06 - TRUSS CANTILEVER SIGN STRUCTURE
INDEX OF DRAWINGS

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CTS-06	DRILLED SHAFT TRAFFIC STRUCTURE FOUNDATION		

DESIGNED BY:

Stantec

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STATE OF CONNECTICUT
ANDREW M. LESSARD
No. 30942
LICENSED
PROFESSIONAL ENGINEER

Andrew Lessard
2018.07.05
12:02:42-04'00'

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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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: 7/5/2018

DESIGNER/DRAFTER: **JRA**

CHECKED BY: **AML**

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\CTS-01_SB_Cantilever_Drawing_Index.dgn

SIGNATURE/ BLOCK:

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PROJECT TITLE:
REPLACEMENT OF HIGHWAY SIGNING ON ROUTE 8

TOWN:
BRIDGEPORT, TRUMBULL, SHELTON

DRAWING TITLE:
INDEX OF DRAWINGS

PROJECT NO. **173-441**

DRAWING NO. **CTS-01**

SHEET NO. **06.01**

CAMBER DIAGRAM

ELEVATION

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

END VIEW A

SCALE: 1" = 1'-0"

NOTES

THE 4 CHORD TRUSS CANTILEVER SIGN STRUCTURE, INCLUDING THE ANCHORAGE TO THE FOUNDATION AND THE HARDWARE AND STRUCTURAL MEMBERS REQUIRED TO SUPPORT THE TRAFFIC APPURTENANCES, SHALL BE DESIGNED, FABRICATED, ERECTED, ASSEMBLED AND INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIAL PROVISION "4 CHORD TRUSS CANTILEVER SIGN STRUCTURE".

THE 4 CHORD TRUSS CANTILEVER SIGN STRUCTURE SHALL BE COMPOSED OF A 4 CHORD TRUSS HORIZONTAL OVERHEAD SPAN MEMBER SUPPORTED ON A SINGLE LINEAR TUBULAR POLE MEMBER.

THE DETAILS PRESENTED AND REFERRED TO ON THIS SHEET REPRESENT CONCEPTUAL DETAILS OF A SIGN STRUCTURE CONSISTENT WITH THE REQUIREMENTS IN THE SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL DETAILS AND DIMENSIONS.

THE APPROXIMATE DIMENSIONS OF THE HORIZONTAL TRUSS AND THE POLE HEIGHTS ARE SHOWN IN PLAN AND ELEVATION ON THE TRAFFIC SHEETS. THE ACTUAL SIGN STRUCTURE DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR BASED ON A THE HORIZONTAL AND VERTICAL CLEARANCES SHOWN ON THE TRAFFIC SHEETS, A FIELD SURVEY OF THE FINISHED GRADE AT THE SITE, THE ELEVATION OF THE TOP OF THE FINISHED FOUNDATION, THE LOCATIONS OF OVERHEAD AND SUBSURFACE UTILITIES, THE LOCATION OF THE DRAINAGE FACILITIES AND NOISE BARRIER WALL LOCATIONS.

THE SIGN PANELS, INCLUDING CROWN PANELS AS APPLICABLE, SHALL BE LOCATED ON THE HORIZONTAL TRUSS BASED ON THE DIMENSIONS SHOWN ON THE TRAFFIC SHEETS AND THE ACTUAL SIGN STRUCTURE DIMENSIONS. THE SIGN PANELS SHALL BE INSTALLED SYMMETRICALLY ABOUT THE CENTERLINE OF THE TRUSS. THE NUMBER AND SPACING OF PANEL SUPPORT MEMBERS SHALL BE DETERMINED BY THE CONTRACTOR BASED ON THE WIDTH OF THE SIGN AND CROWN PANELS AND THE SUPPORT MEMBER SPACING PARAMETERS. SIGN PANELS SHALL BE SUPPORTED BY NO LESS THAN 3 SUPPORT MEMBERS. CROWN PANELS SHALL BE SUPPORTED BY NO LESS THAN 2 SUPPORT MEMBERS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FIT OF THE SIGN STRUCTURES ON THE CONSTRUCTED FOUNDATIONS. PRIOR TO FABRICATION, THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS TO VERIFY ALL SIGN STRUCTURE DIMENSIONS DEPENDANT UPON THE CONSTRUCTED FOUNDATIONS. THE OVERHEAD MEMBER SHALL BE TEMPORARILY SUPPORTED, IN ORDER TO BRING ALL PLATES OF THE CONNECTIONS INTO FIRM CONTACT, WHILE THE HIGH STRENGTH BOLTS ARE INSTALLED AND TENSIONED. THE CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS TO ENSURE THE STABILITY OF ALL STRUCTURAL ELEMENTS UNTIL THE TOTAL STRUCTURE IS ERECTED.

