

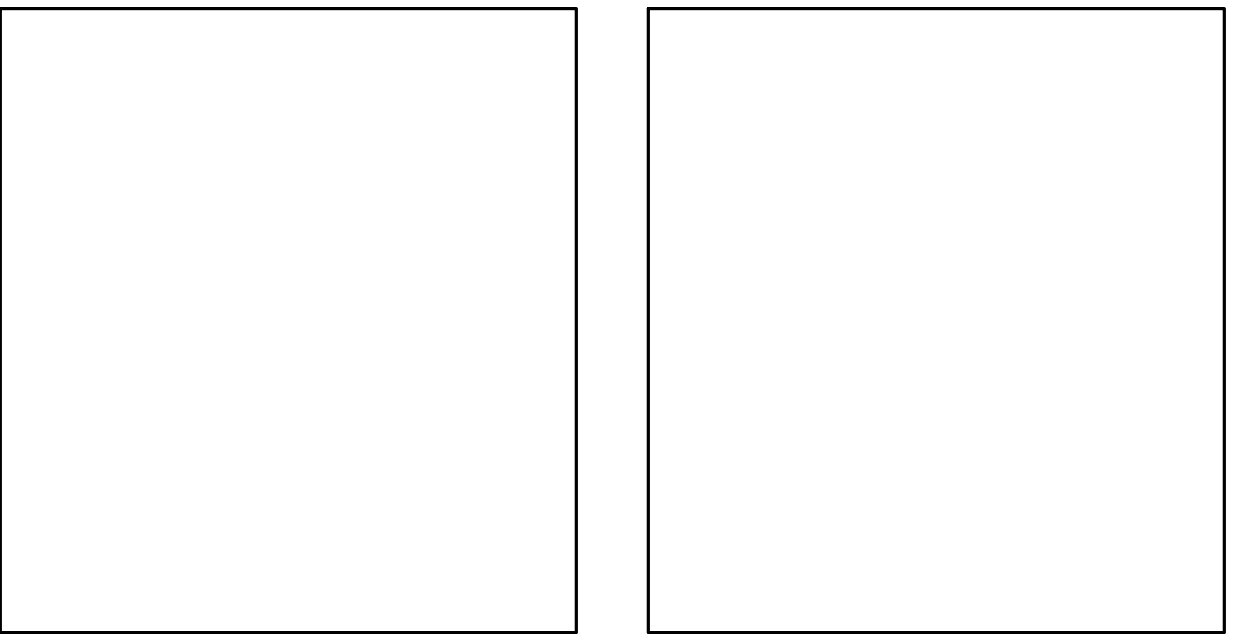
TOWN OF WEBSTER, MASSACHUSETTS
BIGELOW ROAD
WATER TREATMENT PLANT
DWRSF PROJECT NO. 10380
PERMIT SET
SEPTEMBER 2023

LIST OF DRAWINGS		
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GENERAL		
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CIVIL		
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7	C-105	SITE GRADING AND DRAINAGE PLAN
8	C-106	SITE UTILITY PLAN
9	C-107	SITE LANDSCAPING PLAN
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ELECTRICAL		
24	E-201	ELECTRICAL LIGHTING PLAN - WTP



LOCATION MAP
SCALE: 1" = 20,000'

PREPARED BY:
Tighe&Bond



TOWN ADMINISTRATOR
RICHARD LAFOND

WATER SUPERINTENDENT
THOMAS CUTLER

BOARD OF SELECTMEN
EARL GABOR, CHAIRMAN
TOM KLEBART, VICE-CHAIRMAN
RANDY BECKER, SECRETARY
LISA KONTOES, SELECTMAN
MARK ROGERS, SELECTMAN

WATER COMMISSIONERS
TOM ANDRADE, CHAIRMAN
EARL GABOR, VICE-CHAIRMAN
MARC BECKER, MEMBER
DAN DUTEAU, MEMBER

NOT FOR CONSTRUCTION

COMPLETE SET 24 SHEETS

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Tighe & Bond 3:11PM W5002 Webster MA 024 PFAS Water Treatment Drawings - Figures Bigelow 01-Civil W5002-024 Bigelow Cover Sheet.dwg

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE	-----	-----
LIMITS OF WORK	-----	-----
INTERMEDIATE CONTOURS	-----	-----
INDEX CONTOURS	--- 25 ---	--- 25 ---
SPOT GRADE	X 141.2	+ 32.0
MAGNITUDE & DIRECTION OF SLOPE		← 0.0%
STORM DRAIN	--- SD ---	--- SD ---
GRAVITY SANITARY SEWER	--- SS ---	--- SS ---
SANITARY SEWER FORCE MAIN	--- SFM ---	--- SFM ---
WATER SERVICE	--- W ---	--- W ---
POTABLE WATER	--- PW ---	--- PW ---
RAW WATER	--- RW ---	--- RW ---
UNDERGROUND ELECTRIC	--- E ---	--- E ---
GAS SERVICE	--- G ---	--- G ---
OVERHEAD UTILITY	--- OHW ---	--- OHW ---
CURB	=====	=====
EDGE OF PAVEMENT	-----	-----
DIRT ROAD	-----	-----
STONE WALL	~ ~ ~ ~ ~	~ ~ ~ ~ ~
FENCE	X X X	X X X
STORM DRAIN STRUCTURES	MANHOLE (M) S CATCH BASIN (CB)	MANHOLE (M) CATCH BASIN (CB)
SANITARY SEWER MANHOLE	HYDRANT (H) VALVE (V)	HYDRANT (H) VALVE (V)
WATER SERVICE STRUCTURES	MANHOLE (M) VALVE (V)	MANHOLE (M) VALVE (V)
GAS SERVICE STRUCTURES	MANHOLE (M) LIGHT (L)	MANHOLE (M) LIGHT (L)
ELECTRIC SERVICE STRUCTURES		UTILITY CO. POLE # (P) MANHOLE (M) LIGHT (L)
TREELINE	~~~~~	~~~~~
25-FOOT BUFFER TO WETLAND	-----	-----
50-FOOT BUFFER TO WETLAND	-----	-----
100-FOOT BUFFER TO WETLAND	-----	-----
100-YEAR FLOOD ELEVATION	-----	-----
ZONE 1	-----	-----
DEMOLITION / GEOTECHNICAL		
EROSION & SEDIMENT CONTROL	=====	=====
UTILITY TO BE ABANDONED	//////////	//////////
UTILITY TO BE DEMOLISHED	xxxxxxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxxxxxx
ITEM TO BE DEMOLISHED		
TEST PIT		
MONITORING WELL		
BORING		

EROSION CONTROL AND RESOURCE AREA PROTECTION NOTES

- PROVIDE ALL EROSION CONTROL MEASURES SHOWN, SPECIFIED, REQUIRED BY PERMIT, AND/OR REQUIRED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED. INSPECT AFTER EACH RAINSTORM AND DURING MAJOR STORM EVENTS TO CONFIRM THAT ALL SEDIMENTATION AND EROSION CONTROL MEASURES REQUIRED ARE IN PLACE AND EFFECTIVE.
- PRIOR TO STARTING WORK, CLEARLY STAKE WORK LIMITS. DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE PROPOSED LIMITS. COORDINATE WITH THE ENGINEER FOR LOCATIONS OF TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.
- INSTALL SILT SACKS OR OTHER APPROVED SEDIMENTATION BARRIERS IN/AT ALL CATCH BASINS IN THE PROJECT AREA.
- COMPACT, STABILIZE, AND LOAM AND SEED SIDE SLOPES, SHOULDER AREAS AND DISTURBED VEGETATED AREAS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS REQUIRED BY PERMITS. GRADE SIDE SLOPES, SHOULDER AREAS AND DISTURBED VEGETATED AREAS TO A MAXIMUM SLOPE OF 3 HORIZONTAL TO 1 VERTICAL (3H:1V), WHERE POSSIBLE. PROVIDE BIODEGRADABLE EROSION CONTROL BLANKETS TO PREVENT EROSION WHERE SLOPES ARE STEEPER THAN 3H:1V.
- SETTLE OR FILTER ALL SILT-LADEN WATER FROM DEWATERING ACTIVITIES IN A SEDIMENTATION OR FILTER BAG TO REMOVE SEDIMENTS PRIOR TO RELEASE USING A SEDIMENTATION OR FILTER BAG LOCATED DOWN-GRADIENT OF THE DEWATERED AREA.
- SWEEP, COLLECT, REMOVE AND DISPOSE OF ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS AT THE END OF EACH DAY.
- LOAM AND SEED ALL DISTURBED VEGETATED AREAS TO ESTABLISH COVER AND STABILIZATION AS SOON AS POSSIBLE FOLLOWING DISTURBANCE.
- MAINTAIN AN ADDITIONAL SUPPLY OF EROSION CONTROL MEASURES ON-SITE FOR EMERGENCY REPAIRS.
- STORE FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS IN A SECONDARY CONTAINER AND REMOVE TO A SECURE LOCKED AND COVERED AREA DURING NON-WORK HOURS.

SURFACE RESTORATION NOTES

- ALL PAVEMENT DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- PROVIDE SITE GRADING AT HANDICAPPED RAMPS, SIDEWALKS, AND BUILDING ENTRANCES THAT IS CONSISTENT WITH THE RELEVANT ACCESS REQUIREMENTS OF THE ARCHITECTURAL BARRIERS ACT (ABA), THE AMERICANS WITH DISABILITIES ACT (ADA), AND MA ARCHITECTURAL ACCESS BOARD REQUIREMENTS (AAB). SMALL CHANGES IN GRADE OVER RELATIVELY SHORT DISTANCES (E.G. AT PARKING SPACES, ACCESSIBLE ROUTES, AND RAMPS) MIGHT NOT BE CLEARLY DEPICTED WITHIN THE CONTOUR INTERVAL SHOWN. COMPLY WITH THE CRITERIA IN THESE STANDARDS. SELECT MAXIMUM SLOPE CRITERIA ARE REPRODUCED BELOW:
 - ACCESSIBLE PARKING STALL AND PASSENGER LOADING ZONE (ANY DIRECTION) SLOPE < 2.0%
 - LONGITUDINAL SLOPE ALONG ACCESSIBLE ROUTES < 5.0%
 - CROSS SLOPE ALONG ACCESSIBLE ROUTES < 2.0%
- PROTECT PROJECT FEATURES (E.G., WALLS, FENCES, MAIL BOXES, SIGNS, SIDEWALKS, CURBING, STAIRS, WALKWAYS, TREES, ETC.) FROM DAMAGE DURING CONSTRUCTION, INCLUDING PROVIDING TEMPORARY SUPPORTS, WHEN APPROPRIATE.
- EXISTING SURVEY MONUMENTS DISTURBED BY THE CONTRACTOR SHALL BE REPLACED BY A LAND SURVEYOR LICENSED IN THE STATE IN WHICH THE WORK IS PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
- COORDINATE THE ADJUSTMENT OF EXISTING UTILITY STRUCTURES WITH EACH RESPONSIBLE UTILITY OWNER PRIOR TO RECONSTRUCTION AND/OR PAVING OPERATIONS. RAISE ALL STRUCTURES TO FINISHED GRADES PRIOR TO THE END OF THE CONSTRUCTION SEASON AND PRIOR TO FINISHED PAVING.
- REPAIR DISTURBED PAVED SURFACES AT THE END OF EACH WORK WEEK, UNLESS OTHERWISE APPROVED/REQUIRED BY THE OWNER.
- PLACE TEMPORARY BITUMINOUS CONCRETE PAVEMENT AT DISTURBED PORTLAND CEMENT CONCRETE SIDEWALKS AND DRIVEWAYS AT THE END OF EACH WORK WEEK, UNLESS OTHERWISE APPROVED/REQUIRED BY THE OWNER.
- RESTORE ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE PAYLINE LIMITS TO ORIGINAL CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
- REGRADE ALL UNPAVED AREAS DISTURBED BY THE WORK AS REQUIRED. REPAIR/REPLACE PAVED SURFACES DISTURBED BY THE WORK IN-KIND, UNLESS OTHERWISE NOTED. RESTORE SURFACES TO EXISTING OR PROPOSED CONDITIONS AS INDICATED ON THE DRAWINGS.
- PROVIDE A SMOOTH, FLUSH TRANSITION BETWEEN ALL NEW AND EXISTING PAVEMENTS AND WALKING SURFACES.

ABBREVIATIONS

ABDN('D)	ABANDON(ED)
AC	ASBESTOS CEMENT PIPE
BC	BOTTOM OF CURB
BFP	BACK FLOW PREVENTOR
BIT	BITUMINOUS
BL	BASELINE
BLDG	BUILDING
BLSF	BORDERING LANDS
	SUBJECT TO FLOODING
BND	BOUND
BOC	BOTTOM OF CURB
BOT	BOTTOM
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
CATV	CABLE TELEVISION
CB	CATCH BASIN
CEM	CEMENT
CI	CAST IRON PIPE
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CO	CLEAN OUT
CONC	CONCRETE
CPP	CORRUGATED
	POLYETHYLENE PIPE
CY	CUBIC YARD
DH	DRILL HOLE
DI	DUCTILE IRON PIPE
DIA	DIAMETER
DMH	DRAIN MANHOLE
E	EAST
EF	EACH FACE
EG	EXISTING GRADE
EL/ELEV	ELEVATION
ELEC	ELECTRIC
EMH	ELECTRIC MANHOLE
EOP	EDGE OF PAVEMENT
EW	EACH WAY
EXIST	EXISTING
FES	FLARED END SECTION
FF	FINISH FLOOR
FM	FORCE MAIN
G	GAS
GG	GAS GATE
GRAN	GRANITE
HC	HANDICAP
HDPE	HIGH DENSITY
	POLYETHYLENE
HMA	HOT MIX ASPHALT
HYD	HYDRANT
IN	INCHES
INV	INVERT
IP	IRON PIN
L	LENGTH OF CURB
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
MJ	MECHANICAL JOINT

ABBREVIATIONS CONT'D

N	NORTH
NITC	NOT IN THIS CONTRACT
NTS	NOT TO SCALE
N/A	NOT APPLICABLE
N/F	NOW OR FORMERLY
OC	ON CENTER
OCS	OUTLET CONTROL STRUCTURE
OH	OVERHEAD
PB	PLANT BED
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND
	CURVATURE
PCPP	PERFORATED CORRUGATED
	POLYETHYLENE PIPE
PERF	PERFORATED
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYLCHLORIDE
PVMT	PAVEMENT
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REV	REVISION
ROW	RIGHT OF WAY
RT	RIGHT
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
S	SOUTH
SAN	SANITARY
SCH	SCHEDULE
SF	SQUARE FOOT
SMH	SEWER MANHOLE
SS	STAINLESS STEEL
STA	STATION
STL	STEEL
STRM	STORM
T	TANGENT LENGTH
TC	TOP OF CURB
TEL	TEL-DATA
TP	TEST PIT
TS	TOP OF STEP
TW	TOP OF WALL
TYP	TYPICAL
UP	UTILITY POLE
W	WATER
WG	WATER GATE
WV	WATER VALVE
XFMR	TRANSFORMER

BASE PLAN NOTES

- THE EXISTING CONDITIONS INFORMATION SHOWN ON THE DRAWINGS IS BASED ON THE FOLLOWING:
 - SURVEY DRAWINGS PROVIDED BY WSP USA, INC., DATED DECEMBER 30, 2022, TITLED "BIGELOW ROAD PUMP STATION"
- UTILITY LOCATIONS SHOWN WERE PLOTTED FROM INFORMATION SUPPLIED BY RESPECTIVE UTILITY COMPANIES AND DATA OBTAINED FROM FIELD SURVEYS AND AS BUILT DRAWINGS. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS IS NOT GUARANTEED. DETERMINE THE LOCATIONS AND ELEVATIONS OF ALL UTILITIES WHICH MAY AFFECT CONSTRUCTION OPERATIONS.
- SUB-SURFACE EXPLORATIONS WERE PERFORMED BY GEOSearch, INC. ON MAY 3, 2023. BORING LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND BORING INFORMATION IS NOT GUARANTEED IN ANY WAY TO REPRESENT EXISTING CONDITIONS. BORING LOGS ARE INCLUDED IN THE PROJECT MANUAL FOR THE CONTRACTORS INFORMATION ONLY.
- SOIL EVALUATIONS WERE PERFORMED IN THE AREAS OF THE PROPOSED STORMWATER MANAGEMENT SYSTEMS BY TIMOTHY J. GRACE ON APRIL 21, 2023. TEST PIT LOCATIONS ARE SHOWN ON THE SITE PLANS.
- THE DRAWINGS ARE BASED ON THE FOLLOWING DATUMS: HORIZONTAL NAD83; VERTICAL NAVD88
- THE EXISTING CONDITIONS SHOWN ARE APPROXIMATE. FIELD VERIFY EXISTING CONDITIONS.

GENERAL NOTES

- NOTIFY DIGSAFE AT 1-888-344-7233 AND OTHER UTILITY OWNERS IN THE AREA NOT ON THE DIGSAFE LIST AT LEAST 72 HOURS PRIOR TO ANY DIGGING, TRENCHING, ROCK REMOVAL, DEMOLITION, BORING, BACKFILLING, GRADING, LANDSCAPING, OR ANY OTHER EARTH MOVING OPERATIONS.
- LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IN ADDITION, SOME UTILITIES MAY NOT BE SHOWN. DETERMINE THE EXACT LOCATION OF UTILITIES BY TEST PIT OR OTHER METHODS, AS NECESSARY TO PREVENT DAMAGE TO UTILITIES AND/OR INTERRUPTIONS IN UTILITY SERVICE. PERFORM TEST PIT EXCAVATIONS AND OTHER INVESTIGATIONS TO LOCATE UTILITIES, AND PROVIDE THIS INFORMATION TO THE ENGINEER, PRIOR TO CONSTRUCTING THE PROPOSED IMPROVEMENTS. LOCATE ALL EXISTING UTILITIES TO BE CROSSED BY HAND EXCAVATION.
- NOT ALL OF THE UTILITY SERVICES TO BUILDINGS ARE SHOWN. THE CONTRACTOR SHALL ANTICIPATE THAT EACH PROPERTY HAS SERVICE CONNECTIONS FOR THE VARIOUS UTILITIES.
- BOLD TEXT AND LINES INDICATE PROPOSED WORK. LIGHT TEXT AND LINES INDICATE APPROXIMATE EXISTING CONDITIONS.
- TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM TIGHE & BOND.
- EXCAVATE ADDITIONAL TEST PITS TO LOCATE EXISTING UTILITIES AS DIRECTED OR APPROVED BY THE ENGINEER.
- NOTIFY THE ENGINEER OF ANY UTILITIES IDENTIFIED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS OR THAT DIFFER IN SIZE OR MATERIAL.
- THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY; COORDINATION WITH THE OWNER, ALL SUBCONTRACTORS, AND WITH OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF WORK, THE MEANS AND METHODS OF CONSTRUCTING THE PROPOSED WORK.
- OBTAIN, PAY FOR AND COMPLY WITH PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK. ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE JURISDICTIONAL AUTHORITIES.
- SHORE UTILITY TRENCHES WHERE FIELD CONDITIONS DICTATE AND/OR WHERE REQUIRED BY LOCAL, STATE AND FEDERAL HEALTH AND SAFETY CODES.
- FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT VARY SIGNIFICANTLY FROM THOSE SHOWN ON THE DRAWINGS, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION OF THE CONFLICTING INFORMATION.
- PROTECT AND MAINTAIN ALL UTILITIES IN THE AREAS UNDER CONSTRUCTION DURING THE WORK. LEAVE ALL PIPES AND STRUCTURES WITHIN THE LIMITS OF THE CONTRACT IN A CLEAN AND OPERABLE CONDITION AT THE COMPLETION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SAND AND SILT FROM DISTURBED AREAS FROM ENTERING THE DRAINAGE SYSTEM.
- NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICT, ERROR, AMBIGUITY, OR DISCREPANCY WITH THE PLANS OR BETWEEN THE PLANS AND ANY APPLICABLE LAW, REGULATION, CODE, STANDARD SPECIFICATION, OR MANUFACTURER'S INSTRUCTIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR SUPPORT OF EXISTING UTILITIES AND REPAIR OR REPLACEMENT COSTS OF UTILITIES DAMAGED DURING CONSTRUCTION, WHETHER ABOVE OR BELOW GRADE. REPLACE DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER AND AT NO COST TO THE PROPERTY OWNER.
- TAKE NECESSARY MEASURES AND PROVIDE CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE, AND STRENGTH TO PREVENT ACCESS TO ALL WORK AND STAGING AREAS AT THE COMPLETION OF EACH DAYS WORK.
- NO OPEN TRENCHES WILL BE ALLOWED OVER NIGHT. THE USE OF ROAD PLATES TO PROTECT THE EXCAVATION WILL BE CONSIDERED UPON REQUEST, BUT BACKFILLING IS PREFERRED.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TRAFFIC CONTROL/SAFETY DEVICES TO ENSURE SAFE VEHICULAR AND PEDESTRIAN ACCESS THROUGH THE WORK AREA, OR FOR SAFELY IMPLEMENTING DETOURS AROUND THE WORK AREA. PERFORM TRAFFIC CONTROL IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED TRAFFIC CONTROL PLAN.
- MAINTAIN EMERGENCY ACCESS TO ALL PROPERTIES WITHIN THE PROJECT AREA AT ALL TIMES DURING CONSTRUCTION.
- WHEN WORKING IN THE ROAD, PROVIDE THE OWNER AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES A DETAILED PLAN OF APPROACH INDICATING METHODS OF PROPOSED TRAFFIC ROUTING ON A DAILY BASIS. PROVIDE COORDINATION TO ENSURE COMMUNICATION AND COORDINATION BETWEEN THE OWNER, CONTRACTOR AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES THROUGHOUT THE CONSTRUCTION PERIOD.
- REMOVE AND DISPOSE OF ALL CONSTRUCTION-RELATED WASTE MATERIALS AND DEBRIS IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.
- THE TERM "DEMOLISH" USED ON THE DRAWINGS MEANS TO REMOVE AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- THE TERM "ABANDON" USED ON THE DRAWINGS MEANS TO LEAVE IN PLACE AND TAKE APPROPRIATE MEASURES TO DECOMMISSION AS SPECIFIED OR NOTED ON THE DRAWINGS.
- ALL PROPOSED WORK MAY BE ADJUSTED IN THE FIELD BY THE OWNER'S PROJECT REPRESENTATIVE TO MEET EXISTING CONDITIONS.

