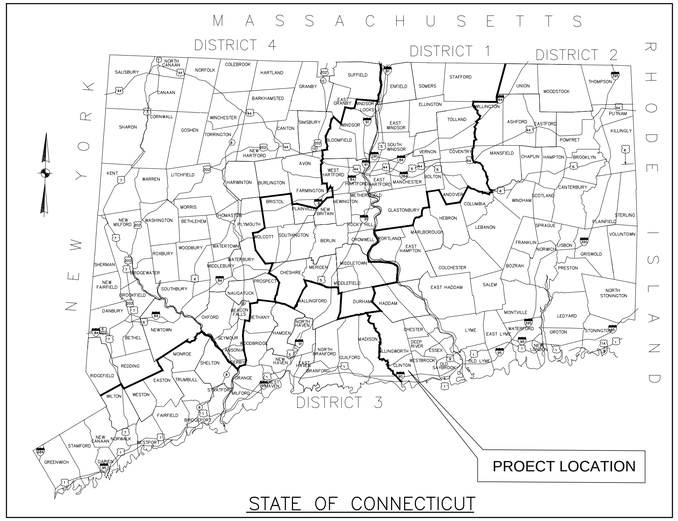
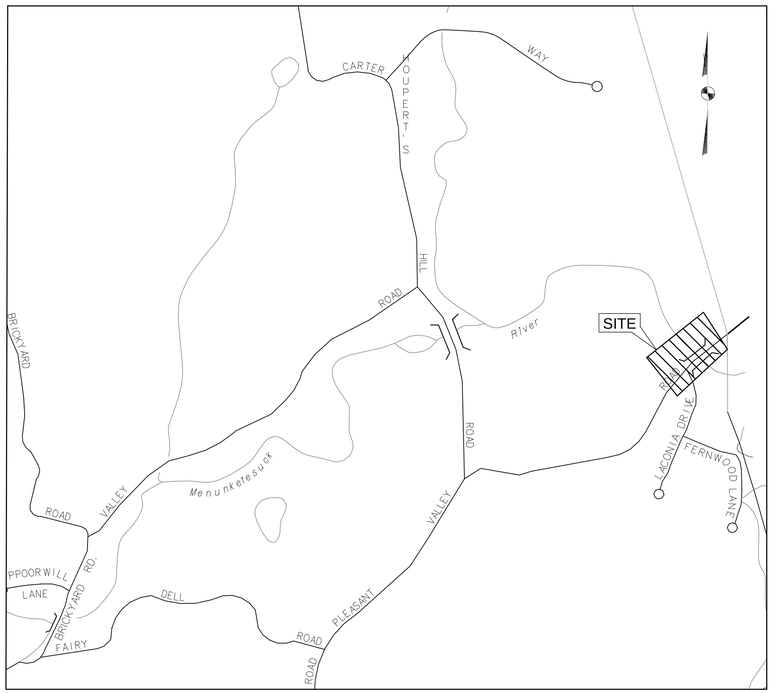
CONSTRUCTION DOCUMENTS
FOR
REPLACEMENT OF
PLEASANT VALLEY ROAD BRIDGE
OVER MENUNKETESUCK RIVER
CLINTON, CONNECTICUT
BRIDGE NO. 04609

FEBRUARY 18, 2020



STATE OF CONNECTICUT



PROJECT LOCATION MAP
1"=500'

FROM STA. 1+00.00 TO STA. 5+20.00

420 FT.

DESIGN
- PLAN 1 IN.= 20 FT.
- PROFILE HOR. 1 IN.= 20 FT. VERT. 1 IN. = 2FT.
- CROSS SECTIONS 1 IN.= 5 FT.

SCALES

OTHER SCALES AS NOTED

KARL F. KILDUFF
TOWN MANAGER

TODD HAJEK
DIRECTOR OF PUBLIC WORKS

(TO BE MAINTAINED BY TOWN OF CLINTON)

DRAWING INDEX	
SHEET NO.	DRAWING TITLE
1	TITLE SHEET
2	DETAILED ESTIMATE SHEET
3	EXISTING CONDITIONS
4	BORING LOGS
5	KEY PLAN AND PROFILES
6	GENERAL NOTES
7	PLAN AND LONGITUDINAL SECTION
8	ABUTMENT 1 PLAN & ELEVATION
9	ABUTMENT 2 PLAN & ELEVATION
10	ABUTMENT SECTIONS & DETAILS
11	WINGWALL SECTION & SUBSTRUCTURE DETAILS
12	FRAMING PLAN, SUBSTRUCTURE SECTION & DETAILS
13	PRECAST DECK SLAB 'A' DETAILS
14	PRECAST DECK SLAB 'B' DETAILS
15	PRECAST DECK SLAB 'C' DETAILS
16	PRECAST DECK SLAB 'D' DETAILS
17	BRIDGE END POST & PARAPET DETAILS
18	SUPERSTRUCTURE DETAILS
19	TYPICAL SECTION
20	PLAN
21	PROFILE
22	CROSS SECTION
23	CROSS SECTION
24	CROSS SECTION
25	DETOUR PLAN
26	E&S PLAN
27	DETAILS
	CT DOT HIGHWAY STANDARD SHEETS
	CT DOT TRAFFIC STANDARD SHEETS

2016 SPECIFICATIONS, 817 INCLUDING SUPPLEMENTS THERETO DATED.

SURVEY DATED 12/19/2016 WAS PERFORMED BY MARTIN SURVEY & ASSOCIATES UTILIZING THE CONNECTICUT GRID SYSTEM NAD 83. ALL ELEVATIONS REFER TO NAVD 1988 DATUM.

THE LOCATIONS OF ALL UTILITIES HEREON ARE BASED ON THE BEST AVAILABLE DATA, THE LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY "CALL BEFORE YOU DIG" 1-800-922-4455 AND HAVE ALL UTILITIES MARKED ON THE GROUND.

2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

STATE OF CONNECTICUT · A. GRAHAM CURTIS · No. 15805 · LICENSED PROFESSIONAL ENGINEER

A. Graham Curtis
2020.02.28
08:32:00-05'00'

DESIGN SPEED 25mph
POSTED SPEED 30mph

PREPARED BY: DIVERSIFIED TECHNOLOGY CONSULTANTS
PER: _____ DATE: 02/18/2020
A. GRAHAM CURTIS, PE

CONN. PROF. ENG. REG. NO.: 0015805

F.HW.A. REGION NO.	STATE	TOWN	FED. AID PROJ. NO.	PROJ. NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1	CONN.	CLINTON		9027-4609	2020		1	41

DETAILED ESTIMATE SHEET

FOR THE REPLACEMENT OF BRIDGE NO. 04609

ROADWAY ITEMS

Bridge No.	Station To Station	CLEARING AND GRUBBING 0201001A	EARTH EXCAVATION 0202000	EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL 0202216A	SUPPLEMENTAL PERVIOUS CHANNEL MATERIAL 0202217A	CUT BITUMINOUS CONCRETE PAVEMENT 0202529	HANDLING WATER 0204151A	BORROW 0207000	FORMATION OF SUBGRADE 0209001	TURBIDITY CONTROL CURTAINS 0210309	PROCESSED AGGREGATE BASE 0212300	SEDIMENTATION CONTROL HAY BALE SYSTEM 0219002	SEDIMENTATION CONTROL FILTER FABRIC FENCE SYSTEM 0219003	HMA S1.0 0406170	HMA S9.5 0406171	MATERIAL FOR TACK COAT 0406236	TEMPORARY PRECAST CONCRETE BARRIER CURB 0923001	R-B 350 BRIDGE ATTACHMENT (TEMPORARY SHIELD PARAPET 0916173	METAL BEAM RAIL (R-B MASH) 0910300	R-B END ANCHORAGE TYPE I 0911924	BITUMINOUS CONCRETE DRIVEWAY 0922501	FURNISHING AND PLACING TOPSOIL 0946050	FURNISHING, PLANTING AND MAINTAINING TREES, SHRUBS, VINES AND GROUND COVER PLANTS 0949503A	ESTABLISHMENT 0950005	EROSION CONTROL MATTING 0950013	WETLAND GRASS ESTABLISHMENT 0950043A	CONSTRUCTION FIELD OFFICE, SMALL 0969060A	MAINTENANCE AND PROTECTION OF TRAFFIC 0971001A	MOBILIZATION AND PROJECT CLOSEOUT 0971004	BARRICADE WARNING DEVICE, TYPE III 0976002	TRAFFIC CONES 0977001	TRAFFIC DRUM 0978002	CONSTRUCTION BARRICADE TYPE III 0979001	CONSTRUCTION STAKING 0980001	4" YELLOW EPOXY RESIN PAVEMENT MARKING 0982102	CONSTRUCTION SIGNS 1220027
		L.S.	C.Y.	C.Y.	EST.	L.F.	L.S.	CY	S.Y.	L.F.	C.Y.	L.F.	L.F.	TON	TON	GAL	L.F.	EA.	L.F.	EA.	S.Y.	S.Y.	EST.	S.Y.	S.Y.	S.Y.	MO.	L.S.	L.S.	DAY	EA.	EA.	EA.	L.S.	L.F.	S.F.
Project 16-155																																				
		L.S.	240	40	EST.	70	L.S.	293	1090	157	318	150	698	114	113	109	20	4	360	4	56	684	EST.	403	684	281	9	L.S.	L.S.	1643	10	10	6	L.S.	814	322
TOTAL		L.S.	240	40	EST.	70	L.S.	293	1090	157	318	150	698	114	113	109	20	4	360	4	56	684	EST.	403	684	281	9	L.S.	L.S.	1643	10	10	6	L.S.	814	322
TOTAL		L.S.	240	40	EST.	70	L.S.	293	1090	157	318	150	698	114	113	109	20	4	360	4	56	684	EST.	403	684	281	9	L.S.	L.S.	1643	10	10	6	L.S.	814	322

BRIDGE ITEMS

Bridge No.	Station To Station	STRUCTURE EXCAVATION, EARTH (EXCLUDING HANDLING WATER) 0206001A	COMPACTED GRANULAR FILL 0214100	PERVIOUS STRUCTURE BACKFILL 0214000	SAWING AND SEALING JOINTS IN BITUMINOUS CONCRETE PAVEMENT 0402401	HMA S9.5 0406171	HMA S0.25 0406173	JOINT AND CRACK SEALING OF BITUMINOUS CONCRETE PAVEMENT 0406194	MATERIAL FOR TACK COAT 0409236	REMOVAL OF SUPERSTRUCTURE 0503001A	PRESTRESSED DECK UNITS (2'-0" X 1'-3") 0512126	PRESTRESSED DECK UNITS (4'-0" X 1'-3") 0514222	ELASTOMERIC BEARING PADS 0521001	ABUTMENT AND WALL CONCRETE 0601564	FOOTING CONCRETE 0601062	PARAPET CONCRETE 0601121	APPROACH SLAB CONCRETE 0601123	1" PREFORMED EXPANSION JOINT FILLER FOR BITUDES 0601564	ASPHALTIC PLUG EXPANSION JOINT SYSTEM 0601604	DEFORMED STEEL BARS, GALVANIZED 0602030	MASONRY FACING 0606006A	FURNISHING STEEL PILES 0702101	DRIVING STEEL PILES 0702111	TEST PILE STEEL HP 10X57 (30' L.ONG) 0702612	TEST PILE (STEEL HP 10X57-35' LONG) 0702613	MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC) 0707006A	DAMPROOFING 0708001	BAGGED STONE 0720002	GRANITE PARAPET CAP 0817006A	REMOVAL OF EXISTING MASONRY 0974002A
		CY	CY	CY	L.F.	TON	TON	L.F.	GAL	L.S.	L.F.	L.F.	C.I.	C.Y.	C.Y.	L.F.	C.Y.	S.F.	L.F.	LB	S.F.	LB	L.F.	EA.	EA.	S.Y.	S.Y.	C.F.	EA.	L.S.
Project 16-155																																
		890	120	520	55	24	12	70	20	L.S.	34	238	3965	110	110	70	55	120	54	54000	480	115000	2100	1	1	200	140	64	72	L.S.
TOTAL		890	120	520	55	24	12	70	20	L.S.	34	238	3965	110	110	70	55	120	54	54000	480	115000	2100	1	1	200	140	64	72	L.S.
TOTAL																																
TOTAL		890	120	520	55	24	12	70	20	L.S.	34	238	3965	110	110	70	55	120	54	54000	480	115000	2100	1	1	200	140	64	72	L.S.

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON

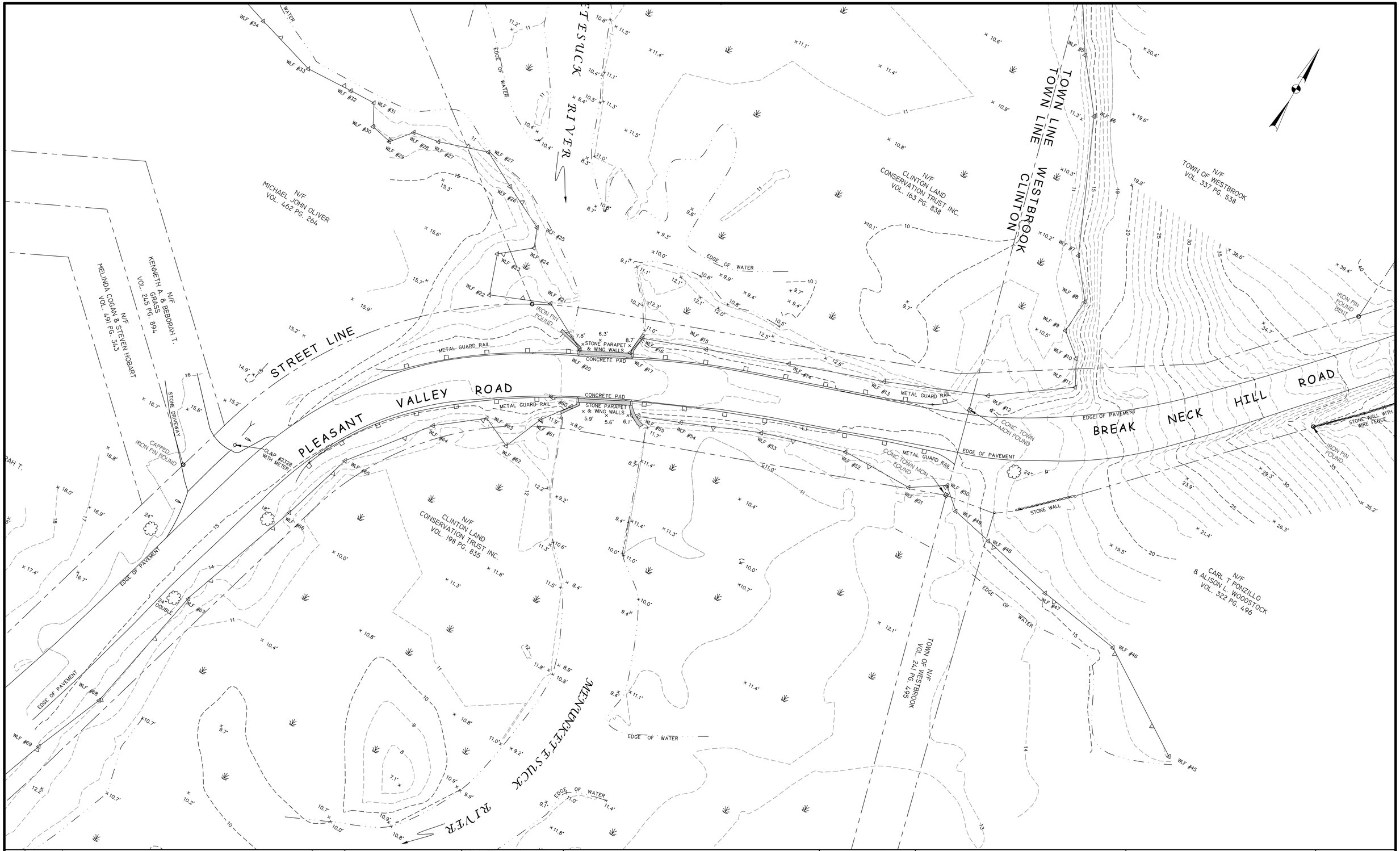
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203-239-4205 Fax: 203-234-7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: DETAILED ESTIMATE SHEET

PROJECT NO.: 9027-4609
DRAWING NO.: EST-1
SHEET NO.: 2



REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

SCALE IN FEET
0' 20' 40'
SCALE: 1" = 20'

DESIGNER: JAB	TOWN OF CLINTON
DRAFTER: CJS	
CHECKED BY: SRL	ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
DATE CHECKED: 2/17/2020	APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: EXISTING CONDITIONS

PROJECT NO.: 9027-4609
DRAWING NO.: EX-1
SHEET NO.: 3

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT: DTC

PROJECT NAME: BRIDGE OVER MENUNKETESUCK RIVER
LOCATION: PLEASANT VALLEY ROAD, CLINTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	NQ
SIZE I.D.	3.75"		1.375"	2.0"
HAMMER WT.			140lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 17.0 **HOLE NO. B-1**
GROUND WATER OBSERVATIONS
AT 10.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS
START DATE 1/25/17
FINISH DATE 1/25/17

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.33	
	1	5-8-5-5	1.0'-3.0'		BR.FINE-CRS.SAND, LITTLE GRAVEL, TRACE SILT - FILL	15
	2	3-3-2-2	3.0'-5.0'			
5	3	2-1-1-0	5.0'-7.0'			
	4	1-0-1-4	7.0'-9.0'		BLACK ORGANIC SILT 7.0	10
	5	3-7-6-5	9.0'-11.0'		GREY/BR.FINE-CRS.SAND, LITTLE SILT & GRAVEL 8.5	
10					GREY/BR.SILT, TRACE FINE SAND 13.0	5
15	6	4-5-7	15.0'-16.5'			0
					BR.SILT 18.0	
20	7	2-3-5	20.0'-21.5'			-5
25	8	3-5-6	25.0'-26.5'			-10
30	9	15-11-9	30.0'-31.5'		BR.FINE-CRS.SAND, LITTLE SILT & GRAVEL 30.0	-15
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:
SHEET 1 OF 2 HOLE NO. **B-1**

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT: DTC

PROJECT NAME: BRIDGE OVER MENUNKETESUCK RIVER
LOCATION: PLEASANT VALLEY ROAD, CLINTON, CT

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
	10	7-8-6	35.0'-36.5'			-20
40	11	5-7-9	40.0'-41.5'		BR.FINE-CRS.SAND, TRACE SILT 40.0	-25
45	12	9-11-12	45.0'-46.5'		BR.FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL 44.0	-30
50	13	60	50.0'-50.1'		CORED BEDROCK - SCHIST AND GNEISS 50.0	-35
					RUN# 1 50.0' - 55.0' RECOVERED 55" RQD=65%	
55					BOTTOM OF BORING @ 55.0' 55.0	-40
60						-45
65						-50
70						-55
75						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:
SHEET 2 OF 2 HOLE NO. **B-1**

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT: DTC

PROJECT NAME: BRIDGE OVER MENUNKETESUCK RIVER
LOCATION: PLEASANT VALLEY ROAD, CLINTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	NQ
SIZE I.D.	3.75"		1.375"	2.0"
HAMMER WT.			140lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 17.0 **HOLE NO. B-2**
GROUND WATER OBSERVATIONS
AT 10.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS
START DATE 1/26/17
FINISH DATE 1/26/17

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.40	
	1	6-8-7-4	1.0'-3.0'		BR.FINE-CRS.SAND, LITTLE GRAVEL, TRACE SILT - FILL	15
	2	5-4-4-3	3.0'-5.0'			
5	3	2-1-0-1	5.0'-7.0'			
	4	1-1-1-1	7.0'-9.0'		BLACK ORGANIC SILT 5.5	10
	5	3-7-9-9	9.0'-11.0'		GREY/BR.FINE-CRS.SAND, LITTLE GRAVEL, TRACE SILT 9.5	
10						5
15	6	3-3-5	15.0'-16.5'		GREY/BR.FINE-MED.SAND, TRACE SILT 15.0	0
					BR.SILT 18.0	
20	7	5-7-9	20.0'-21.5'			-5
25	8	6-8-9	25.0'-26.5'		BR.FINE-CRS.SAND, LITTLE GRAVEL, TRACE SILT 23.0	-10
30	9	3-5-9	30.0'-31.5'			-15
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:
SHEET 1 OF 2 HOLE NO. **B-2**

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT: DTC

PROJECT NAME: BRIDGE OVER MENUNKETESUCK RIVER
LOCATION: PLEASANT VALLEY ROAD, CLINTON, CT

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
	10	4-5-8	35.0'-36.5'			-20
40	11	6-7-13	40.0'-41.5'		GREY FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL 38.0	-25
45					CORED BEDROCK - SCHIST AND GNEISS 44.0	-30
50					RUN# 1 44.0' - 49.0' RECOVERED 56" RQD=47%	-35
					BOTTOM OF BORING @ 49.0' 49.0	
55						-40
60						-45
65						-50
70						-55
75						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:
SHEET 2 OF 2 HOLE NO. **B-2**

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON

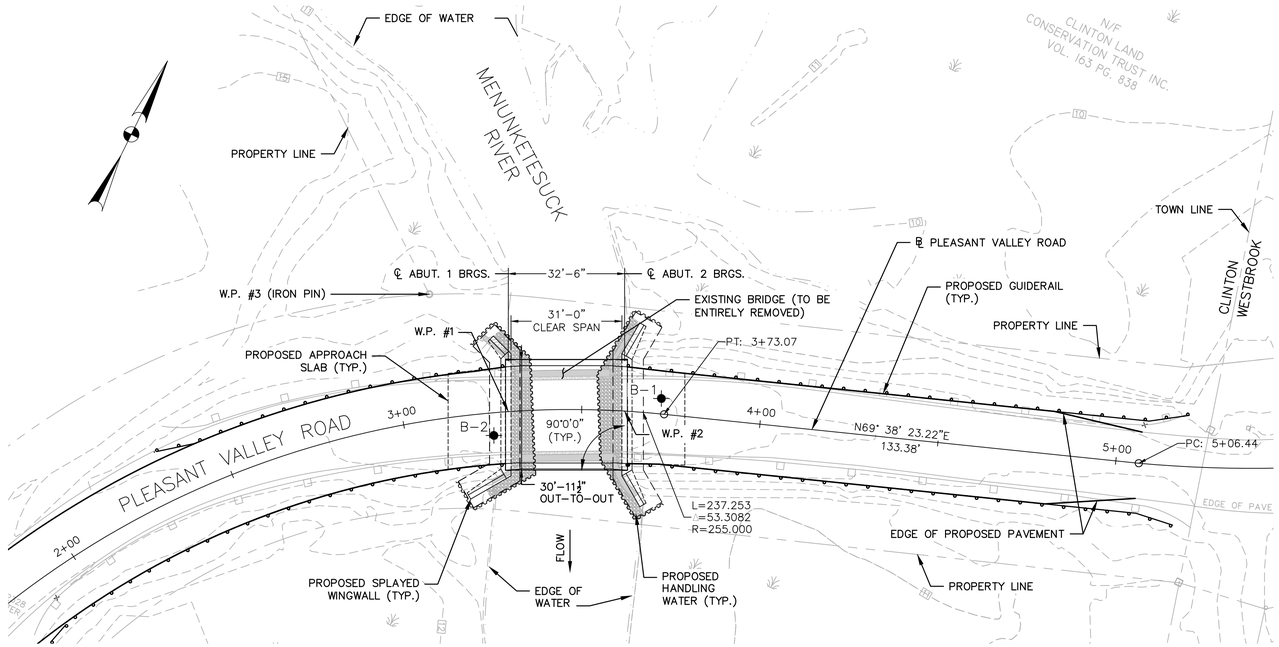
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden, CT 06518
Ph: 203 239-4200 Fax: 203 234 7376
www.teamdtc.com

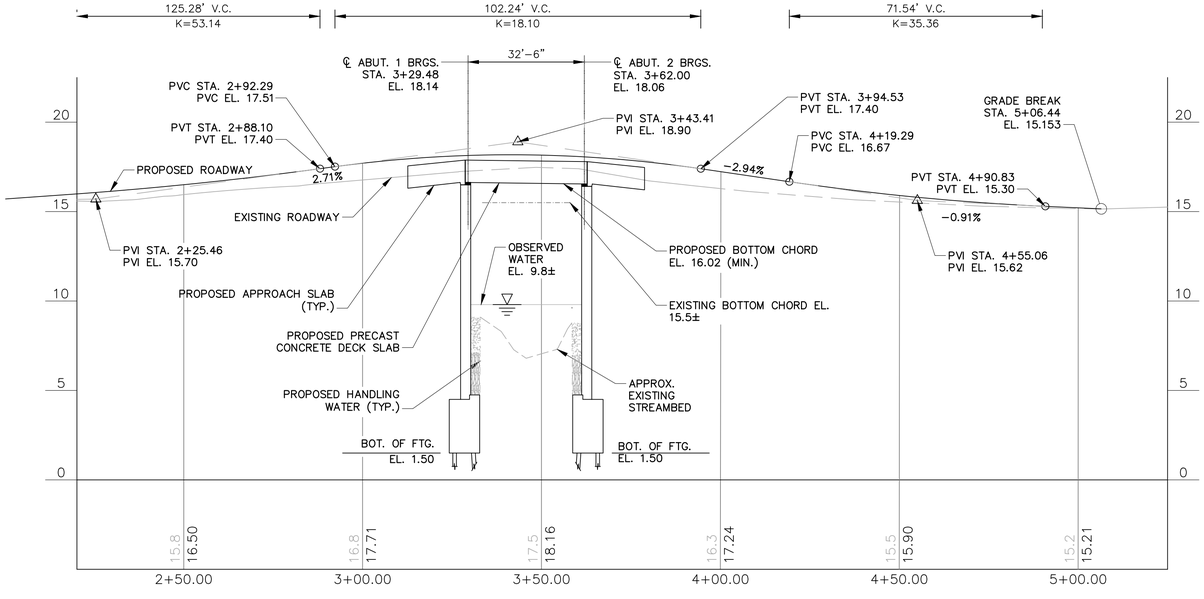
PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: BORING LOGS

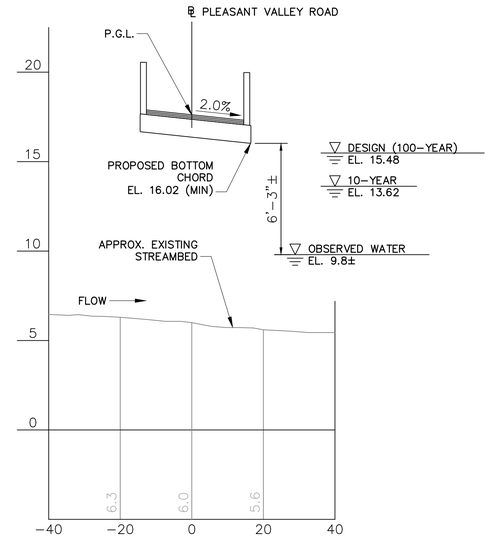
PROJECT NO.: 9027-4609
DRAWING NO.: BL-1
SHEET NO.: 4



KEY PLAN
SCALE: 1" = 20'



PROFILE ℄ PLEASANT VALLEY ROAD
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE ¼" = 1'-0"



PROFILE MENUNKETESUCK RIVER
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE ¼" = 1'-0"

REV.	DATE	DESCRIPTION	SHT. NO.

REVISIONS

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE:
REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE:
KEY PLAN AND PROFILES

PROJECT NO.: 9027-4609
DRAWING NO.: S-1
SHEET NO.: 5

GENERAL NOTES

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION FORM 817 (2016), SUPPPLEMENTAL SPECIFICATION DATED 07/19, AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (8TH EDITION–2017), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003) REVISION 12/19.

CAST–IN–PLACE DESIGN STRESSES:

CLASS "PCCO 3340"	f'c = 3300 PSI
CLASS "PCCO 4460 AND 4462"	f'c = 4400 PSI
REINFORCEMENT (ASTM A615 GRADE 60)	fy = 60,000 PSI

PRECAST DESIGN STRESSES:

CONCRETE	f'c = 6500 PSI
PRESTRESSING STRANDS	fy = 270,000 PSI

THE CONCRETE STRENGTH, f'c, USED IN DESIGN OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 6.01–CONCRETE FOR STRUCTURES, AND M.03 –PORTLAND CEMENT CONCRETE.

LIVE LOAD: HL–93, LEGAL AND PERMIT VEHICLES

FUTURE PAVING ALLOWANCE: NONE

BITUMINOUS CONCRETE OVERLAY: THE OVERLAY TO CONSIST OF TWO COURSES. THE FIRST TO BE BITUMINOUS CONCRETE – 1" SUPERPAVE – 0.25 (HMA S0.25) AND THE SECOND TO BE BITUMINOUS CONCRETE – 2" SUPERPAVE – 0.5 (HMA S0.5).

FOUNDATIONS: FOUNDATIONS MAY BE ALTERED, IF NECESSARY, TO SUIT CONDITIONS ENCOUNTERED DURING CONSTRUCTION, WITH THE APPROVAL OF THE ENGINEER.

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

EXISTING PLANS: THERE ARE NO EXISTING BRIDGE PLANS. LIMITS OF EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. EXISTING STRUCTURE INFORMATION HAS BEEN TAKEN FROM FIELD SURVEY AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE REMOVAL QUANTITY ACCURACY.

UTILITIES: THE FOLLOWING UTILITIES ARE LOCATED WITHIN THE PROJECT LIMITS AND NEED TO BE PROTECTED DURING CONSTRUCTION: CONNECTICUT LIGHT AND POWER. THE CONTRACTOR WILL COORDINATE ALL WORK RELATED TO UTILITY RELOCATION WITH THE RESPECTIVE UTILITY COMPANIES.

UNSUITABLE MATERIAL: ALL UNSUITABLE MATERIAL SHALL BE REMOVED WITHIN THE LIMITS OF THE BRIDGE, AS DIRECTED BY THE ENGINEER.

CONCRETE NOTES

THE FOLLOWING PAY ITEMS AND CONCRETE CLASSES ARE REQUIRED FOR CAST–IN–PLACE BRIDGE COMPONENTS:

ITEM	BRIDGE COMPONENTS	PCC CLASS
FOOTING CONCRETE	ABUTMENT AND WINGWALL FOOTINGS	PCC03340
ABUTMENT AND WALL CONCRETE	ABUTMENT AND WINGWALL STEMS,	PCC03340
PARAPET CONCRETE	BRIDGE PARAPET, END POSTS AND KEEPER BLOCKS	PCC04462
APPROACH SLAB CONCRETE	APPROACH SLABS	PCC04460

EXPOSED EDGES: EXPOSED EDGES OF CONCRETE WILL BE BEVELED 1"x1" UNLESS DIMENSIONED OTHERWISE.

CONCRETE COVER: ALL REINFORCEMENT WILL HAVE TWO INCHES COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT: ALL REINFORCEMENT WILL BE GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE. ALL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A767, CLASS 1, INCLUDING SUPPLEMENTAL REQUIREMENTS. THE COST OF FURNISHING AND PLACING THIS REINFORCEMENTS SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS–GALVANIZED."

PREFORMED EXPANSION JOINT FILLER: THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER IS PAID FOR AS "1", TYPE II 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 ENGINEER.

HYDRAULIC DATA:

DRAINAGE AREA:_____ 13.4 SQUARE MILES
DESIGN DISCHARGE:_____ 1,980 CUBIC FEET PER SECOND
DESIGN FREQUENCY:_____ 100 YEARS
DESIGN VELOCITY:_____ 3.16 FEET PER SECOND
DESIGN FLOOD ELEVATION:___ 15.48 FEET, (NAVD–88)

BASE (100–YEAR) FLOOD DATA

BASE FLOOD DISCHARGE:____ 1,980 CUBIC FEET PER SECOND
BASE FLOOD ELEVATION:____ 15.48 FEET (NAVD–88)

DESIGN AND CHECK SCOUR DATA

DESIGN SCOUR FLOOD EVENT RETURN FREQUENCY: 100 YEARS
CHECK SCOUR FLOOD EVENT RETURN FREQUENCY: 500 YEARS

FLOOD OF RECORD

DISCHARGE:_____ UNKNOWN
FREQUENCY:_____ UNKNOWN
MAXIMUM ELEVATION:_____ UNKNOWN
DATE:_____ UNKNOWN
HISTORY OF ICE FLOES:____ NONE DOCUMENTED IN NBIS DATABASE
EVIDENCE OF SCOUR
AND EROSION:_____ NONE DOCUMENTED IN NBIS DATABASE

MAJOR WORK
ENTIRELY REMOVE EXISTING BRIDGE.
CONSTRUCT NEW ABUTMENTS.
INSTALL PRECAST CONCRETE DECK SLABS.
CONSTRUCT WINGWALLS AND KEEPER BLOCKS.
CONSTRUCT APPROACH SLABS.
CONSTRUCT PARAPETS AND ENDPOSTS.
PLACE NEW BITUMINOUS CONCRETE WEARING SURFACE.

CONCRETE DISTRIBUTION (C.Y.)	
SUPERSTRUCTURE – CLASS "PCC04462"	15
SUPERSTRUCTURE – CLASS "PCC04460"	55
SUBSTRUCTURE – CLASS "PCC03340"	110
FOOTINGS – CLASS "PCC03340"	110
TOTAL	290

PRECAST CONCRETE DECK UNITS SHIPPING DATA			
MAXIMUM LENGTH	MAXIMUM HEIGHT	MAXIMUM WIDTH	MAXIMUM WEIGHT
34'–0"	2'–6"	4'–0"	12 TON

NOTE TO BRIDGE INSPECTOR

THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS . (THE LISTING OF COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE). THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION UNLESS OTHERWISE DIRECTED BY CONNDOT'S MANAGER OF BRIDGE SAFETY AND EVALUATION.

COMPONENT OR DETAILS	BRIDGE SHEET REFERENCE
FOLLOW NORMAL INSPECTION PROCEDURE	

REV.	DATE	DESCRIPTION	SHT. NO.

