Contract Plans

For Construction of:

009321

SR 525

MUKILTEO FERRY TERMINAL (PHASE 2) FERRY TERMINAL CONSTRUCTION

SNOHOMISH COUNTY

VOLUME 1 OF 8

F. A. NO. TIGER-WA-2017-007, CFDA 20933
F. A. NO. PSRC-WA-2017-023, CFDA 20507

Washington State Department of Transportation

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MAR PROJ ENGR: C. TORRES						CONTRACT NO. 00****
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

_____ / /2017

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

VOLUME 1 SHEET INDEX

IO.01

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220	C08.42	MWWD SANITARY SEWER STANDARD DETAILS
221	C08.43	MWWD SANITARY SEWER STANDARD DETAILS
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223	C08.51	WATER & SANITARY SEWER DETAILS
224	C08.52	WATER & SANITARY SEWER DETAILS
225	C08.53	WATER & SANITARY SEWER DETAILS
226	C08.54	WATER & SANITARY SEWER DETAILS

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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	00****	

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

VOLUME 1 SHEET INDEX

I0.02

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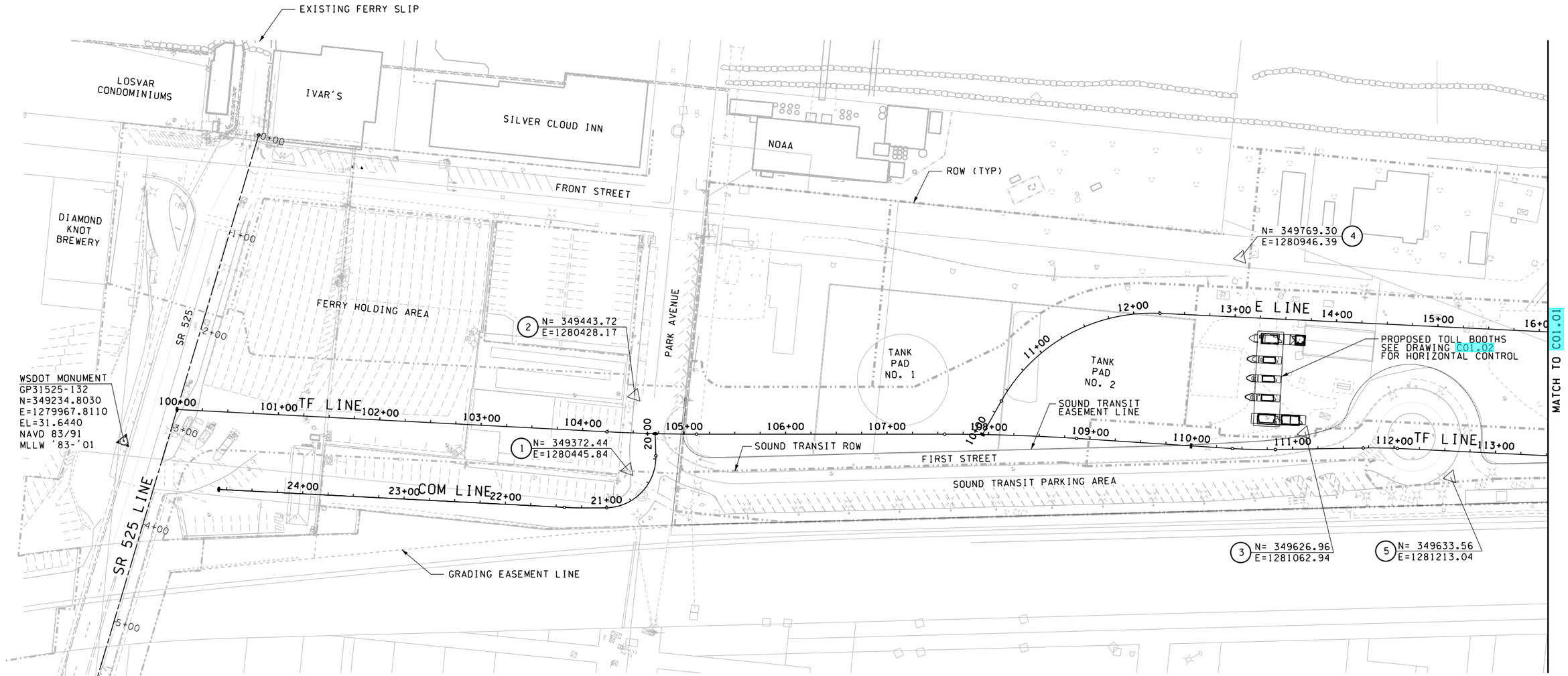


NOTES:

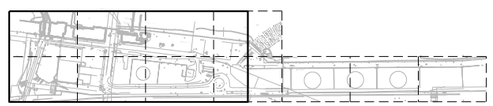
1. PROJECT MONUMENT IS WSDOT GP 31525-132. WWW.WSDOT.WA.GOV/MON.
2. EXISTING TEMPORARY HORIZONTAL CONTROL IS FROM THE PROJECT BASEMAP AND IDENTIFIED FOR CONTRACTOR CONVENIENCE.
3. THIS SHEET IS FOR INFORMATION ONLY.

HORIZONTAL CONTROL

LEGEND

5 N= 349633.56 E=1281213.04 — EXISTING TEMPORARY HORIZONTAL CONTROL LOCATION

NUMBER



KEY PLAN

0 50 100
SCALE 1" = 100'

FOR REFERENCE ONLY

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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

HORIZONTAL CONTROL

C01.00

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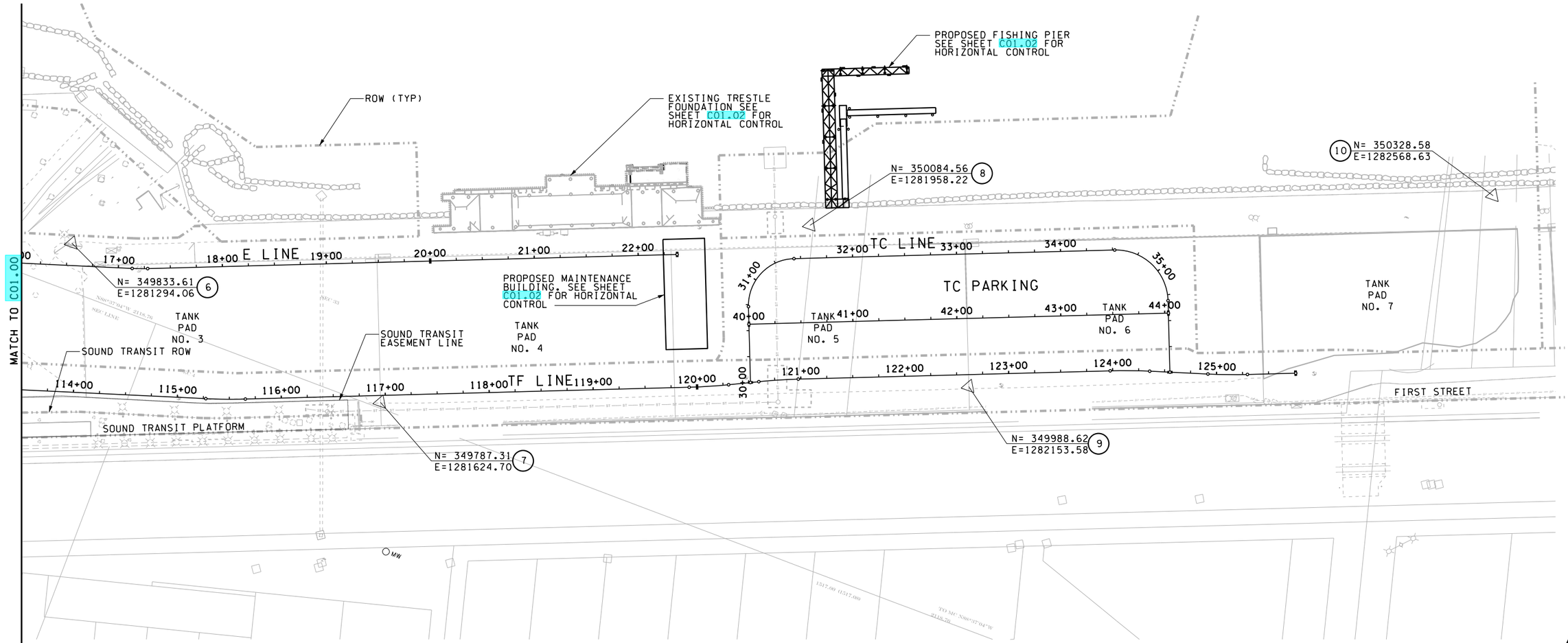

HORIZONTAL CONTROL

NOTES:

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2. EXISTING TEMPORARY HORIZONTAL CONTROL IS FROM THE PROJECT BASEMAP AND IDENTIFIED FOR CONTRACTOR CONVENIENCE.
3. THIS SHEET IS FOR INFORMATION ONLY.

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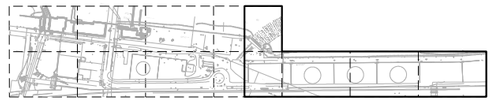

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SCALE 1" = 100'

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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

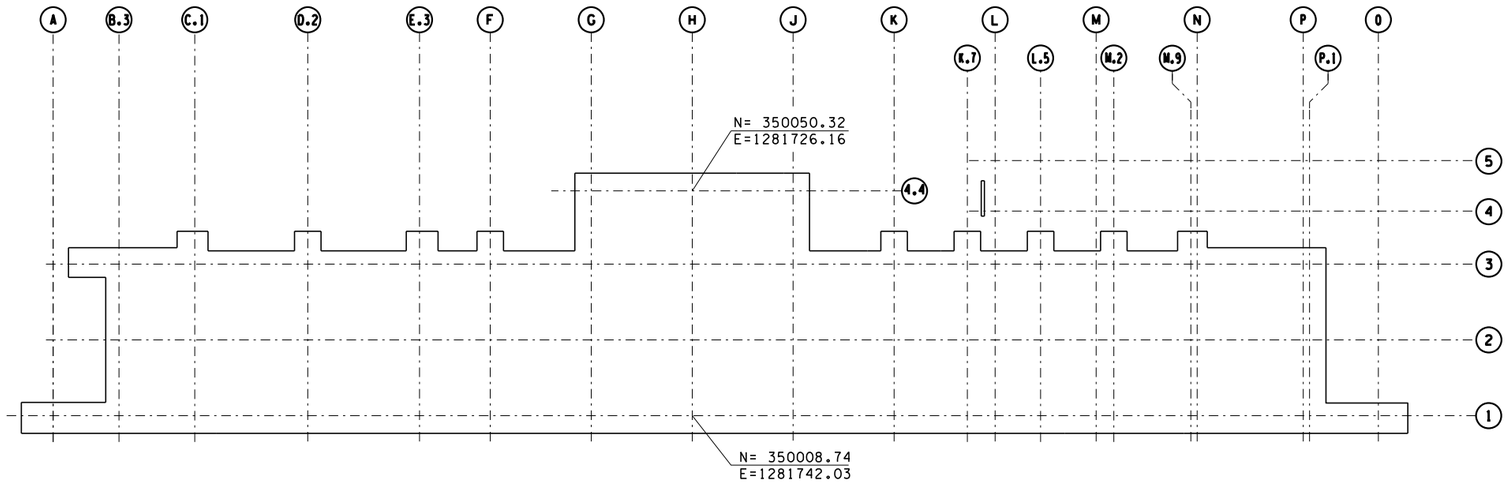
HORIZONTAL CONTROL

C01.01

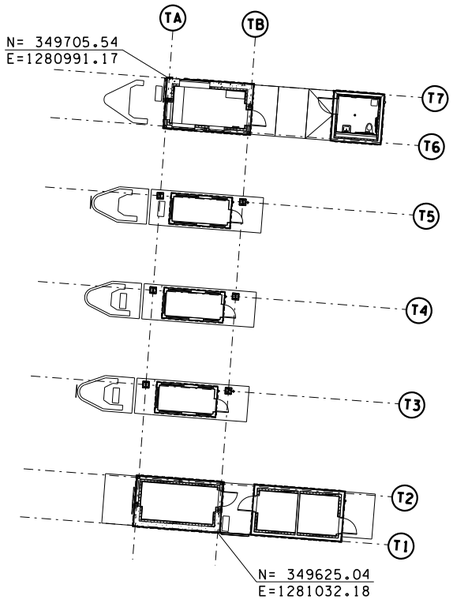
SHEET 44 OF 1521 SHEETS

NOTES:

1. TRESTLE WAS CONSTRUCTED BY OTHERS USING SAME COORDINATES.
2. CONTRACTOR TO VERIFY MAINTENANCE BUILDING COORDINATES WITH THE "HORIZONTAL CONTROL, TERMINAL" PLAN, DRAWING A00.35, PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO VERIFY FISHING PIER COORDINATES WITH THE "WATER HORIZONTAL CONTROL" PLAN, DRAWING SG03.02, PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO VERIFY TOLL BOOTHS COORDINATES WITH THE "HORIZONTAL CONTROL, TOLL PLAZA" PLAN, DRAWING A00.36, PRIOR TO CONSTRUCTION.
5. THIS SHEET IS FOR INFORMATION ONLY.



TRESTLE FOUNDATION



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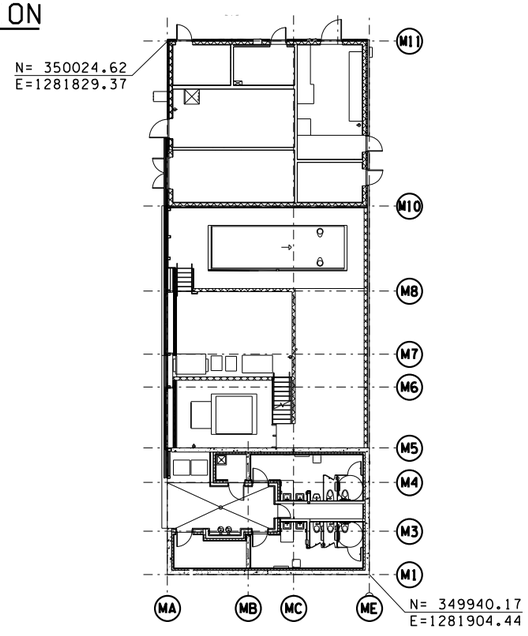

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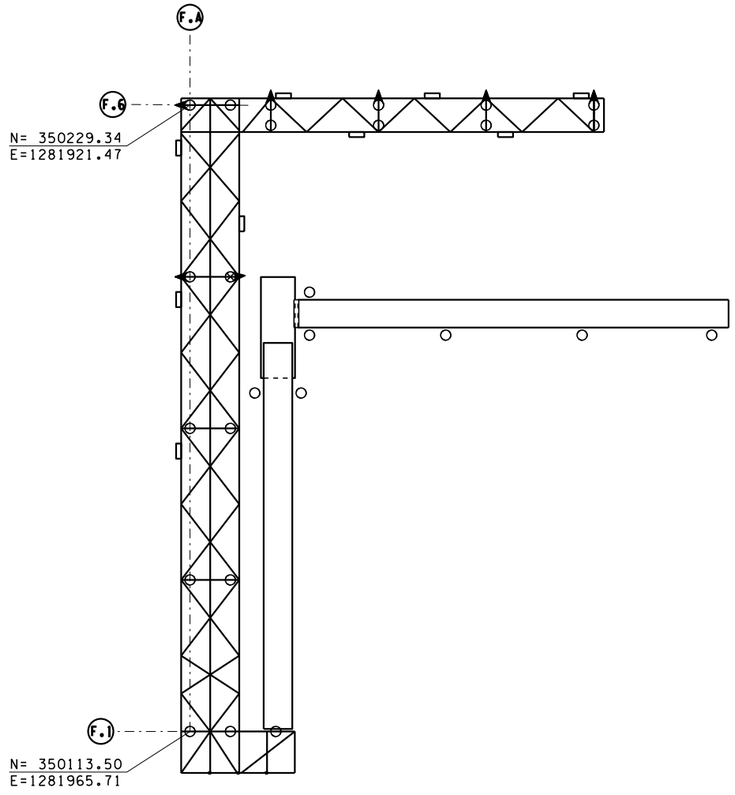

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MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

HORIZONTAL CONTROL - BUILDINGS

C01.02

SHEET 45 OF 1521 SHEETS

EXISTING CIVIL BASEMAP LEGEND

SURVEY

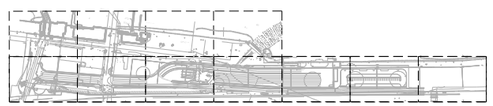
- BORE HOLE LOCATION
- INTERMEDIATE CONTOUR
- INDEX CONTOUR
- MEANDER LINE
- MONUMENT
- PRIMARY CONTROL POINT
- RIGHT-OF-WAY LINE
- SECTION LINE
- SEDIMENT SAMPLING LOCATION
- STATE BOUNDARY LINE
- TIDAL SHORE LINE

SYMBOLS

- BIOFILTRATION SWALE
- BOLLARD
- CATCH BASIN
- CROSSWALK
- ELECTRIC POLE
- ELECTRICAL PANEL
- FENCE
- FIRE HYDRANT
- GUY WIRE
- HANDICAP PARKING SYMBOL
- JUNCTION BOX TYPE 1
- JUNCTION BOX TYPE 2
- JUNCTION BOX NEW TYPE 2
- LUMINAIRE
- MANHOLE
- POWER CABINET
- POWER VAULT
- RAILROAD GATE
- RAILROAD SIGNAL LIGHTS
- RAILROAD TRACKS
- RETAINING WALL
- ROCKERY
- SIGN
- TRAFFIC SIGNAL POLE WITH MASTARM
- TRAFFIC CONTROLLER CABINET
- TRAFFIC SIGNAL HEAD
- TRAFFIC PEDESTRIAN POLE, SIGNAL HEAD AND PUSH BUTTON
- TELEPHONE MANHOLE
- TREE
- VALVE BOX
- WATER METER
- WATER VALVE

EXISTING UTILITIES

- BURIED COMMUNICATIONS
- -BF— —BF— —BF— —BF— — BURIED FIBER
- -BP— —BP— —BP— —BP— — BURIED POWER
- -G— —G— —G— —G— — GAS LINE
- -OP— —OP— —OP— —OP— — OVERHEAD POWER
- — —S— —S— —S— —S- SANITARY SEWER
- -ST— —ST— —ST— —ST— STORM SEWER LINE
- -U— —U— —U— —U— — UTILITY LINE
- -UD— —UD— —UD— —UD— — UNDER DRAIN
- -W— —W— —W— —W— — WATER LINE



KEY PLAN

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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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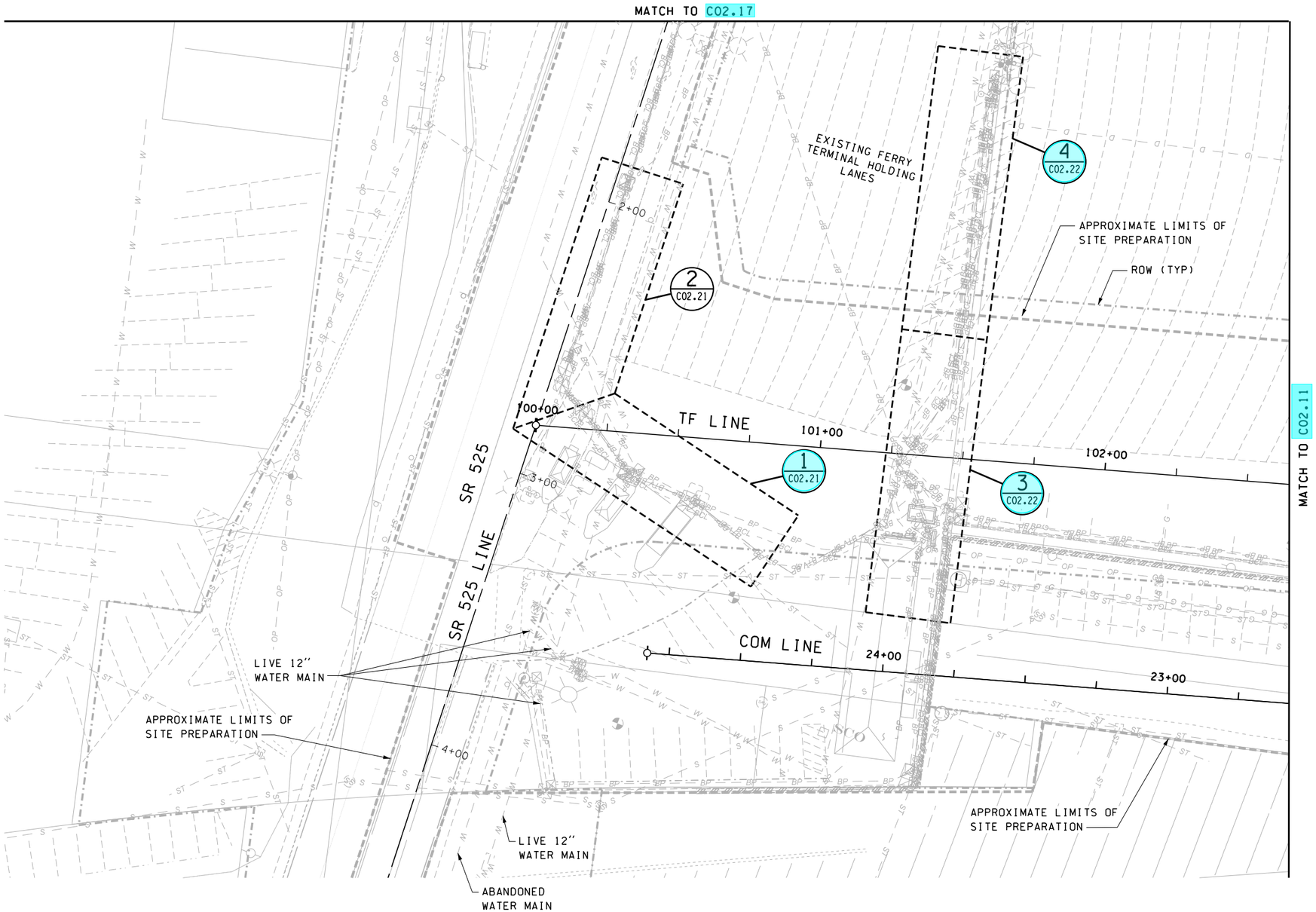
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES
LEGENDS AND ABBREVIATIONS

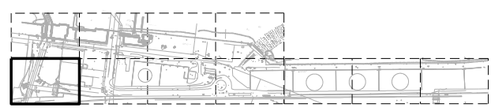
C02.09

SHEET 46 OF 1521 SHEETS



NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.



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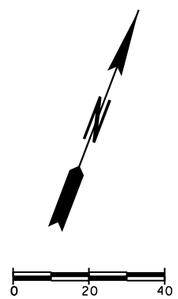

FOR REFERENCE ONLY

JACOBS

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SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: D. PERRY	1/18/19					REGION NO. STATE
ENTERED BY: D. PERRY	1/18/19					10 WASH
CHECKED BY: R. LUDWIG	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

C02.10

SHEET 47 OF 1521 SHEETS

MATCH TO CO2.18

MATCH TO CO2.10

MATCH TO CO2.12

PARK AVE

TF LINE

COM LINE

103+00

104+00

105+00

106+00

107+00

20+00

22+00

21+00

4 CO2.24

3 CO2.24

1 CO2.23

2 CO2.23

APPROXIMATE LIMITS OF SITE PREPARATION

ROW (TYP)

TANK PAD NO. 1

Fiber abandoned to old building per utility guy (BB)

SOUND TRANSIT GATE EASEMENT

SOUND TRANSIT ROW

SOUND TRANSIT EASEMENT LINE

EXISTING SOUND TRANSIT PARKING

APPROXIMATE LIMITS OF SITE PREPARATION

NOTES:

1. SEE PLAN SHEETS CO6.10 - CO6.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS CO4.00 - CO4.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.

KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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SUBMITTAL DATE: 1/18/19	$USERNAME$					
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CHECKED BY: R. LUDWIG	1/18/19					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

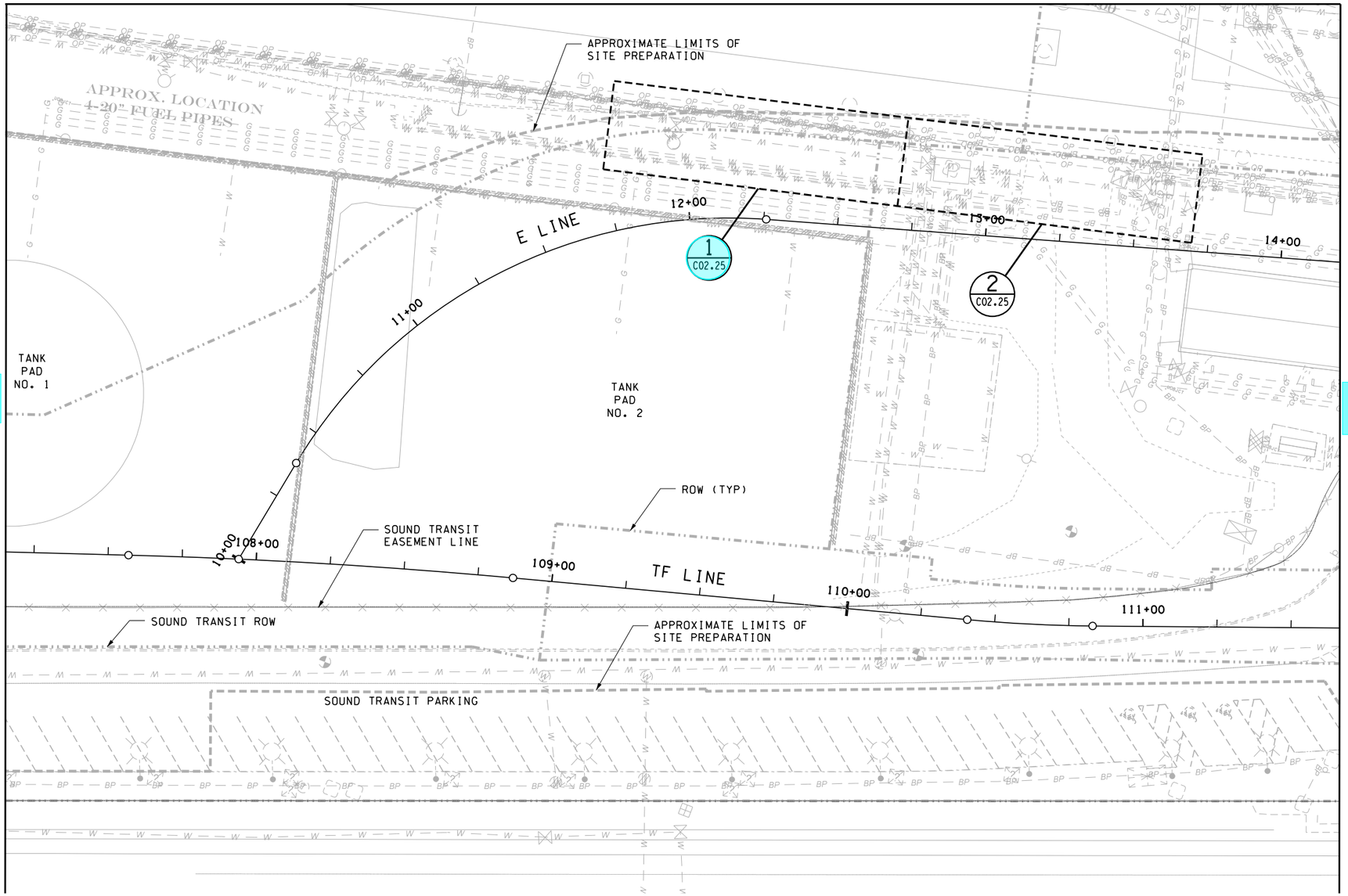
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

CO2.11

SHEET 48 OF 1521 SHEETS

MATCH TO C02.19

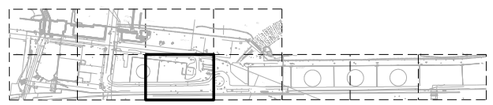


MATCH TO C02.11

MATCH TO C02.13

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.



KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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DESIGNED BY: D. PERRY	1/18/19					WA-2017-007-00
ENTERED BY: D. PERRY	1/18/19					REGION NO. / STATE
CHECKED BY: R. LUDWIG	1/18/19					10 / WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

01/18/19

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WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

C02.12

SHEET 49 OF 1521 SHEETS

MATCH TO C02.20

MATCH TO C02.12

MATCH TO C02.14

1 C02.26

2 C02.26

3 C02.27

APPROXIMATE LIMITS OF SITE PREPARATION

FILL

E LINE

15+00

16+00

17+00

18+00

TANK PAD NO.3

ROW (TYP)

112+00

113+00

TF LINE

114+00

115+00

116+00

SOUND TRANSIT EASEMENT LINE

SOUND TRANSIT ROW

APPROXIMATE LIMITS OF SITE PREPARATION

SOUND TRANSIT PLATFORM

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.

KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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ENTERED BY: D. PERRY	1/18/19					REGION NO. 10 STATE WASH
CHECKED BY: R. LUDWIG	1/18/19					
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

01/18/19

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WASHINGTON STATE FERRIES

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MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

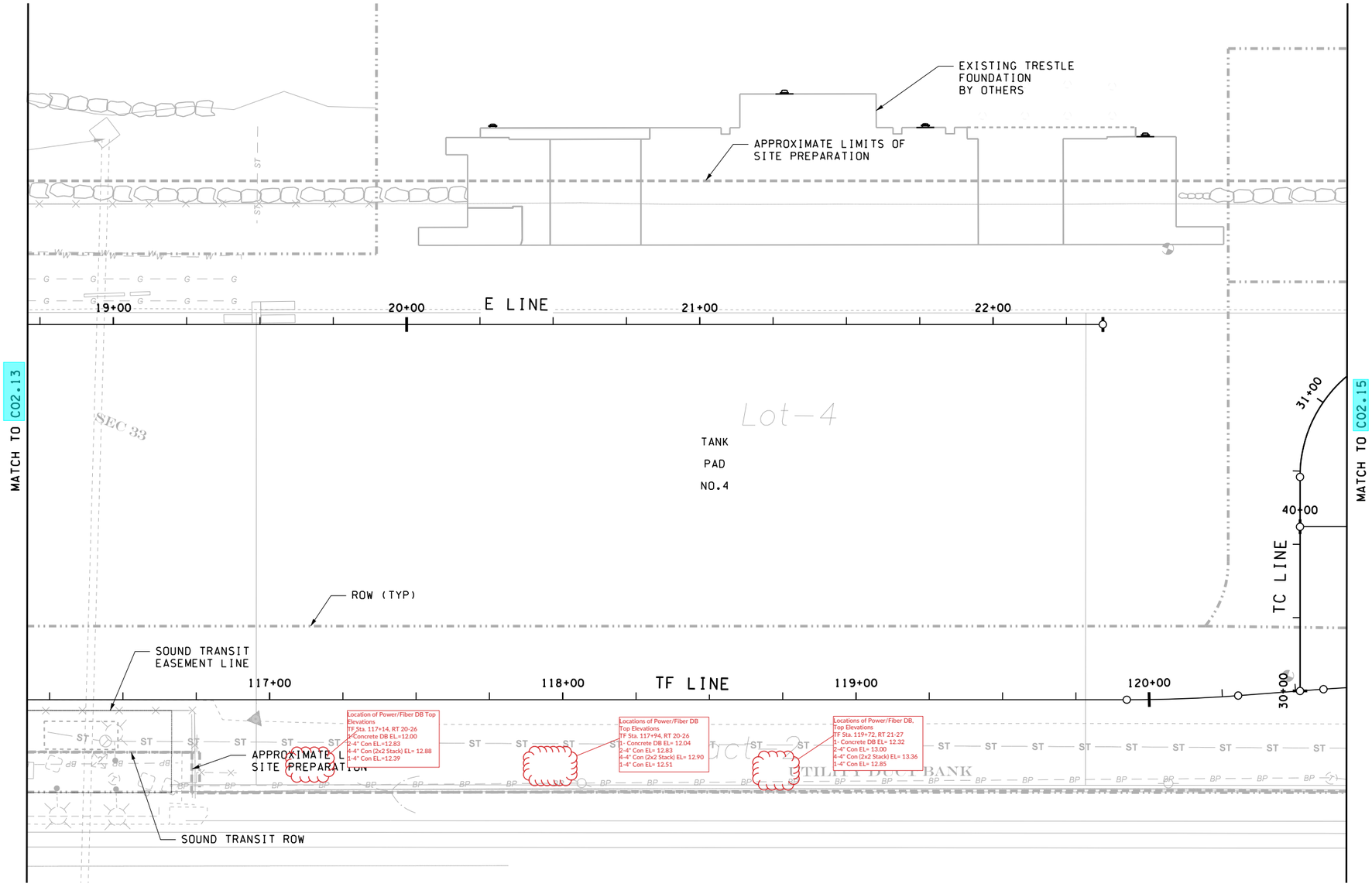
EXISTING UTILITIES

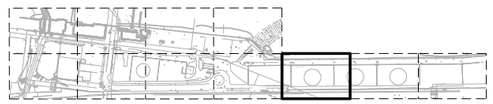
C02.13

SHEET 50 OF 1521 SHEETS

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.





KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: D. PERRY	1/18/19					REGION NO. / STATE
ENTERED BY: D. PERRY	1/18/19					10 / WASH
CHECKED BY: R. LUDWIG	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						CONTRACT NO. 009321
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

01/18/19

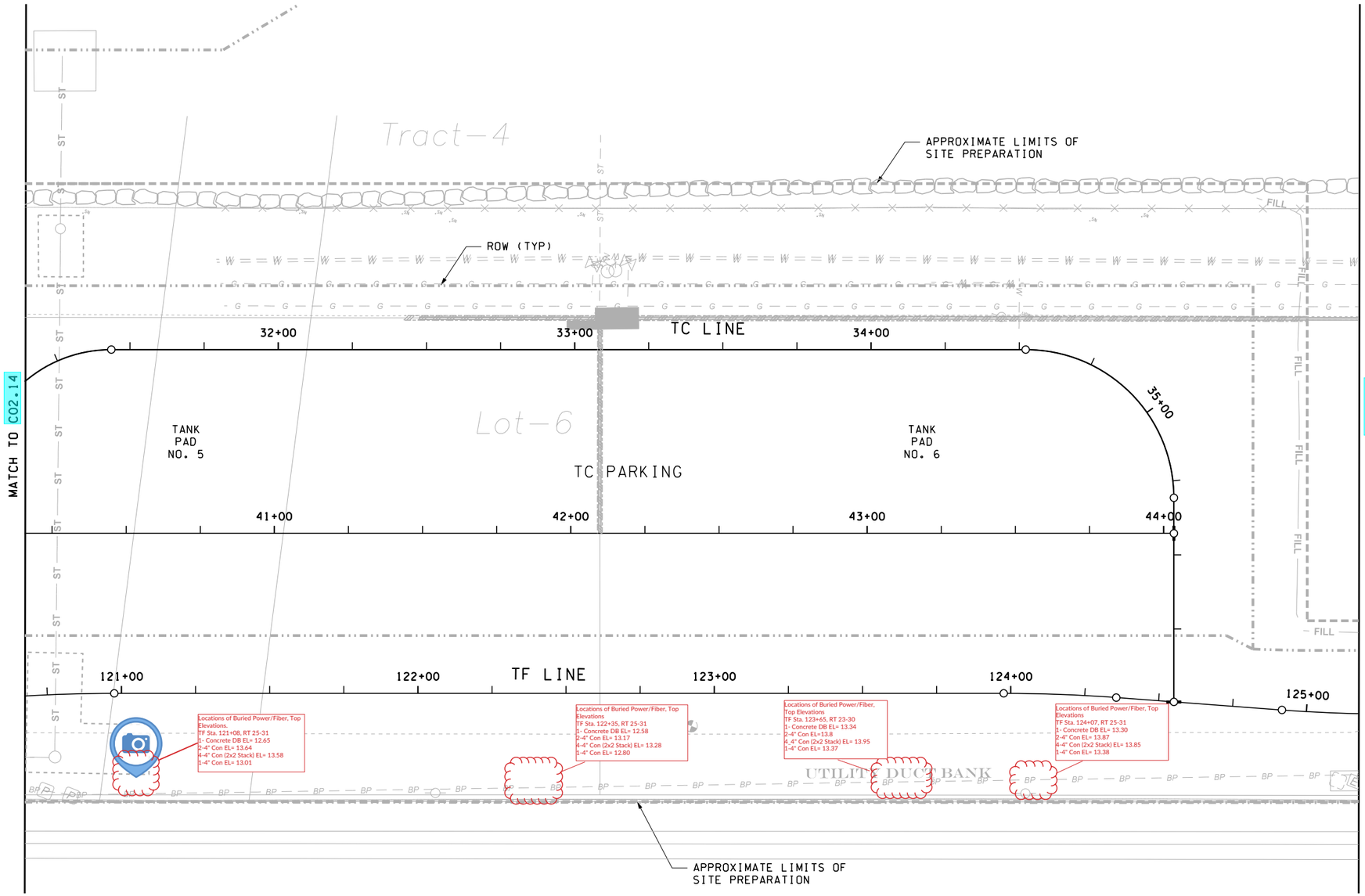
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

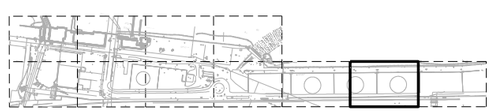
C02.14

SHEET 51 OF 1521 SHEETS



NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.



KEY PLAN

SCALE 1" = 40'
0 20 40

JACOBS

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PRINTED: $$TIME$$ $$DATE$$		LAST PRINTED BY:				FED.AID PROJ.NO.
SUBMITTAL DATE:	1/18/19	$USERNAME$				
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ENTERED BY:	D. PERRY	1/18/19				REGION NO. STATE
CHECKED BY:	R. LUDWIG	1/18/19				10 WASH
MAR PROJ ENGR:	C. TORRES					JOB NUMBER 18W121
DIR TERM ENGR:	N. MCINTOSH		CONFORMED PLANS	1/18/19		
ASST SECRETARY:	A. SCARTON		REVISION	DATE	BY	CONTRACT NO. 009321

01/18/19

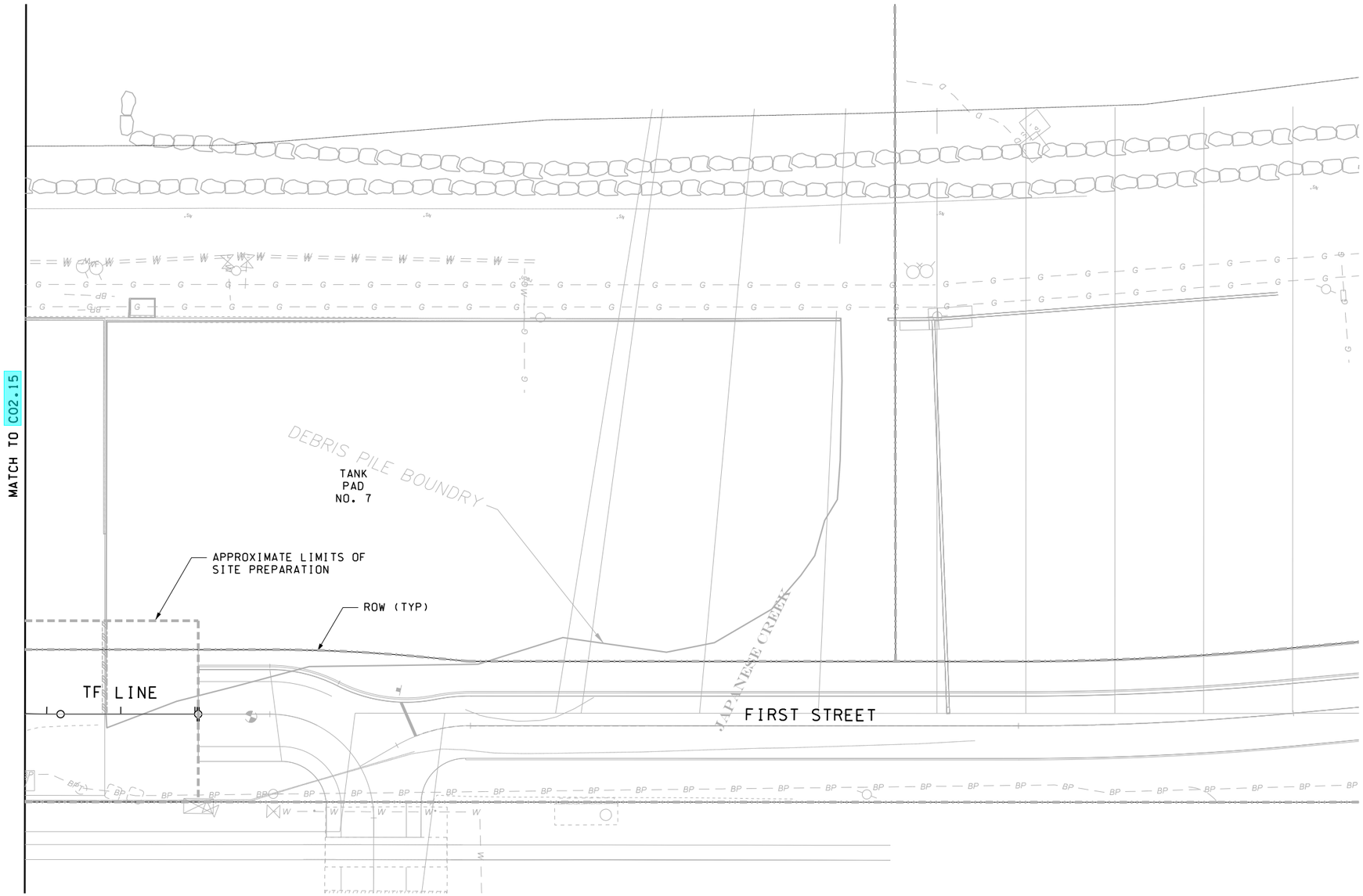
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

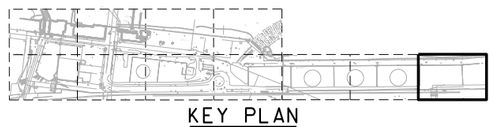
C02.15

SHEET 52 OF 1521 SHEETS



NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.



KEY PLAN

N

0 20 40
SCALE 1" = 40'

JACOBS

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DESIGNED BY: D. PERRY	1/18/19					REGION NO. 10 / STATE WASH
ENTERED BY: D. PERRY	1/18/19					JOB NUMBER 18W121
CHECKED BY: R. LUDWIG	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

01/18/19

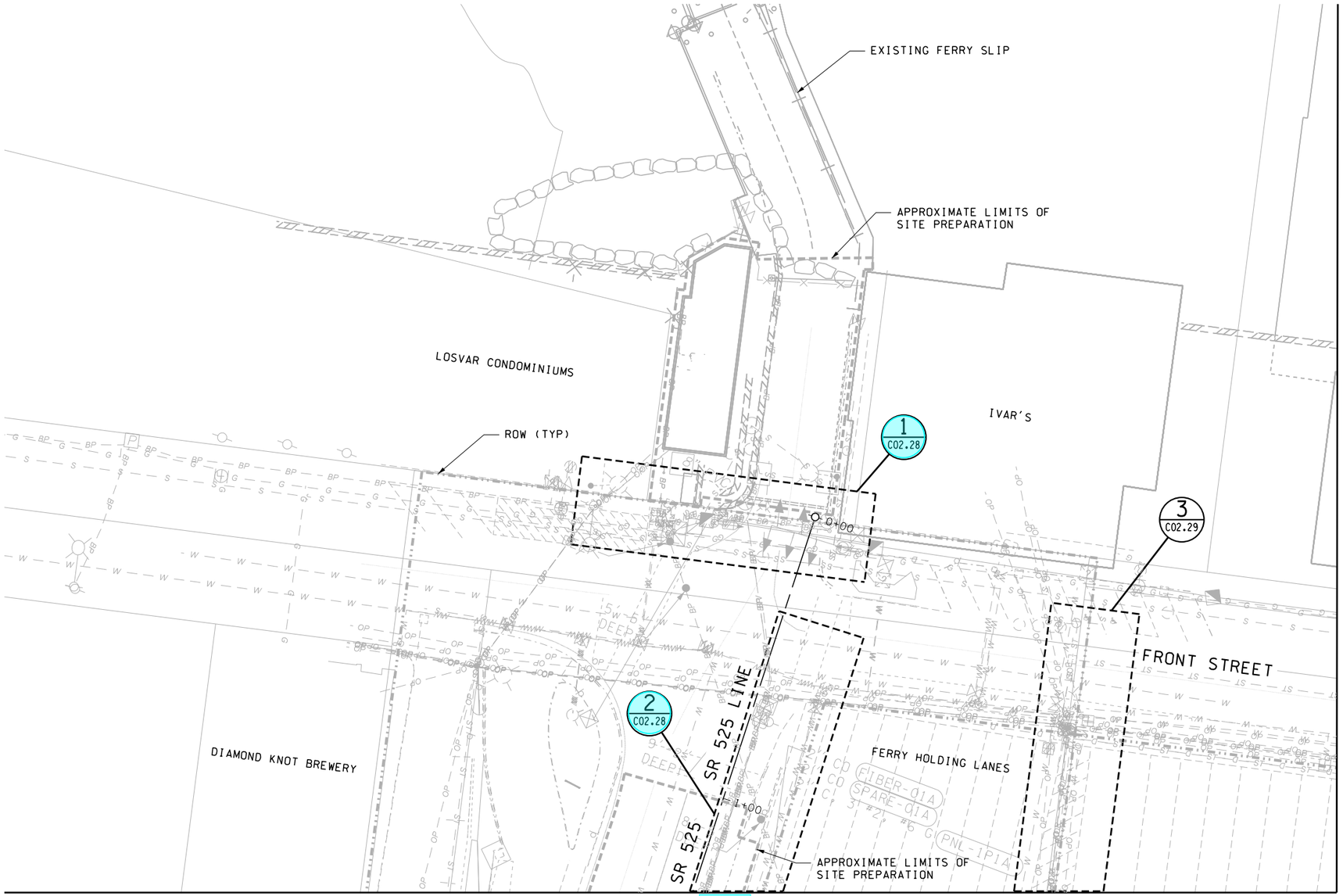
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

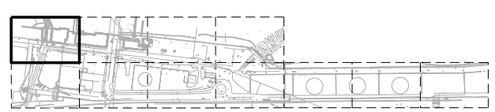
C02.16

SHEET 53 OF 1521 SHEETS



NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.



KEY PLAN

SCALE 1'' = 40'

JACOBS

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DESIGNED BY: D. PERRY	1/18/19					REGION NO. 10 / STATE WASH
ENTERED BY: D. PERRY	1/18/19					JOB NUMBER 18W121
CHECKED BY: R. LUDWIG	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

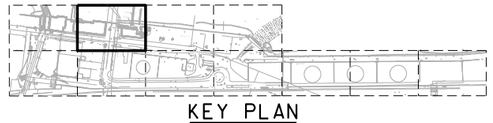
EXISTING UTILITIES

C02.17

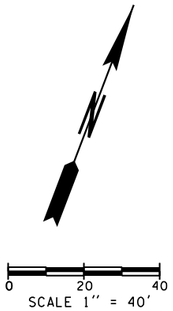
SHEET 54 OF 1521 SHEETS

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.



KEY PLAN



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DESIGNED BY: D. PERRY	1/18/19					REGION NO. STATE
ENTERED BY: D. PERRY	1/18/19					10 WASH
CHECKED BY: R. LUDWIG	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

01/18/19

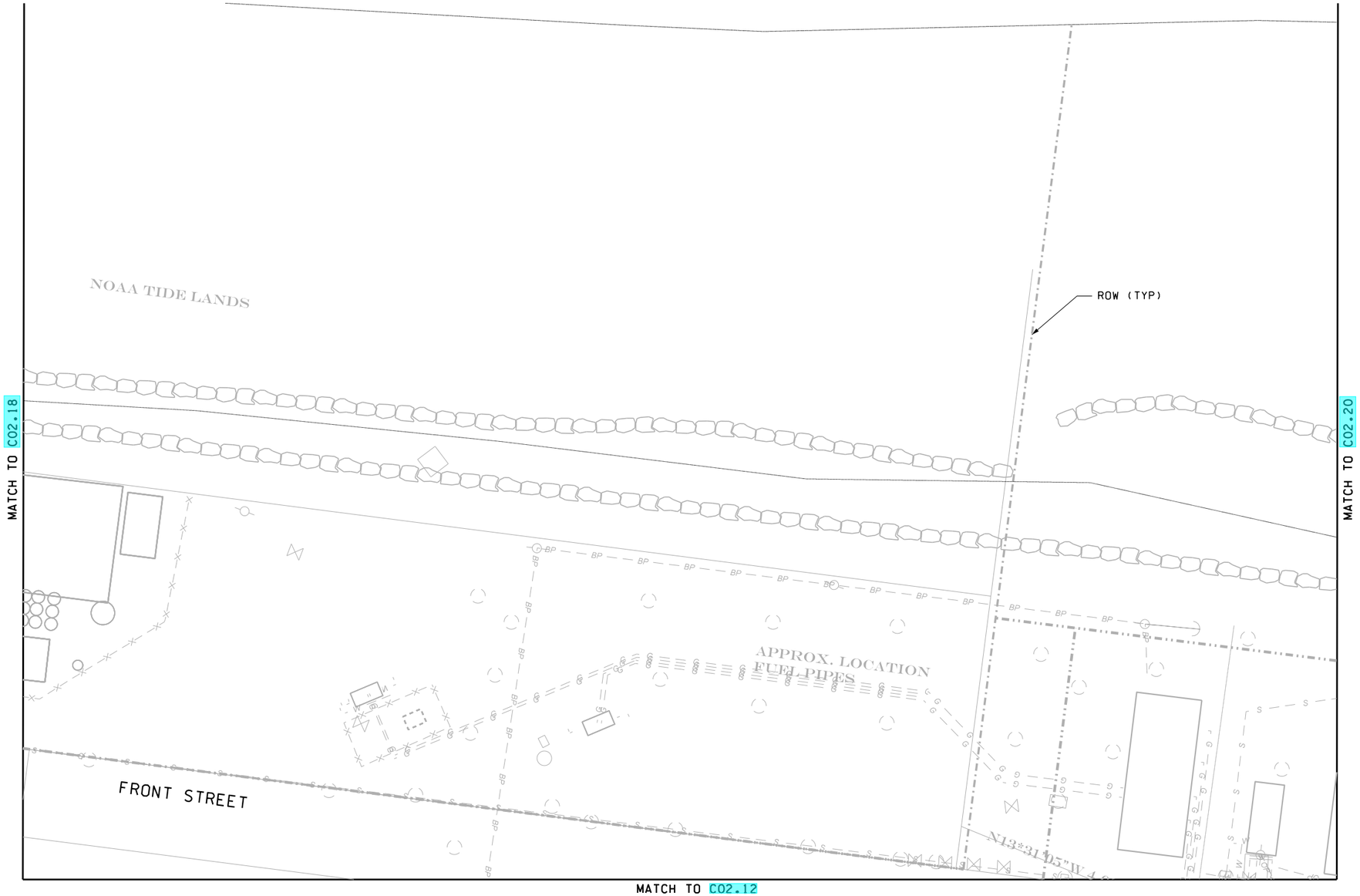
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

C02.18

SHEET 55 OF 1521 SHEETS



NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
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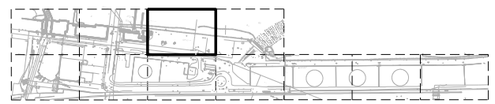

KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
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ENTERED BY: D. PERRY	1/18/19					10 / WASH
CHECKED BY: R. LUDWIG	1/18/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

01/18/19

Washington State Department of Transportation
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SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

C02.19

SHEET 56 OF 1521 SHEETS

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
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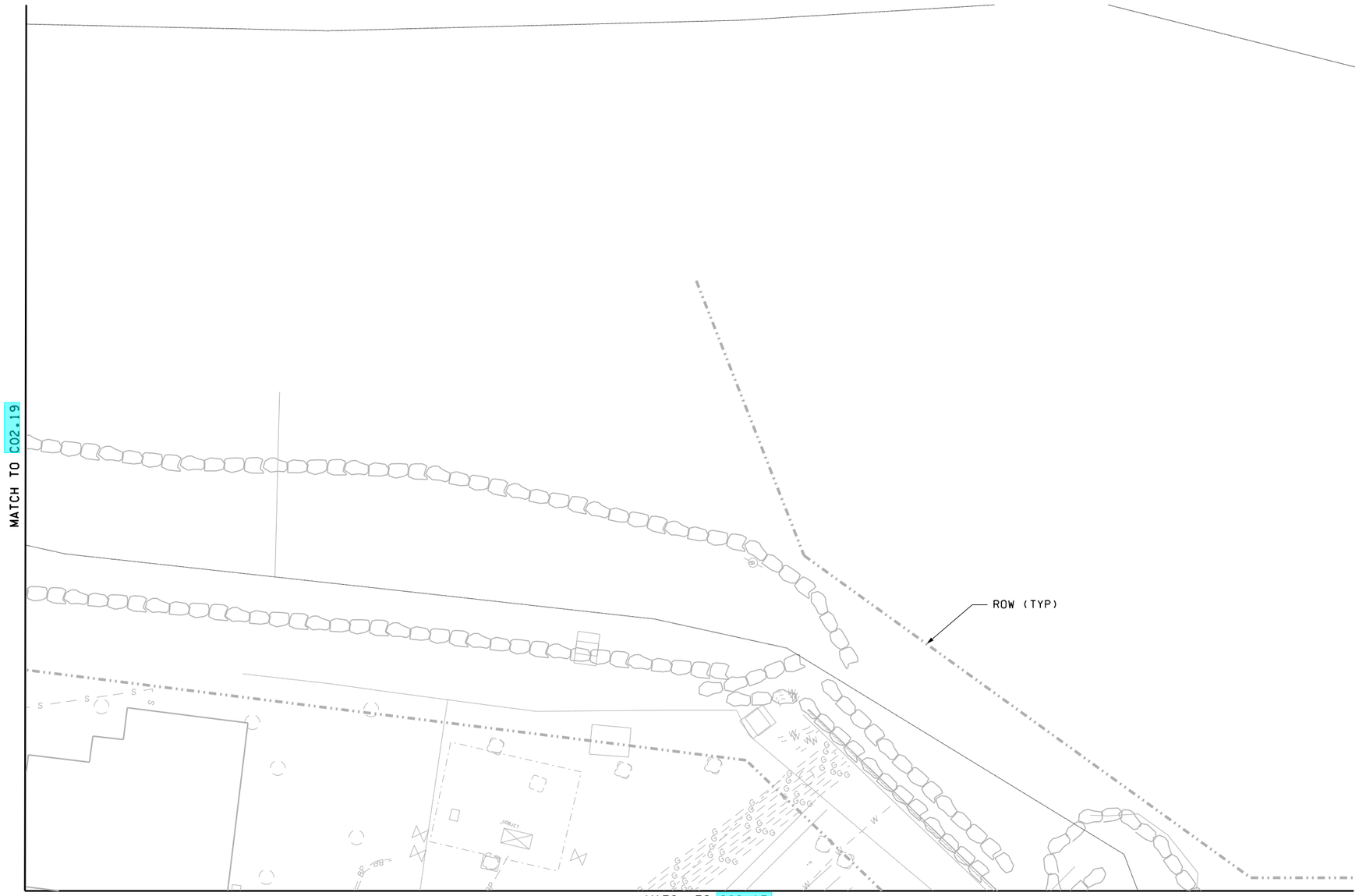

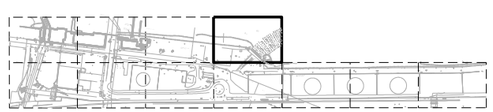

KEY PLAN

SCALE 1" = 40'

JACOBS

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SUBMITTAL DATE: 1/18/19	@USERNAME@					
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ENTERED BY: D. PERRY	1/18/19					REGION NO. STATE
CHECKED BY: R. LUDWIG	1/18/19					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO. 009321

01/18/19

Washington State Department of Transportation
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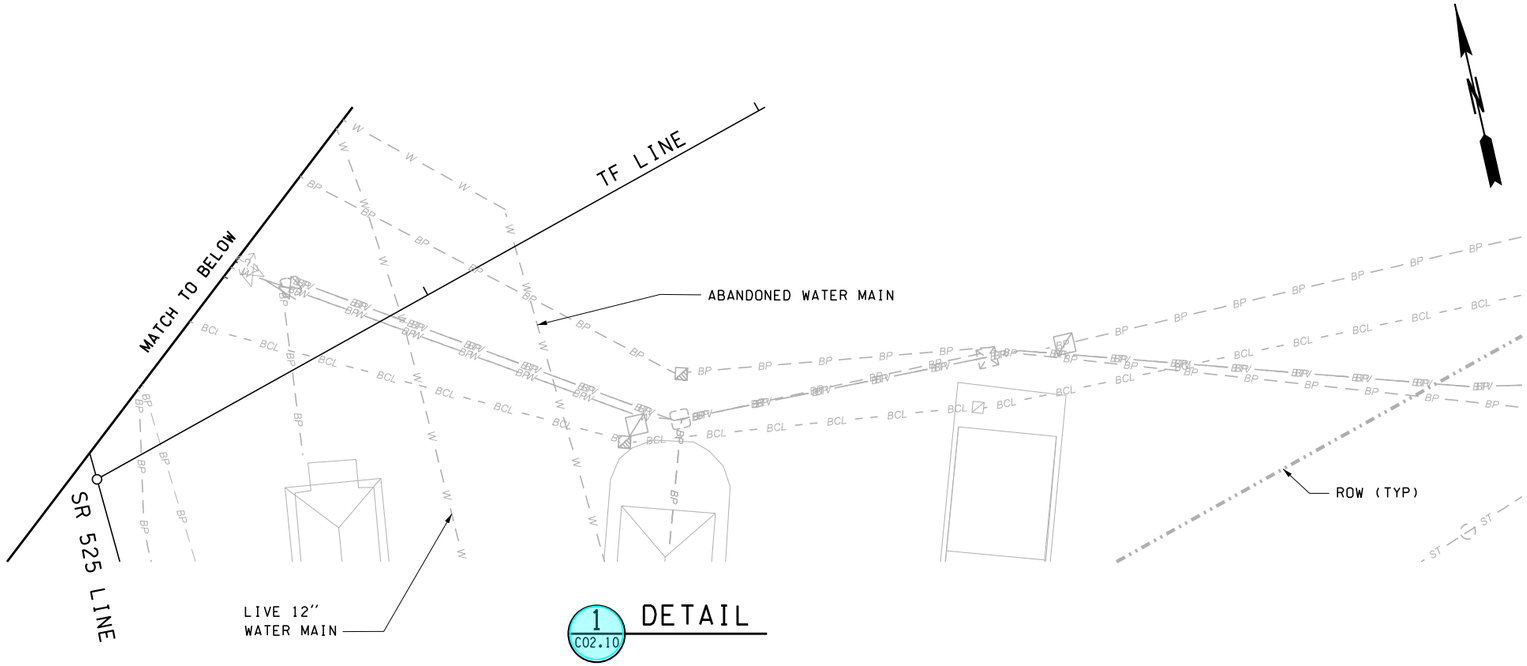
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

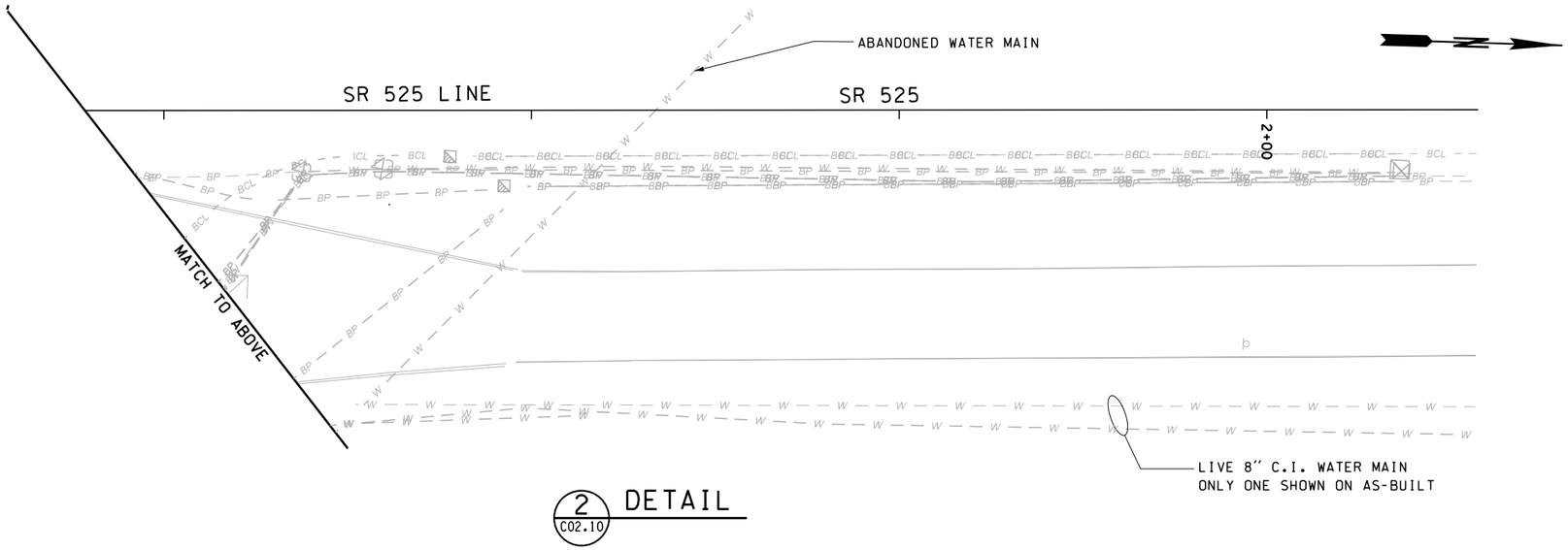
EXISTING UTILITIES

C02.20

SHEET 57 OF 1521 SHEETS



1 C02.10 DETAIL



2 C02.10 DETAIL

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.

FOR REFERENCE ONLY

SCALE 1" = 10'

JACOBS

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DESIGNED BY: D. PERRY	1/18/19					REGION NO. STATE
ENTERED BY: D. PERRY	1/18/19					10 WASH
CHECKED BY: R. LUDWIG	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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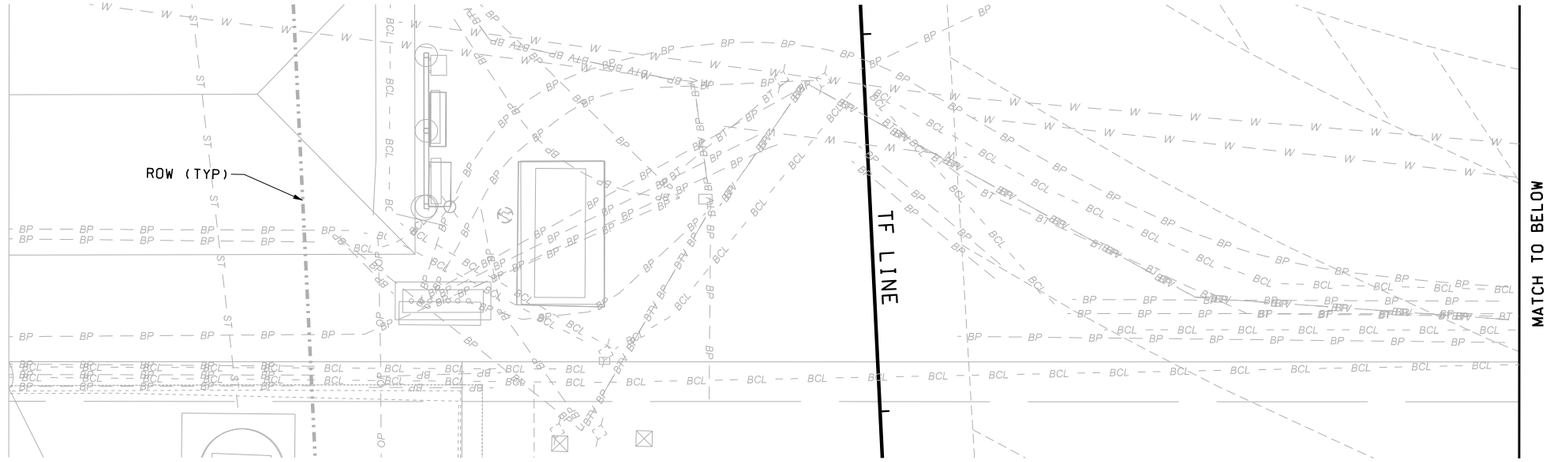
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

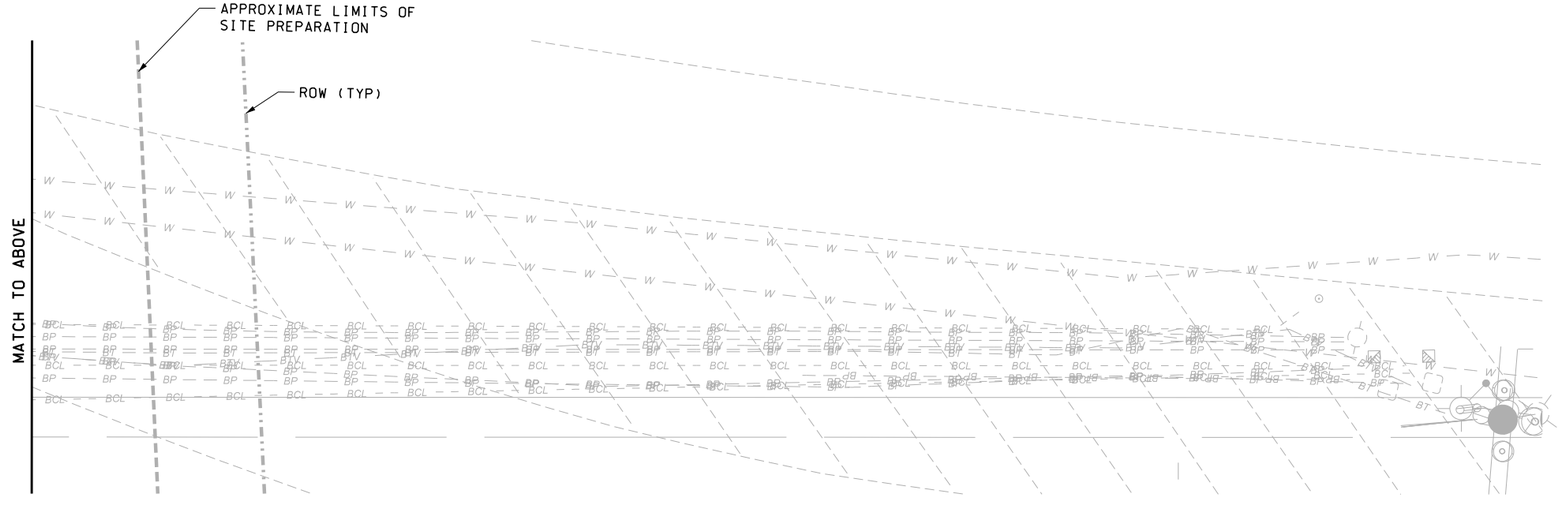
EXISTING UTILITIES

C02.21

SHEET 58 OF 1521 SHEETS



3 C02.10 DETAIL



4 C02.10 DETAIL

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.

0 5 10
SCALE 1" = 10'

JACOBS

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MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

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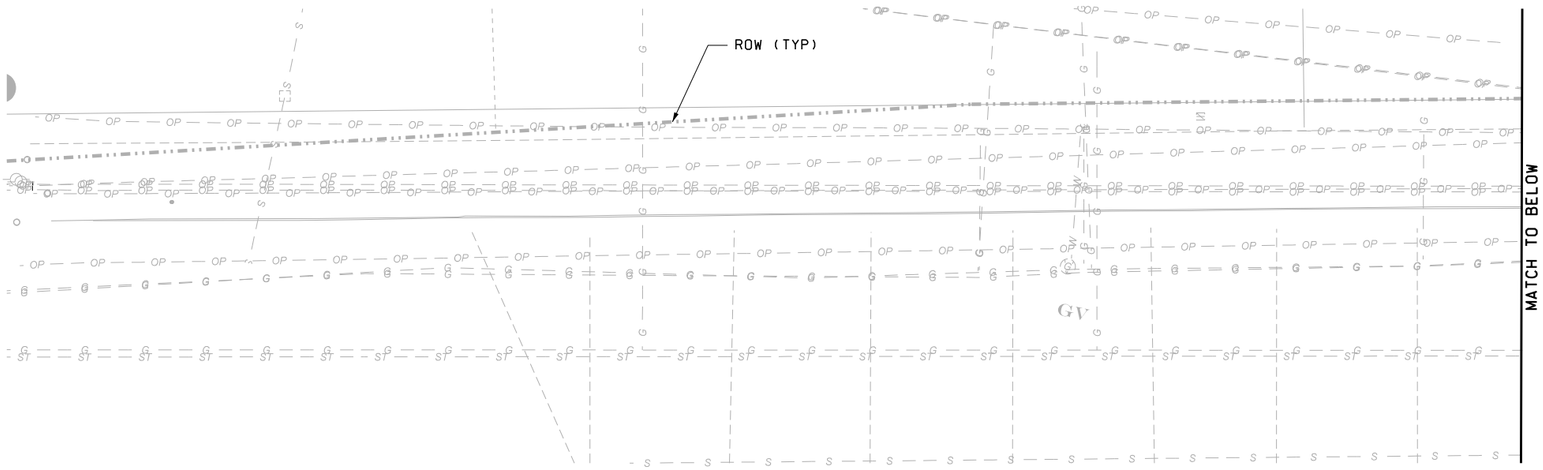
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

C02.22

SHEET 59 OF 1521 SHEETS



1 C02.11 DETAIL

2 C02.11 DETAIL

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.

N

0 5 10
SCALE 1" = 10'

JACOBS

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MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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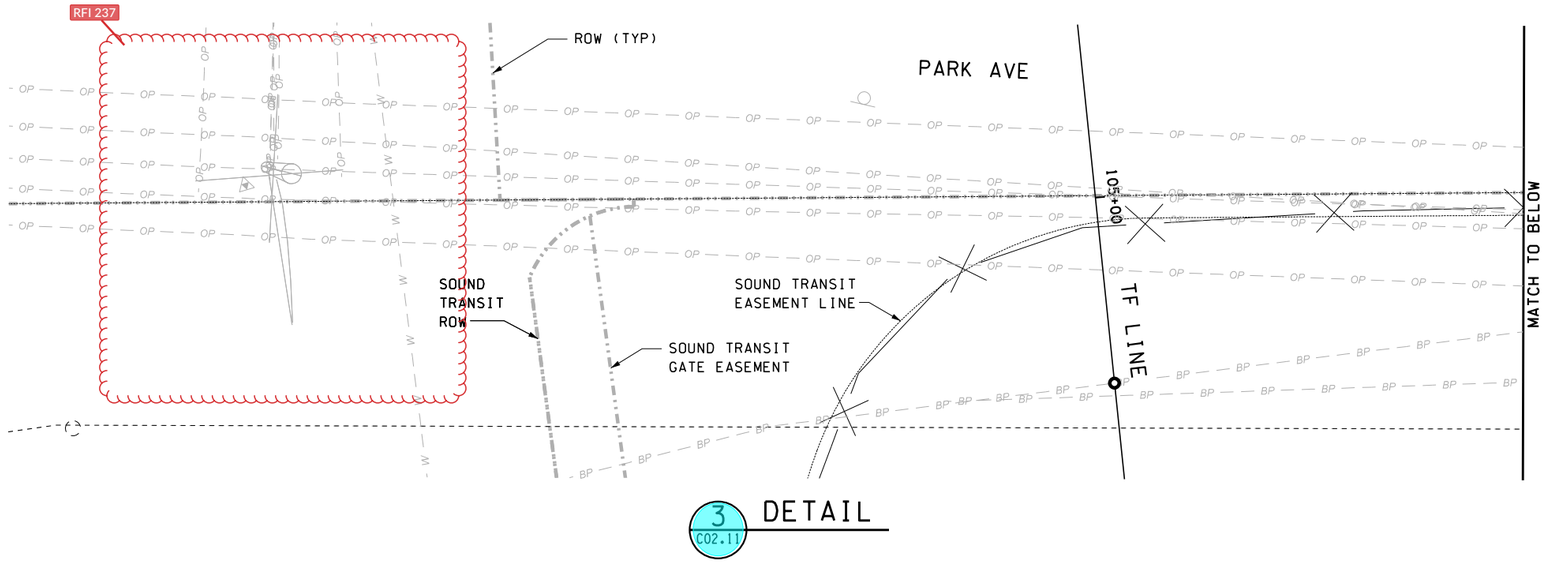
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

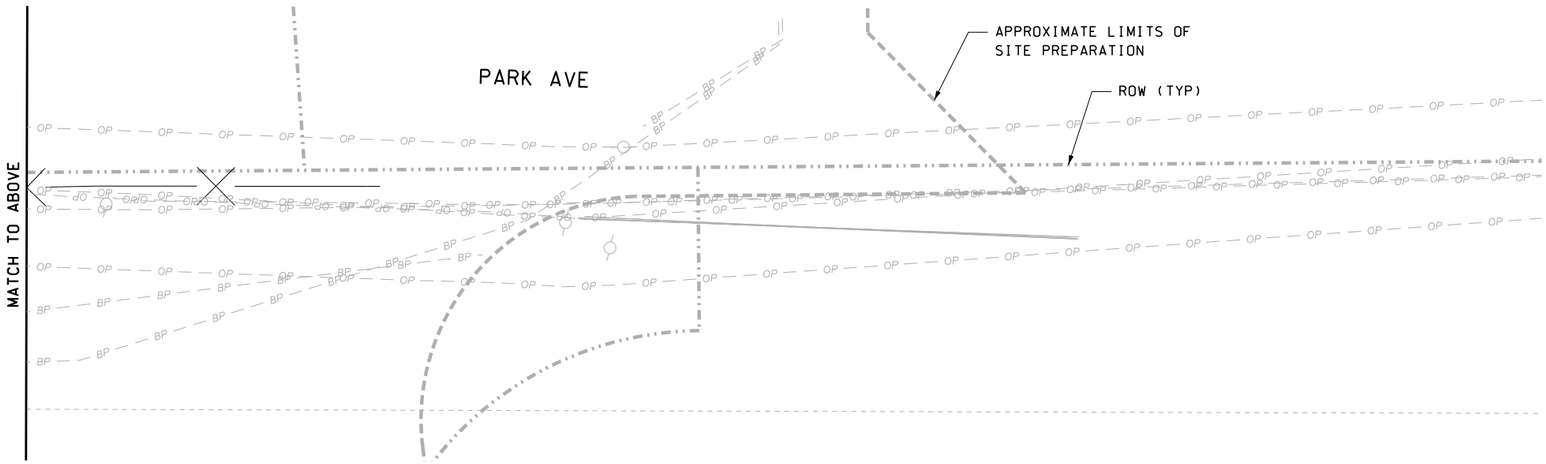
EXISTING UTILITIES

C02.23

SHEET 60 OF 1521 SHEETS



3 C02.11 DETAIL



4 C02.11 DETAIL

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.

Per RFI 237 - Please verify the duct bank is actually 10 feet wide and the proposed luminaire pole #14 and gate are able to be installed in the proposed locations (see attached sheet C02.51). Sanitary sewer manhole can be relocated 5 feet further east. However, it should not impact installation of Modular Wetland MWS-2; the location of the j-box, just south of the manhole, will need to be adjusted to accommodate the new manhole location; and the buried power line going from the j-box to Luminaire pole #14 will need to routed around the western side of the new manhole.
Also, the easement to MWWD including the legal description and map/exhibit will need to be updated to show the easement centered on the installed sewer pipe location (7.5' on either side of the sewer pipe) going through the Sound Transit property (see attached sheet C08.11).

SCALE 1" = 10'

JACOBS

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DESIGNED BY: D. PERRY	1/18/19					REGION NO. 10 / STATE WASH
ENTERED BY: D. PERRY	1/18/19					JOB NUMBER 18W121
CHECKED BY: R. LUDWIG	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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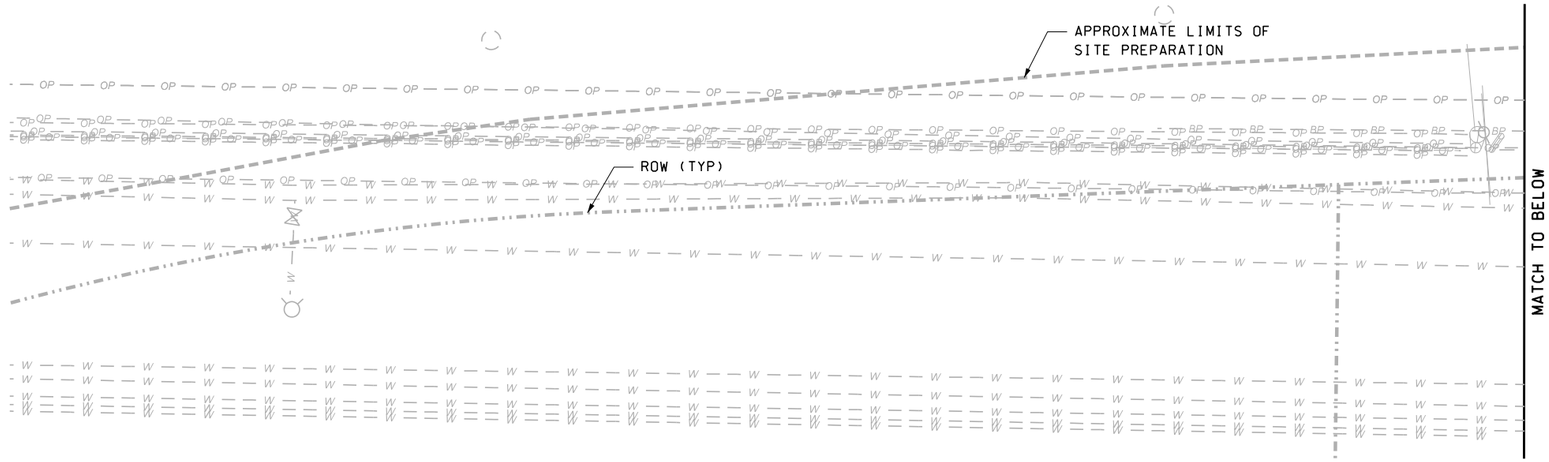
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

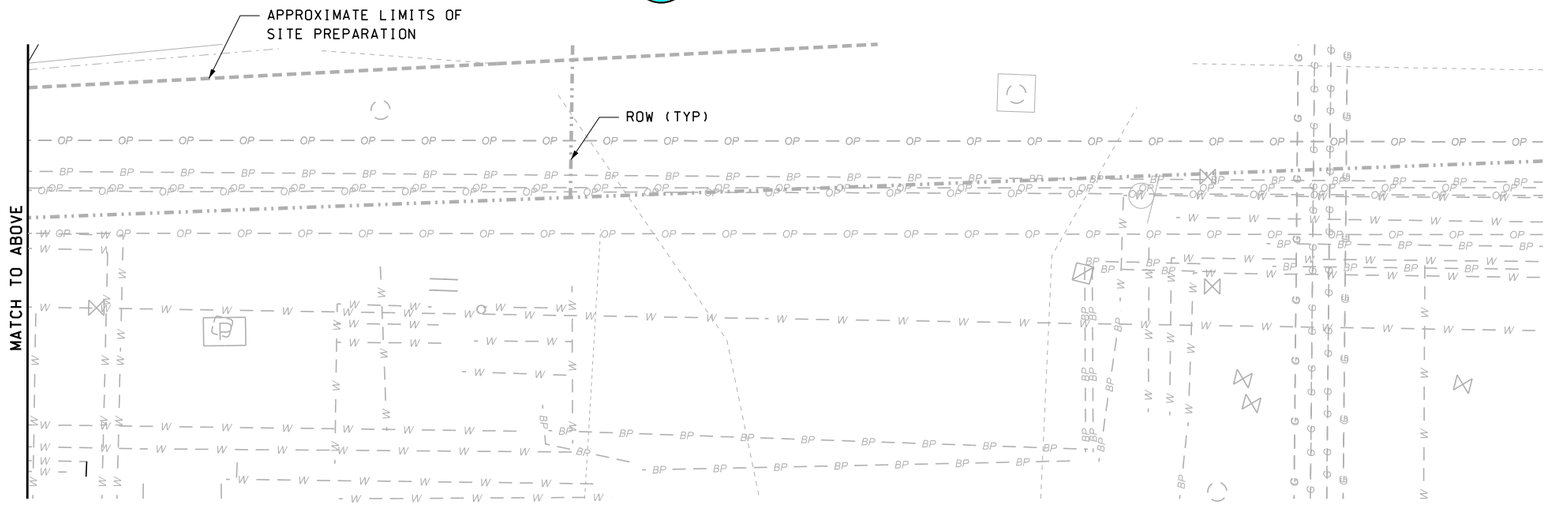
EXISTING UTILITIES

C02.24

SHEET 61 OF 1521 SHEETS



1 C02.12 DETAIL



2 C02.12 DETAIL

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.

0 5 10
SCALE 1" = 10'

JACOBS

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DESIGNED BY: D. PERRY	1/18/19					REGION NO. STATE
ENTERED BY: D. PERRY	1/18/19					10 WASH
CHECKED BY: R. LUDWIG	1/18/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

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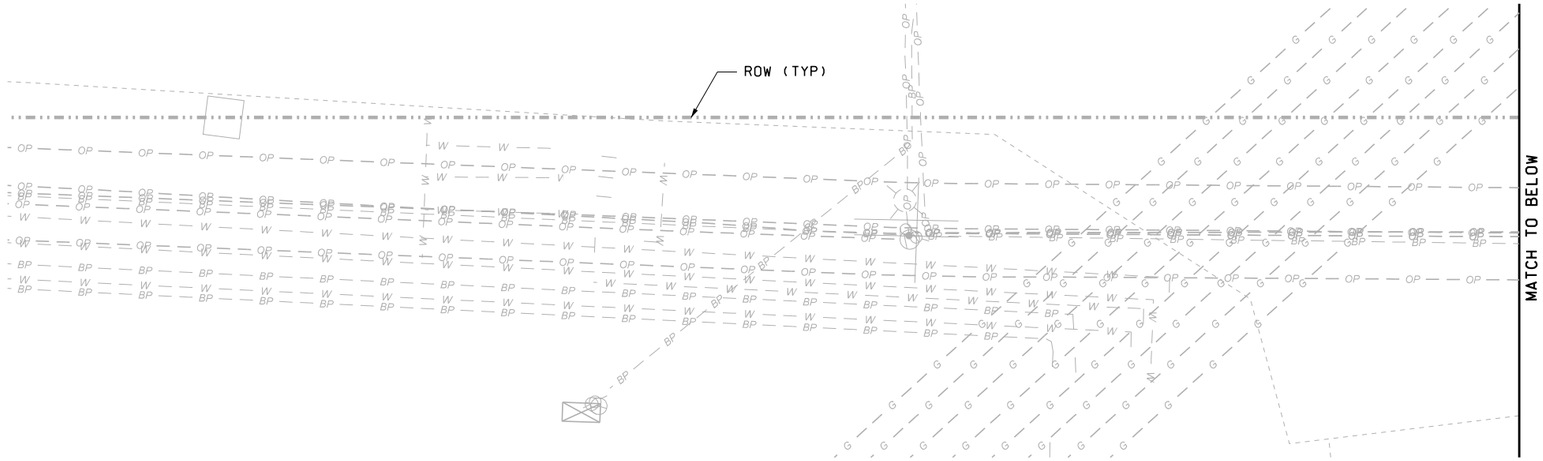
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

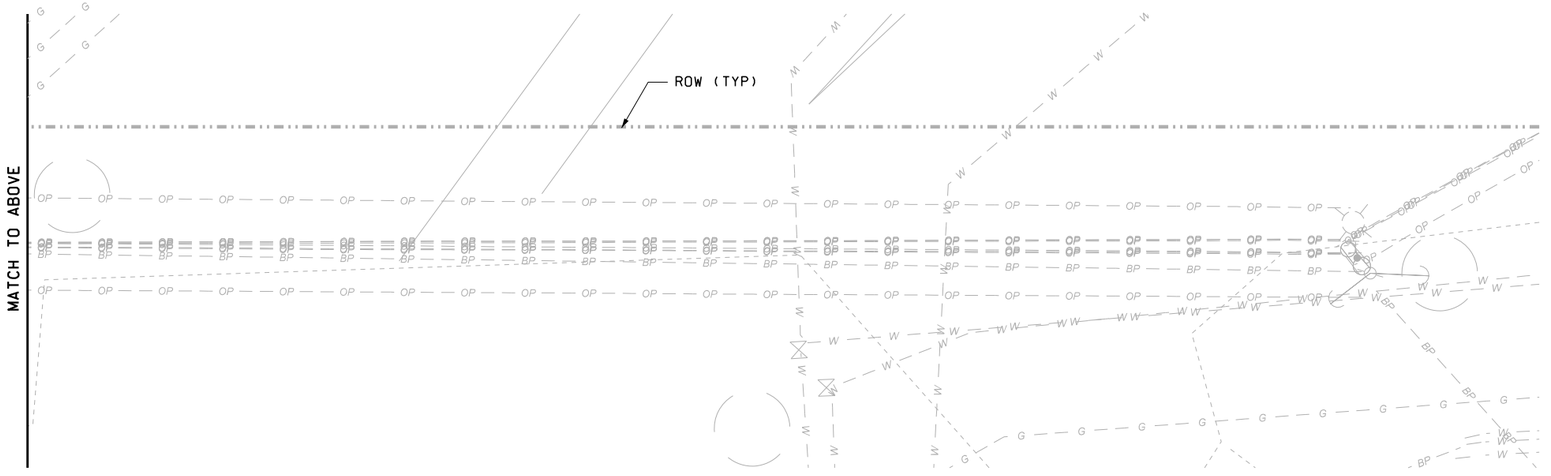
EXISTING UTILITIES

C02.25

SHEET 62 OF 1521 SHEETS



1 / C02.13 DETAIL



2 / C02.13 DETAIL

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.

SCALE 1" = 10'

JACOBS

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DESIGNED BY:	D. PERRY	1/18/19				REGION NO. STATE
ENTERED BY:	D. PERRY	1/18/19				10 WASH
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MAR PROJ ENGR:	C. TORRES					
DIR TERM ENGR:	N. MCINTOSH		CONFORMED PLANS	1/18/19		CONTRACT NO. 009321
ASST SECRETARY:	A. SCARTON		REVISION	DATE	BY	

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Washington State Department of Transportation
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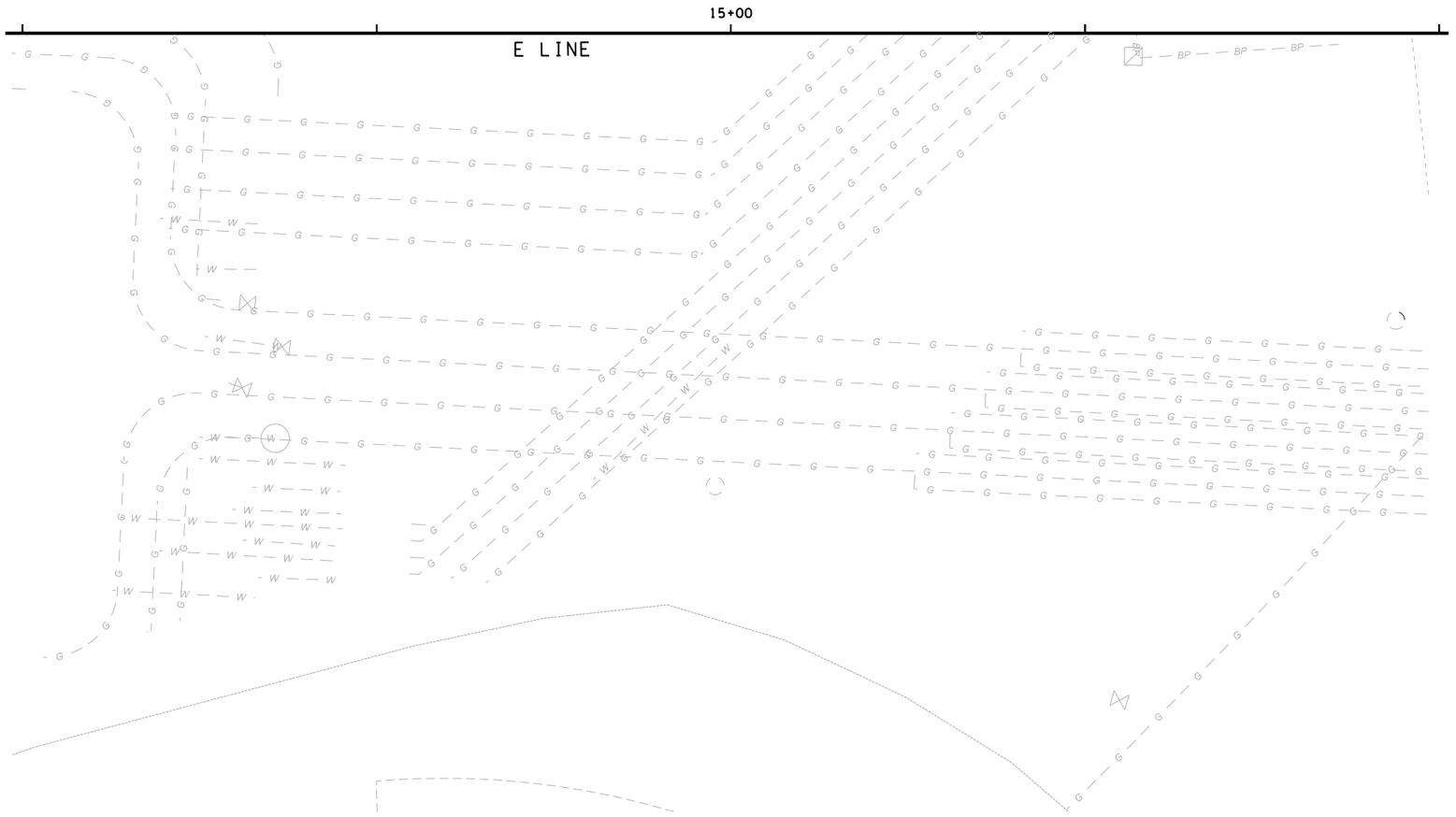
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

EXISTING UTILITIES

C02.26

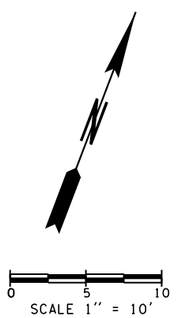
SHEET 63 OF 1521 SHEETS



3 / C02.13 DETAIL

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.



JACOBS

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ENTERED BY: D. PERRY	1/18/19					JOB NUMBER 18W121
CHECKED BY: R. LUDWIG	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

01/18/19

Washington State Department of Transportation
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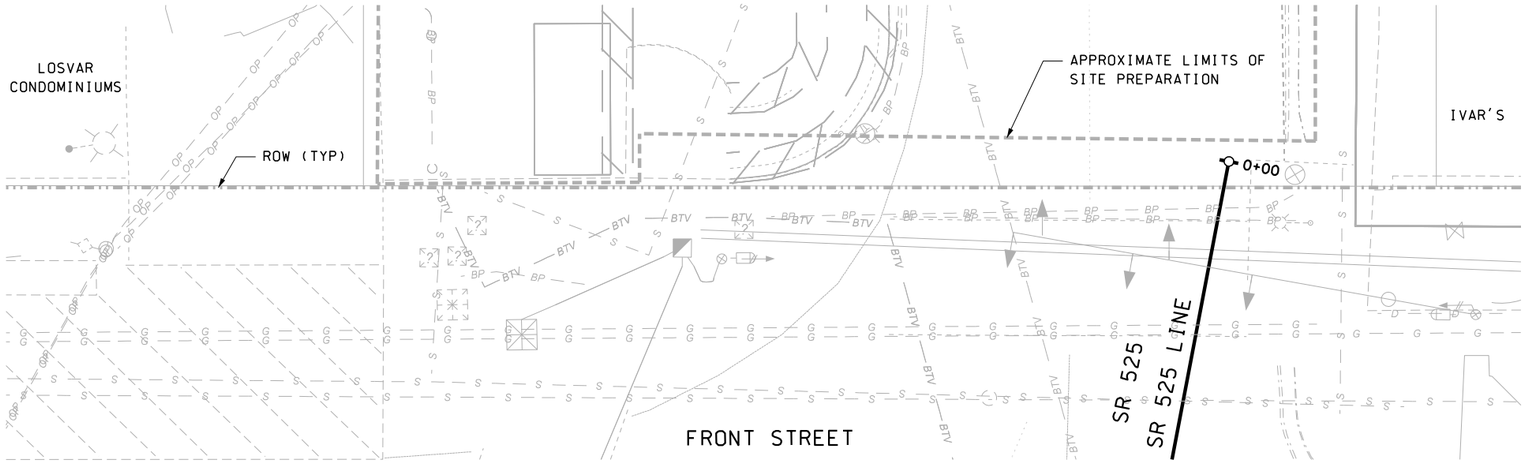
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

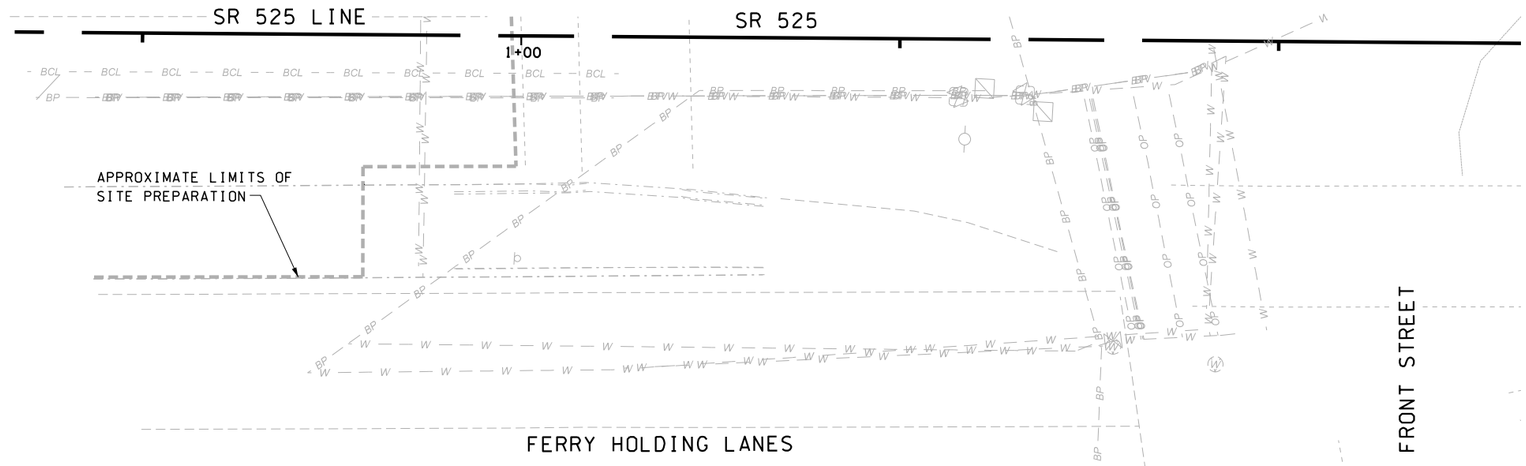
EXISTING UTILITIES

C02.27

SHEET 64 OF 1521 SHEETS



1 CO2.17 DETAIL



2 CO2.17 DETAIL

NOTES:

1. SEE PLAN SHEETS CO6.10 - CO6.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS CO4.00 - CO4.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.

0 5 10
SCALE 1" = 10'

JACOBS

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CHECKED BY: R. LUDWIG	1/18/19				10 WASH
MAR PROJ ENGR: C. TORRES					JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	CONTRACT NO. 009321

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MUKILTEO FERRY TERMINAL (PHASE 2)
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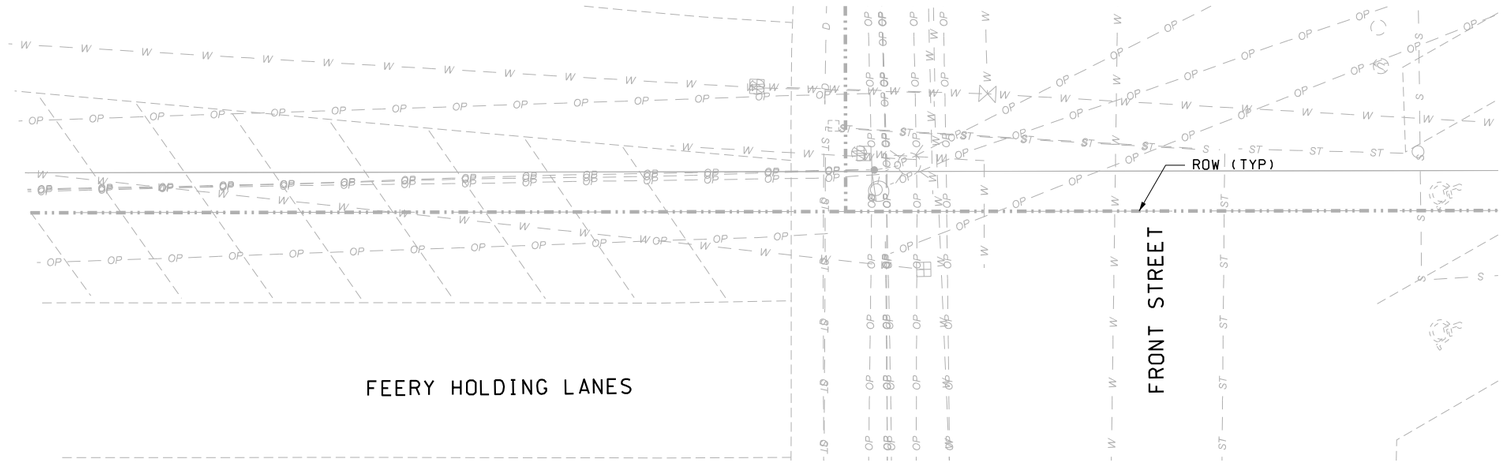
EXISTING UTILITIES

CO2.28

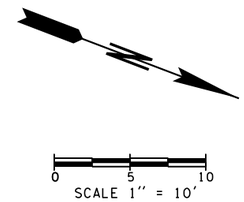
SHEET 65 OF 1521 SHEETS



3 / C02.17 DETAIL

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
3. SEE BINDING SITE PLANS FOR ROW INFORMATION ON THE TANK FARM, EAST OF PARK AVE. BINDING SITE PLANS ARE INCLUDED IN THE APPENDICES TO THE CONTRACT PROVISIONS.



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MAR PROJ ENGR: C. TORRES						
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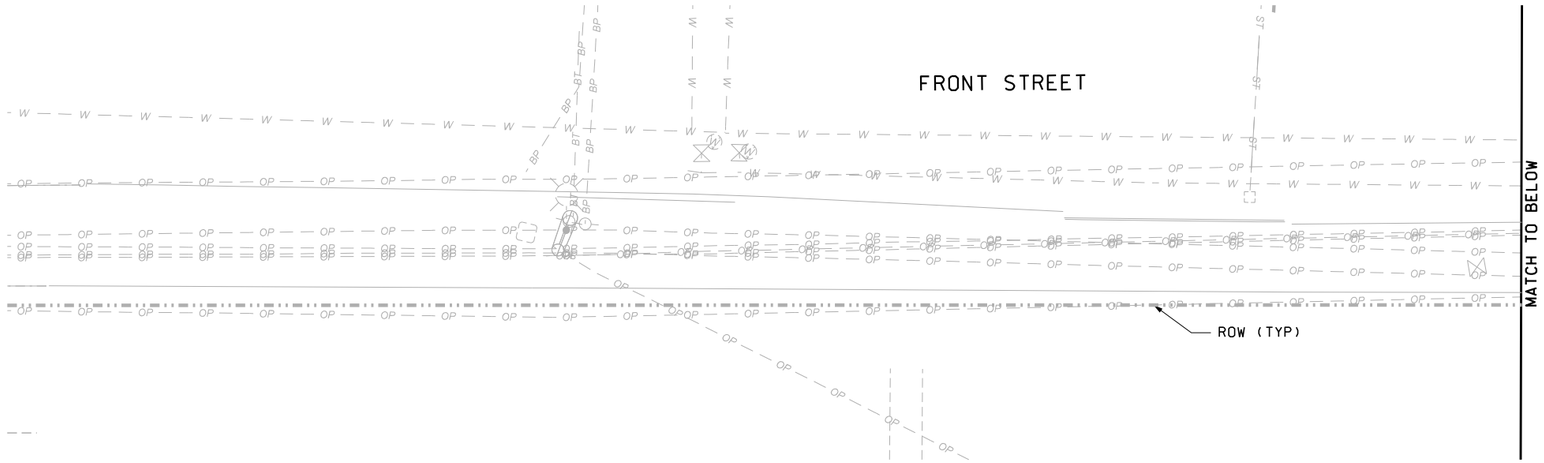
FERRY TERMINAL CONSTRUCTION

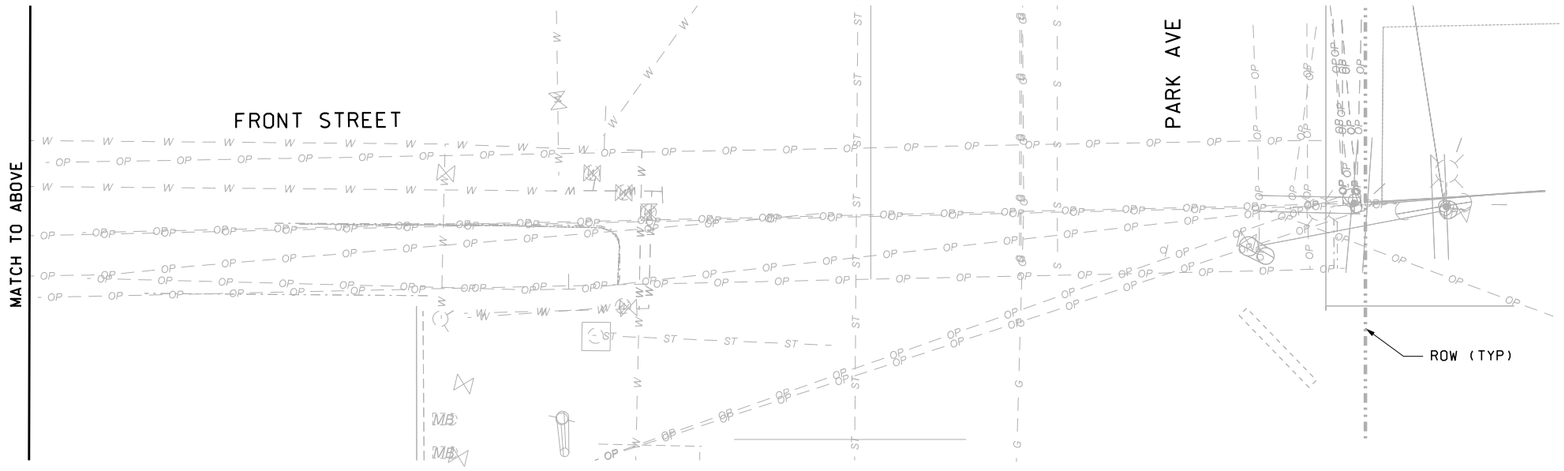
EXISTING UTILITIES

C02.29

SHEET 66 OF 1521 SHEETS



1 C02.18 DETAIL



2 C02.18 DETAIL

NOTES:

1. SEE PLAN SHEETS C06.10 - C06.16 FOR ROADWAY ALIGNMENT INFORMATION.
2. SEE PLAN SHEETS C04.00 - C04.16 FOR APPROXIMATE LIMITS OF SITE PREPARATION.
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SCALE 1" = 10'

JACOBS

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FERRY TERMINAL CONSTRUCTION

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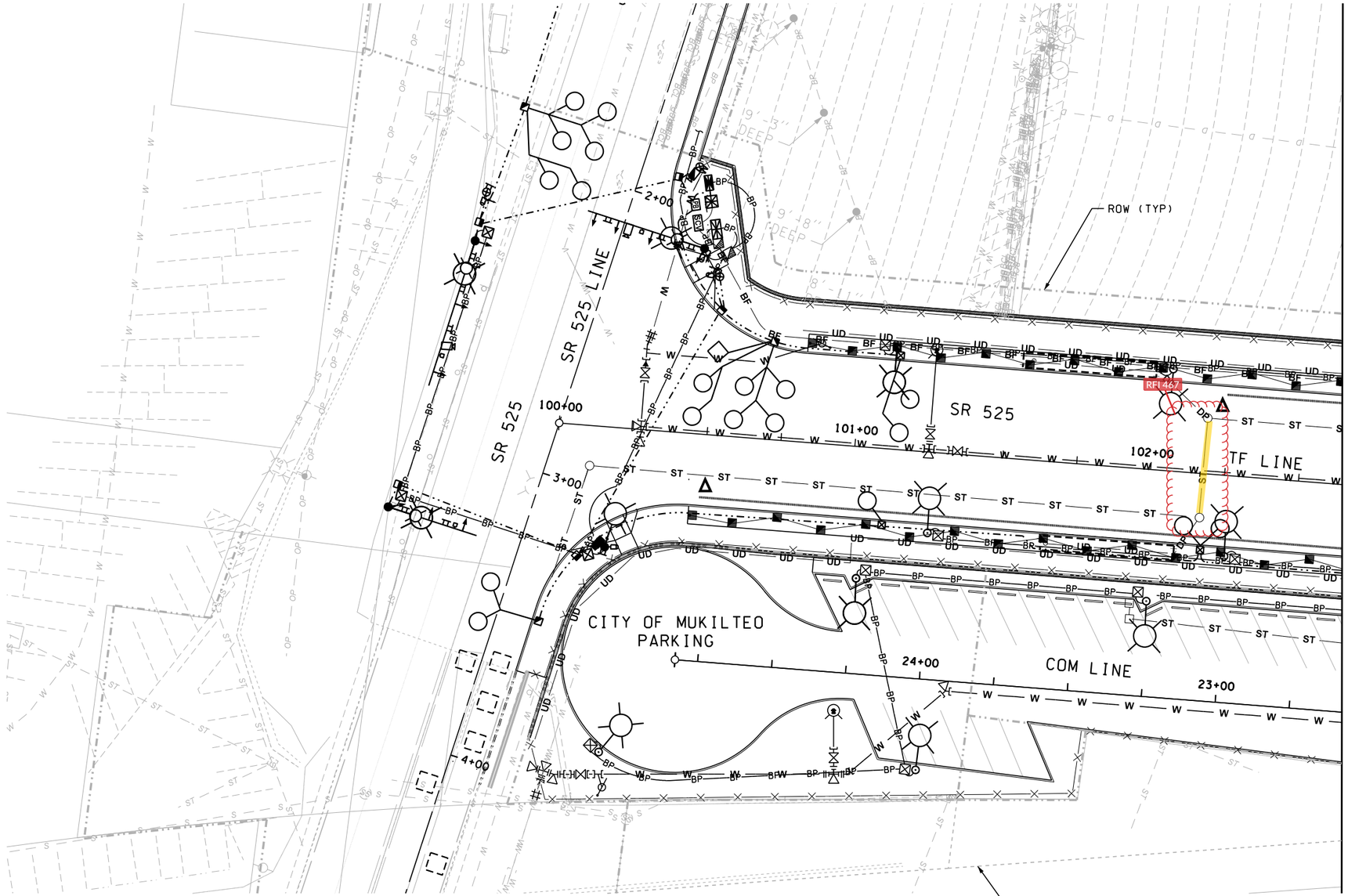
C02.30

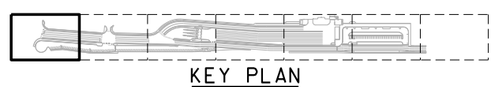
SHEET 67 OF 1521 SHEETS



NOTES:

1. THIS SHEET IS FOR INFORMATION ONLY.
2. THIS PLAN IS A REPRESENTATION OF ALL THE PROPOSED UNDERGROUND UTILITIES FOR THE PROJECT AND IS FOR CONTRACTOR CONVENIENCE.
3. FOR DRAINAGE PLANS SEE C07.00 SERIES SHEETS.
4. FOR WATER AND SANITARY SEWER PLANS SEE C08.00 SERIES SHEETS.
5. FOR ELECTRICAL PLANS SEE ES02.00 SERIES SHEETS.
6. FOR ILLUMINATION PLANS SEE ES08.00 SERIES SHEETS.
7. FOR SITE COMMUNICATION PLANS SEE ES12.00 SERIES SHEETS.
8. FOR IRRIGATION PLANS SEE C09.00 SERIES.
9. FOR SIGNALIZATION PLANS SEE C16.00 SERIES.
10. FOR ELEVATOR HYDRAULIC UTILITIES INFORMATION SEE TERMINAL BUILDING SPECIFICATION SECTION 14.24.00, HYDRAULIC ELEVATORS, FOR BURIED ELEVATOR SERVICE UTILITIES GOING FROM THE MAINTENANCE BUILDING ROOM 122, ELEVATOR EQUIPMENT 2, TO THE TERMINAL BUILDING ELEVATOR 2 AND 3 PIT. COORDINATE REQUIREMENTS WITH ELEVATOR SUPPLIER.

Per RFI 467
1) For MWWD, this alignment revision would need to avoid any vertical bends, and be done with gradual slope transitions.
2) The revised alignment would reduce the clearance at the 18-inch diameter storm crossing to less than typically allowed. There are other substandard crossings that were unavoidable, and this may be acceptable with foam padding between the pipes at the crossing, but this would need to be acceptable to MWWD and the City of Mukilteo.
3) Near the 12-inch gate valve on the proposed water profile, four crossings of existing utilities are shown. If these are or have been removed, this is less likely an issue; otherwise; if any of these are to o remain (or other new utilities in this area), raising the water profile could potentially create a conflict.
4) Attached is the Composite Utility Plan sheet C02.50 for reference. We only see one potential crossing issue that we have highlighted. There is a storm sewer crossing just up station of Station TF 102+00. If minimum separation can be obtained or reduced separation obtained give MWWD's permission with specific requirements it should be feasible.



KEY PLAN

SCALE 1" = 40'

FOR REFERENCE ONLY

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ENTERED BY: D. PERRY	1/18/19					REGION NO. 10 / STATE WASH
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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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MUKILTEO FERRY TERMINAL (PHASE 2)
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COMPOSITE UTILITY PLAN

C02.50

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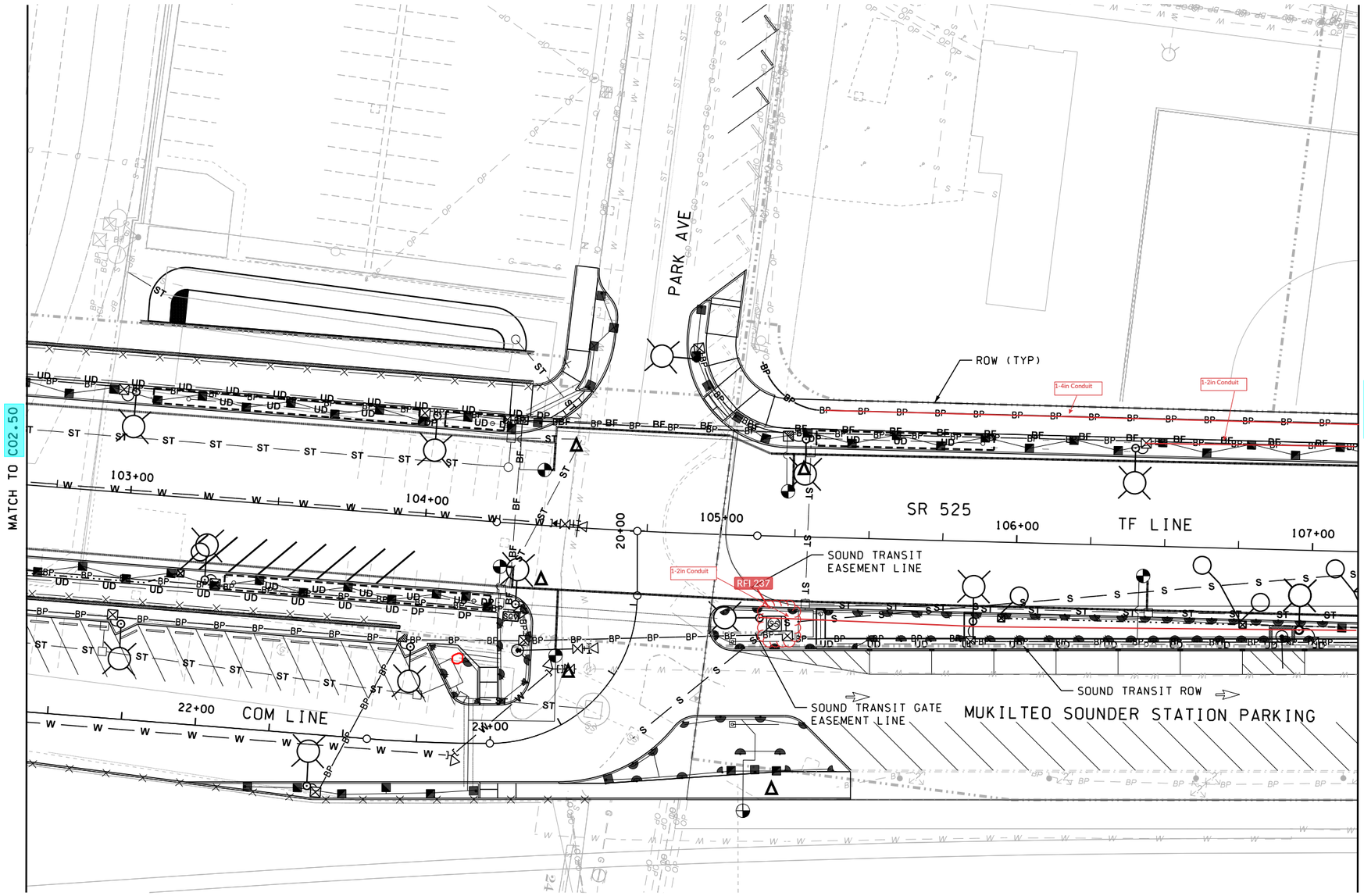

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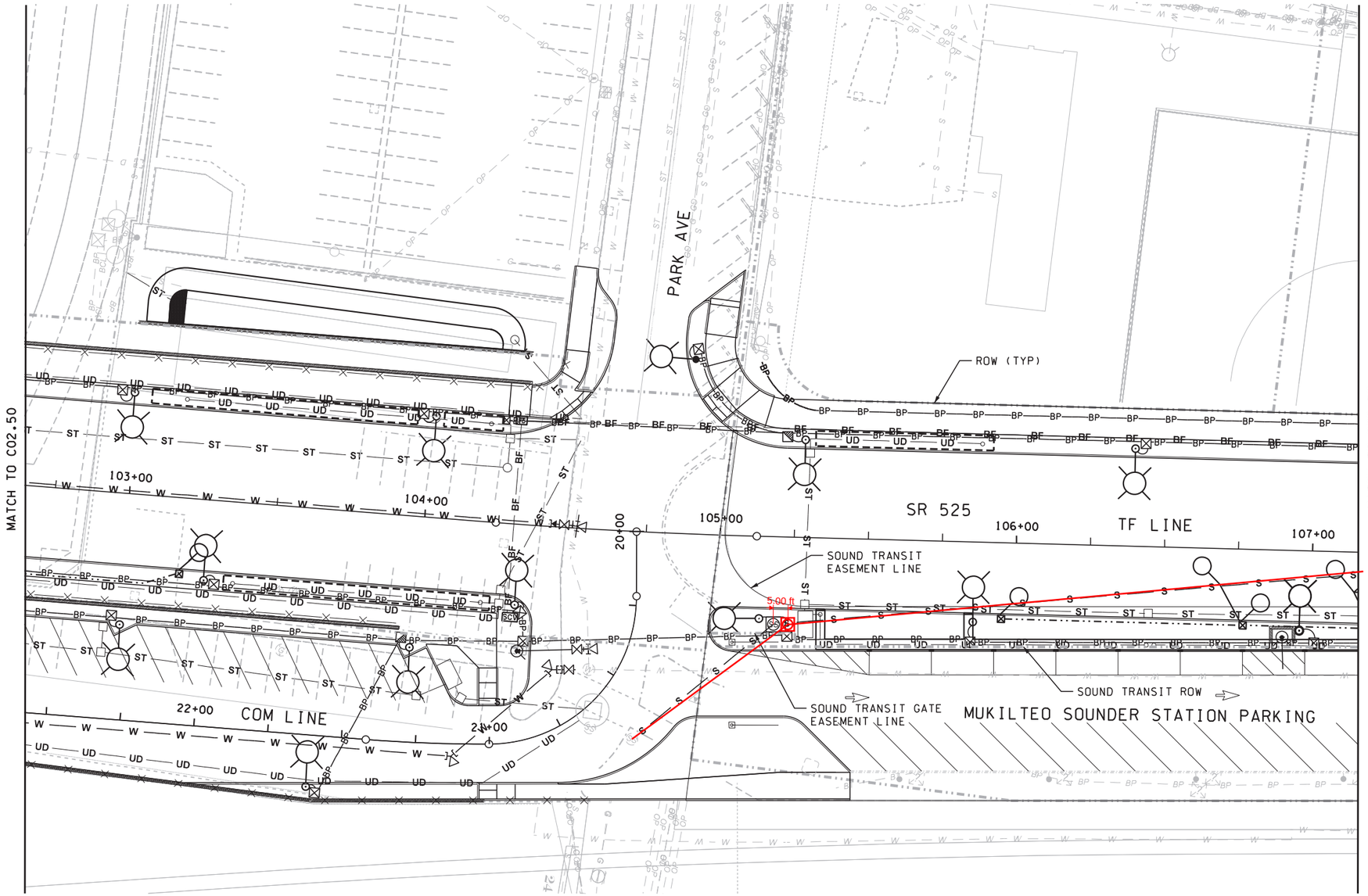

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RFI 0237 -
Please verify the duct bank is actually 10 feet wide and the proposed luminaire pole #14 and gate are able to be installed in the proposed locations (see attached sheet C02.51). Sanitary sewer manhole can be relocated 5 feet further east. However, it should not impact installation of Modular Wetland MWS-2; the location of the j-box, just south of the manhole, will need to be adjusted to accommodate the new manhole location; and the buried power line going from the j-box to Luminaire pole #14 will need to routed around the western side of the new manhole.
Also, the easement to MWWD including the legal description and map/exhibit will need to be updated to show the easement centered on the installed sewer pipe location (7.5' on either side of the sewer pipe) going through the Sound Transit property (see attached sheet C08.11).

RFI 237
7/23/19

FOR REFERENCE ONLY

KEY PLAN

0 20 40
SCALE 1" = 40'

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MAR PROJ ENGR: C. TORRES					
DIR TERM ENGR: N. MCINTOSH					
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	

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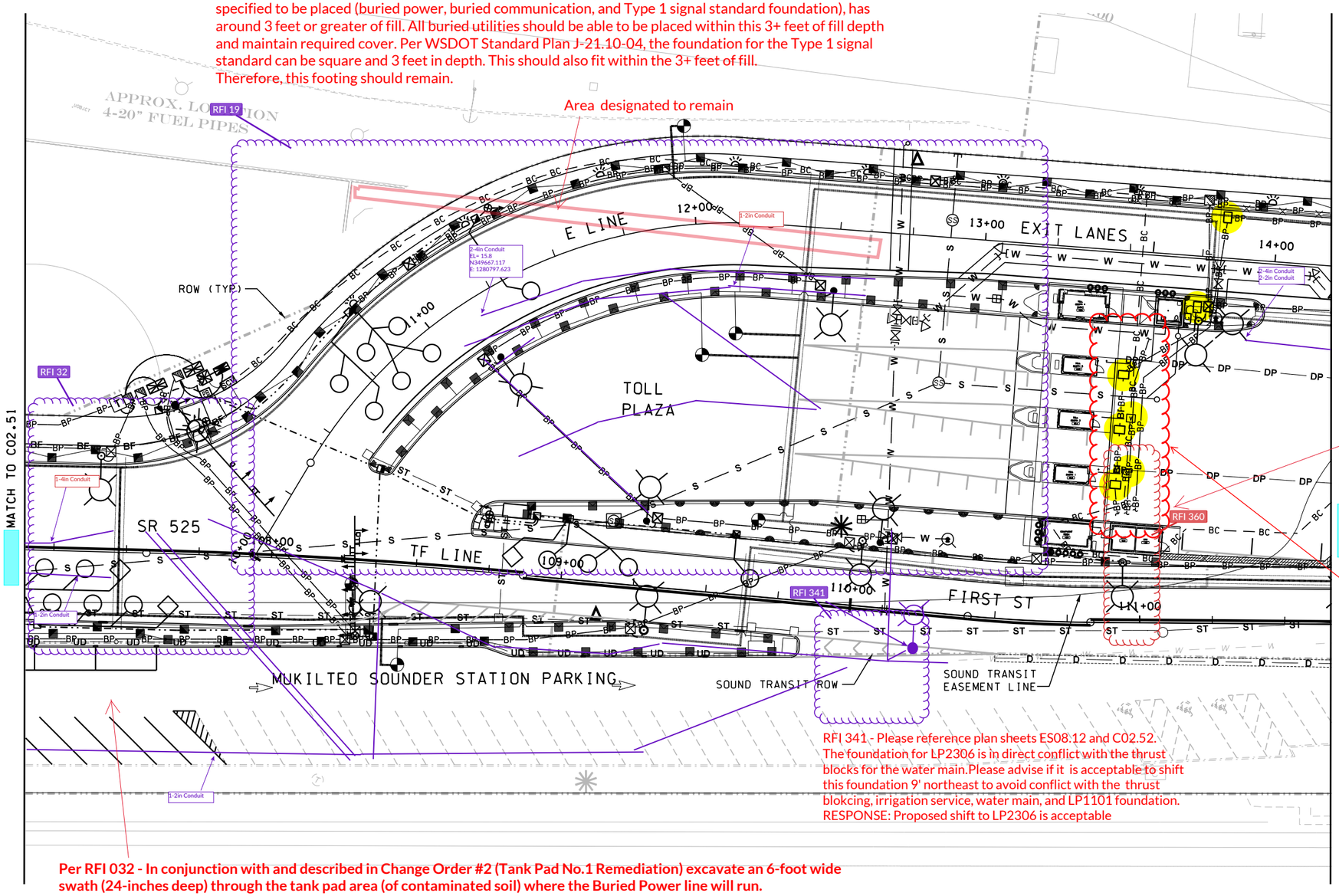
Per RFI 019 - The concrete slab and wall footing on the north side of Tank Pad #2 has been specified to remain to meet project commitments. In reviewing the plans, the wall footing and slab, in the areas where utilities are specified to be placed (buried power, buried communication, and Type 1 signal standard foundation), has around 3 feet or greater of fill. All buried utilities should be able to be placed within this 3+ feet of fill depth and maintain required cover. Per WSDOT Standard Plan J-21.10-04, the foundation for the Type 1 signal standard can be square and 3 feet in depth. This should also fit within the 3+ feet of fill. Therefore, this footing should remain.



RFI 341 - Please reference plan sheets ES08.12 and C02.52.
The foundation for LP2306 is in direct conflict with the thrust blocks for the water main.Please advise if it is acceptable to shift this foundation 9' northeast to avoid conflict with the thrust blokcing, irrigation service, water main, and LP1101 foundation.
RESPONSE: Proposed shift to LP2306 is acceptable

Per RFI 032 - In conjunction with and described in Change Order #2 (Tank Pad No.1 Remediation) excavate an 6-foot wide swath (24-inches deep) through the tank pad area (of contaminated soil) where the Buried Power line will run.
Backfill the trench area (and the removed contaminated soil) with CSBC.
At the location where the trench runs through the existing concrete collar - we request the collar be removed

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Per RFI 360 - It is acceptable to raise the liner per the response to RFI 259 as long as the full pervious pavement section can be constructed above the liner. This would include the 18" of sand and ideally 2" of fill material below the sand and above the liner

Vault cluster area, if bending up, need a detail for penetrating the liner with multiple conduits in a small area (non-typical penetration)

Valve can "humps"

Electrical Vault penetrations

***All buried utilities (water, power, and communications) shall be installed below liner. Minor penetrations through liner are acceptable.**

KEY PLAN

SCALE 1" = 40'

FOR REFERENCE ONLY

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ENTERED BY: D. PERRY	1/18/19				JOB NUMBER 18W121	
CHECKED BY: R. LUDWIG	1/18/19				CONTRACT NO. 009321	
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
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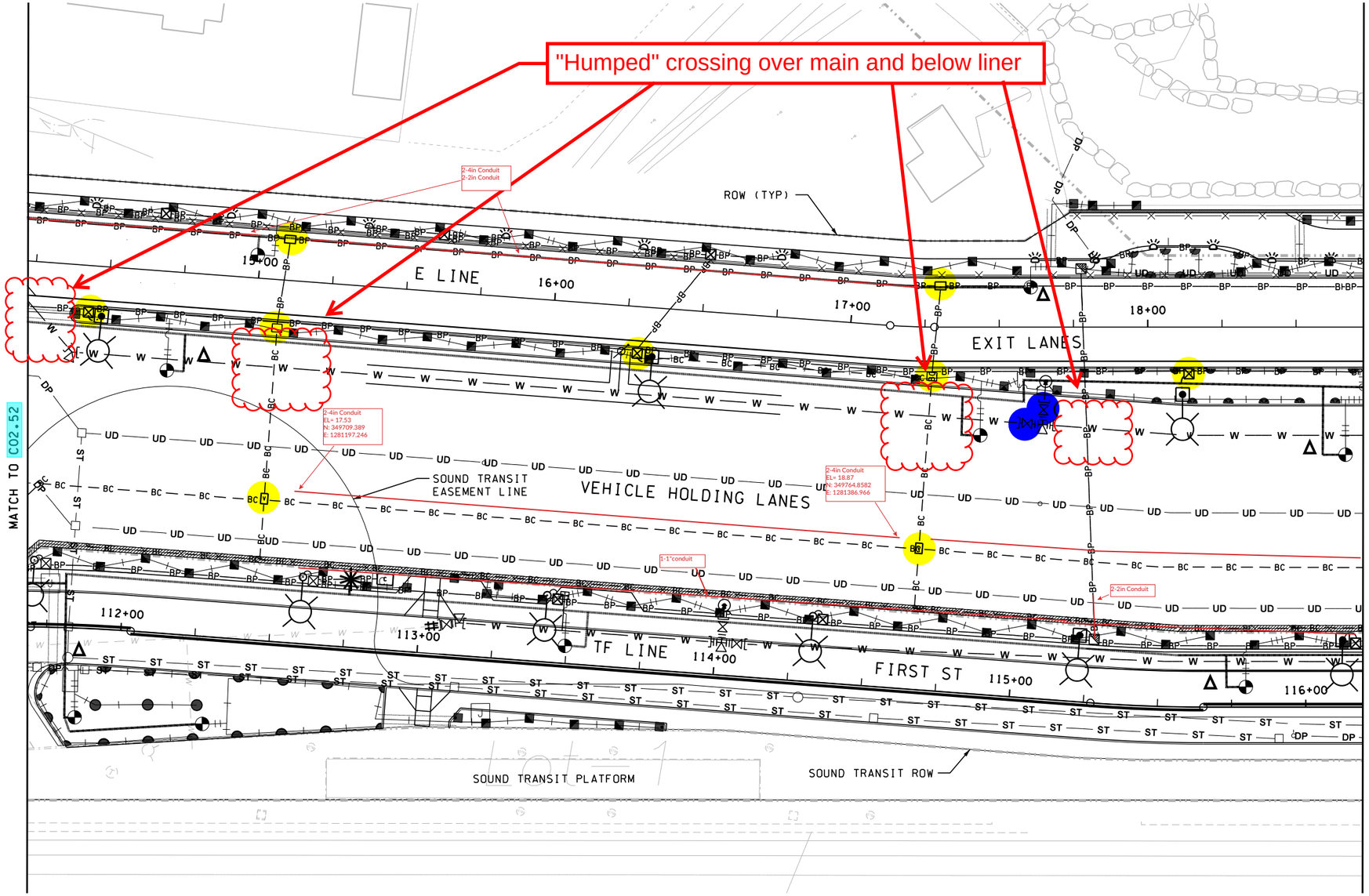

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Valve can "humps"

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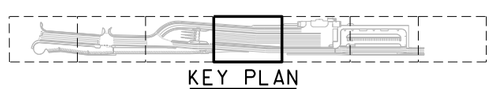

KEY PLAN

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SCALE 1" = 40'

FOR REFERENCE ONLY

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CHECKED BY: R. LUDWIG	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
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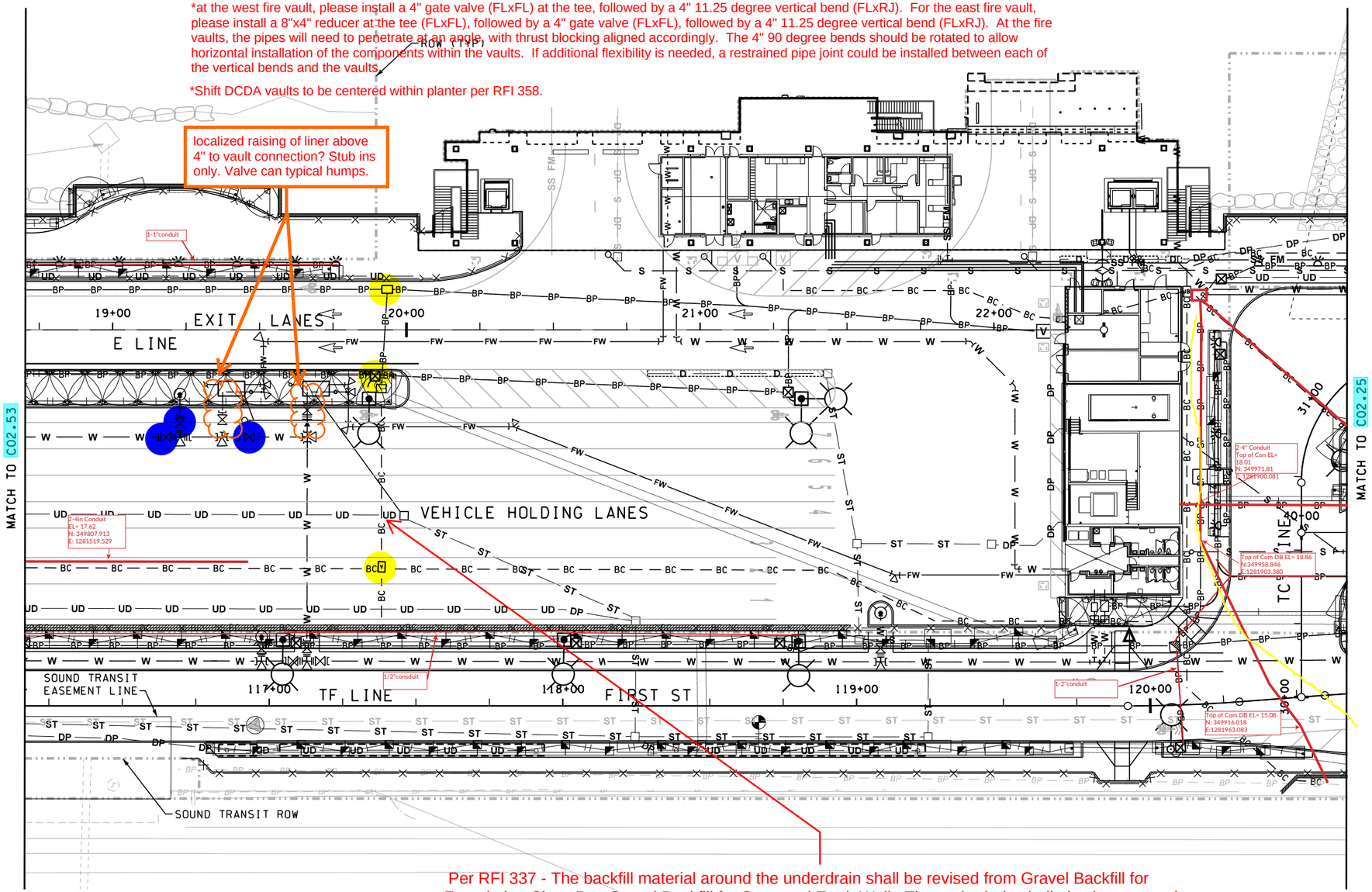
*at the west fire vault, please install a 4" gate valve (FLxFL) at the tee, followed by a 4" 11.25 degree vertical bend (FLxRJ). For the east fire vault, please install a 8"x4" reducer at the tee (FLxFL), followed by a 4" gate valve (FLxFL), followed by a 4" 11.25 degree vertical bend (FLxRJ). At the fire vaults, the pipes will need to penetrate at an angle, with thrust blocking aligned accordingly. The 4" 90 degree bends should be rotated to allow horizontal installation of the components within the vaults. If additional flexibility is needed, a restrained pipe joint could be installed between each of the vertical bends and the vaults.

