14004.00-COV.DWG Plotted on 19-May-2019 8:58 PM

TOWN OF BRIDGEWATER

PLAN AND PROFILE OF

ELM STREET

IN THE TOWN OF

BRIDGEWATER

PLYMOUTH COUNTY

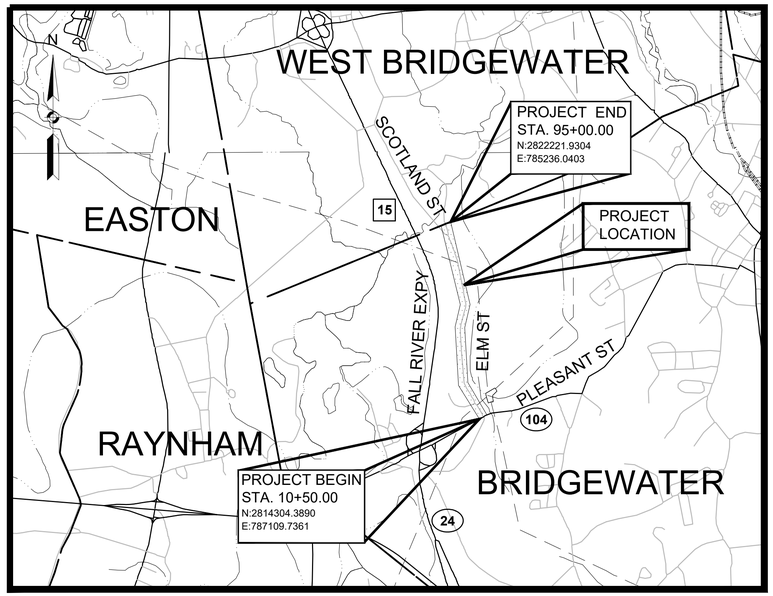
THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED APRIL 1, 2019, THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH MASSACHUSETTS AMENDMENTS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, WILL GOVERN.

ISSUED FOR BIDDING

INDEX

BASE BID

ADD ALTERNATE



0 3,000 6,000 9,000 12,000

SCALE: 1" = 3,000'

LENGTH OF PROJECT = 8450.00 FEET = 1.600 MILES

MAY 17, 2019

DESIGN DESIGNATION (ELM STREET)

DESIGN SPEED	35 MPH
FUNCTIONAL CLASSIFICATION	URBAN MINOR COLLECTOR

DATE	DESCRIPTION	REV #

ENGINEER DATE

Vanasse Hangen Brustlin, Inc.
101 Walnut St., PO Box 9151
Watertown, MA 02472
617.924.1770 FAX 617.924.2286

DESIGNED BY: BD	APPROVED BY: TM	SHEET 1 OF 65
DRAWN BY: BD/KL	DFTG CHECKED BY: .	VHB CAD FILE NAME: 14004.00-COV.DWG
CHECKED BY: RC/BP	DATE: 5-17-2019	JOB NO.: 14004.00

BRIDGEWATER
ELM STREET
LEGEND & ABBREVIATIONS
SHEET 02 OF 65

14004.00-LEG.DWG Plotted on 19-May-2019 8:59 PM

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
Ⓒ	Ⓒ	CABLE MANHOLE
Ⓓ	Ⓓ	DRAINAGE MANHOLE
Ⓔ	Ⓔ	ELECTRIC MANHOLE
Ⓖ	Ⓖ	GAS MANHOLE
Ⓜ	Ⓜ	MISC MANHOLE
Ⓢ	Ⓢ	SEWER MANHOLE
Ⓣ	Ⓣ	TELEPHONE MANHOLE
Ⓦ	Ⓦ	WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
99		CONTOURS (ON-THE-GROUND SURVEY DATA)
100		
99		CONTOURS (PHOTOGRAMMETRIC DATA)
100		
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		EROSION CONTROL BARRIER / SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		EDGE OF PAVEMENT
		LIMIT OF MICROMILLING AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
	100' BZ	100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EXISTING / PERMANENT EASEMENT
		TEMPORARY EASEMENT

GENERAL ABBREVIATIONS

ABAN	ABANDON
ADJ	ADJUST
APPROX	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS / CONTINUED
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DIA	DIAMETER
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EXIST (or EX)	EXISTING
EXC	EXCAVATION
FDN.	FOUNDATION
FDP	FULL DEPTH PAVEMENT
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HWY	HIGHWAY
JCT	JUNCTION
LOAM	LOAM BORROW
LSA	LANDSCAPED AREA
LT	LEFT
MAHWL	MEAN AVERAGE HIGH WATER LINE
MAX	MAXIMUM
MB	MAILBOX
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
MOD	MODIFIED
MSE	MECHANICALLY STABILIZED EARTH
NERR	NEW ENGLAND RAILROAD
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
P.G.L.	PROFILE GRADE LINE
PERM	PERMANENT
PREV	PREVIOUS/PREVIOUSLY
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PVMT	PAVEMENT
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RD	ROAD
RDWY	ROADWAY
REB	REBUILD
REM	REMOVE
REMOD	REMODEL
REQ	REQUIRED
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SHLO/S.H.L.O.	STATE HIGHWAY LAYOUT LINE
ST	STREET

GENERAL ABBREVIATIONS (CONT)

STA	STATION
STD	STANDARD
SW	SIDEWALK
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TRANS	TRANSITION
TRM	TURF REINFORCING MAT
TYP	TYPICAL
VAR	VARIES
VERT	VERTICAL
WCR	WHEEL CHAIR RAMP
WP	WORKING POINT
X-SECT	CROSS SECTION

UTILITY ABBREVIATIONS

CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
DCB	DOUBLE CATCH BASIN
DCBCI	DOUBLE CATCH BASIN CURB INLET
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
FES	FLARED END SECTION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
GG	GAS GATE
GICI	GUTTER INLET CURB INLET
GIP	GALVANIZED IRON PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HDW	HEADWALL
HYD	HYDRANT
INV	INVERT
LB	LEACH BASIN
LP	LIGHT POLE
MH	MANHOLE
MW	MONITORING WELL
OHW	OVERHEAD WIRE
PVC	POLYVINYLCHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
SMH	SEWER MANHOLE
TSV&B	TAPPING SLEEVE VALVE & BOX
UP	UTILITY POLE
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN

PROFILE ABBREVIATIONS

AD	ALGEBRAIC DIFFERENCE IN RATES OF GRADE
HSD	HORIZONTAL SIGHT DISTANCE
K	RATE OF VERTICAL CURVATURE
L	LENGTH OF CURVE
PVC	POINT OF VERTICAL CURVATURE
PVCC	POINT OF VERTICAL COMPOUND CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVRC	POINT OF VERTICAL REVERSE CURVATURE
PVT	POINT OF VERTICAL TANGENCY
SSD	STOPPING SIGHT DISTANCE
VC	VERTICAL CURVE

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
ONLY	ONLY	LEGEND "ONLY" - WHITE
	SL	STOP LINE
	CW	CROSSWALK
	SWL	SOLID WHITE LINE
	SYL	SOLID YELLOW LINE
	BWL	BROKEN WHITE LINE
	BYL	BROKEN YELLOW LINE
	DWL	DOTTED WHITE LINE
	DYL	DOTTED YELLOW LINE
	DWLEx	DOTTED WHITE LINE EXTENSION
	DYLEx	DOTTED YELLOW LINE EXTENSION
	DBWL	DOUBLE WHITE LINE
	DBYL	DOUBLE YELLOW LINE

GENERAL NOTES:

1. THERE IS NO TOWN LAYOUT OF ELM STREET. THE STREET / PROPERTY LINES SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL FIELD SURVEY CONDUCTED BY VHB, INC. IN OCTOBER, 2017 AND COMPILED FROM DEEDS AND PLANS OF RECORD.
2. THE EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY VHB, INC. IN NOVEMBER, 2017.
3. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD OBSERVATIONS AND INFORMATION OF RECORD. THEY ARE NOT WARRANTED TO BE EXACTLY LOCATED NOR IS IT WARRANTED THAT ALL UNDERGROUND UTILITIES OR OTHER STRUCTURES ARE SHOWN ON THIS PLAN.
4. HORIZONTAL DATUM IS BASED ON MASS. GRID SYSTEM, NAD 1983. ELEVATIONS SHOWN ON THIS PLAN REFER TO NAVD OF 1988.
5. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
6. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
7. DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.
8. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
9. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK.
10. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
11. EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS.
12. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
13. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
14. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
15. JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT SEALER AND BACKSANDED.
16. EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
17. IF SUITABLE, EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
18. EXISTING STATE, COUNTY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
19. PROPOSED BOUNDS SHALL BE PLACED BY A LICENSED PROFESSIONAL SURVEYOR. THE CONTRACTOR SHALL EXERCISE DUE CARE WHEN WORKING AROUND ALL PROPERTY BOUNDS WHICH ARE TO REMAIN. SHOULD ANY DAMAGE TO A BOUND RESULT FROM THE ACTIONS OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE THE BOUND REPLACED AND/OR REALIGNED BY A LICENSED PROFESSIONAL SURVEYOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
20. DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.
21. LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF 0.01 FOOT PER FOOT (MINIMUM) UNLESS NOTED OTHERWISE ON THE PLANS.

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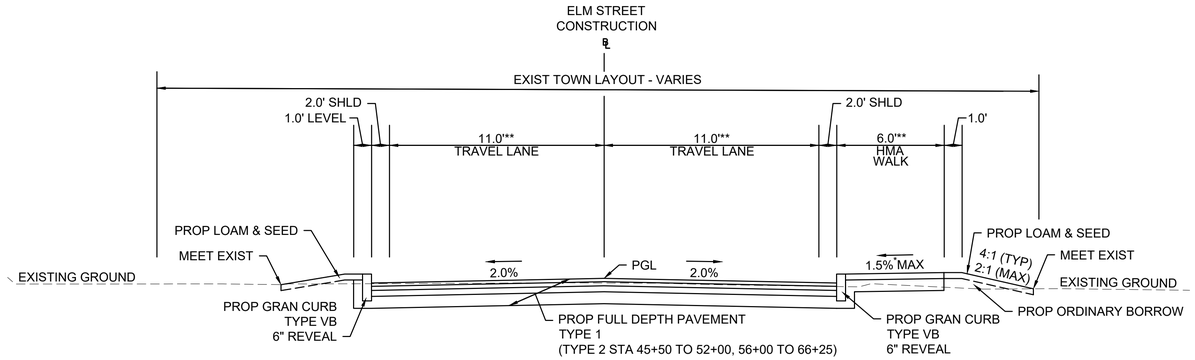
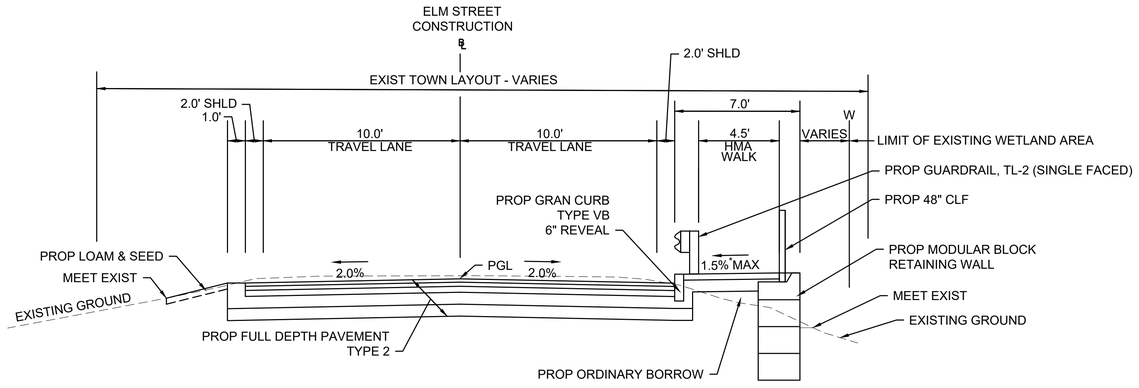


ELM STREET - STA 10+64± TO 52+00±
STA 56+00± TO 66+25±

NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%
** DIMENSION VARIES - SEE PLAN VIEWS



ELM STREET WITH WALL - STA 52+00± TO 56+00±

NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%

PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT - TYPE 1 (STA 10+64 TO 45+50, 75+50 TO 92+50)

SURFACE:	2 ¼"	SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) LEVEL 2
INTERMEDIATE:	2 ¾"	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) LEVEL 2
SUBBASE:	4"	DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER
	8"	GRAVEL BORROW, TYPE B

PROPOSED FULL DEPTH PAVEMENT - TYPE 2 (STA 45+50 TO 75+50)

SURFACE:	2 ¼"	SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) LEVEL 2
INTERMEDIATE:	2 ¾"	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) LEVEL 2
SUBBASE:	4"	DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER
	8"	GRAVEL BORROW, TYPE B OVER
	8"	SPECIAL BORROW*

* SPECIAL BORROW TO BE USED TO REPLACE UNSUITABLE SOIL ANTICIPATED NEAR THE WETLAND AREAS OR AS REQUIRED BY THE ENGINEER.

PROPOSED HOT MIX ASPHALT DRIVEWAY/DRIVEWAY APRON:

SURFACE:	1 ½"	SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) LEVEL 2
INTERMEDIATE:	2 ¼"	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) LEVEL 2
SUBBASE:	8"	GRAVEL BORROW, TYPE B

PROPOSED HOT MIX ASPHALT WALK

SURFACE:	1"	SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) LEVEL 2
INTERMEDIATE:	1 ½"	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) LEVEL 2
SUBBASE:	8"	GRAVEL BORROW, TYPE B

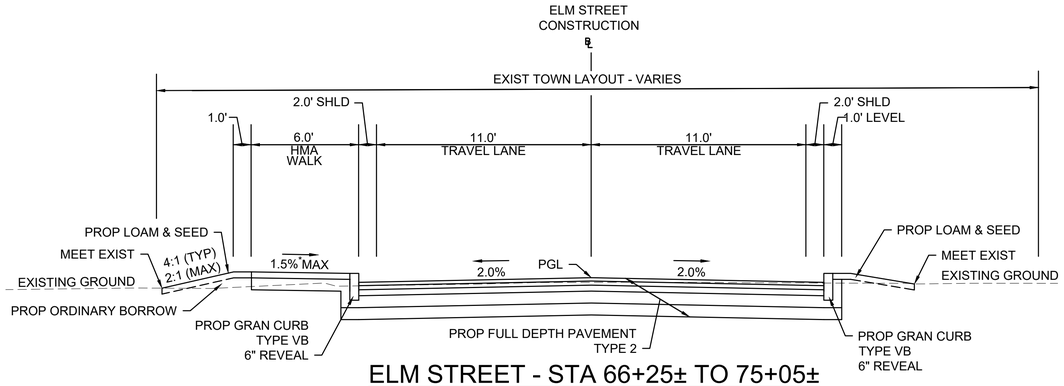
ADDITIONAL NOTES:

1. ALL HOT MIX ASPHALT PAVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 450 SUPERPAVE HMA SPECIFICATIONS.

2. ALL HOT MIX ASPHALT WALK SURFACES SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 702 OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

3. ALL HOT MIX ASPHALT DRIVEWAY SURFACES SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 703 OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

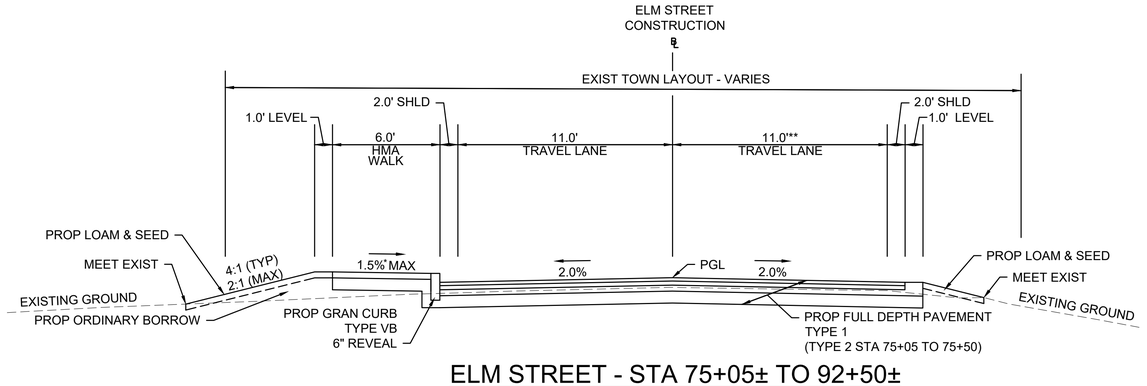
4. TEMPORARY CONSTRUCTION SHALL USE SUPERPAVE HOT MIX ASPHALT MIXTURES AND MAY NOT BE SUBJECT TO THE SAME SAMPLING AND TESTING REQUIRED FOR PERMANENT CONSTRUCTION.



ELM STREET - STA 66+25± TO 75+05±

NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%



ELM STREET - STA 75+05± TO 92+50±

NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%
** DIMENSION VARIES - SEE PLAN VIEWS

BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 04 OF 65

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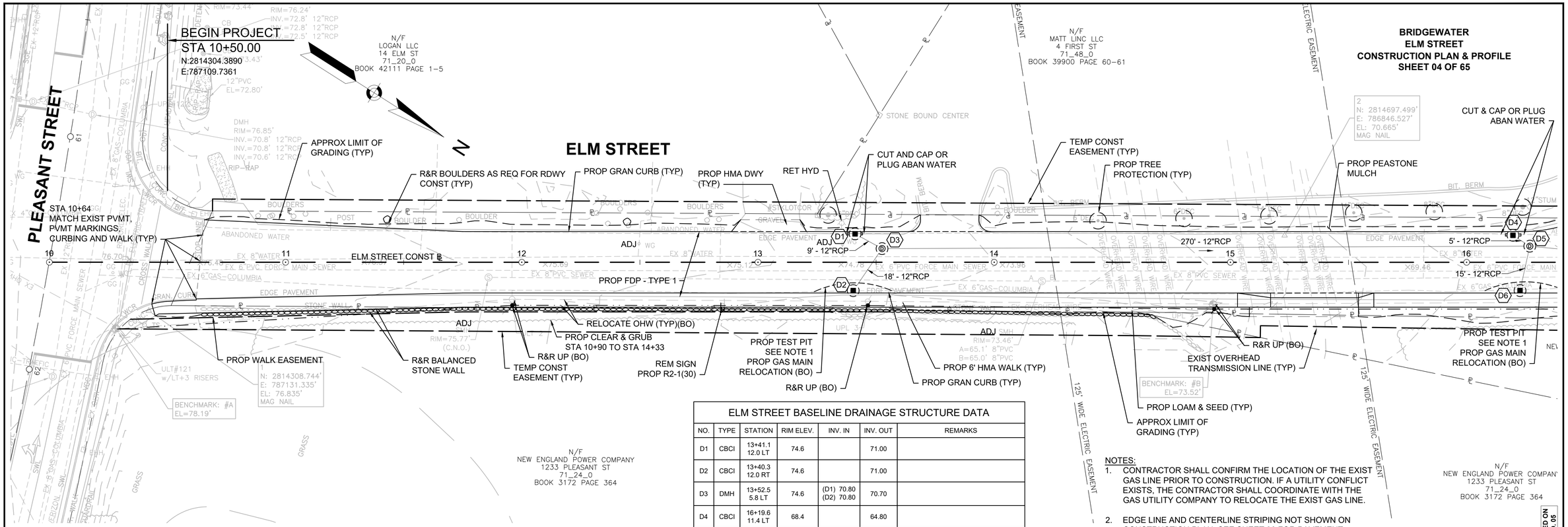


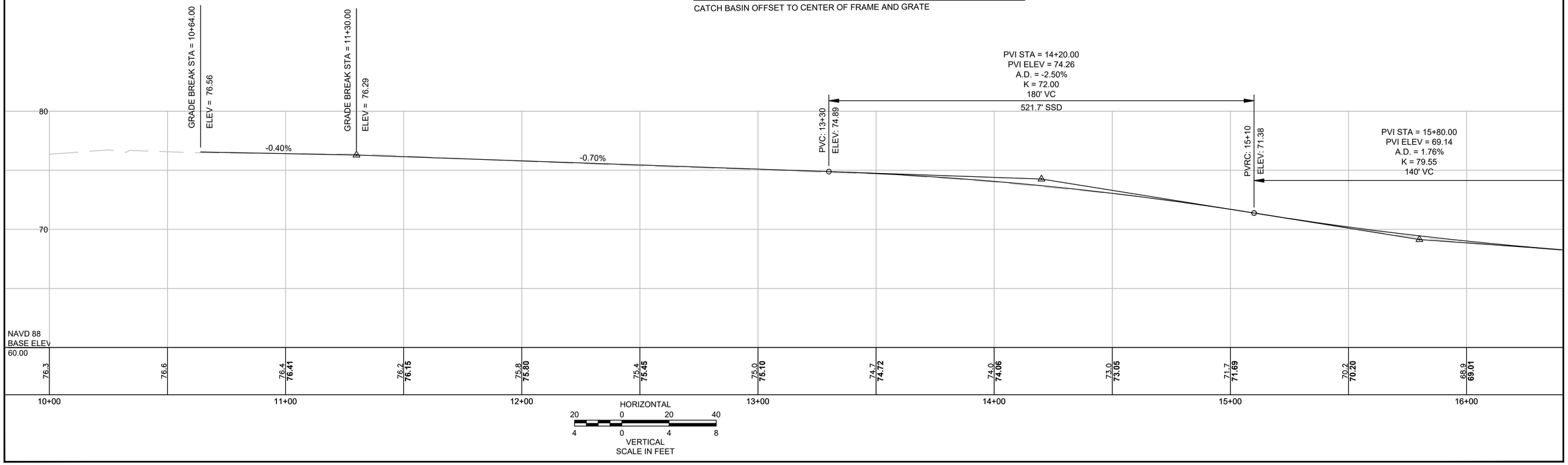
NOTES:

1. CONTRACTOR SHALL CONFIRM THE LOCATION OF THE EXIST GAS LINE PRIOR TO CONSTRUCTION. IF A UTILITY CONFLICT EXISTS, THE CONTRACTOR SHALL COORDINATE WITH THE GAS UTILITY COMPANY TO RELOCATE THE EXIST GAS LINE.
2. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D1	CBCI	13+41.1 12.0 LT	74.6		71.00	
D2	CBCI	13+40.3 12.0 RT	74.6		71.00	
D3	DMH	13+52.5 5.8 LT	74.6	(D1) 70.80 (D2) 70.80	70.70	
D4	CBCI	16+19.6 11.4 LT	68.4		64.80	
D5	DMH	16+26.8 6.8 LT	68.4	(D4) 64.70 (D6) 64.70 (D3) 64.70	64.60	
D6	CBCI	16+22.6 12.0 RT	68.3		64.80	

CATCH BASIN OFFSET TO CENTER OF FRAME AND GRATE



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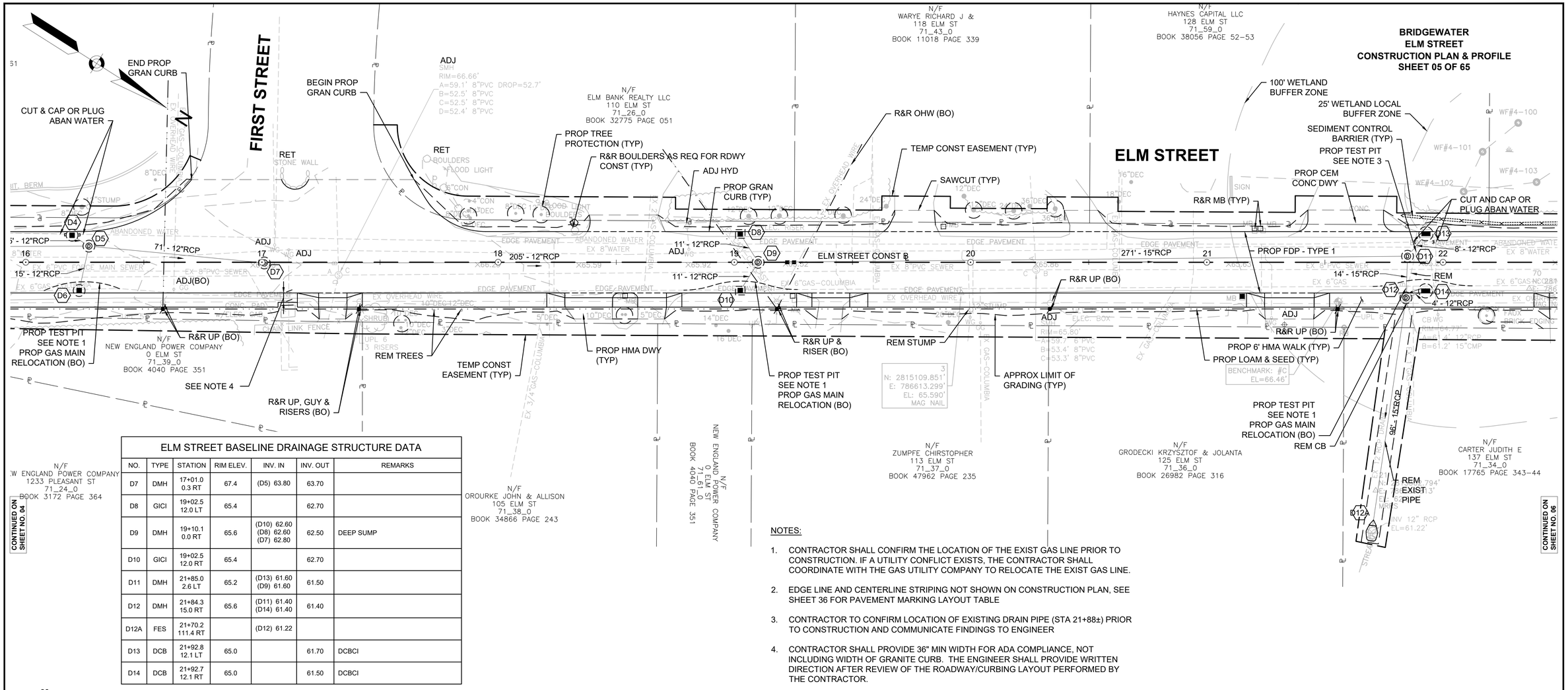
BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 05 OF 65



CONTINUED ON SHEET NO. 04

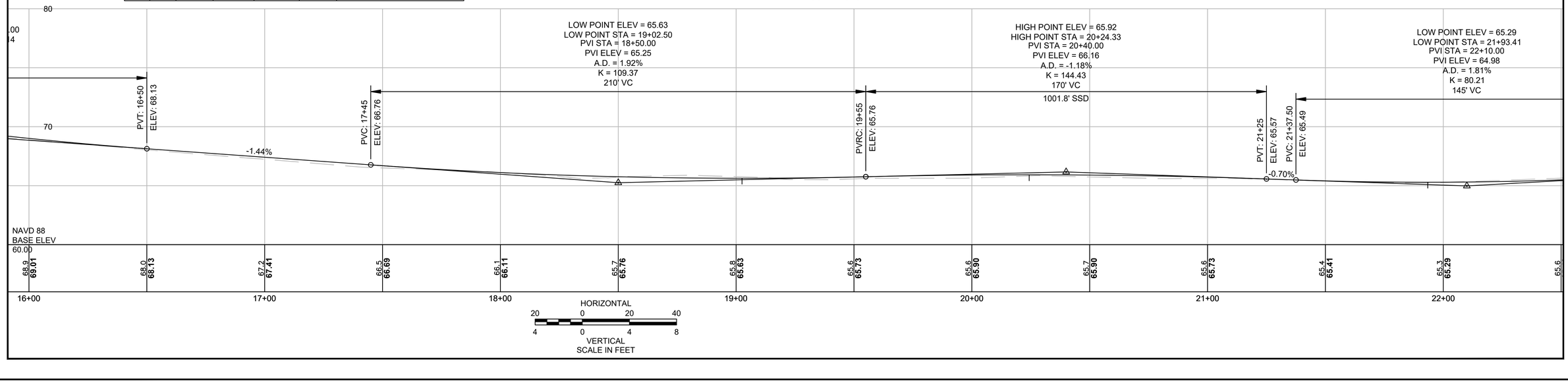
CONTINUED ON SHEET NO. 06

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D7	DMH	17+01.0 0.3 RT	67.4	(D5) 63.80	63.70	
D8	GICI	19+02.5 12.0 LT	65.4		62.70	
D9	DMH	19+10.1 0.0 RT	65.6	(D10) 62.60 (D8) 62.60 (D7) 62.80	62.50	DEEP SUMP
D10	GICI	19+02.5 12.0 RT	65.4		62.70	
D11	DMH	21+85.0 2.6 LT	65.2	(D13) 61.60 (D9) 61.60	61.50	
D12	DMH	21+84.3 15.0 RT	65.6	(D11) 61.40 (D14) 61.40	61.40	
D12A	FES	21+70.2 111.4 RT		(D12) 61.22		
D13	DCB	21+92.8 12.1 LT	65.0		61.70	DCBCI
D14	DCB	21+92.7 12.1 RT	65.0		61.50	DCBCI

NOTES:

1. CONTRACTOR SHALL CONFIRM THE LOCATION OF THE EXIST GAS LINE PRIOR TO CONSTRUCTION. IF A UTILITY CONFLICT EXISTS, THE CONTRACTOR SHALL COORDINATE WITH THE GAS UTILITY COMPANY TO RELOCATE THE EXIST GAS LINE.
2. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE
3. CONTRACTOR TO CONFIRM LOCATION OF EXISTING DRAIN PIPE (STA 21+88±) PRIOR TO CONSTRUCTION AND COMMUNICATE FINDINGS TO ENGINEER
4. CONTRACTOR SHALL PROVIDE 36" MIN WIDTH FOR ADA COMPLIANCE, NOT INCLUDING WIDTH OF GRANITE CURB. THE ENGINEER SHALL PROVIDE WRITTEN DIRECTION AFTER REVIEW OF THE ROADWAY/CURBING LAYOUT PERFORMED BY THE CONTRACTOR.



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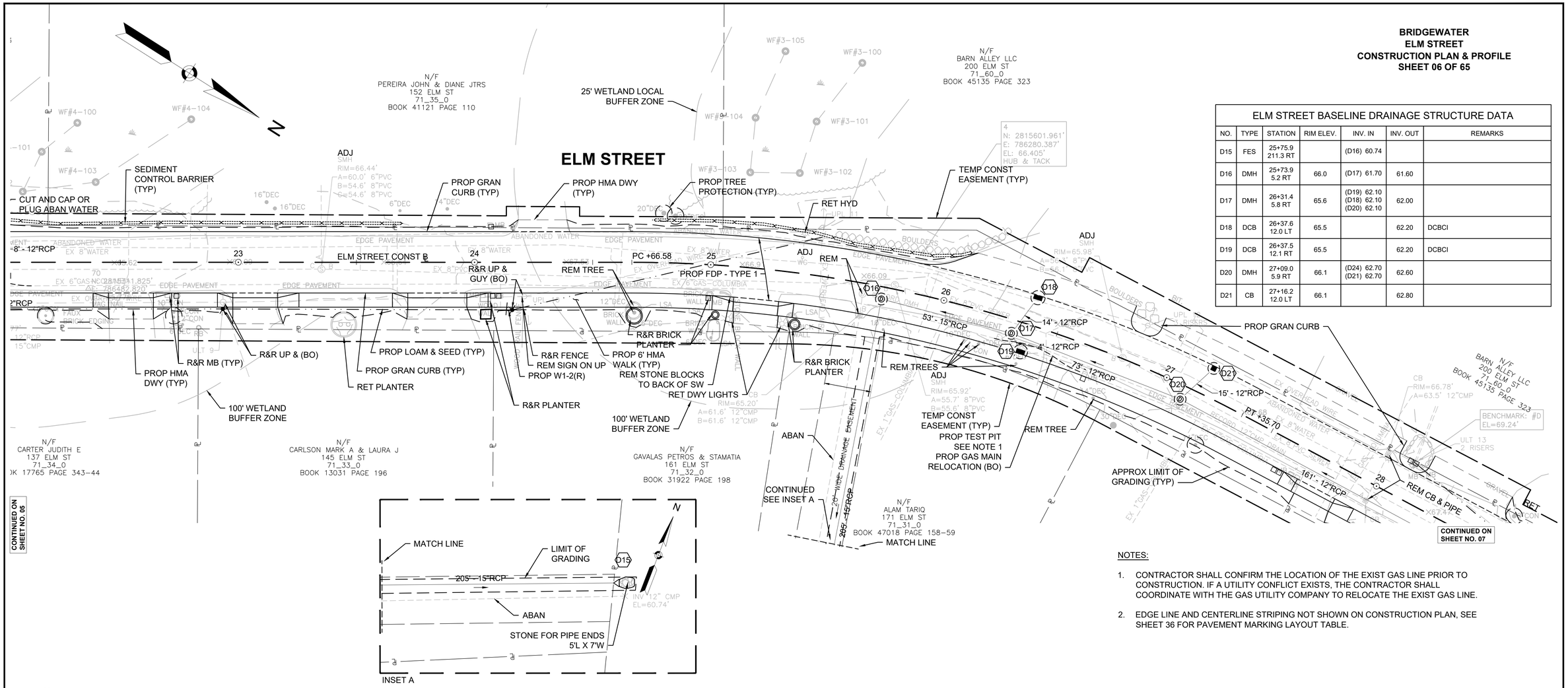
BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 06 OF 65

14004.00-GEN.DWG Plotted on 19-May-2019 9:05 PM

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D15	FES	25+75.9 211.3 RT		(D16) 60.74		
D16	DMH	25+73.9 5.2 RT	66.0	(D17) 61.70	61.60	
D17	DMH	26+31.4 5.8 RT	65.6	(D19) 62.10 (D18) 62.10 (D20) 62.10	62.00	
D18	DCB	26+37.6 12.0 LT	65.5		62.20	DCBCI
D19	DCB	26+37.5 12.1 RT	65.5		62.20	DCBCI
D20	DMH	27+09.0 5.9 RT	66.1	(D24) 62.70 (D21) 62.70	62.60	
D21	CB	27+16.2 12.0 LT	66.1		62.80	



NOTES:

1. CONTRACTOR SHALL CONFIRM THE LOCATION OF THE EXIST GAS LINE PRIOR TO CONSTRUCTION. IF A UTILITY CONFLICT EXISTS, THE CONTRACTOR SHALL COORDINATE WITH THE GAS UTILITY COMPANY TO RELOCATE THE EXIST GAS LINE.
2. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.

BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 07 OF 65

14004.00-GEN.DWG Plotted on 19-May-2019 9:06 PM

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D22	CBCI	28+91.0 12.0 LT	68.0		64.50	
D23	GICI	28+80.0 12.0 RT	67.9		64.20	
D24	DMH	28+74.3 7.4 RT	67.9	(D22) 64.10 (D23) 64.10	64.00	DEEP SUMP

N

N/F
BARN ALLEY LLC
200 ELM ST
71_60_0
BOOK 45135 PAGE 323

N/F
BRADLEY RICHARD W
206 ELM ST
58_31_0
BOOK 47976 PAGE 181

N/F
BURDEN MICHAEL
10 SOPHIA LANE
58_5_0
BOOK 44582 PAGE 260

N/F
HAMM TRICIA
5 SOPHIA LANE
58_66_0
BOOK 43810 PAGE 35

N/F
58_57_0
BOOK 43909 PAGE 171-87

ELM STREET

SOPHIA LANE

BENCHMARK: #D
EL=69.24'

APPROX LIMIT OF GRADING (TYP)

CUT AND CAP OR PLUG ABAN WATER

PROP HMA DWY (TYP)

PROP LOAM & SEED (TYP)

PROP GRAN CURB (TYP)

R&R HYD
PROP 11 FT - 6" DIP

5
N: 2816090.330'
E: 786230.896'
EL: 69.775'
MAG NAIL

PROP CLEAR & GRUB
STA 30+80 TO STA 31+50

END PROP GRAN CURB

R&R FENCE

PROP CEM CONC WCR

PROP W11-2/W16-9p

BEGIN PROP GRAN CURB

TEMP CONST EASEMENT (TYP)

RET PLASTIC FENCE

RET

REM CB & PIPE

ELM STREET CONST B

PROP FDP - TYPE 1

PROP CW

ADJ(BO)

ADJ BO

R&R UP (BO)

R&R UP & GUY (BO)

R&R MB (TYP)

PROP HMA DWY

PROP PEASTONE DWY

PROP HMA DWY (TYP)

REM TREE

PROP GRAN CURB (TYP)

PROP TEST PIT
SEE NOTE 1
PROP GAS MAIN
RELOCATION (BO)

PROP 6' HMA WALK (TYP)

PROP W11-2/W16-7p(L)

TEMP CONST EASEMENT (TYP)

PROP TREE PROTECTION (TYP)

REM BLOCK WALL TO BACK OF SW

PROP CEM CONC WCR

PROP W11-2/W16-9p

6
N: 2816473.543'
E: 786226.397'
EL: 69.245'
MAG NAIL

161' - 12"RCP

4' - 12"RCP

12"RCP

22'

N/F
WELLS HOLDINGS LLC
197 ELM ST
58_28_0
BOOK 34764 PAGE 311

N/F
RONDEAU ROLAND E & PATRICIA J LE &
207 ELM ST
58_27_0
BOOK 45521 PAGE 40-42

N/F
FERNANDES DOMINGOS & MELISSA
221 ELM ST
58_26_0
BOOK 31377 PAGE 046-47

N/F
STARKE DOUGLAS J
237 ELM ST
58_25_0
BOOK 48254 PAGE 190-91

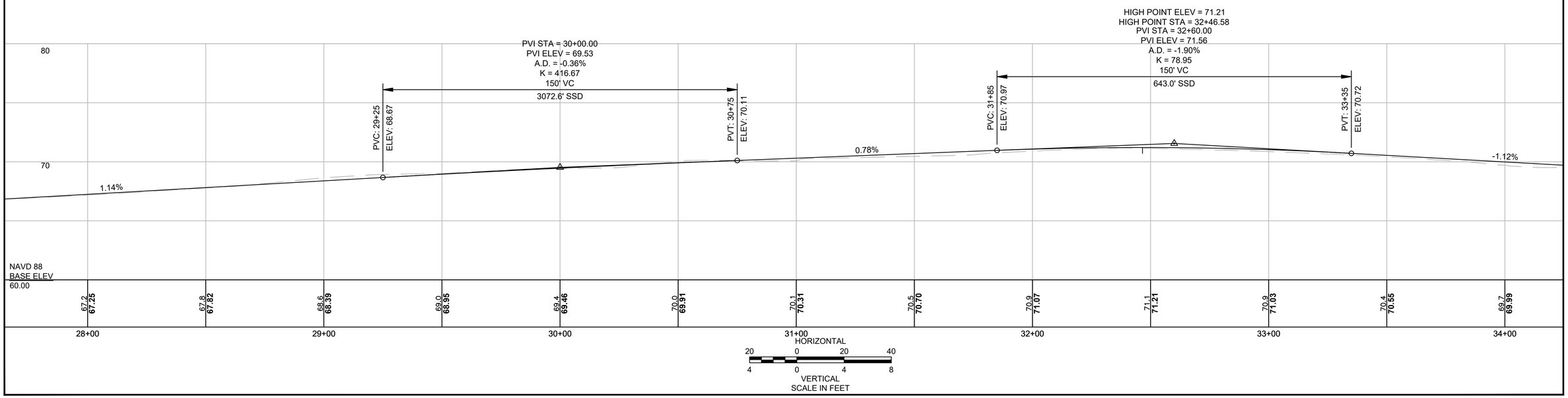
WELLS KAR
2-
BOOK

CONTINUED ON SHEET NO. 06

CONTINUED ON SHEET NO. 08

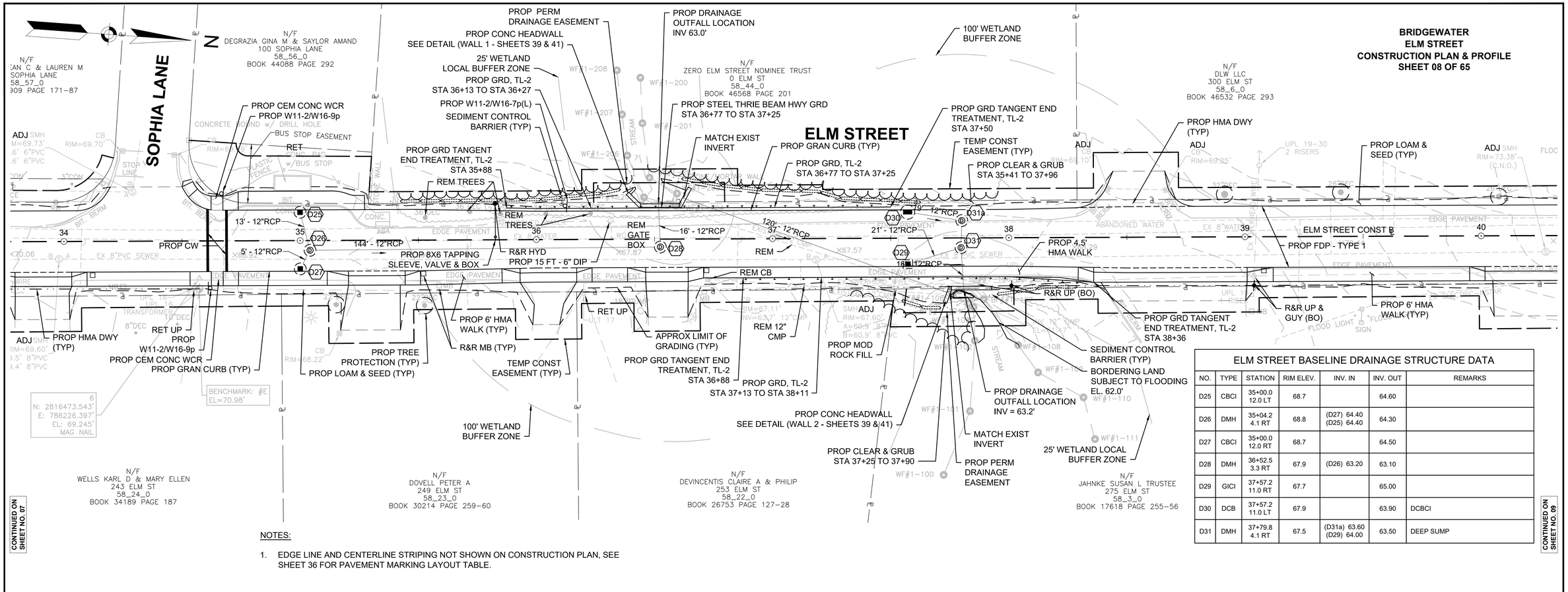
NOTES:

1. CONTRACTOR SHALL CONFIRM THE LOCATION OF THE EXIST GAS LINE PRIOR TO CONSTRUCTION. IF A UTILITY CONFLICT EXISTS, THE CONTRACTOR SHALL COORDINATE WITH THE GAS UTILITY COMPANY TO RELOCATE THE EXIST GAS LINE.
2. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.



BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 08 OF 65

14004.00-GEN.DWG Plotted on 19-May-2019 9:07 PM

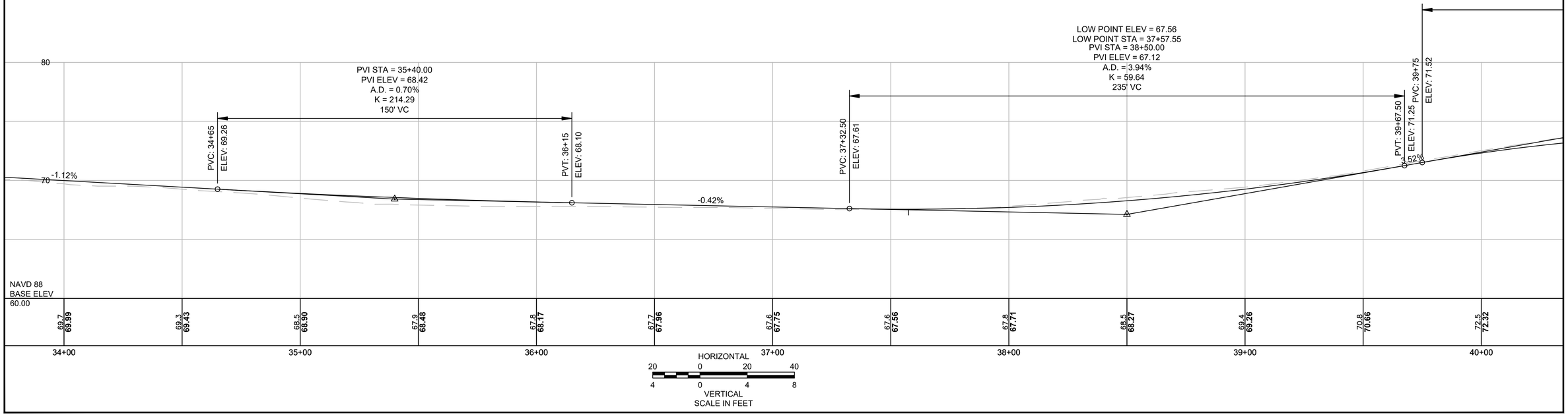


ELM STREET BASELINE DRAINAGE STRUCTURE DATA

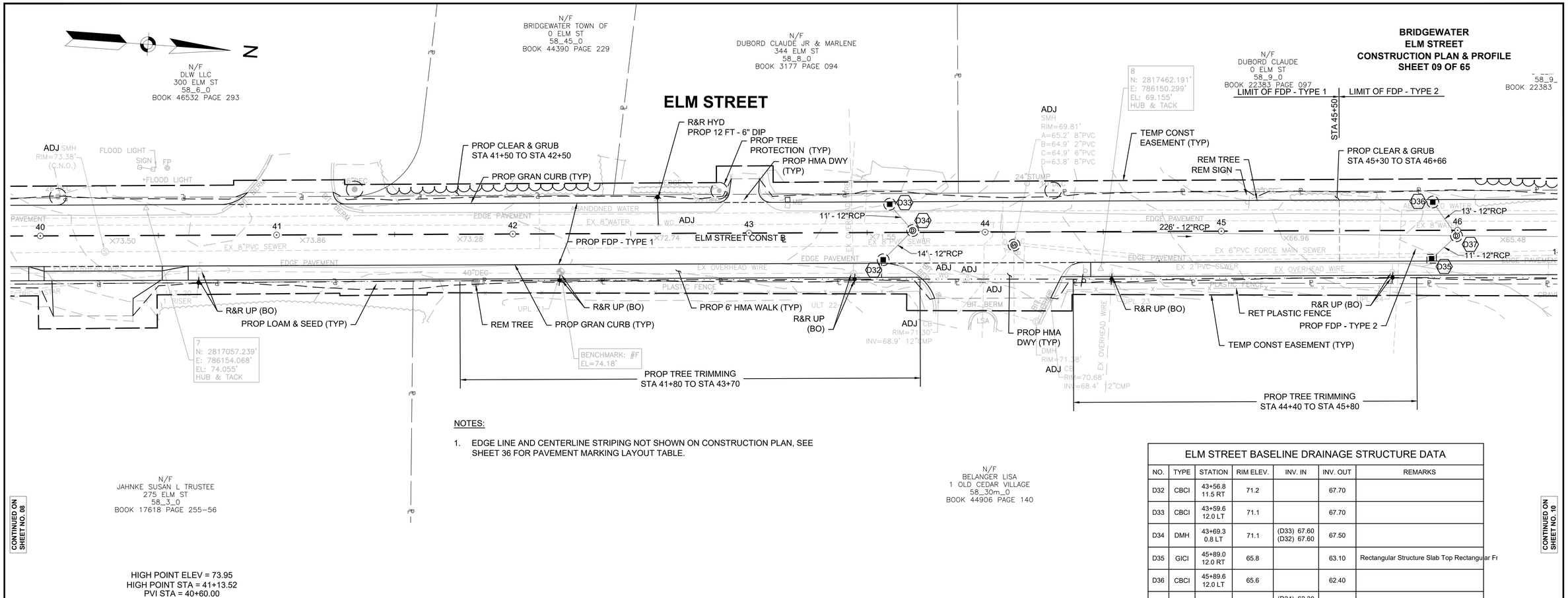
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D25	CBCI	35+00.0 12.0 LT	68.7		64.60	
D26	DMH	35+04.2 4.1 RT	68.8	(D27) 64.40 (D25) 64.40	64.30	
D27	CBCI	35+00.0 12.0 RT	68.7		64.50	
D28	DMH	36+52.5 3.3 RT	67.9	(D26) 63.20	63.10	
D29	GICI	37+57.2 11.0 RT	67.7		65.00	
D30	DCB	37+57.2 11.0 LT	67.9		63.90	DCBCI
D31	DMH	37+79.8 4.1 RT	67.5	(D31a) 63.60 (D29) 64.00	63.50	DEEP SUMP

NOTES:

1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.



BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 09 OF 65



NOTES:

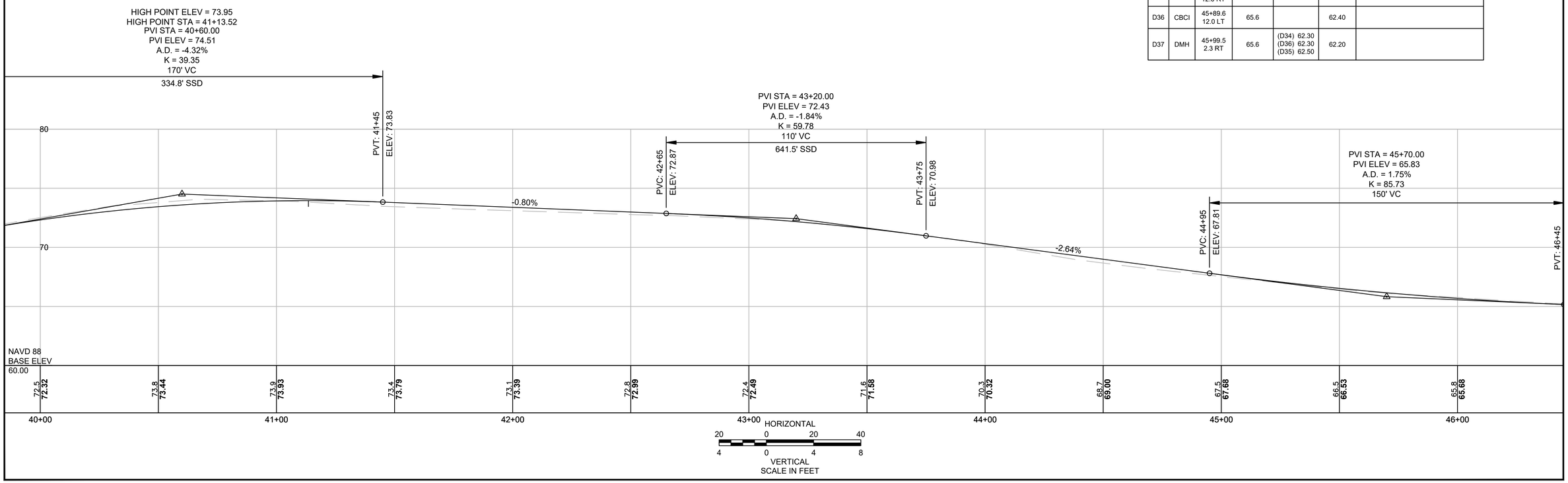
1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.

CONTINUED ON SHEET NO. 08

CONTINUED ON SHEET NO. 10

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D32	CBCI	43+56.8 11.5 RT	71.2		67.70	
D33	CBCI	43+59.6 12.0 LT	71.1		67.70	
D34	DMH	43+69.3 0.8 LT	71.1	(D33) 67.60 (D32) 67.60	67.50	
D35	GICI	45+89.0 12.0 RT	65.8		63.10	Rectangular Structure Slab Top Rectangular Fr
D36	CBCI	45+89.6 12.0 LT	65.6		62.40	
D37	DMH	45+99.5 2.3 RT	65.6	(D34) 62.30 (D36) 62.30 (D35) 62.50	62.20	



14004.00-GEN.DWG Plotted on 19-May-2019 9:09 PM

14004.00-GEN.DWG Plotted on 19-May-2019 9:10 PM

CONTINUED ON SHEET NO. 09

CONTINUED ON SHEET NO. 11

NOTES:

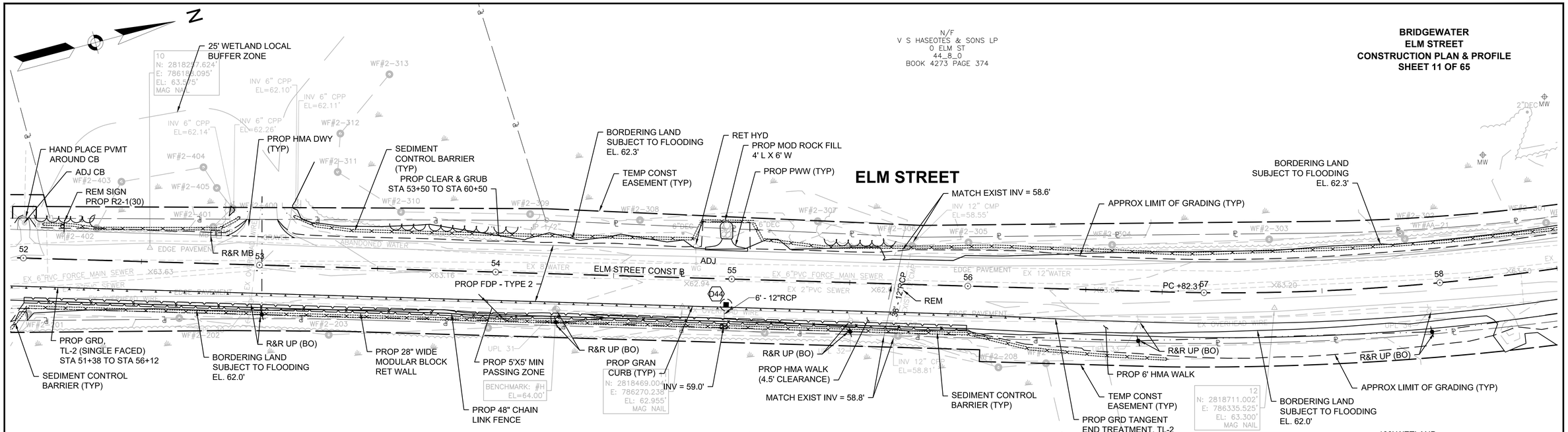
1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D38	DMH	47+44.1 2.0 RT	64.2	(D37) 60.90	60.80	
D39	DMH	48+21.4 2.4 RT	63.8	(D41) 60.50 (D38) 60.40	60.40	
D40	FES	48+26.9 42.0 RT	61.7	(D39) 60.20		
D41	DMH	48+39.0 2.6 RT	63.8	(D43) 60.70 (D42) 60.70	60.60	DEEP SUMP
D42	GICI	48+41.4 12.0 RT	63.8		61.10	
D43	GICI	48+42.8 12.0 LT	63.8		61.10	

BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 11 OF 65

14004.00-GEN.DWG Plotted on 19-May-2019 9:11 PM



ELM STREET BASELINE DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D44	CBCI	54+97.9 11.0 RT	62.4		59.10	

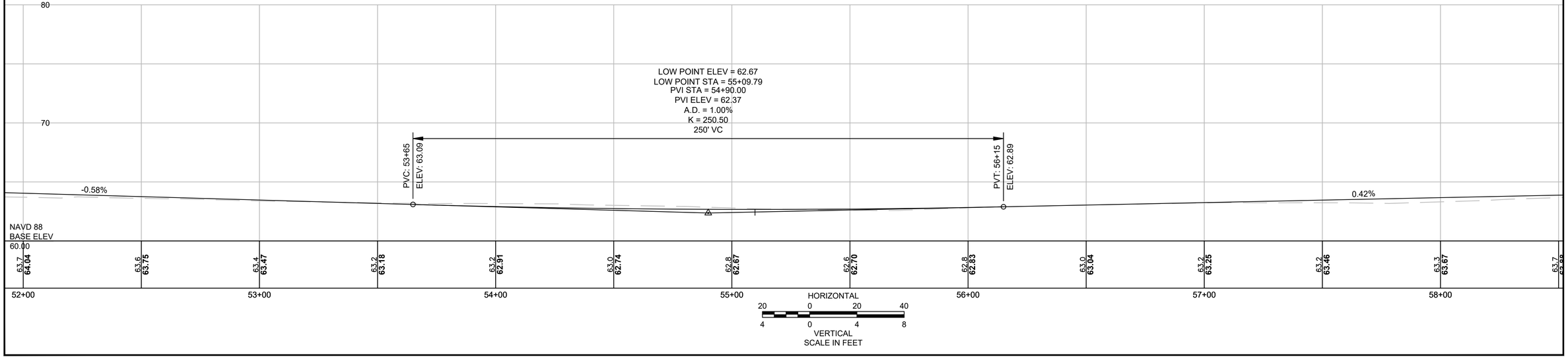
CATCH BASIN OFFSET TO CENTER OF FRAME AND GRATE

CONTINUED ON SHEET NO. 10

CONTINUED ON SHEET NO. 12

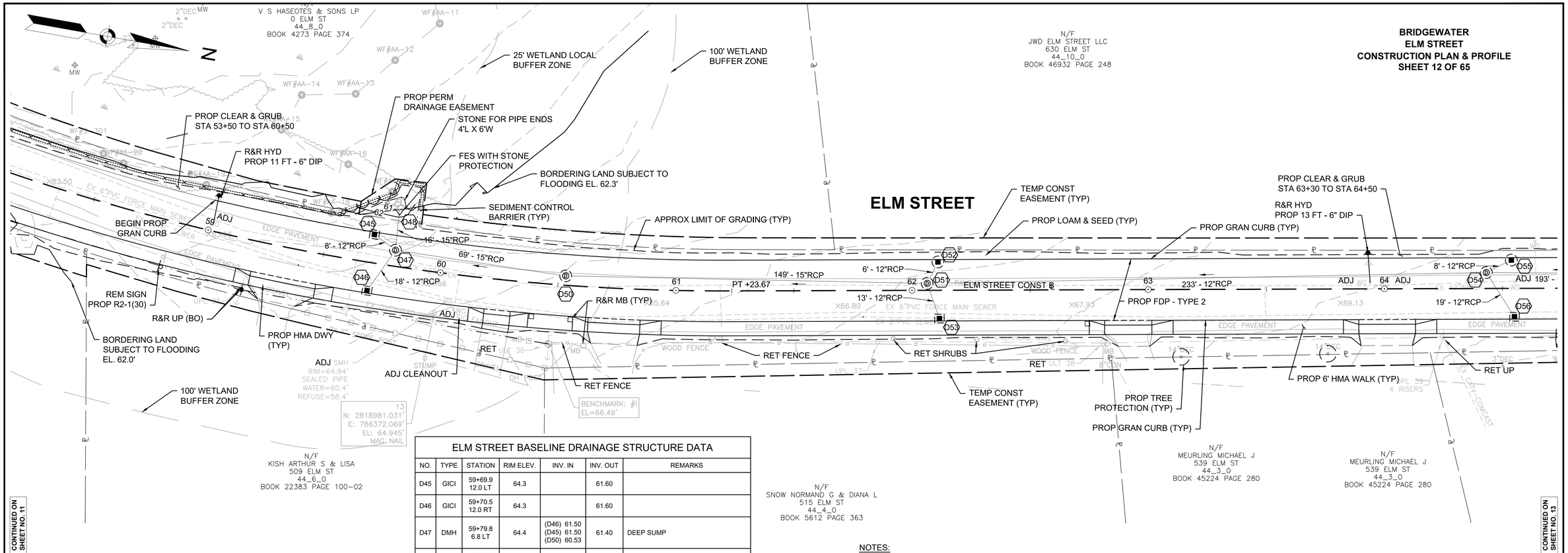
NOTES:

1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.



BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 12 OF 65

14004.00-GEN.DWG Plotted on 19-May-2019 9:12 PM



CONTINUED ON SHEET NO. 11

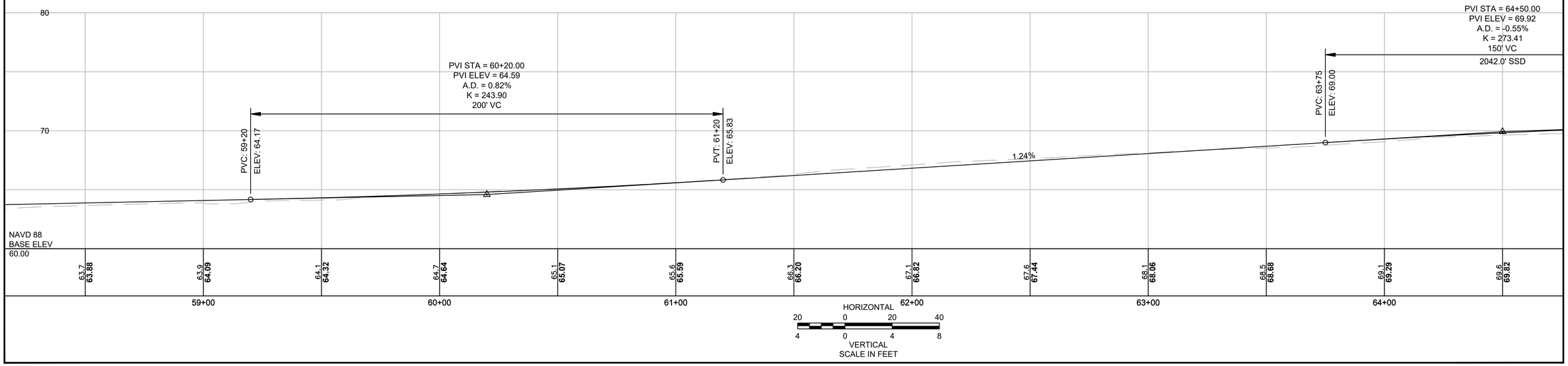
CONTINUED ON SHEET NO. 13

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D45	GICI	59+69.9 12.0 LT	64.3		61.60	
D46	GICI	59+70.5 12.0 RT	64.3		61.60	
D47	DMH	59+79.8 6.8 LT	64.4	(D46) 61.50 (D45) 61.50 (D50) 60.53	61.40	DEEP SUMP
D48	FES	59+78.9 24.0 LT	62.8	(D47) 61.30		
D50	DMH	60+53.0 4.0 LT	65.0	(D51) 61.10	61.00	
D51	DMH	62+06.4 2.9 LT	66.8	(D54) 62.70 (D52) 62.70 (D53) 63.30	62.60	DEEP SUMP
D52	CBCI	62+11.0 12.0 LT	66.7		63.00	
D53	GICI	62+11.6 12.0 RT	66.9		64.20	

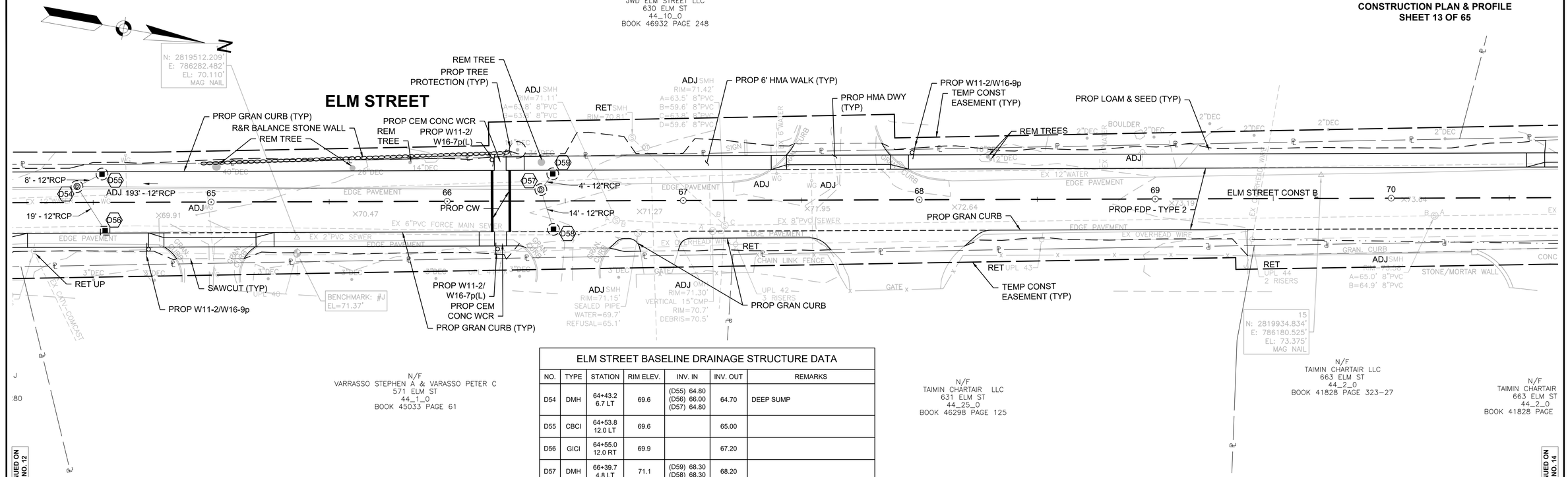
NOTES:

1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.



BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 13 OF 65

14004.00-GEN.DWG Plotted on 19-May-2019 9:13 PM

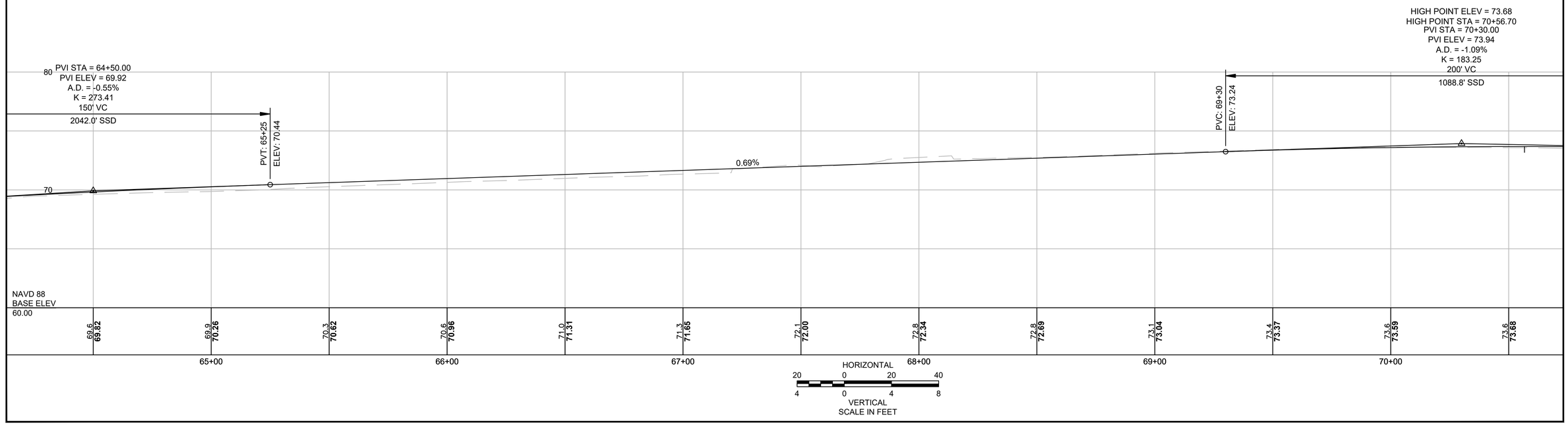


ELM STREET BASELINE DRAINAGE STRUCTURE DATA

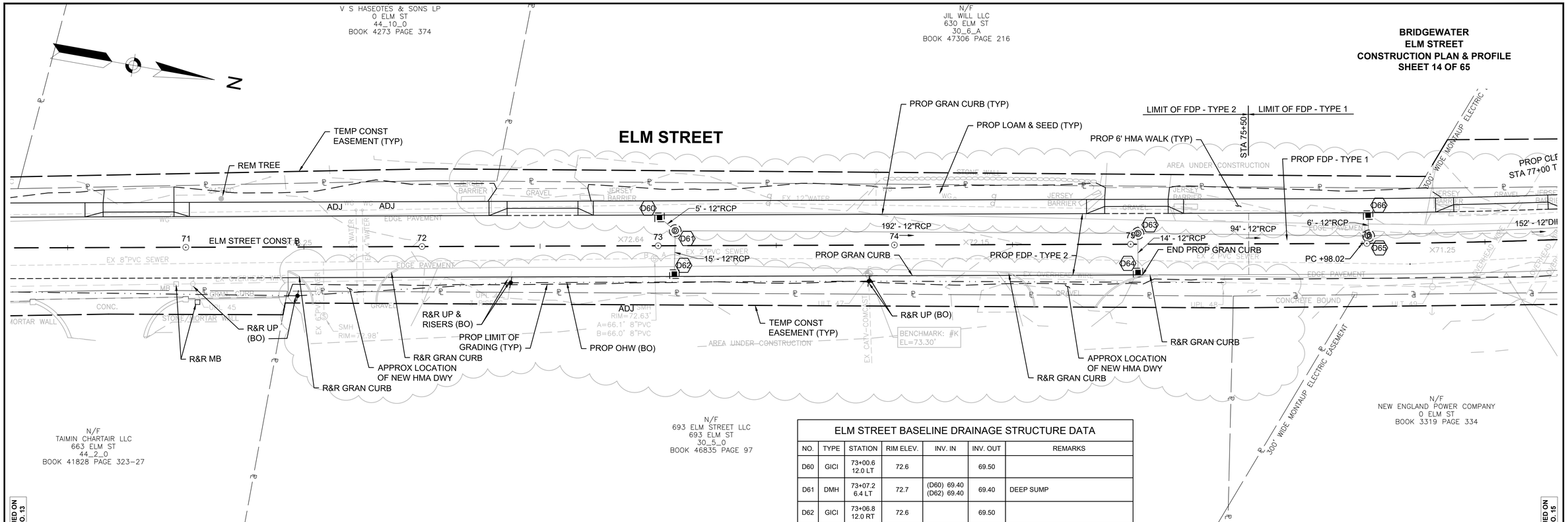
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D54	DMH	64+43.2 6.7 LT	69.6	(D55) 64.80 (D56) 66.00 (D57) 64.80	64.70	DEEP SUMP
D55	CBCI	64+53.8 12.0 LT	69.6		65.00	
D56	GICI	64+55.0 12.0 RT	69.9		67.20	
D57	DMH	66+39.7 4.8 LT	71.1	(D59) 68.30 (D58) 68.30	68.20	
D58	CB	66+45.0 12.0 RT	71.0		68.50	
D59	CBCI	66+44.8 11.5 LT	71.0		68.40	

NOTES:

1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.



BRIDGEWATER
ELM STREET
CONSTRUCTION PLAN & PROFILE
SHEET 14 OF 65



CONTINUED ON SHEET NO. 13

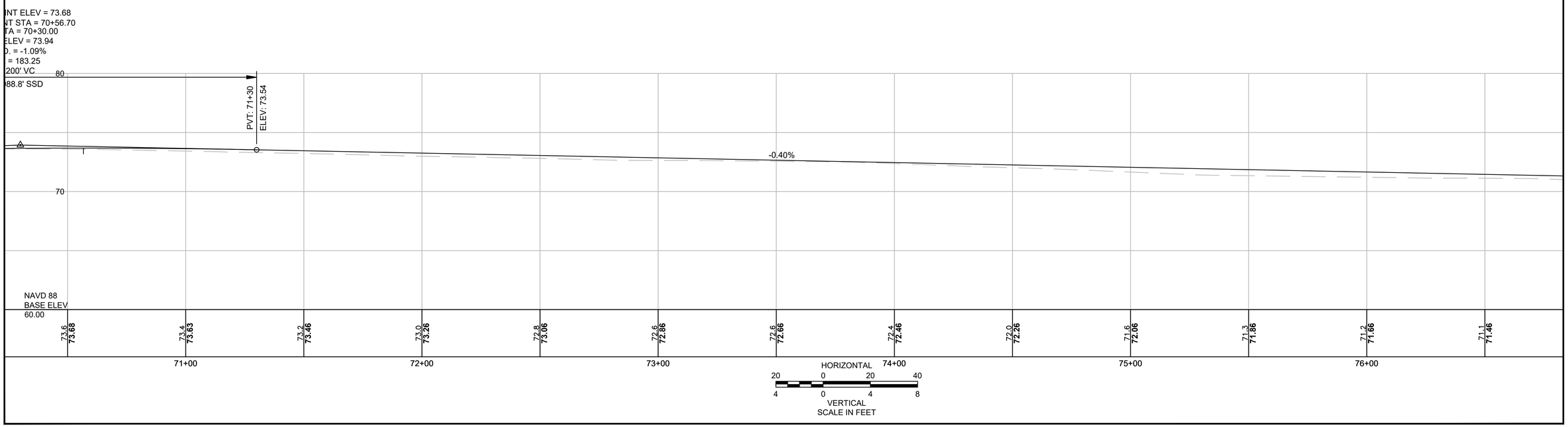
CONTINUED ON SHEET NO. 15

NOTES:

1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D60	GICI	73+00.6 12.0 LT	72.6		69.50	
D61	DMH	73+07.2 6.4 LT	72.7	(D60) 69.40 (D62) 69.40	69.40	DEEP SUMP
D62	GICI	73+06.8 12.0 RT	72.6		69.50	
D63	DMH	75+03.1 4.6 LT	72.0	(D61) 68.80 (D64) 68.80	68.80	
D64	GICI	75+03.1 12.0 RT	71.8		68.90	
D65	DMH	76+00.8 3.2 LT	71.6	(D66) 68.60 (D63) 68.50	68.50	DEEP SUMP
D66	GICI	76+00.6 12.0 LT	71.4		68.70	



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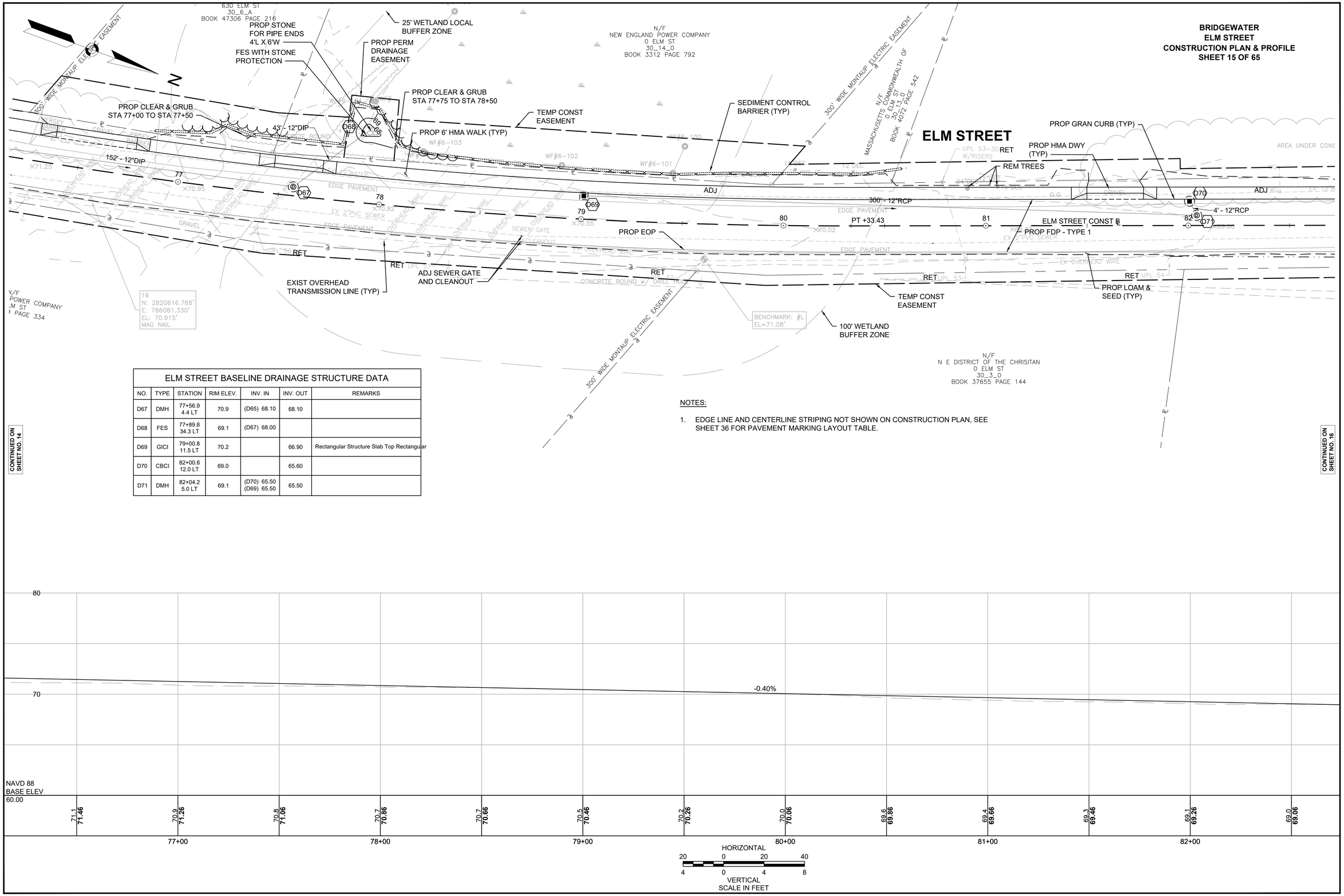


ELM STREET BASELINE DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D67	DMH	77+56.9 4.4 LT	70.9	(D65) 68.10	68.10	
D68	FES	77+89.8 34.3 LT	69.1	(D67) 68.00		
D69	GICI	79+00.8 11.5 LT	70.2		66.90	Rectangular Structure Slab Top Rectangular
D70	CBCI	82+00.6 12.0 LT	69.0		65.60	
D71	DMH	82+04.2 5.0 LT	69.1	(D70) 65.50 (D69) 65.50	65.50	

NOTES:

1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.