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BIGELOW
ROAD WTP

Webster Water
Department

Town of Webster,
Massachusetts

A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034 Bigelow Cover Sheet.dwg	
DRAWN BY:	TCW	
DESIGNED/CHECKED BY:	TJG/DMT	
APPROVED BY:	-	

GENERAL NOTES
AND LEGEND

SCALE: NONE

G-002

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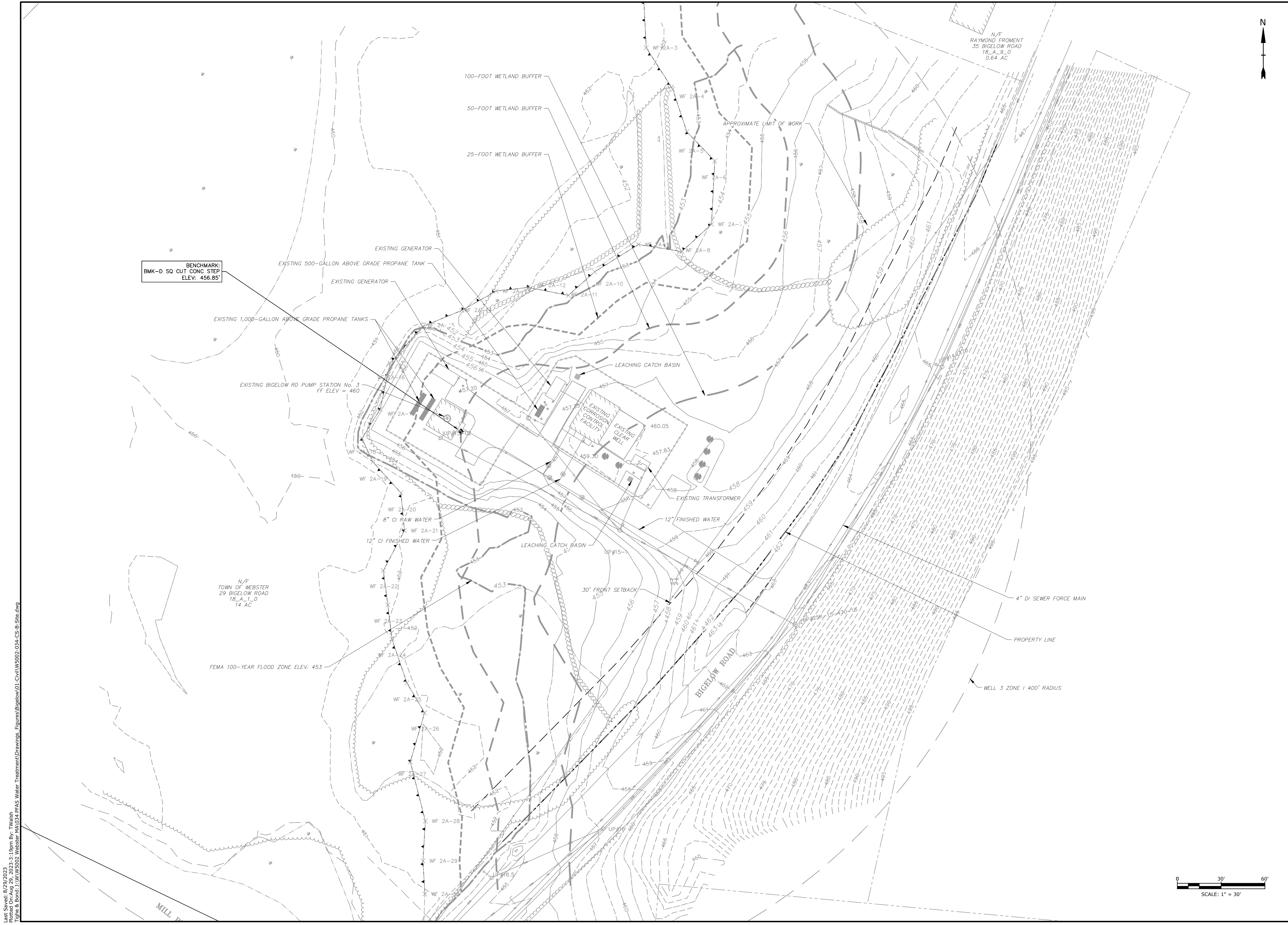
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MARK	DATE	DESCRIPTION
PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-CS-B-Site.dwg	
DRAWN BY:	TCW	
DESIGNED/CHECKED BY:	TJG/DMT	
APPROVED BY:	-	

EXISTING CONDITIONS WATER MAIN AND WTP PLAN

SCALE: 1" = 80'

C-101





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**BIGELOW
ROAD WTP**

Webster Water
Department

Town of Webster,
Massachusetts

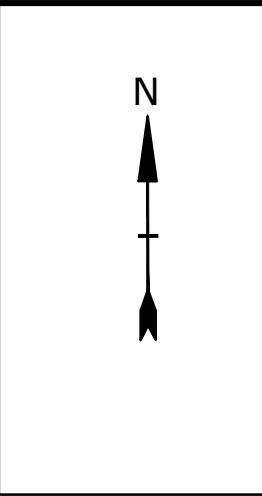
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APPROVED BY:		-

**EXISTING CONDITIONS
WTP PLAN**

SCALE: 1" = 30'

C-102

Last Saved: 8/29/2023 3:19pm By: TWals1
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Tighe & Bond 31 MW 202 Webster, MA 02461 PFAS Water Treatment Drawings Figures\Bigelow\01-Civil\W5002-034-CS-B-Site.dwg



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**BIGELOW
ROAD WTP**

Webster Water
Department

Town of Webster,
Massachusetts

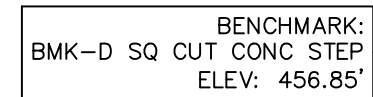
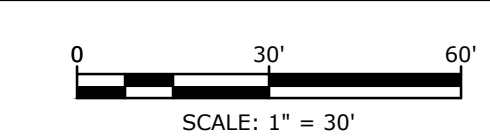
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A	9/5/2023	PERMIT SET
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DATE:		SEPTEMBER 5, 2023
FILE:		W5002-034-CS-B-Site.dwg
DRAWN BY:		TCW
DESIGNED/CHECKED BY:		TJG/DMT
APPROVED BY:		-

EROSION CONTROL AND SITE DEMOLITION PLAN	
SCALE:	1" = 30'
C-103	

SCALE: 1" = 30'

C-103



DEMOLISH EXISTING GENERATORS, PROPANE,
AND BOLLARDS

50' WETLAND BUFFER

25' WETLAND BUFFER

DEMO CHAINLINK FENCE

CLEAR AND GRUB AREA AS REQUIRED

APPROXIMATE LIMIT OF WORK

100' WETLAND BUFFER

— DEMO TREES, BOLLARDS, TRANSFORMER, CATCH BASIN, AND EXISTING PAVEMENT

— SAW CUT & DEMO EXISTING BIT CONC DRIVEWAY

BIGELOW ROAD WELL 400' ZONE I BOUNDARY

EROSION CONTROL BARRIER (TYP)

COORDINATE WITH NATIONAL GRID
TO RELOCATE UTILITY POLE UP 15-1

DEMO EXISTING SHRUBS

ABANDON EXISTING WATER MAIN

DEMO HYDRANT -

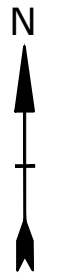
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MILL P

Plot Date: 8/29/2023
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 Figure & Bond: J:\W5002 Webster MA\034 PFAS Water Treatment\Drawings Figures\Bigelow\01-Civ\W5002-034-CS-B-Site.dwg

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COMPENSATORY FLOOD STORAGE		
EXISTING FLOOD STORAGE VOLUME (CF)	PROPOSED FLOOD STORAGE VOLUME (CF)	NET CHANGE (CF)
2616	3309	+ 693



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**BIGELOW
ROAD WTP**

**Webster Water
Department**

**Town of Webster,
Massachusetts**

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DRAWN BY:	TCW	
DESIGNED/CHECKED BY:	TJG/DMT	
APPROVED BY:	-	

**SITE GRADING AND
DRAINAGE PLAN**

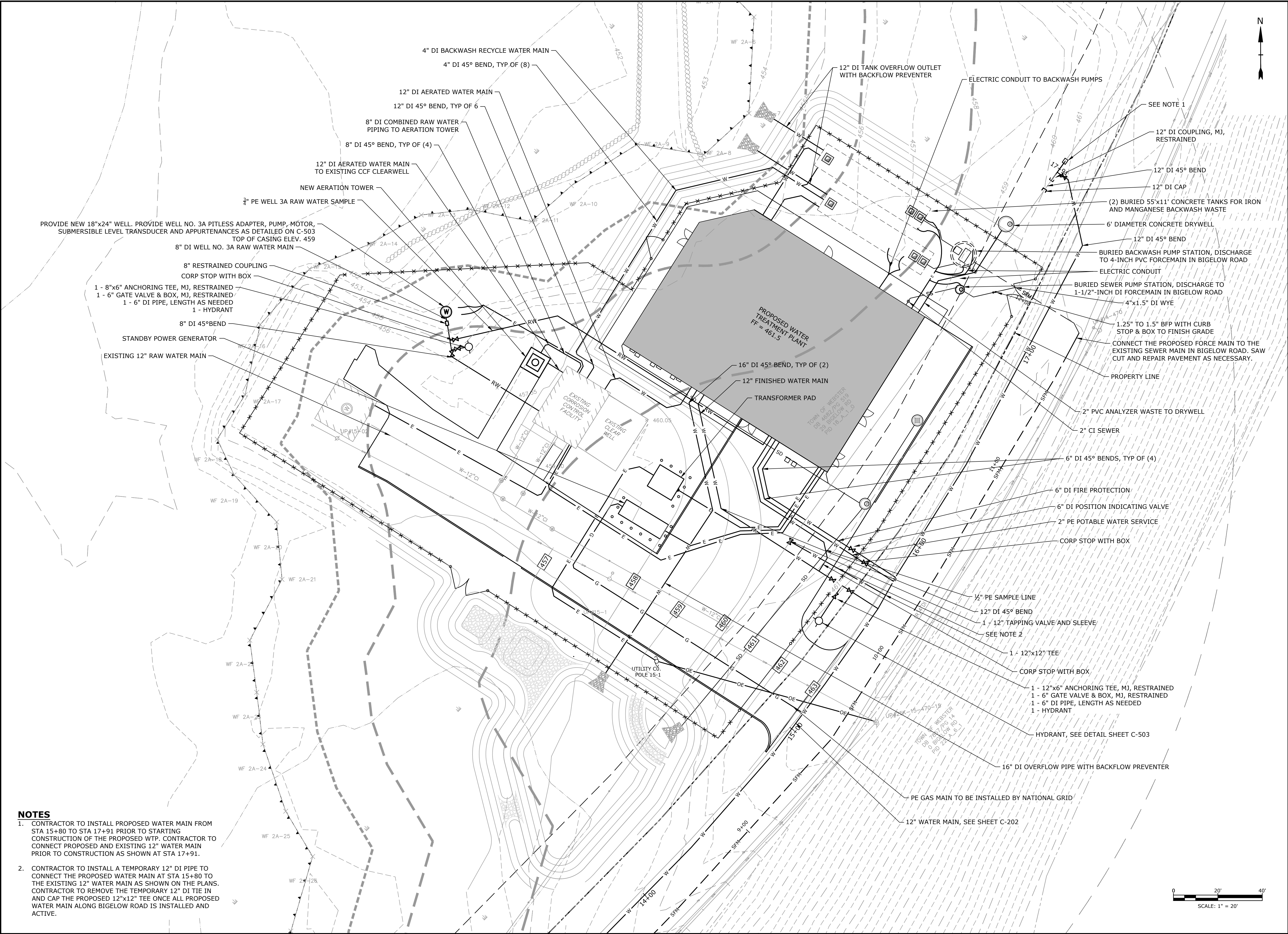
SCALE: 1" = 30'

C-105

Last Saved: 8/29/2023 3:19pm By: T.Walsh
Plotted On: Aug 29, 2023 3:19pm By: T.Walsh
Tighe & Bond\3\WW5002-034-PPAS Water Treatment\Drawings\Bigelow\01-Civil\W5002-034-CS-B-Site.dwg

NOTES

1. CONTRACTOR TO INSTALL PROPOSED WATER MAIN FROM STA 15+80 TO STA 17+91 PRIOR TO STARTING CONSTRUCTION OF THE PROPOSED WTP. CONTRACTOR TO CONNECT PROPOSED AND EXISTING 12" WATER MAIN PRIOR TO CONSTRUCTION AS SHOWN AT STA 17+91.
2. CONTRACTOR TO INSTALL A TEMPORARY 12" DI PIPE TO CONNECT THE PROPOSED WATER MAIN AT STA 15+80 TO THE EXISTING 12" WATER MAIN AS SHOWN ON THE PLANS. CONTRACTOR TO REMOVE THE TEMPORARY 12" DI TIE IN AND CAP THE PROPOSED 12"x12" TEE ONCE ALL PROPOSED WATER MAIN ALONG BIGELOW ROAD IS INSTALLED AND ACTIVE.



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**BIGELOW
ROAD WTP**

**Webster Water
Department**

**Town of Webster,
Massachusetts**

A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-CS-B-Site.dwg	
DRAWN BY:	TCW	
DESIGNED/CHECKED BY:	TJG/DMT	
APPROVED BY:	-	

SITE UTILITY PLAN

SCALE: 1" = 20'

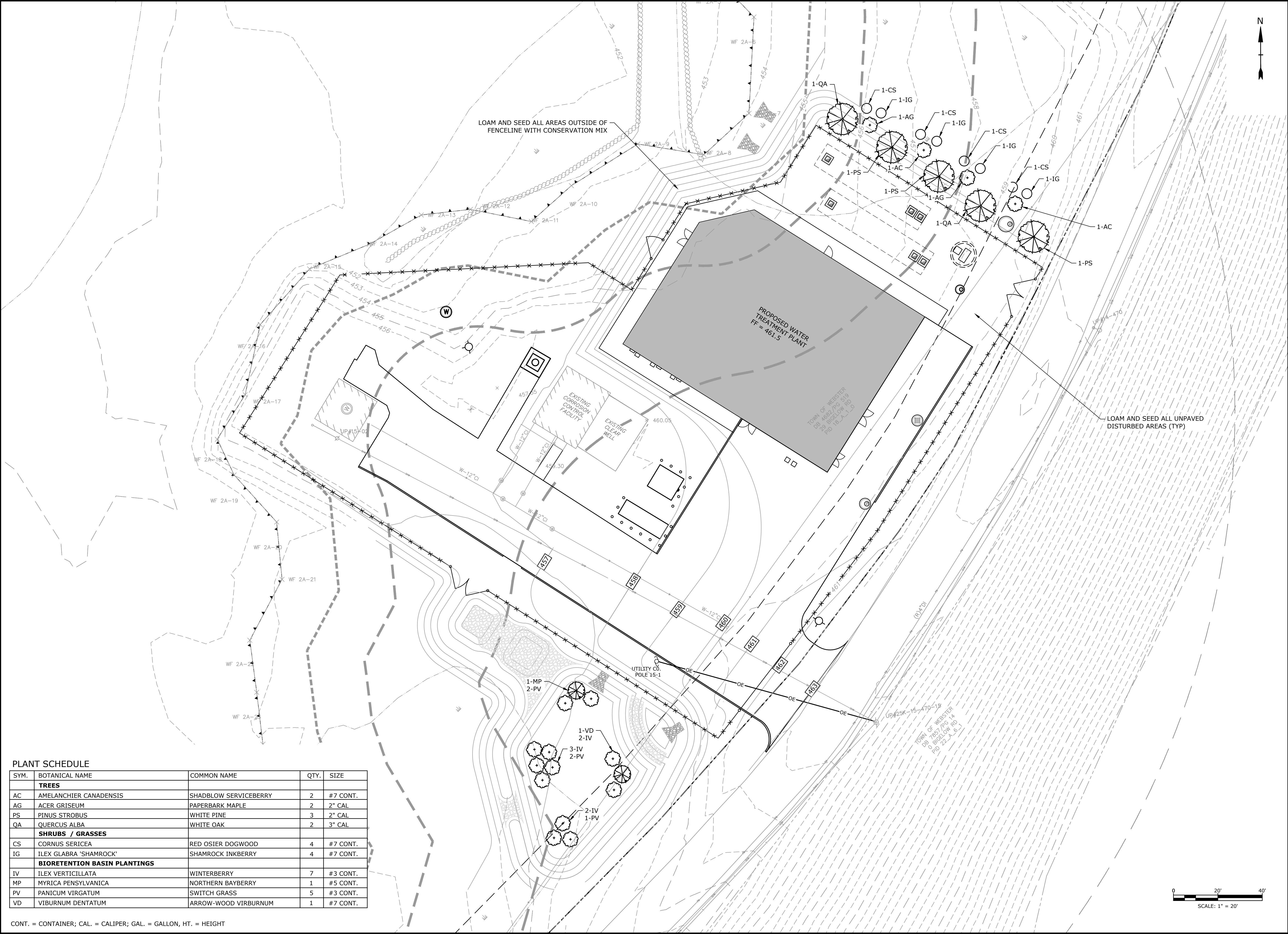
C-106

Last Saved: 8/29/2023 3:19pm By: T.Walsh
Plotted On: Aug 29, 2023 3:19pm By: T.Walsh
Tighe & Bond: J:\W5002-034-PRJAS Water Treatment\Drawings\Figures\Bigelow\01-Civil\W5002-034-CS-B-Site.dwg

PLANT SCHEDULE

SYM.	BOTANICAL NAME	COMMON NAME	QTY.	SIZE
	TREES			
AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	2	#7 CONT.
AG	ACER GRISEUM	PAPERBARK MAPLE	2	2" CAL
PS	PINUS STROBUS	WHITE PINE	3	2" CAL
QA	QUERCUS ALBA	WHITE OAK	2	3" CAL
	SHRUBS / GRASSES			
CS	CORNUS SERICEA	RED OSIER DOGWOOD	4	#7 CONT.
IG	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	4	#7 CONT.
	BIORETENTION BASIN PLANTINGS			
IV	ILEX VERTICILLATA	WINTERBERRY	7	#3 CONT.
MP	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	1	#5 CONT.
PV	PANICUM VIRGATUM	SWITCH GRASS	5	#3 CONT.
VD	VIBURNUM DENTATUM	ARROW-WOOD VIRBURNUM	1	#7 CONT.

CONT. = CONTAINER; CAL. = CALIPER; GAL. = GALLON, HT. = HEIGHT



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Webster Water
Department

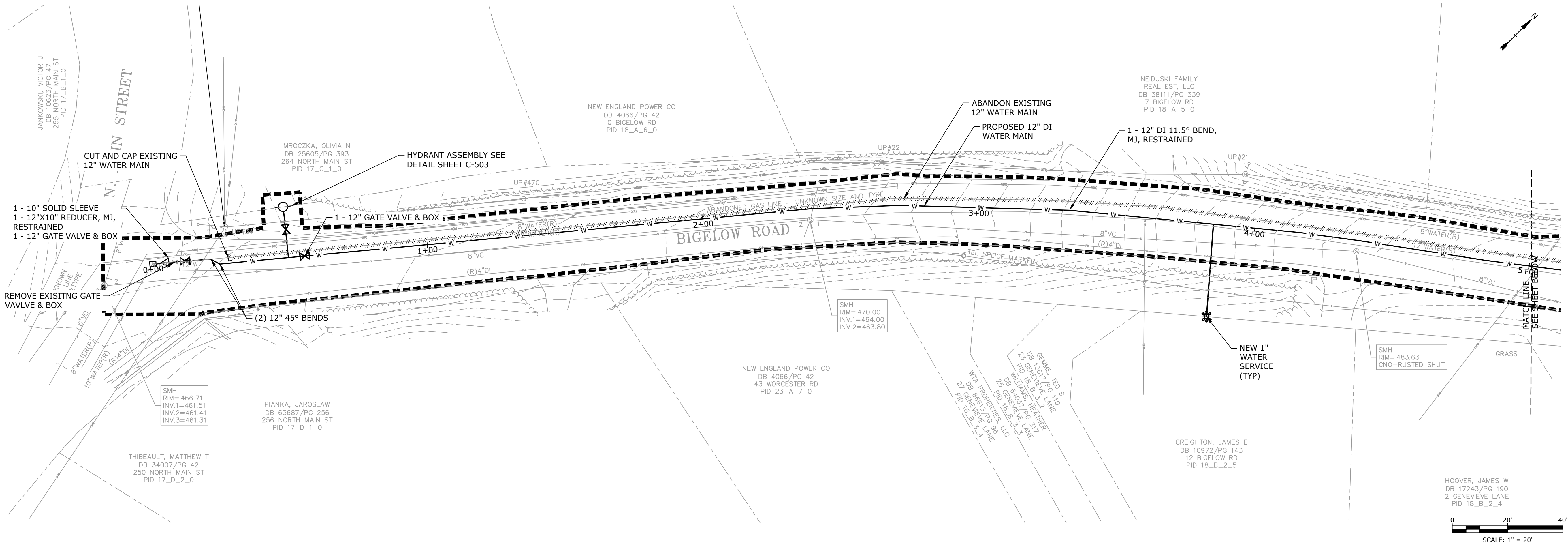
Town of Webster,
Massachusetts

A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-CS-B-Site.dwg	
DRAWN BY:	TCW	
DESIGNED/CHECKED BY:	TJG/DMT	
APPROVED BY:	-	

SITE LANDSCAPING PLAN

SCALE: 1" = 20'

C-107



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BIGELOW ROAD WTP

Webster Water
Department

Town of Webster,
Massachusetts

A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-Water Main.dwg	
DRAWN BY:	JM	
DESIGNED/CHECKED BY:	ASL	
APPROVED BY:	DMT	

BIGELOW ROAD WATER MAIN
STA 0+00 TO STA 10+00

SCALE: 1" = 20'

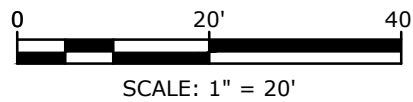
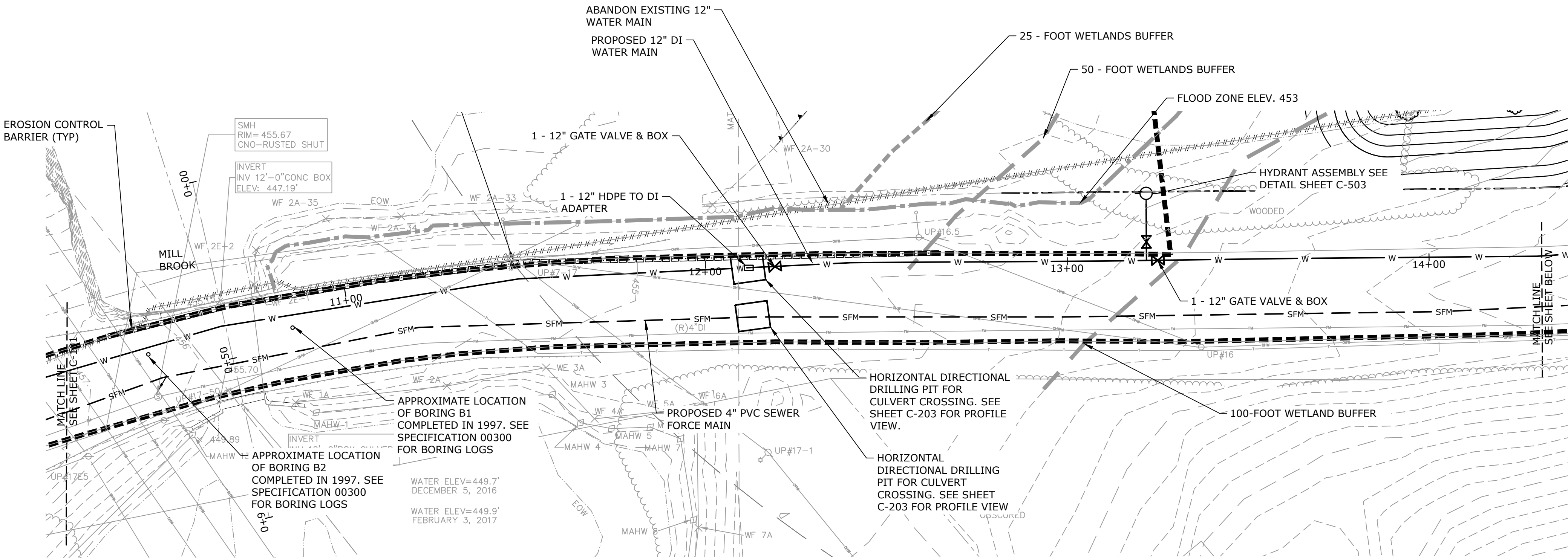
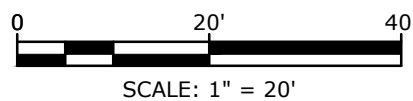
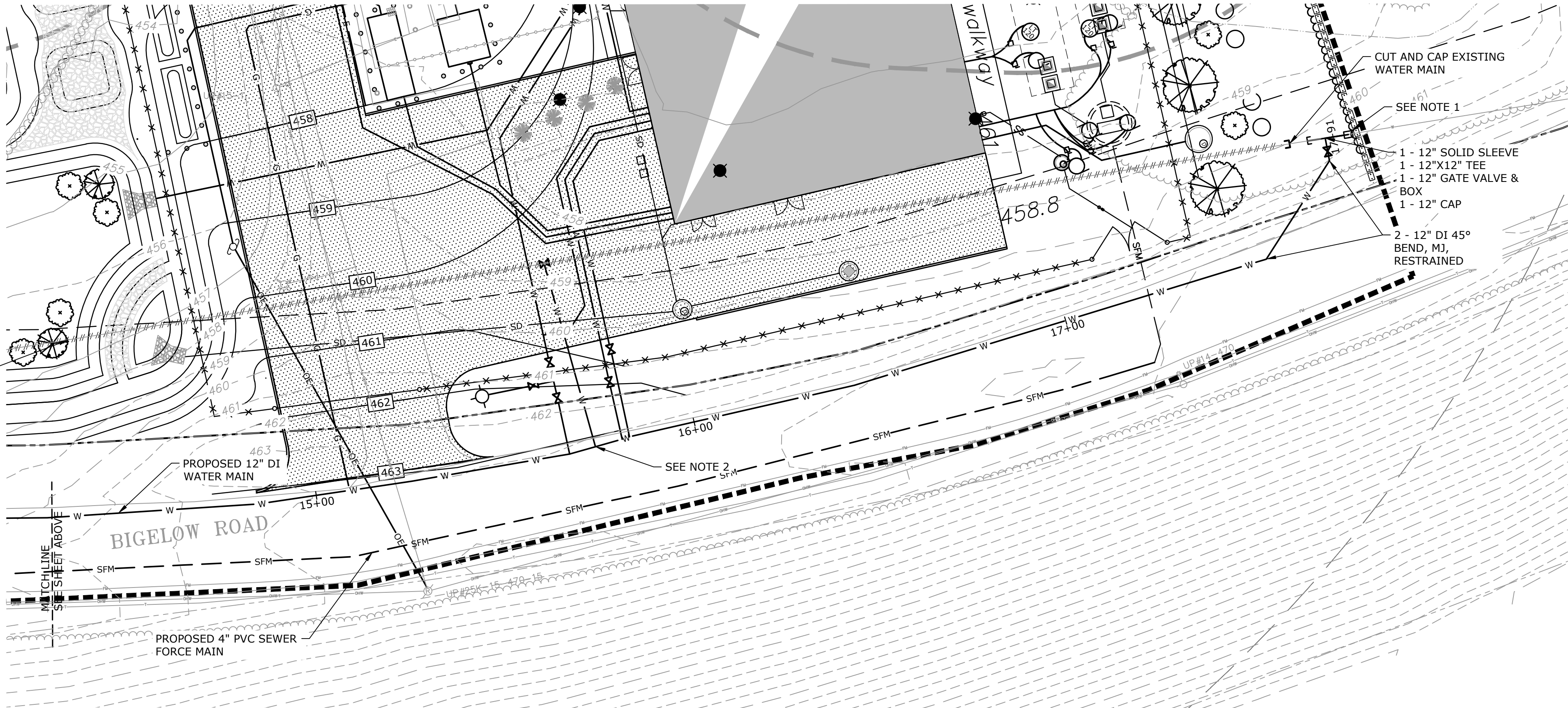
C-201

