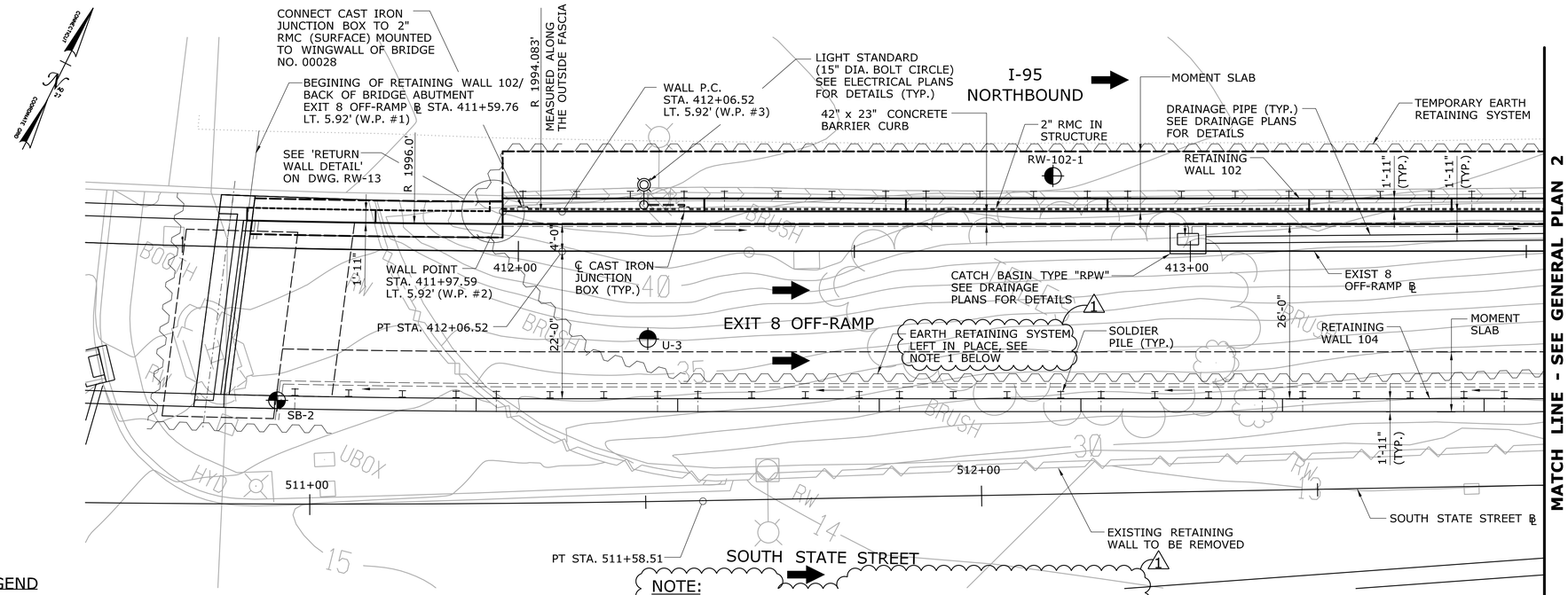


LEGEND

- ROADWAY BORING
- STRUCTURE BORING
- RETAINING WALL BORING
- UTILITY CORRIDOR BORING

NOTE:

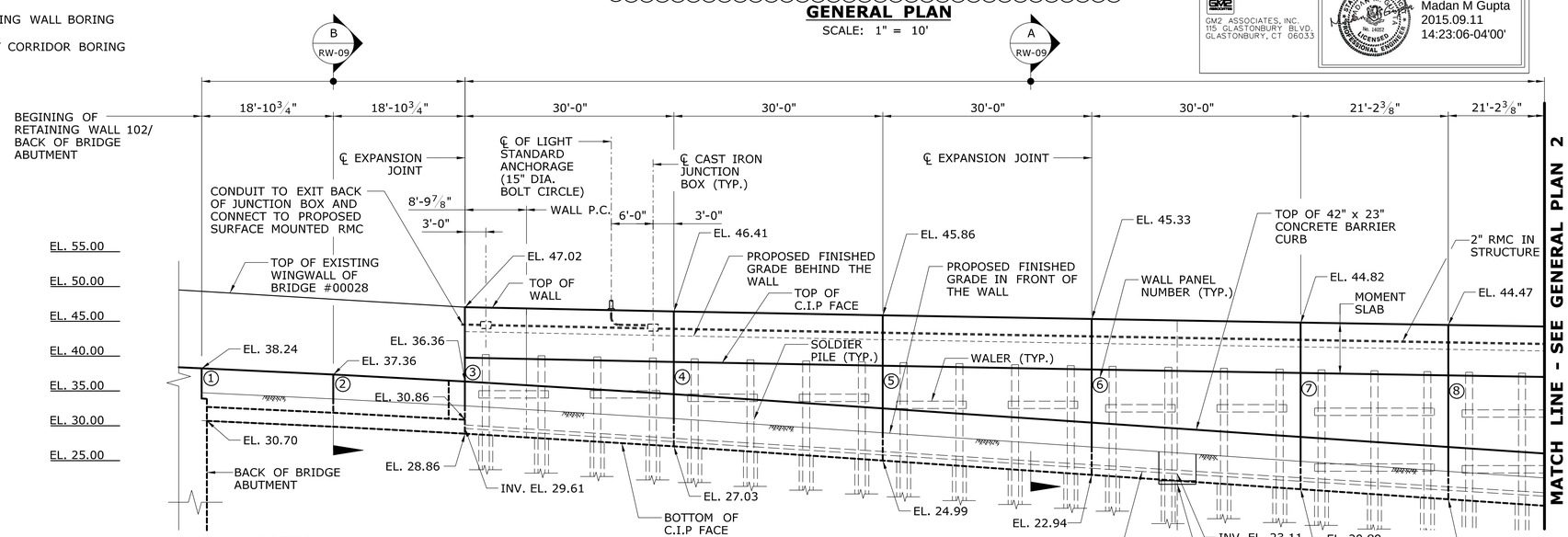
1. THE COST OF TEMPORARY EARTH RETAINING SYSTEM OR EARTH RETAINING SYSTEM LEFT IN PLACE SHALL BE INCLUDED IN THE LUMP SUM COST OF THE ITEM "REMOVAL OF EXISTING RETAINING WALL (SITE NO. 1)".