CONTINUED ON SHEET NO. 14

CONTINUED ON SHEET NO. 16

CONTINUED ON SHEET NO. 15

CONTINUED ON SHEET NO. 17

N/F
N E DISTRICT OF THE CHRISTIAN
0 ELM ST
30_1_0
BOOK 37655 PAGE 144

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

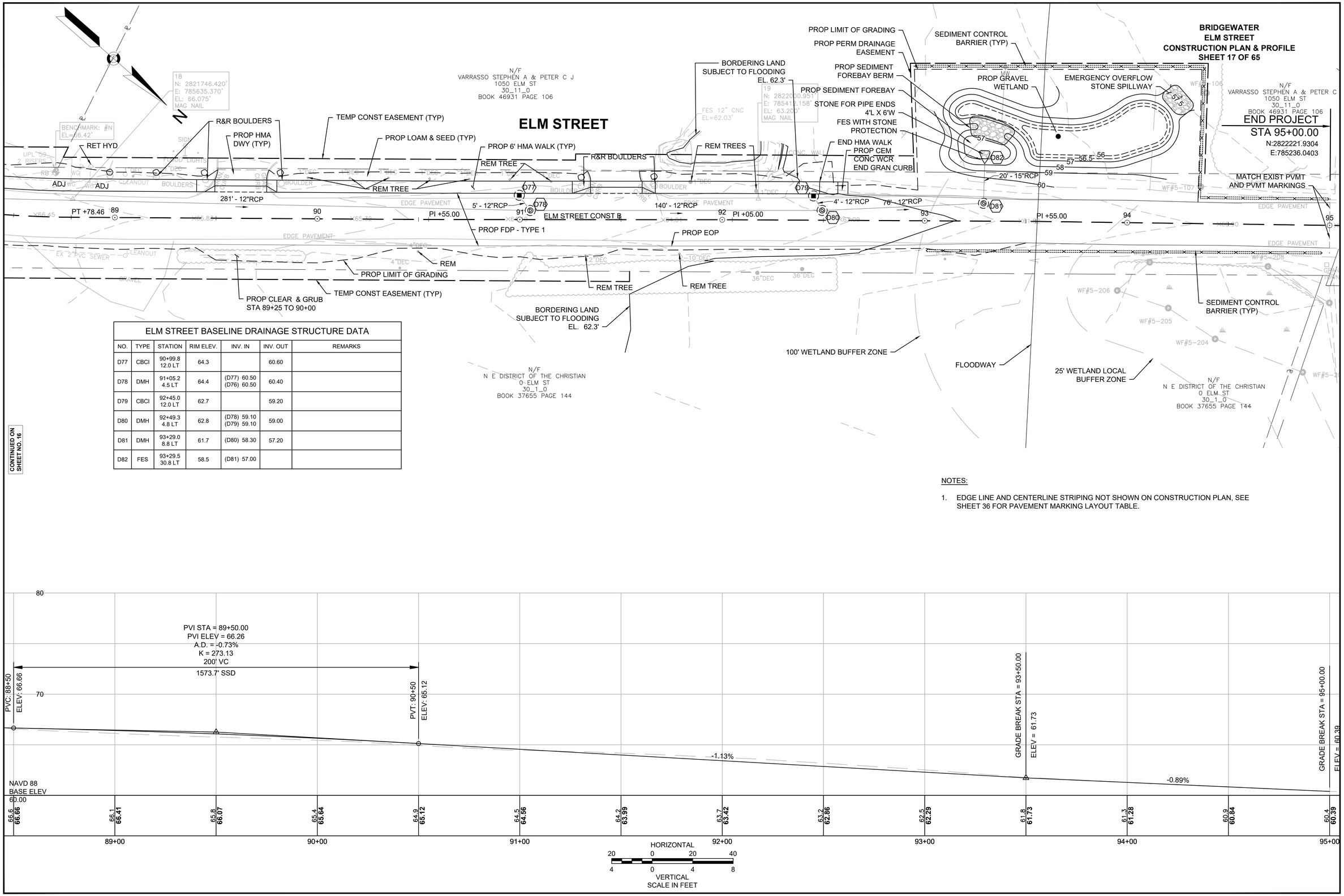
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D72	CBCI	85+00.6 12.0 LT	67.8		64.20	
D73	DMH	85+02.9 4.8 LT	67.9	(D72) 64.10 (D71) 64.10	64.00	
D74	DMH	87+30.1 4.8 LT	67.0	(D73) 63.00	62.90	
D75	CBCI	88+12.9 12.0 LT	66.6		62.60	
D76	DMH	88+19.2 5.9 LT	66.7	(D75) 62.50 (D74) 62.50	62.40	

NOTES:

1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

14004.00-GEN.DWG Plotted on 19-May-2019 9:17 PM



CONTINUED ON SHEET NO. 16

ELM STREET BASELINE DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
D77	CBCI	90+99.8 12.0 LT	64.3		60.60	
D78	DMH	91+05.2 4.5 LT	64.4	(D77) 60.50 (D76) 60.50	60.40	
D79	CBCI	92+45.0 12.0 LT	62.7		59.20	
D80	DMH	92+49.3 4.8 LT	62.8	(D78) 59.10 (D79) 59.10	59.00	
D81	DMH	93+29.0 8.8 LT	61.7	(D80) 58.30	57.20	
D82	FES	93+29.5 30.8 LT	58.5	(D81) 57.00		

NOTES:

1. EDGE LINE AND CENTERLINE STRIPING NOT SHOWN ON CONSTRUCTION PLAN, SEE SHEET 36 FOR PAVEMENT MARKING LAYOUT TABLE.

14004.00-CT.DWG Plotted on 19-May-2019 9:19 PM

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	76.835	2814308.744	787131.335	MAG NAIL
2	70.665	2814697.499	786846.527	MAG NAIL

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET


N
FIRST STREET
ELM STREET
STONE WALL
BIT. BERM
TEMP CONST EASEMENT (TYP)
DRAINAGE EASEMENT
+70.24
35.00' LT
R=60.00'
L=53.10'
PC + 23.80
13.00' LT
+64.41
35.00' LT
PC + 68.91
27.52' LT
PT + 94.61
13.00' LT
R=30.00'
L=30.86'
+37.76
+70.71
+63.08
+86.43
+41.91
+61.73
+37.82
+79.82
R=5.00'
L=7.9'±
N32°25'51"W
1466.58'
+95.95
0.02' RT
S57°01'48"W
12.93'
S57°34'09"W
11.13'
S57°34'09"W
96.59'
+71.52
+36.52
+24.00 +36.00
+28.26
+71.26
+32.84
+48.84
+24.49
+45.49
CC + 51.26
16.00' RT
CC + 56.26
16.00' RT
N/F
ELM BANK REALTY LLC
110 ELM ST
71_26_0
BOOK 32775 PAGE 051
N/F
WARYE RICHARD J &
118 ELM ST
71_43_0
BOOK 11018 PAGE 339
N/F
HAYNES CAPITAL LLC
128 ELM ST
71_59_0
BOOK 38056 PAGE 52-53
N/F
NEW ENGLAND POWER COMPANY
0 ELM ST
71_39_0
BOOK 4040 PAGE 351
N/F
NEW ENGLAND POWER COMPANY
1233 PLEASANT ST
71_24_0
BOOK 3172 PAGE 364
N/F
OROURKE JOHN & ALLISON
105 ELM ST
71_38_0
BOOK 34866 PAGE 243
N/F
NEW ENGLAND POWER COM
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71_61_0
BOOK 4040 PAGE 351
N/F
ZUMPFE CHIRSTOPHER
113 ELM ST
71_37_0
BOOK 47962 PAGE 235
N/F
GRODECKI KRZYSZTOF & JOLANTA
125 ELM ST
71_36_0
BOOK 26982 PAGE 316
N/F
CARTER JUDITH E
137 ELM ST
71_34_0
BOOK 17765 PAGE 343-44
3
N: 2815109.851'
E: 786613.299'
EL: 65.590'
MAG NAIL
BENCHMARK: #C
EL=66.46'
CONTINUED ON SHEET NO. 04
CONTINUED ON SHEET NO. 06

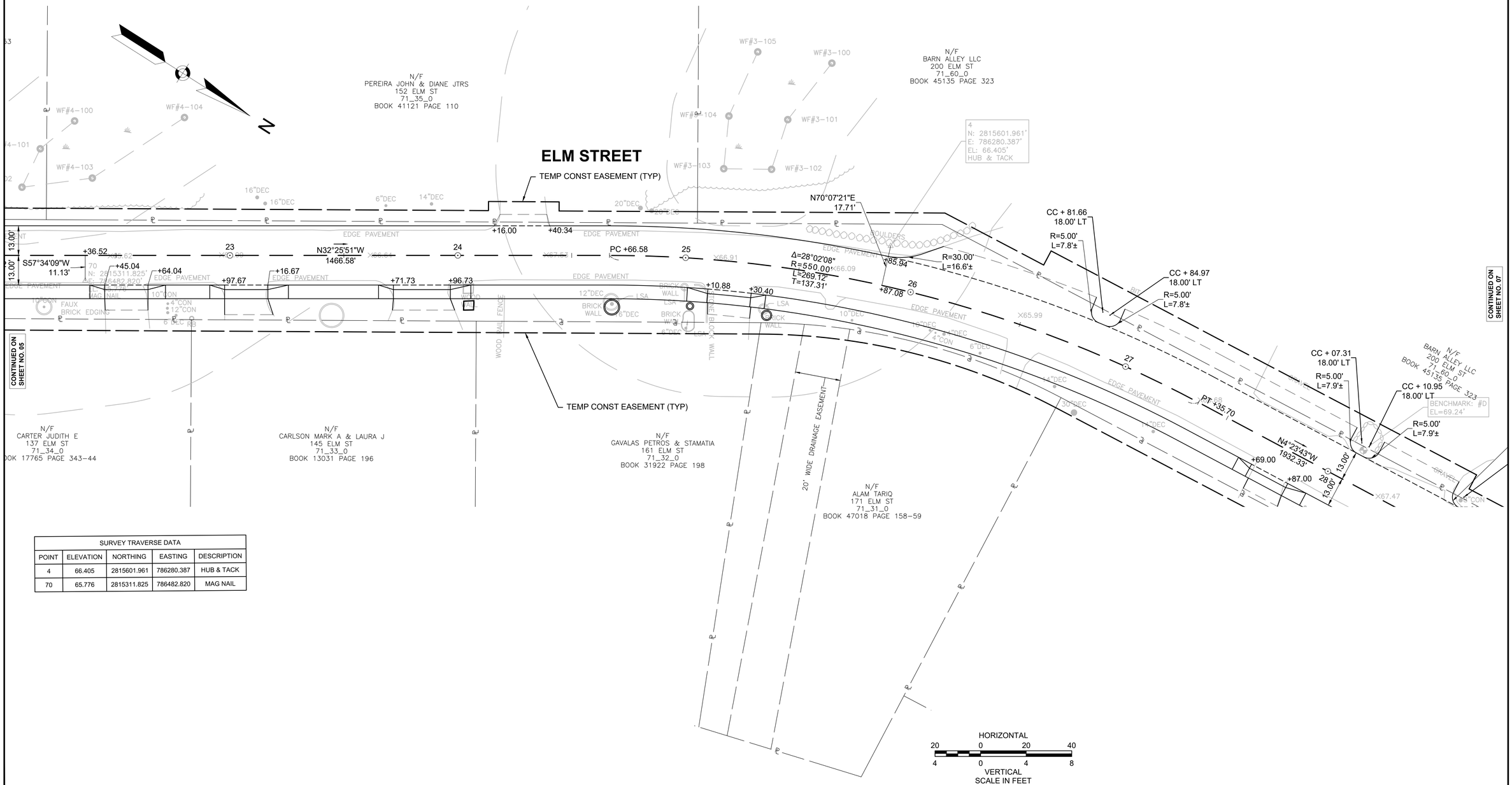
SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
3	65.590	2815109.851	786613.299	MAG NAIL
21	62.666	2815302.794	786589.813	MRRS
70	65.776	2815311.825	786482.820	MAG NAIL

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

14004.00-CT.DWG Plotted on 19-May-2019 9:19 PM

BRIDGEWATER
ELM STREET
ALIGNMENT AND CURB TIE PLANS
SHEET 20 OF 65

14004.00-CT.DWG Plotted on 19-May-2019 9:20 PM



CONTINUED ON SHEET NO. 05

CONTINUED ON SHEET NO. 07

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
4	66.405	2815601.961	786280.387	HUB & TACK
70	65.776	2815311.825	786482.820	MAG NAIL

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

14004.00-CT.DWG Plotted on 19-May-2019 9:20 PM


N
N/F
BARN ALLEY LLC
200 ELM ST
71_60_0
BOOK 45135 PAGE 323
N/F
BRADLEY RICHARD W
206 ELM ST
58_31_0
BOOK 47976 PAGE 181
N/F
BURDEN MICHAEL
10 SOPHIA LANE
58_5_0
BOOK 44582 PAGE 260
SOPHIA LANE
N/F
HAMM TRICIA
5 SOPHIA LANE
58_66_0
BOOK 43810 PAGE 35
N/F
BOYDEN SEAN C & LAUREN M
95 SOPHIA LANE
58_57_0
BOOK 43909 PAGE 171-87
ELM STREET
TEMP CONST EASEMENT (TYP)
N4°23'43"W
1932.33'
N85°36'17"E
9.03'
SEWER EASEMENT
PLASTIC FENCE
EDGE PAVEMENT
CONTINUED ON SHEET NO. 06
CONTINUED ON SHEET NO. 08
N/F
WELLS HOLDINGS LLC
197 ELM ST
58_28_0
BOOK 34764 PAGE 311
N/F
RONDEAU ROLAND E & PATRICIA J LE &
207 ELM ST
58_27_0
BOOK 45521 PAGE 40-42
N/F
FERNANDES DOMINGOS & MELISSA
221 ELM ST
58_26_0
BOOK 31377 PAGE 046-47
N/F
STARKE DOUGLAS J
237 ELM ST
58_25_0
BOOK 48254 PAGE 190-91
6
N: 2816473.543'
E: 786226.397'
EL: 69.245'
MAG NAIL

SURVEY TRAVERSE DATA

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
5	69.775	2816090.330	786230.896	MAG NAIL

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
6	69.245	2816473.543	786226.397	MAG NAIL

BOUND LOCATION				
STATION	OFFSET	NORTH	EAST	DESCRIPTION
34+53.12	42.66L	2816464.8820	786168.3698	CONC BND DRILL HOLE

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

Plotted on 19-May-2019 9:21 PM
14004.00-CT.DWG

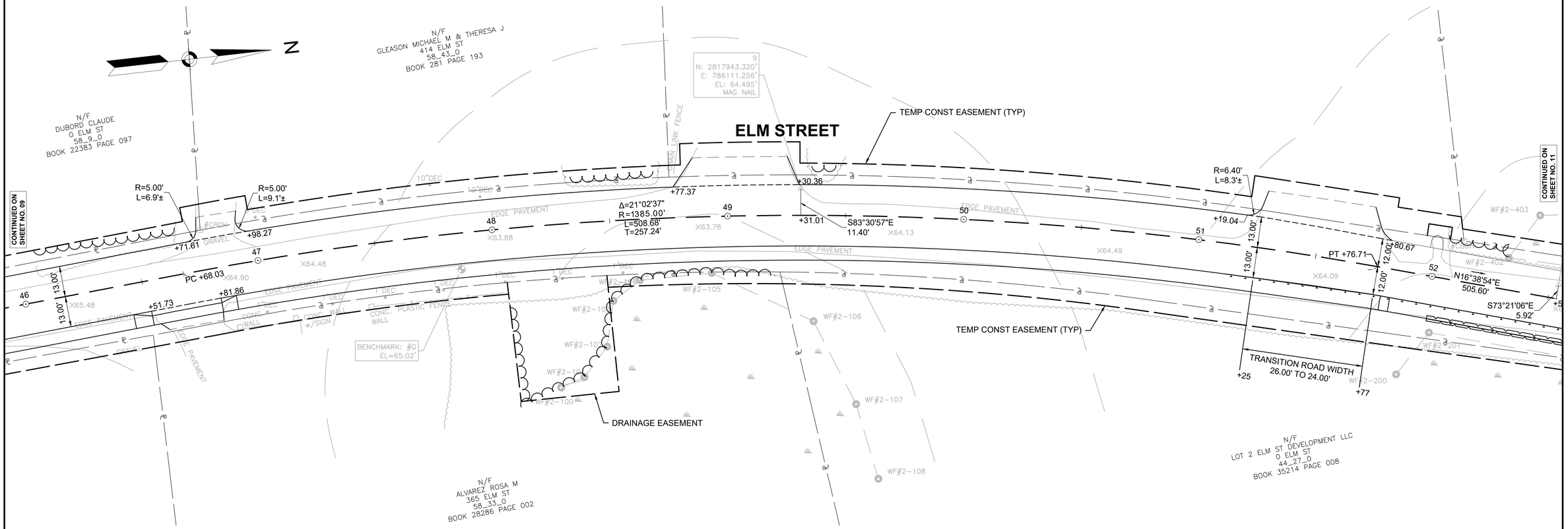
SURVEY TRAVERSE DATA

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
7	74.055	2817057.239	786154.068	HUB & TACK
8	69.155	2817462.191	786150.299	HUB & TACK

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

BRIDGEWATER
ELM STREET
ALIGNMENT AND CURB TIE PLANS
SHEET 24 OF 65

14004.00-CT.DWG Plotted on 19-May-2019 9:21 PM



SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
9	64.495	2817943.320	786111.256	MAG NAIL

BOUND LOCATION				
STATION	OFFSET	NORTH	EAST	DESCRIPTION
46+78.26	16.91L	2817688.5203	786100.1842	CBDH

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

BRIDGEWATER
ELM STREET
ALIGNMENT AND CURB TIE PLANS
SHEET 25 OF 65

14004.00-CT.DWG Plotted on 19-May-2019 9:21 PM

N

10
N: 2818257.624'
E: 786188.095'
EL: 63.575'
MAG NAIL

N/F
V S HASEOTES & SONS LP
0 ELM ST
44_8_0
BOOK 4273 PAGE 374

TEMP CONST EASEMENT (TYP)

ELM STREET

+00

TRANSITION ROAD WIDTH
24.00' TO 26.00'

+82

WF#2-313
WF#2-312
WF#2-311
WF#2-310
WF#2-309
WF#2-308
WF#2-307
WF#2-306
WF#2-305
WF#2-304
WF#2-303
WF#2-404
WF#2-403
WF#2-405
WF#2-400
WF#2-401
WF#2-402
WF#2-201
WF#2-202
WF#2-203
WF#2-208
WF#2-209
WF#2-210
WF#AA-21

2"DEC MW
MW

52
N16°38'54"E
505.60'
S73°21'06"E
5.92'
+53.43
EDGE PAVEMENT
12.00'
+85.63
GRAVEL
+14.49
53
54
+79.48
55
N73°21'06"W
12.22'
56
EDGE PAVEMENT
12.00'
13.00'
PC +82.31
57
N76°14'31"W
6.64'
+29.73
Δ=26°54'08"
R=940.00'
L=441.36'
T=224.83'
58
13.00'

X63.16
X62.94
X62.61
X63.05
X63.20
X63.50

6"DEC
6"DEC
1 1/2"

BENCHMARK: #H
EL=64.00'

11
N: 2818469.004'
E: 786270.238'
EL: 62.955'
MAG NAIL

12
N: 2818711.002'
E: 786335.525'
EL: 63.300'
MAG NAIL

TEMP CONST EASEMENT (TYP)

N/F
LOT 2 ELM ST DEVELOPMENT LLC
0 ELM ST
44_27_0
BOOK 35214 PAGE 008

N/F
DEVELOPMENT LLC
ST

CONTINUED ON SHEET NO. 10

CONTINUED ON SHEET NO. 12

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
10	63.575	2818257.624	786188.095	MAG NAIL
11	62.955	2818469.004	786270.238	MAG NAIL
12	63.300	2818711.002	786335.525	MAG NAIL

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

BRIDGEWATER
ELM STREET
ALIGNMENT AND CURB TIE PLANS
SHEET 26 OF 65

14004.00-CT.DWG Plotted on 19-May-2019 9:21 PM

N

N/F
V S HASEOTES & SONS LP
0 ELM ST
44_8_0
BOOK 4273 PAGE 374

N/F
JWD ELM STREET LLC
630 ELM ST
44_10_0
BOOK 46932 PAGE 248

ELM STREET

TEMP CONST EASEMENT

CONTINUED ON SHEET NO. 13

CONTINUED ON SHEET NO. 11

Δ=26°54'08"
R=940.00'
L=441.36'
T=224.83'

13.00'
13.00'

+21.35
+48.97
+63.65
+85.35
+81.50
+01.50
+89.09
+13.09

59
60
61
PT +23.67
62
63
64

S87°18'41"W
17.08'

N10°15'14"W
1474.35'

X63.50
X63.56
X64.56
X65.64
X66.80
X67.93
X69.13

EDGE PAVEMENT
GRAVEL
STUMP
DH POST
WOOD FENCE
GATE
8"CDN
14"DEC
3"DEC

WF#AA-11
WF#AA-12
WF#AA-13
WF#AA-14
WF#AA-15
WF#AA-16
WF#AA-17
WF#AA-18
WF#AA-19
WF#AA-20
WF#AA-301

2"DEC
MW

13
N: 2818981.031'
E: 786372.069'
EL: 64.945'
MAG NAIL

BENCHMARK: #1
EL=66.49'

N/F
KISH ARTHUR S & LISA
509 ELM ST
44_6_0
BOOK 22383 PAGE 100-02

N/F
SNOW NORMAND G & DIANA L
515 ELM ST
44_4_0
BOOK 5612 PAGE 363

N/F
MEURLING MICHAEL J
539 ELM ST
44_3_0
BOOK 45224 PAGE 280

N/F
MEURLING MICHAEL J
539 ELM ST
44_3_0
BOOK 45224 PAGE 280

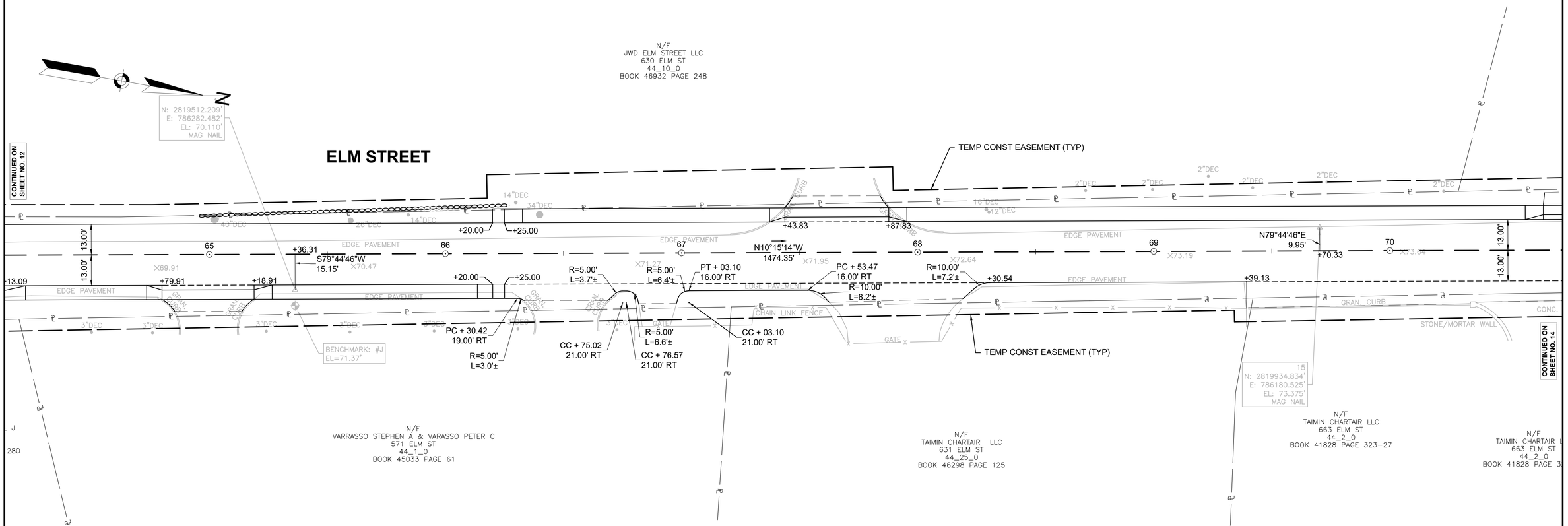
SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
13	64.945	2818981.031	786372.069	MAG NAIL

BOUND LOCATION				
STATION	OFFSET	NORTH	EAST	DESCRIPTION
60+47.15	35.58R	2819031.1586	786386.9782	DH POST

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

BRIDGEWATER
ELM STREET
ALIGNMENT AND CURB TIE PLANS
SHEET 27 OF 65

14004.00-CT.DWG Plotted on 19-May-2019 9:22 PM



SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
14	70.110	2819512.209	786282.482	MAG NAIL
15	73.375	2819934.834	786180.525	MAG NAIL

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

BRIDGEWATER
ELM STREET
ALIGNMENT AND CURB TIE PLANS
SHEET 28 OF 65

14004.00-CT.DWG Plotted on 19-May-2019 9:22 PM

N

V S HASEOTES & SONS LP
0 ELM ST
44_10_0
BOOK 4273 PAGE 374

N/F
JIL WILL LLC
630 ELM ST
30_6_A
BOOK 47306 PAGE 216

ELM STREET

TEMP CONST EASEMENT (TYP)

300' WIDE MONTAUP ELECTRIC EASEMENT

24"DEC

JERSEY BARRIER

GRAVEL

JERSEY BARRIER

STONE WALL

WG

EDGE PAVEMENT

+36.09

+66.09

+89.05

+15.95

+37.07

+77.

CONTINUED ON SHEET NO. 13

13.00'

13.00'

71

72

N10°15'14"W
1474.35'

73

74

75

76

PC +98.02

Δ=9°58'44"
R=2500.00'
L=435.41'
T=218.26'

+58.70

×73.25

×72.64

×72.15

×71.45

×71.25

+43.30

GRAN. CURB

CONC.

MORTAR WALL

STONE/MORTAR WALL

GRAVEL

CONCRETE BOUND

S78°21'19"W
14.58'

BENCHMARK: #K
EL=73.30'

TEMP CONST EASEMENT (TYP)

CONTINUED ON SHEET NO. 15

N/F
TAIMIN CHARTAIR LLC
663 ELM ST
44_2_0
BOOK 41828 PAGE 323-27

N/F
693 ELM STREET LLC
693 ELM ST
30_5_0
BOOK 46835 PAGE 97

300' WIDE MONTAUP ELECTRIC EASEMENT

N/F
NEW ENGLAND POWER COMPANY
0 ELM ST
BOOK 3319 PAGE 334

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
16	70.915	2820616.788	786081.330	MAG NAIL

BOUND LOCATION				
STATION	OFFSET	NORTH	EAST	DESCRIPTION
75+94.78	21.67R	2820554.9391	786100.4783	CONC BOUND

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

SURVEY TRAVERSE DATA

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
16	70.915	2820616.788	786081.330	MAG NAIL

BOUND LOCATION

STATION	OFFSET	NORTH	EAST	DESCRIPTION
79+57.81	23.28R	2820909.8723	786011.3957	CONC BND DH
79+93.86	20.05L	2820929.9624	785958.7144	CONC BOUND

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

BRIDGEWATER
ELM STREET
ALIGNMENT AND CURB TIE PLANS
SHEET 30 OF 65

14004.00-CT.DWG Plotted on 19-May-2019 9:22 PM

N/F
CURTIN LAWRENCE M TR
990 ELM ST
30_21_0
BOOK 46515 PAGE 82

N/F
MANNING JAMES
1010 ELM ST
30_20_0
BOOK 45424 PAGE 68–72

N/F
LYG LLC
1030 ELM ST
30_19_0
BOOK 45667 PAGE 28– 32

N

ELM STREET

TEMP CONST EASEMENT (TYP)

RB

42"DEC

EDGE PAVEMENT

BENCHMARK: #N
EL=68.42'

N49°08'18"E
8.99'

PT +78.46

+79.24

X68.45

13.00'

13.00'

88

X67.22

PC +94.84

87

86

X67.90

S69°46'02"W
6.69'

+44.62

N20°13'58"W
661.41'

84 X68.64

X68.23

85

83

X68.82

CONTINUED ON SHEET NO. 15

13.00'

13.00'

+00.87

+18.06

BENCHMARK: #M
EL=68.90'

17
N: 2821455.783'
E: 785793.730'
EL: 67.995'
MAG NAIL

GRAVEL

Δ=20°37'44"
R=510.00'
L=183.62'
T=92.82'

CONTINUED ON SHEET NO. 17

N/F
N E DISTRICT OF THE CHRISTIAN
0 ELM ST
30_1_0
BOOK 37655 PAGE 144

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
17	67.995	2821455.783	785793.730	MAG NAIL

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

BRIDGEWATER
ELM STREET
ALIGNMENT AND CURB TIE PLANS
SHEET 31 OF 65

14004.00-CT.DWG Plotted on 19-May-2019 9:23 PM

ELM STREET

N/F
VARRASSO STEPHEN A & PETER C J
1050 ELM ST
30_11_0
BOOK 46931 PAGE 106

18
N: 2821746.420'
E: 785635.370'
EL: 66.075'
MAG NAIL

BENCHMARK: #N
EL=66.42'

N49°08'18"E
8.99'

TEMP CONST EASEMENT (TYP)

RB

1"DEC

BOULDERS

+49.31

+74.94

BOULDER

PT +78.46

+79.24

89

13.00'

13.00'

N40°51'42"W
176.54'

90

EDGE PAVEMENT

PI +55.00

91

N41°10'40"W
150.00'

+34.94

+60.44

BOULDER

92

N49°04'50"E
10.44'

+17.79

PI +05.00

+62.03

+57.03

13.00'

13.00'

N40°55'10"W
150.00'

93

PI +55.00

MEET EXIST +50
10.6'± RT

94

N40°27'00"W
150.00'

95

EDGE PAVEMENT

4"DEC

4"DEC

12"DEC

2-10"DEC

36"DEC

36"DEC

8"DEC

GRAVEL

TEMP CONST EASEMENT (TYP)

TRANSITION ROAD WIDTH
26.00' TO MEET EXIST

+50

CONTINUED ON SHEET NO. 16

19
N: 2822000.951'
E: 785412.158'
EL: 63.200'
MAG NAIL

CONC. WALL

DRAINAGE EASEMENT

MW

WF#5-106

WF#5-107

N/F
VARRASSO STEPHEN A & PETER C
1050 ELM ST
30_11_0
BOOK 469.31 PAGE 106

END PROJECT
STA 95+00.00
N:2822221.9304
E:785236.0403

WF#5-207

WF#5-208

WF#5-206

WF#5-205

WF#5-204

N/F
N E DISTRICT OF THE CHRISTIAN
0 ELM ST
30_1_0
BOOK 37655 PAGE 144

N/F
N E DISTRICT OF THE CHRISTIAN
0 ELM ST
30_1_0
BOOK 37655 PAGE 144

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
18	66.075	2821746.420	785635.370	MAG NAIL
19	63.200	2822000.951	785412.158	MAG NAIL

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

14004.00-TTCP.DWG Plotted on 19-May-2019 9:23 PM

TEMPORARY TRAFFIC CONTROL PLAN GENERAL NOTES

1. ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH MASSACHUSETTS AMENDMENTS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWIRE (MASH).
2. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE LATEST VERSION OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS AS AMENDED.
3. WORK HOURS THAT IMPACT THE PUBLIC WAY SHALL NOT AFFECT TRAFFIC PATTERNS DURING PEAK TRAFFIC PERIODS. PEAK TRAFFIC PERIODS ARE DEFINED AS MONDAY THRU FRIDAY 6:00AM-9:00AM AND 3:00PM-7:00PM.
4. DRUMS AND CONES SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
5. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
6. GRADE SEPARATIONS IN EXCESS OF 2" DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS.
7. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED.
8. MA-W20-7B SIGNS SHALL BE REPLACED BY W20-7 SIGNS WHEN FLAGGERS ARE USED IN LIEU OF POLICE OFFICER DETAILS.
9. W20-8a SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF AREAS WHERE UTILITY CASTINGS HAVE BEEN RAISED IN ADVANCE OF PAVING OPERATIONS OR AS REQUESTED BY THE ENGINEER.
10. THE CONTRACTOR SHALL SECURE THE WORK AREA BY AN APPROPRIATE MEANS TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
11. THE GENERAL SEQUENCE OF WORK IS DEPENDENT UPON THE REMOVAL AND RELOCATION OF THE EXISTING UTILITY POLES AND WIRES THAT ARE FOUND TO BE IN CONFLICT WITH THE PROPOSED WORK, BY THE UTILITY COMPANIES. THE CONTRACTOR SHALL SCHEDULE THE WORK IN EACH AREA TO COORDINATE WITH THE POLE RELOCATION WORK.
12. ADVISORY SPEED PLATES (W13-1) SHALL BE USED IF APPROPRIATE AND AS DIRECTED BY THE ENGINEER.

LEGEND

P	POLICE OFFICER
S	TRAFFIC SIGNAL
●	REFLECTORIZED DRUM
	TEMPORARY CONSTRUCTION SIGN
▲	TRAFFIC CONE
	TYPE III BARRICADE
	ARROW BOARD (AB) (RIGHT OR LEFT)
	ARROW BOARD (AB) (DOUBLE)
	ARROW BOARD (AB) (CAUTION)
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRAFFIC FLOW
	PEDESTRIAN ROUTE
	CONSTRUCTION FENCE
NTS	NOT TO SCALE

LANE TAPER LENGTH FORMULAS

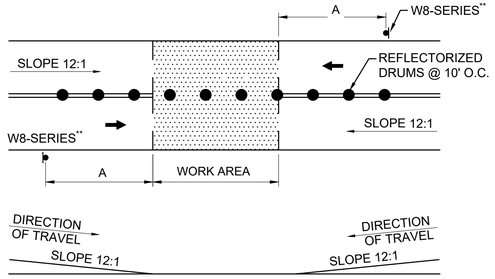
L=	TAPER LENGTH IN FEET
W=	WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED IN FEET
S=	POSTED SPEED LIMIT IN MPH
POSTED SPEED	
40 MPH OR LESS	
$L=\frac{WS^2}{60}$	

ADVANCE SIGN SPACING

ROAD	DISTANCE BETWEEN SIGNS (FEET) A	B	C	D
ELM STREET	500	250	500	500

BUFFER SPACING

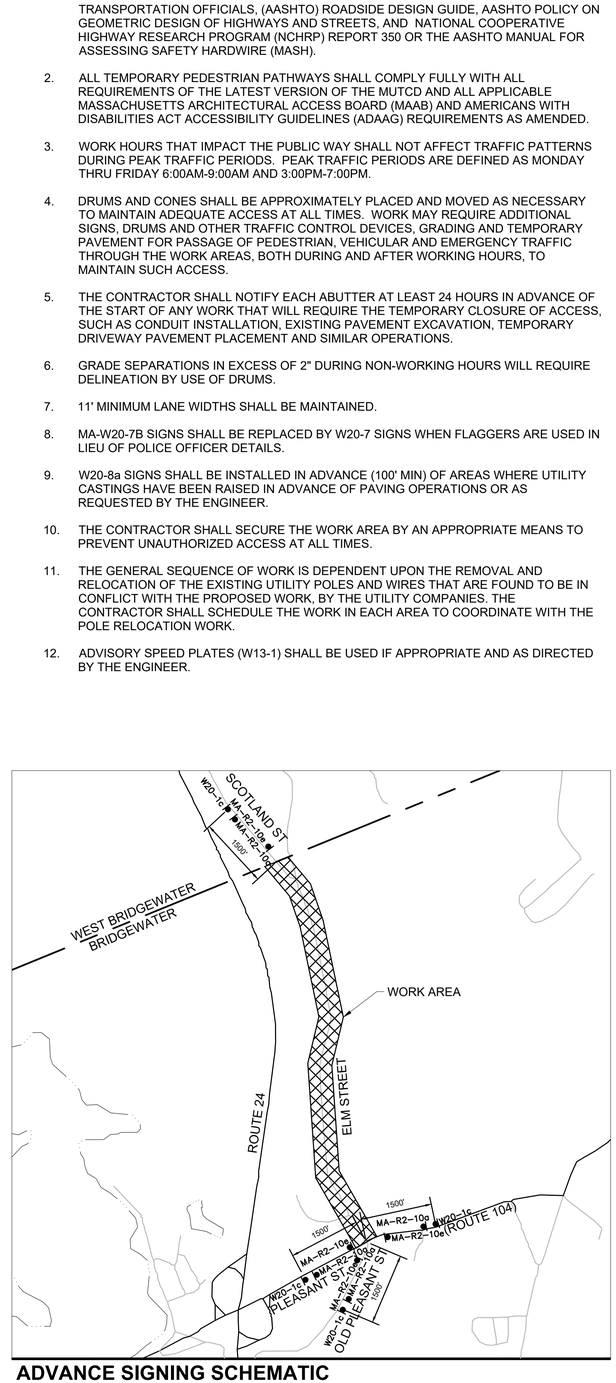
SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



NOTES:
1. SQUARE OFF THE FULL WIDTH OF THE ROADWAY AT THE END OF WORK DAY
2. ** CONTRACTOR SHALL INSTALL W8-1, W8-3, OR W8-8 SIGN, AS APPROPRIATE, ON ALL ROADWAYS IN ADVANCE OF THE TRANSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

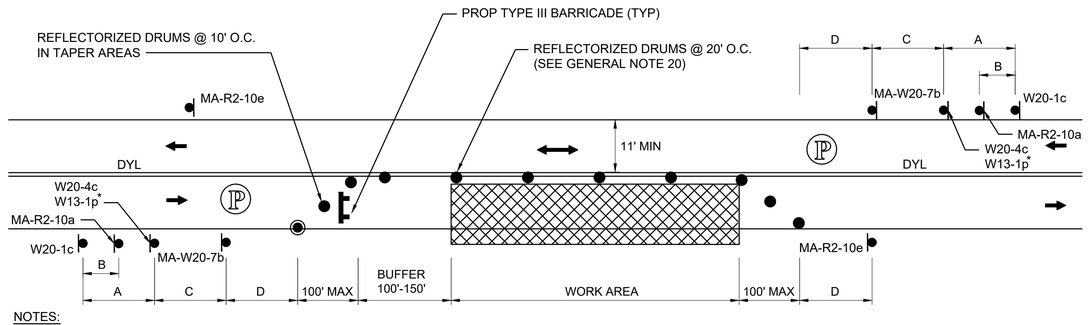
TEMPORARY PAVEMENT TRANSITION

SCALE: NTS



ADVANCE SIGNING SCHEMATIC

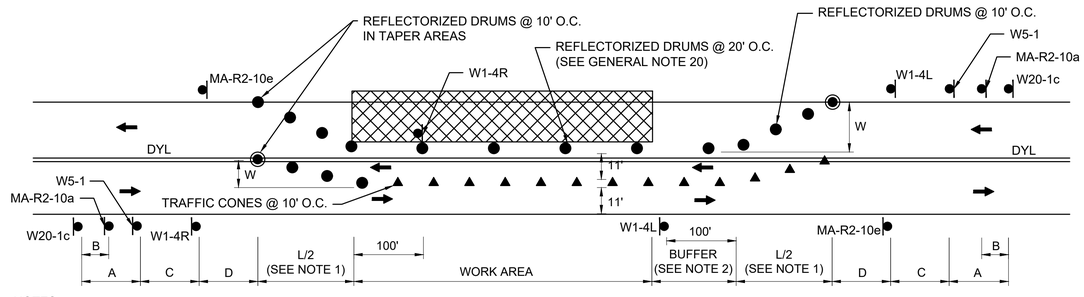
SCALE: N.T.S.



