03 - HIGHWAYS
INDEX OF DRAWINGS

DRAWING NUMBER	DRAWING TITLE	DRAWING NUMBER	DRAWING TITLE
HWY - 01	INDEX OF DRAWINGS	HWY - 24	INTERSECTION GRADING PLAN
HWY - 02	INDEX PLAN	HWY - 25	INTERSECTION GRADING PLAN
HWY - 03	INDEX PROFILE	HWY - 26	CONSTRUCTION PLAN
HWY - 04	BORING LOGS	HWY - 27	DRAINAGE PLAN
HWY - 05	BORING LOGS	HWY - 28	SEWER PLAN
HWY - 06	TYPICAL SECTIONS	HWY - 29	RIGHT OF WAY PLAN
HWY - 07	TYPICAL SECTIONS	HWY - 30	ROUTE 31 PROFILE
HWY - 08	MISC. DETAILS - EROSION AND SEDIMENT CONTROL	HWY - 31	BARN DRIVEWAY PROFILE
HWY - 09	MISC. DETAILS - EROSION AND SEDIMENT CONTROL	HWY - 32	CONSTRUCTION PLAN
HWY - 10	MISC. DETAILS - LANDSCAPE	HWY - 33	DRAINAGE PLAN
HWY - 11	MISC. DETAILS - LANDSCAPE	HWY - 34	SEWER PLAN
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HWY - 13	MISC. DETAILS - HIGHWAY	HWY - 36	ROUTE 31 PROFILE
HWY - 14	MISC. DETAILS - HIGHWAY	HWY - 37	MONUMENT HILL ROAD PROFILE
HWY - 15	MISC. DETAILS - CONCRETE STEPS	HWY - 38	SIDEWALK AND LANDSCAPE PLAN
HWY - 16	MISC. DETAILS - SIDEWALK RAMPS	HWY - 39	SIDEWALK AND LANDSCAPE PLAN
HWY - 17	MISC. DETAILS - SIDEWALK RAMPS	HWY - 40	SIDEWALK AND LANDSCAPE PLAN
HWY - 18	MISC. DETAILS - SIDEWALK RAMPS	HWY - 41	SIDEWALK AND LANDSCAPE PLAN
HWY - 19	MISC. DETAILS - SIDEWALK RAMPS	HWY - 42	EROSION AND SEDIMENTATION CONTROL PLAN
HWY - 20	EMBANKMENT WALL (SITE NO. 1) DETAILS	HWY - 43	EROSION AND SEDIMENTATION CONTROL PLAN
HWY - 21	MISC. DETAILS - SEWER	HWY - 44 TO HWY - 55	ROUTE 31 CROSS SECTIONS
HWY - 22	MISC. DETAILS - SEWER	HWY - 56	BARN DRIVEWAY CROSS SECTIONS
HWY - 23	MISC. DETAILS - SEWER	HWY - 57	MONUMENT HILL ROAD CROSS SECTIONS

DESIGNED BY:

BSC GROUP
300 WINDING BROOK DRIVE
GLASTONBURY, CT 06033

Digitally signed by Peter Briere
Date: 2015.06.29 10:02:40-04'00'

DESIGNED BY:

FUSS & O'NEILL, INC. (SEWER)
164 HARTFORD ROAD
MANCHESTER, CT 06040

Digitally signed by Ted DeSantos +
E=tdesantos@fando.com
Date: 2015.06.29 16:33:35-04'00'

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR
CHECKED BY: PJB
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP
APPROVED BY: DATE:

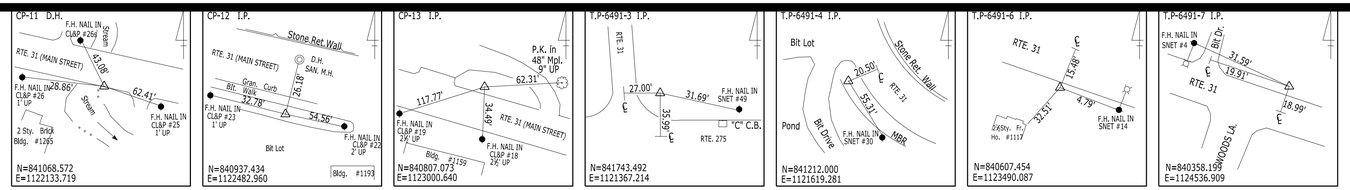
PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: INDEX OF DRAWINGS

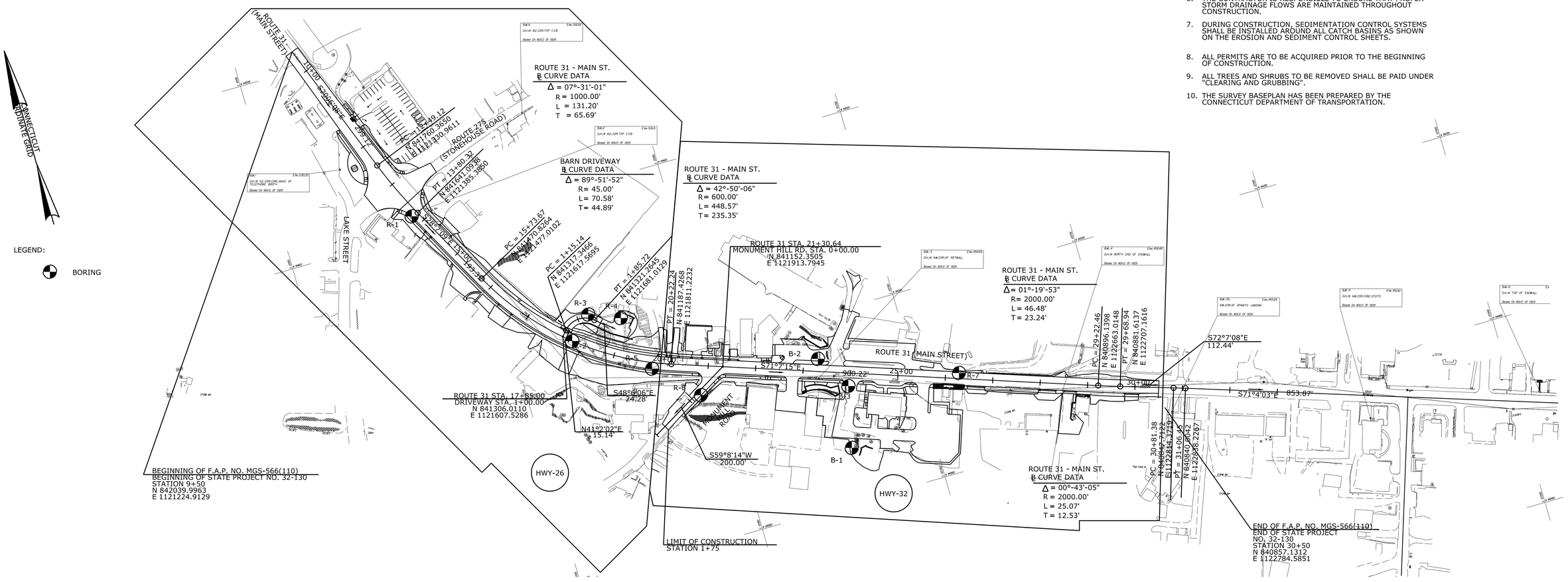
PROJECT NO. 32-130
DRAWING NO. HWY-01
SHEET NO. 03.01

Connecticut Department of Transportation
QA/QC Format Check



GENERAL NOTES:

1. THE CONTRACTOR SHALL DETERMINE FOR THEMSELVES, THE SIZE, LOCATION, ELEVATIONS, AND EXISTENCE OF ALL SUCH UTILITIES AND FEATURES THAT MAY AFFECT HIS CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL ADEQUATELY SUPPORT ALL UTILITIES AND SHALL BE RESPONSIBLE FOR ALL DAMAGE. ANY COST INCURRED IN SUPPORTING EXISTING UTILITIES SHALL BE INCIDENTAL TO THE COST OF THE WORK THAT RESULTED IN THE NEED TO SUPPORT THE EXISTING UTILITIES. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. CONTRACTOR TO COORDINATE ACTIVITES WITH INDIVIDUAL UTILITY COMPANY REPRESENTATIVES.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SHOULD THERE BE ANY CONFLICT BETWEEN EXISTING UTILITIES AND PROPOSED CONSTRUCTION.
3. ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE RESIDENT ENGINEER.
4. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AS OUTLINED HEREIN:
INSPECTION AND MAINTENANCE SHALL BE CARRIED OUT THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE STABALIZED WITH VEGETATION OR PAVING. THE MINIMUM INSPECTION PERIOD SHALL BE WEEKLY AND/OR AFTER MAJOR STORMS.
5. ALL CATCH BASIN GRATES SHALL BE "TYPE A".
6. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PROPER STORM DRAINAGE FLOWS ARE MAINTAINED THROUGHOUT CONSTRUCTION.
7. DURING CONSTRUCTION, SEDIMENTATION CONTROL SYSTEMS SHALL BE INSTALLED AROUND ALL CATCH BASINS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL SHEETS.
8. ALL PERMITS ARE TO BE ACQUIRED PRIOR TO THE BEGINNING OF CONSTRUCTION.
9. ALL TREES AND SHRUBS TO BE REMOVED SHALL BE PAID UNDER "CLEARING AND GRUBBING".
10. THE SURVEY BASEPLAN HAS BEEN PREPARED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION.



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
SCALE IN FEET 0 100 200
SCALE 1"=100'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

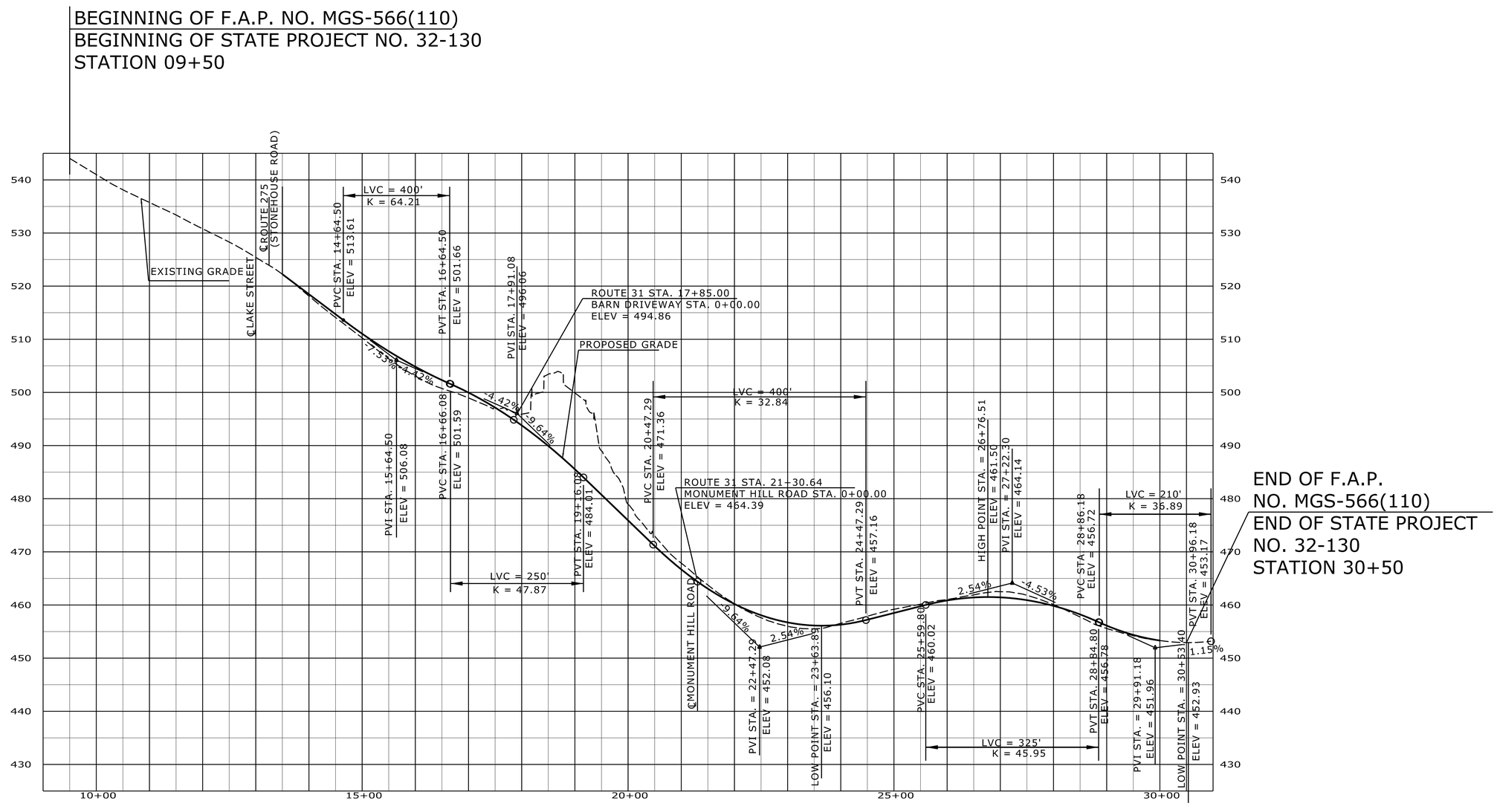
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: INDEX PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-02
SHEET NO. 03.02



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB / MSR
CHECKED BY: PJB
HORIZ. SCALE IN FEET 0 100 200
VERT. SCALE IN FEET 0 10 20

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: INDEX PROFILE

PROJECT NO. 32-130
DRAWING NO. HWY-03
SHEET NO. 03.03

Connecticut DOT Boring Report — Hole No.: B-1

Driller: M. McDonough | Hole No.: B-1
Inspector: R. Pion | Town: COVENTRY | Stat./Offset: 24+09 158 ft Rt
Engineer: R. Pion | Project No.: 32-130 | Northing: 840912
Start Date: 11/20/2006 | Route No.: 31 | Easting: 1122125
Finish Date: 11/20/2006 | Bridge No.: | Surface Elevation: 451.4
Project Description: Route 31 Safety Improvements
Casing Size/Type: 4" HW | Sampler Type/Size: SS 1 3/8 in | Core Barrel Type: 2" NX
Hammer Wt. 300 lbs Fall: 24" | Hammer Wt. 140 lbs Fall: 30 in
Groundwater Observations @4 after 0 hours, @ after hours, @ after hours

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						GLACIAL TILL		450
5	S-1	4 4 28 10	24	4			Brown c to f GRAVEL, and c to f SAND, trace silt, with cobbles	445
10	S-2	25 25 27 26	24	11			Brown c to f SAND, and f to c GRAVEL, trace silt, with cobbles	440
						WEATHERED BEDROCK		
15	C-1		60	60	46	BEDROCK	Gray moderately fractured slightly weathered schist Core times (in min/ft): 8,8,10,12,15	435
20	C-2		60	60	79		Gray slightly fractured slightly weathered schist Core times (in min/ft): 18,10,12,12,12	430
25							Bottom of Boring	425

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
Total Penetration in Earth: 13.5 Rock: 11.5
No. of Samples: 2
NOTES: Drilled through weathered rock with rollerbit from 13.5 to 15 ft.
Sheet 1 of 1
SM-001-M REV. 1/02

Connecticut DOT Boring Report — Hole No.: B-2

Driller: M. McDonough | Hole No.: B-2
Inspector: R. Pion | Town: COVENTRY | Stat./Offset: 23+26 23 ft Lft.
Engineer: R. Pion | Project No.: 32-130 | Northing: 841115
Start Date: 11/20/2006 | Route No.: 31 | Easting: 1122110
Finish Date: 11/20/2006 | Bridge No.: | Surface Elevation: 456.1
Project Description: Route 31 Safety Improvements
Casing Size/Type: 3" NW | Sampler Type/Size: SS 1 3/8 in | Core Barrel Type: 2" NX
Hammer Wt. 300 lbs Fall: 24" | Hammer Wt. 140 lbs Fall: 30 in
Groundwater Observations @5 after 0 hours, @ after hours, @ after hours

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE GLACIAL TILL		455
5	S-1	3 15 10 11	24	9			Brown c to f GRAVEL, some f to c sand, some silt, with cobbles	450
10	S-2	50	0	0		BOULDER	Brown c to f GRAVEL, some f to c sand, some silt, with cobbles	445
	S-3	146	6	4		GLACIAL TILL		
						WEATHERED BEDROCK	Brown c to f GRAVEL, some f to c sand, some silt, with cobbles	
15	C-1		60	60	8	BEDROCK	Gray slightly weathered moderately fractured schist Core times (in min/ft): 5,5,8,8,7	440
20	C-2		60	60	38		Gray slightly weathered highly fractured schist Core times (in min/ft): 8,8,7,7,6	435
25							Bottom of Boring	430

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
Total Penetration in Earth: 16 Rock: 10
No. of Samples: 3
NOTES: Drilled through weathered rock with roller bit from 12 to 16 feet.
Sheet 1 of 1
SM-001-M REV. 1/02

Connecticut DOT Boring Report — Hole No.: B-3

Driller: M. McDonough | Hole No.: B-3
Inspector: R. Pion | Town: COVENTRY | Stat./Offset: 23+96 22 ft Rt.
Engineer: R. Pion | Project No.: 32-130 | Northing: 841045
Start Date: 11/20/2006 | Route No.: 31 | Easting: 1122161
Finish Date: 11/20/2006 | Bridge No.: | Surface Elevation: 456.1
Project Description: Route 31 Safety Improvements
Casing Size/Type: 3" NW | Sampler Type/Size: SS 1 3/8 in | Core Barrel Type: NX
Hammer Wt. 300 lbs Fall: 24" | Hammer Wt. 140 lbs Fall: 30 in
Groundwater Observations @4 after 0 hours, @ after hours, @ after hours

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE GLACIAL TILL		455
5	S-1	2 2 3 4	24	12			Brown f to c SAND, and f to c GRAVEL, trace silt	450
10	S-2	10 9 10 11	24	14			Gray f to c SAND, and f to c GRAVEL, trace silt	445
						WEATHERED BEDROCK		
15	S-3	50	0	0			Weathered bedrock	440
	C-1		60	48	0	BEDROCK	Gray moderately fractured slightly weathered schist Core times (in min/ft): 5,5,5,7,7	
20	C-2		60	60	45		Gray moderately fractured slightly weathered schist Core times (in min/ft): 8,8,8,7,8	435
25							Bottom of Boring	430

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
Total Penetration in Earth: 16 Rock: 10
No. of Samples: 3
NOTES: Rollerbitted into weathered rock from 13.5 to 16 feet
Sheet 1 of 1
SM-001-M REV. 1/02

Connecticut DOT Boring Report — Hole No.: R-1

Driller: M. McDonough | Hole No.: R-1
Inspector: R.Pion | Town: COVENTRY | Stat./Offset: 13+82 13 ft Rt.
Engineer: R. Pion | Project No.: 32-130 | Northing: 841633
Start Date: 11/13/2006 | Route No.: 31 | Easting: 1121372
Finish Date: 11/13/2006 | Bridge No.: | Surface Elevation: 519.5
Project Description: Route 31 Safety Improvements
Casing Size/Type: | Sampler Type/Size: SS 1 3/8 | Core Barrel Type:
Hammer Wt.: Fall: | Hammer Wt. 140 lbs Fall: 30 in
Groundwater Observations @Dry after 0 hours, @ after hours, @ after hours

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0	S-1	22 24 71	18	7		PAVEMENT STRUCTURE GLACIAL TILL BEDROCK	Brown f to c SAND, and c to f GRAVEL, trace silt	
							Bottom of Boring	
5								515

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
Total Penetration in Earth: 3.5 Rock:
No. of Samples: 1
NOTES: Drilled into rock with rollerbit from 2.1 to 3.5 ft
Sheet 1 of 1
SM-001-M REV. 1/02

Connecticut DOT Boring Report — Hole No.: R-2

Driller: M. McDonough | Hole No.: R-2
Inspector: R. Pion | Town: COVENTRY | Stat./Offset: 18+07 4 ft Rt.
Engineer: R. Pion | Project No.: 32-130 | Northing: 841290
Start Date: 11/16/2006 | Route No.: 31 | Easting: 1121622
Finish Date: 11/16/2006 | Bridge No.: | Surface Elevation: 495.6
Project Description: Route 31 Safety Improvements
Casing Size/Type: | Sampler Type/Size: SS 1 3/8 | Core Barrel Type:
Hammer Wt.: Fall: | Hammer Wt. 140 lbs Fall: 30 in
Groundwater Observations @Dry after 0 hours, @ after hours, @ after hours

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						GLACIAL TILL		495
						BEDROCK		
							Bottom of Boring	
5								490

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
Total Penetration in Earth: 4 Rock: 0
No. of Samples: 0
NOTES: Drilled into rock with rollerbit from 2' to 4'
Sheet 1 of 1
SM-001-M REV. 1/02

Connecticut DOT Boring Report — Hole No.: R-3

Driller: M. McDonough | Hole No.: R-3
Inspector: R. Pion | Town: COVENTRY | Stat./Offset: 18+18 67 ft Lft.
Engineer: R. Pion | Project No.: 32-130 | Northing: 841335
Start Date: 11/17/2006 | Route No.: 31 | Easting: 1121674
Finish Date: 11/17/2006 | Bridge No.: | Surface Elevation: 501.5
Project Description:
Casing Size/Type: | Sampler Type/Size: SS 1 3/8 in | Core Barrel Type: NX
Hammer Wt.: Fall: | Hammer Wt. 140 lbs Fall: 30 in
Groundwater Observations @7 after 0 hours, @ after hours, @ after hours

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						GLACIAL TILL		500
5	S-1	6 4 6 5	24	1			Brown c to f SAND, some f to c gravel, trace silt	495
						WEATHERED BEDROCK		
10	C-1		60	60	13	BEDROCK	Gray highly fractured slightly weathered schist Core times (in min/ft): 8,8,10,10,10	490
15	C-2		60	60	20		Gray highly fractured slightly weathered schist Core times (in min/ft): 10,10,16,10,10	485
20							Bottom of Boring	480

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
Total Penetration in Earth: 10 Rock: 10
No. of Samples: 1
NOTES: Rollerbitted into weathered rock from 9 to 10 feet
Sheet 1 of 1
SM-001-M REV. 1/02

Connecticut DOT Boring Report — Hole No.: R-4

Driller: M. McDonough | Hole No.: R-4
Inspector: R. Pion | Town: COVENTRY | Stat./Offset: 18+90 80 ft Lft.
Engineer: R. Pion | Project No.: 32-130 | Northing: 841310
Start Date: 11/20/2006 | Route No.: 31 | Easting: 1121736
Finish Date: 11/20/2006 | Bridge No.: | Surface Elevation: 504.2
Project Description: Route 31 Safety Improvements
Casing Size/Type: 4" NW | Sampler Type/Size: SS 1 3/8 in | Core Barrel Type: NX
Hammer Wt. SPUN Fall: SPUN | Hammer Wt. 140 lbs Fall: 30 in
Groundwater Observations @0 after 0 hours, @ after hours, @ after hours

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						TOPSOIL		
	C-1		24	24	6	BEDROCK	Gray moderatly fractured slightly weathered schist Core times (in min/ft) 10,10	500
5	C-2		60	36	40		Gray moderatly fractured slightly weathered schist Core times (in min/ft) 5,5,5,8,8	495
10	C-3		60	60	100		Gray slightly fractured schist Core times (in min/ft): 5,6,7,5,5	490
15	C-4		60	60	75		Gray moderately fractured schist Core times (in min/ft): 5,6,7,7,10	485
20							Bottom of Boring	

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
Total Penetration in Earth: 2 Rock: 18
No. of Samples: 0
NOTES: Encountered rock at 2'. Spun casing into ground to 5 '. Cored inside the casing with NX core barrel from 2' to 4', rollerbitted from 4 to 5'.
Sheet 1 of 1
SM-001-M REV. 1/02

Connecticut DOT Boring Report — Hole No.: R-5

Driller: M. McDonough | Hole No.: R-5
Inspector: R. Pion | Town: COVENTRY | Stat./Offset: 19+82 13 ft Rt.
Engineer: R. Pion | Project No.: 32-130 | Northing: 841189
Start Date: 11/20/2006 | Route No.: 31 | Easting: 1121770
Finish Date: 11/20/2006 | Bridge No.: | Surface Elevation: 480.8
Project Description: Route 31 Safety Improvements
Casing Size/Type: 3" NW | Sampler Type/Size: SS 1 3/8 in | Core Barrel Type:
Hammer Wt. 300 lbs Fall: 24" | Hammer Wt. 140 lbs Fall: 30 in
Groundwater Observations @Dry after 0 hours, @ after hours, @ after hours

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE GLACIAL TILL		480
5	S-1	13 12 19 38	24	5			Brown f to c SAND, some f to c gravel, little silt	475
						WEATHERED BEDROCK		
10	C-1		60	48	5	BEDROCK	Gray highly fractured slightly weathered schist Core times (in min/ft): 8,8,10,12,12	470
15	C-2		60	60	96		Gray slightly fractured schist Core times (in min/ft): 10,15,12,10,8	465
20							Bottom of Boring	460

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
Total Penetration in Earth: 10 Rock: 10
No. of Samples: 1
NOTES: Drilled into weathered rock with rollerbit from 8 to 10 ft.
Sheet 1 of 1
SM-001-M REV. 1/02

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

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.

DESIGNER/DRAFTER: MSR
CHECKED BY: PJB

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP
APPROVED BY: DATE:

STATE OF CONNECTICUT · PETER JAMES BRIERE · No. 21608 · LICENSED · PROFESSIONAL ENGINEER

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31
TOWN: COVENTRY
DRAWING TITLE: BORING LOGS
PROJECT NO. 32-130
DRAWING NO. HWY-04
SHEET NO. 03.04

Driller: Mike McDonough	**Connecticut DOT Boring Report**		Hole No.: R-6
Inspector: R. Pion	Town: COVENTRY		Stat./Offset:1+18 9 ft Rt.
Engineer: R. Pion	Project No.:32-130		Northing: 841106
Start Date: 11/13/2006	Route No.: 31		Easting: 1121848
Finish Date:11/13/2006	Bridge No.:		Surface Elevation: 468.6
Project Description: Route 31 Safety Improvements			
Casing Size/Type: 3" HW	Sampler Type/Size:SS 1 3/8 in		Core Barrel Type:
Hammer Wt.:300 lbs Fall:24"	Hammer Wt.:140 lbs Fall: 30 in		
Groundwater Observations @Dry after 0 hours, @ after hours, @ after hours			

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						GLACIAL TILL		465
5	S-1	3 2 5 2	24	3			Brown c to f SAND, some c to f gravel, with organics	460
10	S-2	110	6	2		WEATHERED BEDROCK	Brown c to f SAND, and f to c GRAVEL, trace silt Bottom of Boring	455

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

Total Penetration in Earth:11.5 Rock: 0	NOTES: Drilled into weathered rock with rollerbit from 10.5 to 11.5 ft.	Sheet 1 of 1
No. of Samples:2		SM-001-M REV. 1/02

Driller: M. McDonough	**Connecticut DOT Boring Report**		Hole No.: R-7
Inspector: R. Pion	Town: COVENTRY		Stat./Offset:26+31 6 ft Lft.
Engineer: R. Pion	Project No.:32-130		Northing: 841000
Start Date: 11/20/2006	Route No.: 31		Easting: 1122390
Finish Date:11/20/2006	Bridge No.:		Surface Elevation: 461.4
Project Description: Route 31 Safety Improvements			
Casing Size/Type: 3" NW	Sampler Type/Size:SS 1 3/8 in		Core Barrel Type:
Hammer Wt.:300 lbs Fall:24"	Hammer Wt.:140 lbs Fall: 30 in		
Groundwater Observations @Dry after 0 hours, @ after hours, @ after hours			

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE GLACIAL TILL		460
5	S-1	16 18 44 55	24	10			Gray c to f GRAVEL, and f to c SAND, little silt, with cobbles	455
10	C-1		60	48		WEATHERED BEDROCK BEDROCK	Gray highly fractured slightly weathered schist Core times in min/ft 8,8,7,9,7	450
15							Bottom of Boring	445

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

Total Penetration in Earth:10 Rock: 5	NOTES: Drilled through rock with rollerbit from 8 to 10 feet.	Sheet 1 of 1
No. of Samples:1		SM-001-M REV. 1/02

Form No. SM - 2, revised 7/93,5/94 Sheet 1 of 1

CONNECTICUT DEPARTMENT OF TRANSPORTATION
SOILS AND FOUNDATIONS

REPORT OF BAR SOUNDINGS AND TEST PITS

TOWN Coventry LINE Route 31 CL
PROJECT NAME Realignment and Safety Improvements PROJECT NO. 32-130
FOREMAN R. Pion DATE FINISHED 9/3/2004
INSPECTOR R. Pion FOR DOT
CONTRACTING ENGINEER

Test Pit Number	Station	Offset (ft) From C. L.	Depth Probed (ft.)	Soil Strata (ft.) in Test Pits From	To	Remarks (Include: Depth to Groundwater, Size of Augers Used, Description of Soil in Auger Holes, Depth of Auger Samples.)
TP-1	18+85	63 Lft.	2	0	2	Brown f to c SAND, some c to f gravel
						Test pit teminated at a 4 inch diameter tree root.
TP-2	19+23	80 Lft.	0.5	0	0.5	Brown f to c SAND, some c to f gravel
						Refusal encountered.
TP-3	19+26	58 Lft.	1	0	1	Brown f to c SAND, some c to f gravel
						Refusal encountered.
TP-4	19+56	4 Rt.	2.3	0	2.3	Brown f to c SAND, some c to f gravel
						Refusal encountered.
TP-5	18+56	14 Rt.	2.7	0	2.7	Brown f to c SAND, some c to f gravel

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

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.

DESIGNER/DRAFTER: MSR
CHECKED BY: PJB

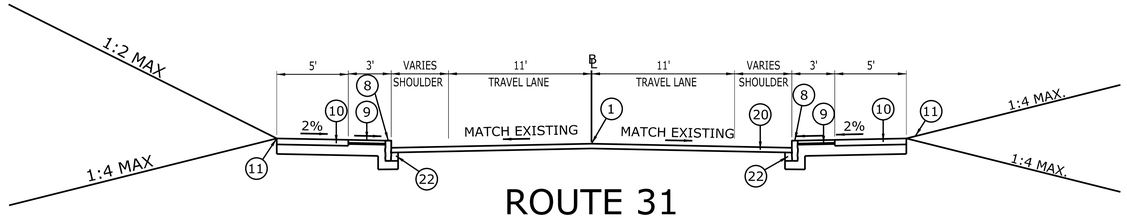
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP
APPROVED BY: DATE:

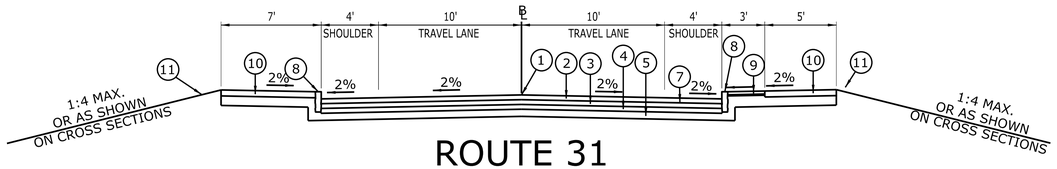
PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY
DRAWING TITLE: BORING LOGS

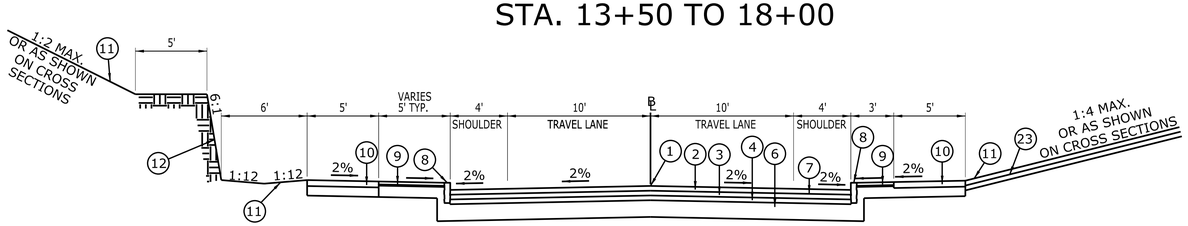
PROJECT NO. 32-130
DRAWING NO. HWY-05
SHEET NO. 03.05



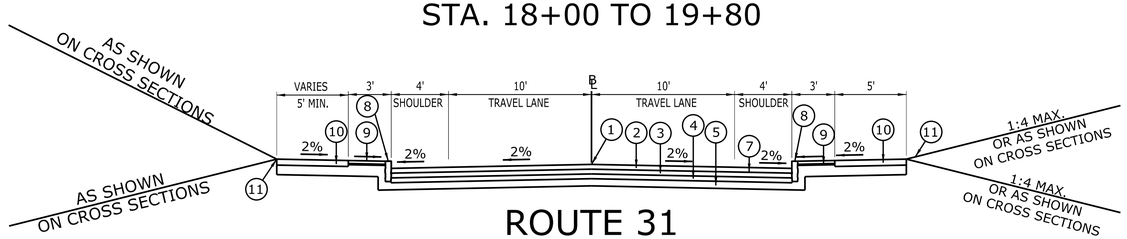
ROUTE 31
STA. 11+04 TO 13+50



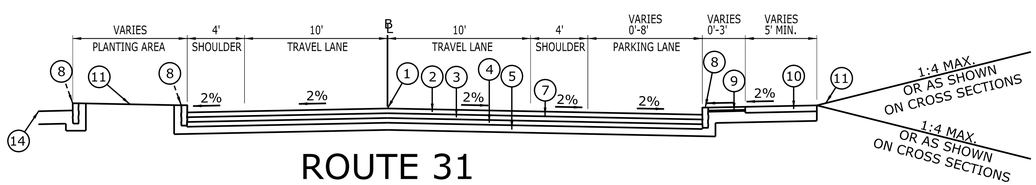
ROUTE 31
STA. 13+50 TO 18+00



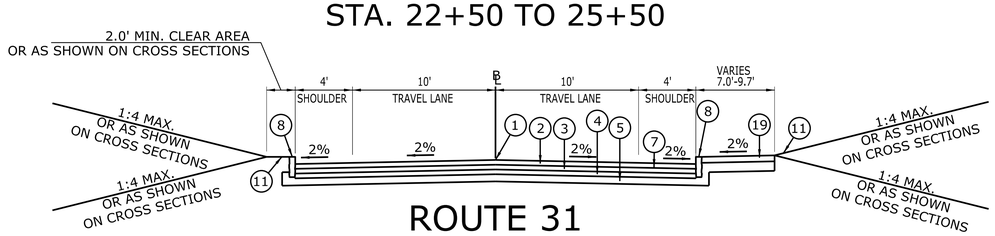
ROUTE 31
STA. 18+00 TO 19+80



ROUTE 31
STA. 19+80 TO 22+50



ROUTE 31
STA. 22+50 TO 25+50



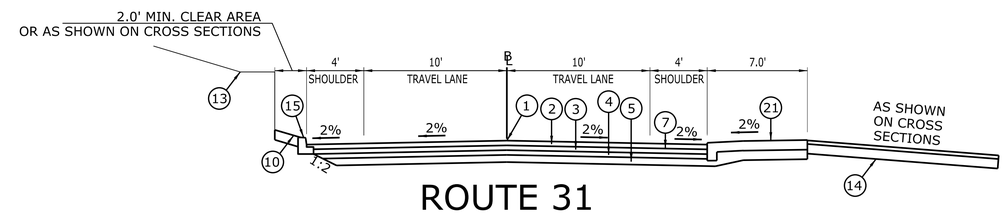
ROUTE 31
STA. 25+50 TO 26+50

GENERAL NOTES:

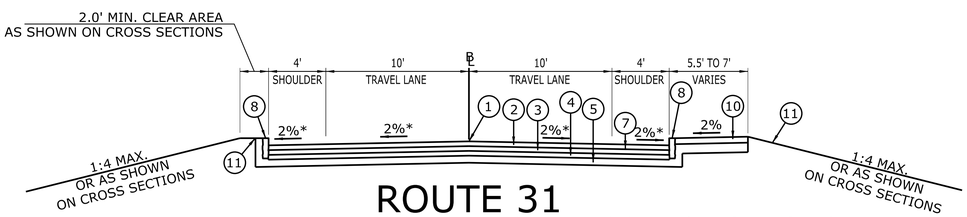
1. TOP COURSE OF BIT. CONC. SUPERPAVE 0.5" SHALL BE PLACED AFTER STONE CURBING IS INSTALLED.
2. PROCESSED AGGREGATE BASE SHALL BE COVERED WITH A LIFT OF PAVEMENT WITHIN ONE WEEK OF BEING OPEN TO TRAFFIC.
3. AT AREAS WHERE MULTIPLE LIFTS OF BITUMINOUS CONCRETE ARE TO BE APPLIED AND THREE CALANDAR DAYS OR LONGER HAVE EXPIRED BETWEEN LIFTS, A TACK COAT SHALL BE APPLIED BETWEEN LIFTS.

LEGEND:

1. POINT OF GRADE APPLICATION
2. 4" HMA S0.5 (2 LIFTS)
3. 4" HMA S1
4. 4" PROCESSED AGGREGATE BASE
5. 7" SUBBASE (NORMAL)
6. 14" SUBBASE (ROCK)
7. MATERIAL FOR TACK COAT
8. GRANITE STONE CURBING
9. CONCRETE MASONRY GRID PAVER
10. CONCRETE SIDEWALK
11. TURF ESTABLISHMENT - LAWN
12. ROCK SLOPE
13. EXISTING WALL
14. BITUMINOUS CONCRETE DRIVEWAY
15. SPECIAL CONCRETE CURBING
16. PAVEMENT FOR RAILING
17. BITUMINOUS CONCRETE SIDEWALK
18. BITUMINOUS CONCRETE LIP CURB
19. BRICK SIDEWALK
20. 2" MILLING AND 2" HMA S0.5 OVERLAY
21. CONCRETE DRIVEWAY RAMP
22. 6"x6" CLASS A CONCRETE
23. 4" GRANULAR FILL

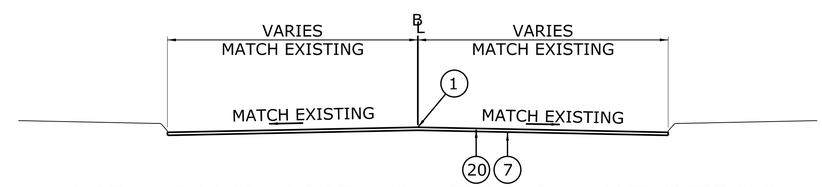


ROUTE 31
STA. 26+50 TO 28+20



ROUTE 31
STA. 28+20 TO 30+00

*MATCH EXISTING
AT STA 30+00



MILLING AND OVERLAY SECTION
ROUTE 31 - STA. 09+50 TO 11+04
ROUTE 31 - STA. 30+00 TO 30+50

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / PJB
CHECKED BY: PJB
SCALE IN FEET 0 5 10
SCALE 1"=5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

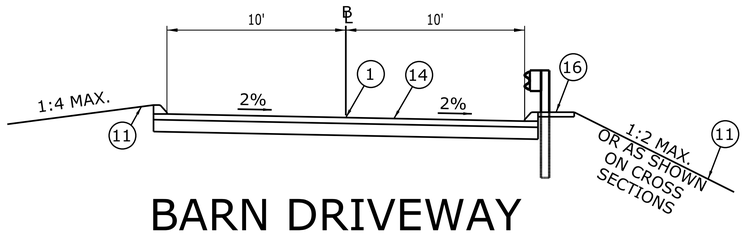
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

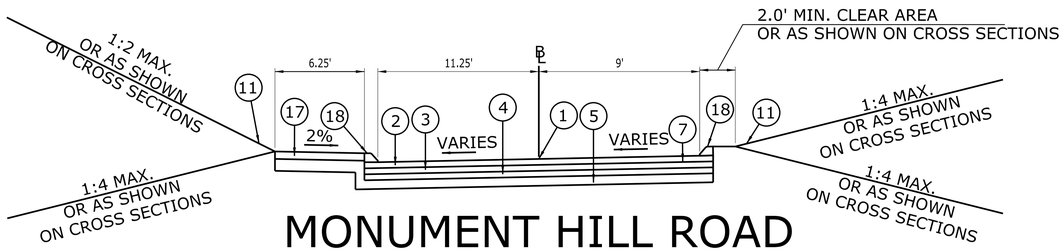
TOWN: COVENTRY

DRAWING TITLE:

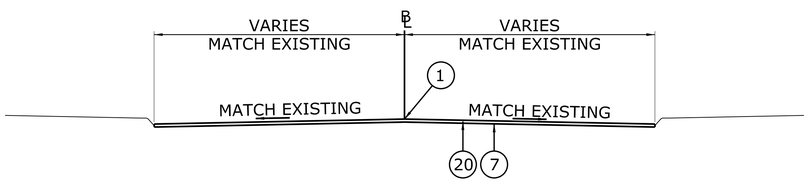
PROJECT NO. 32-130
DRAWING NO. HWY-06
SHEET NO. 03.06



BARN DRIVEWAY
AT STATION 17+85 RT.