Last Saved: 8/29/2023 3:20pm By: T.Walsh
 Plotted On: Aug 29, 2023 3:20pm
 Tighe & Bond: J:\W5002-034-PRAS Water Treatment\Drawings- Figures\Bigelow\01-Civil\W5002-034-Water Main.dwg

NOTES

1. CONTRACTOR TO INSTALL PROPOSED WATER MAIN FROM STA 15+80 TO STA 17+91 PRIOR TO STARTING CONSTRUCTION OF THE PROPOSED WTP. CONTRACTOR TO CONNECT PROPOSED AND EXISTING 12" WATER MAIN PRIOR TO CONSTRUCTION AS SHOWN AT STA 17+91.
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ABANDON EXISTING 12" WATER MAIN



Tighe & Bond

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BIGELOW
ROAD WTP

Webster Water
Department

Town of Webster,
Massachusetts

A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-Water Main.dwg	
DRAWN BY:	JM	
DESIGNED/CHECKED BY:	ASL	
APPROVED BY:	DMT	

BIGELOW ROAD WATER MAIN
STA 10+00 TO STA 17+91
AND SEWER FORCE MAIN

SCALE: 1" = 20'

C-202

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BIGELOW ROAD WTP

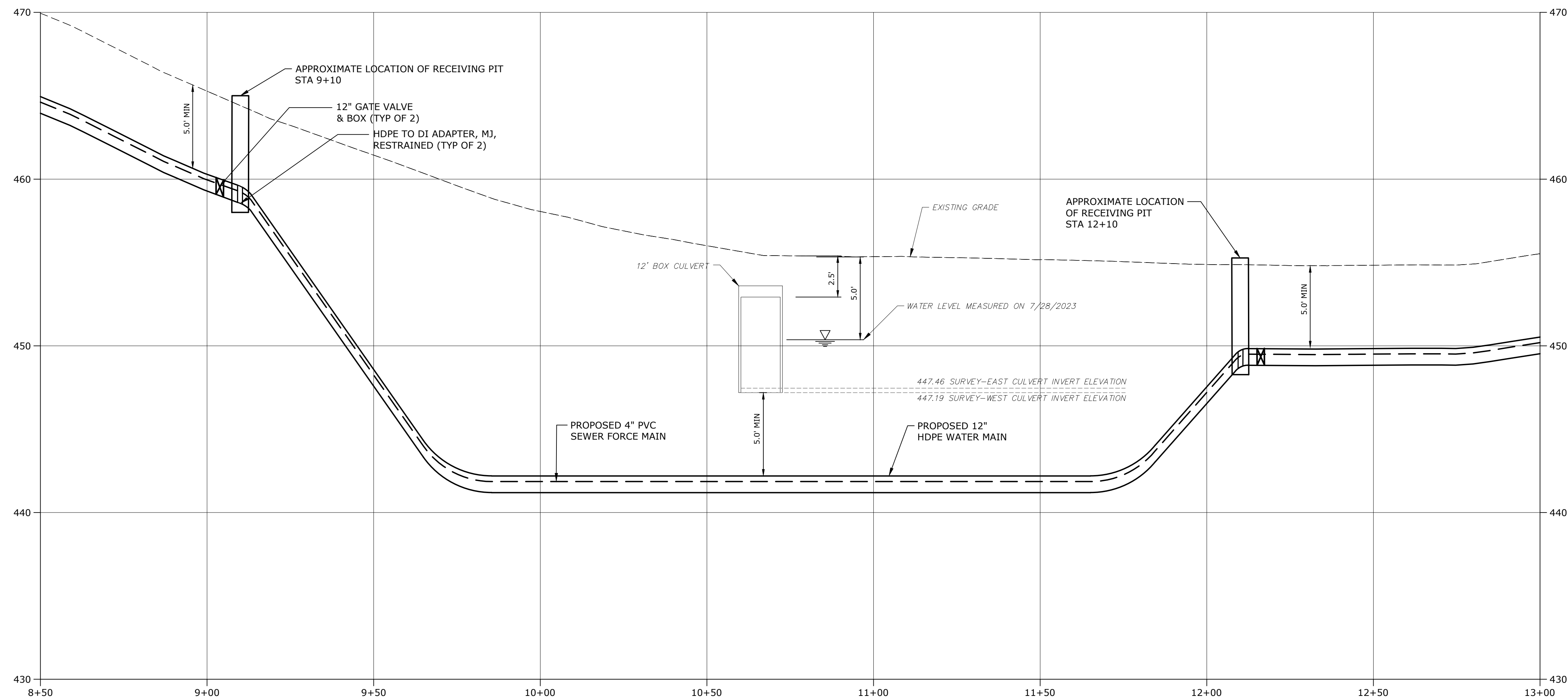
Webster Water
Department

Town of Webster,
Massachusetts

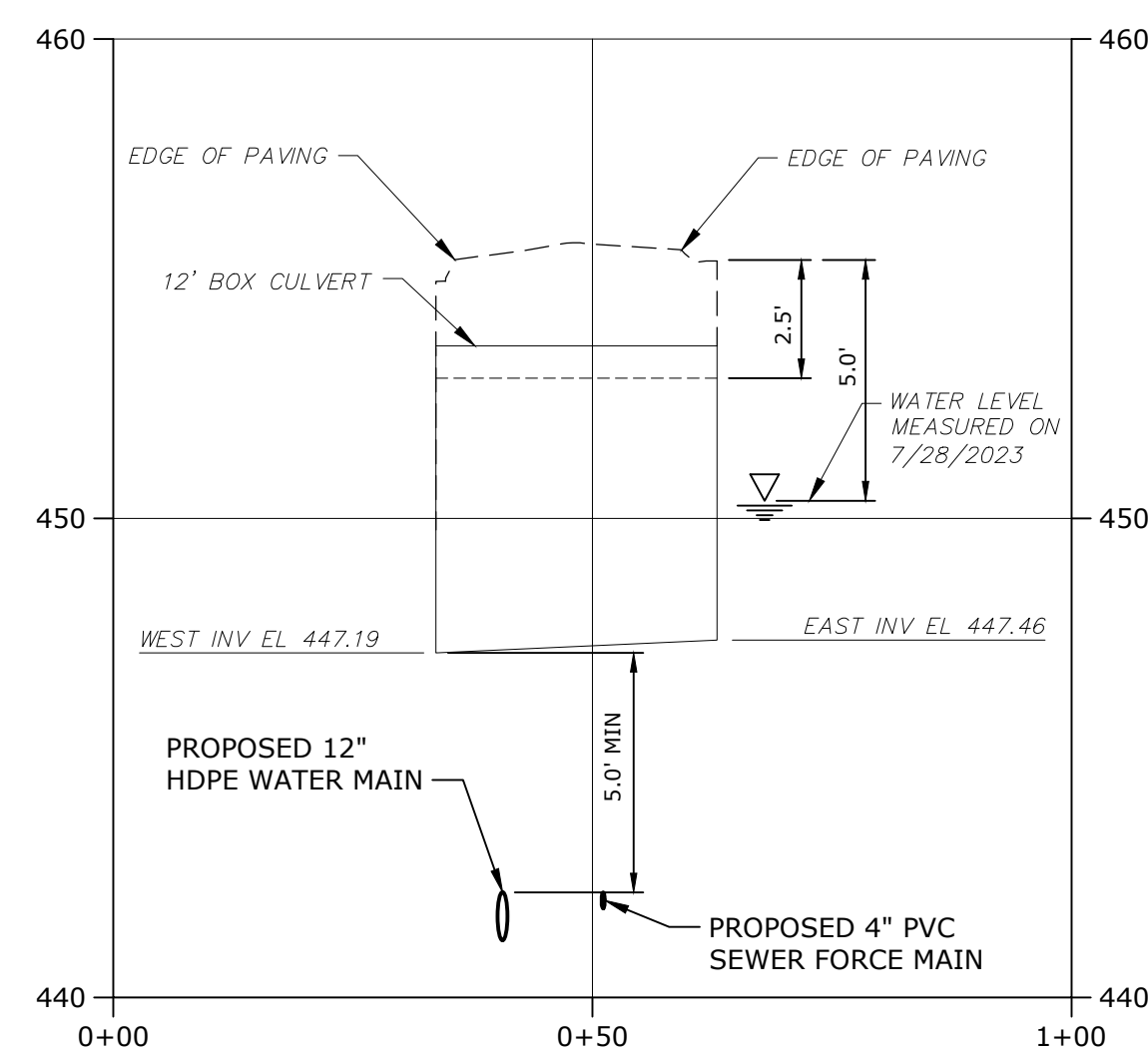
A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO:		W5002-034-B
DATE:		SEPTEMBER 5, 2023
FILE:	W5002-034-Water Main.dwg	
DRAWN BY:	TMP	
DESIGNED/CHECKED BY:	ASL	
APPROVED BY:	DMT	

HDD PROFILE AT CULVERT
CROSSING
STA 9+10 TO STA 12+10

C-203



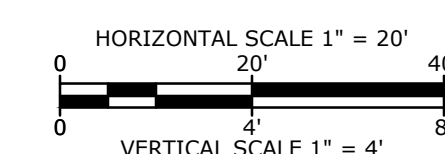
12' BOX CULVERT CROSSING

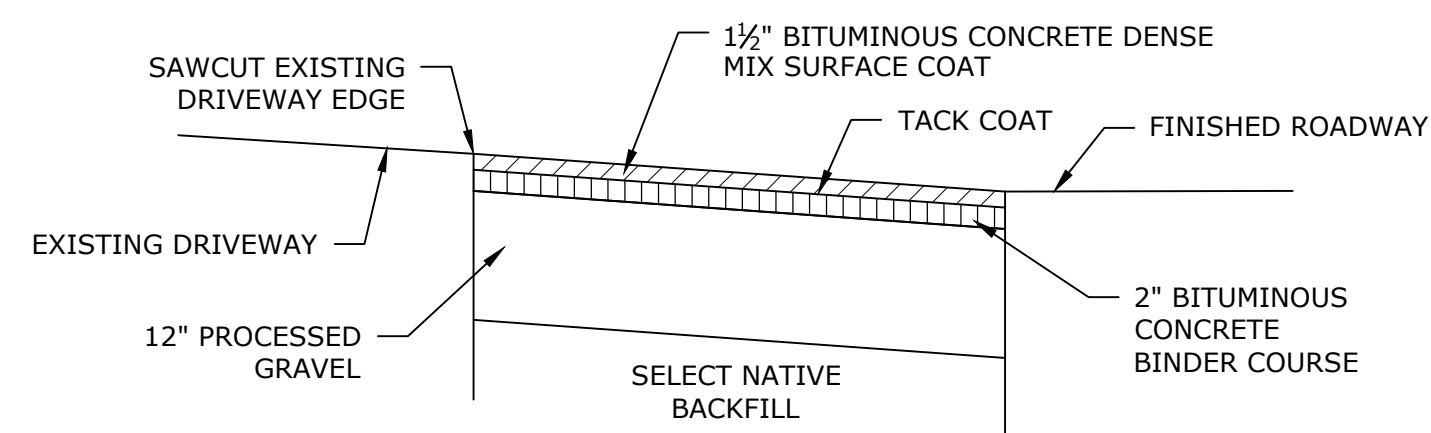


CULVERT CROSSING

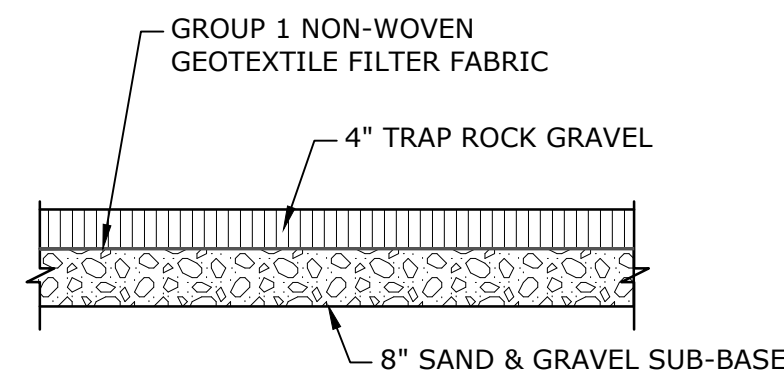
NOTES

- EXISTING FORCE MAIN AND DRAINAGE LINE IN
BIGELOW ROAD. CONTRACTOR TO COORDINATE
DIRECTION DRILL TO PROTECT EXISTING
UTILITIES.

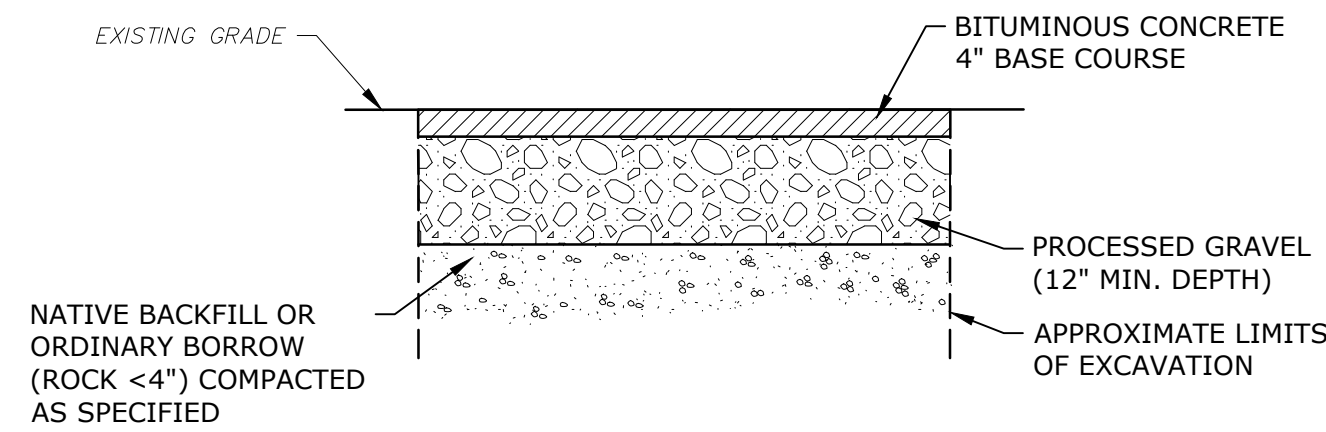




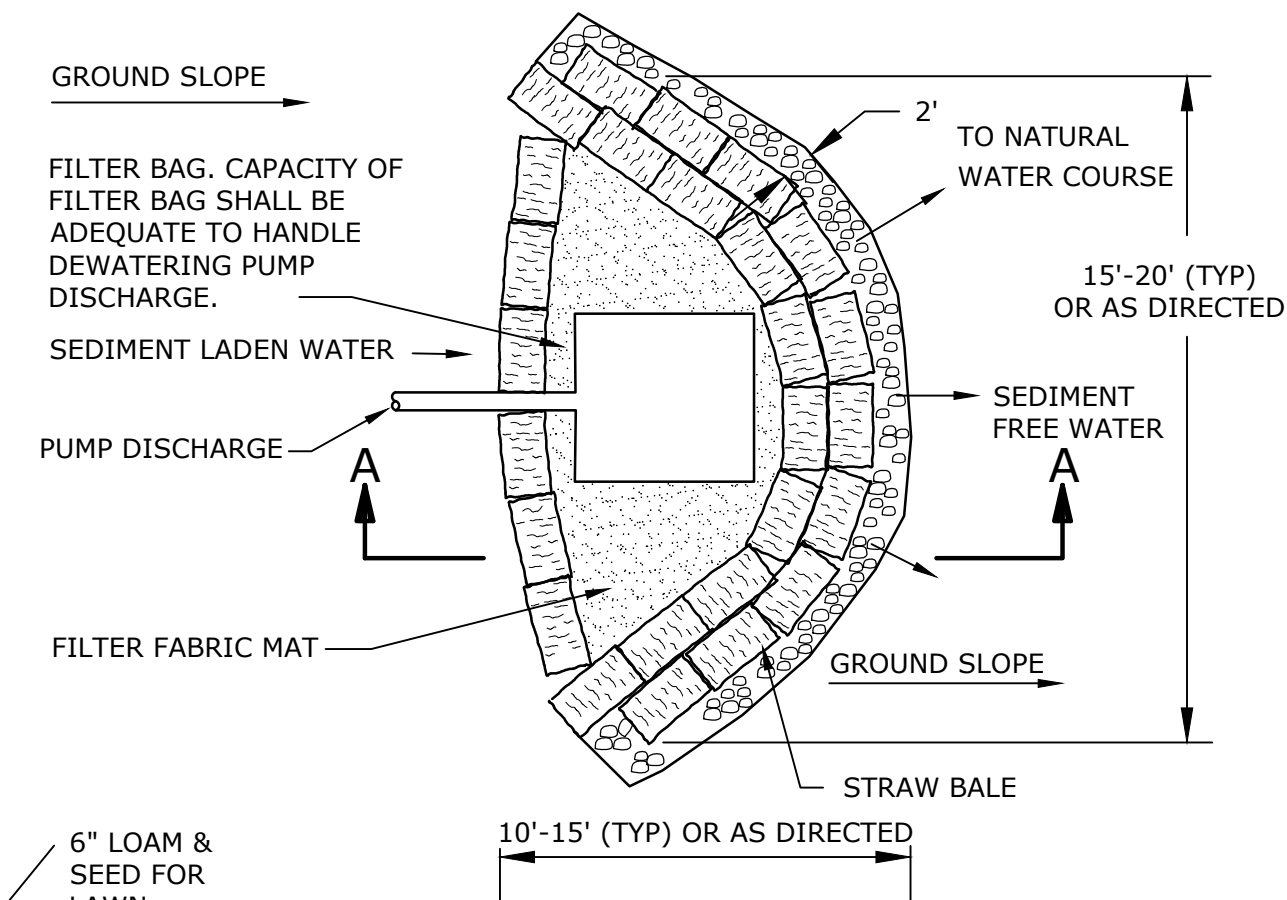
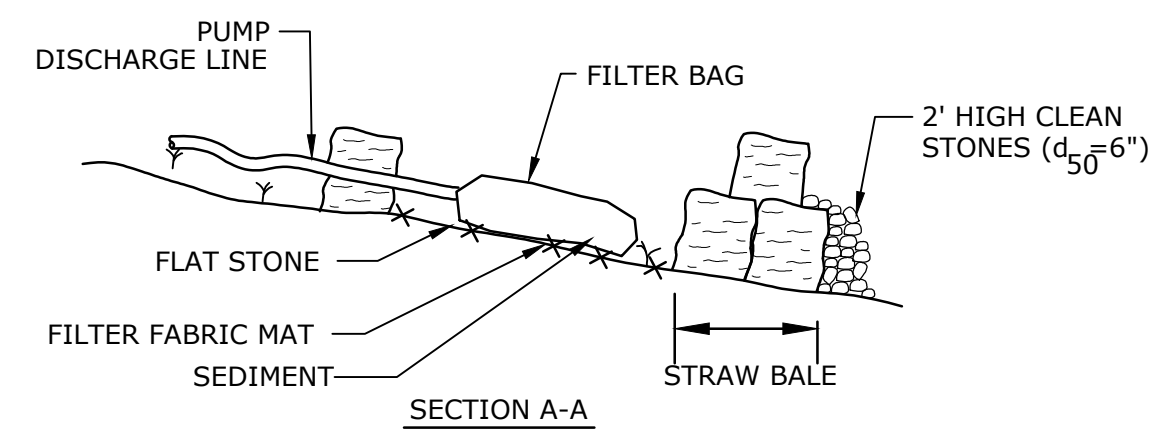
DRIVEWAY APRON PERMANENT REPAIR



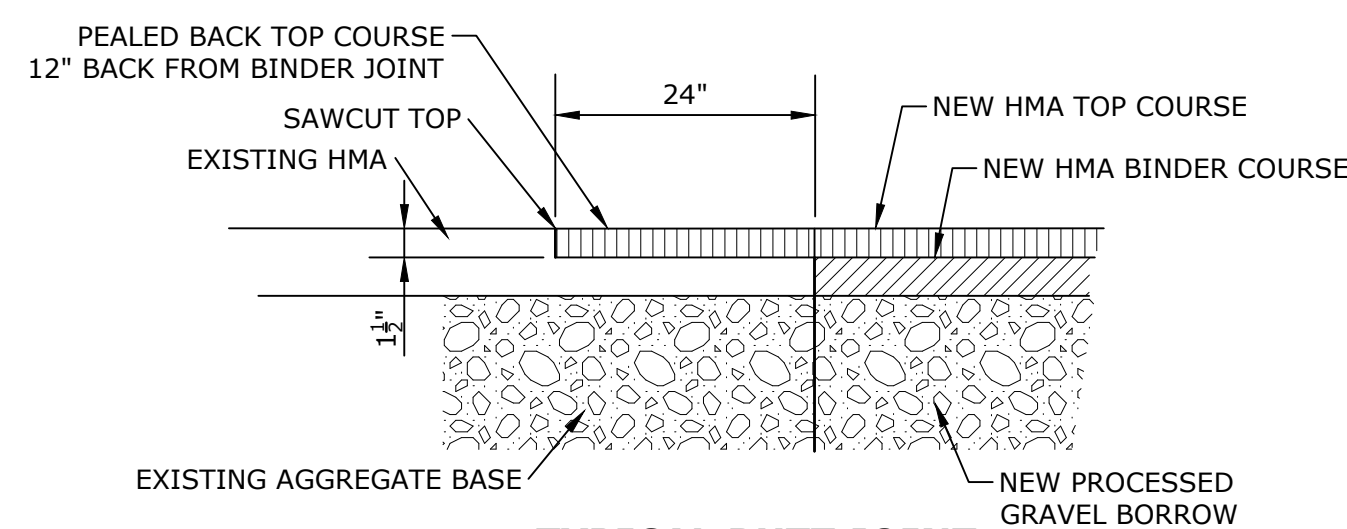
GRAVEL DRIVEWAY AND WALKWAY
NO SCALE



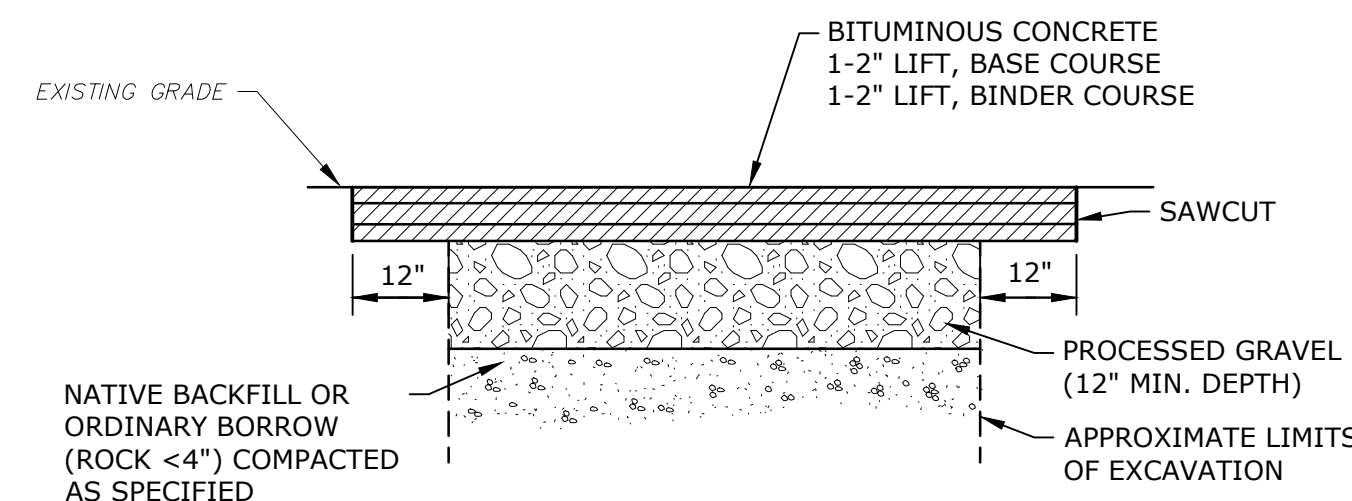
TEMPORARY TRENCH REPAIR FOR LOCAL ROAD
NO SCALE



