

* LOCATION OF ANCHOR ASSEMBLY
FOR STEEL PLATE BEAM GUARD

THE EXISTING STRUCTURE B-53-229
TO REMAIN IN PLACE. THE DECK
WILL BE REPLACED AND THE
STRUCTURE WIDENED.

B-53-229

C BRG. S. ABUT
 STA. 735+26.03
 END OF DECK
 STA. 735+24.78
 BEGIN APPR. SLAB
 STA. 735+04.78

B-53-230

NAME PLATE
LOCATION, S
SHEET XX.

THE EXISTING STRUCTURE B-53-230
TO REMAIN IN PLACE. THE DECK
WILL BE REPLACED AND THE
STRUCTURE WIDENED.

⊕ BENCH MARK TABLE

| NO. | STATION | DESCRIPTION | ELEVATION |
|------|-----------|------------------------------|-----------|
| 253L | 745+90.17 | CHISELED SQUARE ON SIGN BASE | 841.80 |

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PLEASE CONFIRM CRASHWALL NOT REQUIRED
TO BE ADDED TO PIER 2 BASED ON CURRENT
WBM STD. 38.01

PILING CIP CONCRETE 12 $\frac{3}{4}$ X (TYP. AT PIERS & ABUTMENTS)

PLAN
5-SPAN, 36" PRESTRESSED CONCRETE GIRDERS

ELEVATION

- 1'-11" ON EXISTING PLANS, COORDINATE DETAILS WITH CMT/BOS LIAISON

-M STEEL AROUND FLOOR
DRAINS TO BE ADDRESSED
PER PREVIOUS COORDINATION
WITH CMT.

LIVE LOAD

DESIGN RATING: HL-93
INVENTORY RATING FACTOR: X.XX (Wis-SPV) WBM 6.2.2.3.4
OPERATIONAL RATING FACTOR: X.XX
~~MAX~~ STANDARD PERMIT VEHICLE LOAD: XXX KIPS
STRUCTURE IS DESIGNED FOR A FUTURE WEARING
SURFACE OF 20 PSF.

STRUCTURE IS RATED FOR A POLYMER OVERLAY OF 5 PSF. THE POLYMER OVERLAY WILL BE APPLIED TO THE ENTIRE DECK UNDER A FUTURE CONTRACT.

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY - SUPERSTRUCTURE $f'_c = 4,000$ PSI
 - ALL OTHERS $f'_c = 3,500$ PSI
 BAR STEEL REINFORCEMENT, GRADE 60 $f_y = 60,000$ PSI
 36" PRE-STRESSED GIRDER $f'_c = 6,000$ PSI
 CONCRETE MASONRY $f'_c = 6,000$ PSI
 STRANDS 0.5-INCH DIA.
 ULTIMATE TENSILE STRENGTH $f_{pu} = 270,000$ PSI

FOUNDATION DATA

ABUTMENTS AND PIERS TO BE SUPPORTED ON PILING CIP 12 $\frac{3}{4}$ X 0.25-INCH AND DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 65 FEET LONG AT S. ABUT., 60 FEET LONG AT N. ABUT., AND 55 FEET LONG AT THE PIERS. PRE-BORING ESTIMATED TO BE 30 FEET AT EACH ABUTMENT.

***THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA

IH 39/90
A.D.T. (2020) = 65,100
A.D.T. (2040) = 94,300
R.D.S. = 70 MPH

**CONFIRM ADT'S,
DIFFERENT THAN
VALUES IN SSR**

CTH 0
A.D.T. (2015) = 3,900
A.D.T. (2040) = 6,300
R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION AND PROFILES
3. GENERAL NOTES AND QUANTITIES
4. SUBSURFACE EXPLORATION
5. SUBSURFACE EXPLORATION
6. CONSTRUCTION STAGING
7. CONSTRUCTION STAGING

CHECK VERTICAL CLEARANCES, NOT CONSISTENT BETWEEN PLAN AND ELEVATION VIEW. ALSO, PROPOSED IS GREATER THAN EXISTING? ARE GIRDERS BEING RAISED?

