Appendix A: Project Planning and Development

A-2 Project Plans-Short Span Option

TAPPAN ZEE HUDSON RIVER CROSSING PROJECT
ENVIRONMENTAL REVIEW

JUL 18, 2012 SHORT SPAN BRIDGE

FEIS APPENDIX A2

INDEX :

B-4100 TO B-4102 OVERALL BRIDGE CROSSING
B-4110 TO B-4116 ROCKLAND LANDING BRIDGE APPROACH
B-4120 TO B-4131 BRIDGE CROSSING
B-4140 TO B-4144 WESTCHESTER LANDING BRIDGE APPROACH
B-4150 BRIDGE FOUNDATIONS
B-4199 LEGENDS

ARUP

Thruway Authority

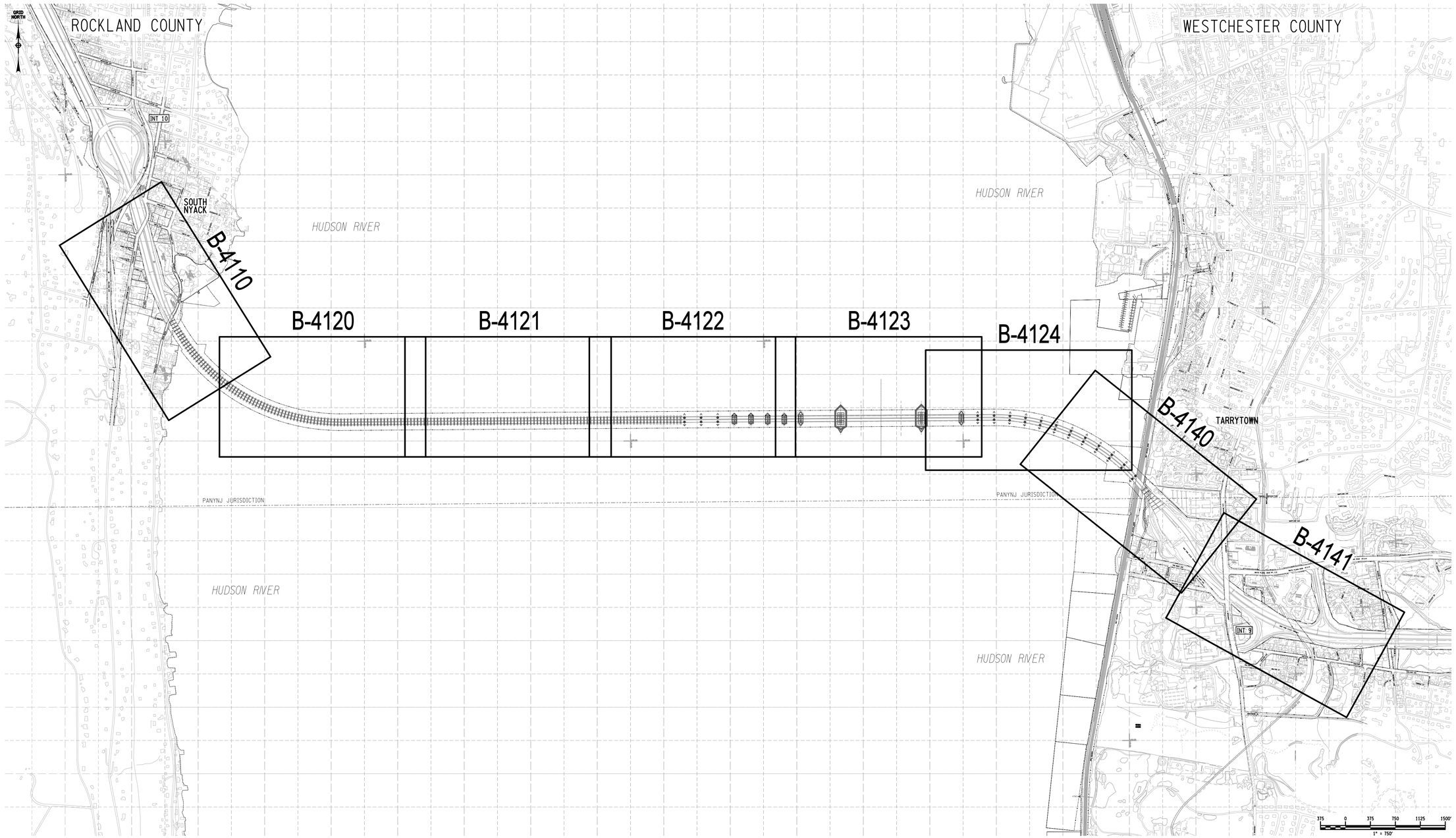
New York State
Department of Transportation

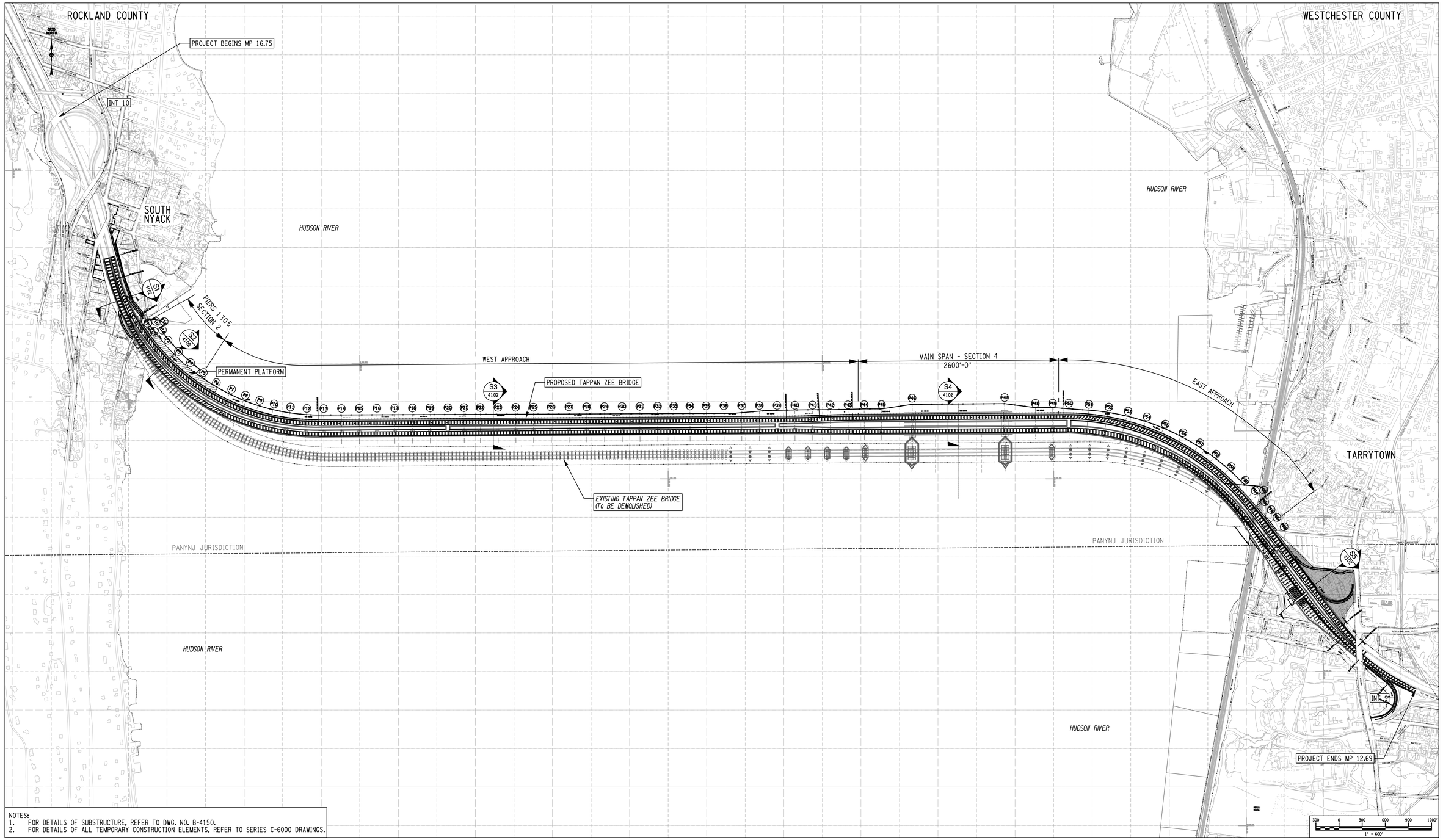
SHORT APPROACH SPAN - BRIDGE REPLACEMENT
DRAWING LIST

DRAWING NUMBER	DRAWING NAME	CURRENT STATUS	SCALE
OVERALL BRIDGE CROSSING			
B-4100	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING PLAN	FEIS APPENDIX A2	1"=600'-0"
B-4101	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - TYPICAL CROSS SECTION AND PROFILE	FEIS APPENDIX A2	1"=500'-0"
B-4102	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - TYPICAL CROSS SECTIONS	FEIS APPENDIX A2	1"=50'-0"
ROCKLAND COUNTY - BRIDGE APPROACH			
B-4110	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE APPROACH PLAN - ROCKLAND COUNTY	FEIS APPENDIX A2	1"=100'-0"
B-4112	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE APPROACH PROFILES - ROCKLAND COUNTY	FEIS APPENDIX A2	1"=200'-0"
B-4113	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - CROSS SECTIONS - SHEET 1 OF 2 - ROCKLAND COUNTY	FEIS APPENDIX A2	1"=25'-0"
B-4114	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - CROSS SECTIONS - SHEET 2 OF 2 - ROCKLAND COUNTY	FEIS APPENDIX A2	1"=25'-0"
B-4115	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - MAINTENANCE RAMP PLAN - ROCKLAND COUNTY	FEIS APPENDIX A2	1"=50'-0"
B-4116	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - MAINTENANCE RAMP PROFILES - ROCKLAND COUNTY	FEIS APPENDIX A2	1"=100'-0"
BRIDGE CROSSING			
B-4120	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING PLAN - SHEET 1 OF 5	FEIS APPENDIX A2	1"=100'-0"
B-4121	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING PLAN - SHEET 2 OF 5	FEIS APPENDIX A2	1"=100'-0"
B-4122	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING PLAN - SHEET 3 OF 5	FEIS APPENDIX A2	1"=100'-0"
B-4123	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING PLAN - SHEET 4 OF 5	FEIS APPENDIX A2	1"=100'-0"
B-4124	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING PLAN - SHEET 5 OF 5	FEIS APPENDIX A2	1"=100'-0"
B-4125	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING PROFILES - SHEET 1 OF 3	FEIS APPENDIX A2	1"=200'-0"
B-4126	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING PROFILES - SHEET 2 OF 3	FEIS APPENDIX A2	1"=200'-0"
B-4127	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING PROFILES - SHEET 3 OF 3	FEIS APPENDIX A2	1"=200'-0"
B-4130	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING - MAIN SPAN WITH ARCH	FEIS APPENDIX A2	N.T.S.
B-4131	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE CROSSING - MAIN SPAN WITH CABLE STAYED	FEIS APPENDIX A2	N.T.S.
WESTCHESTER COUNTY - BRIDGE APPROACH			
B-4140	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE APPROACH PLAN - SHEET 1 OF 2 - WESTCHESTER COUNTY	FEIS APPENDIX A2	1"=100'-0"
B-4141	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE APPROACH PLAN - SHEET 2 OF 2 - WESTCHESTER COUNTY	FEIS APPENDIX A2	1"=100'-0"
B-4142	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - BRIDGE APPROACH PROFILES - WESTCHESTER COUNTY	FEIS APPENDIX A2	1"=200'-0"
B-4143	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - CROSS SECTIONS - SHEET 1 OF 2 - WESTCHESTER COUNTY	FEIS APPENDIX A2	1"=25'-0"
B-4144	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - CROSS SECTIONS - SHEET 2 OF 2 - WESTCHESTER COUNTY	FEIS APPENDIX A2	1"=25'-0"
OTHER DETAILS			
B-4150	FOUNDATION DRAWING - SHORT APPROACH SPAN - BRIDGE REPLACEMENT	FEIS APPENDIX A2	1"=300'-0"
B-4199	SHORT APPROACH SPAN - BRIDGE REPLACEMENT - LEGENDS	FEIS APPENDIX A2	NTS

NOTE:
1. THE SCALE MENTIONED IN THE DRAWINGS LIST IS FOR 22X34 SIZE (FULL SIZE) DRAWINGS. FOR 11X17 SIZE DRAWINGS, PLEASE DOUBLE THE GIVEN SCALE IN THE DRAWING.

SHORT SPAN BRIDGE REPLACEMENT
KEY PLAN





NOTES:
1. FOR DETAILS OF SUBSTRUCTURE, REFER TO DWG. NO. B-4150.
2. FOR DETAILS OF ALL TEMPORARY CONSTRUCTION ELEMENTS, REFER TO SERIES C-6000 DRAWINGS.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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Thruway Authority

TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING PLAN

CONTRACT NUMBER 217815

DRAWING NO. B-4100
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON

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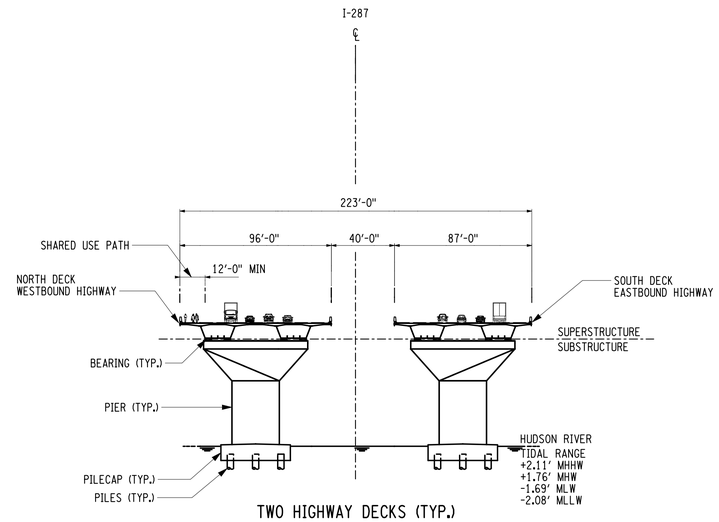
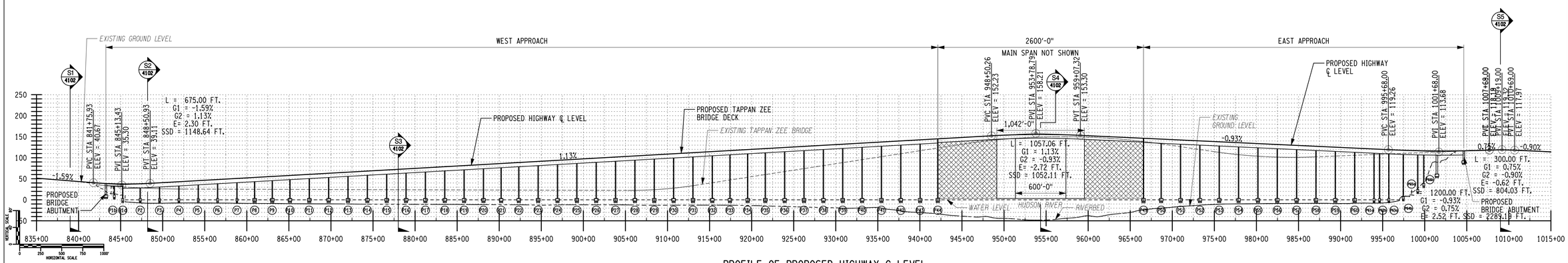


TWO HIGHWAY DECKS (TYP.)
(NOT TO SCALE)



PROFILE OF PROPOSED HIGHWAY ℄ LEVEL

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TYPICAL CROSS SECTION AND PROFILE

CONTRACT NUMBER 217815

DRAWING NO. B-4101
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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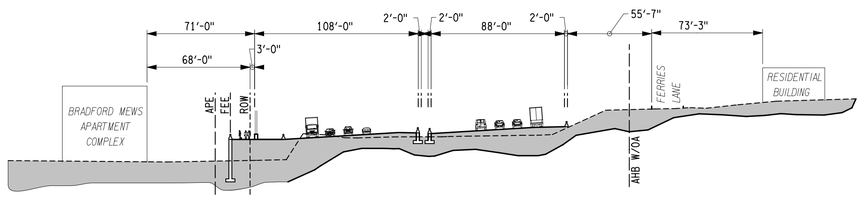
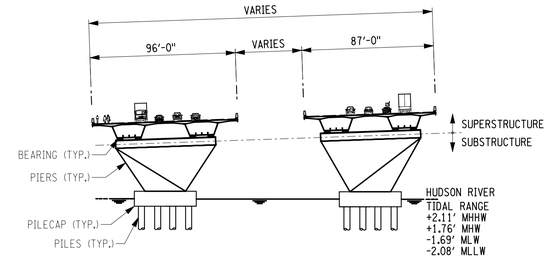
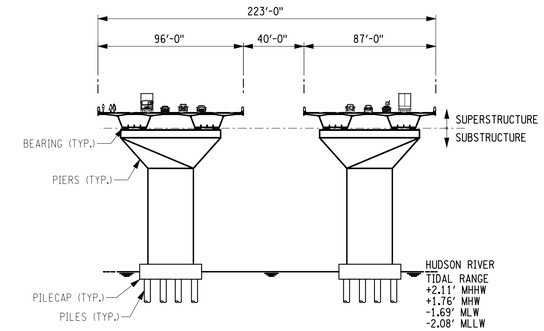
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



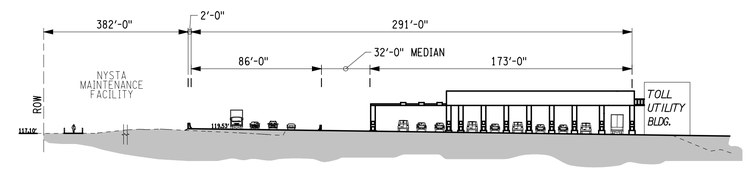
SECTION 1 AT STA. 839+00
SCALE: 1"=50'-0"



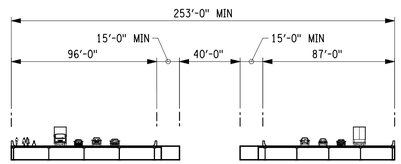
SECTION 2 TYPICAL FOR PIERS 1 TO 4
NOT TO SCALE



SECTION 3 TYPICAL FOR PIERS 5 TO 43, AND 46 TO 61
NOT TO SCALE



SECTION 5 AT STA. 1009+00
SCALE: 1"=50'-0"



SUPERSTRUCTURE AND SUBSTRUCTURE FOR MAIN SPAN NOT SHOWN.