DEWATERING BASIN
NO SCALE



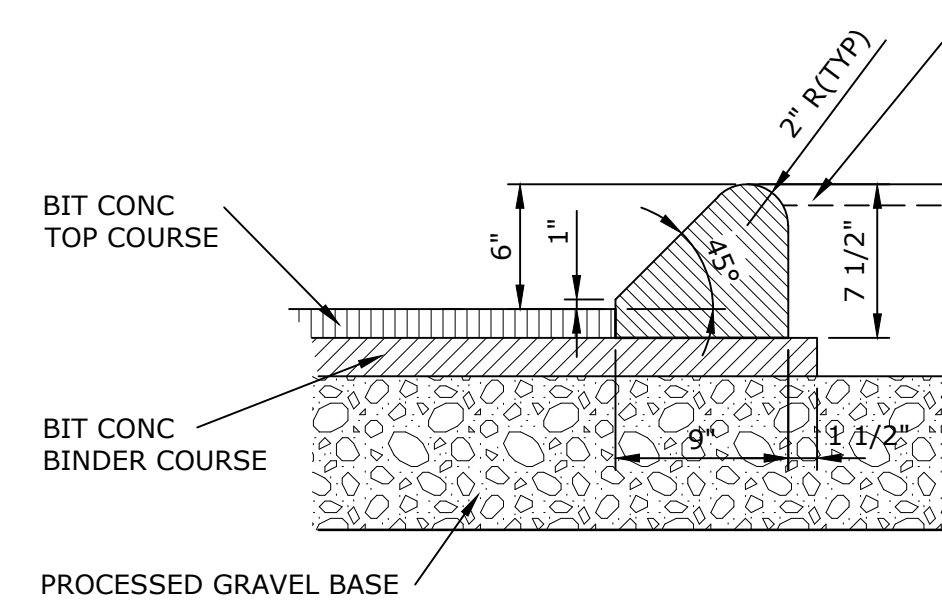
**TYPICAL BUTT JOINT
TO EXISTING PAVEMENT**
NO SCALE



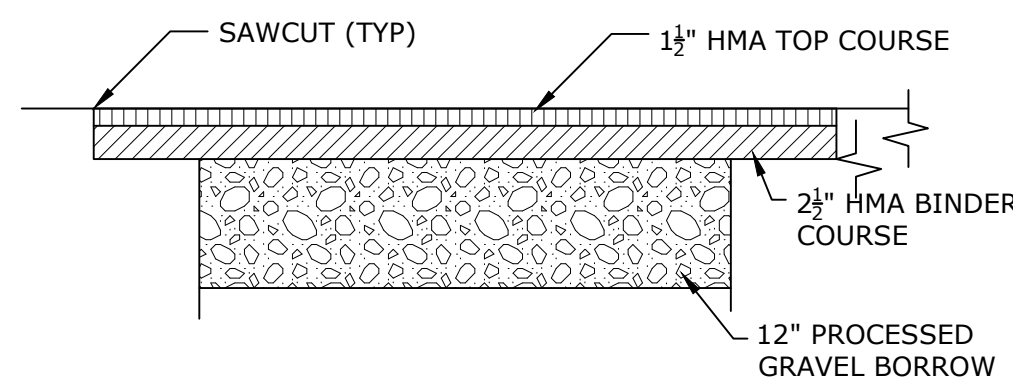
NOTES:

1. MATCH EXISTING PAVEMENT DEPTH AT THE DIRECTION OF THE ENGINEER.
2. ANY ROUGH OR DAMAGED TRENCH EDGES SHALL BE SAWCUT CLEAN AND REPAVED.

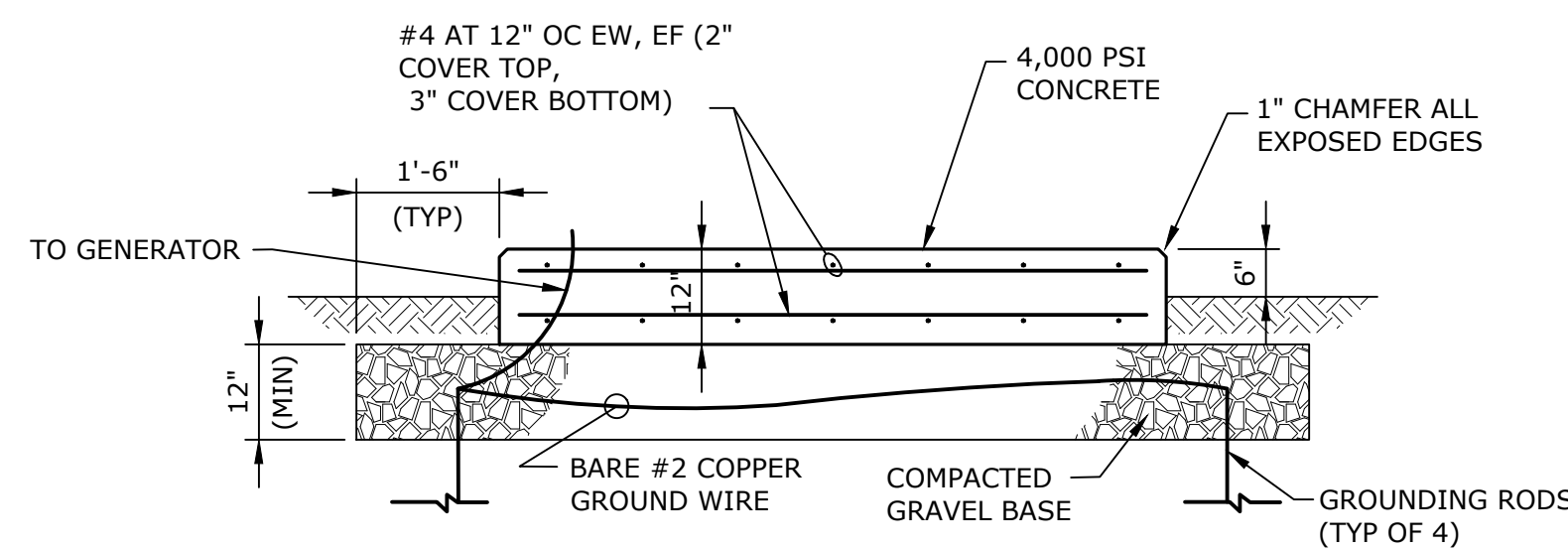
PERMANENT TRENCH REPAIR FOR TOWN ROAD
NO SCALE



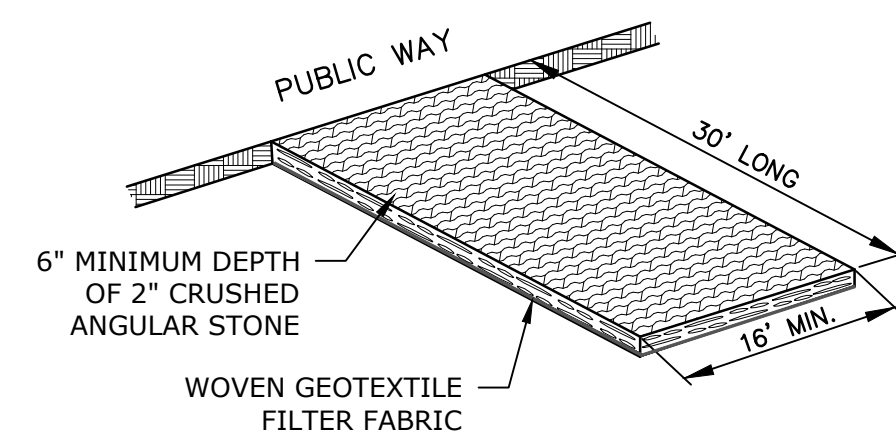
HMA BERM - TYPE 2
NO SCALE



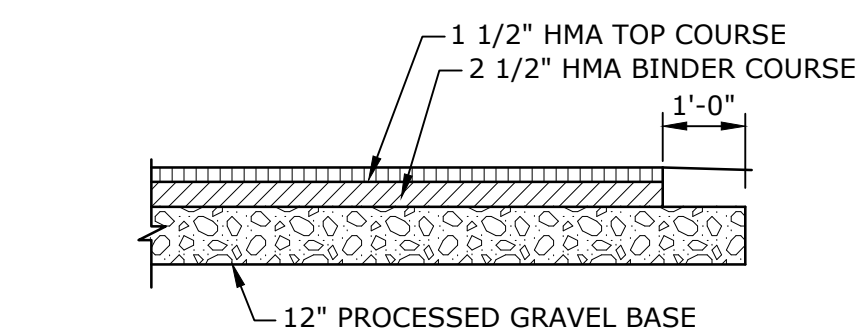
**PERMANENT TRENCH REPAIR
AND PARKING LOT SECTION**
NO SCALE



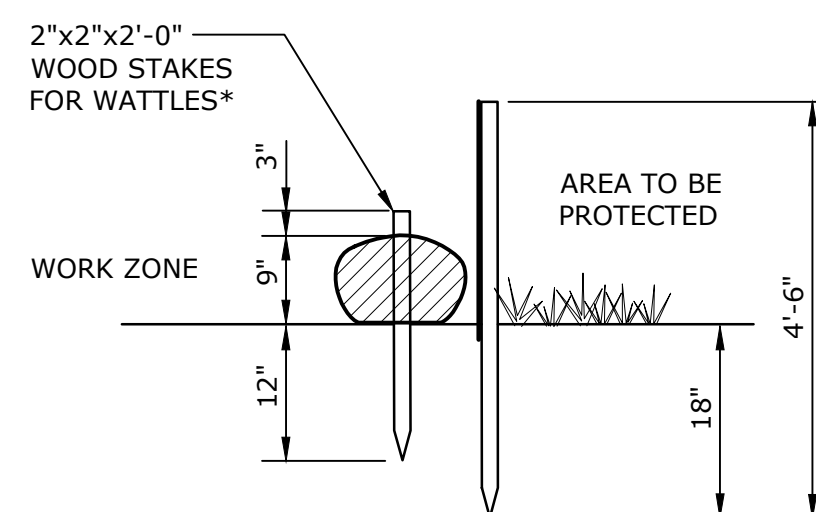
CONCRETE GENERATOR PAD
NO SCALE



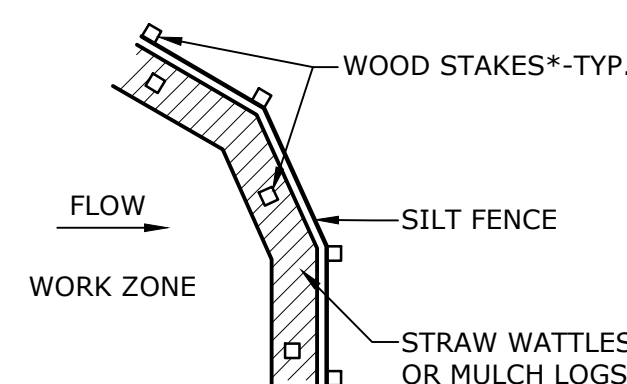
CONSTRUCTION ENTRANCE
NO SCALE



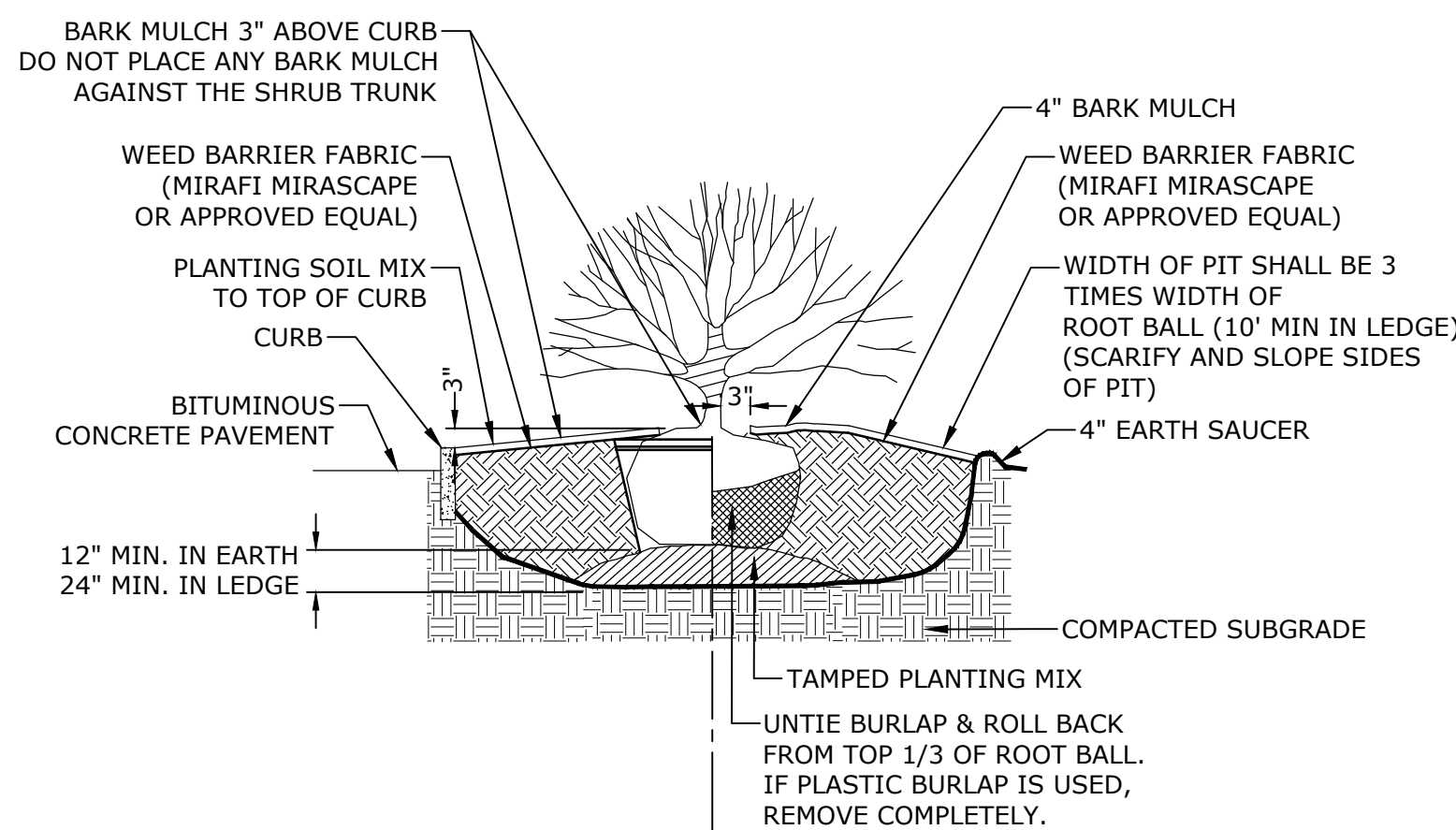
HMA DRIVEWAYS AND PARKING AREAS
NO SCALE



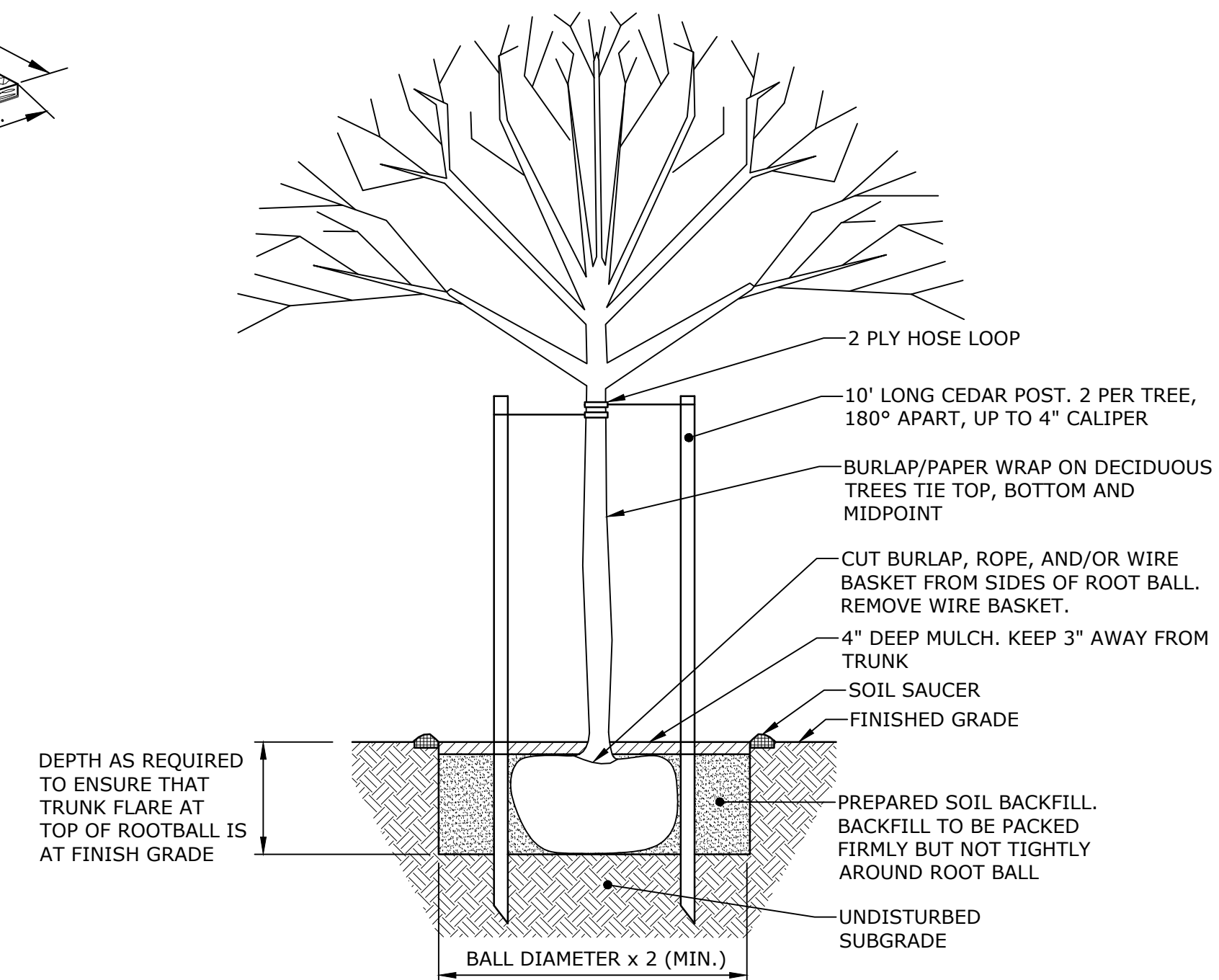
SECTION



EROSION CONTROL BARRIER
NO SCALE



SHRUB PLANTING DETAIL
NO SCALE



TREE PLANTING DETAIL
NO SCALE

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BIGELOW ROAD WTP

Webster Water
Department

Town of Webster,
Massachusetts

A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO:		W5002-034-B
DATE:		SEPTEMBER 5, 2023
FILE:		W5002-034-CS-B-Site.dwg
DRAWN BY:		TCW
DESIGNED/CHECKED BY:		TJG/DMT
APPROVED BY:		-

CIVIL DETAILS - 1

SCALE: NO SCALE

C-501

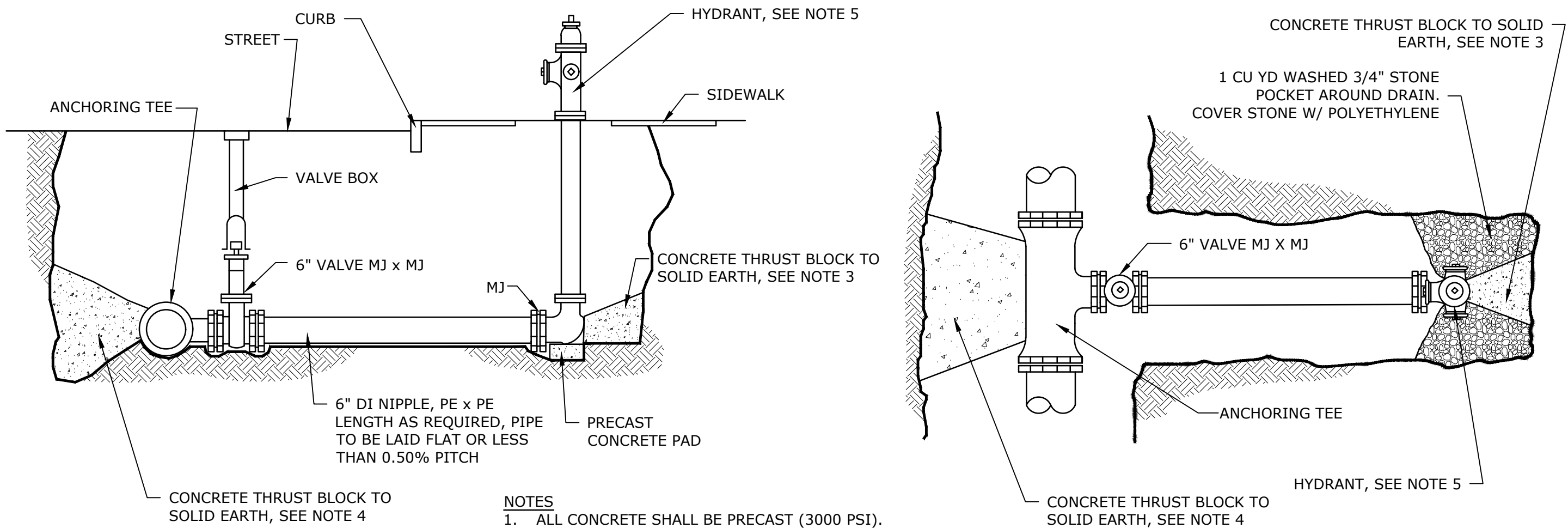
BIGELOW ROAD WTP

Town of Webster,
Massachusetts

CIVIL DETAILS - 2

C-502

Last Saved: 8/29/2023
 Plotted On: Aug 29, 2023 3:20pm By: T.Walsh
 Tighe & Bond: J:\WW5002 Webster MA\034 PFAS Water Treatment\Drawings\Figures\Bigelow\01-Civil\W5002-034-CS-B-Site.dwg

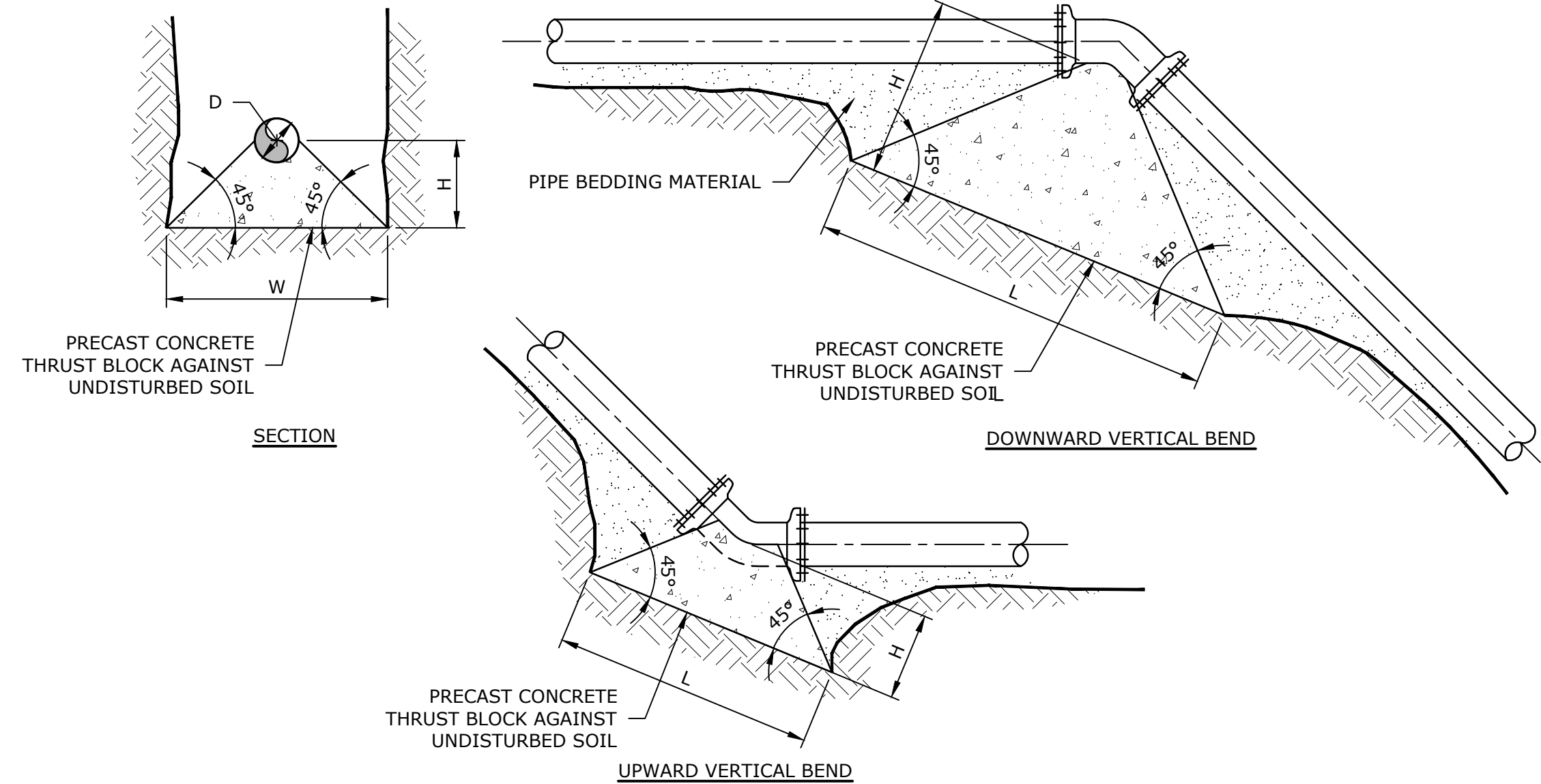


NOTES

1. ALL CONCRETE SHALL BE PRECAST (3000 PSI).
2. ALL MJ JOINTS SHALL HAVE RETAINER GLANDS.
3. CARE SHALL BE TAKEN TO AVOID BLOCKING HYDRANT BASE DRAIN HOLES DURING PLACEMENT OF THE CONCRETE THRUST BLOCK. DRAIN HOLES SHALL BE VERIFIED AS OPEN AND FREE OF OBSTRUCTIONS PRIOR TO BACKFILLING.
4. CARE SHALL BE TAKEN TO PLACE CONCRETE THRUST BLOCK TO ALLOW ACCESS TO ALL MECHANICAL JOINT GLANDS AND BOLTS. ALL BOLTS AND GLANDS SHALL BE FREE AND UNOBSTRUCTED BEFORE BACKFILLING.
5. HYDRANT SHALL BE SET PLUMB. VERTICAL HYDRANT EXTENSIONS SHALL BE USED AS NECESSARY TO PROPERLY LOCATE THE BREAKAWAY FLANGE PER MANUFACTURER'S RECOMMENDATIONS AND THE WEBSTER WATER DEPARTMENT REQUIREMENTS.
6. SET/LOCATE HYDRANT AS SPECIFIED IN SECTION 02518.