MONUMENT HILL ROAD
STA. 0+60 TO 0+93



OVERLAY SECTION
MONUMENT HILL RD. - STA. 0+93 TO 1+80

LEGEND:

1. POINT OF GRADE APPLICATION
2. 4" HMA S0.5 (TWO LIFTS)
3. 4" HMA S1
4. 4" PROCESSED AGGREGATE BASE
5. 7" SUBBASE (NORMAL)
6. 14" SUBBASE (ROCK)
7. MATERIAL FOR TACK COAT
8. GRANITE STONE CURBING
9. CONCRETE MASONRY GRID PAVER
10. CONCRETE SIDEWALK
11. TURF ESTABLISHMENT - LAWN
12. ROCK SLOPE
13. EXISTING WALL
14. BITUMINOUS CONCRETE DRIVEWAY
15. SPECIAL CONCRETE CURBING
16. PAVEMENT FOR RAILING
17. BITUMINOUS CONCRETE SIDEWALK
18. BITUMINOUS CONCRETE LIP CURB
19. BRICK SIDEWALK
20. 2" MILLING AND 2" HMA S0.5 OVERLAY
21. CONCRETE DRIVEWAY RAMP
22. 6"x6" CLASS "A" CONCRETE
23. 4" GRANULAR FILL

STA. 28+20 TO 30+50

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / PJB
CHECKED BY: PJB
SCALE IN FEET 0 5 10
SCALE 1"=5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

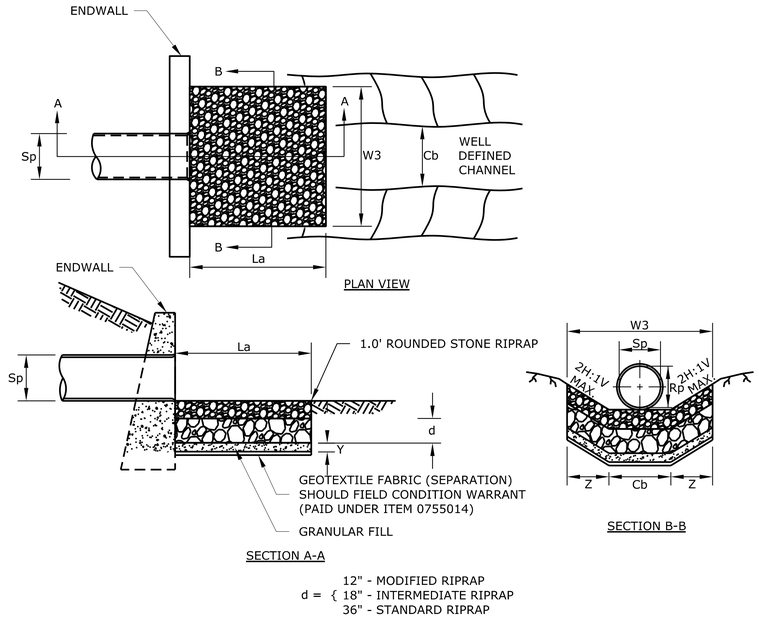
ENGINEER: BSC GROUP
APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

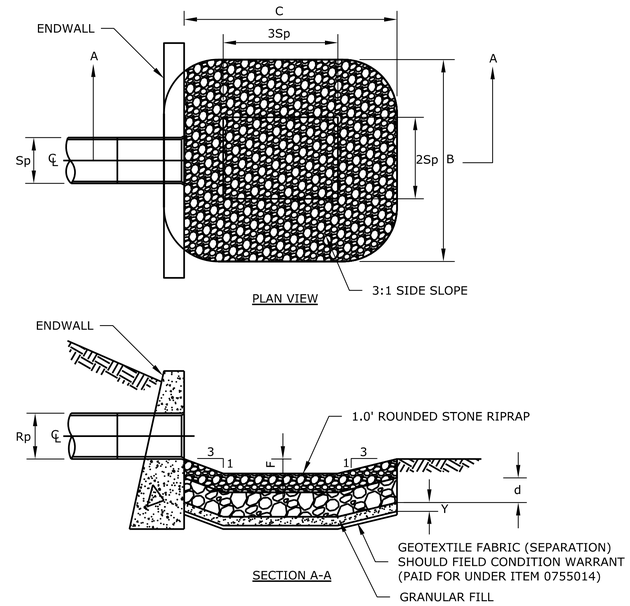
DRAWING TITLE:

PROJECT NO. 32-130
DRAWING NO. HWY-07
SHEET NO. 03.07



12" - MODIFIED RIPRAP
d = { 18" - INTERMEDIATE RIPRAP
36" - STANDARD RIPRAP

RIPRAP APRON - TYPE C (ENDWALL)
WITH ROUNDED STONE RIPRAP TOP LAYER
STA. 23+41 LT



PREFORMED SCOUR HOLE - TYPE 1 (ENDWALL) -
WITH ROUNDED STONE RIPRAP TOP LAYER
STA. 24+35 RT

TYPE C RIPRAP APRON								
	Sp	La	W3	Z	Cb	d	Y	RIPRAP TYPE
ROUTE 31 STA. 23+41LT.	12''	30'	20'	4'	12'	18"	6"	INTERMEDIATE
ROUTE 31 STA. 17+41RT.	12''	6'	6'	2'	2'	18"	6"	INTERMEDIATE

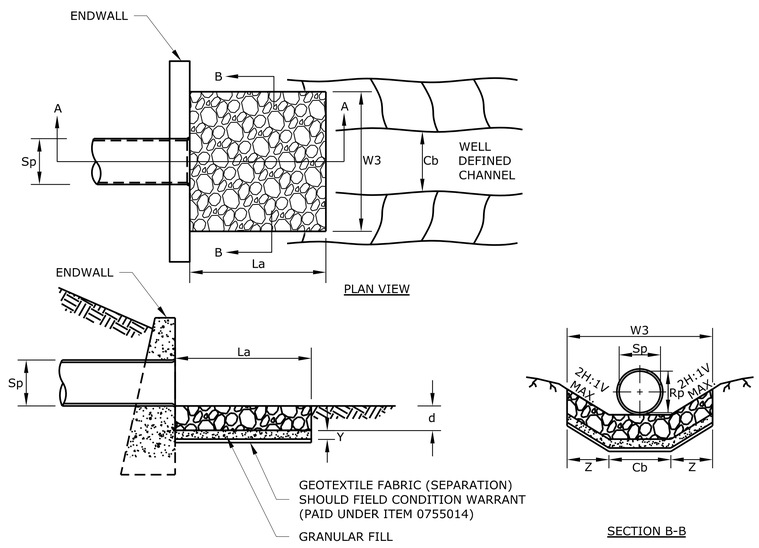
NOTE:

THE TYPE C RIPRAP APRON ROUTE 31 STA. 23+41LT. AND THE PREFORMED SCOUR HOLES - TYPE I AT ROUTE 31 STA. 24+35RT. SHALL PROVIDE A 1' TOP LAYER OF ROUNDED STONE RIPRAP TO BE PAID UNDER ITEM 0703029A "ROUNDED STONE RIPRAP".

FOR ENDWALLS WITH TWO PIPES, Sp IS THE DISTANCE BETWEEN THE OUTSIDE WALLS OF THE TWO PIPES.

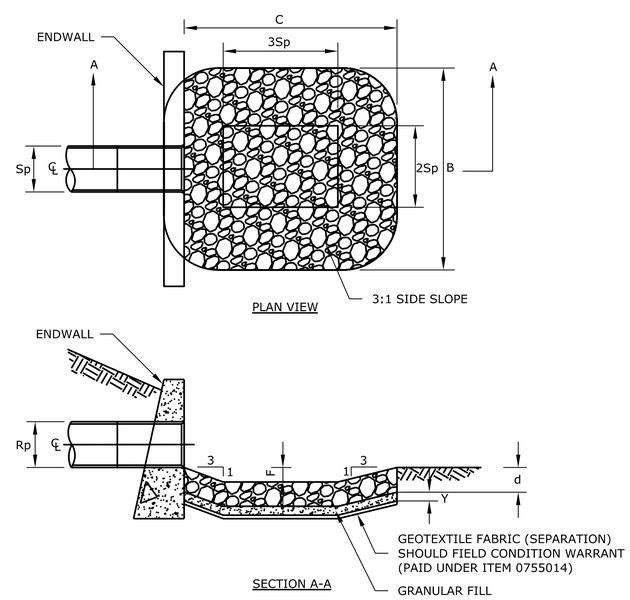
PREFORMED SCOUR HOLE - TYPE I						
LOCATION	d	F	C	B	Y	RIPRAP TYPE
ROUTE 31 STA. 17+65LT.	12"	0.75'	12.75'	10'	6"	MODIFIED
ROUTE 31 STA. 24+35RT.	36"	2.00'	42'	*32'	12"	STANDARD

*RIPRAP WILL EXTEND TO THE EAST SIDE OF THE SCOUR HOLE AN ADDITIONAL 5' AT A 1:2 SLOPE TO ELEVATION 446.5, AND TO THE WEST SIDE AN ADDITIONAL 7.5' AT A 1:3 SLOPE TO ELEVATION 446.5, OR TO WHERE THE SLOPE FLATTENS OUT.



12" - MODIFIED RIPRAP
d = { 18" - INTERMEDIATE RIPRAP
36" - STANDARD RIPRAP

RIPRAP APRON - TYPE C (ENDWALL)
STA. 17+41 RT



PREFORMED SCOUR HOLE - TYPE 1 (ENDWALL)
STA. 17+65 LT

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER:
CHECKED BY: PJB
NOT TO SCALE

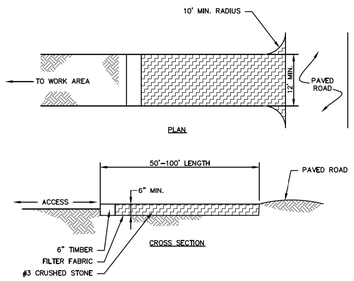
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: MISC. DETAILS, EROSION AND SEDIMENT CONTROL

PROJECT NO. 32-130
DRAWING NO. HWY-08
SHEET NO. 03.08

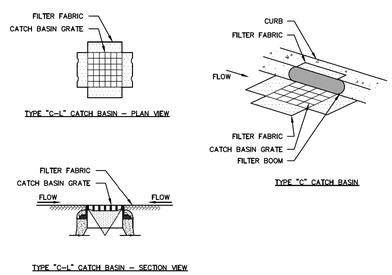


NOTES:

1. REMOVE TOPSOIL AND ORGANICS PRIOR TO CRUSHED STONE PLACEMENT.
2. INSTALL SUB-BASE OF FREE DRAINING BACKFILL OR ROAD STABILIZATION GEOTEXTILE AS NECESSARY ON UNSTABLE SOILS.

CONSTRUCTION ENTRANCE

SCALE: NONE
EC-101-CT

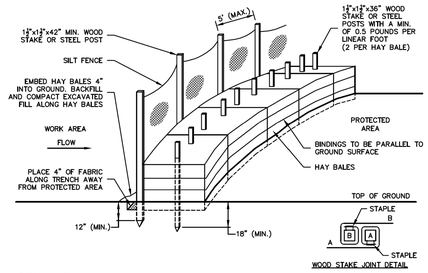


GENERAL NOTES

1. PROVIDE INLET PROTECTION TO ALL EXISTING CATCH BASINS IN THE VICINITY OF CONSTRUCTION. PROTECT NEW CATCH BASINS AS THEY ARE CONSTRUCTED.
2. GRATE TO BE PLACED OVER FILTER FABRIC.
3. TO BE PAID FOR UNDER ITEM 0210820

CATCH BASIN SILT SACK

SCALE: NONE
EC-104-CT

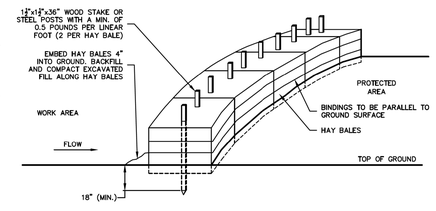


GENERAL NOTES

1. HAY BALES SHALL BE MADE OF HAY OR STRAW WITH 40 POUND MIN. WEIGHT AND 120 POUND MAX. WEIGHT HELD TOGETHER BY TWINE OR WIRE.
2. PLACE HAY BALES ON CONTOUR AND WING THE LAST HAY BALES UP SLOPE SO THAT THE TOP OF THE LAST SEVERAL HAY BALES ARE HIGHER THAN THE LINE OF HAY BALES.
3. DRIVE FIRST STAKE IN EACH BALE TOWARD THE PREVIOUSLY LAID BALE TO FORCE THEM TOGETHER.
4. PUT ONE HAY BALE PERPENDICULAR ALONG HAY BALE BARRIER EACH 100 FEET.

HAY BALE BARRIER & SILT FENCE

SCALE: NONE
EC-105-CT



GENERAL NOTES

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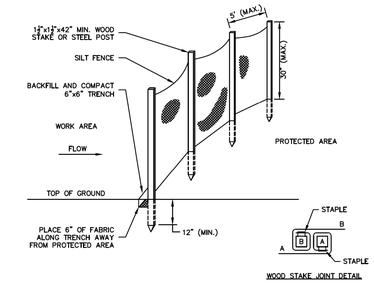
2. PLACE HAY BALES ON CONTOUR AND WING THE LAST HAY BALES UP SLOPE SO THAT THE TOP OF THE LAST SEVERAL HAY BALES ARE HIGHER THAN THE LINE OF HAY BALES.
3. DRIVE FIRST STAKE IN EACH BALE TOWARD THE PREVIOUSLY LAID BALE TO FORCE THEM TOGETHER.
4. PUT ONE HAY BALE PERPENDICULAR ALONG HAY BALE BARRIER EACH 100 FEET.

HAY BALE BARRIER

SCALE: NONE
EC-106-CT

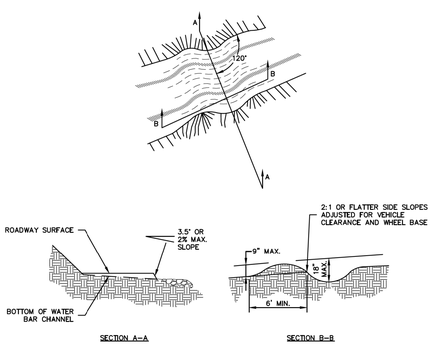


GENERAL NOTES

1. FOR SLOPE & SWALE INSTALLATIONS, EXTEND FENCE OP SLOPE SUCH THAT BOTTOM ENDS OF FENCE WILL BE HIGHER THAN THE TOP OF THE LOWEST PORTION OF FENCE.
2. FOR FENCE INSTALLED ON LEVEL TERRAIN INSTALL WING SECTIONS PERPENDICULAR TO MAIN BARRIER AT 50'-100' INTERVALS.

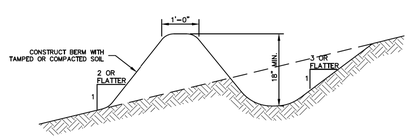
SILT FENCE BARRIER

SCALE: NONE
EC-107



WATER BAR

SCALE: NONE
EC-102-CT

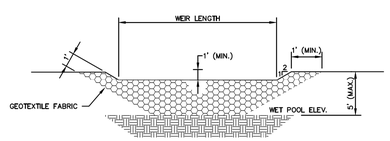


GENERAL NOTES

1. INSTALL TEMPORARY DIVERSION SWALES TO CHANNEL WATER FROM DISTURBED AREAS TO THE TEMPORARY SEDIMENT BASIN. ADJUST SWALE LOCATIONS AS NECESSARY PER CHANGING SITE CONDITIONS.
2. CONTRIBUTING DRAINAGE AREA MUST NOT EXCEED ONE ACRE.

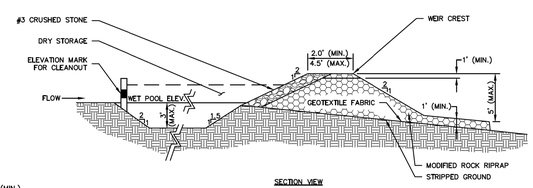
TEMPORARY DIVERSION SWALE

SCALE: NONE
EC-103-CT



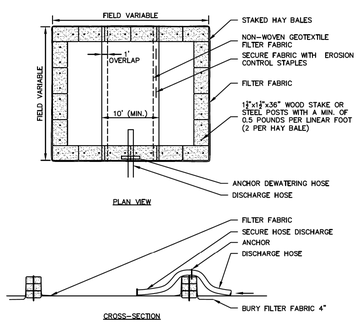
TEMPORARY SEDIMENT TRAP

SCALE: NONE
EC-109-CT



GENERAL NOTES

1. STABILIZE EARTHEN EMBANKMENT BY SEEDING OR PROVIDE STONE SLOPE PROTECTION IMMEDIATELY AFTER INSTALLATION.
2. NON-OVERFLOW PORTIONS AND ABUTMENTS OF TEMPORARY SEDIMENT TRAPS MAY BE CONSTRUCTED OF COMPACTED EARTHFILL.



GENERAL NOTES

1. NUMBER OF BALES MAY VARY DEPENDING ON SITE CONDITIONS.
2. THE BASIN TO BE SIZED ACCORDING TO: CUBIC FEET OF STORAGE = PUMP DISCHARGE RATE(gpm) x 16.
3. SIZE SHOWN ON PLANS SHALL BE ADJUSTED AS REQUIRED FOR THE ACTUAL PUMPING RATE.

DEWATERING HAY BALE BASIN (TYPE 1)

SCALE: NONE
EC-114-CT

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER:
CHECKED BY: PJB
NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

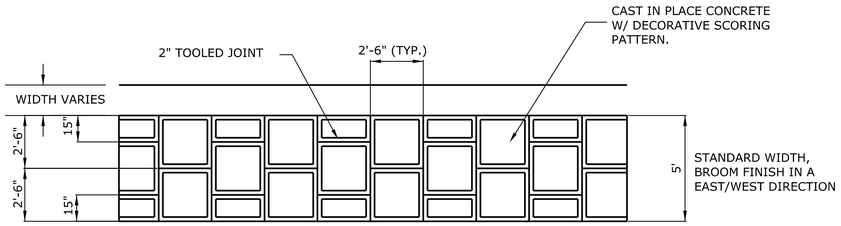
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: MISC. DETAILS - EROSION AND SEDIMENT CONTROL

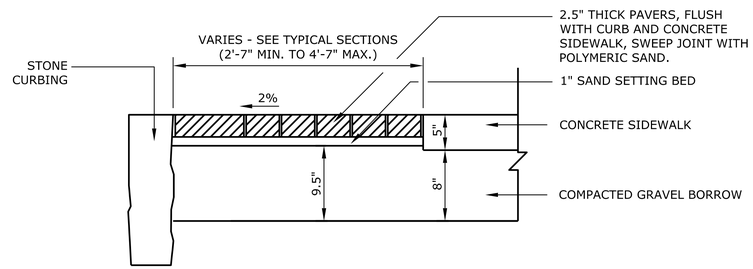
PROJECT NO. 32-130
DRAWING NO. HWY-09
SHEET NO. 03.09



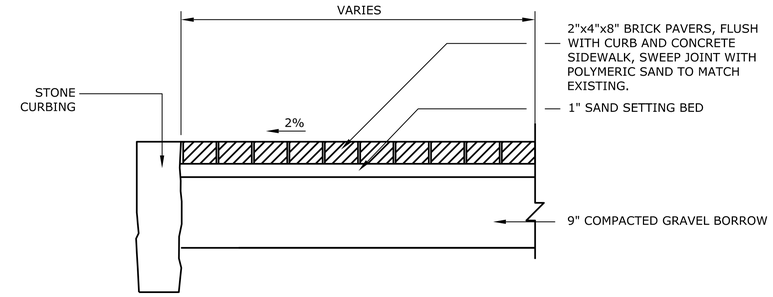
GENERAL NOTES

1. WIDTH LESS THAN 15" FOR WALKS BEYOND 5', SHALL PROVIDE TOOLED FINISH EVERY 5'. WIDTH GREATER THAN 15" SHALL CONTINUE DECORATIVE SCORING PATTERN.
2. THE CONTRACTOR SHALL PROVIDE FOR UP TO 3 MOCK - UPS OF THE SIDEWALK PATTERN. MOCK - UPS SHALL BE 8'X8' MINIMUM.
3. REFER TO CONCRETE DETAILS ON SHEET 4 FOR PROPER CONCRETE DEPTHS AND INSTALLATION.
4. ALL CONCRETE EXPANSION JOINTS SHALL BE 10 MIL POLY PLACED 1½ TIMES THE WIDTH.

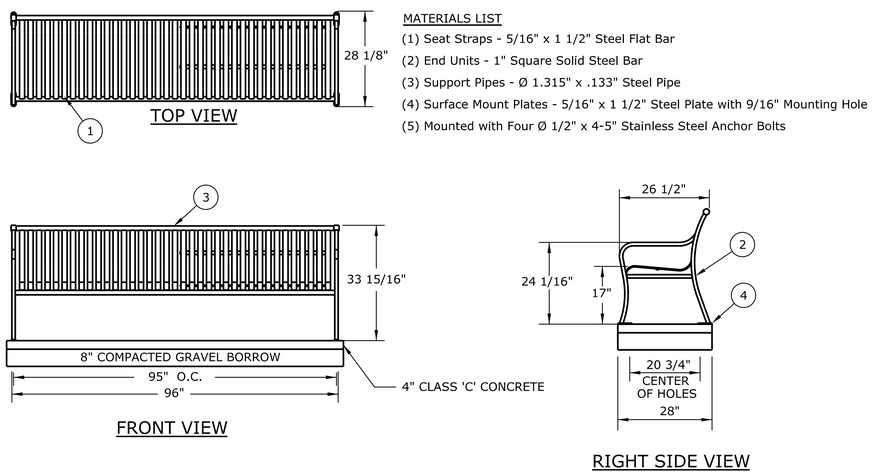
SPECIAL CONCRETE SIDEWALK SCORING PATTERN



CONCRETE MASONRY GRID PAVER BUFFER STRIP



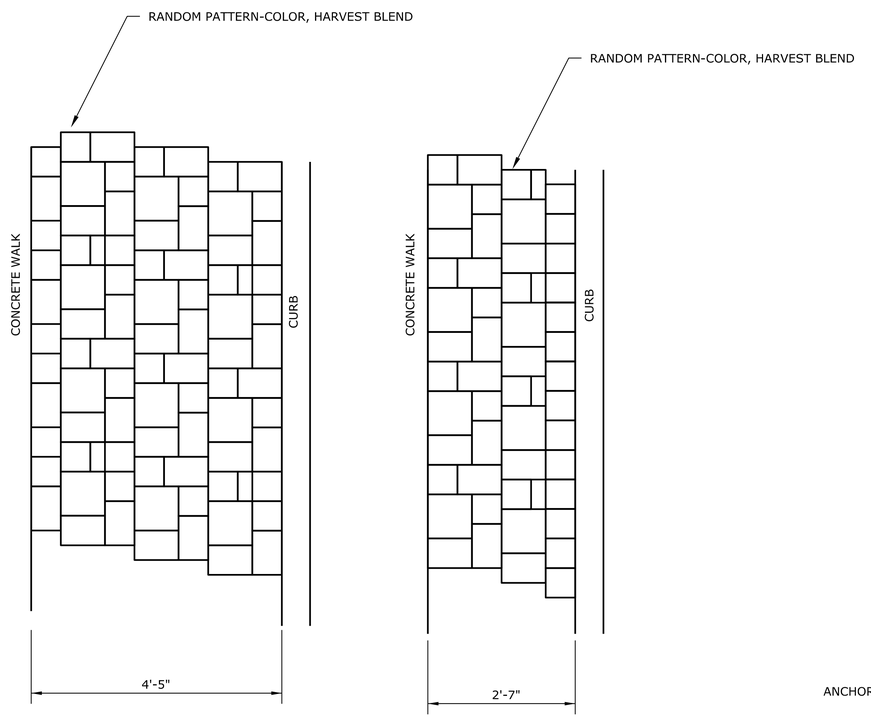
BRICK SIDEWALK



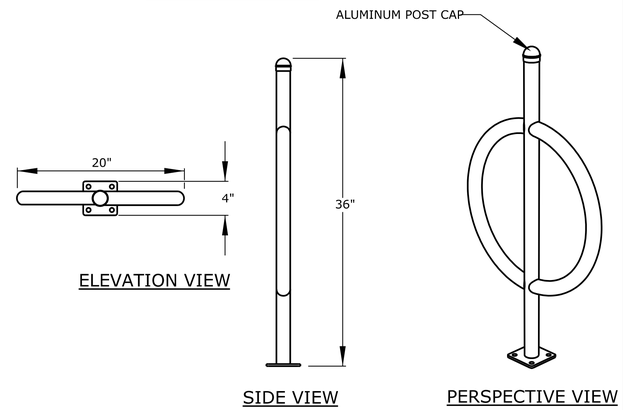
MATERIALS LIST

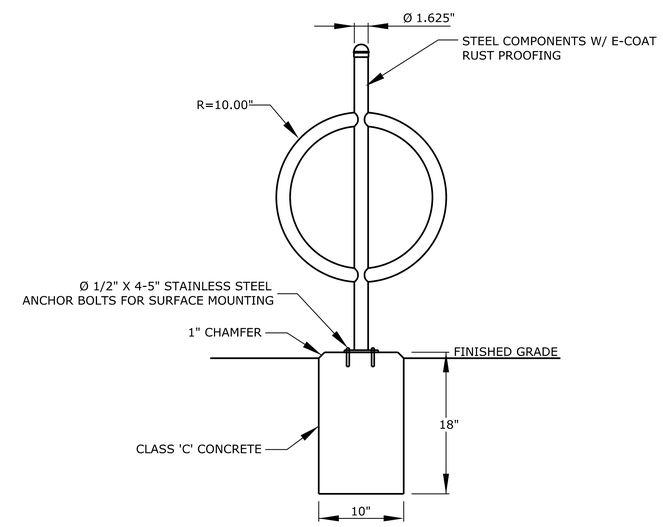
(1) Seat Straps - 5/16" x 1 1/2" Steel Flat Bar
(2) End Units - 1" Square Solid Steel Bar
(3) Support Pipes - Ø 1.315" x .133" Steel Pipe
(4) Surface Mount Plates - 5/16" x 1 1/2" Steel Plate with 9/16" Mounting Hole
(5) Mounted with Four Ø 1/2" x 4-5" Stainless Steel Anchor Bolts

BENCH



PAVER PATTERN (BUFFER STRIP AND SIDEWALKS)





CROSS SECTION

BICYCLE STAND

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: TRT / MSR
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NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

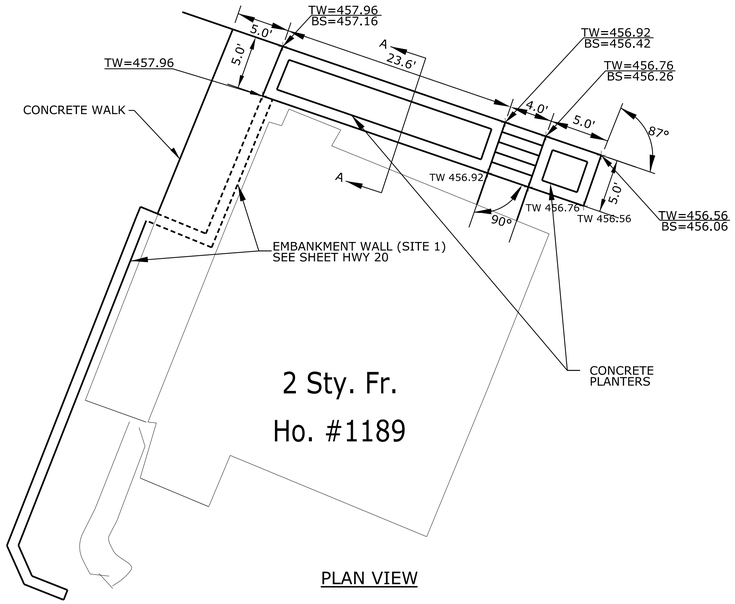
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

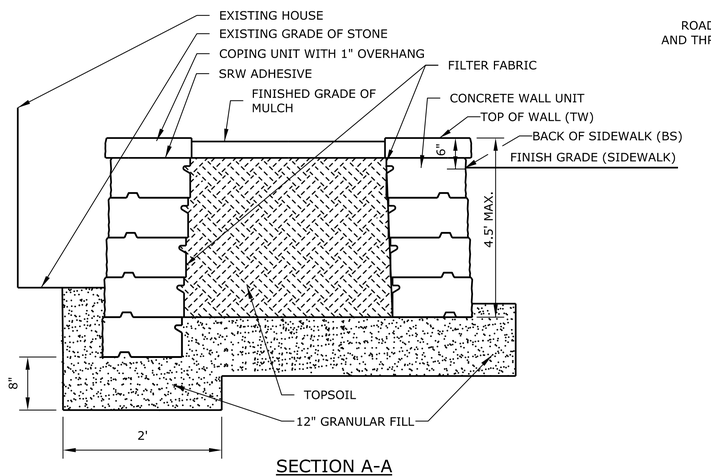
TOWN: COVENTRY

DRAWING TITLE: MISC. LANDSCAPE DETAILS

PROJECT NO. 32-130
DRAWING NO. HWY-10
SHEET NO. 03.10



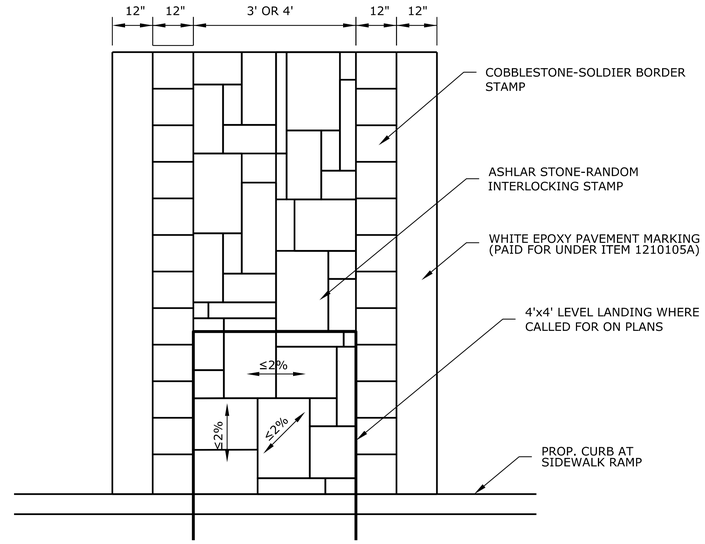
PLAN VIEW



SECTION A-A

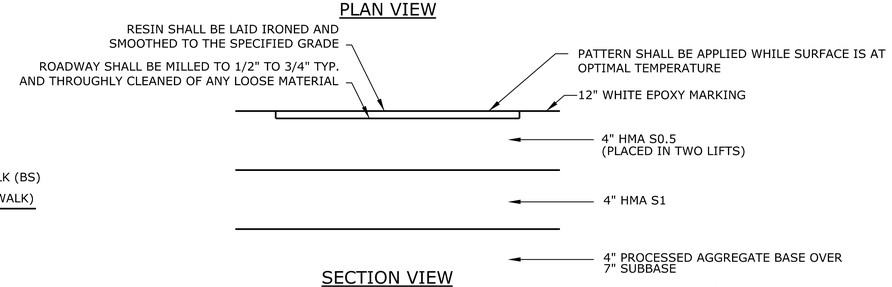
CONCRETE PLANTERS

NTS



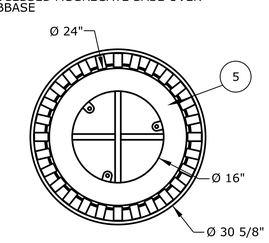
PLAN VIEW

NOTE: DECORATIVE CROSSWALK SHALL NOT BE OPENED TO VEHICULAR TRAFFIC OR PEDESTRIAN TRAFFIC UNTIL IT HAS COOLED AND HARDENED THROUGHOUT TO TEMPERATURE SPECIFIED. SURFACE SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO BEING OPENED TO TRAFFIC.



SECTION VIEW

DECORATIVE CROSSWALK



MATERIALS LIST

(1) Vertical Straps - 5/16" x 1 1/2" Steel Flat Bar

(2) Top Ring - Ø 5/8" Steel Round Bar

(3) Support Rings - 1/4" x 2" Steel Flat Bar

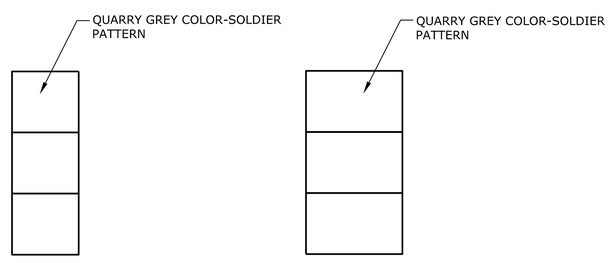
(4) Support Bars - 1/2" x 1" Steel Flat Bar

(5) Lid - Ø 24" x .075" Wall Steel Lid Attached to Basket with Stainless Steel Airline Cable

(6) Surface Mount Plates - 5/16" x 1 1/2" Steel Plate with 9/16" Mounting Hole

(7) Mounted with Three Ø 1/2" x 4-5" Stainless Steel Anchor Bolts

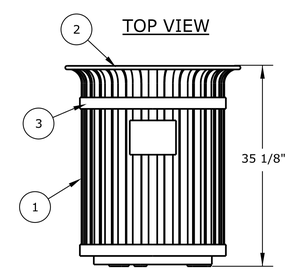
(8) 32 Gallon Rigid Plastic Liner with Handles Included



· SMALL SQUARES 6 5/16"X6 5/16""

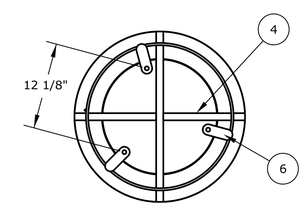
· LARGE RECTANGLE 6 5/16"X9 7/16"

PAVER BORDER

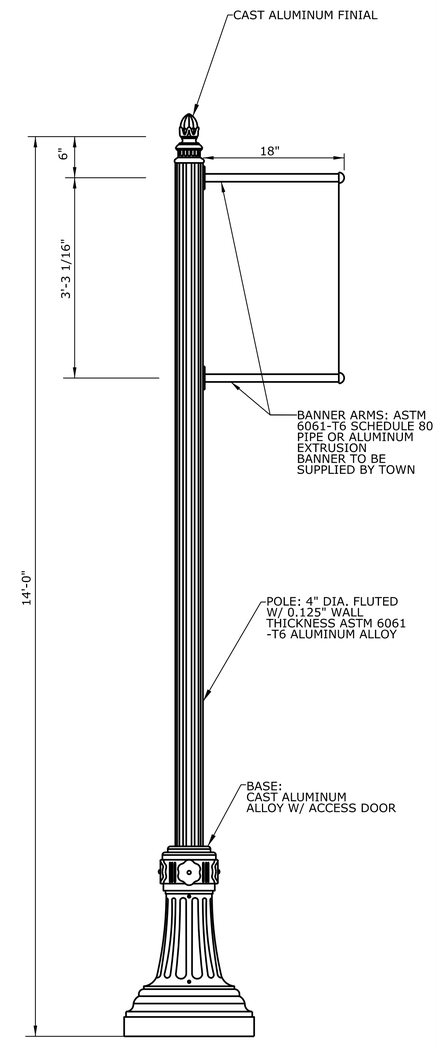


TOP VIEW

FRONT VIEW



BOTTOM VIEW - MOUNTING DETAIL



DECORATIVE POLE

TRASH CAN

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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DESIGNER/DRAFTER: TRT / MSR
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STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

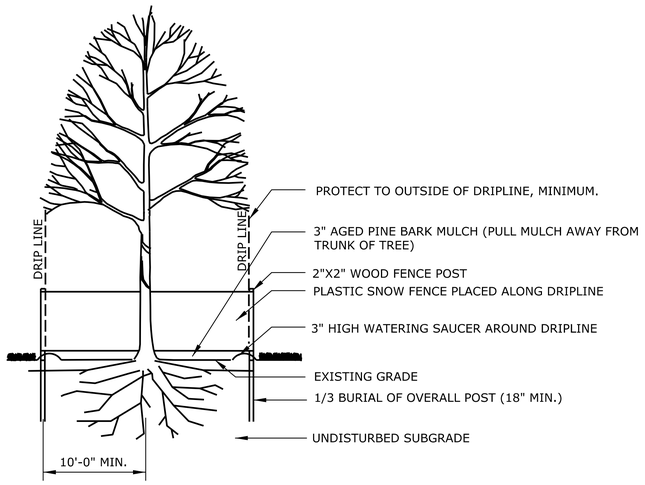
ENGINEER: BSC GROUP
APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: MISC. LANDSCAPE DETAILS

PROJECT NO. 32-130
DRAWING NO. HWY-11
SHEET NO. 03.11



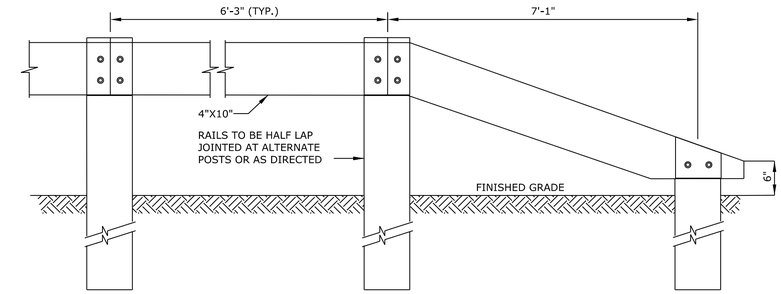
NOTES:

1. COORDINATE LOCATION OF FENCE WITH PROJECT ENGINEER.
2. IF EXCAVATION OCCURS WITHIN DRIPLINE, EXISTING ROOTS SHALL BE CLEANLY CUT PRIOR TO EXCAVATION BY A CERTIFIED ARBORIST AND TREES SHALL BE WATERED.
3. PROVIDE AND MAINTAIN BARRICADE AROUND EXISTING TREES THROUGHOUT CONSTRUCTION.

EXISTING TREE PROTECTION

PLANTING NOTES:

1. FINAL LOCATION OF PLANTING TO BE VERIFIED IN THE FIELD BY THE LANDSCAPE ARCHITECT BEFORE DIGGING. CONTRACTOR SHALL STAKE OUT ALL PLANTINGS BEDS AND FLAG ALL TREES AND EACH INDIVIDUAL SHRUB PRIOR TO UNLOADING PLANTS FROM TRUCKS.
2. ALL PLANTING BEDS AND PITS TO RECEIVE APPROVED BARK MULCH TO DEPTHS INDICATED IN PLANTING DETAILS.
3. CONTRACTOR TO PROVIDE 6-INCHES OF TESTED AND APPROVED TOPSOIL IN ALL AREAS OF TREE, SHRUB AND GROUND COVER PLANTING.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING ALL TOPSOIL IN ACCORDANCE WITH THE SPECIFICATIONS AND PROVIDE TEST RESULTS TO THE LANDSCAPE ARCHITECT PRIOR TO PLACING TOPSOIL.
5. INFORMATION AS SHOWN ON THE DRAWINGS RELATED TO MATERIALS, CONDITIONS AND/OR LOCATIONS OF THE EXISTING STRUCTURES AND UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION AND IS NOT GUARANTEED CORRECT OR COMPLETE. THE CONTRACTOR OR LANDSCAPE SUBCONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO EXCAVATING TREE PITS OR SHRUB BEDS. ANY DAMAGE TO THE UTILITIES CAUSED BY THE CONTRACTOR SHALL BE THE CONTRACTOR'S RESPONSIBILITY, AND COSTS FOR THE REPAIR OR REPLACEMENT OF SUCH DAMAGED UTILITIES SHALL BE BORNE BY THE CONTRACTOR.
6. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR FOR NOT LESS THAN ONE FULL YEAR FROM THE TIME OF PROVISIONAL ACCEPTANCE. DURING THIS TIME THE OWNER SHALL MAINTAIN ALL PLANT MATERIAL UNLESS OTHERWISE SPECIFIED; HOWEVER, DURING THE GUARANTEE PERIOD IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE PLANT MATERIALS TO SATISFY THEMSELVES THAT THE AREAS ARE RECEIVING PROPER CARE.
7. IF THE CONTRACTOR DECIDES THAT THE CARE BEING GIVEN TO THESE AREAS BY THE OWNER IS INSUFFICIENT OR MAY CAUSE PLANT MATERIAL TO DIE PREMATURELY, THEY SHALL IMMEDIATELY AND IN SUFFICIENT TIME TO PERMIT THE CONDITION TO BE SATISFACTORILY RECTIFIED, NOTIFY THE LANDSCAPE ARCHITECT IN WRITING; OTHERWISE NO CONSIDERATION WILL BE GIVEN TO THE CLAIM.
8. BY THE END OF THE GUARANTEE PERIOD AT NO ADDITIONAL COST TO THE OWNER, THE CONTRACTOR SHALL HAVE REPLACED ANY TREES AND/OR SHRUBS THAT ARE MISSING, NOT TRUE TO NAME OR SIZE AS SPECIFIED, THAT EITHER HAVE DIED, ARE IN THE OPINION OF THE LANDSCAPE ARCHITECT, IN UNHEALTHY OR UNSIGHTLY CONDITION, THAT HAVE LOST NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESSIVE PRUNING BY THE CONTRACTOR, SHOW SIGNS OF INADEQUATE OR IMPROPER MAINTENANCE. IN CASE OF ANY QUESTION REGARDING THE CONDITION AND SATISFACTORY ESTABLISHMENT OF A REJECTED PLANT, THE LANDSCAPE ARCHITECT MAY ALLOW SUCH A PLANT TO REMAIN THROUGH ANOTHER COMPLETE PLANTING SEASON AFTER WHICH TIME THE REJECTED PLANT, IF FOUND TO BE DEAD, IN AN UNHEALTHY OR BADLY IMPAIRED CONDITION, SHALL BE REPLACED AT ONCE AT NO ADDITIONAL COST TO THE OWNER.
9. SELECTION OF GROUNDCOVERS AND SHRUBS SHALL BE MADE BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT AND OWNER WHO WILL INSPECT TAGGED STOCK AT THEIR PLACE OF GROWTH BEFORE THEY ARE PREPARED AND TRANSPLANTING. THE LANDSCAPE ARCHITECT RESERVED THE RIGHT TO REJECT ANY AND ALL PLANT MATERIAL UPON INSPECTION AT THE SITE.
10. ALL PLANT MATERIAL SHALL BE FREE OF DISEASE, INSECTS, EGGS, LARVA AND DEFECTS.
11. TOPSOIL SHALL MEET REQUIREMENTS PER THE SPECIFICATIONS.
12. OBSTRUCTIONS: NOTIFY LANDSCAPE ARCHITECT IF OBSTRUCTIONS DETRIMENTAL TO TREES OR SHRUBS ARE ENCOUNTERED IN EXCAVATIONS. IF HARDPAN IS ENCOUNTERED DRILL 6-INCH DIAMETER HOLES (MIN. 3 PER PIT) INTO FREE DRAINING STRATA OR TO A DEPTH OF 10 FEET, WHICHEVER IS LESS, AND BACK FILL WITH FREE DRAINING MATERIAL.
13. APPLY PREEMERGANT WEED CONTROL TO THE PLANTED AND MULCHED AREAS.
14. ALL DISTURBED AREAS NOT COVERED BY STRUCTURES, PAVEMENT, RIPRAP OR STONE, MULCH OR PLANTING BEDS AND TREE PITS SHALL BE SEEDED.
15. ALL AREAS TO RECEIVE SEED SHALL BE PREPARED BY: A) REMOVING ALL STONES, PAVEMENTS, GRAVEL, ETC.; B) SCARIFYING EXISTING SUBGRADE; C) PLACING 4" MINIMUM TESTED AND APPROVED TOPSOIL; D) PROVIDING ANY SOIL AMENDMENTS AS SPECIFIED, AND REQUIRED BY SOIL TEST.
16. SPADE EDGE ALL PLANTING BEDS IN LAWN AREAS AND AT EDGE OF PAVEMENT TO PRODUCE DESIRED MULCH DEPTH.
17. IF THE QUANTITIES ON THE PLAN DIFFER FROM THE QUANTITIES ON THE PLANT SCHEDULE, THE SCHEDULE SHALL BE USED.

