

# MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

AGAWAM ROBINSON PARK ELEMENTARY SCHOOL (SRTS)			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	1	98
PROJECT FILE NO.		610652	

TITLE SHEET & INDEX

## PLAN AND PROFILE OF ROBINSON PARK ELEMENTARY SCHOOL (SRTS)

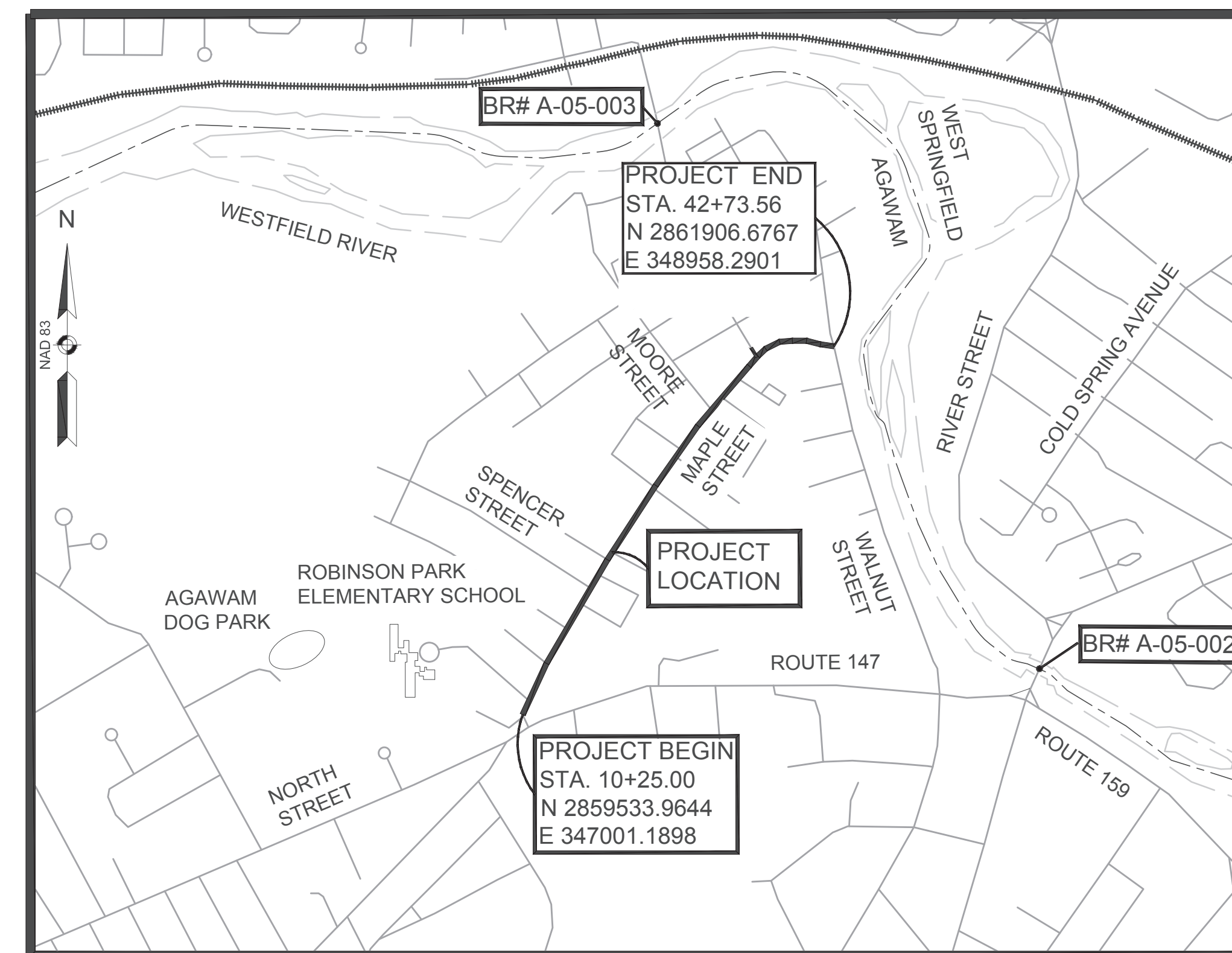
### IN THE CITY OF AGAWAM HAMPDEN COUNTY

FEDERAL AID PROJECT NUMBER: TAP-SRS2(002)X

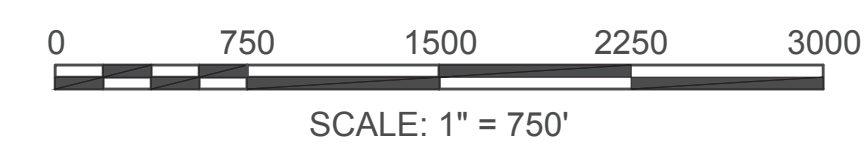
THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

#### INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND, ABBREVIATIONS & GENERAL NOTES
3	KEY PLAN
4 - 5	TYPICAL SECTIONS
6 - 11	CONSTRUCTION PLANS
12 - 20	PROFILES
21 - 26	CURB TIE PLANS
27 - 28	BASELINE DATA TABLES & CURVE TABLES
29 - 34	GRADING PLANS
35 - 40	DRAINAGE & UTILITY PLANS
41 - 46	SIGN & PAVEMENT MARKING PLANS
47	TRAFFIC SIGN SUMMARY
48 - 50	TEMPORARY TRAFFIC CONTROL PLANS
51	TEMPORARY CONSTRUCTION SIGN SUMMARY
52 - 53	CONSTRUCTION DETAILS
54 - 56	PEDESTRIAN CURB RAMP SCHEDULES
57 - 59	DRIVEWAY SCHEDULES
60 - 95	CROSS SECTIONS - MAPLE STREET
96 - 98	CROSS SECTIONS - SIDE STREETS



MAPLE STREET	
DESIGN SPEED	30 MPH
ADT (2021)	7,400
ADT (2031)	7,800
K	10.5%
D	67% SB
T (PEAK HOUR)	1.5%
T (AVERAGE DAY)	1.4%
DHV	713
DDHV	476
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL



LENGTH OF PROJECT = 3,248.56 FEET = 0.615 MILES

<p>Kristopher J. Surette No. 52635 REGISTERED PROFESSIONAL ENGINEER</p> <p><small>Digitally signed by Kristopher J. Surette Date: 2024.08.28 09:30:08 -0400</small></p> <p><b>Tighe &amp; Bond</b> Engineers   Environmental Specialists 300 TRADE CENTER, SUITE 5580 WOBURN, MA 01801-7433 PHONE: 781-933-4800 FAX: 781-933-4801</p>	DATE	DESCRIPTION	REV #
APPROVED	 <small>Digitally signed by Carrie Lualaba Date: 2024.09.04 08:53:48 -0400</small>		
CHIEF ENGINEER	DATE		

GENERAL SYMBOLS

Table with columns: EXISTING, PROPOSED, DESCRIPTION. Lists symbols for various infrastructure elements like Jersey Barrier, Catch Basin, Flag Pole, Gas Pump, Mail Box, Post Square, Post Circular, Well, Electric Handhole, Fence Gate Post, Gas Gate, Boring Hole, Monitoring Well, Test Pit, Hydrant, Light Pole, County Bound, GPS Point, Cable Manhole, Drainage Manhole, Electric Manhole, Gas Manhole, Misc Manhole, Sewer Manhole, Telephone Manhole, Water Manhole, Massachusetts Highway Bound, Monument, Stone Bound, Town or City Bound, Traverse or Triangulation Station, Trolley Pole or Guy Pole, Transmission Pole, Utility Pole w/ Firebox, Utility Pole with Double Light, Utility Pole w/ 1 Light, Utility Pole, Bush, Tree, Stump, Swamp / Marsh, Water Gate, Parking Meter, Overhead Cable/Wire, Curbing, Contours, Underground Drain Pipe, Underground Electric Duct, Underground Gas Main, Underground Sewer Main, Underground Telephone Duct, Underground Water Main, Balanced Stone Wall, Guard Rail, Chain Link or Metal Fence, Wood Fence, Sediment Barrier, Tree Line, Sawcut Line, Top or Bottom of Slope, Limit of Edge of Pavement, Bank of River or Stream, Border of Wetland, 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, Easement, Tree Protection - Armoring & Pruning > 4" [ITEM 102.51], Tree Protection - Small Trees < OR = 4" [ITEM 102.52].

GENERAL NOTES:

- 1. 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 AGREES TO 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.
2. THE CONTRACTOR SHALL CONTACT "DIG SAFE" AT 1-888-DIG-SAFE AT LEAST 72 HOURS PRIOR TO COMMENCING WORK ON THE PROJECT AREA.

TRAFFIC SYMBOLS

Table with columns: EXISTING, PROPOSED, DESCRIPTION. Lists symbols for traffic control elements like Controller Phase Actuated, Traffic Signal Head, Wire Loop Detector, Video Detection Camera, Microwave Detector, Pedestrian Push Button, Emergency Preemption Confirmation Strobe Light, Vehicular Signal Head, Flashing Beacon, Pedestrian Signal Head, Railroad Signal, Signal Post and Base, Mast Arm, Sign and Post, Mast Arm with Luminaire, Optical Pre-emption Detector, Control Cabinet, Flashing Beacon Control, Load Center Assembly, Pull Box, Electric Handhole, Traffic Signal Conduit.

PAVEMENT MARKINGS SYMBOLS

Table with columns: EXISTING, PROPOSED, DESCRIPTION. Lists symbols for pavement markings like Pavement Arrow - White, Legend "ONLY" - White, Stop Line - 12" White Line, Crosswalk - 12" White Line, 6" Single Solid White Line, 6" Single Solid Yellow Line, 6" Broken White Line, 6" Broken Yellow Line, 6" Dashed White Lane Line, 6" Dashed Yellow Lane Line, 6" Dotted White Line Extension, 6" Dotted Yellow Line Extension, 6" Double White Line, 6" Double Yellow Line.

GENERAL NOTES (CONTINUED):

- 3. 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.
4. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
5. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
6. THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, REUSING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
7. JOINTS BETWEEN NEW BITUMINOUS CONCRETE ROADWAY PAVEMENT AND SAWCUT OF EXISTING PAVEMENT SHALL BE SEALED IN ACCORDANCE WITH ITEM 453. OF THE MASSDOT STANDARD SPECIFICATIONS.
8. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS OTHERWISE NOTED.
9. 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.
10. THE SURVEY BASE PLAN WAS PREPARED BY NITSCH ENGINEERING, 2 CENTER PLAZA SUITE 430, BOSTON, MA 02108 BETWEEN JULY 10, 2020 AND JULY 17, 2020. HORIZONTAL DATUM IS BASED ON MASS GRID SYSTEM NAD 1983. VERTICAL DATUM IS BASED ON THE NAVD 1988.
11. THE MINIMUM ALLOWABLE CLEARANCE FROM A UTILITY POLE (OR OTHER OBSTRUCTION) TO THE EDGE OF THE SHARED USE PATH SHALL BE 4'-0" PER PROWAG TO ALLOW FOR ACCESSIBLE PATH OF TRAVEL.

ABBREVIATIONS

Table with columns: GENERAL, ABBREVIATIONS. Lists abbreviations for traffic and construction terms like Annual Average Daily Traffic, Abandon, Adjust, Approximate, Asphalt Concrete, Accum Pipe, Bituminous, Bottom of Curb, Baseline, Building, Benchmark, By Others, Bottom of Slope, Bridge, Catch Basin, Catch Basin with Frame and Cover, Cement Concrete, Cement Concrete Masonry, Cement, Curb Inlet, Cast Iron Pipe, Chain Link Fence, Centerline, Corrugated Metal Pipe, Corrugated Steel Pipe, County, Concrete, Continuous, Construction, Crown Grade, Design Hourly Volume, Drop Inlet, Diameter, Ductile Iron Pipe, Drain Manhole, Steady Don't Walk - Portland Orange, Driveway, Elevation, Embankment, Edge of Pavement, Existing, Excavation, Frame and Cover, Frame and Grate, Foundation, Fieldstone, Garage, Ground, Gas Gate, Gutter Inlet, Galvanized Iron Pipe, Granite, Gravel, Guard, Headwall, Hot Mix Asphalt, Horizontal, Hydrant, Invert, Junction, Length of Curve, Leach Basin, Light Pole, Left, Maximum, Mailbox, Manhole, Massachusetts Highway Bound, Minimum, Not in Contract, Number, Non-Participating, Point of Curvature.

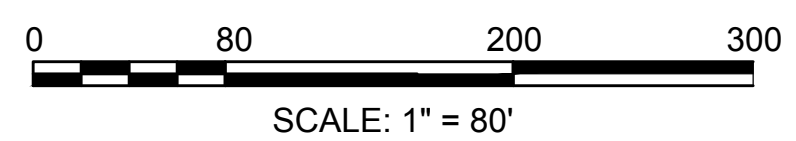
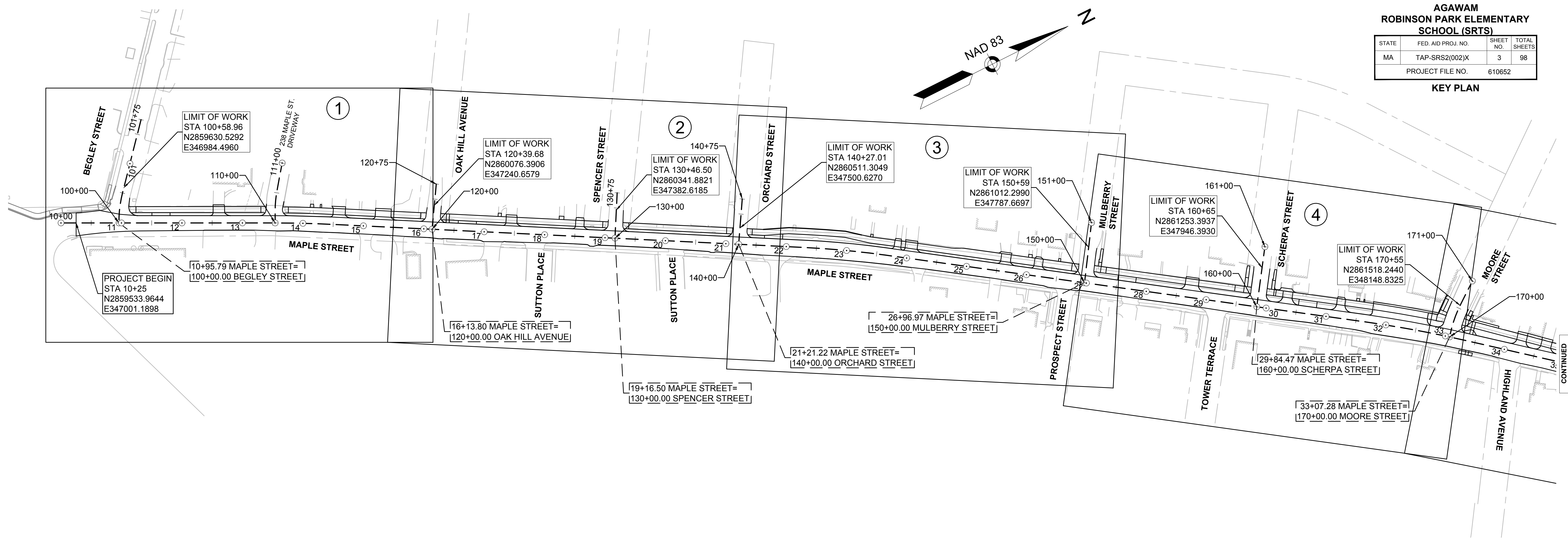
AGAWAM ROBINSON PARK ELEMENTARY SCHOOL (SRTS)

Table with columns: STATE, FED. AID PROJ. NO., SHEET NO., TOTAL SHEETS. Values: MA, TAP-SRS2(002)X, 2, 98.

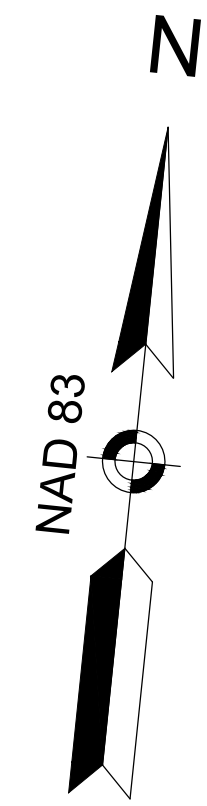
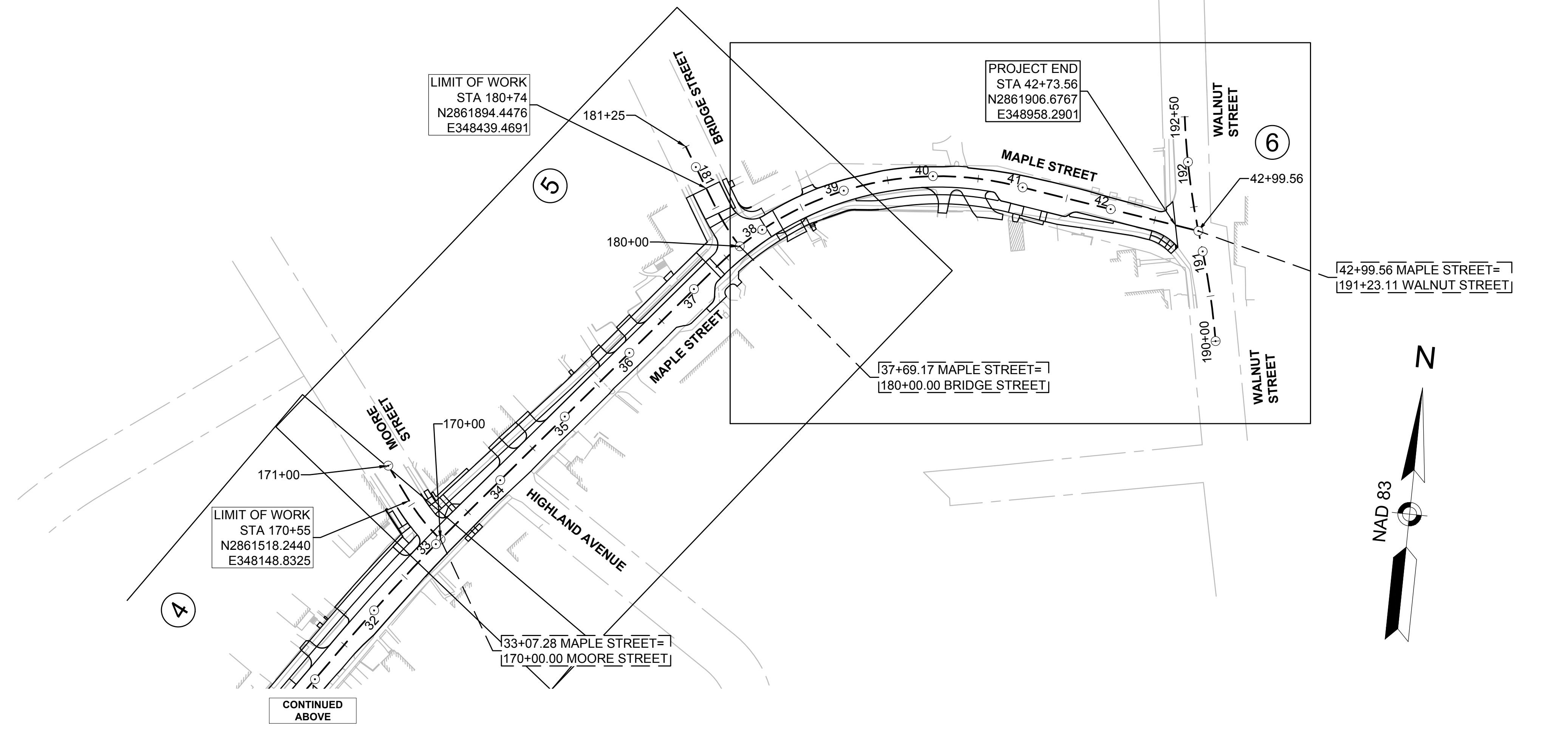
LEGEND, ABBREVIATIONS & GENERAL NOTES

Table with columns: ABBREVIATIONS (cont.), GENERAL. Lists abbreviations for surveying and construction terms like Point of Compound Curvature, Pedestrian Curb Ramp, Profile Grade Line, Point of Intersection, Point on Curve, Point on Tangent, Point of Reverse Curvature, Project, Proposed, Plantable Soil Borrow, Point of Tangency, Point of Vertical Curvature, Point of Vertical Intersection, Point of Vertical Tangency, Paved Water Way, Radius of Curvature, Remove and Dispose, Reinforced Concrete Pipe, Road, Remove, Remodel, Retain, Retaining Wall, Right of Way, Railroad, Remove and Reset, Remove and Stack, Right, Stone Bound, Shoulder, Sewer Manhole, Street, Station, Stopping Sight Distance, State Highway Layout Line, Shared Use Path, Sidewalk, Tangent Distance of Curve/Truck %, Tangent, Temporary, Top of Curb, Top of Slope, Typical, Utility Pole, Varies, Vertical, Vertical Curve, Water Gate, Wrought Iron Pipe, Water Meter/Water Main, Cross Section, Traffic Signal Abbreviations, Cabinet, Closed Circuit Video Equipment, Steady Upraised Hand, Flashing Upraised Hand, Flashing Circular Red, Flashing Red Left Arrow, Flashing Red Right Arrow, Flashing Circular Yellow, Flashing Yellow Left Arrow, Flashing Yellow Right Arrow, Steady Circular Green, Steady Green Left Arrow, Steady Green Right Arrow, Steady Green Slash Left Arrow, Steady Green Slash Right Arrow, Steady Green Vertical Arrow, Overlap, Pedestrian, Pan, Tilt, Zoom, Steady Circular Red, Steady Red Left Arrow, Steady Red Right Arrow, Traffic Signal, Traffic Signal Conduit, Steady Walking Person, Steady Circular Yellow, Steady Yellow Left Arrow.

KEY PLAN



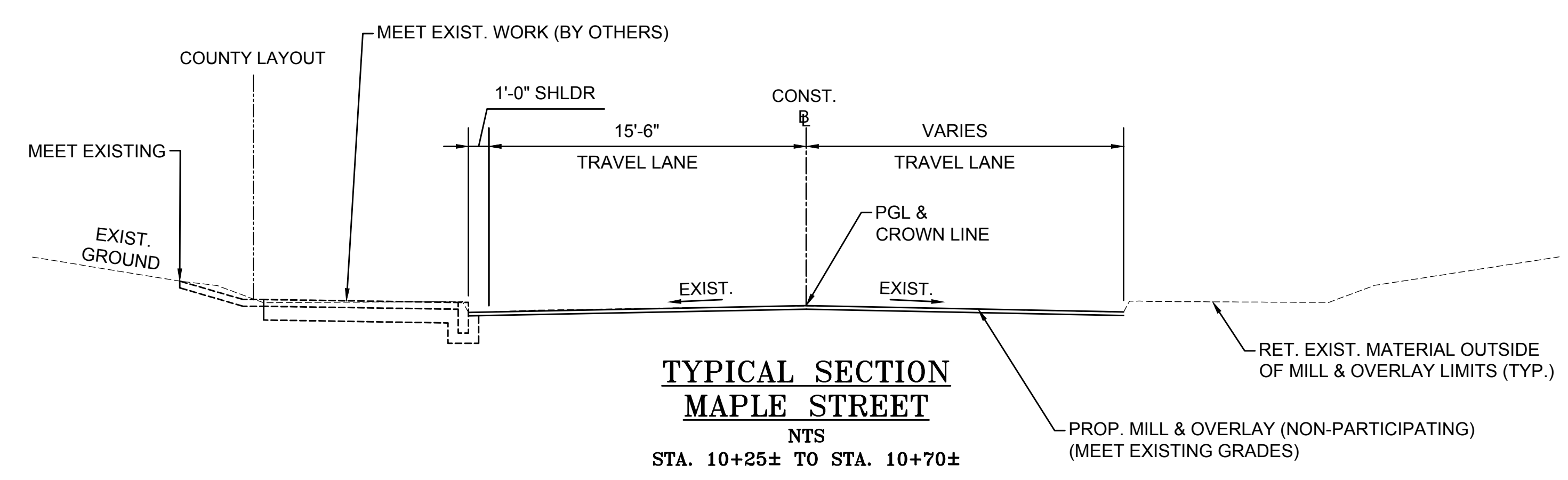
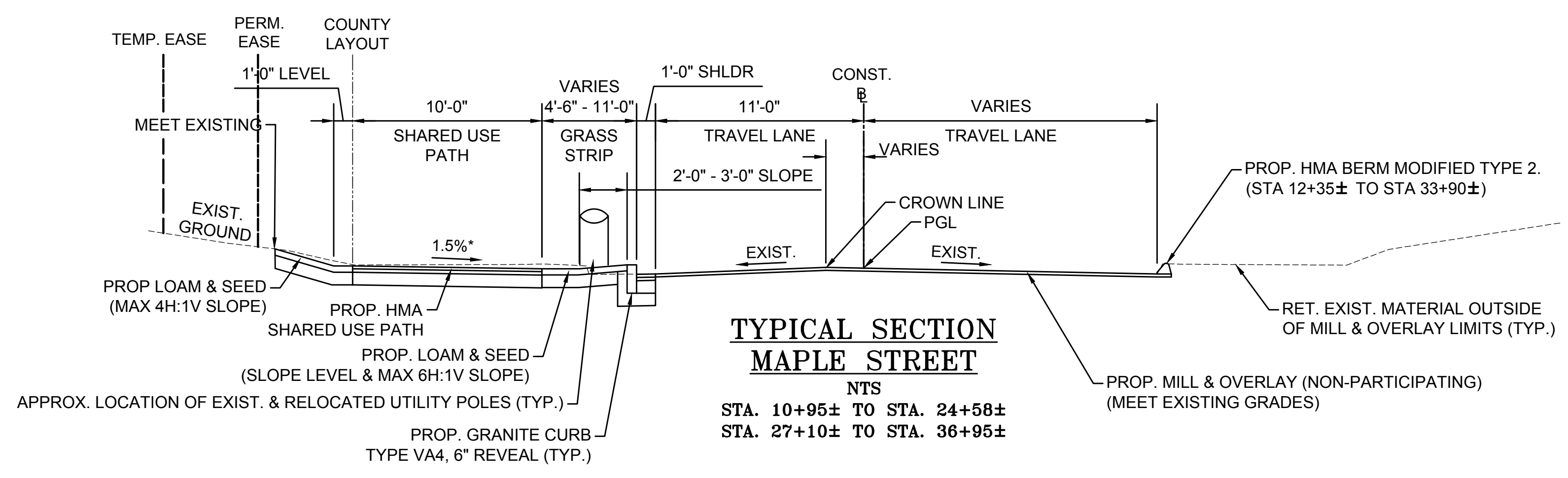
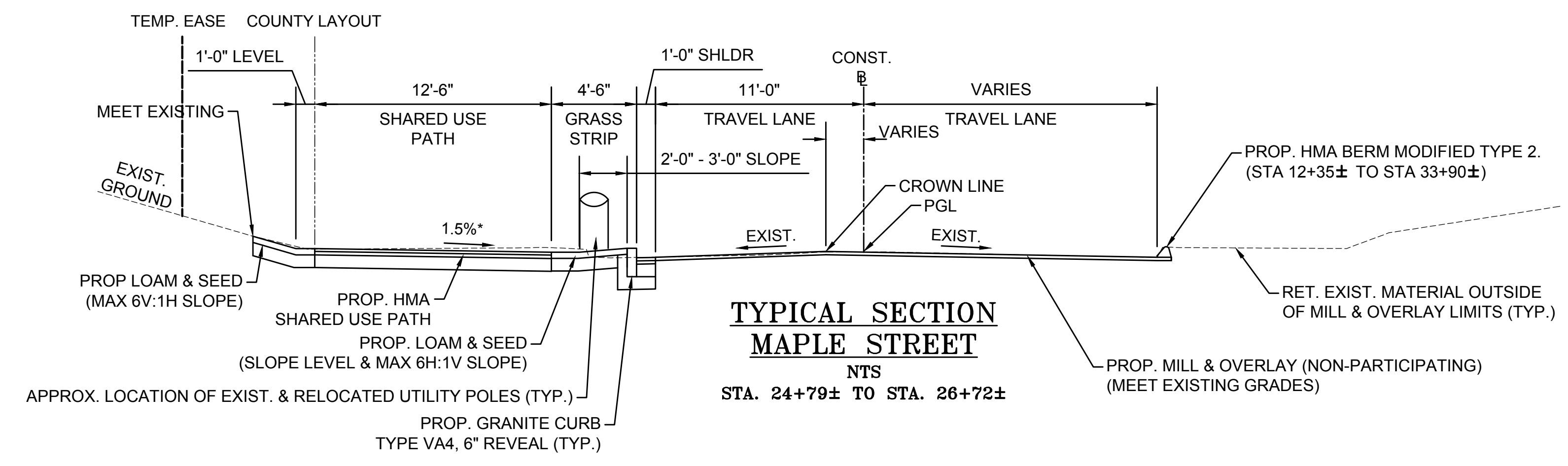
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DRAWING TITLE:	SHEET NUMBER:					
CONSTRUCTION PLANS	6	7	8	9	10	11
CURB TIE PLANS	21	22	23	24	25	26
GRADING PLANS	29	30	31	32	33	34
DRAINAGE AND UTILITY PLANS	35	36	37	38	39	40
TRAFFIC SIGN & PAVEMENT MARKING PLANS	41	42	43	44	45	46



**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	4	98
PROJECT FILE NO.		610652	

**TYPICAL SECTIONS  
SHEET 1 OF 2**



**PAVEMENT NOTES:**

**PROPOSED PAVEMENT FINE MILLING AND OVERLAY:**  
1 3/4" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER  
3/8" STRESS ABSORBING MEMBRANE INTERLAYER  
2 1/8" DEPTH PAVEMENT FINE MILLING

**PROPOSED FULL DEPTH RECONSTRUCTION:**  
1 3/4" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER  
2 1/4" SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) OVER  
4 1/2" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) OVER  
4" DENSE GRADED CRUSHED STONE OVER  
8" GRAVEL BORROW

**PROPOSED FULL DEPTH MINOR BOX WIDENING (LESS THAN 4' WIDE):**  
1 3/4" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER  
2 1/4" SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) OVER  
6" CEMENT CONCRETE BASE COURSE OVER  
8" GRAVEL BORROW

**PROPOSED CEMENT CONCRETE SIDEWALK / CEMENT CONCRETE WALK /  
CEMENT CONCRETE PEDESTRIAN CURB RAMP:**  
4" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3/4" 610 OVER  
8" GRAVEL BORROW

**PROPOSED CEMENT CONCRETE SIDEWALK AT DRIVEWAY:**  
6" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3/4" 610 OVER  
8" GRAVEL BORROW

**PROPOSED HMA SHARED USE PATH / HMA WALK:**  
1 1/4" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER  
1 3/4" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER  
8" GRAVEL BORROW

**PROPOSED HMA SHARED USE PATH AT DRIVEWAY / HMA DRIVEWAY:**  
1 1/2" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER  
2 1/2" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER  
8" GRAVEL BORROW

**PROPOSED BARK MULCH:**  
4" AGED PINE BARK MULCH

**PROPOSED LAWNS AND SLOPES:**  
4" LOAM AND SEED

**PROPOSED SHARED USE PATH SHOULDER:**  
4" LOAM AND SEED  
8" GRAVEL BORROW

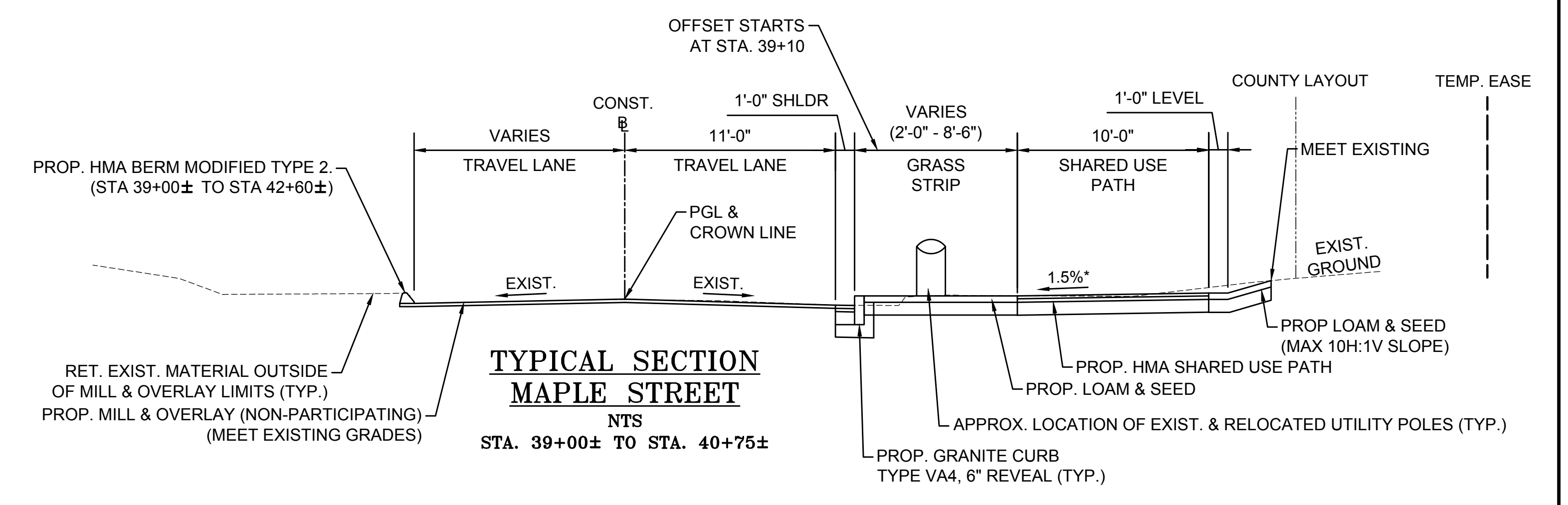
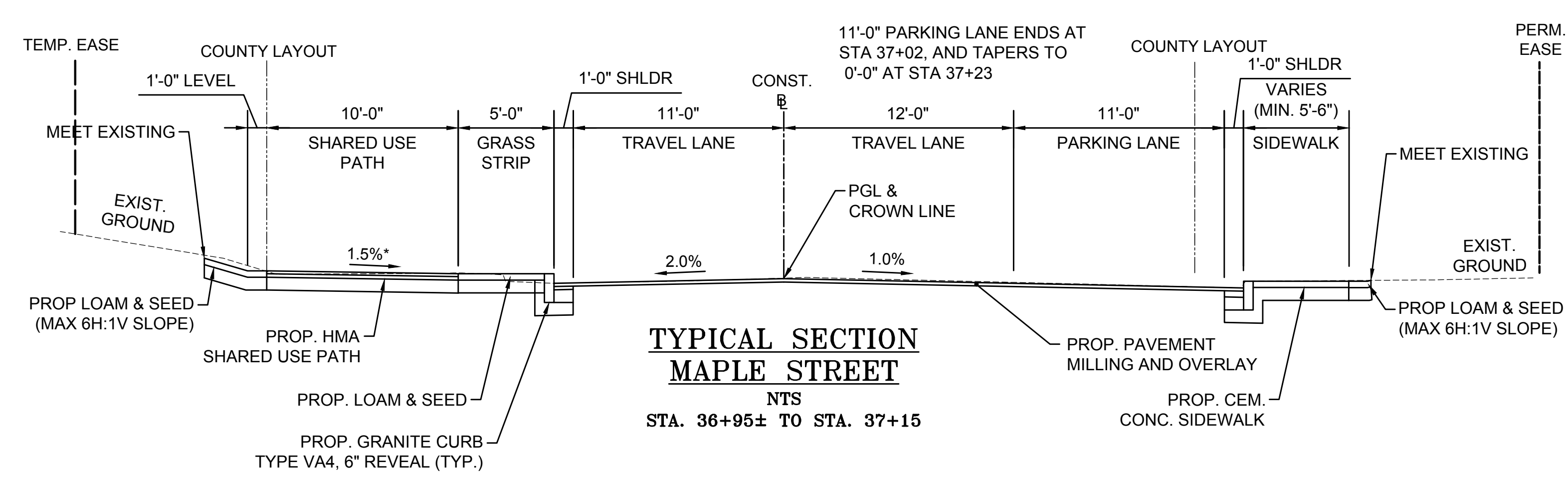
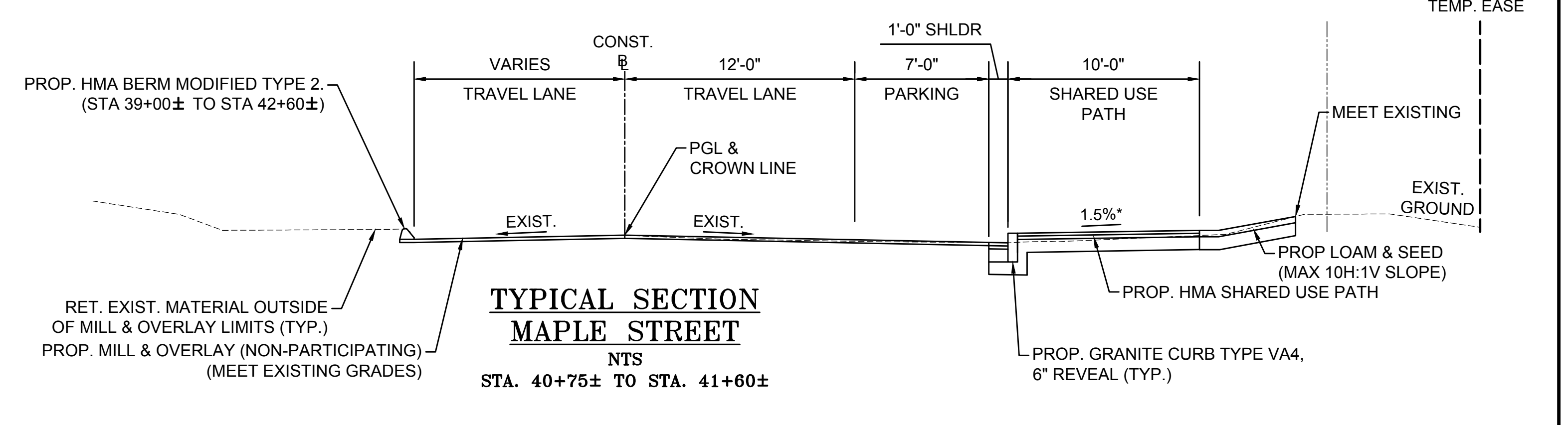
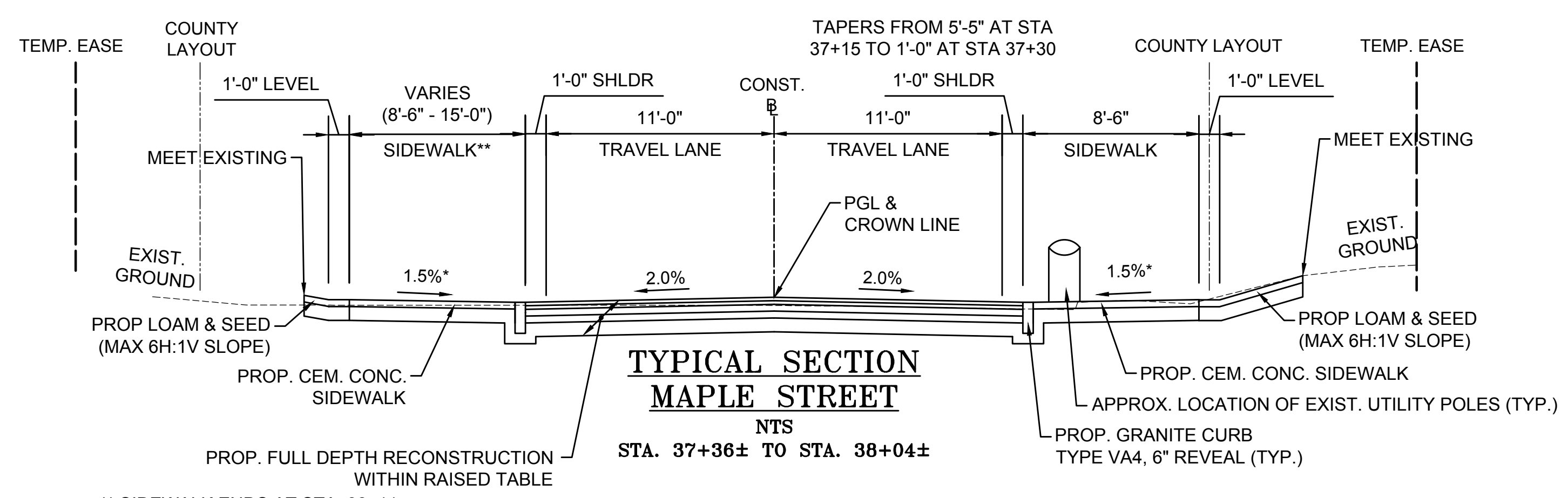
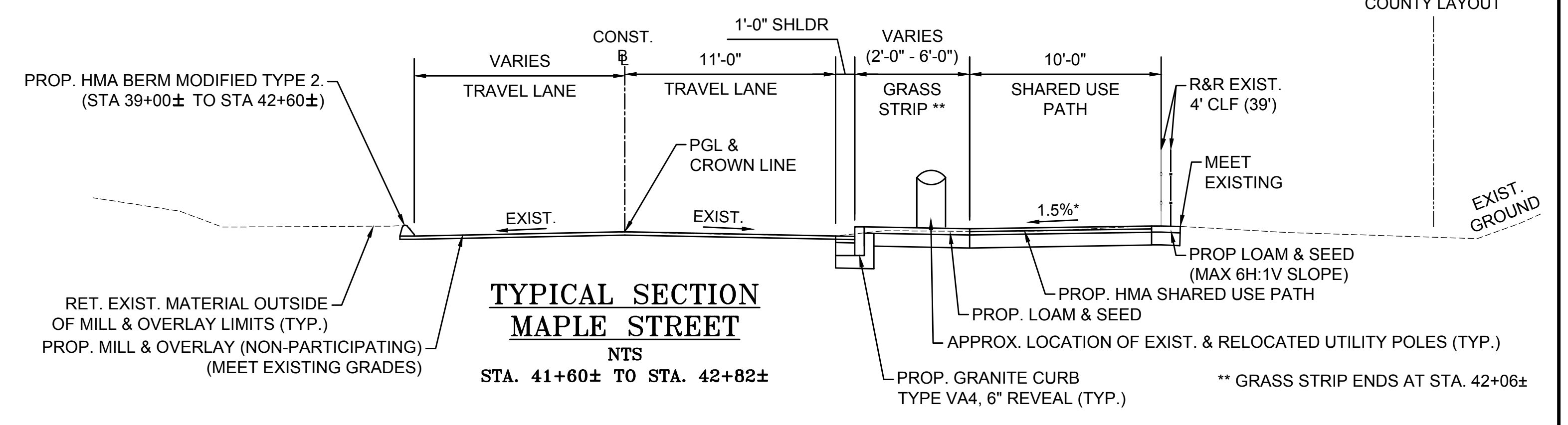
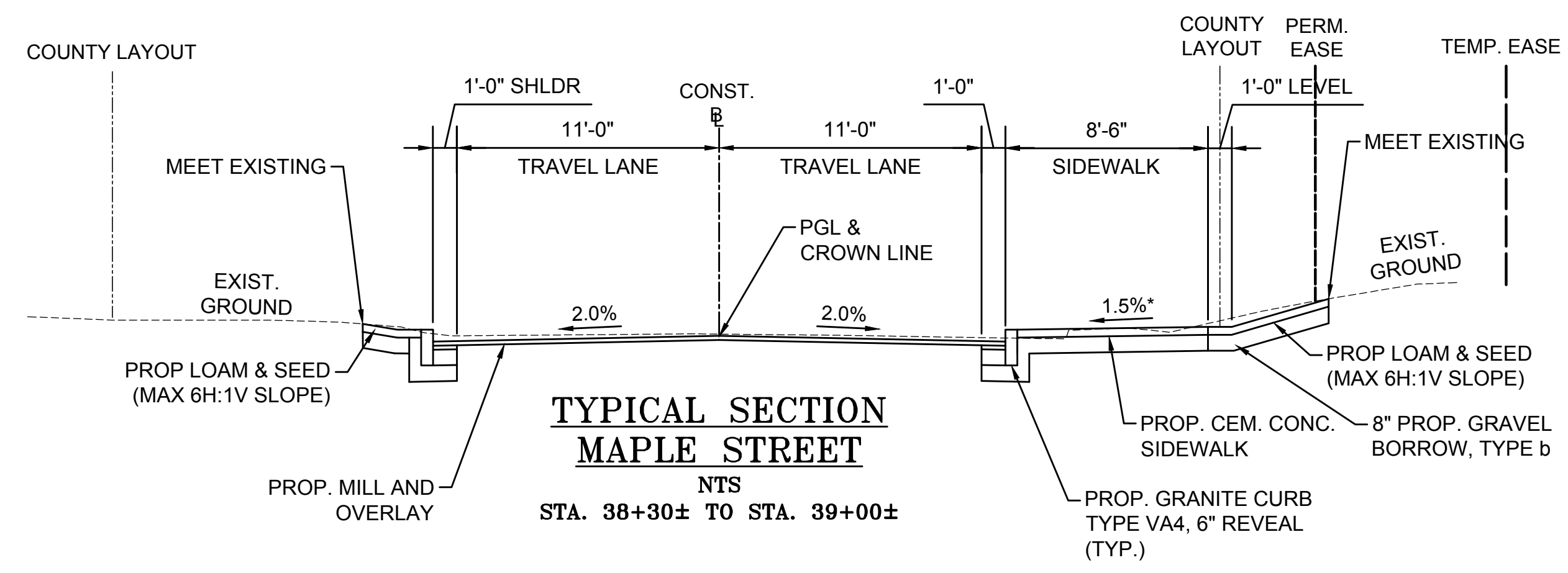
**PROPOSED TEMPORARY PATCH (WITHIN ROADWAY LIMITS):**  
1 1/2" HOT MIX ASPHALT SURFACE COURSE OVER  
1 1/2" HOT MIX ASPHALT INTERMEDIATE COURSE OVER  
12" GRAVEL BORROW OVER  
SUITABLE BACK FILL MATERIAL OR  
CONTROLLED DENSITY FILL TYPE 1E EXCAVATABLE (CONDUIT ONLY)

**PROPOSED PERMANENT PATCH:**  
1 3/4" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER  
2 1/4" SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) OVER  
4 1/2" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) OVER  
4" DENSE GRADED CRUSHED STONE OVER  
8" GRAVEL BORROW  
SUITABLE BACK FILL MATERIAL OR  
CONTROLLED DENSITY FILL TYPE 2E EXCAVATABLE (CONDUIT ONLY) OVER  
UTILITY SPECIFIC BACKFILL MATERIAL AROUND CONDUIT (MIN. 12" ABOVE TOP OF UTILITY)

**GENERAL NOTES:**

1. PREPARATION OF UNDERLYING SURFACE, ASPHALT EMULSION FOR TACK COAT, HMA FOR PATCHING AND HMA JOINT SEALANT SHALL BE IN ACCORDANCE WITH SECTION 450 OF THE MASSDOT STANDARD SPECIFICATIONS.
2. SAWCUTS FOR BOX WIDENING AND INSTALLATION OF NEW CURBING SHALL BE 12" FROM EXISTING CURBING OR PROPOSED FEATURE FOR APPROPRIATE INSTALLATION.
3. MINIMUM ALLOWABLE DISTANCE FROM SIGN, UTILITY POLE, OR OTHER OBSTRUCTION TO EDGE OF SHARED USE PATH IS 18IN.
4. ALL GRAVEL BORROW TO BE TYPE b, UNLESS OTHERWISE NOTED.
5. NEW GRAVEL SUBBASE SHALL ONLY BE USED WHEN EXISTING SUBBASE IS DETERMINED TO BE UNSUITABLE PER THE REQUIREMENTS OF STANDARD MASSDOT SPECIFICATIONS M2.01.7 AND M1.03.0 AND AS DIRECTED BY THE ENGINEER.

\* CONSTRUCTION TOLERANCE ±0.5%



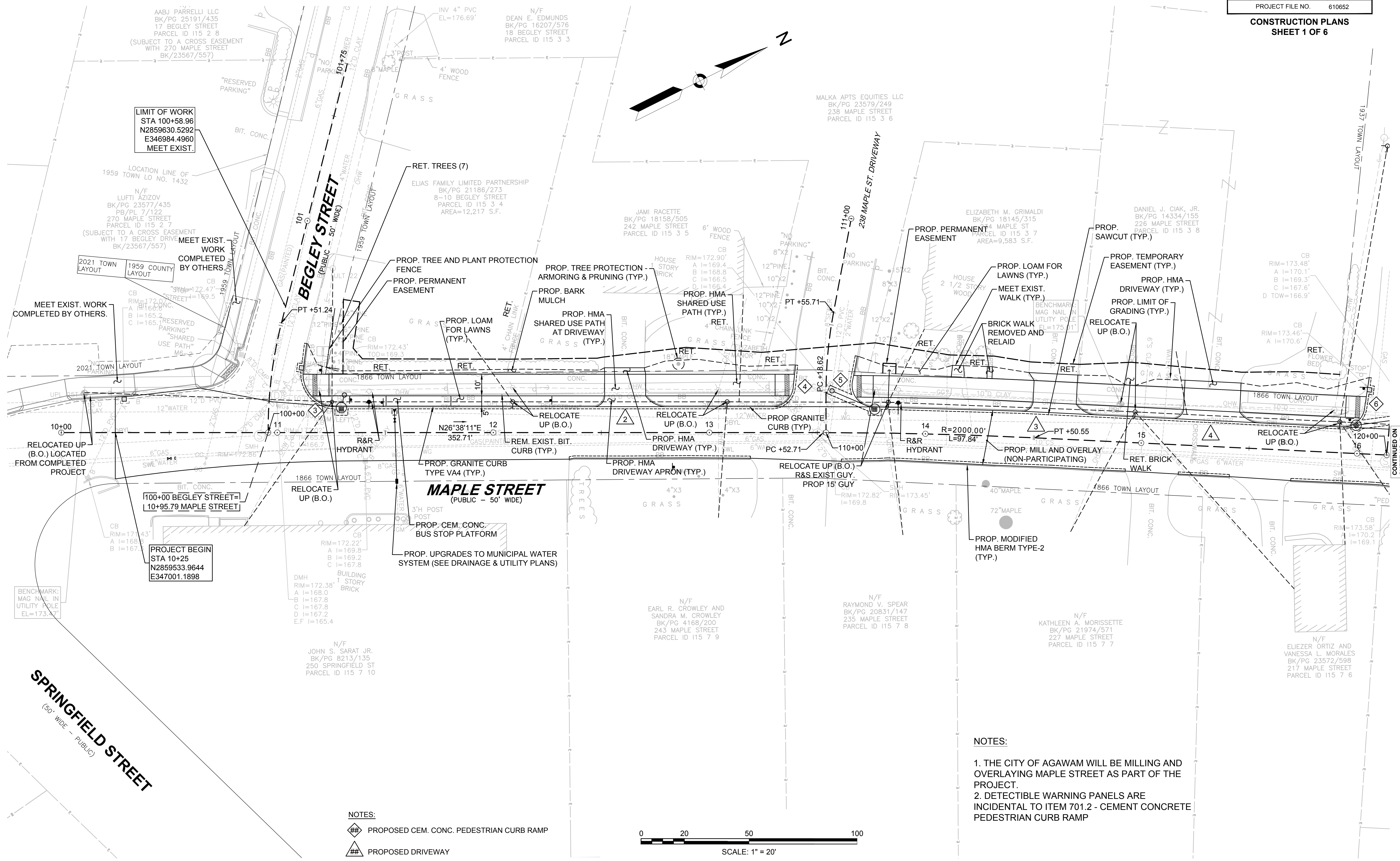
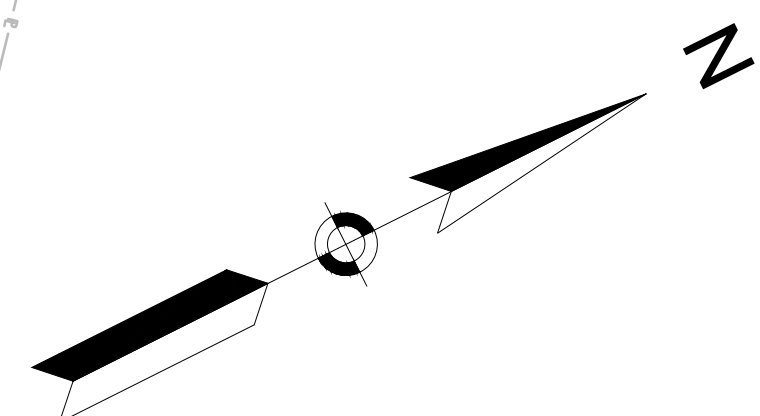
\* CONSTRUCTION TOLERANCE ±0.5%

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ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

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MA	TAP-SRS2(002)X	6	98

PROJECT FILE NO. 610652  
**CONSTRUCTION PLANS  
SHEET 1 OF 6**

HIGHWAY GUARD DETAILS NONE  
TRAFFIC SIGNAL CONDUIT NONE  
WATER SUPPLY ALTERATIONS NONE  
DRAINAGE DETAILS SEE SHEET 35



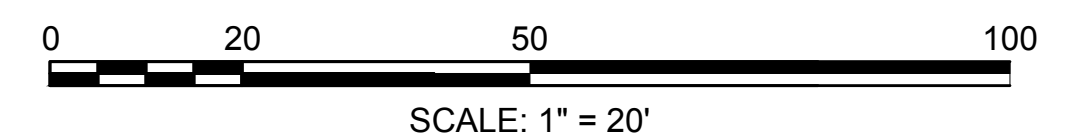
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MEET EXIST. WORK  
COMPLETED BY OTHERS.

MEET EXIST. WORK  
COMPLETED BY OTHERS.

PROJECT BEGIN  
STA 10+25  
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E347001.1898

- NOTES:**
- ◆ PROPOSED CEM. CONC. PEDESTRIAN CURB RAMP
  - ▲ PROPOSED DRIVEWAY



- NOTES:**
1. THE CITY OF AGAWAM WILL BE MILLING AND OVERLAYING MAPLE STREET AS PART OF THE PROJECT.
  2. DETECTIBLE WARNING PANELS ARE INCIDENTAL TO ITEM 701.2 - CEMENT CONCRETE PEDESTRIAN CURB RAMP

**SPRINGFIELD STREET**  
(50' WIDE - PUBLIC)

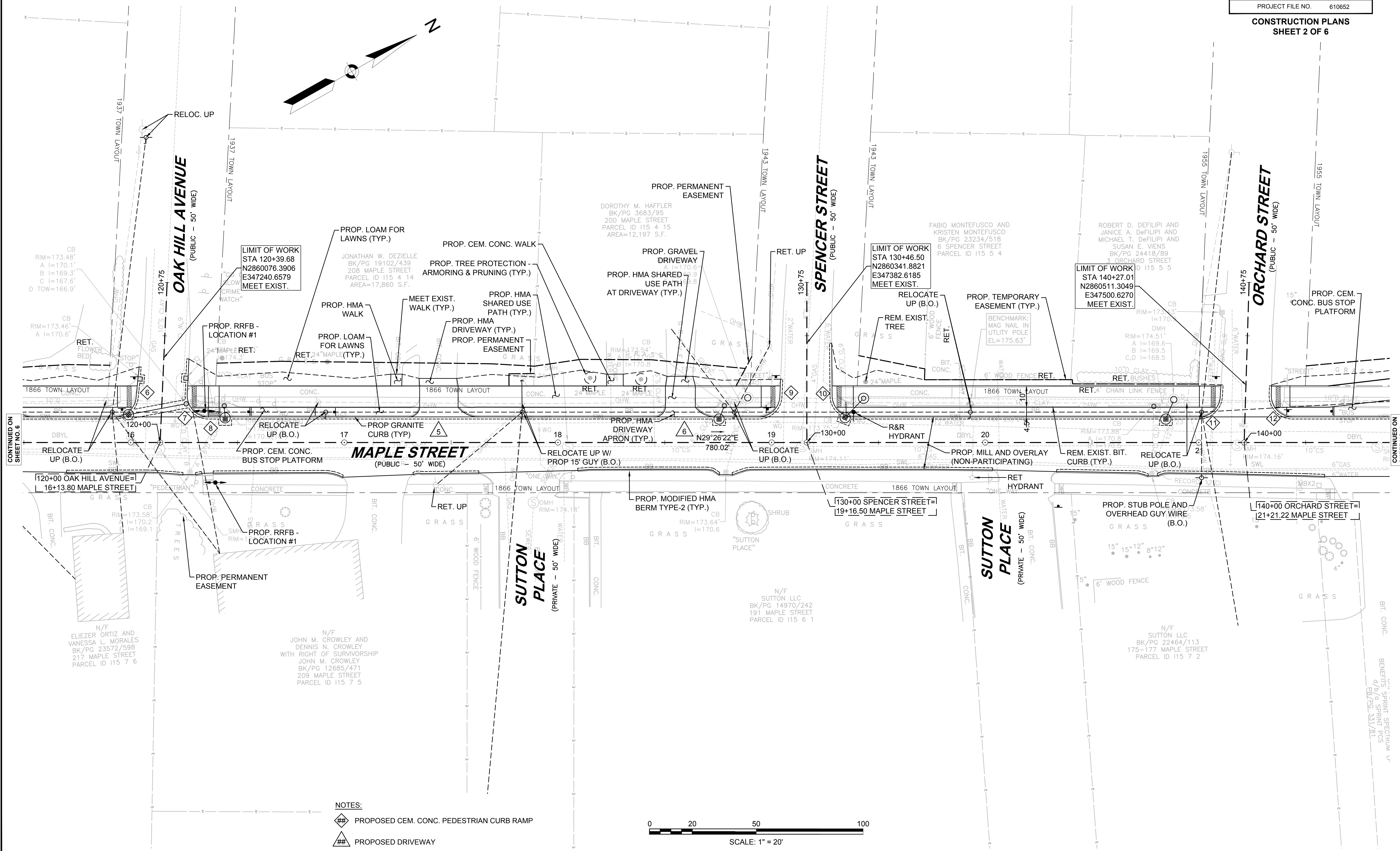
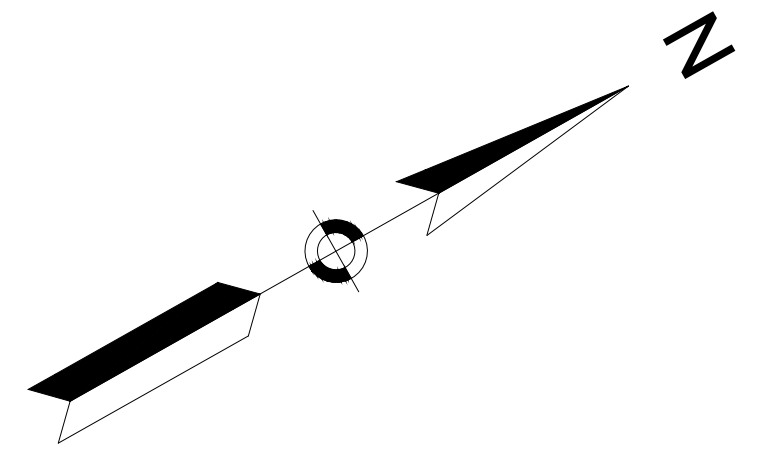
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SHEET NO. 7

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

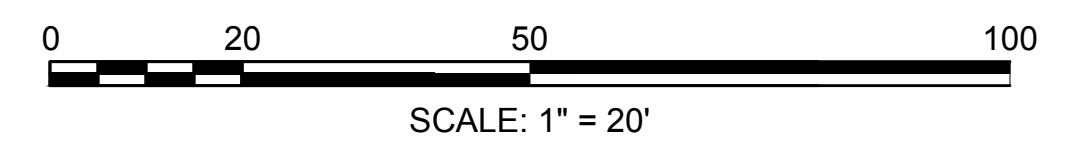
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	7	98

PROJECT FILE NO. 610652  
**CONSTRUCTION PLANS  
SHEET 2 OF 6**

HIGHWAY GUARD DETAILS NONE  
TRAFFIC SIGNAL CONDUIT NONE  
WATER SUPPLY ALTERATIONS NONE  
DRAINAGE DETAILS SEE SHEET 36



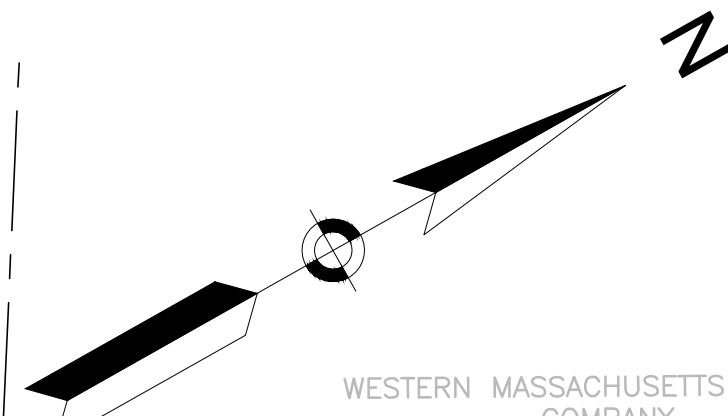
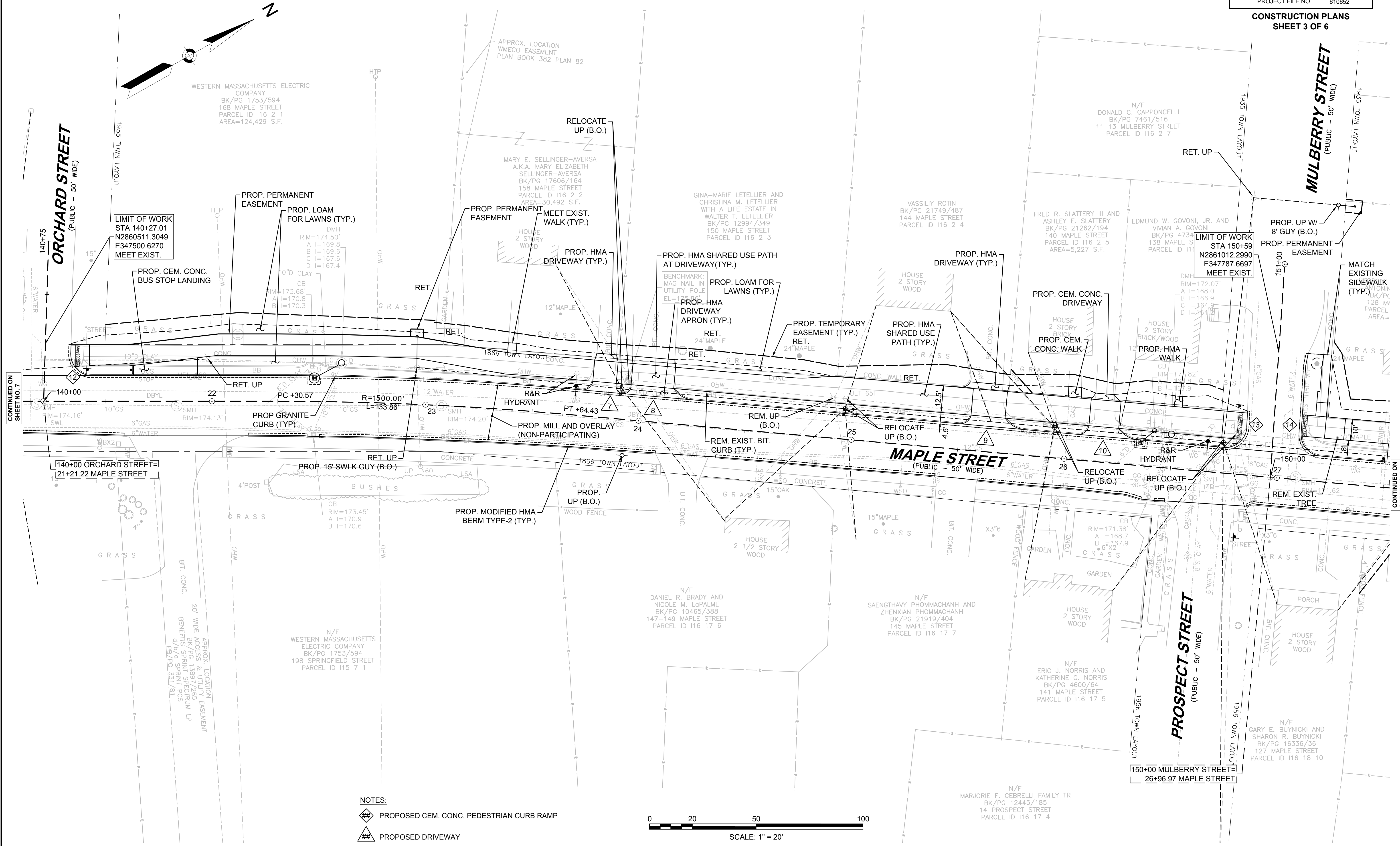
- NOTES:**
- ◆ PROPOSED CEM. CONC. PEDESTRIAN CURB RAMP
  - ▲ PROPOSED DRIVEWAY



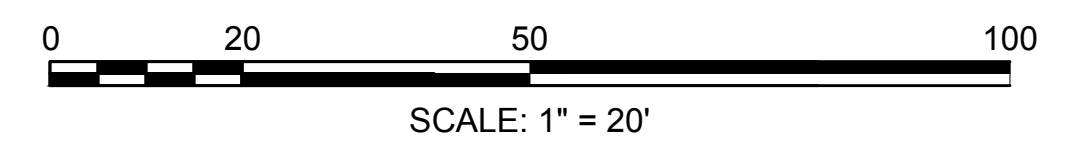
CONTINUED ON SHEET NO. 6

CONTINUED ON SHEET NO. 8

HIGHWAY GUARD DETAILS NONE  
 TRAFFIC SIGNAL CONDUIT NONE  
 WATER SUPPLY ALTERATIONS NONE  
 DRAINAGE DETAILS SEE SHEET 37



- NOTES:**
- PROPOSED CEM. CONC. PEDESTRIAN CURB RAMP
  - PROPOSED DRIVEWAY

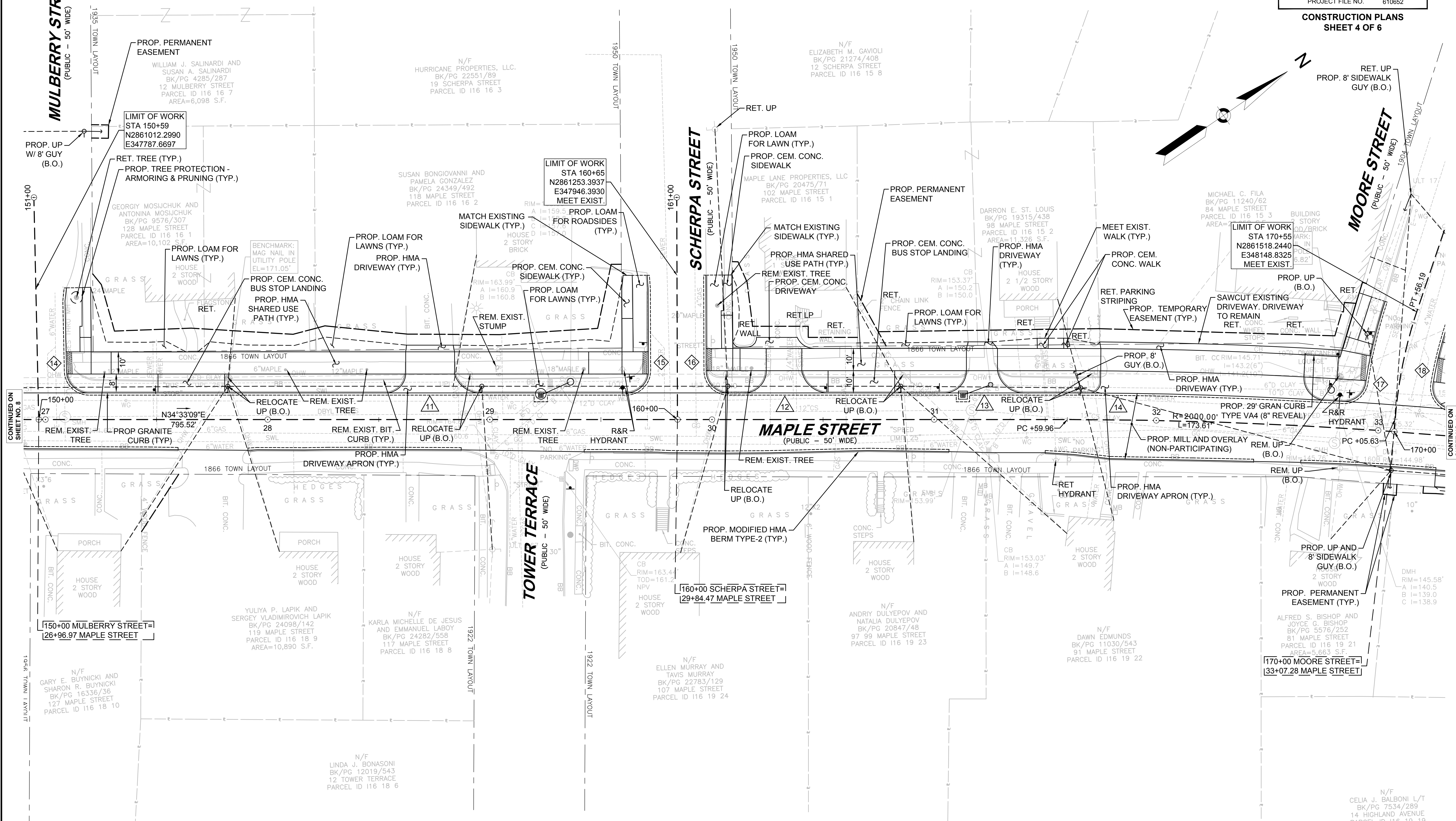


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SHEET NO. 7

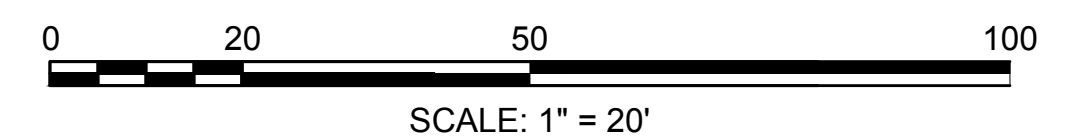
CONTINUED ON  
SHEET NO. 9



HIGHWAY GUARD DETAILS NONE  
 TRAFFIC SIGNAL CONDUIT NONE  
 WATER SUPPLY ALTERATIONS NONE  
 DRAINAGE DETAILS SEE SHEET 38



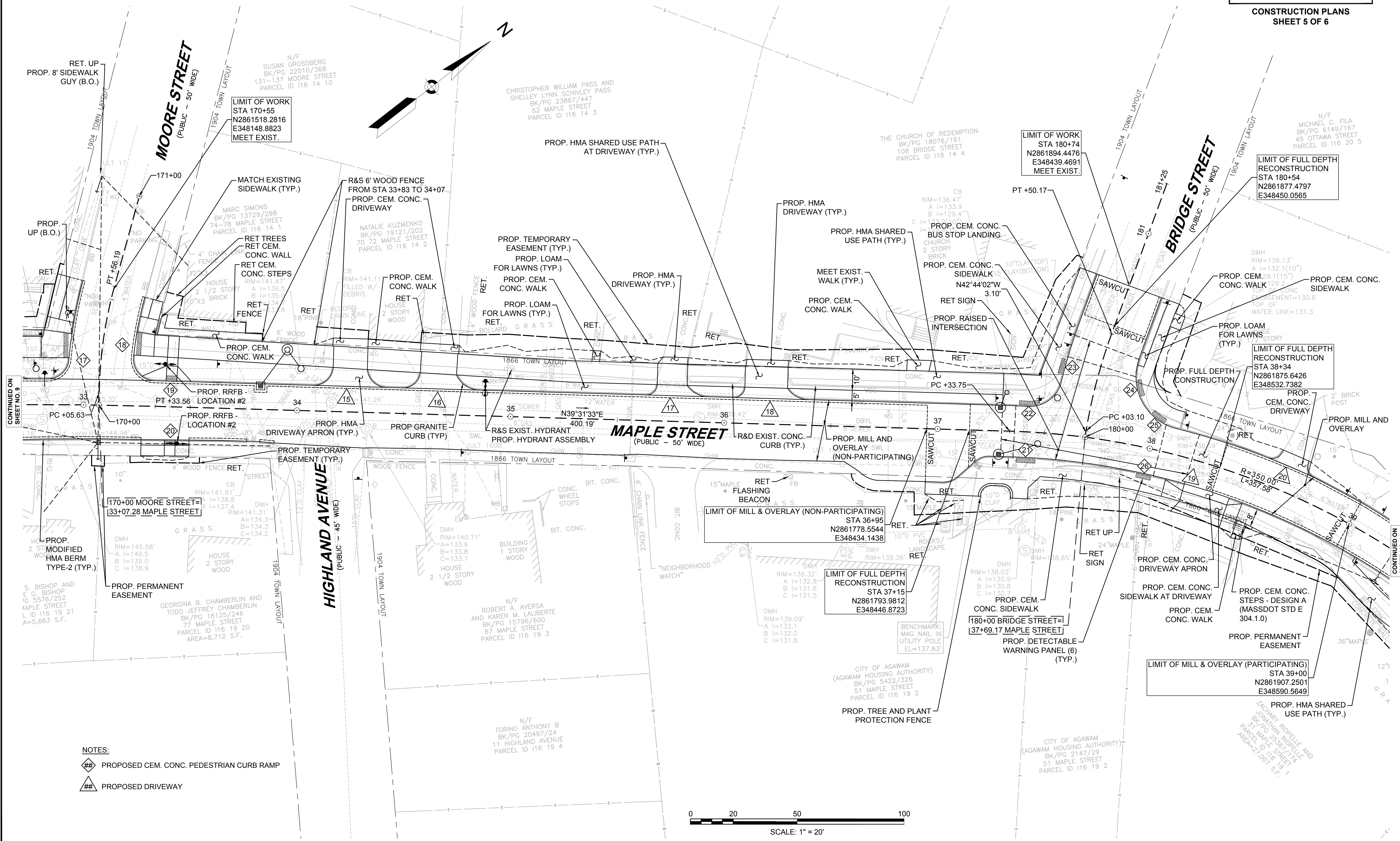
- NOTES:**
- PROPOSED CEM. CONC. PEDESTRIAN CURB RAMP
  - PROPOSED DRIVEWAY



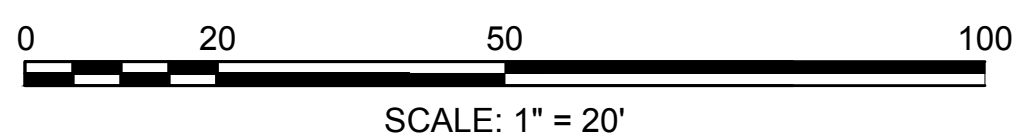
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SHEET NO. 8

CONTINUED ON  
SHEET NO. 10

HIGHWAY GUARD DETAILS NONE  
TRAFFIC SIGNAL CONDUIT NONE  
WATER SUPPLY ALTERATIONS NONE  
DRAINAGE DETAILS SEE SHEET 39



- NOTES:**
- ◆ PROPOSED CEM. CONC. PEDESTRIAN CURB RAMP
  - ◆ PROPOSED DRIVEWAY



CONTINUED ON SHEET NO. 11

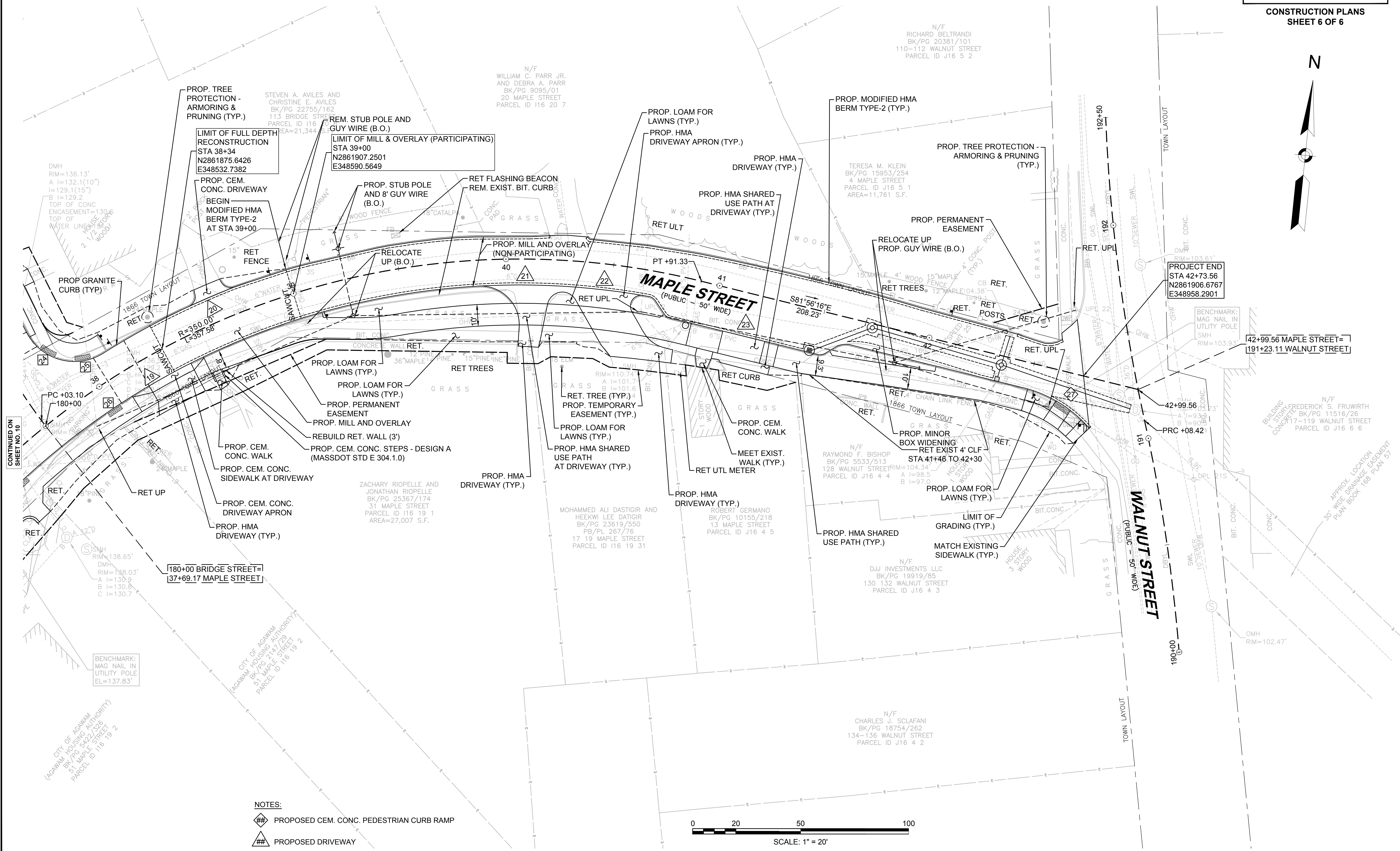
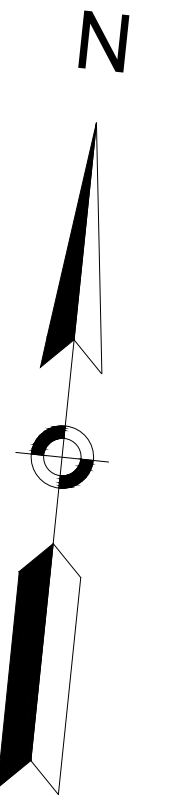
CONTINUED ON SHEET NO. 9

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	11	98

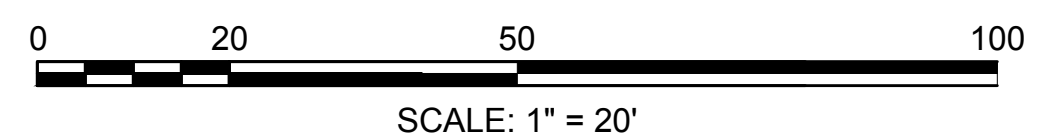
PROJECT FILE NO. 610652  
**CONSTRUCTION PLANS  
SHEET 6 OF 6**

HIGHWAY GUARD DETAILS NONE  
TRAFFIC SIGNAL CONDUIT NONE  
WATER SUPPLY ALTERATIONS NONE  
DRAINAGE DETAILS SEE SHEET 40



CONTINUED ON  
SHEET NO. 10

- NOTES:**
-  PROPOSED CEM. CONC. PEDESTRIAN CURB RAMP
  -  PROPOSED DRIVEWAY



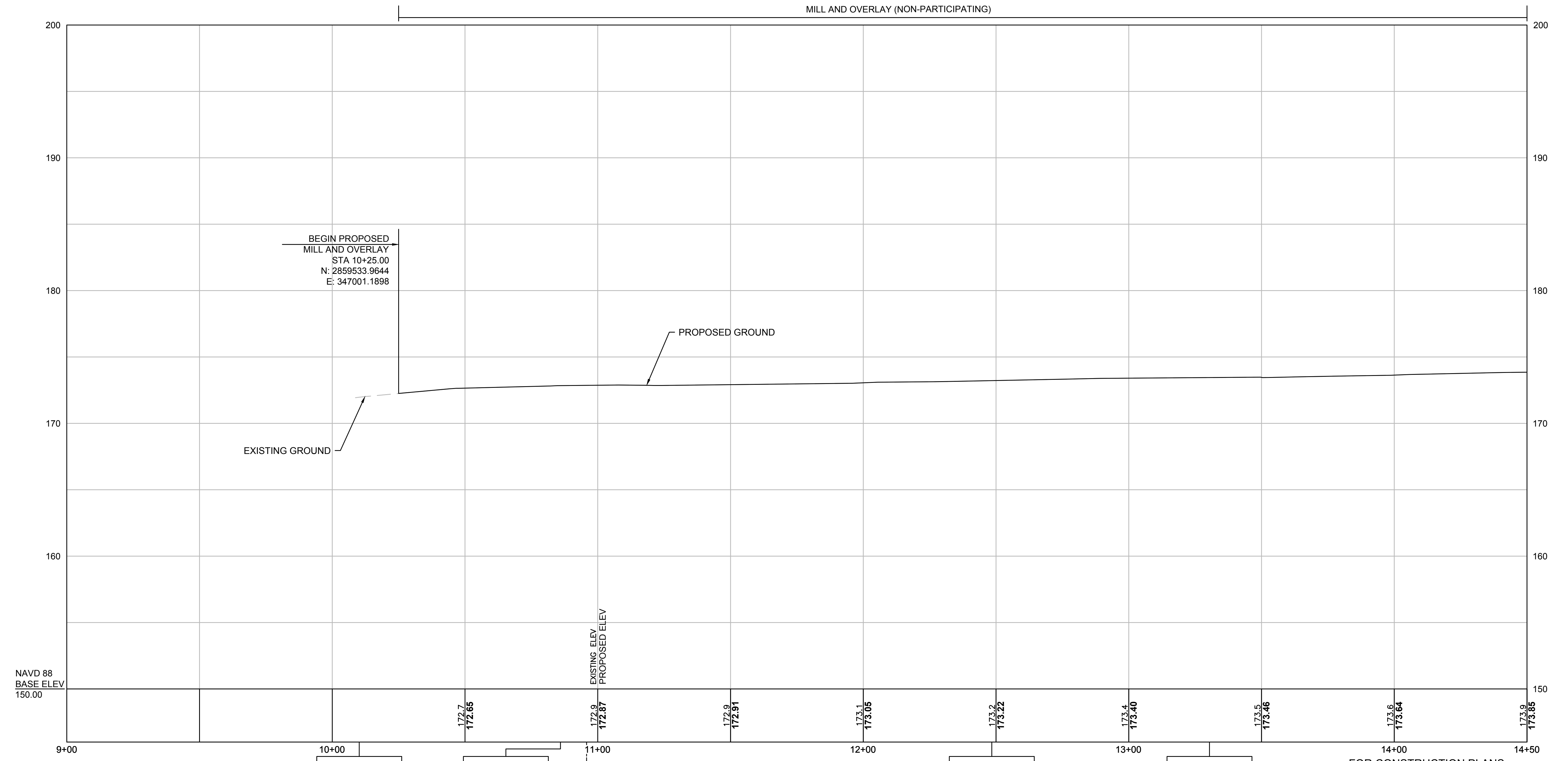
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	12	98

PROJECT FILE NO. 610652  
**PROFILE - MAPLE STREET**  
SHEET 1 OF 8

**MAPLE STREET**

MILL AND OVERLAY (NON-PARTICIPATING)



BEGIN PROPOSED  
MILL AND OVERLAY  
STA 10+25.00  
N: 2859533.9644  
E: 347001.1898

EXISTING GROUND

PROPOSED GROUND

NAVD 88  
BASE ELEV  
150.00

BENCHMARK #1:  
MAGNAIL IN UTILITY POLE  
Elevation = 173.47'  
Sta. 10+10.71, 18.13' LT

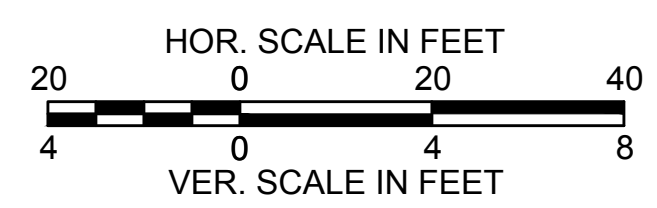
TRAV POINT #1:  
MTRAV  
Elevation = 172.301'  
Sta. 10+85.94, 16.78' RT

STA 100+00 BEGLEY STREET CONST. @ =  
STA 10+95.79 MAPLE STREET CONST. @

TRAV POINT #2:  
MTRAV DRILLHOLE  
Elevation = 173.357'  
Sta. 12+48.40, 23.76' LT

TRAV POINT #3:  
MTRAV DRILLHOLE  
Elevation = 173.513'  
Sta. 13+30.40, 24.48' LT

