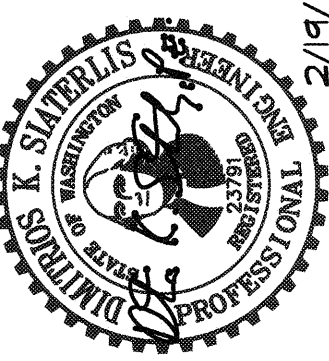
CONDUIT EXITING TRENCH INTO PILE CAP

3
E6.10-E6.12

SCALE: NTS



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PORT ADDRESS	ONE SITCUM PLAZA
TACOMA, WA	98401-1837

PIER 4 PHASE 2 RECONFIGURATION
UTILITY TRENCH / PILE CAP SECTIONS

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WAB3-SF	VERT: MLW 19.39' @ Tide 22 1933	
PARCEL:	DRAWING SCALE:	AS NOTED

6552
E6.18
SH 157 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

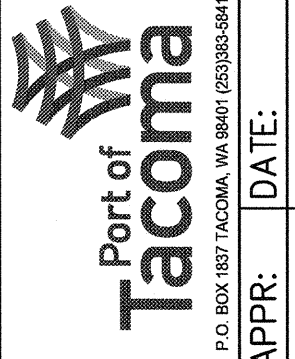
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VAULTS AND HANDHOLE SCHEDULE

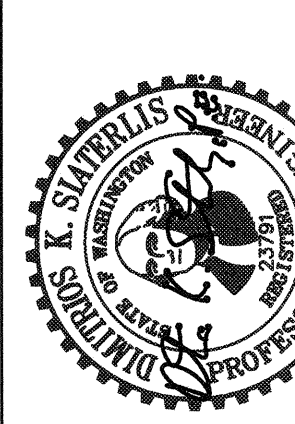
Table with columns: NO., DWG NO., VOLTAGE, COORDINATES (NORTH, EAST), INT DIM (L, W, D), H2 Precast / UV Cat No., CONDUIT QUANTITIES PER WALL (NORTH, EAST, SOUTH, WEST), COVER ID, NOTES.

SCHEDULE NOTES

- 1. 125 KIP RATING.
2. PROVIDE VAULT KIP RATING, STENCIL PAINTED ON INSIDE OF VAULT DIRECTLY BELOW LID. MINIMUM 4" HIGH LETTERS.
3. VAULT WITH TRANSFORMER COVER.
4. SEE STRUCTURAL DRAWINGS FOR DIMENSIONS AND DETAILS.
5. VAULT TO BE PER TACOMA POWER REQUIREMENTS.
6. SEE SHEET E6.21 FOR TYPICAL VAULT DETAILS.
7. SEE SPEC SECTION 33 71 19 "ELECTRICAL UNDERGROUND DUCTS AND MANHOLES" REGARDING RISER EXTENSIONS AND/OR GRADE RINGS.



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

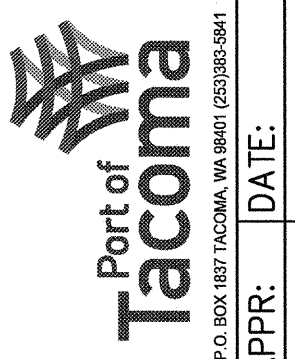
APPROVED:
PIER 4 PHASE 2
RECONFIGURATION
VAULTS AND HANDHOLE SCHEDULE

6552
E6.20
SH 159 OF 489
CONT/CONS: 070136
M. ID: 091251
TOWNSHIP:
RANGE: MLW 19.39 @ Tide 22 19.33
VERT: WA83-SF
SECTION:
DRAWING SCALE: AS NOTED

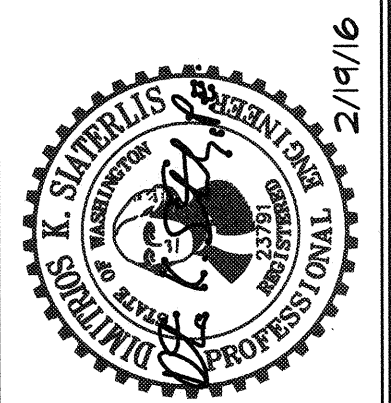
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GENERAL NOTES

1. REFER TO SHEET E6.20 FOR MANHOLE/VAULT SIZES.



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DATE: 2/14/16

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TACOMA, WA 98401-1837

6552
E6.21
SH 160 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

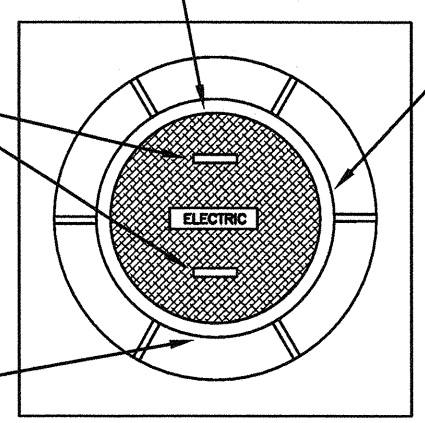
PIER 4 PHASE 2
RECONFIGURATION
MANHOLE/VAULT DETAILS

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COVER SHALL READ "ELECTRIC" OR "COMMUNICATIONS" DEPENDING ON VAULT USE

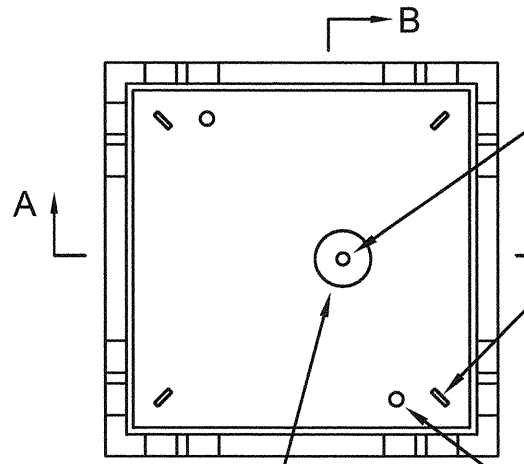
VAULT COVER SHALL BE EQUIPPED WITH LIFTING RINGS TO ALLOW LIFTING BY A FORKLIFT. WHEN NOT IN USE, THE RINGS SHALL RECESS

PROVIDE FIELD STAMPED LABEL ON EXPOSED METAL FRAME AND LID. LABEL SHALL MATCH VAULT ID ON ELECTRICAL SITE PLANS



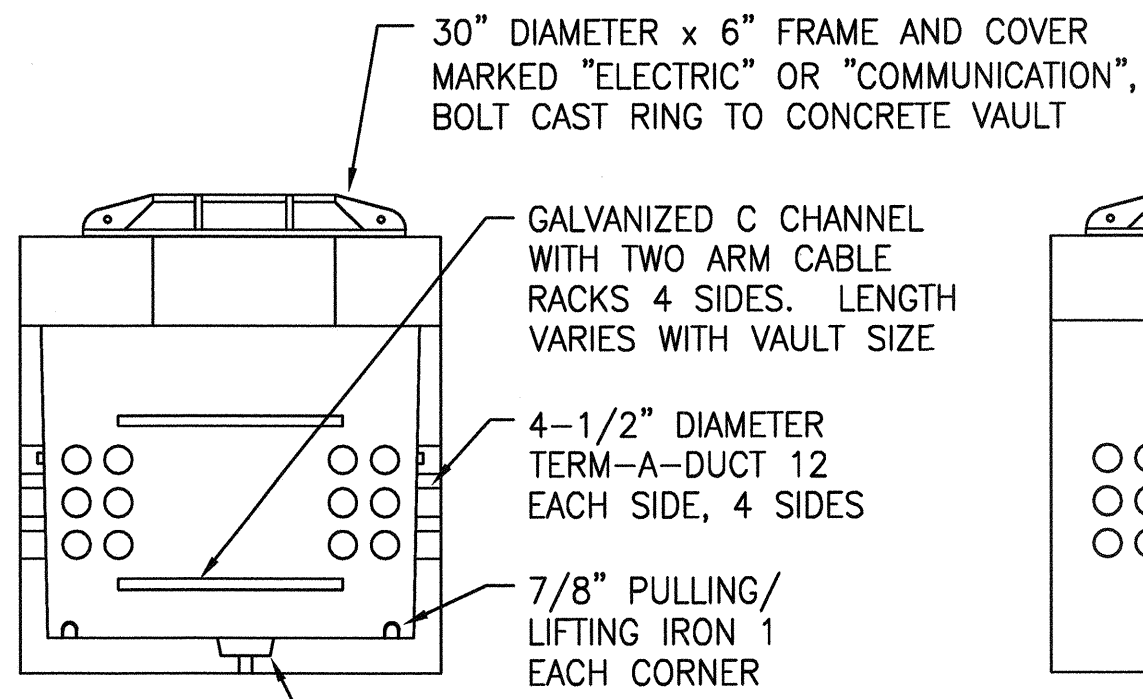
COVER

PROVIDE SECURITY BOLT ON ALL VAULTS



PLAN VIEW

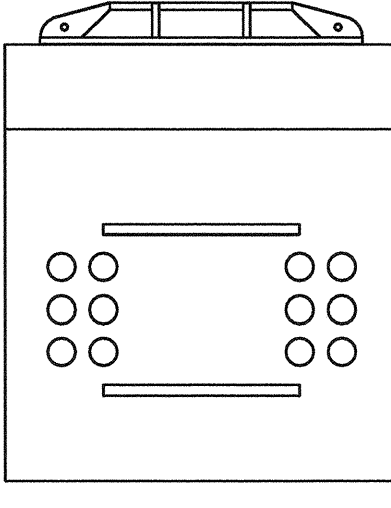
PROVIDE 2" OPEN HOLE IN SUMP
7/8" LIFTING/PULLING IRON 1 EACH CORNER
GROUND ROD KNOCKOUT TYPICAL TWO PLACES



