Structure No. 0 6755

Route 162 {New Haven Avenue}

over

Turtle Creek

Milford

Mile Point 2.66

In-Depth {Above & Under Water} Inspection
on
14-Oct-10

Inspected By Team No. 51 - McLaren

For Area No. 8

TEAM: Forwarded to T.E. 3: D PAWLIKOWSKI Date: 11/18/10

T.E. 3: Reviewed By T.E. 3: D PAWLIKOWSKI Date: 11/29/10

BMM Required NO — List 99 Candidate

Town Structure NO

Rating <= 5 {Item Nos. 58, 59, 60, 61 or 62} YES

Forwarded to Supervisor: J KOZLOWSKI Date: 11/30/10

Forwarded to "To Be Copied Drawer" X Date: December 2 2010

Date BRI-19 Entered 11/29/10

SUPERVISOR: Reviewed By Supervisor [signature] Date: Dec 2 2010

Support: Date Copies Made: 12-7-10 BMM No. TNONO

Scanned By: _____ Date: _____ PDF Box No.: _____

NBIS: Yes

First Time Inspection

Yellow Flag Report

COMBINED UNDERWATER AND ROUTINE INSPECTION

BRIDGE NO. 06755
ROUTE 162 OVER TURTLE CREEK
MILFORD, CONNECTICUT
OCTOBER 14, 2010

BRIDGE SAFETY INSPECTION

STATE PROJECT NO. 170-1940

NOV 18 2010

CONNECTICUT DEPARTMENT OF TRANSPORTATION

STATE OF CONNECTICUT
GEORGE F. ASSIS
24536
LICENSED
PROFESSIONAL ENGINEER

Prepared by

McLaren ENGINEERING GROUP

45 Barberry Lane, Meriden, CT 06457
100 Snake Hill Road, West Nyack, NY 10994

Structure No. 06755 Town Milford

Inspectors McLaren Engineering (J. St Denis, C Goss, M. Wright) Date 10/14/10

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BRI-39, RR Bridge SI&A Form	--
BRI-49, Sign Structure SI&A Form	--
PONTIS Element Data Collection Form	1
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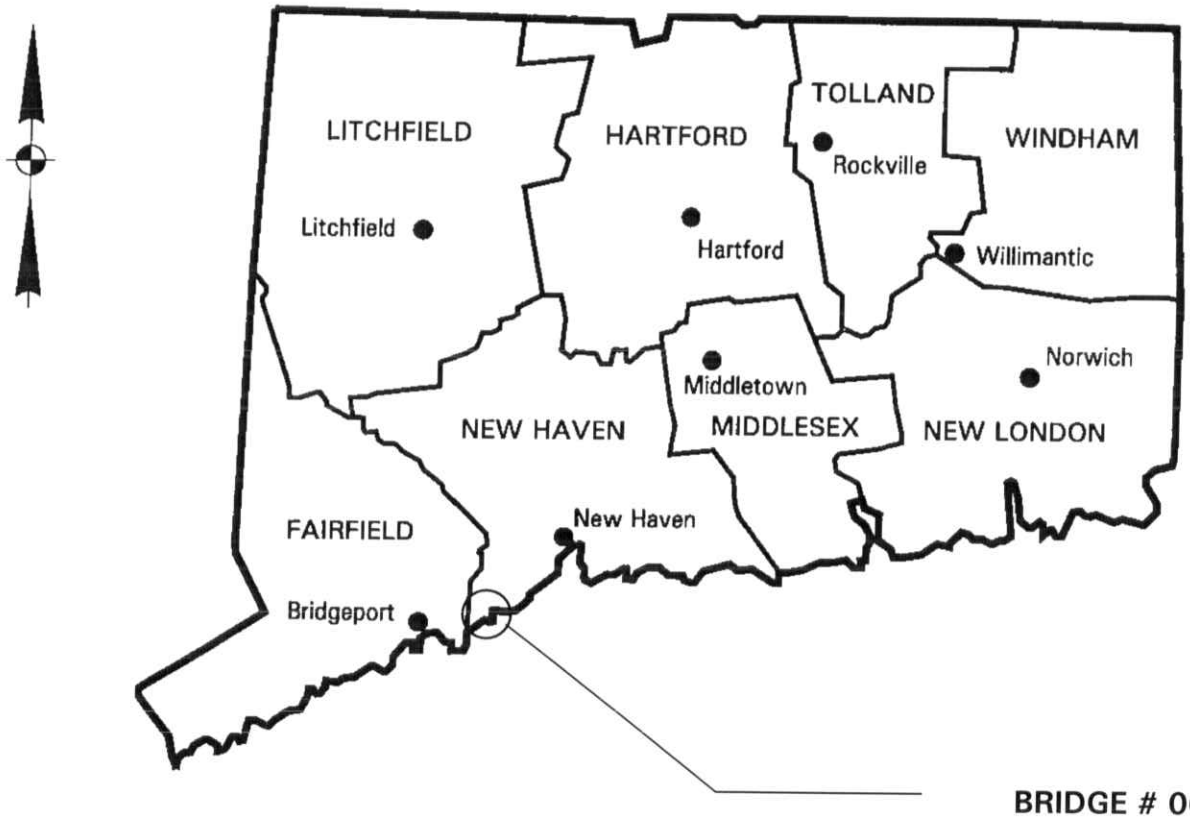
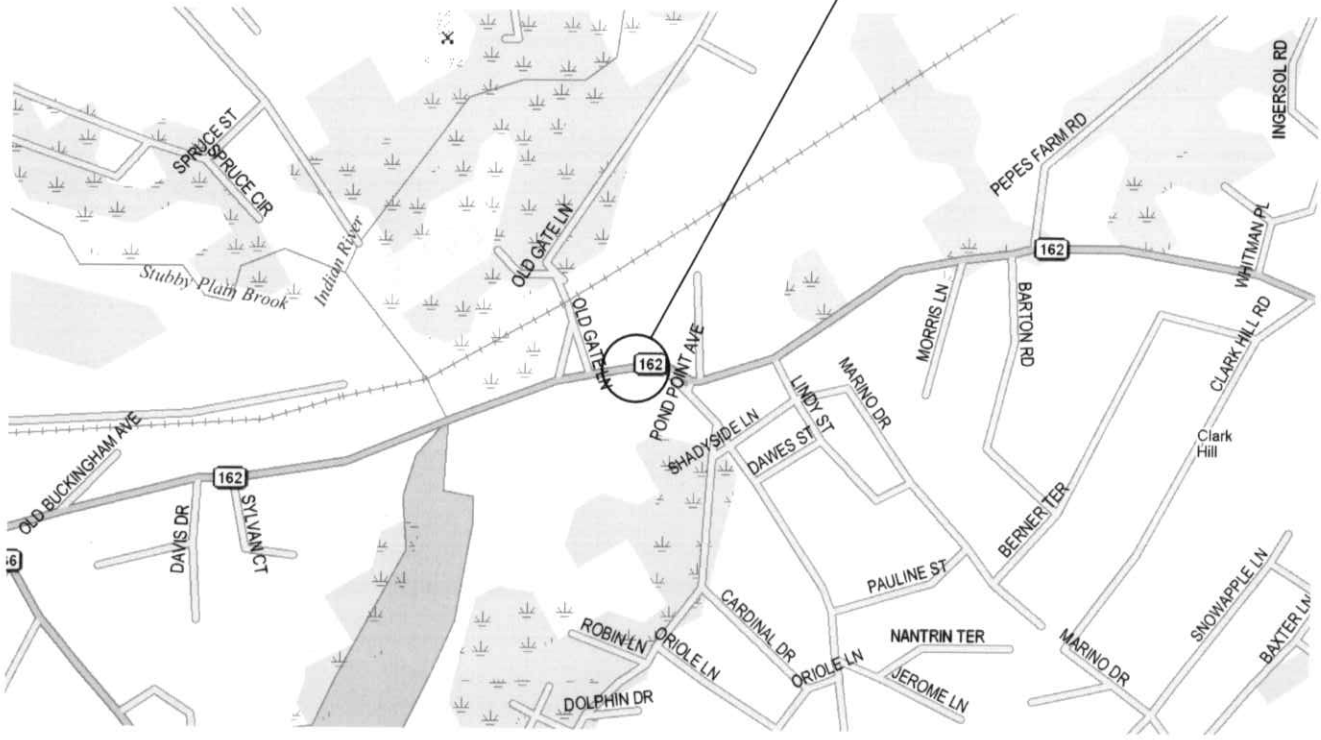


BRIDGE # 06755
MILFORD

General Map

BRIDGE # 06755



Bridge Location Plan

EXECUTIVE SUMMARY

10/14/10

Bridge No. 06755 carries Route 162 over Turtle Creek in Milford, Connecticut. The structure was constructed in 1971 and consists of three 80 feet long by 6 feet wide corrugated steel arch pipes. There is no record of any major rehabilitation.

The October 14, 2010 combined underwater and routine inspection resulted in the following observed deficiencies and repair recommendations:

Deck:

There is no deck. Deficiencies in the roadway include the following:

1) The bituminous overlay exhibits transverse and longitudinal cracks up to 1/2" wide and 1/8'' raveling.
2) The south concrete curb exhibits moderate scale and a missing section 15 feet long at the east end. The north bituminous curb exhibits minor cracks. Replace missing curb (15 LF).
3) Both bituminous and concrete sections of the south sidewalk exhibit minor hairline cracks.

Channel and Channel Protection:

The channel and channel protection are in poor condition (Overall Rating=4) due to the following:

1) There is heavy silt and debris accumulation along the barrels up to 2′ high that reduced the freeboard to 1.3 feet high in Barrel 3 at deflection/bulging locations. Remove debris and siltation (20 CY).

Culverts and Retaining Walls:

The culverts and retaining walls are in serious condition (Overall Rating=3) due to the following:

1) The corrugated steel barrels exhibit deflection/bulging areas at several locations along the top of the arches. Barrel 1 exhibits two deflection/bulging areas at Stations 0+44 & 0+67 up to 5″ deep. Barrel 2 exhibits one deflection/bulging area at Station 0+49 up to 5″, and Barrel 3 exhibits three deflection/bulging areas at Stations 0+46.5, 0+60 & 0+67 up to 4″ deep. The deflection/bulging areas at 0+67 of Barrel 1 and at station 0+67 of Barrel 3 are supported by steel channels. The joint at Station ±0+32 of Barrel 2, and the north joint of Barrel 1 are opened

up to 2″ wide with no notable loss of fill. Consideration should be given to replace the culverts.

2) The silt and debris accumulation along the barrels reduced the freeboard to 1.3 feet high in Barrel 3 at the defection/bulging locations.

3) The corrugated steel barrels exhibit minor loss of protective coat with minor coorosion.

Approach Condition:

The approach condition is in satisfactory condition (Overall Rating = 6) due to the following:

1) The bituminous overlay exhibits transverse and longitudinal cracks up to 1/2" wide including a longitudinal crack that extends from the West Approach to the East Approach.

6128

Connecticut Department of Transportation
UNDERWATER INSPECTION
BRI-59 Form

Bridge No: 06755 **Date Inspected:** 10/14/2010

Job Number: 170-1940 **Client:** Connecticut D.O.T.
Route: Route 162 **Mile point:** 2.66 **City:** Milford
FeatureCrossed: Turtle Creek **State:** CT
Inspector: John St Denis **Assistants:** C. Goss, M. Wright
Time Arrived: 8:30 AM **Time Departed:** 11:30 AM
Time In Water: 9:00 AM **Time Out of Water:** 12:00 PM
Type of Inspection: Routine
Year built: 1971 **Total Length:** 20' **No. Spans:** 3
Bridge Type: Corrugated metal arch culvert
Total Number of Piers: 0 **Piers in the Water:**
Type of Piers: N/A
Abutments: N/A
Bottom Composition: Sand, silt and cobbles.
Previous U/W Insp: N/A
Marine Growth: None
Max. Water Depth: 0.7'
Max. Depth at Pier: 0.7'
Current Strength: <1fps
U/W Visibility: N/A
Type of Water: Fresh
Access to Bridge: Shore
Remarks:

Inspection Equipment

Number of Boats: 0 **RR Protection:** No
Boat Size: 0 **Equipment Comments:**
Dive Station: Yes

NOV 18 2010

Inspected by: [signature] **Date:** 11-14-10

Inspected by: Malu Sarde for Chris Goss **Date:** 11-14-10

D.O.T. reviewed by: [signature] **Date:** 11 23 10
CT PE No 20897

Bridge Number 06755

Inspected By: John St. Denis & Chris Goss

Sufficiency Rating

Previous Inspection Date

BS&E Received ☐ Data Entry By: DP

Copies Made ☐ Data Entry Date: 11 29 10

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BRIDGE SAFETY & EVALUATION

STRUCTURE EVALUATION

SHEET 1 OF 2 FORM BRI-19 REV 10/00

SHEET_____ OF_____ (INSP. REPORT)

90) Inspection Date 10/14/10 Inspection Team 51 91) Frequency Class: 01

Indepth Insp Deck Survey Access 00 Flagman 00

CRITICAL FEATURE INSPECTIONS

	Type	Frequency	Team	Date
Fracture:				
Uwater:		24	51	10/14/10
Special:				

RED FLAG

IDENTIFICATION

Bridge Name

Town Name MILFORD Town Code 47535

5) Inventory Route:

A) Record Type 1 D) Route Number 00162

B) Signing Prefix STATE HIGHWAY 3 E) Directional Suffix 0

C) Level of Service MAINLINE 1

6) Feature Intersected TURTLE CREEK

7) Facility Carried: ROUTE 162

9) Location 0.68 MI EAST OF ROUTE 736

11) Milepoint Miles 2.660

16) Latitude deg min sec 041 deg 13 min 08.60 sec

17) Longitude deg min sec 073 deg 01 min 14.82 sec

98) Border Bridge:

A) State Code B) Percent Responsibility %

C) Border Town Name

99) Border Bridge Structure No

STRUCTURE TYPE AND MATERIAL

43) Structure Type, Main:

A) Material 3 B) Design Type 19

44) Structure Type, Approach:

A) Material 0 B) Design Type 0

45) Number of Spans, Main Unit 3

46) Number of Approach Spans 0

107) Deck Structure Type N

108) Wearing Surface/Protective System:

A) Type of Wearing Surface N

B) Type of Membrane N

C) Type of Deck Protection N

AGE AND SERVICE

27) Year Built 1971 106) Year Reconstructed 0000

42) Type of Service:

A) On HIGHWAY/PED. 5 B) Under WATERWAY 5

28) Number of Lanes:

A) On 3 ← 2 B) Under 0

29) Average Daily Traffic 20900 Half ADT?: N

109) Percent Truck % 3

30) Year of ADT 2009

19) Bypass, Detour Length miles 2

GEOMETRIC DATA

48) Length of Max Span ft 6.25 FT 6

49) Structure Length ft 23.00 FT ← 22

50) Curb or Sidewalk Widths:

A) Left ft 0.0 B) Right ft 10.0 ft

51) Brg Rdwy width,curb-curb ft 37.4 ft

52) Deck Width, Out-Out ft 55.4 ft

32) Approach Roadway Width ft 37 ft

33) Bridge Median 0

Deck Area sqft 1774 sqft

34) Skew Angle deg APPROX 30° 30

35) Structure Flared NO FLARE 0

10)Inv. Rte. Min. Vert Clearance ft in 99 ft 99 in

47) Log Inv. Rte. Total Horiz Clr.: ft 37.4 FT 37.4 ft

47) RLog Inv. Rte. Total Horiz. Clr.: ft ft

53) Min Vert Clearance Over Bridge ft in 99 ft 99 in

54) Min Vert Under Clearance Ref ft in N Ref 05 ft 05 in

55) Min Lat Under Clearance on Right Ref ft N Ref 99.9 ft

56) Min Lat Under Clearance on Left ft 0.0 ft

BRIDGE COMMENTS

STRUCTURE EVALUATION

SHEET 2 OF 2 FORM BRI-19 REV 10/00

SHEET_____ OF_____(INSP. REPORT)

Bridge Number	06755	NBIS Length	
Town Name	MILFORD	YES	
Facility Carried	ROUTE 162		
Feature Crossed	TURTLE CREEK		

Inspected By: John St. Denis & Chris Goss

CLASSIFICATION

112) NBIS Bridge Length	YES - 23.00 FT	Y
104) Highway System		N
26) Functional Class	URBAN MINOR ARTERIAL	16
100) Defense Highway		N
101) Parallel Structure		N
102) Direction of Traffic		2
103) Temporary Structure		
110) Designated National Network		0
20) Toll		3
21) Maintain		3
22) Owner		3
Report Class		S
37) Historical Significance		5

LOAD RATING AND POSTING

31) Design Load	HS-20	5	Evaluation Code: 0
63) Operating Rating Type			Year of Evaluation: 5
64) Operating Rating	58.0	63	70) Bridge Posting: 0
65) Inventory Rating Type			41) Structure Status: 5
66) Inventory Rating	34.0	36	

	J
2010	0
	5
	A

WATERWAY

DrainageBasinCode			5306
38) Navigation Control			0
39) Navigation Vert Clr.	0	40) Navigation Horiz Clr.	0
116) Vert-Lift Brg Nav Min			
111) Pier Abutment Protection			

CONDITION

	Rating	By
58) Deck	N	JSD
59) Superstructure	N	JSD
60) Substructure	N	JSD
61) Channel & Chan. Protection	4	JSD
62) Culverts	3	JSD

APPRAISALS

	Rating	By
67) Structure Evaluation	3	GFH
68) Deck Geometry	4	JSD
69) Under Clear Vert & Horiz	N	JSD
71) Waterway Adequacy	7	JSD
72) Approach Rdwy Alignment	8	JSD
113) Scour Critical	8	DP

Items 58 Thru 72 Checked By: [signature]

36) Traffic Safety Features:

A) Bridge Railings	0
B) Transitions	0
C) Approach Guardrail	0
D) Approach Guardrail End	1

PROPOSED IMPROVEMENTS

75A) Type of Work Proposed		
75B) Work Done By		
76) Length of Struct. Improvement	ft	ft
94) Bridge Improvement Cost	$	
95) Roadway Improvement Cost	$	
96) Total Project Cost	$	
97) Year of Improvement Cost Est.		
114) Future ADT		115) Year Future ADT
List No. 99	Project No.	Advertised

OTHER FEATURES

Fence Required	N	Barrel Ladder	N
Fence Present	N	Stand Pipes	N
Fence Height	ft	Cat Walks	N
Fence Type		Movable Inspection System	N
Fence Material		Loose Concrete Checked?	N
Fence Top Type			

POSTED SIGNS & UTILITIES

Other Posted Signs 1					
Other Posted Signs 2					
Actual P.L. Single Unit Truck	tons		Actual P.L. 4Axle Truck	tons	
Rec. P.L. Single Unit Truck	tons		Rec. P.L. 4Axle Truck	tons	
Actual P.L. Semi-TrailerTruck	tons		Actual P.L. 3S2 Truck	tons	
Rec. P.L. Semi-TrailerTruck	tons		Rec. P.L. 3S2 Truck	tons	
Rec. P.L. All Vehicles	tons		Actual P.L. All Vehicles	tons	
Posted Vert Clearance On Bridge	ft	in		ft	In
Posted Vert UnderClearance	ft	in		ft	In
Posted Speed Limit	mph			25	mph
Utility			GAS	1	
			WATER	2	
			TELEPHONE	4	

INSPECTION COMMENTS

Proposed Next Indepth Insp Year		2020
Senior Supervisor		

REVIEWED BY: [signature] Date 11/15/10

CTDOT - BRIDGE SAFETY
D PAWLIKOWSKI - NOV 29, 2010

7/28

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 06755 **Inspection Date: 10/14/2010**

Inspection Type:	Routine	**Previous Inspection Date:** N/A	-	**Snooper Required:**	No
Inspection Performed By:	McLaren Engineers	**Feature Carried:** RTE 162	-	**Snooper Used:**	No
Town:	- MILFORD	**Feature Intersected:** TURTLE CREEK	-	**Year Built:** 1971	-
Location:	-	**Main Design:** CULVERT	-	**Year Rebuilt:** 0	-
Main Material:	- STEEL				

Visits

Visit Date:	Temp:	Start Time:	End Time:
8/30/2010	75	12:00:00 PM	3:00:00 PM
10/14/2010	60	8:30:00 AM	11:30:00 AM

Inspectors:

Inspector:	Task:
C. Goss	Inspector
J. St. Denis	Lead Inspector
M. Wright	Inspector

DECK: - **Overall Rating:** P

	Rating	
OVERLAY:	6	The bituminous overlay exhibits transverse and longitudinal cracks up to 1/2" wide, and 1/8" raveling (Sheet 13; Photo 2).
DECK-STR. CONDITION:	N	-
CURBS:	4	The South concrete curb exhibits moderate scale and a 15' long missing section at the East end. The North bituminous curb exhibits minor cracks (Sheet 13; Photo 17).
MEDIAN:	N	-
SIDEWALKS:	7	Sidewalk on the south side only that consists of two sections: bituminous and concrete. Both sections exhibit minor hairline cracks (Sheet 13; Photo 15).
PARAPET:	7	MBR railing along the North side only. No notable defects (Sheet 13).
RAILING:	-	-
PAINT:	N	-
FENCE:	N	-
DRAINS:	N	-
LIGHTING STANDARD:	N	-
UTILITIES TYPE/SIZE:	N	-
CONSTR JOINTS:	N	-
EXPANSION	N	-

8/28

JOINTS:

9128

59. SUPERSTRUCTURE: - **Overall Rating:** N

60. SUBSTRUCTURE: - **Overall Rating:** N

Rating

61. CHANNEL & CHANNEL PROTECTION: - **Overall Rating:** 4

Rating

CHANNEL SCOUR:	6	Heavy siltation and debris within the barrels up to 2' high reducing the freeboard to 1.3' high at deflection/bulging locations (Sheet 17).
EMBANKMENT EROSION:	7	-
DEBRIS:	4	Heavy siltation and debris within the barrels up to 2' high reducing the freeboard to 1.3' high at deflection/bulging locations (Sheet 17).
VEGETATION:	7	Embankments are well vegetated (Photos 5 & 6).
CHANNEL CHANGE:	6	No significant lateral migration was noted.
FENDER SYSTEM:	N	-
SPUR, DIKES & JETTIES:	N	-
RIP RAP:	6	Stone and riprap at the upstream and downstream channel (Photos 5 & 6).

62. CULVERTS & RETAINING WALL: - **Overall Rating:** 3

Rating

BARREL:	3	The corrugated steel barrels exhibit deflection/bulging areas at several locations along the top of the arches. Barrel 1 exhibits two deflection/bulging areas at station 0+44 up to to 3' diameter x 5 " deep and station 0+67 up to 6' L x 4' W x 5" deep. Barrel 2 exhibits one deflection/bulging area at station 0+49 up 3' diameter x 5" deep. Barrel 3 exhibits three deflection/bulging areas at stations 0+46.5 up to 3' diameter x 4" deep, station 0+60 up to 2' diameter x 2" deep, and station 0+67 up to 5' L x 2' W x 4" deep. The deflection/bulging areas at station 0+67 of Barrel 1, and at station 0+67 of Barrel 3 are

10/28

		supported by steel channel. The joint at Sta. +/- 0+32 in Barrel 2, and the north joint in Barrel 1 are opened up to 2" wide with no notable loss of fill (Sheet 17; Photos 18 thru 21).
CONCRETE:	N	-
STEEL:	6	The corrugated steel barrels exhibit minor loss of protective coating with minor corrosion (Photos 9 thru 11).
TIMBER:	N	-
HEADWALL:	N	-
CUTOFF WALL:	N	-
DEBRIS:	4	Heavy siltation and debris within the barrels up to 2' high reducing the freeboard to 1.3' high at deflection/bulging locations (Sheet 17).
RETAINING WALL STEM:	N	-
FOOTING:	N	-

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65. APPROACH CONDITION - **Overall Rating:** 6

	Rating	
APPROACH SLAB:	N	-
RELIEF JOINTS:	N	-
APPROACH GUIDE RAIL:	7	MBR railing on the North side only. No notable deffects (Sheet 13).
APPROACH PAVEMENT:	6	The bituminous overlay exhibits transverse and longitudinal cracks up to 1/2" wide including a longitudinal crack that extends from the West Approach to the East Approach (Sheet 13; Photos 3 & 4).
APPROACH EMBANKMENT:	N	-

TRAFFIC SAFETY FEATURES

	Rating	
BRIDGE RAILINGS:	Last Inspection: - Current: 0	-
TRANSITIONS:	Last Inspection: - Current: 0	-
APPROACH GUARDRAILS:	Last Inspection: - Current: 0	-
APPR. GUARDRAIL ENDS:	Last Inspection: -	-

11/28

Current: 1	

66. LOAD POSTING

	- Posted Loading -	
SINGLE UNIT (TONS):	Last Inspection: - Current: -	-
SEMI TRAILER (TONS):	Last Inspection: - Current: -	-
4 AXLE (TONS):	Last Inspection: - Current: -	-
3S2 (TONS):	Last Inspection: - Current: -	-
ADVANCE WARNING (Y/N):	-	-
LEGIBILITY:	-	-
VISIBILITY/LOCATION:	-	-

67. MISCELLANEOUS

	Rating	
MIN. VERT. UNDERCLEARANCE:	Last Inspection: -' -" Current: 0' 0"	-
POSTED CLR. UNDER BRIDGE:	Last Inspection: -' -" Current: -' -"	-
POSTED CLR. ON BRIDGE:	Last Inspection: -' -" Current: -' -"	-
ADVANCED WARNING (YES/NO):	No	-
SPEED LIMIT (IF ANY):	Last Inspection: - Current: -	-
CHARACTER OF TRAFIC:		-

12/28

ADDITIONAL NOTES: -

ADDITIONAL COMMENTS: -

Inspectors' Signatures:

1) Date: 11/14/10

2) Date: 11/14/10

3) Date: ----/----/-----

4) Date: ----/----/-----

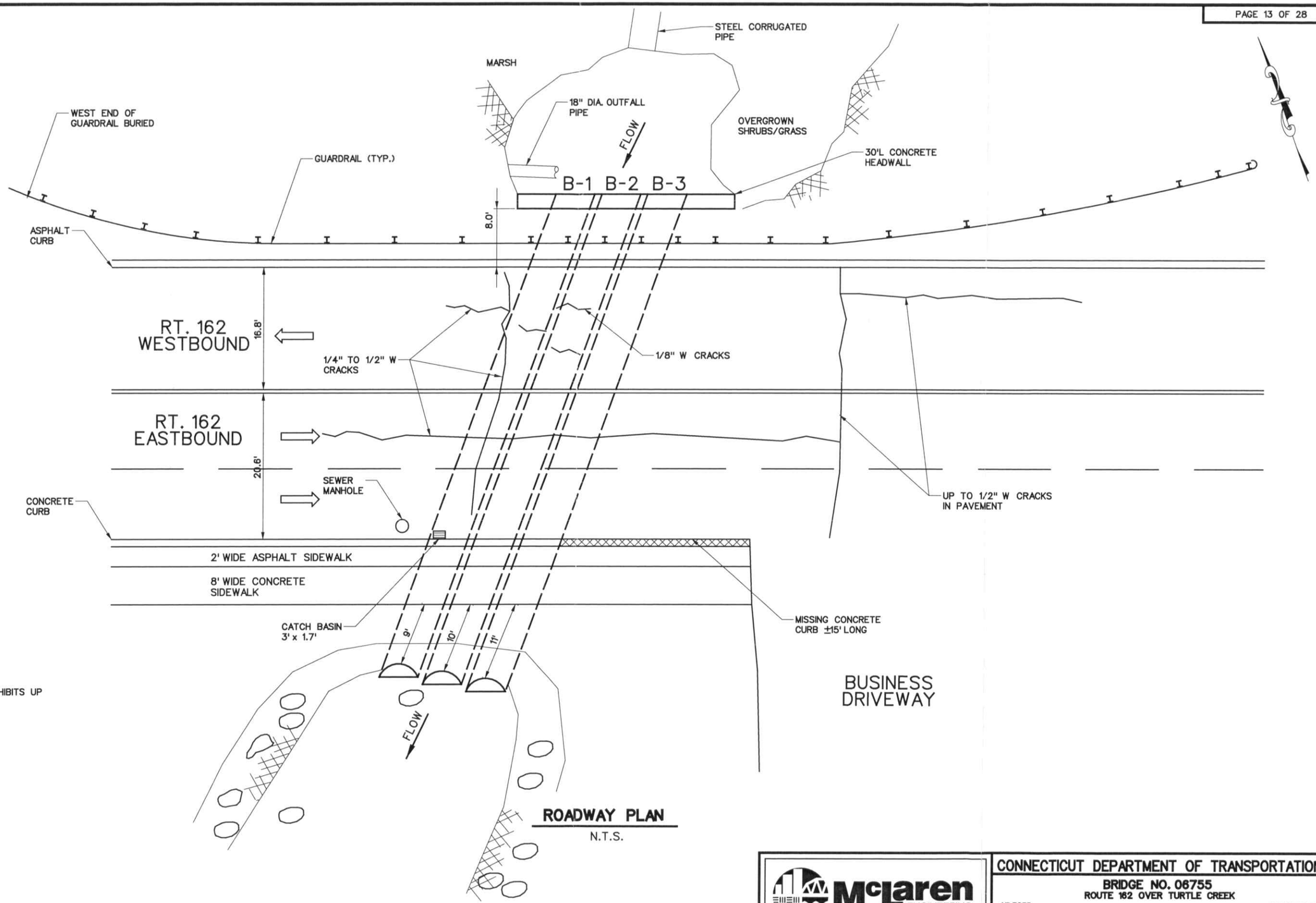
P.E. Signature: Date: ----/----/-----

P.E. #: 24536 Date: 11/15/10

Reviewed by: conndot Date: 11/29/10

CT PE NO 20847

NOV 18 2010



ROADWAY PLAN

N.T.S.