*Shift DCDA vaults to be centered within planter per RFI 358.

localized raising of liner above 4" to vault connection? Stub ins only. Valve can typical humps.



Per RFI 337 - The backfill material around the underdrain shall be revised from Gravel Backfill for Foundation Class B to Gravel Backfill for Structural Earth Wall. The underdrain shall also be wrapped with Construction Geotextile for Underground Drainage (see following revised plan sheet C07.49). A second underdrain pipe shall be installed at the downstream tie-in structure (C07.13-7 and C07.14-1) and extend 15' and capped. The second pipe is a redundant system in the event the main pipe becomes plugged with sediment. The second pipe shall be set at the same elevations as the main underdrain pipe and shall also be wrapped with Construction Geotextile for Underground Drainage.

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● Valve can "humps"

● Electrical Vault penetrations

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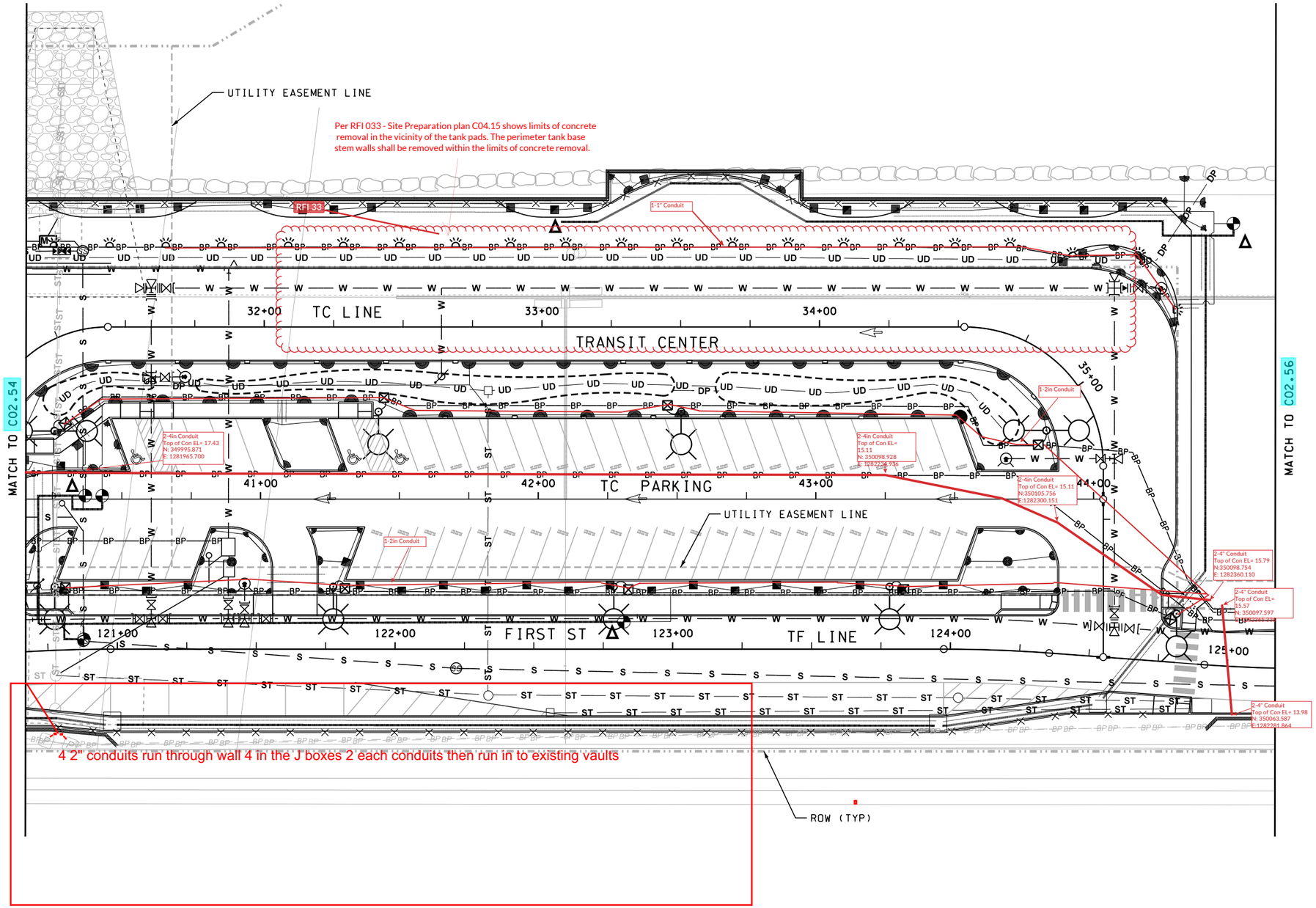

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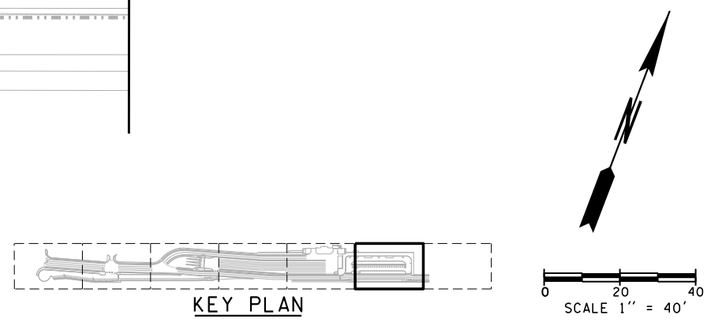

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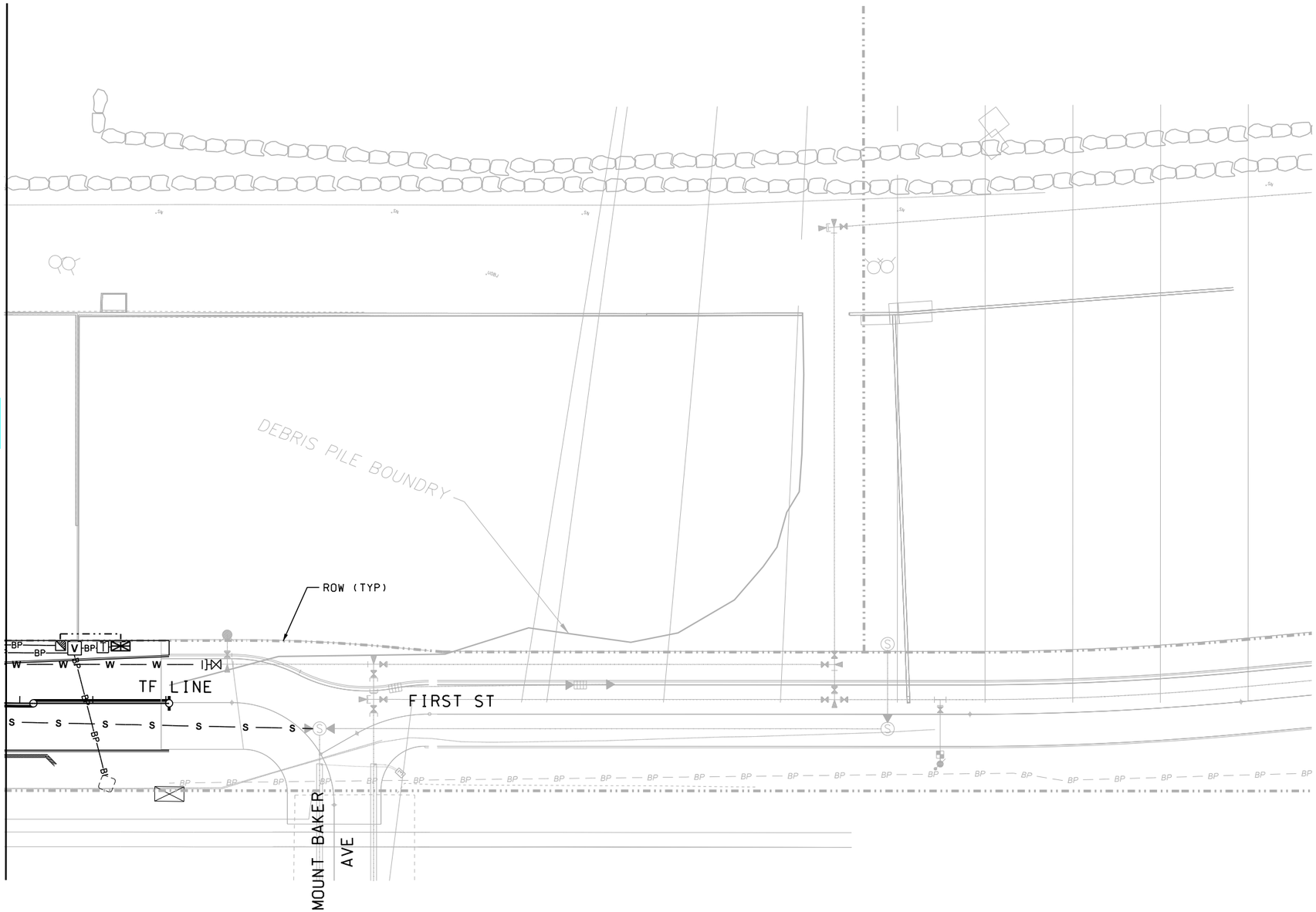
SHEET 73 OF 1521 SHEETS



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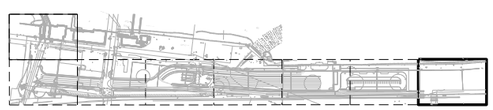

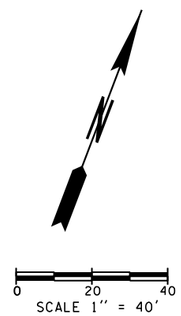

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SHEET 74 OF 1521 SHEETS

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. THE IMPLEMENTATION OF THESE TESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED. THE REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UPON APPROVED COMPLETION OF THE PROJECT.

2. THE BOUNDARIES OF THE LIMITS OF SITE PREPARATION SHOWN ON THESE PLANS SHALL BE CLEARLY DEMARCATED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FENCED CLEARING LIMITS SHALL BE PERMITTED. THE FENCING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

3. THE TESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS OR VIOLATE APPLICABLE WATER STANDARDS.

4. THE TESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS DURING THE WET SEASON. DURING THE CONSTRUCTION PERIOD, THESE ESC 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. THE TESC FACILITIES SHALL BE INSPECTED WEEKLY BY THE CONTRACTOR AND WITHIN 24 HOURS OF A RUNOFF EVENT IN WHICH STORMWATER DISCHARGES FROM THE SITE, AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE BMP FACILITIES DURING THE WET SEASON (OCT 1 TO APR 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT 30).

6. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH APPROVED BMP METHODS (E.G. SEEDING, MULCHING, PLASTIC COVERING, ETC.).

7. THE INSPECTION OF ESC FACILITIES ON INACTIVE SITES THAT HAVE BEEN PREVIOUSLY STABILIZED MAY BE REDUCED TO ONCE PER MONTH.

8. ANY AREA NEEDING BMP MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN TEN (10) DAYS.

9. AT NO TIME SHALL MORE THAN SIX (6) INCHES OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.

10. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

11. CONTRACTOR SHALL MAINTAIN BMP 150: MATERIALS ON HAND PER CHAPTER 4, VOLUME ii OF THE 2012 WSDOE SMMWW IN AN EASILY ACCESSIBLE AREA THROUGHOUT CONSTRUCTION.

12. STORMWATER SAMPLING LOCATIONS SHALL BE FIELD LOCATED BY CERTIFIED EROSION AND SEDIMENT CONTROL LEAD.

13. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT 1), ALL DISTURBED AREAS SHALL BE SEEDED AND/OR COVERED IN PREPARATION FOR THE WINTER RAINS.

14. LIMITS OF PERMEABLE PAVEMENT AND INFILTRATION FACILITIES AS SHOWN ON THE STORM DRAINAGE AND PAVEMENT PLANS SHALL BE CLEARLY DELINEATED IN THE FIELD. ANY CONSTRUCTION ACTIVITIES THAT INTRODUCE SEDIMENT OR MAY CAUSE ADDITIONAL COMPACTION OF NATIVE SOILS SUCH AS HEAVY EQUIPMENT TRAVEL, HAUL ROUTES, MATERIAL STOCKPILES, EQUIPMENT WASHING ACTIVITIES, ETC. SHALL BE PROHIBITED WITHIN THESE LIMITS.

STABILIZED CONSTRUCTION ENTRANCE

1. THE TEMPORARY CONSTRUCTION ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIALS. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHOULD BE CONSTRUCTED ACCORDING TO SPECIFICATIONS IN THE PLAN. IF WASH RACKS ARE USED, THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

2. IF CONDITIONS ON THE SITE ARE SUCH THAT MOST OF THE MUD IS NOT REMOVED FROM VEHICLE TIRES BY CONTACT WITH THE GRAVEL, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER ONTO A PUBLIC ROAD. WASH WATER MUST BE CARRIED AWAY FROM THE ENTRANCE TO A SETTLING AREA TO REMOVE SEDIMENT. A WASH RACK MAY ALSO BE USED TO MAKE WASHINGS MORE CONVENIENT AND EFFECTIVE.

3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2" STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO THE ROADWAY OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

MAINTENANCE OF SILTATION BARRIERS

1. SILTATION BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED WATTLES, END RUNS AND UNDERCUTTING BENEATH WATTLES. NECESSARY REPAIRS TO BARRIERS SHALL BE ACCOMPLISHED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. SEDIMENT DEPOSITS MUST BE REMOVED WHEN THE SEDIMENT LEVEL REACHES APPROXIMATELY ONE-HALF THE SILTATION BARRIER HEIGHT. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILTATION BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

CONSTRUCTION SEQUENCING FOR TESC

1. PRE-CONSTRUCTION MEETING.
2. FLAG OR FENCE FILL LIMITS.
3. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR.
4. INSTALL CATCH BASIN INLET PROTECTION.
5. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
7. CONSTRUCT SEDIMENT PONDS AND TRAPS.
8. GRADE AND STABILIZE CONSTRUCTION ROADS.
9. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTION DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE CITY OF MUKLITEO AND THE DEPARTMENT OF ECOLOGY STANDARDS, IN ADDITION TO THE MANUFACTURER'S RECOMMENDATIONS.
11. RELOCATE SURFACE WATER CONTROLS AND EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS IN ACCORDANCE WITH THE CITY OF MUKLITEO AND THE DEPARTMENT OF ECOLOGY EROSION CONTROL STANDARDS.
12. COVER ALL AREAS WITH TESC MEASURES THAT WILL REMAIN UNWORKED FOR MORE THAN SEVEN (7) DAYS DURING THE DRY SEASON OR TWO (2) DAYS DURING THE WET SEASON, IN ACCORDANCE WITH THE SPECIFICATIONS.
13. STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN (7) DAYS.
14. SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN THIRTY (30) DAYS.
15. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS SHALL BE STABILIZED AND BMP'S REMOVED IF APPROPRIATE AND IN ACCORDANCE WITH THE CITY OF MUKLITEO AND THE DEPARTMENT OF ECOLOGY EROSION CONTROL STANDARDS.

HYDROSEEDING

1. CONSTRUCTION ACCEPTANCE WILL BE SUBJECT TO A WELL ESTABLISHED GROUND COVER THAT FULFILLS THE REQUIREMENTS OF THE APPROVED CONSTRUCTION PLANS AND CITY OF MUKLITEO STANDARDS.
2. ALL AREAS TO BE SEEDED SHALL BE CULTIVATED TO THE SATISFACTION OF THE ENGINEER.
3. ALL HYDROSEEDING FIRMS SHALL HAVE A PRINTOUT OF THE APPLICATION RATE FOR EACH JOB READILY AVAILABLE FOR INSPECTION BY THE CITY INSPECTOR.
4. THE ENGINEER SHALL BE NOTIFIED OF POTENTIAL HYDROSEEDING PRIOR TO THE COMMENCEMENT OF SAID WORK, TO ENSURE COMPLIANCE WITH THESE SPECIFICATIONS.

CM DESIGN GROUP

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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TESC NOTES

C03.01

SHEET 75 OF 1521 SHEETS

TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) PLAN REQUIREMENTS	APPLICABLE BEST MANAGEMENT PRACTICES (BMP'S) - AS REQUIRED
ELEMENT #1: DELINEATE CLEARING AND GRADING LIMITS	PRESERVE NATURAL VEGETATION; BUFFER ZONES; HIGH VISIBILITY FENCE; STAKE AND WIRE FENCE
ELEMENT #2: ESTABLISH CONSTRUCTION ACCESS	STABILIZED CONSTRUCTION ENTRANCE; WHEEL WASH; CONSTRUCTION ROAD/PARKING AREA STABILIZATION
ELEMENT #3: CONTROL FLOW RATES	SEDIMENT TRAP; CHECK DAMS; INTERCEPTOR DIKE & SWALE
ELEMENT #4: INSTALL SEDIMENT CONTROLS	GRAVEL FILTER BERM; COMPOST BERM; SILT FENCE; VEGETATED STRIP; COMPOST WATTLES; SEDIMENT TRAP
ELEMENT #5: STABILIZE SOILS	TEMPORARY & PERMANENT SEEDING; STRAW AND WOOD CHIP MULCHING; EROSION CONTROL BLANKETS; MATTING AND NETS
ELEMENT #6: PROTECT SLOPES	TEMPORARY & PERMANENT SEEDING; PRESERVE VEGETATION; PHASED GRADING; SURFACE ROUGHENING; EROSION CONTROL BLANKETS; MATTING & NETS; PLASTIC COVERING; INTERCEPTOR DIKE & SWALE; GRASS LINED CHANNELS; SUBSURFACE DRAINS; CHECK DAMS; TRIANGULAR SILT DIKE
ELEMENT #7: PROTECT DRAIN INLETS	STORM DRAIN INLET PROTECTION; INTERCEPTOR DIKE & SWALE
ELEMENT #8: STABILIZE CHANNELS AND OUTLETS	CHANNEL LINING; OUTLET PROTECTION; EROSION CONTROL BLANKETS; MATTING & NETS; SODDING AND/OR PERMANENT SEEDING
ELEMENT #9: CONTROL POLLUTANTS	CONCRETE HANDLING; SAWCUTTING AND SURFACE POLLUTION PREVENTION; FUGITIVE DUST CONTROL
ELEMENT #10: CONTROL DEWATERING	SEDIMENT TRAP; SEDIMENT BAG; SANITARY SEWER DISCHARGE W/ MWWD APPROVAL; TRANSPORT OFF SITE; VEGETATED FILTER STRIP; INFILTRATION; CONTROLLED DISCHARGE
ELEMENT #11: MAINTAIN BMP'S	INSPECT, REPAIR AND MAINTAIN AS NEEDED TO KEEP IN GOOD WORKING ORDER THROUGHOUT CONSTRUCTION. REPLACE AS NEEDED OR AS DIRECTED BY THE ENGINEER. MAINTENANCE RECORDS SHALL BE KEPT BY THE CONTRACTOR PER PROJECT SPECIFICATIONS
ELEMENT #12: MANAGE THE PROJECT	PHASE CONSTRUCTION; SEASONAL WORK LIMITATIONS; COORDINATION WITH UTILITIES AND OTHER CONTRACTORS; INSPECTION AND MONITORING
ELEMENT #13: PROTECT LOW IMPACT DEVELOPMENT BMP'S	SILT FENCE; VEGETATED STRIP; COMPOST WATTLES; PHASED GRADING; EROSION CONTROL BLANKETS, MATTING & NETS

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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	CONTRACT NO. 00****

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

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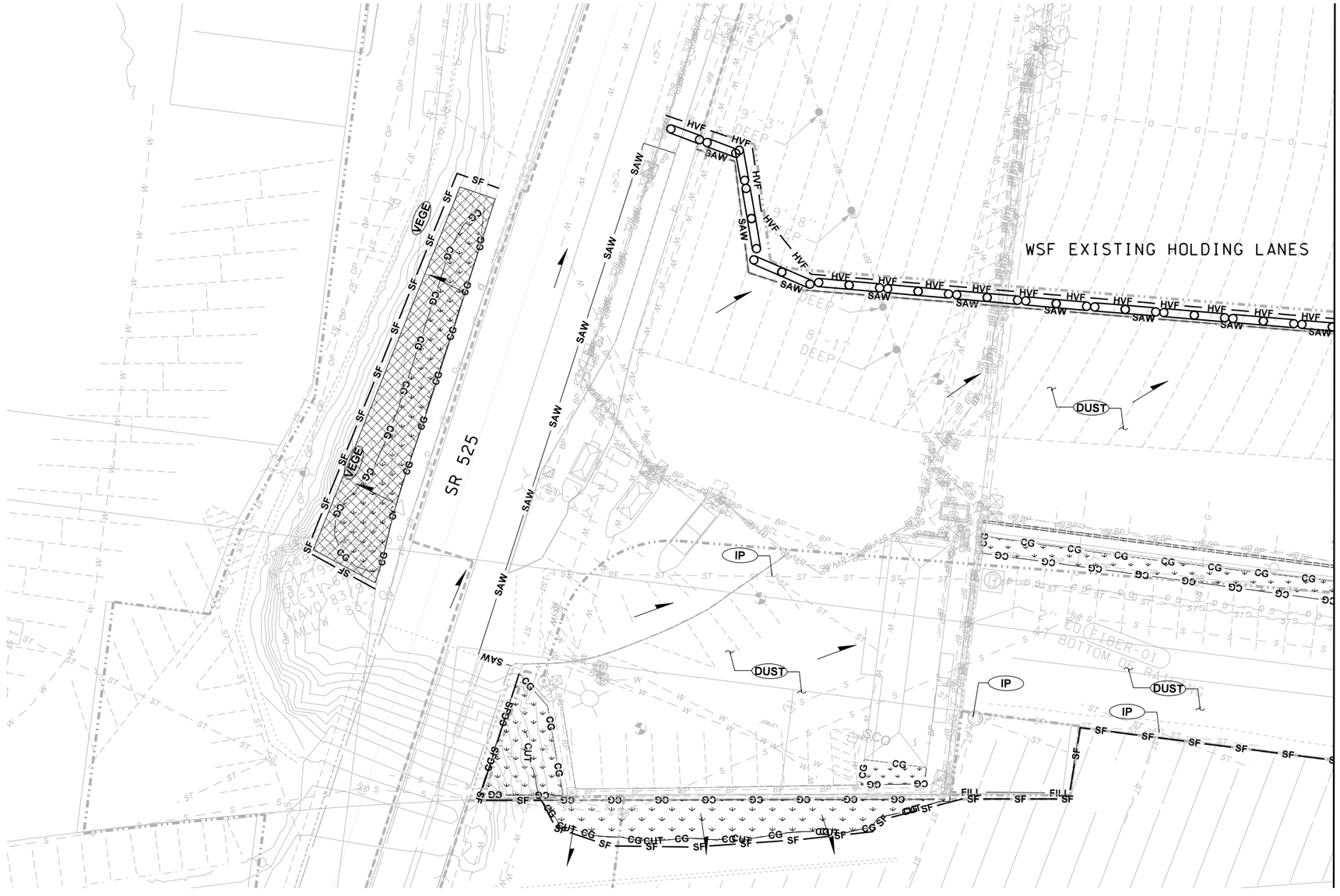
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TESC NOTES

C03.02

SHEET 76 OF 1521 SHEETS



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6. SEE PLANTING PLANS FOR AREAS OF PERMANENT SOIL STABILIZATION AND SPECIFIC SURFACE TREATMENTS.
7. CONTRACTOR TO PROVIDE EROSION CONTROL DETAILS ALONG SOUND TRANSIT PLATFORM.

TESC LEGEND

- VEGE — BMP C101: PRESERVING NATURAL VEGETATION
- HVF — HVF — BMP C103: HIGH VISIBILITY FENCE PER STD PLAN I-10.10-01
- ENTR — BMP C105: STABILIZED CONSTRUCTION ENTRANCE/EXIT PER STD PLAN I-80.10-01, MIN. 100' IN LENGTH
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- SAW — SAW CUT LINE
- EXISTING SLOPE DIRECTION
- FILL — PROPOSED FILL LIMITS
- CUT — PROPOSED CUT LIMITS
- CG — CG — PROPOSED CLEARING AND GRUBBING LIMITS

CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

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CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

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SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TESC PLAN

C03.10

SHEET 77 OF 1521 SHEETS

NOTES:

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0 20 40
SCALE 1" = 40'

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CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

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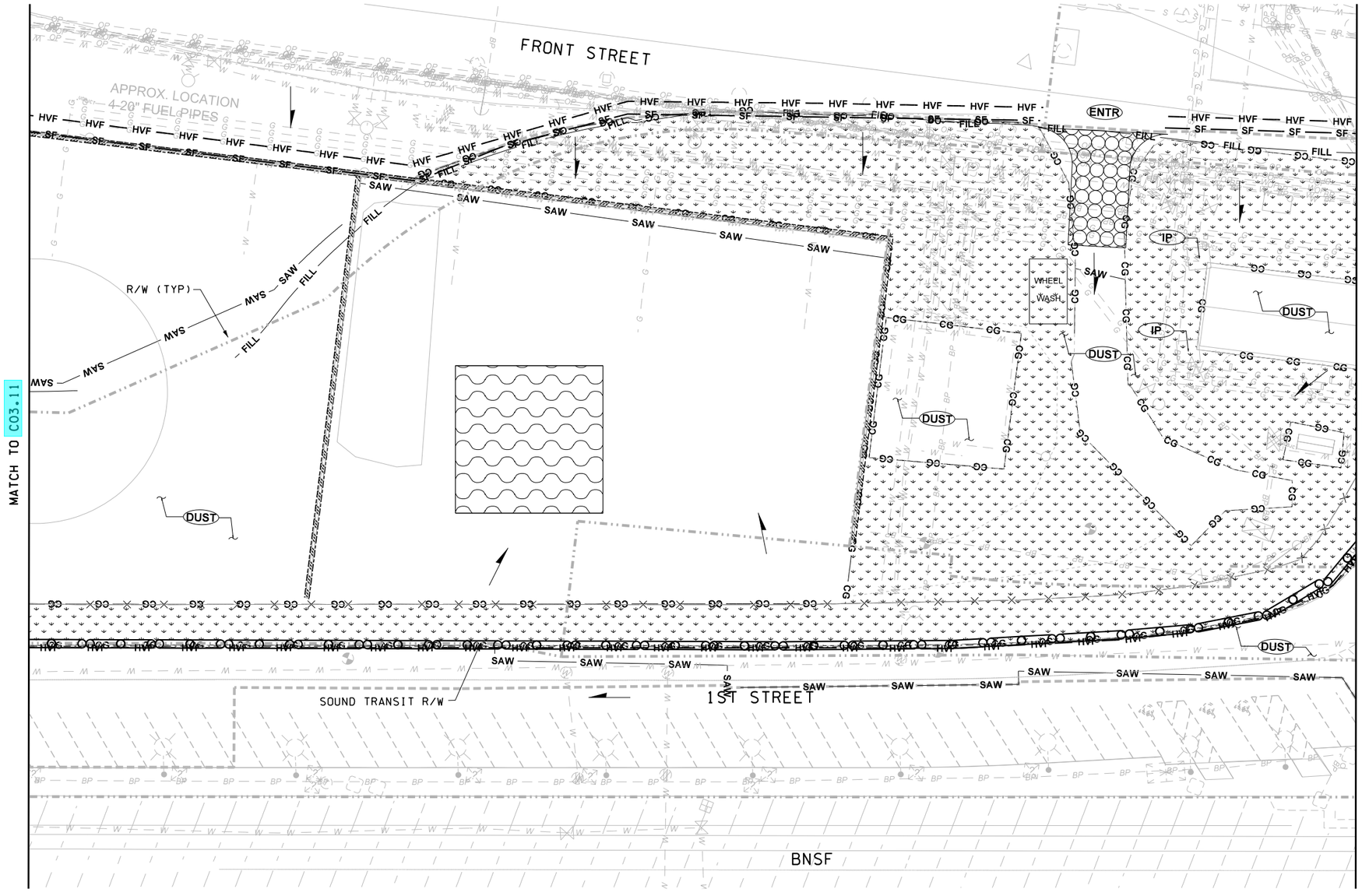
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TESC PLAN

C03.11

SHEET 78 OF 1521 SHEETS



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CM DESIGN GROUP

KEY PLAN

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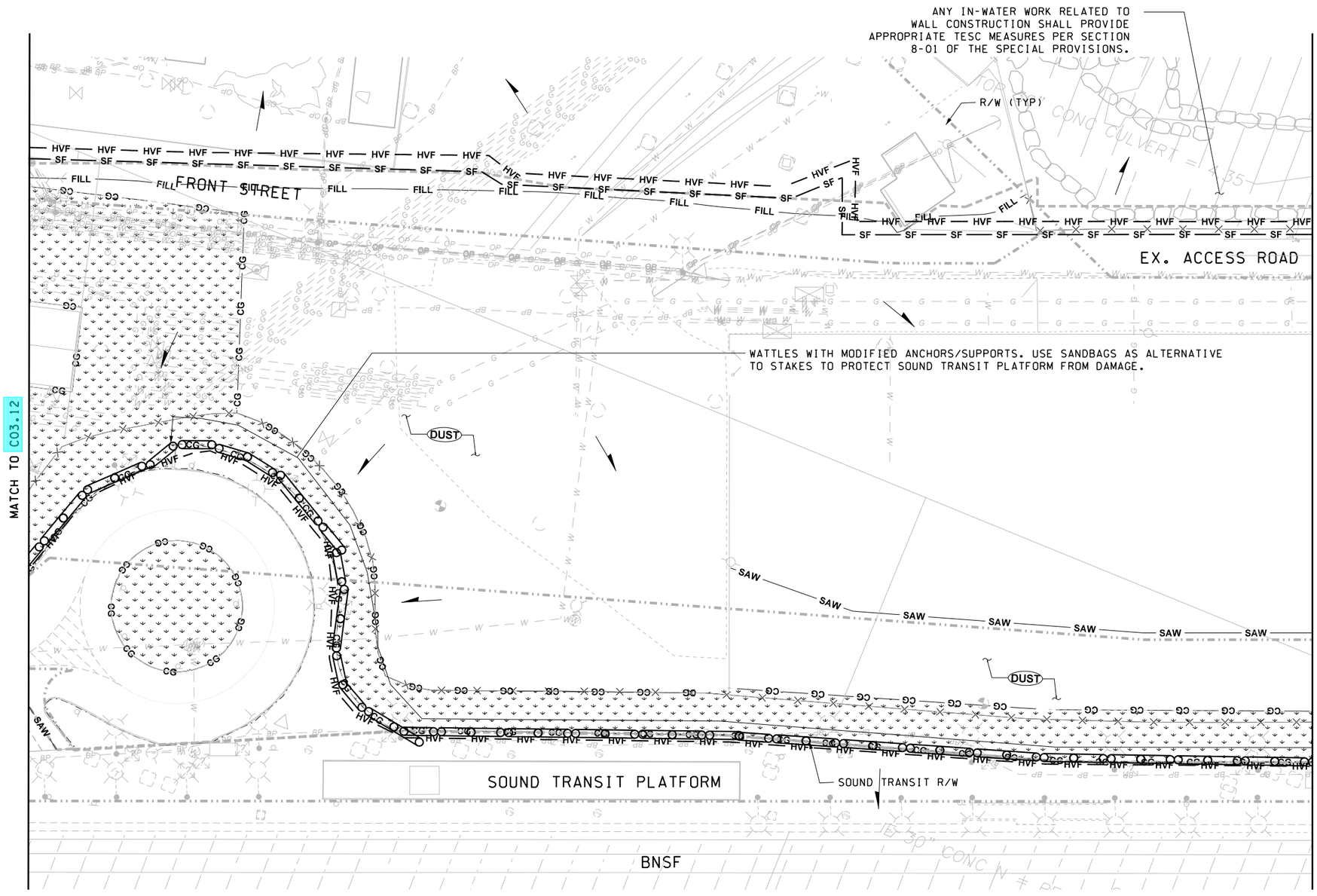
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TESC PLAN

C03.12

SHEET 79 OF 1521 SHEETS



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2. CONSTRUCTION ESC BMP NUMBERS CORRESPOND TO THE SOURCE CONTROL BMP'S LISTED IN CHAPTER 4 OF VOLUME II OF THE 2012 WSDOE SMMWW AND SHALL BE INSTALLED, MAINTAINED AND REMOVED IN ACCORDANCE WITH SAID MANUAL.
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4. STRAW WATTLES ARE TO BE INSTALLED IN THE AREAS SHOWN IMMEDIATELY AFTER THE SAWCUTTING AND REMOVAL OF EXISTING PAVEMENT AND/OR CONCRETE.
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6. SEE PLANTING PLANS FOR AREAS OF PERMANENT SOIL STABILIZATION AND SPECIFIC SURFACE TREATMENTS.
7. CONTRACTOR TO PROVIDE EROSION CONTROL DETAILS ALONG SOUND TRANSIT PLATFORM.

TESC LEGEND

- VEGE — BMP C101: PRESERVING NATURAL VEGETATION
- HVF — BMP C103: HIGH VISIBILITY FENCE PER STD PLAN I-10.10-01
- ENTR — BMP C105: STABILIZED CONSTRUCTION ENTRANCE/EXIT PER STD PLAN I-80.10-01, MIN. 100' IN LENGTH
- BMP C123: PLASTIC COVERING
- DUST — BMP C140: DUST CONTROL
- IP — BMP C220: STORM DRAIN INLET PROTECTION PER STD PLAN I-40.20-00
- SF — BMP C233: SILT FENCE PER STD PLAN I-30.15-02
- BMP C235: WATTLES PER STD PLAN I-30.30-01
- BMP C241: TEMPORARY SEDIMENT TRAP PER STD PLAN I-80.10-01
- AREA RESERVED FOR BAKER TANK STORAGE TO BE USED FOR DEWATERING AS NECESSARY.
- SAW — SAW CUT LINE
- EXISTING SLOPE DIRECTION
- FILL — PROPOSED FILL LIMITS
- CUT — PROPOSED CUT LIMITS
- CG — PROPOSED CLEARING AND GRUBBING LIMITS

CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

FILE NAME: WSF\Mukilteo\CADD\WORKING\CM-DESIGN\14w121_c03_13.dlv						
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SUBMITTAL DATE: 1/18/2019	chester					WA-2017-007-00
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ENTERED BY: R. NAIDU	1/18/2019					
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						CONTRACT NO. 00****
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

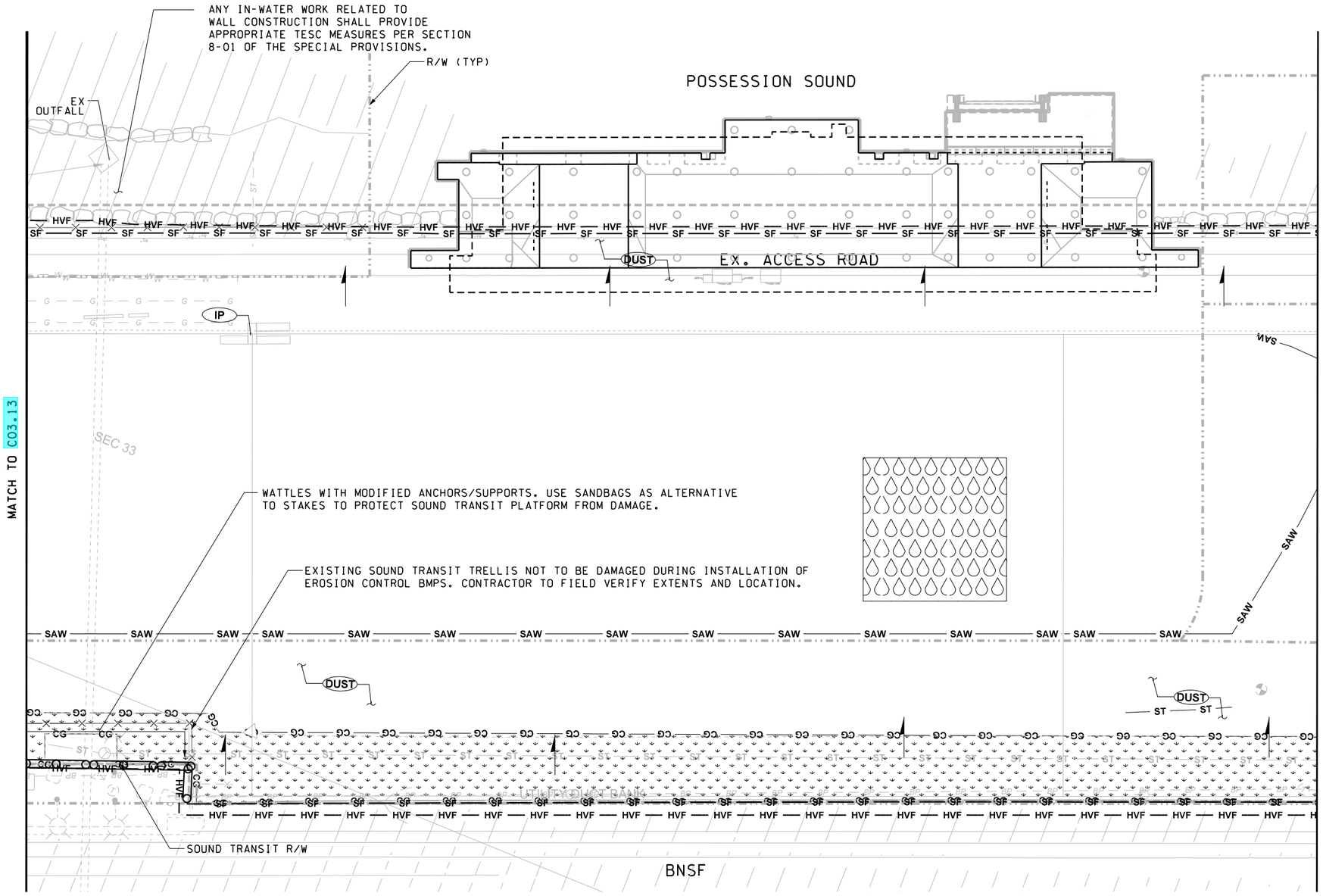
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TESC PLAN

C03.13

SHEET 80 OF 1521 SHEETS



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CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

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DESIGNED BY: R. NAIDU	1/18/2019					REGION NO. STATE
ENTERED BY: C. BENNETT	1/18/2019					10 WASH
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

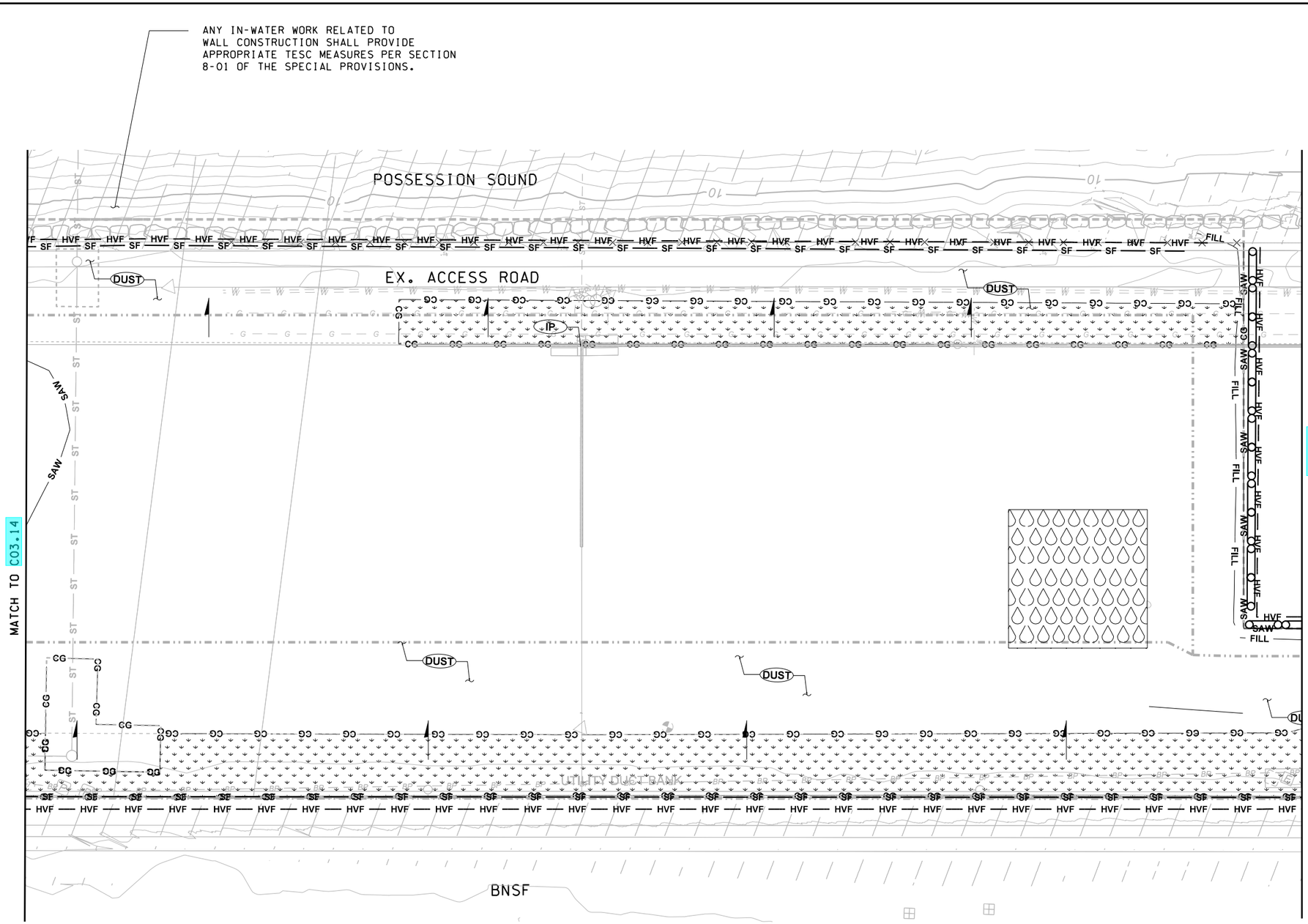
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TESC PLAN

C03.14

SHEET 81 OF 1521 SHEETS



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CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

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ENTERED BY: C. BENNETT	1/18/2019					REGION NO. STATE
CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		18W121
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO.
						00****

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

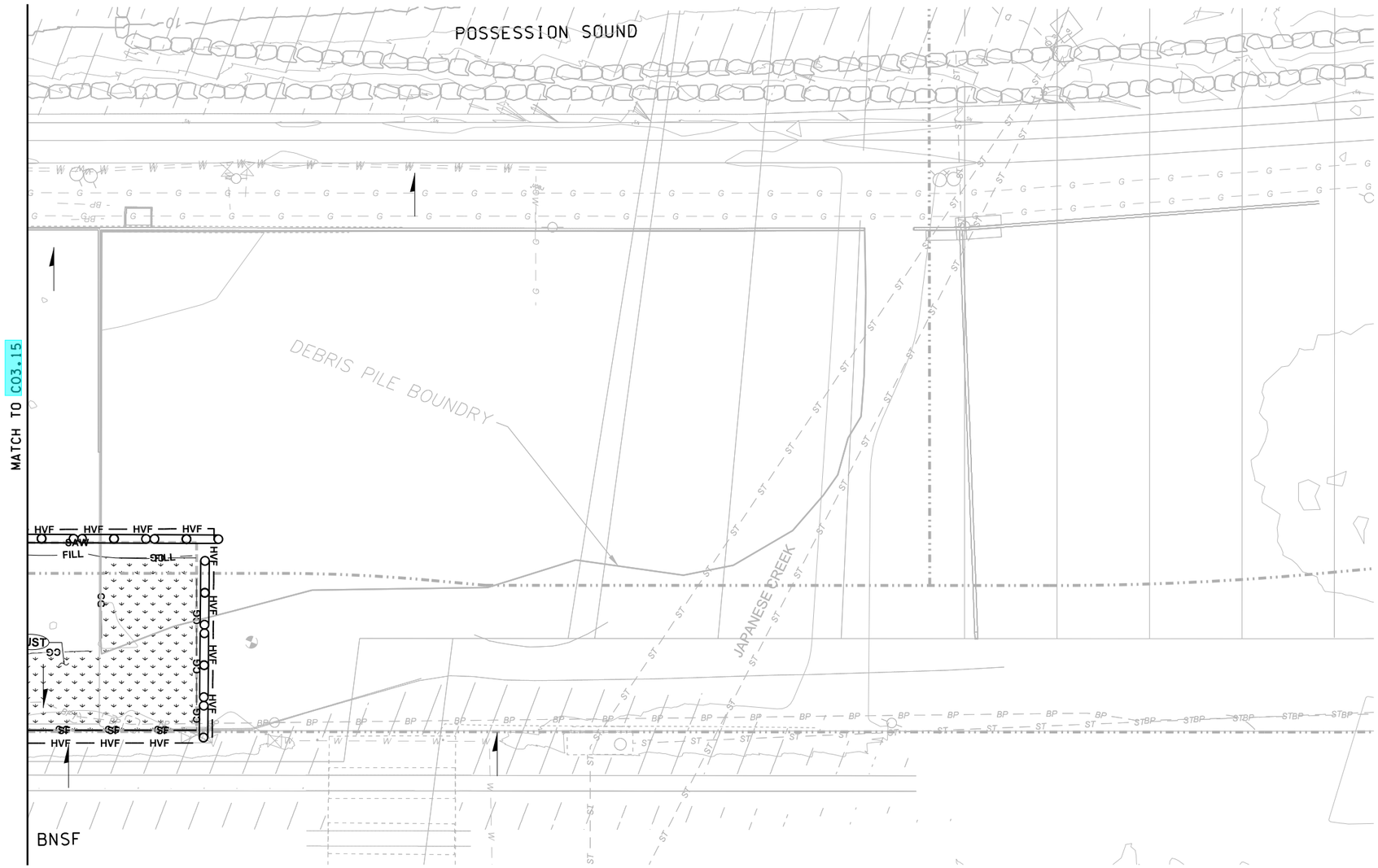
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TESC PLAN

C03.15

SHEET 82 OF 1521 SHEETS



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CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

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CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		18W121
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO. 00****

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

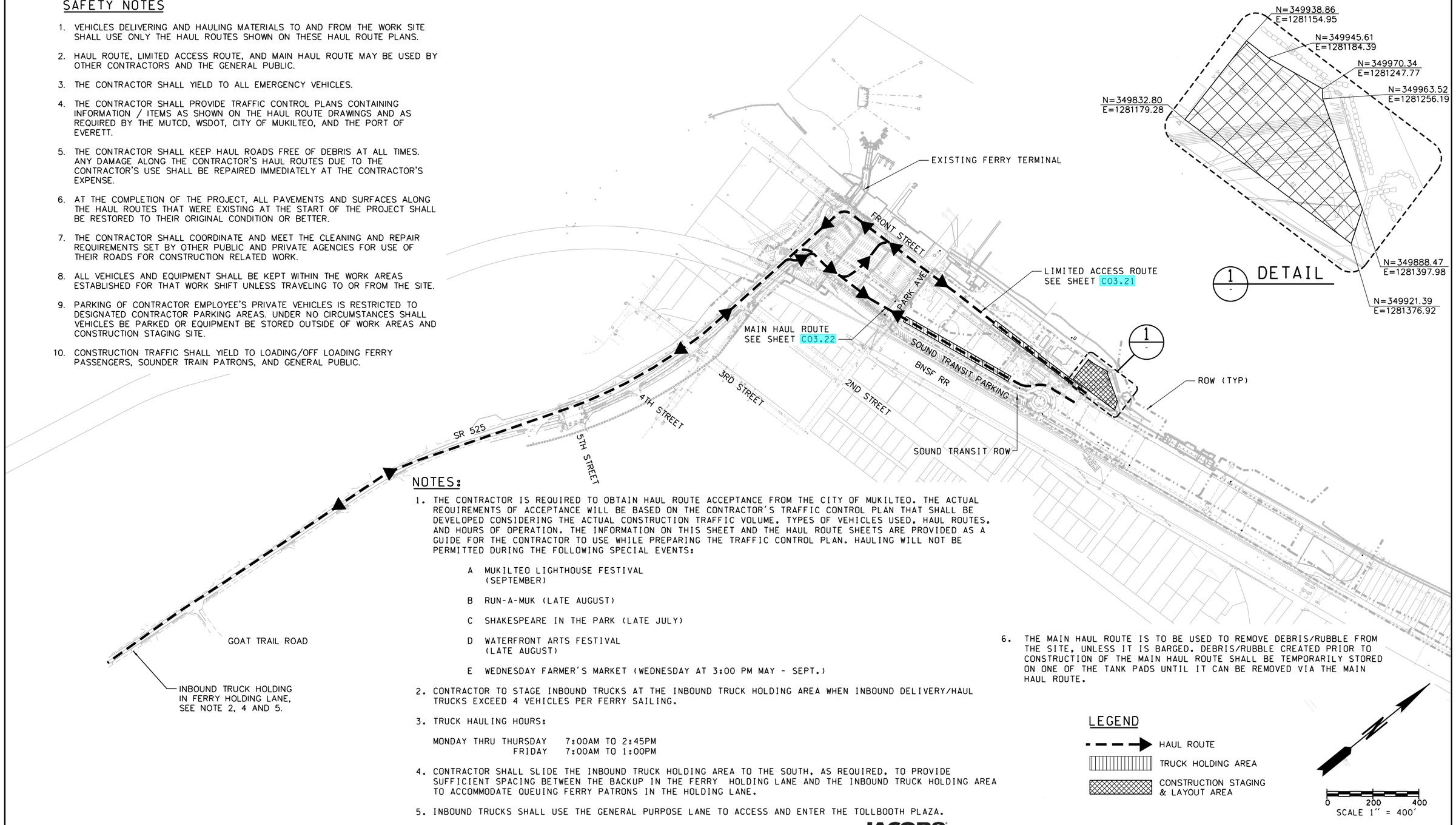
TESC PLAN

C03.16

SHEET 83 OF 1521 SHEETS

SAFETY NOTES

1. VEHICLES DELIVERING AND HAULING MATERIALS TO AND FROM THE WORK SITE SHALL USE ONLY THE HAUL ROUTES SHOWN ON THESE HAUL ROUTE PLANS.
2. HAUL ROUTE, LIMITED ACCESS ROUTE, AND MAIN HAUL ROUTE MAY BE USED BY OTHER CONTRACTORS AND THE GENERAL PUBLIC.
3. THE CONTRACTOR SHALL YIELD TO ALL EMERGENCY VEHICLES.
4. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS CONTAINING INFORMATION / ITEMS AS SHOWN ON THE HAUL ROUTE DRAWINGS AND AS REQUIRED BY THE MUTCD, WSDOT, CITY OF MUKILTEO, AND THE PORT OF EVERETT.
5. THE CONTRACTOR SHALL KEEP HAUL ROADS FREE OF DEBRIS AT ALL TIMES. ANY DAMAGE ALONG THE CONTRACTOR'S HAUL ROUTES DUE TO THE CONTRACTOR'S USE SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
6. AT THE COMPLETION OF THE PROJECT, ALL PAVEMENTS AND SURFACES ALONG THE HAUL ROUTES THAT WERE EXISTING AT THE START OF THE PROJECT SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER.
7. THE CONTRACTOR SHALL COORDINATE AND MEET THE CLEANING AND REPAIR REQUIREMENTS SET BY OTHER PUBLIC AND PRIVATE AGENCIES FOR USE OF THEIR ROADS FOR CONSTRUCTION RELATED WORK.
8. ALL VEHICLES AND EQUIPMENT SHALL BE KEPT WITHIN THE WORK AREAS ESTABLISHED FOR THAT WORK SHIFT UNLESS TRAVELING TO OR FROM THE SITE.
9. PARKING OF CONTRACTOR EMPLOYEE'S PRIVATE VEHICLES IS RESTRICTED TO DESIGNATED CONTRACTOR PARKING AREAS. UNDER NO CIRCUMSTANCES SHALL VEHICLES BE PARKED OR EQUIPMENT BE STORED OUTSIDE OF WORK AREAS AND CONSTRUCTION STAGING SITE.
10. CONSTRUCTION TRAFFIC SHALL YIELD TO LOADING/OFF LOADING FERRY PASSENGERS, SOUNDER TRAIN PATRONS, AND GENERAL PUBLIC.



NOTES:

1. THE CONTRACTOR IS REQUIRED TO OBTAIN HAUL ROUTE ACCEPTANCE FROM THE CITY OF MUKILTEO. THE ACTUAL REQUIREMENTS OF ACCEPTANCE WILL BE BASED ON THE CONTRACTOR'S TRAFFIC CONTROL PLAN THAT SHALL BE DEVELOPED CONSIDERING THE ACTUAL CONSTRUCTION TRAFFIC VOLUME, TYPES OF VEHICLES USED, HAUL ROUTES, AND HOURS OF OPERATION. THE INFORMATION ON THIS SHEET AND THE HAUL ROUTE SHEETS ARE PROVIDED AS A GUIDE FOR THE CONTRACTOR TO USE WHILE PREPARING THE TRAFFIC CONTROL PLAN. HAULING WILL NOT BE PERMITTED DURING THE FOLLOWING SPECIAL EVENTS:

   A MUKILTEO LIGHTHOUSE FESTIVAL (SEPTEMBER)

   B RUN-A-MUK (LATE AUGUST)

   C SHAKESPEARE IN THE PARK (LATE JULY)

   D WATERFRONT ARTS FESTIVAL (LATE AUGUST)

   E WEDNESDAY FARMER'S MARKET (WEDNESDAY AT 3:00 PM MAY - SEPT.)

2. CONTRACTOR TO STAGE INBOUND TRUCKS AT THE INBOUND TRUCK HOLDING AREA WHEN INBOUND DELIVERY/HAUL TRUCKS EXCEED 4 VEHICLES PER FERRY SAILING.
3. TRUCK HAULING HOURS:

   MONDAY THRU THURSDAY 7:00AM TO 2:45PM
   FRIDAY 7:00AM TO 1:00PM

4. CONTRACTOR SHALL SLIDE THE INBOUND TRUCK HOLDING AREA TO THE SOUTH, AS REQUIRED, TO PROVIDE SUFFICIENT SPACING BETWEEN THE BACKUP IN THE FERRY HOLDING LANE AND THE INBOUND TRUCK HOLDING AREA TO ACCOMMODATE QUEUING FERRY PATRONS IN THE HOLDING LANE.
5. INBOUND TRUCKS SHALL USE THE GENERAL PURPOSE LANE TO ACCESS AND ENTER THE TOLLBOOTH PLAZA.
6. THE MAIN HAUL ROUTE IS TO BE USED TO REMOVE DEBRIS/RUBBLE FROM THE SITE, UNLESS IT IS BARGED. DEBRIS/RUBBLE CREATED PRIOR TO CONSTRUCTION OF THE MAIN HAUL ROUTE SHALL BE TEMPORARILY STORED ON ONE OF THE TANK PADS UNTIL IT CAN BE REMOVED VIA THE MAIN HAUL ROUTE.

LEGEND

- HAUL ROUTE
- TRUCK HOLDING AREA
- CONSTRUCTION STAGING & LAYOUT AREA

0 200 400
SCALE 1" = 400'

JACOBS

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ENTERED BY: D. PERRY	1/18/19					10 WASH
CHECKED BY: K. THOMAS	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ROBERT C. LUDWIG STATE OF WASHINGTON 19847 REGISTERED PROFESSIONAL ENGINEER
2019/01/18

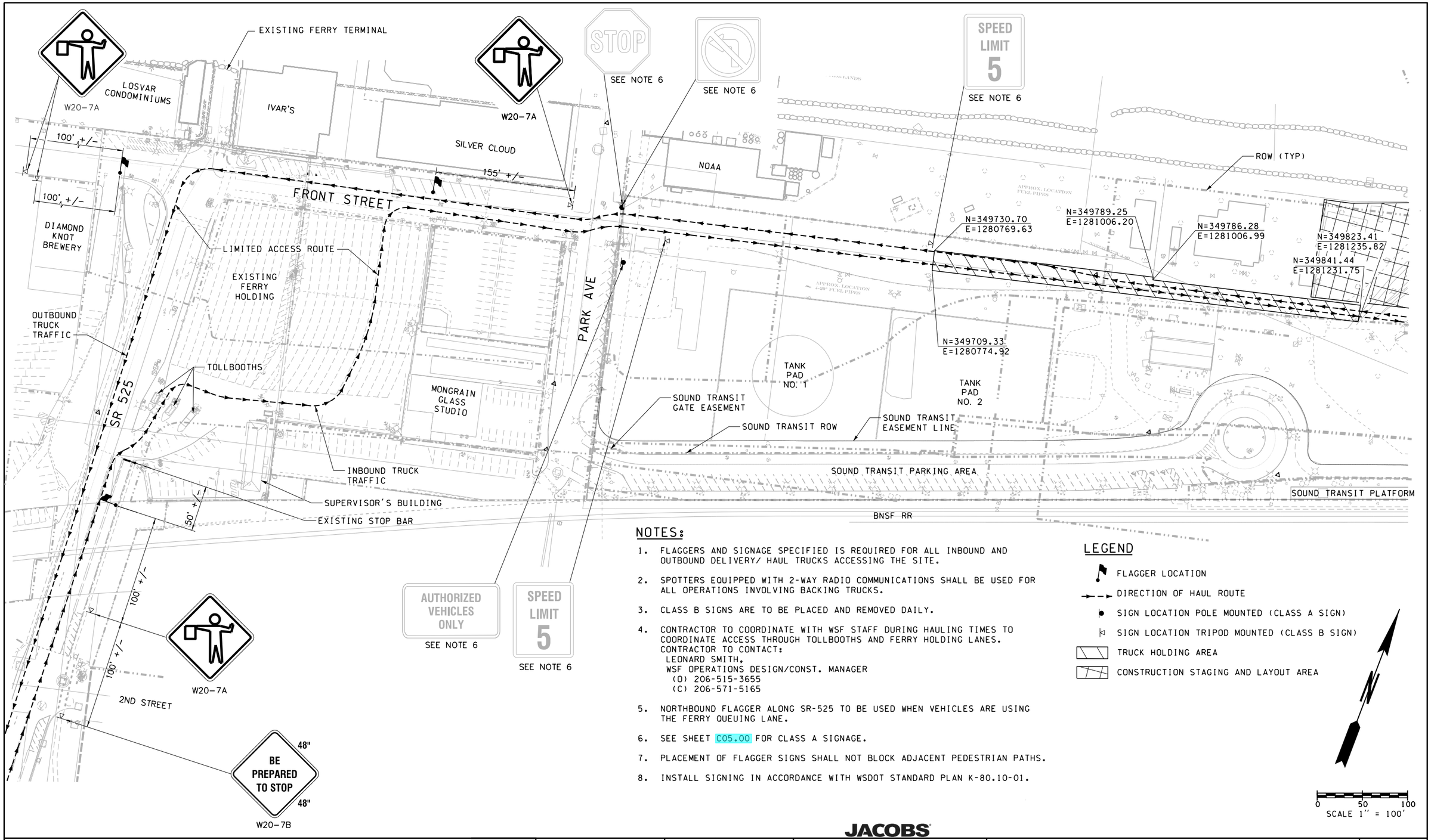
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

HAUL ROUTE

C03.20

SHEET 84 OF 1521 SHEETS



NOTES:

1. FLAGGERS AND SIGNAGE SPECIFIED IS REQUIRED FOR ALL INBOUND AND OUTBOUND DELIVERY/ HAUL TRUCKS ACCESSING THE SITE.
2. SPOTTERS EQUIPPED WITH 2-WAY RADIO COMMUNICATIONS SHALL BE USED FOR ALL OPERATIONS INVOLVING BACKING TRUCKS.
3. CLASS B SIGNS ARE TO BE PLACED AND REMOVED DAILY.
4. CONTRACTOR TO COORDINATE WITH WSF STAFF DURING HAULING TIMES TO COORDINATE ACCESS THROUGH TOLLBOOTHS AND FERRY HOLDING LANES.
   CONTRACTOR TO CONTACT:
   LEONARD SMITH,
   WSF OPERATIONS DESIGN/CONST. MANAGER
   (O) 206-515-3655
   (C) 206-571-5165
5. NORTHBOUND FLAGGER ALONG SR-525 TO BE USED WHEN VEHICLES ARE USING THE FERRY QUEUING LANE.
6. SEE SHEET C05.00 FOR CLASS A SIGNAGE.
7. PLACEMENT OF FLAGGER SIGNS SHALL NOT BLOCK ADJACENT PEDESTRIAN PATHS.
8. INSTALL SIGNING IN ACCORDANCE WITH WSDOT STANDARD PLAN K-80.10-01.

LEGEND

- FLAGGER LOCATION
- DIRECTION OF HAUL ROUTE
- SIGN LOCATION POLE MOUNTED (CLASS A SIGN)
- SIGN LOCATION TRIPOD MOUNTED (CLASS B SIGN)
- TRUCK HOLDING AREA
- CONSTRUCTION STAGING AND LAYOUT AREA

0 50 100
SCALE 1" = 100'

JACOBS

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ROBERT C. LUDWIG — STATE OF WASHINGTON — 40847 — REGISTERED PROFESSIONAL ENGINEER
2019/01/18

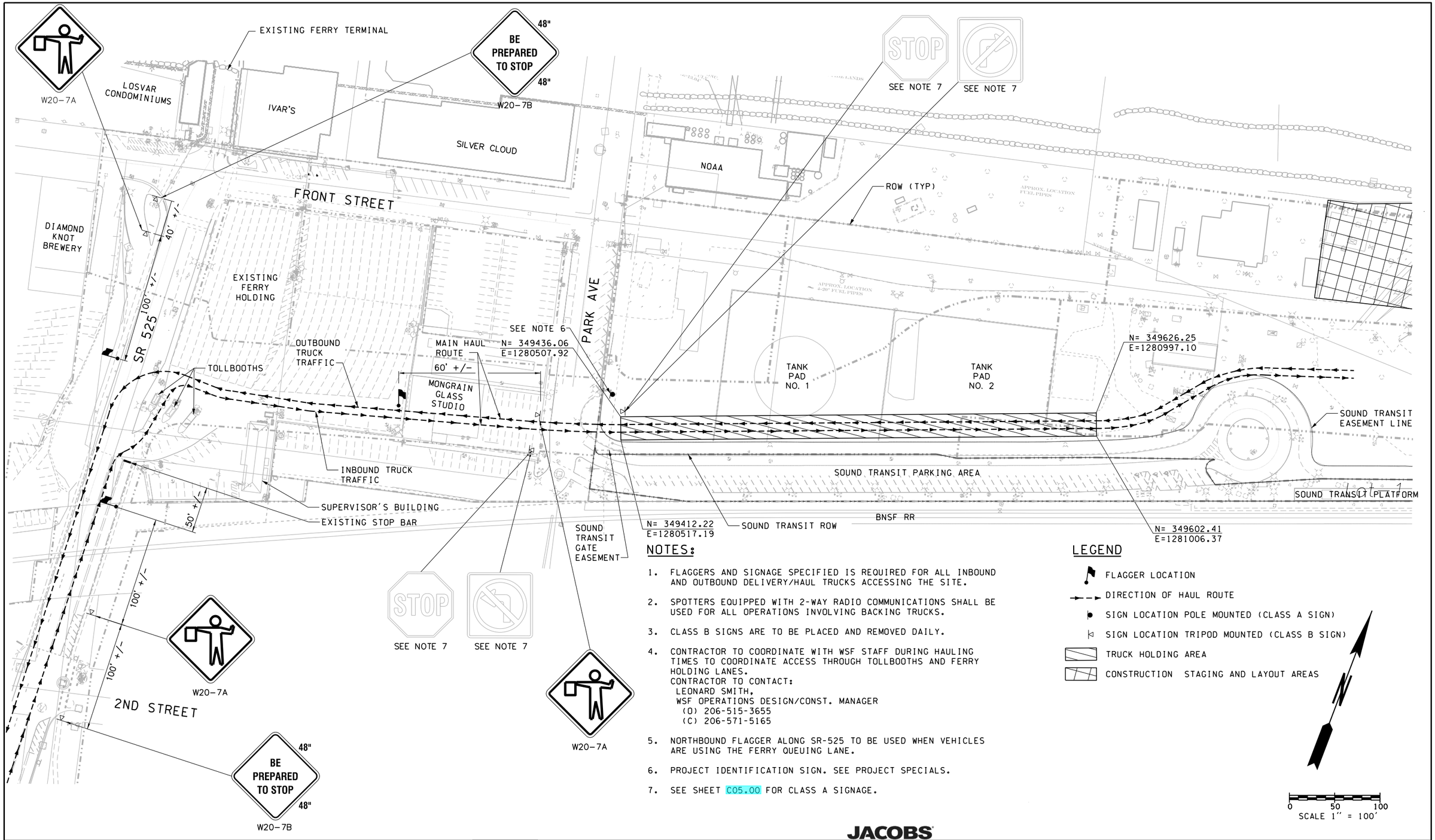
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

LIMITED ACCESS ROUTE

C03.21

SHEET 85 OF 1521 SHEETS



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6. PROJECT IDENTIFICATION SIGN. SEE PROJECT SPECIALS.
7. SEE SHEET C05.00 FOR CLASS A SIGNAGE.

LEGEND

- FLAGGER LOCATION
- DIRECTION OF HAUL ROUTE
- SIGN LOCATION POLE MOUNTED (CLASS A SIGN)
- SIGN LOCATION TRIPOD MOUNTED (CLASS B SIGN)
- TRUCK HOLDING AREA
- CONSTRUCTION STAGING AND LAYOUT AREAS

N

0 50 100
SCALE 1" = 100'

JACOBS

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ENTERED BY: D. PERRY	1/18/19				10 WASH
CHECKED BY: K. THOMAS	1/18/19				JOB NUMBER
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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	009321

ROBERT C. LUDWIG — STATE OF WASHINGTON — 40847 — REGISTERED PROFESSIONAL ENGINEER
2019/01/18

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MAIN HAUL ROUTE

C03.22

SHEET 86 OF 1521 SHEETS

SITE PREPARATION

LEGEND

- LIMITS OF SITE PREPARATION
- SAW — NEATLINE SAWCUT
- LIMITS OF PEDESTRIAN RAIL REMOVAL
- LIMITS OF BARRIER REMOVAL
- LIMITS OF WALL REMOVAL
- FILL — LIMITS OF FILL
- CUT — LIMITS OF CUT
- CG — CG — LIMITS OF VEGETATION REMOVAL, CLEARING AND GRUBBING
- LIMITS OF VEGETATION REMOVAL, CLEARING AND GRUBBING
- LIMITS OF CONCRETE REMOVAL
- LIMITS OF ASPHALT REMOVAL
- LIMITS OF BUILDING DEMOLITION
- LIMITS OF STEEL TANK REMOVAL
- PROPERTY LINE

UTILITY DEMOLITION

LEGEND

- UTILITY TO REMOVE
- UTILITY TO ABANDON
- UTILITY TO REMAIN
- STRUCTURE TO REMOVE
- STRUCTURE TO ABANDON
- STRUCTURE TO REMAIN

SYMBOLS

- BCL — BURIED COMMUNICATIONS
- BP — BURIED POWER
- FIRE HYDRANT
- G — GAS
- J-BOX
- LUMINAIRE/LIGHT POLE
- OP — OVERHEAD POWER
- ROW / PROPERTY LINE
- ST — STORM SEWER
- S — SANITARY SEWER
- SANITARY SEWER MANHOLE
- UTILITY POLE
- UTILITY VAULT
- W — WATER LINE
- WATER METER
- WATER VALVE
- WATER VALVE BOX

ABBREVIATIONS

ACV	AUTOMATIC CONTROL VALVE
CB	CATCH BASIN
CDF	CONTROLLED DENSITY FILL
CI	CAST IRON
DEMO	DEMOLISH
EXIST	EXISTING
FH	FIRE HYDRANT
FT	FEET
HDPE	HIGH-DENSITY POLYETHYLENE
IP	IRON PIPE
J-BOX	JUNCTION BOX
MH	MANHOLE
MWWD	MUKILTEO WATER AND WASTEWATER DISTRICT
PSE	PUGET SOUND ENERGY
PVC	POLYVINAL CHLORIDE
SNOPUD	SNOHOMISH COUNTY PUBLIC UTILITY DISTRICT
SPEC	SPECIFICATION
SR	STATE ROUTE
ST	STORM SEWER
SS	SANITARY SEWER
STD	STANDARD
TBOS	TRANSMITTER BATTERY OPERATED SOLENOID
TYP	TYPICAL
WSF	WASHINGTON STATE FERRIES

JACOBS

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CHECKED BY:	M. PANICK	1/18/19				JOB NUMBER 18W121
MAR PROJ ENGR:	C. TORRES					
DIR TERM ENGR:	N. MCINTOSH		CONFORMED PLANS	1/18/19		CONTRACT NO. 009321
ASST SECRETARY:	A. SCARTON		REVISION	DATE	BY	

MICHELA CATHERINE PATTISON — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

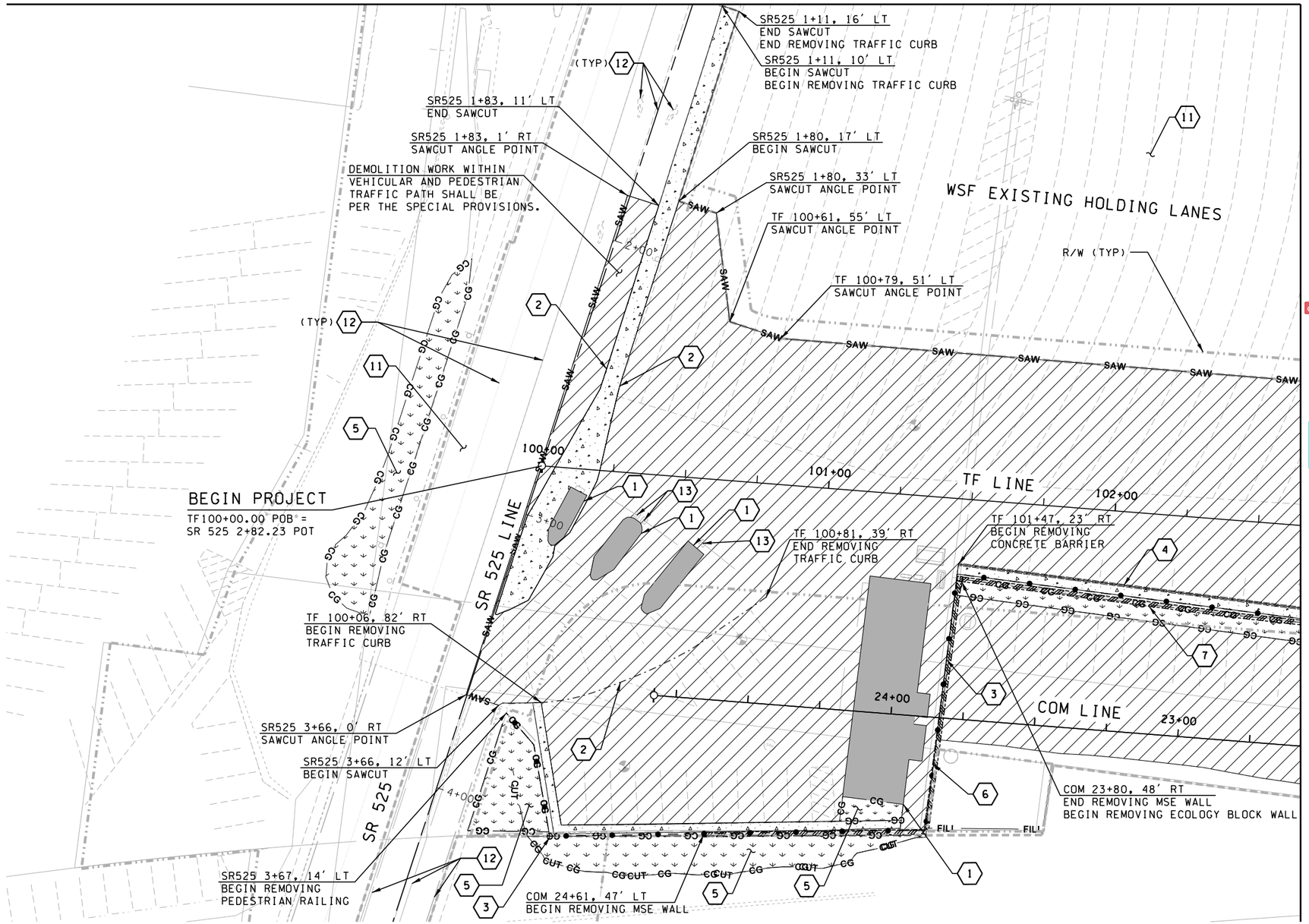
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SITE PREP / UTILITY DEMO
LEGENDS AND ABBREVIATIONS

C04.00

SHEET 87 OF 1521 SHEETS



NOTES:

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2. SEE SIGNING PLANS FOR SIGNING REMOVALS, SEE SHEETS C12.10 TO C12.17
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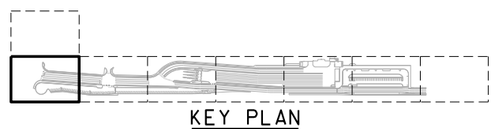
4. SEE TESC PLANS FOR HIGH VISIBILITY FENCE (HVF) LOCATIONS, SEE SHEETS C03.10 TO C03.16
5. SEE ENVIRONMENTAL COMPLIANCE PLANS OR SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
6. SEE SHEET C04.00 FOR SITE PREPARATION LEGEND.
7. COORDINATE W/ WSF MAINTENANCE STAFF TO DETERMINE WHAT EQUIPMENT NEEDS TO BE SALVAGED IN EXISTING WSF BUILDINGS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

cut pipe, demo building.pdf

CONSTRUCTION NOTES:

MATCH TO C04.11

1. DEMO EXISTING BUILDING (SEE NOTE 7)
2. REMOVE TRAFFIC CURB — Rem Ped Railing,platform stairs, WV etc..pdf
3. REMOVE PEDESTRIAN RAILING — remove and salvage, CLF,CB,etc..pdf
4. REMOVE CONCRETE BARRIER
5. REMOVE TREES AND SHRUBS — Remv IRBWS,MSE,OPL.pdf
6. REMOVE MSE WALL — Remv Ecology block,EB,HB,Pole,Luminaire, PP.pdf
7. REMOVE ECOLOGY BLOCK WALL — relocate stuff.pdf
8. REMOVE 9' CONCRETE WALL
9. REMOVE STEEL TANK REMNANTS AND DEBRIS. FILL WITH IMPERMEABLE MATERIAL.
10. PROTECT TRAFFIC CURB TO REMAIN
11. PAVEMENT/CONCRETE PAVEMENT TO REMAIN
12. REMOVE PAVEMENT MARKINGS
13. REMOVE GATE, SALVAGE FOR REINSTALLATION
14. PLACE TRAFFIC BARRIER PER WSDOT STD PLAN C-8.
15. PLACE 8' CHAINLINK FENCE TYPE 4 PER WSDOT STD PLAN L-20.10-03.
16. REMOVE PLATFORM AND STAIRS
17. REMOVE FENCE
18. PROTECT FENCE TO REMAIN



KEY PLAN

SCALE 1'' = 40'

JACOBS

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ENTERED BY: C. CONRAD	1/18/19					REGION NO. STATE
CHECKED BY: M. PANICK	1/18/19					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHELLE CATHERINE PANICK — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER — 01/18/19

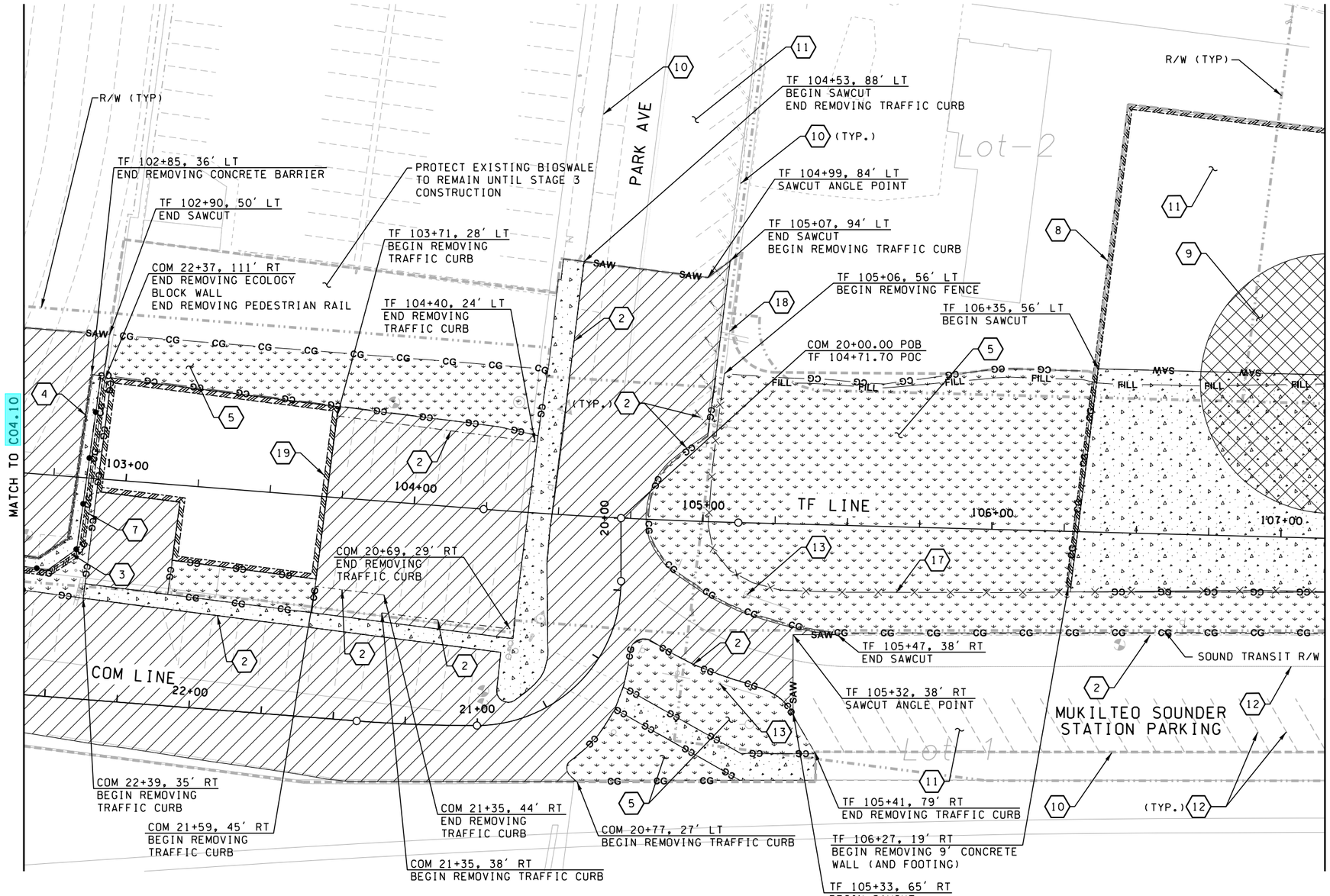
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SITE PREPARATION PLAN

C04.10

SHEET 88 OF 1521 SHEETS



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6. SEE SHEET C04.00 FOR SITE PREPARATION LEGEND.
7. COORDINATE W/ WSF MAINTENANCE STAFF TO DETERMINE WHAT EQUIPMENT NEEDS TO BE SALVAGED IN EXISTING WSF BUILDINGS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

CONSTRUCTION NOTES:

1. DEMO EXISTING BUILDING (SEE NOTE 7)
2. REMOVE TRAFFIC CURB
3. REMOVE PEDESTRIAN RAILING
4. REMOVE CONCRETE BARRIER
5. REMOVE TREES AND SHRUBS
6. REMOVE MSE WALL
7. REMOVE ECOLOGY BLOCK WALL
8. REMOVE 9' CONCRETE WALL
9. REMOVE STEEL TANK REMNANTS AND DEBRIS. FILL WITH IMPERMEABLE MATERIAL.
10. PROTECT TRAFFIC CURB TO REMAIN
11. PAVEMENT/CONCRETE PAVEMENT TO REMAIN
12. REMOVE PAVEMENT MARKINGS
13. REMOVE GATE, SALVAGE FOR REINSTALLATION
14. PLACE TRAFFIC BARRIER PER WSDOT STD PLAN C-8.
15. PLACE 8' CHAINLINK FENCE TYPE 4 PER WSDOT STD PLAN L-20.10-03.
16. REMOVE PLATFORM AND STAIRS
17. REMOVE FENCE
18. PROTECT FENCE TO REMAIN
19. REMOVE BUILDING STEM WALL

KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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ENTERED BY: C. CONRAD	1/18/19					JOB NUMBER 18W121
CHECKED BY: J. SCHENKMAN	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

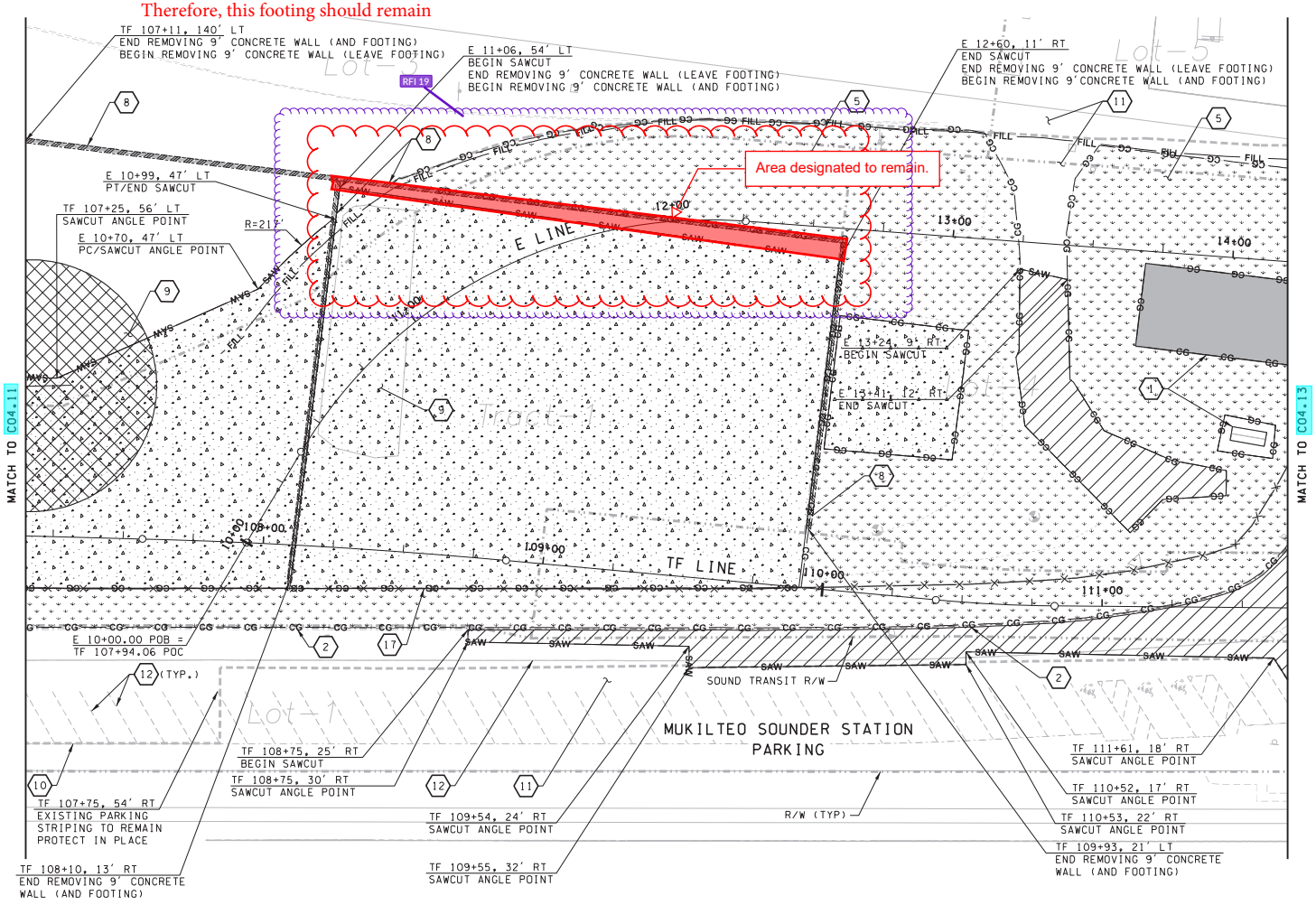
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SITE PREPARATION PLAN

C04.11

SHEET 89 OF 1521 SHEETS

Per RFI 019- The concrete slab and wall footing on the north side of Tank Pad #2 has been specified to remain to meet project commitments. In reviewing the plans, the wall footing and slab, in the areas where utilities are specified to be placed (buried power, buried communication, and Type 1 signal standard foundation), has around 3 feet or greater of fill. All buried utilities should be able to be placed within this 3+ feet of fill depth and maintain required cover. Per WSDOT Standard Plan J-21.10-04, the foundation for the Type 1 signal standard can be square and 3 feet in depth. This should also fit within the 3+ feet of fill. Therefore, this footing should remain



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7. COORDINATE W/ WSF MAINTENANCE STAFF TO DETERMINE WHAT EQUIPMENT NEEDS TO BE SALVAGED IN EXISTING WSF BUILDINGS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

CONSTRUCTION NOTES:

1. DEMO EXISTING BUILDING (SEE NOTE 7)
2. REMOVE TRAFFIC CURB
3. REMOVE PEDESTRIAN RAILING
4. REMOVE CONCRETE BARRIER
5. REMOVE TREES AND SHRUBS
6. REMOVE MSE WALL
7. REMOVE ECOLOGY BLOCK WALL
8. REMOVE 9' CONCRETE WALL
9. REMOVE STEEL TANK REMNANTS AND DEBRIS. FILL WITH IMPERMEABLE MATERIAL.
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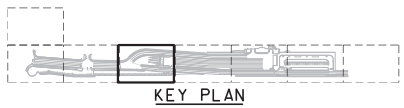
16. REMOVE PLATFORM AND STAIRS
17. REMOVE FENCE
18. PROTECT FENCE TO REMAIN


KEY PLAN

SCALE 1" = 40'

JACOBS

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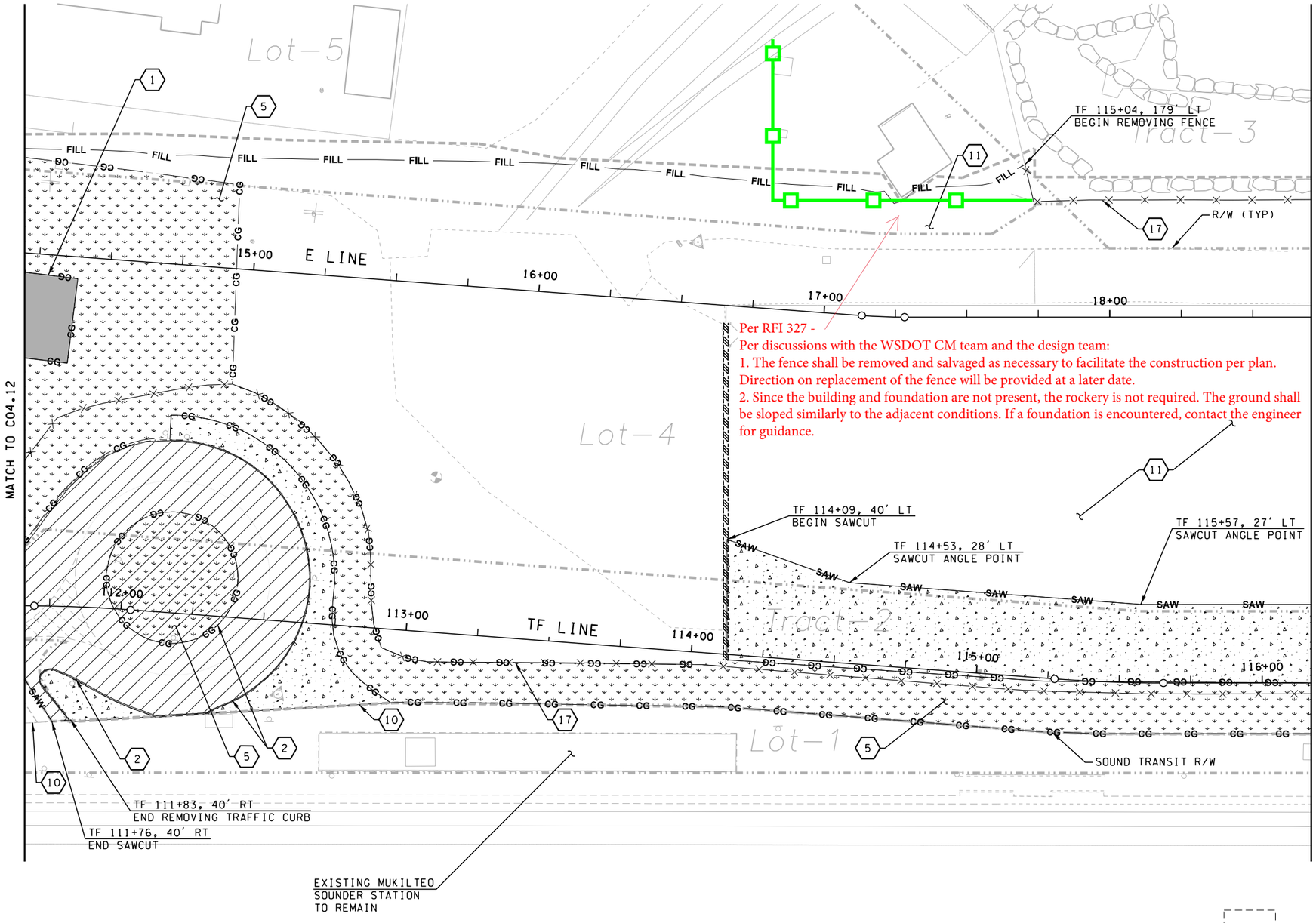
ENTERED BY: K. THOMAS	12/14/2017				10 WASH
CHECKED BY: M. PANICK	12/14/2017				JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES					
DIR TERM ENGR: N. MCINTOSH					CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SITE PREPARATION PLAN

C04.12
SHEET 90 OF 1521 SHEETS



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CONSTRUCTION NOTES:

1. DEMO EXISTING BUILDING (SEE NOTE 7)
2. REMOVE TRAFFIC CURB
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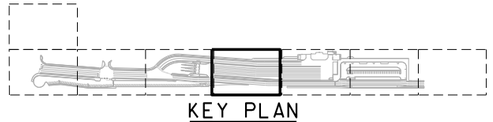
14. PLACE TRAFFIC BARRIER PER WSDOT STD PLAN C-8.
15. PLACE 8' CHAINLINK FENCE TYPE 4 PER WSDOT STD PLAN L-20.10-03.
16. REMOVE PLATFORM AND STAIRS
17. REMOVE FENCE
18. PROTECT FENCE TO REMAIN



KEY PLAN

SCALE 1" = 40'

JACOBS

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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 55015 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

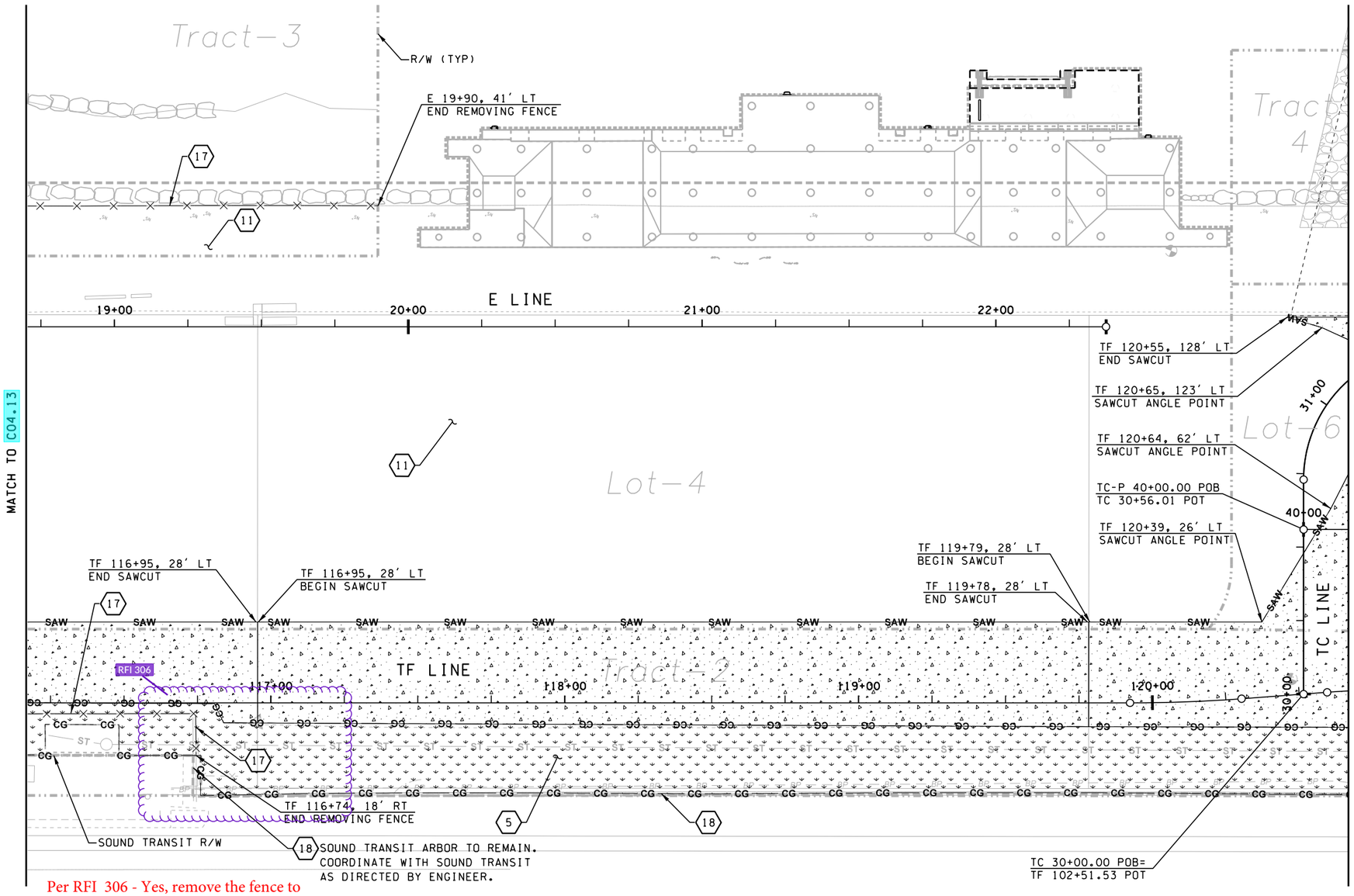
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SITE PREPARATION PLAN

C04.13

SHEET 91 OF 1521 SHEETS



Per RFI 306 - Yes, remove the fence to the blue limits shown on this RFI and run the new fence from the existing post.

NOTES:

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CONSTRUCTION NOTES:

1. DEMO EXISTING BUILDING (SEE NOTE 7)
2. REMOVE TRAFFIC CURB
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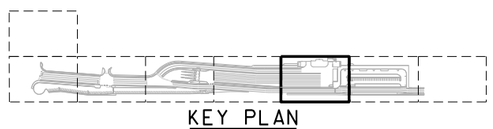

KEY PLAN

SCALE 1" = 40'

JACOBS

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JENNIFER L. SCHENKMAN, STATE OF WASHINGTON, 56036, REGISTERED PROFESSIONAL ENGINEER

01/18/19

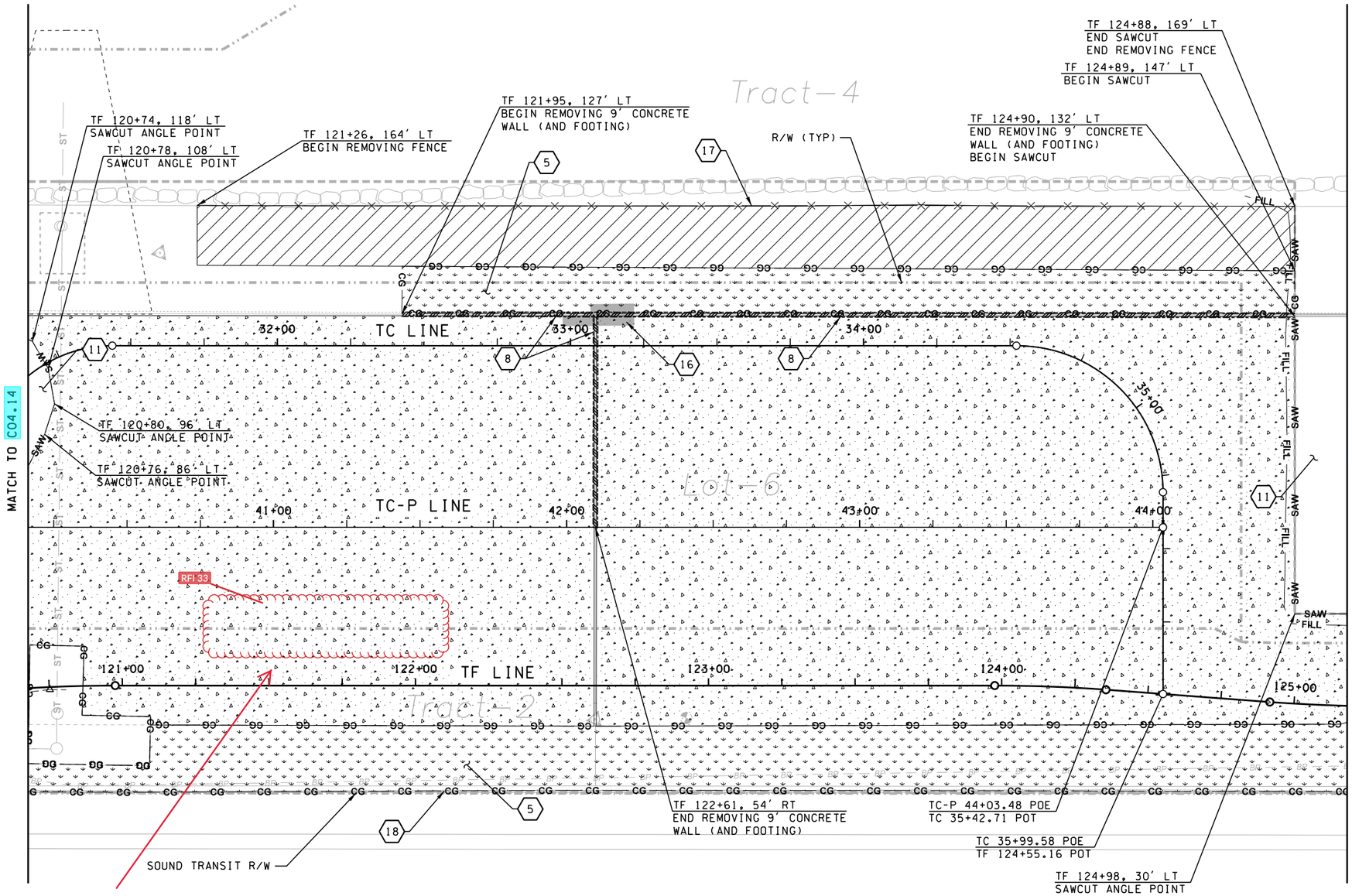
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SITE PREPARATION PLAN

C04.14

SHEET 92 OF 1521 SHEETS



Per RFI 33 - Site Preparation plan C04.15 shows limits of concrete removal in the vicinity of the tank pads. The perimeter tank base stem walls shall be removed within the limits of concrete removal.

NOTES:

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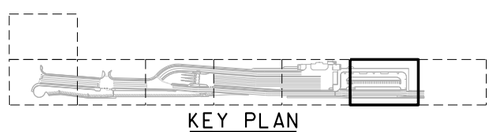
6. SEE SHEET C04.00 FOR SITE PREPARATION LEGEND.
7. COORDINATE W/ WSF MAINTENANCE STAFF TO DETERMINE WHAT EQUIPMENT NEEDS TO BE SALVAGED IN EXISTING WSF BUILDINGS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

CONSTRUCTION NOTES:

1. DEMO EXISTING BUILDING (SEE NOTE 7)
2. REMOVE TRAFFIC CURB
3. REMOVE PEDESTRIAN RAILING
4. REMOVE CONCRETE BARRIER
5. REMOVE TREES AND SHRUBS
6. REMOVE MSE WALL
7. REMOVE ECOLOGY BLOCK WALL
8. REMOVE 9' CONCRETE WALL
9. REMOVE STEEL TANK REMNANTS AND DEBRIS. FILL WITH IMPERMEABLE MATERIAL.
10. PROTECT TRAFFIC CURB TO REMAIN
11. PAVEMENT/CONCRETE PAVEMENT TO REMAIN
12. REMOVE PAVEMENT MARKINGS
13. REMOVE GATE, SALVAGE FOR REINSTALLATION
14. PLACE TRAFFIC BARRIER PER WSDOT STD PLAN C-8.
15. PLACE 8' CHAINLINK FENCE TYPE 4 PER WSDOT STD PLAN L-20.10-03.
16. REMOVE PLATFORM AND STAIRS
17. REMOVE FENCE
18. PROTECT FENCE TO REMAIN



KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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ENTERED BY: K. THOMAS	1/18/19					10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 55035 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

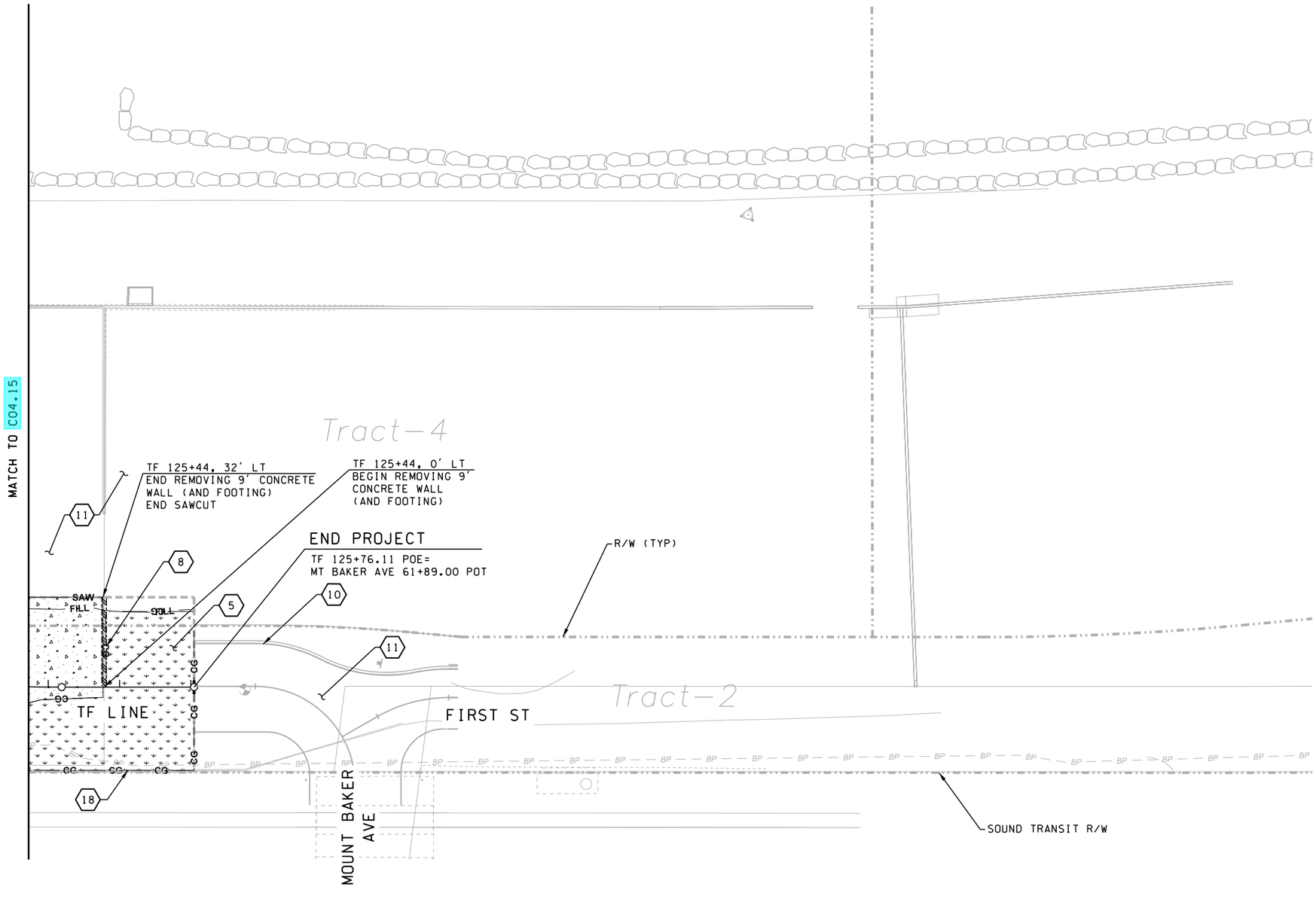
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SITE PREPARATION PLAN

C04.15

SHEET 93 OF 1521 SHEETS

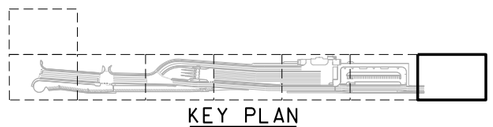


NOTES:

1. SEE ROADWAY ALIGNMENT PLANS FOR ALIGNMENT DATA, SEE SHEETS C06.10 TO C06.16
2. SEE SIGNING PLANS FOR SIGNING REMOVALS, SEE SHEETS C12.10 TO C12.17
3. SEE UTILITY DEMO PLANS FOR LIMITS OF REMOVAL AND/OR ABANDONMENT. PRESERVE AND PROTECT ALL EXISTING UTILITY UNLESS NOTED OTHERWISE IN UTILITY DEMO PLANS, SEE SHEET C04.60 TO C04.67
4. SEE TESC PLANS FOR HIGH VISIBILITY FENCE (HVF) LOCATIONS, SEE SHEETS C03.10 TO C03.16
5. SEE ENVIRONMENTAL COMPLIANCE PLANS OR SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
6. SEE SHEET C04.00 FOR SITE PREPARATION LEGEND.
7. COORDINATE W/ WSF MAINTENANCE STAFF TO DETERMINE WHAT EQUIPMENT NEEDS TO BE SALVAGED IN EXISTING WSF BUILDINGS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

CONSTRUCTION NOTES:

1. DEMO EXISTING BUILDING (SEE NOTE 7)
2. REMOVE TRAFFIC CURB
3. REMOVE PEDESTRIAN RAILING
4. REMOVE CONCRETE BARRIER
5. REMOVE TREES AND SHRUBS
6. REMOVE MSE WALL
7. REMOVE ECOLOGY BLOCK WALL
8. REMOVE 9' CONCRETE WALL
9. REMOVE STEEL TANK REMNANTS AND DEBRIS. FILL WITH IMPERMEABLE MATERIAL.
10. PROTECT TRAFFIC CURB TO REMAIN
11. PAVEMENT/CONCRETE PAVEMENT TO REMAIN
12. REMOVE PAVEMENT MARKINGS
13. REMOVE GATE, SALVAGE FOR REINSTALLATION
14. PLACE TRAFFIC BARRIER PER WSDOT STD PLAN C-8.
15. PLACE 8' CHAINLINK FENCE TYPE 4 PER WSDOT STD PLAN L-20.10-03.
16. REMOVE PLATFORM AND STAIRS
17. REMOVE FENCE
18. PROTECT FENCE TO REMAIN



KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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ENTERED BY: C. CONRAD	1/18/19					JOB NUMBER 18W121
CHECKED BY: M. PANICK	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHAELA CATHERINE PANICK — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

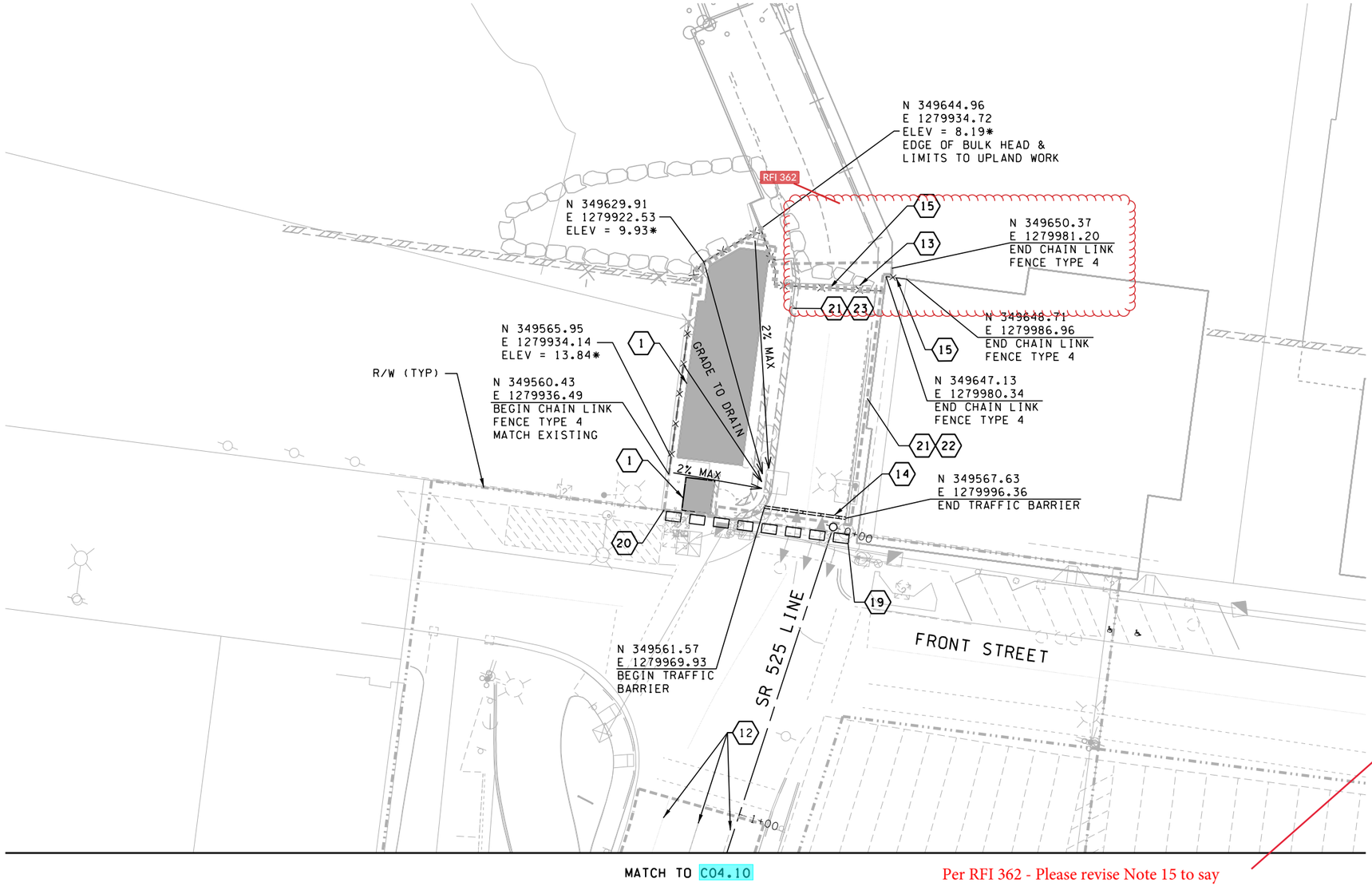
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SITE PREPARATION PLAN

C04.16

SHEET 94 OF 1521 SHEETS



MATCH TO C04.10

* CONTRACTOR TO VERIFY IN FIELD

NOTES:

1. SEE ROADWAY ALIGNMENT PLANS FOR ALIGNMENT DATA, SEE SHEETS C06.10 TO C06.16
2. SEE SIGNING PLANS FOR SIGNING REMOVALS, SEE SHEETS C12.10 TO C12.17
3. SEE UTILITY DEMO PLANS FOR LIMITS OF REMOVAL AND/OR ABANDONMENT. PRESERVE AND PROTECT ALL EXISTING UTILITY UNLESS NOTED OTHERWISE IN UTILITY DEMO PLANS, SEE SHEET C04.60 TO C04.67
4. SEE TESC PLANS FOR HIGH VISIBILITY FENCE (HVF) LOCATIONS, SEE SHEETS C03.10 TO C03.16
5. SEE ENVIRONMENTAL COMPLIANCE PLANS OR SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
6. SEE SHEET C04.00 FOR SITE PREPARATION LEGEND.
7. COORDINATE W/ WSF MAINTENANCE STAFF TO DETERMINE WHAT EQUIPMENT NEEDS TO BE SALVAGED IN EXISTING WSF BUILDINGS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

CONSTRUCTION NOTES:

1. DEMO EXISTING BUILDING (SEE NOTE 7)
2. REMOVE TRAFFIC CURB
3. REMOVE PEDESTRIAN RAILING
4. REMOVE CONCRETE BARRIER
5. REMOVE TREES AND SHRUBS
6. REMOVE MSE WALL
7. REMOVE ECOLOGY BLOCK WALL
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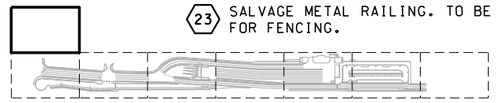
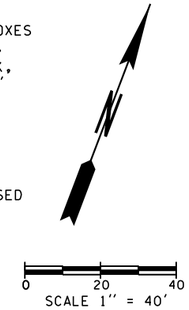
9. REMOVE STEEL TANK REMNANTS AND DEBRIS. FILL WITH IMPERMEABLE MATERIAL.
10. PROTECT TRAFFIC CURB TO REMAIN
11. PAVEMENT/CONCRETE PAVEMENT TO REMAIN
12. REMOVE PAVEMENT MARKINGS
13. REMOVE GATE, SALVAGE FOR REINSTALLATION
14. PLACE TRAFFIC BARRIER PER WSDOT STD PLAN C-8.
15. ~~PLACE 8' CHAINLINK FENCE TYPE 4 PER WSDOT STD PLAN L-20.10-03.~~
16. REMOVE PLATFORM AND STAIRS
17. REMOVE FENCE
18. PROTECT FENCE TO REMAIN
19. PLACE 3'x5' CONCRETE PLANTER BOXES AT 3' SPACING BETWEEN PLANTERS.
20. REMOVE CONCRETE WALLS, SIDEWALK, STAIRS, AND FOOTINGS DOWN TO 6" BELOW FINISHED GRADE.
21. REMOVE CONCRETE CURB
22. REMOVE WOOD RAILING
23. SALVAGE METAL RAILING. TO BE USED FOR FENCING.

Per RFI 362 - Please revise Note 15 to say "PLACE CHAINLINK FENCE TYPE 4 PER WSDOT ST PLAN L-20.10-03." This removes the 8' specification specified in the note.



KEY PLAN



JACOBS

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DESIGNED BY: K. THOMAS	1/18/19					REGION NO. STATE
ENTERED BY: D. PERRY	1/18/19					10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

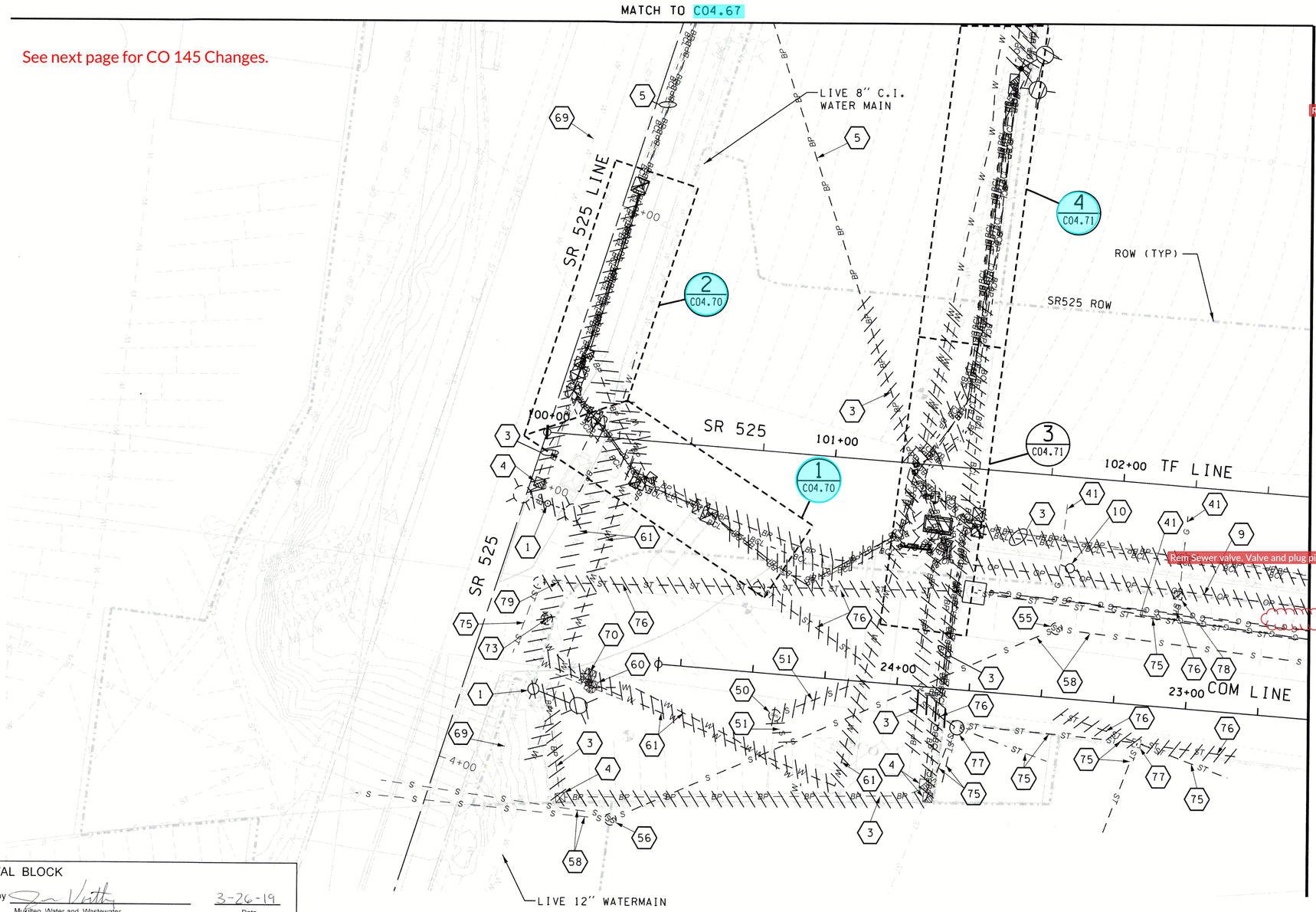
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SITE PREPARATION PLAN

C04.17

SHEET 95 OF 1521 SHEETS

See next page for CO 145 Changes.



NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

1. REMOVE EXISTING LIGHT POLE AND LUMINAIRE. RETURN TO OWNER PER STANDARD SPECIFICATIONS. PULL CONDUCTOR TO NEAREST J-BOX AND TERMINATE.
3. SALVAGE EXISTING CONDUCTORS AND REMOVE EXISTING CONDUIT.
4. REMOVE J-BOX.
5. ABANDON EXISTING BURIED CONDUIT AND CONDUCTORS.
9. EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.
10. REMOVE AND DISCARD EXISTING POWER POLE.
41. GAS TO BE ABANDONED BY PSE.
50. REMOVE EXISTING SS MANHOLE.
51. REMOVE EXISTING SS LINE.
55. ABANDON SS MH, REMOVE TO 6 FT BELOW FINISH GRADE.
56. ABANDON SS MH, REMOVE TO 4 FT BELOW FINISH GRADE.
58. ABANDON SS LINE, FILL WITH CDF.
60. REMOVE EXISTING AIR/VACUUM RELEASE VALVE.
61. REMOVE EXISTING WATER MAIN.
69. EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.
70. REMOVE EXISTING WATER SERVICE. PLACE MWWD SUPPLIED DISC PLUG IN CORPORATION STOP WHERE MAIN IS TO REMAIN ACTIVE.
73. REMOVE WATER VAULT AND VALVE (LIVE WATER).
75. ABANDON STORM SEWER.
76. REMOVE STORM SEWER.
77. ABANDON STORM SEWER STRUCTURE.
78. REMOVE STORM SEWER STRUCTURE.
79. REMOVE STORM DRAIN PIPE 2 FT FROM STRUCTURE AND PLUG.

MATCH TO C04.61

Remv FH,Rem Spool,Valve,Blind flange,IL.pdf
Remv Ecology block,EB,HB,Pole,Luminaire, PP.pdf
Remv Ecology block,EB,HB,Pole,Luminaire, PP.pdf
Remv FH,Rem Spool,Valve,Blind flange,IL.pdf
abandon BC, TSC,TSJB,
Remv Ecology block,EB,HB,Pole,Lum
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abandon BC, TSC,TSJB,E,J-B,Utility....pdf
abandon SSL,SSS and Fill, WL,WM,etc..pdf
remove stuff.pdf
Rem Sewer valve, Valve and plug pipe etc..pdf
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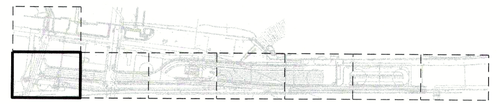
RECEIVED
MAR 26 2019
MWWD



0 20 40
SCALE IN FEET

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537
Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

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ENTERED BY: D. PERRY	3/20/19					JOB NUMBER
CHECKED BY: R. LUDWIG	3/20/19					18W121
MAR PROJ ENGR: C. TORRES						CONTRACT NO.
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ROBERT C. LUDWIG — STATE OF WASHINGTON — 18947 — REGISTERED PROFESSIONAL ENGINEER
20B/03/20

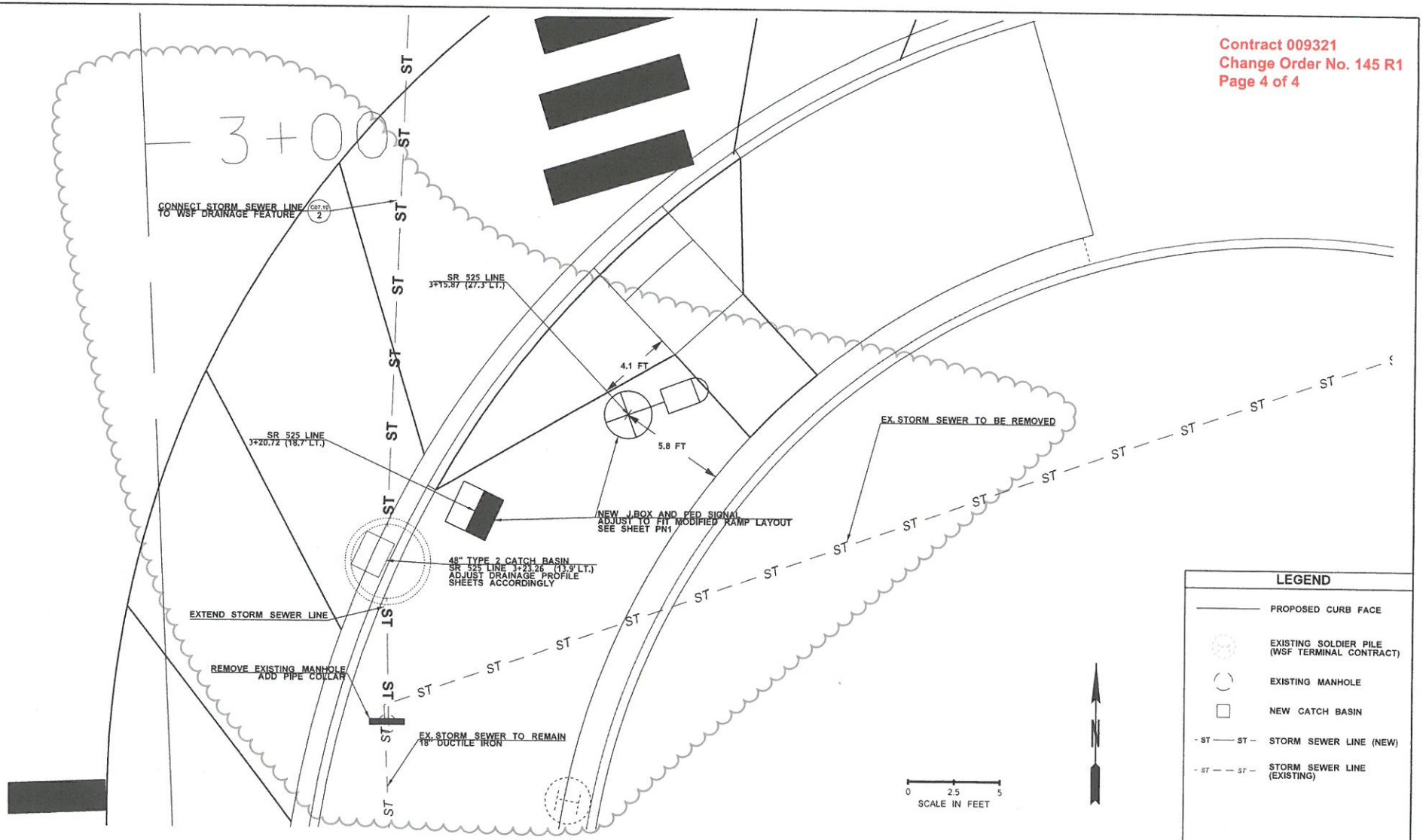
JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION PLAN

C04.60
SHEET OF SHEETS



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PLOTTED BY	streepw							
DESIGNED BY	W. STREEPY							
ENTERED BY	W. STREEPY				CONTRACT NO.		LOCATION NO.	
CHECKED BY	M. HASAN							
PROJ. ENGR.								
REGIONAL ADM.	M. COTTON	REVISION	DATE	BY				

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

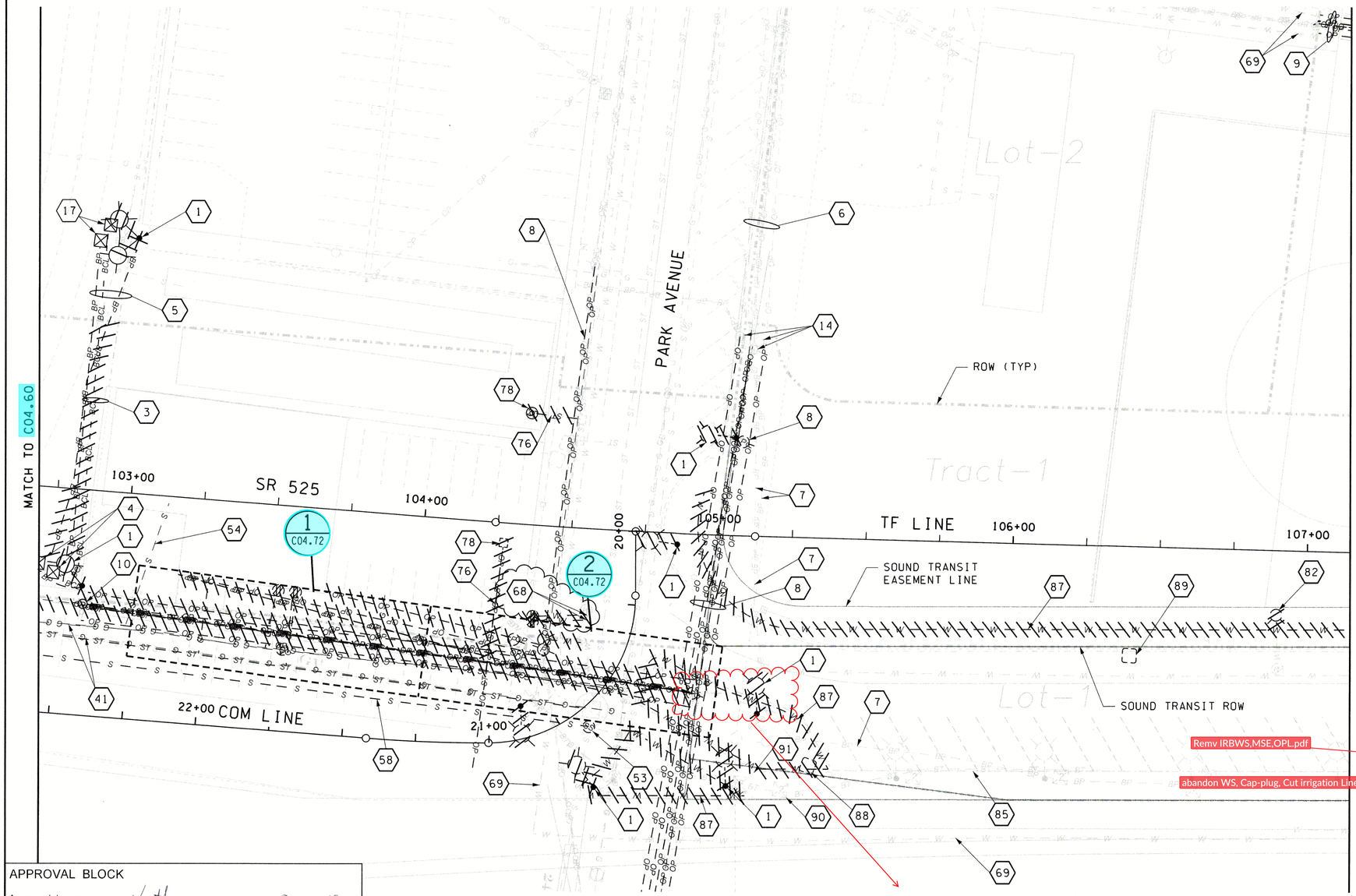
Washington State Department of Transportation

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY PLAN

PLAN REF NO. UT1

SHEET OF SHEETS



NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

MATCH TO C04.62

1. REMOVE EXISTING LIGHT POLE AND LUMINAIRE. RETURN TO OWNER PER STANDARD SPECIFICATIONS. PULL CONDUCTOR TO NEAREST J-BOX AND TERMINATE.
3. SALVAGE EXISTING CONDUCTORS AND REMOVE EXISTING CONDUIT.
4. REMOVE J-BOX.
5. ABANDON EXISTING BURIED CONDUIT AND CONDUCTORS.
6. EXISTING OVERHEAD UTILITY POWER LINES. PROTECT IN PLACE. — plug pipe, pr
7. EXISTING UNDERGROUND ELECTRICAL DUCT BANK. PROTECT IN PLACE.
8. EXISTING POWER POLE AND OVERHEAD POWER LINES TO BE RELOCATED BY SNOPUD.
9. EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.
10. REMOVE AND DISCARD EXISTING POWER POLE.
14. EXISTING UTILITY POLE. PROTECT IN PLACE. — plug pipe, protec EV,IS,LIP,Overhead
17. ABANDON J-BOX. — abandon BC, TSC,TSJB,E,J-B,Utility....pdf
41. GAS TO BE ABANDONED BY PSE.
53. RECHANNEL EXISTING MANHOLE.
54. ABANDON SANITARY SIDE SEWER, FILL WITH CDF. — abandon SSL,SSS and Fill, WL,W
58. ABANDON SS LINE, FILL WITH CDF.
68. ABANDON WATER SERVICE. COORDINATE WITH MWWD. PLACE MWWD SUPPLIED DISC PLUG IN CORPORATION STOP WHERE MAIN IS TO REMAIN ACTIVE.
69. EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.
76. REMOVE STORM SEWER. — relocate stuff.pdf
78. REMOVE STORM SEWER STRUCTURE.
82. RELOCATE EXISTING FIRE HYDRANT.
85. PROTECT EXISTING IRRIGATION SYSTEM.
87. EXISTING IRRIGATION LINE TO BE REMOVED. LOCATION IS ESTIMATED. — Remv IRBWS,MSE,OPL.pdf
88. EXISTING IRRIGATION LINE TO BE CUT AND TEMPORARILY CAPPED. SEE IRRIGATION PLAN SHEET C09.51. — abandon WS, Cap-plug, Cut irrigation Line....pdf
89. EXISTING IRRIGATION RAINBIRD 1-1/2" ACV WITH "TBOS" BATTERY OPERATED SOLENOID. TO BE REMOVED AND RETURNED TO SOUND TRANSIT.
90. EXISTING ARBOR AND DRIP IRRIGATION SYSTEM TO REMAIN.
91. CAP EXISTING MAINLINE AND CONTROL WIRES. SEE SHEET C09.11 FOR MORE INFORMATION.