SECTION A-A

PROVIDE MINIMUM 12" DEEP PEA GRAVEL BASE BELOW VAULT EXTENDING 12" PAST VAULT ON ALL SIDES

8" DIAMETER SUMP WITH 2" OPEN HOLE



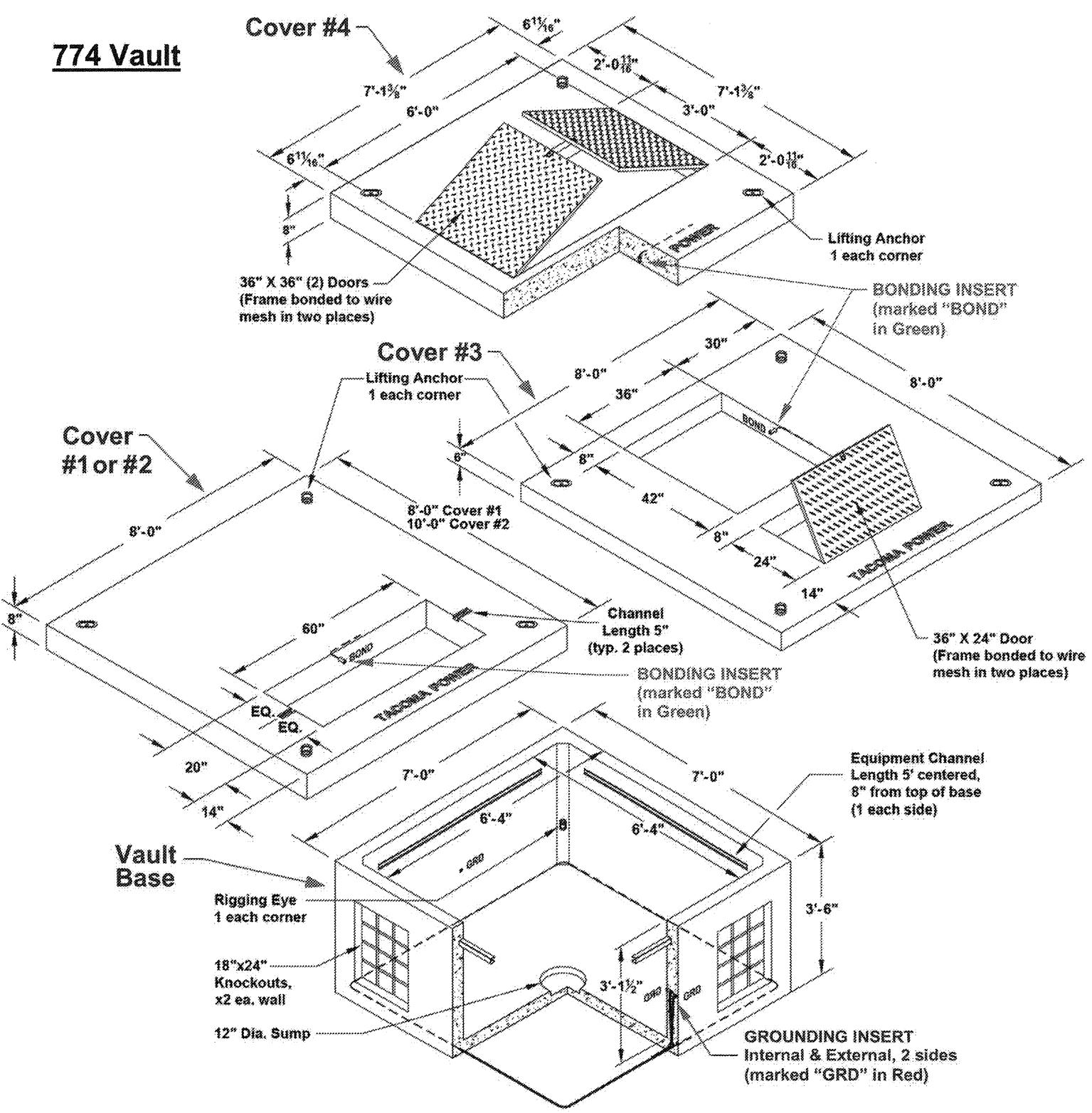
SECTION B-B

TYPICAL SITE POWER AND COMMUNICATIONS VAULTS

A
E6.20

SCALE: NTS

774 Vault

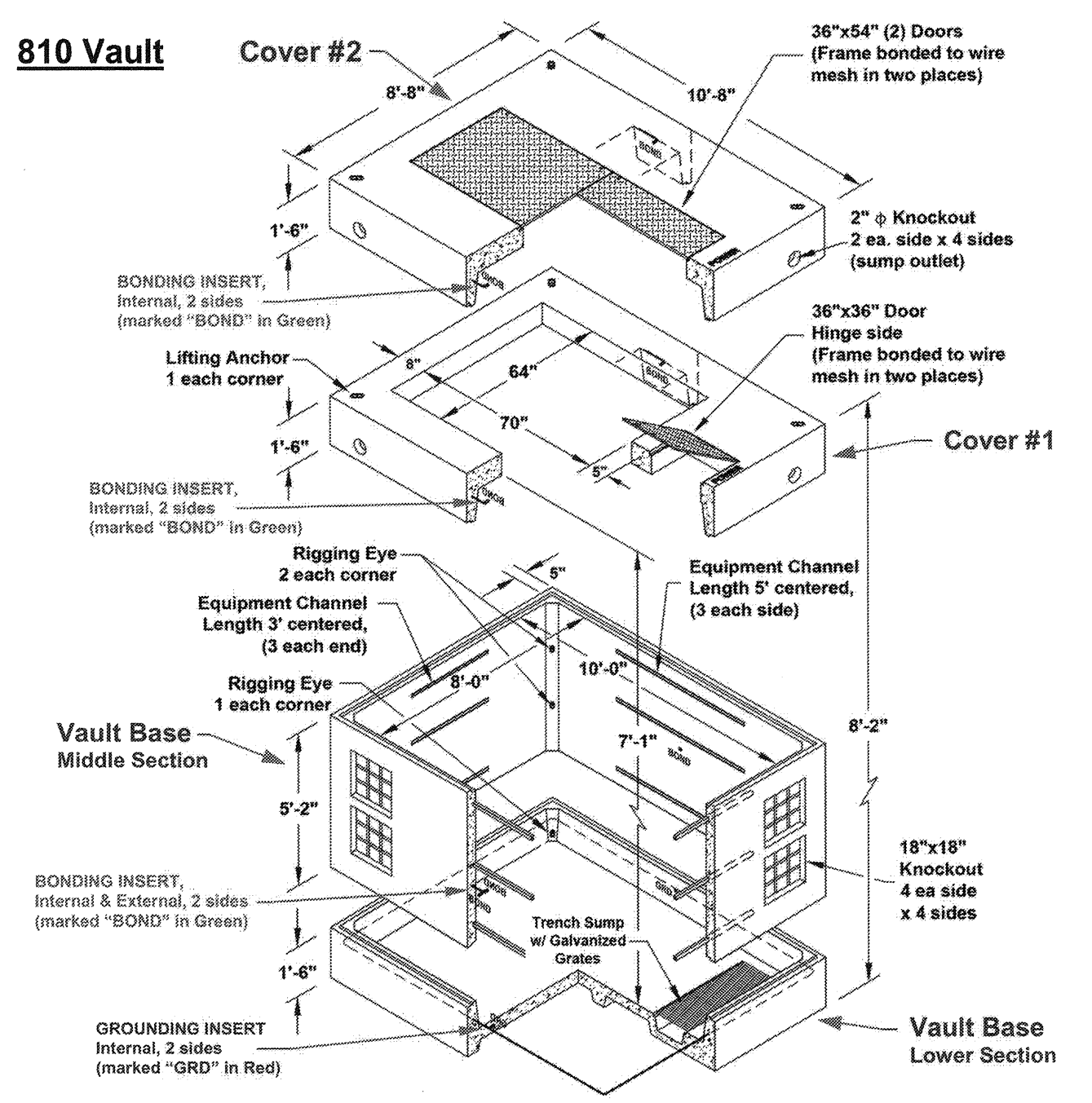


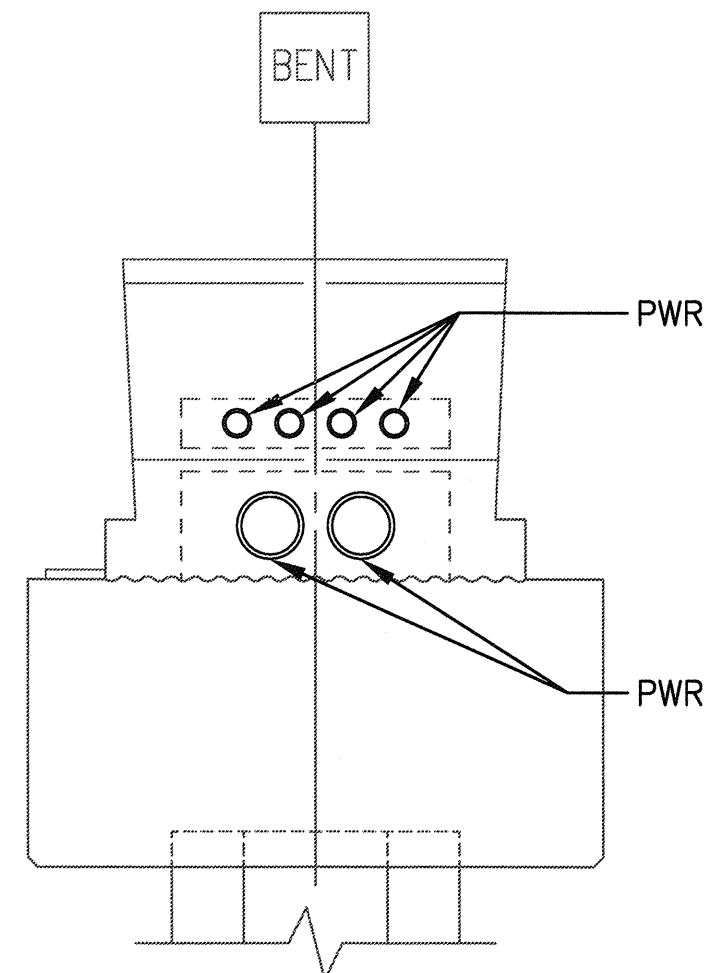
B
E6.20

TYPICAL TACOMA POWER VAULTS

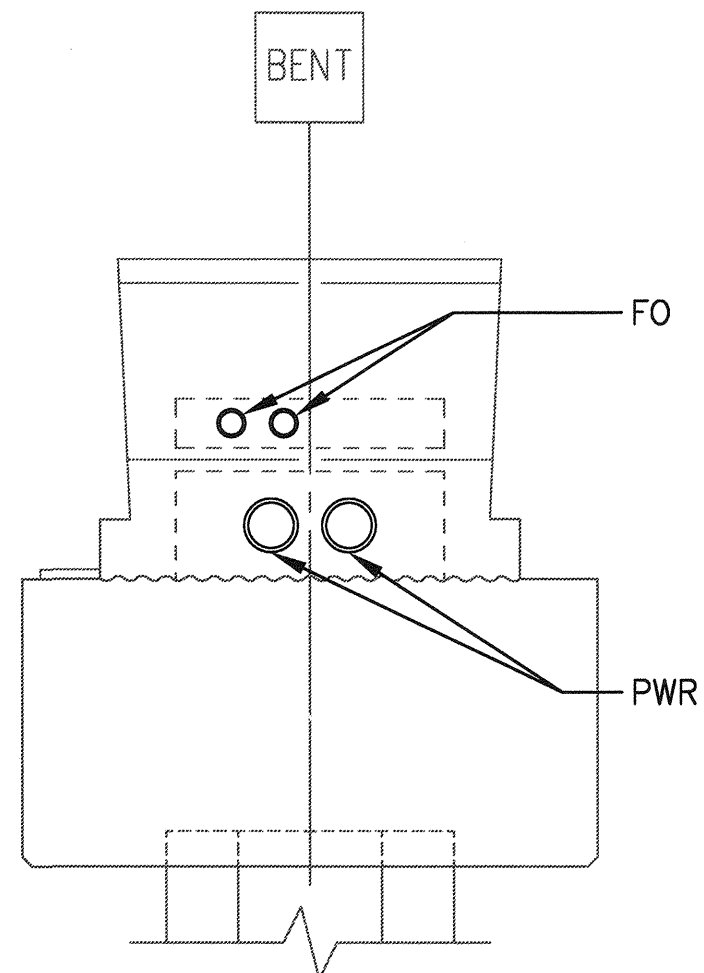
SCALE: NTS

810 Vault

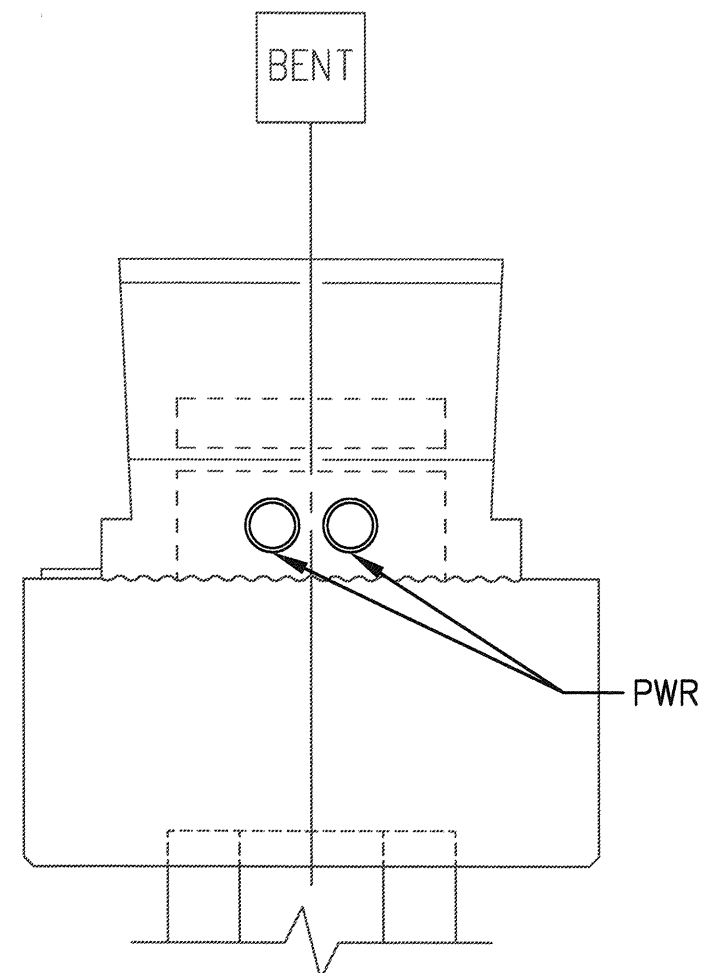




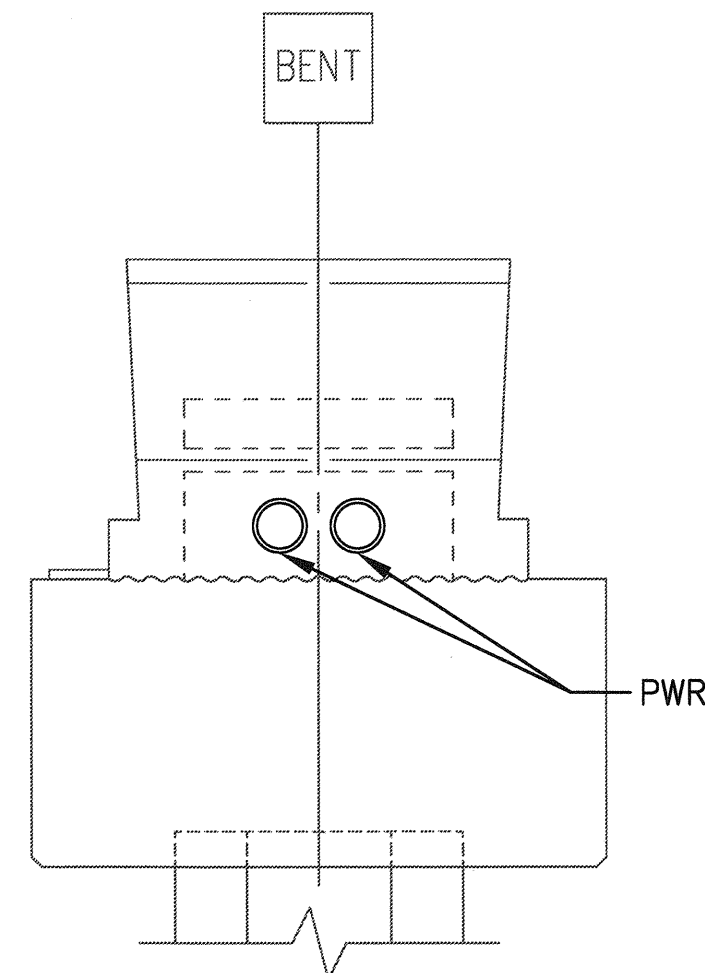
BENT 22



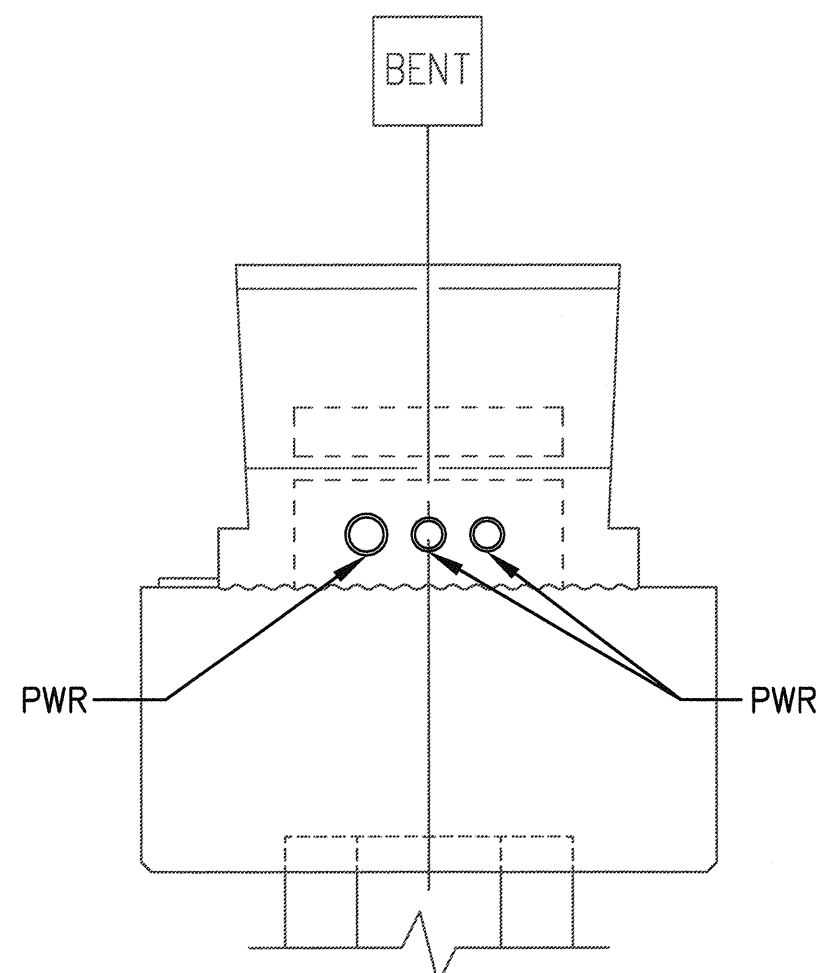
BENT 24



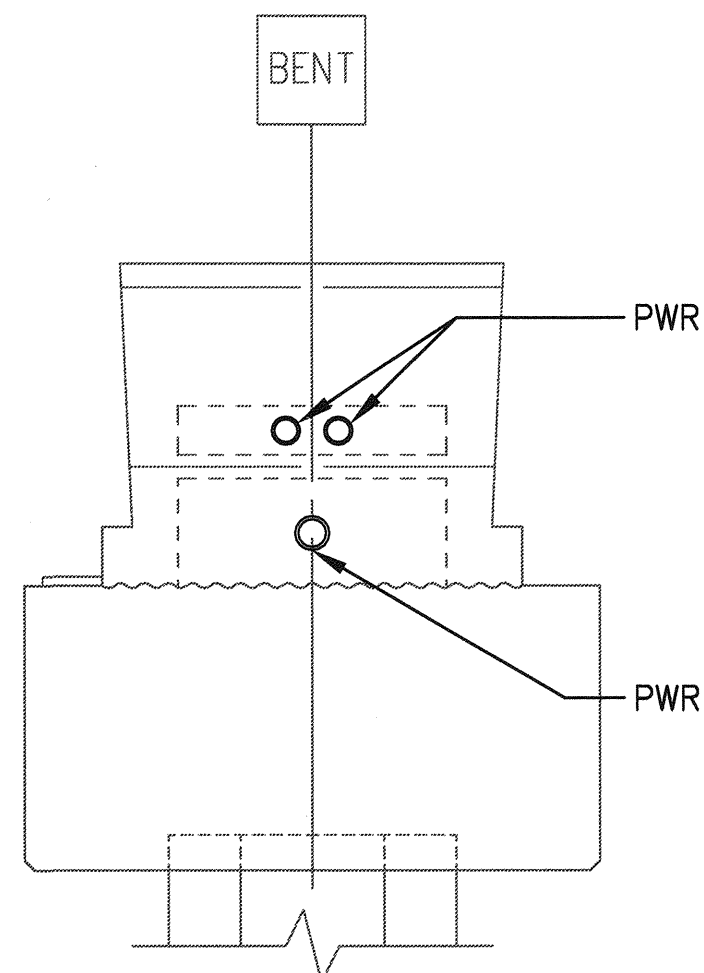
