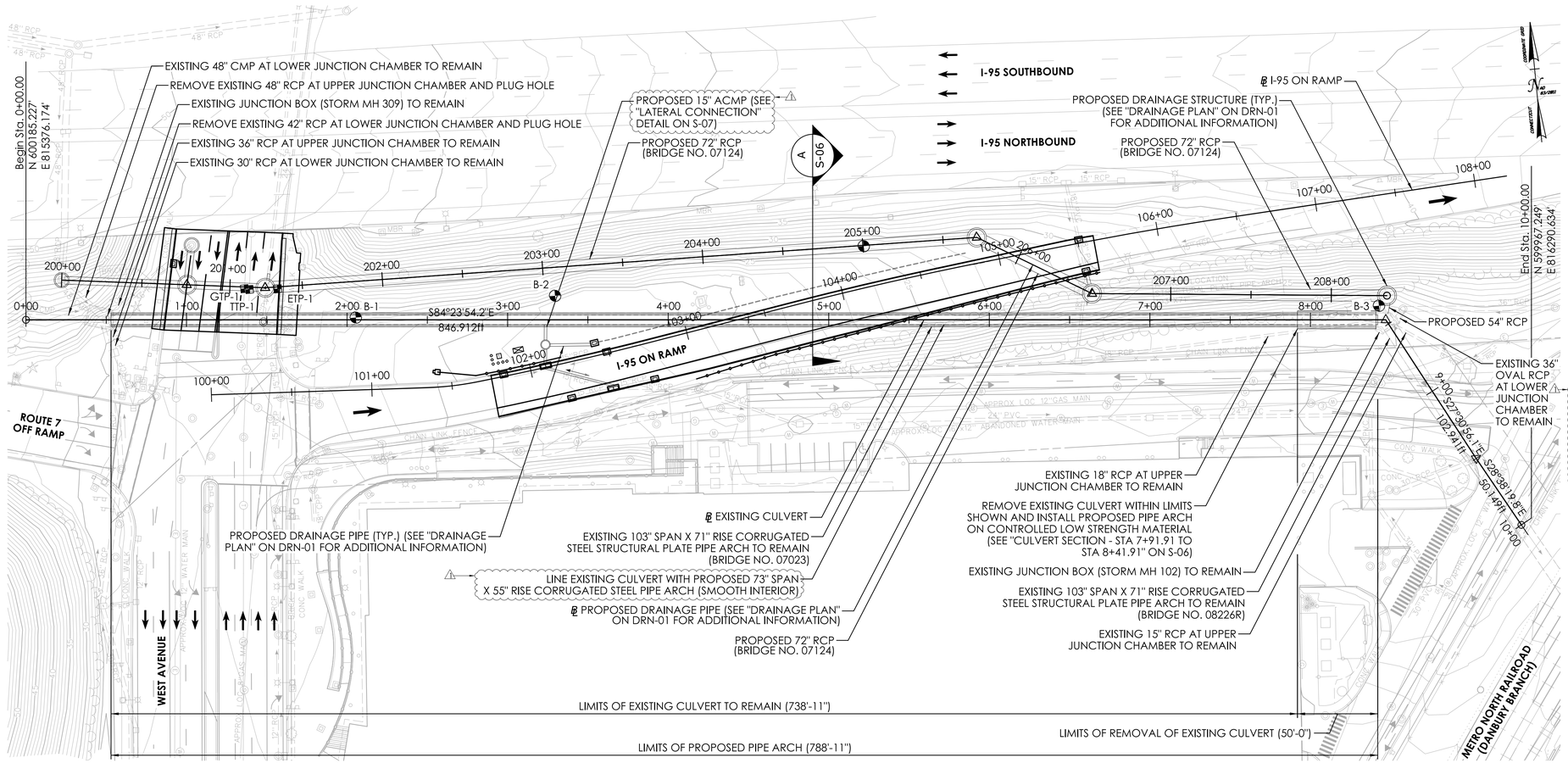
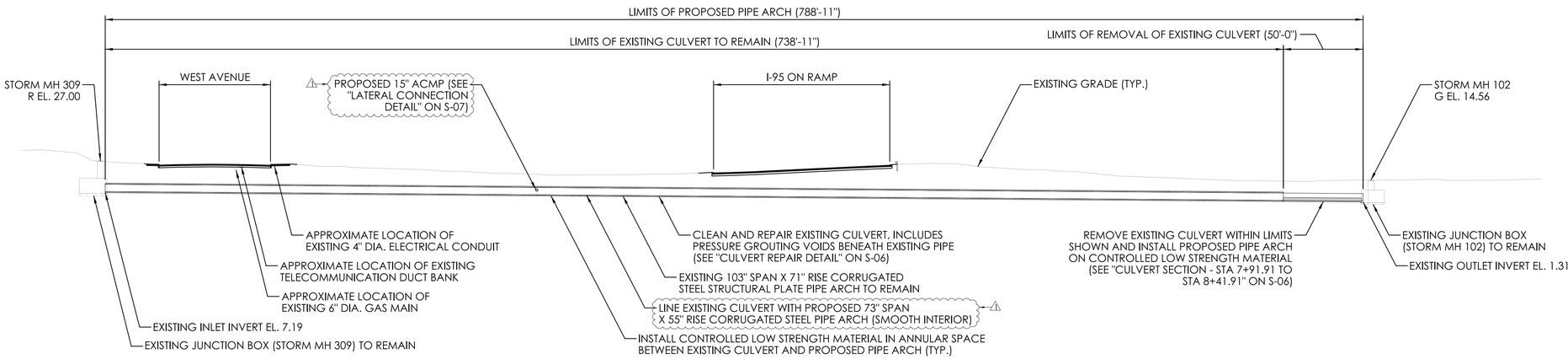


GENERAL PLAN

SCALE: 1" = 40'



LONGITUDINAL SECTION - BRIDGE NO. 07023

SCALE: 1" = 40'

GENERAL NOTES:

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 818 (2020), SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 2023 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION (2020), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003), WITH REVISIONS UP TO DECEMBER 2019.

