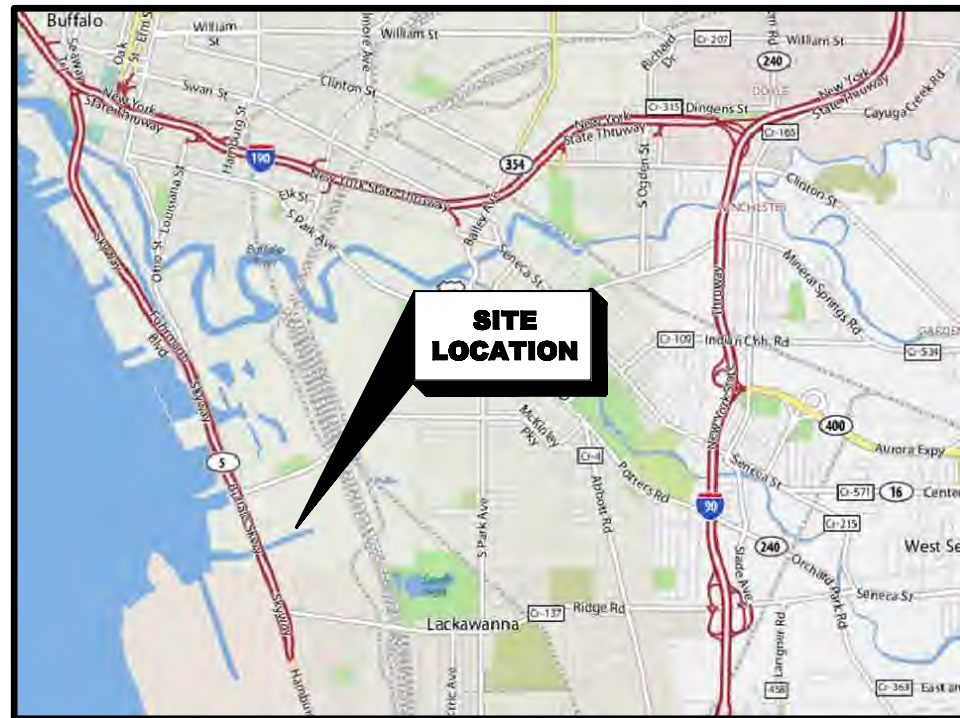


Appendix J

Record Drawings





LOCATION PLAN

BUFFALO URBAN DEVELOPMENT CORPORATION (BUDC)



CONTRACT NO. 2009-P3-1
NYSDOT P.I.N. 5757.98

UNION SHIP CANAL PUBLIC OPEN SPACE
PARCEL 3 DEVELOPMENT

AUGUST 2009

IN PARTNERSHIP WITH



DEPARTMENT OF
ENVIRONMENT & PLANNING



XREFS:..\\XREF\\5071--legend.dwg ...\\XREF\\0291--TITLEBLOCK.dwg IMAGES:None
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INDEX OF DRAWINGS:

--	COVER		
G1	INDEX OF DRAWINGS, LEGEND, SYMBOLS AND NOTES	S1	PEDESTRIAN BRIDGE PLAN AND SECTIONS
G2	EXISTING SITE PLAN WEST	S2	PEDESTRIAN BRIDGE EXCAVATION PLAN AND SECTIONS
G3	EXISTING SITE PLAN EAST	S3	PEDESTRIAN BRIDGE BRIDGESEAT PLAN AND SECTIONS
G4	EXISTING CANAL CROSS SECTIONS	S4	PEDESTRIAN BRIDGE REINFORCING PLAN AND ELEVATIONS
G5	EXISTING CANAL CROSS SECTIONS	S5	PEDESTRIAN BRIDGE BEARING DETAILS
G6	SITE PREPARATION PLAN WEST	E1	SYMBOLS, ABBREVIATIONS, AND ELECTRICAL DETAILS
G7	SITE PREPARATION PLAN EAST	E2	SITE LAYOUT AND ELECTRICAL PLAN WEST
G8	SUBGRADE GRADING PLAN WEST	E3	SITE LAYOUT AND ELECTRICAL PLAN EAST
G9	SUBGRADE GRADING PLAN EAST	GA1	CANAL SEDIMENT CAP DETAILS
G10	GRADING AND DRAINAGE PLAN WEST	GA2A	WETLAND PLAN AND PROFILE
G11	GRADING AND DRAINAGE PLAN EAST	GA2B	WETLAND PLANTING PLAN AND DETAILS
G12	STORM WATER REMEDIATION DETAILS	GA2C	ALTERNATIVE SUBGRADE GRADING PLAN WEST
G13	MISCELLANEOUS REMEDIATION DETAILS	GA2D	ALTERNATIVE SUBGRADE GRADING PLAN EAST
G14	LEGEND AND NOTES	GA2E	ALTERNATIVE SIT GRADING PLAN EMBAYMENT AREA
G15	SIGN SCHEDULE	GA7	SHALLOW WATER FISH HABITAT BERM PLANTING DETAILS
G16	SIGNAGE DETAILS	GA8	ARTIFICIAL REEF PLAN AND DETAILS
G17	SIGNAGE DETAILS		
G18	SITE LAYOUT AND UTILITY PLAN WEST		
G19	SITE LAYOUT AND UTILITY PLAN EAST		
G20	MULTI-USE TRAIL PROFILES		
G21	MULTI-USE TRAIL PROFILES		
G22	LANDSCAPE PLAN WEST		
G23	LANDSCAPE PLAN EAST		
G24	SITE DETAILS		
G25	SITE DETAILS		
G26	SITE DETAILS		
G27	SITE DETAILS		

SECTION OR
DETAIL* NUMBER

SHEET ON WHICH SECTION
OR DETAIL* IS FIRST CUT

SHEET IDENTIFICATION
G - GENERAL
A - ARCHITECTURAL
S - STRUCTURAL
C/S - CIVIL/SANITARY
H - HVAC
P - PLUMBING
I - INSTRUMENTATION
E - ELECTRICAL

SHEET ON WHICH SECTION
OR DETAIL* IS LOCATED

* WHEN PERTAINING TO DETAILS, CIRCLE IS REPLACED WITH A SQUARE

SECTION AND DETAIL KEY

GENERAL SITE WORK NOTES:

- THIS PLAN IS BASED ON EXISTING CONDITIONS BOUNDARY AND TOPOGRAPHIC BASE MAPPING FROM:

A) TOPOGRAPHIC SURVEY BUFFALO LAKESIDE COMMERCE PARK PARCEL 3, PREPARED BY DEBORAH A. NAYBOR PLS, P.C. 1490 CHURCH STREET, ALDEN, NEW YORK, 14004 DATED 4/29/2005, JOB NUMBER 2001147. THE BASIS OF BEARING AND SOURCE OF HORIZONTAL AND VERTICAL DATUMS IS AS SHOWN.
- THE CONTRACTOR SHALL LOCATE MARK SAFEGUARD AND PRESERVE ALL SURVEY CONTROL MONUMENTS AND R.O.W MONUMENTS IN THE AREAS OF SITE WORK.
- SITE WORK SHALL BE KEPT WITHIN THE PROJECT LIMIT LINES SHOWN. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS AND VEGETATION OUTSIDE THE LIMITS OF SITE WORK.
- ALL CONSTRUCTION IN LOCAL, COUNTY OR STATE RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH ALL REQUIREMENTS, RULES AND SPECIFICATIONS OF THE CORRESPONDING AGENCY. ALL WORK PERMITS AND FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE LOCATIONS OF UNDERGROUND UTILITIES WITHIN PARCEL 2 AS SHOWN ON THE DRAWINGS ARE BASED ON FIELD LOCATIONS OF SURFACE STRUCTURES AND/OR RECORD DRAWINGS AND ARE APPROXIMATE AND INCOMPLETE. THE CONTRACTOR SHALL CONFIRM THE DEPTH AND LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. CONTACT UNDERGROUND FACILITIES PROTECTION ORGANIZATION (UFPO), 1-800-962-7962.
- THE CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER THAT WILL INSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC ALONG AND ADJACENT TO HIGHWAYS IN THE CONSTRUCTION AREA IN AN ADEQUATE AND SATISFACTORY MANNER.
- THE CONTRACTOR SHALL MAINTAIN SERVICE OF ALL EXISTING SITE UTILITIES WITHIN PARCELS 1, 2, AND 4 DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DISRUPTION OF UTILITY SERVICE AND DAMAGE TO EXISTING SITE FEATURES, INCLUDING UNDERGROUND UTILITIES, RESULTING FROM THEIR OPERATIONS IN EXECUTION OF THE WORK.
- THE CONTRACTOR SHALL LOCATE ALL PERTINENT PROPERTY, EASEMENT AND / OR RIGHT OF WAY LINES PRIOR TO COMMENCEMENT OF THE WORK. THE CONTRACTOR SHALL NOT TRESPASS OR COMMENCE WORK ON OTHER PROPERTIES, PARCELS, EASEMENTS, OR RIGHT OF WAYS WITHOUT PROPERLY NOTIFYING AND MEETING THE NECESSARY REQUIREMENTS OF THE PROPERTY OWNER OR AUTHORIZED AGENCY.
- CONTRACTOR SHALL KEEP ALL EXISTING ROADS AND ENTRANCES CLEAN THROUGHOUT THE ENTIRE DURATION OF PROJECT. A ROAD SWEEPER SHALL BE UTILIZED AS NECESSARY AT THE DIRECTION OF ENGINEER. TRACKED EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC ROADS AND ROADS WITHIN THE BLCP.
- CONTRACTOR SHALL STAGE ALL EQUIPMENT AND TEMPORARY FACILITIES WITHIN PROJECT LIMIT LINES, AND AS FURTHER SHOWN ON DRAWINGS.