RECEIVED
MAR 26 2019
MWWD

0 20 40
SCALE IN FEET

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

JACOBS

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CHECKED BY: R. LUDWIG	3/20/19						
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121	
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		CONTRACT NO. 009321	
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY			

ROBERT C. LUDWIG — STATE OF WASHINGTON — 40847 — REGISTERED PROFESSIONAL ENGINEER
2019/03/20

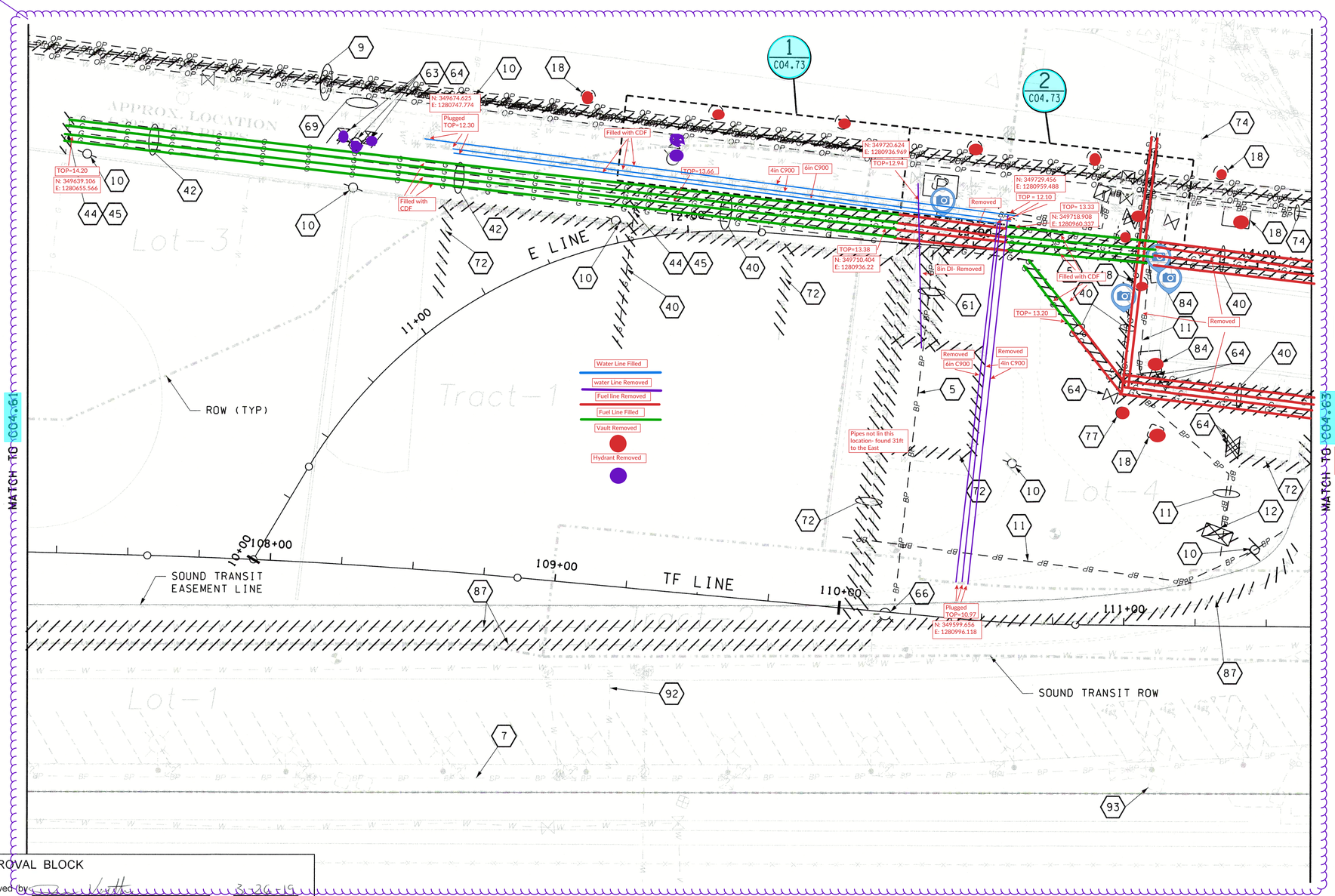
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION PLAN

C04.61
SHEET
OF
SHEETS

RFI 35



NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

5 ABANDON EXISTING BURIED CONDUIT AND CONDUCTORS.

7 EXISTING UNDERGROUND ELECTRICAL DUCT BANK. PROTECT IN PLACE.

9 EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.

10 REMOVE AND DISCARD EXISTING POWER POLE.

11 REMOVE AND DISCARD CONDUCTORS. CAP CONDUIT ENDS AND ABANDON IN PLACE. — remove and salvage, CLF,CB,etc..pdf

12 REMOVE AND DISCARD EXISTING ELECTRICAL BOX. — Remv Ecology block,EB,H

18 ABANDON UTILITY VAULT. — abandon BC, TSC,TSJB,E,J-B,Utility....pdf

40 REMOVE BELOW-GRADE ABANDONED LIQUID GAS PIPE. — remove stuff.pdf

42 FILL BELOW-GRADE LIQUID GAS PIPE WITH CDF. — abandon SSL,SSS and

44 REMOVE ABOVE-GRADE ABANDONED LIQUID GAS PIPING. — remove stuff.p

45 REMOVE BELOW GRADE REINFORCED CONCRETE SLAB FOR GAS PIPING. — remove and salvage, CLF,CB,etc..pdf

61 REMOVE EXISTING WATER LINE.

63 REMOVE EXISTING FIRE HYDRANT. — Remv FH,Rem Spool,Valve,Blind flange,IL.pdf

64 REMOVE EXISTING VALVE. PLUG PIPE TO REMAIN. — Rem Sewer valve, Valv

66 REMOVE EXISTING FIRE HYDRANT, SPOOL, AND VALVE. PLACE BLIND FLANGE AND THRUST BLOCK AT TEE. COORDINATE MAIN SHUTDOWN WITH MWWD. — Remv FH,Rem Spo

69 EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.

72 REMOVE ABANDONED WATER MAIN. — remove stuff.pdf

74 ABANDONED WATER LINE. FILL WITH CDF. — abandon SSL,SSS and Fill, WL,WM,

77 ABANDON STORM SEWER STRUCTURE.

84 ABANDON WATER VAULT.

87 EXISTING IRRIGATION LINE TO BE REMOVED. LOCATION IS ESTIMATED.

92 EXISTING IRRIGATION LINE TO BE CUT AND CAPPED. — abandon WS, Cap-plu

93 EXISTING IRRIGATION CONTROLLER TO REMAIN.

RECEIVED
MAR 26 2019
MWWD

0 20 40
SCALE IN FEET

APPROVAL BLOCK

Approved by: _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c04_62.dlv						
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SUBMITTAL DATE: 3/20/19	ReiserRW				WA-2017-007-00	
DESIGNED BY: D. PERRY	3/20/19				REGION NO.	STATE
ENTERED BY: D. PERRY	3/20/19				10	WASH
CHECKED BY: R. LUDWIG	3/20/19				JOB NUMBER	
MAR PROJ ENGR: C. TORRES					18W121	
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL	CONTRACT NO.	
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	009321	

ROBERT C. LUDWIG — STATE OF WASHINGTON — 40847 — REGISTERED PROFESSIONAL ENGINEER
2019/03/20

JACOBS

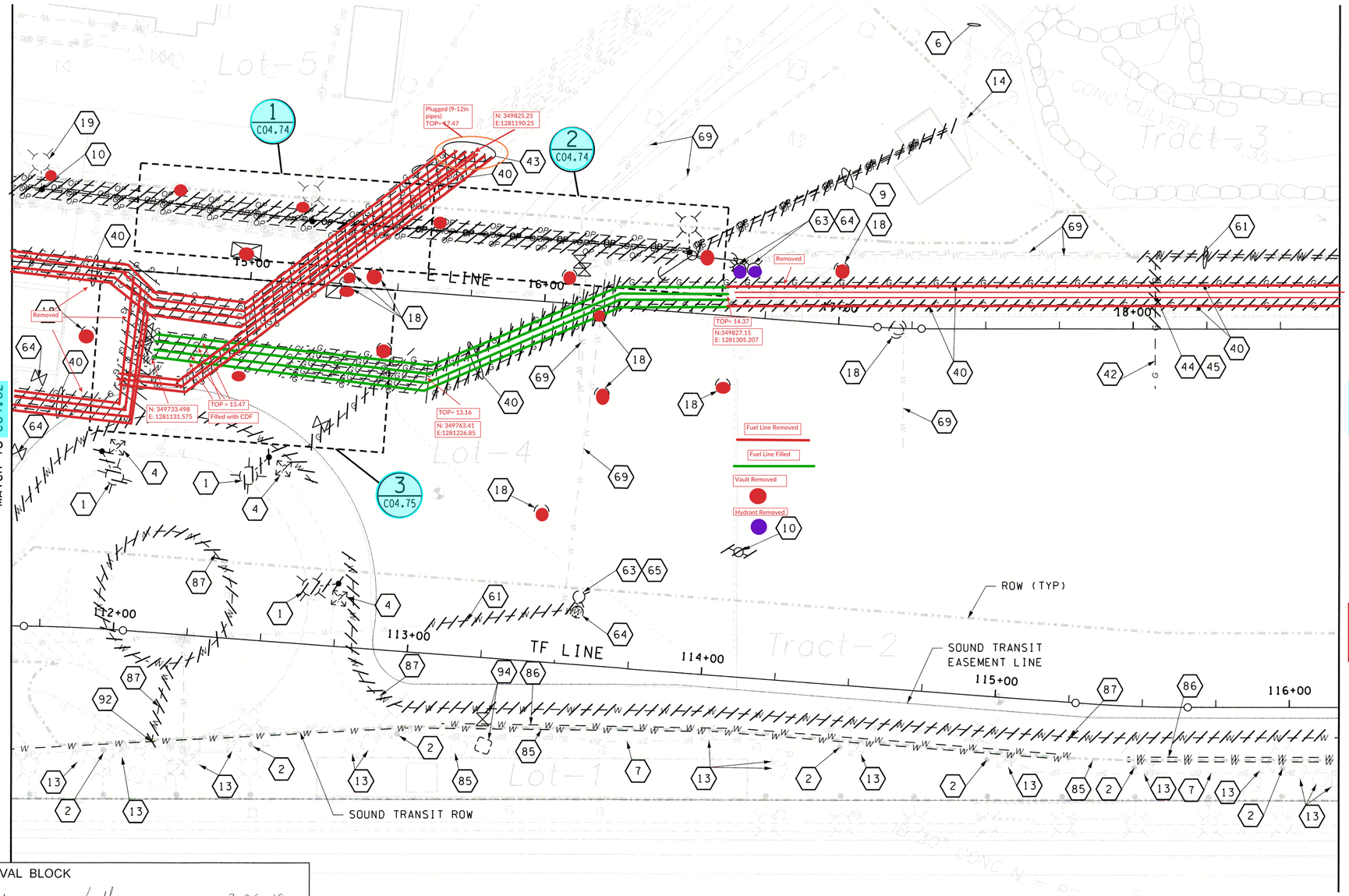
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION PLAN

C04.62
SHEET
OF
SHEETS

RFI 35



CONSTRUCTION NOTES:

1. REMOVE EXISTING LIGHT POLE AND LUMINAIRE. RETURN TO OWNER PER STANDARD SPECIFICATIONS. PULL CONDUCTOR TO NEAREST J-BOX AND TERMINATE.
2. PROTECT LIGHT IN PLACE.
4. REMOVE J-BOX.
6. EXISTING OVERHEAD UTILITY POWER LINE. PROTECT IN PLACE.
7. EXISTING UNDERGROUND ELECTRICAL DUCT BANK. PROTECT IN PLACE.
9. EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.
10. REMOVE AND DISCARD EXISTING POWER POLE.
13. EXISTING ELECTRICAL VAULT. PROTECT IN PLACE.
14. EXISTING UTILITY POLE. PROTECT IN PLACE.
18. ABANDON UTILITY VAULT.
19. REMOVE EXISTING LUMINAIRE.
40. REMOVE BELOW-GRADE ABANDONED LIQUID GAS PIPE.
42. FILL BELOW-GRADE LIQUID GAS PIPE WITH CDF.
43. CAP/PLUG LIQUID GAS PIPE.
44. REMOVE ABOVE-GRADE ABANDONED LIQUID GAS PIPING.
45. REMOVE BELOW-GRADE REINFORCED CONCRETE SLAB FOR GAS PIPING.
61. REMOVE EXISTING WATER LINE.
63. REMOVE EXISTING FIRE HYDRANT.
64. REMOVE EXISTING VALVE. PLUG PIPE TO REMAIN.
65. WATER MAIN ACTIVE SOUTHWEST FROM FIRE HYDRANT.
69. EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.
85. PROTECT EXISTING IRRIGATION SYSTEM.
86. PROTECT EXISTING 3" PVC SLEEVE AND TWO 4" HDPE SLEEVES.
87. EXISTING IRRIGATION LINE TO BE REMOVED. LOCATION IS ESTIMATED.
92. EXISTING IRRIGATION LINE TO BE CUT AND CAPPED.
94. SEE SHEET C09.13 FOR JUNCTION BOX AT "T" IN IRRIGATION MAINLINE TO REMAIN AND PROTECT.

plug pipe, protec EV,IS,LIP,Overhead PL,etc..pdf
plug pipe, protec EV,IS,LIP,C
Remv Ecology block,EB,HB,Pole,Luminaire, PP.pdf
abandon WS, Cap-plug, Cut irrigation Line....pdf
plug pipe, protec EV,IS,L

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

RECEIVED
MAR 26 2019
MWWD

0 20 40
SCALE IN FEET

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c04_63.dlv						
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SUBMITTAL DATE: 3/20/19	ReiserRW					WA-2017-007-00
DESIGNED BY: D. PERRY	3/20/19					REGION NO. STATE
ENTERED BY: D. PERRY	3/20/19					10 WASH
CHECKED BY: R. LUDWIG	3/20/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ROBERT C. LUDWIG — STATE OF WASHINGTON — 24084 — REGISTERED PROFESSIONAL ENGINEER — 2019/03/20

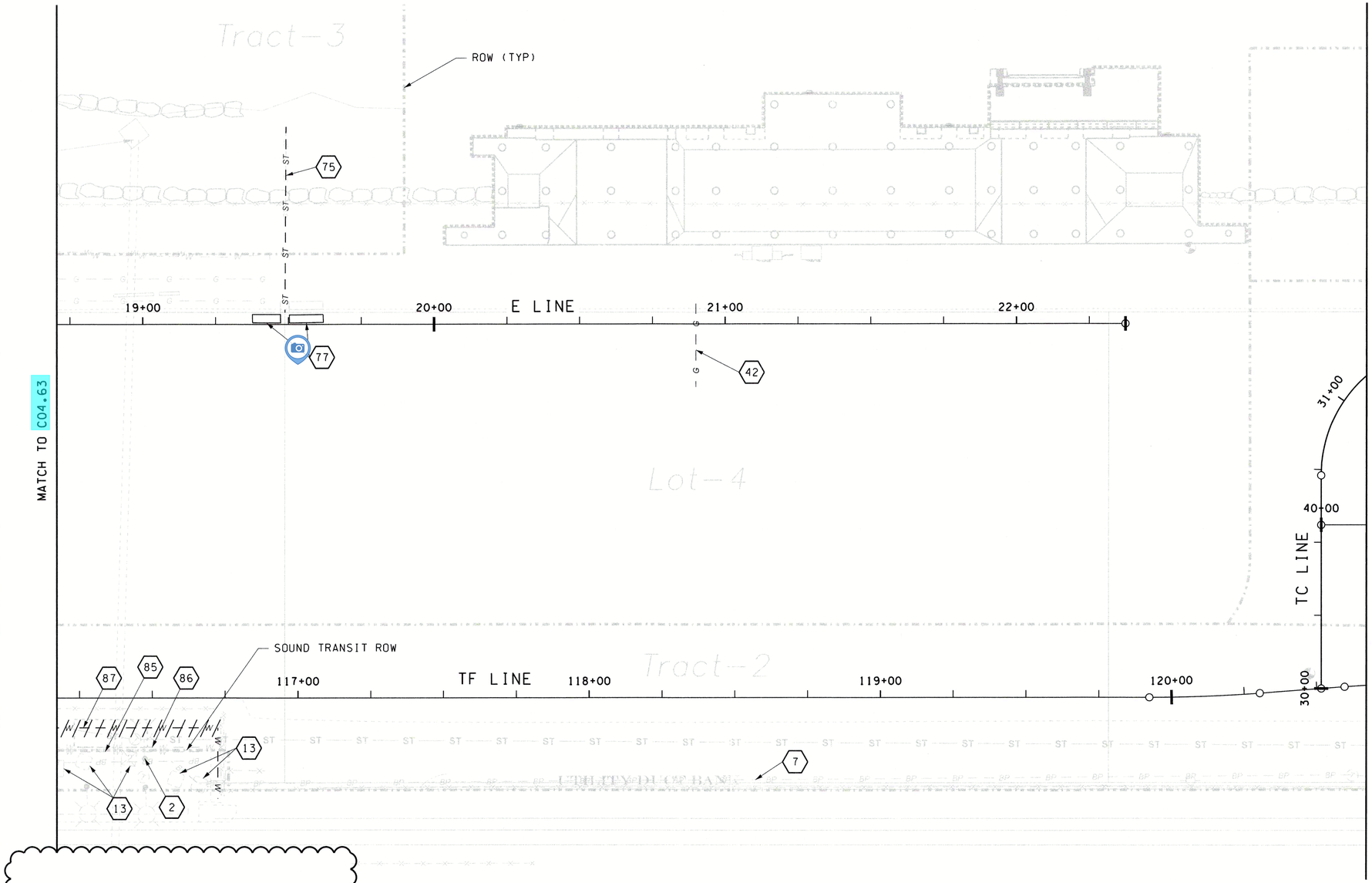
JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION PLAN

C04.63
SHEET OF SHEETS



NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

2 PROTECT LIGHT IN PLACE. plug pipe, protec EV,IS,LIP,Overhead PL,etc..pdf

7 EXISTING UNDERGROUND ELECTRICAL DUCT BANK. PROTECT IN PLACE.

13 EXISTING ELECTRICAL VAULT. PROTECT IN PLACE.

42 FILL BELOW-GRADE LIQUID GAS PIPE WITH CDF.

75 ABANDON STORM SEWER.

77 ABANDON STORM SEWER STRUCTURE.

85 PROTECT EXISTING IRRIGATION SYSTEM.

86 PROTECT EXISTING 3" PVC SLEEVE AND TWO 4" HDPE SLEEVES.

87 EXISTING IRRIGATION LINE TO BE REMOVED. LOCATION IS ESTIMATED.

RECEIVED
MAR 26 2019
MWWD

0 20 40
SCALE 1" = 40'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c04_64.dlv					
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DESIGNED BY: D. PERRY	3/20/19				REGION NO. STATE
ENTERED BY: D. PERRY	3/20/19				10 WASH
CHECKED BY: R. LUDWIG	3/20/19				JOB NUMBER
MAR PROJ ENGR: C. TORRES					18W121
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL	CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	009321

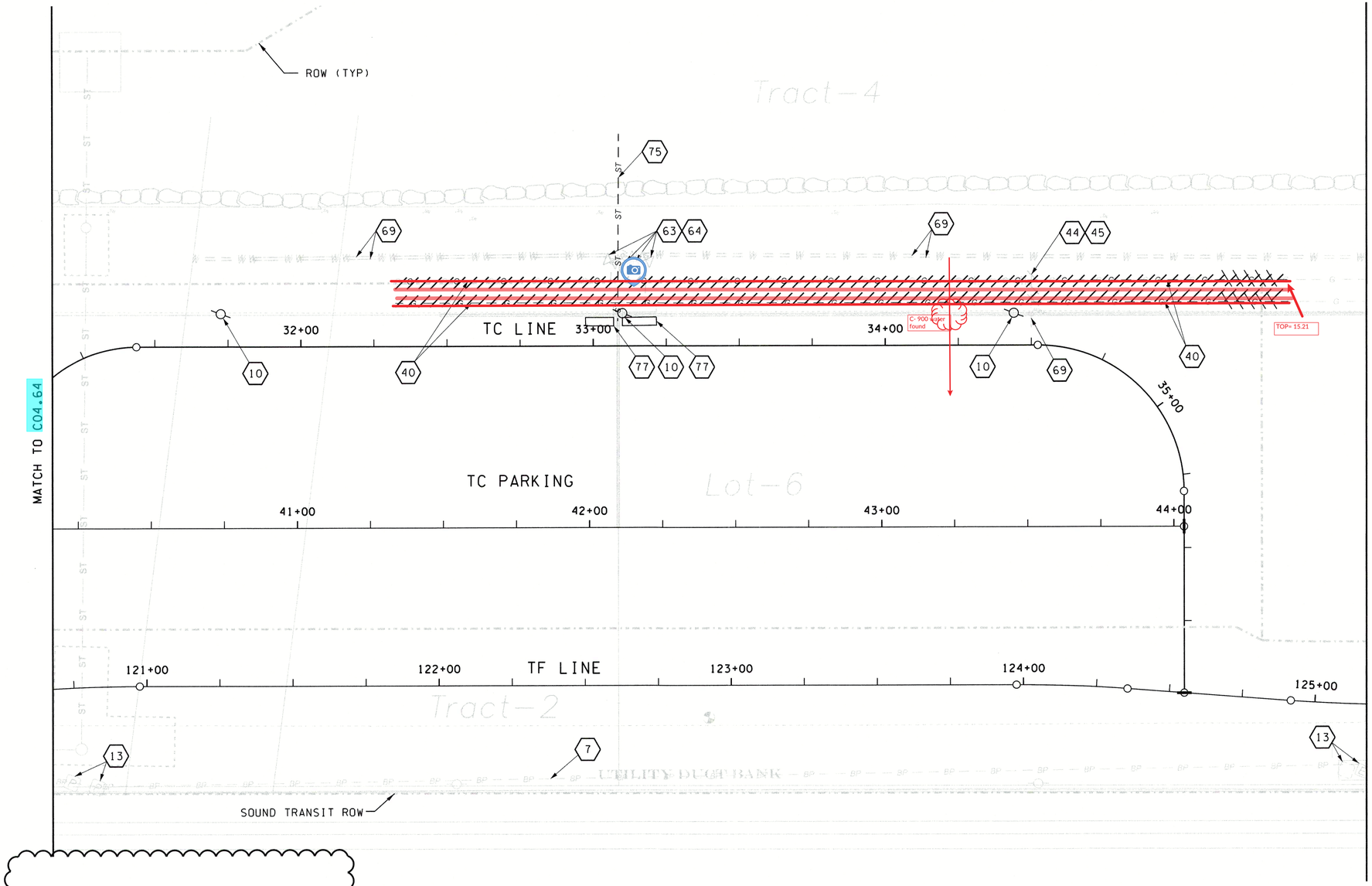
ROBERT C. LUDWIG STATE OF WASHINGTON 40847 REGISTERED PROFESSIONAL ENGINEER
2019/03/20

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION PLAN

C04.64
SHEET
OF
SHEETS



NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

7. EXISTING UNDERGROUND ELECTRICAL DUCT BANK. PROTECT IN PLACE.
10. REMOVE AND DISCARD EXISTING POWER POLE.
13. EXISTING ELECTRICAL VAULT. PROTECT IN PLACE.
40. REMOVE BELOW-GRADE ABANDONED LIQUID GAS PIPE.
44. REMOVE ABOVE-GRADE ABANDONNED LIQUID GAS PIPING.
45. REMOVE BELOW-GRADE REINFORCED CONCRETE SLAB FOR GAS PIPING.
63. REMOVE EXISTING FIRE HYDRANT.
64. REMOVE EXISTING VALVE. PLUG PIPE TO REMAIN
69. EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.
75. ABANDON STORM SEWER.
77. ABANDON STORM SEWER STRUCTURE.

RECEIVED
MAR 26 2019
MWWD

0 20 40
SCALE 1" = 40'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c04_65.dlv						
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ENTERED BY: D. PERRY	3/20/19					10 WASH
CHECKED BY: R. LUDWIG	3/20/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

ROBERT C. LUDWIG STATE OF WASHINGTON 4054 REGISTERED PROFESSIONAL ENGINEER
2019/03/20

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION PLAN

C04.65
SHEET
OF
SHEETS

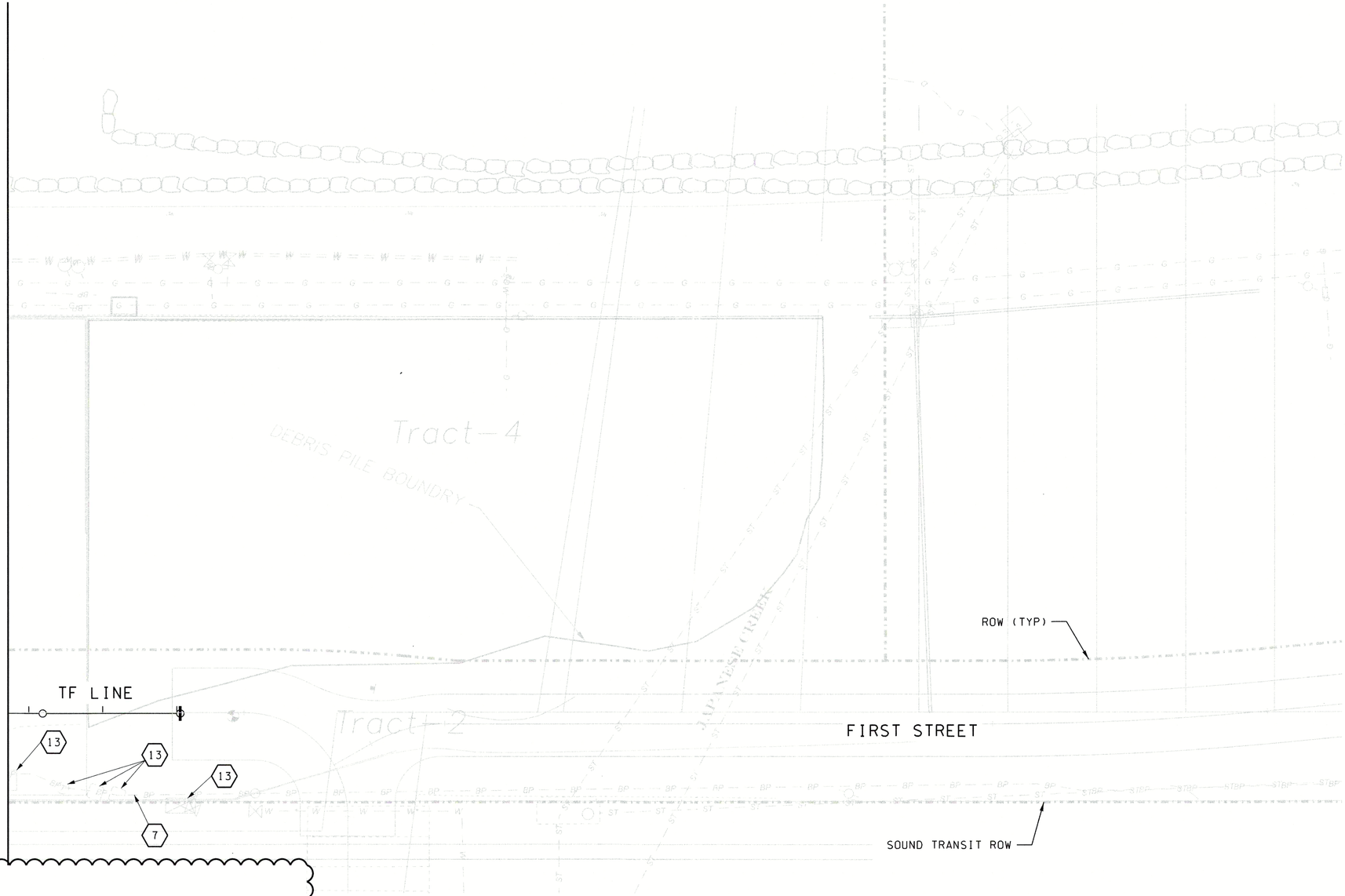
NOTES:

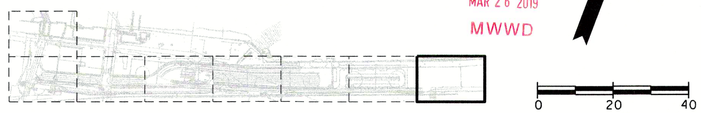
1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

(7) EXISTING UNDERGROUND ELECTRICAL DUCT BANK. PROTECT IN PLACE.

(13) EXISTING ELECTRICAL VAULT. PROTECT IN PLACE.





RECEIVED
MAR 26 2019
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ENTERED BY: D. PERRY	3/20/19					REGION NO. STATE
CHECKED BY: R. LUDWIG	3/20/19					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ROGER C. LUDWIG STATE OF WASHINGTON 4084 REGISTERED PROFESSIONAL ENGINEER
2019/03/20

JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION PLAN

C04.66
SHEET
OF
SHEETS

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

3 SALVAGE EXISTING CONDUCTORS AND REMOVE EXISTING CONDUIT.
4 REMOVE J-BOX.
5 ABANDON EXISTING BURIED CONDUIT AND CONDUCTORS.
9 EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.
19 REMOVE EXISTING LUMINAIRE.
21 ADJUST EXISTING STORM DRAIN MH RIM TO NEW GRADE.
30 REMOVE AND SALVAGE TRAFFIC SIGNAL POLES AND EQUIPMENT.
31 REMOVE AND SALVAGE TRAFFIC SIGNAL CONTROLLER CABINET.
32 ABANDON TRAFFIC SIGNAL CONDUIT.
33 ABANDON TRAFFIC SIGNAL JUNCTION BOXES.
50 REMOVE EXISTING SS MANHOLE (PRIVATE).
52 REMOVE SEWER VALVES (PRIVATE).
53 RECHANNEL EXISTING MANHOLE.
54 ABANDON SANITARY SIDE SEWER, FILL WITH CDF.
68 ABANDON WATER SERVICE. COORDINATE WITH MWWD. PLACE MWWD SUPPLIED DISC PLUG IN CORPORATION STOP WHERE MAIN IS TO REMAIN ACTIVE.
69 EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.
76 REMOVE STORM SEWER.
78 REMOVE STORM SEWER STRUCTURE.
80 PAVEMENT RESTORATION FOR PLACEMENT OF BRASS PLUG IN GATE VALVE. SEE SPECIAL PROVISIONS "ABANDON WATER SERVICE".
81 COORDINATE WITH MWWD. INSTALL 2" IP BRASS PLUG IN 2" GATE VALVE.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

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RECEIVED
MAR 26 2019
MWWD

0 20 40
SCALE IN FEET

JACOBS

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DESIGNED BY: D. PERRY	3/20/19					REGION NO. STATE
ENTERED BY: D. PERRY	3/20/19					10 WASH
CHECKED BY: R. LUDWIG	3/20/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

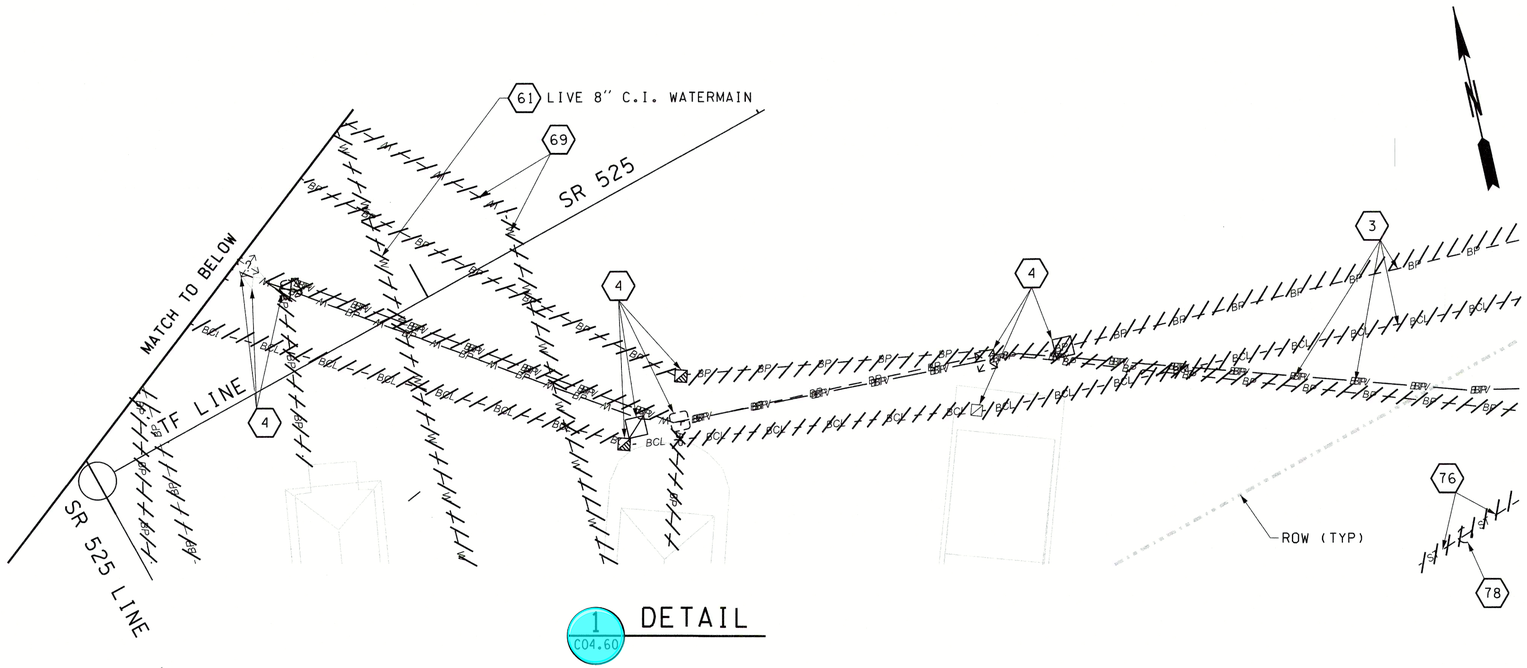
ROBERT C. LUDWIG — STATE OF WASHINGTON — 24084 — REGISTERED PROFESSIONAL ENGINEER
2019/03/20

Washington State Department of Transportation
WASHINGTON STATE FERRIES

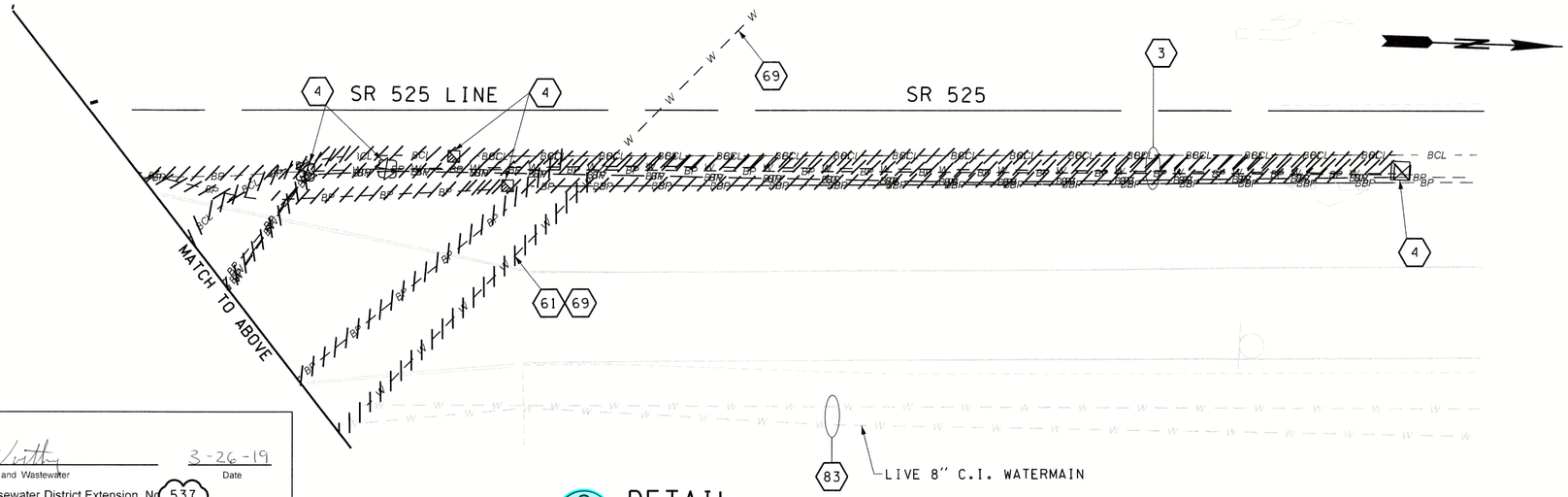
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION PLAN

C04.67
SHEET
OF
SHEETS



1 C04.60 DETAIL



2 C04.60 DETAIL

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

3 SALVAGE EXISTING CONDUCTORS AND REMOVE EXISTING CONDUIT.
4 REMOVE J-BOX.
61 REMOVE EXISTING WATER LINE.
69 EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.
76 REMOVE STORM SEWER.
78 REMOVE STORM SEWER STRUCTURE.
83 MWWD AS-BUILT SHOWS ONLY ONE WATERMAIN. BASE MAP HAS TWO.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mukilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

RECEIVED
MAR 26 2019
MWWD

0 5 10
SCALE IN FEET

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ENTERED BY: D. PERRY	3/20/19					10 WASH
CHECKED BY: R. LUDWIG	3/20/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ROBERT C. LUDWIG — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER — 40847
2019/03/20

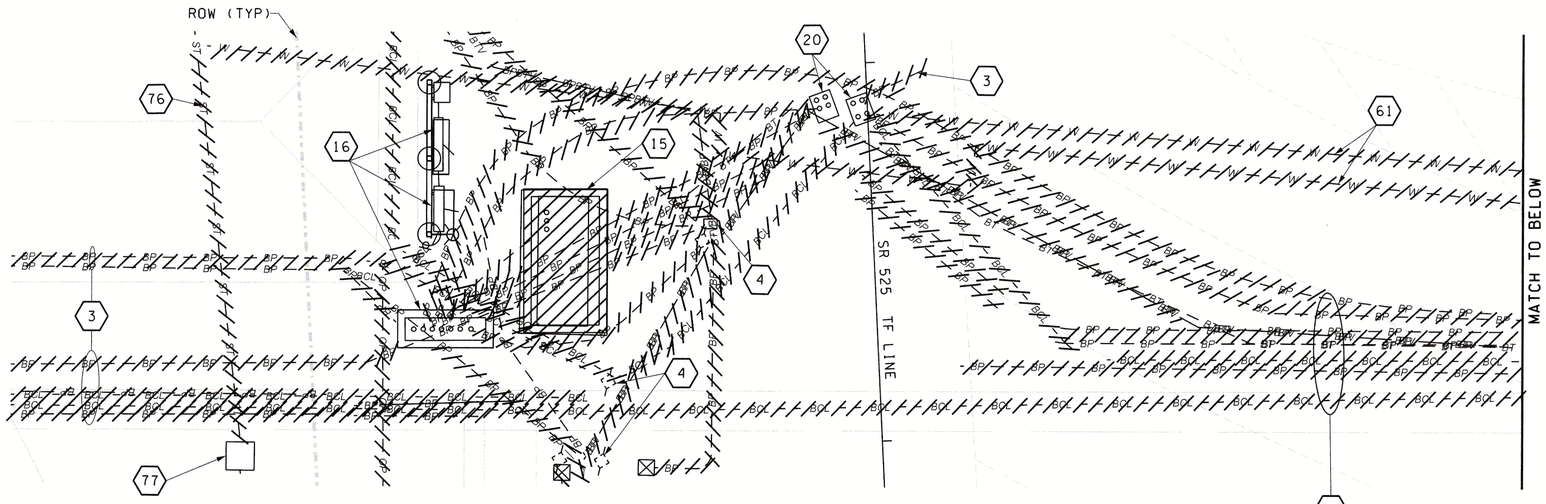
JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

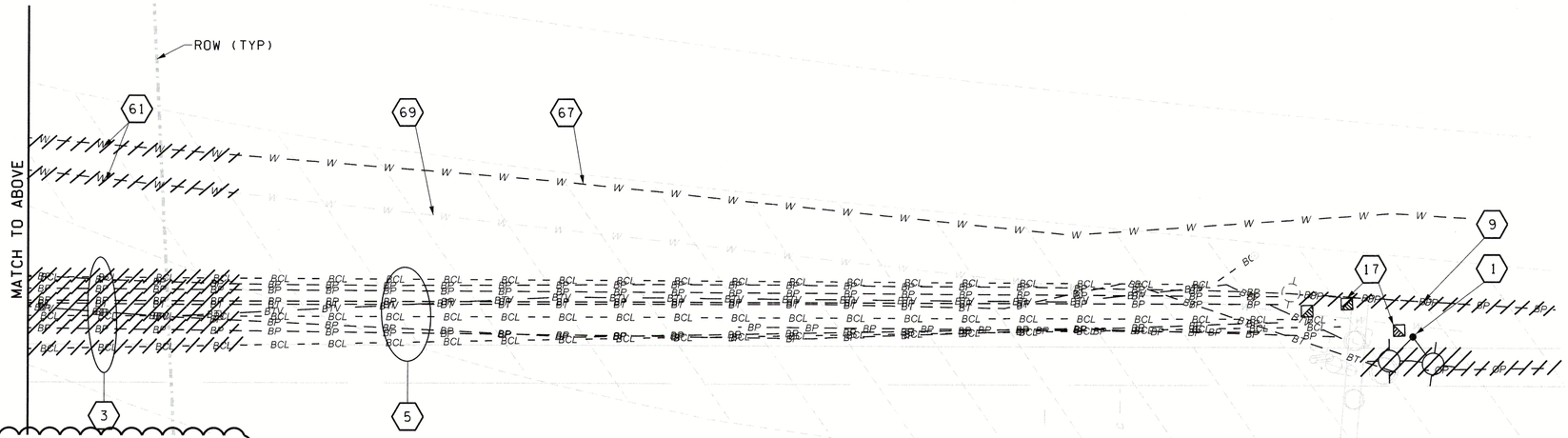
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION DETAIL PLANS

C04.70
SHEET
OF
SHEETS



3 C04.60 DETAIL



4 C04.60 DETAIL

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

1. REMOVE EXISTING LIGHT POLE AND LUMINAIRE. RETURN TO OWNER PER STANDARD SPECIFICATIONS. PULL CONDUCTORS TO NEAREST J-BOX AND TERMINATE.
3. SALVAGE EXISTING CONDUCTORS AND REMOVE EXISTING CONDUIT.
4. REMOVE J-BOX.
5. ABANDON EXISTING BURIED CONDUIT AND CONDUCTORS.
9. EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.
15. GENERATOR TO BE REMOVED AND SALVAGED.
16. TRANSFER SWITCH TO BE REMOVED AND SALVAGED.
17. ABANDON J-BOX.
20. REMOVE EXISTING UTILITY VAULT.
61. REMOVE EXISTING WATER LINE.
67. ABANDON WATER MAIN, SEE MWWD STD.
69. EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.
76. REMOVE STORM SEWER.
77. ABANDON STORM SEWER STRUCTURE.

RECEIVED
MAR 26 2019
MWWD

SCALE 1" = 10'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c04_71.dlv						
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SUBMITTAL DATE: 3/20/19	ReiserRW					WA-2017-007-00
DESIGNED BY: D. PERRY	3/20/19					REGION NO. 10 / STATE WASH
ENTERED BY: D. PERRY	3/20/19					JOB NUMBER 18W121
CHECKED BY: R. LUDWIG	3/20/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

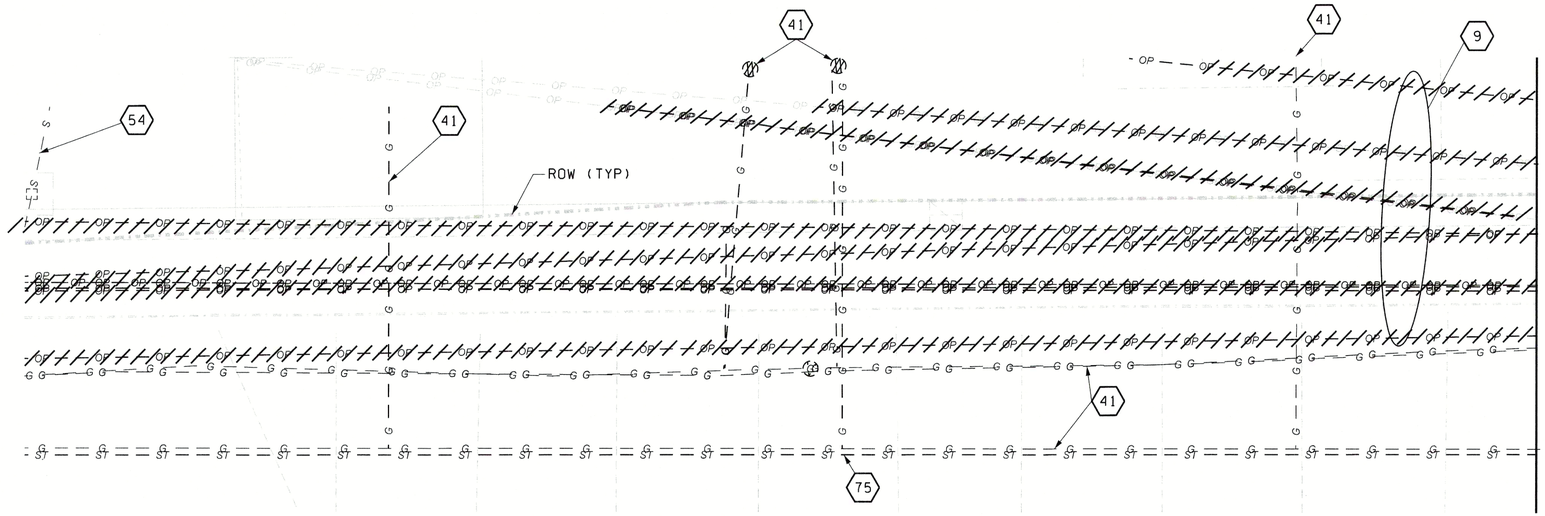
ROBERT L. LUDWIG STATE OF WASHINGTON 40847 REGISTERED PROFESSIONAL ENGINEER
2019/03/20

Washington State Department of Transportation
WASHINGTON STATE FERRIES

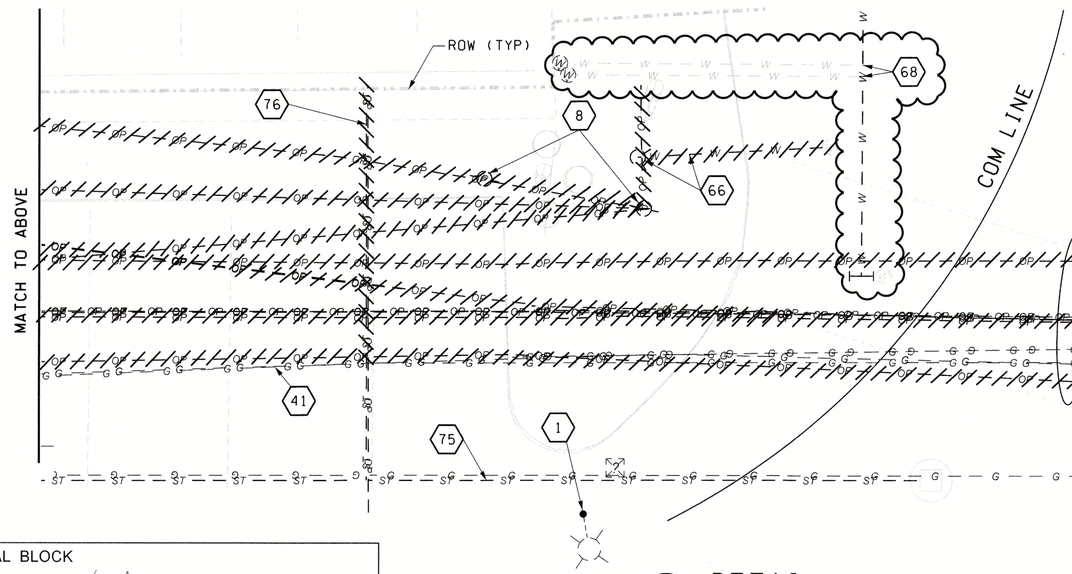
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

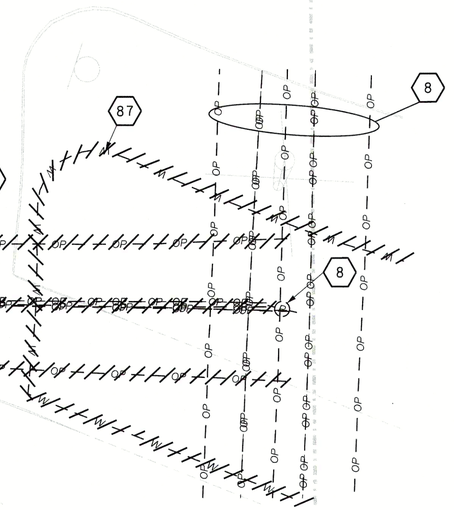
UTILITY DEMOLITION DETAIL PLANS

C04.71
SHEET
OF
SHEETS



1 C04.61 DETAIL





2 C04.61 DETAIL

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

1. REMOVE EXISTING LIGHT POLE AND LUMINAIRE. RETURN TO OWNER PER STANDARD SPECIFICATIONS. PULL CONDUCTOR TO NEAREST J-BOX AND TERMINATE.
8. EXISTING POWER POLE AND OVERHEAD POWER LINES TO BE RELOCATED BY SNOPUD.
9. EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.
41. GAS TO BE ABANDONED BY PSE.
54. ABANDON SANITARY SIDE SEWER, FILL WITH CDF. (COMPLETED IN 2018)
66. REMOVE EXIST FIRE HYDRANT, SPOOL, AND VALVE. PLACE BLIND FLANGE AND THRUST BLOCK AT TEE. COORDINATE MAIN SHUTDOWN WITH MWWD.
68. ABANDON WATER SERVICE. COORDINATE WITH MWWD. PLACE MWWD SUPPLIED DISC PLUG IN CORPORATION STOP WHERE MAIN IS TO REMAIN ACTIVE.
75. ABANDON STORM SEWER.
76. REMOVE STORM SEWER.
87. EXISTING IRRIGATION LINE TO BE REMOVED

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

RECEIVED
MAR 26 2019
MWWD

0 5 10
SCALE IN FEET

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c04_72.dlv						
PRINTED: 10:00:52 AM 3/20/2019	LAST PRINTED BY:				FED.AID PROJ.NO.	
SUBMITTAL DATE: 3/20/19	ReiserRW					
DESIGNED BY: D. PERRY	3/20/19				WA-2017-007-00	
ENTERED BY: D. PERRY	3/20/19				REGION NO. / STATE	
CHECKED BY: R. LUDWIG	3/20/19				10 / WASH	
MAR PROJ ENGR: C. TORRES					JOB NUMBER	
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL	18W121	
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	CONTRACT NO. 009321	

ROBERT C. LUDWIG — STATE OF WASHINGTON — 19847 — REGISTERED PROFESSIONAL ENGINEER
2019/03/20

JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION DETAIL PLANS

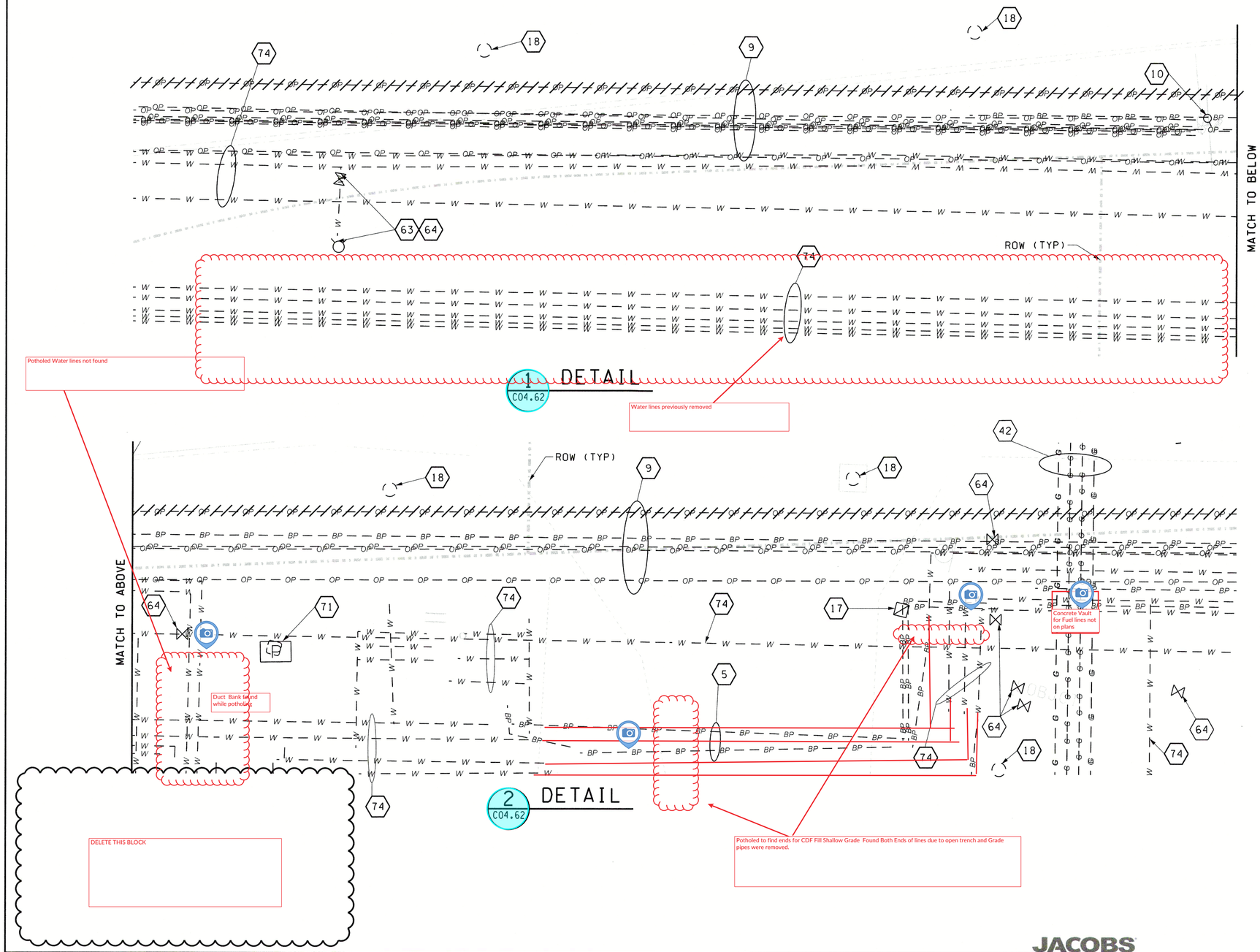
C04.72
SHEET OF SHEETS

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

5 ABANDON EXISTING BURIED CONDUIT AND CONDUCTORS.
9 EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.
10 REMOVE AND DISCARD EXISTING POWER POLE.
17 ABANDON J-BOX.
18 ABANDON UTILITY VAULT.
42 FILL BELOW-GRADE LIQUID GAS PIPE WITH CDF.
63 REMOVE EXISTING FIRE HYDRANT.
64 REMOVE EXISTING VALVE. PLUG PIPE TO REMAIN.
71 ABANDON WATER UTILITY.
74 ABANDONED WATER LINE. FILL WITH CDF.



RECEIVED
MAR 26 2019
MWWD

SCALE 1" = 10'

JACOBS

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DESIGNED BY: D. PERRY	3/20/19					REGION NO. 10 / STATE WASH
ENTERED BY: D. PERRY	3/20/19					JOB NUMBER 18W121
CHECKED BY: R. LUDWIG	3/20/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

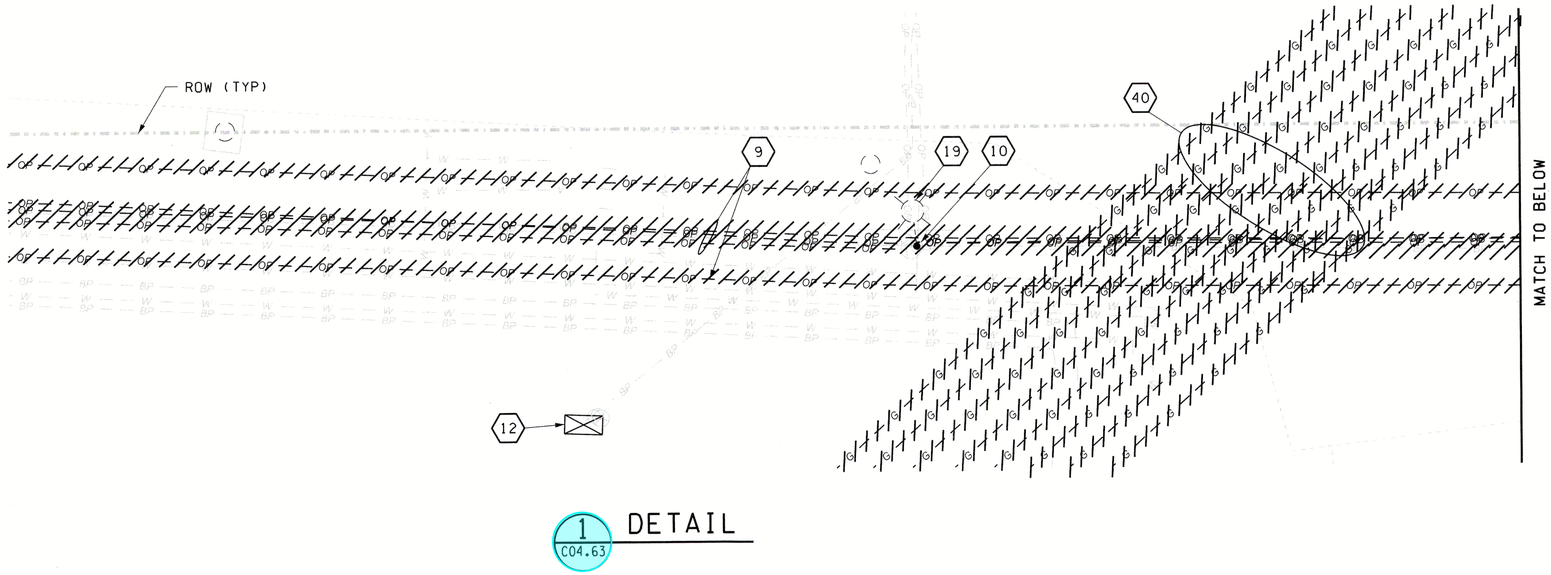
ROBERT C. LUDWIG — STATE OF WASHINGTON — 40847 — REGISTERED PROFESSIONAL ENGINEER
2019/03/20

Washington State Department of Transportation
WASHINGTON STATE FERRIES

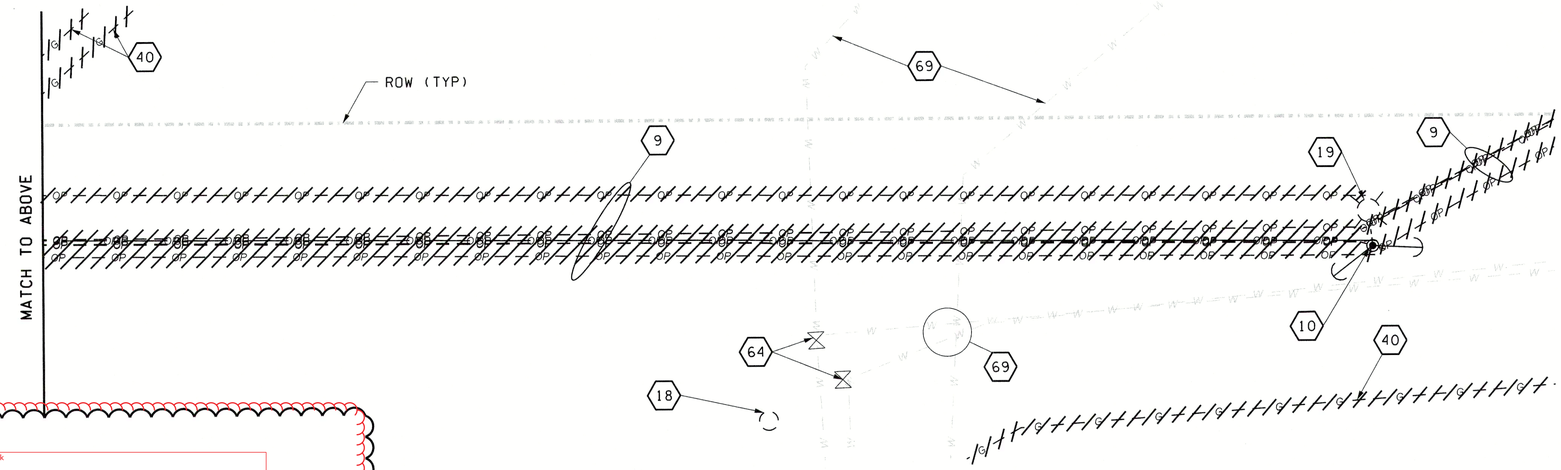
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION DETAIL PLANS

C04.73
SHEET OF SHEETS



1 C04.63 DETAIL



2 C04.63 DETAIL

Delete This Block

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

9 EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.

10 REMOVE AND DISCARD EXISTING POWER POLE.

12 REMOVE AND DISCARD EXISTING ELECTRICAL BOX.

18 ABANDON UTILITY VAULT.

19 REMOVE EXISTING LUMINAIRE.

40 REMOVE BELOW-GRADE ABANDONED LIQUID GAS PIPE.

64 REMOVE EXISTING VALVE. PLUG PIPE TO REMAIN.

69 EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.

RECEIVED
MAR 26 2019
MWWD

SCALE 1" = 10'

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c04_74.dlv					FED.AID PROJ.NO.
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DESIGNED BY: D. PERRY	3/20/19				10 / WASH
ENTERED BY: D. PERRY	3/20/19				JOB NUMBER
CHECKED BY: R. LUDWIG	3/20/19				18W121
MAR PROJ ENGR: C. TORRES					CONTRACT NO.
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL	009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	

ROBERT C. LUDWIG — STATE OF WASHINGTON — 4084 — REGISTERED PROFESSIONAL ENGINEER
2019/03/20

JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION DETAIL PLANS

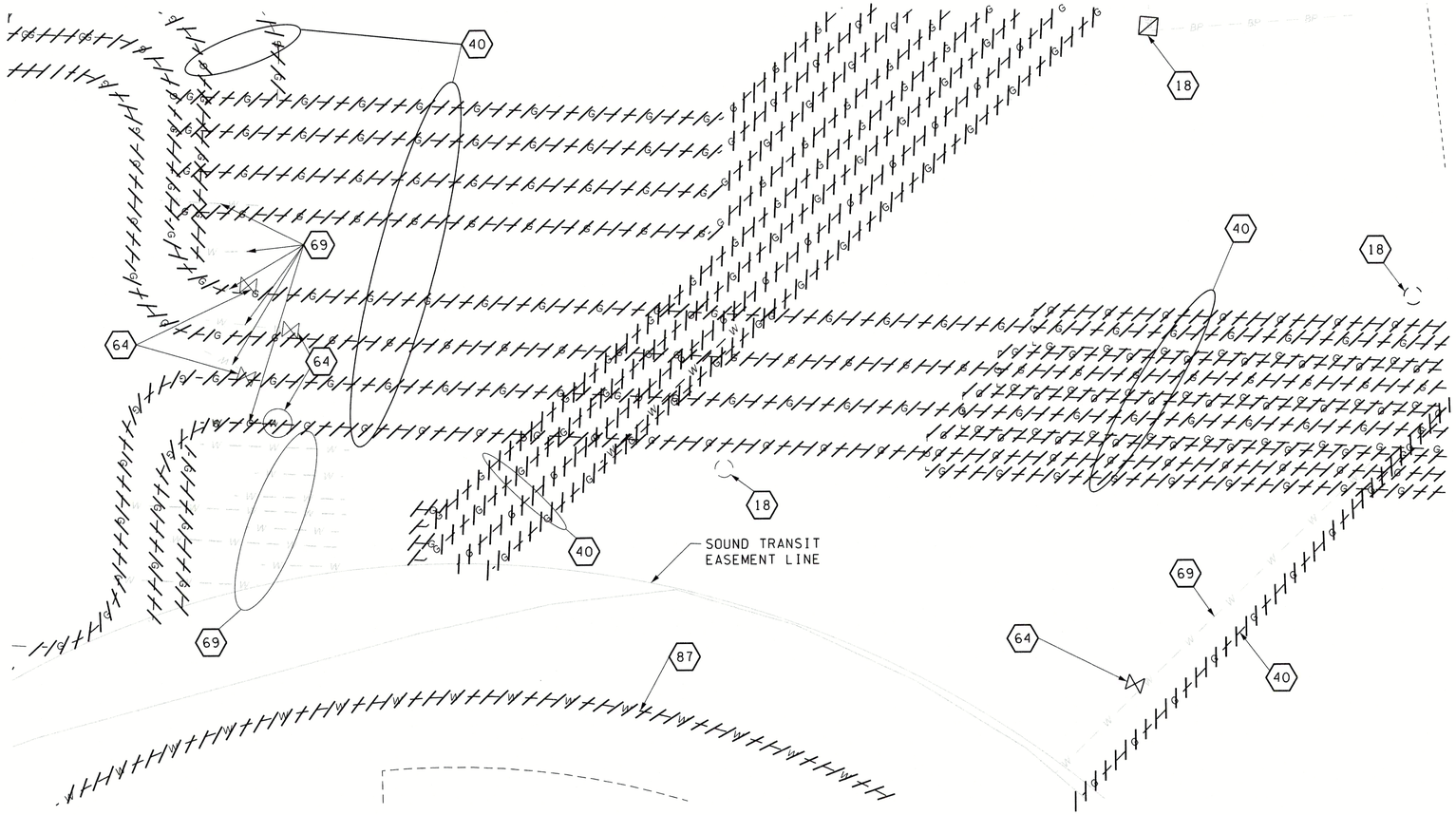
C04.74
SHEET
OF
SHEETS

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

(18) ABANDON UTILITY VAULT.
(40) REMOVE BELOW-GRADE ABANDONED LIQUID GAS PIPE.
(64) REMOVE EXISTING VALVE. PLUG PIPE TO REMAIN.
(69) EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.
(87) EXISTING IRRIGATION LINE TO BE REMOVED.



3 C04.63 DETAIL

RECEIVED
MAR 26 2019
MWWD

0 5 10
SCALE 1" = 10'

JACOBS

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DESIGNED BY: D. PERRY	3/20/19					JOB NUMBER 18W121
ENTERED BY: D. PERRY	3/20/19					CONTRACT NO. 009321
CHECKED BY: R. LUDWIG	3/20/19					
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

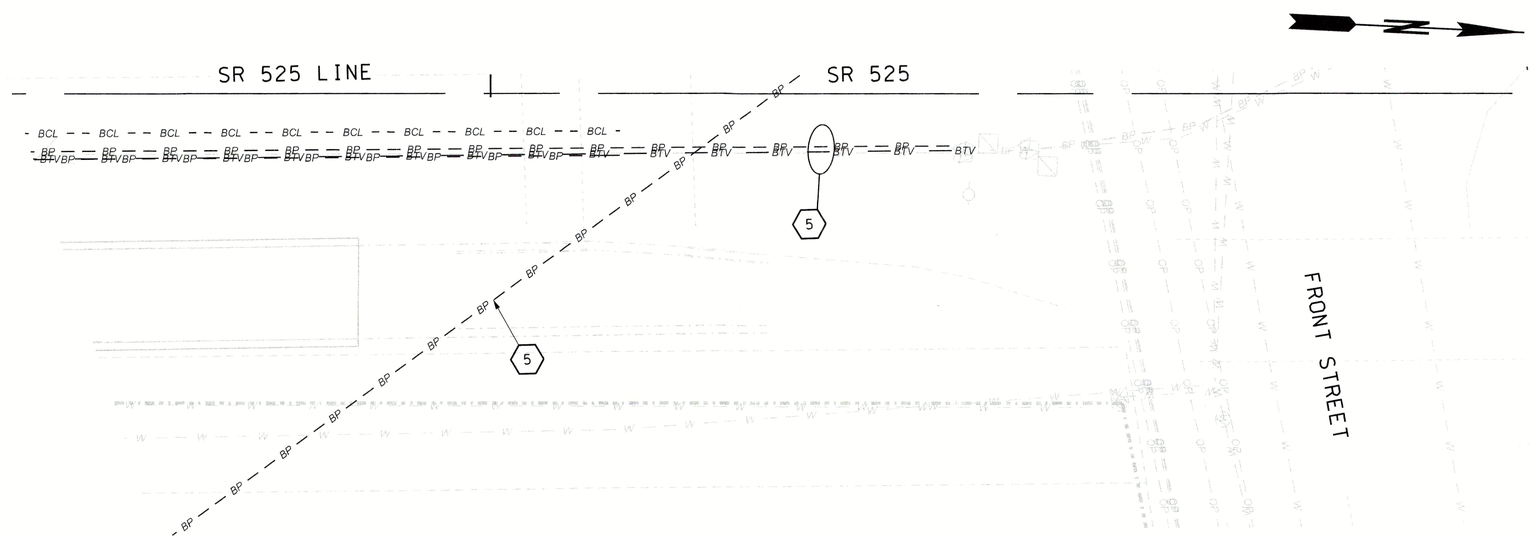
STATE OF WASHINGTON — ROBERT C. LUDWIG — 40847 — REGISTERED PROFESSIONAL ENGINEER — 2019/03/26

Washington State Department of Transportation
WASHINGTON STATE FERRIES

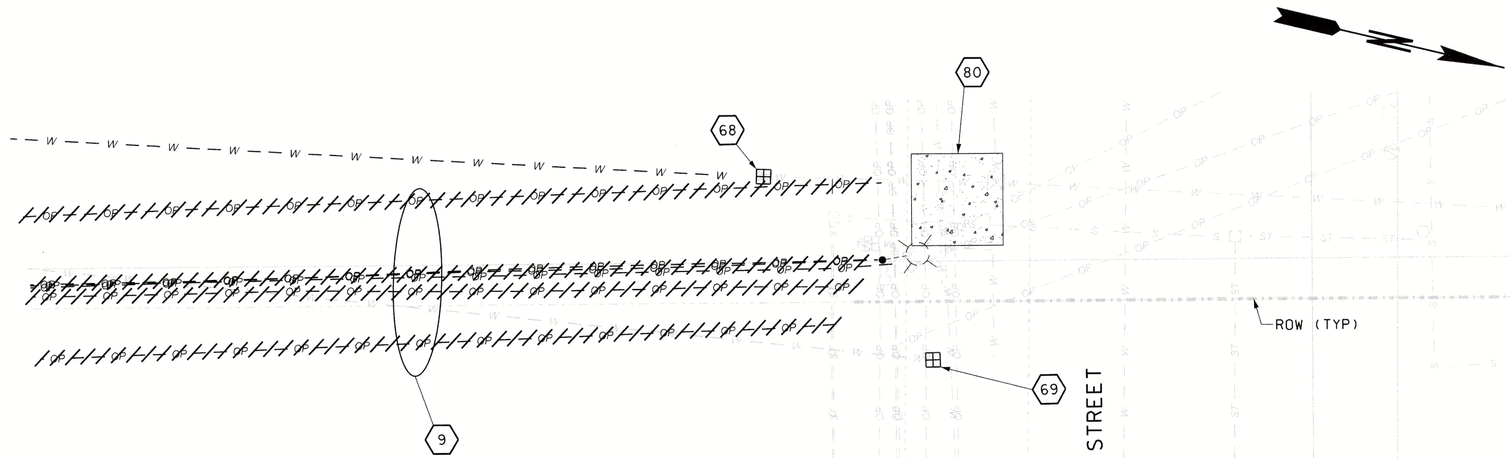
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION DETAIL PLAN

C04.75
SHEET
OF
SHEETS



1 C04.67 DETAIL



2 C04.67 DETAIL

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. SEE SITE ELECTRICAL PLAN SHEETS FOR POLE RELOCATION.
3. SEE SHEET C04.00 FOR UTILITY DEMOLITION ABBREVIATIONS AND LEGEND.

CONSTRUCTION NOTES:

5 ABANDON EXISTING BURIED CONDUIT AND CONDUCTORS.

9 EXISTING OVERHEAD CONDUCTORS TO BE REMOVED. COORDINATE WITH LOCAL SERVICE PROVIDERS AS NEEDED.

68 ABANDON WATER SERVICE. COORDINATE WITH MWWD. PLACE MWWD SUPPLIED DISC PLUG IN CORPORATION STOP WHERE MAIN IS TO REMAIN ACTIVE.

69 EXISTING UTILITY HAS BEEN ABANDONED PER UTILITY OWNER.

80 PAVEMENT RESTORATION FOR PLACEMENT OF DISC PLUG IN CORPORATION STOP. SEE SPECIAL PROVISIONS "ABANDON WATER SERVICE".

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

RECEIVED
MAR 26 2019
MWWD

0 5 10 SCALE IN FEET

JACOBS

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DESIGNED BY: D. PERRY	3/20/19					10 WASH
ENTERED BY: D. PERRY	3/20/19					JOB NUMBER
CHECKED BY: R. LUDWIG	3/20/19					18W121
MAR PROJ ENGR: C. TORRES						CONTRACT NO.
DIR TERM ENGR: N. MCINTOSH		MWWD CHANGE ORDER	03/20/19	RL		009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ROBERT C. LUDWIG — STATE OF WASHINGTON — 40847 — REGISTERED PROFESSIONAL ENGINEER — 2019/03/20

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

UTILITY DEMOLITION DETAIL PLANS

C04.76
SHEET
OF
SHEETS

W20-1

1

G20-2A

2

R5-11
BLACK ON WHITE

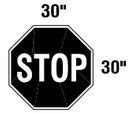
3

HAUL ROUTE SIGN, PROTECT EXISTING SIGN INSTALLED IN PREVIOUS PROJECT. SEE SPECIAL PROVISIONS

R3-2
RED AND BLACK ON WHITE

4

HAUL ROUTE SIGN, PROTECT EXISTING SIGN INSTALLED IN PREVIOUS PROJECT. SEE SPECIAL PROVISIONS



R1-1
WHITE ON RED

5

HAUL ROUTE SIGN, PROTECT EXISTING SIGN INSTALLED IN PREVIOUS PROJECT. SEE SPECIAL PROVISIONS

R2-1
BLACK ON WHITE

6

HAUL ROUTE SIGN, PROTECT EXISTING SIGN INSTALLED IN PREVIOUS PROJECT. SEE SPECIAL PROVISIONS

R3-1
RED AND BLACK ON WHITE

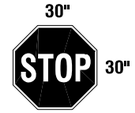
7

HAUL ROUTE SIGN

R3-2
RED AND BLACK ON WHITE

8

HAUL ROUTE SIGN



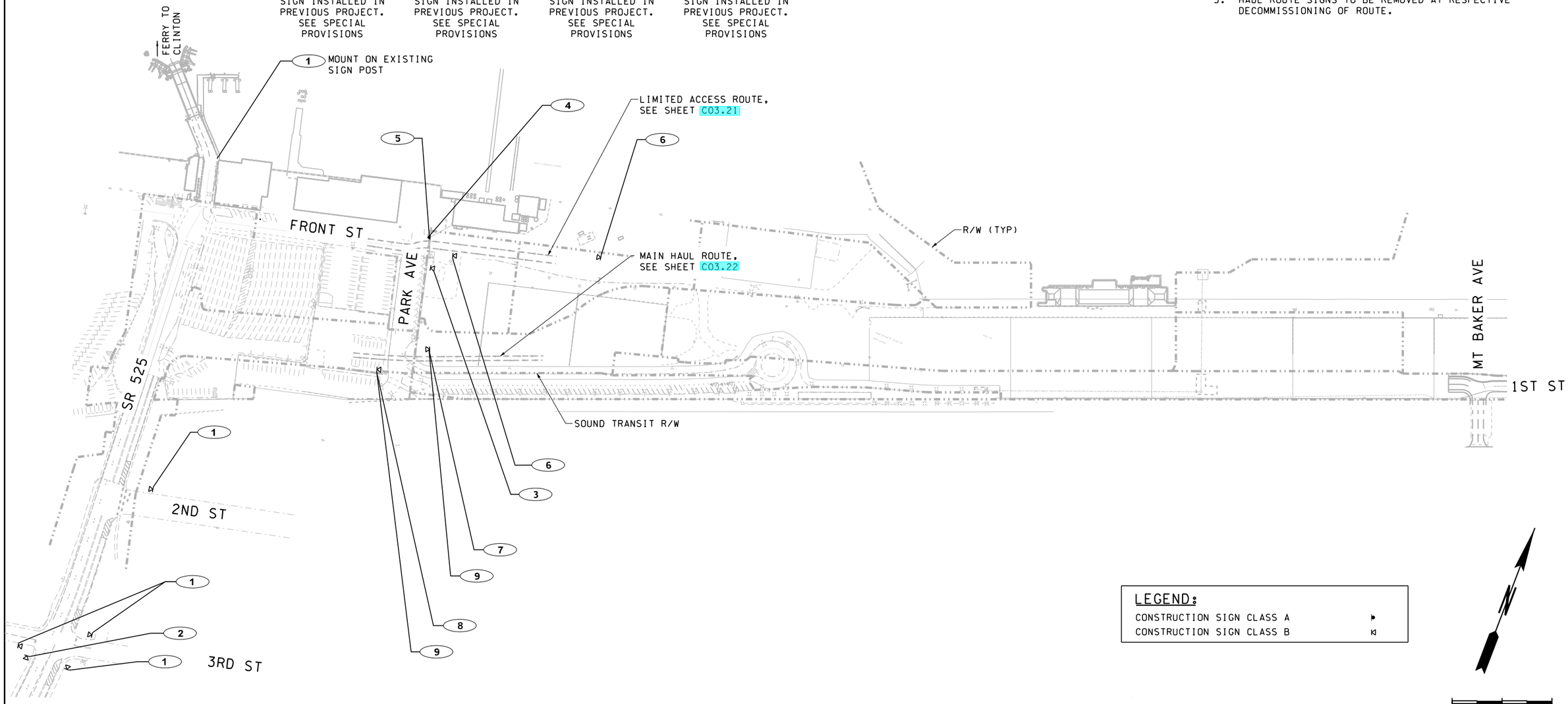
R1-1
WHITE ON RED

9

HAUL ROUTE SIGN

NOTES:

1. SIGN LOCATIONS ARE APPROXIMATE PER FIELD CONDITIONS.
2. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
3. NOT ALL UTILITIES ARE SHOWN.
4. SPEED LIMIT SIGN IS PROVIDED BY WSF AND SHALL BE POSTED AND MAINTAINED BY THE CONTRACTOR. SEE SPECIAL PROVISIONS.
5. HAUL ROUTE SIGNS TO BE REMOVED AT RESPECTIVE DECOMMISSIONING OF ROUTE.



LEGEND:

CONSTRUCTION SIGN CLASS A

CONSTRUCTION SIGN CLASS B

0 100 200
SCALE 1" = 200'

JACOBS

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SUBMITTAL DATE: 1/18/19	DanielJL				WA-2017-007-00
DESIGNED BY: A. WARDHANA	1/18/19				REGION NO. STATE
ENTERED BY: K. THOMAS	1/18/19				10 WASH
CHECKED BY: J. TAYLOR	1/18/19				JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES					
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19		CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	

ADITYA R. WARDHANA — STATE OF WASHINGTON — 47043 — REGISTERED PROFESSIONAL ENGINEER

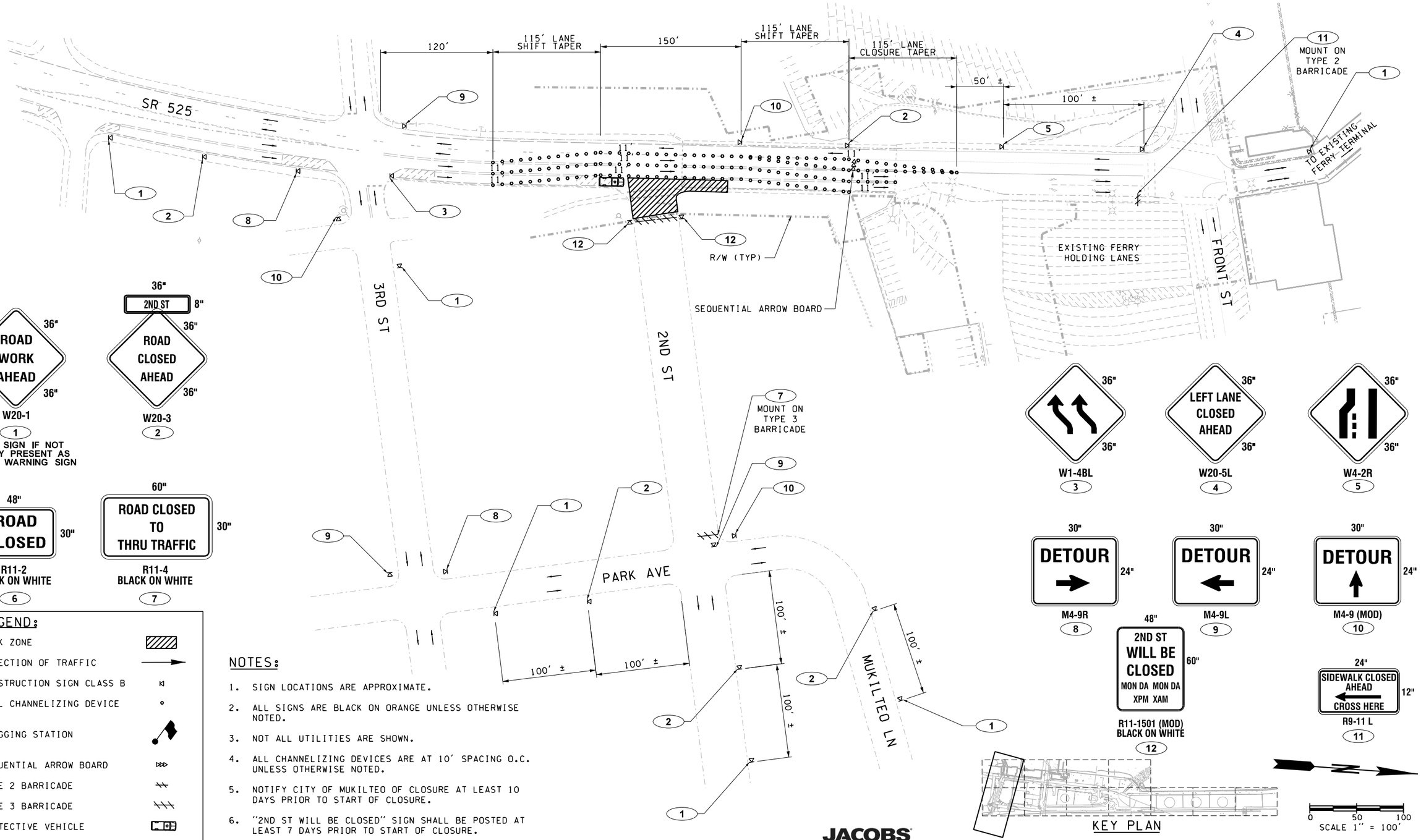
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
MAINTENANCE OF TRAFFIC ADVANCE SIGNING

C05.00

SHEET 111 OF 1521 SHEETS



LEGEND:

- WORK ZONE
- DIRECTION OF TRAFFIC
- CONSTRUCTION SIGN CLASS B
- TALL CHANNELIZING DEVICE
- FLAGGING STATION
- SEQUENTIAL ARROW BOARD
- TYPE 2 BARRICADE
- TYPE 3 BARRICADE
- PROTECTIVE VEHICLE

NOTES:

1. SIGN LOCATIONS ARE APPROXIMATE.
2. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
3. NOT ALL UTILITIES ARE SHOWN.
4. ALL CHANNELIZING DEVICES ARE AT 10′ SPACING O.C. UNLESS OTHERWISE NOTED.
5. NOTIFY CITY OF MUKILTEO OF CLOSURE AT LEAST 10 DAYS PRIOR TO START OF CLOSURE.
6. "2ND ST WILL BE CLOSED" SIGN SHALL BE POSTED AT LEAST 7 DAYS PRIOR TO START OF CLOSURE.

JACOBS

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ENTERED BY: A. MAIMONE	1/18/19					REGION NO. STATE
CHECKED BY: J. TAYLOR	1/18/19					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ADITYA R. WARDHANA — STATE OF WASHINGTON — 37048 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TRAFFIC CONTROL PLAN - EAST
TEMPORARY CURB RAMP WORK AREA

C05.01

SHEET 112 OF 1521 SHEETS

W20-1

1

PLACE SIGN IF NOT ALREADY PRESENT AS ADVANCE WARNING SIGN

W20-5R

2

W4-2L

3

R9-9
BLACK/WHITE

4

MOUNT ON TYPE 3 BARRICADE

R9-11
BLACK/WHITE

5

MOUNT ON TYPE 2 BARRICADE

R9-11
BLACK/WHITE

6

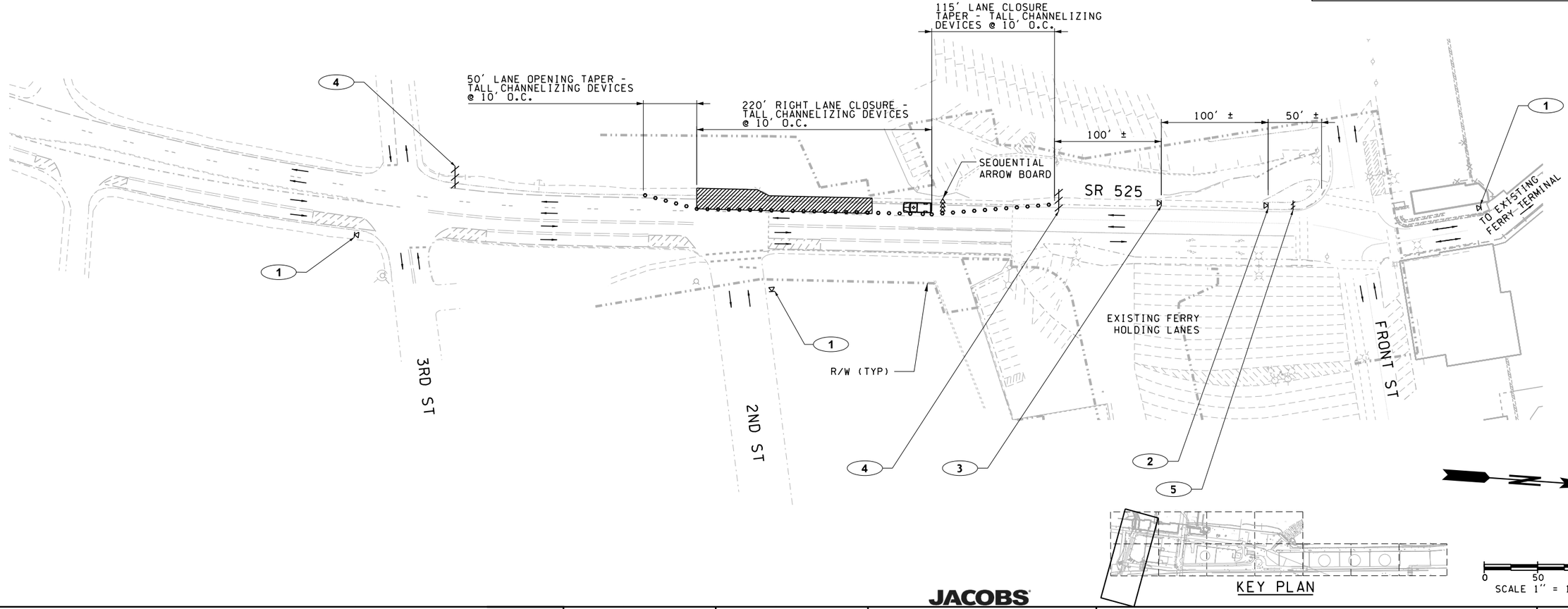
MOUNT ON TYPE 2 BARRICADE INSTALL AT NW CORNER OF SR 525 AND 5TH ST NORTH OF CURB RETURN FACING SOUTH

NOTES:

1. SIGN LOCATIONS ARE APPROXIMATE.
2. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
3. NOT ALL UTILITIES ARE SHOWN.

LEGEND:

- WORK ZONE
- DIRECTION OF TRAFFIC
- CONSTRUCTION SIGN CLASS B
- TALL CHANNELIZING DEVICE
- TYPE 2 BARRICADE
- TYPE 3 BARRICADE
- SEQUENTIAL ARROW BOARD
- PROTECTIVE VEHICLE



KEY PLAN

SCALE 1" = 100'

JACOBS

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DESIGNED BY: A. WARDHANA	1/18/19					REGION NO. STATE
ENTERED BY: A. MAIMONE	1/18/19					10 WASH
CHECKED BY: J. TAYLOR	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ADITYA R. WARDHANA
STATE OF WASHINGTON
47044
REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

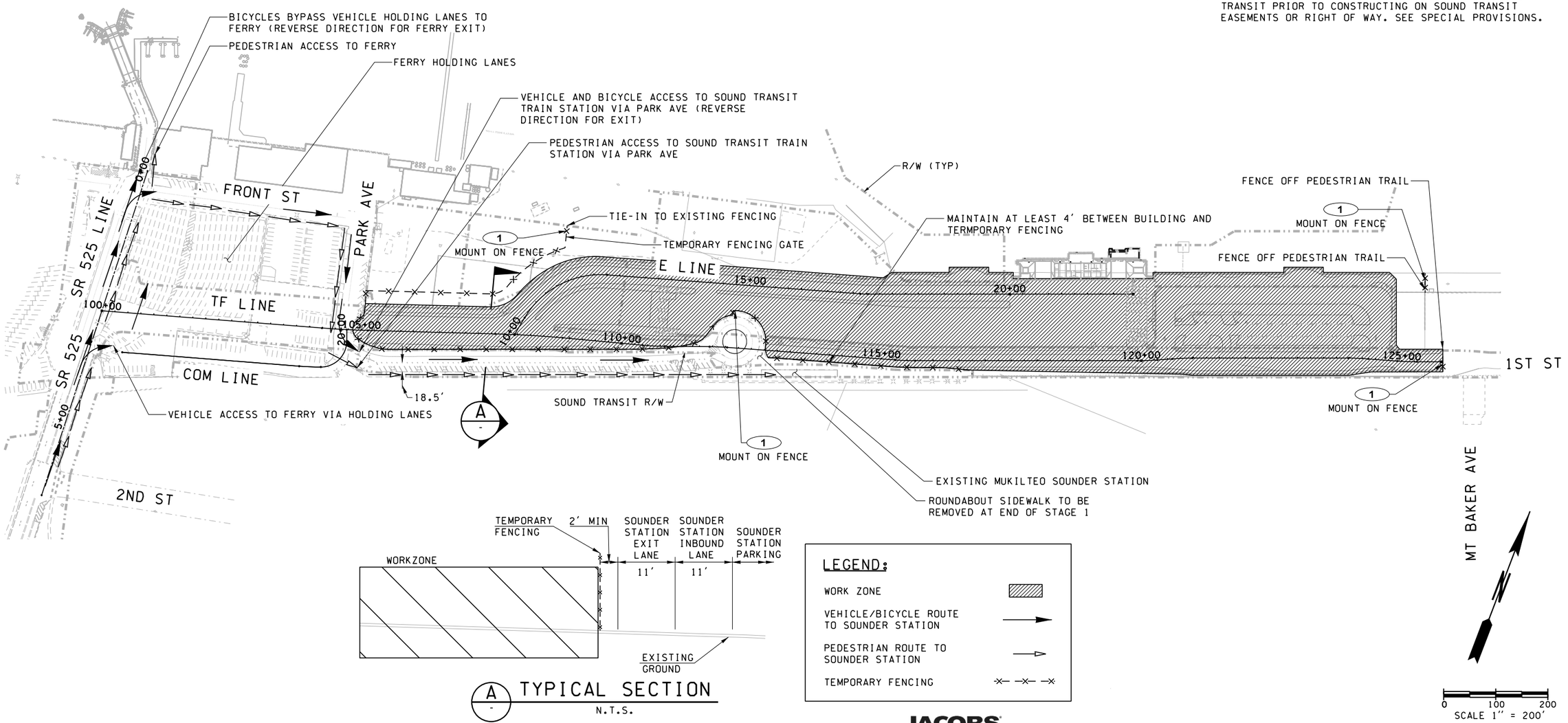
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
TRAFFIC CONTROL PLAN - WEST TEMPORARY CURB RAMP WORK AREA

C05.02

SHEET 113 OF 1521 SHEETS

NOTES:

1. ROUTES SHOWN ARE FOR VEHICLES, BICYCLES, AND PEDESTRIANS HEADING NORTHBOUND ON SR525.
2. NOT ALL UTILITIES ARE SHOWN.
3. SEE C06.10 THROUGH C06.16 FOR ALIGNMENT INFORMATION.
4. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
5. PEDESTRIANS MUST BE ESCORTED THROUGH HAUL ROUTE DURING HAULING OPERATIONS.
6. CONTRACTOR TO OBTAIN PROPERTY RIGHTS FROM SOUND TRANSIT PRIOR TO CONSTRUCTING ON SOUND TRANSIT EASEMENTS OR RIGHT OF WAY. SEE SPECIAL PROVISIONS.



A - TYPICAL SECTION
N.T.S.

LEGEND:

- WORK ZONE
- VEHICLE/BICYCLE ROUTE TO SOUNDER STATION
- PEDESTRIAN ROUTE TO SOUNDER STATION
- TEMPORARY FENCING

0 100 200
SCALE 1" = 200'

JACOBS

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DESIGNED BY: A. WARDHANA	1/18/19					REGION NO. STATE
ENTERED BY: K. THOMAS	1/18/19					10 WASH
CHECKED BY: J. TAYLOR	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ADITYA R. WARDHANA — STATE OF WASHINGTON — 47044 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

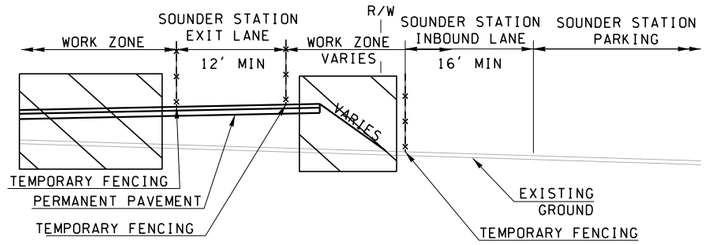
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

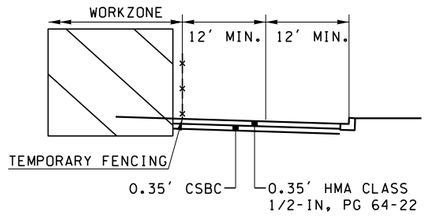
MAINTENANCE OF TRAFFIC STAGE 1 OVERVIEW

C05.10

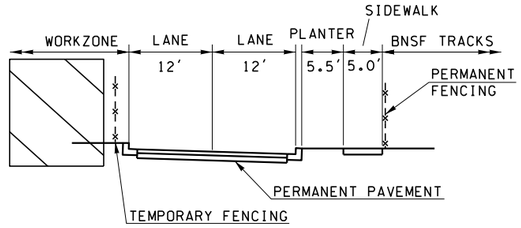
SHEET 114 OF 1521 SHEETS



A - TYPICAL SECTION
N.T.S.



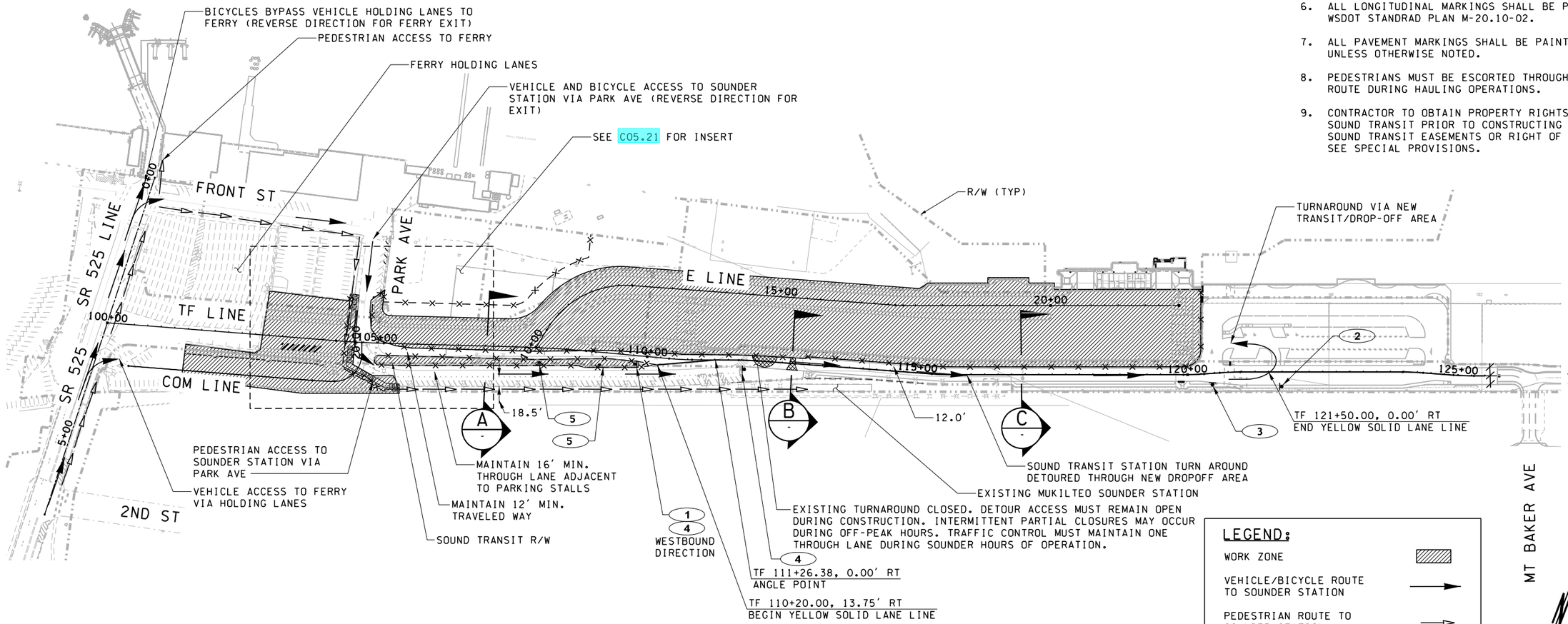
B - TYPICAL SECTION
N.T.S.



C - TYPICAL SECTION
N.T.S.

NOTES:

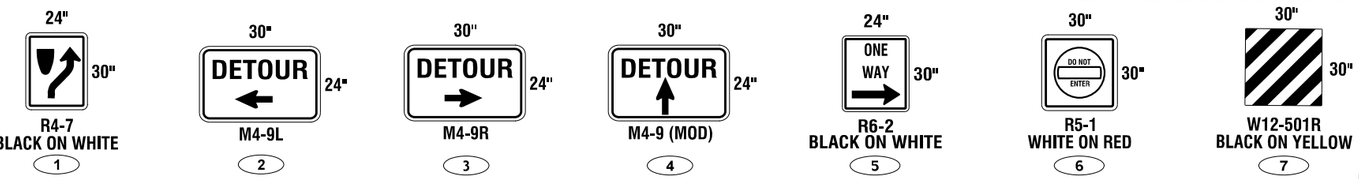
1. ROUTES SHOWN ARE FOR VEHICLES, BICYCLES, AND PEDESTRIANS HEADING NORTHBOUND ON SR525.
2. NOT ALL UTILITIES ARE SHOWN.
3. SEE C06.10 THROUGH C06.16 FOR ALIGNMENT HORIZONTAL CONTROLS.
4. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
5. INSTALL SIGNING IN ACCORDANCE WITH WSDOT STANDARD PLAN K-80.10-01.
6. ALL LONGITUDINAL MARKINGS SHALL BE PER WSDOT STANDRAD PLAN M-20.10-02.
7. ALL PAVEMENT MARKINGS SHALL BE PAINTED UNLESS OTHERWISE NOTED.
8. PEDESTRIANS MUST BE ESCORTED THROUGH HAUL ROUTE DURING HAULING OPERATIONS.
9. CONTRACTOR TO OBTAIN PROPERTY RIGHTS FROM SOUND TRANSIT PRIOR TO CONSTRUCTING ON SOUND TRANSIT EASEMENTS OR RIGHT OF WAY. SEE SPECIAL PROVISIONS.



LEGEND:

- WORK ZONE
- VEHICLE/BICYCLE ROUTE TO SOUNDER STATION
- PEDESTRIAN ROUTE TO SOUNDER STATION
- TEMPORARY FENCING
- CONCRETE BARRIER TYPE 2
- CONSTRUCTION SIGN CLASS A
- TEMPORARY PAVEMENT
- TYPE 3 BARRICADE

SCALE 1" = 200'



JACOBS

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ENTERED BY: K. THOMAS	1/18/19					10 WASH
CHECKED BY: J. TAYLOR	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ADITYA R. WARDHANA — STATE OF WASHINGTON — 47044 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

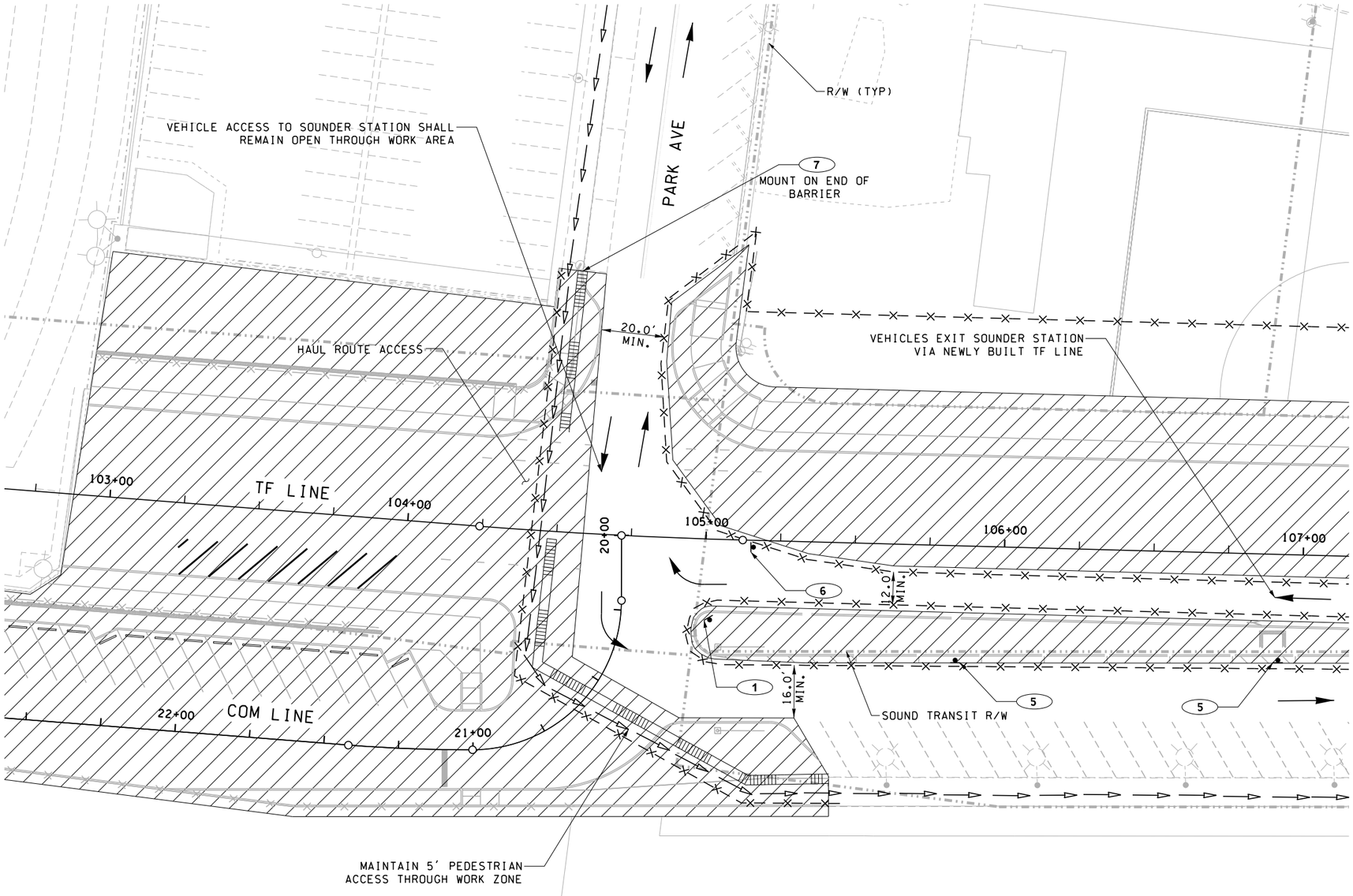
MAINTENANCE OF TRAFFIC
STAGE 2 OVERVIEW

C05.20

SHEET 115 OF 1521 SHEETS

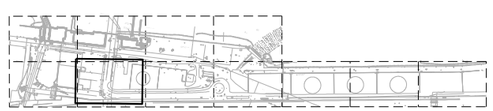
GENERAL NOTES:

1. SEE C05.20 FOR NOTES AND SIGN DETAILS.



LEGEND:

- WORK ZONE
- DIRECTION OF TRAVEL
- PEDESTRIAN ROUTE
- TEMPORARY FENCING
- CONCRETE BARRIER TYPE 2
- CONSTRUCTION SIGN



KEY PLAN

N

0 20 40
SCALE 1" = 40'

JACOBS

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ENTERED BY: K. THOMAS	1/18/19					JOB NUMBER 18W121
CHECKED BY: J. TAYLOR	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ADITYA R. WARDHANA — STATE OF WASHINGTON — 47044 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

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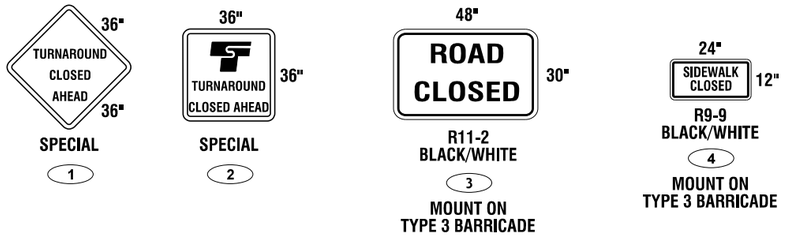
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
MAINTENANCE OF TRAFFIC STAGE 2 DETAIL

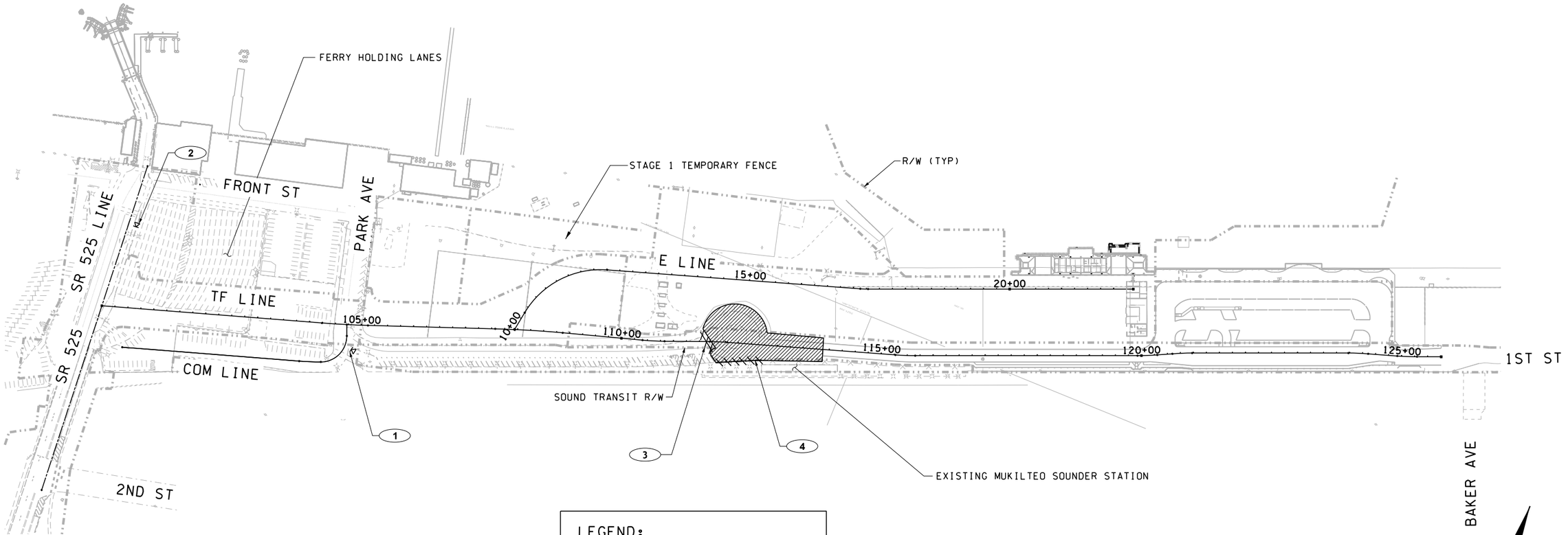
C05.21

SHEET 116 OF 1521 SHEETS



NOTES:

1. SIGN LOCATIONS ARE APPROXIMATE.
2. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
3. NOT ALL UTILITIES ARE SHOWN.
4. CONTRACTOR TO OBTAIN PROPERTY RIGHTS FROM SOUND TRANSIT PRIOR TO CONSTRUCTING ON SOUND TRANSIT EASEMENTS OR RIGHT OF WAY. SEE SPECIAL PROVISIONS.



LEGEND:

- WORK ZONE
- TEMPORARY FENCING
- TYPE 3 BARRICADE
- CONSTRUCTION SIGN CLASS B

0 100 200
SCALE 1" = 200'

JACOBS

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MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ADITYA R. WARDHANA — STATE OF WASHINGTON — 47044 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

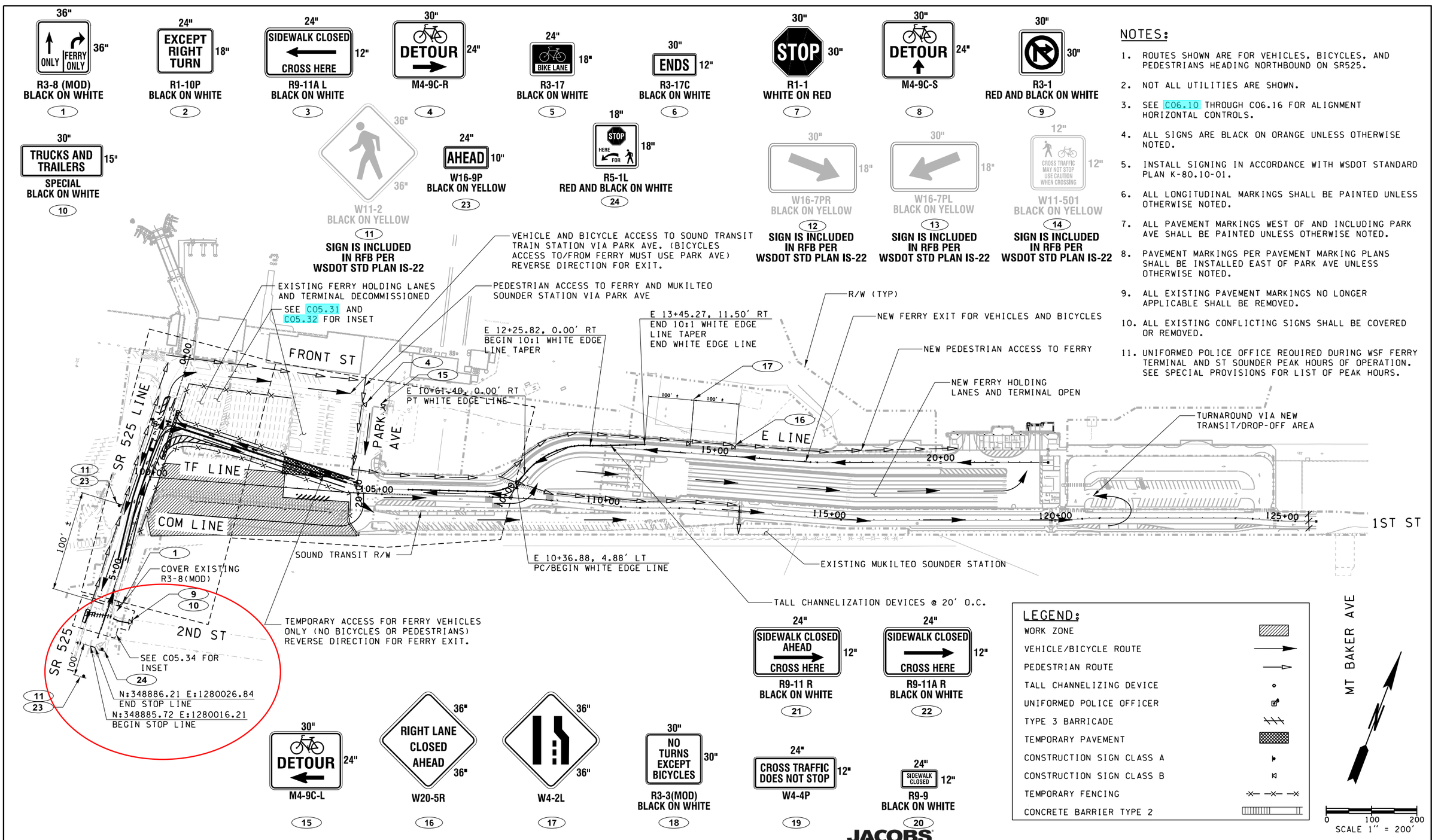
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TRAFFIC CONTROL PLAN - TURNAROUND WORK AREA

C05.22

SHEET 117 OF 1521 SHEETS



NOTES:

1. ROUTES SHOWN ARE FOR VEHICLES, BICYCLES, AND PEDESTRIANS HEADING NORTHBOUND ON SR525.
2. NOT ALL UTILITIES ARE SHOWN.
3. SEE C06.10 THROUGH C06.16 FOR ALIGNMENT HORIZONTAL CONTROLS.
4. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
5. INSTALL SIGNING IN ACCORDANCE WITH WSDOT STANDARD PLAN K-80.10-01.
6. ALL LONGITUDINAL MARKINGS SHALL BE PAINTED UNLESS OTHERWISE NOTED.
7. ALL PAVEMENT MARKINGS WEST OF AND INCLUDING PARK AVE SHALL BE PAINTED UNLESS OTHERWISE NOTED.
8. PAVEMENT MARKINGS PER PAVEMENT MARKING PLANS SHALL BE INSTALLED EAST OF PARK AVE UNLESS OTHERWISE NOTED.
9. ALL EXISTING PAVEMENT MARKINGS NO LONGER APPLICABLE SHALL BE REMOVED.
10. ALL EXISTING CONFLICTING SIGNS SHALL BE COVERED OR REMOVED.
11. UNIFORMED POLICE OFFICE REQUIRED DURING WSF FERRY TERMINAL AND ST SOUNDER PEAK HOURS OF OPERATION. SEE SPECIAL PROVISIONS FOR LIST OF PEAK HOURS.

JACOBS

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SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00	
DESIGNED BY: A. WARDHANA	1/18/19					REGION NO. 10	STATE WASH
ENTERED BY: K. THOMAS	1/18/19					JOB NUMBER 18W121	
CHECKED BY: J. SCHENKMAN	1/18/19					CONTRACT NO. 009321	
MAR PROJ ENGR: C. TORRES							
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19				
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY			

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER — 01/18/19

ADITYA R. WARDHANA — STATE OF WASHINGTON — 47044 — REGISTERED PROFESSIONAL ENGINEER — 01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MAINTENANCE OF TRAFFIC STAGE 3 OVERVIEW

C05.30

SHEET 118 OF 1521 SHEETS

GENERAL NOTE:

1. SEE SHEET C05.30 FOR NOTES AND SIGN DETAILS.
2. INSTALL PARKING SPACE MARKINGS PER DETAILS ON THIS SHEET. ALL PARKING SPACE MARKINGS SHALL BE WHITE.

SEE SHEET C05.33 FOR INSET

move stop bar back 10'-0"

about 40'-0"

move light pole over 15'0"

11'-0 exit lane

move road 15'0"

wall one

SR 525 4+74.82, 5.78' RT
TYPE 1S TRAFFIC ARROW

SR 525 4+79.01, 10.96' RT
END 12:1 TAPER
END DOUBLE CENTERLINE
MATCH EXISTING

SR 525 4+94.95, 1.38' LT
END DOUBLE LANE LINE
MATCH EXISTING

SR 525 3+37.05, 22.49' RT
BEGIN 12:1 TAPER

SR 525 3+44.82, 16.34' RT
TYPE 1S TRAFFIC ARROW

SR 525 3+43.81, 5.61' RT
TYPE 2SR TRAFFIC ARROW

SR 525 3+00.01, 11.58' RT
END WIDE LANE LINE
END WIDE LANE LINE
BEGIN DOUBLE LANE LINE

SR 525 2+55.28, 17.02' RT
TYPE 1S TRAFFIC ARROW

SR 525 2+57.00, 3.43' RT
TYPE 2SR TRAFFIC ARROW

SR 525 4+78.78, 11.10' LT
BEGIN WHITE EDGE LINE

SR 525 4+71.78, 5.34' LT
TYPE 2SR TRAFFIC ARROW

SR 525 4+38.80, 2.47' LT
LETTER MARKING "FERRY"

SR 525 3+39.08, 1.41' RT
LETTER MARKING "ONLY"

R/W (TYP)

SR 525 3+19.38, 5.78' RT
LETTER MARKING "FERRY"

SR 525 2+70.07, 3.76' RT
LETTER MARKING "ONLY"

SR 525
SR 525 LINE
FRONT STREET
TEMP LINE
TF LINE
COM LINE
FERRY
ONLY
20'
11'

3 MOUNT ON BARRICADE

22 MOUNT ON BARRICADE

15

4

8

WHITE EDGE LINE AT 10' SPACING, 45 DEG TO TEMP LINE

R=439.5'

TEMP 11+29.89, 13.11' RT
PT WHITE EDGE LINE

TALL CHANNELIZING DEVICES @ 5' O.C. ALONG CENTERLINE OF TEMP LINE

TEMP 11+72.09, 11.00' RT
END WHITE EDGE LINE

TEMP 11+01.66, 127.91' LT
BEGIN REMOVE CROSSWALK MARKING
INSTALL PARKING SPACE END MARKING

TEMP 11+26.35, 132.18' LT
INSTALL PARKING SPACE MID MARKING

TEMP 11+49.97, 136.34' LT
INSTALL PARKING SPACE MID MARKING

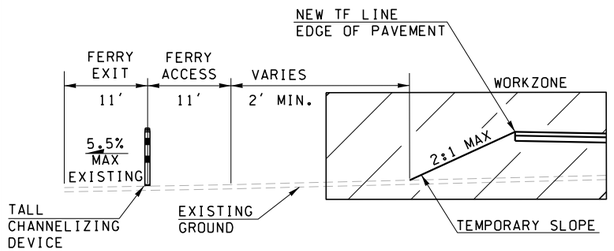
TEMP 11+73.63, 140.48' LT
INSTALL PARKING SPACE MID MARKING

A

MATCH TO C05.32

LEGEND:

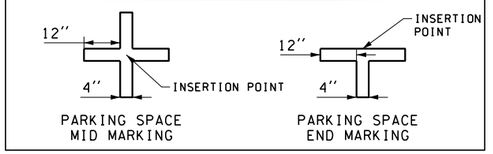
- WORK ZONE
- VEHICLE/BICYCLE ROUTE
- PEDESTRIAN ROUTE
- TALL CHANNELIZING DEVICE
- UNIFORMED POLICE OFFICER
- TYPE 3 BARRICADE
- TEMPORARY PAVEMENT
- CONSTRUCTION SIGN CLASS A
- CONSTRUCTION SIGN CLASS B
- TEMPORARY FENCING
- CONCRETE BARRIER TYPE 2
- TYPE 2 BARRICADE

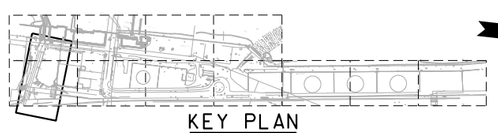


A - TYPICAL SECTION
N.T.S.

JACOBS

PARKING SPACE MARKING DETAIL





KEY PLAN

0 25 50
SCALE 1" = 50'

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DESIGNED BY: A. WARDHANA	1/18/19					REGION NO. STATE
ENTERED BY: K. THOMAS	1/18/19					10 WASH
CHECKED BY: J. TAYLOR	1/18/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

ADITYA R. WARDHANA — STATE OF WASHINGTON — 47043 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MAINTENANCE OF TRAFFIC
STAGE 3 DETAIL

C05.31

SHEET 119 OF 1521 SHEETS

GENERAL NOTES:

1. SEE SHEET C05.30 FOR NOTES AND SIGN DETAILS.
2. INSTALL PARKING SPACE MARKINGS PER DETAILS ON THIS SHEET. ALL PARKING SPACE MARKINGS SHALL BE WHITE.

LEGEND:

- WORK ZONE
- VEHICLE/BICYCLE ROUTE
- PEDESTRIAN ROUTE
- TALL CHANNELIZING DEVICE
- UNIFORMED POLICE OFFICER
- TYPE 3 BARRICADE
- TEMPORARY PAVEMENT
- CONSTRUCTION SIGN CLASS A
- CONSTRUCTION SIGN CLASS B
- TEMPORARY FENCING
- CONCRETE BARRIER TYPE 2
- TYPE 2 BARRICADE

PARKING SPACE MARKING DETAIL

TEMP 11+97.26, 144.68' LT
INSTALL PARKING SPACE MID MARKING

TEMP 12+20.90, 148.73' LT
INSTALL PARKING SPACE END MARKING

TEMP 12+40.59, 152.21' LT
END REMOVE CROSSWALK MARKING

21 MOUNT ON BARRICADE

20 MOUNT ON BARRICADE

TEMP 12+67.35, 13.00' LT
MATCH EXISTING

TEMP 12+73.05, 25.21' RT

TALL CHANNELIZATION DEVICES AT 5' O.C. ALONG CENTERLINE

7
18

TALL CHANNELIZING DEVICES AT 20' O,C,

B

MATCH TO C05.31

+00

11'

13+00

14+00

14+35

TEMP LINE

EDGE OF NEW PERMANENT PAVEMENT

103+00

104+00

105+00

106+00

107+00

1ST ST

TF LINE

FERRY ONLY

R=400'

R=103.5'

TEMP 13+65.34, 5.51 RT
TYPE IS TRAFFIC ARROW

COM LINE

22+00

23+00

24+00

TEMP 14+15.21
END DOUBLE CENTERLINE, 0.00' RT
END WHITE EDGE LINE, 11.00' LT & RT
BEGIN YELLOW DOTTED EXTENSION LINE, 0.00' RT

TF 104+55.96, 15.68' LT
PC YELLOW DOTTED EXTENSION LINE

TF 104+97.75, 190.82' LT
END DOUBLE CENTERLINE
STOP BAR

7

TF 105+15.79, 194.22' LT
END REMOVE CONFLICTING PAVEMENT MARKING AND/OR WHEEL STOPS

TF 104+94.31, 165.09' LT
AP DOUBLE CENTERLINE

TF 104+79.10, 133.77' LT
BEGIN DOUBLE CENTERLINE

SOUND TRANSIT STATION ACCESS AND BICYCLE ACCESS TO FERRY VIA PARK AVE

TF 105+10.49, 131.64' LT
BEGIN REMOVE CONFLICTING PAVEMENT MARKING AND/OR WHEEL STOPS

PARK AVE

R/W (TYP)

TF 104+67.27, 73.66' LT
TYPE 1S TRAFFIC ARROW

TF 107+96.55, 27.01' LT
PT/END WHITE EDGE LINE

TEMP 14+29.82, 12.51' LT

TF 107+43.23, 11.50' LT
PC WHITE EDGE LINE

TEMP 14+35.21 P.O.E. =
TF 104+52.11, 16.67' LT

5
6

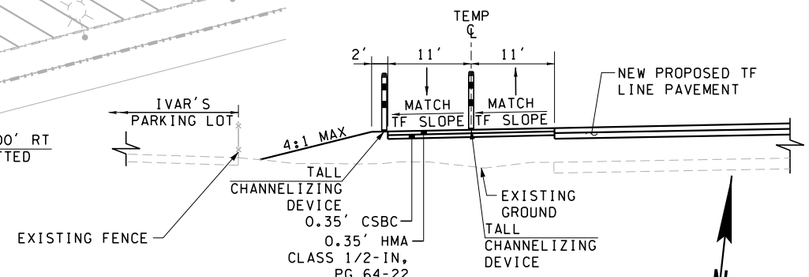
TF 105+70.54, 11.50' LT
BEGIN WHITE EDGE LINE

4

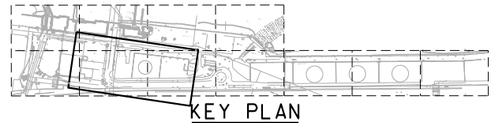
SOUND TRANSIT R/W

TF 105+70.54, 0.00' RT
PT/END YELLOW DOTTED EXTENSION LINE

TALL CHANNELIZING DEVICES @ 20' O.C.