LIVE LOAD: HL-93, LEGAL AND PERMIT VEHICLES

FUTURE PAVEMENT ALLOWANCE: NONE

BITUMINOUS CONCRETE OVERLAY: SEE HIGHWAY SUBSET.

DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR REVIEW, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REVIEW. THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

UTILITIES: THE FOLLOWING UTILITIES ARE LOCATED WITHIN THE PROJECT LIMITS AND SHALL BE PROTECTED DURING CONSTRUCTION: FRONTIER COMMUNICATIONS OF CONNECTICUT, EVERSOURCE ENERGY - GAS DISTRIBUTION, SOUTH NORWALK ELECTRIC AND WATER, AND NORWALK WATER POLLUTION CONTROL AUTHORITY.

SHIPPING TABLE

MEMBER	HEIGHT	WIDTH	LENGTH	WEIGHT
73" x 55" CORRUGATED STEEL PIPE ARCH	4'-7"	6'-1"	20'-0"	1,800 LB
72" RCP	7'-2"	7'-2"	8'-0"	17,000 LB

LEGEND:

- BORING
- TEST PIT

DESIGNED BY: BL Companies
BL COMPANIES, INC.
100 CONSTITUTION PLAZA
HARTFORD, CT 06103

STATE OF CONNECTICUT JAMES A. PACKER No. 31139 LICENSED PROFESSIONAL ENGINEER

Digitally signed by Charles Packer
Date: 2023.10.18 15:31:02-04'00'

REV.	DATE	REVISION DESCRIPTION
1	10/13/2023	REVISED LINER SIZE

ADDENDUM NO. 1

DESIGNER/DRAFTER: B. O'BRIEN CHECKED BY: M. APPLEBY

0 40' 80'
HORIZONTAL SCALE
1" = 40'

SIGNATURE/ BLOCK:

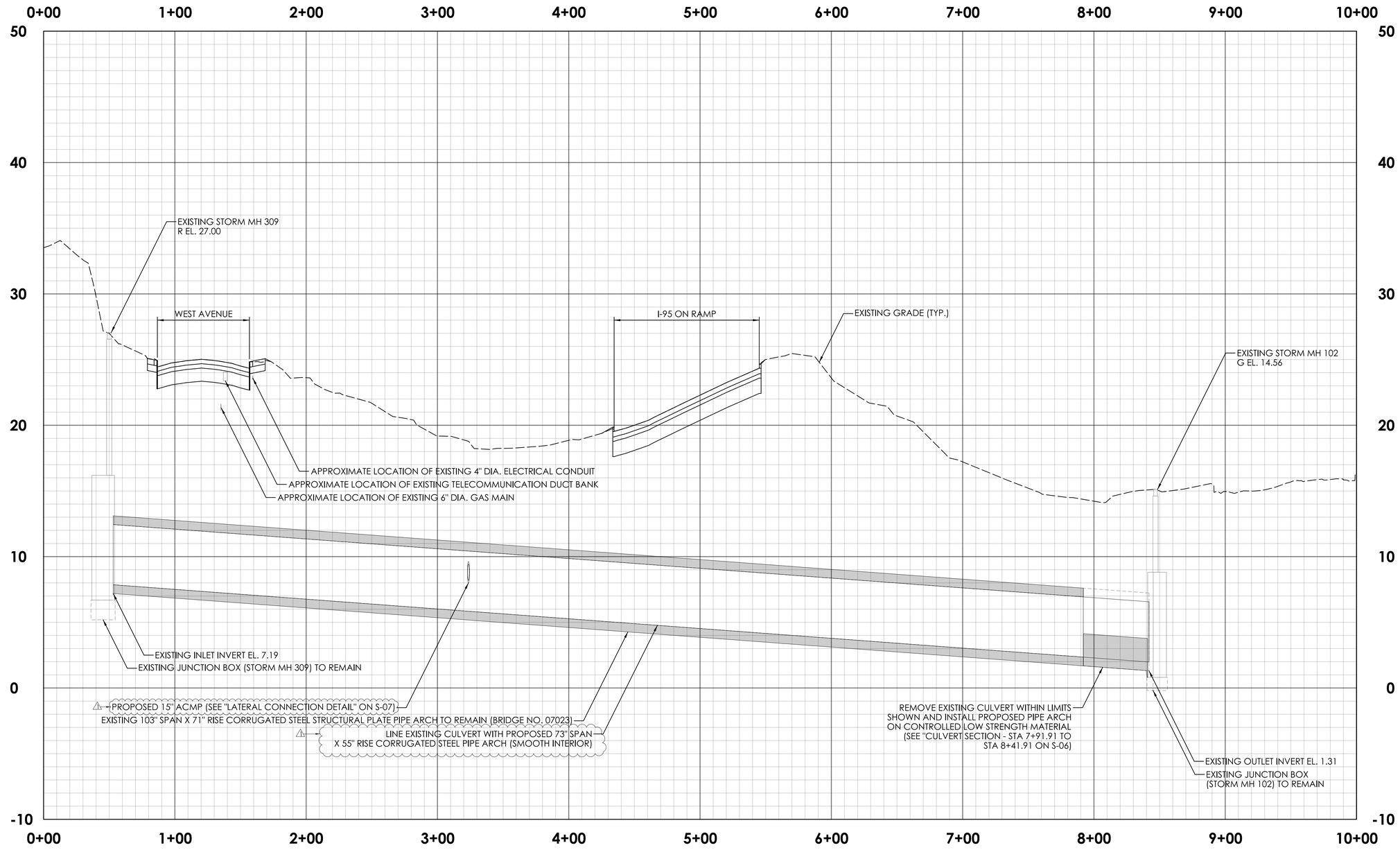
BL Companies
BL COMPANIES, INC.
100 CONSTITUTION PLAZA
HARTFORD, CT 06103