FOR CONSTRUCTION PLANS:  
SEE SHEET NO. 6



CONTINUED ON  
SHEET NO. 13

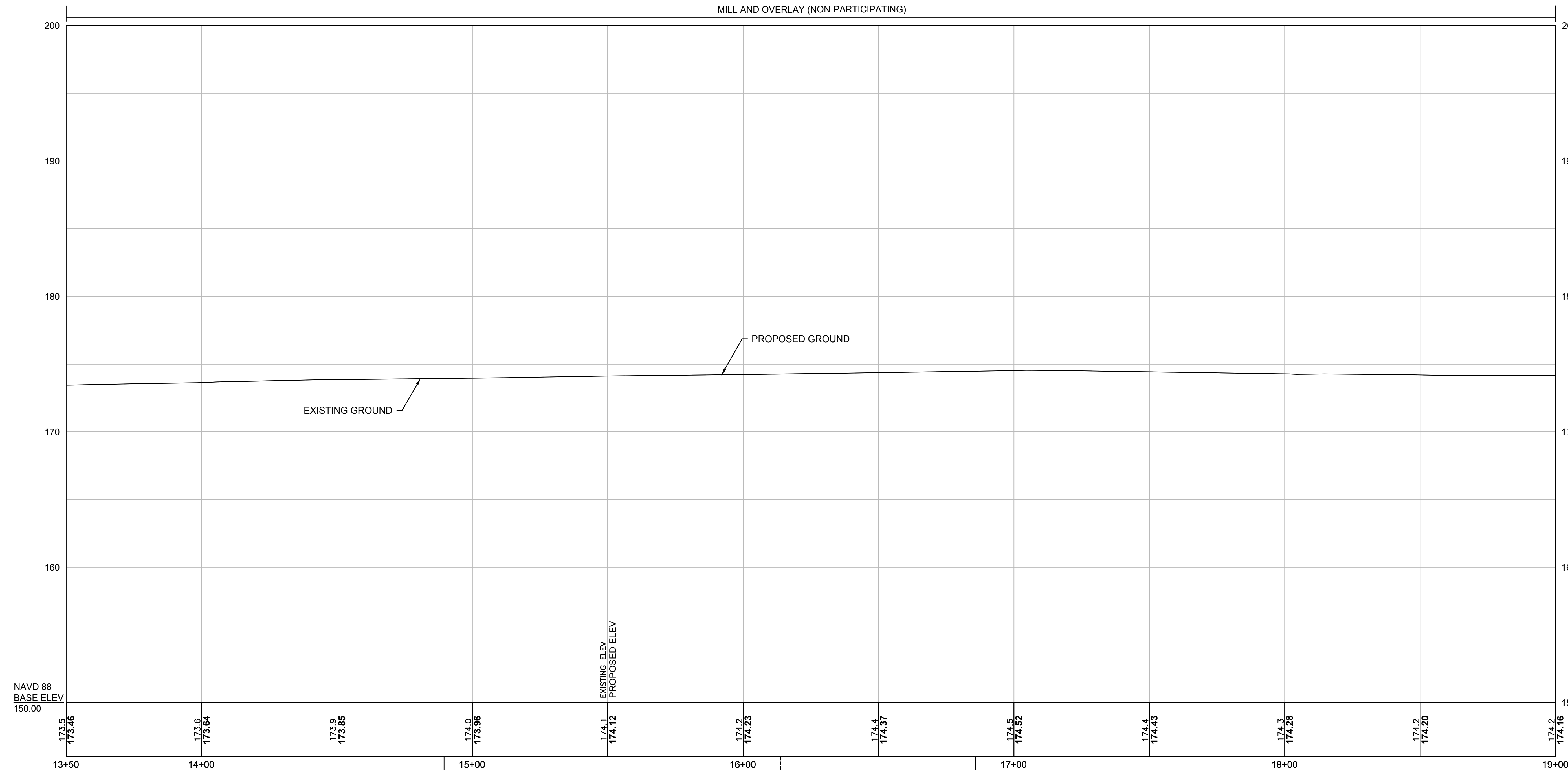
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	13	98

PROJECT FILE NO. 610652  
**PROFILE - MAPLE STREET  
SHEET 2 OF 8**

**MAPLE STREET**

MILL AND OVERLAY (NON-PARTICIPATING)



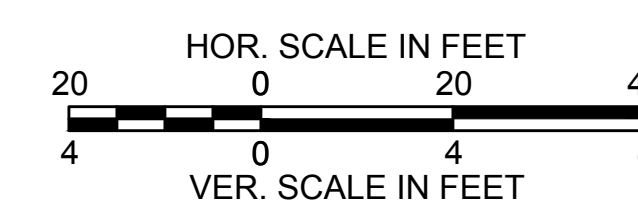
NAVD 88  
BASE ELEV  
150.00

BENCHMARK #2  
MAGNOLIA UTILITY POLE  
Elevation = 175.01'  
Sta. 14+89.56, 17.51' LT

TRAV POINT #4 DRILLHOLE  
Elevation = 174.338'  
Sta. 16+85.79, 20.77' RT

STA 120+00 OAK HILL AVENUE CONST. @ =  
STA 16+13.80 MAPLE STREET CONST. @

FOR CONSTRUCTION PLANS:  
SEE SHEET NOS. 6 - 7



CONTINUED ON  
SHEET NO. 12

CONTINUED ON  
SHEET NO. 14

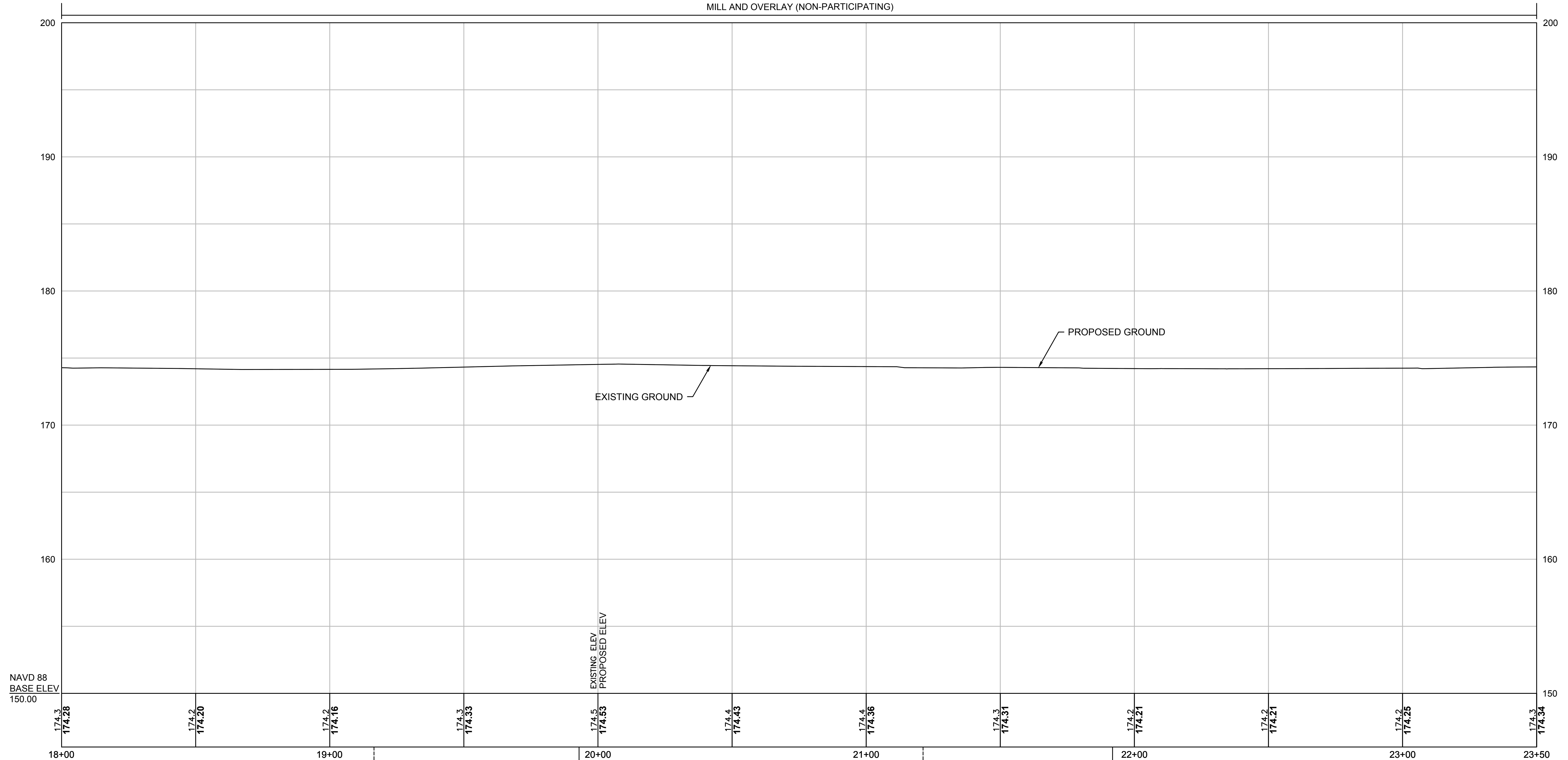
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	14	98

PROJECT FILE NO. 610652  
**PROFILE - MAPLE STREET  
SHEET 3 OF 8**

**MAPLE STREET**

MILL AND OVERLAY (NON-PARTICIPATING)



NAVD 88  
BASE ELEV  
150.00

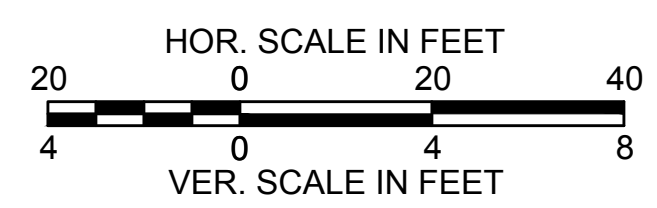
BENCHMARK #3: F  
MAGNAIL IN UTILITY POLE  
Elevation = 175.63  
Sta. 19+92.96, 17.87' LT

TRAV POINT #5  
MTRAV DRILLHOLE  
Elevation = 174.489'  
Sta. 21+91.87, 22.32' LT

STA 130+00 SPENCER STREET CONST. @  
STA 19+16.50 MAPLE STREET CONST. @

STA 140+00 ORCHARD STREET CONST. @  
STA 21+21.22 MAPLE STREET CONST. @

FOR CONSTRUCTION PLANS:  
SEE SHEET NOS. 7 - 8



CONTINUED ON  
SHEET NO. 13

CONTINUED ON  
SHEET NO. 15

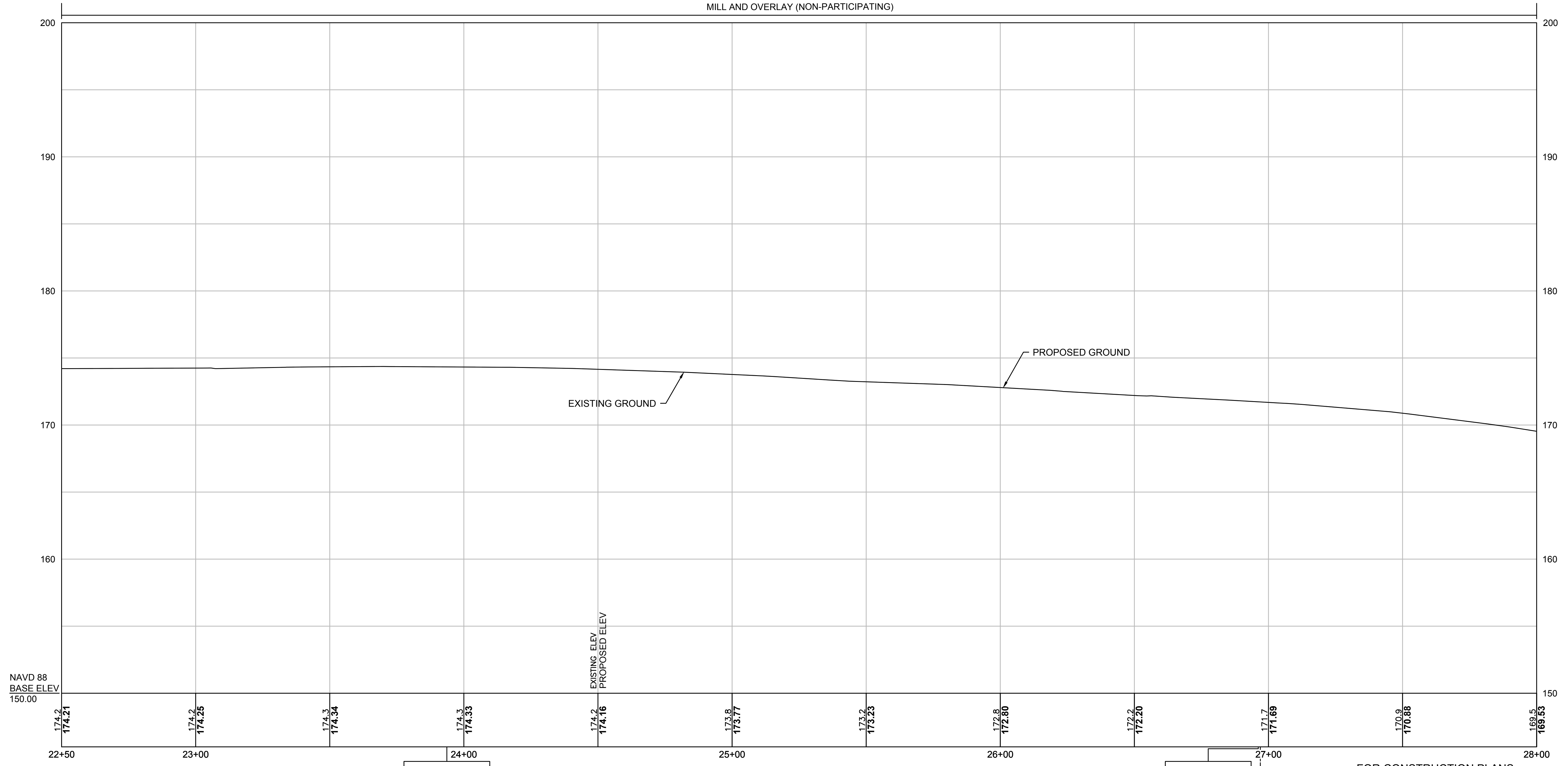
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	15	98

PROJECT FILE NO. 610652  
**PROFILE - MAPLE STREET  
SHEET 4 OF 8**

**MAPLE STREET**

MILL AND OVERLAY (NON-PARTICIPATING)



CONTINUED ON  
SHEET NO. 14

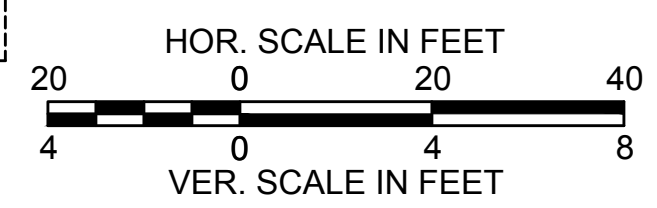
CONTINUED ON  
SHEET NO. 16

BENCHMARK #4  
MAGNAIL IN UTILITY POLE  
Elevation = 175.86'  
Sta. 23+93.64, 18.56' LT

TRAVELPOINT #6  
MTRAV DRILLHOLE  
Elevation = 172.116'  
Sta. 26+96.19, 21.29' RT

STA 150+00 MULBERRY STREET CONST. E =  
STA 26+96.97 MAPLE STREET CONST. E

FOR CONSTRUCTION PLANS:  
SEE SHEET NOS. 8 - 9



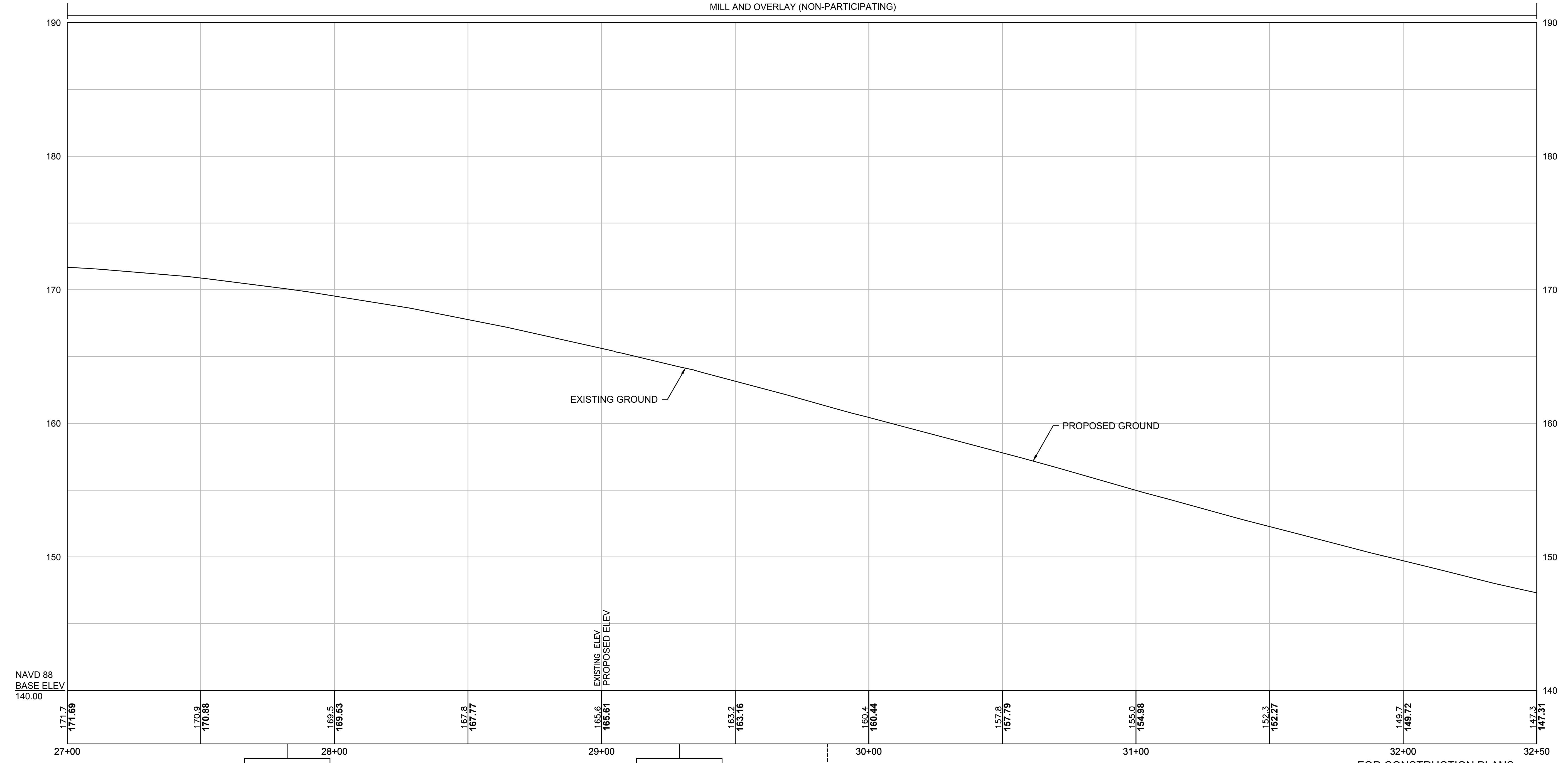
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	16	98

PROJECT FILE NO. 610652  
**PROFILE - MAPLE STREET  
SHEET 5 OF 8**

**MAPLE STREET**

MILL AND OVERLAY (NON-PARTICIPATING)



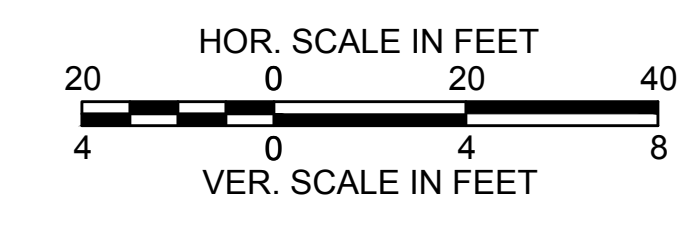
NAVD 88  
BASE ELEV  
140.00

BENCHMARK #5  
MAG NAIL IN UTILITY POLE  
Elevation = 171.05'  
Sta. 27+82.34, 18.71' LT

TRAVEL POINT #7:  
DRILLHOLE  
Elevation = 164.23'  
Sta. 29+29.07, 27.50' LT

STA 160+00 SCHERPA STREET CONST.  
STA 29+84.47 MAPLE STREET CONST.

FOR CONSTRUCTION PLANS:  
SEE SHEET NOS. 8 - 9



CONTINUED ON  
SHEET NO. 15

CONTINUED ON  
SHEET NO. 17



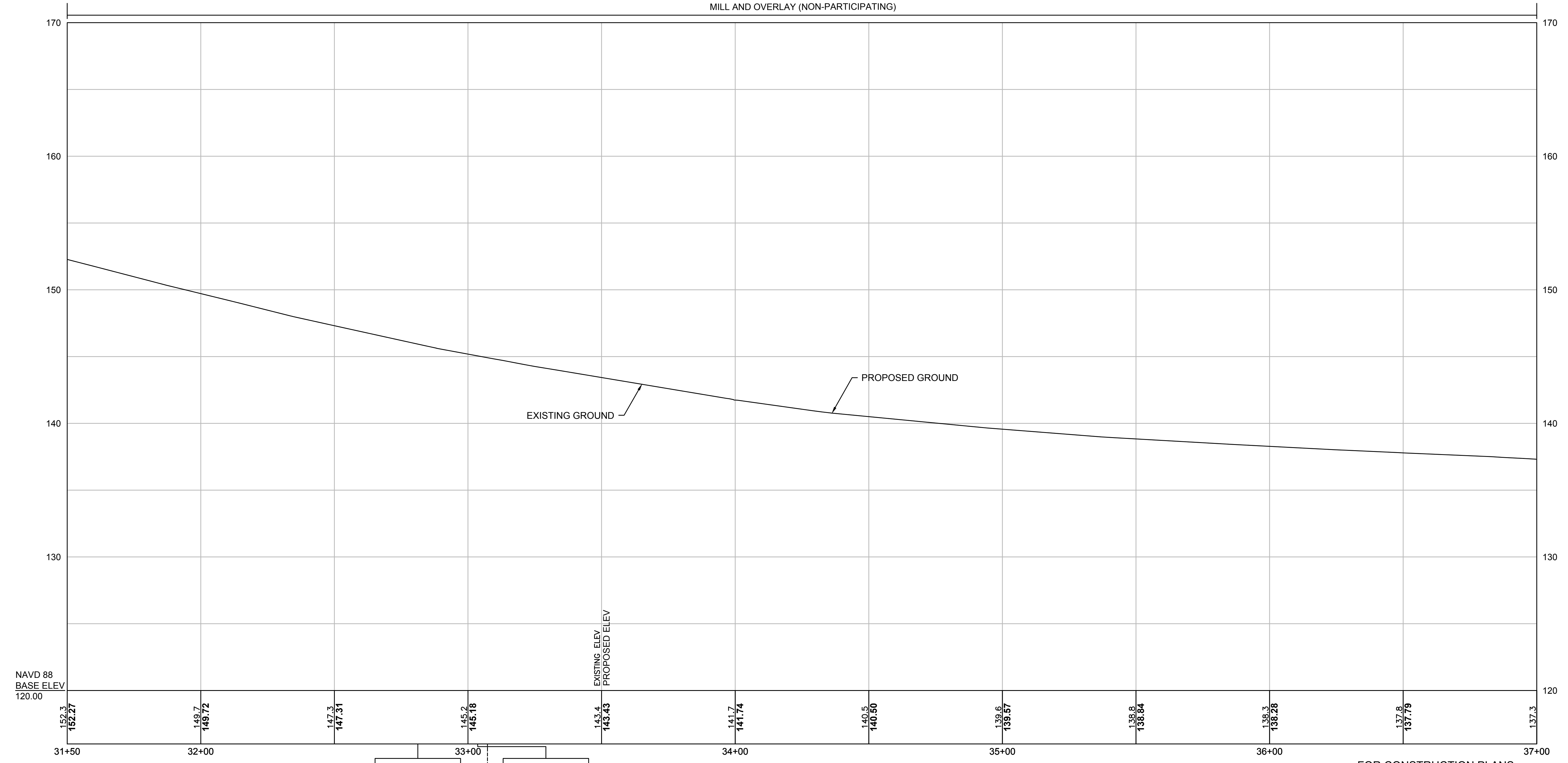
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	17	98

PROJECT FILE NO. 610652  
**PROFILE - MAPLE STREET  
SHEET 6 OF 8**

**MAPLE STREET**

MILL AND OVERLAY (NON-PARTICIPATING)

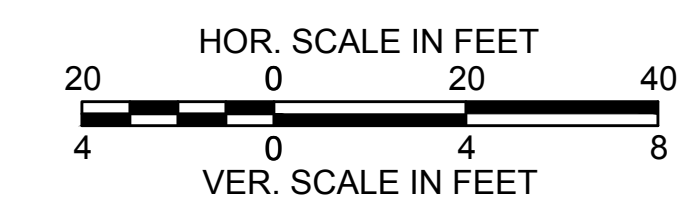


**BENCHMARK#6:**  
MAG NAIL IN UTILITY POLE  
Elevation = 146.82'  
Sta. 32+01.23, 22.92' LT

**TRAVPOINT#6:**  
DRILLHOLE  
Elevation = 145.072'  
Sta. 33+03.63, 22.95' RT

STA 170+00 MOORE STREET CONST. @ =  
STA 33+07.28 MAPLE STREET CONST. @

FOR CONSTRUCTION PLANS:  
SEE SHEET NOS. 9 - 10



CONTINUED ON  
SHEET NO. 16

CONTINUED ON  
SHEET NO. 18

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

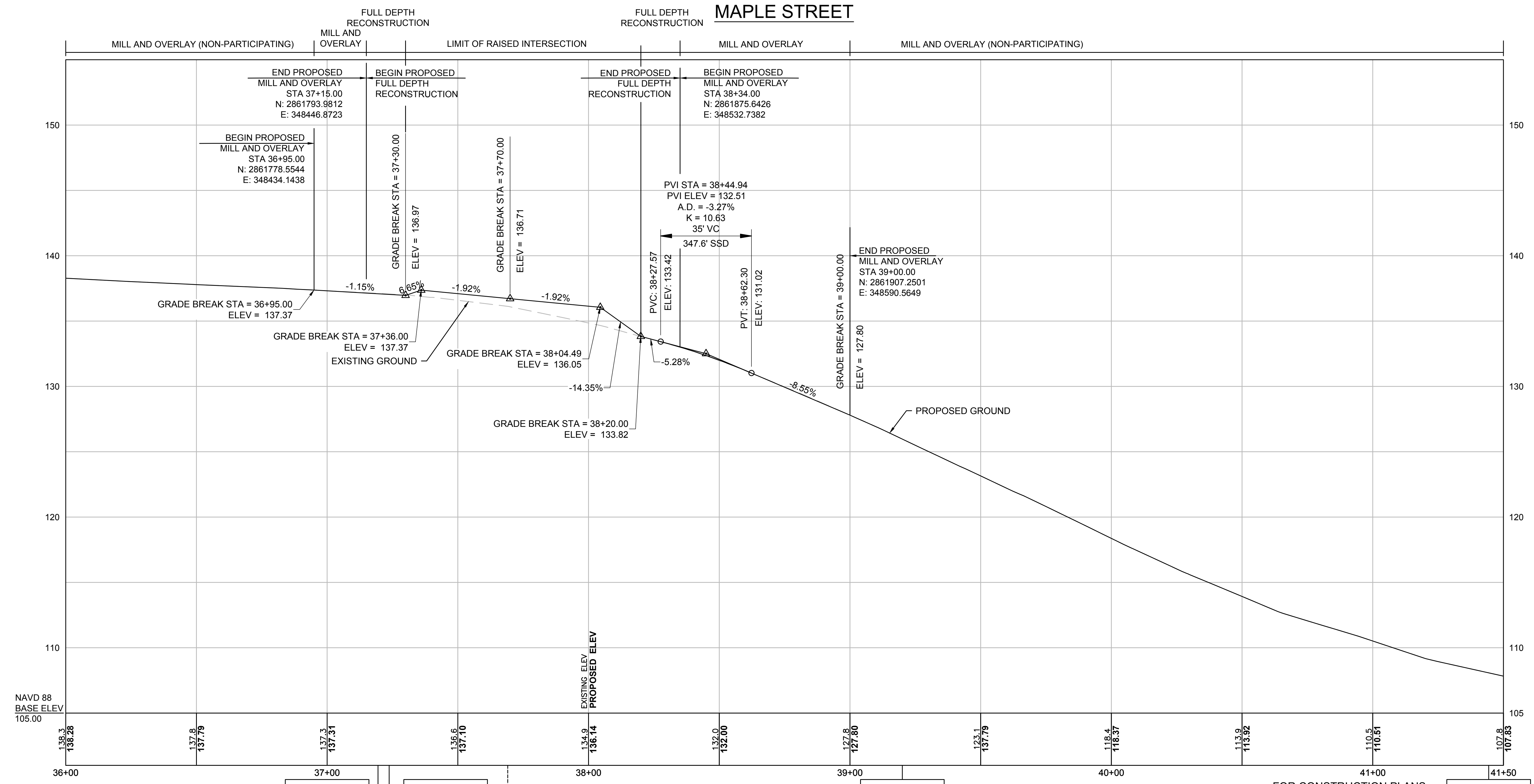
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	18	98
PROJECT FILE NO. 610652			

**PROFILE - MAPLE STREET  
SHEET 7 OF 8**

610652\_HD(PROFILE).DWG Printed on 6-Aug-2024 3:01 PM

CONTINUED ON  
SHEET NO. 17

CONTINUED ON  
SHEET NO. 19



NAVD 88  
BASE ELEV  
105.00

BENCH-MARK #7:  
MAG NAIL IN UTILITY POLE  
Elevation = 137.83'  
Sta. 37+19.47, 16.47' RT

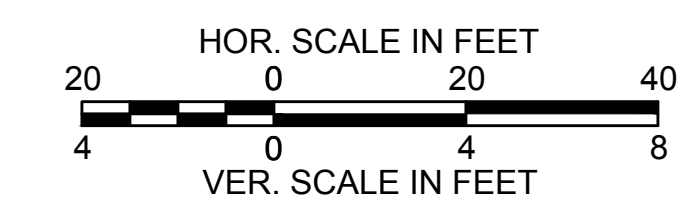
TRAV POINT #9:  
DRILL-HOLE  
Elevation = 137.346'  
Sta. 37+23.72, 22.63' LT

STA 37+69.17 MAPLE STREET CONST. @ =  
STA 180+00.00 BRIDGE STREET CONST. @

TRAV POINT #10:  
MMAG  
Elevation = 126.440'  
Sta. 39+20.04, 23.47' RT

TRAV POINT #11:  
DRILL-HOLE  
Elevation = 109.051'  
Sta. 41+44.35, 26.07' RT

FOR CONSTRUCTION PLANS:  
SEE SHEET NOS. 10 - 11

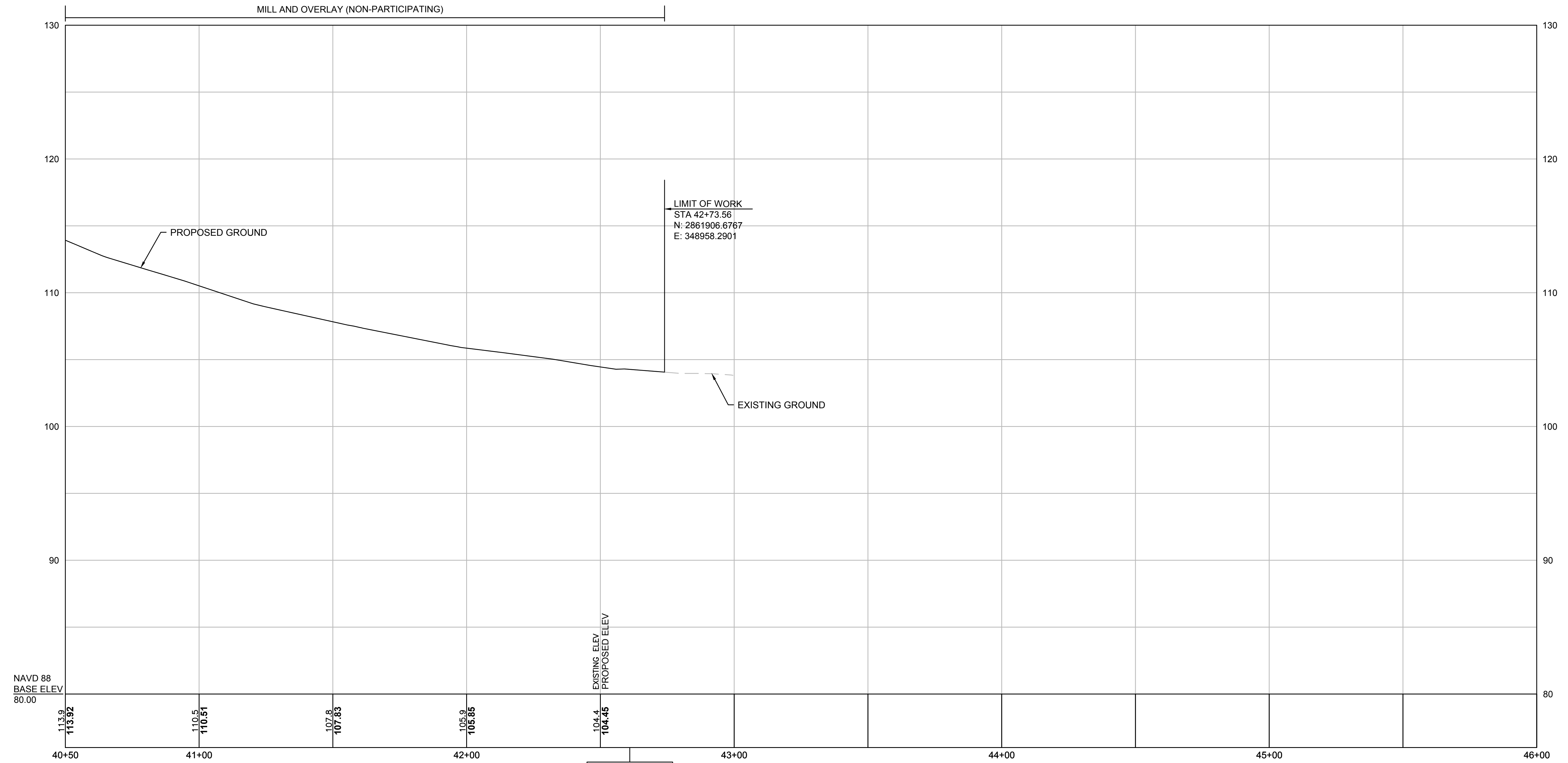


**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	19	98
PROJECT FILE NO.		610652	

**PROFILE - MAPLE STREET  
SHEET 8 OF 8**

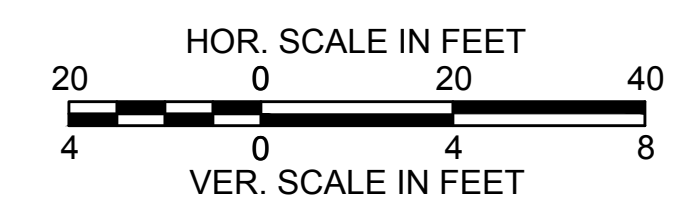
MAPLE STREET



CONTINUED ON  
SHEET NO. 18

BENCHMARK #8: A  
Elevation = 105.58'  
Sta. 42+61.00, 17.51' RT

FOR CONSTRUCTION PLANS:  
SEE SHEET NO. 11

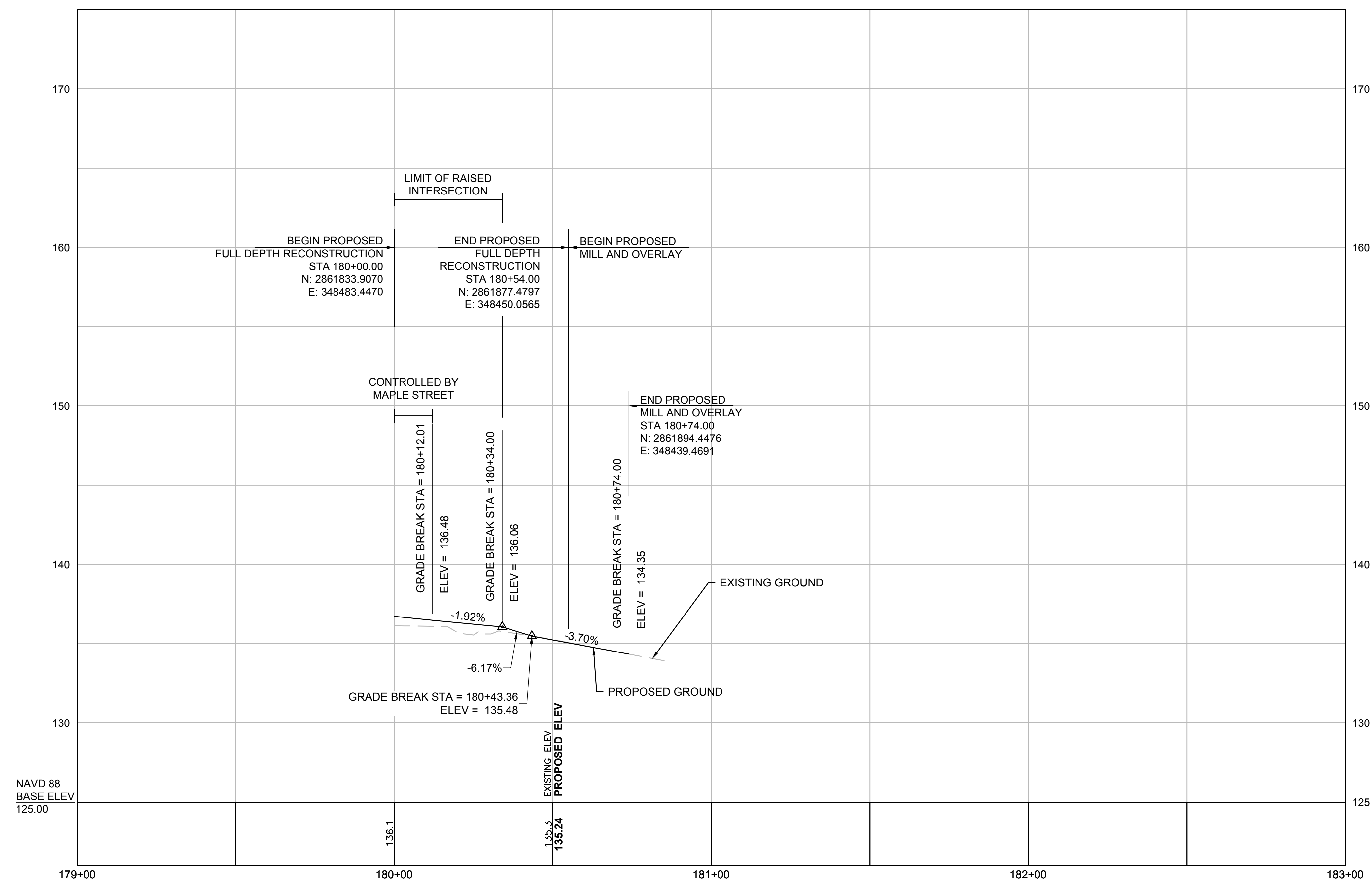


AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	20	98

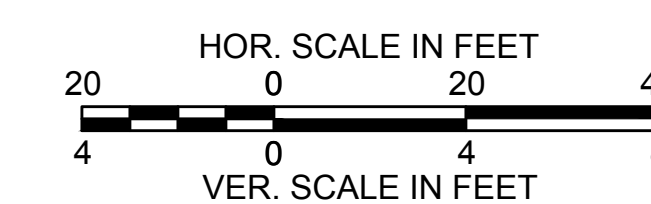
PROJECT FILE NO. 610652  
PROFILE - BRIDGE STREET

BRIDGE STREET



STA 180+00 BRIDGE STREET CONST. @  
STA 37+69.17 MAPLE STREET CONST. @

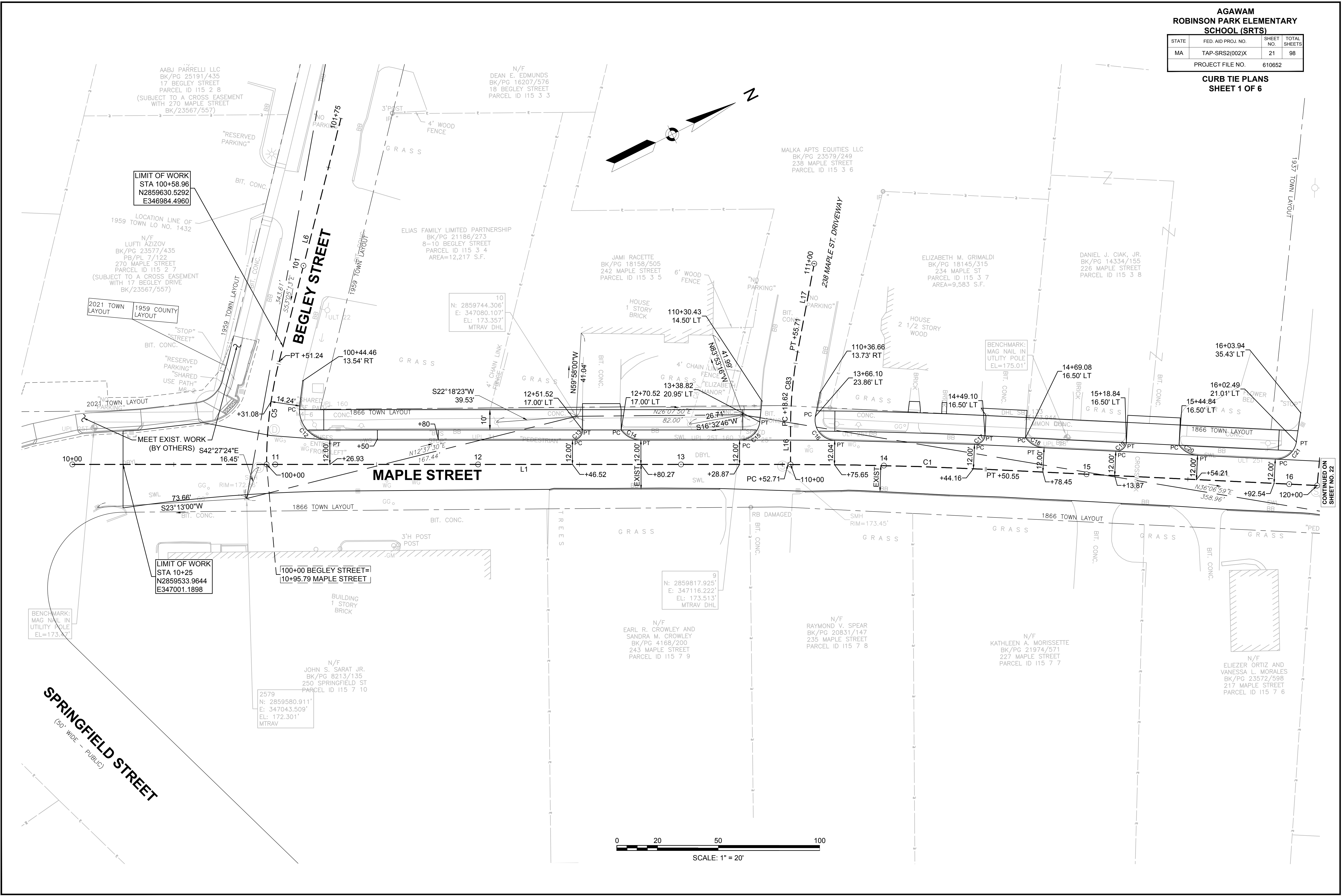
FOR CONSTRUCTION PLANS:  
SEE SHEET NO. 10



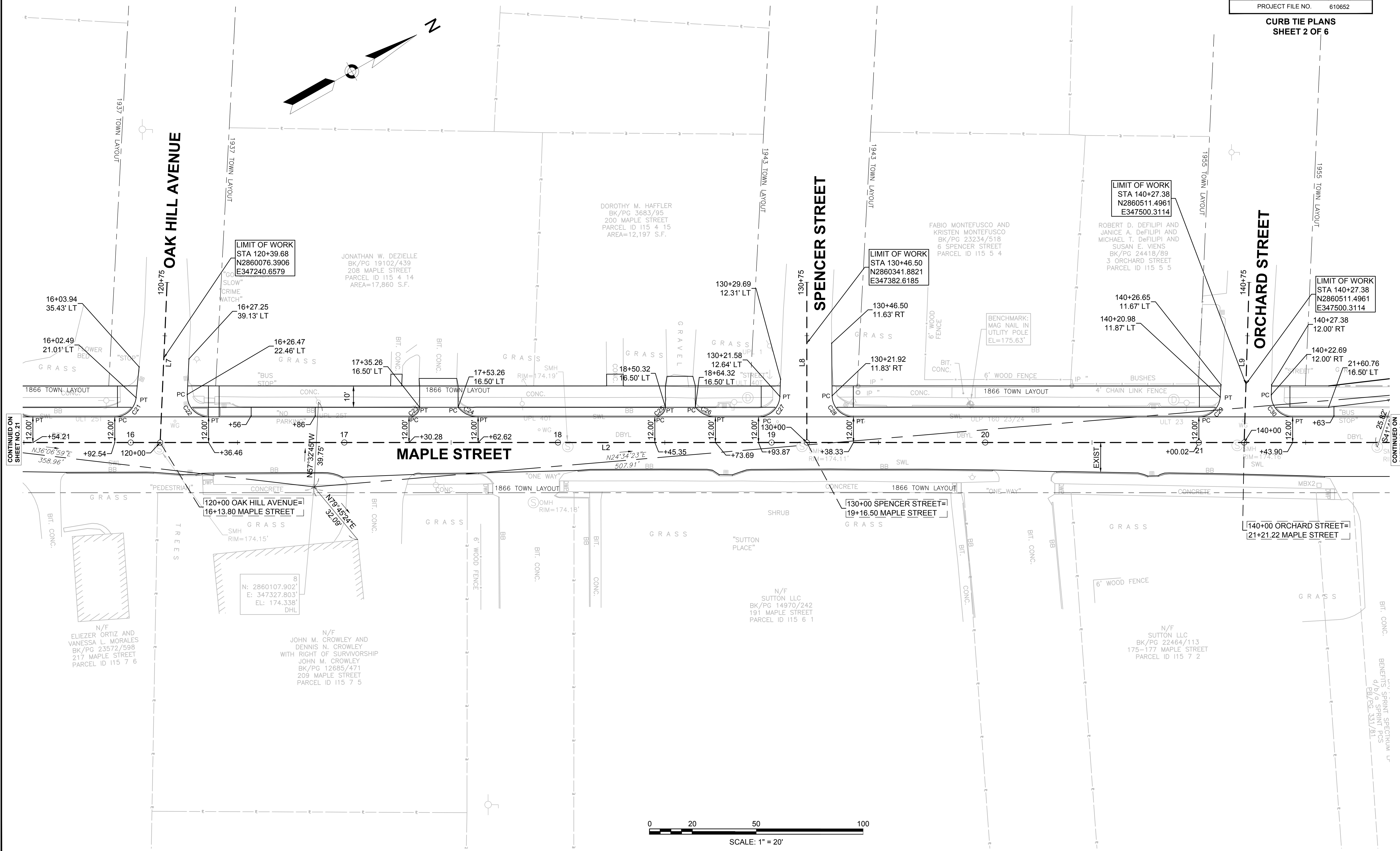
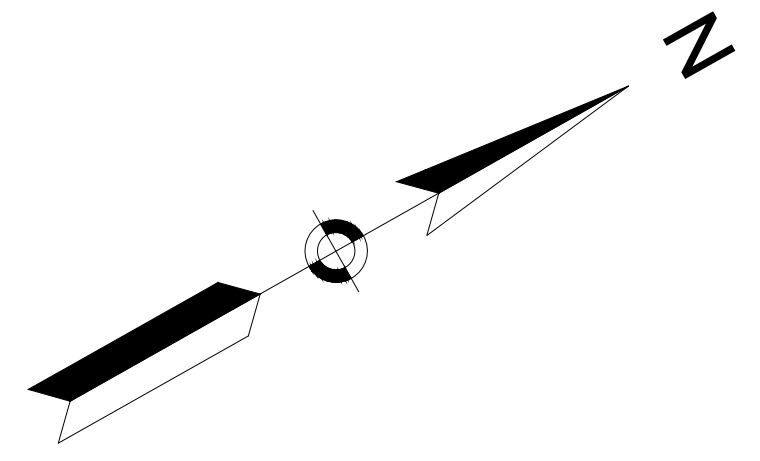
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	21	98

PROJECT FILE NO. 610652  
**CURB TIE PLANS  
SHEET 1 OF 6**

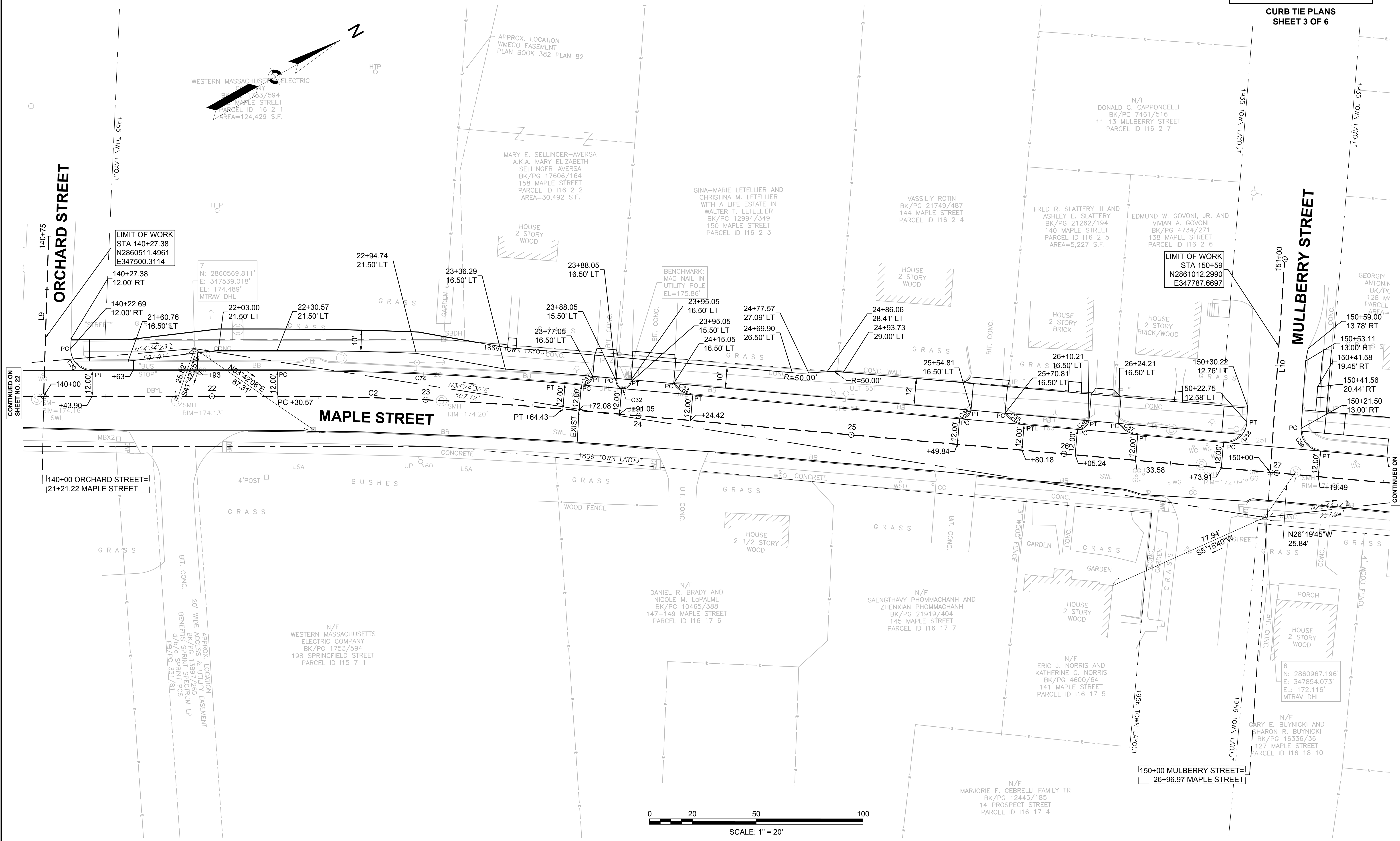


CONTINUED ON  
SHEET NO. 22



CONTINUED ON  
SHEET NO. 21

CONTINUED ON  
SHEET NO. 23

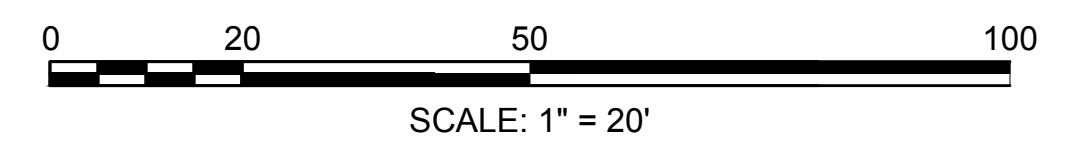


LIMIT OF WORK  
STA 140+27.38  
N2860511.4961  
E347500.3114

LIMIT OF WORK  
STA 150+59  
N2861012.2990  
E347787.6697

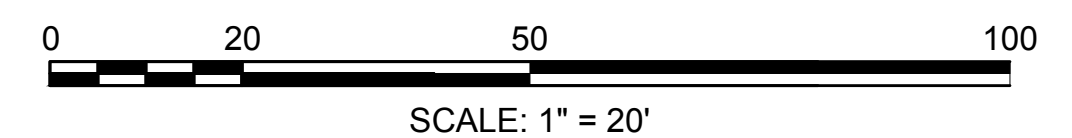
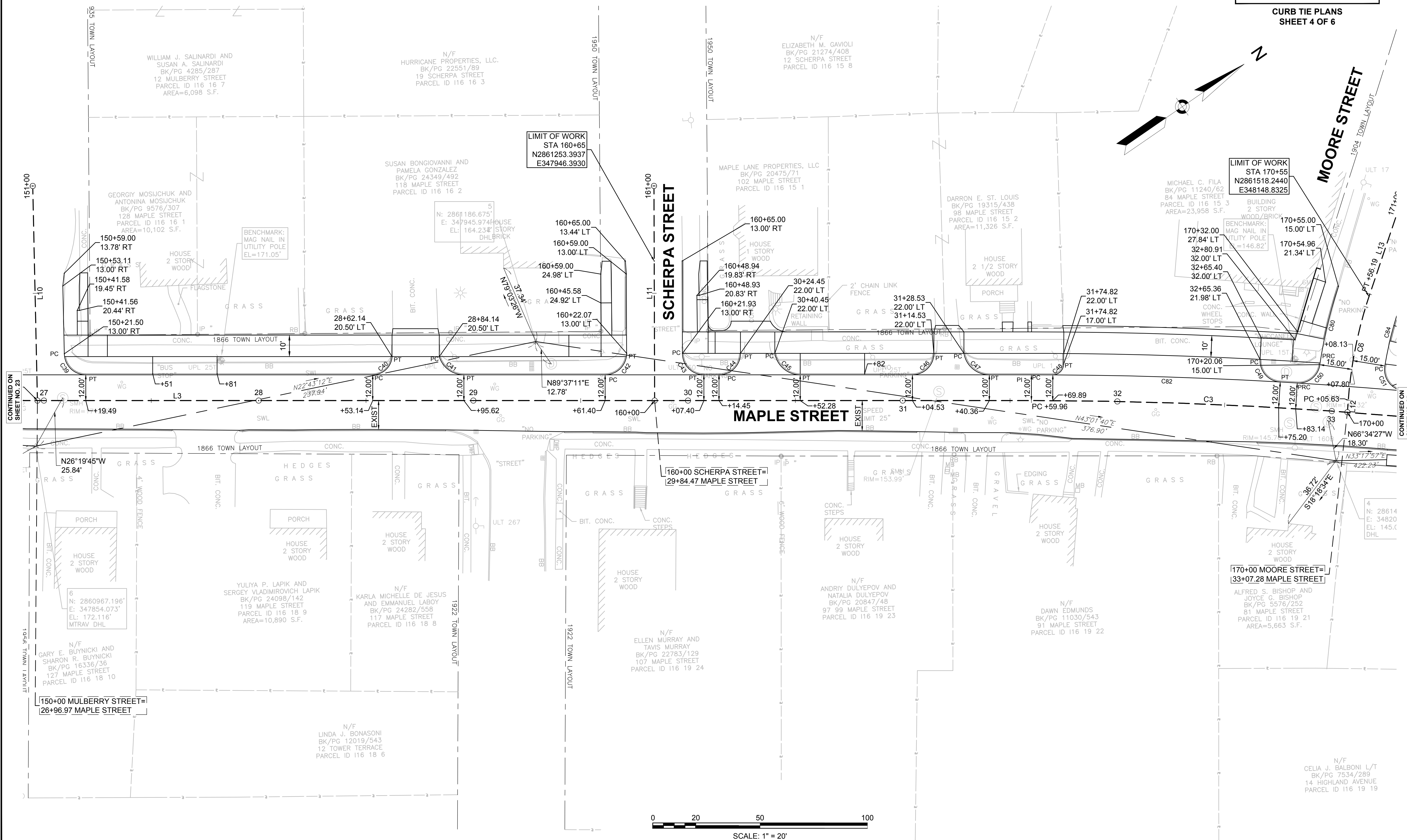
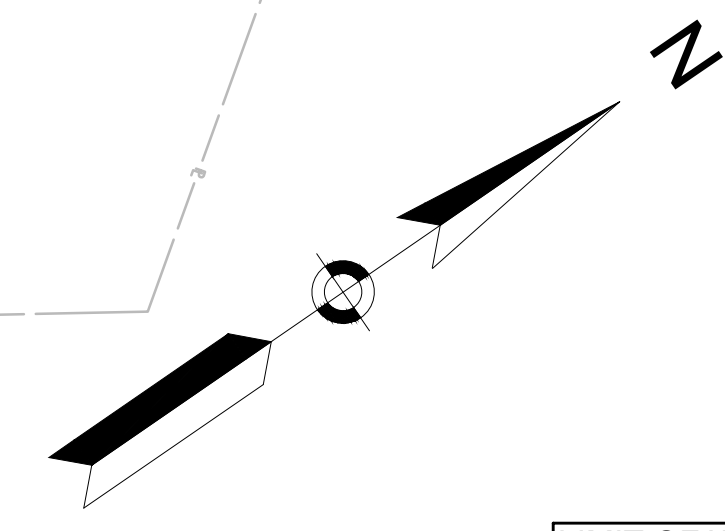
140+00 ORCHARD STREET =  
21+21.22 MAPLE STREET

150+00 MULBERRY STREET =  
26+96.97 MAPLE STREET



CONTINUED ON  
SHEET NO. 22

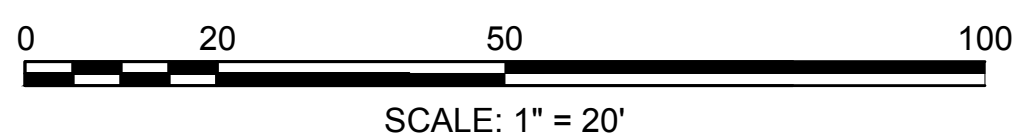
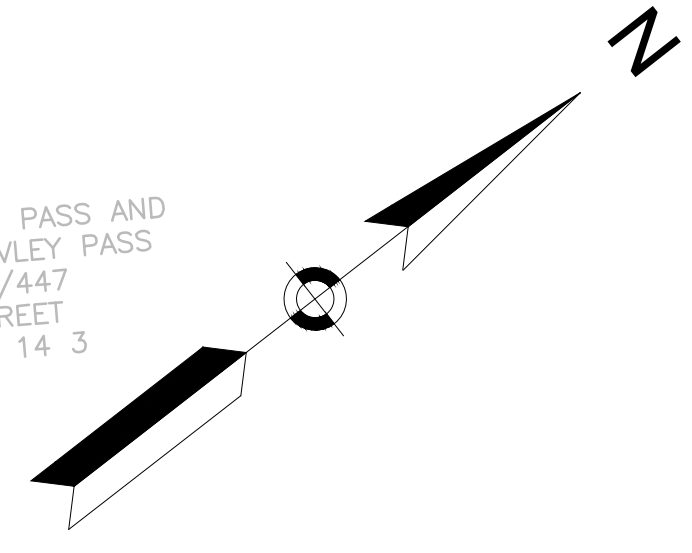
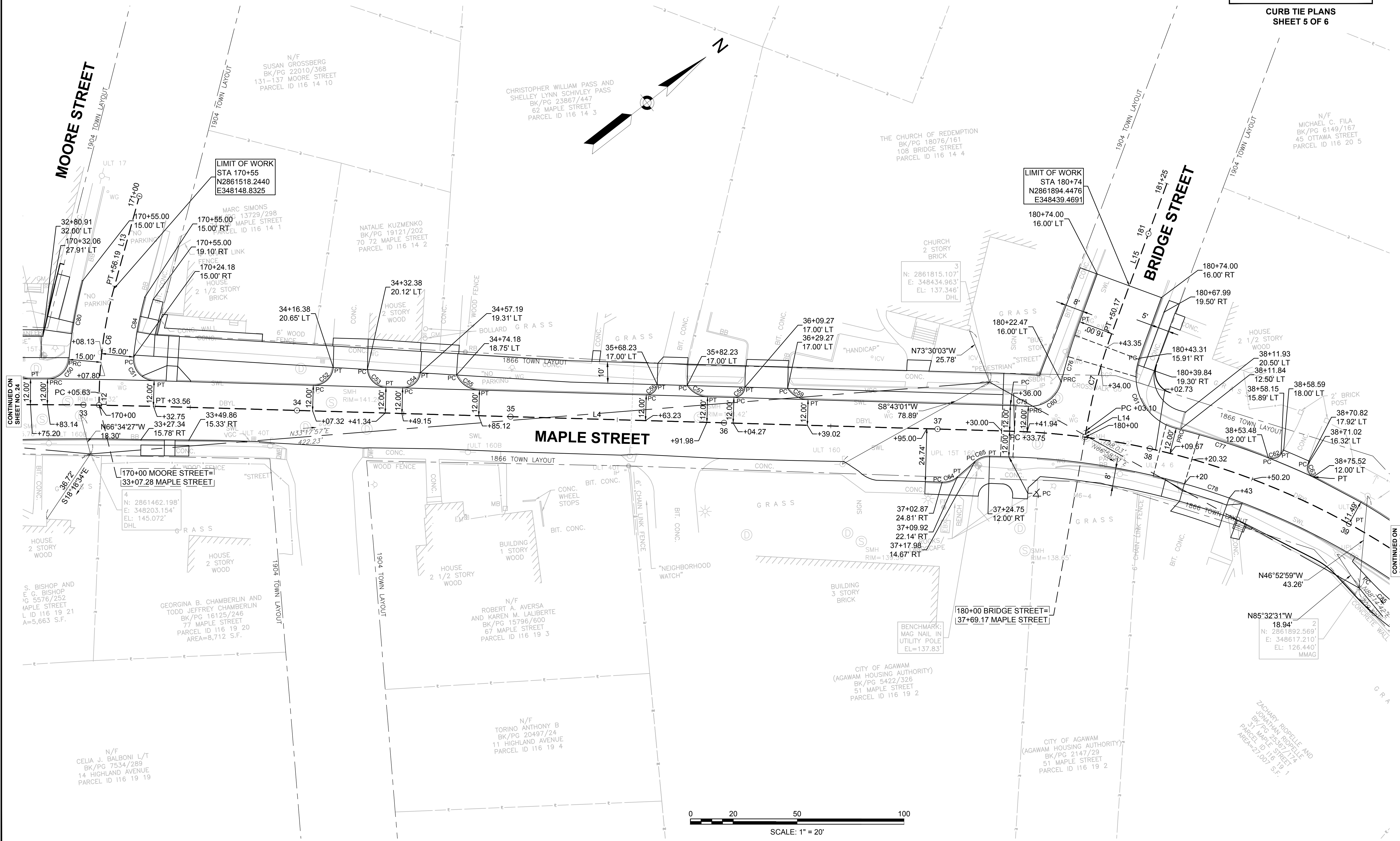
CONTINUED ON  
SHEET NO. 24



CONTINUED ON SHEET NO. 23

CONTINUED ON SHEET NO. 25





CONTINUED ON  
SHEET NO. 24

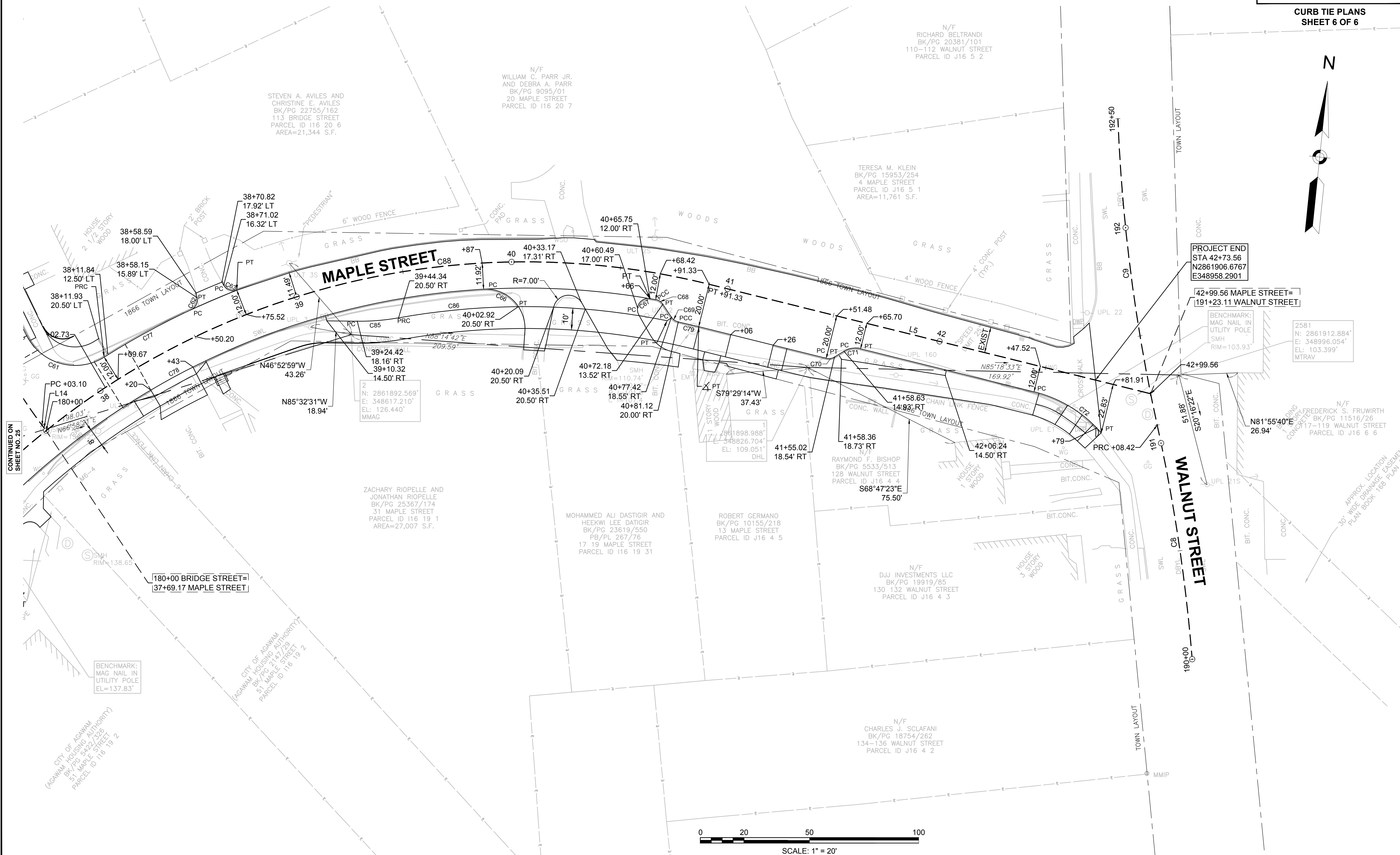
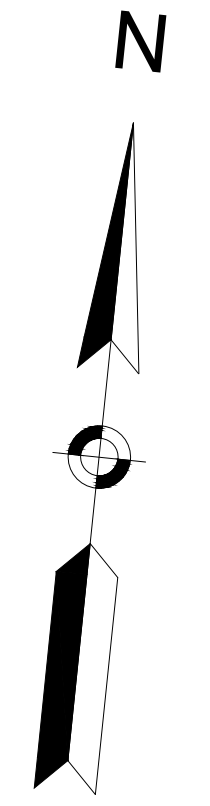
CONTINUED ON  
SHEET NO. 26

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	26	98

PROJECT FILE NO. 610652

**CURB TIE PLANS  
SHEET 6 OF 6**



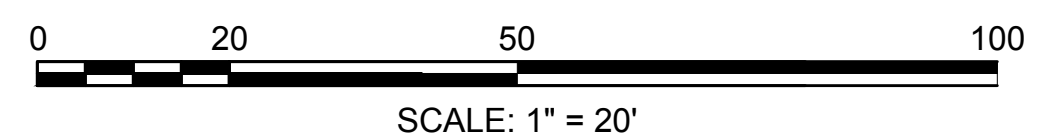
PROJECT END  
STA 42+73.56  
N2861906.6767  
E348958.2901

42+99.56 MAPLE STREET=  
191+23.11 WALNUT STREET

2581  
N: 2861912.884'  
E: 348996.054'  
EL: 103.399'  
MTRAV

N81°55'40\"/>

APPROX. LOCATION  
30' WIDE DRAINAGE EASEMENT  
PLAN BOOK 188 PLAN 57



CONTINUED ON  
SHEET NO. 25

MAPLE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	10+00.00	2859511.6177	346989.9816		N26°38'11"E 352.71'	13+52.71	2859826.8904	347148.1090
C1	13+52.71	2859826.8904	347148.1090	R=2000.00' Δ=2°48'11" L=97.84' T=48.93'		14+50.55	2859913.2433	347194.0970
L2	14+50.55	2859913.2433	347194.0970		N29°26'22"E 780.02'	22+30.57	2860592.5474	347577.4818
C2	22+30.57	2860592.5474	347577.4818	R=1500.00' Δ=5°06'47" L=133.86' T=66.97'		23+64.43	2860706.0336	347648.3847
L3	23+64.43	2860706.0336	347648.3847		N34°33'09"E 795.52'	31+59.96	2861361.2317	348099.5743
C3	31+59.96	2861361.2317	348099.5743	R=2000.00' Δ=4°58'24" L=173.61' T=86.86'		33+33.56	2861499.7648	348204.1152
L4	33+33.56	2861499.7648	348204.1152		N39°31'33"E 400.19'	37+33.75	2861808.4432	348458.8050
C88	37+33.75	2861808.4432	348458.8050	R=350.00' Δ=58°32'11" L=357.58' T=196.15'		40+91.33	2861932.2343	348777.8595
L5	40+91.33	2861932.2343	348777.8595		S81°56'16"E 208.23'	42+99.56	2861903.0305	348984.0309

BEGLEY STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C5	100+00.00	2859597.2372	347032.9247	R=200.00' Δ=14°40'41" L=51.24' T=25.76'		100+51.24	2859625.4717	346990.3380
L6	100+51.24	2859625.4717	346990.3380		N49°07'01"W 123.76'	101+75.00	2859706.4762	346896.7677

OAK HILL AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L7	120+00.00	2860055.4112	347274.3336		N58°04'40"W 75.00'	120+75.00	2860095.0668	347210.6794

SPENCER STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L8	130+00.00	2860319.0278	347423.1131		N60°33'38"W 75.00'	130+75.00	2860355.8885	347357.8010

ORCHARD STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L9	140+00.00	2860497.3113	347523.7326		N58°47'57"W 75.00'	140+75.00	2860536.1626	347459.5832

MULBERRY STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	150+00.00	2860979.9126	347836.9862		N56°42'25"W 100.00'	151+00.00	2861034.8061	347753.3971

SCHERPA STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L11	160+00.00	2861216.6984	348000.0442		N55°37'46"W 100.00'	161+00.00	2861273.1554	347917.5000

MOORE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L12	170+00.00	2861479.3860	348187.5246		N51°13'32"W 5.63'	170+05.63	2861482.9104	348183.1371
C6	170+05.63	2861482.9104	348183.1371	R=200.00' Δ=14°29'05" L=50.56' T=25.42'		170+56.19	2861519.1945	348148.1185
L13	170+56.19	2861519.1945	348148.1185		N36°44'27"W 43.81'	171+00.00	2861554.3025	348121.9107

BRIDGE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L14	180+00.00	2861834.5783	348482.6907		N42°44'02"W 3.10'	180+03.10	2861836.8531	348480.5891
C7	180+03.10	2861836.8531	348480.5891	R=250.00' Δ=10°47'19" L=47.07' T=23.61'		180+50.17	2861874.2240	348452.0794
L15	180+50.17	2861874.2240	348452.0794		N31°56'43"W 74.83'	181+25.00	2861937.7204	348412.4866

WALNUT STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C8	190+00.00	2861784.0905	349015.3763	R=800.00' Δ=7°45'55" L=108.42' T=54.30'		191+08.42	2861889.0456	348988.4995
C9	191+08.42	2861889.0456	348988.4995	R=800.00' Δ=10°08'23" L=141.58' T=70.97'		192+50.00	2862026.7138	348956.2695

238 MAPLE STREET DRIVEWAY CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L16	110+00.00	2859828.0582	347148.6952		N63°19'38"W 18.62'	110+18.62	2859836.4174	347132.0550
C83	110+18.62	2859836.4174	347132.0550	R=200.00' Δ=10°37'26" L=37.08' T=18.60'		110+55.71	2859856.0324	347100.6458
L17	110+55.71	2859856.0324	347100.6458		N52°42'12"W 44.29'	111+00.00	2859882.8691	347065.4133

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	28	98
PROJECT FILE NO.		610652	

**CURB TIE PLANS  
SHEET 2 OF 2**

CURVE TABLE				
CURVE #	DELTA	RADIUS	LENGTH	TANGENT
C12	97°10'20"	15.00'	25.44'	17.01'
C13	90°00'00"	5.00'	7.85'	5.00'
C14	54°18'54"	12.00'	11.38'	6.16'
C15	83°59'28"	10.00'	14.66'	9.00'
C16	99°23'32"	10.00'	17.35'	11.79'
C17	84°11'24"	5.00'	7.35'	4.52'
C18	51°19'05"	12.00'	10.75'	5.76'
C19	84°15'39"	5.00'	7.35'	4.52'
C20	51°19'06"	12.00'	10.75'	5.76'
C21	84°17'25"	10.00'	14.71'	9.05'
C22	92°39'45"	10.00'	16.17'	10.48'
C23	84°15'41"	5.00'	7.35'	4.52'
C24	51°19'04"	12.00'	10.75'	5.76'
C25	84°15'39"	5.00'	7.35'	4.52'
C26	51°19'06"	12.00'	10.75'	5.76'
C27	87°34'20"	10.00'	15.28'	9.59'
C28	89°31'23"	10.00'	15.62'	9.92'
C29	86°09'37"	10.00'	15.04'	9.35'
C30	91°45'41"	10.00'	16.02'	10.31'
C31	84°15'52"	5.00'	7.35'	4.52'
C32	179°59'58"	3.50'	11.00'	716901.18'
C33	51°19'06"	12.00'	10.75'	5.76'
C34	84°15'39"	5.00'	7.35'	4.52'
C35	51°19'04"	12.00'	10.75'	5.76'
C36	84°15'39"	5.00'	7.35'	4.52'
C37	51°19'06"	12.00'	10.75'	5.76'
C38	92°40'10"	10.00'	16.17'	10.48'
C39	88°44'26"	10.00'	15.49'	9.78'
C40	86°48'55"	9.00'	13.64'	8.51'
C41	73°02'34"	12.00'	15.30'	8.89'
C42	90°10'55"	10.00'	15.74'	10.03'
C43	89°49'05"	10.00'	15.68'	9.97'
C44	89°56'46"	10.00'	15.70'	9.99'
C45	80°24'24"	12.00'	16.84'	10.14'
C46	90°00'01"	10.00'	15.71'	10.00'
C47	80°24'21"	12.00'	16.84'	10.14'
C48	89°52'21"	5.00'	7.84'	4.99'
C49	89°43'03"	10.00'	15.66'	9.95'
C50	85°10'19"	10.00'	14.87'	9.19'
C51	94°33'49"	10.00'	16.50'	10.83'

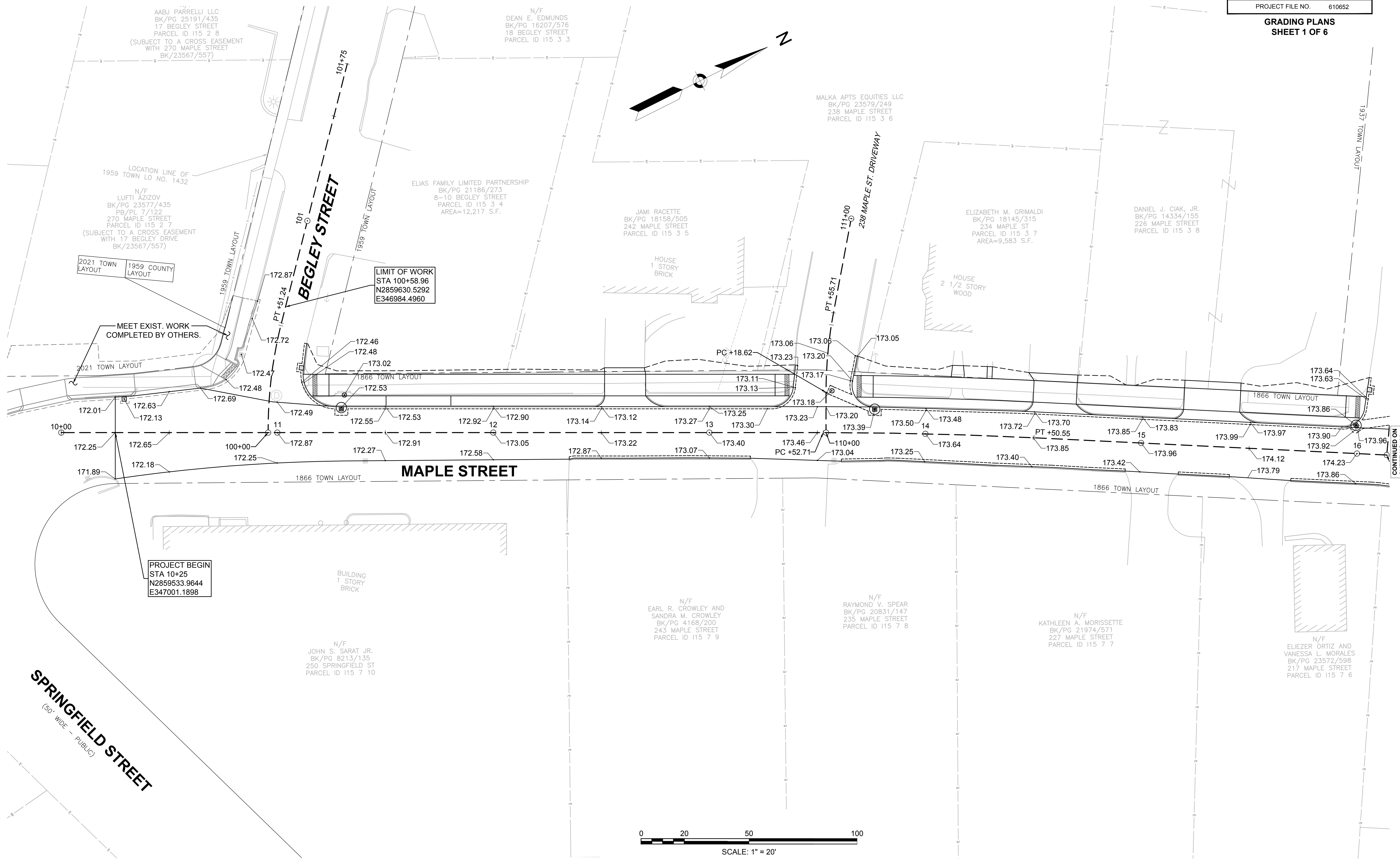
CURVE TABLE				
CURVE #	DELTA	RADIUS	LENGTH	TANGENT
C52	88°09'19"	9.00'	13.85'	8.71'
C53	84°24'09"	9.00'	13.26'	8.16'
C54	85°36'20"	8.00'	11.95'	7.41'
C55	64°45'03"	12.00'	13.56'	7.61'
C56	90°00'03"	5.00'	7.85'	5.00'
C57	54°18'53"	12.00'	11.38'	6.16'
C58	90°00'00"	5.00'	7.85'	5.00'
C59	54°18'53"	12.00'	11.38'	6.16'
C60	79°09'39"	15.00'	20.72'	12.40'
C61	96°06'00"	25.00'	41.93'	27.81'
C62	76°54'08"	5.00'	6.71'	3.97'
C63	79°08'48"	5.00'	6.91'	4.13'
C64	44°16'38"	10.00'	7.73'	4.07'
C65	42°37'24"	10.00'	7.44'	3.90'
C66	58°53'50"	18.00'	18.50'	10.16'
C67	90°23'14"	5.00'	7.89'	5.03'
C68	46°10'34"	5.00'	4.03'	2.13'
C69	44°30'45"	5.00'	3.88'	2.05'
C70	45°00'00"	5.00'	3.93'	2.07'
C71	45°00'00"	10.00'	7.85'	4.14'
C72	34°57'56"	60.00'	36.62'	18.90'
C74	5°06'47"	1512.00'	134.93'	67.51'
C75	1°20'28"	362.00'	8.47'	4.24'
C76	6°20'53"	266.00'	29.47'	14.75'
C77	10°46'47"	362.00'	68.11'	34.15'
C78	54°47'13"	338.00'	323.20'	175.15'
C79	1°40'14"	330.00'	9.62'	4.81'
C80	10°00'33"	215.00'	37.56'	18.83'
C82	3°31'44"	2012.00'	123.92'	61.98'

SURVEY TRAVERSE DATA				
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION
BENCHMARK #1	173.470'	2859529.3282	346978.5961	MAGNAIL
TRAV POINT #1	172.301'	2859580.9910	347043.5090	MTRAV
TRAV POINT #2	173.357'	2859744.3059	347080.1070	MTRAV DHL
TRAV POINT #3	173.513'	2859817.9253	347116.2216	MTRAV DHL
BENCHMARK #2	175.010'	2859955.8212	347198.0032	MAGNAIL
TRAV POINT #4	174.338'	2860107.9021	347327.8028	DHL
BENCHMARK #3	175.630'	2860394.4099	347445.1866	F
TRAV POINT #5	174.489'	2860569.8111	347539.0179	MTRAV DHL
BENCHMARK #4	175.860'	2860740.6641	347649.6595	MAGNAIL
TRAV POINT #6	172.116'	2860967.1956	347854.0735	MTRAV DHL
BENCHMARK #5	171.050'	2861060.8849	347870.0630	MAGNAIL
TRAV POINT #7	164.234'	2861186.6746	347945.9738	DHL
BENCHMARK #6	146.820'	2861473.0840	348153.2958	MAGNAIL
TRAV POINT #8	145.072'	2861462.1984	348203.1535	DHL
BENCHMARK #7	137.830'	2861786.9659	348462.5172	MAGNAIL
TRAV POINT #9	137.346'	2861815.1071	348434.9627	DHL
TRAV POINT #10	126.440'	2861892.5690	348617.2100	MMAG
TRAV POINT #11	109.051'	2861898.9881	348826.7035	DHL
BENCHMARK #8	105.580'	2861891.0649	348943.4004	A
TRAV POINT #12	103.399'	2861912.8840	348996.0540	MTRAV

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	29	98

PROJECT FILE NO. 610652  
**GRADING PLANS  
SHEET 1 OF 6**



2021 TOWN LAYOUT  
1959 COUNTY LAYOUT

MEET EXIST. WORK  
COMPLETED BY OTHERS.

LIMIT OF WORK  
STA 100+58.96  
N2859630.5292  
E346984.4960

PROJECT BEGIN  
STA 10+25  
N2859533.9644  
E347001.1898

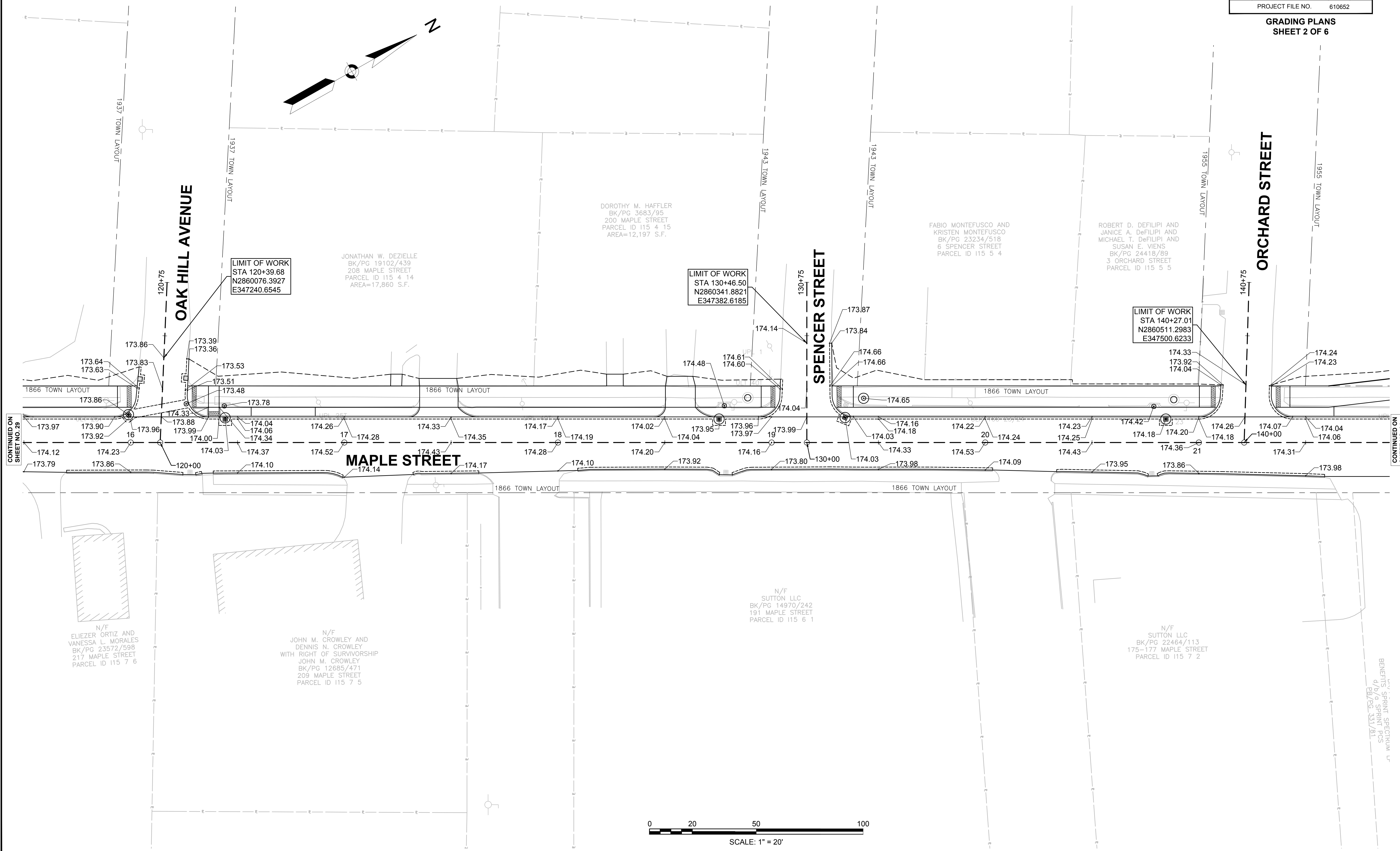
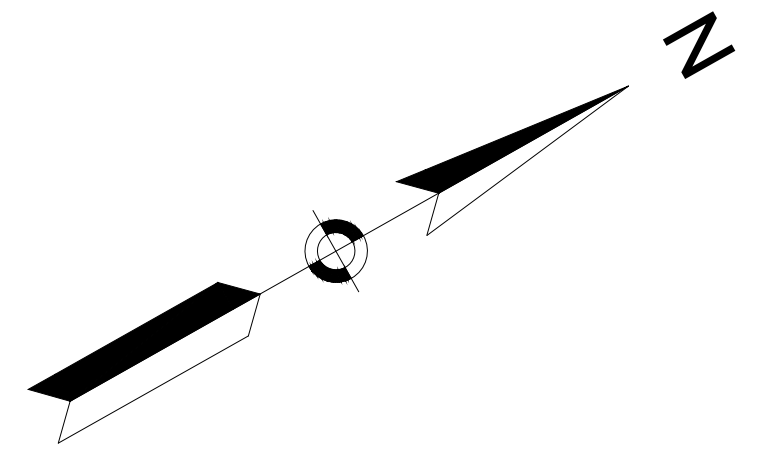
CONTINUED ON  
SHEET NO. 30

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	30	98

PROJECT FILE NO. 610652

**GRADING PLANS  
SHEET 2 OF 6**



CONTINUED ON  
SHEET NO. 28

CONTINUED ON  
SHEET NO. 31

N/F  
ELIEZER ORTIZ AND  
VANESSA L. MORALES  
BK/PG 23572/598  
217 MAPLE STREET  
PARCEL ID 115 7 6

N/F  
JOHN M. CROWLEY AND  
DENNIS N. CROWLEY  
WITH RIGHT OF SURVIVORSHIP  
JOHN M. CROWLEY  
BK/PG 12685/471  
209 MAPLE STREET  
PARCEL ID 115 7 5

N/F  
SUTTON LLC  
BK/PG 14970/242  
191 MAPLE STREET  
PARCEL ID 115 6 1

N/F  
SUTTON LLC  
BK/PG 22464/113  
175-177 MAPLE STREET  
PARCEL ID 115 7 2

DOROTHY M. HAFFLER  
BK/PG 3683/95  
200 MAPLE STREET  
PARCEL ID 115 4 15  
AREA=12,197 S.F.

