



GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		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 (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		SEDIMENT CONTROL BARRIER
		TREE LINE
		SAWCUT LINE
		EDGE OF PAVEMENT
		TOP OR BOTTOM OF SLOPE / LIMIT OF WORK / COMPOST FILTER SOCK (UNLESS NOTED OTHERWISE ON PLANS)
		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
		WETLAND FLAG
		WETLAND EDGE
		REMOVE TREE
		TREE PROTECTION

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
		RAILROAD SIGNAL
		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE - 12"
		CROSSWALK - 2' SOLID WHITE LINE, 2' SPACE
		SOLID WHITE LINE - 6" REFLECTORIZED
		SOLID YELLOW LINE
		BROKEN WHITE LINE
		BROKEN YELLOW LINE (3-9-3)
		DOTTED WHITE LINE
		DOTTED YELLOW LINE
		DOTTED WHITE LINE EXTENSION
		DOTTED YELLOW LINE EXTENSION
		DOUBLE WHITE LINE
		DOUBLE YELLOW LINE

ABBREVIATIONS

GENERAL	
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CFS	COMPOST FILTER SOCK
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCR	PEDESTRIAN CURB RAMP
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT

WALTHAM  
MCRT WALTHAM LINDEN STREET BRIDGE

SHEET NO.	TOTAL SHEETS
2	15

MADCR PROJECT NO. P25-3582-C1A

LEGEND & ABBREVIATIONS

ABBREVIATIONS (cont.)

GENERAL

PVW	PAVED WATERWAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

TRAFFIC SIGNAL ABBREVIATIONS

CAB	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY UPRAISED HAND
FDW	FLASHING UPRAISED HAND
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR YELLOW
FYL	FLASHING YELLOW LEFT ARROW
FYR	FLASHING YELLOW RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW
OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILT, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALKING PERSON
Y	STEADY CIRCULAR YELLOW
YL	STEADY YELLOW LEFT ARROW



**REFERENCE**

- PROJECT LOCATION: MASSACHUSETTS CENTRAL RAILROAD RIGHT-OF-WAY, CITY OF WALTHAM.
- PROJECT SURVEY COMPLETED BY WHITMAN & BINGHAM ASSOCIATES, LLC, DATED MARCH 2018 AND SUPPLEMENTED BY HALEY WARD SEPTEMBER 2024. UTILITY LOCATIONS BASED ON AVAILABLE PLANS.
- WETLANDS AND RESOURCE AREAS WERE DELINEATED BY PARE CORPORATION IN OCTOBER 2017. WETLAND FLAGS WERE LOCATED BY WHITMAN & BINGHAM.
- VERTICAL DATUM IS NAVD 88. HORIZONTAL DATUM IS MASSACHUSETTS STATE PLANE.
- EXISTING UTILITIES, SIZES, AND ELEVATIONS WERE COMPILED FROM THE CITY OF WALTHAM'S GIS MAPS ONLINE, MOST RECENTLY ACCESSED ON AUGUST 21, 2018.

**GENERAL NOTES**

- THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS, AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS, AND COORDINATE WITH THE ENGINEER AND OWNER'S REPRESENTATIVE AS REQUIRED.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AND/OR BARRIERS AROUND ALL OPEN EXCAVATED AREAS IN ACCORDANCE WITH OSHA STANDARDS.
- IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED, THE CONTRACTOR IS TO IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER AND OWNER'S REPRESENTATIVE.
- ANY AREA OUTSIDE OF THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.
- ALL SITE WORK SHALL MEET OR EXCEED THE SITE WORK SPECIFICATIONS PREPARED FOR THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
- ALL UTILITIES (LOCATION & ELEVATION) SHOWN SHALL BE CONSIDERED APPROXIMATE ONLY. BEFORE COMMENCING SITE WORK IN ANY AREA, CONTACT "DIG SAFE" AT 1-888-344-7233 AND CITY OF WALTHAM TO ACCURATELY LOCATE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES, AND THE COST TO REPAIR THE DAMAGES TO INITIAL CONDITIONS AS SHOWN ON THE PLANS, SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO EXCAVATION SHALL BE DONE UNTIL UTILITY COMPANIES ARE PROPERLY NOTIFIED.
- ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE ROADWAY TRAVEL LANES SO AS NOT TO CAUSE A SAFETY HAZARD.
- PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL EMPLOY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF MASSACHUSETTS TO ESTABLISH CONTROL ON THE SITE AND PERFORM FIELD MEASUREMENTS AS REQUIRED TO LAYOUT THE PROPOSED SITE IMPROVEMENTS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED IN SUFFICIENT DETAIL, THEREBY ENABLING THE CONTRACTOR TO CONSTRUCT THE PROJECT IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS. SURVEY WILL BE PROVIDED BY THE CONTRACTOR. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOT AUTHORIZE CONSTRUCTION ACTIVITIES TO BEGIN UNTIL THEY ARE SATISFIED THAT ALL GROUND CONTROL HAS BEEN ESTABLISHED, TIED DOWN, AND DULY RECORDED IN STANDARD FIELD BOOKS.
- ALL SIDEWALK AND DRIVEWAYS DESIGNATED FOR REPLACEMENT SHALL BE CUT AND MATCHED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, PLANTABLE SOIL AND SEED IN AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED.
- UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BE ALLOWED TO STOCKPILE REMOVED PAVEMENT MATERIALS WITHIN THE PROJECT LIMITS.
- CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT AND AT THE COMPLETION OF THE PROJECT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE OWNER OR OWNER'S REPRESENTATIVE. NO SEPARATE PAYMENT SHALL BE MADE FOR CLEANING AND SWEEPING PAVEMENT.
- PRIOR TO INSTALLATION, ALL SIGNS, MOUNTINGS AND LOCATIONS SHALL BE APPROVED OR MODIFIED BY OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE OWNER OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
- NO FUEL STORAGE, VEHICLE REFUELING, OR EQUIPMENT STORAGE SHALL TAKE PLACE IN DESIGNATED WETLANDS, WETLANDS BUFFER ZONES, NOR WITHIN 100' OF ANY WATER BODY. THIS REQUIREMENT SHALL NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION THAT APPLIES TO THE SAME, UNLESS THIS REQUIREMENT IS MORE STRINGENT THAN SAID LAW, ORDINANCE, RULE OR REGULATION.
- ALL EMBANKMENTS SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12" (AFTER COMPACTION) AND SHALL BE COMPACTED AS SPECIFIED BEFORE THE NEXT LAYER IS PLACED.
- THE CONTRACTOR SHALL COMPACT ALL MATERIALS USED FOR SUBBASE BACKFILL IN MAXIMUM SIX-INCH LAYERS.

**LAYOUT NOTES**

- ALL LINES ARE PERPENDICULAR OR PARALLEL TO THE LINES FROM WHICH THEY ARE MEASURED, UNLESS OTHERWISE INDICATED.
- ACCESSIBLE RAMPS SHALL BE CONSTRUCTED PER THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES, LATEST REVISION.
- CONTRACTOR TO PERFORM BENCHMARK FIELD LEVEL VERIFICATION AND COORDINATE LAYOUT CHECK PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONTACT PARE CORPORATION IF ANY DISCREPANCIES ARE FOUND.

**DEMOLITION NOTES**

- ALL NOTED ITEMS TO BE REMOVED AND DISPOSED, RELOCATED, OR STACKED REPRESENT ALL KNOWN SITE CONDITIONS TO BE DEMOLISHED. CONTRACTOR TO COORDINATE ANY UNFORESEEN CONDITIONS WITH THE PROJECT ENGINEER, OWNER, AND/OR RESPECTIVE UTILITY COMPANIES PRIOR TO PROCEEDING WITH THE WORK.
- REMOVAL OF EXISTING RAIL INCLUDES RAILS, TIES AND APPURTENANCES UNLESS OTHERWISE NOTED OR IDENTIFIED BY THE CITY.
- WATER, SEWER, DRAINAGE, GAS, AND OTHER SITE UTILITIES SERVICING THE EXISTING FACILITIES ARE TO REMAIN ACTIVE THROUGHOUT CONSTRUCTION.
- THERE SHALL BE NO INTERRUPTION OF UTILITY SERVICE THROUGHOUT THE DURATION OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE OWNER.
- ALL EXISTING CATCH BASINS TO REMAIN SHALL BE CLEANED PRIOR TO COMMENCING WORK.

**EROSION AND SEDIMENTATION CONTROL NOTES**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING OR INSTALLING ALL TEMPORARY SEDIMENT AND EROSION CONTROLS AS SHOWN ON THESE PLANS AND SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD.
- ANTI-TRACKING PADS SHALL BE PROVIDED AT ALL POINTS OF EGRESS OR INGRESS, PRIOR TO ANY ROADWAY ACCEPTING CONSTRUCTION TRAFFIC, AND SHALL BE MAINTAINED TO LIMIT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS.
- EROSION CONTROL BARRIERS SHALL BE INSTALLED AS SHOWN ON THE PLANS PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS.
- SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AND AFTER EACH STORM EVENT OF 0.25 INCH OR GREATER DURING CONSTRUCTION TO ENSURE THAT CHANNELS, DITCHES AND PIPES ARE CLEAR OF DEBRIS AND THAT THE EROSION CONTROL BARRIERS ARE INTACT. THE CONTRACTOR SHALL CORRECT IDENTIFIED DEFICIENCIES IMMEDIATELY.
- DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL CLEAN AND MAINTAIN EROSION CONTROL BARRIER WHEN SEDIMENT ACCUMULATES TO ONE HALF THE HEIGHT OF THE BARRIER. MATERIAL COLLECTED FROM THE SEDIMENTATION BARRIERS SHALL BE REMOVED AS NECESSARY AND DISPOSED IN AN UPLAND AREA.
- THE CONTRACTOR SHALL SCHEDULE THE CONSTRUCTION SEQUENCE TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PONDING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE, AS REQUIRED, TO STABILIZED DISCHARGE POINTS.
- INSTALLATION OF THE EROSION CONTROL BARRIERS AS ILLUSTRATED IS INTENDED TO REPRESENT THE MINIMUM SEDIMENTATION CONTROL FACILITIES NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
- REQUIRED SEDIMENTATION CONTROL FACILITIES MUST BE PROPERLY ESTABLISHED, CLEARLY VISIBLE AND IN OPERATION PRIOR TO INITIATING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK. SUCH FACILITIES SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGHOUT THE CONSTRUCTION PERIOD.
- THE CONTRACTOR SHALL MAINTAIN A SUFFICIENT RESERVE OF VARIOUS EROSION CONTROL MATERIALS ONSITE AT ALL TIMES FOR EMERGENCY PURPOSES OR ROUTINE MAINTENANCE.
- THE CONTRACTOR SHALL REPLACE DAMAGED EROSION CONTROLS AT THE OWNER, OWNER'S REPRESENTATIVE, OR ENGINEER'S REQUEST AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE CONTRACTOR SHALL NOT REMOVE ANY HAYBALES, COMPOST FILTER SOCKS, OR OTHER EROSION CONTROLS UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.
- CONSTRUCTION SITE WASTE MATERIALS WILL BE PROPERLY CONTAINED ONSITE AND DISPOSED OFF SITE AT A LOCATION IN ACCORDANCE WITH THE LOCAL AND STATE REGULATIONS.
- THE CONTRACTOR SHALL NOT LEAVE DISTURBED AREAS UNSTABILIZED FOR PERIODS MORE THAN 14 DAYS. PROVIDE TEMPORARY SEED OR MULCH ON DISTURBED AREAS THAT WILL REMAIN EXPOSED FOR GREATER THAN 14 DAYS.
- ALL DRAINAGE STRUCTURES SHALL BE CLEARED OF ACCUMULATED SEDIMENT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
- NEWLY VEGETATED AREAS SHALL BE MAINTAINED REGULARLY TO ENSURE STABLE VEGETATED SURFACES.
- EROSION AND SEDIMENTATION CONTROLS WILL BE UTILIZED AS SHOWN ON THE PLANS. POTENTIAL EROSION AND SEDIMENTATION PROBLEMS ASSOCIATED WITH THE CONSTRUCTION OF THE PROJECT WILL BE AVOIDED THROUGH THE PROJECT SCHEDULING AND THE USE OF APPROPRIATE STANDARD CONTROLS (MASSACHUSETTS EROSION AND SEDIMENT CONTROL HANDBOOK) AS ILLUSTRATED ON THE PROJECT PLANS.
- WHERE EROSION CONTROLS ARE NEEDED ON IMPERVIOUS SURFACES, THE CONTRACTOR SHALL PROVIDE SAND BAG EROSION CONTROL BARRIER.
- TEMPORARY DIVERSION MAY CONSIST OF A DITCH OR SWALE, OR MAY BE ACHIEVED USING WOOD CHIPS, COIR LOGS, OR SIMILAR MATERIALS.
- THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN SILT SACKS IN ALL EXISTING AND NEWLY INSTALLED CATCH BASINS UNTIL THE UPSTREAM AREA IS STABILIZED.

**CONSTRUCTION METHODS**

- CONSTRUCTION OF THE TRAIL SHALL BE EXECUTED WITH MINIMALLY INVASIVE METHODS.
- LIMITS OF DISTURBANCE SHALL BE ADHERED TO TO THE EXTENT POSSIBLE TO MAINTAIN EXISTING TREE STANDS BETWEEN THE TRAIL AND ABUTTING PROPERTIES.
- CONSTRUCTION VEHICLES SHALL BE LIMITED TO A LOADING EQUIVALENT TO A H-10 TRUCK ON BRIDGE NO. 114 (TIMBER BRIDGE), BRIDGE NO. 113 (LINDEN BRIDGE), & BRIDGE NO. 8.76 (TIMBER CULVERT - STA. 287+59). THE TIMBER ACCESS RAMP AT LINDEN STREET HAS BEEN DESIGNED BASED ON PEDESTRIAN LIVE LOAD (90 PSF) ONLY.

**GRADING AND UTILITY NOTES**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED. NO FIELD ADJUSTMENTS IN THE LOCATION OF SITE ELEMENTS SHALL BE MADE WITHOUT THE ENGINEER'S APPROVAL.
- ALL WORK PERFORMED AND ALL MATERIALS FURNISHED SHALL CONFORM WITH THE LINES AND GRADES ON THE PLANS AND THE SITE WORK SPECIFICATIONS.
- AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAWCUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT AND CURBS SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES, AND JOINTS.
- ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE SURROUNDING SURFACE OR PAVEMENT FINISH GRADE. RIM ELEVATIONS OF STRUCTURES AND MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH THE GRADING PLANS.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION OF PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED.
- 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.
- THE CONTRACTOR SHALL PROTECT ALL UNDERGROUND UTILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE UTILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES BY PROVIDING TEMPORARY SUPPORTS OR SHEETING AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
- EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MIN. OF 1/8" PER FOOT UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL ROCK AND BOULDERS UNCOVERED DURING UTILITY INSTALLATION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED TO CLEAN OUT EXISTING CATCH BASINS AND PIPING PRIOR TO COMMENCING WORK.

**STORMWATER MANAGEMENT SYSTEM INSPECTION AND MAINTENANCE NOTES**

**DURING CONSTRUCTION**

- THE CONTRACTOR SHALL REMOVE SEDIMENT AND DEBRIS FROM ALL CATCH BASINS, MANHOLES, AND THE DRAINAGE SYSTEM ON A ROUTINE BASIS, IMMEDIATELY FOLLOWING SITE STABILIZATION, AND PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.
- THE CLOSED DRAINAGE SYSTEM AND ASSOCIATED STRUCTURES SHALL BE CLEANED AND FLUSHED BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF THE DRAINAGE SYSTEM UNTIL ACCEPTANCE OF THE SYSTEM BY THE ENGINEER AND THE OWNER. FOLLOWING ACCEPTANCE OF THE PROPOSED DRAINAGE SYSTEM FOR THIS SITE, THE OWNER OF THE SITE SHALL BE RESPONSIBLE FOR THE LONG-TERM INSPECTION AND MAINTENANCE OF THE DRAINAGE SYSTEM.
- ANY ACCUMULATION OF PONDING WATER IN AREAS WITHIN THE LIMITS OF DISTURBANCE, OTHER THAN DESIGNATED AREAS, SHALL BE REMOVED ACCORDINGLY AND PREVENTED IN THE FUTURE.
- THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND WILL NOT BE PAID SEPARATELY.

**FOLLOWING CONSTRUCTION**

THE COMPLETION OF THE INSPECTION AND MAINTENANCE REQUIREMENTS BELOW SHALL BE THE RESPONSIBILITY OF THE OWNER.

- TRASH, LITTER, SEDIMENT AND OTHER DEBRIS SHALL BE REMOVED FROM ANY STORMWATER FACILITY (INCLUDING CATCH BASINS, MANHOLES, AND THE STORMWATER BMP'S) AT LEAST TWICE A YEAR, PREFERABLY SPRING AND FALL.
- THE SHARED USE PATH WITHIN THE PROJECT LIMITS SHALL BE SWEEPED EVERY SPRING AND FALL TO REMOVE SEDIMENTS.