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0102-0371
PROJECT DESCRIPTION: INTERSTATE 95 (I-95) ON RAMP OVER DRAINAGE STRUCTURE
TOWN(S): NORWALK, CONNECTICUT
DRAWING TITLE: GENERAL PLAN AND LONGITUDINAL SECTION

DRAWING NO. S-02
SHEET NO. 04.02.A1

LASTED SAVED BY: bobrien **FILE NAME:** G:\JOBS15\15C\15C5403\BRIDGES-STATE\Norwalk_07023\+102-367 Design\DGN\CONNECT\Bridge\Contract_Plans\S8_CP_0102_0367_ContractPlans.dgn
PLOTTED DATE: 10/18/2023



REV.	DATE	REVISION DESCRIPTION
1	10/13/2023	REVISED LINER SIZE

ADDENDUM NO. 1

0 40 80
HORIZONTAL SCALE IN FEET
0 4 8
VERTICAL SCALE IN FEET

DESIGNER/DRAFTER: B. O'BRIEN CHECKED BY: M. APPLEBY

SIGNATURE/
BLOCK:

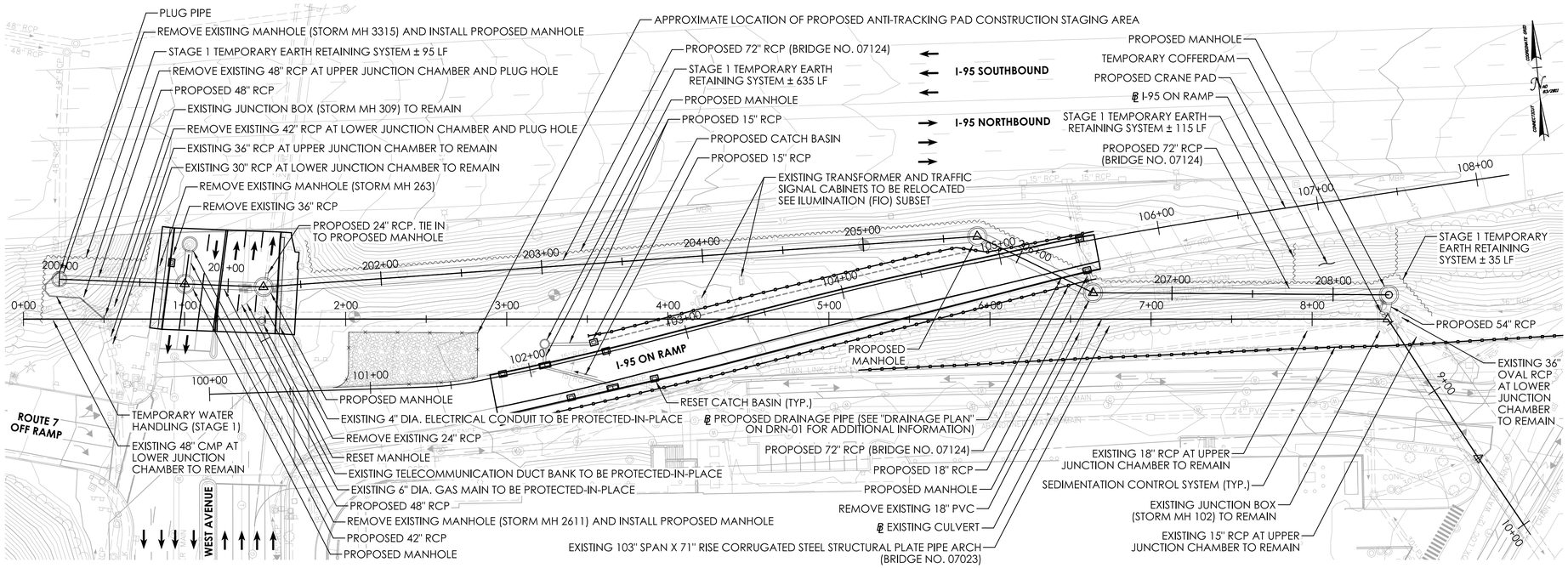
BL Companies
BL COMPANIES, INC.
100 CONSTITUTION PLAZA
HARTFORD, CT 06103

STATE OF CONNECTICUT
DEPARTMENT
OF
TRANSPORTATION

PROJECT NUMBER: 0102-0371
PROJECT DESCRIPTION: INTERSTATE 95 (I-95) ON RAMP OVER DRAINAGE STRUCTURE
TOWN(S): NORWALK, CONNECTICUT
DRAWING TITLE: BRIDGE NO. 07023 PROFILE