JONATHAN W. DEZIELLE  
BK/PG 19102/439  
208 MAPLE STREET  
PARCEL ID 115 4 14  
AREA=17,860 S.F.

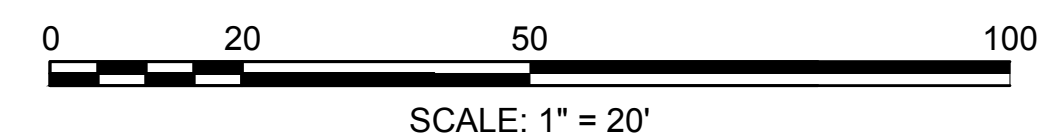
LIMIT OF WORK  
STA 130+46.50  
N2860341.8821  
E347382.6185

LIMIT OF WORK  
STA 120+39.68  
N2860076.3927  
E347240.6545

LIMIT OF WORK  
STA 140+27.01  
N2860511.2983  
E347500.6233

FABIO MONTEFUSCO AND  
KRISTEN MONTEFUSCO  
BK/PG 23234/518  
6 SPENCER STREET  
PARCEL ID 115 5 4

ROBERT D. DEFILIPPI AND  
JANICE A. DEFILIPPI AND  
MICHAEL T. DEFILIPPI AND  
SUSAN E. VIENS  
BK/PG 24418/89  
3 ORCHARD STREET  
PARCEL ID 115 5 5



SCALE: 1" = 20'

BENEFITS: SPRINT SPECTRUM  
d/b/o SPRINT PCS  
FB/PG 331/81

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

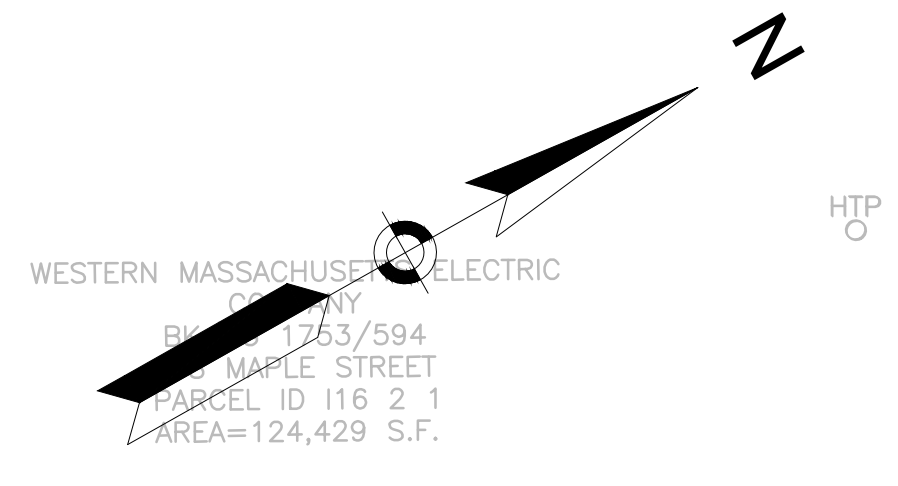
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	31	98
PROJECT FILE NO.		610652	

**GRADING PLANS  
SHEET 3 OF 6**

**ORCHARD STREET**

**MULLBERRY STREET**

**MAPLE STREET**

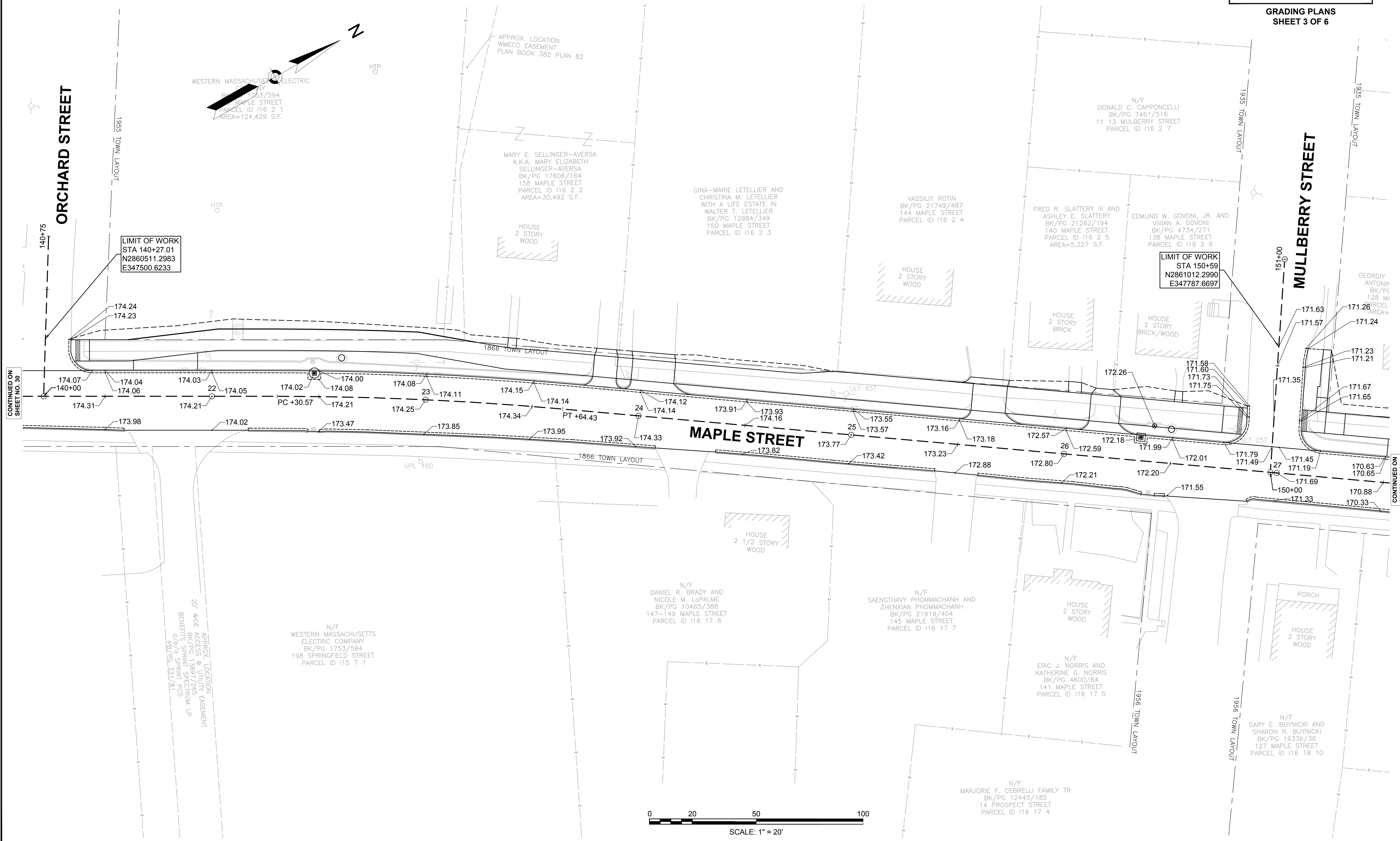
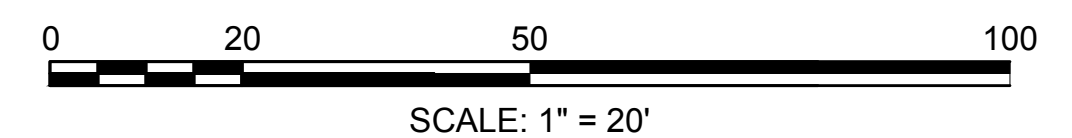


**LIMIT OF WORK  
STA 140+27.01  
N2860511.2983  
E347500.6233**

**LIMIT OF WORK  
STA 150+59  
N2861012.2990  
E347787.6697**

CONTINUED ON  
SHEET NO. 30

CONTINUED ON  
SHEET NO. 32

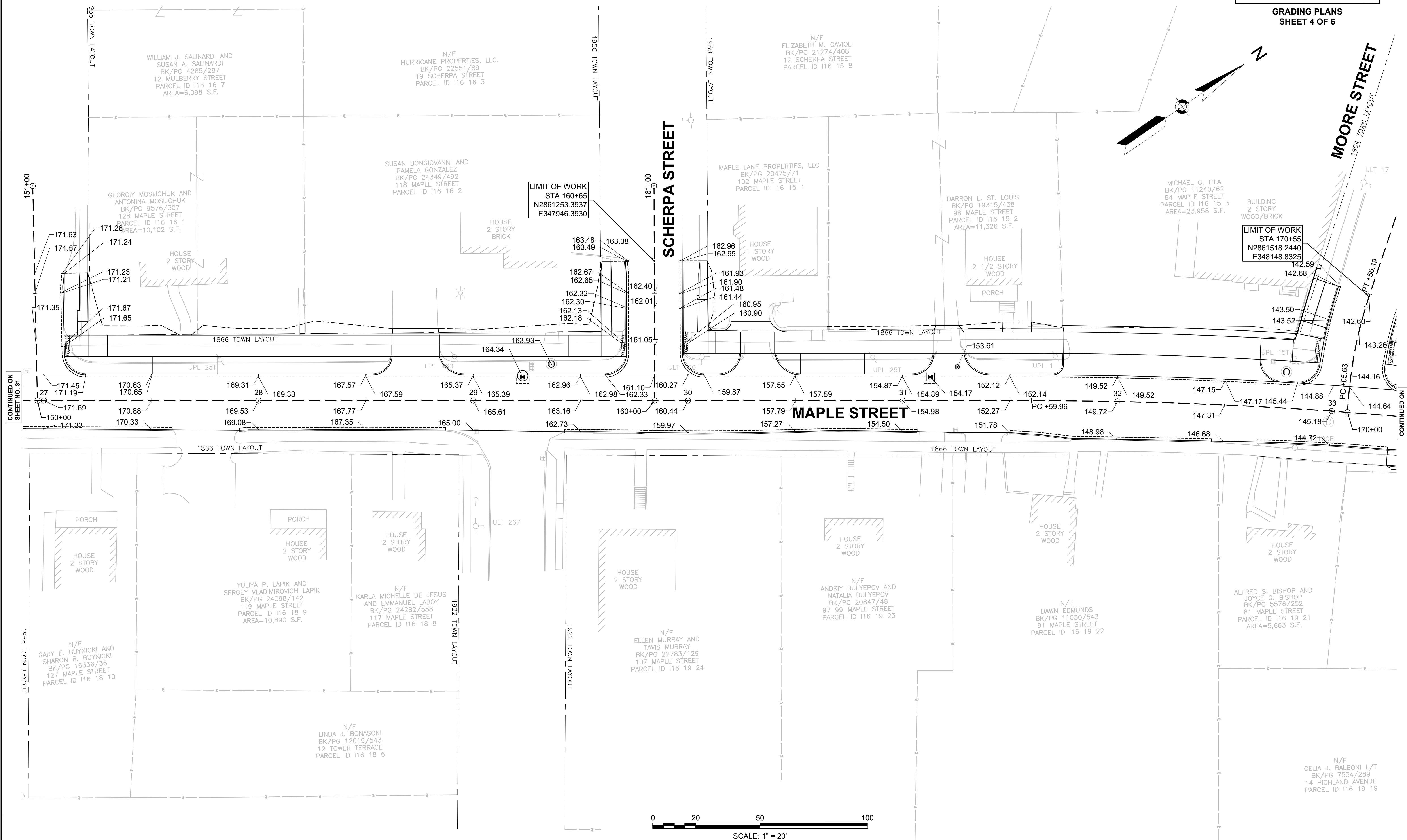
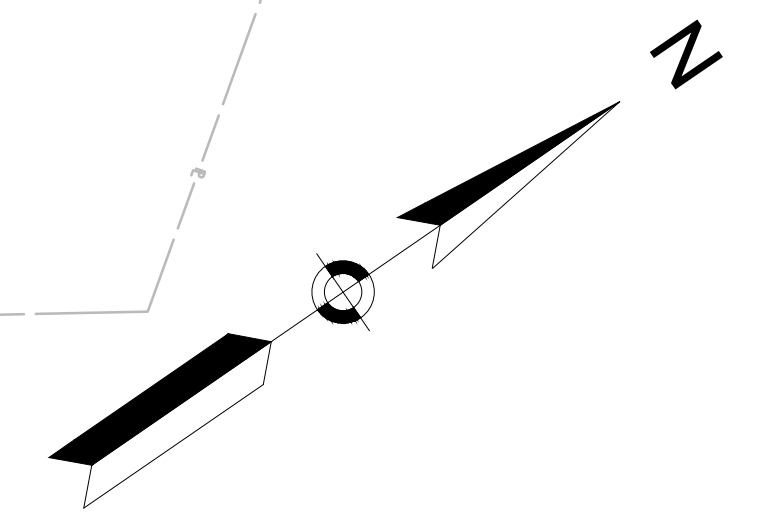


**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	32	98

PROJECT FILE NO. 610652

**GRADING PLANS  
SHEET 4 OF 6**

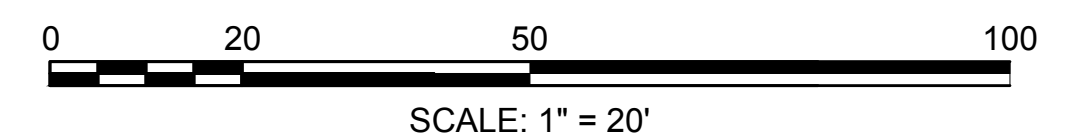


**LIMIT OF WORK**  
STA 160+65  
N2861253.3937  
E347946.3930

**LIMIT OF WORK**  
STA 170+55  
N2861518.2440  
E348148.8325

CONTINUED ON  
SHEET NO. 31

CONTINUED ON  
SHEET NO. 33

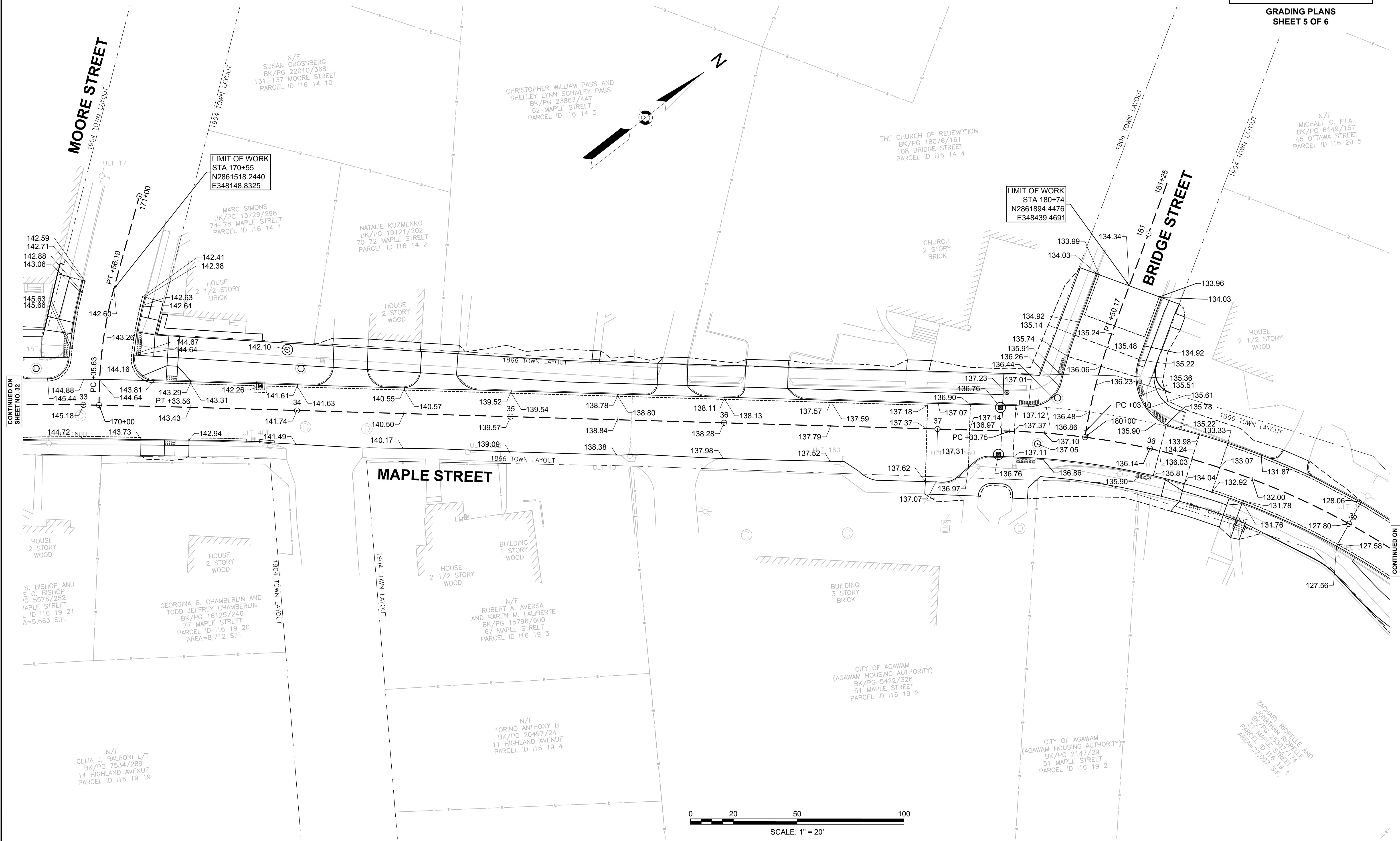




**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	33	98
PROJECT FILE NO.		610652	

**GRADING PLANS  
SHEET 5 OF 6**



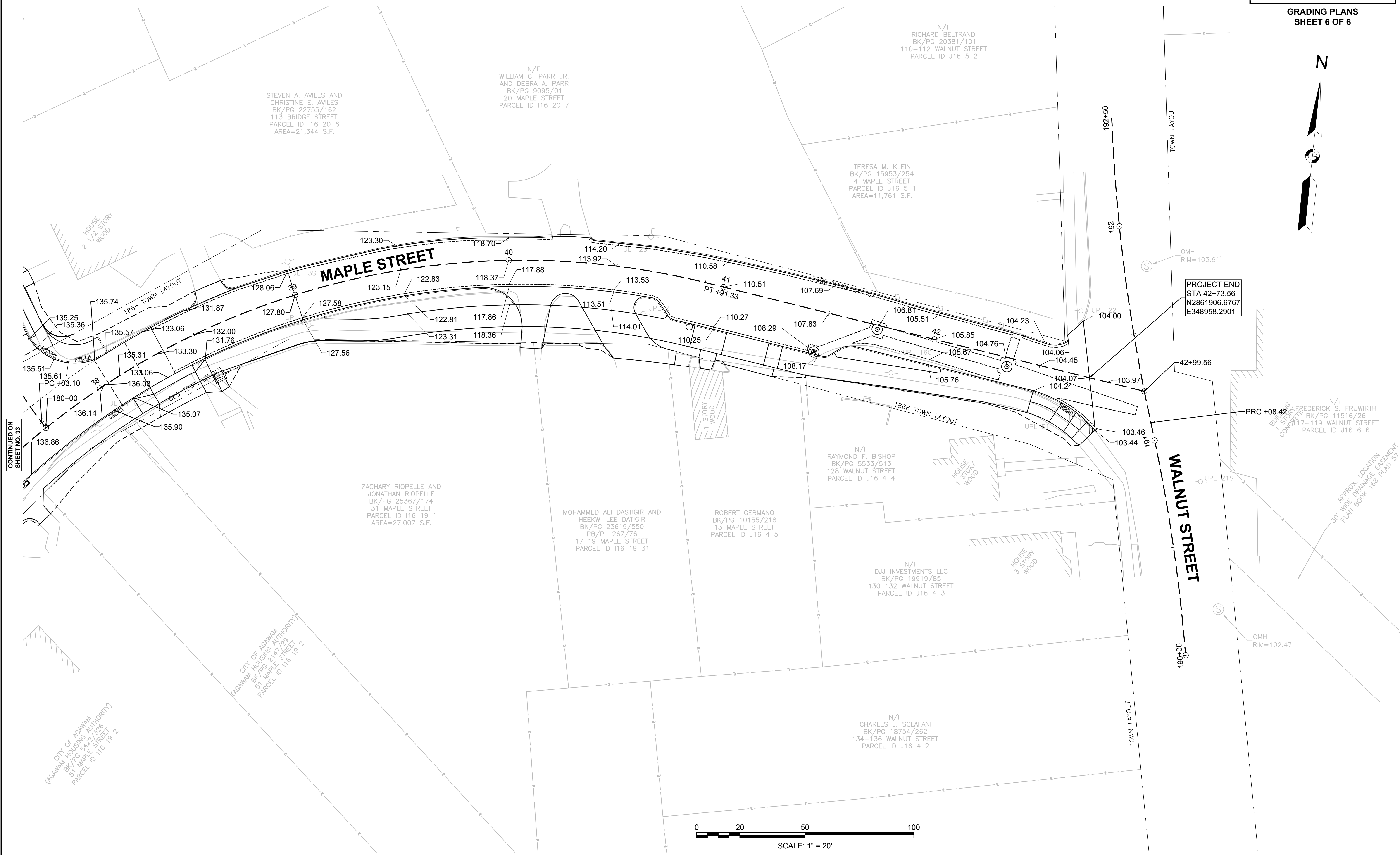
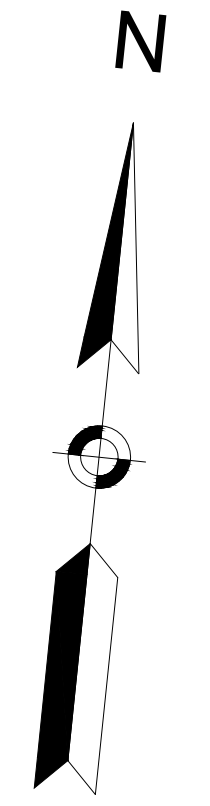
CONTINUED ON  
SHEET NO. 32

CONTINUED ON  
SHEET NO. 34

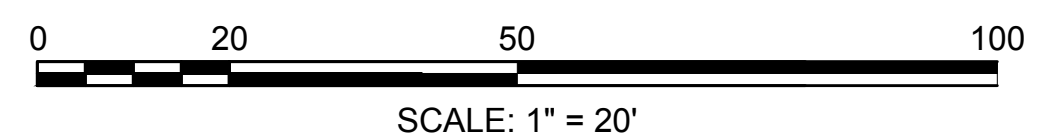
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

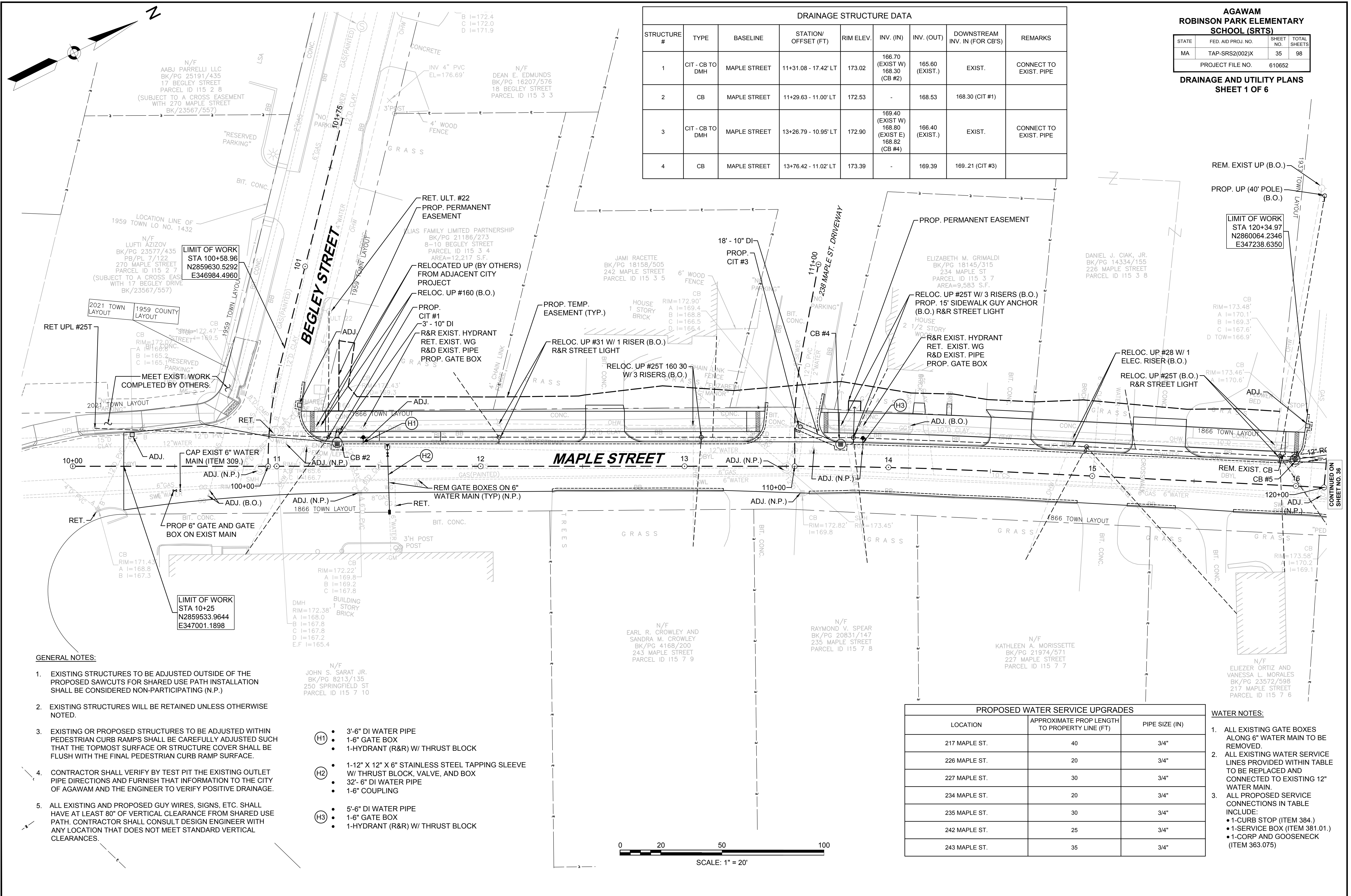
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	34	98
PROJECT FILE NO.		610652	

**GRADING PLANS  
SHEET 6 OF 6**



CONTINUED ON  
SHEET NO. 33





DRAINAGE STRUCTURE DATA								
STRUCTURE #	TYPE	BASELINE	STATION/OFFSET (FT)	RIM ELEV.	INV. (IN)	INV. (OUT)	DOWNSTREAM INV. IN (FOR CB'S)	REMARKS
1	CIT - CB TO DMH	MAPLE STREET	11+31.08 - 17.42' LT	173.02	166.70 (EXIST W) 168.30 (CB #2)	165.60 (EXIST.)	EXIST.	CONNECT TO EXIST. PIPE
2	CB	MAPLE STREET	11+29.63 - 11.00' LT	172.53	-	168.53	168.30 (CIT #1)	
3	CIT - CB TO DMH	MAPLE STREET	13+26.79 - 10.95' LT	172.90	169.40 (EXIST W) 168.80 (EXIST E) 168.82 (CB #4)	166.40 (EXIST.)	EXIST.	CONNECT TO EXIST. PIPE
4	CB	MAPLE STREET	13+76.42 - 11.02' LT	173.39	-	169.39	169.21 (CIT #3)	

**AGAWAM ROBINSON PARK ELEMENTARY SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	35	98
PROJECT FILE NO.		610652	

**DRAINAGE AND UTILITY PLANS SHEET 1 OF 6**

LIMIT OF WORK  
STA 100+58.96  
N2859630.5292  
E346984.4960

LIMIT OF WORK  
STA 10+25  
N2859533.9644  
E347001.1898

LIMIT OF WORK  
STA 120+34.97  
N2860064.2346  
E347238.6350

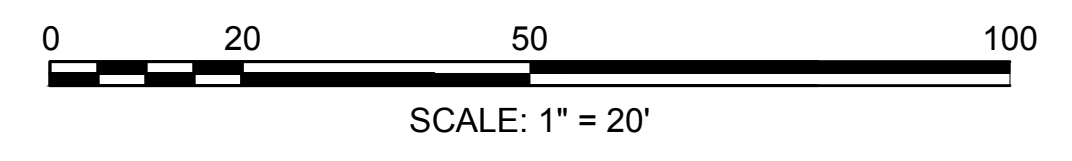
**GENERAL NOTES:**

- EXISTING STRUCTURES TO BE ADJUSTED OUTSIDE OF THE PROPOSED SAWCUTS FOR SHARED USE PATH INSTALLATION SHALL BE CONSIDERED NON-PARTICIPATING (N.P.)
- EXISTING STRUCTURES WILL BE RETAINED UNLESS OTHERWISE NOTED.
- EXISTING OR PROPOSED STRUCTURES TO BE ADJUSTED WITHIN PEDESTRIAN CURB RAMP SURFACES SHALL BE CAREFULLY ADJUSTED SUCH THAT THE TOPMOST SURFACE OR STRUCTURE COVER SHALL BE FLUSH WITH THE FINAL PEDESTRIAN CURB RAMP SURFACE.
- CONTRACTOR SHALL VERIFY BY TEST PIT THE EXISTING OUTLET PIPE DIRECTIONS AND FURNISH THAT INFORMATION TO THE CITY OF AGAWAM AND THE ENGINEER TO VERIFY POSITIVE DRAINAGE.
- ALL EXISTING AND PROPOSED GUY WIRES, SIGNS, ETC. SHALL HAVE AT LEAST 80" OF VERTICAL CLEARANCE FROM SHARED USE PATH. CONTRACTOR SHALL CONSULT DESIGN ENGINEER WITH ANY LOCATION THAT DOES NOT MEET STANDARD VERTICAL CLEARANCES.

- (H1) • 3'-6" DI WATER PIPE  
• 1-6" GATE BOX  
• 1-HYDRANT (R&R) W/ THRUST BLOCK
- (H2) • 1-12" X 12" X 6" STAINLESS STEEL TAPPING SLEEVE W/ THRUST BLOCK, VALVE, AND BOX  
• 32'-6" DI WATER PIPE  
• 1-6" COUPLING
- (H3) • 5'-6" DI WATER PIPE  
• 1-6" GATE BOX  
• 1-HYDRANT (R&R) W/ THRUST BLOCK

PROPOSED WATER SERVICE UPGRADES		
LOCATION	APPROXIMATE PROP LENGTH TO PROPERTY LINE (FT)	PIPE SIZE (IN)
217 MAPLE ST.	40	3/4"
226 MAPLE ST.	20	3/4"
227 MAPLE ST.	30	3/4"
234 MAPLE ST.	20	3/4"
235 MAPLE ST.	30	3/4"
242 MAPLE ST.	25	3/4"
243 MAPLE ST.	35	3/4"

- WATER NOTES:**
- ALL EXISTING GATE BOXES ALONG 6" WATER MAIN TO BE REMOVED.
  - ALL EXISTING WATER SERVICE LINES PROVIDED WITHIN TABLE TO BE REPLACED AND CONNECTED TO EXISTING 12" WATER MAIN.
  - ALL PROPOSED SERVICE CONNECTIONS IN TABLE INCLUDE:
    - 1-CURB STOP (ITEM 384.)
    - 1-SERVICE BOX (ITEM 381.01.)
    - 1-CORP AND GOOSENECK (ITEM 363.075)



DRAINAGE STRUCTURE DATA								
STRUCTURE #	TYPE	BASELINE	STATION/OFFSET (FT)	RIM ELEV.	INV. (IN)	INV. (OUT)	DOWNSTREAM INV. IN (FOR CB'S)	REMARKS
5	CB	MAPLE STREET	15+98.95 - 13.06' LT	173.86	-	169.33	169.08 (CIT #6)	
6	CIT - CB TO DMH	MAPLE STREET	16+25.95 - 18.12' LT	174.16	169.08 (CB #5) 169.30 (REMOD #6A) 167.60 (EXIST S) 170.10 (EXIST N)	166.90 (EXIST)	-	CONNECT TO EXIST. PIPE
6A	CIT - CB TO DMH	MAPLE STREET	16+43.79 - 17.14' LT	174.19	169.95 (CB #7) 170.60 (EXIST SW)	170.0 (EXIST)	-	CONNECT TO EXIST. PIPE TEST PIT TO CONFIRM PIPE ELEV
7	CB	MAPLE STREET	16+44.21 - 11.59' LT	174.03	-	170.03	169.95 (CIT #6A)	
8	CB	MAPLE STREET	18+75.42 - 11.00' LT	173.94	-	170.84	170.80 (CIT #9)	

PROPOSED WATER SERVICE UPGRADES		
LOCATION	APPROXIMATE PROP LENGTH TO PROPERTY LINE (FT)	PIPE SIZE (IN)
175-177 MAPLE ST.	30	3/4"
6 SPENCER ST.	20	3/4"
200 MAPLE ST.	25	3/4"
208 MAPLE ST.	25	3/4"
209 MAPLE ST.	40	3/4"

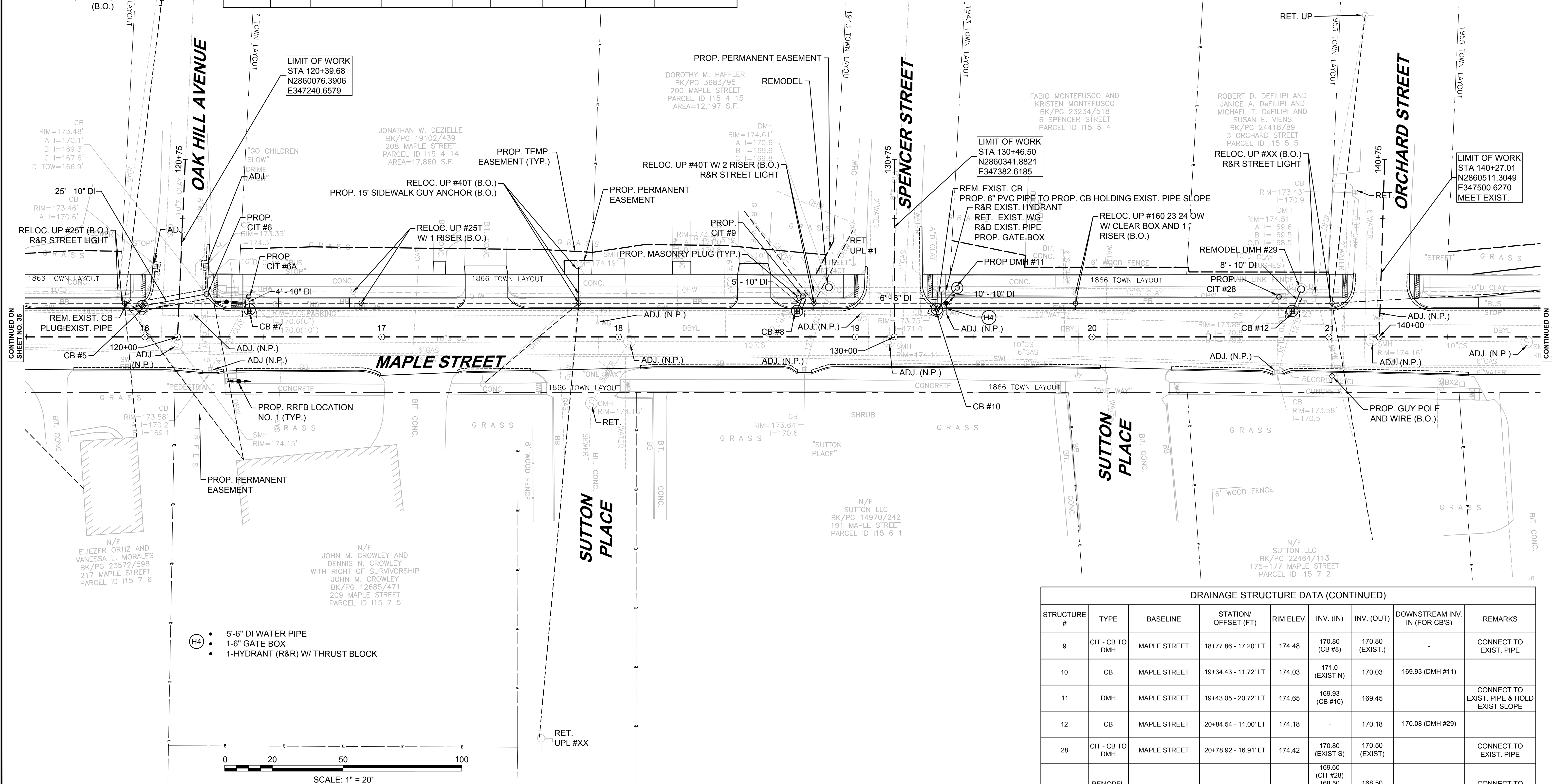
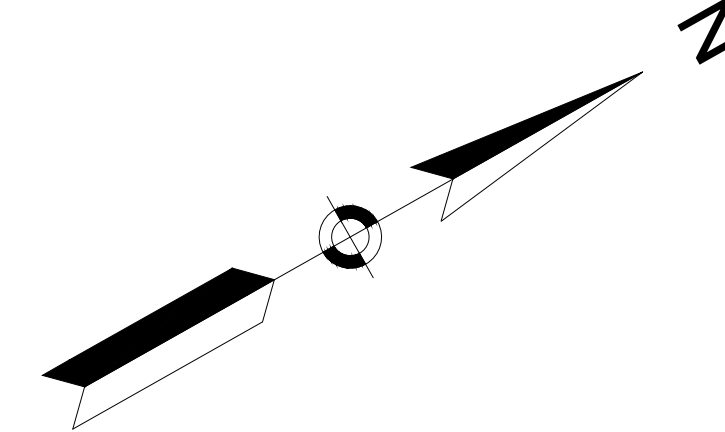
**WATER NOTES:**

- ALL EXISTING GATE BOXES ALONG 6" WATER MAIN TO BE REMOVED.
- ALL EXISTING WATER SERVICE LINES PROVIDED WITHIN TABLE TO BE REPLACED AND CONNECTED TO EXISTING 12" WATER MAIN.
- ALL PROPOSED SERVICE CONNECTIONS IN TABLE INCLUDE:
  - 1-CURB STOP (ITEM 384.)
  - 1-SERVICE BOX (ITEM 381.01.)
  - 1-CORP AND GOOSENECK (ITEM 363.075)

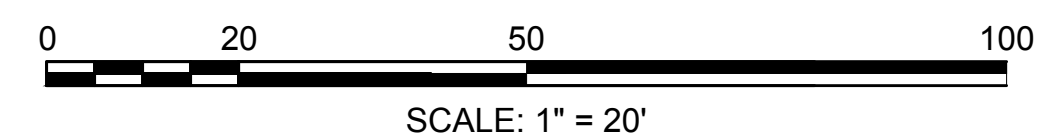
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	36	98
PROJECT FILE NO.		610652	

**DRAINAGE AND UTILITY PLANS  
SHEET 2 OF 6**



- 5'-6" DI WATER PIPE
- 1-6" GATE BOX
- 1-HYDRANT (R&R) W/ THRUST BLOCK

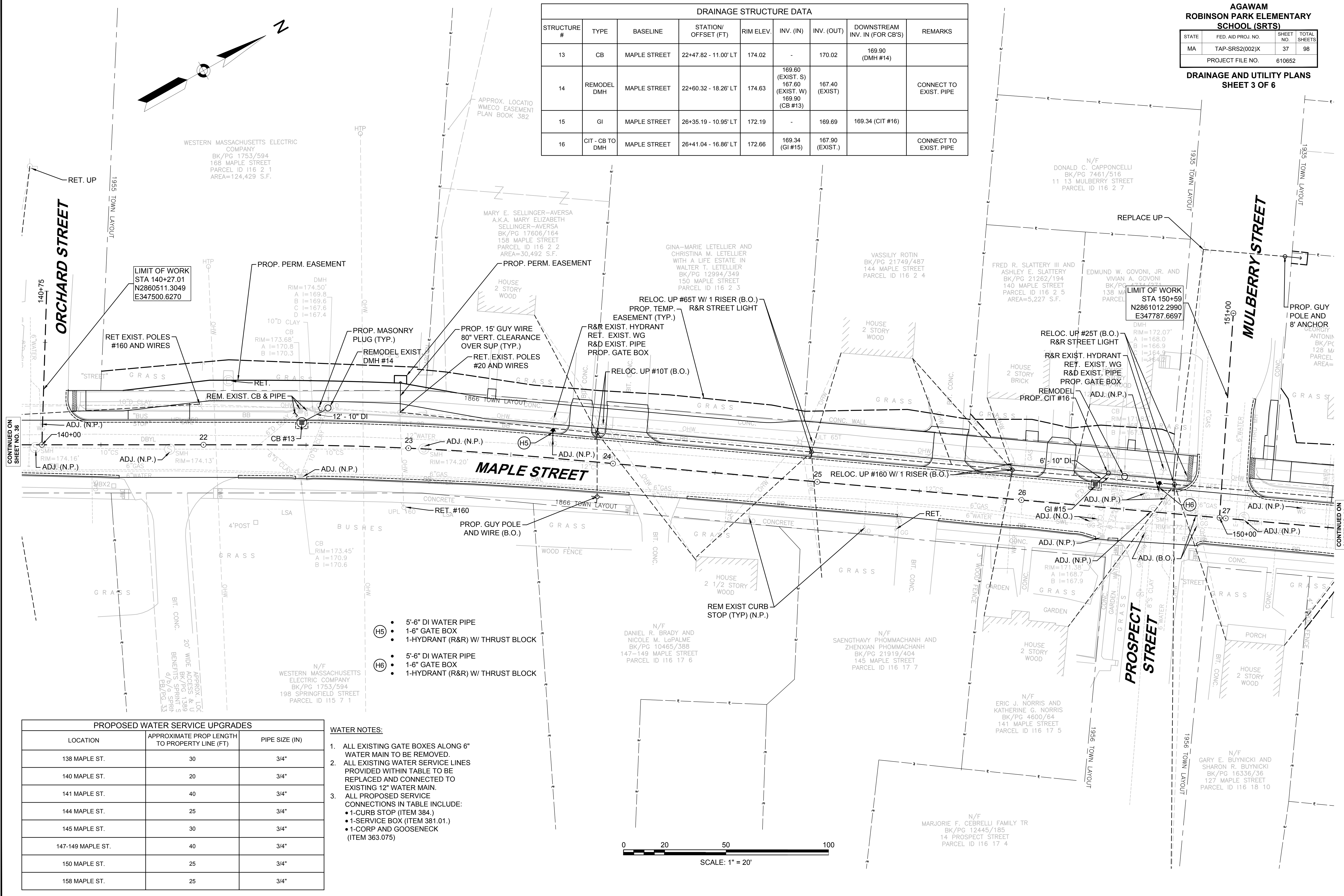


DRAINAGE STRUCTURE DATA (CONTINUED)								
STRUCTURE #	TYPE	BASELINE	STATION/OFFSET (FT)	RIM ELEV.	INV. (IN)	INV. (OUT)	DOWNSTREAM INV. IN (FOR CB'S)	REMARKS
9	CIT - CB TO DMH	MAPLE STREET	18+77.86 - 17.20' LT	174.48	170.80 (CB #8)	170.80 (EXIST.)	-	CONNECT TO EXIST. PIPE
10	CB	MAPLE STREET	19+34.43 - 11.72' LT	174.03	171.0 (EXIST N)	170.03	169.93 (DMH #11)	
11	DMH	MAPLE STREET	19+43.05 - 20.72' LT	174.65	169.93 (CB #10)	169.45	-	CONNECT TO EXIST. PIPE & HOLD EXIST SLOPE
12	CB	MAPLE STREET	20+84.54 - 11.00' LT	174.18	-	170.18	170.08 (DMH #29)	
28	CIT - CB TO DMH	MAPLE STREET	20+78.92 - 16.91' LT	174.42	170.80 (EXIST S)	170.50 (EXIST)	-	CONNECT TO EXIST. PIPE
29	REMODEL DMH	MAPLE STREET	20+88.25 - 20.09' LT	174.51	169.60 (CIT #28) 168.50 (DMH #11) 170.08 (CB #12)	168.50 (EXIST.)	-	CONNECT TO EXIST. PIPE

CONTINUED ON SHEET NO. 35

CONTINUED ON SHEET NO. 37

DRAINAGE STRUCTURE DATA								
STRUCTURE #	TYPE	BASELINE	STATION/OFFSET (FT)	RIM ELEV.	INV. (IN)	INV. (OUT)	DOWNSTREAM INV. IN (FOR CB'S)	REMARKS
13	CB	MAPLE STREET	22+47.82 - 11.00' LT	174.02	-	170.02	169.90 (DMH #14)	
14	REMODEL DMH	MAPLE STREET	22+60.32 - 18.26' LT	174.63	169.60 (EXIST. S) 167.60 (EXIST. W) 169.90 (CB #13)	167.40 (EXIST)		CONNECT TO EXIST. PIPE
15	GI	MAPLE STREET	26+35.19 - 10.95' LT	172.19	-	169.69	169.34 (CIT #16)	
16	CIT - CB TO DMH	MAPLE STREET	26+41.04 - 16.86' LT	172.66	169.34 (GI #15)	167.90 (EXIST.)		CONNECT TO EXIST. PIPE



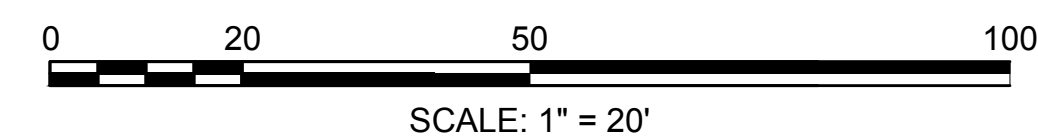
LIMIT OF WORK  
STA 140+27.01  
N2860511.3049  
E347500.6270

LIMIT OF WORK  
STA 150+59  
N2861012.2990  
E347787.6697

- (H5) • 5'-6" DI WATER PIPE
- (H5) • 1-6" GATE BOX
- (H5) • 1-HYDRANT (R&R) W/ THRUST BLOCK
- (H6) • 5'-6" DI WATER PIPE
- (H6) • 1-6" GATE BOX
- (H6) • 1-HYDRANT (R&R) W/ THRUST BLOCK

PROPOSED WATER SERVICE UPGRADES		
LOCATION	APPROXIMATE PROP LENGTH TO PROPERTY LINE (FT)	PIPE SIZE (IN)
138 MAPLE ST.	30	3/4"
140 MAPLE ST.	20	3/4"
141 MAPLE ST.	40	3/4"
144 MAPLE ST.	25	3/4"
145 MAPLE ST.	30	3/4"
147-149 MAPLE ST.	40	3/4"
150 MAPLE ST.	25	3/4"
158 MAPLE ST.	25	3/4"

- WATER NOTES:**
- ALL EXISTING GATE BOXES ALONG 6" WATER MAIN TO BE REMOVED.
  - ALL EXISTING WATER SERVICE LINES PROVIDED WITHIN TABLE TO BE REPLACED AND CONNECTED TO EXISTING 12" WATER MAIN.
  - ALL PROPOSED SERVICE CONNECTIONS IN TABLE INCLUDE:
    - 1-CURB STOP (ITEM 384.)
    - 1-SERVICE BOX (ITEM 381.01.)
    - 1-CORP AND GOOSENECK (ITEM 363.075)



CONTINUED ON SHEET NO. 36

CONTINUED ON SHEET NO. 38

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

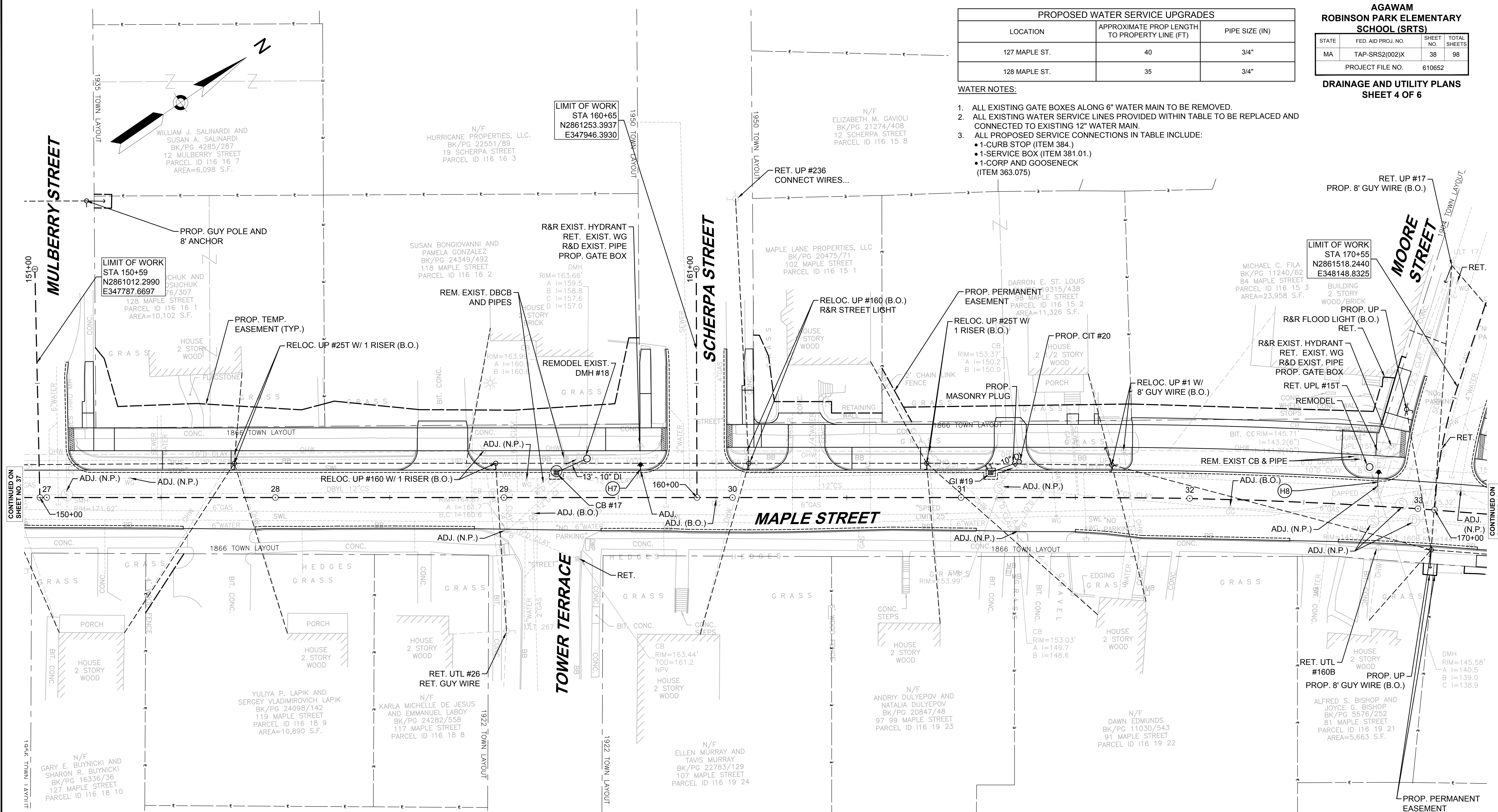
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	38	98
PROJECT FILE NO.		610652	

**PROPOSED WATER SERVICE UPGRADES**

LOCATION	APPROXIMATE PROP LENGTH TO PROPERTY LINE (FT)	PIPE SIZE (IN)
127 MAPLE ST.	40	3/4"
128 MAPLE ST.	35	3/4"

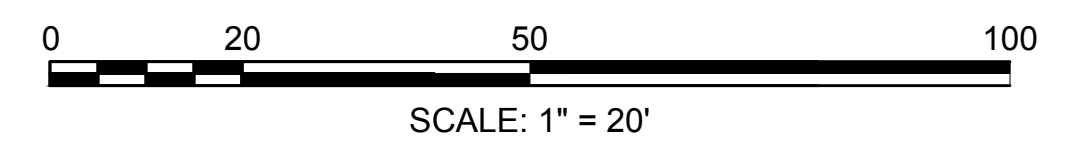
**DRAINAGE AND UTILITY PLANS  
SHEET 4 OF 6**

- WATER NOTES:**
- ALL EXISTING GATE BOXES ALONG 6" WATER MAIN TO BE REMOVED.
  - ALL EXISTING WATER SERVICE LINES PROVIDED WITHIN TABLE TO BE REPLACED AND CONNECTED TO EXISTING 12" WATER MAIN.
  - ALL PROPOSED SERVICE CONNECTIONS IN TABLE INCLUDE:
    - 1-CURB STOP (ITEM 384.)
    - 1-SERVICE BOX (ITEM 381.01.)
    - 1-CORP AND GOOSENECK (ITEM 363.075)



**DRAINAGE STRUCTURE DATA**

STRUCTURE #	TYPE	BASELINE	STATION/OFFSET (FT)	RIM ELEV.	INV. (IN)	INV. (OUT)	DOWNSTREAM INV. IN (FOR CB'S)	REMARKS
17	CB	MAPLE STREET	29+22.96 - 11.00' LT	164.33	-	160.33	160.20 (DMH #18)	CONNECT TO EXIST. DMH
18	EXIST. DMH	MAPLE STREET	29+36.31 - 17.00' LT	164.26	157.60 (EXIST. W) 159.50 (EXIST. SW) 160.20 (CB #17)	157.00 (EXIST.)		CONNECT TO EXIST. PIPE TEST PIT TO CONFIRM PIPE LOCATION
19	GI	MAPLE STREET	31+12.98 - 11.00' LT	154.17	-	151.67	151.00 (CIT #20)	
20	CIT - CB TO DMH	MAPLE STREET	31+25.40 - 15.66' LT	153.61	151.00 (GI #19)	150.0 (EXIST)		CONNECT TO EXIST. PIPE TEST PIT TO CONFIRM PIPE LOCATION

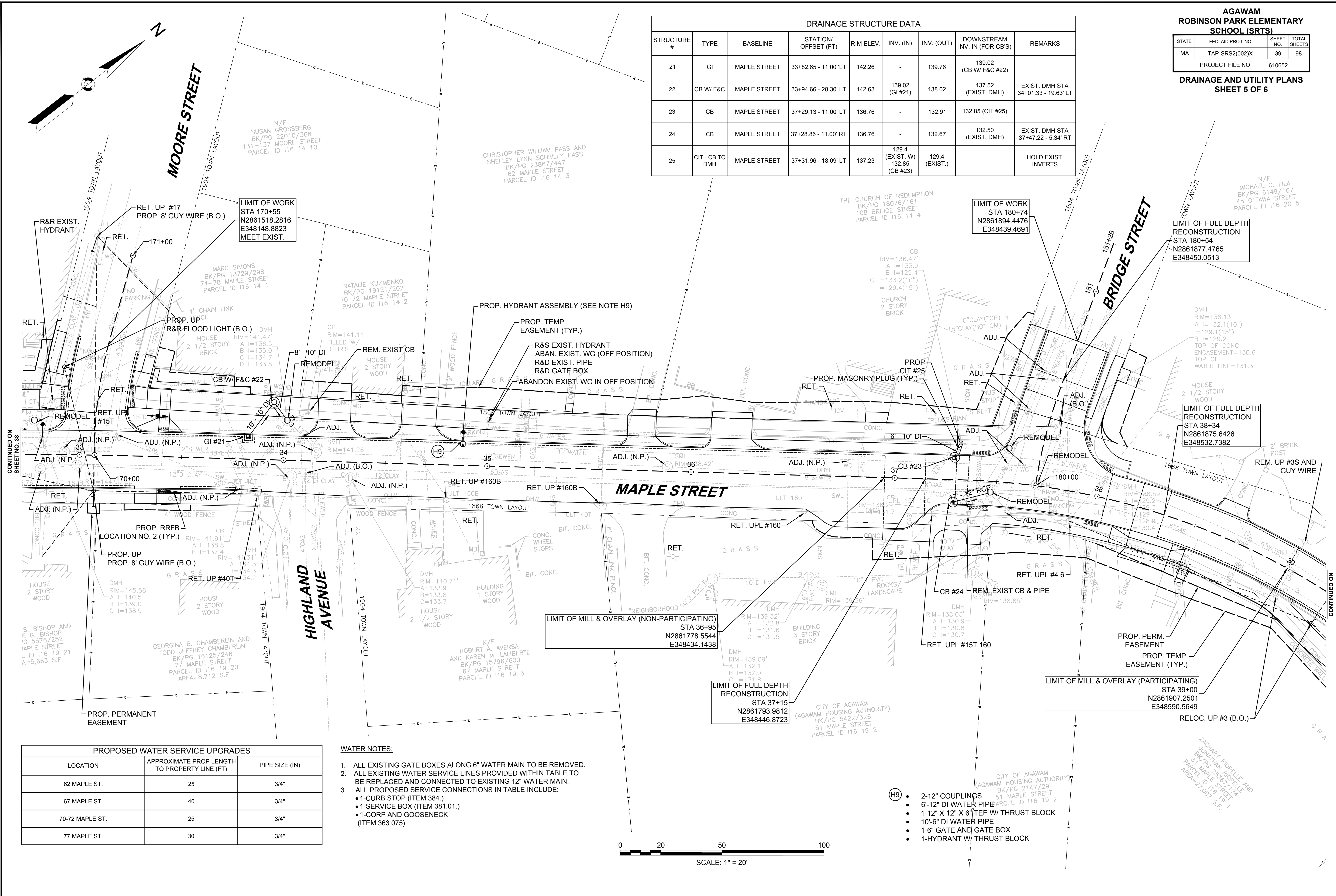


- (H7) • 5'-6" DI WATER PIPE
- 1-6" GATE BOX
- 1-HYDRANT (R&R) W/ THRUST BLOCK
- (H8) • 6'-6" DI WATER PIPE
- 1-6" GATE BOX
- 1-HYDRANT (R&R) W/ THRUST BLOCK

CONTINUED ON  
SHEET NO. 37

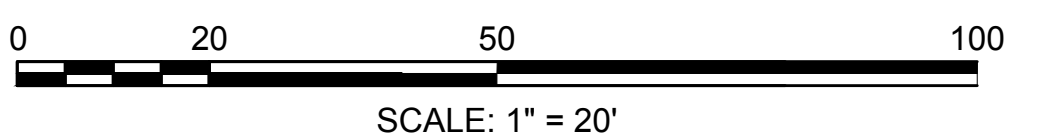
CONTINUED ON  
SHEET NO. 39

DRAINAGE STRUCTURE DATA								
STRUCTURE #	TYPE	BASELINE	STATION/OFFSET (FT)	RIM ELEV.	INV. (IN)	INV. (OUT)	DOWNSTREAM INV. IN (FOR CB'S)	REMARKS
21	GI	MAPLE STREET	33+82.65 - 11.00' LT	142.26	-	139.76	139.02 (CB W/ F&C #22)	
22	CB W/ F&C	MAPLE STREET	33+94.66 - 28.30' LT	142.63	139.02 (GI #21)	138.02	137.52 (EXIST. DMH)	EXIST. DMH STA 34+01.33 - 19.63' LT
23	CB	MAPLE STREET	37+29.13 - 11.00' LT	136.76	-	132.91	132.85 (CIT #25)	
24	CB	MAPLE STREET	37+28.86 - 11.00' RT	136.76	-	132.67	132.50 (EXIST. DMH)	EXIST. DMH STA 37+47.22 - 5.34' RT
25	CIT - CB TO DMH	MAPLE STREET	37+31.96 - 18.09' LT	137.23	129.4 (EXIST. W) 132.85 (CB #23)	129.4 (EXIST.)		HOLD EXIST. INVERTS

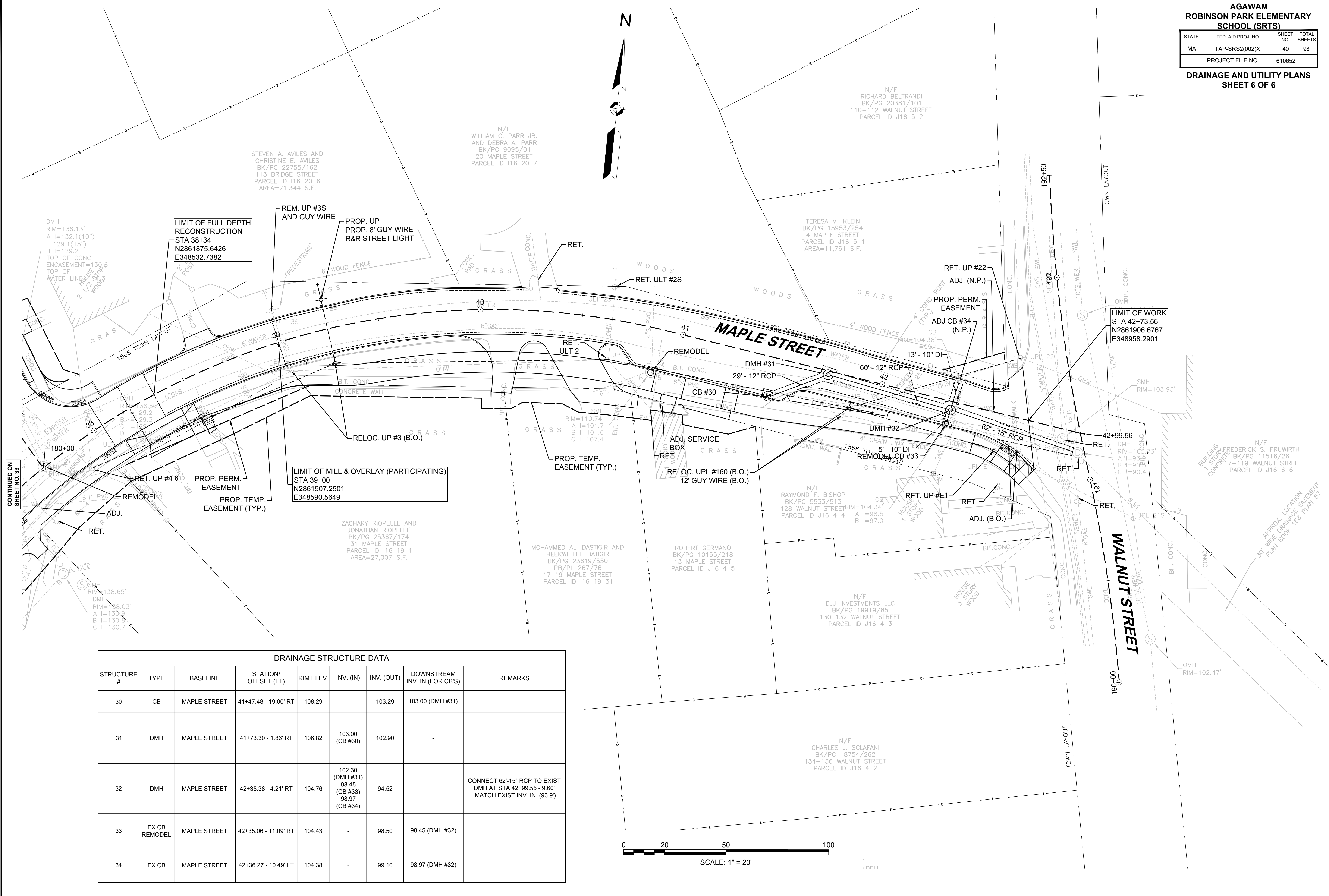


PROPOSED WATER SERVICE UPGRADES		
LOCATION	APPROXIMATE PROP LENGTH TO PROPERTY LINE (FT)	PIPE SIZE (IN)
62 MAPLE ST.	25	3/4"
67 MAPLE ST.	40	3/4"
70-72 MAPLE ST.	25	3/4"
77 MAPLE ST.	30	3/4"

- WATER NOTES:**
- ALL EXISTING GATE BOXES ALONG 6" WATER MAIN TO BE REMOVED.
  - ALL EXISTING WATER SERVICE LINES PROVIDED WITHIN TABLE TO BE REPLACED AND CONNECTED TO EXISTING 12" WATER MAIN.
  - ALL PROPOSED SERVICE CONNECTIONS IN TABLE INCLUDE:
    - 1-CURB STOP (ITEM 384.)
    - 1-SERVICE BOX (ITEM 381.01.)
    - 1-CORP AND GOOSENECK (ITEM 363.075)

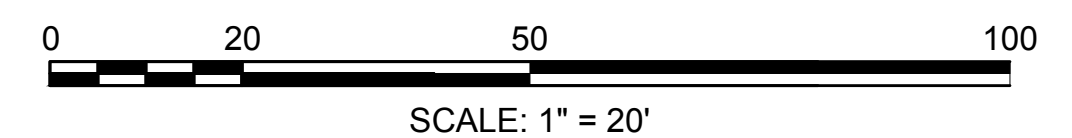


- (H9)
- 2-12" COUPLINGS
  - 6'-12" DI WATER PIPE
  - 1-12" X 12" X 6" TEE W/ THRUST BLOCK
  - 10'-6" DI WATER PIPE
  - 1-6" GATE AND GATE BOX
  - 1-HYDRANT W/ THRUST BLOCK



**DRAINAGE STRUCTURE DATA**

STRUCTURE #	TYPE	BASELINE	STATION/OFFSET (FT)	RIM ELEV.	INV. (IN)	INV. (OUT)	DOWNSTREAM INV. IN (FOR CB'S)	REMARKS
30	CB	MAPLE STREET	41+47.48 - 19.00' RT	108.29	-	103.29	103.00 (DMH #31)	
31	DMH	MAPLE STREET	41+73.30 - 1.86' RT	106.82	103.00 (CB #30)	102.90	-	
32	DMH	MAPLE STREET	42+35.38 - 4.21' RT	104.76	102.30 (DMH #31) 98.45 (CB #33) 98.97 (CB #34)	94.52	-	CONNECT 62'-15" RCP TO EXIST DMH AT STA 42+99.55 - 9.60' MATCH EXIST INV. IN. (93.9')
33	EX CB REMODEL	MAPLE STREET	42+35.06 - 11.09' RT	104.43	-	98.50	98.45 (DMH #32)	
34	EX CB	MAPLE STREET	42+36.27 - 10.49' LT	104.38	-	99.10	98.97 (DMH #32)	

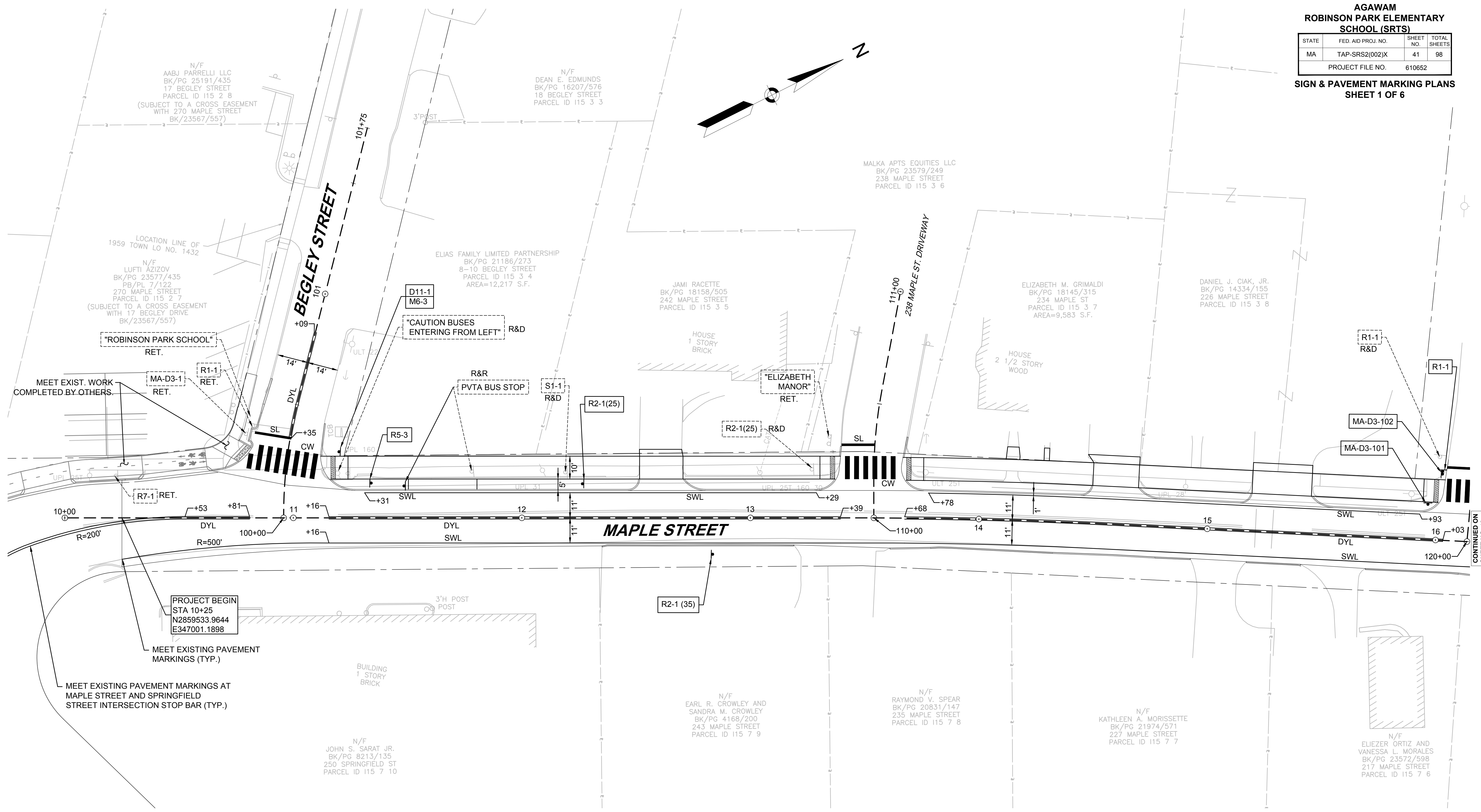




**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	41	98
PROJECT FILE NO.		610652	

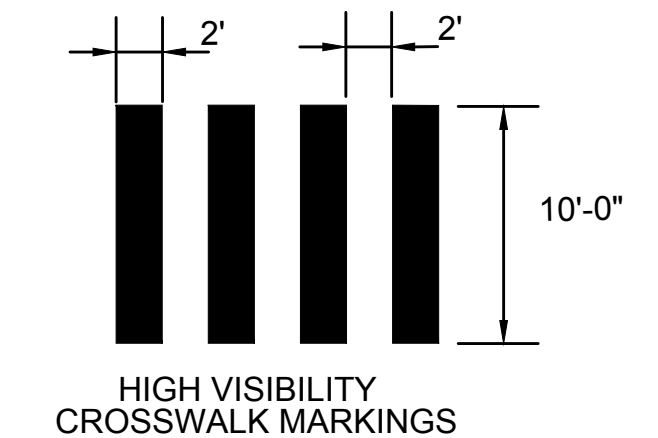
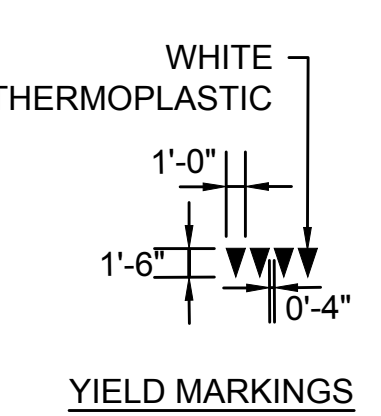
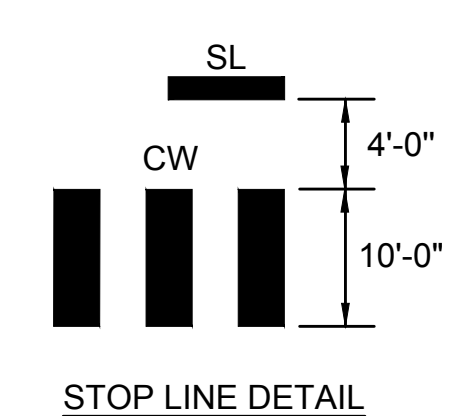
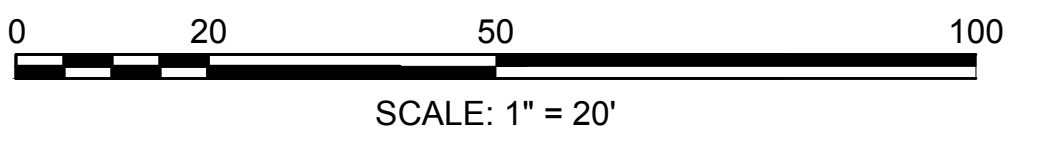
**SIGN & PAVEMENT MARKING PLANS  
SHEET 1 OF 6**



**PAVEMENT MARKING LEGEND**

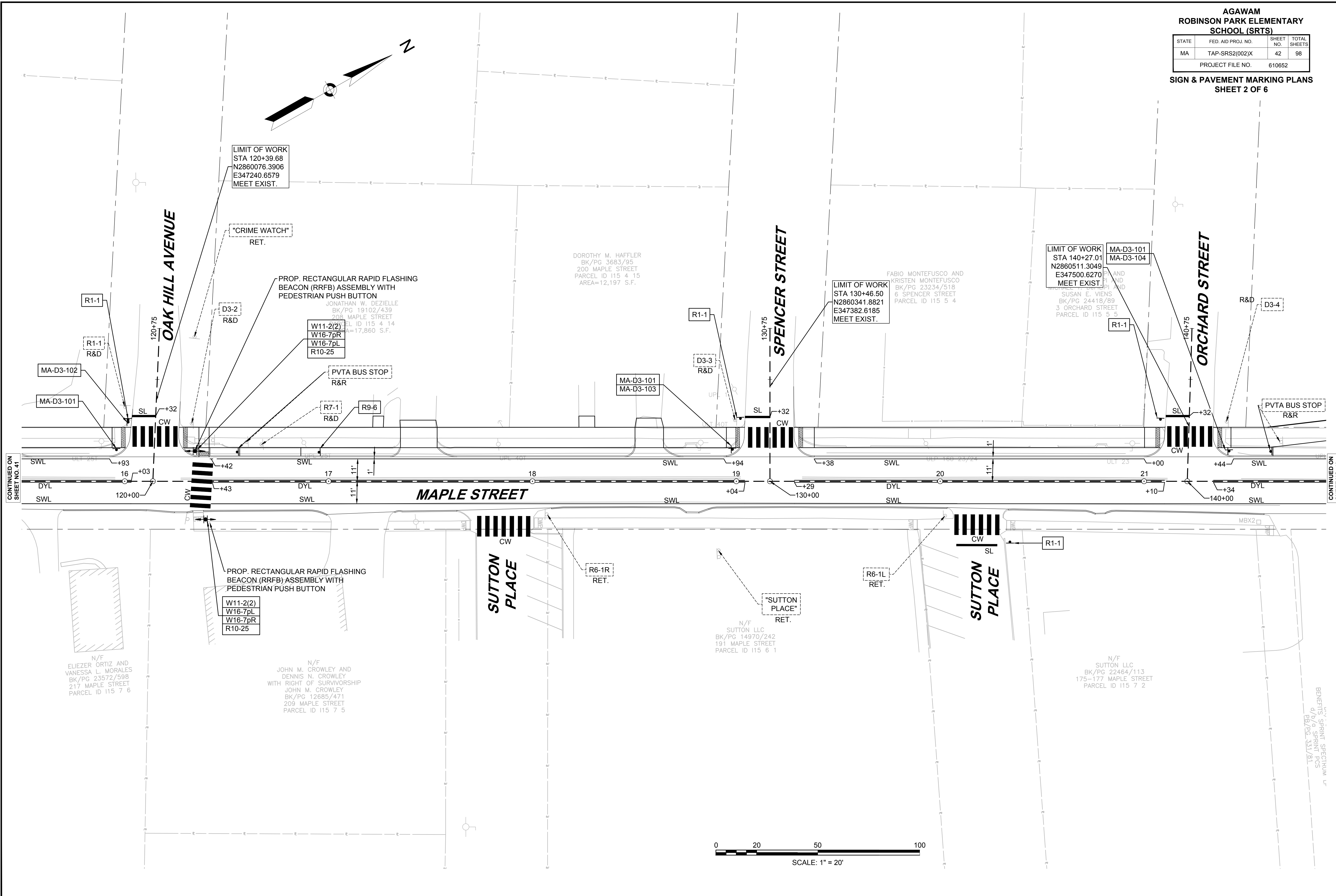
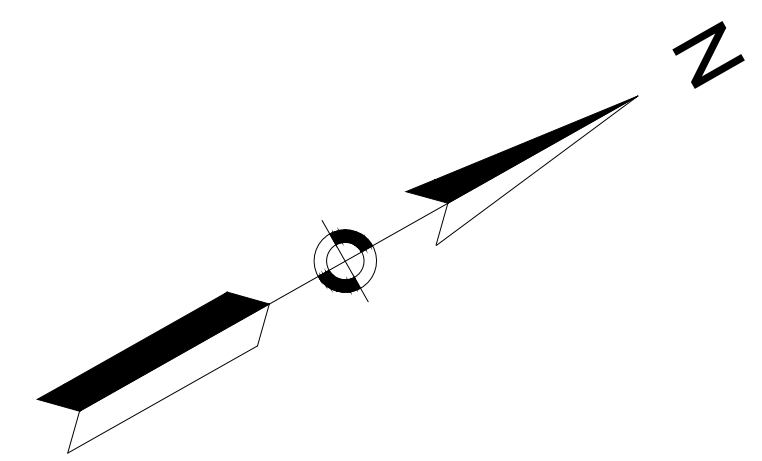
SWL	6" SINGLE WHITE LINE
SWLL	12" SOLID WHITE LINE
DYL	6" DOUBLE YELLOW LINE
DWL	6" DASHED WHITE LINE (3'-9" GAP)
CW	CROSSWALK - 24" WHITE LINE
SL	STOP LINE - 12" WHITE LINE
DWLex	DOTTED WHITE LINE EXTENSION (2' LINE, 6' SPACE)
DYLex	DOTTED YELLOW LINE EXTENSION (2' LINE, 6' SPACE)

- GENERAL NOTES**
- ALL SIGNS SHALL HAVE A 2' MINIMUM CLEARANCE BETWEEN EDGE OF SIGN AND FACE OF CURB.
  - ALL SIGNS SHALL HAVE A 7' MINIMUM VERTICAL CLEARANCE BETWEEN BOTTOM OF SIGN AND THE TOP OF SIDEWALK.
  - ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
  - ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS OTHERWISE NOTED.
  - ALL PROPOSED CROSSWALKS SHALL HAVE A CLEAR WIDTH OF 9 FEET UNLESS OTHERWISE NOTED.



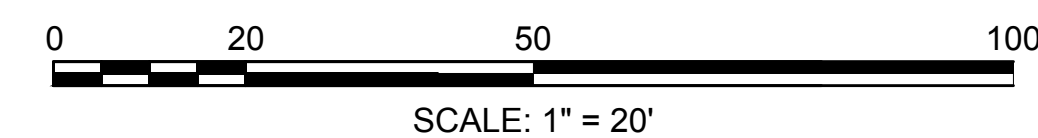
**PAVEMENT MARKING DETAILS**  
N.T.S.

CONTINUED ON  
SHEET NO. 42



CONTINUED ON SHEET NO. 41

CONTINUED ON SHEET NO. 43

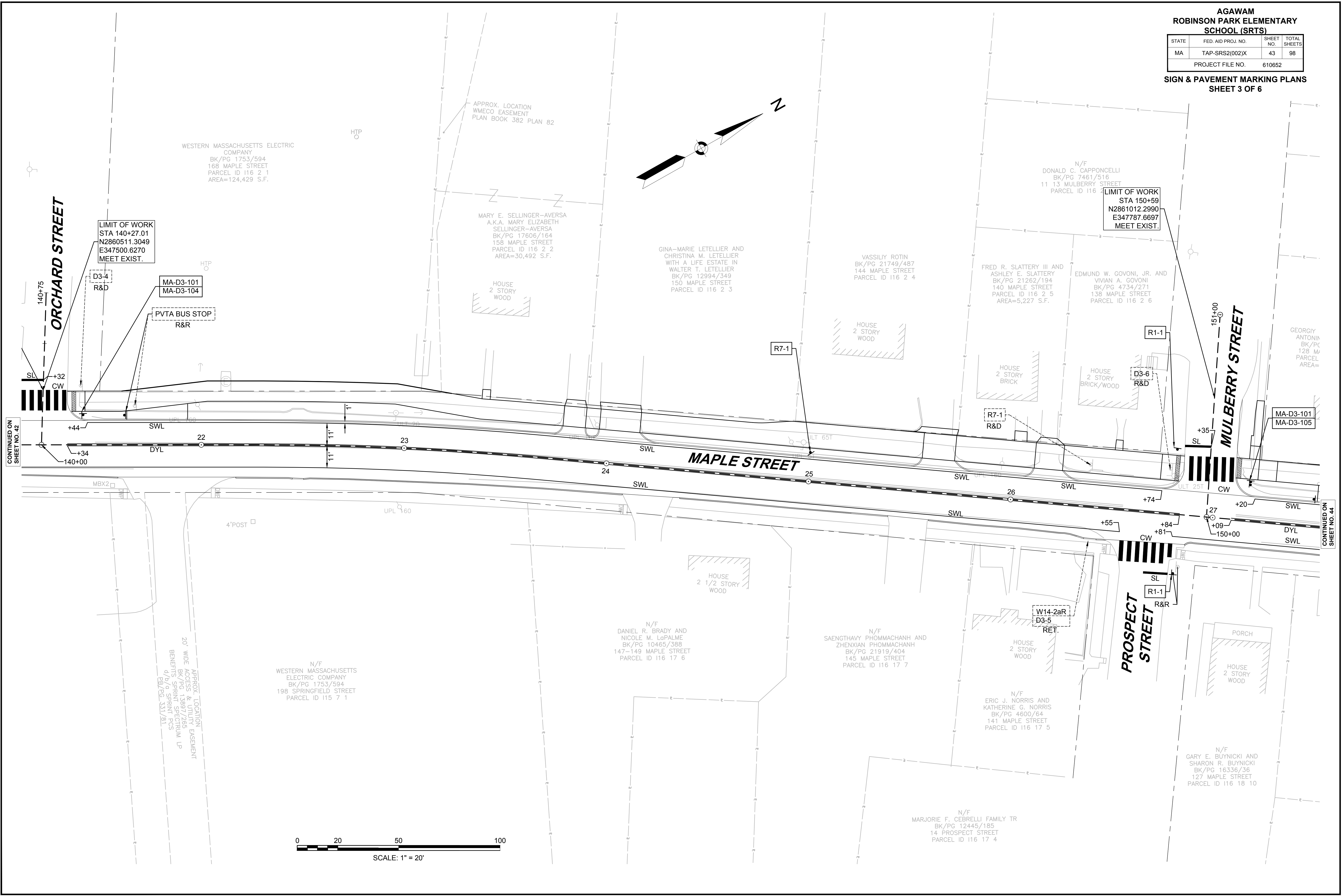


BENEFITS: SPRINT SPECTRUM  
D/R/S: SPRINT POS  
FB/PG: 331/81

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	43	98
PROJECT FILE NO.		610652	

**SIGN & PAVEMENT MARKING PLANS  
SHEET 3 OF 6**

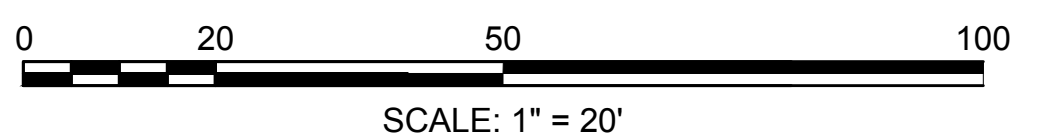


LIMIT OF WORK  
STA 140+27.01  
N2860511.3049  
E347500.6270  
MEET EXIST.

MA-D3-101  
MA-D3-104  
PVTA BUS STOP  
R&R

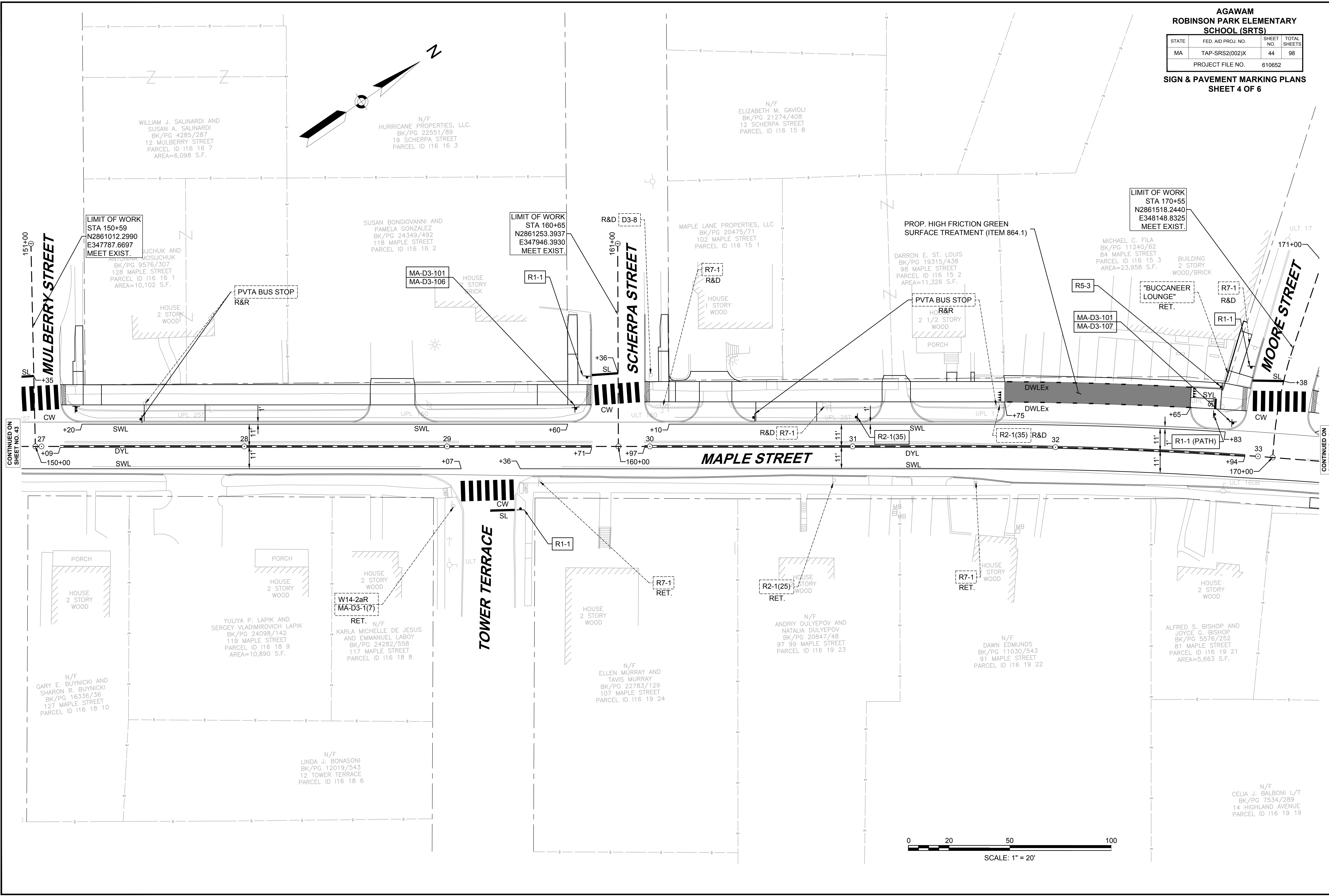
LIMIT OF WORK  
STA 150+59  
N2861012.2990  
E347787.6697  
MEET EXIST.