B TYPICAL SECTION
N.T.S.



N

0 25 50
SCALE 1'' = 50'

JACOBS

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MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

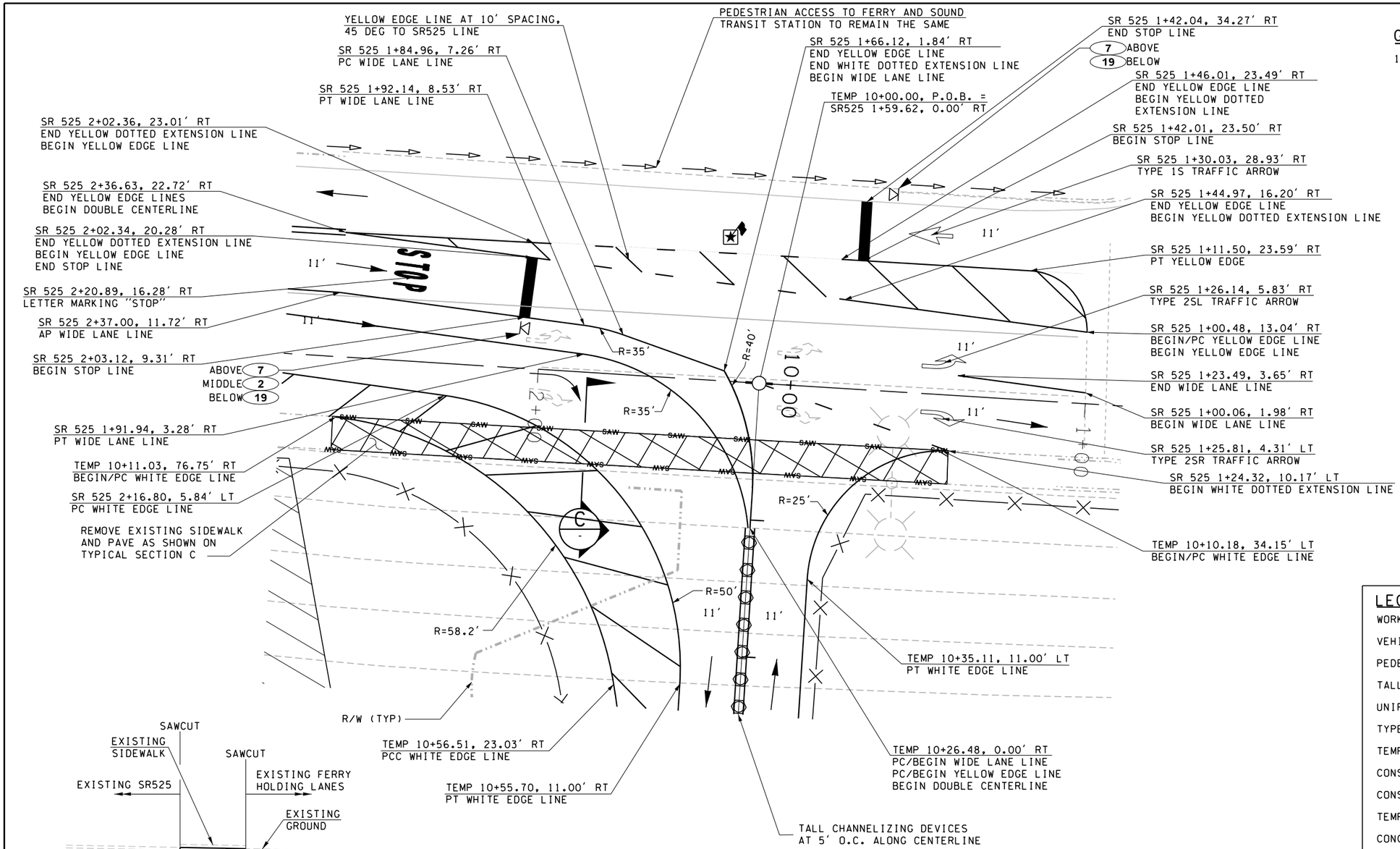
ADITYA R. WARDHANA
STATE OF WASHINGTON
21044
REGISTERED PROFESSIONAL ENGINEER
01/18/19

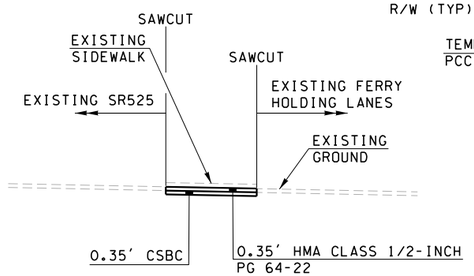
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
MAINTENANCE OF TRAFFIC STAGE 3 DETAIL

C05.32

SHEET 120 OF 1521 SHEETS





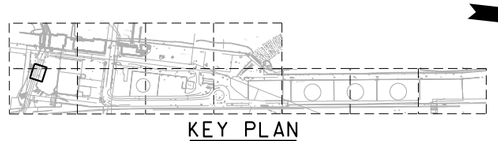
C - TYPICAL SECTION
N.T.S.

GENERAL NOTES:

1. SEE SHEET C05.30 FOR NOTES AND SIGN DETAILS.

LEGEND:

- WORK ZONE
- VEHICLE/BICYCLE ROUTE
- PEDESTRIAN ROUTE
- TALL CHANNELING DEVICE
- UNIFORMED POLICE OFFICER
- TYPE 3 BARRICADE
- TEMPORARY PAVEMENT
- CONSTRUCTION SIGN CLASS A
- CONSTRUCTION SIGN CLASS B
- TEMPORARY FENCING
- CONCRETE BARRIER TYPE 2
- SAWCUT — SAW



KEY PLAN

0 10 20
SCALE 1" = 20'

JACOBS

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MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ADITYA R. WARDHANA — STATE OF WASHINGTON — 21044 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MAINTENANCE OF TRAFFIC
STAGE 3 DETAIL

C05.33

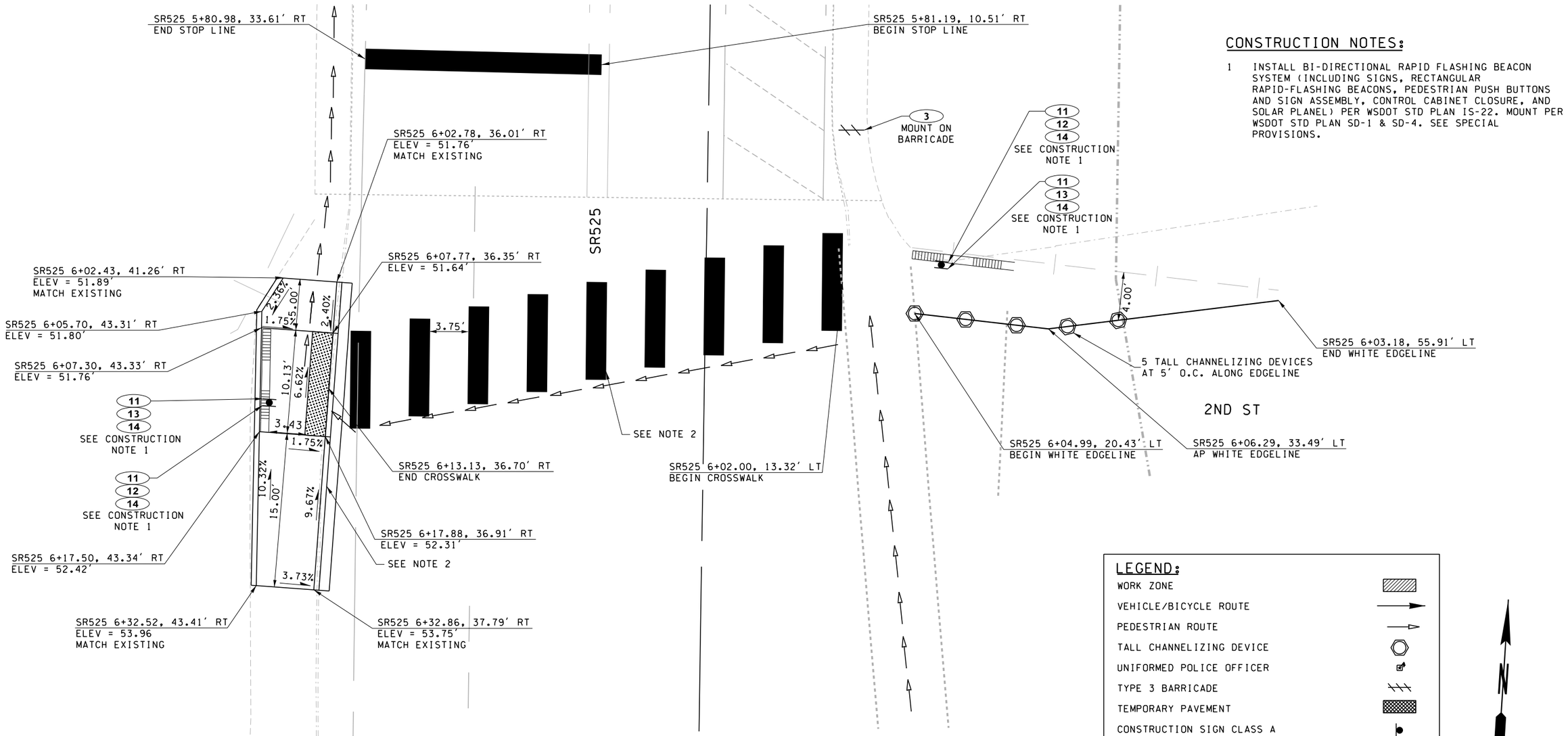
SHEET 121 OF 1521 SHEETS

GENERAL NOTES:

1. SEE SHEET C05.30 FOR NOTES AND SIGN DETAILS.
2. TEMPORARY CROSSING INSTALLED AT SR525 AND 2ND ST. SHALL BE REMOVED AT COMPLETION OF PROJECT AND RESTORED TO EXISTING CONDITIONS.

CONSTRUCTION NOTES:

1 INSTALL BI-DIRECTIONAL RAPID FLASHING BEACON SYSTEM (INCLUDING SIGNS, RECTANGULAR RAPID-FLASHING BEACONS, PEDESTRIAN PUSH BUTTONS AND SIGN ASSEMBLY, CONTROL CABINET CLOSURE, AND SOLAR PLANEL) PER WSDOT STD PLAN IS-22. MOUNT PER WSDOT STD PLAN SD-1 & SD-4. SEE SPECIAL PROVISIONS.



LEGEND:

- WORK ZONE
- VEHICLE/BICYCLE ROUTE
- PEDESTRIAN ROUTE
- TALL CHANNELIZING DEVICE
- UNIFORMED POLICE OFFICER
- TYPE 3 BARRICADE
- TEMPORARY PAVEMENT
- CONSTRUCTION SIGN CLASS A
- CONSTRUCTION SIGN CLASS B
- TEMPORARY FENCING
- CONCRETE BARRIER TYPE 2
- TYPE 2 BARRICADE

N

0 5 10
SCALE 1" = 10'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$					FED.AID PROJ.NO.
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:				
SUBMITTAL DATE: 1/18/19	$USERNAME$				WA-2017-007-00
DESIGNED BY: A. WARDHANA	1/18/19				REGION NO. STATE
ENTERED BY: K. THOMAS	1/18/19				10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19				JOB NUMBER
MAR PROJ ENGR: C. TORRES					18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	009321

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 38016 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
MAINTENANCE OF TRAFFIC STAGE 3 DETAIL

C05.34

SHEET 122 OF 1521 SHEETS

W20-4

1

W20-7B

2

W20-7A

3

ALLOWABLE CLOSURE TIMES (SEE NOTE 3)		
TWO LANE CLOSURE AND FLAGGING STATION		
	FROM	TO
MON, TUE, WED, THUR, FRI	1:00 AM	4:00 AM
SATURDAY AND SUNDAY	-	-

NOTES:

1. SIGN LOCATIONS ARE APPROXIMATE.
2. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
3. CLOSURE TIMES MUST BE APPROVED BY CITY OF MUKILTEO PRIOR TO IMPLEMENTATION.
4. THIS FLAGGING OPERATION IS TO OCCUR PROIR TO BEGINNING OF STAGE 3 MOT.
5. CITY OF MUKILTEO NOISE VARIENCE MUST BE OBTAINED AT LEAST 10 CALENDAR DAYS PRIOR TO START OF SCHEDULED WORK.

LEGEND:

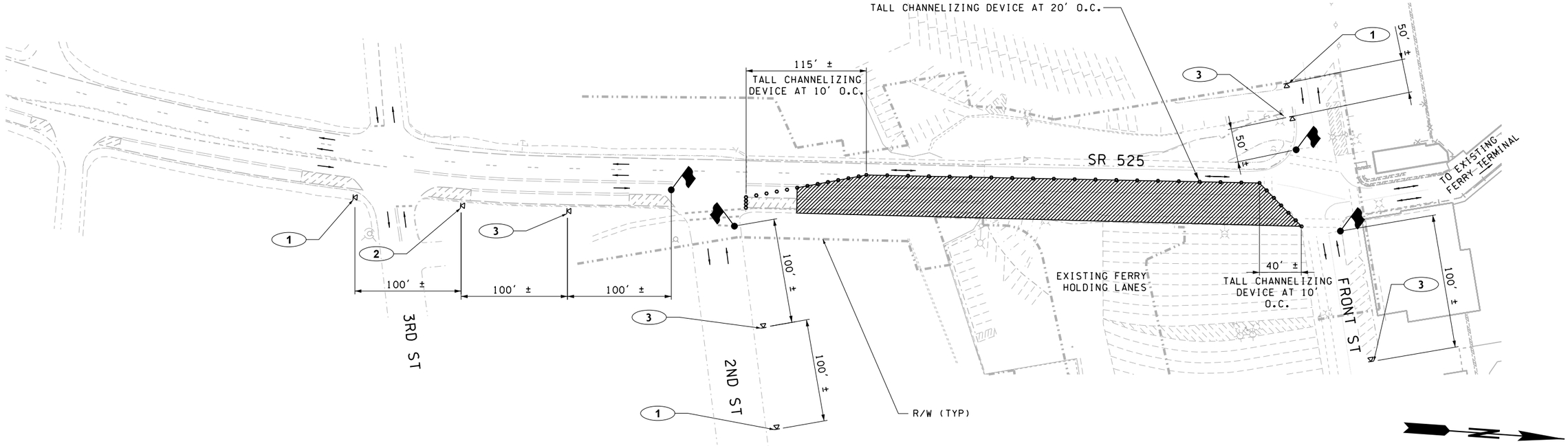
WORK ZONE

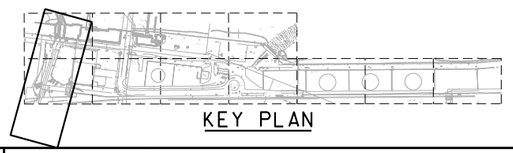
DIRECTION OF TRAFFIC

CONSTRUCTION SIGN CLASS B

TALL CHANNELIZING DEVICE

FLAGGING STATION





KEY PLAN

0 50 100
SCALE 1" = 100'

JACOBS

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PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					
DESIGNED BY: A. WARDHANA	1/18/19					WA-2017-007-00
ENTERED BY: K. THOMAS	1/18/19					REGION NO. STATE
CHECKED BY: J. TAYLOR	1/18/19					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ADITYA R. WARDHANA
STATE OF WASHINGTON
47044
REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

TRAFFIC CONTROL PLAN
SR525 FLAGGING OPERATION

C05.35

SHEET 123 OF 1521 SHEETS

W20-1

1

PLACE SIGN IF NOT ALREADY PRESENT AS ADVANCE WARNING SIGN

SPECIAL

2

W9-3a

3

R9-9
BLACK/WHITE

4

MOUNT ON TYPE 2 BARRICADE

R9-11A
BLACK/WHITE

5

MOUNT ON TYPE 2 BARRICADE

W20-5R

6

W4-2R

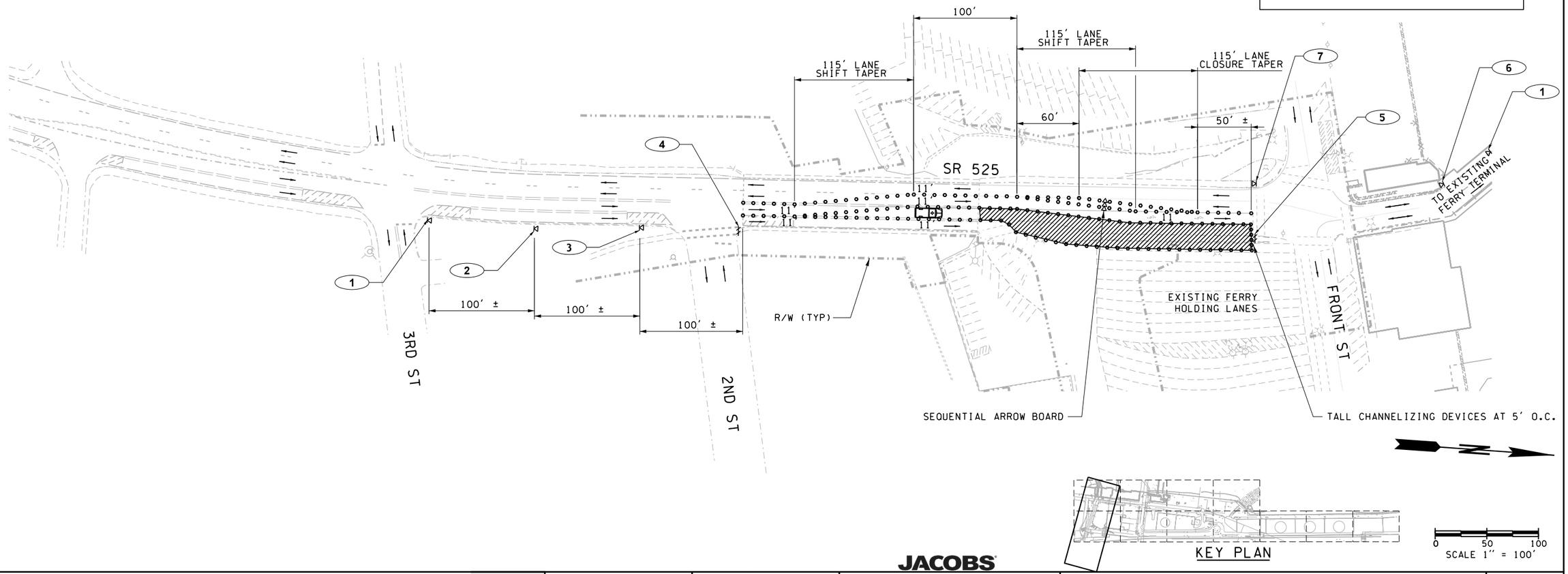
7

NOTES:

1. SIGN LOCATIONS ARE APPROXIMATE.
2. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
3. NOT ALL UTILITIES ARE SHOWN.
4. ALL CHANNELIZING DEVICES ARE AT 10' SPACING O.C. UNLESS OTHERWISE NOTED.

LEGEND:

WORK ZONE	
DIRECTION OF TRAFFIC	
CONSTRUCTION SIGN CLASS B	
TALL CHANNELIZING DEVICE	
FLAGGING STATION	
TYPE 2 BARRICADE	
SEQUENTIAL ARROW BOARD	
PROTECTIVE VEHICLE	



KEY PLAN

0 50 100
SCALE 1" = 100'

JACOBS

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DESIGNED BY: A. WARDHANA	1/18/19					REGION NO. 10 / STATE WASH
ENTERED BY: A. MAIMONE	1/18/19					JOB NUMBER 18W121
CHECKED BY: J. TAYLOR	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

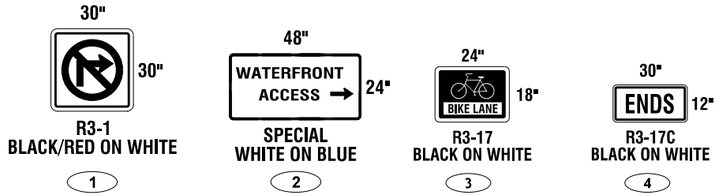
ADITYA R. WARDHANA
STATE OF WASHINGTON
47044
REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
TRAFFIC CONTROL PLAN
NB SR525 RIGHT LANE CLOSURE

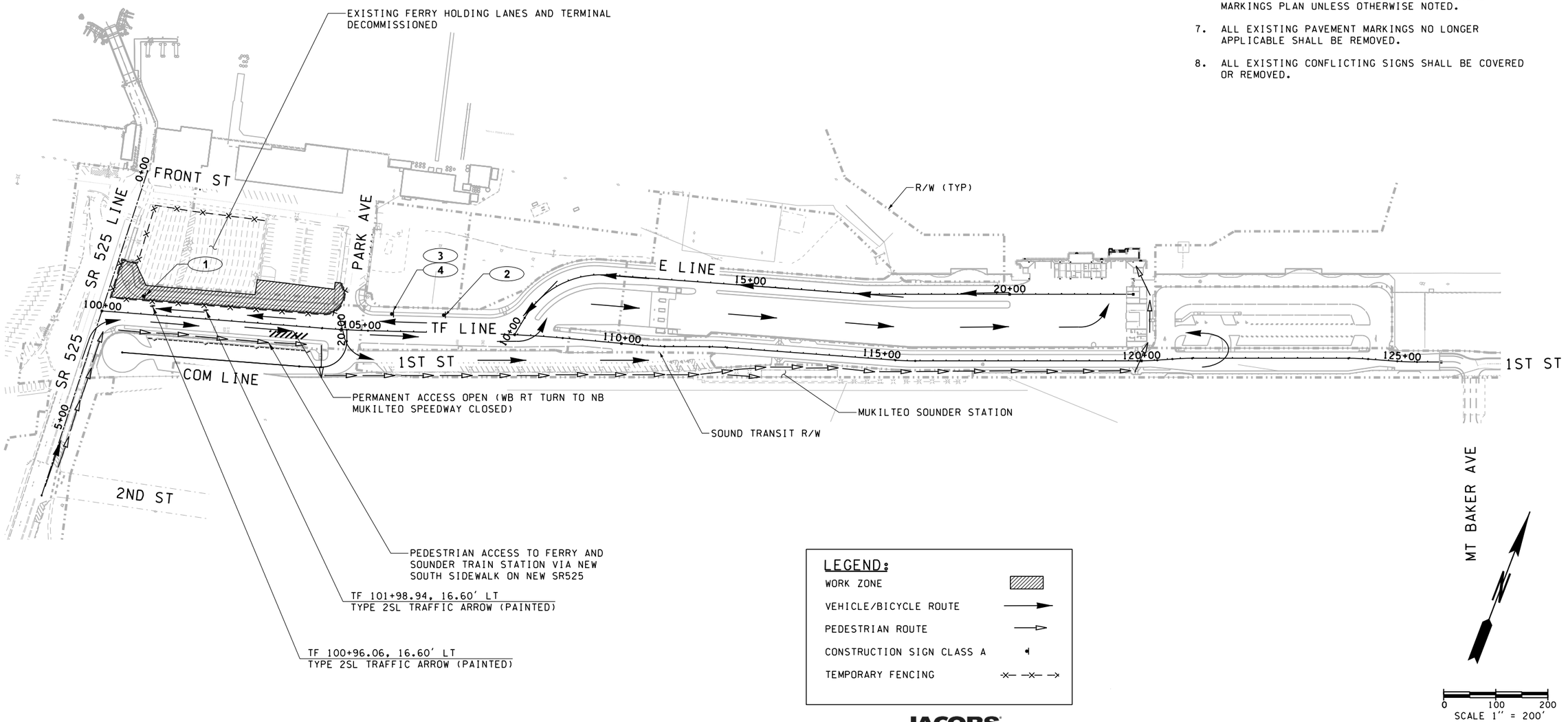
C05.36

SHEET 124 OF 1521 SHEETS



NOTES:

1. ROUTES SHOWN ARE FOR VEHICLES, BICYCLES, AND PEDESTRIANS HEADING NORTHBOUND ON SR525.
2. NOT ALL UTILITIES ARE SHOWN.
3. SEE C06.10 THROUGH C06.16 FOR ALIGNMENT HORIZONTAL CONTROLS.
4. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
5. INSTALL SIGNING IN ACCORDANCE WITH WSDOT STANDARD PLAN K-80.10-00.
6. ALL PAVEMENT MARKINGS SHALL BE PER PAVEMENT MARKINGS PLAN UNLESS OTHERWISE NOTED.
7. ALL EXISTING PAVEMENT MARKINGS NO LONGER APPLICABLE SHALL BE REMOVED.
8. ALL EXISTING CONFLICTING SIGNS SHALL BE COVERED OR REMOVED.



LEGEND:

- WORK ZONE
- VEHICLE/BICYCLE ROUTE
- PEDESTRIAN ROUTE
- CONSTRUCTION SIGN CLASS A
- TEMPORARY FENCING

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					
DESIGNED BY: A. WARDHANA	1/18/19					WA-2017-007-00
ENTERED BY: K. THOMAS	1/18/19					REGION NO. STATE
CHECKED BY: J. TAYLOR	1/18/19					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ADITYA R. WARDHANA — STATE OF WASHINGTON — 47044 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

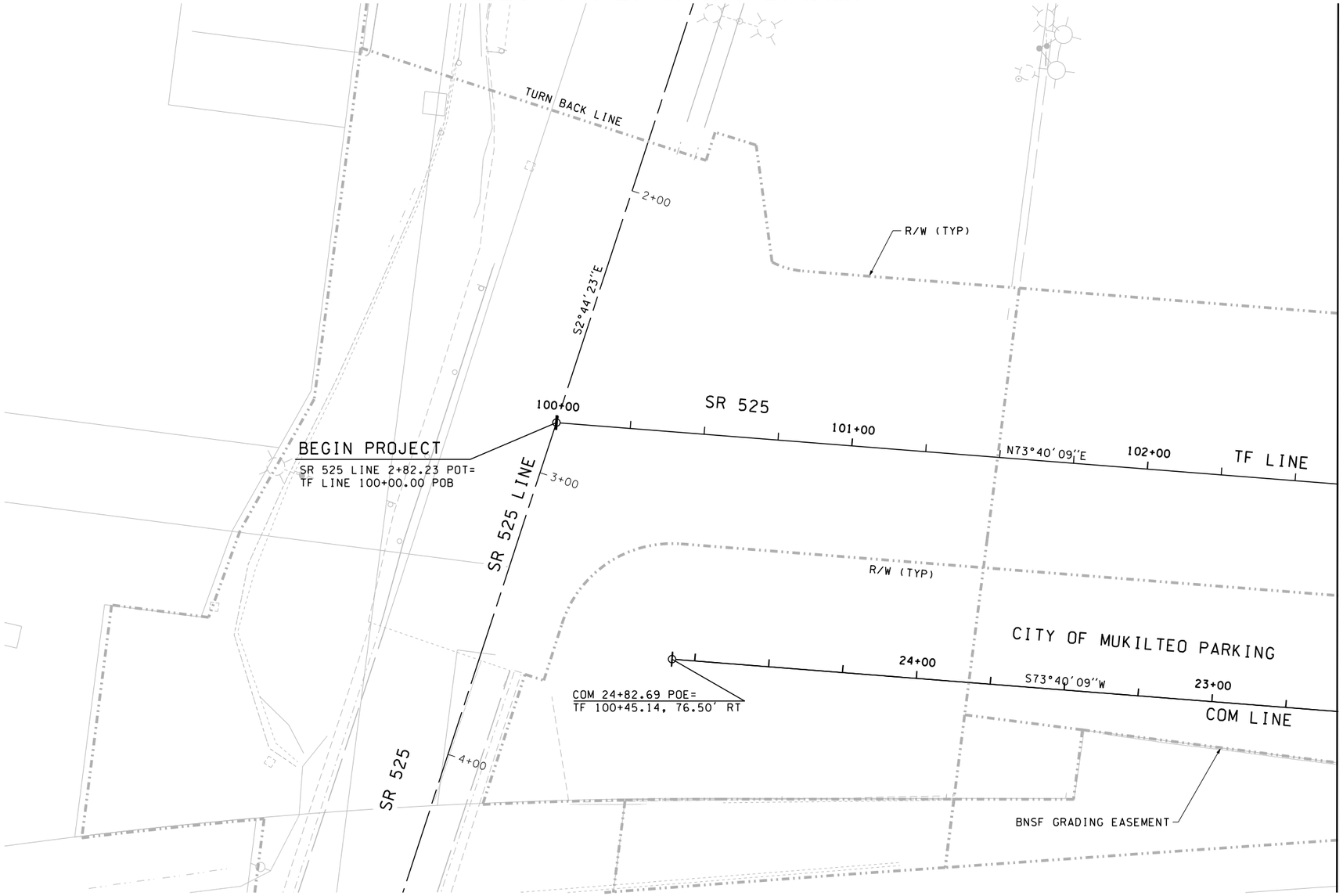
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MAINTENANCE OF TRAFFIC
STAGE 4 OVERVIEW

C05.40

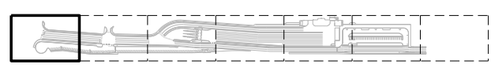
SHEET 125 OF 1521 SHEETS

SEC. 4, T.28 N. R.4 E. W.M.



NOTES:

1. SEE SITE PREPARATION PLANS FOR CUT AND FILL LINES. SEE SHEETS C04.10 TO C04.17.
2. ROW FOR INFORMATION ONLY. SEE RIGHT-OF-WAY PLAN, SUNDRY SITE PLAN, AND RECORDED BINDING SITE PLAN.
3. SEE SHEETS C01.00 - C01.01 FOR ADDITIONAL INFORMATION REGARDING THE HORIZONTAL CONTROL POINTS FOR THIS PROJECT.



KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c06_10.dlv						
PRINTED: 1:15:50 PM 1/21/2019	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	DanielJL					WA-2017-007-00
DESIGNED BY: M. PANICK	1/18/19					REGION NO. 10 / STATE WASH
ENTERED BY: C. CONRAD	1/18/19					JOB NUMBER 18W121
CHECKED BY: J. SCHENKMAN	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

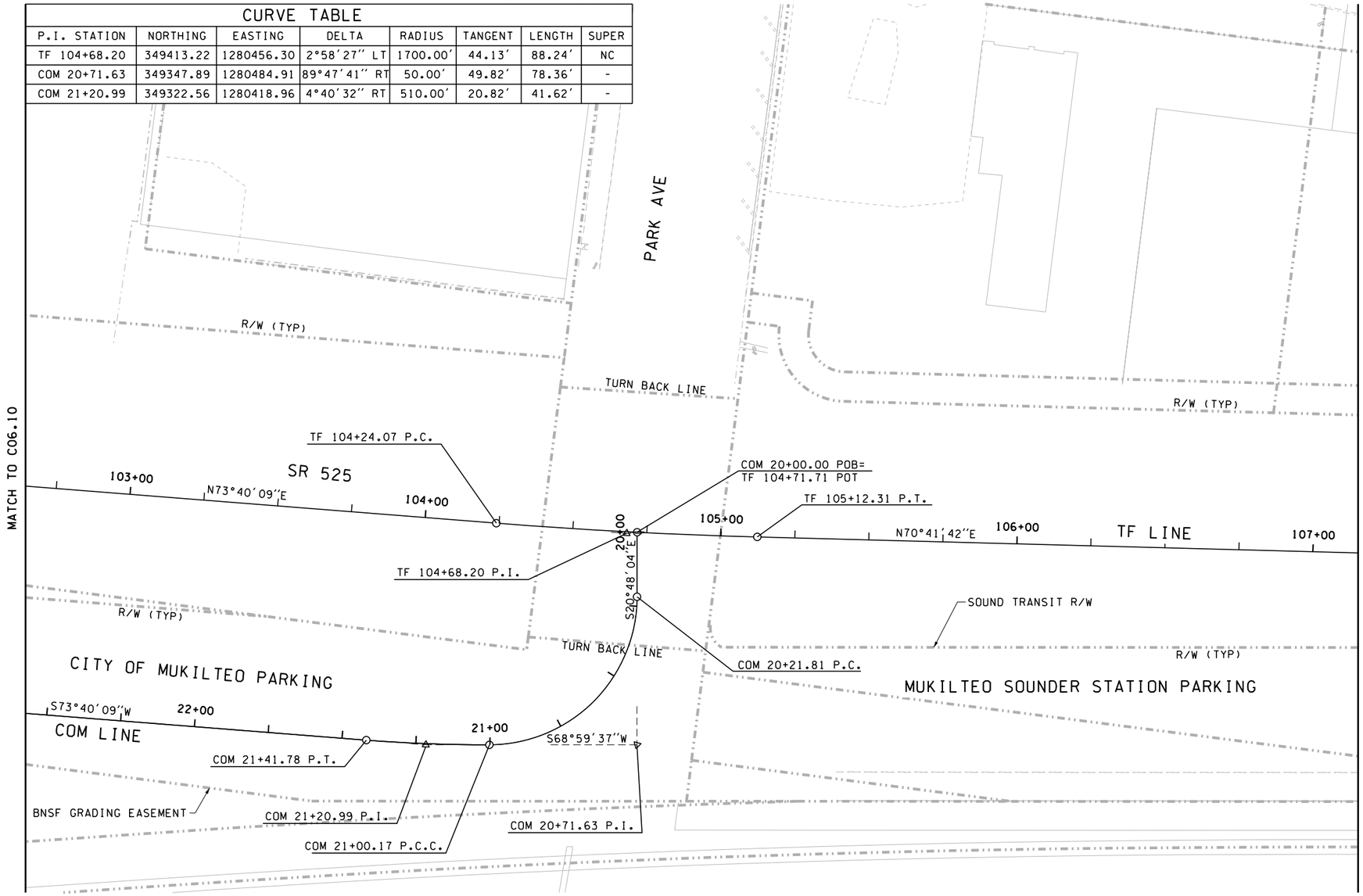
ROADWAY ALIGNMENT

C06.10

SHEET 126 OF 1521 SHEETS

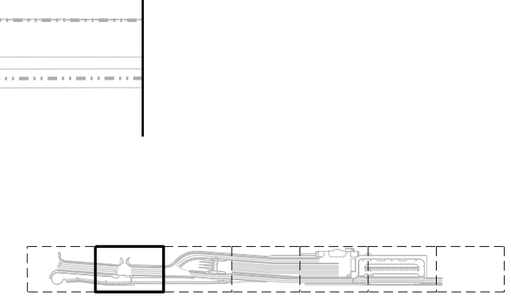
SEC. 4, T.28 N. R.4 E. W.M.

CURVE TABLE							
P.I. STATION	NORTHING	EASTING	DELTA	RADIUS	TANGENT	LENGTH	SUPER
TF 104+68.20	349413.22	1280456.30	2°58'27" LT	1700.00'	44.13'	88.24'	NC
COM 20+71.63	349347.89	1280484.91	89°47'41" RT	50.00'	49.82'	78.36'	-
COM 21+20.99	349322.56	1280418.96	4°40'32" RT	510.00'	20.82'	41.62'	-



NOTES:

1. SEE SITE PREPARATION PLANS FOR CUT AND FILL LINES. SEE SHEETS C04.10 TO C04.17.
2. ROW FOR INFORMATION ONLY. SEE RIGHT-OF-WAY PLAN, SUNDRY SITE PLAN, AND RECORDED BINDING SITE PLAN.
3. SEE SHEETS C01.00 - C01.01 FOR ADDITIONAL INFORMATION REGARDING THE HORIZONTAL CONTROL POINTS FOR THIS PROJECT.



KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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SUBMITTAL DATE: 1/18/19	DanielJL					
DESIGNED BY: M. PANICK	1/18/19					WA-2017-007-00
ENTERED BY: C. CONRAD	1/18/19				REGION NO.	STATE
CHECKED BY: J. SCHENKMAN	1/18/19				10	WASH
MAR PROJ ENGR: C. TORRES					JOB NUMBER	18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19		CONTRACT NO.	009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

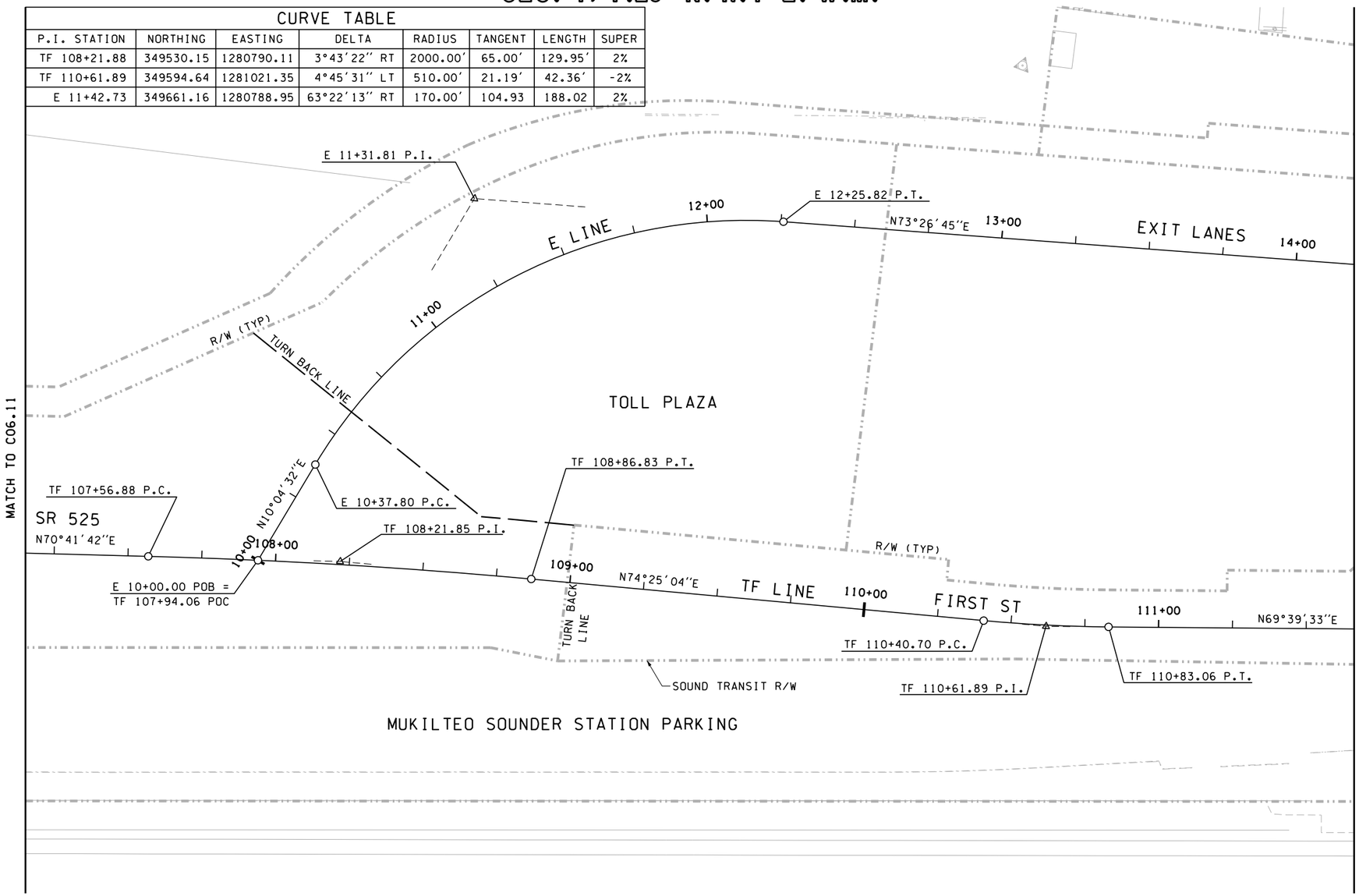
ROADWAY ALIGNMENT

C06.11

SHEET 127 OF 1521 SHEETS

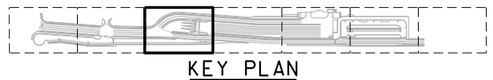
SEC. 4, T.28 N. R.4 E. W.M.

CURVE TABLE							
P.I. STATION	NORTHING	EASTING	DELTA	RADIUS	TANGENT	LENGTH	SUPER
TF 108+21.88	349530.15	1280790.11	3°43′22″ RT	2000.00′	65.00′	129.95′	2%
TF 110+61.89	349594.64	1281021.35	4°45′31″ LT	510.00′	21.19′	42.36′	-2%
E 11+42.73	349661.16	1280788.95	63°22′13″ RT	170.00′	104.93	188.02	2%



NOTES:

1. SEE SITE PREPARATION PLANS FOR CUT AND FILL LINES. SEE SHEETS C04.10 TO C04.17.
2. ROW FOR INFORMATION ONLY. SEE RIGHT-OF-WAY PLAN, SUNDRY SITE PLAN, AND RECORDED BINDING SITE PLAN.
3. SEE SHEETS C01.00 - C01.01 FOR ADDITIONAL INFORMATION REGARDING THE HORIZONTAL CONTROL POINTS FOR THIS PROJECT.



KEY PLAN

SCALE 1″ = 40′

JACOBS

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PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: M. PANICK	1/18/19					REGION NO. STATE
ENTERED BY: C. CONRAD	1/18/19					10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

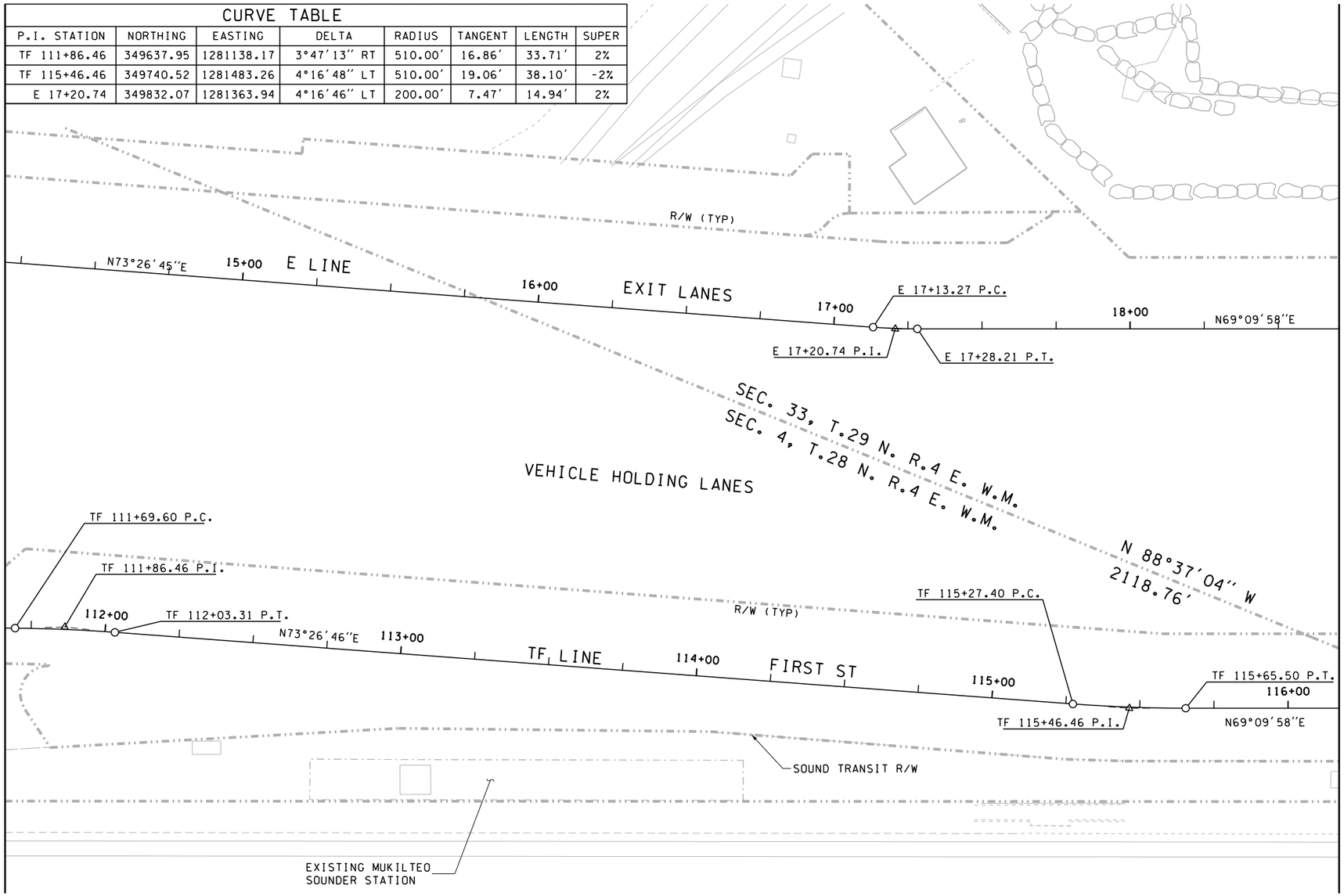
ROADWAY ALIGNMENT

C06.12

SHEET 128 OF 1521 SHEETS

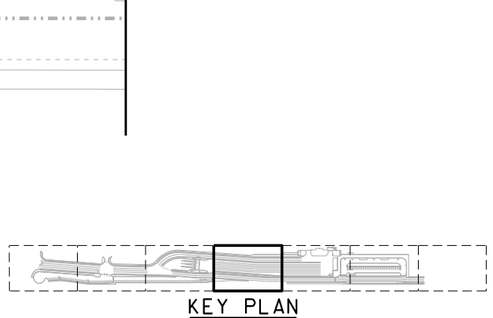
SEC. 4, T.28 N. R.4 E. W.M./ SEC. 33, T.29 N. R.4 E. W.M.

CURVE TABLE							
P.I. STATION	NORTHING	EASTING	DELTA	RADIUS	TANGENT	LENGTH	SUPER
TF 111+86.46	349637.95	1281138.17	3°47′13″ RT	510.00′	16.86′	33.71′	2%
TF 115+46.46	349740.52	1281483.26	4°16′48″ LT	510.00′	19.06′	38.10′	-2%
E 17+20.74	349832.07	1281363.94	4°16′46″ LT	200.00′	7.47′	14.94′	2%



NOTES:

1. SEE SITE PREPARATION PLANS FOR CUT AND FILL LINES. SEE SHEETS C04.10 TO C04.17.
2. ROW FOR INFORMATION ONLY. SEE RIGHT-OF-WAY PLAN, SUNDRY SITE PLAN, AND RECORDED BINDING SITE PLAN.
3. SEE SHEETS C01.00 - C01.01 FOR ADDITIONAL INFORMATION REGARDING THE HORIZONTAL CONTROL POINTS FOR THIS PROJECT.


KEY PLAN

SCALE 1″ = 40′

JACOBS

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PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					
DESIGNED BY: M. PANICK	1/18/19					WA-2017-007-00
ENTERED BY: C. CONRAD	1/18/19					REGION NO. STATE
CHECKED BY: J. SCHENKMAN	1/18/19					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

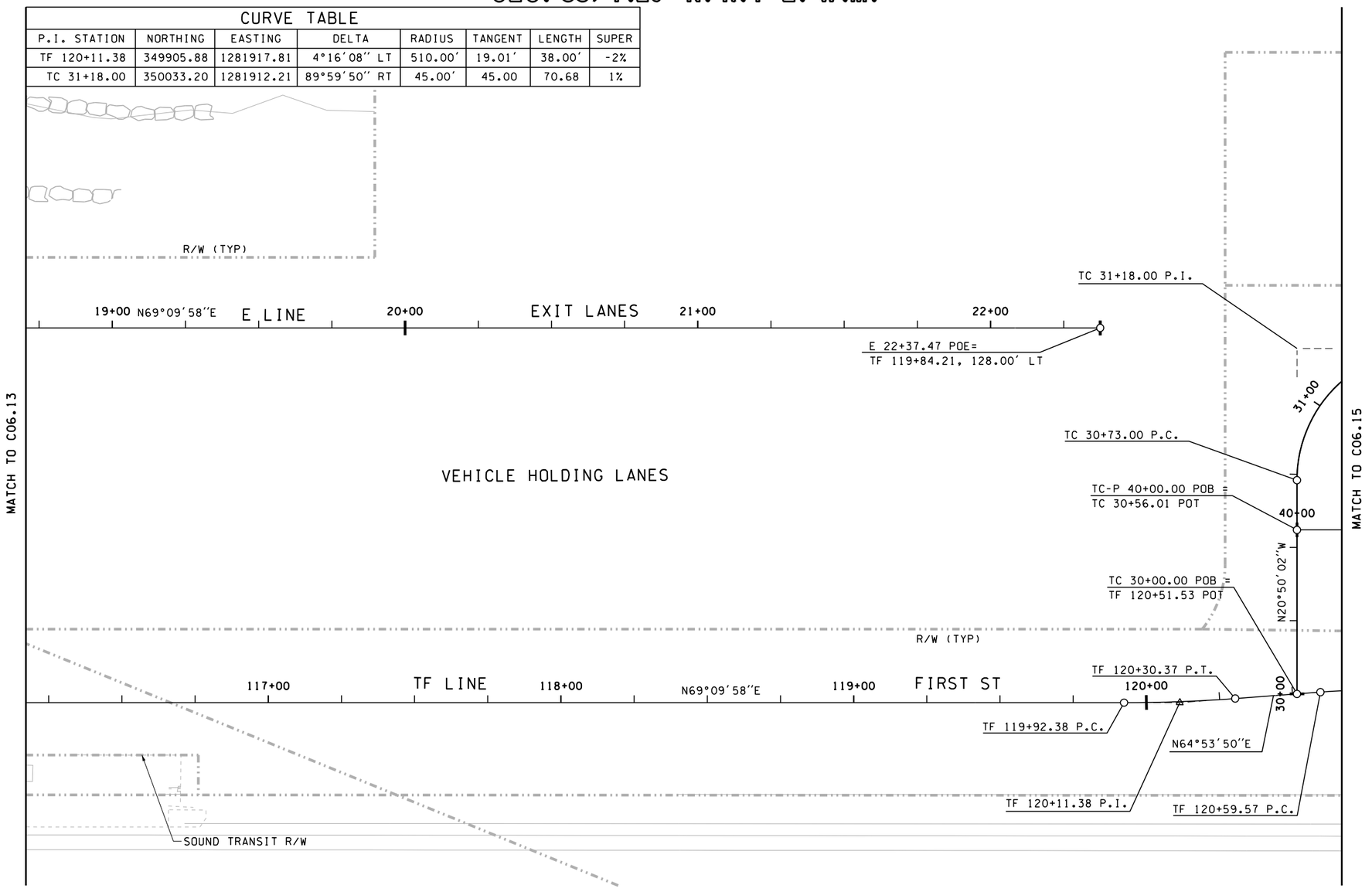
ROADWAY ALIGNMENT

C06.13

SHEET 129 OF 1521 SHEETS

SEC. 33, T.29 N. R.4 E. W.M.

CURVE TABLE							
P.I. STATION	NORTHING	EASTING	DELTA	RADIUS	TANGENT	LENGTH	SUPER
TF 120+11.38	349905.88	1281917.81	4°16′08″ LT	510.00′	19.01′	38.00′	-2%
TC 31+18.00	350033.20	1281912.21	89°59′50″ RT	45.00′	45.00	70.68	1%



NOTES:

1. SEE SITE PREPARATION PLANS FOR CUT AND FILL LINES. SEE SHEETS C04.10 TO C04.17.
2. ROW FOR INFORMATION ONLY. SEE RIGHT-OF-WAY PLAN, SUNDRY SITE PLAN, AND RECORDED BINDING SITE PLAN.
3. SEE SHEETS C01.00 - C01.01 FOR ADDITIONAL INFORMATION REGARDING THE HORIZONTAL CONTROL POINTS FOR THIS PROJECT.

KEY PLAN

0 20 40
SCALE 1″ = 40′

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
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DESIGNED BY: M. PANICK	1/18/19					REGION NO. STATE
ENTERED BY: D. PERRY	1/18/19					10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						CONTRACT NO. 009321
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

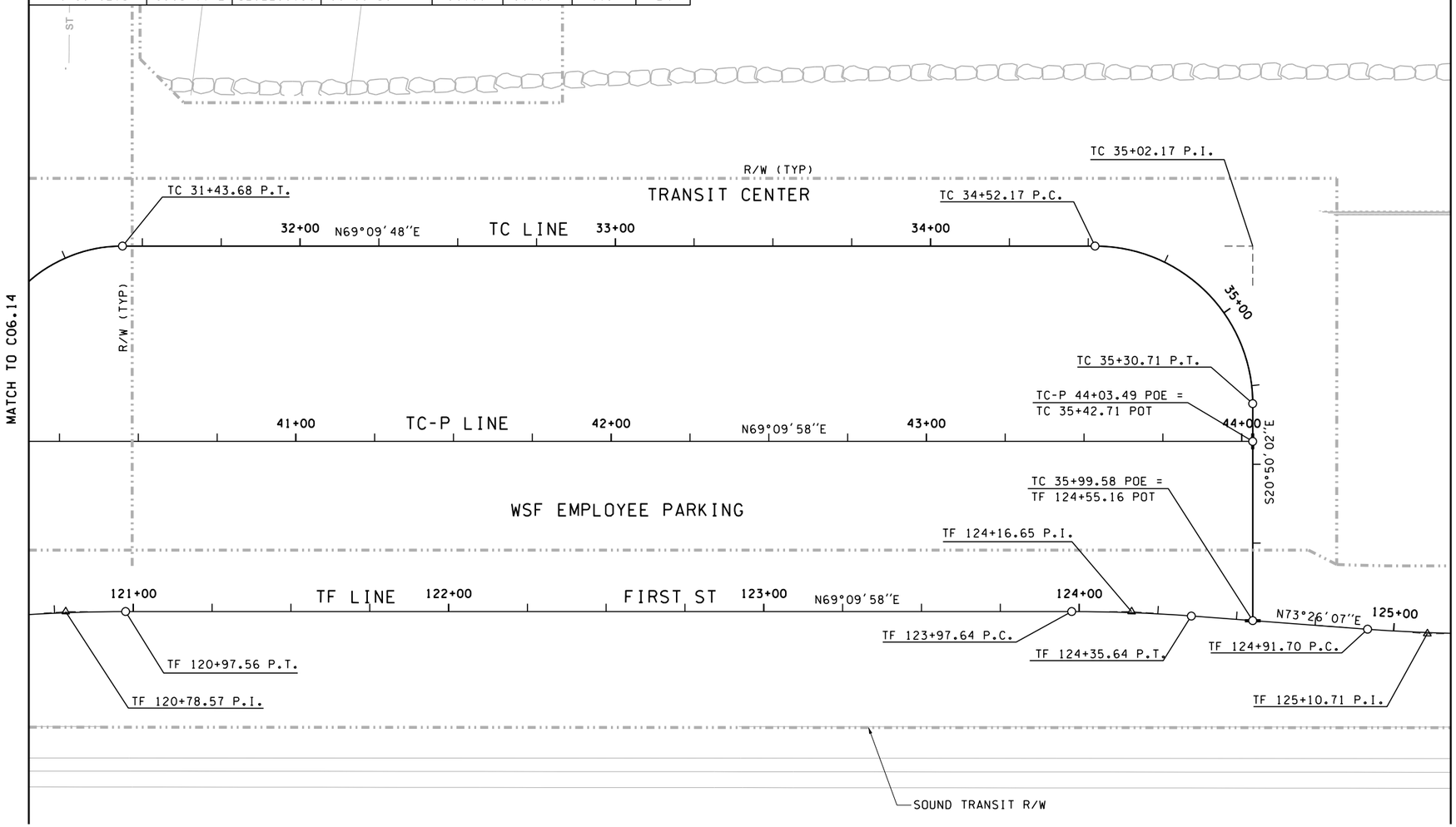
ROADWAY ALIGNMENT

C06.14

SHEET 130 OF 1521 SHEETS

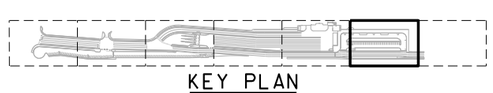
SEC. 33, T.29 N. R.4 E. W.M.

CURVE TABLE							
P.I. STATION	NORTHING	EASTING	DELTA	RADIUS	TANGENT	LENGTH	SUPER
TF 120+78.57	349934.39	1281978.67	4°16'08" RT	510.00'	19.01'	38.00'	2%
TF 124+16.65	350054.64	1282294.65	4°16'08" RT	510.00'	19.01'	38.00'	2%
TF 125+10.71	350081.46	1282384.82	4°16'08" LT	510.00'	19.01'	38.00'	-2%
TC 35+02.17	350176.72	1282289.30	90°00'10" RT	50.00'	50.00'	78.54'	2%



NOTES:

1. SEE SITE PREPARATION PLANS FOR CUT AND FILL LINES. SEE SHEETS C04.10 TO C04.17.
2. ROW FOR INFORMATION ONLY. SEE RIGHT-OF-WAY PLAN, SUNDRY SITE PLAN, AND RECORDED BINDING SITE PLAN.
3. SEE SHEETS C01.00 - C01.01 FOR ADDITIONAL INFORMATION REGARDING THE HORIZONTAL CONTROL POINTS FOR THIS PROJECT.



KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	@USERNAME@					
DESIGNED BY: M. PANICK	1/18/19					WA-2017-007-00
ENTERED BY: C. CONRAD	1/18/19					REGION NO. STATE
CHECKED BY: J. SCHENKMAN	1/18/19					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO. 009321

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

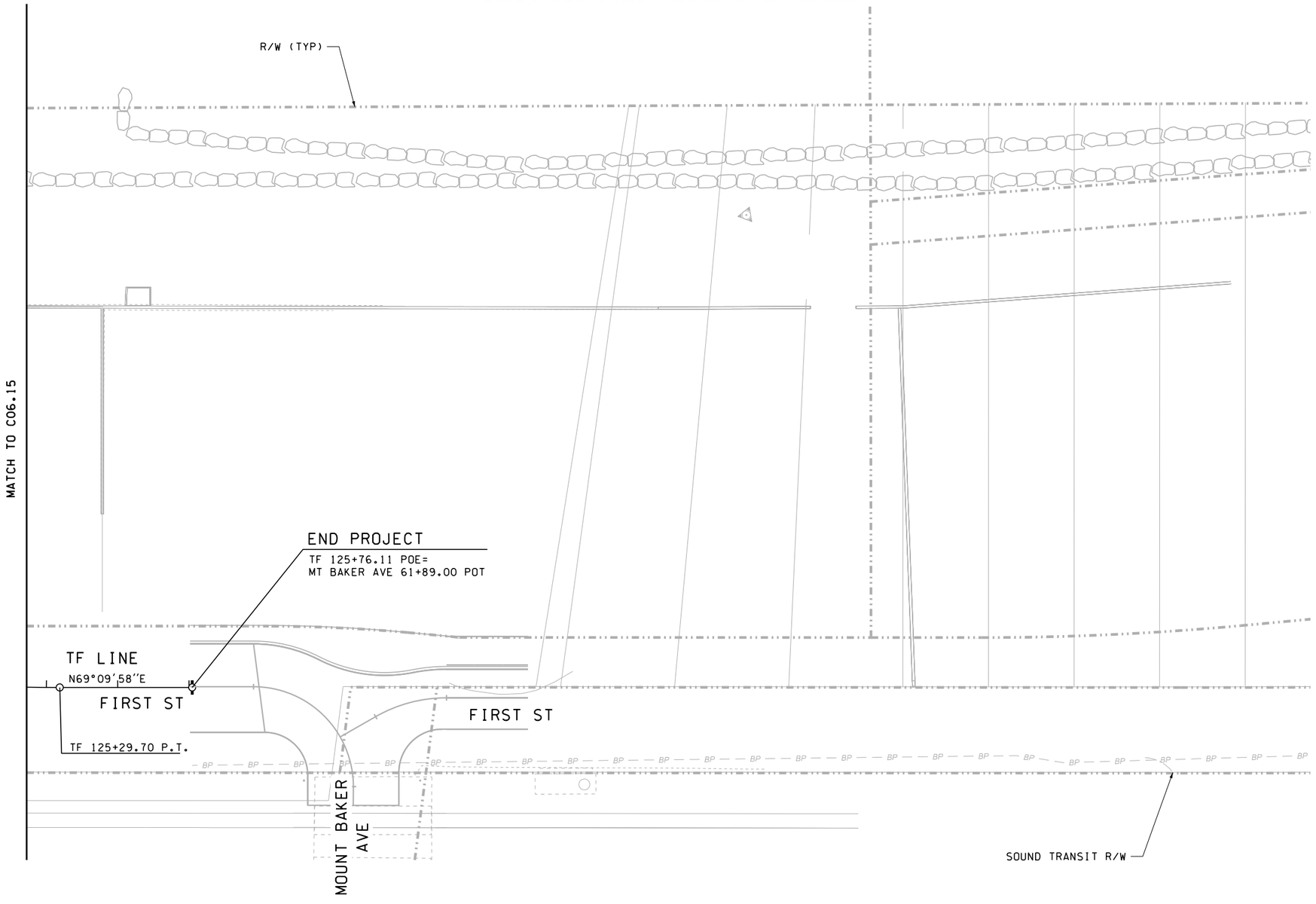
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY ALIGNMENT

C06.15

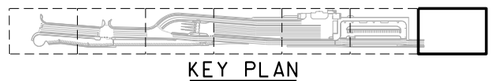
SHEET 131 OF 1521 SHEETS

SEC. 33, T.29 N. R.4 E. W.M.



NOTES:

1. SEE SITE PREPARATION PLANS FOR CUT AND FILL LINES. SEE SHEETS C04.10 TO C04.17.
2. ROW FOR INFORMATION ONLY. SEE RIGHT-OF-WAY PLAN, SUNDRY SITE PLAN, AND RECORDED BINDING SITE PLAN.
3. SEE SHEETS C01.00 - C01.01 FOR ADDITIONAL INFORMATION REGARDING THE HORIZONTAL CONTROL POINTS FOR THIS PROJECT.



KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$					
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DESIGNED BY: M. PANICK	1/18/19				REGION NO. STATE
ENTERED BY: C. CONRAD	1/18/19				10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19				JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES					
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19		CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

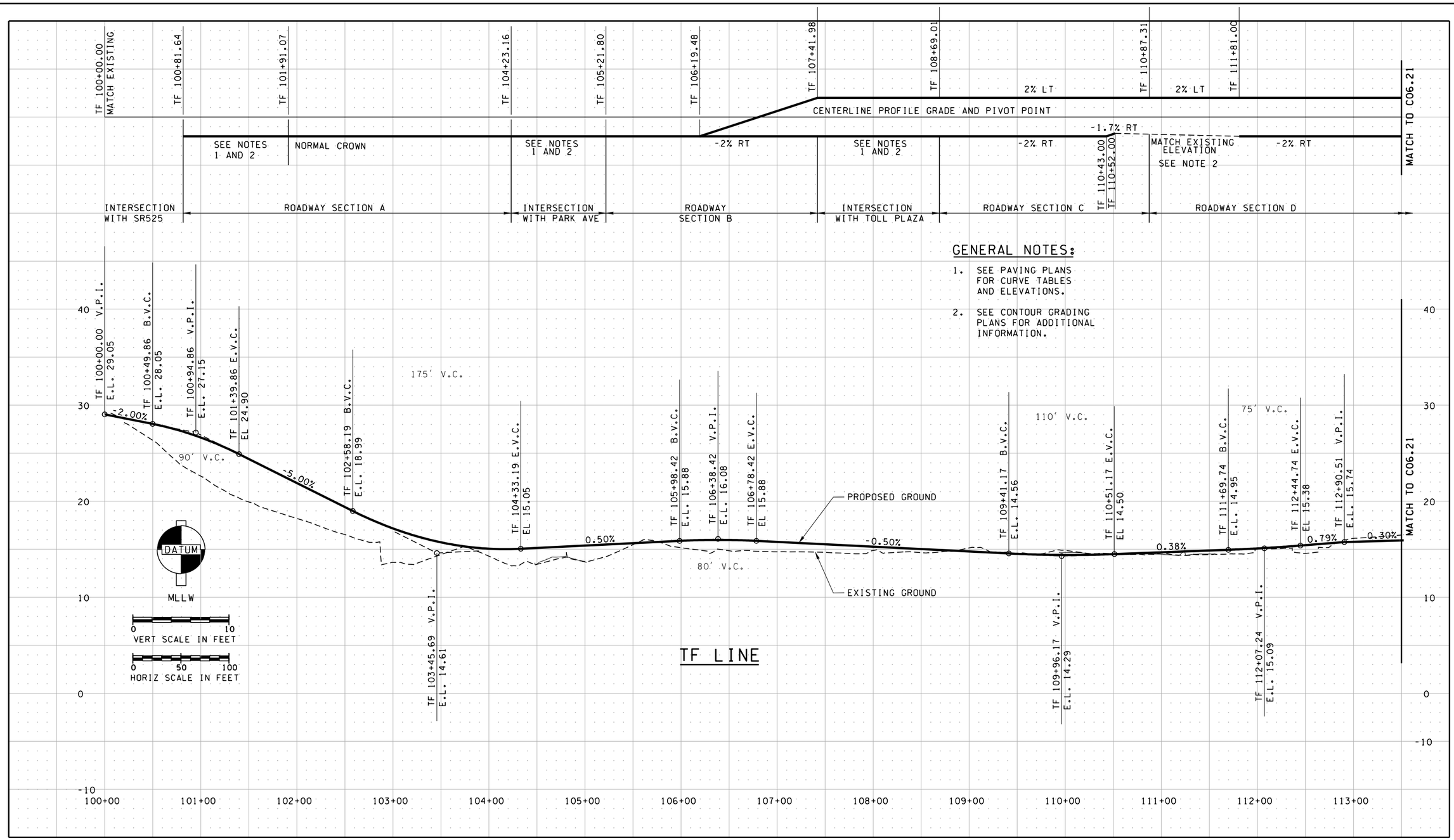
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY ALIGNMENT

C06.16

SHEET 132 OF 1521 SHEETS



TF LINE

GENERAL NOTES:

1. SEE PAVING PLANS FOR CURVE TABLES AND ELEVATIONS.
2. SEE CONTOUR GRADING PLANS FOR ADDITIONAL INFORMATION.

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: M. PANICK	1/18/19					REGION NO. / STATE
ENTERED BY: C. CONRAD	1/18/19					10 / WASH
CHECKED BY: J. SCHENKMAN	1/18/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

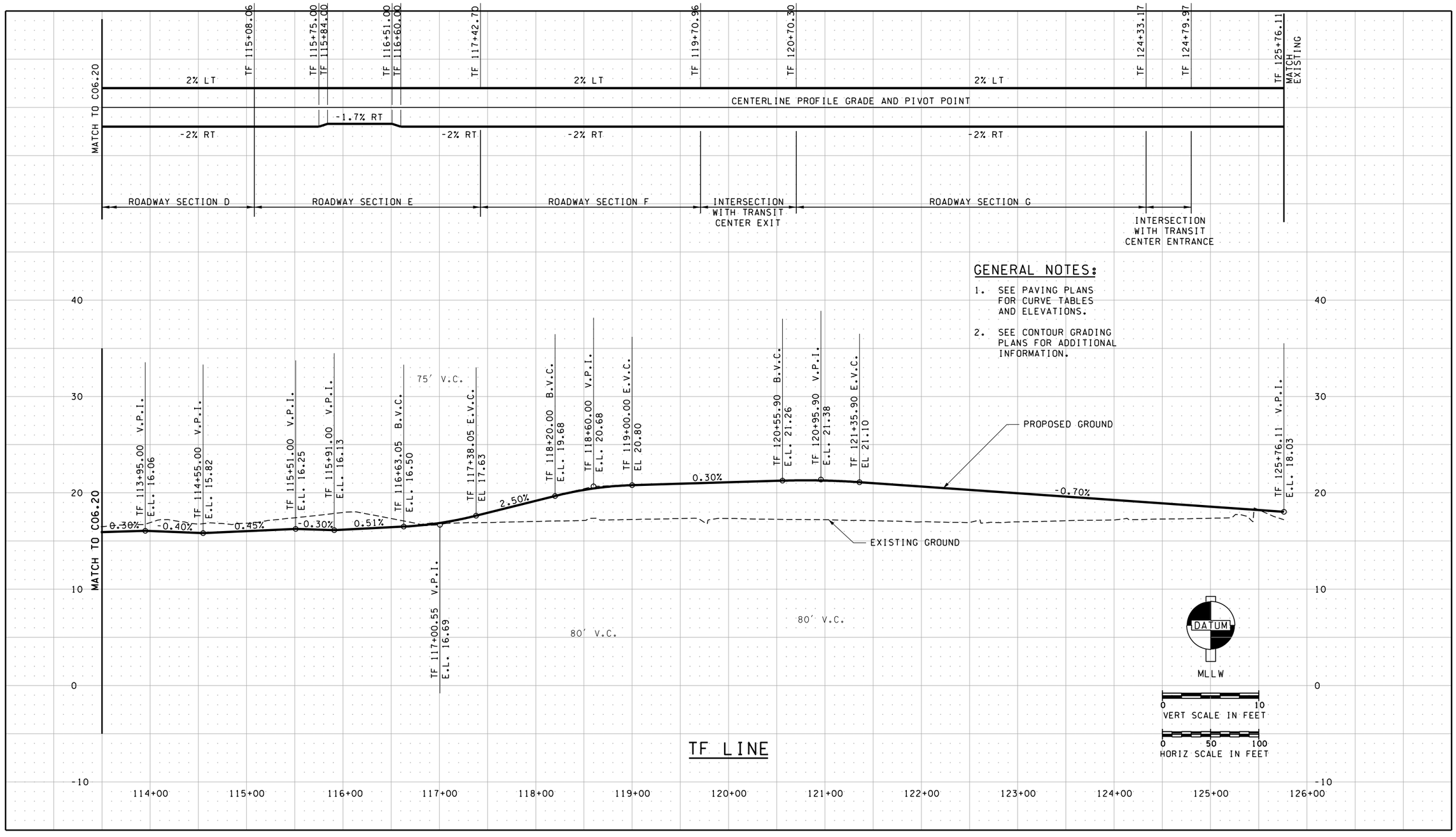
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY PROFILE

C06.20

SHEET 133 OF 1521 SHEETS



JACOBS

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PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: M. PANICK	1/18/19					REGION NO. STATE
ENTERED BY: C. CONRAD	1/18/19					10 WASH
CHECKED BY: M. PANICK	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHAEL CATHERINE PANICK — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

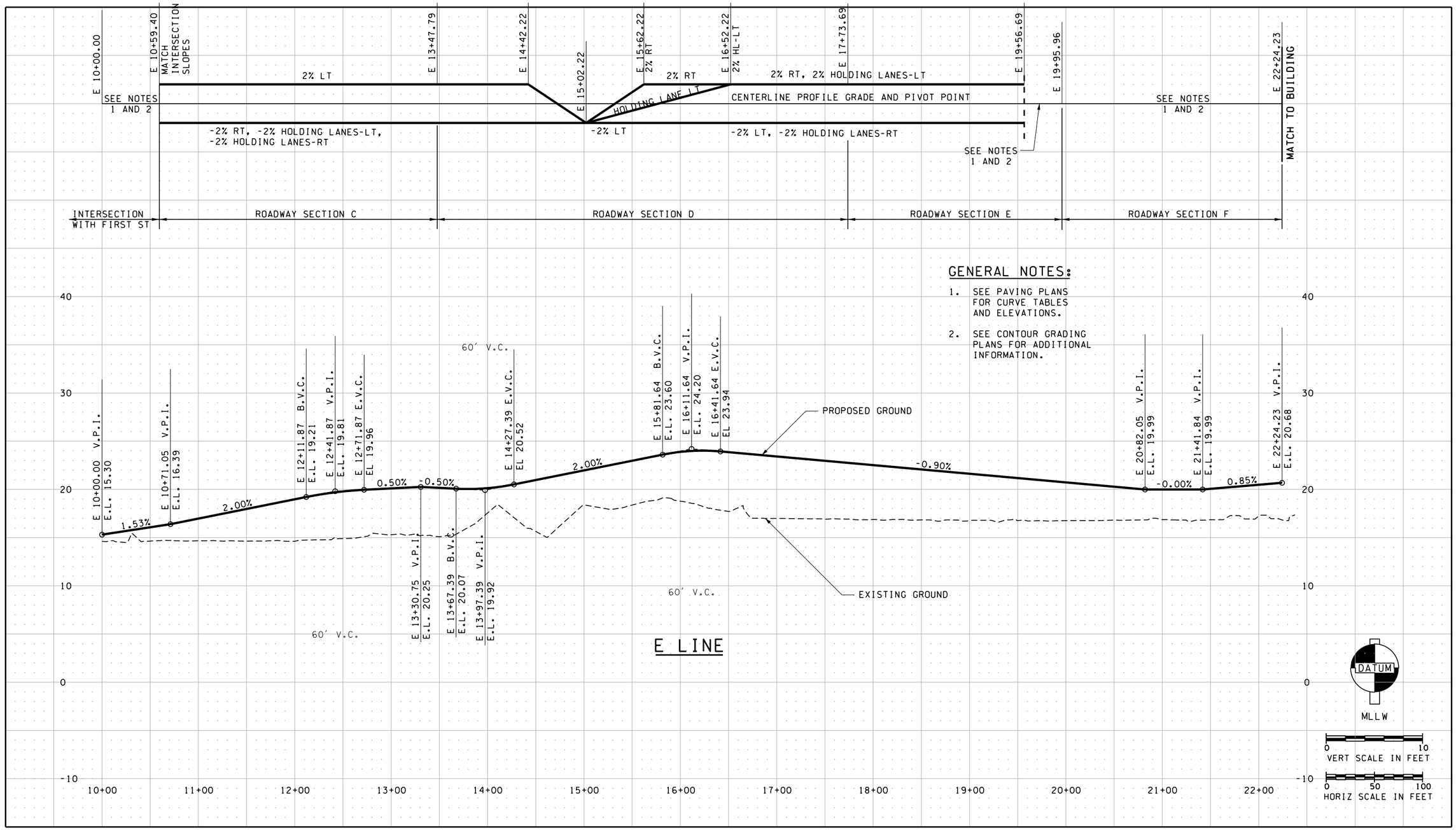
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY PROFILE

C06.21

SHEET 134 OF 1521 SHEETS



JACOBS

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SUBMITTAL DATE: 1/18/19	%USERNAME%					WA-2017-007-00
DESIGNED BY: M. PANICK	1/18/19					REGION NO. STATE
ENTERED BY: C. CONRAD	1/18/19					10 WASH
CHECKED BY: M. PANICK	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHAELA CATHERINE PANICK — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

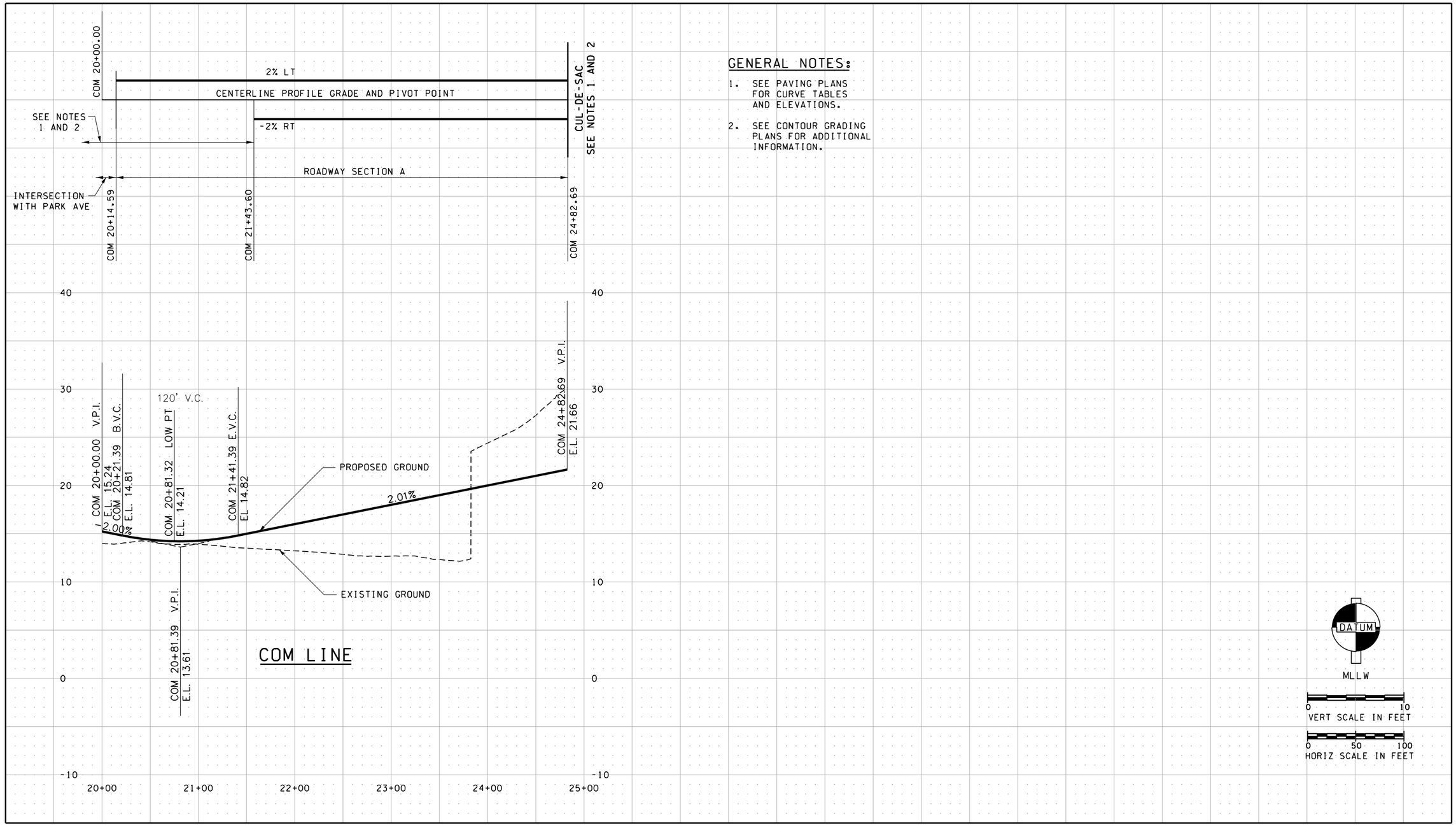
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY PROFILE

C06.22

SHEET 135 OF 1521 SHEETS



GENERAL NOTES:

1. SEE PAVING PLANS FOR CURVE TABLES AND ELEVATIONS.
2. SEE CONTOUR GRADING PLANS FOR ADDITIONAL INFORMATION.

DATUM
MLLW

0 10
VERT SCALE IN FEET

0 50 100
HORIZ SCALE IN FEET

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: M. PANICK	1/18/19					REGION NO. STATE
ENTERED BY: C. CONRAD	1/18/19					10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 56036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

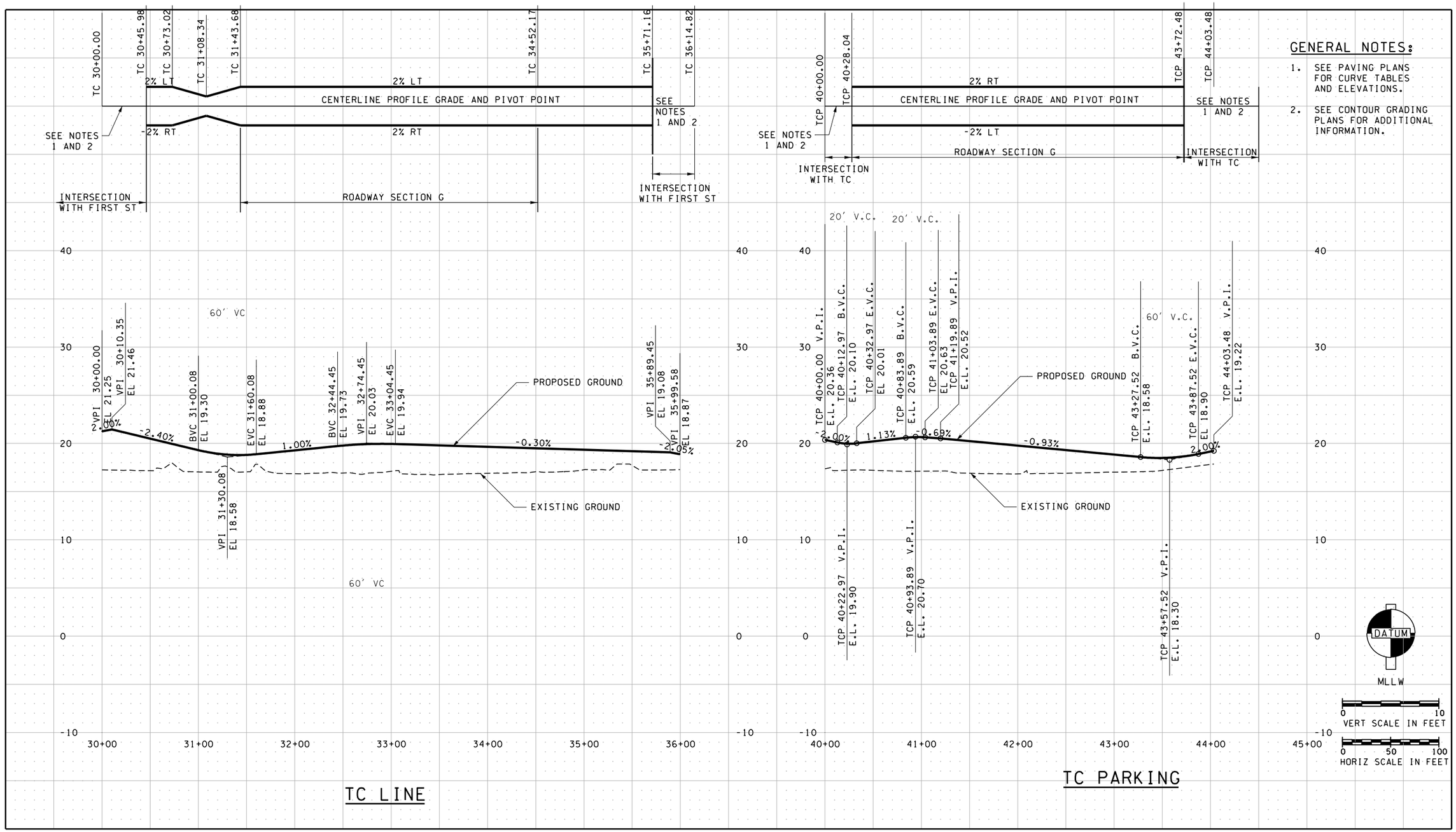
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY PROFILE

C06.23

SHEET 136 OF 1521 SHEETS



JACOBS

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DESIGNED BY: M. PANICK	1/18/19					REGION NO. STATE
ENTERED BY: C. CONRAD	1/18/19					10 WASH
CHECKED BY: M. PANICK	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHELLE CATHERINE LANCE — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

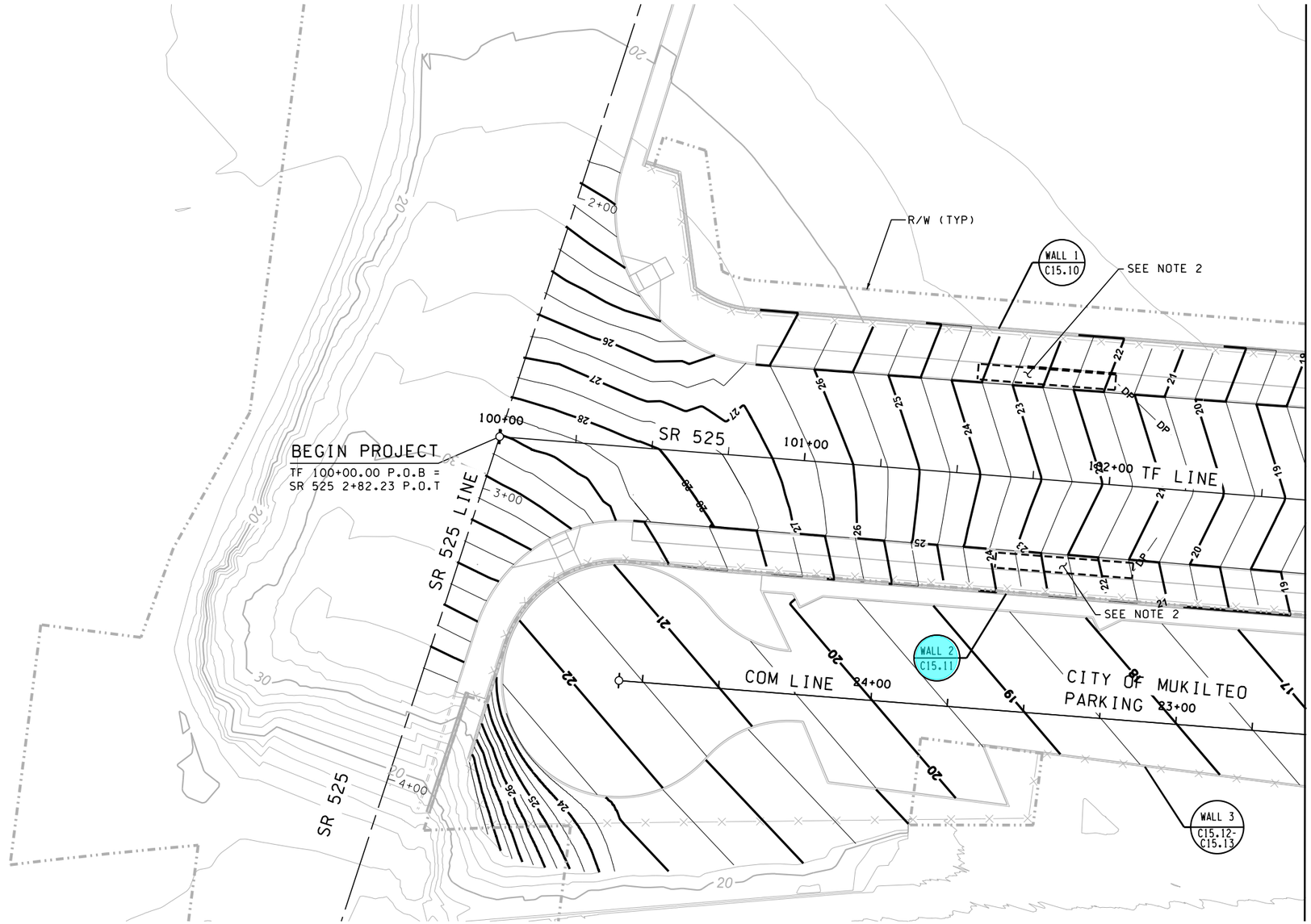
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY PROFILE

C06.24

SHEET 137 OF 1521 SHEETS



NOTES:

1. SEE ROADWAY ALIGNMENT PLANS FOR ALIGNMENT DATA, SHEETS C06.10 TO C06.16
2. SEE DRAINAGE PLANS FOR ADDITIONAL PROPOSED GRADING AND FLOW TEST REQUIREMENTS, SHEETS C07.10 TO C07.54
3. SEE PLANTING AND IRRIGATION PLANS FOR ADDITIONAL PROPOSED GRADING, SHEETS C09.50 TO C09.64
4. UTILITIES NOT SHOWN FOR CLARITY.
5. EXISTING CONTOURS AT 2' INTERVALS. PROPOSED CONTOURS AT 0.5' INTERVALS.
6. SEE PAVING PLANS FOR CURVE TABLES, SHEETS C10.10 TO C10.16
7. SEE ADA RAMP DETAILS FOR ADA RAMP ELEVATIONS, SHEETS C10.20 TO C10.31
8. SEE BUILDING PLANS FOR FOUNDATION DETAILS, SHEETS SX00.10 TO SX01.15
9. SEE RETAINING WALL PLANS FOR WALL ALIGNMENTS, DESIGN & DETAILS, SHEETS C15.10 TO C15.33.

KEY PLAN

SCALE 1'' = 40'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: J. SCHENKMAN	1/18/19					REGION NO. STATE
ENTERED BY: C. CONRAD	1/18/19					10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 58036 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

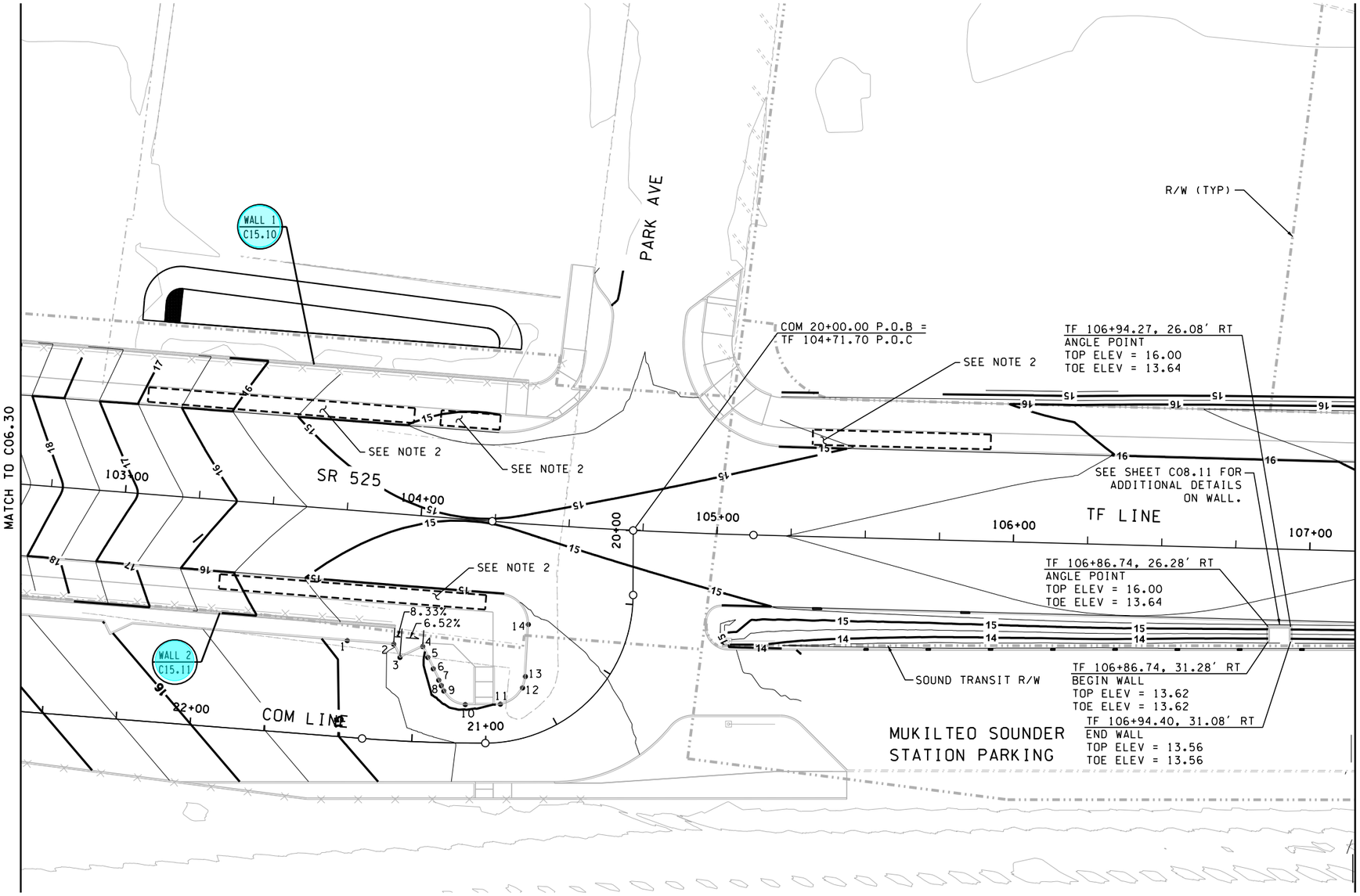
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

CONTOUR GRADING PLAN

C06.30

SHEET 138 OF 1521 SHEETS



NOTES:

1. SEE ROADWAY ALIGNMENT PLANS FOR ALIGNMENT DATA, SHEETS C06.10 TO C06.16
2. SEE DRAINAGE PLANS FOR ADDITIONAL PROPOSED GRADING AND FLOW TEST REQUIREMENTS, SHEETS C07.10 TO C07.54
3. SEE PLANTING AND IRRIGATION PLANS FOR ADDITIONAL PROPOSED GRADING, SHEETS C09.50 TO C09.64
4. UTILITIES NOT SHOWN FOR CLARITY.
5. EXISTING CONTOURS AT 2' INTERVALS. PROPOSED CONTOURS AT 0.5' INTERVALS.
6. SEE PAVING PLANS FOR CURVE TABLES, SHEETS C10.10 TO C10.16
7. SEE ADA RAMP DETAILS FOR ADA RAMP ELEVATIONS, SHEETS C10.20 TO C10.31
8. SEE BUILDING PLANS FOR FOUNDATION DETAILS, SHEETS SX00.10 TO SX01.15
9. SEE RETAINING WALL PLANS FOR WALL ALIGNMENTS, DESIGN & DETAILS, SHEETS C15.10 TO C15.33.

COM GRADING POINT TABLE				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
1	21+43.60	32.50 RT	14.82	6" CURB HEIGHT; CHANGE IN GRADE
2	21+33.10	32.43 RT	14.55	8" CURB HEIGHT; CHANGE IN GRADE
3	21+30.58	28.13 RT	14.31	8" CURB HEIGHT; CHANGE IN GRADE
4	21+22.63	32.16 RT	14.04	6" CURB HEIGHT; CHANGE IN GRADE
5	21+20.20	27.82 RT	13.93	CHANGE IN GRADE
6	21+18.40	24.52 RT	13.87	CHANGE IN GRADE
7	21+16.62	21.22 RT	13.84	CURB CUT; CHANGE IN GRADE
8	21+15.20	18.55 RT	13.85	CURB CUT; CHANGE IN GRADE
9	21+15.59	17.40 RT	13.86	PT
10	21+07.06	12.97 RT	13.93	PC
11	20+95.34	12.82 RT	14.00	PT
12	20+85.36	14.14 RT	14.06	CHANGE IN GRADE
13	20+77.28	19.23 RT	14.17	PC
14	20+56.65	31.03 RT	14.41	PT
NOTE: ALL STA/OFF TAKEN FROM CURB FLOW LINE				

KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: J. SCHENKMAN	1/18/19					REGION NO. STATE
ENTERED BY: C. CONRAD	1/18/19					10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

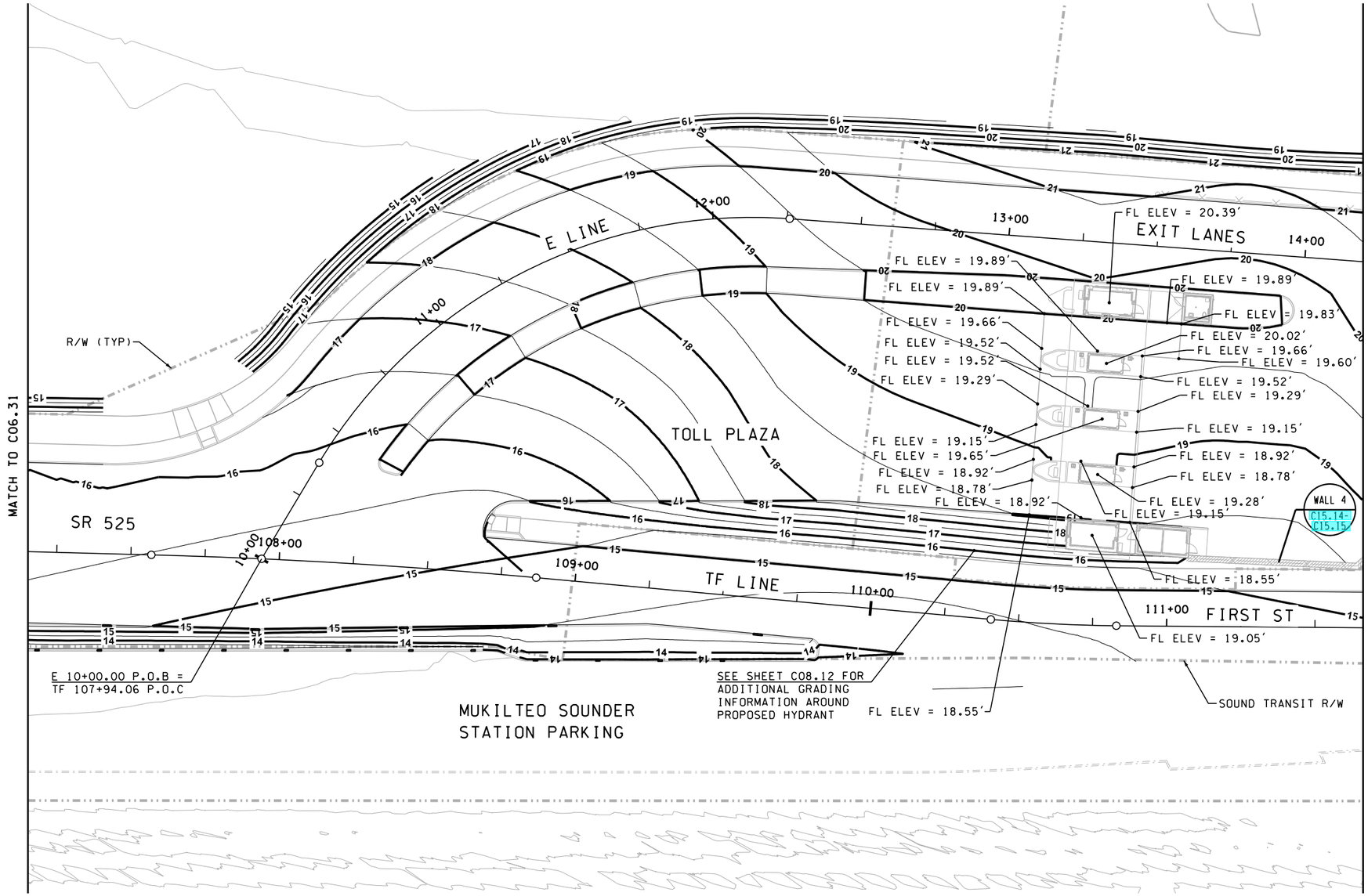
JENNIFER L. SCHENKMAN
STATE OF WASHINGTON
56036
REGISTERED
PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

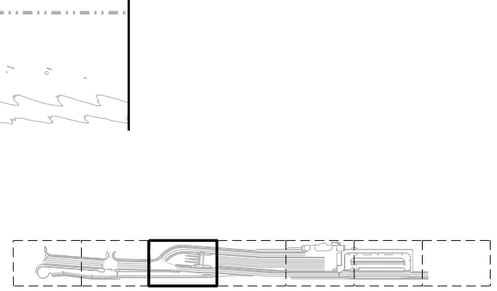
CONTOUR GRADING PLAN

C06.31
SHEET 139 OF 1521 SHEETS



NOTES:

1. SEE ROADWAY ALIGNMENT PLANS FOR ALIGNMENT DATA, SHEETS C06.10 TO C06.16
2. SEE DRAINAGE PLANS FOR ADDITIONAL PROPOSED GRADING AND FLOW TEST REQUIREMENTS, SHEETS C07.10 TO C07.54
3. SEE PLANTING AND IRRIGATION PLANS FOR ADDITIONAL PROPOSED GRADING, SHEETS C09.50 TO C09.64
4. UTILITIES NOT SHOWN FOR CLARITY.
5. EXISTING CONTOURS AT 2' INTERVALS. PROPOSED CONTOURS AT 0.5' INTERVALS.
6. SEE PAVING PLANS FOR CURVE TABLES, SHEETS C10.10 TO C10.16
7. SEE ADA RAMP DETAILS FOR ADA RAMP ELEVATIONS, SHEETS C10.20 TO C10.31
8. SEE BUILDING PLANS FOR FOUNDATION DETAILS, SHEETS SX00.10 TO SX01.15
9. SEE RETAINING WALL PLANS FOR WALL ALIGNMENTS, DESIGN & DETAILS, SHEETS C15.10 TO C15.33.


KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: M. PANICK	1/18/19					REGION NO. 10 / STATE WASH
ENTERED BY: M. PANICK	1/18/19					JOB NUMBER 18W121
CHECKED BY: P. CROWLEY	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHAEL CATHERINE PARKS
STATE OF WASHINGTON
18212
REGISTERED
PROFESSIONAL ENGINEER
01/18/19

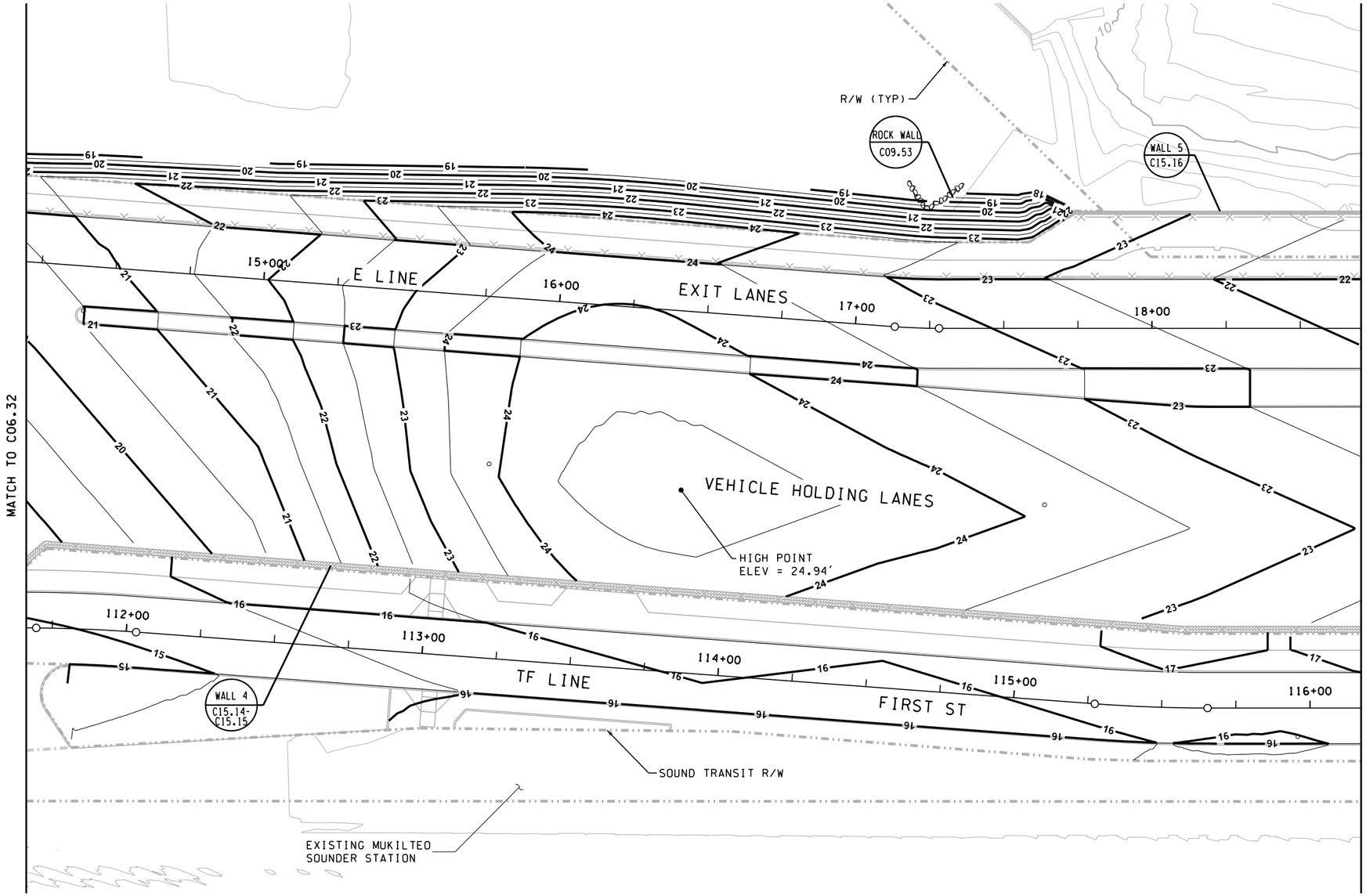
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

CONTOUR GRADING PLAN

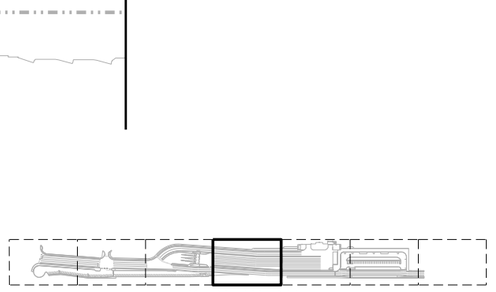
C06.32

SHEET 140 OF 1521 SHEETS



NOTES:

1. SEE ROADWAY ALIGNMENT PLANS FOR ALIGNMENT DATA, SHEETS C06.10 TO C06.16
2. SEE DRAINAGE PLANS FOR ADDITIONAL PROPOSED GRADING AND FLOW TEST REQUIREMENTS, SHEETS C07.10 TO C07.54
3. SEE PLANTING AND IRRIGATION PLANS FOR ADDITIONAL PROPOSED GRADING, SHEETS C09.50 TO C09.64
4. UTILITIES NOT SHOWN FOR CLARITY.
5. EXISTING CONTOURS AT 2' INTERVALS. PROPOSED CONTOURS AT 0.5' INTERVALS.
6. SEE PAVING PLANS FOR CURVE TABLES, SHEETS C10.10 TO C10.16
7. SEE ADA RAMP DETAILS FOR ADA RAMP ELEVATIONS, SHEETS C10.20 TO C10.31
8. SEE BUILDING PLANS FOR FOUNDATION DETAILS, SHEETS SX00.10 TO SX01.15
9. SEE RETAINING WALL PLANS FOR WALL ALIGNMENTS, DESIGN & DETAILS, SHEETS C15.10 TO C15.33.



KEY PLAN

0 20 40
SCALE 1'' = 40'

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: M. PANICK	1/18/19					REGION NO. STATE
ENTERED BY: M. PANICK	1/18/19					10 WASH
CHECKED BY: P. CROWLEY	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
DIR TERM ENGR: N. MCINTOSH		REVISION	DATE	BY		
ASST SECRETARY: A. SCARTON						

MICHAELA CATHERINE PANICK
STATE OF WASHINGTON
18212
REGISTERED
PROFESSIONAL ENGINEER
01/18/19

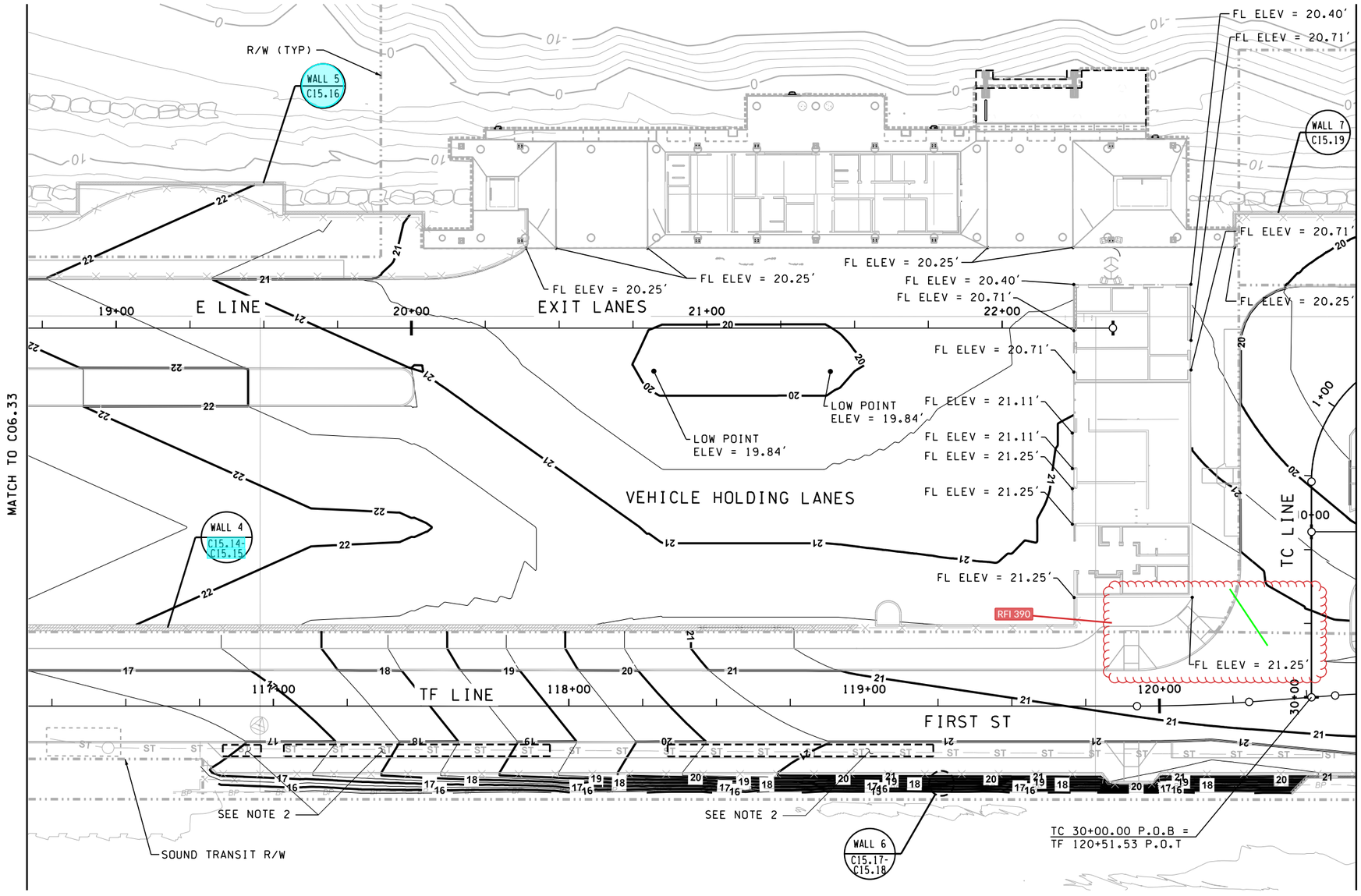
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

CONTOUR GRADING PLAN

C06.33

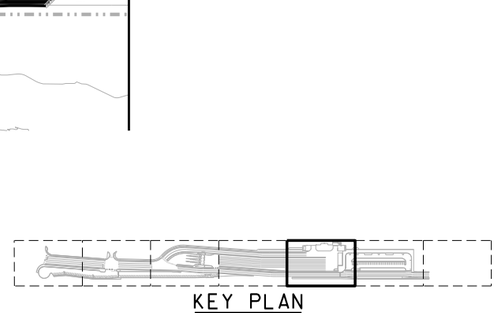
SHEET 141 OF 1521 SHEETS



NOTES:

1. SEE ROADWAY ALIGNMENT PLANS FOR ALIGNMENT DATA, SHEETS C06.10 TO C06.16
2. SEE DRAINAGE PLANS FOR ADDITIONAL PROPOSED GRADING AND FLOW TEST REQUIREMENTS, SHEETS C07.10 TO C07.54
3. SEE PLANTING AND IRRIGATION PLANS FOR ADDITIONAL PROPOSED GRADING, SHEETS C09.50 TO C09.64
4. UTILITIES NOT SHOWN FOR CLARITY.
5. EXISTING CONTOURS AT 2′ INTERVALS. PROPOSED CONTOURS AT 0.5′ INTERVALS.
6. SEE PAVING PLANS FOR CURVE TABLES, SHEETS C10.10 TO C10.16
7. SEE ADA RAMP DETAILS FOR ADA RAMP ELEVATIONS, SHEETS C10.20 TO C10.31
8. SEE BUILDING PLANS FOR FOUNDATION DETAILS, SHEETS SX00.10 TO SX01.15
9. SEE RETAINING WALL PLANS FOR WALL ALIGNMENTS, DESIGN & DETAILS, SHEETS C15.10 TO C15.33.

Per RFI 390 - The sidewalk elevation callout at the southeast corner of the maintenance building should be labeled 21.88'. The elevation callout at the back of sidewalk ramp on sheet C10.25 is correct.


KEY PLAN

SCALE 1″ = 40′

JACOBS

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CHECKED BY: P. CROWLEY	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHELA CATHERINE JACOBS — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER — 01/18/19

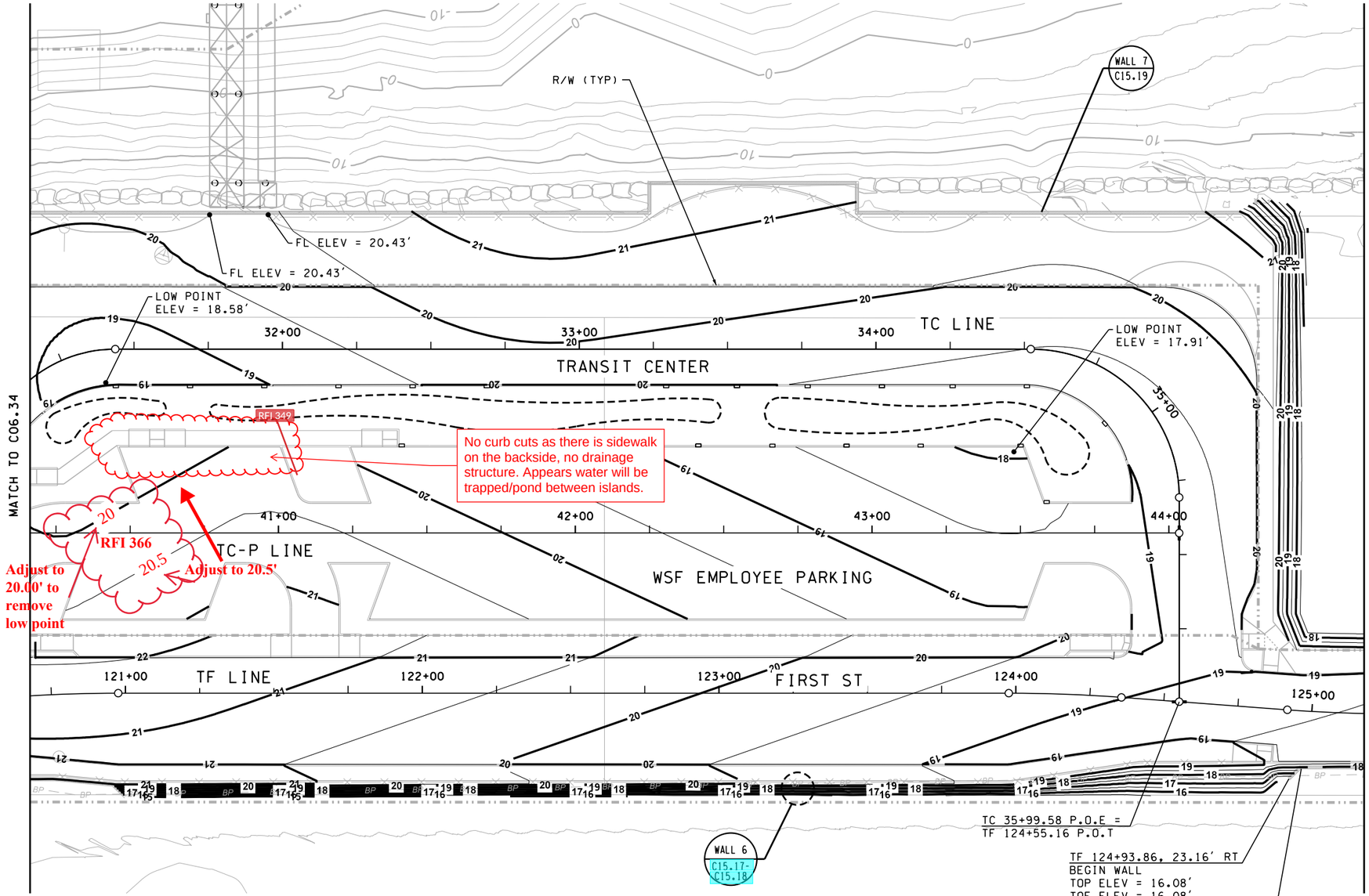
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

CONTOUR GRADING PLAN

C06.34

SHEET 142 OF 1521 SHEETS



KEY PLAN

0 20 40
SCALE 1" = 40'

NOTES:

1. SEE ROADWAY ALIGNMENT PLANS FOR ALIGNMENT DATA, SHEETS C06.10 TO C06.16
2. SEE DRAINAGE PLANS FOR ADDITIONAL PROPOSED GRADING AND FLOW TEST REQUIREMENTS, SHEETS C07.10 TO C07.54
3. SEE PLANTING AND IRRIGATION PLANS FOR ADDITIONAL PROPOSED GRADING, SHEETS C09.50 TO C09.64
4. UTILITIES NOT SHOWN FOR CLARITY.
5. EXISTING CONTOURS AT 2' INTERVALS. PROPOSED CONTOURS AT 0.5' INTERVALS.
6. SEE PAVING PLANS FOR CURVE TABLES, SHEETS C10.10 TO C10.16
7. SEE ADA RAMP DETAILS FOR ADA RAMP ELEVATIONS, SHEETS C10.20 TO C10.31
8. SEE BUILDING PLANS FOR FOUNDATION DETAILS, SHEETS SX00.10 TO SX01.15
9. SEE RETAINING WALL PLANS FOR WALL ALIGNMENTS, DESIGN & DETAILS, SHEETS C15.10 TO C15.33.

JACOBS

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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

RFI 349
11/18/19
Page 2/3

MICHELLE CATHERINE PANICK
STATE OF WASHINGTON
48212
REGISTERED PROFESSIONAL ENGINEER
01/18/19

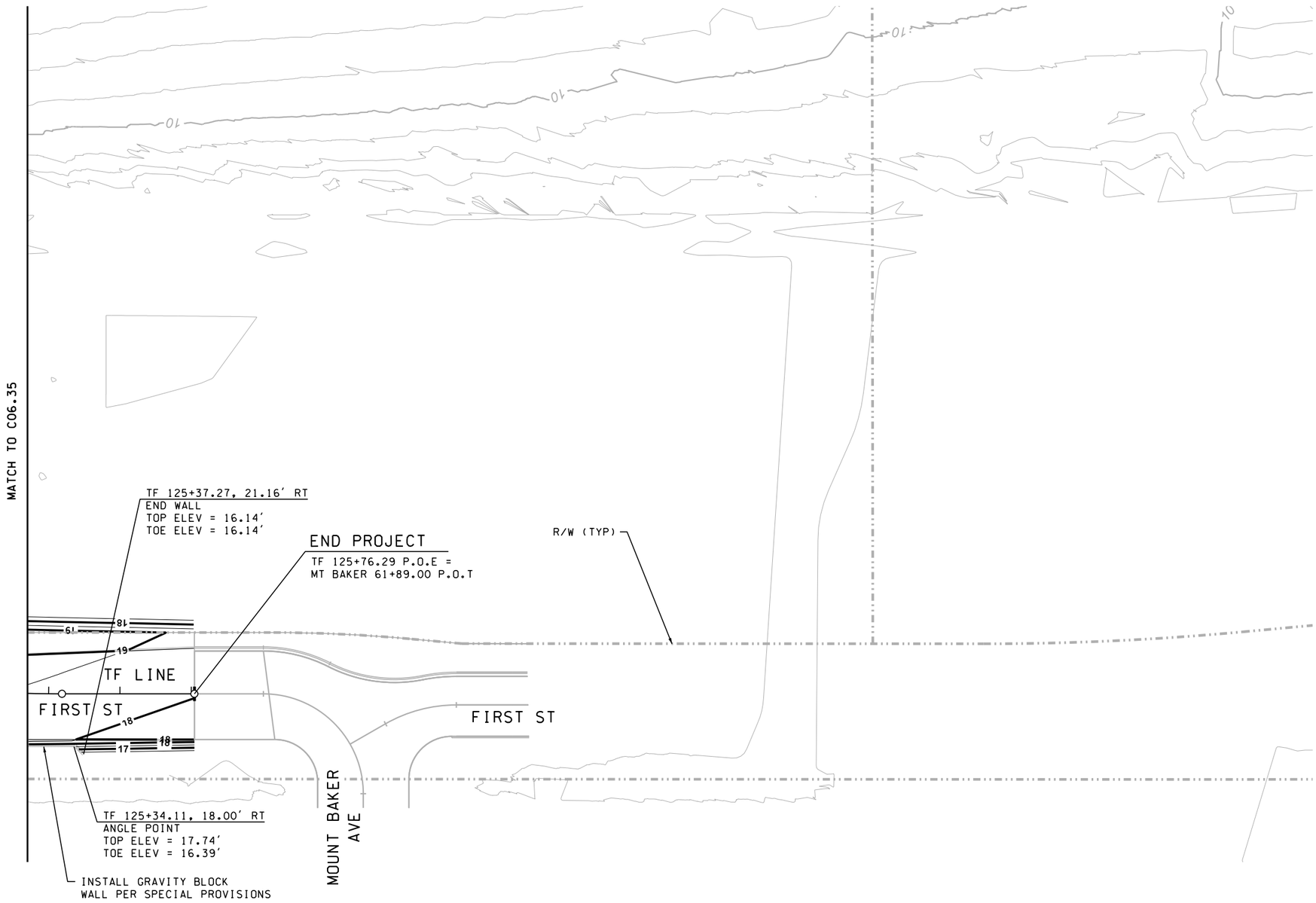
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

CONTOUR GRADING PLAN

C06.35

SHEET 143 OF 1521 SHEETS



NOTES:

1. SEE ROADWAY ALIGNMENT PLANS FOR ALIGNMENT DATA, SHEETS C06.10 TO C06.16
2. SEE DRAINAGE PLANS FOR ADDITIONAL PROPOSED GRADING AND FLOW TEST REQUIREMENTS, SHEETS C07.10 TO C07.54
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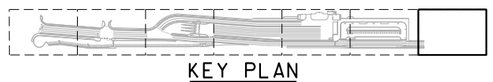

KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHAELA CATHERINE PANICK — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

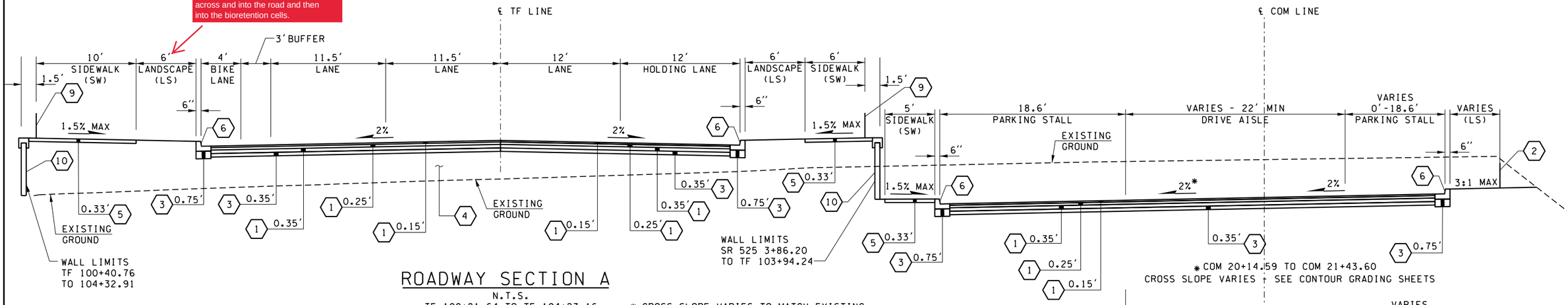
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

CONTOUR GRADING PLAN

C06.36

SHEET 144 OF 1521 SHEETS

RFI # 203 - Maintain the cross slope of 1.5% max. Runoff will drain across and into the road and then into the bioretention cells.



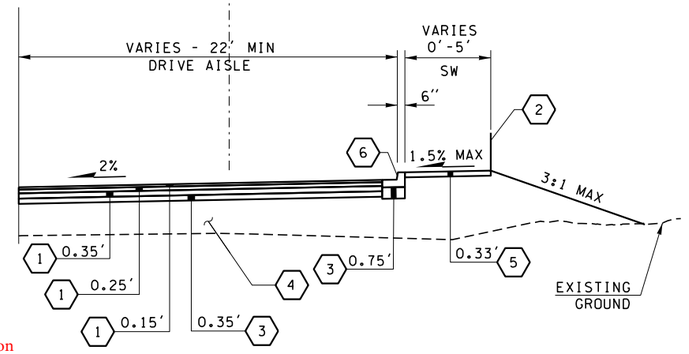
ROADWAY SECTION A

N.T.S.

TF 100+81.64 TO TF 104+23.16
COM 21+43.60 TO COM 24+46.20

* CROSS SLOPE VARIES TO MATCH EXISTING ELEVATION TF 100+81.64 TO TF 101+91.07

* COM 20+14.59 TO COM 21+43.60 CROSS SLOPE VARIES - SEE CONTOUR GRADING SHEETS



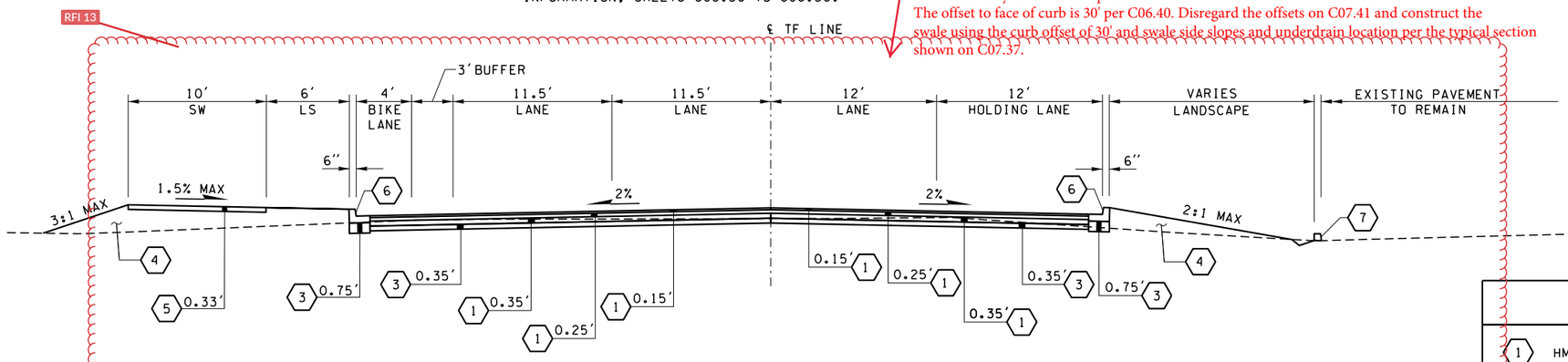
TF 101+83.65 TO TF 104+23.16
COM 21+04.64 TO COM 23+44.18

GENERAL NOTES:

1. SEE ROADWAY PROFILE SHEETS FOR SUPER ELEVATION INFORMATION, SHEETS C06.20 TO C06.24.
2. SEE PAVING PLANS FOR ADDITIONAL INFORMATION AND INTERSECTIONS WITH DRIVEWAYS AND ROADS, SHEETS C10.10 TO C10.16.
3. SEE DRAINAGE PLAN SHEETS C07.10 TO C07.16 AND C07.30 TO C07.47 AND LANDSCAPE PLANS C09.60 TO C09.64 FOR ADDITIONAL INFORMATION REGARDING THE LANDSCAPE AREAS.
4. UTILITIES NOT SHOWN. SEE UTILITY PLANS FOR HORIZONTAL AND VERTICAL LOCATION OF UTILITIES.
5. SEE WALL PLANS FOR WALL TYPE, BARRIERS AND PEDESTRIAN RAIL LOCATIONS AND TYPES, SEE SHEETS C15.10 TO C15.33.
6. SEE BUILDING PLANS FOR BUILDING FOUNDATIONS AND LOCATIONS, SHEETS SB02.00 TO SB02.04 AND SB02.50 TO SB02.52.
7. SEE CONTOUR GRADING PLANS FOR ADDITIONAL INFORMATION, SHEETS C06.30 TO C06.36.
8. SEE SUBSURFACE GRADING DETAILS FOR INFORMATION REGARDING IMPERMEABLE LINEAR AND UNDER DRAIN, SHEETS C07.48 TO C07.49.
9. SEE SR525 MUKILTEO MULTIMODAL TERMINAL - PHASE 2 PAVEMENT DESIGN REPORT (SUPPLEMENT) FOR ADDITIONAL INFORMATION ON PAVEMENT SECTIONS.

Per RFI 013 - BRF-5 - Set interior face of the western gravity block wall at Sta. 105+32 and extend interior of the bioretention facility 60' so that the interior of the eastern gravity block wall is at Sta. 105+92. The intention is to provide a 60' facility, and shifting it slightly east or west as field conditions may dictate is acceptable.
The offset to face of curb is 30' per C06.40. Disregard the offsets on C07.41 and construct the swale using the curb offset of 30' and swale side slopes and underdrain location per the typical section shown on C07.37.

RFI 13



ROADWAY SECTION B

N.T.S.