HYDRANT INSTALLATION

NO SCALE

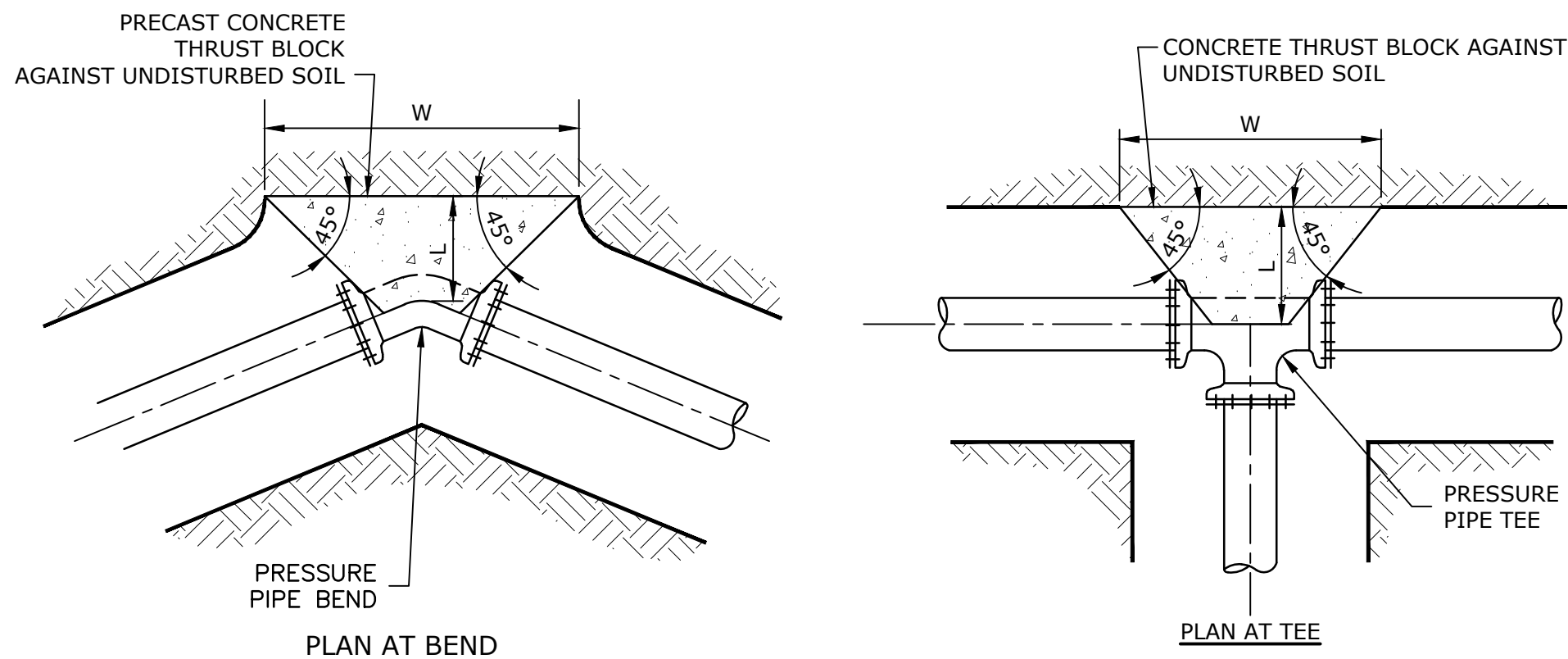


D	VERTICAL CONCRETE THRUST BLOCK							
	UPWARD VERTICAL BENDS				DOWNWARD VERTICAL BENDS			
	Bearing Area (SF)	L	H	W	Bearing Area (SF)	L	H	W
6	2.9	1.4	2.0	0.7	0.7	4.6	2.3	5.0
8	4.9	1.8	2.7	0.9	1.3	6.0	3.0	5.0
10	7.4	2.2	3.4	1.1	1.9	7.4	3.7	5.0
12	10.5	2.6	4.0	1.3	2.7	8.8	4.4	5.0

* THE WIDTH OF THE BLOCK (W) IS ASSUMED TO BE THE WIDTH OF THE TRENCH.

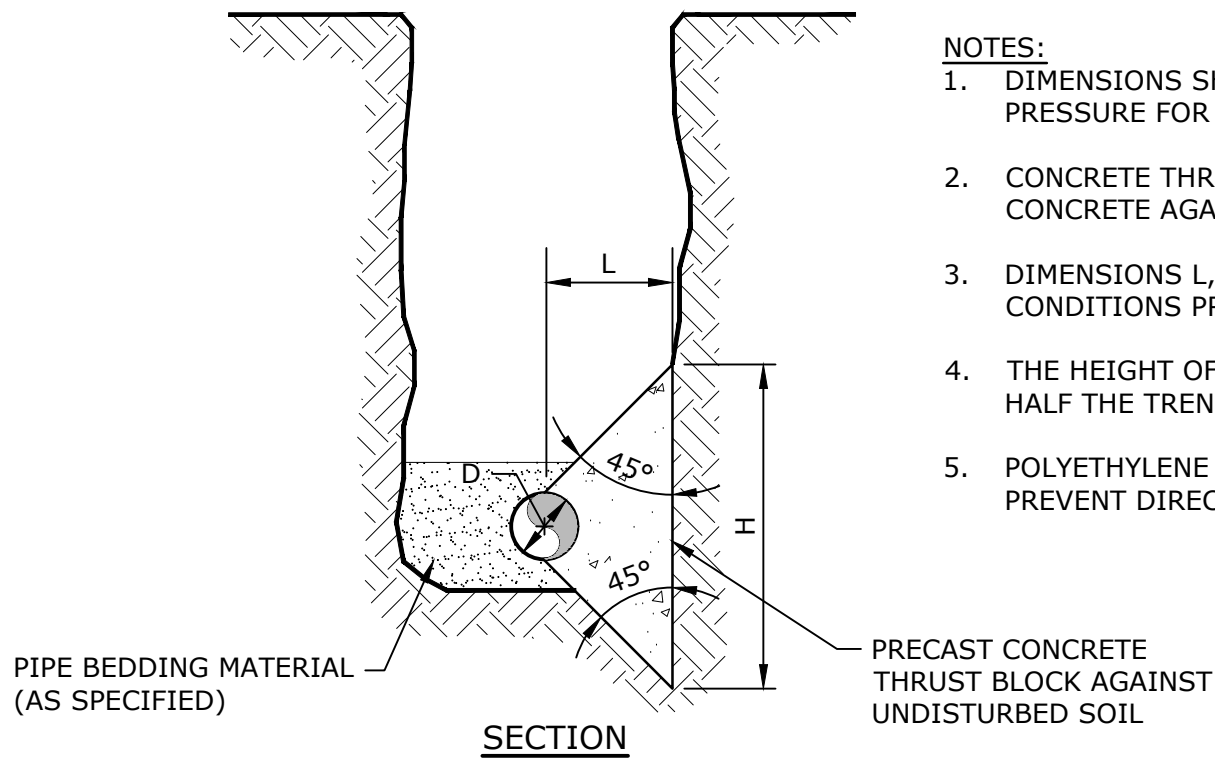
NOTES:

1. DIMENSIONS SHOWN WERE CALCULATED BASED ON A 200 PSI INTERNAL PIPE PRESSURE, SOIL BEARING LOADS OF 3,000 PSF, AND A 45° BEND.
2. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED OF PRECAST CONCRETE MATERIAL PLACED AGAINST UNDISTURBED SOIL.
3. DIMENSIONS L, W, & H MAY BE ADJUSTED TO MEET FIELD CONDITIONS, PROVIDED THE BEARING AREA AND VOLUME REMAIN UNCHANGED.



NOTES:

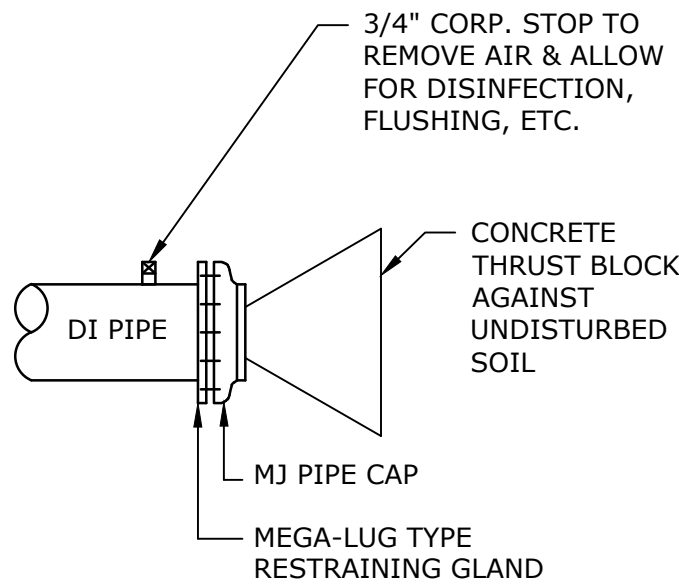
1. DIMENSIONS SHOWN CALCULATED PER 200 PSI INTERNAL PIPE PRESSURE FOR SOIL BEARING LOADS OF 3,000 PSF.
2. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED OF PRECAST CONCRETE AGAINST UNDISTURBED SOIL.
3. DIMENSIONS L, W, & H MAY BE ADJUSTED TO MEET FIELD CONDITIONS PROVIDED THE BEARING AREA REMAINS UNCHANGED.
4. THE HEIGHT OF THE BLOCK (H) SHALL BE LESS THAN OR EQUAL TO HALF THE TRENCH DEPTH.
5. POLYETHYLENE SHEETING SHALL BE PLACED OVER MJ FITTINGS TO PREVENT DIRECT CONTACT BETWEEN CONCRETE AND THE FITTING.



D	HORIZONTAL CONCRETE THRUST BLOCK											
	45 bend				11 1/4 or 22 1/2 bend				Tee/End			
	Bearing Area (SF)	L	H	W	Bearing Area (SF)	L	H	W	Bearing Area (SF)	L	H	W
6	2.9	1.4	2.0	0.7	1.5	1.0	1.5	0.5	3.7	1.6	2.3	0.8
8	4.9	1.8	2.7	0.9	2.5	1.3	1.9	0.7	6.4	2.1	3.1	1.1
10	7.4	2.2	3.4	1.1	3.8	1.6	2.4	0.8	9.7	2.5	3.9	1.3
12	10.5	2.6	4.0	1.3	5.3	1.9	2.8	1.0	13.7	3.0	4.6	1.5
16	18.2	3.5	5.2	1.8	9.3	2.5	3.7	1.3	23.8	4.0	5.9	2.0

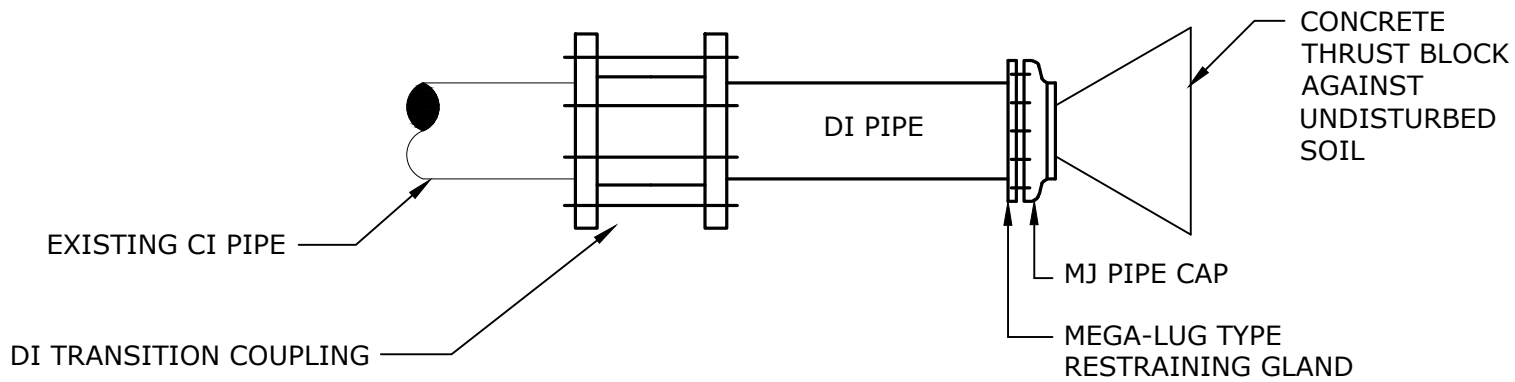
CONCRETE THRUST BLOCK FOR HORIZONTAL BENDS AND TEES

NO SCALE



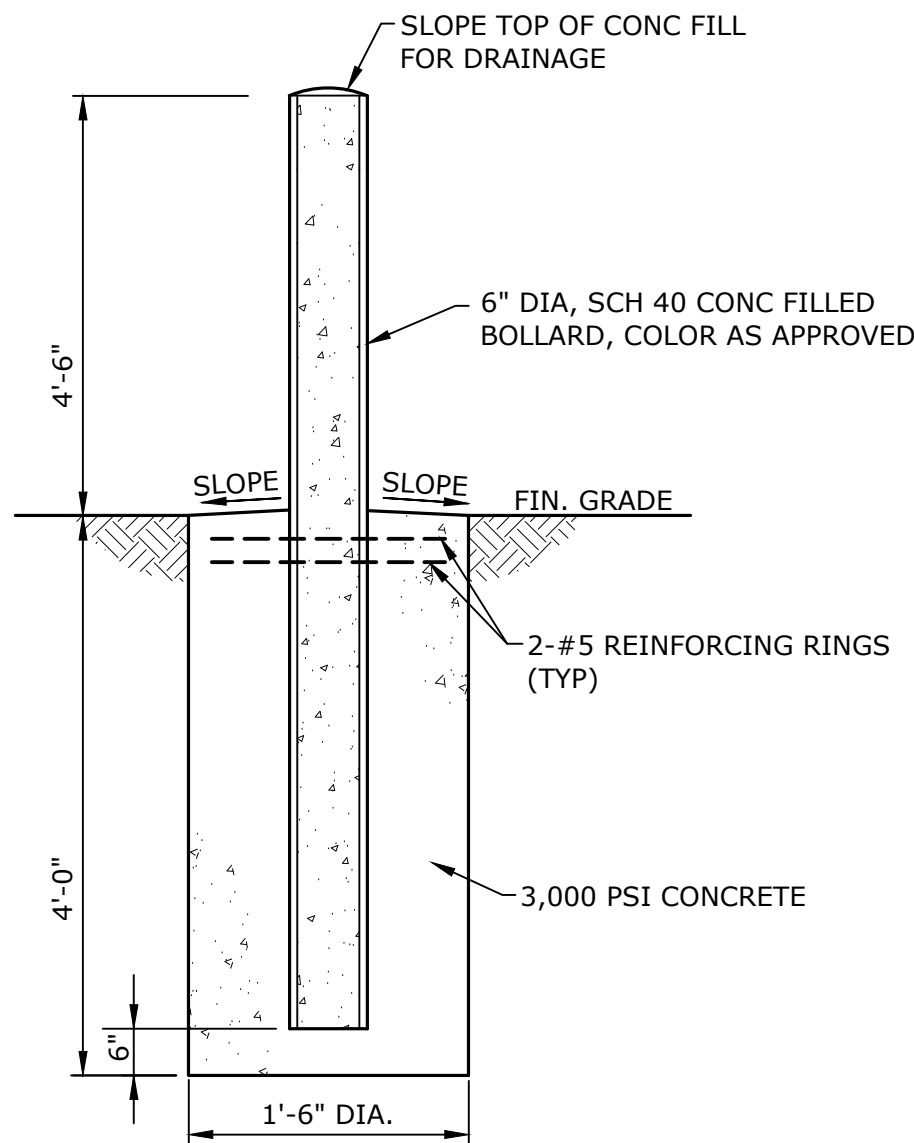
DI WATER MAIN CAPPING DETAIL

NO SCALE



WATER MAIN CAPPING DETAIL

NO SCALE



6" DIAMETER STEEL BOLLARD

NO SCALE

Size (in)	Fitting	Minimum Restrained Length (ft)
6"	90 Bend	19.5
6"	45 Vertical up bend	8.1
6"	45 Vertical down bend	20.5
8"	90 Bend	25.2
8"	45 Bend	10.4
8"	22 1/2 bend	5.0
8"	11 1/4 bend	2.5
8"	Dead end/Valve	49.4
8"	45 Vertical up bend	10.4
8"	45 Vertical down bend	26.6
8"	8" x 6" Tee	18.7
8"	8" x 8" Tee	33.2
10"	45 Bend	12.6
10"	45 Vertical up bend	12.6
10"	45 Vertical down bend	32.2
12"	90 Bend	35.7
12"	45 Bend	14.8
12"	22 1/2 bend	7.1
12"	11 1/4 bend	3.5
12"	Dead end/Valve	49.4
12"	45 Vertical up bend	14.8
12"	45 Vertical down bend	37.9
12"	12" x 12" Tee	60.3
12"	12" x 8" Tee	33.2
12"	12" x 6" Tee	18.7