**WALTHAM  
MCRT WALTHAM LINDEN STREET BRIDGE**

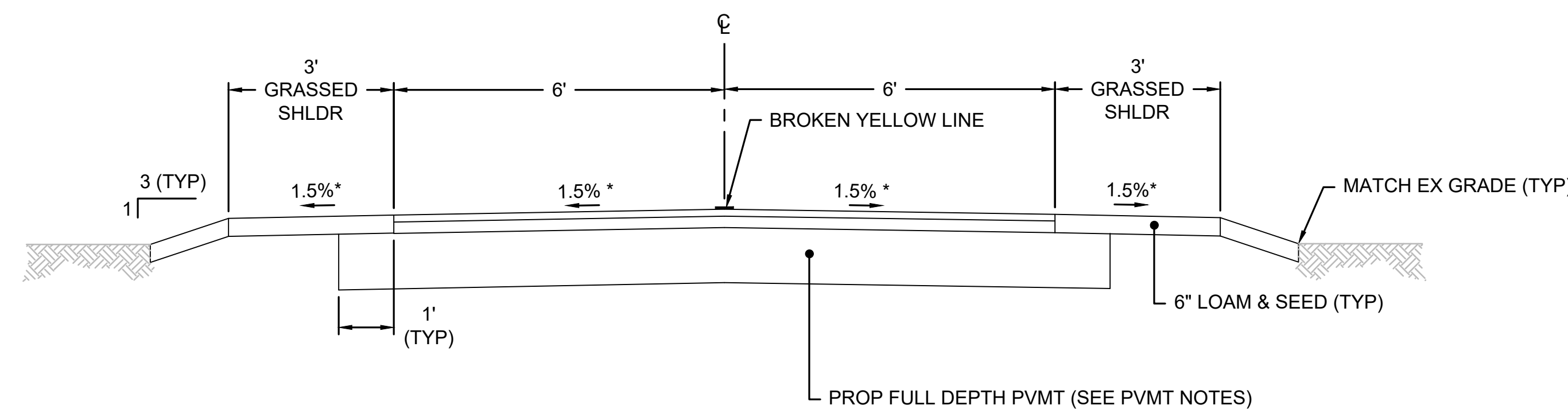
	SHEET NO.	TOTAL SHEETS
	3	15
MADCR PROJECT NO. P25-3582-C1A		

**NOTES**

SHEET NO.	TOTAL SHEETS
4	15

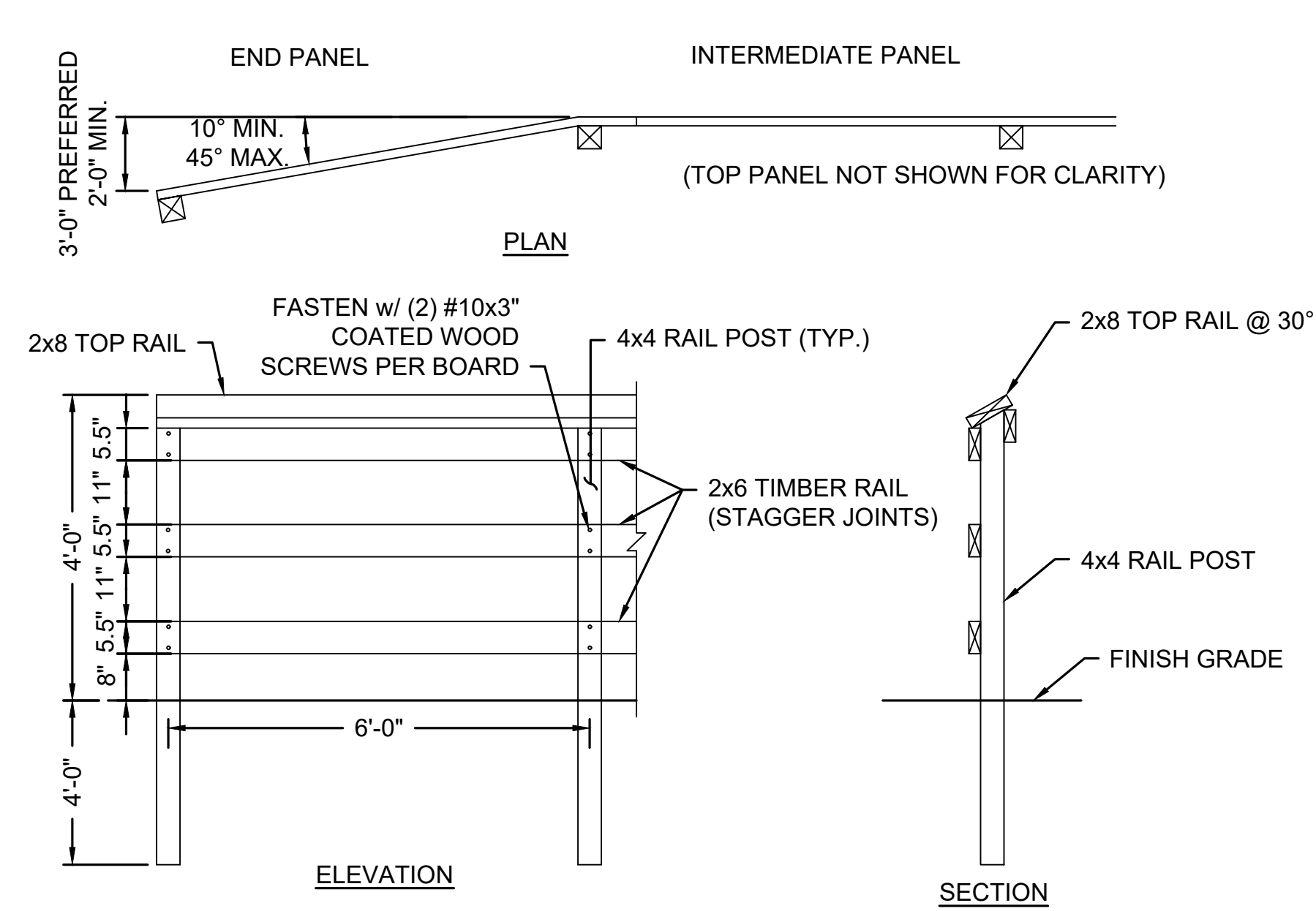
MADCR PROJECT NO. P25-3582-C1A

TYPICAL SECTION AND DETAILS

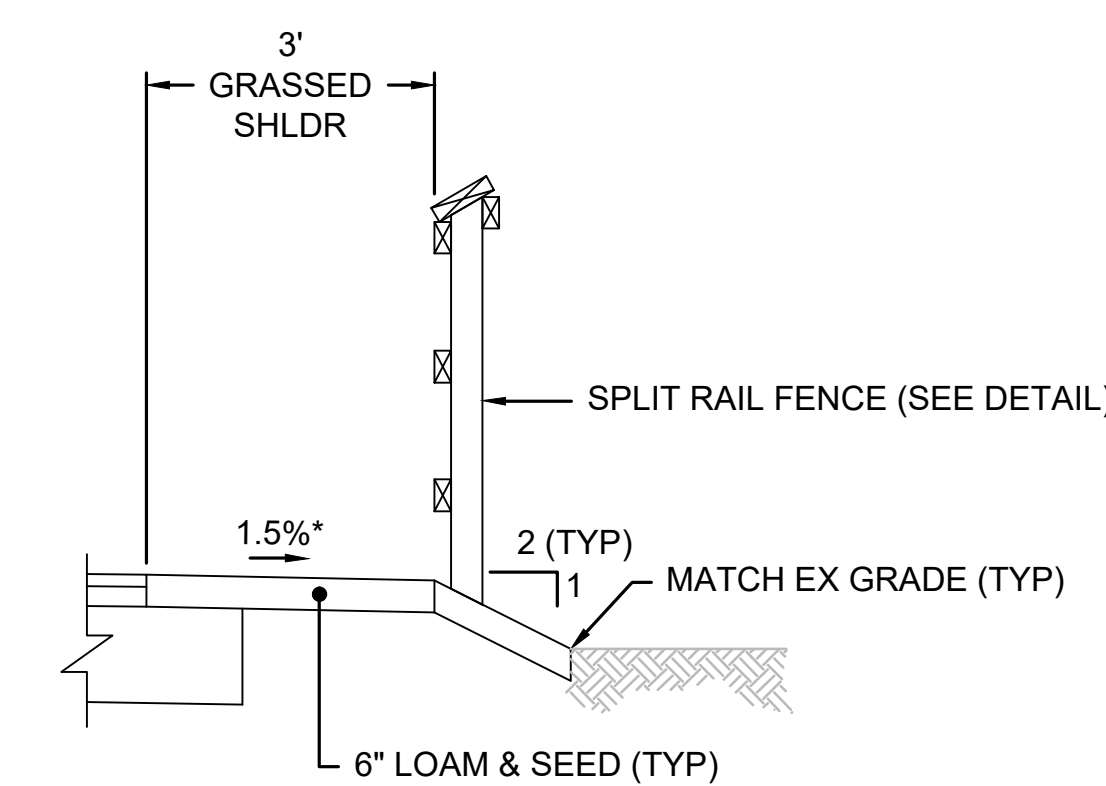


\* CONSTRUCTION TOLERANCE = ± 0.5%,  
SEE SUPERELEVATION (SHEET ##)

TYPICAL SECTION TRAIL  
NOT TO SCALE



SPLIT RAIL FENCE DETAILS  
NOT TO SCALE



TYPICAL SECTION WITH SPLIT RAIL FENCE  
NOT TO SCALE

PAVEMENT NOTES

FULL DEPTH CONSTRUCTION (LINDEN STREET)

- TOP COURSE: 1.5" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)
- INTERMEDIATE COURSE: 2.5" SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0)
- SUBBASE: 12" GRAVEL BORROW
- SUBGRADE: SPECIAL BORROW AS REQUIRED BASED ON EXISTING SUBGRADE MATERIALS

PEDESTRIAN CURB RAMP AND CEMENT CONCRETE SIDEWALK (BEAVER STREET)

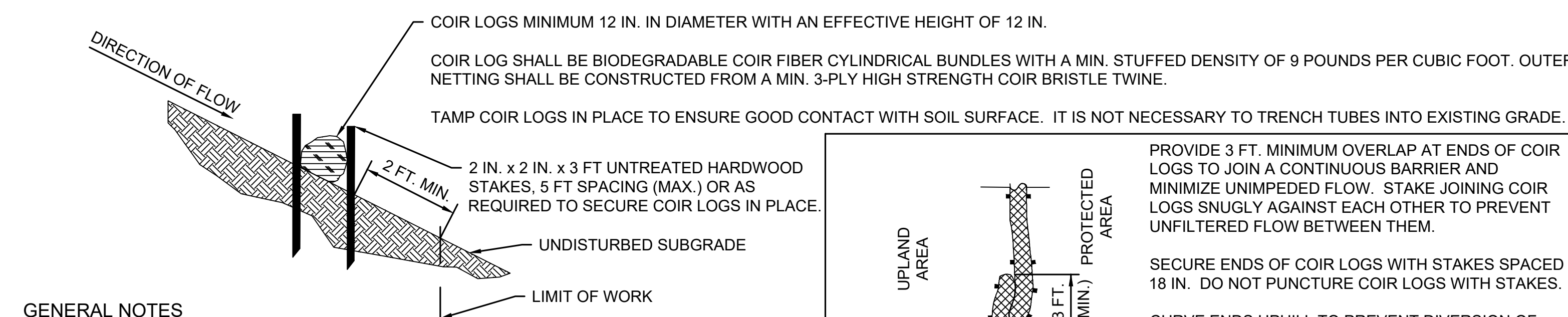
- SURFACE: 4" CEMENT CONCRETE (AIR ENTRAINED, 4,000 PSI, 0.75", 610)
- SUBBASE: 8" GRAVEL BORROW (TYPE B)

BOX WIDENING (BEAVER STREET)

- SURFACE COURSE: 1 1/2" SUPERPAVE SURFACE COURSE- 9.5 (SSC-9.5)
- INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE- 12.5 (SIC-12.5)
- BASE COURSE: 4" SUPERPAVE BASE COURSE- 37.5 (SBC-37.5)
- SUBBASE: 4" DENSE GRADE CRUSHED STONE FOR SUBBASE  
8" GRAVEL BORROW

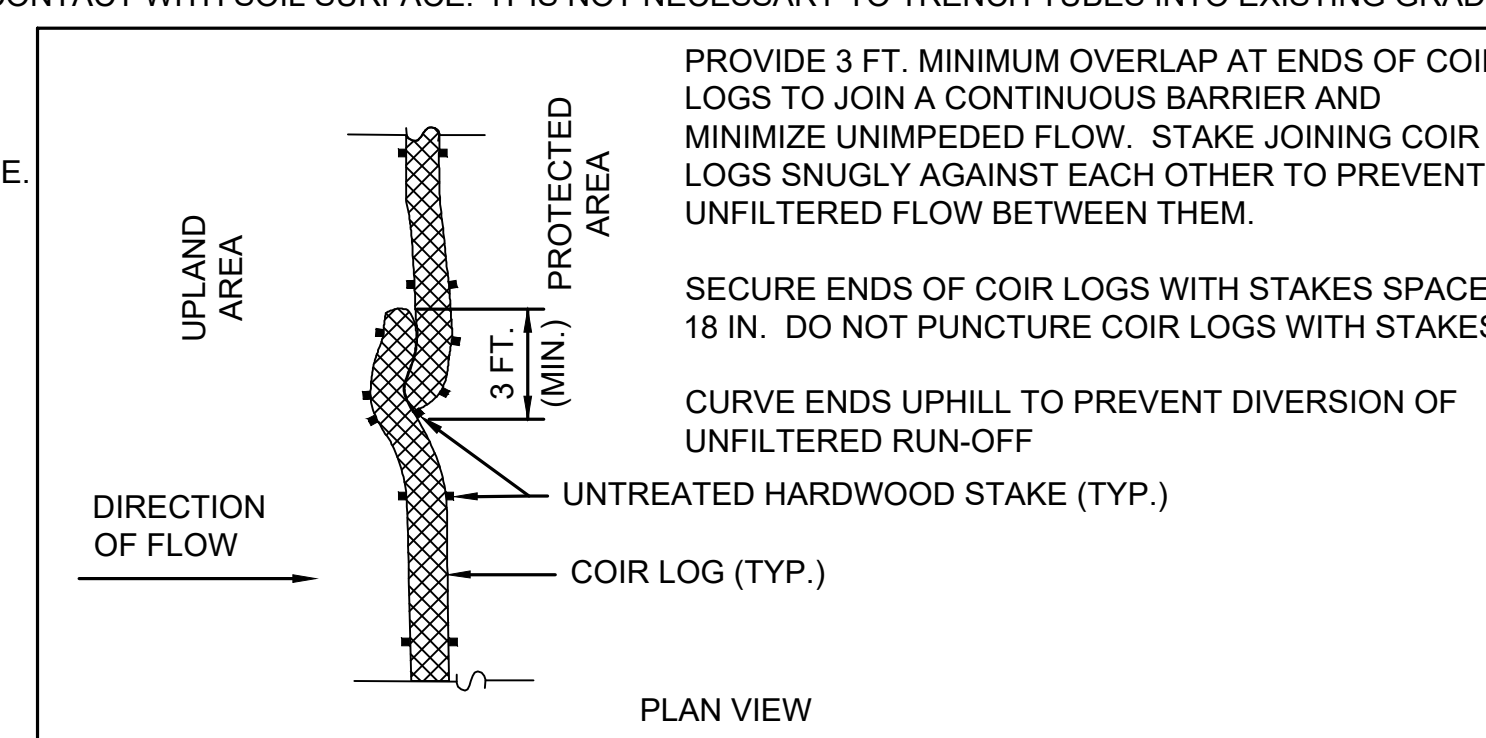
GENERAL NOTES:

- ALL HOT MIX ASPHALT PAVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 450 QUALITY ASSURANCE OR HMA.
- ASPHALT EMULSION FOR TACK COAT (ITEM 452) SHALL BE SPRAY APPLIED FOR TRIPLE OVERLAP COVERAGE AT 0.08 GAL/SY OVER MILLED SURFACES AND 0.07 GAL/SY OVER SMOOTH SURFACES.
- HMA JOINT ADHESIVE (ITEM 438) SHALL BE APPLIED IN SURFACE COURSE AT ALL VERTICAL COLD JOINTS PRIOR TO HMA PAVING.
- ALL HOT MIX ASPHALT WALKS AND DRIVEWAYS SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 702. OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- WHERE EXISTING GRAVEL IS FOUND TO BE SUITABLE, THE EXISTING GRAVEL MAY BE USED IN PROPOSED SUBBASE, AFTER APPROVAL BY THE ENGINEER.

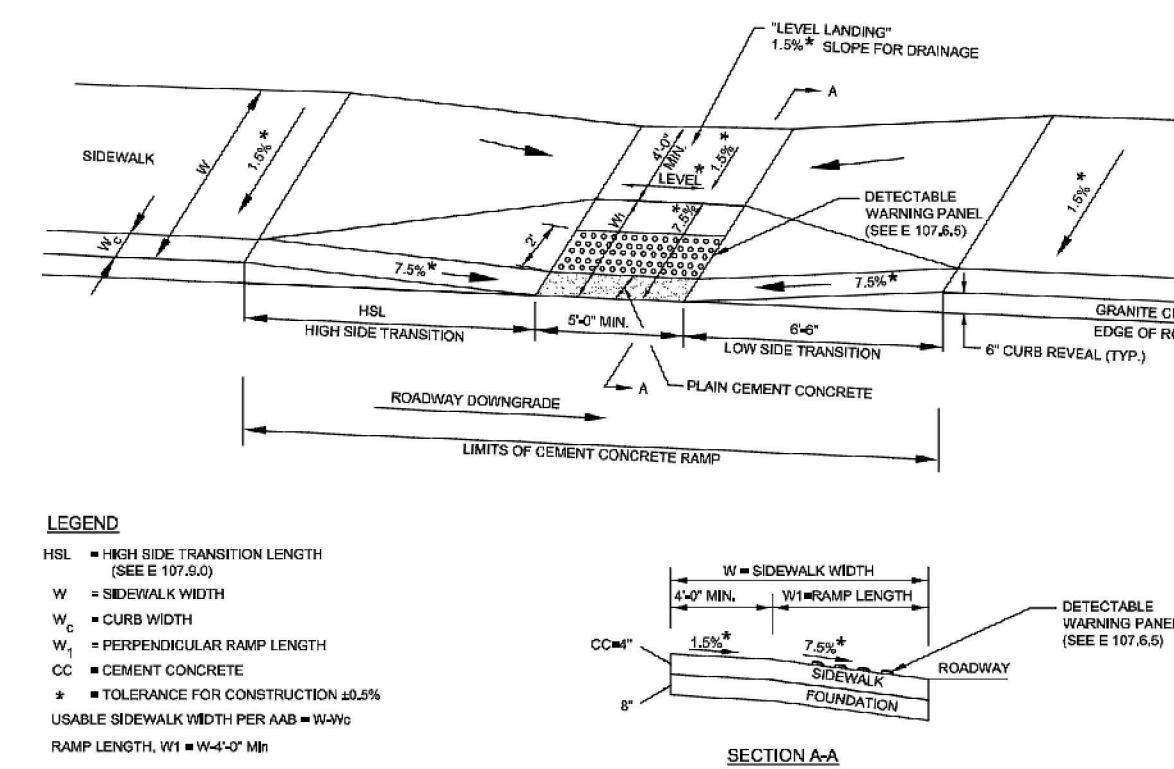


GENERAL NOTES

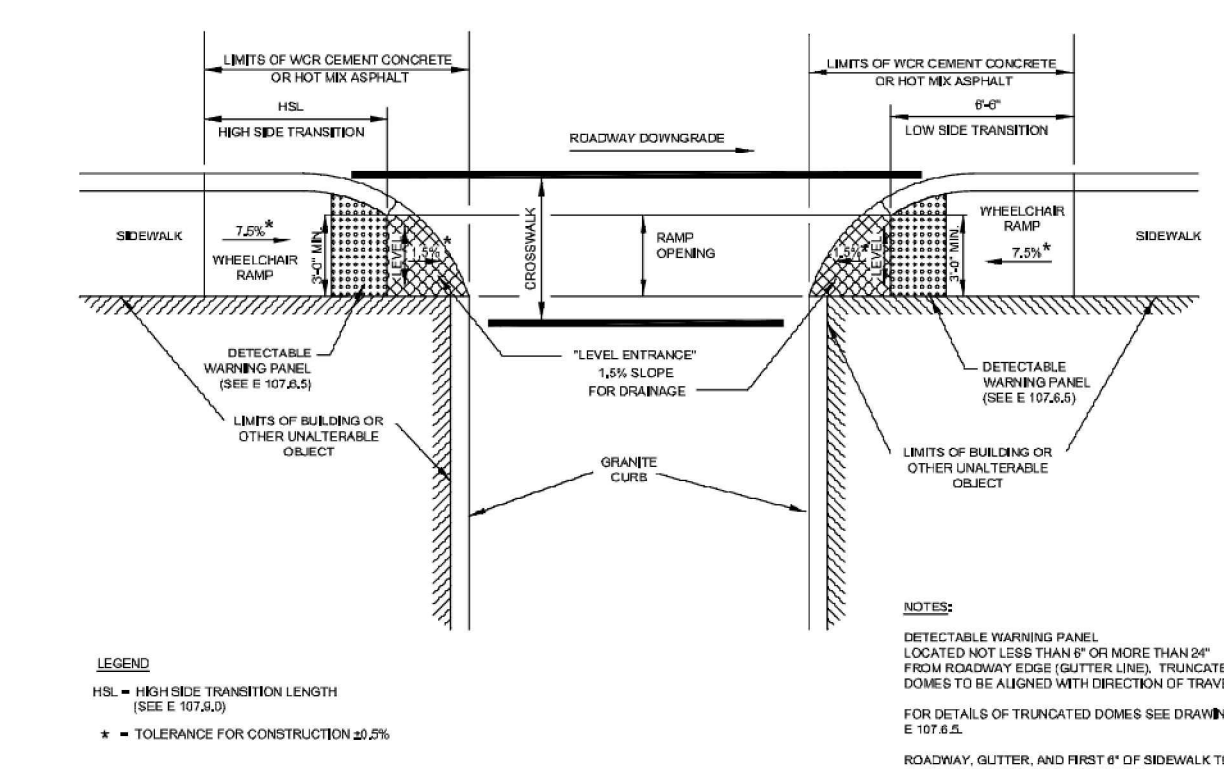
- PROVIDE A MINIMUM COIR LOG DIAMETER OF 12 INCHES FOR SLOPES UP TO 50 FEET IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER COIR LOG DIAMETER OR ADDITIONAL COURSING OF COIR LOGS TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
- INSTALL COIR LOGS ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
- CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.
- COIR LOGS TO BE LEFT IN PLACE AND BACKFILLED TO PROPOSED EMBANKMENT GRADES. STAKES MAY BE LEFT IN PLACE AND DRIVEN A MINIMUM OF 6 INCHES BELOW FINISH GRADE. STAKES MAY BE REMOVED, BUT NOT BEFORE VEGETATION IS ESTABLISHED TO THE SATISFACTION OF THE ENGINEER.