MA-D3-101  
MA-D3-105



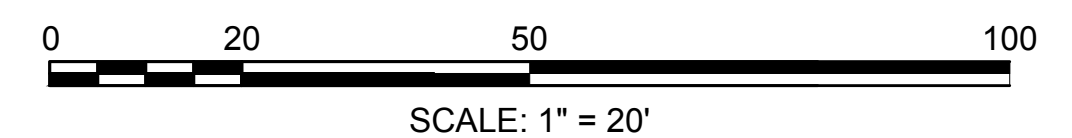
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SHEET NO. 42

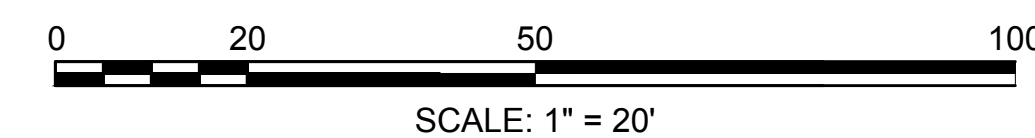
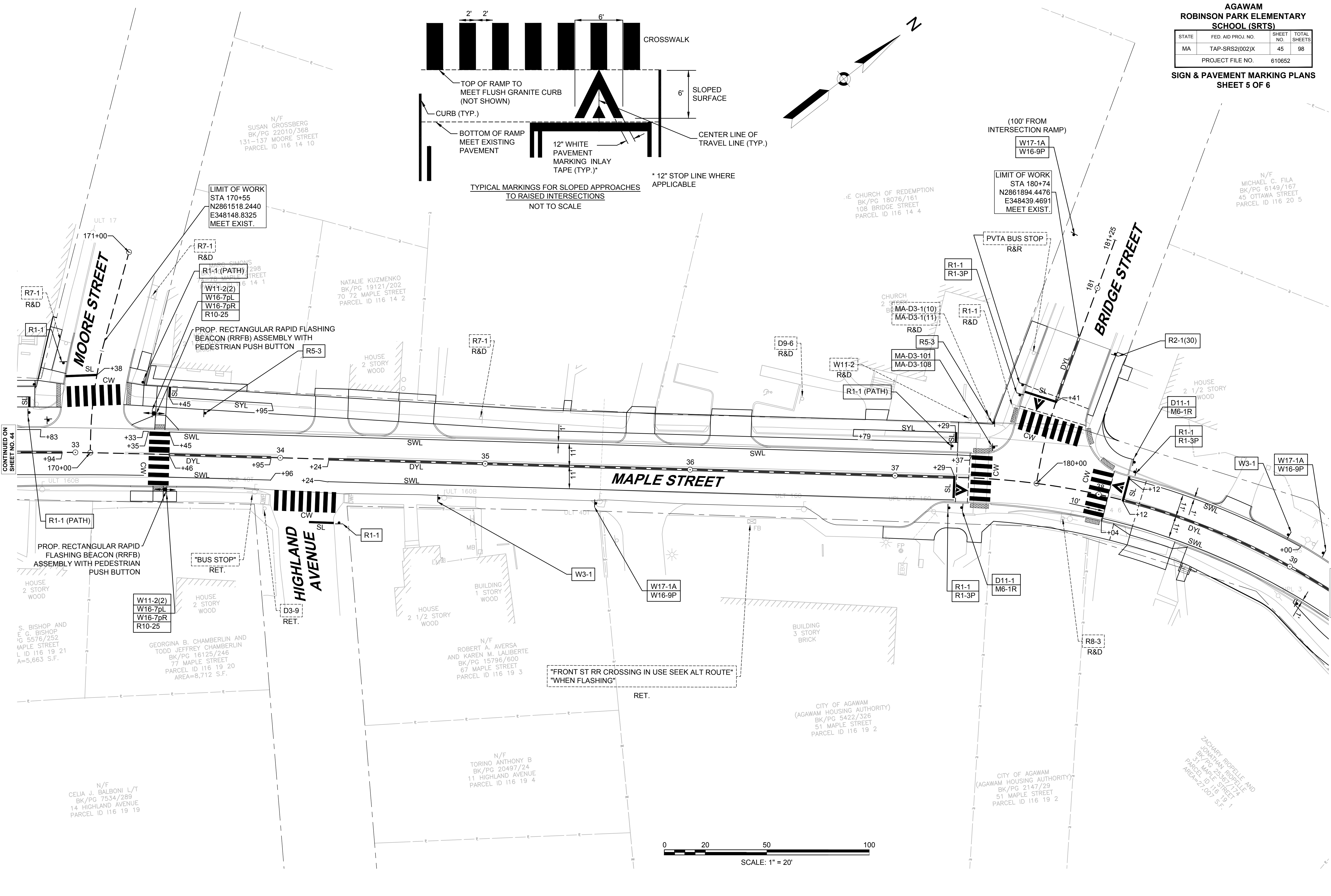
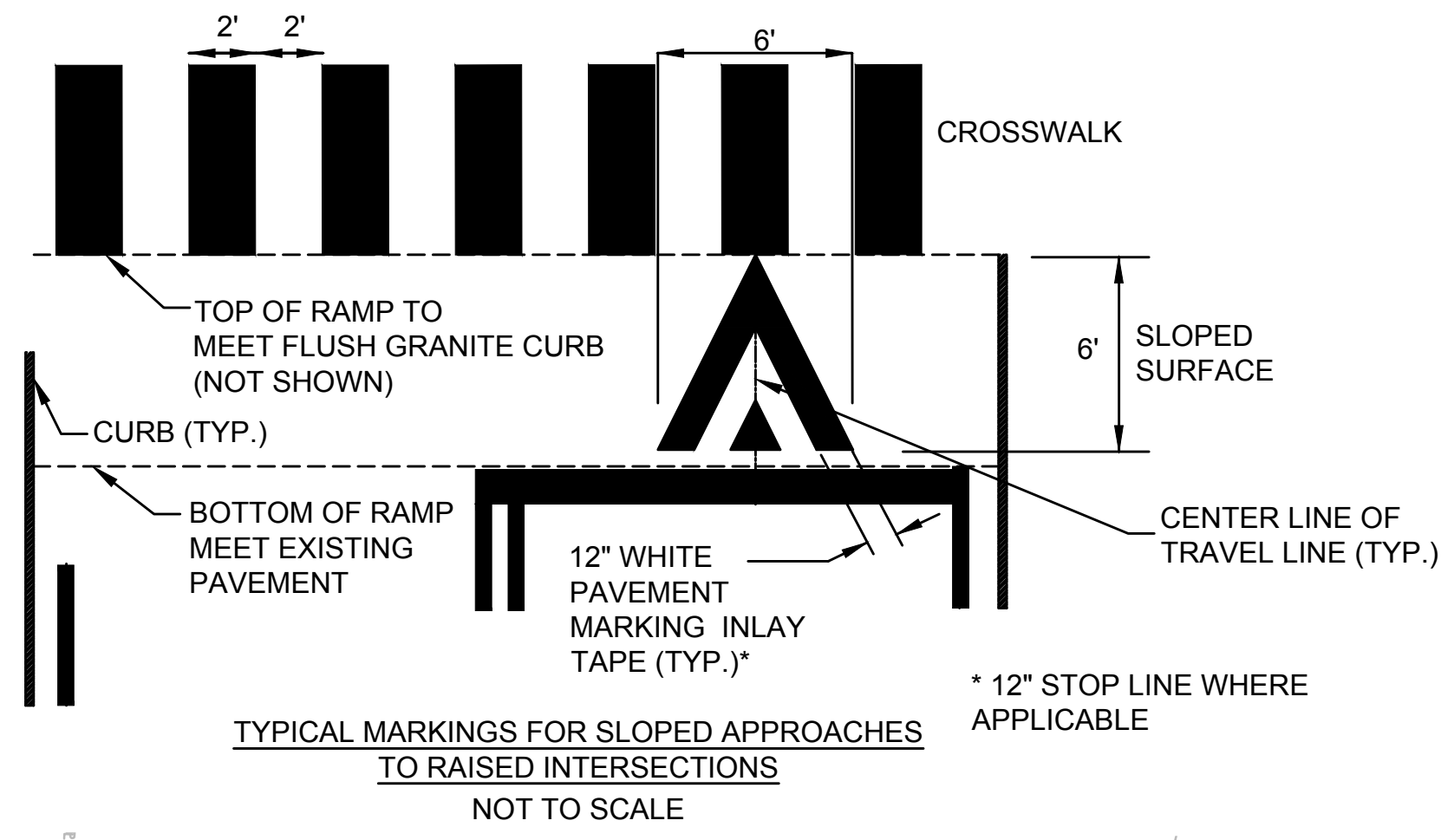
CONTINUED ON  
SHEET NO. 44



CONTINUED ON  
SHEET NO. 43

CONTINUED ON  
SHEET NO. 45





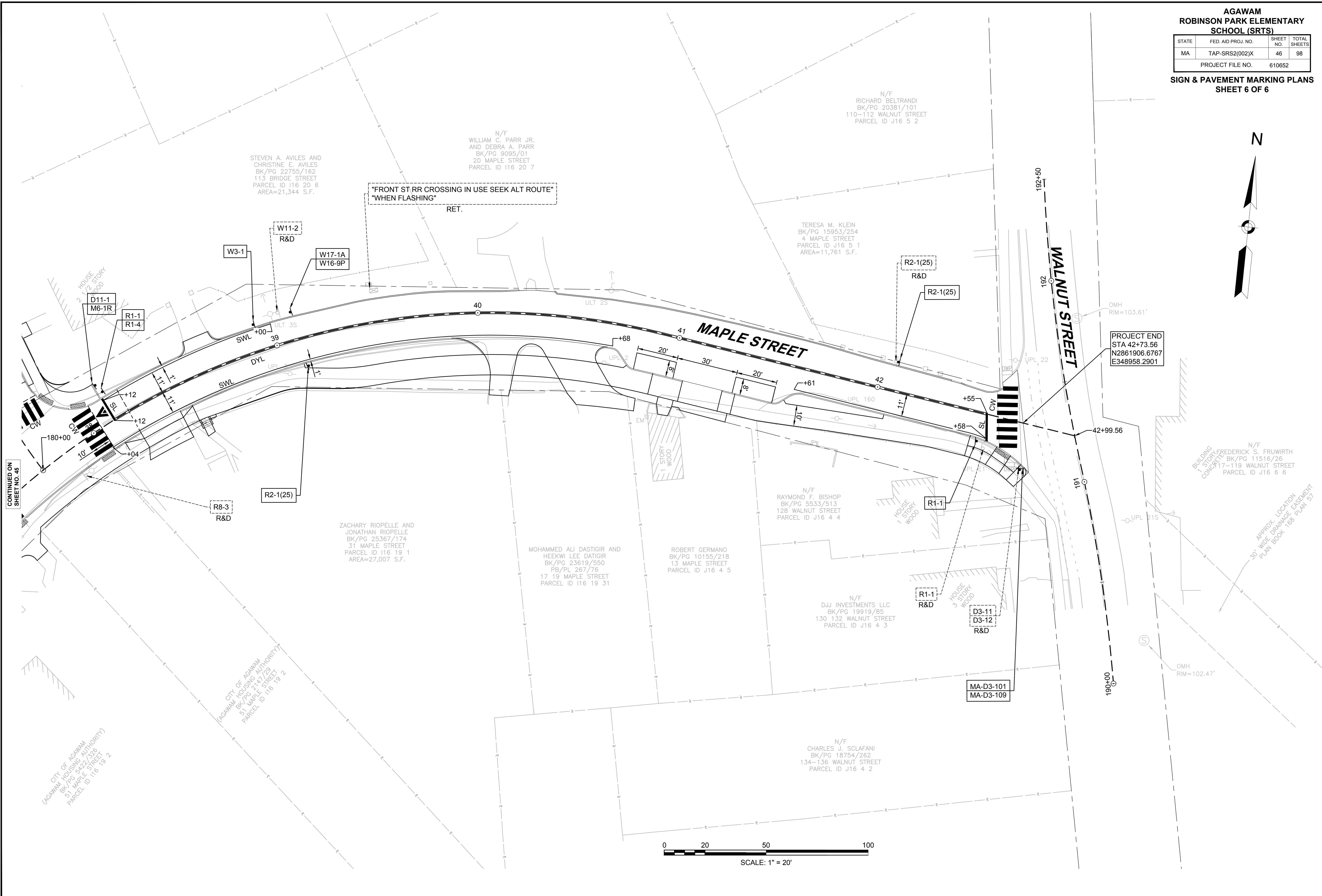
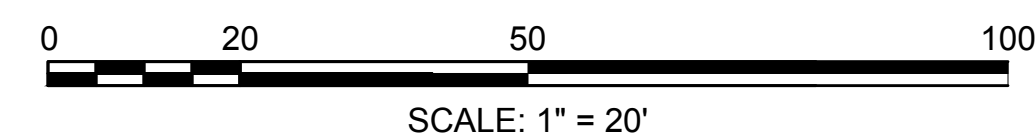
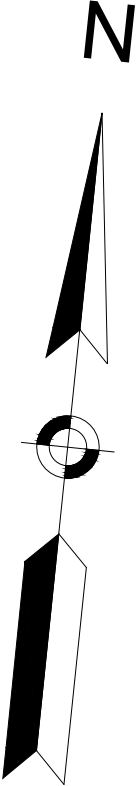
CONTINUED ON  
SHEET NO. 44

CONTINUED ON  
SHEET NO. 46

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	46	98
PROJECT FILE NO.		610652	

**SIGN & PAVEMENT MARKING PLANS  
SHEET 6 OF 6**



STEVEN A. AVILES AND  
CHRISTINE E. AVILES  
BK/PG 22755/162  
113 BRIDGE STREET  
PARCEL ID 116 20 6  
AREA=21,344 S.F.

N/F  
WILLIAM C. PARR JR.  
AND DEBRA A. PARR  
BK/PG 9095/01  
20 MAPLE STREET  
PARCEL ID 116 20 7

N/F  
RICHARD BELTRANDI  
BK/PG 20381/101  
110-112 WALNUT STREET  
PARCEL ID J16 5 2

TERESA M. KLEIN  
BK/PG 15953/254  
4 MAPLE STREET  
PARCEL ID J16 5 1  
AREA=11,761 S.F.

N/F  
RAYMOND F. BISHOP  
BK/PG 5533/513  
128 WALNUT STREET  
PARCEL ID J16 4 4

MOHAMMED ALI DASTIGIR AND  
HEEKWI LEE DATIGIR  
BK/PG 23619/550  
PB/PL 267/76  
17 19 MAPLE STREET  
PARCEL ID 116 19 31

ROBERT GERMANO  
BK/PG 10155/218  
13 MAPLE STREET  
PARCEL ID J16 4 5

N/F  
DJJ INVESTMENTS LLC  
BK/PG 19919/85  
130 132 WALNUT STREET  
PARCEL ID J16 4 3

N/F  
HOUSE  
3 STORY  
WOOD

N/F  
FREDERICK S. FRUWIRTH  
BK/PG 11516/26  
17-119 WALNUT STREET  
PARCEL ID J16 6 6

CITY OF AGAWAM  
(AGAWAM HOUSING AUTHORITY)  
BK/PG 1147/29  
51 MAPLE STREET  
PARCEL ID 116 19 2

CITY OF AGAWAM  
(AGAWAM HOUSING AUTHORITY)  
BK/PG 9422/226  
51 MAPLE STREET  
PARCEL ID 116 19 2

CONTINUED ON  
SHEET NO. 45

PROJECT END  
STA 42+73.56  
N2861906.6767  
E348958.2901

OMH  
RIM=102.47'

OMH  
RIM=103.61'

APPROX LOCATION  
30' WIDE DRAINAGE ELEMENT  
PLAN BOOK 189 PLAN 57

## TRAFFIC SIGN SUMMARY

SIGN ID NUMBER	SIZE		MESSAGE	DIMENSIONS (IN)			NUMBER REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	TOTAL AREA (S.F.)
	WIDTH (IN)	HEIGHT (IN)		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
MA-D3-101	36	12		6C / 4C	2.75" 3.25"	N/A	16	GREEN	WHITE	WHITE	P5 7 REQ'D MOUNT 2 WITH MA-D3-105	EACH	EACH
MA-D3-102	45	12		6C / 4C	3" 3"	N/A	2	GREEN	WHITE	WHITE	P5-2 1 REQ'D	EACH	EACH
MA-D3-103	39	12		6C / 4C	2.75" 3.25"	N/A	2	GREEN	WHITE	WHITE	MOUNT WITH MA-D3-101	EACH	EACH
MA-D3-104	36	12		6C / 4C	3" 3"	N/A	2	GREEN	WHITE	WHITE	MOUNT WITH MA-D3-101	EACH	EACH
MA-D3-105	42	12		6C / 4C	2.75" 3.25"	N/A	2	GREEN	WHITE	WHITE	P5-2 1 REQ'D	EACH	EACH
MA-D3-106	39	12		6C / 4C	2.75" 3.25"	N/A	2	GREEN	WHITE	WHITE	MOUNT WITH MA-D3-101	EACH	EACH
MA-D3-107	36	12		6D / 4D	3" 3"	N/A	2	GREEN	WHITE	WHITE	MOUNT WITH MA-D3-101	EACH	EACH
MA-D3-108	36	12		6D / 4D	2.75" 3.25"	N/A	2	GREEN	WHITE	WHITE	MOUNT WITH MA-D3-101	EACH	EACH
MA-D3-109	39	12		6D / 4D	3" 3"	N/A	2	GREEN	WHITE	WHITE	MOUNT WITH MA-D3-101	EACH	EACH
R1-1	30	30		1	1	1	10	RED	WHITE	WHITE	P5 9 REQ'D MOUNT 1 WITH MA-D3-102	6.25	62.50
R1-1 (PATH)	18	18					3	RED	WHITE	WHITE	P5 3 REQ'D	2.25	6.75
R1-3P	18	6					3	RED	WHITE	WHITE	MOUNT WITH R1-1	0.75	2.25
R2-1(25)	24	30					3	WHITE	BLACK	BLACK	P5 3 REQ'D	5.00	15.00
R2-1(30)	24	30					1	WHITE	BLACK	BLACK	P5 1 REQ'D	5.00	5.00
R2-1(35)	24	30					2	WHITE	BLACK	BLACK	P5 2 REQ'D	5.00	10.00
R5-3	24	24					4	WHITE	BLACK	BLACK	P5 4 REQ'D	4.00	16.00
R7-1	12	18					1	WHITE	RED	RED	P5 1 REQ'D	1.50	1.50
R9-6	12	18					1	WHITE	BLACK	BLACK	P5 1 REQ'D	1.50	1.50
R10-25	9	12					4	WHITE	BLACK	BLACK	MOUNT ON RRFB	0.75	3.00

## AGAWAM ROBINSON PARK ELEMENTARY SCHOOL (SRTS)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	47	98
PROJECT FILE NO.		610652	

### TRAFFIC SIGN SUMMARY

## TRAFFIC SIGN SUMMARY (CONT.)

SIGN ID NUMBER	SIZE		MESSAGE	DIMENSIONS (IN)			NUMBER REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	TOTAL AREA (S.F.)
	WIDTH (IN)	HEIGHT (IN)		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
W3-1	30	30		1	1	1	2	YELLOW	MULTI	BLACK	P5 2 REQ'D	6.25	12.50
W11-2	30	30					8	FLUOR. YELLOW GREEN	BLACK	BLACK	MOUNT ON RRFB	6.25	50.00
W16-7pL	24	12					4	FLUOR. YELLOW GREEN	BLACK	BLACK	MOUNT ON RRFB	2.00	8.00
W16-7pR	24	12					4	FLUOR. YELLOW GREEN	BLACK	BLACK	MOUNT ON RRFB	2.00	8.00
D11-1	24	18					3	GREEN	WHITE	WHITE	P5 3 REQ'D	3.00	9.00
M6-1R	24	12					2	GREEN	WHITE	WHITE	MOUNT WITH D11-1	2.00	4.00
M6-3	21	15					1	GREEN	WHITE	WHITE	MOUNT WITH D11-1	2.19	2.19
W17-1A	30	30					3	YELLOW	BLACK	BLACK	P5 3 REQ'D	6.25	18.75
W16-9P	24	12					3	YELLOW	BLACK	BLACK	MOUNT WITH W17-1a (3)	2.00	6.00
<b>TOTAL TRAFFIC SIGN AREA (S.F.) =</b>											241.94 S.F.		

### SIGN SUMMARY NOTES:

- NUMERICAL LIMITS AND JUSTIFICATION FOR SPEED & ADVISORY EXIT SPEED SIGNS SHALL BE DETERMINED BY THE ENGINEER.
- HIGH INTENSITY ENCAPSULATED LENS REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" 2009 EDITION, THE 1996 MASSDOT CONSTRUCTION AND TRAFFIC STANDARD DETAILS\*, AND ALL AMENDMENTS WILL GOVERN.
- ① SEE MUTCD 2009 EDITION, INCLUDING ALL AMENDMENTS, 1979 STD. HWY. SIGNS AND SECTION M9.30.0 TYPE III OF THE MASSDOT STANDARD SPECIFICATION FOR TEXT DIMENSIONS AND COLOR.  
② SEE MASSDOT SIGN STANDARDS.
- ALL R7-1 SIGNS SHALL BE ROTATED 45 DEGREES

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	48	98
PROJECT FILE NO.		610652	

**TEMPORARY TRAFFIC CONTROL PLANS  
SHEET 1 OF 3**

**NOTES:**

- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS, UNLESS SUPERCEDED BY THESE PLANS.
- ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD, INCLUDING ALL OF THE LATEST AMENDMENTS.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES.
- MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
- CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 48 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.
- LANE CLOSURES THAT WILL IMPACT TRAFFIC IN THE JUDGEMENT OF THE ENGINEER SHALL NOT BE ALLOWED BETWEEN 7:00AM TO 9:00AM AND 4:00PM TO 6:00PM MONDAY THROUGH FRIDAY.
- A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. DURING WORKING HOURS, TRAFFIC MAY BE REDUCED TO ONE LANE UNDER POLICE OR FLAGGER CONTROL FOR SHORT TIME PERIODS WITH PRIOR APPROVAL OF THE ENGINEER AND THE CITY OF BEVERLY.
- GRADE SEPARATIONS IN EXCESS OF 2" DURING NON-WORKING HOURS (SEE SPECIAL PROVISIONS) WILL REQUIRE DELINEATION BY USE OF DRUMS.
- EXCAVATION EDGES IN EXCESS OF 4" DEEP SHALL BE PROTECTED DURING NON-WORKING HOURS (SEE SPECIAL PROVISIONS) BY BACKFILLING WITH A WEDGE OF GRAVEL OR SOIL TO COMPACTED 1:4 SLOPE.
- CONSTRUCTION SIGNS ASSOCIATED WITH THE DAILY LANE CLOSURES AND SHOULDER WORK AREAS WILL NOT BE MEASURED FOR PAYMENT MORE THAN ONCE REGARDLESS OF THE NUMBER OF TIMES THE SIGNS ARE REUSED.
- TEMPORARY TRAFFIC CONTROL SETUPS WITH ONE LANE ALTERNATING TRAFFIC CAN ONLY BE USED DURING OFF PEAK HOURS, AND APPROVED BY THE LOCAL EMERGENCY SERVICES PERSONNEL AND DPW AT A MINIMUM OF 48 HOURS PRIOR TO WORK.
- THE FIRST TEN (10) DRUMS IN ANY MERGING OR SHIFTING TAPER AS DESIGNATED IN THESE DETAILS, OR OTHERWISE, SHALL BE PAID FOR UNDER ITEM 859.1: REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS. THESE LIGHTS SHALL BE OPERATING AT A MINIMUM, BETWEEN DUSK AND DAWN WHEN THE TAPER IS DEPLOYED.

**LEGEND:**

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- ▨ WORK ZONE
- 🚚 WORK VEHICLE
- ➔ DIRECTION OF TRAFFIC
- 🚛 TRUCK MOUNTED ATTENUATOR
- 🚧 POLICE/FLAGGER DETAIL
- 🚧 IMPACT ATTENUATOR
- 🚧 TYPE III BARRICADE
- 🚧 CHANGEABLE MESSAGE SIGN
- 🚧 ARROW BOARD
- 🚧 MEDIAN BARRIER
- 🚧 MEDIAN BARRIER WITH WARNING LIGHTS
- 🚧 TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN

THE IDEAL CAPACITY OF A MAJOR HIGHWAY IS GENERALLY CONSIDERED TO BE 1900 PASSENGER CARS PER HOUR PER LANE (PCPHPL). IN WORK ZONES ON A MULTI-LANE DIVIDED HIGHWAY, THE FOLLOWING VOLUME GUIDELINES HAVE BEEN SUGGESTED:

**MEASURED AVERAGE WORK ZONE CAPACITIES**

NUMBER OF LANES		NUMBER OF STUDIES	AVERAGE CAPACITY	
NORMAL (EXISTING)	OPEN (TO TRAFFIC)		VPH	VPHPL
3	1	7	1,170	1,170
2	1	8	1,340	1,340
5	2	8	2,740	1,370
4	2	4	2,960	1,480
3	2	9	2,980	1,490
4	3	4	4,560	1,520

Source: Dudek, C., *Notes on Work Zone Capacity and Level of Service*. Texas Transportation Institute, Texas A&M University, College Station, Texas (1984)

BY OBTAINING HOURLY TRAFFIC COUNTS FOR A PARTICULAR ROADWAY (WITH A MINIMUM OF A 48-HOUR AUTOMATIC TRAFFIC RECORDER (ATR) COUNT), THIS WILL HELP TO DETERMINE AT WHAT TIMES OF THE DAY OR NIGHT A CERTAIN NUMBER OF LANES MAY BE CLOSED.

**SUGGESTED WORK ZONE WARNING SIGN SPACING**

ROAD TYPE	DISTANCE BETWEEN SIGNS **		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS*	350	350	350
MOST OTHER ROADWAYS*	500	500	500
FREEWAYS AND EXPRESSWAYS*	1,000	1,500	2,640

\* ROAD TYPE TO BE DETERMINED BY MASSDOT OFFICE OF TRANSPORTATION PLANNING.

\*\* DISTANCES ARE SHOWN IN FEET. THE COLUMN HEADINGS A, B, AND C ARE THE DIMENSIONS SHOWN IN THE DETAIL/ TYPICAL SETUP FIGURES. THE A DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN. THE B DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS. THE C DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS. (THE "THIRD" SIGN IS THE FIRST ONE TYPICALLY ENCOUNTERED BY A DRIVER APPROACHING A TEMPORARY TRAFFIC CONTROL (TTC) ZONE.)

THE "THIRD" SIGN ABOVE IS TYPICALLY REFERRED TO AS AN "ADVANCE WARNING" SIGN ON THE TTC SETUPS. THESE ADVANCE WARNING SIGNS ARE LOCATED PRIOR TO THE PROJECT LIMITS ON ALL APPROACHES (i.e. THE MA-W20-1 SERIES (ROAD WORK XX FT) SIGNS), AND USUALLY REMAIN FOR THE DURATION OF THE PROJECT. ADDITIONAL SIGNS (i.e. "RIGHT LANE CLOSED 1 MILE" AND "LEFT LANE CLOSED 1 MILE") HAVE BEEN SHOWN IN SOME FIGURES AS EXAMPLES OF REINFORCEMENT SIGN PLACEMENT BUT ARE USED IN RARE OCCASIONS.

THE FIRST AND SECOND WARNING SIGNS ABOVE ARE REFERRED TO AS THE OPERATIONAL (DAY-TO-DAY) WORK ZONE SIGNS AND MAY BE MOVED DEPENDING ON WHERE THE SPECIFIC ROADWAY WORK FOR THAT DAY IS LOCATED.

MA-R2-10a SIGNS SHALL BE PLACED BETWEEN THE SECOND AND THIRD SIGNS AS DESCRIBED ABOVE.

MA-R2-10a, MA-R2-10e, AND W20-1 SERIES SIGNS ARE TO BE INCLUDED ON ALL DETAILS/TYPICAL SETUPS.

Based on: Table 6C-1 MUTCD LATEST EDITION

**STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED**

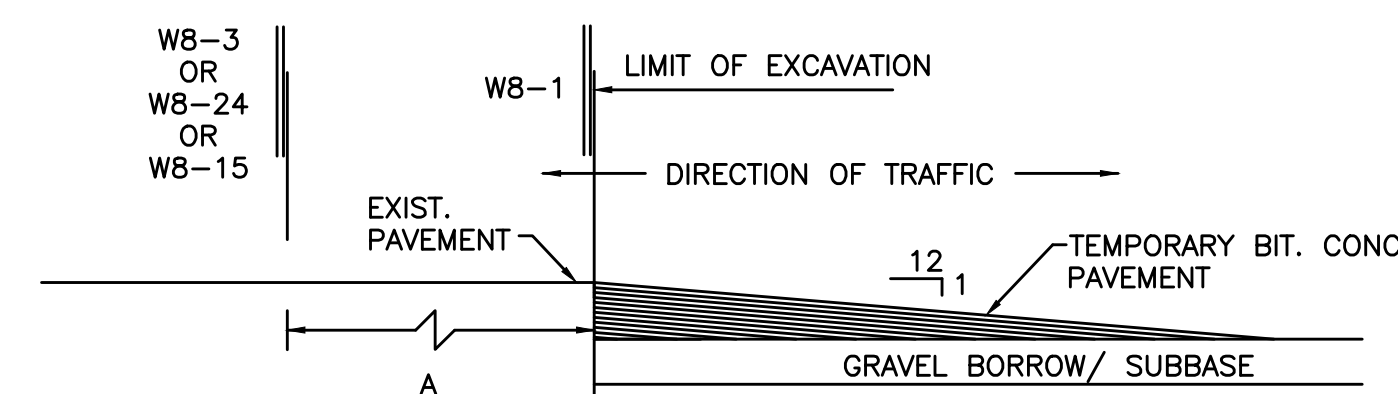
SPEED* (mph)	DISTANCE (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
75	820

\*POSTED SPEED, OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED

THESE VALUES MAY BE USED TO DETERMINE THE LENGTH OF LONGITUDINAL BUFFER SPACES.

THE DISTANCES IN THE ABOVE CHART REPRESENT THE MINIMAL VALUES FOR BUFFER SPACING.

Source: Table 6C-2 MUTCD LATEST EDITION



**LONGITUDINAL DROP-OFF DETAIL**

NOT TO SCALE

**CONVENTIONAL ROADWAY**— A STREET OR HIGHWAY OTHER THAN A LOW-VOLUME ROAD, EXPRESSWAY, OR FREEWAY.

**EXPRESSWAY**— A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.

**FREEWAY**— A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS.

**LOW-VOLUME ROAD**— A FACILITY LYING OUTSIDE OF BUILT-UP AREAS OF CITIES, TOWNS, AND COMMUNITIES, AND IT SHALL HAVE A TRAFFIC VOLUME OF LESS THAN 400 AADT. IT SHALL NOT BE A FREEWAY, EXPRESSWAY, INTERCHANGE RAMP, FREEWAY SERVICE ROAD OR A ROAD ON A DESIGNATED STATE HIGHWAY SYSTEM.

Source: MUTCD LATEST EDITION

**TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES**

TYPE OF TAPER	TAPER LENGTH (L)*
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT MIN. 100 FT MAX.
DOWNSTREAM TAPER	50 FT MIN. 100 FT MAX. PER LANE

Source: Table 6C-3 MUTCD LATEST EDITION

**FORMULAS FOR DETERMINING TAPER LENGTHS**

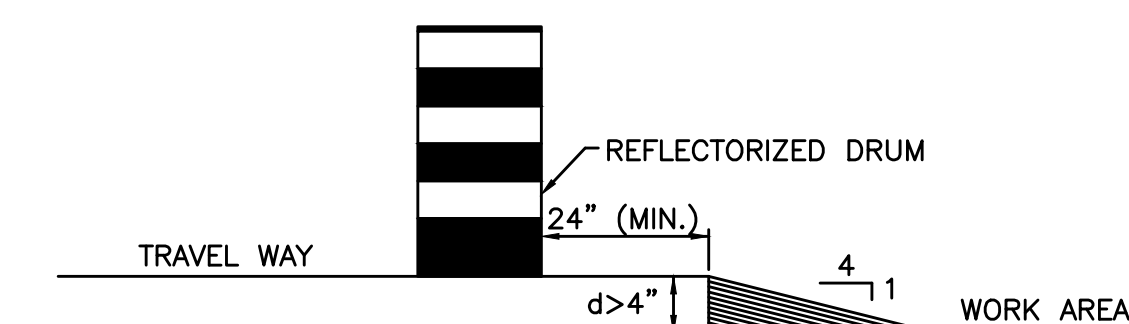
SPEED LIMIT (S)	TAPER LENGTH (L) FEET
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

WHERE: L = TAPER LENGTH IN FEET

W = WIDTH OF OFFSET IN FEET

S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

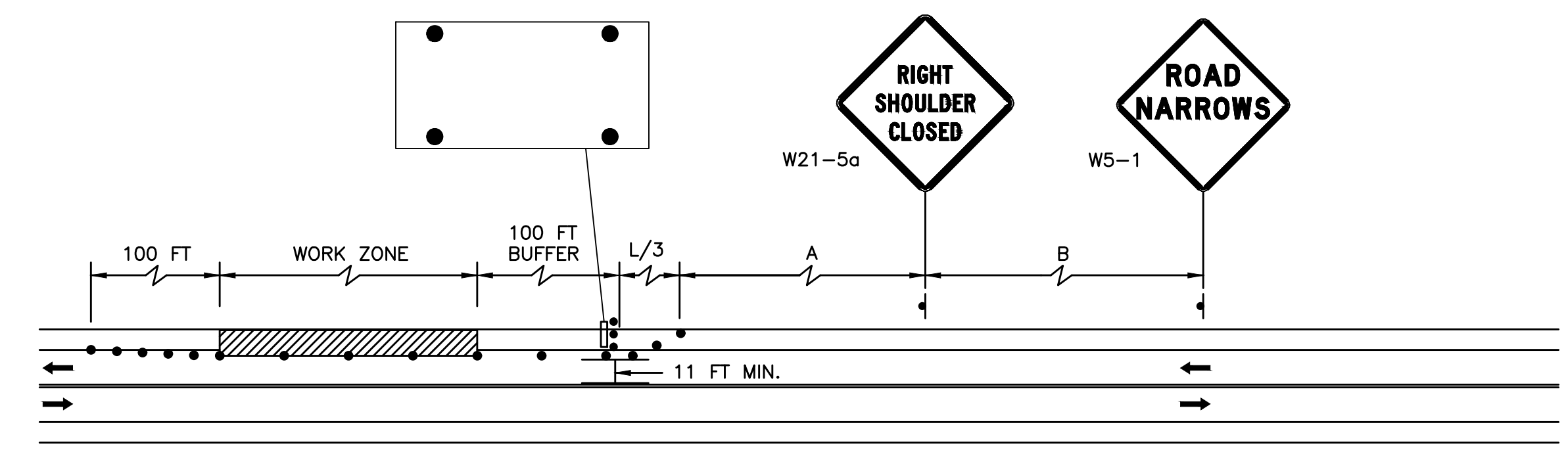
Source: Table 6C-4 MUTCD LATEST EDITION



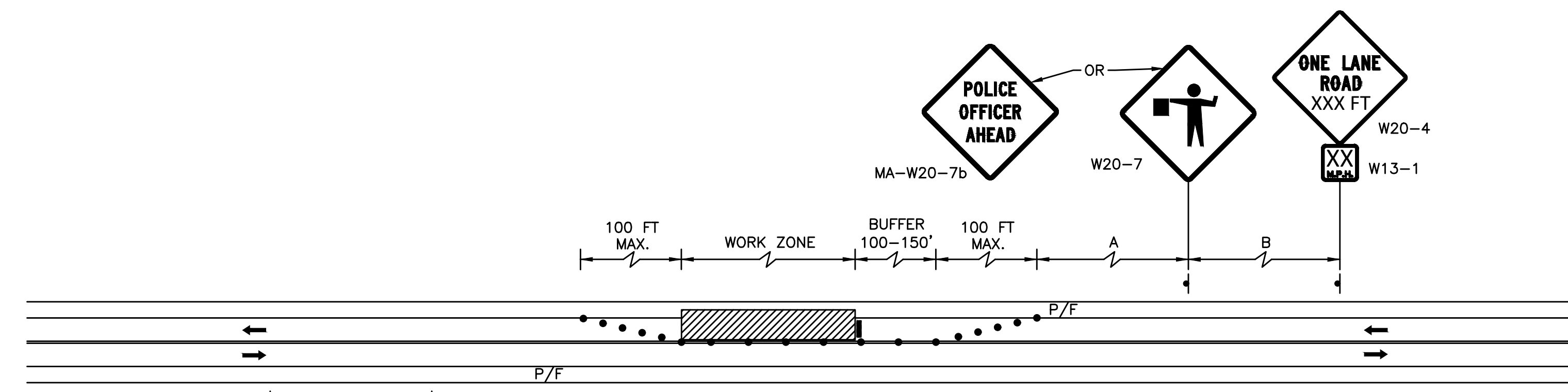
**LATERAL DROP-OFF DETAIL**

NOT TO SCALE

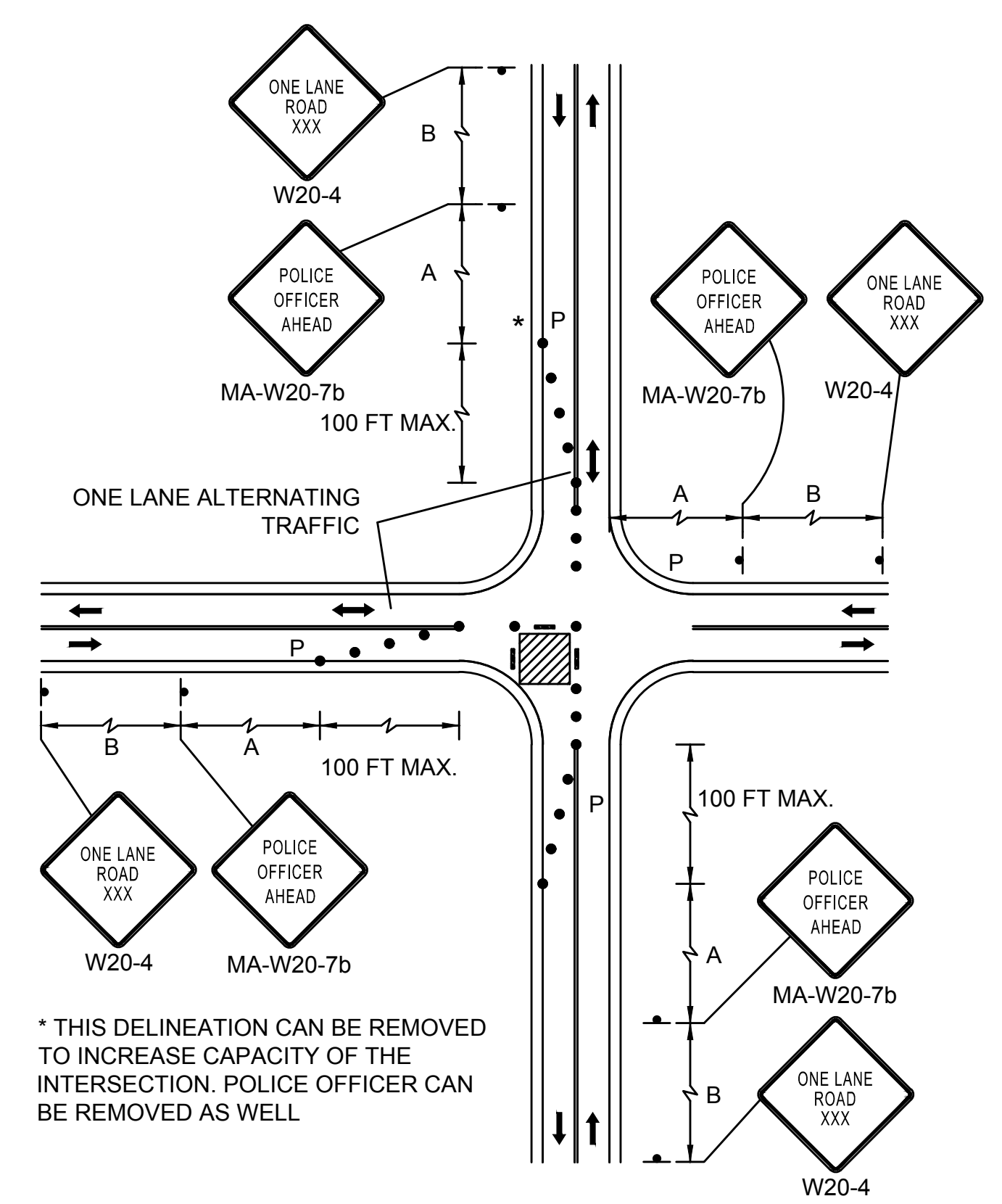
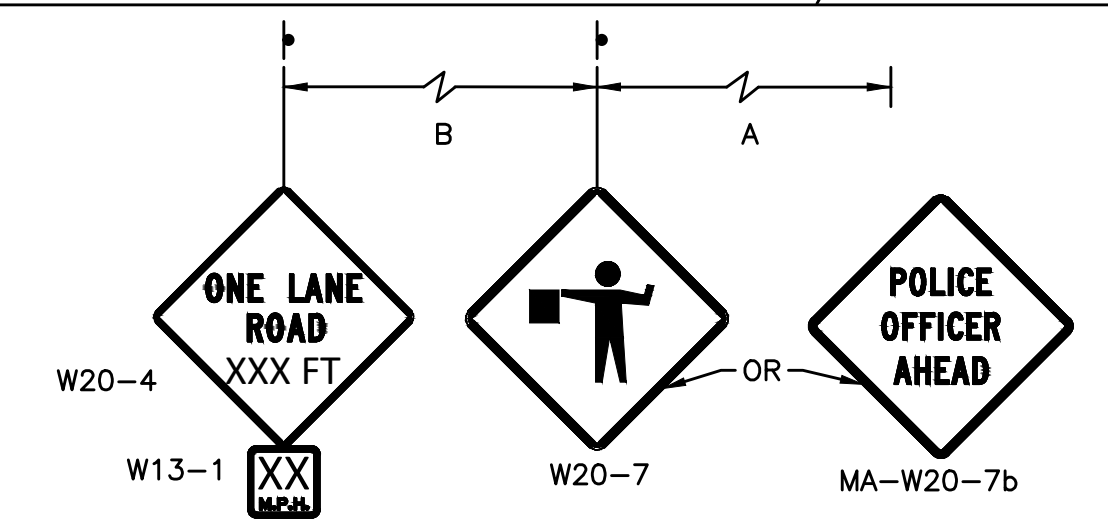




TYPICAL SHOULDER CLOSURE  
NOT TO SCALE

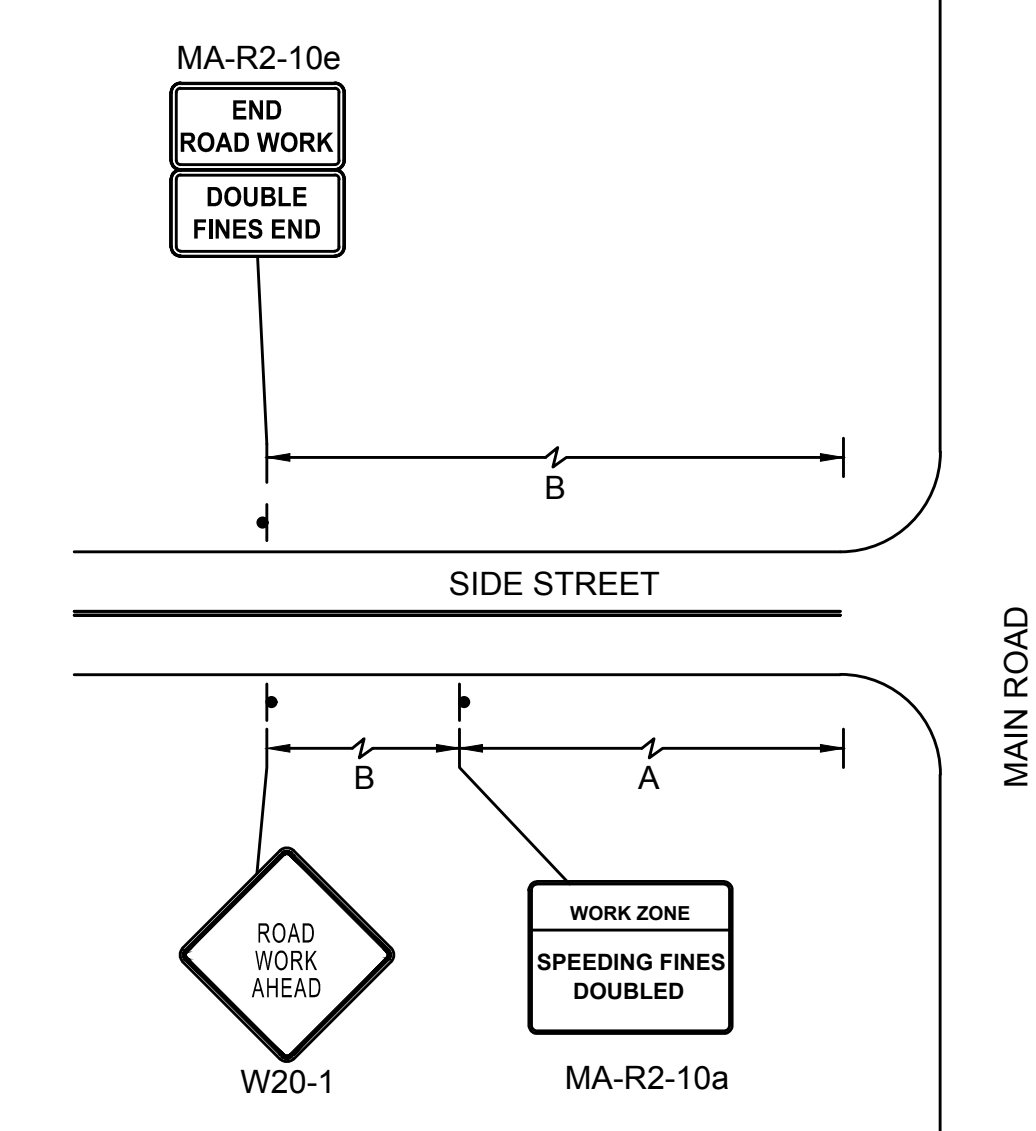


TWO LANE ROAD  
ONE LANE ALTERNATING TRAFFIC  
WITH POLICE OR FLAGGER DETAIL  
NOT TO SCALE



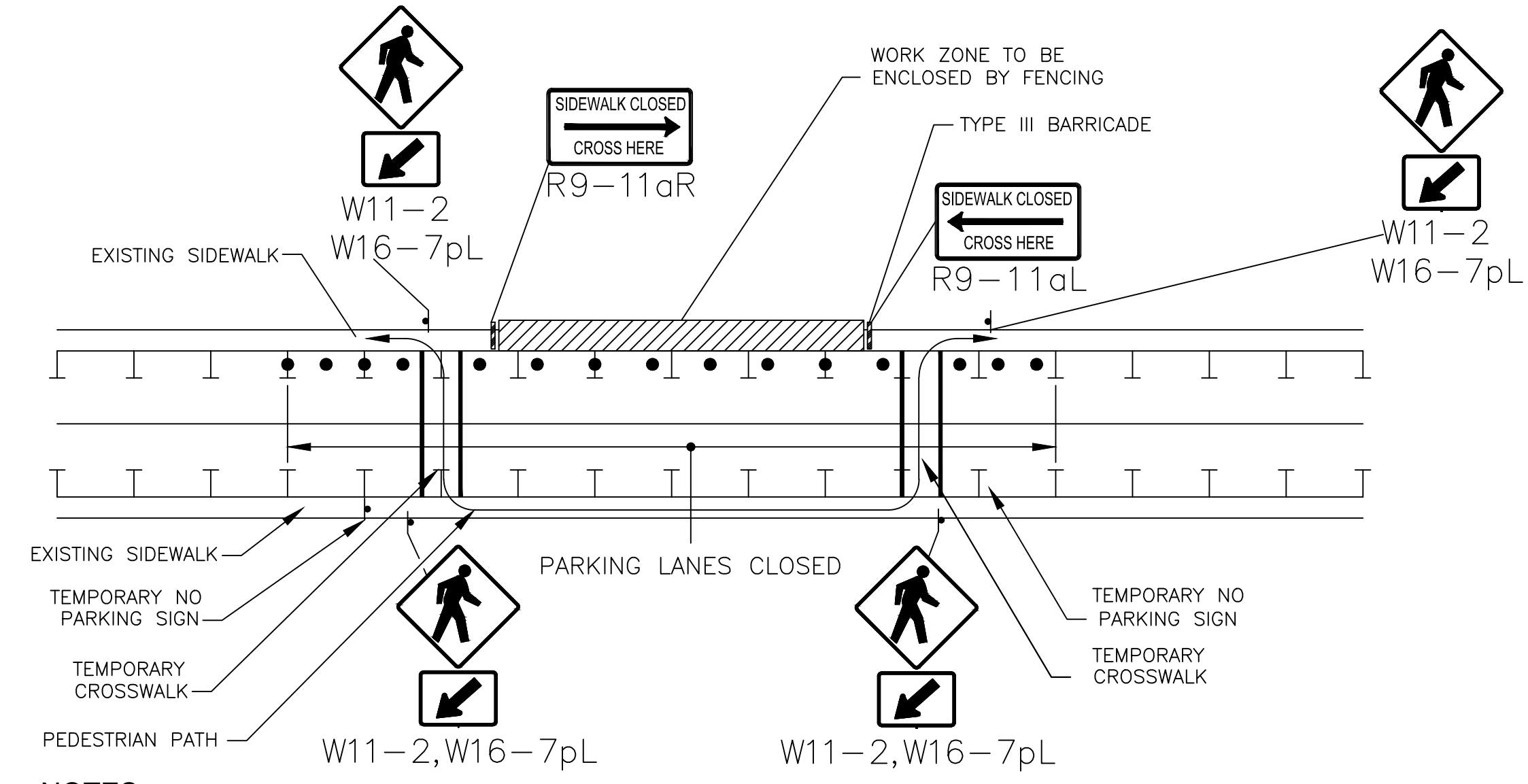
\* THIS DELINEATION CAN BE REMOVED TO INCREASE CAPACITY OF THE INTERSECTION. POLICE OFFICER CAN BE REMOVED AS WELL

SINGLE LANE APPROACH  
ONE QUADRANT CLOSURE  
NOT TO SCALE



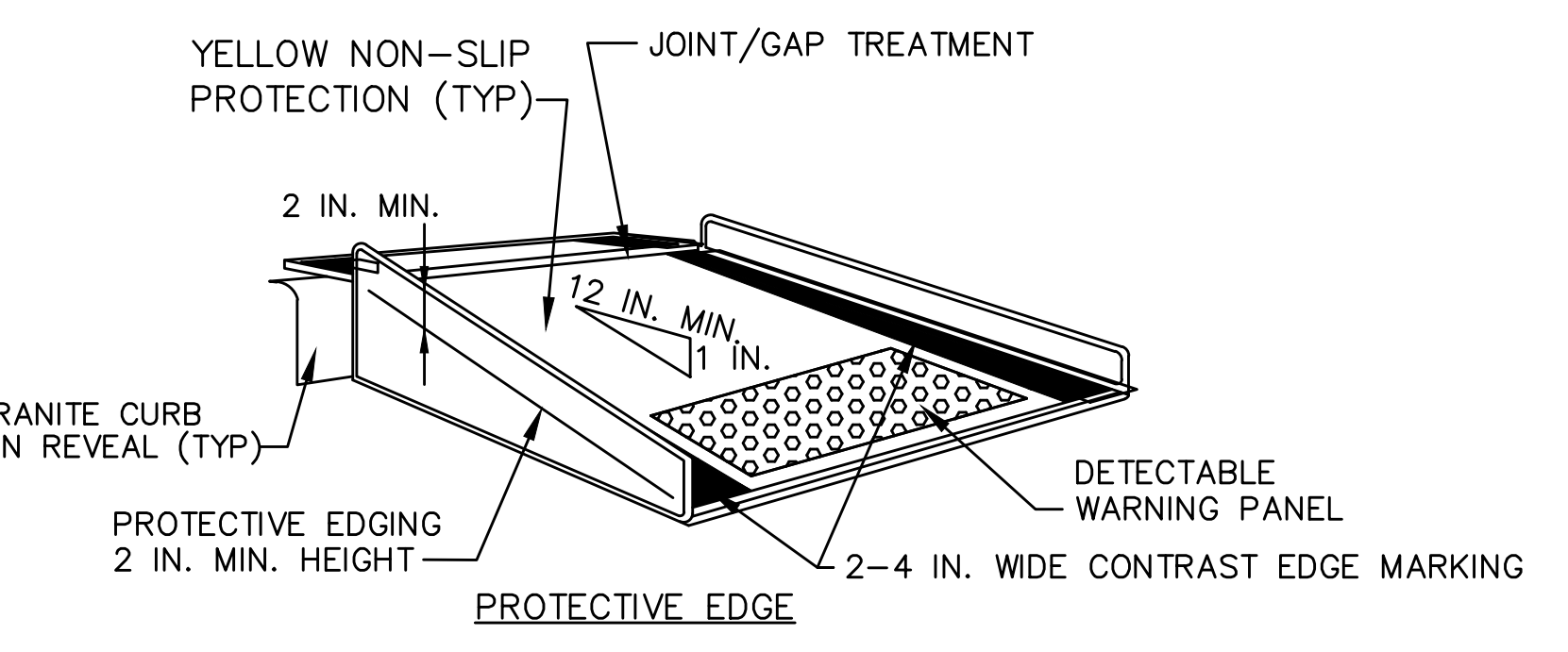
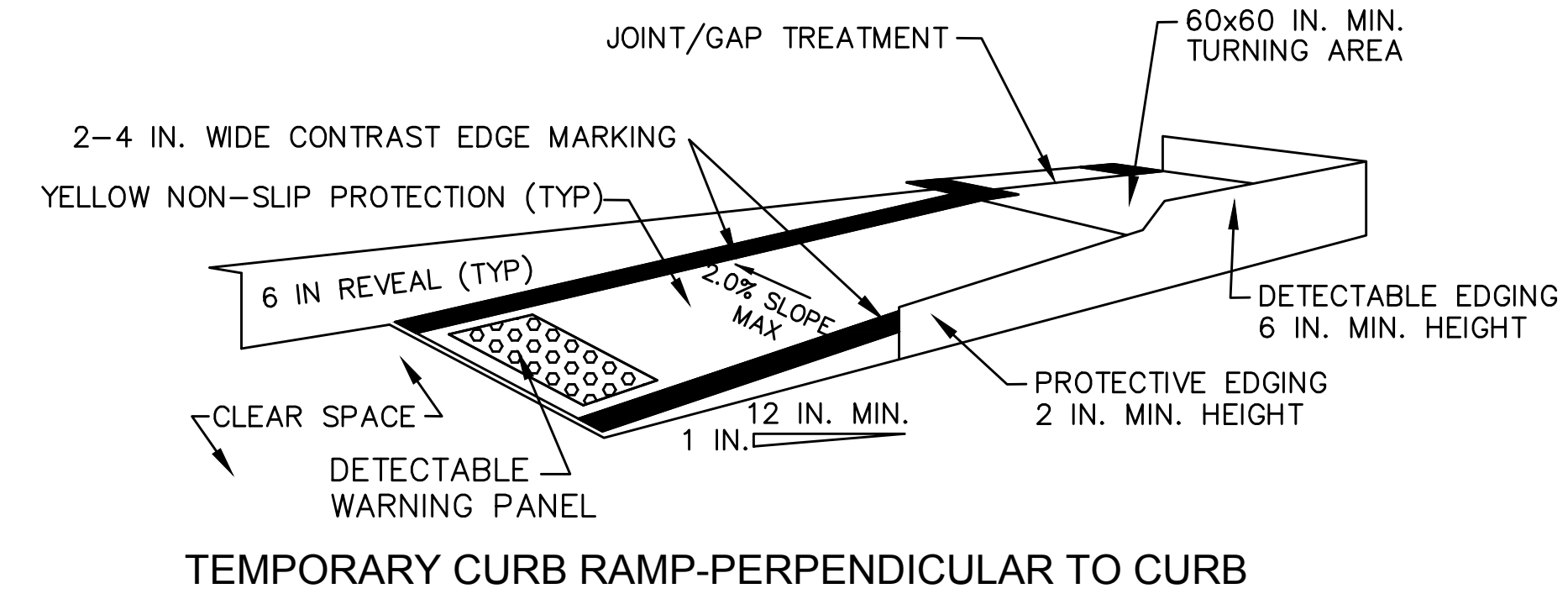
TYPICAL SIDE STREET ADVANCED  
WARNING SIGN DETAIL  
NOT TO SCALE

- NOTES:
- CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
  - PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
  - DETECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
  - THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
  - CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
  - CLEAR SPACE OF 48x48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
  - WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
  - LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH.
  - CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. HEIGHT.
  - IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.

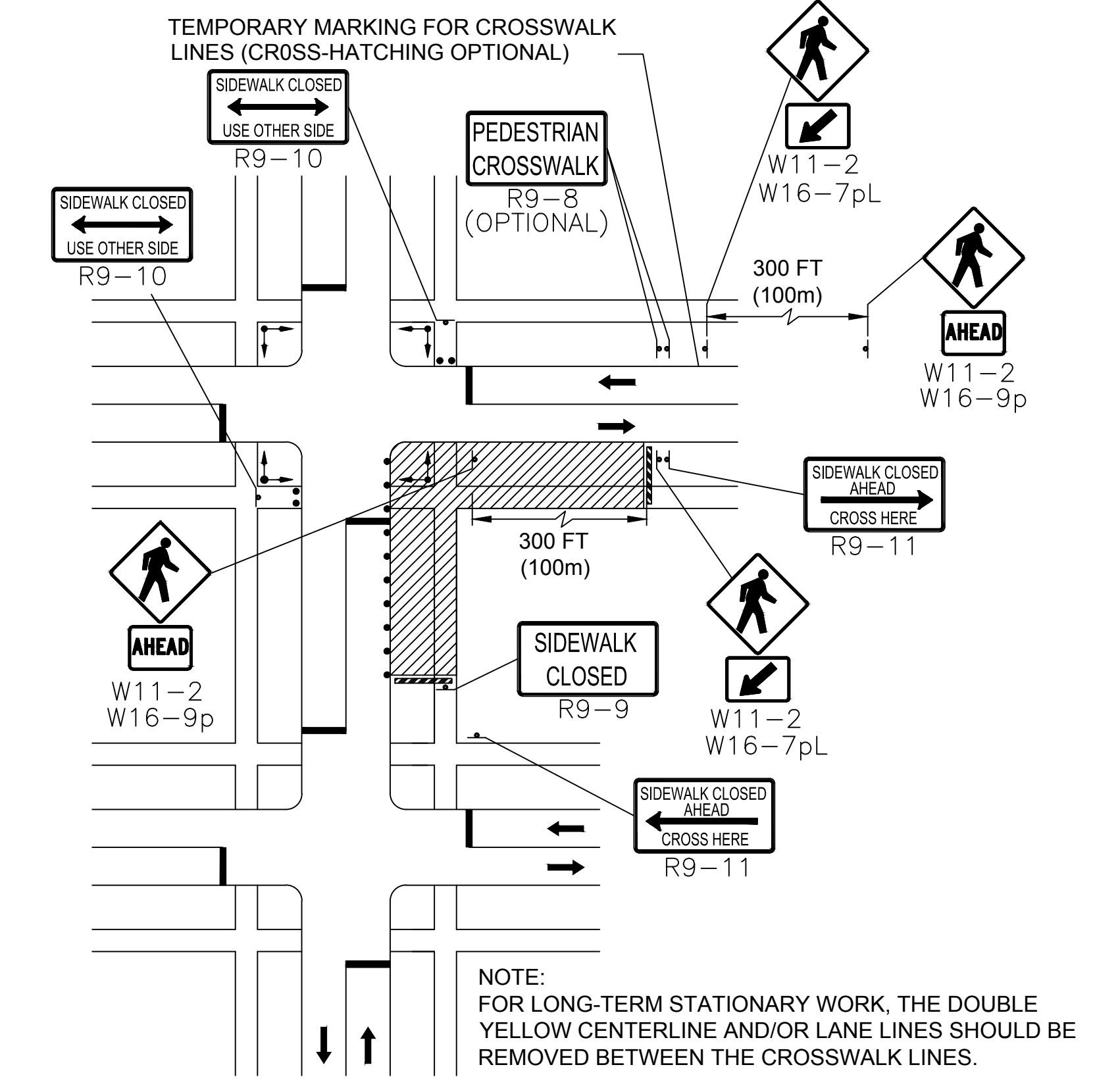


- NOTES**
- ADDITIONAL ADVANCE WARNING MAY BE NECESSARY.
  - CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN. VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE.
  - STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
  - IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, TEMPORARY CROSSWALKS WITH APPROPRIATE SIGNS SHOULD BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER. TEMPORARY CURB RAMPS WILL BE REQUIRED AT ALL TEMPORARY CROSSWALK LOCATIONS.
  - BYPASS IS TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DIRECTED BY THE ENGINEER.
  - THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THIS WALKWAY EXCEEDS 200 FEET THEN A 5 FOOT X 5 FOOT PASSING ZONE. (FOR SHORT TERM SETUPS < 10 HOURS, THIS CONDITION MAY BE WAIVED. A NOTE WOULD NEED TO BE INCLUDED IN THE TTC PLAN THAT STATES HOW THE CONTRACTOR SHOULD ADDRESS THIS ISSUE.)

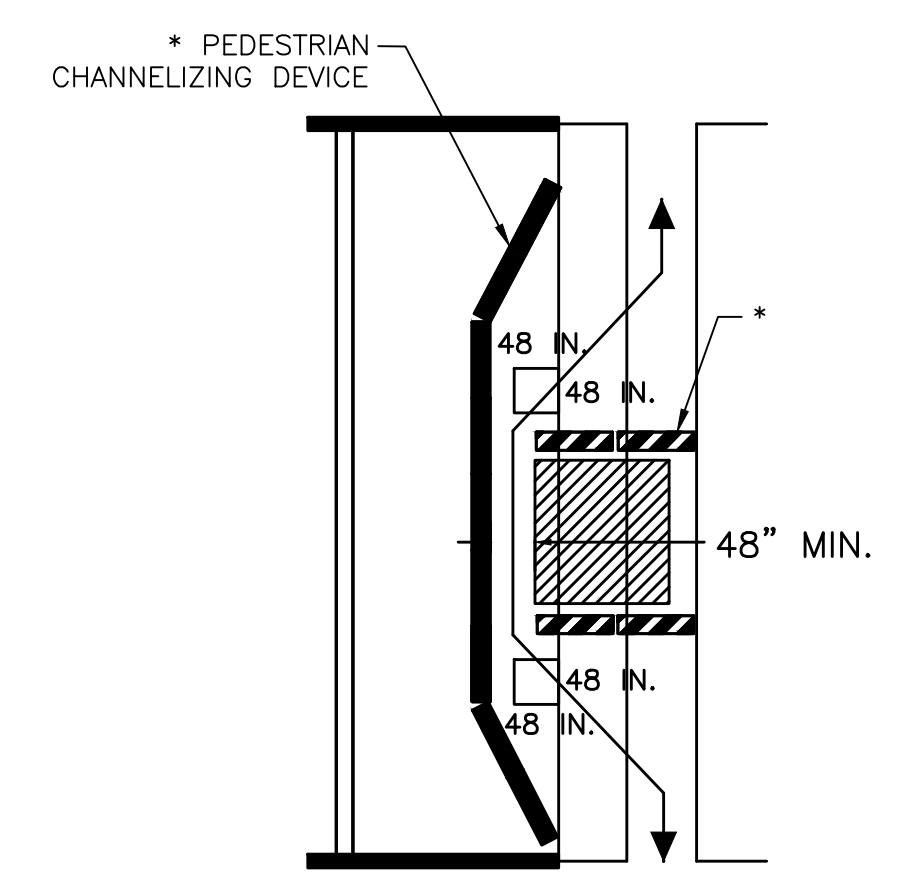
**PEDESTRIAN BYPASS**  
NOT TO SCALE



**TEMPORARY CURB RAMP-PERPENDICULAR TO CURB**  
**TEMPORARY CURB RAMP-PARALLEL TO CURB**  
NOT TO SCALE



**PEDESTRIAN DETOUR**  
NOT TO SCALE



**TEMPORARY PEDESTRIAN BARRICADE DETAIL**  
NOT TO SCALE

- When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, temporary facilities shall be provided and they shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
- A pedestrian channelizing device that is detectable by a person with a visual disability traveling with the aid of a long cane shall be placed across the full width of the closed sidewalk.
- When used, temporary ramps shall comply with Americans with Disabilities Act (see Figures Ped-1 & Ped-2).
- The alternate pathway should have a smooth continuous hard surface for the entire length of the temporary pedestrian facility.
- The protective requirements of a TTC situation have priority in determining the need for temporary traffic barriers and their use in this situation should be based on engineering judgment.
- Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.

**AUDIBLE DEVICES**

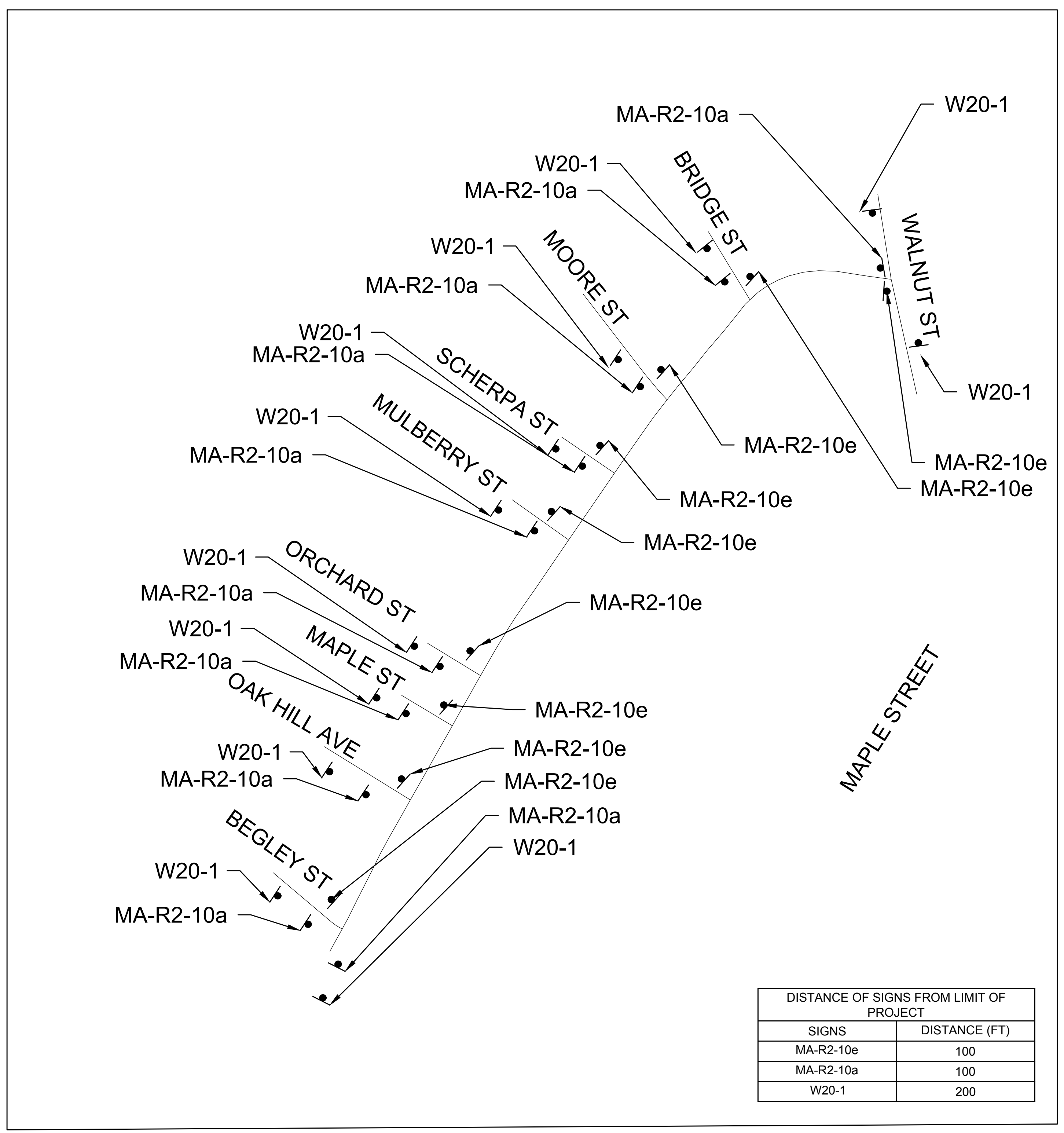
For long term sidewalk closures (at a minimum overnight) a form of speech messaging for pedestrians with visual disabilities shall be provided. Audible information devices such as detectable barriers or barricades and other passive pedestrian activation (motion activated) devices should be considered for these cases. These audible devices can be mountable or stand alone.

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	51	98
PROJECT FILE NO.		610652	

TEMPORARY CONSTRUCTION SIGN SUMMARY

TEMPORARY CONSTRUCTION SIGN SUMMARY

SIGN ID NUMBER	SIZE		MESSAGE	DIMENSIONS (IN)			NUMBER REQUIRED	COLOR			UNIT AREA (SF)	TOTAL AREA (SF)
	WIDTH (IN)	HEIGHT (IN)		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER		
MA-R2-10a	48	36	WORK ZONE SPEEDING FINES DOUBLED	2	2	2	11	FLUOR. ORANGE WHITE	BLACK	BLACK	12.00	132.00
MA-R2-10e	36	48	END ROAD WORK DOUBLE FINES END	2	2	2	11	FLUOR. ORANGE WHITE	BLACK	BLACK	12.00	132.00
R9-9	24	12	SIDEWALK CLOSED	1	1	1	2	WHITE	BLACK	BLACK	2.00	4.00
R9-10	24	12	SIDEWALK CLOSED USE OTHER SIDE	1	1	1	2	WHITE	BLACK	BLACK	2.00	4.00
R9-11aL	24	12	SIDEWALK CLOSED CROSS HERE	1	1	1	1	WHITE	BLACK	BLACK	2.00	2.00
R9-11aR	24	12	SIDEWALK CLOSED CROSS HERE	1	1	1	1	WHITE	BLACK	BLACK	2.00	2.00
W5-1	36	36	ROAD NARROWS	1	1	1	1	FLUOR. ORANGE	BLACK	BLACK	9.00	9.00
W11-2	30	30	PEDESTRIAN	1	1	1	4	FLUOR. YELLOW GREEN	BLACK	BLACK	6.25	25.00
W13-1p	18	18	XX MPH	1	1	1	2	FLUOR. ORANGE	BLACK	BLACK	2.25	4.50
W16-7pL	24	12	LEFT TURN	1	1	1	4	FLUOR. YELLOW GREEN	BLACK	BLACK	2.00	8.00
W16-9p	24	12	AHEAD	1	1	1	2	FLUOR. YELLOW GREEN	BLACK	BLACK	2.00	4.00
W20-1	36	36	ROAD WORK AHEAD	1	1	1	11	FLUOR. ORANGE	BLACK	BLACK	9.00	99.00
W20-4	36	36	ONE LANE ROAD 500 FT	1	1	1	4	FLUOR. ORANGE	BLACK	BLACK	9.00	36.00
MA-W20-7b	36	36	POLICE OFFICER AHEAD	2	2	2	4	FLUOR. ORANGE	BLACK	BLACK	9.00	36.00
W21-5a	36	36	RIGHT SHOULDER CLOSED	1	1	1	1	FLUOR. ORANGE	BLACK	BLACK	9.00	9.00



DISTANCE OF SIGNS FROM LIMIT OF PROJECT	
SIGNS	DISTANCE (FT)
MA-R2-10e	100
MA-R2-10a	100
W20-1	200

ADVANCED SIGNING PLAN

NOT TO SCALE

TEMPORARY CONSTRUCTION SIGN SUMMARY NOTES:

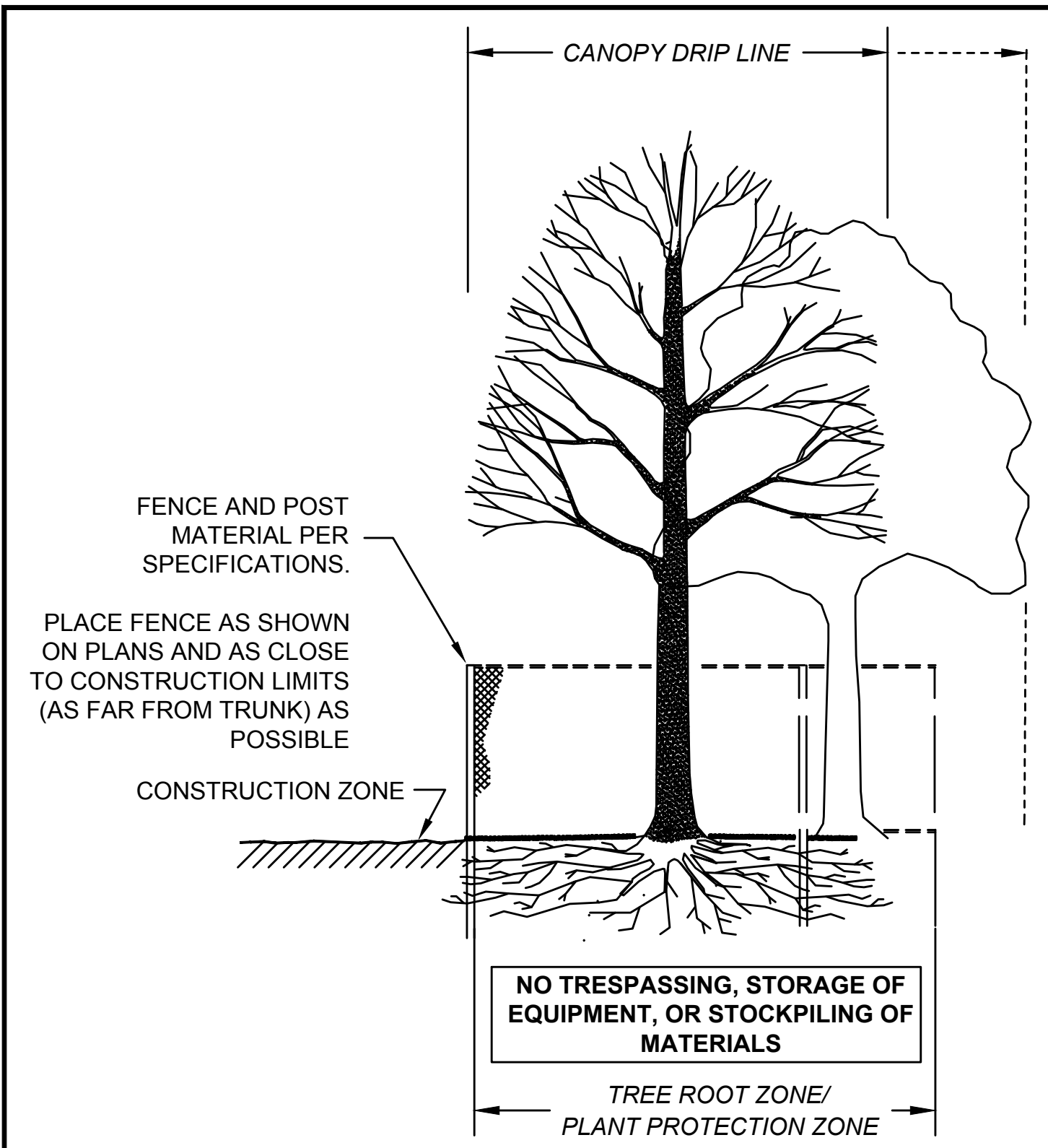
- NUMERICAL LIMITS AND JUSTIFICATION FOR SPEED & ADVISORY EXIT SPEED SIGNS SHALL BE OBTAINED FROM THE SPEED ZONING UNIT OF THE TRAFFIC ENGINEERING SECTION, MASSDOT, BEFORE FABRICATION AND/OR ERECTION.
- HIGH INTENSITY ENCAPSULATED LENS REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" 2009 EDITION, THE 1996 MASSDOT CONSTRUCTION AND TRAFFIC STANDARD DETAILS", AND ALL AMENDMENTS WILL GOVERN.
- ① SEE MUTCD 2009 EDITION, 1979 STD. HWY. SIGNS AND SECTION M9.30.0 TYPE III OF THE MASSDOT STANDARD SPECIFICATION FOR TEXT DIMENSIONS AND COLOR.  
② SEE MASSDOT SIGN STANDARDS.
- ALL ORANGE BACKGROUND SHALL BE FLUORESCENT.