LEGEND:

	PROPERTY LINE
	PROJECT LIMIT LINE
	EXISTING CONTOUR
	EXISTING SPOT ELEVATION
	PROPOSED CONTOUR
	EXISTING SILT FENCE / STRAW BALE DIKE
	PROPOSED CONTRACTOR STAGING AREA

SYMBOLS:

		FENCE AS NOTED
		SIGN
GP		GUARD POSTS
		TREE DECIDUOUS
		TREE CONIFEROUS
GLM		GAS LINE MARKER
DI		DRAINAGE INLET
ST MH		STORM MANHOLE
SA MH		SANITARY MANHOLE
		LIGHT STANDARD
EMH		ELECTRIC MANHOLE
WV		WATER VALVE
		HYDRANT
INV		INVERT ELEVATION
CONC		CONCRETE
NIMO		NIAGARA MOHAWK
U.G.		UNDERGROUND
SAN		SANITARY
E.C.		ERIE COUNTY
C.P.		CONTROL POINT
C		CENTER LINE
TYP.		TYPICAL
RR		RAILROAD
CMP		CORRUGATED METAL PIPE
PVC		POLYVINYL CHLORIDE PIPE

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NO.	BY	DATE		REMARKS

DES	BG
DWN	MAW
CKD	KRM

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSDOT P.I.N. 5757.98

INDEX OF DRAWINGS, LEGEND
SYMBOLS AND NOTES
NTS

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G SHEET 1 OF 27
CAD REF. NO. 4080G000

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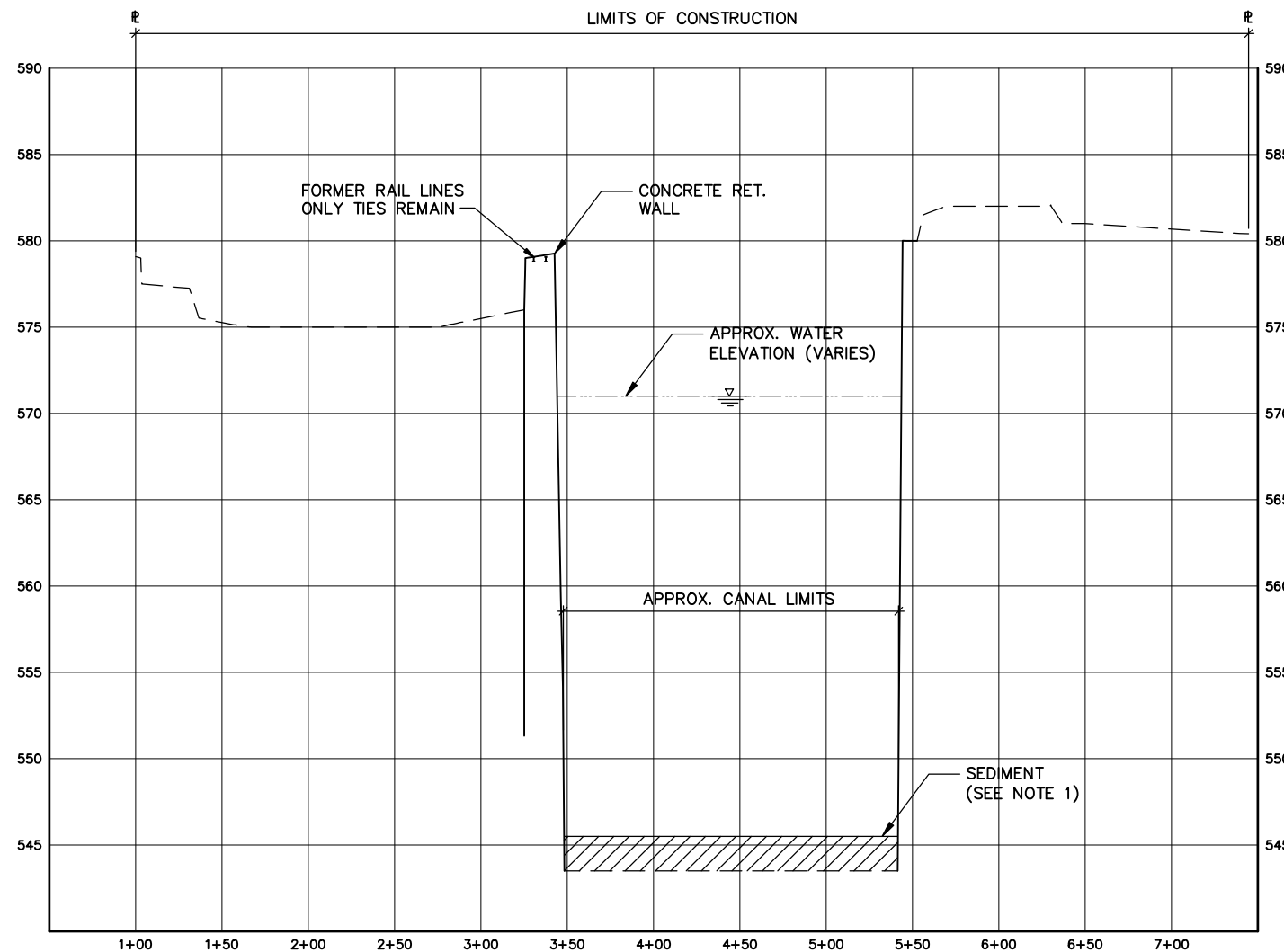
DES BG
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BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSDOT P.I.N. 5757.98

EXISTING CANAL CROSS SECTIONS

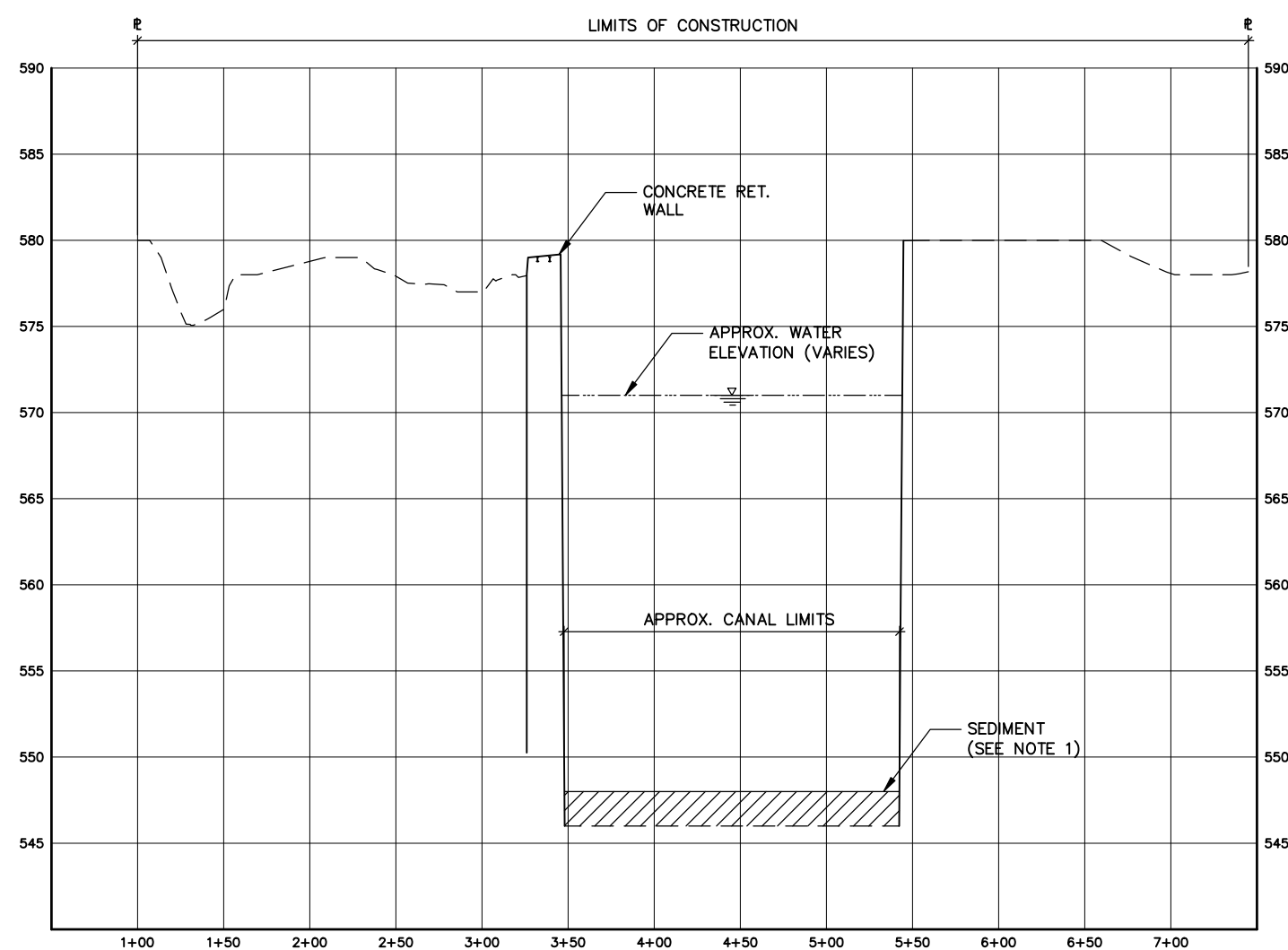
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SECTION $\frac{1}{2 \ 4}$

SCALE: HORIZ. 1"=50'
VERT. 1"=5'