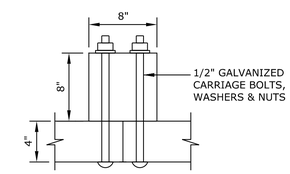


ELEVATION - END TREATMENT

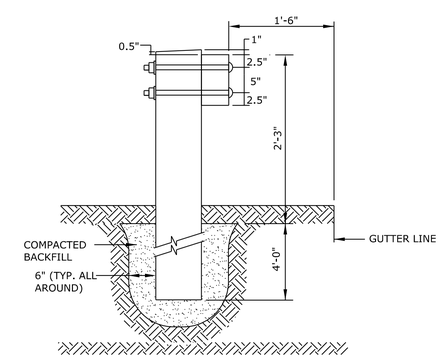
CONSTRUCTION NOTES:

1. TIMBER RAILS AND POSTS TO BE SOUTHERN YELLOW PINE STRUCTURAL GRADE OR BETTER.

2. TIMBER PRESERVATIVES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO 14-133 AND THE AMERICAN WOOD PRESERVERS ASSOCIATION STANDARDS C1, C2, AND C3. ANY CUTS MADE IN THE FIELD SHALL BE PAINTED WITH TWO BRUSH COATS OF TIMBER PRESERVATIVE.



JOINT-PLAN



NOTE:
TOP OF POST TO BE 2'-6" ABOVE GUTTER GRADE.

SECTION

TIMBER BEAM RAIL (NOT TO SCALE)

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: TRT / MSR
CHECKED BY: AWS
NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

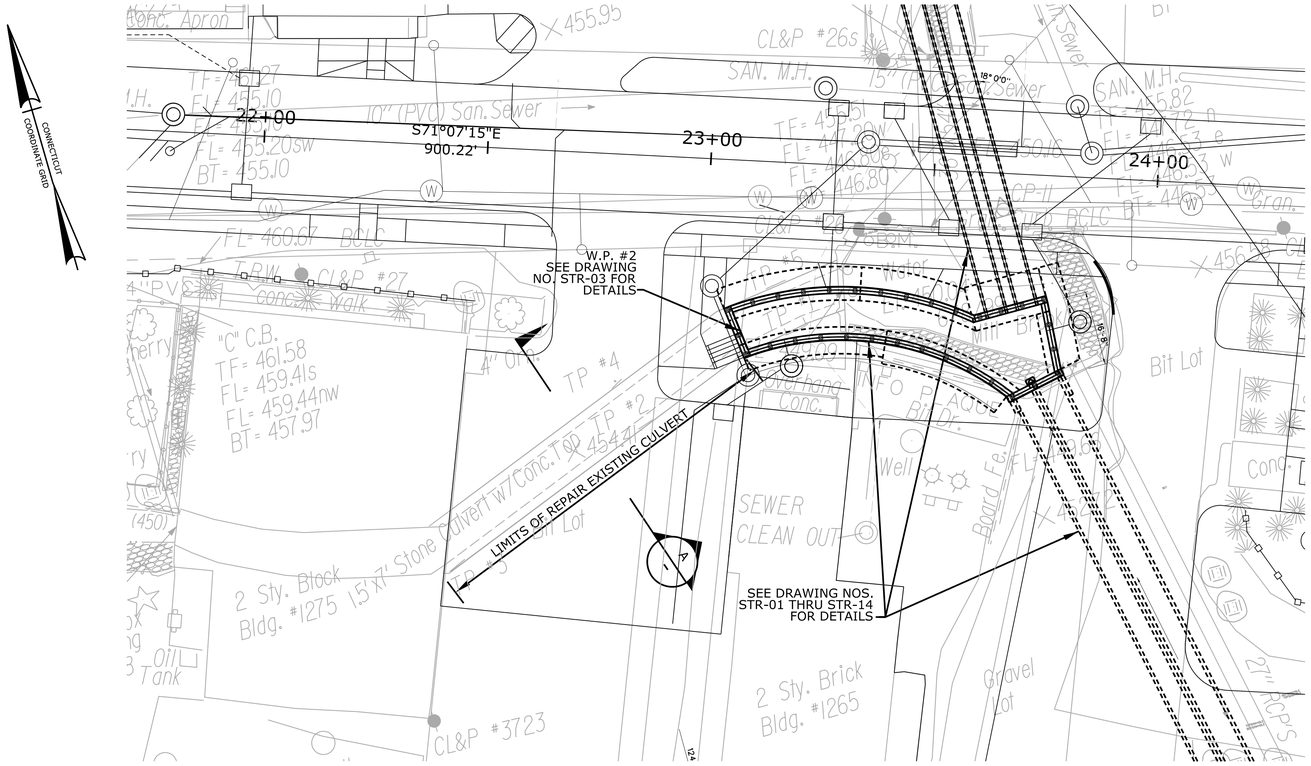
ENGINEER: BSC GROUP
APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

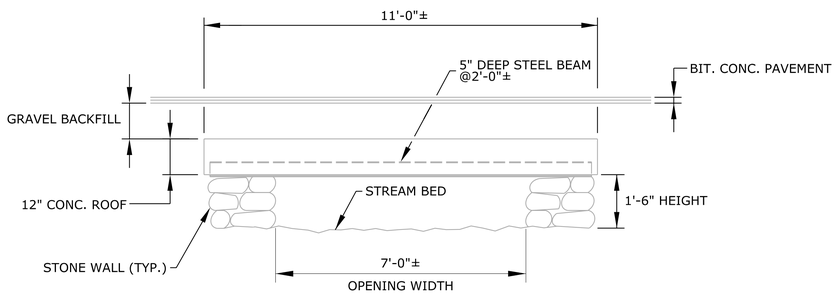
DRAWING TITLE: MISC. LANDSCAPE DETAILS

PROJECT NO. 32-130
DRAWING NO. HWY-12
SHEET NO. 03.12

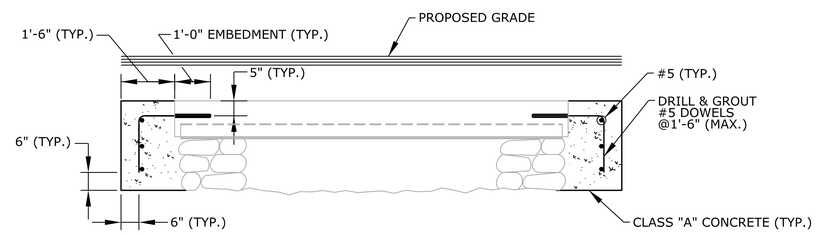


PLAN - REPAIR EXISTING CULVERT

SCALE: 1/16"=1'-0"



EXISTING



PROPOSED

TYPICAL SECTION AT 7'X1'-6" CULVERT

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

A
-

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: SYC / KLE
CHECKED BY: PJB
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

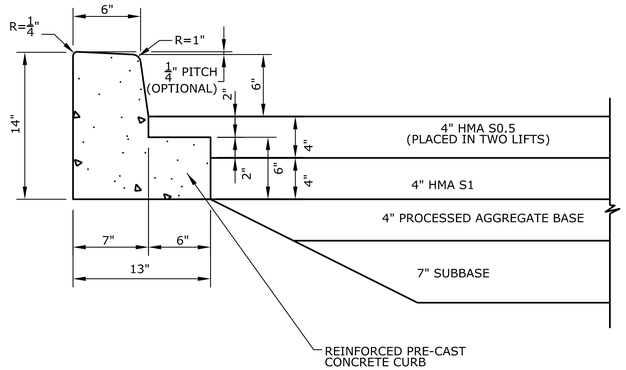
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

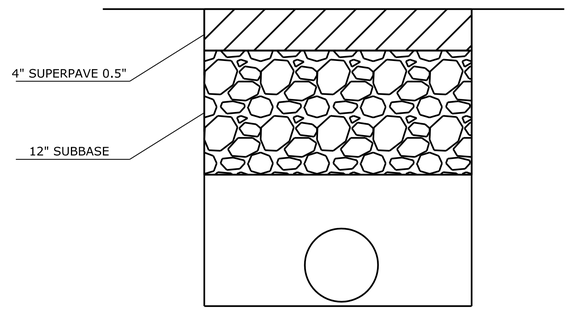
TOWN: COVENTRY

DRAWING TITLE: MISC. HIGHWAY DETAILS

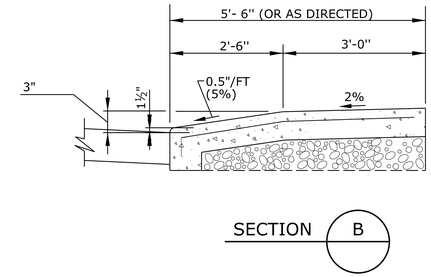
PROJECT NO. 32-130
DRAWING NO. HWY-13
SHEET NO. 03.13

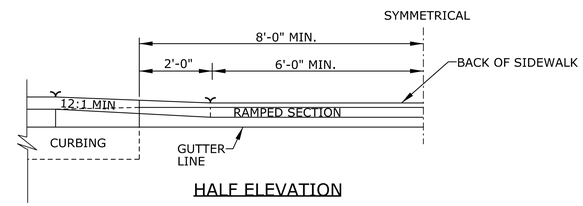


SPECIAL CONCRETE CURB
STATION 26+77.1LT TO 28+50.6LT

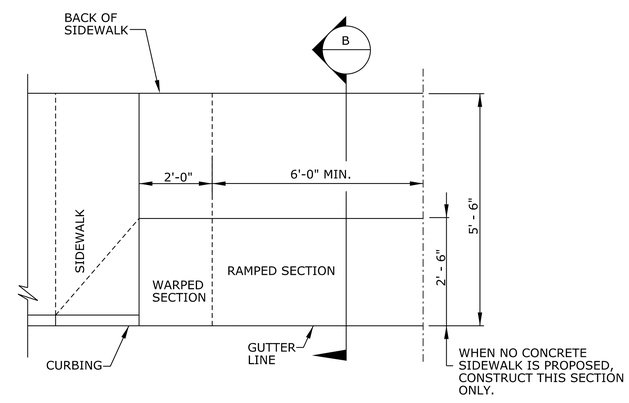


TEMPORARY PATCH DETAIL

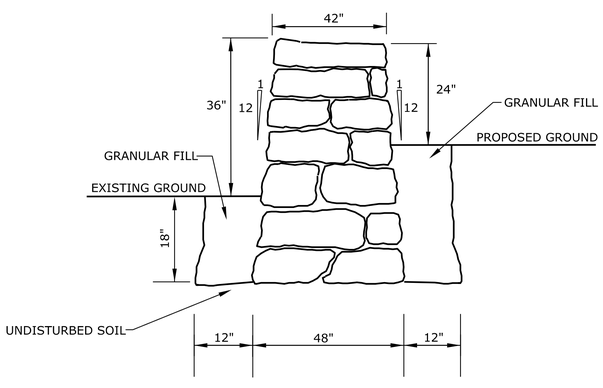




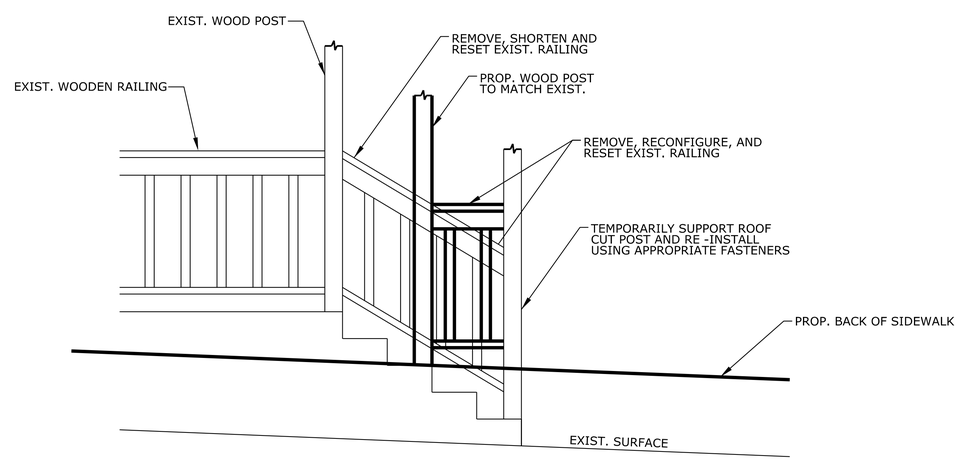
HALF ELEVATION



HALF PLAN OF DEPRESSED CONCRETE DRIVEWAY RAMP
(SEE STANDARD DRAWING 925_01 FOR ADDITIONAL DETAILS)



REBUILD STONE RETAINING WALL - STATION 17+40LT



ADJUST WOODEN RAILING - STATION 22+35LT

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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DESIGNER/DRAFTER: PJB / MSR
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NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

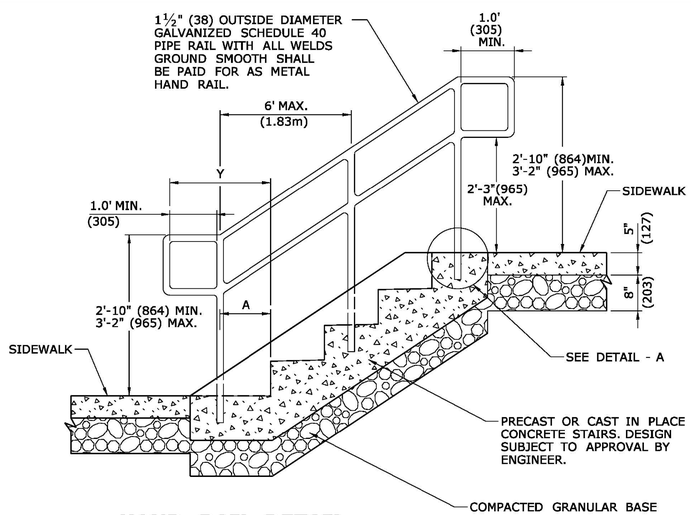
ENGINEER: BSC GROUP
APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

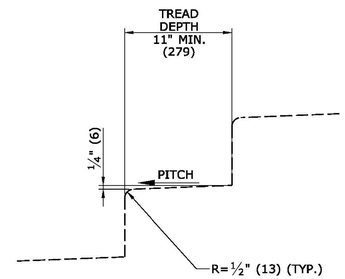
DRAWING TITLE: MISC. HIGHWAY DETAILS

PROJECT NO. 32-130
DRAWING NO. HWY-14
SHEET NO. 03.14



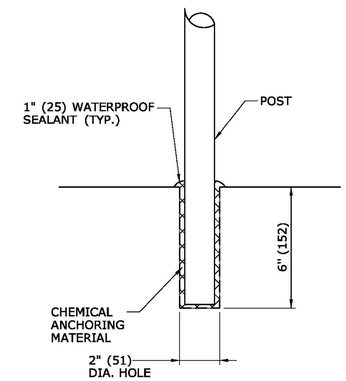
HAND RAIL DETAIL

A = WIDTH OF ONE TREAD REQUIRED AT EACH BOTTOM RISER.
Y = THE MINIMUM HANDRAIL EXTENSON OF 1'-0" (305) + A.



TYPICAL STEP DETAIL

ALL TREADS SHALL BE PITCHED ¼" (6)
(SEE NOTE 5)



DETAIL A
POST HOLE AT LANDINGS

(TYPICAL FOR ALL POSTS)

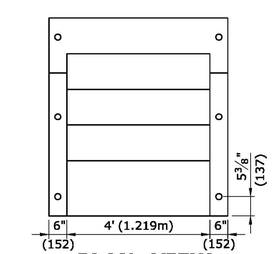
GENERAL NOTES:

1. A HAND RAIL IS REQUIRED ON BOTH SIDES OF STEPS WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE HIGHEST WALKING SURFACE AND THE LOWEST WALKING SURFACE IS GREATER THAN 30" (762).
2. POSTS SHALL BE NO MORE THAN 6' (1.83m) APART.
3. THE RAILING BASE CONNECTIONS SHALL BE DESIGNED TO PROVIDE STRENGTH FOR A 251.8 POUND (114.2kg) FORCE APPLIED IN ANY LOCATION OR DIRECTION ON THE RAIL.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STEEL POSTS AND HANDRAIL ELEMENTS INCLUDING A LAYOUT FOR REVIEW AND APPROVAL.
5. ALL STEPS SHALL HAVE UNIFORM RISER HEIGHTS AND UNIFORM TREAD DEPTHS. RISERS SHALL BE A MINIMUM OF 4" (102) HIGH TO A MAXIMUM OF 7" (178) HIGH. TREADS SHALL BE A MINIMUM OF 11" (279) DEEP MEASURED FROM RISER TO RISER.
6. THESE DETAILS WERE DEVELOPED IN CONFORMANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) HANDBOOK DATED 1998 AND 2000.

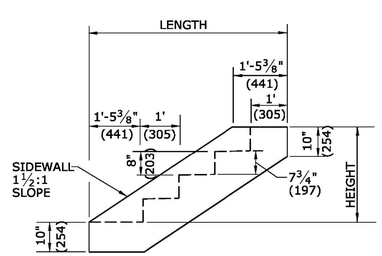
STEPS CONFORMING TO 1½:1 SLOPE							
HEIGHT	LENGTH	NUMBER RISERS	VOLUME OF STEPS (CU.YDS.) (m^3)	HEIGHT	LENGTH	NUMBER RISERS	VOLUME OF STEPS (CU.YDS.) (m^3)
0'-8" (203)	2'-5⅜" (746)	1	0.474 (0.436)	6'-0" (1829)	10'-5⅜" (3186)	9	2.564 2.316
1'-4" (406)	3'-5⅜" (1051)	2	0.718 (0.671)	6'-8" (2032)	11'-5⅜" (3489)	10	2.831 (2.551)
2'-0" (610)	4'-5⅜" (1356)	3	0.962 (0.906)	7'-4" (2235)	12'-5⅜" (3794)	11	3.098 (2.768)
2'-8" (813)	5'-5⅜" (1661)	4	1.229 (1.141)	8'-0" (2438)	13'-5⅜" (4101)	12	3.365 (3.021)
3'-4" (1016)	6'-5⅜" (1965)	5	1.496 (1.376)	8'-8" (2642)	14'-5⅜" (4404)	13	3.632 (3.256)
4'-0" (1219)	7'-5⅜" (2270)	6	1.763 (1.611)	9'-4" (2845)	15'-5⅜" (4709)	14	3.899 (3.491)
4'-8" (1422)	8'-5⅜" (2575)	7	2.030 (1.846)	10'-0" (3048)	16'-5⅜" (5013)	15	4.166 (3.726)
5'-4" (1626)	9'-5⅜" (2880)	8	2.297 (2.081)	10'-8" (3251)	17'-5⅜" (5318)	16	4.433 (3.961)

ADD 0.244 CU.YDS. (0.18 CU.MS.) FOR EACH ADDITIONAL RISER

STEPS WITH 1 1/2 : 1 SIDEWALL SLOPE

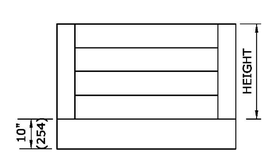


PLAN VIEW



SIDE VIEW

ALL TREADS SHALL BE PITCHED ¼" (6)

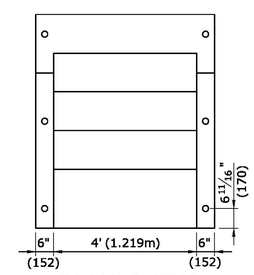


FRONT VIEW

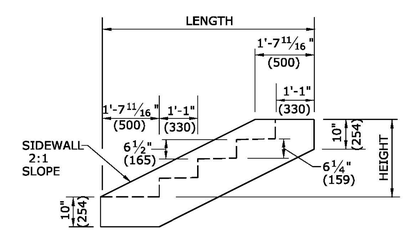
STEPS WITH 2:1 SIDEWALL SLOPE							
HEIGHT	LENGTH	NUMBER RISERS	VOLUME OF STEPS (CU.YDS.) (m^3)	HEIGHT	LENGTH	NUMBER RISERS	VOLUME OF STEPS (CU.YDS.) (m^3)
0'-6½" (165)	2'-8 11/16" (830)	1	0.494 (0.346)	4'-10½" (1486)	11'-4 11/16" (3472)	9	2.580 (2.098)
1'-1" (330)	3'-0 11/16" (1160)	2	0.736 (0.565)	5'-5" (1651)	12'-5 11/16" (3802)	10	2.847 (2.317)
1'-7½" (495)	4'-10 11/16" (1491)	3	0.978 (0.784)	5'-11½" (1816)	13'-6 11/16" (4132)	11	3.114 (2.536)
2'-2" (660)	5'-11 11/16" (1821)	4	1.245 (1.003)	6'-6" (1981)	14'-7 11/16" (4462)	12	3.381 (2.755)
2'-8½" (825)	7'-0 11/16" (2151)	5	1.512 (1.222)	7'-0½" (2146)	15'-8 11/16" (4792)	13	3.648 (2.974)
3'-3" (990)	8'-1 11/16" (2481)	6	1.779 (1.441)	7'-7" (2311)	16'-9 11/16" (5123)	14	3.915 (3.193)
3'-9½" (1156)	9'-2 11/16" (1811)	7	2.046 (1.660)	8'-1½" (2476)	17'-10 11/16" (5453)	15	4.182 (3.412)
4'-4" (1321)	10'-3 11/16" (3141)	8	2.313 (1.879)	8'-8" (2642)	18'-11 11/16" (5783)	16	4.449 (3.631)

ADD 0.242 CU.YDS. (0.18 CU.MS.) FOR EACH ADDITIONAL RISER

STEPS WITH 2 : 1 SIDEWALL SLOPE

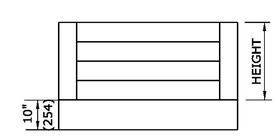


PLAN VIEW



SIDE VIEW

ALL TREADS SHALL BE PITCHED ¼" (6)



FRONT VIEW

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

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER:
CHECKED BY: PJB
NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

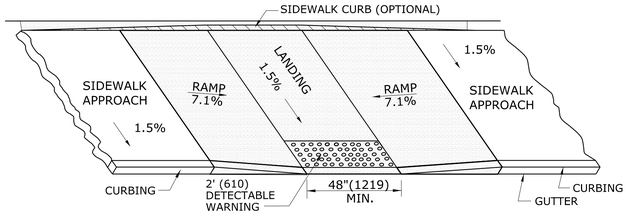
ENGINEER: BSC GROUP
APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

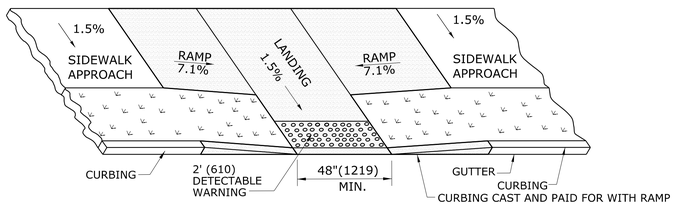
TOWN: COVENTRY

DRAWING TITLE: MISC. DETAILS - CONCRETE STEPS

PROJECT NO. 32-130
DRAWING NO. HWY-15
SHEET NO. 03.15

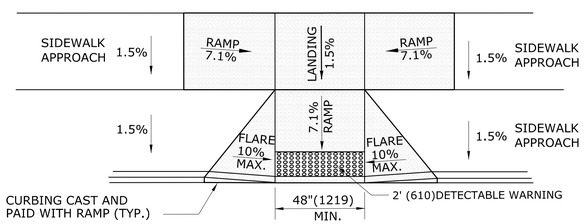


PARALLEL SIDEWALK RAMP (TYPE 1) NO UTILITY STRIP



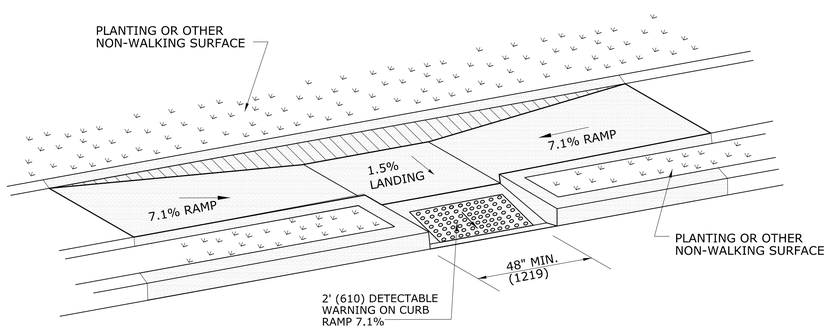
PARALLEL SIDEWALK RAMP (TYPE 1a)

WITH UTILITY / GRASS STRIP



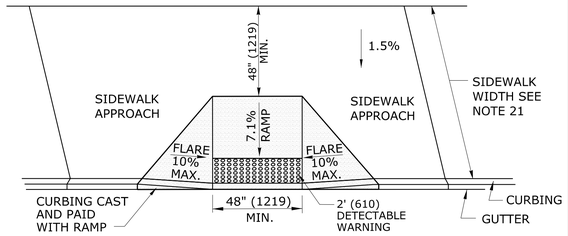
PARALLEL/PERPENDICULAR SIDEWALK RAMP

NO UTILITY/GRASS STRIP (TYPE 1b)



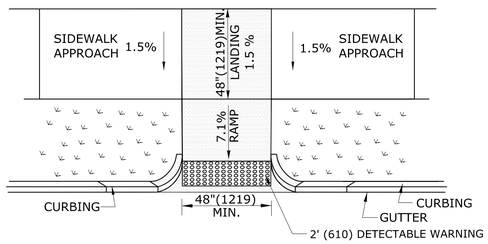
PARALLEL SIDEWALK RAMP (TYPE 1c)

WITH UTILITY / GRASS STRIP



PERPENDICULAR SIDEWALK RAMP

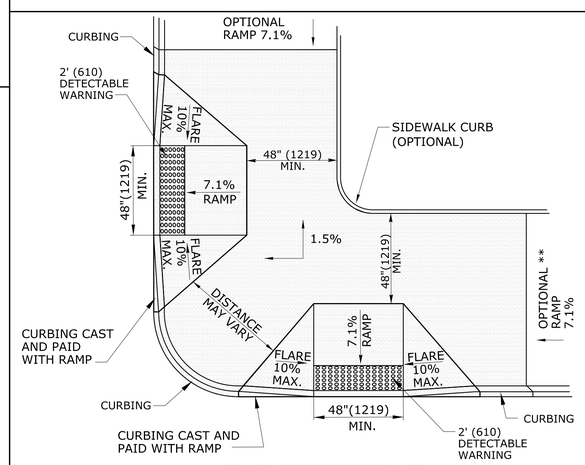
W/ 48" (1219) MIN. BY PASS LANDING (TYPE 2)



PERPENDICULAR SIDEWALK RAMP

W/CURB RETURNS / UTILITY GRASS STRIP (TYPE 2a)

* OPTIONAL FLARE ONE SIDE OF RAMP



DUAL PERPENDICULAR

SIDEWALK RAMPS (TYPE 3)

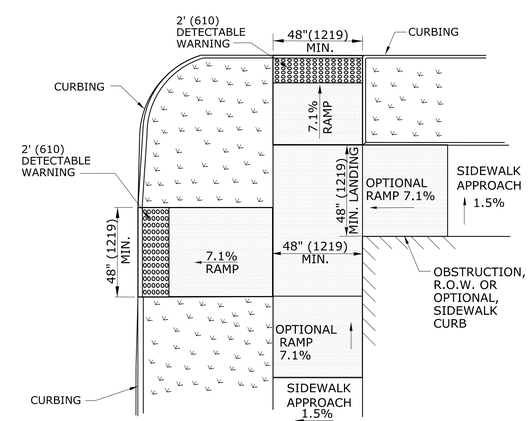
SEE NOTES 19

* OPTIONAL CURB RETURN ON ONE SIDE OF RAMP

** SEE NOTE 23

GENERAL NOTES:

1. MAXIMUM SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE SIDEWALK RAMP SHOULD NOT EXCEED 5%. THE MAXIMUM GRADE DIFFERENCE BETWEEN THE GUTTER AND CURB RAMP SHALL NOT EXCEED 13%. SEE DETAIL 1 ON SHEET 4.
2. RAMP GRADE SHALL BE UNIFORM, FREE OF SAGS AND ABRUPT GRADE CHANGES. RUNNING SLOPES OF RAMPS SHALL NOT EXCEED 8.33% AND SHALL NOT EXCEED 15' (4.5m) WITHOUT PROVIDING A LANDING.
3. ALL RAMPS SHALL BE CONSTRUCTED OF CLASS "F" CONCRETE IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
4. SIDEWALK RAMPS SHALL HAVE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP. THE SURFACE OF ALL SIDEWALK RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. SURFACE DISCONTINUITIES SHALL NOT EXCEED ½" (13) MAX. VERTICAL DISCONTINUITIES BETWEEN ¼" (6.4) AND ½" (13) MAX. SHALL BE BEVELED 1:2 MINIMUM APPLIED ACROSS THE ENTIRE LEVEL CHANGE.
5. DIAGONAL SIDEWALK RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES. DIAGONAL AND PERPENDICULAR RAMPS SHALL HAVE THE RAMP CUT PERPENDICULAR TO THE TANGENT OF THE CURB RADIUS FOR THE DESIGNATED ACCESSIBLE ROUTE. BOTH LONGITUDINAL SIDES OF THE RAMP SHOULD BE THE SAME LENGTH. SKEWED RAMPS SHOULD BE AVOIDED. FLARES ARE NOT CONSIDERED PART OF PEDESTRIAN ACCESS ROUTE. DIAGONAL RAMPS SHOULD NOT BE INSTALLED WHERE CURB RADII IS LESS THAN 20'(6096).
6. REMOVAL OF EXISTING SIDEWALK FOR NEW RAMP INSTALLATIONS SHALL BE TO THE NEAREST EXPANSION OR CONTRACTION JOINT. 8.3% MAXIMUM SLOPE MAY NOT BE ACHIEVABLE DUE TO EXISTING SIDEWALK GRADE. IN RECOGNITION OF THIS, A LIMIT OF 15' (4572) FOR REMOVAL SHALL BE USED UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. SAW CUT REQUIRED FOR DUMMY JOINTS SHALL BE INCLUDED IN THE COST OF "CONCRETE SIDEWALK RAMP" OR "CONCRETE SIDEWALK".
7. EXPANSION JOINTS IN CONCRETE SHALL MATCH THOSE IN ADJACENT SIDEWALKS BUT IN NO CASE SHALL THE SPACING BETWEEN EXPANSION JOINTS EXCEED 12' (3658) UNLESS OTHERWISE NOTED.
8. CONCRETE SIDEWALK RAMPS, SHALL BE PAID FOR UNDER THE ITEM "CONCRETE SIDEWALK RAMP", AS DEFINED BY THE CONSTRUCTION LIMITS ON THE PLANS AND SHALL BE FIELD VERIFIED.
9. SIDEWALK RAMPS SHALL BE CONSTRUCTED WITH THE TOE AT THE GUTTER CAST INTEGRALLY WITH RAMP UNLESS DIRECTED OTHERWISE BY THE ENGINEER (SEE TYPICAL SECTION ON SHEET 3). CURB REMOVAL AND CAST IN PLACE CURBING REQUIRED FOR THE RAMP, SHALL BE INCLUDED WITH PAY ITEM "CONCRETE SIDEWALK RAMP". CURBING OUTSIDE LIMITS OF RAMP OR LANDING SHOWN ON SHEET 3 SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
10. PREFERRED LOCATION TO INSTALL DETECTABLE WARNING STRIP SHALL BE 6" (152) FROM THE EDGE OF ROAD ALONG THE FULL WIDTH OF THE RAMP. FOR ALTERNATE LOCATIONS, REFER TO DETECTABLE WARNING PLACEMENT DETAILS ON SHEET 4.
11. TO PERMIT WHEELCHAIR WHEELS TO ROLL BETWEEN DOMES, ALIGN DOMES ON A SQUARE GRID IN THE DIRECTION OF RUNNING SLOPE (PERPENDICULAR TO CURB OR SLOPE BREAK). THE TRANSITION FROM RAMP TO GUTTER SHALL BE FLUSH WITHOUT A LIP.
12. WHERE COMMERCIAL DRIVEWAYS ARE PROVIDED WITH TRAFFIC SIGNALS AND THE SIDEWALK IS CONTINUOUS THROUGH DRIVEWAY, DETECTABLE WARNINGS ARE REQUIRED AT THE JUNCTION BETWEEN THE PEDESTRIAN ROUTE AND DRIVEWAY.
13. CONSTRUCT A SIDEWALK CURB WHEN THERE IS INSUFFICIENT BUFFER AVAILABLE TO GRADE OR WHEN CALLED FOR IN PLANS. PAID FOR WITH SIDEWALK RAMP WHEN REQUIRED FOR RAMP.
14. THE TOP AND BOTTOM OF RAMPS SHOULD BE PROVIDED WITH A 4' x 4' (1219 x 1219) MINIMUM LEVEL LANDING AREA WITH A CROSS SLOPE LESS THAN OR EQUAL TO 2% IN ANY DIRECTION.
15. UTILITY POLES, LUMINAIRE, PEDESTRIAN OR SIGNAL POLES, GRATES, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON RAMPS, LANDINGS, BLENDED TRANSITIONS, AND @ GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
16. APPROACH SIDEWALK WIDTHS, GRASS STRIP OR UTILITY STRIP WIDTHS MAY VARY.
17. APPROACH SIDEWALK AND LANDING CROSS SLOPE SHALL NOT EXCEED 2%.
18. THE RUNNING OR CROSS SLOPES ON LANDINGS AT MID BLOCK CROSSING MAY BE WARPED TO MEET STREET OR HIGHWAY GRADE.
19. FOR PERPENDICULAR CURB RAMPS A MIN. 4'(1.2m) x 4'(1.2m) LEVEL LANDING SHALL BE PROVIDED AT THE TOP OF CURB RAMP. WHERE THE LEVEL LANDING IS RESTRICTED AT THE BACK OF SIDEWALK THE LEVEL LANDING SHALL BE 4'(1.2m) x 5'(1.5m) WITH THE 5'(1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.
20. FOR PARALLEL CURB RAMPS, A MIN. 4'(1.2m) x 4'(1.2m) LEVEL LANDING SHALL BE PROVIDED AT THE BOTTOM OF CURB RAMP. IF THE LEVEL LANDING IS RESTRICTED ON 2 OR MORE SIDES, THE LEVEL LANDING SHALL BE 4'(1.2m)x 5'(1.5m) WITH THE 5' (1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
21. WHEN WIDTH OF SIDEWALK IS >48" AND A PERPENDICULAR SIDEWALK RAMP IS INSTALLED, THE FLARED SIDES SHALL BE 10% MAX. IF WIDTH OF SIDEWALK IS <48" THE FLARED SIDES MUST NOT EXCEED 8.33% (12:1).
22. SHADED AREAS ARE TYPICAL PAY LIMITS FOR CONCRETE SIDEWALK RAMP BUT, MAY VARY AS DIRECTED BY THE ENGINEER.
23. OPTIONAL RAMP, WHEN REQUIRED, SHALL BE PAID FOR AS PART OF CONCRETE SIDEWALK RAMP.



DUAL PERPENDICULAR SIDEWALK RAMPS (TYPE 3a)

WITH UTILITY / GRASS STRIP

SEE NOTE 20

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

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER:

CHECKED BY: PJB

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP

APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

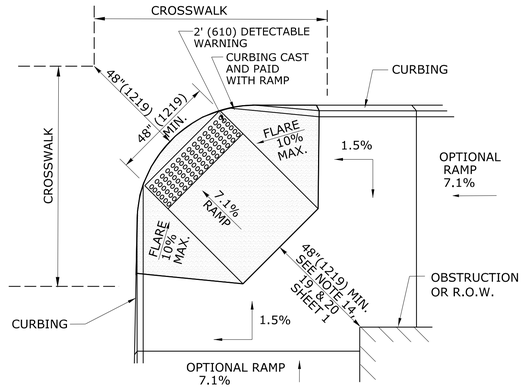
TOWN: COVENTRY

DRAWING TITLE: MISC. DETAILS - SIDEWALK RAMPS

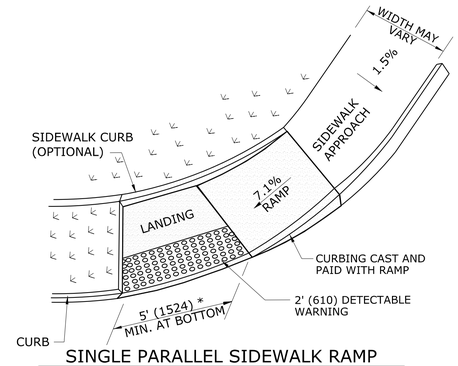
PROJECT NO. 32-130

DRAWING NO. HWY-16

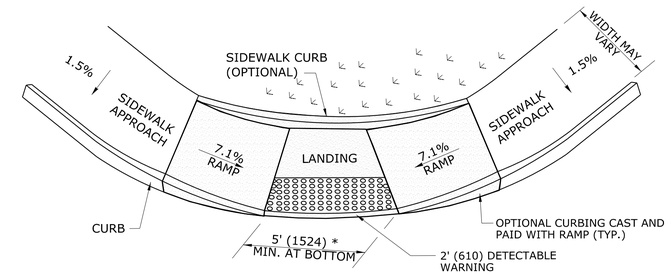
SHEET NO. 03.16



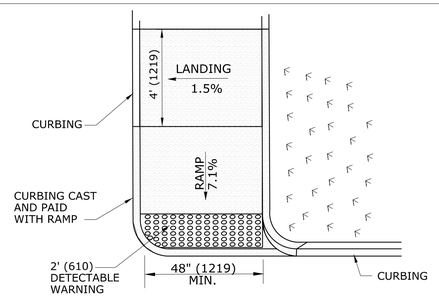
DIAGONAL SIDEWALK RAMP (TYPE 4)
W/LANDING AT TOP



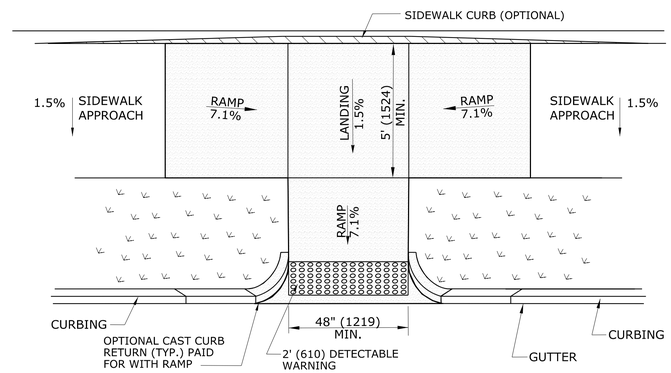
SINGLE PARALLEL SIDEWALK RAMP
W/LANDING AT BOTTOM ON
CORNER (TYPE 4c)
* SEE NOTE 20 SHEET 1



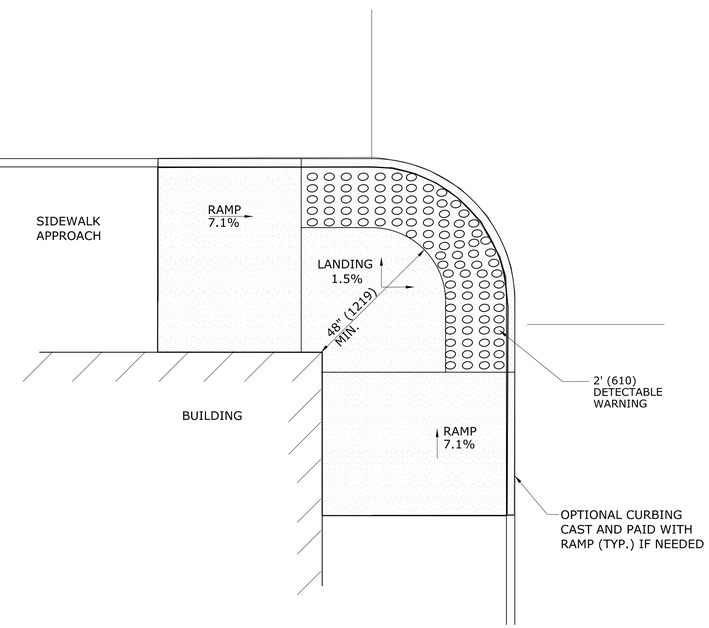
DOUBLE PARALLEL SIDEWALK RAMP
W/LANDING AT BOTTOM ON CORNER (TYPE 4f)
* SEE NOTE 20 SHEET 1



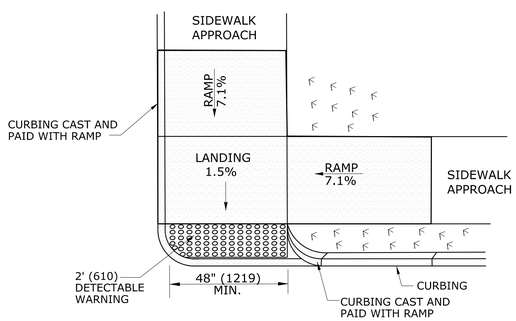
SINGLE DIRECTION
PERPENDICULAR SIDEWALK RAMP
NO / UTILITY GRASS STRIP
(TYPE 4a)



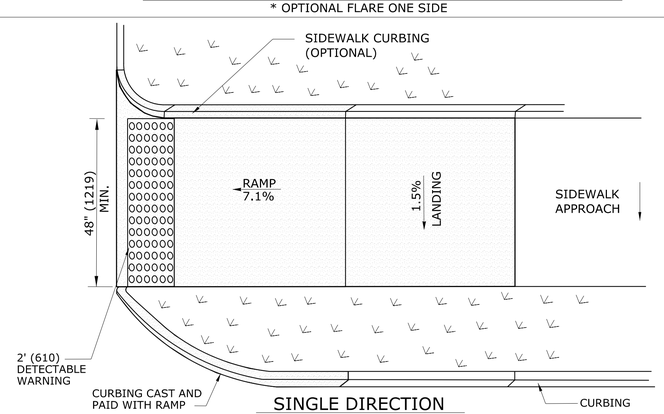
PARALLEL/PERPENDICULAR SIDEWALK RAMP
COMBINATION W/ CURB RETURNS (TYPE 4d)
* OPTIONAL FLARE ONE SIDE