COIR LOG DETAIL  
NOT TO SCALE



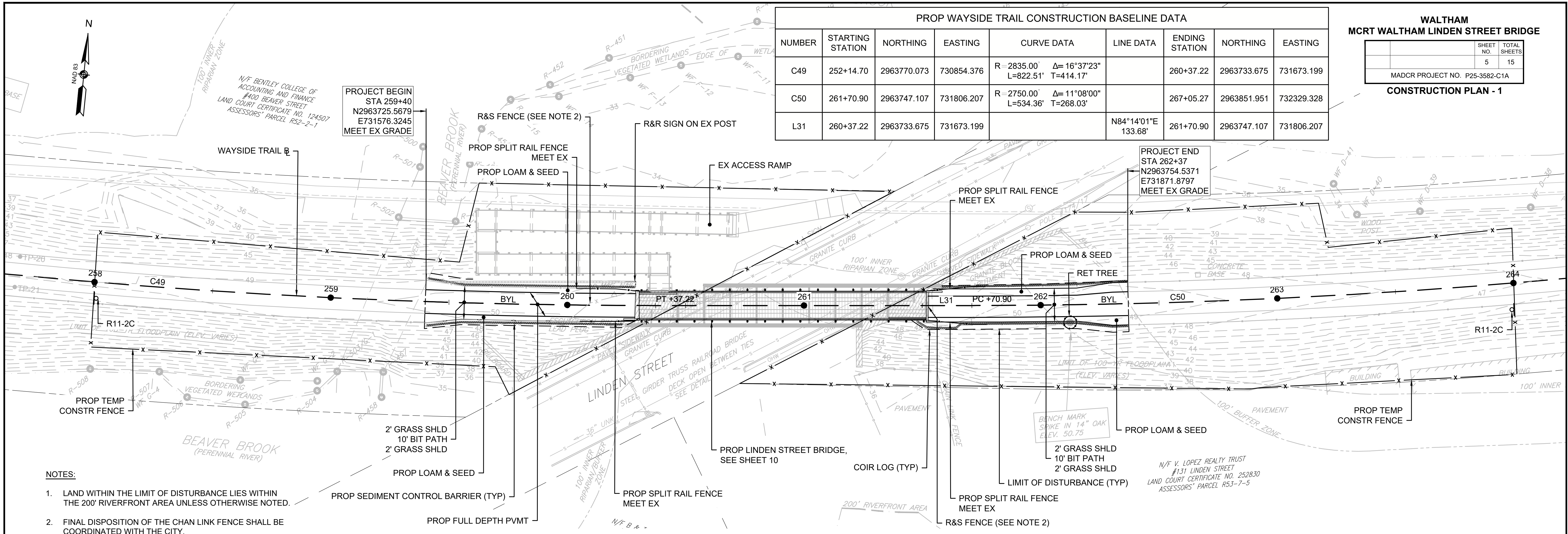
MASSDOT STD. DETAIL 107.2.0



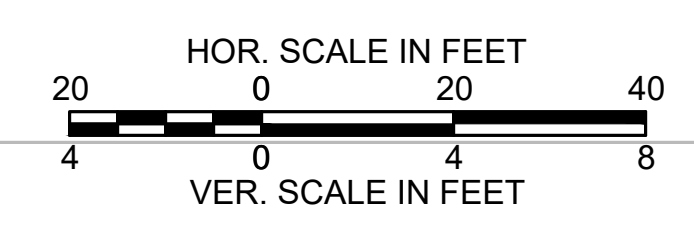
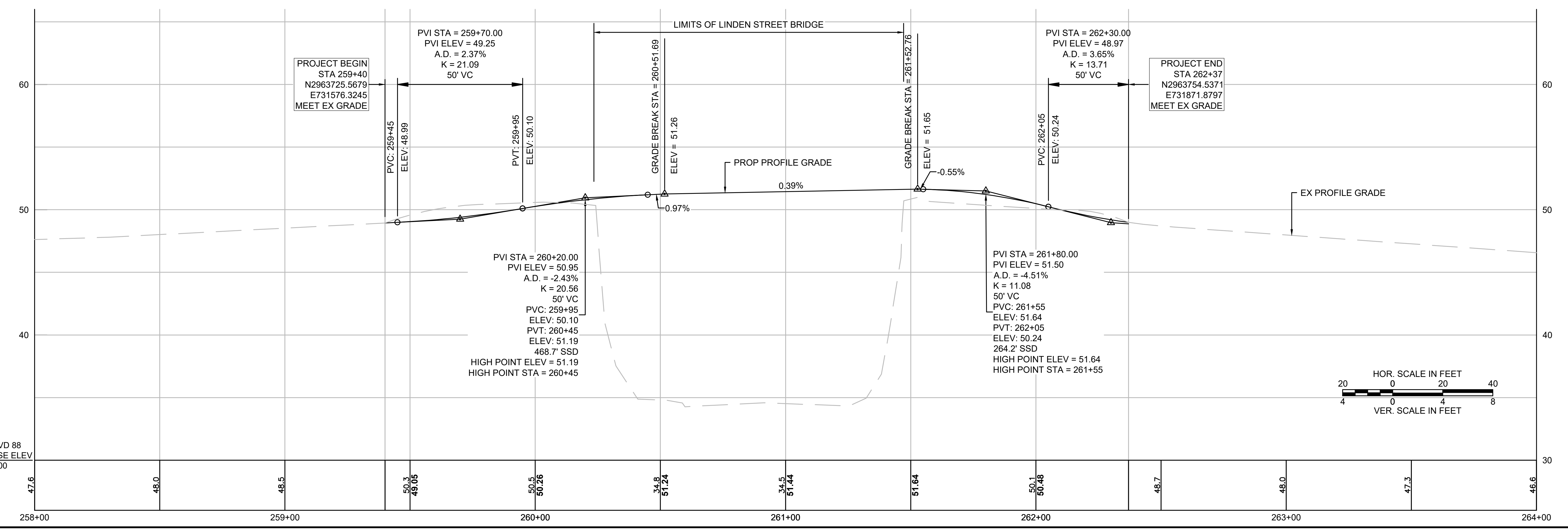
MASSDOT STD. DETAIL 107.6.0



PROP WAYSIDE TRAIL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C49	252+14.70	2963770.073	730854.376	R = 2835.00' Δ = 16°37'23" L = 822.51' T = 414.17'		260+37.22	2963733.675	731673.199
C50	261+70.90	2963747.107	731806.207	R = 2750.00' Δ = 11°08'00" L = 534.36' T = 268.03'		267+05.27	2963851.951	732329.328
L31	260+37.22	2963733.675	731673.199		N84°14'01"E 133.68'	261+70.90	2963747.107	731806.207



- NOTES:**
- LAND WITHIN THE LIMIT OF DISTURBANCE LIES WITHIN THE 200' RIVERFRONT AREA UNLESS OTHERWISE NOTED.
  - FINAL DISPOSITION OF THE CHAIN LINK FENCE SHALL BE COORDINATED WITH THE CITY.



NAVD 88  
 BASE ELEV  
 30.00



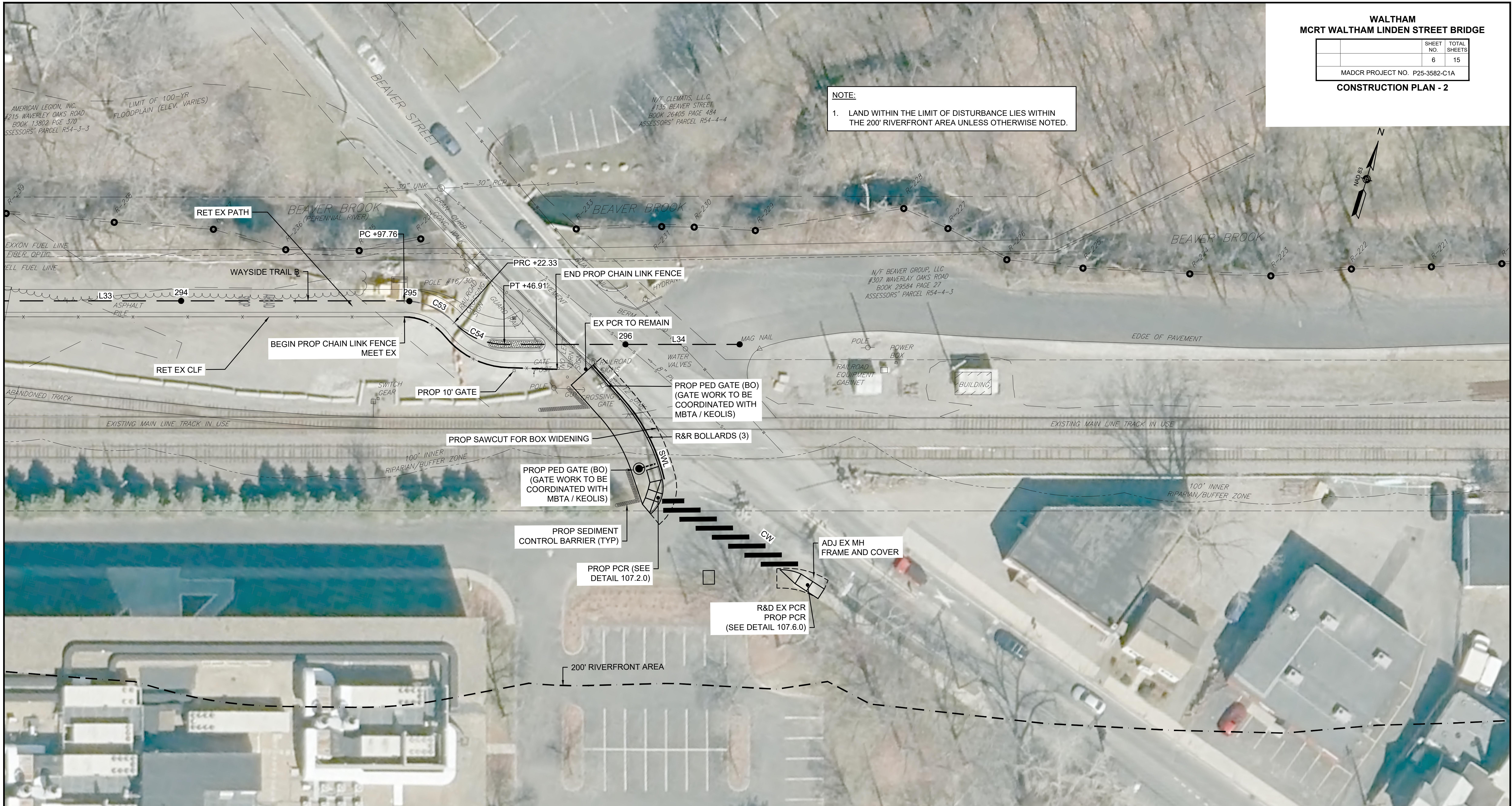
**WALTHAM  
MCRT WALTHAM LINDEN STREET BRIDGE**

SHEET NO.	TOTAL SHEETS
6	15

MADCR PROJECT NO. P25-3582-C1A

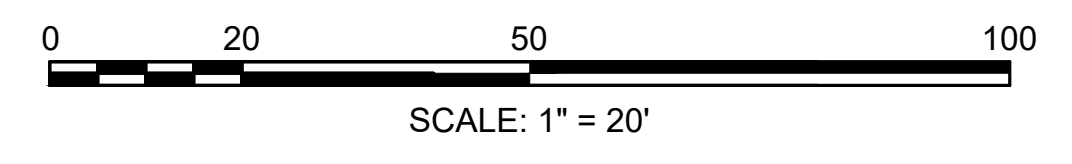
**CONSTRUCTION PLAN - 2**

**NOTE:**  
1. LAND WITHIN THE LIMIT OF DISTURBANCE LIES WITHIN THE 200' RIVERFRONT AREA UNLESS OTHERWISE NOTED.



**PROP WAYSIDE TRAIL CONSTRUCTION BASELINE DATA**

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C53	294+97.76	2964667.473	734999.808	R=30.00' Δ=46°55'55" L=24.57' T=13.02'		295+22.33	2964664.741	735023.543
C54	295+22.33	2964664.741	735023.543	R=30.00' Δ=46°55'54" L=24.57' T=13.02'		295+46.91	2964662.009	735047.278
L33	289+37.42	2964504.583	734463.664		N73°06'01"E 560.34'	294+97.76	2964667.473	734999.808
L34	295+46.91	2964662.009	735047.278		N73°06'02"E 103.09'	296+50.00	2964691.978	735145.920





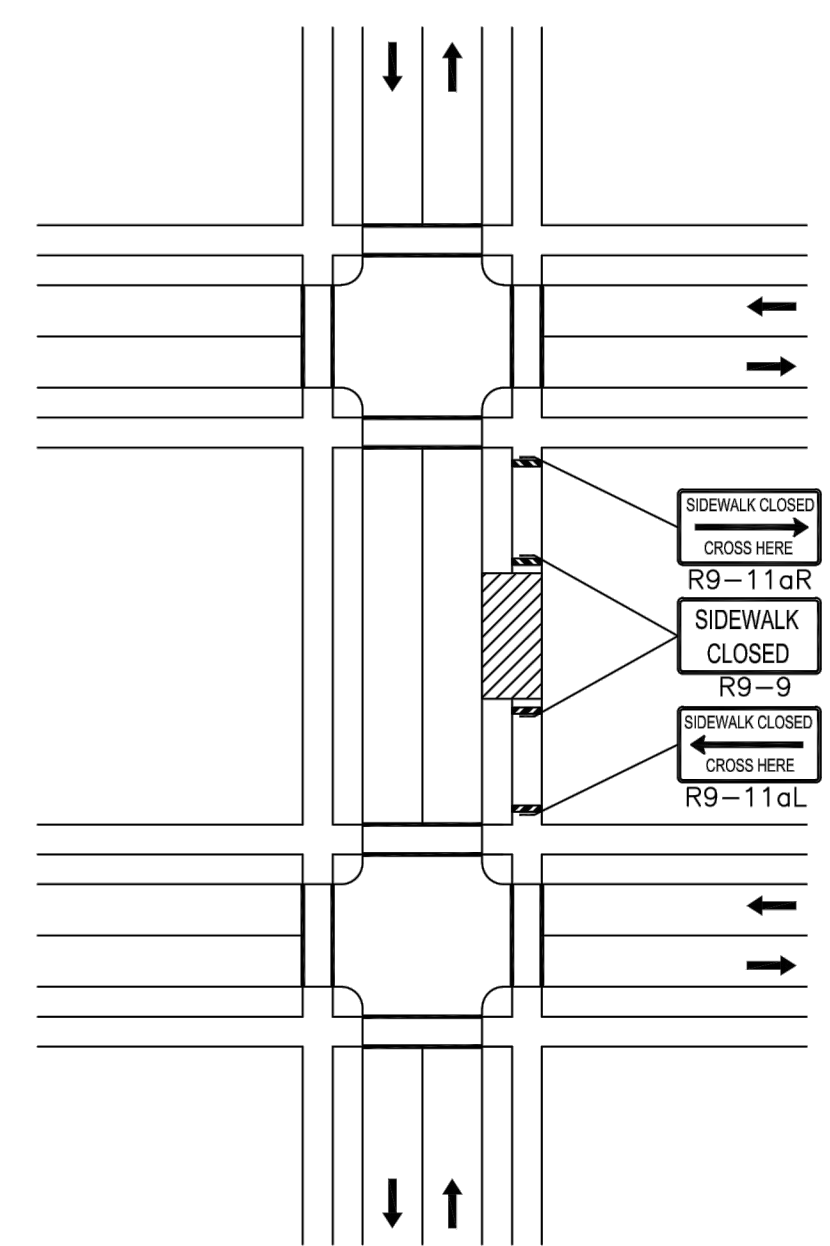
SHEET NO.	7	TOTAL SHEETS	15
MADCR PROJECT NO. P25-3582-C1A			