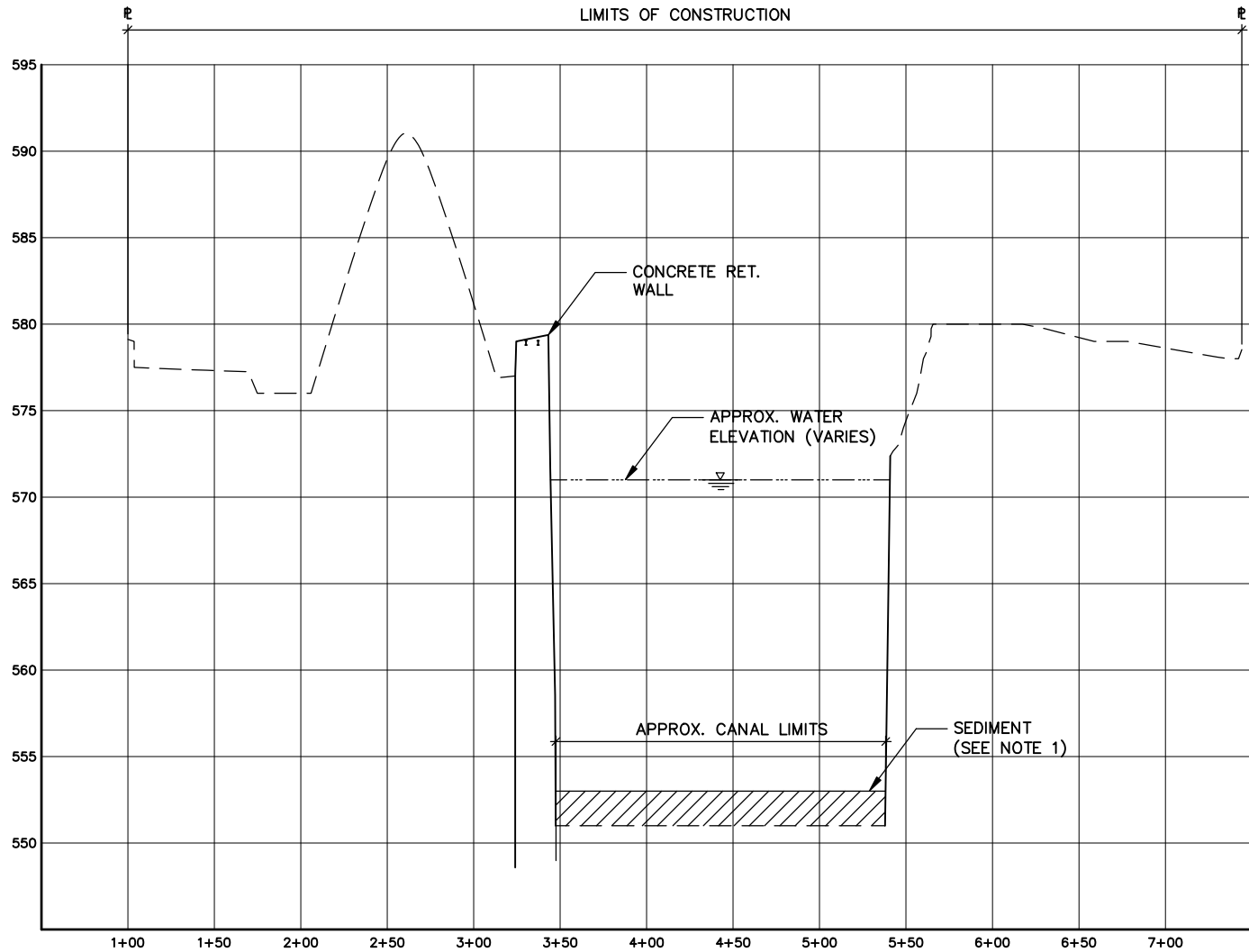


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VERT. 1"=5'

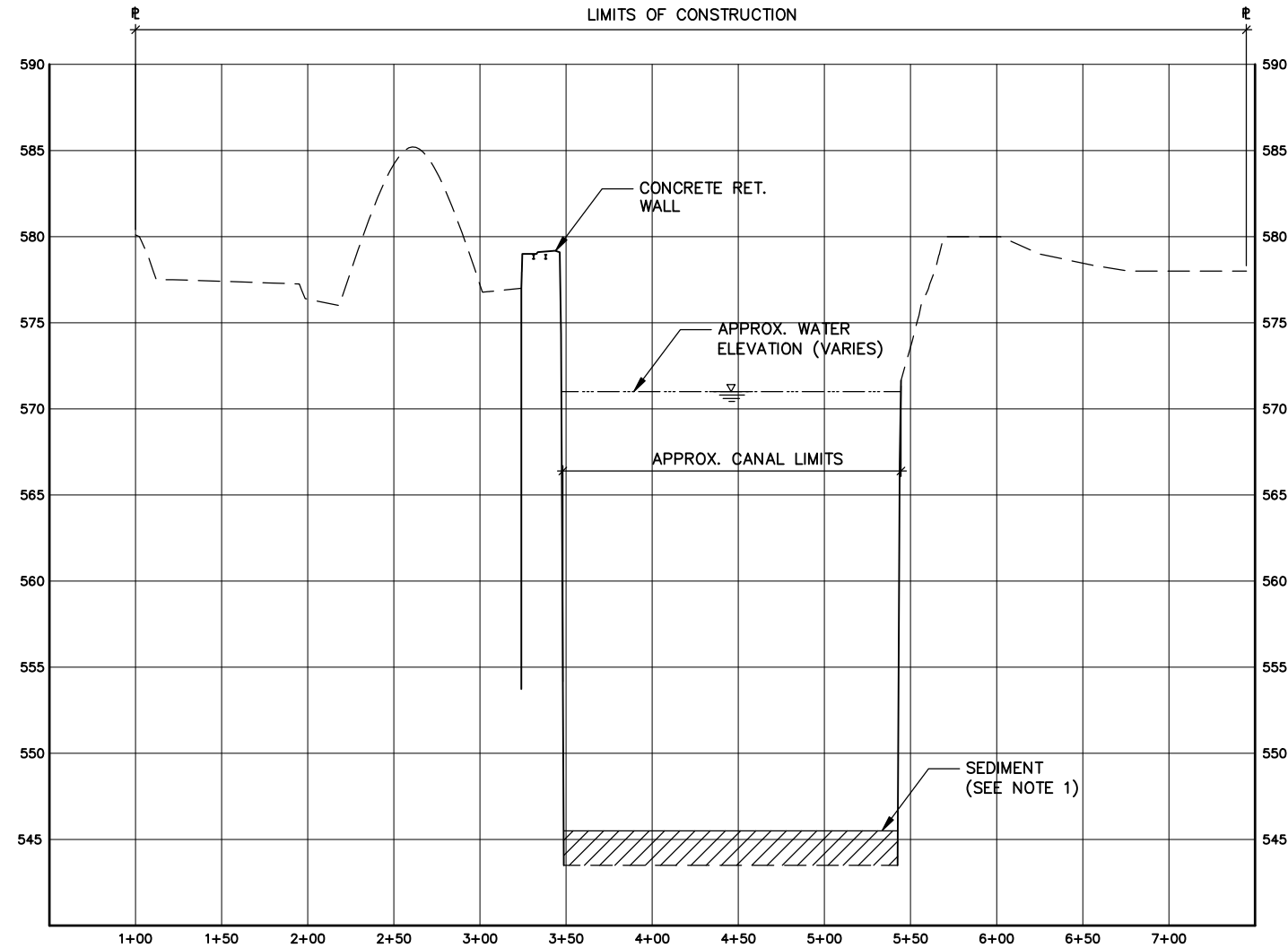
- NOTES:
- EXISTING WATER ELEVATION AND BOTTOM SEDIMENT DEPTH VARIES.

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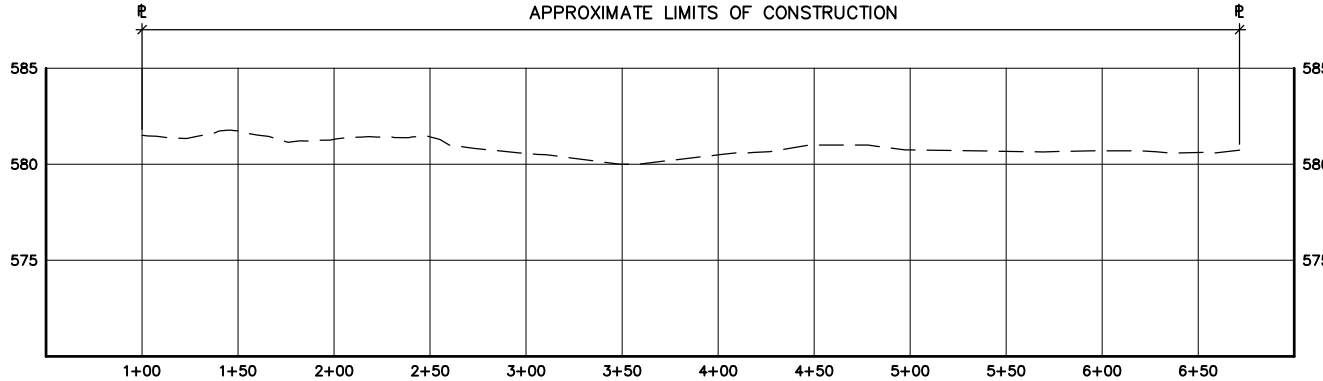
SECTION 1

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



SECTION 2

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



SECTION 3

SCALE: HORIZ. 1"=50'
VERT. 1"=5'

NOTES:
1. EXISTING WATER ELEVATION AND BOTTOM SEDIMENT DEPTH VARIES.