REVISIONS

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

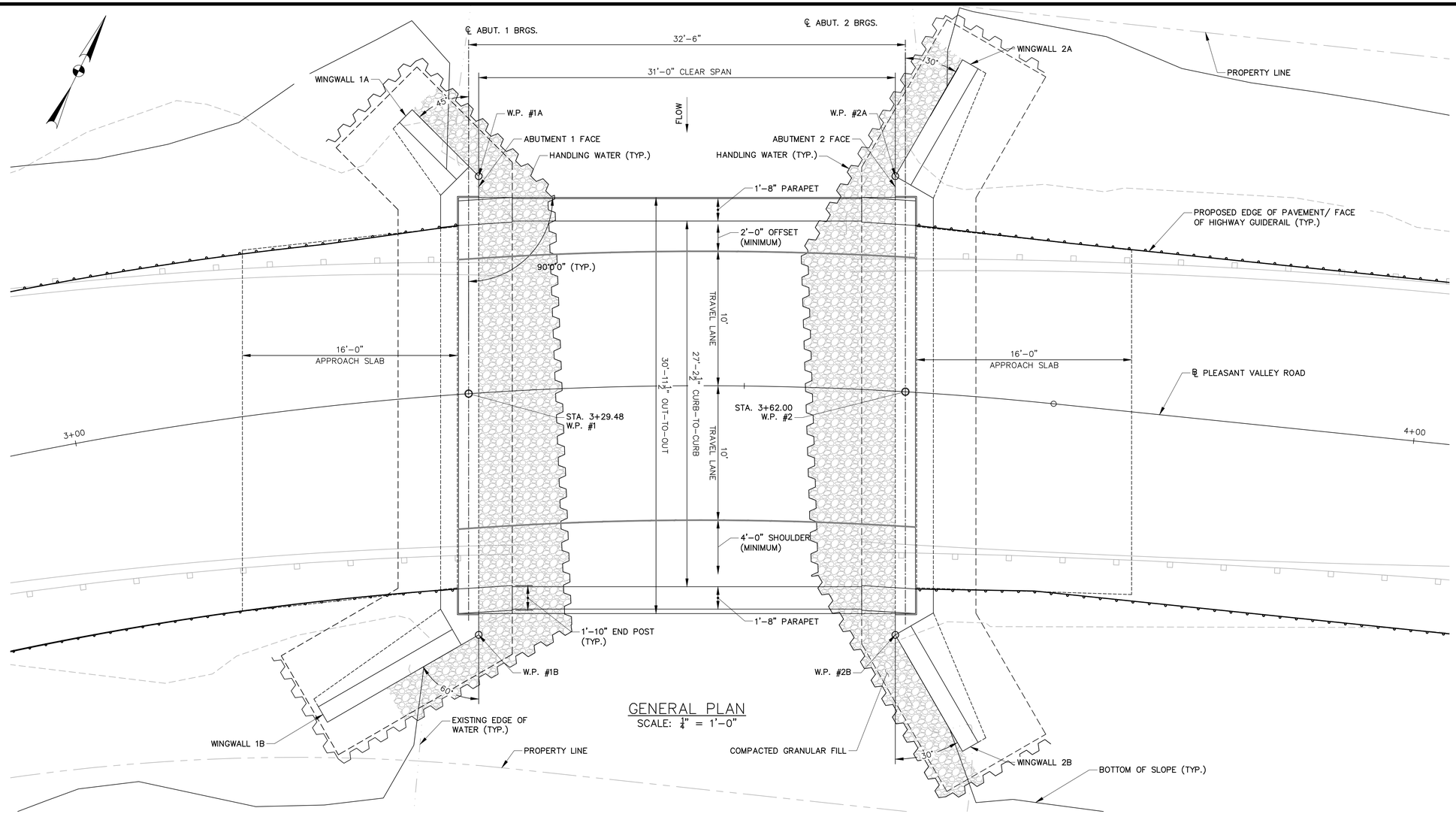
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

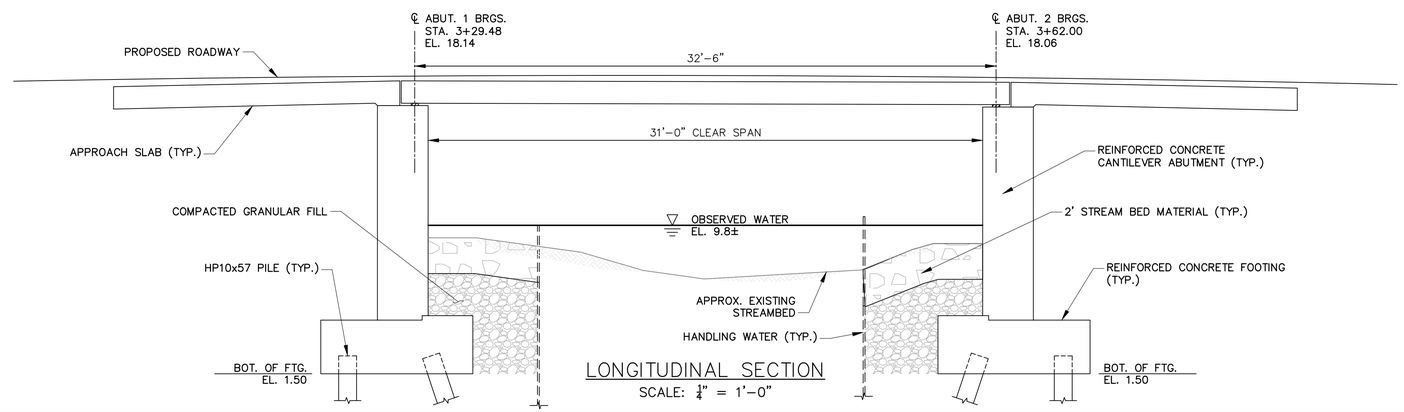
PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0–Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: GENERAL NOTES

PROJECT NO.: 9027–4609
DRAWING NO.: S–2
SHEET NO.: 6



GENERAL PLAN
SCALE: ¼" = 1'-0"



LONGITUDINAL SECTION
SCALE: ¼" = 1'-0"

WORKING POINT COORDINATES		
W.P. #	NORTHING	EASTING
1	672,762.76	1,068,611.00
1A	672,777.60	1,068,604.52
1B	672,747.00	1,068,619.61
2	672,777.26	1,068,640.09
2A	672,791.31	1,068,632.32
2B	672,760.71	1,068,647.41
3	672,782.41	1,068,576.66

NOTE: FOR LOCATION OF WORKING POINT #3, SEE KEY PLAN.

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

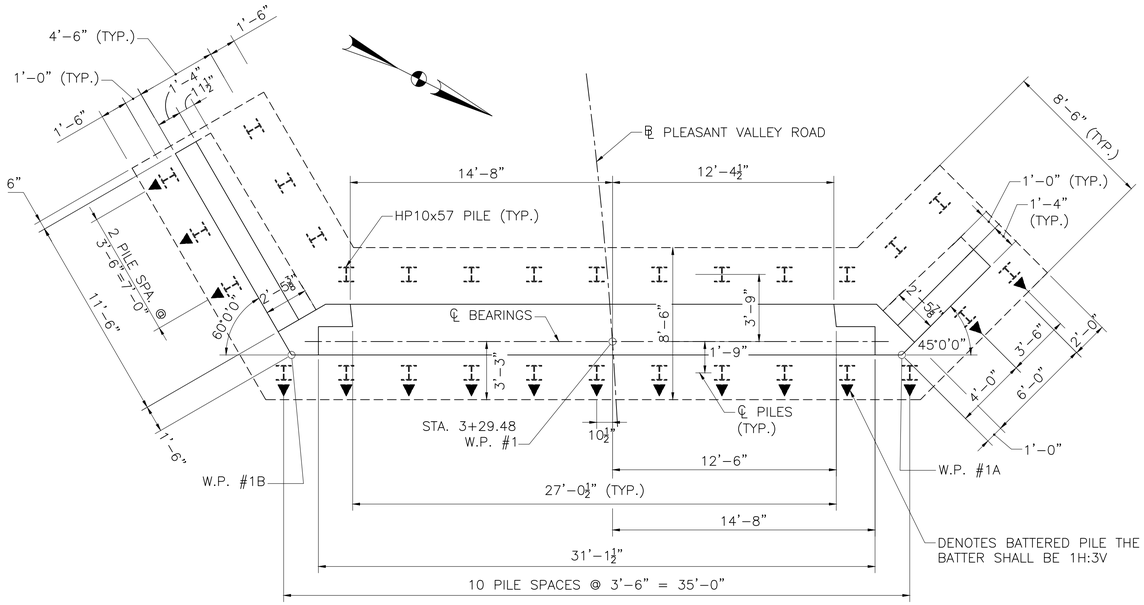
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 230 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE:
REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

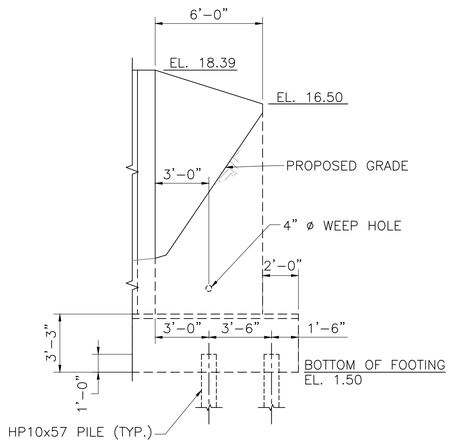
DRAWING TITLE:
PLAN AND LONGITUDINAL SECTION

PROJECT NO.: 9027-4609
DRAWING NO.: S-3
SHEET NO.: 7



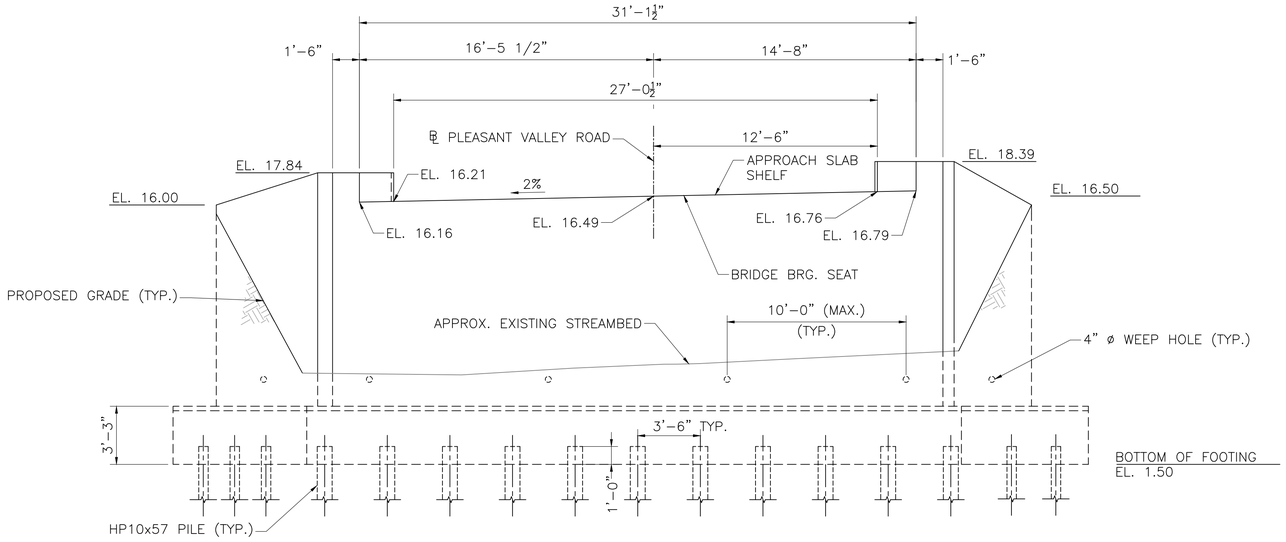
ABUTMENT 1 PLAN

SCALE: ¼" = 1'-0"



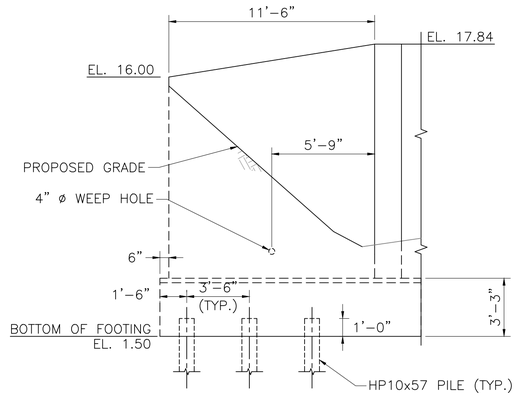
DEVELOPED WINGWALL 1A ELEVATION

SCALE: ¼" = 1'-0"



ABUTMENT 1 ELEVATION

SCALE: ¼" = 1'-0"



DEVELOPED WINGWALL 1B ELEVATION

SCALE: ¼" = 1'-0"

ABUTMENT #1	
PILE TYPE	QUANTITY
BATTERED PILES	16
VERTICAL PILES	14

PRIOR TO DRIVING THE PILES THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL HIS METHOD AND SEQUENCE OF PILE INSTALLATION

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

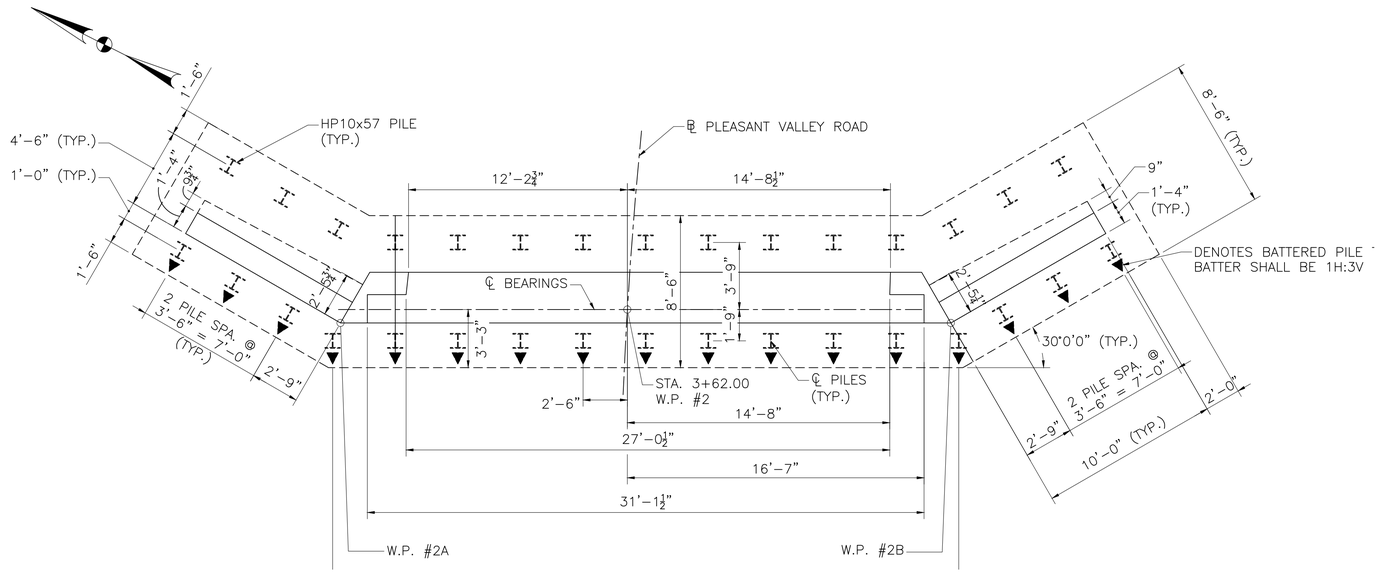
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph. 203 239-4200 Fax 203 234 7376
www.dtcinfo.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

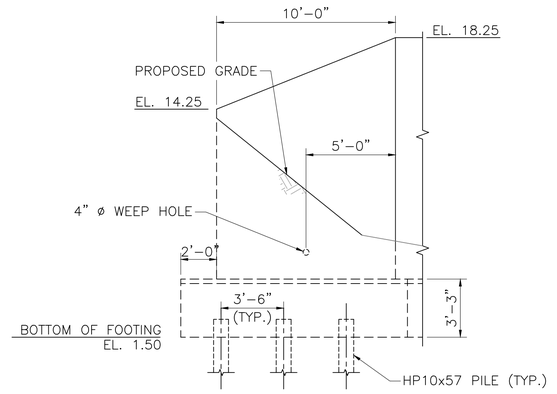
DRAWING TITLE: ABUTMENT 1 PLAN & ELEVATION

PROJECT NO.: 9027-4609
DRAWING NO.: S-4
SHEET NO.: 8



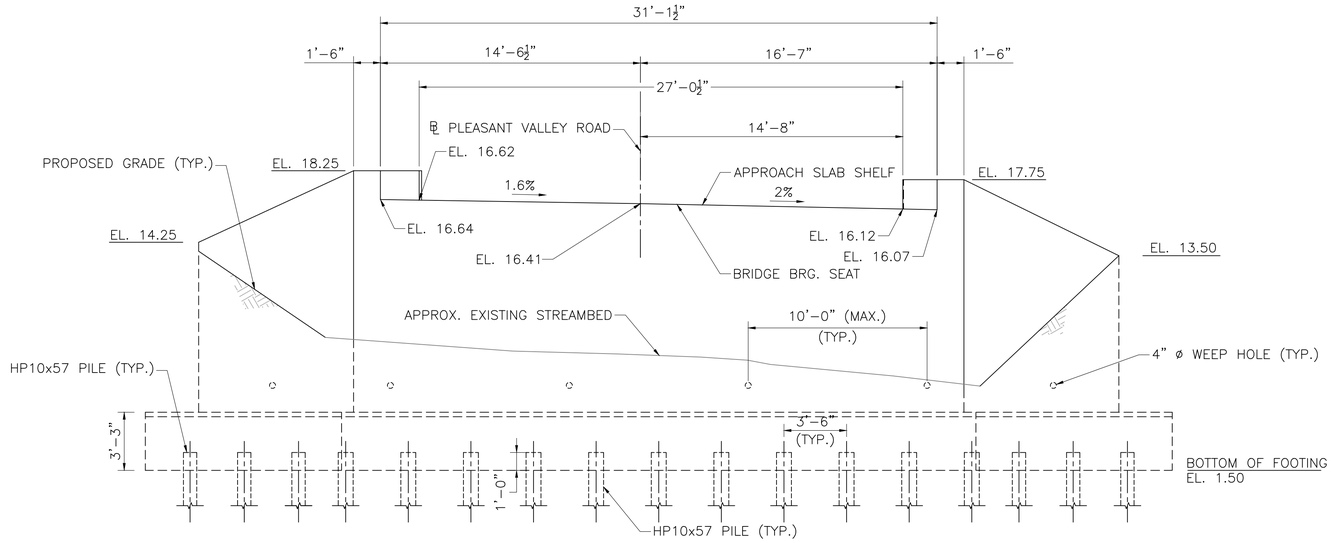
ABUTMENT 2 PLAN

SCALE: ¼" = 1'-0"



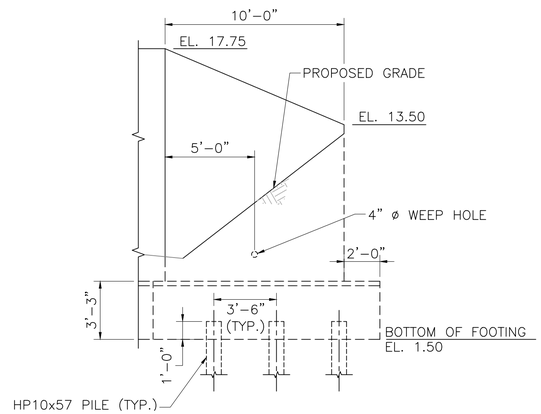
DEVELOPED WINGWALL 2A ELEVATION

SCALE: ¼" = 1'-0"



ABUTMENT 2 ELEVATION

SCALE: ¼" = 1'-0"



DEVELOPED WINGWALL 2B ELEVATION

SCALE: ¼" = 1'-0"

ABUTMENT #2	
PILE TYPE	QUANTITY
BATTERED PILES	17
VERTICAL PILES	15

PRIOR TO DRIVING THE PILES THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL HIS METHOD AND SEQUENCE OF PILE INSTALLATION

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

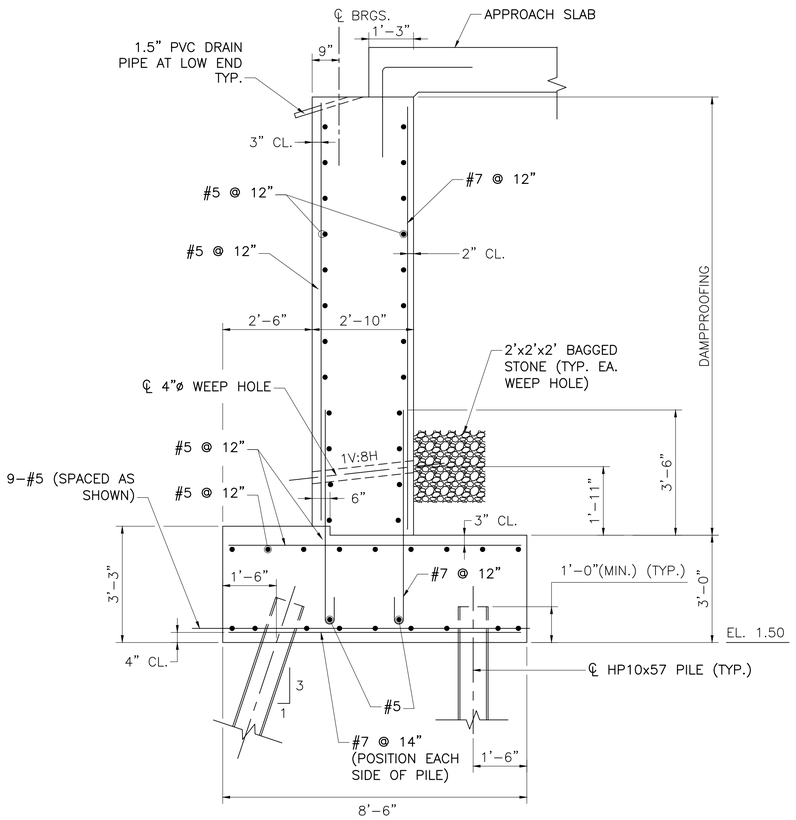
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203-239-4230 Fax: 203-234-7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: ABUTMENT 2 PLAN & ELEVATION

PROJECT NO.: 9027-4609
DRAWING NO.: S-5
SHEET NO.: 9

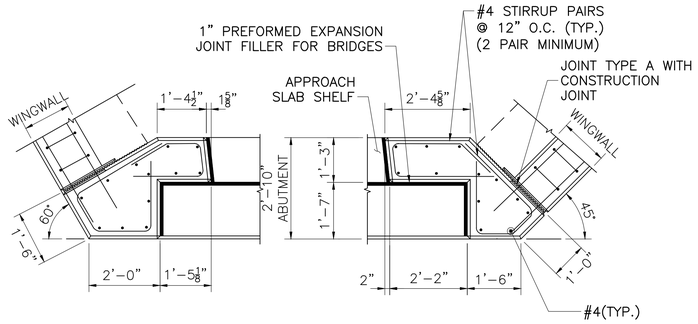


ABUTMENT SECTION

SCALE: $\frac{1}{2}$" = 1'-0"

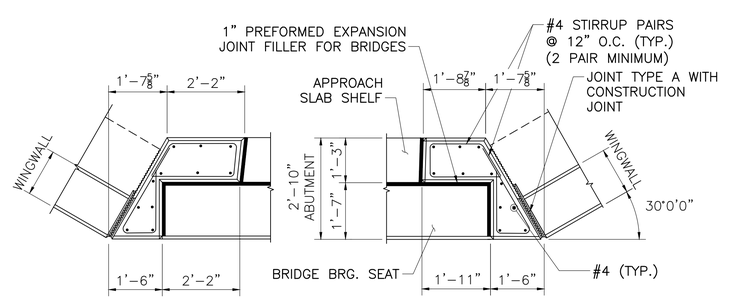
GEOTECHNICAL NOTE:

STRENGTH PILE CAPACITY = 113 K/PILE



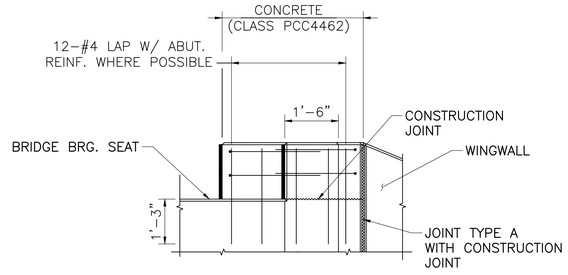
KEEPER BLOCK 1B KEEPER BLOCK 1A

PLAN VIEWS



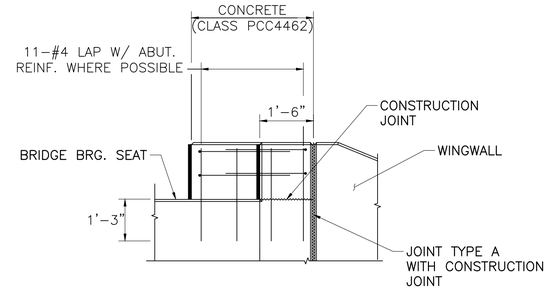
KEEPER BLOCK 2A KEEPER BLOCK 2B

PLAN VIEWS



KEEPER BLOCK 1A ELEVATION

ABUTMENT 1



KEEPER BLOCK 2B ELEVATION

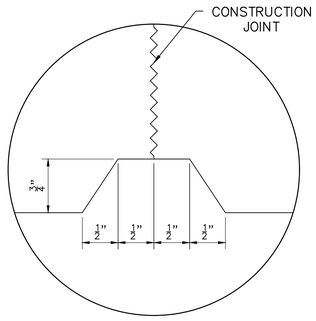
ABUTMENT 2

KEEPER BLOCK DETAILS

SCALE: $\frac{1}{2}$" = 1'-0"

NOTE:

BRIDGE BEARING SEAT TO HAVE SMOOTH TROWEL FINISH FOLLOWING THE CROSS SLOPE OF THE ROADWAY.
APPROACH SLAB AND BRIDGE DECK SLABS NOT SHOWN.



JOINT TYPE A ENLARGED VIEW

REV.	DATE	DESCRIPTION REVISIONS	SHT. NO.

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

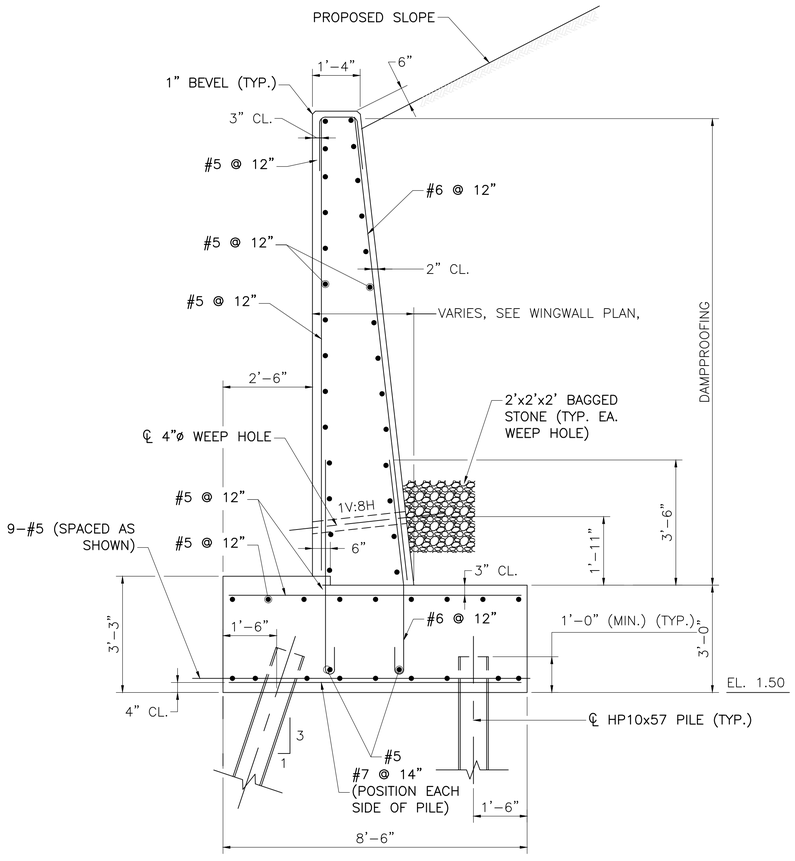
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203-239-4230 Fax: 203-234-7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

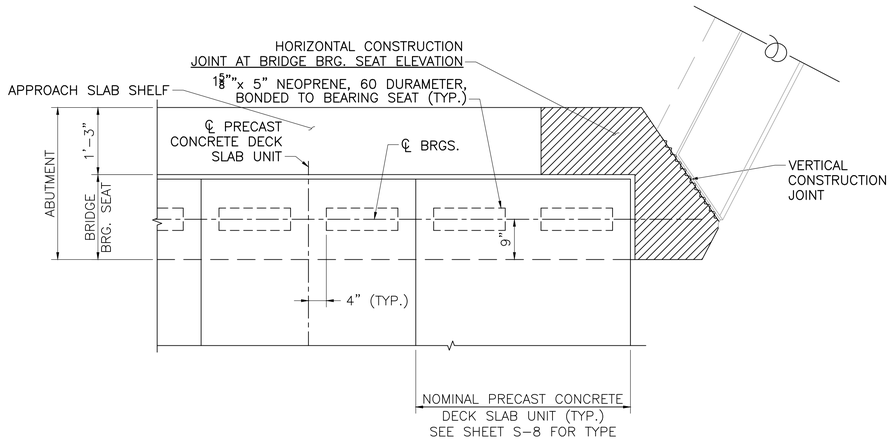
DRAWING TITLE: ABUTMENT SECTION & DETAILS

PROJECT NO.: 9027-4609
DRAWING NO.: S-6
SHEET NO.: 10

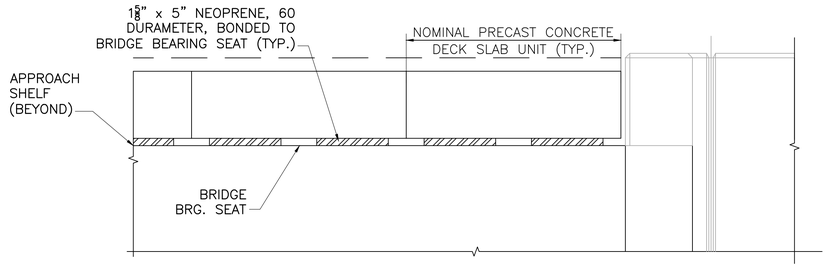


WINGWALL SECTION

SCALE: $\frac{1}{2}$" = 1'-0"



PLAN



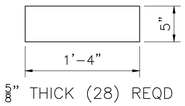
ELEVATION

NOTE:

KEEPER BLOCK AND WINGWALL SHOWN GRAY FOR CLARITY.

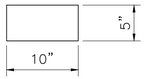
BEARING DETAIL

SCALE: $\frac{3}{4}$" = 1'-0"



1 5/8" THICK (28) REQD

BEARING PAD DETAIL FOR TYPE A, TYPE B, AND TYPE D DECK SLAB UNIT



1 5/8" THICK (4) REQD

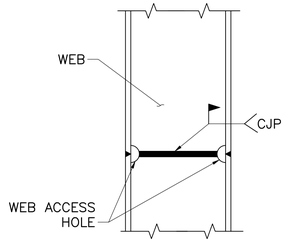
BEARING PAD DETAIL FOR TYPE C DECK SLAB UNIT

GEOTECHNICAL NOTE:

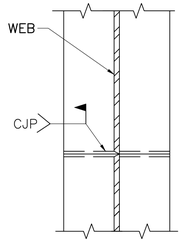
STRENGTH PILE CAPACITY = 113 K/PILE

NOTES:

1. ALL WELDS SHALL BE COMPLETE PENETRATION AND SHALL CONFORM TO THE ANSI/AASHTO/AWS BRIDGE WELDING CODE, D1.5.
2. WELDING PROCEDURE SPECIFICATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO WELDING.
3. WHENEVER POSSIBLE, ALL PILES SHALL BE SPLICED ON THE GROUND IN THE FLAT POSITION.
4. WEB SHALL BE COPED TO ALLOW FOR COMPLETE PENETRATION WELDING OF FLANGES.
5. THE CONTRACTOR MAY UTILIZE WELDED MECHANICAL PILE SPLICERS AT NO ADDITIONAL COMPENSATION.
6. SPLICE DETAILS SHOWN AS A CONVENIENCE TO THE CONTRACTOR. PILE SPLICE COST INCIDENTAL.



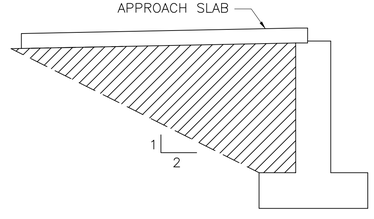
ELEVATION



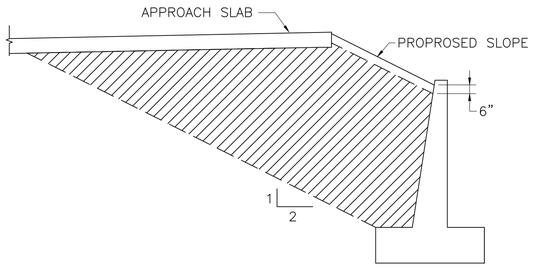
SECTION

PILE SPLICE DETAILS

NOT TO SCALE



ABUTMENT



WINGWALL

NOTE:

HATCHED AREA INDICATES LIMITS OF PERVIOUS STRUCTURE BACKFILL.

LIMITS OF PERVIOUS STRUCTURE BACKFILL

NOT TO SCALE

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

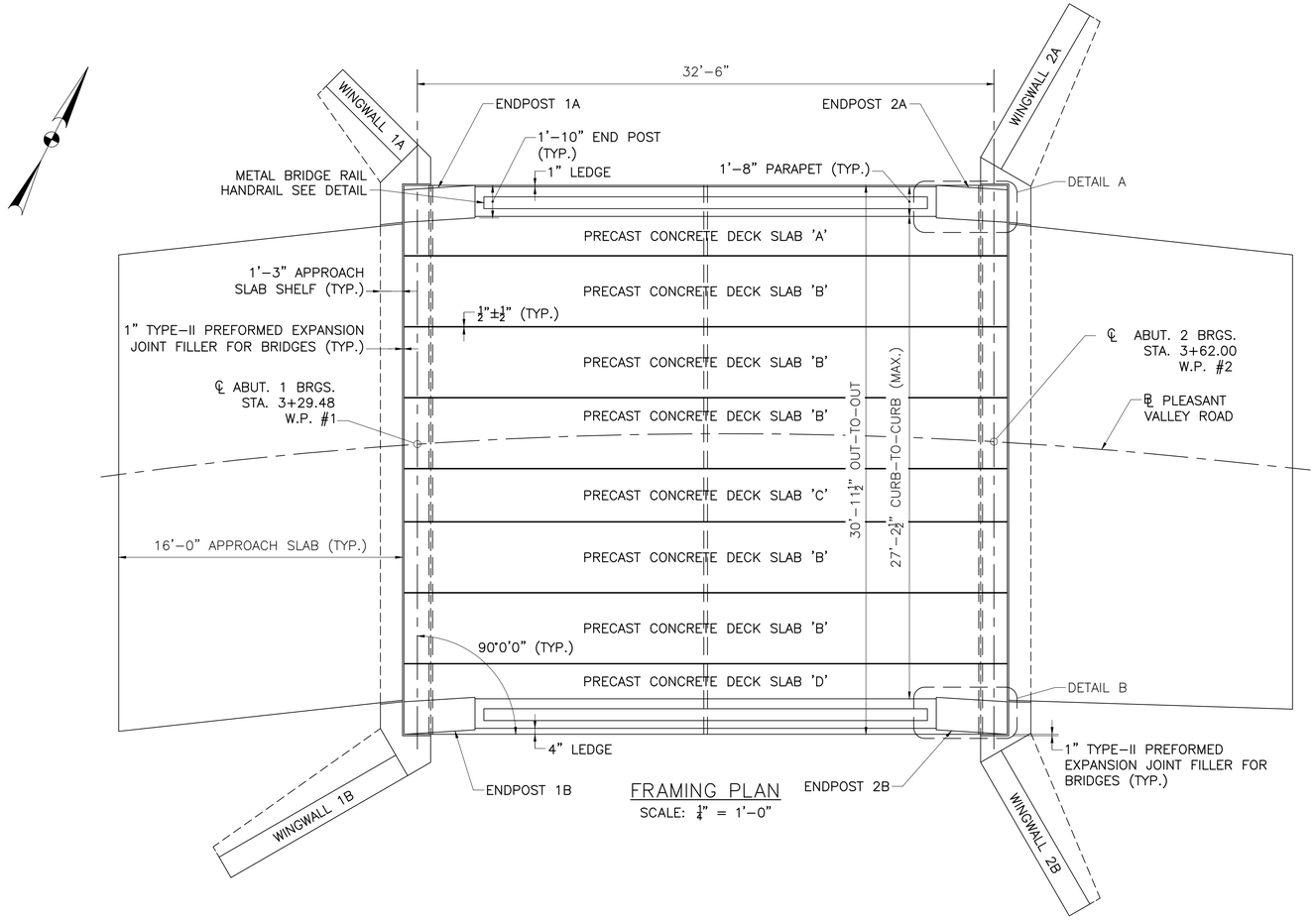
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph 203 239 4200 Fax 203 234 7376
www.teamdtc.com

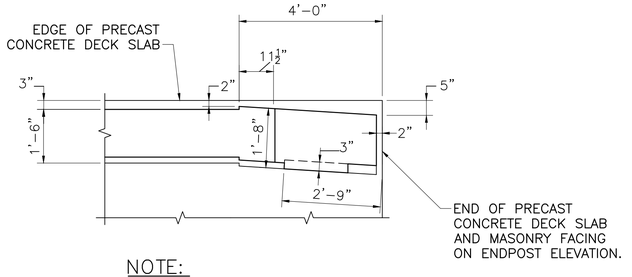
PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: WINGWALL SECTION & SUBSTRUCTURE DETAILS

PROJECT NO.: 9027-4609
DRAWING NO.: S-7
SHEET NO.: 11

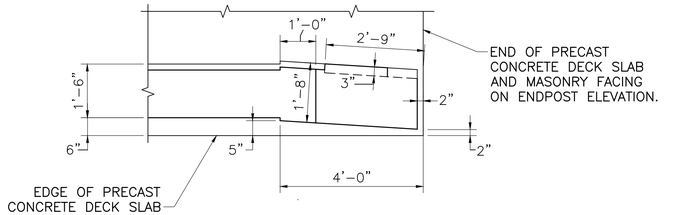


FRAMING PLAN
SCALE: ¼" = 1'-0"



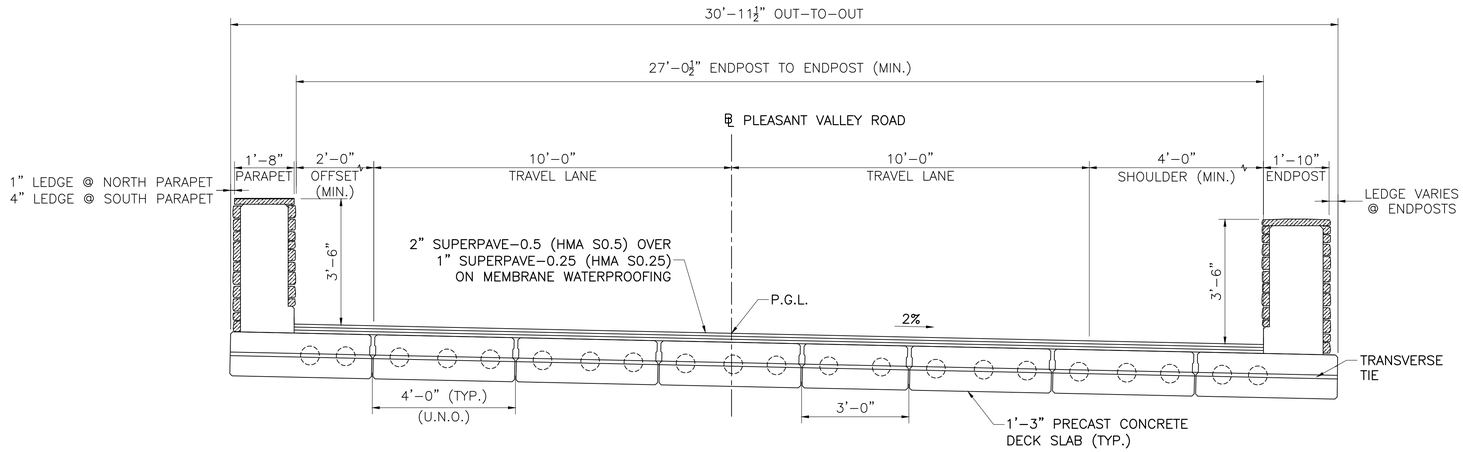
NOTE:
1. MASONRY FACING AND GRANITE CAP NOT SHOWN FOR CLARITY. (SEE SHEET 17 FOR ADDITIONAL INFORMATION)
2. DETAIL IS BIRDS EYE VIEW OF TOP OF CONCRETE
3. BEVELS AT CONCRETE EDGES NOT SHOWN