TOTAL TEMPORARY CONSTRUCTION SIGN AREA (S.F.) =	506.50 S.F.
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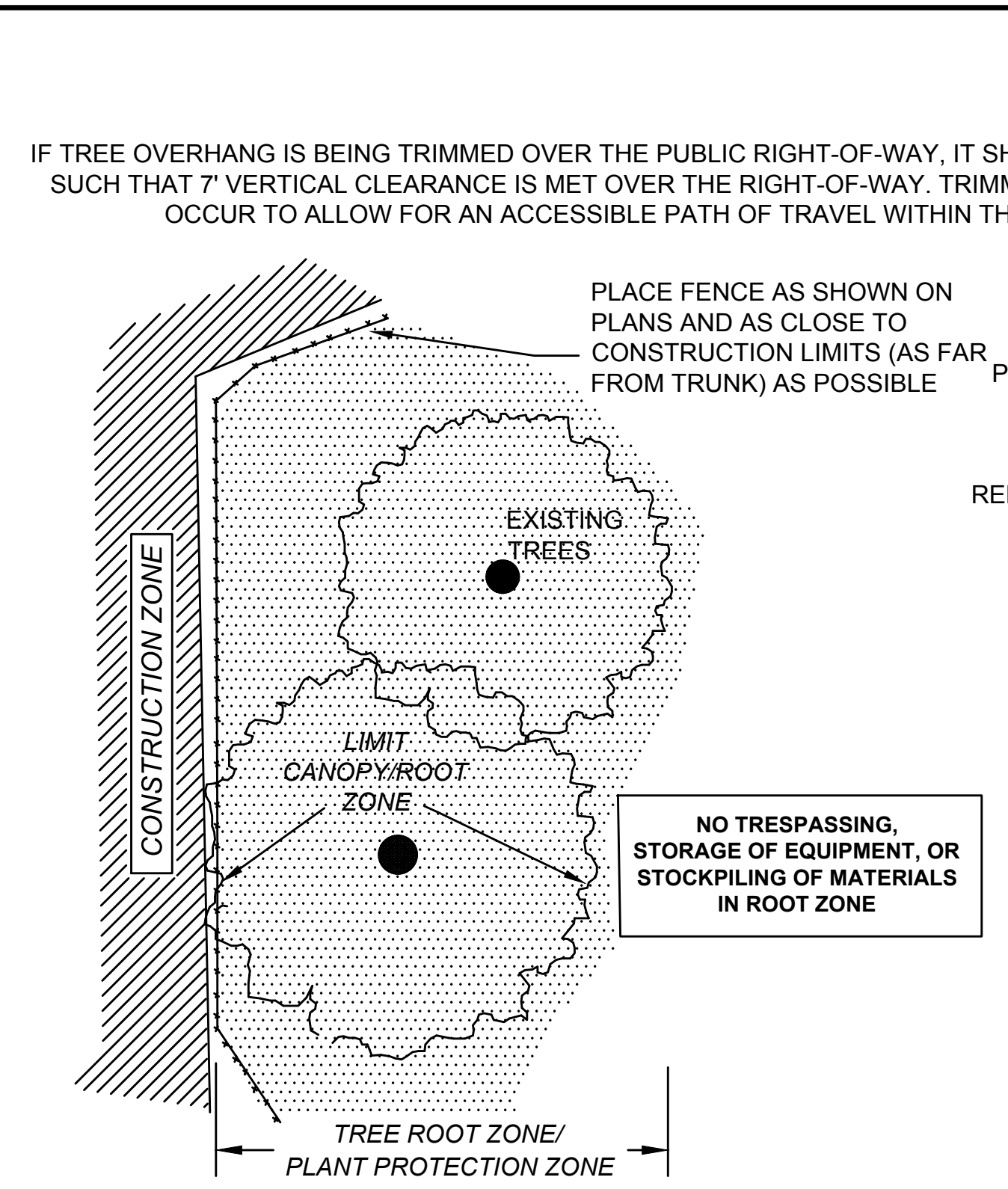
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	52	98
PROJECT FILE NO.		610652	

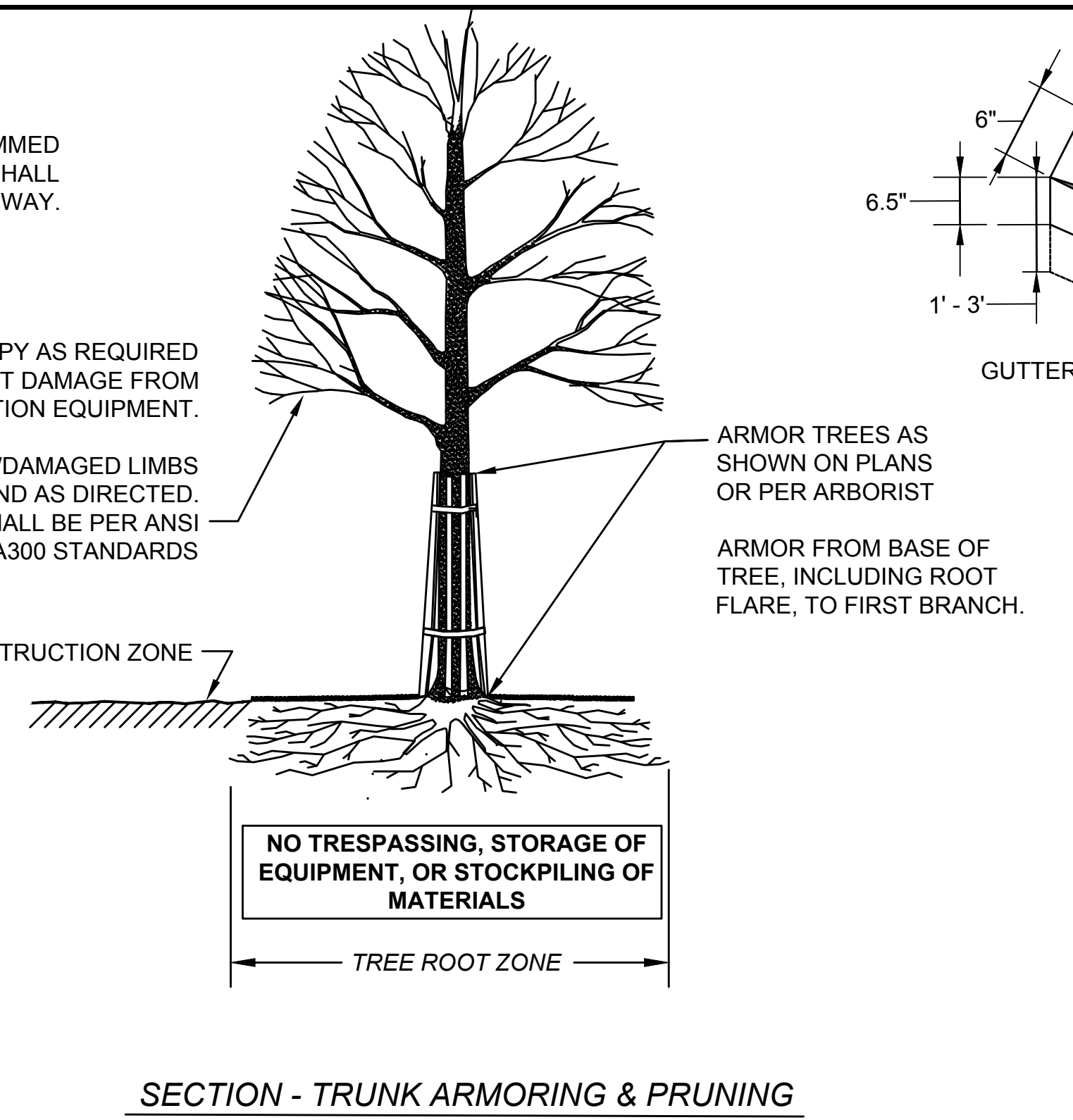
**CONSTRUCTION DETAILS  
SHEET 1 OF 2**



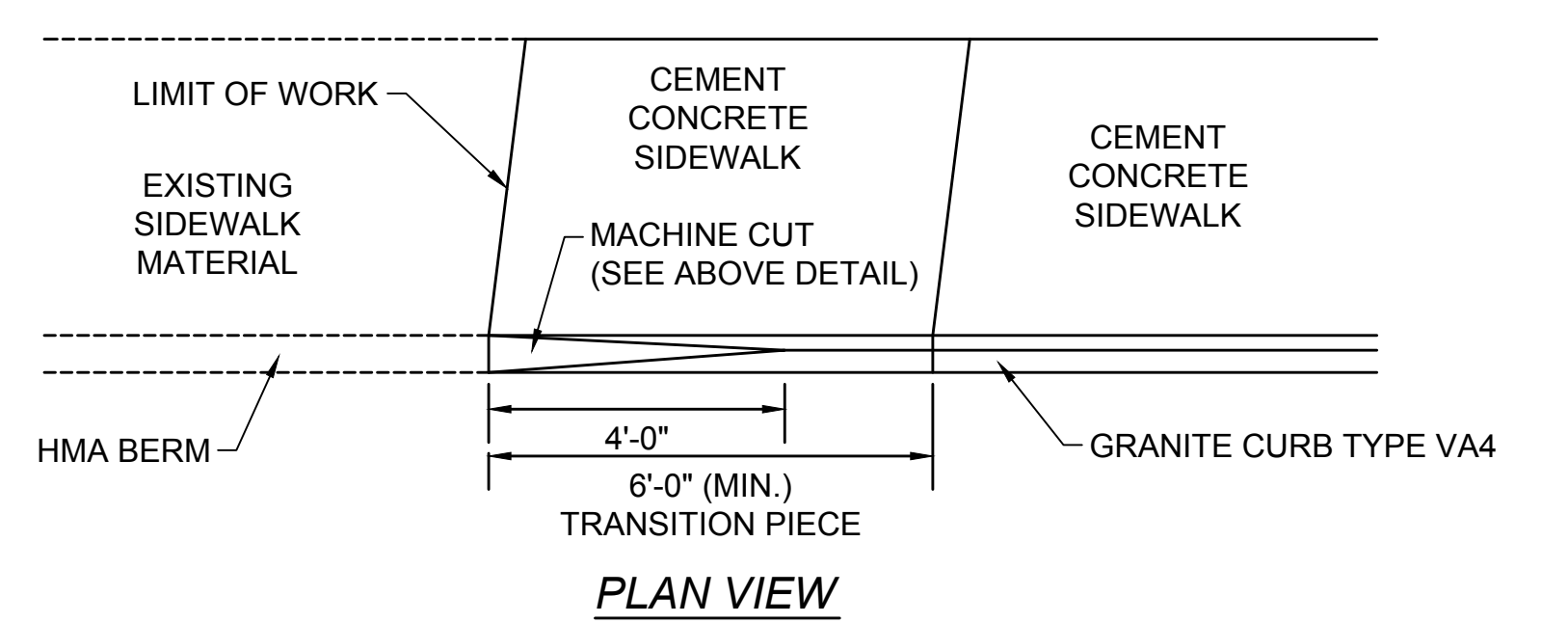
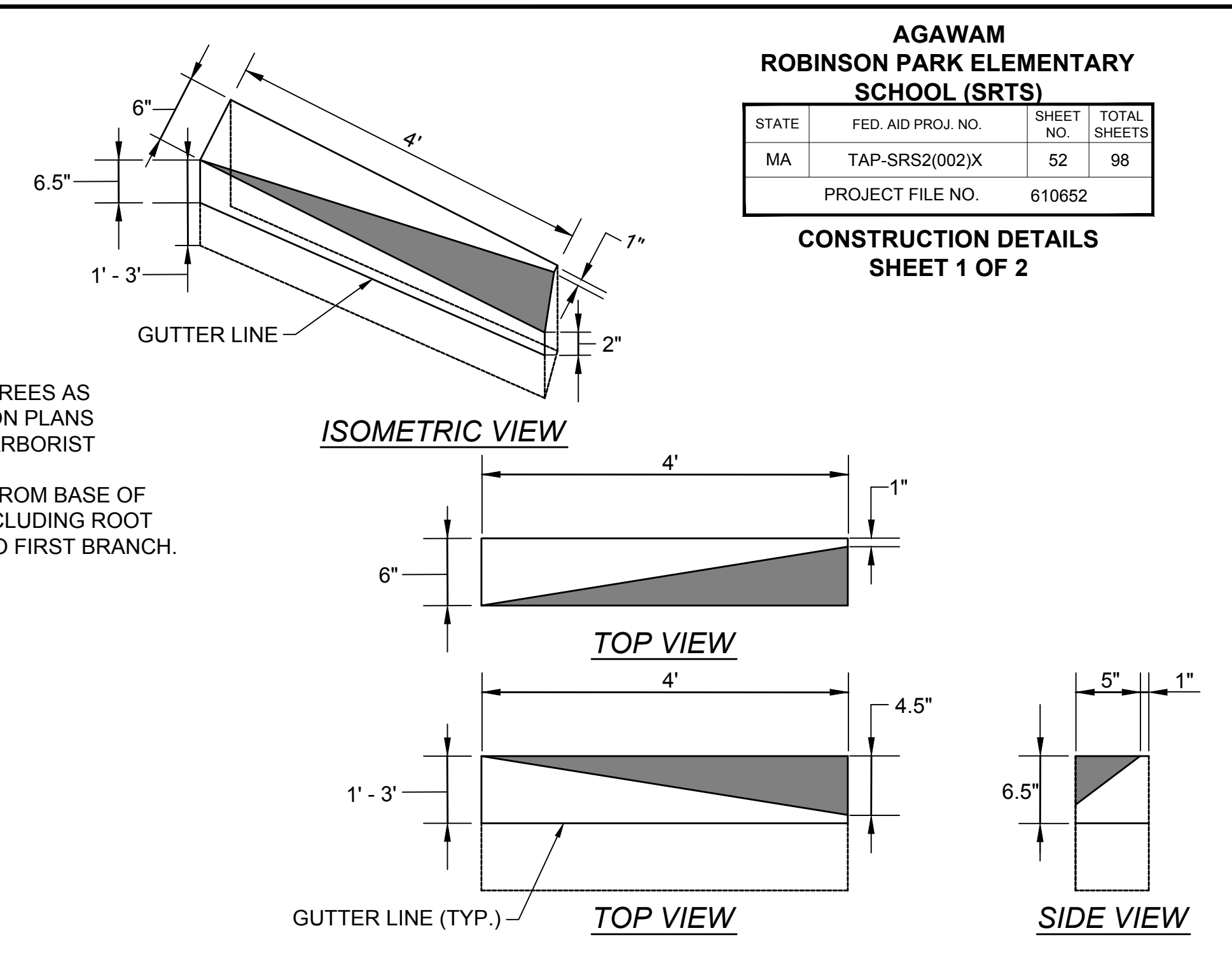
**SECTION - FENCE PROTECTION OF ROOT ZONE**



**PLAN VIEW - FENCE PROTECTION OF ROOT ZONE**

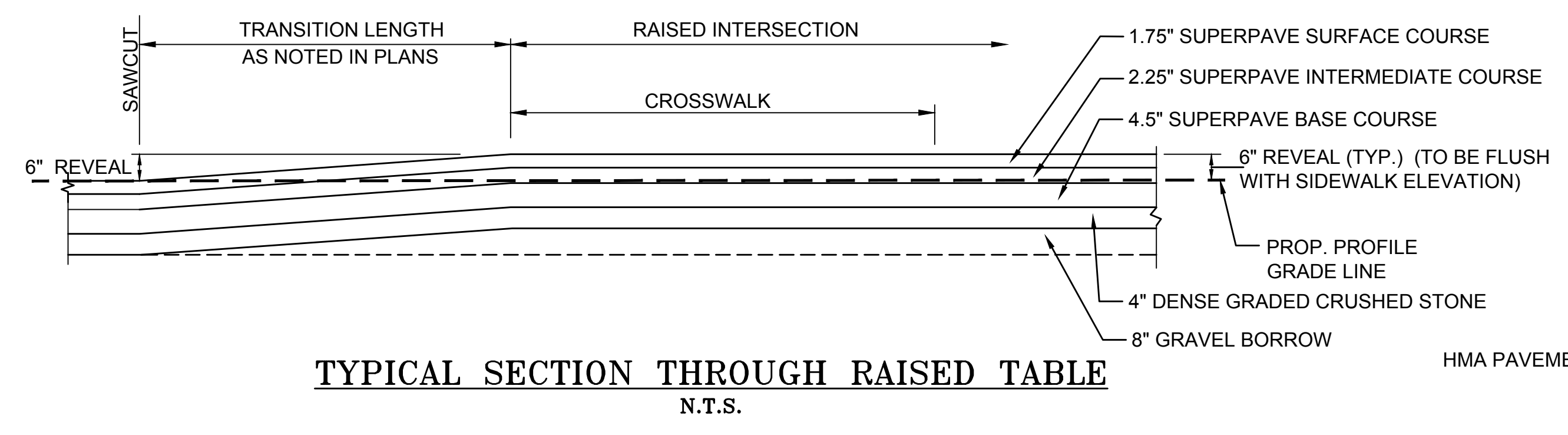


**SECTION - TRUNK ARMORING & PRUNING**

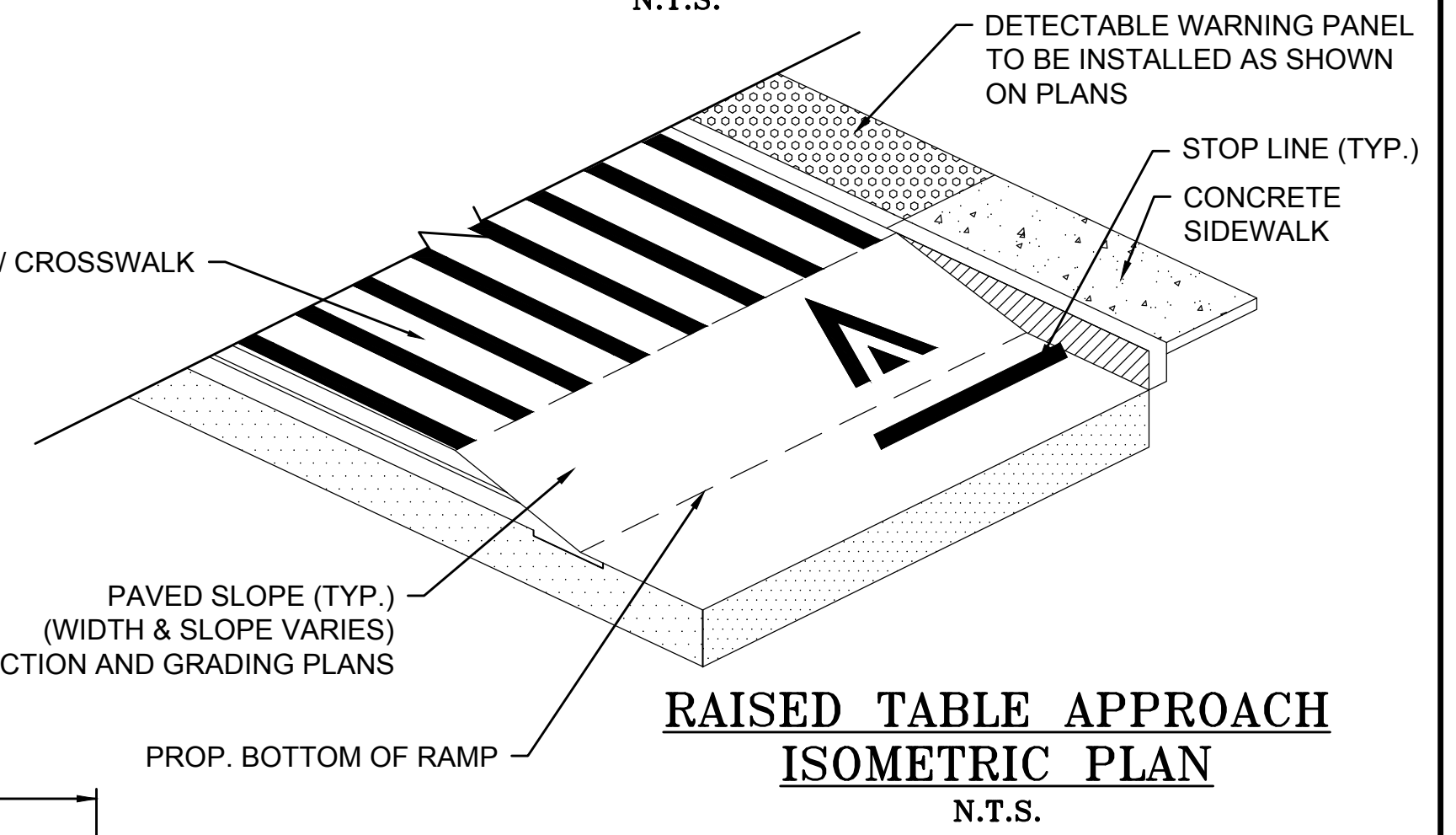


**SLOPED HMA BERM TO VERTICAL GRANITE CURB SPLAYED END  
N.T.S.**

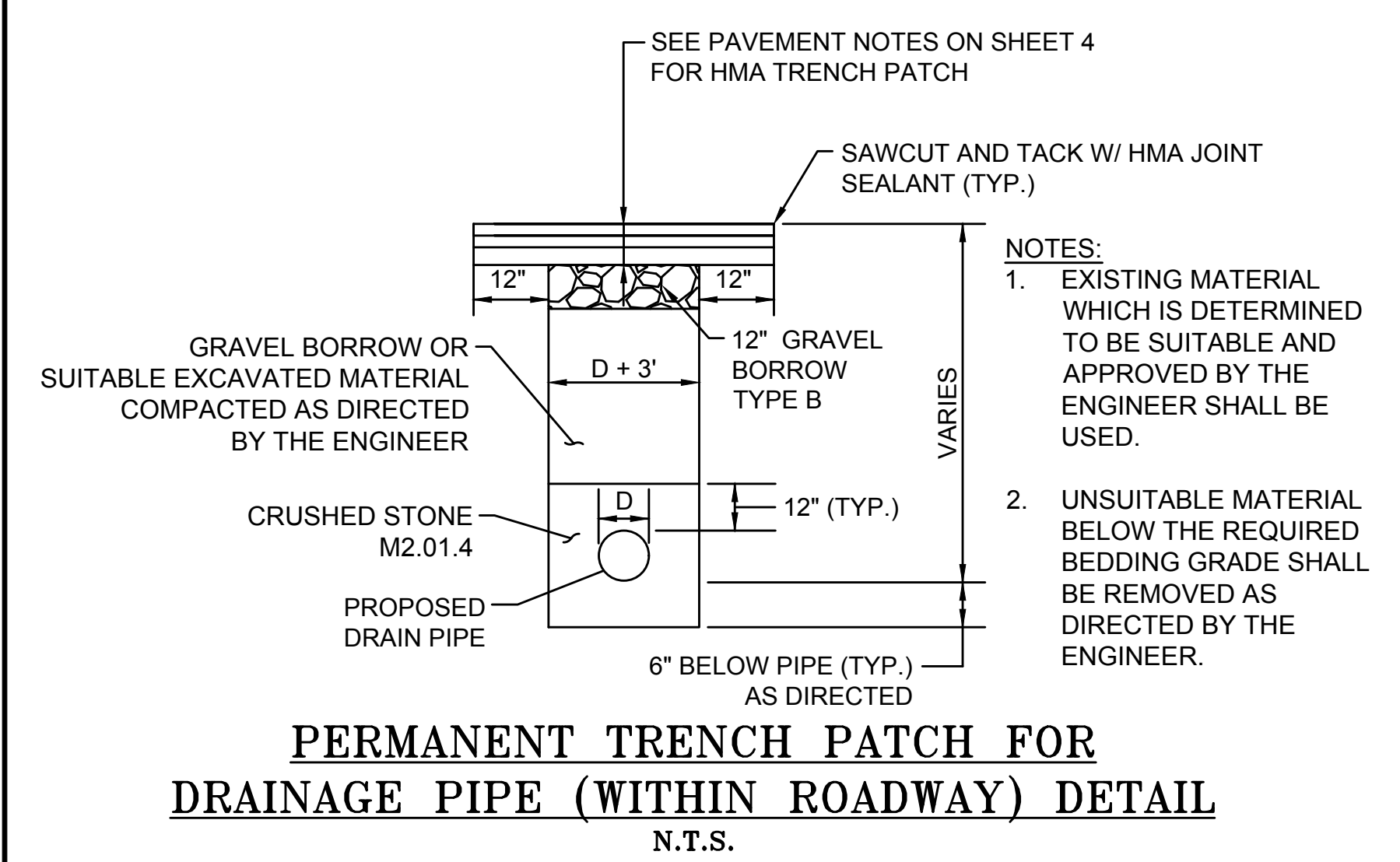
**TREE PROTECTION - ARMORING & PRUNING  
N.T.S.**



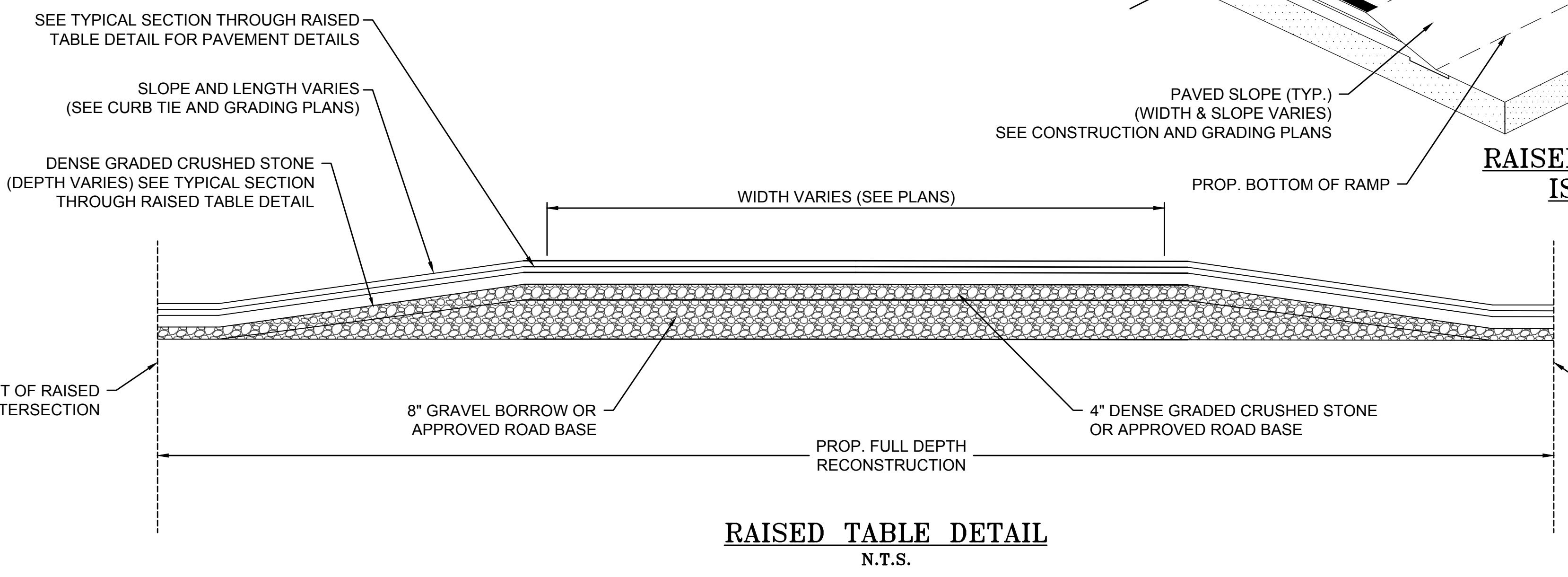
**TYPICAL SECTION THROUGH RAISED TABLE  
N.T.S.**



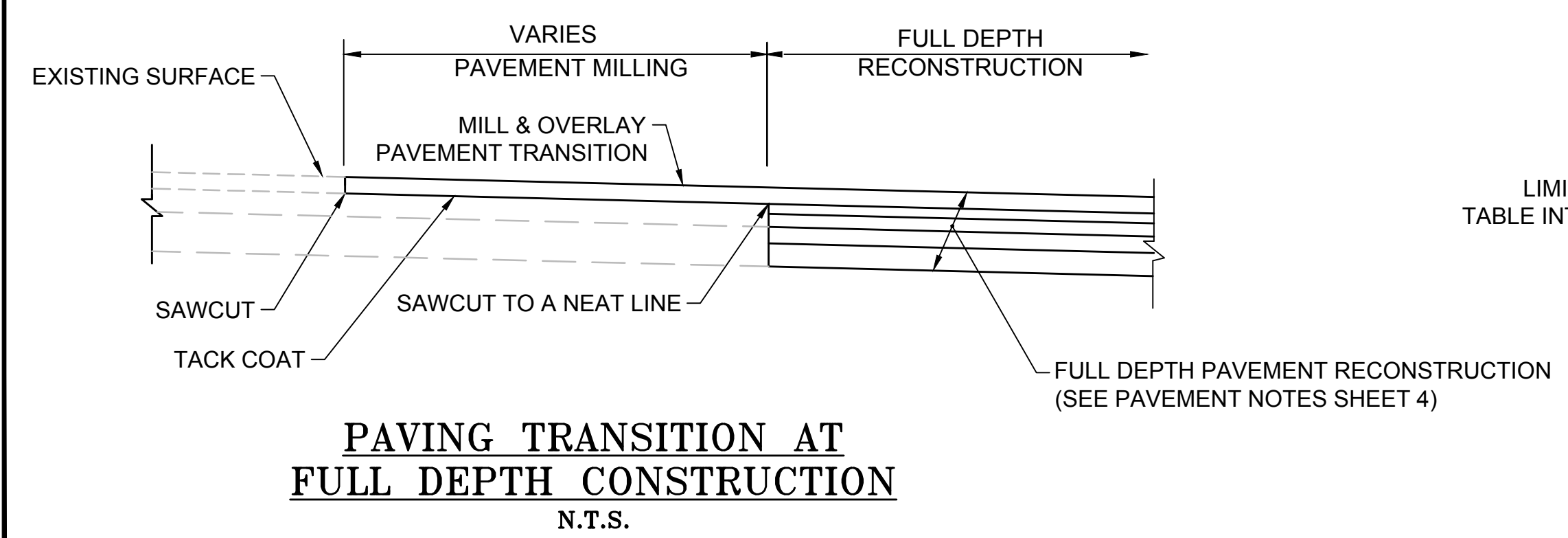
**RAISED TABLE APPROACH  
ISOMETRIC PLAN  
N.T.S.**



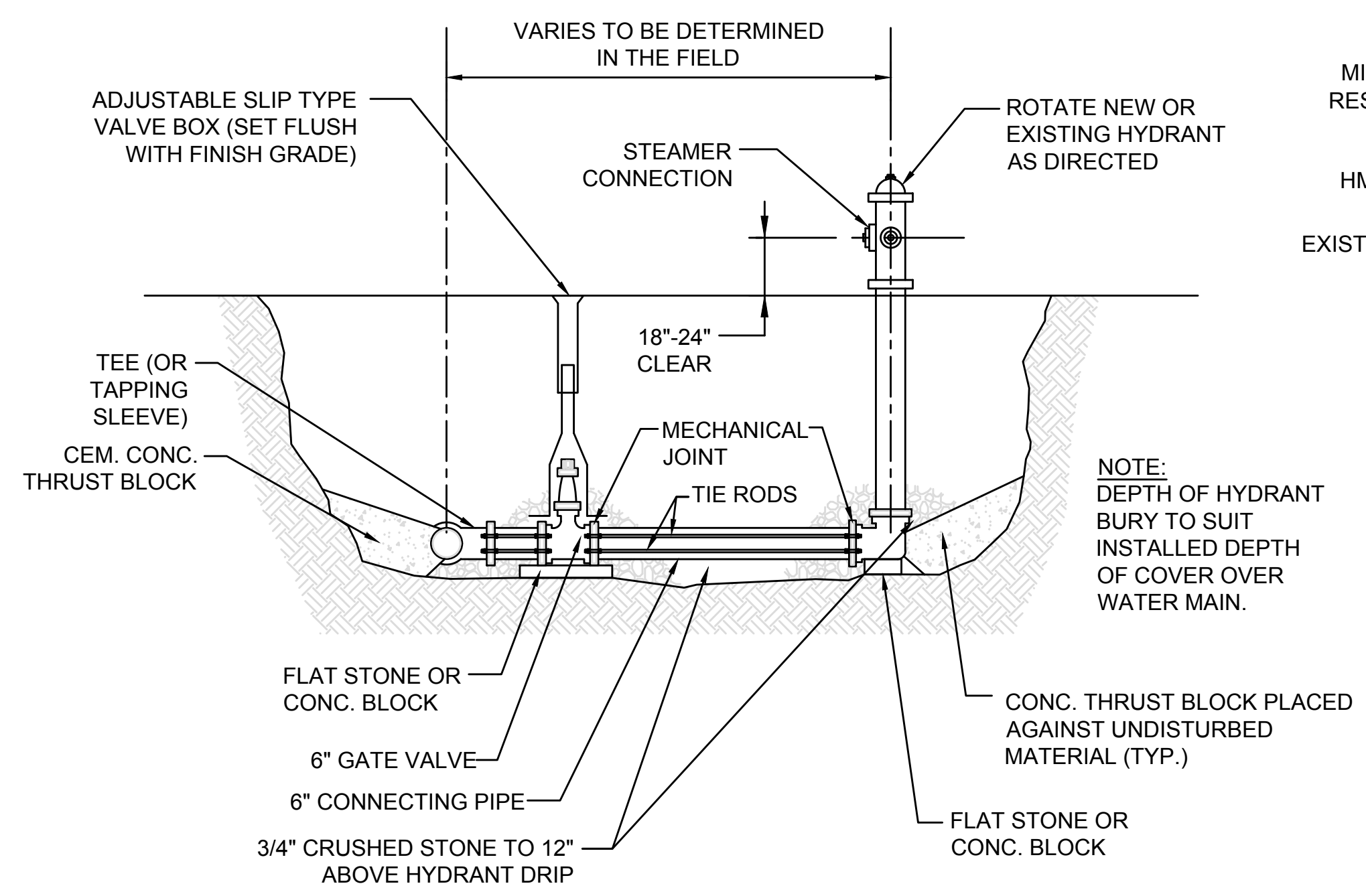
**PERMANENT TRENCH PATCH FOR DRAINAGE PIPE (WITHIN ROADWAY) DETAIL  
N.T.S.**



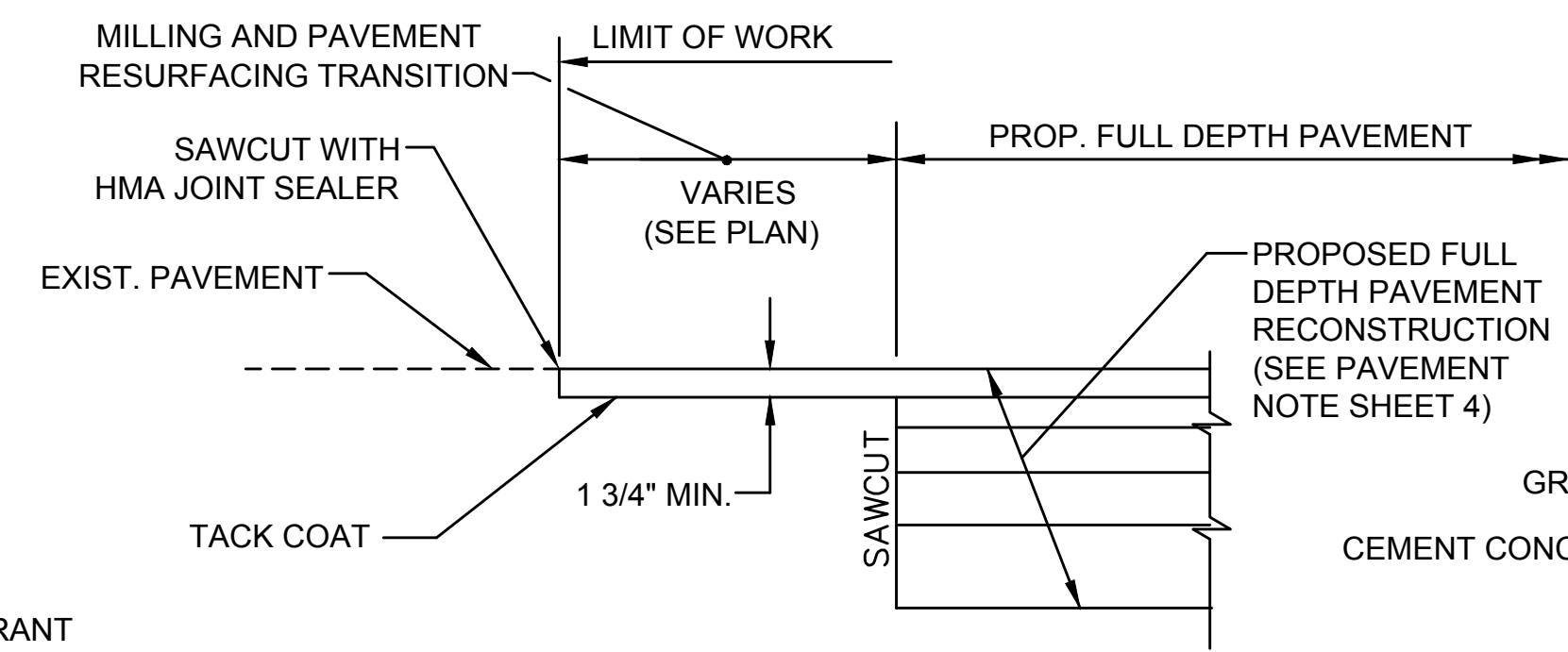
**RAISED TABLE DETAIL  
N.T.S.**



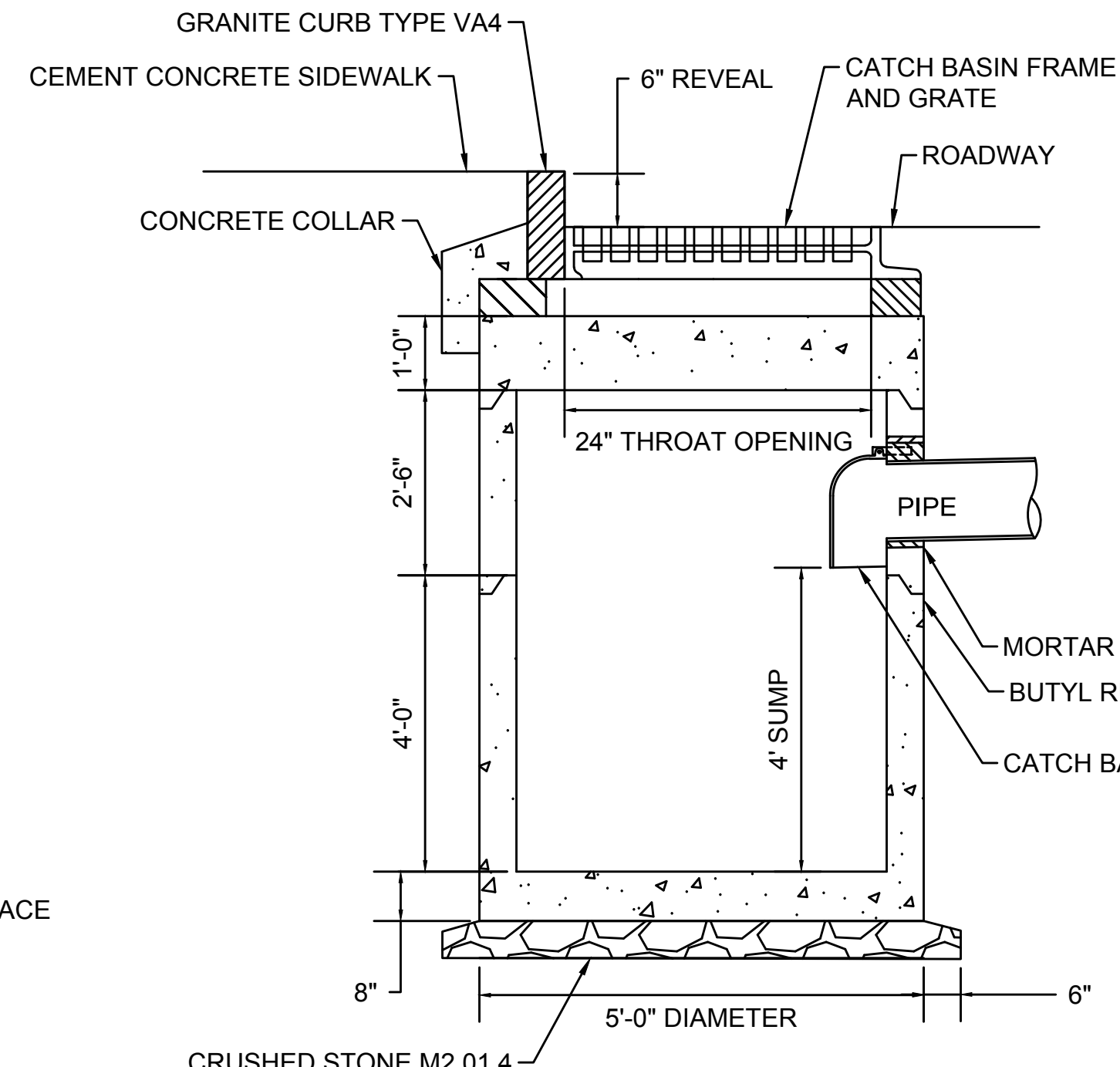
**PAVING TRANSITION AT FULL DEPTH CONSTRUCTION  
N.T.S.**



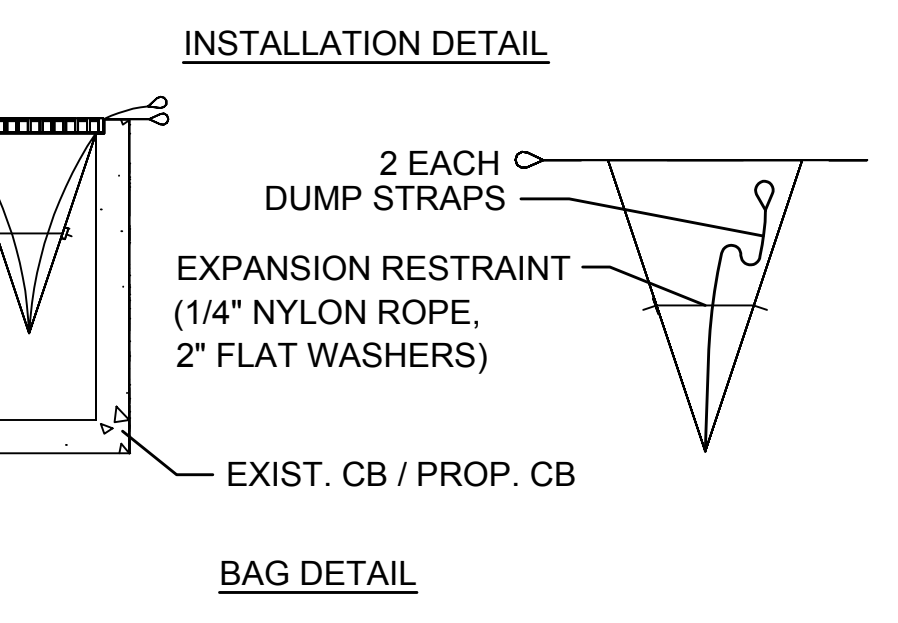
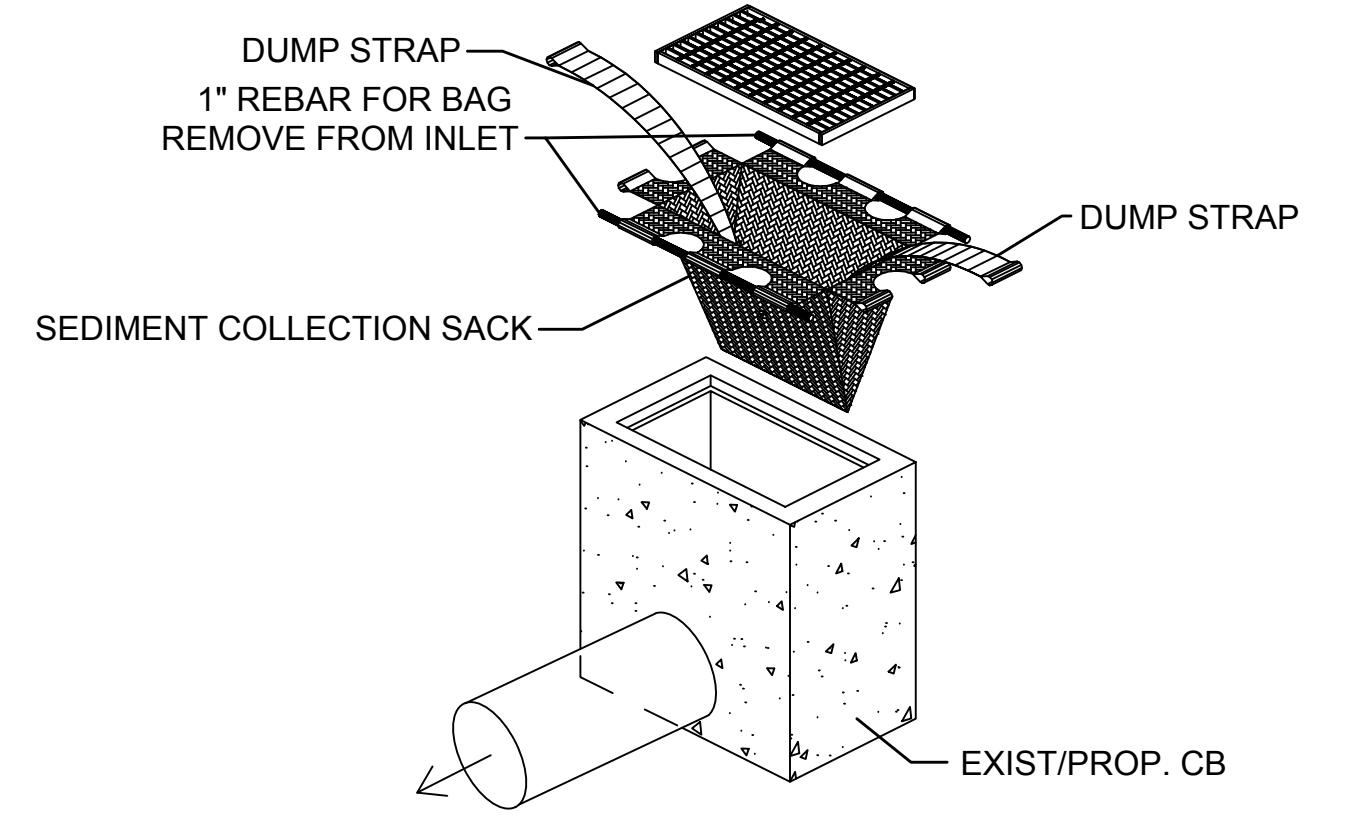
**HYDRANT ASSEMBLY DETAIL  
N.T.S.**



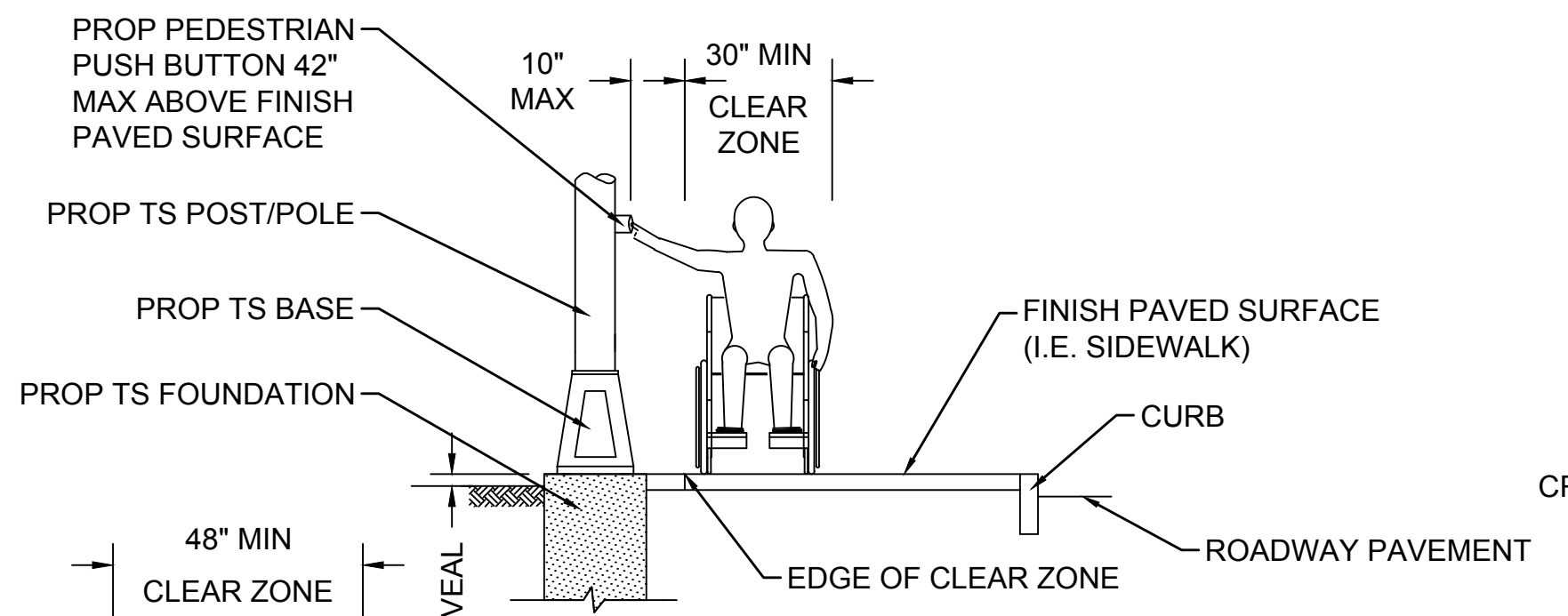
**JOINT DETAILS AT PAVING LIMITS  
N.T.S.**



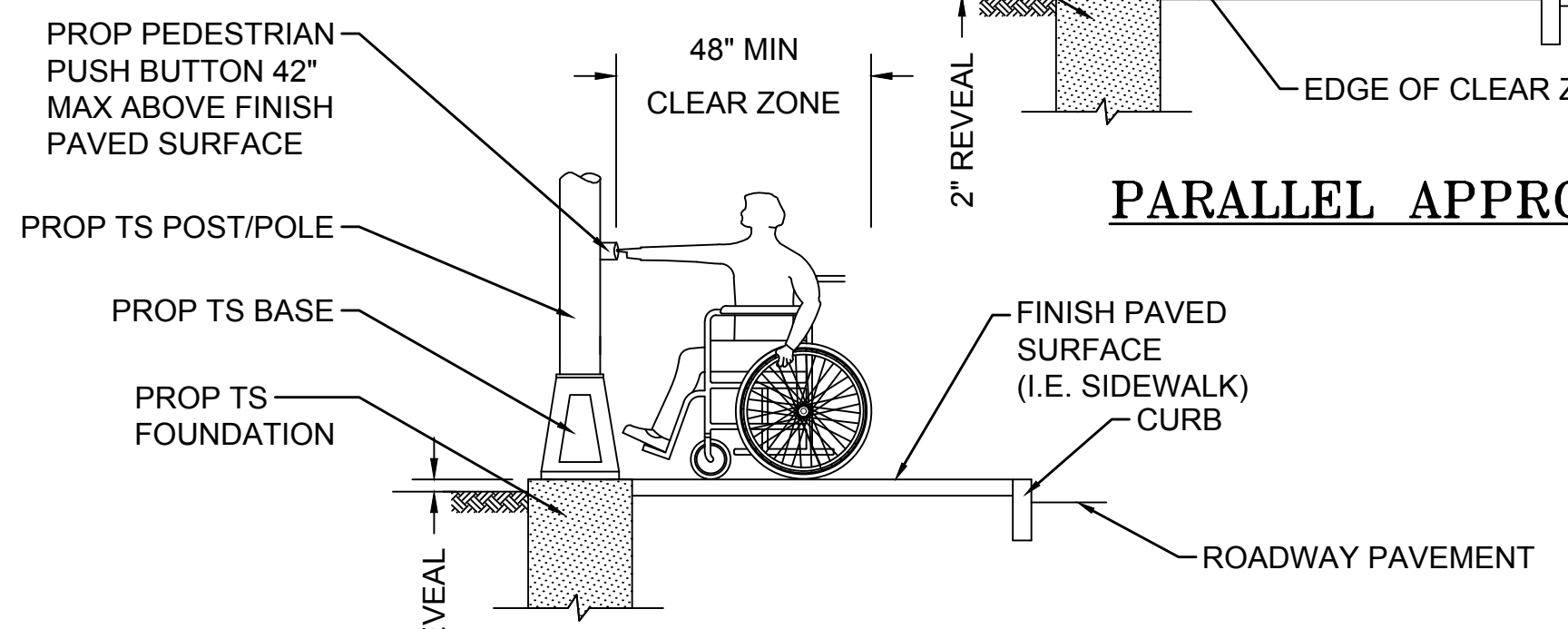
**PRECAST CONCRETE  
FLAT TOP CATCH BASIN  
N.T.S.**



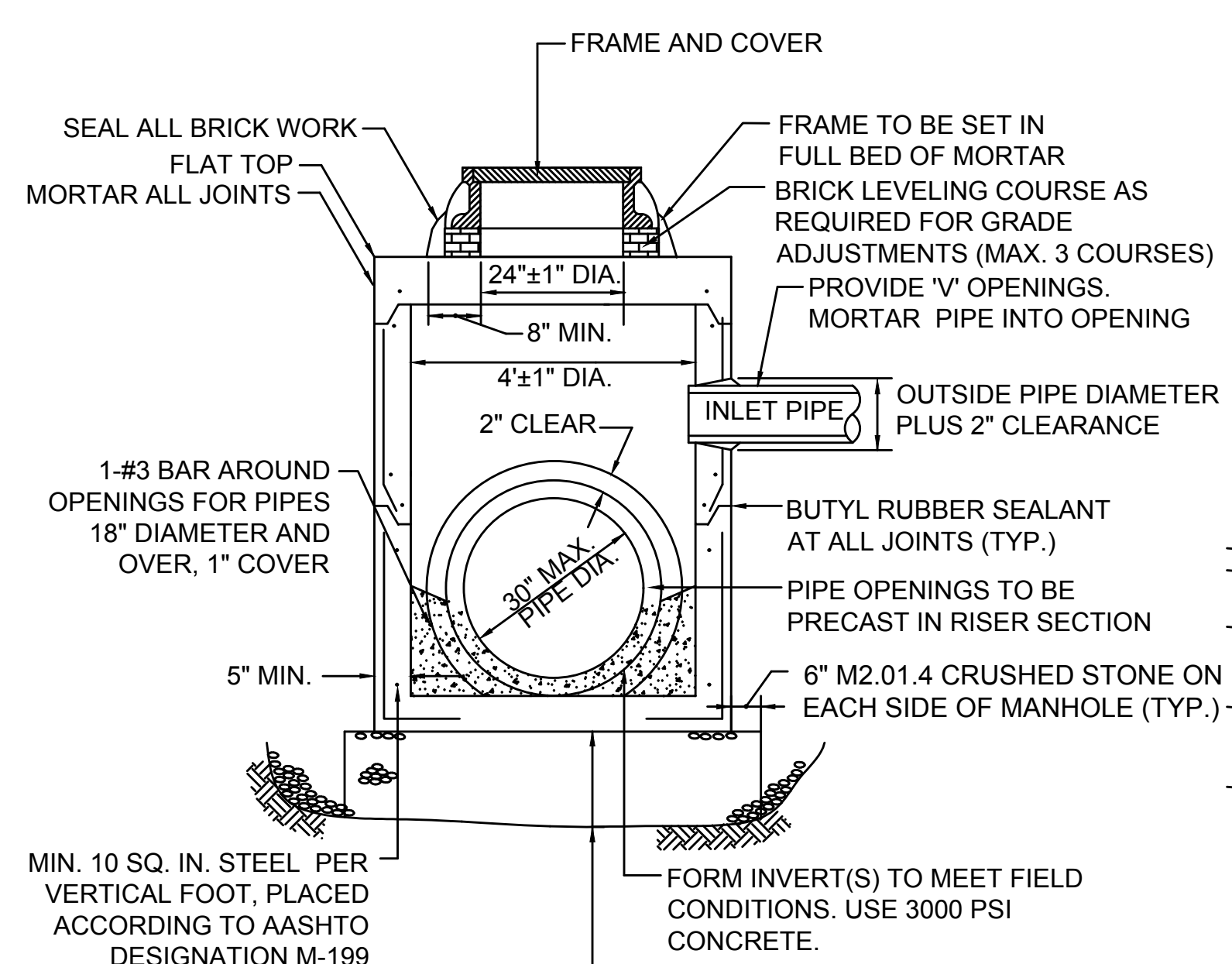
**SILT SACK DETAIL  
(ITEM 697.1)  
N.T.S.**



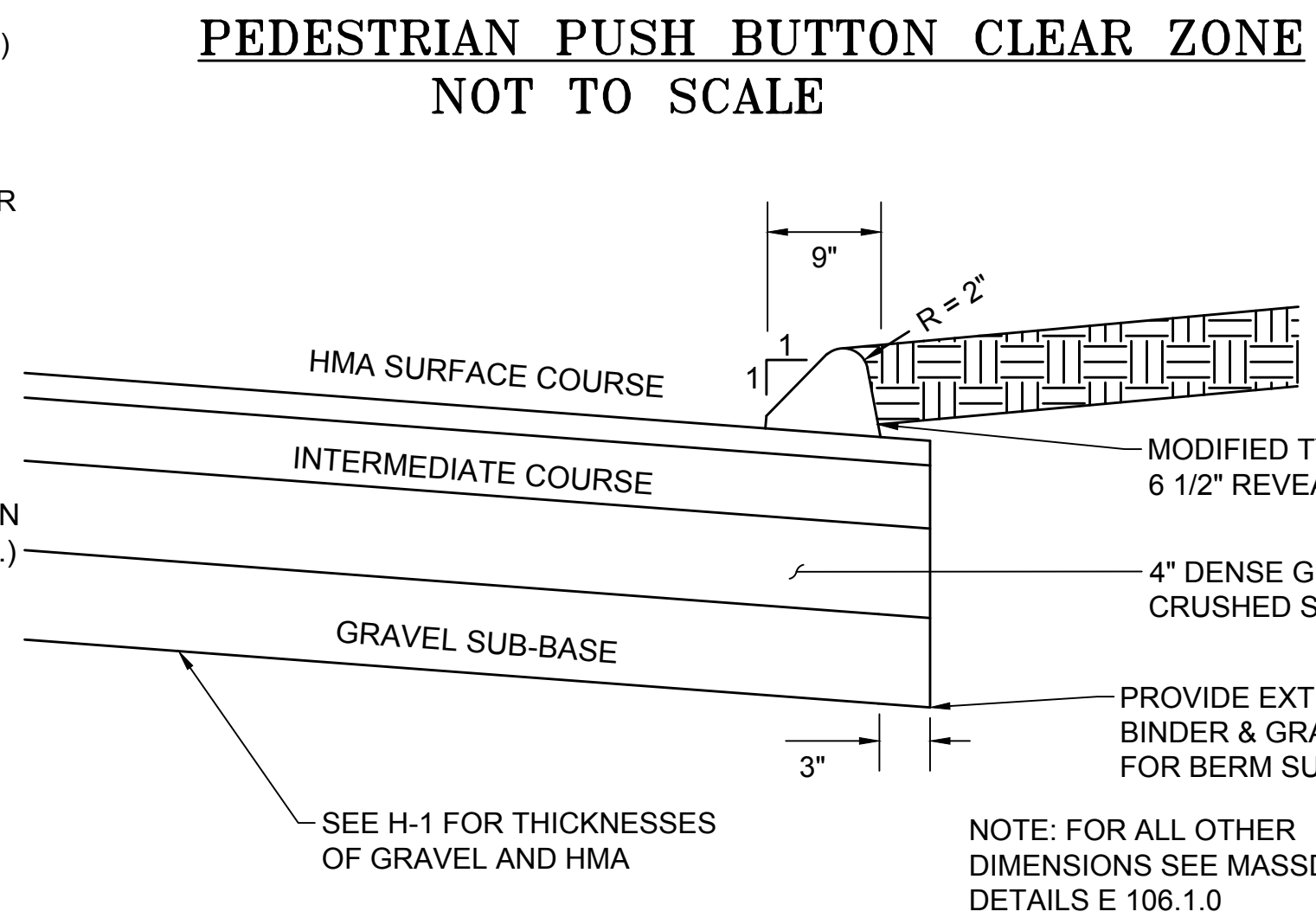
**PARALLEL APPROACH (SIDE REACH)  
N.T.S.**



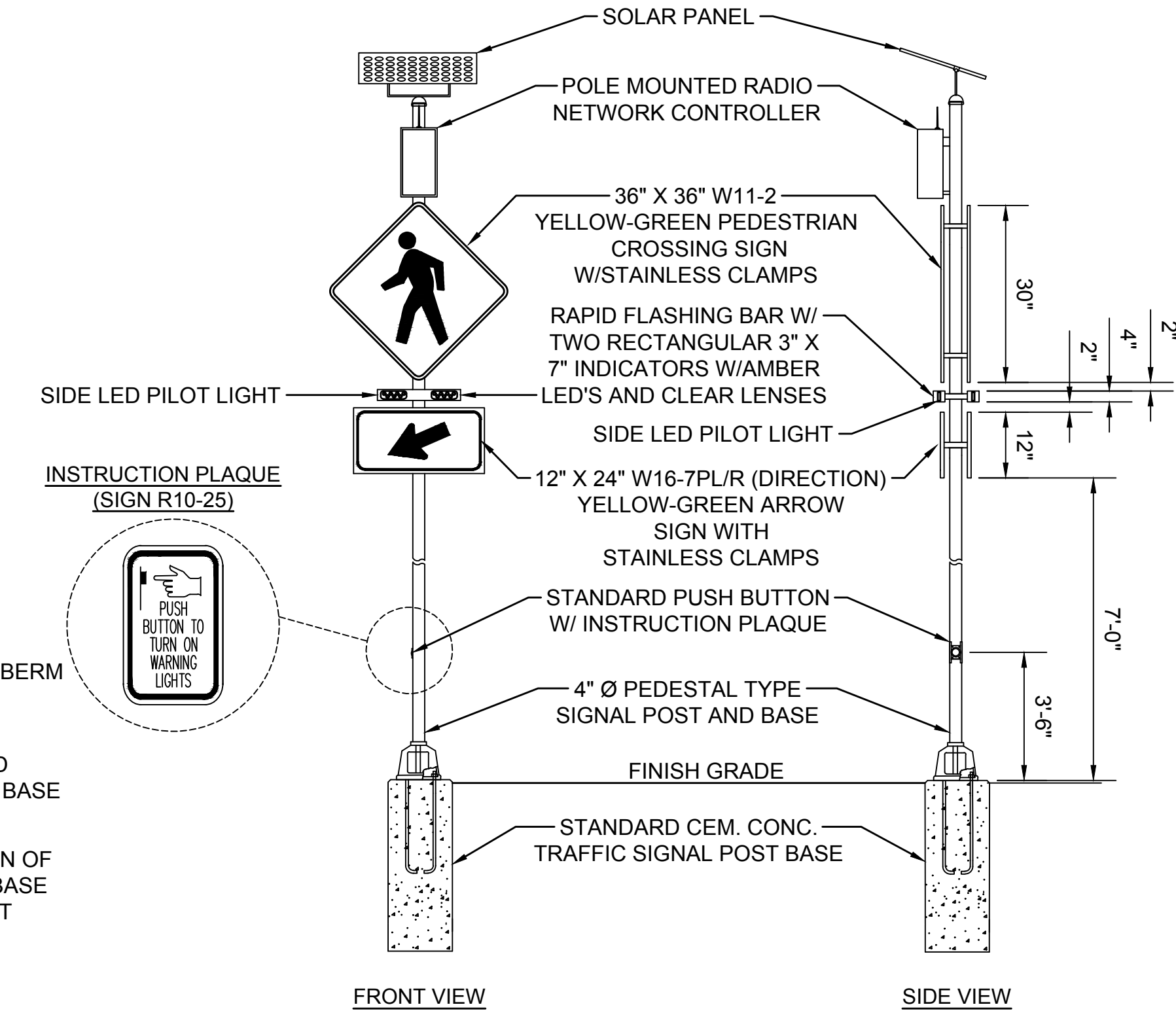
**FORWARD APPROACH (FORWARD REACH)  
N.T.S.**



**PRECAST FLAT TOP DRAIN MANHOLE  
N.T.S.**



**HMA BERM MODIFIED TYPE 2  
N.T.S.**



**RECTANGULAR RAPID FLASHING BEACON (SOLAR)  
(ITEMS 824.211 AND 824.212)  
N.T.S.**

- RECTANGULAR RAPID FLASHING BEACON (RRFB) SHALL BE SUPPLIED FROM A MANUFACTURER LISTED ON THE MASSDOT APPROVED EQUIPMENT LIST.
- EACH LOCATION SHALL HAVE TWO (2) RRFB INSTALLED (ONE ON EACH SIDE OF THE CROSSWALK).
- R10-25 SIGNS SHALL BE INSTALLED ABOVE ALL PEDESTRIAN PUSH BUTTONS.
- OPERABLE CONTROLS ON RRFB SHALL BE LOCATED PER ADA STANDARDS 305-309.
- WARNING SIGNS AND INSTRUCTIONAL SIGNS ARE PAID SEPARATELY UNDER ITEM 832.
- REFER TO SIGN AND PAVEMENT MARKING PLANS FOR WARNING SIGN COMBINATIONS AT EACH LOCATION.
- ALL PEDESTRIAN ACTIVATED CONTROLS SHALL BE ADA COMPLIANT (BOTH HORIZONTALLY AND VERTICALLY) AND ACCESSIBLE FROM A LEVEL LANDING. SEE BELOW DETAIL AND THE ARCHITECTURAL ACCESS BOARD 521 CMR 21.10.4 AND 6.00 FOR ADDITIONAL GUIDANCE.

RRFB CLEARANCE TIME		
APPROACH	LENGTH (ft)	CLEARANCE (s)
LOCATION 1	26	8
LOCATION 2	26	8

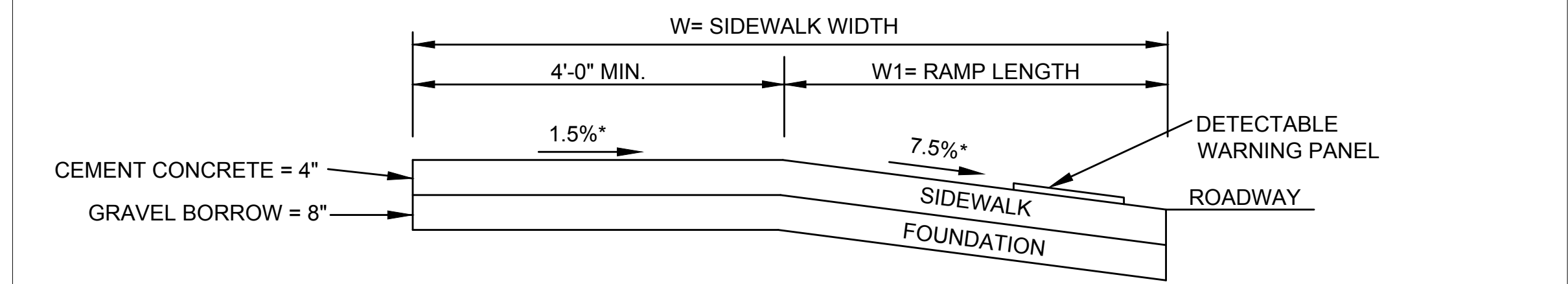
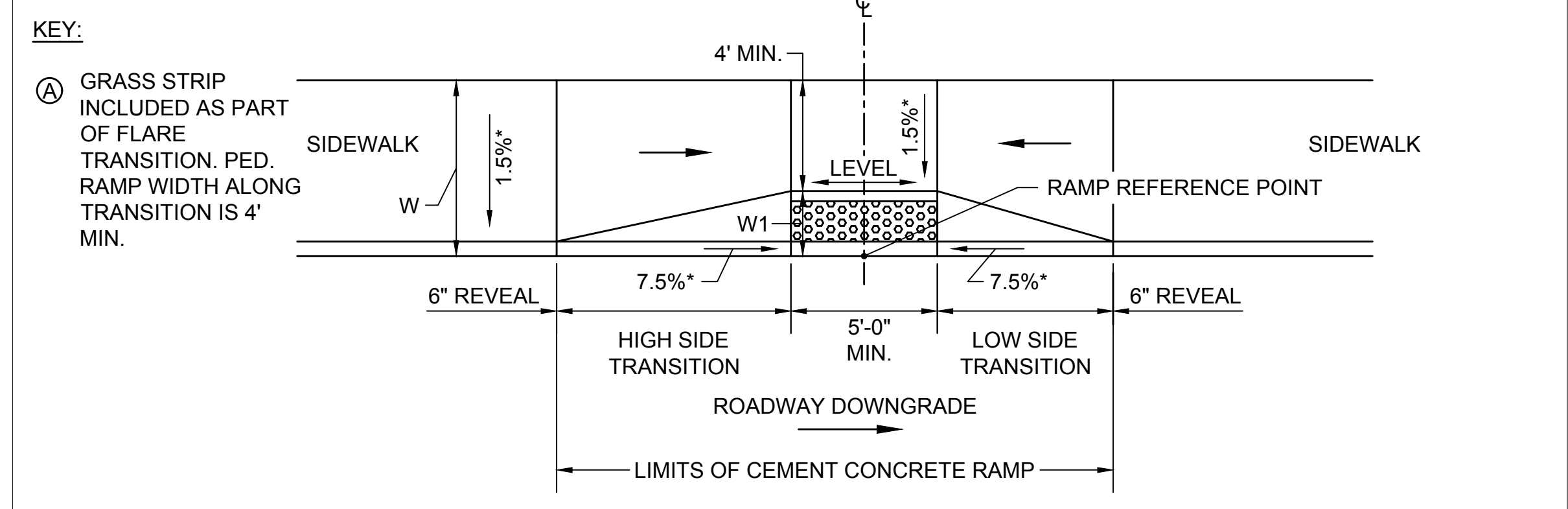
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	54	98
PROJECT FILE NO.		610652	

PEDESTRIAN CURB RAMP SCHEDULES  
SHEET 1 OF 3

NOTES:

- ALL PEDESTRIAN CURB RAMP CROSS SLOPES, AS INDICATED IN THE STANDARD SPECIFICATIONS, WILL BE 1.5% SLOPE CEMENT CONCRETE. IN ACCORDANCE WITH THE ARCHITECTURAL ACCESS BOARD (AAB) RULES, THE AMERICANS WITH DISABILITIES ACT (ADA), AND THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, LEVEL LANDINGS SHALL NOT EXCEED A SLOPE OF 1.5% IN ANY DIRECTION.
- DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS.
- DETECTABLE WARNING PANELS ARE REQUIRED ON ALL PEDESTRIAN CURB RAMP TRANSITIONS. DETECTABLE WARNING PANELS SHALL CONFORM TO THE DETAILS SHOWN IN DRAWING E 107.6.5 AND BE INSTALLED IN ACCORDANCE WITH THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS.
- AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 3'-0" SHALL BE MAINTAINED PAST ALL OBSTRUCTIONS (UTILITY POLES, SIGNS, SIGNAL FOUNDATIONS AND MASTS, MAILBOXES, ALONG DRIVE OPENINGS, ETC).
- THE PEDESTRIAN CURB RAMP SLOPE AND SIDE SLOPES (TRANSITIONS) MUST NOT EXCEED 1:12 (7.5% MAX) HOWEVER THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
- WHERE THE ROAD PROFILE EXCEEDS 4% THE HIGH SIDE CURB TRANSITION LENGTH SHALL BE 15'-0" MAXIMUM.
- WHERE A STOP LINE IS WARRANTED, IN NO CASE SHALL A RAMP BE PLACED ON THE TRAFFIC APPROACH SIDE OF THE STOP LINE.
- AT NO TIME IS ANY PART OF THE PEDESTRIAN CURB RAMP, EXCLUDING CURB TRANSITIONS, TO BE LOCATED OUTSIDE OF THE CROSSWALK, PEDESTRIAN CURB RAMP ENTRANCE IS TO BE CENTERED IN THE CROSSWALK WHENEVER POSSIBLE.
- CATCH BASINS WHICH ARE LOCATED WITHIN THE VICINITY OF A PEDESTRIAN CURB RAMP SHALL BE LOCATED UPGRADE OF PEDESTRIAN CURB RAMP ENTRANCE.
- THE ENTRANCE OF A PEDESTRIAN CURB RAMP SHALL BE FLUSH WITH THE ROADWAY.
- SEE CONSTRUCTION PLANS FOR ASSOCIATED RAMP ID CALLOUTS.
- FOR PEDESTRIAN CURB RAMPS WITH ONE CONTINUOUS DIRECTION OF TRAVEL, IF ANY CORNER OF THE DETECTABLE WARNING PANEL IS MORE THAN 5-FEET FROM THE GUTTER LINE, THE PANEL SHALL BE INSTALLED DIAGONALLY 6" FROM THE GUTTER LINE.
- EXISTING OR PROPOSED STRUCTURES TO BE ADJUSTED WITHIN PEDESTRIAN CURB RAMPS OR WITHIN PATH OF TRAVEL OF A CROSSWALK SHALL BE CAREFULLY ADJUSTED SUCH THAT THE TOPMOST SURFACE OR STRUCTURE COVER SHALL BE FLUSH WITH THE FINAL PEDESTRIAN CURB RAMP SURFACE OR FINISH GRADE.

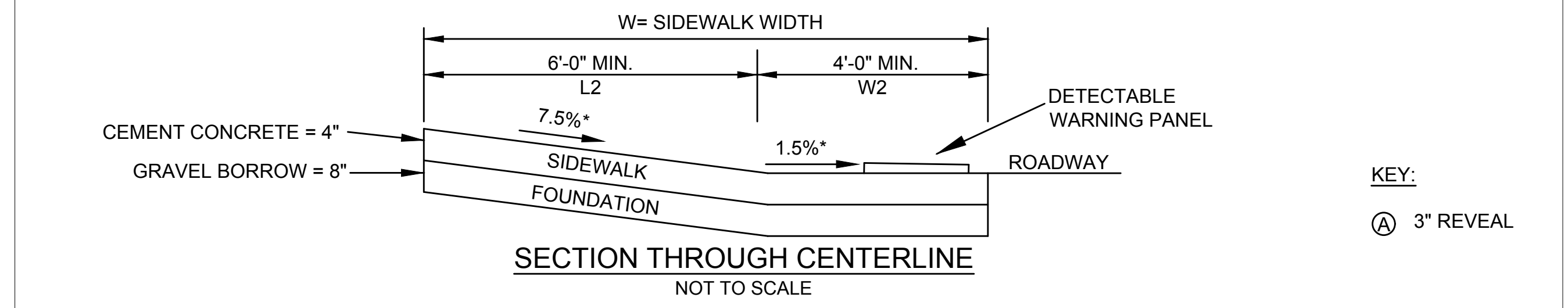
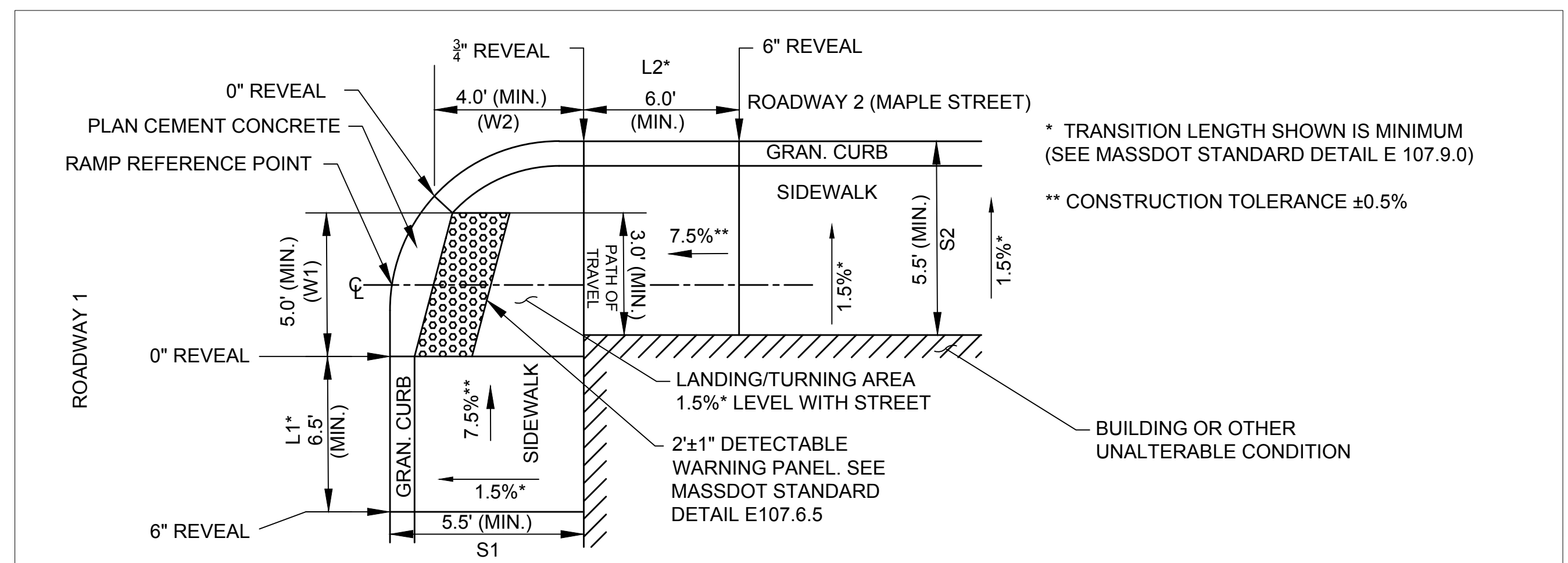
\* CONSTRUCTION TOLERANCE ±0.5%



SECTION THROUGH CENTERLINE  
NOT TO SCALE

RAMP NO.	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SIDEWALK (W)	WIDTH OF RAMP (MIN. 5')	DEPTH OF LEVEL LANDING (MIN. 4')	TRANSITION LENGTH AND SLOPE (%)		
	BASELINE	STATION	OFFSET					HIGH SIDE	LOW SIDE	GUTTER SLOPE
21	MAPLE	42+67.76	15.51' RT	3.50'	8.50'	5.48'	5.00'	11'-0" (R) (A)	6'-6" (L) (A)	2.9%

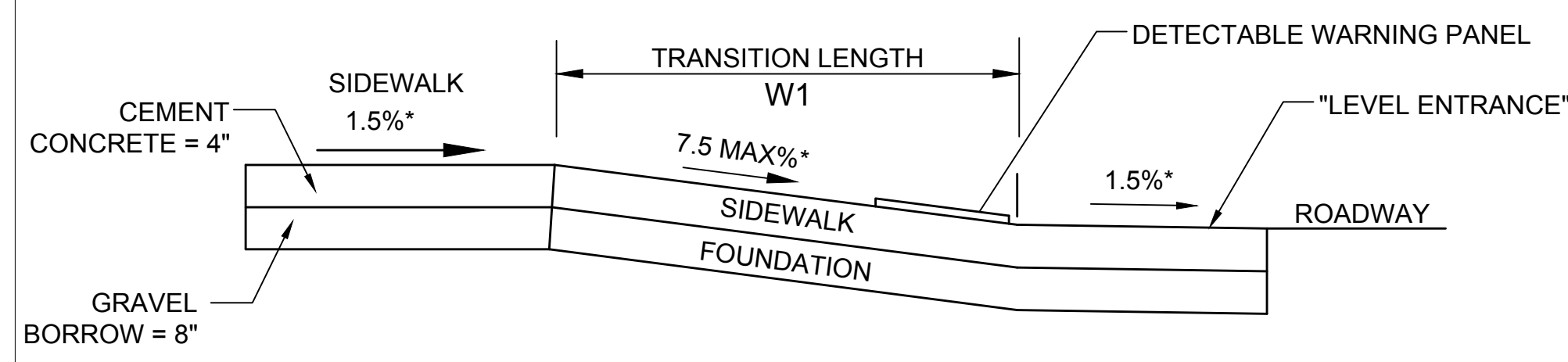
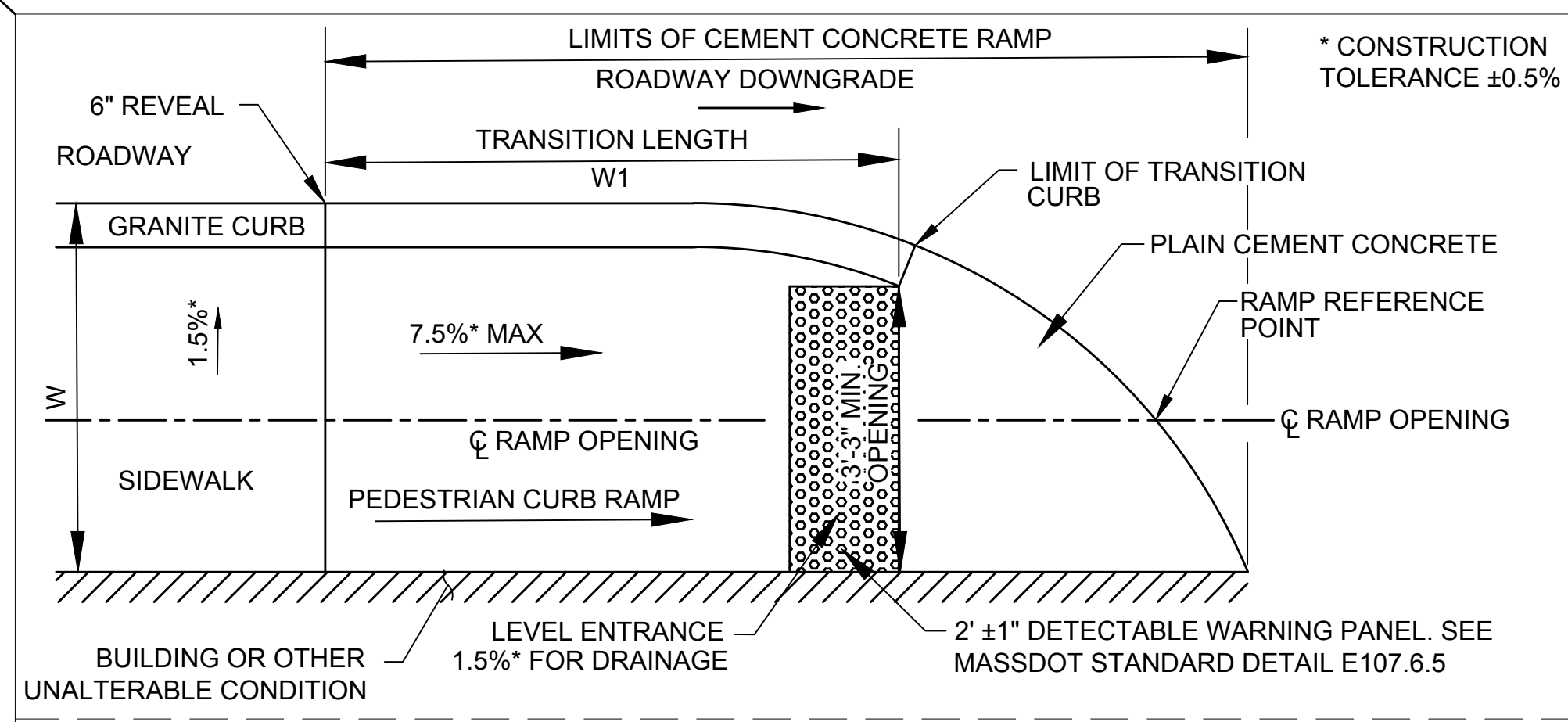
PEDESTRIAN CURB RAMPS LESS THAN 12'-4" SIDEWALK  
NOT TO SCALE



SECTION THROUGH CENTERLINE  
NOT TO SCALE

RAMP NO.	RAMP REFERENCE POINT			WIDTH OF RAMP (W1)	WIDTH OF RAMP (W2)	WIDTH OF SIDEWALK [ROADWAY 1] (S1)	WIDTH OF SIDEWALK [ROADWAY 2] (S2)	TRANSITION LENGTH AND SLOPE (%)			
	BASELINE	STATION	OFFSET					ROADWAY 1 SIDE	GUTTER SLOPE 1	ROADWAY 2 SIDE	GUTTER SLOPE 2
14	MULBERRY	150+25.22	13.00' RT	5.00'	10.00'	4.00' (MIN)	10.00'	11'-0" (L) (MULBERRY)	-2.9%	6'-6" (R) (MAPLE)	-1.5%
15	SCHERPA	160+25.58	13.00' LT	5.00'	10.00'	5.00'	10.00'	15'-0" (R) (SCHERPA)	-5.0%	15'-0" (L) (MAPLE)	-5.5%
16	SCHERPA	160+26.96	13.00' RT	5.00'	10.00'	4.00' (MIN)	10.00'	15'-0" (L) (SCHERPA)	-6.2%	3'-3" (R) (A) (MAPLE)	-5.2%
17	MOORE	170+25.49	15.00' LT	12.50'	10.00'	5.50'	10.00'	6'-6" (R) (A) (MOORE)	-4.0%	15'-0" (L) (MAPLE)	-4.1%
18	MOORE	170+30.59	15.00' RT	8.85'	10.00'	5.00'	10.00'	7'-0" (L) (MOORE)	-4.0%	6'-6" (R) (A) (MAPLE)	-5.3%

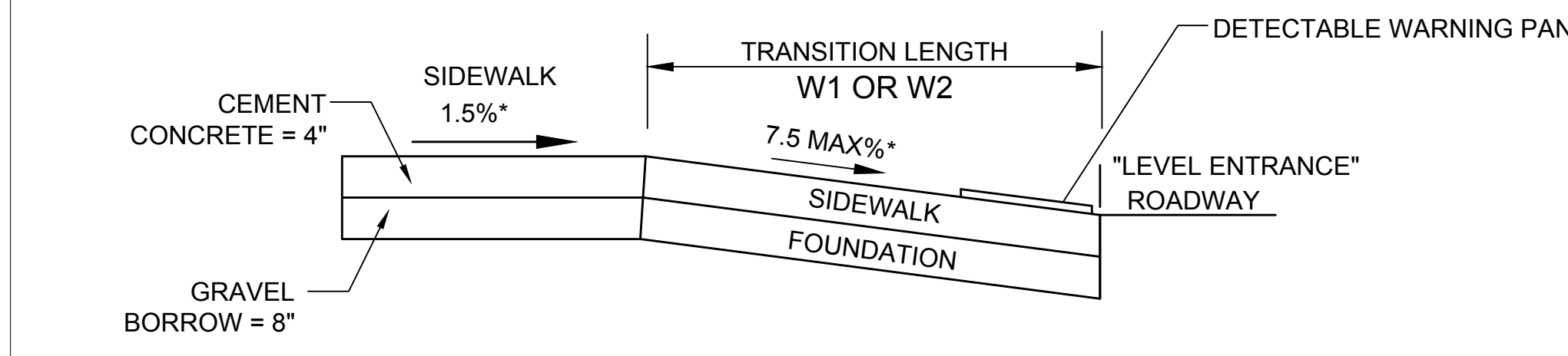
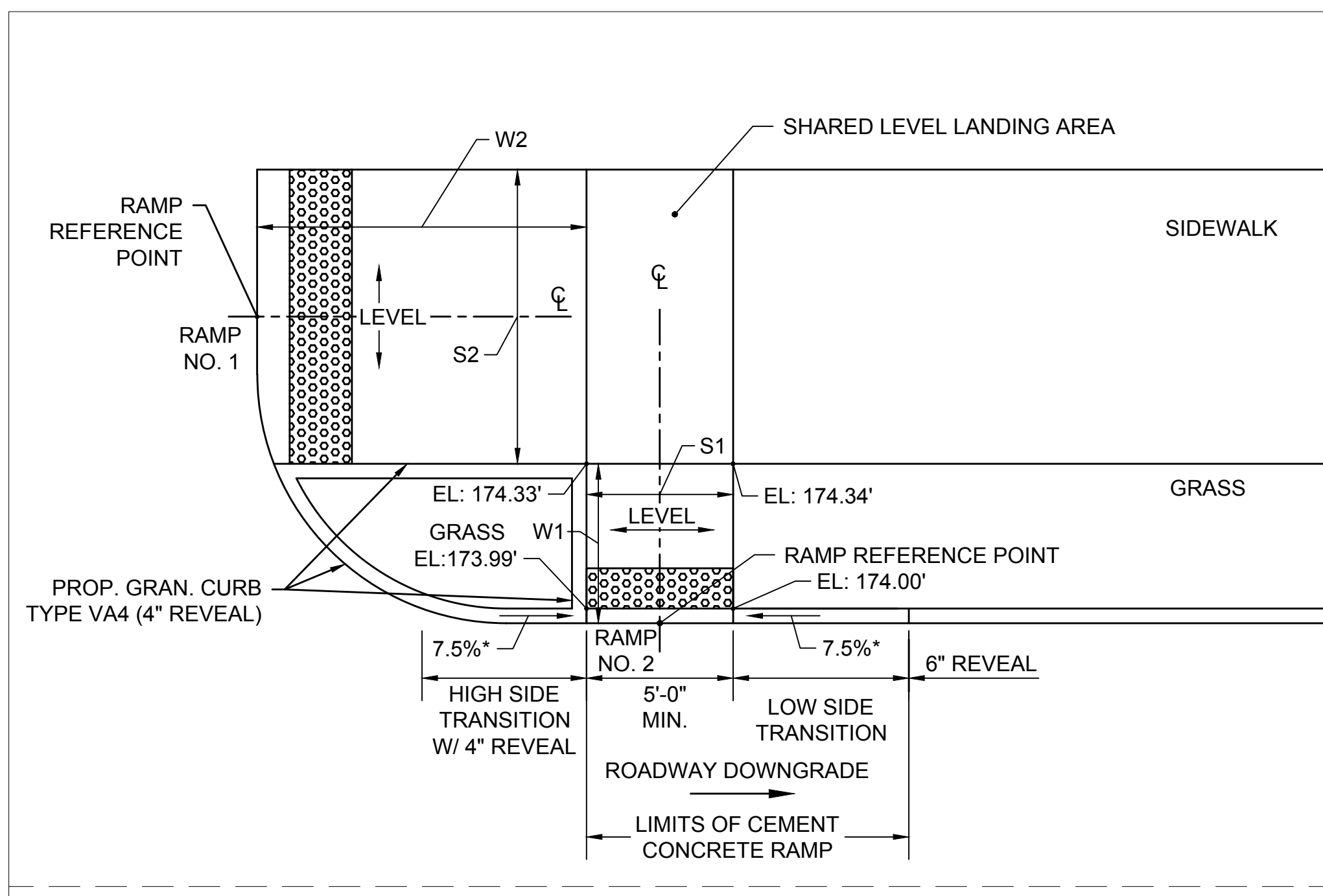
"T" INTERSECTION PEDESTRIAN CURB RAMP  
NOT TO SCALE



**SECTION THROUGH CURBLINE**  
NOT TO SCALE

RAMP NO.	RAMP REFERENCE POINT			RAMP TRANSITION LENGTH (W1)	WIDTH OF SIDEWALK (W)	WIDTH OF RAMP OPENING (MIN. 3')	GUTTER SLOPE %
	BASELINE	STATION	OFFSET				
3	BEGLEY	100+23.81	15.87' RT	7'-6"	10.00'	10.00'	0.2%
4	MAPLE	13+34.68	21.92' LT	6'-6"	5.00'	5.00'	0.3%
5	MAPLE	13+65.94	21.50' LT	7'-6"	10.00'	10.00'	0.3%
6	OAK HILL AVE	120+20.99	12.18' LT	6'-6"	10.00'	10.00'	0.2%
9	SPENCER	130+21.50	12.64' LT	6'-6"	10.00'	10.00'	0.5%
10	SPENCER	130+21.50	11.85' RT	7'-8"	10.00'	10.00'	0.5%
11	ORCHARD	140+21.15	11.87' LT	7'-8"	10.00'	10.00'	0.9%
12	ORCHARD	140+21.88	12.03' RT	6'-6"	10.00'	10.00'	0.8%
13	MULBERRY	150+23.03	12.58' LT	9'-0"	12.50'	12.50'	1.3%

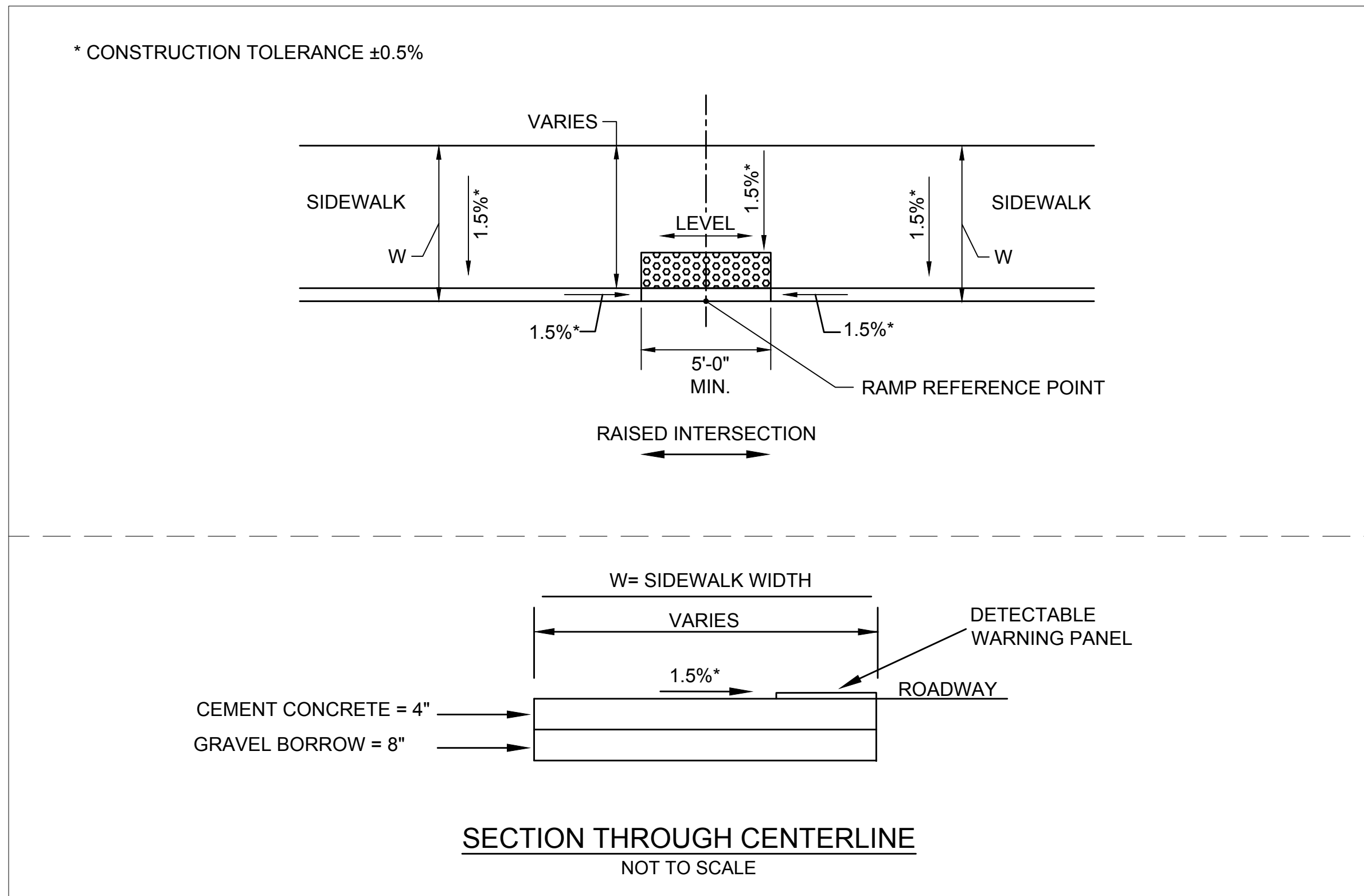
**PEDESTRIAN CURB RAMP WITH ONE CONTINUOUS  
DIRECTION OF PEDESTRIAN TRAVEL**  
NOT TO SCALE