NOTES:
1. * SEE NOTE 12 ON TTCP GENERAL NOTES.

TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

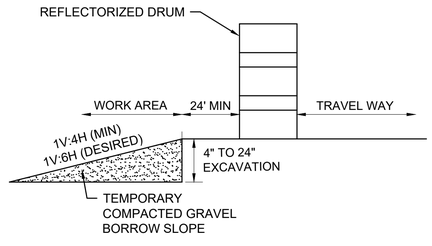
SCALE: NTS



NOTES:
1. SEE TAPER LENGTH FORMULA
2. SEE BUFFER SPACING CHART

TYPICAL TWO-WAY STREET LANE SHIFT

SCALE: NTS



NOTE:
1. CONTRACTOR SHALL INSTALL W8-9 SIGN ON ALL ROADWAYS 350 FT IN ADVANCE OF THE START OF DROP-OFF CONDITION.

TYPICAL ROADWAY DROP-OFF PROTECTION

SCALE: N.T.S.

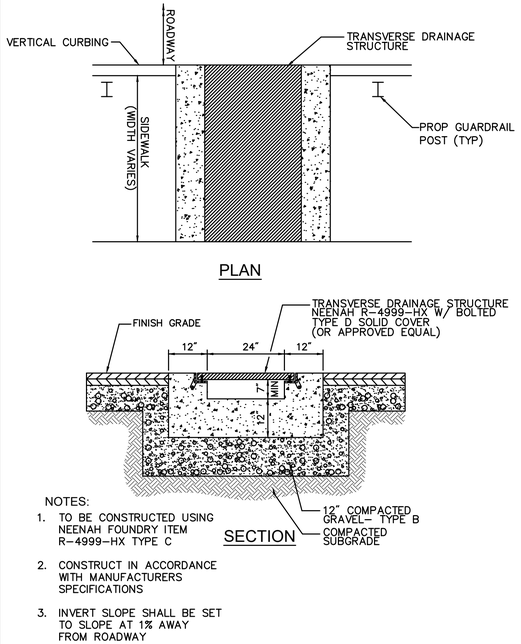
14004.00-TTCP.DWG Plotted on 19-May-2019 9:23 PM

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER
MA-R2-10a	48"	36"	WORK ZONE / SPEEDING FINES DOUBLED	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK
MA-R2-10e	36"	48"	END ROAD WORK / DOUBLE FINES ENDS				FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK
W1-4L	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK
W1-4R	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK
W5-1	36"	36"	ROAD NARROWS				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-1	36"	36"	BUMP				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-3	36"	36"	PAVEMENT ENDS				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-8	36"	36"	ROUGH ROAD				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-9	36"	36"	LOW SHOULDER				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-15	36"	36"	GROOVED PAVEMENT				FLUOR-ESCENT ORANGE	BLACK	BLACK
W13-1p(xx)	24"	24"	XX MPH				FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-1c	36"	36"	ROAD WORK AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-4c	36"	36"	ONE LANE ROAD AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-7	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK

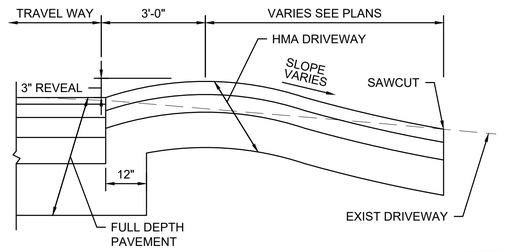
NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
2. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

14004.00-DET.DWG Plotted on 19-May-2019 9:24 PM



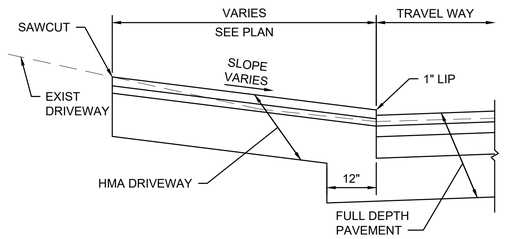
WALK CURB INLET

SCALE: N.T.S. DWG: TRENCH-05



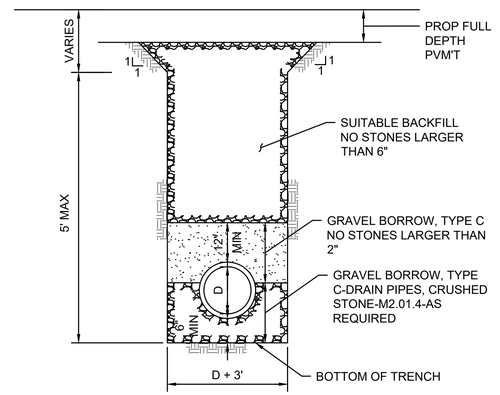
TYPICAL DRIVEWAY SECTION WITHOUT SIDEWALK TYPE 1

SCALE: N.T.S.



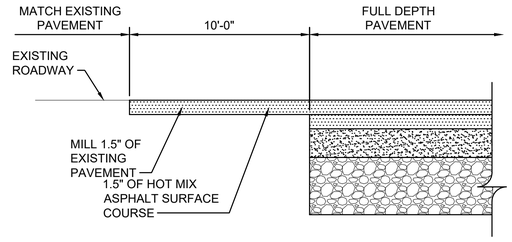
TYPICAL DRIVEWAY SECTION WITHOUT SIDEWALK TYPE II

SCALE: N.T.S.



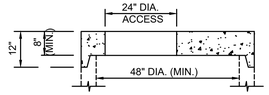
TRENCH DETAIL

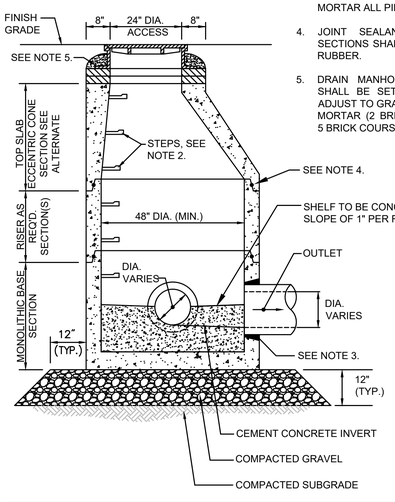
SCALE: N.T.S. DWG: TRENCH-05



FULL DEPTH PAVEMENT TRANSITION

SCALE: N.T.S.



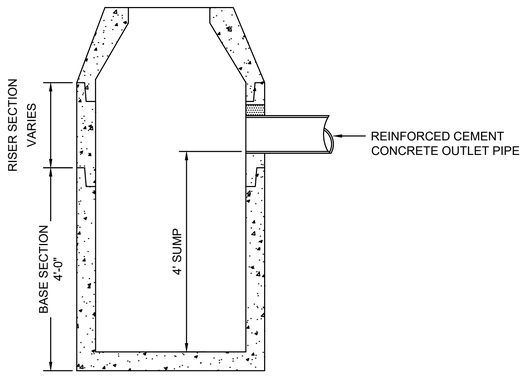


Notes:

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

DRAIN MANHOLE (DMH)

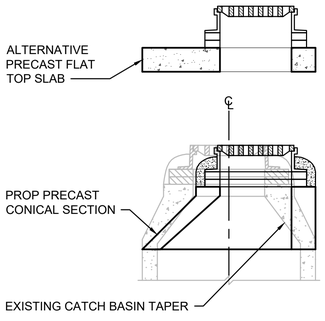
SCALE: N.T.S.



NOTE:
ALL CATCH BASINS SHALL CONFORM TO MASSDOT CONSTRUCTION STANDARD 201.4.0 EXCEPT FOR 4' SUMP DEPTH AS SHOWN.

DEEP SUMP CATCH BASIN

SCALE: N.T.S.

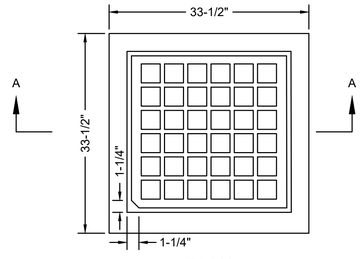


CB TREATMENT NOTES

1. BASED ON ACTUAL FIELD CONDITIONS; THE CONTRACTOR SHALL DETERMINE WHICH STYLE OF TOP SECTION SHOULD BE USED.
2. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

CATCH BASIN REMODELED

SCALE: N.T.S.

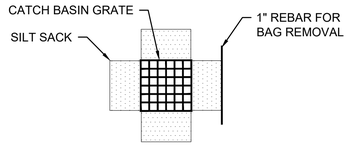


NOTES:
1. FRAME AND GRATE SHALL BE RATED FOR HS-20 LOADING.
2. MIN FRAME WEIGHT:
   4 FLANGE 295 LBS.
   3 FLANGE 265 LBS.
3. USE 3 FLANGE FRAMES AT CURB INLETS.

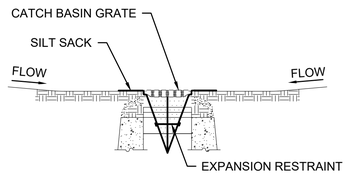
MUNICIPAL STANDARD CATCH BASIN FRAME & GRATE

SCALE: N.T.S.

14004.00-DET.DWG Plotted on 19-May-2019 9:24 PM



PLAN VIEW

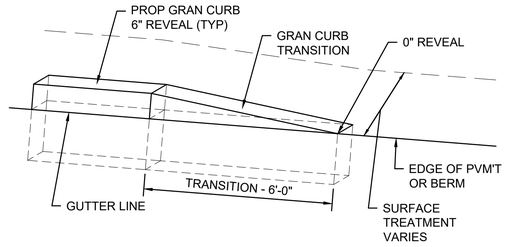


SECTION VIEW

NOTES:
1. INSTALL SILT SACK IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER SILT SACK.
3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED

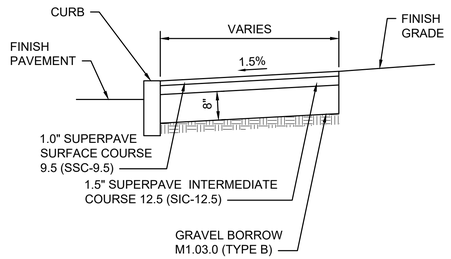
INLET PROTECTION - SILT SACK IN CATCH BASIN

SCALE: N.T.S.



GRANITE CURB TRANSITION PIECE

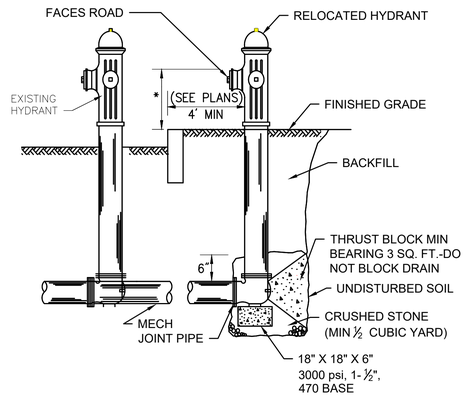
SCALE: N.T.S.



SECTION

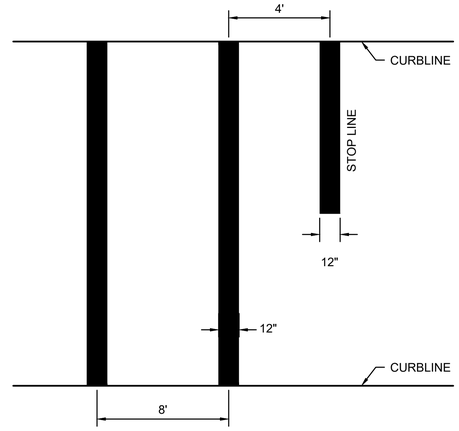
HMA SIDEWALK

SCALE: N.T.S. DWG: WALK-01 DATE: MARCH 2013



HYDRANT RELOCATION

SCALE: NTS

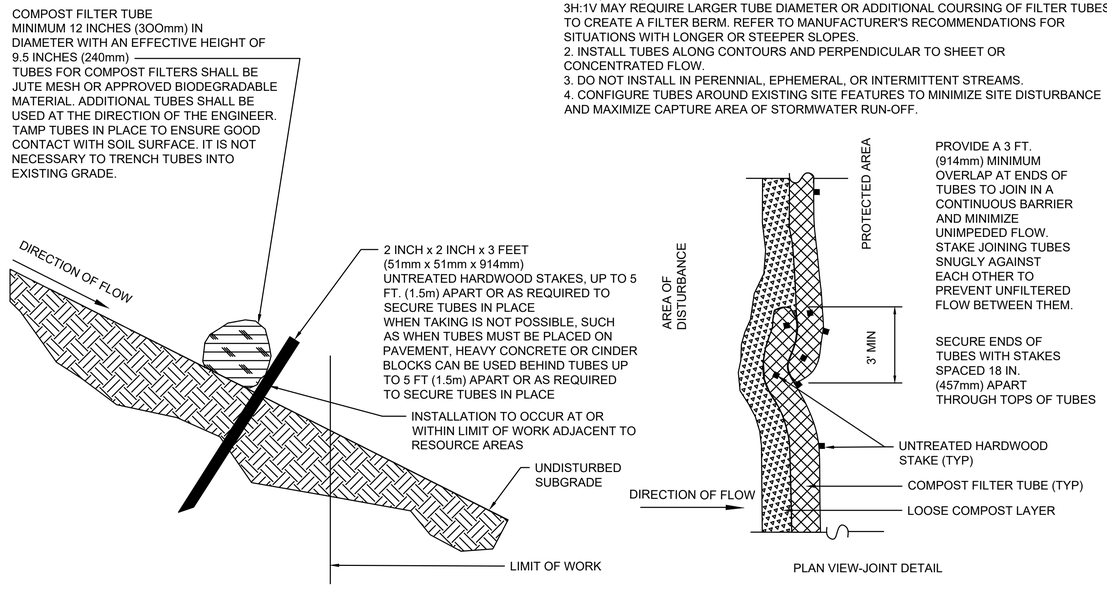


NOTES:
1. ALL 12" THERMOPLASTIC LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6" LINES) WILL BE ACCEPTED.
2. LAYOUT OF CROSSWALKS SHALL BE APPROVED BY A BRIDGEWATER DPW REPRESENTATIVE PRIOR TO APPLICATION OF THERMOPLASTIC.
3. ALL CROSSWALKS INSTALLED SHALL CONFORM TO THE RELEVANT PROVISIONS OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGES" DATED 1988, SECTION 860 FOR REFLECTORIZED LINE (THERMOPLASTIC) & MATERIAL M7.01.20, LATEST REVISIONS.

STANDARD CROSSWALK

SCALE: N.T.S.

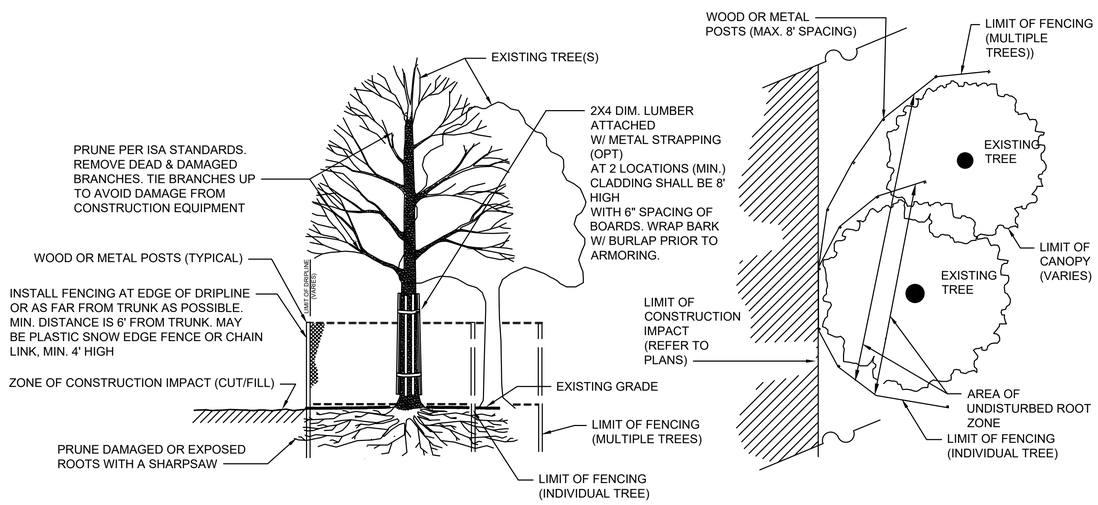
GENERAL NOTES:
1. PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES (300mm) FOR SLOPES UP TO 50 FEET (15.24m) IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. DO NOT INSTALL IN PERENNIAL, EPHEMERAL, OR INTERMITTENT STREAMS.
4. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.



PLAN VIEW-JOINT DETAIL

SEDIMENT CONTROL BARRIER (COMPOST FILTER TUBES)

SCALE: N.T.S.

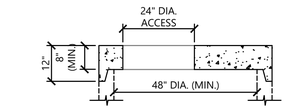


NO STORAGE OF EQUIPMENT OR STOCKPILING OF MATERIALS WITHIN DRIPLINE

PLAN VIEW

TREE PROTECTION OF EXISTING TREE(S)

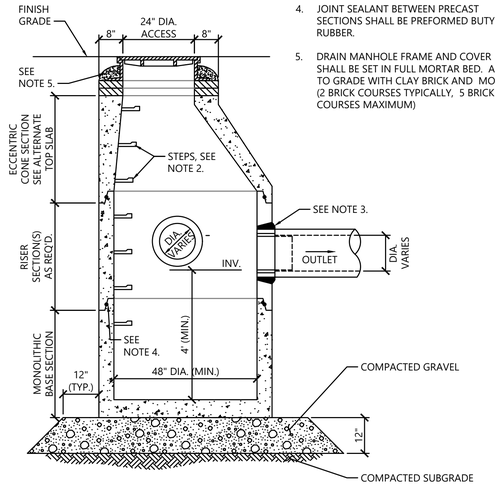
SCALE: N.T.S.



ALTERNATE TOP SLAB

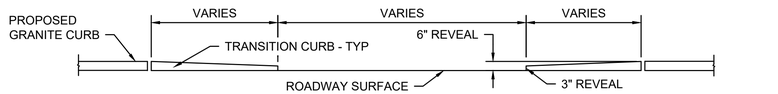
NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

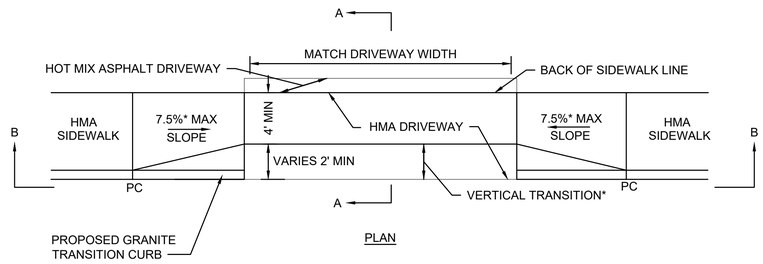


DEEP SUMP DRAIN MANHOLE (DMH)

SCALE: N.T.S.

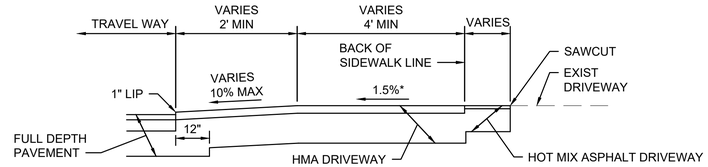


SECTION B-B



PLAN

ROADWAY PROFILE GRADE	HIGH SIDE TRANSITION LENGTH
= 0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"



SECTION A-A

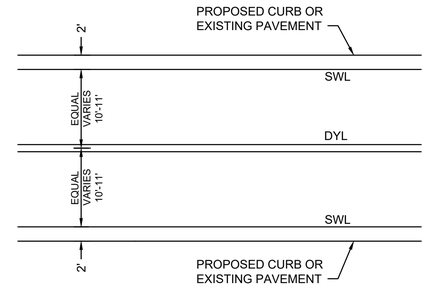
* DRIVEWAY AND SIDEWALK SLOPED TO MEET AT 1/2 OF THE CURB REVEAL

* 0.5% TOLERANCE FOR CONSTRUCTION

TYPICAL DRIVEWAY WITH SIDEWALK AND STRAIGHT TRANSITION CURB

SCALE: N.T.S.

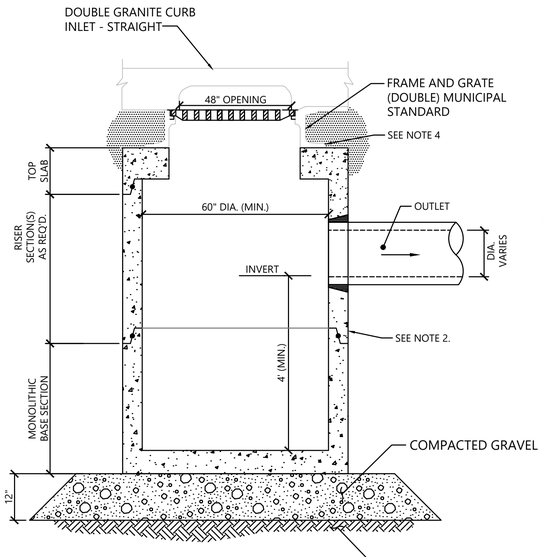
SWL (LT)		DYL		SWL (RT)	
BEGIN STA	END STA	BEGIN STA	END STA	BEGIN STA	END STA
10+66	16+72	10+64	16+78	10+62	31+79
17+67	31+79	17+58	31+79	31+88	34+61
31+88	32+14	31+88	32+14	34+69	43+56
32+77	34+05	32+77	34+18	44+41	66+19
34+69	66+19	34+53	34+61	66+27	96+36
66+27	93+37	34+69	43+79		
		44+29	66+19		
		66+27	95+00		



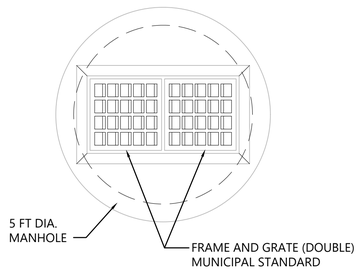
NOTE: ALL SWL AND DYL LINES TO BE 4" REFLECTORIZED THERMOPLASTIC

PAVEMENT MARKING LAYOUT TABLE

SCALE: N.T.S.



SECTION



PLAN

NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
4. DOUBLE CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICKS TYPICALLY, 5 BRICK COURSES MAXIMUM)

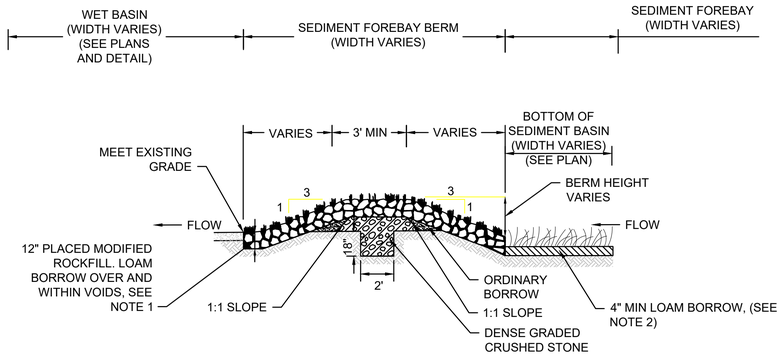
DOUBLE CATCH BASIN (DCB) WITH CURB INLET

SCALE: N.T.S.

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	TEXT DIMENSIONS (INCHES) VERTICAL SPACING	TEXT DIMENSIONS (INCHES) ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	COLOR BACK–GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
R2-1(30)	24"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			3	WHITE	BLACK	BLACK	P5-3	5.00	15.00
W1-2(L)	30"	30"					1	YELLOW	BLACK	BLACK	P5-1	6.25	6.25
W1-2(R)	30"	30"					1	YELLOW	BLACK	BLACK	P5-1	6.25	6.25
W11-2	30"	30"					10	YELLOW	BLACK	BLACK	P5-10	6.25	62.50
W16-7p(L)	24"	12"					6	YELLOW	BLACK	BLACK	6 MTD W/OTHERS	2.00	12.00
W16-9p	24"	12"					4	YELLOW	BLACK	BLACK	4 MTD W/OTHERS	2.00	8.00

NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; AND THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED.



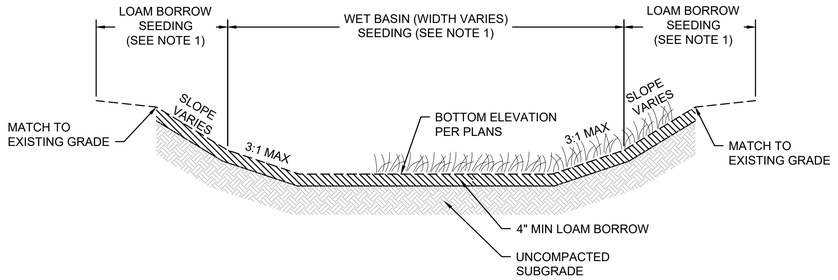
NOTES:

1. APPLY LOAM BORROW MATERIAL OVER AND WITHIN THE MODIFIED ROCKFILL. MATERIAL SHOULD BE PLACED SO THAT SETTLED MATERIAL IS AT OR SLIGHTLY BELOW SURFACE PLANE OF STONE AND SHALL BE WORKED INTO THE VOIDS OF THE MODIFIED ROCK FILL. COMPOST SHALL BE RAKED BY HAND.

2. LOAM BORROW- TO A MINIMUM DEPTH OF 4" (THE CONTRACTOR MAY REUSE ON-SITE LOAM IF MATERIAL COMPLIES WITH THE LOAM BORROW SPECIFICATION)

SEDIMENT FOREBAY FOR WET BASIN

SCALE: N.T.S. SOURCE: VHB DATE: AUGUST 7 2015



NOTES:

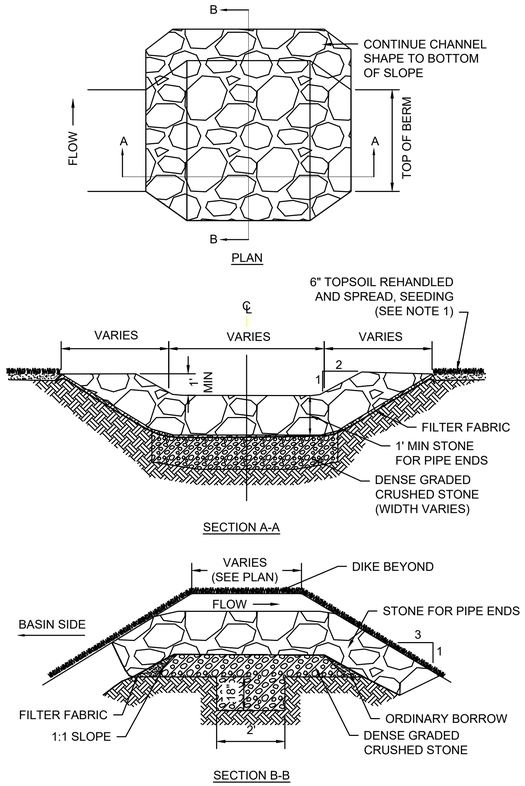
1. BOTTOM OF INFILTRATION BASIN SHALL BE SEEDED WITH ITEM 765.457, SEEDING- INFILTRATION BASIN BOTTOM/SWALE MIX

2. LOAM BORROW- TO A MINIMUM DEPTH OF 4" (THE CONTRACTOR MAY REUSE ON-SITE LOAM IF MATERIAL COMPLIES WITH THE LOAM BORROW SPECIFICATION)

WET BASIN
TYPICAL SECTION

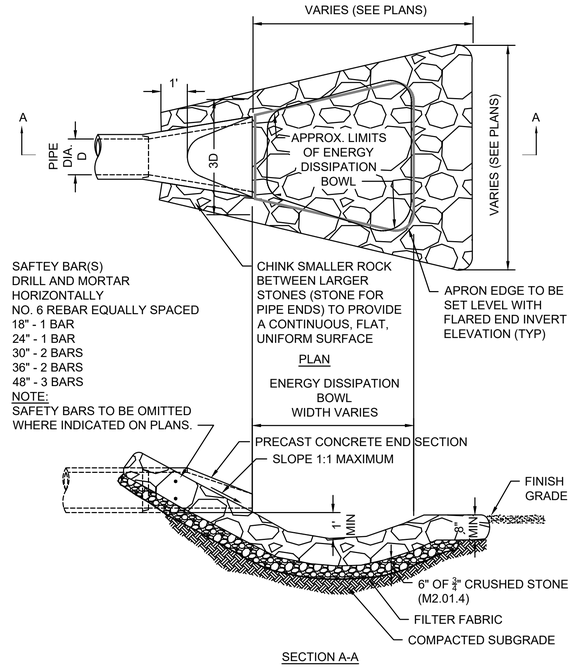
SCALE: N.T.S. SOURCE: VHB DATE: AUGUST 6 2015

14004.00-DET.DWG Plotted on 19-May-2019 9:24 PM



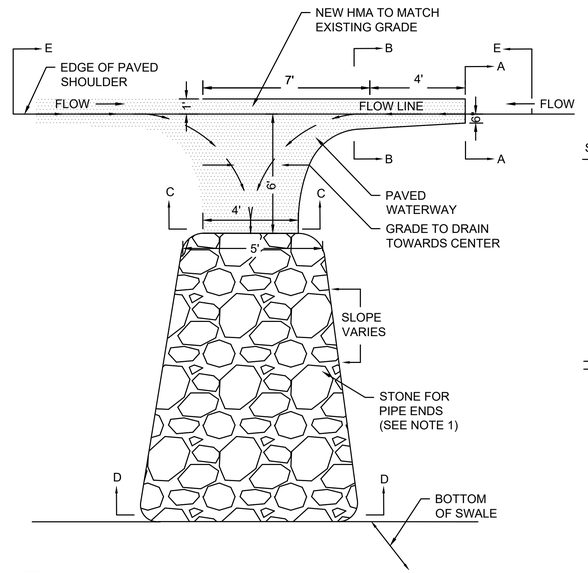
OVERFLOW STONE SWALE

SCALE: N.T.S. SOURCE: VHB DATE: AUGUST 5 2015



FLARED END SECTION (FES) WITH STONE FOR PIPE ENDS

SCALE: N.T.S. SOURCE: VHB DATE: AUGUST 7 2015

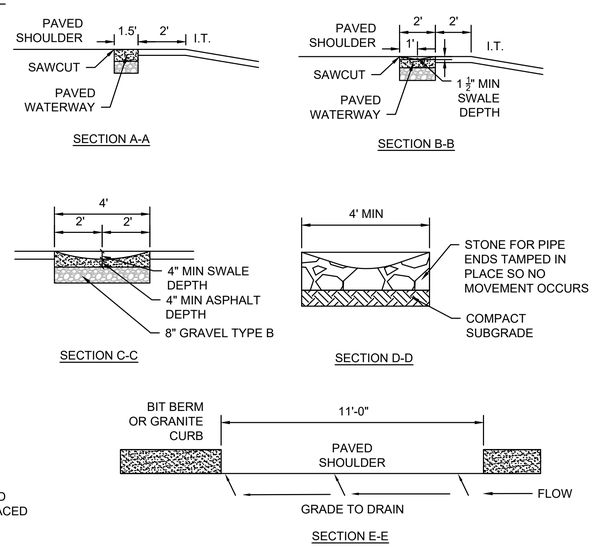


NOTE:

1. EACH LARGE STONE SHALL BE CAREFULLY PLACED BY HAND, NORMAL TO THE SLOPE AND FIRMLY BEDDED THEREON. THE SMALLER STONES SHALL BE SO GRADED THAT WHEN PLACED WITH THE LARGER STONES, THE ENTIRE MASS WILL BE COMPACT WITH A MINIMUM PERCENTAGE OF VOIDS AND MINIMUM THICKNESS OF 6".

HOT MIX ASPHALT PAVED WATERWAY

SCALE: N.T.S. SOURCE: VHB DATE: AUGUST 7 2015



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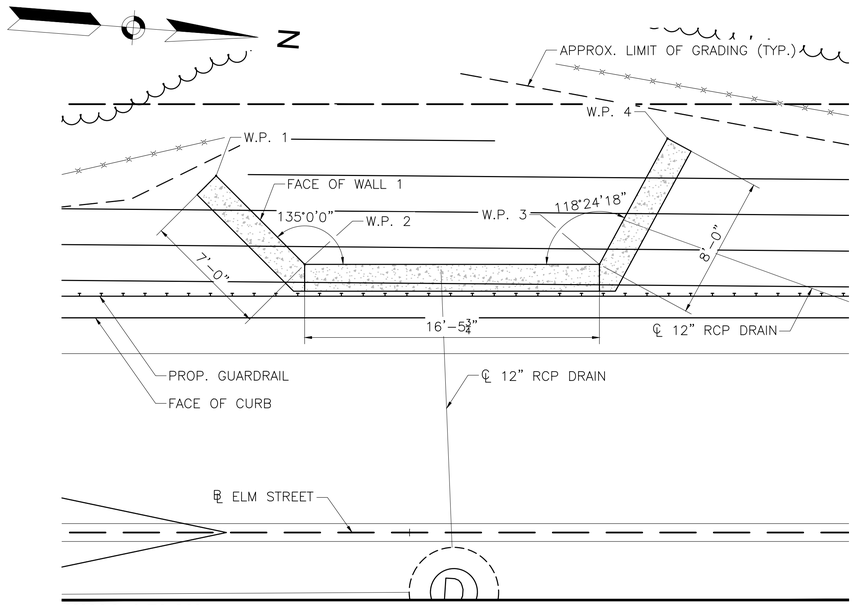
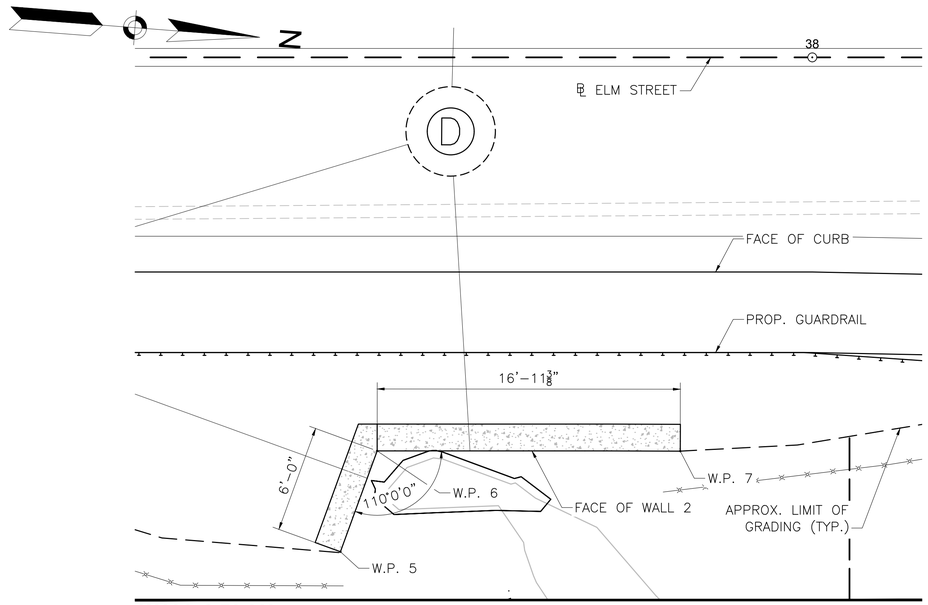


WALL 1 PLAN

SCALE: ⅛" = 1'-0"

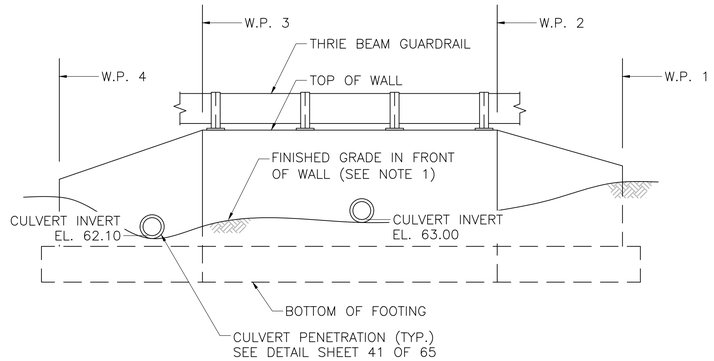


WALL 2 PLAN

SCALE: ⅛" = 1'-0"

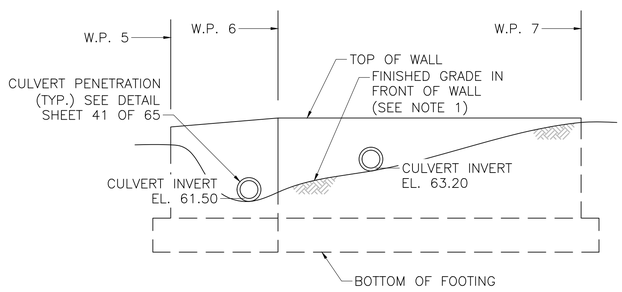
NOTES:

1. FINISHED GRADE IN FRONT OF WALL IS APPROXIMATE. CONTRACTOR SHALL DETERMINE FINISHED GRADE IN FIELD AS REQUIRED.
2. FOR WALL 1 & 2 SECTION, SEE SHEET 41 OF 65.