DETAIL A
(ENDPOST 2A SHOWN, ENDPOST 1A SIMILAR OPPOSITE HAND)
SCALE: ½" = 1'-0"



NOTE:
1. MASONRY FACING AND GRANITE CAP NOT SHOWN FOR CLARITY. (SEE SHEET 17 FOR ADDITIONAL INFORMATION)
2. DETAIL IS BIRDS EYE VIEW OF TOP OF CONCRETE
3. BEVELS AT CONCRETE EDGES NOT SHOWN

DETAIL B
(ENDPOST 2B SHOWN, ENDPOST 1B SIMILAR OPPOSITE HAND)
SCALE: ½" = 1'-0"



SUPERSTRUCTURE SECTION
SCALE: ½" = 1'-0"

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

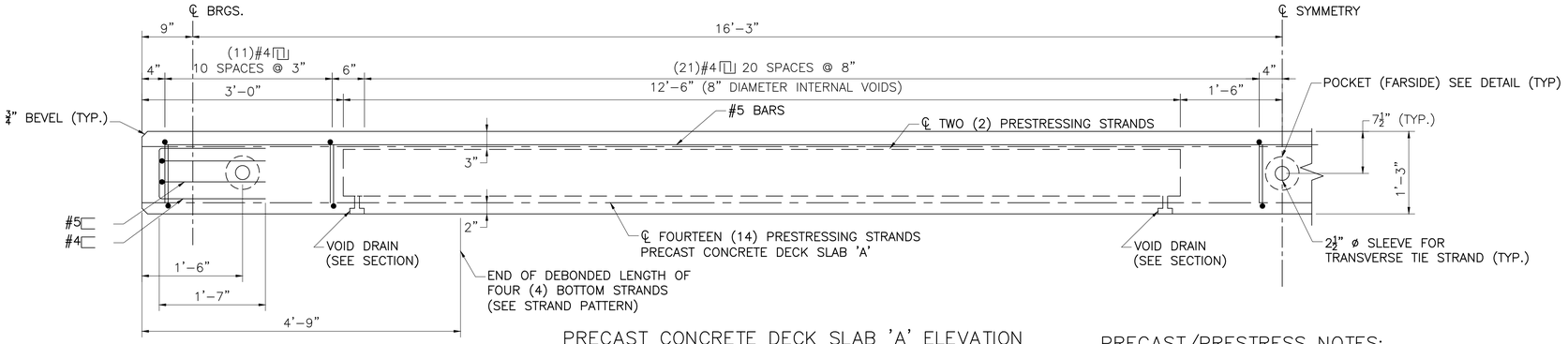
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

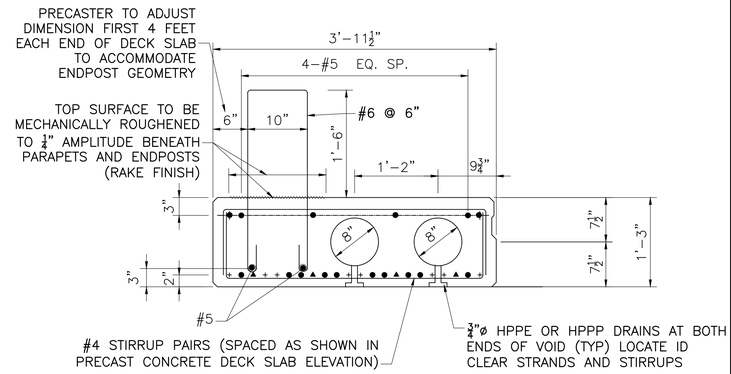
DRAWING TITLE: FRAMING PLAN, SUPERSTRUCTURE SECTION & DETAILS

PROJECT NO.: 9027-4609
DRAWING NO.: S-8
SHEET NO.: 12



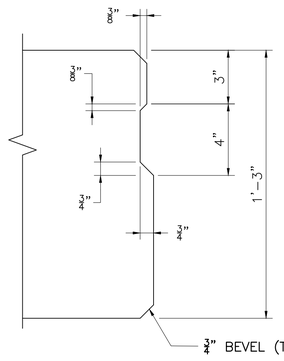
PRECAST CONCRETE DECK SLAB 'A' ELEVATION

SCALE: 1" = 1'–0"



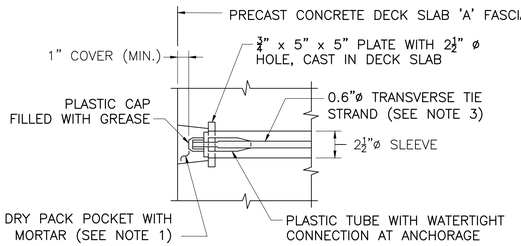
PRECAST CONCRETE DECK SLAB 'A' SECTION

SCALE: 1" = 1'–0"



SHEAR KEY DETAIL

SCALE: 3" = 1'–0"



NOTES:

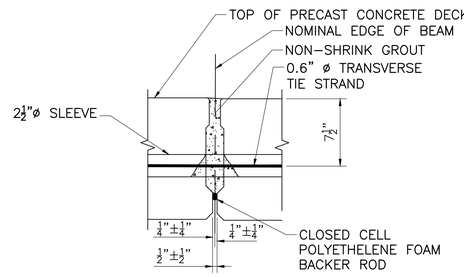
1. MORTAR FOR EXTERIOR POCKETS SHALL CONFORM TO M4.02.15 AND SHALL BE THE SAME COLOR AND TEXTURE AS THE BEAM CONCRETE.
2. ALTERNATIVE WATERTIGHT AND CORROSION PROOF ANCHORAGE SYSTEMS MAY BE PROPOSED BY THE CONTRACTOR AT NO ADDITIONAL COMPENSATION.
3. TRANSVERSE TIES SHALL BE COVERED BY A SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITING GREASE BETWEEN THE STRAND AND SHEATH) FOR THE FULL LENGTH OF THE STRAND, EXCEPT AT THE ANCHORAGE LOCATION.
4. ALTERNATIVE ANCHORAGE SYSTEMS MAY BE PROPOSED BY THE CONTRACTOR AT NO ADDITIONAL COMPENSATION.
5. NO ADDITIONAL DEAD LOADS OR LIVE LOADS SHALL BE APPLIED TO THE BUTTED DECK UNITS UNTIL THE TRANSVERSE TIES HAVE BEEN FULLY TENSIONED AND THE GROUT IN THE LONGITUDINAL SHEAR KEYS HAS REACHED A SEVEN DAY COMPRESSIVE STRENGTH OF 4,500 PSI

POCKET DETAIL

SCALE: 1½" = 1'–0"

PRECAST/PRESTRESS NOTES:

1. ALL PRETENSIONING ELEMENTS SHALL BE 0.6" ø UNCOATED, SEVEN–WIRE, LOW RELAXATION STEEL STRANDS AND SHALL CONFORM TO AASHTO M 203.
2. THE TENSILE STRENGTH OF THE PRETENSIONING STRANDS SHALL BE 270 KSI.
3. THE INITIAL TENSION PER 0.6" ø STRAND SHALL BE 43.9 KIPS.
4. THE MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH SHALL BE 6500 PSI.
5. NO PRESTRESS SHALL BE TRANSFERRED TO THE CONCRETE UNTIL IT HAS ATTAINED A COMPRESSIVE STRENGTH, AS SHOWN BY CYLINDER TEST, OF AT LEAST 4500 PSI.
6. AFTER ALL DECK SLABS HAVE BEEN ERECTED, TENSION EACH TRANSVERSE TIE TO 5 KIPS.
7. AFTER THE GROUT HAS ATTAINED A STRENGTH OF 1500 PSI (BASED ON THE MANUFACTURERS DIRECTIONS) TENSION EACH TRANSVERSE TIE TO 40 KIPS. NO TRAFFIC OR HEAVY EQUIPMENT WILL BE PERMITTED ON THE BRIDGE UNTIL ALL TIES HAVE BEEN FULLY TENSIONED.
8. THE TOP OF ALL DECK SLABS SHALL BE SMOOTH AND WITHOUT PROJECTIONS THAT COULD PUNCTURE THE MEMBRANE WATERPROOFING OR DEPRESSIONS THAT COULD RETAIN WATER EXCEPT BENEATH PARAPETS AND ENDPOSTS WHICH SHALL BE RAKE FINISHED TO 1/4" AMPLITUDE.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF THE LIFTING DEVICES WHICH SHALL BE ADEQUATE FOR THE SAFETY FACTORS REQUIRED BY THE ERECTION PROCEDURE. AT NO TIME DURING FABRICATION AND ERECTION SHALL THE CONCRETE TENSILE STRESS EXCEED 200 PSI.
10. THE DRILLING OF HOLES IN (OR THE USE OF POWER ACTUATED TOOLS ON) PRESTRESSED MEMBERS WILL NOT BE PERMITTED

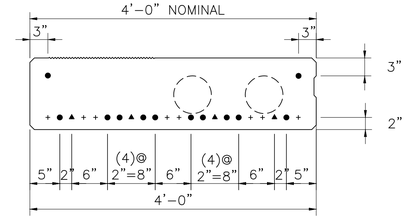


NOTE:

ALLOWABLE DIFFERENTIAL CAMBER BETWEEN ADJACENT PRECAST CONCRETE DECK SLABS IS ¼"/10'–0" (¾" MAX.).

LONGITUDINAL JOINT DETAIL

SCALE: 1½" = 1'–0"

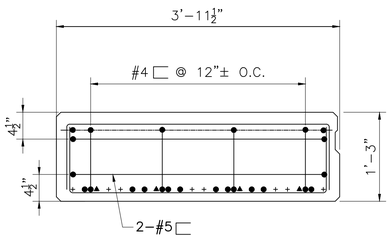


PRECAST CONCRETE DECK SLAB 'A' STRAND PATTERN

SCALE: 1" = 1'–0"

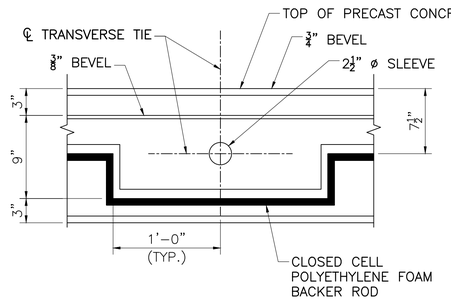
- ● 0.6"ø, SEVEN WIRE LOW RELAXATION STRAND LOCATION
- ▲ DEBONDED STRANDED LOCATION
- + POSSIBLE STRAND LOCATIONS (FROM CT BDM PLATE 5.15)

PRECAST CONCRETE DECK SLAB	QUANTITY REQUIRED
A	ONE
PIECE WEIGHT	23.0 KIP



PRECAST CONCRETE DECK SLAB END ELEVATION

SCALE: 1" = 1'–0"



TRANSVERSE TIE ELEVATION

SCALE: 1½" = 1'–0"

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

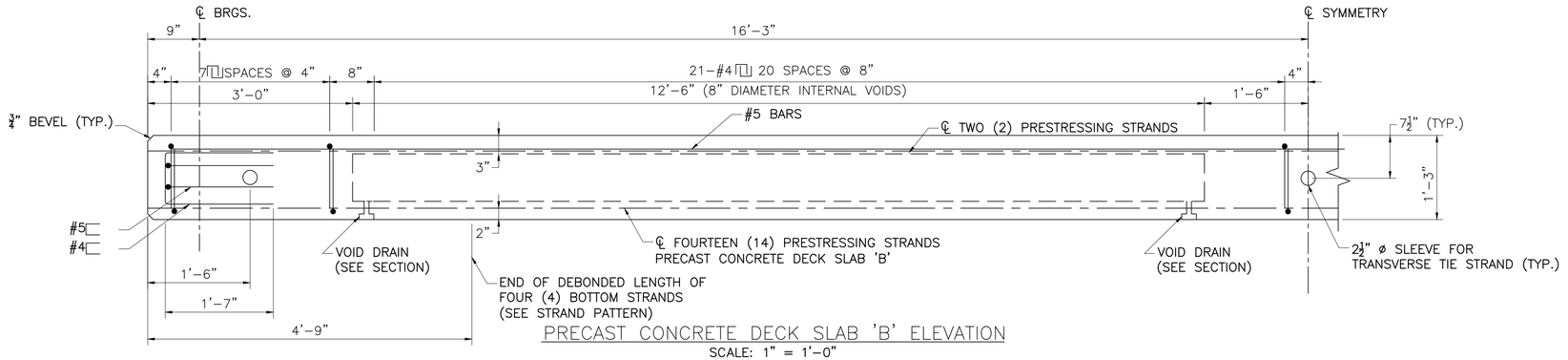
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0–Current
PLOTTED: FEBRUARY 18, 2020

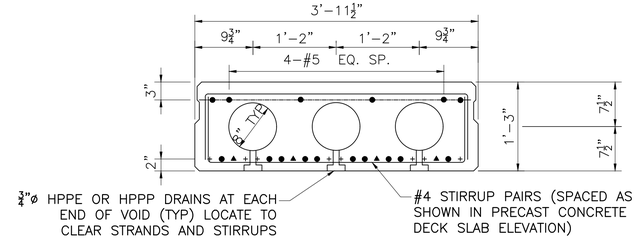
DRAWING TITLE: PRECAST DECK SLAB 'A' DETAILS

PROJECT NO.: 9027–4609
DRAWING NO.: S–9
SHEET NO.: 13



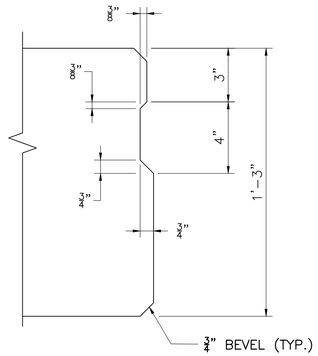
PRECAST CONCRETE DECK SLAB 'B' ELEVATION

SCALE: 1" = 1'-0"



PRECAST CONCRETE DECK SLAB 'B' SECTION

SCALE: 1" = 1'-0"

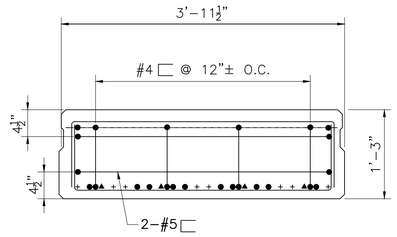


SHEAR KEY DETAIL

SCALE: 3" = 1'-0"

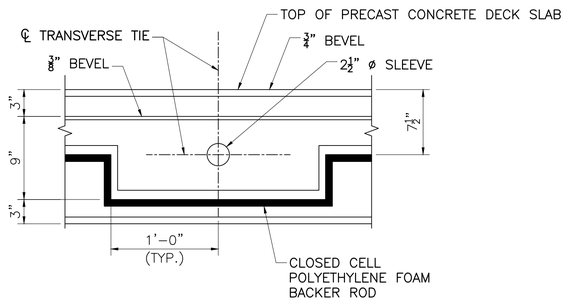
PRECAST/PRESTRESS NOTES:

1. ALL PRETENSIONING ELEMENTS SHALL BE 0.6" ø UNCOATED, SEVEN-WIRE, LOW RELAXATION STEEL STRANDS AND SHALL CONFORM TO AASHTO M 203.
2. THE TENSILE STRENGTH OF THE PRETENSIONING STRANDS SHALL BE 270 KSI.
3. THE INITIAL TENSION PER 0.6" ø STRAND SHALL BE 43.9 KIPS.
4. THE MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH SHALL BE 6500 PSI.
5. NO PRESTRESS SHALL BE TRANSFERRED TO THE CONCRETE UNTIL IT HAS ATTAINED A COMPRESSIVE STRENGTH, AS SHOWN BY CYLINDER TEST, OF AT LEAST 4500 PSI.
6. TRANSVERSE TIES SHALL BE COVERED BY A SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITING GREASE BETWEEN THE STRAND AND SHEATH) FOR THE FULL LENGTH OF THE STRAND, EXCEPT AT THE ANCHORAGE LOCATION.
7. AFTER ALL DECK SLABS HAVE BEEN ERECTED, TENSION EACH TRANSVERSE TIE TO 5 KIPS.
8. AFTER THE GROUT HAS ATTAINED A STRENGTH OF 1500 PSI (BASED ON THE MANUFACTURERS DIRECTIONS) TENSION EACH TRANSVERSE TIE TO 40 KIPS. NO TRAFFIC OR HEAVY EQUIPMENT WILL BE PERMITTED ON THE BRIDGE UNTIL ALL TIES HAVE BEEN FULLY TENSIONED.
9. NO ADDITIONAL DEAD LOADS OR LIVE LOADS SHALL BE APPLIED TO THE BUTTED DECK UNITS UNTIL THE TRANSVERSE TIES HAVE BEEN FULLY TENSIONED AND THE GROUT IN THE LONGITUDINAL SHEAR KEYS HAS REACHED A SEVEN DAY COMPRESSIVE STRENGTH OF 4500 PSI.
10. THE TOP OF ALL DECK SLABS SHALL BE SMOOTH AND WITHOUT PROJECTIONS THAT COULD PUNCTURE THE MEMBRANE WATERPROOFING OR DEPRESSIONS THAT COULD RETAIN WATER.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF THE LIFTING DEVICES WHICH SHALL BE ADEQUATE FOR THE SAFETY FACTORS REQUIRED BY THE ERECTION PROCEDURE. AT NO TIME DURING FABRICATION AND ERECTION SHALL THE CONCRETE TENSILE STRESS EXCEED 200 PSI.
12. THE DRILLING OF HOLES IN (OR THE USE OF POWER ACTUATED TOOLS ON) PRESTRESSED MEMBERS WILL NOT BE PERMITTED



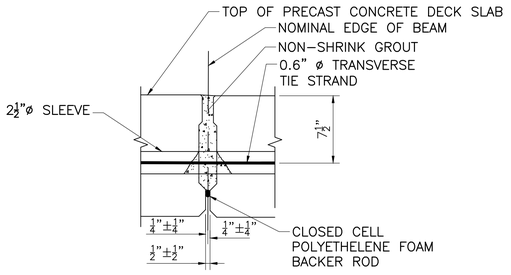
PRECAST CONCRETE DECK SLAB END ELEVATION

SCALE: 1" = 1'-0"



TRANSVERSE TIE ELEVATION

SCALE: 1½" = 1'-0"

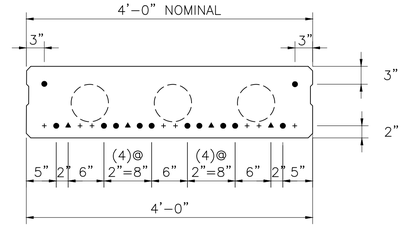


NOTE:

ALLOWABLE DIFFERENTIAL CAMBER BETWEEN ADJACENT PRECAST CONCRETE DECK SLABS IS ¼"/10'-0" (¾" MAX.).

LONGITUDINAL JOINT DETAIL

SCALE: 1½" = 1'-0"



PRECAST CONCRETE DECK SLAB 'B' STRAND PATTERN

SCALE: 1" = 1'-0"

- ● 0.6"ø, SEVEN WIRE LOW RELAXATION STRAND LOCATION
- ▲ DEBONDED STRANDED LOCATION
- + POSSIBLE STRAND LOCATIONS (FROM CT BDM PLATE 5.15)

PRECAST CONCRETE DECK SLAB	QUANTITY REQUIRED
B	5
PIECE WEIGHT	21.7 KIP

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

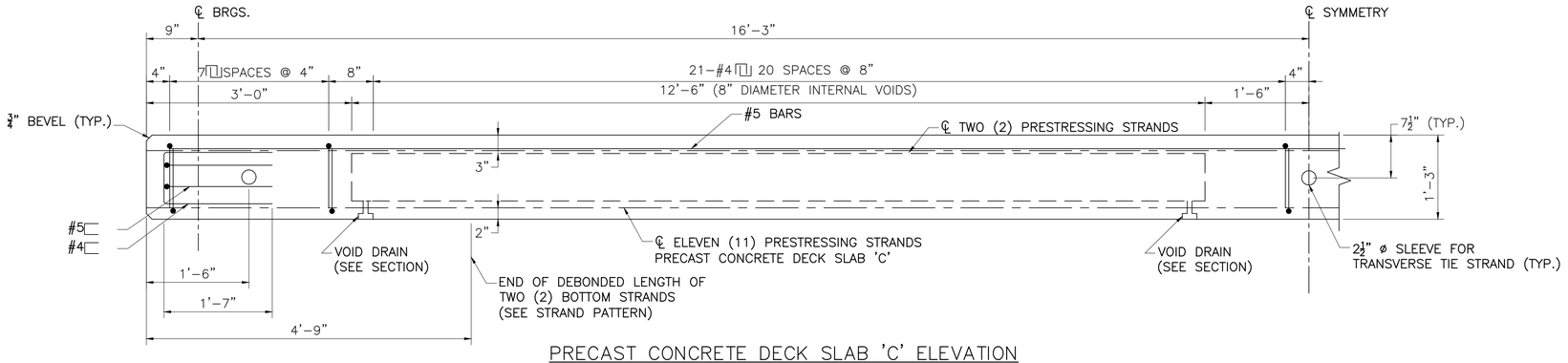
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

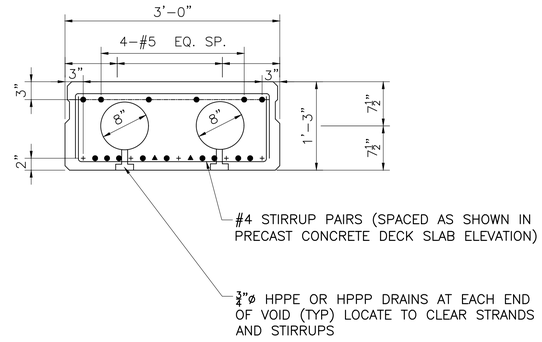
DRAWING TITLE: PRECAST DECK SLAB 'B' DETAILS

PROJECT NO.: 9027-4609
DRAWING NO.: S-10
SHEET NO.: 14



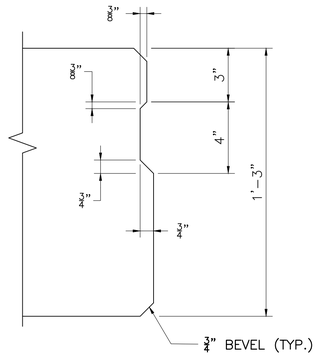
PRECAST CONCRETE DECK SLAB 'C' ELEVATION

SCALE: 1" = 1'-0"



PRECAST CONCRETE DECK SLAB 'C' SECTION

SCALE: 1" = 1'-0"

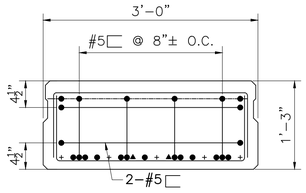


SHEAR KEY DETAIL

SCALE: 3" = 1'-0"

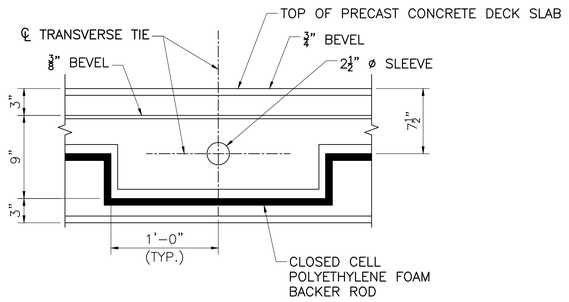
PRECAST/PRESTRESS NOTES:

1. ALL PRETENSIONING ELEMENTS SHALL BE 0.6" ø UNCOATED, SEVEN-WIRE, LOW RELAXATION STEEL STRANDS AND SHALL CONFORM TO AASHTO M 203.
2. THE TENSILE STRENGTH OF THE PRETENSIONING STRANDS SHALL BE 270 KSI.
3. THE INITIAL TENSION PER 0.6" ø STRAND SHALL BE 43.9 KIPS.
4. THE MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH SHALL BE 6500 PSI.
5. NO PRESTRESS SHALL BE TRANSFERRED TO THE CONCRETE UNTIL IT HAS ATTAINED A COMPRESSIVE STRENGTH, AS SHOWN BY CYLINDER TEST, OF AT LEAST 4500 PSI.
6. TRANSVERSE TIES SHALL BE COVERED BY A SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITING GREASE BETWEEN THE STRAND AND SHEATH) FOR FULL LENGTH OF THE STRAND, EXCEPT AT THE ANCHORAGE LOCATION.
7. AFTER ALL DECK SLABS HAVE BEEN ERECTED, TENSION EACH TRANSVERSE TIE TO 5 KIPS.
8. AFTER THE GROUT HAS ATTAINED A STRENGTH OF 1500 PSI (BASED ON THE MANUFACTURERS DIRECTIONS) TENSION EACH TRANSVERSE TIE TO 40 KIPS. NO TRAFFIC OR HEAVY EQUIPMENT WILL BE PERMITTED ON THE BRIDGE UNTIL ALL TIES HAVE BEEN FULLY TENSIONED.
9. NO ADDITIONAL DEAD LOADS OR LIVE LOADS SHALL BE APPLIED TO THE BUTTED DECK UNITS UNTIL THE TRANSVERSE TIES HAVE BEEN FULLY TENSIONED AND THE GROUT IN THE LONGITUDINAL SHEAR KEYS HAS REACHED A SEVEN DAY COMPRESSIVE STRENGTH OF 4500 PSI.
10. THE TOP OF ALL DECK SLABS SHALL BE SMOOTH AND WITHOUT PROJECTIONS THAT COULD PUNCTURE THE MEMBRANE WATERPROOFING OR DEPRESSIONS THAT COULD RETAIN WATER.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF THE LIFTING DEVICES WHICH SHALL BE ADEQUATE FOR THE SAFETY FACTORS REQUIRED BY THE ERECTION PROCEDURE. AT NO TIME DURING FABRICATION AND ERECTION SHALL THE CONCRETE TENSILE STRESS EXCEED 200 PSI.
12. THE DRILLING OF HOLES IN (OR THE USE OF POWER ACTUATED TOOLS ON) PRESTRESSED MEMBERS WILL NOT BE PERMITTED



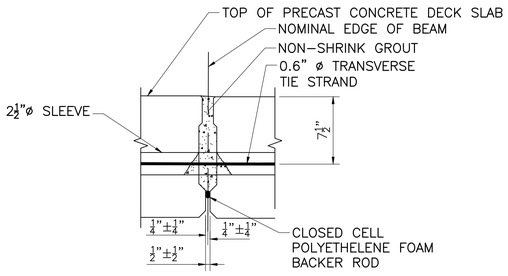
PRECAST CONCRETE DECK SLAB END ELEVATION

SCALE: 1" = 1'-0"



TRANSVERSE TIE ELEVATION

SCALE: 1½" = 1'-0"

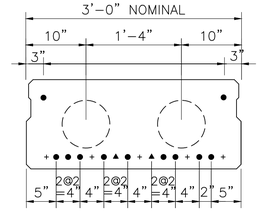


NOTE:

ALLOWABLE DIFFERENTIAL CAMBER BETWEEN ADJACENT PRECAST CONCRETE DECK SLABS IS ¼"/10'-0" (¾" MAX.).

LONGITUDINAL JOINT DETAIL

SCALE: 1½" = 1'-0"



PRECAST CONCRETE DECK SLAB 'C' STRAND PATTERN

SCALE: 1" = 1'-0"

- ● 0.6"ø, SEVEN WIRE LOW RELAXATION STRAND LOCATION
- ▲ DEBONDED STRANDED LOCATION
- + POSSIBLE STRAND LOCATIONS (FROM CT BDM PLATE 5.13)

PRECAST CONCRETE DECK SLAB	QUANTITY REQUIRED
C	ONE
PIECE WEIGHT	16.4 KIP

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

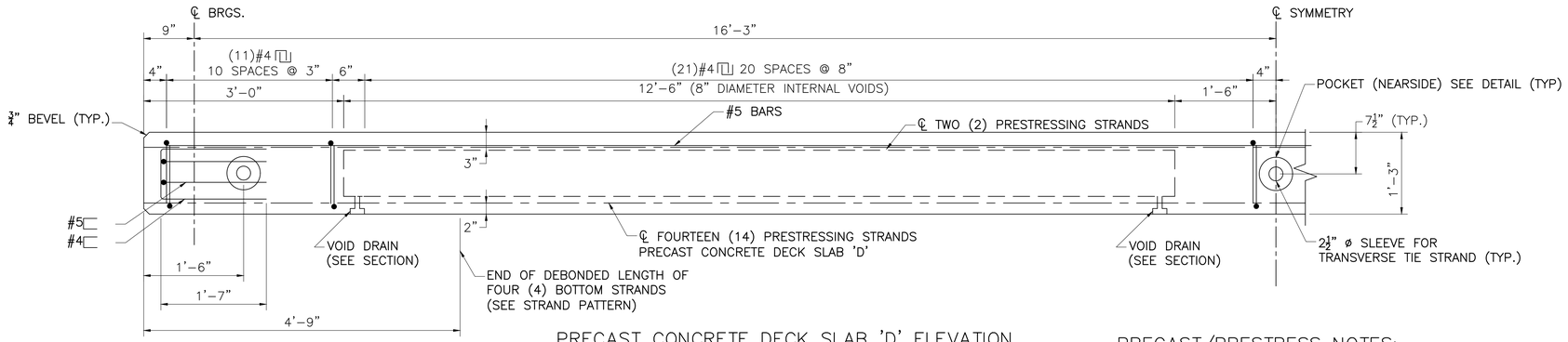
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

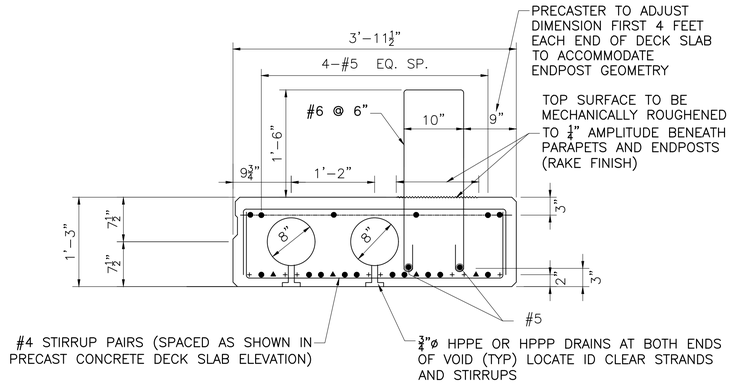
DRAWING TITLE: PRECAST DECK SLAB 'C' DETAILS

PROJECT NO.: 9027-4609
DRAWING NO.: S-11
SHEET NO.: 15



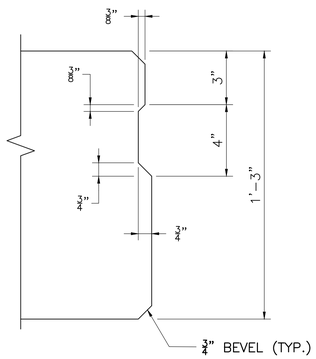
PRECAST CONCRETE DECK SLAB 'D' ELEVATION

SCALE: 1" = 1'-0"



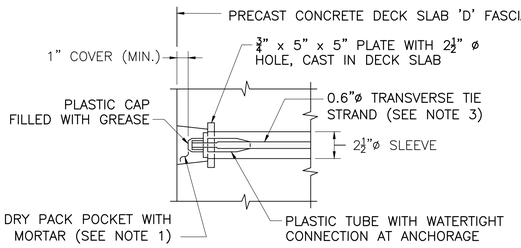
PRECAST CONCRETE DECK SLAB 'D' SECTION

SCALE: 1" = 1'-0"



SHEAR KEY DETAIL

SCALE: 3" = 1'-0"



NOTES:

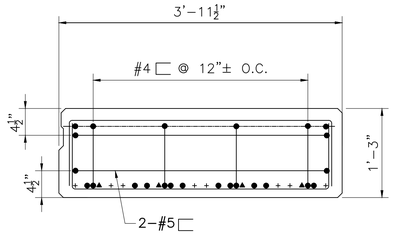
1. MORTAR FOR EXTERIOR POCKETS SHALL CONFORM TO M4.02.15 AND SHALL BE THE SAME COLOR AND TEXTURE AS THE BEAM CONCRETE.
2. ALTERNATIVE WATERTIGHT AND CORROSION PROOF ANCHORAGE SYSTEMS MAY BE PROPOSED BY THE CONTRACTOR AT NO ADDITIONAL COMPENSATION.
3. TRANSVERSE TIES SHALL BE COVERED BY A SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITING GREASE BETWEEN THE STRAND AND SHEATH) FOR THE FULL LENGTH OF THE STRAND, EXCEPT AT THE ANCHORAGE LOCATION.
4. ALTERNATIVE ANCHORAGE SYSTEMS MAY BE PROPOSED BY THE CONTRACTOR AT NO ADDITIONAL COMPENSATION.
5. NO ADDITIONAL DEAD LOADS OR LIVE LOADS SHALL BE APPLIED TO THE BUTTED DECK UNITS UNTIL THE TRANSVERSE TIES HAVE BEEN FULLY TENSIONED AND THE GROUT IN THE LONGITUDINAL SHEAR KEYS HAS REACHED A SEVEN DAY COMPRESSIVE STRENGTH OF 4,500 PSI

POCKET DETAIL

SCALE: 1½" = 1'-0"

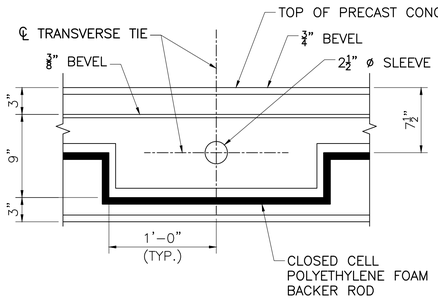
PRECAST/PRESTRESS NOTES:

1. ALL PRETENSIONING ELEMENTS SHALL BE 0.6" ø UNCOATED, SEVEN-WIRE, LOW RELAXATION STEEL STRANDS AND SHALL CONFORM TO AASHTO M 203.
2. THE TENSILE STRENGTH OF THE PRETENSIONING STRANDS SHALL BE 270 KSI.
3. THE INITIAL TENSION PER 0.6" ø STRAND SHALL BE 43.9 KIPS.
4. THE MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH SHALL BE 6500 PSI.
5. NO PRESTRESS SHALL BE TRANSFERRED TO THE CONCRETE UNTIL IT HAS ATTAINED A COMPRESSIVE STRENGTH, AS SHOWN BY CYLINDER TEST, OF AT LEAST 4500 PSI.
6. AFTER ALL DECK SLABS HAVE BEEN ERECTED, TENSION EACH TRANSVERSE TIE TO 5 KIPS.
7. AFTER THE GROUT HAS ATTAINED A STRENGTH OF 1500 PSI (BASED ON THE MANUFACTURERS DIRECTIONS) TENSION EACH TRANSVERSE TIE TO 40 KIPS. NO TRAFFIC OR HEAVY EQUIPMENT WILL BE PERMITTED ON THE BRIDGE UNTIL ALL TIES HAVE BEEN FULLY TENSIONED.
8. THE TOP OF ALL DECK SLABS SHALL BE SMOOTH AND WITHOUT PROJECTIONS THAT COULD PUNCTURE THE MEMBRANE WATERPROOFING OR DEPRESSIONS THAT COULD RETAIN WATER EXCEPT BENEATH PARAPETS AND ENDPOSTS WHICH SHALL BE RAKE FINISHED TO 1/4" AMPLITUDE.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF THE LIFTING DEVICES WHICH SHALL BE ADEQUATE FOR THE SAFETY FACTORS REQUIRED BY THE ERECTION PROCEDURE. AT NO TIME DURING FABRICATION AND ERECTION SHALL THE CONCRETE TENSILE STRESS EXCEED 200 PSI.
10. THE DRILLING OF HOLES IN (OR THE USE OF POWER ACTUATED TOOLS ON) PRESTRESSED MEMBERS WILL NOT BE PERMITTED



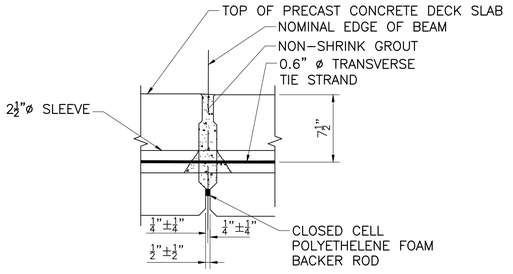
PRECAST CONCRETE DECK SLAB END ELEVATION

SCALE: 1" = 1'-0"



TRANSVERSE TIE ELEVATION

SCALE: 1½" = 1'-0"

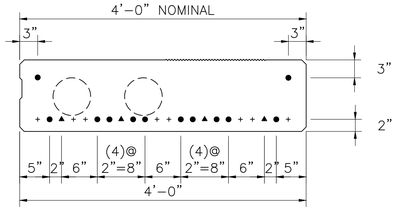


NOTE:

ALLOWABLE DIFFERENTIAL CAMBER BETWEEN ADJACENT PRECAST CONCRETE DECK SLABS IS ¼"/10'-0" (¾" MAX.).