**SECTION THROUGH CURBLINE**  
NOT TO SCALE

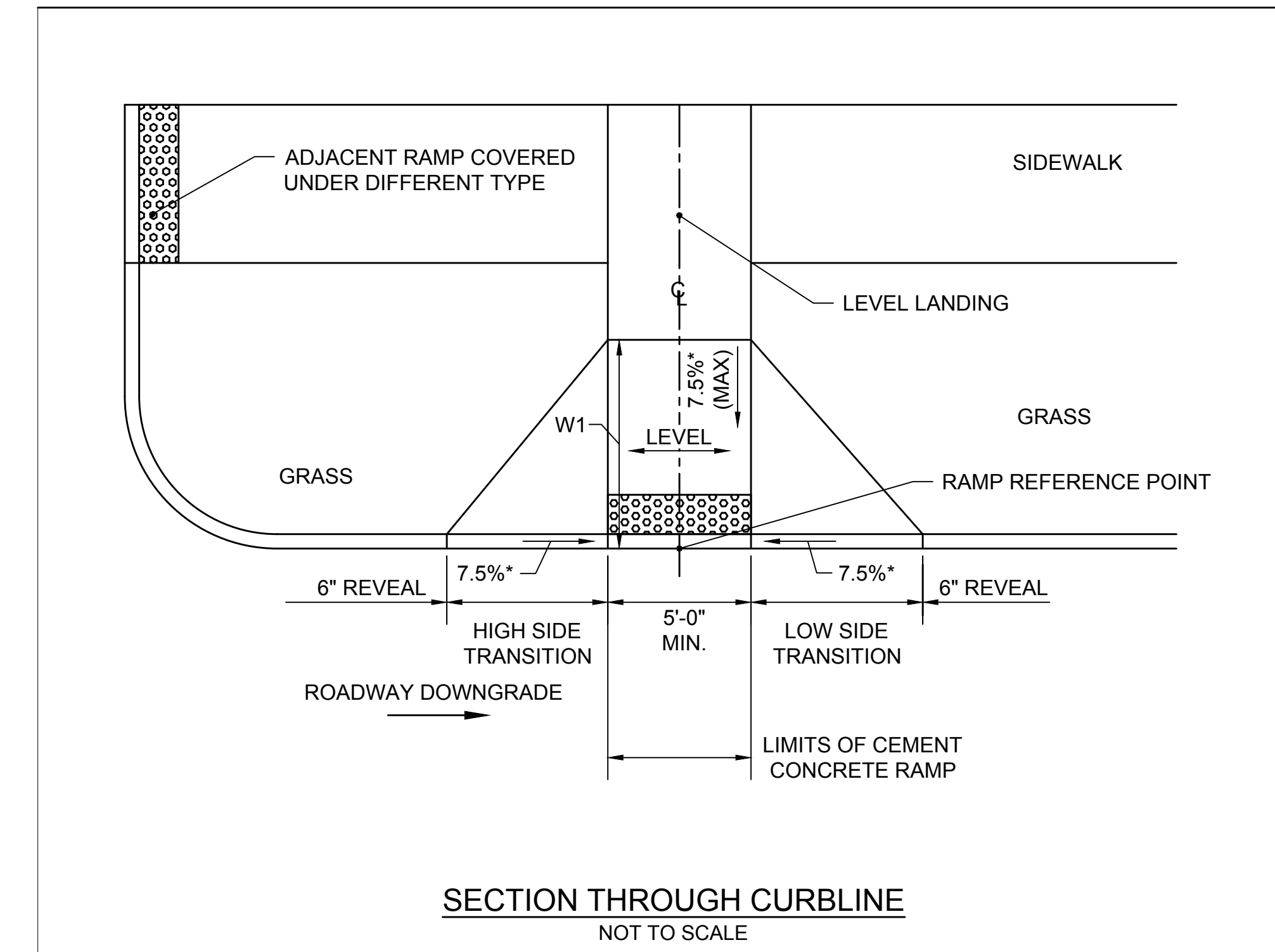
RAMP NO.	RAMP REFERENCE POINT			LENGTH OF RAMP (W1)	LENGTH OF SECONDARY RAMP (W2)	WIDTH OF RAMP (S1)	WIDTH OF SECONDARY RAMP (S2)	TRANSITION LENGTH AND SLOPE (%)		
	BASELINE	STATION	OFFSET					HIGH SIDE L	LOW SIDE L	GUTTER SLOPE %
7	OAK HILL AVE	120+22.03	11.73' RT	4.50'	9.90'	5.00'	10.00'	5'-6"	6'-6"	-2.95%
8	MAPLE	16+38.89	12.00' RT					5'-6"	6'-6"	-2.95%

**PEDESTRIAN CURB RAMP AT SHARED USE PATH WITH CONTINUOUS PATH OF TRAVEL  
AND ADJACENT CROSSING TYPE 1**  
NOT TO SCALE



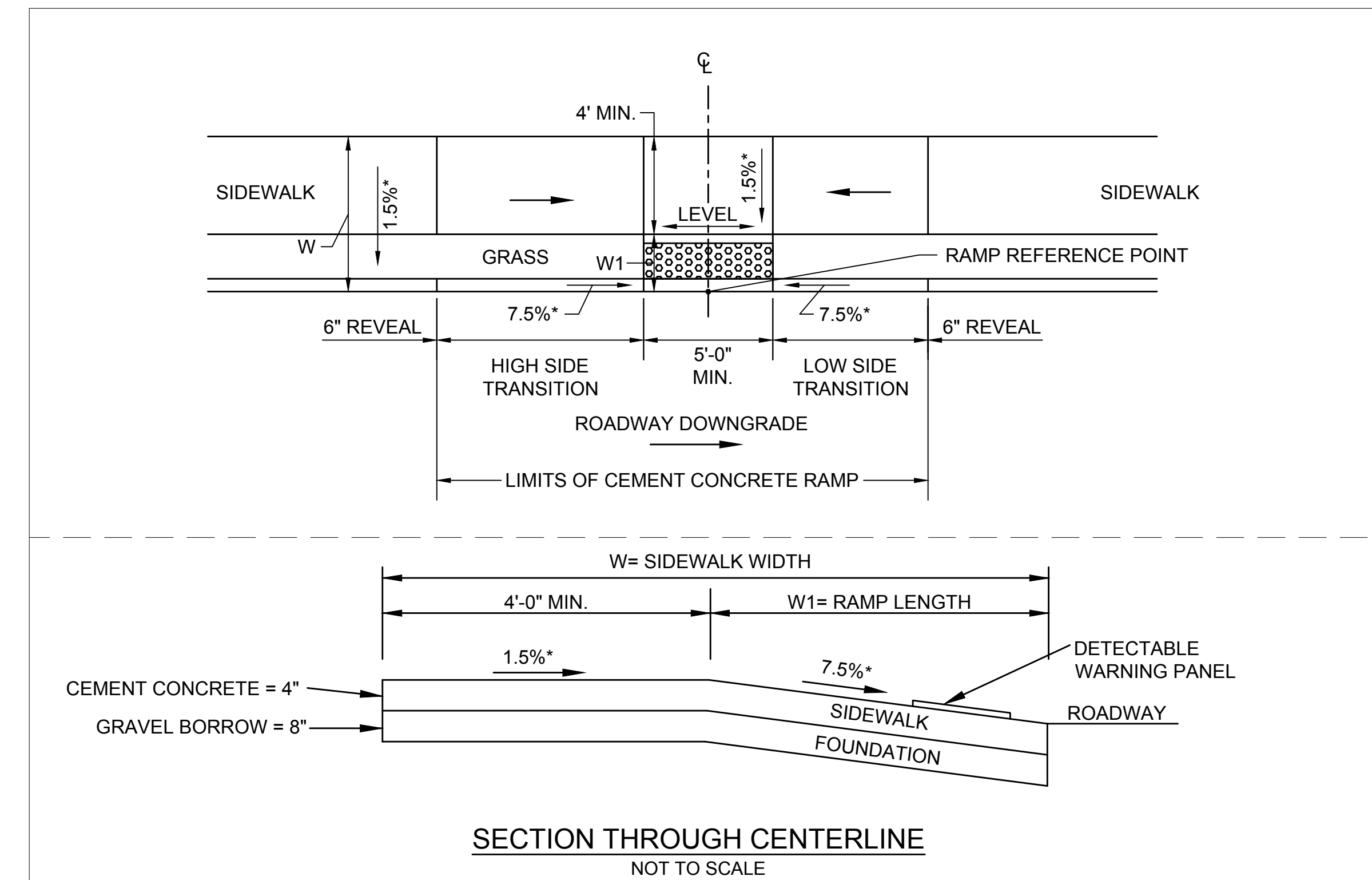
RAMP NO.	RAMP REFERENCE POINT			WIDTH OF SIDEWALK (W)	WIDTH OF RAMP (MIN. 5')	DEPTH OF LEVEL LANDING (MIN. 4')	TRANSITION LENGTH AND SLOPE (%)		
	BASELINE	STATION	OFFSET				HIGH SIDE	LOW SIDE	GUTTER SLOPE
							L	L	%
21	MAPLE	37+41	12.00' RT	8.00'	5.00'	8.00'	N/A	N/A	-1.98%
22	MAPLE	37+41	12.00' LT	14.40'	5.00'	14.40'	N/A	N/A	-1.91%
23	BRIDGE	180+30	16.00' LT	8.91'	5.00'	8.91'	N/A	N/A	-1.85%
24	BRIDGE	180+28	19.21' RT	8.00'	5.00'	8.00'	N/A	N/A	-1.03%
25	MAPLE	38+00	14.21' LT	8.13'	5.00'	8.13'	N/A	N/A	-1.48%
26	MAPLE	38+00	12.00' RT	8.00'	5.00'	8.00'	N/A	N/A	-1.97%

**PEDESTRIAN CURB RAMP RAISED INTERSECTION  
NOT TO SCALE**



RAMP NO.	RAMP REFERENCE POINT			LENGTH OF RAMP (W1)	WIDTH OF RAMP	TRANSITION LENGTH AND SLOPE (%)		
	BASELINE	STATION	OFFSET			HIGH SIDE	LOW SIDE	GUTTER SLOPE
						L	L	%
19	MAPLE	33+40.84	12.00' LT	7.11'	5.00'	11'-0"	6'-6"	-3.0%

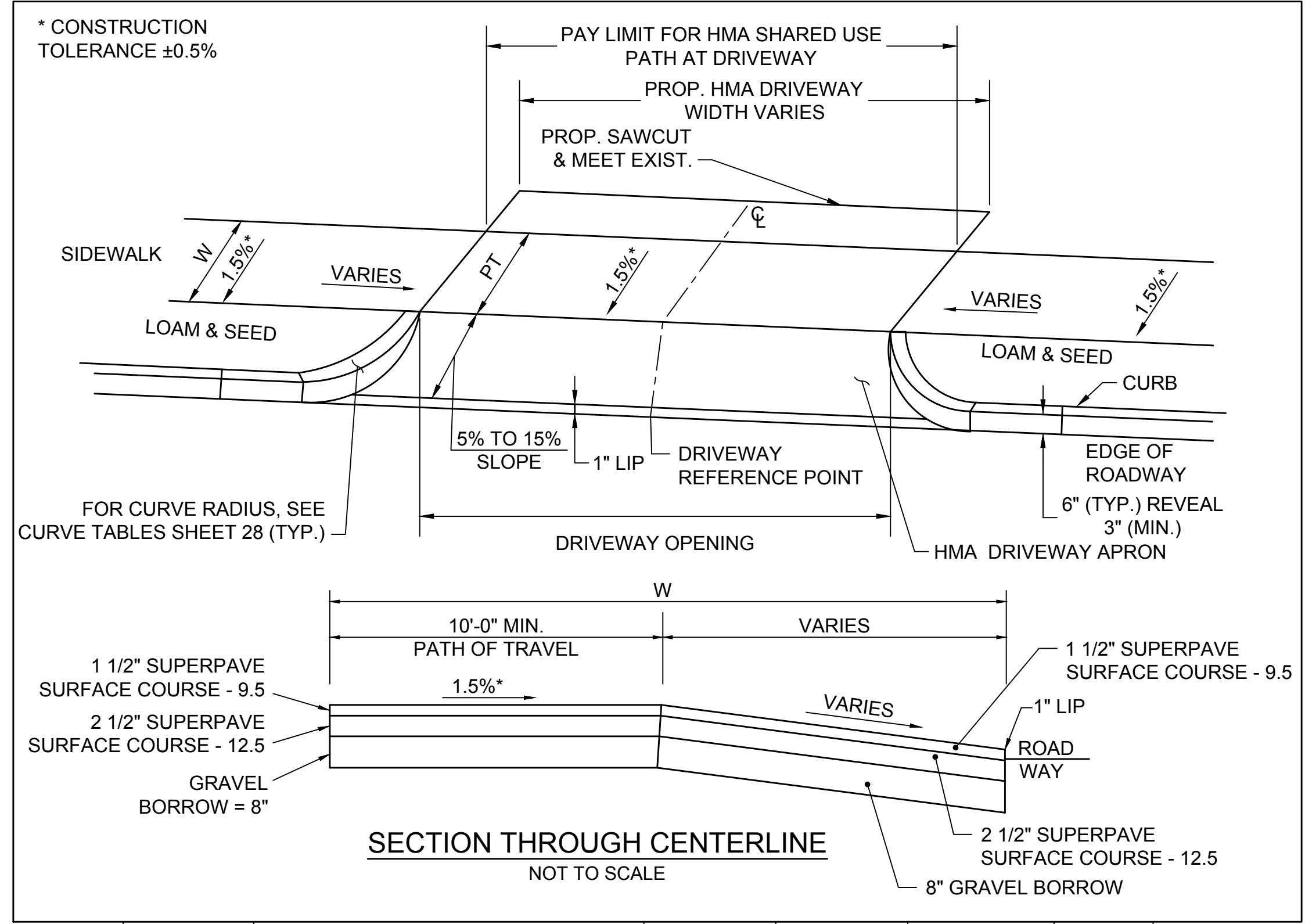
**PEDESTRIAN CURB RAMP AT SHARED USE PATH WITH CONTINUOUS PATH OF TRAVEL  
AND ADJACENT CROSSING TYPE 2  
NOT TO SCALE**



RAMP NO.	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SIDEWALK (W)	WIDTH OF RAMP (MIN. 5')	DEPTH OF LEVEL LANDING (MIN. 4')	TRANSITION LENGTH AND SLOPE (%)		
	BASELINE	STATION	OFFSET					HIGH SIDE	LOW SIDE	GUTTER SLOPE
								L	L	%
20	MAPLE	33+40.87	15.50' RT	2.50'	7.50'	5.00'	5.00'	11'-0"	6'-6"	2.9%

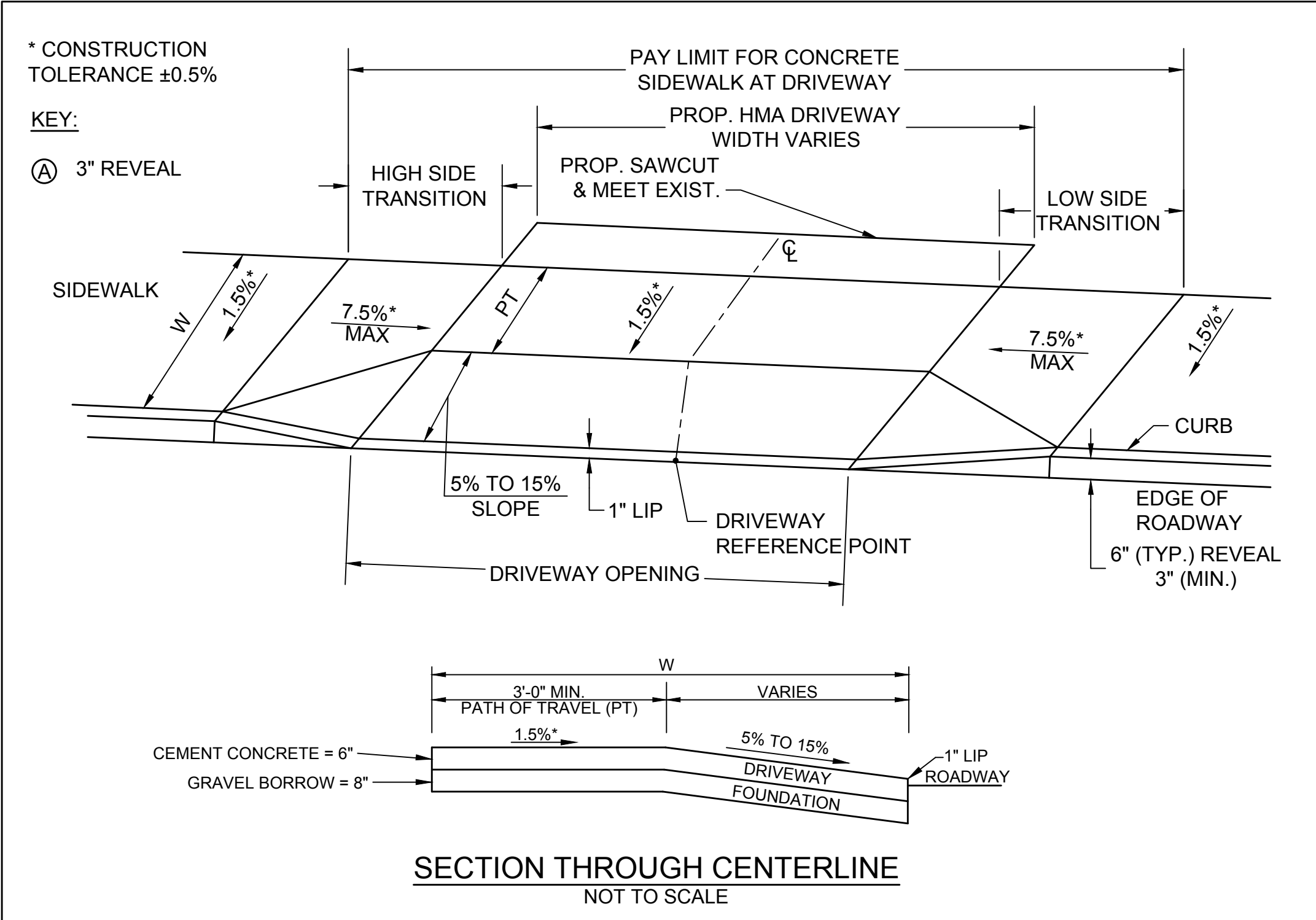
**PEDESTRIAN CURB RAMP LESS THAN 12'-4" SIDEWALK  
NOT TO SCALE**





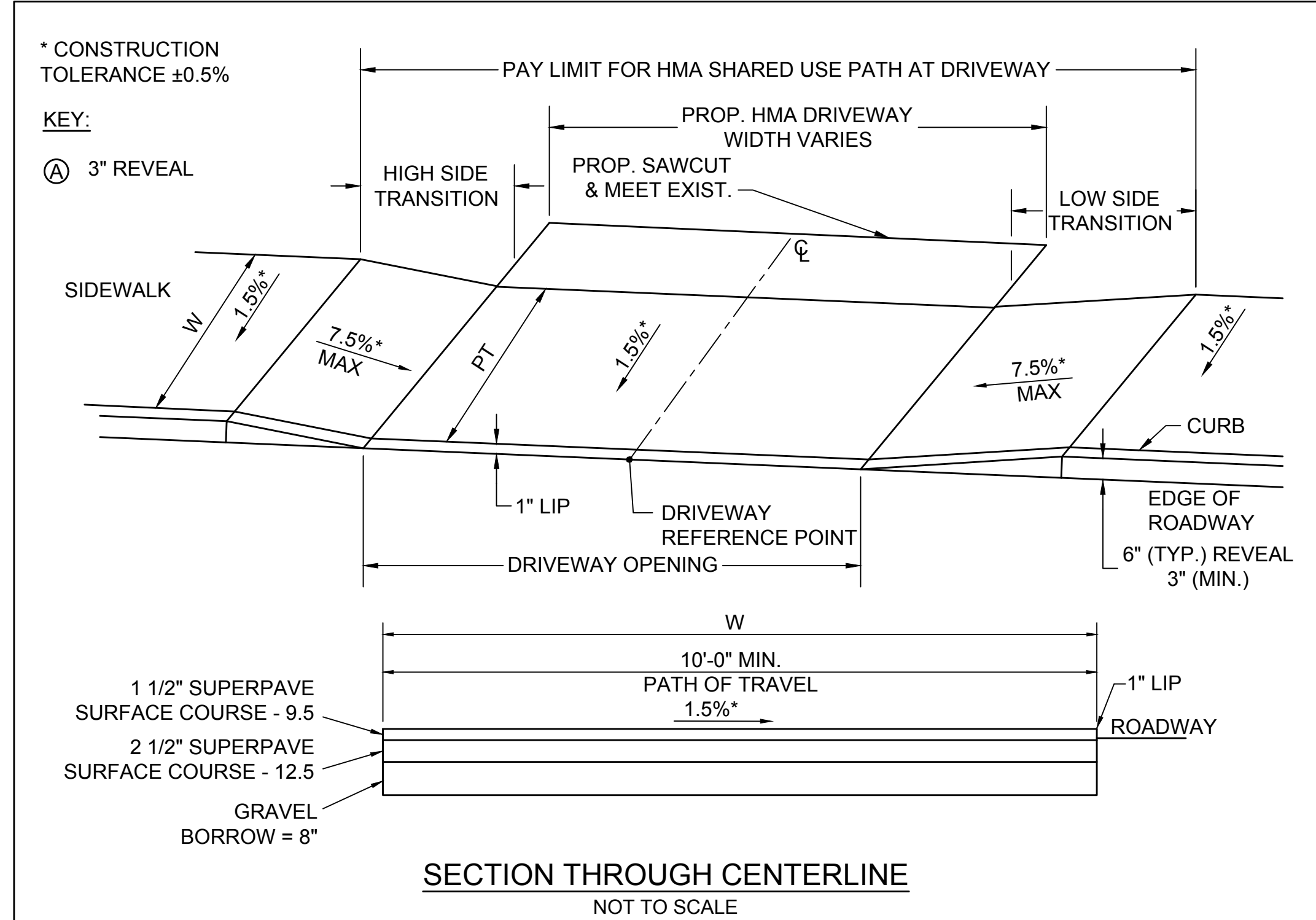
DRIVEWAY NO.	DRIVEWAY REFERENCE POINT			WIDTH OF DRIVEWAY OPENING	WIDTH OF SIDEWALK (W)	PATH OF TRAVEL (PT) (3' MIN.)	GUTTER SLOPE
	BASELINE	STATION	OFFSET				
2	MAPLE	12+61.02	12.00' LT	19'-0"	10.00'	10.00'	0.4%
3	MAPLE	14+59.08	12.00' LT	20'-0"	10.00'	10.00'	0.3%
4	MAPLE	15+31.84	12.00' LT	26'-0"	10.00'	10.00'	0.4%
5	MAPLE	17+44.26	12.00' LT	18'-0"	10.00'	10.00'	-0.4%
6	MAPLE	18+57.32	12.00' LT	14'-0"	10.00'	10.00'	-0.2%
9	MAPLE	25+62.81	12.00' LT	16'-0"	12.50'	12.50'	-0.9%
10	MAPLE	26+17.21	12.00' LT	14'-0"	12.50'	12.50'	-1.2%
11	MAPLE	28+73.14	12.00' LT	22'-0"	10.00'	10.00'	-4.4%
12	MAPLE	30+32.45	12.00' LT	16'-0"	10.00'	10.00'	-5.3%
13	MAPLE	31+21.53	12.00' LT	14'-0"	10.00'	10.00'	-5.3%
14	MAPLE	32+20.09	12.00' LT	92'-0"	10.00'	10.00'	-4.7%
15	MAPLE	34+24.33	12.00' LT	16'-0"	10.00'	10.00'	-2.1%
16	MAPLE	34+65.91	12.00' LT	17'-0"	10.00'	10.00'	-2.1%
17	MAPLE	35+75.23	12.00' LT	14'-0"	10.00'	10.00'	-1.2%
18	MAPLE	36+19.27	12.00' LT	20'-0"	10.00'	10.00'	-1.1%

**SIDEWALK THROUGH DRIVEWAYS WITH CURB RETURNS & GRASS STRIP ON BOTH SIDES**  
NOT TO SCALE



DRIVEWAY NO.	DRIVEWAY REFERENCE POINT			WIDTH OF DRIVEWAY OPENING	WIDTH OF SIDEWALK (W)	PATH OF TRAVEL (PT) (3' MIN.)	TRANSITION LENGTH AND SLOPE (%)		
	BASELINE	STATION	OFFSET				HIGH SIDE	LOW SIDE	GUTTER SLOPE
							L	L	%
19	MAPLE	38+31.49	12.00' RT	20'-9"	8.00'	5.00'	9'-0"	6'-6"	1.9%

**SIDEWALK THROUGH DRIVEWAYS WITHOUT CURB RETURNS**  
NOT TO SCALE



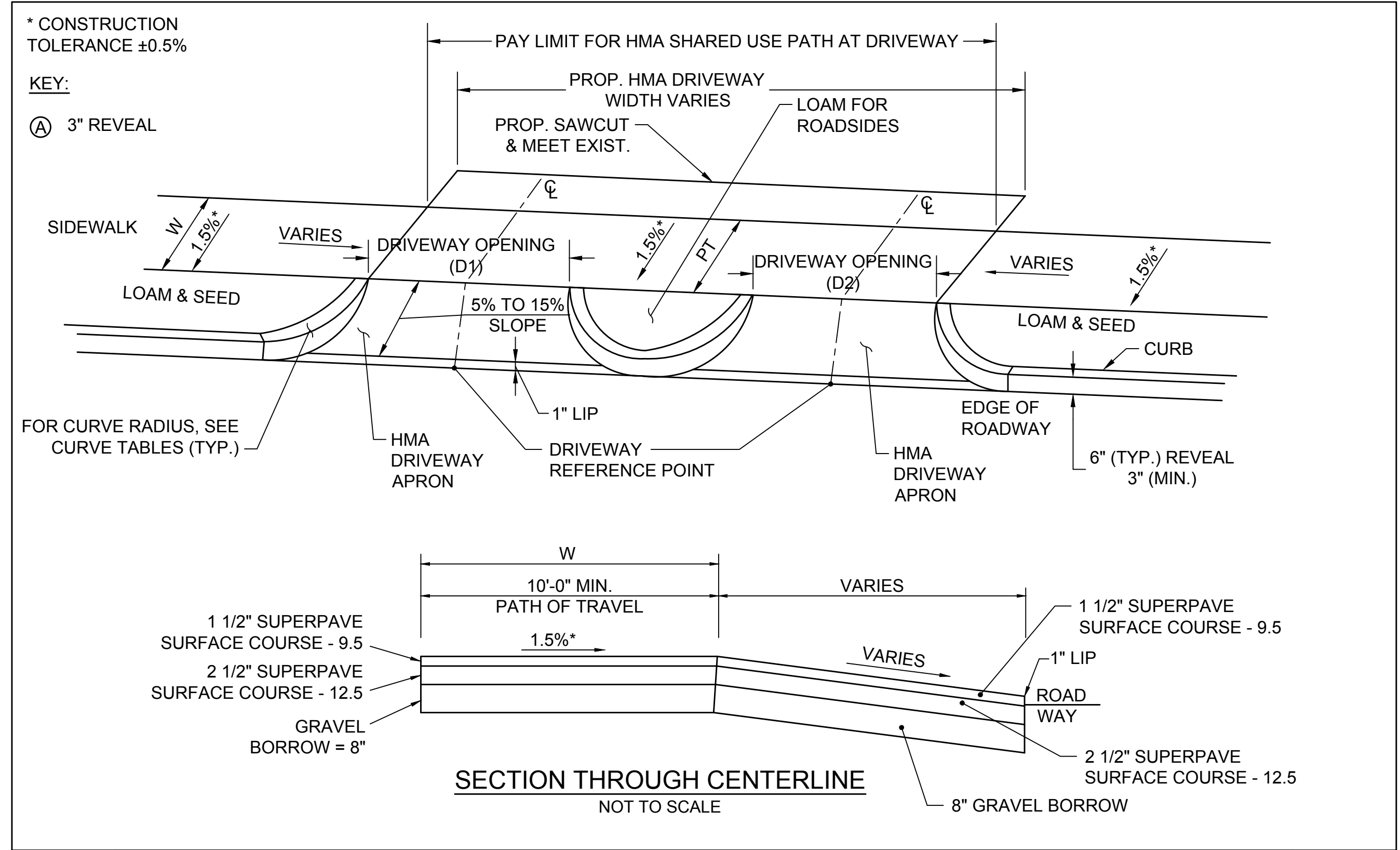
DRIVEWAY NO.	DRIVEWAY REFERENCE POINT			WIDTH OF DRIVEWAY OPENING	WIDTH OF SIDEWALK (W)	PATH OF TRAVEL (PT) (3' MIN.)	TRANSITION LENGTH AND SLOPE (%)		
	BASELINE	STATION	OFFSET				HIGH SIDE	LOW SIDE	GUTTER SLOPE
							L	L	%
23	MAPLE	41+16.47	20.00' RT	20'-0"	10.00'	10.00'	15'-0"	6'-6"	-4.4%

**SIDEWALK THROUGH DRIVEWAYS WITH FULL WIDTH PANEL TRANSITION**  
NOT TO SCALE

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

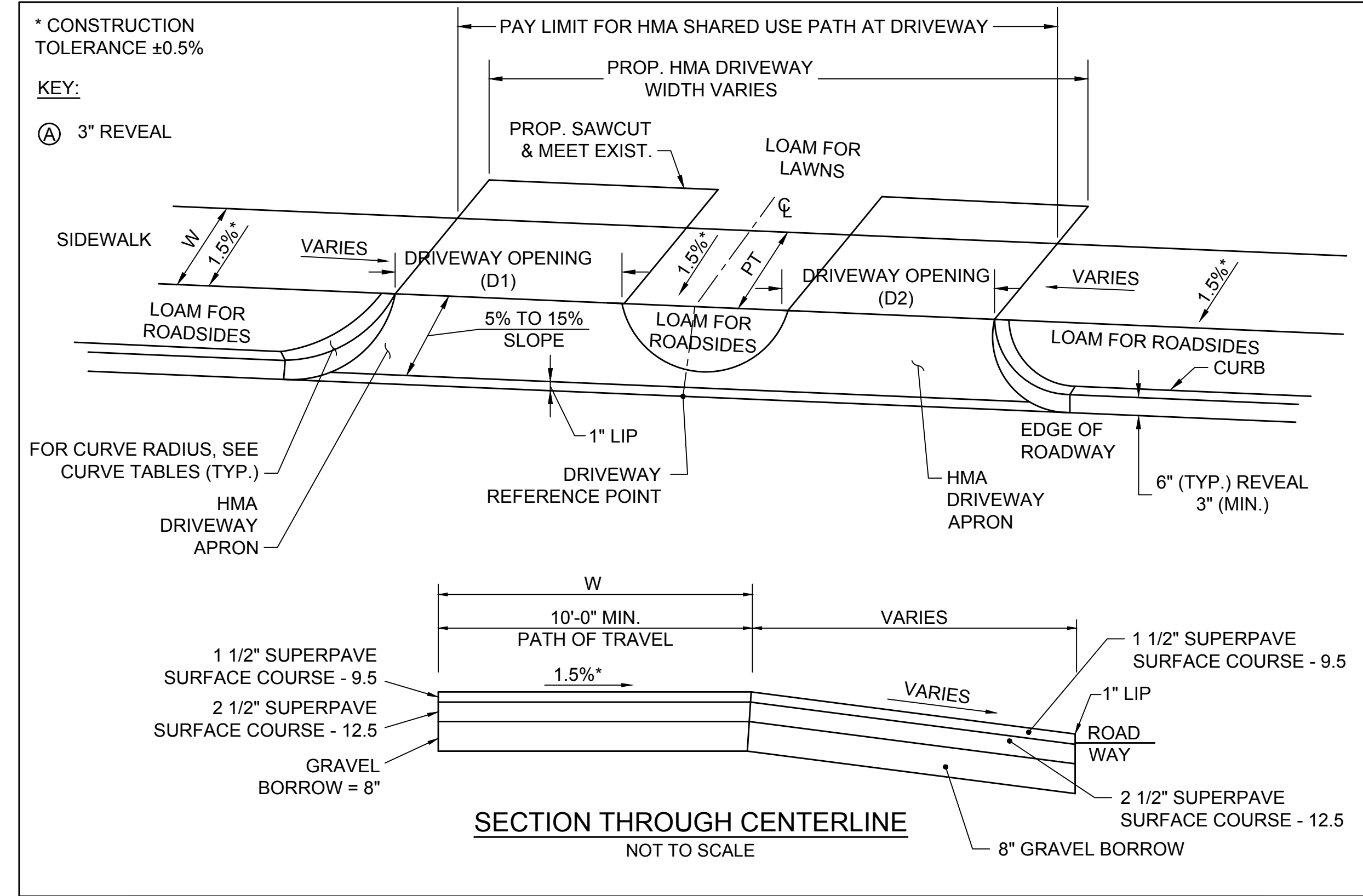
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	59	98
PROJECT FILE NO.		610652	

**DRIVEWAY SCHEDULES  
SHEET 3 OF 3**



DRIVEWAY NO.	DRIVEWAY REFERENCE POINT					WIDTH OF DRIVEWAY OPENING (D1)	WIDTH OF DRIVEWAY OPENING (D2)	WIDTH OF SIDEWALK (W)	PATH OF TRAVEL (PT) (3' MIN.)	GUTTER SLOPE
	BASELINE	STATION 1	OFFSET 1	STATION 2	OFFSET 2					
7 & 8	MAPLE	23+82.55	12.00' LT	24+05.05	12.00' LT	11'-0"	20'-0"	10.00'	10.00'	-0.2%

**SIDEWALK THROUGH DRIVEWAYS WITH CURB RETURNS ON ALL SIDES**  
NOT TO SCALE



DRIVEWAY NO.	DRIVEWAY REFERENCE POINT			WIDTH OF DRIVEWAY OPENING (D1)	WIDTH OF DRIVEWAY OPENING (D2)	WIDTH OF SIDEWALK (W)	PATH OF TRAVEL (PT) (3' MIN.)	GUTTER SLOPE
	BASELINE	STATION	OFFSET					
21 & 22	MAPLE	40+23.75	12.00' RT	16'-1"	24'-9"	10.00'	10.00'	-8.3%

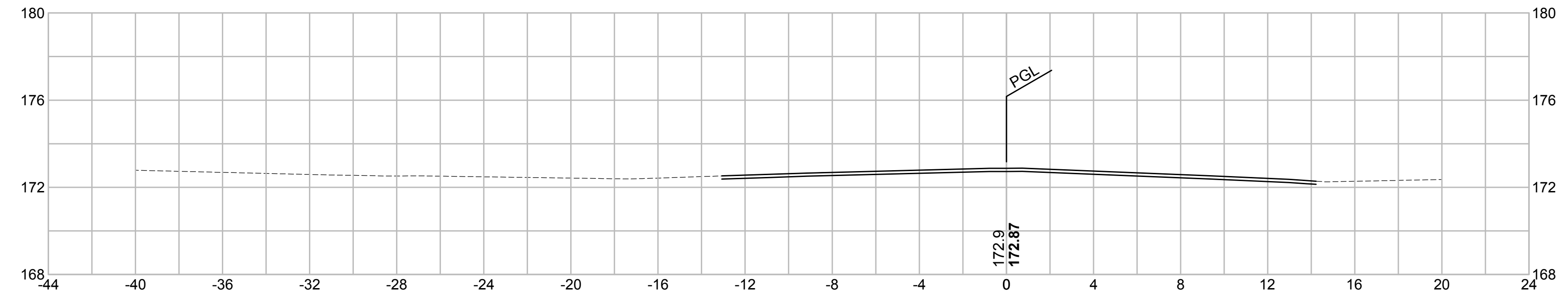
**SIDEWALK THROUGH DRIVEWAYS WITH CURB RETURN TRANSITIONS AND LOAM BETWEEN**  
NOT TO SCALE

**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

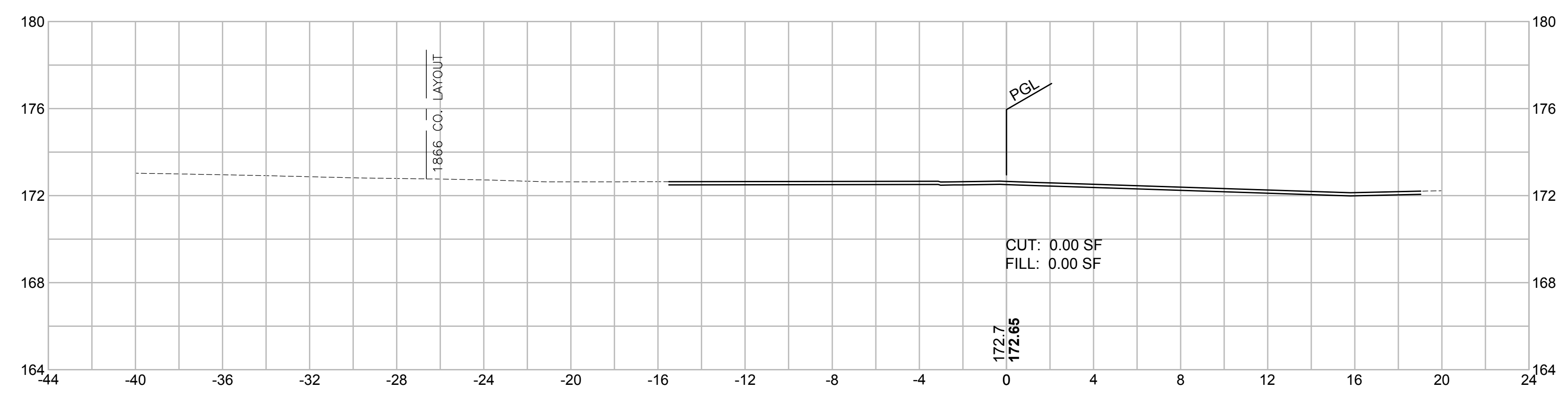
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	60	98
PROJECT FILE NO.		610652	

**CROSS SECTIONS - MAPLE STREET  
SHEET 1 OF 36**

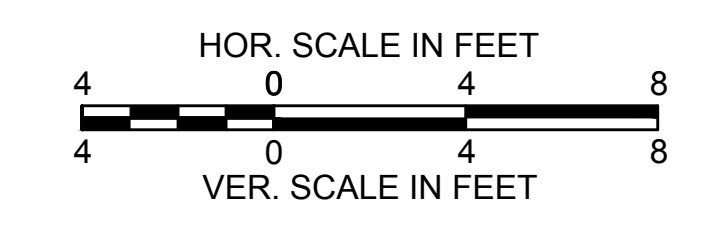
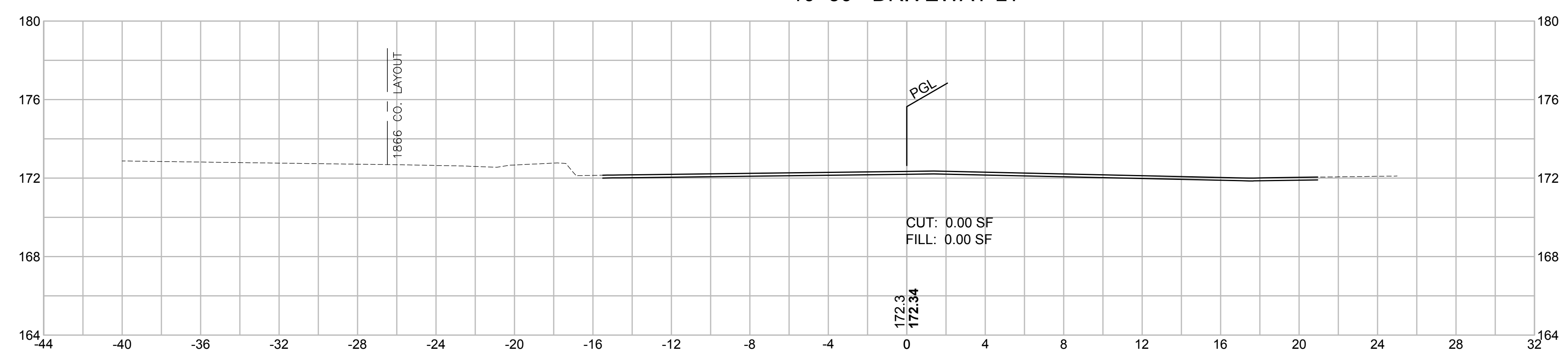
11+00 - STREET INTERSECTION LT



10+50 - DRIVEWAY LT



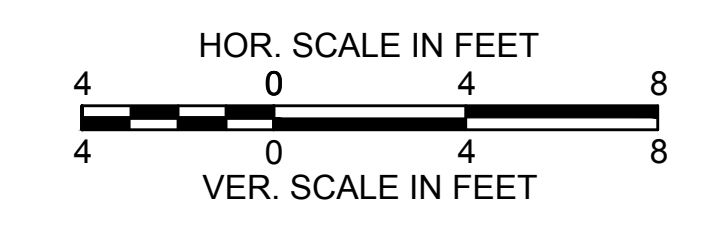
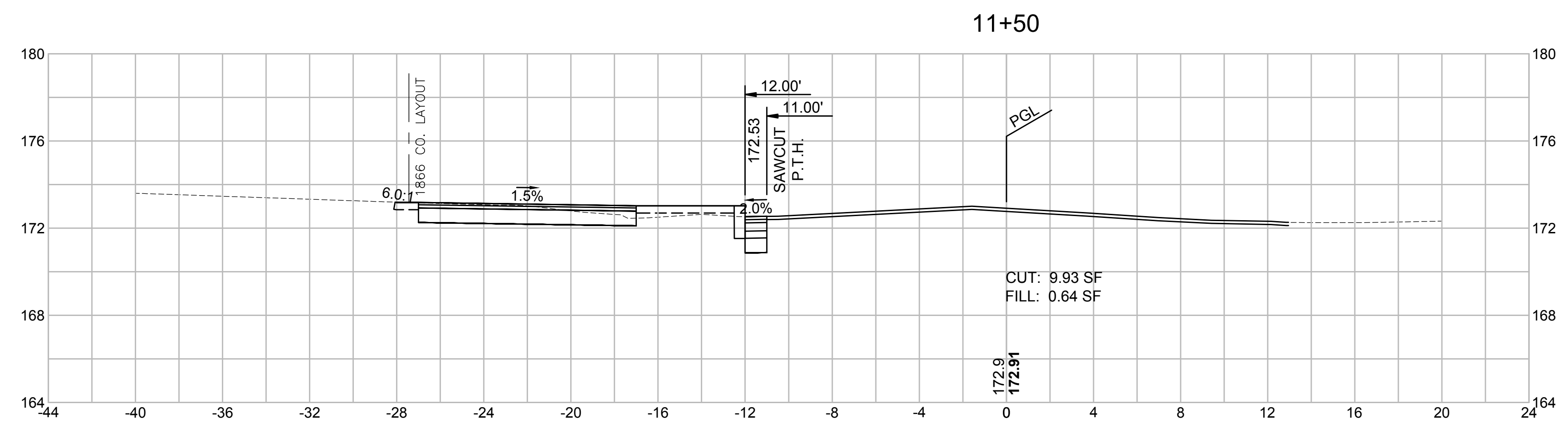
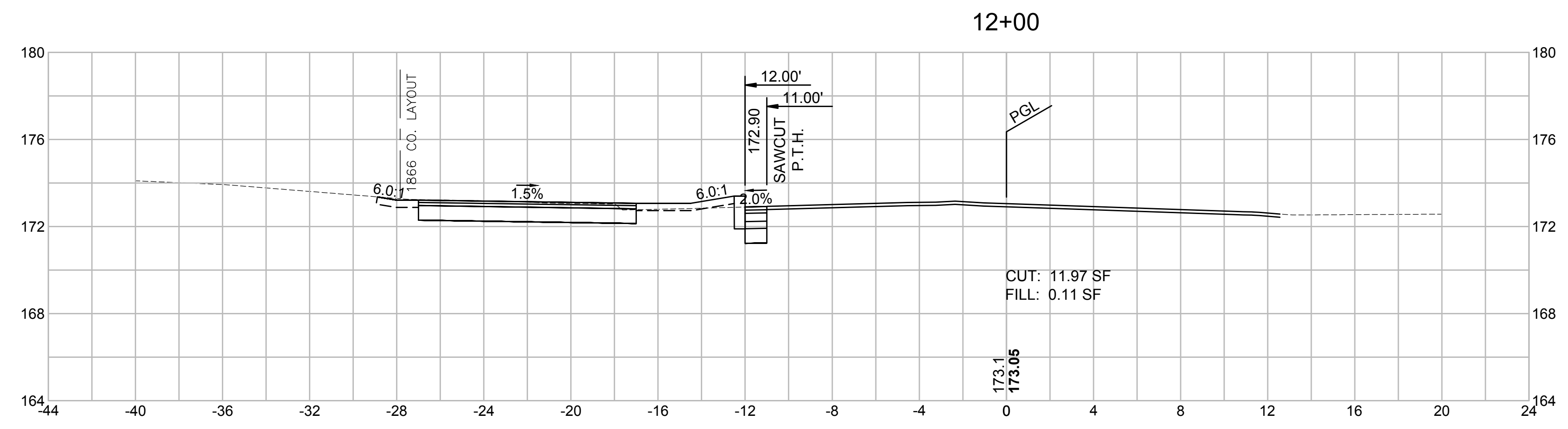
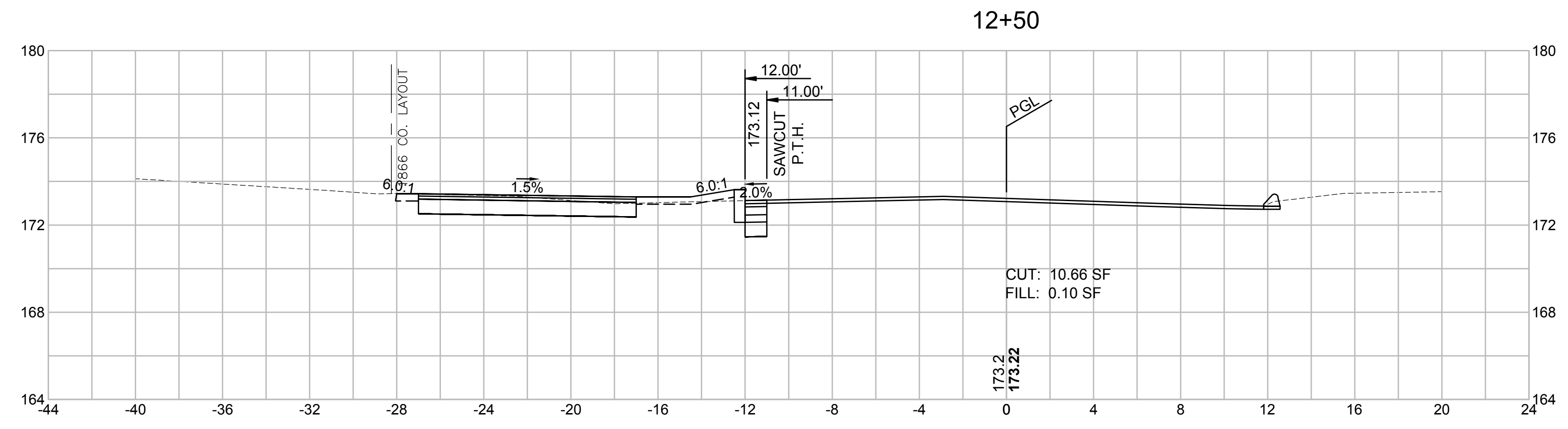
10+30 - DRIVEWAY LT



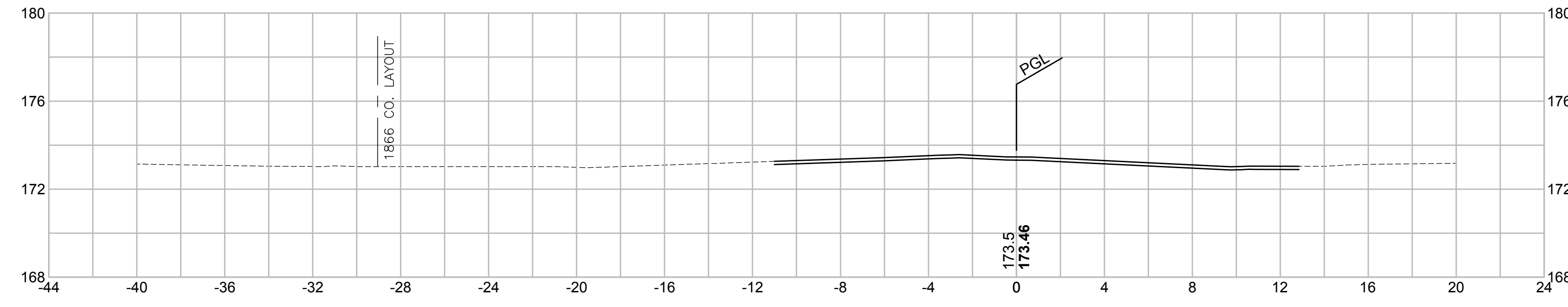
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	61	98
PROJECT FILE NO.		610652	

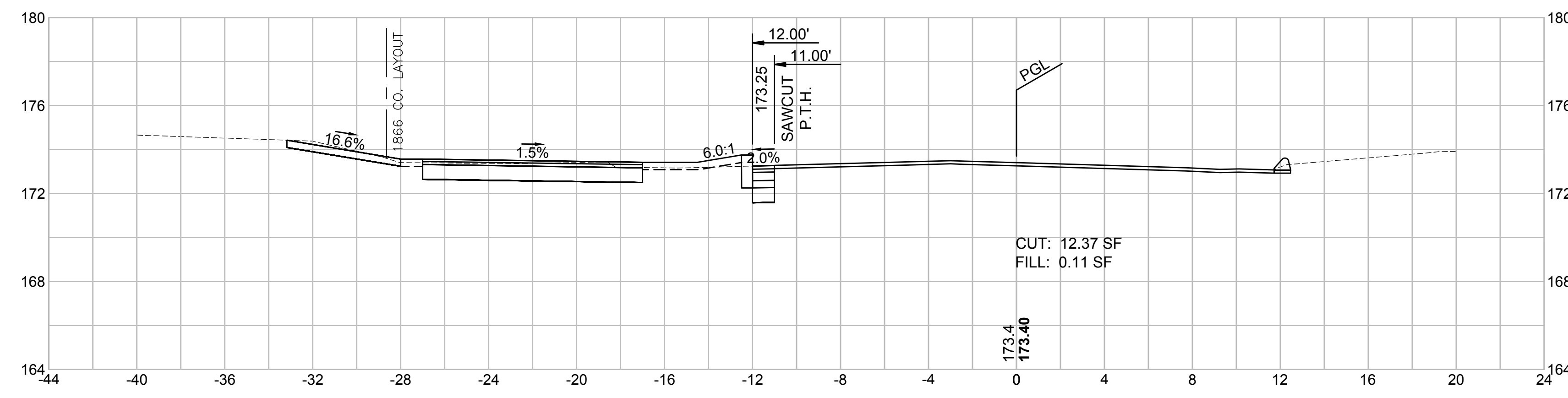
**CROSS SECTIONS - MAPLE STREET  
SHEET 2 OF 36**



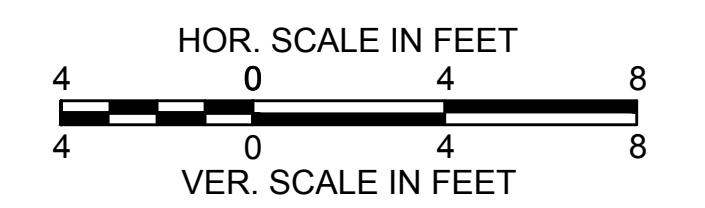
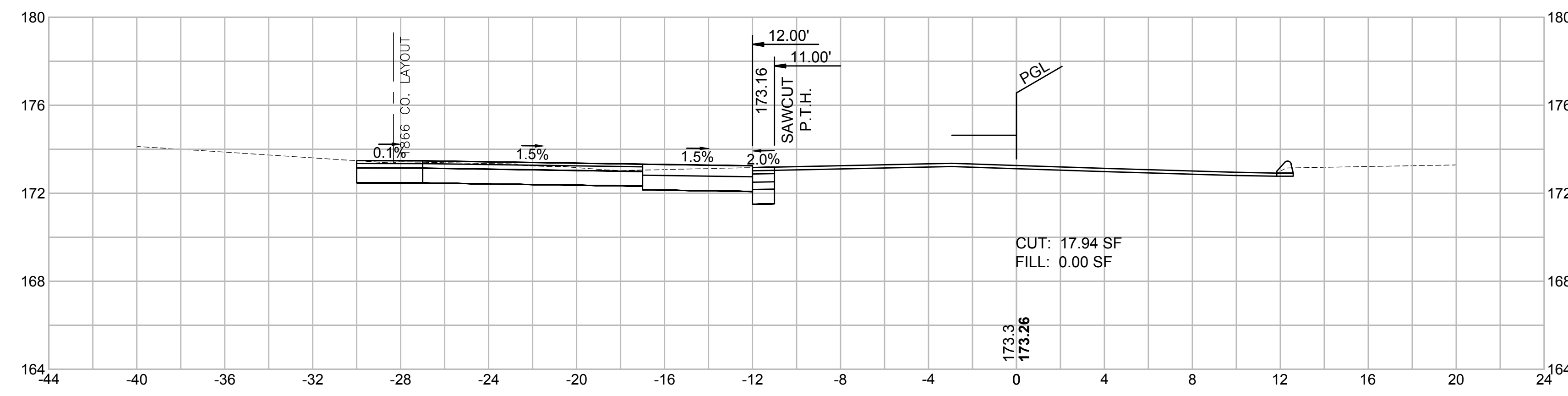
**13+50 - 238 MAPLE ST DRIVEWAY LT**



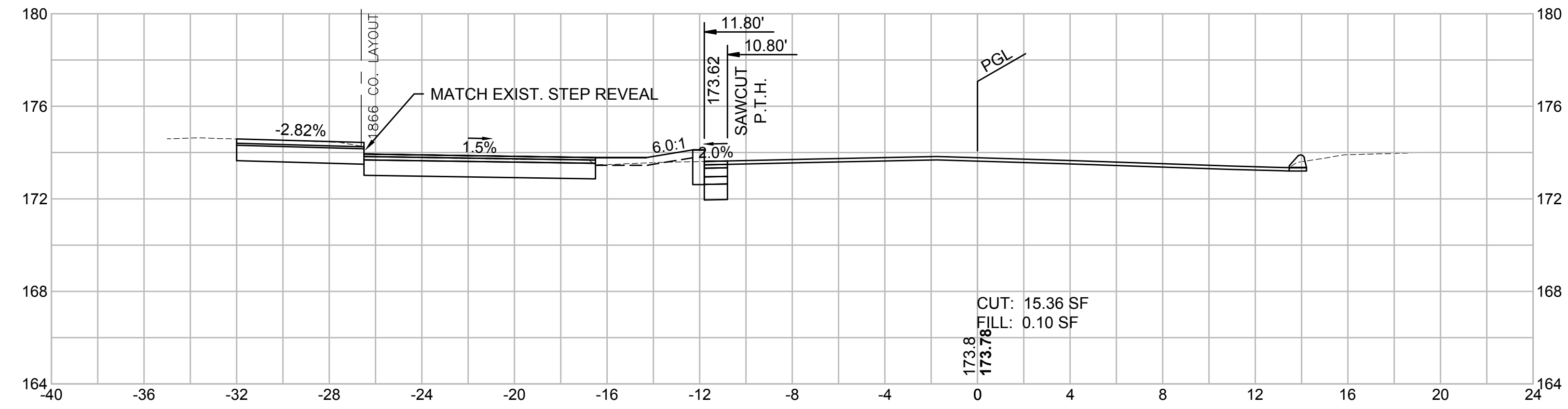
**13+00**



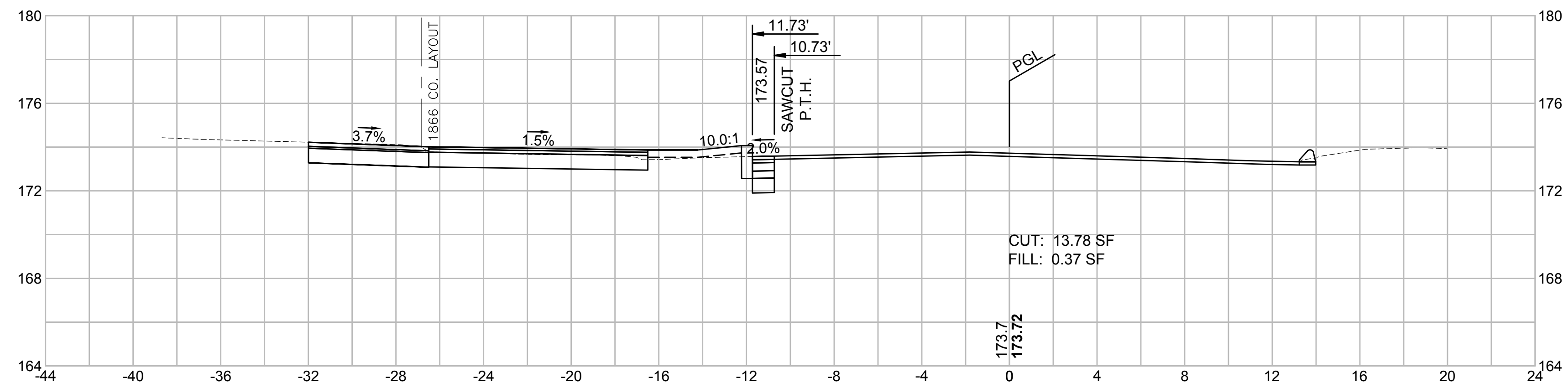
**12+60 - DRIVEWAY LT**



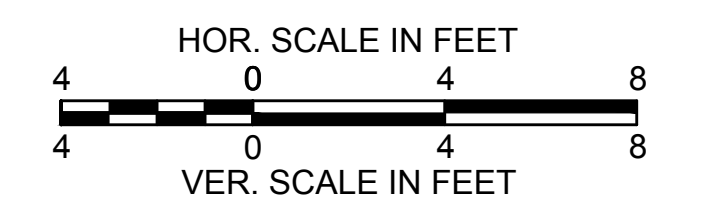
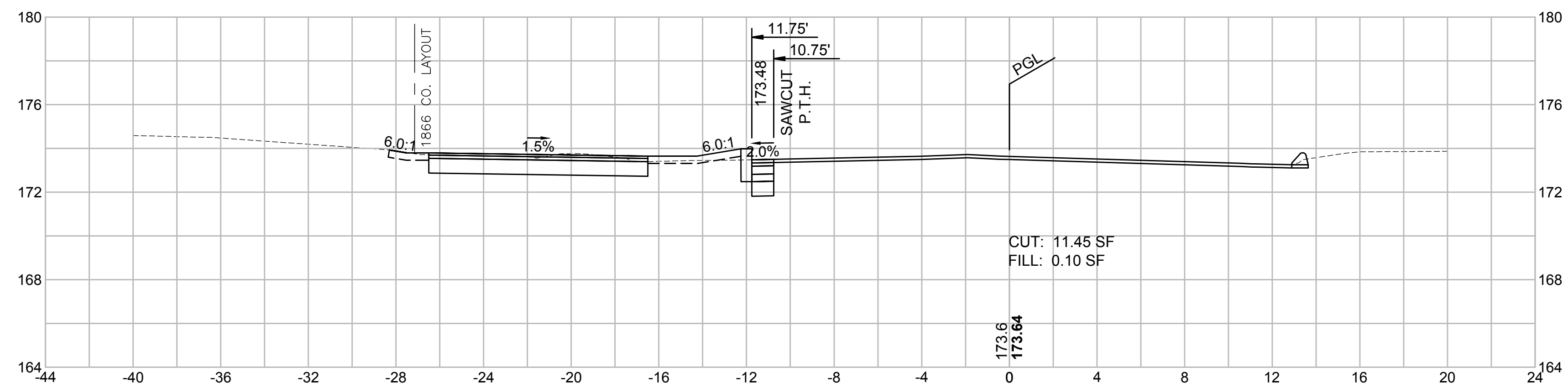
**14+28.50 - BRICK WALK LT**

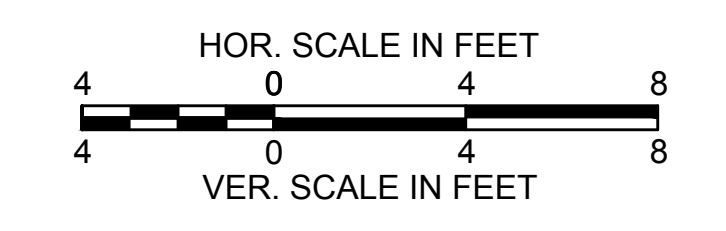
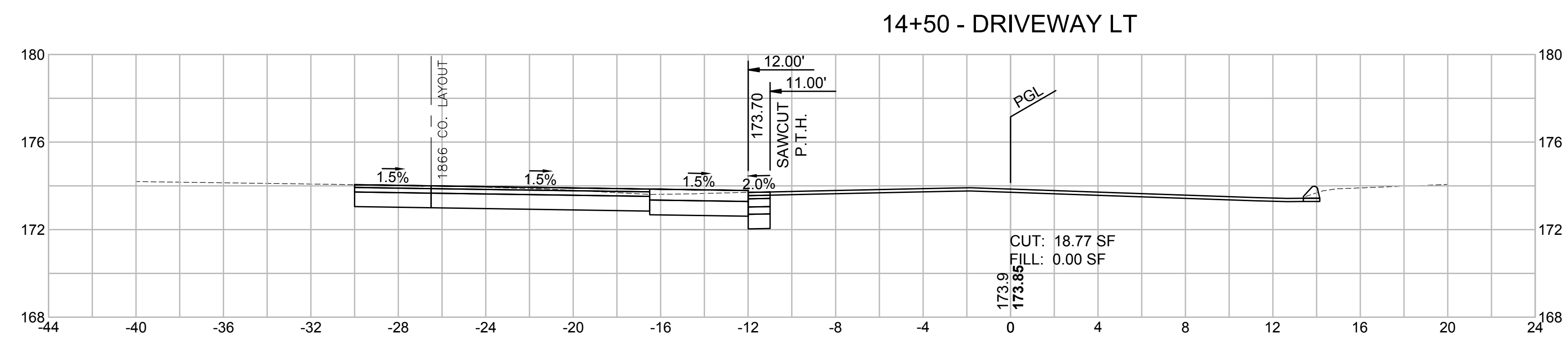
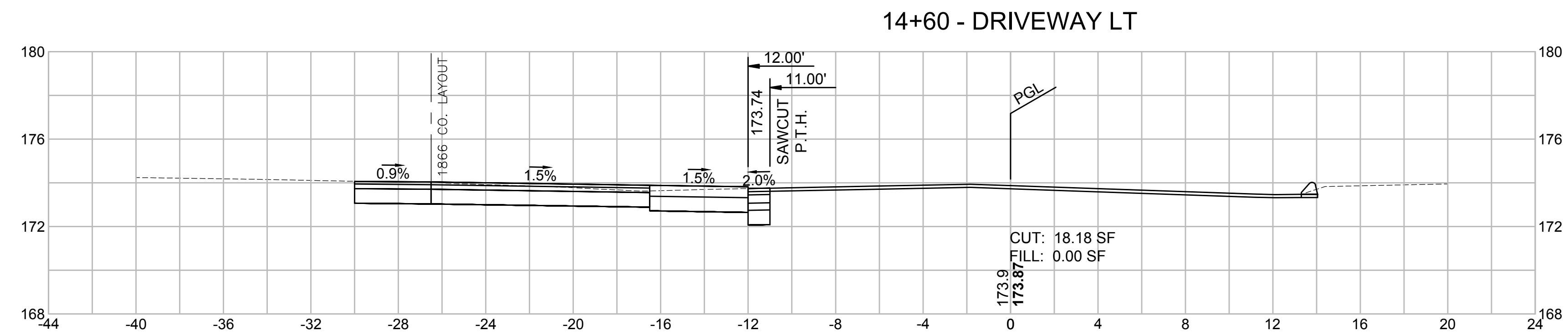
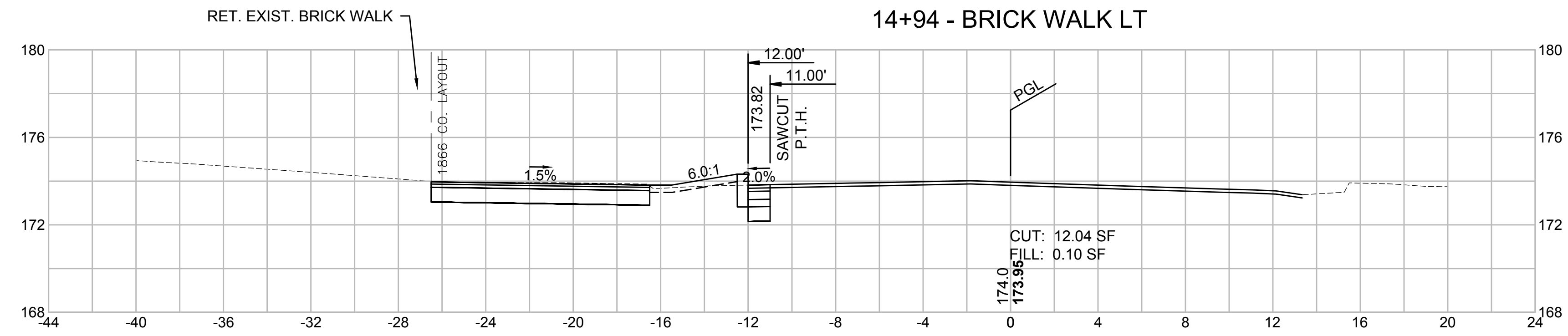


**14+15 - BRICK WALK LT**



**14+00**



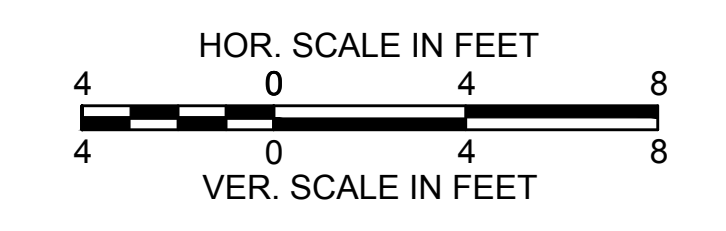
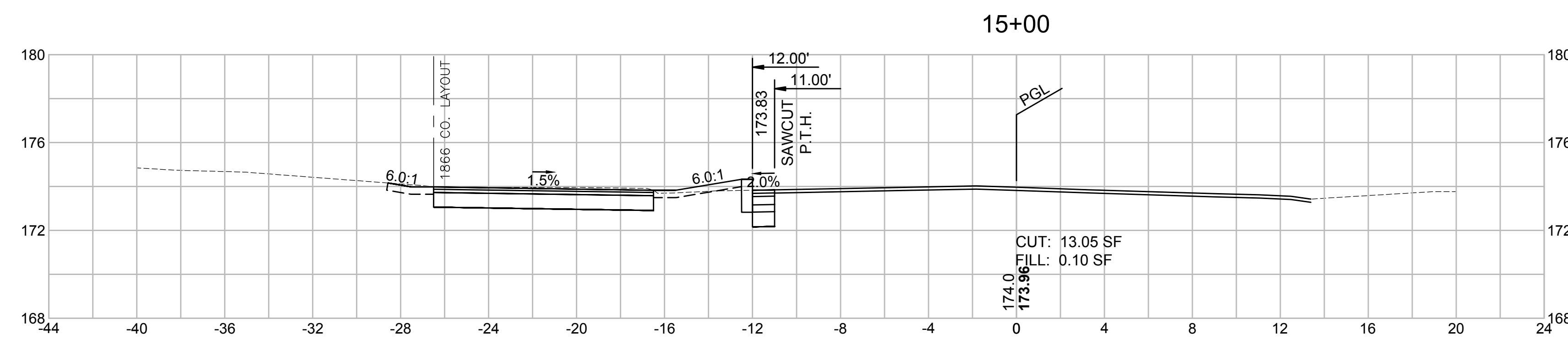
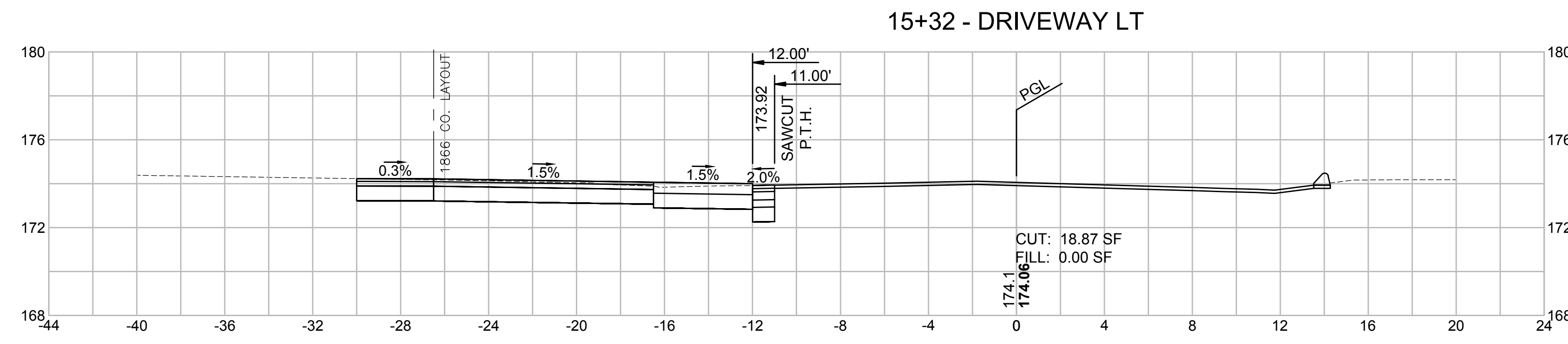
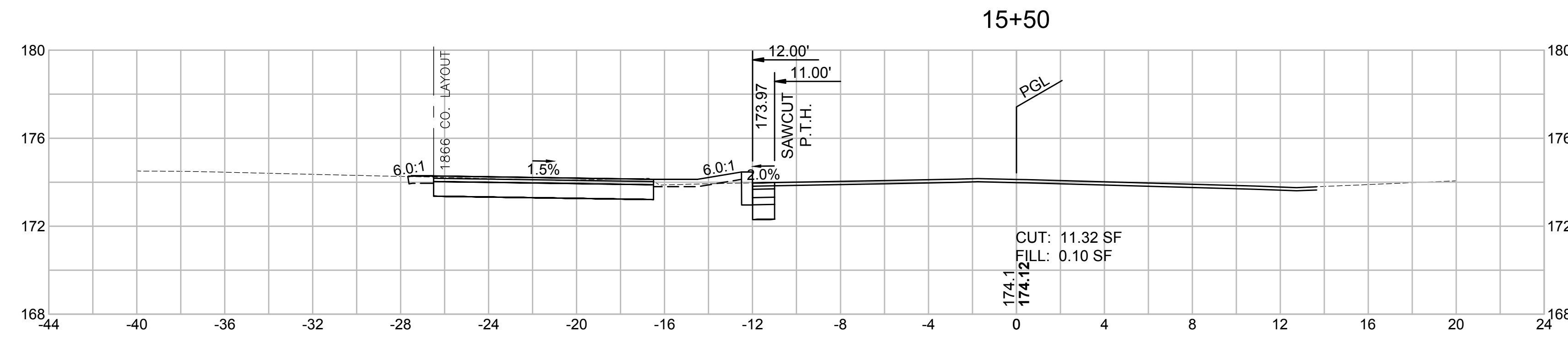


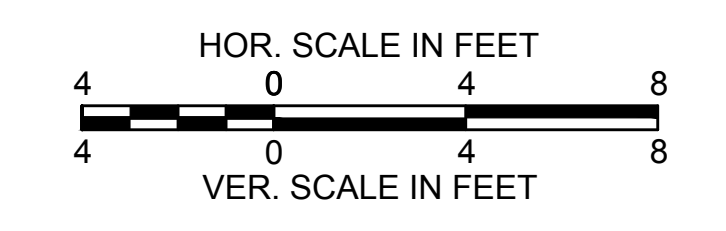
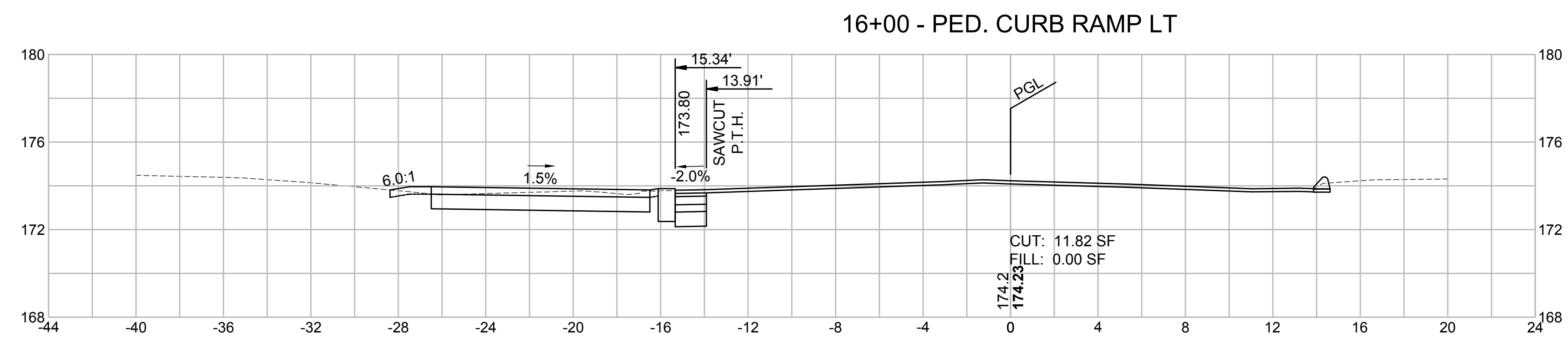
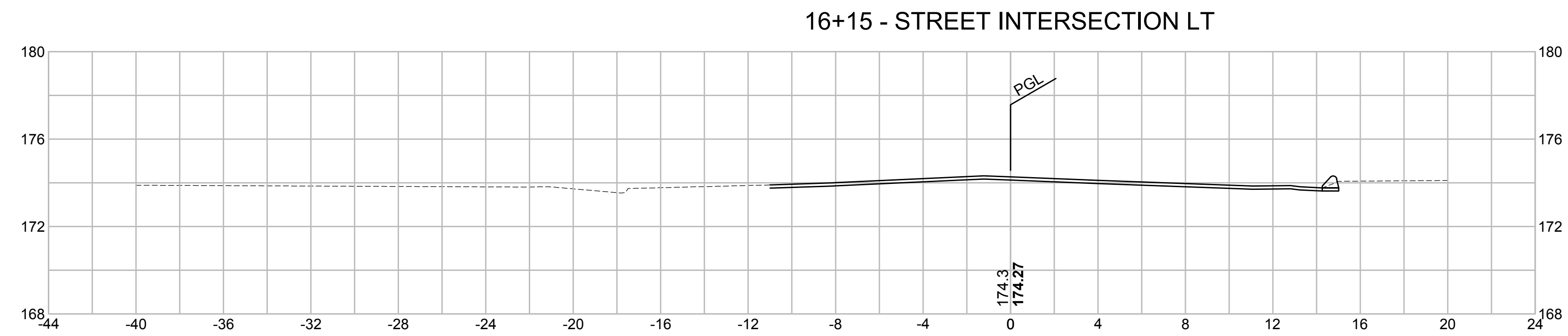
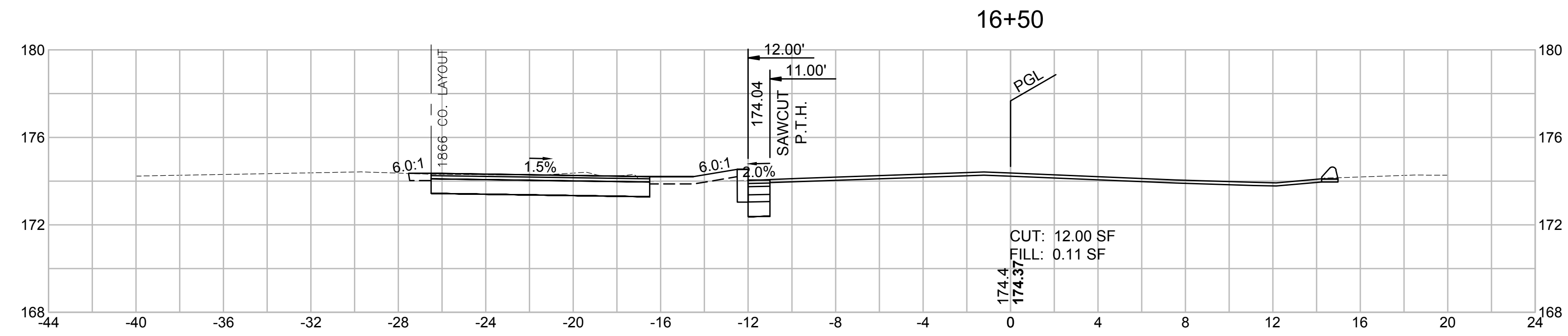


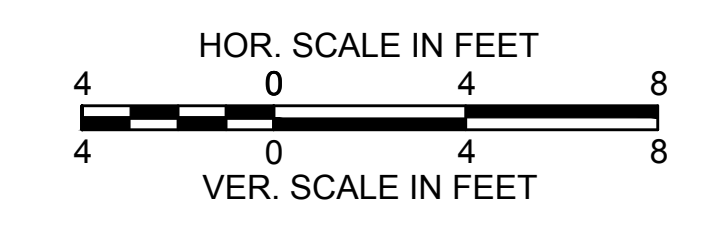
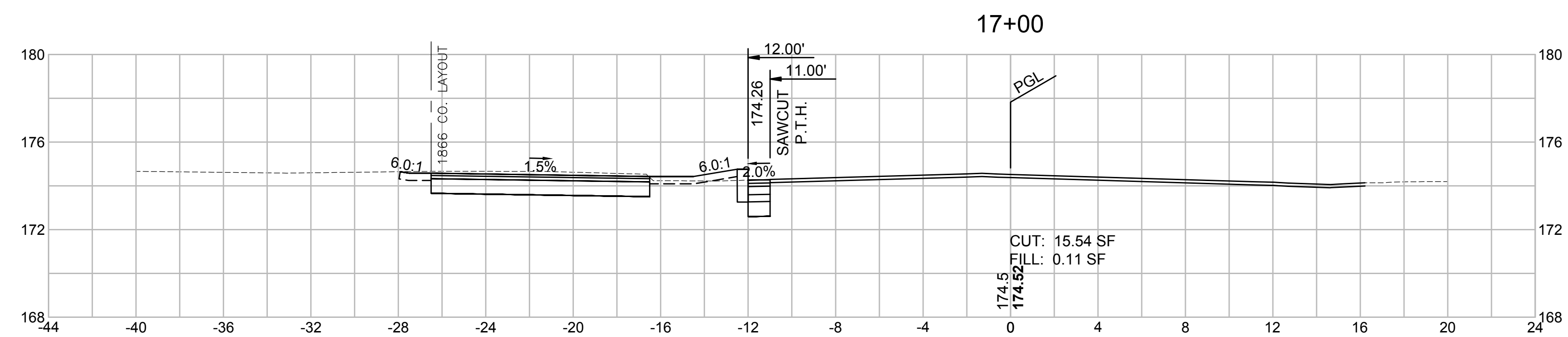
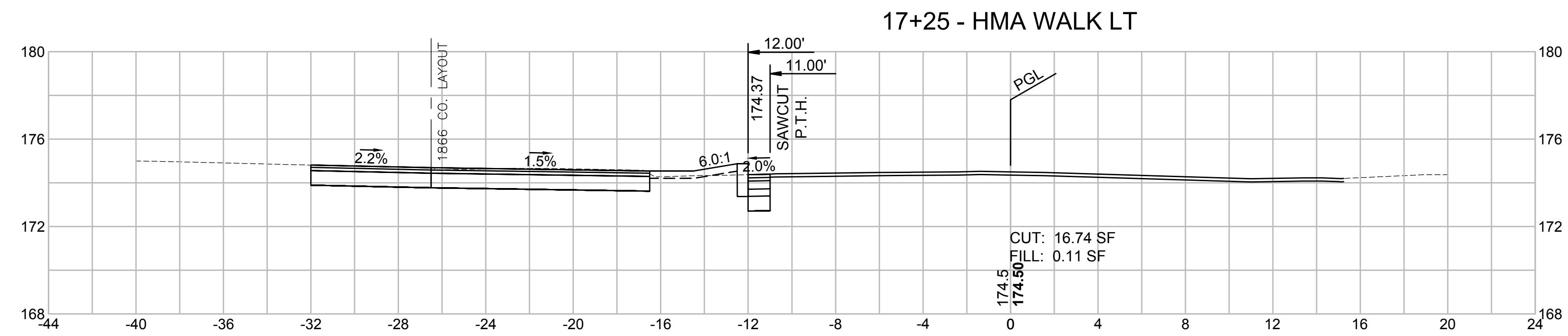
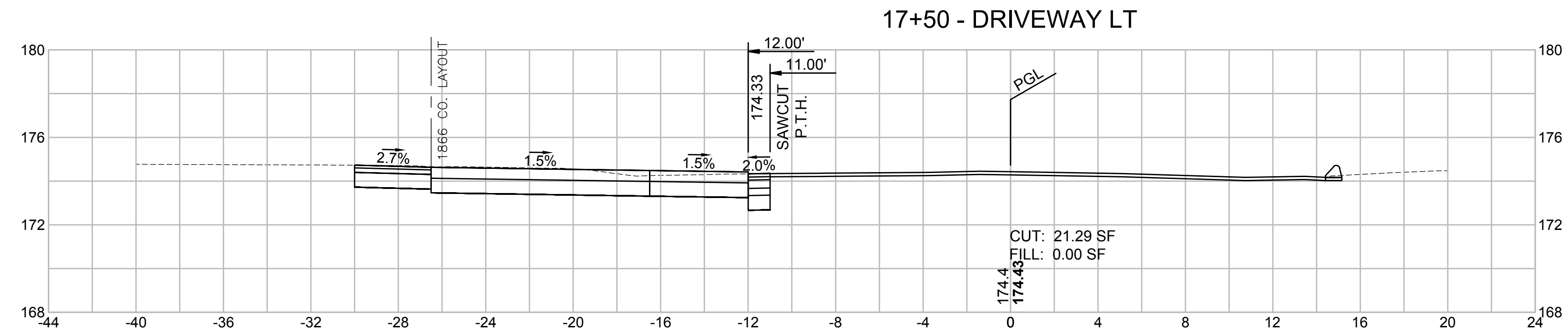
**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

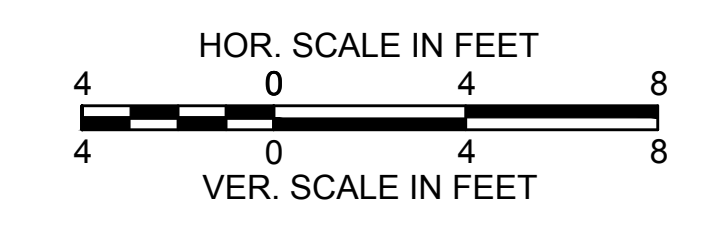
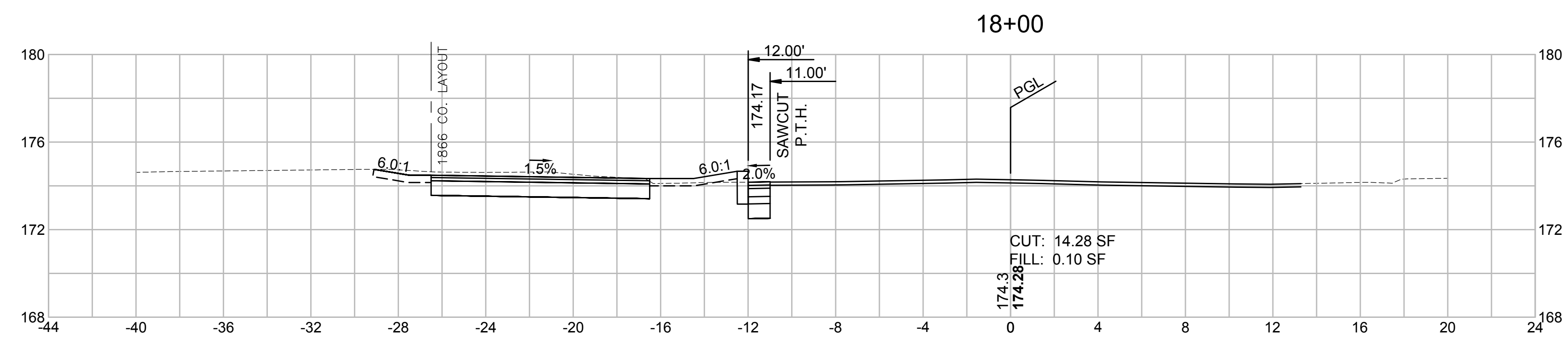
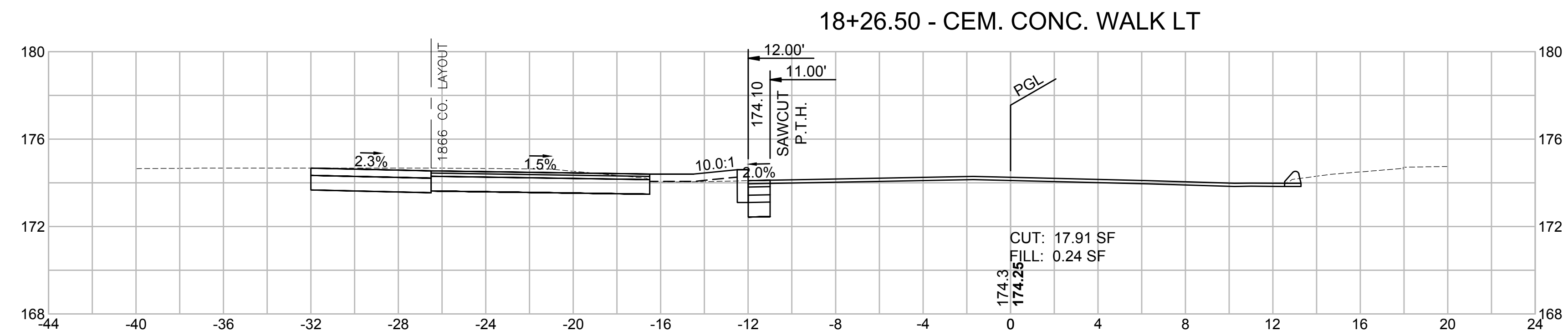
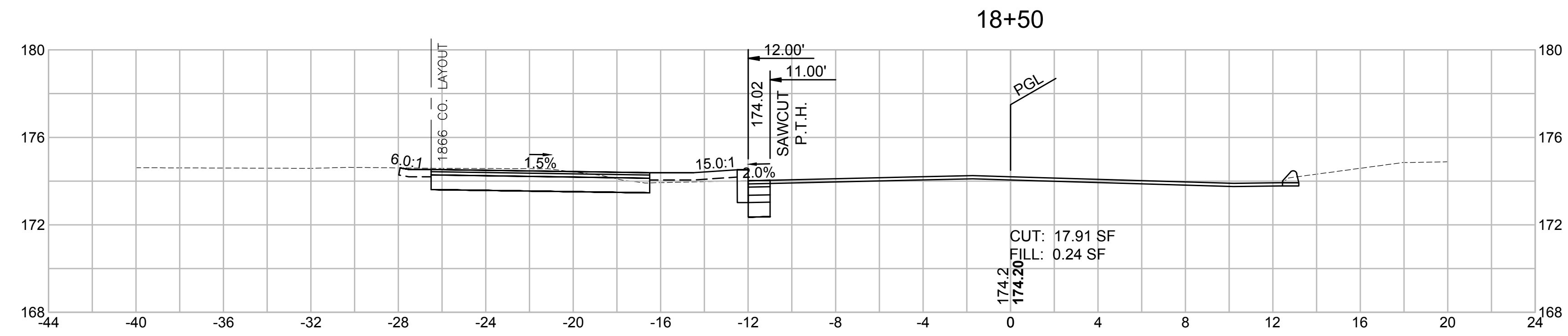
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	65	98
PROJECT FILE NO.		610652	