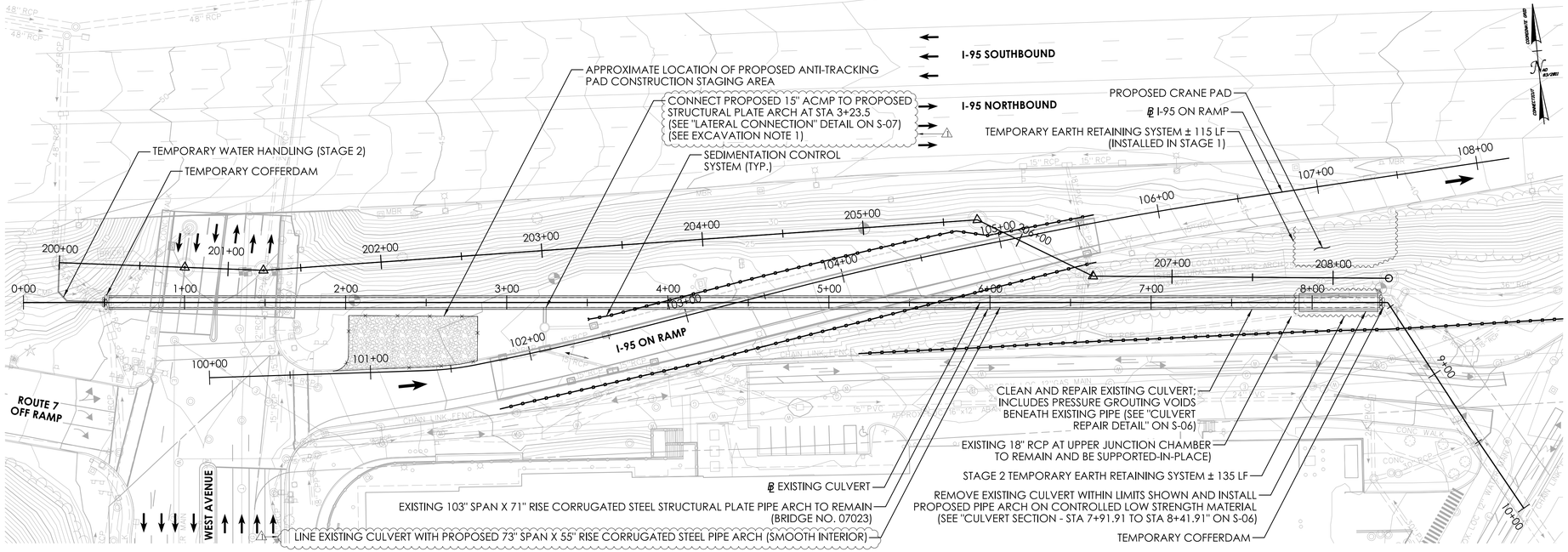
DRAWING NO. S-04
SHEET NO. 04.04.A1

LASTED SAVED BY: bobrien **FILE NAME:** G:\JOBS15\15C\15C5403\BRIDGES-STATE\Norwalk_07023\+102-367 Design\DGN\CONNECT\Bridge\Contract_Plans\SB_CP_0102_0367_ContractPlans.dgn
PLOTTED DATE: 10/18/2023



CONSTRUCTION PLAN - STAGE 1

SCALE: 1" = 40'



CONSTRUCTION PLAN - STAGE 2

SCALE: 1" = 40'

SUGGESTED SEQUENCE OF CONSTRUCTION:

STAGE 1:

1. CONSTRUCT PROPOSED ANTI-TRACKING PAD CONSTRUCTION STAGING AREA AND INSTALL SEDIMENTATION CONTROL SYSTEMS AS SHOWN.
2. PERFORM CLEARING AND GRUBBING AND CONTROL AND REMOVAL OF INVASIVE VEGETATION TO ALLOW FOR ACCESS.
3. RELOCATE EXISTING ILLUMINATION AS SHOWN IN THE ILLUMINATION (FIO) SUBSET.
4. INSTALL STAGE 1 TEMPORARY EARTH RETAINING SYSTEMS EXCEPT AT I-95 ON RAMP.
5. EXCAVATE AND INSTALL NEW 54" RCP AND NEW MANHOLE AT STA 208+35. INSTALL STAGE 1 TEMPORARY COFFERDAM TO PREVENT TIDAL FLOW FROM FLOWING INTO THE NEW DRAINAGE SYSTEM.
6. EXCAVATE, INSTALL PROPOSED DRAINAGE BETWEEN MANHOLE AT STA 208+35 AND MANHOLE AT STA 206+51, AND BACKFILL.
7. DURING ALLOWABLE TIMES, CLOSE I-95 ON RAMP IN ACCORDANCE WITH THE DETOUR PLAN TO INSTALL STAGE 1 TEMPORARY EARTH RETAINING SYSTEM AT I-95 ON RAMP, EXCAVATE, INSTALL PROPOSED DRAINAGE BETWEEN MANHOLE AT STA 206+51 AND MANHOLE AT STA 205+71, AND BACKFILL.
8. PERFORM FULL DEPTH ROADWAY RECONSTRUCTION ON I-95 ON RAMP WITHIN THE LIMITS SHOWN ON THE ROADWAY PLAN.
9. EXCAVATE, INSTALL PROPOSED DRAINAGE FROM MANHOLE AT STA 205+71 TO STA 202+00 ±, AND BACKFILL.
10. PLUG PIPE AND INSTALL STAGE 1 TEMPORARY WATER HANDLING DEVICES TO BYPASS EXISTING MANHOLE AT STA 200+00 AND REDIRECT FLOW INTO EXISTING JUNCTION BOX (STORM MH 309) AT STA 0+53.
11. EXCAVATE, INSTALL PROPOSED DRAINAGE AT MANHOLE AT STA 200+00 AND BELOW WEST AVENUE IN ACCORDANCE WITH STAGES 1 THROUGH 6 ON THE MAINTENANCE AND PROTECTION OF TRAFFIC PLANS. TEMPORARILY SUPPORT AND PROTECT EXISTING UTILITIES IN-PLACE.
12. PERFORM FULL DEPTH ROADWAY RECONSTRUCTION ON WEST AVENUE WITHIN LIMITS SHOWN ON THE ROADWAY PLAN.
13. EXCAVATE, INSTALL REMAINING DRAINAGE FROM WEST AVENUE TO STA 202+00 ±, AND BACKFILL.
14. REMOVE STAGE 1 TEMPORARY WATER HANDLING DEVICES AND COFFERDAMS.
15. REMOVE STAGE 1 TEMPORARY EARTH RETAINING SYSTEMS AS SHOWN.
16. REMOVE MAINTENANCE AND PROTECTION OF TRAFFIC.