MINIMUM RESTRAINED LENGTHS FOR DI PIPE

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BIGELOW
ROAD WTP

Webster Water
Department

Town of Webster,
Massachusetts

MARK DATE DESCRIPTION

PROJECT NO: W5002-034-B

DATE: SEPTEMBER 5, 2023

FILE: W5002-034-CS-B-Site.dwg

DRAWN BY: TMP

DESIGNED/CHECKED BY: TJG/DMT

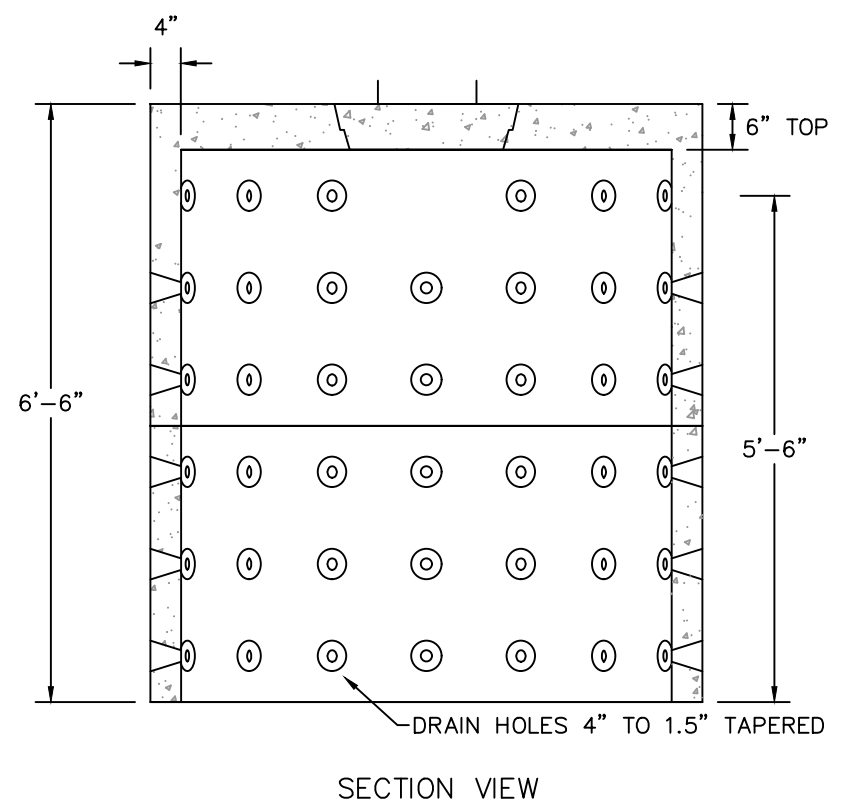
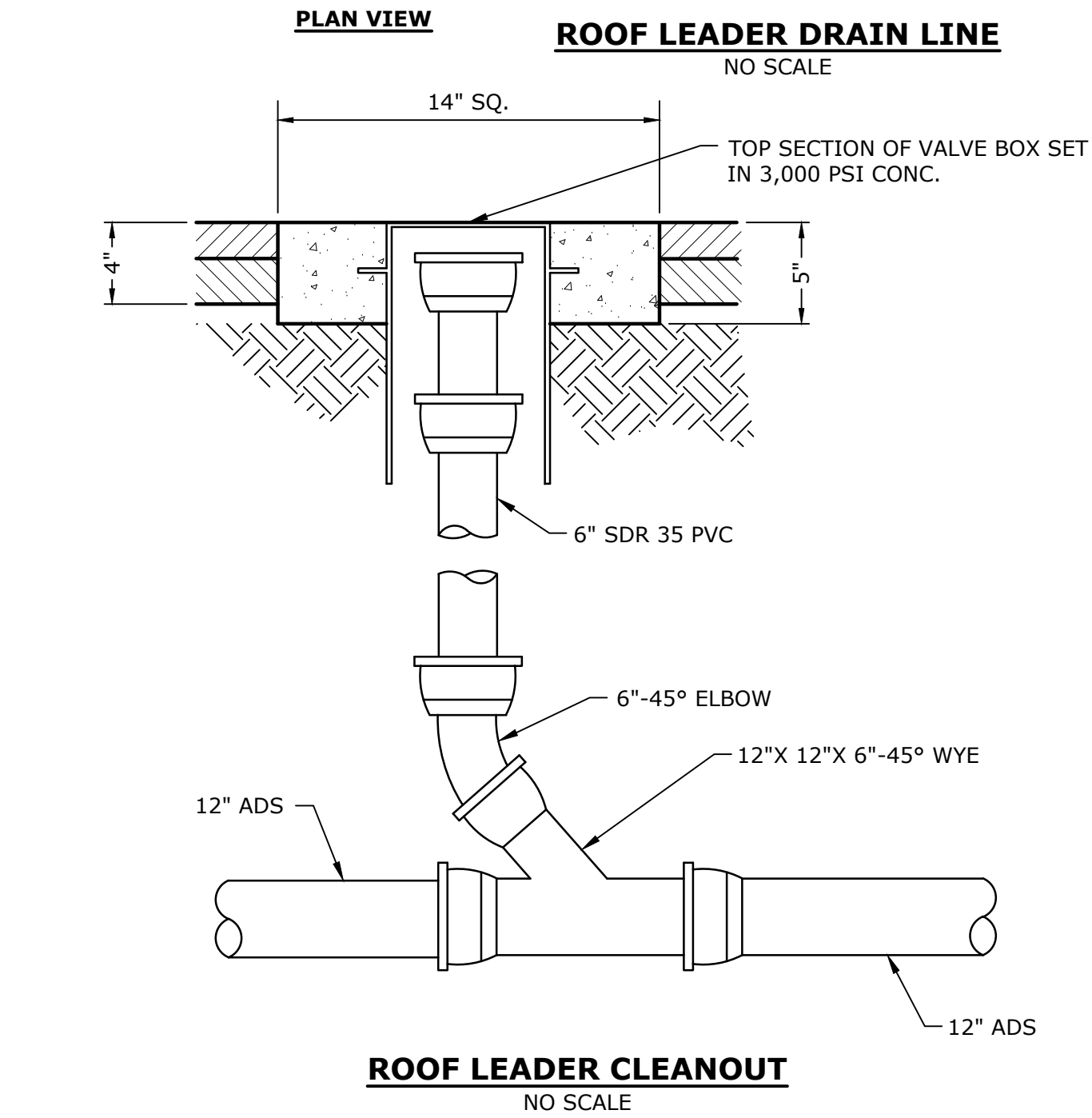
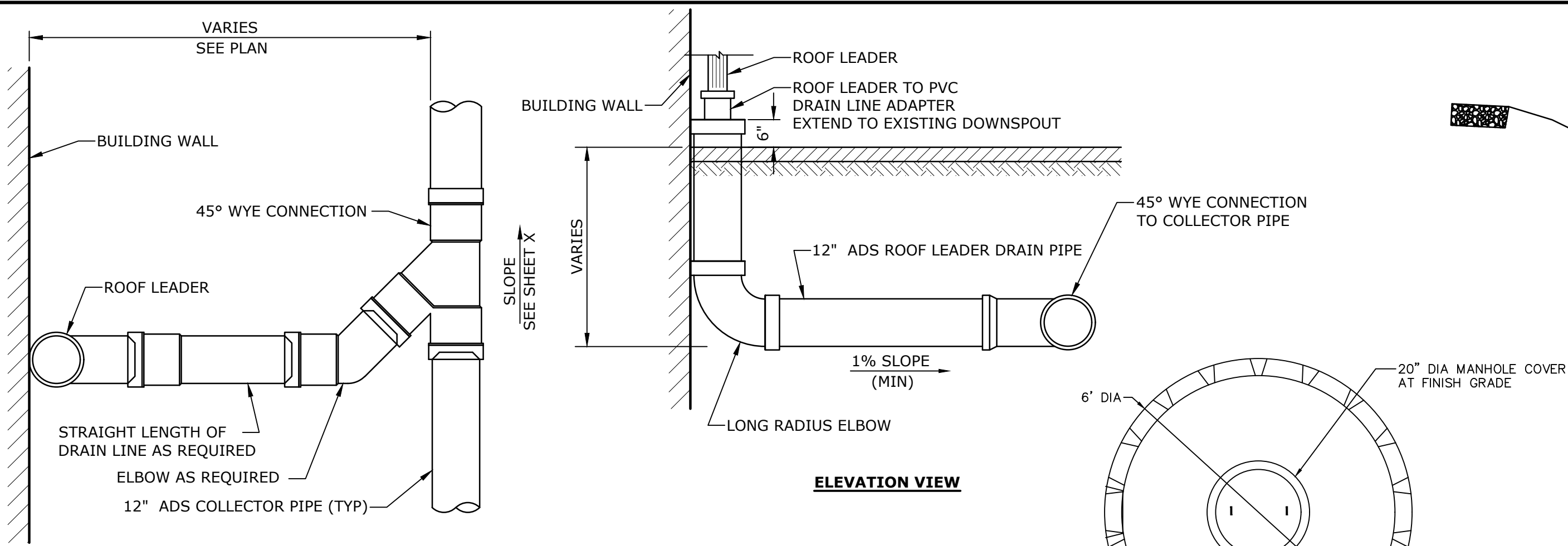
APPROVED BY: -

CIVIL DETAILS - 3

SCALE: NO SCALE

C-503

Last Saved: 8/29/2023 3:20pm By: T.Welsh
Plotted On: Aug 29, 2023 3:20pm By: T.Welsh
Tighe & Bond 1:1 W5002 Webster W4034 #PAS Water Treatment Drawings Figures Bigelow 01-Civil W5002-034-CS-B-Site.dwg



- NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING.
3. PROVIDE 12" OF CRUSHED STONE AROUND SIDES AND BOTTOM OF STRUCTURE

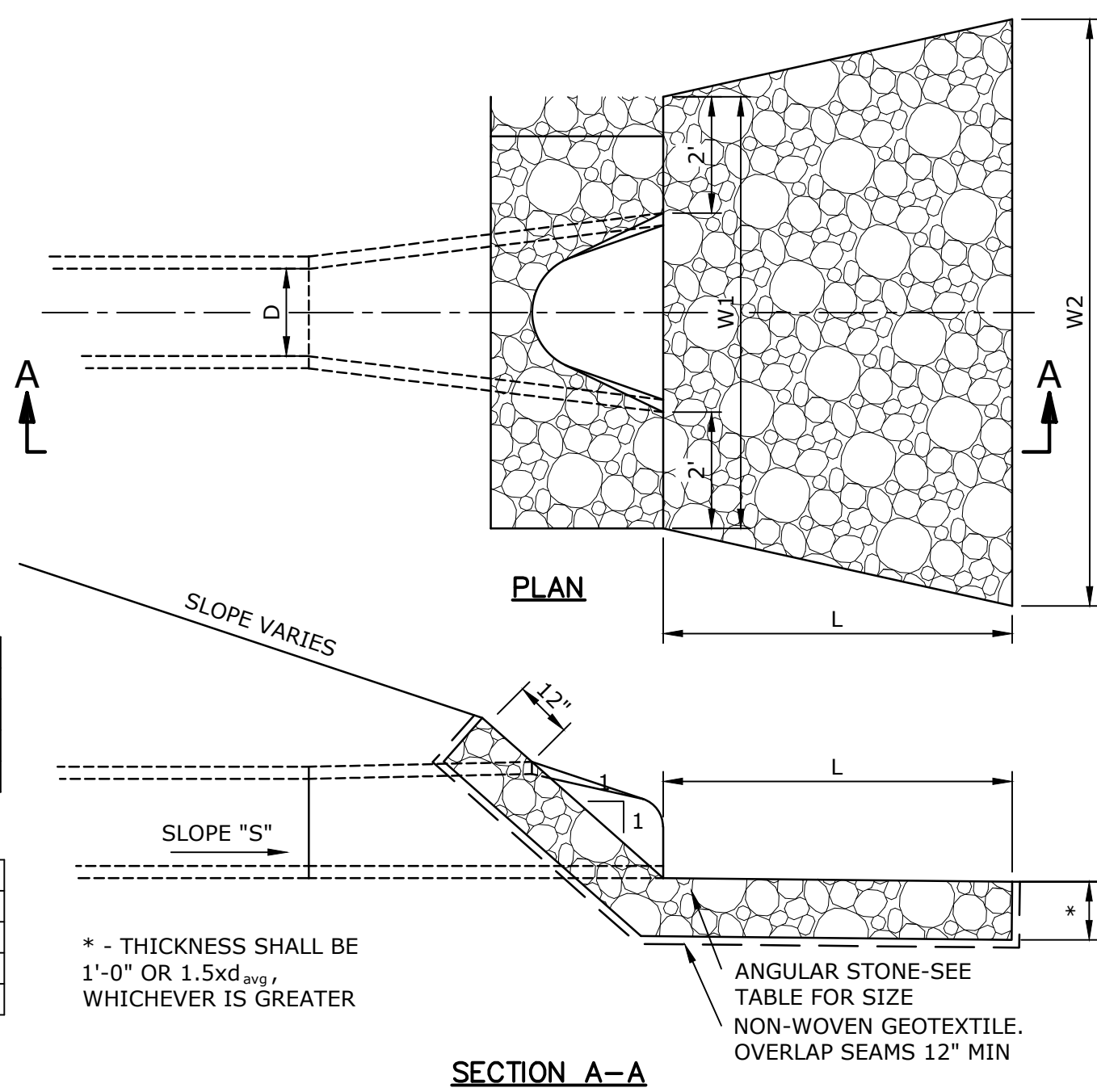
DIMENSIONS FOR "S"=5.0%

D	12"	15"	18"	21"	24"
W1	6'	6'-6"	7'	7'-6"	8'
W2	14'	18'	18'	22'	26'
L	8'	12'	12'	16'	20'
d _{avg}	6"	6"	8"	12"	12"

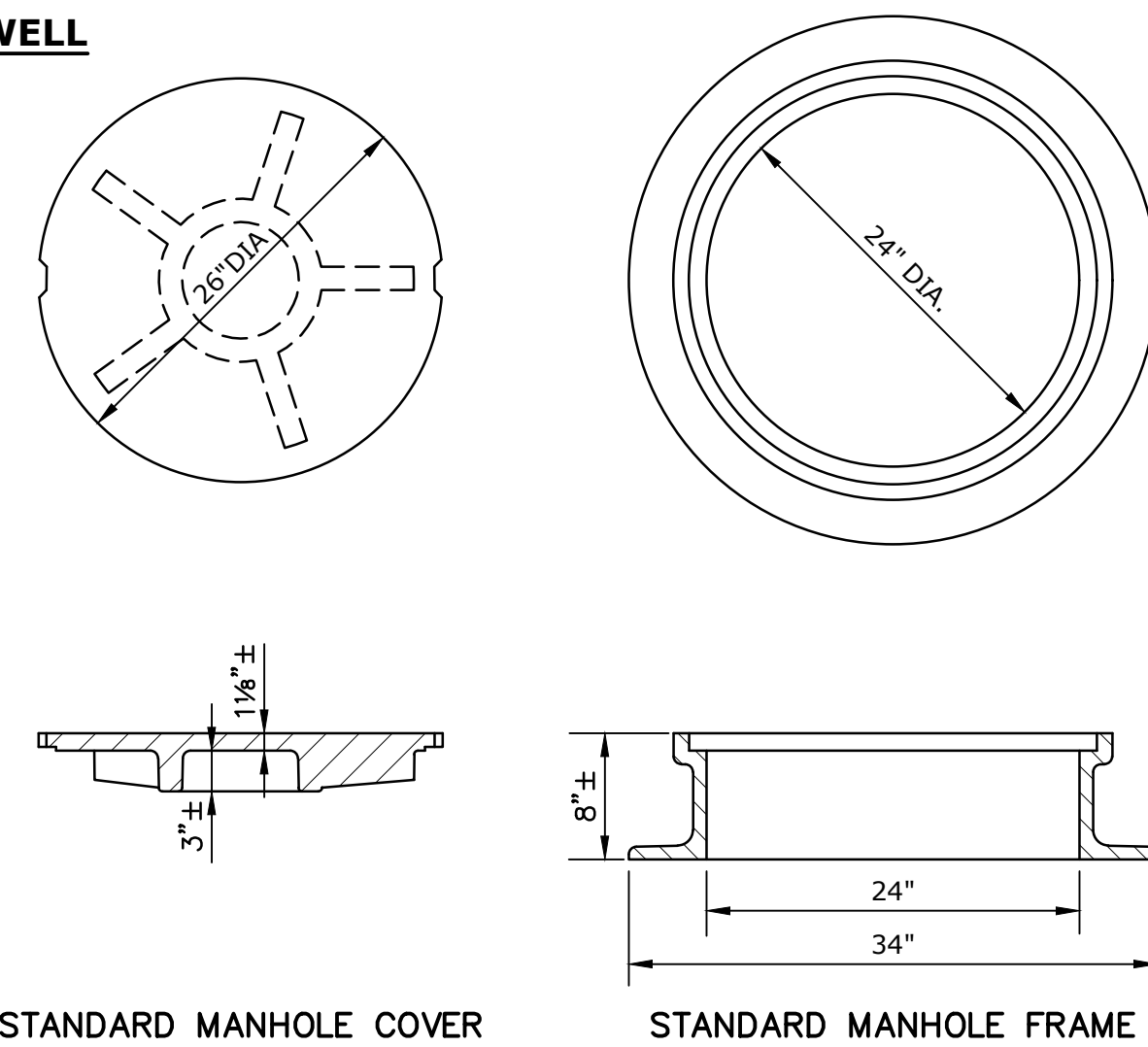
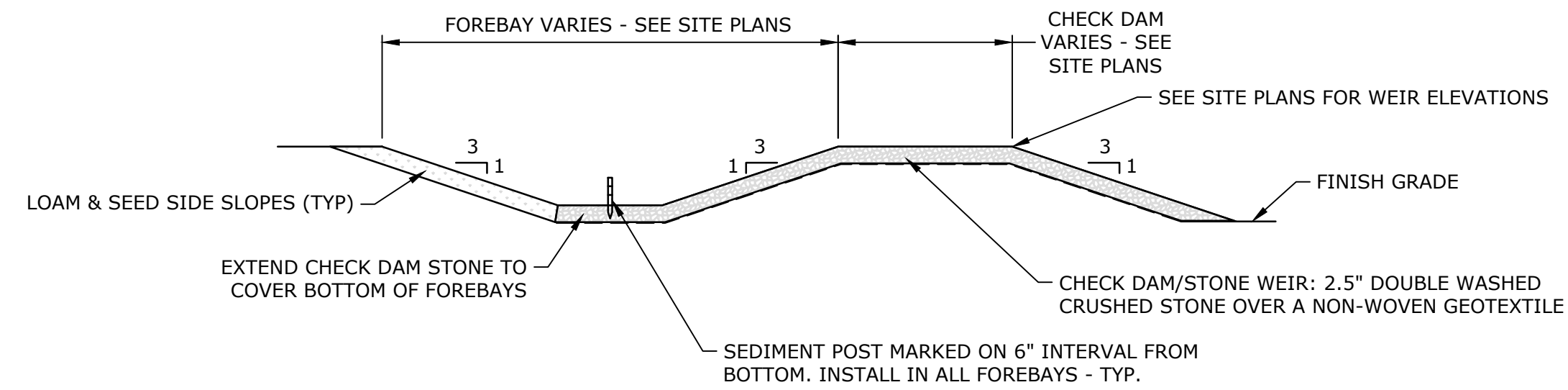
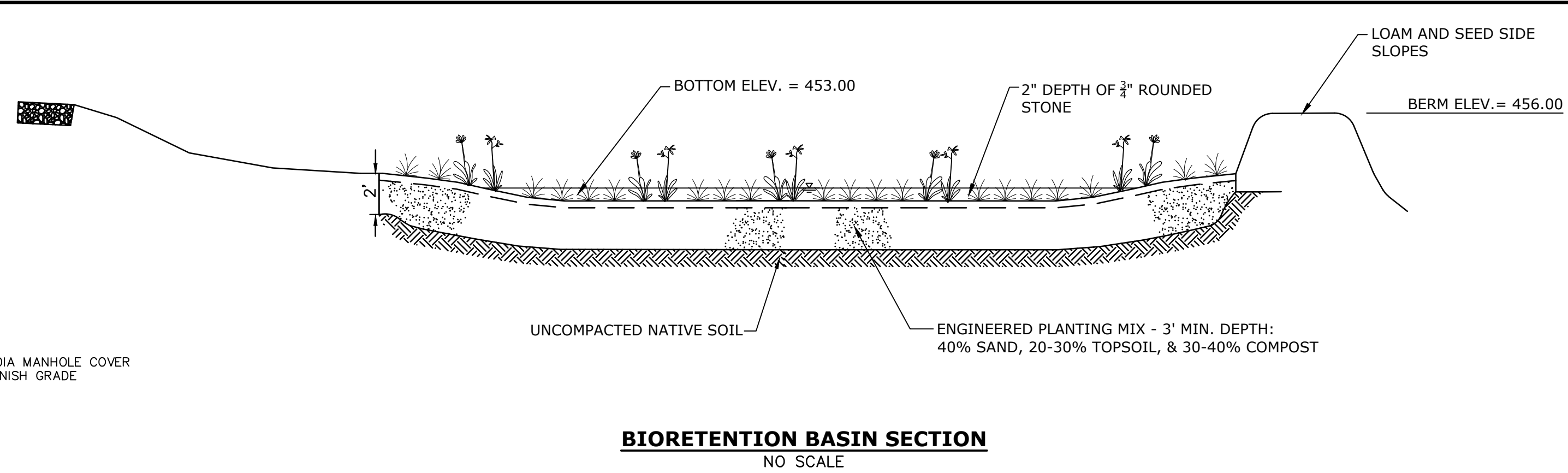
DIMENSIONS FOR "S"=1.0%

D	12"	15"	18"	21"	24"
W1	6'	6'-6"	7'	7'-6"	8'
W2	6'	8'	10'	12'	14'
L	5'	5'	5'	6'-6"	8'-4"
d _{avg}	3"	6"	6"	6"	6"

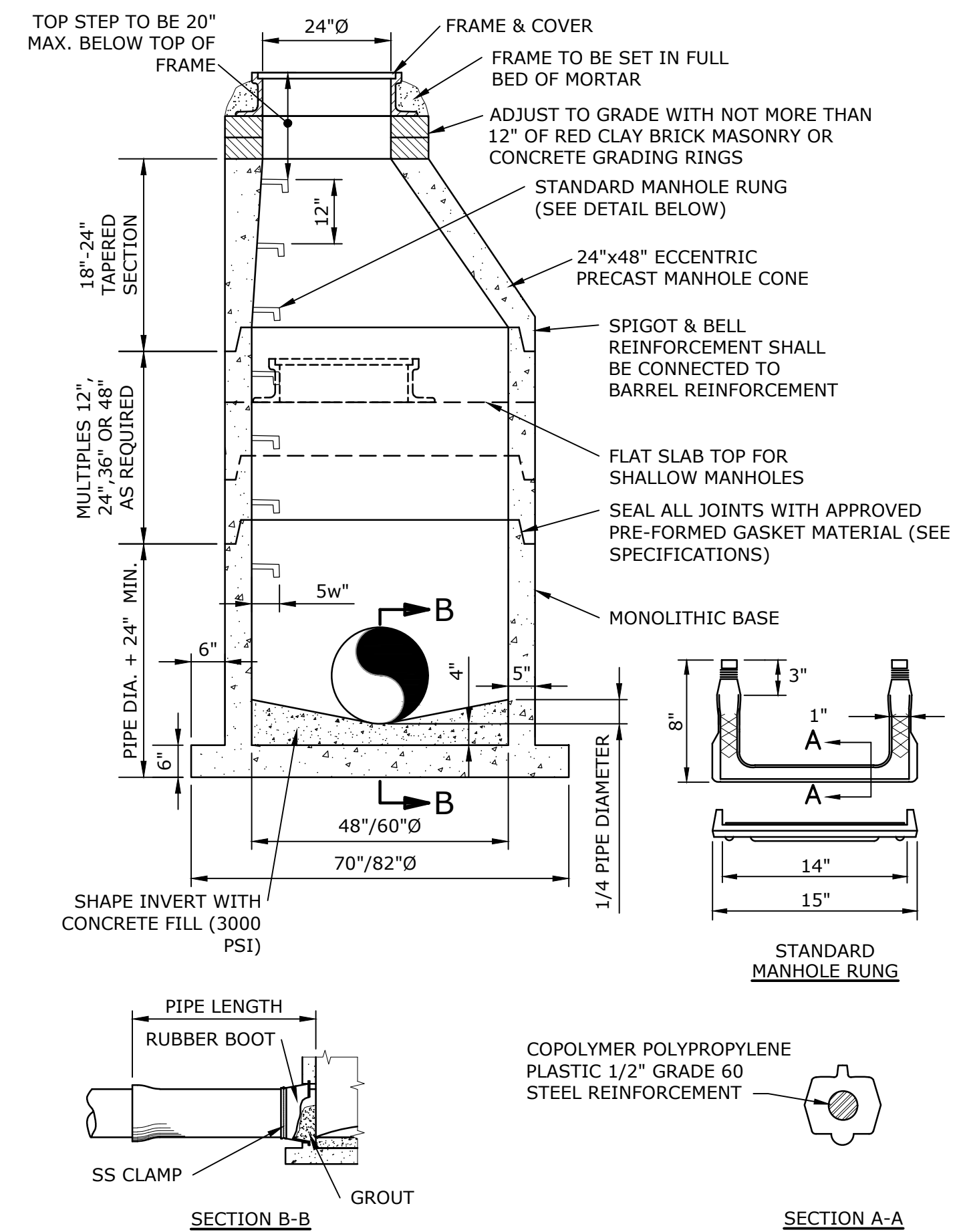
d_{avg} DENOTES AVERAGE STONE DIAMETER



STONE OUTLET PROTECTION
NO SCALE



- NOTES:
1. FRAME AND COVER SHALL BE PROVIDED FROM THE SAME MANUFACTURER.
2. LETTERING SHALL BE PROVIDED ON COVERS AS SPECIFIED.