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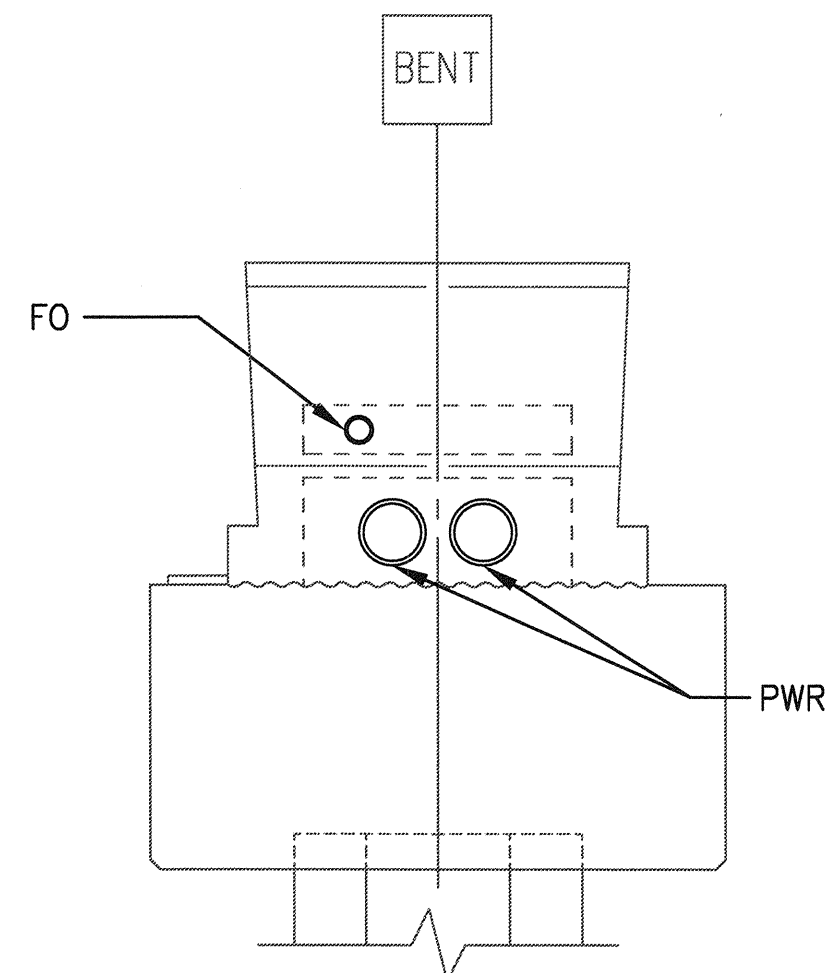
BENT 26



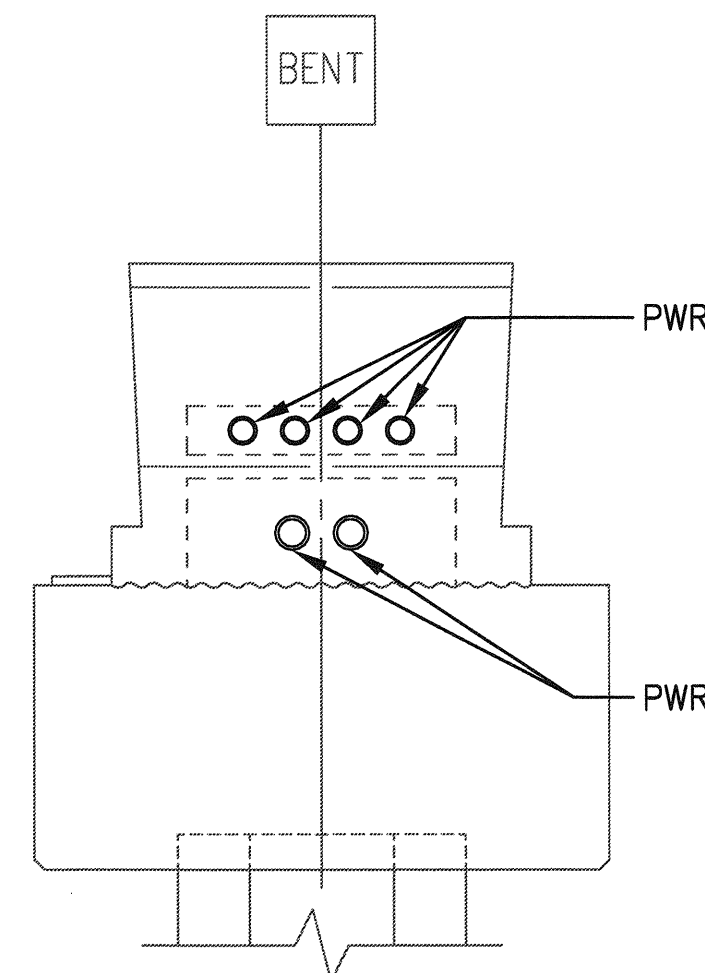
BENT 27



BENT 30



BENT 34



BENT 38

1

**SECTIONS AT PILE CAP
CONDUIT/PIPE SLEEVE ZONE**

NO SCALE

6552
E6.22

SH 161 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

**PIER 4 PHASE 2
RECONFIGURATION
BENT SECTIONS**

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MILLW 19.39' @ Tide 22 1933
PARCEL: DRAWING SCALE: AS NOTED

APPROVED: *[Signature]*
DIRECTOR ENG. DATE: 3-28-16
PRINTED BY: Curtis
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