**CROSS SECTIONS - MAPLE STREET  
SHEET 6 OF 36**

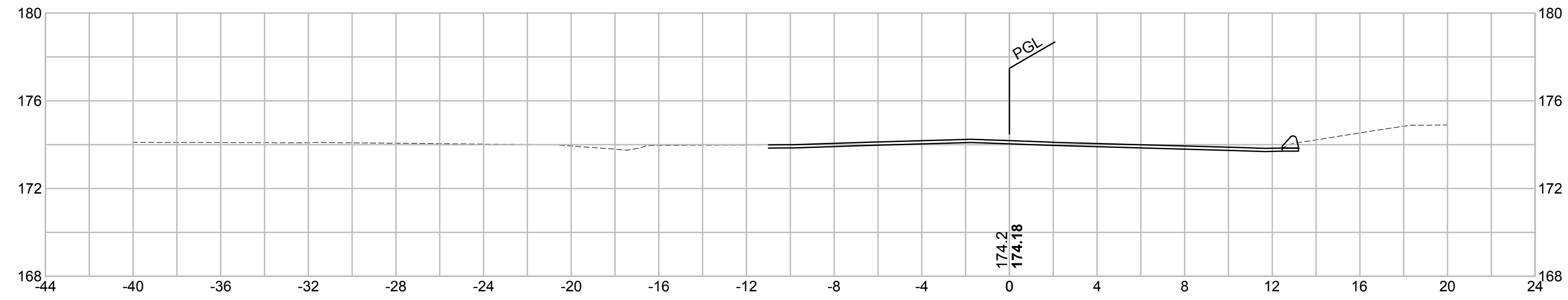




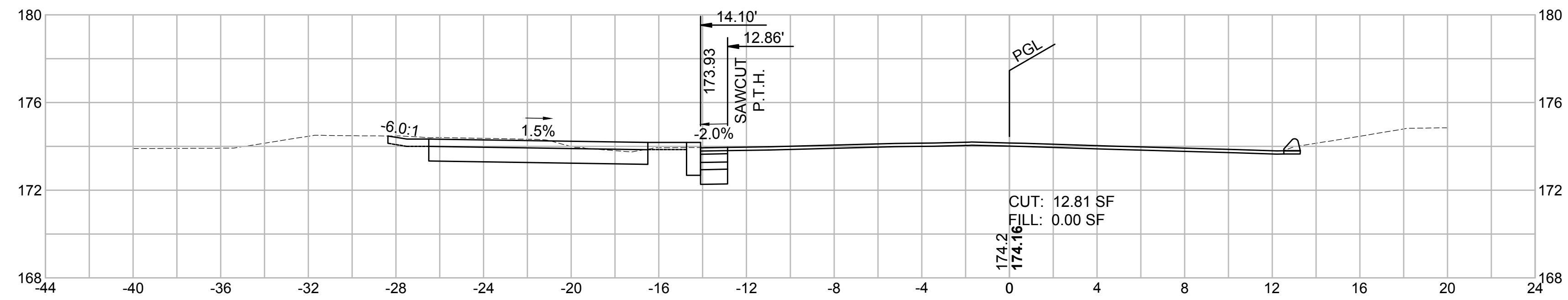




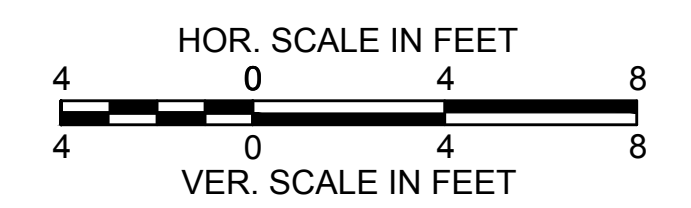
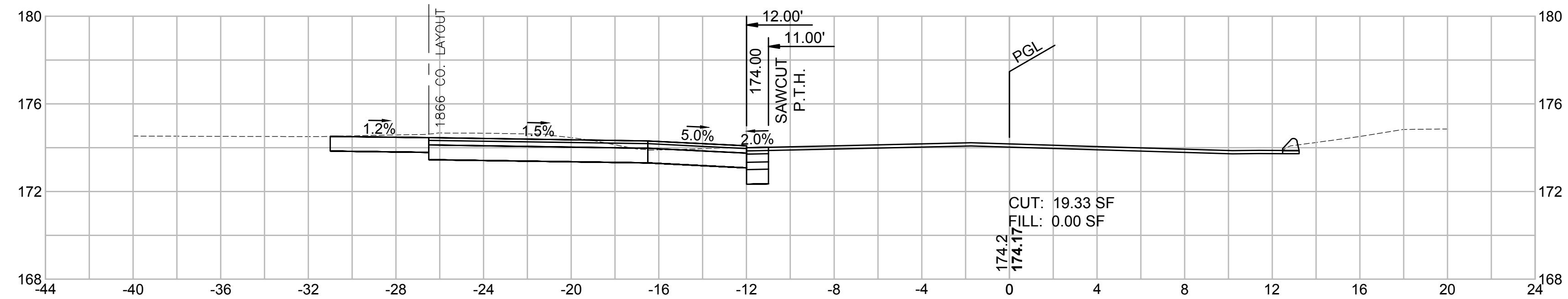
**19+15 - STREET INTERSECTION LT**

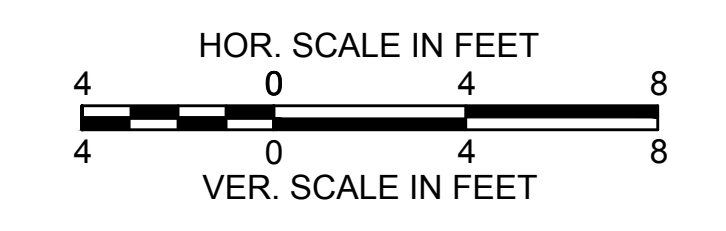
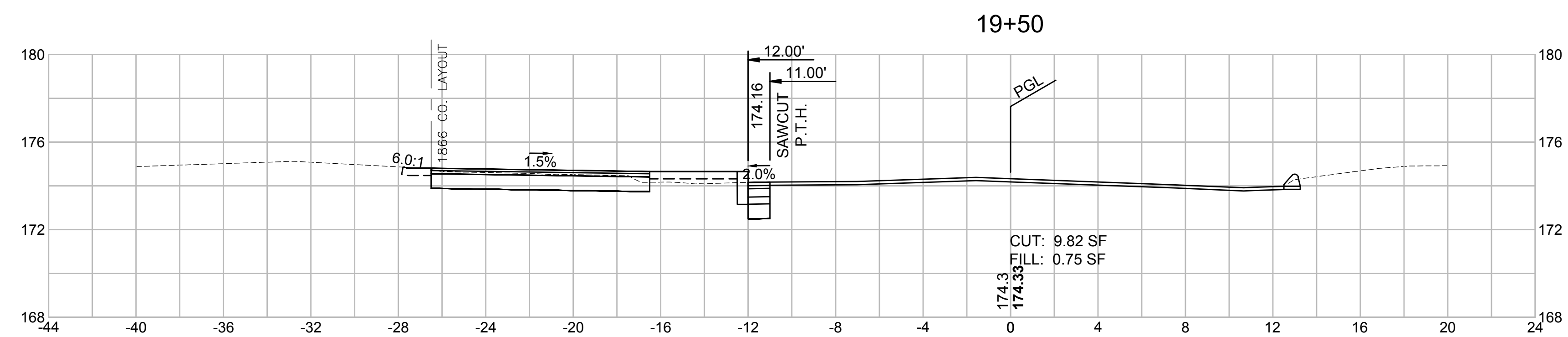
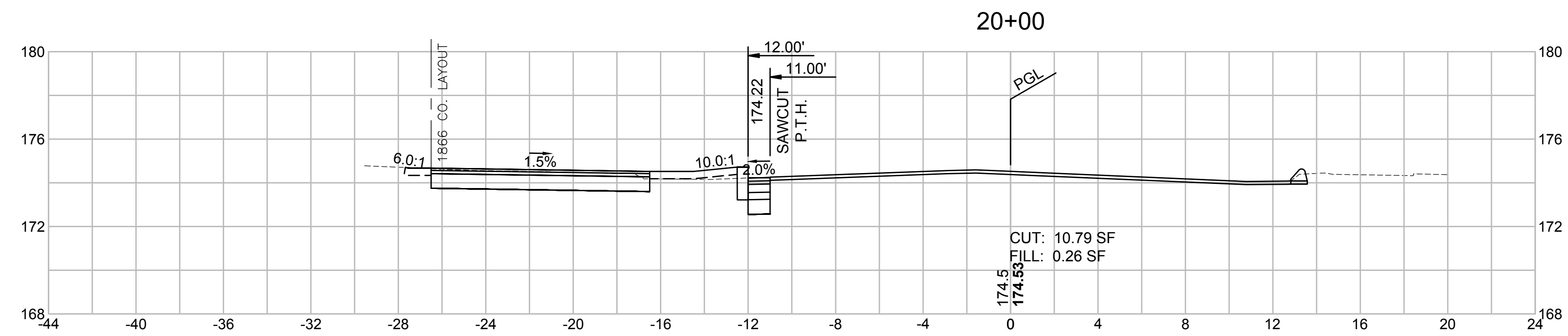
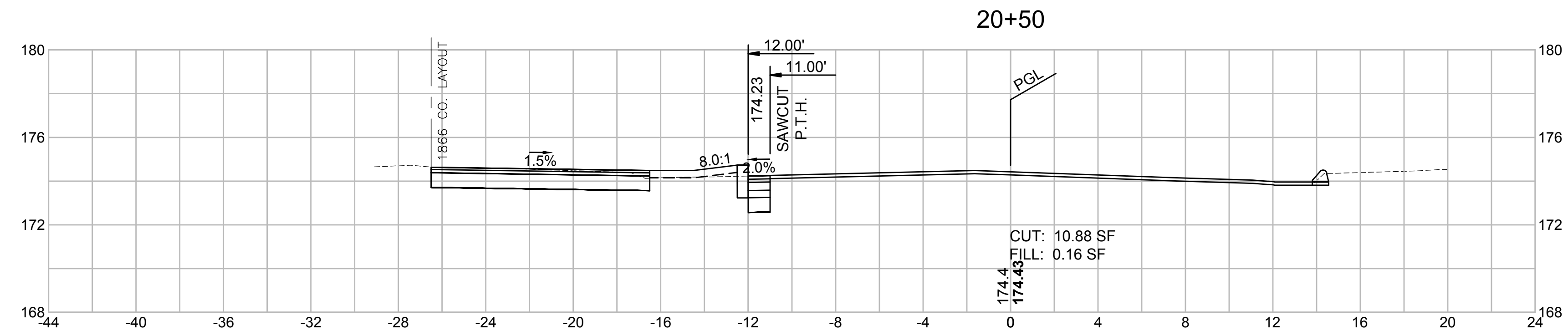


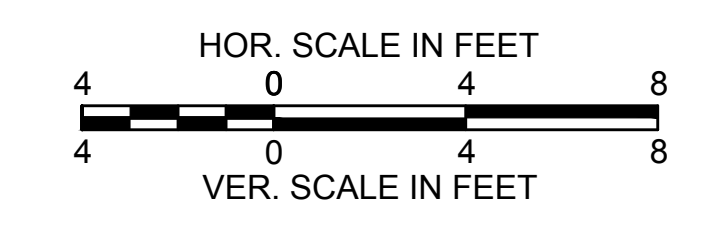
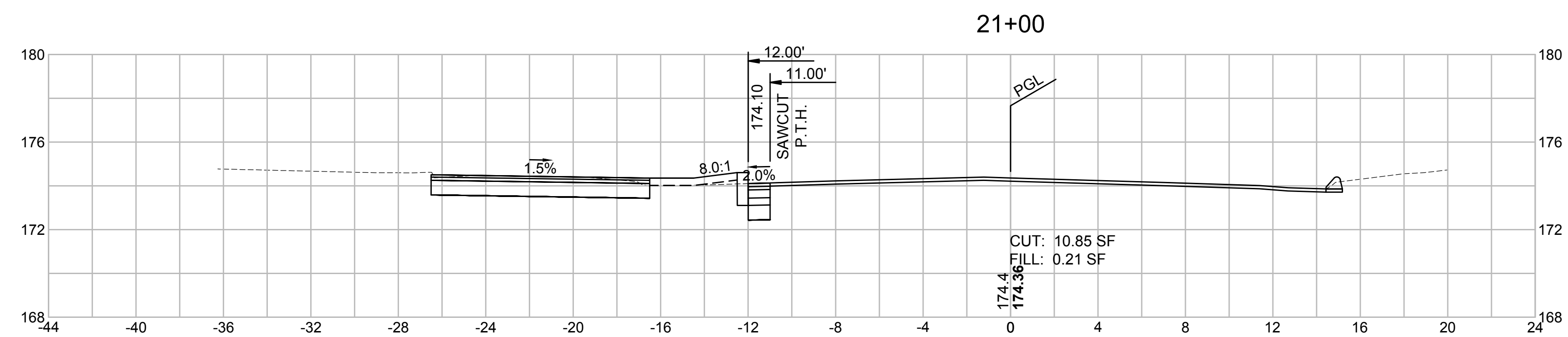
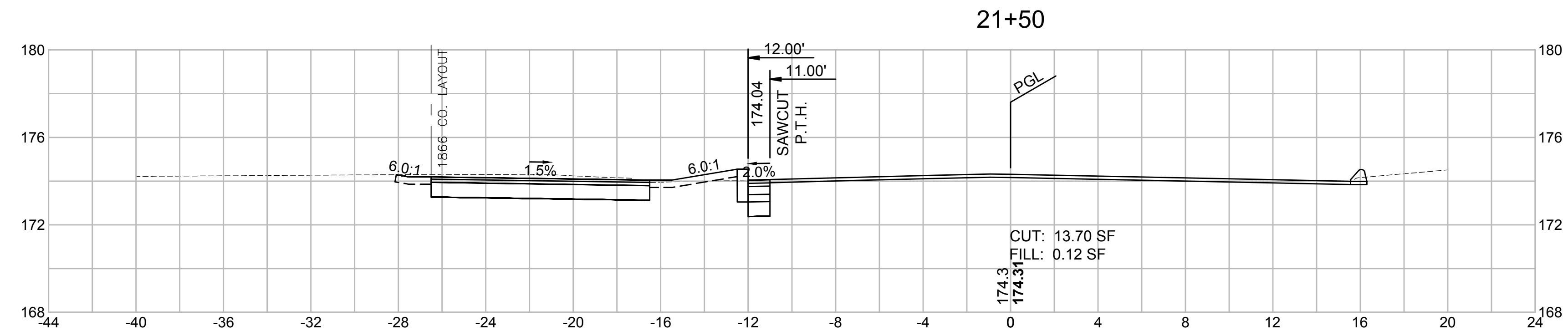
**19+00 - PED. CURB RAMP LT**

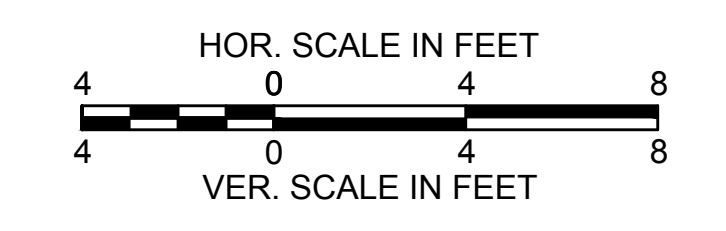
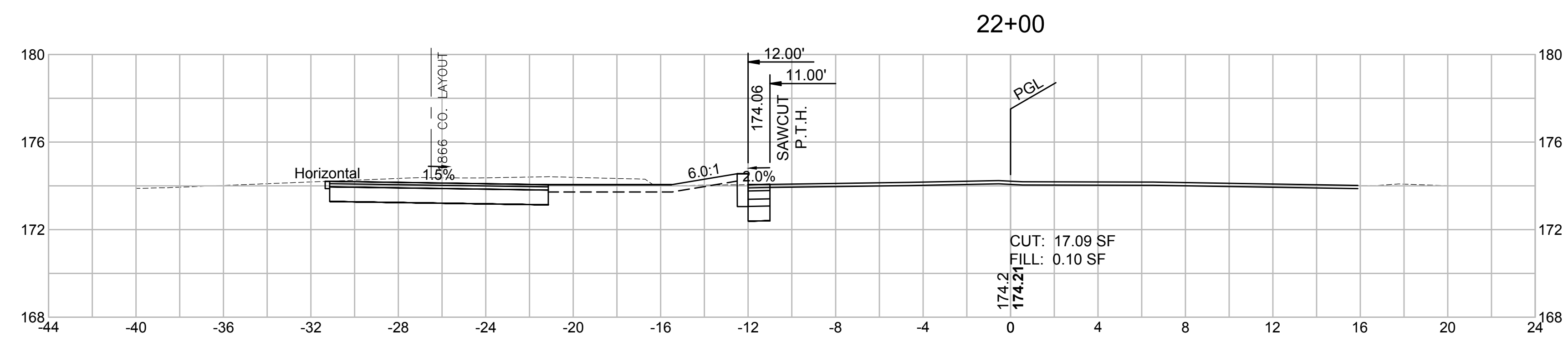
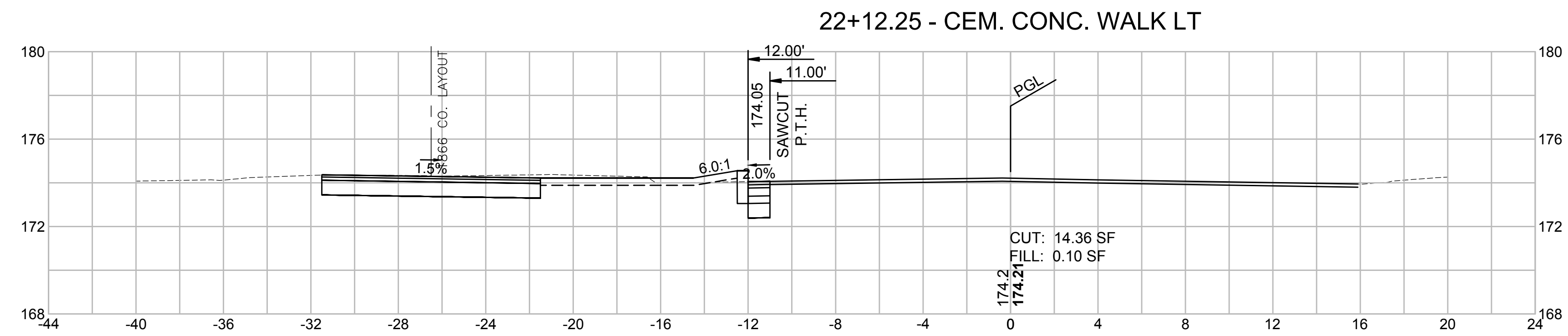
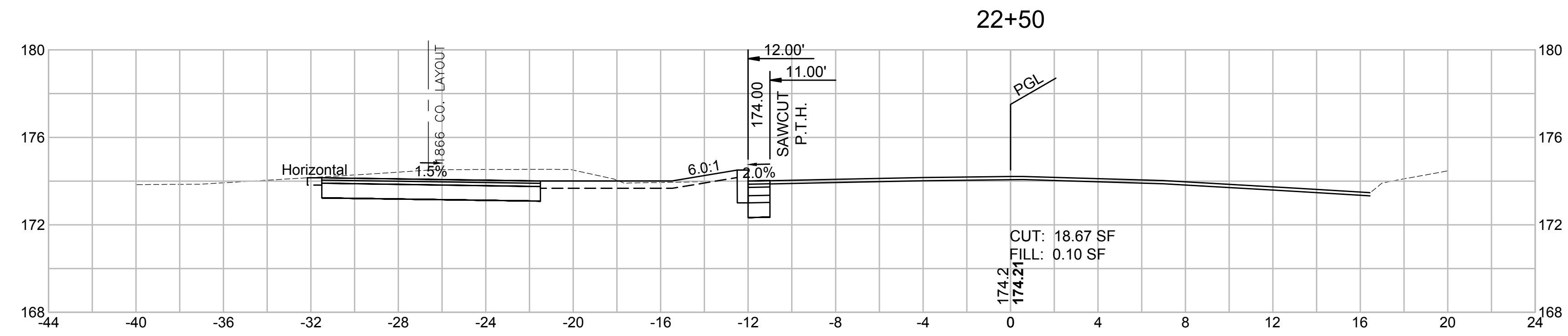


**18+58 - DRIVEWAY LT**

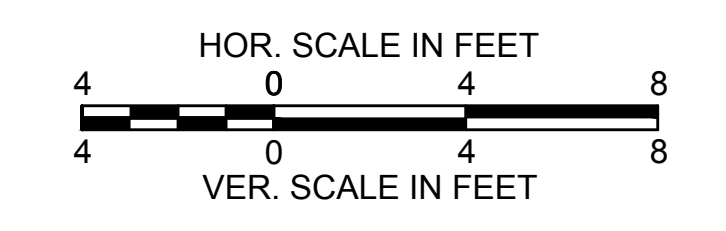
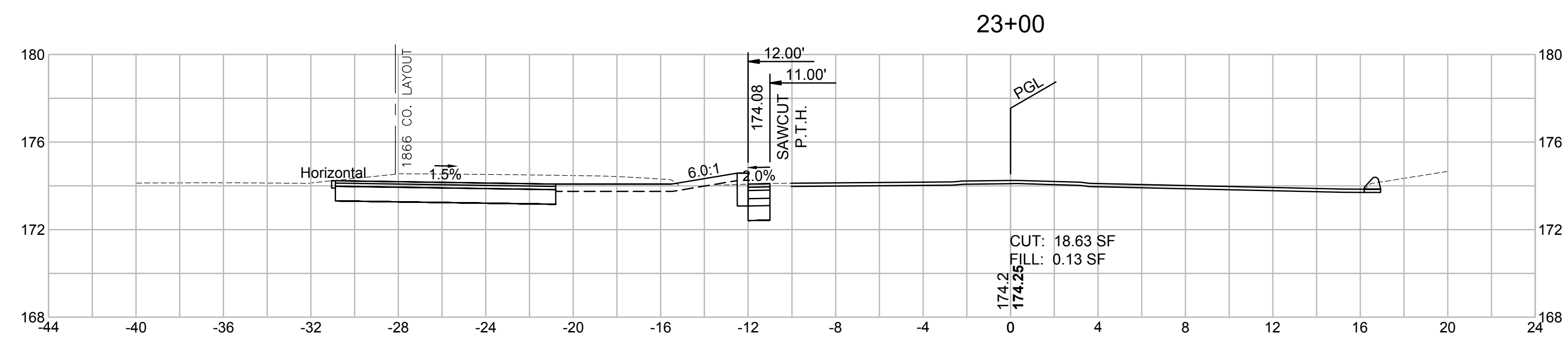
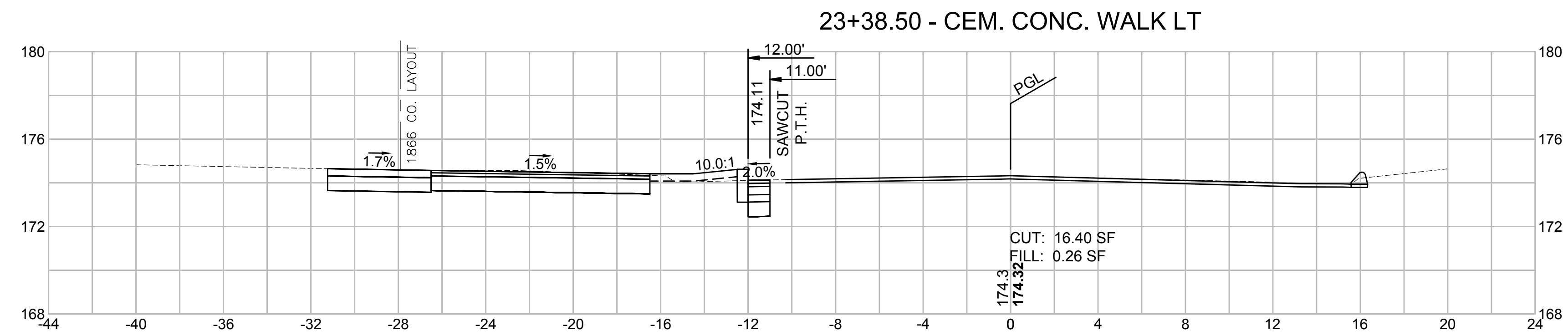
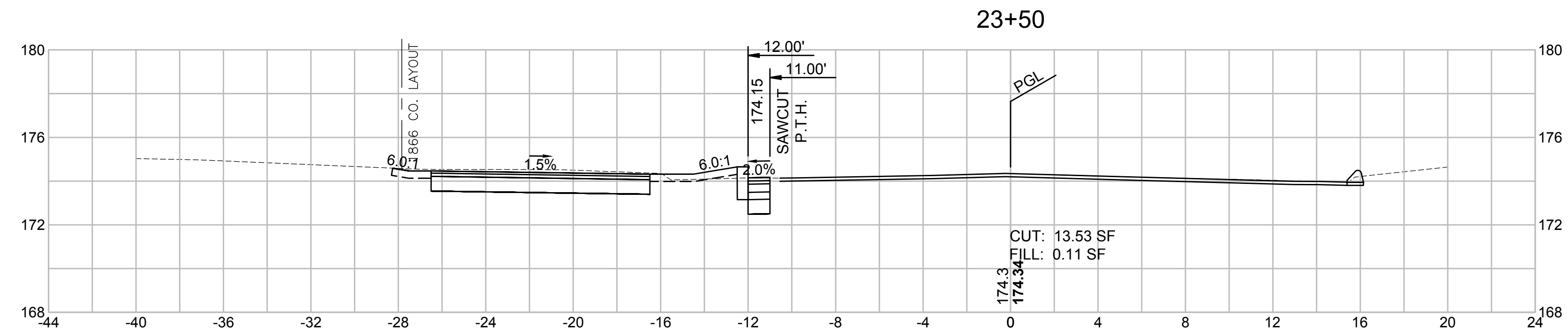


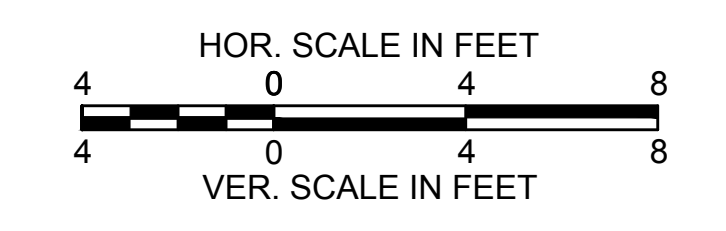
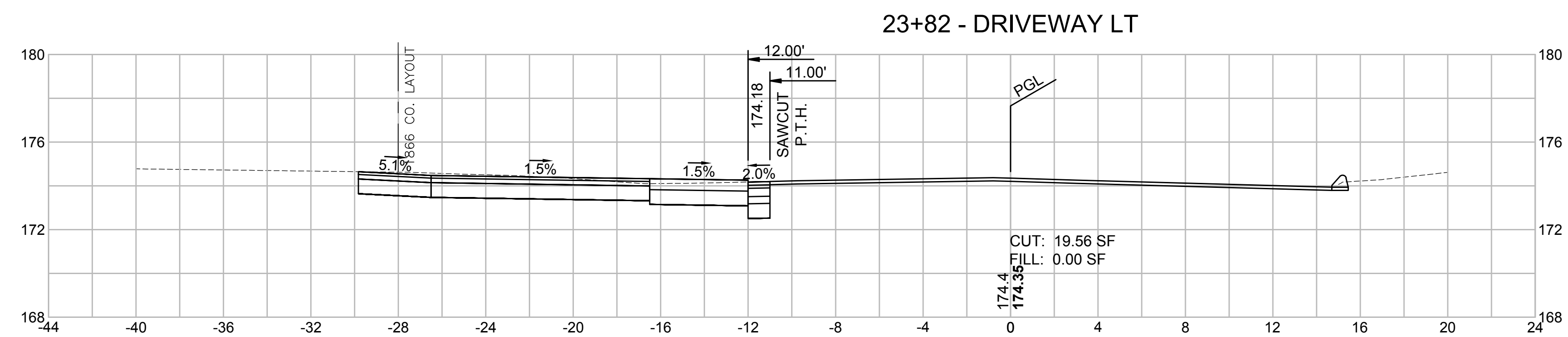
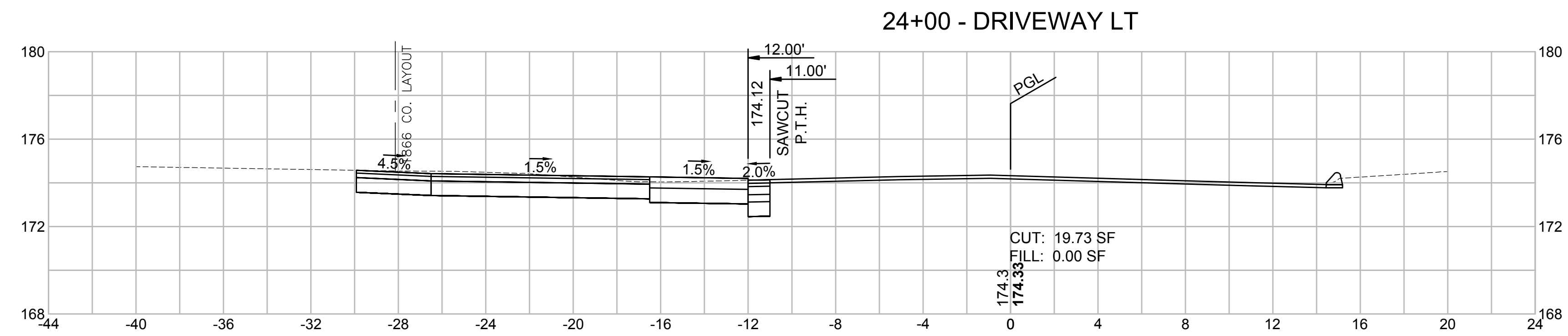
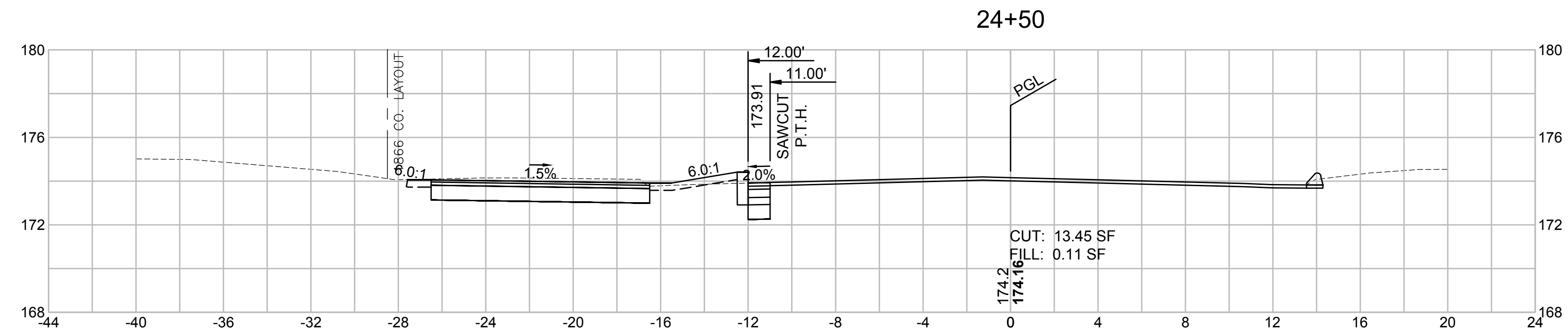


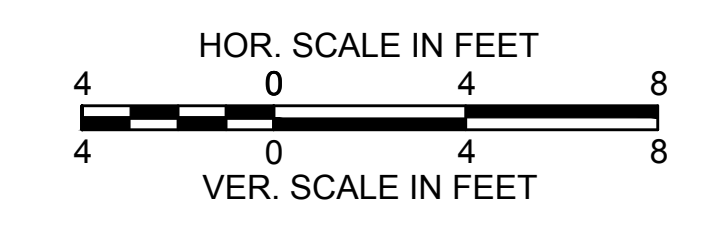
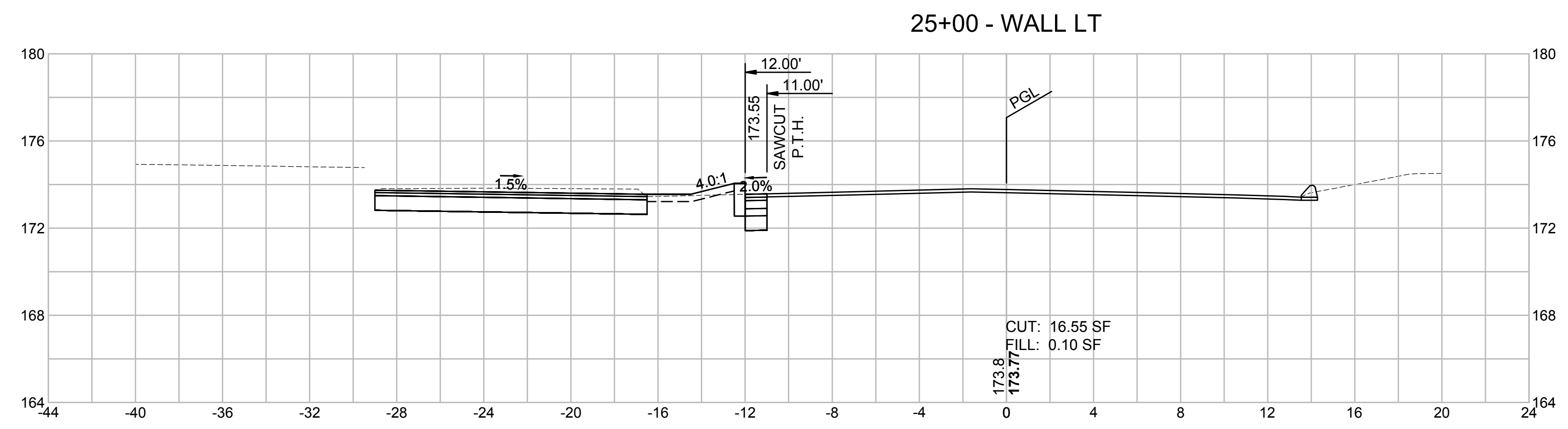
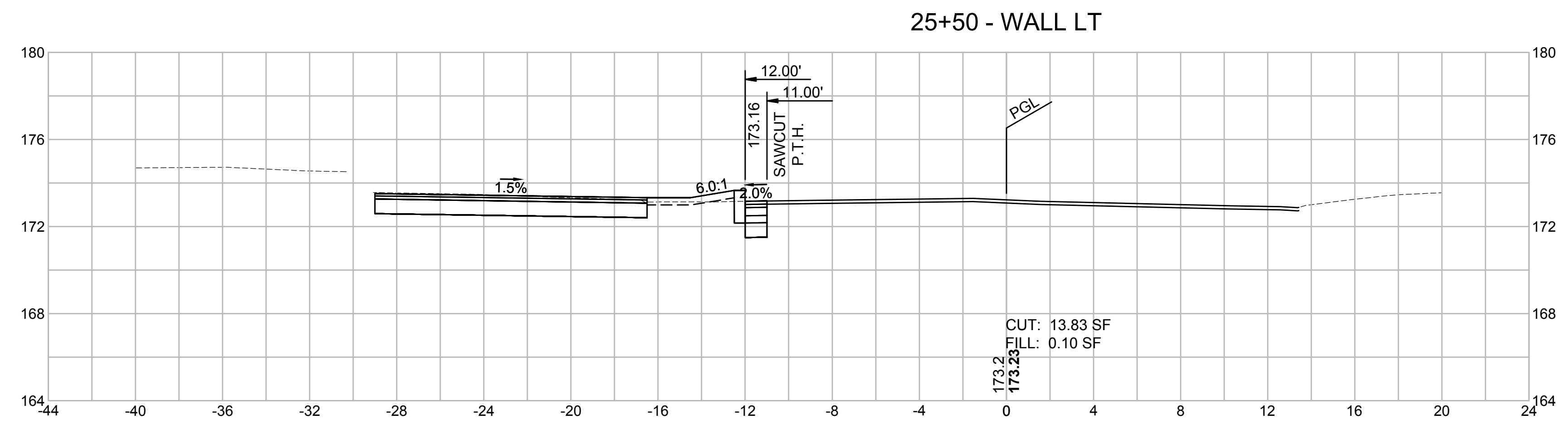
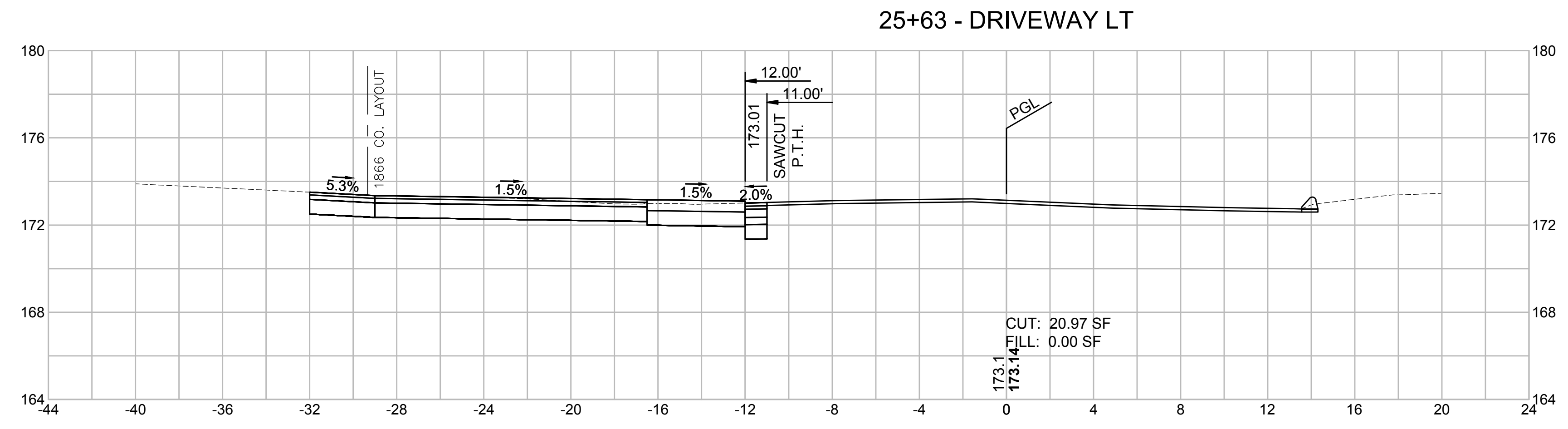


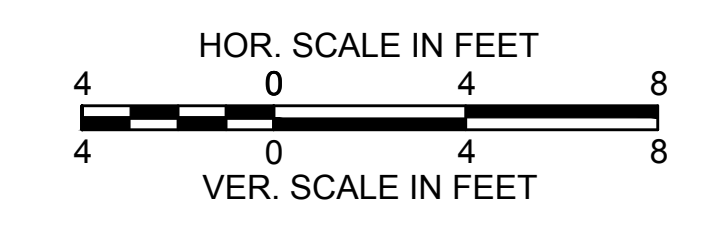
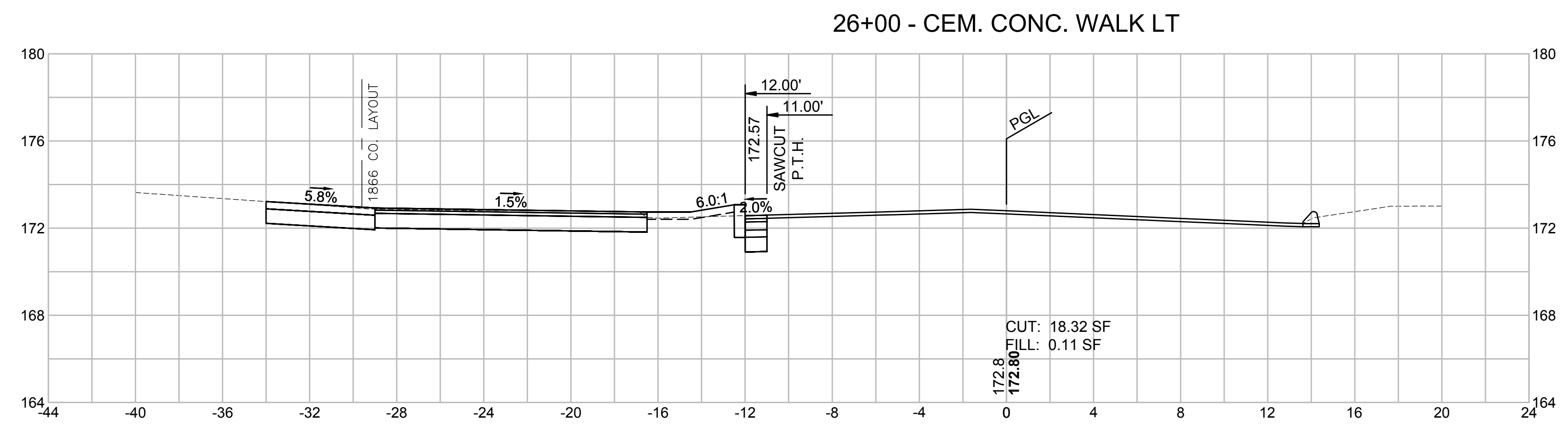
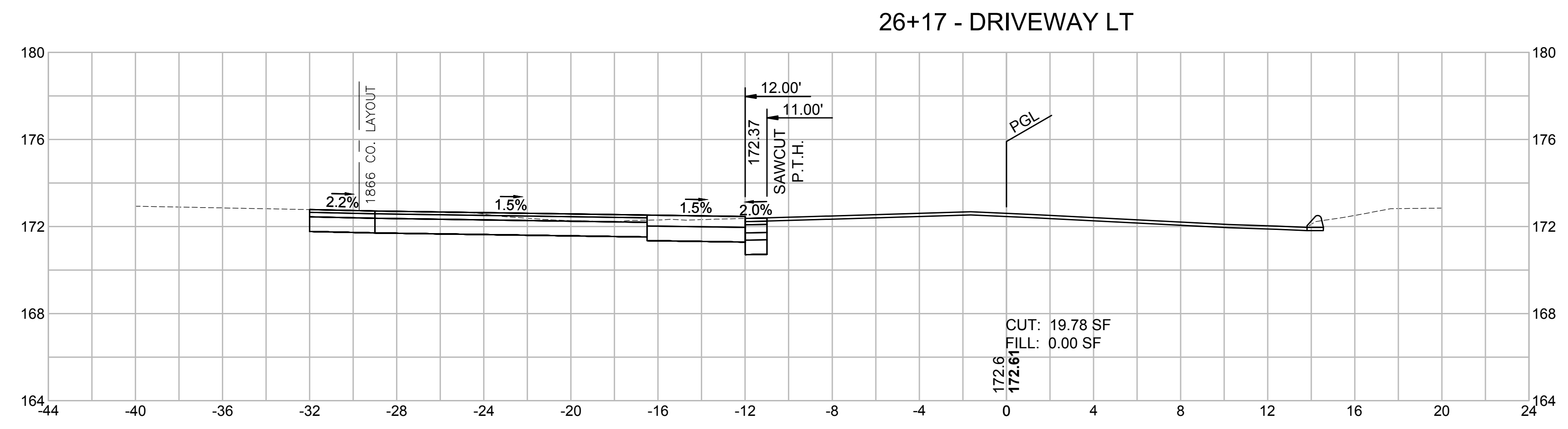
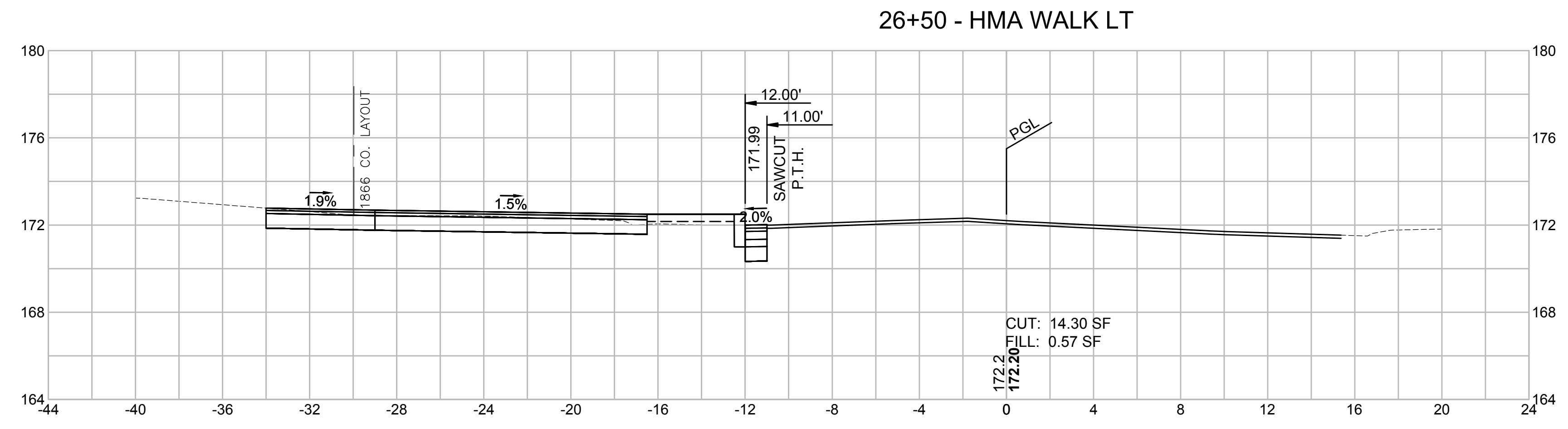




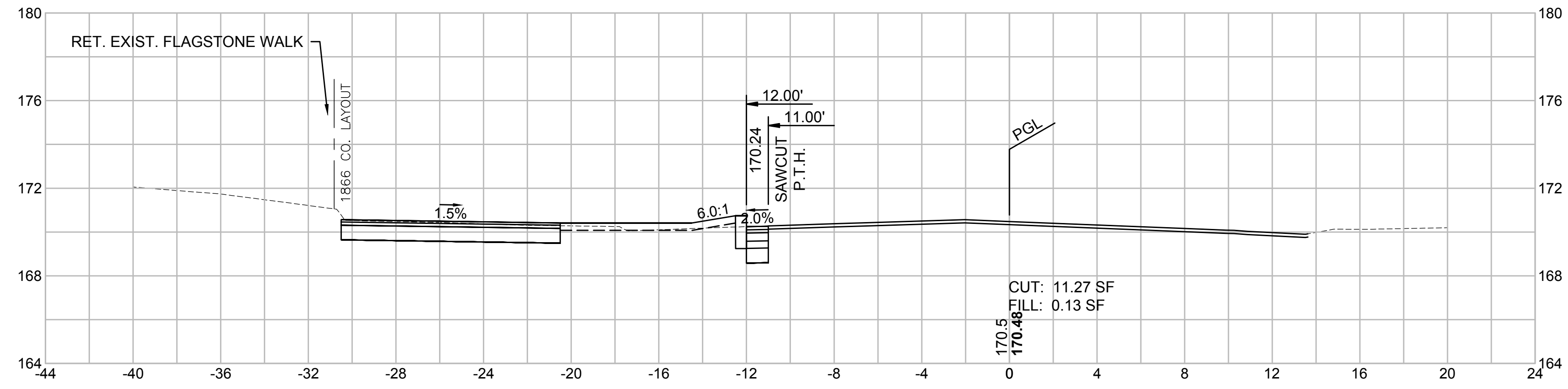




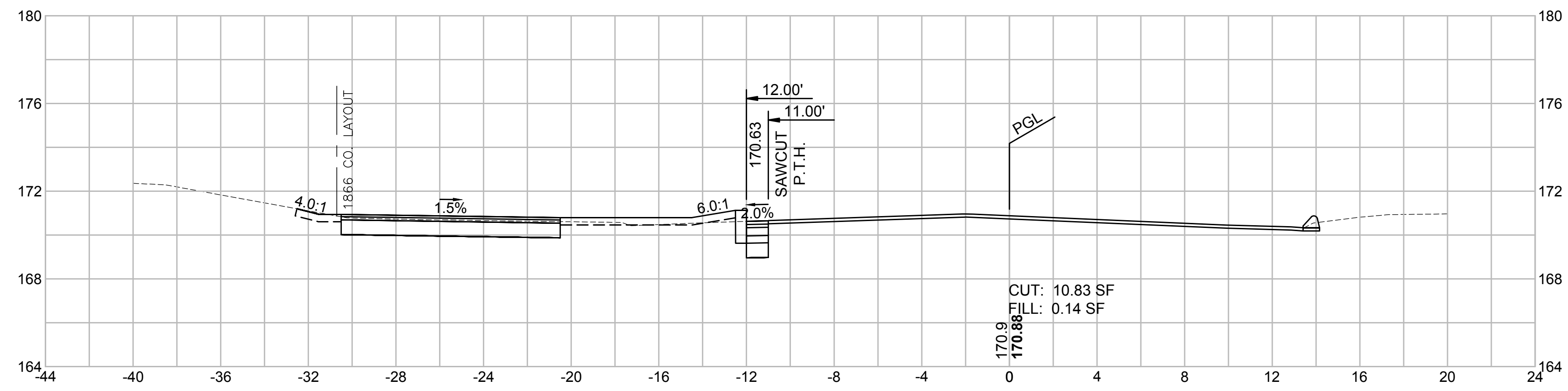




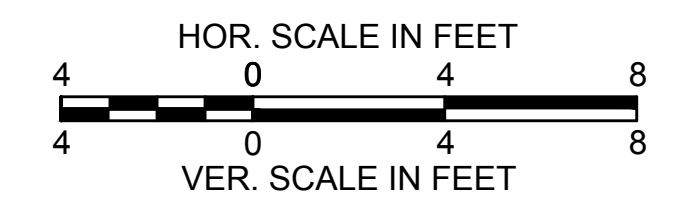
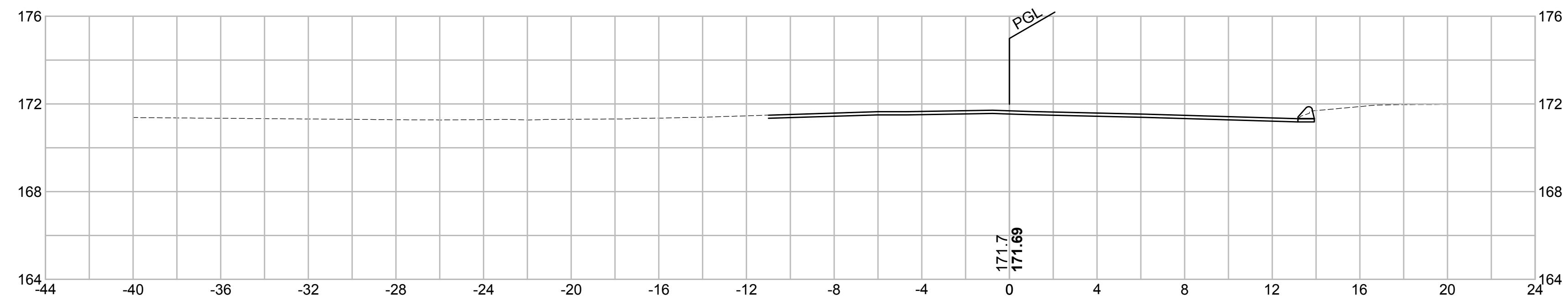
**27+66 - FLAGSTONE WALK LT**



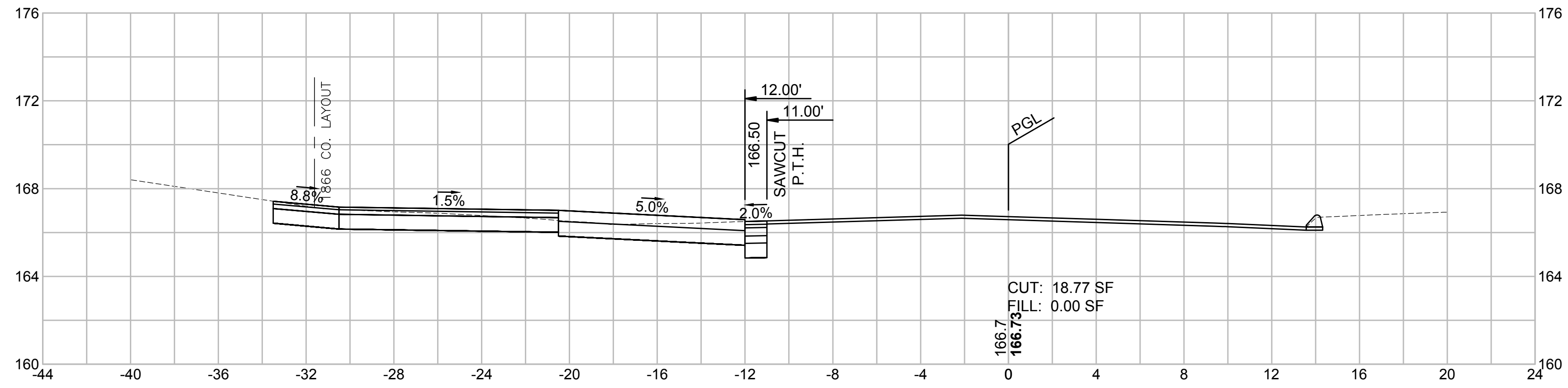
**27+50**



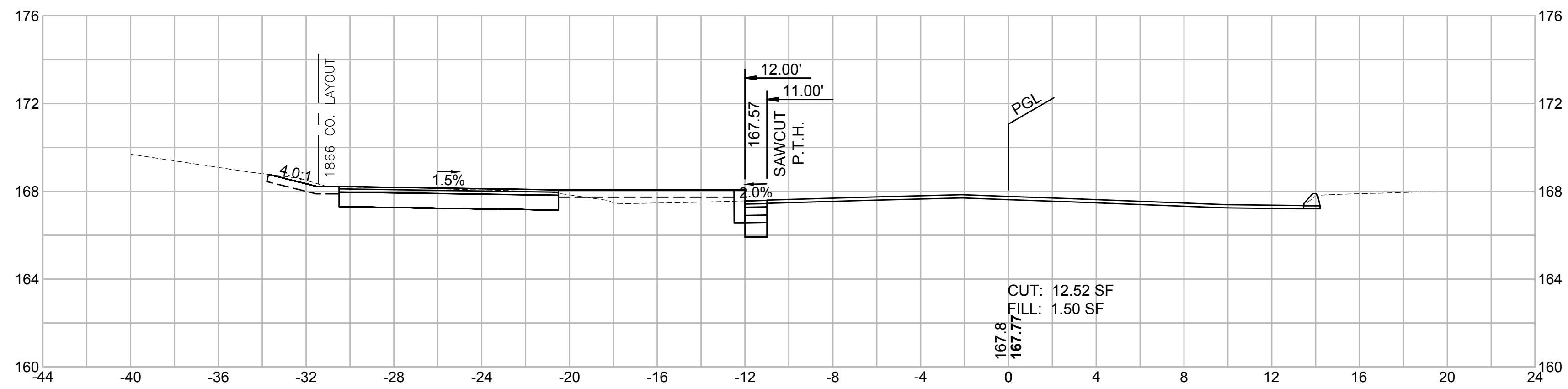
**27+00 - STREET INTERSECTION LT**



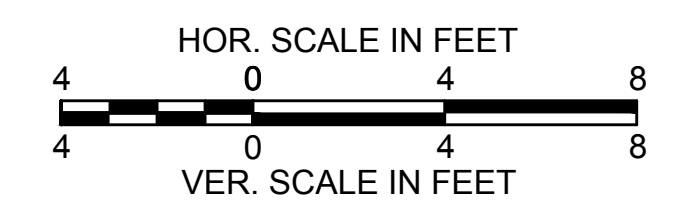
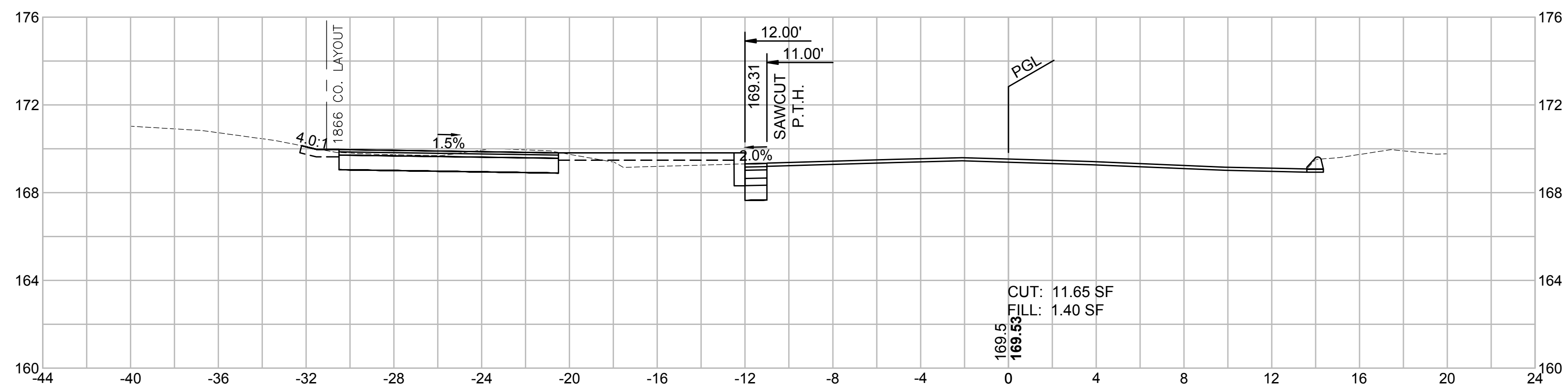
**28+75 - DRIVEWAY LT**



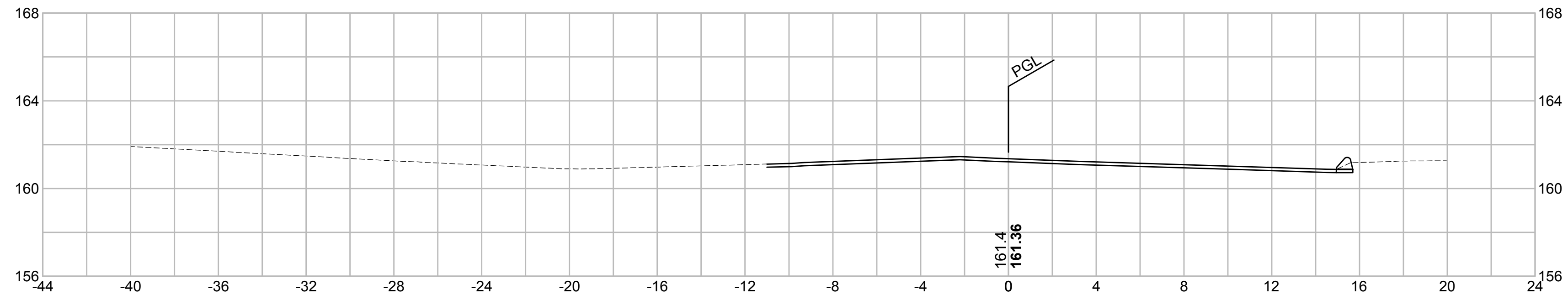
**28+50**



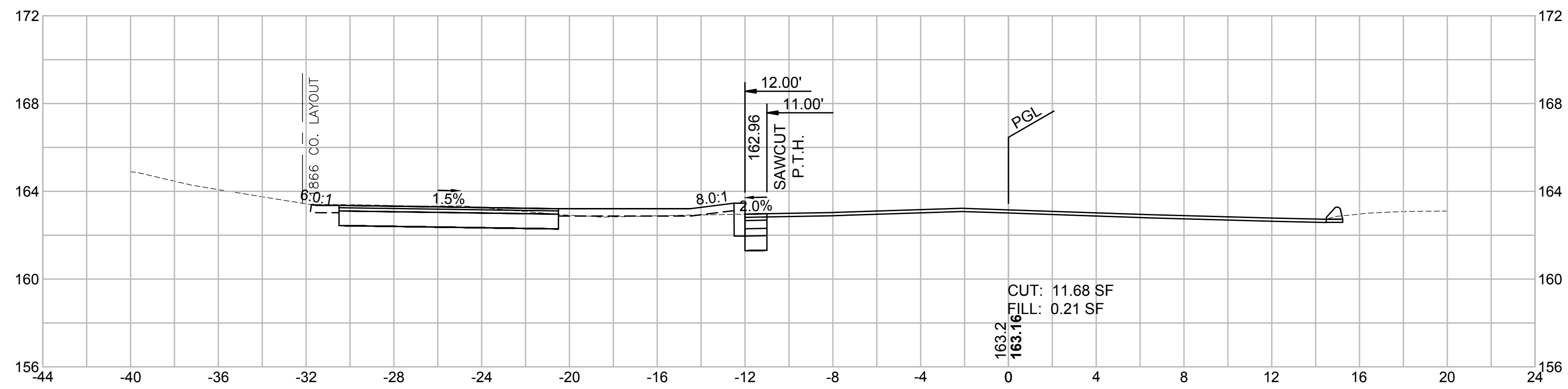
**28+00**



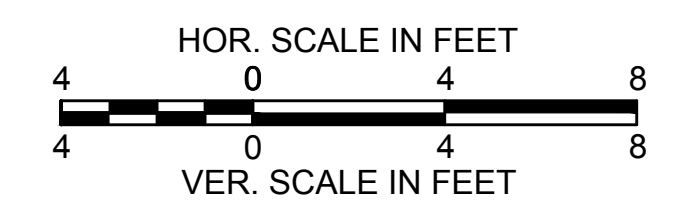
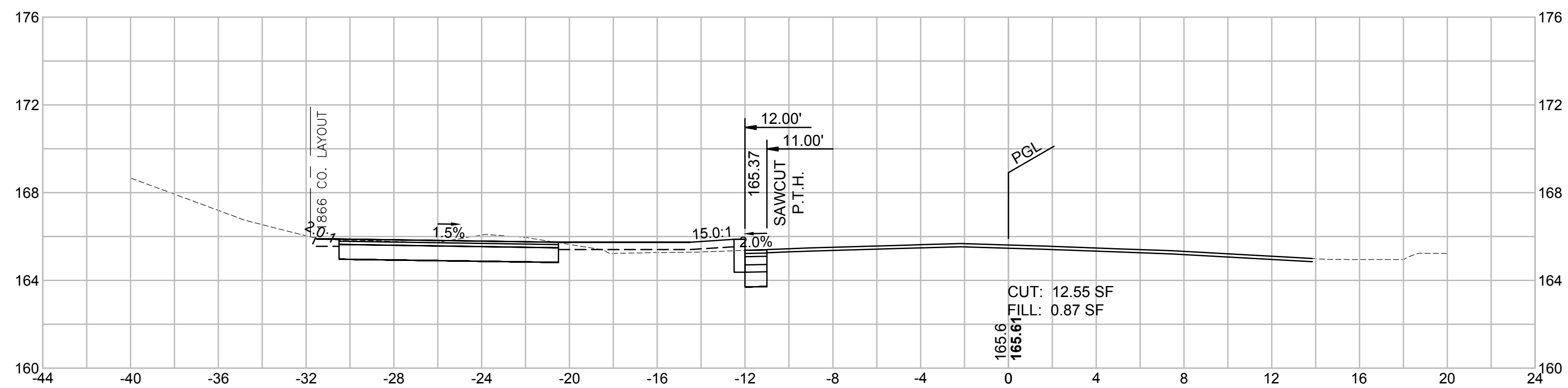
**29+83 - STREET INTERSECTION LT**

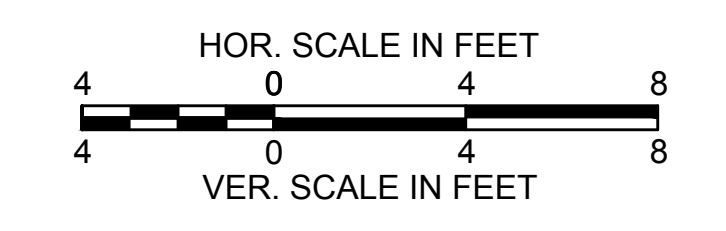
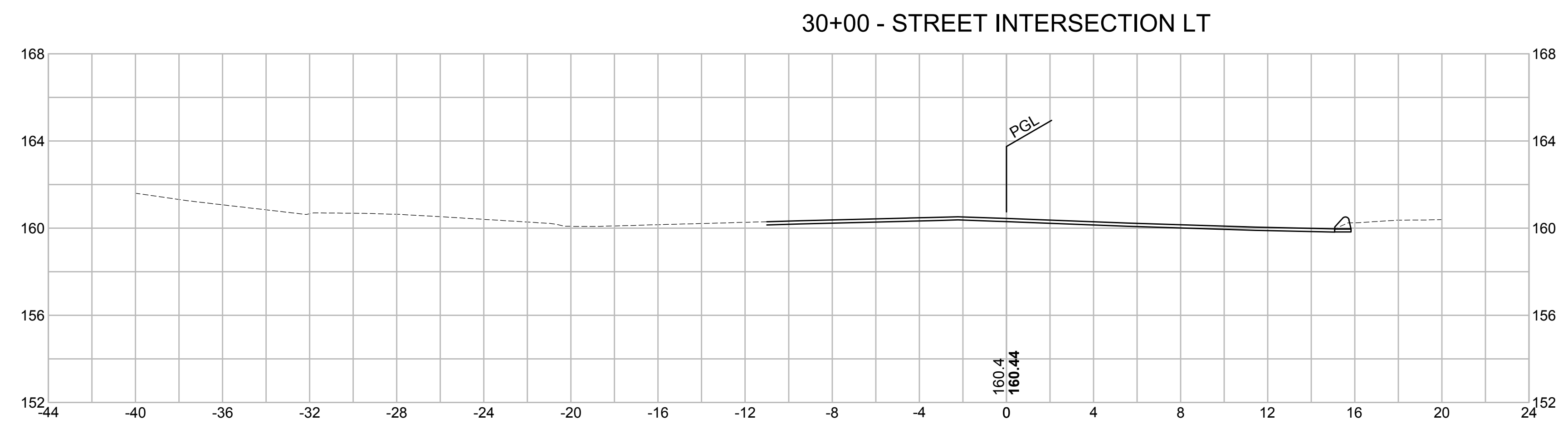
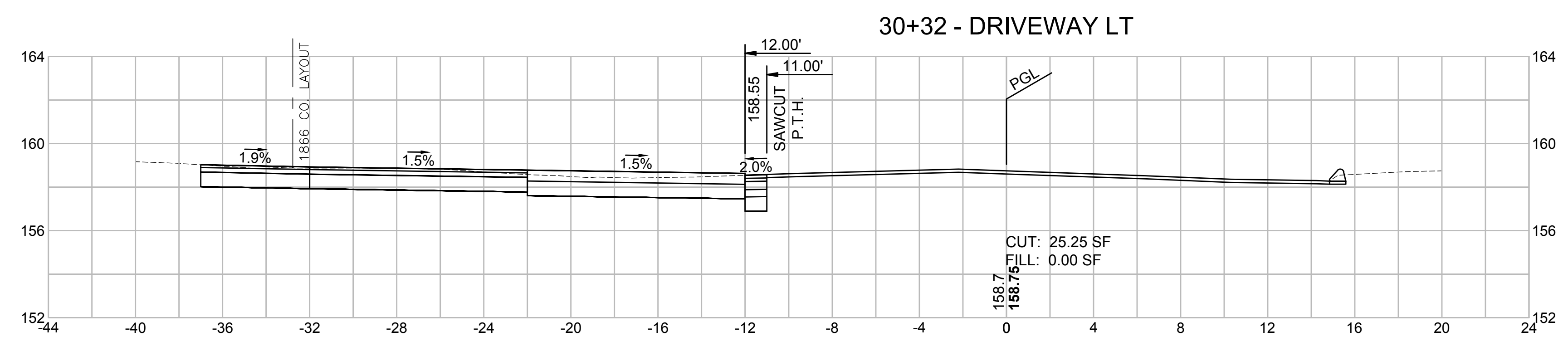
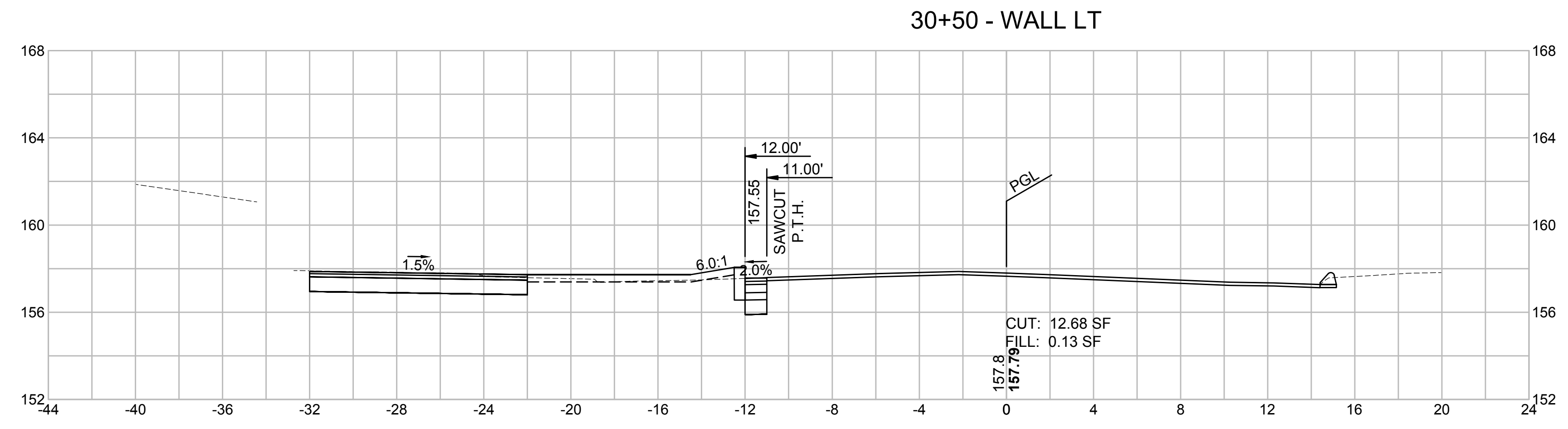


**29+50**



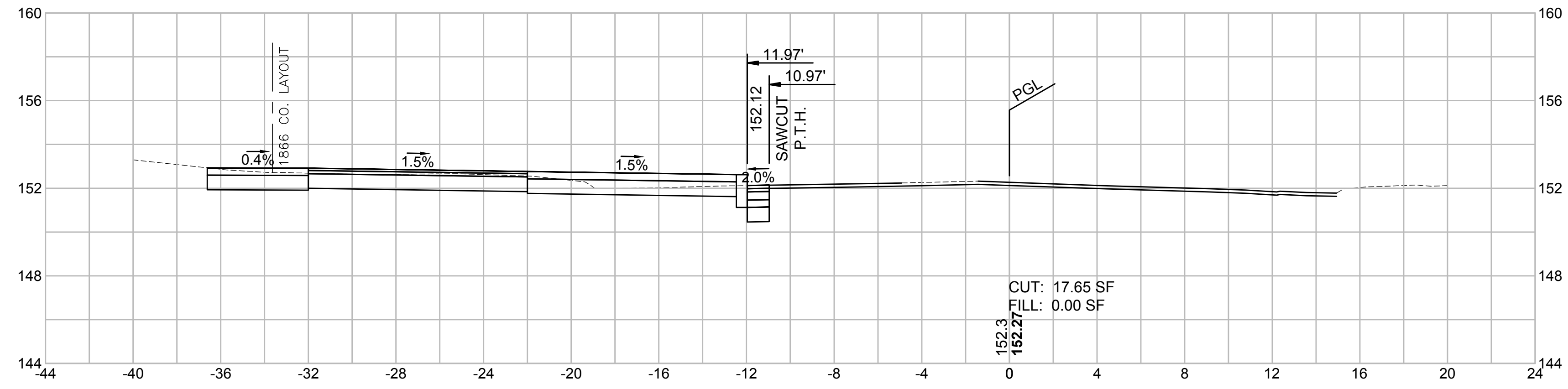
**29+00**



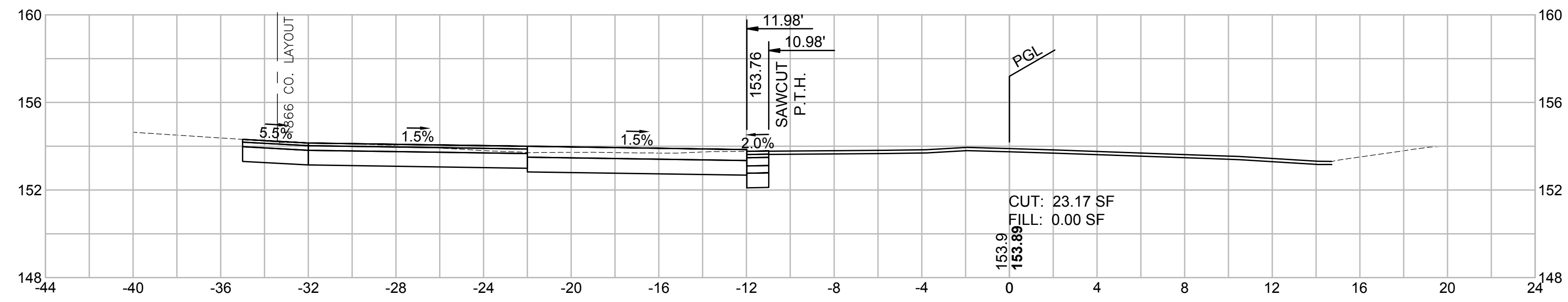




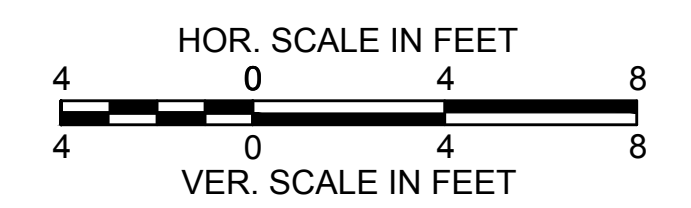
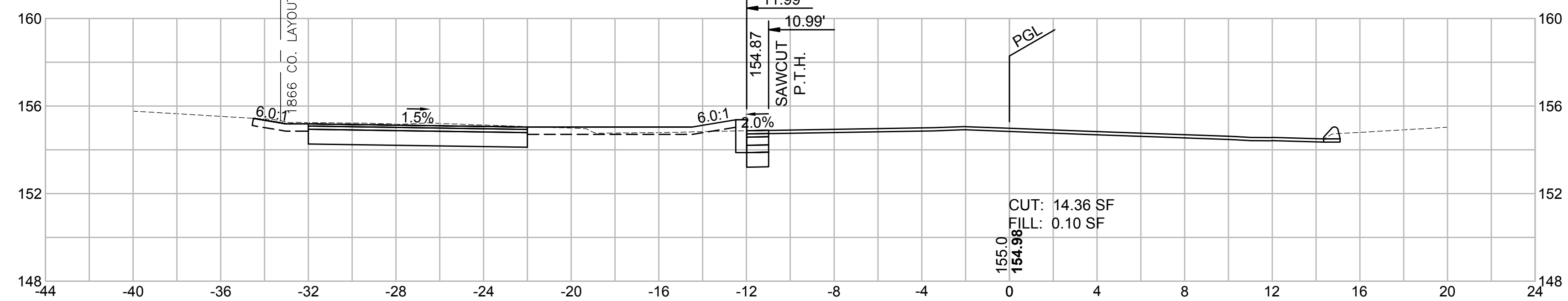
**31+50 - CEM. CONC. WALK LT**



**31+20 - DRIVEWAY LT**



**31+00**

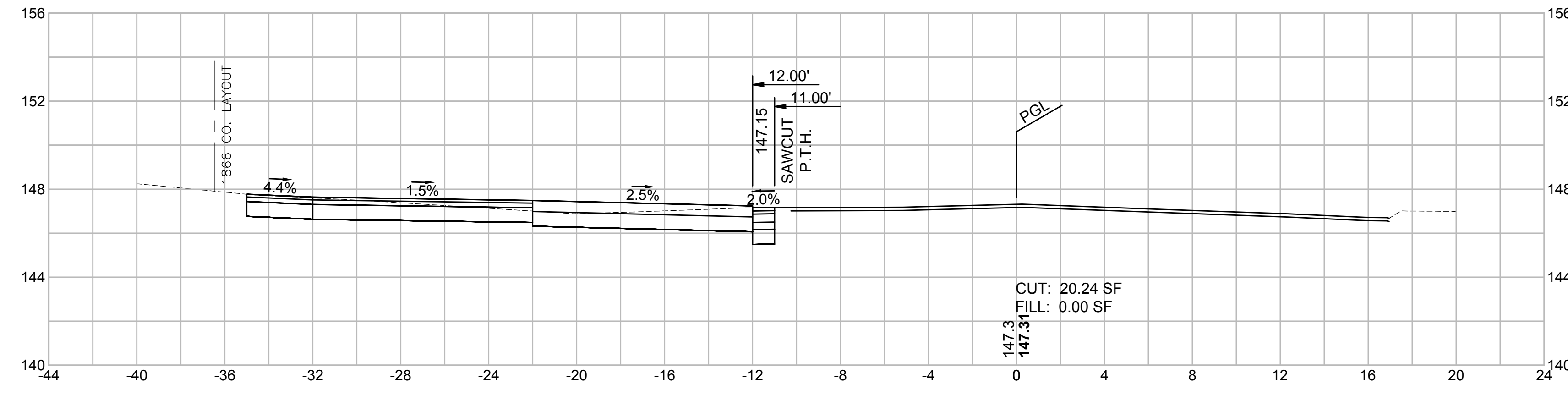


**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

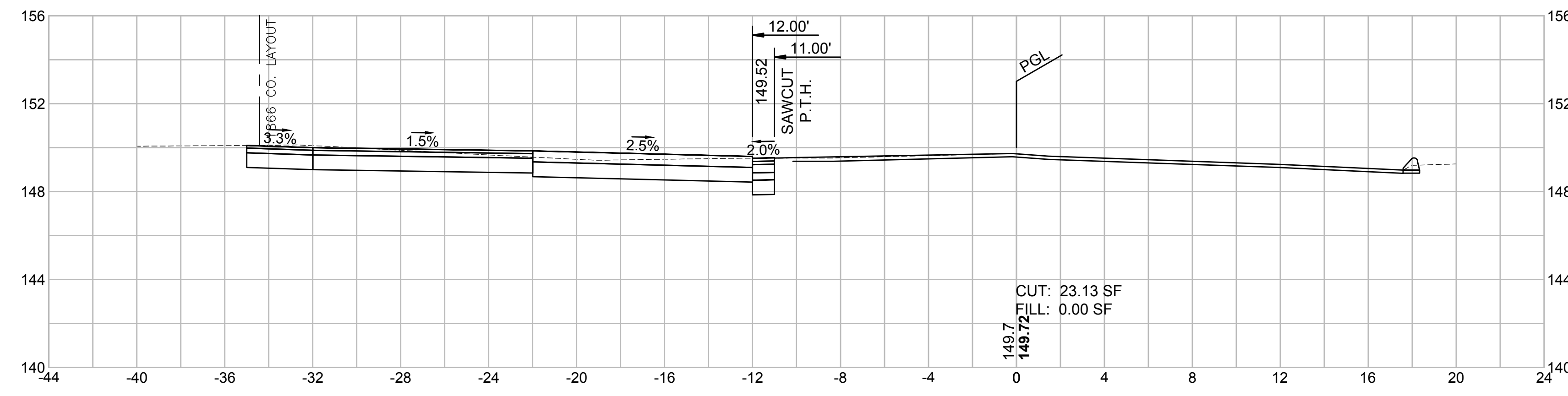
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	82	98
PROJECT FILE NO.		610652	

**CROSS SECTIONS - MAPLE STREET  
SHEET 23 OF 36**

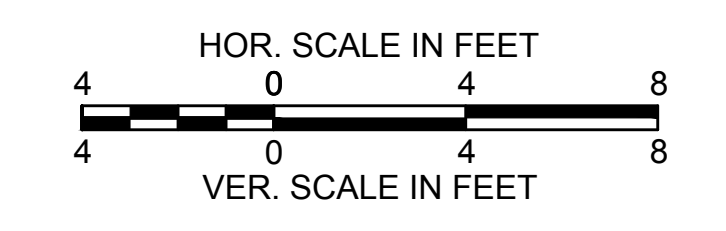
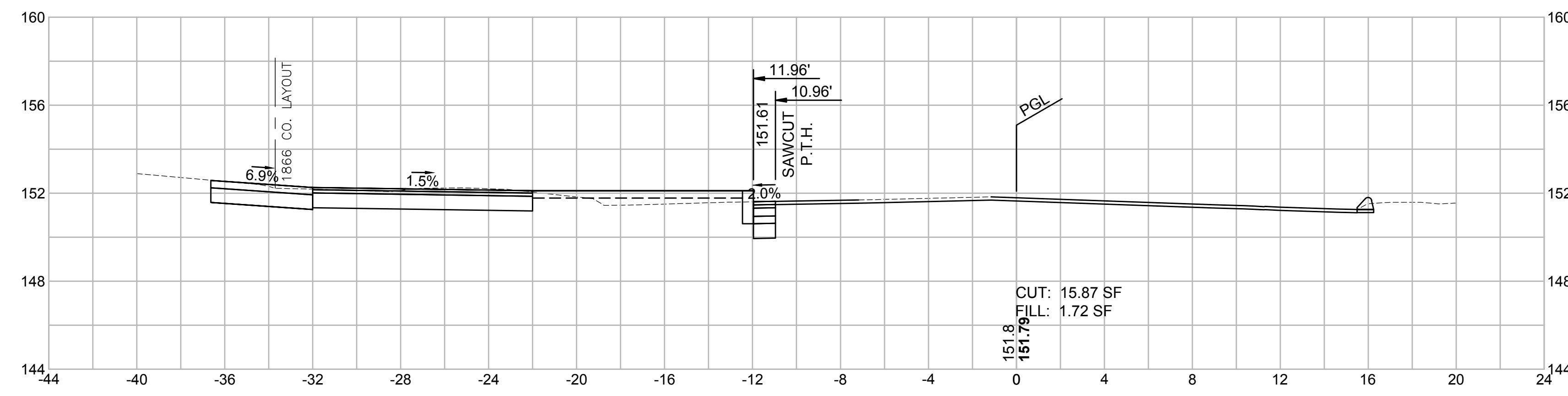
**32+50 - CEM. CONC. WALK LT**



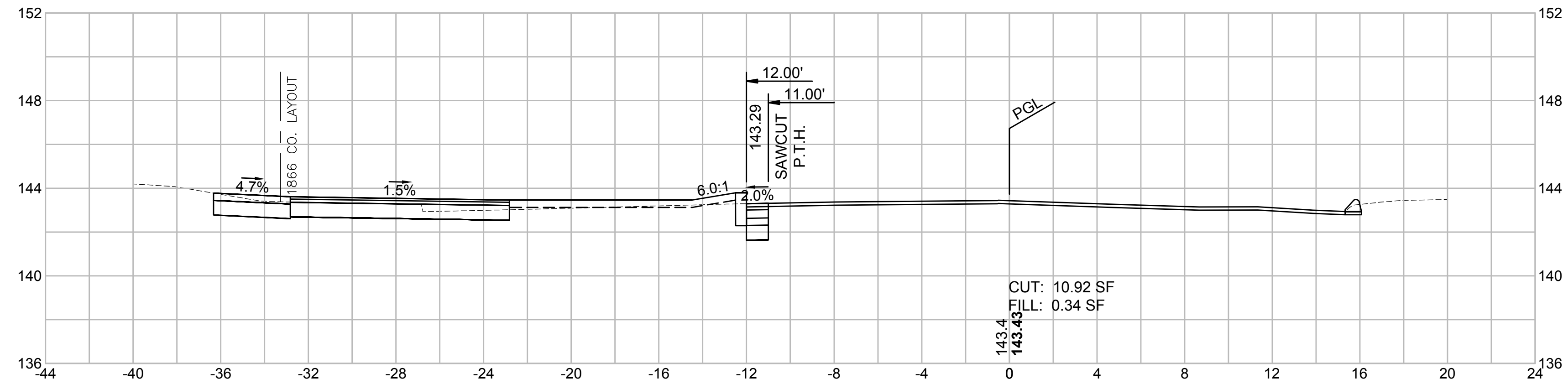
**32+00 - DRIVEWAY LT**



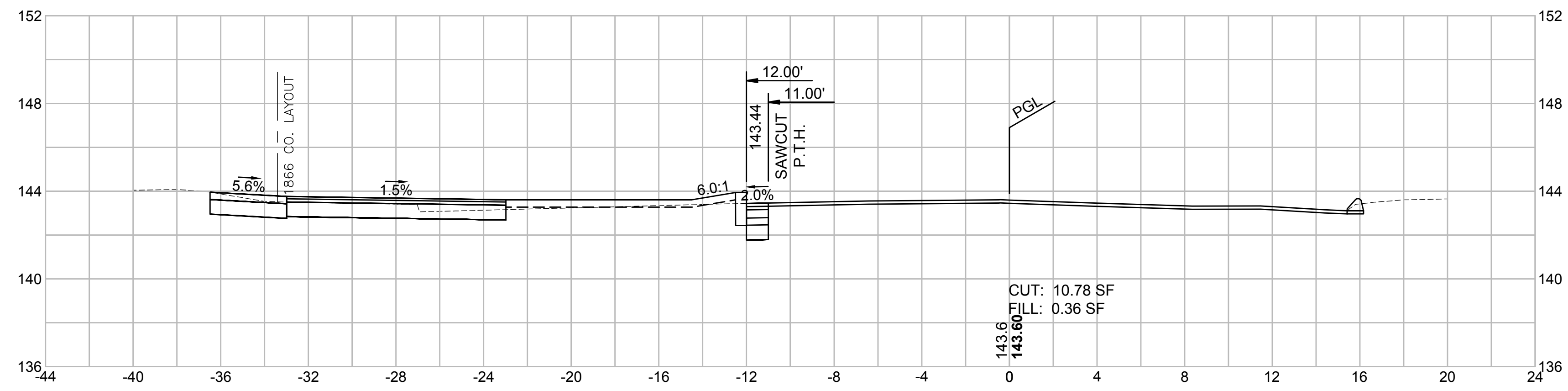
**31+59.25 - CEM. CONC. WALK LT**



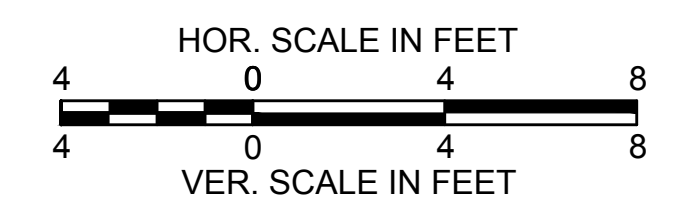
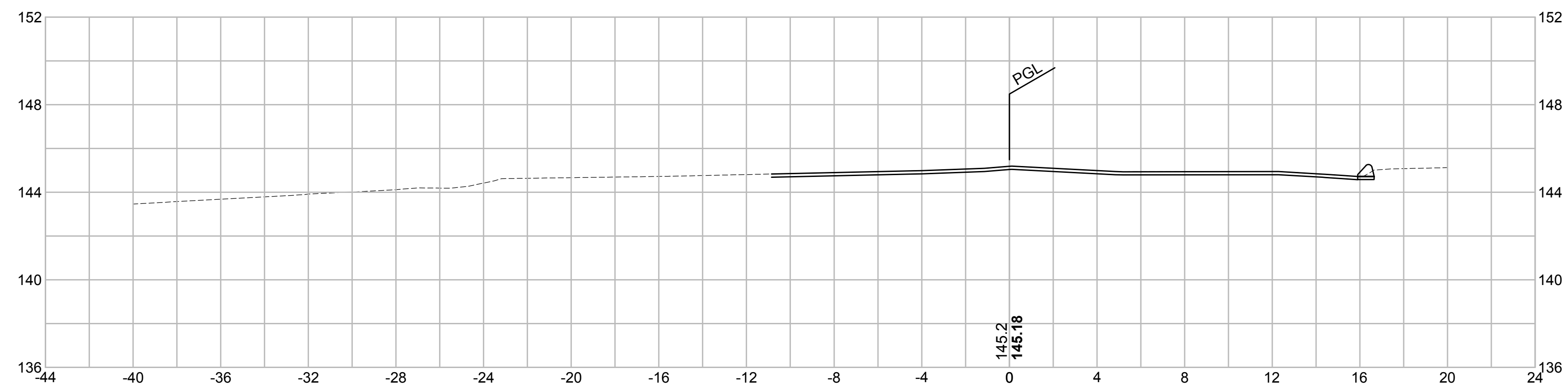
**33+50 - CEM. CONC. WALK LT**