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**BIGELOW
ROAD WTP**

**Webster Water
Department**

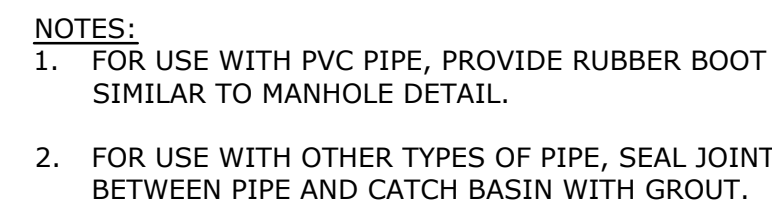
Town of Webster,
Massachusetts

MARK	DATE	DESCRIPTION
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PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-CS-B-Site.dwg	
DRAWN BY:	TCW	
DESIGNED/CHECKED BY:	TJG/DMT	
APPROVED BY:		

CIVIL DETAILS - 4

SCALE: NO SCALE

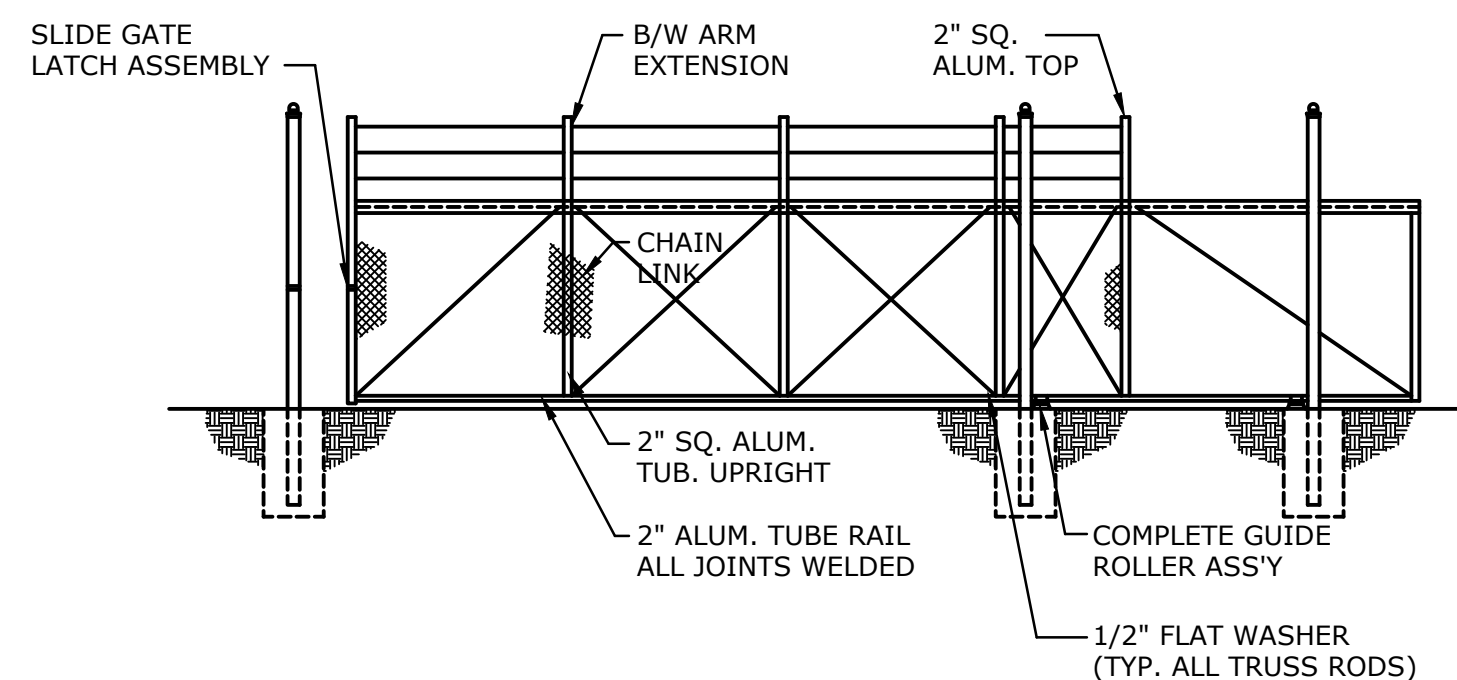
C-504



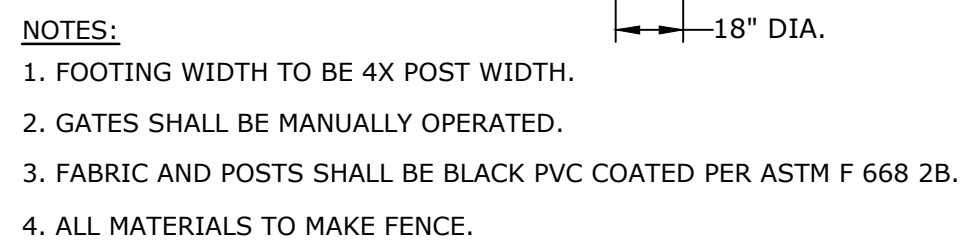
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NO SCALE



NO SCALE



NO SCALE



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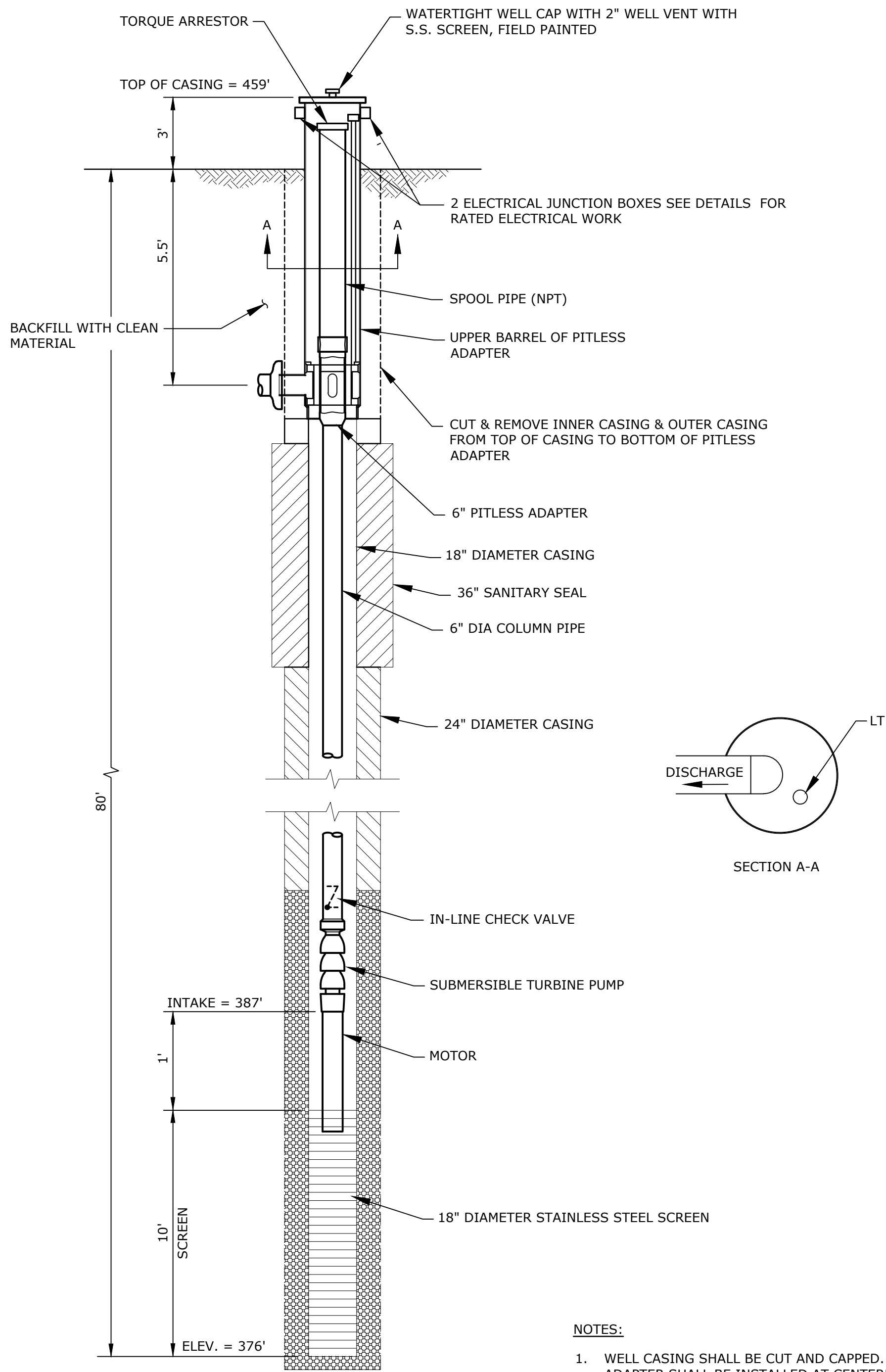
Town of Webster,
Massachusetts

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PROJECT NO:		W5002-034-B
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-CS-B-Site.dwg	
DRAWN BY:	TCW	
DESIGNED/CHECKED BY:	TJG/DMT	
APPROVED BY:	-	

SCALE: NO SCALE

C-505

Last Saved: 8/29/2023 3:20pm By: TFW
Tighe & Bond 311W W5002 Webster MA 034 PPAS Water TreatmentDrawings FiguresBigelow01-CivilW5002-034-CS-B-Site.dwg



**WELLHEAD PITLESS ADAPTER CONNECTION
AND GRAVEL PACKED WELL 3A DETAIL**
NO SCALE

NOTES:

1. WELL CASING SHALL BE CUT AND CAPPED. A PITLESS ADAPTER SHALL BE INSTALLED AT CENTERLINE OF DISCHARGE AT 5'-6" BELOW LOCAL GROUND ELEVATION.
2. THE PITLESS ADAPTER SHALL BE SIZED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. THE FINISHED GRADE FOR A RADIUS OF 5 FEET AROUND THE WELL CASING SHALL BE FILLED WITH A HIGH CLAY CONTENT LOAM TO A SLOPE OF ABOUT ONE INCH PER FOOT, COMPACTED, FINE GRADED AND SEEDED.
4. CONTRACTOR SHALL PROVIDE A 1.5" PVC STILLING WELL TUBE WITHIN THE WELL FOR THE WELL LEVEL TRANSDUCER.

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ROAD WTP**

Webster Water
Department

Town of Webster,
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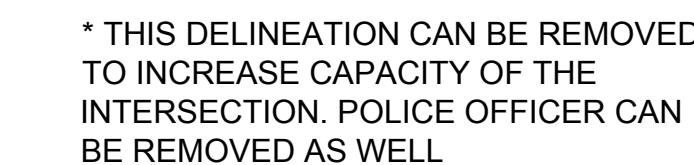
A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO: W5002-034-B		
DATE: SEPTEMBER 5, 2023		
FILE: W5002-034-CS-B-Site.dwg		
DRAWN BY: TCW		
DESIGNED/CHECKED BY: TJG/DMT		
APPROVED BY: -		

WELL 3A DETAILS

SCALE: NO SCALE

1. ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, UNLESS SUPERCEDED BY THESE PLANS.
2. ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
3. TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
4. 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.
5. 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).
6. NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT, AND SIMILAR OPERATIONS.
7. THE FIRST FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
8. THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
9. MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
10. 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.
11. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
12. SIGN MA-R2-10a AND MA-R2-10e SHALL BE LOCATED AT THE PROJECT LIMITS FOR THE DURATION OF THE WORK.

● REFLECTORIZED PLASTIC DRUM OR 36" CONE	 WORK ZONE
P/F POLICE/FLAGGER DETAIL	 DIRECTION OF TRAFFIC
 TYPE III BARRICADE	 CHANGEABLE MESSAGE SIGN
	 ARROW BOARD



WORK ZONES
SPEEDING
FINES
DOUBLED

MA-R2-10a

END ROAD
WORK

DOUBLE
FINES END

MA-R2-10e

R2-10
60"X48"

SEE NOTE 12

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

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



LATERAL AND LONGITUDINAL DROP-OFF DETAILS

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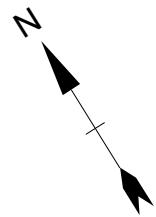
Webster Water
Department

Town of Webster,
Massachusetts

A	9/5/2023	PERMIT SET	
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PROJECT NO: W5002-034-B			
DATE: SEPTEMBER 5, 2023			
FILE: W5002-034-CS-B-Site.dwg			
DRAWN BY: TCW			
DESIGNED/CHECKED BY: TJG/DMT			
APPROVED BY: -			

SCALE:	NO SCALE
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C-507



GENERAL FLOOR PLAN NOTES

- DO NOT SCALE PLANS. FIELD VERIFY AND COORDINATE ALL DIMENSIONS AND CONDITIONS SHOWN. REPORT ANY DISCREPANCIES OR DEVIATIONS TO THE ENGINEER.
- LAY OUT NEW PARTITIONS FOR THE ENGINEER'S REVIEW PRIOR TO ROUGH FRAMING OF WALLS. VERIFY COLUMN LOCATIONS AND COORDINATE WITH PARTITION LAYOUT.
- DIMENSIONS ARE FROM FACE OF MASONRY OR FACE OF STUD UNLESS NOTED OTHERWISE.
- SEE ACCESSIBILITY STANDARDS ON GENERAL ARCHITECTURAL SHEETS FOR CLEARANCES AND MOUNTING HEIGHTS OF TYPICAL ELEMENTS AND ACCESSORIES.
- ACCESSIBILITY CLEARANCES ON ACCESSIBLE ROUTES AND ACCESSIBLE DESIGNATED RESTROOMS SHALL TAKE PRECEDENCE OVER OTHER DIMENSIONS UNLESS NOTED OTHERWISE.
- AT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES, PROVIDE ADDITIONAL BLOCKING, FIRESTOPPING, AND/OR FIRESAFING AT BOTH SIDES OF THE ASSEMBLY TO MAINTAIN FIRE RATING REQUIRED BY CODE.
- PROVIDE ACCESS PANELS AS REQUIRED AT WALL AND CEILING LOCATIONS FOR ACCESS TO DUCTWORK, PIPING VALVES, CLEANOUTS, AND OTHER CONCEALED ITEMS FOR MAINTENANCE. WHERE ACCESS PANELS ARE REQUIRED IN FIRE RATED ASSEMBLIES, PROVIDE FIRE RATED ACCESS PANELS OF EQUAL RATING TO THE ASSEMBLY. COORDINATE LOCATIONS WITH STRUCTURAL, M/E/P, HVAC, AND FP DRAWINGS.
- SEE ELECTRICAL DRAWINGS FOR LOCATIONS OF SURFACE MOUNTED AND CONCEALED WIRING (CONDUITS, JUNCTION BOXES, ETC.) COORDINATE WITH INSTALLATION OF OTHER SYSTEMS AND ROOM FINISHES AS REQUIRED.
- PROVIDE BLOCKING WHERE REQUIRED FOR WALL MOUNTED CABINETS, SHELVES, TOILET ACCESSORIES, AND FIXTURE COMPONENTS. COORDINATE BLOCKING LOCATIONS WITH THE ARCHITECTURAL FLOOR PLANS, INTERIOR ELEVATIONS, AND ACCESSIBILITY REQUIREMENTS DEMONSTRATED IN THE ARCHITECTURAL GENERAL DRAWINGS.
- PROVIDE SEPARATION AT DISSIMILAR METALS AND MATERIALS TO PREVENT GALVANIC ACTION.
- PAINT EXPOSED SURFACES EXCEPT WHERE FINISH SCHEDULES INDICATE THAT A SURFACE OR MATERIAL IS NOT TO BE PAINTED OR IS TO REMAIN UNFINISHED. IF THE FINISH SCHEDULE DOES NOT SPECIFICALLY MENTION AN ITEM OR SURFACE, FINISH THE ITEM OR SURFACE TO MATCH SIMILAR ADJACENT MATERIALS.
- ALL STRUCTURAL, M/E/P, HVAC, AND FP SYSTEMS SHOWN ON THE ARCHITECTURAL DRAWINGS ARE DEPICTED FOR GENERAL REPRESENTATION AND SHALL NOT TAKE PRECEDENCE OVER THE ENGINEER'S DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF DISCREPANCIES EXIST BETWEEN THE ARCHITECTURAL AND ENGINEERING DRAWINGS.
- SEE ALTERNATES SCHEDULE IN THE SPECIFICATIONS FOR ADDITIONAL WORK DESCRIPTIONS.

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ROAD WTP

Webster Water
Department

Town of Webster,
Massachusetts

A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-B-A-101	
DRAWN BY:	AH - MI	
DESIGNED/CHECKED BY:	MI	
APPROVED BY:	-	

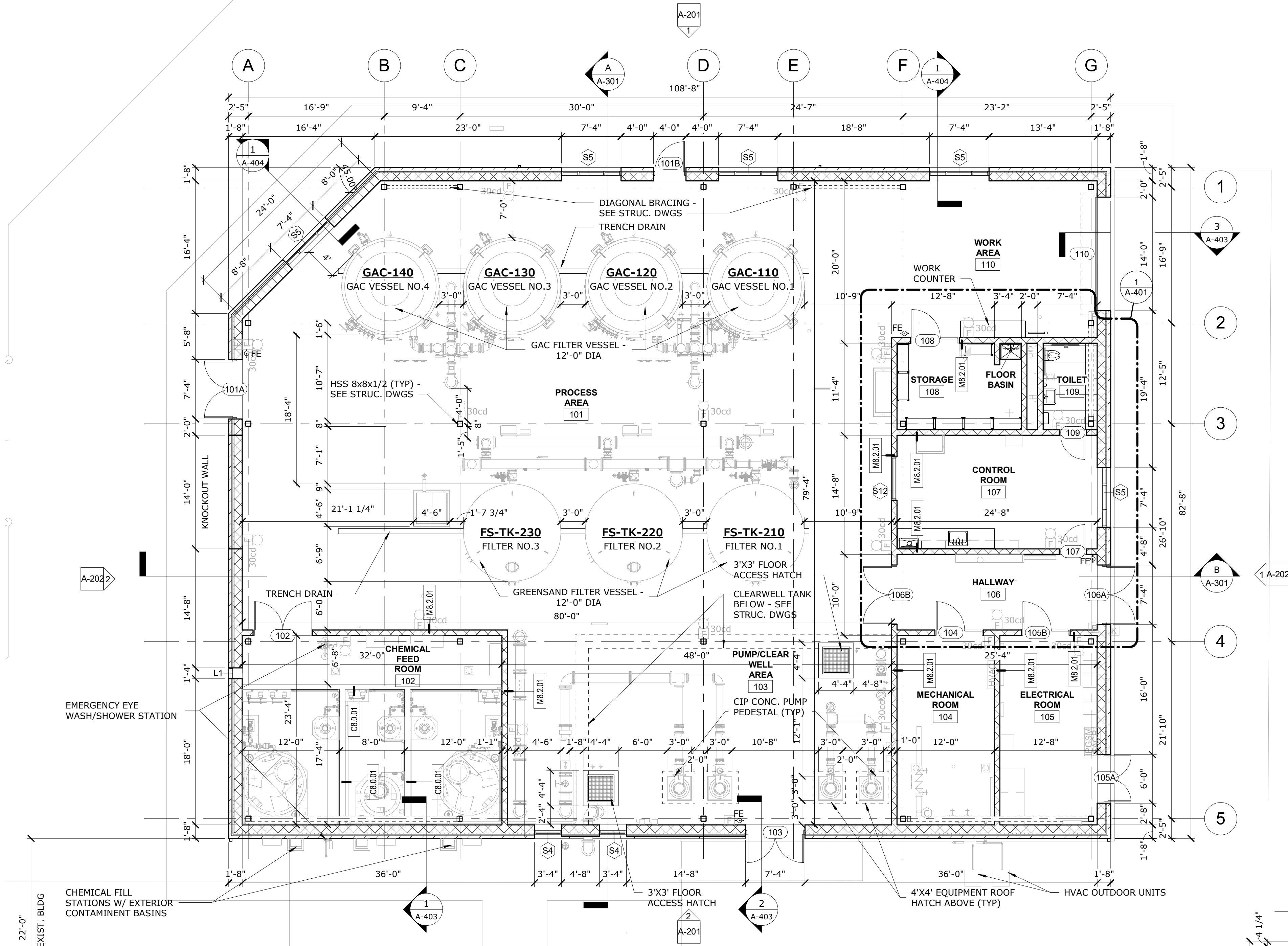
FIRST FLOOR & EQUIPMENT
PLATFORM PLANS

SCALE: AS SHOWN

A-101

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Tighe & Bond: C:\Users\TBD\Documents\W5002-034 WTP CENTRAL ARCHITECTURAL BIGELOW_MITrafficSOUND.rvt

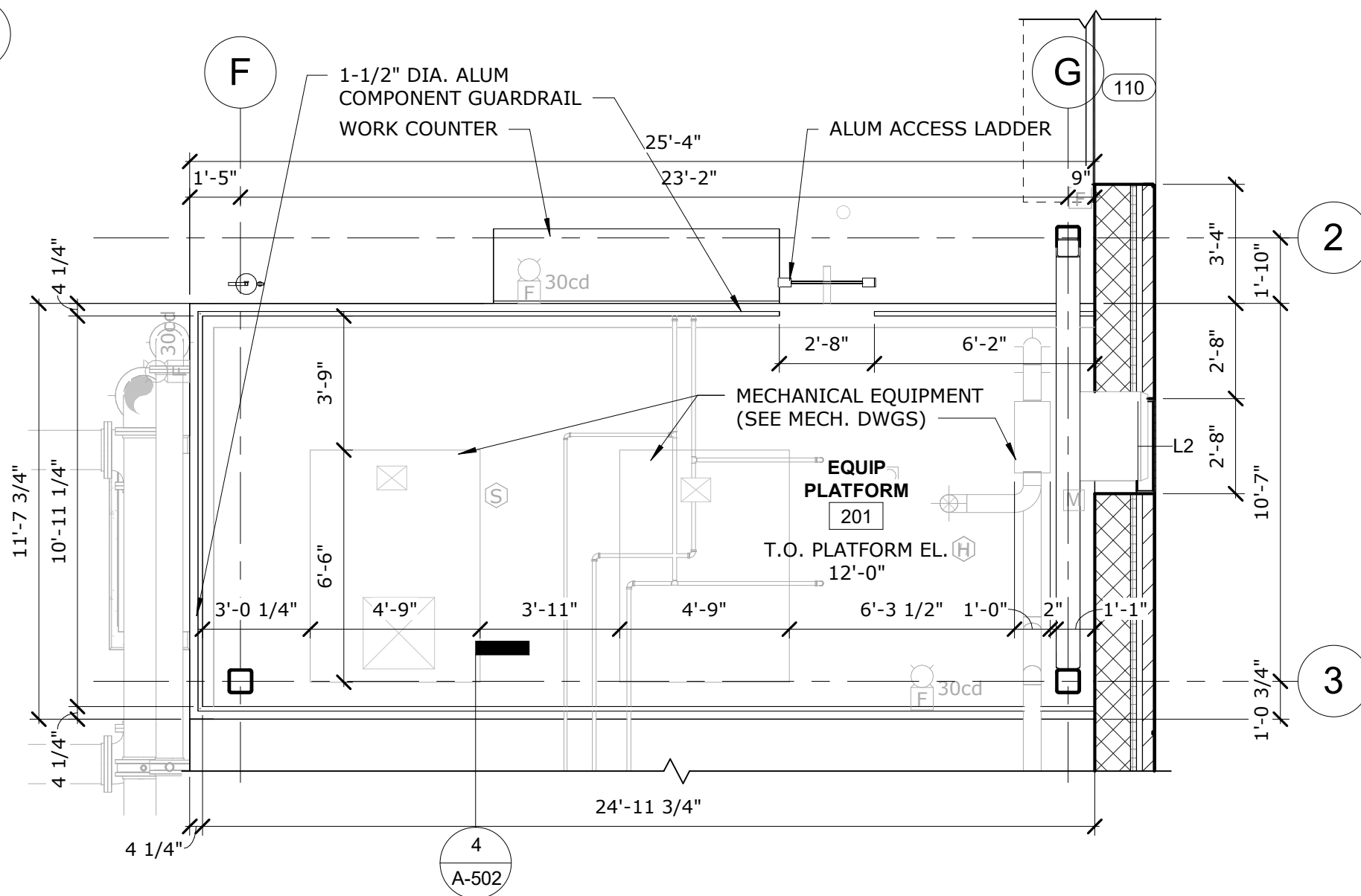
By: AH - MI
Tighe & Bond



FIRST FLOOR PLAN

1/8" = 1'-0"

1



EQUIPMENT PLATFORM PLAN

1/4" = 1'-0"