RESTRICTED CONDITION
DIAGONAL SIDEWALK RAMP
(TYPE 4g)



DOUBLE DIRECTION
PARALLEL SIDEWALK RAMP
NO / UTILITY GRASS STRIP
(TYPE 4b)
SEE NOTE 20 SHEET 1



SINGLE DIRECTION
PERPENDICULAR SIDEWALK RAMP
W/ UTILITY GRASS STRIP (TYPE 4e)
REFER TO DETECTABLE WARNING PLACEMENT ON SHEET 4

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

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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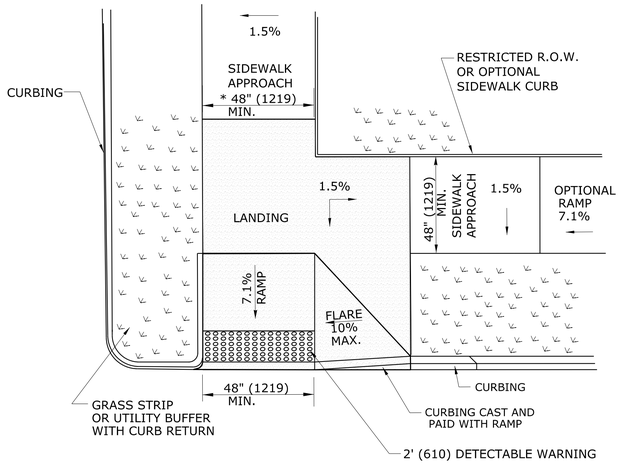
DEPARTMENT OF TRANSPORTATION
ENGINEER: BSC GROUP
APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

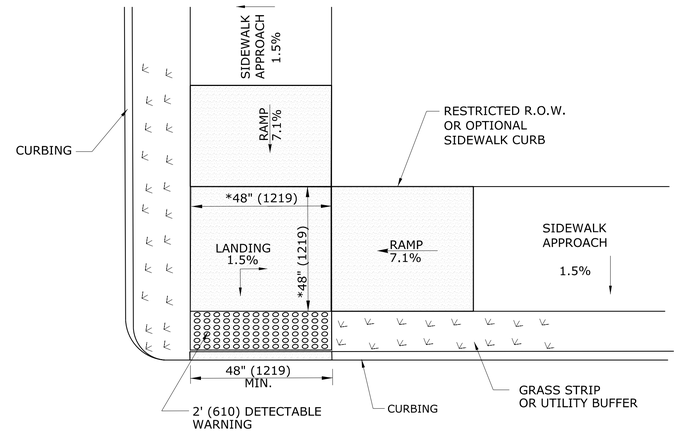
TOWN: COVENTRY

DRAWING TITLE: MISC. DETAILS - SIDEWALK RAMPS

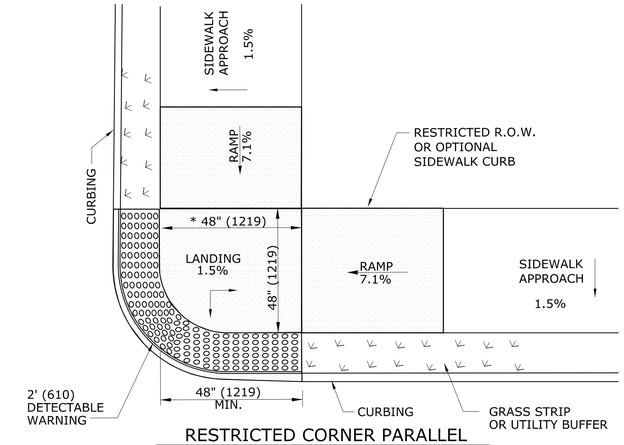
PROJECT NO. 32-130
DRAWING NO. HWY-17
SHEET NO. 03.17



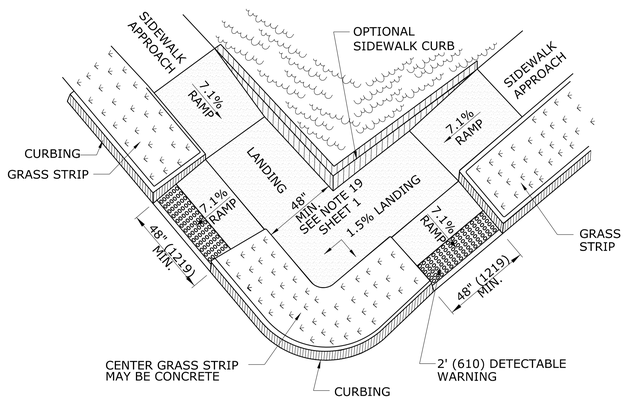
RESTRICTED CORNER PERPENDICULAR SIDEWALK RAMP
(TYPE 5)
* SEE NOTE 19 SHEET 1



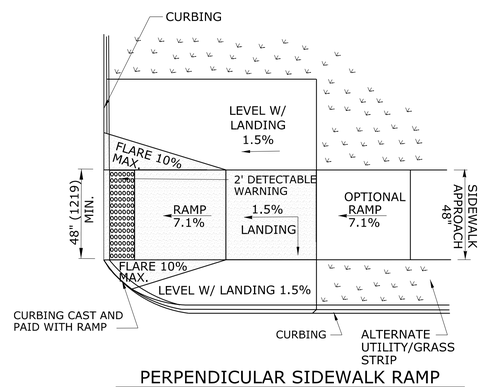
RESTRICTED CORNER PARALLEL DOUBLE SIDEWALK RAMPS
W/CENTER LANDING AND UTILITY GRASS STRIP
(TYPE 5a)
* SEE NOTE 20 SHEET 1



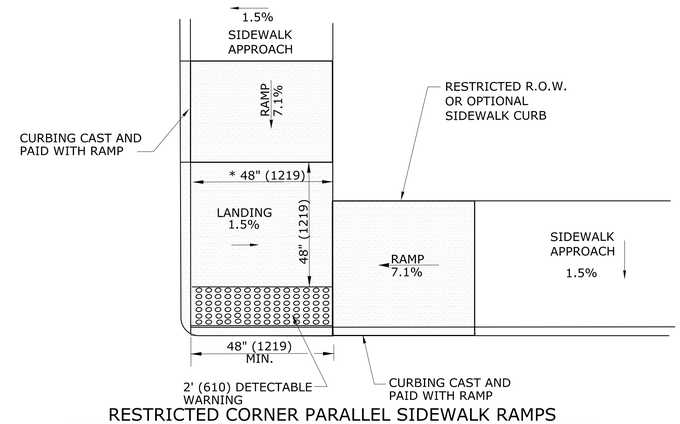
RESTRICTED CORNER PARALLEL
SIDEWALK RAMPS W/ CENTER LANDING
TWO DIRECTION AND UTILITY GRASS STRIP
(TYPE 5b)
* SEE NOTE 20 SHEET 1



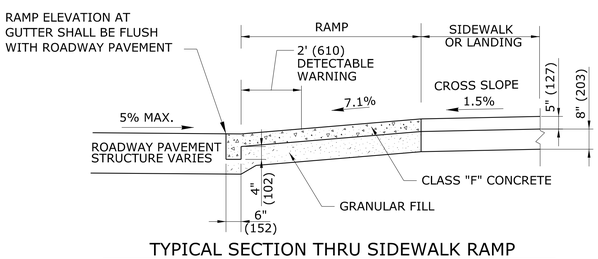
COMBINATION SIDEWALK RAMP (TYPE 6)
* SEE NOTE 19 SHEET 1



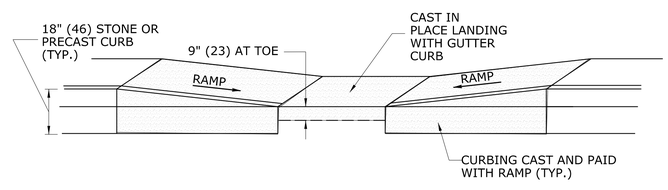
PERPENDICULAR SIDEWALK RAMP
ONE DIRECTION ON CORNER
(TYPE 6a)



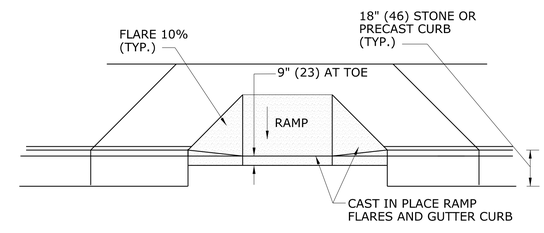
RESTRICTED CORNER PARALLEL SIDEWALK RAMPS
W/CENTER LANDING NO GRASS STRIP
(TYPE 5c)
* SEE NOTE 20 SHEET 1



TYPICAL SECTION THRU SIDEWALK RAMP
SEE NOTE 2 AND 17 SHEET 1



TYPICAL ELEVATION PARALLEL SIDEWALK RAMP
WITH CAST IN PLACE GUTTER



TYPICAL ELEVATION PERPENDICULAR SIDEWALK RAMP
WITH CAST IN PLACE GUTTER

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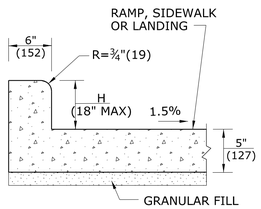
NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: BSC GROUP
APPROVED BY: DATE:

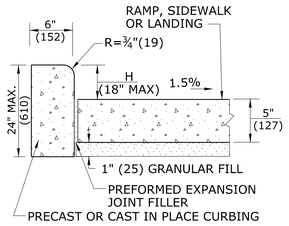
PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY
DRAWING TITLE: MISC. DETAILS - SIDEWALK RAMPS

PROJECT NO. 32-130
DRAWING NO. HWY-18
SHEET NO. 03.18

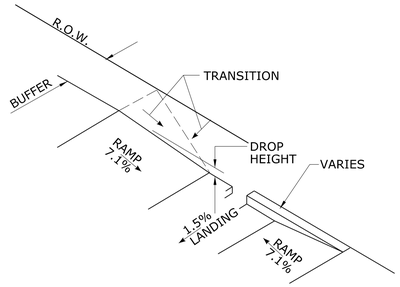


MONOLITHIC CAST CURB

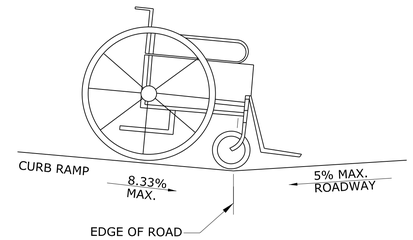


SEPARATELY CAST CURB

SIDEWALK CURB OPTIONS AT BACK OF SIDEWALK



BACK OF SIDEWALK CURB OR BUFFER TRANSITION



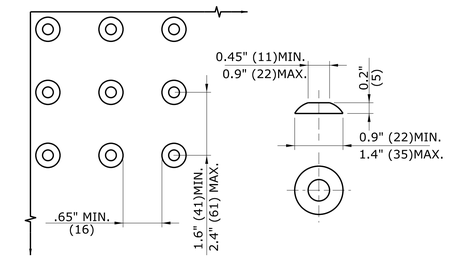
DETAIL 1

SEE GRADE CHANGE AT ROADWAY INTERFACE

SEE NOTE 1 SHEET HW-921 02a

GENERAL NOTES:

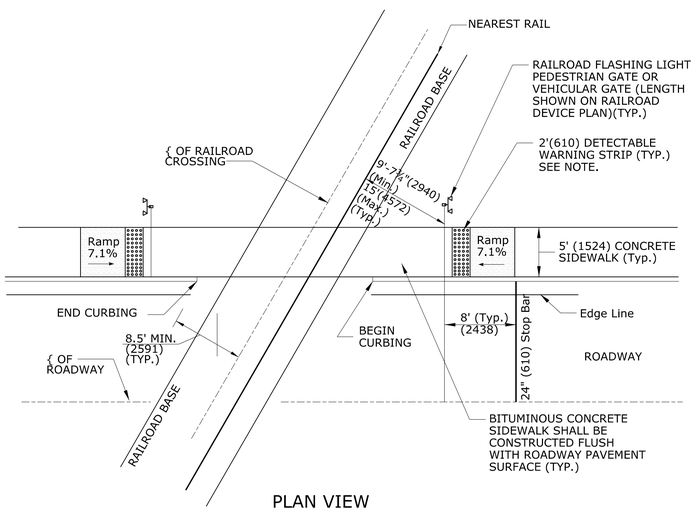
1. RAMPED MEDIANS SHALL HAVE A CURB RAMP AT EITHER END AND LEVEL LANDING A MINIMUM OF 5' x 5' (1.5m x 1.5m) IN BETWEEN. CUT-THROUGH MEDIANS SHALL BE A MINIMUM OF 6' (1.8m) LONG AND 5' (1.5m) WIDE. FOR ALL MEDIANS, CUT-THROUGH OR RAMPED, A 2' (610) STRIP OF DETECTABLE WARNINGS SHALL BE INSTALLED AT THE ENTRANCE AND EXIT.
2. SEE GENERAL NOTES ON SHEET 1.



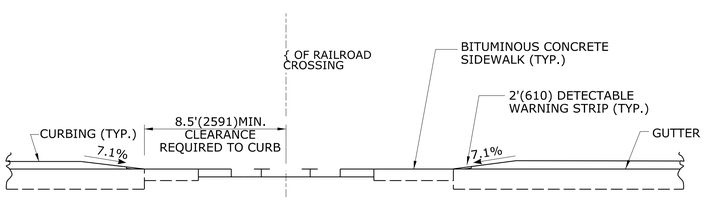
DOME SPACING

DOME SECTION

STANDARD DOME ON DETECTABLE WARNING TILES



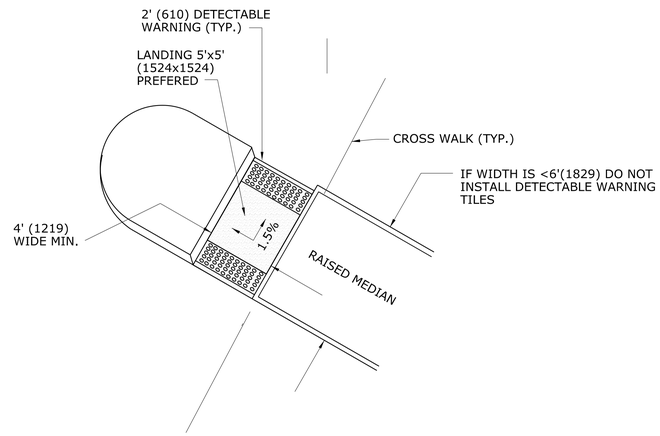
PLAN VIEW



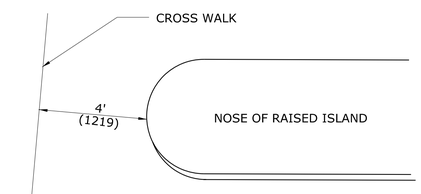
ELEVATION VIEW

DETECTABLE WARNINGS AT RAILROAD CROSSING

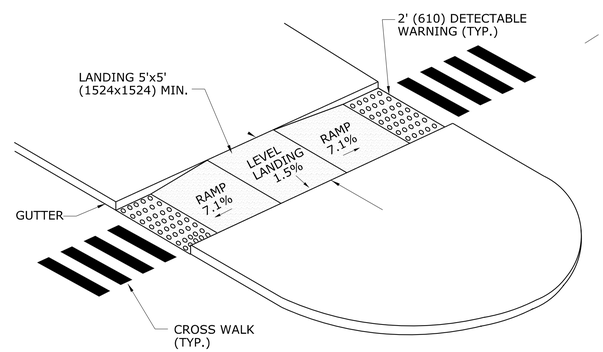
NOTE: WHEN NO GATE IS PRESENT, INSTALL DETECTABLE WARNING SURFACE 12' (3.6m) FROM THE NEAREST RAIL. IF GATE IS PRESENT, INSTALL DETECTABLE WARNING 2' (610) PRIOR TO GATE. THE ROWS OF TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL BE INSTALLED PARALLEL WITH THE DIRECTION OF PEDESTRIAN TRAVEL.



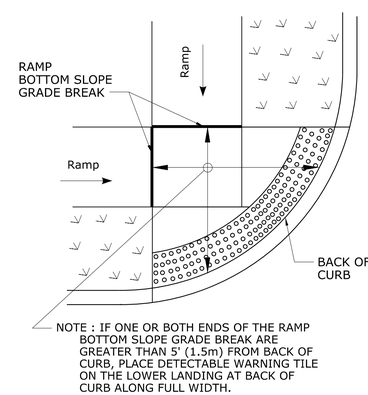
CUT-THROUGH MEDIAN ISLAND



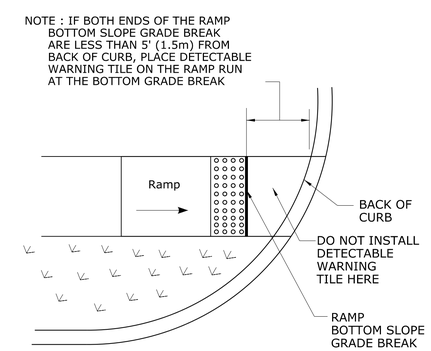
ALTERNATE CROSSWALK WITH MEDIAN ISLAND PULLED BACK



RAISED MEDIAN ISLAND WITH LANDING AND RAMPS



DETECTABLE WARNING PLACEMENT DETAIL 1



DETECTABLE WARNING PLACEMENT DETAIL 2

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

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER:

CHECKED BY: PJB

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP

APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

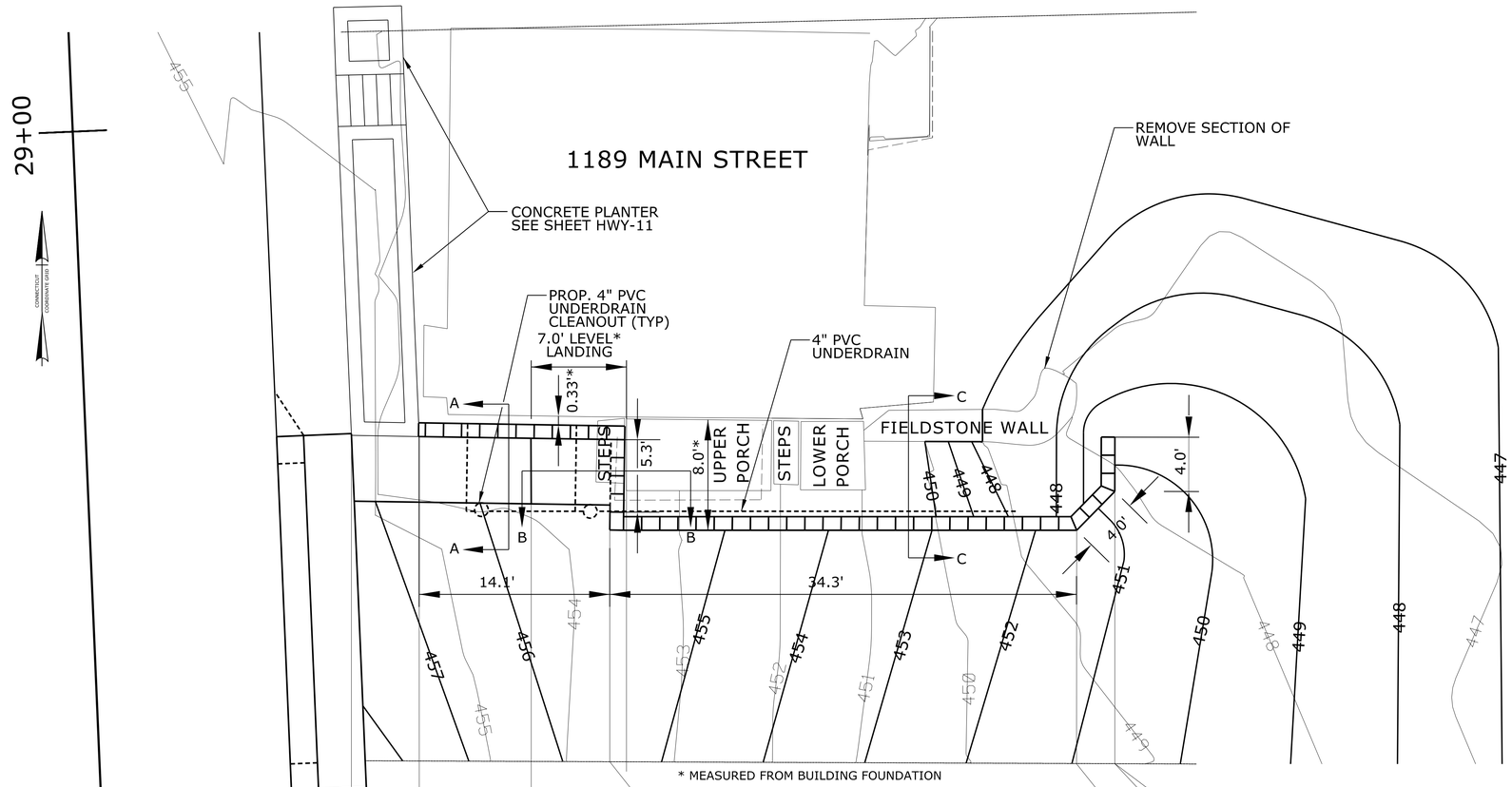
TOWN: COVENTRY

DRAWING TITLE: MISC. DETAILS - SIDEWALK RAMPS

PROJECT NO. 32-130

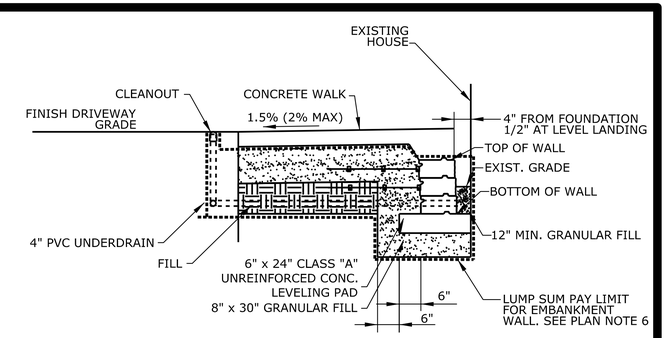
DRAWING NO. HWY-19

SHEET NO. 03.19



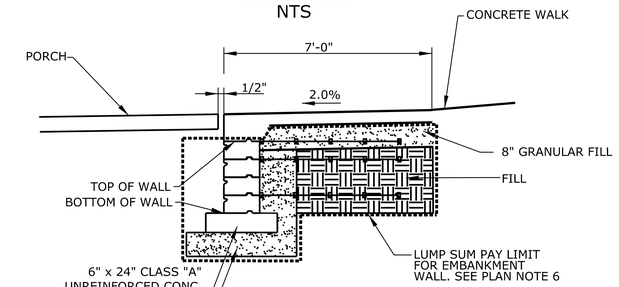
PLAN VIEW

1"=5'



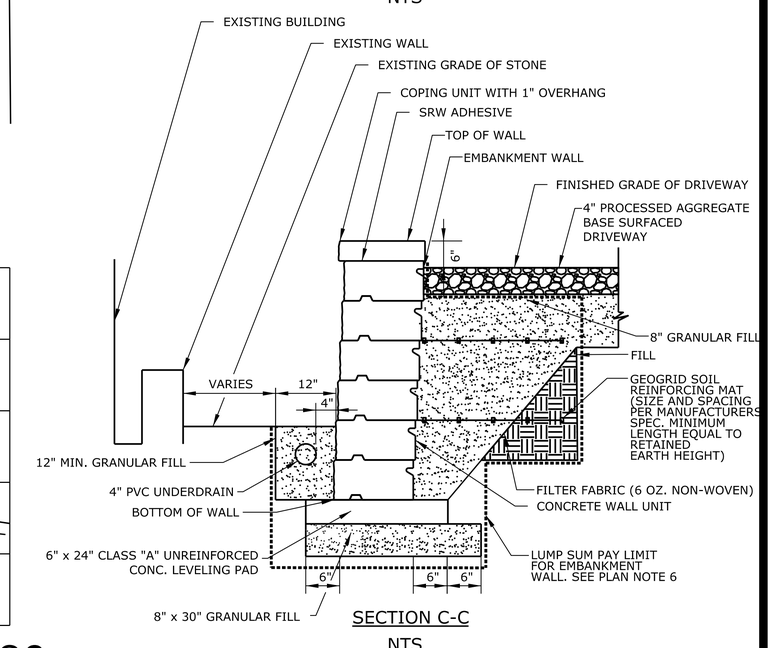
SECTION A-A

NTS



SECTION B-B

NTS



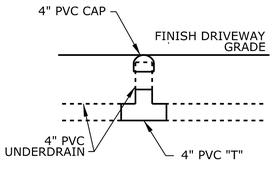
SECTION C-C

NTS

EMBANKMENT WALL (SITE NO. 1)

PLAN NOTES:

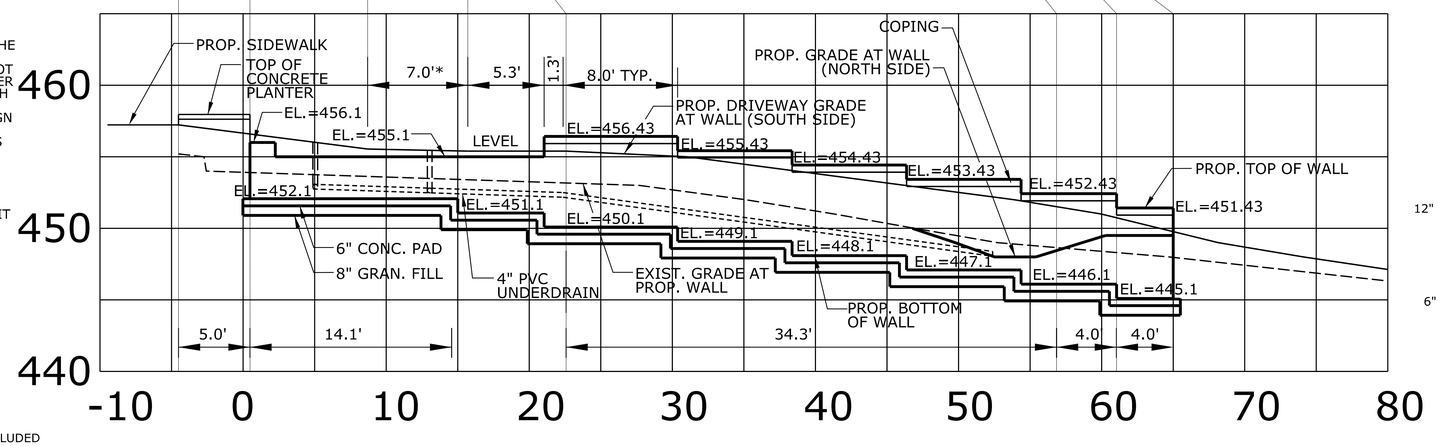
1. THE EMBANKMENT WALL SHALL BE DESIGNED, DETAILED AND CONSTRUCTED IN ACCORDANCE WITH THE SPECIAL PROVISION "EMBANKMENT WALL (SITE NO.1)".
2. TEMPORARY EARTH RETAINING SYSTEM BELOW PAY LIMITS AND ANY TIEBACKS AND BRACING ASSOCIATED WITH THE SHEET PILING SHALL BE INCLUDED IN THE LUMP SUM COST OF THE WALL.
3. DETAILS SHOWN ON THIS SHEET ARE NOT SPECIFIC . THE CONTRACTOR'S DESIGNER SHOULD MODIFY THE SECTION FOR EACH SPECIFIC SITE.
4. THE CONTRACTOR SHALL SELECT, DESIGN (FOR PROPRIETARY WALLS ONLY) AND CONSTRUCT ONE OF THE WALL OPTIONS AS LISTED IN THE SPECIAL PROVISION "EMBANKMENT WALL (SITE NO.1)".
5. THE COLOR OF THE DRY CAST BLOCK SHALL BE GRAY.
6. ANY ADDITIONAL PERVIOUS STRUCTURE BACKFILL REQUIRED OUTSIDE THIS LIMIT SHALL ALSO BE INCLUDED IN THE LUMP SUM PRICE.



NOTE: PAYMENT FOR CLEANOUT SHALL BE INCLUDED IN THE LUMP SUM PRICE OF THE WALL

4" PVC CLEANOUT

NTS



PROFILE VIEW

1"=5'

*WORK WITH OWNER TO MAKE SURE LEVEL LANDING IS AT THE SAME ELEVATION AS THE FIRST FLOOR AND AT THE LOCATION NEEDED BY THE OWNER

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR
CHECKED BY: PJB
SCALE: AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

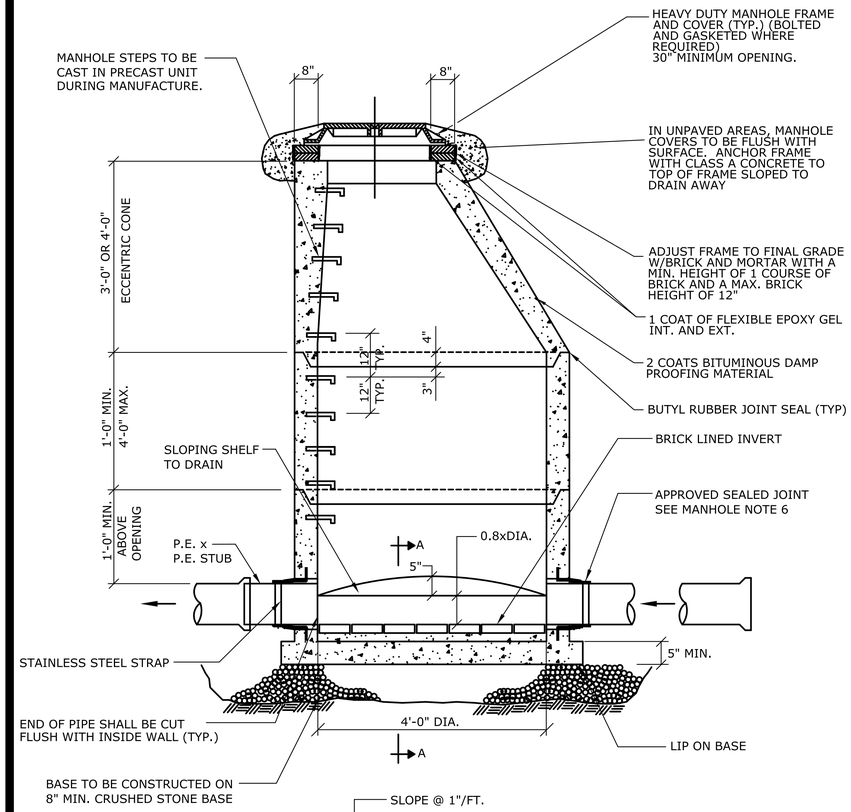
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

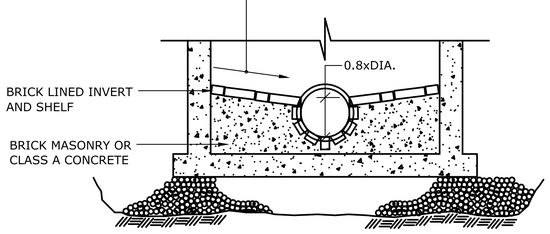
PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: EMBANKMENT WALL (SITE NO. 1) DETAILS

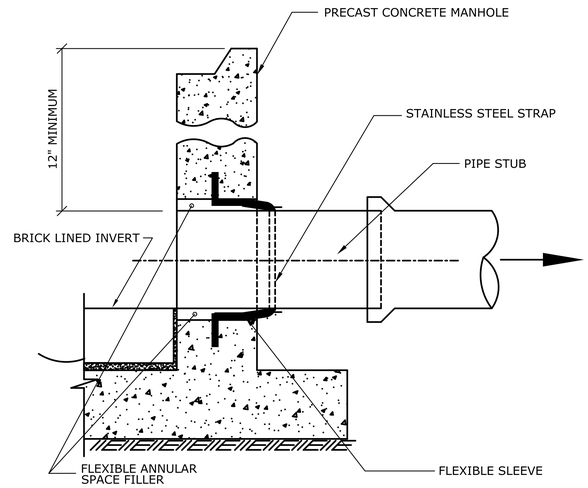
PROJECT NO. 32-130
DRAWING NO. HWY-20
SHEET NO. 03.20



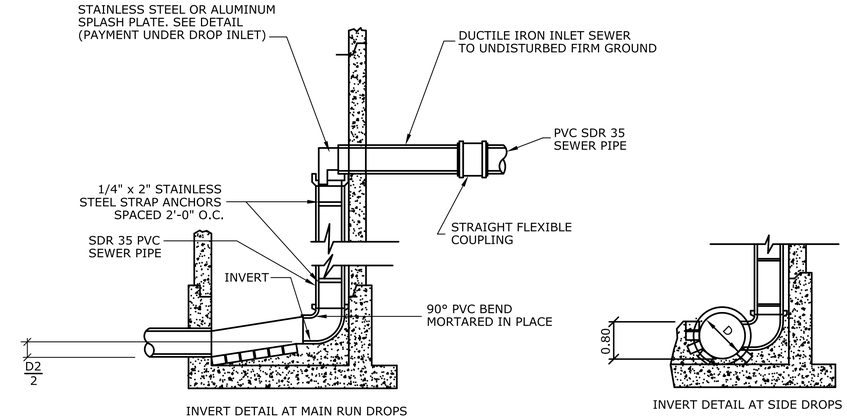


SECTION A-A

4' PRECAST MANHOLE



FLEXIBLE SLEEVE



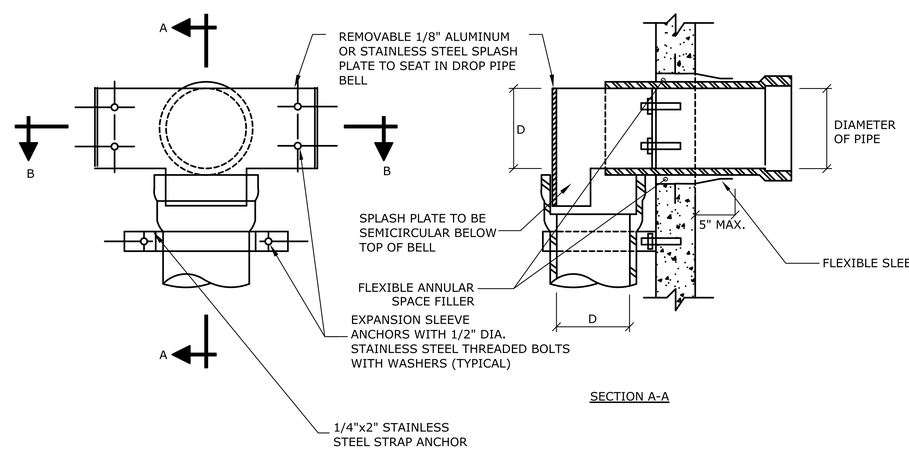
INVERT DETAIL AT MAIN RUN DROPS

INVERT DETAIL AT SIDE DROPS

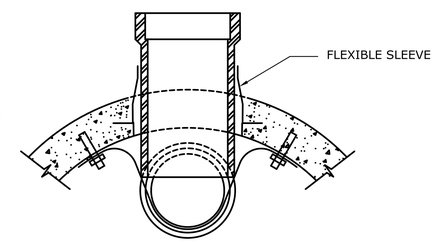
NOTES:

1. DIMENSIONS AND CONSTRUCTION OF DROP MANHOLE TO BE SIMILAR TO TYPICAL MANHOLE EXCEPT AS SHOWN.
2. DROP PIPE SHALL BE MATCH EXISTING DIAMETER SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

INSIDE DROP INLET

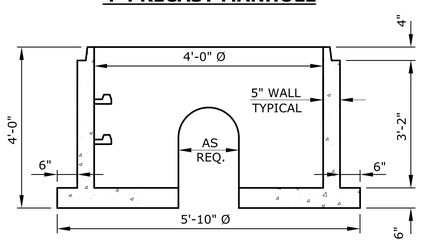


SECTION A-A



SECTION B-B

SPLASH PLATE DETAIL



SECTION A-A

4' DOGHOUSE BASE

NOTES:

1. FIELD CONSTRUCTION OF THE INVERT AND SLOPING SHELF SHALL BE SIMILAR TO THE TYPICAL MANHOLE.
2. CUT FLUSH AND REMOVE EXISTING PIPE WITHIN THE MANHOLE TAKING CARE NOT TO DAMAGE THE PIPE THAT IS TO REMAIN IN PLACE.

MANHOLE NOTES

1.) ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALL OF STRUCTURE.

2.) MANHOLES SHALL BE PLACED ON 8" MINIMUM CRUSHED STONE BASE.

3.) MORTAR IN LIFTING HOLES AFTER INSTALLING RUBBER PLUGS.

4.) MANHOLES SHALL RECEIVE A BITUMINOUS DAMP PROOFING PRIOR TO DELIVERY TO THE SITE.

5.) PROVIDE PVC WATERTIGHT PLUG FOR FLEXIBLE SLEEVE AS NOTED ON THE DRAWING OR AS DIRECTED BY THE ENGINEER.

6.) PIPE TO MANHOLE JOINTS SHALL BE SEALED WATERTIGHT BY USE OF PRE MOLDED ELASTOMERIC SEALED JOINTS CAST INTO CONCRETE MANHOLE BASE AND SHALL CONFORM TO ASTM C 443 AND ASTM C 923M.

7.) MANHOLE FRAME AND COVERS SHALL BE OF THE TYPE INDICATED BELOW OR APPROVED EQUAL , UNLESS OTHERWISE SPECIFIED.

LOCATION	TYPE
GUTTERS, LOW LYING, WET UNPAVED AREAS	BOLTED & GASKETED
NORMALLY DRY UNPAVED AND PAVED AREAS	HEAVY DUTY

THE COVER SHALL HAVE THE WORD "SEWER" CAST INTO THE CENTER IN 3" LETTERS.

8.) MANHOLE STEPS SHALL BE STEEL REINFORCED POLYPROPYLENE.

9.) WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE INCOMING SEWER AND THE MANHOLE INVERT IS LESS THAN 24", THE INVERT SHALL BE FILLETED.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: REPSH/MAZEK
CHECKED BY: GASTON
NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

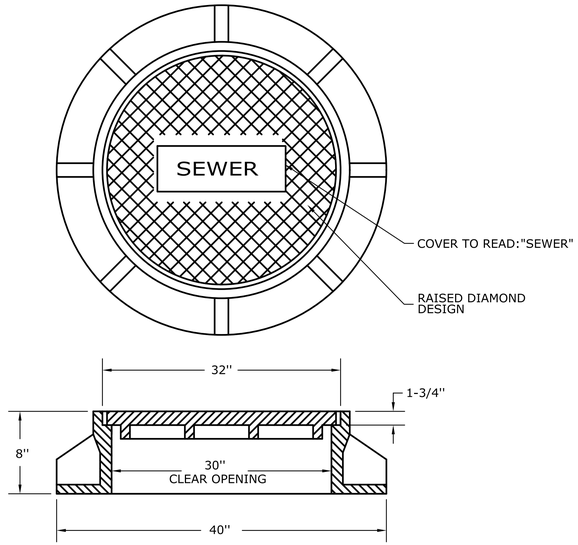
ENGINEER: Fuss & O'Neill, Inc.
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: MISC. SEWER DETAILS

PROJECT NO. 32-130
DRAWING NO. HWY-21
SHEET NO. 03.21



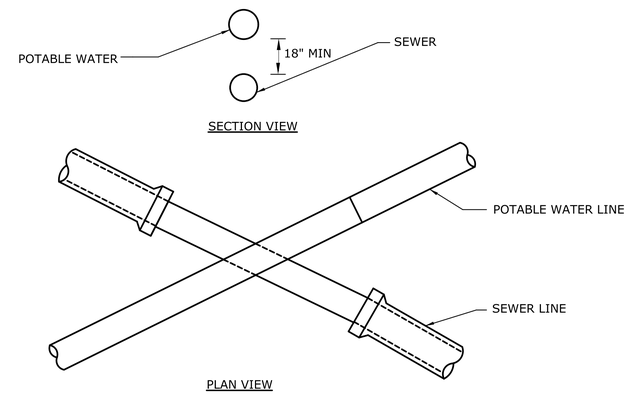
NOTE: CASTING SHALL BE "H-20" LOADING

STANDARD SANITARY MANHOLE FRAME & COVER

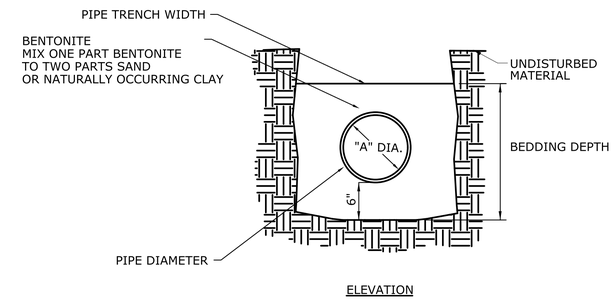
SEWER AND WATER CROSSING NOTES:

1.) SEWER JOINTS SHALL BE EQUIDISTANT FROM AND LOCATED AS FAR AS POSSIBLE AWAY FROM THE WATER LINE

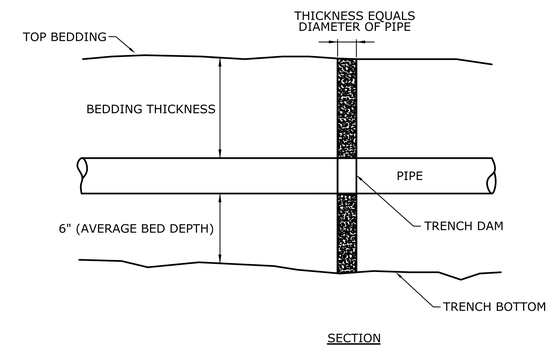
2.) IF THE VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE WATER MAIN AND THE TOP OF THE SEWER IS LESS THAN 18 INCHES (WATER MAIN IS ABOVE SEWER), USE ONE OF THE FOLLOWING PROCEDURES: A) THE WATER MAIN SHALL BE RECONSTRUCTED FOR A DISTANCE OF 10 FEET ON EACH SIDE OF SEWER WITH RUBBER-GASKETED MECHANICAL JOINT PIPE ONE FULL LENGTH WATER MAIN SHOULD BE CENTERED OVER SEWER, B) CONSTRUCT BOTH THE WATER & SEWER PIPE OF RUBBER-GASKETED, CEMENT-LINED DUCTILE IRON PIPE OR EQUIVALENT AND PRESSURE TEST BOTH PIPES, OR C) ENCASE BOTH PIPES IN CONCRETE.