LONGITUDINAL JOINT DETAIL

SCALE: 1½" = 1'-0"



PRECAST CONCRETE DECK SLAB 'D' STRAND PATTERN

SCALE: 1" = 1'-0"

- ● 0.6"ø, SEVEN WIRE LOW RELAXATION STRAND LOCATION
- ▲ DEBONDED STRANDED LOCATION
- + POSSIBLE STRAND LOCATIONS (FROM CT BDM PLATE 5.15)

PRECAST CONCRETE DECK SLAB	QUANTITY REQUIRED
D	ONE
PIECE WEIGHT	23.0 KIP

REV.	DATE	DESCRIPTION REVISIONS	SHT. NO.

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

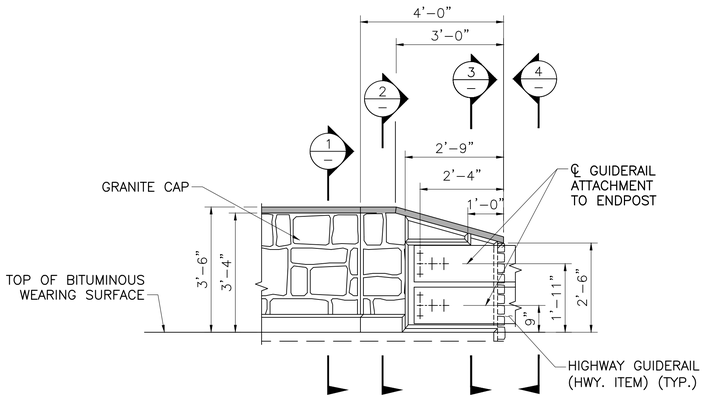
DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239-4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: PRECAST DECK SLAB 'D' DETAILS

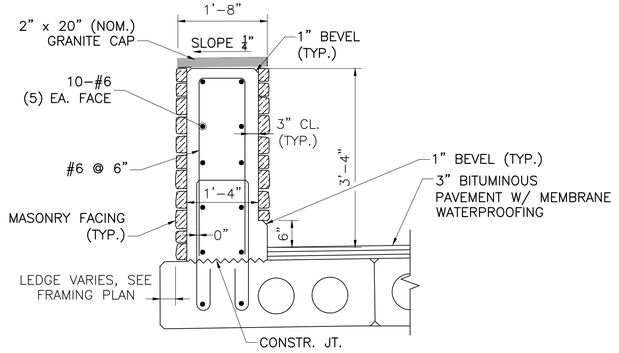
PROJECT NO.: 9027-4609
DRAWING NO.: S-12
SHEET NO.: 16

Feb 27, 2020 - 9:07pm
P:\2016\16155 Pleasant Valley Bridge\104\0-Current\04609_B69-12_Precast Details.dwg
sara.laudati



TYPICAL ENDPOST ELEVATION

SCALE: $\frac{1}{2}$" = 1'-0"

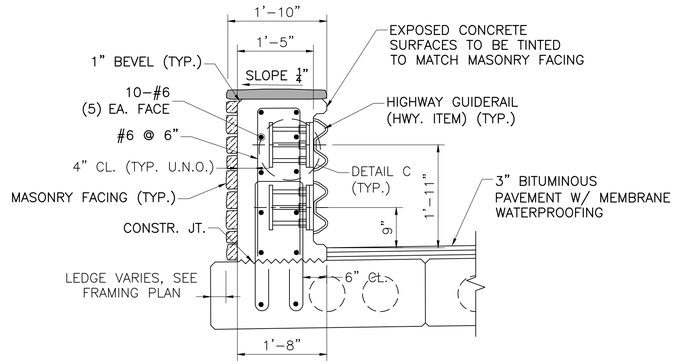


NOTE:

ATTACHMENT OF GRANITE CAP TO PARAPET PER PROVIDERS RECOMMENDATION.

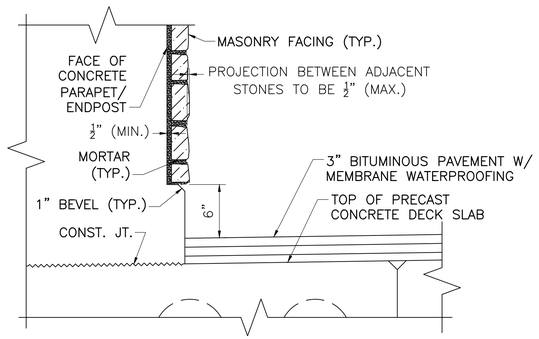
SECTION 1

SCALE: $\frac{3}{4}$" = 1'-0"



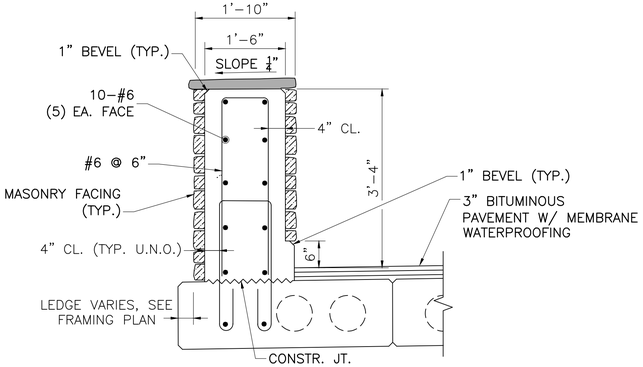
SECTION 3

SCALE: $\frac{3}{4}$" = 1'-0"



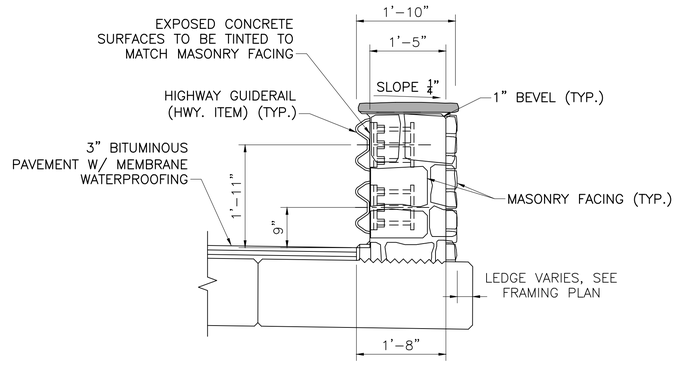
MASONRY FACING DETAIL

SCALE: $1\frac{1}{2}$" = 1'-0"



SECTION 2

SCALE: $\frac{3}{4}$" = 1'-0"



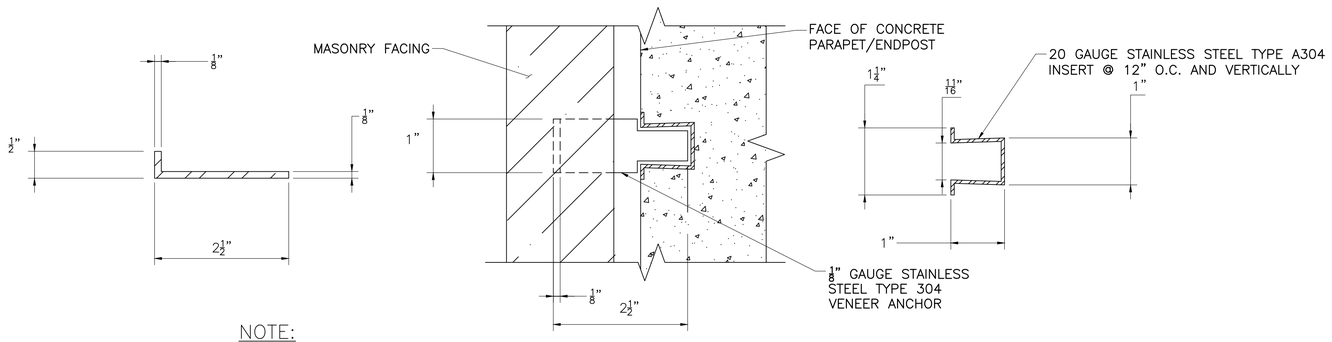
SECTION 4

SCALE: $\frac{3}{4}$" = 1'-0"

ALL HORIZONTAL REINFORCEMENT TO BE CONTINUOUS (NO SPLICES) WITHIN THE FIRST 10'-0" OF EACH END OF PARAPET/ENDPOST.

REINFORCEMENT SPLICE NOTES:

1) THE SPLICE LENGTH (IF NEEDED) FOR THE REINFORCEMENT IN THE PARAPETS TO BE AS FOLLOWS UNLESS DIMENSIONED OTHERWISE
   BAR SIZE #6 SPLICE LENGTH = 2'-6"
2) SPLICES LOCATIONS SHALL BE ALTERNATED SO THAT LESS THAN 50% OF THE LONGITUDINAL BARS ARE SPLICED AT THE SAME LOCATION.

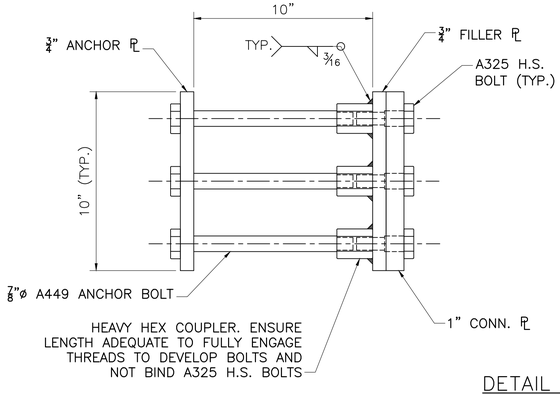


NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ADEQUACY OF THE SUGGESTED MASONRY FACING ATTACHMENT DETAIL BASED ON THE TYPE, SIZE AND COMPOSITION OF THE MASONRY FACING.

SUGGESTED MASONRY FACING ATTACHMENT DETAIL

NOT TO SCALE



DETAIL C

SCALE: 3" = 1'-0"

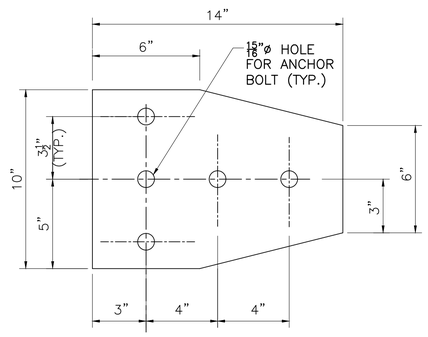


PLATE DETAIL

HIGHWAY GUIDERAIL CONNECTION NOTES:

1. STRUCTURAL STEEL FOR CONNECTIONS TO BE AASHTO M270 GRADE 50.
2. ANCHOR, FILLER AND CONNECTION PLATES, A325 H.S. AND A449 ANCHOR BOLTS AND HEAVY HEX COUPLERS TO BE HOT DIPPED GALVANIZED.
3. ANCHORAGE TO BE SET BY TEMPLATE IN FACE OF ENDPOST.
4. PROTECT THREADS FROM CEMENT PASTE INFILTRATION. WHEN ENDPOST IS CAST, CLEAN FAYING SURFACES OF ALL CEMENT LAITANCE AND OTHER DELETERIOUS MATERIAL PRIOR TO ATTACHING GUIDERAIL.
5. COST OF GUIDERAIL ATTACHMENT INCLUDED IN COST OF ENDPOST.

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

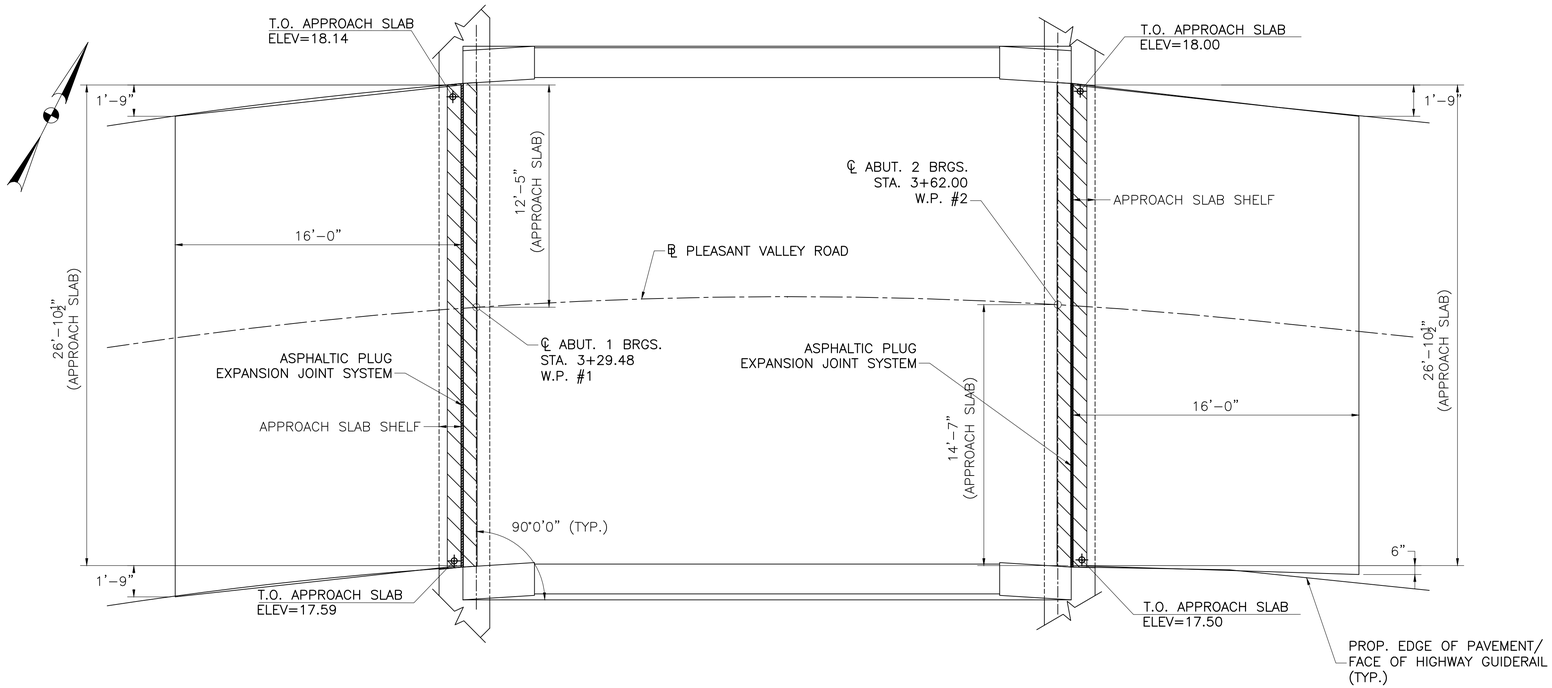
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203-239-4230 Fax: 203-234-7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

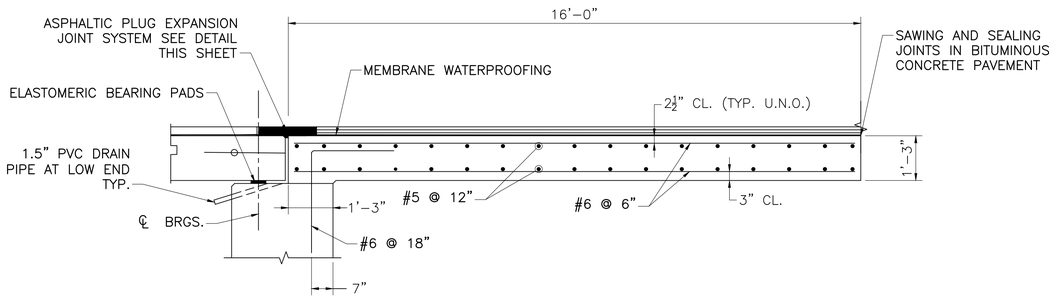
DRAWING TITLE: BRIDGE ENDPOST & PARAPET DETAILS

PROJECT NO.: 9027-4609
DRAWING NO.: S-13
SHEET NO.: 17



PLAN

SCALE: ¼" = 1'-0"

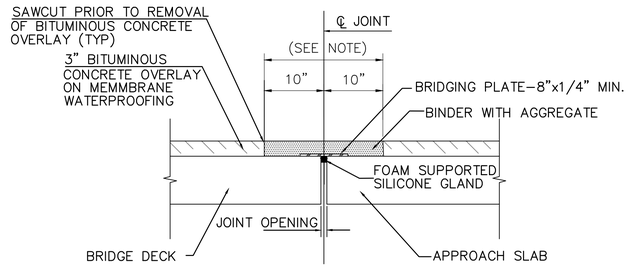


SECTION

SCALE: ½" = 1'-0"

APPROACH SLAB DETAILS

ALL REINFORCING IS TO BE HOT DIP GALVANIZED AFTER SHEARING AND BENDING.



NOTE: REMOVE NEW BITUMINOUS CONCRETE OVERLAY AND MEMBRANE WATERPROOFING. REPLACE WITH ASPHALTIC PLUG EXPANSION SYSTEM. TO BE PAID FOR UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM" (SEE SPEC. PROV.)

ASPHALTIC PLUG EXPANSION JOINT SYSTEM

SCALE: N.T.S

ASPHALTIC PLUG EXPANSION JOINT SYSTEM NOTES

1. A BRIDGING PLATE SHALL BE USED TO SPAN THE GAP BETWEEN TWO DECK ENDS OR THE JOINT BETWEEN A DECK END AND A CONCRETE APPROACH SLAB.
2. DISCONTINUE THE INSTALLATION OF THE BRIDGING PLATE WHERE THE APPROACH SLAB IS DISCONTINUED (TYPICALLY IN THE ROADWAY SHOULDERS.) SEE "ASPHALTIC PLUG EXPANSION JOINT SYSTEM" SPECIAL PROVISIONS.
3. INSTALLATION OF MEMBRANE WITHIN THE LIMITS SHOWN TO BE PAID UNDER THE ITEM "MEMBRANE WATERPROOFING" AND SHALL BE PLACED PRIOR TO PLACEMENT OF PAVEMENT.
4. THE FURNISHING AND PLACING OF SUPERPAVE HMA S0.5 AND SUPERPAVE HMA S0.25 TO BE INCLUDED FOR PAYMENT UNDER THE ITEMS "HMA S0.5" AND "HMA S0.25", RESPECTIVELY.
5. SAW-CUTTING AND REMOVAL OF PAVEMENT FOR JOINT INSTALLATION TO BE INCLUDED UNDER THE ITEM 'ASPHALTIC PLUG EXPANSION JOINT SYSTEM".
6. INSTALLATION OF FOAM SUPPORTED SILICONE GLAND TO BE PAID UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".
7. ASPHALTIC PLUG EXPANSION JOINT SYSTEMS MAY BE INSTALLED ONLY WITHIN THE TEMPERATURE RANGE SPECIFIED IN THE SPECIAL PROVISION "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".
8. THE DEPTH OF PROPOSED ASPHALTIC PLUG JOINT IS ESTIMATED TO BE 3 INCHES.
9. INSTALL CRACK SEAL AT CURB LINE ALONG THE LENGTH OF THE BRIDGE, BOTH SIDES. TAKE NECESSARY PRECAUTION TO KEEP CRACK SEAL OFF OF VERTICAL CURB SURFACE. CRACK SEALING SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "JOINT AND CRACK SEALING OF BITUMINOUS CONCRETE PAVEMENT".

BITUMINOUS CONCRETE PLACEMENT AT ASPHALTIC PLUG JOINTS (APJ)

1. THE REQUIREMENTS OF SPECIAL PROVISION SECTION 4.06 SHALL BE MET EXCEPT IN LIEU OF DENSITY TESTING, THE METHODS DESCRIBED BELOW SHALL BE FOLLOWED TO ASSURE PROPER COMPACTION.
2. TOP LIFT MUST BE UNIFORM THICKNESS; INTERMEDIATE LIFTS CAN BE PLACED AT 1 ¼" TO 2 ½" COMPACTED.
3. REQUIREMENTS FOR PROPER COMPACTION:
   - A. MINIMUM 265 DEGREES F DELIVERY TEMPERATURE OF MATERIAL. PLACE AND SPREAD MATERIAL BEFORE IT COOLS TO 260 DEGREES F. MATERIAL BELOW TEMPERATURE WILL BE REJECTED.
   - B. COMPACT NON-SURFACE LIFTS WITH VIBRATORY PLATE COMPACTOR MEETING THE FOLLOWING REQUIREMENTS:
     - i. DESIGNED TO COMPACT ASPHALT.
     - ii. EQUIPPED WITH A WATER TANK.
     - iii. CENTRIFUGAL FORCE 3200 LBS TO 6000 LBS.
     - iv. WEIGHS MINIMUM 160 LBS (WITHOUT WATER).
     - v. MINIMUM 4400 VIBRATIONS PER MINUTE.
   - C. COMPACT TOP LIFT WITH 3 ½ TO 4 ½ TON DOUBLE DRUM ROLLER, DESIGNED TO COMPACT BITUMINOUS CONCRETE.
   - D. PROVIDE NUMBER OF PASSES BASED ON LIFT THICKNESS AS FOLLOWS:

LIFT THICKNESS (INCHES)	NUMBER OF PASSES
1 ¼ TO 1 ½	8
1 ½ TO 2	10
2 TO 2 ½	12

   - E. ADDITIONAL COMPACTING EQUIPMENT MAY BE REQUIRED TO COMPLETE LIFT COMPACTION BEFORE MATERIAL COOLS TO 180 DEGREES F.
   - F. AT CORNERS OR OTHER AREAS INACCESSIBLE TO PLATE TAMPER, HAND TAMP 20 TIMES MINIMUM BEFORE MATERIAL COOLS TO 180 DEGREES F.
4. ALTERNATE EQUIPMENT MAY BE REQUESTED AS A SUPPLEMENT TO CONTRACTOR'S QC PLAN. THE EQUIPMENT AND PROCEDURES MUST BE APPROVED BY THE ENGINEER PRIOR TO USE.
5. IF THESE METHODS ARE NOT PERFORMED TO THE SATISFACTION OF THE ENGINEER, DENSITY VERIFICATION MAY BE REQUIRED WHEREIN THE CONTRACTOR SHALL PROVIDE DENSITY TESTING WITH A QC NUCLEAR DENSITY GAUGE OR COLLECT CORE SAMPLES AS SPECIFIED IN SECTION 4.06.

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: KJD
DRAFTER: CJW
CHECKED BY: RLO
DATE CHECKED: 02/17/2020

TOWN OF CLINTON

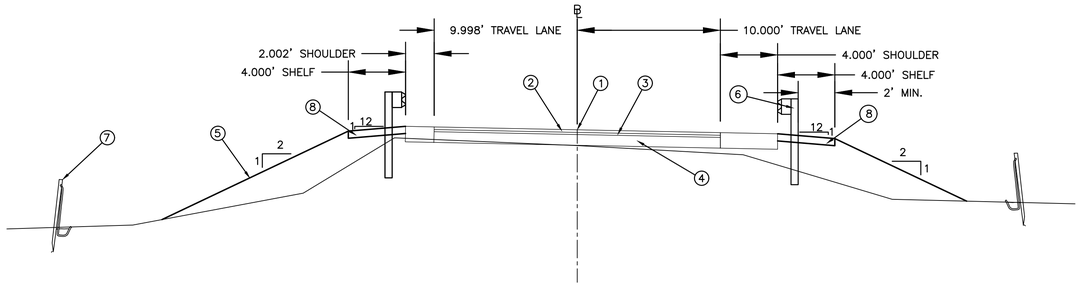
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\104\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: SUPERSTRUCTURE DETAILS

PROJECT NO.: 9027-4609
DRAWING NO.: S-14
SHEET NO.: 18



TYPICAL SECTION

STA.1+00 TO STA. 3+12.50±(BEGIN APPROACH SLAB)

STA. 3+78.90± (END APPROACH SLAB) TO STA. 4+81.45

* SEE SUPER ELEVATION CHART FOR CROSS SLOPES
* SHOULDER CROSS SLOPE TO MATCH LANE

LEGEND

① POINT OF APPLICATION OF GRADE
② 2" BITUMINOUS HMA S0.5
③ 2" BITUMINOUS HMA S1
④ 10" PROCESSED AGGREGATE SUBBASE, 18" SUBBASE IN ROCK
⑤ TURF ESTABLISHMENT
⑥ METAL BEAM RAIL TYPE R-B MASH
⑦ SEDIMENTATION CONTROL SYSTEM
⑧ 6" PROCESSED AGGREGATE

GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHIC SURVEY DATED 12/19/2016 WAS PERFORMED BY MARTIN SURVEY & ASSOCIATES UTILIZING THE CONNECTICUT GRID SYSTEM NAD 83. ALL ELEVATIONS REFER TO NAVD 1988 DATUM.

2. THE LOCATION OF EXISTING UTILITIES AS SHOWN ARE FROM MAPS OF UTILITY COMPANIES, FIELD SURVEYS, AND THE BEST AVAILABLE INFORMATION. THEY MUST BE CONSIDERED AS ONLY APPROXIMATE BOTH AS TO SIZE AND LOCATION, AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL FIELD LOCATIONS. LOCATIONS OF CRITICAL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BY TEST PITS.

3. ALL DIMENSIONS AND ELEVATIONS MUST BE FIELD VERIFIED BY THE CONTRACTOR.

4. ALL EXISTING UTILITY SERVICES SHALL BE PROTECTED AND MAINTAINED IN SERVICE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL UTILITY RELOCATION'S WITH THE RESPECTIVE SERVICE PROVIDER.

5. UTILITY POLES ARE TO BE RELOCATED BY THEIR OWNERS AS REQUIRED BY AND DURING CONSTRUCTION COORDINATED BY THE CONTRACTOR.

6. THE CONTRACTOR MUST CALL "CALL BEFORE YOU DIG" AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. (1-800-922-4455).

7. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM TO THE STATE OF CONNECTICUT DEEP, "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL."

8. ALL EXISTING FEATURES ARE DRAWN AS SCREENED LINES, AND PROPOSED FEATURES ARE SHOWN AS DARK LINES.

9. ALL CONSTRUCTION IN THE TOWN OF CLINTON R.O.W. SHALL BE IN ACCORDANCE WITH THE CITY STANDARDS & SPECIFICATIONS FOR ROAD CONSTRUCTION UNLESS OTHERWISE NOTED.

10. WITHIN THE PROJECT LIMITS, PROTECT ALL IRON PINS OR MONUMENT PROPERTY LINE MARKERS.

11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE PROPER IMPLEMENTATION OF THE SEDIMENT AND EROSION CONTROLS AS SHOWN ON THE PLANS AND SHALL INCLUDE BUT NOT BE LIMITED TO INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES OF SUCH REQUIREMENTS AND NOTIFICATION OF ANY TRANSFER OF RESPONSIBILITY.

12. THE GENERAL CONTRACTOR MUST MAINTAIN (REPAIR/REPLACE WHEN NECESSARY) THE SILTATION CONTROL UNTIL ALL REGULATED ACTIVITY IS COMPLETED AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

13. A STORMWATER MANAGEMENT SYSTEM MAINTENANCE SCHEDULE SHALL BE IMPLEMENTED AND OFFICIALLY RECORDED BY THE SITE MONITOR. THE SCHEDULE SHALL INCLUDE AS A MINIMUM:
    13.1. ALL ELEMENTS OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE INSPECTED MONTHLY.
    13.2. MONTHLY INSPECTION OF ALL STORMWATER STRUCTURES AND OUTFALLS SHALL BE CONDUCTED FOR FLOATING OR SURFACE DEBRIS OR SEDIMENT.
    13.3. STRUCTURES AND OUTFALLS SHALL BE CLEANED OF SEDIMENT AND DEBRIS AT LEAST ONCE A YEAR DURING THE MONTH OF APRIL AND AT OTHER TIMES AS NECESSARY TO PREVENT THE DISCHARGE OF POLLUTANTS FROM STRUCTURES OR OUTFALLS.

14. BEFORE ANTICIPATED STORM EVENTS, A MINIMUM OF ONCE PER WEEK, AND WITHIN 24 HOURS OF A STORM EVENT 0.5 INCHES OR GREATER, THE SITE MONITOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROLS. THE SITE CONTRACTOR IS TO REPAIR, REPLENISH OR REPLACEMENT OF EROSION CONTROLS AS DIRECTED BY THE SITE MONITOR IN ADVANCE OF THE ANTICIPATED STORM EVENT.

15. ACTUAL LOCATIONS AND APPLICATIONS OF EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION BASED ON THE EROSION AND SEDIMENT CONTROL STRATEGY. THE STRATEGY WILL REQUIRE THE CONTRACTOR TO FOLLOW THE GENERAL SEQUENCE OF CONSTRUCTION, PROVIDE APPROPRIATE CONTROLS SUCH AS STRUCTURAL PRACTICES, MAINTENANCE, AND STABILIZATION PRACTICES ALONG WITH THE PROPER DISCHARGE OF DEWATERING WASTEWATERS. THE CONTRACTOR MUST FOLLOW THE GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WASTEWATERS ASSOCIATED WITH CONSTRUCTION ACTIVITIES.

16. DEWATERING PROCEDURES SHALL BE CONDUCTED IN A MANNER THAT INSURES NO DEWATERING WASTE WATER IS DIRECTLY DISCHARGED INTO ANY WETLAND OR WATERBODY. DEWATERING WASTEWATERS MUST BE DISCHARGED IN A MANNER WHICH WILL NOT CAUSE EROSION AND SCOURING OR CONTAIN SUSPENDED SOLIDS IN AMOUNTS WHICH COULD REASONABLY BE EXPECTED TO CAUSE POLLUTION OF THE WATERS OF THE STATE. THE MEASURES SHALL BE CONDUCTED IN ACCORDANCE WITH THE DEWATERING PLAN SUBMITTED BY THE CONTRACTOR AS PART OF THE CONTRACT DOCUMENTS. DEWATERING WASTEWATERS SHALL BE DISCHARGED IN A MANNER TO MINIMIZE THE DISCOLORATION OF THE RECEIVING WATERS. UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE CONNECTICUT DEPARTMENT OF ENEGY & ENVIRONMENTAL PROTECTION, OFFICE OF THE COMMISSIONER.

17. ALL FILL PLACEMENT AND EMBANKMENT CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF CONNECTICUT DOT FORM 817, SECTION 2.02.03-5, PLACEMENT OF EMBANKMENT MATERIAL, PARAGRAPH 15, "WHEN THE EMBANKMENT CONSISTS PREDOMINANTLY OF ROCK FRAGMENTS...SHALL BE FILLED WITH SPALLS, FINER FRAGMENTS OR EARTH TO FORM A SOLID, COMPACT MASS.

18. TEMPORARY CONSTRUCTION SIGNING AND SITE ACCESS WILL BE DETERMINED AT A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, REPRESENTATIVE FROM THE TOWN OF CLINTON PUBLIC WORKS, AND THE CLINTON POLICE/FIRE DEPARTMENT

19. GEOTECHNICAL INVESTIGATIONS WAS PERFORMED BY WELTI ASSOCIATES. FINDINGS ARE SUMMARIZED IN THE REPORT DATED FEBUARY 08, 2017. FINDINGS ARE AVAILABLE FOR REVIEW AT THE OFFICE OF THE ENGINEER.

20. BOULDERS MAY NOT BE USED IN FILL AREAS UNLESS PROCESSED TO A SIZE OF 8 INCHES OR LESS AS RECOMMENDED IN THE GEOTECHNICAL REPORT.

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON

ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

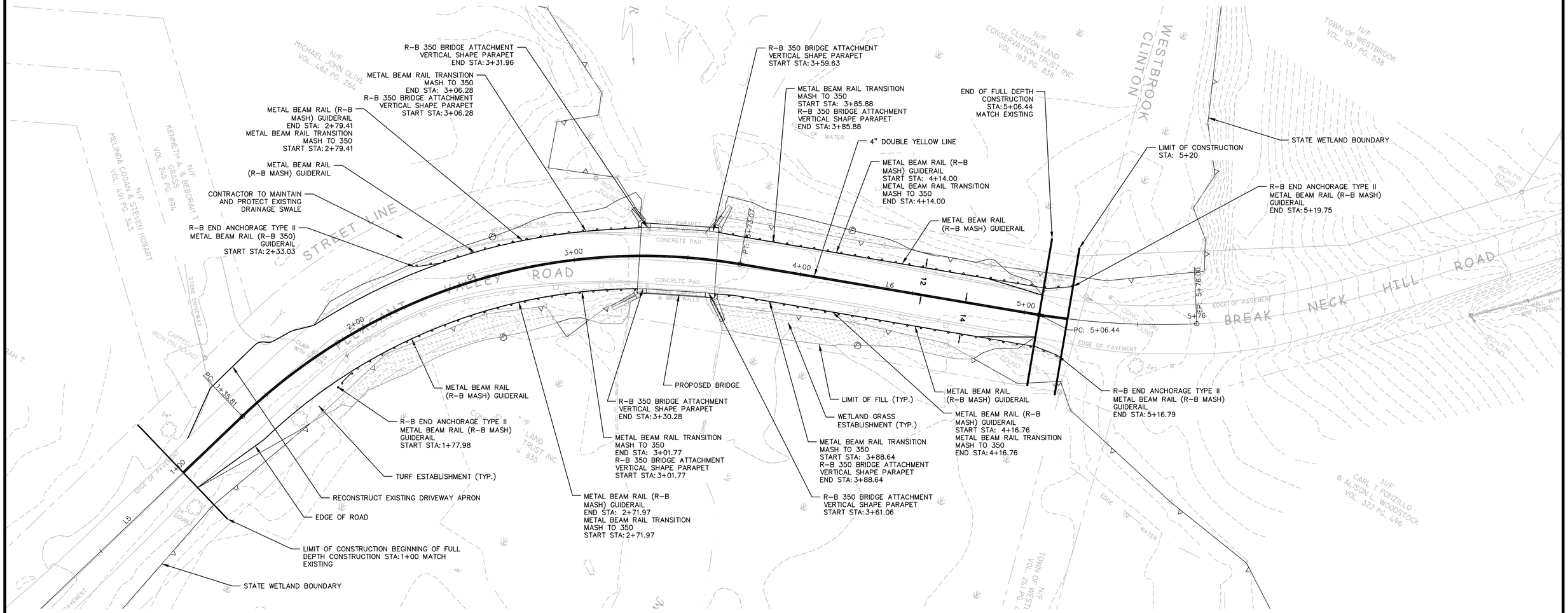
DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: TYPICAL SECTION

PROJECT NO.: 9027-4609
DRAWING NO.: TS-1
SHEET NO.: 19

ALIGNMENT					
Number	Radius	Length	Line/Chord Direction	DELTA ANGLE	TANGENT
L5		135.81	N16° 19' 53.68"E		
C4	255.00	237.25	N42° 59' 08.45"E	53.31	128.00
L6		133.38	N69° 38' 23.22"E		



NOTES:
1. DISTURBED AREAS TO BE RESTORED UNDER ITEM TURF ESTABLISHMENT AND WETLAND ESTABLISHMENT
2. THE CONTRACTOR MAY NOT IMPACT REGULATED AREAS WETLANDS, FLOODWAY 100 YEAR FLOOD LIMITS BEYOND THAT WHICH IS SHOWN ON THE PLANS.