2

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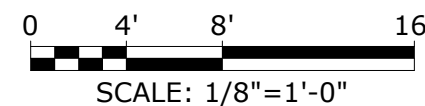
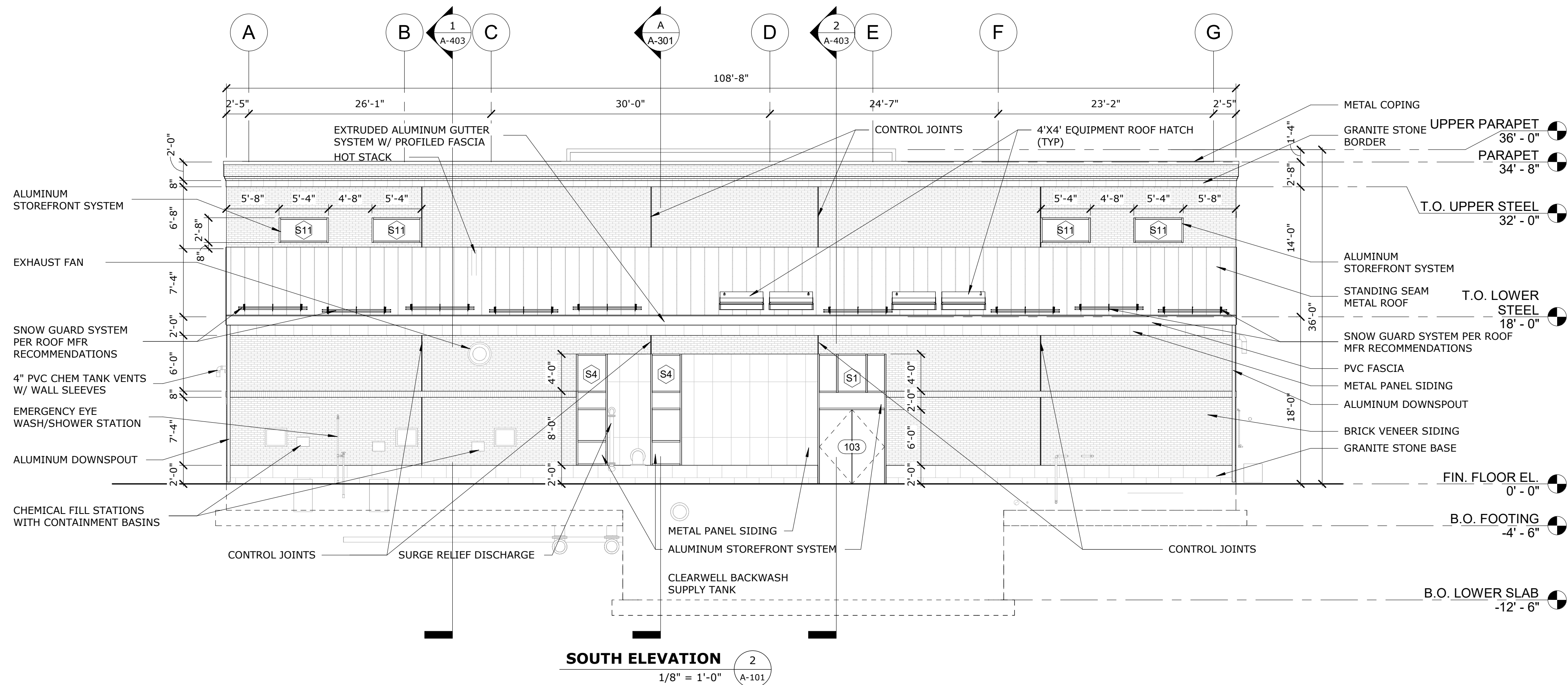
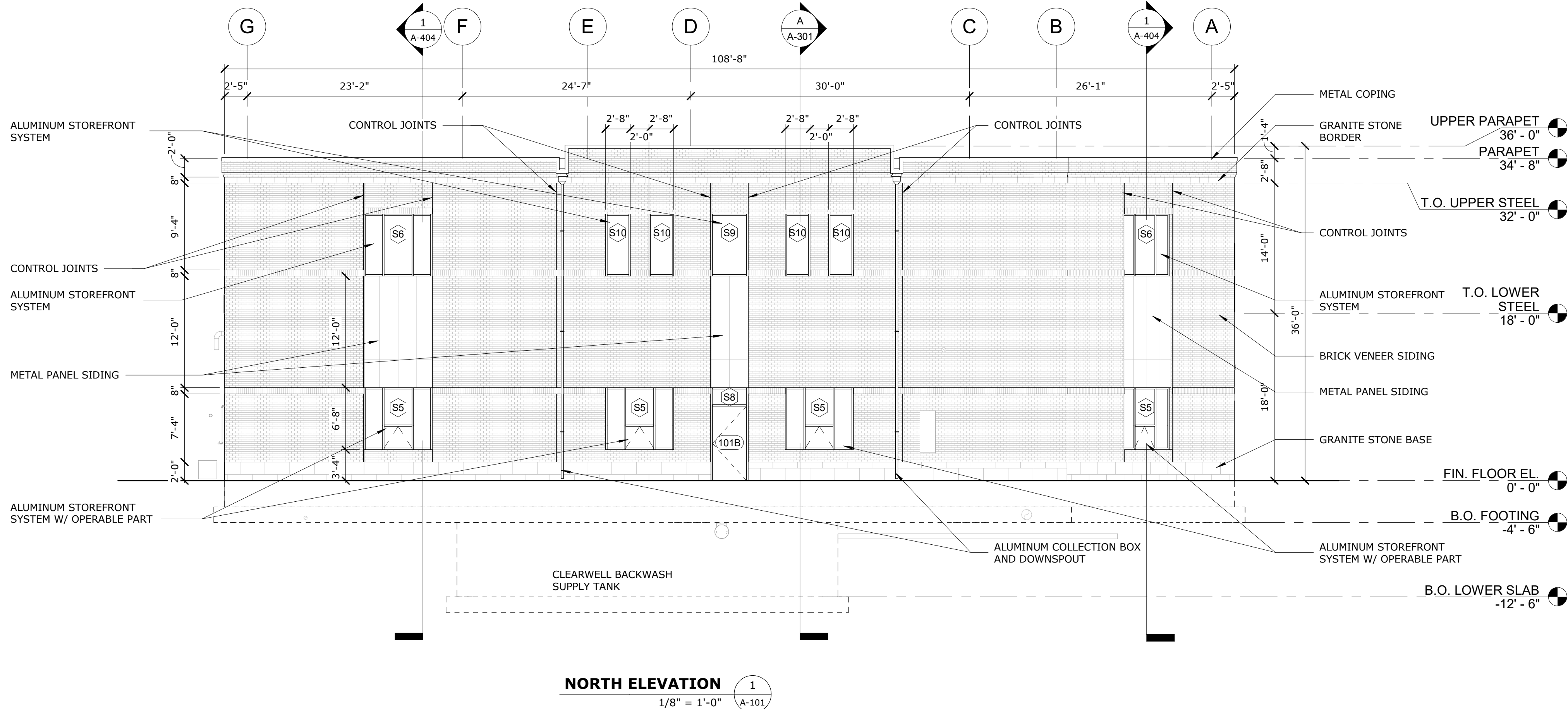
Town of Webster,
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MARK	DATE	DESCRIPTION
PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-B-A-201	
DRAWN BY:	AH - MI	
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APPROVED BY:	-	

BUILDING ELEVATIONS

SCALE: AS SHOWN

A-201



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BIGELOW ROAD WTP

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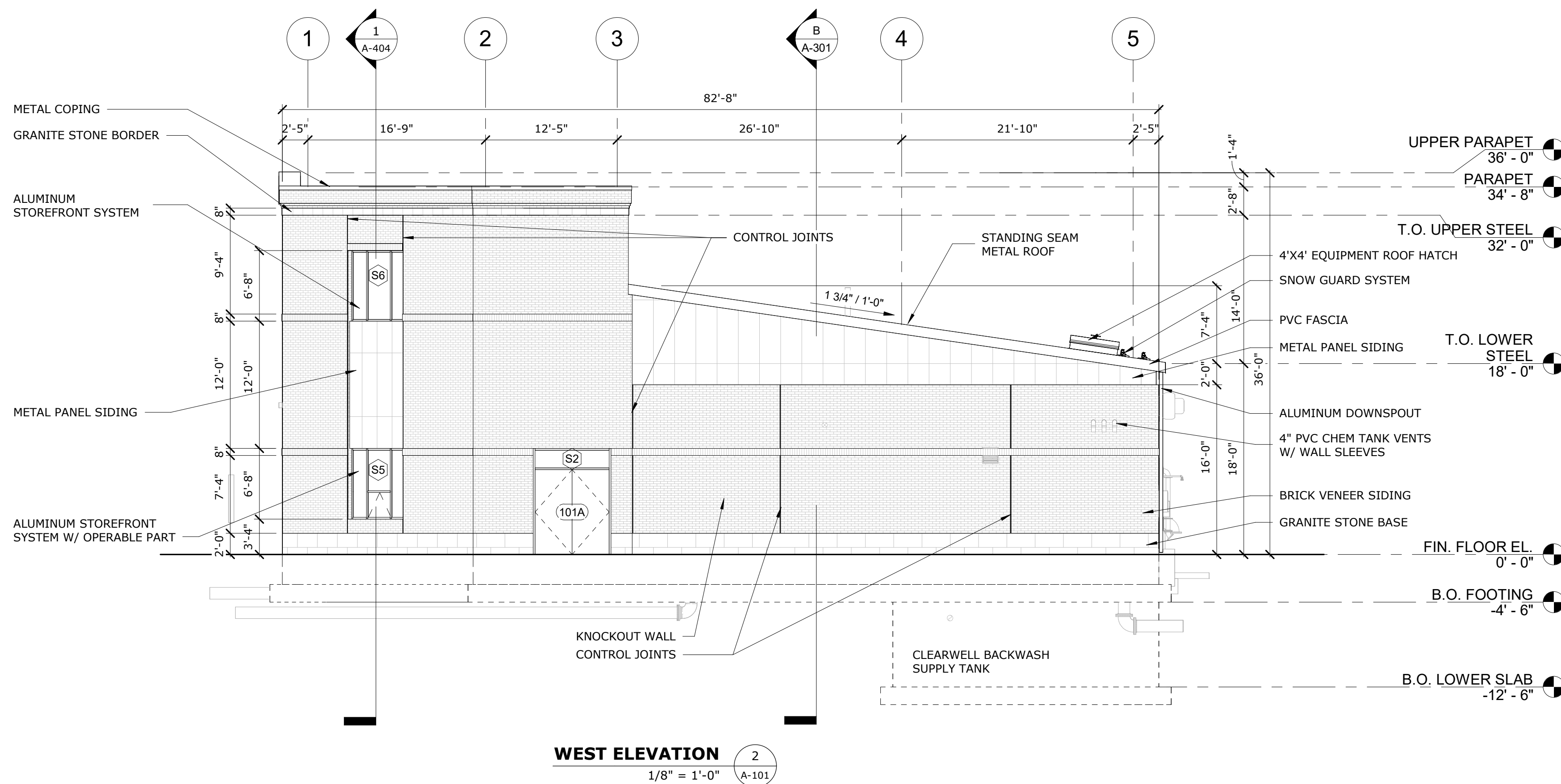
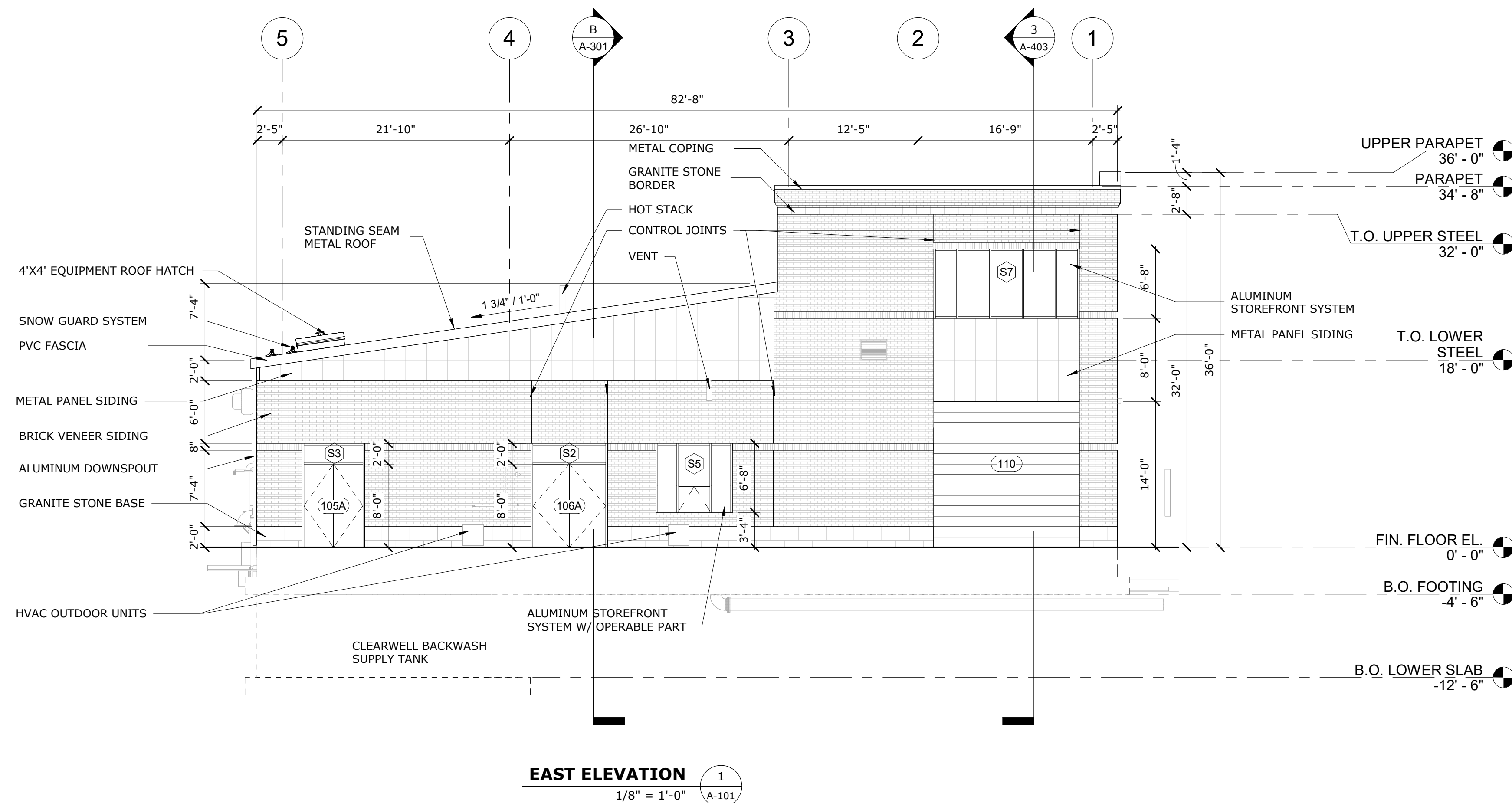
Town of Webster,
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A	9/5/2023	PERMIT SET
MARK	DATE	DESCRIPTION
PROJECT NO:		W5002-034-B
DATE:		SEPTEMBER 5, 2023
FILE:		W5002-034-B-A-202
DRAWN BY:		AH - MI
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BUILDING ELEVATIONS

SCALE: AS SHOWN

A-202



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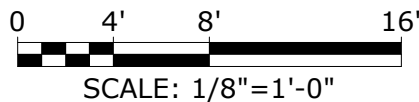
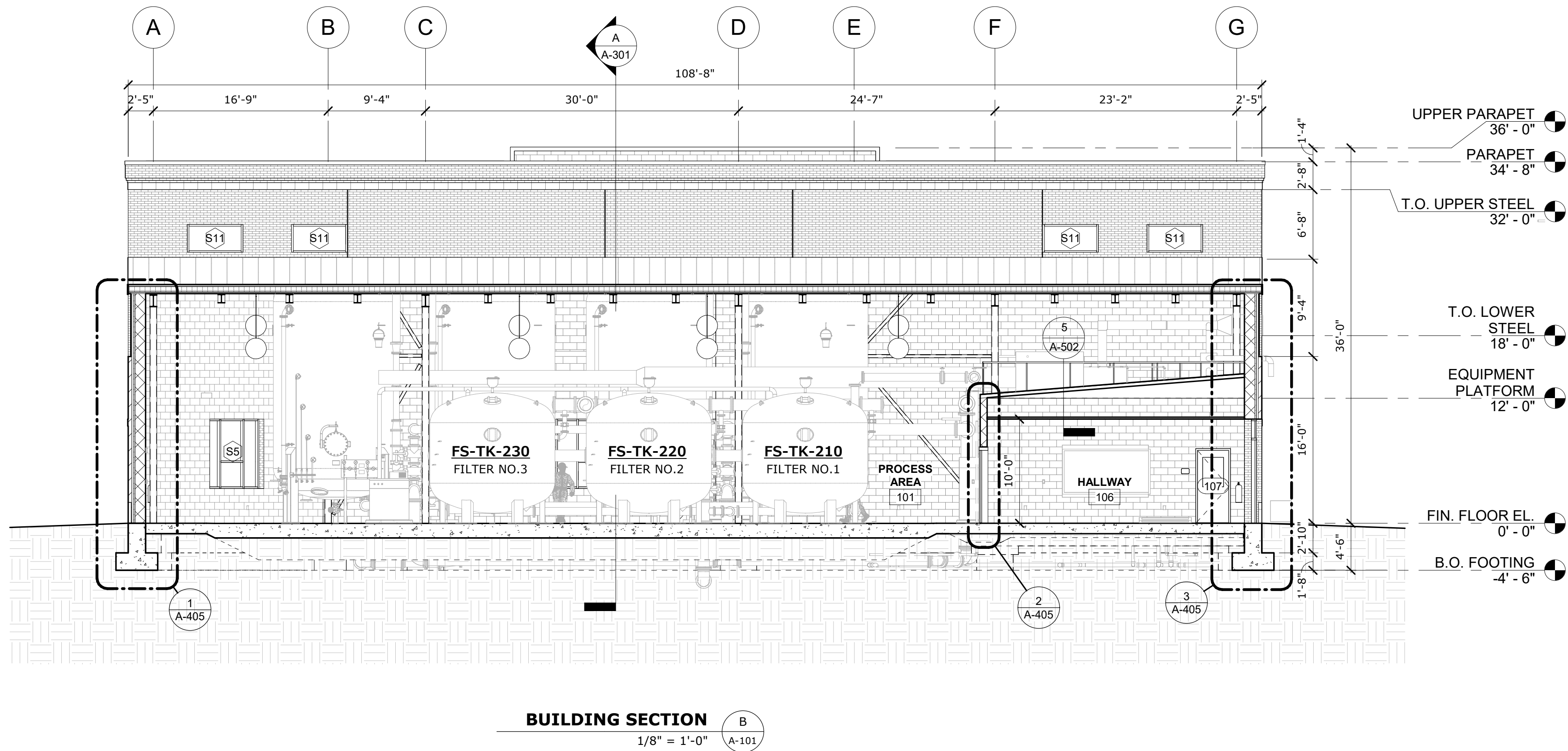
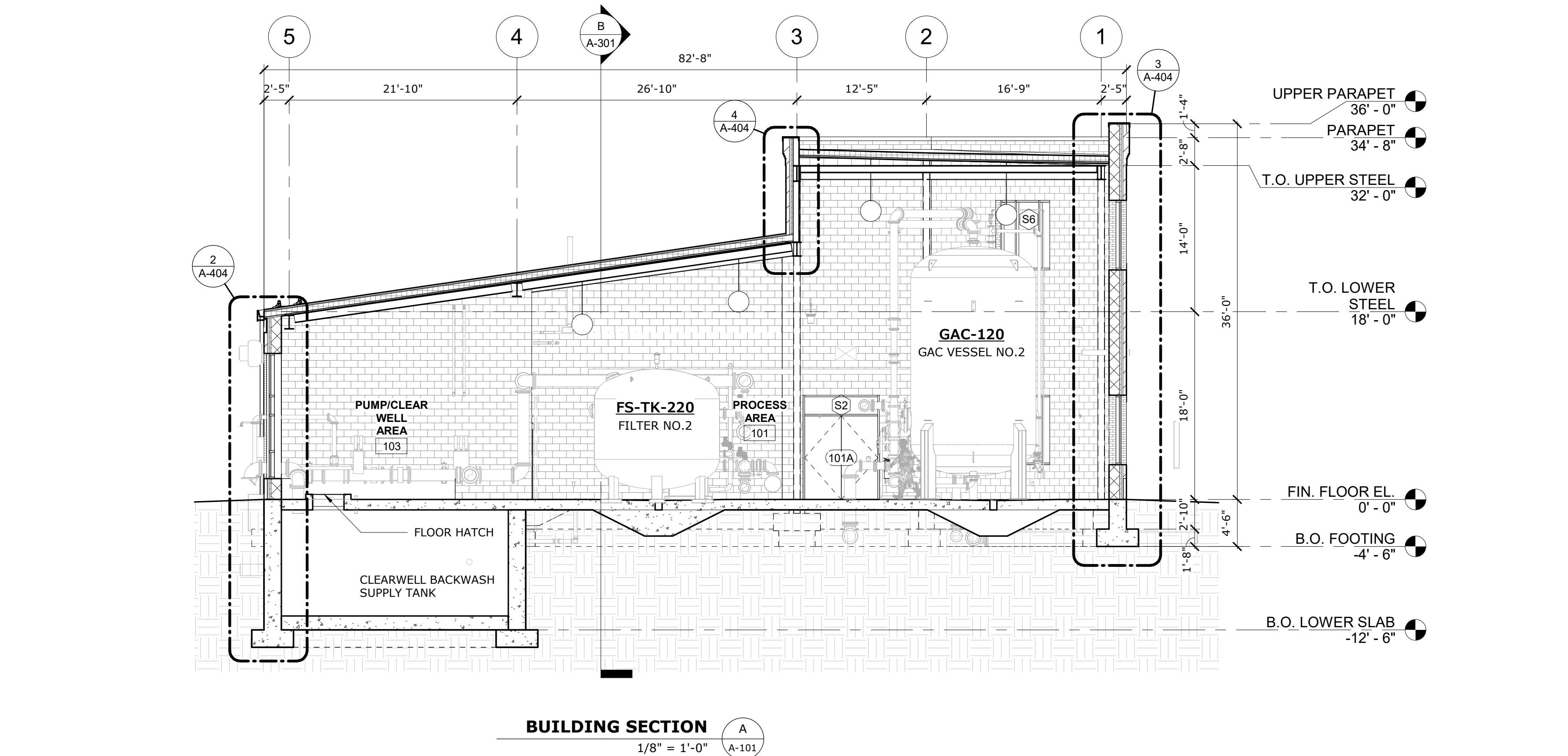
Town of Webster,
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A MARK	9/5/2023 DATE	PERMIT SET DESCRIPTION
PROJECT NO:	W5002-034-B	
DATE:	SEPTEMBER 5, 2023	
FILE:	W5002-034-B-A-301	
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DESIGNED/CHECKED BY:	MI	
APPROVED BY:	-	

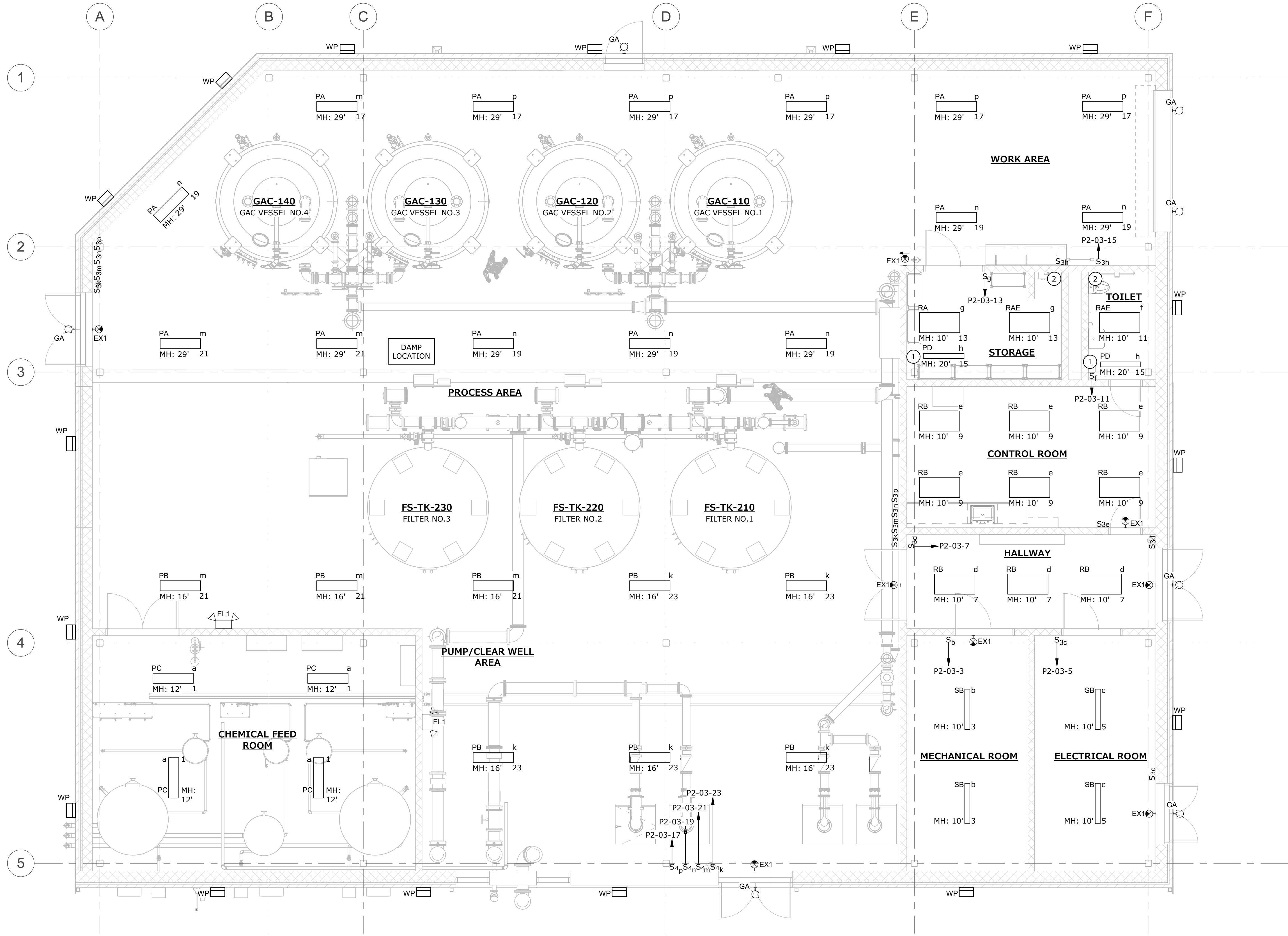
BUILDING SECTIONS

SCALE: AS SHOWN

A-301



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 File: C:\Users\JMH\Documents\W5002-034-ELEC-B-PAS_JMHKey@tighebond.com.rvt



ELECTRICAL LIGHTING PLAN - WTP
 SCALE: 3/16" = 1'-0"

KEY NOTES:

1. FIXTURE LOCATED 20' AFF (GROUND LEVEL).
 FIXTURES SHALL ILLUMINATE EQUIPMENT
 PLATFORM ABOVE STORAGE ROOM AND TOILET.
2. MOUNT ONE 3h SWITCH AT GROUND LEVEL BY THE
 ACCESS LADDER, AND ONE AT THE SECOND FLOOR
 LEVEL BY THE ACCESS LADDER (48" AFF TYP)

0 2' 4' 8'
 SCALE: 3/16"=1'-0"

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PROJECT NO:	W5002-034-B	
DATE:	AUGUST 2023	
FILE:	W5002-034-B-E-201	
DRAWN BY:	JMH	
DESIGNED/CHECKED BY:	CST	
APPROVED BY:	-	

ELECTRICAL LIGHTING PLAN
 - WTP

SCALE:

E-201