GENERAL PLAN

SCALE: 1" = 10'

DESIGNED BY:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033

STATE OF CONNECTICUT · MADAN M. GUPTA · No. 24697 · LICENSED PROFESSIONAL ENGINEER
Madan M Gupta
2015.09.11
14:23:06-04'00'



NOTES:

1. ALL DIMENSIONS ARE MEASURED ALONG OUTSIDE FASCIA OF WALL, UNLESS NOTED OTHERWISE.
2. ALL JOINTS ARE CONTRACTION UNLESS NOTED OTHERWISE.
3. ARCHITECTURAL FORM LINER IS NOT SHOWN FOR CLARITY.

DEVELOPED ELEVATION

SCALE: 1" = 10'

GENERAL NOTES:

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 (2004), SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 2015 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATION: AASHTO LRFD DESIGN SPECIFICATIONS, 6TH EDITION, WITH THE INTERIM SPECIFICATIONS UP TO AND INCLUDING (2013), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003), WITH THE LATEST REVISIONS.

DESIGN STRESSES:
CLASS "A" CONCRETE.....BASED ON f'c = 3,000 psi
PORTLAND CEMENT CONCRETE
FOR DRILLED SHAFTS.....BASED ON f'c = 3,000 psi
REINFORCEMENT (ASTM A615, GRADE 60).....Fy = 60,000 psi
STRUCTURAL STEEL (AASHTO M270, GRADE 50).....Fy = 50,000 psi

THE SPECIFIED CONCRETE STRENGTH USED IN DESIGN, f'c, OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF "SECTION 6.01 CONCRETE FOR STRUCTURES."

LIVE LOAD: THE WALL HAS BEEN DESIGNED FOR A LIVE LOAD SURCHARGE IN ACCORDANCE WITH AASHTO LRFD SECTION 3.11.6.4.

FOUNDATION PRESSURES: THE VARIOUS LIMIT STATES NOTED ON THESE PLAN SHEETS REFER TO THE LIMIT STATES AS GIVEN IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

BORING LOGS: FOR BORING LOGS, SEE SUBSET 11.

DIMENSIONS: ALL DIMENSIONS SHOWN ON THE PLANS ARE IN ENGLISH UNITS EXCEPT IF NOTED OTHERWISE. WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING DRAWINGS: PLANS OF THE EXISTING STRUCTURES ARE INCLUDED FOR GENERAL REFERENCE ONLY AND MAY NOT DEPICT AS-BUILT CONDITIONS NOR ALL MODIFICATIONS MADE SINCE ORIGINAL CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY.

UTILITIES: THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES WITHIN THE PROJECT LIMITS, UNLESS NOTED OTHERWISE. IF ANY UTILITY IS DAMAGED OR SERVICE IS INTERRUPTED DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING FULL SERVICE IN A SAFE MANNER APPROVED BY THE UTILITY COMPANY AND ENGINEER.

CONCRETE NOTES:

CLASS "A" CONCRETE: CLASS "A" CONCRETE SHALL BE USED THROUGHOUT WITH THE EXCEPTION OF THE CONCRETE USED IN DRILLED SHAFTS.

LEAN MIX CONCRETE AND PORTLAND CEMENT CONCRETE FOR DRILLED SHAFTS: THE COST OF LEAN MIX CONCRETE AND PORTLAND CEMENT CONCRETE FOR DRILLED SHAFTS SHALL BE PAID FOR UNDER THE ITEM "DRILLED SHAFT (2.0' DIAMETER)".

JOINT SEAL: SEE SPECIAL PROVISIONS.

EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" X 1" UNLESS DIMENSIONED OTHERWISE.

CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT: ALL REINFORCEMENT SHALL BE ASTM A615, GRADE 60.

PREFORMED EXPANSION JOINT FILLER: THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE ITEM "½ INCH PREFORMED EXPANSION JOINT FILLER FOR BRIDGES".

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

SUGGESTED SEQUENCE OF CONSTRUCTION:

THE FOLLOWING IS THE SUGGESTED SEQUENCE OF CONSTRUCTION THAT MAY BE FOLLOWED. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED SEQUENCE OF CONSTRUCTION TO THE ENGINEER FOR APPROVAL PRIOR TO THE BEGINNING OF WORK.