LEGEND

WETLAND GRASS ESTABLISHMENT

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

SCALE IN FEET
0' 20' 40'
SCALE: 1" = 20'

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON

ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

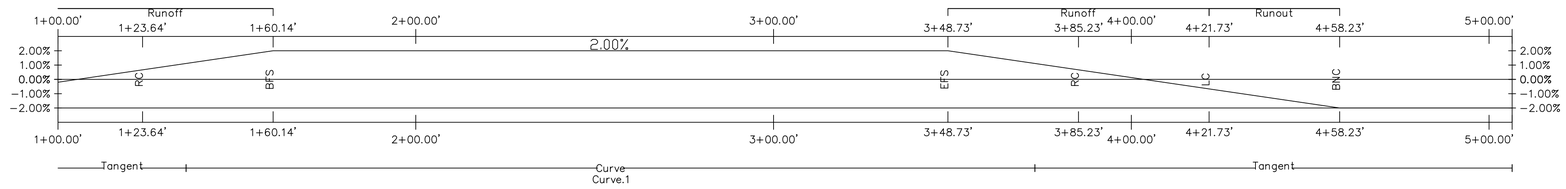
DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

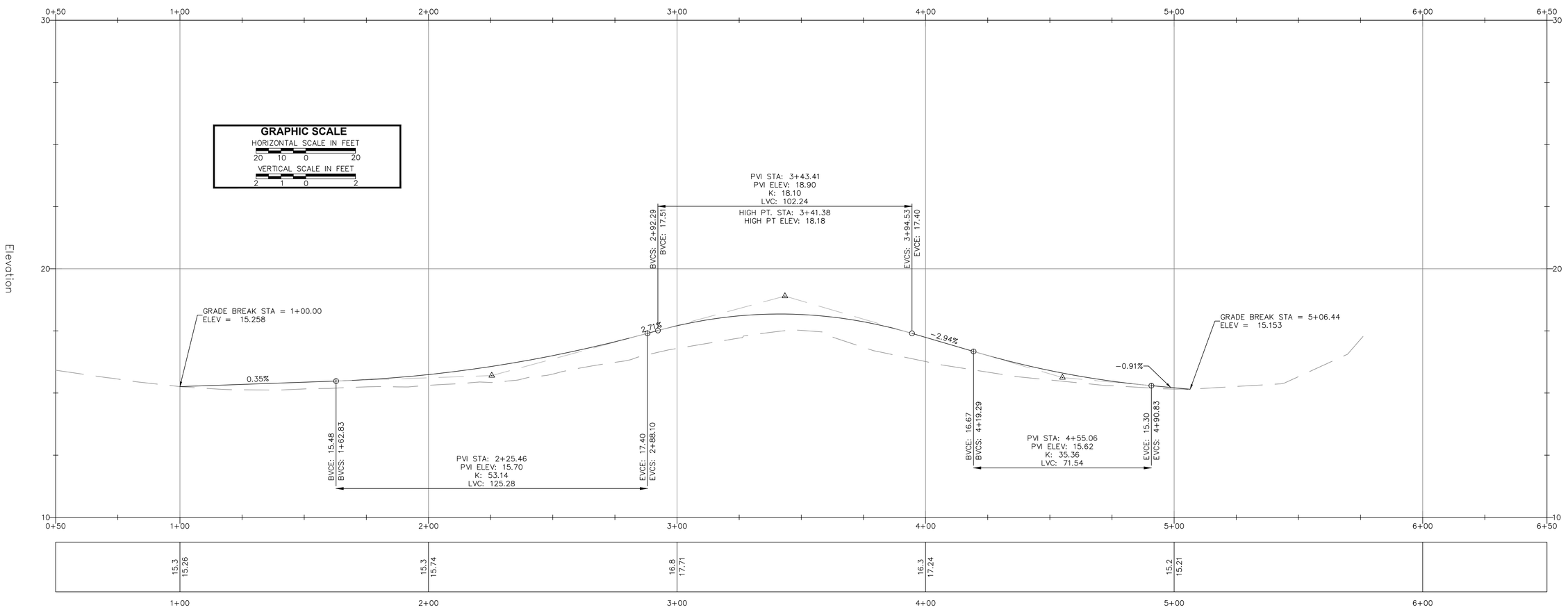
DRAWING TITLE: PLAN

PROJECT NO.: 9027-4609
DRAWING NO.: PL-1
SHEET NO.: 20

SUPERELEVATION



ALIGNMENT PROFILE



REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

SCALE IN FEET
0' 20' 40'
SCALE: 1" = 20'

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON

ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

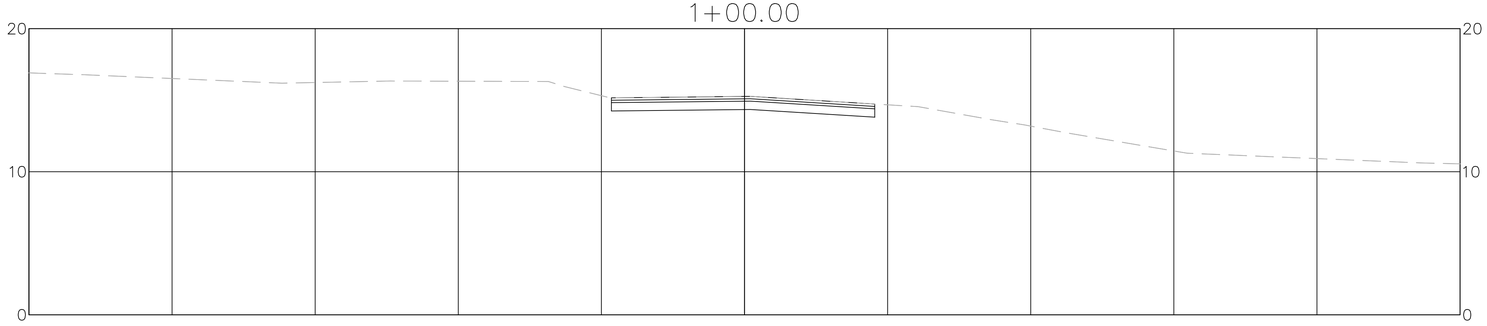
DTC
2321 Whitney Avenue - Hamden Center II - Hamden, CT 06518
Ph: 203 239-4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE:
REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

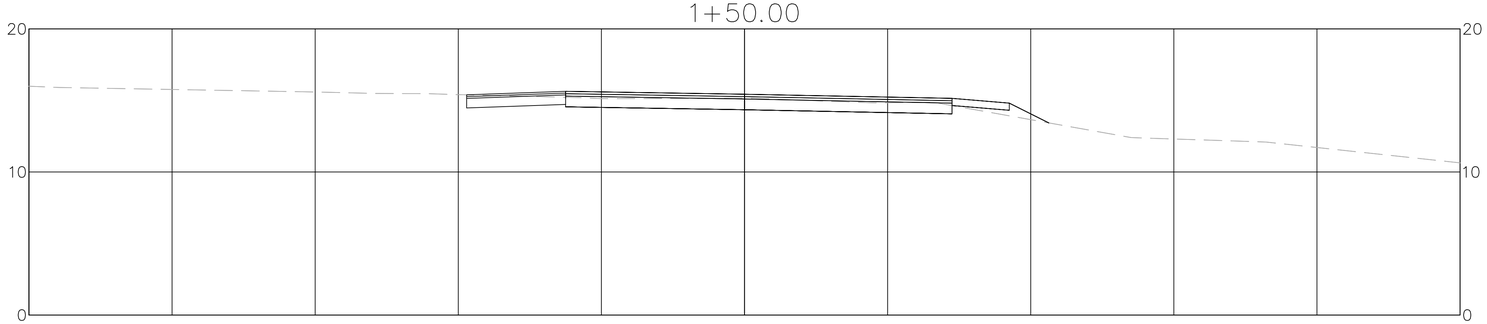
DRAWING TITLE:
PROFILE

PROJECT NO.: 9027-4609
DRAWING NO.: PR-1
SHEET NO.: 21

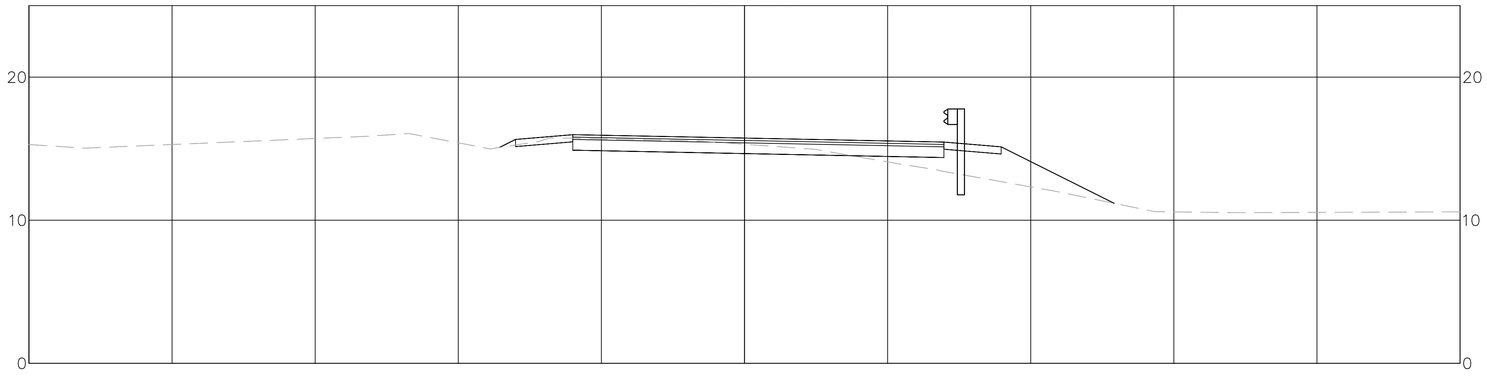
1+00.00



1+50.00



2+00.00



REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

SCALE IN FEET
0' 5' 10'
SCALE: 1" = 5'

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

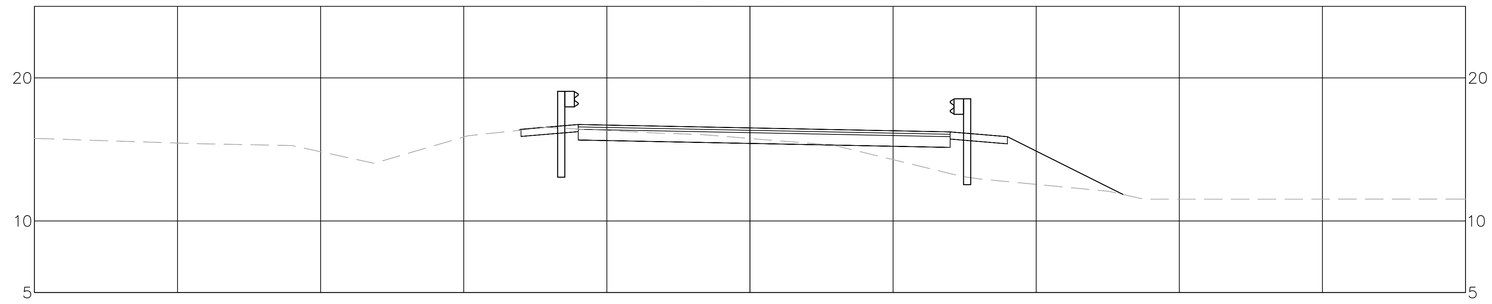
DTC
2321 Whitney Avenue - Hamden Center II - Hamden,CT 06518
Ph: 203 239 6230 Fax: 203 234 7378
www.teamdtc.com

PROJECT TITLE:
REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

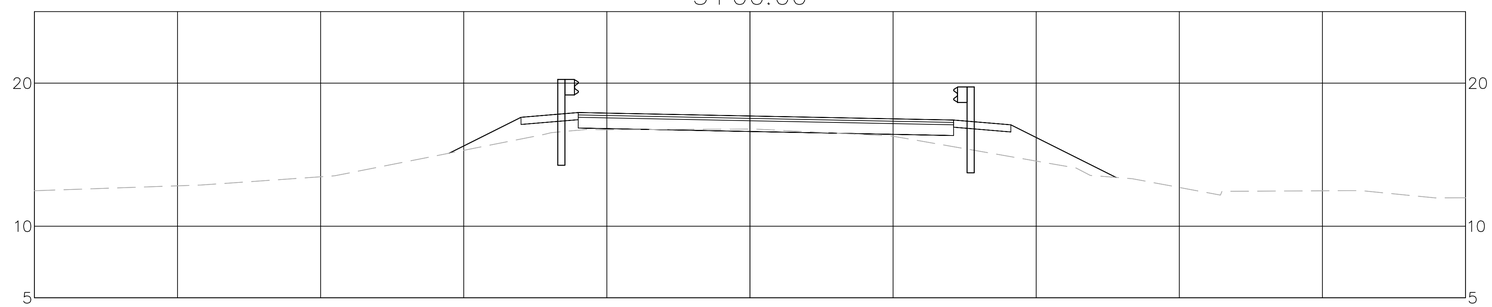
DRAWING TITLE:
CROSS SECTION

PROJECT NO.: 9027-4609
DRAWING NO.: XS-1
SHEET NO.: 22

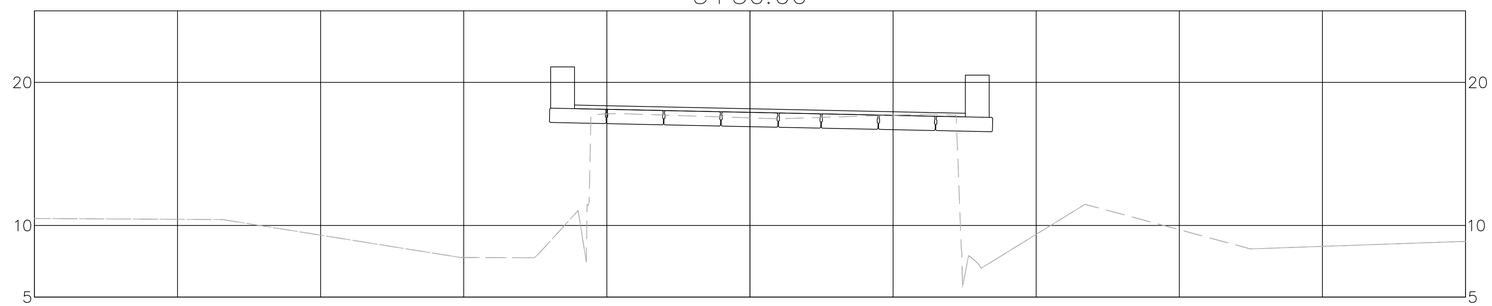
2+50.00



3+00.00



3+50.00



REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

SCALE IN FEET
0' 5' 10'
SCALE: 1" = 5'

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON

ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

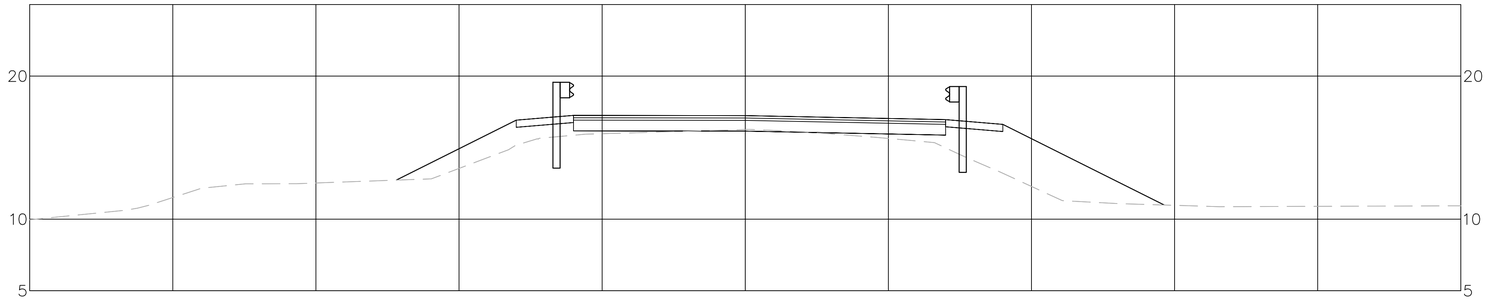
DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE:
REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

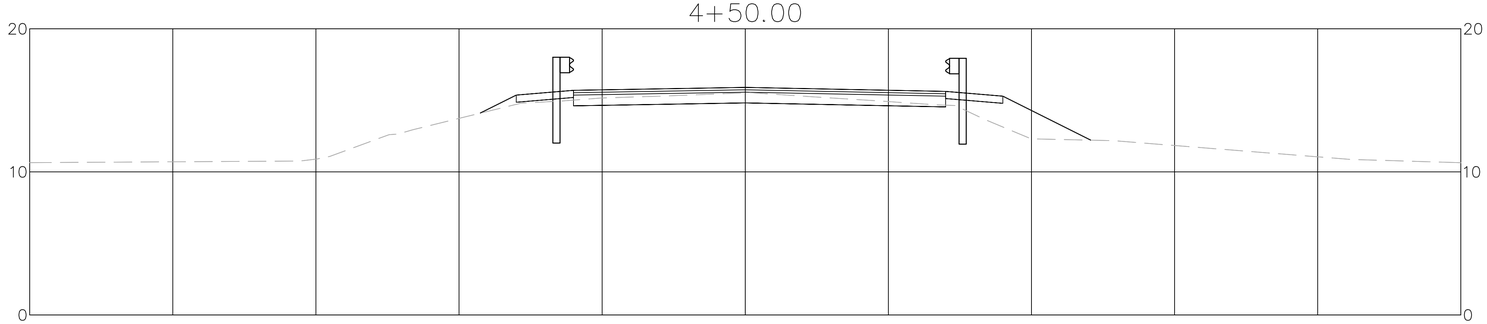
DRAWING TITLE:
CROSS SECTION

PROJECT NO.: 9027-4609
DRAWING NO.: XS-2
SHEET NO.: 23

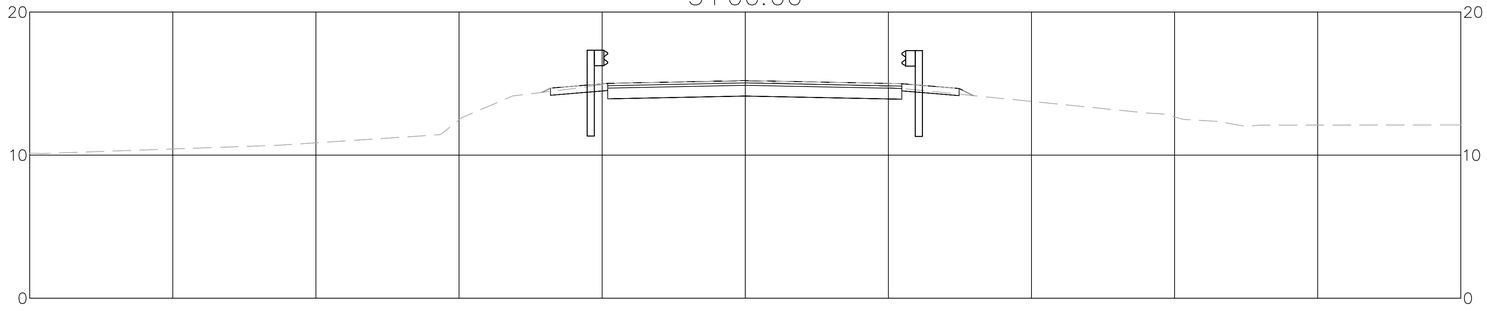
4+00.00



4+50.00



5+00.00



REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

SCALE IN FEET
0' 5' 10'
SCALE: 1" = 5'

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

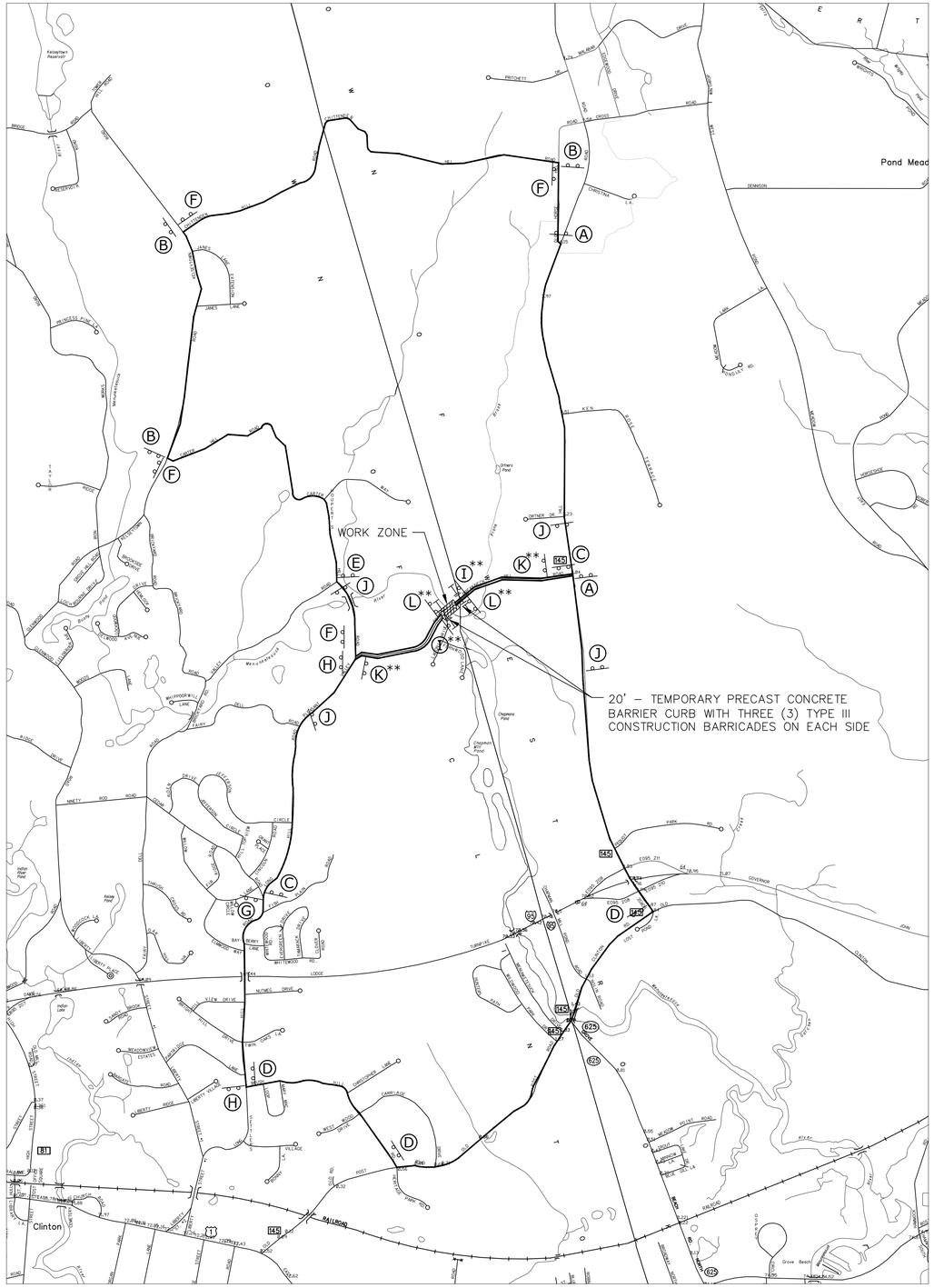
TOWN OF CLINTON
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203.239.4200 Fax: 203.234.7576
www.teamdtc.com

PROJECT TITLE:
REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE:
CROSS SECTION

PROJECT NO.: 9027-4609
DRAWING NO.: XS-3
SHEET NO.: 24



SIGN LEGEND

Ⓐ CARTER HILL ROAD / DETOUR
- CONN #80-9928 (60"X30")
- M4-8 CONN #80-9707 (24"X12")
- M6-3 CONN #51-2685 (21"X15")

Ⓑ CARTER HILL ROAD / DETOUR
- CONN #80-9928 (60"X30")
- M4-10 CONN #80-9702L (48"X18")

Ⓒ PLEASANT VALLEY ROAD / DETOUR
- CONN #80-9928 (60"X30")
- M4-8 CONN #80-9707 (24"X12")
- M6-3 CONN #51-2685 (21"X15")

Ⓓ PLEASANT VALLEY ROAD / DETOUR
- CONN #80-9928 (60"X30")
- M4-10 CONN #80-9701R (48"X18")

Ⓔ ROUTE 145 NORTHBOUND / DETOUR
- CONN #80-9928 (60"X30")
- M4-8 CONN #80-9707 (24"X12")
- M6-3 CONN #51-2685 (21"X15")

Ⓕ ROUTE 145 NORTHBOUND / DETOUR
- CONN #80-9928 (60"X30")
- M4-10 CONN #80-9701R (48"X18")

Ⓖ ROUTE 145 SOUTHBOUND / DETOUR
- CONN #80-9928 (60"X30")
- M4-8 CONN #80-9707 (24"X12")
- M6-3 CONN #51-2685 (21"X15")

Ⓗ ROUTE 145 SOUTHBOUND / DETOUR
- CONN #80-9928 (60"X30")
- M4-10 CONN #80-9702L (48"X18")

Ⓘ** STOP
- R1-1 CONN #31-0552 (30")

Ⓙ BREAKNECK HILL / ROAD CLOSED TO THRU TRAFFIC
- CONN #80-9913 (60"X10")
- R11-3b CONN #80-9081 (60"X30")

Ⓚ** ROAD CLOSED TO THRU TRAFFIC
- R11-3b CONN #80-9081 (60"X30")

Ⓛ** BRIDGE CLOSED 00 MILES AHEAD LOCAL TRAFFIC ONLY
- R11-3b CONN #80-9078 (60"X30")

DETOUR LEGEND

- SINGLE POST MOUNTING
- DOUBLE POST MOUNTING
- CONSTRUCTION BARRICADE TYPE III
- ** WARNING LIGHT HIGH INTENSITY

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON

ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

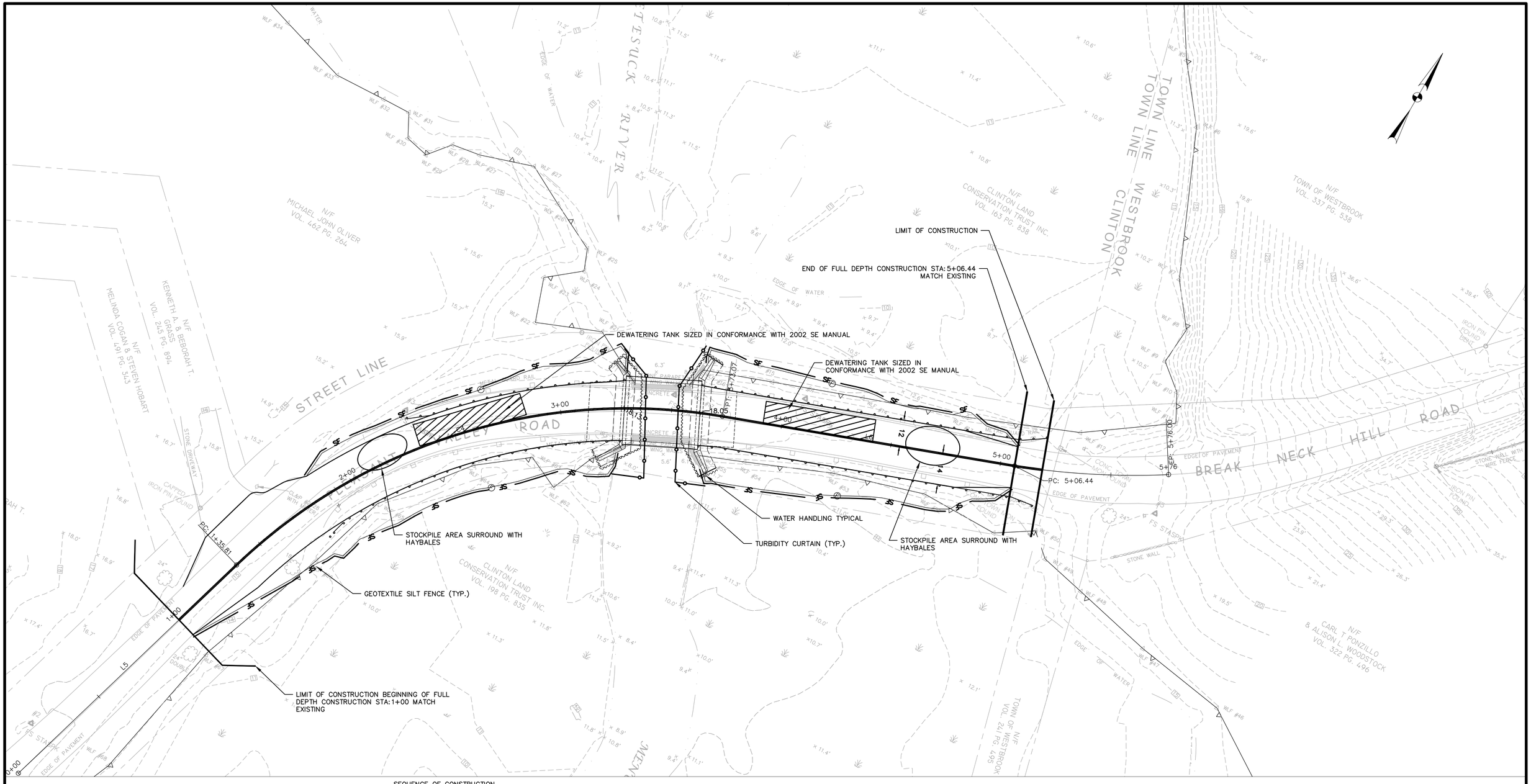
DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239-4205 Fax: 203 234 7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: DETOUR PLAN

PROJECT NO.: 9027-4609
DRAWING NO.: DET-1
SHEET NO.: 25

Feb 27, 2020 - 9:08am
P:\2016\16155 Pleasant Valley Bridge\106\0-Current\16-155-106 Detour Plan.dwg
sean.bodell



NOTES:
1. DISTURBED AREAS TO BE RESTORED UNDER ITEM TURF ESTABLISHMENT AND WETLAND GRASS ESTABLISHMENT
2. THE CONTRACTOR MAY NOT IMPACT REGULATED AREAS WETLANDS, FLOODWAY 100 YEAR FLOOD LIMITS) BEYOND THAT WHICH IS SHOWN ON THE PLANS.
3. WITHIN ACCESS AREAS REMOVAL OF EXISTING TREES/BRUSH AS NECESSARY TO PERFORM THE WORK CONTRACTOR SHALL MAKE A REASONABLE EFFORT TO KEEP TREE REMOVAL TO A MINIMUM. ALL TREE REMOVAL TO BE COORDINATED WITH LOCAL TREE WARDEN
4. TEMPORARY COFFERDAMS SHALL BE PAID FOR UNDER THE ITEM HANDLING WATER
5. ALL EXCESS SOIL MATERIAL TO BE DISPOSED TO AN OFF SITE UPLAND AREA
6. INSTALL EROSION CONTROL MATTING ON SLOPES 3:1 AND STEEPER.

SEQUENCE OF CONSTRUCTION
1. INSTALL SEDIMENT AND EROSION CONTROLS
2. INSTALL DEMOLITION DEBRIS CONTROL
3. REMOVE SUPERSTRUCTURE
4. INSTALL SHEET PILE COFFERDAM AND DEWATERING
5. STOCKPILE NATIVE CHANNEL MATERIAL IN AN AREA ENCLOSED WITH SEDIMENT AND EROSION CONTROLS.
6. DEMOLISH SUBSTRUCTURE AND REMOVE FROM SITE
7. EXCAVATE TO SUBGRADE FOR NEW ABUTMENT FOOTING
8. DRIVE AND CUT OFF PILES
9. INSTALL ABUTMENT AND WINGWALLS
10. BACKFILL WITH 2' OF NATIVE MATERIAL
11. REMOVE SHEET PILES
12. INSTALL SUPERSTRUCTURE
13. INSTALL ROADWAY BASE AND PAVEMENT
14. INSTALL WETLAND ESTABLISHMENT AND STABILIZE SLOPES
15. REMOVE SEDIMENT AND EROSION CONTROLS

REV.	DATE	DESCRIPTION	SHT. NO.
		REVISIONS	

SCALE IN FEET
0' 20' 40'
SCALE: 1" = 20'

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON

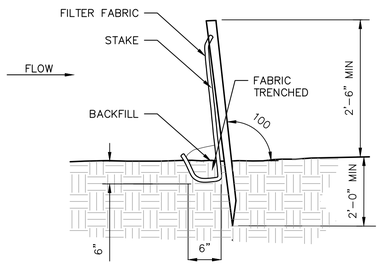
ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 230 4200 Fax: 203 234 7976
www.teamdtc.com

PROJECT TITLE:
REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE:
E&S PLAN

PROJECT NO.: 9027-4609
DRAWING NO.: WR-1
SHEET NO.: 26

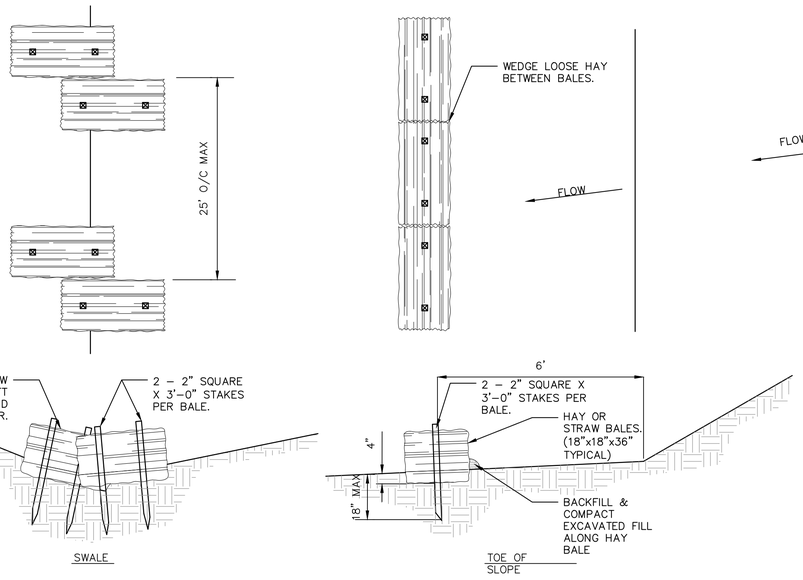


A) MINIMUM LENGTH OF SILT FENCE IS 15 L.F.
B) MAXIMUM POST SPACING IS 8'-0". JOINTS ONLY AT SUPPORT POST WITH MINIMUM 2' OVERLAP, SECURELY SEALED.
C) SEDIMENTATION DEPOSITS SHALL BE REMOVED WHEN THEY REACH 1/2 THE HEIGHT OF THE SILT FENCE.
D) SILT FENCE SHALL NOT BE USED IN A WATER COURSE.
E) UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS, AND WHEN DIRECTED BY THE ENGINEER, FENCE WILL BE REMOVED AND ANY SEDIMENTATION WILL BE THINLY SPREAD UPON EXISTING GROUND COVER.
F) PERPENDICULAR SILT FENCE WINGS MUST BE INSTALLED AT THE FOLLOWING INTERVALS TO REDUCE WATER VELOCITY ALONG THE FACE OF THE SILT FENCE: (SEE 2002 DEP GUIDELINES)

SLOPE STEEPNESS	SLOPE LENGTH & WING SPACING
5:1 OR FLATTER	100 FEET
3:1 TO 5:1	75 FEET
2:1 TO 3:1	50 FEET

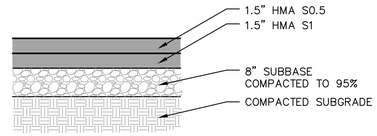
1 GEOTEXTILE SILT FENCE (GSF)

NTS



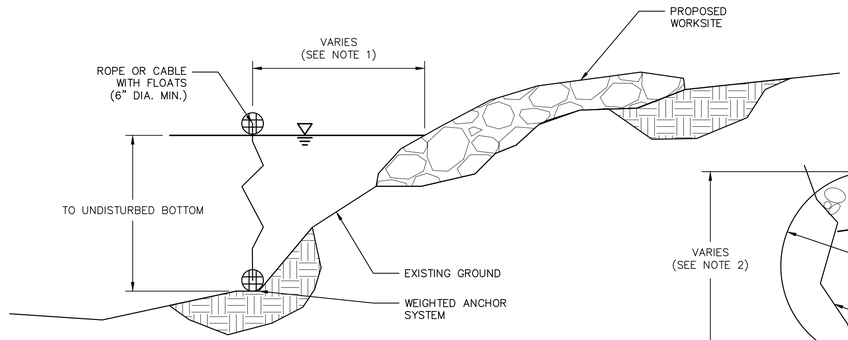
3 TYPICAL HAYBALE INSTALLATION (HB)

NTS



2 DRIVEWAY APRON

NTS



SECTION A-A

TURBIDITY CURTAIN - TEMPORARY

APPLICATION NOTES:

A. THE PURPOSE OF A TURBIDITY CURTAIN IS TO SEPARATE WORK AREAS IN OR ADJACENT TO WATERS, TO PREVENT SEDIMENT FROM ENTERING THE WATERS.

B. TURBIDITY CURTAIN SHALL NOT BE PLACED ACROSS A FLOWING WATERWAY, OR IN A WATERWAY WITH STREAM VELOCITIES GREATER THAN 1.5 FT./SEC.

C. TURBIDITY CURTAIN SHALL NOT BE PLACED AT THE OUTLET OF A CULVERT OR DITCH UNLESS THE VELOCITY DOES NOT EXCEED 1.5 FT./SEC.

D. THE DETAIL DEPICTS WORK AT A BRIDGE LOCATION, BUT TURBIDITY CURTAIN MAY BE APPLIED AT OTHER LOCATIONS.

E. TURBIDITY CURTAIN SHALL BE AN IMPERVIOUS CURTAIN AND A MINIMUM OF 18 OUNCES PER SQUARE YARD.

GENERAL NOTES:

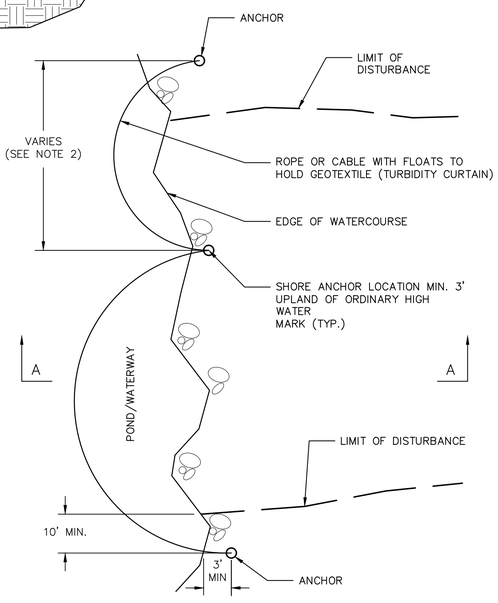
1. THE TURBIDITY CURTAIN SHALL BE PLACED AS CLOSE TO THE WORK AS POSSIBLE WITHOUT INTERFERING WITH CONSTRUCTION OPERATIONS.