DETAILS OF THE MAIN SPAN ARCH AND CABLE STAY BRIDGE IS PROVIDED ON B-4130 AND B-4131.

SECTION 4 AT STA. 954+34
NOT TO SCALE

NOTE:
1. FOR PILECAP DIMENSIONS, REFER TO DWG. NO. B-4150.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TYPICAL CROSS SECTIONS

CONTRACT NUMBER 217815

DRAWING NO. B-4102
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON

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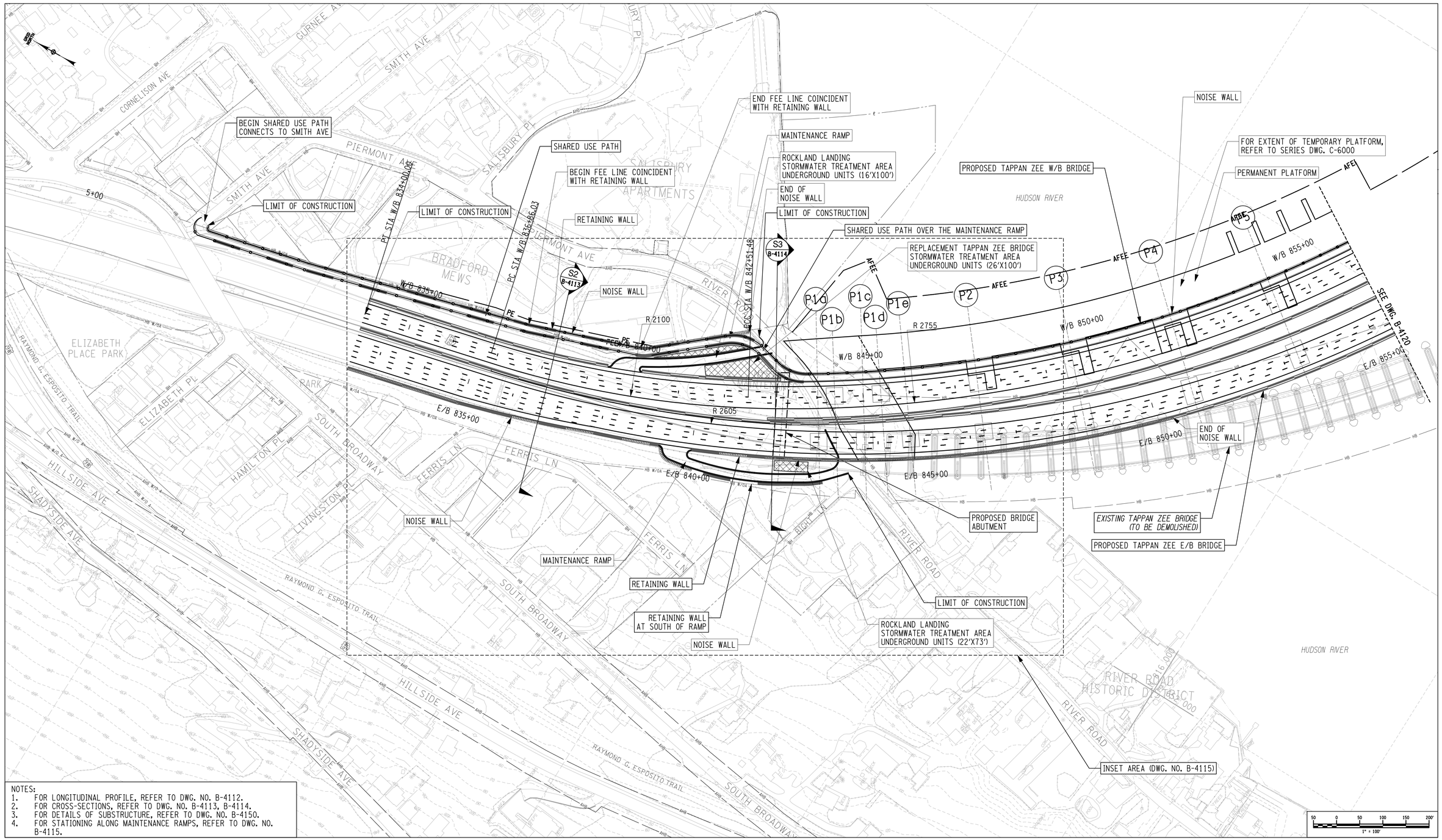

NOTES:
1. FOR LONGITUDINAL PROFILE, REFER TO DWG. NO. B-4112.
2. FOR CROSS-SECTIONS, REFER TO DWG. NO. B-4113, B-4114.
3. FOR DETAILS OF SUBSTRUCTURE, REFER TO DWG. NO. B-4150.
4. FOR STATIONING ALONG MAINTENANCE RAMPS, REFER TO DWG. NO. B-4115.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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REV	DATE	DESCRIPTION	BY
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PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE APPROACH PLAN
ROCKLAND COUNTY

CONTRACT NUMBER 217815

DRAWING NO. B-4110
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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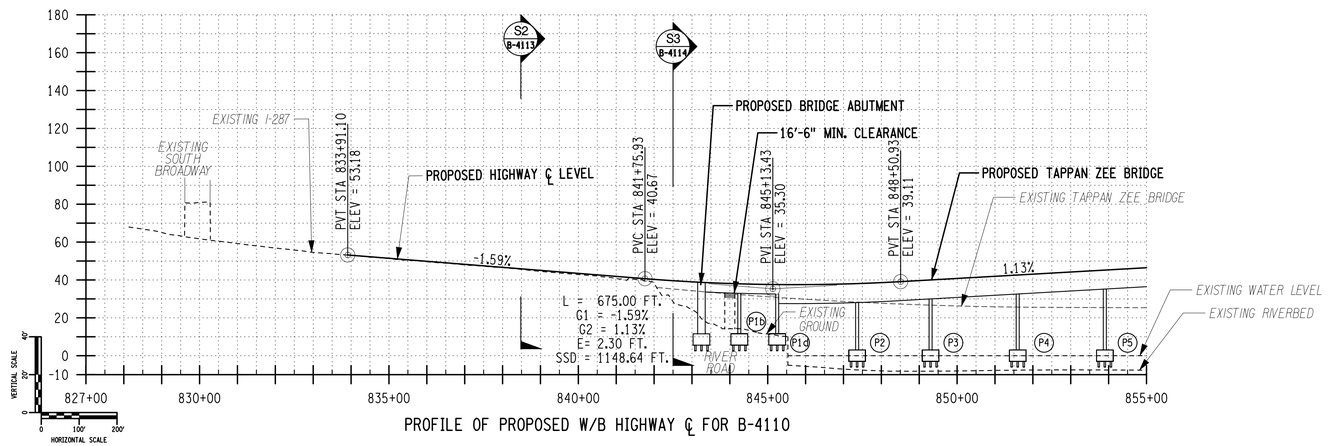

PROFILE OF PROPOSED W/B HIGHWAY ℄ FOR B-4110

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE APPROACH PROFILES
ROCKLAND COUNTY

CONTRACT NUMBER 217815

DRAWING NO. B-4112
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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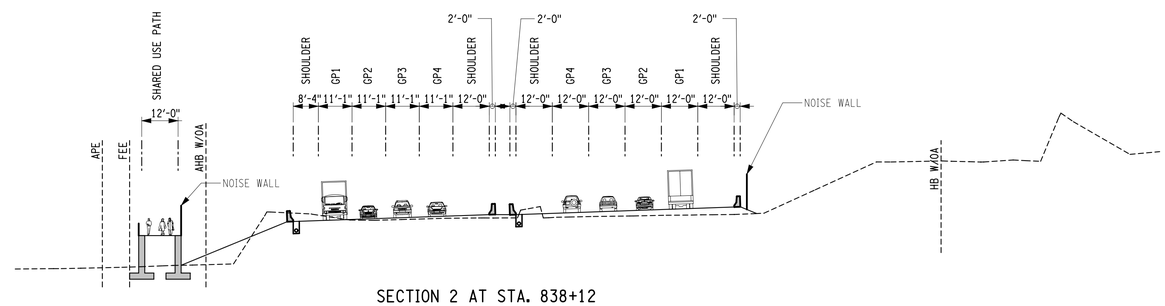

SECTION 2 AT STA. 838+12

SCALE : 1"=25'-0"

10 0 10 20 30 40 50'
1" = 25'

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

CROSS SECTIONS - SHEET 1 OF 2
ROCKLAND COUNTY

CONTRACT NUMBER 217815

DRAWING NO. B-4113
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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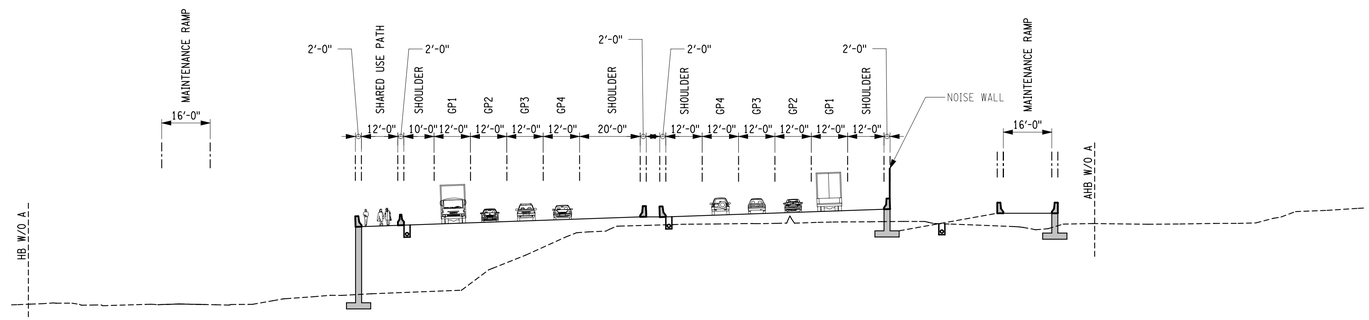

SECTION 3 AT STA. 843+16

SCALE: 1"=25'-0"

10 0 10 20 30 40 50'

1" = 25'

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

CROSS SECTIONS - SHEET 2 OF 2
ROCKLAND COUNTY

CONTRACT NUMBER
217815

DRAWING NO. B-4114
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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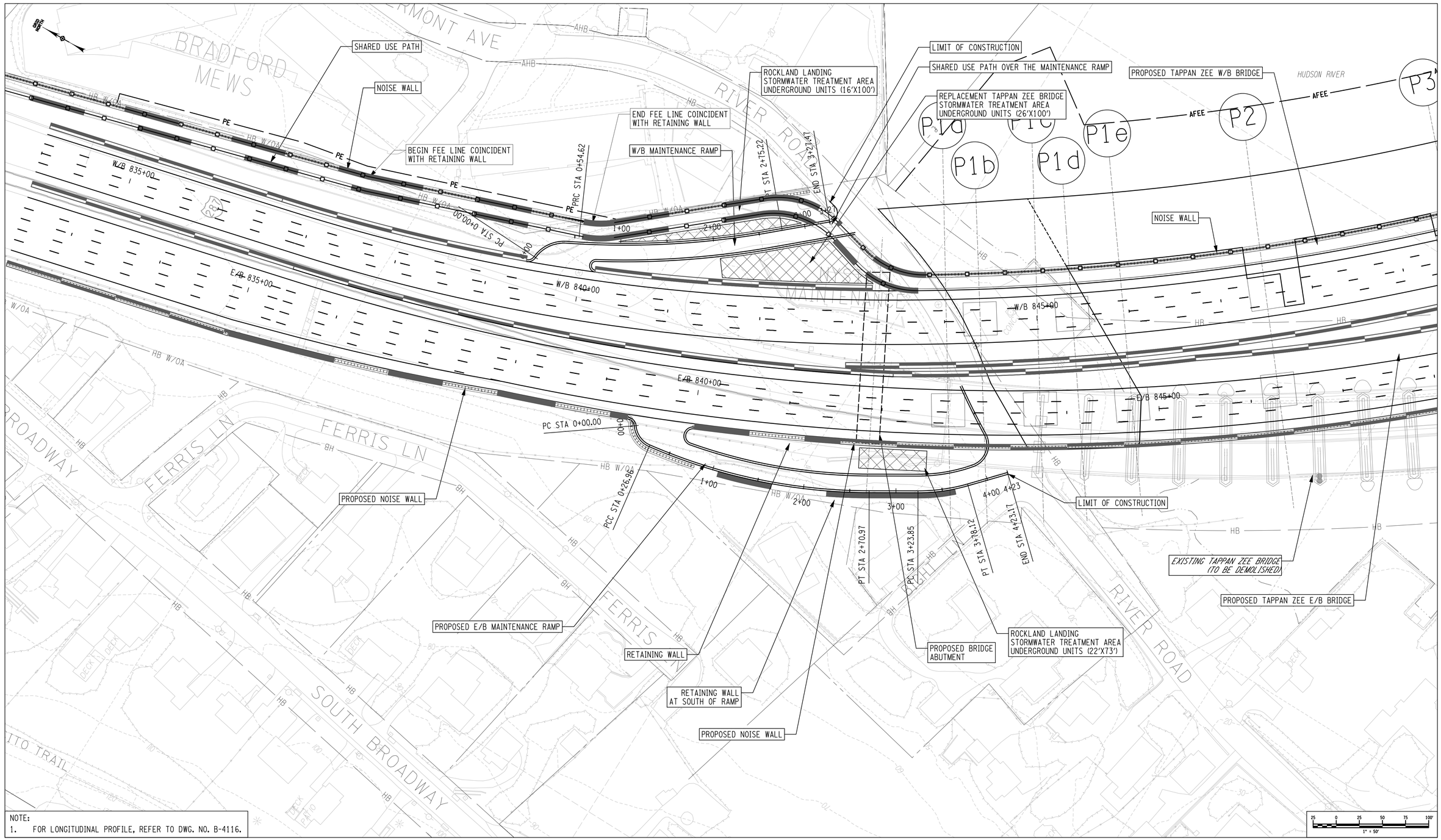
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