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BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSDOT P.I.N. 5757.98

EXISTING CANAL CROSS SECTIONS

SCALE: AS SHOWN

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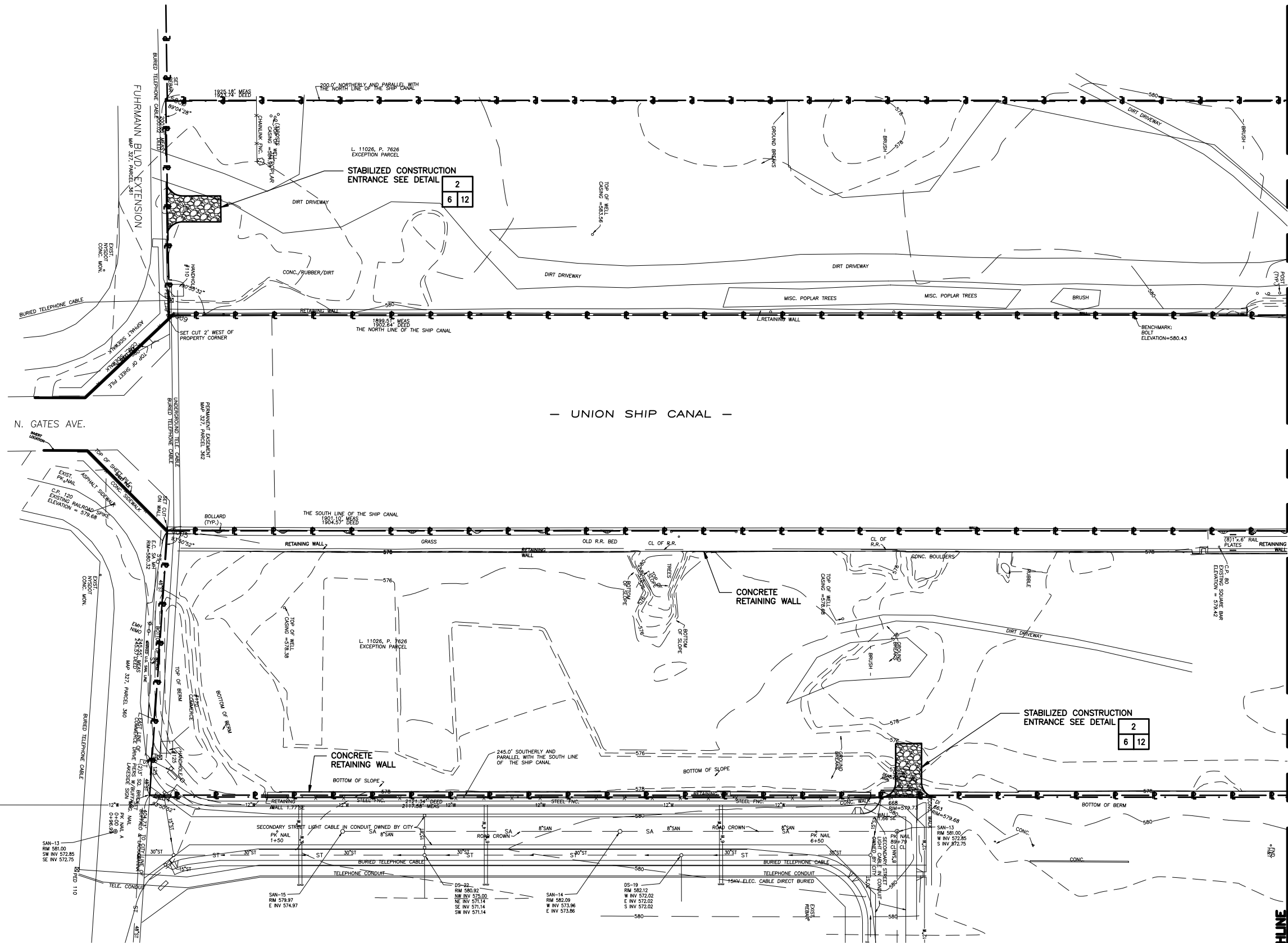
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BUFFALO URBAN DEVELOPMENT CORPORATION
**UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT**
NYSDOT P.I.N. 5757.98

**SITE PREPARATION PLAN
WEST**
1"=50'

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LEGEND:

—●—●—●—	PROPERTY LINE
—●—●—●—	PROJECT LIMIT LINE
- - - - -	EXISTING CONTOUR
576.03	EXISTING SPOT ELEVATION
- - - - -	PROPOSED CONTOUR
SF	EXISTING SILT FENCE / STRAW BALE DIKE
[Pattern]	PROPOSED CONTRACTOR STAGING AREA

SYMBOLS:

—X—	FENCE AS NOTED
d	SIGN
GP	GUARD POSTS
△	TREE DECIDUOUS
✱	TREE CONIFEROUS
GLM	GAS LINE MARKER
DI	DRAINAGE INLET
ST MH	STORM MANHOLE
SA MH	SANITARY MANHOLE
✱	LIGHT STANDARD
EMH	ELECTRIC MANHOLE
WV	WATER VALVE
d	HYDRANT
INV	INVERT ELEVATION
CONC	CONCRETE
NIMO	NIAGARA MOHAWK
U.G.	UNDERGROUND
SAN	SANITARY
E.C.	ERIE COUNTY
C.P.	CONTROL POINT
CL	CENTER LINE
TYP.	TYPICAL
RR	RAILROAD
CMP	CORRUGATED METAL PIPE
PVC	POLYVINYL CHLORIDE PIPE

NOTES:

- CONTRACTOR MAY RE-UTILIZE REMAINING SILT FENCE AND OTHER BMP'S LEFT FROM PREVIOUS GRADING CONTRACTS AS APPROPRIATE. CONTRACTOR SHALL BE RESPONSIBLE FOR REURBISHING, AS APPROPRIATE ANY SILT FENCE PROPOSED FOR REUSE.
- CONTRACTOR SHALL UTILIZE DESIGNATED CONSTRUCTION ENTRANCES TO ACCESS THE SITE UNLESS APPROVED BY ENGINEER.
- CONTRACTOR SHALL CONTACT DON POLITO WITH CITY OF BUFFALO DPW (851-5359) PRIOR TO REMOVAL OF SUBMERGED VEHICLES FROM CANAL. THIS EFFORT WILL BE COORDINATED THROUGH THE BUFFALO POLICE DEPARTMENT.

25 0 25 50
SCALE: 1" = 50'

MATCHLINE
SEE SHEET G7 FOR CONTINUATION

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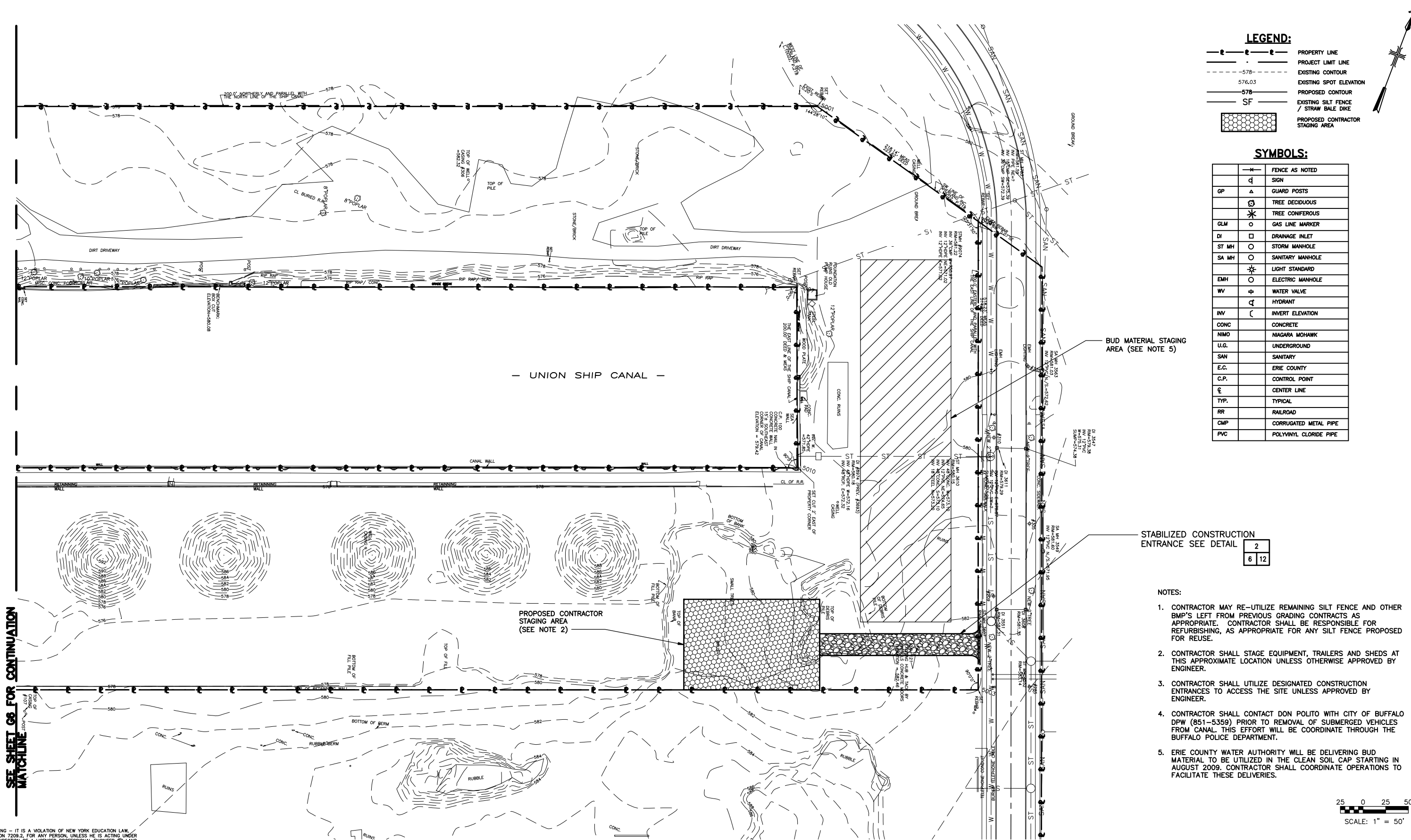
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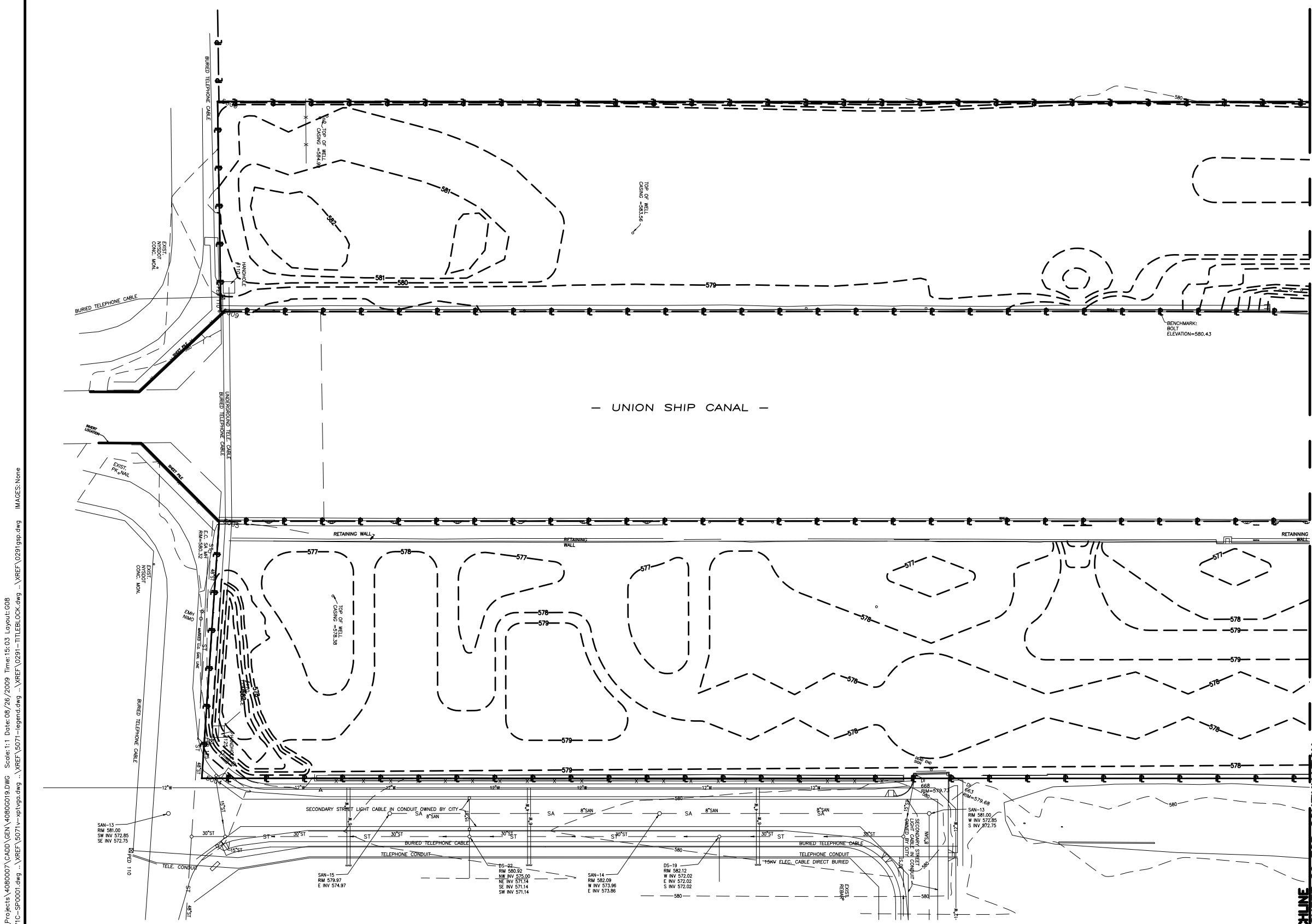
BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