TF 105+21.80 TO TF 107+41.98

LEGEND

1	HMA CL. 1/2 IN. PG 64-22	7	CEMENT CONCRETE TRAFFIC CURB
2	FENCE	9	PEDESTRIAN RAILING OR FENCE (SEE STRUCTURES DETAILS)
3	CRUSHED SURFACING BASE COURSE	10	RETAINING WALL (SEE WALL PLANS FOR TYPE)
4	COMMON BORROW INCLUDING HAUL		
5	CEMENT CONCRETE		
6	CEMENT CONCRETE TRAFFIC CURB & GUTTER		

JACOBS

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ENTERED BY: C. CONRAD	1/18/19					10 WASH
CHECKED BY: J. SCHENKMAN	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

JENNIFER L. SCHENKMAN — STATE OF WASHINGTON — 45038 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

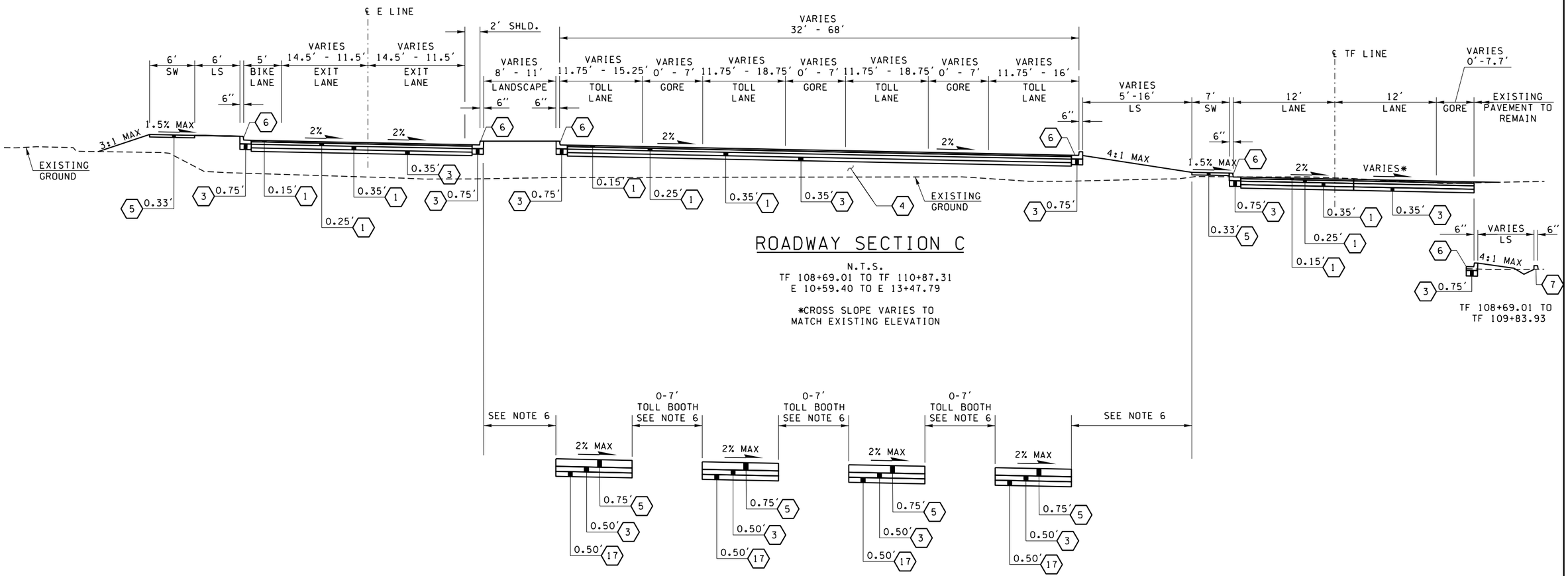
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY SECTIONS

C06.40

SHEET 145 OF 1521 SHEETS



ROADWAY SECTION C

N.T.S.
TF 108+69.01 TO TF 110+87.31
E 10+59.40 TO E 13+47.79

*CROSS SLOPE VARIES TO MATCH EXISTING ELEVATION

E 13+13.79 TO E 13+47.79

GENERAL NOTES:

1. SEE ROADWAY PROFILE SHEETS FOR SUPER ELEVATION INFORMATION, SHEETS C06.20 TO C06.24.
2. SEE PAVING PLANS FOR ADDITIONAL INFORMATION AND INTERSECTIONS WITH DRIVEWAYS AND ROADS, SHEETS C10.10 TO C10.16.
3. SEE DRAINAGE PLAN SHEETS C07.10 TO C07.16 AND C07.30 TO C07.47 AND LANDSCAPE PLANS C09.60 TO C09.64 FOR ADDITIONAL INFORMATION REGARDING THE LANDSCAPE AREAS.
4. UTILITIES NOT SHOWN. SEE UTILITY PLANS FOR HORIZONTAL AND VERTICAL LOCATION OF UTILITIES.
5. SEE WALL PLANS FOR WALL TYPE, BARRIERS AND PEDESTRIAN RAIL LOCATIONS AND TYPES, SEE SHEETS C15.10 TO C15.33.
6. SEE BUILDING PLANS FOR BUILDING FOUNDATIONS AND LOCATIONS, SHEETS SB02.00 TO SB02.04 AND SB02.50 TO SB02.52.
7. SEE CONTOUR GRADING PLANS FOR ADDITIONAL INFORMATION, SHEETS C06.30 TO C06.36.
8. SEE SUBSURFACE GRADING DETAILS FOR INFORMATION REGARDING IMPERMEABLE LINEAR AND UNDER DRAIN, SHEETS C07.48 TO C07.49.
9. SEE SR525 MUKILTEO MULTIMODAL TERMINAL - PHASE 2 PAVEMENT DESIGN REPORT (SUPPLEMENT) FOR ADDITIONAL INFORMATION ON PAVEMENT SECTIONS.

LEGEND

1	HMA CL. 1/2 IN. PG 64-22
3	CRUSHED SURFACING BASE COURSE
4	COMMON BORROW INCLUDING HAUL
5	CEMENT CONCRETE
6	CEMENT CONCRETE TRAFFIC CURB & GUTTER
7	CEMENT CONCRETE TRAFFIC CURB
17	COMPACTED SUB-GRADE

JACOBS

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CHECKED BY: M. PANICK	1/18/19					
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHAEL CATHERINE PANICK — STATE OF WASHINGTON — 18212 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

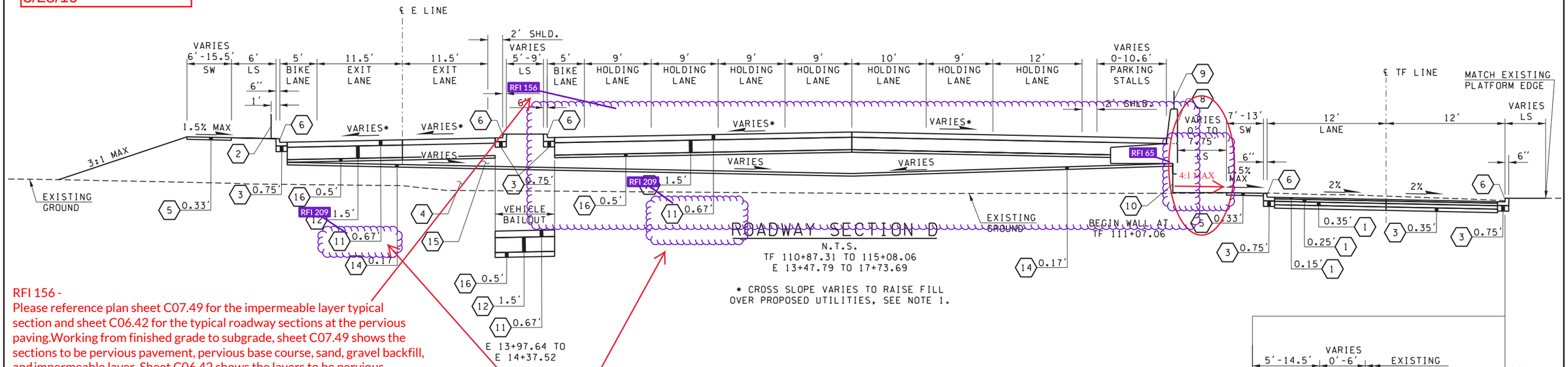
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

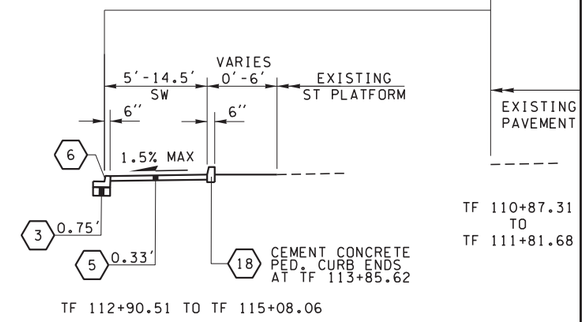
ROADWAY SECTIONS

C06.41

SHEET 146 OF 1521 SHEETS

SK 2
RFI 065
Jacobs
3/28/19





RFI 156 -
Please reference plan sheet C07.49 for the impermeable layer typical section and sheet C06.42 for the typical roadway sections at the pervious paving.Working from finished grade to subgrade, sheet C07.49 shows the sections to be pervious pavement, pervious base course, sand, gravel backfill, and impermeable layer. Sheet C06.42 shows the layers to be pervious pavement, sand, pervious base course, gravel backfill, and impermeable layer. Please advise which section is correct.
RESPONSE: Sheet C07.49 shows the correct order

PEr RFI 209 - Plan sheets C15.20 & C15.25 call out use of WSDOT Std. Plan D-3.15-02 (Permanent Geosynthetic Wall Single Slope Barrier). Plan sheets C15.26 & C15.27 do not provide any barrier dimensions that would provide conflicting information. The only place where barrier dimensions and reinforcing details are provided in the contract plans is within the referenced WSDOT Std. Plan. D-3.15-02 In order for moment slab at Wall 4 (detailed per WSDOT Std. Plan D-3.15-02) to fit into the required drainage design at this location the top of the moment slab will need to be sloped to drain away from the wall as follows:
The top of moment slab under pervious pavement (10" min. thickness) shall be sloped . 5" min away from the face of Wall 4. The minimum thickness of the moment slab shall be 1'-4"; increased thickness of the moment slab will be allowed to accommodate required sloping.

GENERAL NOTES:

1. SEE ROADWAY PROFILE SHEETS FOR SUPER ELEVATION INFORMATION, SHEETS C06.20 TO C06.24.
2. SEE PAVING PLANS FOR ADDITIONAL INFORMATION AND INTERSECTIONS WITH DRIVEWAYS AND ROADS, SHEETS C10.10 TO C10.16.
3. SEE DRAINAGE PLAN SHEETS C07.10 TO C07.16 AND C07.30 TO C07.47 AND LANDSCAPE PLANS C09.60 TO C09.64 FOR ADDITIONAL INFORMATION REGARDING THE LANDSCAPE AREAS.
4. UTILITIES NOT SHOWN. SEE UTILITY PLANS FOR HORIZONTAL AND VERTICAL LOCATION OF UTILITIES.
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6. SEE BUILDING PLANS FOR BUILDING FOUNDATIONS AND LOCATIONS, SHEETS SB02.00 TO SB02.04 AND SB02.50 TO SB02.52.
7. SEE CONTOUR GRADING PLANS FOR ADDITIONAL INFORMATION, SHEETS C06.30 TO C06.36.
8. SEE SUBSURFACE GRADING DETAILS FOR INFORMATION REGARDING IMPERMEABLE LINEAR AND UNDER DRAIN, SHEETS C07.48 TO C07.49.
9. SEE SR525 MUKILTEO MULTIMODAL TERMINAL - PHASE 2 PAVEMENT DESIGN REPORT (SUPPLEMENT) FOR ADDITIONAL INFORMATION ON PAVEMENT SECTIONS.

LEGEND

1	HMA CL. 1/2 IN. PG 64-22	10	RETAINING WALL (SEE WALL PLANS FOR TYPE)
2	FENCE	11	PERVIOUS CONCRETE PAVEMENT
3	CRUSHED SURFACING BASE COURSE	12	SAND
4	COMMON BORROW INCLUDING HAUL	14	IMPERMEABLE LINER (SEE DRAINAGE PLANS FOR LIMITS)
5	CEMENT CONCRETE	15	Gravel Backfill for Structural Earth Walls
6	CEMENT CONCRETE TRAFFIC CURB & GUTTER	16	PERVIOUS BASE COURSE
8	MOMENT SLAB (SEE WALL PLANS FOR DETAILS)	18	CEMENT CONCRETE PEDESTRIAN CURB
9	PEDESTRIAN RAILING OR FENCE (SEE STRUCTURE DETAILS)		

JACOBS

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CHECKED BY: M. PANICK	12/14/2017					JOB NUMBER 14W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHAELA CATHERINE PANICK — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER — 12/14/17

Washington State Department of Transportation
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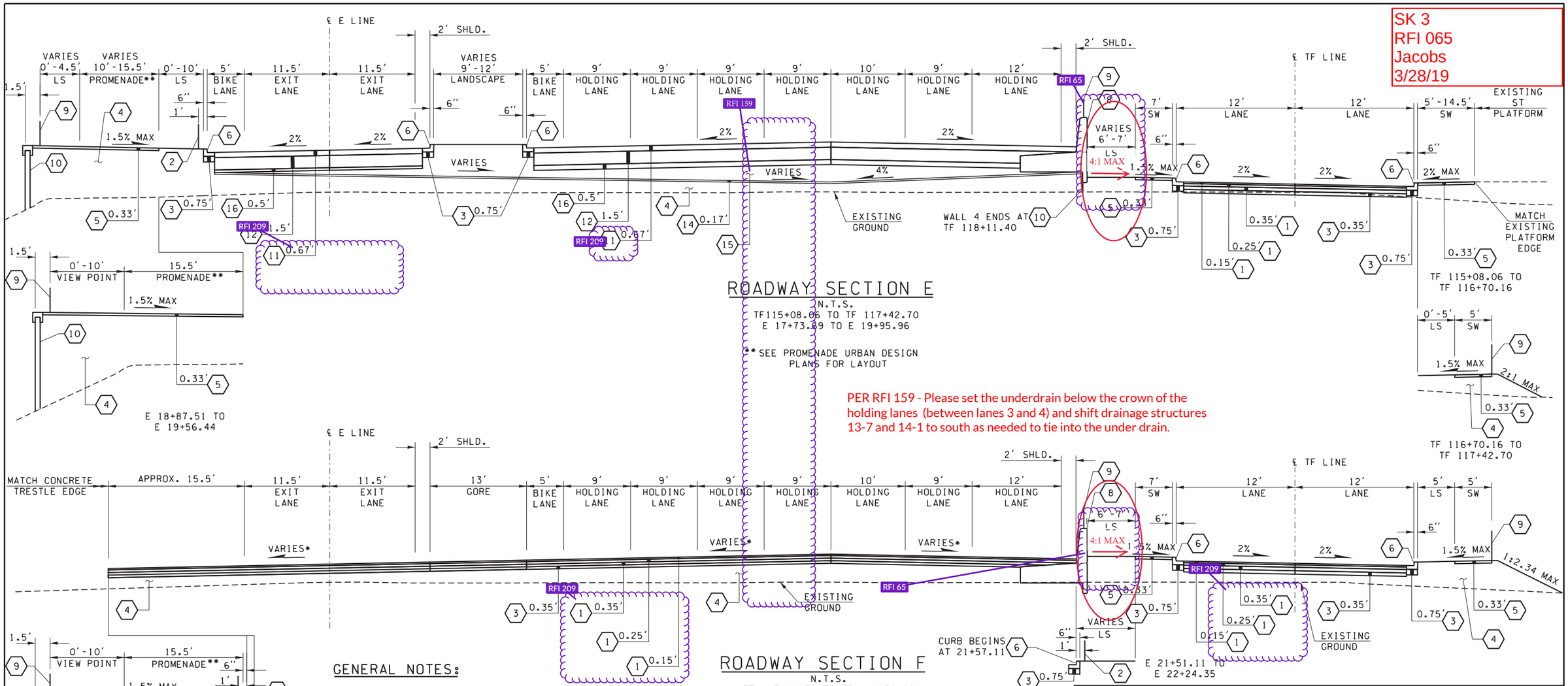
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY SECTIONS

C06.42

SHEET 147 OF 1521 SHEETS

SK 3
RFI 065
Jacobs
3/28/19



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2. SEE PAVING PLANS FOR ADDITIONAL INFORMATION AND INTERSECTIONS WITH DRIVEWAYS AND ROADS, SHEETS C10.10 TO C10.16.
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6. SEE BUILDING PLANS FOR BUILDING FOUNDATIONS AND LOCATIONS, SHEETS SB02.00 TO SB02.04 AND SB02.50 TO SB02.52.
7. SEE CONTOUR GRADING PLANS FOR ADDITIONAL INFORMATION, SHEETS C06.30 TO C06.36.
8. SEE SUBSURFACE GRADING DETAILS FOR INFORMATION REGARDING IMPERMEABLE LINEAR AND UNDER DRAIN, SHEETS C07.48 TO C07.49.
9. SEE SR525 MUKILTEO MULTIMODAL TERMINAL - PHASE 2 PAVEMENT DESIGN REPORT (SUPPLEMENT) FOR ADDITIONAL INFORMATION ON PAVEMENT SECTIONS.

ROADWAY SECTION F

N.T.S.
TF 117+42.70 TO TF 119+70.96
E 19+95.96 TO E 22+24.21

*CROSS SLOPE VARIES TO TIE INTO FIRST STREET AND PROPOSED TRESTLE BUILDING

** SEE PROMENADE URBAN DESIGN PLANS FOR LAYOUT

LEGEND

1	HMA CL. 1/2 IN. PG 64-22	10	RETAINING WALL (SEE WALL PLANS FOR TYPE)
2	FENCE	11	PERVIOUS CONCRETE PAVEMENT
3	CRUSHED SURFACING BASE COURSE	12	SAND
4	COMMON BORROW INCLUDING HAUL	14	IMPERMEABLE LINER (SEE DRAINAGE PLANS FOR LIMITS)
5	CEMENT CONCRETE	15	Gravel Backfill for Structural Earth Walls
6	CEMENT CONCRETE TRAFFIC CURB & GUTTER	16	PERVIOUS BASE COURSE
8	MOMENT SLAB (SEE WALL PLANS FOR DETAILS)		
9	PEDESTRIAN RAILING OR FENCE (SEE STRUCTURE DETAILS)		

See previous page C06.42 for RFI 209 notes

JACOBS

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ENTERED BY: D. PERRY	12/14/2017					JOB NUMBER 14W121
CHECKED BY: M. PANICK	12/14/2017					CONTRACT NO. 00****
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH						
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHAELA CATHERINE PANICK — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER — 12/14/17

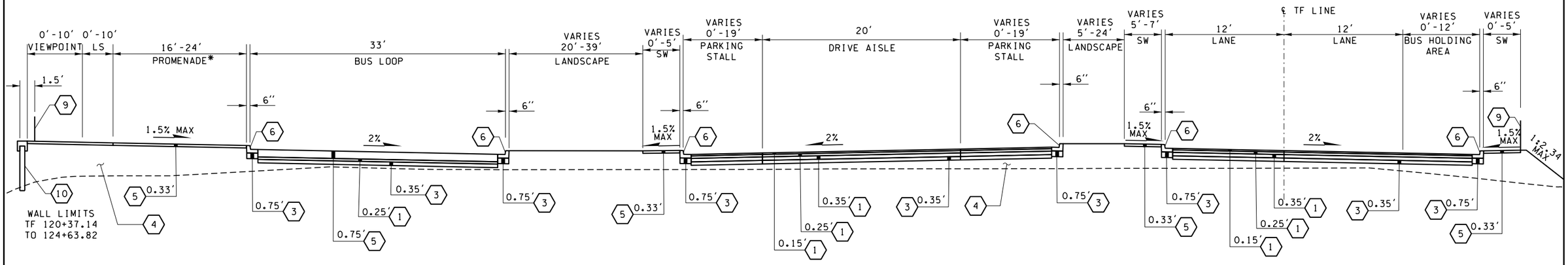
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY SECTIONS

C06.43

SHEET 148 OF 1521 SHEETS



ROADWAY SECTION G

N.T.S.
TF 120+70.30 TO 124+33.17
TC 31+43.68 TO TC 34+52.17

*SEE PROMENADE URBAN DESIGN PLANS FOR LAYOUT

GENERAL NOTES:

1. SEE ROADWAY PROFILE SHEETS FOR SUPER ELEVATION INFORMATION, SHEETS C06.20 TO C06.24.
2. SEE PAVING PLANS FOR ADDITIONAL INFORMATION AND INTERSECTIONS WITH DRIVEWAYS AND ROADS, SHEETS C10.10 TO C10.16.
3. SEE DRAINAGE PLAN SHEETS C07.10 TO C07.16 AND C07.30 TO C07.47 AND LANDSCAPE PLANS C09.60 TO C09.64 FOR ADDITIONAL INFORMATION REGARDING THE LANDSCAPE AREAS.
4. UTILITIES NOT SHOWN. SEE UTILITY PLANS FOR HORIZONTAL AND VERTICAL LOCATION OF UTILITIES.
5. SEE WALL PLANS FOR WALL TYPE, BARRIERS AND PEDESTRIAN RAIL LOCATIONS AND TYPES, SEE SHEETS C15.10 TO C15.33.
6. SEE BUILDING PLANS FOR BUILDING FOUNDATIONS AND LOCATIONS, SHEETS SB02.00 TO SB02.04 AND SB02.50 TO SB02.52.
7. SEE CONTOUR GRADING PLANS FOR ADDITIONAL INFORMATION, SHEETS C06.30 TO C06.36.
8. SEE SUBSURFACE GRADING DETAILS FOR INFORMATION REGARDING IMPERMEABLE LINEAR AND UNDER DRAIN, SHEETS C07.48 TO C07.49.
9. SEE SR525 MUKILTEO MULTIMODAL TERMINAL - PHASE 2 PAVEMENT DESIGN REPORT (SUPPLEMENT) FOR ADDITIONAL INFORMATION ON PAVEMENT SECTIONS.

LEGEND

1	HMA CL. 1/2 IN. PG 64-22	6	CEMENT CONCRETE TRAFFIC CURB & GUTTER
3	CRUSHED SURFACING BASE COURSE	9	PEDESTRIAN RAILING OR FENCE (SEE STRUCTURE DETAILS)
4	COMMON BORROW INCLUDING HAUL	10	RETAINING WALL (SEE WALL PLANS FOR TYPE)
5	CEMENT CONCRETE		

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
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ENTERED BY: D. PERRY	1/18/19					
CHECKED BY: M. PANICK	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

MICHELLE CATHERINE PARKER — STATE OF WASHINGTON — 48212 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

ROADWAY SECTIONS

C06.44

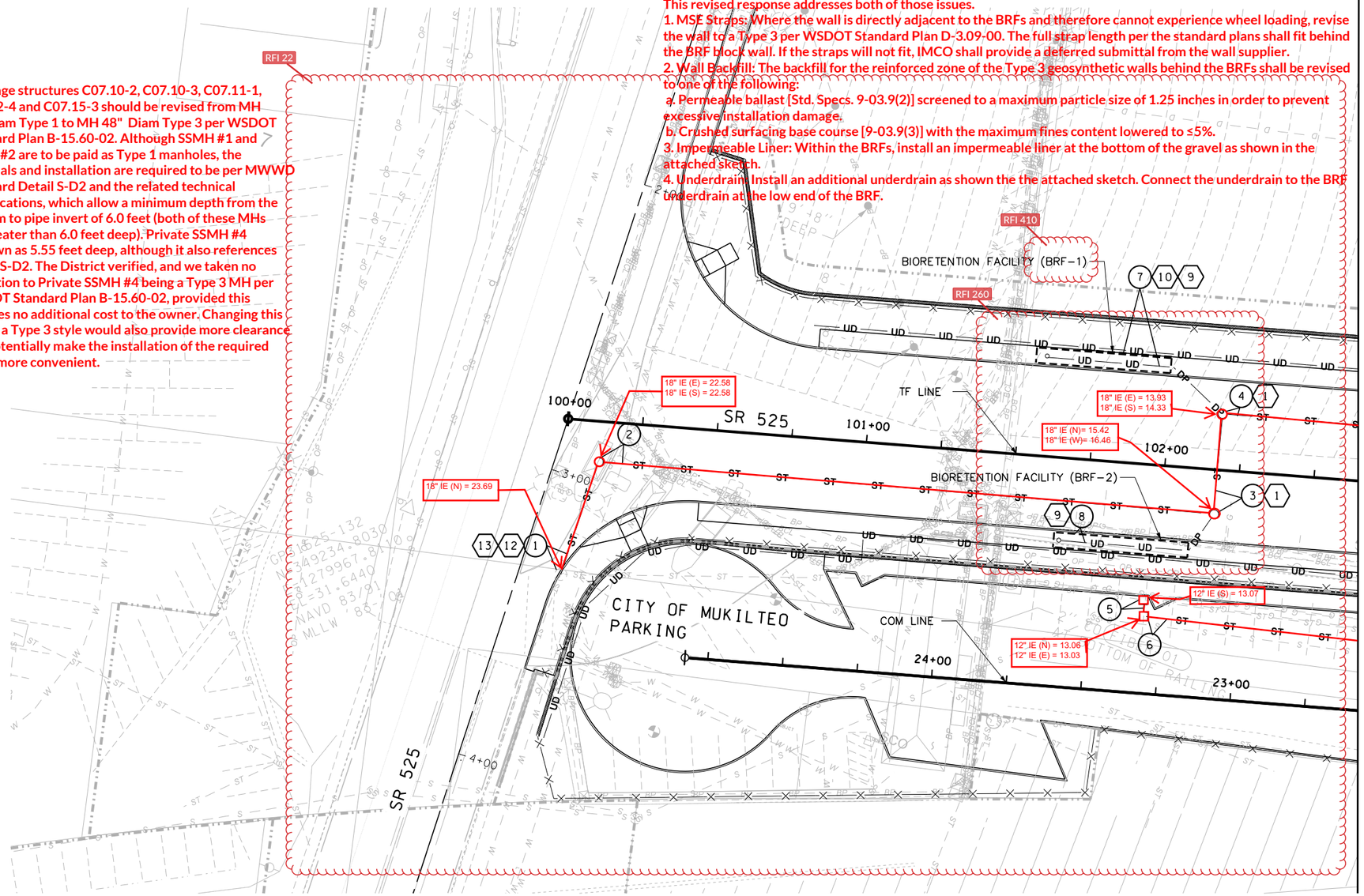
SHEET 149 OF 1521 SHEETS

RFI 22

Drainage structures C07.10-2, C07.10-3, C07.11-1, C07.12-4 and C07.15-3 should be revised from MH 48" Diam Type 1 to MH 48" Diam Type 3 per WSDOT Standard Plan B-15.60-02. Although SSMH #1 and SSMH #2 are to be paid as Type 1 manholes, the materials and installation are required to be per MWWD Standard Detail S-D2 and the related technical specifications, which allow a minimum depth from the MH rim to pipe invert of 6.0 feet (both of these MHs are greater than 6.0 feet deep). Private SSMH #4 is shown as 5.55 feet deep, although it also references Detail S-D2. The District verified, and we taken no exception to Private SSMH #4 being a Type 3 MH per WSDOT Standard Plan B-15.60-02, provided this involves no additional cost to the owner. Changing this MH to a Type 3 style would also provide more clearance and potentially make the installation of the required lining more convenient.

RFI 410 - Upon further discussion in early August, 2020, WSDOT Geotechnical Services was concerned about modifying the straps at the BRFs and the potential for hydrostatic pressure to develop behind the standard plan geosynthetic walls. This revised response addresses both of those issues.

1. MSE Straps: Where the wall is directly adjacent to the BRFs and therefore cannot experience wheel loading, revise the wall to a Type 3 per WSDOT Standard Plan D-3.09-00. The full strap length per the standard plans shall fit behind the BRF block wall. If the straps will not fit, IMCO shall provide a deferred submittal from the wall supplier.
2. Wall Backfill: The backfill for the reinforced zone of the Type 3 geosynthetic walls behind the BRFs shall be revised to one of the following:
   a. Permeable ballast [Std. Specs. 9-03.9(2)] screened to a maximum particle size of 1.25 inches in order to prevent excessive installation damage.
   b. Crushed surfacing base course [9-03.9(3)] with the maximum fines content lowered to ≤5%.
3. Impermeable Liner: Within the BRFs, install an impermeable liner at the bottom of the gravel as shown in the attached sketch.
4. Underdrain: Install an additional underdrain as shown the the attached sketch. Connect the underdrain to the BRF underdrain at the low end of the BRF.



Per RFI 260 - Luminaire poles are placed outside of the BRF limits. Conduit runs should be considered diagrammatical. Routing conduit underneath the sidewalk where necessary to avoid BRFs is acceptable.

CONSTRUCTION NOTES:

1. CONNECT UNDERDRAIN TO CATCH BASIN
9. INSTALL IN LINE BACKFLOW VALVE BETWEEN STRUCTURE AND TREATMENT FACILITY
10. INSTALL 45°JOINT TO CONNECT UNDERDRAIN TO CB
12. CONNECT PROPOSED PIPE TO EXISTING STRUCTURE
13. PIPE TO BE HDPE MATERIAL

GENERAL NOTES:

1. SEE SHEETS C06.10 TO C06.16 FOR ALIGNMENT INFORMATION
2. SEE SECTION 1-07.6 PROTECTED SPECIES MONITORING
3. SEE SHEET C03.01 TO C03.16 FOR TESC PLAN DETAILS
4. SEE SECTION 8-01 TURBIDITY AND DEBRIS CONTROL, WATER QUALITY MONITORING, AND OFF-SHORE TESC PLANS.
5. INSTALL IMPERMEABLE LINER BELOW PERVIOUS PAVEMENT LIMITS. SEE SHEET C07.48 AND C07.49.
6. CONNECT DRAIN FROM TRESSEL TRENCH DRAIN TO PROPOSED GRIT CHAMBER. SEE SHEET C07.46 FOR GRIT CHAMBER DETAIL.
7. ABANDON EXISTING OUTFALL STRUCTURE. EXISTING FRAME AND BIRD CAGE TO BE REUSED FRO PROPOSED OUTFALL STRUCTURE.

LEGEND:

- UD — UNDERDRAIN LINE
- ST — STORM SEWER
- DP — DP - DRAIN LINE
- BIORETENTION FACILITY (BRF-X)
- MWS — MODULAR WETLANDS SYSTEM (MWS-X)
- CATCH BASIN
- MANHOLE
- CLEANOUT
- D — TRENCH DRAIN

CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

FILE NAME: WSF\Mukilteo\CADD\WORKING\CM-DESIGN\14w121_c07_10.dlv						
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DESIGNED BY: R. NAIDU	1/18/2019					WA-2017-007-00
ENTERED BY: C. BENNETT	1/18/2019					REGION NO. STATE
CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		18W121
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO. 00****

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

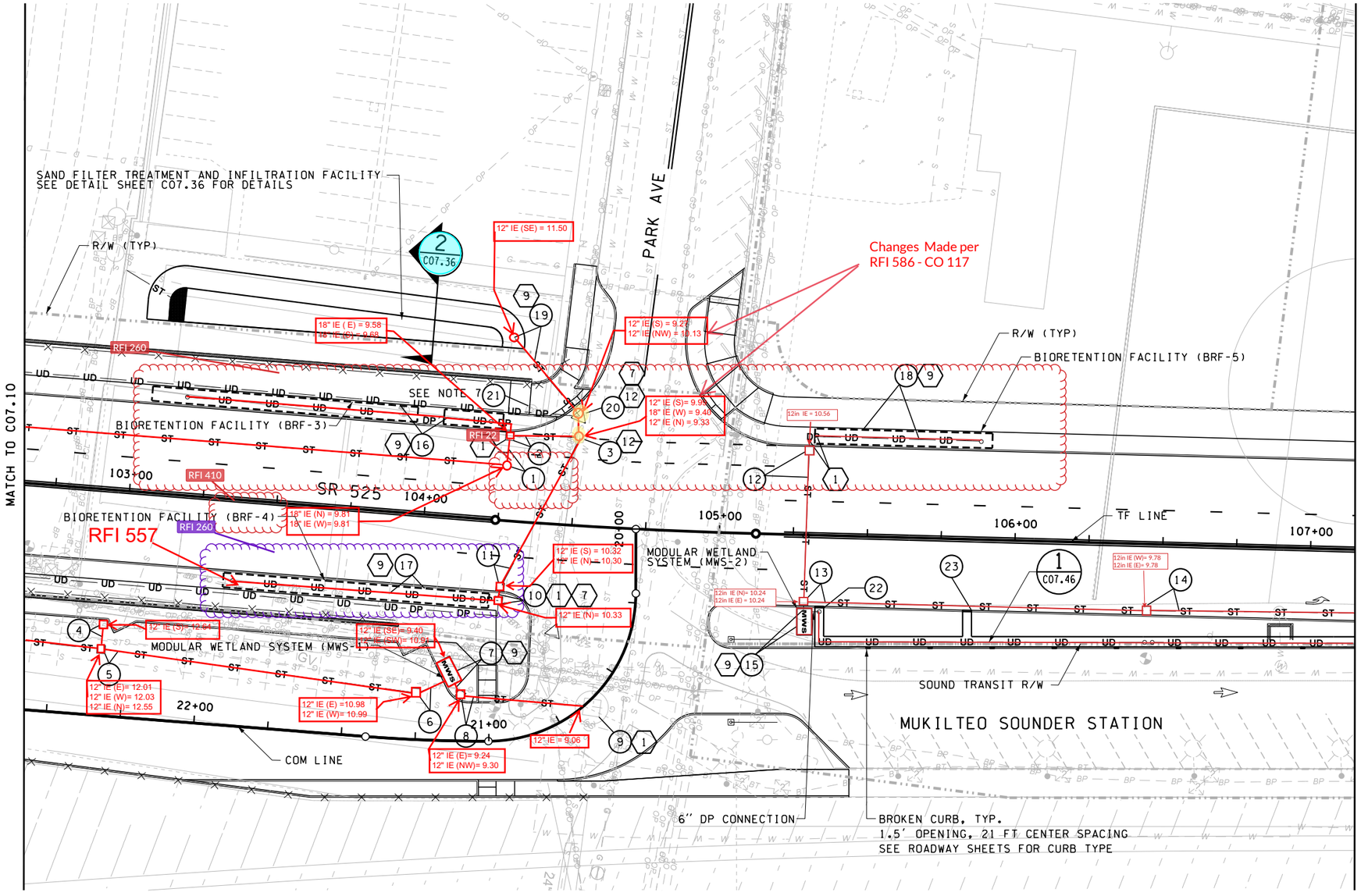
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PLAN

C07.10

SHEET 150 OF 1521 SHEETS



CONSTRUCTION NOTES:

1. CONNECT UNDERDRAIN TO CATCH BASIN
7. CONNECT WALL DRAIN TO CATCH BASIN
9. INSTALL IN LINE BACKFLOW VALVE BETWEEN STRUCTURE AND TREATMENT FACILITY
10. INSTALL 45°JOINT TO CONNECT UNDERDRAIN TO CB
12. CONNECT PROPOSED PIPE TO EXISTING STRUCTURE

GENERAL NOTES:

1. SEE SHEETS C06.10 TO C06.16 FOR ALIGNMENT INFORMATION
2. SEE SECTION 1-07.6 PROTECTED SPECIES MONITORING
3. SEE SHEET C03.01 TO C03.16 FOR TESC PLAN DETAILS
4. SEE SECTION 8-01 TURBIDITY AND DEBRIS CONTROL, WATER QUALITY MONITORING, AND OFF-SHORE TESC PLANS.
5. INSTALL IMPERMEABLE LINER BELOW PERVIOUS PAVEMENT LIMITS. SEE SHEET C07.48 AND C07.49.
6. CONNECT DRAIN FROM TRESSEL TRENCH DRAIN TO PROPOSED GRIT CHAMBER. SEE SHEET C07.46 FOR GRIT CHAMBER DETAIL.
7. ABANDON EXISTING OUTFALL STRUCTURE. EXISTING FRAME AND BIRD CAGE TO BE REUSED FRO PROPOSED OUTFALL STRUCTURE.

LEGEND:

- UD — UNDERDRAIN LINE
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- BIORETENTION FACILITY (BRF-X)
- MWS — MODULAR WETLANDS SYSTEM (MWS-X)
- CATCH BASIN
- MANHOLE
- CLEANOUT
- D — TRENCH DRAIN
- CULVERT

RFI 260 - See previous plan page C07.10
RFI 410 - See Previous plan page C07.10

Per RFI 557 - The CIP and Gravity Block walls got flip-flopped and the CIP wall should be adjacent to the roadway. The concrete curb cut locations as shown are fine. We didn't call out stations or elevations for those. The locations are schematic and the curb profile would determine the elevation at each specific location

CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

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ENTERED BY: C. BENNETT	1/18/2019					10 WASH
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

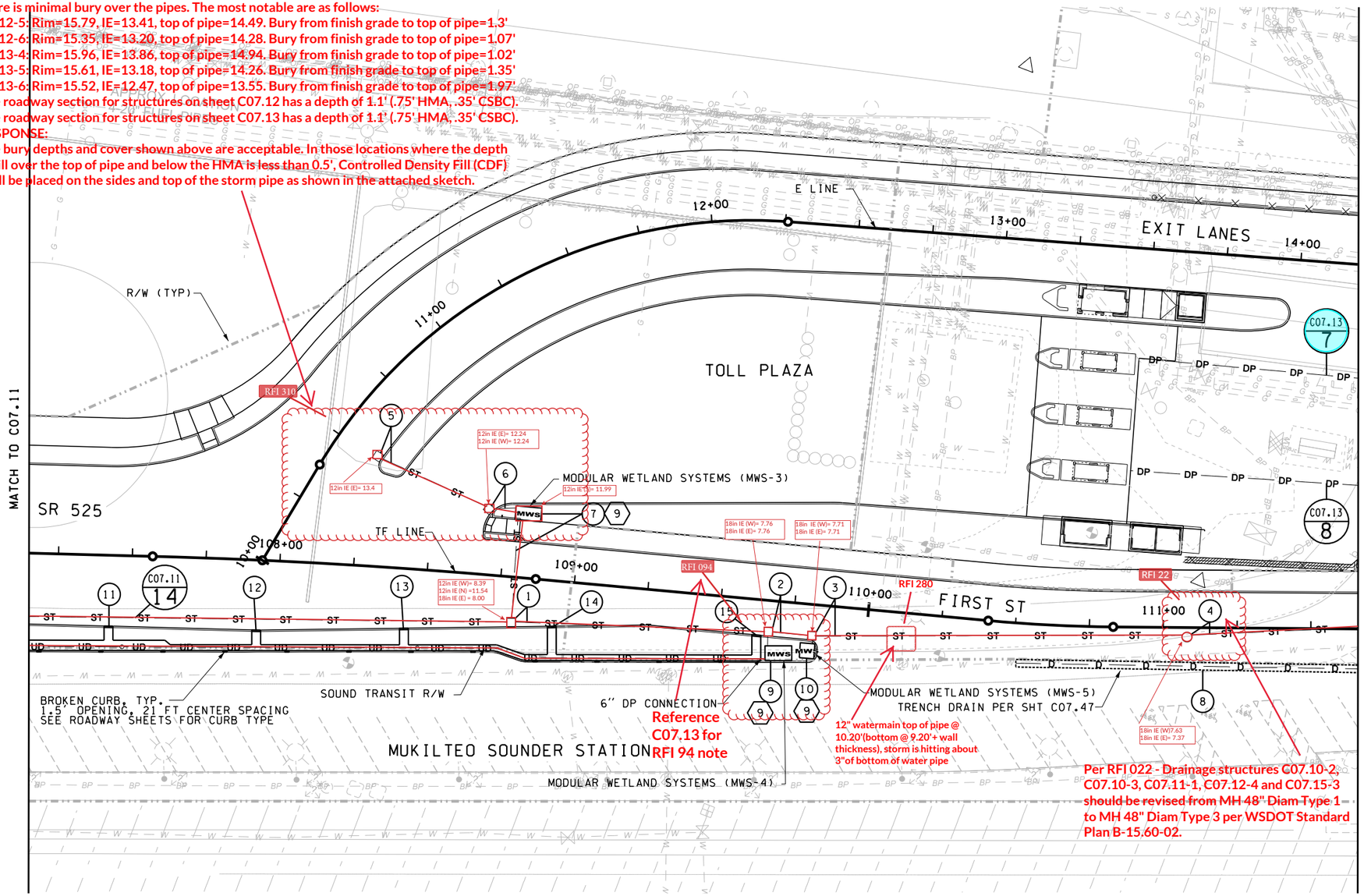
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PLAN

C07.11

SHEET 151 OF 1521 SHEETS

RFI 310 - As we have proceeded with rough grading, we have noticed at multiple structures there is minimal bury over the pipes. The most notable are as follows:
CB 12-5: Rim=15.79, IE=13.41, top of pipe=14.49. Bury from finish grade to top of pipe=1.3'
CB 12-6: Rim=15.35, IE=13.20, top of pipe=14.28. Bury from finish grade to top of pipe=1.07'
CB 13-4: Rim=15.96, IE=13.86, top of pipe=14.94. Bury from finish grade to top of pipe=1.02'
CB 13-5: Rim=15.61, IE=13.18, top of pipe=14.26. Bury from finish grade to top of pipe=1.35'
CB 13-6: Rim=15.52, IE=12.47, top of pipe=13.55. Bury from finish grade to top of pipe=1.97'
The roadway section for structures on sheet C07.12 has a depth of 1.1' (.75' HMA, .35' CSBC).
The roadway section for structures on sheet C07.13 has a depth of 1.1' (.75' HMA, .35' CSBC).
RESPONSE:
The bury depths and cover shown above are acceptable. In those locations where the depth of fill over the top of pipe and below the HMA is less than 0.5', Controlled Density Fill (CDF) shall be placed on the sides and top of the storm pipe as shown in the attached sketch.



CONSTRUCTION NOTES:

1. CONNECT UNDERDRAIN TO CATCH BASIN
9. INSTALL IN LINE BACKFLOW VALVE BETWEEN STRUCTURE AND TREATMENT FACILITY
11. CONNECT TO ROOF DRAIN

GENERAL NOTES:

1. SEE SHEETS C06.10 TO C06.16 FOR ALIGNMENT INFORMATION
2. SEE SECTION 1-07.6 PROTECTED SPECIES MONITORING
3. SEE SHEET C03.01 TO C03.16 FOR TESC PLAN DETAILS
4. SEE SECTION 8-01 TURBIDITY AND DEBRIS CONTROL, WATER QUALITY MONITORING, AND OFF-SHORE TESC PLANS.
5. INSTALL IMPERMEABLE LINER BELOW PERVIOUS PAVEMENT LIMITS. SEE SHEET C07.48 AND C07.49.
6. CONNECT DRAIN FROM TRESSEL TRENCH DRAIN TO PROPOSED GRIT CHAMBER. SEE SHEET C07.46 FOR GRIT CHAMBER DETAIL.
7. ABANDON EXISTING OUTFALL STRUCTURE. EXISTING FRAME AND BIRD CAGE TO BE REUSED FRO PROPOSED OUTFALL STRUCTURE.

LEGEND:

- UD — UNDERDRAIN LINE
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- CATCH BASIN
- MANHOLE
- CLEANOUT
- D — TRENCH DRAIN

CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

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ENTERED BY: C. BENNETT	1/18/2019					
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

CATHERINE E MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
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SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PLAN

C07.12

SHEET 152 OF 1521 SHEETS

CONSTRUCTION NOTES:

1. CONNECT UNDERDRAIN TO CATCH BASIN
6. DAYLIGHT DRAIN PIPE
7. CONNECT WALL DRAIN TO CATCH BASIN
9. INSTALL IN LINE BACKFLOW CHECK VALVE BETWEEN STRUCTURE AND TREATMENT FACILITY
12. CONNECT PROPOSED PIPE TO EXISTING STRUCTURE
13. PIPE TO BE HDPE MATERIAL

GENERAL NOTES:

1. SEE SHEETS C06.10 TO C06.16 FOR ALIGNMENT INFORMATION
2. SEE SECTION 1-07.6 PROTECTED SPECIES MONITORING
3. SEE SHEET C03.01 TO C03.16 FOR TESC PLAN DETAILS
4. SEE SECTION 8-01 TURBIDITY AND DEBRIS CONTROL, WATER QUALITY MONITORING, AND OFF-SHORE TESC PLANS.
5. INSTALL IMPERMEABLE LINER BELOW PERVIOUS PAVEMENT LIMITS. SEE SHEET C07.48 AND C07.49.
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- MWS — MODULAR WETLANDS SYSTEM (MWS-X)
- CATCH BASIN
- MANHOLE
- CLEANOUT
- D — TRENCH DRAIN

MATCH TO C07.12

MATCH TO C07.14

R/W (TYP)

E LINE

15+00 16+00 17+00 18+00

EXIT LANES

VEHICLE HOLDING

N88°37'04"W 2118.76

SEC LINE

"TOP" CONC CULVERT 35

Settlement Point RW5-5

Settlement Point RW5-4

RFI 159

Please set the underdrain below the crown of the holding lanes (between lanes 3 and 4) and shift drainage structures 13-7 and 14-1 to south as needed to tie into the underdrain.

SEE RETAINING WALL PLANS C15.10 TO C15.21 FOR UNDERDRAIN LOCATION, TYP.

C07.12 4

18" ADS IE (S)=7.
18" ADS IE (W)=

18" ADS IE (E)= 7.22
18" ADS IE (N)= 7.36
12" ADS IE (S) = 10.35

112+00

Deleted Catch Basin

Relocated 6" DP line

RFI 310

3+00

TF LINE

24" ADS IE (E)= 6.49
18" ADS IE (W)= 6.59

114

115+00

FIRST ST

24" ADS IE= 4.68

116+00

RFI 103

Relocated 12" ST line

Modular Wetland System (6x8)

MODULAR WETLAND SYSTEMS (MWS-6)

TRENCH DRAIN PER SHT C07.47

Relocated Catch Basin C07 13-9
Rim 14.7
IE 12.3 (W)
IE 12.1 (E)
IE 12.0 (N)

Settlement Point TS1
Settlement Point TS2
Settlement Point TS3
Settlement Point TS4
Settlement Point TS5
Settlement Point TS6

Existing Concrete Slab, edges not found in test pit. Test pit approx. 12'(North South direction)x 6' (East West direction). Slab El.= 10.54

Existing Concrete Slab, edges not found in test pit. Test pit approx 14'(North South direction)x 6'(East West direction). Slab EL.=9.78

Located Exisitng Ductbank. Top of DB EL.=12.46

Dewatering Well Points. Well pipes hit obstructions

Concrete Slab Not Found. Dug to EL.=8.5

C07.14 3

C07.14 11

RFI 103 - Please connect MWS-7 directly into the existing manhole on the deep stormwater line as the contractor proposed in the attached drawing. Please provide minimum pipe slope of 0.5% from MWS-7 to existing manhole. Also, please connect structure C07.14-2 directly into the same existing manhole with a minimum pipe slope of 0.5%. Delete pipe runs C07.14-2 and C07.14-3

SK1
RFI 094
4/8/19

Reference Page C07.12 for RFI 310 notes.

KEY PLAN

SCALE 1" = 40'

CM DESIGN GROUP

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ENTERED BY: C. BENNETT	1/18/2019					10 WASH
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PLAN

C07.13

SHEET 153 OF 1521 SHEETS

RFI 195

Install Catch Basin Type 2 - 48-Inch Diam. with turned down elbow (8" diam.) and ADA Compliant Solid Manhole Cover.
Set center of structure 5 ' south and centered on column at grid P-19 (see Sheet A01.13)
Rim = 20.25
IE = 15.76 (W-6")
IE = 15.59 (E-8")

Revised 6-20-19

R/W (TYP)

Delete Catch Basin Type 1 with Grit Chamber
Install 8" Cleanout
Connect DP from Slip Trench Drain
IE = 16.73

Connect DP from Slip Trench Drain
IE = 16.80

8" Cleanout
iE - 16.21

Settlement Point RWS-3
Settlement Point RWS-2
Settlement Point RWS-1

6in Tie-in IE= 16.15
N:349980.369
E:1281683.581

RFI 167

6" Tie-in IE=16.30
N:350032.090
E: 1281814.85

Center of Type 2
N: 350046.30
E: 1281857.639
8"IE (E)= 15.55
6" IE (S)= 15.74
6" IE (W)= 15.56

Connect MWS with 72 LF of 8" SD @ min. 0.6% slope

Revised 6-20-19

Delete 6" DP connection

SEE NOTE 6

SEE NOTE 6

EXIT LANES

19+00

20+00

22+00

E LINE

90 LF - 6" Drain Pipe @ 0.5%

104 LF - 6" Drain Pipe @ 0.5%

6" Wye

6" UD IE= 12.82

Reverse trench drain to flow from east to west
Tie 6" trench drain connection into 6" DP line with wye or tee connection

per WSDOT direction the pipe will remain open and flowing. The Catch-Basin / Manhole, riser rings, s hall be capped with a concrete plug.

RFI 283

RFI 389

RFI 134

IE=18.52

IE= 18.52'

IE= 18.08'

The intent was to provide 0.5% slope between the building tie-ins and structure C07.14-10. Assuming the is point 3 on the attached drawing is 26' from structure C07.14-10, the invert elevation of 18.08 is acceptable. The IEs of 18.52 listed for tie-in points 2 and 3 on the attached drawing are acceptable

Please set the underdrain below the crown of the holding lanes (between lanes 3 and 4) and shift drainage structures 13-7 and 14-1 to south as needed to tie into the underdrain.

RFI 159

MATCH TO C07.13

MATCH TO C0

VEHICLE HOLDING

12" IE = 17.75

12" IE (W)= 17.87

12" IE (S) = 17.55
12" IE (E) = 17.72

RFI 262

Shifted CB 7.14-2 2' north to place in flowline of curb

12" IE (SE)= 13.99

RFI 103

MODULAR WETLAND SYSTEM (MWS-7)

12" IE (E)= 17.30
12" IE (N)= 17.31

12" IE (S)= 13.45

SEE RETAINING WALL PLANS C15.10 TO C15.21 FOR UNDERDRAIN LOCATION, TYP.

C07.13

117+00

TF LINE

118+00

FIRST ST

120+00

6" UD IE= 11.66

6" UD IE= 13.13

6" UD IE= 13.35

6" UD IE= 13.42

Center of Existing MH
N: 349860.998
E: 1281813.932
12" IE (NE)= 14.44
12" IE (NW)= 13.57

UTILITY DUCT BANK

BIORETENTION FACILITY (BRF-6)

BIORETENTION FACILITY (BRF-7)

SOUND TRANSIT R/W

Existing Storm Drain Manhole

CONSTRUCTION NOTES:

1. CONNECT UNDERDRAIN TO CATCH BASIN
5. CONNECT TRENCH DRAIN TO CATCH BASIN
6. DAYLIGHT DRAIN PIPE
7. CONNECT WALL DRAIN TO CATCH BASIN
9. INSTALL IN LINE BACKFLOW CHECK VALVE BETWEEN STRUCTURE AND TREATMENT FACILITY
12. CONNECT PROPOSED PIPE TO EXISTING STRUCTURE

GENERAL NOTES:

1. SEE SHEETS C06.10 TO C06.16 FOR ALIGNMENT INFORMATION
2. SEE SECTION 1-07.6 PROTECTED SPECIES MONITORING
3. SEE SHEET C03.01 TO C03.16 FOR TESC PLAN DETAILS
4. SEE SECTION 8-01 TURBIDITY AND DEBRIS CONTROL, WATER QUALITY MONITORING, AND OFF-SHORE TESC PLANS.
5. INSTALL IMPERMEABLE LINER BELOW PERVIOUS PAVEMENT LIMITS. SEE SHEET C07.48 AND C07.49.
6. CONNECT DRAIN FROM TRESSEL TRENCH DRAIN TO PROPOSED GRIT CHAMBER. SEE SHEET C07.46 FOR GRIT CHAMBER DETAIL.
7. ABANDON EXISTING OUTFALL STRUCTURE. EXISTING FRAME AND BIRD CAGE TO BE REUSED FRO PROPOSED OUTFALL STRUCTURE.

LEGEND:

- UD — UNDERDRAIN LINE
- ST — STORM SEWER
- DP — DP - DRAIN LINE
- BIORETENTION FACILITY (BRF-X)
- MWS — MODULAR WETLANDS SYSTEM (MWS-X)
- CATCH BASIN
- MANHOLE
- CLEANOUT
- D — TRENCH DRAIN

CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

FILE NAME: WSF\Mukilteo\CADD\WORKING\CM-DESIGN\14w121_c07_14.dlv					
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SUBMITTAL DATE: 1/18/2019	chester				
DESIGNED BY: R. NAIDU	1/18/2019				WA-2017-007-00
ENTERED BY: C. BENNETT	1/18/2019				REGION NO. STATE
CHECKED BY: C. MIRKIN	1/18/2019				10 WASH
MAR PROJ ENGR: C. TORRES		RFI 195	6/20/19		JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM	CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PLAN

RFI 89

C07.14

SHEET 154 OF 1521 SHEETS

CM Design Comments in BLUE

BOTTOM OF SWALE ELEVATION 18.0

PIPE OUTFALL IE 18.0

2'L X 2W' X 1' D" STREAMBED COBBLE OUTFALL PAD

TRENCHLESS DEEP STORMDRAIN CONSTRUCTED IN EARLIER PHASE

INSTALL CONCRETE INLET AND 8" PIPE RIM = 19.5 IE (W) = 18.2

SEE RETAINING WALL PLANS C15.10 TO C15.21 FOR UNDERDRAIN LOCATION, TYP.

BIORETENTION FACILITY (BRF-8) SEE SHEETS C07.37 AND C07.45

MODULAR WETLAND SYSTEM (MWS-8)

RFI 22

MATCH TO C07.14

MATCH TO C07.16

C07.14 16

C07.13 13

FIRST ST

121+00 122+00 123+00 124+00 125+00

TF LINE

Sin Tie-in IE= 14.6

Settlement Point W7-6

Settlement Point W7-5

Settlement Point W7-7

Settlement Point W7-1

Settlement Point W7-4

Settlement Point W7-8

Settlement Point W7-2

Settlement Point W7-3

6" UD IE= 12.24

12" IE= 11.35

12" IE (W)= 12.14
12" IE (N) = 14.95
12" IE (E) = 12.17

12" IE (W) = 13.0
12" IE (E) = 13.0

12" IE (NW, Out) = 13.54
12" IE (SW, In) = 14.98

12" IE (S) = 15.5

CONSTRUCTION NOTES:

1. CONNECT UNDERDRAIN TO CB
8. APPROXIMATE LOCATION OF DIRECTIONAL DRILLING PIT (BY OTHERS)
6. DAYLIGHT DRAIN PIPE
12. CONNECT PROPOSED PIPE TO EXISTING STRUCTURE
13. PIPE TO BE HDPE MATERIAL

GENERAL NOTES:

1. SEE SHEETS C06.10 TO C06.16 FOR ALIGNMENT INFORMATION
2. SEE SECTION 1-07.6 PROTECTED SPECIES MONITORING
3. SEE SHEET C03.01 TO C03.16 FOR TESC PLAN DETAILS
4. SEE SECTION 8-01 TURBIDITY AND DEBRIS CONTROL, WATER QUALITY MONITORING, AND OFF-SHORE TESC PLANS.
5. INSTALL IMPERMEABLE LINER BELOW PERVIOUS PAVEMENT LIMITS. SEE SHEET C07.48 AND C07.49.
6. CONNECT DRAIN FROM TRESSEL TRENCH DRAIN TO PROPOSED GRIT CHAMBER. SEE SHEET C07.46 FOR GRIT CHAMBER DETAIL.
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LEGEND:

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- MWS — MODULAR WETLANDS SYSTEM (MWS-X)
- CATCH BASIN
- MANHOLE
- CLEANOUT
- D — TRENCH DRAIN

RFI 349

KEY PLAN

SCALE 1" = 40'

CM DESIGN GROUP

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ENTERED BY: C. BENNETT	1/18/2019					
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

RFI 349
11/18/19
Page 3/3

CATHERINE E MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

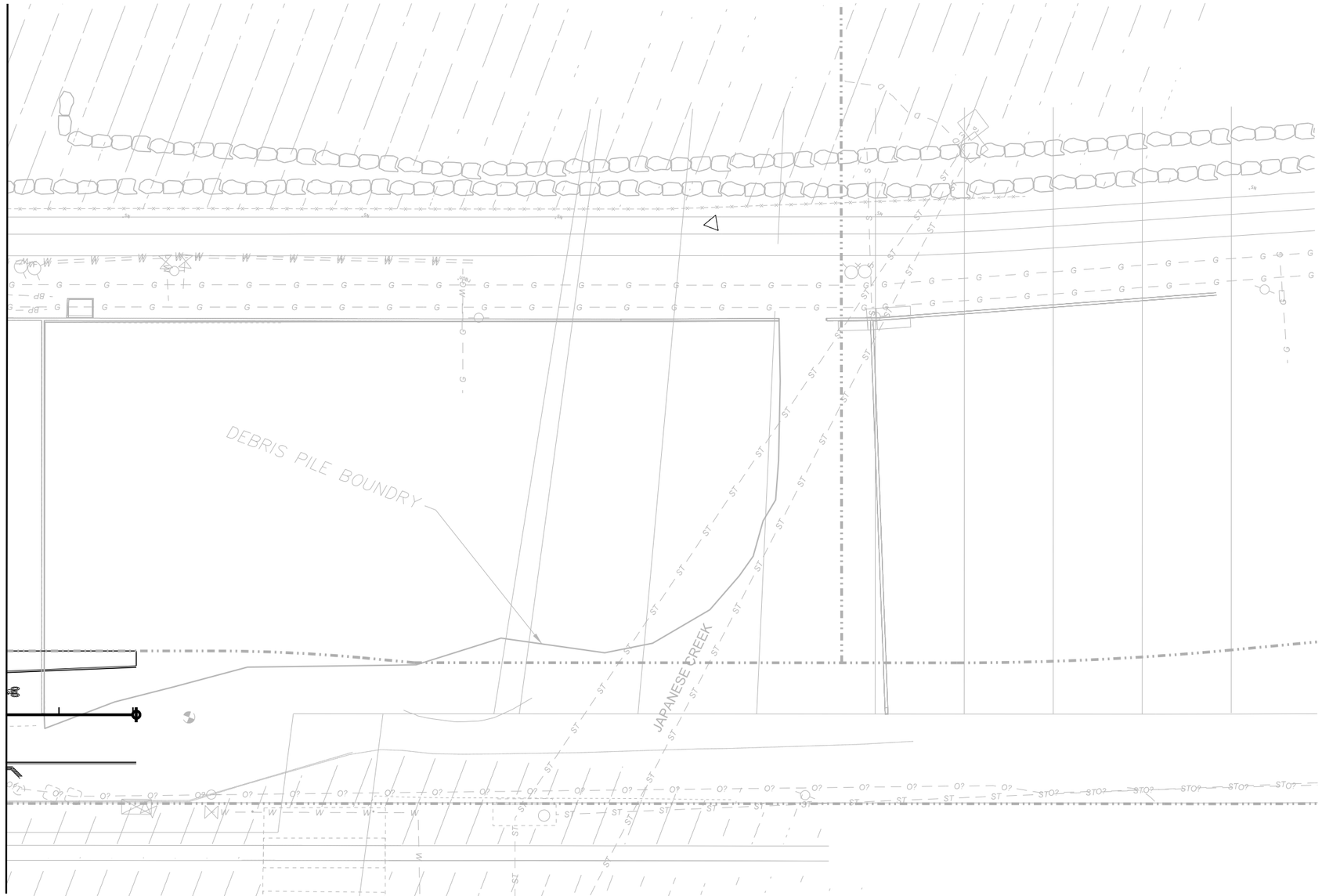
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PLAN

C07.15

SHEET 155 OF 1521 SHEETS



CONSTRUCTION NOTES:

1. NO DRAINAGE WORK ON THIS SHEET

GENERAL NOTES:

1. SEE SHEETS C06.10 TO C06.16 FOR ALIGNMENT INFORMATION
2. SEE SECTION 1-07.6 PROTECTED SPECIES MONITORING
3. SEE SHEET C03.01 TO C03.16 FOR TESC PLAN DETAILS
4. SEE SECTION 8-01 TURBIDITY AND DEBRIS CONTROL, WATER QUALITY MONITORING, AND OFF-SHORE TESC PLANS.
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- MWS — MODULAR WETLANDS SYSTEM (MWS-X)
- CATCH BASIN
- MANHOLE
- CLEANOUT
- D — TRENCH DRAIN

CM DESIGN GROUP

KEY PLAN

0 20 40
SCALE 1" = 40'

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ENTERED BY: C. BENNETT	1/18/2019					REGION NO. STATE
CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

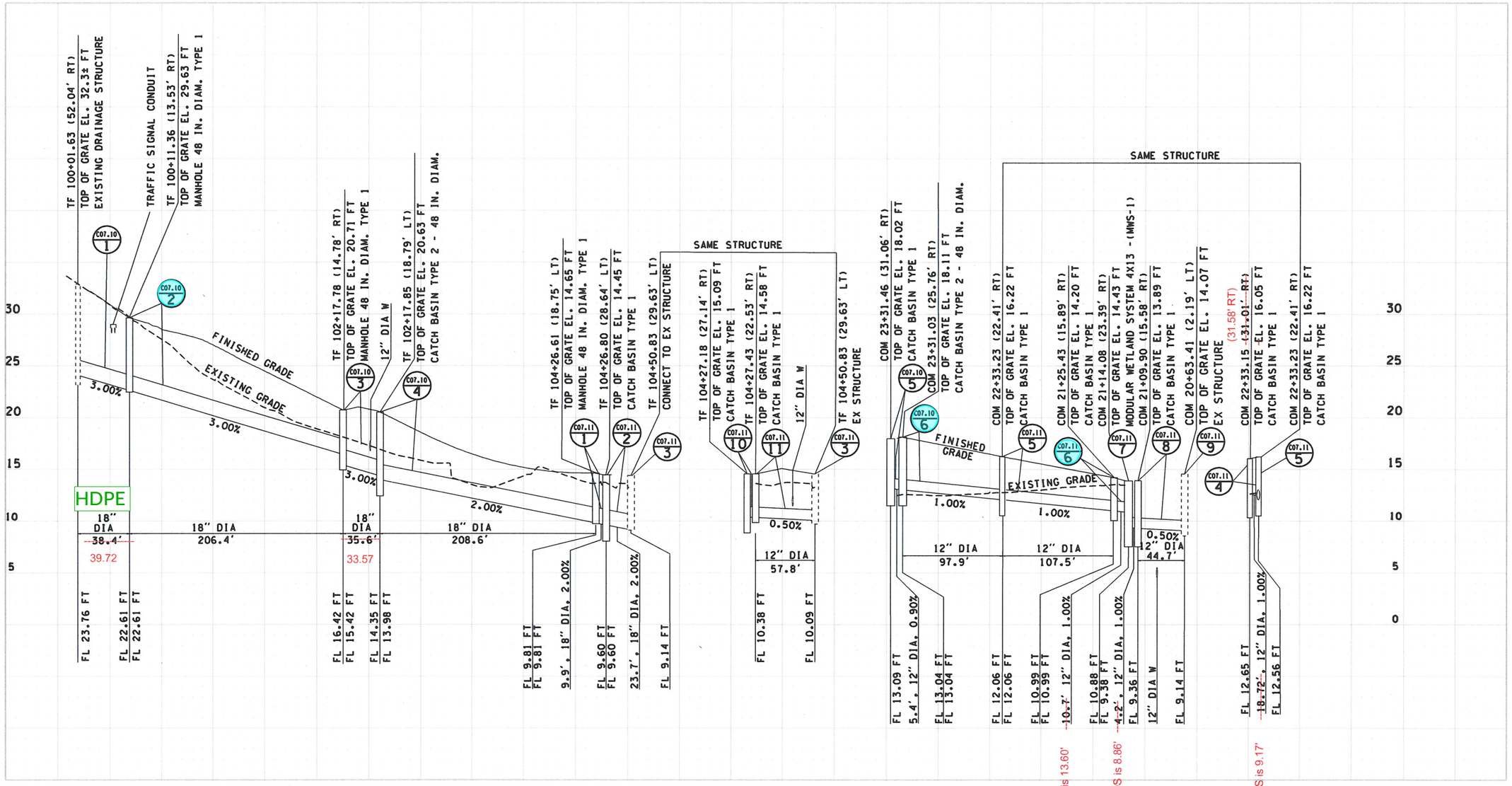
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PLAN

C07.16

SHEET 156 OF 1521 SHEETS



RFI # 5 (Drainage Discrepancies

CM DESIGN GROUP

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CHECKED BY: C. MIRKIN	12/22/2017					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

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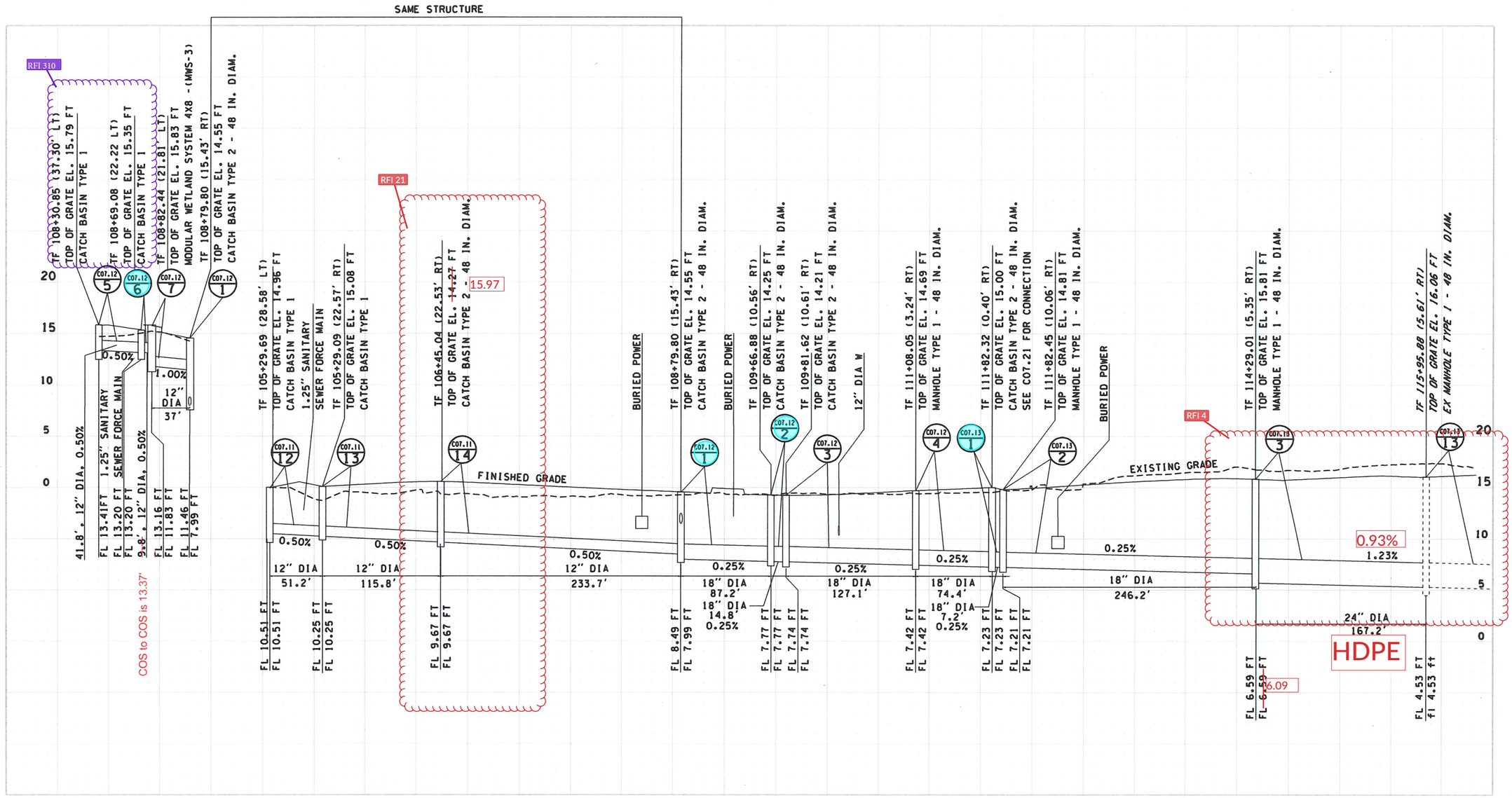
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PROFILE

C07.20

SHEET 157 OF 1521 SHEETS



RFI #5 Drainage Discrepancies

CM DESIGN GROUP

0 50 100
HORIZONTAL 1" = 100'

0 10
VERTICAL 1" = 10'

DATUM
MLLW

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ENTERED BY: R. NAIDU	12/22/2017					10 WASH
CHECKED BY: C. MIRKIN	12/22/2017					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

CATHERINE E. MIRKIN
STATE OF WASHINGTON
27900
REGISTERED
PROFESSIONAL ENGINEER

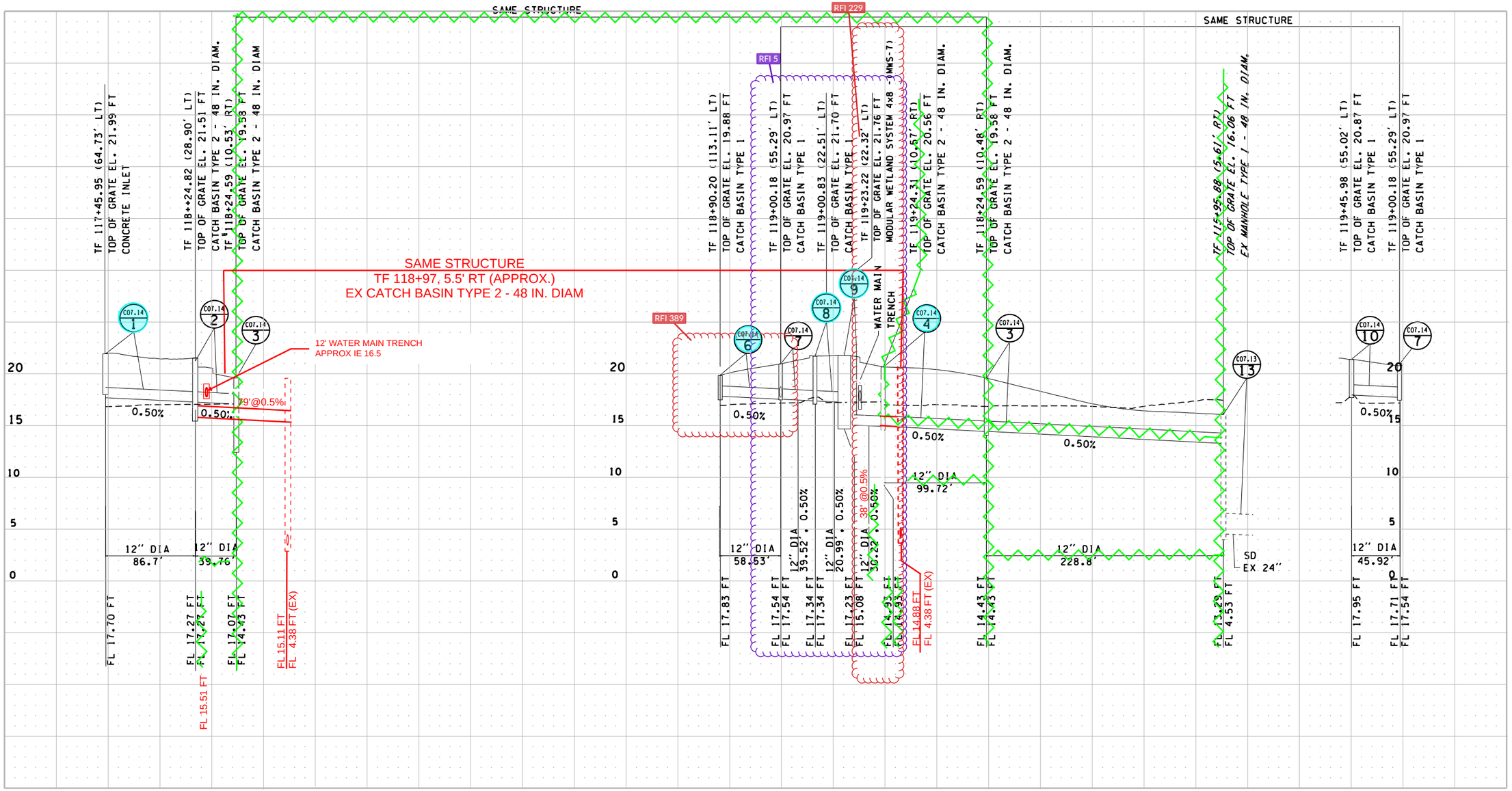
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PROFILE

C07.21

SHEET 158 OF 1521 SHEETS



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ENTERED BY: C. BENNETT	1/18/2019					JOB NUMBER 18W121
CHECKED BY: C. MIRKIN	1/18/2019					CONTRACT NO. 00****
MAR PROJ ENGR: C. TORRES		RFI 103	4/10/19			
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

CATHERINE E MIRKIN
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Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

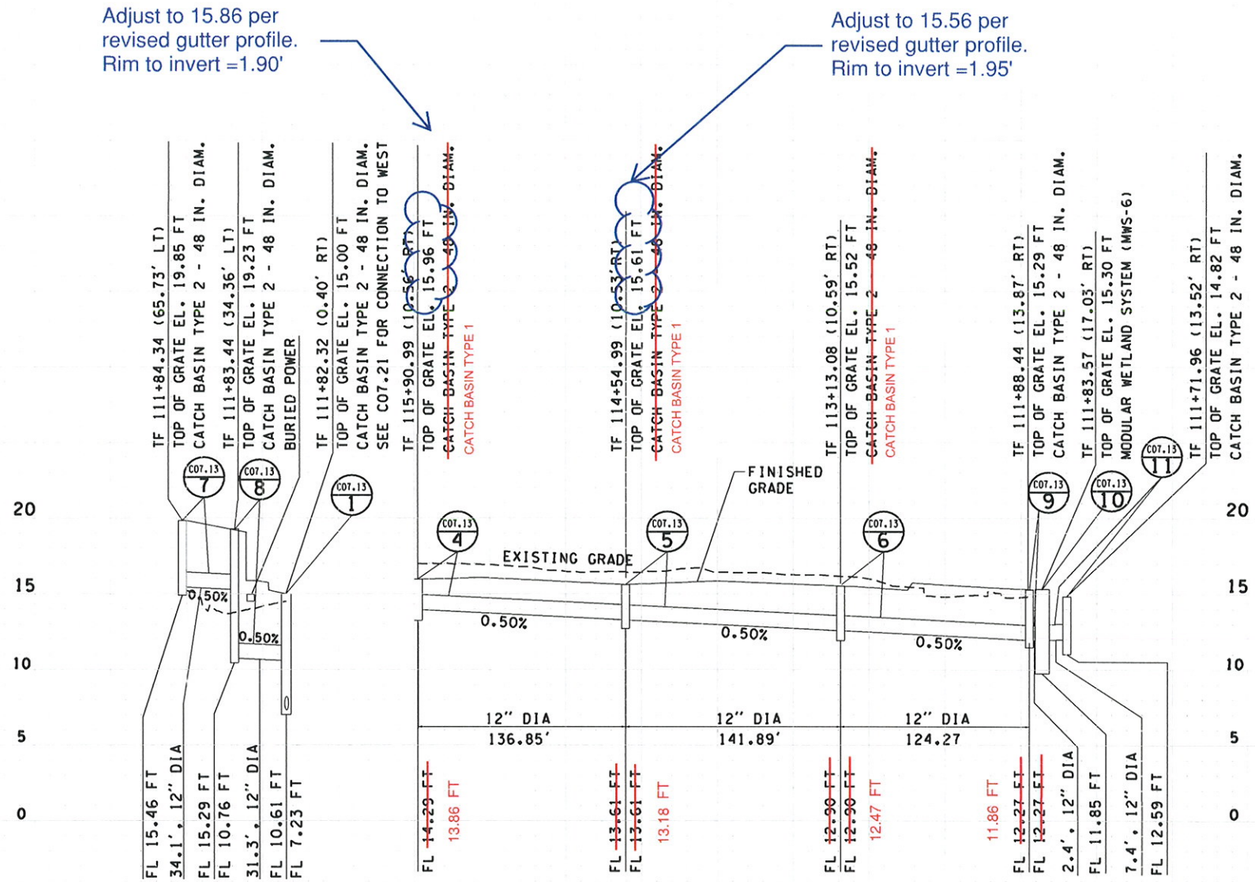
DRAINAGE PROFILE

C07.22

SHEET 159 OF 1521 SHEETS

Adjust to 15.86 per revised gutter profile. Rim to invert =1.90'

Adjust to 15.56 per revised gutter profile. Rim to invert =1.95'



RFI 47 RESPONSE
March 5, 2019

Blue updates
RFI 427 Response
April 28, 2020

RFI 437
4/28/20
Page 4/4

CM DESIGN GROUP

0 50 100
HORIZONTAL 1" = 100'

0 10
VERTICAL 1" = 10'

DATUM
MLLW

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MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

CATHERINE E. MIRKIN
STATE OF WASHINGTON
27900
REGISTERED
PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

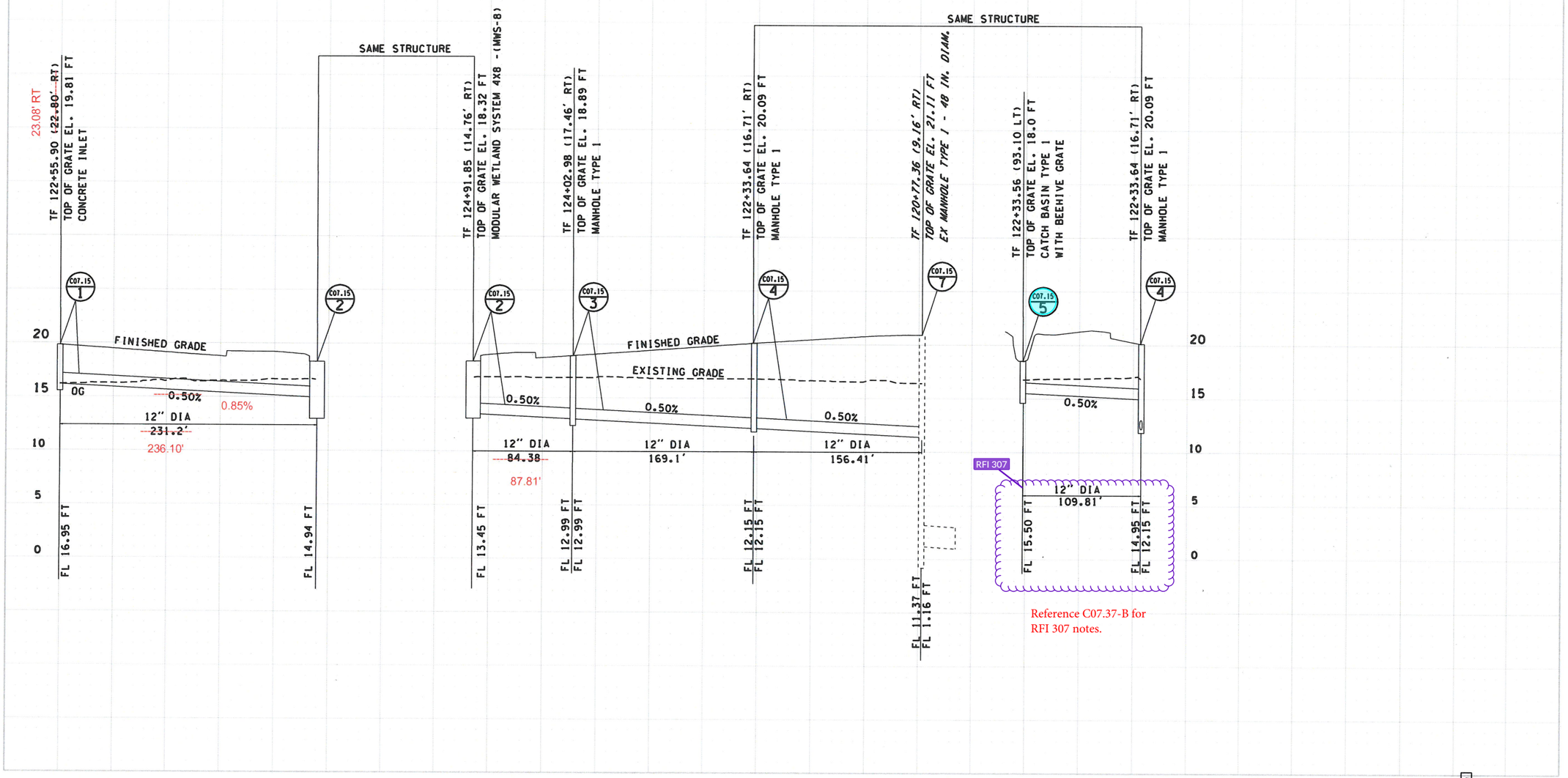
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PROFILE

C07.23

SHEET 160 OF 1521 SHEETS

20



RFI #5 Drainage Discrepancies

CM DESIGN GROUP

0 50 100
HORIZONTAL 1" = 100'

0 10
VERTICAL 1" = 10'

DATUM
MLLW

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MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

CATHERINE E MIRKIN
STATE OF WASHINGTON
27900
REGISTERED
PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE PROFILE

RFI 5

C07.24

SHEET
161
OF
1521
SHEETS

SITE SPECIFIC DATA

PROJECT NUMBER	2804
PROJECT NAME	WSF MUKITEO FERRY TERMINAL
PROJECT LOCATION	MUKILTEO, WA
STRUCTURE ID	C07-11.7 (MWS-1)
TREATMENT REQUIRED	
VOLUME BASED (CF)	FLOW BASED (CFS)
	0.1
TREATMENT HGL AVAILABLE (FT)	
PEAK BYPASS REQUIRED (CFS)	0.0629

PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	10.88	N/K	12"
INLET PIPE 2			
OUTLET PIPE	9.38	N/K	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	14.43	14.43	14.43
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	36" x 36"	N/A	N/A

WETLANDMEDIA VOLUME (CY)	2.94
WETLANDMEDIA DELIVERY METHOD	TBD
ORIFICE SIZE (DIA. INCHES)	*1.49"
MAXIMUM PICK WEIGHT (LBS)	TBD

NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.

STRUCTURE ID	C07-13.10 (MWS-6)
TREATMENT REQUIRED	
VOLUME BASED (CF)	FLOW BASED (CFS)
	0.13
TREATMENT HGL AVAILABLE (FT)	
PEAK BYPASS REQUIRED (CFS)	0.0629

PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	11.85	N/K	12"
INLET PIPE 2			
OUTLET PIPE	10.35	N/K	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	15.20	15.20	15.20
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	36" x 36"	N/A	N/A

WETLANDMEDIA VOLUME (CY)	2.94
WETLANDMEDIA DELIVERY METHOD	TBD
ORIFICE SIZE (DIA. INCHES)	*1.49"
MAXIMUM PICK WEIGHT (LBS)	TBD

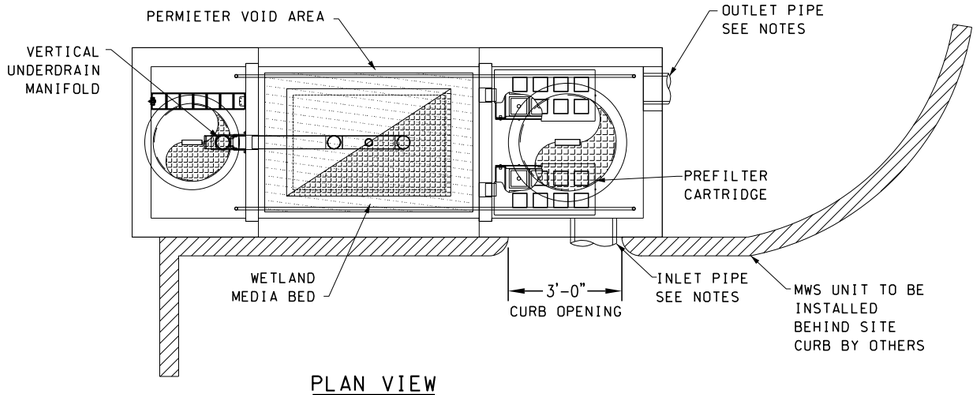
NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.

INSTALLATION NOTES:

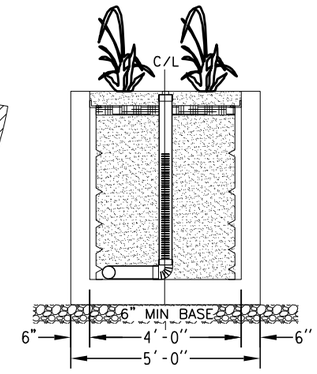
1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTAL REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWNIG AND THE MANUFACTURERS SPECIFICATIONS,UNLESS OTHERWISE STATED IN THE MANUFACTURERS CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
3. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INSTRUDE BEYOND FLUSH). INVERT OF OUTLFOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL GAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRING GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
4. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
6. DRIP OR SPRAY IRRIGATION REQURIED ON ALL UNITS WITH VEGETATION

GENERAL NOTES:

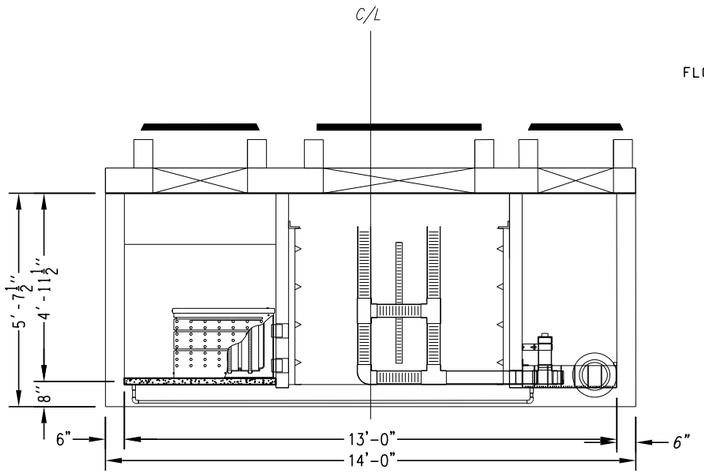
1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.



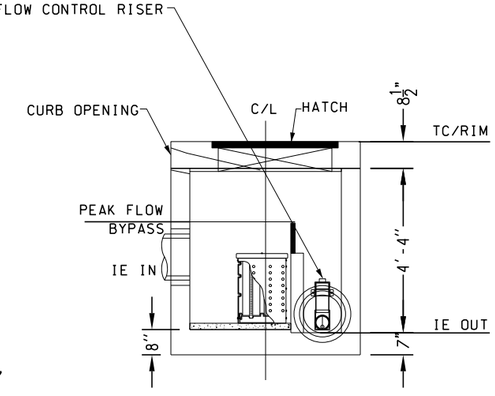
PLAN VIEW



LEFT END VIEW
BIOFILTRATION



ELEVATION VIEW



RIGHT END VIEW
PRETREATMENT/DISCHARGE

1 C07.20 MODULAR WETLAND SYSTEM 4'X13'- (MWS-1 & MWS-6)

CM DESIGN GROUP

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DESIGNED BY: R. NAIDU	1/18/2019					REGION NO. STATE
ENTERED BY: C. BENNETT	1/18/2019					10 WASH
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.30

SHEET 162 OF 1521 SHEETS

SITE SPECIFIC DATA			
PROJECT NUMBER		2804	
PROJECT NAME		WSF MUKITEO FERRY TERMINAL	
PROJECT LOCATION		MUKILTEO, WA	
STRUCTURE ID		C07.12-7 (MWS-3)	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.08	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS)			0.0501
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	13.16	N/K	12"
INLET PIPE 2			
OUTLET PIPE	11.83	N/K	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	15.96	15.96	15.96
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	36" x 36"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			2.39
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			*1.39"
MAXIMUM PICK WEIGHT (LBS)			TBD
NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.			

INSTALLATION NOTES:

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTAL REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWNIG AND THE MANUFACTURERS SPECIFICATIONS,UNLESS OTHERWISE STATED IN THE MANUFACTURERS CONTRACT.
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6. DRIP OR SPRAY IRRIGATION REQURIED ON ALL UNITS WITH VEGETATION

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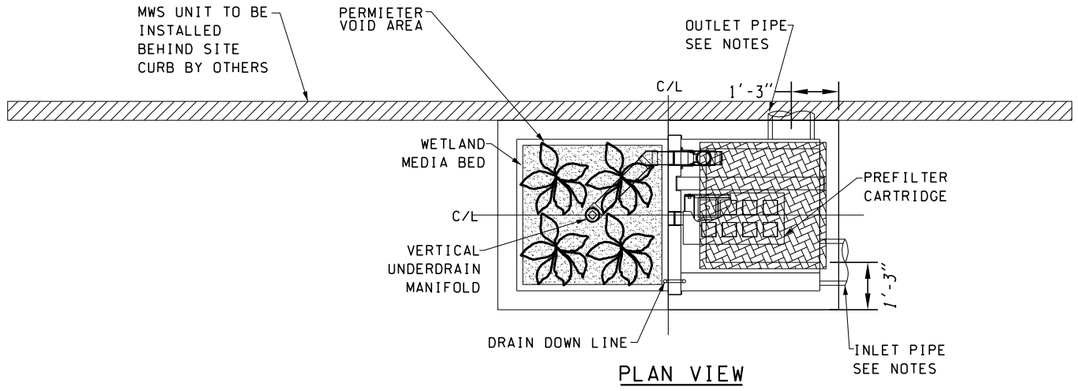
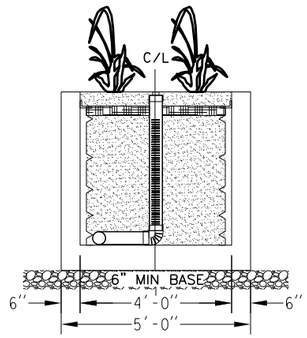
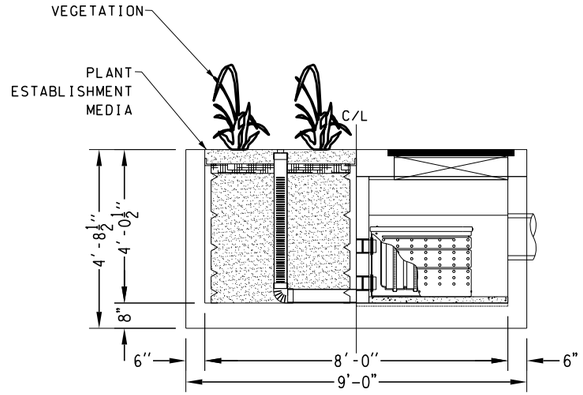


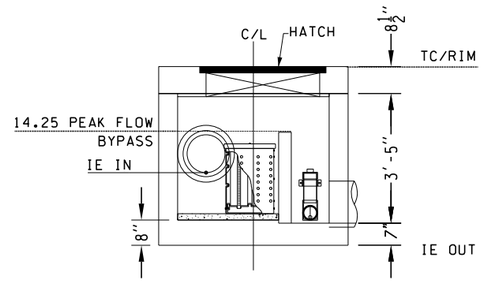
PLAN VIEW



LEFT END VIEW
BIOFILTRATION



ELEVATION VIEW



RIGHT END VIEW
PRETREATMENT/DISCHARGE

1 C07.21 MODULAR WETLAND SYSTEM 4'X8'(MWS-3)

CM DESIGN GROUP

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SUBMITTAL DATE: 1/18/2019	chester					
DESIGNED BY: R. NAIDU	1/18/2019					WA-2017-007-00
ENTERED BY: C. BENNETT	1/18/2019					REGION NO. STATE
CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		18W121
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO. 00****

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.31

SHEET 163 OF 1521 SHEETS

SITE SPECIFIC DATA			
PROJECT NUMBER		2804	
PROJECT NAME		WSF MUKITEO FERRY TERMINAL	
PROJECT LOCATION		MUKILTEO, WA	
STRUCTURE ID		C07.12-9 (MWS-4)	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.08	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS)			0.051
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	11.16	N/K	8"
INLET PIPE 2			
OUTLET PIPE	9.66	N/K	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	14.43	14.43	14.43
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	36" x 36"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			2.78
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			•1.39"
MAXIMUM PICK WEIGHT (LBS)			TBD
NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.			

INSTALLATION NOTES:

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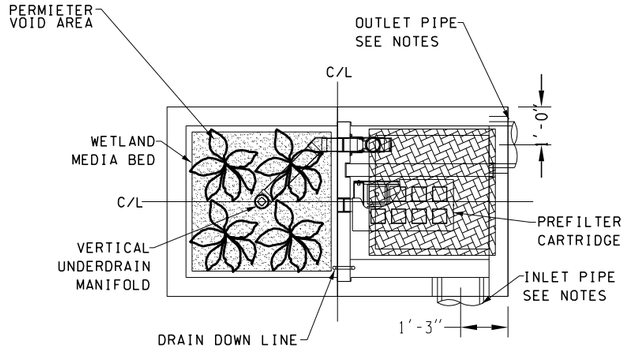
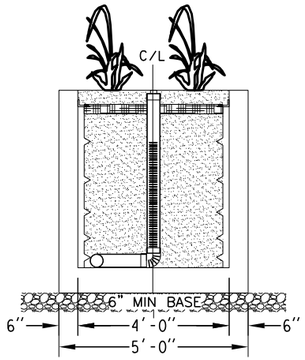
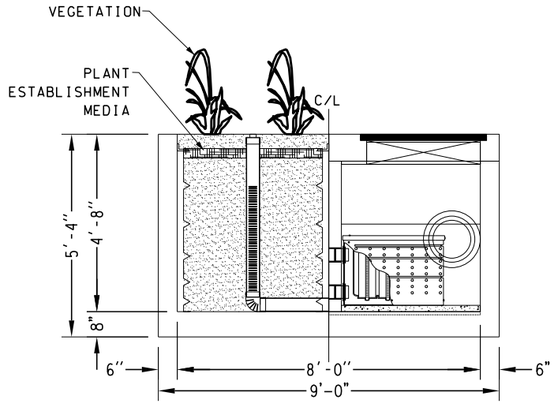


PLAN VIEW

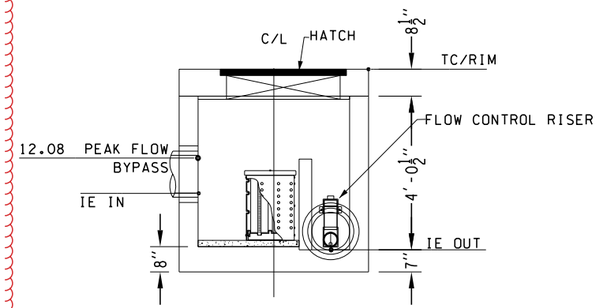


LEFT END VIEW

RFI 94 See plan page C07.13 for changes.



ELEVATION VIEW



RIGHT END VIEW
PRETREATMENT/DISCHARGE

1 / C07.32 MODULAR WETLAND SYSTEM 4'X8'-(MWS-4)

CM DESIGN GROUP

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SUBMITTAL DATE: 1/18/2019	chester					
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ENTERED BY: R. NAIDU	1/18/2019					REGION NO. STATE
CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		QO****

CATHERINE E MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.32

SHEET 164 OF 1521 SHEETS

SITE SPECIFIC DATA

PROJECT NUMBER	2804
PROJECT NAME	WSF MUKITEO FERRY TERMINAL
PROJECT LOCATION	MUKILTEO, WA
STRUCTURE ID	C07.12-10 (MWS-5)
TREATMENT REQUIRED	
VOLUME BASED (CF)	FLOW BASED (CFS)
	0.02

TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS)			0.0123
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	11.16	N/K	8"
INLET PIPE 2			
OUTLET PIPE	9.66	N/K	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	14.43	14.32	14.32
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	24" x 42"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			2.78
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			0.91"
MAXIMUM PICK WEIGHT (LBS)			TBD

NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.

STRUCTURE ID	C07.11-15 (MWS-2)
TREATMENT REQUIRED	
VOLUME BASED (CF)	FLOW BASED (CFS)
	0.03

TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS)			0.0123
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	11.60	N/K	
INLET PIPE 2			
OUTLET PIPE	10.30	N/K	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	15.04	15.04	15.04
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	24" x 42"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			2.78
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			0.91"
MAXIMUM PICK WEIGHT (LBS)			TBD

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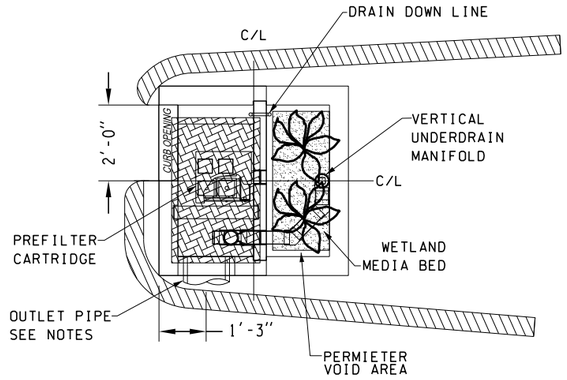
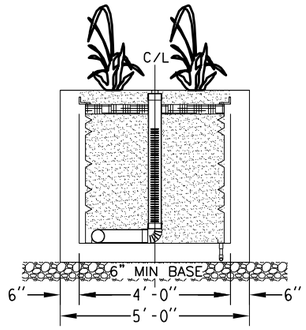
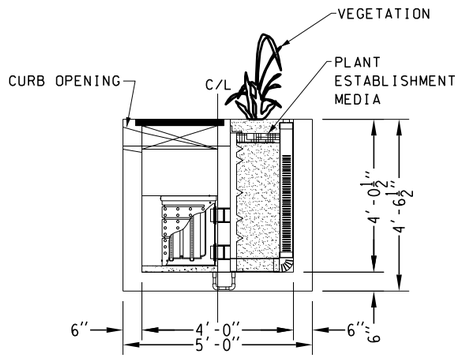


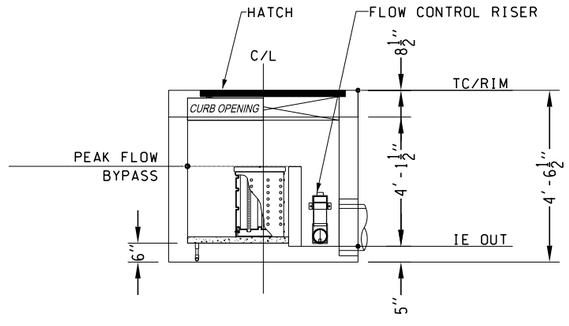
PLAN VIEW



LEFT END VIEW
BIOFILTRATION



ELEVATION VIEW



RIGHT END VIEW
PRETREATMENT/DISCHARGE

1 / C07.33 MODULAR WETLAND SYSTEM 4'X 4'-(MWS-2 & MWS-5)

CM DESIGN GROUP

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SUBMITTAL DATE: 1/18/2019	chester					WA-2017-007-00
DESIGNED BY: R. NAIDU	1/18/2019					REGION NO. STATE
ENTERED BY: R. NAIDU	1/18/2019					10 WASH
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

CATHERINE E. MIRKIN — STATE OF WASHINGTON — 27900 — REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.33

SHEET 165 OF 1521 SHEETS

SITE SPECIFIC DATA

PROJECT NUMBER		2804	
PROJECT NAME		WSF MUKITEO FERRY TERMINAL	
PROJECT LOCATION		MUKILTEO, WA	
STRUCTURE ID		C07-14-9 (MWS-7)	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.08	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS)			0.0439
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	17.19	DI	8"
INLET PIPE 2			
OUTLET PIPE	15.08	N/K	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	21.63	21.63	21.63
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	36" x 36"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			3.70
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			*1.49"
MAXIMUM PICK WEIGHT (LBS)			TBD
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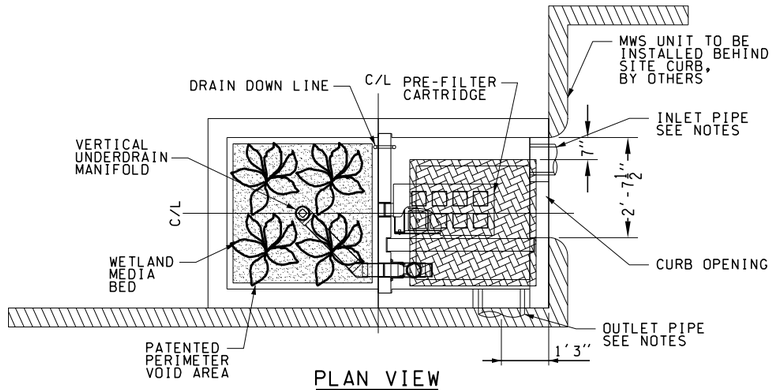
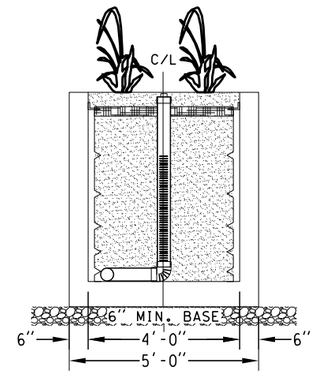
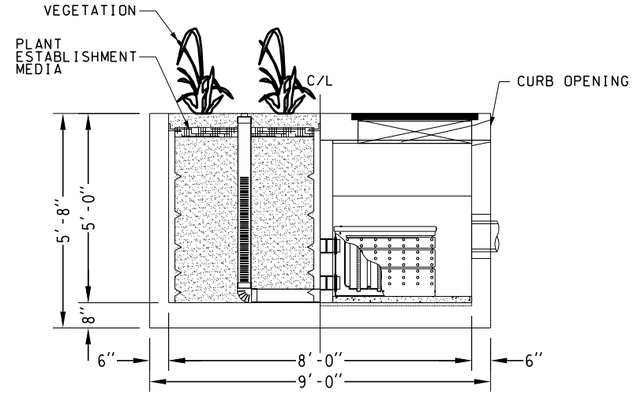


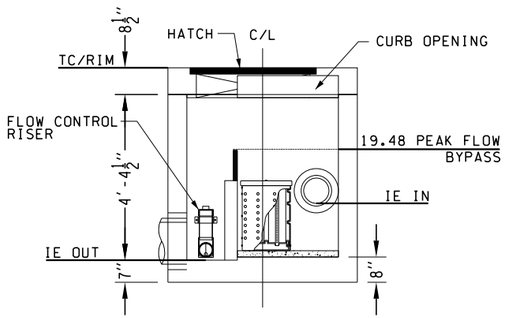
PLAN VIEW



LEFT END VIEW
BIOFILTRATION



ELEVATION VIEW



RIGHT END VIEW
PRETREATMENT/DISCHARGE

1 / C07.34 MODULAR WETLAND SYSTEM 4'X8'-(MWS-7)

CM DESIGN GROUP

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ENTERED BY: R. NAIDU	1/18/2019					REGION NO. STATE
CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.34

SHEET 166 OF 1521 SHEETS

SITE SPECIFIC DATA			
PROJECT NUMBER		2804	
PROJECT NAME		WSF MUKITEO FERRY TERMINAL	
PROJECT LOCATION		MUKILTEO, WA	
STRUCTURE ID		CO7.15-2 (MWS-8)	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.05	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS)			0.035
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	14.94	DI	12"
INLET PIPE 2			
OUTLET PIPE	13.45	N/K	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	18.30	18.30	18.30
SURFACE LOAD	H20 DIRECT	H20 DIRECT	H20 DIRECT
FRAME & COVER	36"x36" GRATE	24"X42" HATCH	N/A
WETLANDMEDIA VOLUME (CY)			1.42
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			*1.16"
MAXIMUM PICK WEIGHT (LBS)			TBD
NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.			

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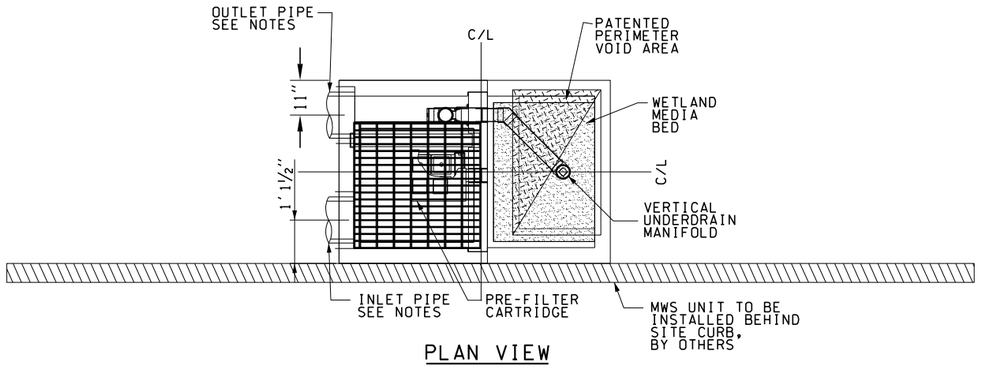
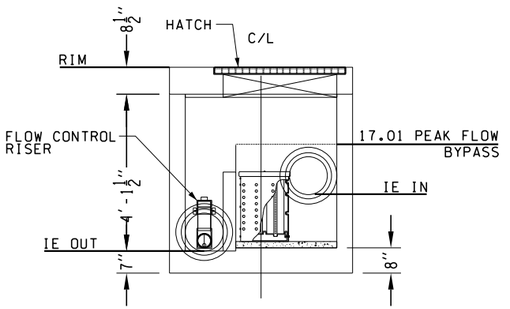
GENERAL NOTES:

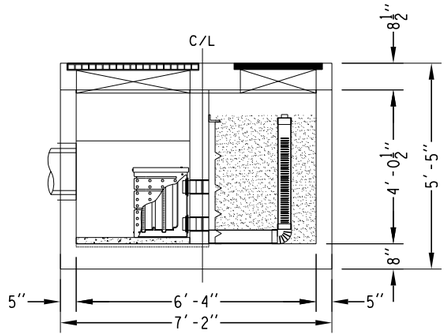
1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.



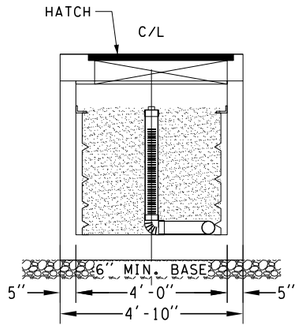
PLAN VIEW



LEFT END VIEW
BIOFILTRATION



ELEVATION VIEW



RIGHT END VIEW
PRETREATMENT/DISCHARGE

1 / C07.35 MODULAR WETLAND SYSTEM 4'x6'-(MWS-8)

CM DESIGN GROUP

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CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO. 00****
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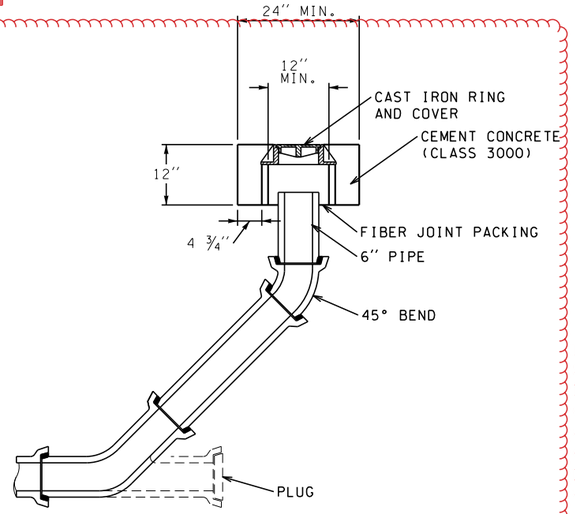
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

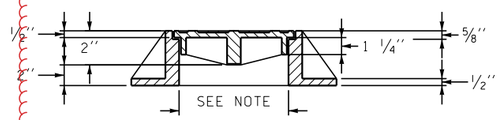
C07.35

SHEET 167 OF 1521 SHEETS

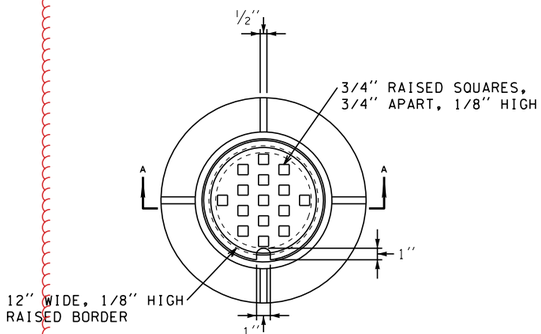
RFI 125



ELEVATION VIEW



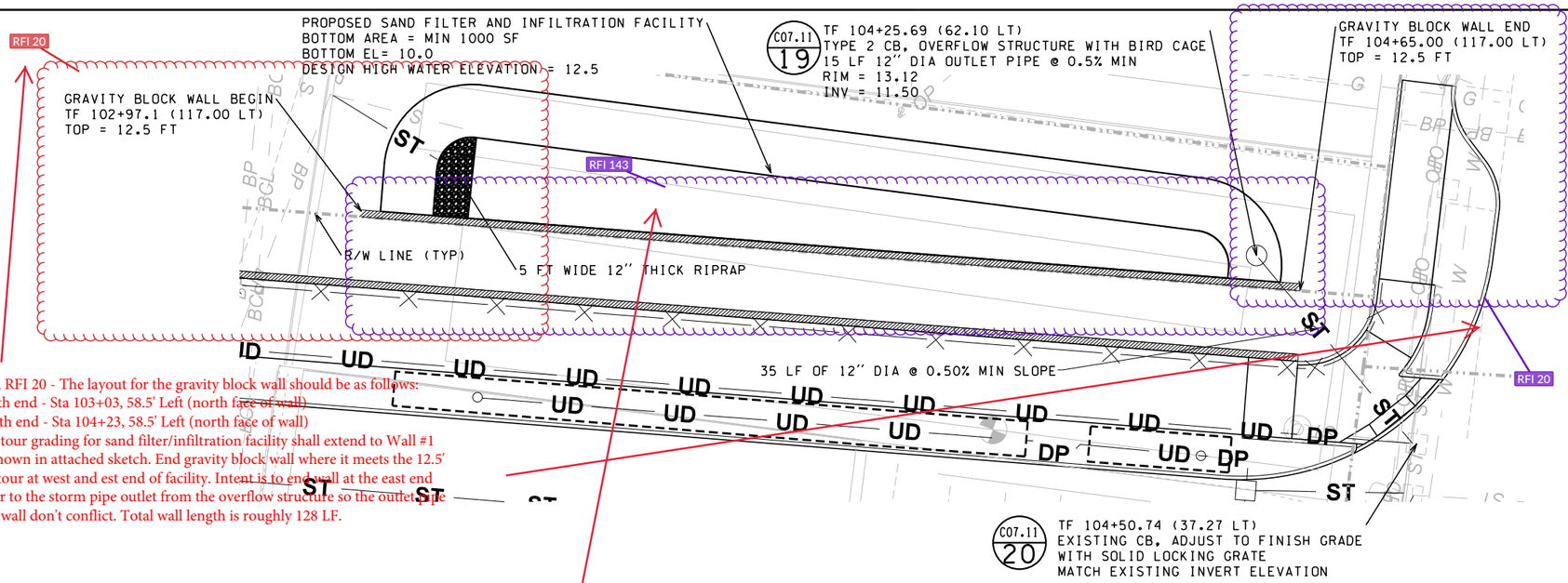
NOTE:
CAST IRON RING AND COVER
DIAMETER AS NEEDED TO ACCOMODATE PIPE



PLAN VIEW

Per RFI 125 - Structures 10-04, 10-06, 11-05, 11-10, 13-01, 13-07, 13-08, 14-01, 14-06, 14-07 and 14-10 are intended to be have solid metal locking covers per WSDOT Std Plan B-30.20-04. The storm structure structures in the planter areas, 11-08, 13-09 and 14-08 are not intended to pick up runoff and should have rectangular solid metal locking covers per WSDOT Std Plan B-30.20-04.

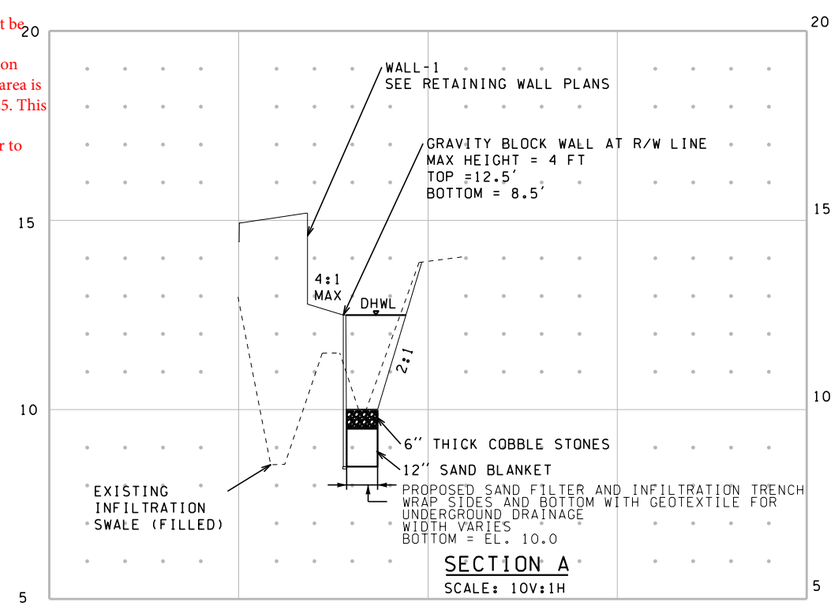
RFI 20



PLAN VIEW
SCALE: 1" = 20'

PER RFI 20 - The layout for the gravity block wall should be as follows:
South end - Sta 103+03, 58.5' Left (north face of wall)
North end - Sta 104+23, 58.5' Left (north face of wall)
Contour grading for sand filter/infiltration facility shall extend to Wall #1 as shown in attached sketch. End gravity block wall where it meets the 12.5' contour at west and est end of facility. Intent is to end wall at the east end prior to the storm pipe outlet from the overflow structure so the outlet pipe and wall don't conflict. Total wall length is roughly 128 LF.

RFI #143
It is acceptable to not apply pigmented sealer in locations where the blocks will not be exposed to view.
Note that there is a gravity block wall on C07.36 adjacent to the existing bioretention facility, 4' feet max height that will be more exposed to public to the north, as this area is only seeded to match in-kind. This is on the NW corner of Park Avenue and SR525. This wall shall include a pigmented sealer, color to match Wall #1.
For these locations, sealer shall be applied at least 1' below finished grade and prior to setting soil and seed.



SECTION A
SCALE: 1OV:1H

1 C07.22 STORM SEWER CLEANOUT
NOT TO SCALE

CM DESIGN GROUP

2 C07.11 SAND FILTER / INFILTRATION FACILITY

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MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
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DRAINAGE DETAILS

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RFI 203

See page C06.40 for RFI 203 Notes

RFI 216

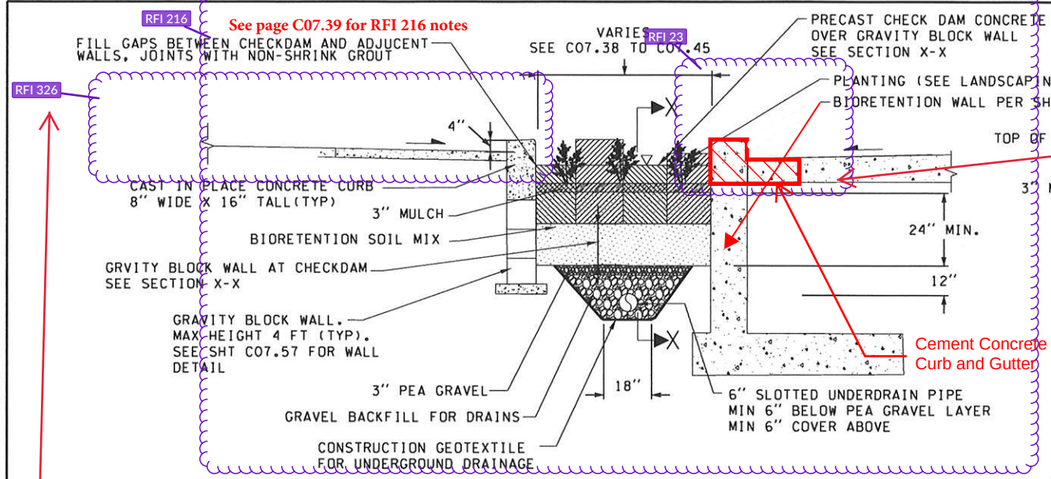
See page C07.39 for RFI 216 notes

RFI 326

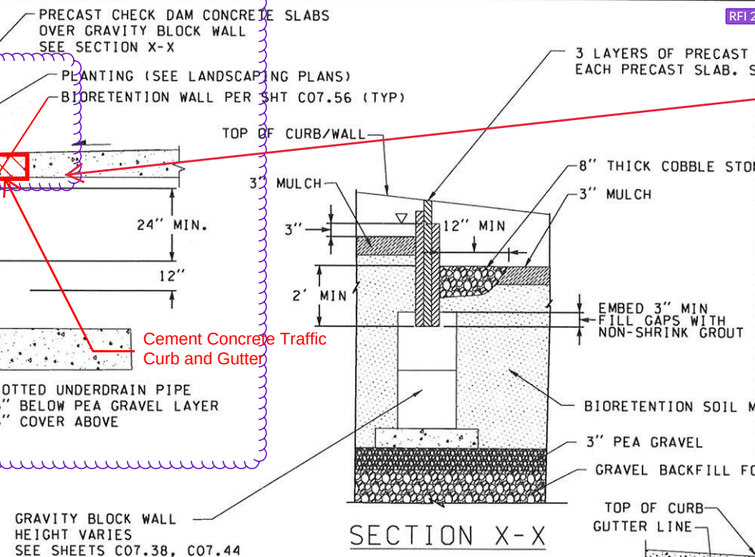
RFI 23

RFI 307

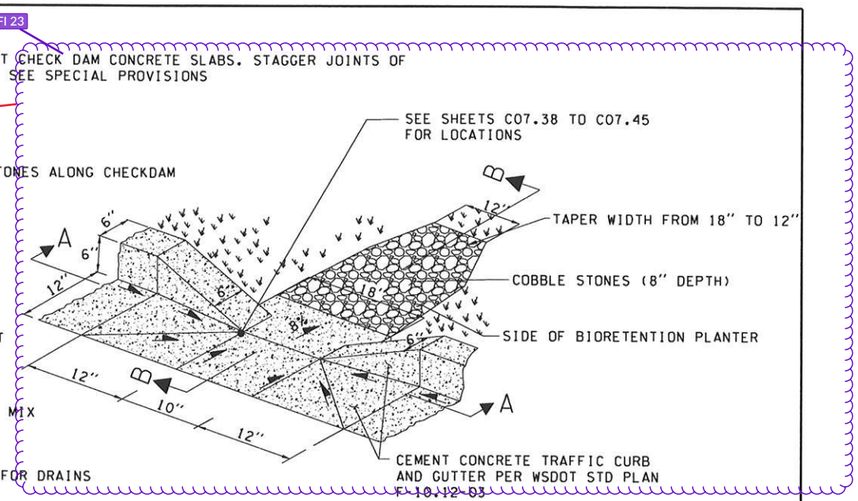
See C07.37 B for RFI 307 Changes



The Gravity Block Wall to be constructed as part of the restoration of the bioswale should be per Detail 2/C07.11 and should not include a curb.
The cast-in-place curb referenced on Sheet C07.37, Section 1 is for the proposed walled bioretention facilities, not for the restoration of the existing bioswale.