NOTES:

1. 75% OF WEARING SURFACE EXHIBITS UP TO 1/8" D RAVELING.

McLaren ENGINEERING GROUP
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100 Snake Hill Road, West Nyack, NY 10994
Tel. (845) 353-6400 Fax. (845) 353-6509

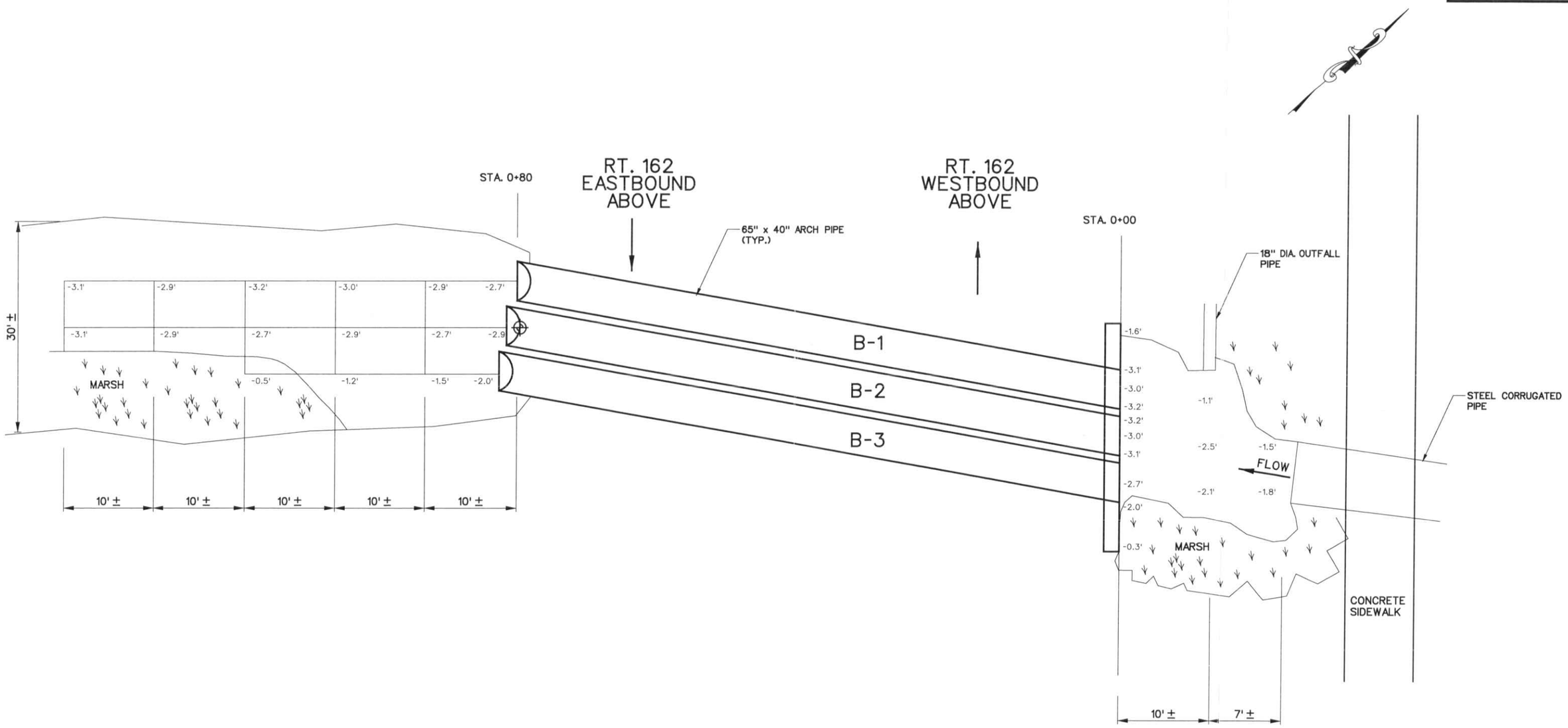
CONNECTICUT DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 06755
ROUTE 162 OVER TURTLE CREEK

MILFORD CONNECTICUT

ROADWAY PLAN

INSPECTED BY: JSD REVISED BY: JGI	SCALE: AS SHOWN	DATE OF INSPECTION 10 / 14 / 10	DRAWING NO. 06755A



LEGEND FOR BOTTOM ELEVATIONS

OCT, 2010 → -0.0'

* INDICATES NO INFORMATION

PLAN

N.T.S.

LEGEND FOR SYMBOLS

⊕ DATUM ELEV. 0.0' TAKEN FROM TOP OF BARREL 2 AT SOUTH END.

▽ W.S. ELEV. -2.6'

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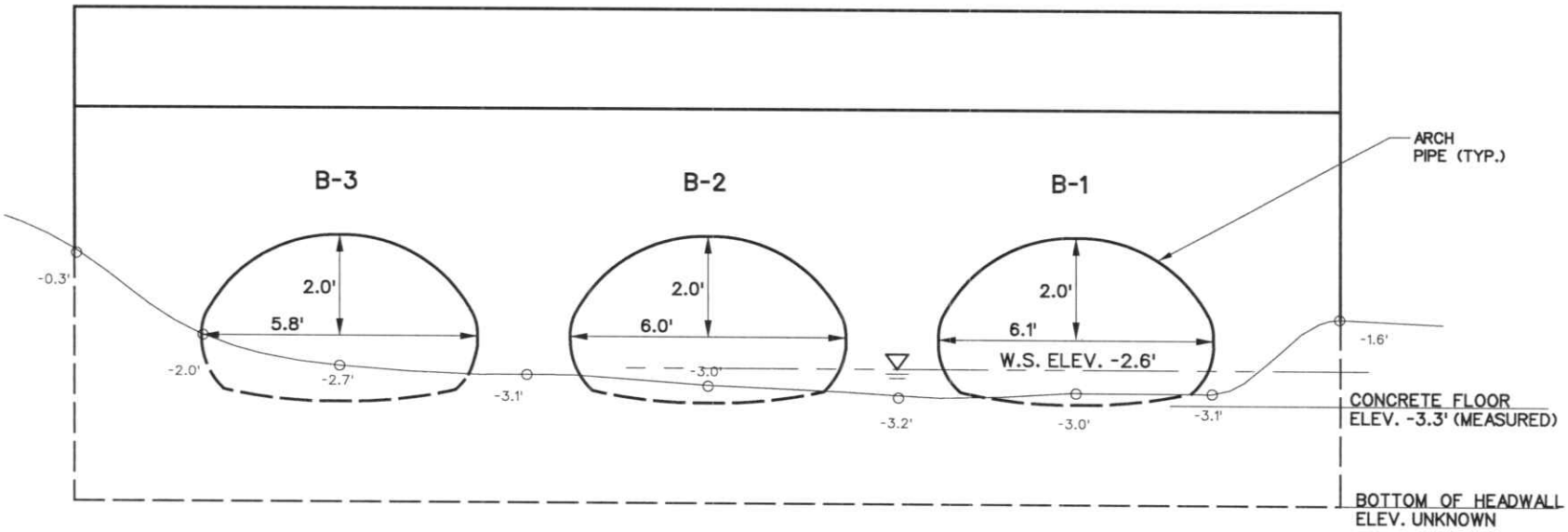
CONNECTICUT DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 06755
ROUTE 162 OVER TURTLE CREEK

MILFORD CONNECTICUT

PLAN

INSPECTED BY: JSD REVISED BY: JGI	SCALE: AS SHOWN	DATE OF INSPECTION 10 / 14 / 10	DRAWING NO. 06755B



NOTES:

1. MEASUREMENTS INSIDE BARRELS TAKEN FROM TOP OF BARREL TO MUDLINE.

UPSTREAM PROFILE (NORTH ELEVATION)

N.T.S.

LEGEND FOR BOTTOM ELEVATIONS

OCT, 2010 → -0.0'

LEGEND FOR MUDLINE ELEVATIONS

OCT, 2010

LEGEND FOR SYMBOLS

⊕ DATUM ELEV. 0.0' TAKEN FROM TOP OF BARREL 2 AT SOUTH END.

▽ W.S. ELEV. -2.6'

= INDICATES NO INFORMATION

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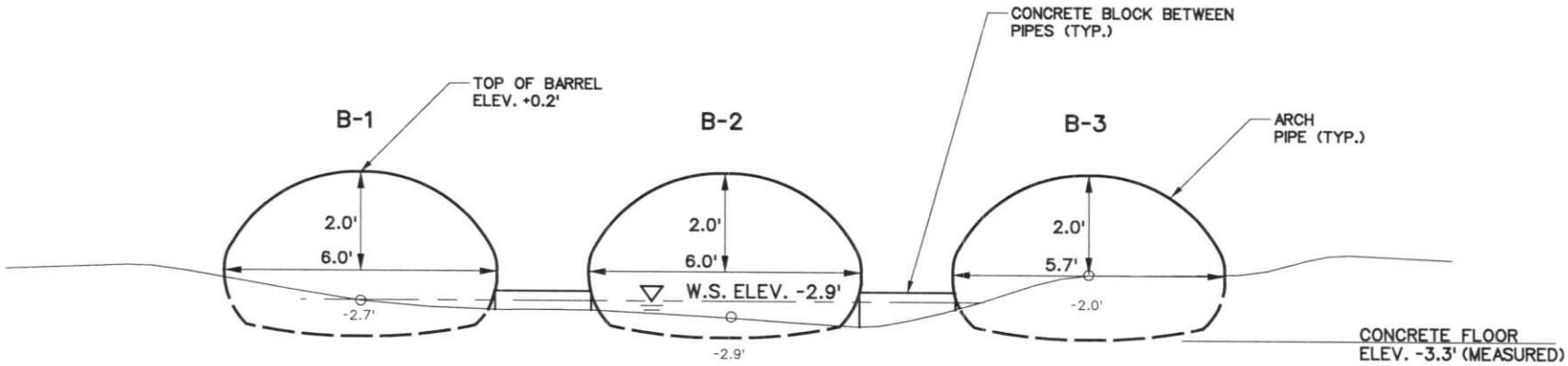
CONNECTICUT DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 06755
ROUTE 162 OVER TURTLE CREEK

MILFORD CONNECTICUT

UPSTREAM PROFILE (NORTH ELEVATION)

INSPECTED BY: JSD REVISED BY: JGI	SCALE: AS SHOWN	DATE OF INSPECTION 10 / 14 / 10	DRAWING NO. 06755C



NOTES:

1. MEASUREMENTS INSIDE BARRELS TAKEN FROM TOP OF BARREL TO MUDLINE.

DOWNSTREAM PROFILE (SOUTH ELEVATION)

N.T.S.

LEGEND FOR BOTTOM ELEVATIONS

OCT, 2010 → -0.0'

LEGEND FOR MUDLINE ELEVATIONS

OCT, 2010

LEGEND FOR SYMBOLS

⊕ DATUM ELEV. 0.0' TAKEN FROM TOP OF BARREL 2 AT SOUTH END.