### TEMPORARY TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			UNIT AREA IN SQUARE FEET	TOTAL AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACKGROUND	LEGEND	BORDER		
R9-11aR	24	12		SEE MUTCD			2	WHITE	BLACK	BLACK	2.0	4.0
R9-11aL	24	12					2	WHITE	BLACK	BLACK	2.0	4.0
R9-9	24	12					4	WHITE	BLACK	BLACK	2.0	8.0
W20-7 or MA-W20-7b	36	36					4	FLUORESCENT ORANGE	BLACK	BLACK	9.0	36.0
W20-4	36	36					4	FLUORESCENT ORANGE	BLACK	BLACK	9.0	36.0
W20-1	36	36					4	FLUORESCENT ORANGE	BLACK	BLACK	9.0	36.0
R11-2C	48	30					2	WHITE	BLACK	BLACK	10.0	20.0
MA-R2-10a	48	36		SEE MASSDOT SIGN BOOK			4	FLUORESCENT ORANGE/WHITE	BLACK	BLACK	12.0	48.0
MA-R2-10e	36	48					4	FLUORESCENT ORANGE/WHITE	BLACK	BLACK	12.0	48.0
DEP	36	18					2	WHITE	BLACK	BLACK	4.5	9.0
TOTAL AREA OF SIGNS (SQUARE FEET)											249.0	

**NOTES:**

- W20-1 TO BE PLACED 350' IN ADVANCE OF WORK ZONE SIGNS SHOWN.
- MA-R2-10a, AND MA-R2-10e SIGNS TO BE PLACED IN ACCORDANCE WITH MASSDOT STANDARDS.
- A DEP SIGN SHALL BE PLACED AT EACH LOCATION OF WORK WITHIN THE BUFFER ZONE (ONE AT LINDEN STREET BRIDGE AND ONE AT BEAVER STREET)
- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS. MASSDOT'S "STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS", THE STANDARD SPECIFICATIONS, AND THE FOLLOWING NOTES.
- ALL SIGN LEGENDS, BORDERS AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- TEMPORARY CONSTRUCTION SIGNING 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.
- 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.
- MAINTAIN MINIMUM TRAVEL LANE WIDTH OF 10 FEET.
- ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
- THE BUFFER SPACES SHOULD BE EXTENDED IF NECESSARY SO THAT THE 100' MAX. TWO-WAY TRAFFIC TAPERS ARE PLACED BEFORE THE HORIZONTAL (OR CREST VERTICAL) CURVES TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND QUEUES OF STOPPED VEHICLES.
- ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE WORK AREA SHALL BE MAINTAINED AT ALL TIMES.
- THE CONTRACTOR SHALL PLACE TEMPORARY CONSTRUCTION SIGNS TO ENSURE THAT A 36" UNOBSTRUCTED MINIMUM CLEARANCE IS PROVIDED AT ALL TIMES ON SIDEWALKS OPEN TO PEDESTRIANS. AT LOCATIONS WHERE A 36" MINIMUM CLEARANCE CANNOT BE ACHIEVED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO PROVIDE MOUNTED SIGNS WITH THE BOTTOM OF THE SIGN OVERHANG NO LESS THAN 84" HIGH IN ORDER TO MEET ADA STANDARDS. THIS WORK SHALL BE PAID FOR UNDER "TRAFFIC MANAGEMENT ITEM."
- THE LONGITUDINAL PEDESTRIAN CHANNELING DEVICES SHALL BE POSITIONED SUCH THAT THERE ARE NO GAPS ACROSS THE ENTIRE WIDTH OF THE SIDEWALK.
- THE LONGITUDINAL PEDESTRIAN CHANNELING DEVICES USED FOR THE SIDEWALK CLOSURE SHALL HAVE A DETECTABLE EDGE IN ACCORDANCE WITH SECTION 6F.74 OF THE MOST RECENT EDITION OF THE MUTCD, INCLUDING ALL REVISIONS AND ADDENDA.
- THE CONTRACTOR SHALL MAINTAIN AN ADA COMPLIANT PEDESTRIAN ACCESS AT ALL TIMES, SPECIFICALLY INCLUDING PEDESTRIAN GUIDANCE SYSTEMS AT WORK ZONES. ACCESS SHALL BE MAINTAINED ALONG ALL SIDEWALKS, CROSSWALKS, AND PATHS, AS WELL AS TO ALL ABUTTERS. ANY PEDESTRIAN DETOURS SHALL BE ADA COMPLIANT WITH PROPER BARRICADES, RAILINGS AND SIGNAGE.
- CROSSWALKS OR STOP LINES OBSCURED OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE END OF EACH SHIFT. TEMPORARY MATERIALS MAY BE USED IF IT IS EXPECTED THAT THE LINES WILL BE OBSCURED OR DAMAGED AGAIN. THERMOPLASTIC SHALL NOT BE USED FOR PERMANENT REPLACEMENT.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AN ADA COMPLIANT ACCESS AT ALL TIMES THROUGHOUT CONSTRUCTION



NOTE: IF A MINIMUM WIDTH OF 48" OF SOLID SMOOTH UNOBSTRUCTED SURFACE REMAINS ALONG THE WORK AREA THEN THE DETAIL CAN BE DISREGARDED. DELINEATION OF THE WORK AREA WILL STILL BE REQUIRED. ALL PEDESTRIAN DETOUR ROUTES SHALL BE ADA/MAAB COMPLIANT IN THEIR ENTIRETY.

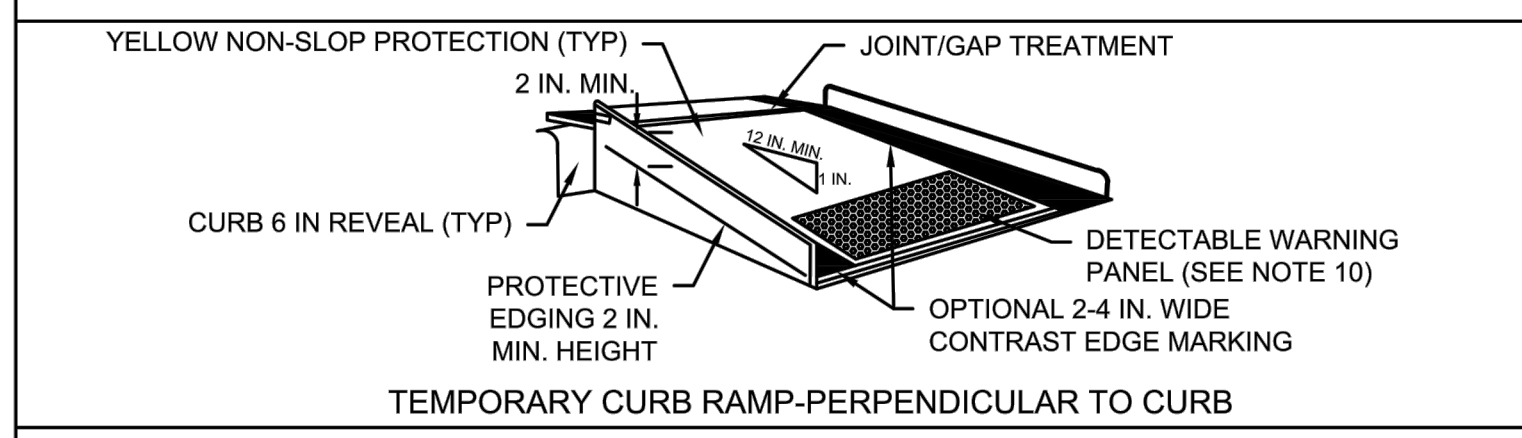
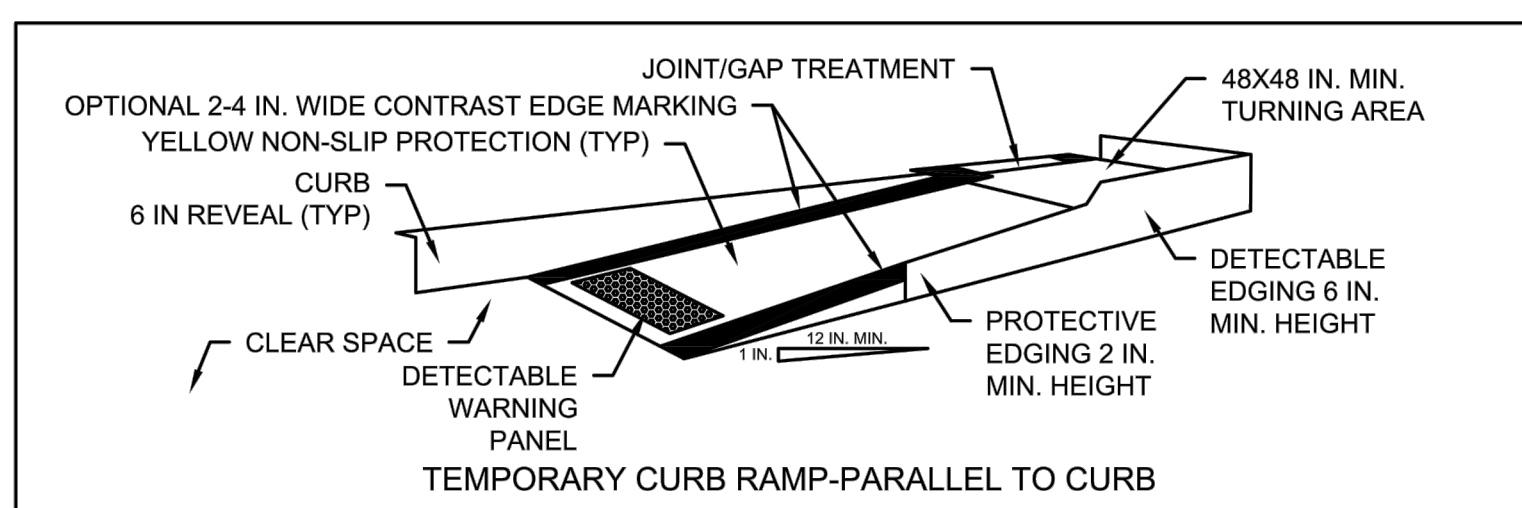
**massDOT** Massachusetts Department of Transportation Highway Division

Standard Details and Drawings for the Development of Temporary Traffic Control Plans

FIGURE PED-5

SIDEWALK CLOSED WITHOUT DETOUR

NOT TO SCALE



- NOTES:**
- CURB RAMPS SHALL BE 48 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.
  - PROTECTABLE 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 MINIMUM 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 PANEL 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 SHALL NOT BE INSTALLED ON THE RAMP.

**massDOT** Massachusetts Department of Transportation Highway Division

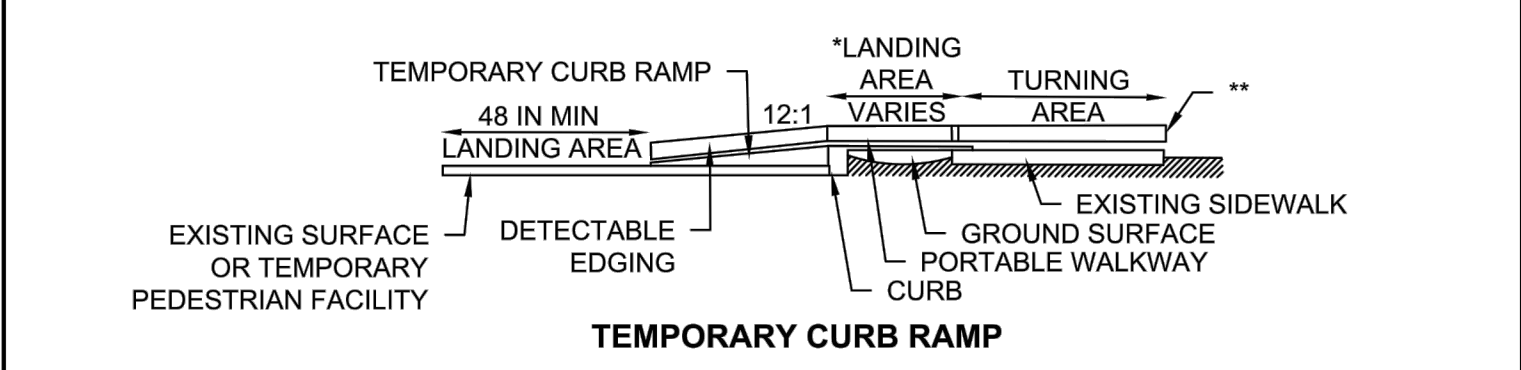
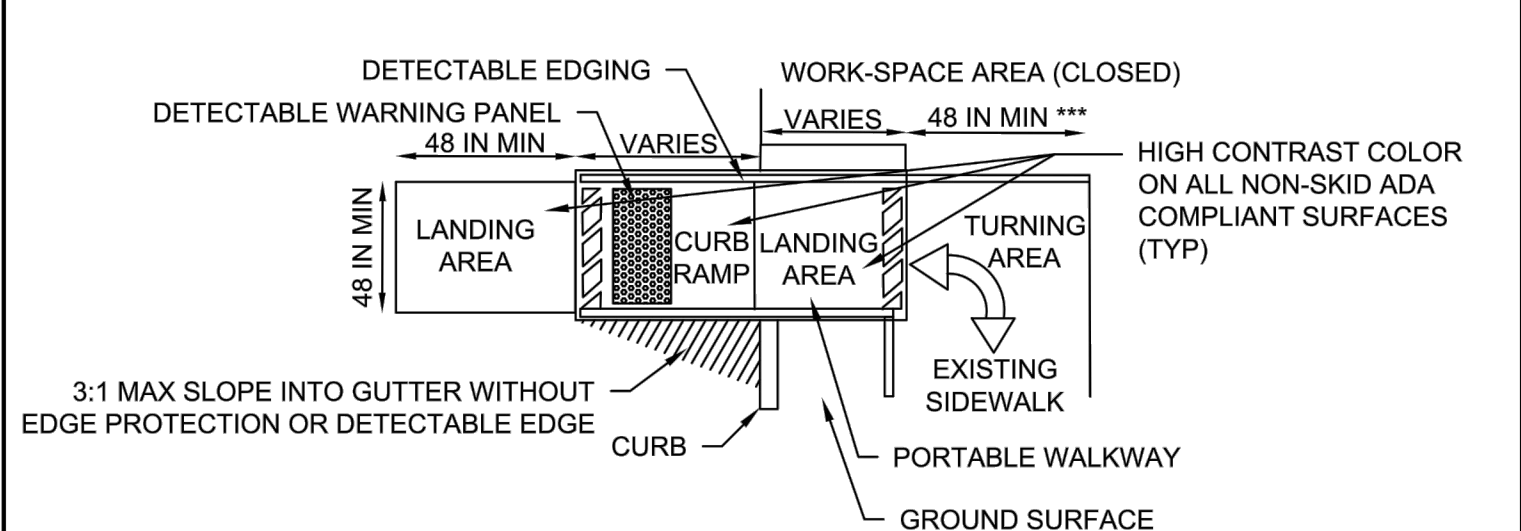
WORK ZONE SAFETY STANDARD DETAILS AND DRAWINGS

TYPICAL PEDESTRIAN DEVICES (1 OF 3)

DATE OF ISSUE 07/01/2023

REVISIONS

FIGURE NO. PED-1



\* LANDING AREA USED TO OVERLAP NON-ADA COMPLIANT SURFACES.  
 \*\* A DETECTABLE EDGE REMOVED IF A CONTINUOUS SIDEWALK.  
 \*\*\* 60 IN. IF AN OBSTRUCTION IS AT BACK OF SIDEWALK.

**massDOT** Massachusetts Department of Transportation Highway Division

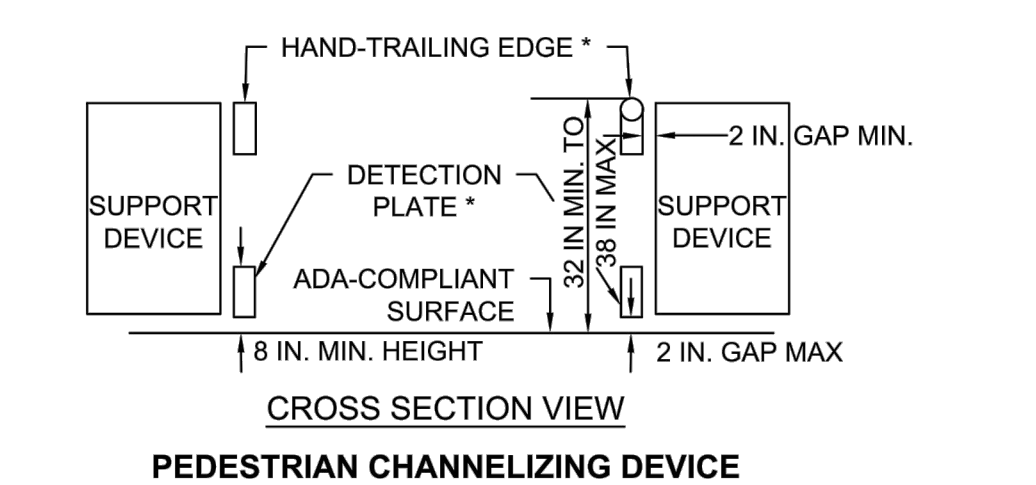
WORK ZONE SAFETY STANDARD DETAILS AND DRAWINGS

TYPICAL PEDESTRIAN DEVICES (2 OF 3)

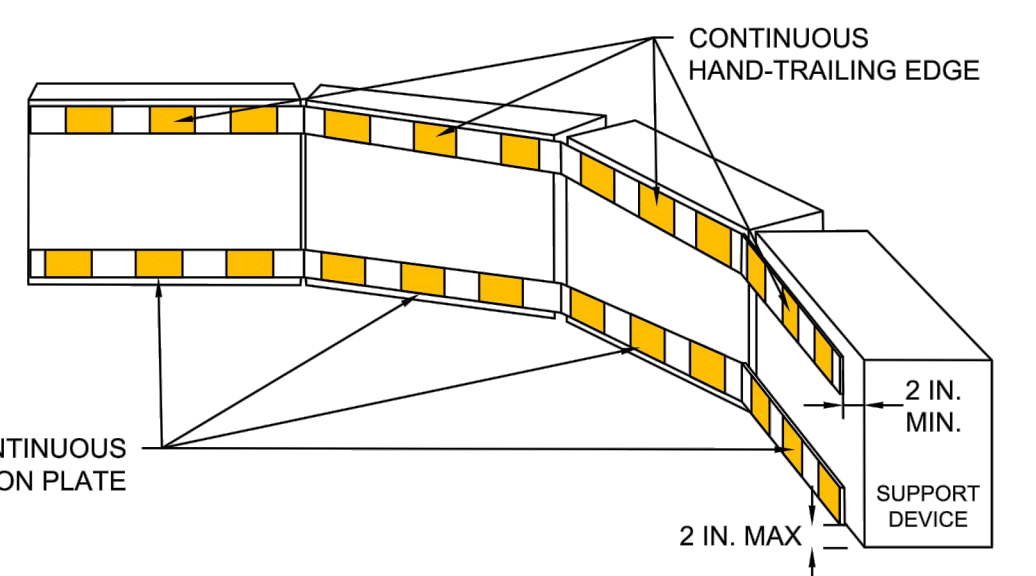
DATE OF ISSUE 07/01/2023

REVISIONS

FIGURE NO. PED-2



\* THE HAND-TRAILING EDGE AND DETECTION PLATE SHALL BE CONTINUOUS THROUGH-OUT THE LENGTH OF THE PATH.