SITE PREPARATION PLAN
EAST
1"=50'

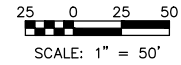
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 - CONTRACTOR SHALL STAGE EQUIPMENT, TRAILERS AND SHEDS AT THIS APPROXIMATE LOCATION UNLESS OTHERWISE APPROVED BY ENGINEER.
 - CONTRACTOR SHALL UTILIZE DESIGNATED CONSTRUCTION ENTRANCES TO ACCESS THE SITE UNLESS APPROVED BY ENGINEER.
 - CONTRACTOR SHALL CONTACT DON POLITO WITH CITY OF BUFFALO DPW (851-5359) PRIOR TO REMOVAL OF SUBMERGED VEHICLES FROM CANAL. THIS EFFORT WILL BE COORDINATE THROUGH THE BUFFALO POLICE DEPARTMENT.
 - ERIE COUNTY WATER AUTHORITY WILL BE DELIVERING BUD MATERIAL TO BE UTILIZED IN THE CLEAN SOIL CAP STARTING IN AUGUST 2009. CONTRACTOR SHALL COORDINATE OPERATIONS TO FACILITATE THESE DELIVERIES.



NOTE:
1. GRADES SHOWN ARE APPROXIMATE MINIMUM AND MAXIMUM SLOPES TO BE MAINTAINED UNLESS OTHERWISE APPROVED BY ENGINEER.



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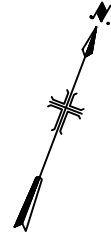
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BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
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SUBGRADE GRADING PLAN
WEST
1"=50'

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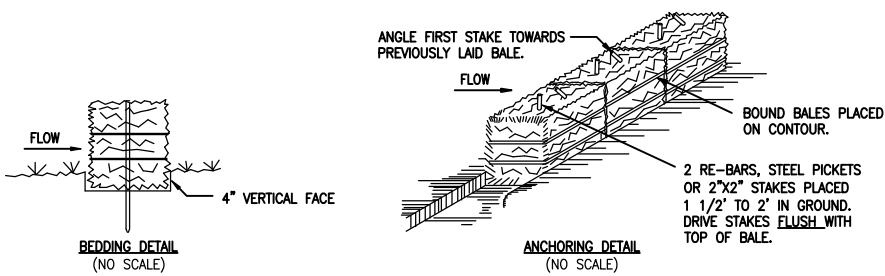
SEE SHEET G8 FOR CONTINUATION
MATCHLINE

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DES BG
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SUBGRADE GRADING PLAN EAST 1"=50'

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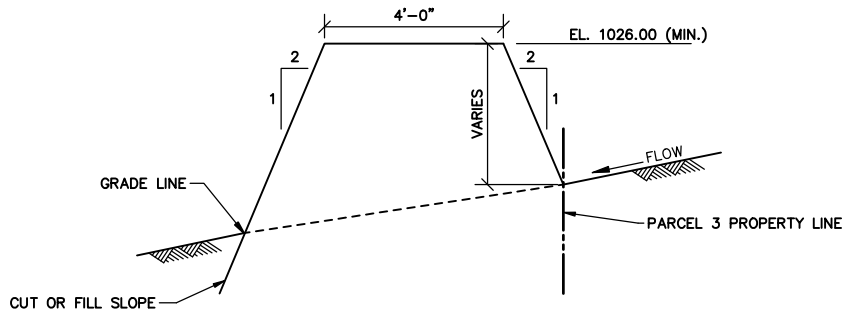


DRAINAGE AREA NO MORE THAN 1/4 ACRE PER 100 FEET OF STRAW BALE DIKE FOR SLOPES LESS THAN 25%.

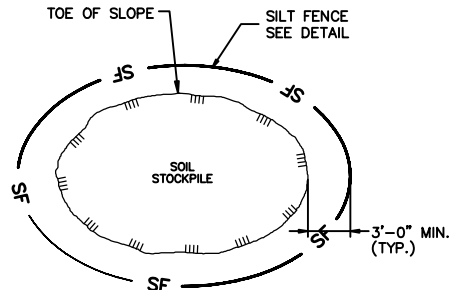
CONSTRUCTION SPECIFICATIONS

- BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
- INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE DIKE NOT TO SCALE



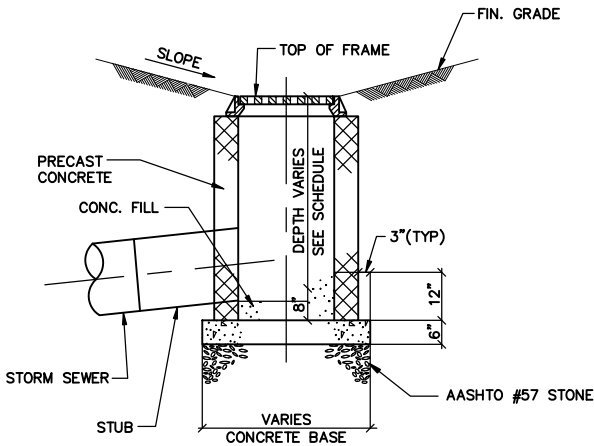
STORMWATER DIVERSION BERM DETAIL NOT TO SCALE



NOTES:

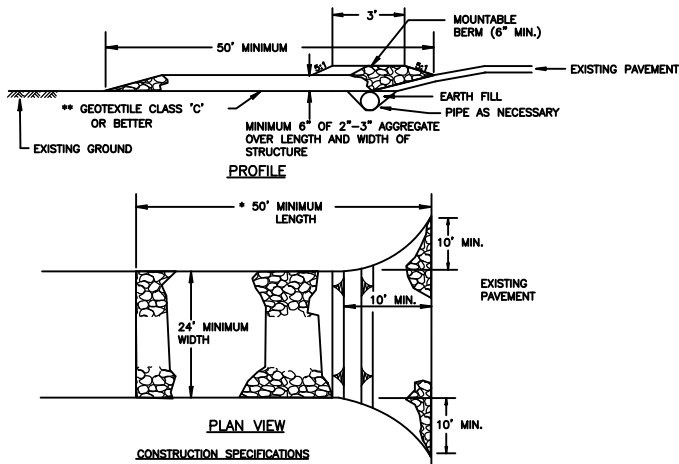
- NON-ACTIVE STOCKPILES SHALL BE PLACED ON 10 MIL. PLASTIC SHEETING.
- NON-ACTIVE STOCKPILES SHALL BE COVERED WITH SPRAY-ON PRO GUARD II B PLUS FIBER/POLYMER MATERIAL, OR EQUIVALENT.
- AFTER COMPLETE UTILIZATION, RETURN STOCKPILE AREA TO NATURAL PRECONSTRUCTION STATE, INCLUDING ALL NECESSARY GRADING AND REVEGETATION.
- WHERE POSSIBLE LOCATE STOCKPILE AREAS ON UP-SLOPE SIDE OF EXCAVATION, AWAY FROM NEARBY STREAMS, DRAINAGE DITCHES, OR WATER COURSES.
- CONTRACTOR SHALL GRADE SOIL AROUND THE STOCKPILE PERIMETER TO FLOW TO ONE COLLECTION POINT PER STOCKPILE.