▽ W.S. ELEV. -2.6'

* INDICATES NO INFORMATION

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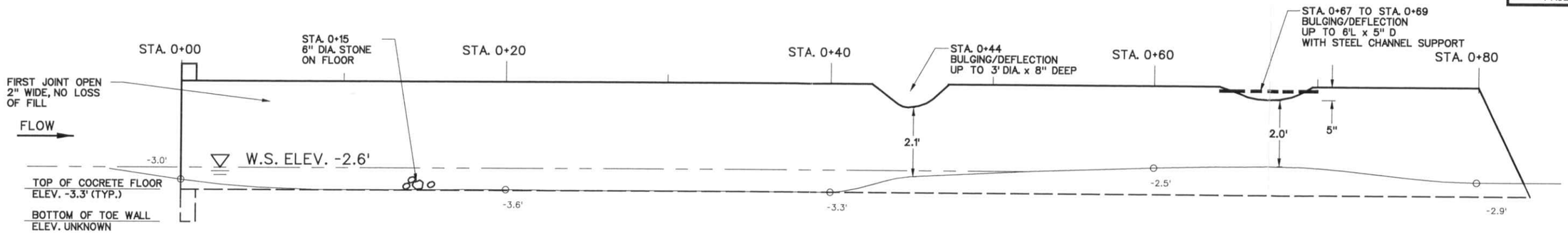
CONNECTICUT DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 06755
ROUTE 162 OVER TURTLE CREEK

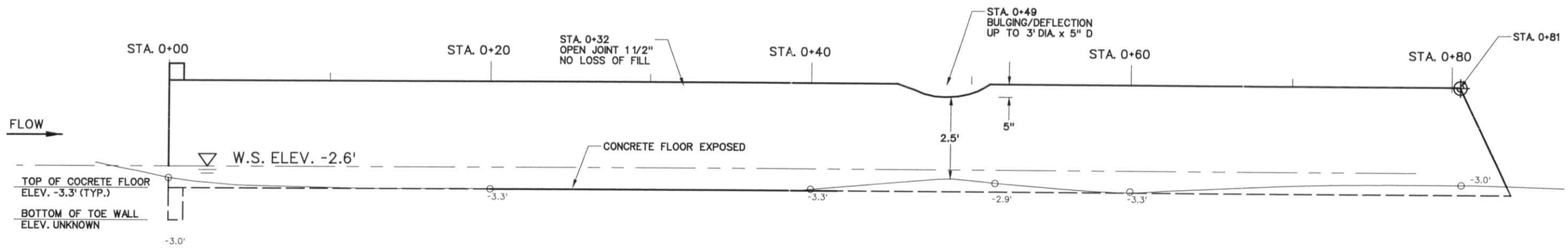
MILFORD CONNECTICUT

DOWNSTREAM PROFILE (SOUTH ELEVATION)

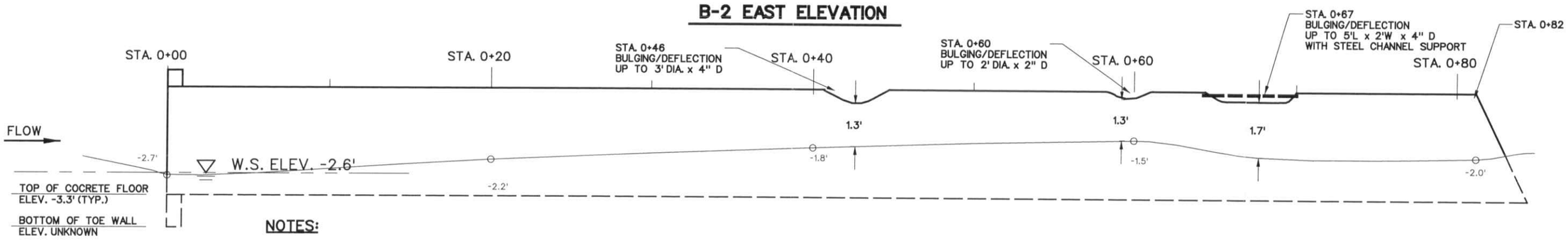
INSPECTED BY: JSD REVISED BY: JGI	SCALE: AS SHOWN	DATE OF INSPECTION 10 / 14 / 10	DRAWING NO. 06755D



B-1 EAST ELEVATION



B-2 EAST ELEVATION



B-3 EAST ELEVATION

CULVERTS ELEVATIONS

N.T.S.

NOTES:

1. MEASUREMENTS INSIDE BARRELS TAKEN FROM TOP OF BARREL TO MUDLINE.

LEGEND FOR BOTTOM ELEVATIONS

OCT, 2010 -0.0'

LEGEND FOR MUDLINE ELEVATIONS

OCT, 2010

LEGEND FOR SYMBOLS

DATUM ELEV. 0.0' TAKEN FROM TOP OF BARREL 2 AT SOUTH END.

W.S. ELEV. -2.6'

* INDICATES NO INFORMATION

McLaren ENGINEERING GROUP
E-mail: mgmclaren@mgmclaren.com
100 Snake Hill Road, West Nyack, NY 10994
Tel. (845) 353-6400 Fax. (845) 353-6509

CONNECTICUT DEPARTMENT OF TRANSPORTATION

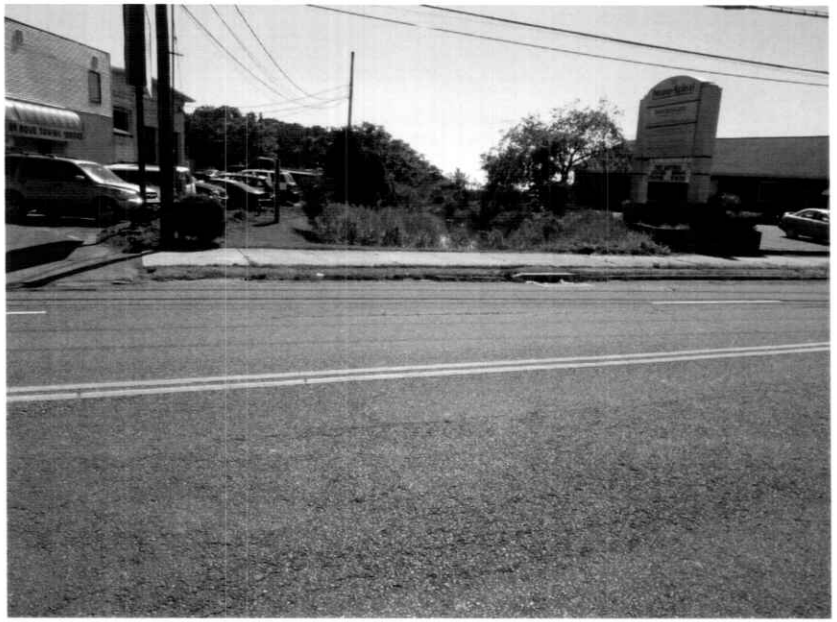
BRIDGE NO. 06755
ROUTE 162 OVER TURTLE CREEK

MILFORD CONNECTICUT

CULVERTS ELEVATIONS

INSPECTED BY: JSD REVISED BY: JGI	SCALE: AS SHOWN	DATE OF INSPECTION 10 / 14 / 10	DRAWING NO. 06755E

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

06755	
Photo # 1: Bridge Identification Number.	**Photo # 2: Deck overlay.**

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

Photo # 3: West Approach.

Photo # 4: East Approach.

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

Photo # 5: Downstream (South) Elevation.

Photo # 6: Upstream (North) Elevation.

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

Photo # 7: Downstream (South) Channel.

Photo # 8: Upstream (North) Channel.

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

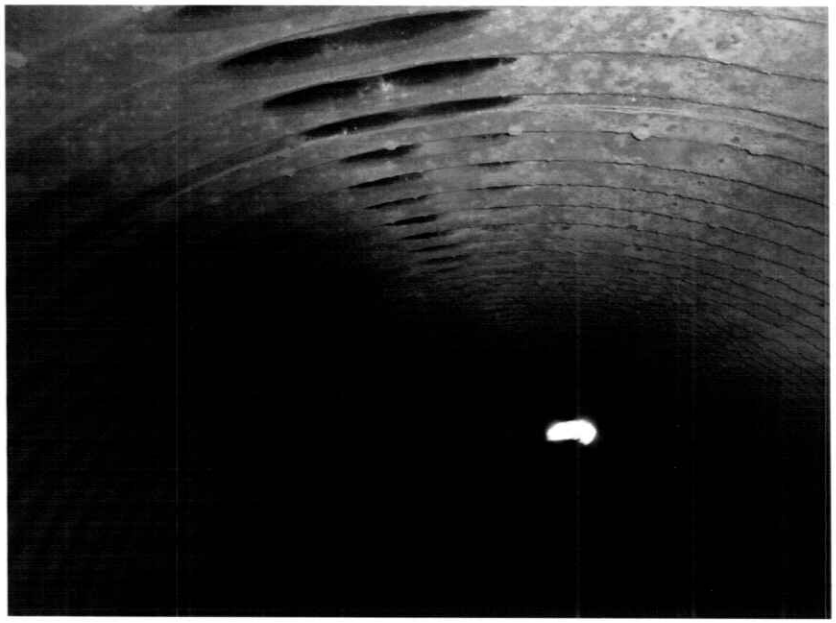


Photo # 9: Barrel 1, looking south.

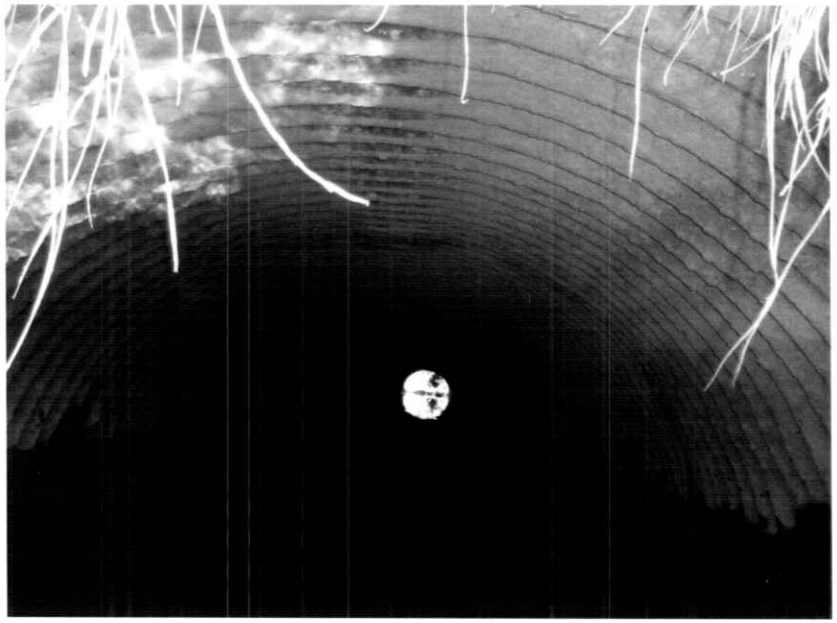


Photo # 10: Barrel 2, looking north.

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

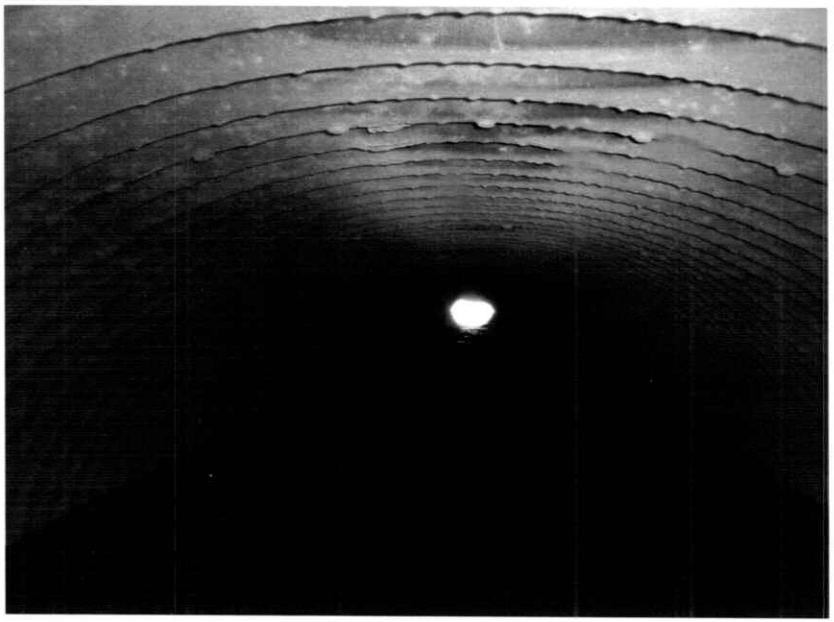


Photo # 11: Barrel 3, looking south.

Photo # 12: Northwest guide rail, general view.

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

Photo # 13: Northwest guide rail, end treatment.

Photo # 14: Northeast guide rail, end treatment.

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

Photo # 15: General view of the South Sidewalk.

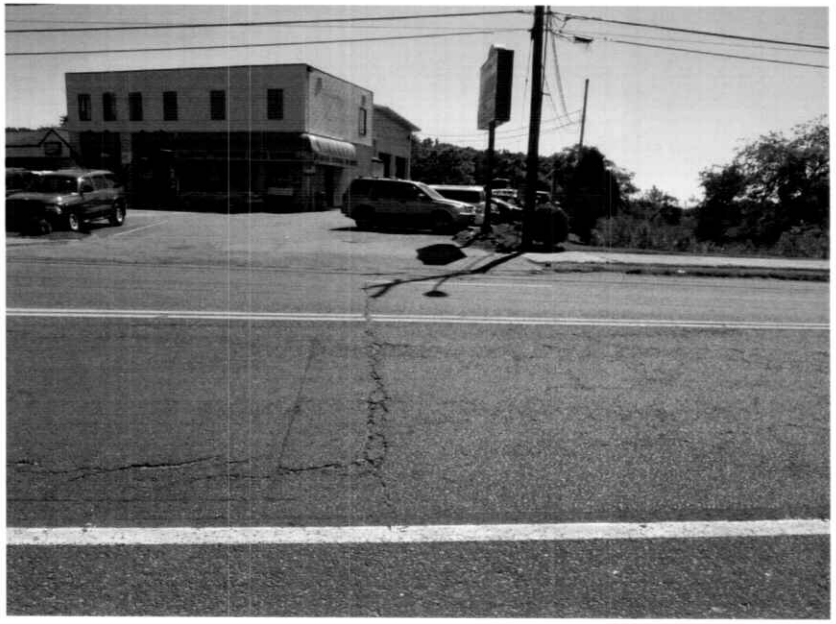


Photo # 16: Up to ½" wide transverse at the East Approach. West Approach and Eastbound lane exhibit transverse and longitudinal cracks up to ½" wide.

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

Photo # 17: Damaged/missing concrete curb on the south side of the road.

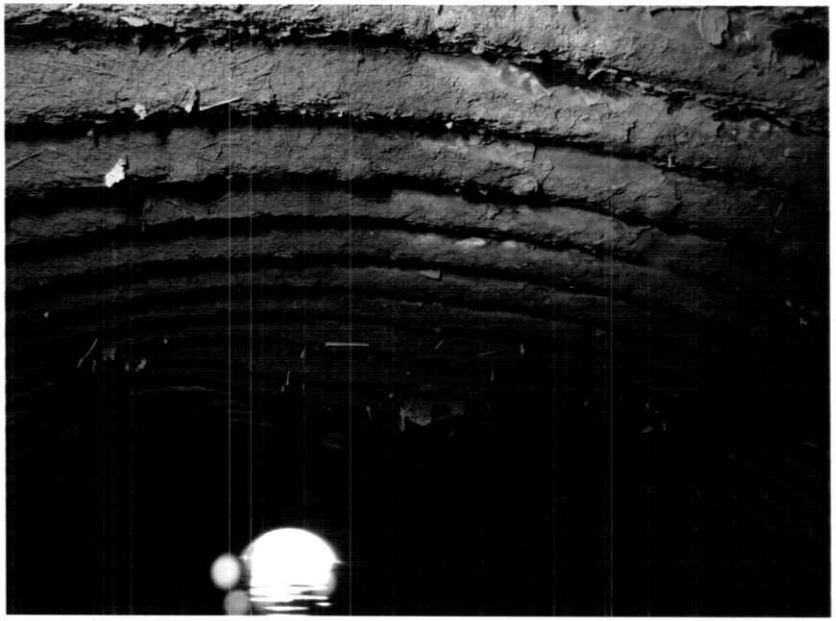


Photo # 18: Barrel 2 exhibits bulging at Sta. 0+49, 5" deep.