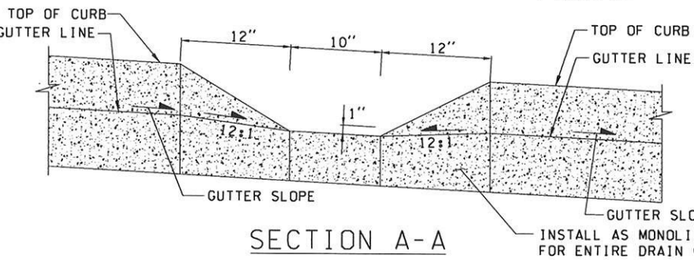


SECTION X-X

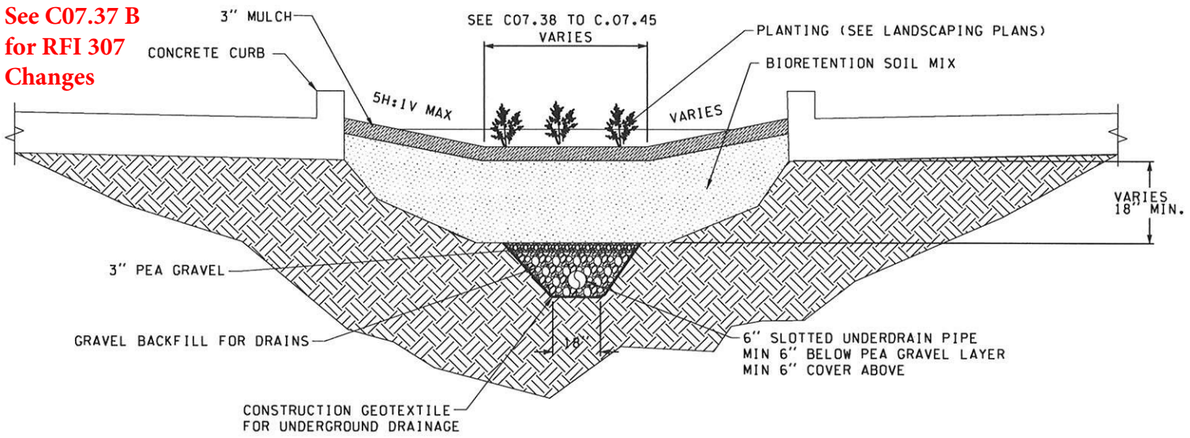


1 C07.37 SECTION - WALLED BIORETENTION FACILITY

NOT TO SCALE



SECTION A-A



2 C07.37 SECTION - BIORETENTION FACILITY

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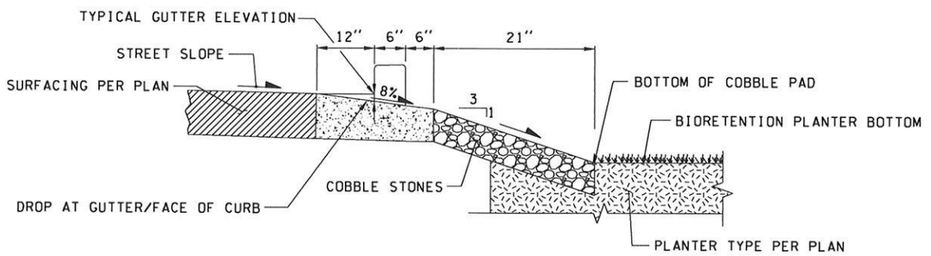

SECTION B-B

RFI 411

3 C07.37 CONCRETE CURB CUT

NOT TO SCALE

Sketch 1 - RFI 023
REV 1

CM DESIGN GROUP

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MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
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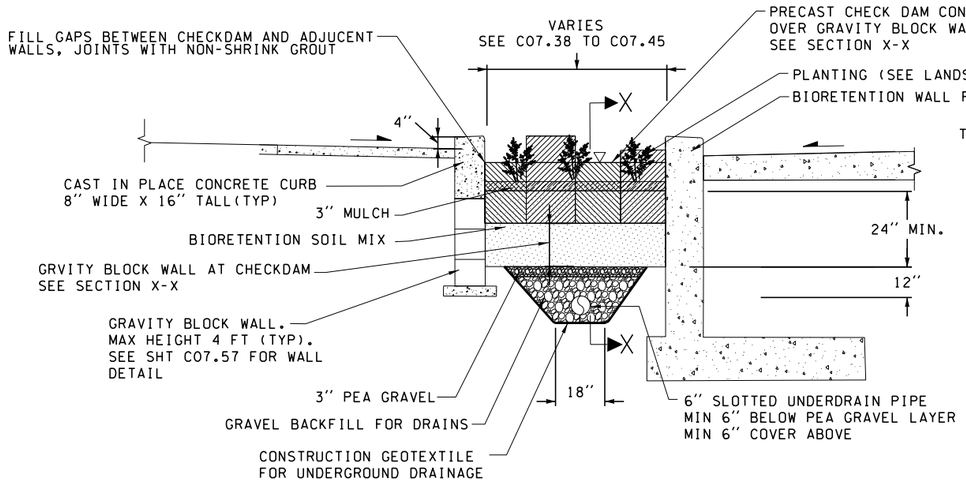
FERRY TERMINAL CONSTRUCTION

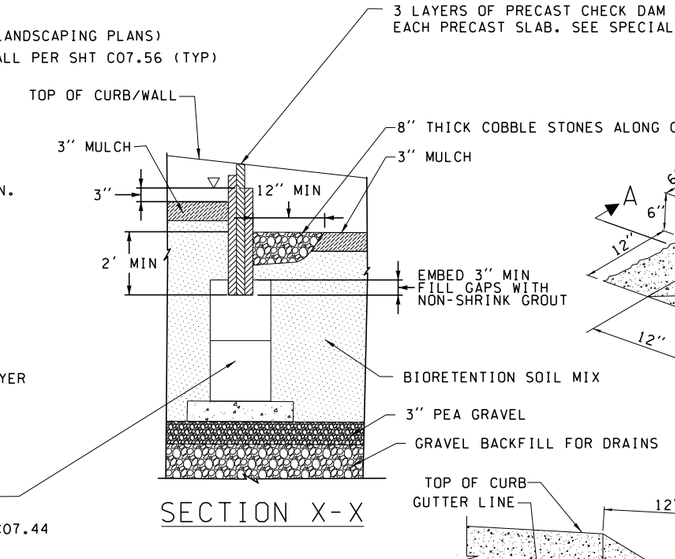
DRAINAGE DETAILS

RFI 216

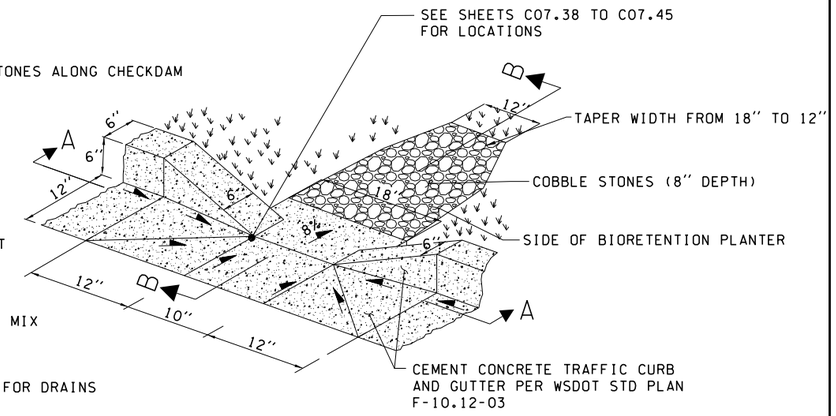
C07.37A

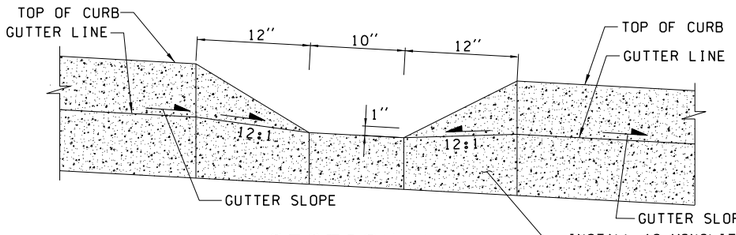
SHEET OF SHEETS





SECTION X-X





SECTION A-A

1 / C07.37 SECTION - WALLED BIORETENTION FACILITY

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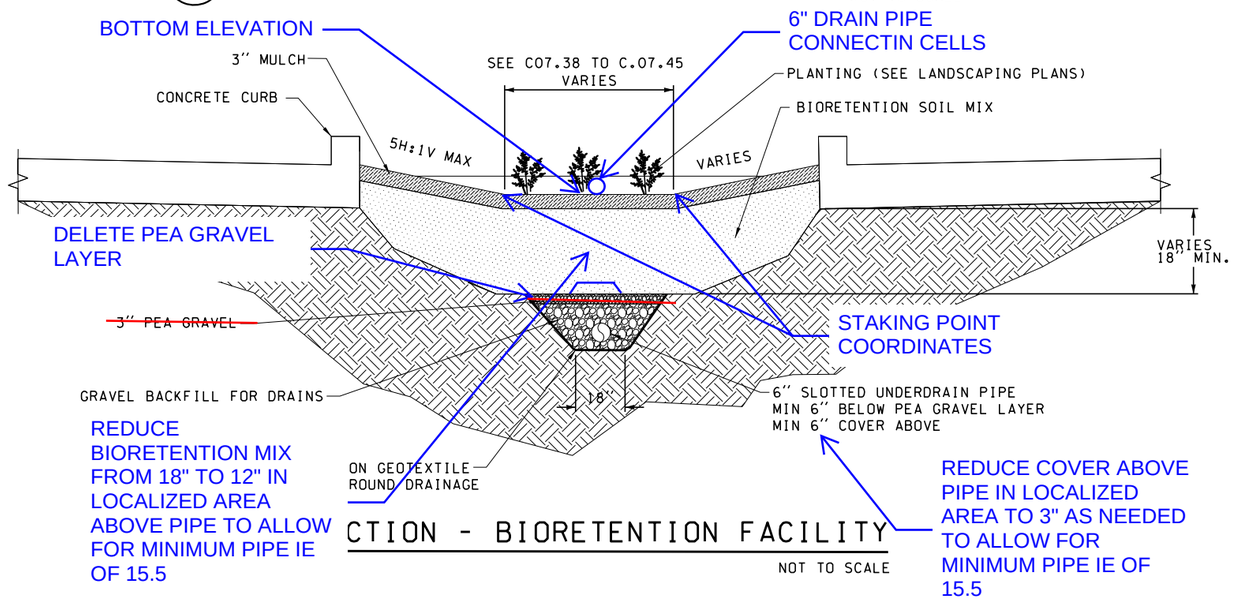

CTION - BIORETENTION FACILITY

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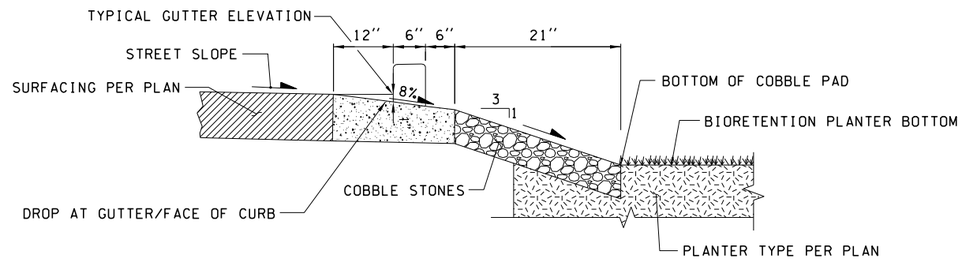

SECTION B-B

3 / C07.37 CONCRETE CURB CUT

NOT TO SCALE

RFI 307

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FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.37B

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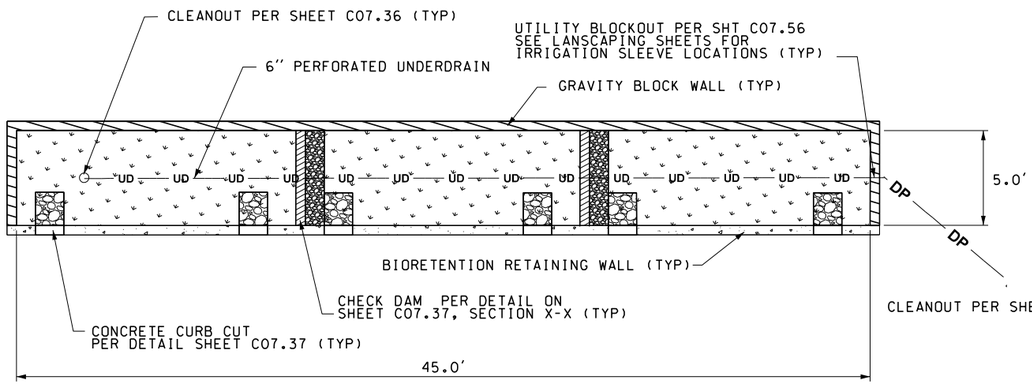
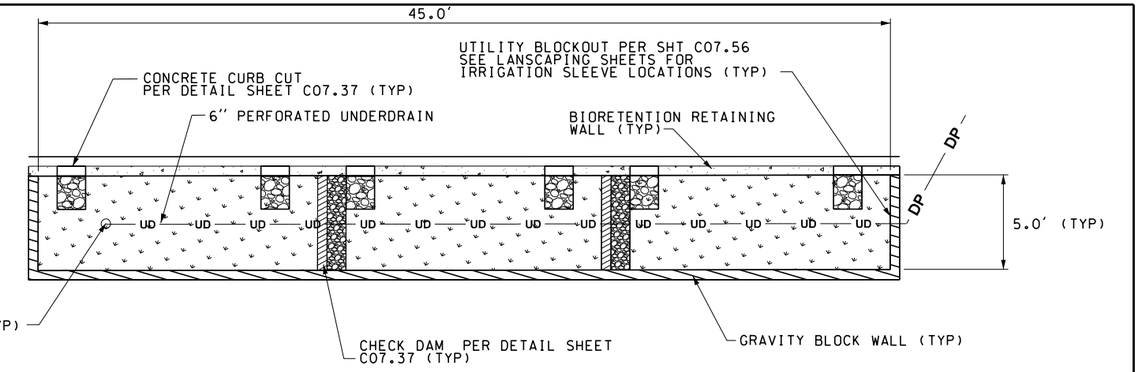


BIORETENTION FACILITY (BRF-1) - PLAN

C07.10-7 NOT TO SCALE



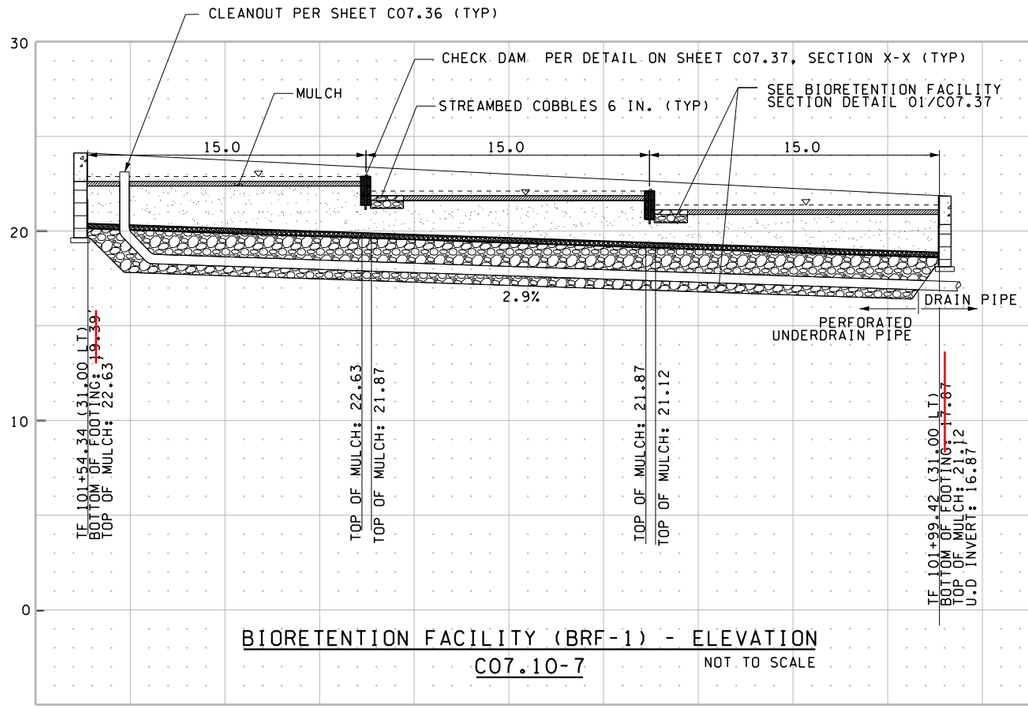
BIORETENTION FACILITY (BRF-2) - PLAN

C07.10-8 NOT TO SCALE

BIORETENTION WALL LEGEND

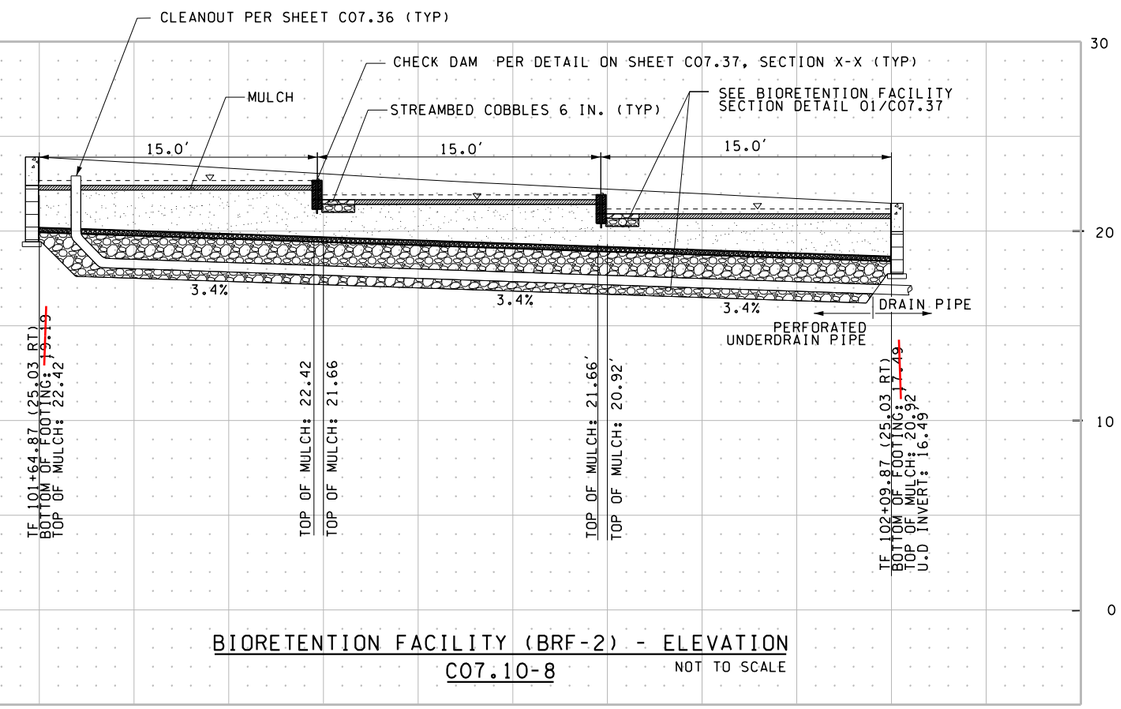
GRAVITY BLOCK WALL

CONCRETE RETAINING WALL



BIORETENTION FACILITY (BRF-1) - ELEVATION

C07.10-7 NOT TO SCALE



BIORETENTION FACILITY (BRF-2) - ELEVATION

C07.10-8 NOT TO SCALE

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FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.38

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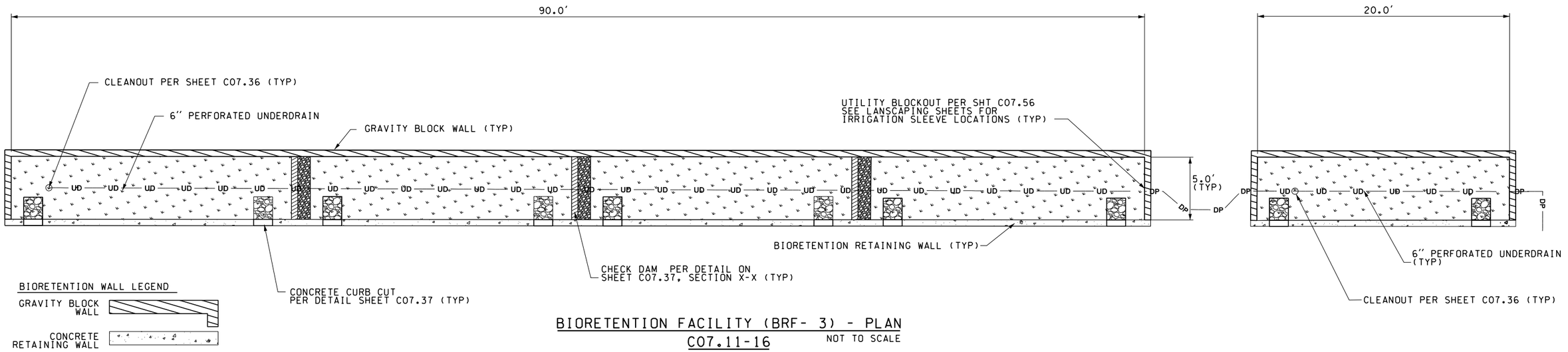

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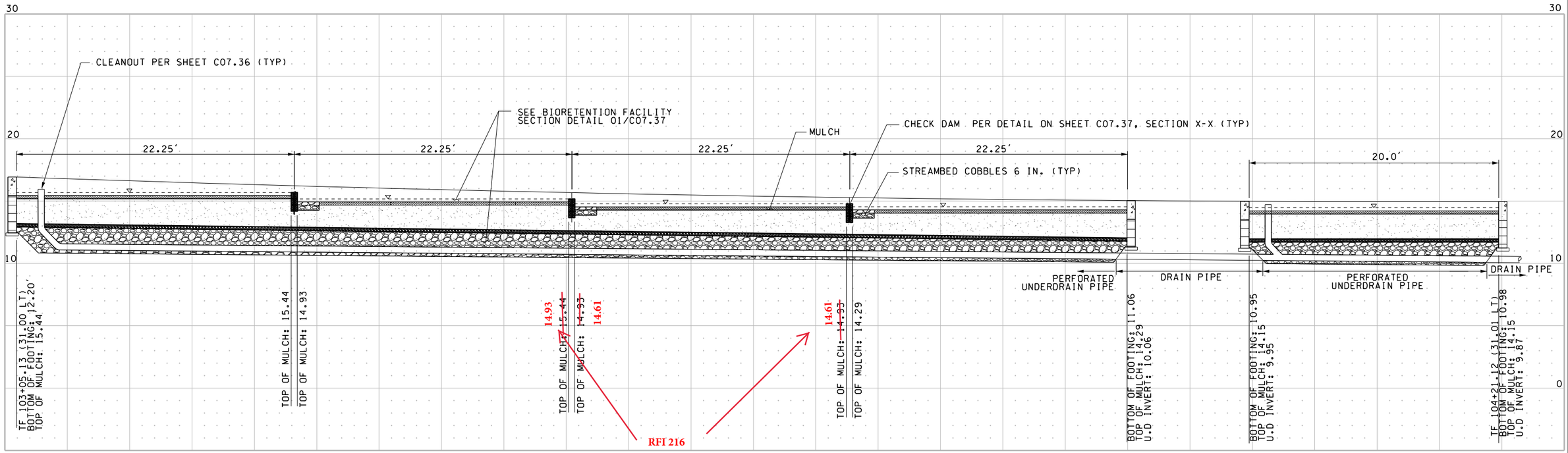
C07.11-16 NOT TO SCALE



BIORETENTION FACILITY (BRF- 3) - ELEVATION
C07.11-16 NOT TO SCALE

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MUKILTEO FERRY TERMINAL (PHASE 2)
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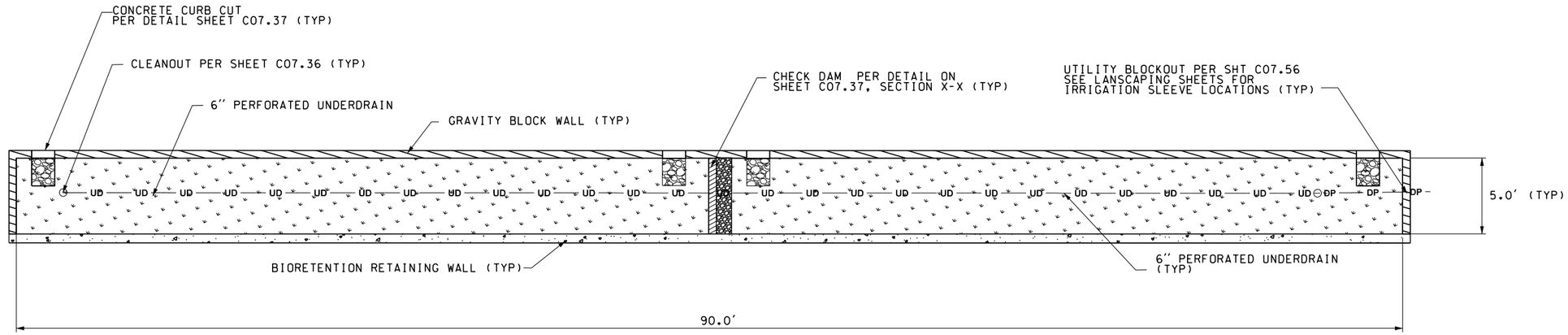
C07.39

SHEET 171 OF 1521 SHEETS



BIORETENTION WALL LEGEND

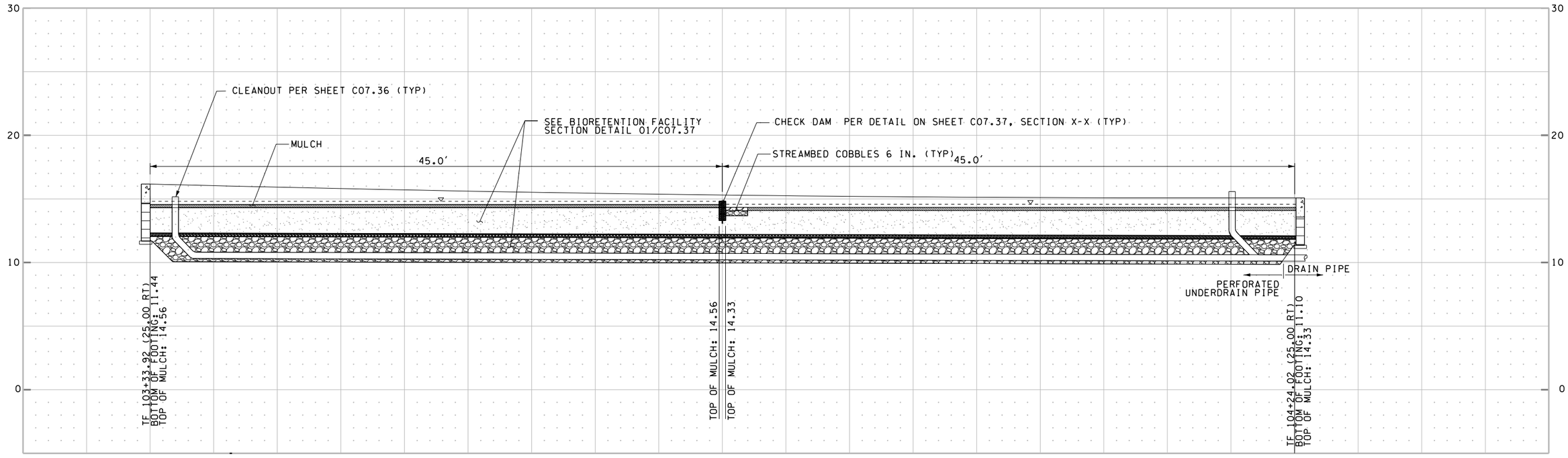
GRAVITY BLOCK WALL

CONCRETE RETAINING WALL

BIORETENTION FACILITY (BRF-4) - PLAN

C07.11-17

NOT TO SCALE



BIORETENTION FACILITY (BRF-4) - ELEVATION

C07.11-17

NOT TO SCALE

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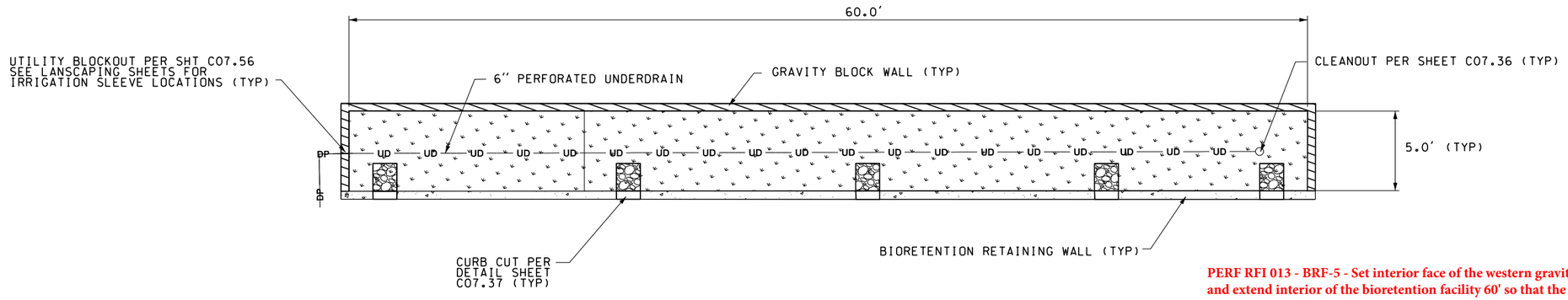
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.40

SHEET 172 OF 1521 SHEETS



BIORETENTION WALL LEGEND

GRAVITY BLOCK WALL

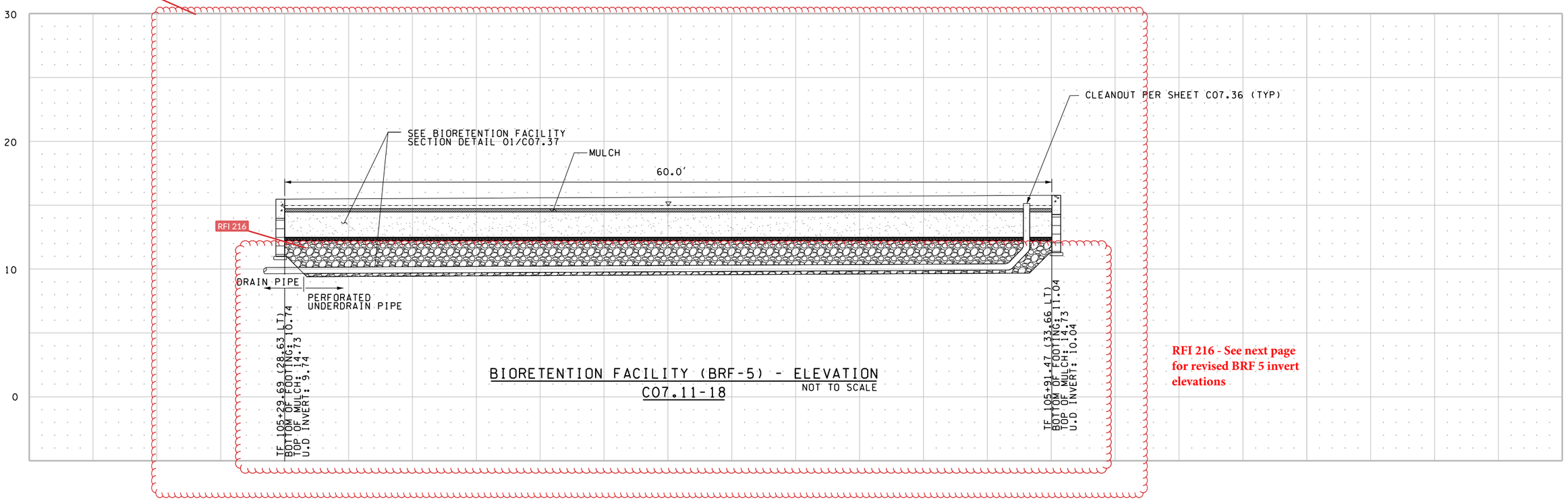
CONCRETE RETAINING WALL

BIORETENTION FACILITY (BRF-5) - PLAN
C07.11-18

NOT TO SCALE

PERF RFI 013 - BRF-5 - Set interior face of the western gravity block wall at Sta. 105+32 and extend interior of the bioretention facility 60' so that the interior of the eastern gravity block wall is at Sta. 105+92. The intention is to provide a 60' facility, and shifting it slightly east or west as field conditions may dictate is acceptable. The offset to face of curb is 30' per C06.40. Disregard the offsets on C07.41 and construct the swale using the curb offset of 30' and swale side slopes and underdrain location per the typical section shown on C07.37

RFI 13



BIORETENTION FACILITY (BRF-5) - ELEVATION
C07.11-18

NOT TO SCALE

RFI 216 - See next page for revised BRF 5 invert elevations

CM DESIGN GROUP

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ENTERED BY: R. NAIDU	1/18/2019					REGION NO. STATE
CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		18W121
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CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

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SR 525
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FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

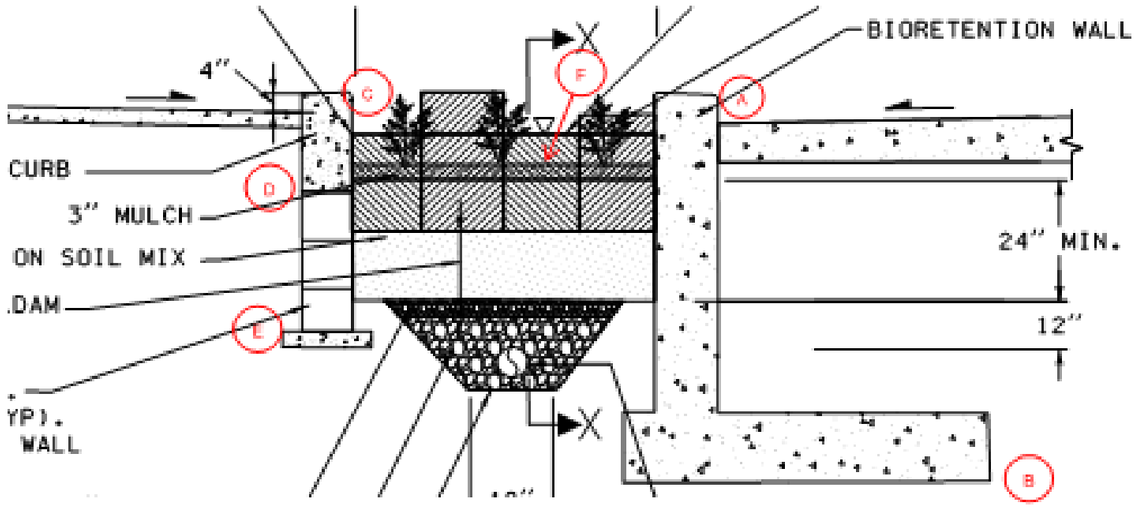
C07.41

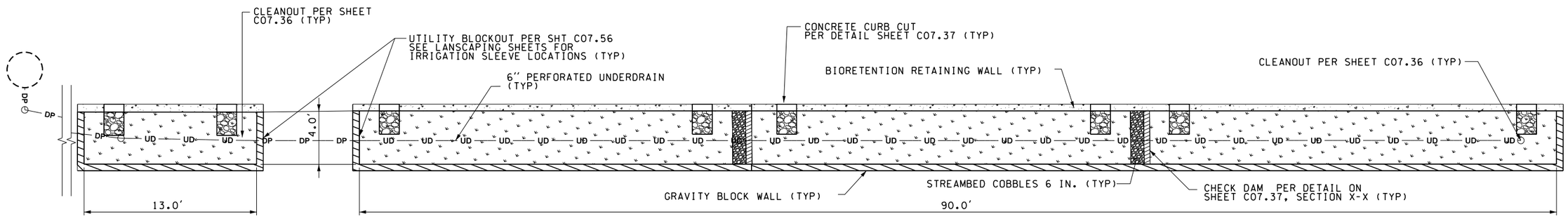
SHEET 173 OF 1521 SHEETS

RFI 216 Response
BRF-5

ROADWAY GEOMETRY											RETAINING WALL			GRAVITY BLOCK WALL & ASSOCIATED ELEMENTS								
EVC	Elev	Slope	Station	CL Elev	Cross-slope	Face of Roadway Curb Offset	Face of Roadway Curb Elev at gutter	Width of Planter	Slope of planter		Top of Retaining Wall Elevation [1]	Bottom of Retaining Wall Footing Elevation	Retaining Wall Height	Top of 4" Sidewalk Curb [2]	CIP Curb Height	Gravity Block Height	Top of Gravity Block Wall	Bottom of Gravity Block Wall	Top of Mulch Elev.	Depth from TOC to BRF Grade	Underdrain IE	Underdrain Slope
				ft		ft	ft	ft			ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	
											A	B		C			D	E	F			
10433.19	15.05	0.5%	10532	15.54	-2%	30	14.94	6.5	1.50%		15.44	10.44	5.00	15.87	1.33	3.00	14.54	11.54	15.00	0.87	10.90	-1.00%
10433.19	15.05	0.5%	10540	15.58	-2%	30	14.98	6.5	1.50%		15.48	10.48	5.00	15.91	1.33	3.00	14.58	11.58	15.00	0.91		
10433.19	15.05	0.5%	10550	15.63	-2%	30	15.03	6.5	1.50%		15.53	10.53	5.00	15.96	1.33	3.00	14.63	11.63	15.00	0.96		
10433.19	15.05	0.5%	10560	15.68	-2%	30	15.08	6.5	1.50%		15.58	10.58	5.00	16.01	1.33	3.00	14.68	11.68	15.00	1.01		
10433.19	15.05	0.5%	10575	15.76	-2%	30	15.16	6.5	1.50%		15.66	10.66	5.00	16.09	1.33	3.00	14.75	11.75	15.00	1.09		
10433.19	15.05	0.5%	10580	15.78	-2%	30	15.18	6.5	1.50%		15.68	10.68	5.00	16.11	1.33	3.00	14.78	11.78	15.00	1.11		
10433.19	15.05	0.5%	10590	15.83	-2%	30	15.23	6.5	1.50%		15.73	10.73	5.00	16.16	1.33	3.00	14.83	11.83	15.00	1.16		
10433.19	15.05	0.5%	10592	15.84	-2%	30	15.24	6.5	1.50%		15.74	10.74	5.00	16.17	1.33	3.00	14.84	11.84	15.00	1.17	11.50	

1. Top of Retaining wall is Face of Roadway Curb Elev at top of curb
2. 4" Curb is the exposed portion of the Cast in Place 16" tall Curb on top of Gravity Block Wall





BIORETENTION FACILITY (BRF-6) - PLAN
C07.14-11

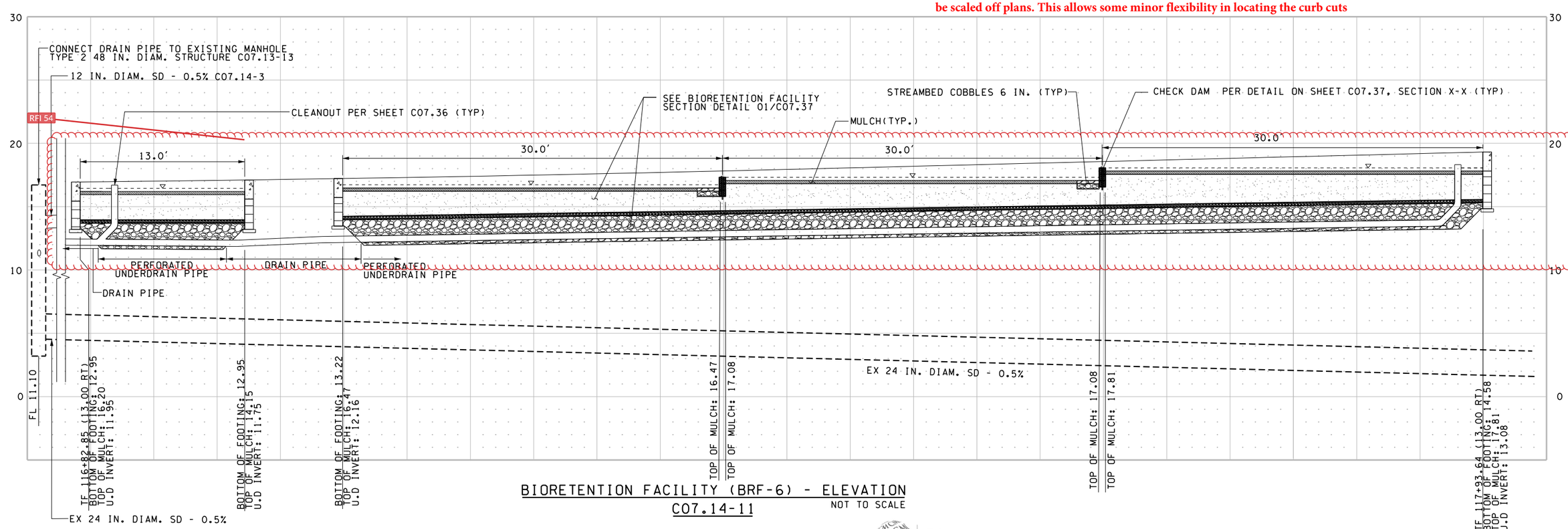
NOT TO SCALE

BIORETENTION WALL LEGEND

GRAVITY BLOCK WALL

CONCRETE RETAINING WALL

RFI 054:
Q.1) - Yes, BRF 6 & 7 walls follow the finished road grade and maintain a constant 5' height.
Q.2) - The station/offset and elevation for the footings on C07.43 and C07.44 are for the bottom of footing of the gravity block wall at the end of the facility, not the concrete retaining wall. To be consistent with RFI 13 Response (for BRF 5), the intent is to provide a 90' facility, per the detail 1/C07.37. The station and offset shown are to a point on the gravity block wall. As noted in RFI 13 Response, construct the facility using the curb offset of 12' per the typical section and vertical alignment to set grade. It is acceptable to shift the facility slightly east or west as field conditions dictate.
Q.3) - To be consistent with RFI 23 Response, locations for concrete curb cuts (detail 3/C07.37) are schematic and can be scaled off plans. This allows some minor flexibility in locating the curb cuts



BIORETENTION FACILITY (BRF-6) - ELEVATION
C07.14-11

NOT TO SCALE

CM DESIGN GROUP

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ENTERED BY: R. NAIDU	1/18/2019					10 WASH
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
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FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.43

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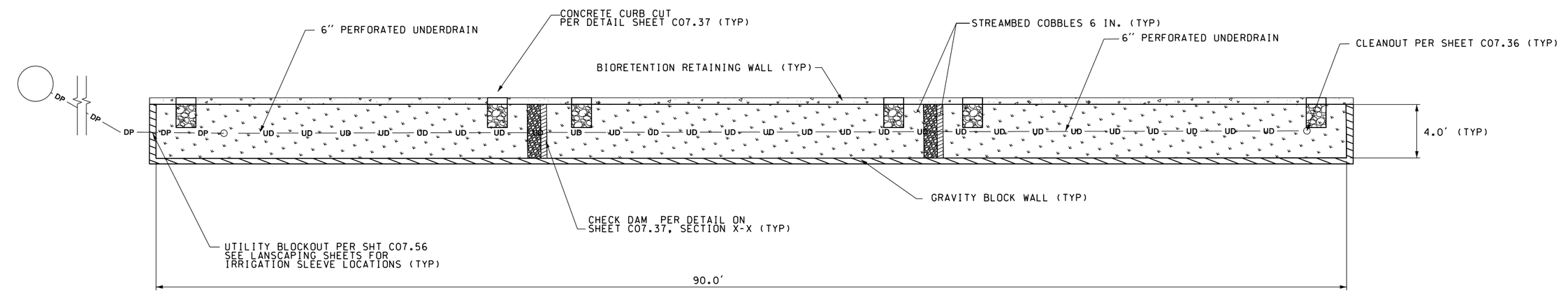


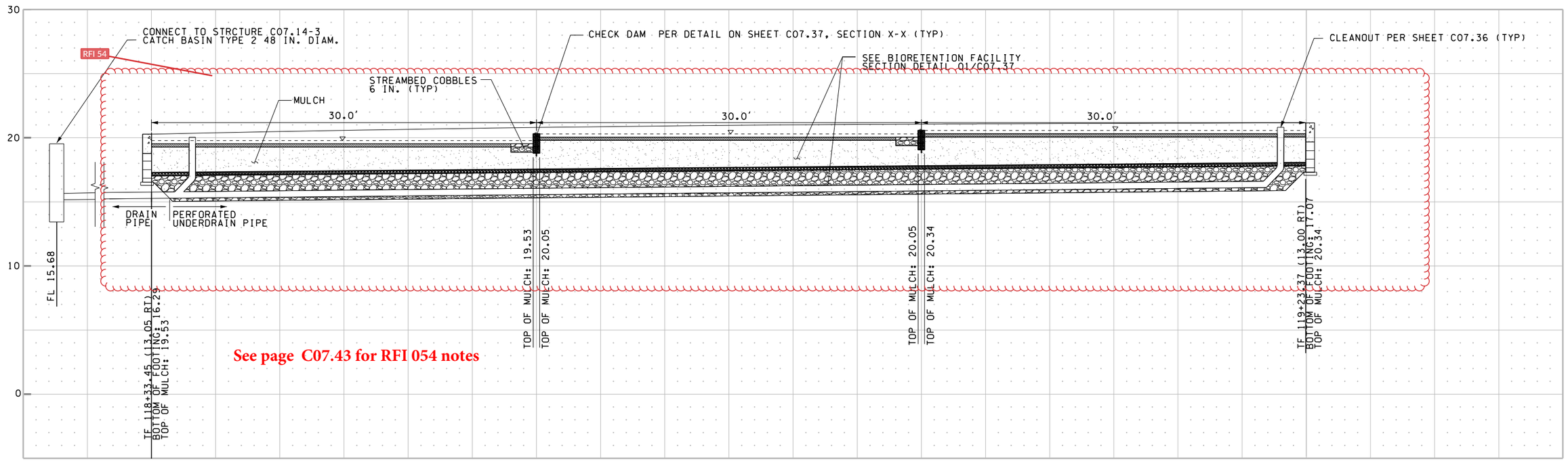
BIORETENTION WALL LEGEND

GRAVITY BLOCK WALL

CONCRETE RETAINING WALL

BIORETENTION FACILITY (BRF-7) - PLAN

C07.14-12 NOT TO SCALE



See page C07.43 for RFI 054 notes

BIORETENTION FACILITY (BRF-7) - ELEVATION

C07.14-12 NOT TO SCALE

CM DESIGN GROUP

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ENTERED BY: R. NAIDU	1/18/2019					REGION NO. STATE
CHECKED BY: C. MIRKIN	1/18/2019					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

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SR 525
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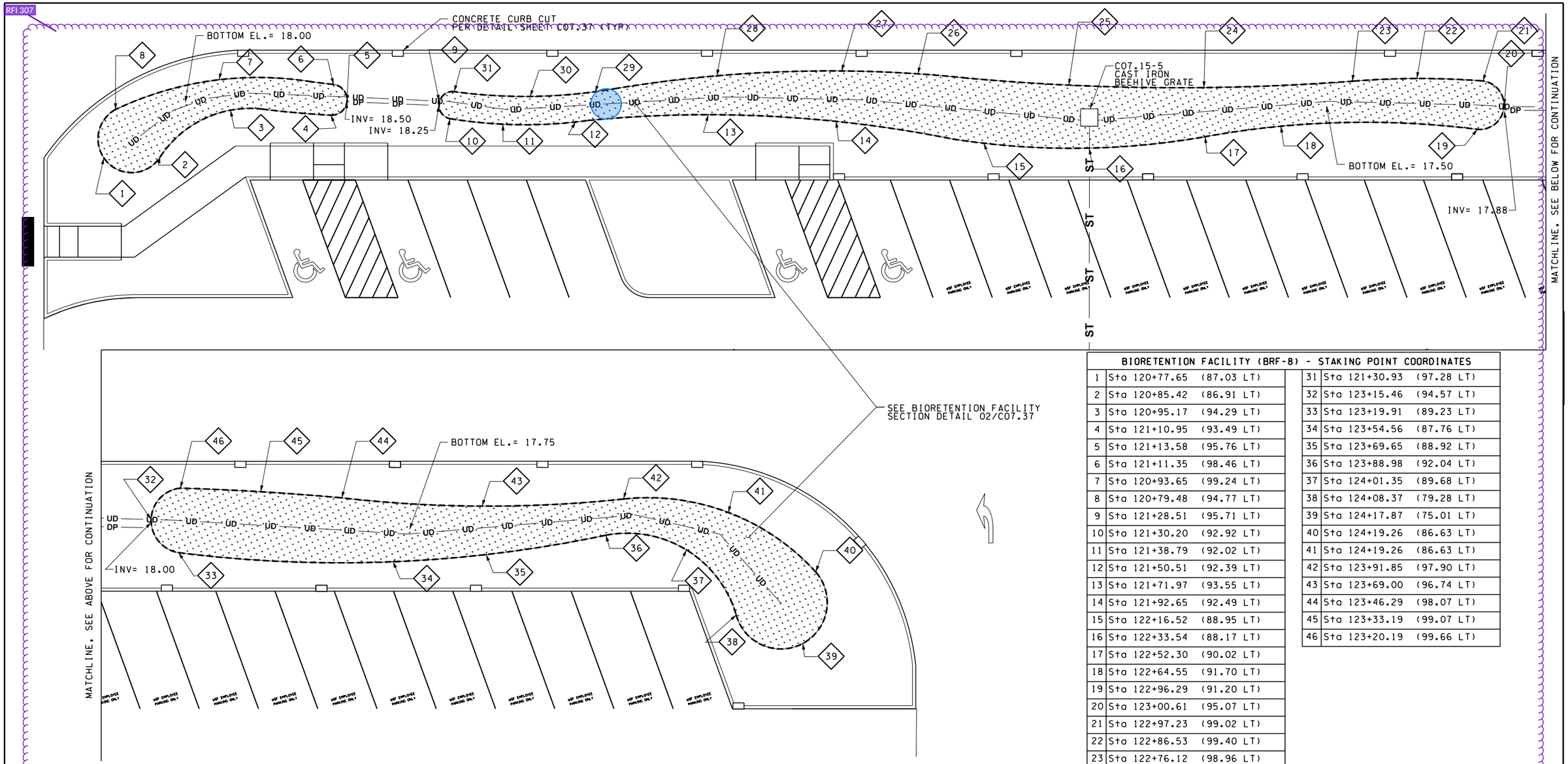
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.44

SHEET 175 OF 1521 SHEETS

RFI 307



BIORETENTION FACILITY (BRF-8) - STAKING POINT COORDINATES			
1	Sta 120+77.65 (87.03 LT)	31	Sta 121+30.93 (97.28 LT)
2	Sta 120+85.42 (86.91 LT)	32	Sta 123+15.46 (94.57 LT)
3	Sta 120+95.17 (94.29 LT)	33	Sta 123+19.91 (89.23 LT)
4	Sta 121+10.95 (93.49 LT)	34	Sta 123+54.56 (87.76 LT)
5	Sta 121+13.58 (95.76 LT)	35	Sta 123+69.65 (88.92 LT)
6	Sta 121+11.35 (98.46 LT)	36	Sta 123+88.98 (92.04 LT)
7	Sta 120+93.65 (99.24 LT)	37	Sta 124+01.35 (89.68 LT)
8	Sta 120+79.48 (94.77 LT)	38	Sta 124+08.37 (79.28 LT)
9	Sta 121+28.51 (95.71 LT)	39	Sta 124+17.87 (75.01 LT)
10	Sta 121+30.20 (92.92 LT)	40	Sta 124+19.26 (86.63 LT)
11	Sta 121+38.79 (92.02 LT)	41	Sta 124+19.26 (86.63 LT)
12	Sta 121+50.51 (92.39 LT)	42	Sta 123+91.85 (97.90 LT)
13	Sta 121+71.97 (93.55 LT)	43	Sta 123+69.00 (96.74 LT)
14	Sta 121+92.65 (92.49 LT)	44	Sta 123+46.29 (98.07 LT)
15	Sta 122+16.52 (88.95 LT)	45	Sta 123+33.19 (99.07 LT)
16	Sta 122+33.54 (88.17 LT)	46	Sta 123+20.19 (99.66 LT)
17	Sta 122+52.30 (90.02 LT)		
18	Sta 122+64.55 (91.70 LT)		
19	Sta 122+96.29 (91.20 LT)		
20	Sta 123+00.61 (95.07 LT)		
21	Sta 122+97.23 (99.02 LT)		
22	Sta 122+86.53 (99.40 LT)		
23	Sta 122+76.12 (98.96 LT)		
24	Sta 122+52.11 (97.93 LT)		
25	Sta 122+30.26 (98.32 LT)		
26	Sta 122+05.88 (100.16 LT)		
27	Sta 121+93.54 (100.64 LT)		
29	Sta 121+73.37 (99.86 LT)		
30	Sta 121+43.54 (96.52 LT)		

GENERAL NOTES:

1. BOTTOM AREA OF BIORETENTION FACILITY SHALL NOT BE LESS THAN 2560 SF.

2. SEE PLANTING PLAN C09.55

BIORETENTION FACILITY (BRF-8) - PLAN
C07.15-6

See page C07.37B for RFI 307 Notes

CM DESIGN GROUP

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ENTERED BY: C. BENNETT	1/18/2019					
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.45

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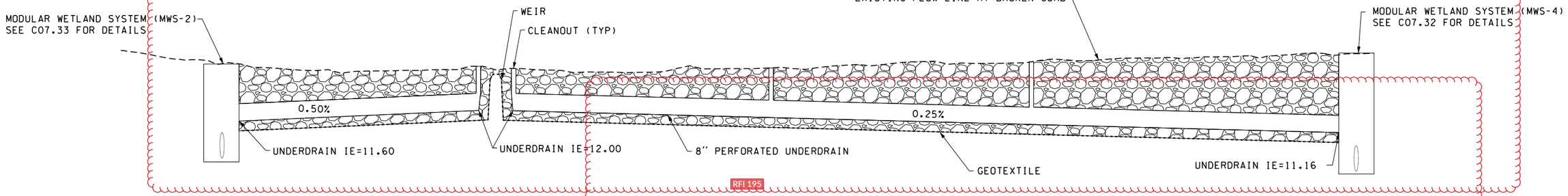
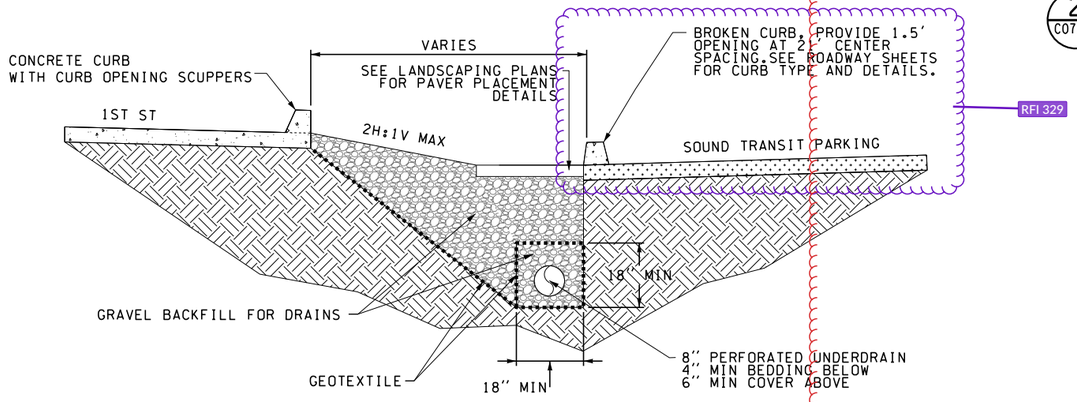
RFI 329



RFI 195

2 C07.11 DRAINAGE DITCH - PROFILE

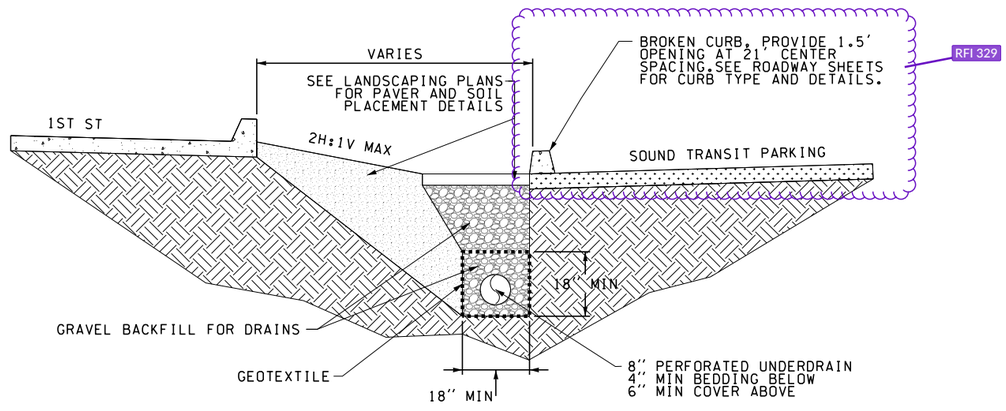
NOT TO SCALE



RFI 329

DRAINAGE DITCH - SECTION AT SCUPPER LOCATIONS

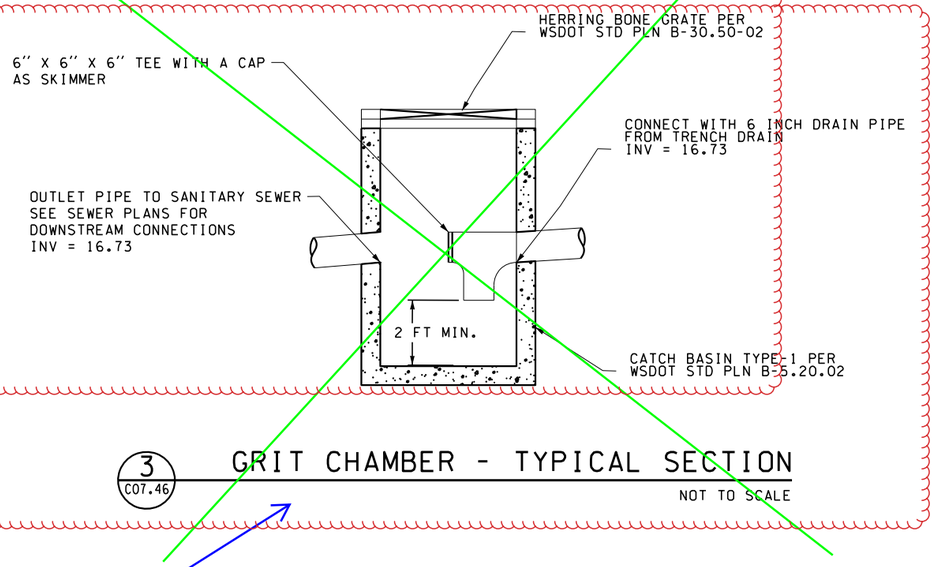
NOT TO SCALE



DRAINAGE DITCH - TYPICAL SECTION

NOT TO SCALE

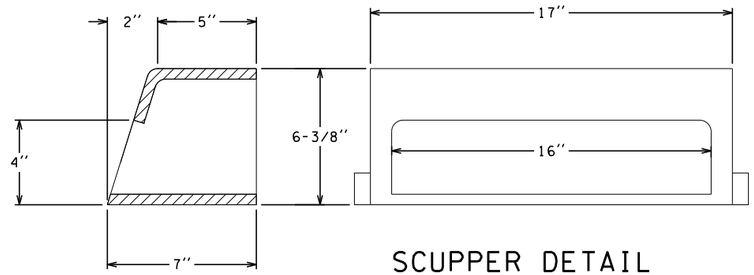
RFI 167



3 C07.46 GRIT CHAMBER - TYPICAL SECTION

NOT TO SCALE

Delete Catch Basin Type 1
with Grit Chamber



SCUPPER DETAIL

NOT TO SCALE

CM DESIGN GROUP

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ENTERED BY: C. BENNETT	1/18/2019					
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MAR PROJ ENGR: C. TORRES		RFI 195	6/20/19			JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO. 00****
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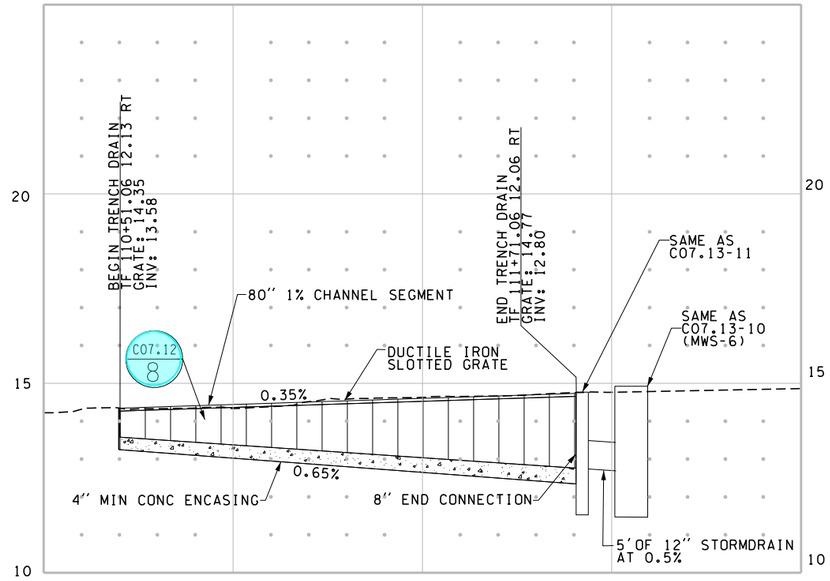
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

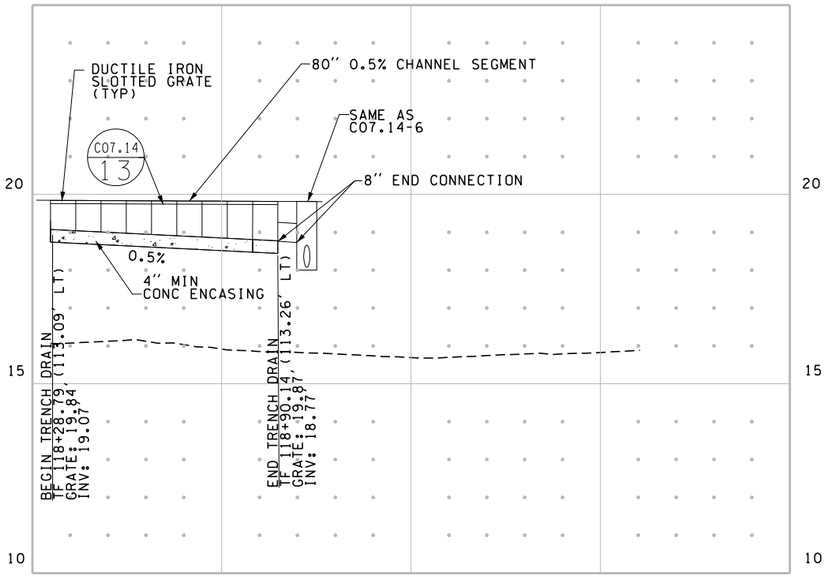
C07.46

SHEET 177 OF 1521 SHEETS



1 C07.47 TRENCH DRAIN CROSS SECTION

SCALE: 10V:1H



2 C07.47 TRENCH DRAIN CROSS SECTION

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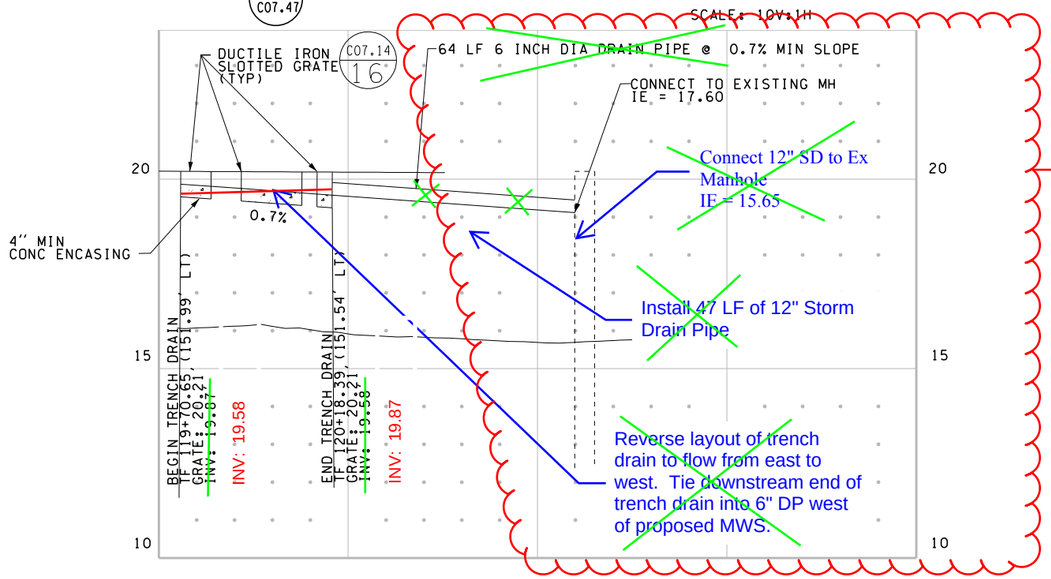

3 C07.47 TRENCH DRAIN CROSS SECTION

SCALE: 10V:1H

Revised 6-20-19

CM DESIGN GROUP

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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
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FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.47

SHEET 178 OF 1521 SHEETS

Face of Gutter

St E 13+48.53, 15' Lt (Face of Gutter
FG = 20.46
Bottom of Pervious Pavement = 17.79

St E 16+87, 15' Lt (Face of Gutter)
FG = 23.23
Bottom of Pervious Pavement = 20.56

RFI 181

Approximately 0.5% slope

RFI 161

St E 16+87, 64.5' Rt (Underdrain)
FG = 24.82
Bottom of Pervious Pavement = 22.15
Underdrain IE = 20.20

Sta E 19+95.56, 15' Lt (Face of Gutter)
FG = 20.47
Bottom of Pervious Pavement = 17.80

Relatively flat (0.1% Slope)

Sta E 19+95.56, 64.5' Rt (Underdrain)
FG = 22.06
Bottom of Pervious Pavement = 19.39
Underdrain IE = 17.70

E 13+48.53, 16.77' LT
EL. 17.31

21.16'

HIGH POINT
EL. 20.85

15.06'

21.04'

E 19+95.56, 16.77' LT
EL. 21.04

BREAKLINE (TYP)

20.31

E 19+95.56, 100.50' RT
EL. 21.67

16.62'

21.67

E 13+46.63, 93.50 RT
EL. 15.97

Underdrain IE 15.46

Structure 7.13-7
IE = 15.46

IMPERMEABLE LAYER

Note this area is low point and will result in very flat slope toward Structure 7.13-7

St E 16+87, 96.17' Rt (Face of Wall 4)
FG = 23.96
Bottom of Pervious Pavement - 21.29

Sta E 19+95.56, 101.4' Rt (Face of Wall 4)
FG = 21.40
Bottom of Pervious Pavement = 18.73

St E 13+48.53, 93.50' Rt
FG = 18.55 (see sheet C06.32)
Bottom of Pervious Pavement = 15.88

Structure C07.13-7
IE = 15.46 (8" Underdrain)
IE - 15.46 (12" Storm Drain Pipe)

240 LF 8" Perforated Underdrain Pipe @ 1.98%

310 LF 8" Perforated Underdrain Pipe @ 0.8%

IE =20.20 (8" Underdrain E & W)

Structure C07.14-1
IE = 17.70 (8" Underdrain)
IE - 17.70 (12" Storm Drain Pipe)

LEGEND:

IMPERMEABLE LAYER LIMITS

CM DESIGN GROUP

KEY PLAN

SCALE 1" = 80'

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ENTERED BY: R. NAIDU	1/18/2019					JOB NUMBER 18W121
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MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

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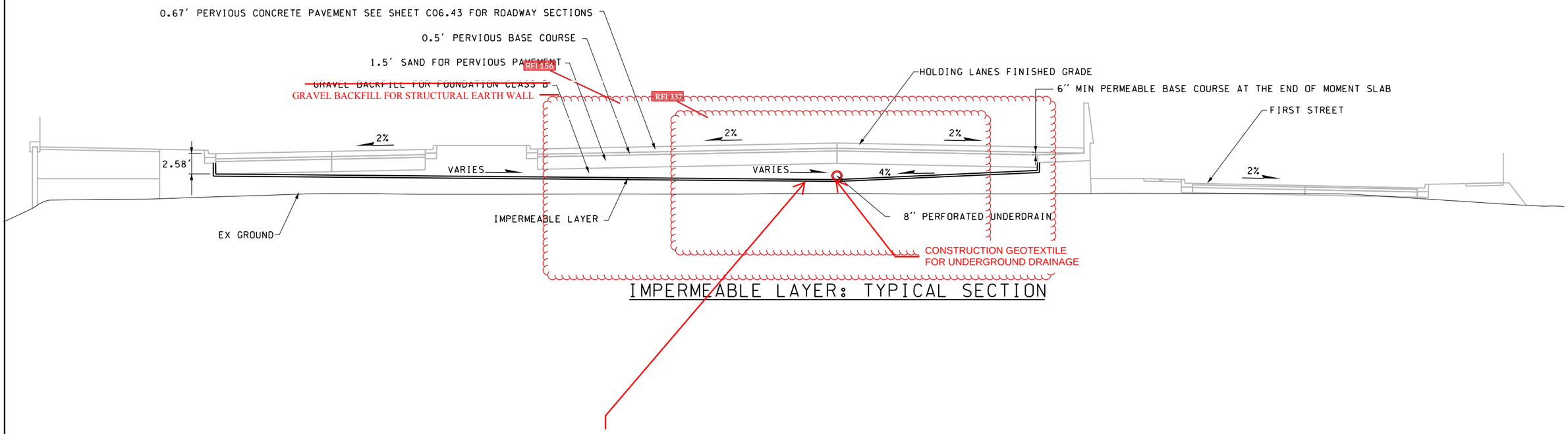
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.48

SHEET 179 OF 1521 SHEETS



IMPERMEABLE LAYER: TYPICAL SECTION

Per RFI 337 - The backfill material around the underdrain shall be revised from Gravel Backfill for Foundation Class B to Gravel Backfill for Structural Earth Wall. The underdrain shall also be wrapped with Construction Geotextile for Underground Drainage (see following revised plan sheet C07.49). A second underdrain pipe shall be installed at the downstream tie-in structure (C07.13-7 and C07.14-1) and extend 15' and capped. The second pipe is a redundant system in the event the main pipe becomes plugged with sediment. The second pipe shall be set at the same elevations as the main underdrain pipe and shall also be wrapped with Construction Geotextile for Underground Drainage.

CM DESIGN GROUP

FILE NAME: WSF\Mukilteo\CADD\WORKING\CM-DESIGN\14w121_c07_49.dlv						
PRINTED: 2:09:41 PM 1/16/2019	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/2019	chester					WA-2017-007-00
DESIGNED BY: R. NAIDU	1/18/2019					REGION NO. STATE
ENTERED BY: R. NAIDU	1/18/2019					10 WASH
CHECKED BY: C. MIRKIN	1/18/2019					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19	CM		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

DRAINAGE DETAILS

C07.49

SHEET 180 OF 1521 SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE:THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↘ \ UNIT OF MEASURE ➢	STREAMBED COBBLES 6 IN. C.Y.	CONCRETE INLET EACH	QUARRY SPALLS C.Y.		UNDERDRAIN PIPE 6 IN. DIAM L.F.	UNDERDRAIN PIPE 8 IN. DIAM L.F.	DRAIN PIPE 6 IN. DIAM L.F.	CATCH BASIN TYPE 1 EACH	CATCH BASIN TYPE 2 48 IN. DIAM EACH	SCHEDULE A STORM SEWER PIPE 12 IN. DIAM L.F.	SCHEDULE A STORM SEWER PIPE 18 IN. DIAM L.F.	SCHEDULE A STORM SEWER PIPE 24 IN. DIAM L.F.	HDPE STORM SEWER PIPE 12 IN. DIAM. L.F.	HDPE STORM SEWER PIPE 18 IN. DIAM. L.F.	HDPE STORM SEWER PIPE 24 IN. DIAM. L.F.	SEE GENERAL NOTES
C07.10-1	TF 100+01.63 (52.04' RT) TO TF 100+11.36 (13.53' RT)											0		0	38		
C07.10-2	TF 100+11.36 (13.53' RT) TO TF 102+17.78 (14.78' RT)											207					
C07.10-3	TF 102+17.78 (14.78' RT) TO TF 102+17.85 (18.79' LT)							14				36					
C07.10-4	TF 102+17.85 (18.79' LT) TO TF 104+26.61 (18.75' LT)							22		1		209					3
C07.10-5	COM 23+31.46 (31.06' RT) TO COM 23+31.03 (25.76' RT)								1		6			0			1
C07.10-6	COM 23+31.03 (25.76' RT) TO COM 22+33.23 (22.41' RT)									1	98			0			3
C07.10-7	TF 101+57.92 (33.48' LT) TO TF 102+17.85 (18.79' LT)	0.69				45											
C07.10-8	TF 101+66.61 (23.81' RT) TO TF 102+10.18 (27.61' RT)	0.69				45											
C07.11-1	TF 104+26.61 (18.75' LT) TO TF 104+26.80 (28.64' LT)											10					
C07.11-2	TF 104+26.80 (28.64' LT) TO TF 104+50.83 (29.63' LT)							6	1			24					
C07.11-3	TF 104+50.83 (29.63' LT)																
C07.11-4	COM 22+33.15 (31.01' RT) TO COM 22+33.23 (22.41' RT)								1		19			0			
C07.11-5	COM 22+33.23 (22.41' RT) TO COM 21+25.43 (15.89' RT)								1		108			0			
C07.11-6	COM 21+25.43 (15.89' RT) TO COM 21.14.08 (23.39' RT)								1		11			0			
C07.11-7	COM 21+14.08 (23.39' RT) TO COM 21+09.90 (15.58' RT)										5			0			
C07.11-8	COM 21+09.90 (15.58' RT) TO COM 20+63.41 (2.19' LT)								1		45			0			
C07.11-9	COM 20+63.41 (2.19' LT)																
C07.11-10	TF 104+27.18 (27.14' RT) TO TF 104+27.43 (22.53' RT)							39	1		5						
C07.11-11	TF 104+27.43 (22.53' RT) TO TF 104+50.83 (29.63' LT)								1		58						
C07.11-12	TF 105+29.69 (28.58' LT) TO TF 105+29.09 (22.57' RT)								1		52						
C07.11-13	TF 105+29.09 (22.57' RT) TO TF 106+45.04 (22.53' RT)								1		116						
C07.11-14	TF 106+45.04 (22.53' RT) TO TF 108+79.80 (15.43' RT)									1	234	0					
C07.11-15	TF 105+29.48 (29.31' RT) TO TF 105+29.09 (22.57' RT)							3			5						
C07.11-16	TF 103+17.03 (33.27' LT) TO TF 104+26.80 (28.64' LT)	1.11				115		12									
C07.11-17	TF 103+37.10 (27.50' RT) TO TF 104+27.18 (27.14' RT)	0.42				89											
C07.11-18	TF 105+87.71 (33.16' LT) TO TF 105+29.68 (28.58' LT)	0.37				61		5									
C07.11-19	TF 104+25.70 (62.02' LT) TO TF 104+51.03 (36.94' LT)	18.52		4						1							13
C07.11-20	TF 104+50.74 (37.27' LT)							18									
C07.11-21	TF 104+28.63 (37.92' LT)																
C07.11-22	TF 105+34.41 (24.00' RT)	0.83															
C07.11-23	TF 105+84.41 (24.01' RT)	0.83															
C07.12-1	TF 108+79.80 (15.43' RT) TO TF 109+66.88 (10.56' RT)									1		88			0		3
C07.12-2	TF 109+66.88 (10.56' RT) TO TF 109+81.62 (10.61' RT)									1		15			0		3
C07.12-3	TF 109+81.62 (10.61' RT) TO TF 111+08.05 (3.24' RT)									1		128			0		3
C07.12-4	TF 111+08.05 (3.24' RT) TO TF 111+82.32 (0.40' RT)											75			0		
C07.12-5	TF 108+30.85 (37.30' LT) TO TF 108+69.08 (22.22' LT)								1		42						1
C07.12-6	TF 108+69.08 (22.22' LT) TO TF 108+82.44 (21.81' LT)								1		10						1
C07.12-7	TF 108+82.44 (21.81' LT) TO TF 108+79.80 (15.43' RT)										37						
C07.12-8	TF 110+51.01 (13.62' RT) TO TF 111+71.96 (13.52' RT)																
C07.12-9	TF 109+70.94 (17.49' RT) TO TF 109+66.88(10.56' RT)							2			5						
C07.12-10	TF 109+80.54 (15.78' RT) TO TF 109+81.62 (10.61' RT)										5						
	SHEET TOTAL	23.46		4		355		121	12	7	861	792			38		31
	PROJECT TOTAL	23.46		4		355		121	12	7	861	792			38		

GENERAL NOTES:

1. CATCH BASIN TYPE 1 STANDARD PLAN B-5.20.02
2. CONCRETE INLET STANDARD PLAN B-25.60.01.
3. CATCH BASIN TYPE 2 STANDARD PLAN B-10.20.01.
4. MANHOLE TYPE 1 - STANDARD PLAN B -15.20.01.
5. SEE STORM SEWER CLEANOUT DETAIL ON C07.36
6. SEE TRENCH DRAIN DETAILS ON C07.47
7. SEE DRAINAGE DITCH DETAILS ON C07.46
8. SEE BIORETENTION FACILITY DETAILS ON C07.37
9. SEE MODULAR WETLAND SYSTEM DETAILS ON SHEETS C07.30 TO C07.35
10. INSTALL ELASTOMERIC CHECK VALVE
11. SEE SUBSURFACE LINER DETAIL ON SHEETS C07.48 AND C07.49
12. SEE SPECIAL PROVISIONS
13. USE BIRD CAGE FROM EXISTING OUTFALL STRUCTURE

						REGION NO.	STATE	FED. AID PROJ. NO.
SUBMITTAL DATE:		01/18/19						
DESIGNED BY	R. NAIDU	01/18/19				10	WASH	
ENTERED BY	C. BENNETT	01/18/19						
CHECKED BY	C. MIRKIN	01/18/19				JOB NUMBER		WA-2017-007-00
PROJ. ENGR.	C. TORRES					18W121		
REGION ADM.	A. SCARTON		1/18/19	CONFORMED PLANS	CM	CONTRACT NO.		
		DATE	DATE	REVISION	BY			

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

STRUCTURE NOTES - DRAINAGE

C07. 50

SHEET 181 OF 1521 SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE:THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↘ \ UNIT OF MEASURE ➢	STORM SEWER CLEANOUT EACH	TESTING STORM SEWER PIPE L.F.	STRUCTURE EXCAVATION CLASS B INCL. HAUL C.Y.		ADJUST MANHOLE EACH	ADJUST CATCH BASIN EACH	SHORING OR EXTRA EXCAVATION CLASS B S.F.		GRAVEL BACKFILL FOR DRAIN C.Y.	GRAVITY BLOCK WALL S.F.	MANHOLE 48 IN, DIAM, TYPE 1 EACH		MANHOLE ADDITIONAL HEIGHT 48 IN. DIAM. TYPE 1 L.F.	CONSTRUCTION GEOTEXTILE FOR UNDERGROUND DRAINAGE S.Y.	CONNECTION TO DRAINAGE STRUCTURE EACH	SEE GENERAL NOTES
C07.10-1	TF 100+01.63 (52.04' RT) TO TF 100+11.36 (13.53' RT)		38			3		877								1	
C07.10-2	TF 100+11.36 (13.53' RT) TO TF 102+17.78 (14.78' RT)		207	10.37				4040				1					
C07.10-3	TF 102+17.78 (14.78' RT) TO TF 102+17.85 (18.79' LT)		36	8.13				536				1					
C07.10-4	TF 102+17.85 (18.79' LT) TO TF 104+26.61 (18.75' LT)		209	12.46				2486									
C07.10-5	COM 23+31.46 (31.06' RT) TO COM 23+31.03 (25.76' RT)		6	5.58				78									
C07.10-6	COM 23+31.03 (25.76' RT) TO COM 22+33.23 (22.41' RT)		98	10.43				1279									
C07.10-7	TF 101+57.92 (33.48' LT) TO TF 102+17.85 (18.79' LT)	1								5.73	207.5				36		5
C07.10-8	TF 101+66.61 (23.81' RT) TO TF 102+10.18 (27.61' RT)	1								5.73	207.5				36		5
C07.11-1	TF 104+26.61 (18.75' LT) TO TF 104+26.80 (28.64' LT)		10	7.55				97				1					
C07.11-2	TF 104+26.80 (28.64' LT) TO TF 104+50.83 (29.63' LT)		24	4.98				225									
C07.11-3	TF 104+50.83 (29.63' LT)						1									1	
C07.11-4	COM 22+33.15 (31.01' RT) TO COM 22+33.23 (22.41' RT)		19	4.35				239									
C07.11-5	COM 22+33.23 (22.41' RT) TO COM 21+25.43 (15.89' RT)		108	4.96				1245									
C07.11-6	COM 21+25.43 (15.89' RT) TO COM 21.14.08 (23.39' RT)		11	4.2				120									
C07.11-7	COM 21+14.08 (23.39' RT) TO COM 21+09.90 (15.58' RT)		5	27.48				47		1.3							
C07.11-8	COM 21+09.90 (15.58' RT) TO COM 20+63.41 (2.19' LT)		45	5.26				416									
C07.11-9	COM 20+63.41 (2.19' LT)					1										1	
C07.11-10	TF 104+27.18 (27.14' RT) TO TF 104+27.43 (22.53' RT)		5	5.38				52									
C07.11-11	TF 104+27.43 (22.53' RT) TO TF 104+50.83 (29.63' LT)		58	4.99				594									
C07.11-12	TF 105+29.69 (28.58' LT) TO TF 105+29.09 (22.57' RT)		52	5.2				540									
C07.11-13	TF 105+29.09 (22.57' RT) TO TF 106+45.04 (22.53' RT)		116	5.5				1155									
C07.11-14	TF 106+45.04 (22.53' RT) TO TF 108+79.80 (15.43' RT)		234	11.44				2125									
C07.11-15	TF 105+29.48 (29.31' RT) TO TF 105+29.09 (22.57' RT)		5	10.05				55		0.46							
C07.11-16	TF 103+17.03 (33.27' LT) TO TF 104+26.80 (28.64' LT)	1								14	474.95				89		5,12
C07.11-17	TF 103+37.10 (27.50' RT) TO TF 104+27.18 (27.14' RT)	2								11.46	356.65				73		5,12
C07.11-18	TF 105+87.71 (33.16' LT) TO TF 105+29.68 (28.58' LT)	2								7.64	245				48		5,12
C07.11-19	TF 104+25.70 (62.02' LT) TO TF 104+51.03 (36.94' LT)										671.6				187		5,12
C07.11-20	TF 104+50.74 (37.27' LT)						0									0	
C07.11-21	TF 104+28.63 (37.92' LT)						1									1	
C07.11-22	TF 105+34.41 (24.00' RT)																
C07.11-23	TF 105+84.41 (24.01' RT)																
C07.12-1	TF 108+79.80 (15.43' RT) TO TF 109+66.88 (10.56' RT)		88	12.36				693									
C07.12-2	TF 109+66.88 (10.56' RT) TO TF 109+81.62 (10.61' RT)		15	12.26				116									
C07.12-3	TF 109+81.62 (10.61' RT) TO TF 111+08.05 (3.24' RT)		128	12.24				970									
C07.12-4	TF 111+08.05 (3.24' RT) TO TF 111+82.32 (0.40' RT)		75	10.69				549				1		1			
C07.12-5	TF 108+30.85 (37.30' LT) TO TF 108+69.08 (22.22' LT)		42	3.53				559									
C07.12-6	TF 108+69.08 (22.22' LT) TO TF 108+82.44 (21.81' LT)		10	3.34				132									
C07.12-7	TF 108+82.44 (21.81' LT) TO TF 108+79.80 (15.43' RT)		37	16.26				431		0.83							12
C07.12-8	TF 110+51.01 (13.62' RT) TO TF 111+71.96 (13.52' RT)																
C07.12-9	TF 109+70.94 (17.49' RT) TO TF 109+66.88(10.56' RT)		5	18.05				44		0.83							12
C07.12-10	TF 109+80.54 (15.78' RT) TO TF 109+81.62 (10.61' RT)		5	10.05				44		0.46							12
	SHEET TOTAL	7	1691	247.09		4	2	19744		48.44	2163.2	4		1	469	4	
	PROJECT TOTAL	7	1691	247.09		4	2	19744		48.44	2163.2	4		1	469	4	

GENERAL NOTES:

1. CATCH BASIN TYPE 1 STANDARD PLAN B-5.20.02
2. CATCH BASIN TYPE 1L STANDARD PLAN B-5.40.02.
3. CATCH BASIN TYPE 2 STANDARD PLAN B-10.20.01.
4. MANHOLE TYPE 1 - STANDARD PLAN B -15.20.01.
5. SEE STORM SEWER CLEANOUT DETAIL ON C07.36
6. SEE TRENCH DRAIN DETAILS ON C07.46
7. SEE DRAINAGE DITCH DETAILS ON C07.47
8. SEE BIORETENTION FACILITY DETAILS ON C07.37
9. SEE MODULAR WETLAND SYSTEM DETAILS ON SHEETS C07.30 TO C07.35
10. INSTALL ELASTOMERIC CHECK VALVE
11. SEE SUBSURFACE LINER DETAIL ON SHEETS C07.48 AND C07.49
12. SEE SPECIAL PROVISIONS
13. USE BIRD CAGE FROM EXISTING OUTFALL STRUCTURE

						REGION NO.	STATE	FED. AID PROJ. NO.
SUBMITTAL DATE:		01/18/19						
DESIGNED BY	R. NAIDU	01/18/19				10	WASH	
ENTERED BY	C. BENNETT	01/18/19				JOB NUMBER		WA-2017-007-00
CHECKED BY	C. MIRKIN	01/18/19				18W121		
PROJ. ENGR.	C. TORRES					CONTRACT NO.		
REGION ADM.	A. SCARTON		1/18/19	CONFORMED PLANS	CM			
		DATE	DATE	REVISION	BY			

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

STRUCTURE NOTES - DRAINAGE

C07. 51

SHEET 182 OF 1521 SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE:THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↘ \ UNIT OF MEASURE ➢	TRENCH DRAIN L.F.	BIORETENTION SOIL MIX C.Y.	ELASTOMERIC TIDAL CHECK VALVE 12 IN. DIAM. EACH		ELASTOMERIC TIDAL CHECK VALVE 6 IN. DIAM. EACH	IMPERMEABLE LAYER S.F.	MODULAR WETLANDS 4X4 EACH		MODULAR WETLANDS 4X6 EACH	MODULAR WETLANDS 4X8 EACH	MODULAR WETLANDS 4X13 EACH		SCUPPER INLET EACH	SAND FOR PERVIOUS PAVEMENT TON		SEE GENERAL NOTES
C07.10-1	TF 100+01.63 (52.04' RT) TO TF 100+11.36 (13.53' RT)																
C07.10-2	TF 100+11.36 (13.53' RT) TO TF 102+17.78 (14.78' RT)																
C07.10-3	TF 102+17.78 (14.78' RT) TO TF 102+17.85 (18.79' LT)					0											
C07.10-4	TF 102+17.85 (18.79' LT) TO TF 104+26.61 (18.75' LT)					0											
C07.10-5	COM 23+31.46 (31.06' RT) TO COM 23+31.03 (25.76' RT)																
C07.10-6	COM 23+31.03 (25.76' RT) TO COM 22+33.23 (22.41' RT)																
C07.10-7	TF 101+57.92 (33.48' LT) TO TF 102+17.85 (18.79' LT)		17			1											8,10,12
C07.10-8	TF 101+66.61 (23.81' RT) TO TF 102+10.18 (27.61' RT)		17			1											8,10,12
C07.11-1	TF 104+26.61 (18.75' LT) TO TF 104+26.80 (28.64' LT)																
C07.11-2	TF 104+26.80 (28.64' LT) TO TF 104+50.83 (29.63' LT)																
C07.11-3	TF 104+50.83 (29.63' LT)																
C07.11-4	COM 22+33.15 (31.01' RT) TO COM 22+33.23 (22.41' RT)																
C07.11-5	COM 22+33.23 (22.41' RT) TO COM 21+25.43 (15.89' RT)																
C07.11-6	COM 21+25.43 (15.89' RT) TO COM 21.14.08 (23.39' RT)																
C07.11-7	COM 21+14.08 (23.39' RT) TO COM 21+09.90 (15.58' RT)			1								1					10
C07.11-8	COM 21+09.90 (15.58' RT) TO COM 20+63.41 (2.19' LT)																
C07.11-9	COM 20+63.41 (2.19' LT)																
C07.11-10	TF 104+27.18 (27.14' RT) TO TF 104+27.43 (22.53' RT)																
C07.11-11	TF 104+27.43 (22.53' RT) TO TF 104+50.83 (29.63' LT)																
C07.11-12	TF 105+29.69 (28.58' LT) TO TF 105+29.09 (22.57' RT)																
C07.11-13	TF 105+29.09 (22.57' RT) TO TF 106+45.04 (22.53' RT)																
C07.11-14	TF 106+45.04 (22.53' RT) TO TF 108+79.80 (15.43' RT)																
C07.11-15	TF 105+29.48 (29.31' RT) TO TF 105+29.09 (22.57' RT)			1				1									10
C07.11-16	TF 103+17.03 (33.27' LT) TO TF 104+26.80 (28.64' LT)		41			1											8,10,12
C07.11-17	TF 103+37.10 (27.50' RT) TO TF 104+27.18 (27.14' RT)		33			1											8,10,12
C07.11-18	TF 105+87.71 (33.16' LT) TO TF 105+29.68 (28.58' LT)		22			1											8,10,12
C07.11-19	TF 104+25.70 (62.02' LT) TO TF 104+51.03 (36.94' LT)			1											50		10,12
C07.11-20	TF 104+25.70 (62.02' LT) TO TF 104+51.03 (36.94' LT)																
C07.11-21	TF 104+50.74 (37.27' LT)																
C07.11-22	TF 104+28.63 (37.92' LT)													1			12
C07.11-23	TF 105+84.41 (24.01' RT)													1			12
C07.12-1	TF 108+79.80 (15.43' RT) TO TF 109+66.88 (10.56' RT)																
C07.12-2	TF 109+66.88 (10.56' RT) TO TF 109+81.62 (10.61' RT)																
C07.12-3	TF 109+81.62 (10.61' RT) TO TF 111+08.05 (3.24' RT)																
C07.12-4	TF 111+08.05 (3.24' RT) TO TF 111+82.32 (0.40' RT)																
C07.12-5	TF 108+30.85 (37.30' LT) TO TF 108+69.08 (22.22' LT)																
C07.12-6	TF 108+69.08 (22.22' LT) TO TF 108+82.44 (21.81' LT)																
C07.12-7	TF 108+82.44 (21.81' LT) TO TF 108+79.80 (15.43' RT)			1							1						10
C07.12-8	TF 110+51.01 (13.62' RT) TO TF 111+71.96 (13.52' RT)	116															12
C07.12-9	TF 109+70.94 (17.49' RT) TO TF 109+66.88(10.56' RT)			1							1						10
C07.12-10	TF 109+80.54 (15.78' RT) TO TF 109+81.62 (10.61' RT)			1				1									10
	SHEET TOTAL	116	130	6		5		2			2	1		2	50		
	PROJECT TOTAL	116	130	6		5		2			2	1		2	50		

GENERAL NOTES:

1. CATCH BASIN TYPE 1 STANDARD PLAN B-5.20.02
2. CATCH BASIN TYPE 1L STANDARD PLAN B-5.40.02.
3. CATCH BASIN TYPE 2 STANDARD PLAN B-10.20.01.
4. MANHOLE TYPE 1 - STANDARD PLAN B -15.20.01.
5. SEE STORM SEWER CLEANOUT DETAIL ON C07.36
6. SEE TRENCH DRAIN DETAILS ON C07.46
7. SEE DRAINAGE DITCH DETAILS ON C07.47
8. SEE BIORETENTION FACILITY DETAILS ON C07.37
9. SEE MODULAR WETLAND SYSTEM DETAILS ON SHEETS C07.30 TO C07.35
10. INSTALL ELASTOMERIC CHECK VALVE
11. SEE SUBSURFACE LINER DETAIL ON SHEETS C07.48 AND C07.49
12. SEE SPECIAL PROVISIONS
13. USE BIRD CAGE FROM EXISTING OUTFALL STRUCTURE

SUBMITTAL DATE:		01/18/19				REGION NO.	STATE	FED. AID PROJ. NO.
DESIGNED BY	R. NAIDU	01/18/19				10	WASH	WA-2017-007-00
ENTERED BY	C. BENNETT	01/18/19				JOB NUMBER		
CHECKED BY	C. MIRKIN	01/18/19				18W121		
PROJ. ENGR.	C. TORRES					CONTRACT NO.		
REGION ADM.	A. SCARTON		1/18/19	CONFORMED PLANS	CM			
		DATE	**DATE**	**REVISION**	**BY**			

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

STRUCTURE NOTES - DRAINAGE

C07. 52

SHEET 183 OF 1521 SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE:THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↘ \ UNIT OF MEASURE ➢	STREAMBED COBBLES 6 IN. C.Y.	CONCRETE INLET EACH	QUARRY SPALLS C.Y.		UNDERDRAIN PIPE 6 IN. DIAM L.F.	UNDERDRAIN PIPE 8 IN. DIAM L.F.	DRAIN PIPE 6 IN. DIAM L.F.	CATCH BASIN TYPE 1 EACH	CATCH BASIN TYPE 2 48 IN. DIAM EACH	SCHEDULE A STORM SEWER PIPE 12 IN. DIAM L.F.	SCHEDULE A STORM SEWER PIPE 18 IN. DIAM L.F.	SCHEDULE A STORM SEWER PIPE 24 IN. DIAM L.F.	HDPE STORM SEWER PIPE 12 IN. DIAM. L.F.	HDPE STORM SEWER PIPE 18 IN. DIAM. L.F.	HDPE STORM SEWER PIPE 24 IN. DIAM. L.F.	SEE GENERAL NOTES
C07.12-11	TF 107+42.58 (24.01 RT)	0.83															
C07.12-12	TF 107+93.01 (23.67 RT)	0.83															
C07.12-13	TF 108+43.47 (20.19 RT)	0.83															
C07.12-14	TF 108+93.65 (15.42 RT)	0.83															
C07.12-15	TF 109+62.97 (12.00 RT)	0.83															
C07.13-1	TF 111+82.32 (0.40' RT) TO TF 111+82.45 (10.06' RT)									1		8			0		3
C07.13-2	TF 111+82.45 (10.06' RT) TO TF 114+29.01 (5.35' RT)											0			247		
C07.13-3	TF 114+29.01 (5.35' RT) TO TF 116+44.05 (9.71' RT)												0			168	
C07.13-4	TF 115+90.99 (10.56' RT) TO TF 114+54.99 (10.53' RT)									1	137			0			3
C07.13-5	TF 11+54.99 (10.53' RT) TO TF 113+13.08 (10.59' RT)									1	142			0			3
C07.13-6	TF 113+13.08 (10.59' RT) TO TF 111+88.44 (13.87' RT)									1	125			0			3
C07.13-7	TF 111+84.34 (65.73' LT) TO TF 111+83.44 (34.36' LT)							103		1	35						3
C07.13-8	TF 111+83.44 (34.36' LT) TO TF 111+82.32 (0.40' LT)							99		1	0			32			3
C07.13-9	TF 111+88.44 (13.87' RT) TO TF 111+83.57 (17.03' RT)									1	3						3
C07.13-10	TF 111+83.57 (17.03' RT) TO TF 111+82.45 (10.06' RT)										3						
C07.13-11	TF 111+71.96 (13.52' RT) TO TF 111+83.57 (17.03' RT)							9		1	8						3
C07.13-12	TF 111+84.34 (65.73' LT) TO TF 117+45.95 (64.73' LT)						560										
C07.13-13	TF 115+95.88 (5.61 RT)							90									
C07.13-14	E 17+76.87 (30.49 LT) TO E 17+78.16 (65.70 LT)							37									
C07.14-1	TF 117+45.95 (64.73' LT) TO TF 118+24.82 (28.90' LT)		1								87						2
C07.14-2	TF 118+24.82 (28.90' LT) TO TF 118+24.59 (10.53' RT)							24		1	40			0			3
C07.14-3	TF 118+24.59 (10.53' RT) TO TF 116+44.05 (9.71' RT)							9		1	228			0			3
C07.14-4	TF 119+24.31 (10.57' RT) TO TF 118+24.59 (10.48' RT)									1	100			0			3
C07.14-5	TF 116+44.05 (9.71' RT) TO TF 116+44.03 (12.13' RT)									1			0				
C07.14-6	TF 118+90.20 (113.11' LT) TO TF 119+00.18 (55.29' LT)								1		59						1
C07.14-7	TF 119+00.18 (55.29' LT) TO TF 119+00.83 (22.51' LT)								1		40						1
C07.14-8	TF 119+00.83 (22.51' LT) TO TF 119+27.73 (23.67' LT)								1		21						1
C07.14-9	TF 119+23.22 (22.32' LT) TO TF 119+24.31 (10.57' RT)										30			0			
C07.14-10	TF 119+45.98 (55.02' LT) TO TF 119+00.18 (55.29' LT)							98	1		46						1
C07.14-11	TF 116+44.03 (16.72' RT) TO TF 117+90.95 (15.22' RT)	0.79				111											
C07.14-12	TF 119+24.59 (10.53' RT) TO TF 119+20.84 (15.21' RT)	0.64				90											
C07.14-13	TF 118+28.79 (113.09' LT) TO TF 118+90.20 (113.11' LT)																
C07.14-14	TF 118+18.63 (152.88' LT)	4.26							1								1
C07.14-15	TF 119+59.93 (153.09' LT)								1								1
C07.14-16	TF 119+69.98 (152.01' LT) TO TF 120+82.38 (156.95' LT)							68									
C07.15-1	TF 122+55.90 (22.80' RT) TO TF 124+91.85 (14.76' RT)		1								232			0			2
C07.15-2	TF 124+91.85 (14.76' RT) TO TF 124+02.98 (17.46' RT)										85			0			
C07.15-3	TF 124+02.98 (17.46' RT) TO TF 122+33.64 (16.71' RT)										170			0			
C07.15-4	122+33.64 (16.71' RT) TO TF 120+76.71 (20.99' RT)										0			157			
C07.15-5	TF 122+33.56 (93.10' LT) TO TF 122+33.64 (16.71' RT)								1		110						1
C07.15-6	TF 120+78.08 (86.35' LT) TO TF 124+17.86 (75.02' LT)							32									
C07.15-8	TF 124+63.48 (143.79 LT) TO 124+83.04 (178.70 LT)							40									
C07.48	E13+46.63 (93.50' RT) TO E 19+95.56, 100.50' RT)																
C07.46	TF 105+29.48 (29.31 RT) TO TF 109+70.94 (17.94 RT)						440										
	SHEET TOTAL	9.84	2			201	1000	609	7	12	1701	8		189	247	168	
	PROJECT TOTAL	33.3	2	4		556	1000	730	19	19	2562	800		189	285	168	

GENERAL NOTES:

1. CATCH BASIN TYPE 1 STANDARD PLAN B-5.20.02
2. CATCH BASIN TYPE 1L STANDARD PLAN B-5.40.02.
3. CATCH BASIN TYPE 2 STANDARD PLAN B-10.20.01.
4. MANHOLE TYPE 1 - STANDARD PLAN B -15.20.01.
5. SEE STORM SEWER CLEANOUT DETAIL ON C07.36
6. SEE TRENCH DRAIN DETAILS ON C07.47
7. SEE DRAINAGE DITCH DETAILS ON C07.46
8. SEE BIORETENTION FACILITY DETAILS ON C07.37
9. SEE MODULAR WETLAND SYSTEM DETAILS ON SHEETS C07.30 TO C07.35
10. INSTALL ELASTOMERIC CHECK VALVE
11. SEE SUBSURFACE LINER DETAIL ON SHEETS C07.48 AND C07.49
12. SEE SPECIAL PROVISIONS
13. USE BIRD CAGE FROM EXISTING OUTFALL STRUCTURE

						REGION NO.	STATE	FED. AID PROJ. NO.
SUBMITTAL DATE:		01/18/19						
DESIGNED BY	R. NAIDU	01/18/19				10	WASH	
ENTERED BY	C. BENNETT	01/18/19						
CHECKED BY	C. MIRKIN	01/18/19				JOB NUMBER		WA-2017-007-00
PROJ. ENGR.	C. TORRES					18W121		
REGION ADM.	A. SCARTON		1/18/19	CONFORMED PLANS	CM	CONTRACT NO.		
		DATE	DATE	REVISION	BY			

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

STRUCTURE NOTES - DRAINAGE

C07. 53

SHEET 184 OF 1521 SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE:THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↘ \ UNIT OF MEASURE ➢	STORM SEWER CLEANOUT	TESTING STORM SEWER PIPE	STRUCTURE EXCAVATION CLASS B INCL. HAUL		ADJUST MANHOLE	ADJUST CATCH BASIN	SHORING OR EXTRA EXCAVATION CLASS B		GRAVEL BACKFILL FOR DRAIN	GRAVITY BLOCK WALL	MANHOLE 48 IN, DIAM, TYPE 1		MANHOLE ADDITIONAL HEIGHT 48 IN. DIAM. TYPE 1	CONSTRUCTION GEOTEXTILE FOR UNDERGROUND DRAINAGE	CONNECTION TO DRAINAGE STRUCTURE	SEE GENERAL NOTES
		EACH	L.F.	C.Y.		EACH	EACH	S.F.		C.Y.	S.F.	EACH		L.F.	S.Y.	EACH	
C07.12-11	TF 107+42.58 (24.01 RT)																
C07.12-12	TF 107+93.01 (23.67 RT)																
C07.12-13	TF 108+43.47 (20.19 RT)																
C07.12-14	TF 108+93.65 (15.42 RT)																
C07.12-15	TF 109+62.97 (12.00 RT)																
C07.13-1	TF 111+82.32 (0.40' RT) TO TF 111+82.45 (10.06' RT)		8	13.92				58									
C07.13-2	TF 111+82.45 (10.06' RT) TO TF 114+29.01 (5.35' RT)		247	11.12				1704				1		1			
C07.13-3	TF 114+29.01 (5.35' RT) TO TF 116+44.05 (9.71' RT)		216	13.21				1069				1		3		1	
C07.13-4	TF 115+90.99 (10.56' RT) TO TF 114+54.99 (10.53' RT)		137	6.04				1911									
C07.13-5	TF 11+54.99 (10.53' RT) TO TF 113+13.08 (10.59' RT)		142	6.46				1882									
C07.13-6	TF 113+13.08 (10.59' RT) TO TF 111+88.44 (13.87' RT)		125	7.27				1573									
C07.13-7	TF 111+84.34 (65.73' LT) TO TF 111+83.44 (34.36' LT)		35	9.55				538									
C07.13-8	TF 111+83.44 (34.36' LT) TO TF 111+82.32 (0.40' LT)		32	14.79				342									
C07.13-9	TF 111+88.44 (13.87' RT) TO TF 111+83.57 (17.03' RT)		3	7.78				36									
C07.13-10	TF 111+83.57 (17.03' RT) TO TF 111+82.45 (10.06' RT)		3	27.48				36		1.3							
C07.13-11	TF 111+71.96 (13.52' RT) TO TF 111+83.57 (17.03' RT)		8	6.76				101									
C07.13-12	TF 111+84.34 (65.73' LT) TO TF 117+45.95 (64.73' LT)	1															5
C07.13-13	TF 115+95.88 (5.61 RT)															1	
C07.13-14	E 17+76.87 (30.49 LT) TO E 17+78.16 (65.70 LT)																
C07.14-1	TF 117+45.95 (64.73' LT) TO TF 118+24.82 (28.90' LT)		87	3.72				1521									
C07.14-2	TF 118+24.82 (28.90' LT) TO TF 118+24.59 (10.53' RT)		40	9.36				700									
C07.14-3	TF 118+24.59 (10.53' RT) TO TF 116+44.05 (9.71' RT)		181	11.79				2979									
C07.14-4	TF 119+24.31 (10.57' RT) TO TF 118+24.59 (10.48' RT)		100	12.41				1371									
C07.14-5	TF 116+44.05 (9.71' RT) TO TF 116+44.03 (12.13' RT)		2	16.92												1	
C07.14-6	TF 118+90.20 (113.11' LT) TO TF 119+00.18 (55.29' LT)		59	3.25				1043									
C07.14-7	TF 119+00.18 (55.29' LT) TO TF 119+00.83 (22.51' LT)		40	4.37				698									
C07.14-8	TF 119+00.83 (22.51' LT) TO TF 119+27.73 (23.67' LT)		21	5.12				363									
C07.14-9	TF 119+23.22 (22.32' LT) TO TF 119+24.31 (10.57' RT)		30	18.99				421		0.83							
C07.14-10	TF 119+45.98 (55.02' LT) TO TF 119+00.18 (55.29' LT)		46	3.96				820									5
C07.14-11	TF 116+44.03 (16.72' RT) TO TF 117+90.95 (15.22' RT)	2				1				6.44	443.8				83	1	5,9,12
C07.14-12	TF 119+24.59 (10.53' RT) TO TF 119+20.84 (15.21' RT)	2								5.63	365				73		5,9,12
C07.14-13	TF 118+28.79 (113.09' LT) TO TF 118+90.20 (113.11' LT)																
C07.14-14	TF 118+18.63 (152.88' LT)			4.03													
C07.14-15	TF 119+59.93 (153.09' LT)			4.03													
C07.14-16	TF 119+69.98 (152.01' LT) TO TF 120+82.38 (156.95' LT)					1										1	
C07.15-1	TF 122+55.90 (22.80' RT) TO TF 124+91.85 (14.76' RT)		232	2.57				3699									
C07.15-2	TF 124+91.85 (14.76' RT) TO TF 124+02.98 (17.46' RT)		85	14.92				1124		0.69							
C07.15-3	TF 124+02.98 (17.46' RT) TO TF 122+33.64 (16.71' RT)		170	8.92				2137				1					
C07.15-4	122+33.64 (16.71' RT) TO TF 120+76.71 (20.99' RT)		157	11.56				1846				1		1			
C07.15-5	TF 122+33.56 (93.10' LT) TO TF 122+33.64 (16.71' RT)		110	4.03				1675									
C07.15-6	TF 120+78.08 (86.35' LT) TO TF 124+17.86 (75.02' LT)									900.83					1802		9
C07.15-8	TF 124+63.48 (143.79 LT) TO 124+83.04 (178.70 LT)																
C07.48	E13+46.63 (93.50' RT) TO E 19+95.56, 100.50' RT)					1										0	
C07.46	TF 105+29.48 (29.31 RT) TO TF 109+70.94 (17.94 RT)	7								76.01					294		
	SHEET TOTAL	12	2316	264.33		3		29647		991.73	808.8	4		5	2252	5	19
	PROJECT TOTAL	19	4007	511.42		7	2	49391		1040.17	2972	8		6	2721	9	

GENERAL NOTES:

1. CATCH BASIN TYPE 1 STANDARD PLAN B-5.20.02
2. CATCH BASIN TYPE 1L STANDARD PLAN B-5.40.02.
3. CATCH BASIN TYPE 2 STANDARD PLAN B-10.20.01.
4. MANHOLE TYPE 1 - STANDARD PLAN B -15.20.01.
5. SEE STORM SEWER CLEANOUT DETAIL ON C07.36
6. SEE TRENCH DRAIN DETAILS ON C07.46
7. SEE DRAINAGE DITCH DETAILS ON C07.47
8. SEE BIORETENTION FACILITY DETAILS ON C07.37
9. SEE MODULAR WETLAND SYSTEM DETAILS ON SHEETS C07.30 TO C07.35
10. INSTALL ELASTOMERIC CHECK VALVE
11. SEE SUBSURFACE LINER DETAIL ON SHEETS C07.48 AND C07.49
12. SEE SPECIAL PROVISIONS
13. USE BIRD CAGE FROM EXISTING OUTFALL STRUCTURE

						REGION NO.	STATE	FED. AID PROJ. NO.
SUBMITTAL DATE:		01/18/19				10	WASH	WA-2017-007-00
DESIGNED BY	R. NAIDU	01/18/19						
ENTERED BY	C. BENNETT	01/18/19				JOB NUMBER		
CHECKED BY	C. MIRKIN	01/18/19				18W121		
PROJ. ENGR.	C. TORRES					CONTRACT NO.		
REGION ADM.	A. SCARTON		1/18/19	CONFORMED PLANS	CM			
		DATE	DATE	REVISION	BY			

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

STRUCTURE NOTES - DRAINAGE

C07. 54

SHEET 185 OF 1521 SHEETS

STRUCTURE NOTES - DRAINAGE

NOTE:THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE. THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↘ \ UNIT OF MEASURE ➢	TRENCH DRAIN L.F.	BIORETENTION SOIL MIX C.Y.	ELASTOMERIC TIDAL CHECK VALVE 12 IN. DIAM. EACH		ELASTOMERIC TIDAL CHECK VALVE 6 IN. DIAM. EACH	IMPERMEABLE LAYER S.F.	MODULAR WETLANDS 4X4 EACH		MODULAR WETLANDS 4X6 EACH	MODULAR WETLANDS 4X8 EACH	MODULAR WETLANDS 4X13 EACH		SCUPPER INLET EACH	SAND FOR PERVIOUS PAVEMENT TON		SEE GENERAL NOTES
C07.12-11	TF 107+42.58 (24.01 RT)													1			12
C07.12-12	TF 107+93.01 (23.67 RT)													1			12
C07.12-13	TF 108+43.47 (20.19 RT)													1			12
C07.12-14	TF 108+93.65 (15.42 RT)													1			12
C07.12-15	TF 109+62.97 (12.00 RT)													1			12
C07.13-1	TF 111+82.32 (0.40' RT) TO TF 111+82.45 (10.06' RT)																
C07.13-2	TF 111+82.45 (10.06' RT) TO TF 114+29.01 (5.35' RT)																12
C07.13-3	TF 114+29.01 (5.35' RT) TO TF 116+44.05 (9.71' RT)																
C07.13-4	TF 115+90.99 (10.56' RT) TO TF 114+54.99 (10.53' RT)																
C07.13-5	TF 11+54.99 (10.53' RT) TO TF 113+13.08 (10.59' RT)																
C07.13-6	TF 113+13.08 (10.59' RT) TO TF 111+88.44 (13.87' RT)																
C07.13-7	TF 111+84.34 (65.73' LT) TO TF 111+83.44 (34.36' LT)																
C07.13-8	TF 111+83.44 (34.36' LT) TO TF 111+82.32 (0.40' LT)																
C07.13-9	TF 111+88.44 (13.87' RT) TO TF 111+83.57 (17.03' RT)																
C07.13-10	TF 111+83.57 (17.03' RT) TO TF 111+82.45 (10.06' RT)			1								1					10
C07.13-11	TF 111+71.96 (13.52' RT) TO TF 111+83.57 (17.03' RT)																
C07.13-12	TF 111+84.34 (65.73' LT) TO TF 117+45.95 (64.73' LT)						74366								4813		11,12
C07.13-13	TF 115+95.88 (5.61 RT)					1											10
C07.13-14	E 17+76.87 (30.49 LT) TO E 17+78.16 (65.70 LT)																
C07.14-1	TF 117+45.95 (64.73' LT) TO TF 118+24.82 (28.90' LT)																
C07.14-2	TF 118+24.82 (28.90' LT) TO TF 118+24.59 (10.53' RT)																
C07.14-3	TF 118+24.59 (10.53' RT) TO TF 116+44.05 (9.71' RT)					1											10,12
C07.14-4	TF 119+24.31 (10.57' RT) TO TF 118+24.59 (10.48' RT)																12
C07.14-5	TF 116+44.05 (9.71' RT) TO TF 116+44.03 (12.13' RT)																
C07.14-6	TF 118+90.20 (113.11' LT) TO TF 119+00.18 (55.29' LT)																
C07.14-7	TF 119+00.18 (55.29' LT) TO TF 119+00.83 (22.51' LT)																
C07.14-8	TF 119+00.83 (22.51' LT) TO TF 119+27.73 (23.67' LT)																
C07.14-9	TF 119+23.22 (22.32' LT) TO TF 119+24.31 (10.57' RT)			1							1						10
C07.14-10	TF 119+45.98 (55.02' LT) TO TF 119+00.18 (55.29' LT)																
C07.14-11	TF 116+44.03 (16.72' RT) TO TF 117+90.95 (15.22' RT)		31														5,12
C07.14-12	TF 119+24.59 (10.53' RT) TO TF 119+20.84 (15.21' RT)		27														5,12
C07.14-13	TF 118+28.79 (113.09' LT) TO TF 118+90.20 (113.11' LT)	64															6,12
C07.14-14	TF 118+18.63 (152.88' LT)																
C07.14-15	TF 119+59.93 (153.09' LT)																
C07.14-16	TF 119+69.98 (152.01' LT) TO TF 120+82.38 (156.95' LT)	47															6,12
C07.15-1	TF 122+55.90 (22.80' RT) TO TF 124+91.85 (14.76' RT)																
C07.15-2	TF 124+91.85 (14.76' RT) TO TF 124+02.98 (17.46' RT)			1						1							10
C07.15-3	TF 124+02.98 (17.46' RT) TO TF 122+33.64 (16.71' RT)																12
C07.15-4	122+33.64 (16.71' RT) TO TF 120+76.71 (20.99' RT)																
C07.15-5	TF 122+33.56 (93.10' LT) TO TF 122+33.64 (16.71' RT)			1													10,12
C07.15-6	TF 120+78.08 (86.35' LT) TO TF 124+17.86 (75.02' LT)		1201														8,12
C07.15-8	TF 124+63.48 (143.79 LT) TO 124+83.04 (178.70 LT)																
C07.48	E13+46.63 (93.50' RT) TO E 19+95.56, 100.50' RT)																
C07.46	TF 105+29.48 (29.31 RT) TO TF 109+70.94 (17.94 RT)																
	SHEET TOTAL	111	1259	4		2	74366			1	1	1		5	4813		
	PROJECT TOTAL	227	1389	10		7	74366	2		1	3	2		7	4863		

GENERAL NOTES:

1. CATCH BASIN TYPE 1 STANDARD PLAN B-5.20.02
2. CATCH BASIN TYPE 1L STANDARD PLAN B-5.40.02.
3. CATCH BASIN TYPE 2 STANDARD PLAN B-10.20.01.
4. MANHOLE TYPE 1 - STANDARD PLAN B -15.20.01.
5. SEE STORM SEWER CLEANOUT DETAIL ON C07.36
6. SEE TRENCH DRAIN DETAILS ON C07.46
7. SEE DRAINAGE DITCH DETAILS ON C07.47
8. SEE BIORETENTION FACILITY DETAILS ON C07.37
9. SEE MODULAR WETLAND SYSTEM DETAILS ON SHEETS C07.30 TO C07.35
10. INSTALL ELASTOMERIC CHECK VALVE
11. SEE SUBSURFACE LINER DETAIL ON SHEETS C07.48 AND C07.49
12. SEE SPECIAL PROVISIONS
13. USE BIRD CAGE FROM EXISTING OUTFALL STRUCTURE

SUBMITTAL DATE:		01/18/19				REGION NO.	STATE	FED. AID PROJ. NO.
DESIGNED BY	R. NAIDU	01/18/19				10	WASH	WA-2017-007-00
ENTERED BY	C. BENNETT	01/18/19				JOB NUMBER		
CHECKED BY	C. MIRKIN	01/18/19				18W121		
PROJ. ENGR.	C. TORRES					CONTRACT NO.		
REGION ADM.	A. SCARTON		1/18/19	CONFORMED PLANS	CM			
		DATE	DATE	REVISION	BY			

CATHERINE E. MIRKIN STATE OF WASHINGTON 27900 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation

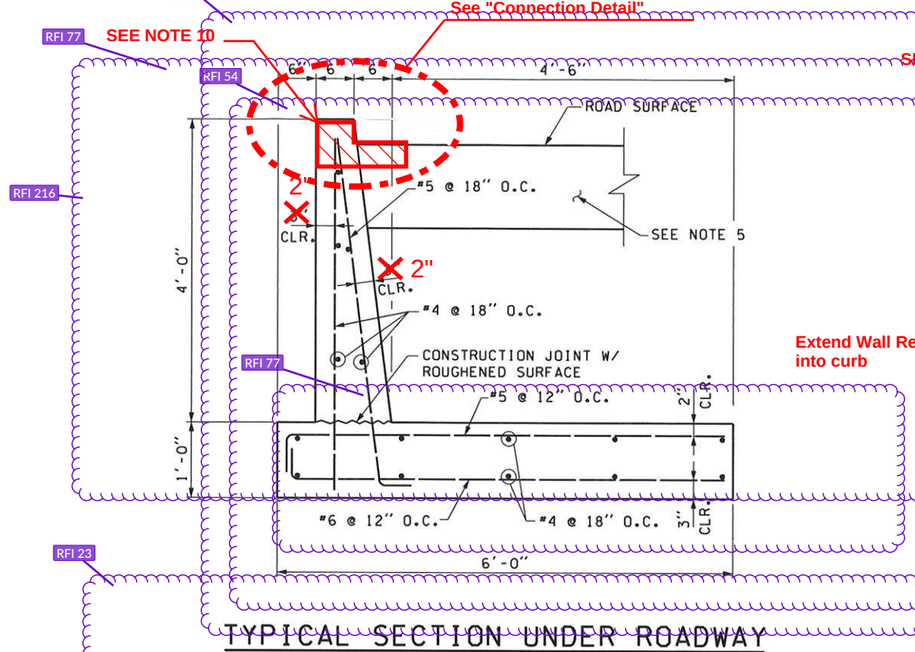
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

STRUCTURE NOTES - DRAINAGE

C07. 55

SHEET 186 OF 1521 SHEETS

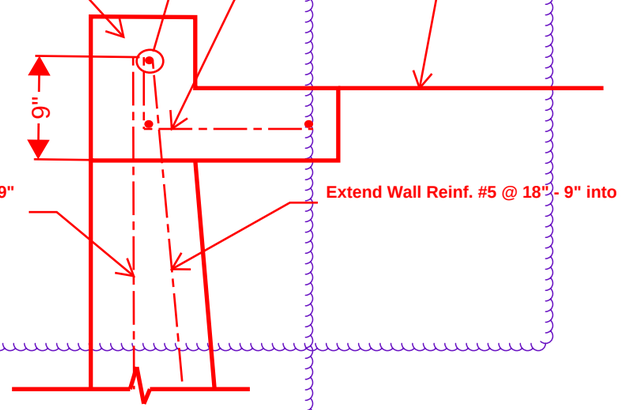
RFI 23 RFI 77 SEE NOTE 10 See "Connection Detail" RFI 54 RFI 216 RFI 77 RFI 23 RFI 77



TYPICAL SECTION UNDER ROADWAY

SEE NOTE 10 #4 (TYP) #4 @ 12" O.C. 8" 1'-1" ROAD SURFACE

Extend Wall Reinf. #4 @ 18" - 9" into curb

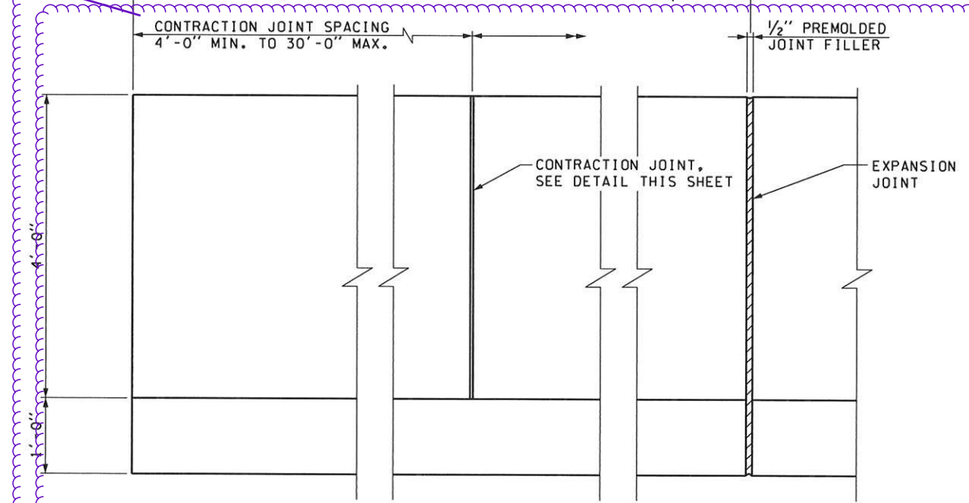


Extend Wall Reinf. #5 @ 18" - 9" into curb

CONNECTION DETAIL

RFI 054 - See C07.43

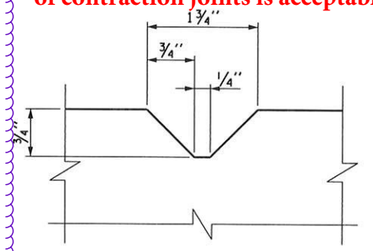
RFI 77



ELEVATION - JOINT SCHEME

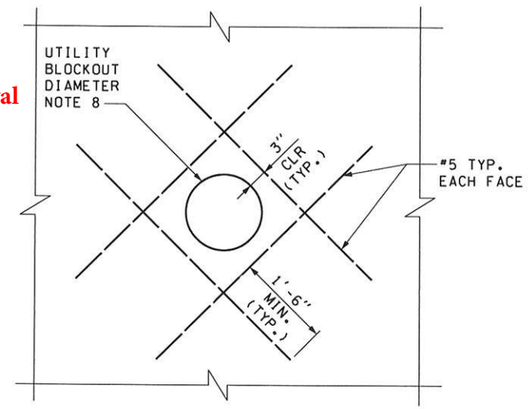
RFI #77

1. Chamfers are no longer required with the new top of wall gutter detail.
2. Installation of expansion joints and the removal of contraction joints is acceptable.



CONTRACTION JOINT DETAIL

NOTE 8



UTILITY BLOCKOUT

WHERE REQUIRED

NOTES:

1. SEE DRAINAGE DETAIL SHEETS FOR BIORETENTION FACILITY PROFILES AND DETAILS NOT SHOWN.
2. ALL DIMENSIONS SHOWN ARE HORIZONTAL AND VERTICAL UNLESS OTHERWISE SHOWN.
3. CONTRACTION JOINTS SHALL BE PROVIDED AT INTERVALS NOT EXCEEDING 30.0 FT. EXPANSION JOINTS SHALL BE PLACED AT THE MAXIMUM OF 45.0 FT. AND HALF OF THE OVERALL WALL LENGTH.
4. SEE TYPICAL ROADWAY SECTIONS SHEETS FOR ROADWAY/ FINISH GRADE DETAILS.
5. SEE DRAINAGE DETAIL SHEETS FOR SECTION DETAILS/ FINISH GRADE DETAILS.
6. ALL CORNERS SHALL RECEIVE 3/4" CHAMFER, TYP.
7. INSTALL CONTRACTION JOINT ON BIORETENTION SIDE OF STEM WALL, TOP OF STEM WALL AND TWO INCHES BELOW VISIBLE SURFACE OPPOSITE FACE OF STEM WALL.
8. MAXIMUM 6" DIAMETER BLOCKOUT. ALL BLOCKOUTS SHALL BE SEALED WITH APPROVED WATERTIGHT SEALANT.
9. THE CONCRETE IN BIORETENTION FACILITY RETAINING WALL SHALL BE CLASS 4000.
10. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER WSDOT STD. PLAN F-10.12-03.
11. ALIGN SIDEWALK JOINTS WITH BIORETENTION WALL JOINTS.

Sketch 1 - RFI 023
REV 1

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SUBMITTAL DATE: 1/18/19	%USERNAME%					WA-2017-007-00
DESIGNED BY: G. CALLAHAN	1/18/19					REGION NO. STATE
ENTERED BY: R. REISER	1/18/19					10 WASH
CHECKED BY: S. CHEUNG	1/18/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES						18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

STATE OF WASHINGTON GREGORY L. CALLAHAN 43425 REGISTERED PROFESSIONAL ENGINEER 01/18/19

JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

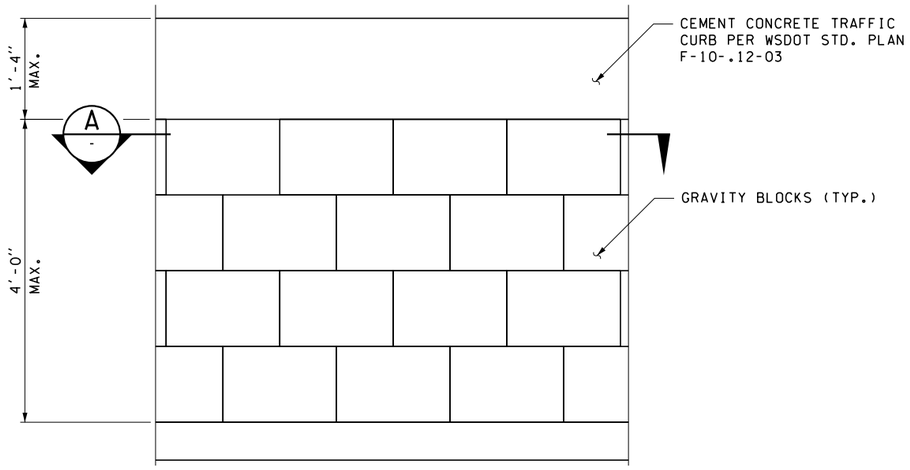
BIORETENTION FACILITY RETAINING WALL DETAILS

RFI 216 C07.56

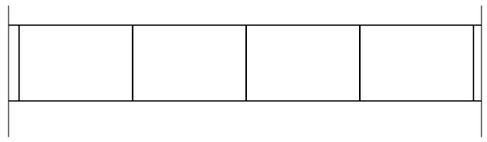
SHEET 187 OF 1521 SHEETS

NOTES:

1. SEE DRAINAGE DETAIL SHEETS FOR CHECK DAM DETAILS.



TYPICAL GRAVITY BLOCK WALL ELEVATION



A SECTION

JACOBS

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DESIGNED BY: K. BICHICH	1/18/19					REGION NO. STATE
ENTERED BY: D. PERRY	1/18/19					10 WASH
CHECKED BY: G. CALLAHAN	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

GREGORY L. CALLAHAN STATE OF WASHINGTON 48429 REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

BIORETENTION FACILITY
RETAINING WALL DETAILS

C07.57

SHEET 188 OF 1521 SHEETS

LEGEND:

EXISTING	PROPOSED	
- — W — — W —	— W — W —	WATER MAIN, WATER SERVICE
	— FW — FW —	FIRE SUPRESSION WATER MAIN
— S — — S —	- S — S —	GRAVITY SEWER MAIN, SIDE SEWER
	— SS FM —	SANITARY SEWER FORCE MAIN
		EXISTING WATER LINE, TO BE ABANDONED
		EXISTING WATER LINE, TO BE REMOVED
		FIRE HYDRANT
		FIRE DEPARTMENT CONNECTION
		POST INDICATOR VALVE
		WATER METER, DOUBLE CHECK VALVE ASSEMBLY
		WATER VALVE
		PRESSURE REDUCING VALVE
		SANITARY SEWER MANHOLE
		MAGNETIC METER
		GATE VALVE
		BUTTERFLY VALVE
		CHECK VALVE
		AIR RELIEF

LEGEND:

EXISTING	PROPOSED	
		BLOW-OFF
		MECHANICAL COUPLING
		BEND
		TEE
		CAP / PLUG
		FLANGE / BLIND FL
		MECHANICAL JOINT
		PUSH-ON HUB
		CONCRETE THRUSTBLOCK
		SIDE SEWER CLEANOUT

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ $FILES$						
PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
SUBMITTAL DATE: 1/18/19	$USERNAME$					WA-2017-007-00
DESIGNED BY: E. BRODAHL	1/18/19					REGION NO. STATE
ENTERED BY: R. REISER	1/18/19					10 WASH
CHECKED BY: P. SACK	1/18/19					JOB NUMBER 18W121
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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER

01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER & SANITARY SEWER
LEGEND

C08.00

SHEET 189 OF 1521 SHEETS

MWWD WATER SYSTEM INSTALLATION NOTES

1. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH THE MUKILTEO WATER AND WASTEWATER DISTRICT. THE CONTRACTOR AND PROPOSED ON-SITE SUPERVISORS SHALL ATTEND.

2. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION, INCLUDING ADDENDA AND UPDATES, OF THE MUKILTEO WATER AND WASTEWATER DISTRICT DEVELOPER STANDARDS. CONTRACTOR TO HAVE MUKILTEO WATER AND WASTEWATER DISTRICT STANDARDS ON JOB SITE.

3. NO DISTRICT INSPECTIONS WILL TAKE PLACE AND THE JOB WILL BE SHUT DOWN UNLESS AN APPROVED AND DISTRICT SIGNED COPY OF THESE PLANS ARE ON THE JOB SITE AT ALL TIMES CONSTRUCTION IS IN PROGRESS.

4. ALL WATER SYSTEM IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE APPROVED PLANS. ANY DEVIATION FROM THE PLANS WILL REQUIRE APPROVAL FROM THE OWNER, ENGINEER, DISTRICT AND APPROPRIATE PUBLIC AGENCIES.

5. NOTIFY THE DISTRICT 72 HOURS (3 WORKING DAYS) PRIOR TO BEGINNING CONSTRUCTION AND FOR ANY RESTARTS OF WORK.

6. THE DISTRICT SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO THE TIME THE CONTRACTOR WOULD LIKE TO CONNECT TO EXISTING MAINS OR FOR INSTALLATION OF TAPPING TEES. THE CONNECTION SHALL BE DONE IN ACCORDANCE WITH DISTRICT REQUIREMENTS. CONNECTIONS TO TAKE PLACE TUESDAYS THROUGH THURSDAYS ONLY. CONTRACTOR SHALL NOT OPERATE ANY DISTRICT VALVES; THESE WILL BE OPERATED BY WATER DISTRICT PERSONNEL ONLY.

7. FOR AID IN UTILITY LOCATION, CALL 1-800-424-5555, A MINIMUM OF 48 HOURS (2 WORKING DAYS) PRIOR TO BEGINNING OF CONSTRUCTION. EXISTING UTILITIES, WHETHER SHOWN OR NOT, SHALL BE LOCATED PRIOR TO CONSTRUCTION, SO AS TO AVOID DAMAGE OR DISTURBANCE, AND THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY AND COSTS CONNECTED THEREWITH TO PROTECT, MAINTAIN AND REPAIR, WHERE NECESSARY.

8. WATER LINE CONSTRUCTION WITHIN THE PROPOSED DEVELOPMENT SHALL NOT COMMENCE UNTIL THE STREET HAS BEEN BROUGHT TO SUB-GRADE, MEETING MUKILTEO WATER DISTRICT APPROVAL.

9. WATER MAIN SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION, WITH 25-FOOT STAKES ON CURVES. LOT CORNER STAKES SHALL ALSO BE IN PLACE PRIOR TO CONSTRUCTION.

10. PIPE SHALL BE DUCTILE IRON, AWWA CLASS 52 THICKNESS, WITH RUBBER GASKETS, PUSH-ON TYPE, OR MECHANICAL JOINT, MEETING AWWA SPECIFICATIONS. FITTINGS SHALL BE AWWA, CEMENT LINED, DUCTILE IRON, AND EITHER MECHANICAL JOINT OR FLANGED, AS INDICATED HEREIN. ALL PIPE TO BE PURCHASED AND INSTALLED AS A PART OF THE DEVELOPER'S WATER SYSTEM SHALL BE DELIVERED TO THE JOB SITE WITH WATER TIGHT WRAPPING OR PIPE PLUGS. PLUGS AND/OR WRAPPING SHALL REMAIN IN PLACE UNTIL THE PIPE IS INSTALLED IN THE TRENCH.

11. UNLESS OTHERWISE SPECIFIED VALVES 12 INCH AND SMALLER SHALL BE DUCTILE IRON RESILIENT SEATED GATE VALVES; ACCEPTABLE VALVES ARE MUELLER, CLOW, M&H, U.S. PIPE AND AMERICAN FLOW CONTROL, SERIES 2500. VALVES LARGER THAN 12 INCHES SHALL BE DUCTILE IRON BUTTERFLY VALVES; ACCEPTABLE VALVES ARE PRATT GROUNDHOG AND DRESSER 450.

12. ALL BOLTS ON WATER WORKS FITTINGS SHALL BE COATED WITH ARMITE ANTI-SEIZE COMPOUND NO. 609, OR EQUAL, PRIOR TO INSTALLATION. ALL WATER WORKS FITTINGS AND BOLTED ASSEMBLIES SHALL BE COMPLETELY COVERED WITH VISQUEEN PLASTIC, 4 MIL. THE END OF THE PLASTIC SHALL BE TAPED TO SECURE THEM TO THE PIPE.

13. HYDRANTS SHALL BE MUELLER CENTURION A423, CLOW MEDALLION, OR DRESSER RELIANT 929 MEETING AWWA SPECIFICATIONS. HYDRANTS SHALL BE FURNISHED WITH THREADED OUTLETS, MEETING FIRE DISTRICT/DEPARTMENT STANDARDS. BOTH THRUST BLOCKING AND MEGA LUGS RESTRAINTS ARE REQUIRED ON EACH HYDRANT INSTALLATION. HYDRANTS WITHIN THE CITY OF MUKILTEO FIRE SERVICE AREA AND FIRE DISTRICT #1 SHALL BE EQUIPPED WITH 4-INCH STORZ ADAPTERS; ALL OTHER HYDRANTS SHALL UTILIZE A 5-INCH STORZ ADAPTER. ALL HYDRANTS SHALL HAVE A 4-½ -INCH NST THREADS ON PUMPER PORT.

14. PROVIDE THRUST BLOCKING AND/OR RESTRAINED JOINTS AT ALL FITTINGS AND BENDS AND UP-THRUST FITTINGS, IN ACCORDANCE WITH DISTRICT STANDARDS, CONDITIONS AND SPECIFICATIONS.

15. ALL NEW CONNECTIONS TO THE EXISTING WATER SYSTEM SHALL BE IN STRICT CONFORMANCE WITH THE APPROPRIATE SUBSECTIONS OF THE SPECIFICATIONS OF THE DISTRICT. NO CONNECTION SHALL BE MADE BETWEEN THE NEW MAIN AND THE EXISTING MAINS UNTIL THE NEW PIPING HAS BEEN FLUSHED, DISINFECTED, TESTED AND RECEIVED SATISFACTORY BACTERIOLOGICAL TEST RESULTS.

16. INDIVIDUAL WATER SERVICES TO THE PROPERTY LINE SHALL BE 1" DIAMETER MINIMUM SIZE AND BE INSTALLED WITH 36-INCH MINIMUM COVER.

17. RESIDENTIAL FIRE SPRINKLER SYSTEMS SHALL HAVE A MINIMUM 1-INCH METER/SERVICE. BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED ON ALL RESIDENTIAL FIRE SPRINKLER SYSTEMS AND LOCATED IMMEDIATELY BEHIND THE WATER METER/SERVICE ON THE PROPERTY SIDE.

18. FIRE LINE SERVICES SHALL HAVE A DOUBLE CHECK DETECTOR BACKFLOW PREVENTION ASSEMBLY INSTALLED IN A UTILITY VAULT AT THE ROW/PROPERTY LINE WITH A 6-INCH PVC GRAVITY DRAIN TO STORM. FIRE LINE SERVICE SHALL TERMINATE, IN THE STRUCTURE TO BE SERVED, WITH THE DISTRICT'S RISER DETAIL.

19. ALL COMMERCIAL, MULTI-FAMILY, INDUSTRIAL AND IRRIGATION SERVICES SHALL INCLUDE A DOH APPROVED BACKFLOW PREVENTION ASSEMBLY LOCATED IMMEDIATELY BEHIND AND ON THE PROPERTY SIDE OF THE WATER METER. ALTERNATE LOCATIONS MAY BE ACCEPTABLE UPON APPROVAL BY THE DISTRICT. STRUCTURES REQUIRING FIRE SPRINKLER SYSTEM SHALL HAVE AT LEAST ONE BACKFLOW PREVENTION ASSEMBLY PER EACH STRUCTURE, PROTECTING THE POTABLE WATER SYSTEM FROM THE FIRE SYSTEM. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE LOCATED IN A FLOOD PROOF VAULT OR SERVICE BOX, DEPENDING ON SIZE, OUTSIDE THE STRUCTURE IN A LOCATION APPROVED BY THE DISTRICT.

20. WHERE ROAD GRADES ARE ESTABLISHED, PROVIDE A MINIMUM OF 48-INCH COVER OVER 12 INCH OR LARGER WATER MAINS, AND PROVIDE A MINIMUM OF 42-INCH COVER OVER 8 INCH MAINS; OR ADDITIONAL DEPTH AS REQUIRED TO MISS OTHER UTILITIES.

21. WATER MAINS CONSTRUCTED WITHIN EASEMENTS OR PRIVATE ROADS SHALL BE INSTALLED WITH POLYETHYLENE ENCASEMENT, RESTRAINED JOINTS AND WITH A 5'-0" MINIMUM COVER. DURING BACKFILL OPERATIONS, FURNISH AND INSTALL 3-INCH-WIDE METALLIC MARKER TAPE WITH 3 FEET OF COVER OVER WATER MAIN.

22. MINIMUM RADIUS FOR 12 INCH AND SMALLER PIPELINES CONSTRUCTED ON CURVES (4 DEGREE DEFLECTION PER JOINT) IS 258 FEET.

23. COMPACTION: ALL TRENCH BACKFILL AND ROADWAY EMBANKMENT SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DRY MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557 EXCEPT THE TOP 6 INCHES IN PAVED AREAS, WHICH SHALL BE 100%.

24. CONSTRUCTION INSPECTION WILL BE DONE BY MUKILTEO WATER AND WASTEWATER DISTRICT AND/OR THEIR DESIGNATED ENGINEER. NO UTILITY FACILITIES WILL BE ACCEPTED BY THE DISTRICT IF PROPER INSPECTIONS HAVE NOT BEEN COMPLETED.

25. THE WATER MAIN CONSTRUCTION PHASE WILL NOT BE CONSIDERED COMPLETE UNTIL THE INSTALLATION IS ACCEPTABLE TO THE DISTRICT INCLUDING A SATISFACTORY HYDROSTATIC PRESSURE TEST, A SATISFACTORY DISINFECTION TEST, SATISFACTORY FLOW OF SERVICE LINES, AND COMPLETION OF ALL ITEMS ON THE INSPECTOR'S PUNCH LIST.

26. WATER SERVICE IS AVAILABLE ONLY AFTER TRANSFER OF OWNERSHIP TO THE DISTRICT AND AFTER PAYMENT OF ALL CURRENT APPLICABLE FEES.

ADDITIONAL WATER SYSTEM INSTALLATION NOTES

1. IN THE EVENT OF A DISCREPANCY BETWEEN THESE PLANS AND THE SPECIFICATIONS, THE MORE STRINGENT CONDITION SHALL APPLY, UNLESS OTHERWISE ALLOWED BY THE ENGINEER.

2. DURING BACKFILL OPERATIONS, FURNISH AND INSTALL 3-INCH-WIDE DETECTABLE METALLIC BLUE MARKER TAPE WITH A MINIMUM OF 2 FEET OF COVER OVER THE WATER MAIN, FIRE WATER LINES, AND SERVICES.

3. UNLESS SHOWN OTHERWISE ON PLAN SHEETS, EASEMENTS SHALL BE 15 FEET WIDE AND CENTERED ON PIPE CENTERLINE.

4. CONSTRUCTION WATER MAY BE OBTAINED FROM THE DISTRICT IF NECESSARY. CONTRACTOR SHALL OBTAIN A WATER METER-BACKFLOW PREVENTION ASSEMBLY FROM THE DISTRICT FOR USE IN OBTAINING WATER FROM DISTRICT HYDRANTS. COORDINATE WITH MWWD FOR LOCATION AND APPLICABLE CHARGES.

5. CONTRACTOR SHALL PAY FOR AND OBTAIN ALL PERMITS, BEYOND THOSE PROVIDED BY OWNER, NECESSARY TO COMPLETE THE WORK.

6. THE HORIZONTAL AND VERTICAL LOCATION OF EXITING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. DISCREPANCIES BETWEEN THESE DOCUMENTS AND FIELD CONDITIONS SHALL BE BROUGHT TO THE ENGINEER FOR RESOLUTION PRIOR TO PROCEEDING WITH WORK.

7. AT ALL TIMES THE CONTRACTOR SHALL HAVE ON HAND A MINIMUM OF ONE SIGNED AND SEALED COPY OF THE ISSUED FOR CONSTRUCTION PLANS AND SPECIFICATIONS, INCLUDING ALL ADDENDA ISSUED DURING THE BIDDING PROCESS, AT THE JOB SITE.

8. THE CONTRACTOR SHALL PROVIDE A PLAN FOR TRAFFIC CONTROL THROUGHOUT THE ENTIRE DURATION OF CONSTRUCTION, WHICH INCLUDES THE CONTRACTOR'S MOBILIZATION, TO THE DISTRICT WITH THE PERMIT APPLICATION. CONTRACTOR SHALL NOT MOBILIZE TO THE SITE PRIOR TO THE DISTRICT'S APPROVAL OF THIS PLAN AND ISSUANCE OF THE ASSOCIATED PERMIT.