- NOTES:**
- THERE SHOULD BE AT LEAST A 2-INCH GAP BETWEEN THE HAND-TRAILING EDGE AND ITS SUPPORT.
  - A MAXIMUM 2-INCH GAP BETWEEN THE BOTTOM OF THE CONTINUOUS DETECTION PLATE AND THE WALKWAY MAY BE USED TO PROVIDE DRAINAGE.
  - SHEETING PANELS MAY BE EITHER VERTICAL OR AT A 45-DEGREE ANGLE.
  - HAND-TRAILING EDGE AND/OR DETECTION PLATES ARE OPTIONAL FOR CONTINUOUS WALLS.

**massDOT** Massachusetts Department of Transportation Highway Division

WORK ZONE SAFETY STANDARD DETAILS AND DRAWINGS

TYPICAL PEDESTRIAN DEVICES (3 OF 3)

DATE OF ISSUE 07/01/2023





REVISIONS

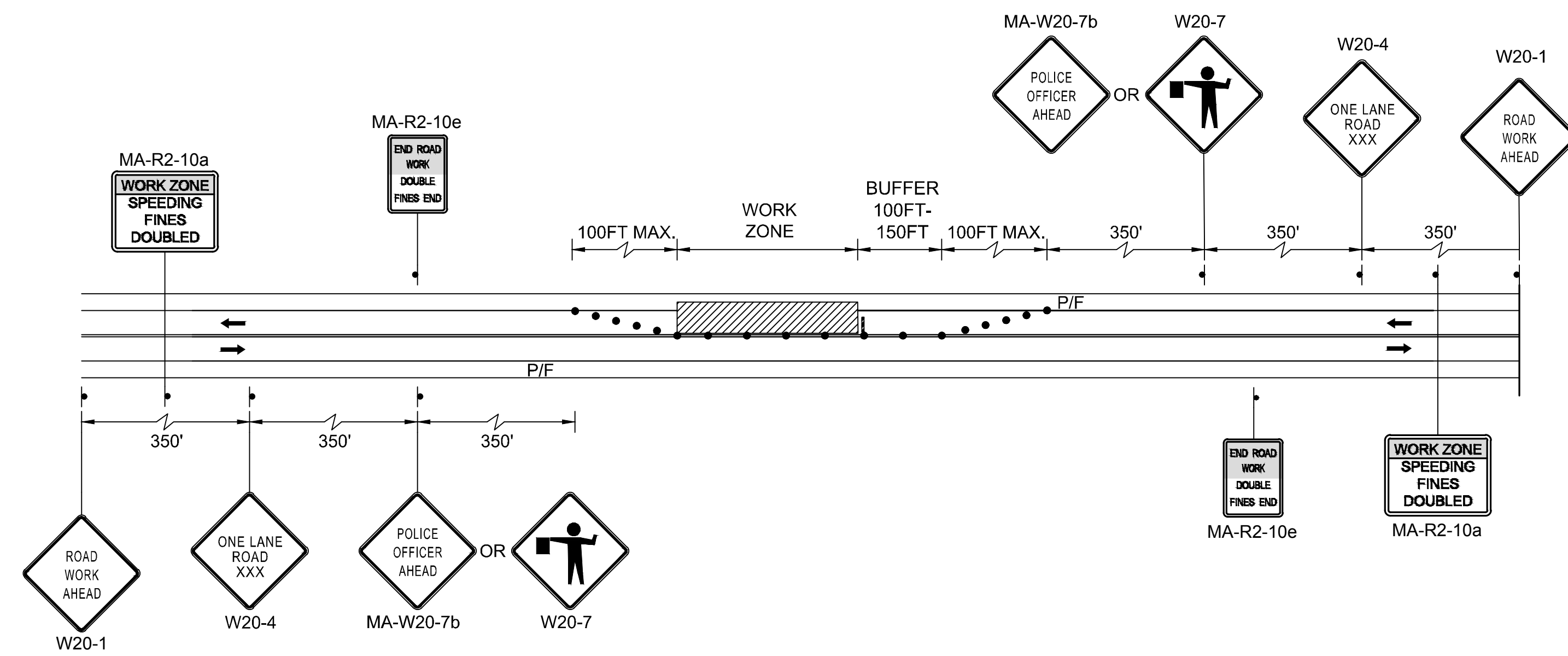
FIGURE NO. PED-3



SHEET NO.	TOTAL SHEETS
8	15

LEGEND

-  WORK ZONE
-  TEMPORARY SIGN
-  REFLECTORIZED DRUM
-  TYPE III BARRICADE



TWO LANE ROAD - ONE LANE ALTERNATING TRAFFIC  
NOT TO SCALE



**GENERAL NOTES**

- ALL CONSTRUCTION INDICATED ON THESE PLANS SHALL BE IN ACCORDANCE WITH:
  - THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 2020.
  - THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020, INCLUDING THE LATEST INTERIM REVISIONS.
  - THE AASHTO LRFRD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, 2nd EDITION, INCLUDING THE LATEST INTERIM REVISIONS.
  - THE SPECIFICATIONS ACCOMPANYING AND CONTAINED WITHIN THESE PLANS.
- ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NGVD 88).
- HORIZONTAL DATUM IS THE MASSACHUSETTS STATE PLANE.
- INFORMATION CONCERNING THE LOCATIONS OF THE STRUCTURES, THEIR CONDITION, AND DIMENSIONS IS FURNISHED SOLELY FOR THE INFORMATION AND CONVENIENCE OF THE CONTRACTOR, AND SHALL BE FIELD VERIFIED. THE CONTRACTOR SHALL CONDUCT ITS OWN INDEPENDENT EXAMINATION AND MEASUREMENTS OF THE SITES AND STRUCTURES' CONDITIONS FOR THE PURPOSE OF BIDDING, FABRICATION, AND CONSTRUCTION ASSOCIATED WITH THIS CONTRACT. ANY RELIANCE UPON INFORMATION MADE AVAILABLE BY THE TOWN OR THE ENGINEER SHALL BE AT THE CONTRACTOR'S RISK.

**DESIGN**

- DESIGN SPECIFICATIONS:
  - AASHTO LRFD GUIDE SPECIFICATIONS SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION, 2009, INCLUDING ALL INTERIM REVISIONS.
  - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020 INCLUDING ALL INTERIM REVISIONS.
  - THE 2024 EDITION OF THE NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION INCLUDING THE 2024 EDITION SUPPLEMENT.
  - MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) BRIDGE MANUAL, HUNDRETH ANNIVERSARY EDITION, 2024, INCLUDING ALL REVISIONS TO DATE.
- DESIGN LOADING:
  - PEDESTRIAN LIVE LOAD: 90 PSF
  - VEHICLE LIVE LOAD: H-10 TRUCK

**STRUCTURAL STEEL NOTES**

- ALL NEW STEEL SHAPES AND PLATES SHALL CONFORM TO THE LATEST PROVISIONS OF AASHTO DESIGNATION M 270 (ASTM DESIGNATION A 709) GRADE 36 OR 50.
- ALL STEEL COMPONENTS, FABRICATIONS, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 960 OF THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, INCLUDING THE LATEST SUPPLEMENTAL AND INTERIM SPECIFICATIONS.
- ALL STRUCTURAL STEEL COMPONENTS AND FASTENING HARDWARE SHALL BE HOT-DIPPED GALVANIZED AND PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PAINT SHALL BE DARK BRONZE (FEDERAL STD. 595B COLOR NO. 10045).
- ALL BOLTED CONNECTIONS SHALL UTILIZE HIGH STRENGTH BOLTS CONFORMING TO AASHTO M164 (ASTM A325).
- WASHERS MEETING AASHTO M293 (ASTM F436) ARE TO BE USED OVER ALL HOLES THAT ARE MORE THAN 1/16 INCH IN DIAMETER GREATER THAN THE BOLT DIAMETER AND UNDER ALL PARTS TURNED DURING ASSEMBLY.
- PRIOR TO FABRICATION, ALL MATERIALS SHALL BE BLAST-CLEANED TO AT LEAST SSPC-SP6 TO REMOVE ALL OIL, DIRT, GREASE, MILL SCALE AND OTHER DELETERIOUS MATERIALS FROM THE SURFACES OF THE STEEL TO BE FABRICATED.
- PRIOR TO GALVANIZING, ALL CORNERS AND EDGES OF STEEL WHICH HAVE BEEN FLAME CUT OR OTHERWISE HARDENED SHALL BE SOFTENED BY GRINDING OR BLAST-CLEANING TO PROVIDE A SURFACE SUITABLE FOR COATING.
- ALL EXISTING STEEL COMPONENTS TO BE IN CONTACT WITH NEW STRUCTURAL STEEL SHALL BE CLEANED TO SSPC-SP3, POWER TOOL CLEANING.
- WHEN STEEL DIE STAMPS ARE TO BE USED TO IDENTIFY PIECES AND MEMBERS, FABRICATORS SHALL UTILIZE LOW STRESS STAMPS.
- WELDING SHALL BE IN ACCORDANCE WITH THE LATEST STRUCTURAL WELDING CODE ANSI/AASHTO/AWS D1.5 (INCLUDING ALL INTERIMS TO DATE) AND APPLICABLE SUPPLEMENTAL AWS PUBLICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING TO MAINTAIN THE STRUCTURAL STABILITY OF STRUCTURES DURING CONSTRUCTION.

**TIMBER NOTES**

- SAWN LUMBER AND TIMBER SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL TIMBER, LUMBER, AND PILING, AASHTO M 168 AND SHALL BE AASHTO DESIGNATION SOUTHERN PINE NO. 1 OR EQUIVALENT.
- STRUCTURAL GLUED LAMINATED TIMBER SHALL CONFORM TO THE AMERICAN NATIONAL STANDARD ANSI/AITC A-190.1, SPECIFICATION FOR STRUCTURAL GLUED LAMINATED TIMBER AND SHALL BE AASHTO IDENTIFICATION NUMBER 47 FOR VISUALLY GRADED SOUTHERN PINE OR IDENTIFICATION NUMBER 2 FOR DOUGLAS FIR.
- ALL SAWN LUMBER SHALL BE SOUTHERN YELLOW PINE, PRESSURE TREATED TO A MINIMUM NET RETENTION OF 0.60 POUNDS PER CUBIC FOOT OF OIL-BORNE COPPER NAPHTHEANTE PRESERVATIVE, CONFORMING TO THE REQUIREMENTS OF THE AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARD OR AS NOTED ELSEWHERE. ACQ SHALL BE APPLIED BY A STANDARD PRESSURE PROCESS AND SHALL CONFORM TO THE RECOMMENDED PRACTICES OF THE AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA). EACH PIECE SHALL BEAR THE AMERICAN WOOD PRESERVERS BUREAU (AWPB) QUALITY MARK INDICATING COMPLIANCE WITH AWPB STANDARD LP-22.  
  
TIMBER BRIDGE RAILS AND EXPOSED TIMBER PLANKING SHALL BE TREATED WITH WATERBORNE PRESERVATIVES OR OIL-BORNE PRESERVATIVES IN LIGHT PETROLEUM SOLVENT PER AASHTO M 133.
- GLUED LAMINATED TIMBER DECKS SHALL BE TREATED WITH A PENTACHLOROPHENOL TYPE A OIL PRESERVATIVE CONFORMING TO AWPA STANDARD C-28 AND P-9. RETENTION LEVEL SHALL BE 0.5 PCF AS PER AWPA STANDARD C-28.
- PRESERVATION TREATMENT SHALL BE INSPECTED AND CERTIFIED IN ACCORDANCE WITH AASHTO M 133 AND AWPA STANDARD M2.
- ALL TREATED TIMBER MATERIALS SHALL FOLLOW POST-TREATMENT REQUIREMENTS SUMMARIZED IN BEST MANAGEMENT PRACTICES FOR THE USE OF TREATED WOOD IN AQUATIC ENVIRONMENTS (WWPI 1996) TO ENSURE ALL SURFACES ARE FREE OF EXCESS PRESERVATIVE AND CHEMICALS ARE FIXATED IN THE WOOD.
- TIMBER SHALL BE DRIED TO A MOISTURE CONTENT OF 19% OR LESS AFTER TREATMENT.
- ALL TIMBER COMPONENTS SHALL BE FABRICATED TO THE MAXIMUM EXTENT PRACTICABLE, INCLUDING CUTS, COUNTERBORES, AND HOLES, PRIOR TO TREATMENT.
- ALL FIELD CUTS, COUNTERBORES, AND HOLES SHALL BE TREATED WITH COPPER NAPHTHENATE IN ACCORDANCE WITH AWPA STANDARD M4.
- THREADS ON ALL HARDWARE SHALL BE PEENED OVER AFTER TIGHTENING. TOUCH UP GALVANIZING AFTER PEENING.
- ALL HARDWARE INCLUDING A-307 FASTENERS FOR TIMBER CONNECTIONS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A-123 OR ASTM A-153, AS APPLICABLE.
- PRE-DRILLING IS REQUIRED FOR ALL LAG, BOLT, AND DOWEL INSTALLATIONS. HOLES FOR DOWELS IN DECK SHALL BE SIZED TO PROVIDE A TIGHT FIT.
- ALL GLULAM SHALL BE CUT, DRILLED, AND COMPLETELY FABRICATED PRIOR TO PRESSURE TREATMENT WITH PRESERVATIVES.
- ALL WOOD AND METAL COMPONENTS SHALL BE HANDLED AND STORED CAREFULLY SO AS NOT TO DAMAGE THE MATERIAL. IF DAMAGE DOES OCCUR, EXPOSED UNTREATED WOOD SHALL BE FIELD TREATED IN ACCORDANCE WITH AASHTO M 133.
- HARDWARE SHALL BE COUNTERSUNK WHERE NOTED, WITH THREADED BOLT ENDS AND NUTS PLACED ON THE OUTSIDE OF WALKWAY.
- TIMBER SURFACES AND EDGES SHALL BE PLANED AND SANDED SMOOTH.
- WATERPROOFING MEMBRANE SHALL BE COMPATIBLE WITH THE WOOD PRESERVATIVE.
- THE TOPS OF ALL STRINGERS AND OTHER MEMBERS SUPPORTING DECKING AND GLULAM PANELS SHALL BE CAPPED WITH TAR PAPER PER MASSDOT STANDARD SPECIFICATION SECTION M9.06.2. TAR PAPER SHALL ALSO BE PLACED BETWEEN THE BOTTOM OF TIMBER MEMBERS AND SUPPORTING STEEL STRINGERS.

**CONCRETE NOTES**

- ALL CONCRETE SHALL BE MASSDOT 4000 PSI, 3/4 IN., 610 CEMENT CONCRETE
- ALL EXPOSED EDGES AND REENTRANT CORNERS NOT OTHERWISE DETAILED ON THE PLANS SHALL HAVE A MINIMUM OF 3/4" CHAMFER.

**REINFORCING STEEL**

REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS
1. NONE	21"	26"
2. 12" OF CONCRETE BELOW BAR	29"	36"
3. COATED BARS, COVER < 3DB, OR CLEAR SPACING < 6DB	31"	39"
4. COATED BARS, ALL OTHER CASES	25"	31"
5. CONDITION 2. AND 3.	35"	44"
6. CONDITION 2. AND 4.	34"	43"

IF THE ABOVE BARS ARE SPACED 6" OR MORE ON CENTER, THE LAP LENGTH SHALL BE 80% OF THE LAP LENGTH GIVEN ABOVE. ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

ALL REINFORCING STEEL SHALL BE EPOXY COATED.

**CLEANING**

- THE EXISTING BRIDGE STRUCTURE SHALL BE CLEANED OF ALL LOOSE DEBRIS AND VEGETATION. CLEANING METHODS SHALL BE LIMITED TO MECHANICAL METHODS AND CLEAN COMPRESSED AIR WITH NO ABRASIVES OR SOLVENTS. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONTAIN POTENTIAL CONTAMINANTS (e.g. BIRD GUANO). CLEANING SHALL BE CONSIDERED INCIDENTAL TO ITEM 992.12 EXCEPT THAT CLEANING OF MASONRY JOINTS TO BE POINTED AND GROUTED SHALL BE INCIDENTAL TO ITEM 685.3.
- THE CONTRACTOR SHALL PROVIDE PROTECTIVE DEVICES AS REQUIRED TO PREVENT ANY DAMAGE TO THE WORK AND TO OTHER PROPERTY OR PERSONS UNDER OR AROUND THE BRIDGE STRUCTURES DURING CLEANING AND CONSTRUCTION OPERATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT NO DEBRIS FALLS INTO ANY PROPERTY DURING WORK ON THE BRIDGE. THE USE OF SUSPENDED NETS OR TARPS TO CATCH FALLING DEBRIS SHALL BE EMPLOYED. ANY MATERIAL THAT DOES ENTER ANY PROPERTY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING ANY EXISTING PAINT THAT MAY BE REMAINING FOR LEAD CONTENT PRIOR TO PERFORMING ANY WORK. THE LEAD PAINT TEST SHALL BE PERFORMED BY A CERTIFIED LEAD PAINT TESTING COMPANY. IF LEAD IS PRESENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MITIGATION NECESSARY FOR THE PROPOSED WORK IN ACCORDANCE WITH STATE AND FEDERAL REQUIREMENTS.
- REFER TO PART 4 "SPECIAL CONDITIONS OF THE CONTRACT" REGARDING GENERAL REQUIREMENTS WORK INVOLVING PAINTED STEEL AND PIGEON WASTE. NO SEPARATE PAYMENT SHALL BE MADE FOR COMPLYING WITH THESE REQUIREMENTS.

**SHIELDING NOTES**

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT NO DEBRIS FALLS ONTO THE ROADWAY BELOW THE LINDEN STREET BRIDGE. THE METHOD FOR SHIELDING SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR APPROVAL.
- ANY MATERIAL THAT DOES ENTER ANY ROADWAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.

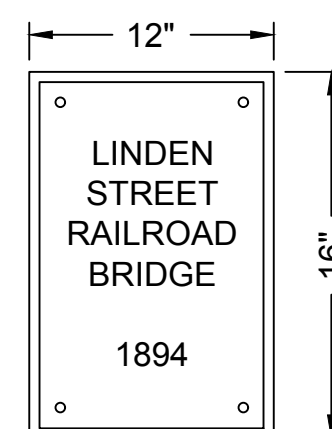
**PROTECTIVE SCREEN NOTES**

- PROTECTIVE SCREEN DETAILING SHALL GENERALLY BE IN ACCORDANCE WITH THE MASSDOT TYPE 1 PROTECTIVE SCREEN STANDARD DETAIL DATED APRIL 2024, INCLUDING CLAMPS, SPLICES, AND TENSION BAND CONNECTIONS.
- USE 6 GAGE TIES AT 12" O.C. TO ALL POSTS AND TOP 3 RAILS. SPACE TIES TO BOTTOM RAIL AT 6" O.C.
- ALL ALUMINUM, INCLUDING HARDWARE AND FABRIC, SHALL RECEIVE A 4±1 MIL POLYESTER POWDER COAT FINISH. THE COLOR SHALL BE BLACK.
- THE CHAIN LINK FABRIC SHALL BE SECURED BY KNUCKLING TOGETHER THE CUT ENDS OF THE FABRIC WIRE IN A MANNER SIMILAR TO THE ORIGINALLY MANUFACTURED END.