1. CONSTRUCT PROPOSED WALL 102 BETWEEN THE BACK OF EXISTING PREFABRICATED MODULAR RETAINING WALL (APPROXIMATE STATION 412+00) AND APPROXIMATE STATION 520+75. WHILE CONSTRUCTING THE WALL, EXCAVATE DOWN TO THE BOTTOM OF CIP CONCRETE FACE.
2. INSTALL TEMPORARY EARTH RETAINING SYSTEM FOR THE REMOVAL OF THE EXISTING PREFABRICATED MODULAR RETAINING WALL.
3. REMOVE EXISTING PREFABRICATED MODULAR RETAINING WALL.
4. INSTALL TEMPORARY EARTH RETAINING SYSTEM FOR CONSTRUCTION OF EAST ABUTMENT AND WINGWALL 2 OF THE PROPOSED BRIDGE.
5. CONSTRUCT PROPOSED EAST ABUTMENT, WINGWALL 2, AND RETAINING WALL 104.
6. BACKFILL THE NEWLY CONSTRUCTED EAST ABUTMENT, WINGWALL 2 AND RETAINING WALL 104.
7. CONSTRUCT THE REMAINING PORTIONS OF WALL 102 FROM THE BEGINNING OF THE WALL / BACK OF PROPOSED EAST ABUTMENT TO THE APPROXIMATE STATION 412+00 AND FROM APPROXIMATE STATION 520+75 TO THE END OF THE WALL.

ADDENDUM NO. 2

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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2	9/11/15	ADDENDUM NO. 2	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 9/11/2015

DESIGNER/DRAFTER: SD
CHECKED BY: VLL
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\SB_MSH_135-301_RW102-GPN-01_A02.dgn

SIGNATURE/BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

STATE OF CONNECTICUT · MADAN M. GUPTA · No. 24697 · LICENSED PROFESSIONAL ENGINEER

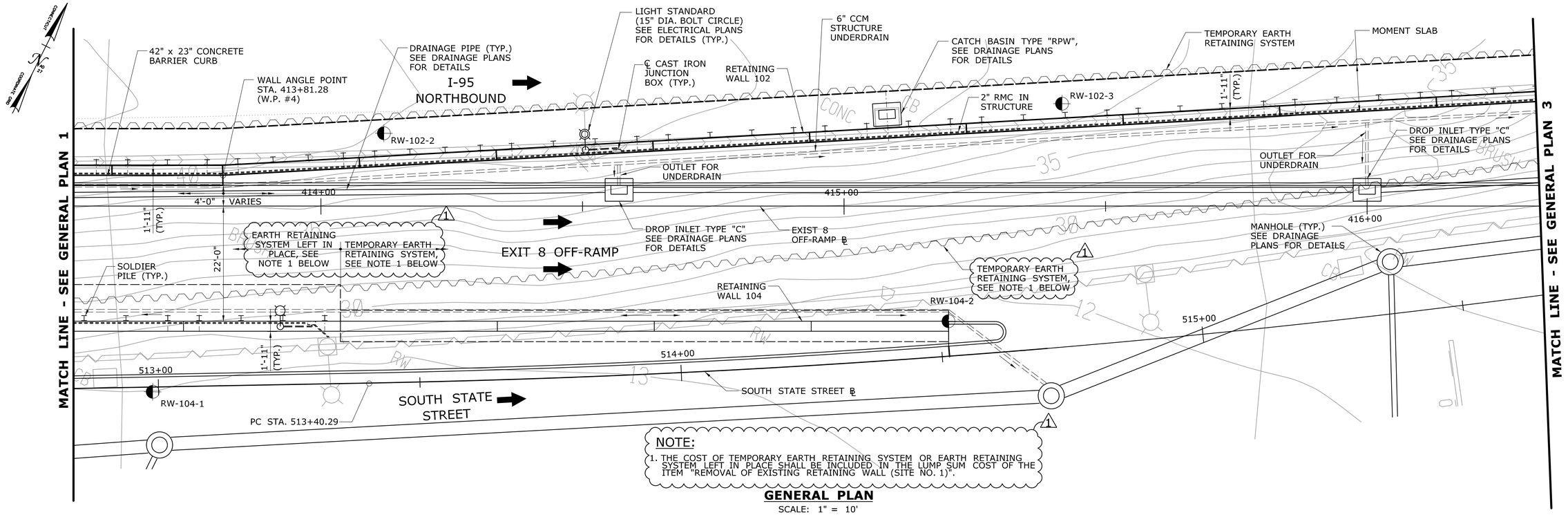
PROJECT TITLE: REPLACEMENT OF MNRR BRIDGE OVER ATLANTIC STREET - PHASE 1 I-95 NB EXIT 8 RAMP BRIDGE