9. CONTRACTOR SHALL CONTACT ALL UTILITY AGENCIES PRIOR TO COMMENCING CONSTRUCTION FOR PURPOSES OF LOCATING EXISTING UTILITIES WITHIN THE PROJECT SITE. CONTRACTOR SHALL COORDINATE AND PROVIDE FOR THE PROTECTION OF CONFLICTING UTILITIES.

10. CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITY TO WITHIN RIGHTS OF WAY, EASEMENTS, AND TO WITHIN AREAS COORDINATED WITH AND ACCEPTABLE TO THE OWNER OF THE FERRY TERMINAL SITE.

11. MINIMUM COVER LISTED IN NOTES 20 AND 21 IN PREVIOUS SECTION SHALL BE PROVIDED WHERE POSSIBLE, BUT IS REDUCED IN SEVERAL LOCATIONS WITHIN THESE DRAWINGS DUE TO SENSITIVE LAYER AND UTILITY CROSSINGS.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

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MAR 26 2019
MWWD

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PRINTED: $$TIME$$ $$DATE$$		LAST PRINTED BY:				FED.AID PROJ.NO.
SUBMITTAL DATE:	1/18/19	$USERNAME$				WA-2017-007-00
DESIGNED BY:	E. BRODAHL	1/18/19				REGION NO. STATE
ENTERED BY:	R. REISER	1/18/19				10 WASH
CHECKED BY:	P. SACK	1/18/19				JOB NUMBER
MAR PROJ ENGR:	C. TORRES					18W121
DIR TERM ENGR:	N. MCINTOSH		CONFORMED PLANS	1/18/19		CONTRACT NO.
ASST SECRETARY:	A. SCARTON		REVISION	DATE	BY	009321

ERIK L. BRODAHL — STATE OF WASHINGTON — 37842 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER GENERAL NOTES

C08.01

SHEET OF SHEETS

MWWD SEWER SYSTEM INSTALLATION NOTES

1. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH THE MUKILTEO WATER AND WASTEWATER DISTRICT. THE CONTRACTOR AND PROPOSED ON-SITE SUPERVISOR SHALL ATTEND.
2. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION, INCLUDING ADDENDA AND UPDATES, OF THE MUKILTEO WATER AND WASTEWATER DISTRICT DEVELOPER STANDARDS. CONTRACTOR TO HAVE MUKILTEO WATER AND WASTEWATER DISTRICT STANDARDS ON JOB SITE AT ALL TIMES WHILE CONSTRUCTION IS IN PROGRESS.
3. A DISTRICT APPROVED SIGNED COPY OF THE PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
4. ALL WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE DISTRICT, THE PROJECT SPECIFICATIONS, AND THE MOST RECENT EDITION OF THE APWA STANDARDS AND SPECIFICATIONS.
5. WORK SHALL NOT COMMENCE UNTIL APPROVAL IS RECEIVED FROM THE STATE DEPARTMENT OF ECOLOGY, UNLESS THE REVIEW AND APPROVAL IS WAIVED BY ECOLOGY.
6. FRONT PROPERTY CORNERS SHALL BE SET BY A LAND SURVEYOR LICENSED IN THE STATE OF WASHINGTON PRIOR TO THE START OF CONSTRUCTION.
7. NOTIFY THE DISTRICT 72 HOURS (3 WORKING DAYS) PRIOR TO BEGINNING CONSTRUCTION AND FOR ANY RESTARTS OF WORK.
8. FOR AID IN UTILITY LOCATION, CALL 1-800-424-555, A MINIMUM OF 48 HOURS (2 WORKING DAYS) PRIOR TO BEGINNING OF CONSTRUCTION. EXISTING UTILITIES, WHETHER SHOWN OR NOT, SHALL BE LOCATED PRIOR TO CONSTRUCTION, SO AS TO AVOID DAMAGE OR DISTURBANCE, AND THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY AND COSTS CONNECTED THEREWITH TO PROTECT, MAINTAIN AND REPAIR, WHERE NECESSARY.
9. PIPE LENGTHS, MANHOLE DEPTHS, ETC., AS SHOWN ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING PROPER QUANTITIES OF MATERIALS.
10. PROVIDE THE DISTRICT'S INSPECTOR WITH A COPY OF ALL CUT SHEETS PRIOR TO CONSTRUCTION.
11. PERMANENT ACCESS FOR DISTRICT SERVICE VEHICLES SHALL BE PROVIDED AT ALL MANHOLES. MANHOLES SHALL BE CONSTRUCTED AS PER DISTRICT STANDARD DETAILS, INCLUDING CONSTRUCTION OF CHANNELS. WHERE INDICATED, PROVIDE KNOCK-OUTS AND CHANNELIZATION FOR SIDE SEWER OR FUTURE MAINLINE EXTENSIONS; AND FOR PVC PIPE, PROVIDE A WATERTIGHT FLEXIBLE RUBBER BOOT OR HEAVY DUTY SAND COLLAR. PROVIDE LOCKING LIDS FOR MANHOLE COVERS.
12. CONNECTION TO EXISTING MAIN SHALL BE DONE SO AS TO PREVENT ANY FOREIGN MATERIALS FROM ENTERING EXISTING SEWERS. EXISTING PIPE IN SADDLE MANHOLE INSTALLATIONS SHALL NOT BE CUT OR REMOVED UNTIL INSTRUCTED TO DO SO BY THE DISTRICT.
13. CONNECTION TO EXISTING MANHOLES SHALL BE MADE BY UTILIZATION OF A CONCRETE CORE-DRILLING MACHINE OF ADEQUATE DIAMETER TO GROUT IN PLACE AN ADAPTER IF PVC SEWER LINES ARE INSTALLED. ALIGN CORE-DRILLING MACHINE TO PROVIDE MINIMUM OF 0.10-FOOT DROP ACROSS THE MANHOLE.
14. PVC PIPE SHALL BE SDR-35 ASTM D3034 FURNISHED IN 13-FOOT MAXIMUM LENGTHS AND SHALL BE FULLY ENCASED IN PEA GRAVEL EXTENDING FROM 4 INCHES BELOW TO 12 INCHES ABOVE PIPE BARREL.
15. DI SANITARY SEWER PIPE SHALL CONFORM TO AWWA C151 AND SHALL BE POLYETHYLENE OR EPOXY LINED, RESTRAINED JOINT. THE DI PIPE SHALL BE CLASS 52, UNLESS OTHERWISE APPROVED.
16. SEWERS TO BE LOCATED BELOW POTABLE WATER LINES, WITH 18-INCHES VERTICAL SEPARATION AND WITH A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION FROM PARALLEL WATER LINES. CROSSING ANGLES SHALL BE 45 DEG. OR GREATER. UNUSUAL OR SPECIAL CONDITIONS ARE ADDRESSED IN ACCORDANCE WITH THE DEPARTMENT ECOLOGY AND DEPARTMENT OF HEALTH CRITERIA.
17. SIDE SEWER SHALL BE A MINIMUM OF 6 INCHES IN DIAMETER AND SHALL HAVE A MINIMUM SLOPE OF 2%. SIDE SEWER SHALL INCLUDE TWO 6-INCH TEES AT THE PROPERTY LINE; ONE WITHIN THE PUBLIC RIGHT-OF-WAY AND ONE WITHIN THE PRIVATE PROPERTY. SEE DETAIL.
18. ALL SEWER LINES SHALL BE CLEANED AND TESTED IN ACCORDANCE WITH DISTRICT STANDARDS AND SPECIFICATIONS.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND/OR REPAIRING ASPHALT AND GRAVEL SURFACE DISTURBED AS A RESULT OF THIS CONSTRUCTION UNTIL THEY ARE ACCEPTED BY THE PUBLIC WORKS DEPARTMENT OF THE CITY AND/OR COUNTY.
20. COMPACTION: ALL TRENCH BACKFILL AND ROADWAY EMBANKMENT SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DRY MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557, EXCEPT THE TOP 6" IN PAVED AREAS, WHICH SHALL BE 100%.
21. MANHOLE COVERS LOCATED IN ASPHALT AREAS SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO PAVING.
22. NO UTILITY FACILITIES WILL BE ACCEPTED BY THE DISTRICT IF PROPER INSPECTIONS HAVE NOT BEEN COMPLETED.
23. SEWER SERVICE IS AVAILABLE ONLY AFTER TRANSFER OF OWNERSHIP TO THE DISTRICT AND AFTER PAYMENT OF ALL CURRENT APPLICABLE FEES.

ADDITIONAL SEWER SYSTEM INSTALLATION NOTES

1. IN THE EVENT OF A DISCREPANCY BETWEEN THESE PLANS AND THE SPECIFICATIONS, THE MORE STRINGENT CONDITION SHALL APPLY, UNLESS OTHERWISE ALLOWED BY THE ENGINEER.
2. DURING BACKFILL OPERATIONS FOR GRAVITY SEWER MAINS, SERVICES, AND FORCE MAINS, FURNISH AND INSTALL 3-INCH-WIDE DETECTABLE METALLIC GREEN MARKER TAPE WITH A MINIMUM OF 2 FEET OF COVER OVER THE PIPING.
3. UNLESS SHOWN OTHERWISE ON PLAN SHEETS, EASEMENTS SHALL BE 15 FEET WIDE AND CENTERED ON PIPE CENTERLINE.
4. CONSTRUCTION WATER MAY BE OBTAINED FROM THE DISTRICT IF NECESSARY. CONTRACTOR SHALL OBTAIN A WATER METER-BACKFLOW PREVENTION ASSEMBLY FROM THE DISTRICT FOR USE IN OBTAINING WATER FROM DISTRICT HYDRANTS. COORDINATE WITH MWWD FOR LOCATION AND APPLICABLE CHARGES.
5. CONTRACTOR SHALL PAY FOR AND OBTAIN ALL PERMITS, BEYOND THOSE PROVIDED BY OWNER, NECESSARY TO COMPLETE THE WORK.
6. THE HORIZONTAL AND VERTICAL LOCATION OF EXITING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. DISCREPANCIES BETWEEN THESE DOCUMENTS AND FIELD CONDITIONS SHALL BE BROUGHT TO THE ENGINEER FOR RESOLUTION PRIOR TO PROCEEDING WITH WORK.
7. AT ALL TIMES THE CONTRACTOR SHALL HAVE ON HAND A MINIMUM OF ONE SIGNED AND SEALED COPY OF THE ISSUED FOR CONSTRUCTION PLANS AND SPECIFICATIONS, INCLUDING ALL ADDENDA ISSUED DURING THE BIDDING PROCESS, AT THE JOB SITE.
8. THE CONTRACTOR SHALL PROVIDE A PLAN FOR TRAFFIC CONTROL THROUGHOUT THE ENTIRE DURATION OF CONSTRUCTION, WHICH INCLUDES THE CONTRACTOR'S MOBILIZATION, TO THE DISTRICT WITH THE PERMIT APPLICATION. CONTRACTOR SHALL NOT MOBILIZE TO THE SITE PRIOR TO THE DISTRICT'S APPROVAL OF THIS PLAN AND ISSUANCE OF THE ASSOCIATED PERMIT.
9. CONTRACTOR SHALL CONTACT ALL UTILITY AGENCIES PRIOR TO COMMENCING CONSTRUCTION FOR PURPOSES OF LOCATING EXISTING UTILITIES WITHIN THE PROJECT SITE. CONTRACTOR SHALL COORDINATE AND PROVIDE FOR THE PROTECTION OF CONFLICTING UTILITIES.
10. CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITY TO WITHIN RIGHTS OF WAY, EASEMENTS, AND TO WITHIN AREAS COORDINATED WITH AND ACCEPTABLE TO THE OWNER OF THE FERRY TERMINAL SITE.
11. MINIMUM SLOPE LISTED IN NOTE 17 IN PREVIOUS SECTION SHALL BE PROVIDED WHERE POSSIBLE, BUT IS REDUCED WITHIN THESE DRAWINGS WHERE NEEDED DUE TO SENSITIVE LAYER.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. /

Project must be completed and ownership transferred to the Mukilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

RECEIVED
MAR 26 2019
MWWD

JACOBS

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PRINTED: $$TIME$$ $$DATE$$	LAST PRINTED BY:					FED.AID PROJ.NO.
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ENTERED BY: R. REISER	1/18/19					JOB NUMBER 18W121
CHECKED BY: P. SACK	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

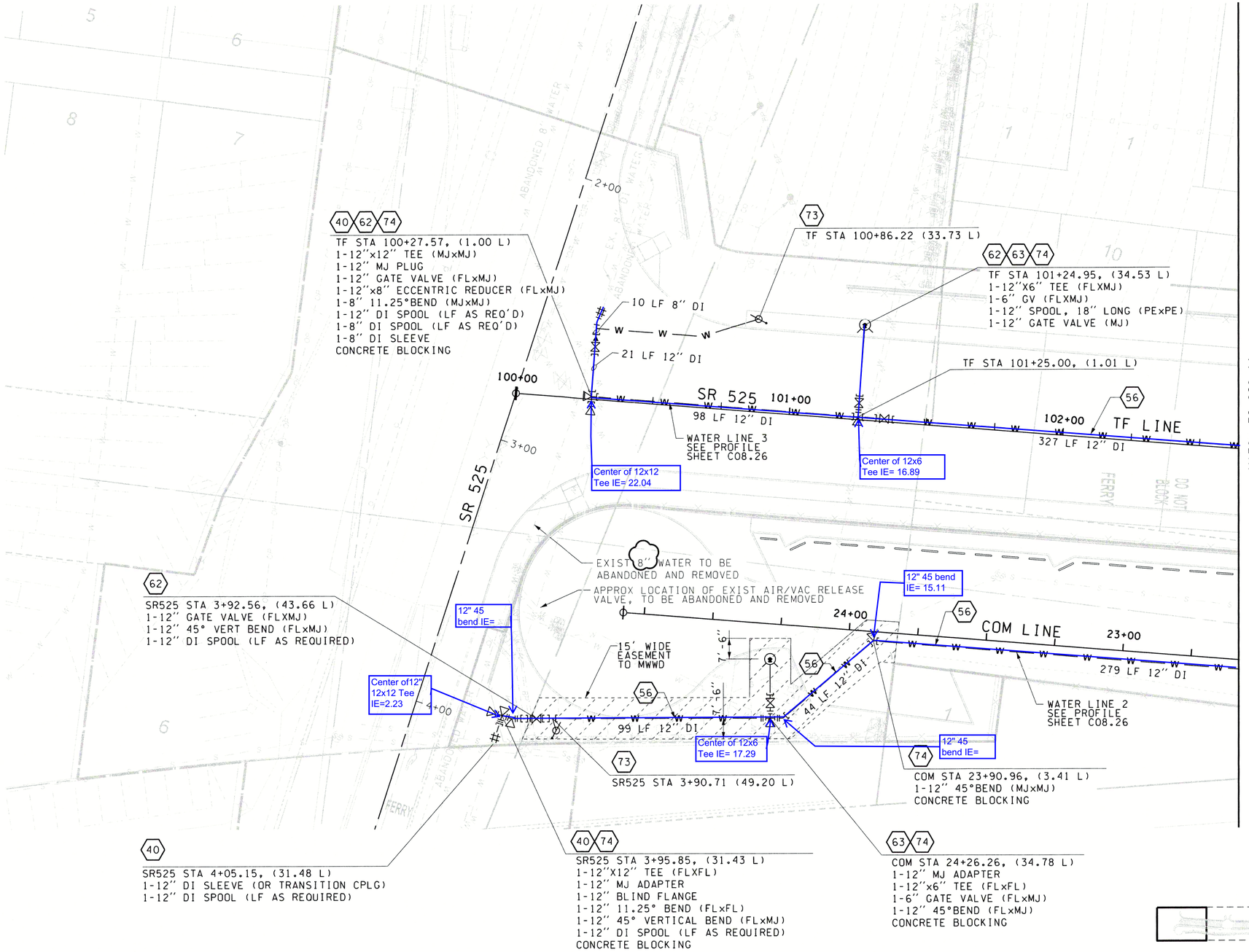
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SEWER GENERAL NOTES

C08.02

SHEET OF SHEETS



40 62 74
TF STA 100+27.57, (1.00 L)
1-12"x12" TEE (MJxMJ)
1-12" MJ PLUG
1-12" GATE VALVE (FLxMJ)
1-12"x8" ECCENTRIC REDUCER (FLxMJ)
1-8" 11.25°BEND (MJxMJ)
1-12" DI SPOOL (LF AS REQ'D)
1-8" DI SPOOL (LF AS REQ'D)
1-8" DI SLEEVE
CONCRETE BLOCKING

73
TF STA 100+86.22 (33.73 L)

62 63 74
TF STA 101+24.95, (34.53 L)
1-12"X6" TEE (FLXMJ)
1-6" GV (FLXMJ)
1-12" SPOOL, 18" LONG (PExPE)
1-12" GATE VALVE (MJ)

TF STA 101+25.00, (1.01 L)

62
SR525 STA 3+92.56, (43.66 L)
1-12" GATE VALVE (FLXMJ)
1-12" 45° VERT BEND (FLxMJ)
1-12" DI SPOOL (LF AS REQUIRED)

73
SR525 STA 3+90.71 (49.20 L)

74
COM STA 23+90.96, (3.41 L)
1-12" 45°BEND (MJxMJ)
CONCRETE BLOCKING

40
SR525 STA 4+05.15, (31.48 L)
1-12" DI SLEEVE (OR TRANSITION CPLG)
1-12" DI SPOOL (LF AS REQUIRED)

40 74
SR525 STA 3+95.85, (31.43 L)
1-12"X12" TEE (FLXFL)
1-12" MJ ADAPTER
1-12" BLIND FLANGE
1-12" 11.25° BEND (FLxFL)
1-12" 45° VERTICAL BEND (FLxMJ)
1-12" DI SPOOL (LF AS REQUIRED)
CONCRETE BLOCKING

63 74
COM STA 24+26.26, (34.78 L)
1-12" MJ ADAPTER
1-12"x6" TEE (FLxFL)
1-6" GATE VALVE (FLxMJ)
1-12" 45°BEND (FLxMJ)
CONCRETE BLOCKING

NOTES:

1. SEE SITE ELECTRICAL DRAWINGS FOR EXISTING OVERHEAD POWER AND TELECOMMUNICATIONS.
2. ALL 8" AND 12" DI PIPE JOINTS SHALL BE RESTRAINED WITH FIELD-LOK GASKETS, OR ACCEPTED EQUAL.
3. ALL MJ FITTINGS SHALL BE RESTRAINED WITH MEGA-LUGS, ROMAGRIP OR ACCEPTED EQUAL.
4. ALL PIPE AND FITTINGS FOR WATER MAIN AND FIRE SYSTEMS SHALL BE CL52 DI, EXCEPT FOR FLANGED SPOOLS, WHICH SHALL BE CLASS 53.

CONSTRUCTION NOTES:

40 POTHOLE TO CONFIRM EXIST SIZE, LOCATION, AND MATERIAL. SCHEDULE SHUTDOWN WITH MWWD. CUT INTO EXISTING D.I. AND CONNECT

56 CONST 12" WATER MAIN PER MWWD STD DETAIL W-D1

62 CONST GATE VALVE

63 CONST FH PER MWWD STD DETAIL W-D3

73 CONST 2" AIR & VACUUM RELEASE VALVE ASSEMBLY AT HIGH POINT PER MWWD STD DETAIL W-D7

74 CONST THRUST BLOCK PER MWWD STD DETAIL W-D15

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537
Gray & Osborne No. _____

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RECEIVED
MAR 26 2019
MWWD

KEY PLAN

0 20 40
SCALE IN FEET

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DESIGNED BY: E. BRODAHL	3/20/19					REGION NO. 10 / STATE WASH
ENTERED BY: R. REISER	3/20/19					
CHECKED BY: P. SACK	3/20/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

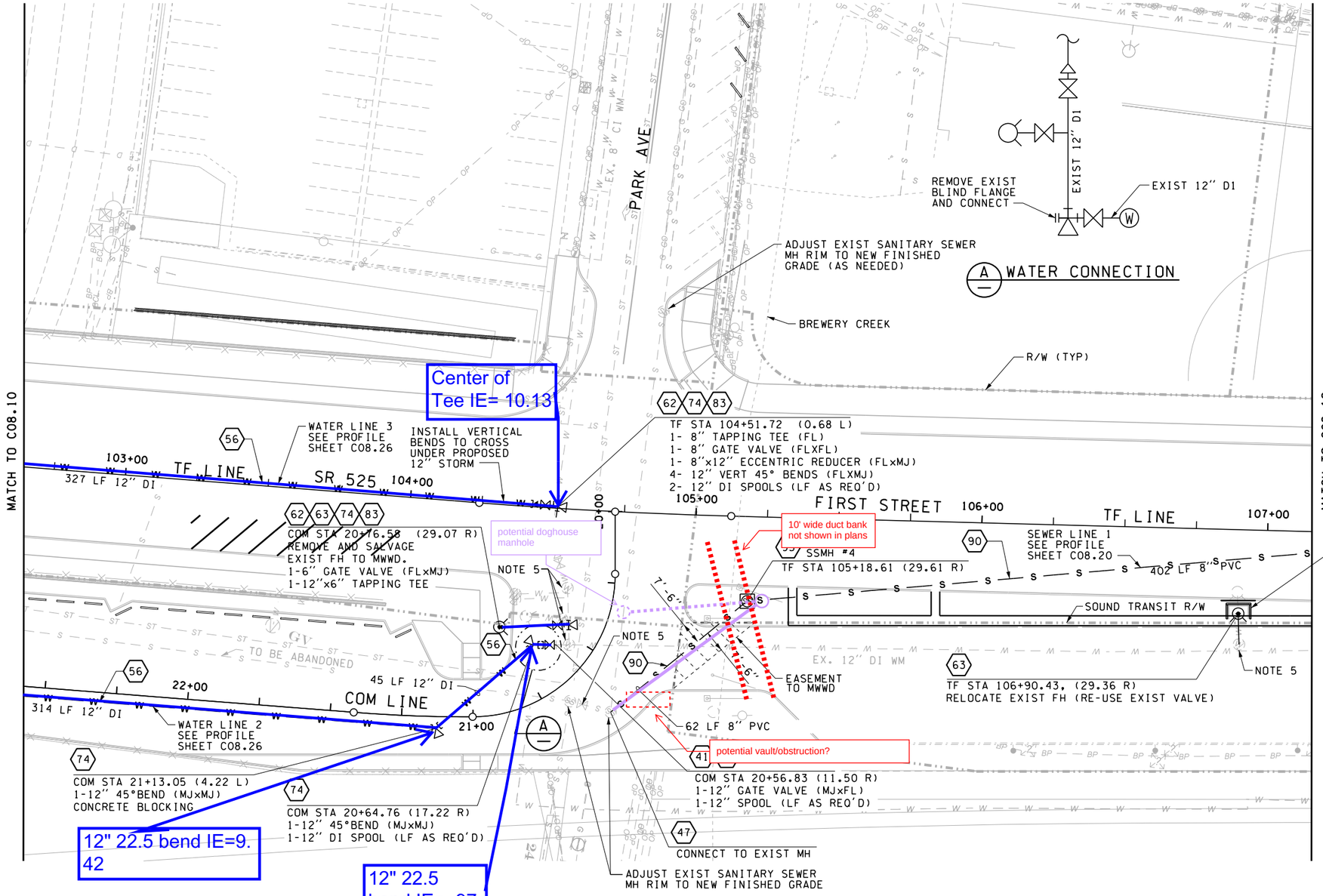
ERIA L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
WATER & SANITARY SEWER PLAN

C08.10
SHEET OF SHEETS



NOTES:

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2. ALL 8" AND 12" DI PIPE JOINTS SHALL BE RESTRAINED WITH FIELD-LOK GASKETS, OR ACCEPTED EQUAL.
3. ALL MJ FITTINGS SHALL BE RESTRAINED WITH MEGA-LUGS, ROMAGRIP OR ACCEPTED EQUAL.
4. ALL PIPE AND FITTINGS FOR WATER MAIN AND FIRE SYSTEMS SHALL BE CL52 DI, EXCEPT FOR FLANGED SPOOLS, WHICH SHALL BE CLASS 53.
5. ADJUST EXIST WATER (OR SEWER) VALVE BOXES TO NEW FINISHED GRADE.

CONSTRUCTION NOTES:

- 41 REMOVE EXIST BLOCKING AND BLIND FLANGE, CONNECT TO EXIST WATER WITH 12" GATE VALVE (FLxMJ)
- 47 CORE DRILL EXIST MH AND CONNECT WITH KOR-N-SEAL BOOT. RECHANNEL MH PER MWWD STANDARDS
- 56 CONST 12" WATER MAIN PER MWWD STD DETAIL W-D1
- 62 CONST GATE VALVE
- 63 CONST FH PER MWWD STD DETAIL W-D3
- 74 CONST THRUST BLOCK PER MWWD STD DETAIL W-D15
- 83 WET TAP EXIST MAIN PER MWWD STD DETAIL W-D8, VERIFY EXISTING MAIN SIZE AND MATERIAL
- 90 CONST 8" PVC SS MAIN PER MWWD STD DETAIL S-D1
- 95 CONST STD MH PER MWWD STD DETAIL S-D2

APPROVAL BLOCK

Approved by _____ _____
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. ____

Gray & Osborne No. _____

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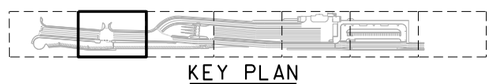
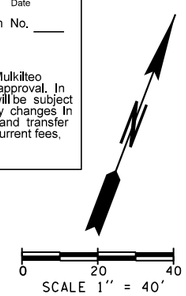


KEY PLAN



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ENTERED BY: R. REISER	1/18/19					JOB NUMBER 18W121
CHECKED BY: P. SACK	1/18/19					CONTRACT NO. 009321
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER

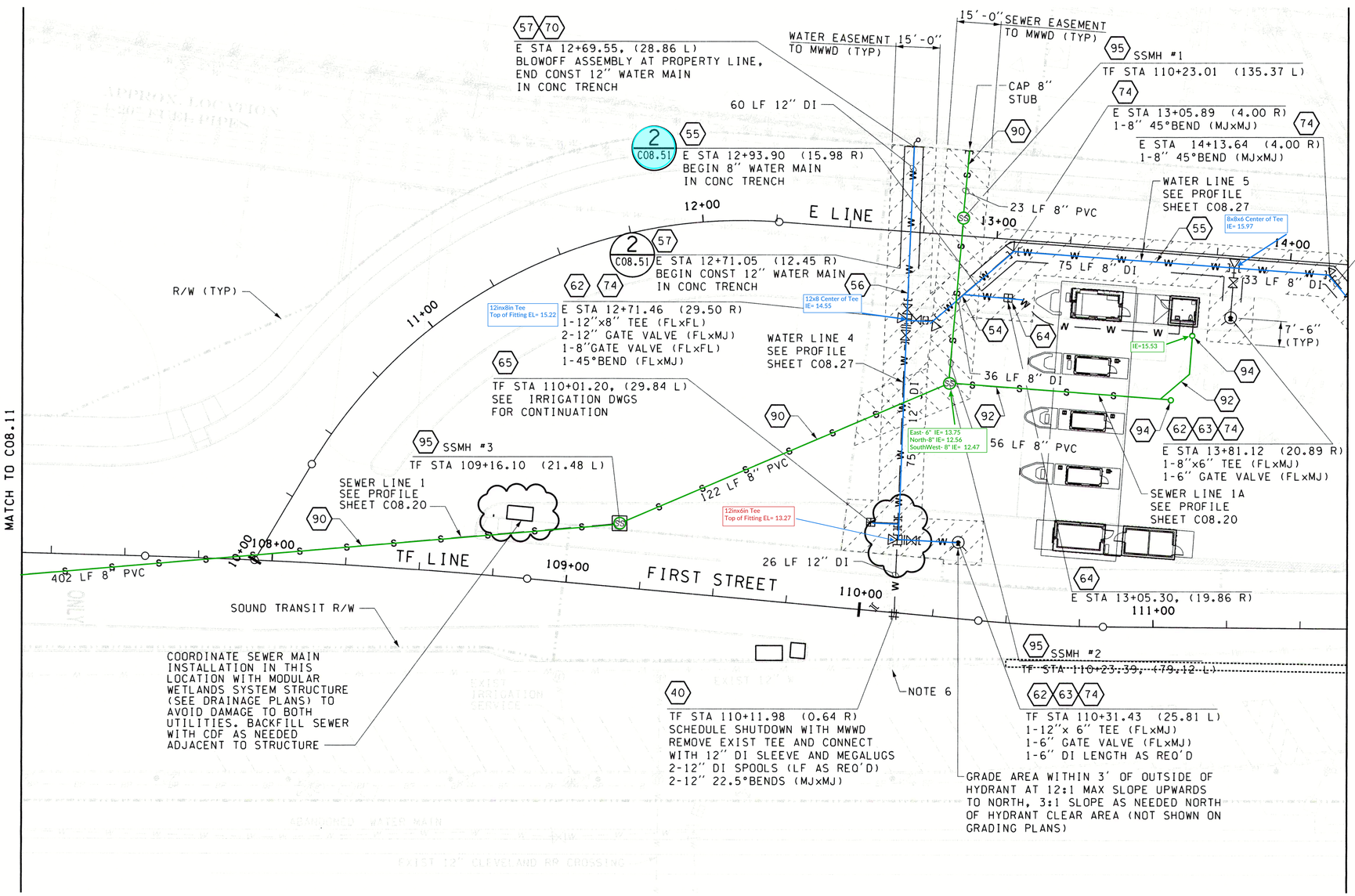
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
WATER & SANITARY SEWER PLAN

C08.11

SHEET 193 OF 1521 SHEETS



NOTES:

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2. ALL 8" AND 12" DI PIPE JOINTS SHALL BE RESTRAINED WITH FIELD-LOK GASKETS, OR ACCEPTED EQUAL.
3. ALL MJ FITTINGS SHALL BE RESTRAINED WITH MEGA-LUGS, ROMAGRIP OR ACCEPTED EQUAL.
4. ALL PIPE AND FITTINGS FOR WATER MAIN AND FIRE SYSTEMS SHALL BE CL52 DI, EXCEPT FOR FLANGED SPOOLS, WHICH SHALL BE CLASS 53.
5. SEE BUILDING MECHANICAL FOR BACKFLOW PROTECTION.
6. ADJUST EXIST WATER VALVE BOX TO NEW FINISHED GRADE.

CONSTRUCTION NOTES:

- (40) CONNECT TO EXIST DI WATER. POTHOLE TO CONFIRM EXIST SIZE, LOCATION, MATERIAL.
- (54) CONST 8" WATER MAIN PER MWWD STD DETAIL W-D1
- (55) CONST 8" WATER MAIN IN CONC TRENCH
- (56) CONST 12" WATER MAIN PER MWWD STD DETAIL W-D1
- (57) CONST 12" WATER MAIN IN CONC TRENCH
- (62) CONST GATE VALVE
- (63) CONST FH PER MWWD STD DETAIL W-D3
- (64) CONST 1" WATER SERVICE PER MWWD STD DETAIL W-D10, WITH DCVA PER W-D17. FIELD ROUTE SERVICE TO RESTROOM.
- (65) CONST 1.5" IRRIG WATER SVC PER MWWD STD DETAIL W-D11, W/ DCVA PER W-D17
- (70) CONST 2" BLOW OFF ASSEMBLY PER MWWD STD DETAIL W-D9
- (74) CONST THRUST BLOCK PER MWWD STD DETAIL W-D15
- (90) CONST 8" PVC SS MAIN PER MWWD STD DETAIL S-D1
- (92) CONST 6" PVC SIDE SEWER PER MWWD STD PLAN S-D8. FIELD ROUTE SERVICE TO RESTROOM.
- (94) CONST CLEAN OUT PER MWWD STD PLAN S-D10
- (95) CONST STD MH PER MWWD STD DETAIL S-D2

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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RECEIVED
MAR 26 2019
MWWD

KEY PLAN

0 20 40
SCALE IN FEET

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DESIGNED BY: E. BRODAHL	3/20/19					REGION NO. STATE
ENTERED BY: R. REISER	3/20/19					10 WASH
CHECKED BY: P. SACK	3/20/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

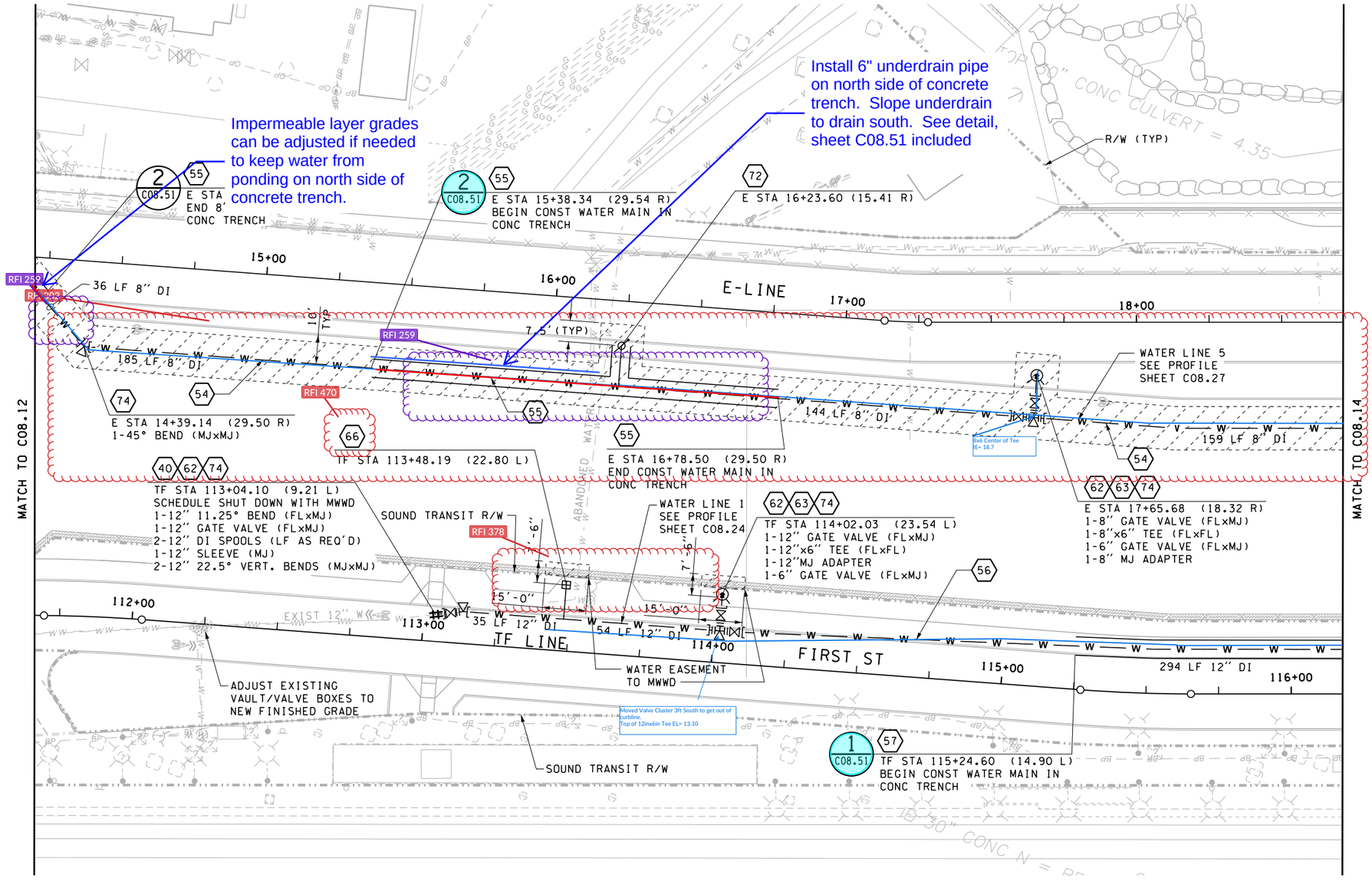
ERIK L. BRODAHL — STATE OF WASHINGTON — 57847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
WATER & SANITARY SEWER PLAN

C08.12
SHEET
OF
SHEETS



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CONSTRUCTION NOTES:

- 40 CONNECT TO EXIST DI WATER. POTHOLE TO CONFIRM EXIST SIZE, LOCATION, AND MATERIAL
- 54 CONST 8" WATER MAIN PER MWWD STD DETAIL W-D1
- 55 CONST 8" WATER MAIN IN CONC TRENCH
- 56 CONST 12" WATER MAIN PER MWWD STD DETAIL W-D1
- 57 CONST 12" WATER MAIN IN CONC TRENCH
- 62 CONST GATE VALVE
- 63 CONST FH PER MWWD STD DETAIL W-D3
- 66 CONST 2" IRRIG WATER SVC PER MWWD STD DETAIL W-D12, W/ DCVA PER STD DETAIL W-D17
- 72 CONST 1" AIR RELEASE VALVE ASSEMBLY AT HIGH POINT PER MWWD STD DETAIL W-D6
- 74 CONST THRUST BLOCK PER MWWD STD DETAIL W-D15

APPROVAL BLOCK

Approved by _____ _____
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. ____

Gray & Osborne No. _____

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Appendix A
RFI 259
Page 4/6

KEY PLAN

0 20 40
SCALE 1" = 40'

JACOBS

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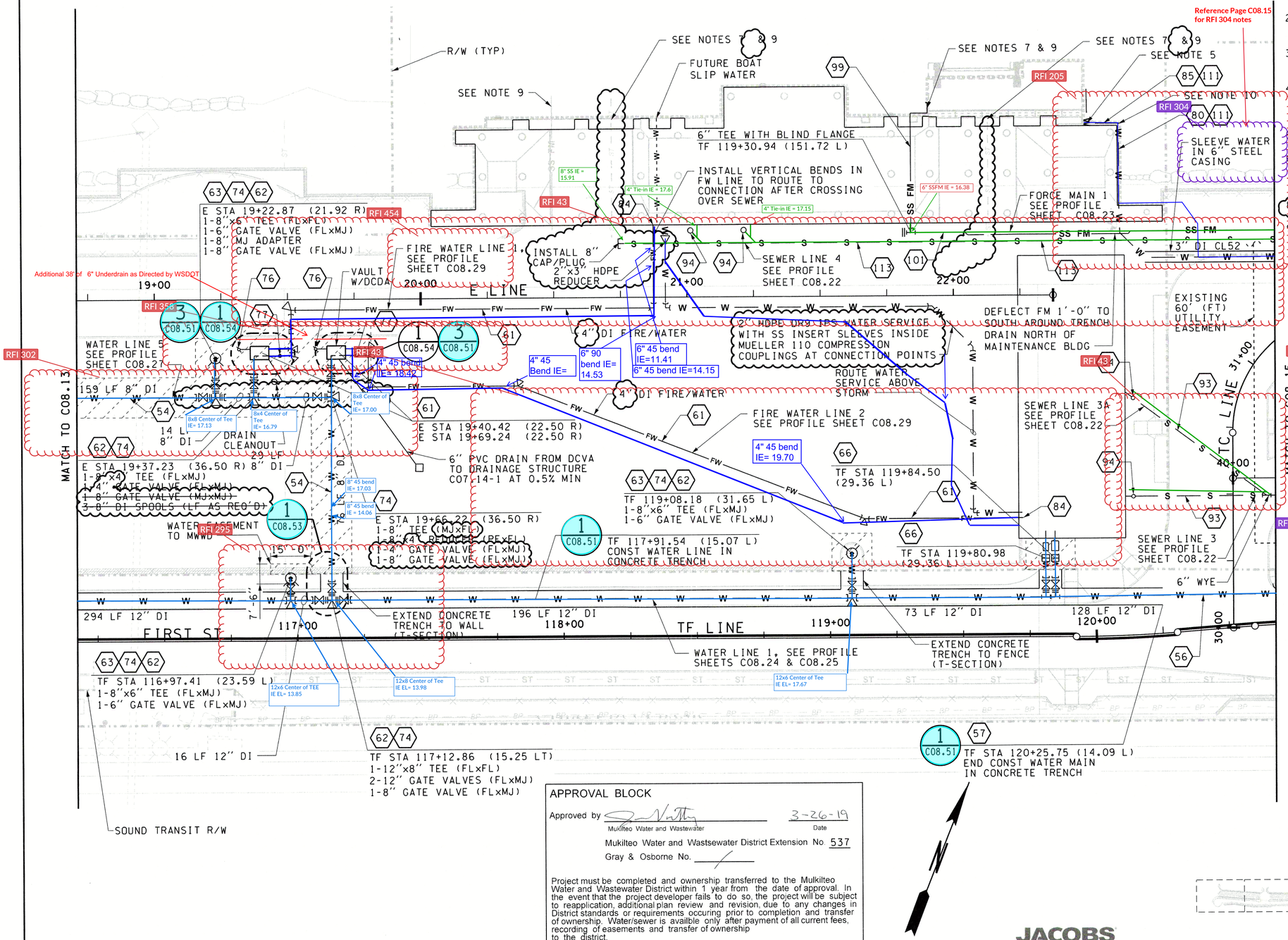
ENTERED BY: R. REISER	1/18/19					10 WASH
CHECKED BY: P. SACK	1/18/19					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	1/18/19			CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ERIK L. BRODAHL — STATE OF WASHINGTON — 21764 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
WATER & SANITARY SEWER PLAN

C08.13
SHEET 195 OF 1521 SHEETS



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4. ALL PIPE AND FITTINGS FOR WATER MAIN AND FIRE SYSTEMS SHALL BE CL52 DI, EXCEPT FOR FLANGED SPOOLS, WHICH SHALL BE CLASS 53.
5. SEE VTS MECHANICAL FOR CONTINUATION.
6. SEE MECHANICAL DRAWINGS FOR UTILITIES ON TRANSFER SPAN.
7. SEE TRESTLE STRUCTURAL DRAWINGS FOR PIPE CASING DETAILS.
8. - NOT USED -
9. SEE TRESTLE WATER/WASTEWATER MATERIALS SCHEDULE, SHEET C08.50.
10. 3"x4" INCREASER OR REDUCING COUPLING (GROOVED).

CONSTRUCTION NOTES:

- (54) CONST 8" WATER MAIN PER MWWD STD DETAIL W-D1
- (56) CONST 12" WATER MAIN PER MWWD STD DETAIL W-D1
- (57) CONST 12" WATER MAIN IN CONC TRENCH
- (61) CONST 4" FIRE SVC PER MWWD STD DETAILS W-D19, W-D20 AND W-D21
- (62) CONST GATE VALVE
- (63) CONST FH PER MWWD STD DETAIL W-D3
- (66) CONST 2" WATER SVC PER MWWD STD DETAIL W-D12, WITH RPBA IN FIBERGLASS HOT BOX PER MWWD STD DETAIL W-D26 ON WEST SERVICE (TERMINAL BLDG) AND DVCA PER MWWD STD DETAIL W-D17 ON EAST SERVICE (MAINT BLDG)
- (74) CONST THRUST BLOCK PER MWWD STD DETAIL W-D15
- (76) CONST FDC
- (77) CONST PIV
- (80) CONST 3" GALV STL WATER SUSPENDED ALONGSIDE TRESTLE. SEE STRUCT DWGS FOR HANGING DETAILS
- (84) INSTALL FIRE LINE RISER WITHIN BUILDING PER MWWD STD DETAIL W-D21
- (85) CONST 4" GALV STL WATER SUSPENDED ALONGSIDE TRESTLE. SEE STRUCT DWGS FOR HANGING DETAILS.
- (90) CONST 8" PVC SS MAIN PER MWWD STD DETAIL S-D1
- (93) CONST 6" DI SIDE SEWER PER MWWD STD DETAIL S-D8
- (94) CONST WYE WITH CLEAN OUT PER MWWD STD DETAIL S-D10
- (99) CONST 6" HDPE DR21 SS FORCE MAIN THROUGH TRESTLE. SEE CU02.00 OF TRESTLE AND BRIDGE SEAT DRAWINGS FOR CASING PROVISIONS.
- (101) CONST 6" HDPE IPS, DR21, FORCE MAIN PER MWWD STD DETAIL S-D1
- (111) INSTALL 2" WALL THICKNESS, K-FLEX FOAM INSUL. W/ CLAD IN JACKETING
- (113) CONST 8" DI SIDE SEWER PER MWWD STD DETAIL S-D8

KEY PLAN

RECEIVED MAR 26 2019

0 20 40 SCALE IN FEET

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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PRINTED:	7:38:44 AM 3/20/2019	LAST PRINTED BY:			
SUBMITTAL DATE:	3/20/19	ReiserRW			
DESIGNED BY:	E. BRODAHL	3/20/19			
ENTERED BY:	R. REISER	3/20/19			
CHECKED BY:	P. TISSEL	3/20/19			
MAR PROJ ENGR:	C. TORRES		MWWD CHANGE ORDER	03/20/19	EB
DIR TERM ENGR:	N. MCINTOSH		CONFORMED PLANS	01/18/19	EB
ASST SECRETARY:	A. SCARTON		REVISION	DATE	BY

FED.AID PROJ.NO. WA-2017-007-00
REGION NO. 10 STATE WASH
JOB NUMBER 18W121
CONTRACT NO. 009321

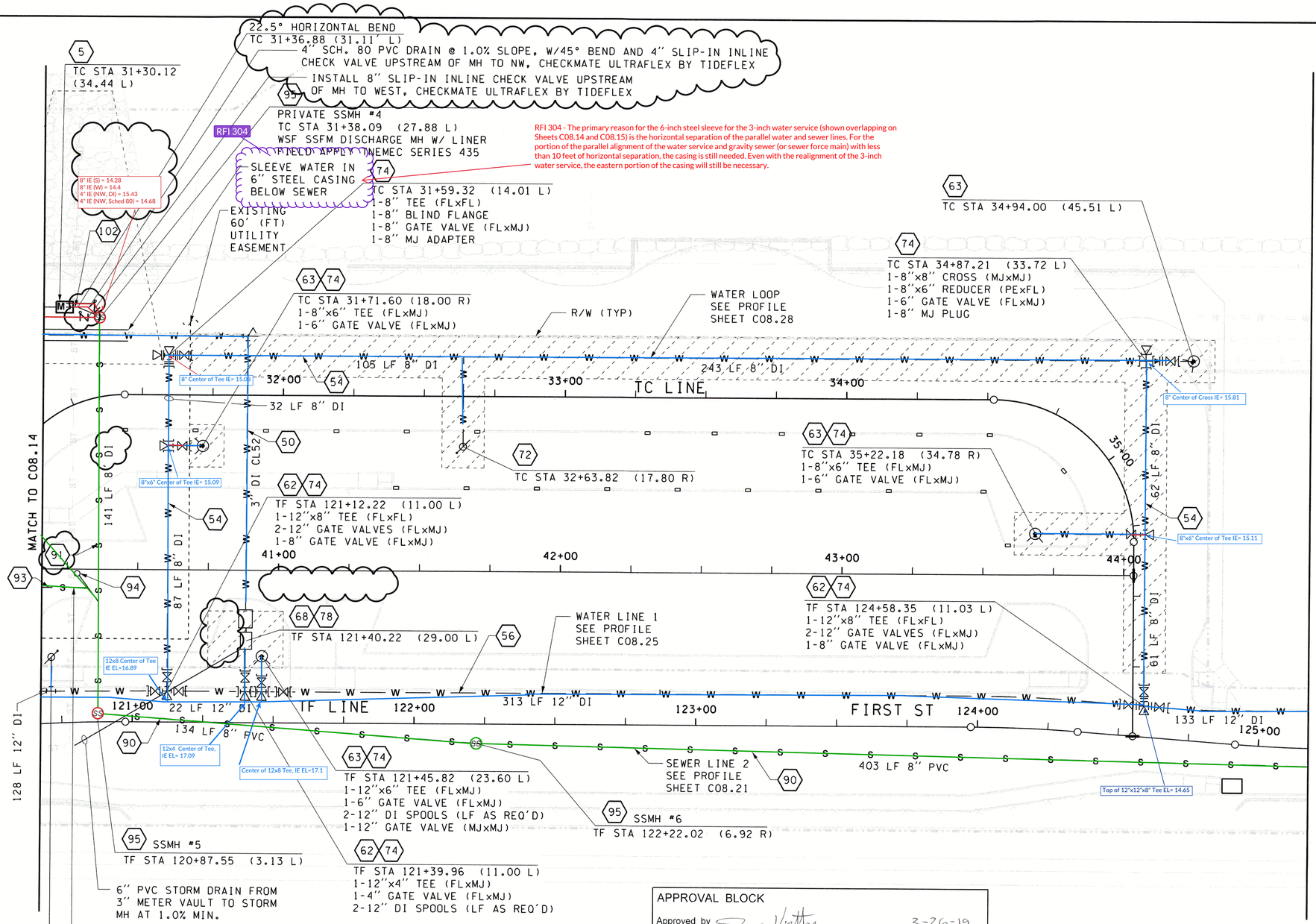
ERIK L. BRODAHL — STATE OF WASHINGTON — 37047 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525 MWWD
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
WATER & SANITARY SEWER PLAN

C08.14
SHEET OF SHEETS



NOTES:

1. SEE SITE ELECTRICAL DRAWINGS FOR EXISTING OVERHEAD POWER AND TELECOMMUNICATIONS.
2. ALL 8" AND 12" DI PIPE JOINTS SHALL BE RESTRAINED WITH FIELD-LOK GASKETS, OR ACCEPTED EQUAL.
3. ALL MJ FITTINGS SHALL BE RESTRAINED WITH MEGA-LUGS, ROMAGRIP OR ACCEPTED EQUAL.
4. ALL PIPE AND FITTINGS FOR WATER MAIN AND FIRE SYSTEMS SHALL BE CL52 DI, EXCEPT FOR FLANGED SPOOLS, WHICH SHALL BE CLASS 53.

CONSTRUCTION NOTES:

5 MAGNETIC FLOW METER VAULT FOR SEWER FORCE MAIN DISCHARGE FROM VESSELS. SEE DETAIL 1 SHEET C08.52. SEE SITE COMMUNICATION AND ELECTRICAL DRAWINGS FOR LOCATION OF REMOTE READOUT (READABLE FROM OUTSIDE)

50 CONST 3" WATER SERVICE PER MWWD STD DETAIL W-D1

54 CONST 8" WATER MAIN PER MWWD STD DETAIL W-D1

56 CONST 12" WATER MAIN PER MWWD STD DETAIL W-D1

61 CONST 6" FIRE SVC PER MWWD STD DETAILS W-D20 AND W-D21

62 CONST GATE VALVE

63 CONST FH PER MWWD STD DETAIL W-D3

66 CONST 2" WATER SVC PER MWWD STD DETAIL W-D12

68 CONST 3" PRV ASSEMBLY WITH RPBA IN HOT BOX PER MWWD STD DETAIL W-D18.

72 CONST 1" AIR & VACUUM RELEASE VALVE ASSEMBLY AT HIGH POINT PER MWWD STD DETAIL W-D6

73 CONST 2" AIR & VACUUM RELEASE VALVE ASSEMBLY AT HIGH POINT PER MWWD STD DETAIL W-D7

74 CONST THRUST BLOCK PER MWWD STD DETAIL W-D15

78 CONST 3" WATER SVC PER MWWD STD DETAIL W-D1. ROUTE 6" DRAIN TO STORM DRAINAGE

90 CONST 8" PVC SS MAIN PER MWWD STD DETAIL S-D1

91 CONST 8" DI SS MAIN PER MWWD STD DETAIL S-D1

93 CONST 6" DI SIDE SEWER PER MWWD STD DETAIL S-D8

94 CONST WYE WITH CLEAN OUT PER MWWD STD DETAIL S-D10

95 CONST STD MH PER MWWD STD DETAIL S-D2

102 CONST 4" DI, CL52 FORCE MAIN PER MWWD STD DETAIL S-D1

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

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RECEIVED
MAR 26 2019
MWWD

KEY PLAN

SCALE IN FEET 0 20 40

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\14w121c08_15.dlv						FED.AID PROJ.NO.
PRINTED: 12:09:26 PM 3/25/2019	LAST PRINTED BY:					WA-2017-007-00
SUBMITTAL DATE: 3/20/19	DanielJL					REGION NO. STATE
DESIGNED BY: E. BRODAHL	3/20/19					10 WASH
ENTERED BY: R. REISER	3/20/19					JOB NUMBER
CHECKED BY: P. SACK	3/20/19					18W121
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		CONTRACT NO.
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

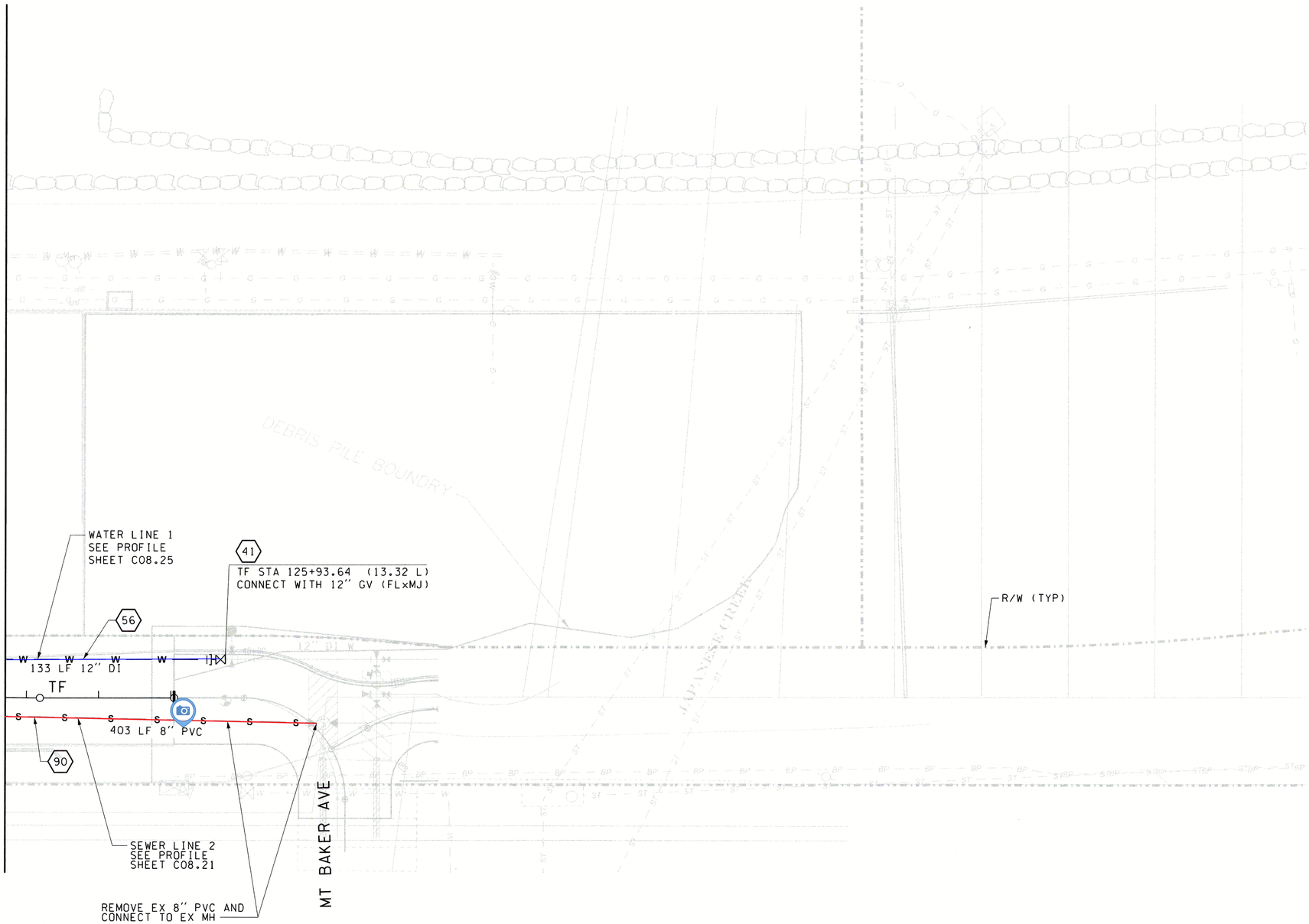
ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
WATER & SANITARY SEWER PLAN

C08.15
SHEET
OF
SHEETS



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3. ALL MJ FITTINGS SHALL BE RESTRAINED WITH MEGA-LUGS, ROMAGRIP OR ACCEPTED EQUAL.
4. ALL PIPE AND FITTINGS FOR WATER MAIN AND FIRE SYSTEMS SHALL BE CL52 DI, EXCEPT FOR FLANGED SPOOLS, WHICH SHALL BE CLASS 53.

CONSTRUCTION NOTES:

(41) REMOVE EXIST BLOCKING AND BLIND FLANGE. CONNECT TO EXIST WATER WITH 12" GATE VALVE (FLxMJ)

(56) CONST 12" W MAIN PER MWWD STD DETAIL W-D1

(90) CONST 8" PVC SS MAIN PER MWWD STD DETAIL S-D1

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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RECEIVED
MAR 26 2019
MWWD

KEY PLAN

0 20 40
SCALE IN FEET

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c08_16.dlv						
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SUBMITTAL DATE: 3/20/19	ReiserRW					
DESIGNED BY: E. BRODAHL	3/20/19					WA-2017-007-00
ENTERED BY: R. REISER	3/20/19					REGION NO. STATE
CHECKED BY: P. SACK	3/20/19					10 WASH
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO. 009321

ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

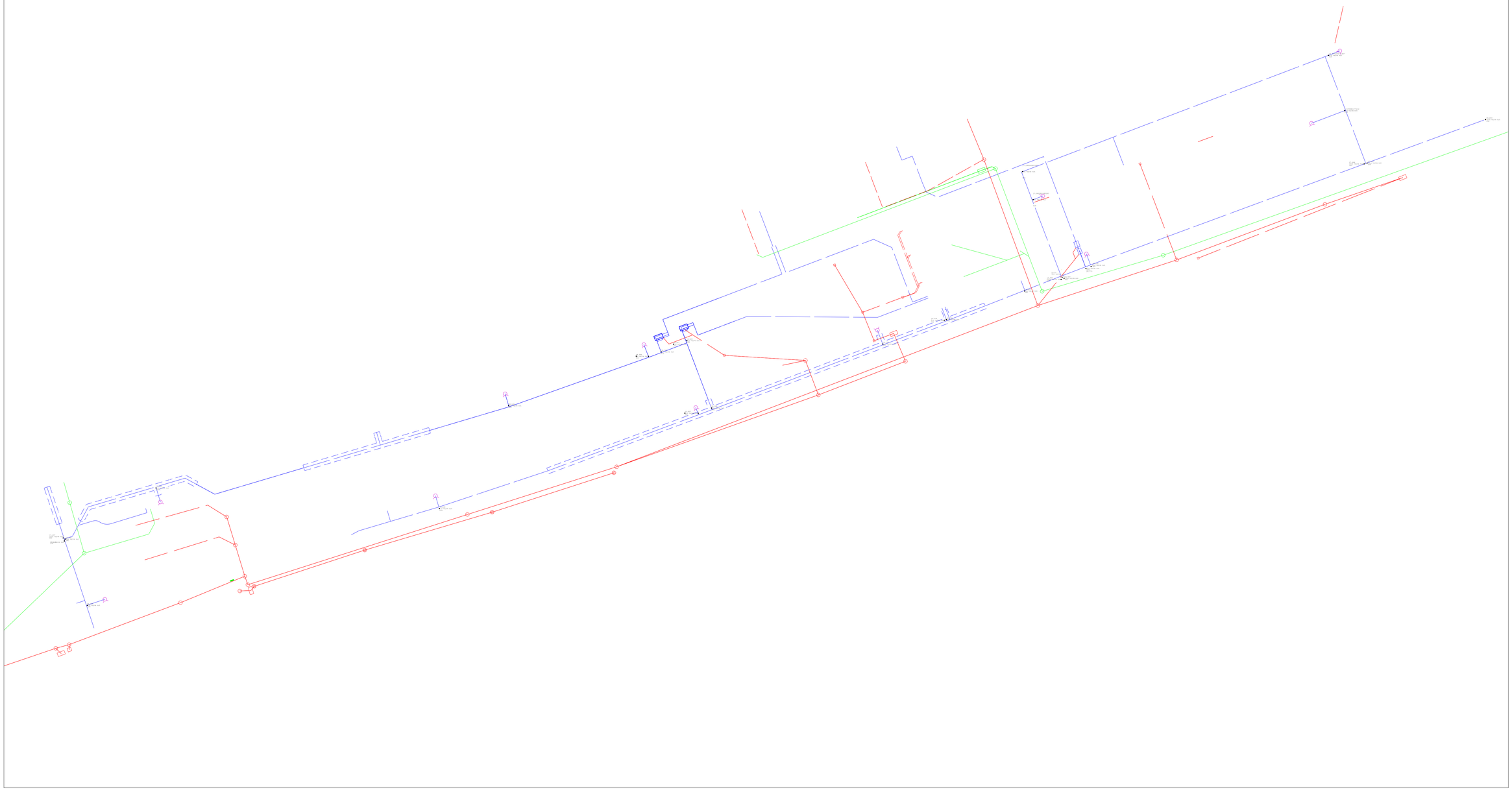
JACOBS

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
WATER & SANITARY SEWER PLAN

C08.16

SHEET OF SHEETS



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524	350068.3	1281965	17.338	8in valve nut
528	350038.4	1281976	17.062	6in valve nut
536	350123.9	1282459	16.203	12in valve nut
539	350077.4	1282333	17.497	12in valve nut
540	350076.5	1282330	17.666	12in valve nut
541	349955.3	1282007	19.21	8in valve nut
542	349954.3	1282009	19.787	12in valve nut
543	349953.1	1282006	19.882	12in valve nut
545	349967	1282038	19.161	6in valve nut
546	349964.9	1282033	18.773	4in valve nut
551	349884	1281816	19.758	6in valve nut
555	349815.7	1281633	16.349	8in valve nut
557	349810.1	1281619	15.827	6in valve nut
559	349708.2	1281342	14.108	6in valve nut
572	349909.4	1281881	19.018	2in valve nut
573	349910.2	1281884	19.034	2in valve nut
578	349604.9	1280966	14.254	6in valve nut
579	349673.6	1280942	17.128	12in valve nut
580	349676.8	1280941	17.247	12in valve nut
581	349675.6	1280943	16.583	8in valve nut
583	349940.7	1281967	19.607	2in valve nut
590	349730.2	1281040	17.882	6in valve nut
603	349818.1	1281416	20.548	6in valve nut
607	349883.8	1281607	19.167	8in valve nut
608	349887.7	1281606	18.569	4in valve nut
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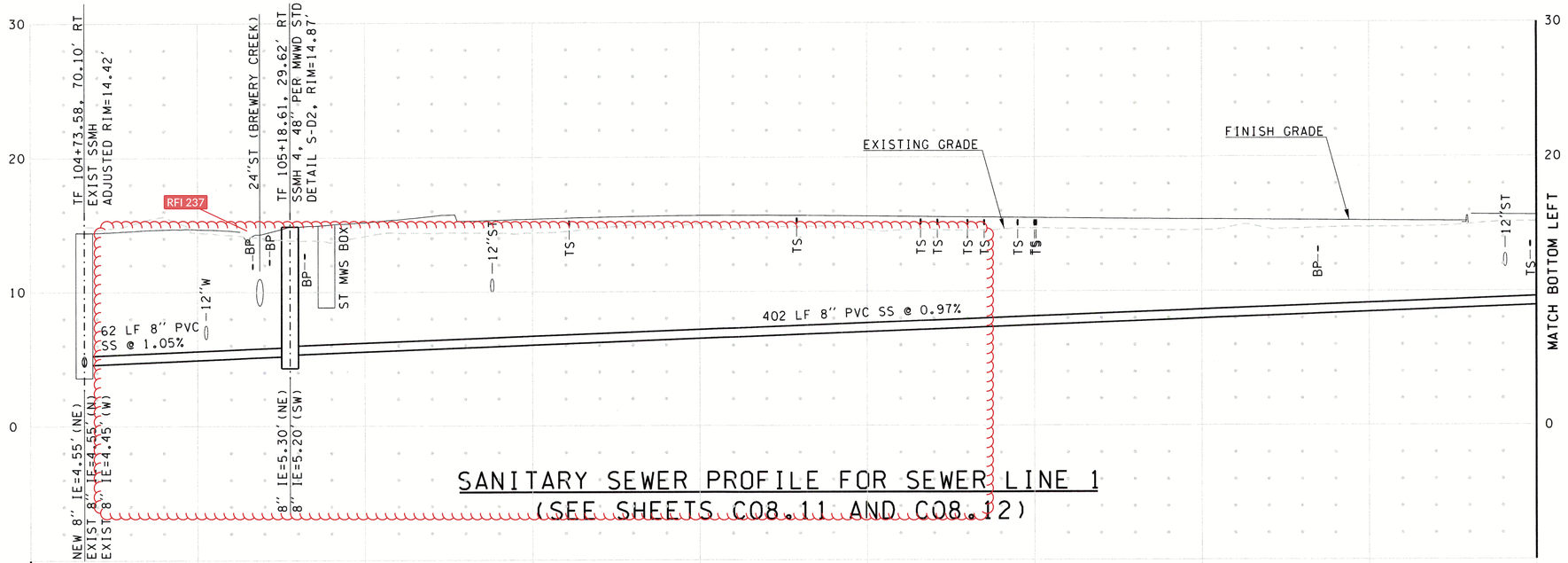
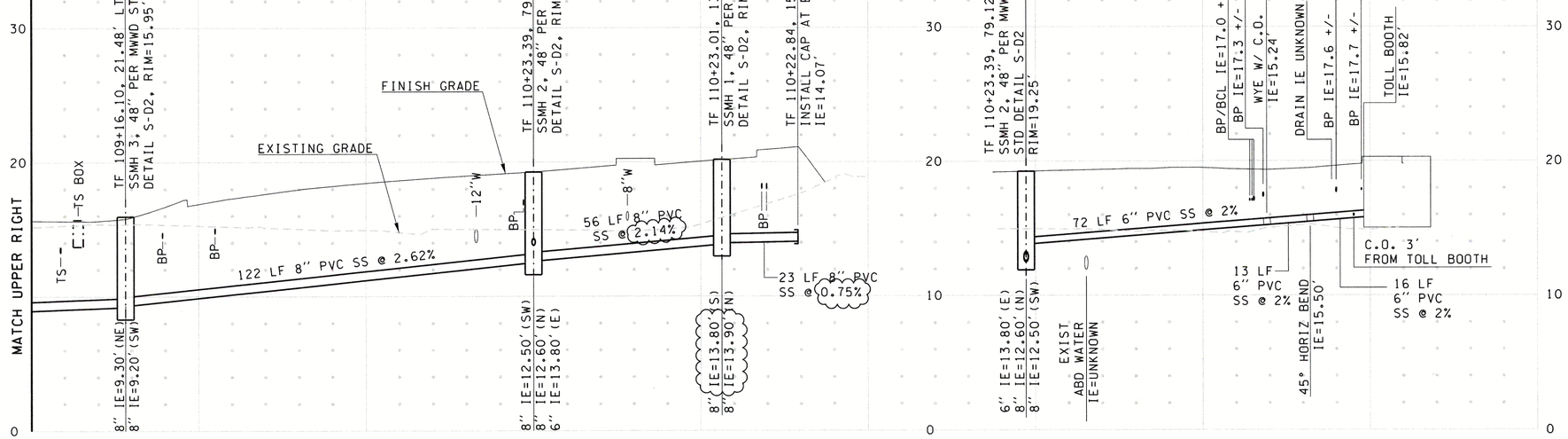


SANITARY SEWER PROFILE FOR SEWER LINE 1
(SEE SHEETS C08.11 AND C08.12)



SANITARY SEWER PROFILE FOR SEWER LINE 1 (CONT)
(SEE SHEETS C08.11 AND C08.12)

SANITARY SEWER PROFILE FOR SEWER LINE 1A
(SEE SHEET C08.12)

NOTES:

1. VERIFY DEPTH AT POINT OF CONNECTION.
2. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN PROVIDED BY OTHERS AND THEY HAVE NOT BEEN POTHOLED. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THE DRAWINGS EXISTING WITHIN THE AREA OF CONSTRUCTION. FIELD VERIFICATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION SHALL BE PERFORMED BY CONTRACTOR.
3. ELEVATIONS OF ALL OTHER EXISTING AND PROPOSED UTILITIES SHOWN ARE APPROXIMATE, AND HAVE NOT BEEN VERIFIED. SEE OTHER UTILITY DESIGN DRAWINGS FOR MORE SPECIFIC ELEVATION INFORMATION. THE ELEVATIONS OF DRY UTILITIES ARE TYPICALLY NOT SHOWN.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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DATUM
MLLW

0 5 10
VERT SCALE IN FEET

0 20 40
HORIZONTAL SCALE IN FEET

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MAR 26 2019
MWWD

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FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c08_20.dlv						
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SUBMITTAL DATE: 3/20/19	ReiserRW					WA-2017-007-00
DESIGNED BY: E. BRODAHL	3/20/19					REGION NO. STATE
ENTERED BY: M. GUILLEN	3/20/19					10 WASH
CHECKED BY: P. SACK	3/20/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

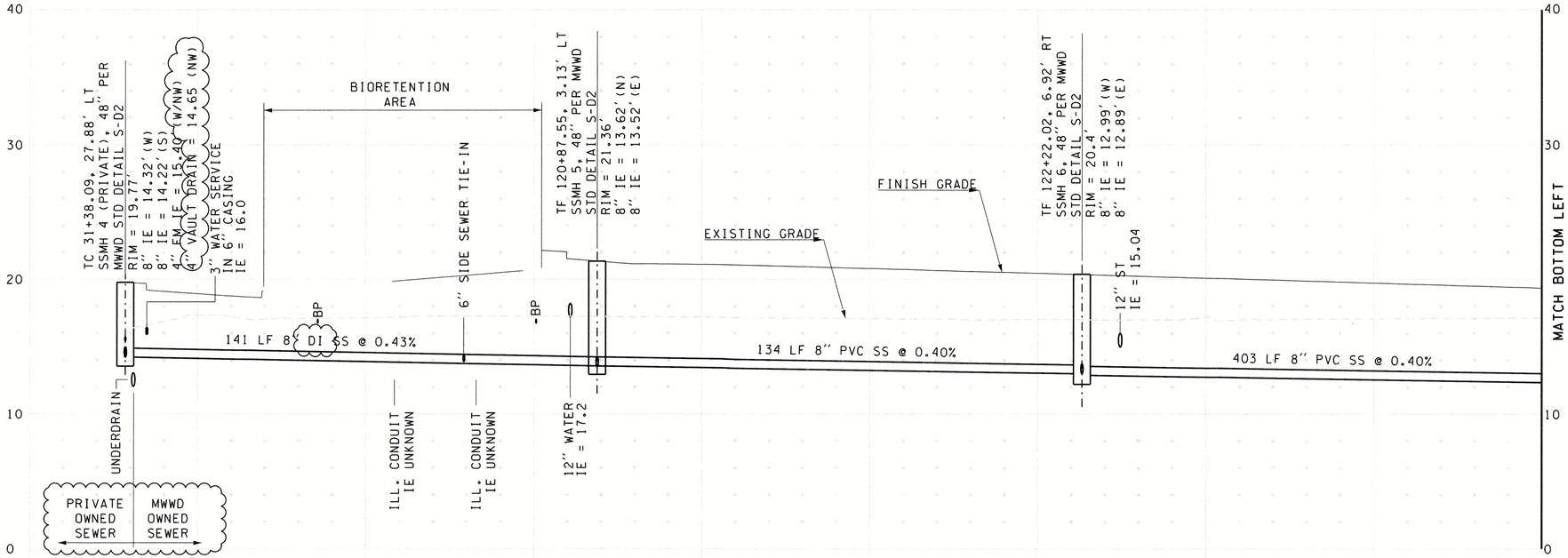
ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

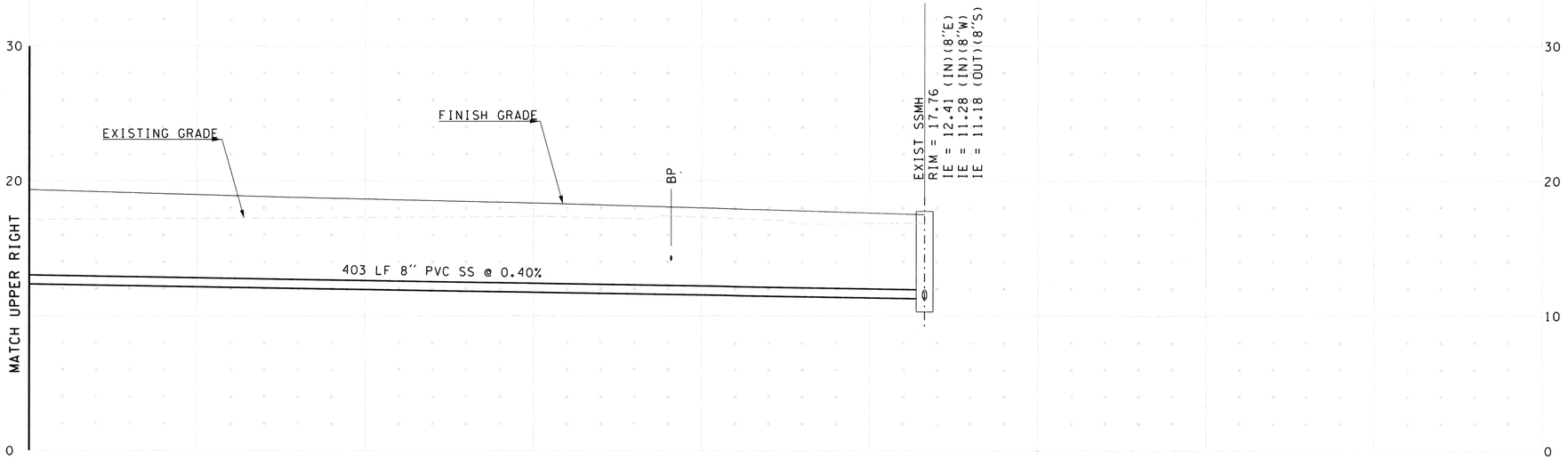
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SANITARY SEWER PROFILE 1 & 1A

C08.20
SHEET
OF
SHEETS



SANITARY SEWER PROFILE FOR SEWER LINE 2
(SEE SHEETS C08.15 AND C08.16)



SANITARY SEWER PROFILE FOR SEWER LINE 2 (CONT)
(SEE SHEETS C08.15 AND C08.16)

NOTES:

1. VERIFY DEPTH AT POINT OF CONNECTION.
2. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN PROVIDED BY OTHERS AND THEY HAVE NOT BEEN POTHOLED. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THE DRAWINGS EXISTING WITHIN THE AREA OF CONSTRUCTION. FIELD VERIFICATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION SHALL BE PERFORMED BY CONTRACTOR.
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HORIZONTAL SCALE IN FEET

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MAR 26 2019
MWWD

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SUBMITTAL DATE: 3/20/19	Daniel JL					
DESIGNED BY: E. BRODAHL	3/20/19					WA-2017-007-00
ENTERED BY: M. GUILLEN	3/20/19					REGION NO. STATE
CHECKED BY: P. SACK	3/20/19					10 WASH
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

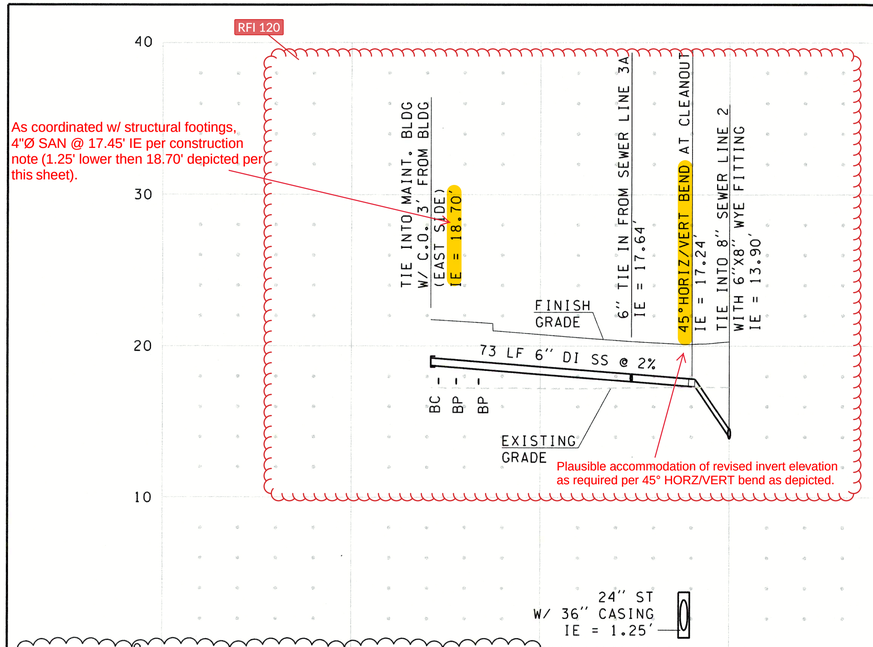
ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

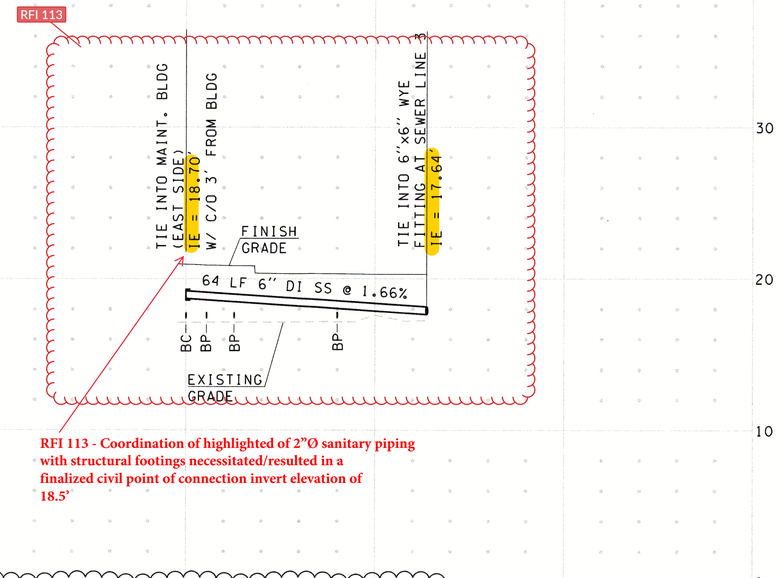
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SANITARY SEWER PROFILE 2

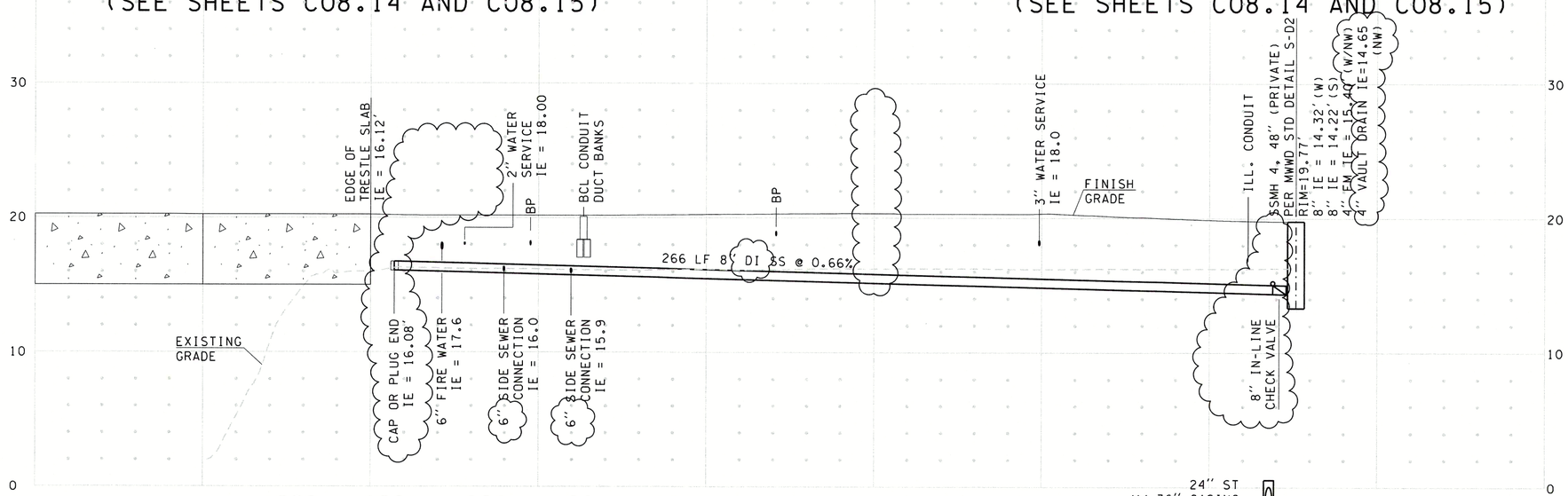
C08.21
SHEET
OF
SHEETS



PRIVATE SANITARY SIDE SEWER PROFILE FOR SEWER LINE 3
(SEE SHEETS C08.14 AND C08.15)



PRIVATE SANITARY SIDE SEWER PROFILE FOR SEWER LINE 3A
(SEE SHEETS C08.14 AND C08.15)



PRIVATE SANITARY SIDE SEWER PROFILE FOR SEWER LINE 4
(SEE SHEETS C08.14 AND C08.15)

NOTES:

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APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

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VERT SCALE IN FEET

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HORIZONTAL SCALE IN FEET

RECEIVED
MAR 26 2019
MWWD

JACOBS

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PRINTED: 8:53:40 AM 3/20/2019	LAST PRINTED BY:					
SUBMITTAL DATE: 3/20/19	ReiserRW					WA-2017-007-00
DESIGNED BY: E. BRODAHL	3/20/19					REGION NO. 10 / STATE WASH
ENTERED BY: M. GUILLEN	3/20/19					
CHECKED BY: P. SACK	3/20/19					
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO. 009321

ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

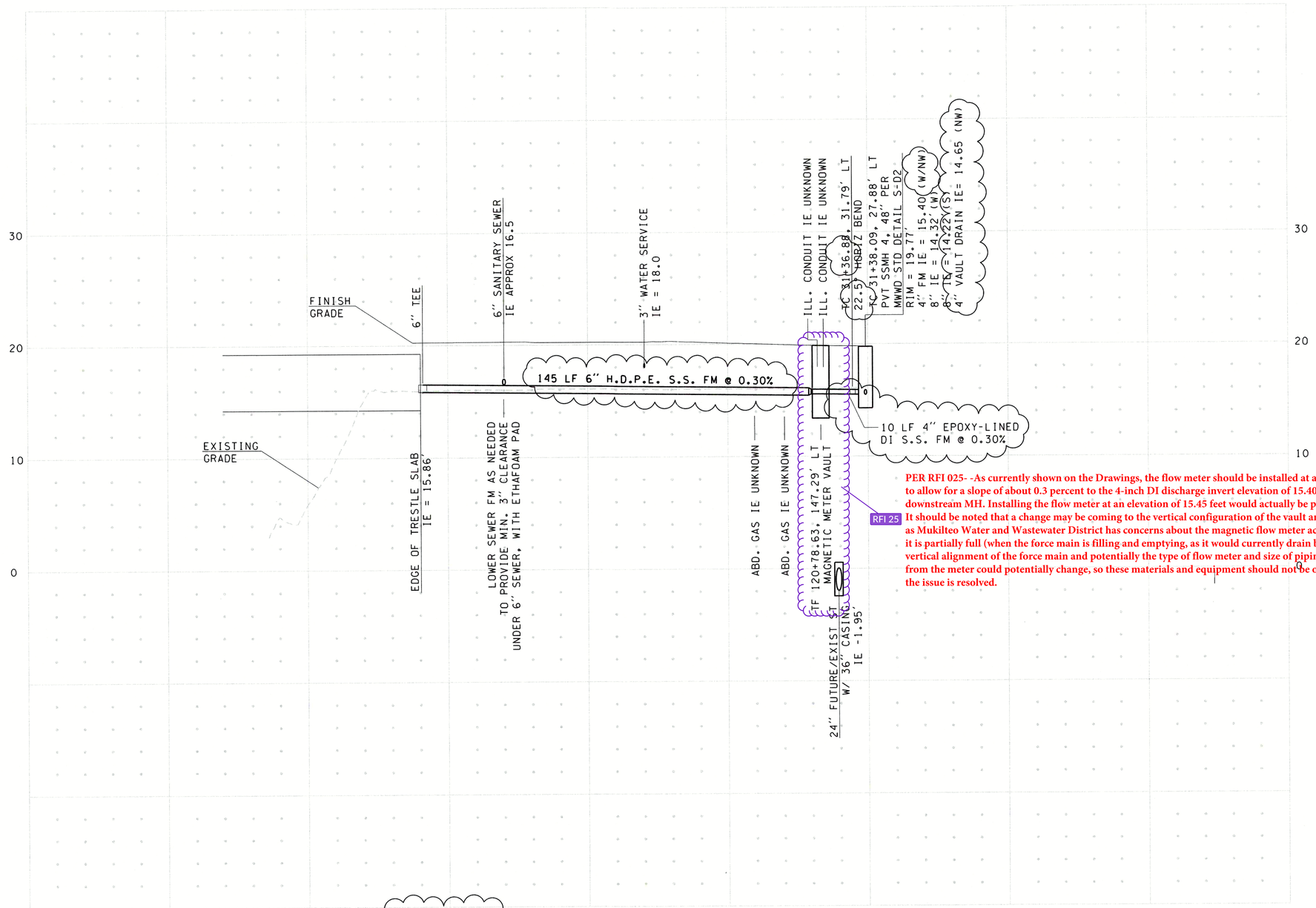
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

SANITARY SEWER PROFILE 3, 3A & 4

C08.22

SHEET OF SHEETS



NOTES:

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APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater / Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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DATUM
MLLW

0 5 10
VERT SCALE IN FEET

0 20 40
HORIZONTAL SCALE IN FEET

RECEIVED
MAR 26 2019
MWWD

PRIVATE SANITARY SEWER FORCE MAIN PROFILE

SEE SHEETS C08.14 AND C08.15

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c08_23 .dlv						FED.AID PROJ.NO.
PRINTED: 8:58:33 AM 3/20/2019	LAST PRINTED BY:					
SUBMITTAL DATE: 3/20/19	ReiserRW					WA-2017-007-00
DESIGNED BY: E. BRODAHL	3/20/19					REGION NO. STATE
ENTERED BY: M. GUILLEN	3/20/19					10 WASH
CHECKED BY: P. SACK	3/20/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

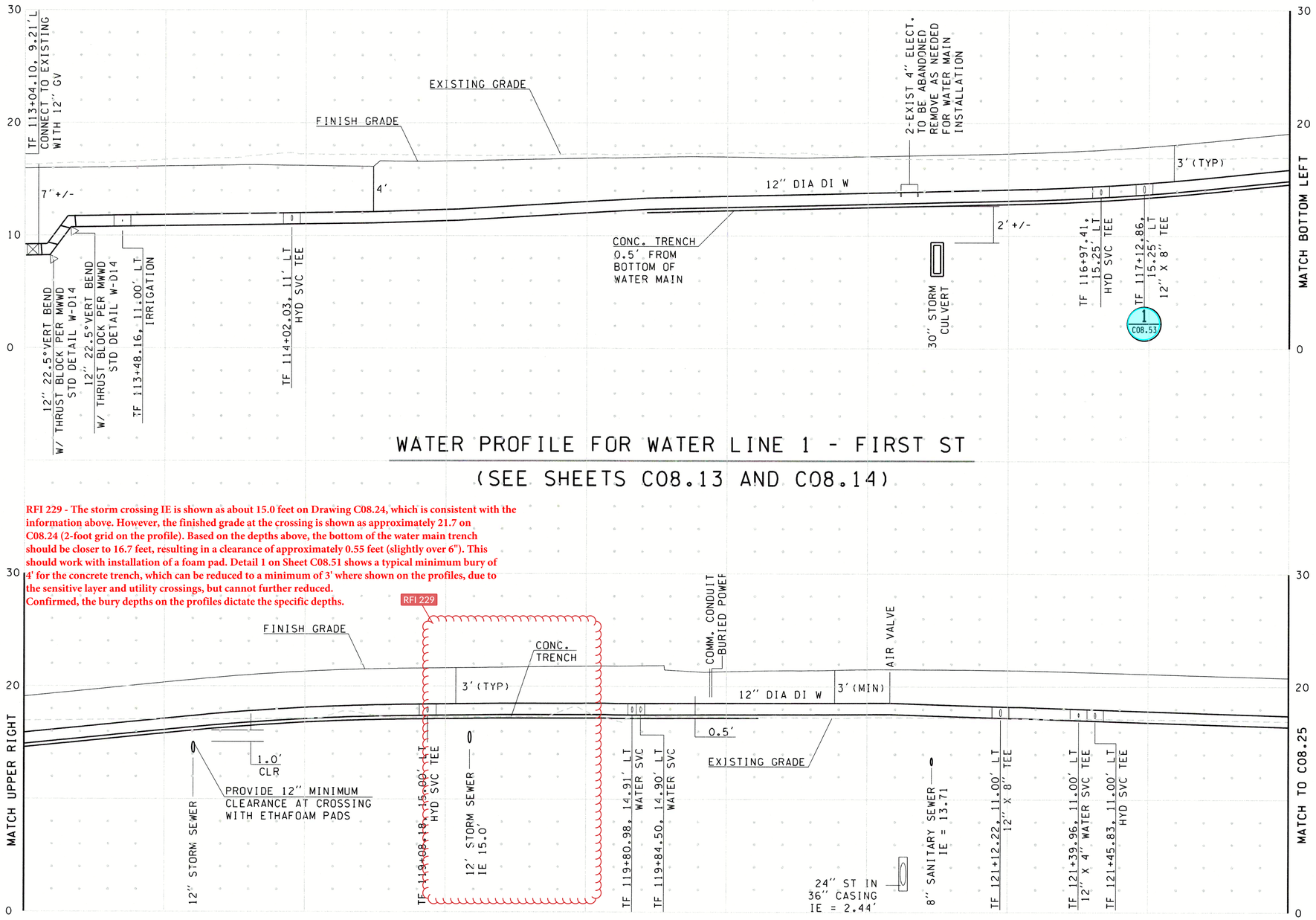
ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

FORCE MAIN PROFILE

C08.23
SHEET
OF
SHEETS



WATER PROFILE FOR WATER LINE 1 - FIRST ST

(SEE SHEETS C08.13 AND C08.14)

RFI 229 - The storm crossing IE is shown as about 15.0 feet on Drawing C08.24, which is consistent with the information above. However, the finished grade at the crossing is shown as approximately 21.7 on C08.24 (2-foot grid on the profile). Based on the depths above, the bottom of the water main trench should be closer to 16.7 feet, resulting in a clearance of approximately 0.55 feet (slightly over 6"). This should work with installation of a foam pad. Detail 1 on Sheet C08.51 shows a typical minimum bury of 4' for the concrete trench, which can be reduced to a minimum of 3' where shown on the profiles, due to the sensitive layer and utility crossings, but cannot further reduced.
Confirmed, the bury depths on the profiles dictate the specific depths.

WATER PROFILE FOR WATER LINE 1 - FIRST ST (CONT)

(SEE SHEETS C08.13 AND C08.14)

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MAR 26 2019
MWWD

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\14w121c08_24.dlv					
PRINTED: 9:00:08 AM 3/20/2019	LAST PRINTED BY:				FED.AID PROJ.NO.
SUBMITTAL DATE: 3/20/19	ReiserRW				
DESIGNED BY: E. BRODAHL	3/20/19				WA-2017-007-00
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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	

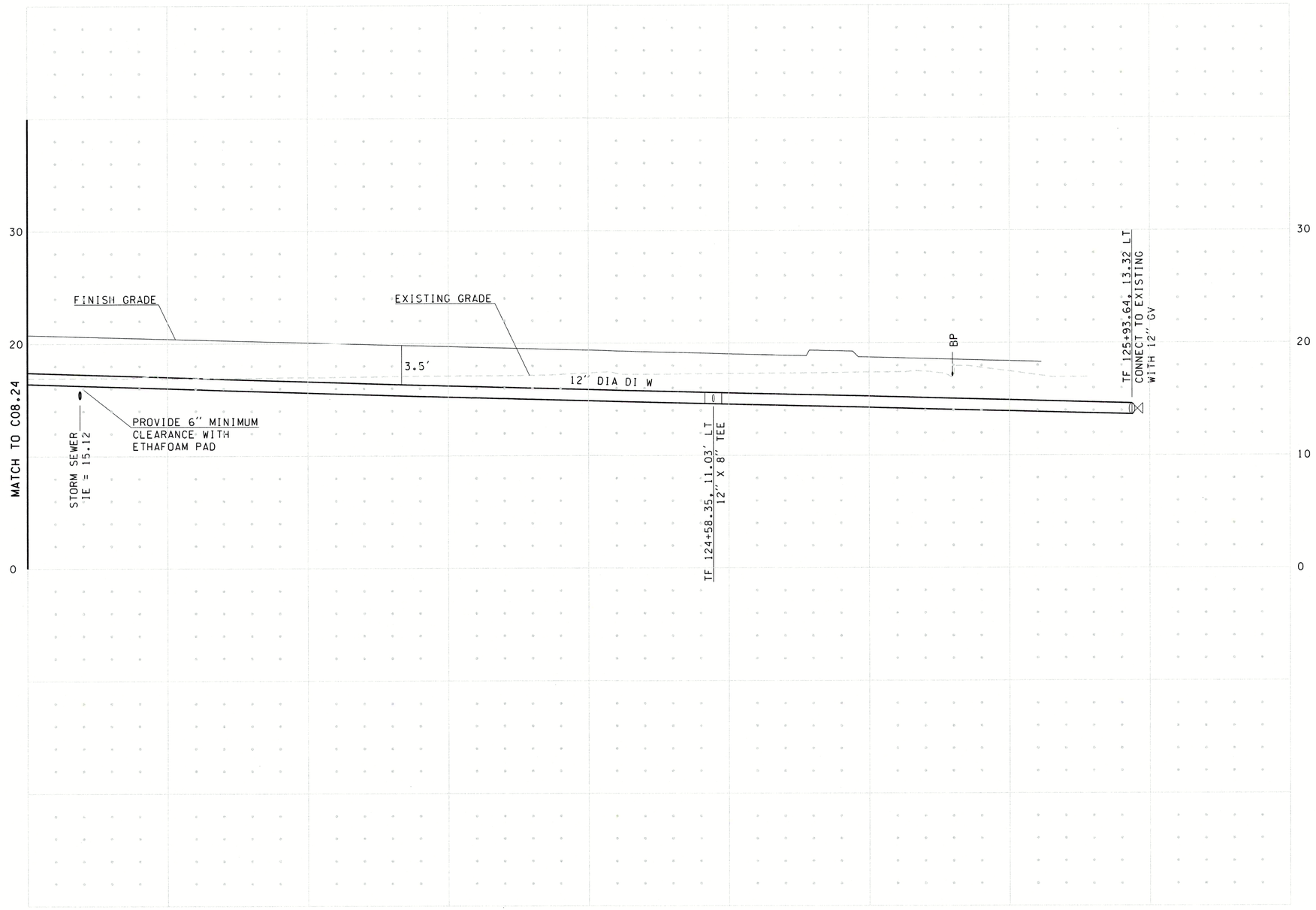
ERIK L. BRODAHL — STATE OF WASHINGTON — 37843 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER PROFILE 1

C08.24
SHEET
OF
SHEETS



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MWWD

WATER PROFILE FOR WATER LINE 1 - FIRST ST (CONT)

(SEE SHEETS C08.14 AND C08.16)

JACOBS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c08_25 .dlv						
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SUBMITTAL DATE: 3/20/19	ReiserRW					WA-2017-007-00
DESIGNED BY: E. BRODAHL	3/20/19					REGION NO. 10 / STATE WASH
ENTERED BY: M. GUILLEN	3/20/19					JOB NUMBER 18W121
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MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		
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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

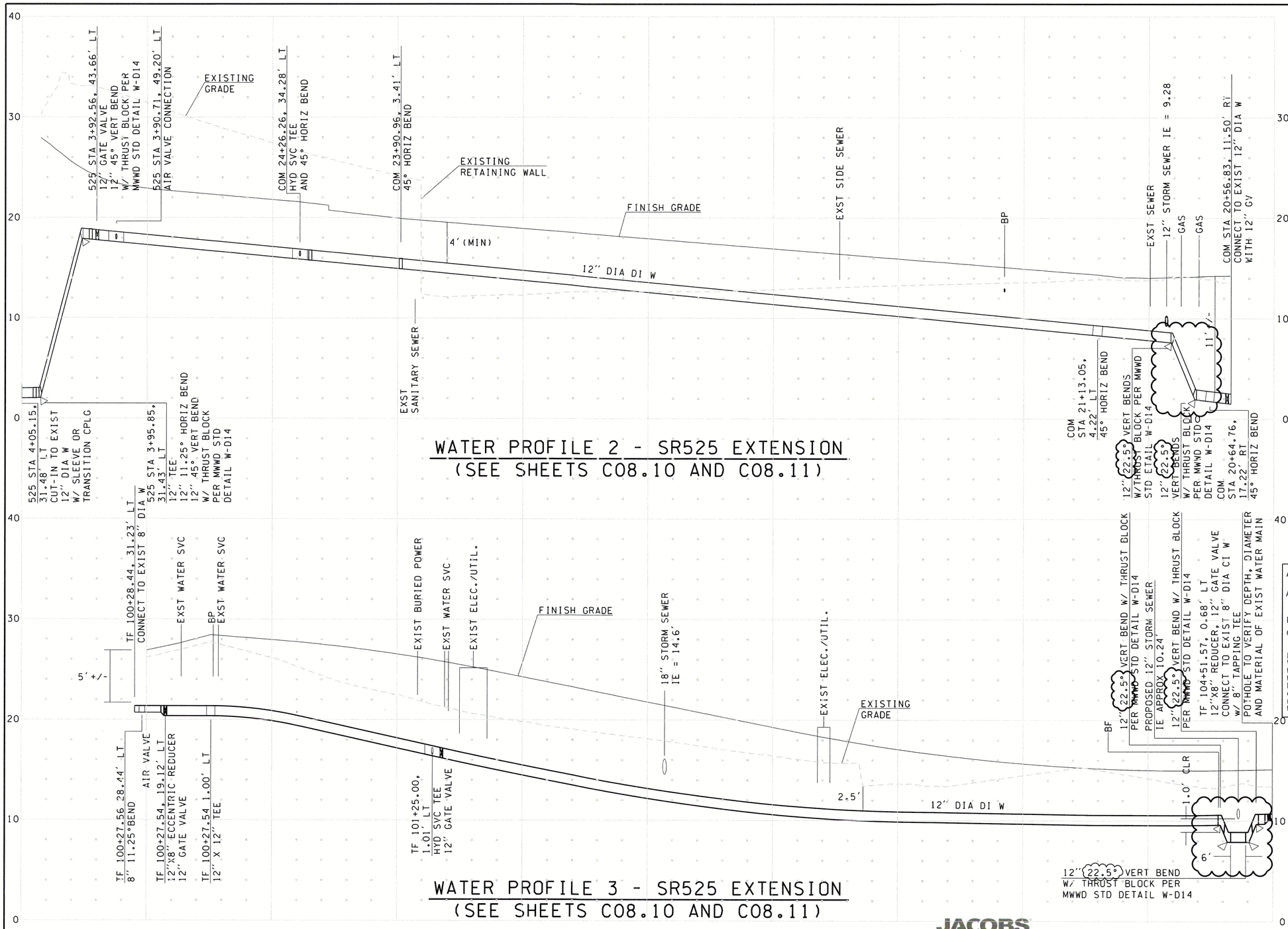
ERIK L. BRODAHL — STATE OF WASHINGTON — 17847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER PROFILE 1 - CONT.

C08.25
SHEET OF SHEETS



WATER PROFILE 2 - SR525 EXTENSION
(SEE SHEETS C08.10 AND C08.11)

WATER PROFILE 3 - SR525 EXTENSION
(SEE SHEETS C08.10 AND C08.11)

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MWWD

JACOBS

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SUBMITTAL DATE: 3/20/19	ReiserRW					REGION NO. STATE
DESIGNED BY: E. BRODAHL	3/20/19					10 WASH
ENTERED BY: M. GUILLEN	3/20/19					JOB NUMBER
CHECKED BY: P. SACK	3/20/19					18W121
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		CONTRACT NO.
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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ERIK L. BRODAHL — STATE OF WASHINGTON — 37843 — REGISTERED PROFESSIONAL ENGINEER
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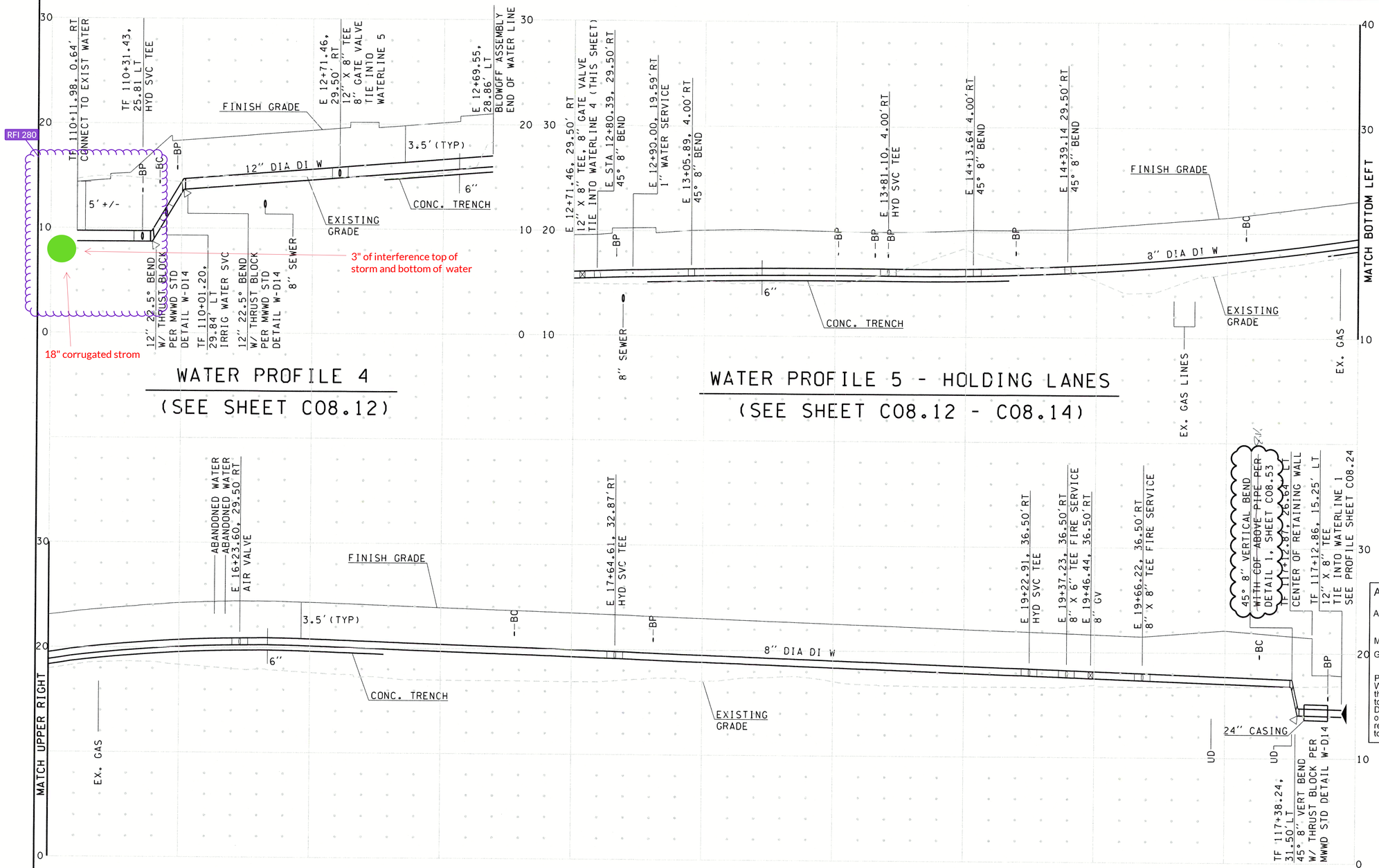
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER PROFILE 2 & 3

C08.26
SHEET OF SHEETS



WATER PROFILE 4

(SEE SHEET C08.12)

WATER PROFILE 5 - HOLDING LANES

(SEE SHEET C08.12 - C08.14)

WATER PROFILE 5 - HOLDING LANES (CONT)

(SEE SHEET C08.12 - C08.14)

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RECEIVED
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SUBMITTAL DATE: 3/20/19	ReiserRW				WA-2017-007-00
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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	CONTRACT NO. 009321

JACOBS

ERIK L. BRODAHL — STATE OF WASHINGTON — 17847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER PROFILE 4 & 5

C08.27
SHEET
OF
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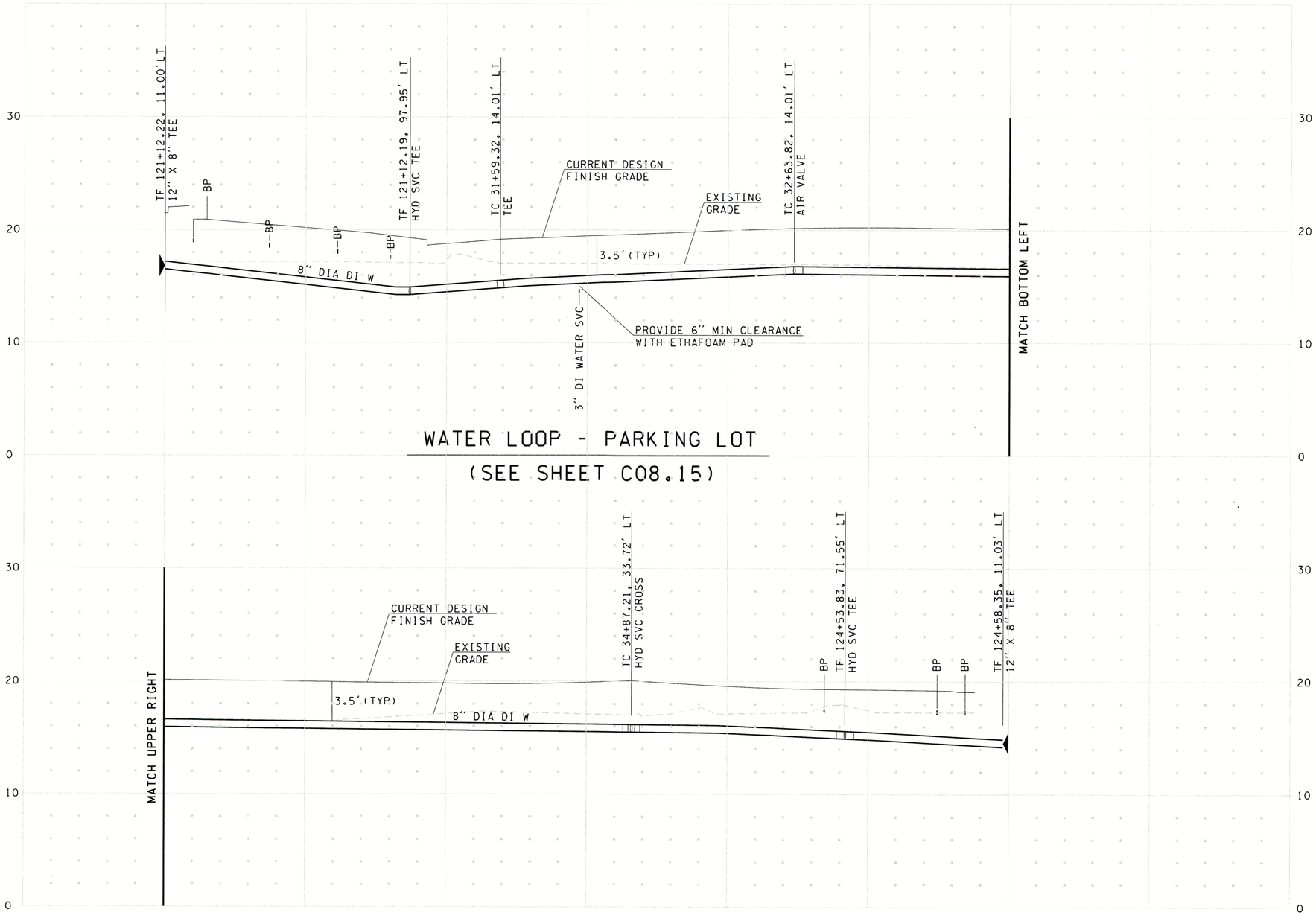

WATER LOOP - PARKING LOT

(SEE SHEET C08.15)

WATER LOOP - PARKING LOT (CONT)

(SEE SHEET C08.15)

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ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
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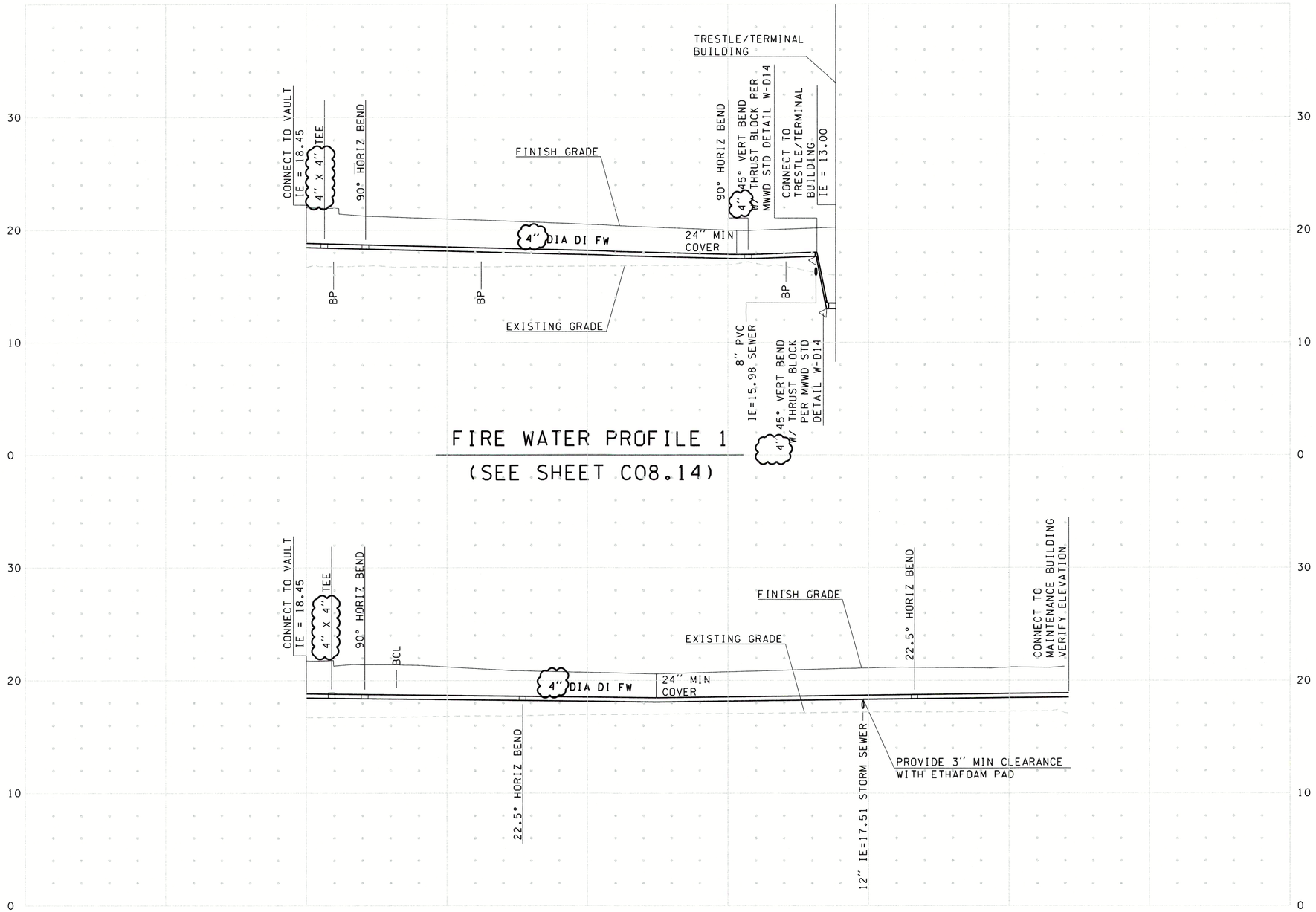
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER PROFILE - WATER LOOP

C08.28
SHEET OF SHEETS



FIRE WATER PROFILE 1

(SEE SHEET C08.14)

FIRE WATER PROFILE 2

(SEE SHEET C08.14)

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PRINTED: 9:10:28 AM 3/20/2019	LAST PRINTED BY:					FED.AID PROJ.NO.
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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER

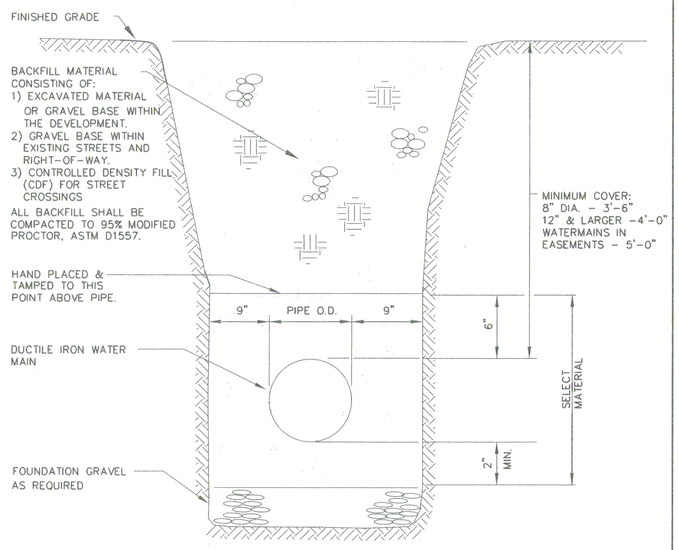
03/20/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

FIRE WATER PROFILE 1 & 2

C08.29
SHEET
OF
SHEETS



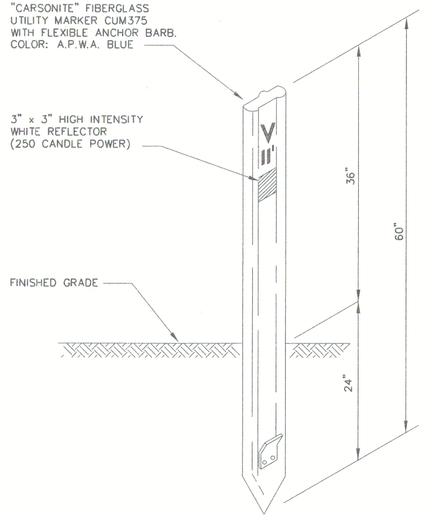
NOTES:

1. THE DEVELOPER SHALL PROVIDE THE DISTRICT WITH LABORATORY TEST RESULTS INDICATING COMPACTION OF THE TRENCH MEET THE REQUIREMENT OF 95% MODIFIED PROCTOR, ASTM D1557.
2. IN EASEMENTS, DURING BACKFILL OPERATIONS, FURNISH AND INSTALL 3" WIDE METALLIC MARKER TAPE WITH 3 FT. OF COVER OVER WATER MAIN.

WATER MAIN TYPICAL TRENCH SECTION

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D1



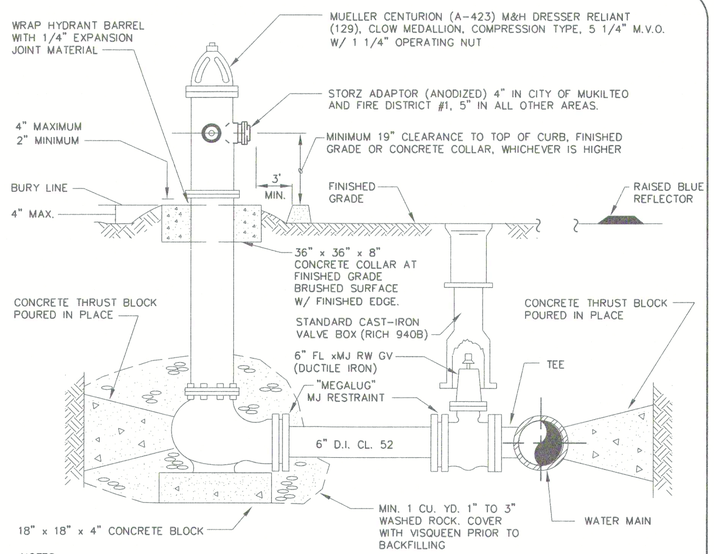
NOTES:

1. THE LETTER "V" AND THE DISTANCE IN FEET TO THE VALVE SHALL BE ON THE POST WITH 2" HIGH DECALS DESIGNED FOR USE ON FIBERGLASS BOATS.
2. EACH POST SHALL INCLUDE THE FOLLOWING DECAL: "CAUTION WATER VALVE, BEFORE DIGGING, CALL 811, UTILITY UNDERGROUND LOCATION CENTER."

VALVE MARKER

Mukilteo Water and Wastewater District
STANDARD DETAILS

2018 W-D2



NOTES:

1. AFTER INSTALLATION, HYDRANT SHALL BE WIRE BRUSHED, PRIMED WITH RUST-OLEUM HIGH PERFORMANCE METAL PRIMER & FIELD PAINTED WITH TWO COATS OF RUST-OLEUM PROFESSIONAL OIL-BASED SAFETY YELLOW.
2. WHEN HYDRANT SPOOL EXCEEDS 18', USE FULL CIRCLE MJ REPAIR SLEEVE WITH 'MEGALUGS' OR FIELD LOK GASKETS. MAXIMUM LENGTH IS 50'.
3. HYDRANTS SHALL BE BREAK-AWAY TYPE IN WHICH VALVE WILL REMAIN CLOSED IF BARREL IS BROKEN.
4. PROVIDE MINIMUM 3'-0" CLEARANCE AND LEVEL AREA AROUND HYDRANT.
5. GUARD POSTS MAY BE REQUIRED BY THE DISTRICT. SEE GUARD POST DETAIL FOR ADDITIONAL REQUIREMENTS.
6. DISTANCE IN FEET TO THE VALVE BOX SHALL BE PLACED AT THE BARREL, BELOW THE PUMPER PORT, WITH 2" HIGH DECALS DESIGNED FOR USE ON FIBERGLASS BOATS.
7. RAISED BLUE REFLECTOR IN ACCORDANCE WITH THE FIRE DISTRICTS REQUIREMENTS
8. 3' MINIMUM CLEARANCE FROM BACK OF CURB OR BACK OF SIDEWALK TO ANY PART OF HYDRANT.

FIRE HYDRANT ASSEMBLY

Mukilteo Water and Wastewater District
STANDARD DETAILS

2018 W-D3

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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RECEIVED
MAR 26 2019
MWWD

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FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c08_30.dlv						
PRINTED: 8:30:58 AM 8/22/2018	LAST PRINTED BY:					FED.AID PROJ.NO.
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DESIGNED BY: E. BRODAHL	8/22/2018					REGION NO. STATE
ENTERED BY: R. REISER	8/22/2018					10 WASH
CHECKED BY: P. SACK	8/22/2018					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

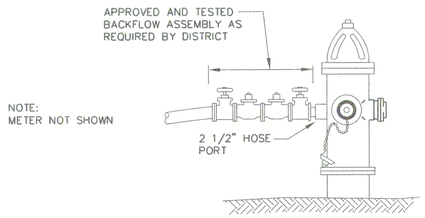
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD WATER STANDARD DETAILS

C08.30

SHEET 209 OF 1521 SHEETS



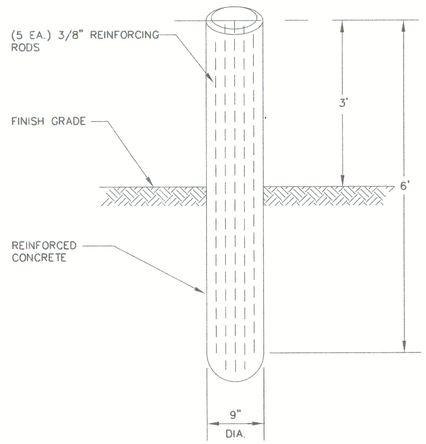
HYDRANT USE PROCEDURES

1. ACQUIRE HYDRANT METER FROM MWWD.
2. THERE SHALL BE AN ACCEPTABLE WASHINGTON STATE APPROVED BACKFLOW ASSEMBLY FURNISHED AND INSTALLED BY CONTRACTOR. A HYDRANT METER SHALL BE OBTAINED FROM DISTRICT. (NOT SHOWN ABOVE)
3. OPENING & CLOSING OF HYDRANT VALVE SHALL BE WITH AN ACCEPTABLE HYDRANT WRENCH.
4. THERE SHALL BE AN AUXILIARY VALVE ATTACHED TO THE 2 1/2" HOSE PORT OF THE HYDRANT.
5. THE HYDRANT VALVE SHALL BE FULLY OPENED AND THE WATER USE CONTROLLED EXCLUSIVELY BY THE AUXILIARY VALVE.
6. THE AUXILARY VALVE SHALL BE OPERATED IN A SLOW MANNER TO PREVENT UNDUE EXCESSIVE PRESSURE ON THE WATER SYSTEM.
7. ANY VIOLATION OF ANY OF THE ABOVE SHALL BE SUBJECT TO A FINE.

HYDRANT USE

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D4



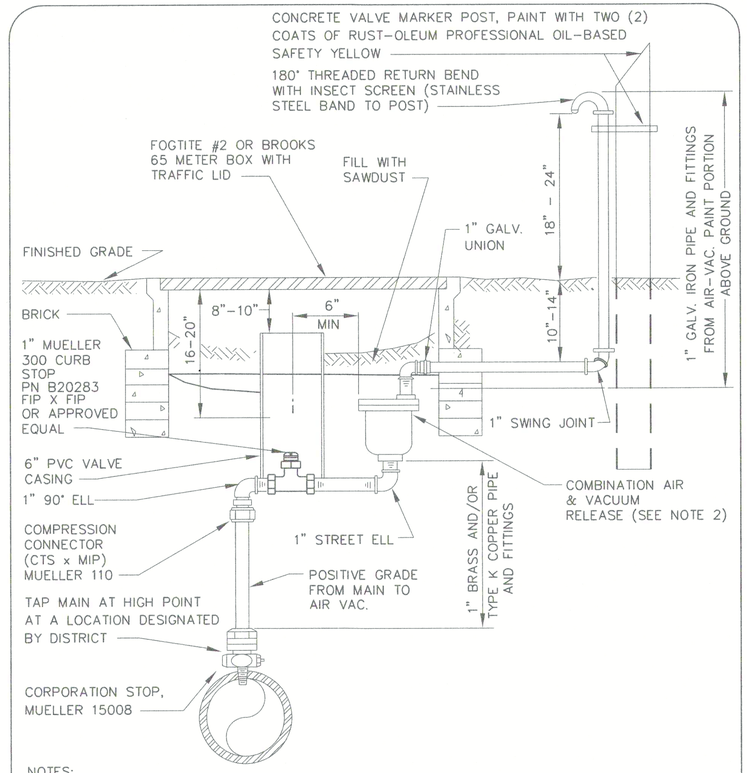
NOTES

1. GUARD POSTS SHALL CONSIST OF REINFORCED 9" DIA. PRECAST UNIT.
2. THE NUMBER AND CONFIGURATION OF THE GAURD POSTS MAY BE 2, 3, OR 4 AND SHALL BE DETERMINED BY THE DISTRICT BASED ON FIELD CONDITIONS.
3. GUARD POSTS SHALL BE PAINTED WITH TWO (2) COATS OF RUST-OLEUM PROFESSIONAL OIL-BASED SAFETY YELLOW PAINT.

GUARD POST

Mukilteo Water and Wastewater District
STANDARD DETAILS

2018 W-D5



NOTES:

1. AIR-RELIEF ASSEMBLY LOCATION SHALL BE AT ALL HIGH POINTS OF THE SYSTEM.
2. APPROVED COMBINATION AIR & VACUUM RELEASE ASSY'S:
   a. CRISPEN UL-10
   b. VALMATIC 201-C
   c. APCO-143C

1'' AIR RELEASE ASSEMBLY

Mukilteo Water and Wastewater District
STANDARD DETAILS

2018 W-D6

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. 1

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

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PRINTED: 10:30:29 AM 8/22/2018	LAST PRINTED BY:					
SUBMITTAL DATE: 08/23/18	DanielJL					
DESIGNED BY: E. BRODAHL	8/22/2018					WA-2017-007-00
ENTERED BY: R. REISER	8/22/2018					REGION NO. STATE
CHECKED BY: P. SACK	8/22/2018					10 WASH
MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

Washington State Department of Transportation
WASHINGTON STATE FERRIES

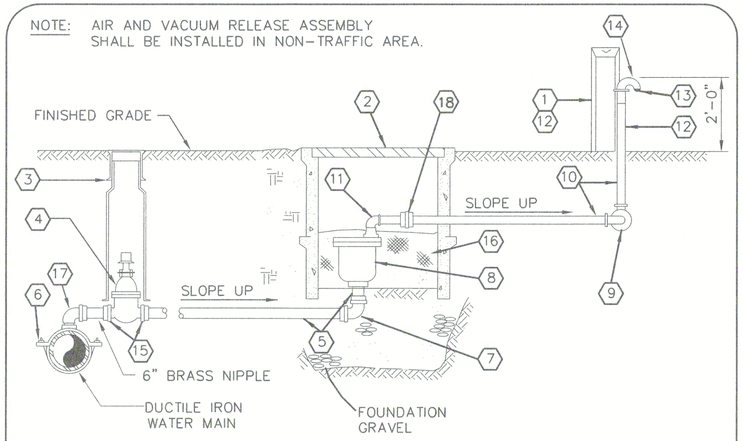
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD WATER STANDARD DETAILS

C08.31

SHEET 210 OF 1521 SHEETS

NOTE: AIR AND VACUUM RELEASE ASSEMBLY SHALL BE INSTALLED IN NON-TRAFFIC AREA.



1. CONCRETE VALVE MARKER POST
2. CONC. METER BOX, FOGTITE # 2 OR BROOKS 65
3. CAST IRON VALVE BOX
4. 2" AWWA RESILIENT SEAT GATE VALVE THD X THD, WITH OPERATING NUT
5. 2" TYPE "K" COPPER TUBING
6. DOUBLE STRAP STAINLESS STEEL SERVICE CLAMP OR LINE SIZE MJX2" FIP TEE
7. 90° BEND MUELLER No. H-15526 COMPRESSION X COMPRESSION
8. 2" COMBINATION AIR & VACUUM RELEASE ASSEMBLY; A. APCO MODEL 144. B. CRISPIN MODEL CRAL 2. C. VALMATIC
9. 2, 2"X90° ELL, GALV.
10. 2" GALV. IRON PIPE (FIELD LOCATE NEXT TO EXISTING PROPERTY LINE)
11. 2"X90° ELL (GALV.)
12. PAINT PORTION ABOVE GROUND WITH TWO COATS OF RUST-OLEUM SAFETY YELLOW
13. 2" BEEHIVE STRAINER
14. 2" OPEN PATTERN RETURN BEND
15. STRAIGHT COUPLING, MUELLER No. H-15428 COMPRESSION TO M.I.P.
16. SAWDUST OR VERMICULITE
17. BRASS STREET ELL
18. 2" GALV. UNION

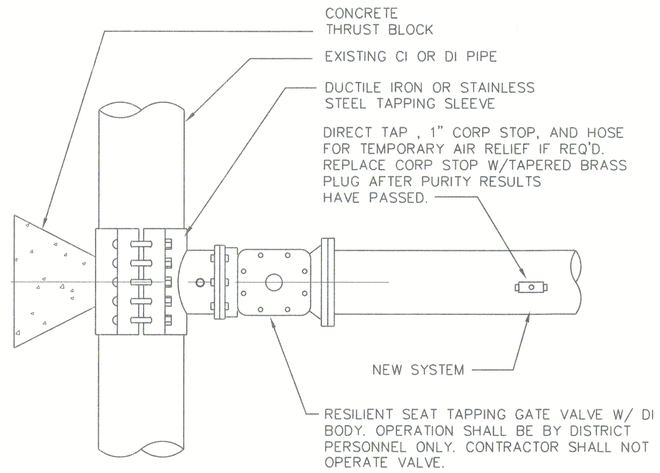
NOTES:

1. ALL PIPING BETWEEN DOUBLE STRAP SADDLE AND INLET SIDE OF COMBINATION AIR AND VACUUM ASSEMBLY SHALL BE COPPER OR BRASS
2. TAP WATER MAIN AT HIGH POINT, LOCATION TO BE DETERMINED BY THE DISTRICT

2" AIR RELEASE ASSEMBLY

Mukilteo Water and Wastewater District
STANDARD DETAILS

2018 W-D7



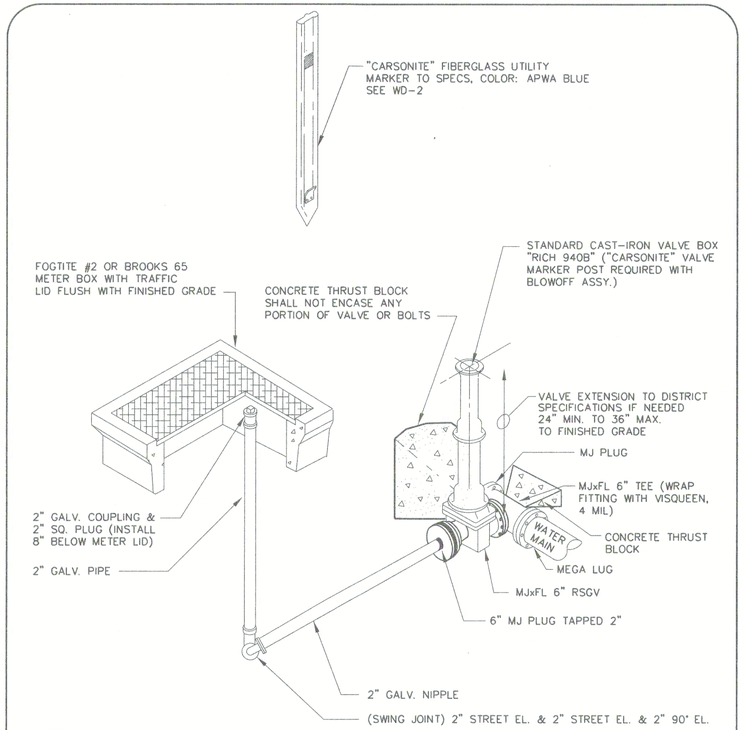
NOTES:

1. SIZE-ON-SIZE TAPPING TEES SHALL BE STAINLESS STEEL FULL CIRCLE MECHANICAL SLEEVE.
2. DUCTILE IRON TAPPING TEES SHALL BE ALLOWED IF TAP IS AT LEAST 2" SMALLER IN DIAMETER THAN THE EXISTING WATER MAIN.
3. TAPPING TEES SHALL BE PRESSURE TESTED TO 200 PSI
4. CONNECTIONS NOT ALLOWED ON FRIDAYS, HOLIDAYS, OR WEEKENDS

WET TAP CONNECTION

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D8



NOTE:

WHERE LAST STICK OF PIPE IS LESS THAN 18' INSTALL FIELD LOC GASKET AT LAST JOINT.