CHECKED BY: DATE:
PROJ. ENGR: DATE:
SITCUM Mgr. 22, 2016

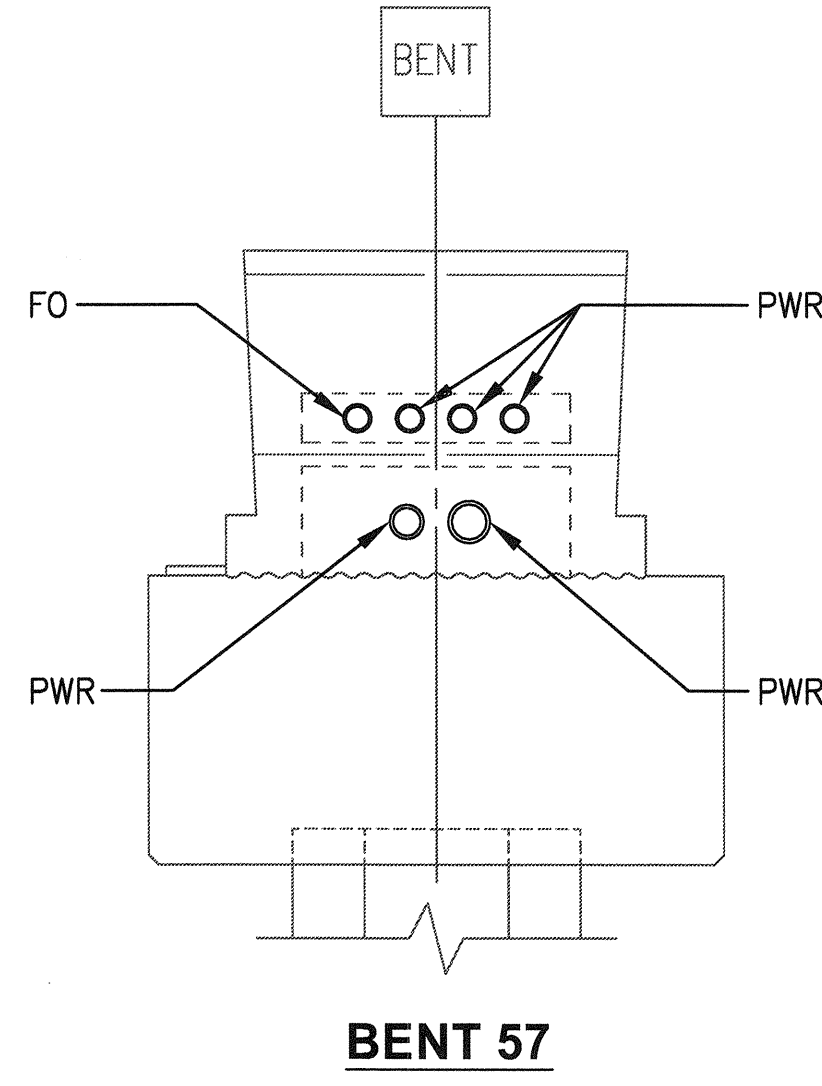
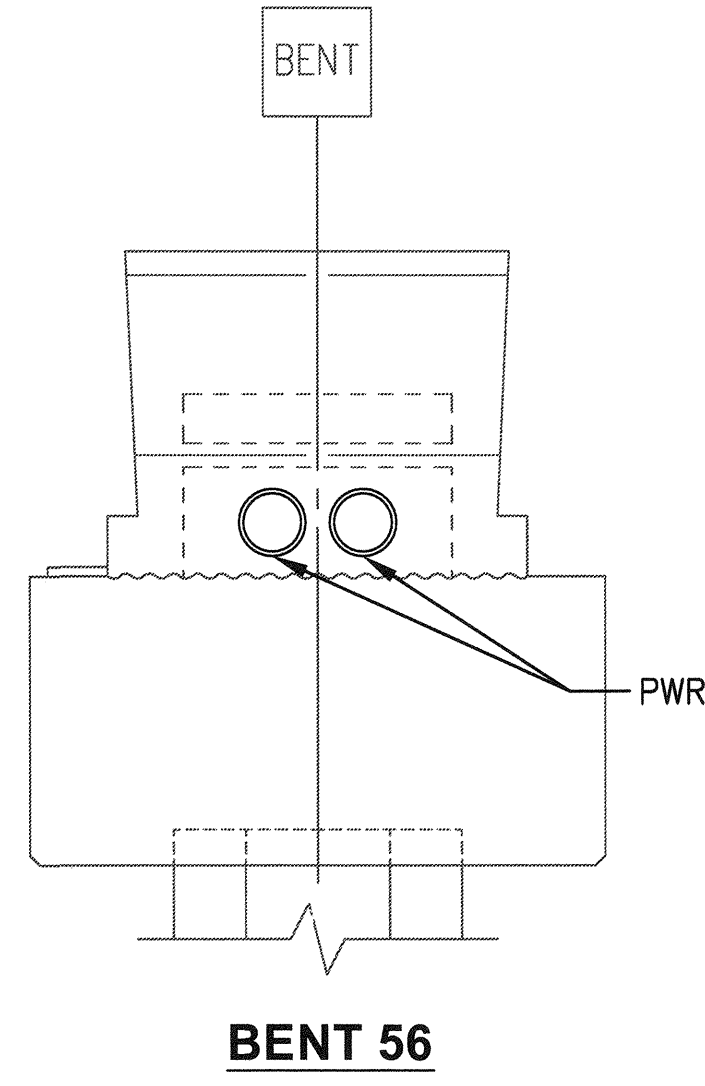
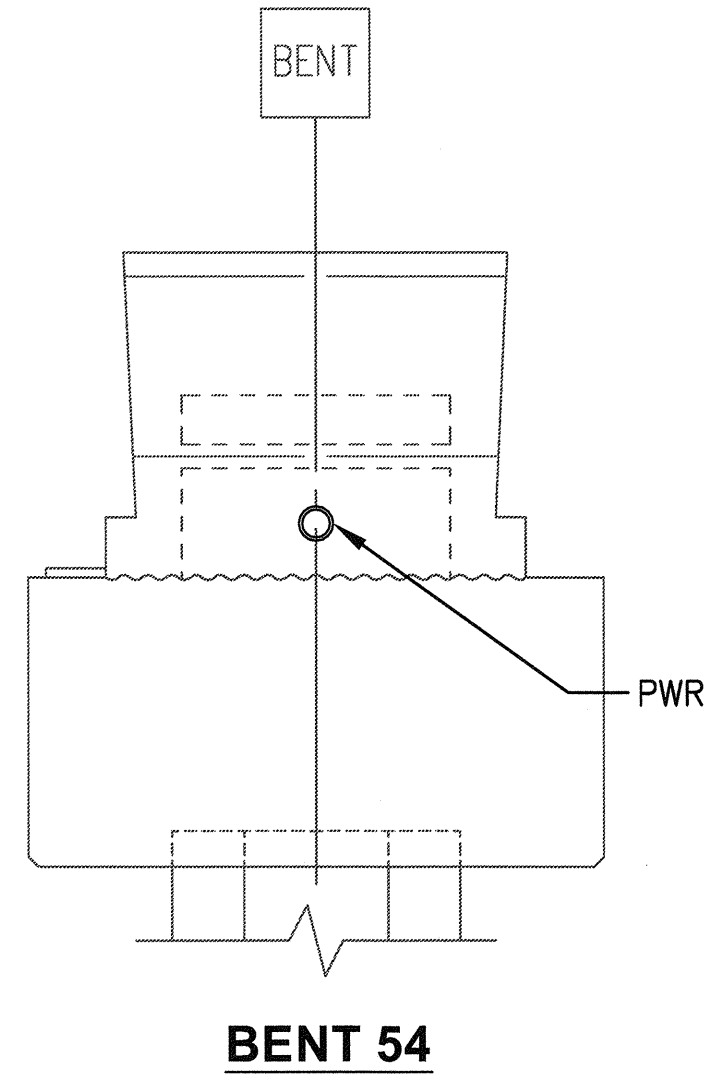
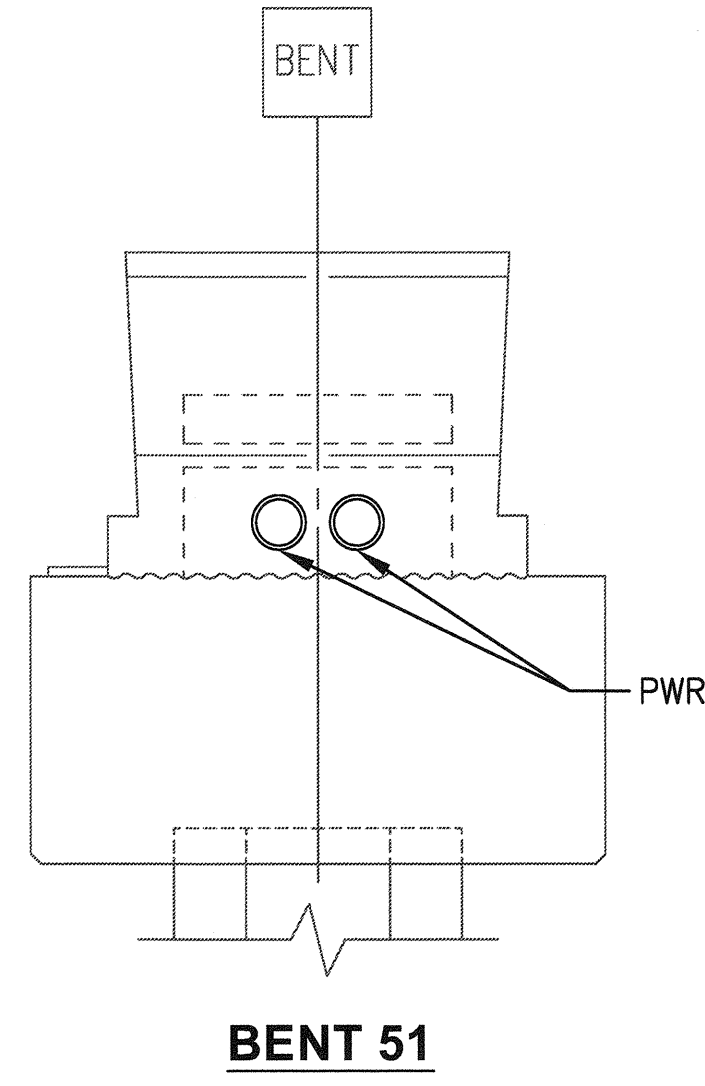
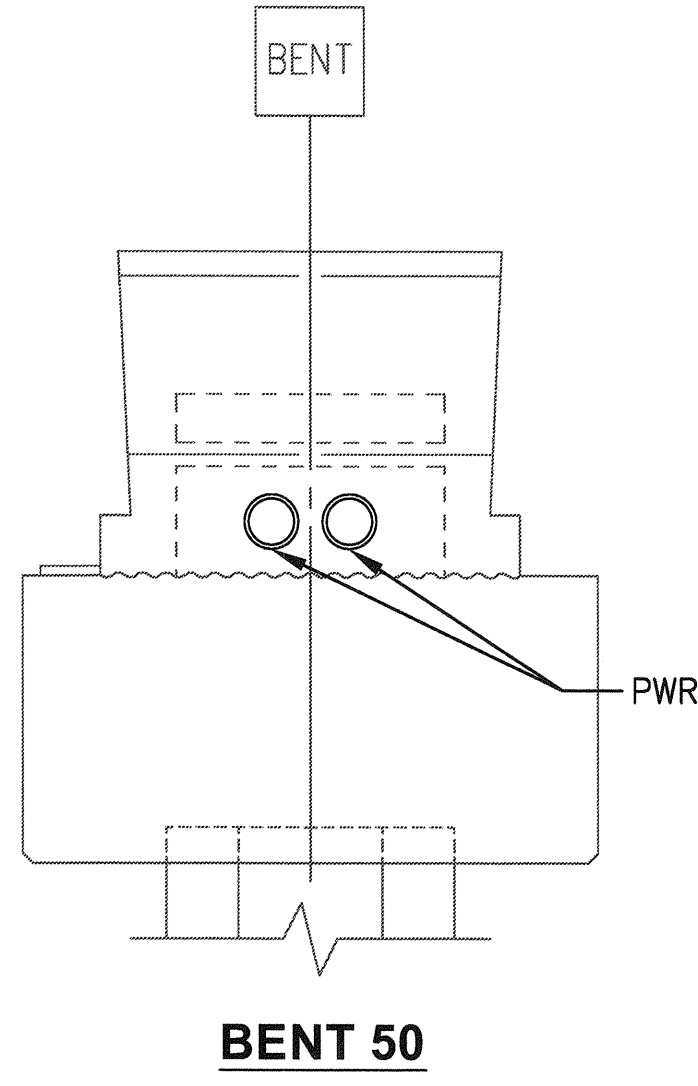
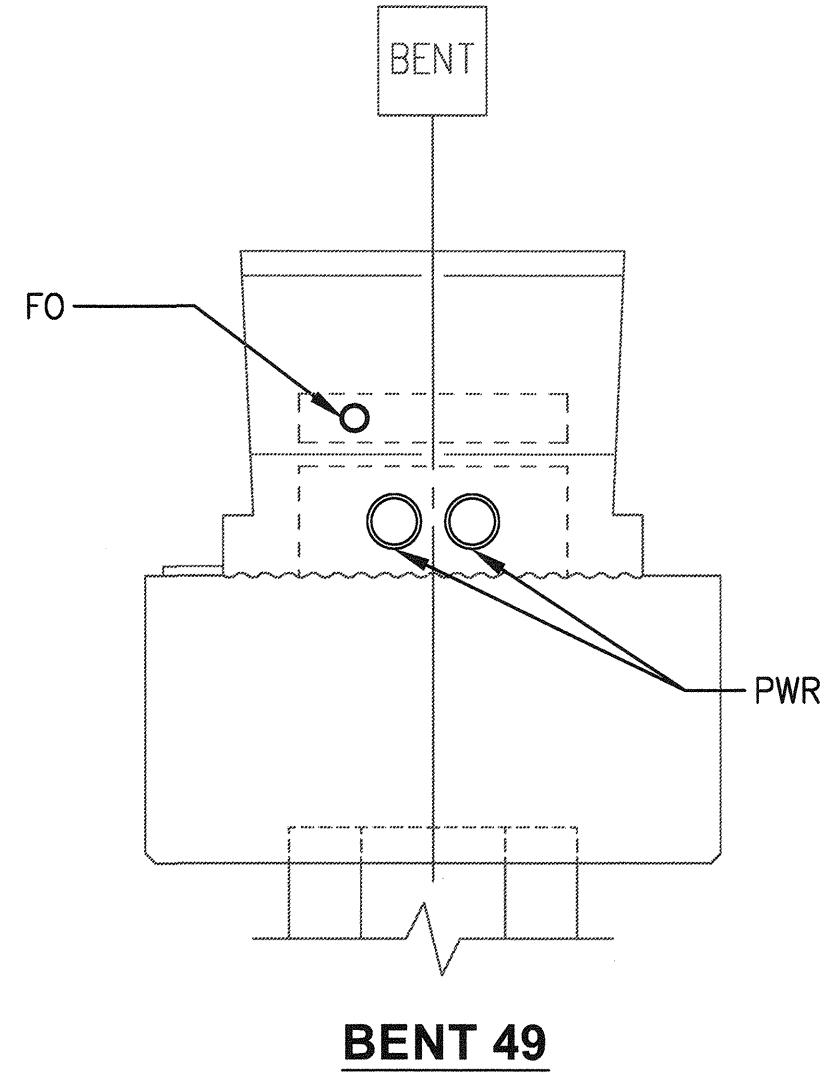
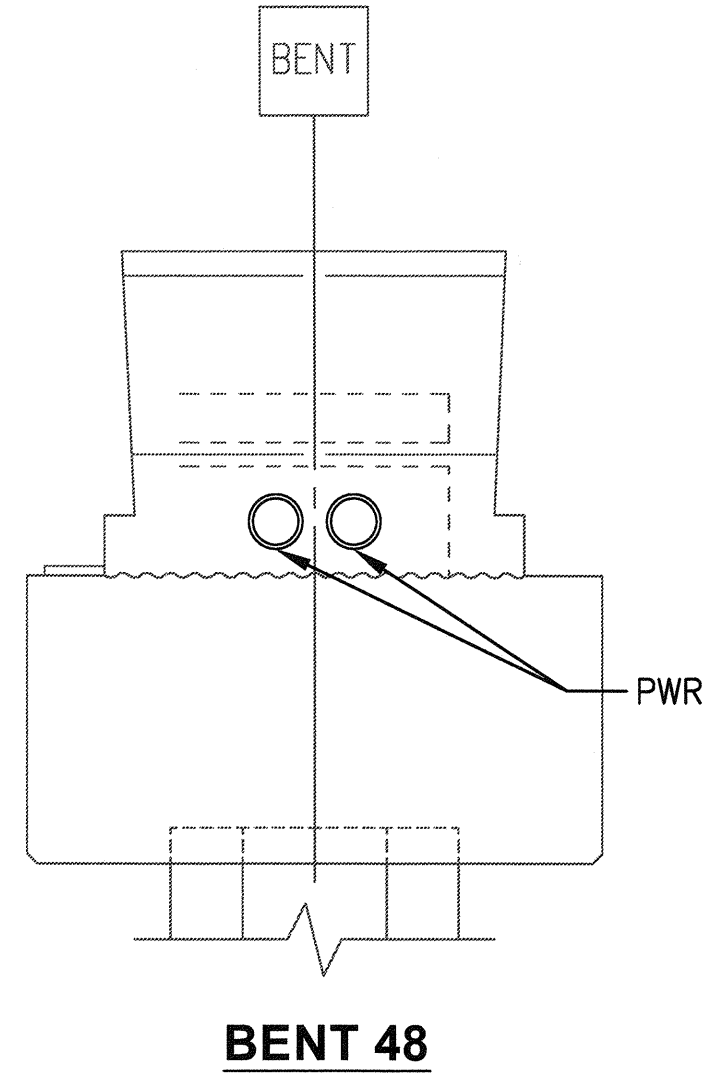