NOTE:
1. FOR LONGITUDINAL PROFILE, REFER TO DWG. NO. B-4116.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TAPPAN ZEE HUDSON RIVER CROSSING PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

DOCUMENT STATUS: FEIS - APPENDIX A2

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

MAINTENANCE RAMP PLAN
ROCKLAND COUNTY

CONTRACT NUMBER 217815

DRAWING NO. B-4115
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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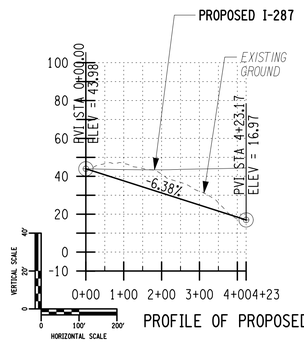
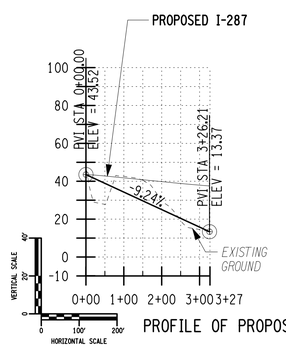
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



PROFILE OF PROPOSED E/B MAINTENANCE RAMP ℄ FOR B-4115



PROFILE OF PROPOSED W/B MAINTENANCE RAMP ℄ FOR B-4115

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

MAINTENANCE RAMP PROFILES
ROCKLAND COUNTY

CONTRACT NUMBER 217815

DRAWING NO. B-4116
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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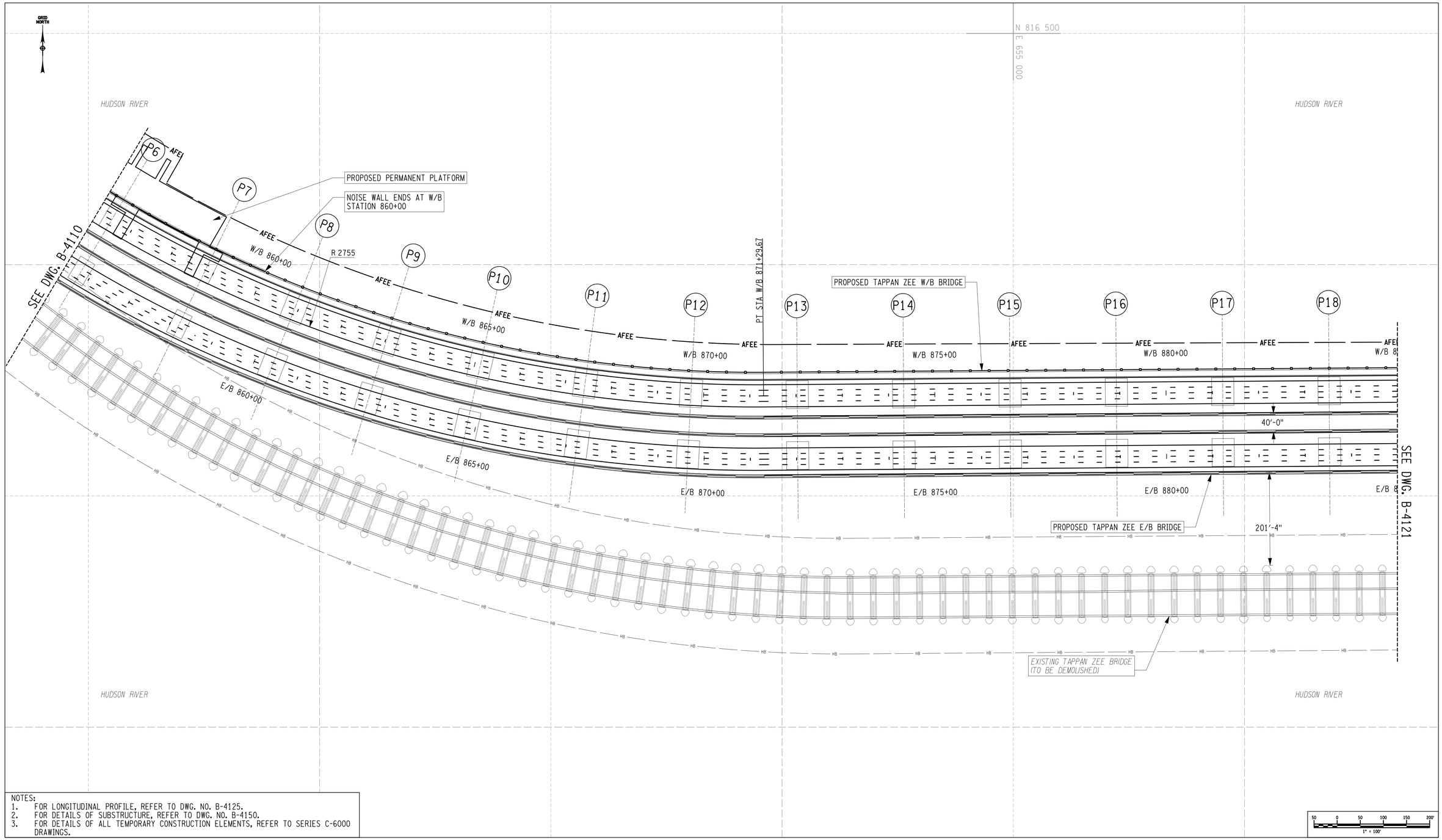
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



NOTES:
1. FOR LONGITUDINAL PROFILE, REFER TO DWG. NO. B-4125.
2. FOR DETAILS OF SUBSTRUCTURE, REFER TO DWG. NO. B-4150.
3. FOR DETAILS OF ALL TEMPORARY CONSTRUCTION ELEMENTS, REFER TO SERIES C-6000 DRAWINGS.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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Thruway Authority

TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING PLAN
SHEET 1 OF 5

CONTRACT NUMBER 217815

DRAWING NO. B-4120
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON

FILE NAME = J:\ON-Y\131000\131219-00\12 Drawings DEIS\Sheets\Expedited Bridge DEIS\Short Span\B-4120.dgn
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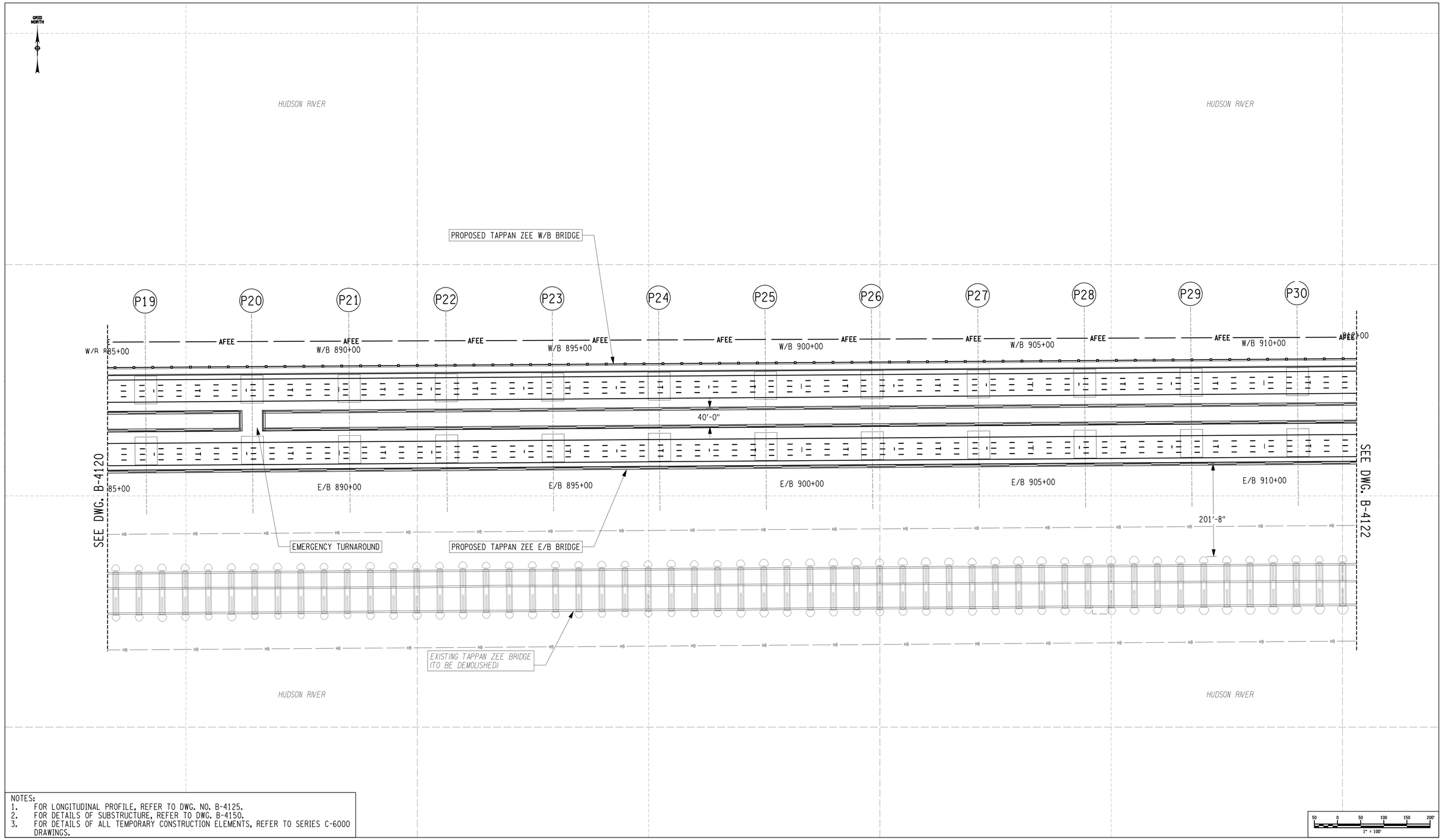
USER = jody.vukas



NOTES:
1. FOR LONGITUDINAL PROFILE, REFER TO DWG. NO. B-4125.
2. FOR DETAILS OF SUBSTRUCTURE, REFER TO DWG. B-4150.
3. FOR DETAILS OF ALL TEMPORARY CONSTRUCTION ELEMENTS, REFER TO SERIES C-6000 DRAWINGS.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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Thruway Authority

TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING PLAN
SHEET 2 OF 5

CONTRACT NUMBER 217815

DRAWING NO. B-4121
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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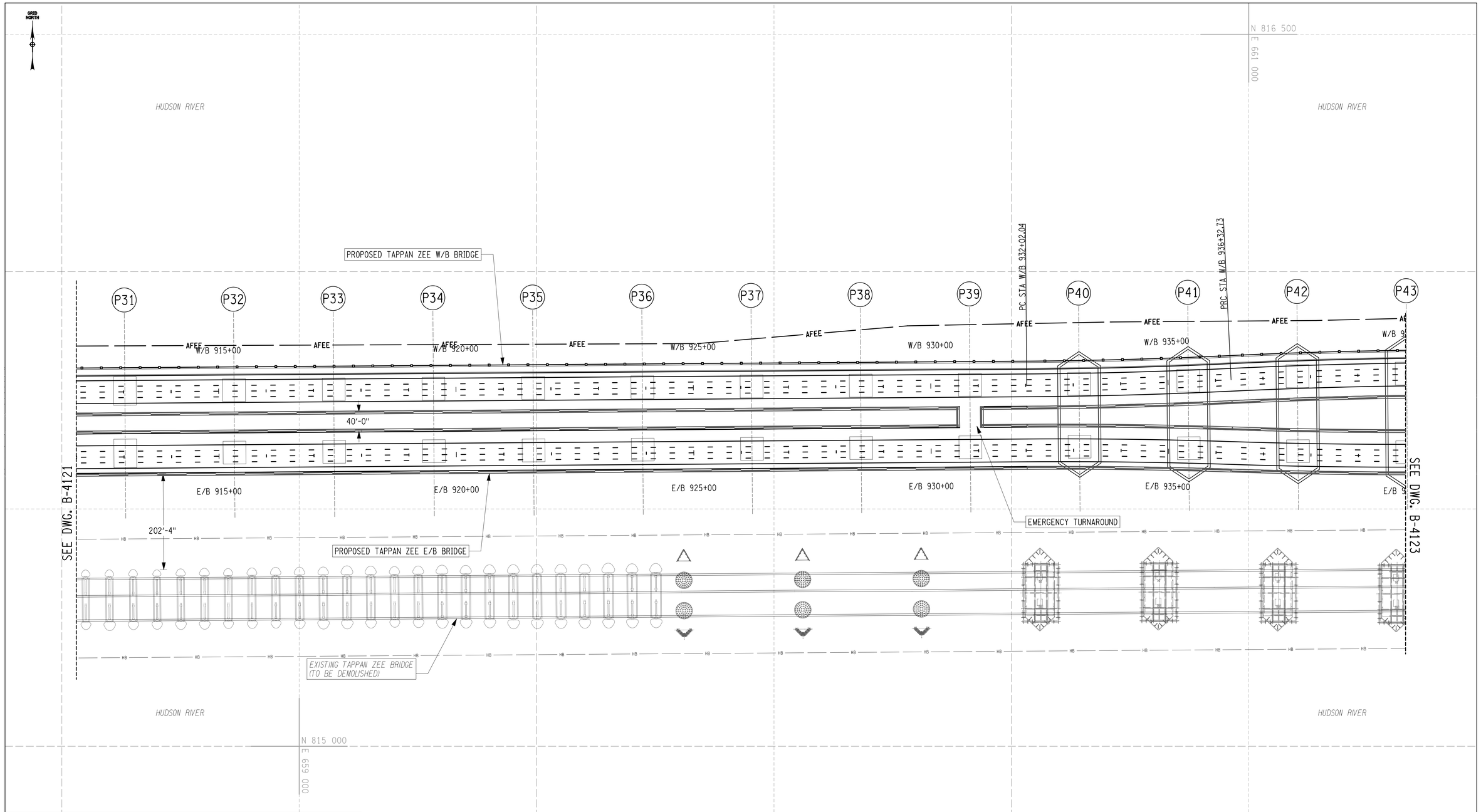
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



NOTES:
1. FOR LONGITUDINAL PROFILE, REFER TO DWG. NO. B-4126.
2. FOR DETAILS OF SUBSTRUCTURE, REFER TO DWG. NO. B-4150.
3. FOR DETAILS OF ALL TEMPORARY CONSTRUCTION ELEMENTS, REFER TO SERIES C-6000 DRAWINGS.