2" BLOWOFF ASSEMBLY

Mukilteo Water and Wastewater District
STANDARD DETAILS

2018 W-D9

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. /

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PRINTED: 10:32:12 AM 8/22/2018	LAST PRINTED BY:					FED.AID PROJ.NO.
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DESIGNED BY: E. BRODAHL	8/22/2018					WA-2017-007-00
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MAR PROJ ENGR: C. TORRES						JOB NUMBER 18W121
DIR TERM ENGR: N. MCINTOSH						
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO. 00****

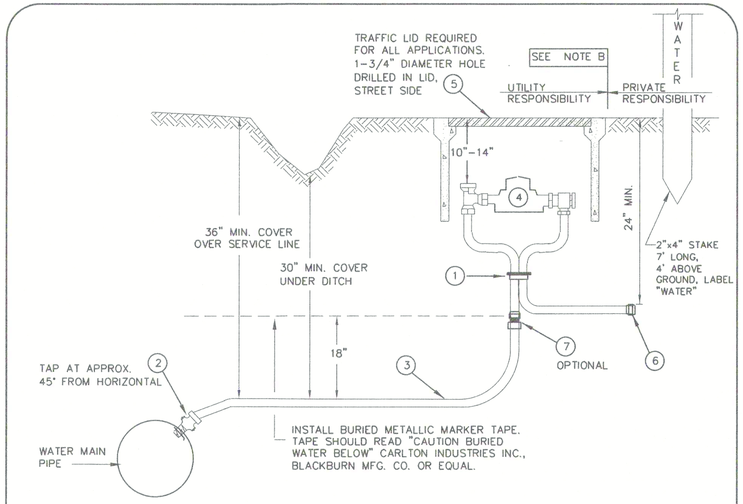
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD WATER STANDARD DETAILS

C08.32

SHEET 211 OF 1521 SHEETS



NO.	ITEM	MATERIAL	SIZE	APPROVED MODELS	
1	METER SETTER	COPPER	1"	FORD: VBH 94-15 W-11-44AVH WITH VERTICAL INLET MUELLER: B-24104-2	
2	CORPORATION STOP	FOR COPPER SERVICE	1"	FORD: FB-1000-4-Q	MUELLER: B-25008
3	DIAMETER OF PIPE SHALL MATCH METER SIZE	COPPER	1"	FEDERAL SPEC. WW-T-799. TYPE K ASTM SPEC. B88, TYPE K AWWA SPEC. 7S-CR, TYPE K	
4	METER (FURNISHED BY MWWD)				
5	METER BOX			FOGTITE: B 9 1/2 T; WITH 1-3/4" HOLE IN LID JR BROOKS: 37 W/CAST TRAFFIC LID; WITH 1-3/4" HOLE IN LID	
6	PVC PLUG AT END OF TAIL PIECE		1"		
7	COPPER X IP ADAPTOR		1"	FORD: C-8433-Q	MUELLER: H-14227

NOTES;

A. SPLICES - NOT ALLOWED UNLESS APPROVED BY THE DISTRICT. USE MUELLER 110 OR FORD QUICK JOINT.

B. OWNERS ARE RESPONSIBLE FOR INSTALLING PRESSURE REDUCER ON THEIR SYSTEM TO PROTECT THEIR FACILITIES FROM HIGH PRESSURE.

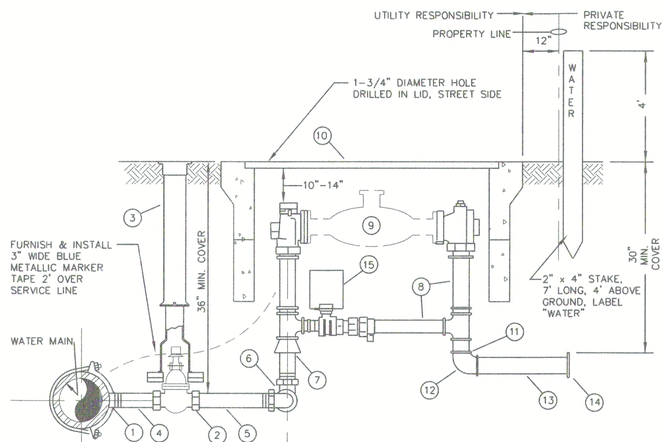
C. SURFACE RESTORATION IN ACCORDANCE WITH JURISDICTIONAL AUTHORITY.

D. 4" OF BEDDING REQUIRED ON ALL COPPER. SAND ONLY.

1" WATER SERVICE INSTALLATION

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D10



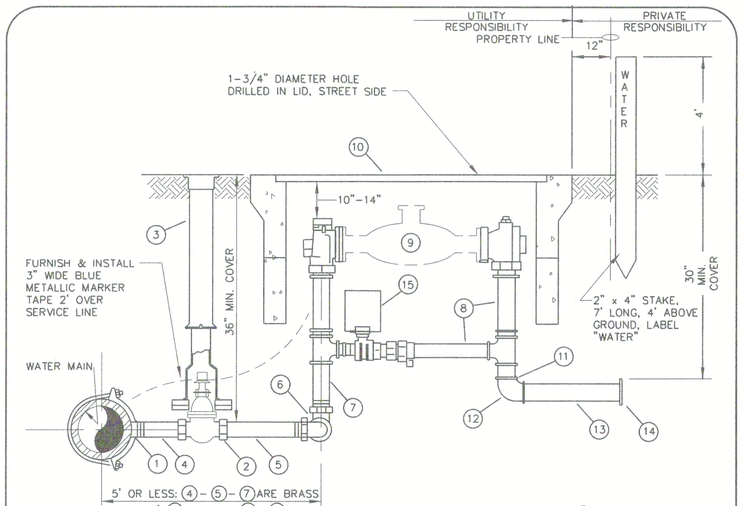
5' OR LESS: (4) - (5) - (7) ARE BRASS
OVER 5': (4) IS BRASS, (5) - (7) USE CL 200 SDR 9 C.T.S. POLYETHENE ADD FORD 2" MALE ADAPTERS, PACK JOINT (OR MUELLER 110 COMPRESSION) COUPLINGS, COMPLETE WITH INSERT SLEEVE (TYPICAL 2 EACH).

NO.	ITEM
1	ROMAC STYLE 202S STAINLESS STEEL DOUBLE STRAP TYPE SADDLE
2	2" RESILIENT WEDGE GATE VALVE WITH 2" OPERATING NUT
3	STANDARD CAST-IRON VALVE BOX (RICH NO. 940)
4	BRASS NIPPLE (3" MIN., 6" MAX.)
5	NIPPLE (SEE NOTE ABOVE)
6	BRASS SWING JOINT
7	NIPPLE (SEE NOTE ABOVE) WITH 2" x 1 1/2" REDUCER (FORD C-84-67)
8	METER SETTER, 1 1/2" FORD VBH66-12B WITH METER SPACER (LENGTH DETERMINED BY DISTRICT PRIOR TO INSTALLATION)
9	METER (FURNISHED BY DISTRICT) 13 1/4" LONG
10	METER BOX, NO.2 FOG TITE OR BROOKS NO. 65, WITH STEEL TRAFFIC COVER (FURNISH 2 BOXES). 1-3/4" DIAMETER HOLE IN LID.
11	1 1/2" BRASS NIPPLE
12	1 1/2" BRASS 90° EL
13	1 1/2" x 12" BRASS NIPPLE
14	1 1/2" CAP
15	6" PVC PIPE OVER BY-PASS VALVE.

1 1/2" WATER SERVICE INSTALLATION

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D11



5' OR LESS: (4) - (5) - (7) ARE BRASS
OVER 5': (4) IS BRASS, (5) - (7) USE CL 200 SDR 9 C.T.S. POLYETHENE ADD FORD 2" MALE ADAPTERS, PACK JOINT (OR MUELLER 110 COMPRESSION) COUPLINGS, COMPLETE WITH INSERT SLEEVE (TYPICAL 2 EACH).

NO.	ITEM
1	ROMAC STYLE 202S STAINLESS STEEL DOUBLE STRAP TYPE SADDLE
2	2" RESILIENT WEDGE GATE VALVE WITH 2" OPERATING NUT
3	STANDARD CAST-IRON VALVE BOX (RICH NO. 940)
4	BRASS NIPPLE (3" MIN., 6" MAX.)
5	NIPPLE (SEE NOTE ABOVE)
6	BRASS SWING JOINT
7	NIPPLE (SEE NOTE ABOVE)
8	METER SETTER, 2" FORD VBH66-12B WITH METER SPACER (LENGTH DETERMINED BY DISTRICT PRIOR TO INSTALLATION)
9	METER (FURNISHED BY DISTRICT) 17 1/4" LONG
10	METER BOX, NO.2 FOG TITE OR BROOKS NO. 65, WITH STEEL TRAFFIC COVER (FURNISH 2 BOXES). 1-3/4" DIAMETER HOLE IN LID.
11	2" BRASS NIPPLE
12	2" BRASS 90° EL
13	2" x 12" BRASS NIPPLE
14	2" CAP
15	6" PVC PIPE OVER BY-PASS VALVE.

2" WATER SERVICE INSTALLATION

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D12

NOTE: FOR 1" SERVICE TO TOLL BOOTH AREA, PROVIDE 1" INDIVIDUAL PRV, WATTS LF25AUB-23 OR EQUAL. PROVIDE LARGER METER BOX AS NECESSARY TO ACCOMODATE IPRV.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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Washington State Department of Transportation
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SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD WATER STANDARD DETAILS

C08.33

SHEET 212 OF 1521 SHEETS

FILE NAME: WSF\Mukilteo\14W121_FerryTermConst\CADD\JACOBS\ 14w121c08_33.dlv						
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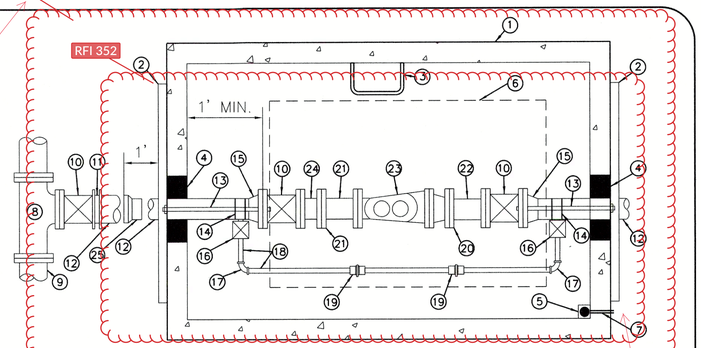
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		00****

RFI 122

RFI 352



RFI 17

3" & 4" METER SERVICE INSTALLATION

1. UTILITY VAULT 4484-LA OR APPROVED EQUAL
2. 4~3"x3"x3/8" GALV. ANGLES, 48" LONG (HOT DIPPED)
3. INSTALL LANE POLYPROPYLENE (STEEL REINFORCED) LADDER ON OPPOSITE SIDE OF SECONDARY METER. LOCATION TO BE APPROVED BY THE DISTRICT. (MUST BE ACCESSIBLE FROM VAULT LIDS & MUST NOT INTERFERE WITH THE METER MOUNT OR TESTING)
4. NON-SHRINK WATER TIGHT GROUT (BOTH ENDS)
5. DRAIN VAULT TO DAYLIGHT OR PROVIDE WATER TIGHT VAULT. EASEMENT REQUIRED ON DRAIN.
6. 36"x72" LW PRODUCTS HD ACCESS HATCH (H-20 RATED). HATCH TO BE COATED WITH THERMION TH604 ANTI-SLIP & ANTI-CORROSION SYSTEM. GRADE #2 MODERATE TEXTURE. LID AND HATCH TO BE H-30 RATED IF IN TRAFFIC AREA.
7. INSTALL PVC SHORT NIPPLE & 90° POINTED DOWN IN THE CORNER DRAIN WITH 1" WASHED DRAIN ROCK POCKET. NOTE: DEPENDING ON MANUFACTURER AND SIZE OF VAULT DRAIN KNOCKOUTS COULD BE ON SIDES OR END OF LID.
8. 3" OR 4" TEE (FL).
9. WATER MAIN.
10. 3" OR 4" R.W. GATE VALVE (FLxMJ).
11. MEGALUG GLAND OR APPROVED EQUAL.
12. 3" OR 4" DUCTILE IRON PIPE.
13. (4) 5/8 DIA. SST. ALL-THREAD, BOLT FLANGE THROUGH WALL TO ANGLE (STAINLESS).
14. ROMAC 2"x3" (202NS-4.05) OR 2"x4" (202NS-4.80) DOUBLE STRAP STAINLESS STEEL SADDLE OR APPROVED EQUAL.
15. MEGALUG GLAND OR APPROVED EQUAL.
16. 2" R.W. GATE VALVE (2 PLACES).
17. 2" BRASS 90° BEND.
18. 2" BRASS PIPE (TYP).
19. 2" BRASS UNION AS APPROVED BY THE DISTRICT.
20. MEGAFLANGE ADAPTER.
21. DUCTILE IRON SPOOL (FLxPE) (15" LONG FOR 3" METER, 20" LONG FOR 4" METER).
22. 3" OR 4" DUCTILE IRON SPOOL (FLxPE) (10" LONG MIN.).
23. 3" OR 4" BADGER RECORDALL COMPOUND SERIES METER (FLxFL), LEAD FREE BRONZE ALLOY WITH HIGH RESOLUTION ENCODER (HR-E) AND ORION CE TRANSMITTER. MOUNT RADIO TRANSMITTER THROUGH VAULT LID AS DIRECTED BY THE DISTRICT. FACTORY PROGRAMMED FOR GALLONS.
24. 3" OR 4" BADGER PLATE STRAINER (FLxFL).
25. 4"x3" DUCTILE IRON REDUCER AS DIRECTED BY THE DISTRICT (MJxMJ) WITH MEGALUG FOLLOWER GLANDS.

NOTE:
PIPING & VALVES MUST BE SUPPORTED BY ADJUSTABLE PIPE SUPPORT STANDONS, MODEL S-92 OR APPROVED EQUAL. A MINIMUM OF TWO REQUIRED OR AS DIRECTED BY THE DISTRICT.

3" & 4"
SERVICE INSTALLATION

Mukilteo Water and Wastewater District
STANDARD DETAILS

2018 W-D13

NOTE: FOR 3" SERVICE TO FERRY BOATS, ELIMINATE DCVA AND ONE RWGV SHOWN ABOVE. USE UTILITY VAULT/OLDCASTLE PRECAST MODEL 644-LA OR APPROVED EQUAL WITH SINGLE HATCH. PROVIDE 3 INDIVIDUAL PRV, WATTS LEAD FREE LFN223F OR ACCEPTED EQUAL. PROVIDE LARGER METER BOX AS NECESSARY TO ACCOMMODATE IPRV.

RFI 17

PER RFI 122 - MWWD's Standard detail only provides a plan view of the meter vault, so there is some flexibility on the elevations. the rim elevation should be roughly 21.8 feet, interpolated from the adjacent grading. The IE of the 4-inch DI at the tee with the 12-inch main appears to be about 17.5 feet, which would also be appropriate for the pipe IE in the vault. The floor should be about one foot lower, so 16.5 feet. The IR could be raised as high as 18.0 feet (about 3.5 feet of cover) in the meter vault, but there isn't much room to deflect the pipe higher between the main and the vault, and vertical bends should not be used at this location, so the IE will need to be closed to 17.5 feet (or a little bit higher).

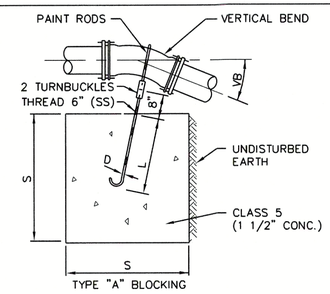
TYPE "A" BLOCKING
FOR 11 1/4°-22 1/2°-30° VERTICAL BENDS

PIPE SIZE NOMINAL DIAMETER-INCHES	TEST PRESSURE PSI	VB VERTICAL BEND DEGREES	No. OF CU. FT. OF CONC. BLOCKING	S SIDE OF CUBE LIN. FT.	D DIAMETER OF RODS (2) INCHES	L DEPTH OF RODS IN CONCRETE LIN. FT.
4"	300	11 1/4	8	2	5/8"	1.5
		22 1/2	11	2.2		2.0
		30	17	2.6		
6"	300	11 1/4	11	2.2	5/8"	2.0
		22 1/2	25	2.9		
		30	41	3.5		
8"	300	11 1/4	16	2.5	5/8"	2.0
		22 1/2	47	3.6		
		30	70	4.1	3/4"	2.5
12"	250	11 1/4	32	3.2	5/8"	2.0
		22 1/2	88	4.5	7/8"	3.0
		30	132	5.1		
16"	225	11 1/4	70	4.1	7/8"	3.0
		22 1/2	184	5.7	1 1/8"	4.0
		30	275	6.5	1 1/4"	
20"	200	11 1/4	91	4.5	7/8"	3.0
		22 1/2	225	6.1	1 1/4"	4.0
		30	330	6.9	1 3/8"	4.5
24"	200	11 1/4	128	5.0	1"	3.5
		22 1/2	320	6.8	1 3/8"	4.5
		30	480	7.9	1 7/8"	5.5

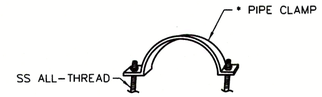
TYPE "B" BLOCKING
FOR - 45° VERTICAL BENDS

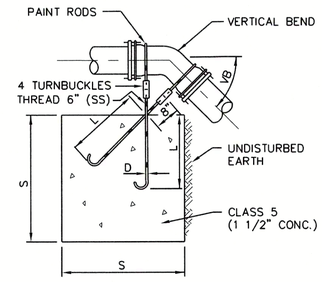
		VB	S	D	L
4"	300	45	30	3.1	5/8"	2.0
6"			68	4.1		
8"			123	5.0		
12"	250		232	6.1	3/4"	2.5
16"	225		478	7.8	1 1/8"	4.0
20"	200		560	8.2	1 1/4"	
24"			820	9.4	1 3/8"	4.5

• PIPE CLAMP, WASHERS AND NUTS MAY BE SUBSTITUTED FOR TURN BUCKLES. ALL OTHER SPECIFICATIONS THE SAME.



TYPE "A" BLOCKING





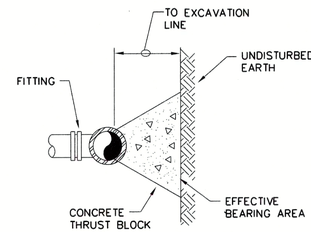
TYPE "B" BLOCKING

Per RFI 352 - The proposed reconfiguration of the piping layout, with the 3-inch gate valve and portions of the 2-inch
bypass line with external gate valves and valve boxes is acceptable fr. The note below detail W-D13 mentions installation of a 3-inch IPRV. This IPRV is still needed, and should be installed within the Hot Box (upstream)as called out on note 68 on drawings C08.15

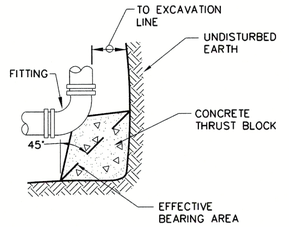
VERTICAL ANCHOR BLOCK

Mukilteo Water and Wastewater District
STANDARD DETAILS

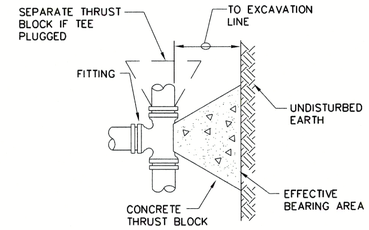
2018 W-D14



TYPICAL SECTION



90°EL PLAN



TEE PLAN

EFFECTIVE BEARING AREA REQUIRED

PIPE SIZE	90°EL	45° EL	22 1/2° EL	11 1/4° EL	TEE
8"	7 SQ. FT.	4 SQ. FT.	2 SQ. FT.	2 SQ. FT.	5 SQ. FT.
12"	16 SQ. FT.	9 SQ. FT.	4 SQ. FT.	3 SQ. FT.	11 SQ. FT.
16"	28 SQ. FT.	15 SQ. FT.	8 SQ. FT.	5 SQ. FT.	20 SQ. FT.

TYPICAL FOR SANDY SOIL WITH 2,000 P.S.F. BEARING STRENGTH & 200 P.S.I. PRESSURE. IF PRESSURE IS GREATER OR SOIL BEARING IS LESS, THE THRUST BLOCK SIZE SHALL BE INCREASED.

NOTES:

1. BLOCKING SHALL BE TO SOLID BEARING SURFACE.
2. ALL FITTINGS SHALL BE COVERED WITH 4 MIL VISQUEEN BEFORE CONCRETE IS POURED.
3. CONCRETE BLOCKING SHALL BE 2000 PSI MINIMUM CONCRETE POURED IN PLACE. ALL BLOCKS ON TEES SHALL BE SEPARATED FOR DIRECTION OF THRUST.
4. THIS TABLE REPRESENTS THE "MINIMUM" CONSTRUCTION STANDARDS. THE DEVELOPER'S ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE APPROPRIATE SIZE OF ALL THRUST BLOCKS BASED ON EXISTING AND LOCAL CONDITIONS.

THRUST BLOCKING

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D15

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. ____

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ENTERED BY: R. REISER	3/20/19					10 WASH
CHECKED BY: P. SACK	3/20/19					JOB NUMBER
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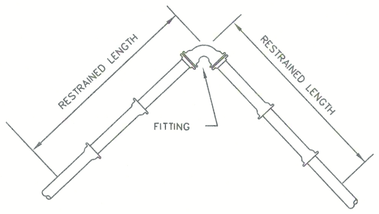
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD WATER STANDARD DETAILS

C08.34
SHEET
OF
SHEETS



PIPE SIZE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	TEE OR DEAD END CAP
	RESTRAINED LENGTH IN FEET				
4"	32	14	7	3	26
6"	44	19	9	5	32
8"	58	24	12	6	43
10"	70	29	14	7	54
12"	82	34	16	8	66
16"	106	44	21	11	88
18"	116	48	23	12	100

NOTES:

① RESTRAINED LENGTHS SHOWN ARE MINIMUM AND FOR LINEAL FEET REQUIRED ON EACH SIDE OF FITTING INDICATED.

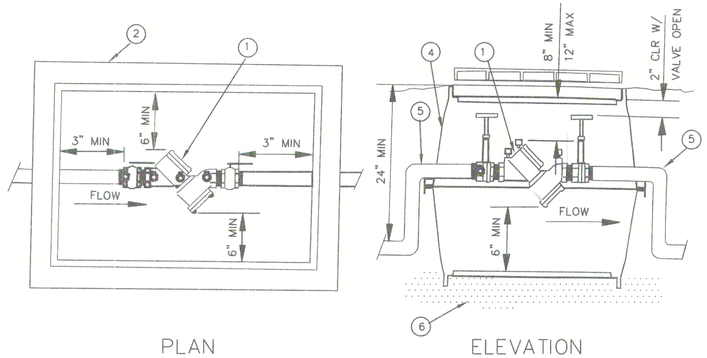
② FOOTAGES ARE BASED ON 200 PSI PRESSURE AND 42 INCHES COVER. IF PRESSURE IS GREATER OR COVER IS LESS, THE RESTRAINED LENGTH SHALL BE INCREASED.

③ THIS TABLE REPRESENTS THE "MINIMUM" CONSTRUCTION STANDARDS. THE DEVELOPER'S ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE APPROPRIATE LENGTH OF ALL RESTRAINED JOINT BASED ON EXISTING AND LOCAL CONDITIONS.

THRUST RESTRAINT FOR DUCTILE IRON PIPE

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D16



PLAN ELEVATION

LEGEND

① STATE APPROVED DOUBLE CHECK VALVE ASSEMBLY

② IN NON-TRAFFIC AREAS USE:
PRECAST CONCRETE VAULT (UTILITY VAULT CO 233-LA, OR APPROVED EQUAL) OR PLASTIC VALVE BOX (UTILITY VAULT CO 1324-12L OR APPROVED EQUAL)
IN TRAFFIC AREAS:
A TRAFFIC LOADED BOX MUST BE USED AND LOCATION APPROVED BY THE DISTRICT PRIOR TO INSTALLATION.

③ ALL ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH WASHINGTON STATE DEPARTMENT OF HEALTH REQUIREMENTS.

④ A DAYLIGHT DRAIN SHALL BE PROVIDED THERE MUST BE A 4" MIN LAYER OF FREE DRAINING GRAVEL AT THE BOTTOM OF BOX.

⑤ ANGLES MAY BE IN OR OUT OF BOX SO LONG AS SUFFICIENT ROOM IS ALLOWED AT EACH END FOR VALVE OPERATOR AND DCVA REPAIR OR MAINTENANCE.

⑥ PROVIDE FREE DRAINING SOIL.

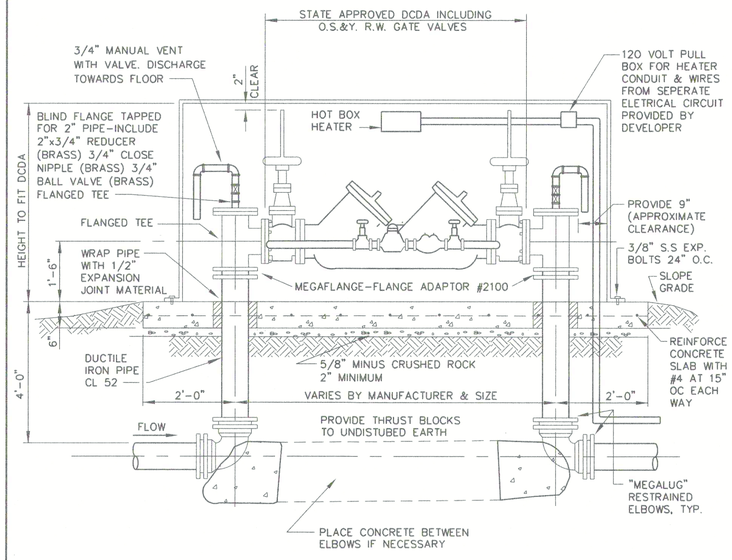
NOTES

1. ALL TEST COCKS MUST HAVE BRASS PLUGS.
2. TEST COCKS MUST FACE UP OR SIDEWAYS WHICH EVER IS MORE ACCESSIBLE

DOUBLE CHECK VALVE ASSEMBLY FOR 2" & SMALLER SERVICE

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D17



NOTES:

1. INSTALLATION OF HOT BOX SUBJECT TO APPROVAL OF DISTRICT AS AN ALTERNATE TO VAULTS.
2. ALUMINUM "HOT BOX" MODELS 4 THROUGH 10 FOR RESPECTIVE SIZE DCDA SHALL BE MODIFIED TO FIT ABOVE HEIGHT REQUIREMENTS. VALVE STEM SHALL NOT BE ALLOWED TO EXTEND OUTSIDE OF BOX.
3. HEATERS SHALL BE 2,000 WATT FOR 6" AND 8" SIZE: 3,000 WATT FOR 10" OR LARGER.
4. PROVIDE SPECIAL LOCK FOR 2 PADLOCKS.
5. CONCRETE TO BE 2500 PSI MIX WITH AIR ENTRAINMENT.
6. 5/8"x3/4" BADGER RECORDALL DISC METER M25, 7-1/2" LAY LENGTH, LEAD-FREE BRONZE ALLOY HOUSING AND BOTTOM, HR-E ENCODER WITH ORION CE TRANSMITTER. FACTORY PROGRAMMED FOR GALLONS. MOUNT IN DISTRICT APPROVED LOCATION.

DOUBLE CHECK DETECTOR HOT BOX ENCLOSURE

Mukilteo Water and Wastewater District
STANDARD DETAILS

2018 W-D18

NOTES:

1. BASE SHALL BE GRAVEL BACKFILL FOR FOUNDATION, CLASS A.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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ENTERED BY: R. REISER	8/22/2018					10 WASH
CHECKED BY: P. SACK	8/22/2018					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

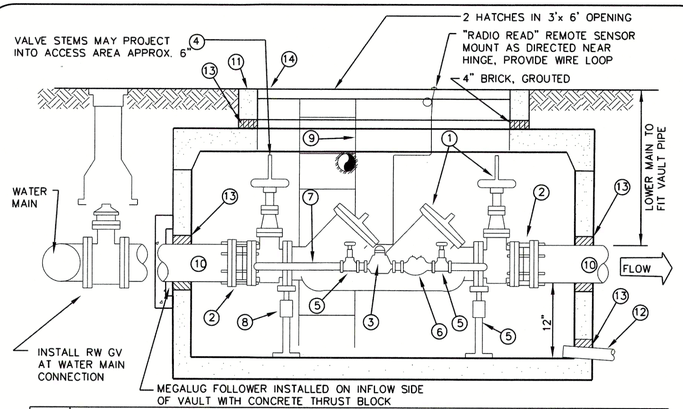
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD WATER STANDARD DETAILS

C08.35

SHEET 214 OF 1521 SHEETS



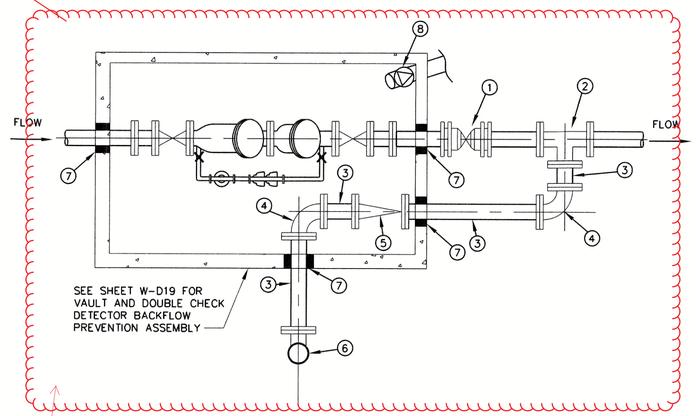
NO.	DESCRIPTION
1	STATE APPROVED DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) BACKFLOW PREVENTION ASSEMBLY WITH O.S.&Y. R.W. GATE VALVE
2	ROMAC STYLE 'FCA 501' FLANGED COUPLING ADAPTER
3	5/8"X3/4" BADGER RECORDALL DISC METER M25, 7-1/2" LAY LENGTH, LEAD-FREE BRONZE ALLOY HOUSING AND BOTTOM, HR-E ENCODER ORION CE TRANSMITTER. MOUNT RADIO TRANSMITTER THROUGH VAULT LID AS DIRECTED BY THE DISTRICT. FACTORY PROGRAMMED FOR GALLONS.
4	LOCATE CENTER OF VALVE 15" FROM CENTER OF VAULT TO ALLOW STEMS TO EXTEND INTO ACCESS OPENING WHEN APPLICABLE
5	3/4" SHUTOFF VALVE; BRASS GATE VALVE
6	STATE APPROVED 3/4" DOUBLE CHECK VALVE ASSEMBLY (DCVA)
7	BRASS OR TYPE K COPPER, DETECTOR CHECK PIPING (BY PASS LINE)
8	2 EA. GALVANIZED ADJUSTABLE STANCHIONS (LOCATE AT ENDS OF DOUBLE CHECK ASSEMBLY)
9	GALVANIZED STEEL LADDER, LOCATE AS DIRECTED BY DISTRICT, SECURE TO VAULT.
10	PIPE SPOOL, CL. 52 D.I., PLAIN END
11	"UTILITY VAULT" OR APPROVED EQUAL WITH 4" BRICK AND ADJUSTABLE COVER; 2 ACCESS HATCHES: EXCEPT 3 HATCHES FOR 10" DCDA. LW PRODUCTS OR EQUAL, H-20 LOADING 4" DCDA, USE 575 LA + 57 AT (4'-2" x 6'-6" x 4'-0" INSIDE) 6" DCDA, 4484 LA + 57 AT (4'-4" x 8'-4" x 6'-2" INSIDE) 6" DCDA, 5106 LA + 57 AT (5'-0" x 10'-6" x 4'-4" INSIDE) 8" DCDA, 5106 LA + 57 AT (5'-0" x 10'-6" x 6'-2" OR 4'-4" INSIDE) 10" DCDA, 5106 LA + 5106 AT (3 HATCH) (5'-0" x 10'-6" x 6'-2" OR 4'-4")
12	6" PVC DRAIN, DISCHARGE TO DAYLIGHT OR TO CATCH BASIN. MINIMUM SLOPE 1NLESS OTHERWISE APPROVED. ADD SCREENS AT BOTH ENDS.
13	WATERTIGHT GROUT, INLET AND OUTLET PIPE, DRAIN PIPE AND BRICK ACCESS OPENING
14	SIGN READING "DANGER-PERMIT REQUIRED-CONFINED SPACE, DO NOT ENTER"

NOTE:
AFTER PRESSURE TEST AND PURITY SAMPLES ARE RECIEVED, A CERTIFIED BACKFLOW ASSEMBLY TESTER SHALL SUPPLY DISTRICT WITH A WRITTEN TEST REPORT ON EACH BACKFLOW ASSEMBLY.

DOUBLE CHECK DETECTOR BACKFLOW PREVENTION ASSY.

2018 W-D19 Mukilteo Water and Wastewater District STANDARD DETAILS

RFI 24

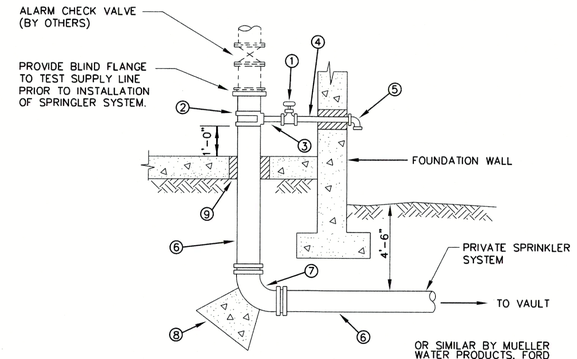


NO.	DESCRIPTION
1	POST INDICATOR VALVE, MJ WITH MEGALUGS
2	MAIN LINE SIZE X 4" TEE, MJ WITH MEGALUGS
3	4" DUCTILE IRON PIPE, CLASS 52*
4	4" x 90° BENDS, MJ WITH MEGALUGS
5	4" FLAPPER CHECK VALVE WITH BALL CHECK DRAIN VALVE, (IF ALTERNATE LOCATION IS REQUIRED, THE LOCATION WILL BE DETERMINED BY THE DISTRICT), MJ WITH MEGALUGS
6	FIRE DEPARTMENT CONNECTION, STORZ ADAPTER. CONNECTION TO COMPLY WITH FIRE DEPARTMENT REQUIREMENTS. 4" MUKILTEO & DIST. #1, 5" ELSEWHERE. ALL ABOVE GROUND PIPING TO BE PAINTED SAME COLOR RED AS P.I.V.
7	WATERTIGHT GROUT
8	6" PVC DRAIN TO DAYLIGHT OR CB, MINIMUM SLOPE 1% SCREEN AT BOTH ENDS W/BACKWATER VALVE IN VAULT

* 4" DIAMETER AND SMALLER DUCTILE IRON PIPE SHALL BE CLASS 53 IF USED IN A THREADED APPLICATION.

FIRE LINE CONNECTION

2018 W-D20 Mukilteo Water and Wastewater District STANDARD DETAILS



No.	DESCRIPTION
1	2" RWGV OR BRONZE BALL VALVE
2	ROMAC STYLE 202S STAINLESS STEEL DOUBLE STRAP SADDLE (APPROVED EQUAL)
3	2" BRASS NIPPLE
4	2" GALVANIZED NIPPLE
5	2" GALVANIZED 90° EL
6	D.I. CL. 52 SUPPLY MAIN (SIZE AS DETERMINED BY FIRE FLOW REQUIREMENTS).
7	90° BEND (MJ x MJ) WITH MEGALUG
8	CONCRETE THRUST BLOCK (SIZE TO BE APPROVED BY DISTRICT)
9	1/2" EXPANSION JOINT

NOTE

AFTER SYSTEM IS PRESSURE TESTED, PURITY SAMPLES SHALL BE TAKEN AT ALL RISERS IN SYSTEM.

4" DIAMETER AND SMALL DUCTILE IRON PIPE SHALL BE CLASS 53 IF USED IN A THREADED APPLICATION.

FIRE LINE RISER DETAIL

8/09 W-D21 Mukilteo Water and Wastewater District STANDARD DETAILS

Per RFI 24 -All piping, fittings, and valves should be 6-inch diameter, per Sheet C08.14 and C08.54. Detail W-D20 on Sheet C08.36 shows the proper components and the standard configuration, except that all components should be 6-inch diameter rather than 4-inch diameter for the fire service.

It should be noted that the two fire vaults are subject to reconfiguration, as Mukilteo Water and Wastewater District indicated that the west vault will instead need to be an above-grade hot box with an RPBA. Updated drawings will be provided after this change has been finalized, and it would be advisable to wait to order these materials until the updates are provided.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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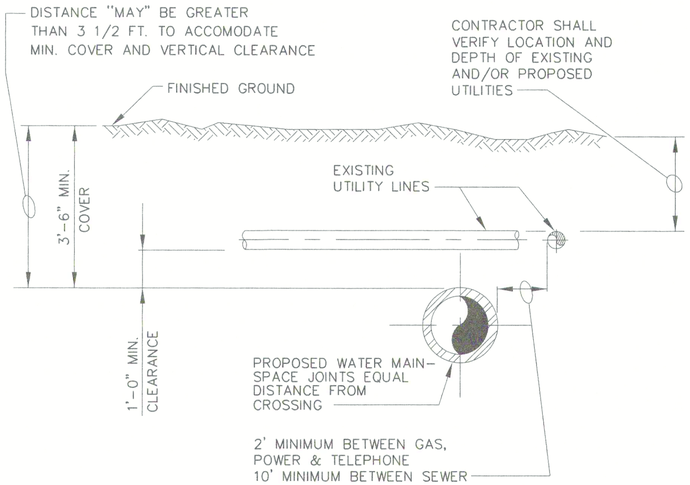
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		CONTRACT NO. 009321
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD WATER STANDARD DETAILS

C08.36
SHEET
OF
SHEETS



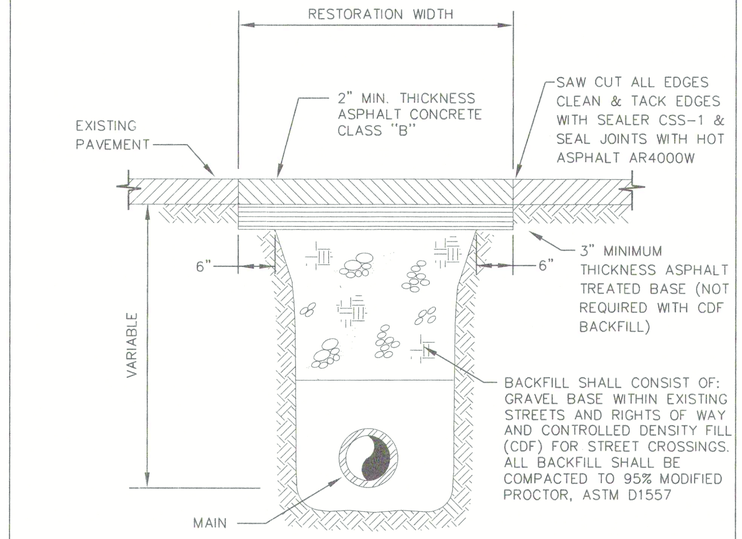
NOTES:

MINIMUM COVER SHOWN IS FOR 8" DIMATER PIPE.
SEE W-D1 FOR MINIMUM COVER FOR ALL PIPES.

TYPICAL UTILITY CROSSING

2018 W-D22

Mukilteo Water and Wastewater District
STANDARD DETAILS



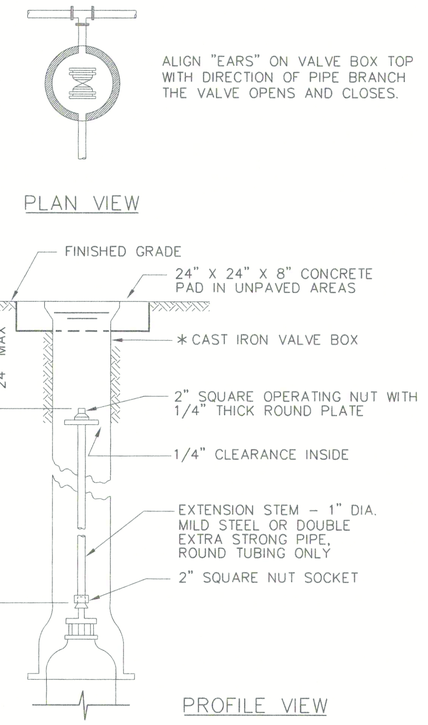
NOTES:

1. ALL ASPHALT STREETS AND DRIVEWAYS SHALL BE TEMPORARILY REPAIRED WITH COLD MIX, EXCEPT CROSSINGS WITH CDF SHALL BE COVERED WITH STEEL PLATES UNTIL THE CDF HAS CURED TO ALLOW FOR PLACEMENT OF THE ASPHALT.
2. PATCH SHALL BE MACHINE ROLLED FLUSH WITH EXISTING PAVEMENT AND SHALL BE PLACED PER SEC. 5-04 OF THE WA. STATE D.O.T. SPECIFICATIONS.

ASPHALT PAVEMENT REPAIR

2018 W-D23

Mukilteo Water and Wastewater District
STANDARD DETAILS



* CAST IRON VALVE BOX EXTENSION SHALL UTILIZE 5" CAST IRON "SOIL PIPE". BELL END TO BE PLACED OVER TOP OF VALVE BOX BOTTOM.

VALVE STEM EXTENSION

8/09 W-D24

Mukilteo Water and Wastewater District
STANDARD DETAILS

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

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MAR PROJ ENGR: C. TORRES					18W121	
DIR TERM ENGR: N. MCINTOSH					CONTRACT NO.	
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY	00****	

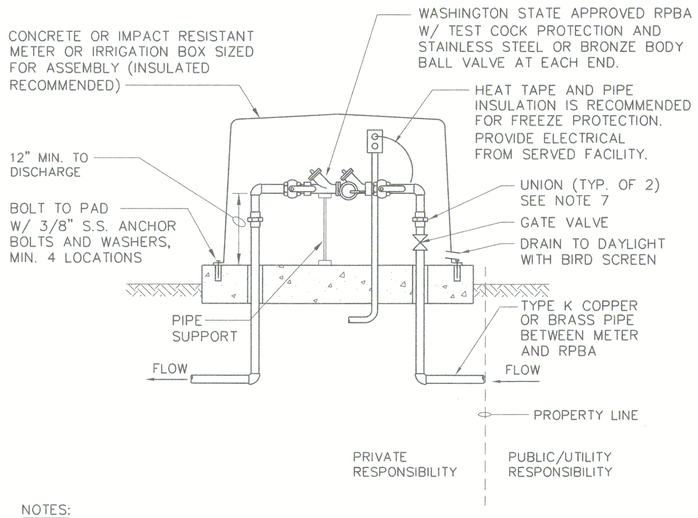
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD WATER STANDARD DETAILS

C08.37

SHEET 216 OF 1521 SHEETS



NOTES:

1. BACKFLOW ASSEMBLY SHALL BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH CURRENT APPROVED LIST.
2. CONCRETE TO BE 2500 PSI MIX WITH AIR ENTRAINMENT.
3. COMPLETE ALL WORK IN ACCORDANCE WITH STATE, DISTRICT AND MANUFACTURER STANDARDS.
4. SYSTEM SHALL NOT BE PUT INTO SERVICE UNTIL RPBA IS APPROVED BY THE DISTRICT AND TESTED/CERTIFIED BY A WASHINGTON STATE LICENSED TESTER.
5. RPBA IS CONSIDERED PART OF THE PRIVATE SYSTEM AND SHALL BE MAINTAINED BY THE PROPERTY OWNER WITH ANNUAL CERTIFICATION REQUIRED.
6. PRESSURE TEST AND DISINFECT PER A.W.W.A. STANDARDS.
7. DIELECTRIC UNIONS SHALL BE USED TO SEPARATE DISSIMILAR MATERIALS.
8. RPBA BOX SHALL BE LOCATED IMMEDIATELY DOWNSTREAM OF WATER SERVICE BOX PRIOR TO ANY BRANCH CONNECTIONS WITH NO MORE THAN 1'-2' BETWEEN BOXES.

REDUCED PRESSURE BACKFLOW ASSEMBLY – 3/4" TO 2"

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 W-D26

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MAR 26 2019
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APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards orrequirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

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ENTERED BY: D. OSBORNE	2/22/2018					10 WASH
CHECKED BY: R. LUDWIG	2/22/2018					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

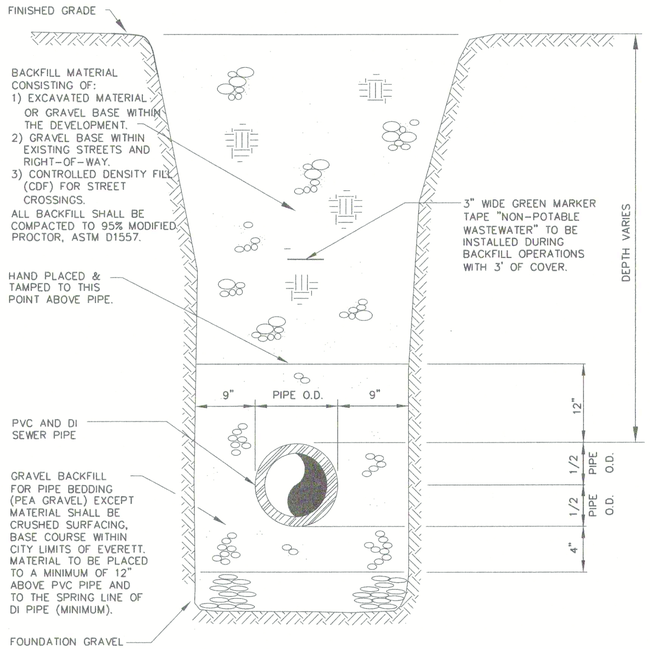
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD WATER STANDARD DETAILS

C08.38

SHEET 217 OF 1521 SHEETS

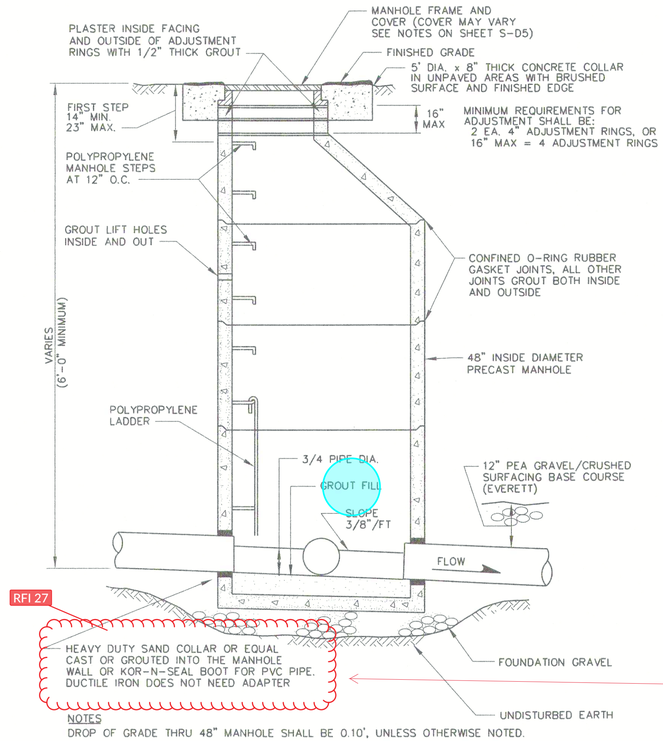


NOTES:
THE DEVELOPER SHALL PROVIDE THE DISTRICT WITH LABORATORY TEST RESULTS INDICATING COMPACTION OF THE TRENCHES MEET THE REQUIREMENT OF 95% MODIFIED PROCTOR, ASTM D1557

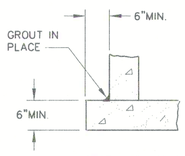
SANITARY SEWER TYPICAL TRENCH SECTION

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 S-D1



NOTES
DROP OF GRADE THRU 48" MANHOLE SHALL BE 0.10', UNLESS OTHERWISE NOTED.



CAST IN PLACE BASE

MANHOLE SIZES:
48" FOR DEPTH < 20 FT.
54" FOR DEPTH ≥ 20 FT.
60" FOR PIPE DIA. ≥ 15"
72" FOR PIPE DIA. ≥ 24"

SANITARY SEWER MANHOLE SECTION

Mukilteo Water and Wastewater District
STANDARD DETAILS

2018 S-D2

Per RFI 27 - Sheet C08.40 shows details for sanitary sewer manhole connections. Storm manholes and connections to storm manholes shall be per WSDOT Standard Plans (B-15.20-1, B-15.20-02, B15.20-03) and WSDOT Standard Spec Section 7-05.

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APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

Washington State Department of Transportation
WASHINGTON STATE FERRIES

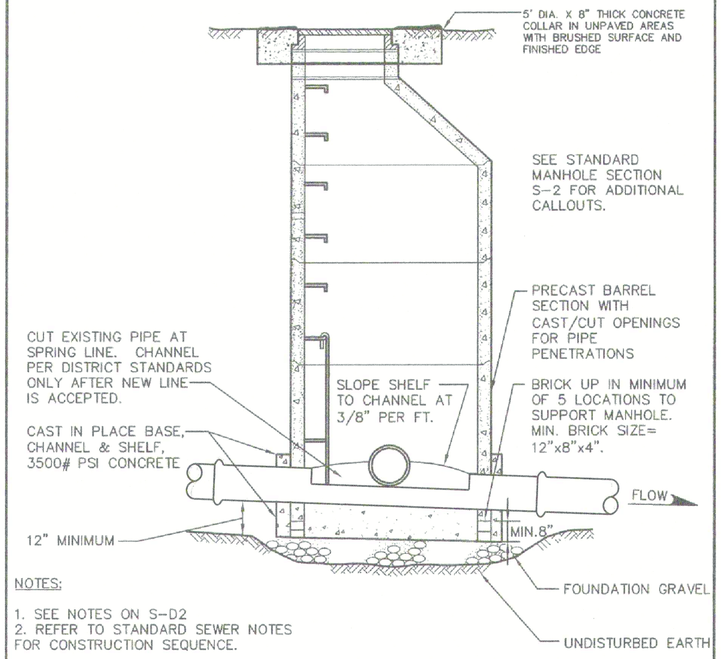
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD SANITARY SEWER STANDARD DETAILS

C08.40

SHEET 218 OF 1521 SHEETS

2018



NOTES:

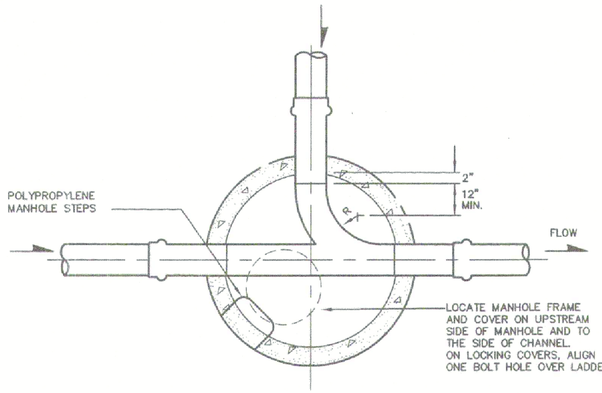
1. SEE NOTES ON S-D2
2. REFER TO STANDARD SEWER NOTES FOR CONSTRUCTION SEQUENCE.

SANITARY SEWER SADDLE MANHOLE

Mukilteo Water and Wastewater District
STANDARD DETAILS

S-D3

2018



NOTES.

MANHOLE FRAME & LOCKING COVER

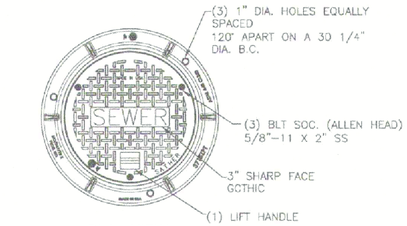
a. COVER SHALL HAVE THE WORD "SEWER" CAST WITH 2" HIGH LETTERS AND RAISED 3/8".
b. TOTAL WEIGHT OF FRAME & COVER SHALL BE 360 LBS. MIN.
c. DUCTILE IRON FRAME & COVER SHALL BE A.P.W.A. PLAN NO. 42.
d. NON-SKID PATTERN TO BE CAST INTEGRAL ON TOP OF COVER.
e. COVER SHALL BE PROVIDED WITH 3 EACH HOLES FOR LOCK DOWN PURPOSES.
f. PROVIDE 3 EACH 5/8", 11 N.C. SOCKET HEAD STAINLESS STEEL SCREWS, 3 5/8" LONG.
g. ALL HOLES FOR LOCKING COVER SHALL BE IN ALIGNMENT AND INTERCHANGEABLE.
h. FRAME AND COVER POSITIONED SO ONE OF THE LOCKING BOLTS IS CENTERED OVER THE STEPS.
i. DISTRICT APPROVED WATERTIGHT MANHOLE COVER REQUIRED.

SANITARY SEWER MANHOLE PLAN

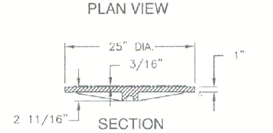
Mukilteo Water and Wastewater District
STANDARD DETAILS

S-D4

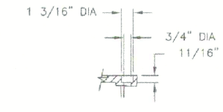
2018



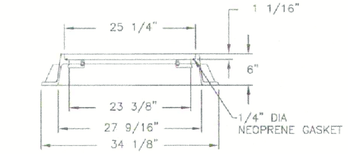
PLAN VIEW



SECTION



BOLTHOLE DETAIL



SECTION

STACKING DETAIL

NOTES

1. MATERIALS ARE DUCTILE IRON COVER ASTM A536, AND GRAY IRON IRON FRAME ASTM A48 CL35B PRODUCT# 3715ZPT.
2. ~~MANUFACTURED IN THE USA BY EAST JORDAN IRON WORKS MANUFACTURING CO. HEAVY DUTY MANHOLE ASSEMBLY (H20 AND HS20 LOADINGS) OR APPROVED EQUAL.~~
3. MANHOLES LOCATED WITHIN NON-PAVED AREAS SHALL REQUIRE THE INSTALLATION OF GREEN FIBERGLASS MARKER POSTS 5' IN LENGTH WITH DECAL STATING "CAUTION SEWER PIPELINE". THE BURIED END SHALL BE "BARBED" OR AN ANCHOR KIT SHALL BE USED. INSTALL A CONCRETE COLLAR, 5' DIAMETER, 8" THICK UNLESS OTHERWISE DIRECTED BY THE DISTRICT.
4. 3/4" STRIP OF CONSEAL CD-101 MANHOLE RING AND COVER SEALANT REQUIRED BETWEEN COVER AND FRAME WHERE MANHOLE IS SUSCEPTIBLE TO INUNDATION OR THERE IS THE POTENTIAL FOR EXCESSIVE ODORS OR AS DIRECTED BY THE DISTRICT.
5. IN SIDEWALKS, RAMPS OR CROSSWALKS USE LID COMPLIANT TO AMERICANS WITH DISABILITIES ACT REQUIREMENTS.
6. SEE DETAIL S-D7 FOR ADJUSTMENT DETAILS.

MANUFACTURED IN THE USA BY EJ AMERICAS OR OLYMPIC FOUNDRY, NEENAH FOUNDRY, HEAVY DUTY MANHOLE ASSEMBLY (H20 AND HS20 LOADINGS) OR APPROVED EQUAL.

MANHOLE FRAME AND COVER

Mukilteo Water and Wastewater District
STANDARD DETAILS

S-D5

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. 1

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards orrequirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

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SUBMITTAL DATE: 08/23/18	ConradCS					WA-2017-007-00
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ENTERED BY: R. REISER	8/22/2018					JOB NUMBER 18W121
CHECKED BY: P. SACK	8/22/2018					CONTRACT NO. 00****
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH						
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

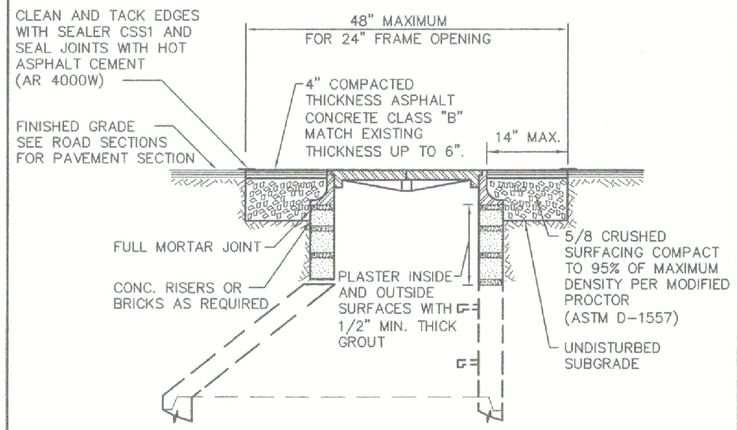
MWWD SANITARY SEWER STANDARD DETAILS

C08.41

SHEET 219 OF 1521 SHEETS

2018

CONSTRUCTION, INSTALLATION OR ADJUSTING TO GRADE OF MANHOLE RIMS SHALL CONFORM TO THE MOST RECENT WSDOT STANDARD SPECIFICATIONS



NOT TO SCALE

NOTE:

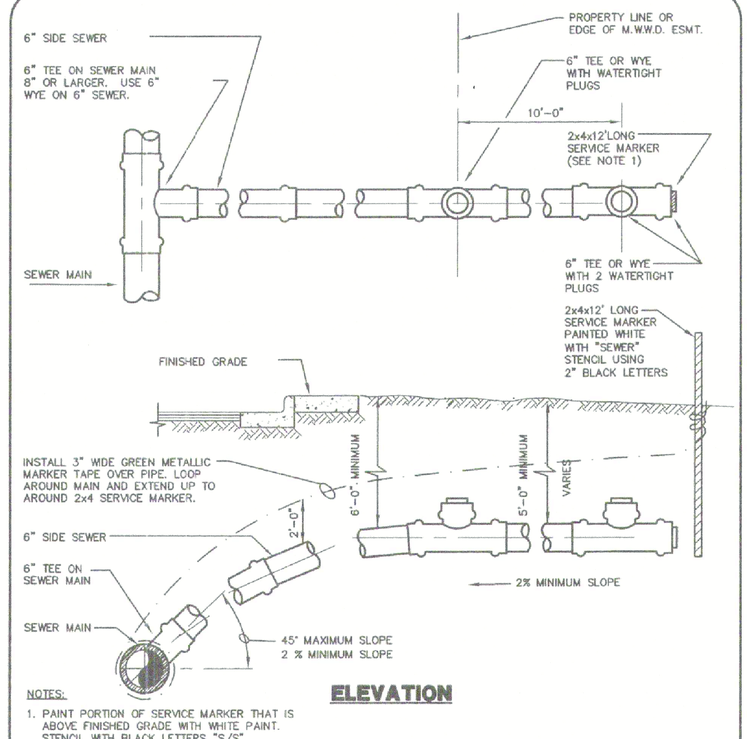
MAX. 4 EA, MIN. 2 EA 4" RISERS FOR NEW CONSTRUCTION

MANHOLE GRADE ADJUSTMENT DETAIL

Mukilteo Water and Wastewater District
STANDARD DETAILS

S-D7

2018



ELEVATION

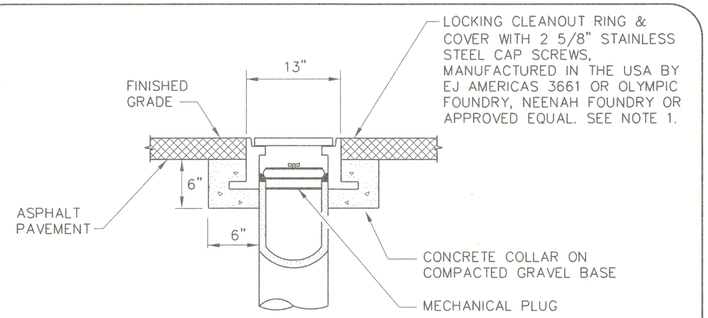
NOTES:

1. PAINT PORTION OF SERVICE MARKER THAT IS ABOVE FINISHED GRADE WITH WHITE PAINT. STENCIL WITH BLACK LETTERS "S/S" USING 3" HIGH LETTERS. LOCATE MARKER AT END OF EACH SERVICE.
2. SIDE SEWER TO BE LOCATED AT NEAR CORNER OF LOT ON LOWER SIDE OF PROPERTY UNLESS OTHERWISE APPROVED BY THE DISTRICT.
3. MAXIMUM DEFLECTION NOT TO EXCEED PIPE MANUFACTURER RECOMMENDATIONS.
4. SIDE SEWER LATERAL SHALL BE THE SAME MATERIAL AS THE MAIN LINE SEWER AND BEDDED THE SAME. MANHOLE PER S-D2 REQUIRED 10' INTO PROPERTY ON ALL SIDE SEWERS OTHER THAN SINGLE FAMILY.

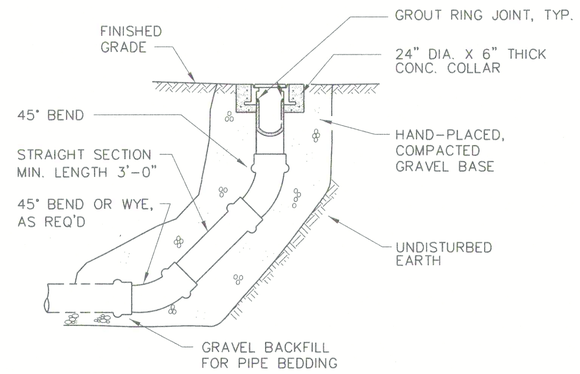
STANDARD SIDE SEWER

Mukilteo Water and Wastewater District
STANDARD DETAILS

S-D8



STREET USE



EASEMENT USE

NOTES:

1. INSTALL CARRIAGE BOLT/OVERSIZE WASHER/LOCK NUT ASSEMBLY IN VENT HOLE TO PROTECT AGAINST GROSS INFLOW, PER STANDARD NOTES.

8/09

S-D10

SANITARY SEWER CLEANOUT

Mukilteo Water and Wastewater District
STANDARD DETAILS

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. ____/____

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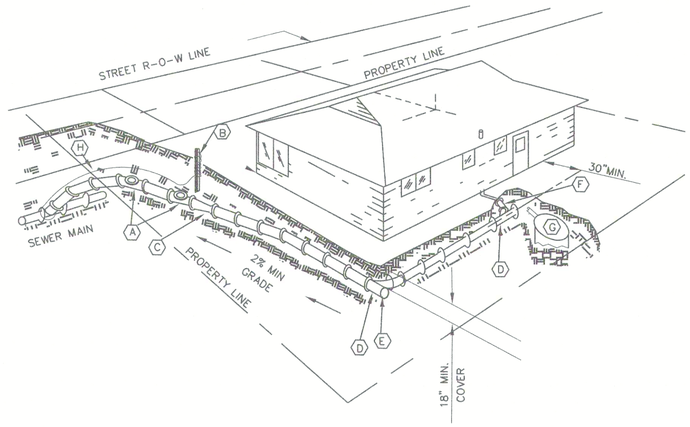
Washington State Department of Transportation
WASHINGTON STATE FERRIES

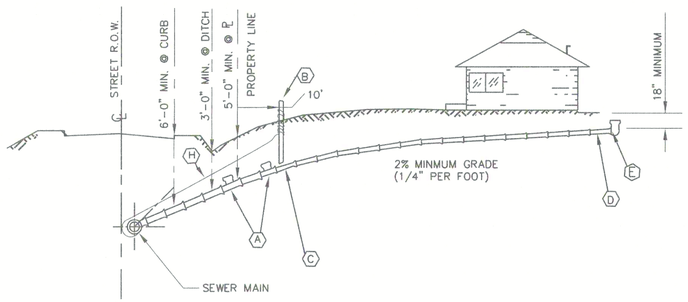
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

MWWD SANITARY SEWER STANDARD DETAILS

C08.42

SHEET 220 OF 1521 SHEETS





NOTE:
CLEAN OUT (D) SHALL BE 36" TO 48" FROM FOUNDATION WALL

TYPICAL SIDE SEWER CONNECTION

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 S-D14

A. INSPECTION TEE
B. 2 X 4 SERVICE MARKER
C. APPROVED 6" X 4" REDUCER (SINGLE FAMILY RESIDENCE ONLY)
D. WYE (CLEANOUT) AND 45 DEGREE BEND
E. CLEANOUT WITH APPROVED PLUG. CLEANOUT SHALL BE BROUGHT TO WITHIN 18" OF SURFACE IN UNPAVED AREA OR BROUGHT TO SURFACE IN PAVED AREA WITH CAST-IRON COVER.
F. 45 DEGREE BEND. CONNECT HOUSE SEWER PIPE TO SIDE SEWER WITH APPROVED ADAPTER.
G. EXISTING SEPTIC TANK – CUT AND PLUG INLET LINE, PUMP TANK DRY AND FILL TANK WITH SUITABLE MATERIAL.
H. FURNISH AND INSTALL 3" WIDE GREEN METALLIC MARKER TAPE AT 2' OVER PIPE. LOOP AROUND MAIN AND EXTEND UP TO AND AROUND 2"X4" SERVICE MARKER.

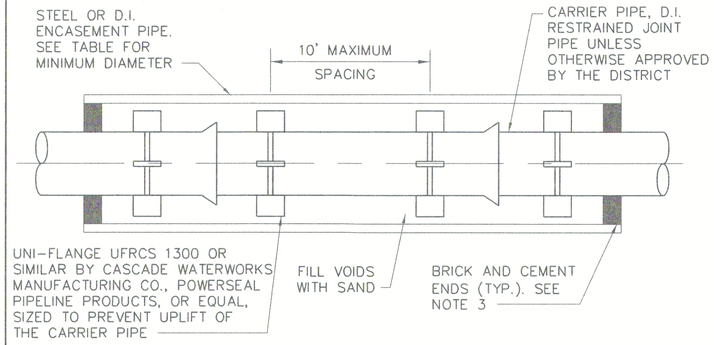
GENERAL NOTES

1. SIDE SEWER PIPE SHALL BE 4" OR LARGER FOR SERVICING SINGLE FAMILY AND 6" FOR SERVICING MULTIPLE (DUPLEXES), COMMERCIAL ESTABLISHMENTS, SCHOOLS, OR ANY BUILDING OTHER THAN SINGLE FAMILY RESIDENCES, DUCTILE IRON OR PVC ASTM 3034, AND SHALL BE INSTALLED AT 2% MIN. GRADE (1/4" FALL PER FOOT). CONSTRUCTION ON PRIVATE PROPERTY MAY BE DONE BY OWNER BUT REQUIRES A PERMIT.
2. ALL PIPE JOINTS SHALL BE RUBBER GASKET TYPE.
3. ALL PIPE SHALL BE BEDDED AND ENCASED WITH CRUSHED SURFACING 1-1/4" BASE COURSE ROCK IN ACCORDANCE WITH SECTION 9-03-9(3) OF THE WSDOT STANDARD SPECIFICATIONS, UNLESS OTHERWISE APPROVED BY THE DISTRICT. BEDDING MATERIAL SHALL BE INSTALLED WITH A MINIMUM OF 3" BELOW THE BOTTOM OF THE PIPE TO 6" ABOVE THE TOP OF THE PIPE UNLESS OTHERWISE APPROVED BY THE DISTRICT. BEDDING WITH SAND OR PEA GRAVEL WILL NOT BE ACCEPTED
4. ON PRIVATE PROPERTY MIN. COVER SHALL BE 18" OVER TOP OF PIPE AT 30" DISTANCE FROM BUILDING.
5. PARALLEL WATER AND SEWER LINES SHALL BE 10' APART HORIZONTALLY WHEREVER POSSIBLE.
6. CLEANOUTS AT STRUCTURE CONNECTION SHALL BE 30" FROM STRUCTURE WALL UNLESS APPROVED BY THE DISTRICT.
7. CLEANOUTS ARE REQUIRED FOR 45° BEND OR ANY COMBINATION OF BENDS EQUAL TO 45° OR GREATER. DISTANCE BETWEEN CLEANOUTS SHALL NOT EXCEED 100'. CLEANOUT SHALL BE A PLUGGED TEE OR A PLUGGED WYE LATERAL.
8. 6" SEWER PIPE IS REQUIRED IN THE STREET RIGHT-OF-WAY AND SHALL HAVE A 2% MIN. GRADE. CONSTRUCTION IN STREET MUST BE DONE BY A STATE LICENSED SIDE SEWER CONTRACTOR AND REQUIRES A RIGHT OF WAY PERMIT FROM THE CITY OR COUNTY.
9. SIDE SEWER SHALL BE INSPECTED BY THE DISTRICT PRIOR TO BACKFILLING. SIDE SEWER SHALL BE PLUGGED & TESTED IN PRESENCE OF DISTRICT INSPECTOR BY FILLING WITH WATER. LEAKAGE RATE SHALL NOT EXCEED 0.31 GAL/HR FOR 4" PIPE & 0.47 GAL/HR FOR 6" PIPE, PER 100' OF PIPE.
10. THE OWNER AND/OR HIS/HER CONTRACTOR HEREBY AGREE TO SAFEGUARD THE WORK DONE UNDER THIS PERMIT IN SUCH A MANNER AS TO PREVENT INJURY AND/OR DAMAGE TO THE PUBLIC. SUCH PRECAUTIONS SHALL INCLUDE THE EMPLOYMENT OF ALL NECESSARY DITCH SAFEGUARDS SUCH AS LANTERNS, BARRICADES, A TRENCH BOX FOR ANY DITCH OVER 4' DEEP AND SAFE ACCESS OR EGRESS THROUGH THE WORKING AREA.
11. BACK-WATER VALVES MAY BE REQUIRED IF DWELLING HAS POSSIBILITY OF SEWAGE BACKING UP INTO THE DWELLING.

SIDE SEWER INFORMATION

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 S-D15



NOTE:
MINIMUM ENCASEMENT INSIDE DIAMETER (I.D.) SHALL BE 24"

NOTES:

1. CONTRACTOR TO VERIFY LINE AND GRADE PRIOR TO FILLING VOIDS WITH SAND.
2. CARRIER PIPE WITHIN THE LENGTH OF THE ENCASEMENT PIPE SHALL HAVE RESTRAINED JOINTS.
3. REGULATORY AGENCY REQUIREMENTS SHALL SUPERCEDE DISTRICT STANDARDS IF MORE STRINGENT.

ENCASEMENT/CARRIER PIPES

Mukilteo Water and Wastewater District
STANDARD DETAILS

8/09 S-D16

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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SUBMITTAL DATE: 08/23/18	ConradCS					WA-2017-007-00
DESIGNED BY: E. BRODAHL	8/22/2018					REGION NO. STATE
ENTERED BY: R. REISER	8/22/2018					10 WASH
CHECKED BY: P. SACK	8/22/2018					JOB NUMBER 18W121
MAR PROJ ENGR: C. TORRES						
DIR TERM ENGR: N. MCINTOSH						CONTRACT NO. 00****
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

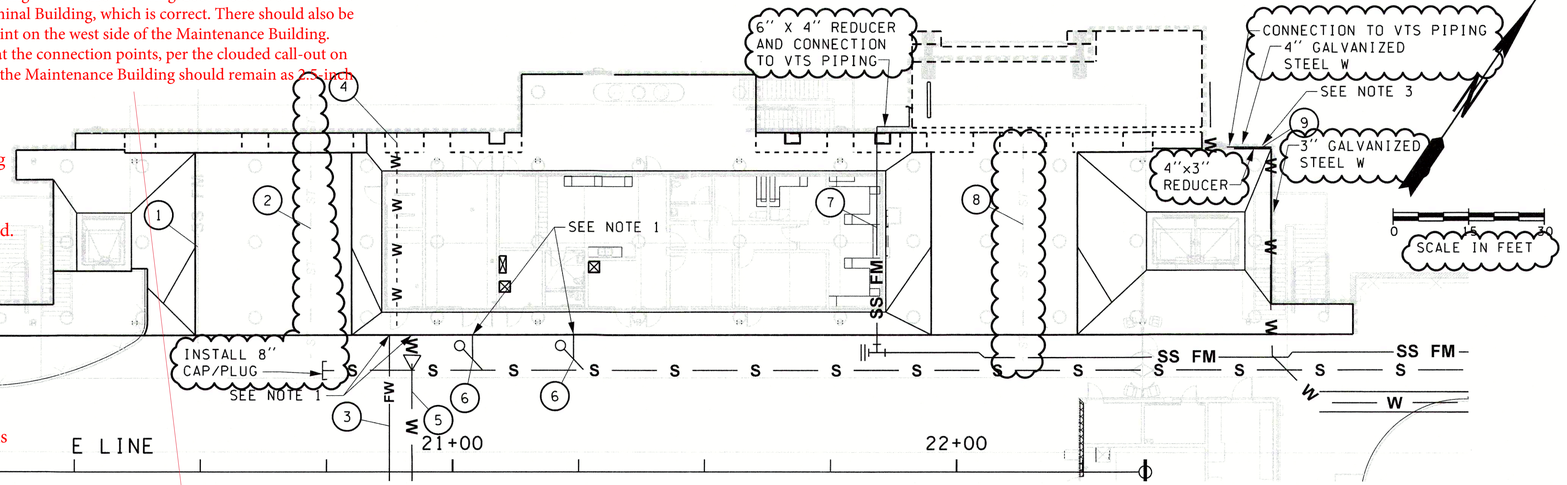
MWWD SANITARY SEWER STANDARD DETAILS

C08.43

SHEET 221 OF 1521 SHEETS

PER RFI 163 - MWWD requires 2-inch diameter buried piping downstream of the 2-inch meter, which is why the HDPE piping between the buildings is that size. Drawing C08.14 shows a 2-inch x 3-inch reducer prior to the connection to the Terminal Building, which is correct. There should also be a 2-inch x 2.5-inch reducer at the connection point on the west side of the Maintenance Building. Stainless steel insert sleeves should be included at the connection points, per the clouded call-out on Drawing C08.14. The piping and fittings within the Maintenance Building should remain as 2.5-inch diameter.

Per RFI 415 - The freeze protection valve for the 2-inch water supply to the Terminal building plumbing should be eliminated. The supply line and plumbing are now routed through earth-insulated and heated spaces respectively and the valve is no longer required. Due to the thermal exposure of the vessel supply potable water line routed along the perimeter of the Trestle, this freeze protection valve is required. The valve should be oriented in a vertical position, with freeze protection drainage through the tee pointed downwards, per the manufacturer's instructions. Water should normally enter and leave the tee horizontally. The valve should be oriented such that when activated by cold water temperatures the flow is directed in a clear trajectory through open air to the marine water surface below and avoiding spray onto adjacent surfaces and equipment. The exact location should be "field fit" and the locations subject to acceptance by the WSF and MWWD field inspectors. The freeze protection valve for the 3-inch vessel water should be a 3-inch valve located at the downstream end of the trestle piping on the 3-inch portion of the piping, as close as practicable to the VTS and with the discharge directed toward the marine water surface below.



TRESTLE WATER / WASTE WATER UTILITIES

NOTES:

1. SEE BUILDING MECHANICAL FOR CONTINUATION.
2. SEE TRESTLE STRUCTURAL DRAWINGS FOR CASING INVERT ELEVATIONS.
3. 3"/4" INSULATED WATER SERVICE SUSPENDED FROM TRESTLE BY HANGERS. SEE SPECIAL PROVISIONS FOR WATER SVC 3" SUSP FR TRESTLE, W/ HANGERS & INSUL.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537
Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mulkilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards arrequirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

WATER / WASTEWATER TRESTLE MATERIAL SCHEDULE

	PIPING SYSTEM	SIZE	UPLANDS PIPE MATERIAL, SIZE, CONNECTORS	TRESTLE PIPE MATERIAL, SIZE, CONNECTORS	CASING SIZE	CASING TREATMENTS	FREEZE PROTECTION	SEISMIC CONNECTION	SEE SHEET FOR CONTINUATION
1	VESSEL SSFM (FUTURE)		N/A	N/A	8"	2 - PLUGS, 142-8 SERIES MONITOR WELL PLUG BY PETERSEN OR EQUAL	N/A	N/A	N/A
2	TRENCH DRAIN	6"	ASTM 3034 PVC, 6" SCHED. 80 TO ASTM 3034 PVC TRANSITION GASKET.	SCHED. 80 PVC, 6"	8"	LOW PROFILE CASING SPACERS OR PIPE COLLAR, SIMILAR TO POLYETHYLENE MODEL CI BY APS OR EQUAL (SPECIAL ORDER MAY BE REQ'D). CASING END SEAL OR LINK SEAL. CASING PROVIDES GRAVITY PIPE SLOPE.	SLOPE TO DRAIN	TWO 6" ROMAC MACRO HP 7.60 FLEXIBLE COUPLINGS WITH 4' LONG 6" SCHD 80 SPOOL BETWEEN AND WITH ASTM D3034 TRANSITION GASKET ON DOWNSTREAM MACRO HP COUPLING.	STRUCTURAL/ DRAINAGE
3	BUILDING FIRE WATER	4"	CL.52 DI, 4", FL	SEE MECHANICAL	N/A	N/A	N/A	6" EBAA FLEX-TEND FORCE BALANCED FLEXIBLE EXPANSION JOINT (FL) DOUBLE BALL, ASSEMBLY 406F20 (OR EQUAL)	MECHANICAL
4	VESSEL WATER (FUTURE)	RFI 163	N/A	N/A	8"	2 - PLUGS, 142-8 SERIES MONITOR WELL PLUG BY PETERSEN OR EQUAL	N/A	N/A	N/A
5	BUILDING WATER	2"	2" HDPE DR9 IPS	3" CL. 52 DI SEE MECHANICAL	N/A		FREEZE PROTECTION VALVE. WATSON MCDANIEL OR EQUAL. SEE MECHANICAL.	2" EBAA FLEX-TEND FORCE BALANCED FLEXIBLE EXPANSION JOINT (FL) DOUBLE BALL, ASSEMBLY 402F20 (OR EQUAL) WITH DI X COPPER TRANSITION COUPLINGS.	MECHANICAL
6	SANITARY SEWER	4"/6"	4" PVC X DI TRANSITION COUPLING, WITH 4"x6" WYE WITH CLEANOUT AND 6"x8" DI CL 52 WYE, TO TRANSITION TO 8" DI SIDE SEWER	SEE MECHANICAL	N/A	N/A	N/A	UPLANDS TO TRESTLE: TWO 4" ROMAC HP 5.60 FLEXIBLE COUPLINGS WITH 4' LONG 4" PVC SPOOL BETWEEN AND WITH ASTM D3034 TRANSITION GASKETS WHERE NEEDED ON MACRO HP COUPLINGS. TRESTLE SIDE WELDED, UPLANDS WITH ASTM D3034 TRANSITION GASKET.	MECHANICAL
7	VESSEL SSFM	6"	HDPE IPS, DR 21	HDPE, DR 21. PROVIDE WATERSIDE GROOVED TRANSITION CONNECTION & 6"x4" REDUCER. 6" CLEAR FROM END OF CASING TO TRANSITION FITTING.	8"	CASING END SEAL AT UPLANDS SIDE. LINK SEAL AT WATER SIDE.	SLOPE TO DRAIN, EXTEND VTS LOW-TEMP HEAT TRACE OVER HOSE. 2" CLOSED CELL INSULATION W/UV RESISTANT JACKET OR COATING OVER HOSE. K-FLEX INSUL-TUBE AND 374 PROTECTIVE COATING OR EQUAL.	UPLANDS TO TRESTLE: FOOD MASTER EXTREME 250SD CR, 4" HOSE LENGTH TO FIT WITH SAG. CRIMP X GROOVE CONNECTORS. STAINLESS STL CONN HARDWARE.	RFI 193 MV08.01
8	TRENCH DRAIN	6"	ASTM 3034 PVC, 6" SCHED. 80 TO ASTM 3034 PVC TRANSITION GASKET.	SCHED. 80 PVC, 6"	8"	LOW PROFILE CASING SPACERS OR PIPE COLLAR, SIMILAR TO POLYETHYLENE MODEL CI BY APS OR EQUAL (SPECIAL ORDER MAY BE REQ'D). CASING END SEAL OR LINK SEAL. CASING PROVIDES GRAVITY PIPE SLOPE.	SLOPE TO DRAIN	TWO 6" ROMAC MACRO HP 7.60 FLEXIBLE COUPLINGS WITH 4' LONG 6" SCHD 80 SPOOL BETWEEN AND WITH ASTM D3034 TRANSITION GASKET ON DOWNSTREAM MACRO HP COUPLING.	STRUCTURAL/ DRAINAGE
9	VESSEL WATER	3" AND 4"	CL.52 DI, 3", DI TO GROOVE TRANSITION FITTING	CARBON STEEL, GALVANIZED, SCHEDULE 80, GROOVED JOINTS, VICTAULIC OR EQUAL.	8"	N/A	2" CLOSED CELL INSULATION W/UV RESISTANT JACKET OR COATING. K-FLEX INSUL-TUBE AND 374 PROTECTIVE COATING OR EQUAL. FREEZE PROTECTION VALVE. WATSON MCDANIEL OR EQUAL.	UPLANDS TO TRESTLE: 3" EBAA FLEX-TEND FORCE BALANCED FLEXIBLE EXPANSION JOINT (FL) DOUBLE BALL, ASSEMBLY 403F20 (OR EQUAL) WITH DI X GALV STEEL TRANSITION COUPLINGS.	RFI 193 MV07.00

RFI 425

RFI 415

PER RFI 193 These plans are part of the marine contract and are provided for information purposes only

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DESIGNED BY: E. BRODAHL	3/20/19					WA-2017-007-00
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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		CONTRACT NO. 009321

ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

Washington State Department of Transportation
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SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER & SANITARY SEWER DETAILS

C08.50

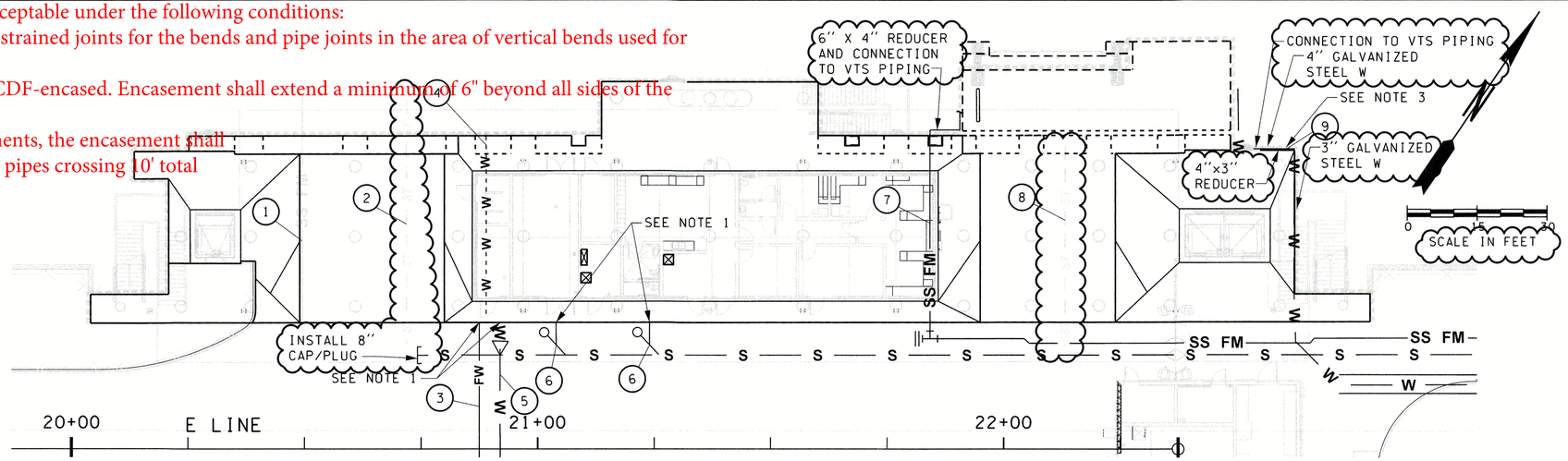
SHEET OF SHEETS

Per RFI 425 - The proposal to route the fire water underneath the sewer line, while maintaining in excess of 3' clear between the pipes is acceptable under the following conditions:

The fire line will have restrained joints for the bends and pipe joints in the area of vertical bends used for routing it under the sewer

The sewer line shall be CDF-encased. Encasement shall extend a minimum of 6" beyond all sides of the sewer pipe wall

Also per DOH requirements, the encasement shall extends a5' either side of the pipes crossing 10' total



NOTES:

1. SEE BUILDING MECHANICAL FOR CONTINUATION.
2. SEE TRESTLE STRUCTURAL DRAWINGS FOR CASING INVERT ELEVATIONS.
3. 3"/4" INSULATED WATER SERVICE SUSPENDED FROM TRESTLE BY HANGERS. SEE SPECIAL PROVISIONS FOR WATER SVC 3" SUSP FR TRESTLE, W/ HANGERS & INSUL.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

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TRESTLE WATER / WASTE WATER UTILITIES

WATER / WASTEWATER TRESTLE MATERIAL SCHEDULE

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(1)	VESSEL SSFM (FUTURE)		N/A	N/A	8"	2 - PLUGS, 142-8 SERIES MONITOR WELL PLUG BY PETERSEN OR EQUAL	N/A	N/A	N/A
(2)	TRENCH DRAIN	6"	ASTM 3034 PVC, 6" SCHED. 80 TO ASTM 3034 PVC TRANSITION GASKET.	SCHED. 80 PVC, 6"	8"	LOW PROFILE CASING SPACERS OR PIPE COLLAR, SIMILAR TO POLYETHYLENE MODEL CI BY APS OR EQUAL (SPECIAL ORDER MAY BE REQ'D). CASING END SEAL OR LINK SEAL. CASING PROVIDES GRAVITY PIPE SLOPE.	SLOPE TO DRAIN	TWO 6" ROMAC MACRO HP 7.60 FLEXIBLE COUPLINGS WITH 4' LONG 6" SCHD 80 SPOOL BETWEEN AND WITH ASTM D3034 TRANSITION GASKET ON DOWNSTREAM MACRO HP COUPLING.	STRUCTURAL/ DRAINAGE
(3)	BUILDING FIRE WATER	4"	CL.52 DI, 4", FL	SEE MECHANICAL	N/A	N/A	N/A	RFI 425 6" EBAA FLEX-TEND FORCE BALANCED FLEXIBLE EXPANSION JOINT (FL) DOUBLE BALL, ASSEMBLY 406F20 (OR EQUAL)	MECHANICAL
(4)	VESSEL WATER (FUTURE) RFI 163		N/A	N/A	8"	2 - PLUGS, 142-8 SERIES MONITOR WELL PLUG BY PETERSEN OR EQUAL	N/A	N/A	N/A
(5)	BUILDING WATER	2"	2" HDPE DR9 IPS	3" CL. 52 DI SEE MECHANICAL	N/A		FREEZE PROTECTION VALVE. WATSON MCDANIEL OR EQUAL. SEE MECHANICAL.	2" EBAA FLEX-TEND FORCE BALANCED FLEXIBLE EXPANSION JOINT (FL) DOUBLE BALL, ASSEMBLY 402F20 (OR EQUAL) WITH DI X COPPER TRANSITION COUPLINGS.	MECHANICAL
(6)	SANITARY SEWER	4"/6"	4" PVC X DI TRANSITION COUPLING, WITH 4"x6" WYE WITH CLEANOUT AND 6"x8" DI CL 52 WYE, TO TRANSITION TO 8" DI SIDE SEWER	SEE MECHANICAL	N/A	N/A	N/A	UPLANDS TO TRESTLE: TWO 4" ROMAC HP 5.60 FLEXIBLE COUPLINGS WITH 4' LONG 4" PVC SPOOL BETWEEN AND WITH ASTM D3034 TRANSITION GASKETS WHERE NEEDED ON MACRO HP COUPLINGS. TRESTLE SIDE WELDED, UPLANDS WITH ASTM D3034 TRANSITION GASKET	MECHANICAL
(7)	VESSEL SSFM	6"	HDPE IPS, DR 21	HDPE, DR 21. PROVIDE WATERSIDE GROOVED TRANSITION CONNECTION & 6"x4" REDUCER. 6" CLEAR FROM END OF CASING TO TRANSITION FITTING.	8"	CASING END SEAL AT UPLANDS SIDE. LINK SEAL AT WATER SIDE.	SLOPE TO DRAIN, EXTEND VTS LOW-TEMP HEAT TRACE OVER HOSE. 2" CLOSED CELL INSULATION W/UV RESISTANT JACKET OR COATING OVER HOSE. K-FLEX INSUL-TUBE AND 374 PROTECTIVE COATING OR EQUAL.	RFI 193 UPLANDS TO TRESTLE: FOOD MASTER EXTREME 250SD CR, 4" HOSE LENGTH TO FIT WITH SAG. CRIMP X GROOVE CONNECTORS. STAINLESS STL CONN HARDWARE.	RFI 193 MV08.01
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(9) RFI 415	VESSEL WATER	3" AND 4"	CL.52 DI, 3", DI TO GROOVE TRANSITION FITTING	CARBON STEEL, GALVANIZED, SCHEDULE 80, GROOVED JOINTS, VICTAULIC OR EQUAL.	8"	N/A	2" CLOSED CELL INSULATION W/UV RESISTANT JACKET OR COATING. K-FLEX INSUL-TUBE AND 374 PROTECTIVE COATING OR EQUAL. FREEZE PROTECTION VALVE. WATSON MCDANIEL OR EQUAL.	RFI 193 UPLANDS TO TRESTLE: 3" EBAA FLEX-TEND FORCE BALANCED FLEXIBLE EXPANSION JOINT (FL) DOUBLE BALL, ASSEMBLY 403F20 (OR EQUAL) WITH DI X GALV STEEL TRANSITION COUPLINGS.	RFI 193 MV07.00

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DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

Washington State Department of Transportation
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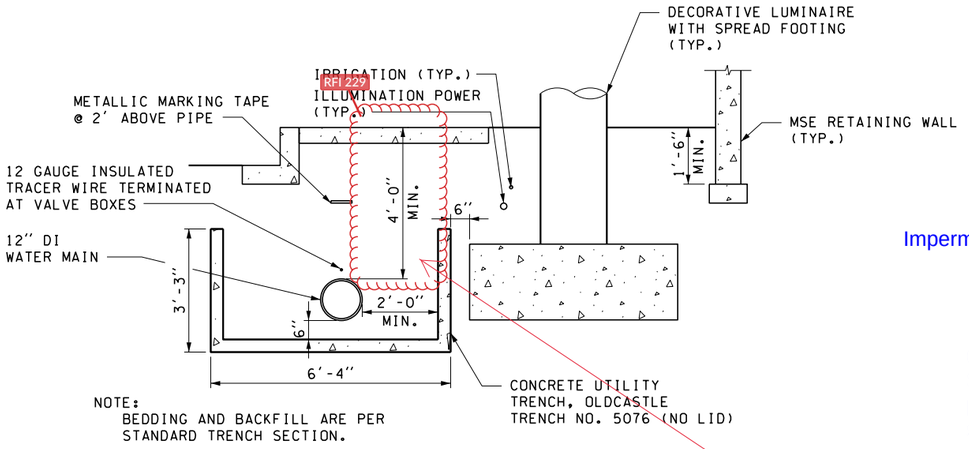
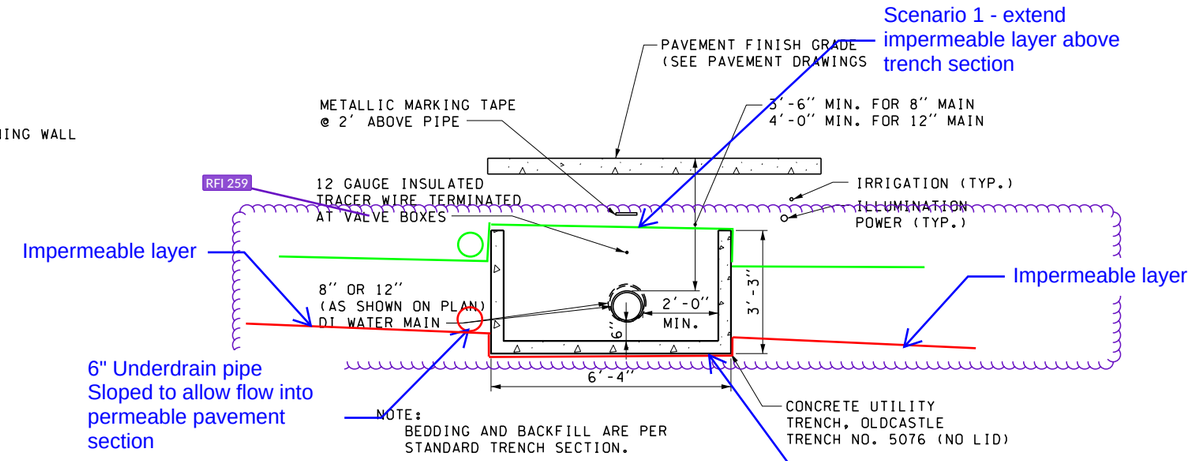
SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
WATER & SANITARY SEWER DETAILS

C08.50
SHEET
OF
SHEETS

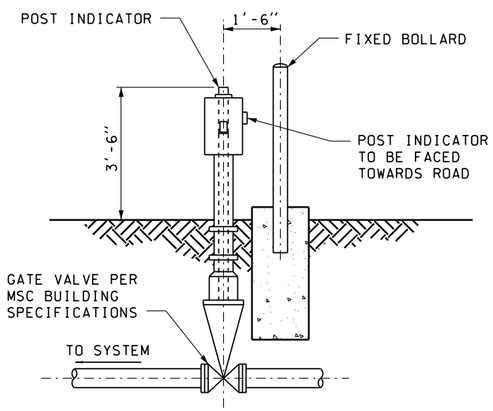


1 C08.13, C08.14 **FIRST STREET WATER MAIN OVER SENSITIVE LAYER**

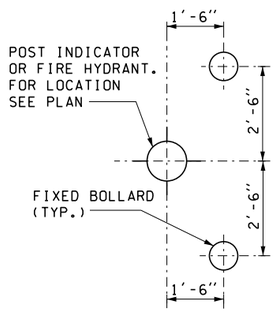


2 C08.12, C08.13 **HOLDING & EXIT LANE WATER MAINS OVER SENSITIVE LAYER**

Per RFI 229 - The storm crossing IE is shown as about 15.0 feet on Drawing C08.24, which is consistent with the information above. However, the finished grade at the crossing is shown as approximately 21.7 on C08.24 (2-foot grid on the profile). Based on the depths above, the bottom of the water main trench should be close to 16.7 feet, resulting in a clearance of approximately 0.55 feet (slightly over 6"). This should work with installation of a foam pad. Detail 1 on sheet C08.51 shows a typical;; minimum bury of 4' for the concrete trench, which can be reduced to a minimum of 3' where shown on the profiles, due to the sensitive layer and utility crossings, but cannot further reduced. Confirmed, the bury depths on the profiles dictate the specific depths.



3 C08.14 **POST INDICATOR VALVE**



FIXED BOLLARD DETAIL

Appendix A
RFI 259
Page 5/6

APPROVAL BLOCK

Approved by _____ _____
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. ____

Gray & Osborne No. _____

Project must be completed and ownership transferred to the Mukilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards orrequirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

SCALE 1/4" = 1'-0"

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ENTERED BY: R. REISER	1/18/19					REGION NO. STATE
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ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
01/18/19

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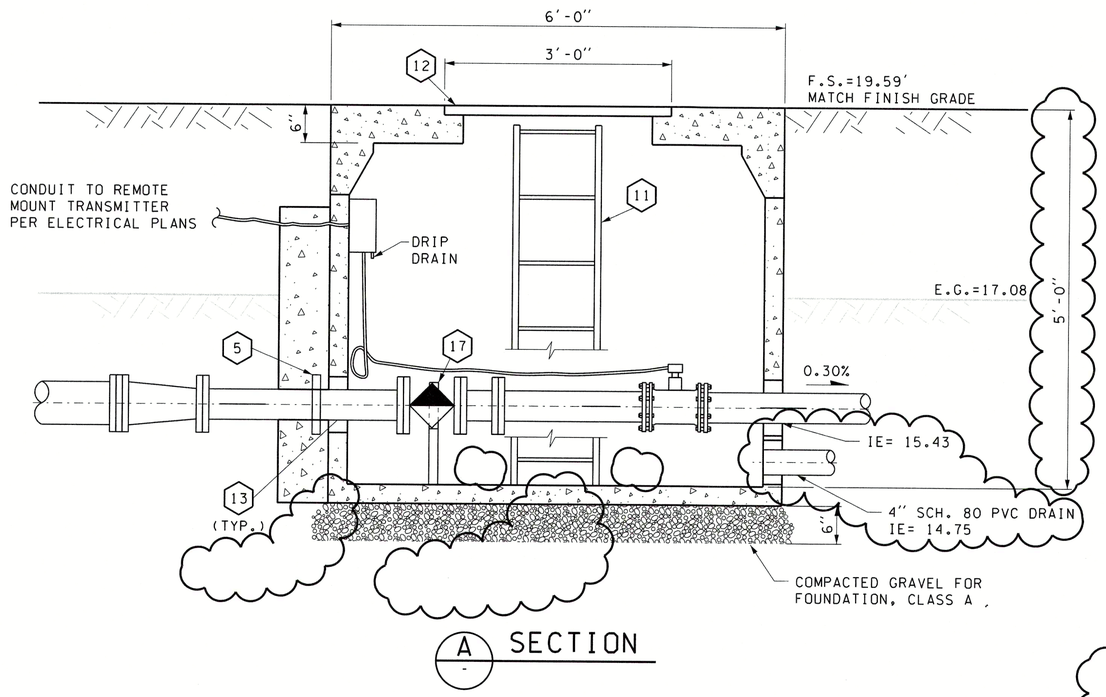
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER & SANITARY SEWER DETAILS

C08.51

SHEET 223 OF 1521 SHEETS



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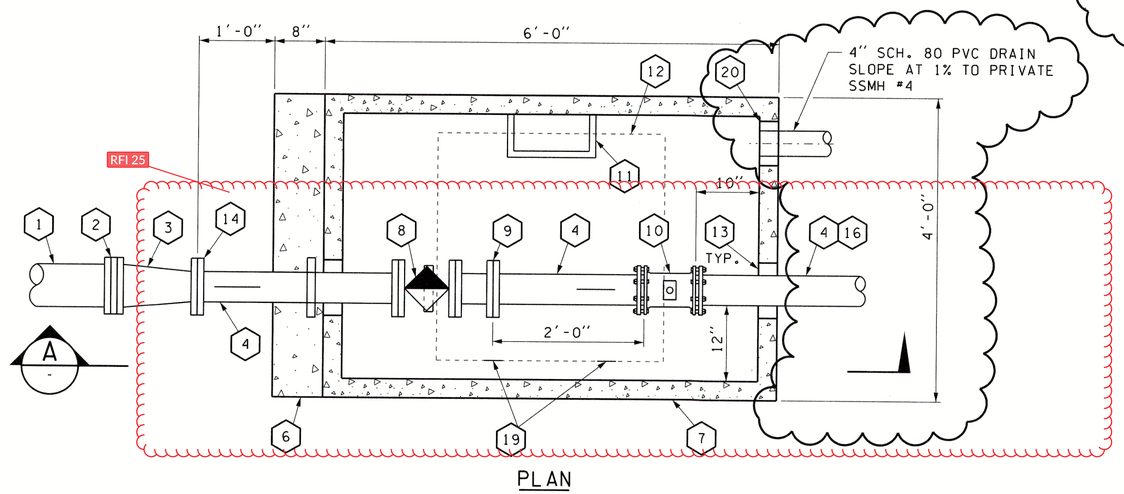

PLAN

1 C08.15 MAGNETIC FLOWMETER VAULT

CONSTRUCTION NOTES:

1. 6" HDPE FORCE MAIN
2. HDPE FLANGE ADAPTER W/SS CONVOLUTED BACKING RING
3. 6" X 4" DI REDUCER (FLxMJ)
4. 4" DI PIPE, LENGTH TO FIT (FL X PE), EPOXY LINED PER SPECS
5. DI PIPE THRUST COLLAR
6. CONC. THRUST BLOCK
7. PRECAST CONCRETE VAULT, OLDCASTLE PRECAST 644-LA W/ RISER SECTION, OR EQUAL
8. 4" RISING STEM RESILIENT SEAT GATE VALVE (FL)
9. 4" RESTRAINED FLANGED COUPLING ADAPTER (RFCA)
10. 4" MAGNETIC FLOW METER (FL) PER SPECS. FLOW METER AND JUNCTION BOX INSTALLATION SHALL BE EXPLOSION-PROOF. INSTALL REMOTE TRANSMITTER MOUNTED ON MAINTENANCE BUILDING IN CABINET PER SITE COMMUNICATION AND ELECTRICAL DRAWINGS
11. GALVANIZED STEEL LADDER PER WSDOT STD. PLAN B-30.90-01 OR EQUAL
12. 36"x36" HATCH, BILCO TYPE J-AL WITH NON-SKID LID, OR EQUAL
13. SEAL WITH NON-SHRINK GROUT
14. 4" MECHANICAL JOINT RESTRAINT GLAND
15. - NOT USED -
16. 4" DI FORCE MAIN, EPOXY LINED PER SPECS
17. PIPE SUPPORT, ANVIL No. 264 OR EQUAL
18. 4" PVC PIPE DRAIN, PROVIDE TRAP, SLOPE AT 2% TO DOWNSTREAM MANHOLE
19. HATCH HINGE LINE
20. INSTALL KOR-N-SEAL BOOT

Per RFI 25 - As currently shown on the Drawings, the flow meter should be installed at an invert elevation of 15.43 to allow for a slope of about 0.3 percent to the 4-inch DI discharge invert elevation of 15.40 at the downstream MH. Installing the flow meter at an elevation of 15.45 feet would actually be preferable.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastsewater District Extension No. 537

Gray & Osborne No. _____

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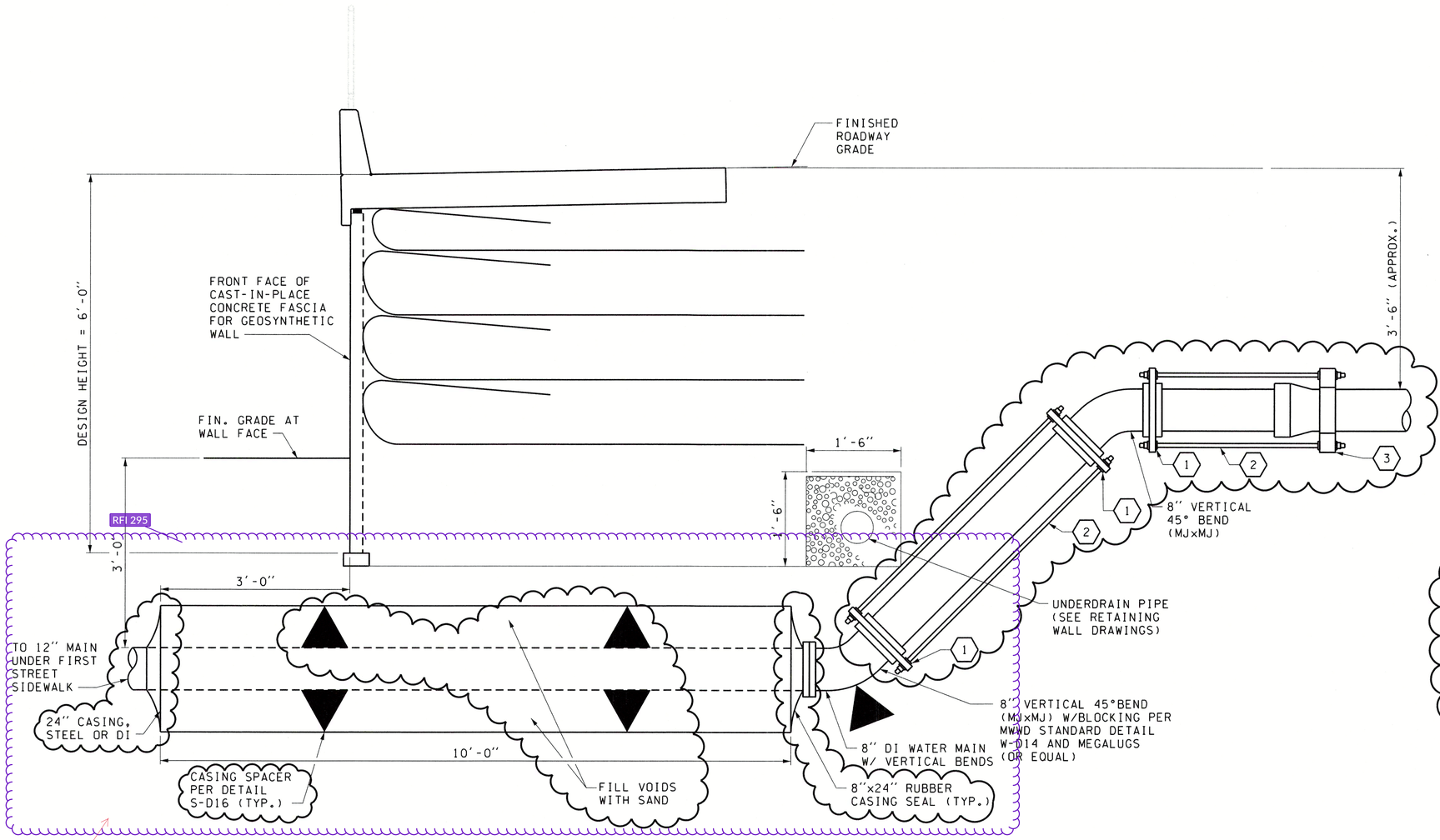
C08.52
SHEET OF SHEETS



1 C08.14 WALL 4 WATER MAIN WALL CROSSING AT TF STA. 117+12.86

Per RFI 295 -
It is not necessary to have both the concrete trench and the steel casing overlapping for the section of water main, as the steel casing also serves the function of the trench, by protecting the existing sub-grade below. The purpose of extending the steel casing 3 feet beyond the wall is for the casing to absorb any loading from the wall (rather than the water main), and to facilitate future replacement of the water main within the casing. It would be preferable to cut the concrete trench back from the wall, to allow the casing enough space to extend 3 feet beyond the wall, if this would resolve clearance issues between the casing and the wall. The casing should butt right up to edge of the concrete trench, three feet from the wall, with grout or similar used at the bottom to seal between the trench and casing

MECHANICAL JOINT RESTRAINING ACCESSORIES:

1. SS TIE BOLTS OR "DUC" LUGS (4 EACH LOCATION).
2. 3/4" SS THREADED ROD (4 EACH LOCATION).
3. 8" SS PIPE/ROD CLAMP AT BELL. PROVIDE SS NUTS AND WASHERS FOR THREADED RODS.

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537
Gray & Osborne No. /

Project must be completed and ownership transferred to the Mukilteo Water and Wastewater District within 1 year from the date of approval. In the event that the project developer fails to do so, the project will be subject to reapplication, additional plan review and revision, due to any changes in District standards or requirements occuring prior to completion and transfer of ownership. Water/sewer is availble only after payment of all current fees, recording of easements and transfer of ownership to the district.

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SCALE IN FEET 0 1 2

JACOBS

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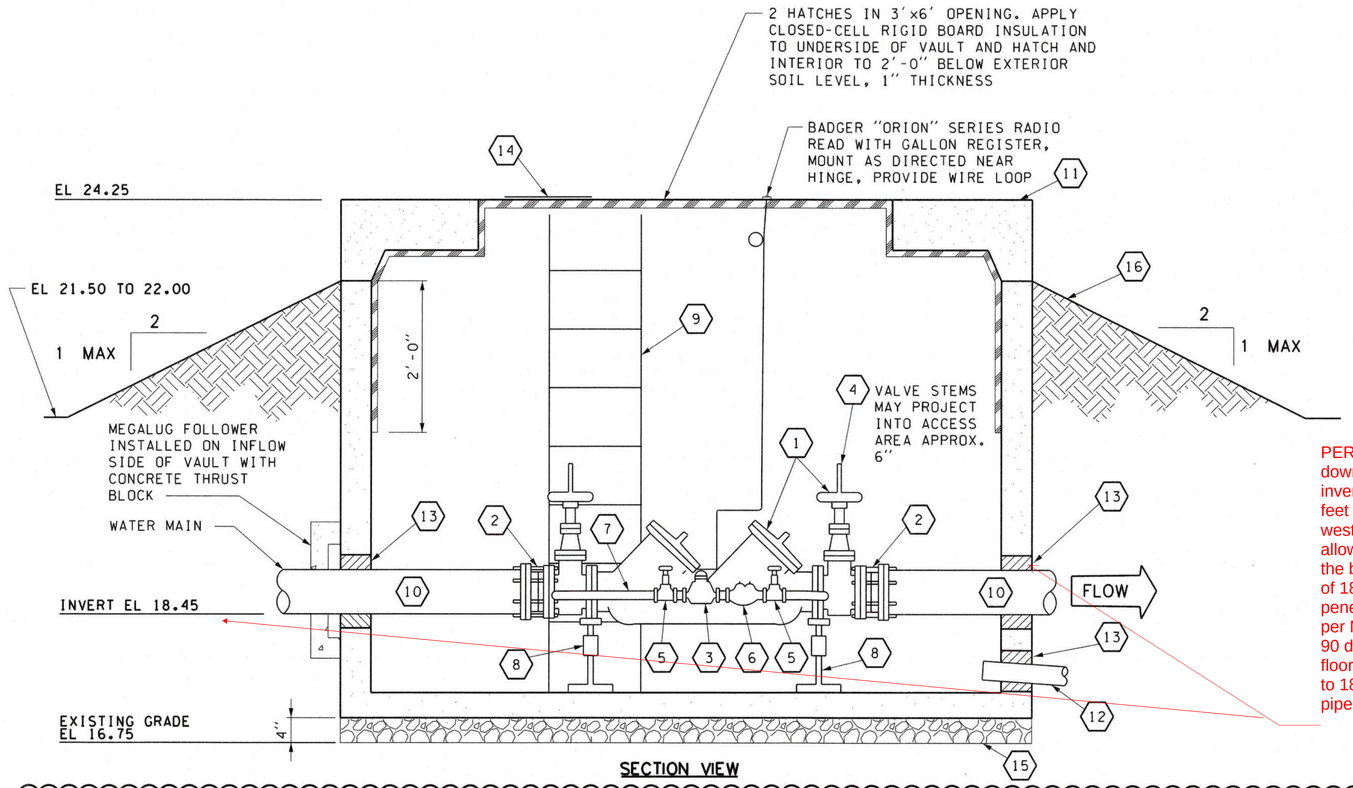
ENTERED BY: R. REISER	3/20/19					10 WASH
CHECKED BY: P. SACK	3/20/19					JOB NUMBER
MAR PROJ ENGR: C. TORRES		MWWD CHANGE ORDER	03/20/19	EB		18W121
DIR TERM ENGR: N. MCINTOSH		CONFORMED PLANS	01/18/19	EB		CONTRACT NO.
ASST SECRETARY: A. SCARTON		REVISION	DATE	BY		009321

ERIK L. BRODAHL — STATE OF WASHINGTON — 37841 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION
WATER & SANITARY SEWER DETAILS

C08.53
SHEET
OF
SHEETS



RFI 24

NOTE: SECTION VIEW OF PIPING ABOVE IS FROM MWWD STANDARD DETAIL, SEE PLAN VIEW FOR SCHEMATIC PIPING LAYOUT SPECIFIC TO PROJECT, AND MWWD STANDARD DETAILS W-D19 AND W-D20 FOR MORE INFORMATION.

1 / C08.14 DOUBLE CHECK DETECTOR BACKFLOW PREVENTION ASSEMBLY

NO SCALE

PER RFI 387 - To provide a 0.5% slope from the downstream drainage structure C07.14-1 (IE = 17.7), the invert elevations in the vaults should both be set to 18.1 feet (based on approximately 80 LF of drain pipe to the west vault. Per MWWD, only 1" of standing water is allowed in the bottom of the vault. Please add concrete to the bottom of both vaults to raise the floor to an elevation of 18.02 (1" below the drain IE). The PVC pipe penetrations should use standard Kor-N-Seal boots. Also per MWWD, the IE of the piping within the vaults (after the 90 degree bend) needs to be a minimum of 6" above the floor. Please raise the bottom of the piping in both vaults to 18.52 (raising very slightly), to provide 6" below the pipes.

Per RFI 388 - Please provide one pipe support under the flapper check valve for both the west and east fire service vaults (two total pipe supports). The District's standard detail does not include a pipe support for these lines, but since the layouts were reconfigured for this project to span the length of the vaults, it is important to include a pipe support for each line at the approximate center of the vaults lengthwise. there was not a view showing the profile of this piping in the drawings.

Per RFI 024 - All piping, fittings, and valves should be 6-inch diameter, per Sheet C08.14 and C08.54, Detail W-D20 on Sheet C08.36 shows the proper components and the standard configuration, except that all components should be 6-inch diameter rather than 4-inch diameter for the fire service.
It should be noted that the two fire vaults are subject to reconfiguration, as Mukilteo Water and Wastewater District indicated that the west vault will instead need to be an above-grade hot box with an RPBA. Updated drawings will be provided after this change has been finalized, and it would be advisable to wait to order these materials until the updates are provided.

JACOBS

CONSTRUCTION NOTES:

1. STATE APPROVED DOUBLE CHECK VALVE DETECTOR ASSEMBLY (DCDA) BACKFLOW PREVENTOR ASSEMBLY WITH O.S.&Y. GATE VALVE
2. ROMAC STYLE 'FCA 501' RESTRAINED FLANGED COUPLING ADAPTER
3. 5/8" x 3/4" BADGER "ORION" SERIES RADIO MOUNTED TO VAULT SURFACE OR HATCH: 6 WHEEL READING IN GALLONS
4. LOCATE CENTER OF VALVE 15" FROM CENTER OF VAULT TO ALLOW STEMS TO EXTEND INTO ACCESS OPENING WHEN APPLICABLE
5. 3/4" SHUTOFF VALVE: BRASS GATE VALVE
6. STATE APPROVED 3/4" DOUBLE CHECK VALVE ASSEMBLY (DCVA)
7. BRASS OR TYPE K COPPER, DETECTOR CHECK PIPING (BY PASS LINE)
8. 2 EA. GALVANIZED ADJUSTABLE STANTIONS (LOCATE AT ENDS OF DOUBLE CHECK ASSEMBLY)
9. GALVANIZED STEEL LADDER, LOCATE AS DIRECTED BY DISTRICT, SECURE TO VAULT. LOCATE LADDER TO AVOID CONFLICT WITH PIPING, SECURED UNDER HATCH AS NEEDED
10. PIPE SPOOL, CL. 52 D.I., PLAIN END
11. "UTILITY VAULT" 575-LA+57 OR APPROVED EQUAL WITH ADJUSTABLE COVER, 2 ACCESS HATCHES
12. 6" PVC DRAIN, DISCHARGE TO CATCH BASIN. MINIMUM SLOPE 0.5%. ADD SCREENS TO BOTH ENDS
13. WATERTIGHT GROUT, INLET AND OUTLET PIPE, DRAIN PIPE AND BRICK ACCESS OPENING
14. SIGN READING "DANGER-PERMIT REQUIRED-CONFINED SPACE, DO NOT ENTER"
15. COMPACTED GRAVEL BACKFILL FOR FOUNDATION, CLASS A TO 95%, MDD PER ASTM D1557
16. MOUND SOIL ABOVE ADJACENT FINISH AT 2:1 SLOPE ALL SIDES OF VAULT

APPROVAL BLOCK

Approved by _____ 3-26-19
Mukilteo Water and Wastewater — Date

Mukilteo Water and Wastewater District Extension No. 537

Gray & Osborne No. _____

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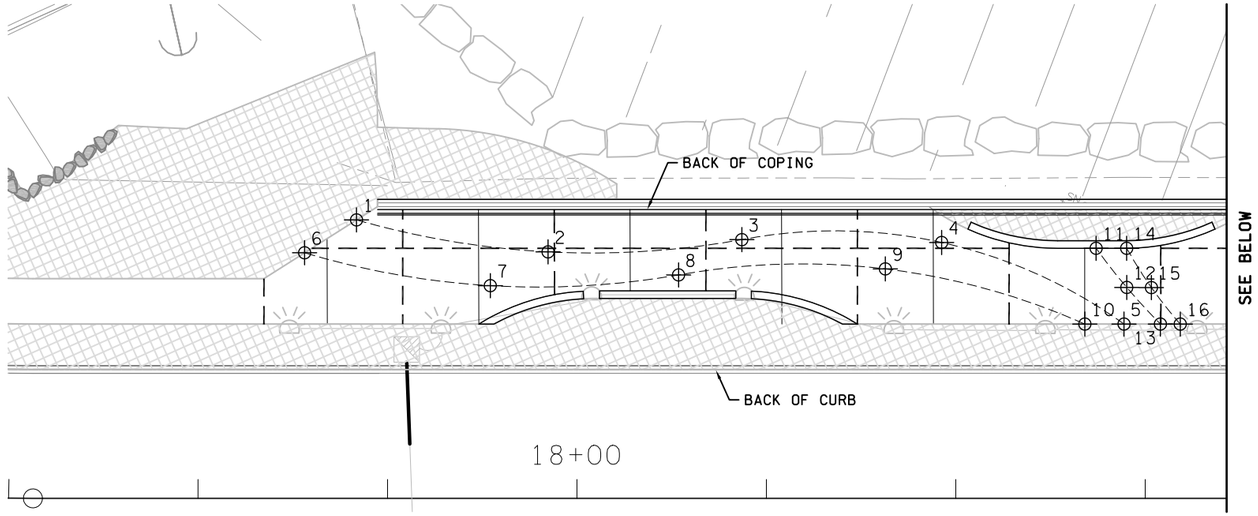
ERIK L. BRODAHL — STATE OF WASHINGTON — 37847 — REGISTERED PROFESSIONAL ENGINEER
03/20/19

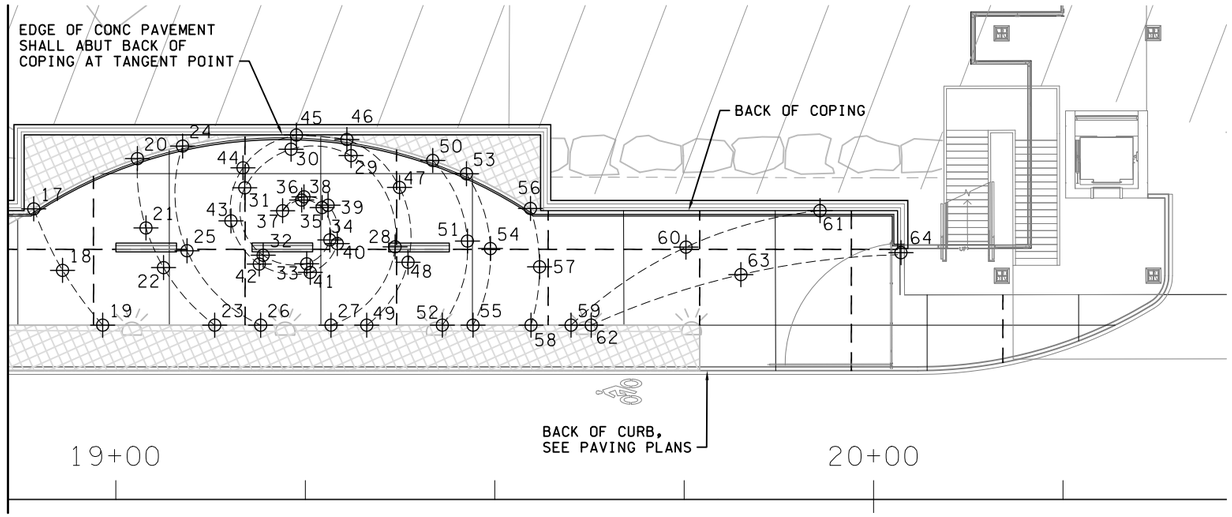
Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR 525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

WATER & SANITARY SEWER DETAILS

C08.54
SHEET
OF
SHEETS





1 PROMENADE ENLARGEMENT 1
C13.40 NOT TO SCALE

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12	N 349912.0815	E 1281495.9406
13	N 349909.144	E 1281501.806
14	N 349916.9097	E 1281494.0905
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18	N 349921.5747	E 1281514.1551
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23	N 349921.9637	E 1281535.4941
24	N 349942.5378	E 1281523.127
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38	N 349941.9782	E 1281540.4794
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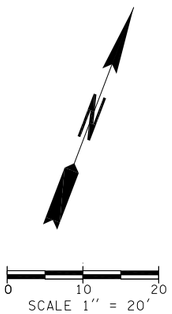

NOTES:

1. FOR URBAN DESIGN SITE FURNISHING SCHEDULE, LEGEND, NOTES, & ABBREVIATIONS, SEE SHEET C13.00. FOR URBAN DESIGN PLANS, SEE SHEETS C13.10-C13.13. FOR URBAN DESIGN LAYOUT AND DIMENSIONING, SEE URBAN DESIGN DIMENSIONING PLANS, SHEETS C13.20 THROUGH C13.22.
2. LIMITS OF FINISHES SHALL BE ROUNDED WITHOUT STRAIGHT EDGES OR TANGENT LINES. LAYOUT OF CURVILINEAR EXPOSED & SEEDED AGGREGATE FINISHES SHALL BE REVIEWED AND APPROVED BY THE ENG PRIOR TO CONCRETE POUR.
3. PAVEMENT FINISHES SHALL BE FLUSH WITH ADJACENT SIDEWALK PAVEMENT, CURB, TRESTLE PAVEMENT, WALL COPING, & FISHING PIER.

HBB LANDSCAPE ARCHITECTURE
215 WESTLAKE AVE. NORTH
SEATTLE, WA 98109
206.682.3051 phone
206.682.3245 fax

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CHECKED BY: D. KOONTS	12/22/17					JOB NUMBER
MAR PROJ ENGR: C. TORRES						14W121
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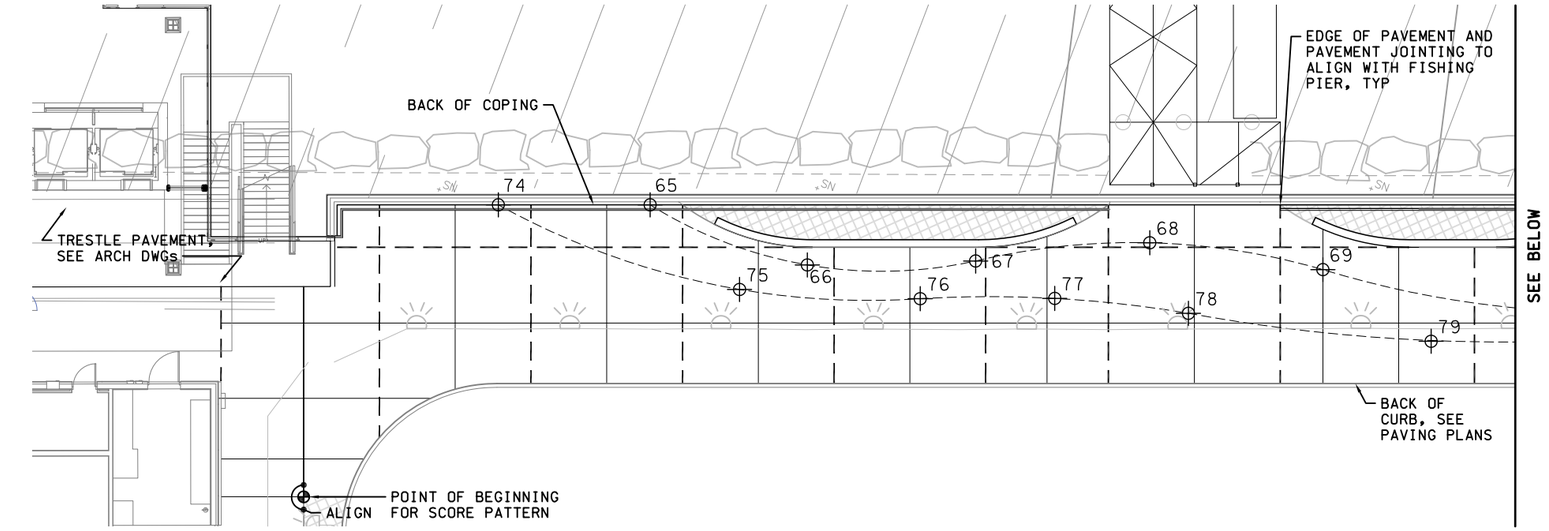
Washington State Department of Transportation
WASHINGTON STATE FERRIES

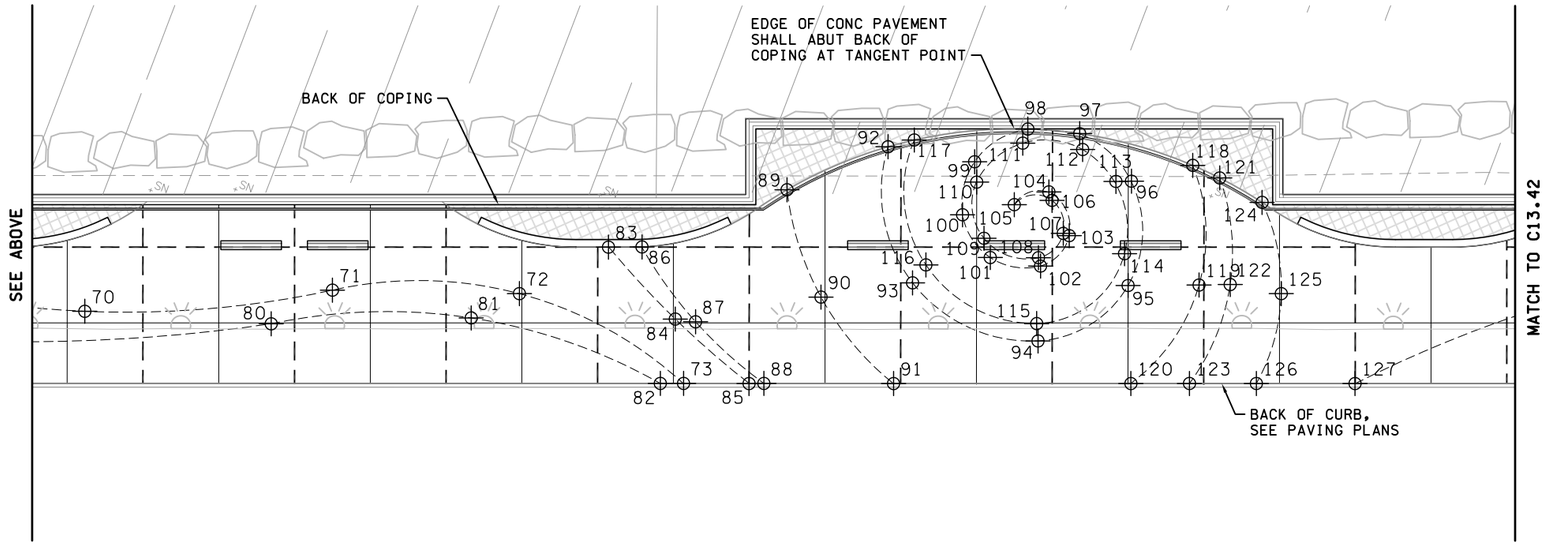
SR525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

PAVEMENT FINISH DIMENSIONING PLAN

C13.40

SHEET 317 OF 1521 SHEETS





1 C13.41 PROMENADE ENLARGEMENT 2
NOT TO SCALE

NOTES:

1. FOR URBAN DESIGN SITE FURNISHING SCHEDULE, LEGEND, NOTES, & ABBREVIATIONS, SEE SHEET C13.00. FOR URBAN DESIGN PLANS, SEE SHEETS C13.10-C13.13. FOR URBAN DESIGN LAYOUT AND DIMENSIONING, SEE URBAN DESIGN DIMENSIONING PLANS, SHEETS C13.20 THROUGH C13.22.
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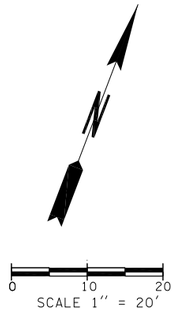
3. PAVEMENT FINISHES SHALL BE FLUSH WITH ADJACENT SIDEWALK PAVEMENT, CURB, TRESTLE PAVEMENT, WALL COPING, & FISHING PIER.
4. FOR NORTHING/EASTING INFORMATION FOR THESE COORDINATE POINTS, SEE SHEET C13.42.



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STATE OF WASHINGTON JULIET B. VONG 21701 LICENSED LANDSCAPE ARCHITECT NO. 967 EXP. 02/2020

Washington State Department of Transportation
WASHINGTON STATE FERRIES

SR525
MUKILTEO FERRY TERMINAL (PHASE 2)
FERRY TERMINAL CONSTRUCTION

PAVEMENT FINISH DIMENSIONING PLAN

C13.41
SHEET 318 OF 1521 SHEETS