**PROTECTIVE SCREEN MATERIALS**

- POST AND RAILS \_\_\_\_\_ ASTM B 221, ALLOY 6061-T6, SCHEDULE 40 PIPE
- TENSION BARS, RAIL SPLICES, WASHERS, AND POST CONN. CLAMPS \_\_\_\_\_ ASTM B 221, ALLOY 6061-T6
- FABRIC AND TIES \_\_\_\_\_ AASHTO M 181 TYPE III ALLOY 6061-T89 OR T94; 6 GAGE
- TENSION BANDS \_\_\_\_\_ ASTM B 221, ALLOY 6063-T5
- BOLTS \_\_\_\_\_ ASTM B 316, ALLOY 2024-T4
- NUTS \_\_\_\_\_ ASTM B 316, ALLOY 6061-T6
- PROTECTIVE SCREEN CLAMPS \_\_\_\_\_ ASTM B 221, ALLOY 6061-T6

**BRONZE PLAQUE**



**NOTES**

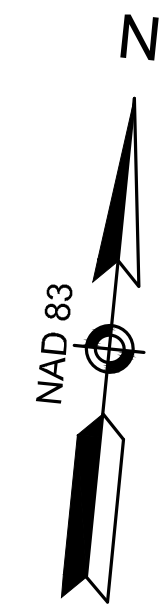
- ONE PLAQUE EACH TO BE INSTALLED ON THE NORTHEAST AND SOUTHWEST TRUSS END CHORDS.
- SEE SPECIAL PROVISION 992.121 FOR ADDITIONAL REQUIREMENTS.

**WALTHAM  
MCRT WALTHAM LINDEN STREET BRIDGE**

SHEET NO.	TOTAL SHEETS
9	15

MADCR PROJECT NO. P25-3582-C1A

**STRUCTURAL NOTES**

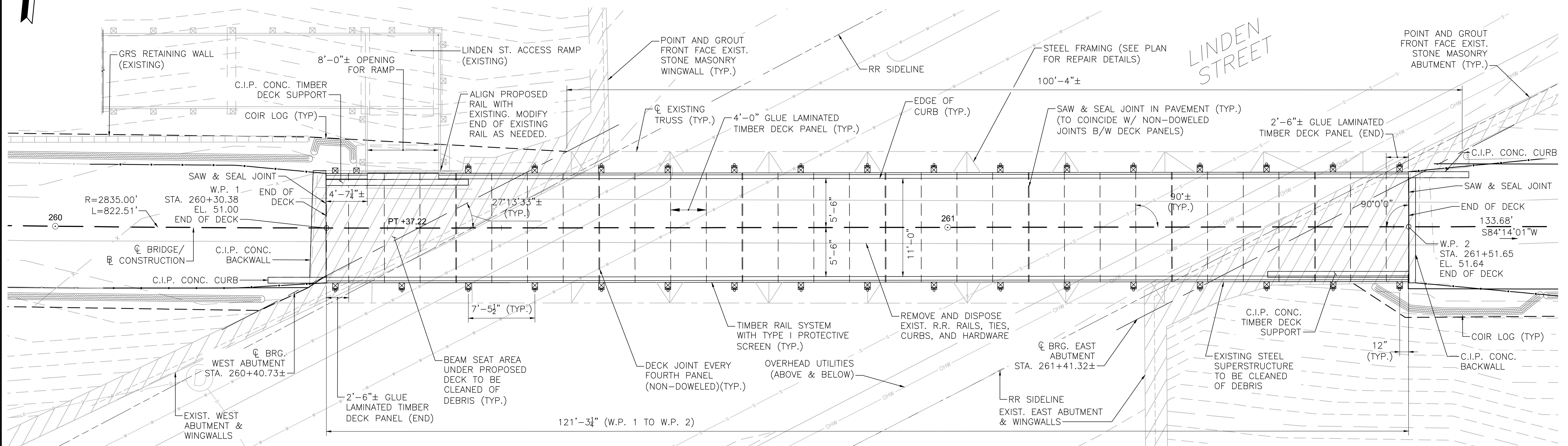


**WALTHAM  
MCRT WALTHAM LINDEN STREET BRIDGE**

SHEET NO.	TOTAL SHEETS
10	15

MADCR PROJECT NO. P25-3582-C1A

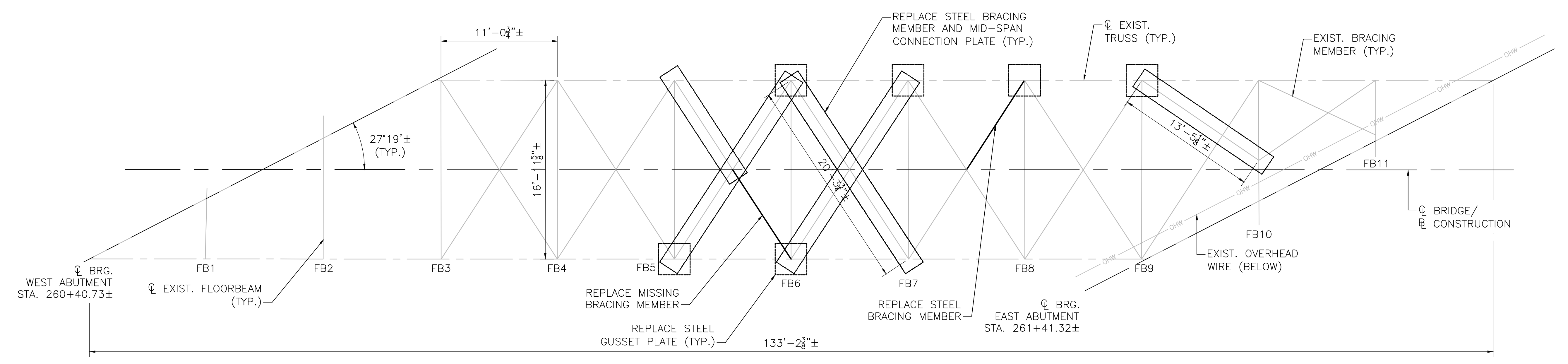
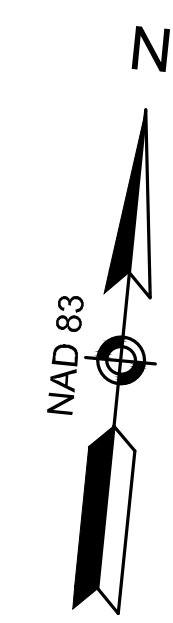
**BRIDGE PLAN - 1  
BRIDGE No. 113  
LINDEN ST. BRIDGE**



**NOTE:**

- BRIDGE ORIENTATION, STATIONING, DIMENSIONS, AND ELEVATIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY AND HAVE NOT BEEN FULLY FIELD VERIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MEASURING ALL EXISTING ELEMENTS FOR THE PURPOSE OF LAYING OUT THE GEOMETRY, ORIENTATION, STATIONING, AND ELEVATIONS FOR THE PROPOSED STRUCTURE.

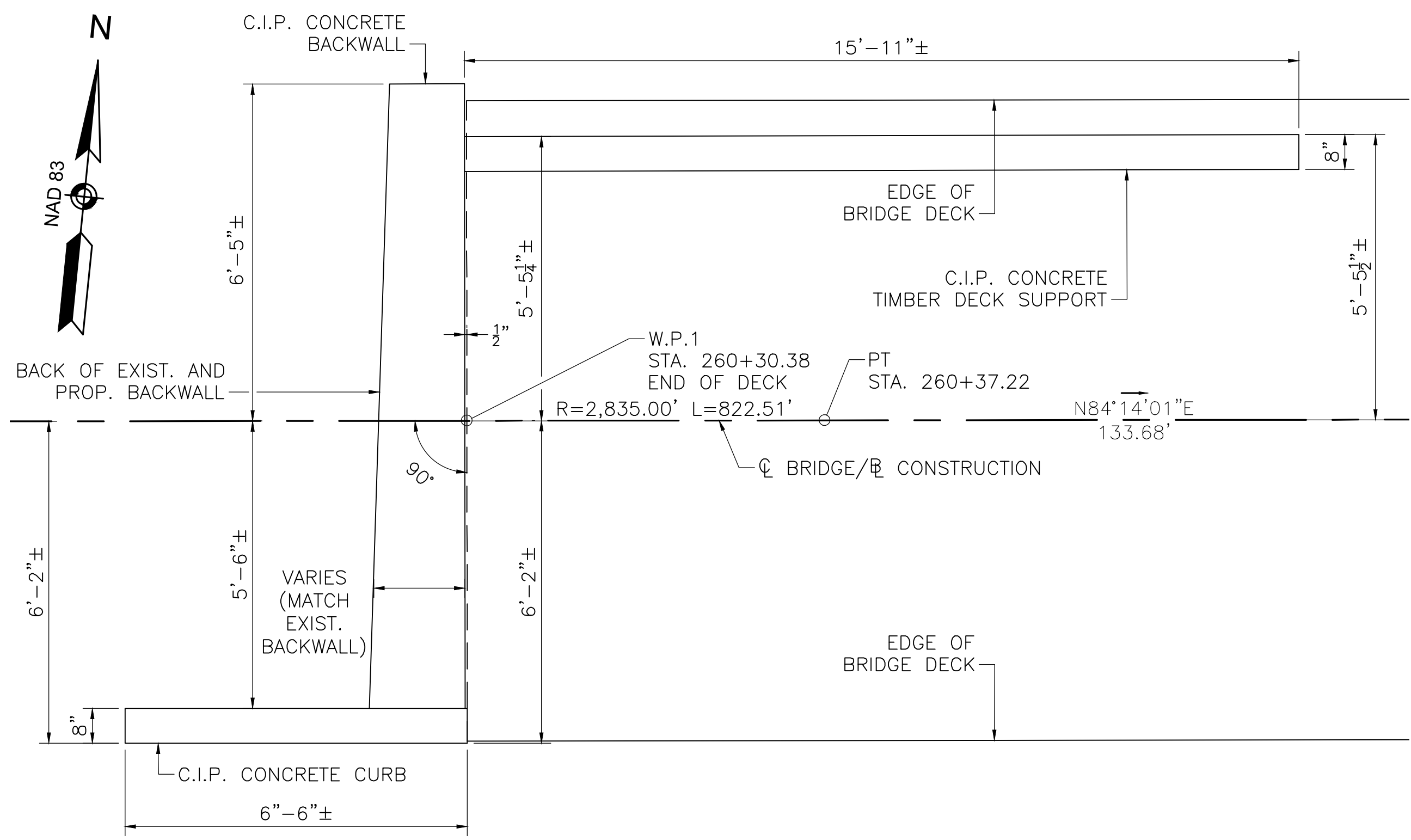
**PLAN VIEW**  
SCALE: 3/16" = 1'-0"



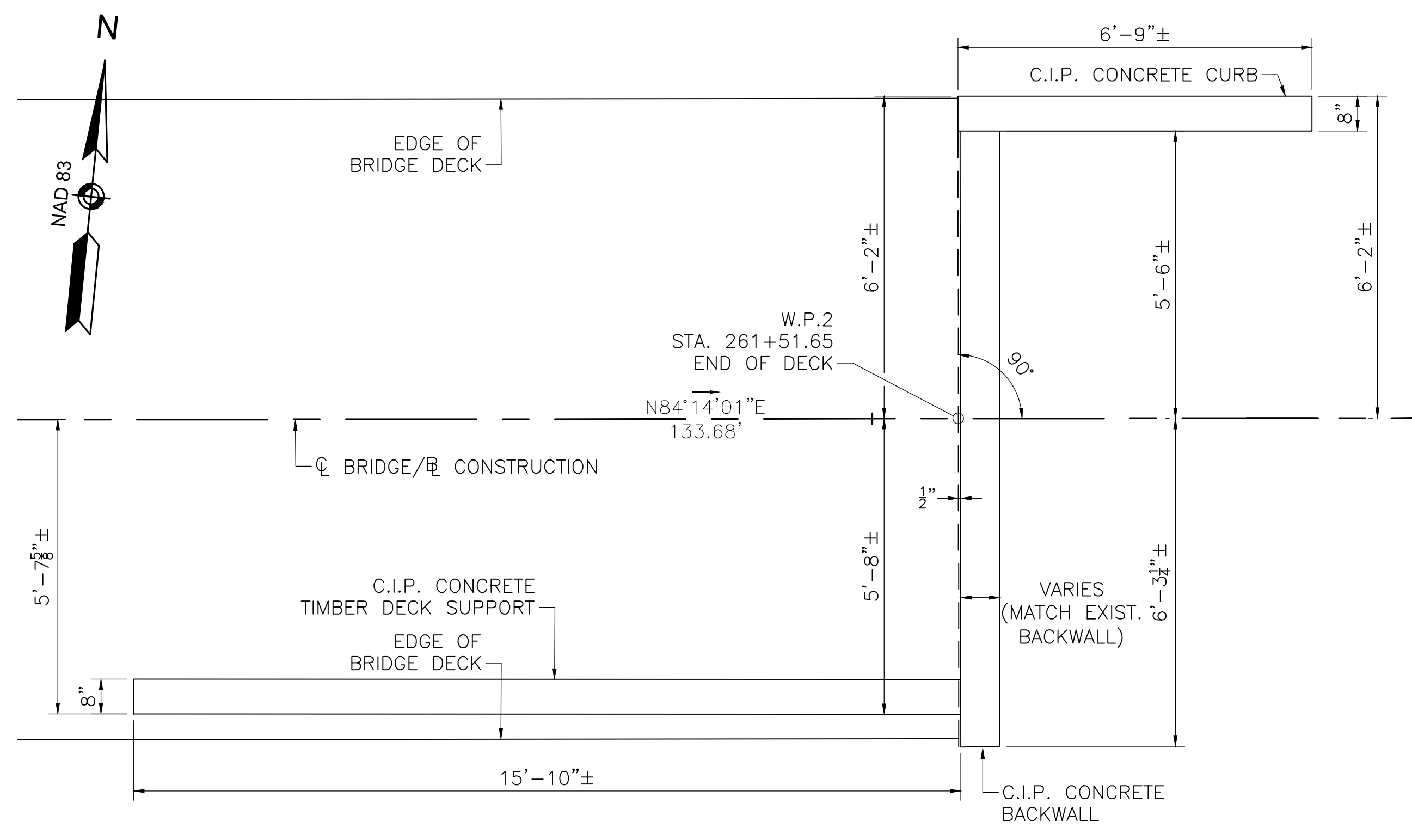
**FRAMING PLAN-LOWER BRACING (REPAIRS)**  
SCALE: 3/16" = 1'-0"