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PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

DOCUMENT STATUS: FEIS - APPENDIX A2

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING PLAN
SHEET 3 OF 5

CONTRACT NUMBER 217815

DRAWING NO. B-4122
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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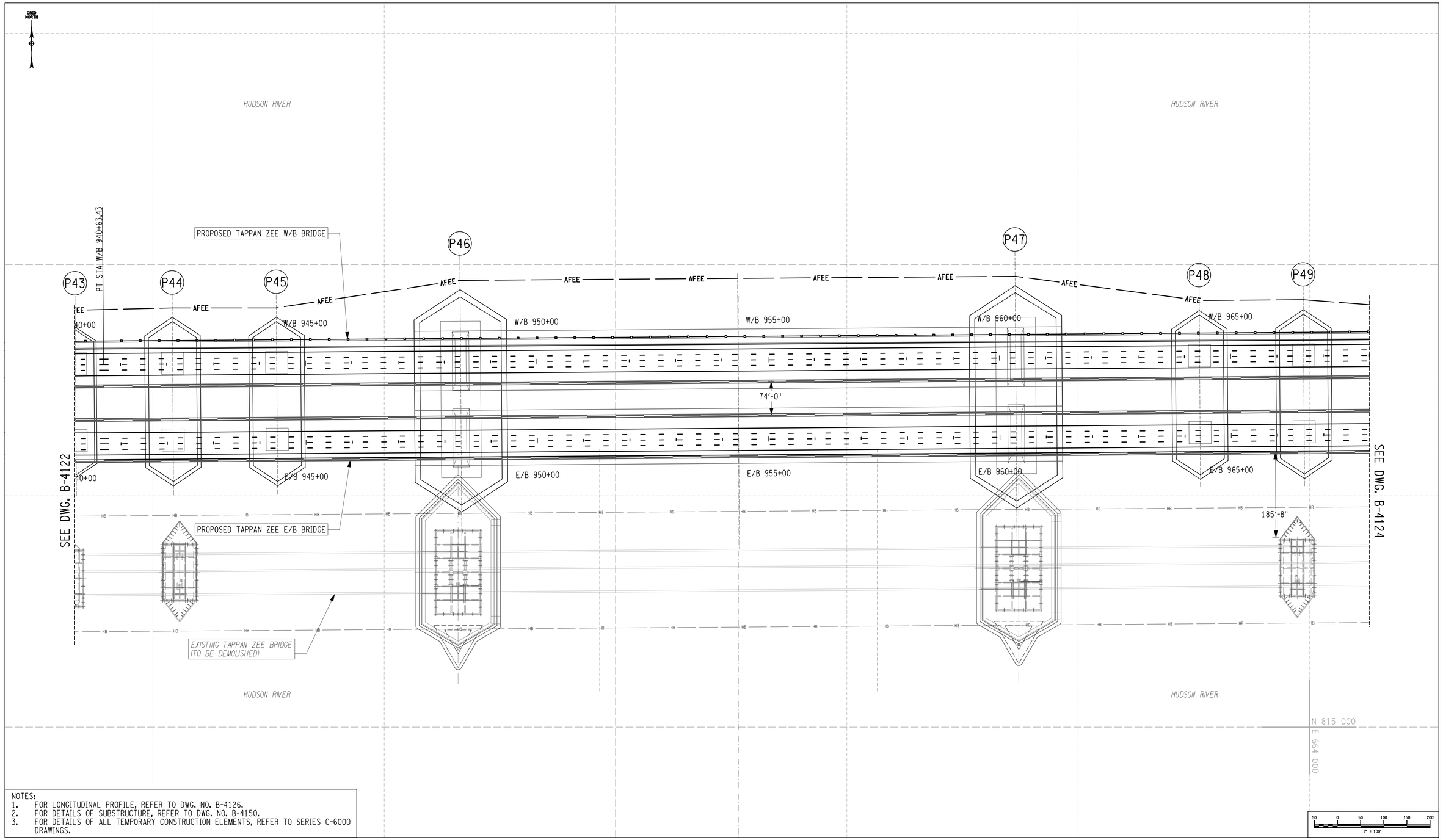
USER = jody.vukas

DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



NOTES:
1. FOR LONGITUDINAL PROFILE, REFER TO DWG. NO. B-4126.
2. FOR DETAILS OF SUBSTRUCTURE, REFER TO DWG. NO. B-4150.
3. FOR DETAILS OF ALL TEMPORARY CONSTRUCTION ELEMENTS, REFER TO SERIES C-6000 DRAWINGS.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING PLAN
SHEET 4 OF 5

CONTRACT NUMBER 217815

DRAWING NO. B-4123
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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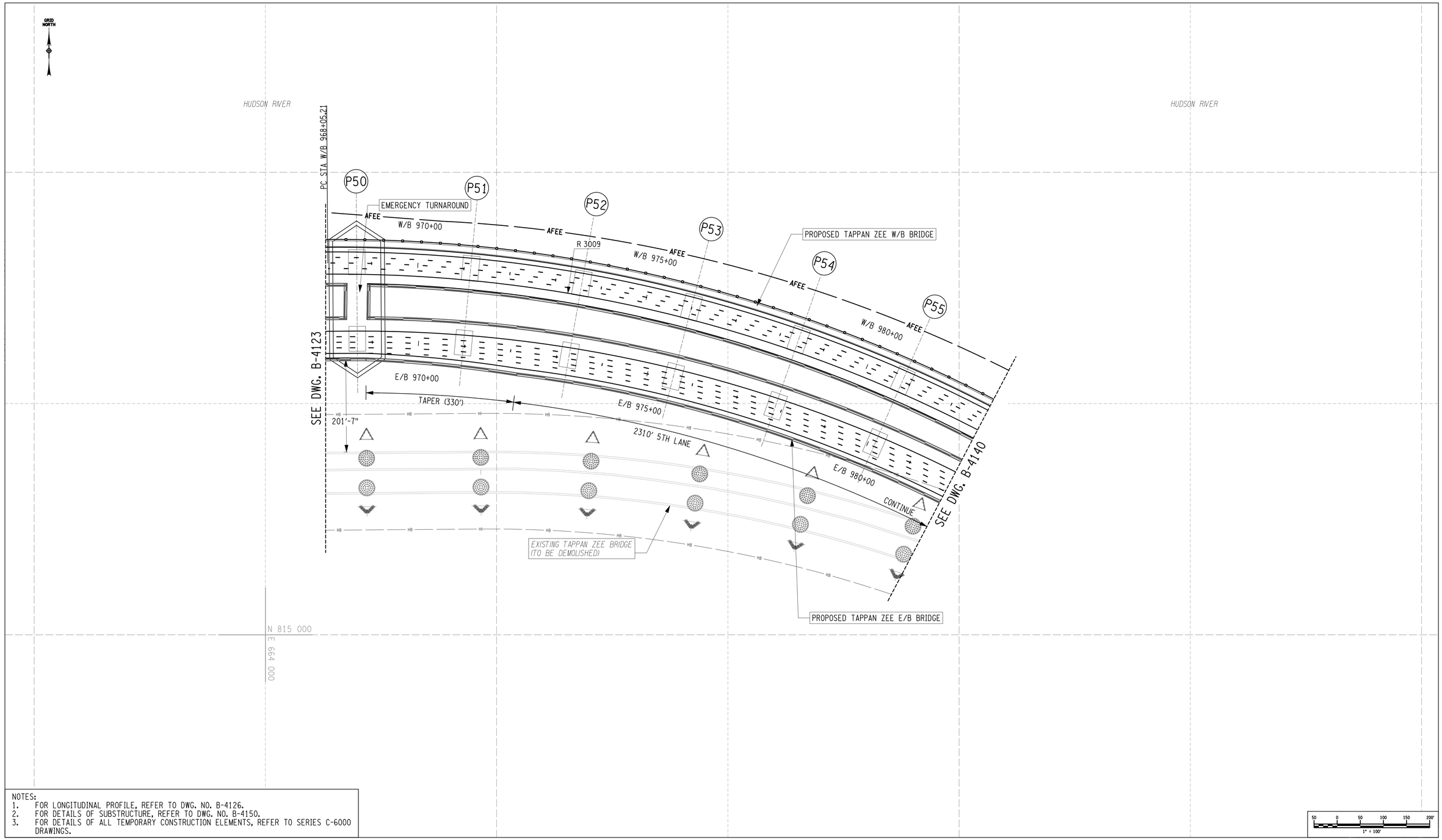
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



NOTES:
1. FOR LONGITUDINAL PROFILE, REFER TO DWG. NO. B-4126.
2. FOR DETAILS OF SUBSTRUCTURE, REFER TO DWG. NO. B-4150.
3. FOR DETAILS OF ALL TEMPORARY CONSTRUCTION ELEMENTS, REFER TO SERIES C-6000 DRAWINGS.

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PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING PLAN
SHEET 5 OF 5

CONTRACT NUMBER 217815

DRAWING NO. B-4124
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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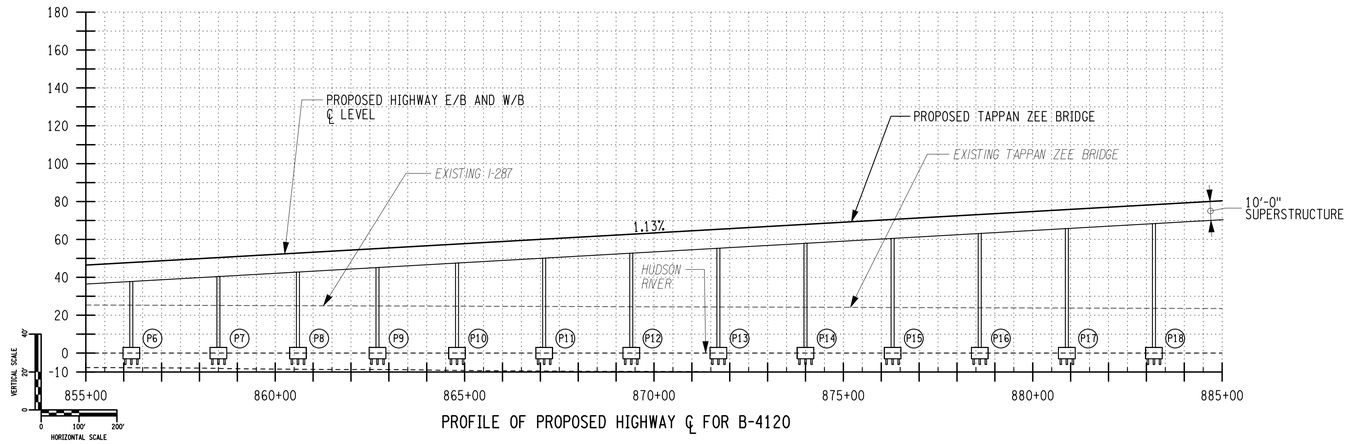
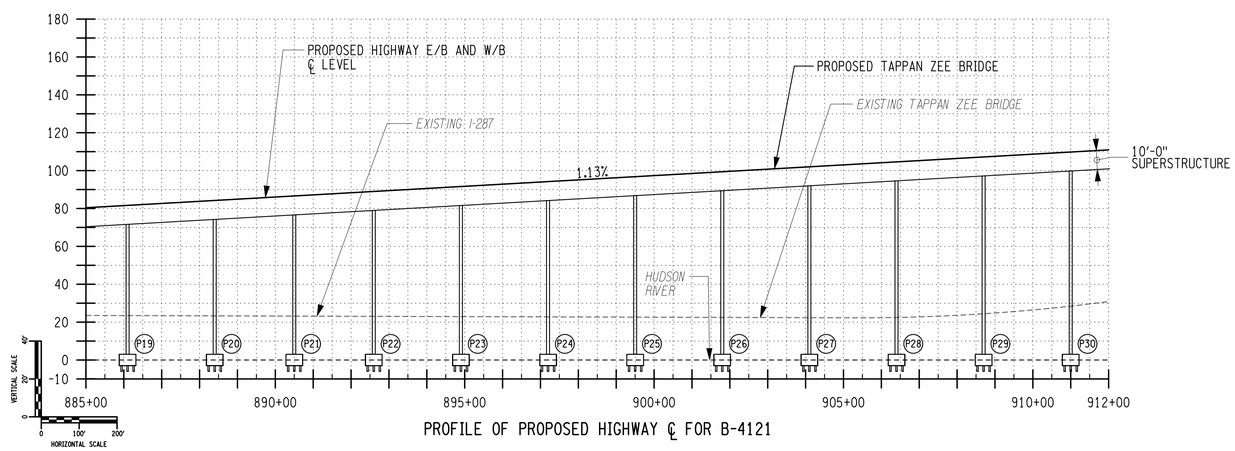
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



PROFILE OF PROPOSED HIGHWAY ℄ FOR B-4120



PROFILE OF PROPOSED HIGHWAY ℄ FOR B-4121

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING PROFILES
SHEET 1 OF 3

CONTRACT NUMBER 217815

DRAWING NO. B-4125
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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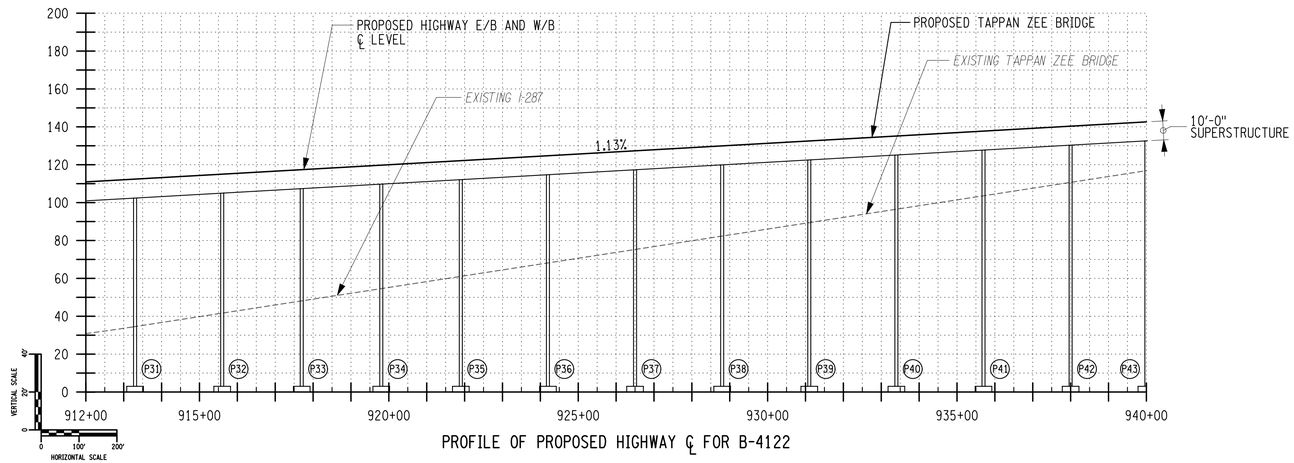
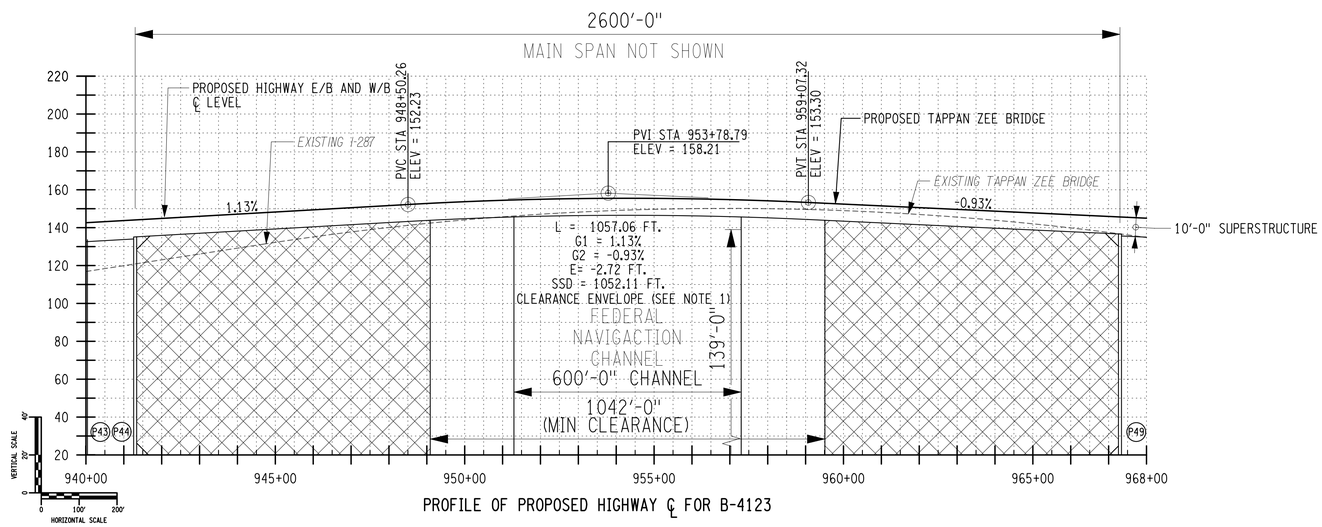
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



PROFILE OF PROPOSED HIGHWAY ℄ FOR B-4122



PROFILE OF PROPOSED HIGHWAY ℄ FOR B-4123

NOTE:
1. FOR DETAILS OF CLEARANCE ENVELOPE REFER TO DWG. NO. B-4130 AND B-4131.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING PROFILES
SHEET 2 OF 3

CONTRACT NUMBER 217815

DRAWING NO. B-4126
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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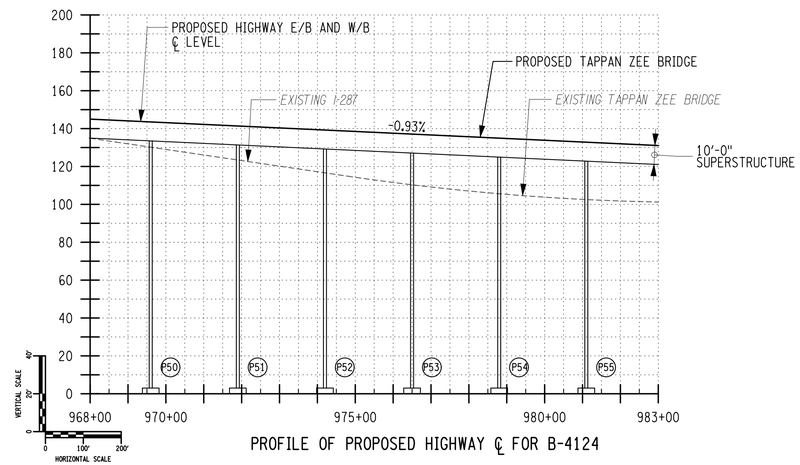
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