PRELIMINARY
PLAN
APPROVED:
BH
1/12/15

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
BILL DREHER (608) 266-8489

CONSULTANT:
ADRIAN KIDARSA (608) 828-8207

| | | | |
|---|------|-------------------|------------|
| | | | |
| NO. | DATE | REVISION | BY |
| <div style="text-align: center;">AECOM</div> | | | |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| ACCEPTED _____ | | _____ DATE | |
| CHIEF STRUCTURES DESIGN ENGINEER | | | |
| STRUCTURE B-53-229 | | | |
| SB IH 39/90 OVER CTH O & WSOR | | | |
| COUNTY | ROCK | TOWN/CITY/VILLAGE | LA PRAIRIE |
| DESIGN SPEC. REHABILITATION N/A | | | |
| DESIGNED BY | AK | DESIGN CK'D. | TR |
| DRAWN BY | TAW | PLANS CK'D. | TR |
| GENERAL PLAN | | SHEET 1 OF 7 | |

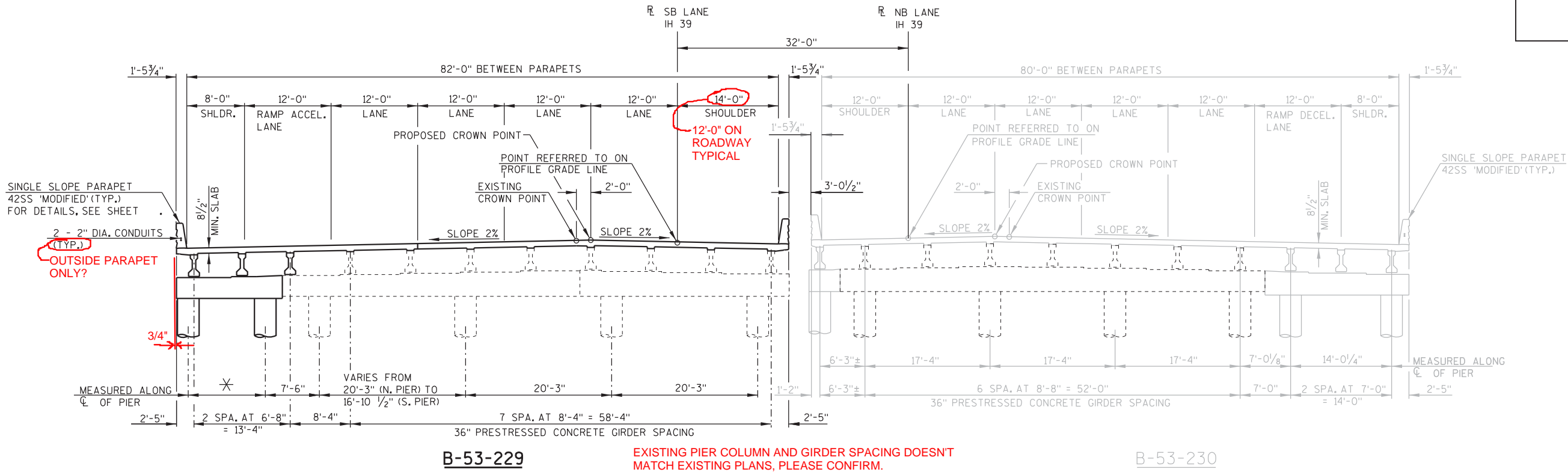
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BATCH PRINT SHEET 2 OF 7

STATE PROJECT NUMBER

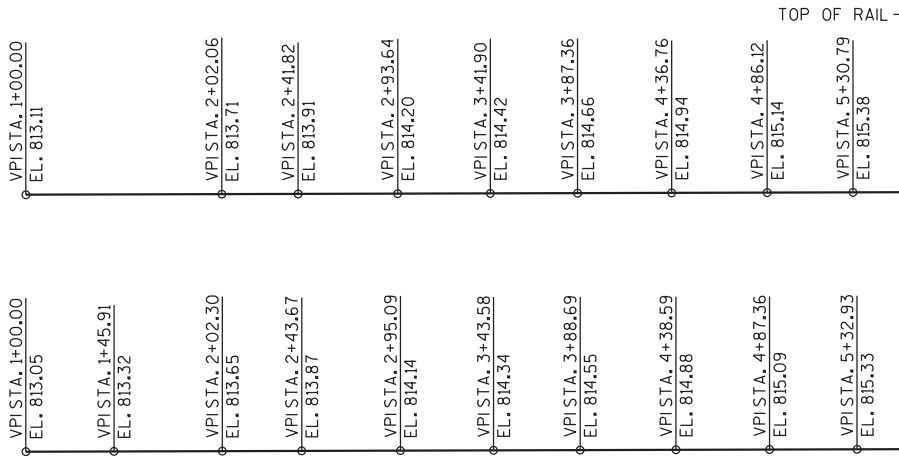
1003-10-84



PROFILE GRADE LINE, IH 39/90 SB (B-53-229)