STAGE 2:

1. INSTALL STAGE 2 TEMPORARY EARTH RETAINING SYSTEMS.
2. INSTALL STAGE 2 TEMPORARY COFFERDAM AND WATER HANDLING DEVICES AT EXISTING JUNCTION BOX (STORM MH 309) AT STA 0+53 TO REDIRECT FLOWS INTO NEW DRAINAGE SYSTEM. INSTALL TEMPORARY COFFERDAM AT EXISTING JUNCTION BOX (STORM MH 102) AT STA 8+47 TO PREVENT TIDAL FLOWS FROM FLOWING INTO THE EXISTING STRUCTURE.
3. EXCAVATE, REMOVE LIMITS OF EXISTING CULVERT AS SHOWN, AND CLEAN AND REPAIR EXISTING CULVERT, TEMPORARILY SUPPORT 18" RCP IN-PLACE.
4. INSTALL PROPOSED CORRUGATED PIPE ARCH LINER WITHIN EXISTING CULVERT.
5. INSTALL 15" ACMP (SEE "LATERAL CONNECTION DETAIL" ON S-07) AND CONTROLLED LOW STRENGTH MATERIAL IN THE ANNULAR SPACE BETWEEN THE EXISTING CULVERT AND THE PROPOSED LINER USING GROUT PORTS.
6. INSTALL THE REMAINING SECTION OF THE PROPOSED LINER WITHIN THE LIMITS OF THE STAGE 2 TEMPORARY EARTH RETAINING SYSTEMS.
7. SEAL THE CONNECTION AT THE EXISTING JUNCTION BOX (STORM MH 102) AT STA 8+47 AND BACKFILL.
8. REMOVE STAGE 2 TEMPORARY WATER HANDLING DEVICES AND COFFERDAMS.
9. REMOVE STAGE 2 TEMPORARY EARTH RETAINING SYSTEMS.
10. REMOVE SEDIMENTATION CONTROL SYSTEMS AND STAGING AREA.
11. ESTABLISH VEGETATION IN DISTURBED AREAS.

WATER HANDLING NOTES:

1. THE CONTRACTOR SHALL MAINTAIN WATER THROUGH THE TEMPORARY WATER HANDLING DEVICES AS REQUIRED DURING BOTH STAGES.

EXCAVATION NOTES:

1. EARTH TO BE REMOVED IN PROXIMITY TO BRIDGE NO. 07023 SHALL BE EXCAVATED EQUALLY ON BOTH SIDES OF THE CULVERT TO AVOID UNBALANCED LOADING. AT NO TIME SHALL THE DIFFERENTIAL HEIGHT OF FILL ON OPPOSITE SIDES OF THE CULVERT EXCEED 1 FOOT.

ACCESS NOTES:

1. ACCESS THROUGH THE OUTLET OF THE STRUCTURE (BRIDGE NO. 08226R) IS STRICTLY PROHIBITED.

REV.	DATE	REVISION DESCRIPTION
1	10/13/2023	REVISED LINER SIZE

ADDENDUM NO. 1

DESIGNER/DRAFTER: B. O'BRIEN CHECKED BY: M. APPLEBY

0 40' 80'
HORIZONTAL SCALE 1" = 40'

SIGNATURE/ BLOCK:

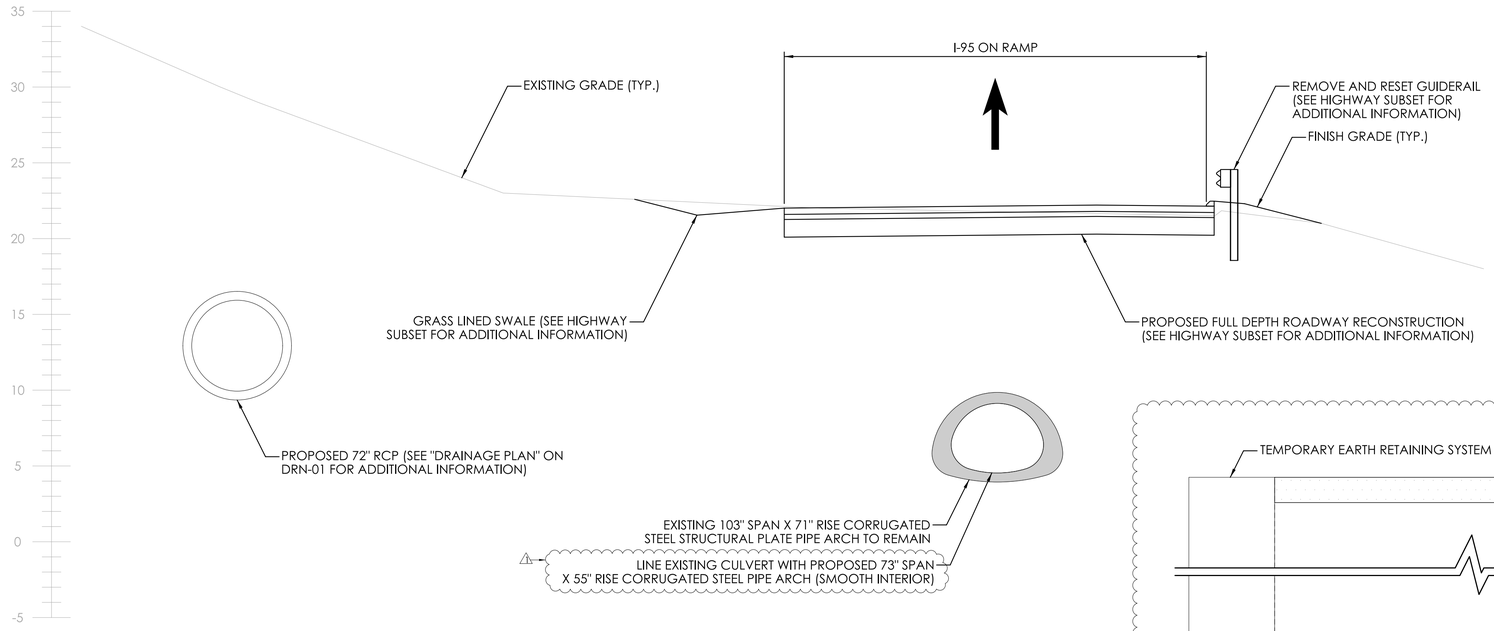
BL COMPANIES, INC.
100 CONSTITUTION PLAZA
HARTFORD, CT 06103

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0102-0371
PROJECT DESCRIPTION: INTERSTATE 95 (I-95) ON RAMP OVER DRAINAGE STRUCTURE
TOWN(S): NORWALK, CONNECTICUT
DRAWING TITLE: CONSTRUCTION PLAN

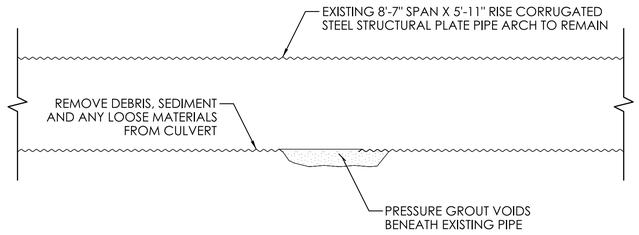
DRAWING NO. S-05
SHEET NO. 04.05.A1

LASTED SAVED BY: bobrien **FILE NAME:** G:\JOBS15\15C\15C5403\BRIDGES-STATE\Norwalk_07023\+102-367 Design\DGN\CONNECT\Bridge\Contract_Plans\SB_CP_0102_0367_ContractPlans.dgn
PLOTTED DATE: 10/18/2023



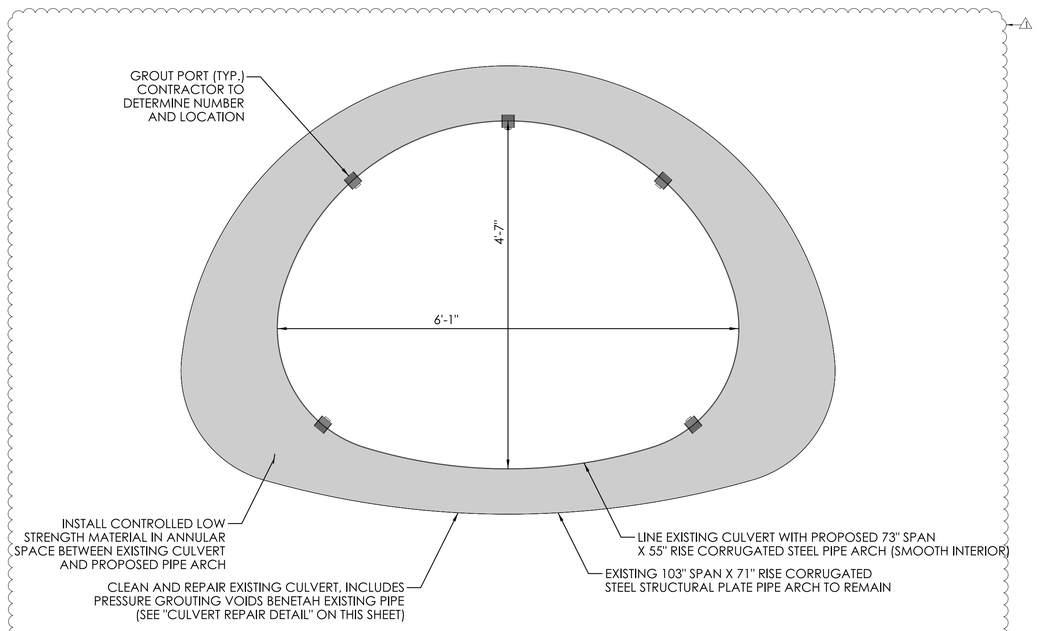
SECTION A (STA 4+90)