WALL 1 DEVELOPED ELEVATION

SCALE: ⅛" = 1'-0"



WALL 2 DEVELOPED ELEVATION

SCALE: ⅛" = 1'-0"

WALL 1					
W.P.	STATION	OFFSET	TOP OF WALL EL.	BOTTOM OF FOOTING EL.	FINISHED GRADE IN FRONT OF WALL EL.
1	36+39.18	19.94' LT	66.00'	59.50'	SEE NOTE 1
2	36+44.13	14.99' LT	68.00'	59.50'	
3	36+60.61	14.99' LT	68.00'	59.50'	
4	36+64.42	22.03' LT	65.25'	59.50'	

WALL 2					
W.P.	STATION	OFFSET	TOP OF WALL EL.	BOTTOM OF FOOTING EL.	FINISHED GRADE IN FRONT OF WALL EL.
5	37+73.62	27.64' RT	65.50'	58.50'	SEE NOTE 1
6	37+75.68	22.00' RT	66.00'	58.50'	
7	37+92.62	22.01' RT	66.00'	58.50'	

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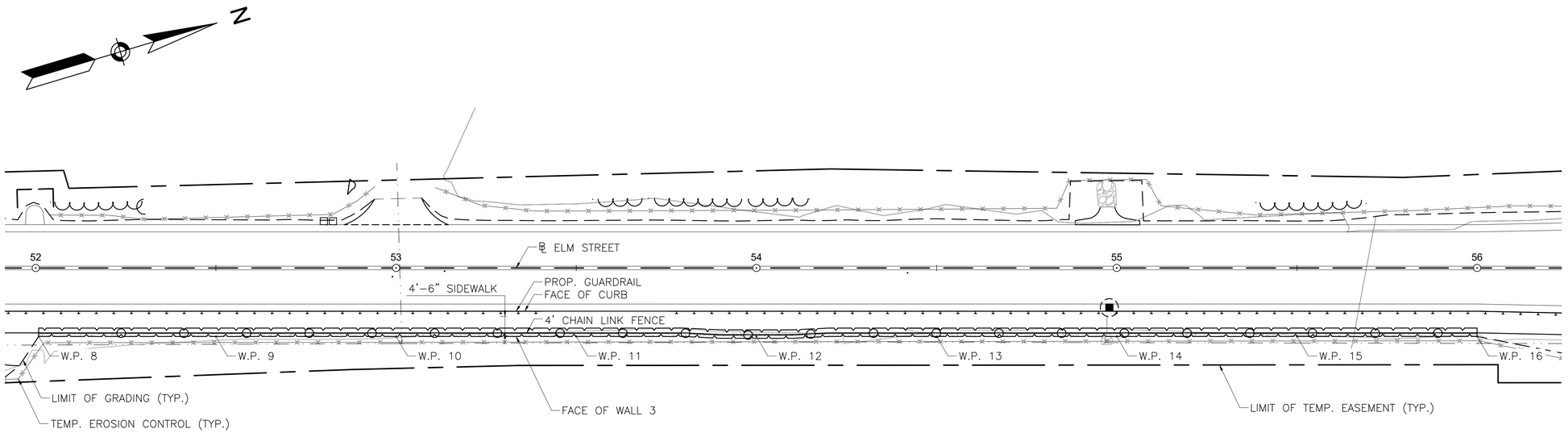
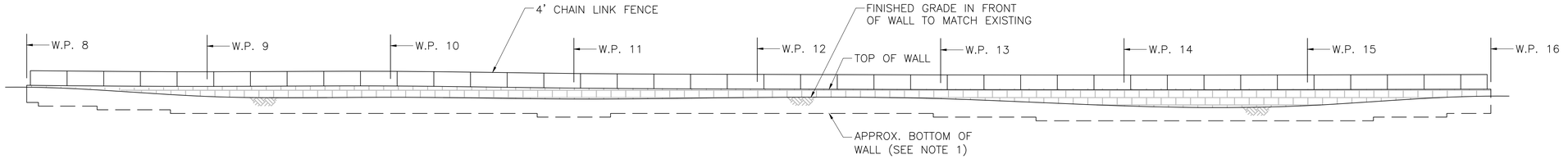
NOTES:

1. BOTTOM OF WALL ELEVATION SHALL BE DETERMINED BY WALL MANUFACTURER
2. FOR WALL 3 SECTION, SEE SHEET 41 OF 65.



WALL 3 PLAN

SCALE: $\frac{1}{16}$" = 1'-0"



WALL 3 DEVELOPED ELEVATION

SCALE: $\frac{1}{16}$" = 1'-0"

WALL 3					
W.P.	STATION	OFFSET	TOP OF WALL EL.	FINISHED GRADE IN FRONT OF WALL EL.	BOTTOM OF WALL EL.
8	52+00.82	19.00' RT	64.68'	64.17'	SEE NOTE 1
9	52+50.00	19.00' RT	64.39'	61.65'	
10	53+00.00	19.00' RT	64.50'	61.42'	
11	53+50.00	19.00' RT	63.91'	60.94'	
12	54+00.00	19.00' RT	63.67'	61.37'	
13	54+50.00	19.00' RT	63.53'	61.04'	
14	55+00.00	19.00' RT	63.48	59.07'	
15	55+50.00	19.00' RT	63.52'	59.15'	
16	55+99.99	19.00' RT	63.63'	61.74'	

BRIDGEWATER
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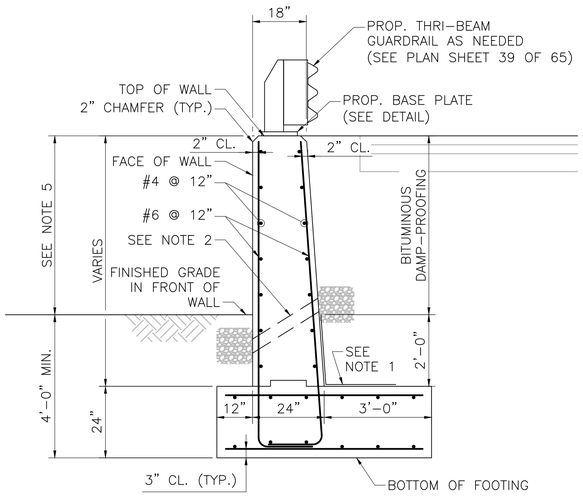


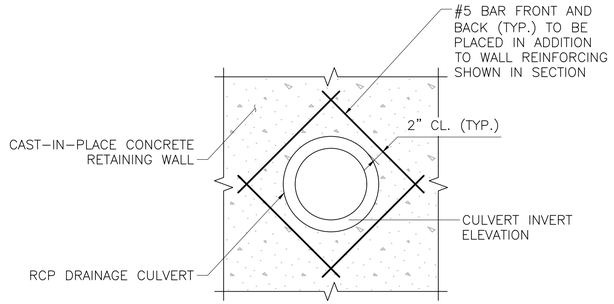
RETAINING WALL 1 & 2 SECTION

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

NOTES:

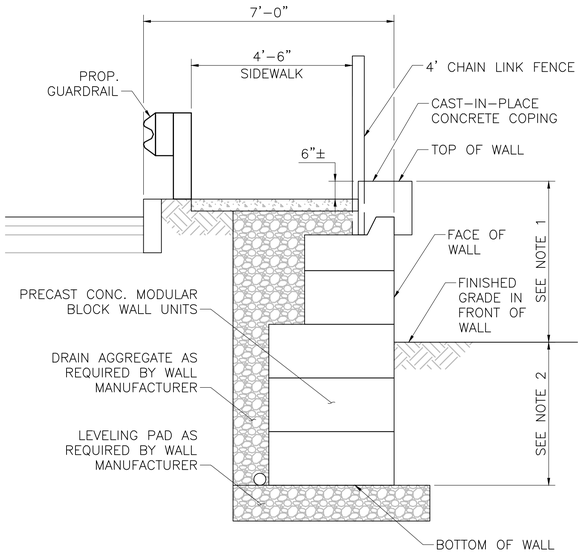
1. MEMBRANE WATERPROOFING AND 8"X16"X2", 4000 PSI, $\frac{3}{4}$ IN, 610 CEMENT CONCRETE BLOCKS LAID IN MORTAR OR OTHER WATERPROOFING PROTECTIVE COURSE, MIN. 2" THICK AS SPECIFIED IN MHD STANDARD SPECIFICATIONS.
2. 4" ø WEEP HOLES 10'-0" O.C. (JUST ABOVE PROTECTIVE COURSE). PROVIDE 1 CUBIC YARD OF CURSHED STONE AT EACH END OF WEEP HOLE.
3. ALL CONCRETE SHALL BE 4000 PSI, $1\frac{1}{2}$ IN, 565 CEMENT CONCRETE.
4. THE FACTORED BEARING PRESSURE = XXX KSF AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH I LOAD COMBINATION.

   FACTORED BEARING RESISTANCE = XXX KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.XX.
5. WALL EXPOSED HEIGHT VARIES. SEE TABLES SHEET 39 OF 65.



CULVERT PENETRATION DETAIL

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

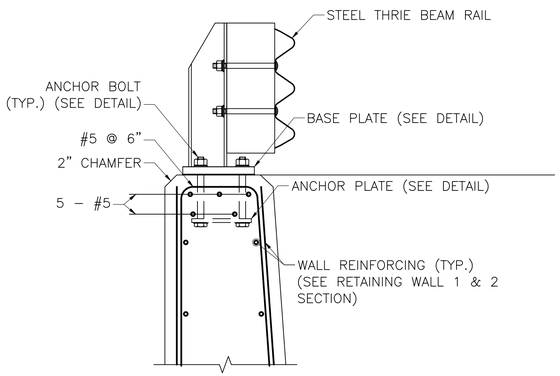


NOTES:

1. WALL EXPOSED HEIGHT VARIES. SEE TABLE SHEET 40 OF 65.
2. MINIMUM WALL EMBEDMENT SHALL BE DETERMINED BY WALL MANUFACTURER.
3. MODULAR BLOCK WALL (WALL 3), CONCRETE COPING, AND LEVELING PAD SHALL BE DESIGNED BY THE CONTRACTOR ACCORDING TO THE CONFIGURATION AND ELEVATIONS SHOWN ON THE PLANS (SEE SHEET 40 OF 65). THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS. TO THE ENGINEER FOR APPROVAL.
4. REFER TO GEOTECHNICAL REPORT DATED [XXXXXX] PREPARED BY [XXXXXX]

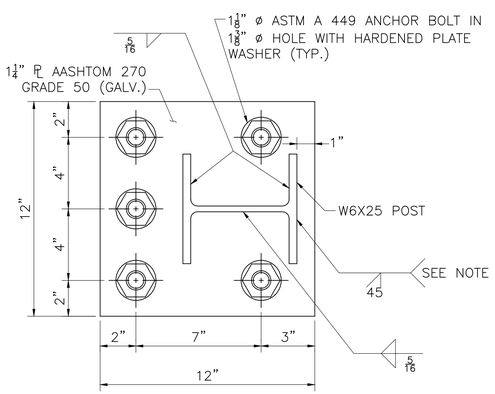
RETAINING WALL 3 SECTION

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



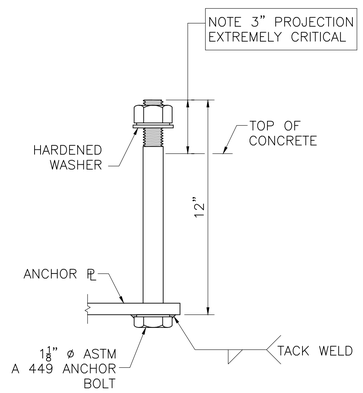
GUARD RAIL ANCHORAGE DETAIL

SCALE: 1" = 1'-0"



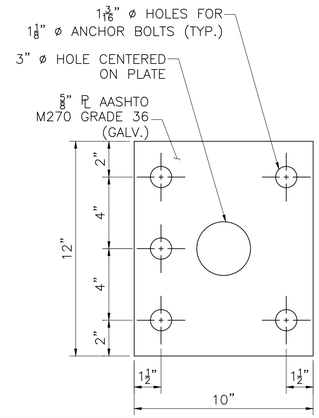
BASE PLATE DETAIL

SCALE: 3" = 1'-0"



ANCHOR BOLT DETAIL

SCALE: 3" = 1'-0"



ANCHOR PLATE DETAIL

SCALE: 3" = 1'-0"

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ELM STREET
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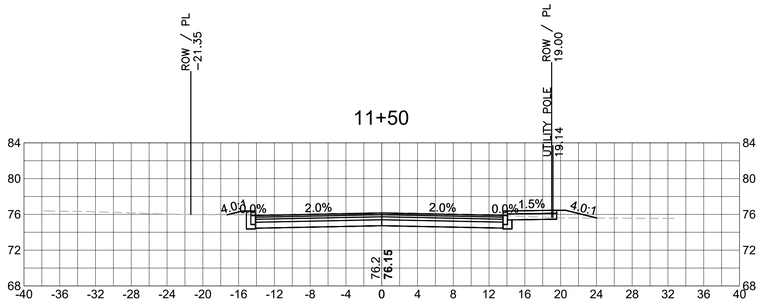

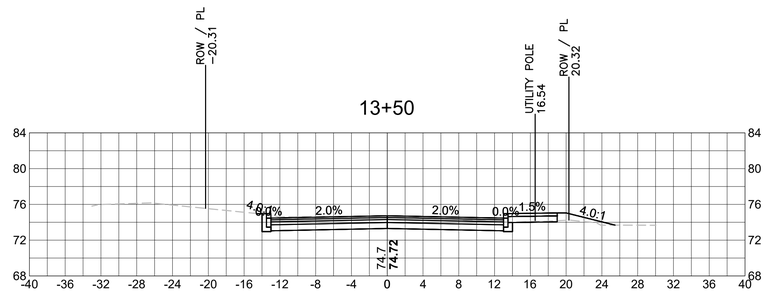

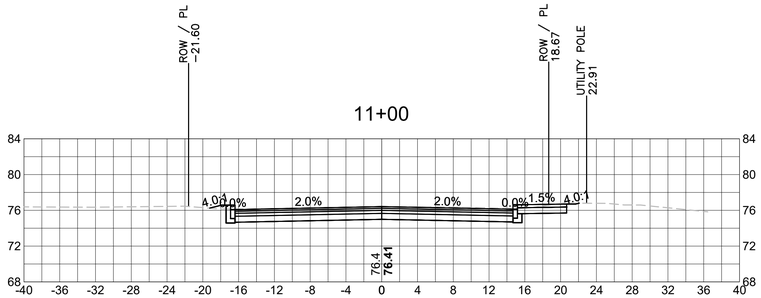

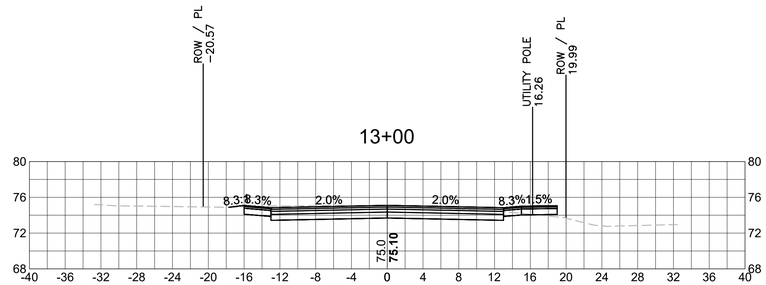

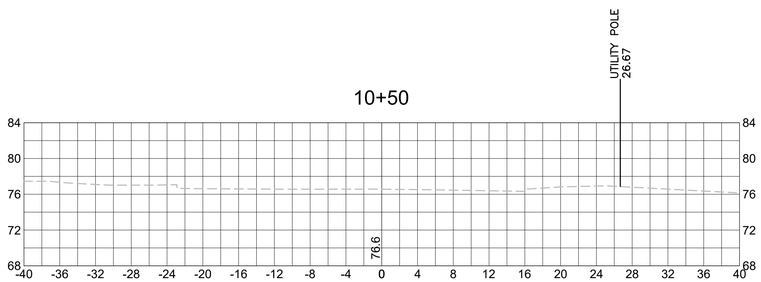

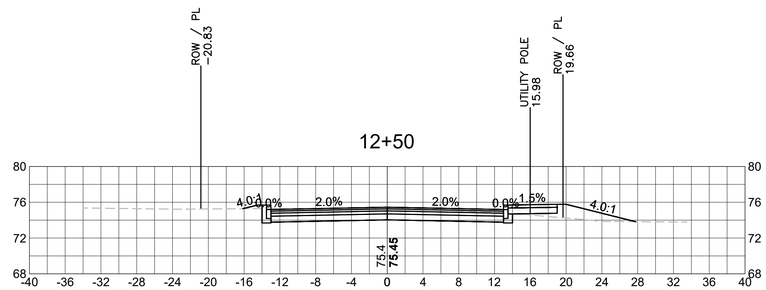

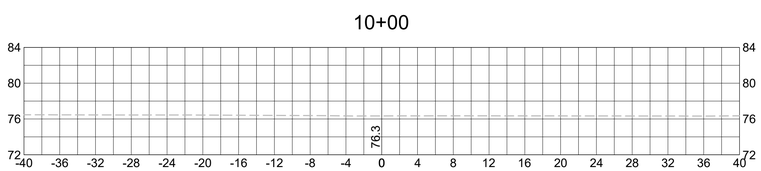

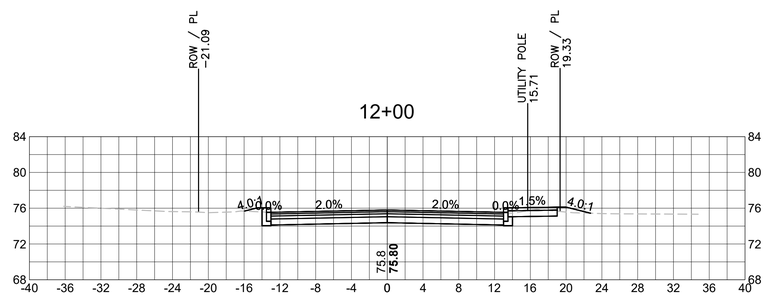

BRIDGEWATER
ELM STREET
CROSS SECTIONS
SHEET 43 OF 65

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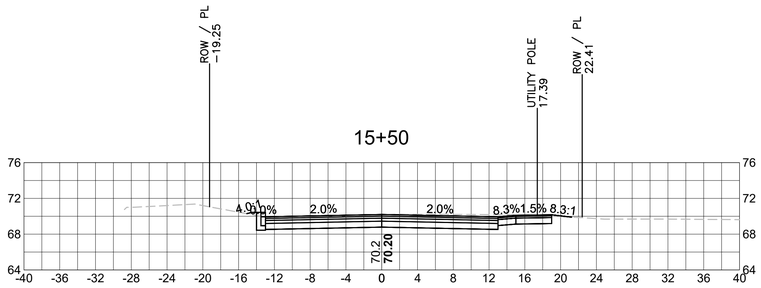

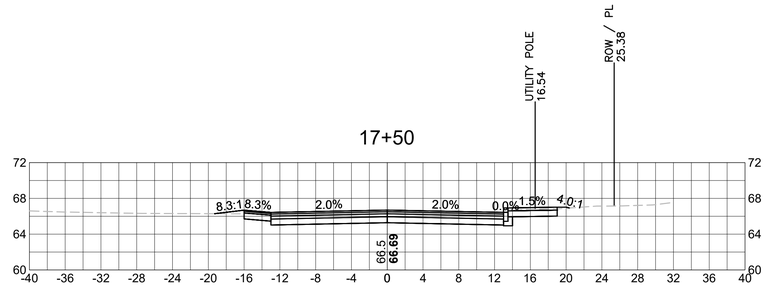

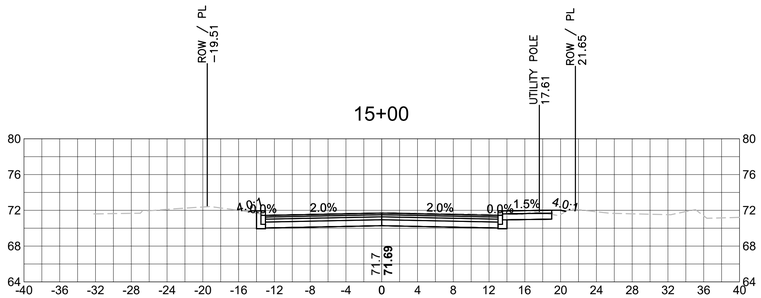

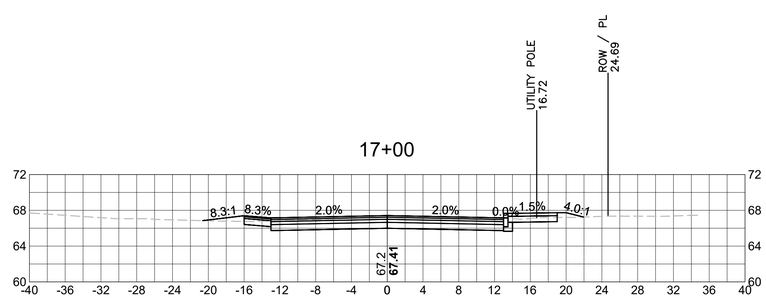

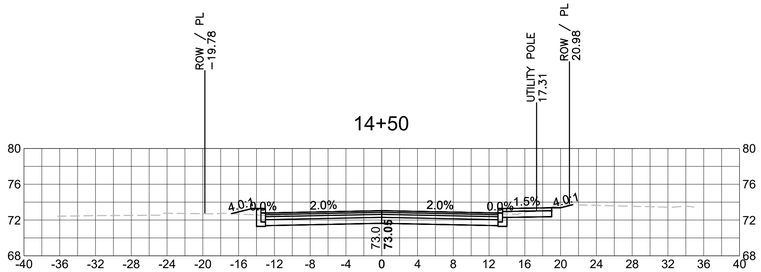

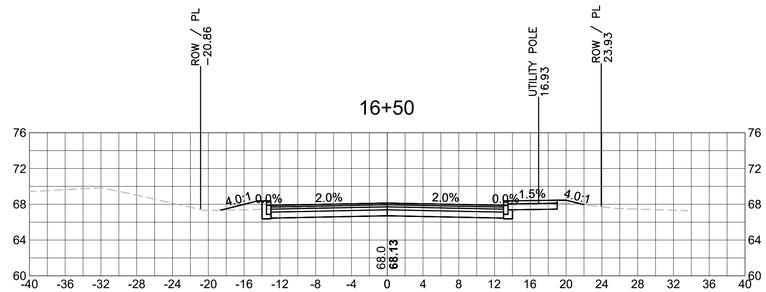

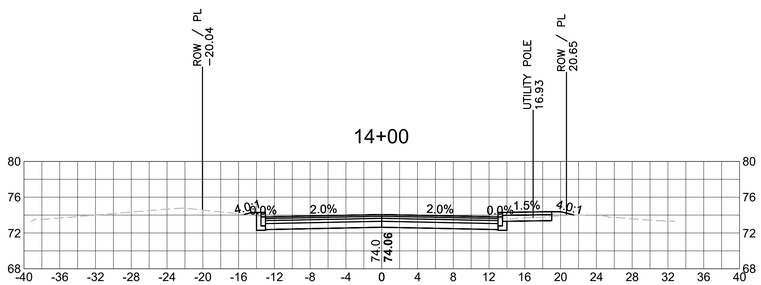

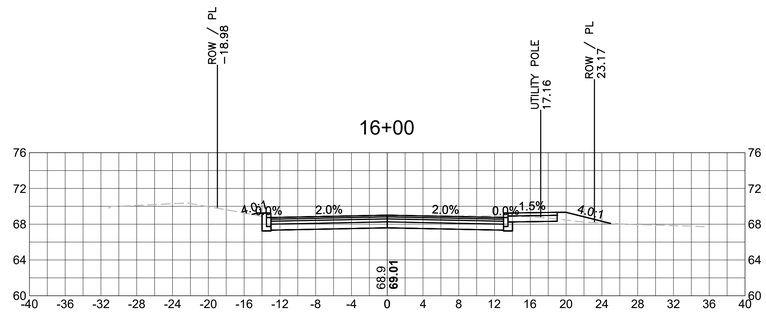

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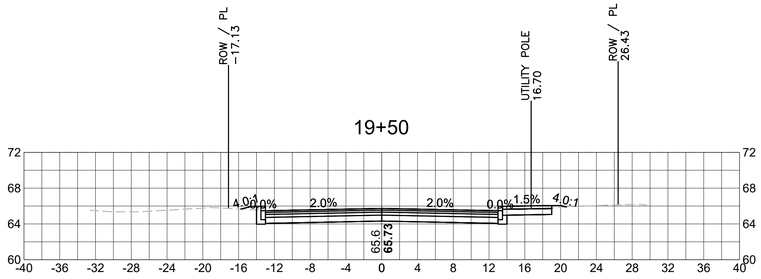

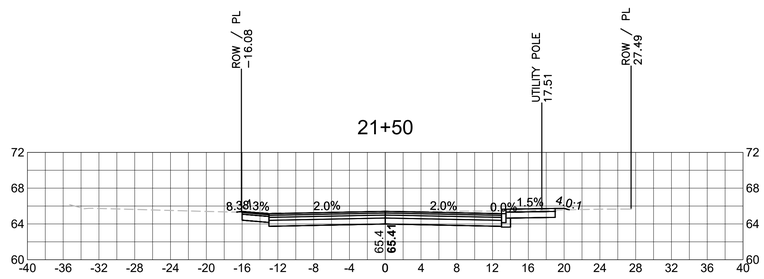

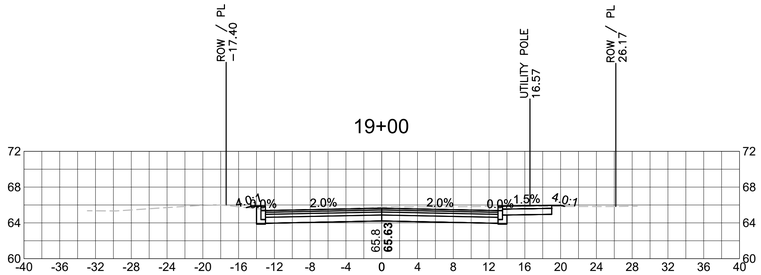

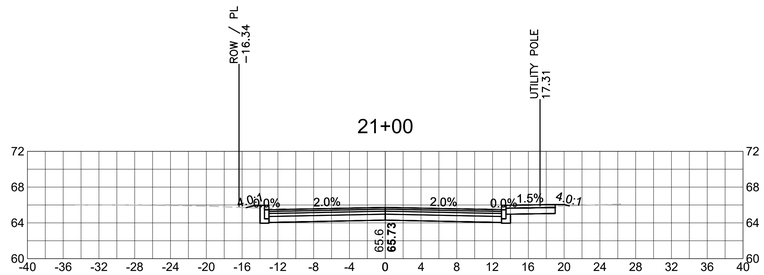

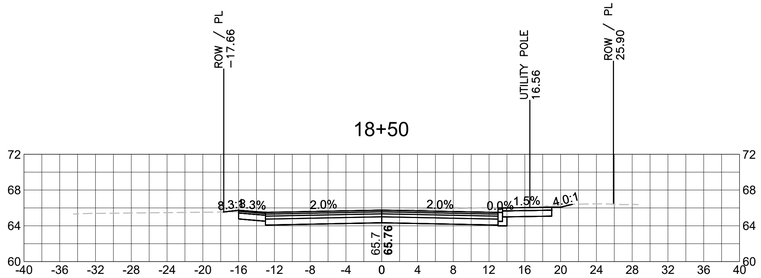

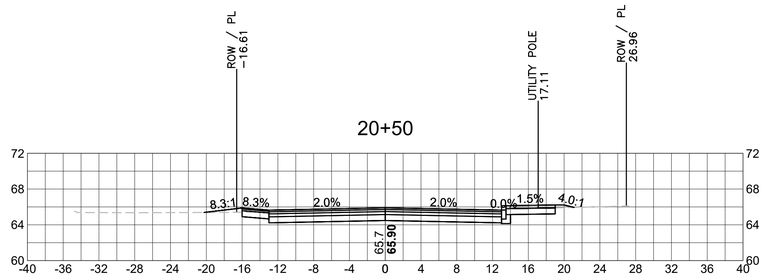

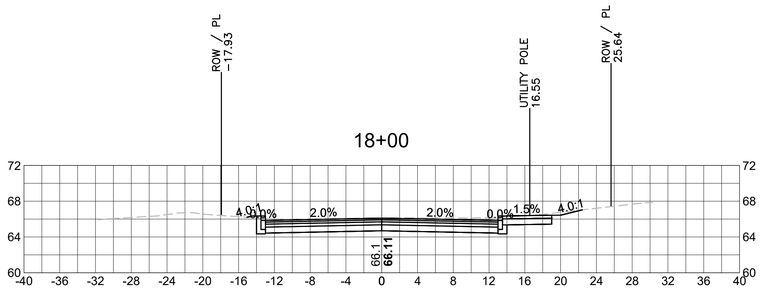

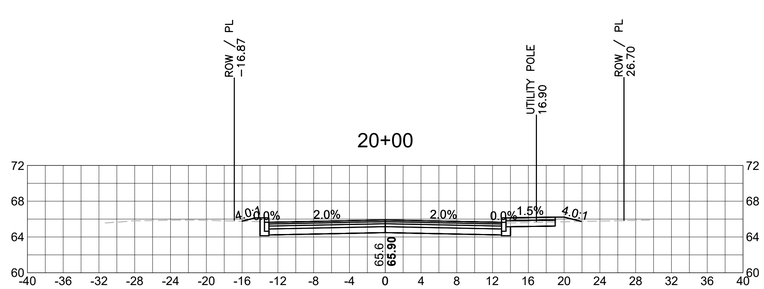

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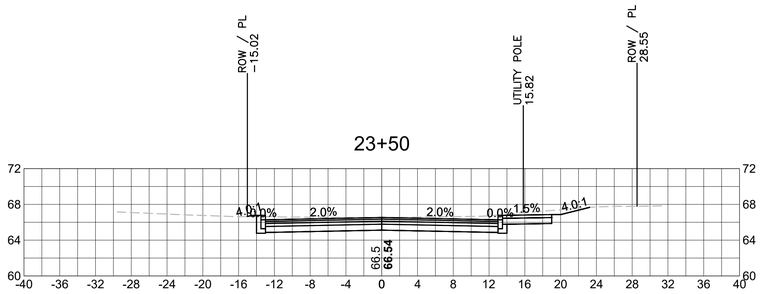

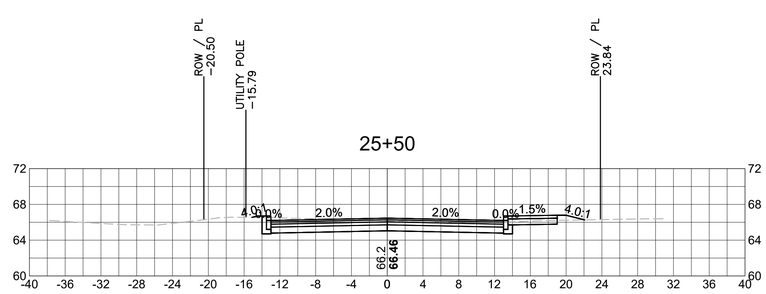

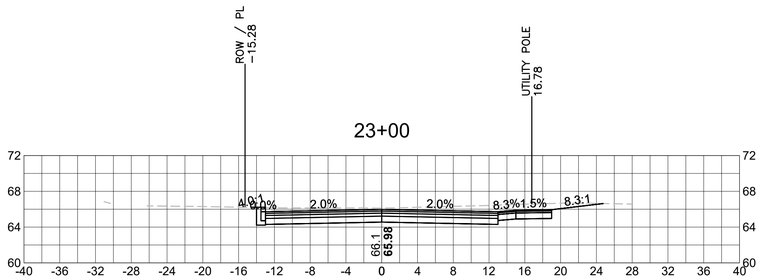

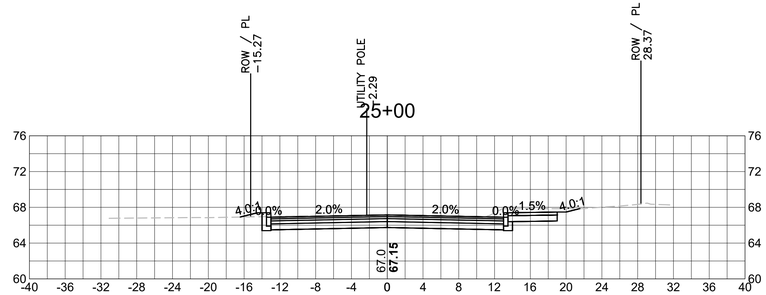

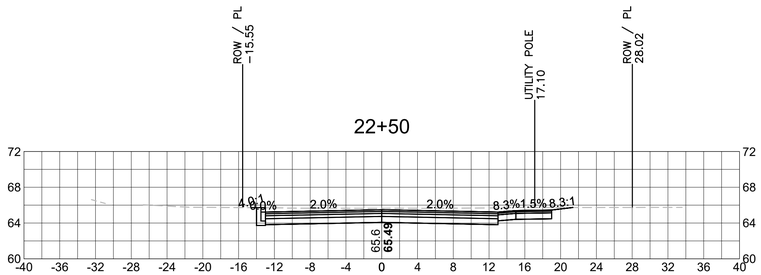

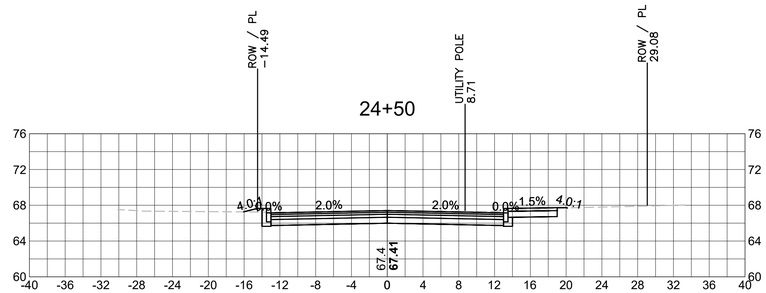

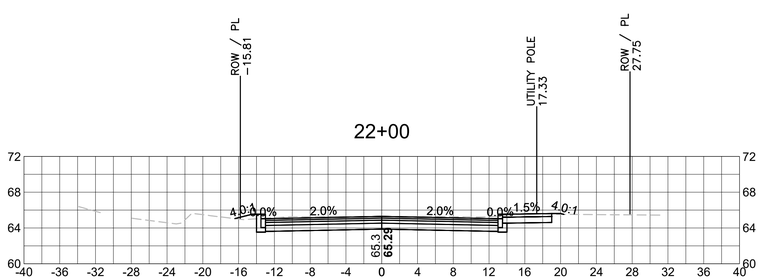

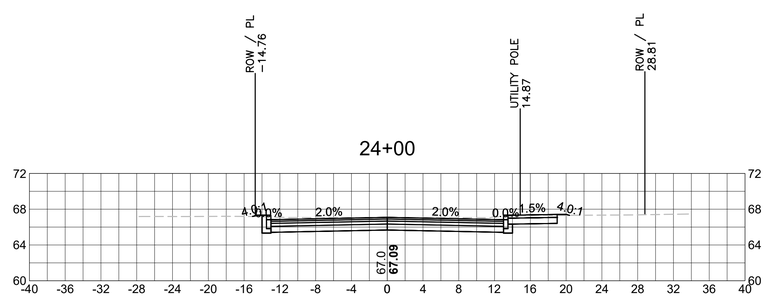

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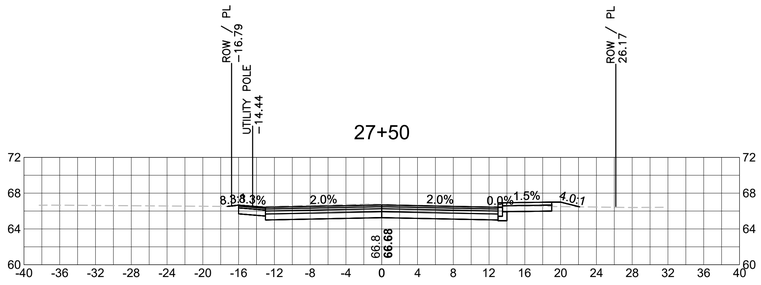