2. THE TURBIDITY CURTAIN SHALL BE A MAXIMUM OF 100 FEET LONG BETWEEN ANCHORS. LAST SECTION SHALL TERMINATE A MINIMUM OF 10 FEET BEYOND THE LIMIT OF DISTURBANCE.

3. THE CONTRACTOR SHALL MONITOR THE TURBIDITY CURTAIN TAKING INTO ACCOUNT WEATHER PATTERNS AND PREVAILING WIND DIRECTIONS THAT MAY AFFECT WATER LEVELS, VELOCITY AND MOVEMENT OF TURBIDITY CURTAIN.

4. THE TURBIDITY CURTAIN SHALL BE REMOVED BY SLOWLY PULLING TOWARD THE SHORE TO MINIMIZE ESCAPE OF SEDIMENTS INTO THE POND/WATERWAY.

5. THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE THAT ALLOWS THE CURTAIN TO CONFORM TO THE CONTOUR ON THE BOTTOM OF THE POND/WATERWAY.



PLAN

4 TURBIDITY CURTAIN (TC)

NTS

REV.	DATE	DESCRIPTION REVISIONS	SHT. NO.

DESIGNER: JAB
DRAFTER: CJS
CHECKED BY: SRL
DATE CHECKED: 2/17/2020

TOWN OF CLINTON

ENGINEER: DIVERSIFIED TECHNOLOGY CONSULTANTS
APPROVED BY: DATE:

DTC
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 234-4200 Fax: 203 234-7376
www.teamdtc.com

PROJECT TITLE: REPLACEMENT OF PLEASANT VALLEY ROAD BRIDGE OVER MENUNKETESUCK RIVER
CADD: P:\2016\16155 Pleasant Valley Bridge\106\0-Current
PLOTTED: FEBRUARY 18, 2020

DRAWING TITLE: DETAILS

PROJECT NO.: 9027-4609
DRAWING NO.: DT-1
SHEET NO.: 27

*ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

**REVISED OR ADDED

✓*	SHEET NO.	TITLE	APPROVAL DATE**
☐	HW-506_01	ENDWALLS, SLOPE PAVED INLETS AND OUTLETS	1-26-12
☐	HW-506_02	TYPE "D-G" & "L" ENDWALLS	7-13-12
☐	HW-506_03	ENDWALLS FOR PIPE ARCH	9-18-09
☐	HW-507_01	TYPE "C", "C-L" & DROP INLET CATCH BASIN	7-24-13
☐	HW-507_02	TYPE "C", "C-L" & DOUBLE GRATE TYPE - I	7-24-13
☐	HW-507_03	TYPE "C", "C-L" & DOUBLE GRATE TYPE - II	7-24-13
☐	HW-507_04	TYPE "C", "C-L" & ROUND PRECAST CONCRETE CB	11-10-11
☐	HW-507_05	TYPE "C" & "C-L" PRECAST CONCRETE CB DOUBLE GRATE TYPE - I	11-10-11
☐	HW-507_06	TYPE "C" & "C-L" PRECAST CONCRETE CB DOUBLE GRATE TYPE - II	11-10-11
☐	HW-507_07	TYPE "C" & "C-L" CATCH BASIN TOPS AND CURBS	11-10-11
☐	HW-507_08	CATCH BASIN FRAMES AND GRATES	9-18-09
☐	HW-507_09	HEAVY DUTY LOCK DOWN TOPS	7-12-12
☐	HW-507_10	MANHOLE - FRAME & COVER	7-24-13
☐	HW-651_01	C.C.M. PIPE INSTALLATIONS IN FILL & ROCK SLOPES & PIPE TRENCH DETAIL	7-24-13
☐	HW-651_02	SLOTTED DRAIN PIPE 12"- 15"-18"-24"-30" (305-381-457-610-762)	7-12-12
☐	HW-652_01	PIPE ENDS	7-24-13
☐	HW-751_01	UNDERDRAINS AND UNDERDRAIN OUTLETS	7-12-12
☐	HW-803_01a	PAVED APRONS	6-07-17
☐	HW-803_01b	PAVED DITCHES AND PAVED CHANNELS	6-07-17
☐	HW-811_01	CONCRETE CURBING	6-07-17
☐	HW-813_01	GRANITE STONE TRANSITION CURBING	7-24-13
☐	HW-813_02	STONE CURBING	6-07-17
☐	HW-815_01	BITUMINOUS CONCRETE CURBING	6-07-17
☐	HW-821_01a	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 1	1-26-12
☐	HW-821_01b	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10
☐	HW-821_01c	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	1-26-12
☐	HW-821_02a	45" (1145) F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 1	7-24-13
☐	HW-821_02b	45" (1145) F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 2	7-24-13
☐	HW-821_03a	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 1	1-26-12
☐	HW-821_03b	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10
☐	HW-821_03c	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	10-18-10
☐	HW-821_03d	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 4	10-18-10
☐	HW-821_03e	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) F-SHAPE	7-24-13
☐	HW-821_04a	MERRITT PARKWAY NARROW MEDIAN BARRIER	6-09-11
☐	HW-821_04b	MERRITT PARKWAY - 2'(610) WIDE MEDIAN BARRIER AND ROADSIDE BARRIER	7-24-13
☐	HW-821_05a	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 1	1-26-12
☐	HW-821_05b	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 2	1-26-12
☐	HW-821_06	54" (1372) VERTICAL SHAPE BARRIER	2-06-12
☐	HW-821_07	MISCELLANOUS DETAILS FOR BARRIER TRANSITIONS	7-12-12
✓	HW-822_01	TEMPORARY PRECAST CONCRETE BARRIER CURB	7-24-13
☐	HW-905_01	STONE WALL FENCE	1-25-19
☐	HW-906_01	WIRE FENCE	1-25-19
✓	HW-910_01	W-BEAM METAL BEAM RAIL HARDWARE	6-09-11
✓	HW-910_02	METAL BEAM RAIL (TYPE R-B 350) GUIDERAIL	6-09-11
☐	HW-910_03	METAL BEAM RAIL (TYPE MD-B 350)	6-09-11
☐	HW-910_04	METAL BEAM RAIL (TYPE R-B 350) SYSTEMS 5, 5A, & 6	6-09-11
☐	HW-910_05	METAL BEAM RAIL R-B 350 SPAN TYPE I, II, III SECTIONS	7-24-13
☐	HW-910_06	R-B 350 BRIDGE ATTACHMENT SAFETY SHAPE PARAPET	6-09-11
✓	HW-910_07	R-B 350 BRIDGE ATTACHMENT VERTICAL SHAPE PARAPET	1-25-19
☐	HW-910_08	R-B 350 BRIDGE ATTACHMENT TRAILING END	6-09-11
☐	HW-910_09a	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 1	1-26-12
☐	HW-910_09b	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 2	7-25-12
☐	HW-910_10	METAL BEAM RAIL 8" (203) X 6" (152) BOX BEAM	7-24-13
☐	HW-910_11	CURVED GUIDERAIL TREATMENT DETAIL	7-25-12
☐	HW-910_12a	MERRITT PARKWAY GUIDERAIL ATTACHMENT - SYSTEM 2 & 3	7-24-13
☐	HW-910_12b	MERRITT PARKWAY GUIDERAIL	7-24-13
☐	HW-910_12c	MERRITT PARKWAY GUIDERAIL TRAILING END ATTACHMENTS	7-24-13
☐	HW-910_12d	MERRITT PARKWAY MEDIAN GUIDERAIL AND END ANCHOR	6-09-11
☐	HW-910_13a	THRIE-BEAM METAL BEAM RAIL HARDWARE	7-24-13
☐	HW-910_13b	THRIE-BEAM TRANSITIONS	7-24-13
☐	HW-910_14a	THRIE-BEAM 350 BRIDGE ATTACHMENT	6-09-11
☐	HW-910_14b	THRIE-BEAM 350 GUIDERAIL TRANSITION TO R-B 350 GUIDERAIL	6-09-11
☐	HW-910_15	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE I	6-09-11
☐	HW-910_16	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE II	6-09-11
☐	HW-910_17	R-B TERMINAL SECTION	7-24-13
☐	HW-910_18	METAL BEAM RAIL (TYPE MD-I)	10-18-10

REV.	DATE	REVISION DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

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: 1/23/2019

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD_[_1-23-19_].dgn Model: 1 - HW-INX_1

CTDOT
STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

HIGHWAY
STANDARD SHEET INDEX

STANDARD SHEET NO.:

HW_INX
1 of 2

*ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

**REVISED OR ADDED

✓*	SHEET NO.	TITLE	APPROVAL DATE**
☐	HW-910_19a	METAL BEAM RAIL (MODIFIED TYPE R-I) AND END ANCHORAGE TYPE I	7-24-13
☐	HW-910_19b	METAL BEAM RAIL (MODIFIED TYPE R-I) AND END ANCHORAGE TYPE II	7-24-13
☐	HW-910_19c	METAL BEAM RAIL (MODIFIED TYPE R-I) SYSTEMS 2 AND 3	7-24-13
✓	HW-910_20	MASH W-BEAM HARDWARE	1-05-18
✓	HW-910_21	METAL BEAM RAIL (R-B MASH) GUIDERAIL	1-25-19
☐	HW-910_22	METAL BEAM RAIL (MD-B MASH) GUIDERAIL	1-05-18
☐	HW-910_23	METAL BEAM RAIL (R-B MASH) HALF AND QUARTER POST SPACING	1-05-18
☐	HW-910_24	METAL BEAM RAIL SPAN SECTION TYPES II AND III	1-05-18
✓	HW-910_25	METAL BEAM RAIL TRANSITION 350 TO MASH	1-05-18
✓	HW-911_01	R-B END ANCHORAGE TYPE I AND II	1-25-19
☐	HW-911_02	MD-B END ANCHORAGE TYPE I	1-05-18
☐	HW-911_03	ANCHOR IN EARTH CUT SLOPE & ANCHOR IN ROCK CUT SLOPE	10-18-10
☐	HW-911_05	MERRITT PARKWAY GUIDERAIL END ANCHORS	7-24-13
☐	HW-913_01a	CHAIN LINK FENCE	5-06-19
☐	HW-913_01b	CHAIN LINK FENCE HARDWARE	5-06-19
☐	HW-913_02	CHAIN LINK FENCE GATES	5-06-19
☐	HW-918_01a	THREE CABLE GUIDERAIL (I-BEAM POSTS) SHEET 1	7-24-13
☐	HW-918_01b	THREE CABLE GUIDERAIL (I-BEAM POSTS) SHEET 2	1-26-12
☐	HW-918_01c	THREE CABLE GUIDERAIL (I-BEAM POSTS) SHEET 3	7-24-13
☐	HW-921_01	DRIVEWAY RAMPS AND SIDEWALKS	6-07-17
☐	HW-949_01a	LANDSCAPE PLANTING	6-15-19
☐	HW-949_01b	TREE STAKING	6-15-19
☐	HW-1800_01	GRADING PLAN FOR IMPACT ATTENUATION SYSTEMS (FLARED AND TANGENTIAL)	1-25-19
☐	HW-1800_02	GRADING PLAN FOR IMPACT ATTENUATION SYSTEM (MEDIAN/GORE)	1-25-19

✓*	SHEET NO.	TITLE	APPROVAL DATE**

REV.	DATE	REVISION DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

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: 6/20/2019

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD [5-28-19].dgn Model: 2 - HW-INX_2

CTDOT
STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

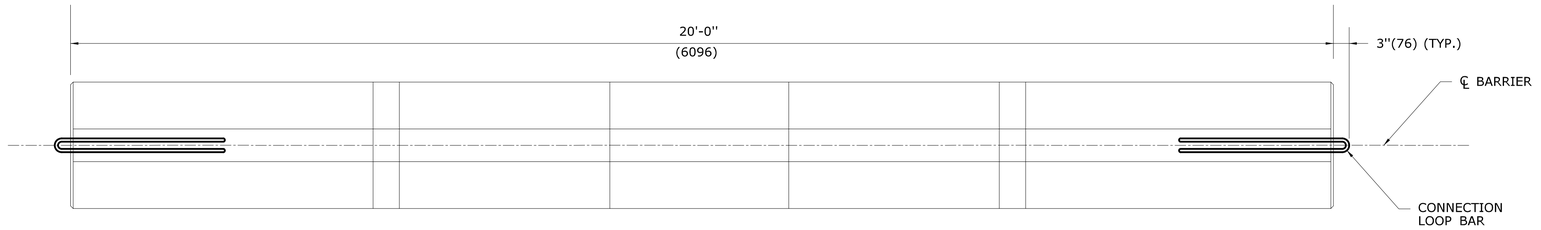
HIGHWAY
STANDARD SHEET INDEX

STANDARD SHEET NO.:

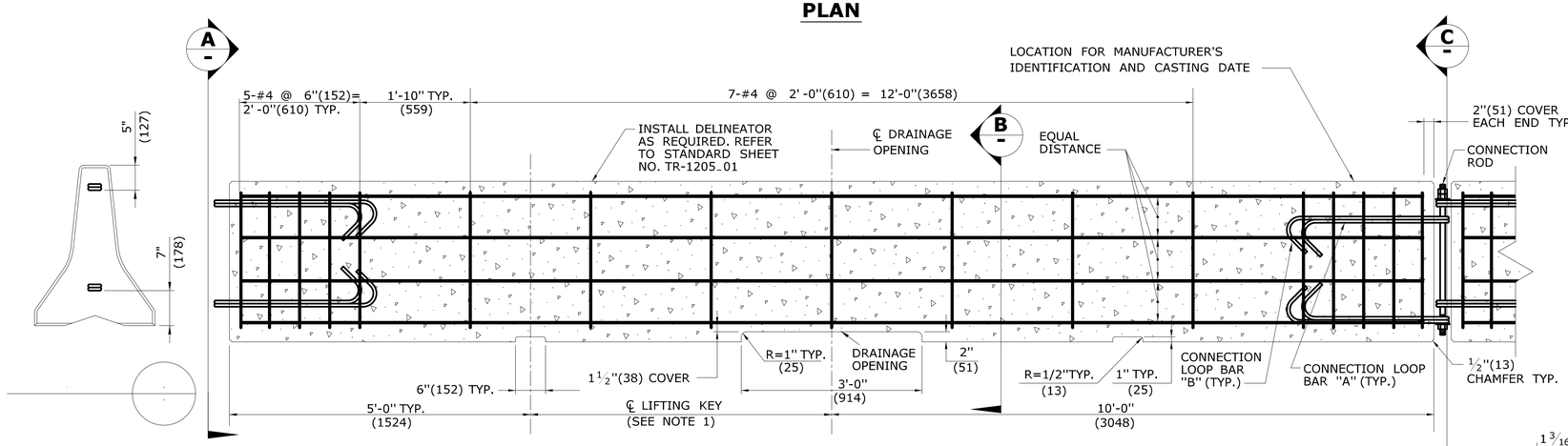
HW_INX
2 of 2

GENERAL NOTES:

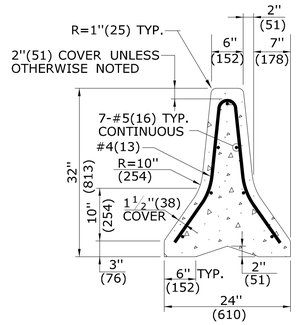
1. ALTERNATE DESIGNS FOR LIFTING KEYS, HOLES OR OTHER HANDLING DEVICES MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. EXPECTED PERMANENT DYNAMIC DEFLECTION IS 3'-6" (1148) BASED ON TL-3 CRASH TESTS WITH 240' (73152) OF TPCBC.



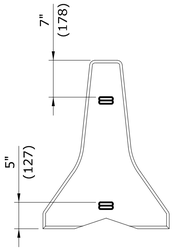
PLAN



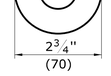
ELEVATION



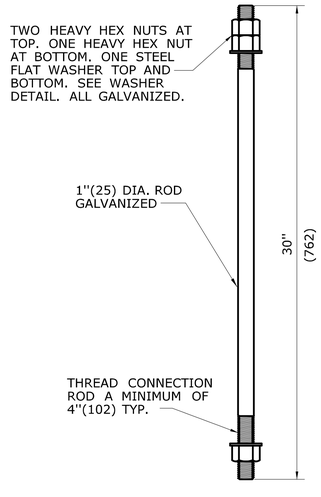
SECTION B -



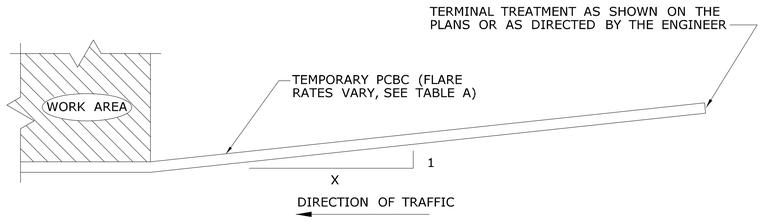
END VIEW C -



WASHER DETAIL



CONNECTION ROD

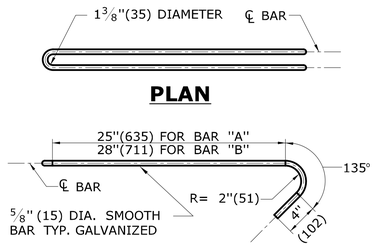


PLAN - TYPICAL INSTALLATION

TABLE A

FLARE RATES	
* SPEED	FLARE RATE (X : 1)
≤ 30MPH(48KPH)	4 : 1
> 30MPH(48KPH) <45MPH(72KPH)	6 : 1
≥ 45MPH(72KPH) NON-LIMITED ACCESS HIGHWAYS	8 : 1
ALL LIMITED ACCESS HIGHWAYS	10 : 1

* DESIGN SPEED THROUGH THE WORK AREA.



PLAN

ELEVATION

BAR "A" = 6'-0"(1829) TOTAL
BAR "B" = 6'-6"(1981) TOTAL

CONNECTION LOOP BAR

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

1	3/12	REVISE SLOPE NOTE & DETAIL NOTE	
2	7/13	ERRATA	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

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.

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

NAME/DATE/TIME:
Digitally signed by Leo L. Fontaine
Date: 2013.07.24 11:00:01-04'00'

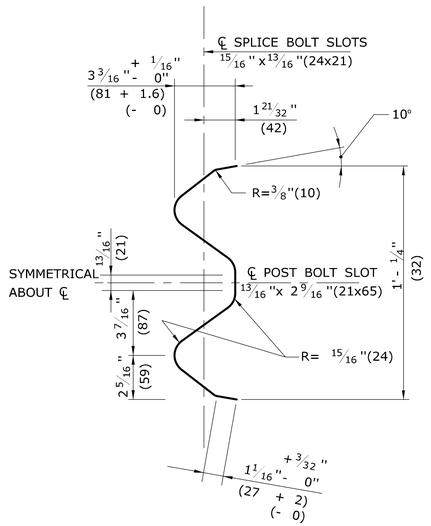
APPROVED BY: NAME/DATE/TIME:
James H. Norman
2013.07.24 14:48:34-04'00'

CTDOT
STANDARD SHEET

OFFICE OF ENGINEERING

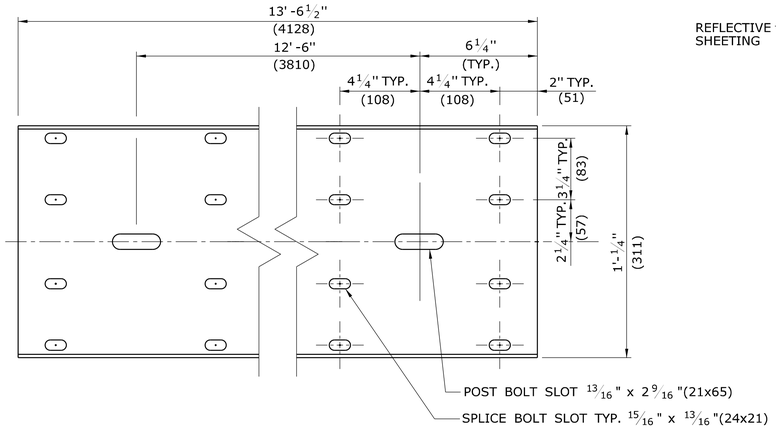
TEMPORARY PRECAST CONCRETE BARRIER CURB

HW-822_01

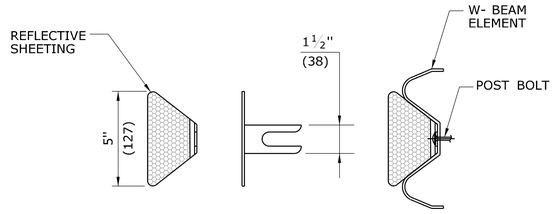


SELECTION THRU RAIL ELEMENT
END VIEW

NOTE: ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES



TYPICAL W-BEAM RAIL ELEMENT
CLASS A, TYPE II



DELINEATOR DETAIL

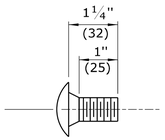
GENERAL NOTES:

1. NEW R-B 350 GUIDERAIL INCLUDING SYSTEMS, ANCHORS AND TRANSITIONS INSTALLED ON EXPRESSWAYS AND RAMPS SHALL USE CLASS B TYPE II (10 GAUGE) W-BEAM RAIL ELEMENTS.
2. W6x9 (W150x14) POSTS MAY BE USED IN PLACE OF W6 x 8.5(W150x13) POSTS.
3. W8x13 (W200x19) POSTS, 7'-6"(2286) LONG, ARE USED WITH TRANSITIONS TO VERTICAL OR SAFETY SHAPE PARAPETS (POSTS 1 AND 2) AND SYSTEM 6.
4. W6x8.5 (W150x13) POSTS, 6'-0"(1829) LONG, ARE USED WITH TRANSITIONS TO VERTICAL OR SAFETY SHAPE PARAPETS (POSTS 3 THOUGH 6), MD-B 350, SYSTEM 5 & 5A, AND STANDARD R-B 350 GUIDERAIL.

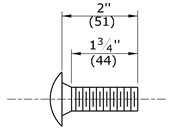
DELINEATOR NOTES:

1. DELINEATORS SHALL BE FORMED OF .080 POLY-CARBONATE OR .080 SHEET ALUMINUM IN ACCORDANCE WITH M.18.13.
2. REFLECTIVE SHEETING SHALL CONFORM TO M.18.09.2.
3. DELINEATORS SHALL BE INSTALLED ON THE POST CLOSEST TO THE DESIGNATED SPACING.
4. REFLECTIVE SHEETING SHALL BE WHITE EXCEPT ON THE LEFT SIDE OF DIVIDED STREETS, HIGHWAYS, RAMPS, AND ONE WAY ROADS IN THE DIRECTION OF TRAVEL WHERE IT SHALL BE YELLOW.
5. INSTALL DELINEATORS ON RAIL THAT IS PARALLEL TO AND NOT GREATER THAN 6'(1829) FROM THE EDGE OF THE ROADWAY. A MINIMUM OF THREE DELINEATORS MUST BE INSTALLED ON ANY RUN OF RAIL.

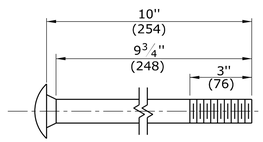
DELINEATOR SPACING:
RADIUS ≥ 300'(91440) - SPACE EVERY 50'(15.24m)
RADIUS < 300'(91440) - SPACE EVERY 25'(7.62m)



W-BEAM SPLICE
BOLT DETAIL

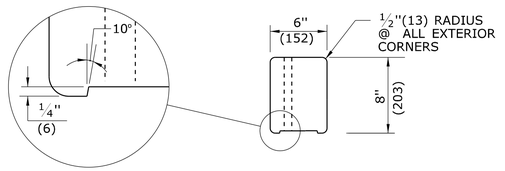


POST BOLT DETAIL
FOR R-B 350
SYSTEM 6 RUBRAIL

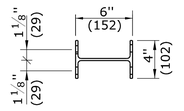


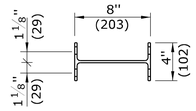
POST BOLT DETAIL FOR R-B 350
AND MD-B 350 GUIDERAIL

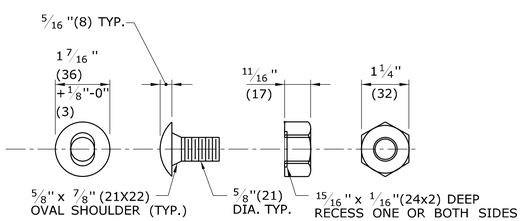
(UNTHREADED PORTION NOT TO EXCEED 6 3/4"(171))



PLAN

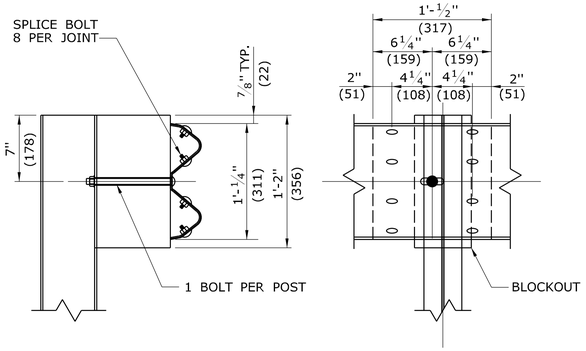






BUTTONHEAD BOLT **HEX NUT**

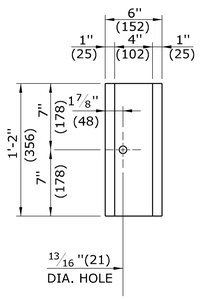
NOTE: AFTER GALVANIZING, THE NUT SHALL BE FREE RUNNING ON THE BOLT. DIAMETER SHOWN IS TYPICAL FOR ALL GUIDERAIL BOLTS. SEE DETAILS ABOVE FOR SPECIFIC LENGTHS.



SECTION **ELEVATION**

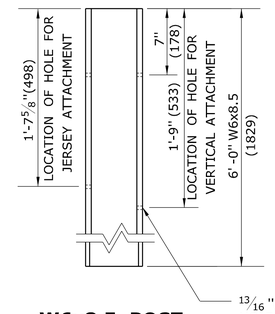
LAP DETAIL

NOTE:
LAP RAIL SECTION IN DIRECTION OF TRAFFIC

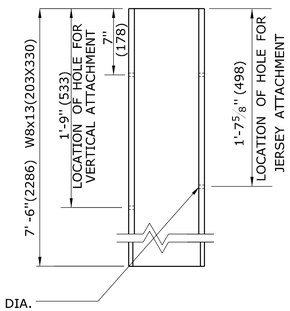


ELEVATION

R-B 350 PLASTIC
BLOCKOUT DETAIL



W6x8.5 POST
(W150x13)
6'-0"(1829) LONG



W8x13 POST
(W200x19)
7'-6"(2286) LONG

BOLT HOLE LAYOUT FOR W8x13(W200x19)
AND W6x8.5 (W150x13)UNIFORM POST

(REFER TO GENERAL NOTES)

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

REV.	DATE	REVISION DESCRIPTION
1	6/11	REMOVE WEATHERING STEEL NOTES -
		-
-	-	- -
-	-	- -
-	-	- -
-	-	- -

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: 5/10/2011

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD_JUNE2011.dgn Model: 36-HW-910_01

SUBMITTED BY: NAME/DATE/TIME:
Digitally signed by Leo Fontaine
DN: cn=Leo Fontaine, o=Connecticut, ou=Department of Transportation, email=Leo.Fontaine@ct.gov, c=State of Connecticut
Date: 2011.05.16 11:54:57 -04'00'

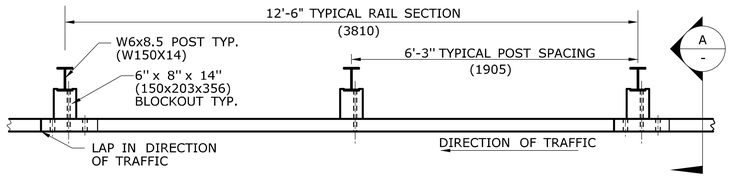
APPROVED BY: NAME/DATE/TIME:
James H. Norman
2011.06.09 15:12:16 -04'00'

CTDOT
STANDARD SHEET

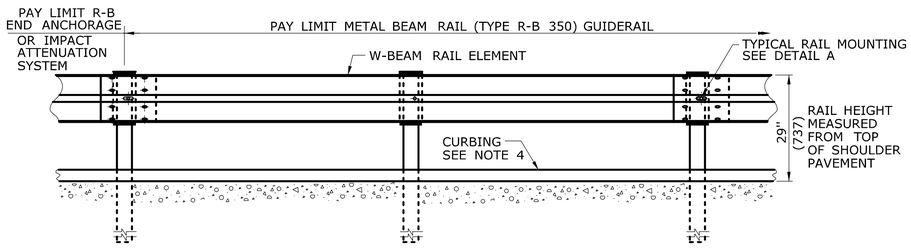
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
W-BEAM METAL
BEAM RAIL HARDWARE

STANDARD SHEET NO.:
HW-910_01

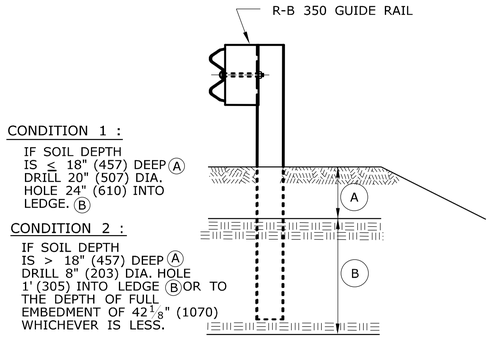


PLAN

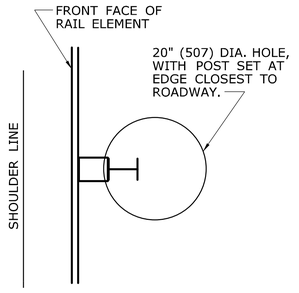


ELEVATION

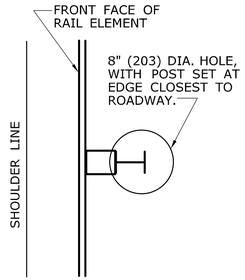
METAL BEAM RAIL (TYPE R-B 350)



ELEVATION
(SEE NOTE 8)



PLAN
CONDITION 1
(SEE NOTE 8)

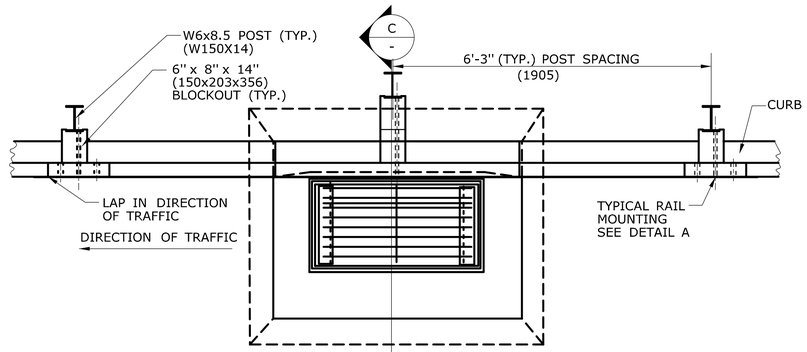


PLAN
CONDITION 2
(SEE NOTE 8)

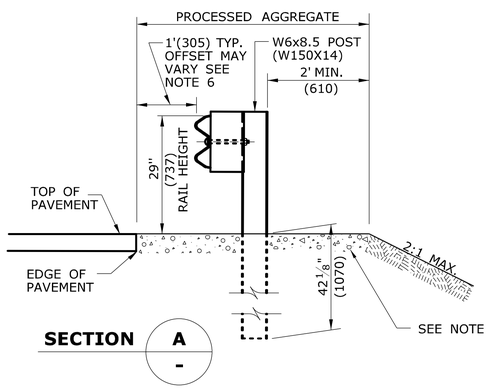
DRILLING IN ROCK FOR GUIDERAIL POSTS

GENERAL NOTES:

1. SEE SHEET HW-910_01 FOR HARDWARE AND DELINEATOR DETAILS.
2. MAXIMUM DESIGN DEFLECTION FOR R-B 350 GUIDERAIL AT THE STANDARD POST SPACING OF 6'-3"(1905) IS 4'-3"(1295). DEFLECTION REQUIREMENT IS MEASURED FROM THE BACK OF POST TO THE FACE OF OBJECT.
3. FOR CURVES WITH RADII OF 150'(45.7m) OR LESS, ALL RAIL ELEMENTS SHALL BE SHOP FABRICATED TO THE PROPER RADIUS AND GALVANIZED AFTER FABRICATION. RADIUS RAIL WHEN REQUIRED AND NOTED ON THE PLANS, IS INCLUDED IN THE PAY ITEM FOR GUIDERAIL.
4. RAIL HEIGHT WITH CURBING SHALL BE MEASURED FROM THE TOP OF PAVEMENT. ON HIGH SPEED ROADWAYS (≥45mph 72.4kph), 4"(102) CURBING MAY BE USED IN CONJUNCTION WITH GUIDERAIL AND THE RAIL ELEMENT SHALL BE PLACED FLUSH WITH THE FACE OF CURB. ON LOW SPEED ROADWAYS (<45mph 72.4kph), 6"(152) CURBING MAY BE USED IN CONJUNCTION WITH GUIDERAIL AND THE RAIL ELEMENT SHALL BE PLACED A MAXIMUM OF 9"(229) BEHIND THE FACE OF CURB.
5. THREE BLOCKOUTS MAY BE USED FOR ONE POST ONLY. TWO BLOCKOUTS MAY BE USED FOR A SERIES OF POSTS. THE COST OF ADDITIONAL BLOCKOUTS AND LONGER BOLTS SHALL BE INCLUDED IN THE BID PRICE PER FOOT OF GUIDERAIL. EXTRA BLOCKOUTS AT TRANSITION TO BRIDGE PARAPETS SHOULD BE AVOIDED.
6. W-BEAM GUIDERAIL MAY BE PLACED 1'(305) OR MORE FROM THE EDGE OF PAVEMENT ONLY ON SLOPES 10:1 OR FLATTER AND WITHOUT CURBING. IF THE RAIL IS INSTALLED WITHIN 2'(610) OF THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE SHOULDER SLOPE EXTENDED TO THE RAIL. IF THE RAIL IS INSTALLED BEYOND 2'(610) FROM THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE GROUND DIRECTLY BELOW THE RAIL.
7. ALL R-B 350 GUIDERAIL TYPES INSTALLED ON EXPRESSWAYS AND RAMPS SHALL USE CLASS B, TYPE-II (10 GAUGE) W-BEAM RAIL ELEMENTS.
8. 20" (507) DIA. EXCAVATED HOLE SHALL BE BACKFILLED WITH SUITABLE MATERIAL, OR GRANULAR FILL COMPACTED IN 6" (150) LIFTS BEFORE DRIVING POST OR POSTS MAY BE SET IN EXCAVATED HOLE AND BACKFILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM). 8" (203) DIA. HOLE SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
9. AS DIRECTED BY THE ENGINEER AND WHERE PAVEMENT FOR RAILING IS NOT BEING INSTALLED, A MIN. 6" DEPTH OF PROCESSED AGGREGATE SHALL BE INSTALLED FROM THE PAVEMENT EDGE OR BACK OF CURB TO A MINIMUM OF 2'(610) BEHIND THE GUIDERAIL POST AND COMPACTED IN 6" (150) LIFTS.
10. MINIMUM RAIL HEIGHT FOR NEW CONSTRUCTION SHALL BE 29" (737) ± 1" (25).