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1
SECTIONS AT PILE CAP
CONDUIT/PIPE SLEEVE ZONE
 NO SCALE

6552
E6.23
 SH 162 OF 499
 CONT/CONS: 070136
 M. ID: 091251
 PHASE: BID

PIER 4 PHASE 2
RECONFIGURATION
 BENT SECTIONS

TOWNSHIP: SECTION:
 DAT-HRZ: WAB3-SF RANGE: MLLW 19.39' @ Tide 22 1933
 VERT: MLLW 19.39' @ Tide 22 1933
 PARCEL: DRAWING SCALE: AS NOTED

APPROVED: *[Signature]*
 3-28-16
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 PORT ADDRESS: ONE SITCUM PLAZA
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 P.O. BOX 887 TACOMA, WA 98401-0887
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PANELBOARD RESTROOM		200 A BUS		SECTIONS: 1		SURFACE MOUNTED				
240/ 120V 1 PHASE 3 WIRE		200 A MCB		LUGS: SINGLE		NEMA:				
LOCATION: RESTROOM BUILDING		22,000 AIC MAX		FEED:		NUMBER OF POLES: 32				
CKT	TYPE	SERVES	C.B.	KVA	CONNECTED PHASE LOAD	KVA	C.B.	SERVES	TYPE	CKT
1	LI	EXTERIOR PHOTO CTRL LIGHTS	20/1	0.04	0.2	0.18	20/1	MENS RECEPTACLE	RE	2
3	LI	CHASE LIGHTS	20/1	0.06	0.2	0.18	20/1	WOMENS RECEPTACLE	RE	4
5	LI	MENS LIGHTS AND EXH FAN	20/1	0.24	0.2	0.18	20/1	CHASE RECEPTACLE	RE	6
7	LI	WOMENS LIGHTS AND EXH FAN	20/1	0.24	0.4	0.16	20/1	ELECT DOOR LOCKS & TIME CL	MC	8
9	MN	MENS HAND DRYER	20/1	1.14	2.3	1.14	20/1	WOMENS HAND DRYER	MN	10
11	MN	WATER HEATER	30/2	4.50	2.6	0.36	20/1	HOT BOX DUPLEX RECEPTACLES	RE	12
13					2.3					14
15					0.0					16
17					0.0					18
19					0.0					20
21					0.0					22
23					0.0					24
25					0.0					26
27					0.0					28
29					0.0					30
31					0.0					32
				4.9	3.2	CALCULATED LOAD		8.6 KVA		
						MAXIMUM AMPS PER PHASE		41.2 AMPS		

NOTES:
 1. PANELBOARD PROVIDED WITH BUILDING

SUMMARIZED LOADS:		CONN	NEC	NEC	COMMENTS
CONNECTION TYPE	DEMAND	KVA	KVA	AMPS	
4 LI LIGHTING	125%	0.6	0.7	3.0	125% CONNECTED - NEC 210.19
4 RE RECEPTACLES	100%	0.9	0.9	3.8	NONDWELLING UNITS - NEC 220.44
0 MO MOTOR	125%	0.0	0.0	0.0	100%+125% LARGEST MOTOR - NEC 430.24
0 EH ELECTRIC HEAT	100%	0.0	0.0	0.0	100% CONNECTED - NEC 220.51
0 AC A/C REFRIGERATION	125%	0.0	0.0	0.0	100%+125% LARGEST MOTOR - NEC 430.24
0 CC COMMERCIAL COOKING	100%	0.0	0.0	0.0	NEC 220.56
3 MN MISC. NONCONTINUOUS	100%	6.8	6.8	28.3	100% CONNECTED - NEC 210.19
1 MC MISC. CONTINUOUS	125%	0.2	0.2	0.8	125% CONNECTED - NEC 210.19
0 SF SUBFEED	100%	0.0	0.0	0.0	
0 FT FEED THROUGH LOAD	100%			0.0	
0 MA EXISTING MAX DEMAND	125%		0.0	0.0	PEAK DEMAND DURING 30 DAY METERING, PER NEC 220.87
0 NO NONCOINCIDENTAL LOAD	0%	0.0	0.0	0.0	NEC 220.60
0 SP SPARE CAPACITY	100%	0.0	0.0	0.0	
0 MISCELLANEOUS LOAD	100%	0.0	0.0	0.0	
TOTALS	102%	8.4	8.6	35.8	PANELBOARD RESTROOM

PANELBOARD P42		225 A BUS		SECTIONS: 1		SURFACE MOUNTED				
208/ 120V 3 PHASE 4 WIRE		150 A MCB		LUGS: SINGLE		NEMA: 4X				
LOCATION: YARD		10,000 AIC		FEED:		NUMBER OF POLES: 42				
CKT	TYPE	SERVES	C.B.	KVA	CONNECTED PHASE LOAD	KVA	C.B.	SERVES	TYPE	CKT
1	RE	BULLRAIL VAULT #11 RECEPT	20/1	0.18	1.2	2.00	20/2	BULLRAIL VAULT #10 RECEPT	MN	2
3	MN	BULLRAIL VAULT #11 RECEPT	20/2	2.00	2.0					4
5					1.2	0.18	20/1	BULLRAIL VAULT #10 RECEPT	RE	6
7	EH	WATER VAULT RECEPT	20/1	0.10	0.3	0.18	20/1	BULLRAIL VAULT #9 RECEPT	RE	8
9	EH	WATER VAULT RECEPT	20/1	0.10	1.1	2.00	20/2	BULLRAIL VAULT #9 RECEPT	MN	10
11	EH	WATER VAULT RECEPT	20/1	0.10	1.1					12
13	EH	LTG CTRL CAB HEATER	20/1	0.20	0.2		20/1	COMM CAB AT POLE WYLO2	RE	14
15		SPARE	20/1		0.0		20/1	COMM CAB AT POLE WYLO1	RE	16
17		SPARE	20/1		0.0		20/1	SWBD, P44 HEATER	EH	18
19		SPARE	20/1		0.0		20/1	SPARE		20
21		SPARE	20/1		0.0		20/1	SPARE		22
23		SPARE	20/1		0.0		20/1	SPARE		24
25		SPACE			0.0			SPACE		26
27		SPACE			0.0			SPACE		28
29		SPACE			0.0			SPACE		30
31		SPACE			0.0			SPACE		32
33		SPACE			0.0			SPACE		34
35		SPACE			0.0			SPACE		36
37		SPACE			0.0		30/3	TVSS		38
39		SPACE			0.0					40
41		SPACE			0.0					42
				1.7	3.1	2.3	CALCULATED LOAD		19.8 KVA	
						MAXIMUM AMPS PER PHASE		54.9 AMPS		

SUMMARIZED LOADS:		CONN	NEC	NEC	COMMENTS
CONNECTION TYPE	DEMAND	KVA	KVA	AMPS	
0 LI LIGHTING	125%	0.0	0.0	0.0	125% CONNECTED - NEC 210.19
5 RE RECEPTACLES	100%	0.5	0.5	1.5	NONDWELLING UNITS - NEC 220.44
0 MO MOTOR	125%	0.0	0.0	0.0	100%+125% LARGEST MOTOR - NEC 430.24
5 EH ELECTRIC HEAT	100%	0.5	0.5	1.4	100% CONNECTED - NEC 220.51
0 AC A/C REFRIGERATION	125%	0.0	0.0	0.0	LESS THAN HEATING - NEC 220.60
0 CC COMMERCIAL COOKING	100%	0.0	0.0	0.0	NEC 220.56
3 MN MISC. NONCONTINUOUS	100%	6.0	6.0	16.7	100% CONNECTED - NEC 210.19
0 MC MISC. CONTINUOUS	125%	0.0	0.0	0.0	125% CONNECTED - NEC 210.19
0 SF SUBFEED	100%	0.0	0.0	0.0	
0 FT FEED THROUGH LOAD	100%			0.0	
0 MA EXISTING MAX DEMAND	125%	10.2	12.8	35.4	PEAK DEMAND DURING 30 DAY METERING, PER NEC 220.87
0 NO NONCOINCIDENTAL LOAD	0%	0.0	0.0	0.0	NEC 220.60
0 SP SPARE CAPACITY	100%	0.0	0.0	0.0	
0 MISCELLANEOUS LOAD	100%	0.0	0.0	0.0	
TOTALS	115%	17.2	19.8	54.9	PANELBOARD P42

6552

E7.1

SH 163 OF 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

PIER 4 PHASE 2

RECONFIGURATION

PANEL SCHEDULES P42 AND RESTROOM BUILDING

TOWNSHIP: RANGE: SECTION:

DATE-HRZ: WA83-SF VERT: MILLW 19.39' @ Tide 22 1933

DRAWING SCALE: AS NOTED

APPROVED: *[Signature]*

3-28-16

DIRECTOR ENG. DATE: PRINTED BY: Curtis McGr 22, 2016

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

ELCON ASSOCIATES, INC


ENGINEERS - CONSULTANTS

16300 CHRISTENSEN ROAD SUITE 330

SEATTLE WASHINGTON 98188

TEL (206) 243-5022

FAX (206) 243-5205



MARK: REVISION:

BY: _____

DATE: _____

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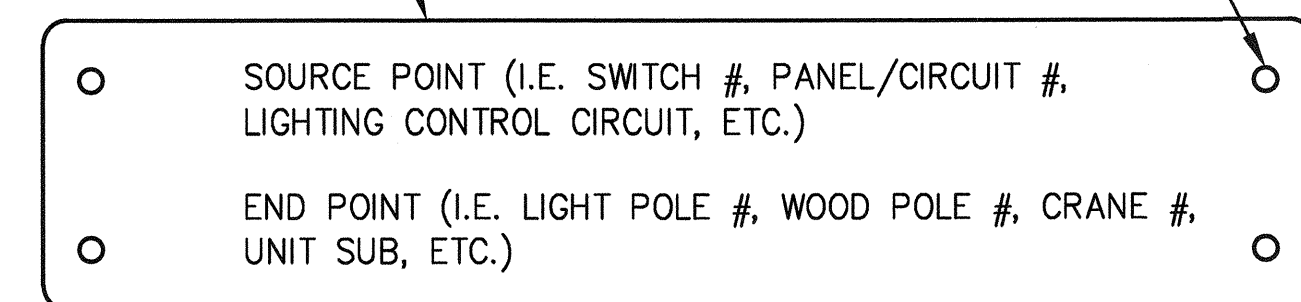
LEGEND

Table with two columns listing abbreviations and their corresponding full names, such as CBC = OUTGATE COMMUNICATIONS ROOM COMMUNICATIONS, RV = REEFER POWER VAULT, etc.

SCHEDULE KEY NOTES

- 1. SEE SEPARATE HUSKY TERMINAL WIFI SYSTEM PROJECT DRAWINGS FOR COMMUNICATIONS CONDUCTORS AND SITE PLANS. PORT OF TACOMA JOB #6323-04.
2. PVC SHCHEDULE 80.
3. GRS CONDUIT.
4. CONDUIT(S) CUT. ABANDONED IN PLACE.
5. COORDINATE WORK WITH TACOMA POWER.
6. PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LIGHT POLE LOCATIONS.
7. LIQUID TIGHT FLEXIBLE METAL CONDUIT.
8. CIRCUIT (CONDUIT) NUMBER FROM TERMINAL 3 & 4 REDEVELOPMENT PROJECT, CONTRACT NO. 998203.
9. CIRCUIT (CONDUIT) NUMBER FROM PIER 3 UPGRADE PROJECT, CONTRACT NO. 069458.
10. PVC COATED GRS CONDUIT.
11. EXTEND DUCTBANK TO VAULT SV212.

PROVIDE LABELING PER SPECIFICATION SECTION 26 05 53 CABLE TIE HOLES, TYPICAL OF FOUR (4)



CONDUCTOR IDENTIFICATION LABEL



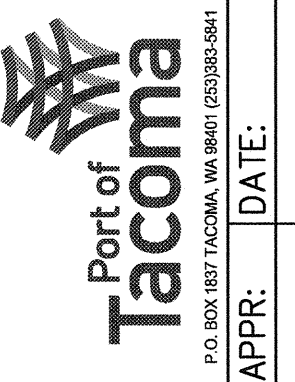
NO SCALE

SCHEDULE GENERAL NOTES

- 1. NOT ALL CONDUITS ARE SHOWN ON CONDUIT AND CONDUCTOR SCHEDULES. CONTRACTOR SHALL REFER TO POWER RISER DIAGRAMS AND SUBSTATION LAYOUT PLANS FOR ADDITIONAL CONDUITS AND WIRE.

CONDUIT AND CONDUCTOR SCHEDULE

Main table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Contains detailed scheduling information for various conduits and conductors.



ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL: (206) 243-5022 FAX: (206) 243-5205



APPROVED: [Signature] DIRECTOR ENG. DATE: 3-28-16 CHECKED BY: [Signature] DATE: [Blank] PROJECT: PIER 4 PHASE 2 RECONFIGURATION CONDUIT AND CONDUCTOR SCHEDULE

SECTION: MLLW 19.39' @ Tide 22.1933 RANGE: TOWNSHIP: DAT-HRZ: WA83-SF VERT: DATE: 091251 PARCEL: TACOMA, WA 98401-1837

6552 SH 165 OF 499 E8.1 CONT/CONS: 070136 M. ID: 091251 PHASE: BID

PORT OF TACOMA FILE: R:\5650-041.01\Drawings\091251-E802

BINDING EDGE

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT NUMBER	CONDUIT			CONDUCTOR			FROM	TO	REMARKS
	NO.	SIZE	TYPE	NO.	SIZE	TYPE			
CBP1	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV1	CHASIS LIGHT PEDESTAL #1	(8)
CBP2	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV1	CHASIS CAMERA SUPPORT #1	
CBP3	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV1	VIT #1	
CBP4	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV2	CHASIS LIGHT PEDESTAL #2	
CBP5	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV2	CHASIS CAMERA SUPPORT #2	
CBP6	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV2	VIT #2	
CBP7	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV3	CHASIS LIGHT PEDESTAL #3	
CBP8	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV3	CHASIS CAMERA SUPPORT #3	
CBP9	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV3	VIT #3	
CBP10	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV4	CHASIS LIGHT PEDESTAL #4	
CBP11	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV4	CHASIS CAMERA SUPPORT #4	
CBP12	1	2"	(2)(3)	2/1	10/10	XHHW-2	VAULT CPPV4	VIT #4	
CBP13	1	2"	(2)(3)	4/1	10/10	XHHW-2	VAULT CPPV4	VAULT CPV3	
CBP14	1	2"	(2)(3)	4/1	10/10	XHHW-2	VAULT CPPV3	VAULT CPV2	
CBP15	2	2"	(2)(3)	4/1	10/10	XHHW-2	VAULT CPPV2	VAULT CPV1	
CBP16	2	2"	(2)(3)	4/1	10/10	XHHW-2	VAULT CPPV1	PANEL 2GA	
CPC1	-	-	-	-	-	-	-	-	NOT USED
CPC2	2	2"	(2)(3)	-	-	-	VAULT ICV2	CHASIS CAMERA PEDESTAL #1	(8)
CPC3	2	2"	(2)(3)	-	-	-	VAULT ICV2	CHASIS CAMERA PEDESTAL #2	
CPC4	1	2"	(2)(3)	-	-	-	VAULT ICV2	TRUCK SCALE	
CPC5	4	2"	(2)(3)	-	-	-	VAULT ICV2	OUTGATE COMMUNICATIONS ROOM	
FOB1 THRU FOB3									(9)
FOB4	1	2"	(2)	-	-	-	HH #WCV1	FOV4	FIBER
FOB5	1	2"	(2)	-	-	-	FOV5	CPV5	FIBER
FOB6	1	2"	(2)	-	-	-	FOV5	CPV4	FIBER
FOB7	1	2"	(2)	-	-	-	HH #WCV1	FOV5	FIBER
FOB8	1	2"	(2)(10)	-	-	-	SV223	POLE WYL05	FIBER
FOB9	4	4"	(2)	-	-	-	SV222	SV223	FIBER
FOB10	4	4"	(2)	-	-	-	SV220	SV222	FIBER
FOB11	1	2"	(2)(10)	-	-	-	SV221	POLE WYL04	FIBER
FOB12	1	2"	(2)	-	-	-	SV220	SV221	FIBER
FOB13	4	4"	(2)	-	-	-	SV219	SV220	FIBER
FOB14	2	2"	(2)(10)	-	-	-	POLE WYL03	SV219	FIBER
FOB15	4	4"	(2)	-	-	-	SV218	SV219	FIBER
FOB16	4	4"	(2)	-	-	-	SV112	SV212	FIBER
FOB17	4	4"	(2)	-	-	-	SV216	SV218	FIBER
FOB18	1	2"	(2)	-	-	-	SV216	FOV6	FIBER
FOB19	1	2"	(2)	-	-	-	SV216	SV217	FIBER
FOB20	1	2"	(2)(10)	-	-	-	SV217	POLE WYL02	FIBER
FOB21	4	4"	(2)	-	-	-	SV214	SV216	FIBER
FOB22	1	2"	(2)	-	-	-	SV214	SV215	FIBER
FOB23	1	2"	(2)(10)	-	-	-	SV215	POLE WYL01	FIBER
FOB24	4	4"	(2)	-	-	-	SV213	SV214	FIBER
FOB25	1	2"	(2)	-	-	-	FOV7	CPV7	FIBER
FOB26	1	2"	(2)	-	-	-	FOV7	CPV6	FIBER
FOB27	1	2"	(2)	-	-	-	SV213	FOV7	FIBER
FOB28	4	4"	(2)	-	-	-	SV212	SV213	FIBER
FOB29	4	4"	(2)	-	-	-	SV210	SV212	FIBER
FOB30	1	2"	(2)	-	-	-	SV210	FOV8	FIBER
FOB31	1	2"	(2)	-	-	-	SV210	SV211	FIBER
FOB32	1	2"	(2)(10)	-	-	-	SV211	POLE YL05	FIBER
FOB33	1	2"	(2)(10)	-	-	-	-	IT ROOM	FIBER
FOB34	4	4"	(2)	-	-	-	SV210	J-BOX	FIBER
FOB35	4	4"	(2)	-	-	-	SV223	SV224	FIBER
FOB36	4	4"	(2)	-	-	-	SV110	SV132	FIBER
FOB37	4	4"	(2)	-	-	-	SV224	SV224	FIBER-COPPER
FOB38	4	4"	(2)(10)	-	-	-	SV225	SV225	FIBER-COPPER
FOB39	1	2"	(2)(10)	-	-	-	SV225	IT ROOM	FIBER-COPPER
FOB40	1	2"	(2)	-	-	-	FOV4	SUB #8410	FIBER
FOB41	2	2"	(2)	-	-	-	HH #WCV1	SHORE PWR VAULT SSB3	FIBER
FOB42	1	2"	(2)	-	-	-	FOV6	HH #WCV1	FIBER
FOB43	1	2"	(2)	-	-	-	FOV8	SHORE PWR VAULT SSB4	FIBER
FOB44	1	2"	(2)	-	-	-	J-BOX	SHORE PWR VAULT SSB5	FIBER
GCV1	1	1"	(2)	-	-	-	GCV1	COMM CAB TO POLE YL01	FIBER
GCV2	1	1"	(2)	-	-	-	GCV2	GCV2	(8)
GCV3	1	1"	(2)	-	-	-	GCV3	GCV3	
GCV4	1	1"	(2)	-	-	-	GCV4	GCV4	
GP1	1	1"	(2)	3/1	8/10	XHHW-2	GPV1	GATE INTERCOM/CARD READER	(8)
GP2	1	1"	(2)	3/1	8/10	XHHW-2	GPV2	GPV2	
GP3	1	1"	(2)	3/1	8/10	XHHW-2	GPV3	GPV3	
GP4	1	1"	(2)	3/1	8/10	XHHW-2	GPV4	GPV4	
P50	1	2-1/2"	(2)	4/1	000/2	XHHW-2	PANEL H1	GATE CONTROLLER	(12)
P51	1	2-1/2"	(2)	4/1	000/2	XHHW-2	PANEL H1	SUBSTATION 8431, SWBD #1	(12)
P52	1	2-1/2"	(2)	4/1	000/2	XHHW-2	PANEL H1	SUBSTATION 8431, SWBD #1	(12)

GENERAL NOTES

1. SEE DRAWING E8.1 FOR LEGEND AND GENERAL NOTES.

SCHEDULE KEY NOTES

- (1) SEE SEPARATE HUSKY TERMINAL WIFI SYSTEM PROJECT DRAWINGS FOR COMMUNICATIONS CONDUCTORS AND SITE PLANS. PORT OF TACOMA JOB #6323-04.
- (2) PVC SHCHEDULE 80.
- (3) GRS CONDUIT.

SCHEDULE KEY NOTES

- (4) CONDUIT(S) CUT. ABANDONED IN PLACE.
- (5) COORDINATE WORK WITH TACOMA POWER.
- (6) PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LIGHT POLE LOCATIONS.
- (7) LIQUID TIGHT FLEXIBLE METAL CONDUIT.
- (8) CIRCUIT (CONDUIT) NUMBER FROM TERMINAL 3 & 4 REDEVELOPMENT PROJECT, CONTRACT NO. 998203.