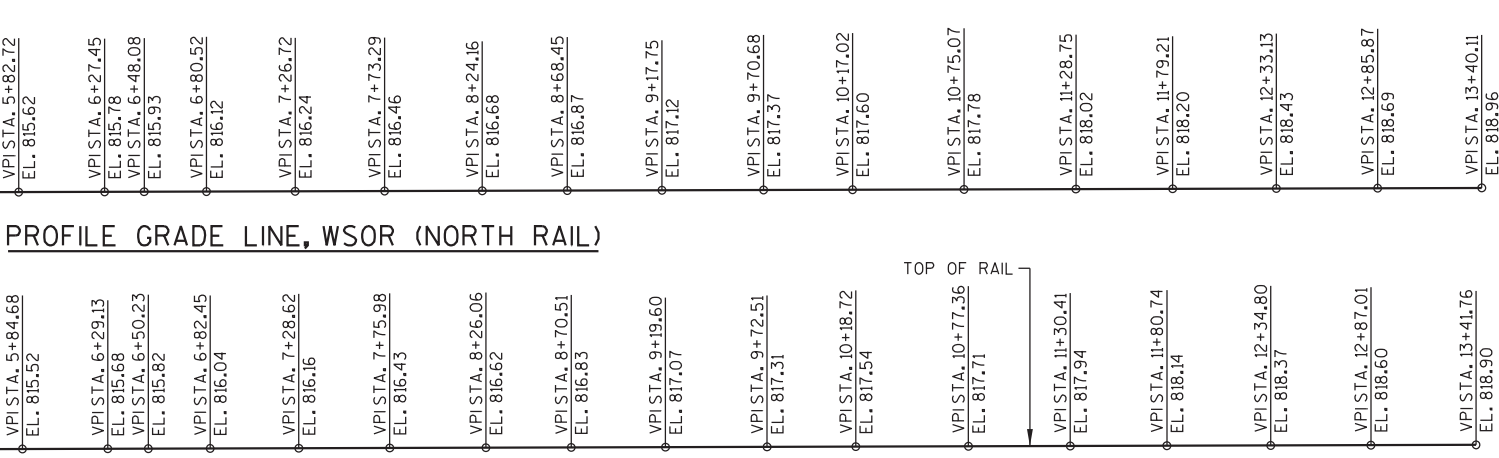
PROFILE GRADE LINE, IH 39/90 NB (B-53-230)

PROFILE GRADE LINE, CTH 0



PROFILE GRADE LINE, WSOR (NORTH RAIL)

PROFILE GRADE LINE, WSOR (SOUTH RAIL)



| | | | |
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| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-53-229 | | | |
| DRAWN BY | TAW | PLANS CK'D. | TR |
| CROSS SECTIONS AND PROFILES | | | SHEET 2 OF 7 |



-THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE.....