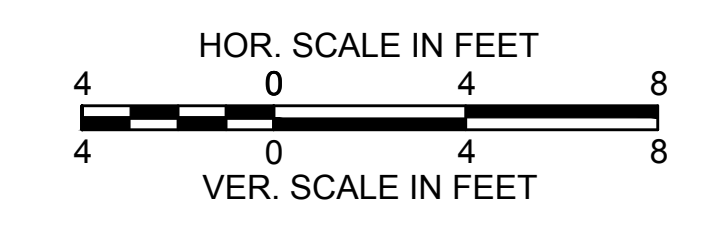
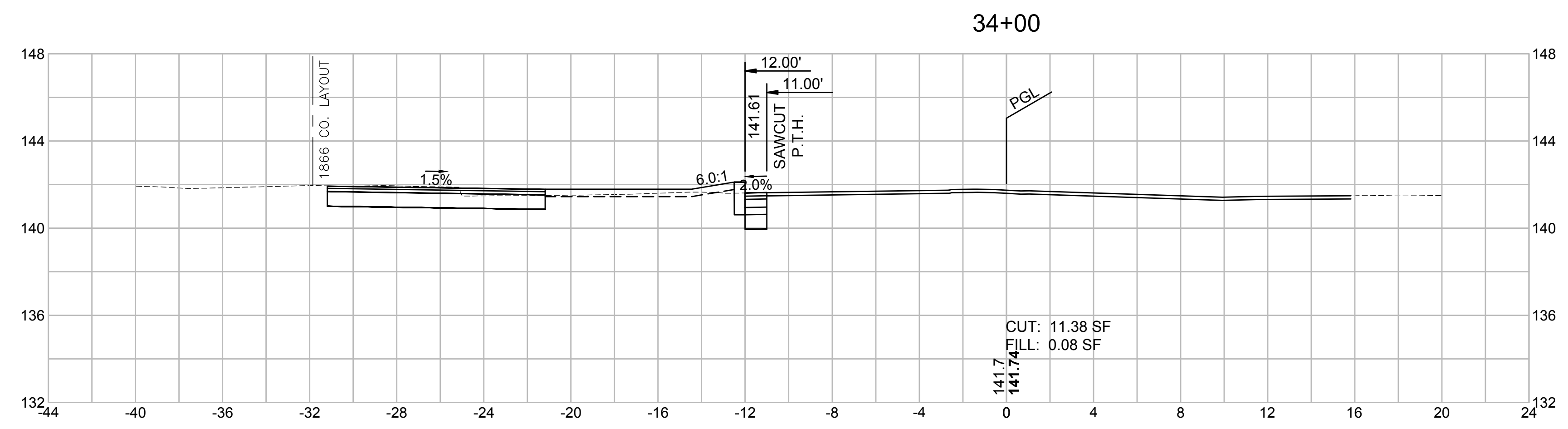
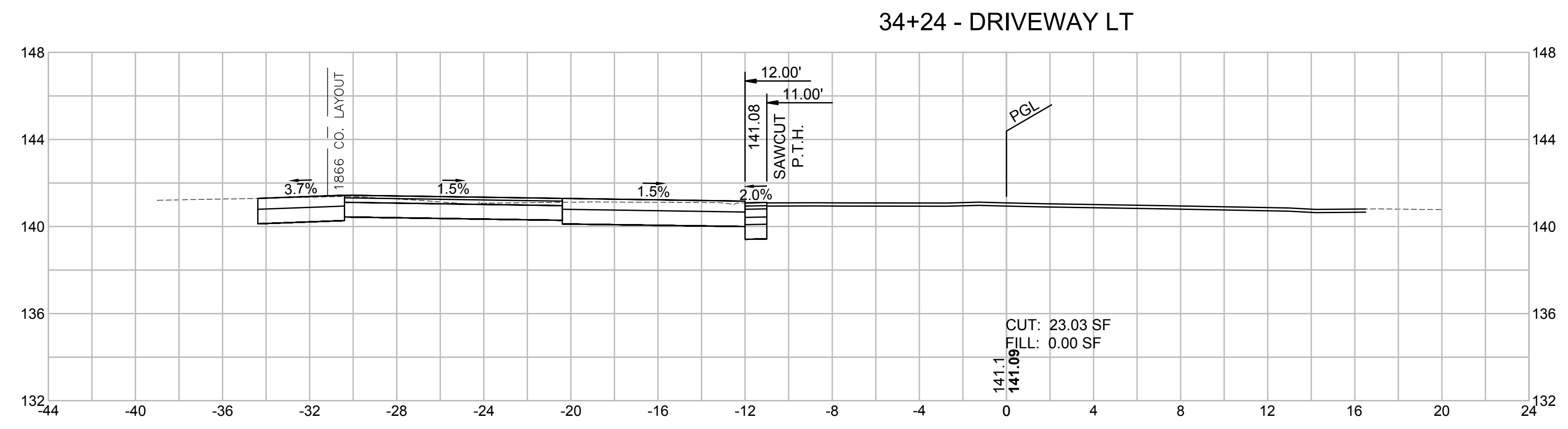
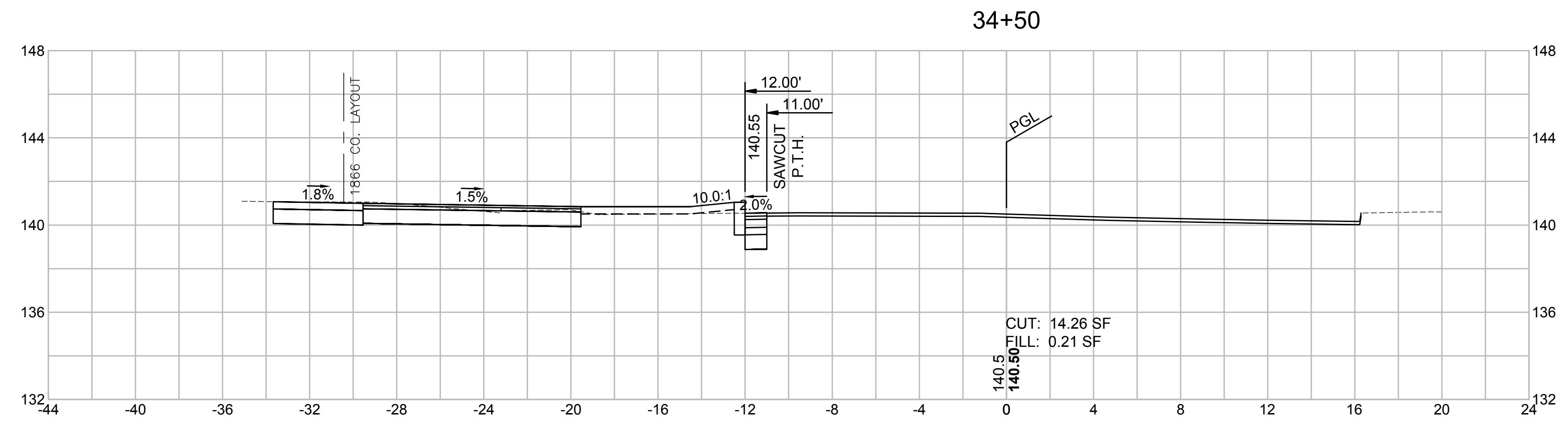


**33+45 - CEM. CONC. WALK LT**



**33+00 - STREET INTERSECTION LT**

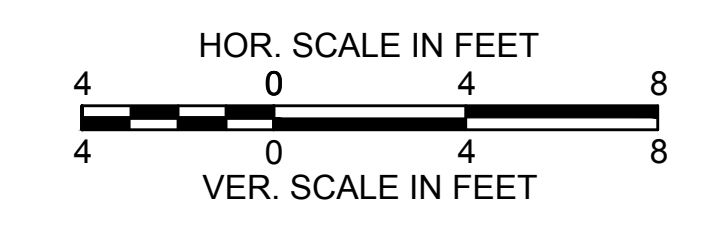
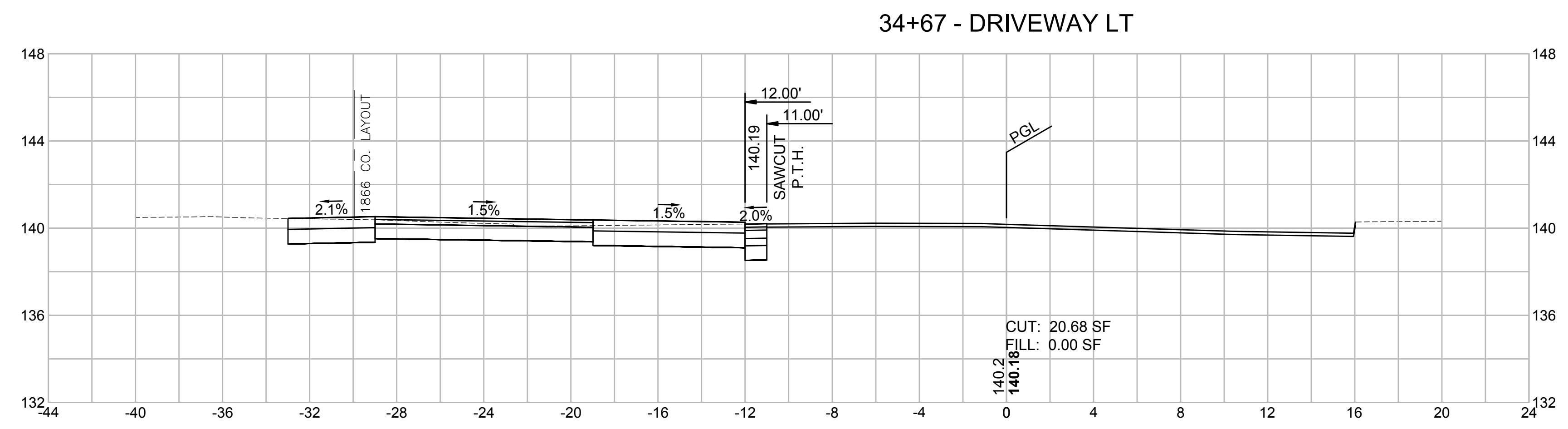
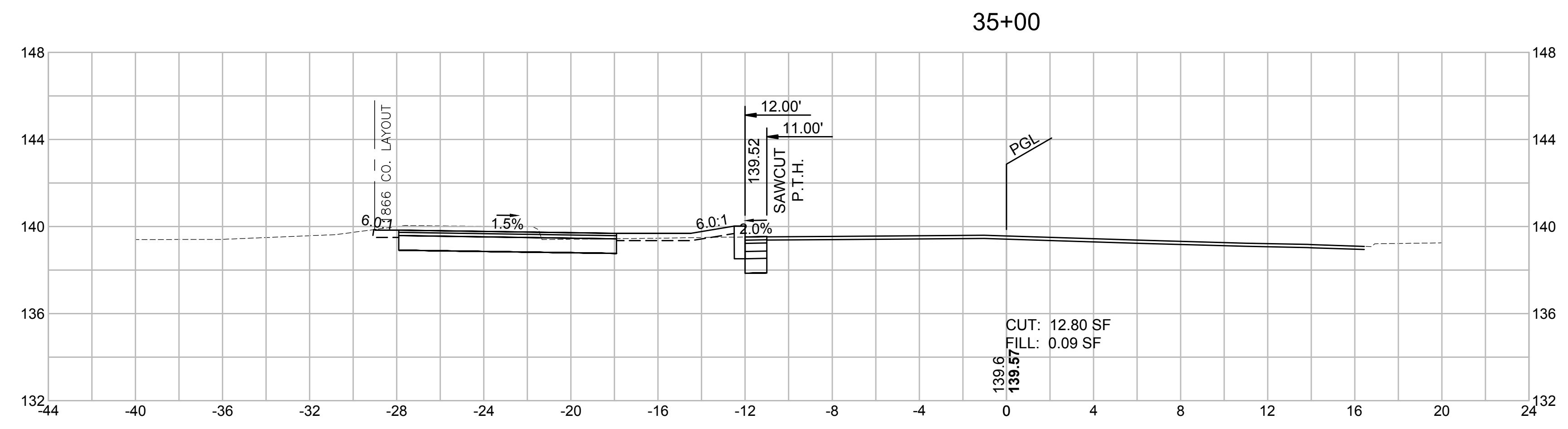
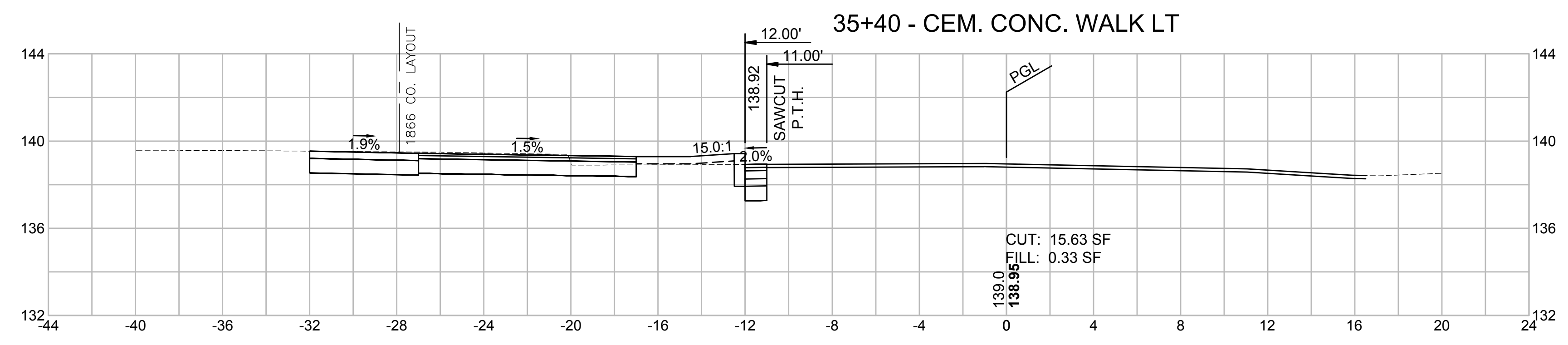


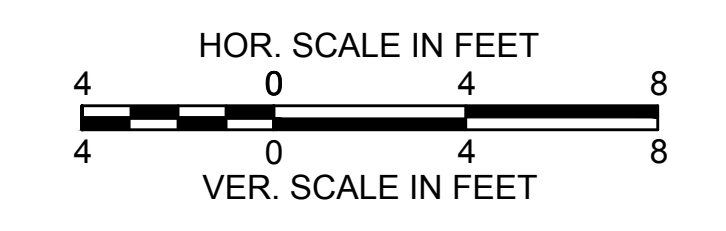
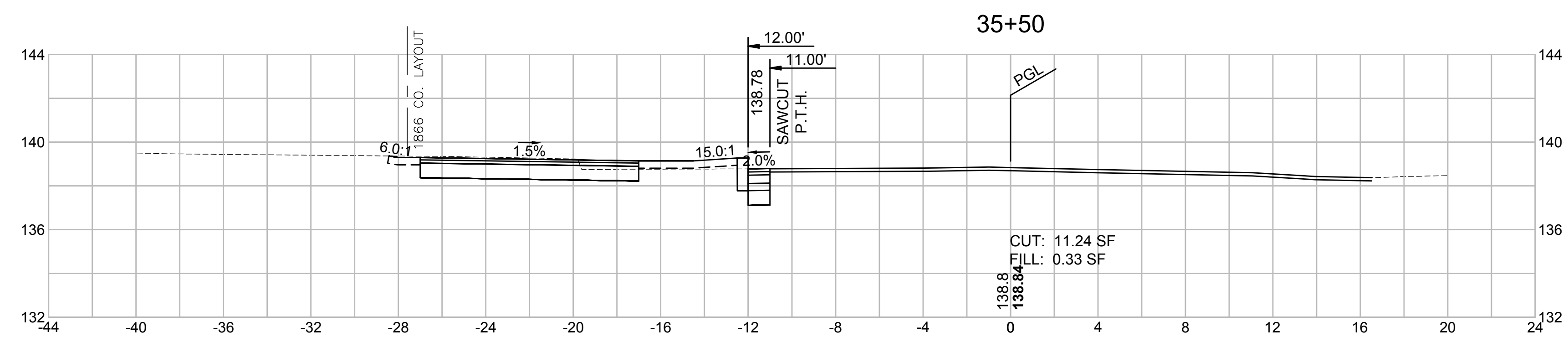
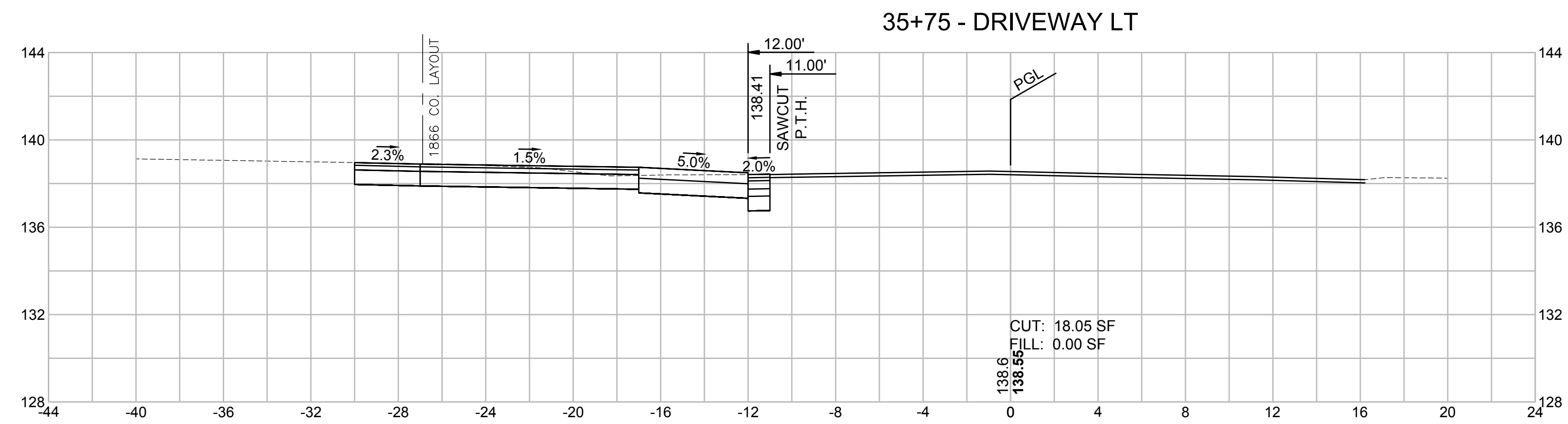
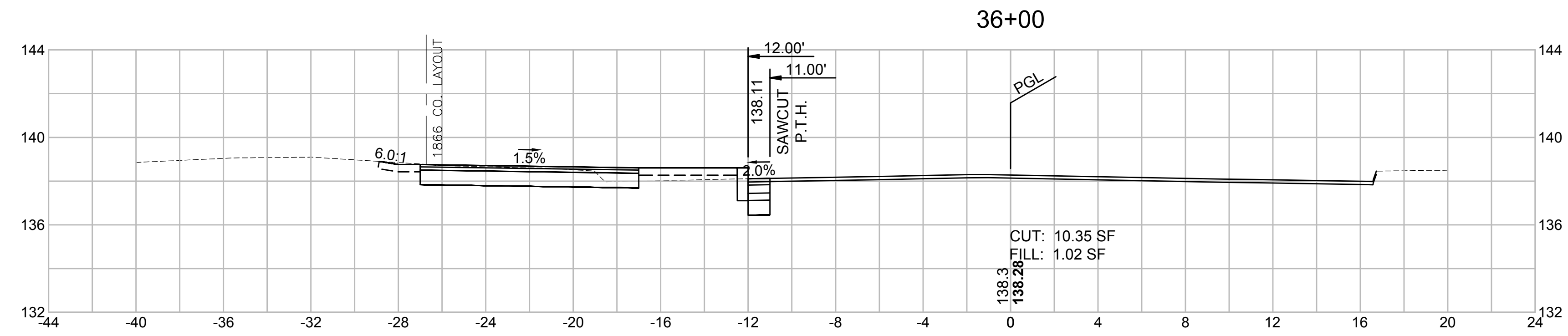


**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

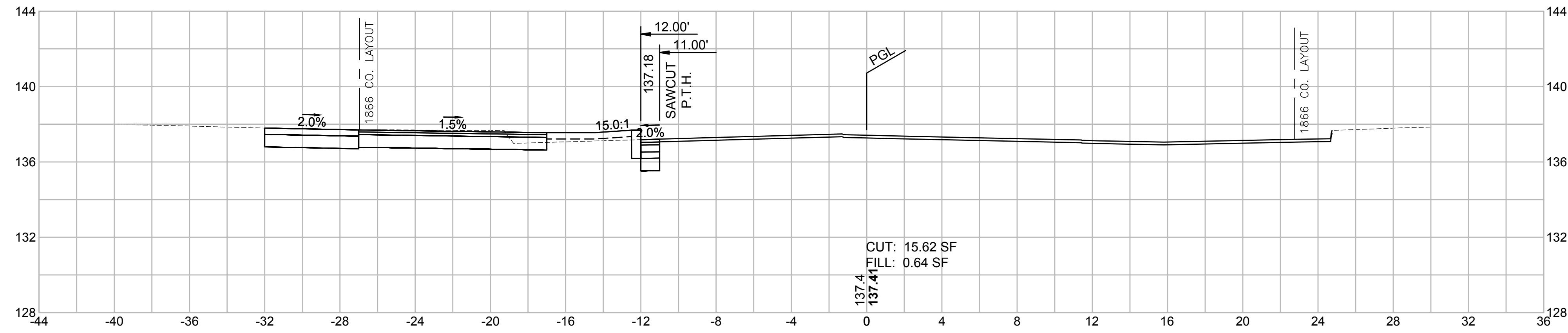
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	85	98
PROJECT FILE NO.		610652	

**CROSS SECTIONS - MAPLE STREET  
SHEET 26 OF 36**

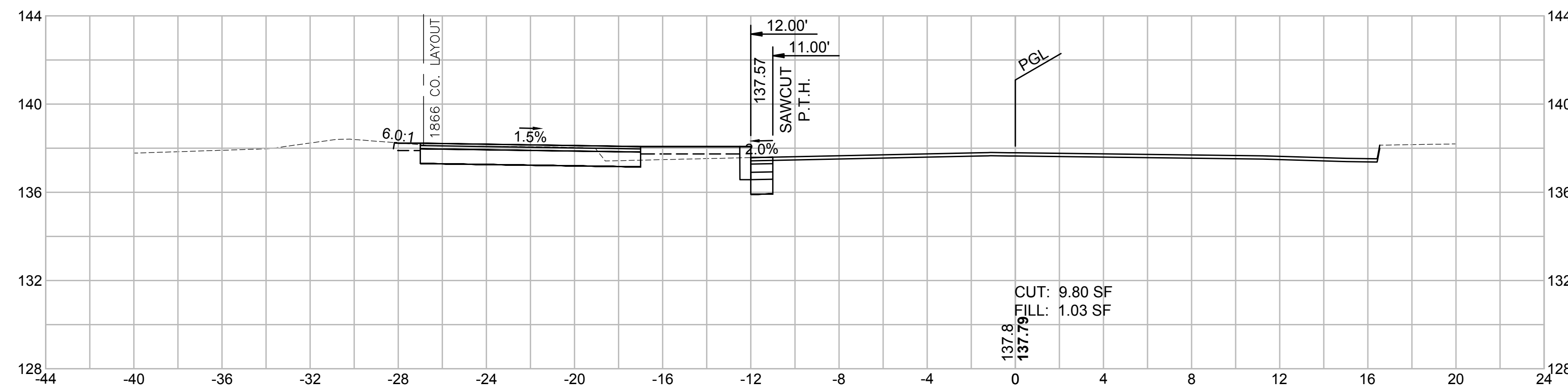




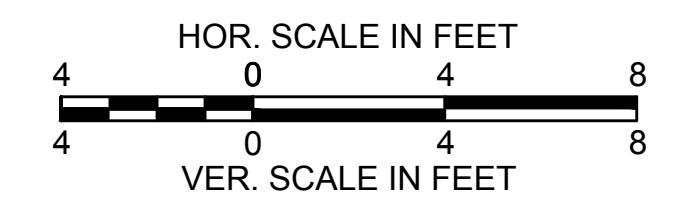
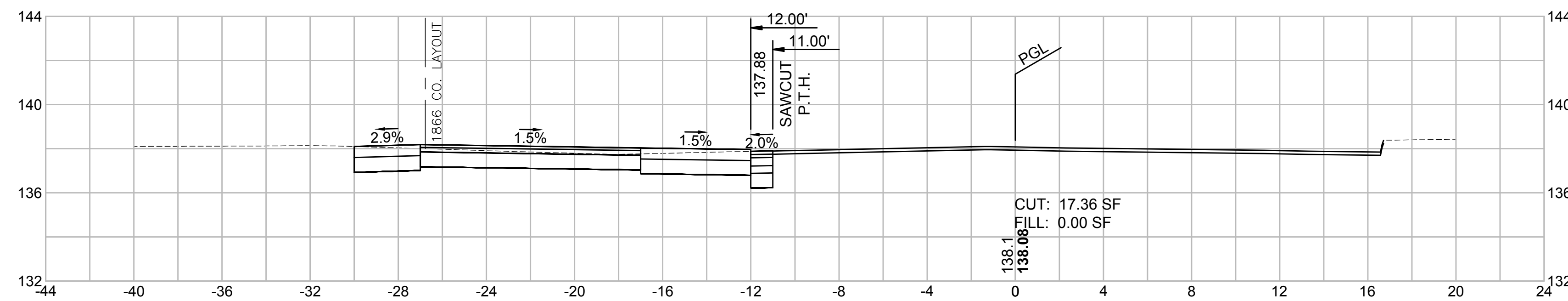
**36+91 - CEM. CONC. WALK LT**

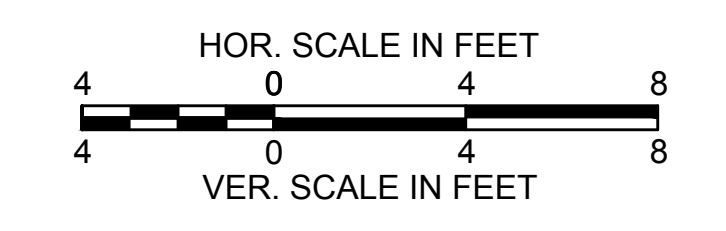
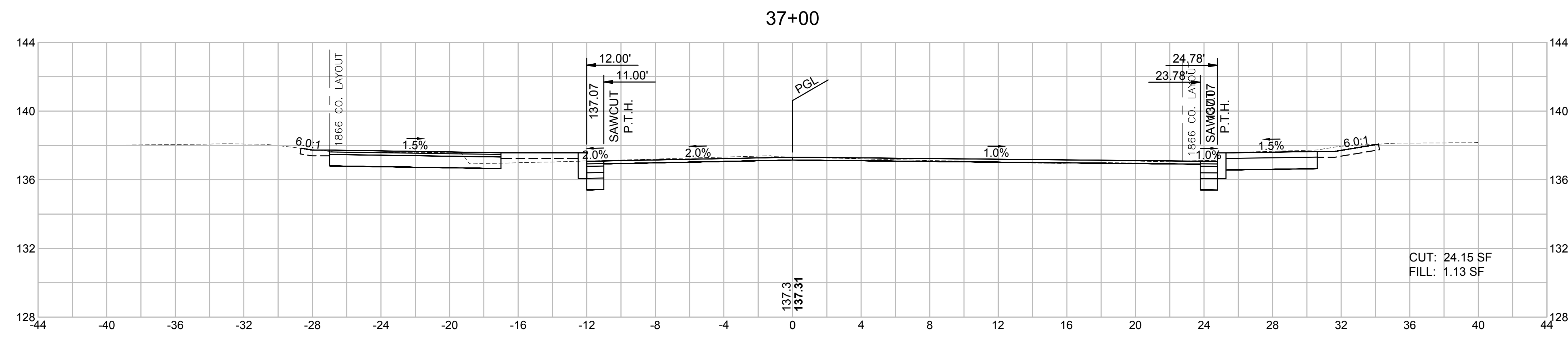
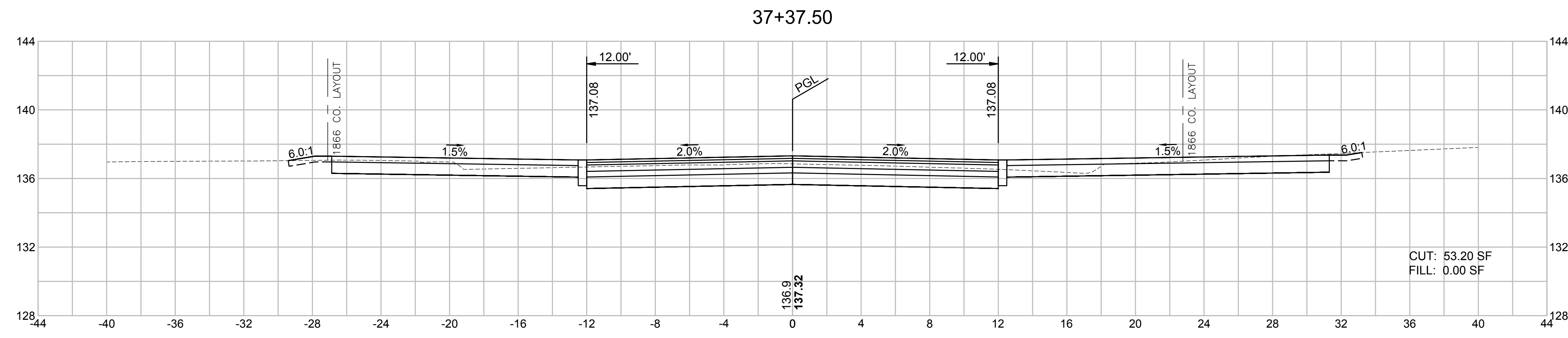
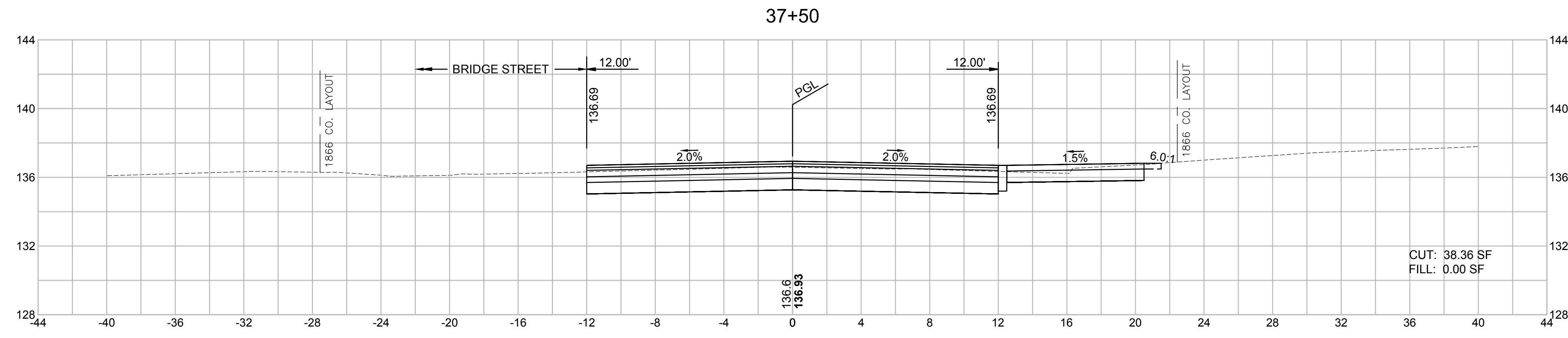


**36+50**

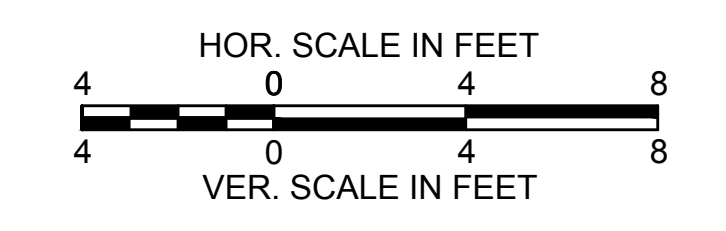
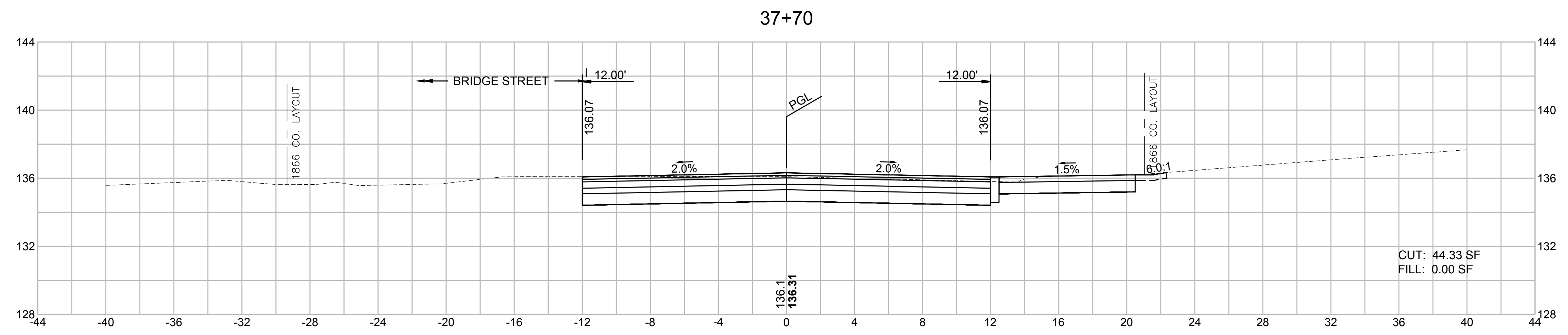
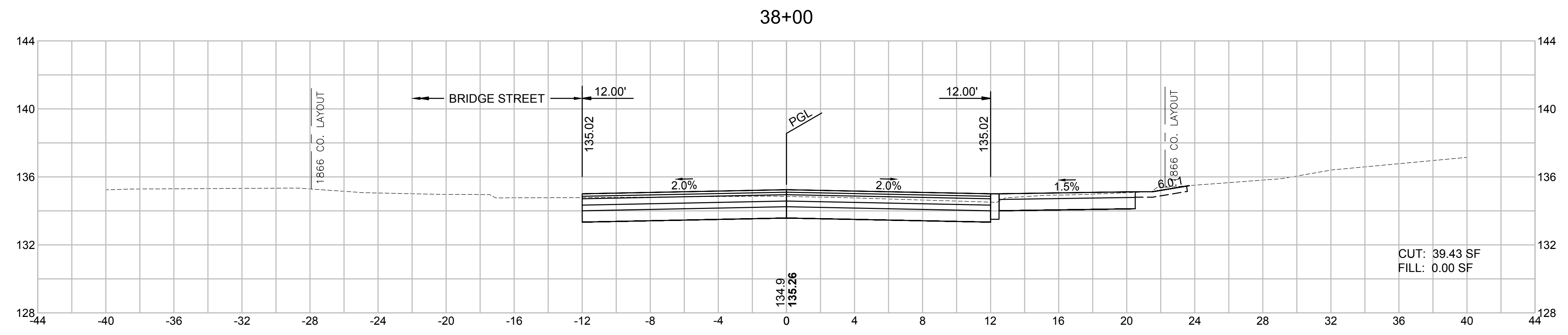
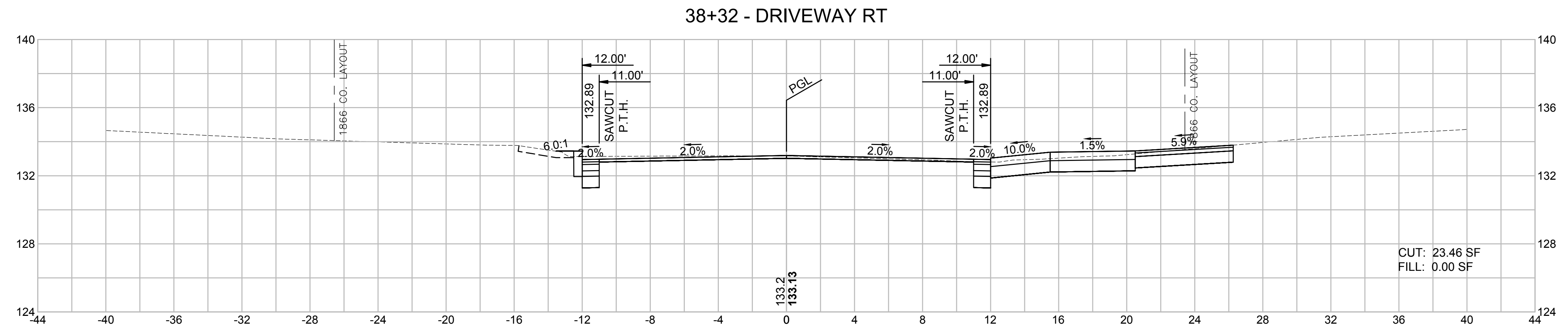


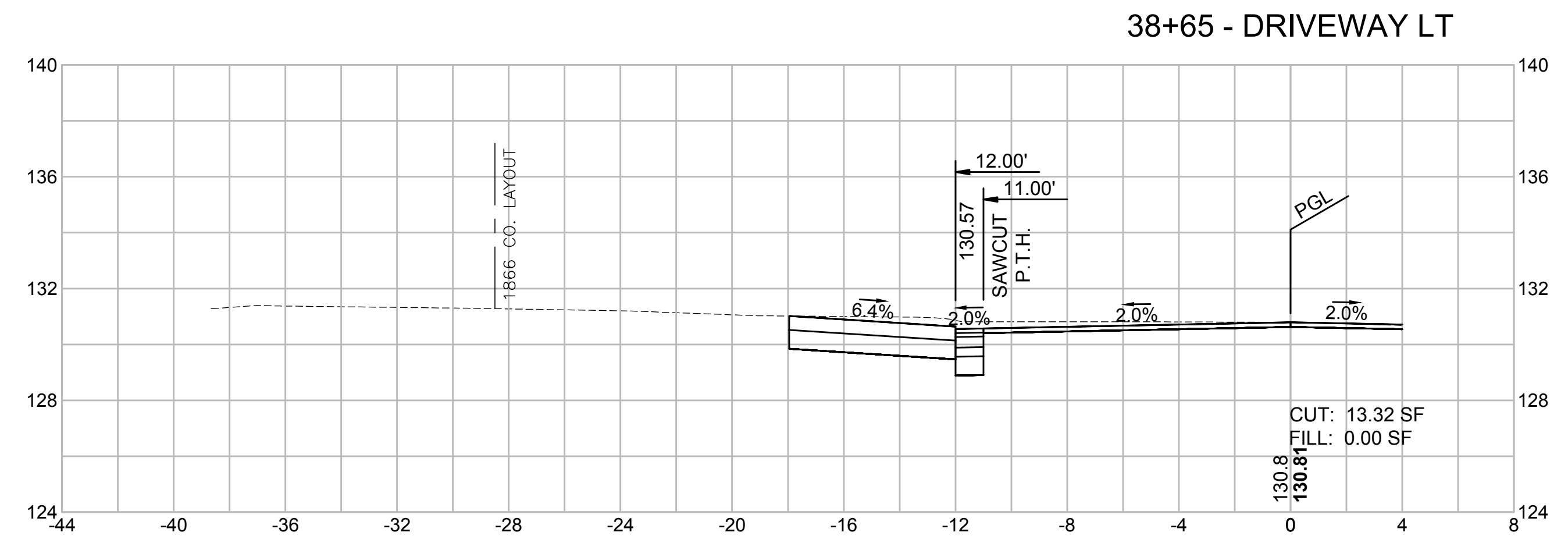
**36+19 - DRIVEWAY LT**



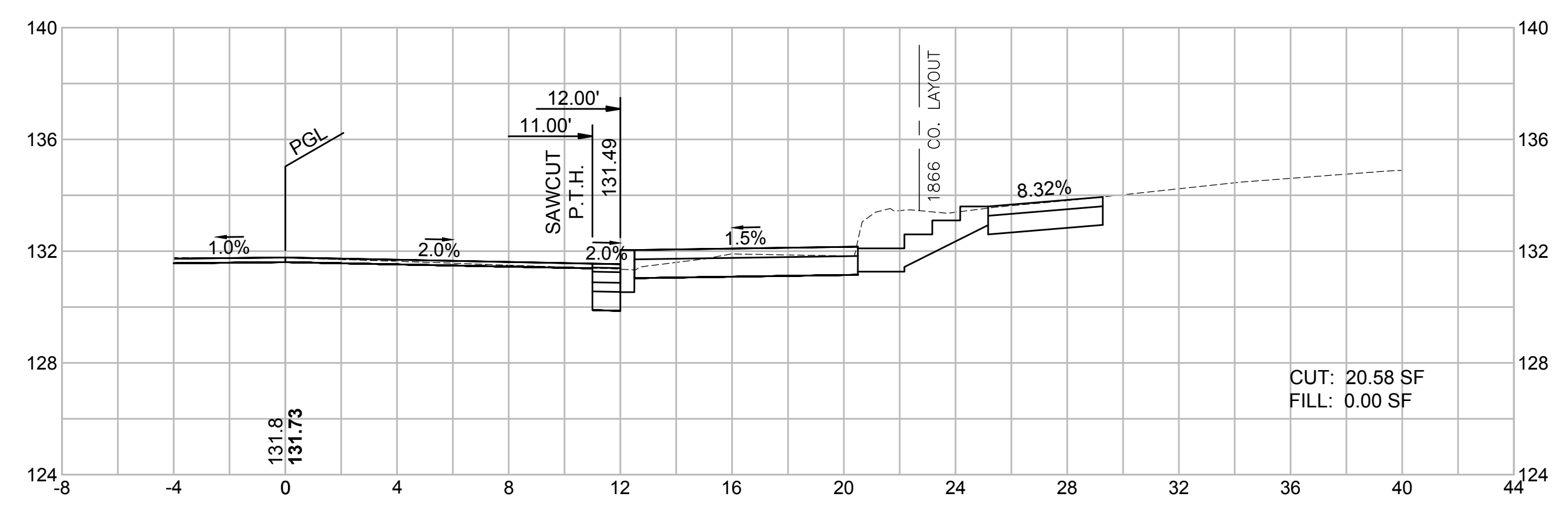




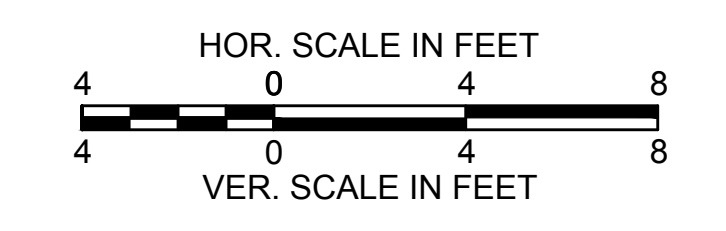
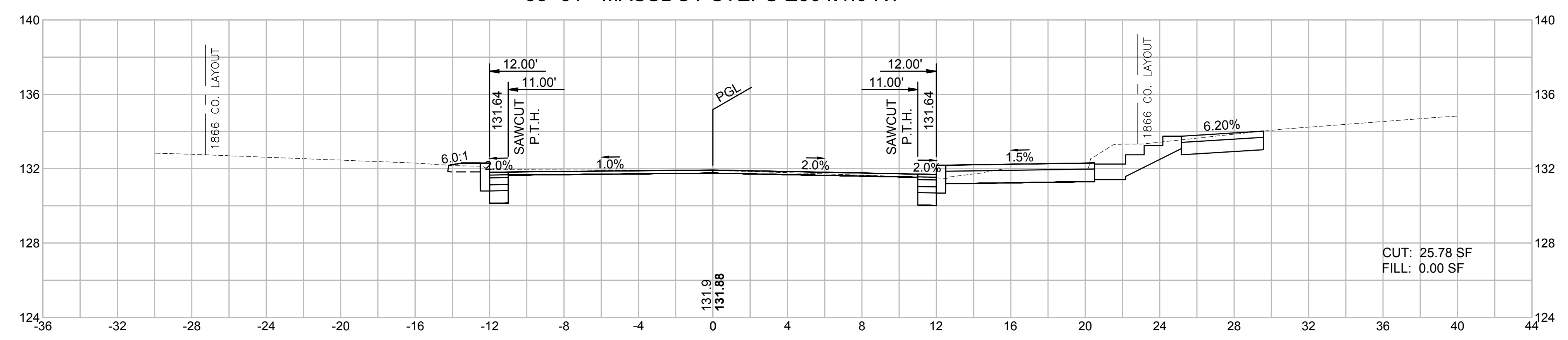


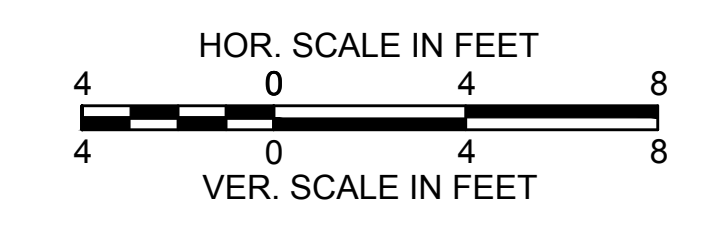
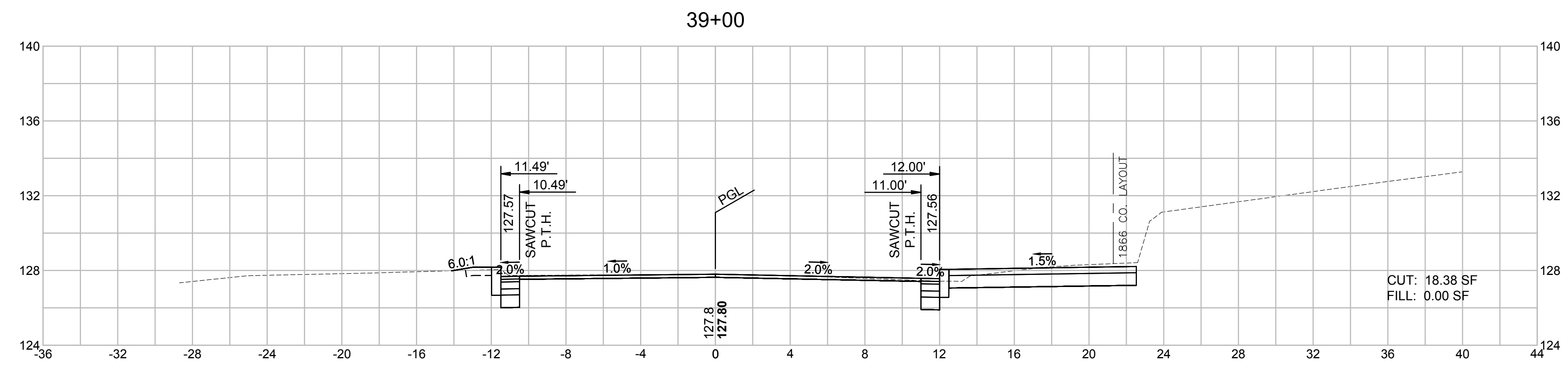
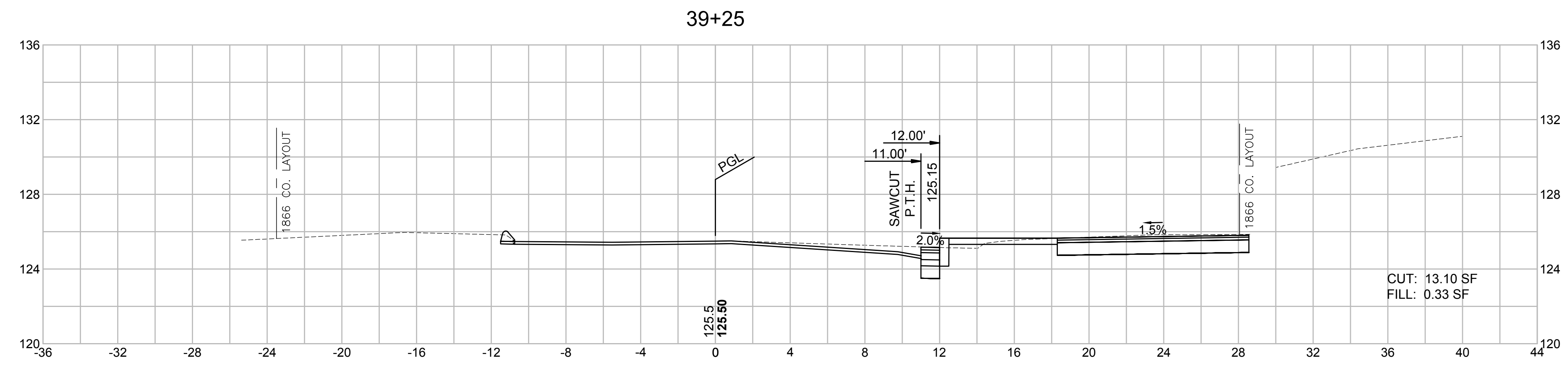
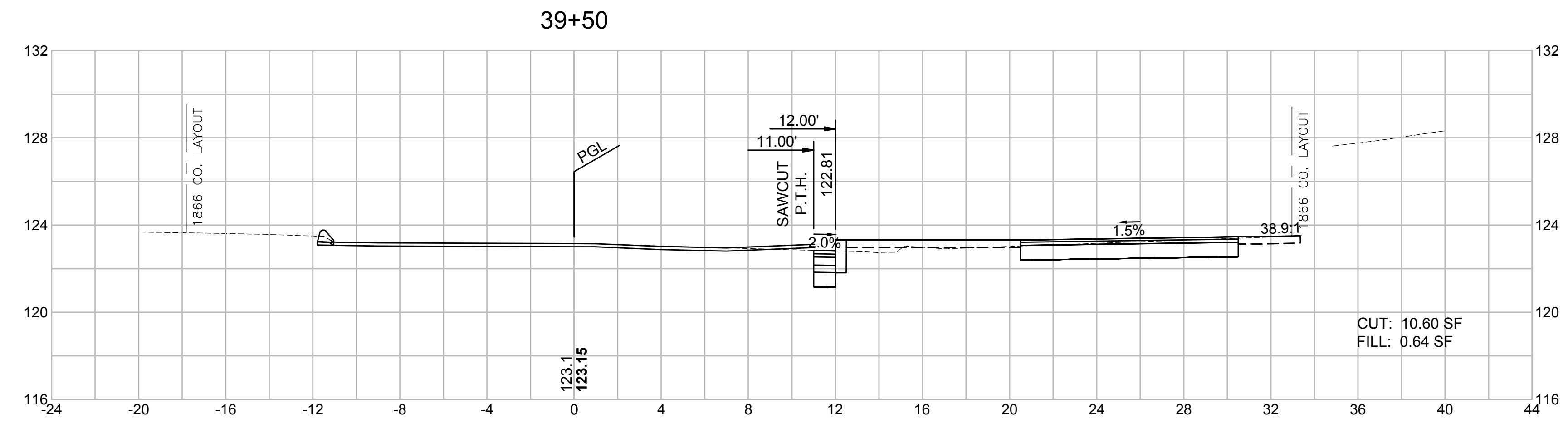


**38+53 - MASSDOT STEPS E304.1.0 RT**

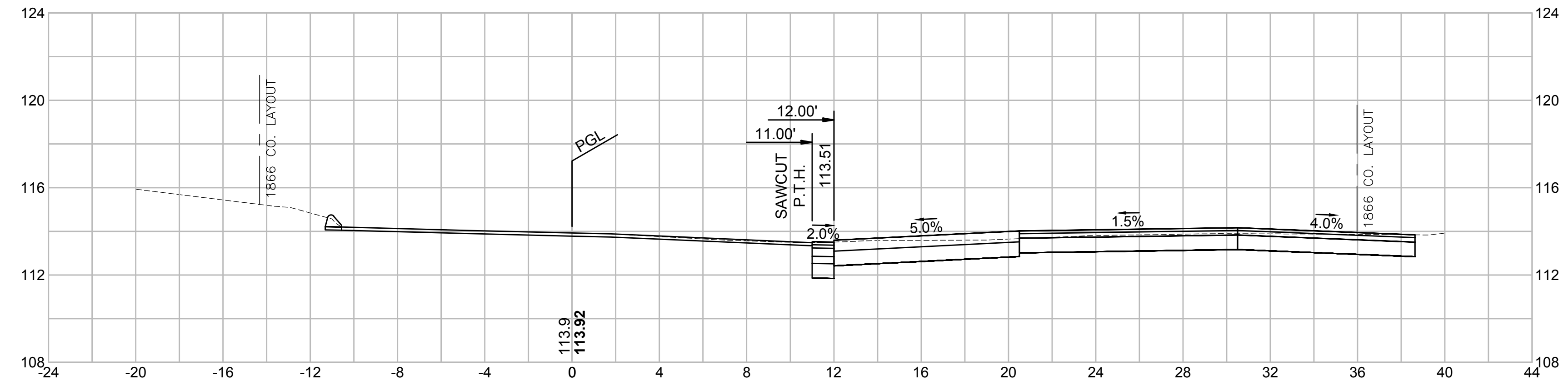


**38+51 - MASSDOT STEPS E304.1.0 RT**

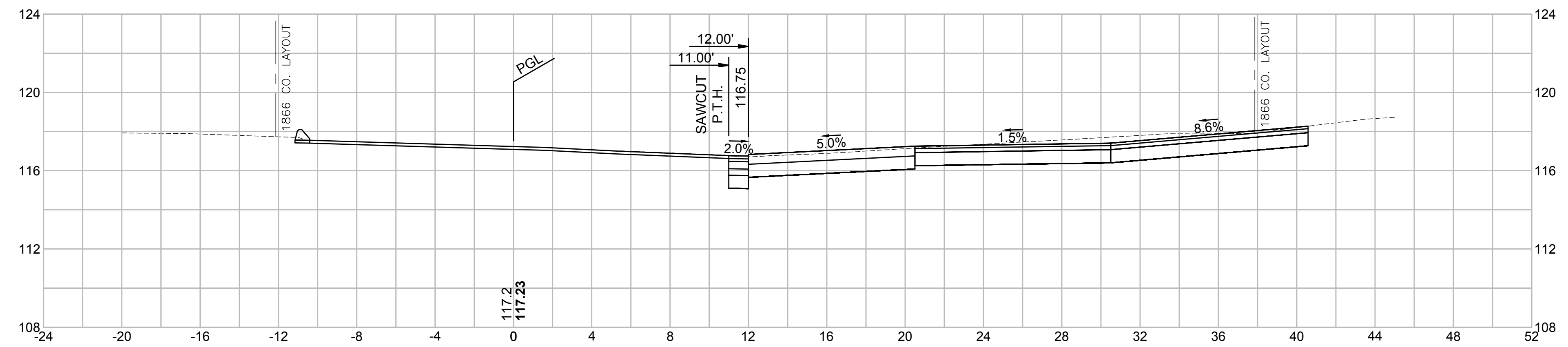




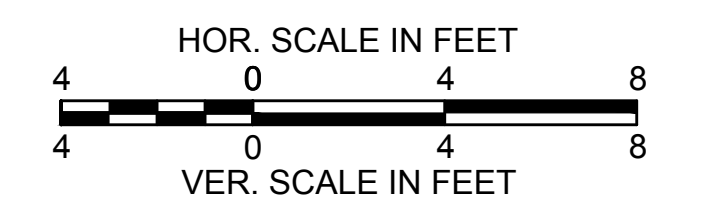
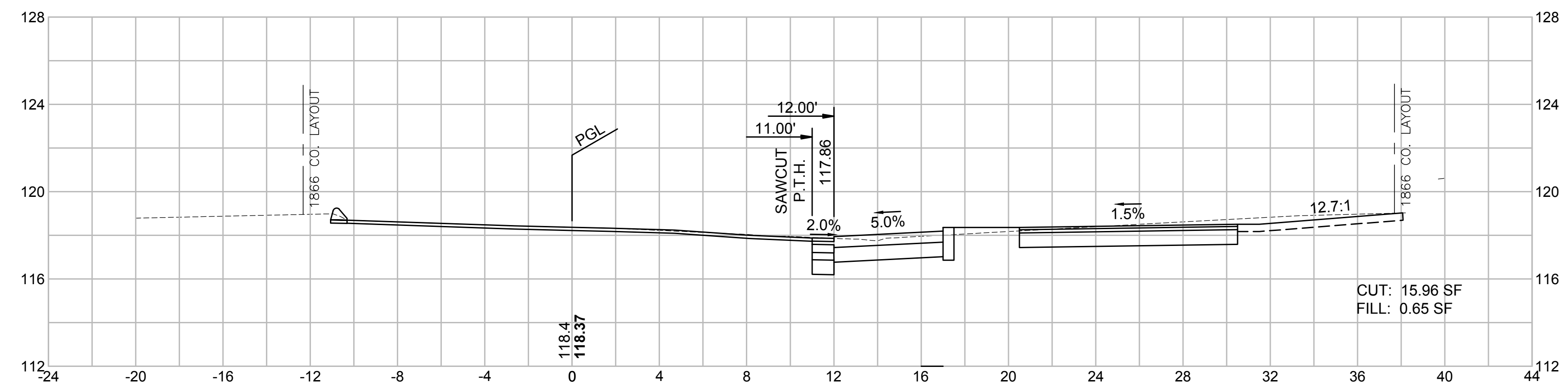
**40+50 - DRIVEWAY RT**

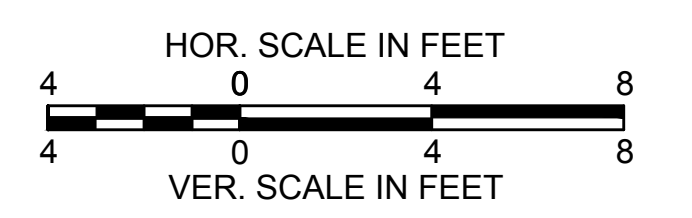
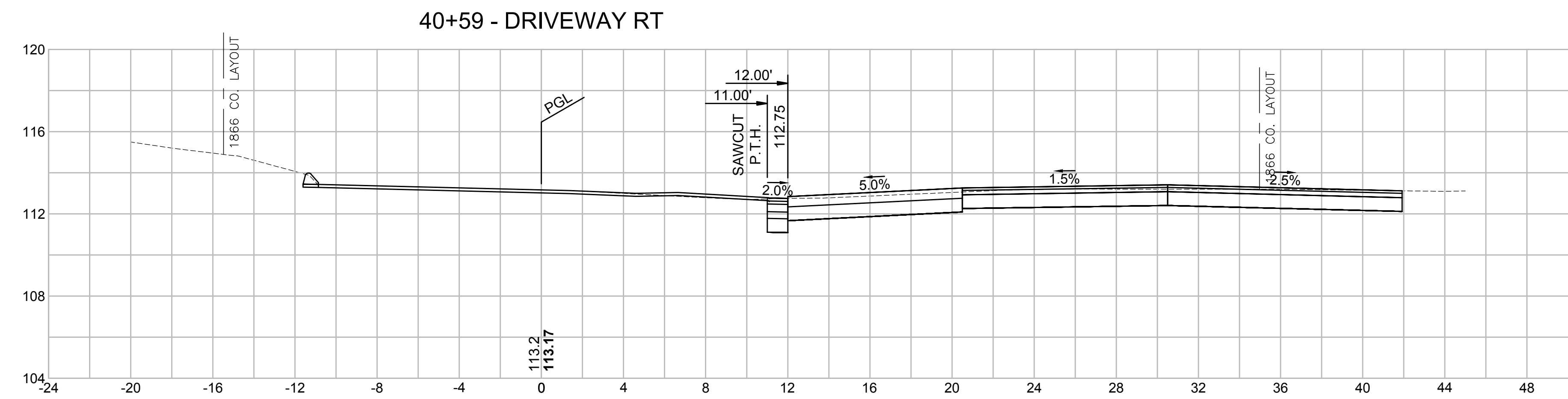
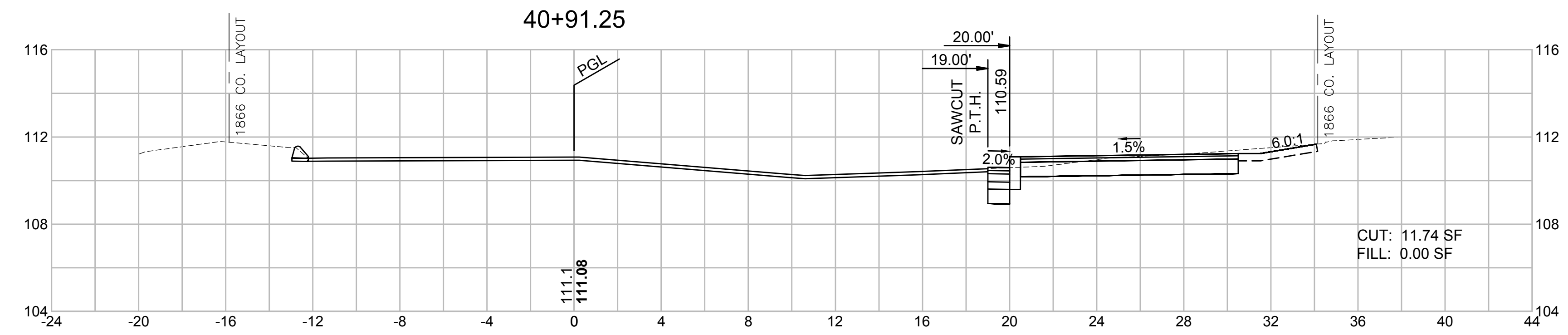


**40+12 - DRIVEWAY RT**



**40+00**

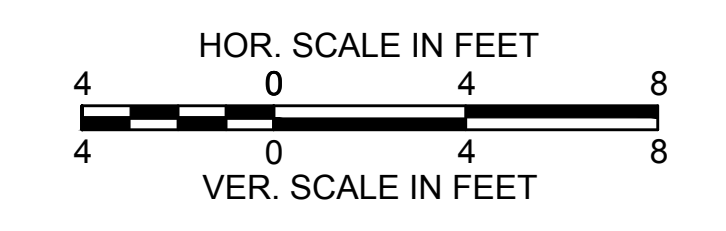
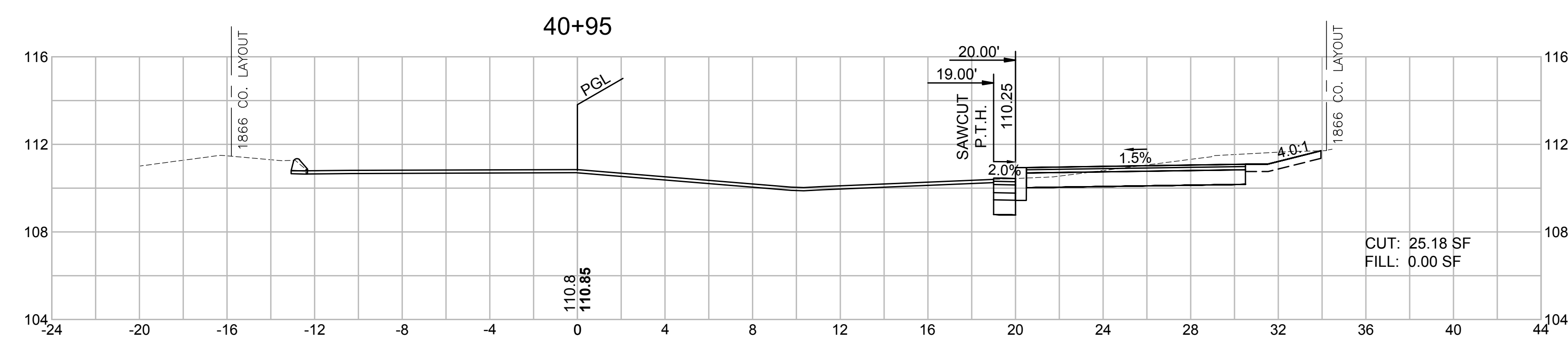
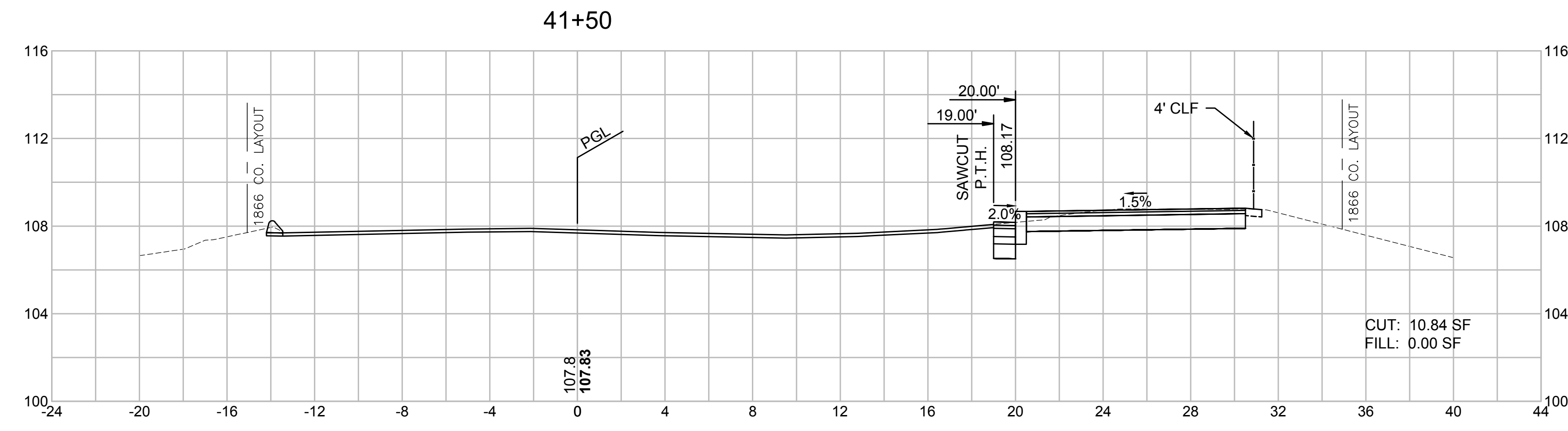




**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	94	98
PROJECT FILE NO.		610652	

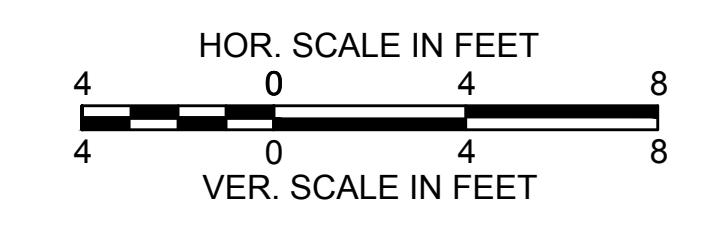
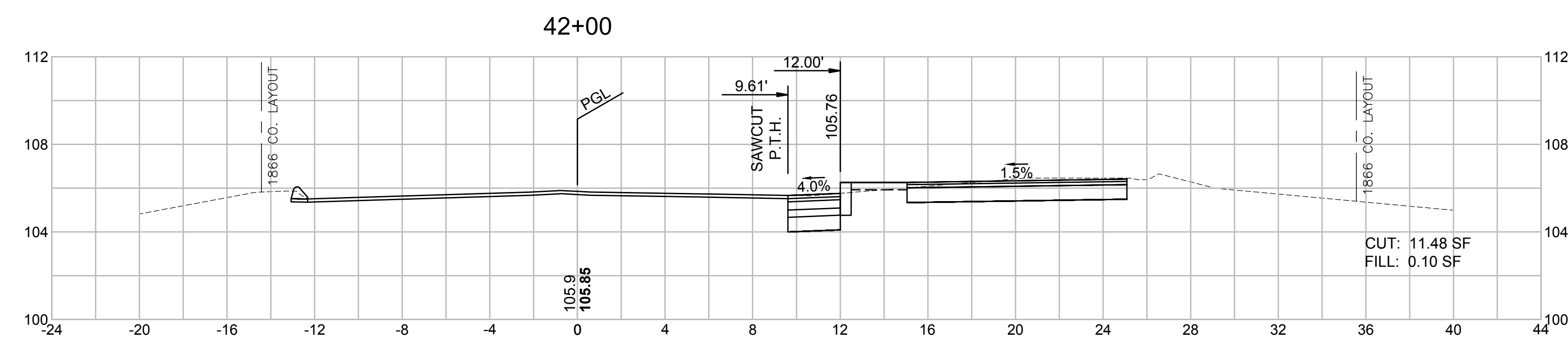
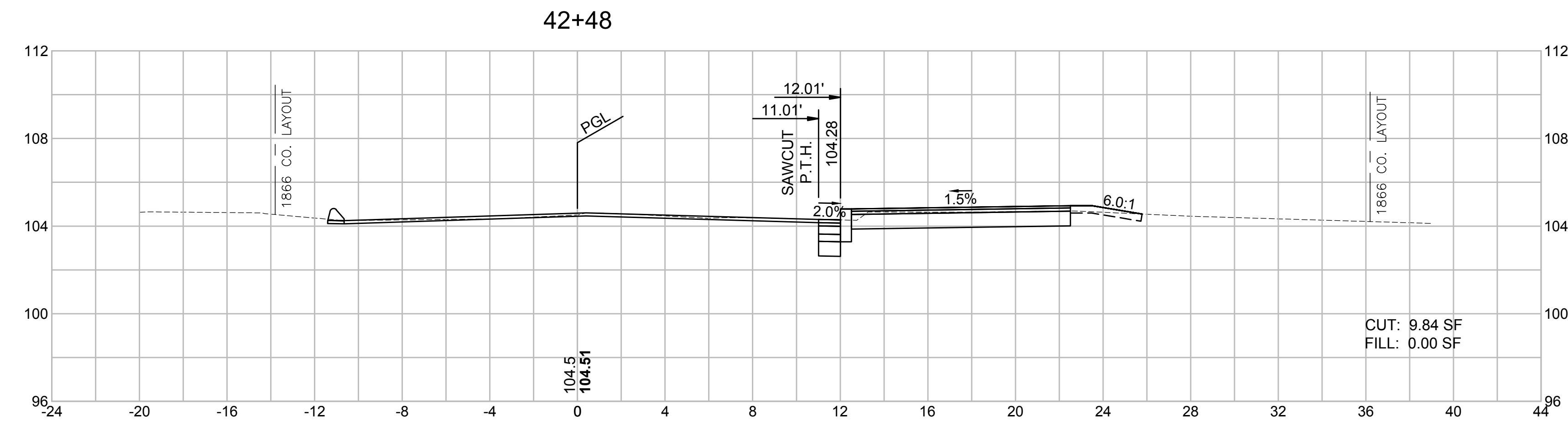
**CROSS SECTIONS - MAPLE STREET  
SHEET 35 OF 36**



**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	95	98
PROJECT FILE NO.		610652	

**CROSS SECTIONS - MAPLE STREET  
SHEET 36 OF 36**

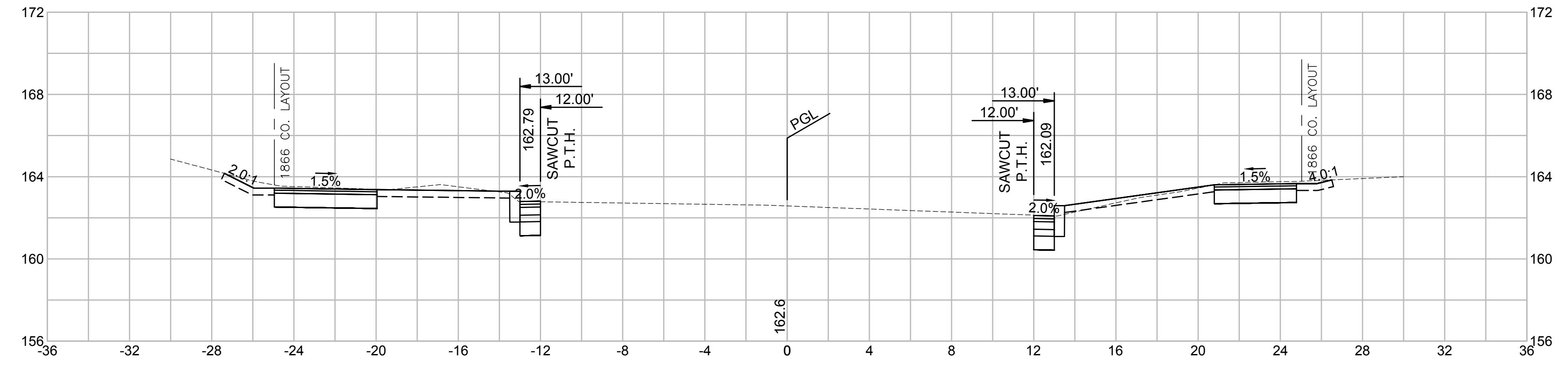


**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

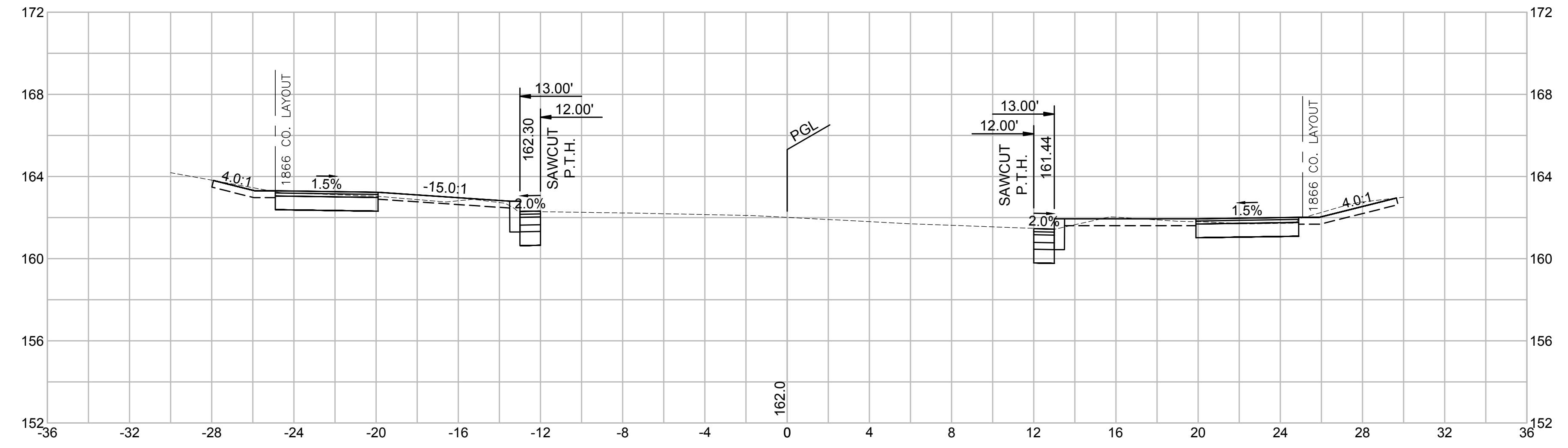
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	96	98
PROJECT FILE NO.		610652	

**CROSS-SECTIONS - SIDE STREETS  
MULBERRY STREET & SCHERPA STREET  
SHEET 1 OF 3**

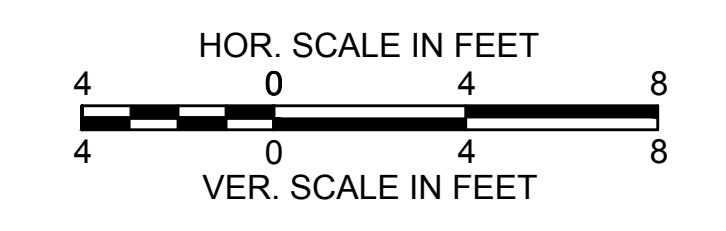
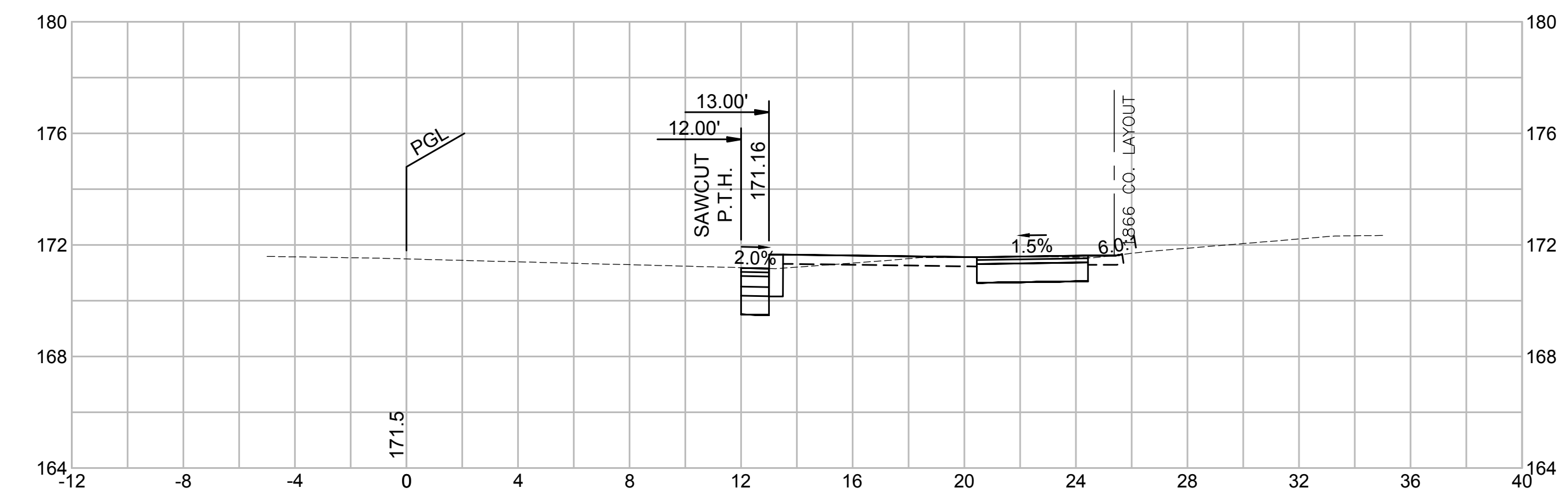
**160+53 - SCHERPA STREET**



**160+43 - SCHERPA STREET**



**150+42 - MULBERRY STREET**



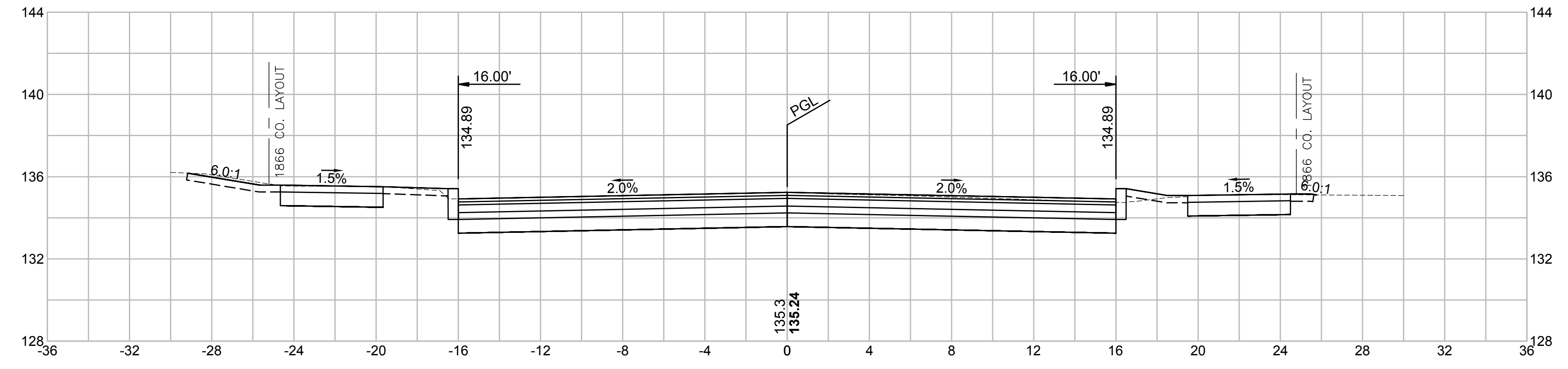


**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

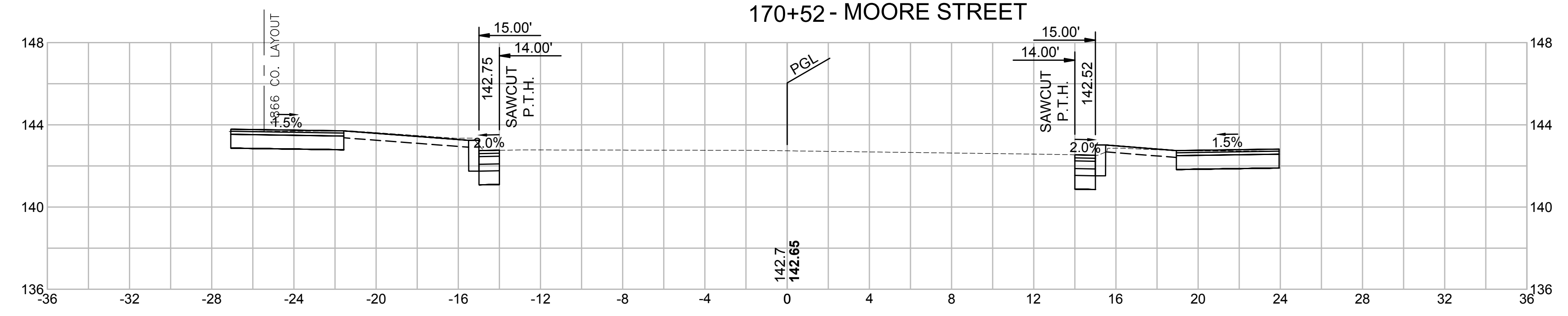
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	97	98
PROJECT FILE NO.		610652	

**CROSS-SECTIONS - SIDE STREETS  
MOORE STREET & BRIDGE STREET  
SHEET 2 OF 3**

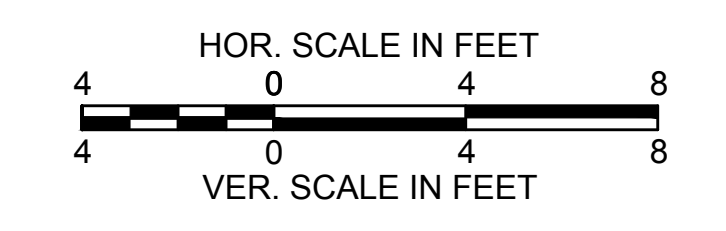
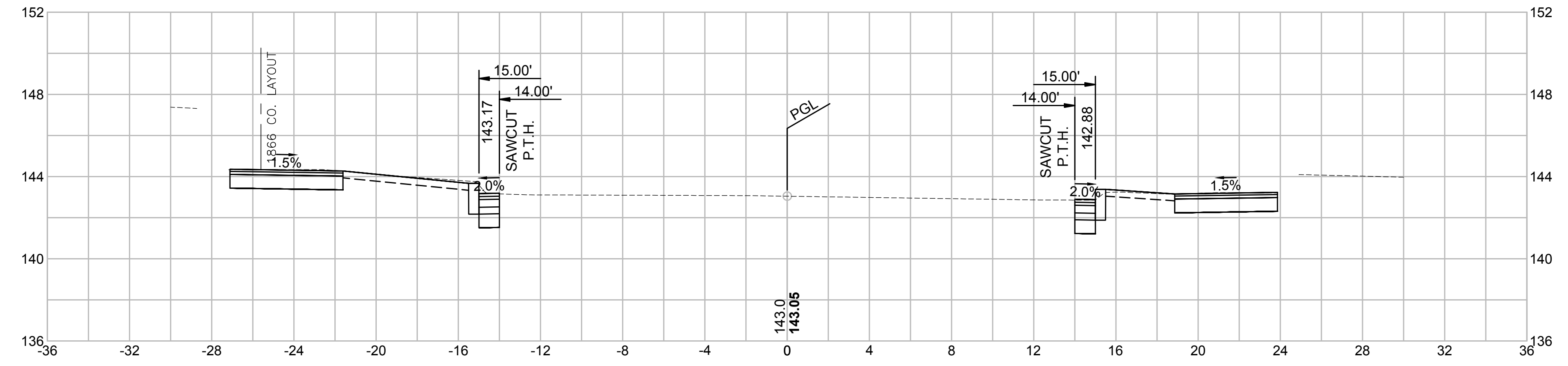
180+50 - BRIDGE STREET



170+52 - MOORE STREET



170+45 - MOORE STREET

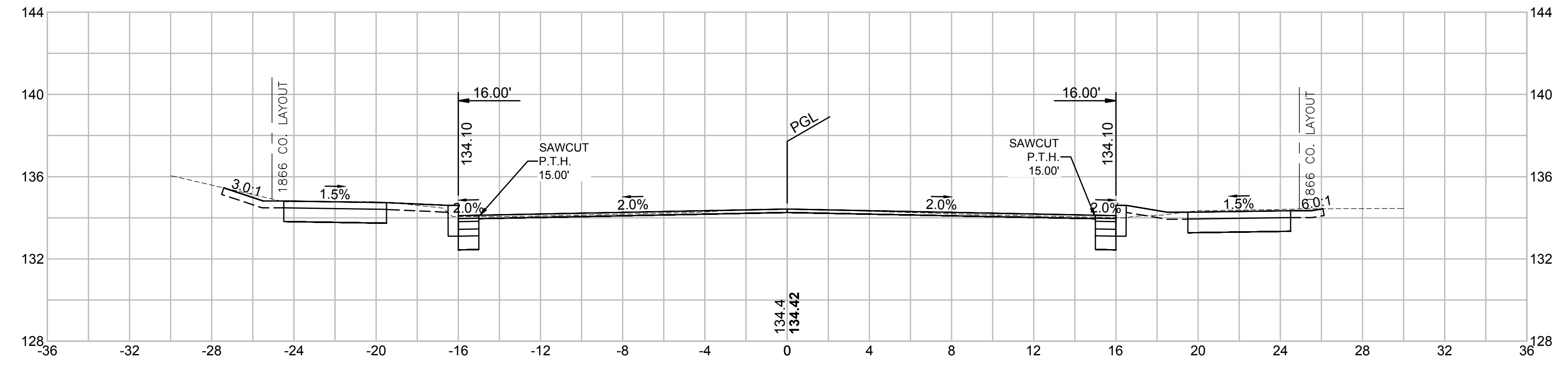


**AGAWAM  
ROBINSON PARK ELEMENTARY  
SCHOOL (SRTS)**

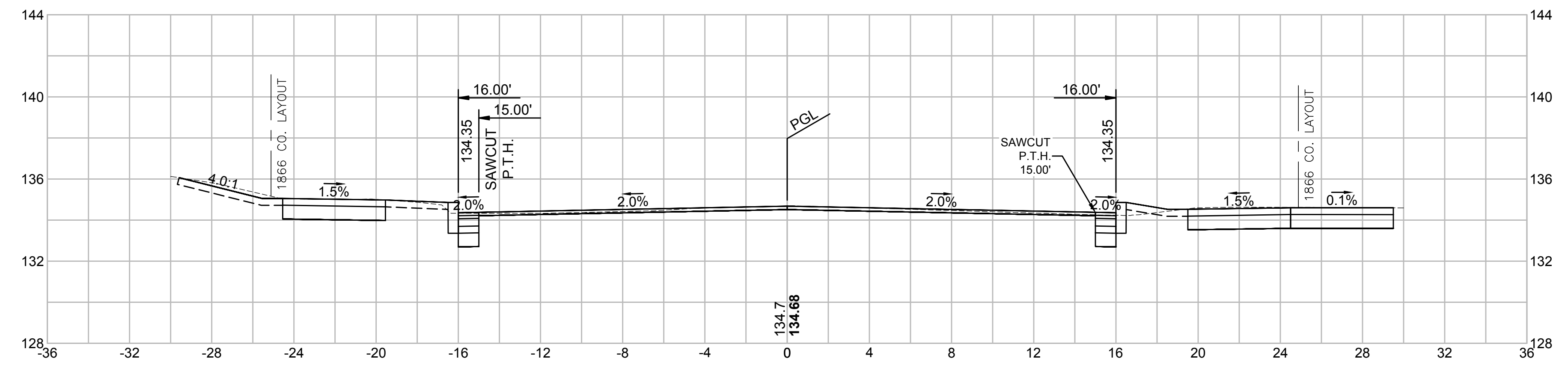
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TAP-SRS2(002)X	98	98
PROJECT FILE NO.		610652	

**CROSS-SECTIONS - SIDE STREETS  
BRIDGE STREET  
SHEET 3 OF 3**

180+72 - BRIDGE STREET



180+65 - BRIDGE STREET



180+58 - BRIDGE STREET