00000\_BR(LINDEN BRIDGE PLAN).DWG Plotted on: 23-Sep-2024 2:41 PM

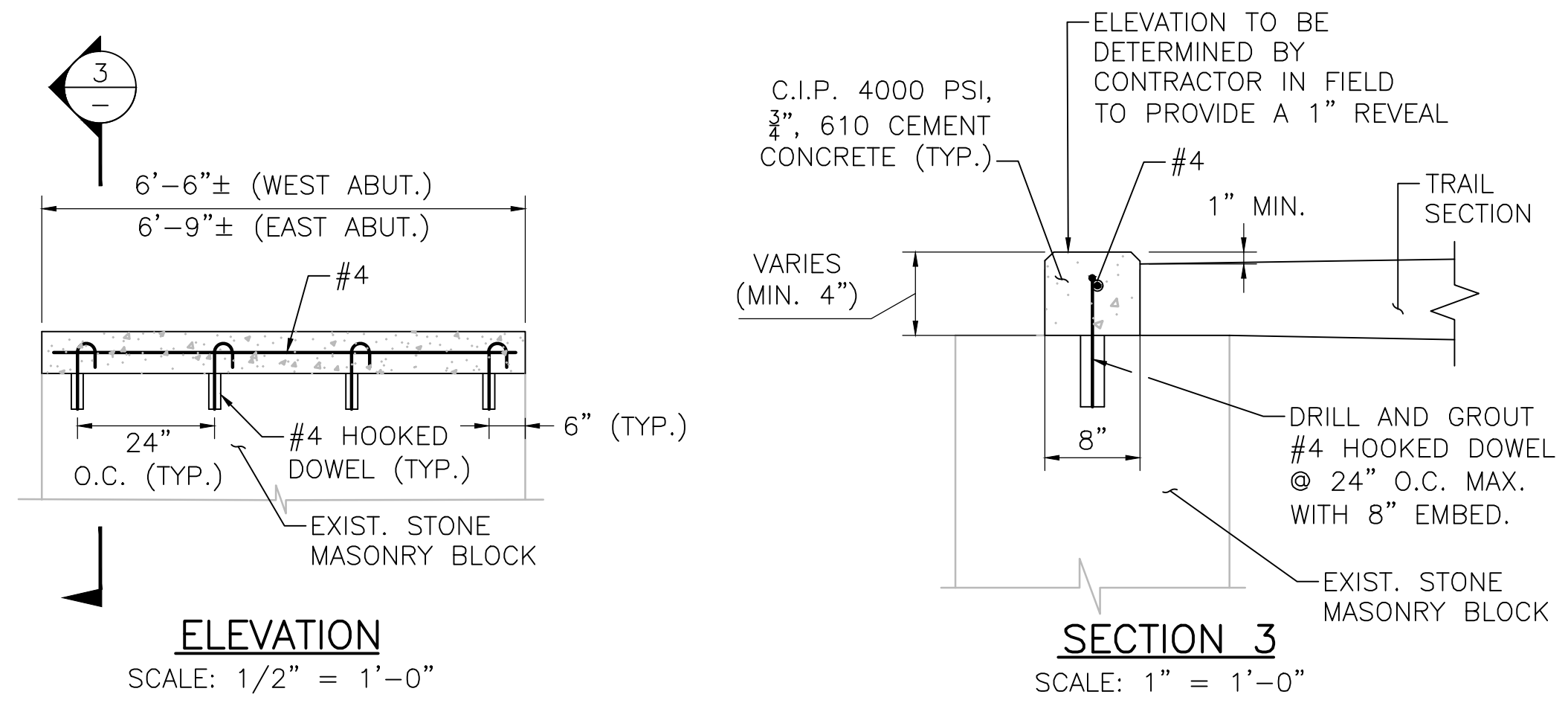




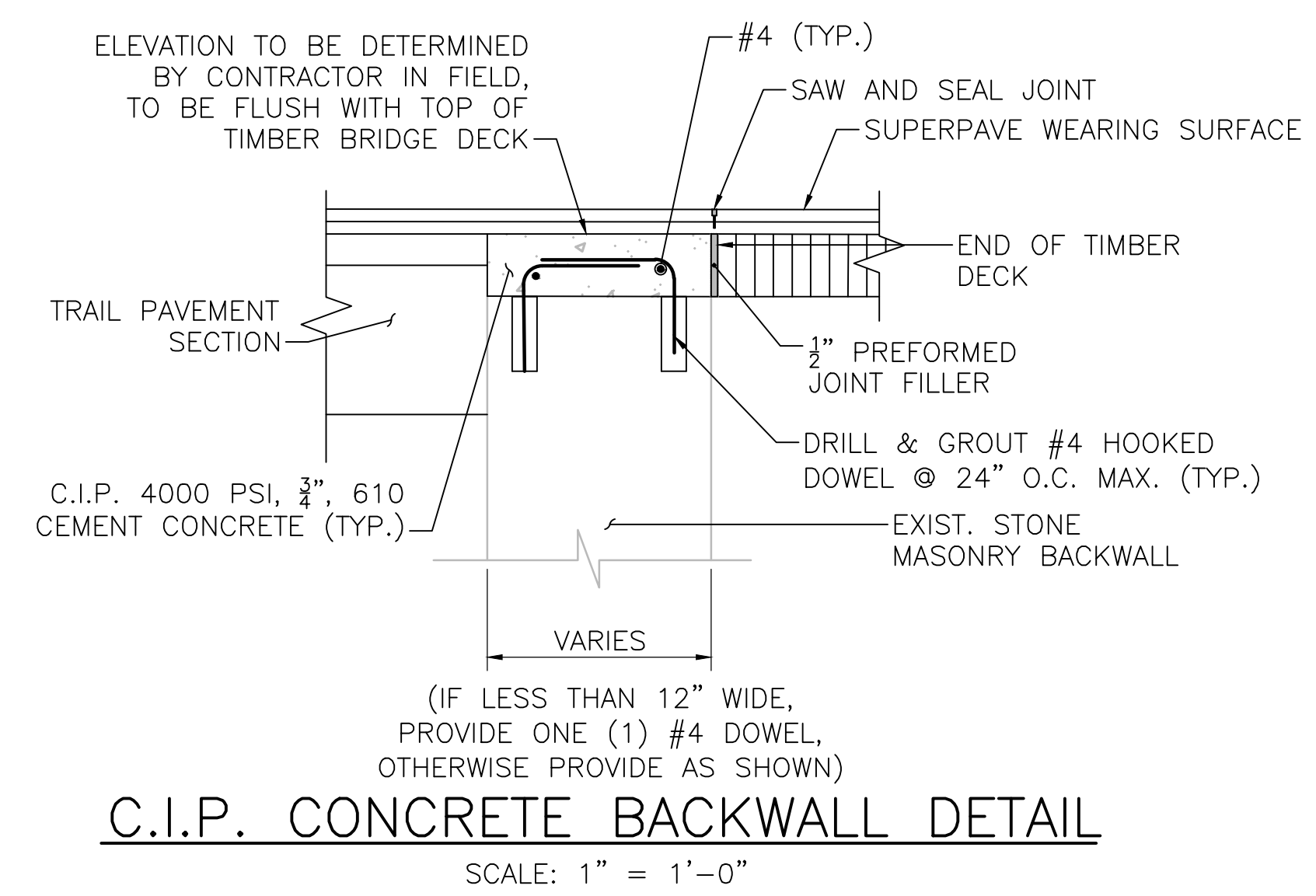
**WEST ABUTMENT C.I.P. CONCRETE BACKWALL LAYOUT**  
SCALE: 1/2" = 1'-0"



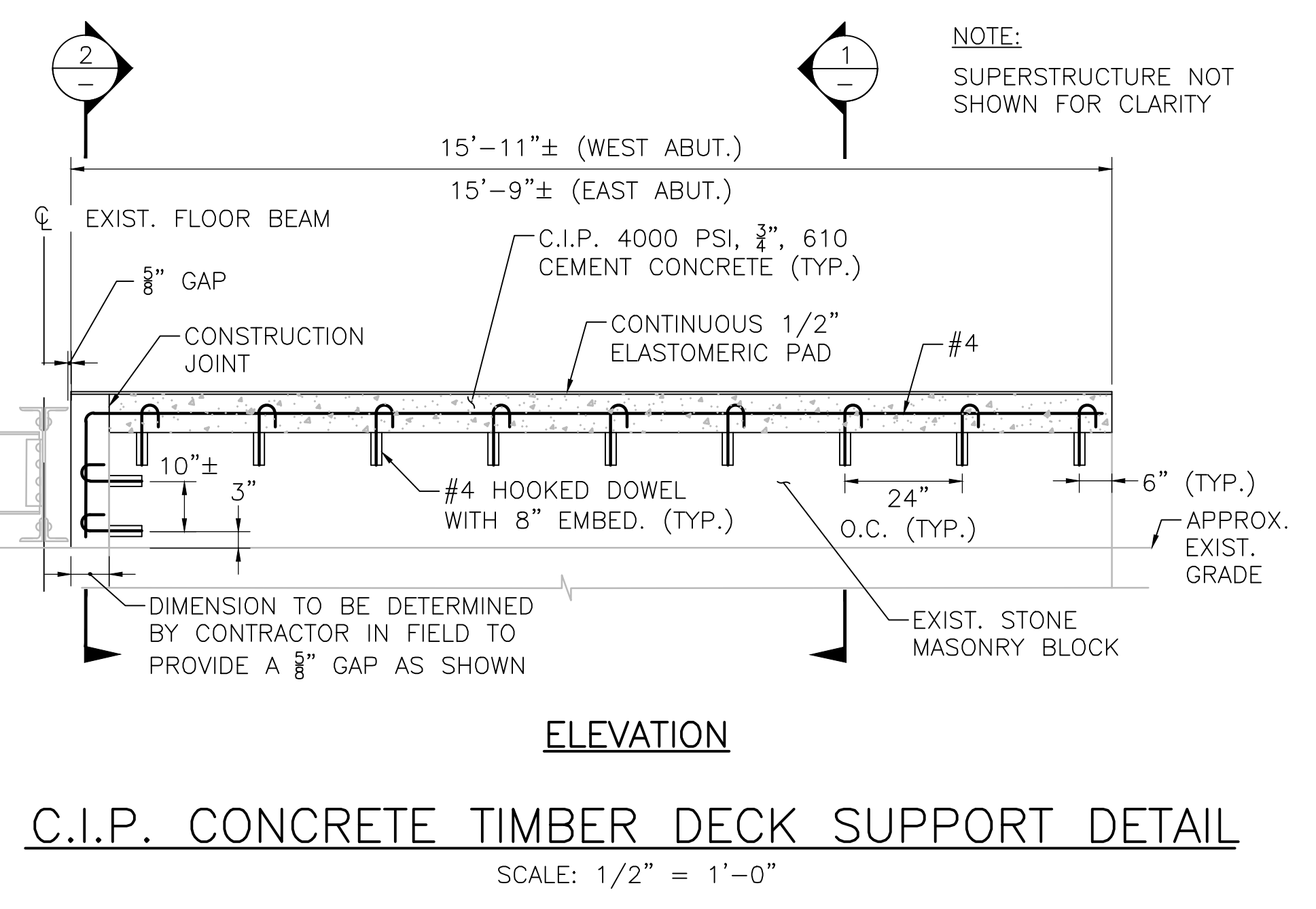
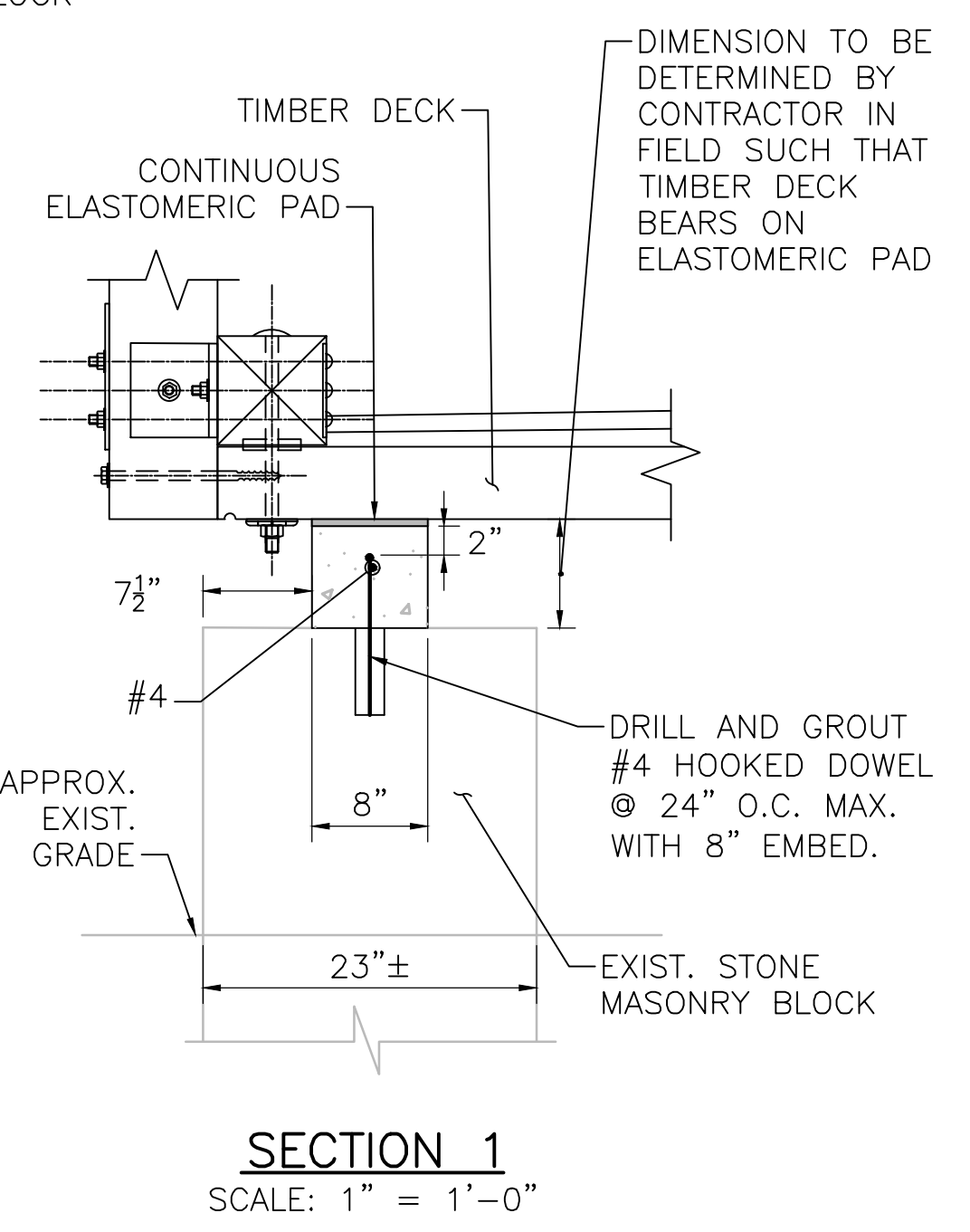
**EAST ABUTMENT C.I.P. CONCRETE BACKWALL LAYOUT**  
SCALE: 1/2" = 1'-0"