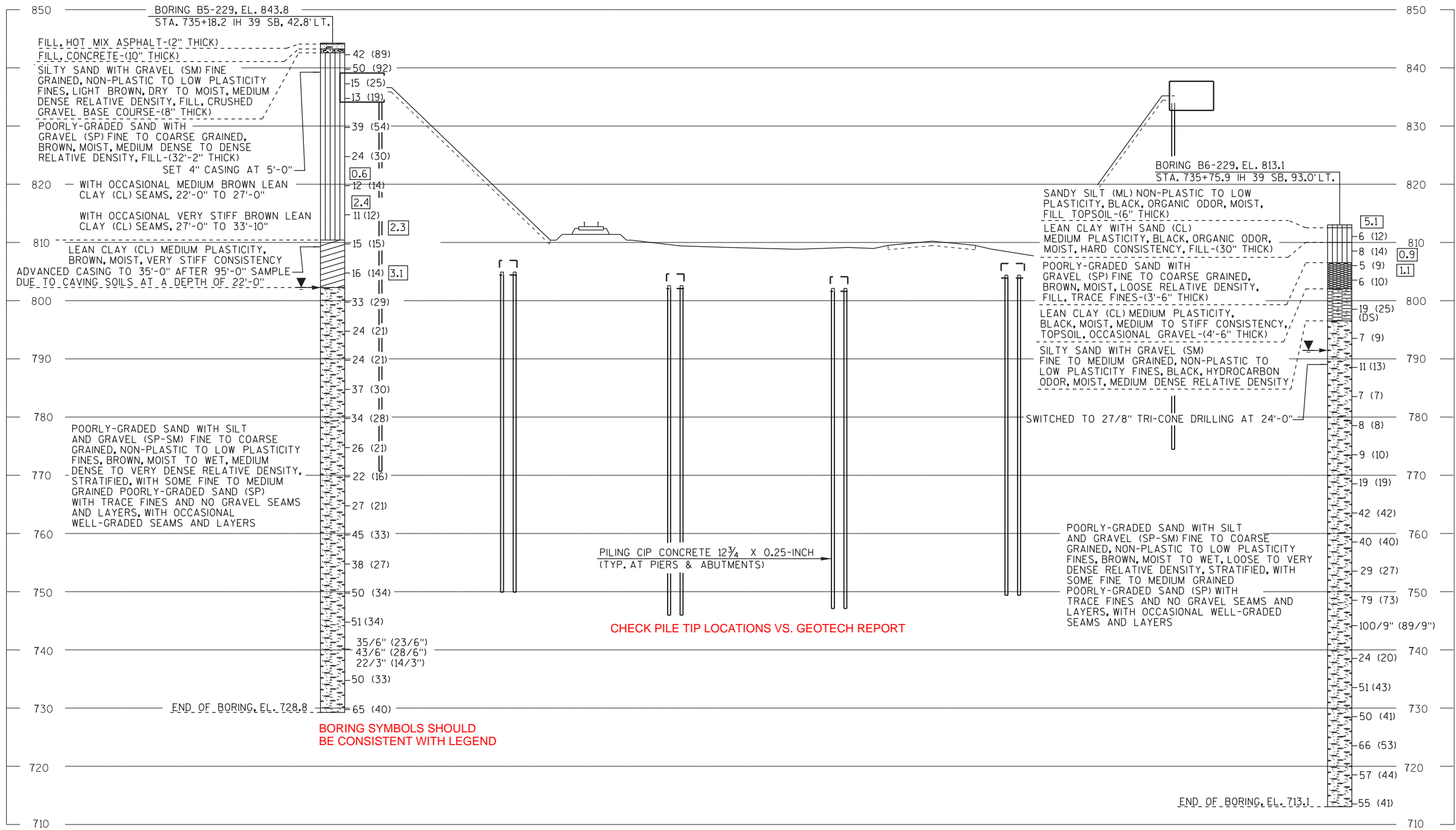
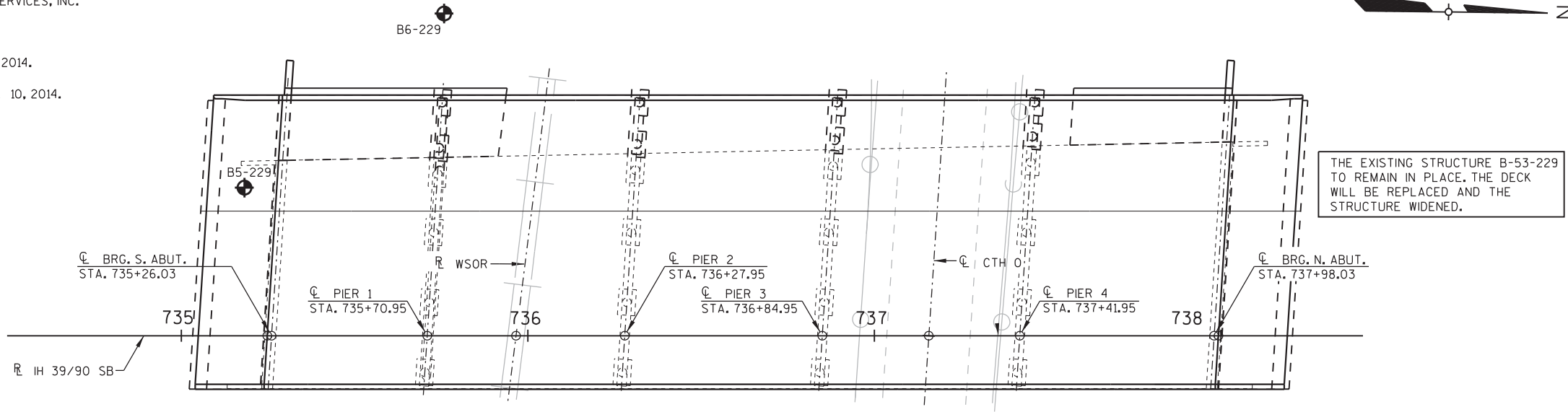
PER WBM STD. 38.01, SPV REQUIRED FOR TEMPORARY SHORING ADJACENT TO RAILROAD

| | | | | | |
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| NO. | DATE | REVISION | | | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | | | |
| STRUCTURE B-53-229 | | | | | |
| | | DRAWN BY | TAW | PLANS CK'D. | TR |
| GENERAL NOTES & QUANTITIES | | | | SHEET 3 OF 7 | |
| | | | | | |