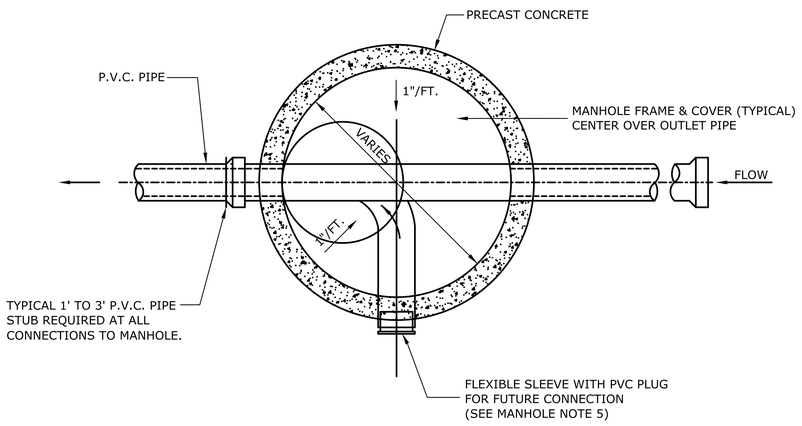
CROSSING OF SEWER & POTABLE WATER LINES



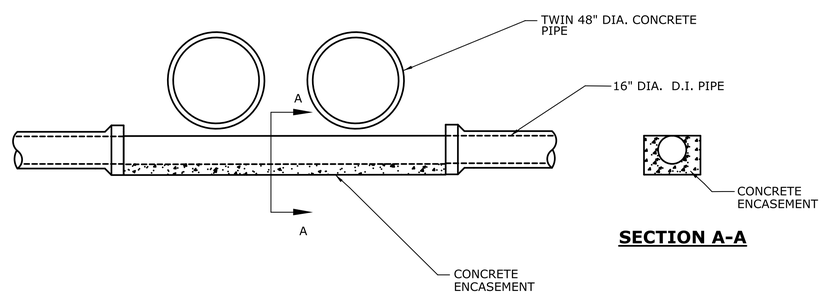
PIPE DIA. (INCHES)	CONC. THICKNESS (INCHES)
4	4
6	6
8	8
10	10
12	12



TRENCH DRAINAGE WATERSTOP (TRENCH DAM)



MANHOLE PLAN VIEW

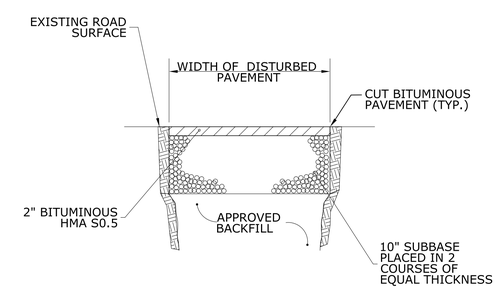


SECTION A-A

NOTES:

PLACE DUCTILE IRON PIPE JOINT OUTSIDE OF TWIN 48" CONCRETE PIPE CROSSING

CROSSING OF 48" TWIN STORM WITH 16" DUCTILE IRON PIPE



TEMPORARY PAVEMENT REPAIR (LOCAL ROAD)

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: REPSH/MAZEK
CHECKED BY: GASTON
NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

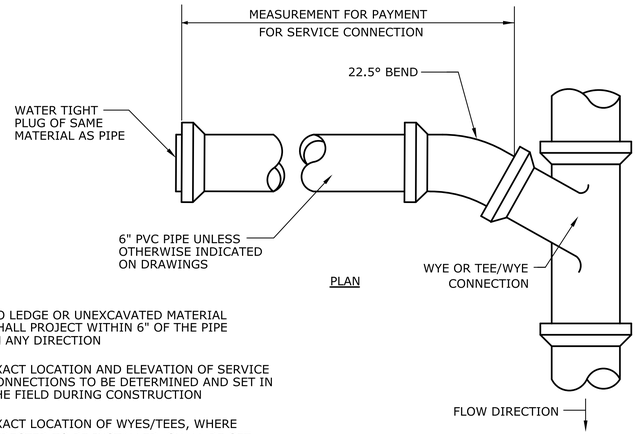
ENGINEER: Fuss & O'Neill, Inc.
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: MISC. SEWER DETAILS

PROJECT NO. 32-130
DRAWING NO. HWY-22
SHEET NO. 03.22



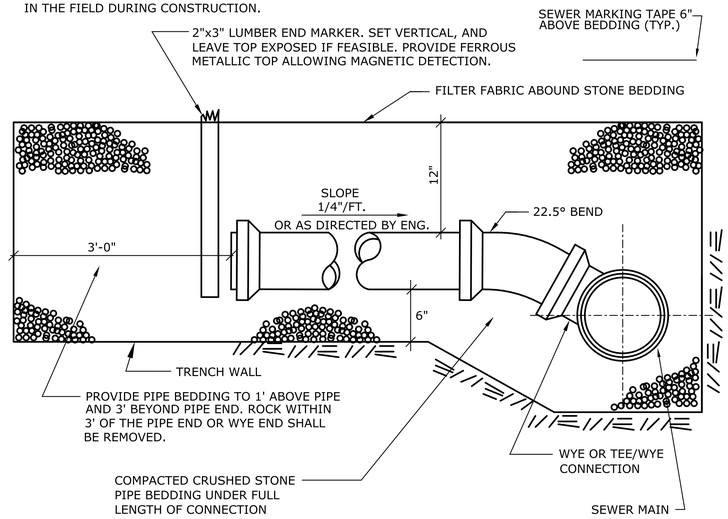
PLAN

NOTES:

1.) NO LEDGE OR UNEXCAVATED MATERIAL SHALL PROJECT WITHIN 6" OF THE PIPE IN ANY DIRECTION

2.) EXACT LOCATION AND ELEVATION OF SERVICE CONNECTIONS TO BE DETERMINED AND SET IN THE FIELD DURING CONSTRUCTION

3.) EXACT LOCATION OF WYES/TEES, WHERE DIRECTED TO BE INSTALLED, SHALL BE SET IN THE FIELD DURING CONSTRUCTION.



ELEVATION

TYPICAL GRAVITY SERVICE CONNECTIONS

SANITARY SEWER PIPE OR FORCE MAIN TRENCH NOTES

1. DEPTH OF SEWER SHALL BE AS SHOWN ON DRAWINGS.

2. SEWER TRENCHES MAY BE EXCAVATED WIDER THAN TRENCH WIDTH W ABOVE THE "LINE OF NARROW TRENCH LIMIT." AT THE CONTRACTORS EXPENSE.

3. THE ENGINEER MAY ORDER EARTH RETAINING SYSTEM IF EXCAVATION AND BACKFILL BELOW THE NORMAL DEPTH IS REQUIRED.

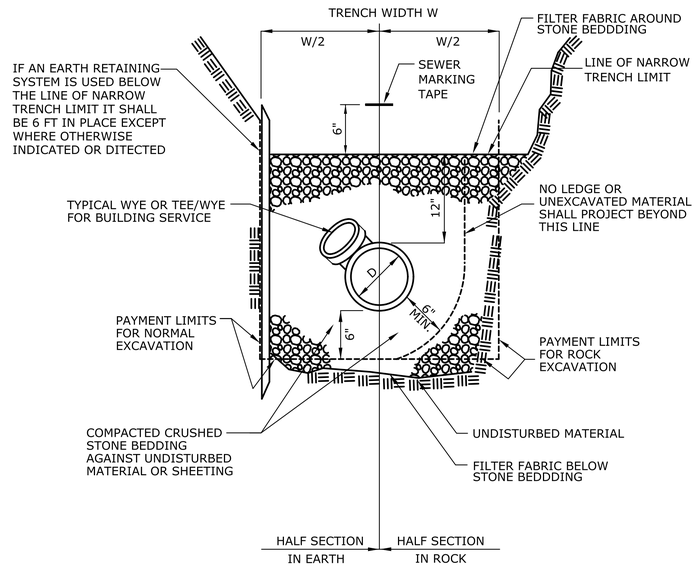
4. REMOVE ALL ROCK WITHIN 3'-0" HORIZONTALLY OF THE ENDS OF SERVICE CONNECTIONS, BRANCHES AND STUBS, AND DOWN TO A HORIZONTAL PLANE 6" BELOW THE BOTTOMS OF SUCH ITEMS.

5. REPLACE PIPE BEDDING AND TRENCH BACKFILL WITH IMPERVIOUS BENTONITE TRENCH DAM WHERE CALLED FOR ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.

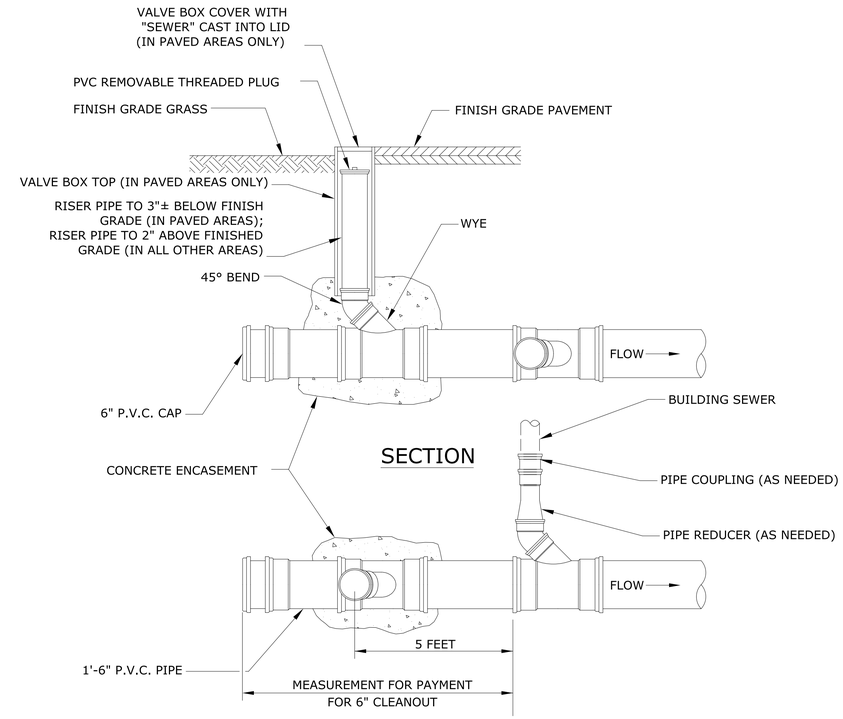
6. WHERE CONCRETE ENCASEMENT IS CALLED FOR BY THE PLANS, OR WHEN DIRECTED BY THE ENGINEER, REPLACE BEDDING AND BACKFILL BELOW THE "LINE OF NARROW TRENCH LIMIT" WITH CLASS "A" CONCRETE.

7. SEWER MARKING TAPE SHALL BE INSTALLED A MINIMUM OF 18" ABOVE THE SANITARY SEWER, FORCE MAIN, AND SERVICE CONNECTION PIPE.

8. SANITARY SEWER PIPE AND SERVICE CONNECTION PIPE AND BEDDING SHALL BE WRAPPED WITH FILTER FABRIC.



TYPICAL GRAVITY SEWER TRENCH



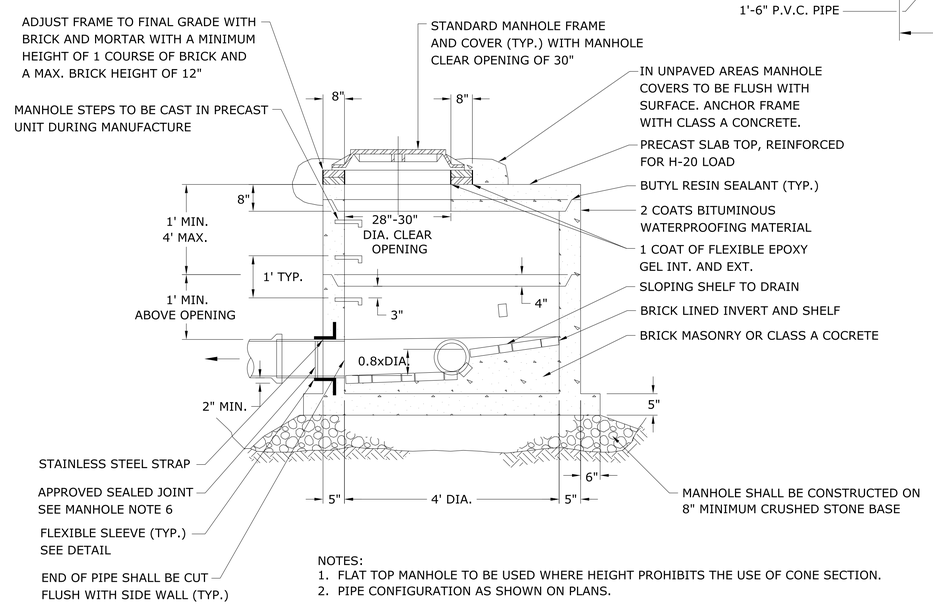
PLAN

NOTES:

1. CONTRACTOR SHALL CONCRETE ENCASE RISER PIPE FROM THE SPRING LINE OF THE MAIN LINE SEWER TO 2"± BELOW THE BOTTOM OF THE TOP FLANGE VALVE BOX TOP (PAVED AREAS ONLY).

2. CLEAN OUT SHALL BE LOCATED WITHIN 5 FEET OF HOUSE UNLESS OTHERWISE INDICATED ON PLANS.

BUILDING SEWER CLEANOUT



NOTES:
1. FLAT TOP MANHOLE TO BE USED WHERE HEIGHT PROHIBITS THE USE OF CONE SECTION.
2. PIPE CONFIGURATION AS SHOWN ON PLANS.

FLAT TOP MANHOLE

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: REPSH/MAZEK
CHECKED BY: GASTON
NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: Fuss & O'Neill, Inc.
APPROVED BY:
DATE:

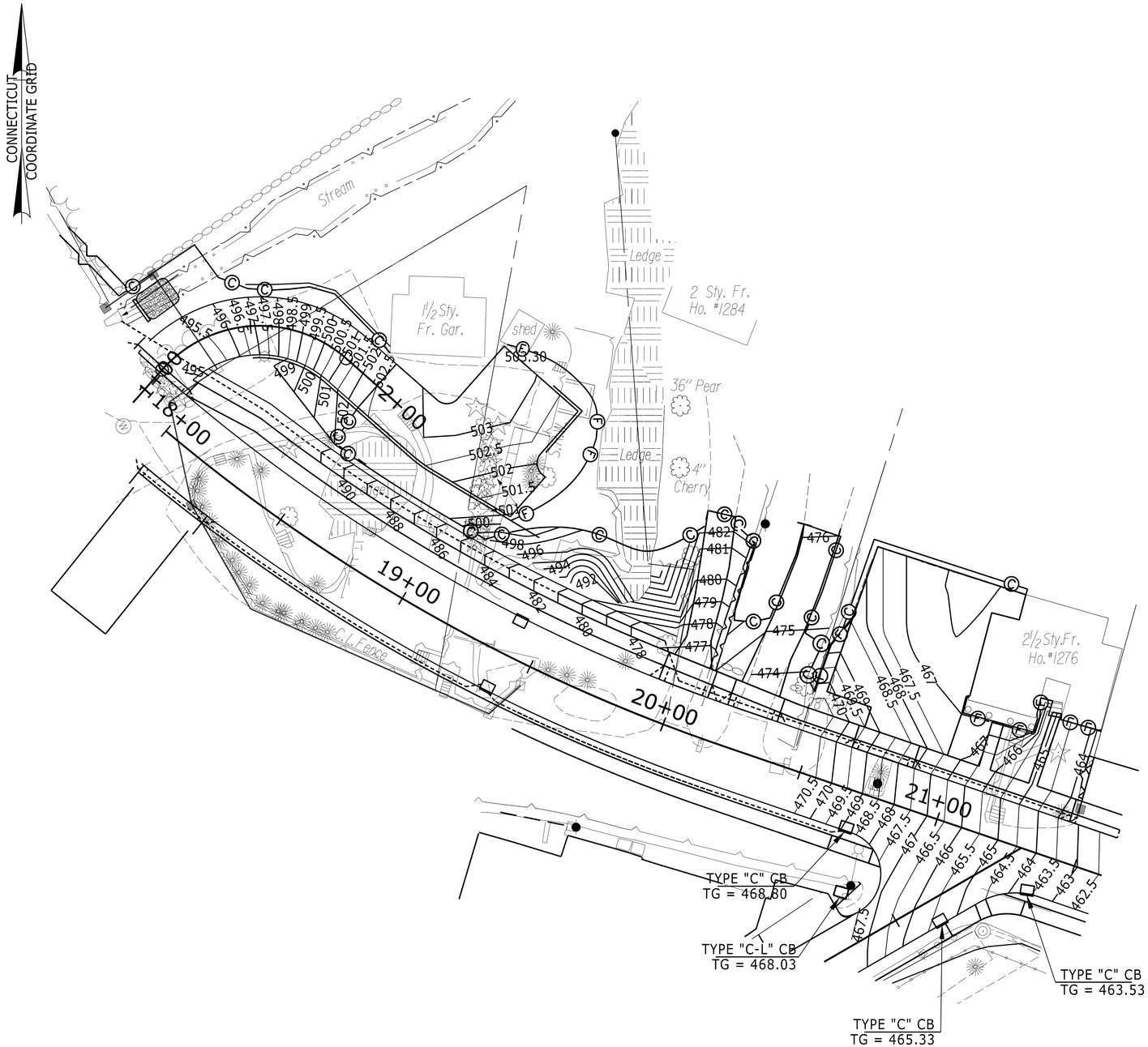
STATE OF CONNECTICUT DEPT. OF TRANSPORTATION LICENSED PROFESSIONAL ENGINEER

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

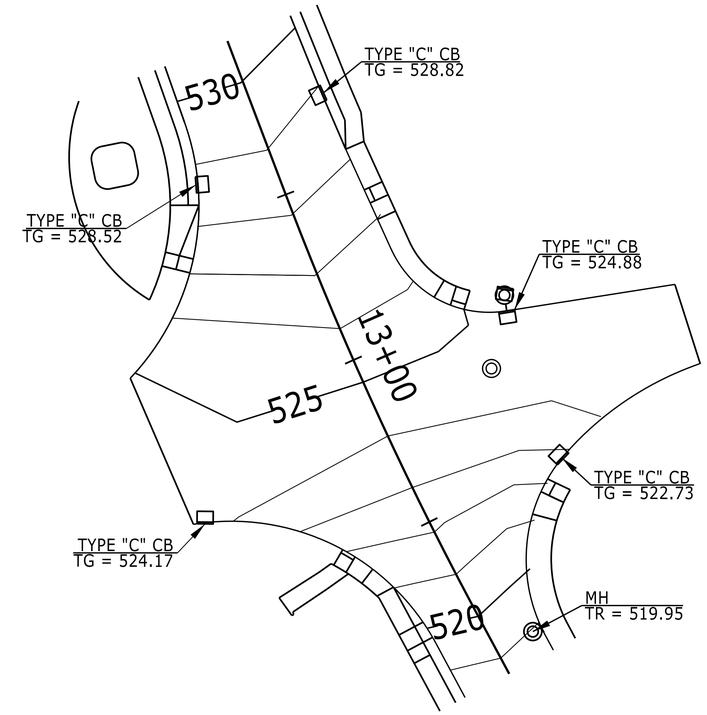
TOWN: COVENTRY

DRAWING TITLE: MISC. SEWER DETAILS

PROJECT NO. 32-130
DRAWING NO. HWY-23
SHEET NO. 03.23



BARN DRIVEWAY AT STATION 17+85 RT. & ROUTE 31 AT MONUMENT HILL ROAD



ROUTE 31 AT ROUTE 275 AND LAKE STREET

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR
CHECKED BY: PJB
SCALE IN FEET 0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

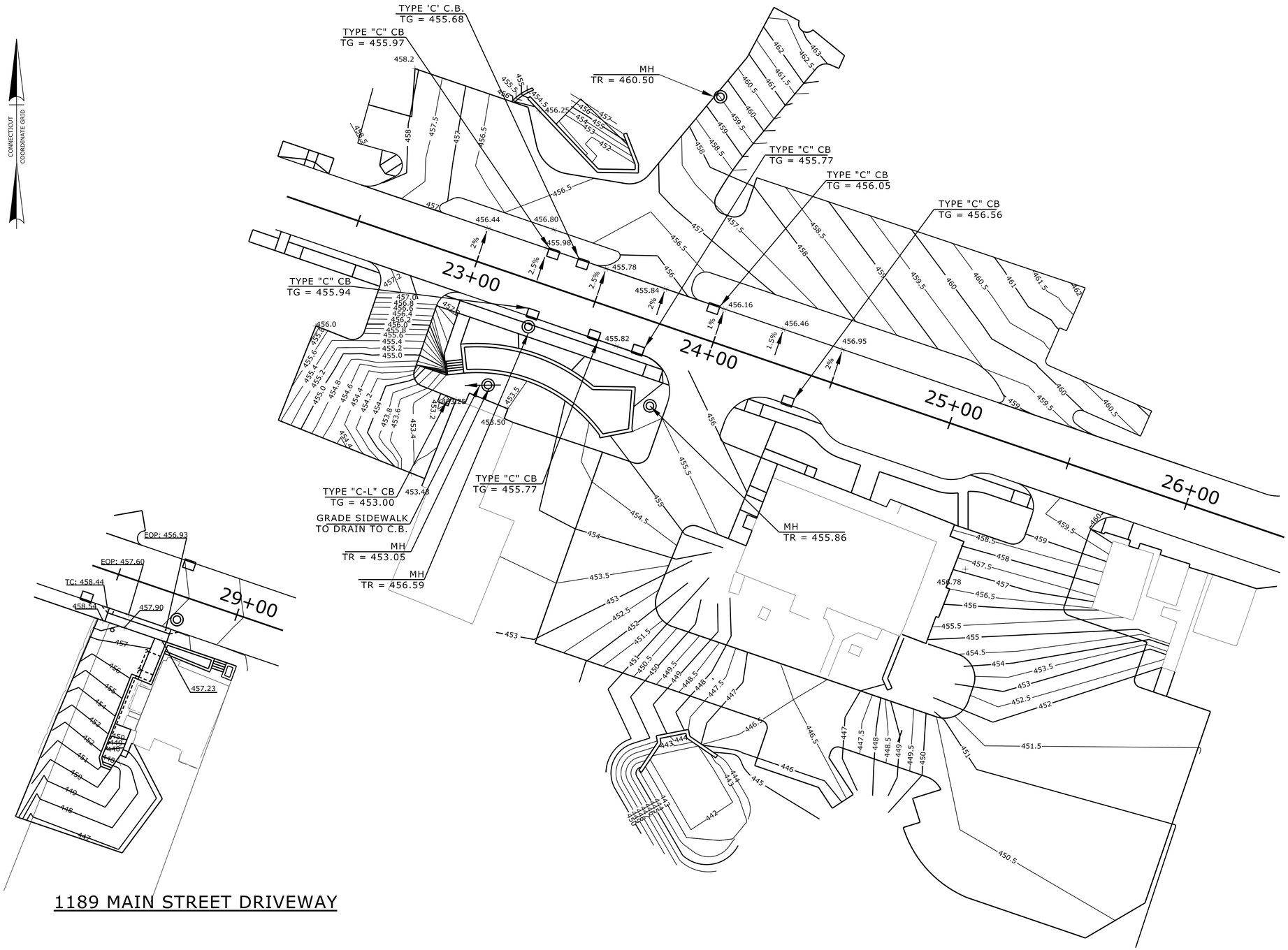
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: INTERSECTION GRADING PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-24
SHEET NO. 03.24



1189 MAIN STREET DRIVEWAY

BIDWELL TAVERN / COVENTRY CORNERS / FIRE HOUSE PARKING LOTS

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR
CHECKED BY: PJB
SCALE IN FEET 0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: INTERSECTION GRADING PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-25
SHEET NO. 03.25

BEGINNING OF F.A.P. NO. MGS-566(110)
BEGINNING OF STATE PROJECT NO. 32-130
STATION 9+50
N 842039.9963
E 1121224.9129

CONNECTICUT COORDINATE GRID

BEGIN MILLING AND OVERLAY
CUT BITUMINOUS CONCRETE PAVEMENT

ROUTE 31 - MAIN ST.
℄ CURVE DATA
Δ = 07°-31'-01"
R = 1000.00'
L = 131.20'
T = 65.69'

CONCRETE SIDEWALK

CONCRETE SIDEWALK

BEGIN B.C.L.C.
PC = 12+49.12
N 841760.3550
E 1121330.9611

R = 30'

END B.C.L.C.

CUT BITUMINOUS CONCRETE PAVEMENT

BEGIN B.C.L.C.
R = 88.50'

END MILLING AND OVERLAY BEGIN FULL DEPTH RECONSTRUCTION STATION 13+50

END B.C.L.C.

R = 45'

RETAIN TRAFFIC CABINET

BITUMINOUS CONCRETE DRIVEWAY

CONCRETE DRIVEWAY RAMP

PT = 13+80.32
N 841411.0938
E 1121365.3650

PC = 15+73.67
N 841470.8264
E 1121477.0102

REBUILD RETAINING WALL
STA. 17+25 TO 17+56
MATCH EXISTING

PC = 1+15.14
N 841317.3466
E 1121617.5695

ROUTE 31 - MAIN ST.
℄ CURVE DATA
Δ = 42°-50'-06"
R = 600.00'
L = 448.57'
T = 235.35'

BARN DRIVEWAY
℄ CURVE DATA
Δ = 89°-51'-52"
R = 45.00'
L = 70.58'
T = 44.89'

LEGEND:
APPROX. CUT SLOPE LIMIT
APPROX. FILL SLOPE LIMIT

33' TIMBER BEAM RAIL
STA. 19+09 TO STA. 19+19

150' - 4' POLYVINYL CHLORIDE CLF
STA. 18+25 TO STA. 19+75

END BITUMINOUS CONCRETE DRIVEWAY
BEGIN GRAVEL DRIVEWAY

CONCRETE SIDEWALK

BEGIN TIMBER BEAM RAIL -
STA. 18+07

BITUMINOUS CONCRETE DRIVEWAY

CONCRETE DRIVEWAY RAMP

GRADE TO MATCH BOTTOM
ELEVATION OF WALL

END TIMBER BEAM RAIL -
STA. 19+30

MATCH MARK SEE SHEET HWY-32

PT = 1+85.72
N 841321.2645
E 1121681.6129

S48°36'06"E
24.28'

R = 5'

END B.C.L.C.

N41°32'02"E
15.14'

BEGIN 4' DRAINAGE SWALE
STA. 19+75

BIT. CONC. DRIVEWAY

INTERPRETIVE DISPLAY SIGN
STA. 19+00, 40.0' RT.

BIT. CONC. DRIVEWAY

CONC. DRIVEWAY RAMP

180' -4' POLYVINYL CHLORIDE CLF
STA. 18+29 TO STA. 19+75

REMOVE METAL BEAM RAIL

REMOVE & STACK FLASHING ARROW SIGNAL

BITUMINOUS CONCRETE DRIVEWAY

CONCRETE SIDEWALK

PAVER SIDEWALK
SEE LANDSCAPE PLANS

R = 70'

BEGIN B.C.L.C.

END B.C.L.C.

CUT BITUMINOUS CONCRETE PAVEMENT

BITUMINOUS CONCRETE DRIVEWAY

CONCRETE DRIVEWAY RAMP

CONCRETE WALK

END B.C.L.C.

REBUILD CONCRETE WALK

R = 65'

BEGIN B.C.L.C.

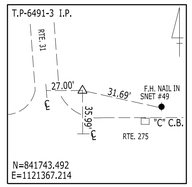
ROUTE 31 STA. 17+85.00
BARN DRIVEWAY STA. 1+00.00
N 841306.0110
E 1121607.5286

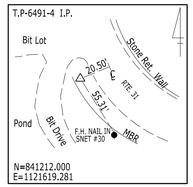
BITUMINOUS CONCRETE DRIVEWAY

CONCRETE DRIVEWAY RAMP

CONCRETE SIDEWALK

3' WIDE CONCRETE WALK





CURB TABLE			
BITUMINOUS CONCRETE LIP CURBING			
STA.	TO	STA.	LENGTH
12+95.3LT	13+18.3LT		67.0'
13+43.7LT	13+59.8LT		61.6'
17+75.0LT	18+53.2LT		94.6'
17+95.9LT	18+49.3LT		63.2'
12+56.6RT	12+80.7RT		40.7'
13+22.5LT	13+48.7RT		47.5'
STONE CURBING			
STA.	TO	STA.	LENGTH
11+04.2LT	11+16.9LT		12.7'
11+66.2LT	12+44.1LT		76.6'
12+65.9LT	12+75.4LT		9.2'
13+93.2LT	14+31.1LT		37.9'
14+65.2LT	17+72.7LT		300.3'
17+97.3LT	19+92.9LT		191.0'
11+45.5RT	12+21.2RT		75.7'
13+80.7RT	14+20.3RT		39.5'
14+36.3RT	16+36.3RT		201.3'
16+69.4RT	18+01.7RT		135.6'
18+29.2RT	20+00.0RT		170.8'
CURVED STONE CURBING			
STA.	TO	STA.	LENGTH
12+75.4LT	12+92.8LT		18.2' - R=30'
13+61.9LT	13+93.2LT		35.0'-R=45'
12+21.2RT	12+44.1RT		23.5'- R=70'
13+54.5RT	13+80.7RT		

GENERAL NOTES:

1. CONTRACTOR TO GIVE OWNERS ONE MONTH ADVANCE NOTICE TO RELOCATE THEIR PRIVATE PLANTS OR APPURTENANCES WITHIN THE STATE LAYOUT.
2. ALL UTILITY POLE RELOCATIONS, BOTH TEMPORARY AND PERMANENT, ARE TO BE PERFORMED "BY OTHERS".
3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND EGRESS FROM ALL COMMERCIAL AND RESIDENTIAL DRIVEWAYS THROUGHOUT THE PROJECT LIMITS. SEE SPECIFICATION 0971001A MAINENANCE AND PROTECTION OF TRAFFIC FOR MORE DETAILS.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB / MSR
CHECKED BY: PJB
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

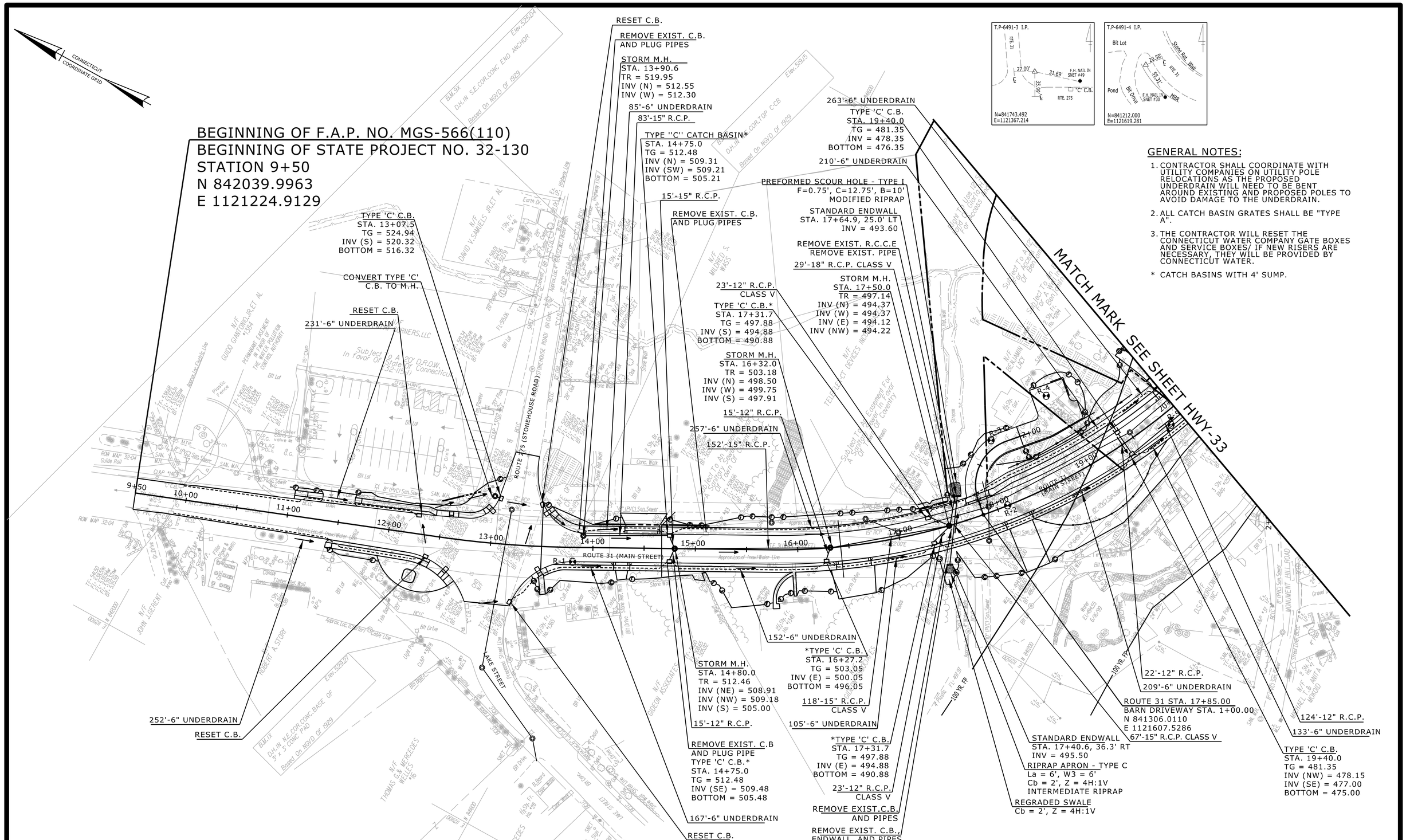
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: CONSTRUCTION PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-26
SHEET NO. 03.26



GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES ON UTILITY POLE RELOCATIONS AS THE PROPOSED UNDERDRAIN WILL NEED TO BE BENT AROUND EXISTING AND PROPOSED POLES TO AVOID DAMAGE TO THE UNDERDRAIN.
2. ALL CATCH BASIN GRATES SHALL BE "TYPE A".
3. THE CONTRACTOR WILL RESET THE CONNECTICUT WATER COMPANY GATE BOXES AND SERVICE BOXES/ IF NEW RISERS ARE NECESSARY, THEY WILL BE PROVIDED BY CONNECTICUT WATER.

* CATCH BASINS WITH 4' SUMP.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR
CHECKED BY: PJB
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

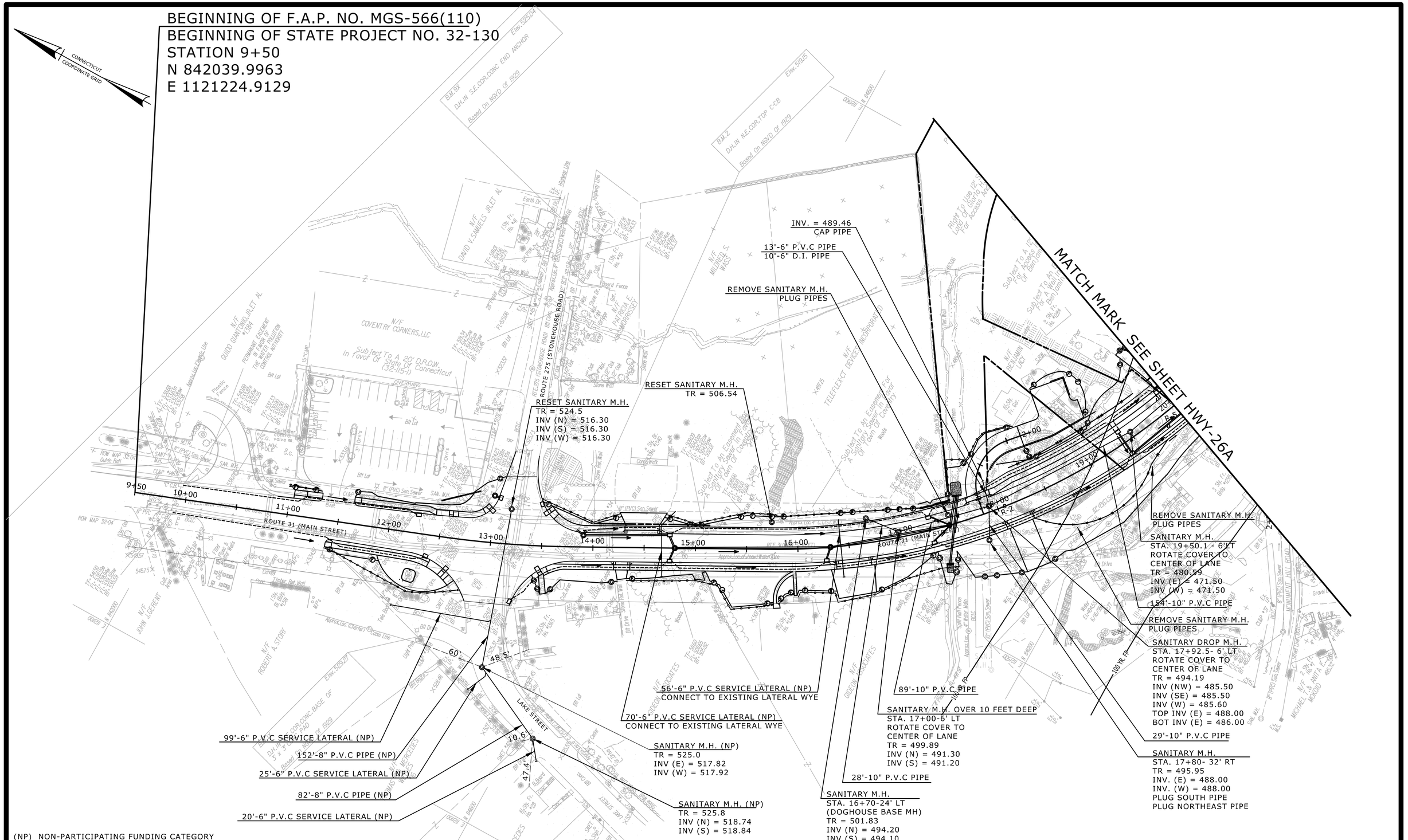
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: DRAINAGE PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-27
SHEET NO. 03.27



(NP) NON-PARTICIPATING FUNDING CATEGORY

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

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.