SOIL STOCKPILE DETAIL NOT TO SCALE



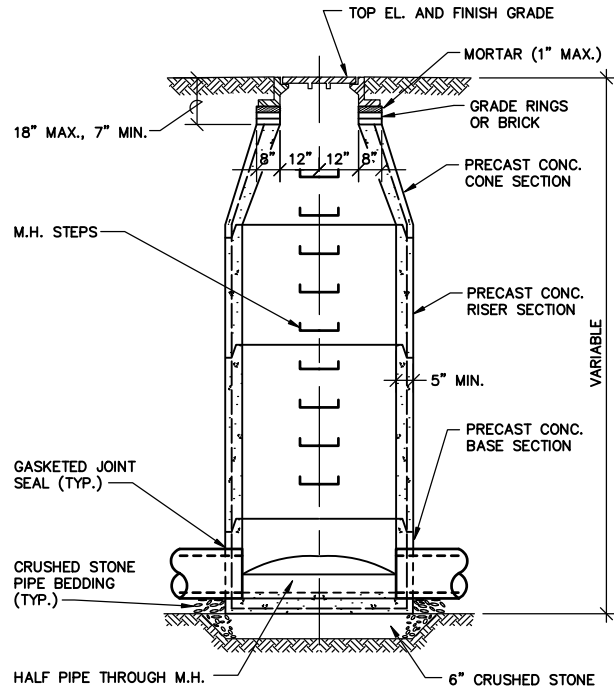
SECTION A-A'

TYPICAL CATCH BASIN DETAIL NOT TO SCALE

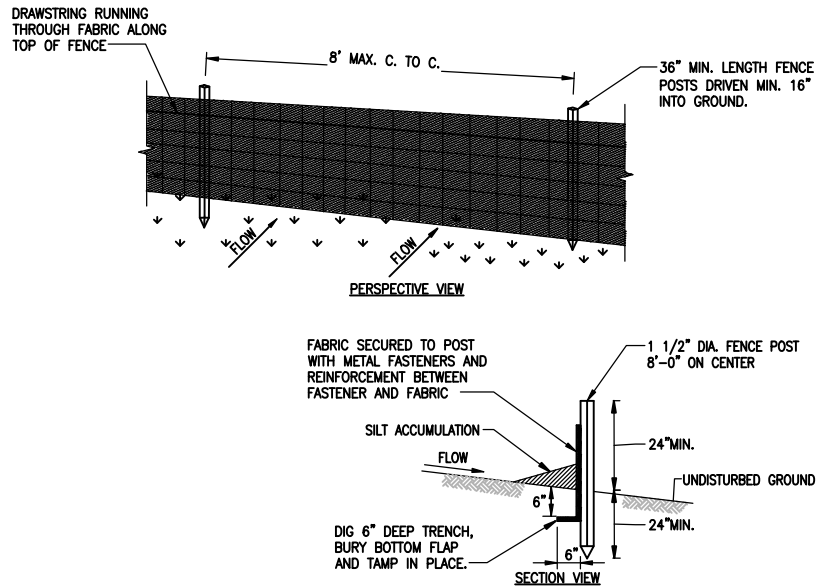


- LENGTH - MINIMUM OF 50'.
- WIDTH - 12' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS. WIDTH SHALL BE 24- FEET IF SINGLE ENTRANCE TO THE SITE.
- GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE.
- STONE - CRUSHED AGGREGATE (2\"/>
- SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6\"/>
- LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES THE CONSTRUCTION SITE AND ENTERS ONTO PAVED BLOC ROADWAYS. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON THE AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL NOT TO SCALE



TYPICAL STORM WATER MANHOLE DETAIL NOT TO SCALE



NOTES:

- FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE THE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1 1/2\"/>
- A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
- A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEO-TEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

SILT FENCE DETAIL NOT TO SCALE

STORM WATER PIPING SCHEDULE					
LABEL	UPPER EL. feet	LOWER EL. feet	LENGT H feet	SLOPE ft/ft	PIPE DIA. Inch
P1	575.1	574.3	165.0	0.0050	10
P2	575.7	574.7	200.0	0.0050	8
P3	576.3	575.2	220.0	0.0050	8
P4	575.1	574.8	65.0	0.0050	15
P5	574.7	574.4	65.0	0.0050	18
P6	574.3	574.0	50.0	0.0050	21
P7	575.7	574.3	270.0	0.0050	15
P8	576.0	574.7	270.0	0.0046	15
P9	576.3	575.2	270.0	0.0044	12
P10A	576.3	576.3	15.0	0.0050	12
P10B	576.3	576.1	50.0	0.0040	12
P10C	576.5	576.3	80.0	0.0025	9
P10D	576.3	576.3	30.0	0.0025	9
P10E	576.4	576.3	55.0	0.0025	9
P11	576.0	575.7	65.0	0.0040	15
P12	575.7	573.3	310.0	0.0077	15
P13	576.0	573.7	310.0	0.0074	15
P14	576.3	574.2	310.0	0.0069	12
P15A	574.2	574.1	15.0	0.0050	15
P15B	574.0	573.9	35.0	0.0050	15
P15C	574.5	574.1	90.0	0.0050	10
P15D	574.6	574.1	110.0	0.0050	10
P16	573.8	573.7	8.0	0.0050	15
P17	573.6	573.3	63.0	0.0050	21
P18	573.2	573.2	5.0	0.0050	21
P19	573.1	573.0	15.0	0.0050	21
P20	574.8	573.1	340.0	0.0050	12
P21	575.6	573.8	340.0	0.0054	12
P22	575.9	574.2	340.0	0.0050	10
P23	575.9	575.7	50.0	0.0050	10
P24	575.6	574.9	85.0	0.0085	12
P25	574.8	573.3	240.0	0.0066	12
P26	575.6	573.8	240.0	0.0078	12
P27	575.9	574.1	240.0	0.0075	10
P28	574.1	573.8	45.0	0.0050	15
P29	573.7	573.3	85.0	0.0050	18
P30	573.2	573.0	40.0	0.0050	18
P31	574.5	573.3	240.0	0.0050	8
P32	575.0	573.8	240.0	0.0050	8
P33	575.3	574.1	240.0	0.0050	10
P34	579.5	578.9	235.0	0.0025	8
P35	579.9	578.6	255.0	0.0050	6
P36	579.4	578.3	220.0	0.0050	6
P37	578.9	578.7	40.0	0.0050	12
P38	578.6	578.4	40.0	0.0050	15
P39	578.3	576.0	45.0	0.0500	18
P40	580.3	578.9	272.0	0.0050	8
P41	580.0	578.6	272.0	0.0050	10
P42	579.7	578.3	272.0	0.0050	10
P43	580.3	580.1	40.0	0.0050	8
P44	580.0	579.8	40.0	0.0050	10
P45	580.3	573.9	272.0	0.0235	8
P46	580.0	573.6	272.0	0.0235	10
P47	579.7	573.3	272.0	0.0235	10
P48	573.8	573.6	40.0	0.0050	12
P49	573.5	573.3	40.0	0.0050	15
P50	573.2	573.0	45.0	0.0050	18
P51	575.2	573.9	268.0	0.0050	8
P52	574.9	573.6	268.0	0.0050	10
P53	574.6	573.3	268.0	0.0050	10
P54	575.2	575.0	40.0	0.0050	8
P55	574.9	574.7	40.0	0.0050	10
P56	575.2	571.9	272.0	0.0122	8
P57	574.9	571.6	272.0	0.0122	10
P58	574.6	571.3	272.0	0.0122	10
P59	571.9	571.7	40.0	0.0050	12
P60	571.6	571.4	40.0	0.0050	15
P61	571.3	571.0	50.0	0.0050	15
P62	572.8	571.9	175.0	0.0050	8
P63	573.2	571.6	315.0	0.0050	8
P64	572.9	571.3	315.0	0.0050	8

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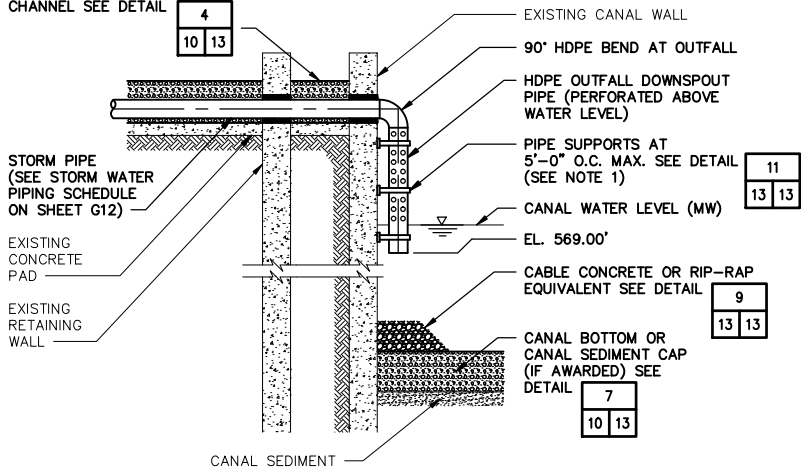
DES BG
DWN MAW
CKD KRM

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**STORM WATER REMEDIATION
DETAILS**
AS NOTED

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NORTH/ SOUTH STORM
WATER CONVEYANCE
CHANNEL SEE DETAIL



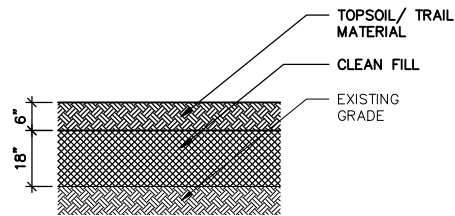
PROPOSED OUTFALL DETAIL

2
10 13

NOT TO SCALE

NOTE:

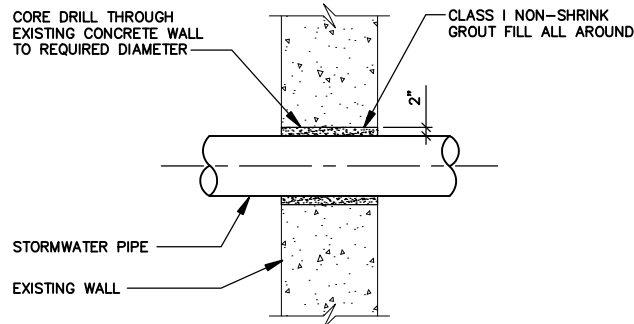
1. PIPE SUPPORTS SHALL BE EVENLY SPACED ON CONCRETE PORTION OF THE WALL AS APPROVED BY ENGINEER.