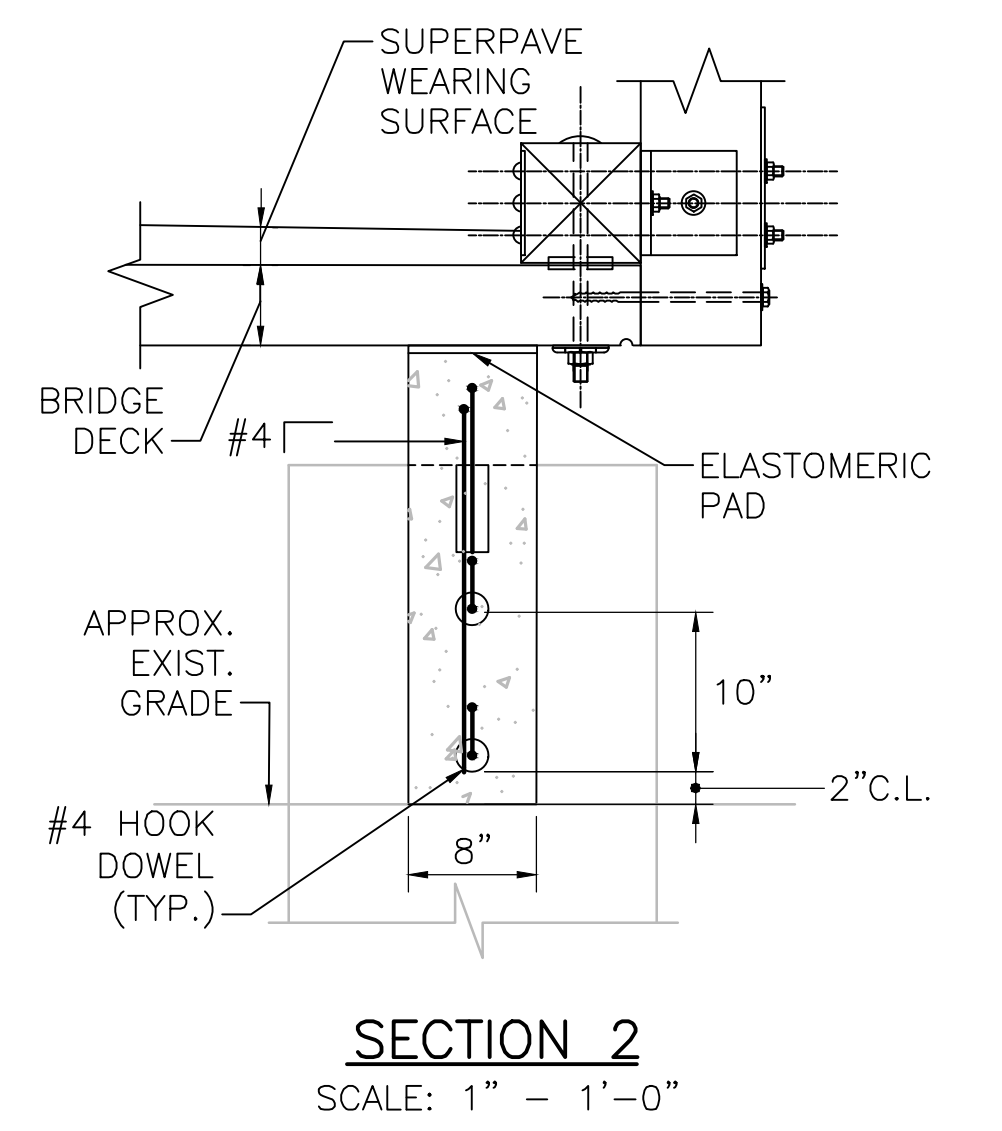
**C.I.P. CONCRETE CURB DETAIL**



**C.I.P. CONCRETE BACKWALL DETAIL**  
SCALE: 1" = 1'-0"



**C.I.P. CONCRETE TIMBER DECK SUPPORT DETAIL**  
SCALE: 1/2" = 1'-0"

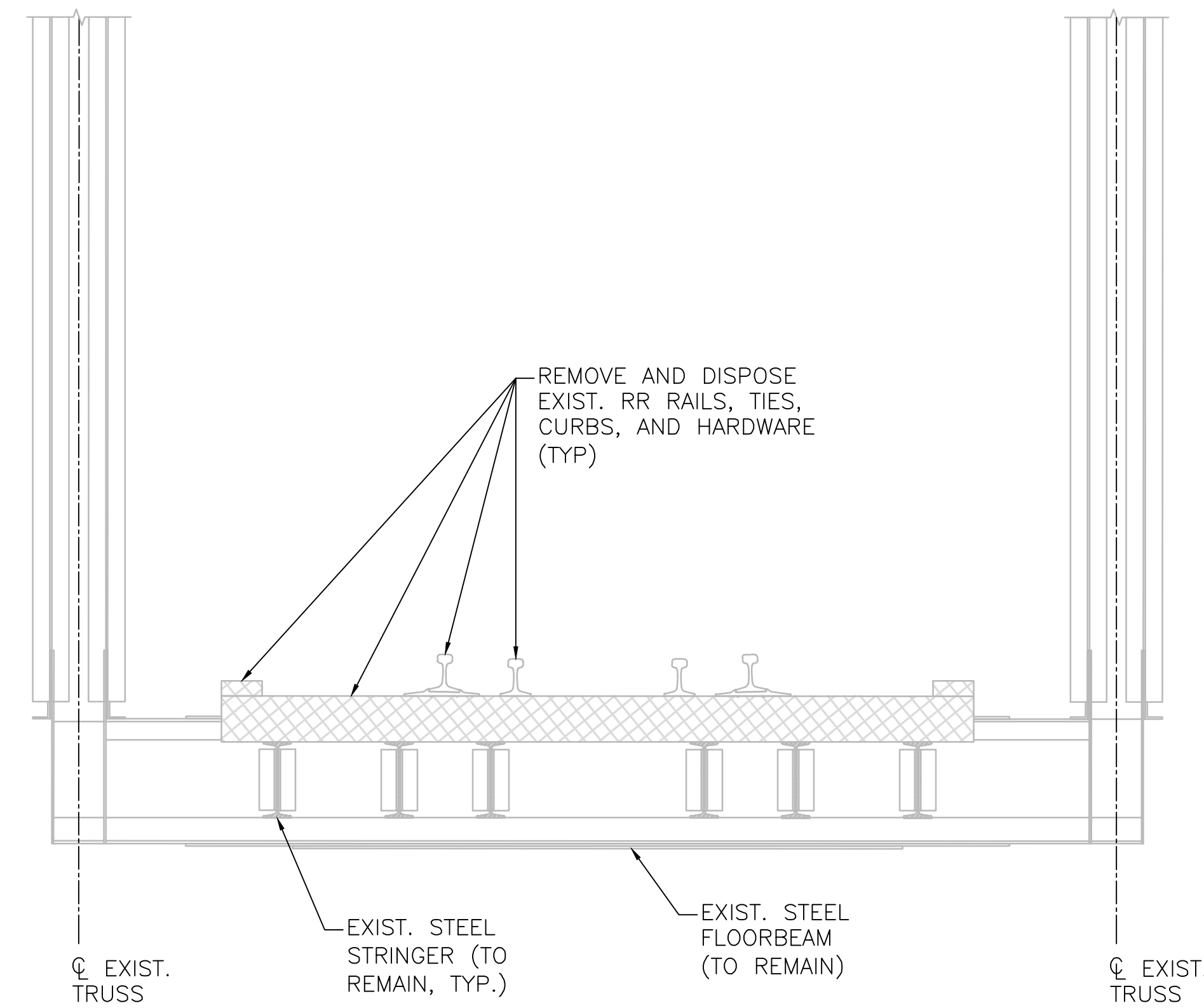


**SECTION 2**  
SCALE: 1" = 1'-0"

SHEET NO.	TOTAL SHEETS
12	15

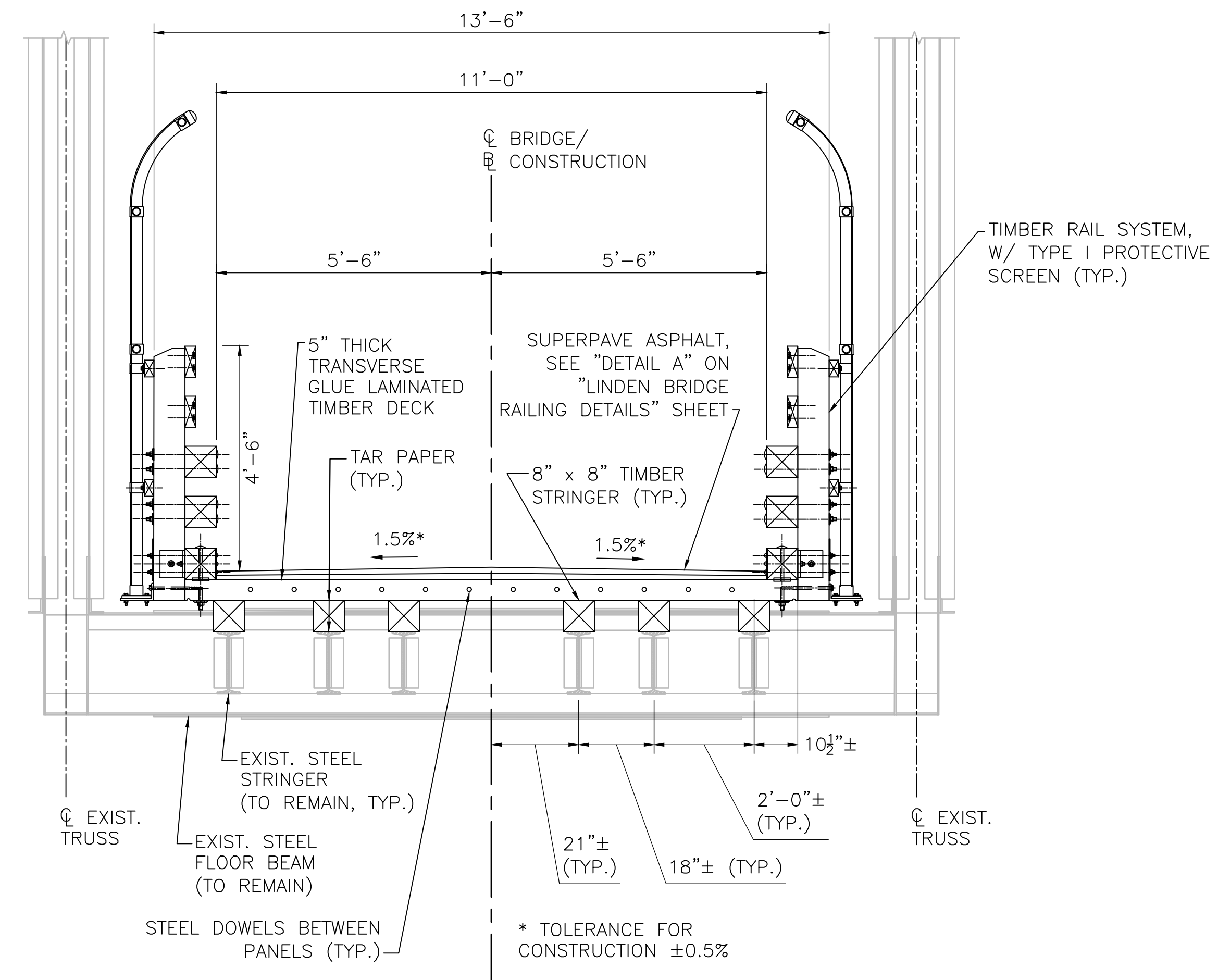
MADCR PROJECT NO. P25-3582-C1A

**BRIDGE PLAN - 3**  
**BRIDGE No. 113**  
**LINDEN BRIDGE DETAILS**



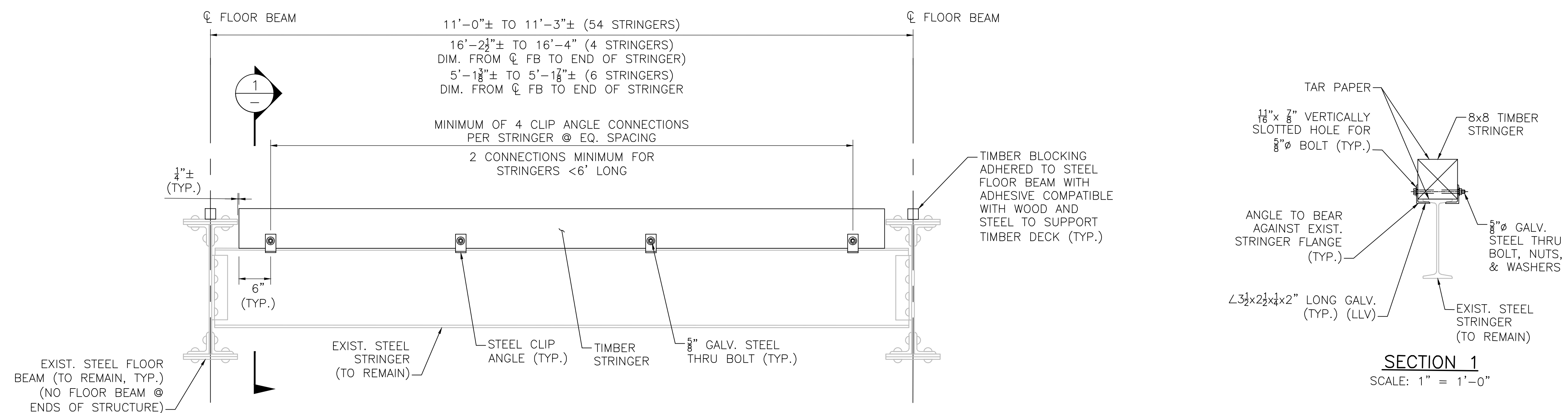
**EXISTING DEMOLITION SECTION**

SCALE: 1/2" = 1'



**TYPICAL BRIDGE SECTION**

SCALE: 1/2" = 1'



**TYPICAL TIMBER STRINGER TO STEEL STRINGER CONNECTION**

SCALE: 1" = 1'-0"



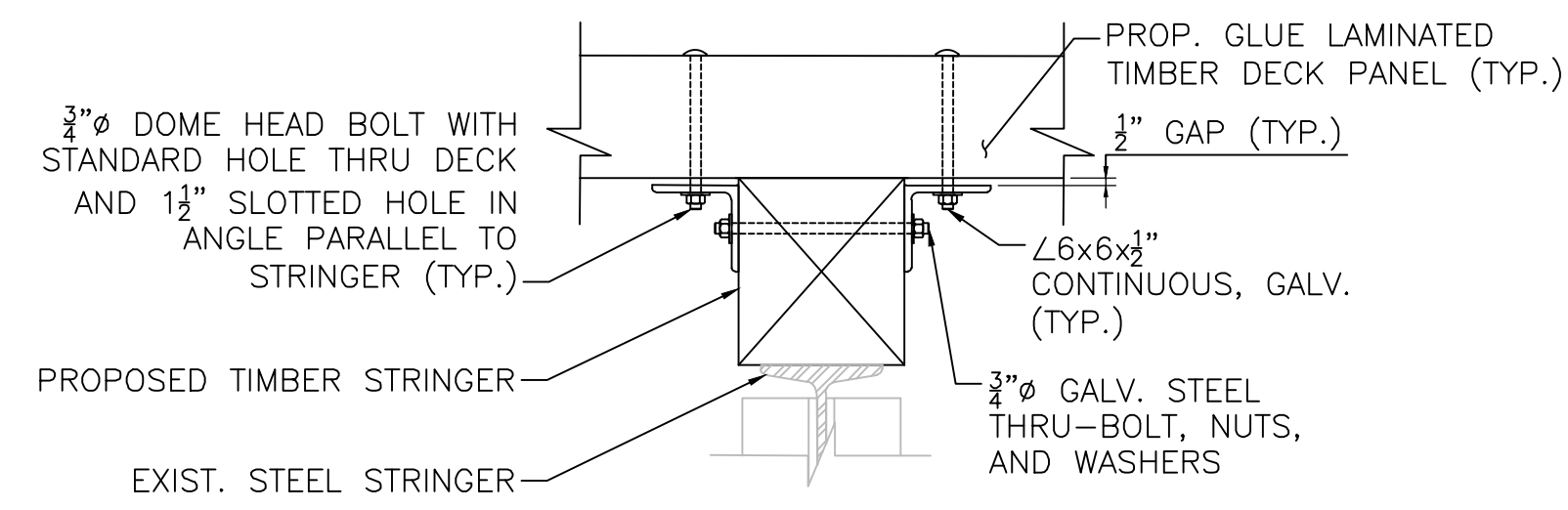
SHEET NO.	TOTAL SHEETS
13	15

MADCR PROJECT NO. P25-3582-C1A

BRIDGE PLAN - 4  
BRIDGE No. 113  
LINDEN BRIDGE DECK DETAILS

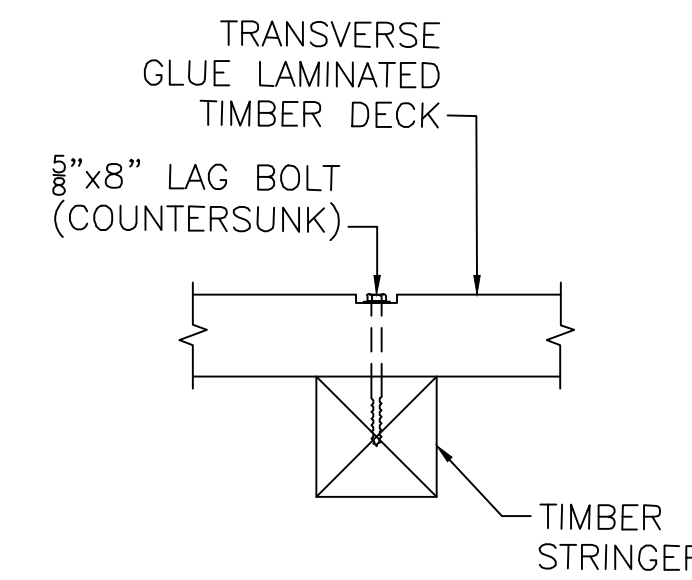
**NOTE:**

TWO CONNECTIONS SHALL BE PROVIDED PER PANEL PER STRINGER. THE CONNECTIONS SHALL BE CENTERED 1'-0" AWAY FROM THE PANEL EDGES.



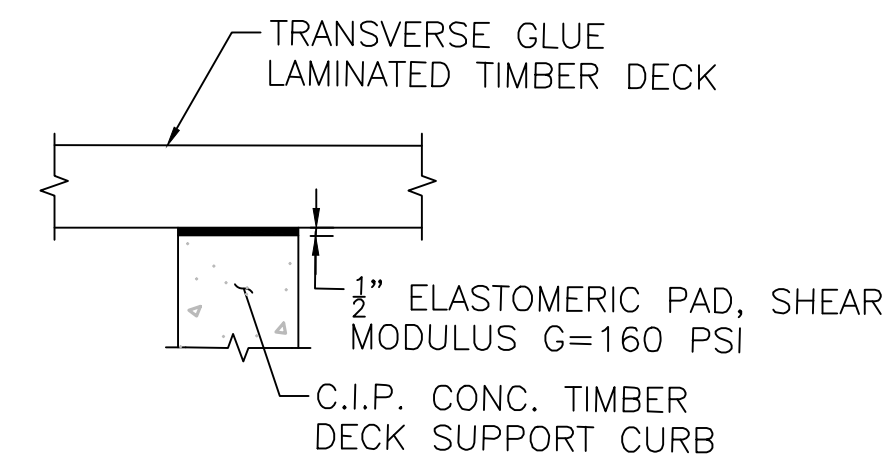
DECK PANEL TO STRINGER  
CONNECTION DETAIL-SECTION

NOT TO SCALE



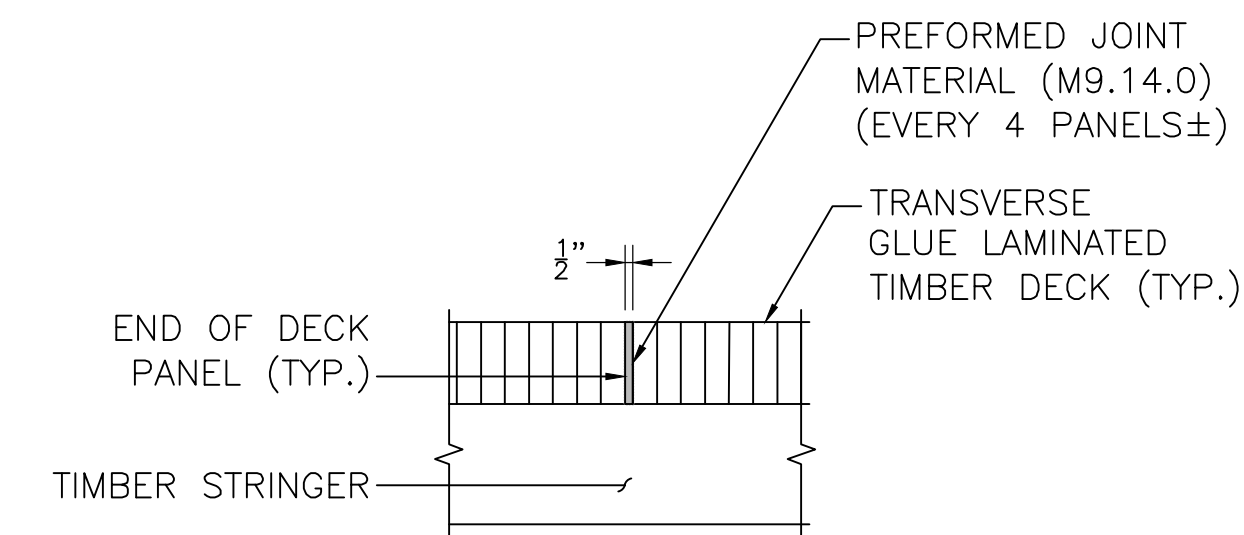
DECK PANEL CONNECTION  
DETAIL-ALTERNATE

(ONLY TO BE USED WHERE TYPICAL DECK PANEL CONNECTION  
DETAIL CANNOT BE MADE DUE TO ACCESS RESTRICTIONS)  
SCALE: 1" = 1'-0"



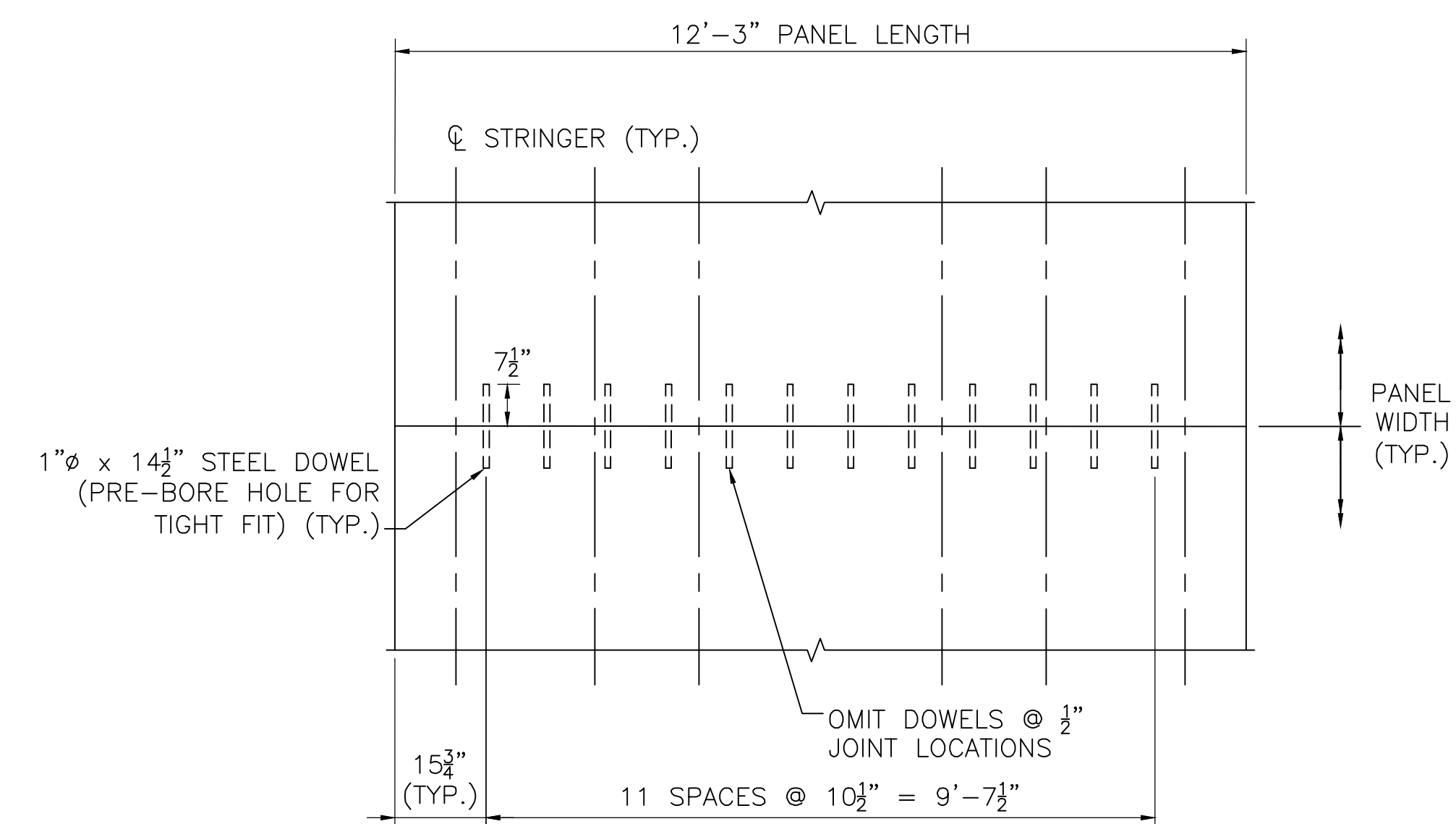
DECK PANEL OVER  
CONCRETE CURB DETAIL

SCALE: 1" = 1'-0"



DECK JOINT DETAIL

SCALE: 1" = 1'-0"



DECK DOWEL CONNECTION DETAIL

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



**WALTHAM  
MCRT WALTHAM LINDEN STREET BRIDGE**

SHEET NO.	TOTAL SHEETS
15	15

MADCR PROJECT NO. P25-3582-C1A

**CROSS SECTIONS**