SCHEDULE KEY NOTES

- (9) CIRCUIT (CONDUIT) NUMBER FROM PIER 3 UPGRADE PROJECT, CONTRACT NO. 069458.
- (10) PVC COATED GRS CONDUIT.
- (11) EXTEND DUCTBANK TO VAULT SV212.
- (12) EXTEND CONDUITS TO MARINE OPS BUILDING.

CONDUIT AND CONDUCTOR SCHEDULE

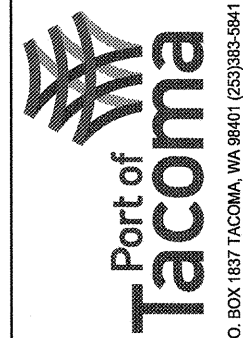
CONDUIT NUMBER	CONDUIT			CONDUCTOR			FROM	TO	REMARKS
	NO.	SIZE	TYPE	NO.	SIZE	TYPE			
PD1	6	5"	(2)	-	-	-	TPUPV1	TPUPV2	(8)
PD2	6	5"	(2)	-	-	-	TPUPV2	TPUPV3	
PD3	6	5"	(2)	-	-	-	TPUPV3	TPUPV4	
PD4	6	5"	(2)	-	-	-	TPUPV4	STUB AT WHARF	
PD5	-	-	-	-	-	-	-	-	NOT USED
PD6	-	-	-	-	-	-	-	-	NOT USED
PD7	2	5"	(2)(3)	-	-	-	EXISTING TOL SWITCH	TOL METERING SECTION	(8)
PD8	-	-	-	-	-	-	-	-	NOT USED
PD9	4	5"	(2)	-	-	-	TPUPV6	TPUPV7	(8)
PD10	4	5"	(2)	-	-	-	TPUPV7	TPUPV8	
PD11	4	5"	(2)	-	-	-	TPUPV8	VAULT 2127V	
PD12	4	5"	(2)	-	-	-	TPUPV4	TPUPV9	
PD13	2	5"	(2)(3)	-	-	-	TOL METERING SECTION	TRANSFORMER WIT	(8)
PD14	4	5"	(2)(3)	-	-	-	TPUPV4	NEW WHARF	
PD15	2	5"	(2)	-	-	-	EXISTING TPU XFMR	TPUPV10	
PD16	2	5"	(2)	-	-	-	TPUPV10	1500KVA XFMR (SUBSTATION #8411)	
PD1 THRU PD11									(9)
PD17	1	4"	(2)	3/1	2/2	15KV/600V	PDV12	13.8KV-480V XFMR	13.8KV-480V SITE XFMR
PD18	1	4"	(2)	3/1	2/2	15KV/600V	PDV11	PDV12	13.8KV-480V SITE XFMR
PD19	1	4"	(2)	3/1	2/2	15KV/600V	PDV10	PDV11	13.8KV-480V SITE XFMR
PD20	1	4"	(2)	3/1	2/2	15KV/600V	PDV15	PDV10	13.8KV-480V SITE XFMR
PD21	1	4"	(2)	-	-	-	PDV13	PDV14	REEFER 13.8KV XFMR
PD22	1	4"	(2)	-	-	-	PDV16	PDV13	REEFER 13.8KV XFMR
PD23	1	4"	(2)(10)	-	-	-	SWITCH F3	PDV16	REEFER 13.8KV XFMR
PD24	1	4"	(2)(10)	3/1	2/2	15KV/600V	SWITCH F10	PDV15	13.8KV-480V SITE XFMR
TPUC1	1	4"	(2)	-	-	-	TPUCV1	TPUCV2	(8)
TPUC2	1	4"	(2)	-	-	-	TPUC2	TPUC3	
TPUC3	1	4"	(2)	-	-	-	TPUC3	TPUC4	
TPUC4	1	4"	(2)	-	-	-	TPUC4	TPUC9	
TPUC5	1	4"	(2)	-	-	-	TPUC5	TPUCV6	
TPUC6	1	4"	(2)	-	-	-	TPUC6	TPUPV7	
TPUC7	1	4"	(2)	-	-	-	TPUC7	TPUPV8	
TPUC8	1	4"	(2)	-	-	-	TPUC8	STUBS AT TPU DUCTBANK	(4)
TPUC9	1	4"	(2)	-	-	-	TPUC9	TPUCV10	
TPUC10	1	4"	(2)	-	-	-	TPUCV10	SWITCHBOARD (SUBSTATION #8411)	
TPUC11	1	4"	(2)(3)	-	-	-	TPUCV5	TOL METERING SECTION	(8)
TPUC12	1	4"	(2)(3)	-	-	-	TPUCV5	CT 2GA	(8)
TPUC1 THRU TPUC5									(9)
TPUC15	4	5"	(2)	-	-	-	1419MH, PVP27	TPUPV11	TPU SERVICE CONDUITS
TPUC16	4	5"	(2)	-	-	-	TPUPV11	TPUMV3	TPU SERVICE CONDUITS
TPUC17	4	5"	(2)(10)	-	-	-	TPUMV3	SUBSTATION #8410 15KV SWITCH	TPU SERVICE CONDUITS
TPUC18	4	5"	(2)	-	-	-	TPUPV11	TPUMV4	TPU SERVICE CONDUITS
TPUC19	4	5"	(2)	-	-	-	TPUMV4	VTM5	TPU SERVICE CONDUITS

SCHEDULE KEY NOTES

- (13) PROVIDE (1) 12-PR COPPER CABLE, (2) 144-FIBER SM FO CABLES, (1) 12-FIBER SM FO CABLE, (7) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (14) PROVIDE (1) 6-FIBER SM FO CABLE. PROVIDE (1) 3-CELL FABRIC INNERDUCT.
- (15) PROVIDE (1) 12-PR COPPER CABLE, (2) 144-FIBER SM FO CABLES, (1) 12-FIBER SM FO CABLE, (8) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (16) PROVIDE (1) 12-PR COPPER CABLE, (1) 144-FIBER SM FO CABLE, (1) 6-FIBER SM FO CABLE. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (17) PROVIDE (1) 144-FIBER SM FO CABLE, (1) 12-FIBER SM FO CABLE, (7) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (18) PROVIDE (1) 6-FIBER SM FO CABLE. PROVIDE 3-CELL FABRIC INNERDUCT IN 2" CONDUIT.
- (19) PROVIDE (1) 144-FIBER SM FO CABLE, (1) 12-FIBER SM FO CABLE, (6) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (20) PROVIDE (1) 144-FIBER SM FO CABLE, (1) 12-FIBER SM FO CABLE, (5) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.


SCHEDULE KEY NOTES

- (21) PROVIDE (1) 144-FIBER SM FO CABLE, (1) 12-FIBER SM FO CABLE, (4) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (22) PROVIDE (1) 144-FIBER SM FO CABLE, (1) 12-FIBER SM FO CABLE, (3) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (23) PROVIDE (1) 144-FIBER SM FO CABLE, (2) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (24) PROVIDE (1) 144-FIBER SM FO CABLE, (1) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (25) PROVIDE (1) 144-FIBER SM FO CABLE. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (26) PROVIDE (1) 12-FIBER SM FO CABLE. PROVIDE 3-CELL FABRIC INNERDUCT IN 2" CONDUIT.
- (27) ONE CONDUIT TO EACH COMM CAB ON THE POLE.



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ENGINEERS - CONSULTANTS
16300 CHRISTENSEN ROAD SUITE 300
SEATTLE, WASHINGTON 98188
TEL (206) 243-5022
FAX (206) 243-5025

DATE: _____
BY: _____
REVISION: _____
MARK: _____



APPROVED: *[Signature]*
3-28-16
DIRECTOR ENGR. DATE: Curtis Mar 22, 2016
PRINTED BY: Curtis Mar 22, 2016
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

CHECKED BY: _____ DATE: _____
PROJ. ENGR. DATE: _____
SECTION: _____
RANGE: MLW 19.39' @ Tide 22.1933
TOWNSHIP: 070136
DATE-HRZ: WA83-SF
M. ID: 091251
DRAWING SCALE: AS NOTED
PARCEL: _____

6552
E8.2
SH 166 OF 499
CONTR/CONS: 070136
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2
RECONFIGURATION
CONDUIT AND CONDUCTOR SCHEDULE

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CONDUIT AND CONDUCTOR SCHEDULE

Table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Includes rows for RR1-RR23, WG1-WG3, WP1-WP9, HSC1-HSC7, WFIC1-WFIC28.

CONDUIT AND CONDUCTOR SCHEDULE

Table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Includes rows for WFIP1-WFIP26, L7-L8, R5, R6.

GENERAL NOTES

- 1. SEE DRAWING E8.1 FOR LEGEND AND GENERAL NOTES.
2. CONTRACTOR TO UPDATE WFI CONDUIT SCHEDULES PER AS-BUILT CONDITIONS.

SCHEDULE KEY NOTES

- 1 CONDUIT IS EXISTING.
2 PVC SCHEDULE 80.
3 GRS CONDUIT.
4 CONDUIT(S) CUT. ABANDONED IN PLACE.
5 COORDINATE WORK WITH TACOMA POWER.
6 PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LIGHT POLE LOCATIONS.
7 LIQUID TIGHT FLEXIBLE METAL CONDUIT.
8 CIRCUIT (CONDUIT) NUMBER FROM TERMINAL 3 & 4 REDEVELOPMENT PROJECT, CONTRACT NO. 998203.
9 CIRCUIT (CONDUIT) NUMBER FROM PIER 3 UPGRADE PROJECT, CONTRACT NO. 069458.
10 PVC COATED GRS CONDUIT.
11 EXTEND DUCTBANK TO VAULT SV212.
12 POLE FORMERLY NUMBERED LP22 (CONTRACT #998040).
13 POLE FORMERLY NUMBERED LP23 (CONTRACT #998040).

SCHEDULE KEY NOTES

- 14 EXISTING (3) 50-PR COPPER CABLES, (3) 12-FIBER MM FO CABLES, (2) 12-FIBER SM FO CABLES, (1) 6-FIBER SM FO CABLE. PROVIDE (1) 12-PR COPPER CABLE, (2) 144-FIBER SM FO CABLES, (1) 6-FIBER SM FO CABLE. PROVIDE (2) 3-CELL MAXCELL INNERDUCTS IN EACH EMPTY CONDUIT.
15 PROVIDE (1) 12-PR COPPER CABLE, (1) 144-FIBER SM FO CABLE, (1) 6-FIBER SM FO CABLE. PROVIDE (2) 3-CELL MAXCELL INNERDUCTS IN EACH EMPTY CONDUIT.
16 EXISTING (3) 50-PR COPPER CABLES, (3) 12-FIBER MM FO CABLES, (1) 12-FIBER SM FO CABLE, (1) 6-FIBER SM FO CABLE. PROVIDE (1) 144-FIBER SM FO CABLE. PROVIDE (2) 3-CELL MAXCELL INNERDUCTS IN EACH EMPTY CONDUIT.
17 EXISTING (2) 6-FIBER SM FO CABLES.
18 EXISTING (1) 50-PR COPPER CABLE, (1) 12-FIBER MM FO CABLE.
19 EXISTING (2) 50-PR COPPER CABLES, (2) 12-FIBER MM FO CABLE, (1) 12-FIBER SM FO CABLE, (1) 6-FIBER SM FO CABLE. PROVIDE (1) 144-FIBER SM FO CABLE. PROVIDE (2) 3-CELL MAXCELL INNERDUCTS IN EACH EMPTY CONDUIT.
20 EXISTING (1) 50-PR COPPER CABLE, (1) 12-FIBER MM FO CABLE, (1) 6-FIBER SM FO CABLE.
21 EXISTING (1) 50-PR COPPER CABLE, (1) 12-FIBER MM FO CABLE, (1) 12-FIBER SM FO CABLE. PROVIDE (1) 144-FIBER SM FO CABLE. PROVIDE (2) 3-CELL MAXCELL INNERDUCTS IN EACH EMPTY CONDUIT.
22 EXISTING (1) 12-FIBER SM FO CABLE.

Project information including: 6552 E8.3 SH 167 OF 499, PIER 4 PHASE 2 RECONFIGURATION CONDUIT AND CONDUCTOR SCHEDULE, ELCON ASSOCIATES, INC., and various approval and revision stamps.

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CONDUIT AND CONDUCTOR SCHEDULE

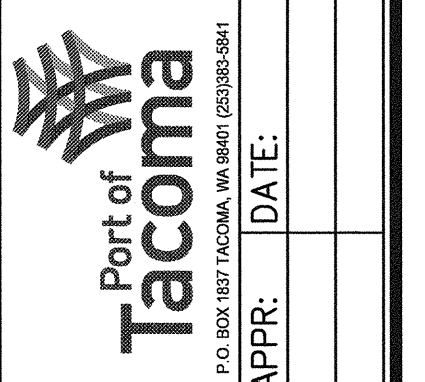
Table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Contains entries for SD1 through SD85, detailing conduit and conductor specifications and routing.