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PLOT TIME: 14:41 AM

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BORINGS AND REPORT BY:
SOILS AND ENGINEERING SERVICES, INC.
1102 STEWART STREET
MADISON, WI 53713-4648
BORING B5-229 WAS
PERFORMED JUNE 3 & 4, 2014.
BORING B6-229 WAS
PERFORMED ON JUNE 9 & 10, 2014.



STATE PROJECT NUMBER

1003-10-84

ABBREVIATIONS

F — FINE
WS — WEATHERED

M — MEDIUM

C — COARSE
SO — SOUND

MATERIAL SYMBOLS

TOPSOIL

SAND

GRAVEL

SILT

PEAT

CLAY

SANDSTONE

LIMESTONE

IGNEOUS ROCK

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

95/6=95 BLOWS FOR 6"
PENETRATION
PROBING TAKEN WITH
A 350# WT.
FALLING 18" ON A 2"
O.D. POINT.

LEGEND OF BORING

ELEV.
BORING NO.
STA.

UNCONFINED STRENGTH
BLOWS PER FT.
USING 140# WT.
FALLING 30"

WASH SAMPLE

SHELBY TUBE — S.T.

GROUND WATER ELEVATION

NO GROUND WATER OBSERVED ABOVE THIS ELEVATION

SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO
LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A Cased OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

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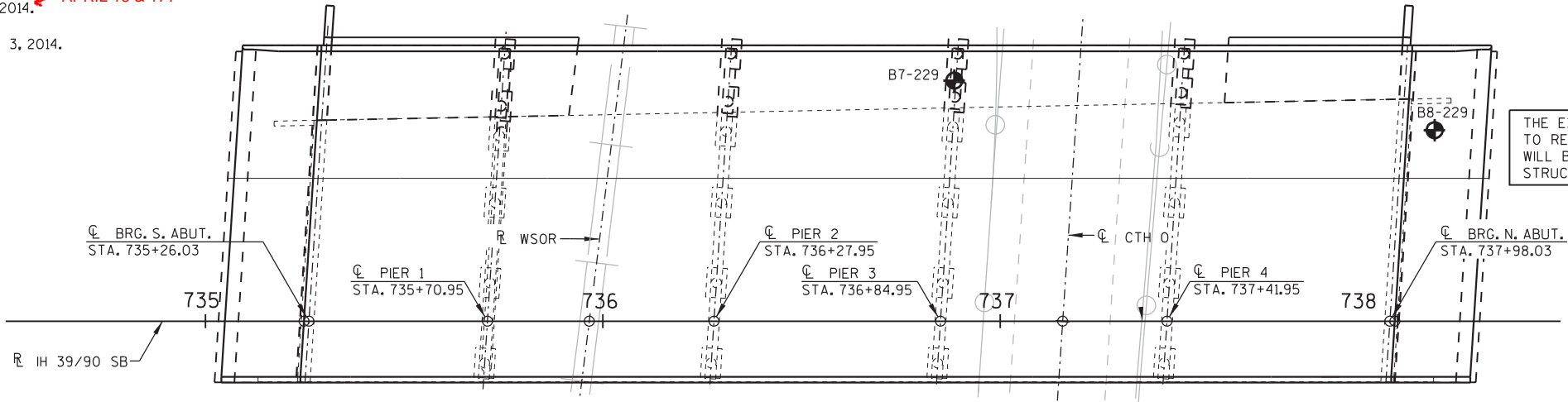
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| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-53-229 | | | |
| DRAWN BY | | T.A.W. | PLANS CK'D. TR |
| SUBSURFACE EXPLORATION | | | SHEET 4 OF 7 |