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

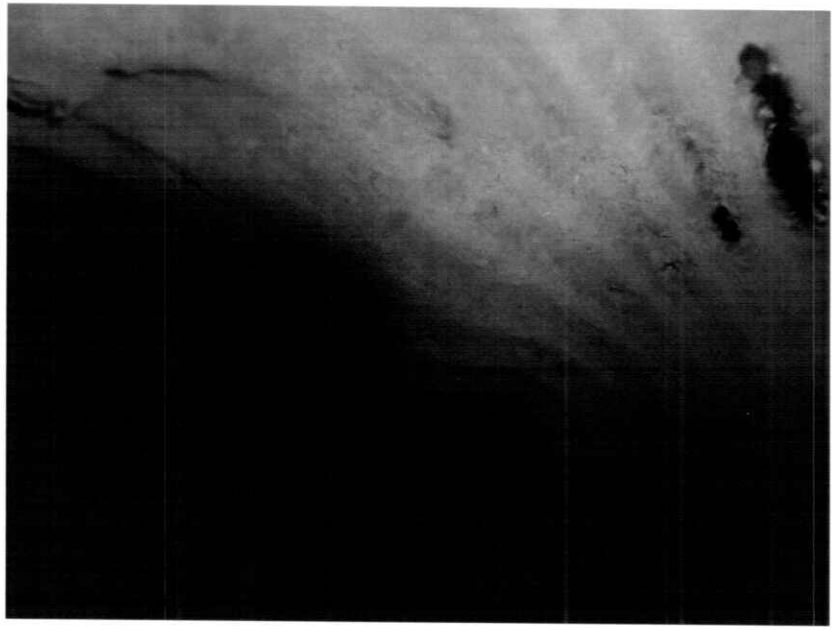


Photo # 19: Barrel 3 has an open joint 2" wide.

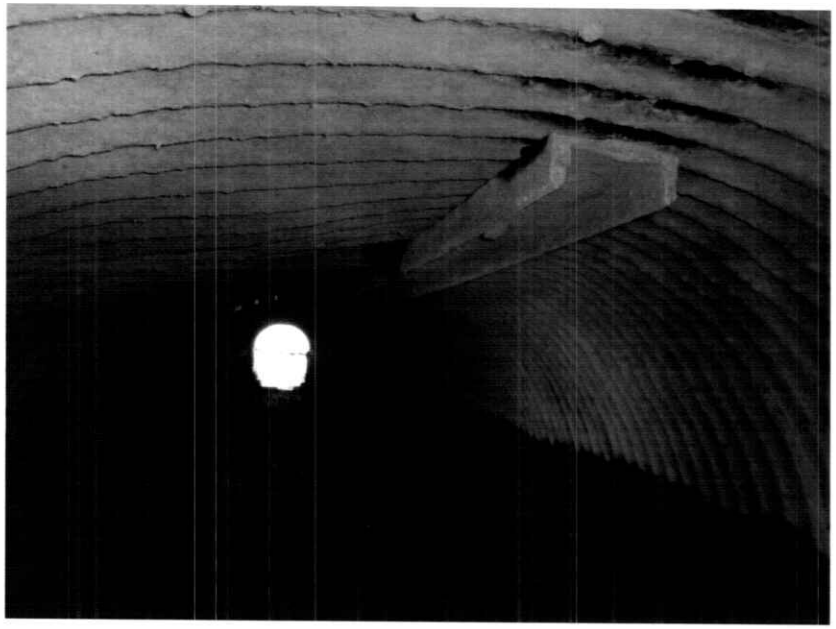


Photo # 20: Barrel 3 exhibits bulging at Sta. 0+67, up to 4" deep. Note the channel support.

Bridge No.	06755	**Inspected by:**	John St. Denis
Town:	Milford	**Inspected by:**	Chris Goss
Feature Carried:	Route 162	**Date Inspected:**	10/14/10
Feature Crossed:	Turtle Creek	**Project No.:**	170-2868

Photo # 21: Barrel 1 exhibits bulging at Sta. 0+67 up to 5" deep. Note the channel support.

Photo # 22: Barrel 2 floor at Upstream.

M.G. McLAREN P.C.

BRIDGE # 06755

ADDITIONAL FIELD NOTES

(BACK-UP MATERIAL)

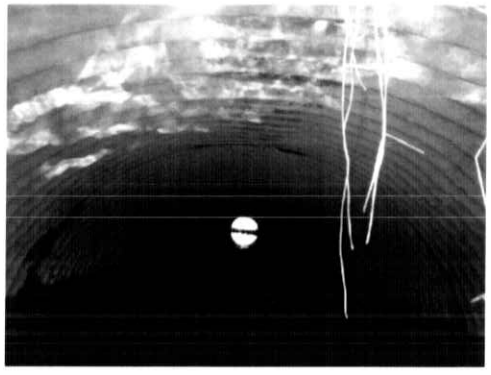
DATE: 08/30/10

1 – Bridge Identification Number (posted on both sides of roadway)