TOWN: STAMFORD

DRAWING TITLE: RETAINING WALL 102 GENERAL PLAN - 1

PROJECT NO. 135-326
DRAWING NO. RW-01
SHEET NO. 07.001.A2

Connecticut Department of Transportation
QA/QC Format Check

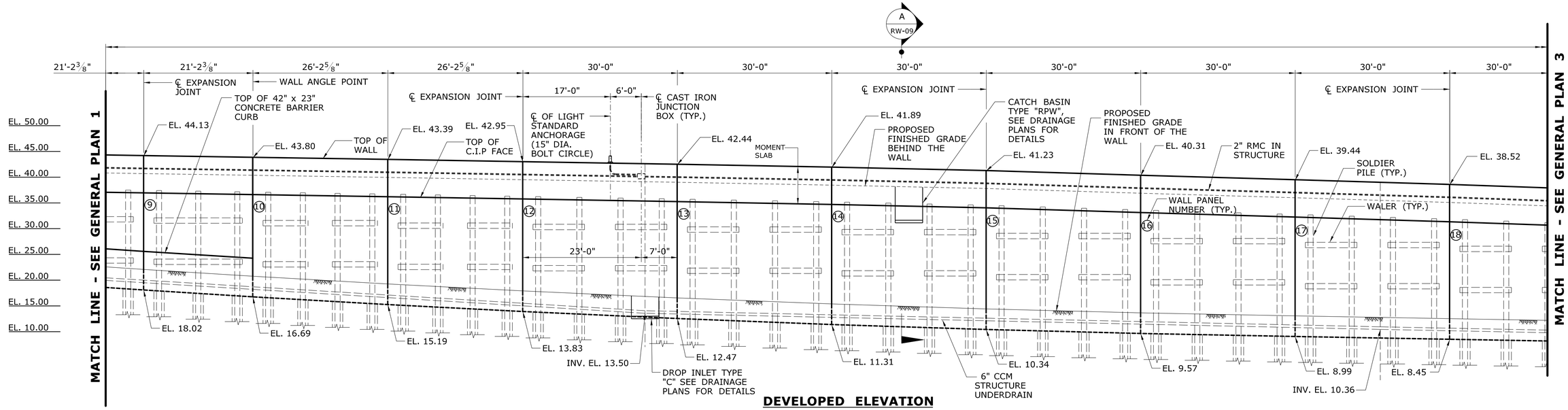


NOTE:

1. THE COST OF TEMPORARY EARTH RETAINING SYSTEM OR EARTH RETAINING SYSTEM LEFT IN PLACE SHALL BE INCLUDED IN THE LUMP SUM COST OF THE ITEM "REMOVAL OF EXISTING RETAINING WALL (SITE NO. 1)".

GENERAL PLAN

SCALE: 1" = 10'



DEVELOPED ELEVATION

SCALE: 1" = 10'

NOTES:

1. FOR NOTES, SEE DWG. RW-01

ADDENDUM NO. 2

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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Plotted Date: 9/11/2015

DESIGNER/DRAFTER: SD
CHECKED BY: VLL
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\SB_MSH_135-301_RW102-GPN-02_A02.dgn

SIGNATURE/BLOCK:

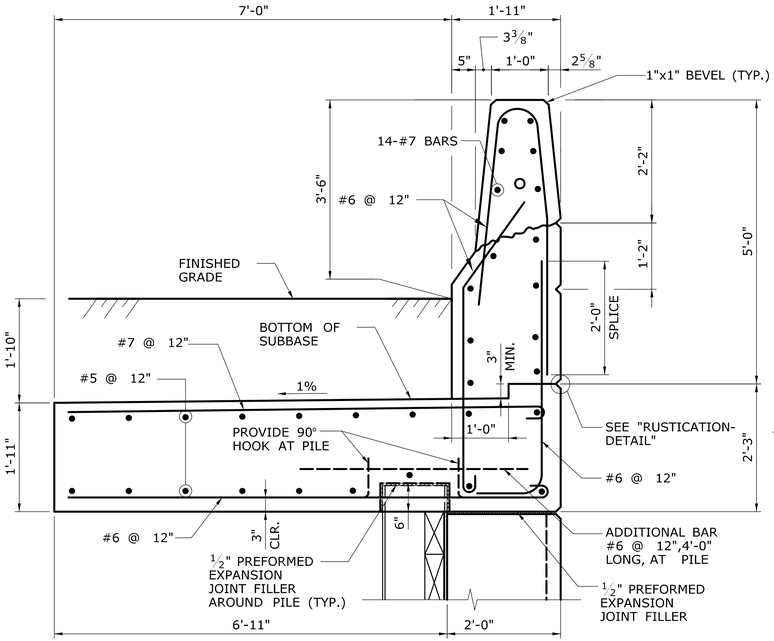
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033