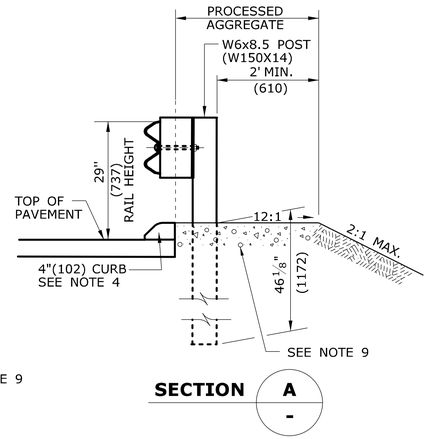


PLAN



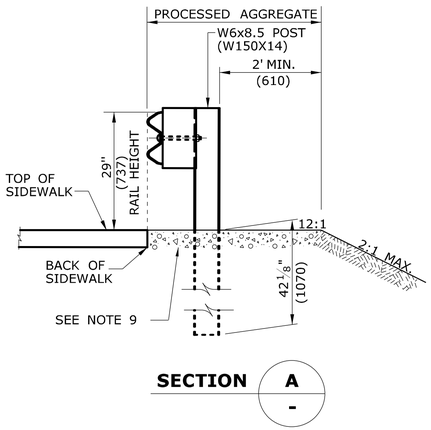
SECTION A -

NO CURB APPLICATION



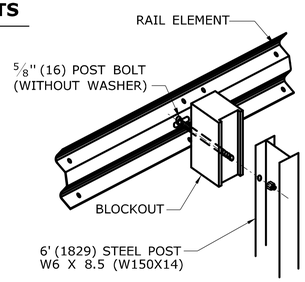
SECTION A -

CURB APPLICATION

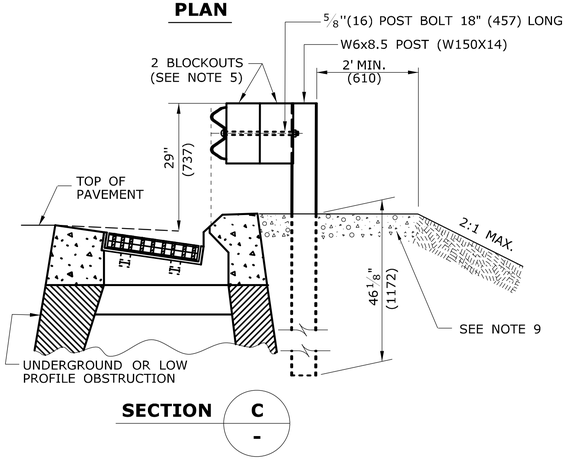


SECTION A -

SIDEWALK APPLICATION



DETAIL A
RAIL MOUNTING



SECTION C -

MULTIPLE BLOCKOUT APPLICATION (MAY BE USED TO AVOID UNDERGROUND OR LOW PROFILE OBSTRUCTION)

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

REV.	DATE	REVISION DESCRIPTION
1	6/11	REVISED NOTE 9 FOR USE OF PROCESSED AGGREGATE -
		AND REMOVED NOTE 6 FOR WEATHERING STEEL -
-	-	- -
-	-	- -
-	-	- -
-	-	- -

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: 5/10/2011

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD_JUNE2011.dgn Model: 37- HW-910_02

SUBMITTED BY: NAME/DATE/TIME:

Digitally signed by Les Fontaine
DN: c=US, st=Connecticut, l=Newington, ou=Department of Transportation, email=Les.Fontaine@ct.gov, o=State of Connecticut, cn=Les Fontaine
Date: 2011.05.18 11:54:43 -04'00'

APPROVED BY: NAME/DATE/TIME:

James H. Norman
2011.06.09 15:12:46 -04'00'

CTDOT
STANDARD SHEET

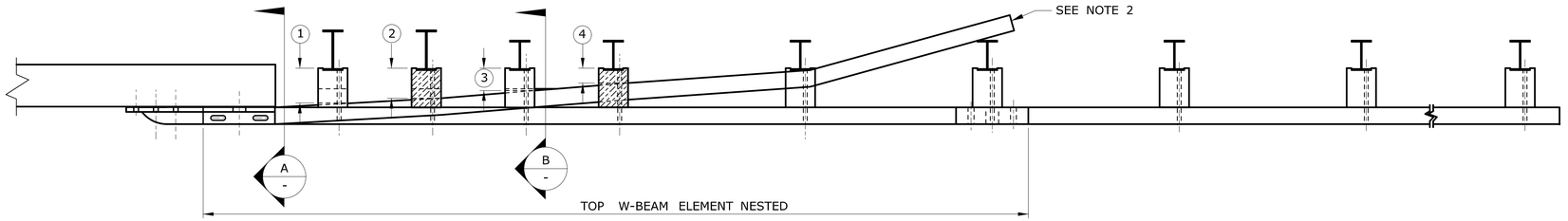
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

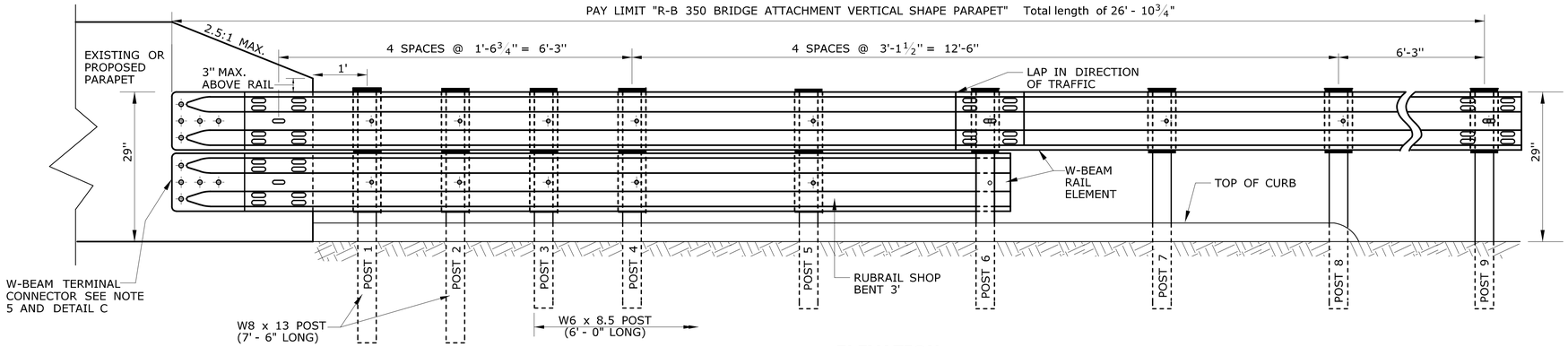
METAL BEAM RAIL
(TYPE R-B 350) GUIDERAIL

STANDARD SHEET NO.:

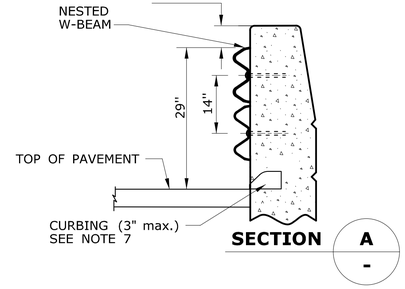
HW-910_02



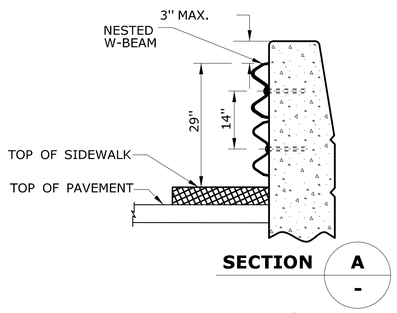
PLAN



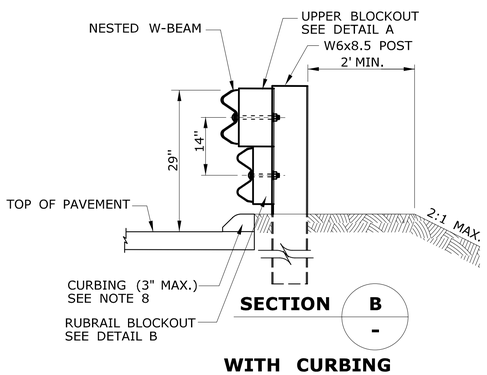
ELEVATION



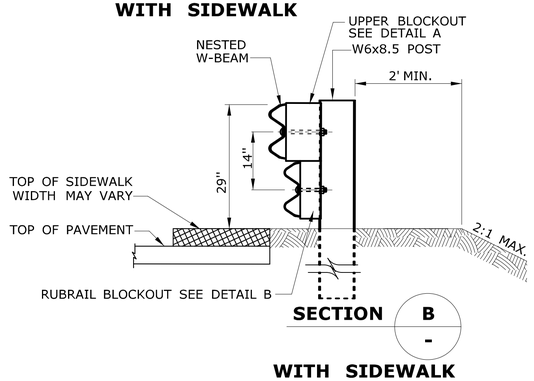
SECTION A - WITH CURBING



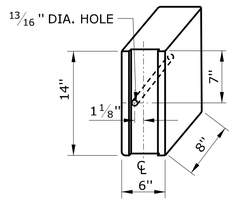
SECTION A - WITH SIDEWALK



SECTION B - WITH CURBING

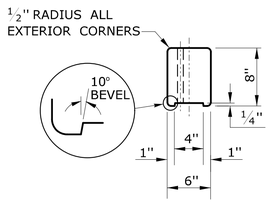


SECTION B - WITH SIDEWALK

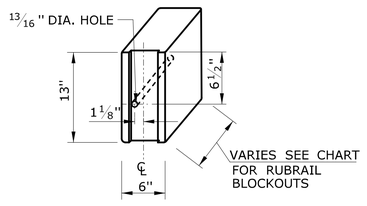


DETAIL A

UPPER BLOCKOUT



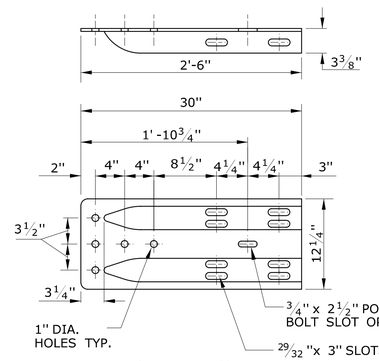
TOP



DETAIL B

RUBRAIL BLOCKOUT

RUBRAIL BLOCKOUTS 13" HIGH x 6" WIDE		
POST	THICKNESS	BOLT LENGTH
1	7"	9"
2	6"	8"
3	4½"	6"
4	3"	5"



DETAIL C

W-BEAM TERMINAL CONNECTOR CLASS B TYPE II

SEE NOTE 5

GENERAL NOTES:

1. RUBRAIL BLOCKOUTS FOR POSTS 1 THROUGH 4 ARE ATTACHED TO POST AND RAIL WITH A $\frac{5}{8}$" BUTTONHEAD BOLTS (SEE CHART FOR BOLT LENGTH). RUBRAIL ONLY IS ATTACHED TO POST 5 WITH A $\frac{5}{8}$" x $1\frac{1}{4}$" BUTTONHEAD BOLT.
2. THE RUBRAIL SHALL BE SHOP BENT IN THE LAST 3' TO FACILITATE INSTALLATION. DO NOT ATTACH RUBRAIL TO BACK OF POST 6.
3. ANCHORAGE:
   (A) AT EXISTING PARAPETS EACH W-BEAM TERMINAL CONNECTOR SHALL BE ANCHORED USING FOUR $\frac{7}{8}$" x 12" CHEMICALLY ANCHORED BOLTS WITH WASHERS OR AS DETAILED ON STRUCTURE SHEETS. MAXIMUM BOLT PROJECTION BEYOND THE NUT SHALL BE $\frac{1}{2}$". THE 12" MINIMUM LENGTH OF CHEMICALLY ANCHORED BOLTS SHALL INCLUDE A MINIMUM EMBEDMENT DEPTH OF 10" INTO SUITABLY REINFORCED CONCRETE OR AS RECOMMENDED BY THE MANUFACTURER OF BONDING MATERIAL.
   (B) FOR NEW PARAPETS OR BARRIERS, THE W-BEAM TERMINAL CONNECTORS SHALL BE ANCHORED AS DETAILED ON THE STRUCTURE SHEETS.
4. ADDITIONAL BLOCKOUTS WITH POSTS 1 THROUGH 6 SHOULD BE AVOIDED.
5. FOR SINGLE DIRECTION ROADWAY:
   INSTALL W-BEAM TERMINAL CONNECTOR BETWEEN NESTED GUIDE RAIL ELEMENTS.
   FOR DUAL DIRECTION ROADWAY FOR APPROACHING TRAFFIC:
   INSTALL W-BEAM TERMINAL CONNECTOR BETWEEN NESTED GUIDE RAIL ELEMENTS.
   FOR TRAILING END:
   INSTALL W-BEAM TERMINAL CONNECTOR OUTSIDE OF THE NESTED GUIDE RAIL ELEMENTS.
6. MINIMUM RAIL HEIGHT FOR NEW CONSTRUCTION SHALL BE 29" +/- 1".
7. USE MODIFIED 4" BITUMINOUS CONCRETE PARK CURBING REDUCED TO A 3 INCH REVEAL BENEATH THE RUBRAIL IF CURBING IS REQUIRED.

REV.	DATE	REVISION DESCRIPTION
1	6/11	REVISED NOTE 9 FOR USE OF CHEMICAL ANCHORS
2	1/19	ADDED POST 9 TO PLAN & ELEVATION VIEW, REMOVED DETAIL D,
-	-	AND REVISED RAIL HEIGHT REFERENCE AND GENERAL NOTES
-	-	- -
-	-	- -
-	-	- -

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: 1/23/2019

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD_[_1-23-19_].dgn Model: 193 - HW-910_07

SUBMITTED BY: NAME/DATE/TIME:
Leo Fontaine, P.E.
2019.01.24 07:37:12-05'00'

APPROVED BY: NAME/DATE/TIME:
Gregory M. Dorosh, P.E.
2019.01.24 10:41:46-05'00'

CTDOT STANDARD SHEET

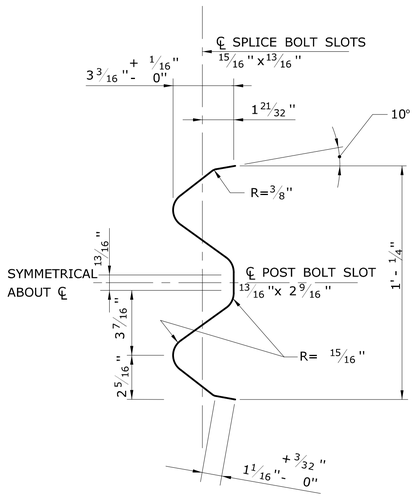
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

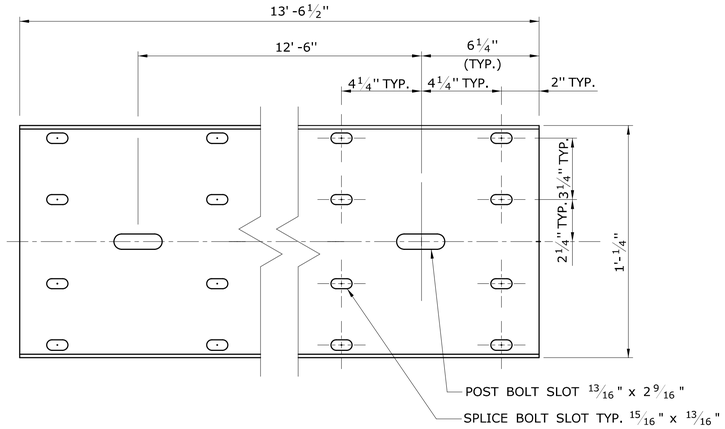
R-B 350 BRIDGE ATTACHMENT VERTICAL SHAPE PARAPET

STANDARD SHEET NO.:

HW-910_07

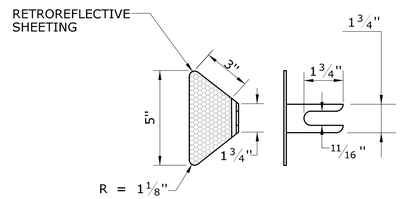


SECTION VIEW



ELEVATION VIEW

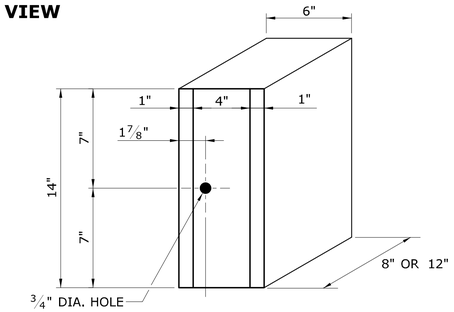
TYPICAL W-BEAM RAIL ELEMENT



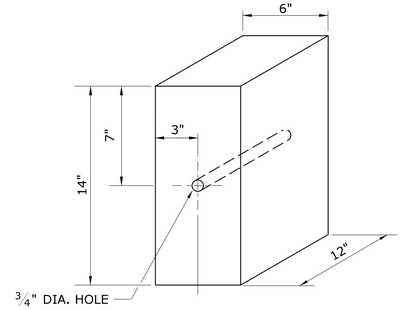
W-BEAM DELINEATOR

GENERAL NOTES:

1. W6 x 9 POSTS MAY BE USED IN PLACE OF W6 x 8.5 POSTS.
2. W-BEAM GUIDERAIL SHALL USE CLASS A (12 GAUGE), TYPE II W-BEAM RAIL ELEMENTS.
3. SEVEN FOOT LONG STEEL POSTS (W6 X 8.5) ARE TO BE INSTALLED WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
4. ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES



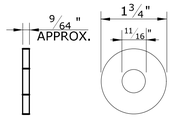
8" or 12" PLASTIC BLOCKOUT
NOMINAL DIMENSIONS



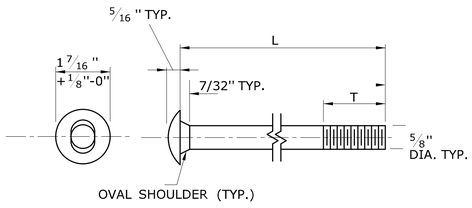
12" WOOD BLOCKOUT

W-BEAM DELINEATOR INSTALLATION NOTES:

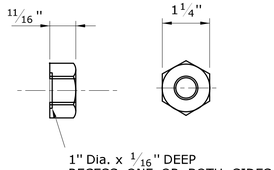
1. INSTALL W-BEAM DELINEATORS ON RAIL THAT IS PARALLEL TO AND NOT GREATER THAN 8' FROM THE EDGE OF THE ROADWAY. A MINIMUM OF THREE W-BEAM DELINEATORS SHALL BE INSTALLED ON ANY LENGTH OF GUIDERAIL.
2. THE SPACING OF W-BEAM DELINEATORS IS 50 FEET, INSTALLED AT RAIL SPLICE LOCATIONS. SPACING IS 25 FEET ON RADII LESS THAN 300 FEET.
3. NO W-BEAM DELINEATORS ARE PERMITTED WITHIN 75 FEET OF THE IMPACT HEAD OF ANY TANGENTIAL OR FLARED IMPACT ATTENUATION SYSTEM.
4. RETROREFLECTIVE SHEETING SHALL BE WHITE EXCEPT ON THE LEFT SIDE OF DIVIDED STREETS, HIGHWAYS, RAMPS, AND ONE WAY ROADS IN THE DIRECTION OF TRAVEL WHERE IT SHALL BE YELLOW.



WASHER
[FWC16a]



BUTTONHEAD BOLT

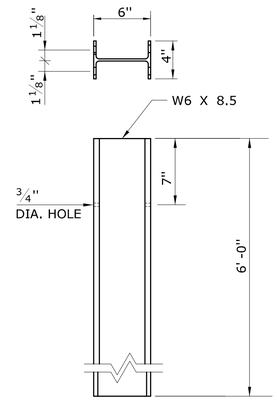


HEX NUT

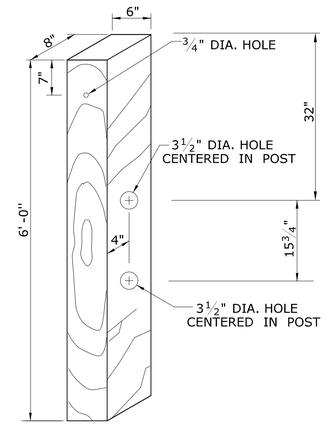
DESIGNATOR	L	T	INTENDED USE
FBB01	1-1/4"	1-1/8"	RAIL SPLICE BOLTS
FBB02	2"	1-3/4"	RUB RAIL BOLTS
FBB03	10"	4"	POST BOLTS (8" BLOCK OUTS)
	14"	4"	POST BOLT (12" BLOCK OUTS)
FBB04	18"	4"	POST BOLTS (2- 8"BLOCK OUTS)
	22"	4"	POST BOLT (CRT WOOD POST SYSTEM)

5/8" BUTTON HEAD BOLT(S) AND RECESSED NUT(S)

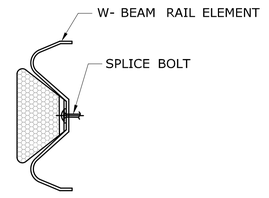
NOTE: AFTER GALVANIZING, THE NUT SHALL BE FREE RUNNING ON THE BOLT. DIAMETER SHOWN IS TYPICAL FOR ALL GUIDERAIL BOLTS. SEE DETAILS ABOVE FOR SPECIFIC LENGTHS.



STEEL POST
6'-0" LONG



CONTROL RELEASE TIMBER (CRT) POST
6' - 0" LONG



W-BEAM DELINEATOR INSTALLATION

REV.	DATE	REVISION DESCRIPTION

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: 1/3/2018

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD.dgn Model: 273 - HW-910.20

SUBMITTED BY: NAME/DATE/TIME:
Leo Fontaine, P.E.
2018.01.05 11:03:47-05'00'

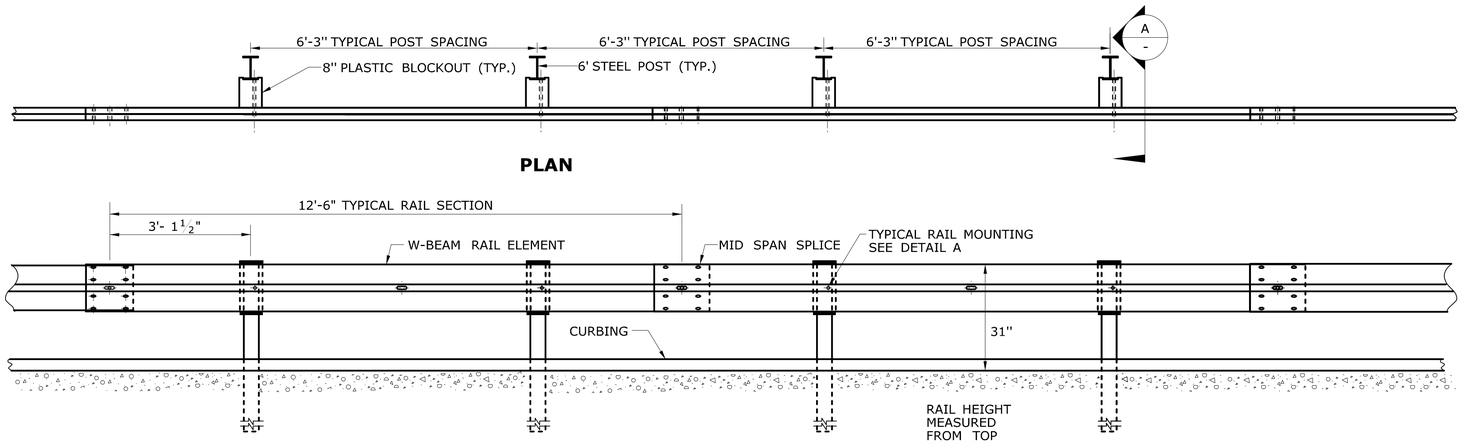
APPROVED BY: NAME/DATE/TIME:
Gregory M. Dorosh, P.E.
2018.01.05 11:16:55-05'00'

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
MASH W-BEAM HARDWARE

STANDARD SHEET NO.:
HW-910_20



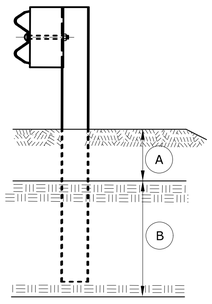
PLAN

ELEVATION

METAL BEAM RAIL (R-B MASH) GUIDERAIL

GENERAL NOTES:

1. SEE SHEET HW-910_20 FOR MASH W-BEAM HARDWARE AND W-BEAM DELINEATOR DETAILS.
2. THREE BLOCKOUTS MAY BE USED FOR ONE POST ONLY. TWO BLOCKOUTS MAY BE USED FOR A SERIES OF POSTS. THE COST OF ADDITIONAL BLOCKOUTS AND LONGER BOLTS SHALL BE INCLUDED IN THE PRICE PER FOOT OF GUIDERAIL. EXTRA BLOCKOUTS AT TRANSITIONS TO BRIDGE PARAPETS SHOULD BE AVOIDED. DO NOT USE ADDITIONAL BLOCKS IF IT CAUSES THE POST TO BE DRIVIEN BEYOND AN EMBANKMENT HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.
3. IF BLOCKOUTS DO NOT AVOID POST FROM OBSTRUCTION, ONE POST MAY BE OMITTED IF 50 FEET OF GUIDERAIL EXISTS ON BOTH SIDES OF LOCATION. USE METAL BEAM RAIL SPAN SECTION TYPE II OR III FOR MORE THAN ONE CONSECUTIVE OMITTED POST, SEE SHEET HW-910_24.
4. W-BEAM GUIDERAIL MAY BE PLACED 1' OR MORE FROM THE EDGE OF PAVEMENT ONLY ON SLOPES 10:1 OR FLATTER AND WITHOUT CURBING.
5. IF THE RAIL IS INSTALLED WITHIN 2' OF THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE SHOULDER SLOPE EXTENDED TO THE RAIL. IF THE RAIL IS INSTALLED BEYOND 2' FROM THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE GROUND DIRECTLY BELOW THE RAIL.
6. RAIL HEIGHT CONSTRUCTION TOLERANCE IS +/- 1 INCH.



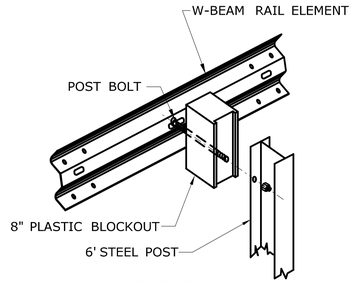
CONDITION 1 :

IF SOIL DEPTH IS ≤ 18" DEEP (A) DRILL 20" DIA. HOLE 24" INTO LEDGE. (B)

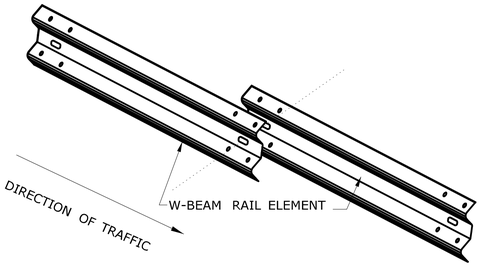
CONDITION 2 :

IF SOIL DEPTH IS > 18" DEEP (A) DRILL 8" DIA. HOLE 12" INTO LEDGE (B) OR TO THE DEPTH OF FULL EMBEDMENT WHICHEVER IS LESS.

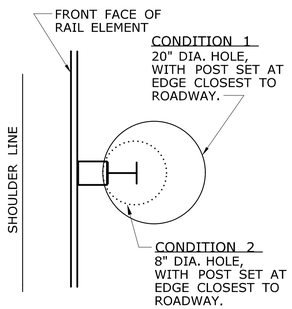
ELEVATION



DETAIL A
RAIL MOUNTING

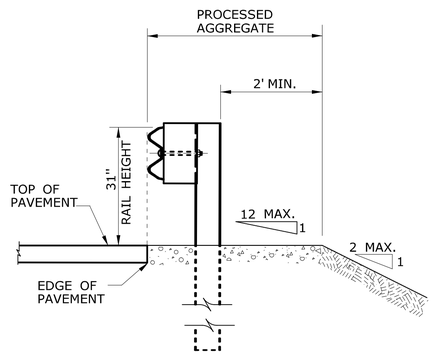


LAP W-BEAM RAIL SECTIONS
NOTE: EIGHT (8) SPLICE BOLTS PER JOINT



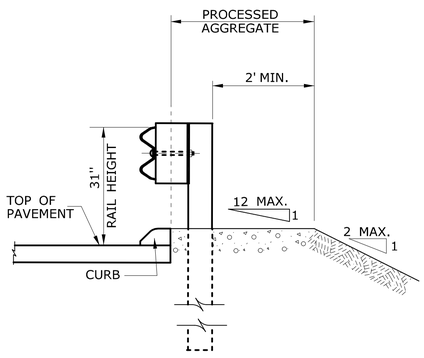
PLAN

GUIDERAIL POSTS IN ROCK



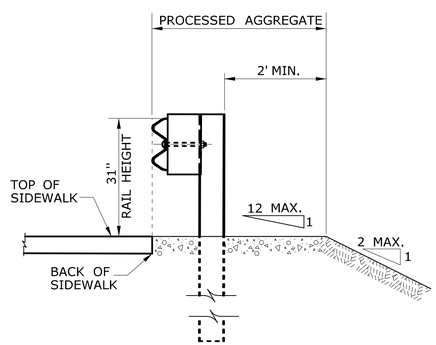
SECTION A / -

NO CURB APPLICATION



SECTION A / -

CURB APPLICATION



SECTION A / -

SIDEWALK APPLICATION

REV.	DATE	REVISION DESCRIPTION
1	1/19	ELIMINATED 1 FOOT RAIL OFFSET FOR NON CURB CONDITIONS
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

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: 1/23/2019

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD_[_1-23-19_].dgn Model: 274 - HW-910_21

SUBMITTED BY: NAME/DATE/TIME:
Leo Fontaine, P.E.
2019.01.24 07:38:57-05'00'

APPROVED BY: NAME/DATE/TIME:
Gregory M. Dorosh, P.E.
2019.01.24 10:42:50-05'00'

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

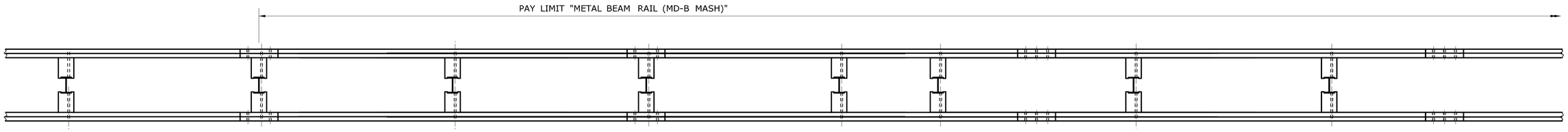
METAL BEAM RAIL (R-B MASH) GUIDERAIL

STANDARD SHEET NO.:

HW-910_21

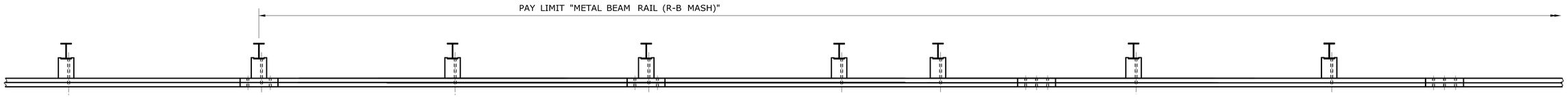
GENERAL NOTES:

1. SEE SHEET HW-910_20 FOR HARDWARE AND W-BEAM DELINEATOR DETAILS.
2. NO POST(S) SHALL BE OMITTED WITHIN THE LENGTH OF GUIDERAIL TRANSITION.



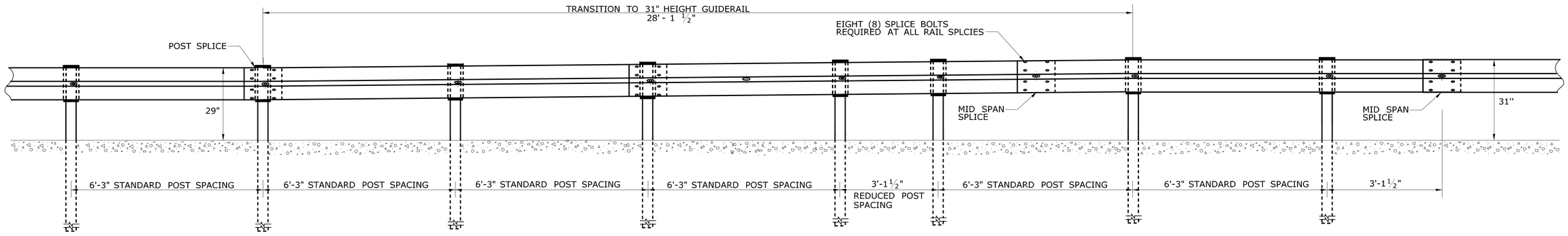
PLAN

METAL BEAM RAIL MD-B 350 TRANSITION TO METAL BEAM RAIL MD-B MASH



PLAN

METAL BEAM RAIL R-B 350 TRANSITION TO METAL BEAM RAIL R-B MASH



ELEVATION

REV.	DATE	REVISION DESCRIPTION

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: 1/3/2018

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD.dgn Model: 278 - HW-910_25

SUBMITTED BY:	NAME/DATE/TIME:
	Leo Fontaine, P.E. 2018.01.05 11:03:13-05'00'
APPROVED BY:	NAME/DATE/TIME:
	Gregory M. Dorosh, P.E. 2018.01.05 11:19:31-05'00'

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

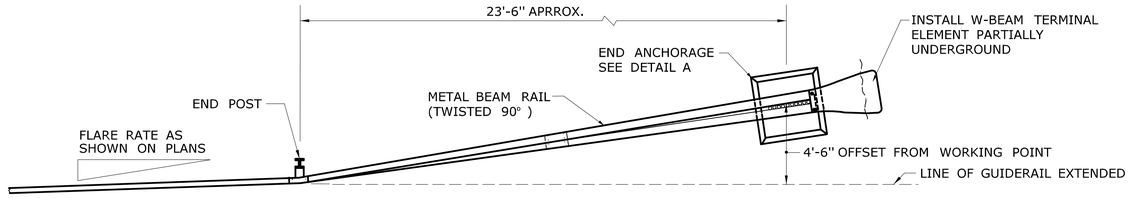
METAL BEAM RAIL TRANSITION 350 TO MASH

STANDARD SHEET NO.:

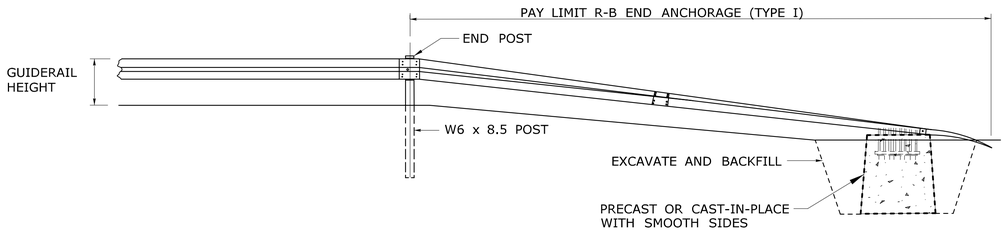
HW-910_25

GENERAL NOTES:

1. J-HOOK BOLTS MAY BE SUBSTITUTED FOR BOTTOM PLATE ANCHORAGE IN CONCRETE END ANCHORS USING THE SAME SIZE, STRENGTH, AND LENGTH AS NOTED ON THE PLANS.
2. INSTALLATION OF RADII DIFFERENT THAN WHAT IS SHOWN IN DETAIL "C" FOR R-B END ANCHORAGE TYPE II MUST BE APPROVED BY THE ENGINEER.