PROFILE OF PROPOSED HIGHWAY ℄ FOR B-4124

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING PROFILES
SHEET 3 OF 3

CONTRACT NUMBER
217815

DRAWING NO. B-4127
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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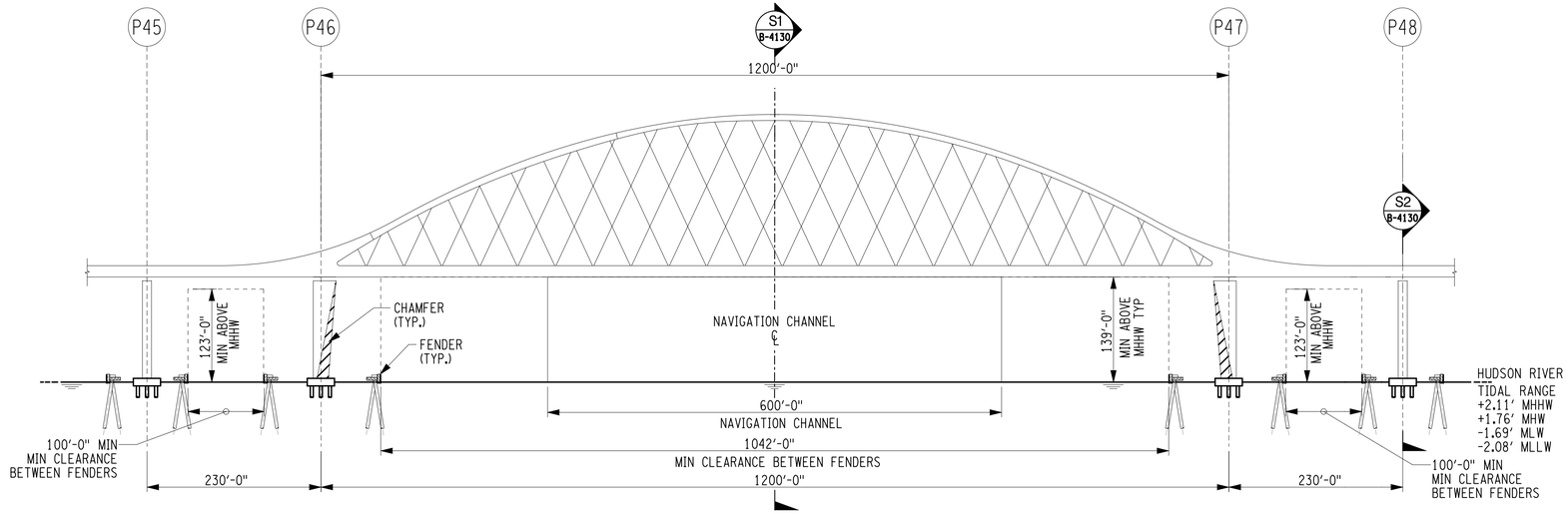
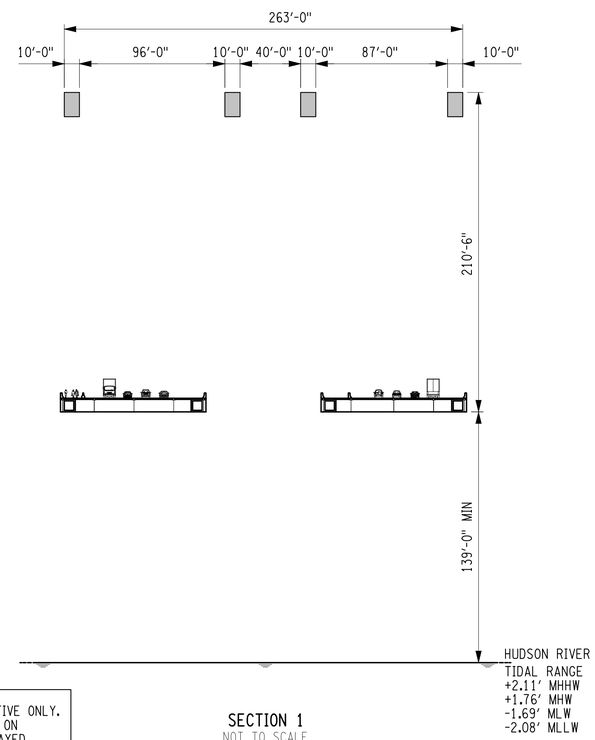
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



ELEVATION
NOT TO SCALE



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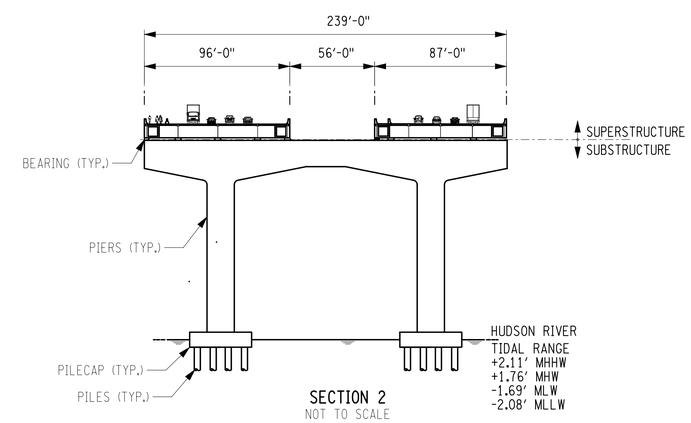

SECTION 2
NOT TO SCALE

NOTE:
1. HORIZONTAL ALIGNMENT SHOWN HERE IS INDICATIVE ONLY. PLEASE NOTE THAT HIGHWAY ALIGNMENT SHOWN ON DRAWINGS HAS BEEN DEVELOPED FOR CABLE STAYED BRIDGE OPTION ONLY. IT SHOULD BE ADAPTED FOR THIS AND OTHER MAIN SPAN OPTIONS.
2. DIMENSIONS ARE FOR ILLUSTRATION PURPOSES ONLY.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING
MAIN SPAN WITH ARCH

CONTRACT NUMBER 217815

DRAWING NO. B-4130
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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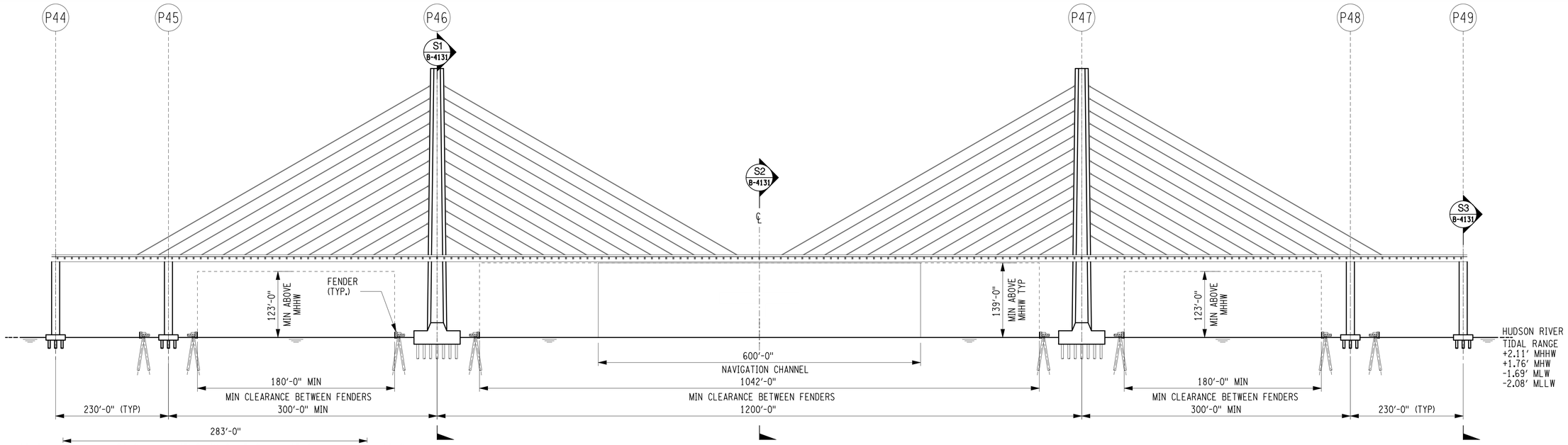
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



ELEVATION
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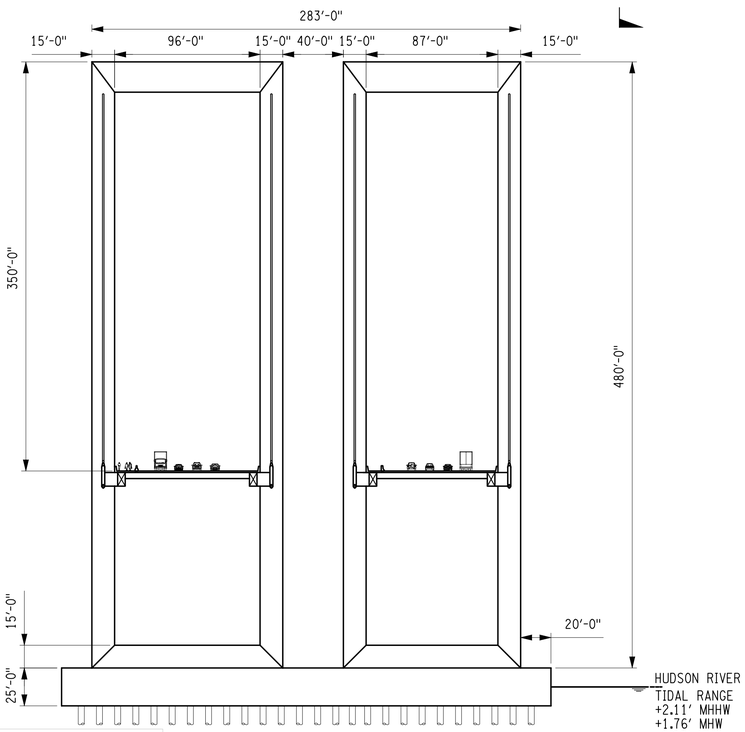
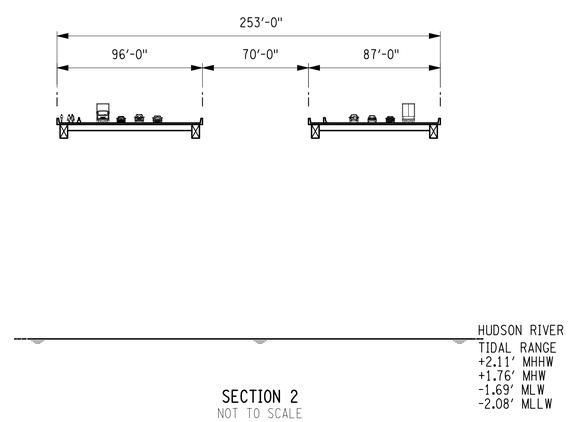


NOTE:
1. DIMENSIONS ARE FOR ILLUSTRATION PURPOSES ONLY.

SECTION 1
NOT TO SCALE



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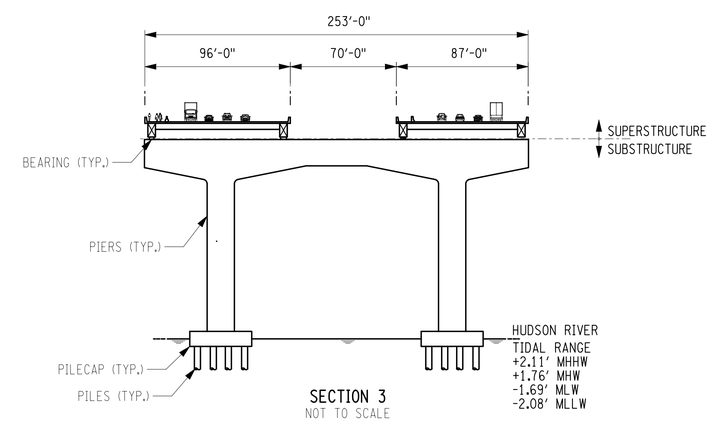

SECTION 3
NOT TO SCALE

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE CROSSING
MAIN SPAN WITH CABLE STAYED

CONTRACT NUMBER 217815

DRAWING NO. B-4131
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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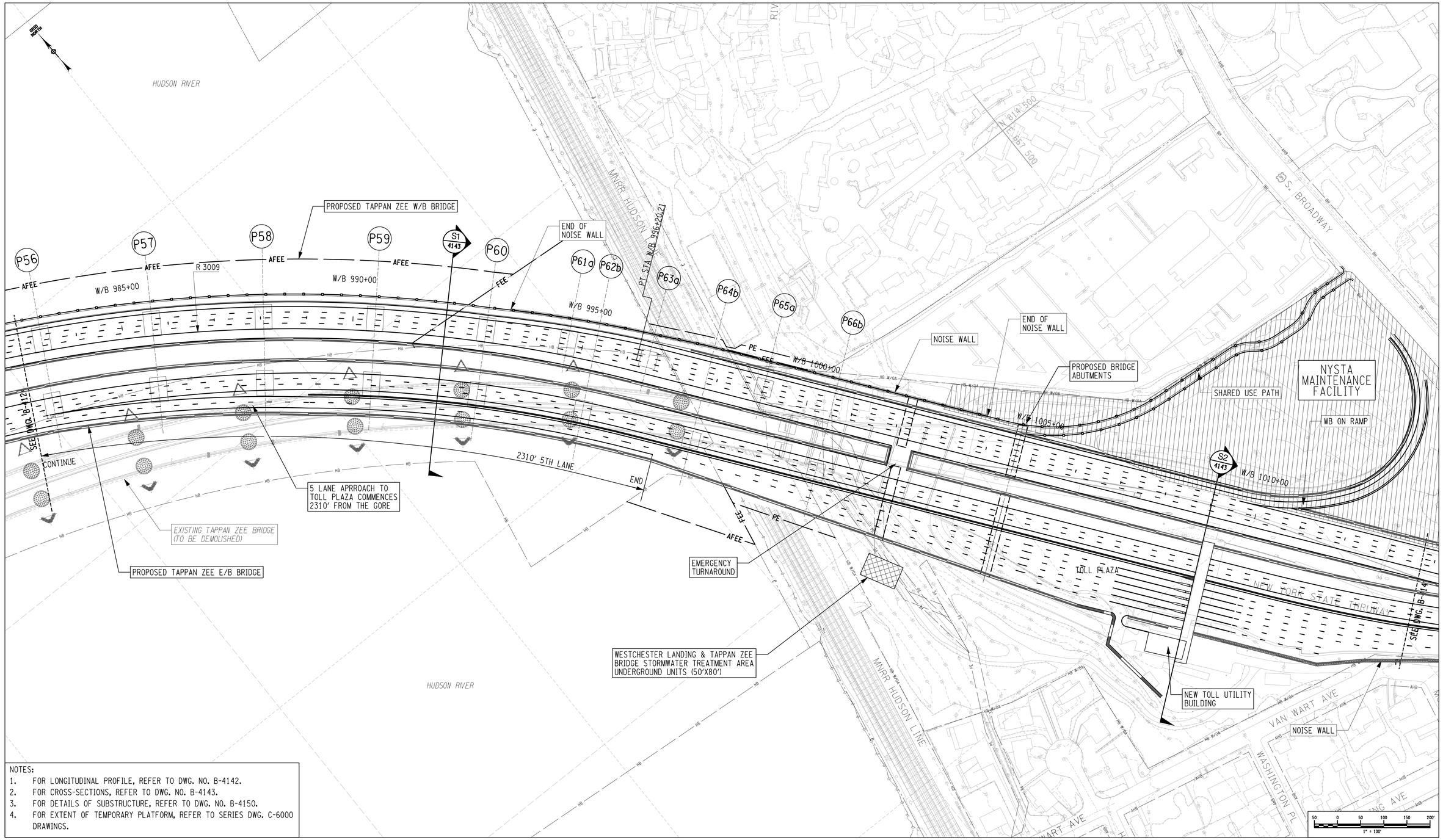
USER = jody.vukas

DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



NOTES:

1. FOR LONGITUDINAL PROFILE, REFER TO DWG. NO. B-4142.
2. FOR CROSS-SECTIONS, REFER TO DWG. NO. B-4143.
3. FOR DETAILS OF SUBSTRUCTURE, REFER TO DWG. NO. B-4150.
4. FOR EXTENT OF TEMPORARY PLATFORM, REFER TO SERIES DWG. C-6000 DRAWINGS.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TAPPAN ZEE HUDSON RIVER CROSSING PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

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ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE APPROACH PLAN - SHEET 1 OF 2
WESTCHESTER COUNTY

CONTRACT NUMBER 217815

DRAWING NO. B-4140
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON

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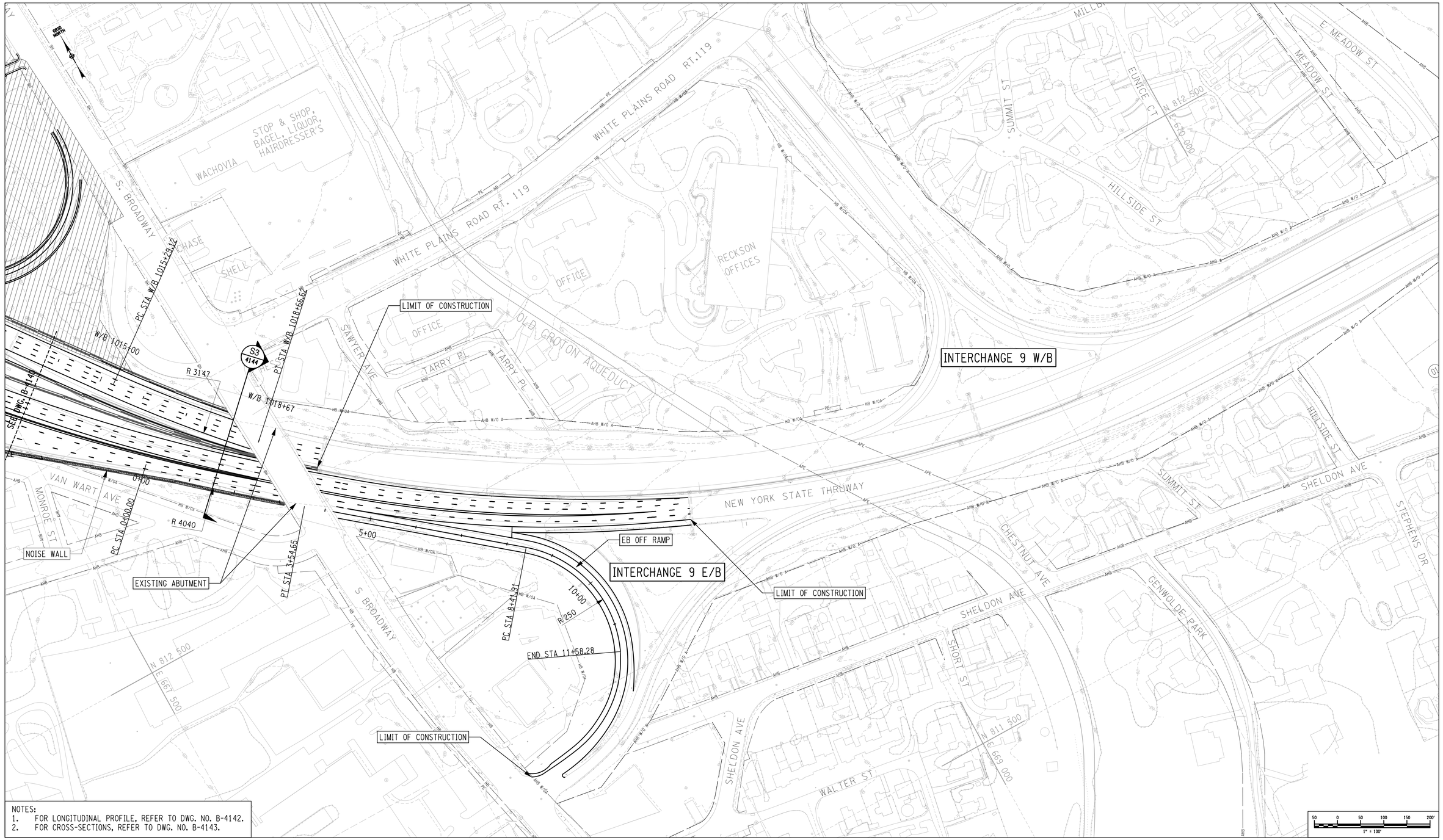

NOTES:
1. FOR LONGITUDINAL PROFILE, REFER TO DWG. NO. B-4142.
2. FOR CROSS-SECTIONS, REFER TO DWG. NO. B-4143.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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TAPPAN ZEE
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PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

DOCUMENT STATUS: FEIS - APPENDIX A2

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE APPROACH PLAN - SHEET 2 OF 2
WESTCHESTER COUNTY

CONTRACT NUMBER 217815

DRAWING NO. B-4141
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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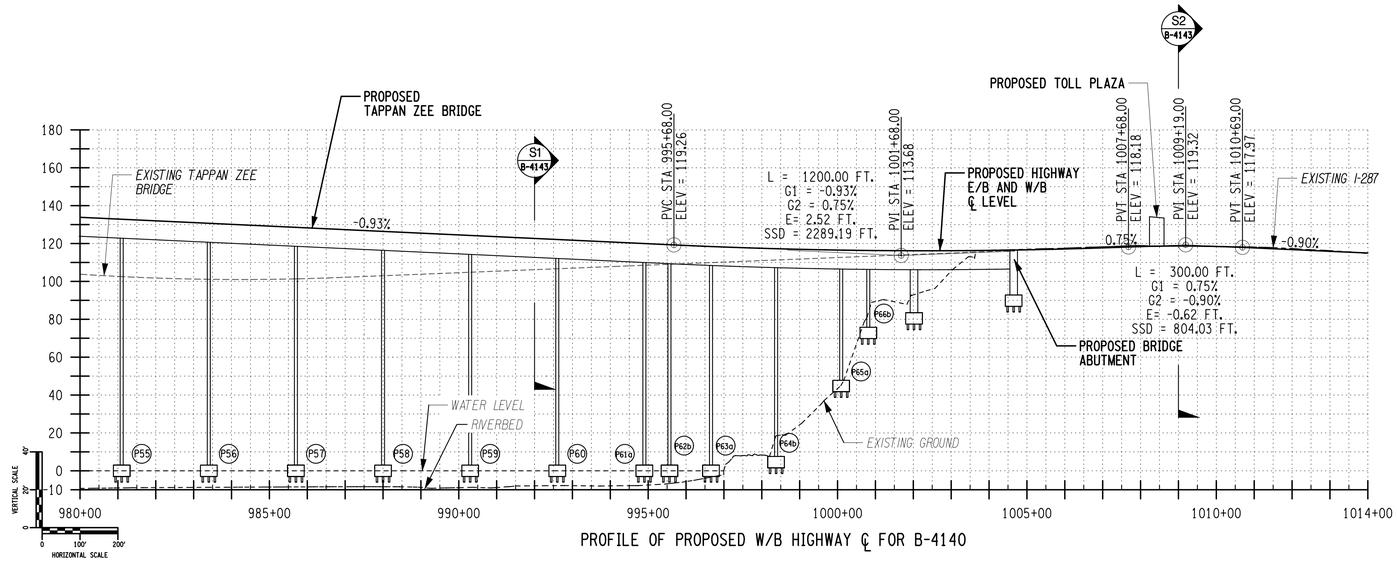
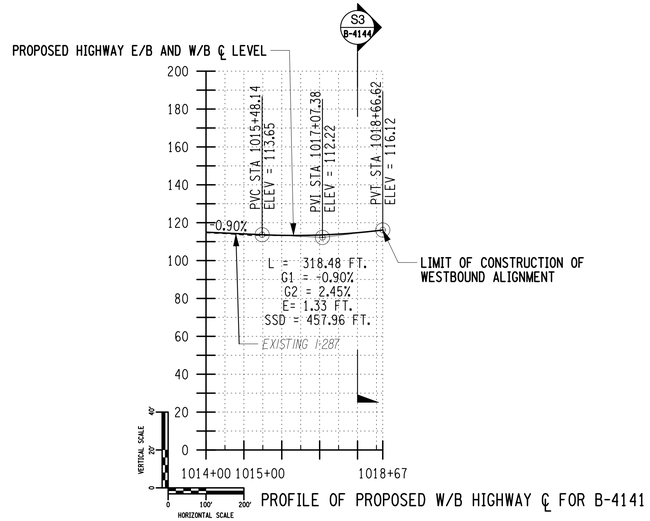
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



PROFILE OF PROPOSED W/B HIGHWAY ℄ FOR B-4140



PROFILE OF PROPOSED W/B HIGHWAY ℄ FOR B-4141

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4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE APPROACH PROFILES
WESTCHESTER COUNTY

CONTRACT NUMBER 217815

DRAWING NO. B-4142
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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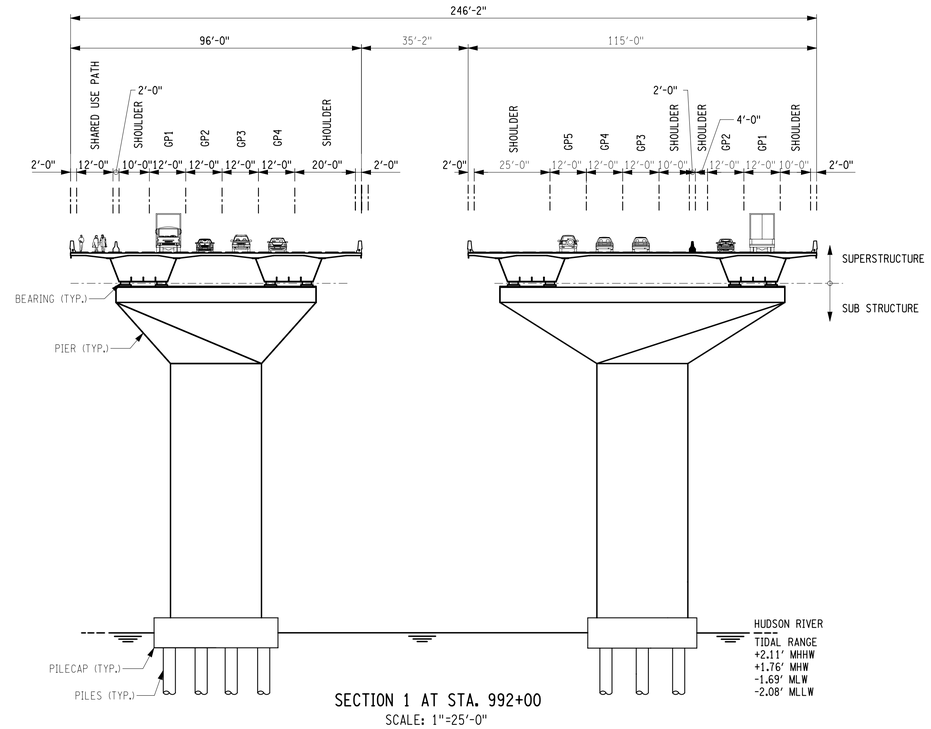
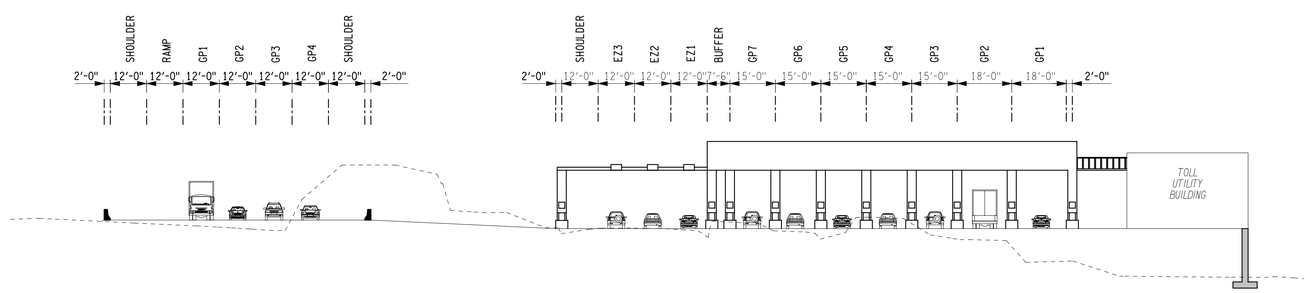
USER = jody.vukas

DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



SECTION 1 AT STA. 992+00
SCALE: 1"=25'-0"



SECTION 2 AT STA. 1009+00
SCALE : 1"=25'-0"

10 0 10 20 30 40 50'
1" = 25'

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

ARUP
Arup USA, Inc.
77 Water Street
New York, NY 10005
Tel (212) 896 3000
www.arup.com

Thruway Authority

TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

CROSS SECTIONS - SHEET 1 OF 2
WESTCHESTER COUNTY

CONTRACT NUMBER 217815

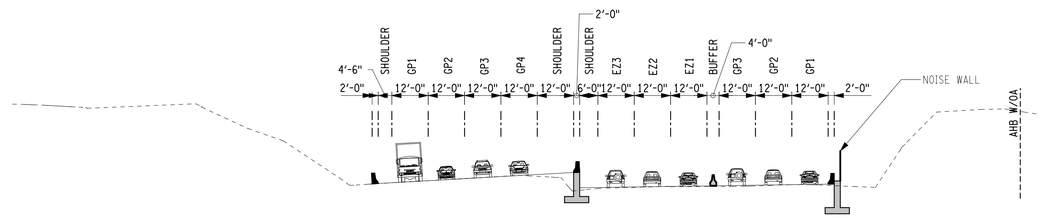
DRAWING NO. B-4143
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

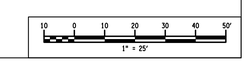
NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

FILE NAME = J:\ØN-Y\Ø131000\Ø131219-00\Ø12 Drawings DEIS\ØSheets\ØExpedited Bridge DEIS\ØShort Span\ØB-4143.dgn
DATE/TIME = 7/13/2012 10:24:44 AM
USER = jody.vukas

DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON



SECTION 3 AT STA. 1018+00
SCALE: 1"=25'-0"



SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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77 Water Street
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TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

CROSS SECTIONS - SHEET 2 OF 2
WESTCHESTER COUNTY

CONTRACT NUMBER
217815

DRAWING NO. B-4144
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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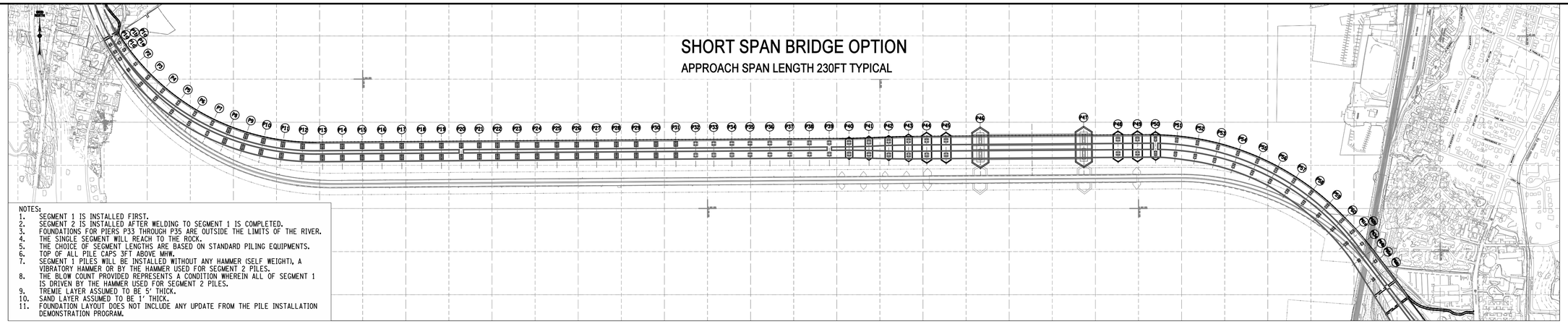
DATE/TIME = 7/13/2012 10:24:46 AM
USER = jody.vukas

DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON

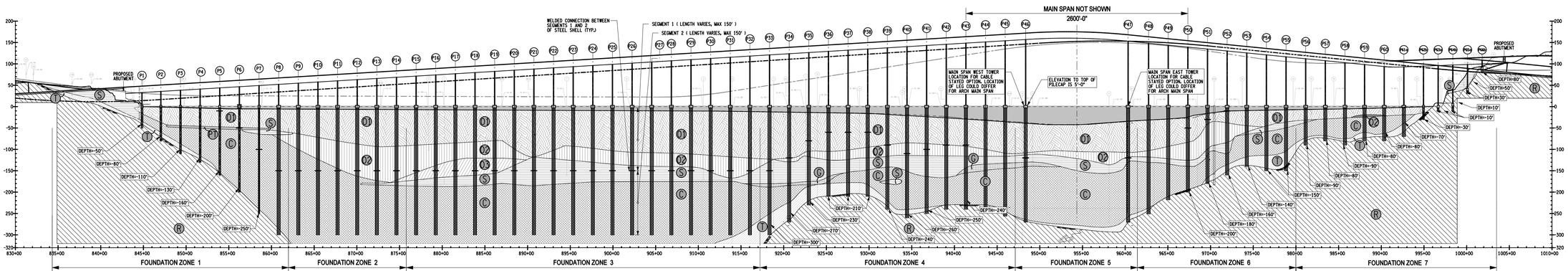
SHORT SPAN BRIDGE OPTION

APPROACH SPAN LENGTH 230FT TYPICAL



NOTES:

1. SEGMENT 1 IS INSTALLED FIRST.
2. SEGMENT 2 IS INSTALLED AFTER WELDING TO SEGMENT 1 IS COMPLETED.
3. FOUNDATIONS FOR PIERS P33 THROUGH P35 ARE OUTSIDE THE LIMITS OF THE RIVER.
4. THE SINGLE SEGMENT WILL REACH TO THE ROCK.
5. THE CHOICE OF SEGMENT LENGTHS ARE BASED ON STANDARD PILING EQUIPMENTS.
6. TOP OF ALL PILE CAPS 3FT ABOVE MHW.
7. SEGMENT 1 PILES WILL BE INSTALLED WITHOUT ANY HAMMER (SELF WEIGHT), A VIBRATORY HAMMER OR BY THE HAMMER USED FOR SEGMENT 2 PILES.
8. THE BLOW COUNT PROVIDED REPRESENTS A CONDITION WHEREIN ALL OF SEGMENT 1 IS DRIVEN BY THE HAMMER USED FOR SEGMENT 2 PILES.
9. TREMIE LAYER ASSUMED TO BE 5' THICK.
10. SAND LAYER ASSUMED TO BE 1' THICK.
11. FOUNDATION LAYOUT DOES NOT INCLUDE ANY UPDATE FROM THE PILE INSTALLATION DEMONSTRATION PROGRAM.



		P1 TO P3		P4 TO P8		P9 TO P14		P15 TO P32		P33 TO P45		MAIN SPAN (P46 AND P47)						P48 TO P51		P52 TO P57		P58 TO P66b
												NORTH LEG			SOUTH LEG							
	PILE LAYOUT	6' DIA. PILES		6' DIA. PILES		4' DIA. PILES		4' DIA. PILES		8' DIA. PILES		10' DIA. PILES			10' DIA. PILES			6' DIA. PILES		6' DIA. PILES		
		• TOTAL NO. OF PILES/PILECAP=4 • 2x2 PILE ARRANGEMENT • TOTAL NO. OF PILE CAPS FOR EACH LOCATION = 2		• TOTAL NO. OF PILES/PILECAP=6 • 3x2 PILE ARRANGEMENT • TOTAL NO. OF PILE CAPS FOR EACH LOCATION = 2		• TOTAL NO. OF PILES/PILECAP=20 • 5x4 PILE ARRANGEMENT • TOTAL NO. OF PILE CAPS FOR EACH LOCATION = 2 • PILE PENETRATION LENGTH = 300FT		• TOTAL NO. OF PILES/PILECAP=20 • 5x4 PILE ARRANGEMENT • TOTAL NO. OF PILE CAPS FOR EACH LOCATION = 2 • PILE PENETRATION LENGTH = 300FT		• TOTAL NO. OF PILES/PILECAP=4 • 2x2 PILE ARRANGEMENT • TOTAL NO. OF PILE CAPS FOR EACH LOCATION = 2		• BATTERED PILES ○ VERTICAL PILES • TOTAL NO. OF PILE CAPS=4			• BATTERED PILES ○ VERTICAL PILES • TOTAL NO. OF PILE CAPS=4			• TOTAL NO. OF PILES/PILECAP=6 • 3x2 PILE ARRANGEMENT • TOTAL NO. OF PILE CAPS FOR EACH LOCATION = 2		• TOTAL NO. OF PILES/PILECAP=6 • 3x2 PILE ARRANGEMENT • TOTAL NO. OF PILE CAPS FOR EACH LOCATION = 2		SPREAD FOOTING DIRECTLY RESTING ON ROCK (SEE NOTE 3)
	STEEL SHELL THICKNESS	1.5IN		1.5IN		1.0IN		1.0IN		2.0IN		2.0IN			2.0IN			1.5IN		1.5IN		
	TOTAL NO OF PILES	24		60		240		720		88		16			16			72		72		
	NO OF ROCK SOCKETS	24 (LENGTH 30ft)		0		0		0		0		16 (LENGTH 70-90 ft)			16 (LENGTH 70-90 ft)			0		0		
FOUNDATIONS 4'-10' DIA PILES • SEE NOTE 8	SEGMENT 1* DRIVING HAMMER TYPE	BSP HA 40	IHC S-750	BSP HA 40	IHC S-750	JUNTTAN HHK 25S	IHC S-600	JUNTTAN HHK 25S	IHC S-600	BSP HA 40	IHC S-750	BSP HA 40	IHC S-600	IHC S-750	BSP HA 40	IHC S-600	IHC S-750	BSP HA 40	IHC S-750	BSP HA 40	IHC S-750	
	SEGMENT 1* NO OF BLOWS/PILE	1000	600	1800	1200	1100	700	1100	700	900	700	900	1200	700	900	1200	700	1000	600	1600	1000	
	SEGMENT 1* HAMMER ENERGY (k-ft)	347.2	550.8	347.2	550.8	271.2	443.5	271.2	443.5	347.2	550.8	347.2	443.5	550.8	347.2	443.5	550.8	347.2	550.8	347.2	550.8	
	SEGMENT 2 DRIVING HAMMER TYPE	SEE NOTE 4		BSP HA 40	IHC S-750	JUNTTAN HHK 25S	IHC S-600	JUNTTAN HHK 25S	IHC S-600	BSP HA 40	IHC S-750	BSP HA 40	IHC S-600	IHC S-750	BSP HA 40	IHC S-600	IHC S-750	BSP HA 40	IHC S-750			
	SEGMENT 2 NO OF BLOWS/PILE			1000	750	10000	3800	10000	3800	3500	2100	3500	4400	2100	3500	4400	2100	700	500	SEE NOTE 4		
	SEGMENT 2 HAMMER ENERGY (k-ft)			347.2	550.8	271.2	443.5	271.2	443.5	347.2	550.8	347.2	443.5	550.8	347.2	443.5	550.8	347.2	550.8			
	PILECAP THICKNESS (ft)	9		9		15		15		12		23			23			9		9		

LEGEND:

- (O1) ORGANIC SILTY CLAY : SOFT DARK GRAY ORGANIC SILTY CLAY, TRACE SHELLS, VEGETATION, WOOD, ROOTS AND PEAT
- (O2) ORGANIC SILTY CLAY WITH TRACES OF SAND : SOFT GRAY ORGANIC SILTY CLAY, TRACE FINE SAND, FINE SAND SEAMS AND PARTINGS, PEAT.
- (O3) ORGANIC SILTY CLAY WITH SOME SAND : MEDIUM GRAY ORGANIC SILTY CLAY, TRACE TO SOME FINE SAND, SILT, TRACE FINE SAND SEAMS OR POCKETS
- (PT) PEAT : BROWN PEAT
- (S) SAND : MEDIUM COMPACT TO VERY COMPACT FINE TO MEDIUM SAND, SOME SILT, TRACE COARSE SAND AND GRAVEL
- (C) GLACIAL VARVED SILT AND CLAY : MEDIUM GRAY CLAY AND SILT, SOME FINE SAND VARVED WITH MEDIUM RED BROWN CLAYEY SILT, STIFF CLAY, FINE AND SILT PARTINGS
- (T) GLACIAL TILL : VERY COMPACT REDDISH GRAY FINE TO COARSE SAND, SOME GRAVEL TRACE ROCK FRAGMENTS, SILT, GRAY BROWN SILTY CLAY LAYERS AND BOULDERS
- (R) ROCK : INTERMEDIATE TO HARD UNWEATHERED TO SLIGHTLY WEATHERED GRANITIC GNEISS OR SANDSTONE, BLOCKY TO CLOSELY JOINTED, WEATHERED TO IRON STAINED JOINTS

300 0 300 600
SCALE

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2	JV

REVISIONS

DRAFT FOR DISCUSSION

TAPPAN ZEE BRIDGE / I-287 CORRIDOR PROJECT

ARUP 55 ALBANY ST. THE MERCHS NEW YORK NY 10013 TELEPHONE 212 255 3900

TITLE OF DRAWING
FOUNDATION DRAWING
SHORT SPAN BRIDGE REPLACEMENT
TAPPAN ZEE BRIDGE

New York State Department of Transportation
Thruway Authority

CONTRACT NUMBER	DATE	DRAWING NUMBER
217815	DEC 2011	B-4150

ALIGNMENT

STYLE	NAME	DESCRIPTION
	AC	CONTROL (CENTERLINE)
	AD_P	DETOUR
	AT_P	TRANSITION CONTROL
BRIDGE		
	BR	RAIL
	BSHT	SHEET PILING
CONTROL		
	CB	BASELINE
	CBPR	BASELINE, PROJECTION
DRAINAGE		
ST	DCP	CULVERT PIPE
ST	DCP_P	CULVERT PIPE (DIR)
	DDG_P	DITCH, GRASS LINED
	DDP_P	DITCH, PAVED INVERT
	DDS_P	DITCH, STONE LINED
	DFL_P	FLOW LINE
	DSSD	SLOTTED DRAIN
ENVIRONMENTAL		
S	EBLHS	BALE, STRAW
	ECT	CURTAIN, TURBIDITY
	EDMC	DAM, COFFER TYPE
	EDMC.P	DAM, EARTHEN, CHECK
	EDMPC.P	DAM, PREFAB, CHECK
	EDMSC.P	DAM, STONE, CHECK
	EFNS	FENCE, SILT
	EFNSV	FENCE, SILT & VEGETATION
	EFNV	FENCE, VEGETATION
W	EWAA.P	WETLAND, ADJACENT AREA
FW	EWF	WETLAND, FEDERAL
FW SW	EWFS	WETLAND, FEDERAL AND STATE
SW	EWM	WETLAND, MITIGATION AREA
SW	EWS	WETLAND, STATE

LANDSCAPE

STYLE	NAME	DESCRIPTION
	LABL	AREA, BRUSH LINE
	LAHR	AREA, HEDGE ROW
	LAPB	AREA, PLANTING BED
	LAWA	AREA, WOODED AREA OUTLINE
	LAWE	AREA, WATERS EDGE
	LCUT_P	CUT LIMIT
	LFILL_P	FILL LIMIT
	LFNC	FENCE
	LTRC	TREE ROW, CONIFEROUS
	LTRD	TREE ROW, DECIDUOUS
	LWH	WALL, H PILE
	LWR	WALL, RETAINING
	LWS	WALL, STONE
ROW MAPPING		
	MDL	DEED LINE
PE	MEE	EASEMENT, EXISTING
PE	MEP_P	EASEMENT, PERMANENT
APE	MEPA_P	EASEMENT, PERMANENT, APPROX.
TE	MET_P	EASEMENT, TEMPORARY
ATE	META_P	EASEMENT, TEMPORARY, APPROX.
FEE	MF_P	FEE ACQUISITION, W/ ACCESS
AFEE	MFA_P	FEE ACQUISITION, APPROXIMATE
	MFS_P	FEE ACQUISITION, SHAPE
FEE W/OA	MFWOA_P	FEE ACQUISITION, W/O ACCESS
	MHA	HISTORICAL, ACQUISITION
HB	MHB	HIGHWAY BOUNDARY
AHB	MHBA	HIGHWAY BOUNDARY, APPROX.
	MHBW	HWY BOUNDARY, FACE OF WALL
HB W/OA	MHBWOA	HIGHWAY BOUNDARY, W/O ACCESS
	MJC	JURISDICTION, CITY
	MJCY	JURISDICTION, COUNTY
	MJHD	JURISDICTION, HISTORIC DISTRICT
	MJLL	JURIS., (GREAT, MILITARY) LOT LINE
	MJN	JURISDICTION, NATION
	MJPB	JURISDICTION, PUBLIC LANDS
	MJS	JURISDICTION, STATE
	MJT	JURISDICTION, TOWN
	MJV	JURISDICTION, VILLAGE
	MPL	PROPERTY LOT LINE
	MPLA	PROPERTY LOT LINE, APPROXIMATE
	MSL	SUB LOT LINE

ROADWAY

STYLE	NAME	DESCRIPTION
CZ	RCZ_P	CLEAR ZONE
	RG	GUIDE RAIL, MISCELLANEOUS
	RGB	GUIDE RAIL, BOX BEAM
	RGBM	GUIDE RAIL, BOX BEAM, MEDIAN
	RGC	GUIDE RAIL, CABLE
	RGCB	GUIDE RAIL, CONCRETE BARRIER
	RGP_P	GUIDE POST
	RGW	GUIDE RAIL, W BEAM
	RGWM	GUIDE RAIL, W BEAM, MEDIAN
	RPB	PARKING BUMPER
	RRC	RAIL ROAD, CATENARY
RR	RRER	RAIL ROAD, 3RD RAIL
	RRPLS_P	RAIL, PHOTO, LARGE SCALE
	RRPSS	RAIL, PHOTO, SMALL SCALE
	RRS	RUMBLE STRIP
	RRSLS_P	RAIL, SURVEY, LARGE SCALE
	RRSSS	RAIL, SURVEY, SMALL SCALE
SIGNS		
	SBLB	BILLBOARDS
	SM	MULTIPLE POST
	SSO	STRUCTURE, OVERHEAD
	SSOC	STRUCTURE, OVHD. CANTILEVER
STRIPING		
	STB*	BROKEN LINE
	STDB*	DOUBLE BROKEN LINE
	STDL*	DOTTED LINE LONG
	STDS*	DOTTED LINE SHORT
	STFB*	FULL BARRIER LINE
	STH*	HATCH LINE
	STPB*	PARTIAL BARRIER LINE
	STRCT	ROUNDABOUT, CAT TRACKS
	STRYL	ROUNDABOUT, YIELD LINE
	STSB	STOP BAR
	STSE*	SOLID, EDGE
	STXL*	X WALK, LADDER LINE
		* = W (WHITE) OR Y (YELLOW)
TRAFFIC CONTROL		
	TCSW	SIGNAL, SPAN WIRE
TRAFFIC WORK ZONE		
	TWZBT_P	BARRIER, TEMPORARY
	TWZBTWL_P	BARRIER, TEMPORARY, W/ WARNING LIGHTS
	TWZCD_P	CHANNELIZING DEVICE
	TWZPMRC_P	PAVEMENT MARKING REMOVAL OR COVERING