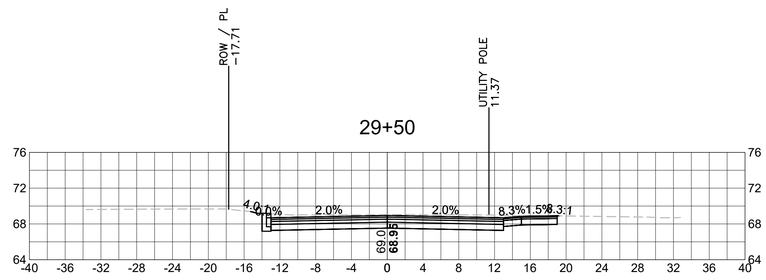

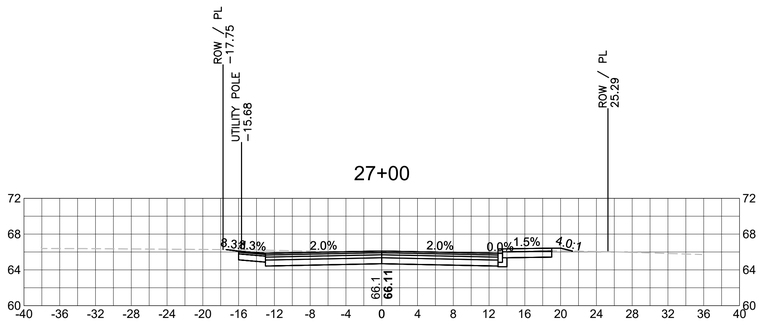

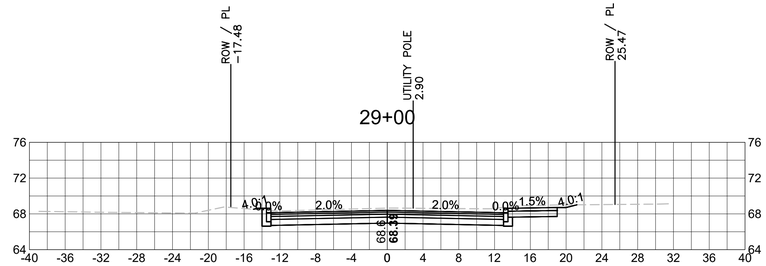

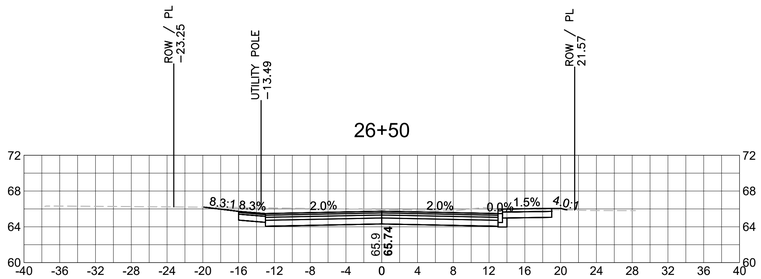

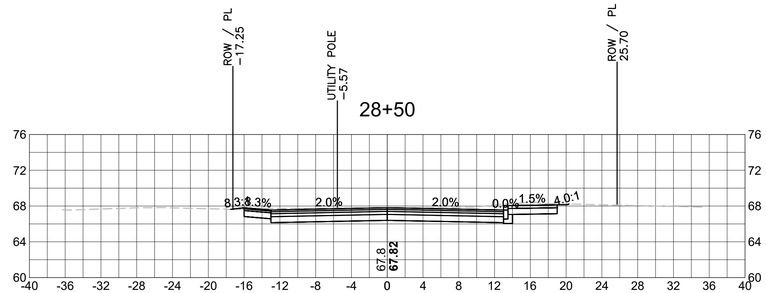

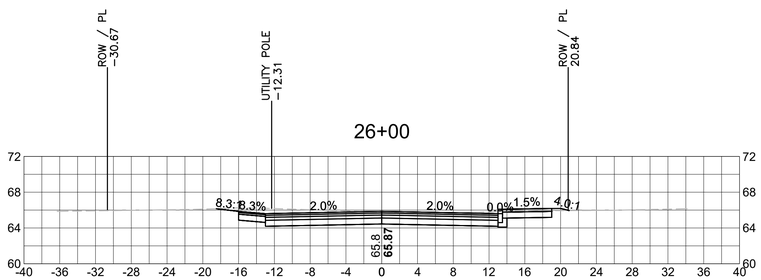

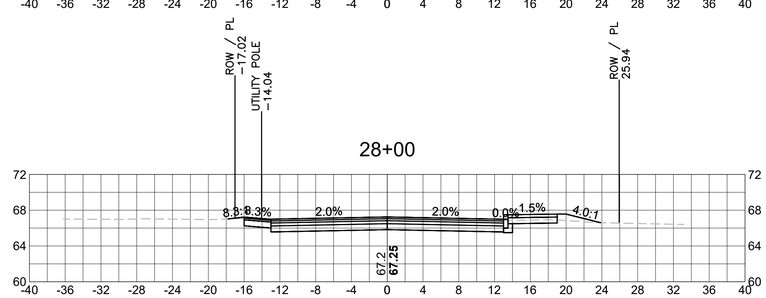

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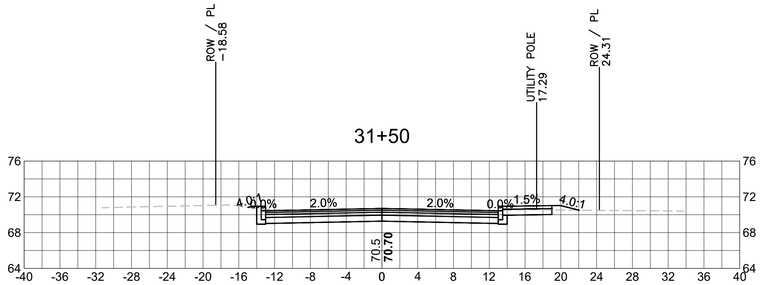

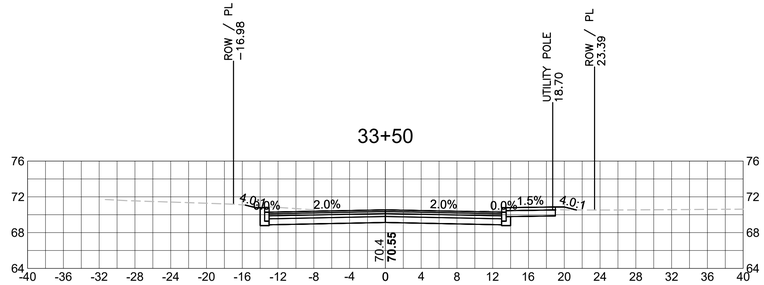

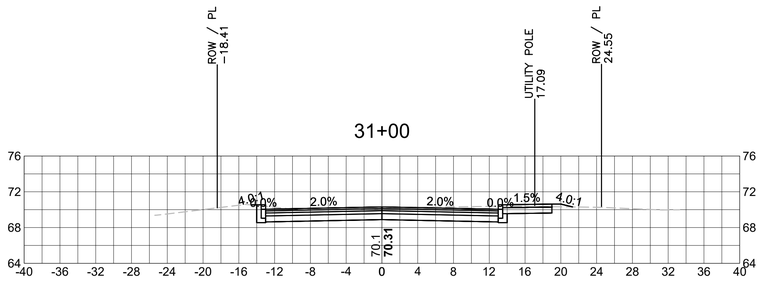

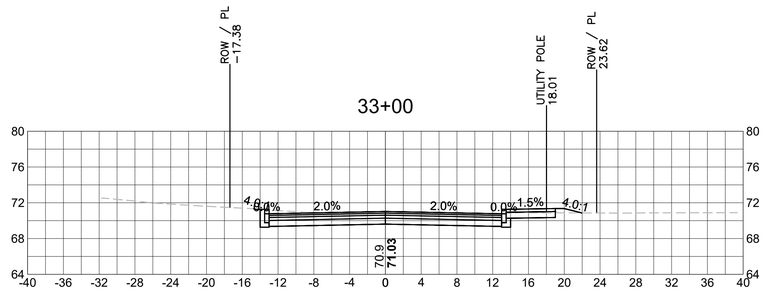

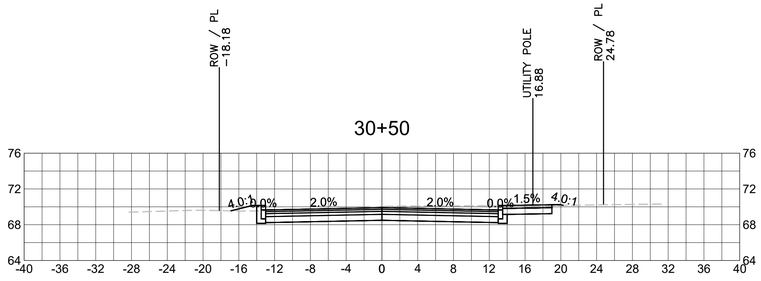

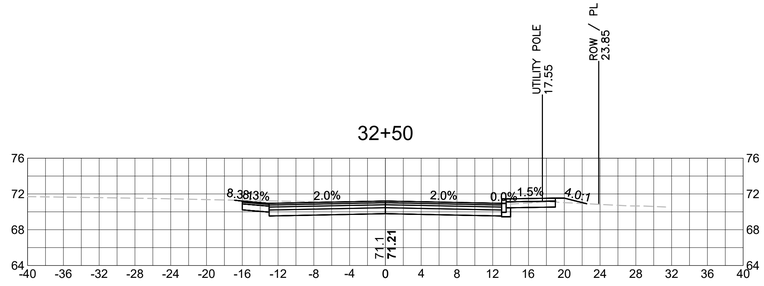

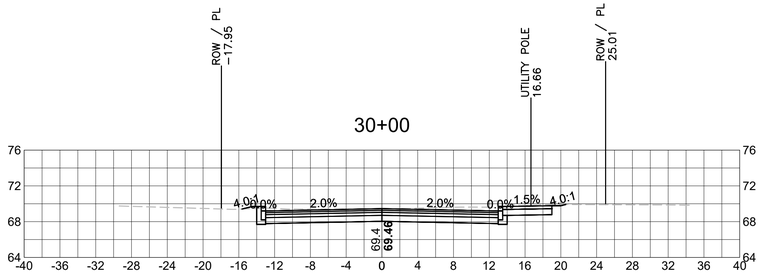

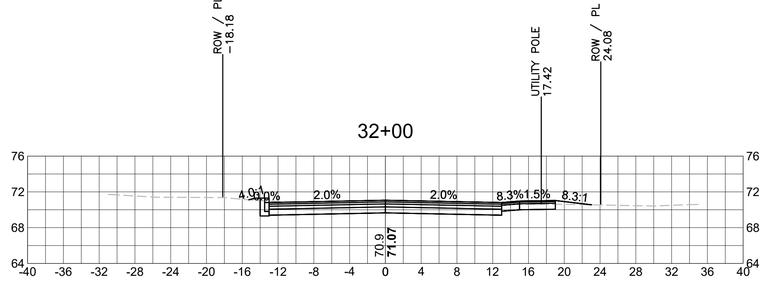

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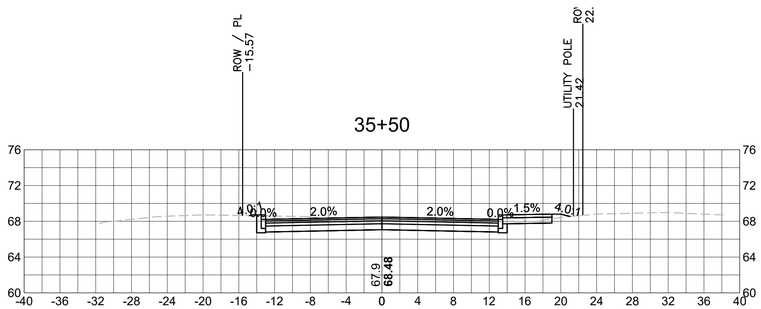

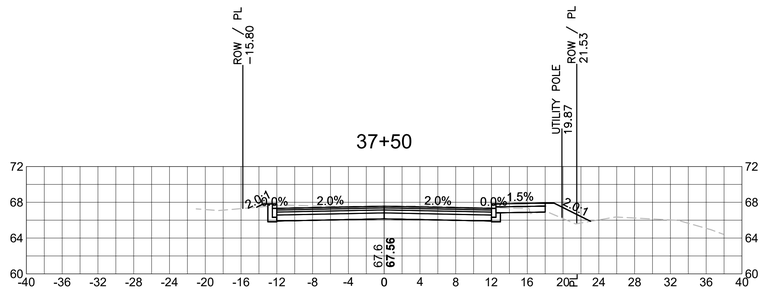

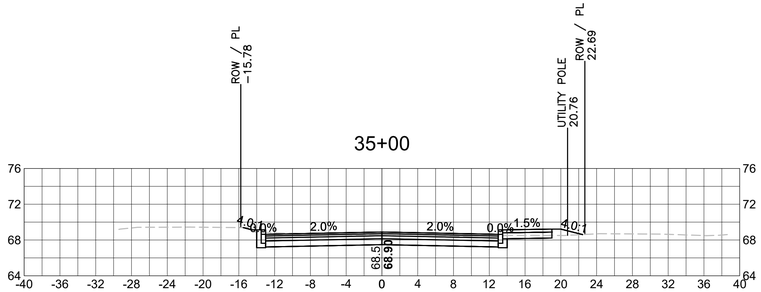

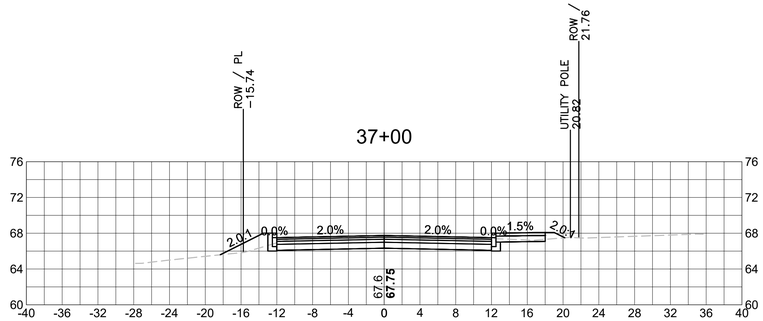

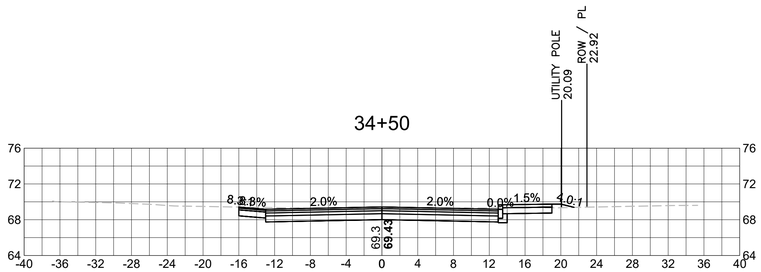

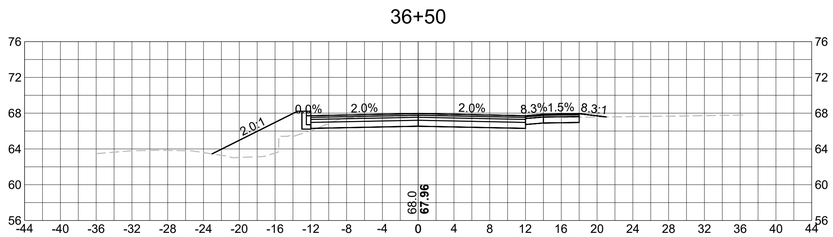

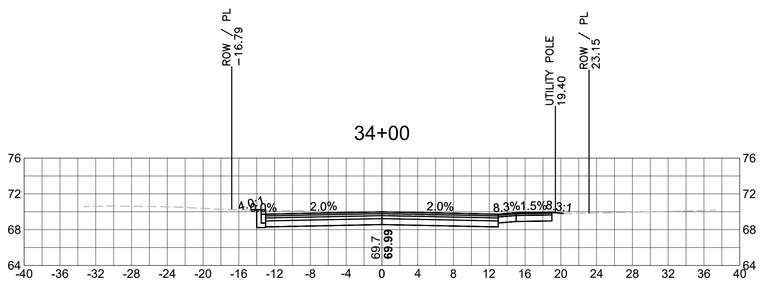

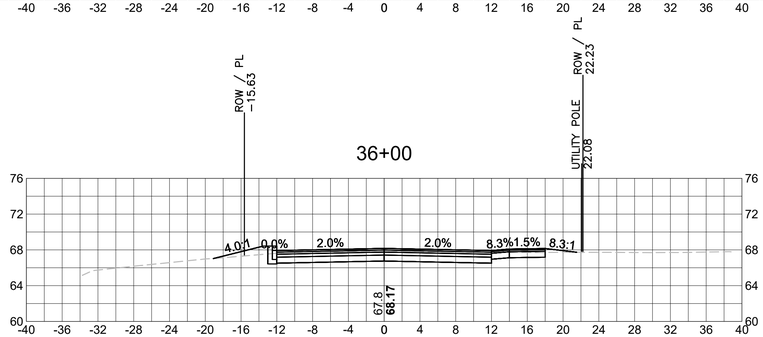

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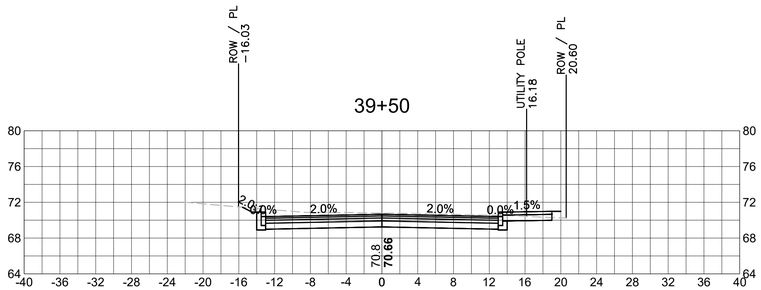

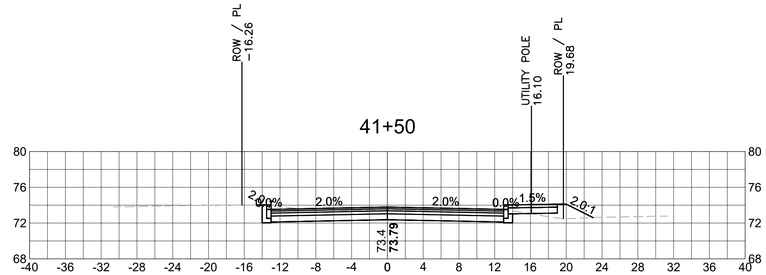

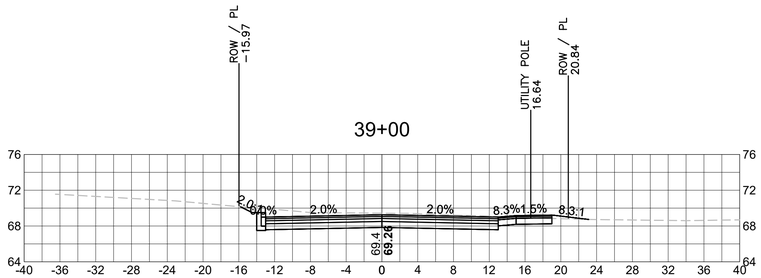

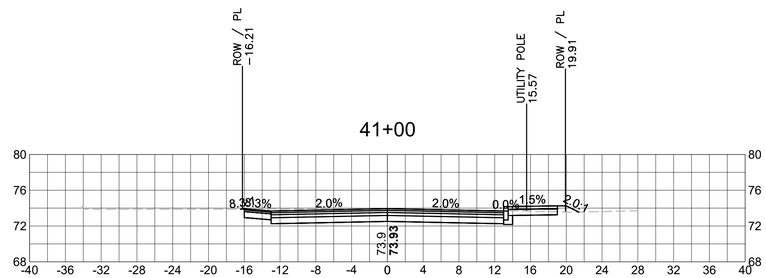

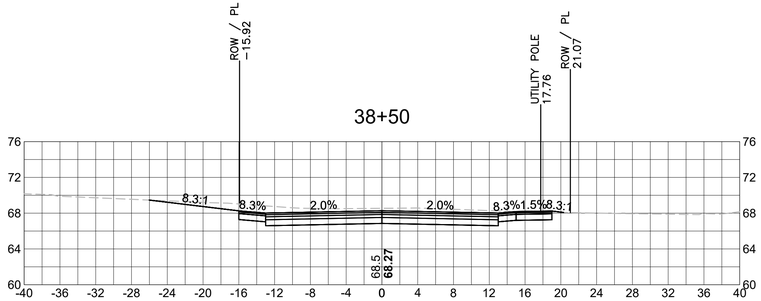

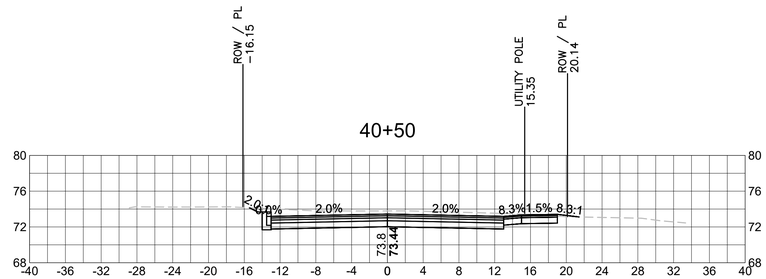

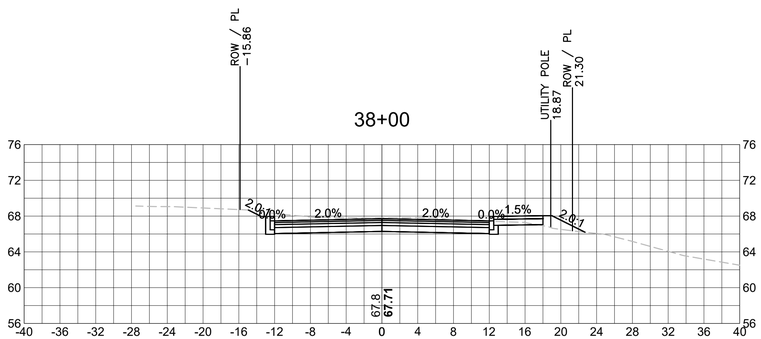

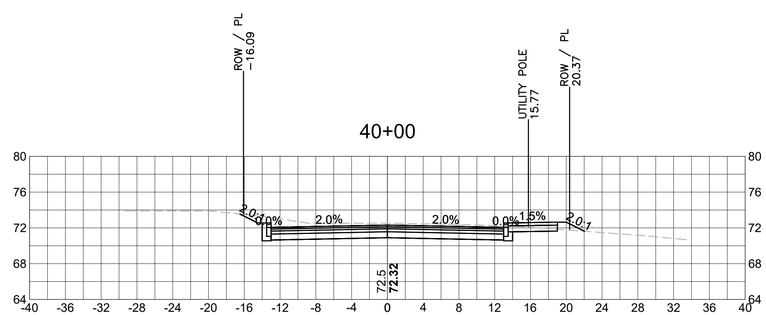

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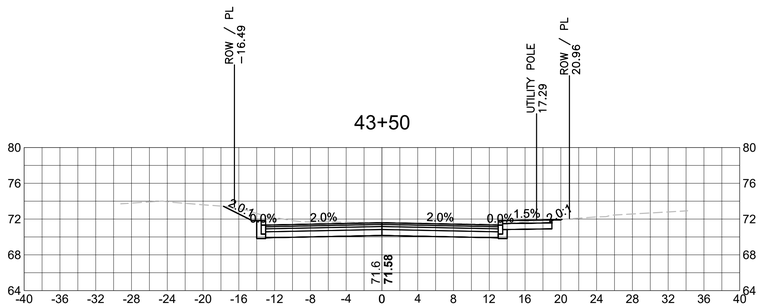

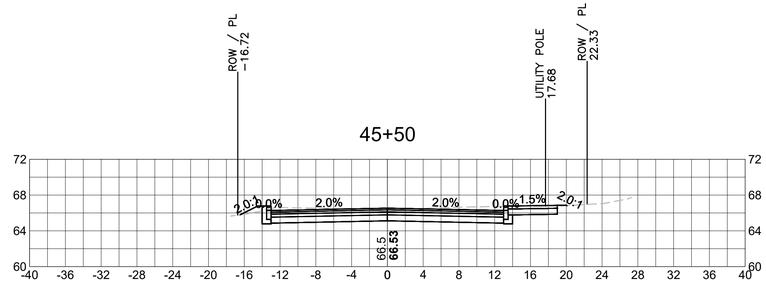

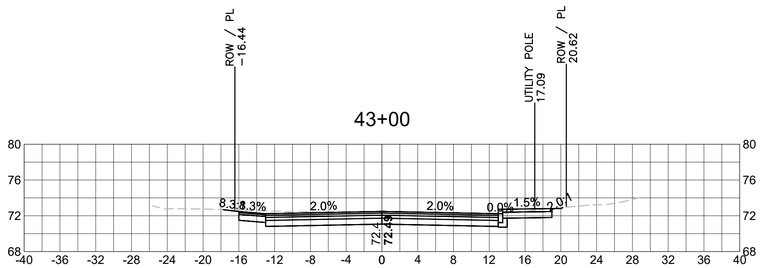

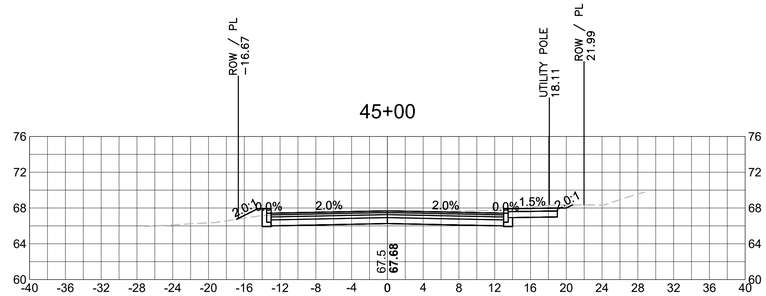

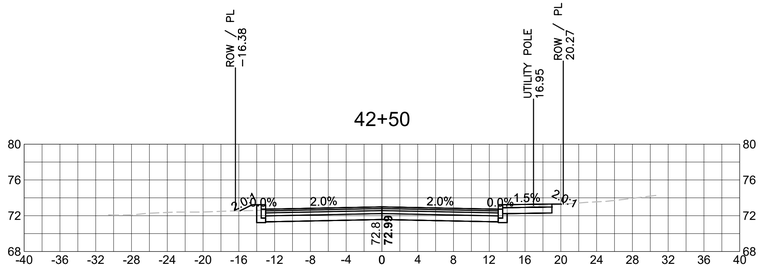

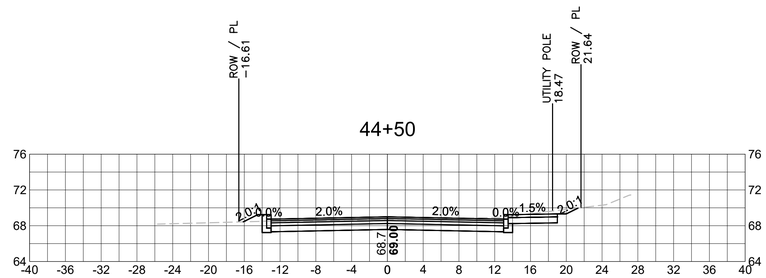

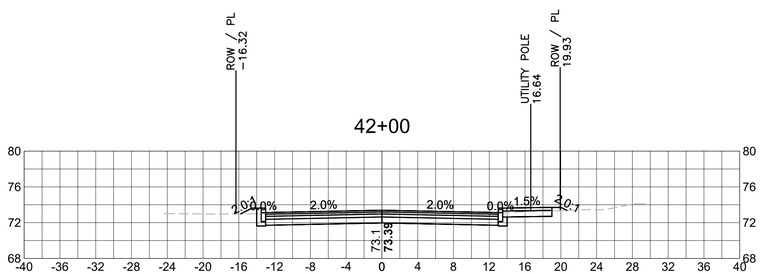

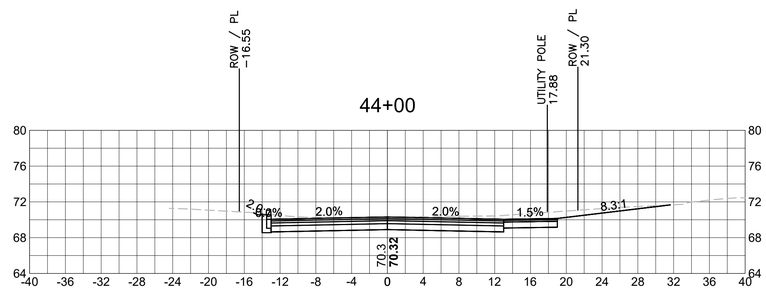

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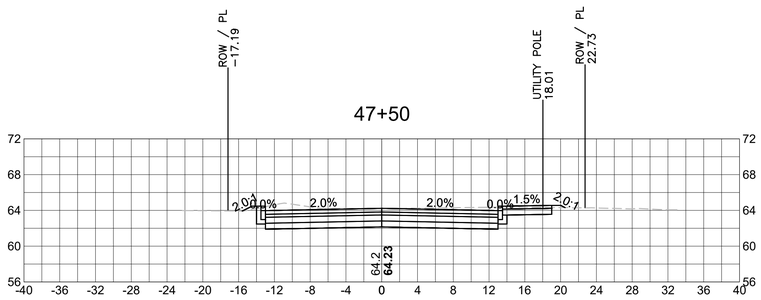

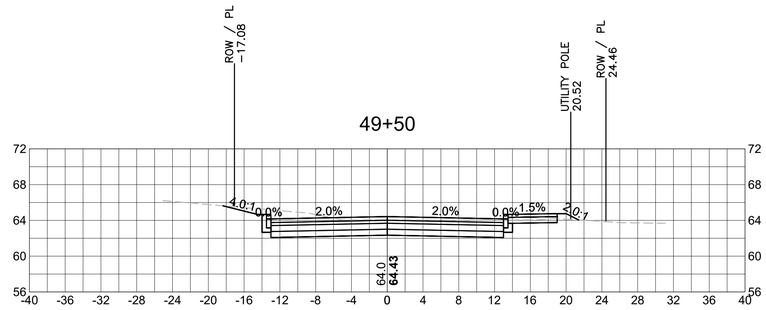

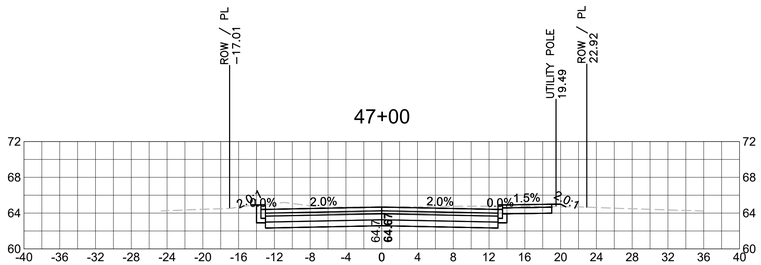

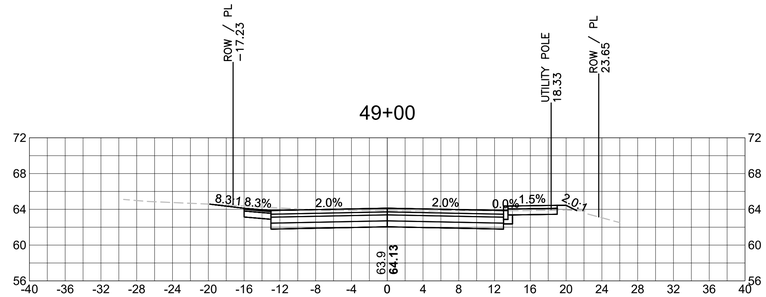

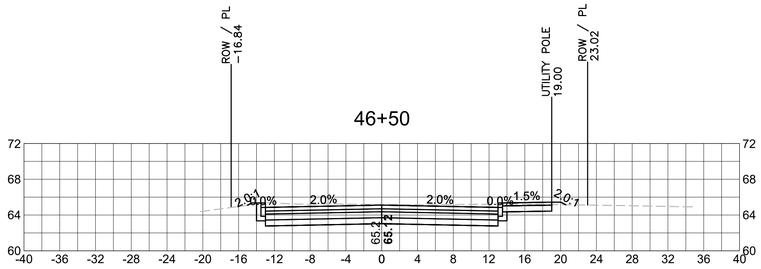

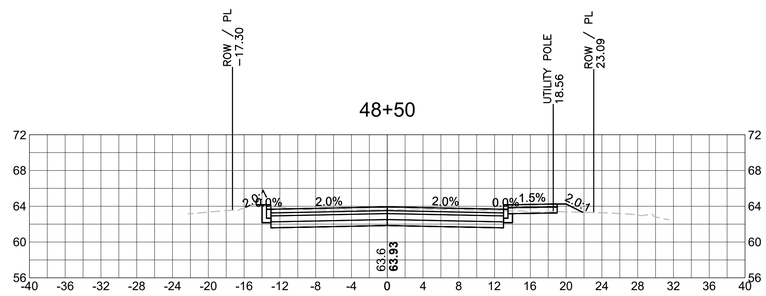

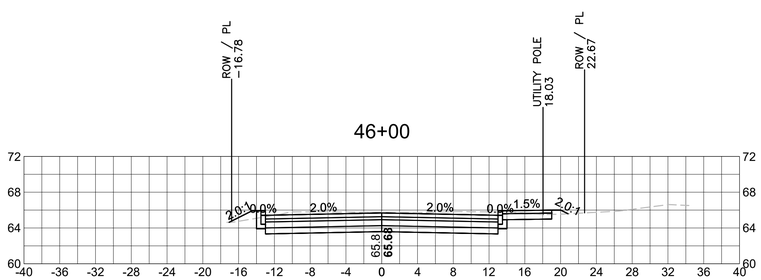

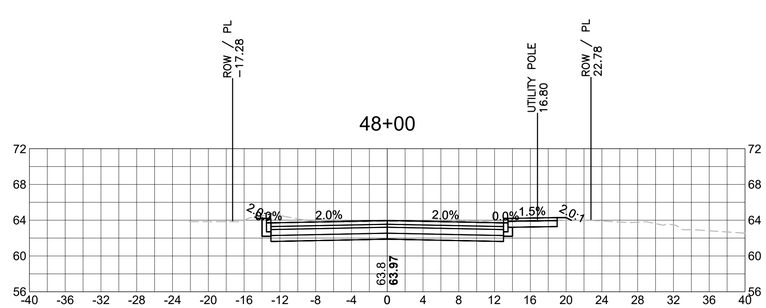

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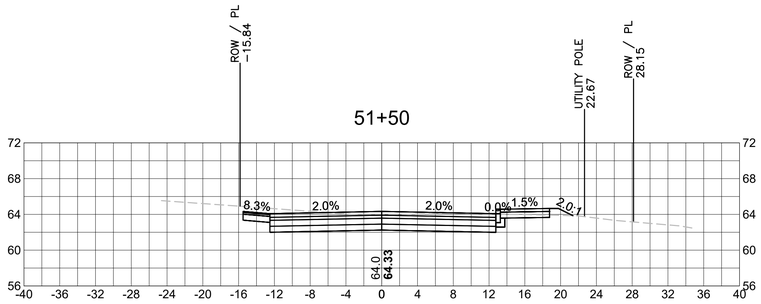