THE COST OF THE TUBULAR STEEL MEMBERS, STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS, HIGH-STRENGTH BOLTS AND ANCHORAGE MATERIALS, INCLUDING THE DESIGN, FABRICATION, COATING AND ERECTION, SHALL BE PAID FOR UNDER THE ITEM "4 CHORD TRUSS CANTILEVER SIGN STRUCTURE". THE COST OF FOUNDATION EXCAVATION, REINFORCEMENT AND CONCRETE, INCLUDING THE DESIGN AND FABRICATION, SHALL BE PAID FOR UNDER THE ITEM "DRILLED SHAFT TRAFFIC STRUCTURE FOUNDATION".

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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Plotted Date: 7/5/2018

DESIGNER/DRAFTER: JRA
CHECKED BY: AML
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\CTS-02 SB_QCS-1_Elevation.dgn

SIGNATURE/BLOCK:
Stantec Consulting Services Inc.
55 Church Street
Suite 601
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PROJECT TITLE:
REPLACEMENT OF HIGHWAY SIGNING ON ROUTE 8

TOWN: BRIDGEPORT, TRUMBULL, SHELTON

DRAWING TITLE: 4 CHORD CANTILEVER TRUSS SIGN STRUCTURE

PROJECT NO. 173-441
DRAWING NO. CTS-02
SHEET NO. 06.02

DETAIL B (CTS-02)
SCALE: 1" = 1'-0"

SECTION F (-)
SCALE: 1" = 1'-0"

SECTION H (-)
SCALE: 3" = 1'-0"

DETAIL C (CTS-02)
SCALE: 3" = 1'-0"

SECTION J (-)
SCALE: 3" = 1'-0"

DETAIL K (-)
SCALE: 3" = 1'-0"

SECTION - TOP CONNECTION PLATE D (CTS-02)
SCALE: ¾" = 1'-0"

SECTION - BOTTOM CONNECTION PLATE E (CTS-02)
SCALE: ¾" = 1'-0"

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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Plotted Date: 7/5/2018

DESIGNER/DRAFTER: JRA
CHECKED BY: AML
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\CTS-03_SB_QCS-2_Details_1.dgn

SIGNATURE/BLOCK:
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PROJECT TITLE:
REPLACEMENT OF HIGHWAY SIGNING ON ROUTE 8

TOWN: **BRIDGEPORT, TRUMBULL, SHELTON**

DRAWING TITLE: **TRUSS CANTILEVER SIGN STRUCTURE DETAILS - 1**

PROJECT NO. 173-441
DRAWING NO. CTS-03
SHEET NO. 06.03

PLAN L
SCALE: 3/8" = 1'-0" CTS-02

ELEVATION M
SCALE: 3/8" = 1'-0"

DETAIL S
SCALE: 1" = 1'-0"

SECTION T
SCALE: 1" = 1'-0"

DETAIL U
SCALE: 1 1/2" = 1'-0"

VIEW - TOP TRUSS CONNECTON PLATE N
SCALE: 3/4" = 1'-0"

SECTION O
SCALE: 1 1/2" = 1'-0"

GUSSET PLATE DETAIL P
SCALE: 1 1/2" = 1'-0"

GUSSET PLATE DETAIL Q
SCALE: 1 1/2" = 1'-0"

GUSSET PLATE DETAIL R
SCALE: 1 1/2" = 1'-0"

VIEW - BOTTOM TRUSS CONNECTION PLATE W
SCALE: 3/4" = 1'-0"

SLOTTED CHORD DETAIL X
SCALE: 1 1/2" = 1'-0"

CHORD SPLICE Y
SCALE: 1 1/2" = 1'-0" CTS-02

SECTION V
SCALE: 1 1/2" = 1'-0"

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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Plotted Date: 7/5/2018

DESIGNER/DRAFTER: JRA
CHECKED BY: AML
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\CTS-04 SB.QCS-3.Details.2.dgn

SIGNATURE/BLOCK:
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55 Church Street
Suite 601
New Haven, CT 06510