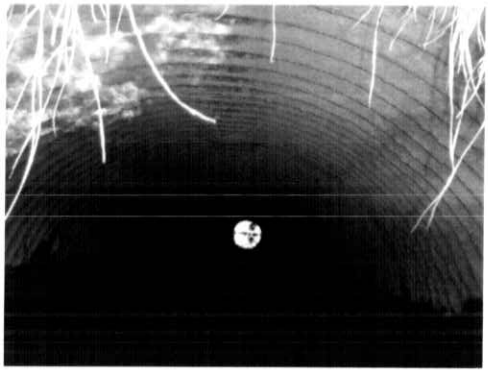
2 – Upstream (North) Elevation

3 – Upstream (North) Channel

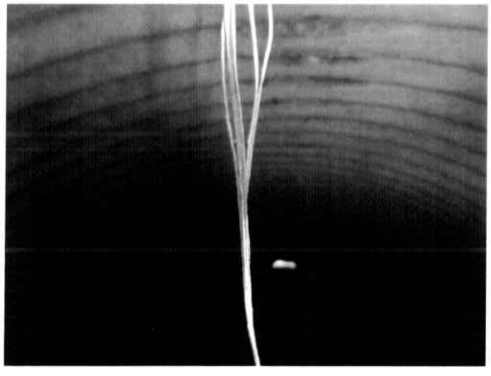
4 – Downstream (South) Channel



5 – B-1, looking north through barrel

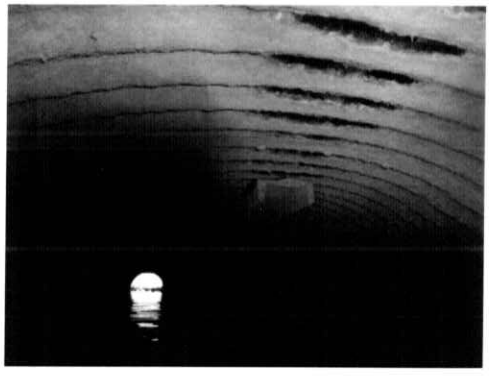


6 – B-2, looking north through barrel

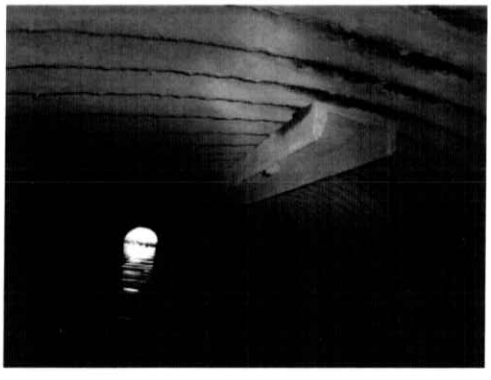


7 – B-3, looking north through barrel

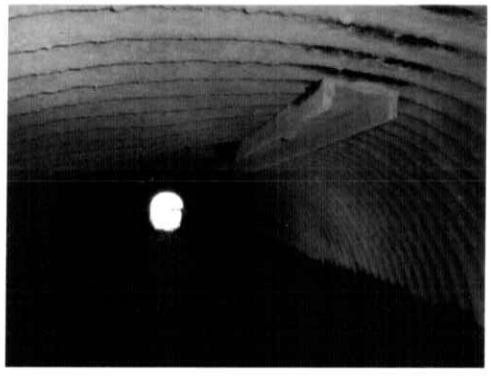
8 – Downstream (South) Elevation



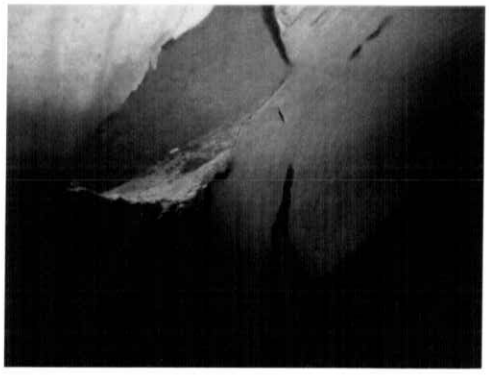
9 – B-1, displacement at Sta. 0+69



10 – B-1, displacement at Sta. 0+69

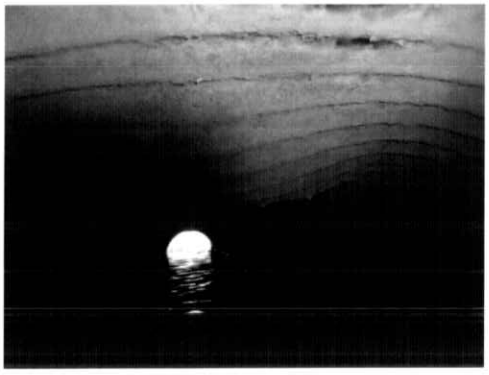


11 – B-1, displacement at Sta. 0+69

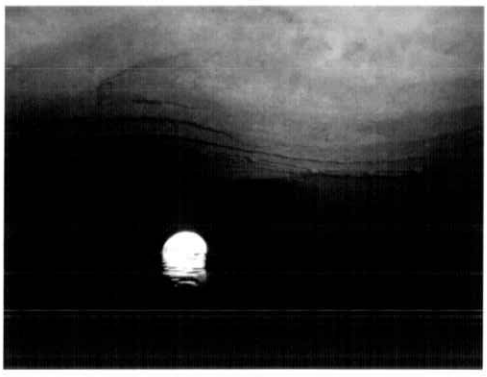


12 – B-1 Drain

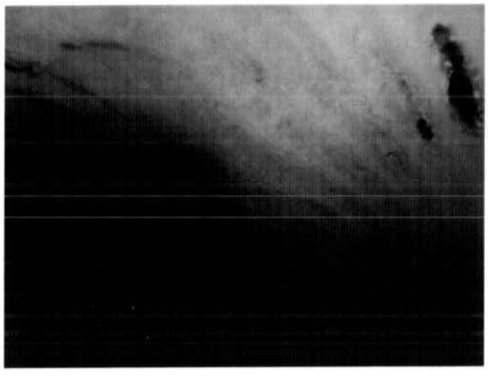
13 – B-1 Drain



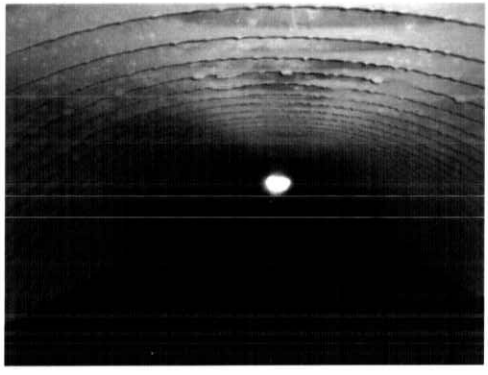
14 – B-1, Sta. 0+45 displacement



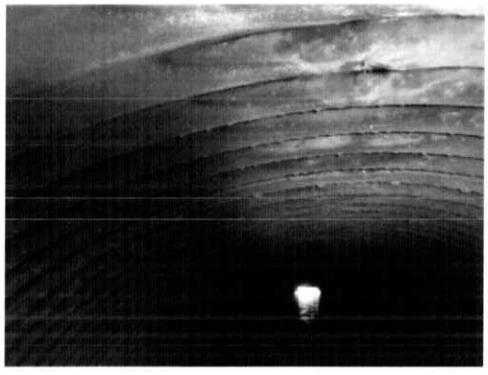
15 – B-1, Sta. 0+45 displacement



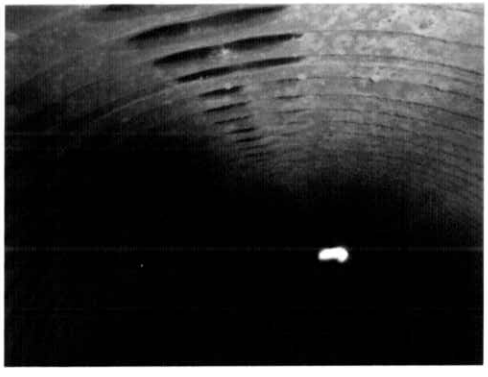
16 – B-1, open joint 2" W



17 – B-1, looking south through barrel

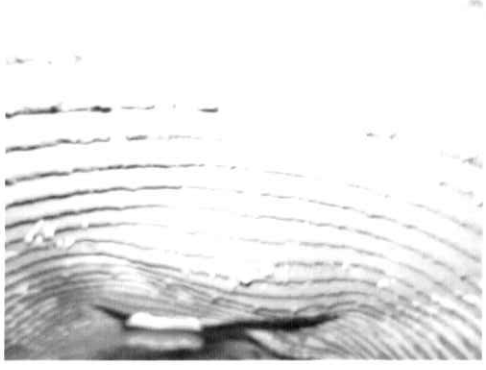


18 – B-2, looking south through barrel

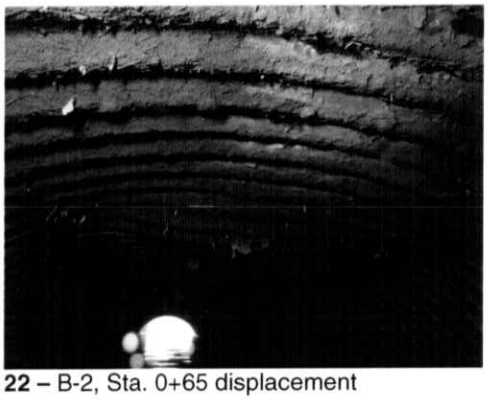


19 – B-3, looking south through barrel

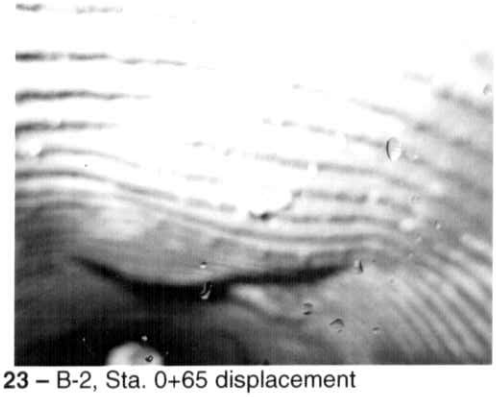
20 –



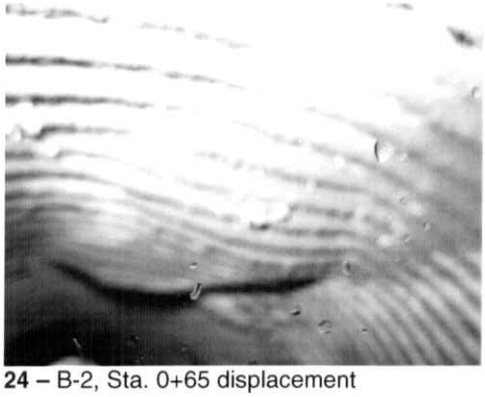
21 – B-2, Sta. 0+65 displacement



22 – B-2, Sta. 0+65 displacement



23 – B-2, Sta. 0+65 displacement



24 – B-2, Sta. 0+65 displacement

25 – NE Guiderail, end treatment

26 – NE Guiderail, end treatment

27 – Up to ½"W transverse cracks in wearing surface of East Approach roadway

28 – General view of roadway above culvert (looking south)

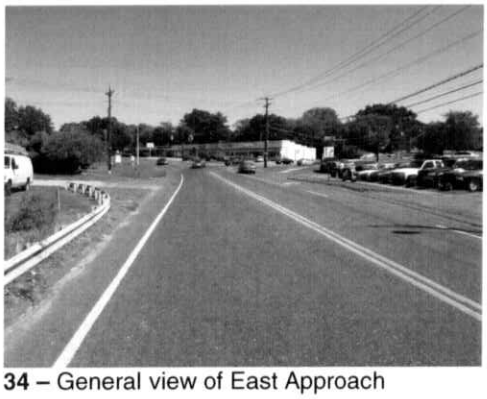
29 – NW Guiderail, general view

30 – NW Guiderail, general view

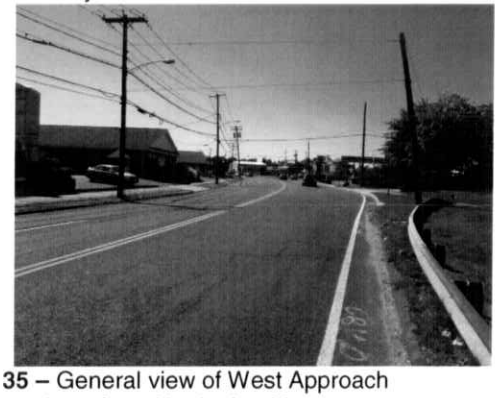
31 – NW Guiderail, end treatment

32 – Transverse view of West Approach roadway

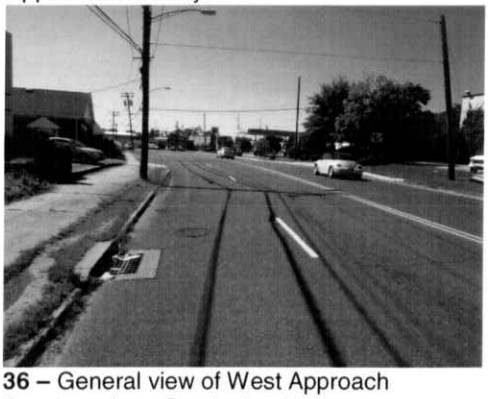
33 – Repaired area of W/B lane of West Approach roadway



34 – General view of East Approach roadway



35 – General view of West Approach roadway from North shoulder



36 – General view of West Approach Roadway from South shoulder

37 – General view of south sidewalk

38 – General view of south sidewalk

39 – Roadway above culvert (looking east from south sidewalk)

40 – Transverse view of roadway over culvert (looking north)

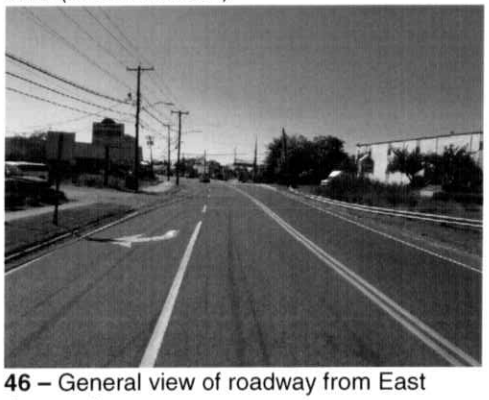
41 – South sidewalk (looking west from West Approach)

42 – ½" W transverse crack in West Approach roadway

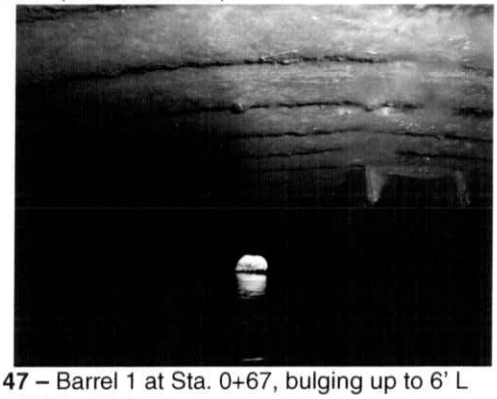
43 – 15' section of broken/missing concrete curb (south shoulder)

44 – 15' section of broken/missing concrete curb (south shoulder)

45 – ¼"- ½"W longitudinal cracks in eastbound lane



46 – General view of roadway from East Approach



47 – Barrel 1 at Sta. 0+67, bulging up to 6' L x 2' W x 5" deep

48 – Barrel 2, downstream

49 – Barrel 1, downstream

50 – Barrel 3, downstream

51 – Downstream elevation

52 – Upstream elevation

53 – Barrel 1, upstream

54 – Barrel 2, upstream

55 – Barrel 3, upstream

56 – Barrel 3, upstream

57 – Barrel 3, looking from upstream

58 – Barrel 2, concrete floor

McLaren ENGINEERING GROUP

BIN 06755

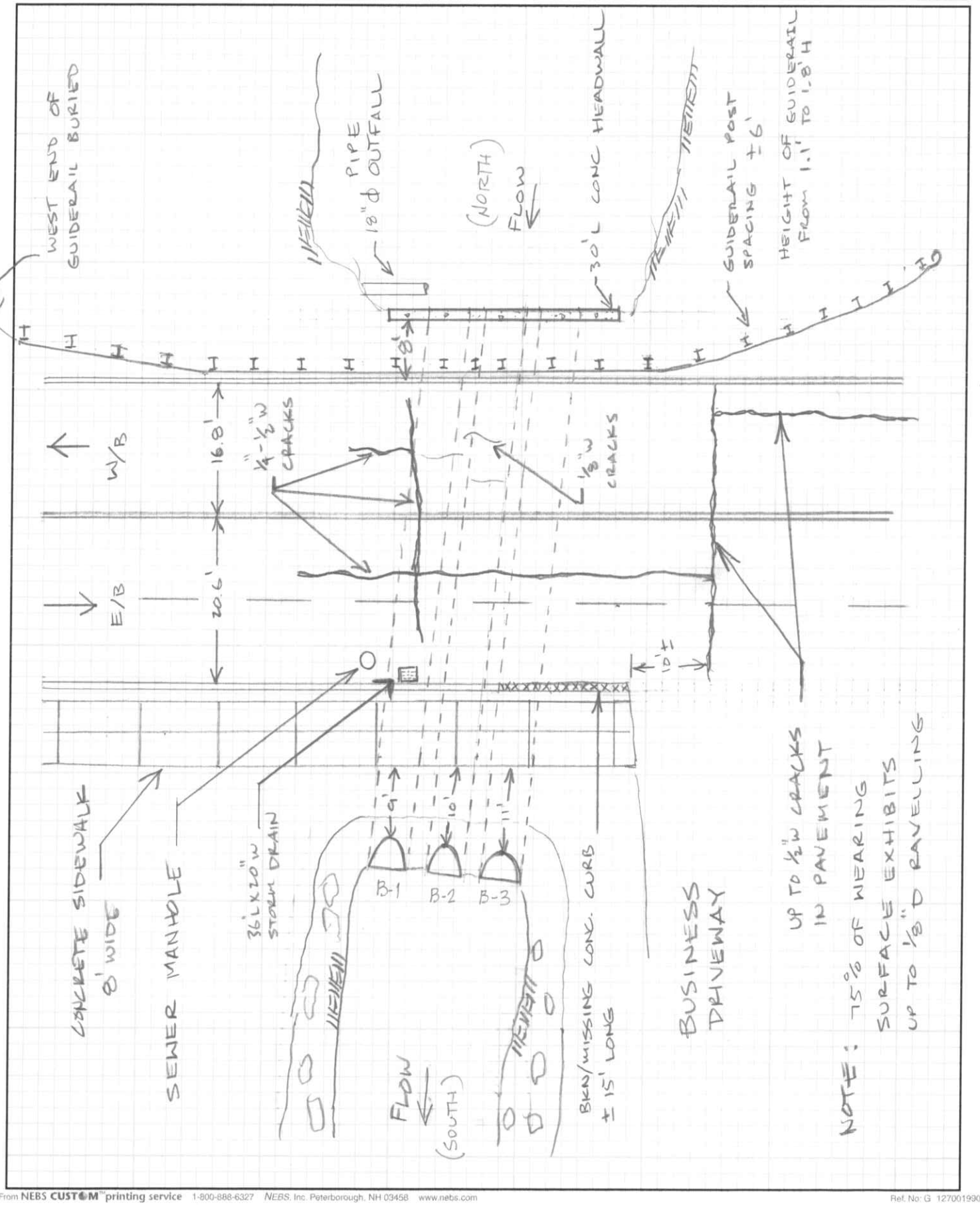
PROJECT: CDOT BRIDGES

PROJECT NO.: 1 SCALE: N.T.S.

CALCULATED BY: LGS/JSD DATE: 8/30/10

CHECKED BY: DATE:

SUBJECT: RTE 162/ TURTLE CREEK SHEET NO. OF REVISIONS



Reorder From NEBS CUSTOM printing service 1-800-888-6327 NEBS, Inc. Peterborough, NH 03458 www.nebs.com Ref. No: G 127001990