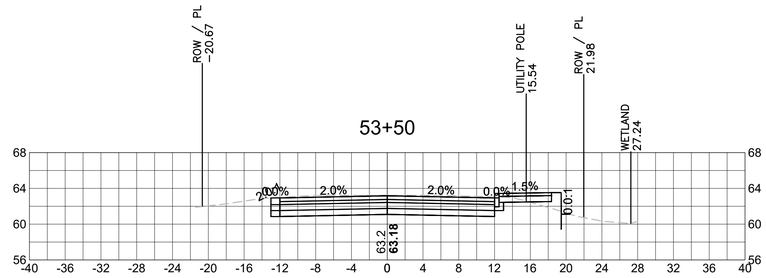

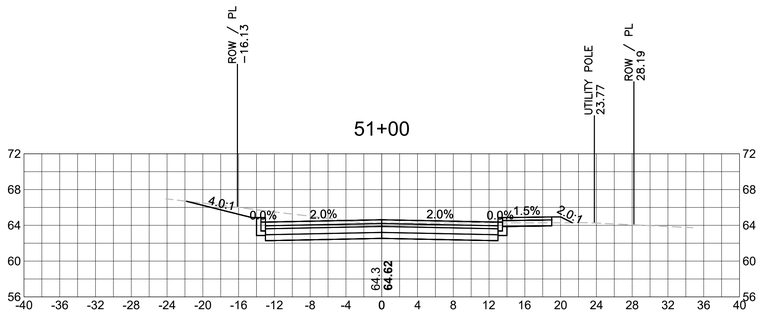

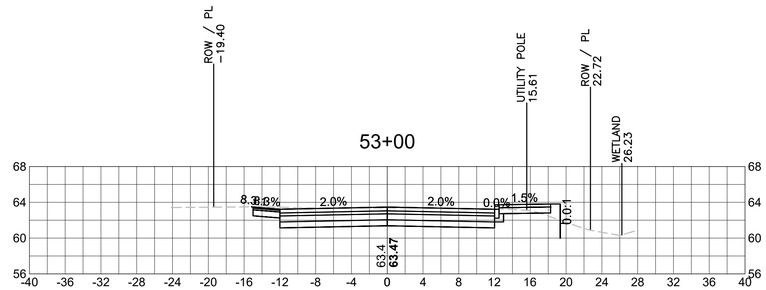

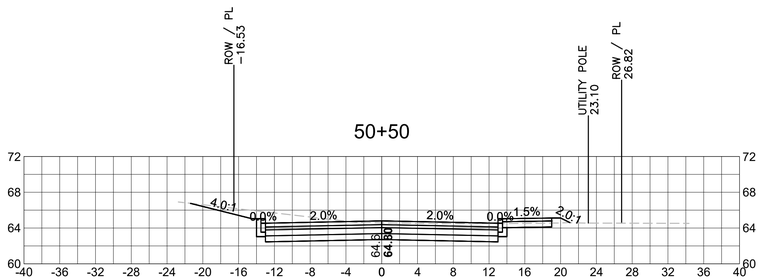

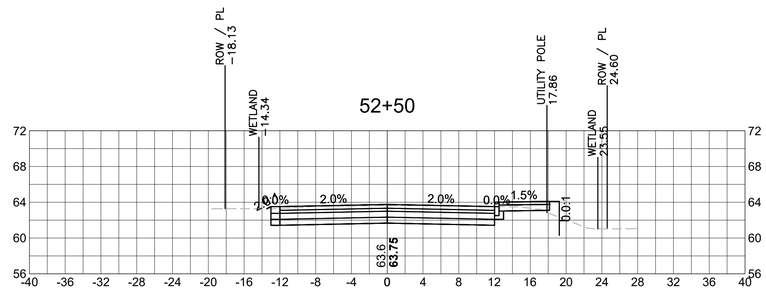

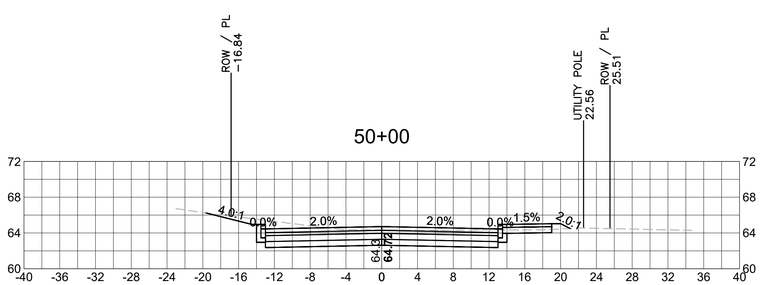

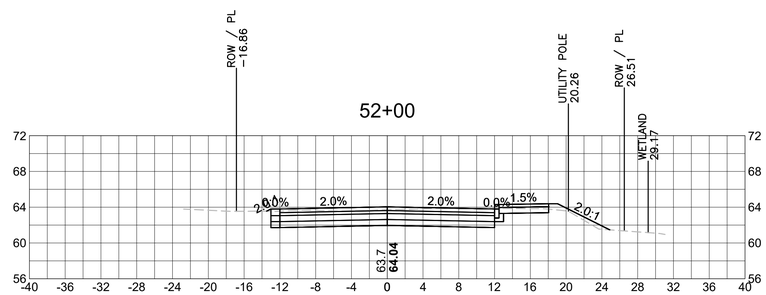

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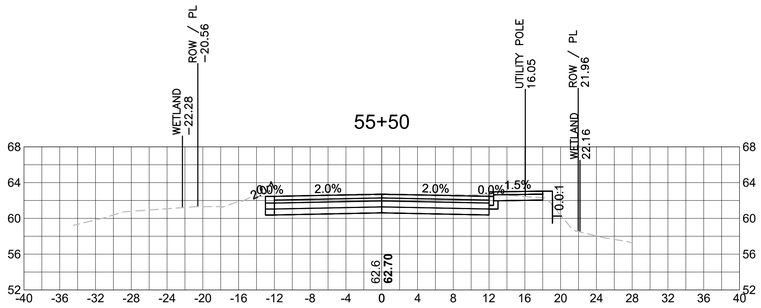

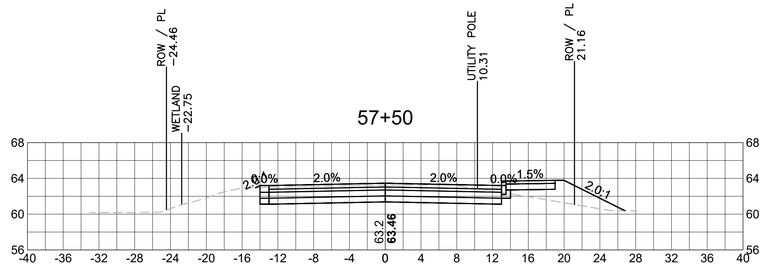

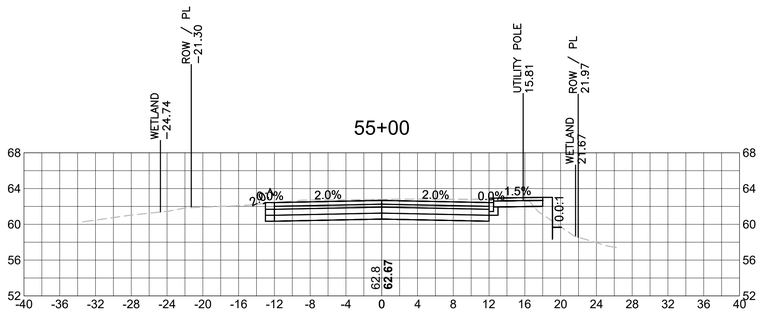

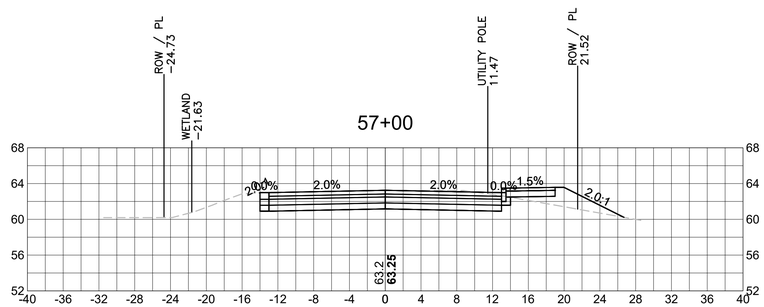

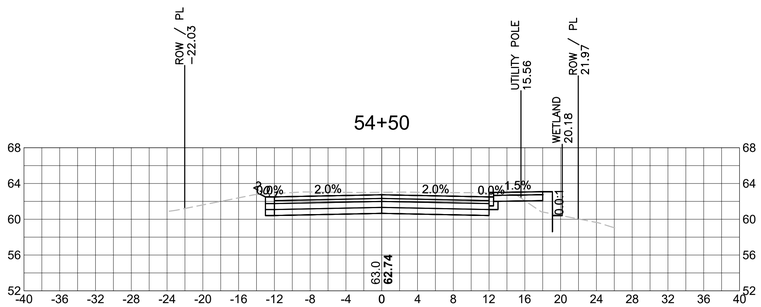

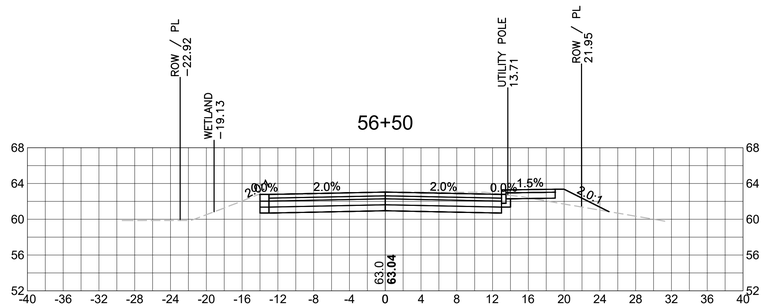

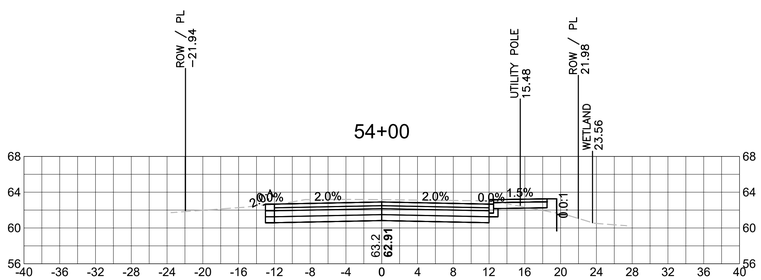

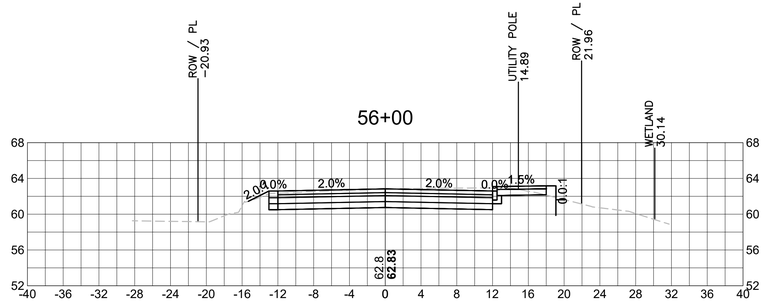

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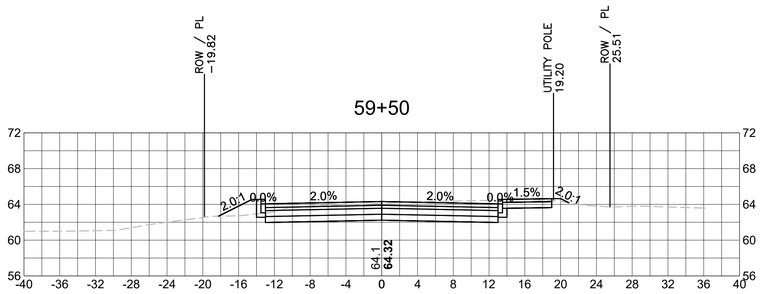

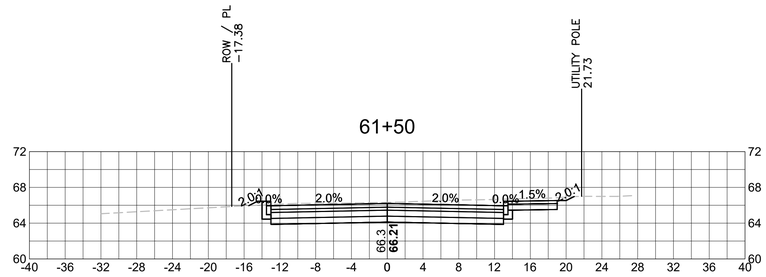

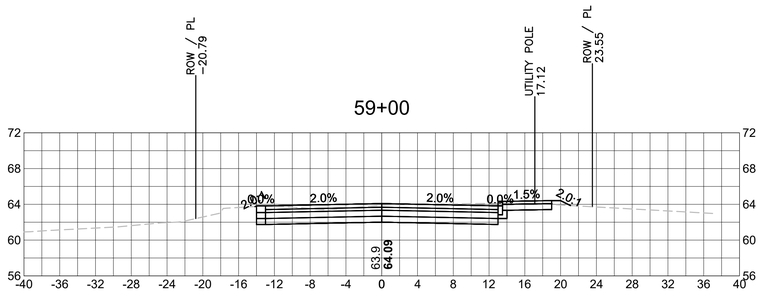

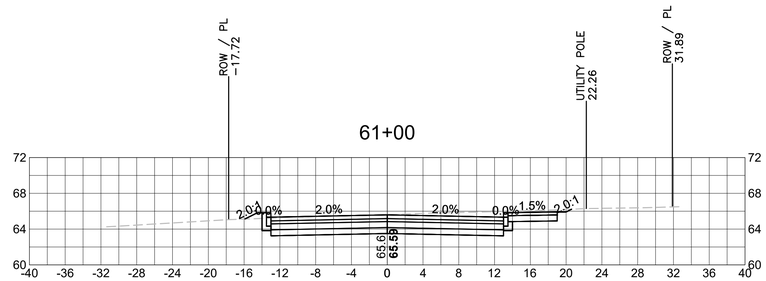

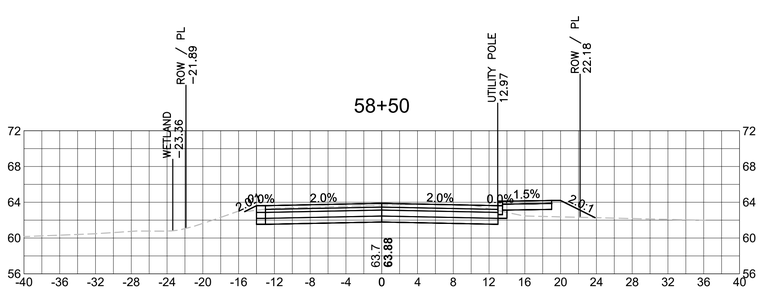

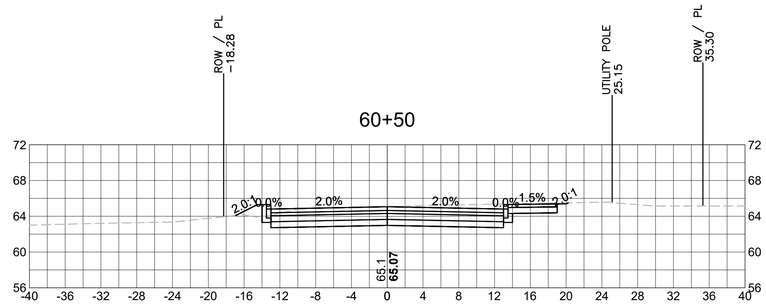

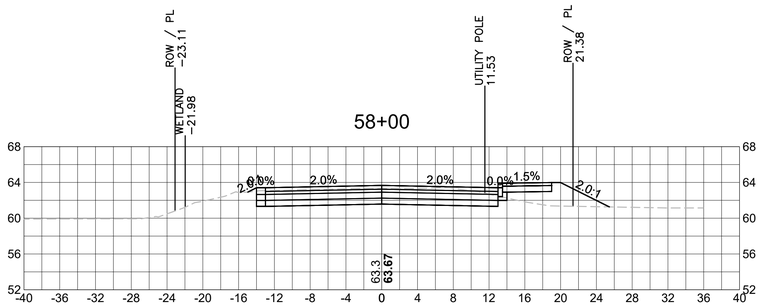

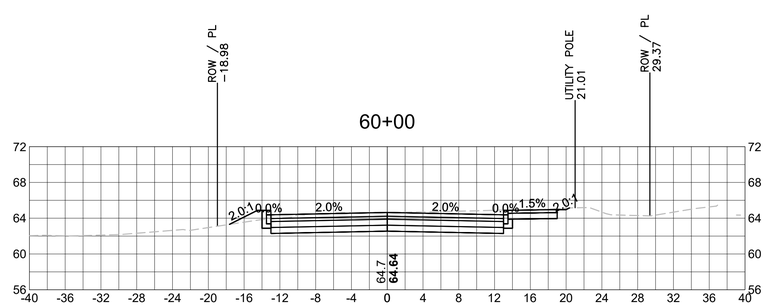

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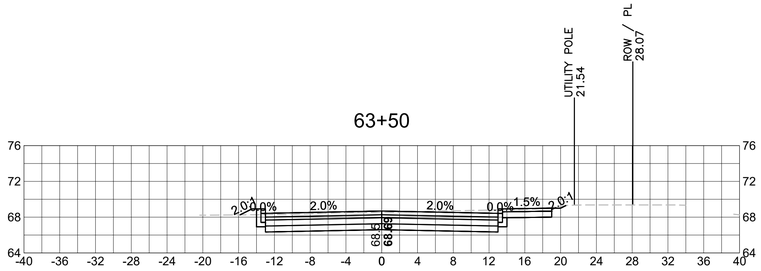

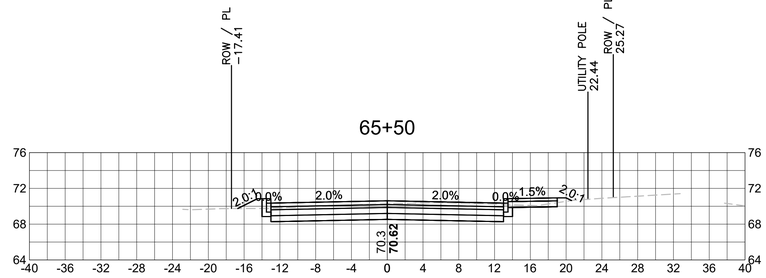

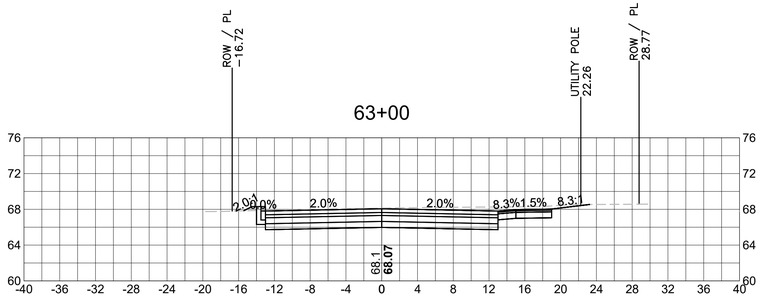

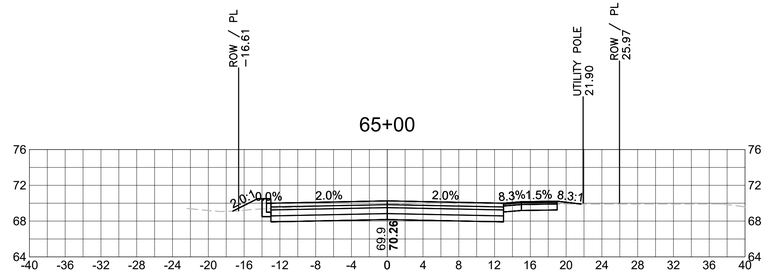

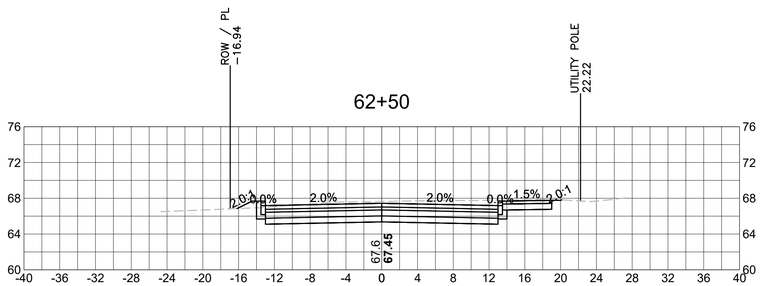

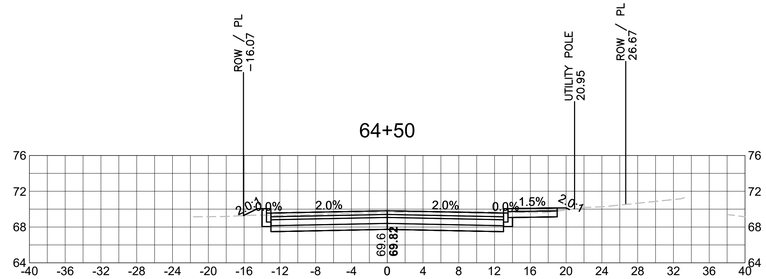

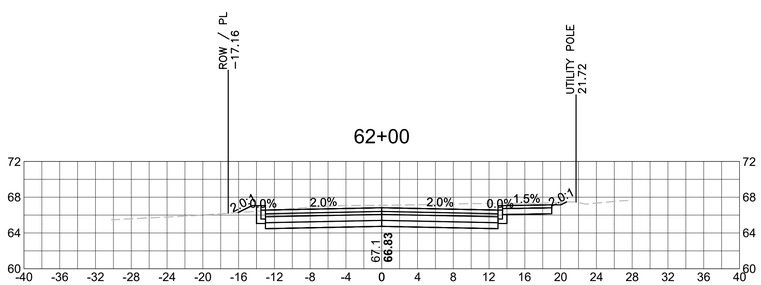

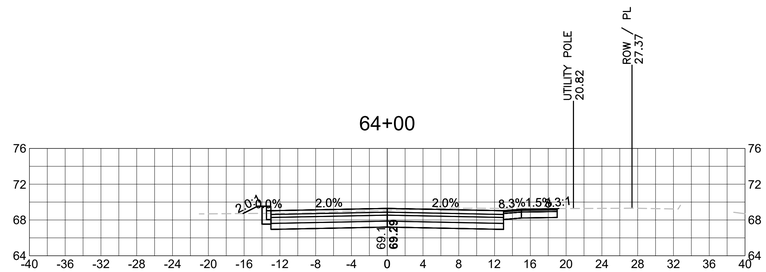

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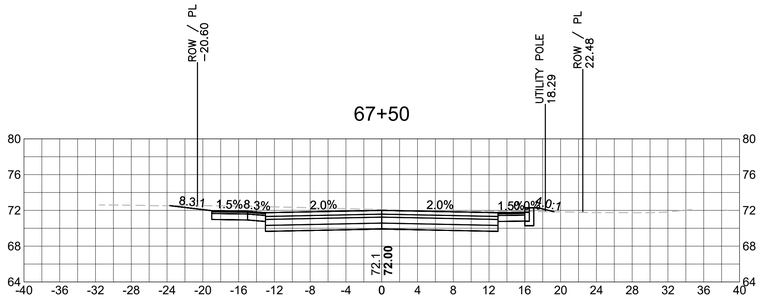

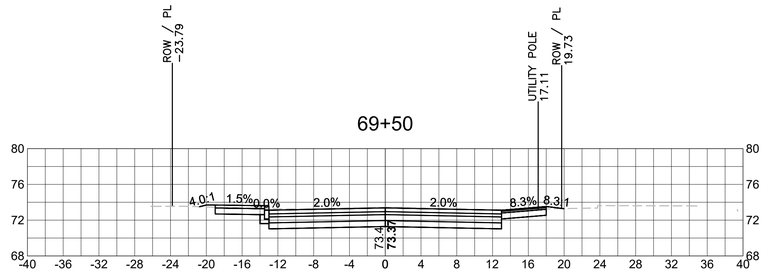

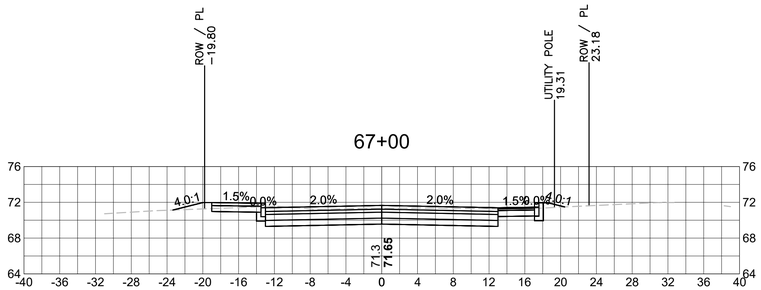

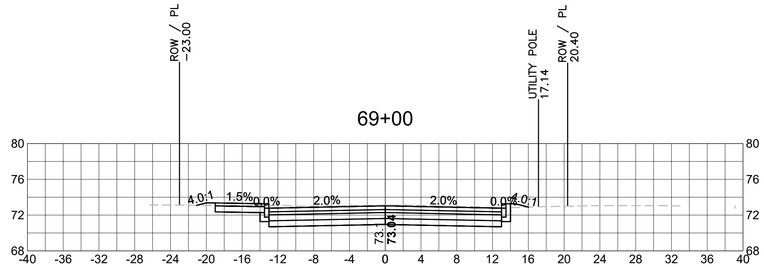

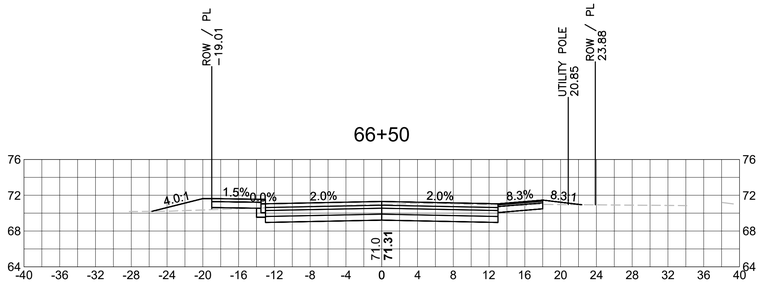

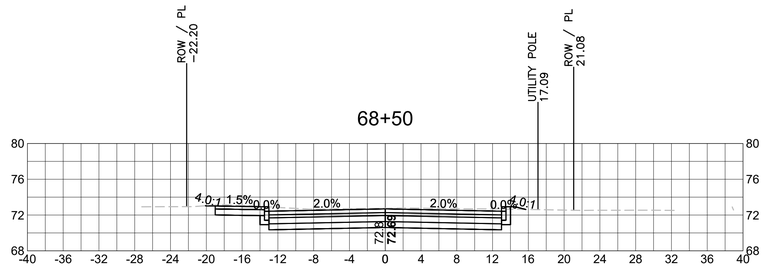

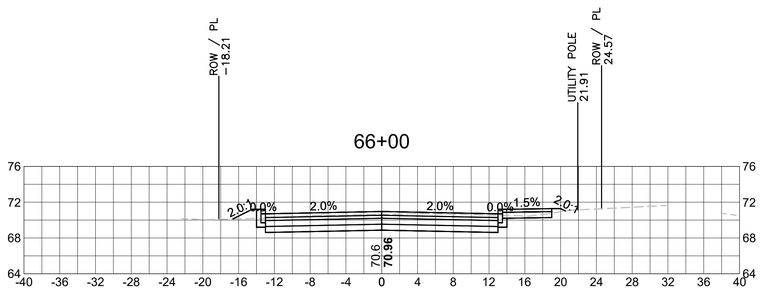

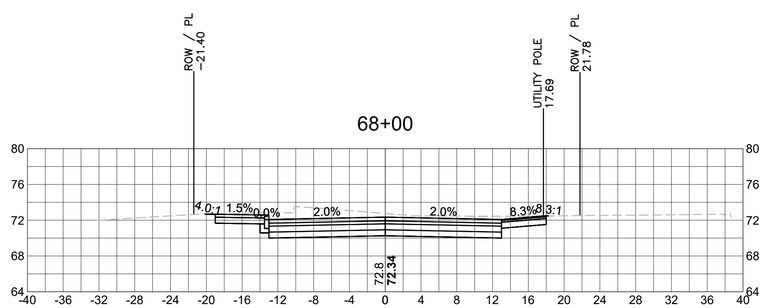

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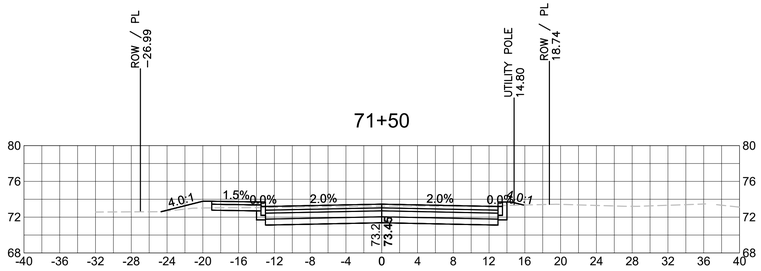

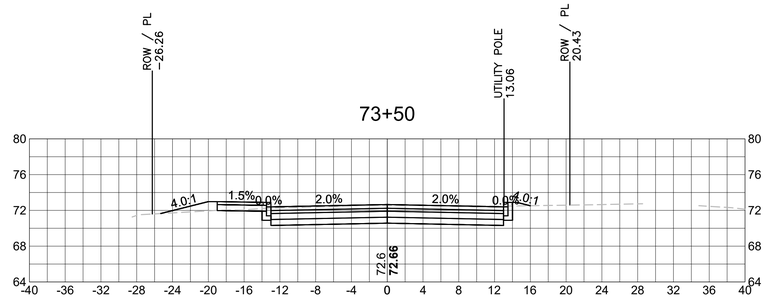

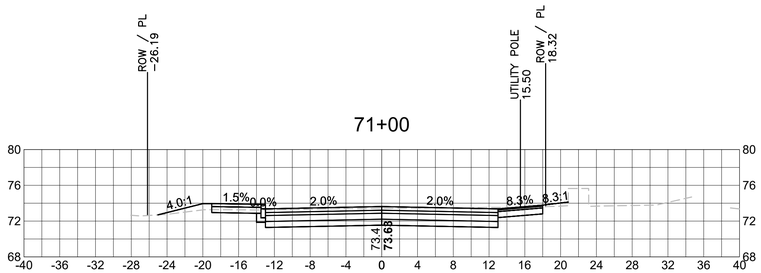

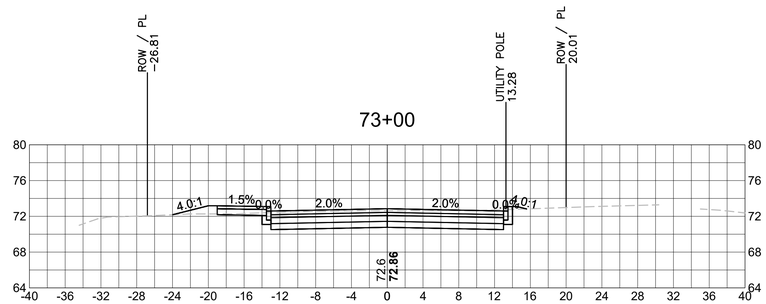

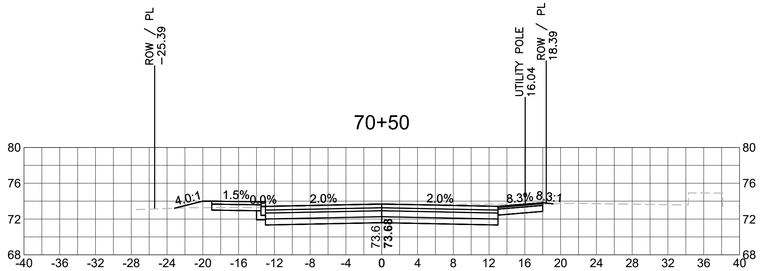

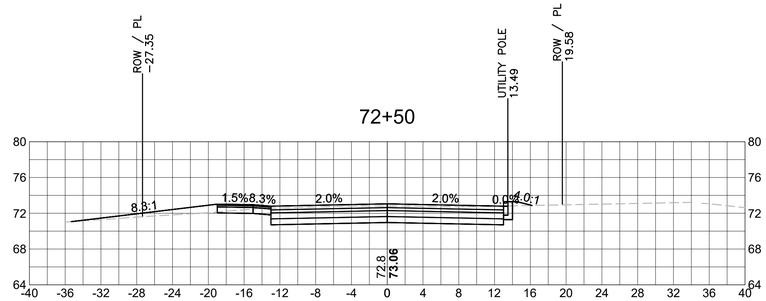

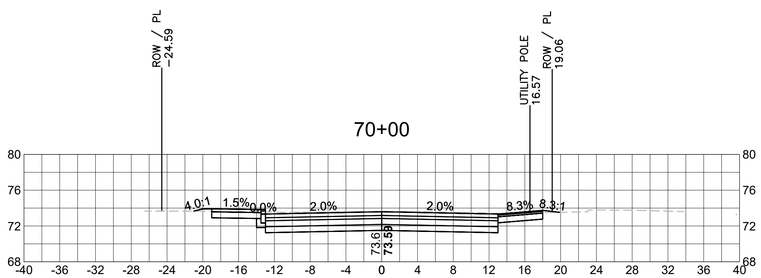

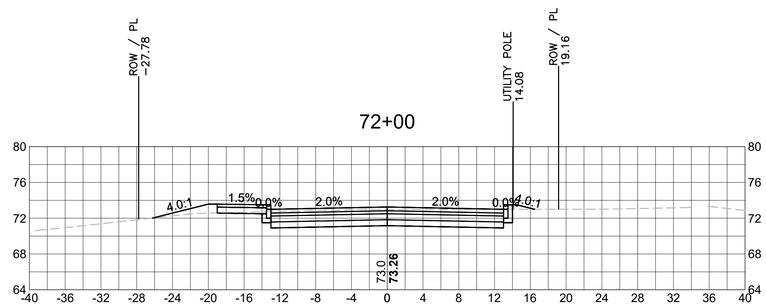

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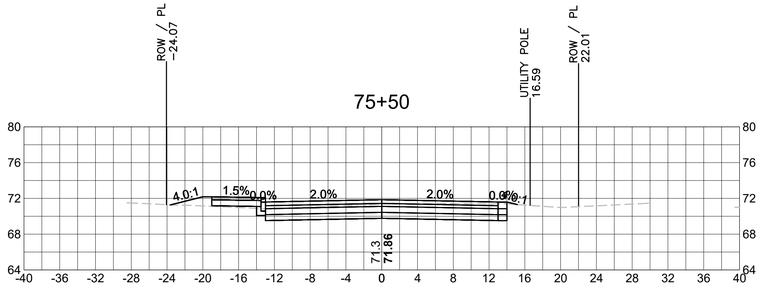

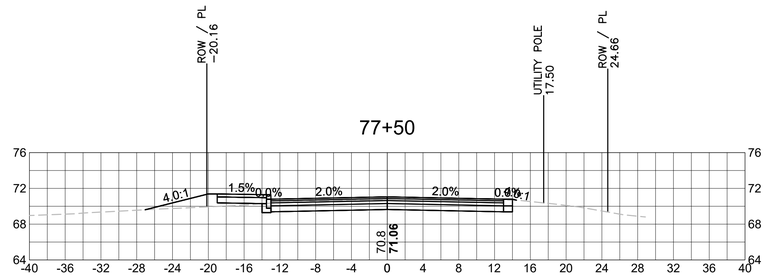

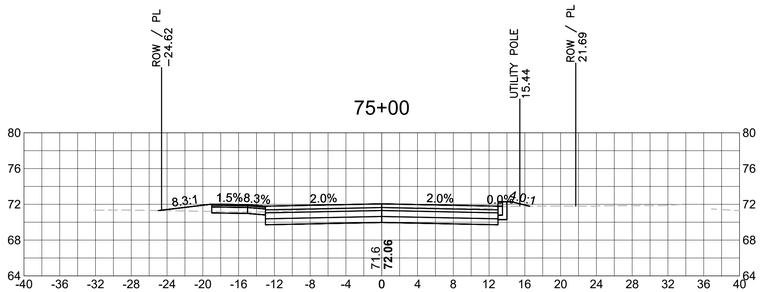

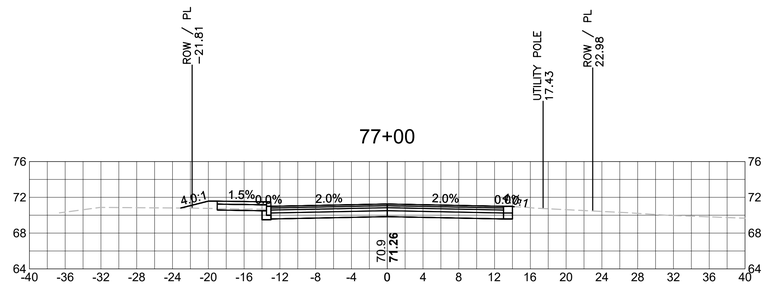

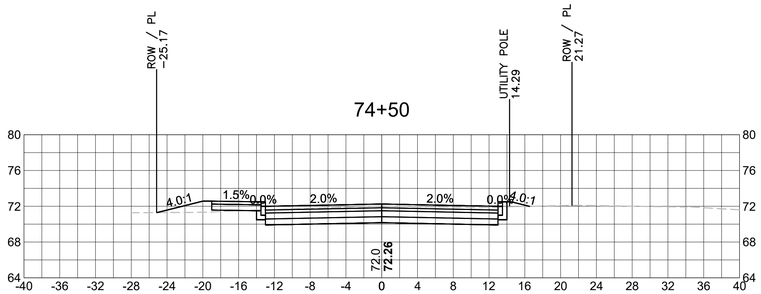

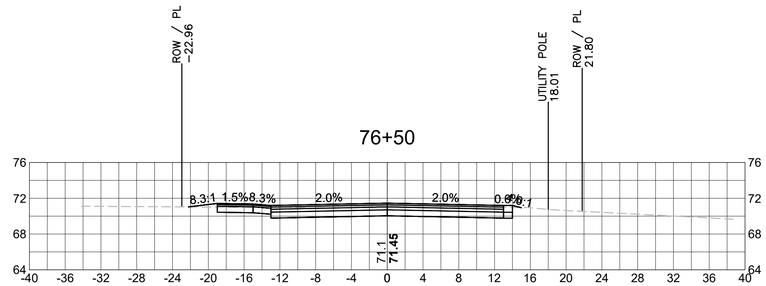

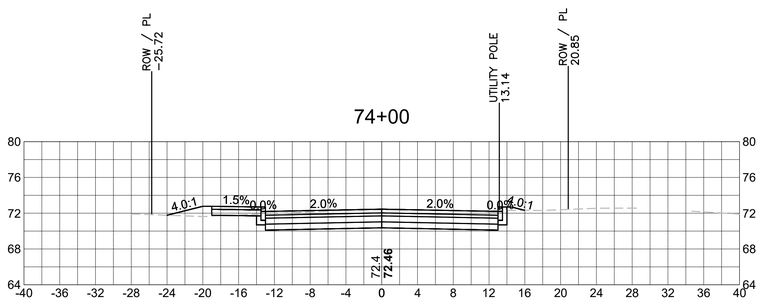

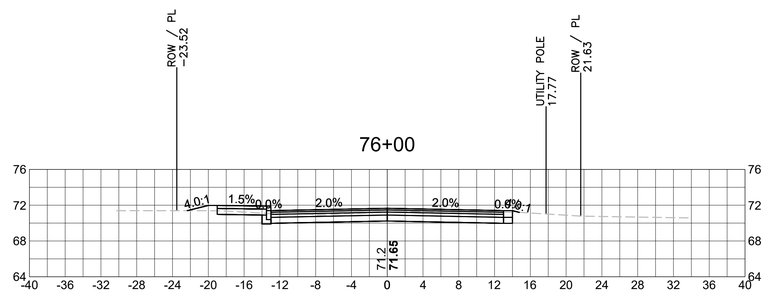

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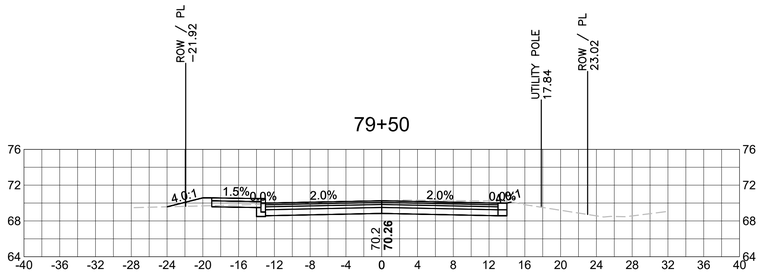