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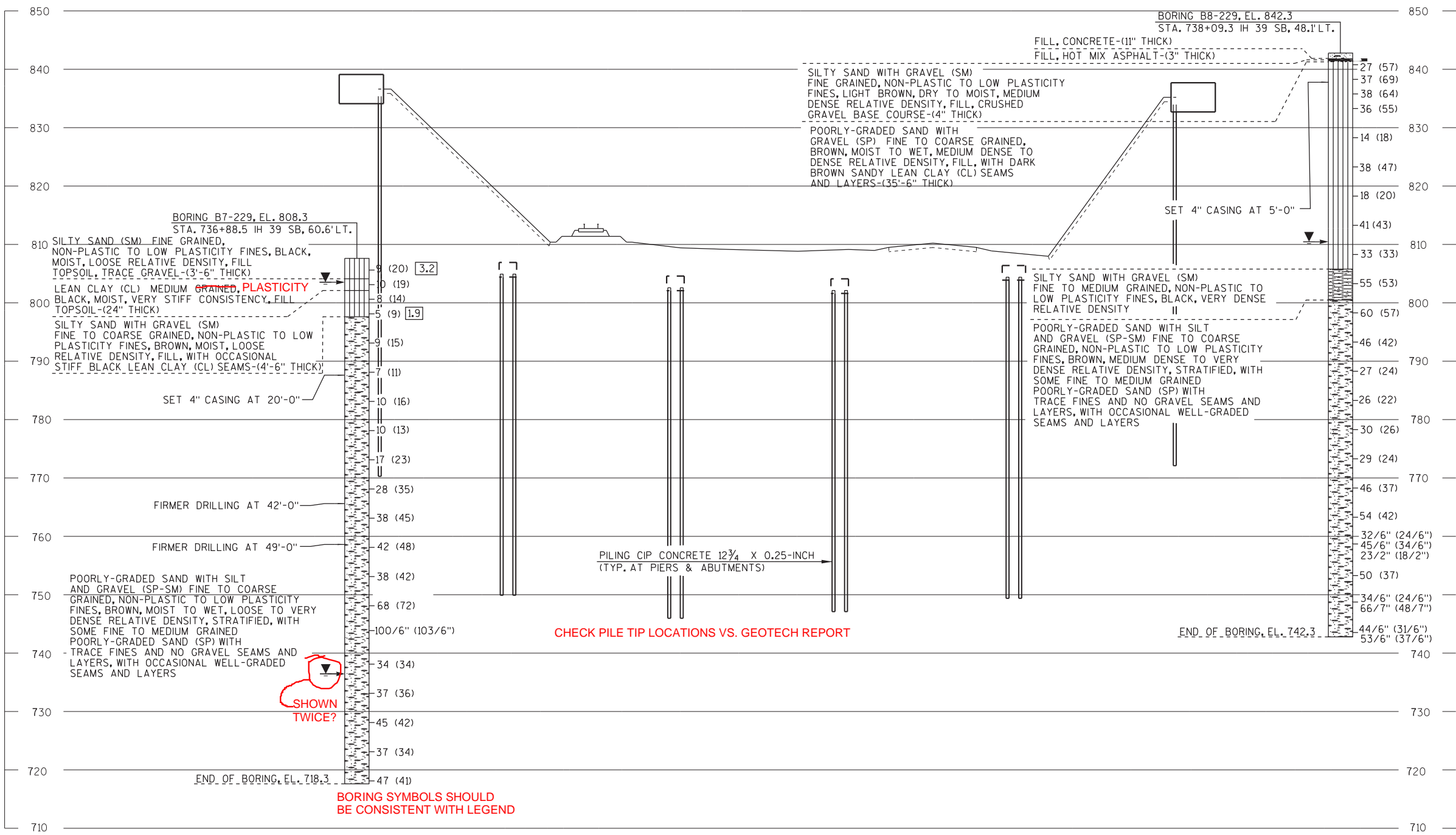
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BATCH PRINT SHEET 5 OF 7

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BORINGS AND REPORT BY:
SOILS AND ENGINEERING SERVICES, INC.
1102 STEWART STREET
MADISON, WI 53713-4648
BORING B7-229 WAS
PERFORMED JUNE 3 & 4, 2014. ← APRIL 16 & 17?
BORING B8-229 WAS
PERFORMED ON JUNE 2 & 3, 2014.



THE EXISTING STRUCTURE B-53-229
TO REMAIN IN PLACE. THE DECK
WILL BE REPLACED AND THE
STRUCTURE WIDENED.



BORING SYMBOLS SHOULD
BE CONSISTENT WITH LEGEND

CHECK PILE TIP LOCATIONS VS. GEOTECH REPORT

SHOWN
TWICE?