UTILITIES

STYLE	NAME	DESCRIPTION
C	UC	CONDUIT, UNDERGROUND
UCH	UCH	CONDUIT, HANGING
OC	UCO	CONDUIT, OVERHEAD
E	UE	ELECTRIC LINE, UNDERGROUND
UEH	UEH	ELECTRIC LINE, HANGING
OE	UEO	ELECTRIC LINE, OVERHEAD
OET	UETO	ELECTRIC TRANSMISSION, OVERHEAD
	UESS	ELECTRIC, SUBSTATIONS
FO	UFO	FIBER OPTIC, UNDERGROUND
FOH	UFOH	FIBER OPTIC, HANGING
OFO	UFOO	FIBER OPTIC, OVERHEAD
G	UG	GAS, UNDERGROUND
UGH	UGH	GAS, HANGING
OG	UGO	GAS, OVERHEAD
IC	UIC	INFORM CABLE, UNDERGROUND
UICH	UICH	INFORM CABLE, HANGING
O	UO	OIL LINE, UNDERGROUND
UOH	UOH	OIL LINE, HANGING
	UPBP	POLE, BRACE, PUSH BRACE
	UPGW	POLE, GUY WIRE
SA	USA	SANITARY SEWER, UNDERGROUND
USAH	USAH	SANITARY SEWER, HANGING
SAF	USAF	SANITARY SEWER, FORCE MAIN, UGND
USAFH	USAFH	SANITARY SEWER, FORCE MAIN, HANG
T	UT	TELEPHONE, UNDERGROUND
UTH	UTH	TELEPHONE, HANGING
OT	UTO	TELEPHONE, OVERHEAD
CTV	UTV	CABLE TV, UNDERGROUND
UTVH	UTVH	CABLE TV, HANGING
OCTV	UTVO	CABLE TV, OVERHEAD
UU	UUU	UNKNOWN, UNDERGROUND
UUH	UUH	UNKNOWN, HANGING
OUU	UUO	UNKNOWN, OVERHEAD
W	UW	WATER LINE, UNDERGROUND
UWH	UWH	WATER LINE, HANGING
OW	UWO	WATER LINE, OVERHEAD

B/HWY SERIES DRAWINGS - ADDITIONAL LEGENDS

	CRT AT GRADE
	CRT UNDERGROUND
	PEDESTRIAN CROSSING
	PROPOSED RETAINING WALL
	PROPOSED NOISE BARRIER
	PROPOSED JERSEY BARRIER
	IMPACTED PROPERTY
CRT	COMMUTER RAIL TRANSIT
BRT	BUS RAPID TRANSIT
HOV	HIGH OCCUPANCY VEHICLES
GP	GENERAL PURPOSE LANES
HB	PROPOSED HIGHWAY BOUNDARY

ALIGNMENT

CELL	NAME	DESCRIPTION
	ACC	CENTER OF CURVATURE
	ACOGO	COGO
	ACS	CURVE TO SPIRAL
	ADPI_P	DETOUR, POINT OF INTERSECT.
	ADPL_P	DETOUR, POINT ON LINE
	AEQN	EQUATION
	AEQNAHD	EQUATION AHEAD
	AEQNBK	EQUATION BACK
	AEVT	EVENT STATION
	APC	POINT OF CURVATURE
	APCC	POINT OF COMPOUND CURVATURE
	API	POINT OF INTERSECTION
	APOB	POINT OF BEGINNING
	APOC	POINT OF CURVATURE
	APOE	POINT OF END
	APOL	POINT ON LINE
	APOS	POINT ON SPIRAL
	APOT	POINT ON TANGENT
	APOVC	POINT ON VERTICAL CURVE
	APOVT	POINT ON VERTICAL TANGENT
	APORC	POINT ON REVERSE CURVE
	APT	POINT OF TANGENCY
	APVC	POINT OF VERTICAL CURVATURE
	APVCC	POINT OF VERT. CMPND CURVE
	APVI	POINT OF VERT. INTERSECTION
	APVRC	POINT OF VERT. REVERSE CURVE
	APVT	POINT OF VERTICAL TANGENCY
	ASC	SPIRAL TO CURVE
	ASPI	SPIRAL POINT OF INTERSECTION
	ASTS	SPIRAL TO SPIRAL
	AST	SPIRAL TO TANGENT
	ATS	TANGENT TO SPIRAL
	AVEVT	VERTICAL EVENT POINT
	AVHIGH	VERTICAL HIGH POINT
	AVLOW	VERTICAL LOW POINT
BRIDGE		
	BSC	BRIDGE, SCUPPER
CONTROL		
	CBP	BASELINE, POINT
	CBPOL	BASELINE, POINT ON LINE
	CBSP	BASELINE, SPUR POINT
	CBTP	BASELINE, TIE POINT
	CPBM	BENCHMARK
	CPH	POINT, HORIZ. PHOTOGRAMMETRY
	CPSM	POINT, SURVEY MARKER, PERM.
	CPSV	POINT, VERT., PHOTOGRAMMETRY

CELL	NAME	DESCRIPTION
	DINV	INVERT
	DS	STRUCTURE, RECTANGULAR
	DSI	STRUCTURE, INVERT
	DSM	STRUCTURE, MANHOLE
DSMTXX_P		STRUCTURE, MANHOLE, TYPE "XX" "XX" = 48, 60, 72, 96
	DSR	STRUCTURE, ROUND
DST"X"CB P		STRUCTURE, RECT., WITH CURB TYPE "X" "X" = F, G, N, O, P, R
DST"X" P		STRUCTURE, RECT., TYPE "X" "X" = I, K, L, M, O, P, U
ENVIRONMENTAL		
OLW	EIOP_P	STR., INLET, OUTLET PROT.
GB	EIPGB_P	STR., INLET PROT., GRAVEL BAG
HS	EIPHS_P	STR., INLET PROT., HAY/STRAW
PREF	EIPP_P	STR., INLET PROT., PREFAB.
SF	EIPSF_P	STR., INLET PROT., SILT FENCE
	ERCB	RISER, CONCRETE BOX
	ETRS_P	TRAP, SEDIMENT
	EWFG	WETLAND FLAG
GEOTECHNICAL		
	GDH	DRILL HOLE
LANDSCAPE		
	LELS	ELEVATION, SPOT
	LFP	FLAG POLE
	LMB	MAILBOX
	LPB	PAPER BOX
	LPST	POST, SINGLE
	LRB	ROCK, BOULDER
	LSHC	SHRUB, CONIFEROUS
	LSHD	SHRUB, DECIDUOUS
	LTC	TREE, CONIFEROUS
	LTD	TREE, DECIDUOUS
	LTS	TREE, STUMP
	LTW P	TREE, WELL OR WALL
	LUKP	UNKNOWN POINT

ITS

CELL	NAME	DESCRIPTION
	IANT P	ANTENNAS
	IASCTS	ACCOU. SPEED/COUNT SNSR.S
	ICABPAD	CABINET & PAD
	ICCTV	CCTV SITE
	ICDPD	CDPD TRANSCEIVER
	ICELLT	CELL PHONE TOWER
	ICJB	CONDUIT JACK OR BORING
	ICNTLCAB	CONTROLLER CABINET
	ICPB	COMMUNICATION PULL BOX
	ICTD	CONDUIT TURNING DOWN
	ICTU	CONDUIT TURNING UP
	ICVTRT	COMM. VEH. ROAD TRANSCEIVER
	IDEFAULT	DEFAULT
EZ	IEZR	E-ZPASS READER
EZ-T	IEZTR	TRANSMITTAL READER
XC	IFOXCAB	FIBER OPTIC X-CONNECT CABINET
	IFUSSPL	FUSION SPLICE
	IHARADV	HAR ADVISORY SIGN
	IHARST	HAR SITE
LC	ILC	LOAD CENTER
	IMECSPL	MECHANICAL SPLICE
PM	IWSCS	PORT. SPEED & COUNT SENSOR
M	IWSCTS	MICRO SPEED & COUNT SENSOR
	IMT	MICROWAVE TRANSCEIVER
VMS	IOVHVMS	PERM. OVERHEAD VMS
PA	IPASCS	PORT. ACCOU. SPD & CNT. SENSOR
	IPEDS	PEDESTRIAN SIGNAL HEAD
	IPSS	PAVEMENT SURFACE SENSOR
PVMS	IPVMS	PERM. VMS
	IRM	RAMP METER
RWIS	IRWIS	ROWV WEATHER INFO. SENSOR
	ISP	SOLAR PANEL
	ISST	SPREAD SPECT. TRANSCEIVER
K	ITDB	TELEPHONE DEMARCATION BLK
TP	ITP	SUBSURFACE TEMP. PROBE
	IVTRT	VEHICLE TO ROWV TRANSCEIVER
WIM	IWIMD	WEIGHT IN MOTION DETECTOR
	IWVR	WIRELESS VIDEO REPEATER
	IWVRC	WIRELESS VIDEO RECEIVER
	IWVTT	WIRELESS VIDEO TRANSMITTER

ROW MAPPING

CELL	NAME	DESCRIPTION
	MDL1P	DEED LINE, TYPE 1
	MDL2P	DEED LINE, TYPE 2
	MDL3P	DEED LINE, TYPE 3
	MDL4P	DEED LINE, TYPE 4
	MDL5P	DEED LINE, TYPE 5
	MEEP	EASEMENT, EXISTING
	MEPAP_P	EASEMENT, PERM., APPROX.
	MEPP_P	EASEMENT, PERM., BACK LINE
	MEPSP_P	EASEMENT, PERM., SHAPE
	MFAP_P	FEE ACQUISITION, APPROX.
	MFP_P	FEE ACQUISITION, BACK LINE
	MFSP_P	FEE ACQUISITION, SHAPE
	MHBAP	HIGHWAY BNDRY., APPROX.
	MHBCP	HISTORICAL, BLDG. CORNERS
	MHBP	HIGHWAY BNDRY, PT.
	MJCP	PT., JURIS. CITY
	MPBC	PT., BUILDING CORNER
	MPCC	PT., CROSS CUT
	MPDH	PT., DRILL HOLE
	MPF	PT., FENCE LOCATION
	MPIP	PT., IRON PIPE
	MPIR	PT., IRON ROD
	MPM	PT., MONUMENT
	MPMM	PT., MONUMENT, MISC.
	MPN	PT., NAIL
	MPRS	PT., RAILROAD SPIKE
	MPSP	PT., SPIKE
	MPST	PT., STAKE
	MPTW	PT., TREE W/ WIRE
	MPWL	PT., WALL LOCATION
ROW ACQUISITION		
MF	MFS_P.T	FEE ACQUISITION
MF TE	MEPS_P.T	EASEMENT, PERMANENT
MF TE	METS_P.T	EASEMENT, TEMPORARY
MF TE	METS_P.T	OCCUPANCY, TEMPORARY
MF FEE W/OA	MFS_P.T	FEE ACQUISITION W/O ACCESS
ROADWAY		
RES P		ELEVATION, SPOT
RGA		GUIDE RAIL, ANCHOR
RGP		GUIDE POST, SINGLE
HP	RHP	HIGH POINT
LP	RLP	LOW POINT
	BRT	BUS RAPID TRANSIT

SIGNS

CELL	NAME	DESCRIPTION
	S	SINGLE POST
	S P	SINGLE POST, PROPOSED
	SB P	BACK TO BACK, PROPOSED
	SDEL	DELINEATORS
	SPM	PARKING METER
	SRM	REFERENCE MARKERS
	SRSC3	SHLD, CTY, 123 DIG.
	SRSC4	SHLD, CTY, 4 DIG.
	SRSCT2	SHLD, CTY TOUR, 1-2 DIG.
	SRSCT4	SHLD, CTY TOUR, 3-4 DIG.
	SRSI	SHLD, INTERSTATE
	SRSN2	SHLD, NATIONAL, 2 DIG.
	SRSN3	SHLD, NATIONAL, 3 DIG.
	SRSS2	SHLD, STATE, 2 DIG.
	SRSS3	SHLD, STATE, 3 DIG.
	SRSS4	SHLD, STATE, 4 DIG.
TRAFFIC CONTROL		
	TCBJ	BOX, JUNCTION
	TCBP	BOX, PULL BOX
	TCBS	BOX, SPLICE
	TCMC	MICROCOMPUTER CABINET
	TCPP	PED POLE
	TCSH	SIGNAL HEADS
	TCSP	SIGNAL POLE
TRAFFIC WORK ZONE		
	TWZAP_P	ARROW PANEL
	TWZAPC_P	ARROW PANEL, CAUTION MODE
	TWZAPT_P	ARROW PANEL, TRAILER OR SUPPORT
	TWZBCD_P	BARRICADE (TYPE III)
	TWZCMS_P	CHANGEABLE MESSAGE SIGN (PVMS)
	TWZFLG_P	FLAGGER
	TWZFT_P	FLAG TREE
	TWZIA_P	IMPACT ATTENUATOR / CRASH CUSHION (TEMPORARY)
	TWZLUM_P	LUMINAIRE (TEMPORARY)
	TWZSDT_P	SYMBOL, DIRECTION OF TRAFFIC
	TWZSDTD_P	SYMBOL, DIRECTION OF TEMPORARY TRAFFIC DETOUR
	TWZSGN_P	SIGN (TEMPORARY)
	TWZSIG_P	SIGNAL, TRAFFIC OR PEDESTRIAN (TEMPORARY)
	TWZWL_P	WARNING LIGHT
	TWZWV_P	WORK VEHICLE
	TWZWVA_P	WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR

UTILITIES

CELL	NAME	DESCRIPTION
	UEB	ELECTRIC, BOX
	UEM	ELECTRIC, METER
	UEMH	ELECTRIC, MANHOLE
	UEPT	ELECTRIC, POLE, TRANS.
	UGM	GAS, METER
	UGMH	GAS, MANHOLE
	UGLM	GAS, LINE MARKER
	UGP	GAS/FUEL PUMP
	UGV	GAS, VALVE
	UGVT	GAS, VENT
	ULP	LIGHTING, POLE
	ULPM	LIGHTING, POLE, MEDIAN
	ULPP	LIGHTING, POLE, PED.
	UMFC	MISC. FILLER CAP
	UOLM	OIL, LINE MARKER
	UP	POLE, WITH UTILITY
	UPD	POLE, DEAD (NO UTILITY)
	UPL	POLE, WITH LIGHT
	USMH	SANITARY SEWER MANHOLE
	UTB	TELEPHONE, BOOTH
	UTLM	TELEPHONE, LINE MARKER
	UTMH	TELEPHONE, MANHOLE
	UTVLM	CABLE TV, LINE MARKER
	UTVPB	CABLE TV, PULL BOX
	UUB	UNKNOWN, BOX
	UUJB	UNKNOWN, JUNCTION BOX
	UUMH	UNKNOWN, MANHOLE
	UUPB	UNKNOWN, PULL BOX
	UUVL	UNKNOWN, VALVE
	UUVT	UNKNOWN, VENT
	UUW	UNKNOWN, WELL
	UWFH	WATER, FIRE HYDRANT
	UWM	WATER, METER
	UWMH	WATER, MANHOLE
	UWV	WATER, VALVE
	UWW	WATER, WELL

NOTES:
1. THE LEGEND ILLUSTRATES MAPPING FEATURES (EXISTING AND PROPOSED).
2. FEATURES ARE SHOWN AS EITHER LINEAR (ROADWAY GUIDERAIL, ROADWAY SIDEWALK, UTILITY LINES, ETC.) OR POINT (SIGN, UTILITY POLE, ETC.).
3. FEATURES SHOWN ON THE LEGEND AS EXISTING FEATURES ALSO HAVE CORRESPONDING PROPOSED FEATURES.
4. MAPPING FEATURES NOT INCLUDED ON THE LEGEND SHEET DO NOT HAVE A UNIQUE SYMBOLOGY (SUCH AS THE PAVEMENT EDGE, PAVEMENT EDGE OF TRAVEL WAY) AND SHOULD BE LABELED ON THE PLANS.
5. FEATURES SHOWN AT THE HEAVIER WEIGHT ARE PROPOSED ONLY AND DO NOT HAVE CORRESPONDING EXISTING FEATURES.

SHORT APPROACH SPAN - BRIDGE REPLACEMENT

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Thruway Authority

TAPPAN ZEE
HUDSON RIVER CROSSING
PROJECT

REV	DATE	DESCRIPTION	BY
4	07/18/12	FEIS APPENDIX A2 ISSUE	JV

PIN 8TZ1.00

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

LEGEND

CONTRACT NUMBER 217815

DRAWING NO. B-4199
SHEET NO.

DOCUMENT STATUS: FEIS - APPENDIX A2

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

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USER = jody.vukas
DESIGN SUPERVISOR MARK ROCHE JOB MANAGER HEMAL PATEL DESIGNED BY LEE GILL CHECKED BY NATHAN CHASE ESTIMATED BY ADAM FINKIN DRAFTED BY JODY VUKAS CHECKED BY MICHELE SAMSON