DESIGNER/DRAFTER: REPSH/MAZEK
CHECKED BY: GASTON
SCALE IN FEET
0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: Fuss & O'Neill, Inc.
APPROVED BY:
DATE:

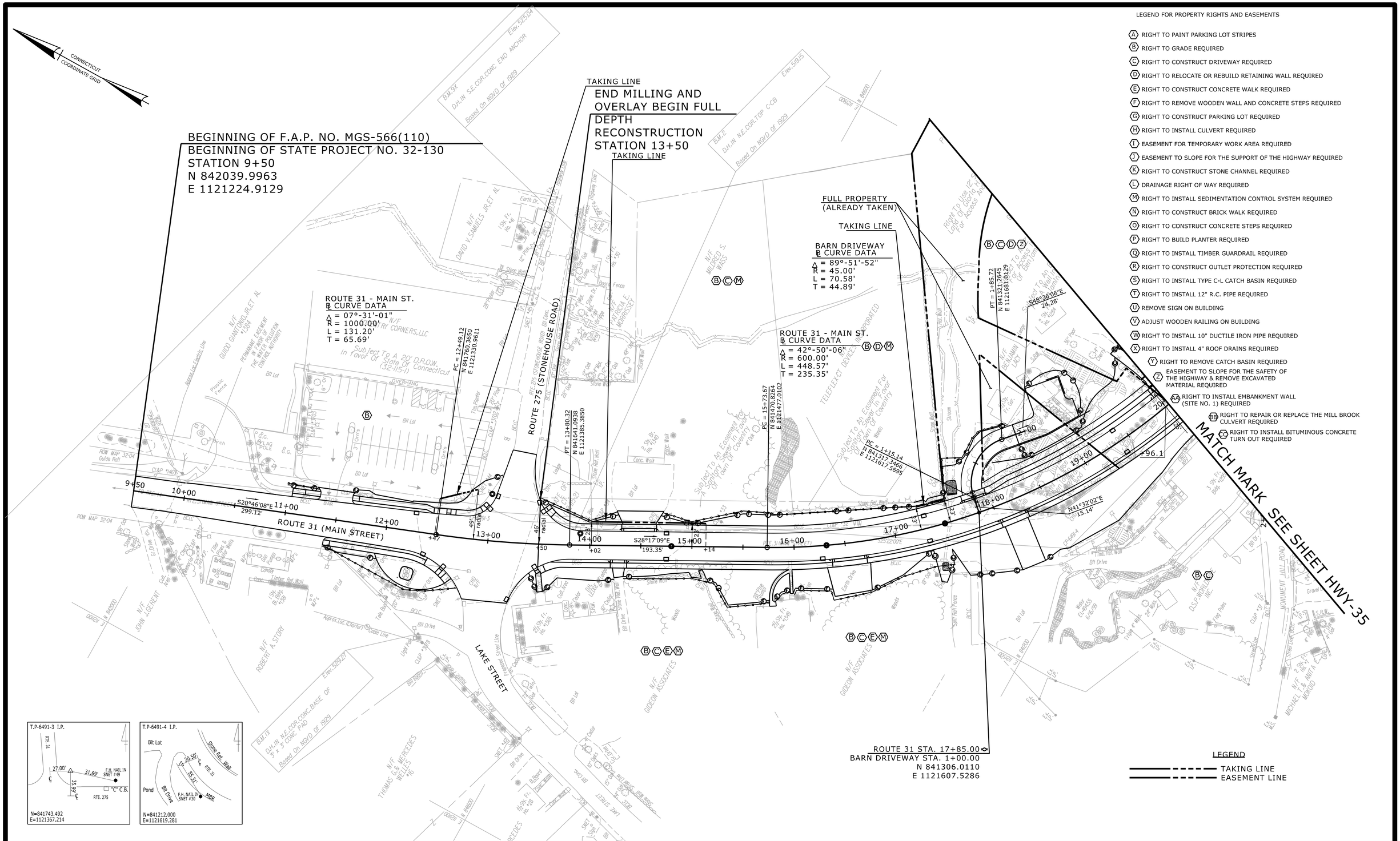
STATE OF CONNECTICUT REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: SEWER PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-28
SHEET NO. 03.28



LEGEND FOR PROPERTY RIGHTS AND EASEMENTS

- (A) RIGHT TO PAINT PARKING LOT STRIPES
- (B) RIGHT TO GRADE REQUIRED
- (C) RIGHT TO CONSTRUCT DRIVEWAY REQUIRED
- (D) RIGHT TO RELOCATE OR REBUILD RETAINING WALL REQUIRED
- (E) RIGHT TO CONSTRUCT CONCRETE WALK REQUIRED
- (F) RIGHT TO REMOVE WOODEN WALL AND CONCRETE STEPS REQUIRED
- (G) RIGHT TO CONSTRUCT PARKING LOT REQUIRED
- (H) RIGHT TO INSTALL CULVERT REQUIRED
- (I) EASEMENT FOR TEMPORARY WORK AREA REQUIRED
- (J) EASEMENT TO SLOPE FOR THE SUPPORT OF THE HIGHWAY REQUIRED
- (K) RIGHT TO CONSTRUCT STONE CHANNEL REQUIRED
- (L) DRAINAGE RIGHT OF WAY REQUIRED
- (M) RIGHT TO INSTALL SEDIMENTATION CONTROL SYSTEM REQUIRED
- (N) RIGHT TO CONSTRUCT BRICK WALK REQUIRED
- (O) RIGHT TO CONSTRUCT CONCRETE STEPS REQUIRED
- (P) RIGHT TO BUILD PLANTER REQUIRED
- (Q) RIGHT TO INSTALL TIMBER GUARDRAIL REQUIRED
- (R) RIGHT TO CONSTRUCT OUTLET PROTECTION REQUIRED
- (S) RIGHT TO INSTALL TYPE C-L CATCH BASIN REQUIRED
- (T) RIGHT TO INSTALL 12" R.C. PIPE REQUIRED
- (U) REMOVE SIGN ON BUILDING
- (V) ADJUST WOODEN RAILING ON BUILDING
- (W) RIGHT TO INSTALL 10" DUCTILE IRON PIPE REQUIRED
- (X) RIGHT TO INSTALL 4" ROOF DRAINS REQUIRED
- (Y) RIGHT TO REMOVE CATCH BASIN REQUIRED
- (Z) EASEMENT TO SLOPE FOR THE SAFETY OF THE HIGHWAY & REMOVE EXCAVATED MATERIAL REQUIRED
- (AA) RIGHT TO INSTALL EMBANKMENT WALL (SITE NO. 1) REQUIRED
- (BB) RIGHT TO REPAIR OR REPLACE THE MILL BROOK CULVERT REQUIRED
- (CC) RIGHT TO INSTALL BITUMINOUS CONCRETE TURN OUT REQUIRED

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

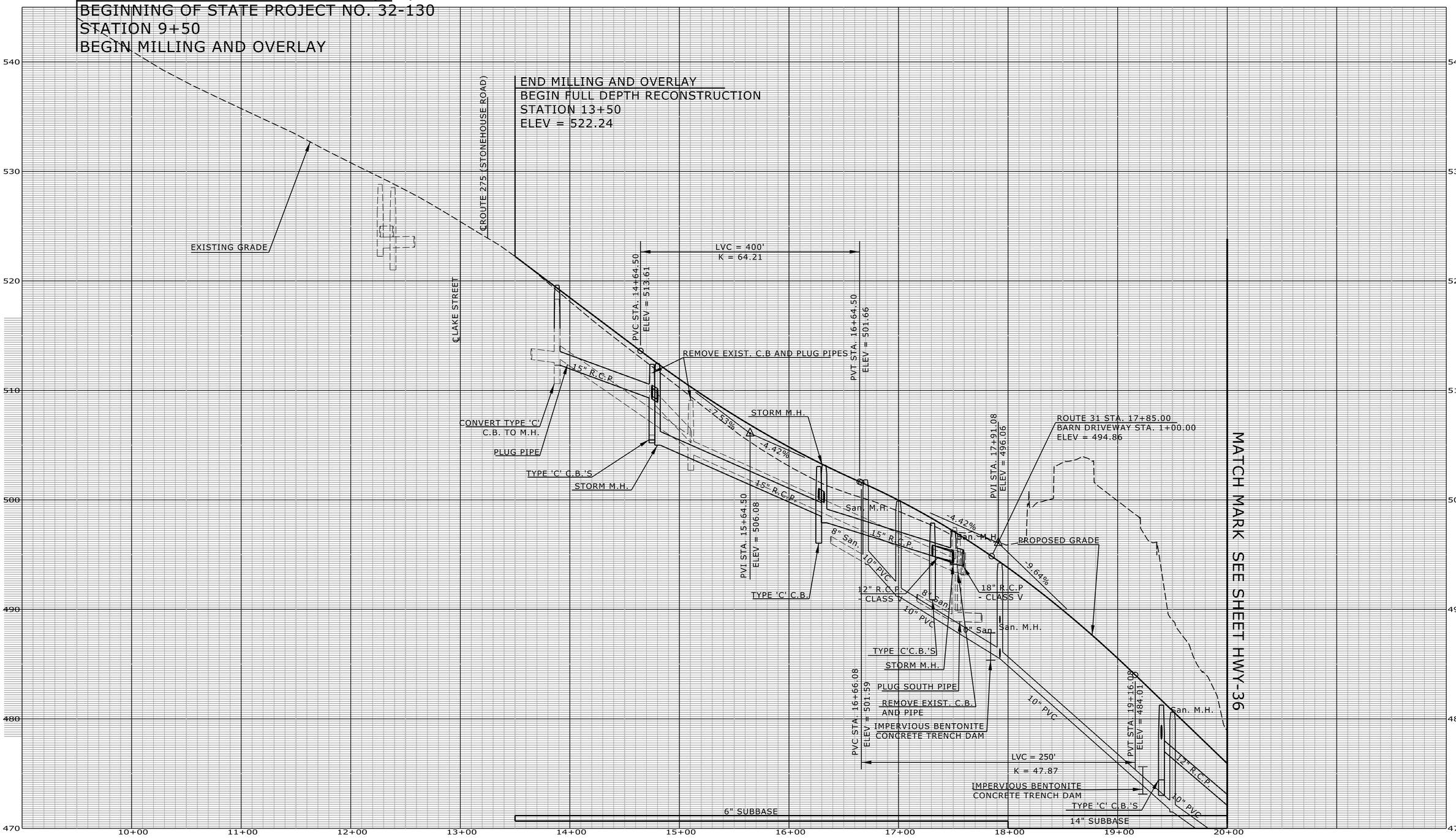
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: RIGHT OF WAY PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-29
SHEET NO. 03.29



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
HORIZ. SCALE IN FEET 0 40 80
VERT. SCALE IN FEET 0 4 8

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

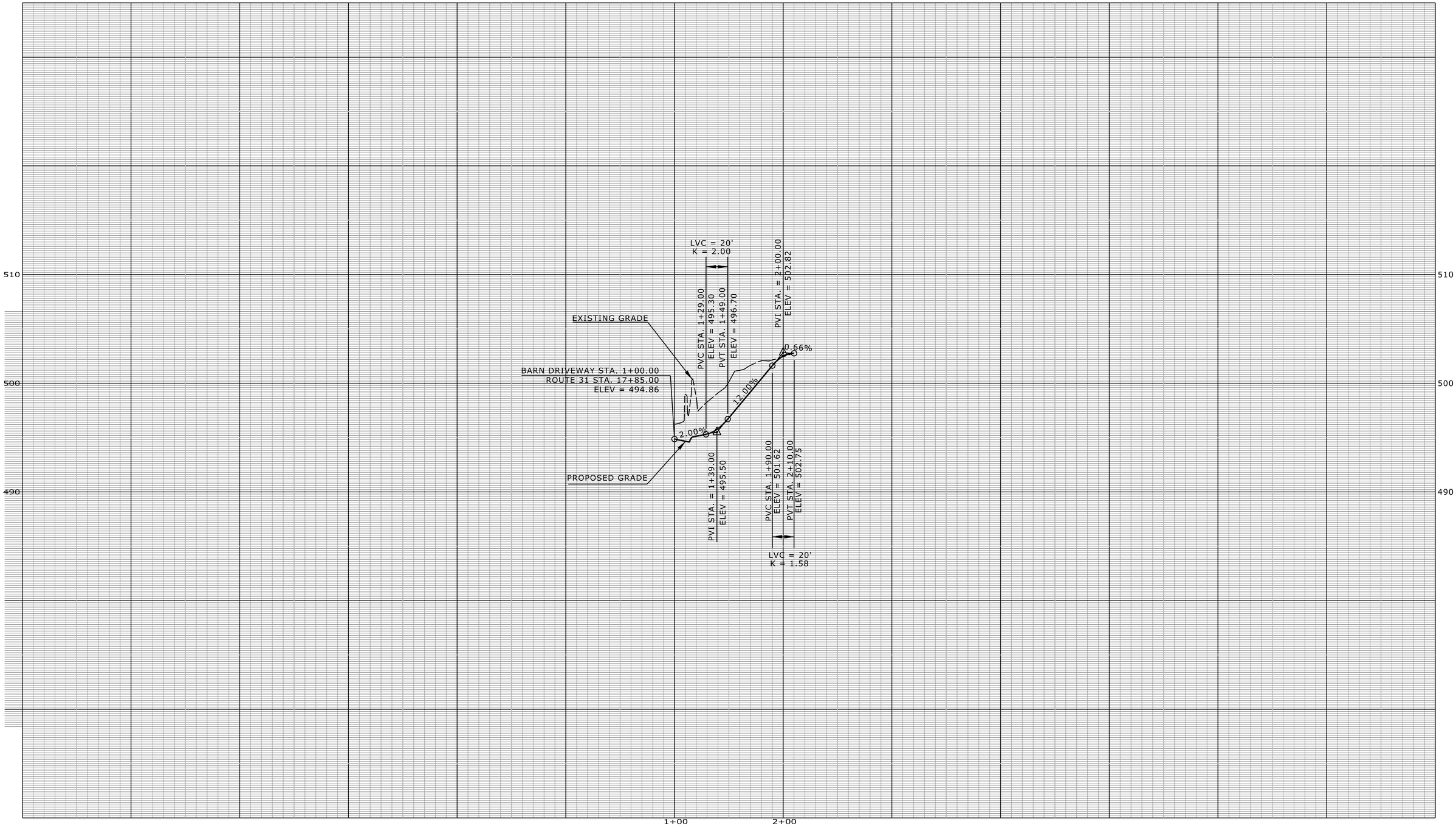
ENGINEER: BSC GROUP
APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 PROFILE

PROJECT NO. 32-130
DRAWING NO. HWY-30
SHEET NO. 03.30



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
HORIZ. SCALE IN FEET 0 40 80
VERT. SCALE IN FEET 0 4 8

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

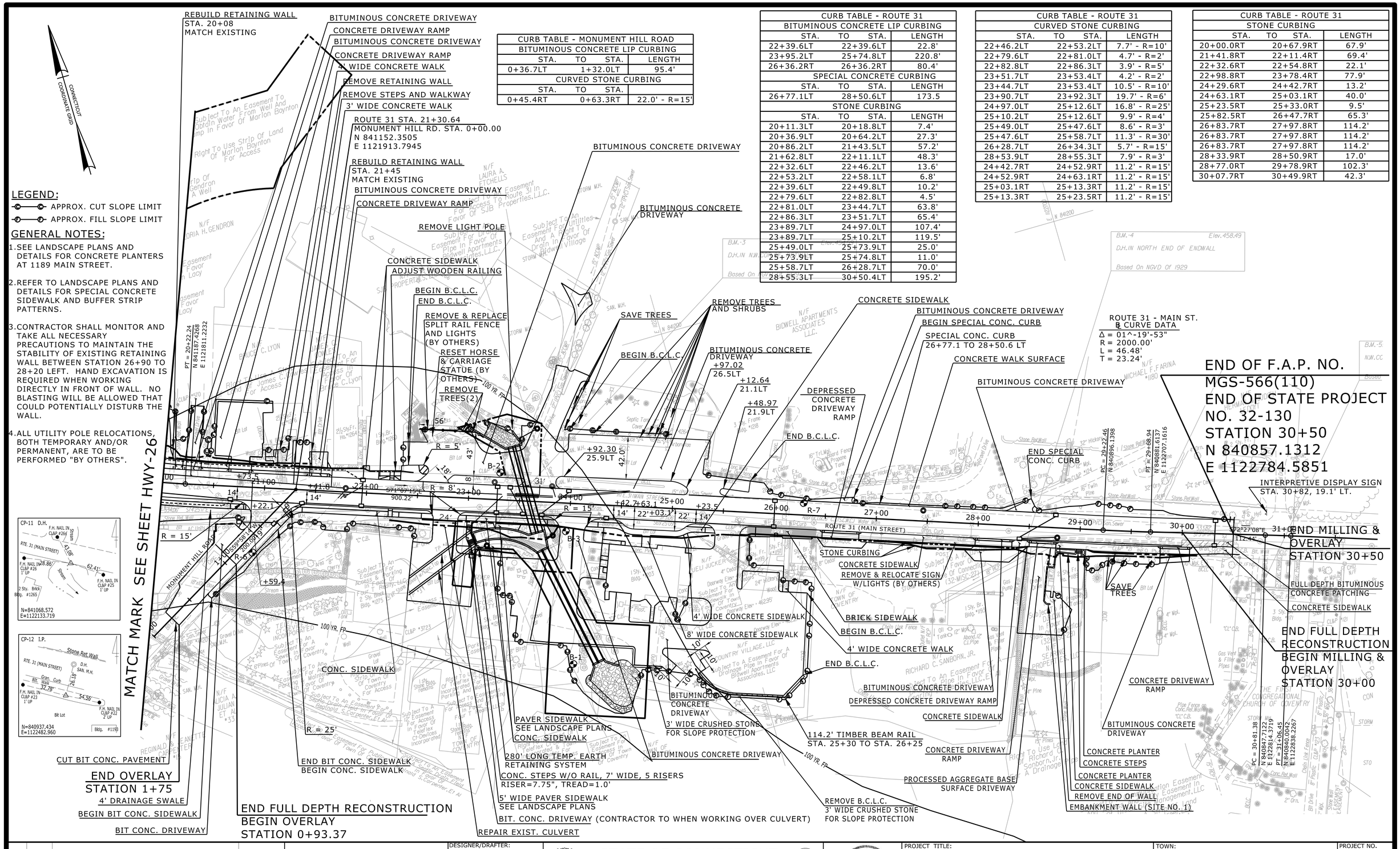
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: BARN DRIVEWAY PROFILE

PROJECT NO. 32-130
DRAWING NO. HWY-31
SHEET NO. 03.31



LEGEND:

APPROX. CUT SLOPE LIMIT

APPROX. FILL SLOPE LIMIT

GENERAL NOTES:

1. SEE LANDSCAPE PLANS AND DETAILS FOR CONCRETE PLANTERS AT 1189 MAIN STREET.
2. REFER TO LANDSCAPE PLANS AND DETAILS FOR SPECIAL CONCRETE SIDEWALK AND BUFFER STRIP PATTERNS.
3. CONTRACTOR SHALL MONITOR AND TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN THE STABILITY OF EXISTING RETAINING WALL BETWEEN STATION 26+90 TO 28+20 LEFT. HAND EXCAVATION IS REQUIRED WHEN WORKING DIRECTLY IN FRONT OF WALL. NO BLASTING WILL BE ALLOWED THAT COULD POTENTIALLY DISTURB THE WALL.
4. ALL UTILITY POLE RELOCATIONS, BOTH TEMPORARY AND/OR PERMANENT, ARE TO BE PERFORMED "BY OTHERS".

CURB TABLE - MONUMENT HILL ROAD		
BITUMINOUS CONCRETE LIP CURBING		
STA.	TO STA.	LENGTH
0+36.7LT	1+32.0LT	95.4'
CURVED STONE CURBING		
STA.	TO STA.	
0+45.4RT	0+63.3RT	22.0' - R=15'

CURB TABLE - ROUTE 31		
BITUMINOUS CONCRETE LIP CURBING		
STA.	TO STA.	LENGTH
22+39.6LT	22+39.6LT	22.8'
23+95.2LT	25+74.8LT	220.8'
26+36.2RT	26+36.2RT	80.4'
SPECIAL CONCRETE CURBING		
STA.	TO STA.	LENGTH
26+77.1LT	28+50.6LT	173.5
STONE CURBING		
STA.	TO STA.	LENGTH
20+11.3LT	20+18.8LT	7.4'
20+36.9LT	20+64.2LT	27.3'
20+86.2LT	21+43.5LT	57.2'
21+62.8LT	22+11.1LT	48.3'
22+32.6LT	22+46.2LT	13.6'
22+53.2LT	22+58.1LT	6.8'
22+39.6LT	22+49.8LT	10.2'
22+79.6LT	22+82.8LT	4.5'
22+81.0LT	23+44.7LT	63.8'
22+86.3LT	23+51.7LT	65.4'
23+89.7LT	24+97.0LT	107.4'
23+89.7LT	25+10.2LT	119.5'
25+49.0LT	25+73.9LT	25.0'
25+73.9LT	25+74.8LT	11.0'
25+58.7LT	26+28.7LT	70.0'
28+55.3LT	30+50.4LT	195.2'

CURB TABLE - ROUTE 31		
CURVED STONE CURBING		
STA.	TO STA.	LENGTH
22+46.2LT	22+53.2LT	7.7' - R=10'
22+79.6LT	22+81.0LT	4.7' - R=2'
22+82.8LT	22+86.3LT	3.9' - R=5'
23+51.7LT	23+53.4LT	4.2' - R=2'
23+44.7LT	23+53.4LT	10.5' - R=10'
23+90.7LT	23+92.3LT	19.7' - R=6'
24+97.0LT	25+12.6LT	16.8' - R=25'
25+10.2LT	25+12.6LT	9.9' - R=4'
25+49.0LT	25+47.6LT	8.6' - R=3'
25+47.6LT	25+58.7LT	11.3' - R=30'
26+28.7LT	26+34.3LT	5.7' - R=15'
28+53.9LT	28+55.3LT	7.9' - R=3'
24+42.7RT	24+52.9RT	11.2' - R=15'
24+52.9RT	24+63.1RT	11.2' - R=15'
25+03.1RT	25+13.3RT	11.2' - R=15'
25+13.3RT	25+23.5RT	11.2' - R=15'

CURB TABLE - ROUTE 31		
STONE CURBING		
STA.	TO STA.	LENGTH
20+00.0RT	20+67.9RT	67.9'
21+41.8RT	22+11.4RT	69.4'
22+32.6RT	22+54.8RT	22.1'
22+98.8RT	23+78.4RT	77.9'
24+29.6RT	24+42.7RT	13.2'
24+63.1RT	25+03.1RT	40.0'
25+23.5RT	25+33.0RT	9.5'
25+82.5RT	26+47.7RT	65.3'
26+83.7RT	27+97.8RT	114.2'
26+83.7RT	27+97.8RT	114.2'
26+83.7RT	27+97.8RT	114.2'
28+33.9RT	28+50.9RT	17.0'
28+77.0RT	29+78.9RT	102.3'
30+07.7RT	30+49.9RT	42.3'

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB / MSR
CHECKED BY: PJB
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

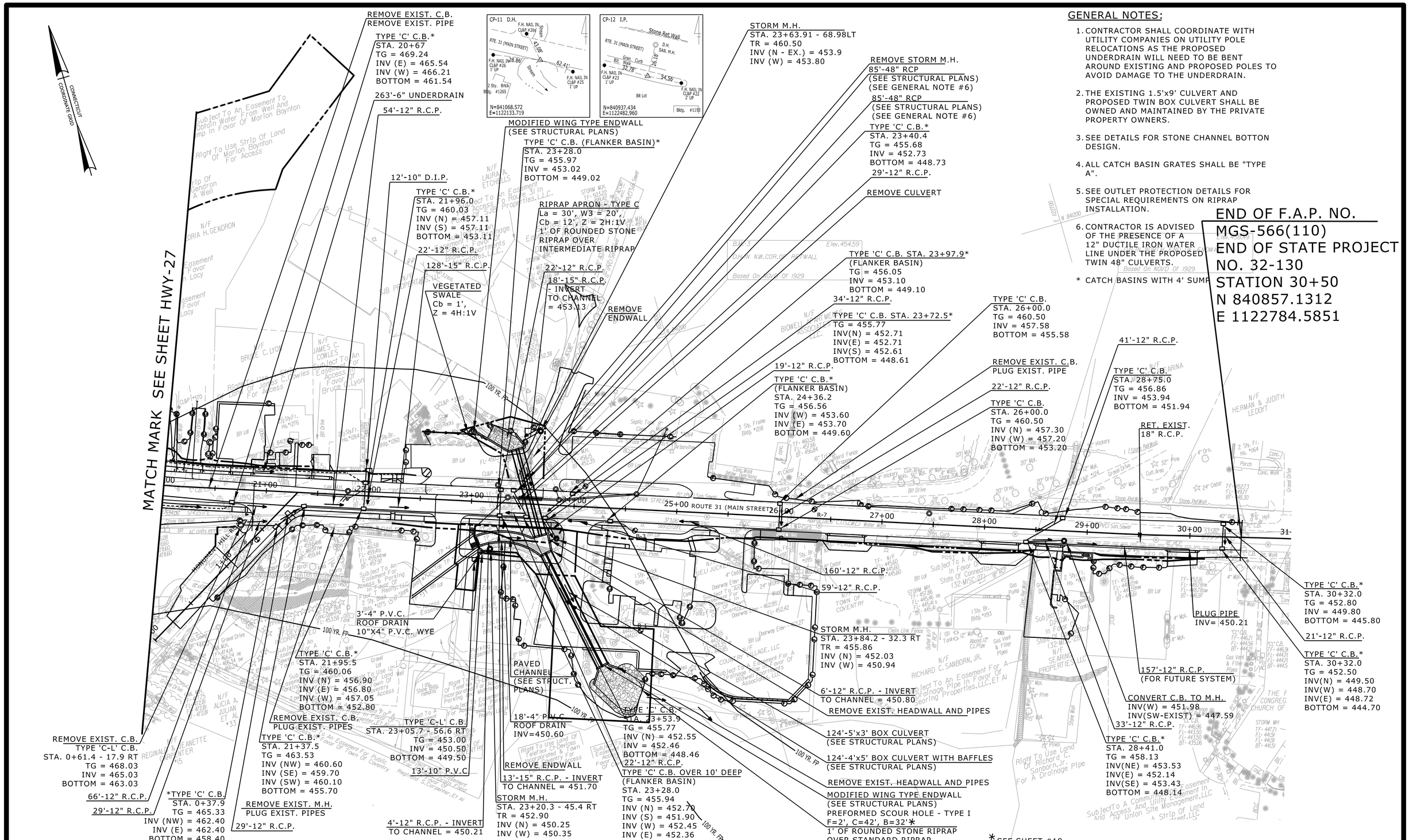
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: CONSTRUCTION PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-32
SHEET NO. 03.32



GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES ON UTILITY POLE RELOCATIONS AS THE PROPOSED UNDERDRAIN WILL NEED TO BE BENT AROUND EXISTING AND PROPOSED POLES TO AVOID DAMAGE TO THE UNDERDRAIN.
2. THE EXISTING 1.5'x9' CULVERT AND PROPOSED TWIN BOX CULVERT SHALL BE OWNED AND MAINTAINED BY THE PRIVATE PROPERTY OWNERS.
3. SEE DETAILS FOR STONE CHANNEL BOTTON DESIGN.
4. ALL CATCH BASIN GRATES SHALL BE "TYPE A".
5. SEE OUTLET PROTECTION DETAILS FOR SPECIAL REQUIREMENTS ON RIPRAP INSTALLATION.
6. CONTRACTOR IS ADVISED OF THE PRESENCE OF A 12" DUCTILE IRON WATER LINE UNDER THE PROPOSED TWIN 48" CULVERTS.

* CATCH BASINS WITH 4' SUMP

END OF F.A.P. NO. MGS-566(110)
END OF STATE PROJECT NO. 32-130
STATION 30+50
N 840857.1312
E 1122784.5851

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: DRAINAGE PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-33
SHEET NO. 03.33

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: REPSH/MAZEK
CHECKED BY: GASTON
SCALE IN FEET 0 40 80
SCALE 1"=40'

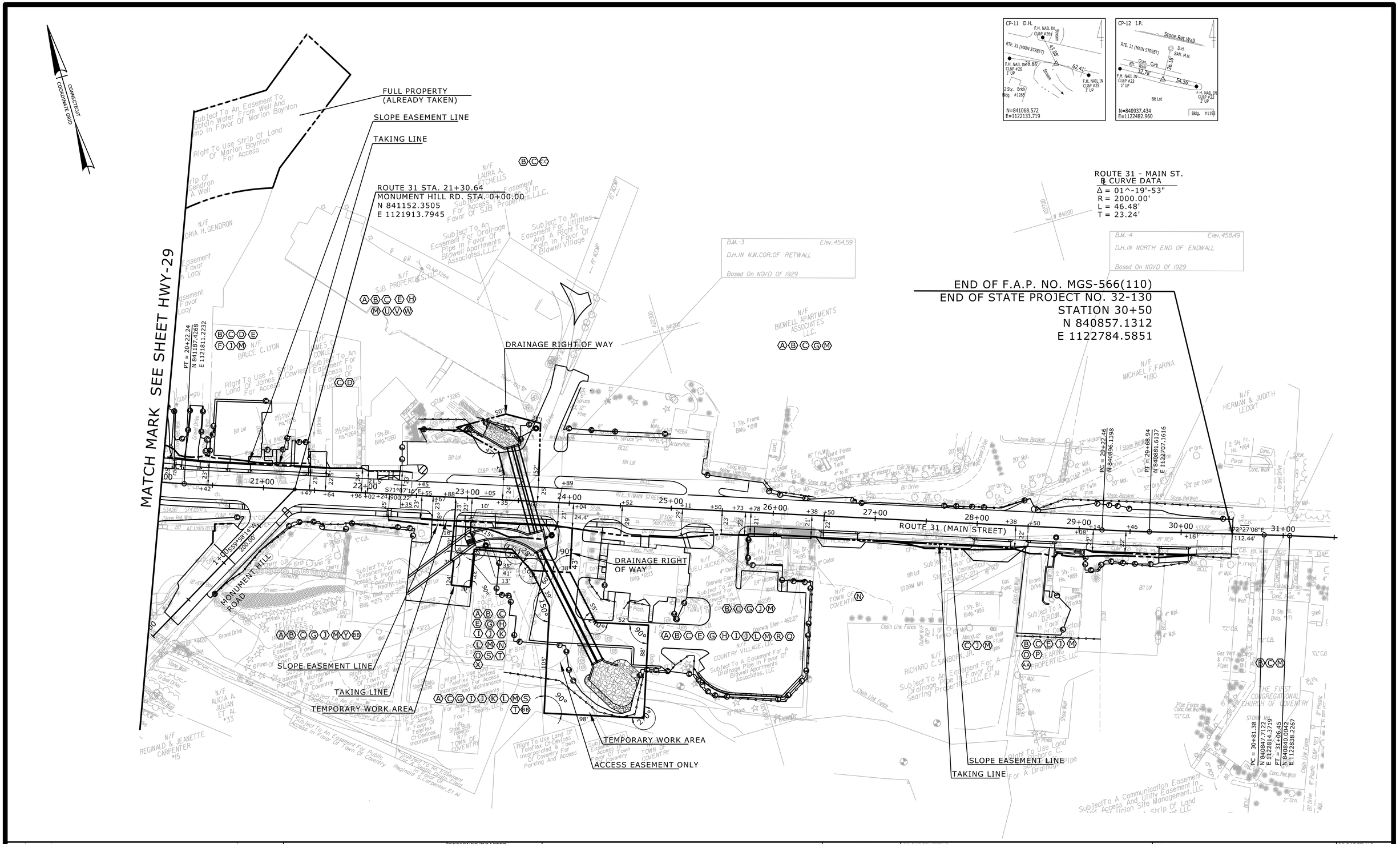
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: Fuss & O'Neill, Inc.
APPROVED BY: DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY
DRAWING TITLE: SEWER PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-34
SHEET NO. 03.34



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

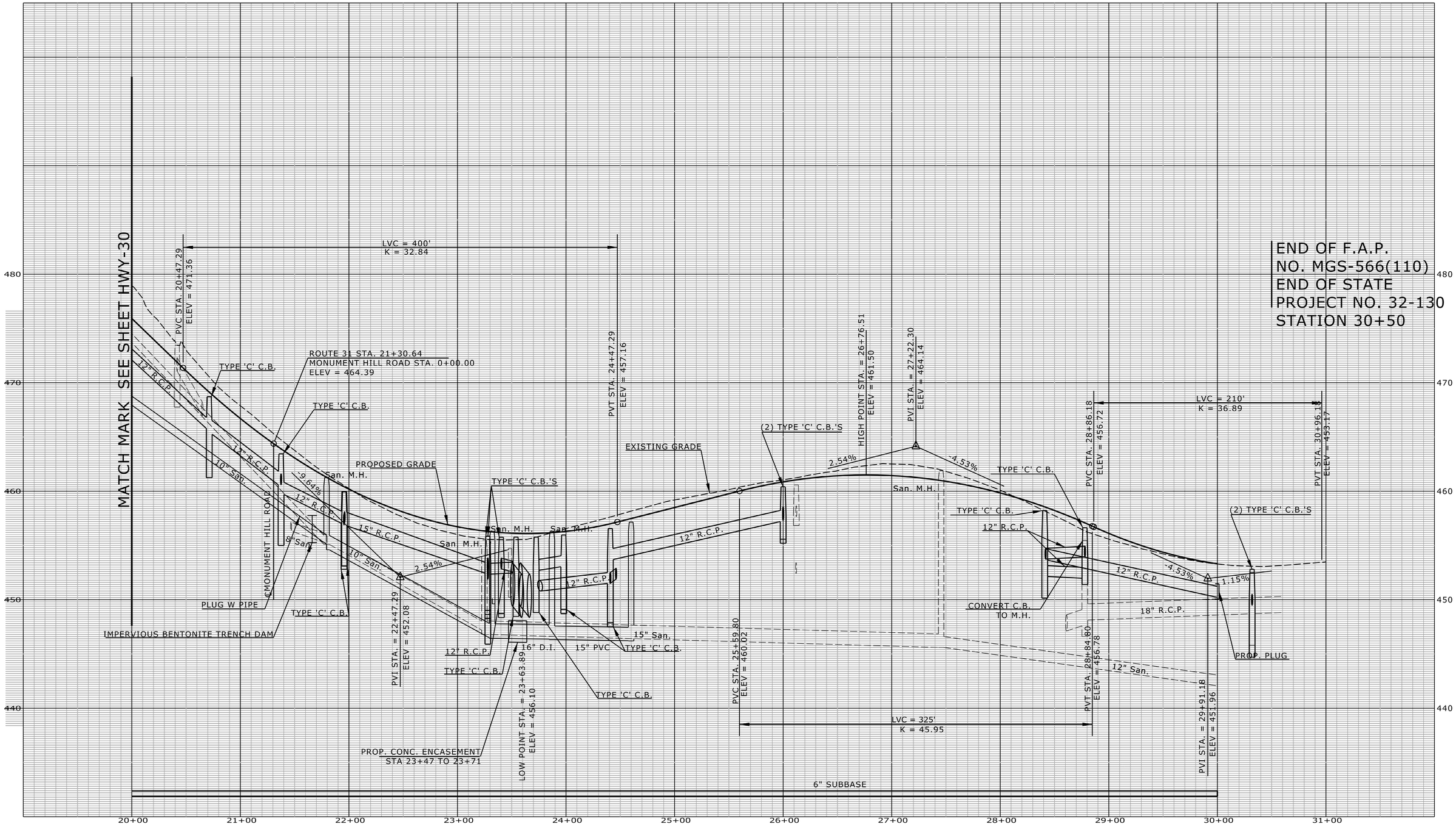
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: RIGHT OF WAY PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-35
SHEET NO. 03.35



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
HORIZ. SCALE IN FEET 0 40 80
VERT. SCALE IN FEET 0 4 8

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

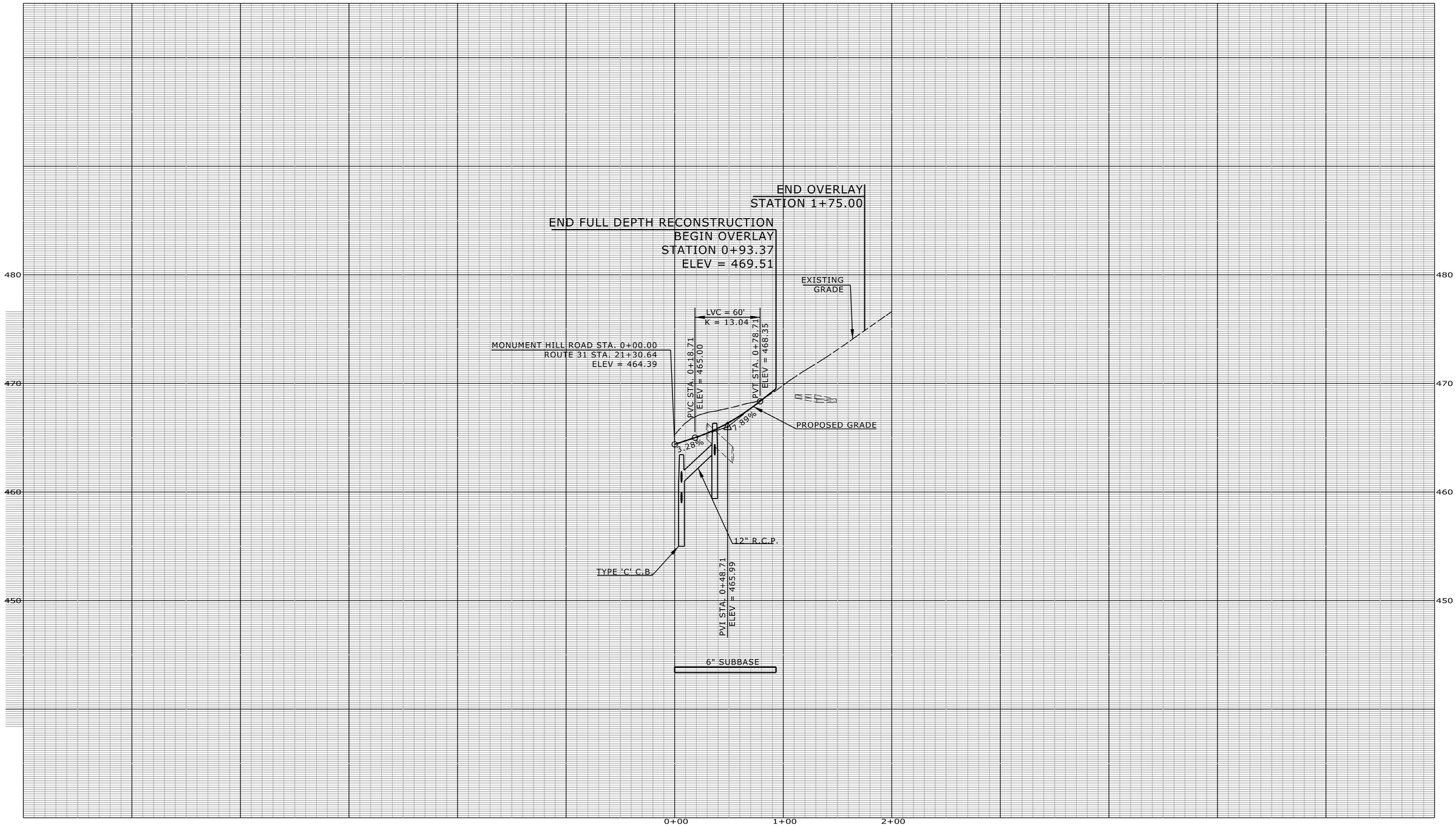
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE:
RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 PROFILE

PROJECT NO. 32-130
DRAWING NO. HWY-36
SHEET NO. 03.36



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
HORIZ. SCALE IN FEET 0 40 80
VERT. SCALE IN FEET 0 4 8

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

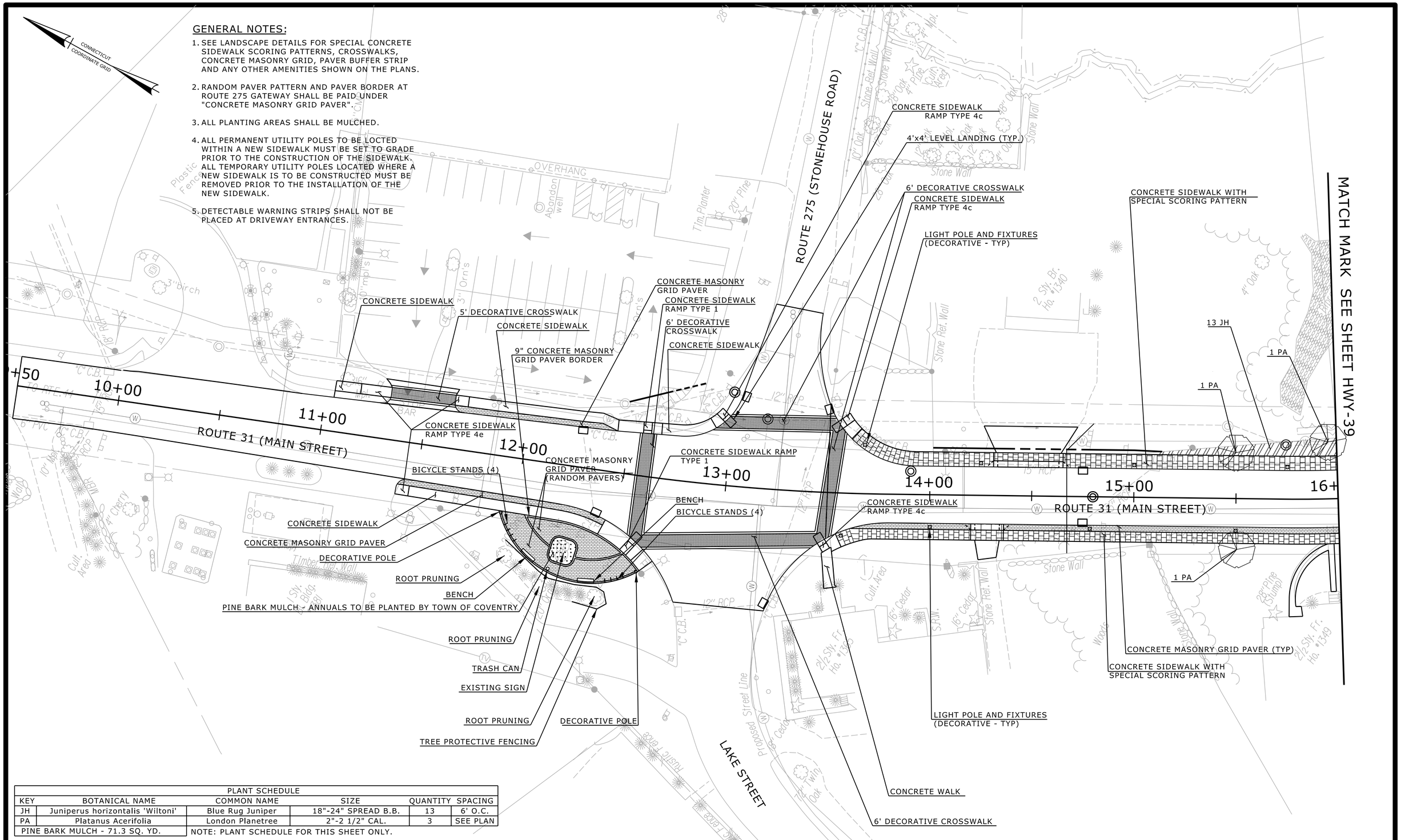
TOWN: COVENTRY

DRAWING TITLE: MONUMENT HILL ROAD PROFILE

PROJECT NO. 32-130
DRAWING NO. HWY-37
SHEET NO. 03.37

GENERAL NOTES:

1. SEE LANDSCAPE DETAILS FOR SPECIAL CONCRETE SIDEWALK SCORING PATTERNS, CROSSWALKS, CONCRETE MASONRY GRID, PAVER BUFFER STRIP AND ANY OTHER AMENITIES SHOWN ON THE PLANS.
2. RANDOM PAVER PATTERN AND PAVER BORDER AT ROUTE 275 GATEWAY SHALL BE PAID UNDER "CONCRETE MASONRY GRID PAVER".
3. ALL PLANTING AREAS SHALL BE MULCHED.
4. ALL PERMANENT UTILITY POLES TO BE LOCTED WITHIN A NEW SIDEWALK MUST BE SET TO GRADE PRIOR TO THE CONSTRUCTION OF THE SIDEWALK. ALL TEMPORARY UTILITY POLES LOCATED WHERE A NEW SIDEWALK IS TO BE CONSTRUCTED MUST BE REMOVED PRIOR TO THE INSTALLATION OF THE NEW SIDEWALK.
5. DETECTABLE WARNING STRIPS SHALL NOT BE PLACED AT DRIVEWAY ENTRANCES.



PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	SPACING
JH	Juniperus horizontalis 'Wiltoni'	Blue Rug Juniper	18"-24" SPREAD B.B.	13	6' O.C.
PA	Platanus Acerifolia	London Planetree	2"-2 1/2" CAL.	3	SEE PLAN
PINE BARK MULCH - 71.3 SQ. YD.		NOTE: PLANT SCHEDULE FOR THIS SHEET ONLY.			