PROJECT TITLE:
REPLACEMENT OF MNRR BRIDGE OVER ATLANTIC STREET - PHASE 1
I-95 NB EXIT 8 RAMP BRIDGE

TOWN: **STAMFORD**

DRAWING TITLE: **RETAINING WALL 102 GENERAL PLAN - 2**

PROJECT NO. 135-326
DRAWING NO. RW-02
SHEET NO. 07.002.A2



MOMENT SLAB DETAIL

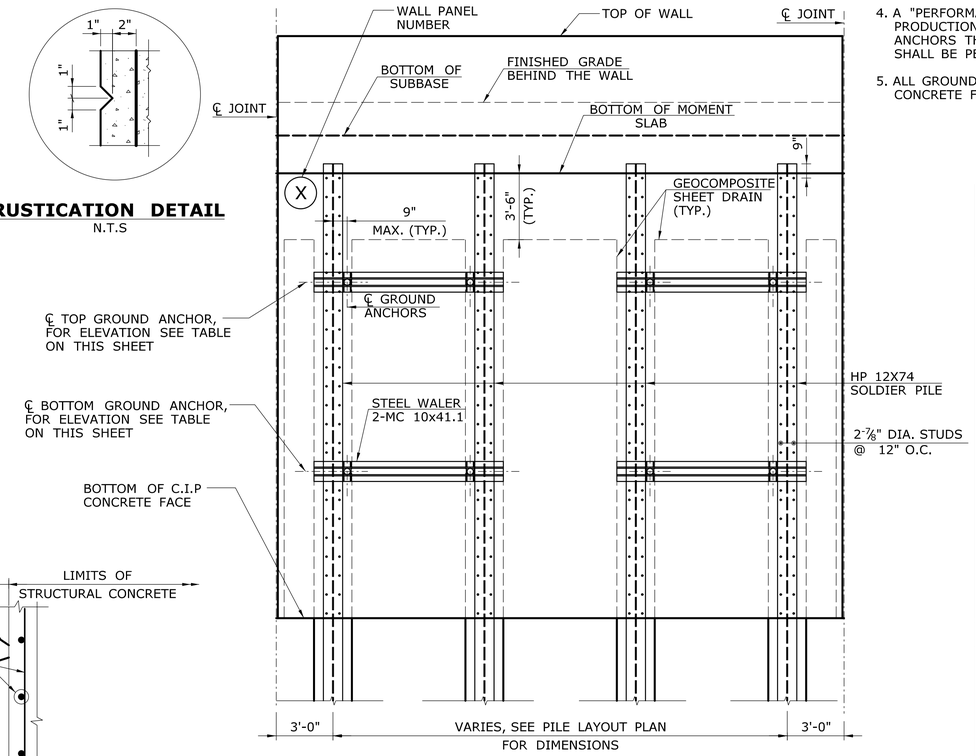
SCALE: 3/4" = 1'-0"

SOLDIER PILE AND STRUCTURAL STEEL NOTES

1. ALL COSTS ASSOCIATED WITH FURNISHING, ERECTING, PLUMBING, AND BRACING THE SOLDIER PILES SHALL BE PAID FOR UNDER THE ITEM "FURNISHING STEEL PILES".
2. DOUBLE-CHANNEL WALERS, STIFFENERS, ANCHOR BASE PLATES, CHANNELS, AND EXTENSION PLATES FOR WALER SUPPORT BRACKETS SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL".
3. SOLDIER PILES AND ALL STRUCTURAL STEEL ASSOCIATED WITH WALL CONSTRUCTION SHALL CONFORM TO AASHTO M270, GRADE 50.
4. SOLDIER PILES AND WALER SUPPORT BRACKETS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123. ~~AFTER WELDED STUDS AND WALER SUPPORT BRACKETS ARE INSTALLED.~~ 1
5. REPAIR DAMAGED GALVANIZATION IN FIELD WITH ZINC-RICH PAINT CONFORMING TO TT-P-641, TYPE 1 TO A DRY THICKNESS OF 3 TO 6 MILS. NO PAYMENT SHALL BE MADE FOR REPAIRING DAMAGED GALVANIZATION.

RUSTICATION DETAIL

N.T.S



TIMBER LAGGING NOT SHOWN FOR CLARITY.

TYPICAL ELEVATION VIEW

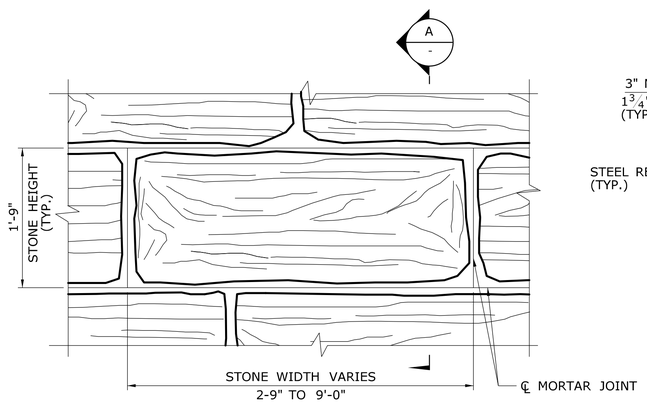
SCALE: 1/4" = 1'-0"

GROUND ANCHOR NOTES:

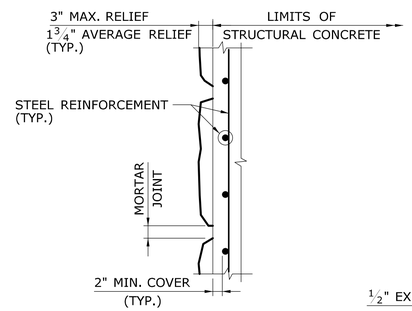
1. CLASS I CORROSION PROTECTION SHALL BE PROVIDED FOR ALL GROUND ANCHORS. WORKING DRAWINGS OF THE FINAL DETAILS OF THE CLASS I CORROSION PROTECTION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. SEE "RETAINING WALL 102 / WALL DETAILS - 3" FOR SUGGESTED DETAILS.
2. ANCHOR DETAILS (I.E. BAR DIAMETER, STRESSING LENGTH, BOND LENGTH, HOLE DIAMETER, ETC.) SHALL BE DESIGNED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. THE MINIMUM BONDED LENGTH SHALL BE 25 FEET. ALL COSTS SHALL BE INCLUDED IN THE ITEM "GROUND ANCHOR". SEE SPECIAL PROVISION. 1
3. THE GROUND ANCHOR DESIGN LOAD FOR LIMIT STATE STR-I IS 140 KIPS AND FOR LIMIT STATE SER-I IS 98 KIPS.
4. A "PERFORMANCE TEST FOR GROUND ANCHOR" SHALL BE PERFORMED ON THE FIRST THREE PRODUCTION ANCHORS AND ON A MINIMUM OF TEN PERCENT OF THE REMAINING PRODUCTION ANCHORS THEREAFTER, AS DIRECTED BY THE ENGINEER. A "PROOF TEST FOR GROUND ANCHOR" SHALL BE PERFORMED ON ALL ANCHORS THAT ARE NOT PERFORMANCE TESTED.
5. ALL GROUND ANCHORS SHALL BE INSTALLED AND SUCESSFULLY TESTED PRIOR TO CASTING CONCRETE FACE.