McLaren ENGINEERING GROUP

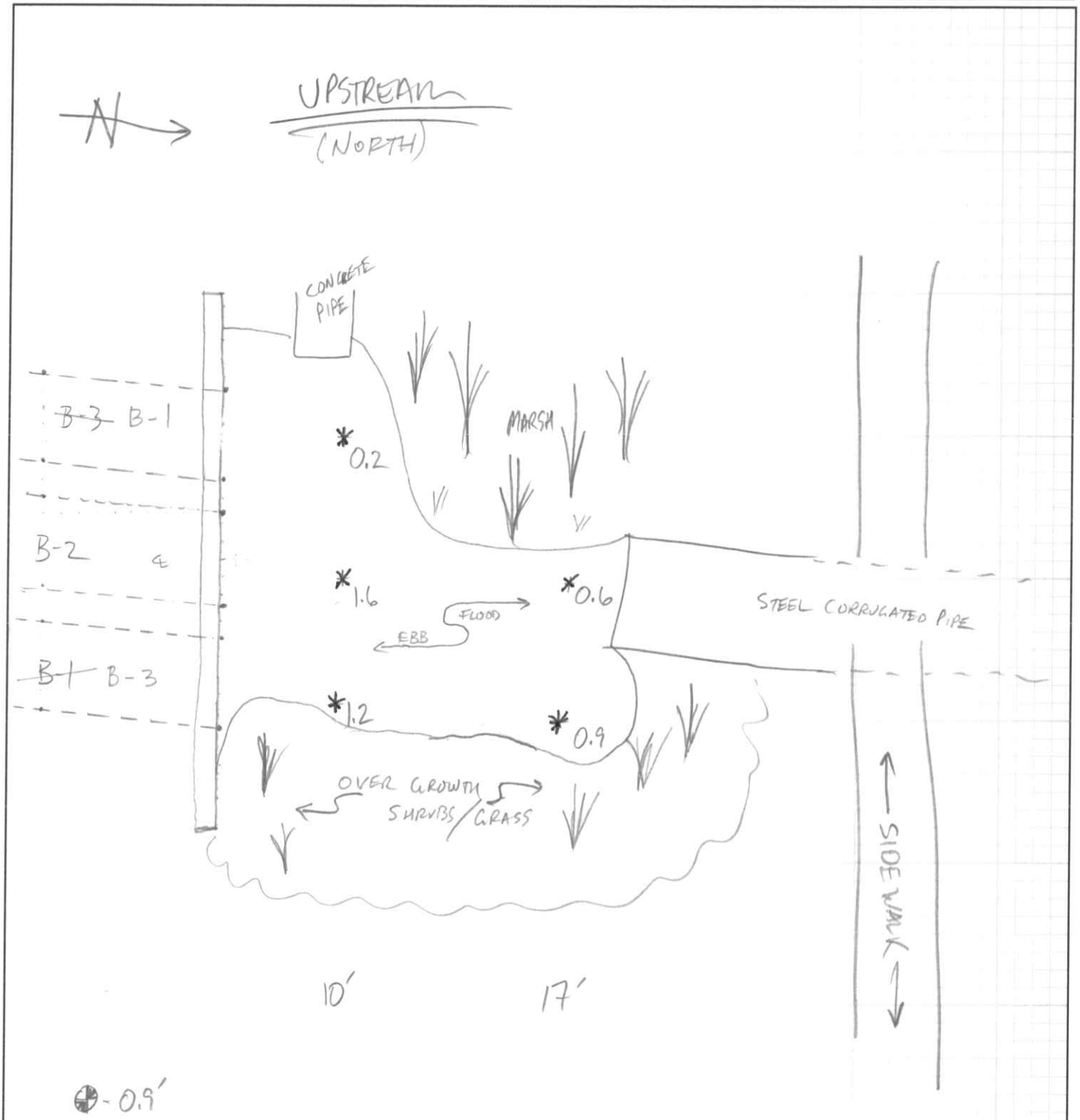
PROJECT CDOT

PROJECT NO. 108476 SCALE

CALCULATED BY DIVER JSD DATE 8/30/10

CHECKED BY NOTES SM DATE

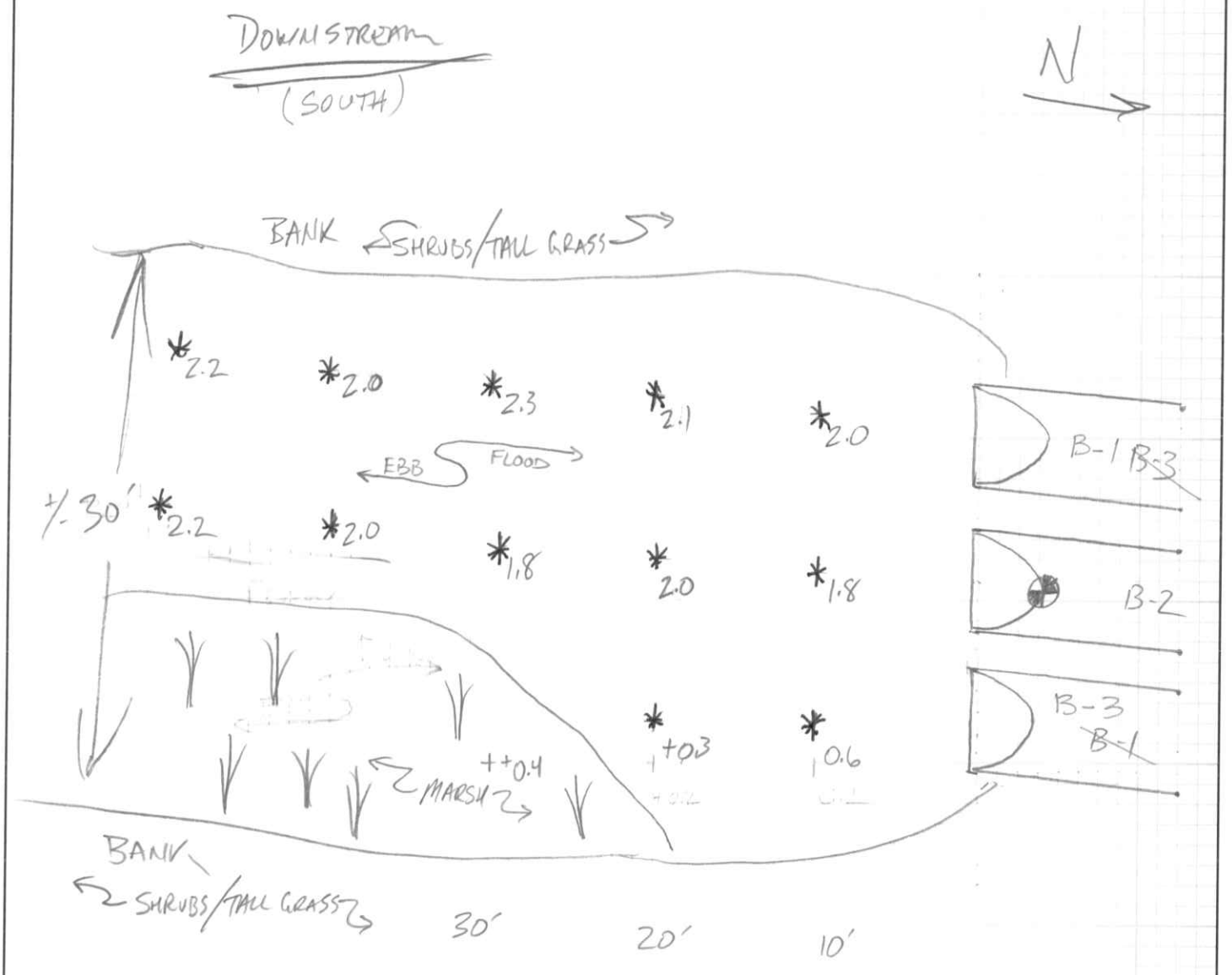
SUBJECT BIN 06755 SHEET NO. 2 OF 6 REVISIONS



Reorder From NEBS CUSTOM printing service 1-800-888-6327 NEBS, Inc. Peterborough, NH 03458 www.nebs.com Ref. No. G 127001990

McLaren ENGINEERING GROUP

PROJECT CDOT
PROJECT NO. 108476 SCALE
CALCULATED BY DIVER JSD DATE 8/30/10
CHECKED BY NOTES SM DATE
SUBJECT BIN 06755 SHEET NO. 3 OF 6 REVISIONS



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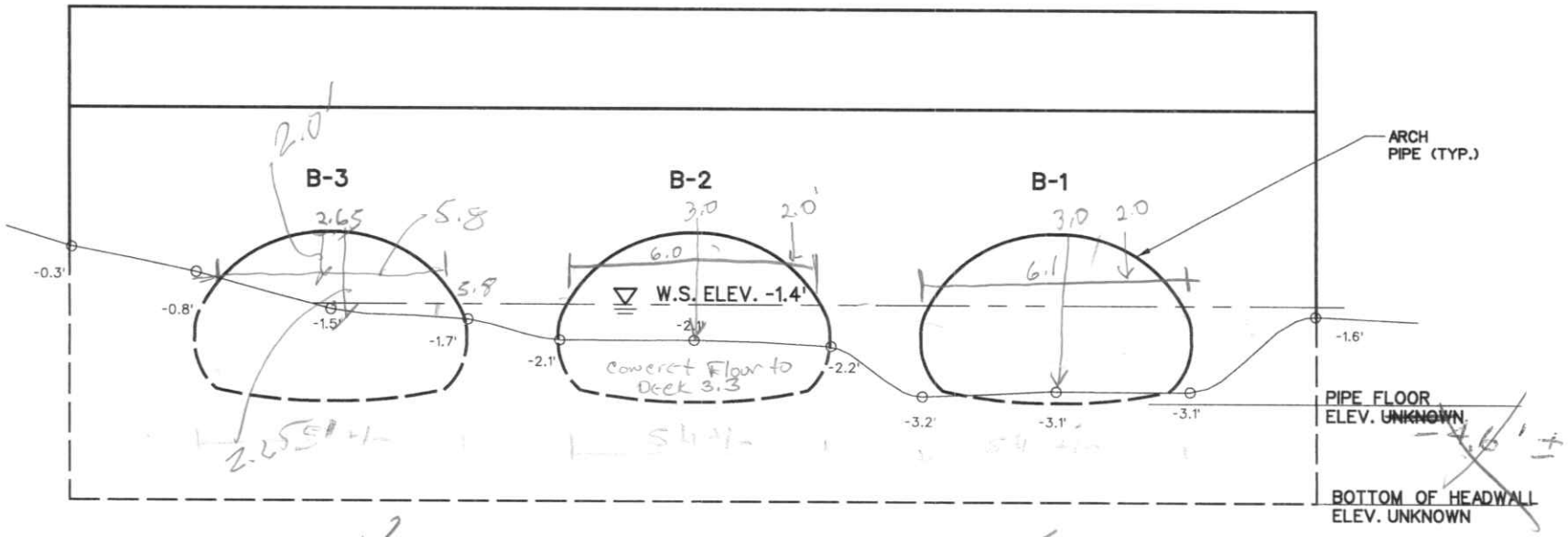


SEE ATTACHED SHEET. SK1

UPSTREAM PROFILE (NORTH ELEVATION)

N.T.S.

NOTES:

1. MEASUREMENTS TAKEN APPROX. 1' FROM FACE OF CULVERT.

LEGEND FOR BOTTOM ELEVATIONS

AUG, 2010 → -0.0'

LEGEND FOR MUDLINE ELEVATIONS

AUG, 2010

SEE BACK FOR DOWN STREAM

LEGEND FOR SYMBOLS

⊕ DATUM ELEV. 0.0' TAKEN FROM TOP OF BARREL 2 AT SOUTH END.

▽ W.S. ELEV. -1.4'

* INDICATES NO INFORMATION

McLaren ENGINEERING GROUP
E-mail: mgmclaren@mgmclaren.com
100 Snake Hill Road, West Nyack, NY 10994
Tel. (845) 353-6400 Fax. (845) 353-6509

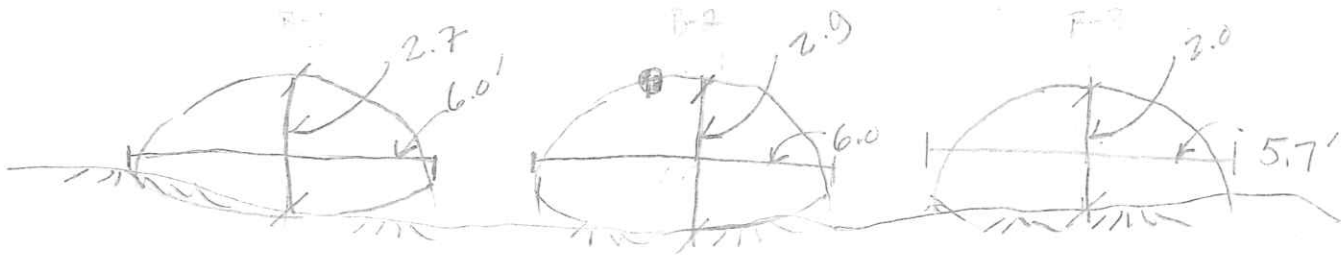
CONNECTICUT DEPARTMENT OF TRANSPORTATION

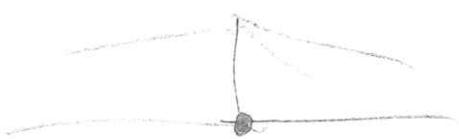
BRIDGE NO. 06755
ROUTE 162 OVER TURTLE CREEK
MILFORD CONNECTICUT

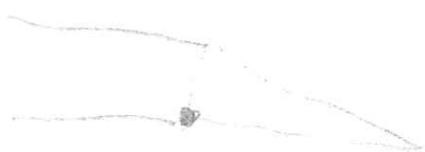
UPSTREAM PROFILE (NORTH ELEVATION)