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER:
CHECKED BY: TRT

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

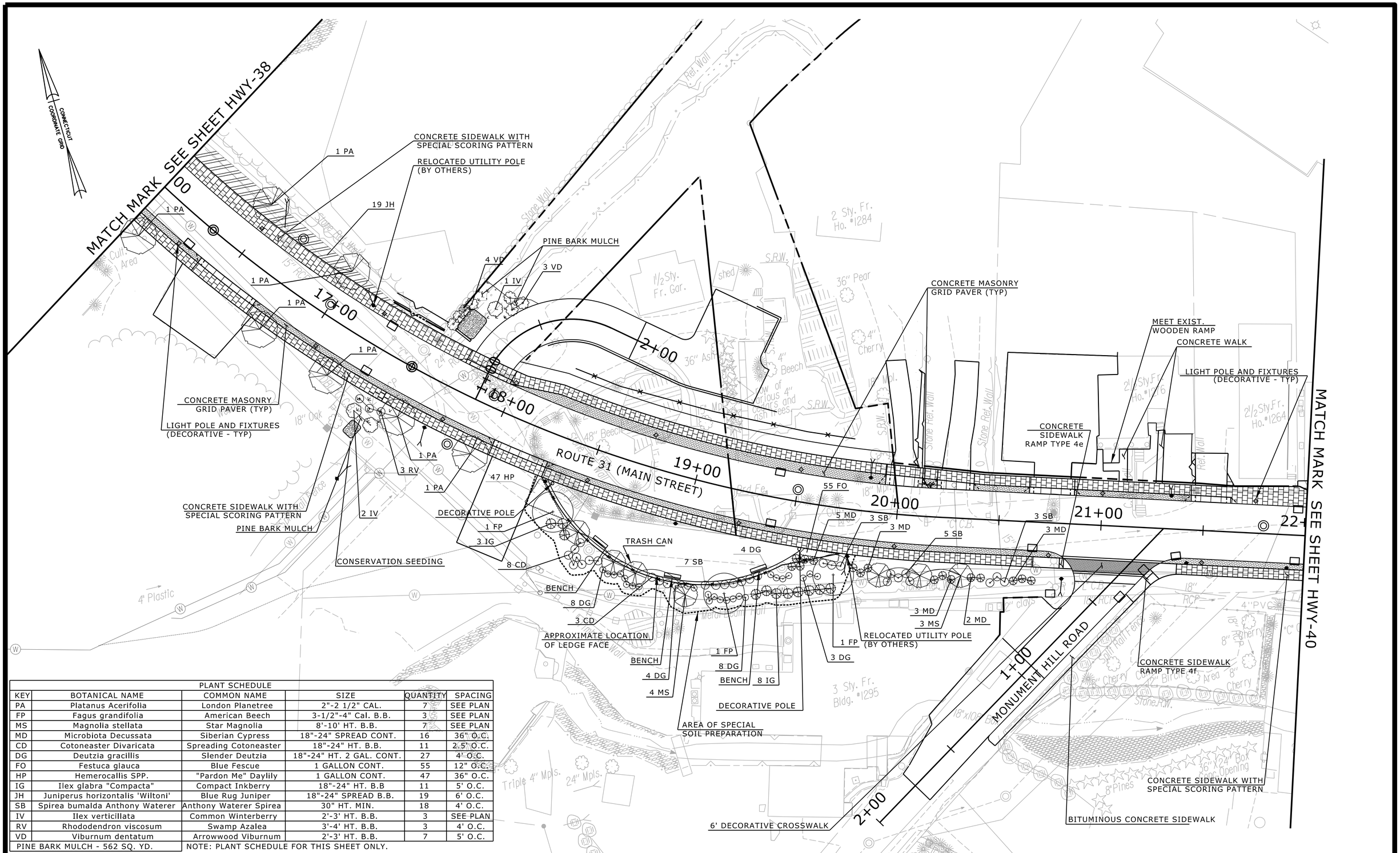
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: SIDEWALK AND LANDSCAPE PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-38
SHEET NO. 03.38



PLANT SCHEDULE					
KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	SPACING
PA	Platanus Acerifolia	London Planetree	2"-2 1/2" CAL.	7	SEE PLAN
FP	Fagus grandifolia	American Beech	3-1/2"-4" Cal. B.B.	3	SEE PLAN
MS	Magnolia stellata	Star Magnolia	8'-10' HT. B.B.	7	SEE PLAN
MD	Microbiota Decussata	Siberian Cypress	18"-24" SPREAD CONT.	16	36" O.C.
CD	Cotoneaster Divaricata	Spreading Cotoneaster	18"-24" HT. B.B.	11	2.5' O.C.
DG	Deutzia gracillis	Slender Deutzia	18"-24" HT. 2 GAL. CONT.	27	4' O.C.
FO	Festuca glauca	Blue Fescue	1 GALLON CONT.	55	12" O.C.
HP	Hemerocallis SPP.	"Pardon Me" Daylily	1 GALLON CONT.	47	36" O.C.
IG	Ilex glabra "Compacta"	Compact Inkberry	18"-24" HT. B.B	11	5' O.C.
JH	Juniperus horizontalis 'Wiltoni'	Blue Rug Juniper	18"-24" SPREAD B.B.	19	6' O.C.
SB	Spirea bumalda Anthony Waterer	Anthony Waterer Spirea	30" HT. MIN.	18	4' O.C.
IV	Ilex verticillata	Common Winterberry	2'-3' HT. B.B.	3	SEE PLAN
RV	Rhododendron viscosum	Swamp Azalea	3'-4' HT. B.B.	3	4' O.C.
VD	Viburnum dentatum	Arrowwood Viburnum	2'-3' HT. B.B.	7	5' O.C.
PINE BARK MULCH - 562 SQ. YD.		NOTE: PLANT SCHEDULE FOR THIS SHEET ONLY.			

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: JAH / MSR
CHECKED BY: TRT

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP
APPROVED BY:
DATE:

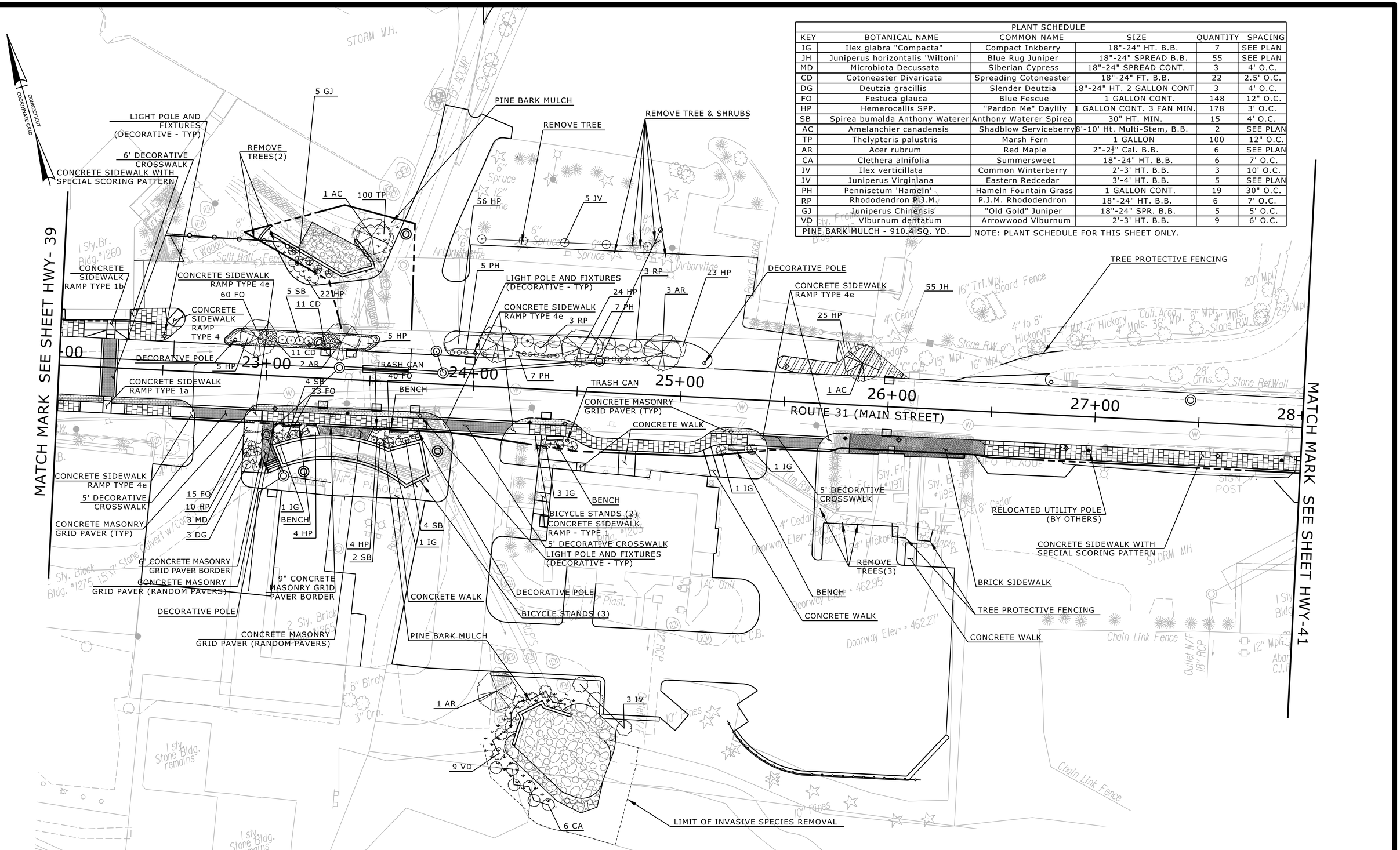
PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: SIDEWALK AND LANDSCAPE PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-39
SHEET NO. 03.39

PLANT SCHEDULE					
KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	SPACING
IG	Ilex glabra "Compacta"	Compact Inkberry	18"-24" HT. B.B.	7	SEE PLAN
JH	Juniperus horizontalis 'Wiltoni'	Blue Rug Juniper	18"-24" SPREAD B.B.	55	SEE PLAN
MD	Microbiota Decussata	Siberian Cypress	18"-24" SPREAD CONT.	3	4' O.C.
CD	Cotoneaster Divaricata	Spreading Cotoneaster	18"-24" FT. B.B.	22	2.5' O.C.
DG	Deutzia gracillis	Slender Deutzia	18"-24" HT. 2 GALLON CONT	3	4' O.C.
FO	Festuca glauca	Blue Fescue	1 GALLON CONT.	148	12" O.C.
HP	Hemerocallis SPP.	"Pardon Me" Daylily	1 GALLON CONT. 3 FAN MIN.	178	3' O.C.
SB	Spirea bumalda Anthony Waterer	Anthony Waterer Spirea	30" HT. MIN.	15	4' O.C.
AC	Amelanchier canadensis	Shadblow Serviceberry	8'-10' Ht. Multi-Stem, B.B.	2	SEE PLAN
TP	Thelypteris palustris	Marsh Fern	1 GALLON	100	12" O.C.
AR	Acer rubrum	Red Maple	2"-2½" Cal. B.B.	6	SEE PLAN
CA	Clethera alnifolia	Summersweet	18"-24" HT. B.B.	6	7' O.C.
IV	Ilex verticillata	Common Winterberry	2'-3' HT. B.B.	3	10' O.C.
JV	Juniperus Virginiana	Eastern Redcedar	3'-4' HT. B.B.	5	SEE PLAN
PH	Pennisetum 'Hameln'	Hameln Fountain Grass	1 GALLON CONT.	19	30" O.C.
RP	Rhododendron P.J.M.	P.J.M. Rhododendron	18"-24" HT. B.B.	6	7' O.C.
GJ	Juniperus Chinensis	"Old Gold" Juniper	18"-24" SPR. B.B.	5	5' O.C.
VD	Viburnum dentatum	Arrowwood Viburnum	2'-3' HT. B.B.	9	6' O.C.
PINE BARK MULCH - 910.4 SQ. YD.		NOTE: PLANT SCHEDULE FOR THIS SHEET ONLY.			



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: JAH / MSR
CHECKED BY: TRT

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BSC GROUP
APPROVED BY: DATE:

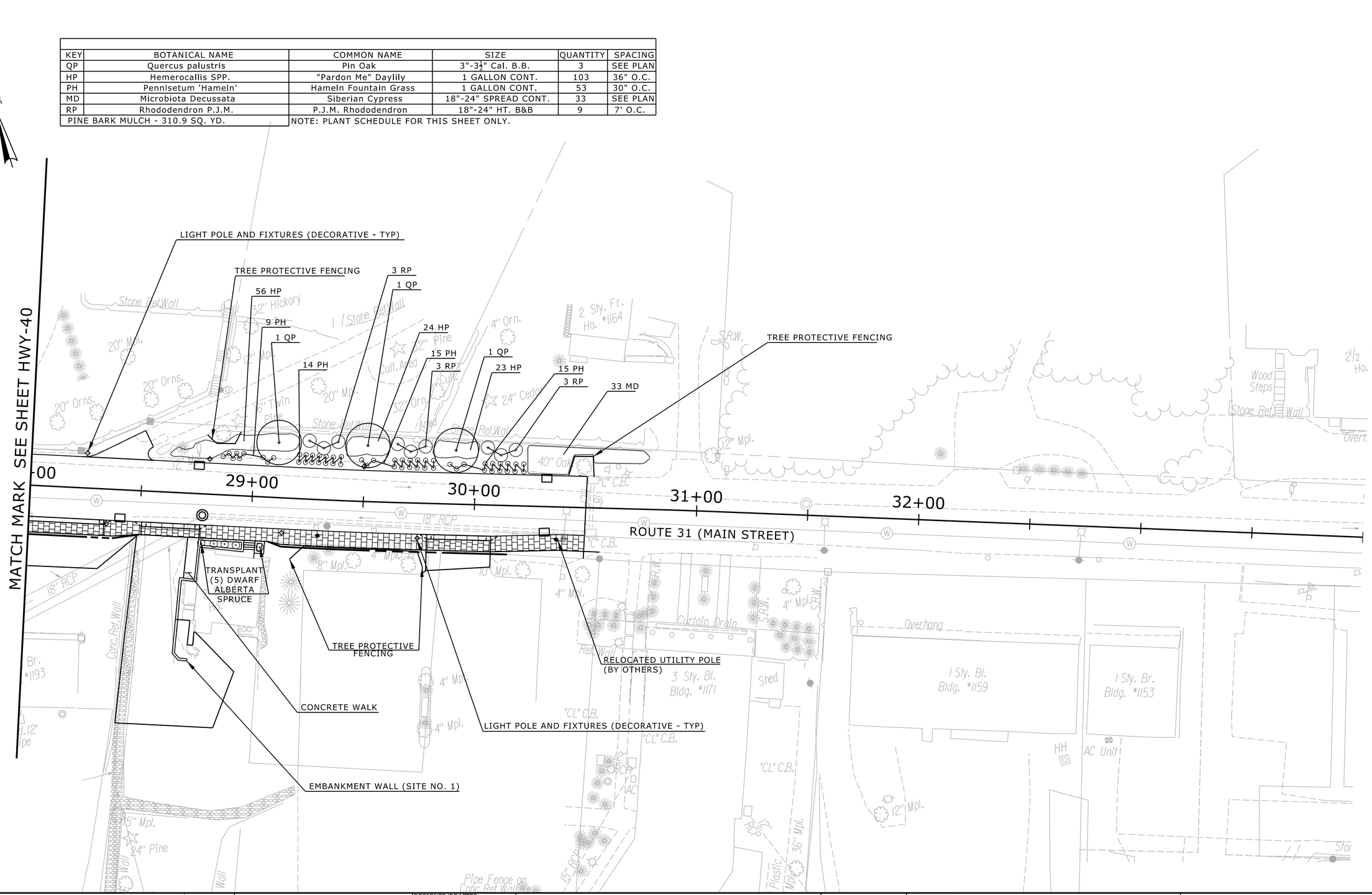
PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: SIDEWALK AND LANDSCAPE PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-40
SHEET NO. 03.40

KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	SPACING
QP	Quercus palustris	Pin Oak	3"-3½" Cal. B.B.	3	SEE PLAN
HP	Hemerocallis SPP.	"Pardon Me" Daylily	1 GALLON CONT.	103	36" O.C.
PH	Pennisetum 'Hameln'	Hameln Fountain Grass	1 GALLON CONT.	53	30" O.C.
MD	Microbiota Decussata	Siberian Cypress	18"-24" SPREAD CONT.	33	SEE PLAN
RP	Rhododendron P.J.M.	P.J.M. Rhododendron	18"-24" HT. B&B	9	7' O.C.
PINE BARK MULCH - 310.9 SQ. YD.		NOTE: PLANT SCHEDULE FOR THIS SHEET ONLY.			



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: JAH / MSR
CHECKED BY: TRT

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

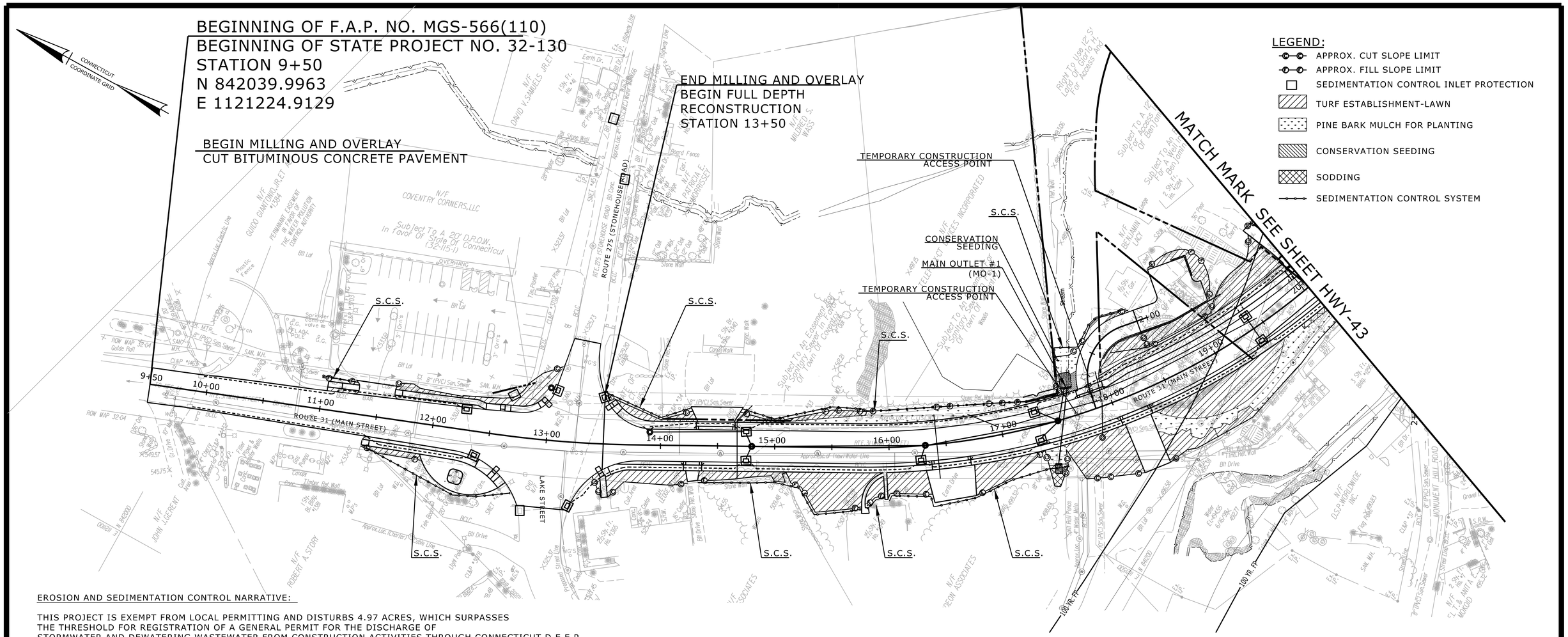
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: SIDEWALK AND LANDSCAPE PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-41
SHEET NO. 03.41



EROSION AND SEDIMENTATION CONTROL NARRATIVE:

THIS PROJECT IS EXEMPT FROM LOCAL PERMITTING AND DISTURBS 4.97 ACRES, WHICH SURPASSES THE THRESHOLD FOR REGISTRATION OF A GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WASTEWATER FROM CONSTRUCTION ACTIVITIES THROUGH CONNECTICUT D.E.E.P.

THE EXISTING SITE CONSISTS OF TEMPORARY PAVED STREETS, SIDEWALKS AND PAVED PARKING LOTS WITH GREATER THAN 40% IMPERVIOUS COVER, WHICH TRIGGERS THE PERMIT RECOMMENDATION TO STORE ONE-HALF THE WATER QUALITY VOLUME (WQV). HOWEVER, AS PART OF THE RECONSTRUCTION PROJECT, THE TOTAL EFFECTIVE IMPERVIOUS COVER WILL NOT BE INCREASED. AS A RESULT, ONSITE RETENTION OF ONE-HALF OF THE WATER QUALITY VOLUME IS NOT REQUIRED PER GENERAL PERMIT SECTION 5(b)(2)(C)(i)(a). STORMWATER QUALITY TREATMENT WILL BE ACHIEVED USING DEEP SUMP CATCH BASINS. ALL OFFSITE DISCHARGE LOCATIONS ARE DESIGNED INCLUDING VELOCITY DISSIPATING OUTLET PROTECTION PADS OR SCOUR HOLES.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. THE NARRATIVE PROVIDED IN THE STORMWATER POLLUTION CONTROL PERMIT IS PART OF THE EROSION CONTROL REQUIREMENTS, WHICH THE CONTRACTOR SHALL FOLLOW ALONG WITH THE "2002 CT E&S GUIDELINES".

2. THE EROSION AND SEDIMENT CONTROL PLANS REQUIRE THAT THE DOWNSTREAM SLOPE LIMITS WITHIN THE PROJECT BE PROTECTED WITH SEDIMENTATION CONTROL SYSTEM (SCS), WHICH SHALL BE IN PLACE PRIOR TO THE START OF ANY CONSTRUCTION WITHIN THAT PHASE. THE SCS MUST BE IN ACCORDANCE WITH THE CTDEEP'S 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL AND THE 2004 CONNECTICUT STORMWATER QUALITY MANUAL (THE MATERIALS/PRODUCTS USED IN THE SCS SHALL BE AT THE DISCRETION OF THE CONTRACTOR AND AS APPROVED BY THE ENGINEER). THOSE SYSTEMS ARE TO BE MAINTAINED THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD, OR UNTIL DISTURBED AREAS/SLOPES ARE FULLY STABILIZED, WHICHEVER IS LONGER. ALL STORM WATER OUTFALLS, AND CULVERTS, ARE TO BE CONSTRUCTED FROM DOWNSTREAM TO UPSTREAM, COMMENCING ONLY AFTER PLACEMENT OF THE REQUIRED SCS ACROSS THE DISCHARGE POINT OR OTHER TECHNIQUES NOTED, AND THE TEMPORARY DIVERSION OF ANY EXISTING FLOW, TO THE SATISFACTION OF THE PROJECT ENGINEER.

3. THE DESIGN OF THE PROJECT STORM DRAINAGE SYSTEMS CONFORMS TO THE CONNDOT DRAINAGE MANUAL AND "ONSITE MITIGATION FOR CONSTRUCTION ACTIVITIES". OUTLET PROTECTION AND CHANNEL PROTECTION HAS BEEN INCLUDED WITHIN EACH SYSTEM DESIGN. TEMPORARY CONDITIONS SHALL FOLLOW THE SAME CRITERIA.

4. WHERE CONSTRUCTION ACTIVITIES HAVE BEEN PERMANENTLY HALTED, OR HAVE BEEN TEMPORARILY SUSPENDED FOR MORE THAN SEVEN (7) DAYS, OR WHEN FINAL GRADES HAVE BEEN ACHIEVED IN ANY PORTION OF THE PROJECT, THE CONTRACTOR SHALL IMPLEMENT STABILIZATION PRACTICES WITHIN THREE (3) DAYS. AREAS THAT WILL REMAIN DISTURBED AND INACTIVE FOR AT LEAST THIRTY (30) DAYS SHALL RECEIVE TURF ESTABLISHMENT.

5. AREAS OF LARGE CUTS AND FILLS MUST BE TEMPORARILY STABILIZED EVERY FIFTEEN (15) FEET OF DISTURBED SLOPE. THIS STABILIZATION MUST BE ACHIEVED BEFORE CONTINUING WITH THE CUT OR FILL BEYOND THE FIFTEEN (15) FEET.

6. ALL PAVED AREAS ADJACENT TO THE PROJECT LIMITS, WHERE CONSTRUCTION IS OCCURRING, SHALL BE SWEPT DAILY TO REMOVE EXCESS MUD, DIRT OR ROCK TRACKING FROM THE PROJECT. DUMP TRUCKS HAULING MATERIAL FROM THE PROJECT MUST BE COVERED WITH A TARPAULIN. ANTI-TRACKING PADS SHALL BE PLACED, AND MAINTAINED, AT ALL POINTS OF ACCESS AND EGRESS TO PAVED AREAS.

7. THE FOLLOWING PERMITS HAVE BEEN OBTAINED FOR THE PROJECT AND ARE INCORPORATED INTO THE CONTRACT DOCUMENTS:
   U.S. ARMY CORPS OF ENGINEERS- SECTION 404- CONNECTICUT GENERAL PERMIT - CATEGORY 2
   CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION (CT DEEP) GENERAL PERMIT FOR THE DISCHARGE OF STORM WATER AND DEWATERING WASTEWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES
   CT DEEP FLOOD MANAGEMENT CERTIFICATION
   CT DEEP INLAND WETLAND AND WATERCOURSES PERMIT
   CT DEEP 401 WATER QUALITY CERTIFICATION

8. ALL DRAINAGE STRUCTURES SHALL BE CLEANED WITHIN THE PROJECT LIMITS AND ALL SILT FENCE SHALL BE REMOVED PRIOR TO THE FILING OF THE NOTICE OF TERMINATION IN ACCORDANCE WITH THE GENERAL PERMIT.

9. NO STAGING, STORING OF EQUIPMENT OR MATERIAL SHALL OCCUR WITHIN THE 100-YEAR FLOOD LIMITS.

10. THE CONSTRUCTION SITE SHALL BE CLEAN, WITHOUT ANY ACCUMULATION OF RUBBISH OR CONSTRUCTION DEBRIS IN ACCORDANCE WITH SWPCP SECTION 6.1. PROPER SANITARY DEVICES SHALL BE MAINTAINED ON-SITE AT ALL TIMES. ALL NECESSARY PRECAUTIONS SHALL BE OBSERVED TO AVOID THE SPILLAGE OF FUEL OR OTHER POLLUTANTS ON THE CONSTRUCTION SITE, AS WELL AS THE ADHERENCE TO ALL APPLICABLE POLICIES AND REGULATIONS RELATED TO SPILL PREVENTION AND RESPONSE.

11. DESIGNATE A "WASHOUT" AREA ON THE SITE IN ACCORDANCE WITH SWPCP SECTION 6.2.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename: Border Version: 11/14/08

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
SCALE IN FEET 0 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

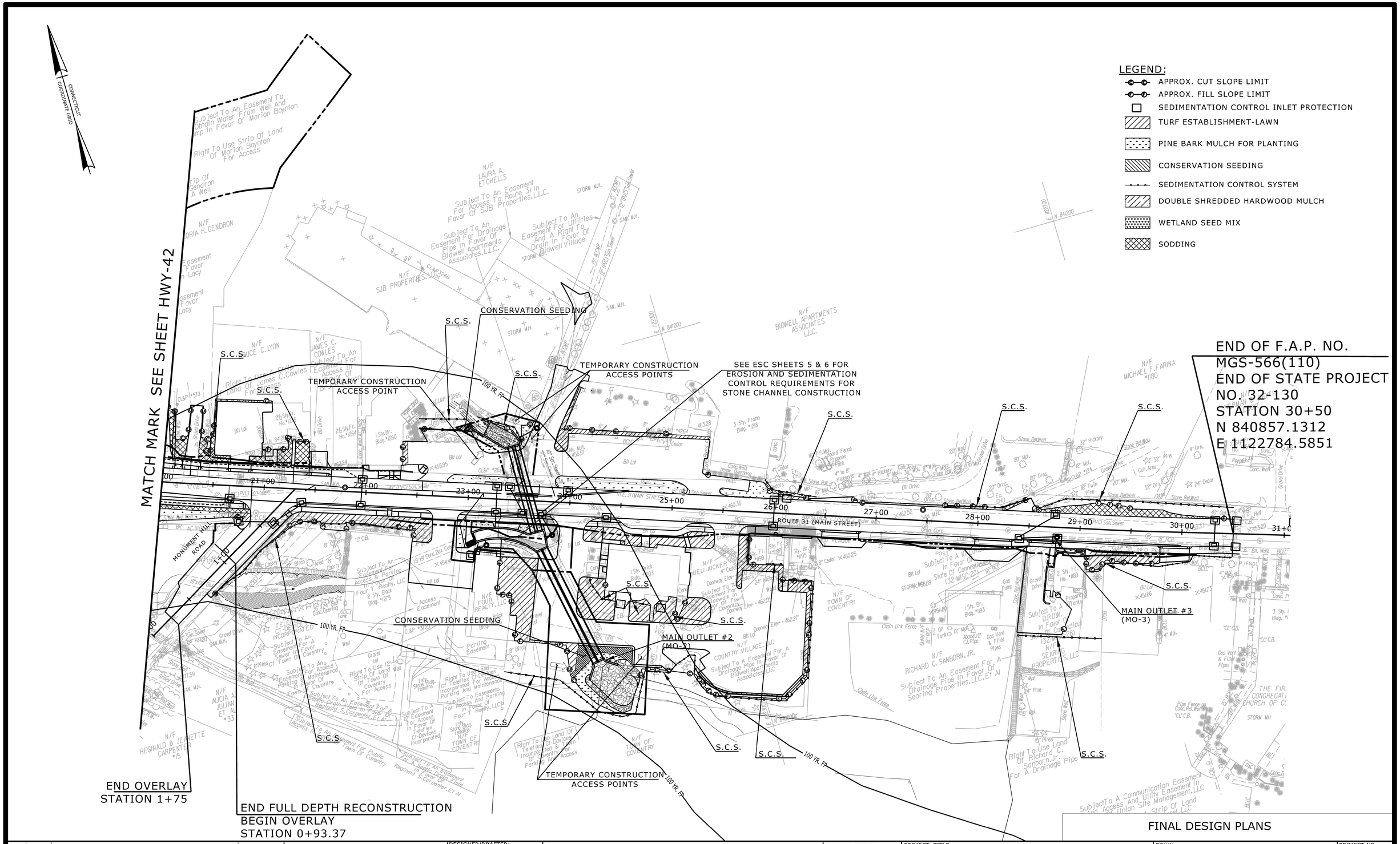
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: EROSION AND SEDIMENTATION CONTROL PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-42
SHEET NO. 03.42



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

DESIGNER/DRAFTER: PJB-MSR / MSR
CHECKED BY: PJB
SCALE IN FEET 0 40 80 SCALE 1"=40'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

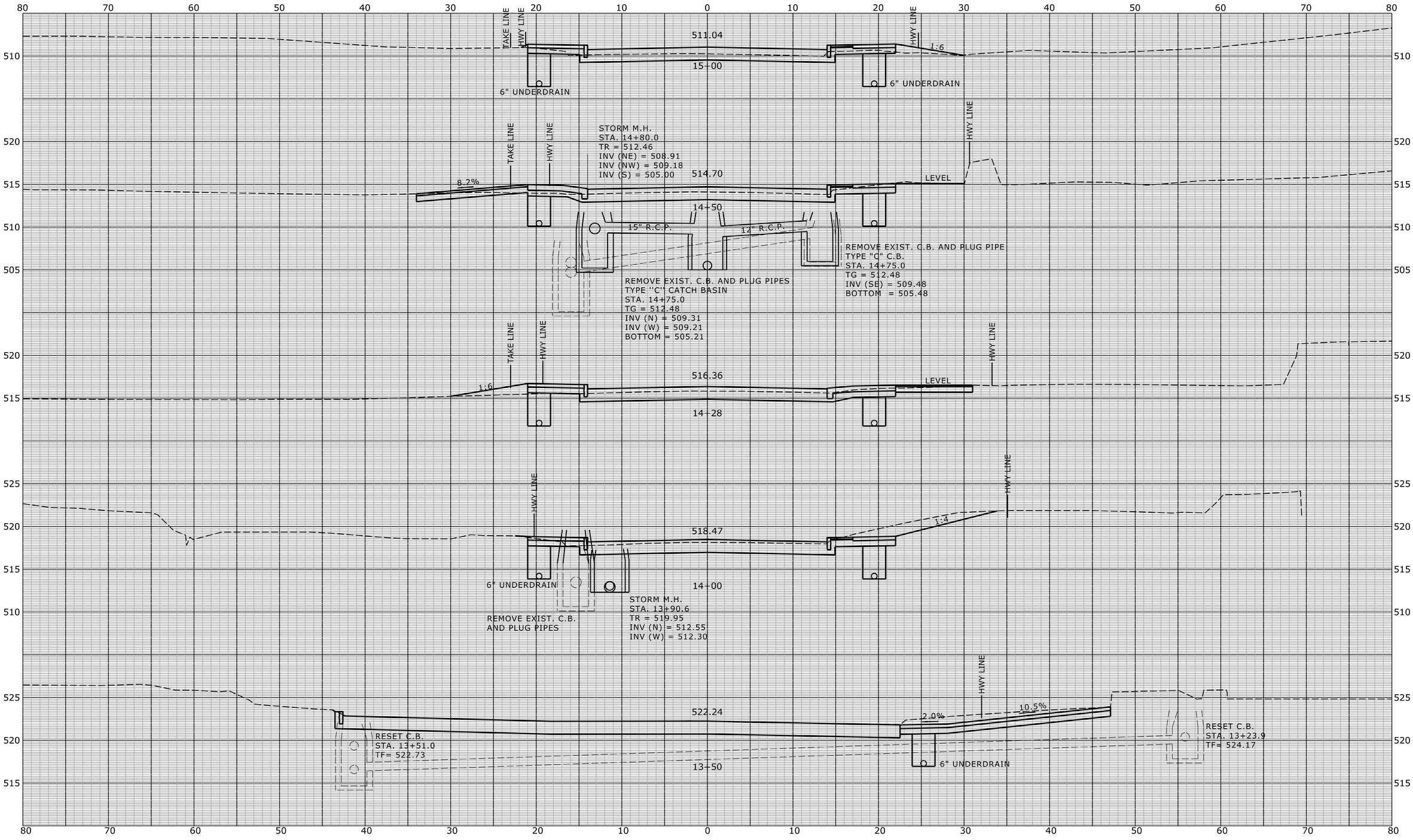
ENGINEER: BSC GROUP
APPROVED BY:
DATE:

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: EROSION AND SEDIMENTATION CONTROL PLAN

PROJECT NO. 32-130
DRAWING NO. HWY-43
SHEET NO. 03.43



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-01.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

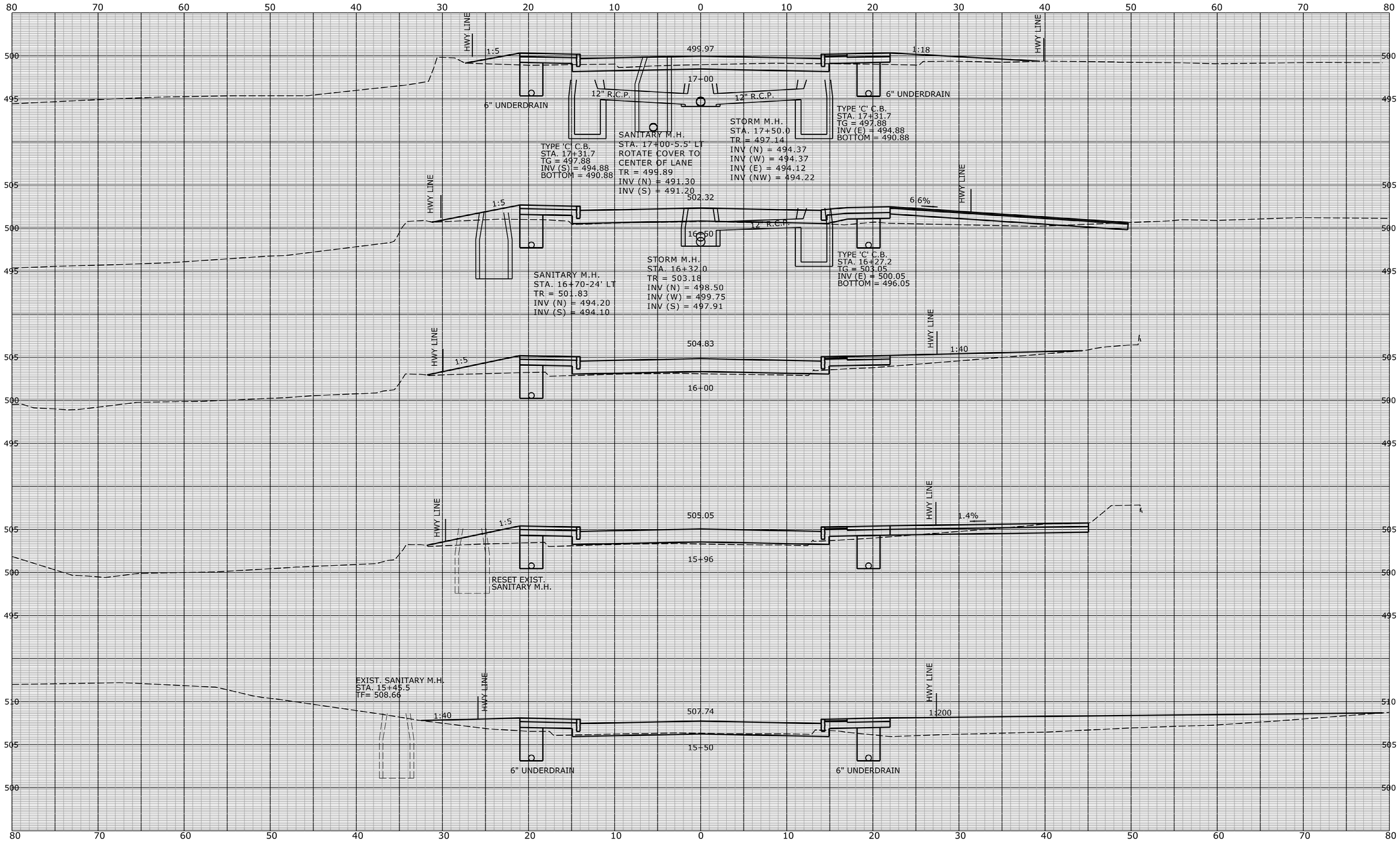
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 13+50 TO STA. 15+00

PROJECT NO. 32-130

DRAWING NO. HWY-44

SHEET NO. 03.44



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-02.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

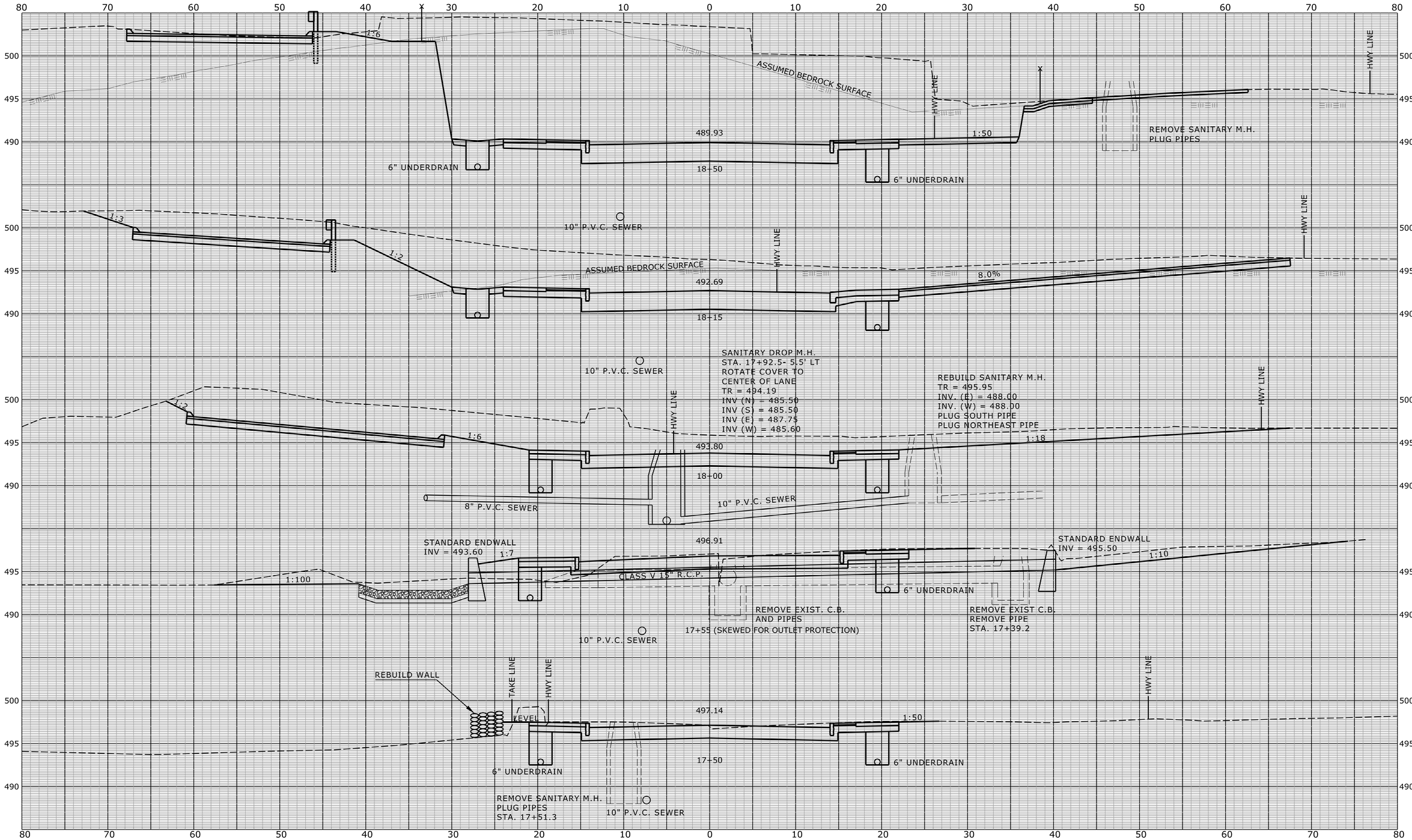
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 15+50 TO STA. 17+00

PROJECT NO. 32-130

DRAWING NO. HWY-45

SHEET NO. 03.45



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-03.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