GENERAL NOTES

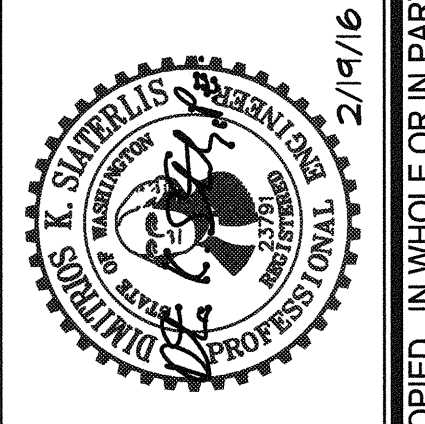
1. SEE DRAWING E8.1 FOR LEGEND AND GENERAL NOTES.

SCHEDULE KEY NOTES

- 1 SEE SEPARATE HUSKY TERMINAL WIFI SYSTEM PROJECT DRAWINGS FOR COMMUNICATIONS CONDUCTORS AND SITE PLANS. PORT OF TACOMA JOB #6323-04.
2 PVC SHCHEDULE 80.
3 GRS CONDUIT.
4 CONDUIT(S) CUT. ABANDONED IN PLACE.
5 COORDINATE WORK WITH TACOMA POWER.
6 PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LIGHT POLE LOCATIONS.
7 LIQUID TIGHT FLEXIBLE METAL CONDUIT.
8 CIRCUIT (CONDUIT) NUMBER FROM TERMINAL 3 & 4 REDEVELOPMENT PROJECT, CONTRACT NO. 998203.
9 CIRCUIT (CONDUIT) NUMBER FROM PIER 3 UPGRADE PROJECT, CONTRACT NO. 069458.
10 PVC COATED GRS CONDUIT.
11 EXTEND DUCTBANK TO VAULT SV212.
12 CONDUIT TO CONTAIN LIFT STATION FLOAT CABLES. CABLES FURNISHED WITH LIFT STATION, INSTALLED BY CONTRACTOR.



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PIER 4 PHASE 2
RECONFIGURATION
CONDUIT AND CONDUCTOR SCHEDULE

6552
E8.4
SH 168 OF 489
CONT/CONS: 070136
M. ID: 091251
PHASE: BID
TOWNSHIP:
RANGE:
VERT:
PARCEL:
SECTION:
DATE: 22 1933
DRAWING SCALE: AS NOTED

BINDING EDGE

PORT OF TACOMA FILE: R:\5650-041.01\Drawings\091251-E805

CONDUIT AND CONDUCTOR SCHEDULE

Table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Rows include SL1 through SL97 and SL180 through SL97.

CONDUIT AND CONDUCTOR SCHEDULE

Table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Rows include SL98 through SL147.

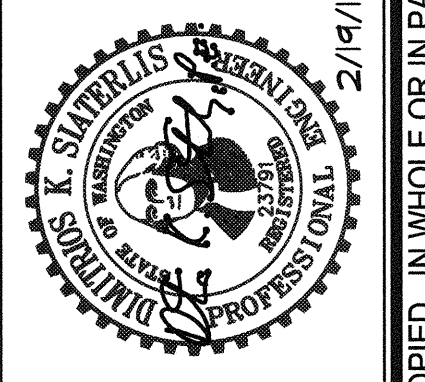
GENERAL NOTES

- 1. SEE DRAWING E8.1 FOR LEGEND AND GENERAL NOTES.

SCHEDULE KEY NOTES

- 1 SEE SEPARATE HUSKY TERMINAL WIFI SYSTEM PROJECT DRAWINGS FOR COMMUNICATIONS CONDUCTORS AND SITE PLANS. PORT OF TACOMA JOB #6323-04.
2 PVC SHCHEDULE 80.
3 GRS CONDUIT.
4 CONDUIT(S) CUT. ABANDONED IN PLACE.
5 COORDINATE WORK WITH TACOMA POWER.
6 PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LIGHT POLE LOCATIONS.
7 LIQUID TIGHT FLEXIBLE METAL CONDUIT.
8 CIRCUIT (CONDUIT) NUMBER FROM TERMINAL 3 & 4 REDEVELOPMENT PROJECT, CONTRACT NO. 998203.
9 CIRCUIT (CONDUIT) NUMBER FROM PIER 3 UPGRADE PROJECT, CONTRACT NO. 069458.
10 PVC COATED GRS CONDUIT.
11 EXTEND DUCTBANK TO VAULT SV212.
12 PROVIDE 2#10, #10G IN EXISTING CONDUIT FOR COMM CAB LS6 POWER.

Project information block including: E8.5 RECONFIGURATION CONDUIT AND CONDUCTOR SCHEDULE, PIER 4 PHASE 2, APPROVED: [Signature], DATE: 3-28-16, DIRECTOR ENG. DATE: Curtis Mar 22, 2016, PRINTED BY: CURTIS MAR 22, 2016, PORT ADDRESS: ONE SITCUM PLAZA, TACOMA, WA 98401-1837, DRAWING SCALE: AS NOTED, PARCEL: SH 169 OF 499, CONT/CONS: 070136, M. ID: 091251, PHASE: BID, ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS, 16800 CHESTNUT ROAD SUITE 300 SEATTLE, WASHINGTON 98148, TEL (206) 245-5023, FAX (206) 245-5205, MARK: [] REVISION: [] BY: [] APPR: [] DATE: []



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CONDUIT AND CONDUCTOR SCHEDULE

Table with columns: CONDUIT NUMBER, NO., SIZE, TYPE, CONDUCTOR NO., SIZE, TYPE, FROM, TO, REMARKS. Contains entries SP1 through SP69 with various conduit and conductor specifications and notes.

CONDUIT AND CONDUCTOR SCHEDULE

Table with columns: CONDUIT NUMBER, NO., SIZE, TYPE, CONDUCTOR NO., SIZE, TYPE, FROM, TO, REMARKS. Contains entries SP70 through SP114 with various conduit and conductor specifications and notes.

SEE CONTINUATION OF SP__ SERIES ON NEXT SHEET

GENERAL NOTES

1. SEE DRAWING E8.1 FOR LEGEND AND GENERAL NOTES.

SCHEDULE KEY NOTES

- ① SEE SEPARATE HUSKY TERMINAL WIFI SYSTEM PROJECT DRAWINGS FOR COMMUNICATIONS CONDUCTORS AND SITE PLANS. PORT OF TACOMA JOB #6323-04.
② PVC SHCHEDULE 80.
③ GRS CONDUIT.
④ CONDUIT(S) CUT. ABANDONED IN PLACE.
⑤ COORDINATE WORK WITH TACOMA POWER.
⑥ PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LIGHT POLE LOCATIONS.
⑦ LIQUID TIGHT FLEXIBLE METAL CONDUIT.
⑧ CIRCUIT (CONDUIT) NUMBER FROM TERMINAL 3 & 4 REDEVELOPMENT PROJECT, CONTRACT NO. 998203.
⑨ CIRCUIT (CONDUIT) NUMBER FROM PIER 3 UPGRADE PROJECT, CONTRACT NO. 069458.
⑩ PVC COATED GRS CONDUIT.
⑪ ONE CONDUIT IS ABANDONED. SEE CONDUIT WIFIP23 FOR WIRING IN OTHER CONDUIT.

Project information block including: E8.6, PIER 4 PHASE 2 RECONFIGURATION CONDUIT AND CONDUCTOR SCHEDULE, EICON ASSOCIATES, INC., ENGINEERS - CONSULTANTS, 1800 CHESTER WASHINGTON ROAD, SUITE 350, SEATTLE, WASHINGTON 98188, TEL (206) 243-5022, FAX (206) 243-5025, and various approval and revision stamps.

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CONDUIT AND CONDUCTOR SCHEDULE

Table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Lists items SP115 through SP203 with their respective specifications and locations.

CONDUIT AND CONDUCTOR SCHEDULE

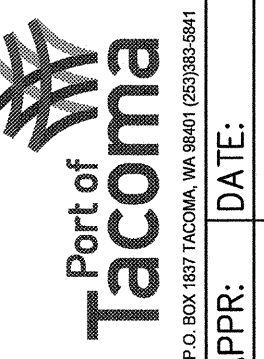
Table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Lists items SP204 through SP230, WG1, and WG16 through WG40 with their respective specifications and locations.

GENERAL NOTES

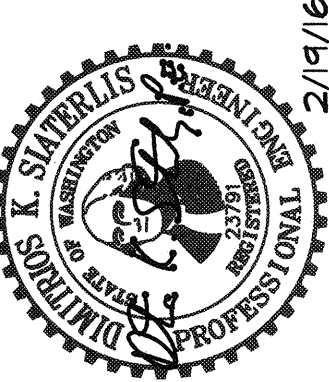
- 1. SEE DRAWING E8.1 FOR LEGEND AND GENERAL NOTES.

SCHEDULE KEY NOTES

- 1 SEE SEPARATE HUSKY TERMINAL WIFI SYSTEM PROJECT DRAWINGS FOR COMMUNICATIONS CONDUCTORS AND SITE PLANS. PORT OF TACOMA JOB #6323-04.
2 PVC SHCHEDULE 80.
3 GRS CONDUIT.
4 CONDUIT(S) CUT. ABANDONED IN PLACE.
5 COORDINATE WORK WITH TACOMA POWER.
6 PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LIGHT POLE LOCATIONS.
7 LIQUID TIGHT FLEXIBLE METAL CONDUIT.
8 CIRCUIT (CONDUIT) NUMBER FROM TERMINAL 3 & 4 REDEVELOPMENT PROJECT, CONTRACT NO. 998203.
9 CIRCUIT (CONDUIT) NUMBER FROM PIER 3 UPGRADE PROJECT, CONTRACT NO. 069458.
10 PVC COATED GRS CONDUIT.
11 EXTEND DUCTBANK TO VAULT SV212.



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PIER 4 PHASE 2
RECONFIGURATION
CONDUIT AND CONDUCTOR SCHEDULE

6552
E8.7
SH 171 OF 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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CONDUIT AND CONDUCTOR SCHEDULE

Table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Contains entries for SSP1-SSP14, TPU1-TPU5, WS1-WS159.

CONDUIT AND CONDUCTOR SCHEDULE

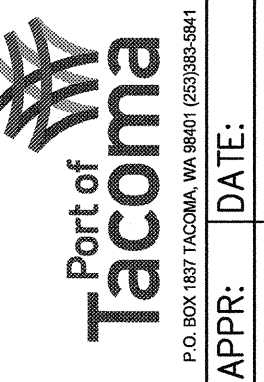
Table with columns: CONDUIT NUMBER, CONDUIT (NO., SIZE, TYPE), CONDUCTOR (NO., SIZE, TYPE), FROM, TO, REMARKS. Contains entries for WS160-WS216.

GENERAL NOTES

- 1. SEE DRAWING E8.1 FOR LEGEND AND GENERAL NOTES.

SCHEDULE KEY NOTES

- 1 SEE SEPARATE HUSKY TERMINAL WIFI SYSTEM PROJECT DRAWINGS FOR COMMUNICATIONS CONDUCTORS AND SITE PLANS. PORT OF TACOMA JOB #6323-04.
2 PVC SHCHEDULE 80.
3 GRS CONDUIT.
4 CONDUIT(S) CUT. ABANDONED IN PLACE.
5 COORDINATE WORK WITH TACOMA POWER.
6 PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LIGHT POLE LOCATIONS.
7 LIQUID TIGHT FLEXIBLE METAL CONDUIT.
8 CIRCUIT (CONDUIT) NUMBER FROM TERMINAL 3 & 4 REDEVELOPMENT PROJECT, CONTRACT NO. 998203.
9 CIRCUIT (CONDUIT) NUMBER FROM PIER 3 UPGRADE PROJECT, CONTRACT NO. 069458.
10 PVC COATED GRS CONDUIT.
11 EXTEND DUCTBANK TO VAULT SV212.



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DIRECTOR: ENG. DATE: Curtis Mar 22, 2016
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APPROVED: [Signature]
3-28-16

PIER 4 PHASE 2
RECONFIGURATION
CONDUIT AND CONDUCTOR SCHEDULE

SECTION:
RANGE: MLLW 19.39' @ Tide 22 19.33
DATE-HRZ: WA83-SF
VERT:
DRAWING SCALE: AS NOTED

TOWNSHIP:
M. ID: 091251
PARCEL:
PHASE: BID

6552
SH 172 OF 489
E8.8
CONT/CONS: 070136
M. ID: 091251

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