GROUND ANCHOR TABLE

PANEL NO.	℄ TOP GROUND ANCHOR ELEVATION	℄ BOTTOM GROUND ANCHOR ELEVATION
1	N/A	N/A
2	N/A	N/A
3	34.50	N/A
4	34.00	N/A
5	33.00	N/A
6	32.50	N/A
7	32.00	24.00
8	31.75	23.75
9	31.50	23.50
10	31.00	23.00
11	30.50	22.50
12	30.25	22.25
13	29.75	21.75
14	29.25	21.25
15	28.50	20.50
16	27.50	19.50
17	26.75	18.75
18	26.00	18.00
19	24.75	16.75
20	24.00	16.00
21	23.50	15.50
22	22.75	14.75
23	22.25	14.25
24	21.50	13.50
25	20.75	12.75
26	20.00	12.00
27	19.50	11.50
28	19.00	11.00
29	18.50	10.50
30	18.00	10.00
31	17.75	9.75
32	17.50	9.50
33	17.25	9.25
34	17.00	9.00
35	17.00	9.00
36	16.75	8.75
37	16.75	8.75



ELEVATION



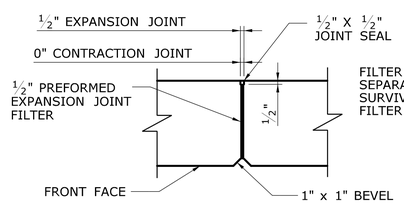
SECTION A-A

SIMULATED STONE MASONRY DETAIL

NTS

NOTES:

1. REFER TO OTHER STRUCTURE DETAILS FOR REINFORCING, DIMENSIONS. ETC.
2. WHERE SHOWN ON THE PLANS, THE CONTRACTOR SHALL UTILIZE CONCRETE FORM LINERS TO SIMULATE STONE MASONRY CONSTRUCTION. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR "SIMULATED STONE MASONRY".
3. CONCRETE FORM LINERS SHALL CONFIRM TO THE REQUIREMENTS OF "SIMULATED STONE MASONRY".
4. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL LAYOUT DRAWINGS OF ALL FORM LINERS SHOWING STONE SIZES, STONE CONFIGURATIONS, JOINT SPACING AND ALL DIMENSIONS REQUIRED.
5. IN ADDITION TO THE DETAILS , ALL EXPOSED EDGES SHALL RECEIVE A 1" X 1" BEVEL UNLESS DIMENSIONED OTHERWISE.
6. THE ARCHITECTURAL LINERS SHOWN ARE BASED ON FORM LINERS MANUFACTURED BY CUSTOM ROCK FORMLINER. THE STONE PATTERN IS BASED ON CUSTOM ROCK FORMLINER PATTERN NO. 1502, "ARCH STREET BRIDGE LIMESTONE."

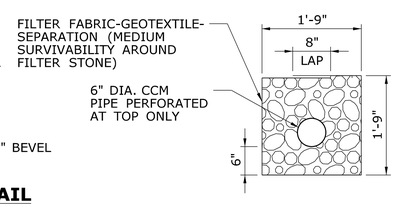


VERTICAL STEM JOINT DETAIL

N.T.S.

NOTES:

1. NO REINFORCEMENT SHALL PASS THROUGH EXPANSION OR CONTRACTION JOINTS. REINFORCEMENTS SHALL PASS THROUGH CONSTRUCTION JOINTS.
2. JOINT SEAL FOR CONCRETE FASCIA WALL JOINT SHALL EXTEND FROM TOP TO BOTTOM OF THE WALL.



STRUCTURE UNDERDRAIN DETAIL

SCALE: 3/4" = 1'-0"

NOTES:

THE COST OF THE FILTER FABRIC,FLITER STONE AND 6" DIA. CCM PIPE TO BE PAID UNDER THE ITEM 6" STRUCTURE UNDERDRAIN.

ADDENDUM NO. 2

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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1	9/11/15	ADDENDUM NO. 2	-

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Plotted Date: 9/11/2015

DESIGNER/DRAFTER: SD
CHECKED BY: VLL
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\SB_MSH_135-301_RW102_DET-02_A02.dgn

SIGNATURE/BLOCK:

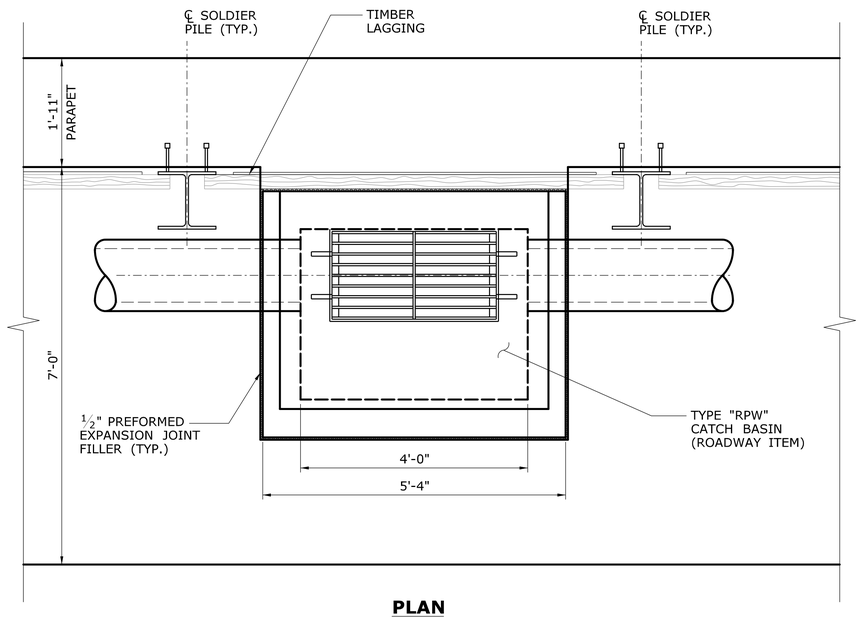
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033

PROJECT TITLE:
REPLACEMENT OF MNRR BRIDGE OVER ATLANTIC STREET - PHASE 1 I-95 NB EXIT 8 RAMP BRIDGE

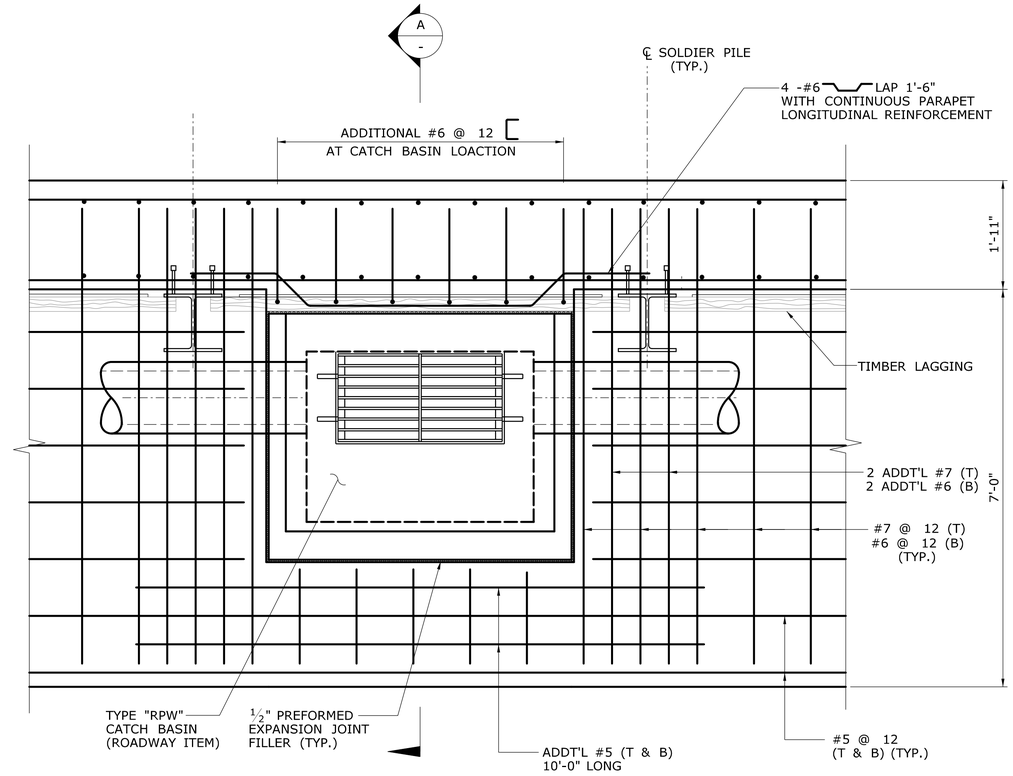
TOWN: **STAMFORD**

DRAWING TITLE: **RETAINING WALL 102 WALL DETAILS - 2**

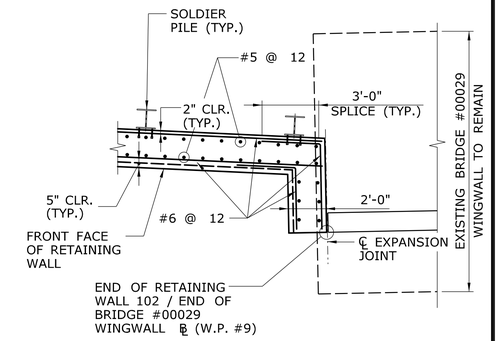
PROJECT NO. 135-326
DRAWING NO. RW-10
SHEET NO. 07.010.A2



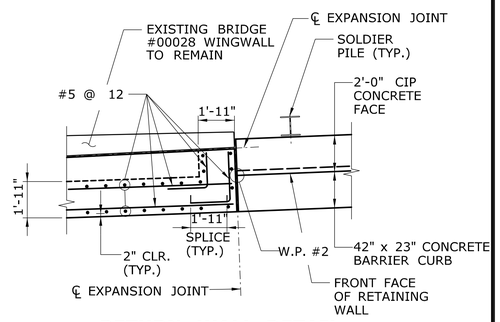
PLAN
SCALE: ¾" = 1'-0"