STATE PROJECT NUMBER
1003-10-84

ABBREVIATIONS
F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS
TOPSOIL SILT SANDSTONE
SAND PEAT LIMESTONE
GRAVEL CLAY IGNEOUS ROCK

LEGEND OF PROBING
PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
95/6=95 BLOWS FOR 6"
PENETRATION
PROBING TAKEN WITH
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FALLING 18" ON A 2"
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REFUSAL 95/6

LEGEND OF BORING
BORING NO.
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STRENGTH → 7.7
BLOWS PER FT.
USING 140# WT.
FALLING 30"
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SUBSURFACE EXPLORATION FOR FOUNDATION
DESIGN AND BIDDERS INFORMATION
TO OBTAIN RELATIVE DATA CONCERNING THE
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WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON
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THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE.
HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE
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AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION
DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS
INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL
ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY
TYPICAL OF THE ENTIRE SITE.

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| NO. | DATE | REVISION | BY |
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| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-53-229 | | | |
| DRAWN BY | | T.A.W. | PLANS CK'D. TR |
| SUBSURFACE EXPLORATION | | SHEET 5 OF 7 | |

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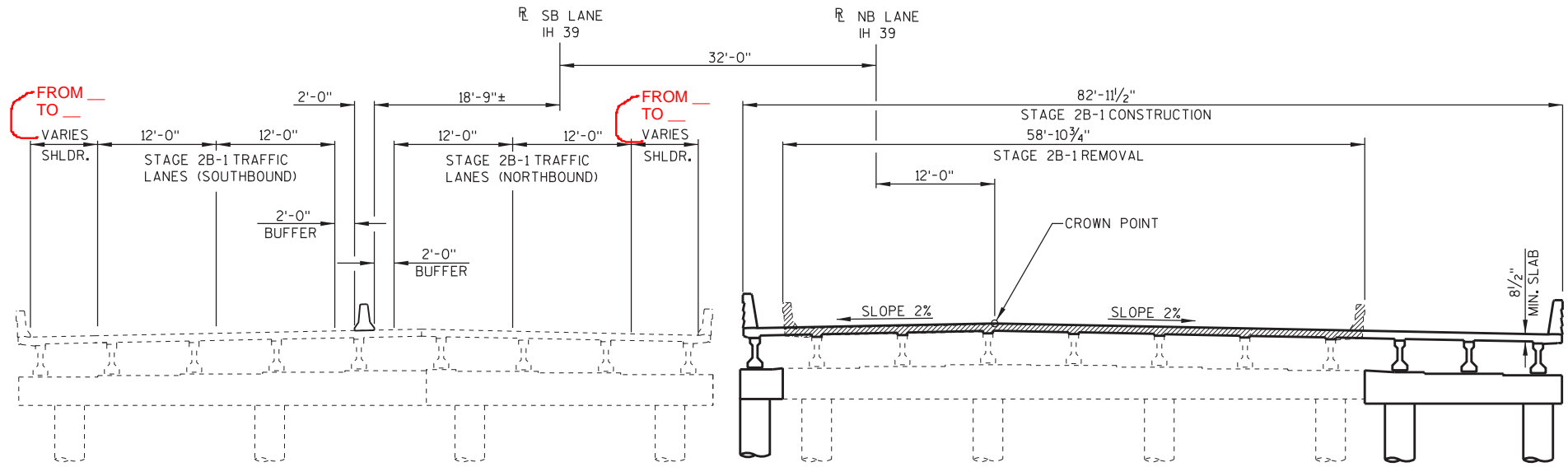
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STATE PROJECT NUMBER