INSPECTED BY: JSD REVISED BY: JGI	SCALE: AS SHOWN	DATE OF INSPECTION 08 / 30 / 10	DRAWING NO. 06755C

Downstream End







Datum

- - 2.6

McLaren ENGINEERING GROUP

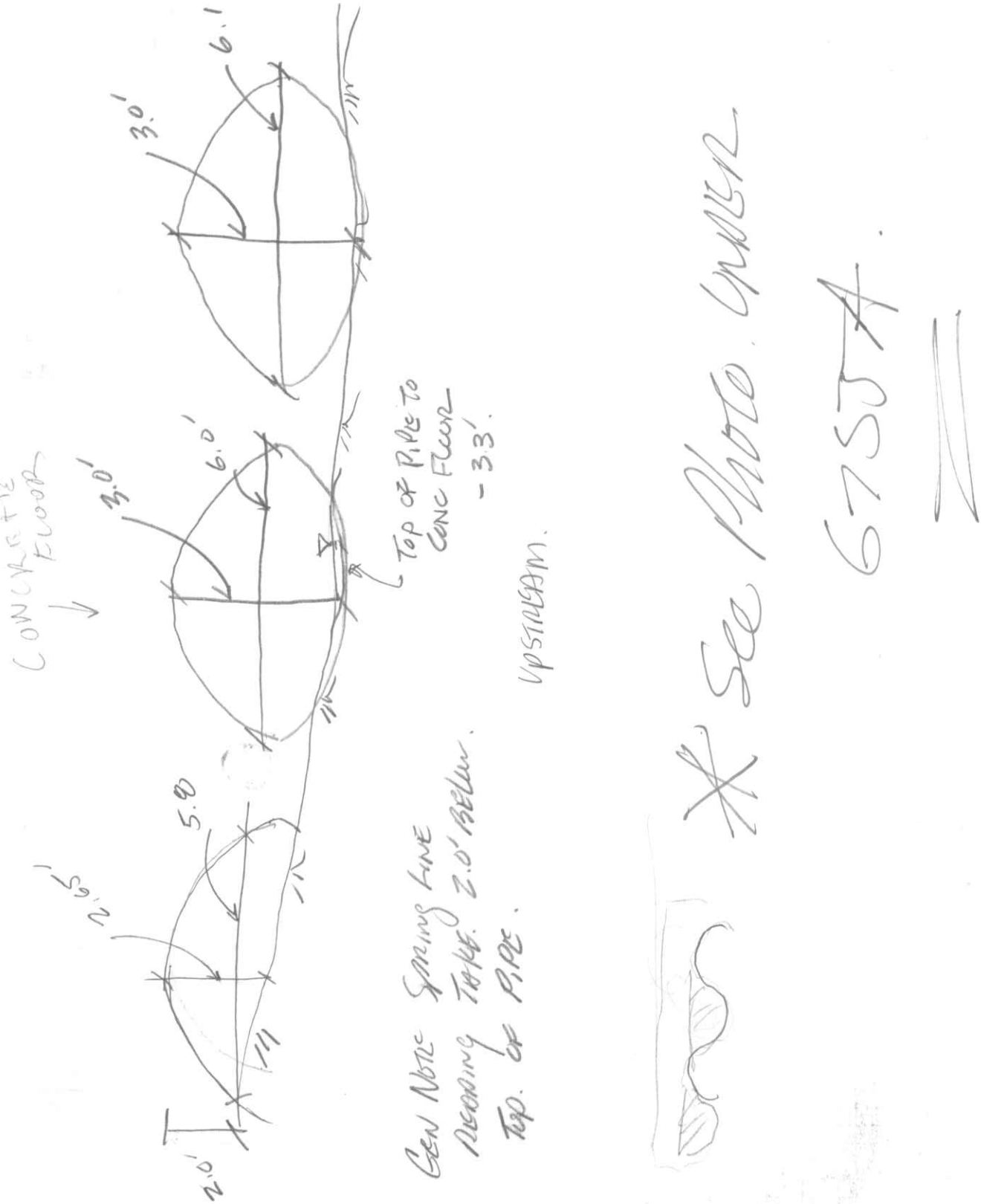
PROJECT 6755

PROJECT NO. _____ SCALE _____

CALCULATED BY JSD DATE 10/14/10

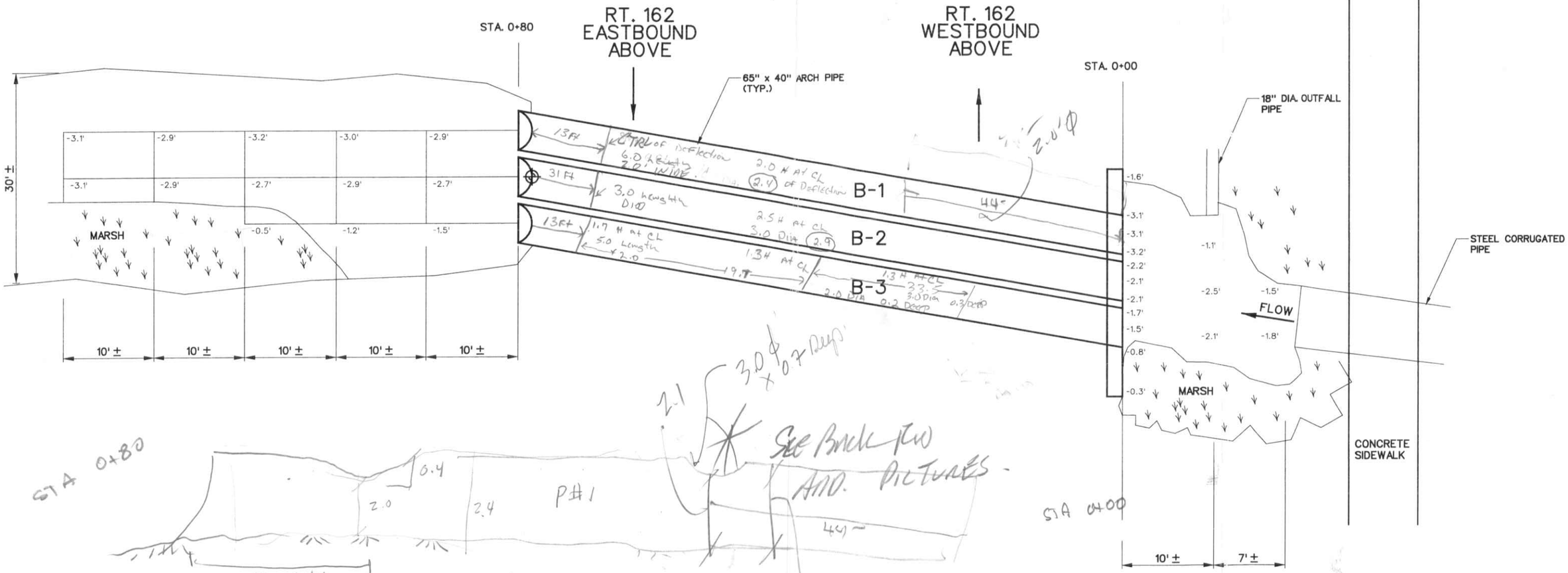
CHECKED BY _____ DATE _____

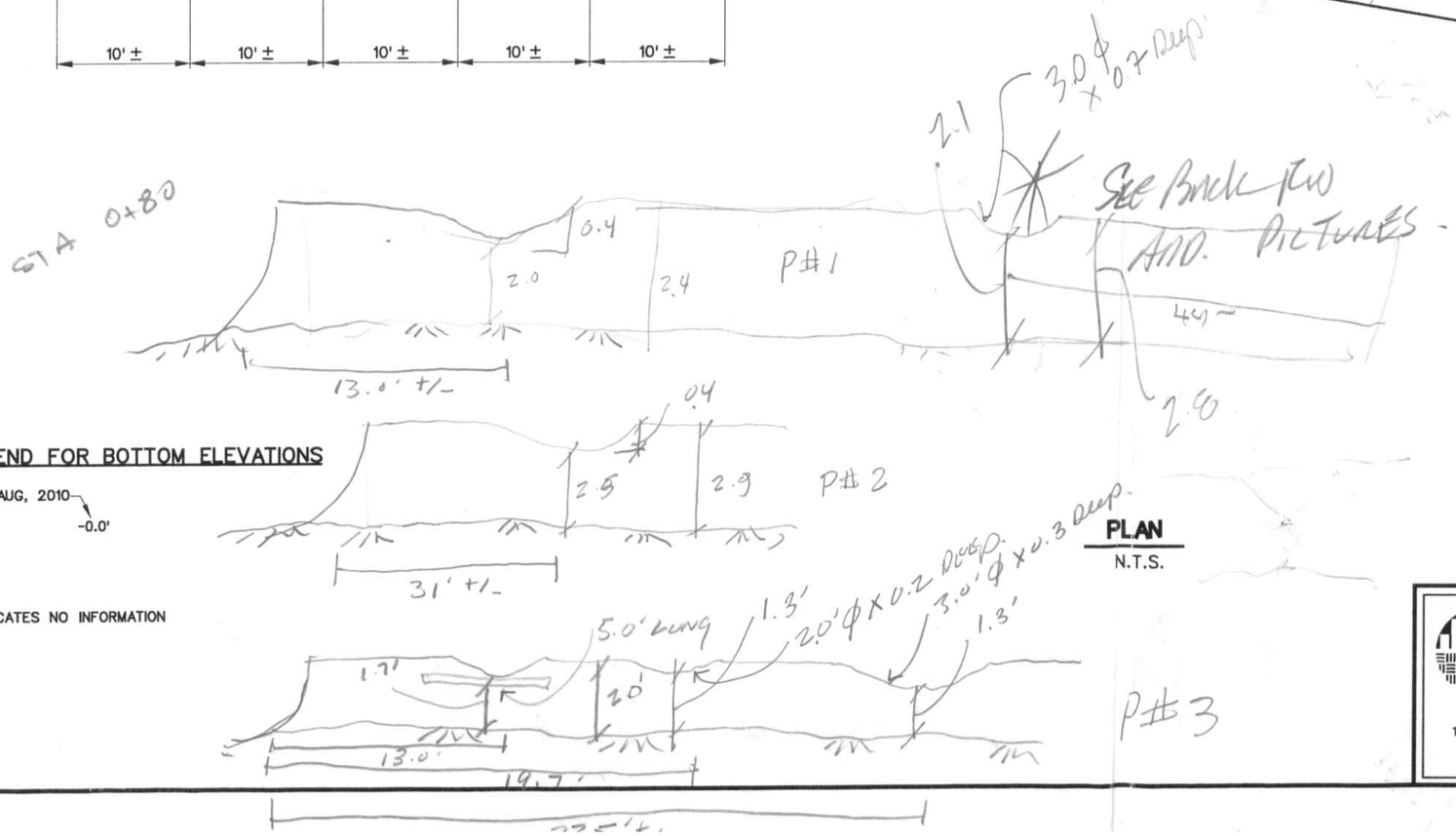
SUBJECT _____ SHEET NO. _____ OF _____ REVISIONS SK 1



Reorder From NEBS CUSTOM printing service 1-800-888-6327 NEBS, Inc. Peterborough, NH 03458 www.nebs.com Ref. No: G 127001990

Stations	0+20	0+40	0+60
B1	3.3'	3.3'	2.5'
B2	3.'	3.3'	2.9'
B3	2.2'	1.8'	1.5'





LEGEND FOR BOTTOM ELEVATIONS

AUG, 2010 — -0.0'

▪ INDICATES NO INFORMATION

LEGEND FOR SYMBOLS

2.6 ⊕ DATUM ELEV. 0.0' TAKEN FROM TOP OF BARREL 2 AT SOUTH END.

▽ W.S. ELEV. -1.4'

PLAN
N.T.S.

McLaren ENGINEERING GROUP
E-mail: mgmclaren@mgmclaren.com
100 Snake Hill Road, West Nyack, NY 10994
Tel. (845) 353-6400 Fax. (845) 353-6509

CONNECTICUT DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 06755
ROUTE 162 OVER TURTLE CREEK
MILFORD — CONNECTICUT

PLAN

INSPECTED BY: JSD REVISED BY: JGI	SCALE: AS SHOWN	DATE OF INSPECTION 08 / 30 / 10	DRAWING NO. 06755B

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 06755 | Agency ID: 06755 | Sufficiency Rating: 23.9

IDENTIFICATION

State 1: 09 Connecticut | Struc Num 8: 06755
Facility Carried 7: Route 162 | Location 9: 0.7 MI E OF ROUTE 739
Rte.(On/Under)5A: Route On Structure | Rte. Signing Prefix 5B: 3 State Hwy
Level of Service 5C: 1 Mainline | Rte. Number 5D: 162
Directional Suffix 5E: 0 N/A (NBI) | % Responsibility : Unknown
SHD District 2: 03 | County Code 3: Fairfield
Place Code 4: MILFORD | Mile Post 11: 2.660 mi
Feature Intersected 6: Turtle Creek
Latitude 16: Missing | Longitude 17: Missing
Border Bridge Code 98: _
Border Bridge Number 99: Unknown

INSPECTION

Frequency 91: 24 months | Inspection Date 90: 10/14/2010 | Next Inspection: 10/14/2012
FC Frequency 92A: NA | FC Inspection Date 93A: NA | Next FC Inspection: NA
UW Frequency 92B: 24 months | UW Inspection Date 93B: 10/14/2010 | Next UW Inspection: 10/14/2012
SI Frequency 92C: NA | SI Date 93C: NA | Next SI: NA
Element Frequency: 24 months | Element Inspection Date: 10/14/2010 | Next Elem. Insp. Due: 10/14/2012

CLASSIFICATION

Defense Highway 100: 0 Not a STRAHNET hwy | Parallel Structure 101: No || bridge exists
Direction of Traffic 102: 2 2-way traffic | Temporary Structure 103: Not Applicable (P)
Highway System 104: 0 Not on NHS | NBIS Length 112: Long Enough
Toll Facility 20: 3 On free road | Functional Class 26: 16 Urban Minor Arterial
Historical Significance 37: 5 Not eligible for NRHP
Owner 22: 01 State Highway Agency
Custodian 21: 01 State Highway Agency

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46: 0 | Number of Spans Main Unit 45: 1
Main Span Material/Design 43A/B:
3 Steel | 19 Culvert
Deck Type 107: N N/A (NBI)
Wearing Surface 108A: N N/A (no deck (NBI))
Membrane 108B: N N/A (no deck (NBI))
Deck Protection 108C: None

CONDITION

Deck 58: N N/A (NBI) | Super 59: N N/A (NBI) | Sub 60: N N/A (NBI)
Culvert 62: 3 Excessive Damage | Channel/Channel Protection 61: 4 Protection Undermined

LOAD RATING AND POSTING

Inventory Rating Method 65: 5 No rating | Operating Rating Method 63: 5 No rating
Inventory Rating 66: HS18.9 | Operating Rating 64: HS32.2
Design Load 31: 5 MS 18 (HS 20) | Posting 70: 5 At/Above Legal Loads
Posting status 41: A Open, no restriction

AGE AND SERVICE

Year Built 27: 1971 | Year Reconstructed 106: 0
Type of Service on 42A: 5 Highway-pedestrian
Type of Service under 42B: 5 Waterway
Lanes on 28A: 3 | Lanes Under 28B: 0 | Detour Length 19: 2.0 mi
ADT 29: 20,900 | Truck ADT 109: Unknown | Year of ADT 30: 2009

APPRAISAL

Bridge Rail 36A: N N/A or not required | Approach Rail 36C: N N/A or not required
Transition 36B: N N/A or not required | Approach Rail Ends 36D: N N/A or not required
Str. Evaluation 67: 3 | Deck Geometry 68: 2 Intolerable - Replace
Underclearance, Vertical and Horizontal 69: N Not applicable (NBI)
Waterway Adequacy 71: 7 Above Minimum | Approach Alignment 72: 8 Equal Desirable Crit
Scour Critical 113: 8 Stable Above Footing

GEOMETRIC DATA

Length Max Span 48: 6.2 ft | Structure Length 49: 23.0 ft
Curb/Sdwlk Wdth L 50A: 0.0 ft | Curb/Sidewalk Width R 50B: 10.0 ft
Width Curb to Curb 51: 37.4 ft | Width Out to Out 52: 55.4 ft
Approach Roadway Width 32: (w/ shoulders) 37.4 ft | Median 33: 0 No median
Deck Area: 1,774. sq. ft
Skew 34: 30.00 ° | Structure Flared 35: 0 No flare
Minimum Vertical Clearance Over Bridge 53: 99.9 ft
Minimum Vertical Underclearance Reference 54A: N Feature not hwy or RR
Minimum Vertical Underclearance 54B: 0.0 ft
Minimum Lateral Underclearance Reference R 55A: N Feature not hwy or RR
Minimum Lateral Undrclearance R 55: 327.8 ft
Minimum Lateral Undrclearance L 56: 0.0 ft

PROPOSED IMPROVEMENTS

Bridge Cost 94: Unknown | Type of Work 75: _
Roadway Cost 95: Unknown | Length of Improvment 76:
Total Cost 96: Unknown | Future ADT 114: -1
Year of Cost Estimate 97: Unknown | Year of Future ADT 115: Uknown

NAVIGATION DATA

Navigation Control 38: _ Unknown (NBI)
Vertical Clearance 39: | Horizontal Clearance 40:
Pier Protection 111: Not Applicable (P) | Lift Bridge Vertical Clearance 116:

ELEMENT CONDITION STATE DATA

Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
ucture Un	240/3	Steel Culvert	(LF)	240	0 %	0	0 %	0	0 %	0	100 %	240	0 %	0
ucture Un	360/3	Settlement SmFlag	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0