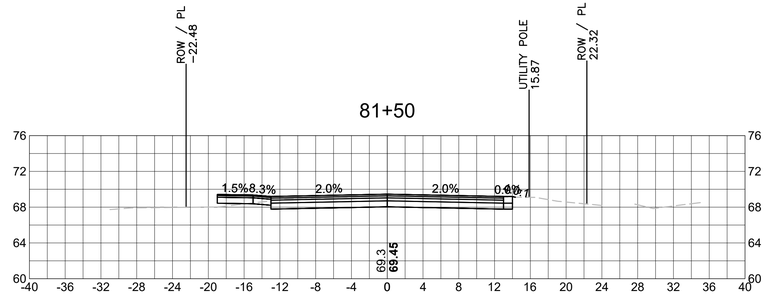

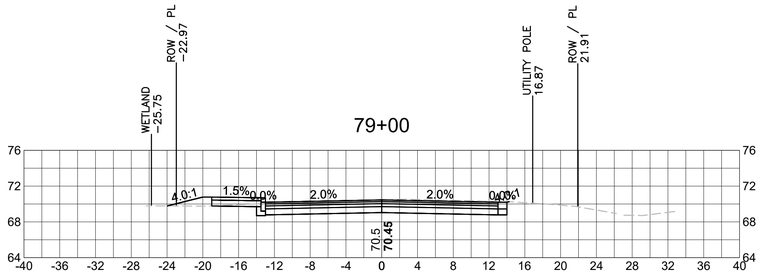

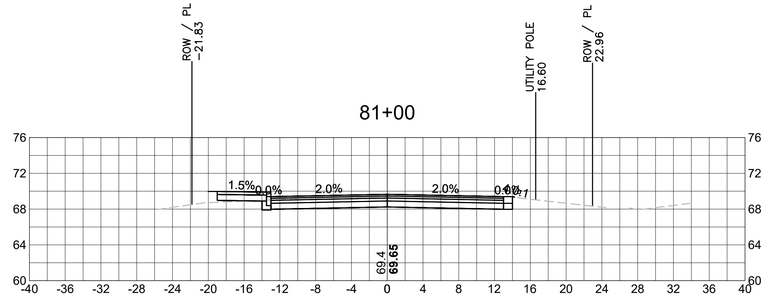

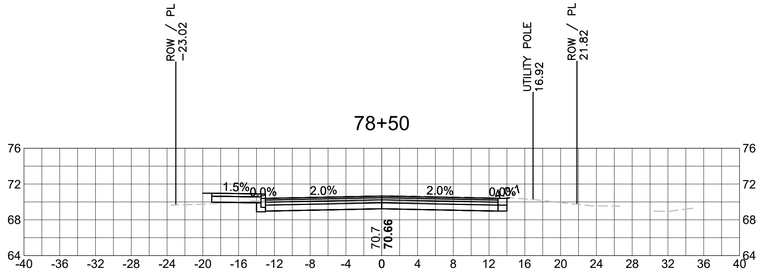

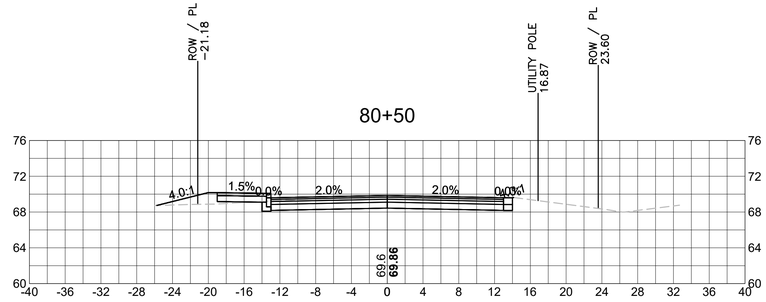

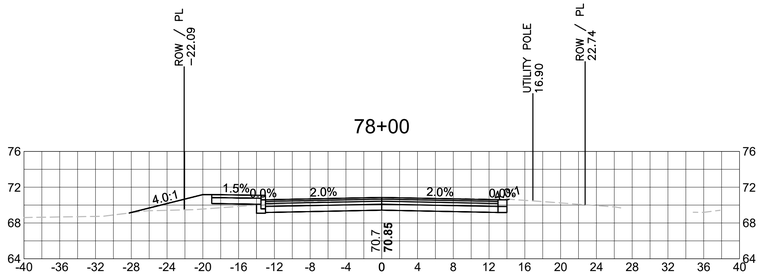

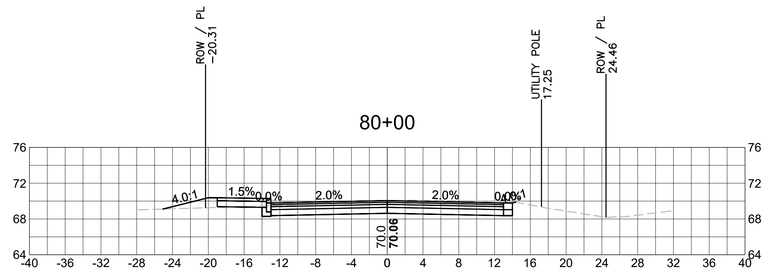

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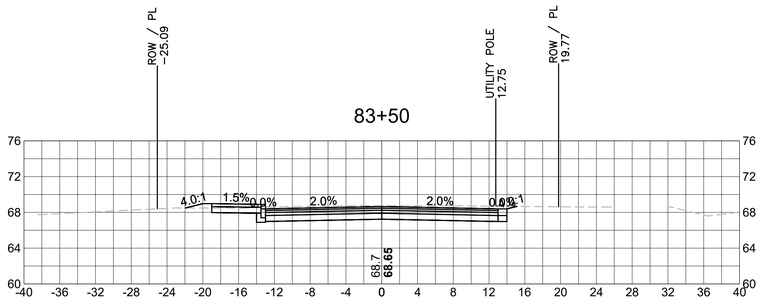

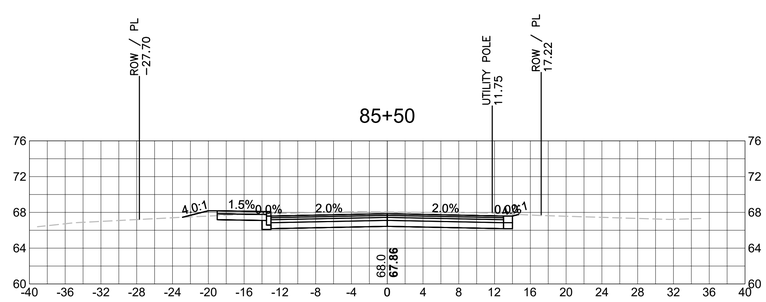

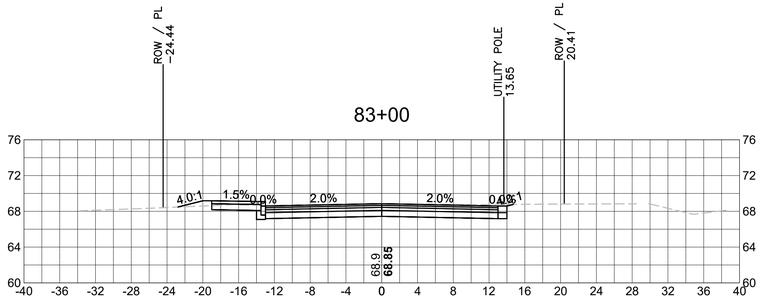

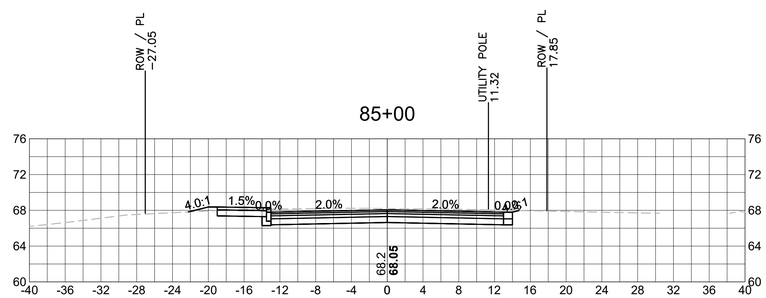

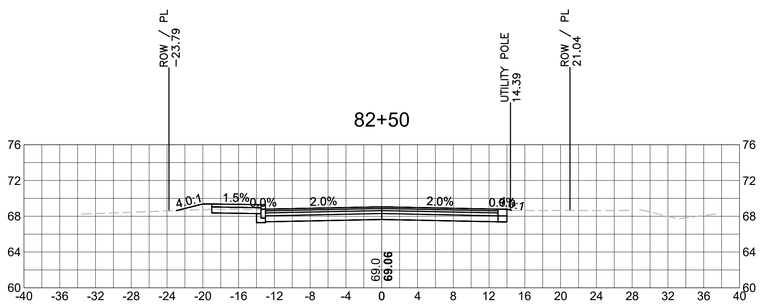

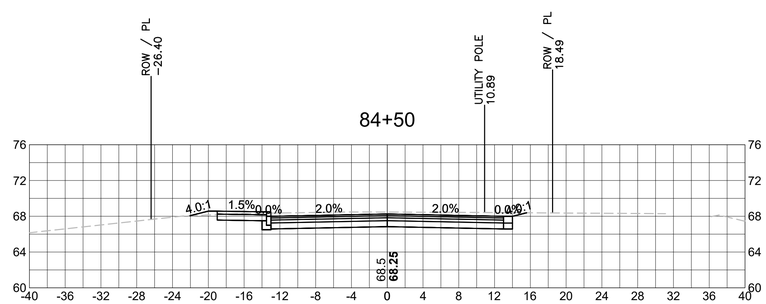

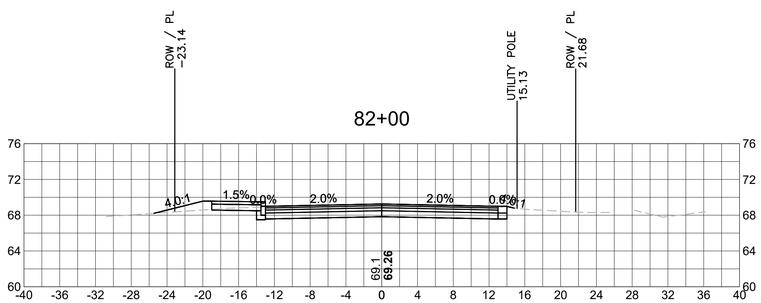

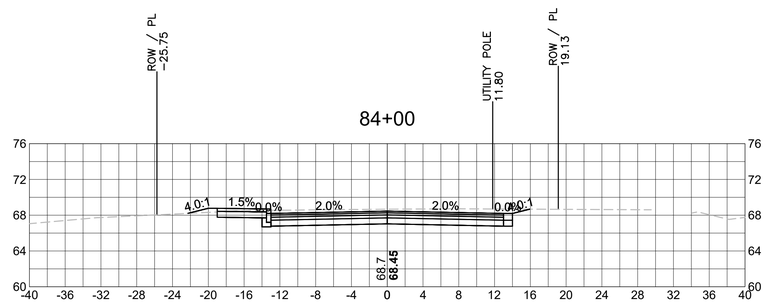

BRIDGEWATER
ELM STREET
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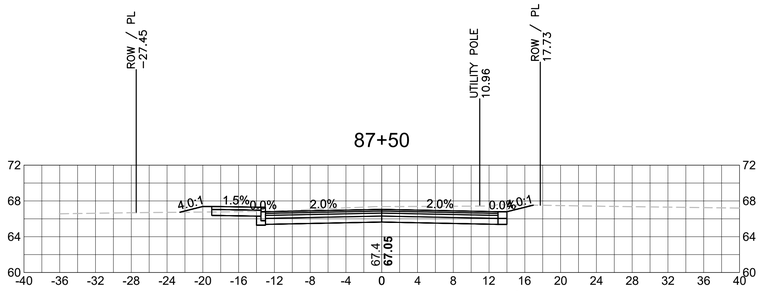

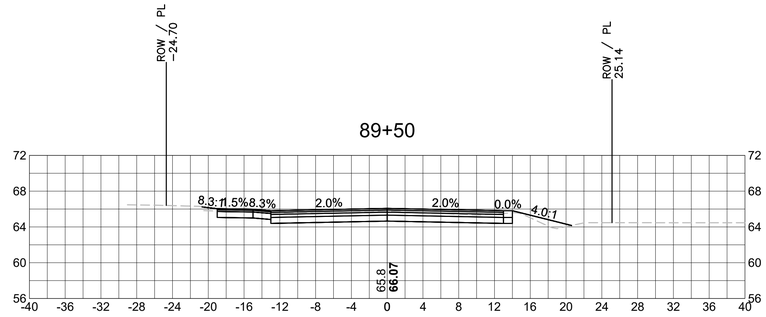

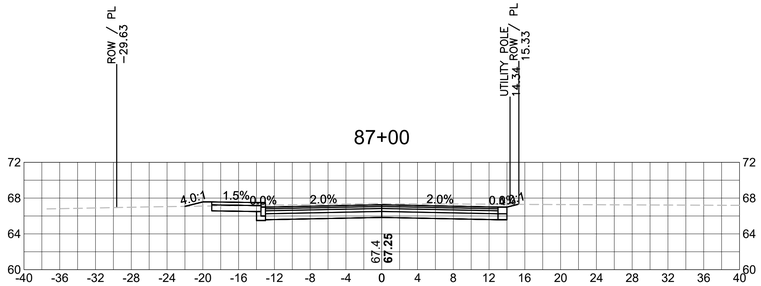

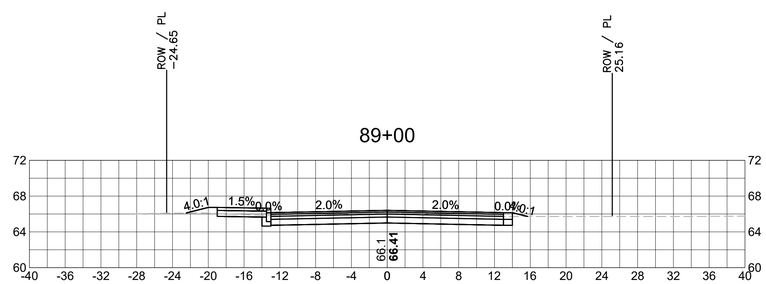

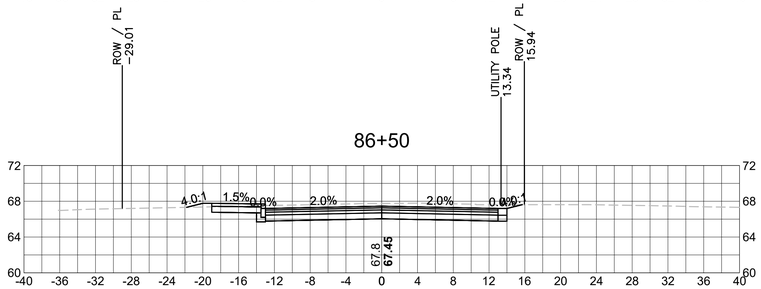

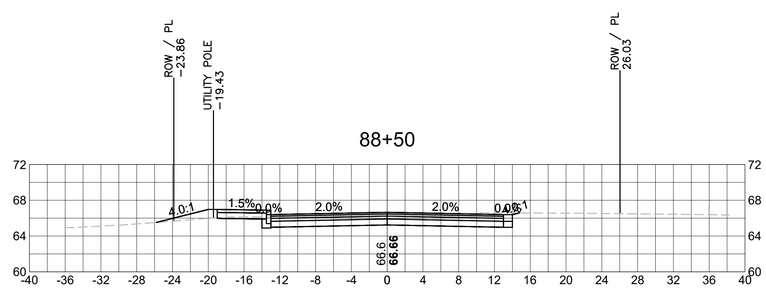

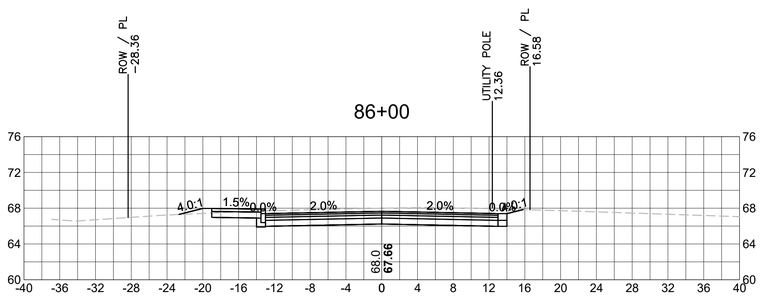

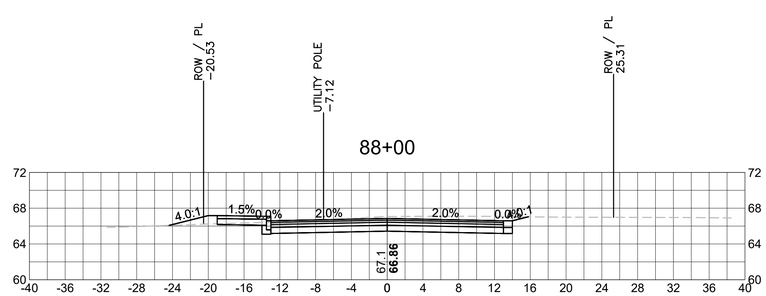

BRIDGEWATER
ELM STREET
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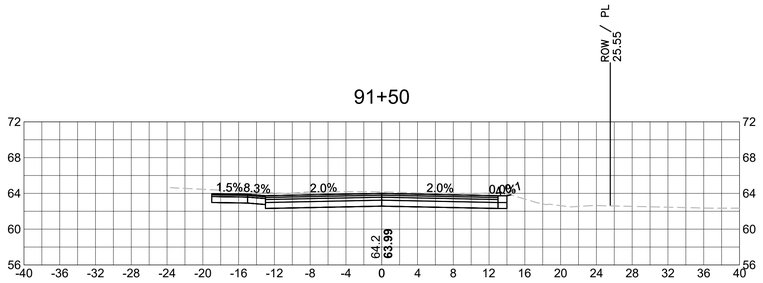

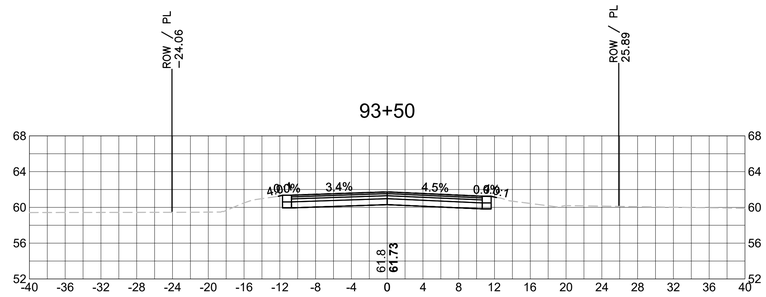

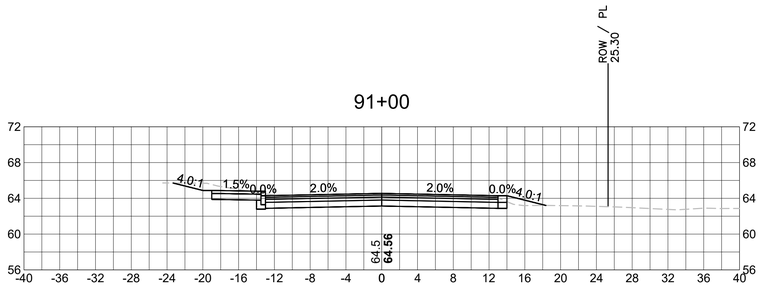

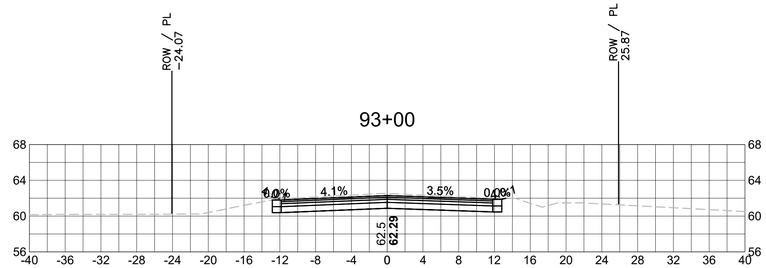

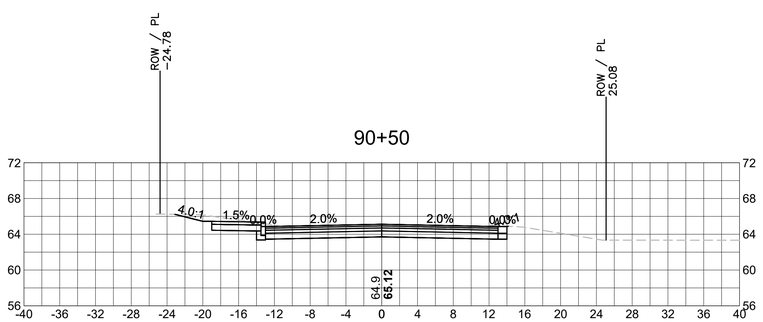

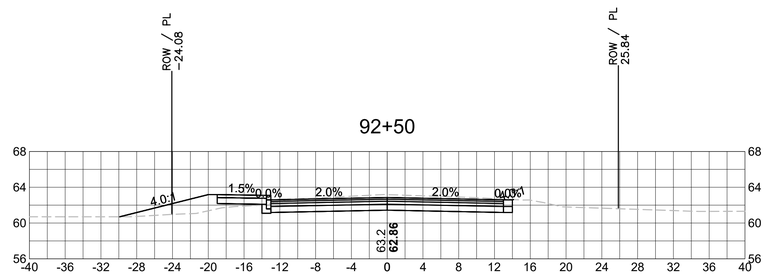

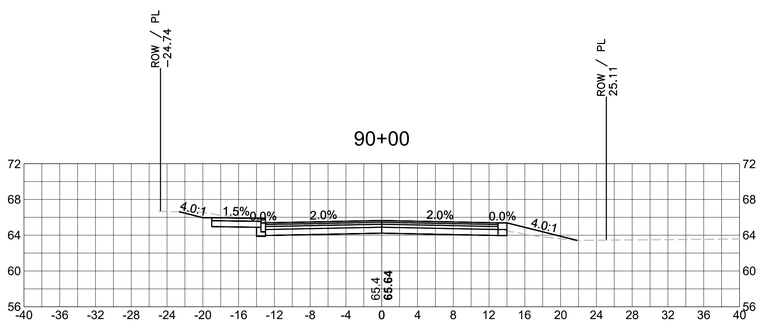

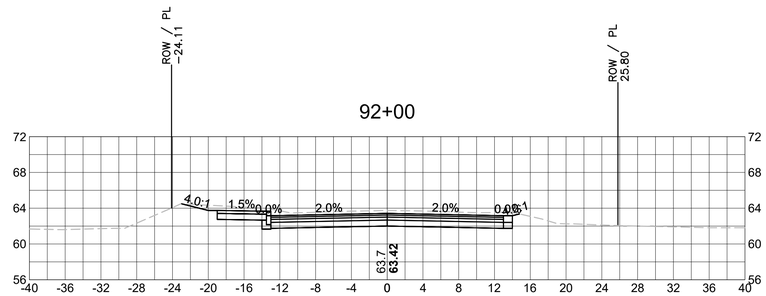

BRIDGEWATER
ELM STREET
CROSS SECTIONS
SHEET 63 OF 65

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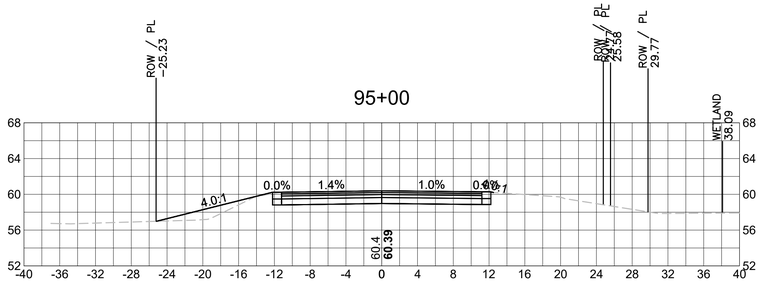
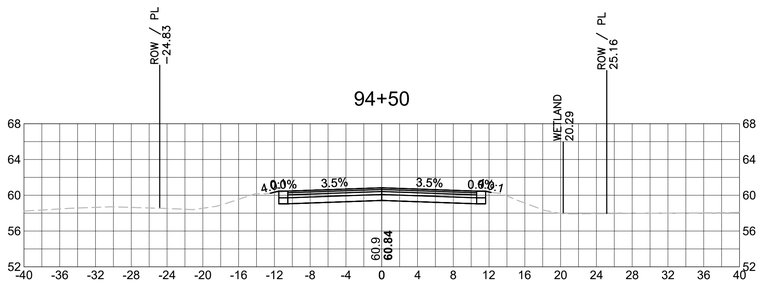
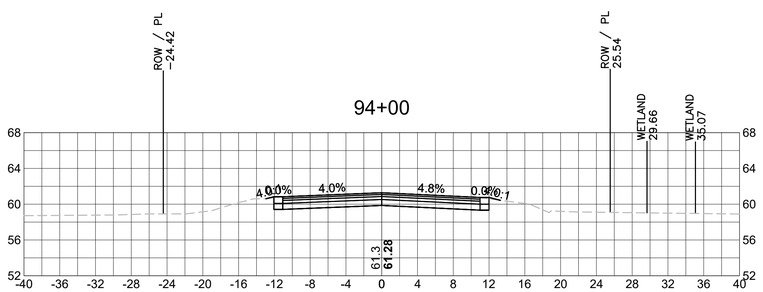






PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT (ELM STREET):

SURFACE:	2 ¼"	SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) LEVEL 2
INTERMEDIATE:	2 ¾"	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) LEVEL 2
SUBBASE:	4"	DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER
	8"	GRAVEL BORROW, TYPE B

PROPOSED BOX WIDENING (PLEASANT STREET):

SURFACE:	2"	SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) LEVEL 2
INTERMEDIATE:	1 ¾"	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) LEVEL 2
BASE:	3 ½"	SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) LEVEL 2
SUBBASE:	4"	DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER
	8"	GRAVEL BORROW, TYPE B

PROPOSED MILL AND OVERLAY (ELM STREET):

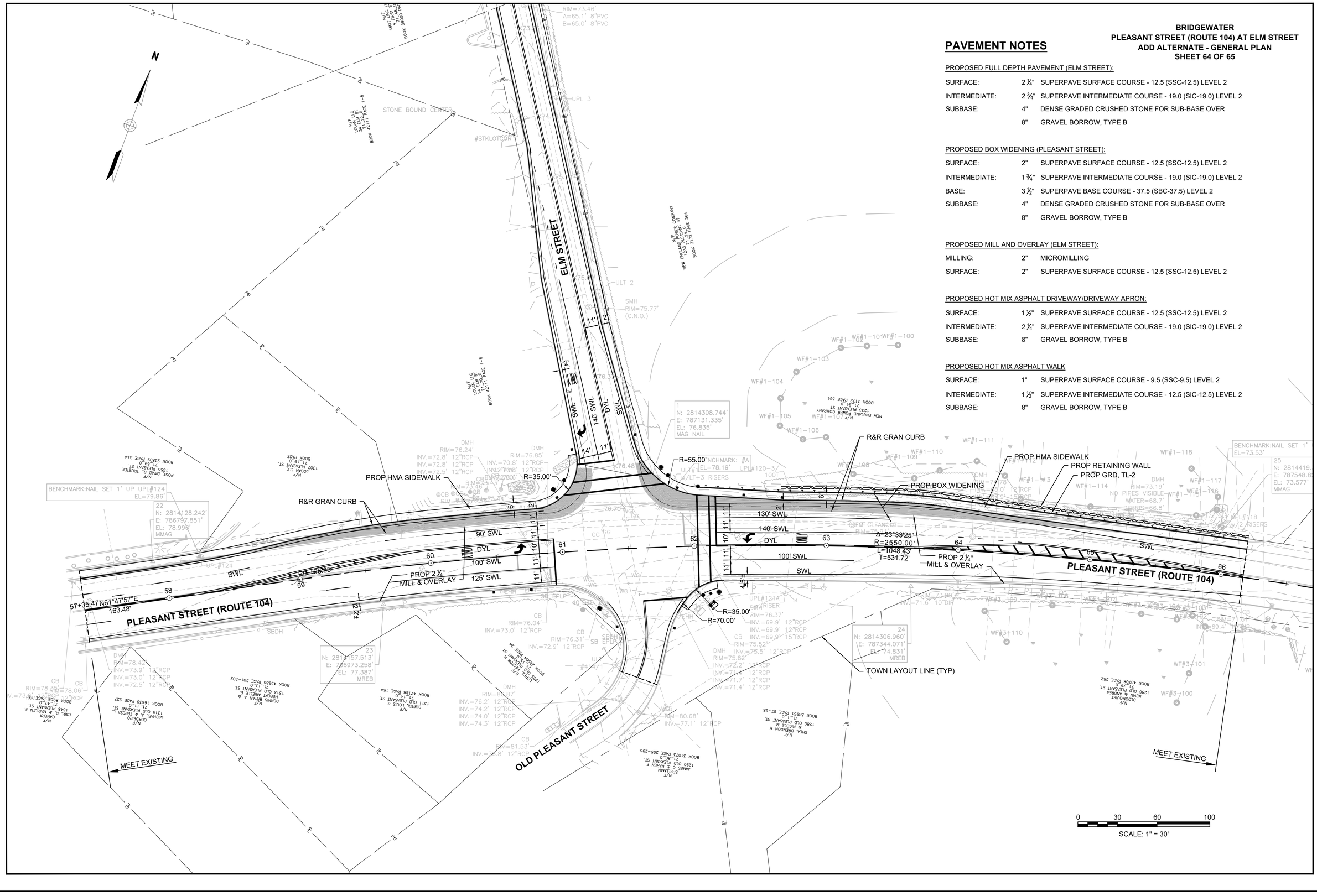
MILLING:	2"	MICROMILLING
SURFACE:	2"	SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) LEVEL 2

PROPOSED HOT MIX ASPHALT DRIVEWAY/DRIVEWAY APRON:

SURFACE:	1 ½"	SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) LEVEL 2
INTERMEDIATE:	2 ¼"	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) LEVEL 2
SUBBASE:	8"	GRAVEL BORROW, TYPE B

PROPOSED HOT MIX ASPHALT WALK

SURFACE:	1"	SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) LEVEL 2
INTERMEDIATE:	1 ½"	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) LEVEL 2
SUBBASE:	8"	GRAVEL BORROW, TYPE B



BRIDGEWATER
PLEASANT STREET (ROUTE 104) AT ELM STREET
ADD ALTERNATE - TRAFFIC SIGNAL PLAN
SHEET 65 OF 65

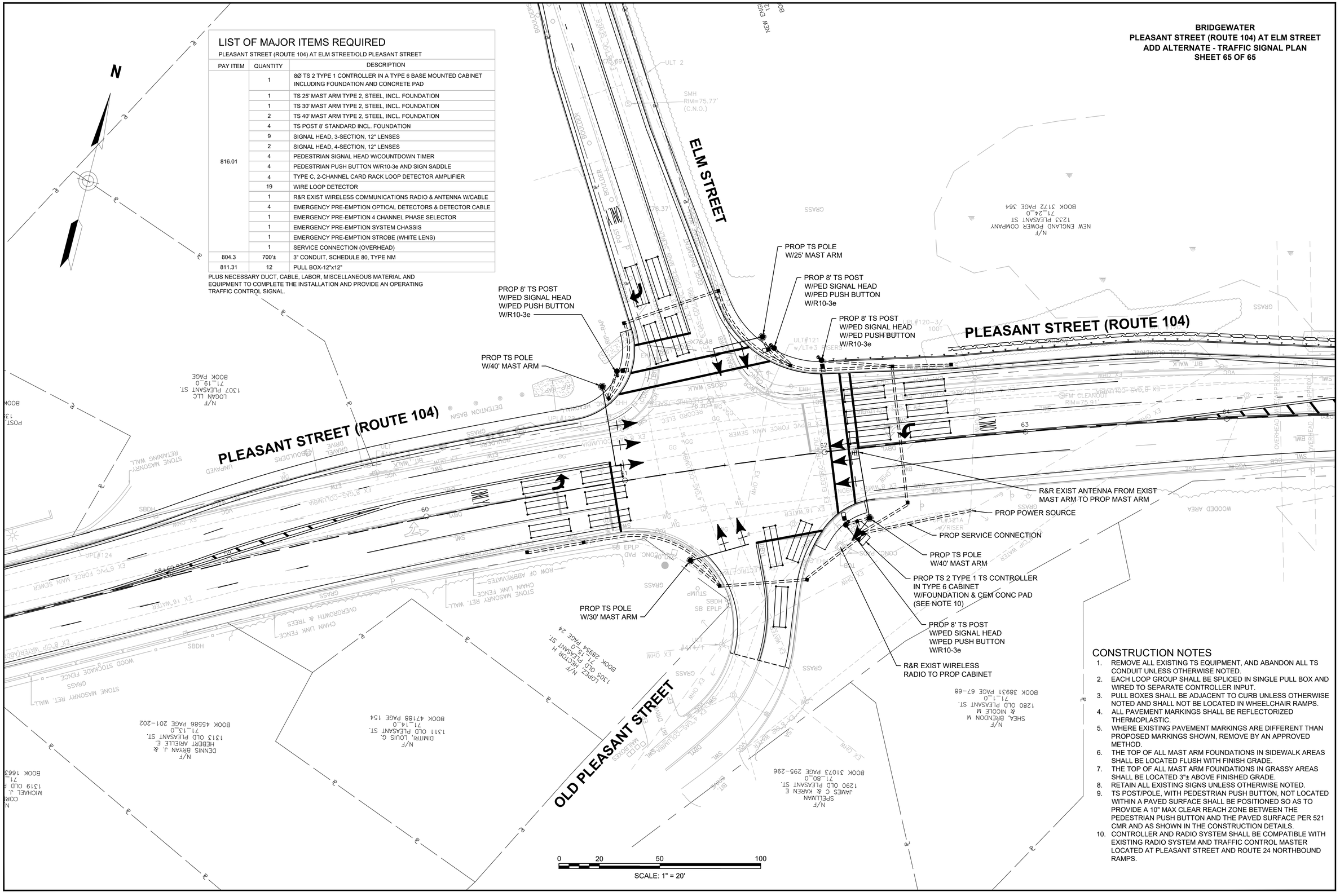
CONCEPT-PLEASANT ST TSIG.DWG Plotted on 19-May-2019 9:34 PM

LIST OF MAJOR ITEMS REQUIRED

PLEASANT STREET (ROUTE 104) AT ELM STREET/OLD PLEASANT STREET

PAY ITEM	QUANTITY	DESCRIPTION
816.01	1	8Ø TS 2 TYPE 1 CONTROLLER IN A TYPE 6 BASE MOUNTED CABINET INCLUDING FOUNDATION AND CONCRETE PAD
	1	TS 25' MAST ARM TYPE 2, STEEL, INCL. FOUNDATION
	1	TS 30' MAST ARM TYPE 2, STEEL, INCL. FOUNDATION
	2	TS 40' MAST ARM TYPE 2, STEEL, INCL. FOUNDATION
	4	TS POST 8' STANDARD INCL. FOUNDATION
	9	SIGNAL HEAD, 3-SECTION, 12" LENSES
	2	SIGNAL HEAD, 4-SECTION, 12" LENSES
	4	PEDESTRIAN SIGNAL HEAD W/COUNTDOWN TIMER
	4	PEDESTRIAN PUSH BUTTON W/R10-3e AND SIGN SADDLE
	4	TYPE C, 2-CHANNEL CARD RACK LOOP DETECTOR AMPLIFIER
	19	WIRE LOOP DETECTOR
	1	R&R EXIST WIRELESS COMMUNICATIONS RADIO & ANTENNA W/CABLE
	4	EMERGENCY PRE-EMPTION OPTICAL DETECTORS & DETECTOR CABLE
	1	EMERGENCY PRE-EMPTION 4 CHANNEL PHASE SELECTOR
	1	EMERGENCY PRE-EMPTION SYSTEM CHASSIS
	1	EMERGENCY PRE-EMPTION STROBE (WHITE LENS)
	1	SERVICE CONNECTION (OVERHEAD)
804.3	700'±	3" CONDUIT, SCHEDULE 80, TYPE NM
811.31	12	PULL BOX-12"x12"

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING TRAFFIC CONTROL SIGNAL.



CONSTRUCTION NOTES

1. REMOVE ALL EXISTING TS EQUIPMENT, AND ABANDON ALL TS CONDUIT UNLESS OTHERWISE NOTED.
2. EACH LOOP GROUP SHALL BE SPLICED IN SINGLE PULL BOX AND WIRED TO SEPARATE CONTROLLER INPUT.
3. PULL BOXES SHALL BE ADJACENT TO CURB UNLESS OTHERWISE NOTED AND SHALL NOT BE LOCATED IN WHEELCHAIR RAMPS.
4. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC.
5. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
6. THE TOP OF ALL MAST ARM FOUNDATIONS IN SIDEWALK AREAS SHALL BE LOCATED FLUSH WITH FINISH GRADE.
7. THE TOP OF ALL MAST ARM FOUNDATIONS IN GRASSY AREAS SHALL BE LOCATED 3"± ABOVE FINISHED GRADE.
8. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
9. TS POST/POLE, WITH PEDESTRIAN PUSH BUTTON, NOT LOCATED WITHIN A PAVED SURFACE SHALL BE POSITIONED SO AS TO PROVIDE A 10" MAX CLEAR REACH ZONE BETWEEN THE PEDESTRIAN PUSH BUTTON AND THE PAVED SURFACE PER 521 CMR AND AS SHOWN IN THE CONSTRUCTION DETAILS.
10. CONTROLLER AND RADIO SYSTEM SHALL BE COMPATIBLE WITH EXISTING RADIO SYSTEM AND TRAFFIC CONTROL MASTER LOCATED AT PLEASANT STREET AND ROUTE 24 NORTHBOUND RAMPS.