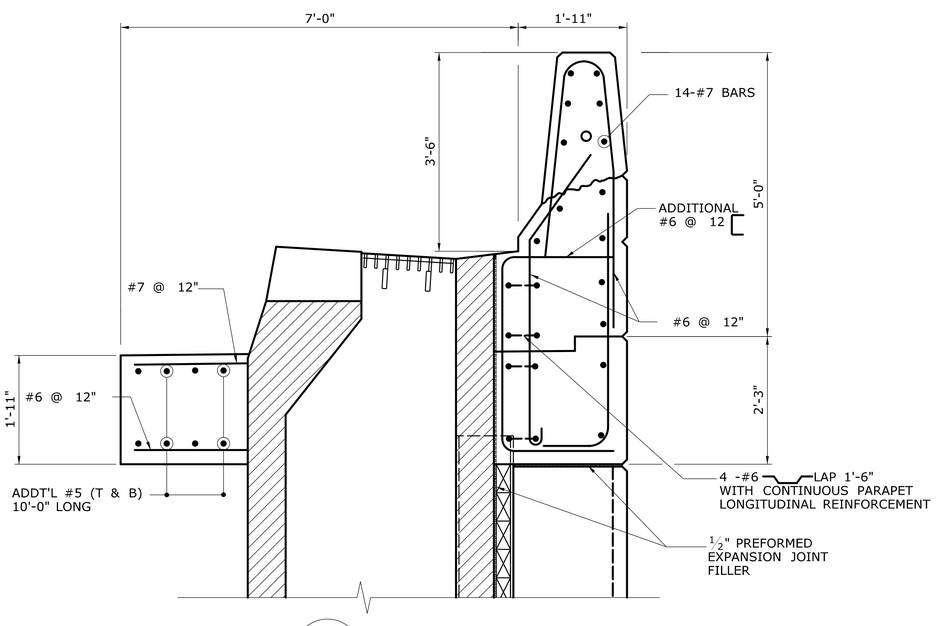
REINFORCEMENT DETAIL
SCALE: ¾" = 1'-0"



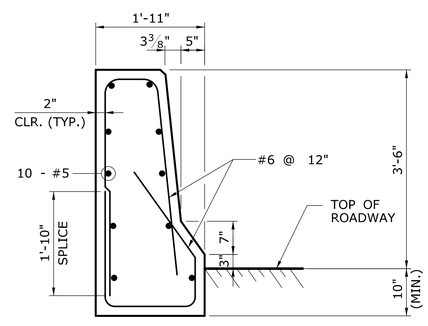
END OF WALL DETAIL
SCALE: ¼" = 1'-0"



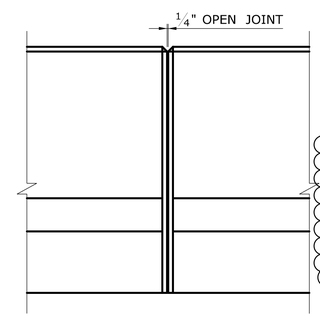
RETURN WALL DETAIL
SCALE: ¼" = 1'-0"



A SECTION
SCALE: ¾" = 1'-0"



TYPICAL SECTION

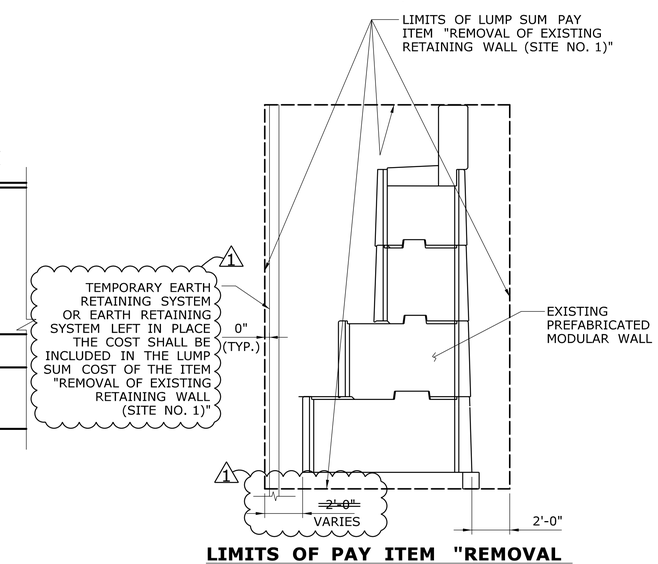


JOINT DETAIL

42" X 23" CONCRETE BARRIER CURB
SCALE: ¾" = 1'-0"

NOTES:

1. THE CONTRACTOR MAY PRECAST THE CURB TO FACILITATE THE CONSTRUCTION.
2. A ¼" OPENED JOINT SHALL BE PROVIDED AT 20' MAXIMUM. NO REINFORCING SHALL PASS THROUGH THE JOINT.



LIMITS OF PAY ITEM "REMOVAL OF EXISTING RETAINING WALL (SITE NO. 1)"
N.T.S

ADDENDUM NO. 2

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

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SIGNATURE/ BLOCK:

GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033

PROJECT TITLE:
REPLACEMENT OF MNRR BRIDGE OVER ATLANTIC STREET - PHASE 1
I-95 NB EXIT 8 RAMP BRIDGE

TOWN: **STAMFORD**

DRAWING TITLE: **RETAINING WALL 102 WALL DETAILS - 5**

PROJECT NO. 135-326
DRAWING NO. RW-13
SHEET NO. 07.013.A2