TYPICAL LAND SIDE
CAP DETAIL

6
10 13

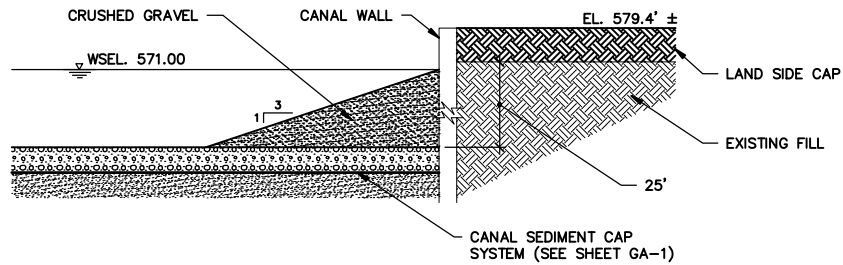
NOT TO SCALE



TYPICAL WALL CORE DETAIL

12
13 13

NOT TO SCALE



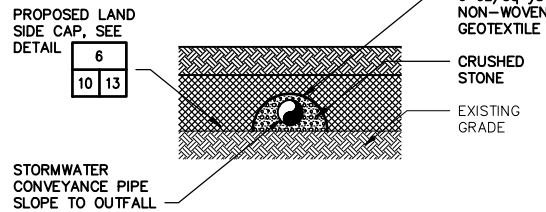
CANAL WALL STABILIZATION
BERM TYPICAL DETAIL

3
10 13

NOT TO SCALE

NOTES:

1. EXISTING SEDIMENT THICKNESS AND DENSITY VARIES.
2. CANAL WALL STABILIZATION BERM MATERIAL SHALL BE PLACED FROM BOTTOM OF CANAL (OR TOP OF CANAL SEDIMENT CAP SYSTEM, IF AWARDED) TO TOP OF CRIBBING AS SHOWN AND SPECIFIED.
3. STABILIZATION BERM DIMENSIONS MAY VARY AS A RESULT OF FIELD CONDITIONS.



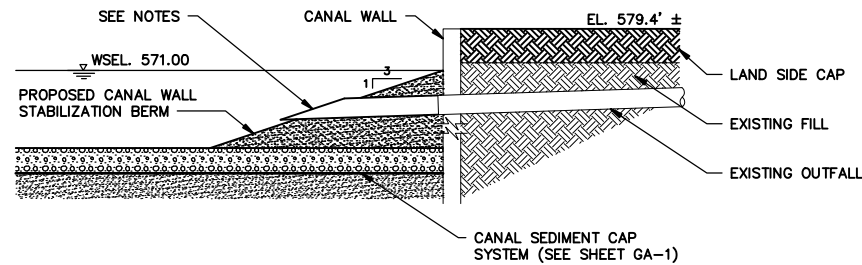
NORTH SIDE STORM
WATER SYSTEM DETAIL

8
10 13

NOT TO SCALE

NOTES:

1. PIPING/CHANNELS SHALL BE TIED IN WITH PROPOSED CATCH BASINS AS APPROPRIATE.
2. STORMWATER PIPE MAY BE HDPE OR PVC.



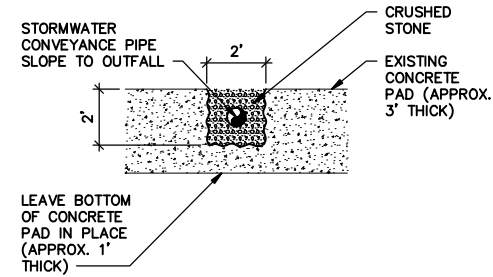
EXISTING OUTFALL
MODIFICATION DETAIL

13
10 13

NOT TO SCALE

NOTES:

1. EXTEND EXISTING OUTFALL PIPE THROUGH CANAL WALL STABILIZATION BERM
2. EXISTING OUTFALL PIPING SHALL BE CLEANED PRIOR TO INSTALLATION OF NEW PIPE



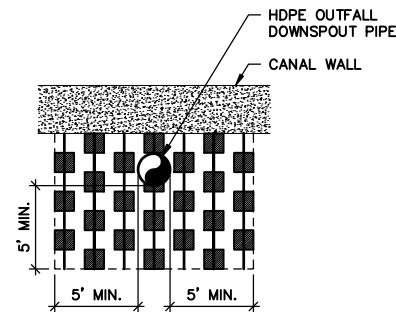
NORTH/ SOUTH STORM
WATER CONVEYANCE
CHANNEL DETAIL

4
10 13

NOT TO SCALE

NOTES:

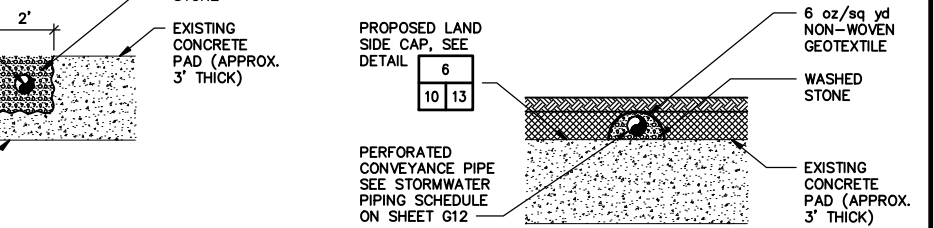
1. PIPING/CHANNELS SHALL BE TIED IN WITH PROPOSED CATCH BASINS AS APPROPRIATE.
2. STORMWATER PIPE MAY BE HDPE OR PVC.



CABLE CONCRETE
DETAIL

9
13 13

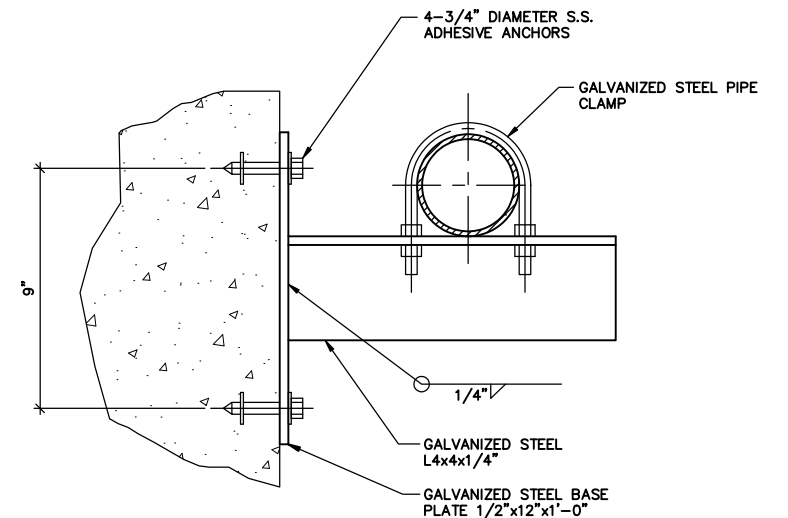
NOT TO SCALE



EAST/ WEST STORM
WATER CONVEYANCE
PIPE DETAIL

5
10 13

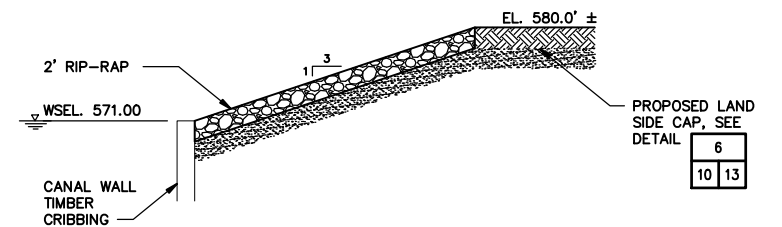
NOT TO SCALE



PIPE SUPPORT PLAN DETAIL

11
13 13

NOT TO SCALE



RIP-RAP PLACEMENT
DETAIL

14
11 13

NOT TO SCALE

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ARCHITECTS & ENGINEERS

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MISCELLANEOUS REMEDIATION
DETAILS
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GENERAL NOTES