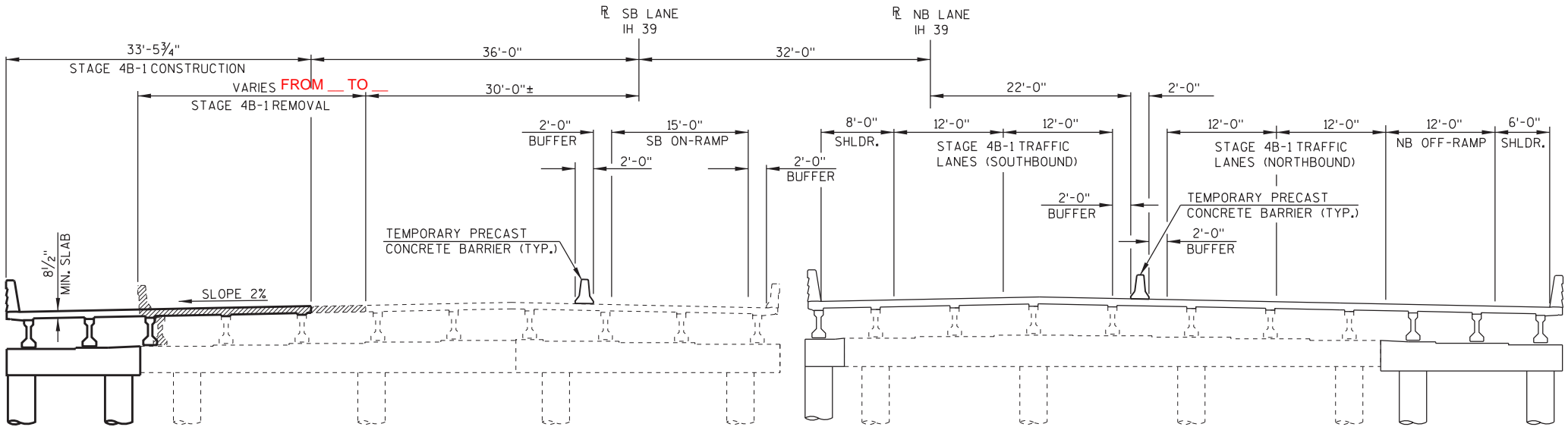
1003-10-84



B-53-229

B-53-230

STAGE 2B-1 - REMOVAL & CONSTRUCTION
(LOOKING NORTH)



B-53-229

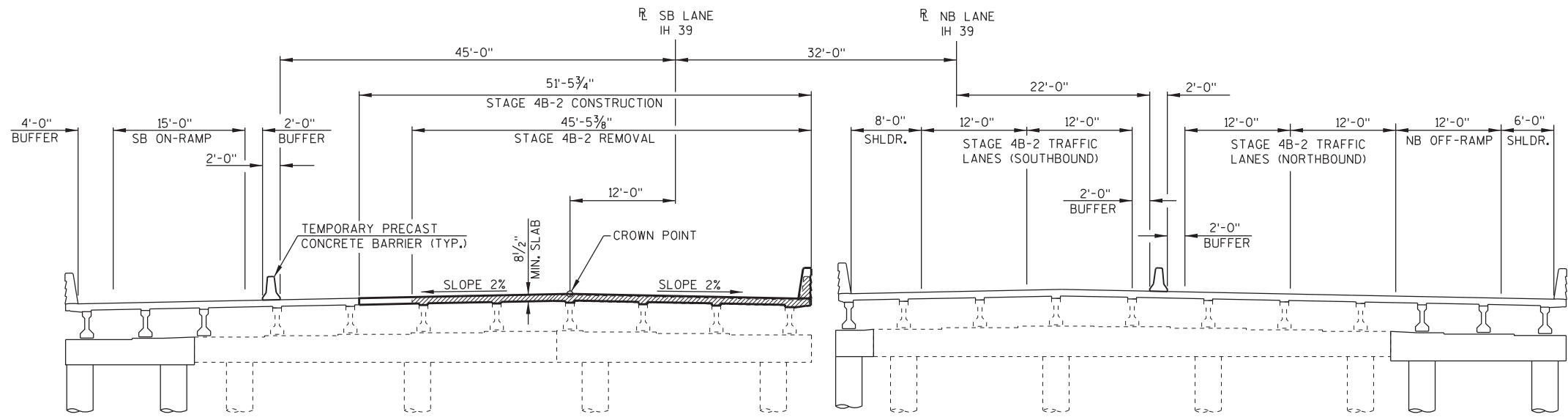
B-53-230

STAGE 4B-1 - REMOVAL & CONSTRUCTION
(LOOKING NORTH)

| | | | |
|--|------|--------------|----------------|
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-53-229 | | | |
| DRAWN BY | | TAW | PLANS CK'D. TR |
| CONSTRUCTION STAGING | | SHEET 6 OF 7 | |

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B-53-229

B-53-230

STAGE 4B-2 - REMOVAL & CONSTRUCTION
(LOOKING NORTH)

| |
|----------------------|
| STATE PROJECT NUMBER |
| 1003-10-84 |

| | | | |
|--|------|--------------|----------------|
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-53-229 | | | |
| DRAWN BY | | TAW | PLANS CK'D. TR |
| CONSTRUCTION STAGING | | SHEET 7 OF 7 | |