SCALE: 1" = 5'



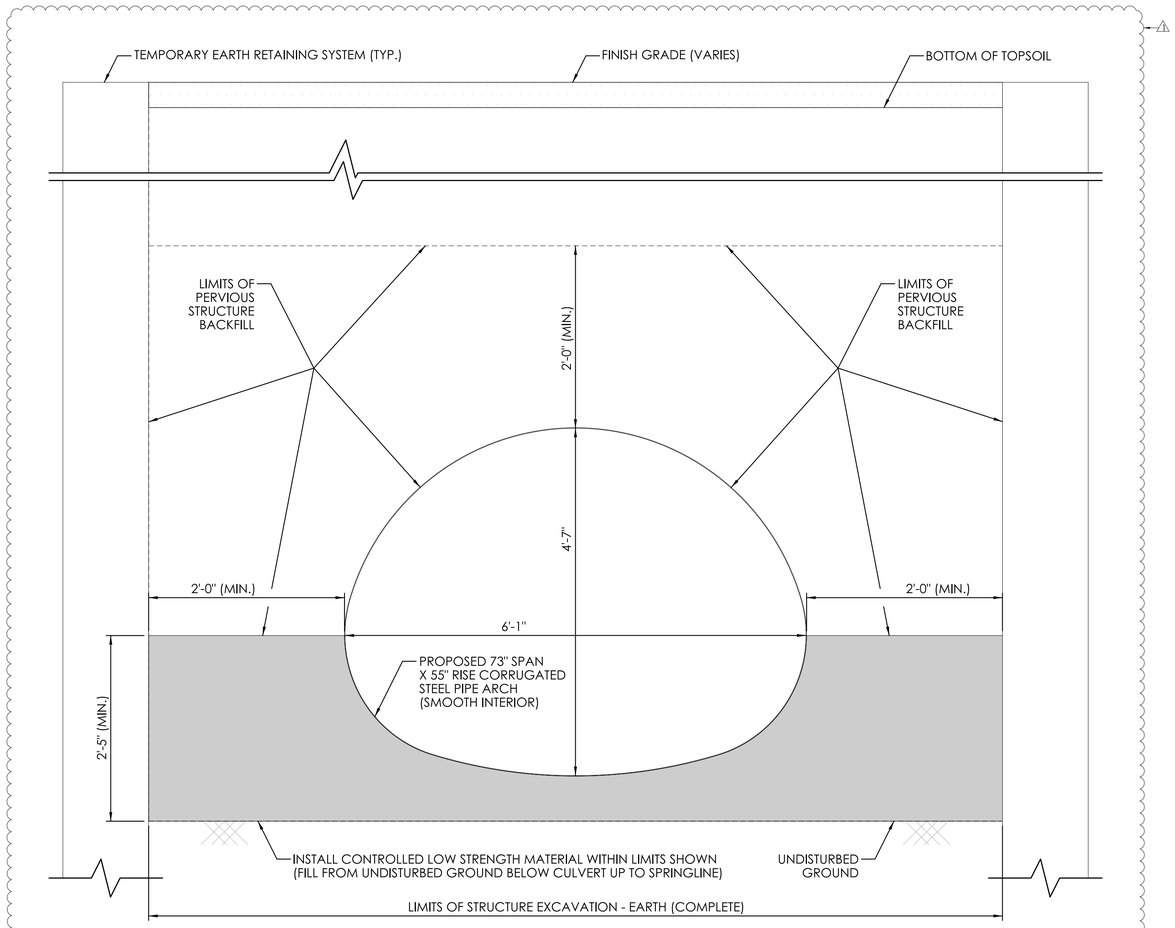
CULVERT REPAIR DETAIL

SCALE: 1" = 5'



CULVERT SECTION - STA 0+53.000 TO 7+91.91

SCALE: 1" = 1'-0"



CULVERT SECTION - STA 7+91.91 TO 8+41.91

SCALE: 1" = 1'-0"

REV.	DATE	REVISION DESCRIPTION
1	10/13/2023	REVISED LINER SIZE

ADDENDUM NO. 1

DESIGNER/DRAFTER: B. O'BRIEN CHECKED BY: M. APPLEBY

SIGNATURE/ BLOCK:

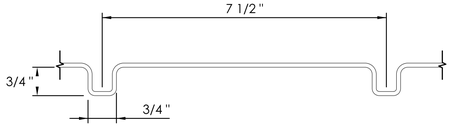
BL COMPANIES, INC.
100 CONSTITUTION PLAZA
HARTFORD, CT 06103

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0102-0371
PROJECT DESCRIPTION: INTERSTATE 95 (I-95) ON RAMP OVER DRAINAGE STRUCTURE
TOWN(S): NORWALK, CONNECTICUT
DRAWING TITLE: CULVERT SECTIONS AND REPAIR DETAIL

DRAWING NO. S-06
SHEET NO. 04.06.A1

LASTED SAVED BY: mappleby **FILE NAME:** G:\JOBS15\15C\15C5403\BRIDGES-STATE\Norwalk_07023\+102-367 Design\DGN\CONNECT\Bridge\Contract_Plans\SB_CP_0102_0367_ContractPlans.dgn
PLOTTED DATE: 10/18/2023