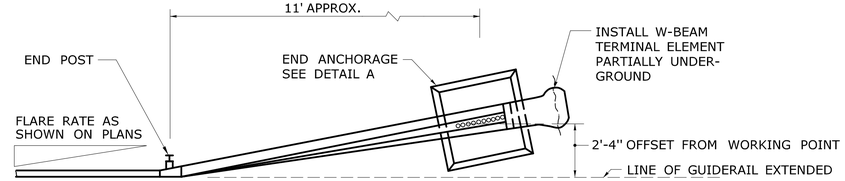


PLAN

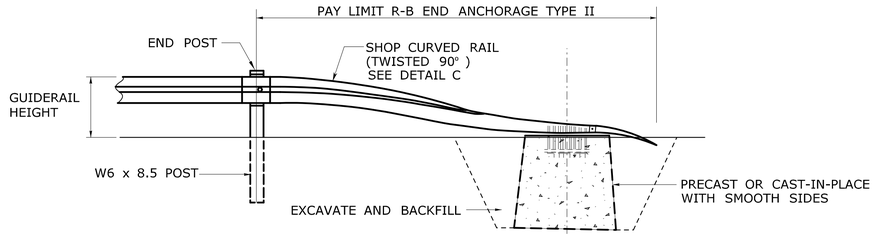


ELEVATION

R-B END ANCHORAGE TYPE I

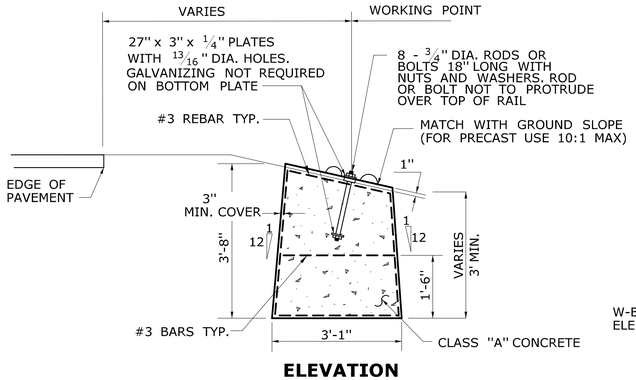


PLAN

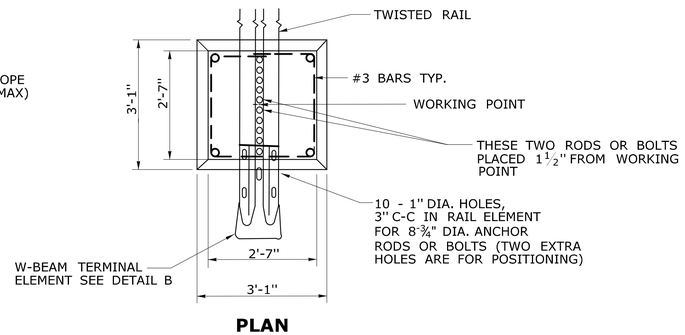


ELEVATION

R-B END ANCHORAGE TYPE II



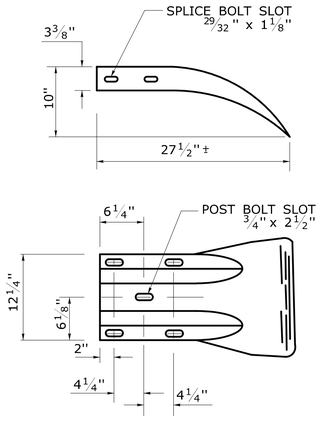
ELEVATION



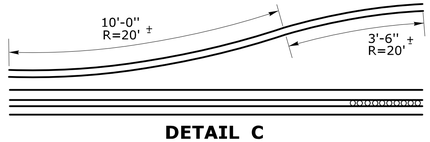
PLAN

DETAIL A
ROADSIDE CONCRETE END ANCHOR

SEE NOTE 2



DETAIL B
W-BEAM TERMINAL ELEMENT



DETAIL C
SHOP CURVED RAIL

SEE NOTE 3

REV.	DATE	REVISION DESCRIPTION
1	6/11	REVISED TYPE I AND II ANCHOR FOR CLEAR ZONE PLACEMENT
2	7/13	ADD POST OFFSET DISTANCE
3	9/17	REVISED TYPE I AND II FOR R-B MASH OR R-B 350 RAIL
4	1/19	REMOVED GENERAL NOTE 1

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: 1/23/2019

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD_[_1-23-19_].dgn Model: 282 - HW-911_01

SUBMITTED BY: NAME/DATE/TIME:
Leo Fontaine, P.E.
2019.01.24 07:39:32-05'00'

APPROVED BY: NAME/DATE/TIME:
Gregory M. Dorosh, P.E.
2019.01.24 10:43:22-05'00'

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
R-B END ANCHORAGE TYPE I AND II

STANDARD SHEET NO.:
HW-911_01

ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

	SHEET NO.	TITLE	APPROVAL DATE
☐	TR-1000_01	GENERAL CLAUSES (TEST PROCEDURES)	1/2014
☐	TR-1001_01	TRENCHING & BACKFILLING, ELECTRICAL CONDUIT	4/2012
☐	TR-1002_01	TRAFFIC CONTROL FOUNDATIONS	1/2014
☐	TR-1010_01	CONCRETE HANDHOLE	4/2014
☐	TR-1102_01	PEDESTALS, PEDESTRIAN SIGNALS	4/2012
☐	TR-1105_01	TRAFFIC SIGNALS AND CABLE ASSIGNMENTS	8/2018
☐	TR-1107_01	PEDESTRIAN PUSH BUTTON	8/2018
☐	TR-1108_01	CONTROLLERS	5/2013
☐	TR-1111_01	LOOP VEHICLE DETECTOR AND SAWCUT	4/2014
☐	TR-1113_01	CONTROL CABLE	4/2014
☐	TR-1114_01	BONDING & UTILITY POLE ATTACHMENT DETAILS, SIGN HANGER, "Y" CLAMP DETAILS	8/2018

	SHEET NO.	TITLE	APPROVAL DATE
☐	TR-1205_01	DELINEATION, DELINEATORS AND OBJECT MARKER DETAILS	8/2018
☐	TR-1208_01	SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS	8/2018
☐	TR-1208_02	METAL SIGN POSTS AND SIGN MOUNTING DETAILS	6/2017
☐	TR-1210_01	PAVEMENT MARKINGS (DURABLE MARKINGS) FOR DIVIDED HIGHWAYS	OBSOLETE
☐	TR-1210_02	PAVEMENT MARKINGS (DURABLE MARKINGS) FOR DIVIDED HIGHWAYS	OBSOLETE
☐	TR-1210_03	SPECIAL DETAILS & TYPICAL PAVEMENT MARKINGS FOR TWO-WAY HIGHWAYS	OBSOLETE
☐	TR-1210_04	PAVEMENT MARKING LINES AND SYMBOLS	8/2018
☐	TR-1210_05	PAVEMENT MARKINGS FOR DIVIDED HIGHWAYS	4/2017
☐	TR-1210_06	PAVEMENT MARKINGS FOR DIVIDED HIGHWAYS	8/2018
☐	TR-1210_07	PAVEMENT MARKINGS FOR EXIT RAMPS	4/2017
✓	TR-1210_08	PAVEMENT MARKINGS FOR NON FREEWAYS	8/2018
☐	TR-1210_09	PAVEMENT MARKINGS FOR BICYCLE LANES, PARKING STALLS, AND RR CROSSINGS	4/2017
✓	TR-1220_01	SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS	8/2018
✓	TR-1220_02	CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES	8/2018

STANDARD SHEETS SHALL BE USED WITH STANDARD SPECIFICATIONS

REV.	DATE	REVISION DESCRIPTION
4	4-2017	REMOVED TR-1210_01 TO TR-1210_03. ADDED TR-1210_04 TO TR-1210_09
3	4-2014	REMOVED TR-1111_02.
2	1-2014	REMOVED TR-1103_01.
1	4-2012	RENUMBERED TR-1107_02 TO TR-1114_01. REMOVED TR-1116_01.

Plotted Date: 8/16/2018

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_TRAFFIC_STD_DGN.DGN Model: TR-01-STD_INDEX

SUBMITTED BY: NAME/DATE/TIME:

CTDOT
STANDARD SHEET

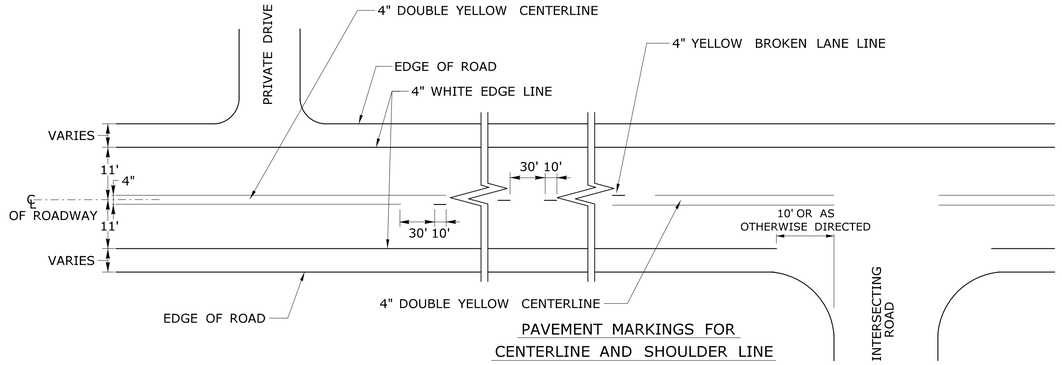
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

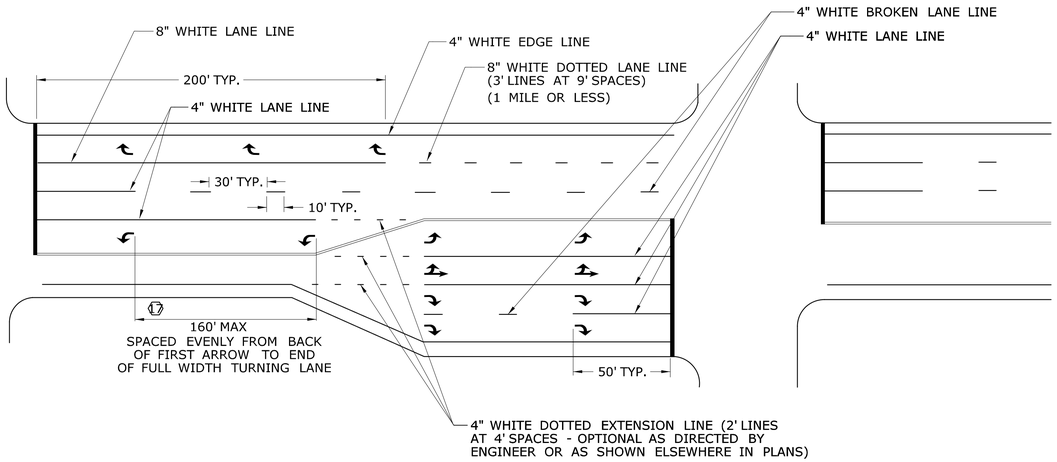
TRAFFIC
STANDARD SHEET INDEX

STANDARD SHEET NO.:

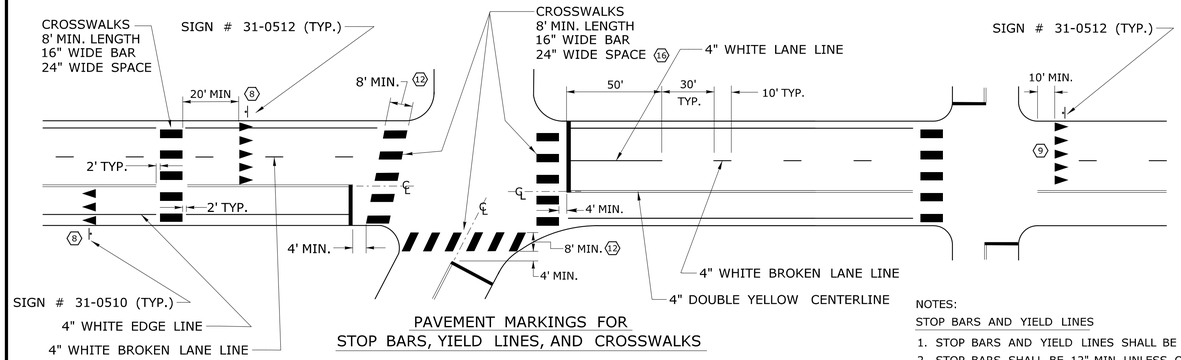
TR-STD_INDEX



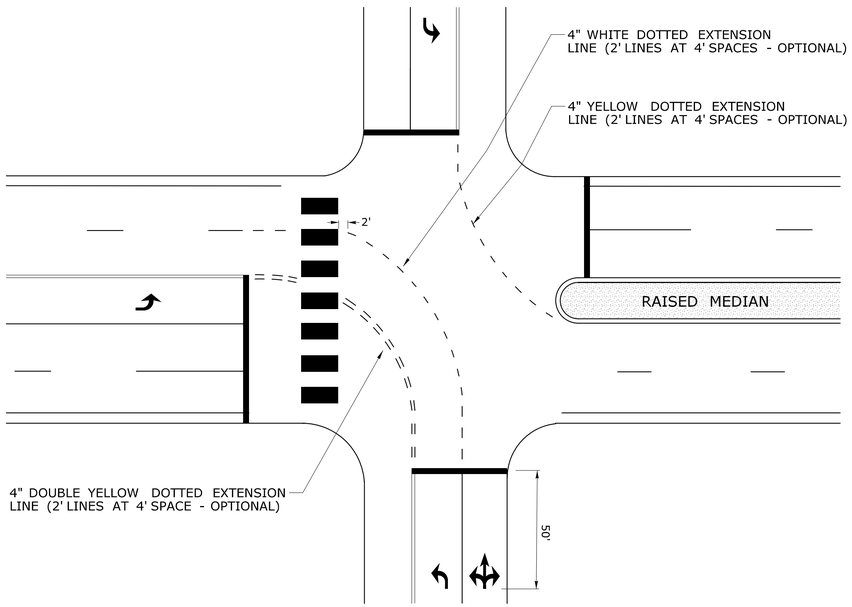
PAVEMENT MARKINGS FOR
CENTERLINE AND SHOULDER LINE



PAVEMENT MARKINGS FOR TURNING LANES
AND ROAD LANE-DROP



PAVEMENT MARKINGS FOR
STOP BARS, YIELD LINES, AND CROSSWALKS



TURNING EXTENSIONS

NOTES:

STOP BARS AND YIELD LINES

1. STOP BARS AND YIELD LINES SHALL BE WHITE.
2. STOP BARS SHALL BE 12" MIN. UNLESS OTHERWISE NOTED ON PLANS.
3. STOP BARS TO BE PLACED A MINIMUM OF 4' IN ADVANCE OF THE NEAREST EDGE OF CROSSWALK AND SHOULD BE PLACED 90° TO THE CENTERLINE OF THE ROADWAY.
4. IN THE ABSENCE OF A MARKED CROSSWALK THE STOP BAR SHOULD BE PLACED 90° TO THE CENTERLINE OF THE ROADWAY, AT THE DESIRED STOPPING POINT AT LEAST 5' AND NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY.
5. THE STOP SIGN SHOULD BE PLACED IN LINE WITH THE STOP BAR. HOWEVER, IF THE STOP SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO STOP, THE STOP BAR SHOULD BE PLACED AT THE STOPPING POINT.
6. FOR STOP BARS AT RAMPS SEE DETAILS "R", "S", "T", & "U" AND NOTES ON TRAFFIC STANDARD SHEET TR-1210 07 "PAVEMENT MARKINGS FOR DIVIDED HIGHWAYS EXIT RAMPS".
7. FOR YIELD LINE INSTALLATIONS, ONLY FULL TRIANGLES ARE TO BE INSTALLED.

(8) MID-BLOCK CROSSWALKS ARE CROSSWALKS LOCATED MORE THAN 50 FEET FROM A SIGNALIZED OR UNSIGNALIZED INTERSECTION. YIELD LINES ASSOCIATED WITH MIDBLOCK CROSSWALKS SHALL BE INSTALLED AND SHOULD BE LOCATED 20 TO 50 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE OR AS DIRECTED BY THE ENGINEER.
WHERE A YIELD LINE EXISTS ON AN APPROACH TO A CROSSWALK, THE APPROAPRIATE "YIELD TO PEDESTRIANS" SIGN IS REQUIRED.

(9) FOR CROSSWALKS AT UNSIGNALIZED INTERSECTIONS WITH MINOR STREET STOP CONTROL, YIELD LINES SHALL BE INSTALLED ON MULTI-LANE APPROACHES, BUT NOT SINGLE LANE APPROACHES.

10. THE YIELD SIGN SHOULD BE PLACED IN LINE WITH A YIELD LINE. HOWEVER, IF THE YIELD SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO YIELD, THE YIELD LINE SHOULD BE PLACED AT THE YIELDING POINT.

CROSSWALKS

11. CROSSWALK MARKINGS SHALL BE WHITE.

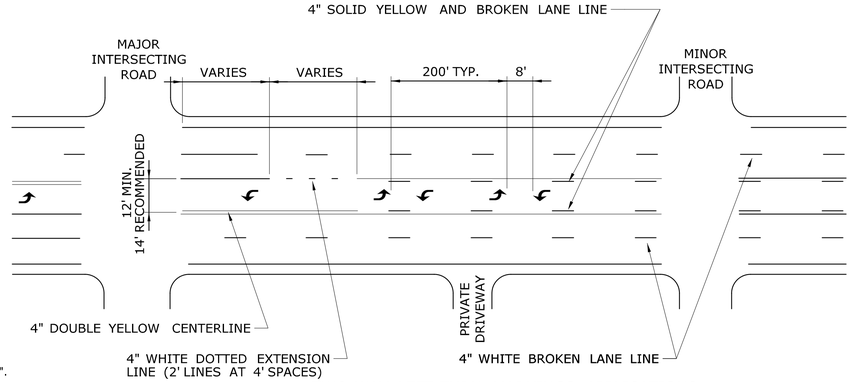
(12) AT LOCATIONS WHERE THE CROSSWALK IS SKEWED, BARS TO BE PARALLEL TO ℄ AND ENDS OF BARS TO BE PARALLEL. THE LENGTH OF THE BARS WILL VARY DEPENDING ON THE ANGLE OF SKEW.

13. BARS SHOULD BE NO CLOSER THAN 1' FROM EDGE OF ROAD.
14. ONLY FULL LENGTH BARS ARE TO BE INSTALLED.
15. DECORATIVE CROSSWALKS SHALL BE BANDED FROM CURB TO CURB WITH A MINIMUM 12" WIDE WHITE TRANSVERSE LINE ALONG EACH EDGE.

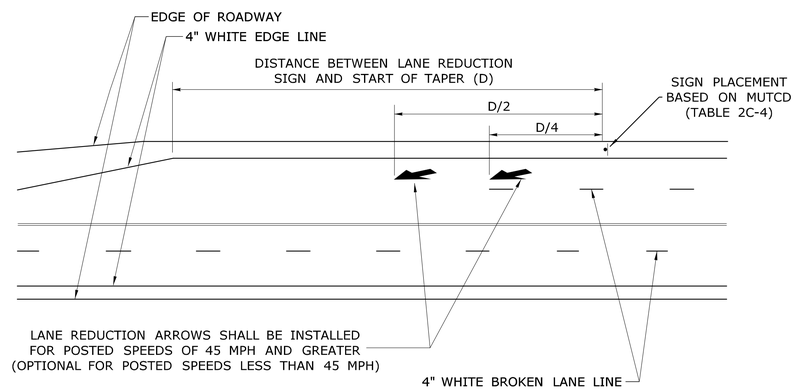
(16) 24" WIDE SPACE TO BE CENTERED ON YELLOW CENTERLINE.

PAVEMENT MARKINGS FOR TURNING LANES

(17) INSTALL AT LEAST TWO ARROWS PER LANE WHERE STORAGE LENGTH IS GREATER THAN 150 FEET.



TWO-WAY LEFT-TURN MARKINGS APPLICATIONS



LANE REDUCTION TRANSITIONS

REV.	DATE	REVISION DESCRIPTION
1	8-2018	REVISED YIELD LINE SIGNAGE AND NOTES.

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: 8/10/2018

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: TR-1210_08.DGN Model: TR-1210_05

SUBMITTED BY: NAME/DATE/TIME:
Mark F. Makuch, P.E.
2018.08.17 09:10:18-04'00'

APPROVED BY: NAME/DATE/TIME:
Mark F. Carlino, P.E.
2018.08.21 07:49:18-04'00'

CTDOT
STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
PAVEMENT MARKINGS
FOR NON FREEWAYS

STANDARD SHEET NO.:
TR-1210_08

E5 - SERIES

E5-1

COPY & BORDER - WHITE
BACKGROUND - GREEN

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	16.0	48	51-6147	2

16 - SERIES

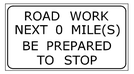
	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
16-M	5.0	30X24	80-1613	1
16-H	17.5	60X42	80-1608	2
16-E	35.0	84X60	80-1605	2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
16-S	10.0	48X30	80-1619	2

G20 - SERIES

G20-2a

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	8.0	48X24	80-9612	2



VARIABLE MILEAGE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	90.0	120X108	80-9728	

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9711	1
	16.0	48	80-9712	2

VARIABLE MILEAGE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	7.0	72X14	80-9720	

VARIABLE ARROW
COPY & BORDER - WHITE
BACKGROUND - BLUE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	50-5934	2

M4 - SERIES

M4-8

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	2.0	24X12	80-9707	1

M4-9b

VARIABLE ARROW

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	5.0	30X24	80-9703	1

M4-8a

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	3.0	24X18	80-9708	1

M4-9b

VARIABLE ARROW

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	6.25	30X30	80-9706	1

M4-10

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	6.0	48X18	80-9701R	2
	6.0	48X18	80-9702L	2

VARIABLE ARROW

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	5.0	30X24	80-9710	1

R1 - SERIES

R1-1

COPY & BORDER - WHITE
BACKGROUND - RED

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	5.19	30	31-0552	1
	13.30	48	31-0557	2

R1-2

COPY & BORDER - RED
BACKGROUND - WHITE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	3.90	36	31-0523	1
	10.83	60	31-0528	2

R4 - SERIES

R4-7

COPY & BORDER - BLACK
BACKGROUND - WHITE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	5.0	24X30	31-1526	1

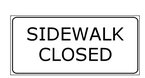
R4-9

COPY & BORDER - BLACK
BACKGROUND - WHITE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	5.0	24X30	31-1517	1
	12.0	36X48	31-1518	1
	20.0	48X60	31-1519	2

R9 & R11 - SERIES

R9-9



COPY & BORDER - BLACK
BACKGROUND - WHITE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	3.75	30X18	80-9076	1

R11-3a

VARIABLE MILEAGE
COPY & BORDER - BLACK
BACKGROUND - WHITE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	12.5	60X30	80-9077	2

R9-11

VARIABLE ARROW
COPY & BORDER - BLACK
BACKGROUND - WHITE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	3.0	24X18	80-9074	1

R11-3b

VARIABLE MILEAGE
COPY & BORDER - BLACK
BACKGROUND - WHITE

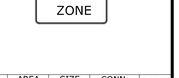
	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	12.5	60X30	80-9078	2

R9-11a

VARIABLE ARROW
COPY & BORDER - BLACK
BACKGROUND - WHITE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	2.0	24X12	80-9075	1

R11-3b



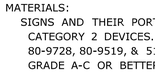
COPY & BORDER - BLACK
BACKGROUND - WHITE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	12.5	60X30	80-9081	2

R11-2

COPY & BORDER - BLACK
BACKGROUND - WHITE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	10.0	48X30	80-9080	2



COPY & BORDER - BLACK
BACKGROUND - WHITE

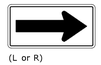
	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	22.5	60X54	31-1907	2

W1 - SERIES

W1-4

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9432L	1
	9.0	36	80-9431R	1
	16.0	48	80-9452L	2
	16.0	48	80-9451R	2

W1-6



	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	8.0	48X24	80-9424	2
	12.5	60X30	80-9423	2

W1-8

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	3.0	18X24	80-9401	1
	5.0	24X30	80-9403	1
	7.5	30X36	80-9404	1

(L)

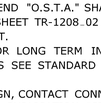
(R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	16.0	48	80-9433L	2
	16.0	48	80-9435R	2

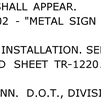
(L)

(R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	16.0	48	80-9434L	2
	16.0	48	80-9436R	2



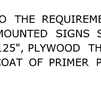
(L)



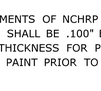
(R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	25.0	60	80-9443L	2
	25.0	60	80-9445R	2

W1-4b



(L)



(R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	25.0	60	80-9444L	2
	25.0	60	80-9446R	2

(L)

(R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	25.0	60	80-9483L	2
	25.0	60	80-9485R	2

W1-4c

(L)

(R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	25.0	60	80-9484L	2
	25.0	60	80-9486R	2

W3 - SERIES

W3-1

OCTAGON - RED W/ WHITE BORDER
ARROW & BORDER - BLACK
BACKGROUND - FLUORESCENT ORANGE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9050	1
	16.0	48	80-9051	2

W3-2

TRIANGLE - RED W/ WHITE BORDER
ARROW & BORDER - BLACK
BACKGROUND - FLUORESCENT ORANGE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9054	1
	16.0	48	80-9055	2

W3-3

TOP CIRCLE - RED
MIDDLE CIRCLE - YELLOW
BOTTOM CIRCLE - GREEN
COPY & BORDER - BLACK
BACKGROUND - FLUORESCENT ORANGE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9052	1
	16.0	48	80-9053	2

W4-W6 - SERIES

W4-2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	16.0	48	80-9918L	2
	16.0	48	80-9917R	2

W6-3

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	16.0	48	80-9945	2

W8-W9 - SERIES

W8-1

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9901	1
	16.0	48	80-9902	2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9801	1
	16.0	48	80-9802	2

W9-2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	16.0	48	80-9910L	2
	16.0	48	80-9911R	2

W13 - SERIES

W13-1

SUBPLATE
VARIABLE SPEED

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	4.0	24	80-9569	1
	6.25	30	80-9567	1

VARIABLE SPEED

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9506	1
	16.0	48	80-9508	2

W3-5

VARIABLE SPEED

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9520	1
	16.0	48	80-9521	2

W16 - SERIES

W16-15P

COPY & BORDER - BLACK
BACKGROUND - ORANGE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	2.0	24X12	80-9049	

W20 - SERIES

W20-1

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	6.25	30	80-9602	1
	9.0	36	80-9603	1
	16.0	48	80-9604	2

(L) (R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	16.0	48	80-9836	2
(R)	16.0	48	80-9839	2

W20-7a

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9803	1
	16.0	48	80-9804	2

W20-1

VARIABLE DISTANCE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9614	1
	16.0	48	80-9615	2

(L) (R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	16.0	48	80-9837	2
(R)	16.0	48	80-9838	2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	32.0	96X48	80-9815	2

W20-2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9805	1
	16.0	48	80-9806	2

(L) (R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	16.0	48	80-9847	2
(R)	16.0	48	80-9848	2

W16-9P

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	2.0	24X12	80-9870	
	3.75	30X18	80-9871	

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9834	1
	16.0	48	80-9835	2

(L) (R)

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(L)	16.0	48	80-9846	2
(R)	16.0	48	80-9849	2

W16-3aP

VARIABLE MILEAGE

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	2.5	30X12	80-9872	
	4.5	36X18	80-9873	

W21 - SERIES

W21-6

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9607	1

W22 - SERIES

W22-1

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9620	1
	16.0	48	80-9625	2

W22-2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	10.5	42X36	80-9623	2

W22-3

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	10.5	42X36	80-9621	2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	4.17	60X10	80-9913	2
	12.0	96X18	80-9914	2
	3.33	48X10	80-9916	2

BLANK OR
VARIABLE LEGEND

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	9.0	36	80-9933	1
	16.0	48	80-9934	2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	12.5	60X30	80-9928	2
	24.0	72X48	80-9929	2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	16.0	48	80-9956	2

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
(1)	16.0	48	80-9957	2
(2)	9.0	36	80-9958	1
(2)	16.0	48	80-9959	2

STOP-SLOW PADDLE

SIDE A
BACKGROUND - RED
COPY & BORDER - WHITE
SIDE B
BACKGROUND - ORANGE
COPY & BORDER - BLACK PLAIN

	AREA (SQ. FT)	SIZE (INCHES)	CONN. D.O.T. #	POSTS
	2.25	18	80-9950	PADDLE

NOTES:
1. R1-SERIES SIGN THE LEGEND "O.S.T.A." SHALL APPEAR.
2. POSTS - SEE STANDARD SHEET TR-1208_02 - "METAL SIGN POSTS AND SIGN MOUNTING DETAILS".
3. POSTS SHALL BE 4 LBS./FT.
4. ALL POSTS NOTED ARE FOR LONG TERM INSTALLATION. SEE STANDARD SHEET TR-1208_02.
5. FOR TEMPORARY SUPPORTS SEE STANDARD SHEET TR-1220_02 - "CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES".
6. FOR SPECIFIC SIGN DESIGN, CONTACT CONN. D.O.T., DIVISION OF TRAFFIC ENGINEERING. FOR BOLT HOLE PATTERN REFER TO FHWA PUBLICATION "STANDARD HIGHWAY SIGNS". SIGNS OF DIFFERENT DIMENSIONS TO BE ERECTED ON THE SAME POSTS, OR SPAN/MAST ARM MOUNTED, MAY REQUIRE SPECIAL BOLT HOLE PATTERNS.
7. ALL CONSTRUCTION SIGNS TO BE PAID FOR UNDER THE CONSTRUCTION SIGNS ITEM IN THE CONTRACT.
8. MATERIALS & COLORS SHALL CONFORM TO STATE SPECIFICATIONS.

MATERIALS:
SIGNS AND THEIR PORTABLE SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 2 DEVICES. ALUMINUM THICKNESS FOR POST MOUNTED SIGNS SHALL BE .100" EXCEPT SIGN #s. 80-1605, 80-9914, 80-9815, 80-9728, 80-9519, & 51-6147 (L OR R) WHICH SHALL BE .125", PLYWOOD THICKNESS FOR POST MOUNTED SIGNS SHALL BE 1/2" EXTERIOR GRADE A-C OR BETTER. SIGN BLANKS SHALL HAVE ONE COAT OF PRIMER PAINT PRIOR TO APPLICATION OF RETROREFLECTIVE SHEETING & COPY.

COLORS:
BACKGROUND - FLUORESCENT ORANGE - EXCEPT AS NOTED.
LEGEND - BLACK - EXCEPT AS NOTED.
ALL SIGNS WITH FLUORESCENT ORANGE BACKGROUND TO USE TYPE VIII RETROREFLECTIVE SHEETING.
ALL OTHER SIGNS TO USE TYPE IX RETROREFLECTIVE SHEETING.

REV.	DATE	REVISION DESCRIPTION
6	8-2018	REVISED POST REQUIREMENTS AND SHEETING TYPE.
5	8-2015	UPDATED PER MUTCD AND FORM 816 JAN 2015 REVISION.
4	6-2012	REVISED NOTE #1 TO REFERENCE "O.S.T.A."
3	4-2012	REVISED NEW SIGNAL SIGN(S) TO CONFORM TO 2009 MUTCD.
2	2-2011	MINOR REVISIONS.
1	3-2010	REMOVED OBSOLETE SIGNS (50-5925, 50-5935).

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: 8/10/2018

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: TR-1220_01_1_2018.dgn Model: TR-1220_01

SUBMITTED BY: NAME/DATE/TIME:
Mark F. Makuch, P.E.
2018.08.17
09:11:08-04'00'

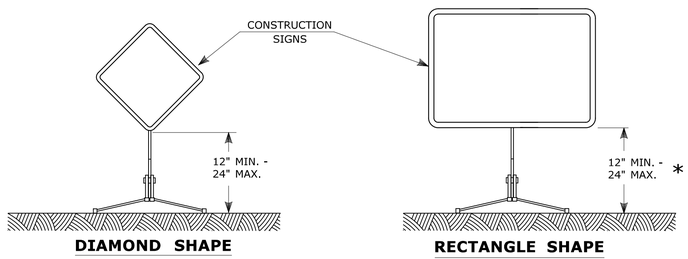
APPROVED BY: NAME/DATE/TIME:
Mark F. Carlino, P.E.
2018.08.21 07:49:34-04'00'

CTDOT
STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS

STANDARD SHEET NO.:
TR-1220_01

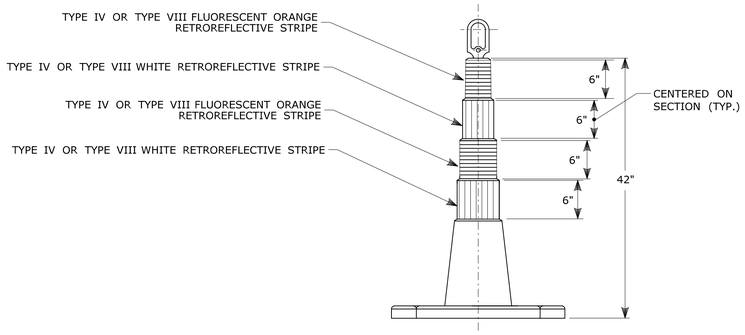


PORTABLE CONSTRUCTION SIGNS

NOTES FOR PORTABLE SIGN SUPPORTS:

1. SIGNS AND THEIR PORTABLE SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 2 DEVICES AND THE LATEST EDITION OF THE MUTCD.
2. MOUNTING HEIGHT OF SIGNS SHALL BE A MINIMUM OF 12" AND A MAXIMUM OF 24". SIGNS SHALL BE MOUNTED HIGHER AS NEEDED TO MEET FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.
3. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
4. PORTABLE SIGN SUPPORTS SHALL BE STABILIZED IN A MANNER THAT WILL NOT AFFECT THEIR COMPLIANCE WITH NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 2 DEVICES.
5. PORTABLE CONSTRUCTION SIGN SUPPORTS SHOULD NOT BE USED FOR DURATION OF MORE THAN 3 DAYS EXCEPT FOR R9-8 THROUGH R9-11a SERIES, R11 SERIES, W1-6 THROUGH W1-8 SERIES, M4-10, AND E5-1. SEE STANDARD SHEET TR-1220_01 - "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" FOR SIGN DETAILS.

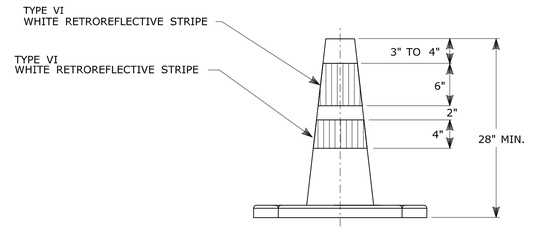
* FOR E5-1 (EXIT SIGNS) USE MIN 48".



42" TRAFFIC CONE

NOTES:

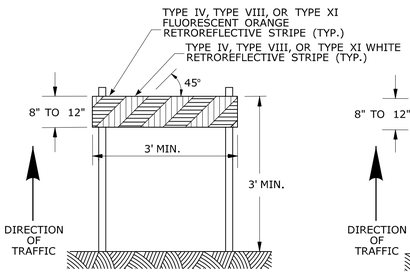
1. TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
2. IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
3. IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
5. THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
6. THE SECTIONS OF CONES NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.



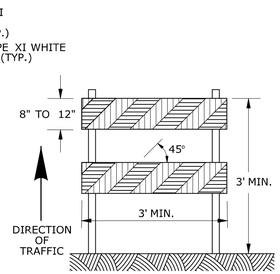
TRAFFIC CONE

NOTES:

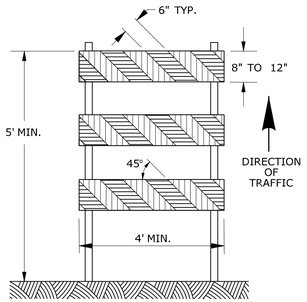
1. TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
2. IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
3. IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
5. THE ENTIRE AREA OF WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
6. TRAFFIC CONES NOT USED AT NIGHT MAY UTILIZE TYPE III SHEETING.
7. THE SECTIONS OF CONES NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.



TYPE I BARRICADE



TYPE II BARRICADE

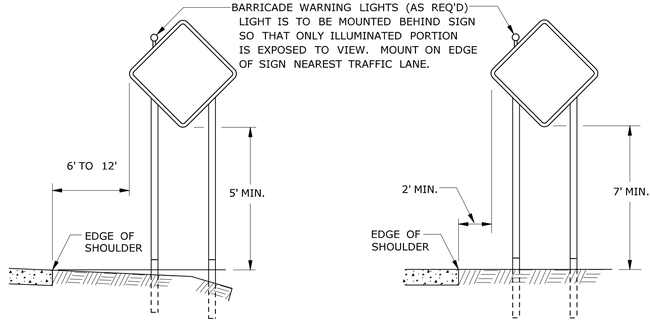


TYPE III BARRICADE

CONSTRUCTION BARRICADES

NOTES:

1. CONSTRUCTION BARRICADES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH AND THE LATEST EDITION OF THE MUTCD.
2. MARKINGS FOR BARRICADE RAILS SHALL BE ALTERNATE FLUORESCENT ORANGE AND WHITE STRIPES SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS. 6" WIDE STRIPES SHALL BE USED.
3. THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS. THE SIDES OF BARRICADES FACING TRAFFIC SHALL HAVE RETROREFLECTIVE RAIL FACES.
4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY BARRICADE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
5. CORNERS OF BARRICADE RAILS SHALL BE ROUNDED.
6. SIGNS MAY ONLY BE INSTALLED ON TYPE III BARRICADES AND SHALL BE PLACED SO AS TO COVER NO MORE THAN ONE BARRICADE RAIL.



RURAL AREA

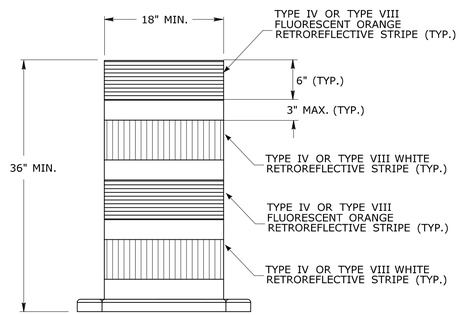
URBAN AREA

PLACEMENT OF CONSTRUCTION SIGNS
TYPICAL LONG TERM INSTALLATION

NOTES:

SUPPORTS SHALL BE METAL SIGN POSTS AND HAVE BREAK-AWAY FEATURES.

REFER TO STANDARD SHEETS:
TR-1208_01 - "SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS."
TR-1208_02 - "METAL SIGN POSTS AND SIGN MOUNTING DETAILS."



TRAFFIC DRUM
FRONT VIEW

NOTES:

1. TRAFFIC DRUM SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
2. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
3. THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
4. THE SECTIONS OF DRUMS NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.

REV.	DATE	REVISION DESCRIPTION
3	8-2018	UPDATED SHEETING TYPE AND COLOR.
2	8-2015	UPDATED PER MUTCD AND FORM 816 JAN 2015 REVISION.
1	2-2011	MINOR REVISIONS.

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: 8/10/2018

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: TR-1220_02_3_2018.dgn Model: TR-1220_02

SUBMITTED BY: NAME/DATE/TIME:
Mark F. Makuch, P.E.
2018.08.17 09:12:43-04'00'

APPROVED BY: NAME/DATE/TIME:
Mark F. Carlino, P.E.
2018.08.21 07:49:51-04'00'

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES

STANDARD SHEET NO.:
TR-1220_02