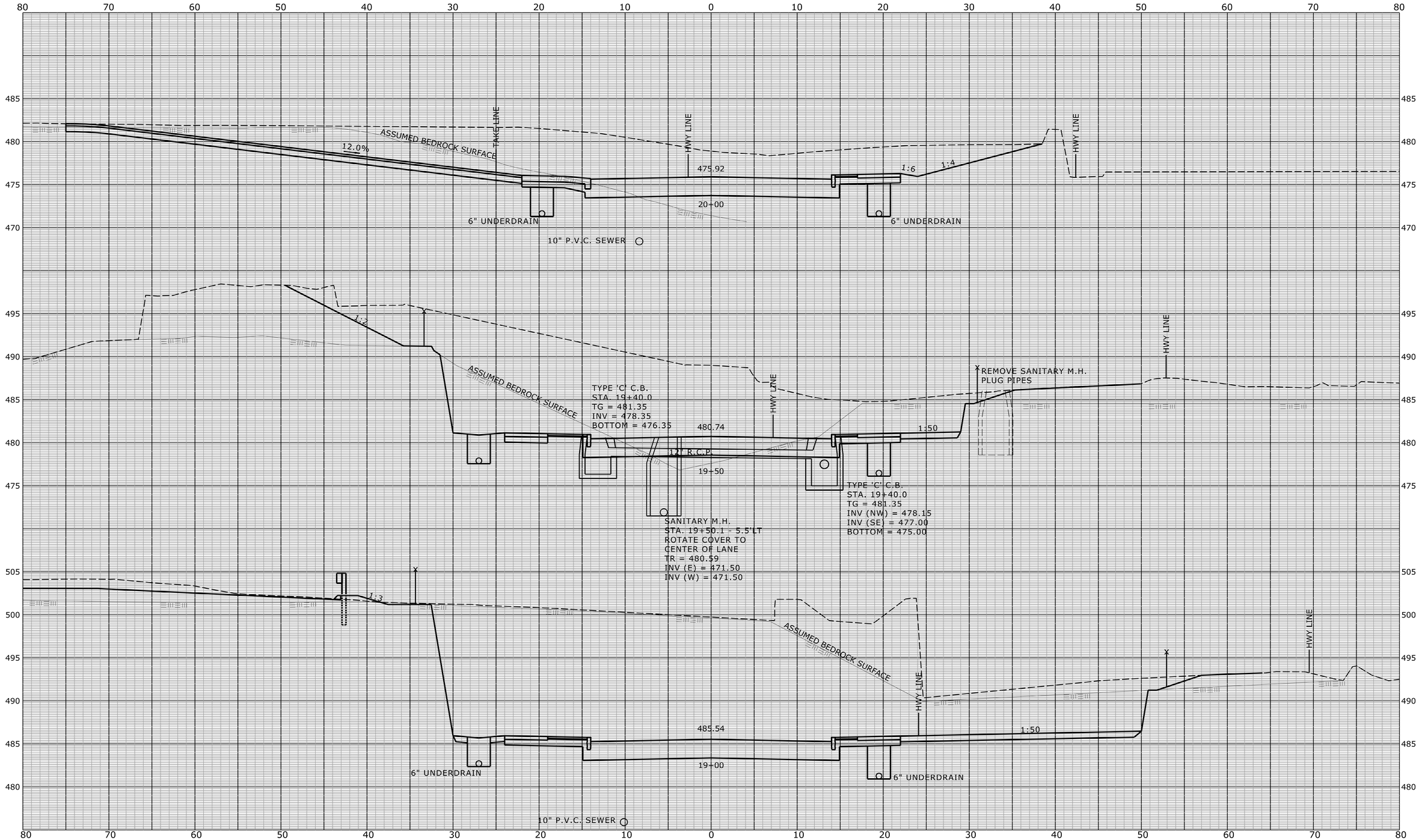
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 17+50 TO STA. 18+50

PROJECT NO. 32-130

DRAWING NO. HWY-46

SHEET NO. 03.46



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-04.dgn

STATE OF CONNECTICUT PETER JAMES BRUTI No. 21606 LICENSED PROFESSIONAL ENGINEER

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

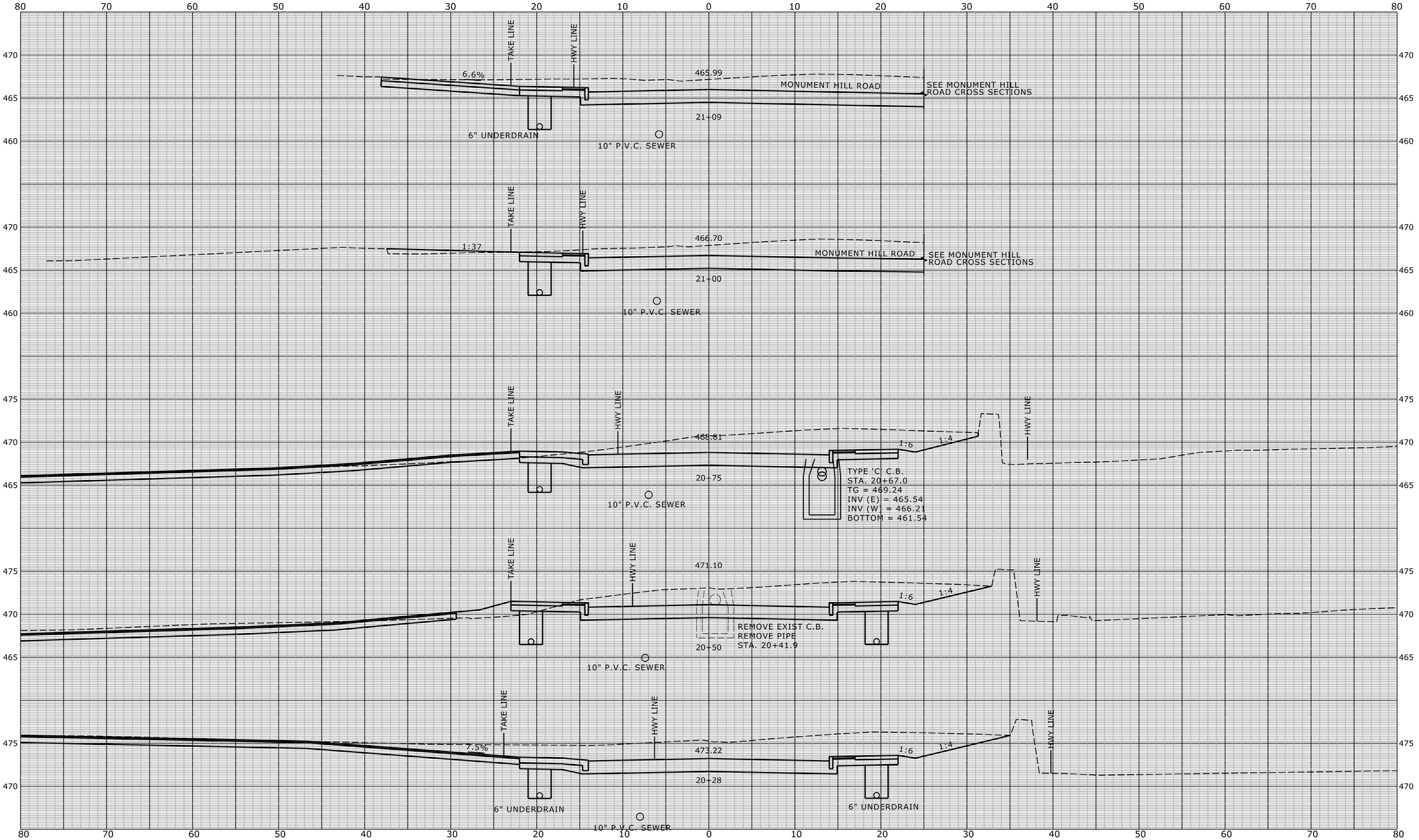
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 19+00 TO STA. 20+00

PROJECT NO. 32-130

DRAWING NO. HWY-47

SHEET NO. 03.47



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-05.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

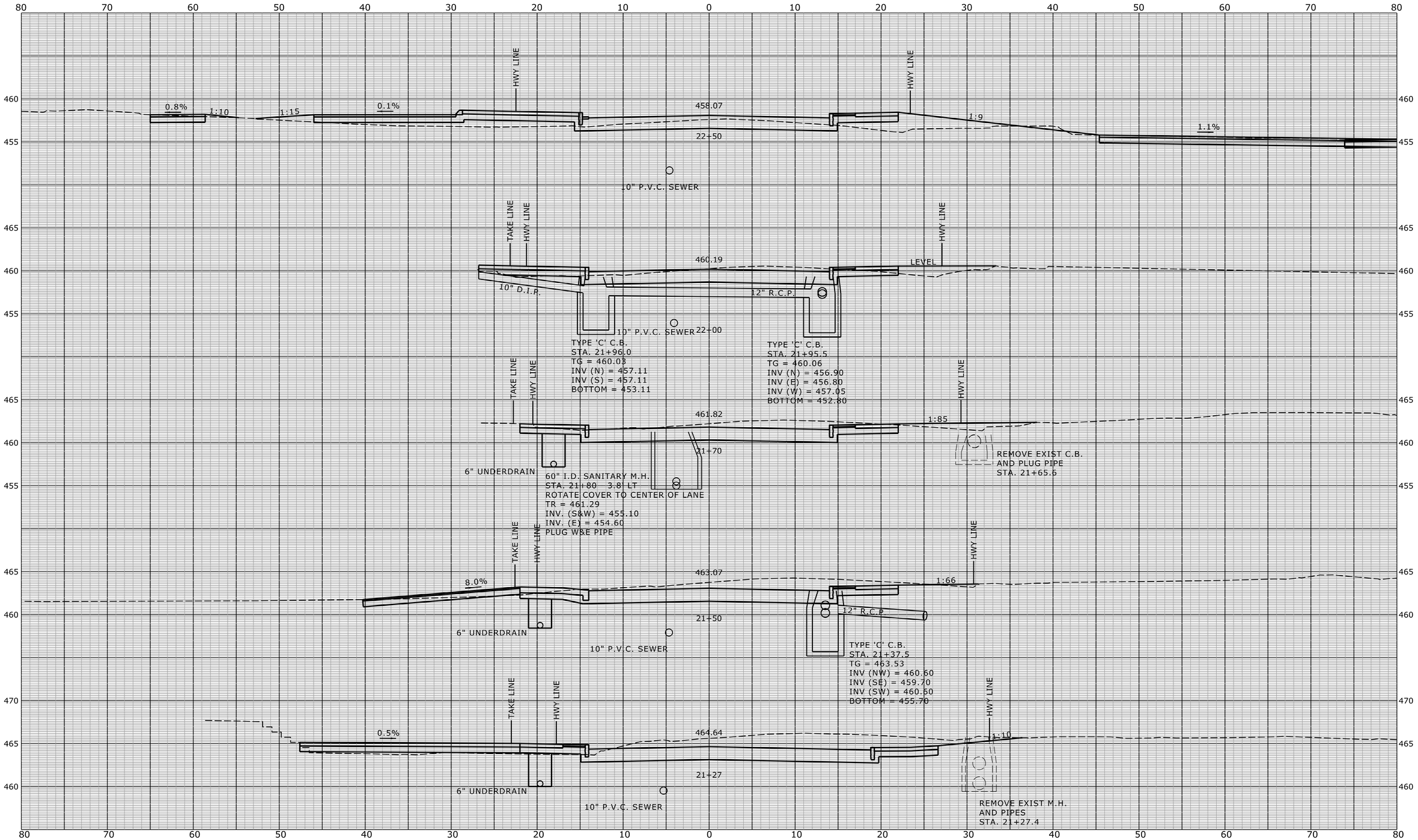
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 20+28 TO STA. 21+09

PROJECT NO. 32-130

DRAWING NO. HWY-48

SHEET NO. 03.48



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-06.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

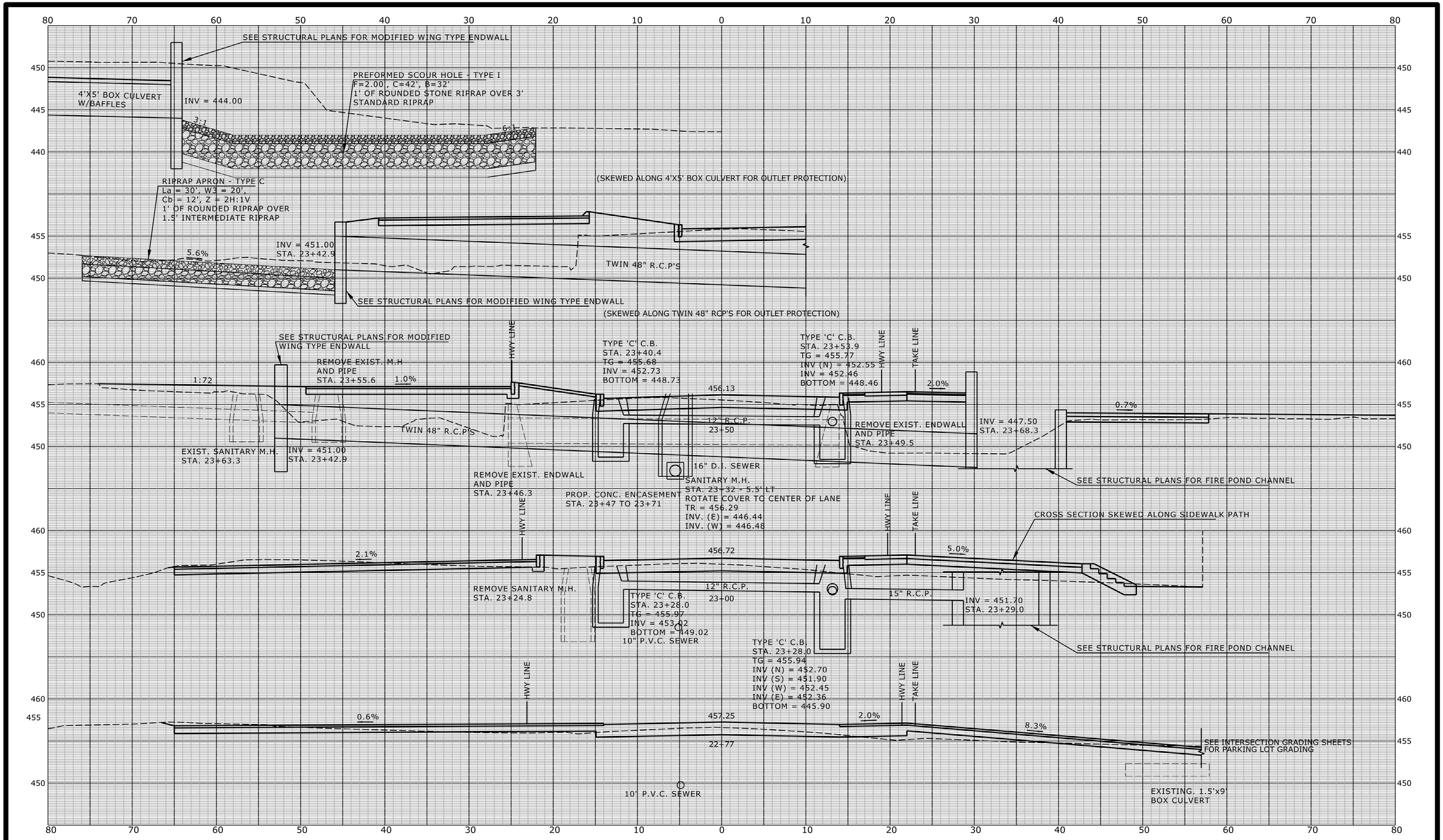
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 21+27 TO STA. 22+50

PROJECT NO. 32-130

DRAWING NO. HWY-49

SHEET NO. 03.49



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-07.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

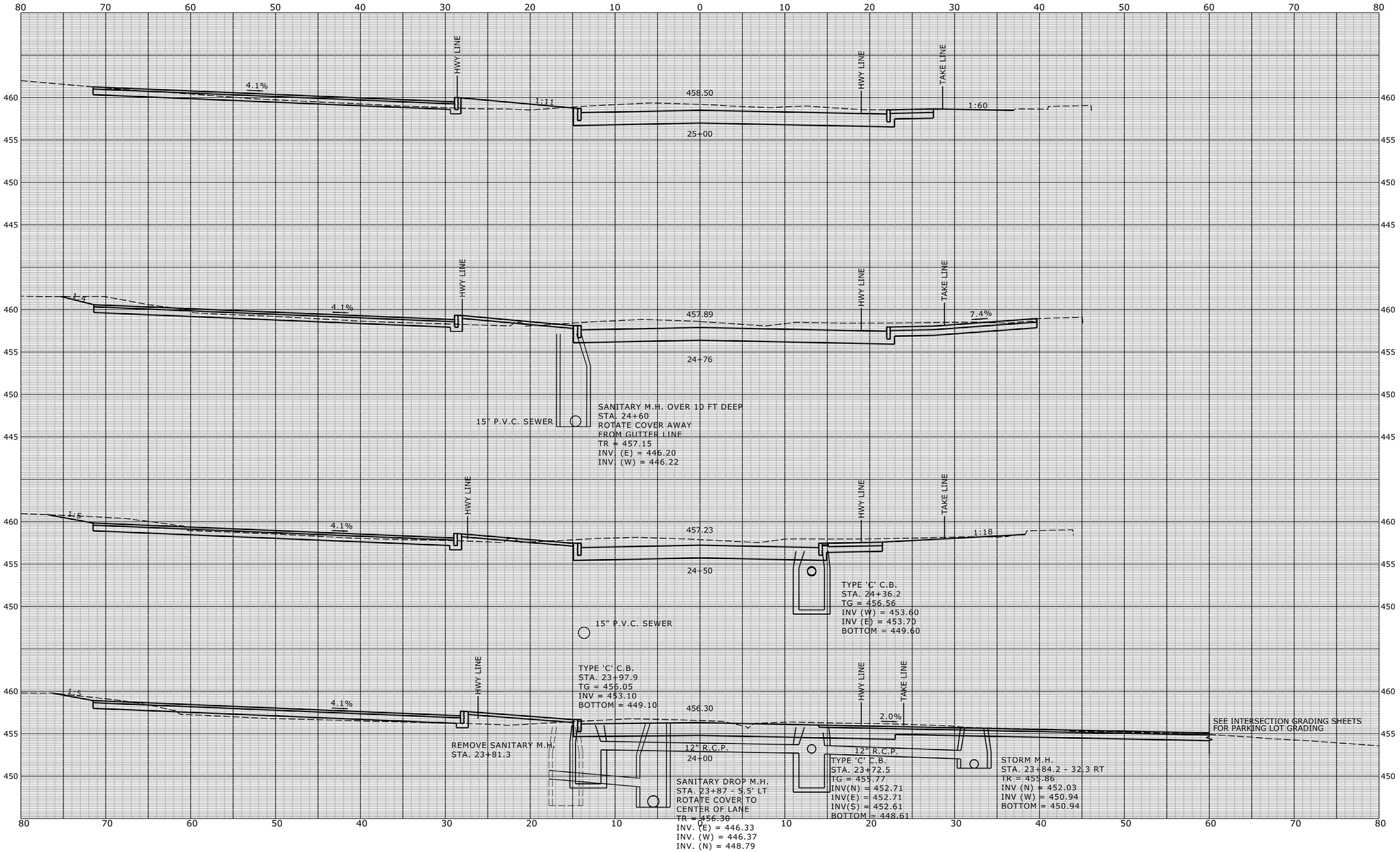
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 22+77 TO STA. 23+50

PROJECT NO. 32-130

DRAWING NO. HWY-50

SHEET NO. 03.50



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-08.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

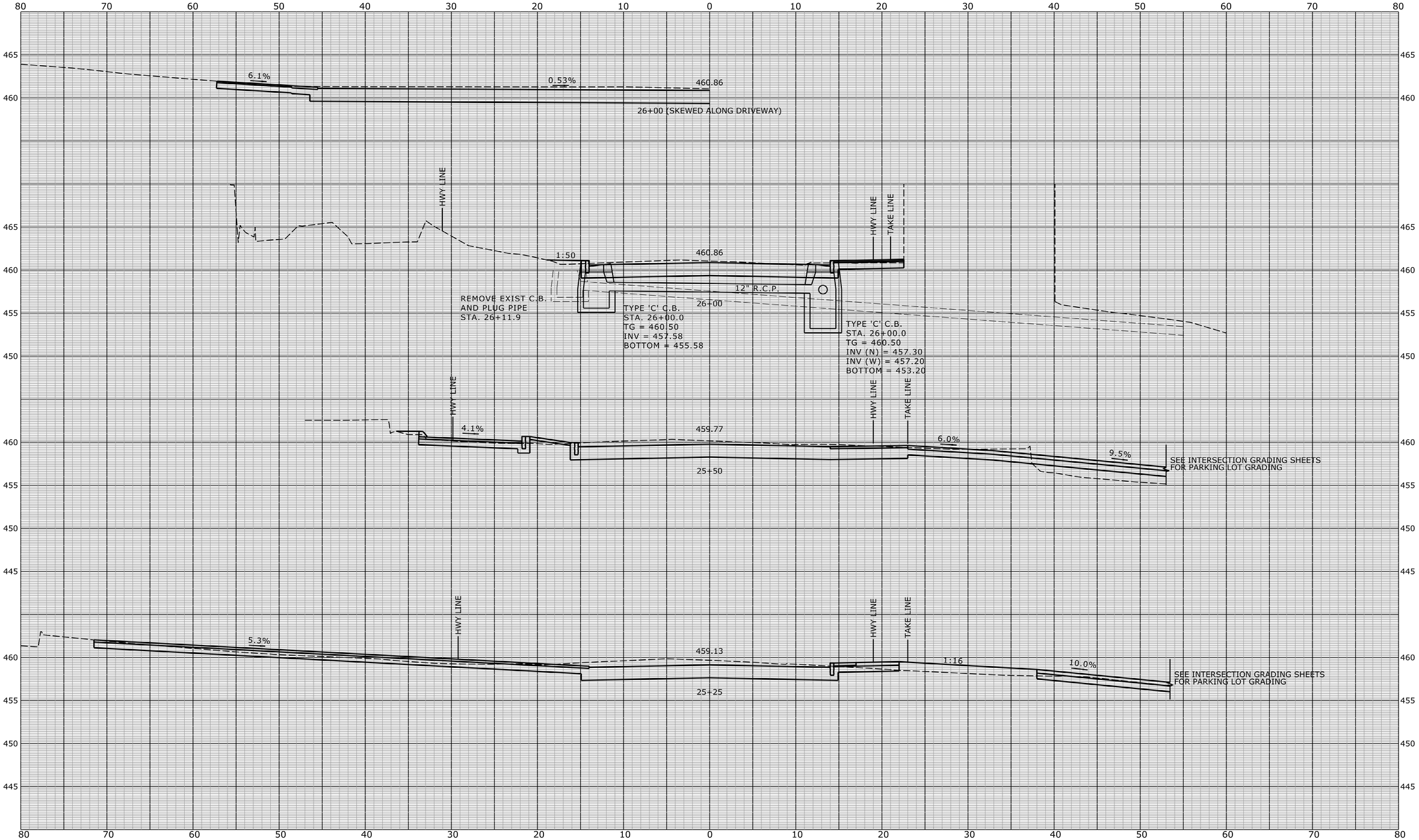
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 24+00 TO STA. 25+00

PROJECT NO. 32-130

DRAWING NO. HWY-51

SHEET NO. 03.51



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-09.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

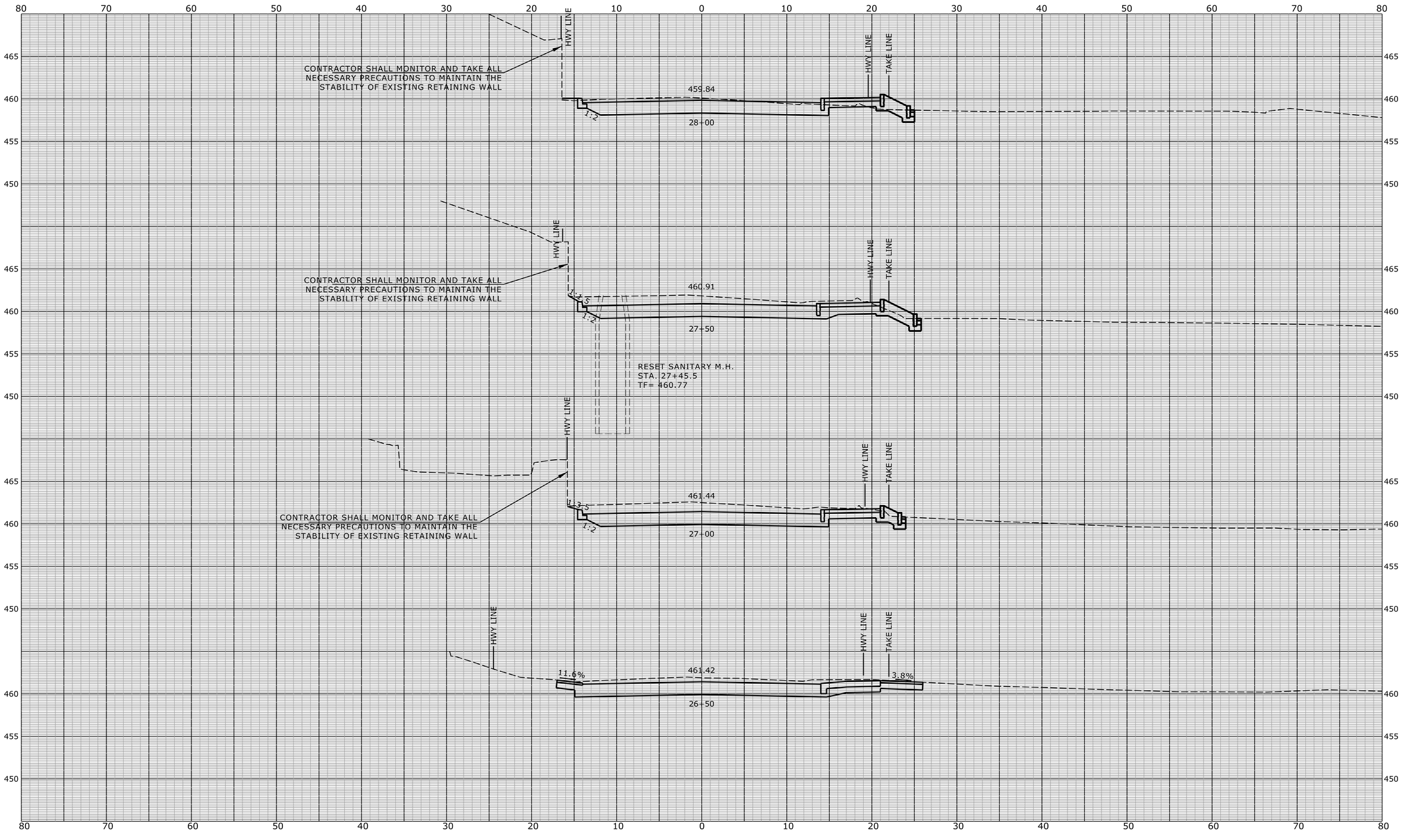
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 25+25 TO STA. 27+41

PROJECT NO. 32-130

DRAWING NO. HWY-52

SHEET NO. 03.52



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-10.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

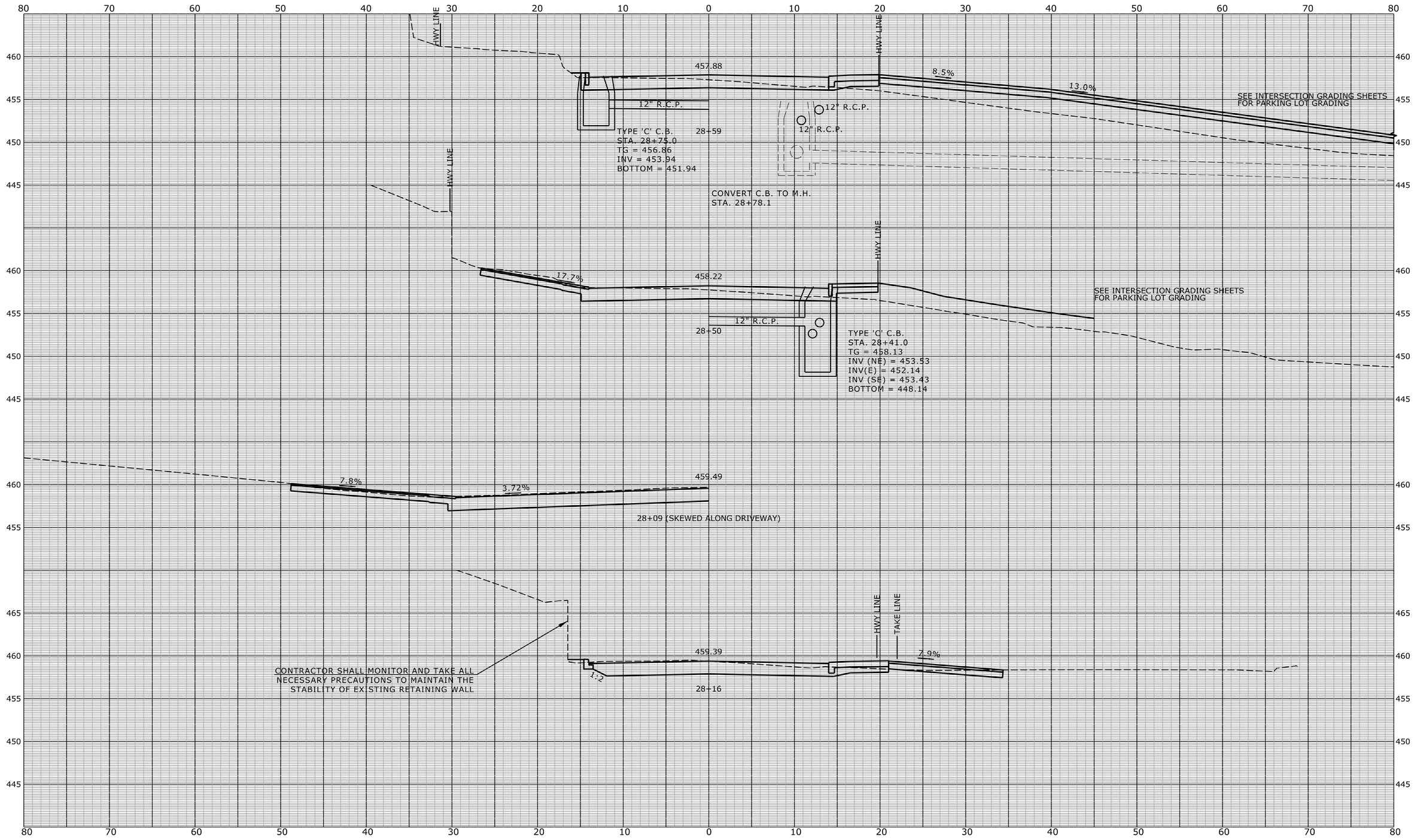
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 26+50 TO STA. 28+00

PROJECT NO. 32-130

DRAWING NO. HWY-53

SHEET NO. 03.53



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-11.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

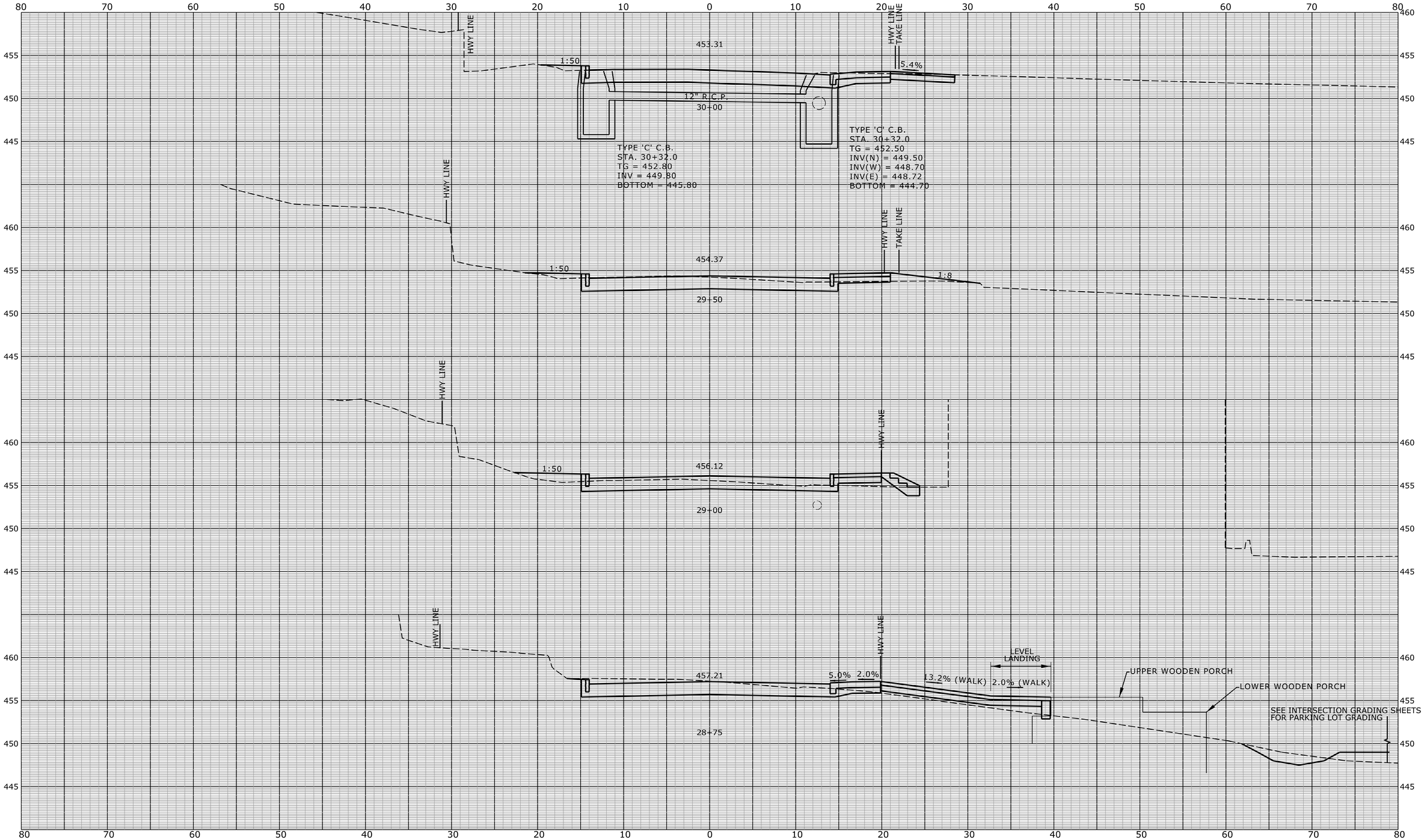
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 28+16 TO STA. 28+59

PROJECT NO. 32-130

DRAWING NO. HWY-54

SHEET NO. 03.54



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-12.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

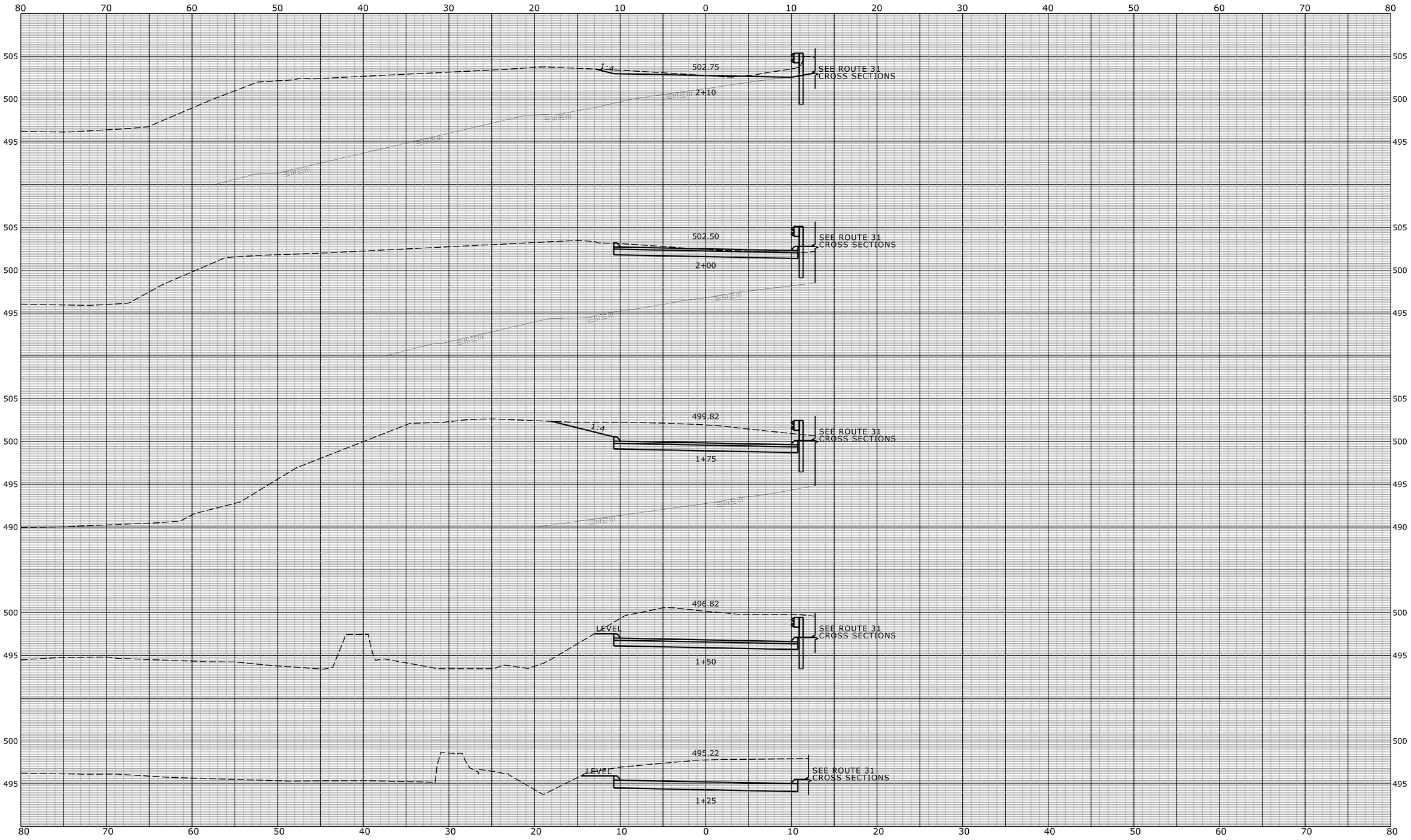
TOWN: COVENTRY

DRAWING TITLE: ROUTE 31 CROSS SECTION STA. 28+75 TO STA. 30+00

PROJECT NO. 32-130

DRAWING NO. HWY-55

SHEET NO. 03.55



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-30.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

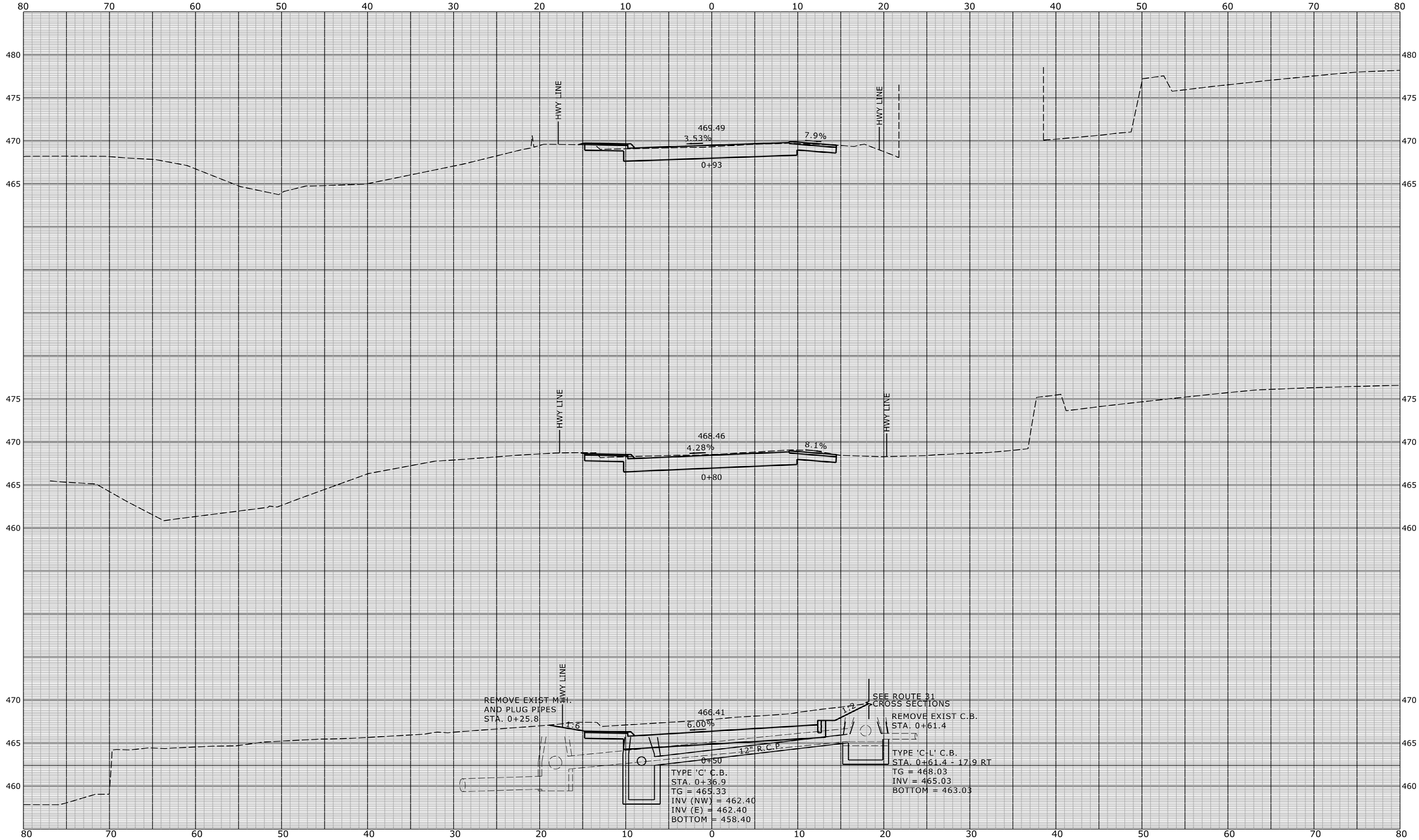
TOWN: COVENTRY

DRAWING TITLE: BARN DRIVEWAY CROSS SECTION STA. 1+25 TO STA. 2+10

PROJECT NO. 32-130

DRAWING NO. HWY-56

SHEET NO. 03.56



REV.	DATE	REVISION DESCRIPTION	SHEET NO.

Filename:

Plotted Date: 6/17/2015

DESIGNER/DRAFTER: PJB-MSR / MSR

CHECKED BY: PJB

SCALE IN FEET 0 5 10

SCALE 1" = 5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\HW_MSH_032_0130_XSC-31.dgn

PROJECT TITLE: RECONSTRUCTION OF ROUTE 31

TOWN: COVENTRY

DRAWING TITLE: MONUMENT HILL RD CROSS SECTION STA. 0+60 TO STA. 0+93

PROJECT NO. 32-130

DRAWING NO. HWY-57

SHEET NO. 03.57