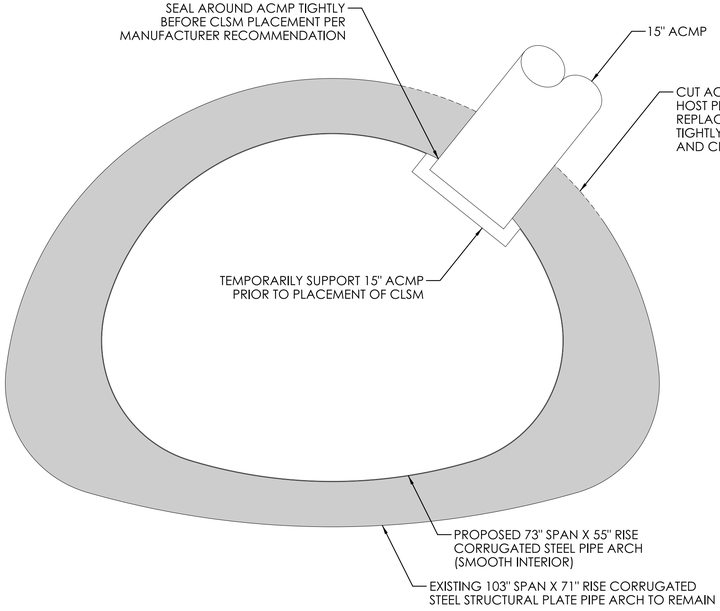
3/4" x 3/4" x 7 1/2" CORRUGATION

SCALE: 6" = 1'-0"

PROPERTIES OF CORRUGATION			
NOMINAL THICKNESS	AREA ($IN.^2$ / IN.)	MOMENT OF INERTIA ($IN.^4$ / IN.)	RADIUS OF GYRATION (IN.)
12 GA. / 0.109 IN.	0.0815	0.0103	0.355

CORRUGATION DETAILS

SCALE: AS NOTED

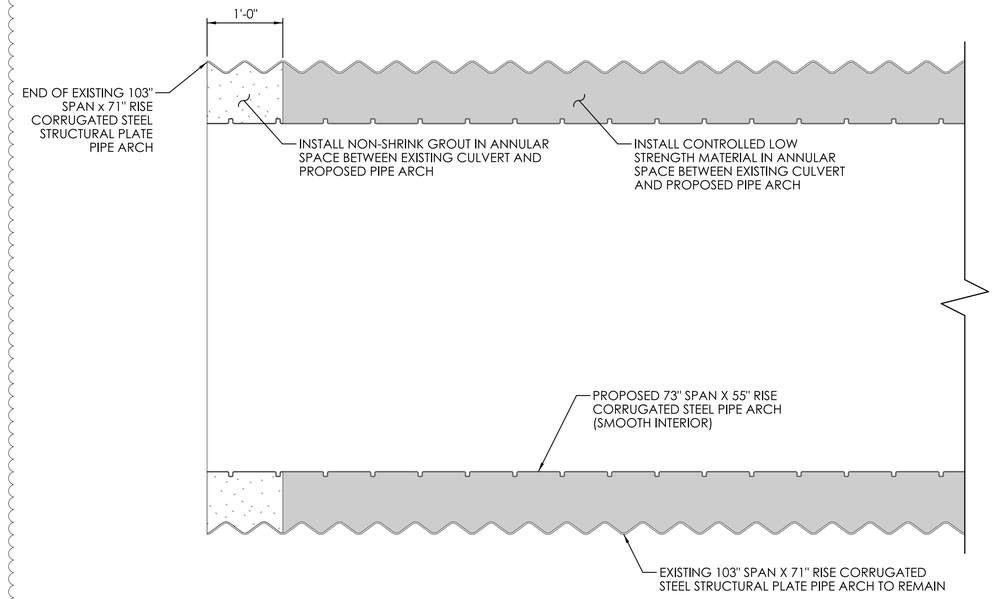


NOTES:

1. SUGGESTED LATERAL CONNECTION DETAIL SHOWN. CONTRACTOR TO DESIGN PROPOSED CONNECTION.

LATERAL CONNECTION DETAIL

SCALE: 1" = 1'-0"



CULVERT END DETAIL

SCALE: 1" = 1'-0"

REV.	DATE	REVISION DESCRIPTION
1	10/13/2023	REVISED LINER SIZE

ADDENDUM NO. 1

DESIGNER/DRAFTER: B. O'BRIEN CHECKED BY: M. APPLEBY

SIGNATURE/ BLOCK:

BL Companies
BL COMPANIES, INC.
100 CONSTITUTION PLAZA
HARTFORD, CT 06103

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0102-0371
PROJECT DESCRIPTION: INTERSTATE 95 (I-95) ON RAMP OVER DRAINAGE STRUCTURE
TOWN(S): NORWALK, CONNECTICUT
DRAWING TITLE: PIPE ARCH DETAILS

DRAWING NO. S-07
SHEET NO. 04.07.A1

LASTED SAVED BY: mappleby **FILE NAME:** G:\JOBS15\15C\15C5403\BRIDGES-STATE\Norwalk_07023\+102-367 Design\DGN\CONNECT\Bridge\Contract_Plans\S8_CP_0102_0367_ContractPlans.dgn
PLOTTED DATE: 10/18/2023