PROJECT TITLE:
REPLACEMENT OF HIGHWAY SIGNING ON ROUTE 8

TOWN: BRIDGEPORT, TRUMBULL, SHELTON

DRAWING TITLE: TRUSS CANTILEVER SIGN STRUCTURE DETAILS - 2

PROJECT NO. 173-441
DRAWING NO. CTS-04
SHEET NO. 06.04

VERTICAL ATTACHMENT DETAIL Z / CTS-02

SCALE: 1½" = 1'-0"

SECTION AA / -

SCALE: 1" = 1'-0"

SECTION AB / -

SCALE: 1" = 1'-0"

DETAIL AC / -

SCALE: 6" = 1'-0"

SECTION AD / -

SCALE: 6" = 1'-0"

SECTION AE / -

SCALE: 6" = 1'-0"

TYPICAL SIGN HOOK DETAILS

DETAIL AF / -

SCALE: 3" = 1'-0"

DETAIL AG / -

SCALE: 3" = 1'-0"

TYPICAL SIGN STOP DETAILS

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\CTS-05 SB_QCS-4_Details_3.dgn

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Stantec Consulting Services Inc.
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Suite 601
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PROJECT TITLE:
REPLACEMENT OF HIGHWAY SIGNING ON ROUTE 8

TOWN: **BRIDGEPORT, TRUMBULL, SHELTON**

DRAWING TITLE: **TRUSS CANTILEVER SIGN STRUCTURE DETAILS - 3**

PROJECT NO. 173-441

DRAWING NO. CTS-05

SHEET NO. 06.05

FOUNDATION IN EARTH DS / CTS-02

SCALE: 1/2" = 1'-0"

SECTION DR / -

SCALE: 1/2" = 1'-0"

SECTION DT / -

SCALE: 1/2" = 1'-0"

FOUNDATION NOTES

THE DRILLED SHAFT FOUNDATION SHALL BE DESIGNED, FABRICATED, AND CONSTRUCTED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIAL PROVISION "DRILLED SHAFT TRAFFIC STRUCTURE FOUNDATION".

FOR THE DESIGN OF THE DRILLED SHAFT FOUNDATION, THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE SUBSURFACE CONDITIONS (CHARACTER OF THE SOIL AND ROCK, PRESENCE OF GROUND WATER, ETC.) IN THE LOCATION OF, ADJACENT TO AND BELOW THE SHAFT EXCAVATION. THE CONTRACTOR SHALL PERFORM A SUBSURFACE INVESTIGATION FOR EACH FOUNDATION LOCATION.

THE DESIGN OF THE FOUNDATION SHALL BE COORDINATED WITH THE SIGN STRUCTURE AND THE STRUCTURE ANCHORAGE TO ENSURE THAT THE FOUNDATION IS ADEQUATE FOR THE STRUCTURE REACTIONS AND TO AVOID CONFLICTS BETWEEN THE EMBEDDED STRUCTURE ANCHORAGE AND THE FOUNDATION REINFORCEMENT.

THE SIGN STRUCTURE SHALL NOT BE INSTALLED UNTIL BOTH THE PEDESTAL CONCRETE AND SHAFT CONCRETE HAVE ATTAINED A 28 DAY COMPRESSIVE STRENGTH, f'_c, GREATER THAN OR EQUAL TO 4,000 PSI.

ADDITIONAL RIGID METAL CONDUITS SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.

ALL EMPTY RIGID METAL CONDUITS SHALL BE CAPPED.

THE RIGID METAL CONDUIT SWEEPS SHALL EXTEND A MINIMUM 2'-0" FROM THE SIDE OF THE FOUNDATION.

THE NO. 8 AWG BARE COPPER CONDUCTOR SHALL BE CONNECTED TO THE EXTERNAL GROUND ROD USING A GROUNDING CLAMP APPROVED FOR DIRECT BURIAL.

THE COST OF FOUNDATION EXCAVATION, REINFORCEMENT AND CONCRETE, INCLUDING THE DESIGN AND FABRICATION, SHALL BE PAID FOR UNDER THE ITEM "DRILLED SHAFT TRAFFIC STRUCTURE FOUNDATION".

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Plotted Date: 7/5/2018

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SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

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SIGNATURE/BLOCK:
Stantec Consulting Services Inc.
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Suite 601
New Haven, CT 06510

PROJECT TITLE: REPLACEMENT OF HIGHWAY SIGNING ON ROUTE 8

TOWN: BRIDGEPORT, TRUMBULL, SHELTON

DRAWING TITLE: DRILLED SHAFT TRAFFIC STRUCTURE FOUNDATION

PROJECT NO. 173-441
DRAWING NO. CTS-06
SHEET NO. 06.06