1. SURVEY SUPPLIED BY (DEBORAH A. NAYBOR PLS, P.C., 1490 CHURCH STREET, ALDEN NY 14004, 8/16/2005, BUFFALO LAKESIDE COMMERCE PARK PARCEL 3/PROJECT NUMBER: 2001147) VERTICAL DATUM IS BASED UPON NAVD 1988. THE HORIZONTAL DATUM IS BASED UPON NAD 83/92 NEW YORK STATE PLANE COORDINATE SYSTEM, WESTERN ZONE.
2. CONTRACTOR TO LOCATE &/OR VERIFY LOCATION OF UTILITIES IN THE FIELD BEFORE BEGINNING WORK. PRIOR TO REMOVAL & EXCAVATION WORK, CONTRACTOR TO NOTIFY UTILITY COMPANIES REGARDING DISCONNECT OF SERVICES & MARKING EXACT LOCATION OF BURIED UTILITIES.
3. PRIOR TO START OF CONSTRUCTION, CONTRACTOR TO NOTIFY ARCHITECT &/OR OWNER’S REPRESENTATIVE OF DISCREPANCIES FOUND BETWEEN INFORMATION SHOWN ON PLANS & ACTUAL FIELD CONDITIONS.
4. PAVEMENT NOT NOTED TO BE REMOVED, BUT DAMAGED DURING CONSTRUCTION, SHALL BE REPAIRED OR REPLACED, FLUSH WITH EXISTING GRADE @ CONTRACTOR’S EXPENSE.
5. ITEMS NOT NOTED TO BE REMOVED &/OR DEMOLISHED ARE TO REMAIN & TO BE PROTECTED AS NECESSARY. IN PARTICULAR, CONTRACTOR SHALL TAKE EXTRA MEASURES NOT TO INJURE EXISTING TREES.
6. ITEMS NOTED TO BE RELOCATED SHALL BE CAREFULLY REMOVED WITHOUT BEING DAMAGED; SALVAGE & STOCKPILE ON–SITE OR PER OWNER’S DIRECTION.
7. DIMENSIONS ARE FROM FACE OF BUILDING, CURB OR EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.
8. PRIOR TO MAJOR CLEARING OPERATIONS, SITE SHALL BE CLEARED ONLY AS REQUIRED TO ALLOW STAKING OF BUILDING & PARKING LOTS. AT COMPLETION OF STAKEOUT, ARCHITECT &/OR OWNER’S REPRESENTATIVE SHALL REVIEW & DETERMINE IF ADDITIONAL TREES SHALL BE RETAINED OR REMOVED. TREES TO REMAIN, WILL BE TAGGED BY THE ARCHITECT.
9. NEW PLANT MATERIAL SHALL CONFORM TO THE CURRENT ISSUE OF THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
10. ALL DAMAGED &/OR DISTURBED AREAS REMAINING, AFTER CONSTRUCTION IS COMPLETED SHALL RECEIVE MIN. 4” TOPSOIL, BE FINE GRADED, FERTILIZED, SEEDED AND MULCHED. TOPSOIL TO BE FLUSH WITH PAVEMENT &/OR TOP OF CURB AND SHALL BE “FEATHERED” INTO ADJACENT LAWN AREAS TO CREATE A SMOOTH TRANSITION BETWEEN NEWLY SEEDED AREAS AND EXISTING LAWN.
11. NEW PARKING LOT LIGHT STANDARDS ARE TO BE SET BACK 4’ FROM EDGE OF PAVEMENT OR BACK OF CURB, UNLESS NOTED OTHERWISE.
12. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AHEAD OF THE PIPE LAYING OPERATION, SO THAT, IF MINOR ADJUSTMENTS MUST BE MADE IN ELEVATION &/OR ALIGNMENT DUE TO INTERFERENCE FROM THESE UTILITIES, SAID CHANGES CAN BE MADE IN ADVANCE OF THE WORK.
13. PIPE CROSSING UNDER PAVED AREAS ARE TO BE BACKFILLED TO SUBGRADE WITH COMPACTED, SELECT GRANULAR MATERIAL TO FIVE (5) FEET OUTSIDE THE PAVEMENT EDGE.
14. CONSTRUCTION STAGING & STORAGE AREAS TO BE COORDINATED WITH ARCHITECT &/OR OWNER’S REPRESENTATIVE.
15. CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO CONFIRM THE EXISTING SITE CONDITIONS & SCOPE OF WORK.
16. CONTRACTOR SHALL OBTAIN & PAY ASSOCIATED FEES FOR PERMITS REQUIRED FOR CONSTRUCTION. (OBTAIN WORK PERMIT FROM NYSDOT FOR CONNECTION OF STORM DRAINAGE & CURB CUT WORK & PERFORM WORK PER NYSDOT STANDARDS & REQUIREMENTS.)
17. AFTER REMOVAL OF FOOTERS, STRUCTURES, ETC., BACKFILL AS FOLLOWS:
 - IN LAWN AREAS: BACKFILL HOLE WITH ORDINARY FILL, COMPACT IN 8” LIFTS TO PROPOSED SUBGRADE, AND PLACE TOPSOIL, MIN. 4” DEPTH, FLUSH WITH EXISTING GRADE, FINE GRADE, FERTILIZE, SEED AND MULCH.
 - IN PAVEMENT AREAS: BACKFILL HOLE WITH CRUSHER–RUN STONE, COMPACT IN 8” LIFTS TO PROPOSED SUBGRADE.
18. CONTRACTOR SHALL STAKE OUT ALL PROPOSED PATHS FOR REVIEW AND ACCEPTANCE BY THE ARCHITECTS/ OWNER’S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.
19. PROPOSED PATHS SHALL BE CONSTRUCTED W/MAX. 2% CROSS–SLOPE IN CONCERT WITH ADJACENT DRAINAGE PATTERNS.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

1. ROAD TO BE KEPT CLEAN OF MUD AND DEBRIS AT ALL TIMES.
2. ROADSIDE DRAINAGE TO BE MAINTAINED AT ALL TIMES.
3. MATERIALS, EQUIPMENT, AND VEHICLES ARE NOT TO BE STORED OR PARKED WITHIN THE RIGHT–OF–WAY.
4. MAINTENANCE AND PROTECTION OF TRAFFIC MUST COMPLY WITH THE FEDERAL AND NEW YORK STATE DEPARTMENT OF TRANSPORTATION’S MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES SECTION 619 OF THE CURRENT NYSDOT STANDARD SPECIFICATIONS, THESE PLANS AND AS ORDERED BY THE ASSISTANT RESIDENT ENGINEER.
5. NOTIFY DIG SAFELY NEW YORK (U.F.P.O.) TWO (2) WORK DAYS PRIOR TO DIGGING, DRILLING OR BLASTING AT 1–800–962–7962 FOR A UTILITY STAKE–OUT.
6. ALL MATERIALS USED WITHIN THE RIGHT–OF–WAY MUST COMPLY WITH THE CURRENT CITY OF BUFFALO AND NEW YORK STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS ALONG WITH ANY APPROPRIATE CURRENT NYS DEPARTMENT OF TRANSPORTATION STANDARD SHEETS.
7. NO NIGHT WORK SHALL BE ALLOWED UNLESS APPROVED PRIOR TO START OF PROJECT. ADDITIONAL MAINTENANCE AND PROTECTION OF TRAFFIC MAY BE REQUIRED INCLUDING THE ADDITION OF REFLECTIVE MATERIALS AND LIGHTING.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
MATCH LINE		
EASEMENT LINE		
ASPHALT PAVEMENT		
CONCRETE PAVEMENT		
CURB		
SIGN		
DECIDUOUS TREE		
EVERGREEN TREE		
DETAIL REFERENCE		
SITE IMPROVEMENT NOTE		
UTILITY NOTE		
STORM LINE		
CATCH BASIN/DRAIN INLET		
MANHOLE		
CLEANOUT		
SANITARY LINE		
WATER LINE		
VALVE		
HYDRANT		
GAS LINE		
UNDERGROUND ELEC./TEL.		
OVERHEAD ELEC./TEL.		
LIGHT STANDARD		
UTILITY POLE		
ASPHALT PATH		
CRUSHED STONE PATH		
STONE MULCH		
PEDESTRIAN LIGHT		
CANAL ACCENT LIGHT		
SIGNAGE DETAIL REFERENCE		

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DWN **WAL**
CKD **MVM**

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UNION SHIP CANAL OPEN SPACE
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NYSDOT P.I.N. 5757.98

UPLAND IMPROVEMENTS
LEGEND, ABBREVIATIONS, NOTES

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UPLAND IMPROVEMENTS
SIGN SCHEDULE & NOTES

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SIGN SCHEDULE

CITY OF BUFFALO ITEM NO.	NYSDOT ITEM NO.	SIGN TYPE	LOCATION	SIZE	TEXT	MUT.C.D. No.	MOUNT
		A-2	A7+80, 12'RT B13+25, 75'RT	NA	REFER TO DETAIL 1, L003	NA	1, L003
		B-1	A20+95, RT A13+65, LT A1+83, RT G2+14, LT B12+50, RT B15+65, RT	NA	REFER TO DETAIL 2, L003	NA	2, L003
		C-1	A13+65, RT A12+05, RT A10+85, RT	NA	REFER TO DETAIL 3, L003	NA	1, L004
		D-1	A9+85, RT	NA	REFER TO DETAIL 4, L003	NA	1, L004
12.310	645.7111	E-1	A21+71, RT A7+40, RT A7+82, LT A9+17, RT A9+48, LT	30" x 30"		R1-1A	2, L004
12.310	645.7102	F-1	A21+71, LT A7+40, LT A7+82, RT	24" x 24"		R5-3	2, L004
12.310	645.7202 (04)	G-1	A7+40, 16' RT A7+82, 38' RT A9+17, LT A9+48, RT	30" x 30"		W11-2	2, L004
12.310	645.7101	H-1	A21+10, 105' RT A6+58, 85' LT A6+78, 87' LT A6+97, 89' LT	12" x 18"		P4-6C	2, L004
12.310	645.7112	I-1	A7+34, 25' RT	30" x 30"		R1-1A	2, L004
12.310	645.5102	J-1	(1) H 0+38 47' LT (2) H 0+16 RT (3) F 0+05 RT (4) A 21+32 LT (5) B 27+00 14' RT (6) E 8+24 RT (7) E 7+96 LT (8) G 0+13 RT (9) G 5+22 LT (10) H 19+00 LT (11) B 19+06 12' RT (12) E 15+74 LT	24" x 24"		R5-6	2, L004

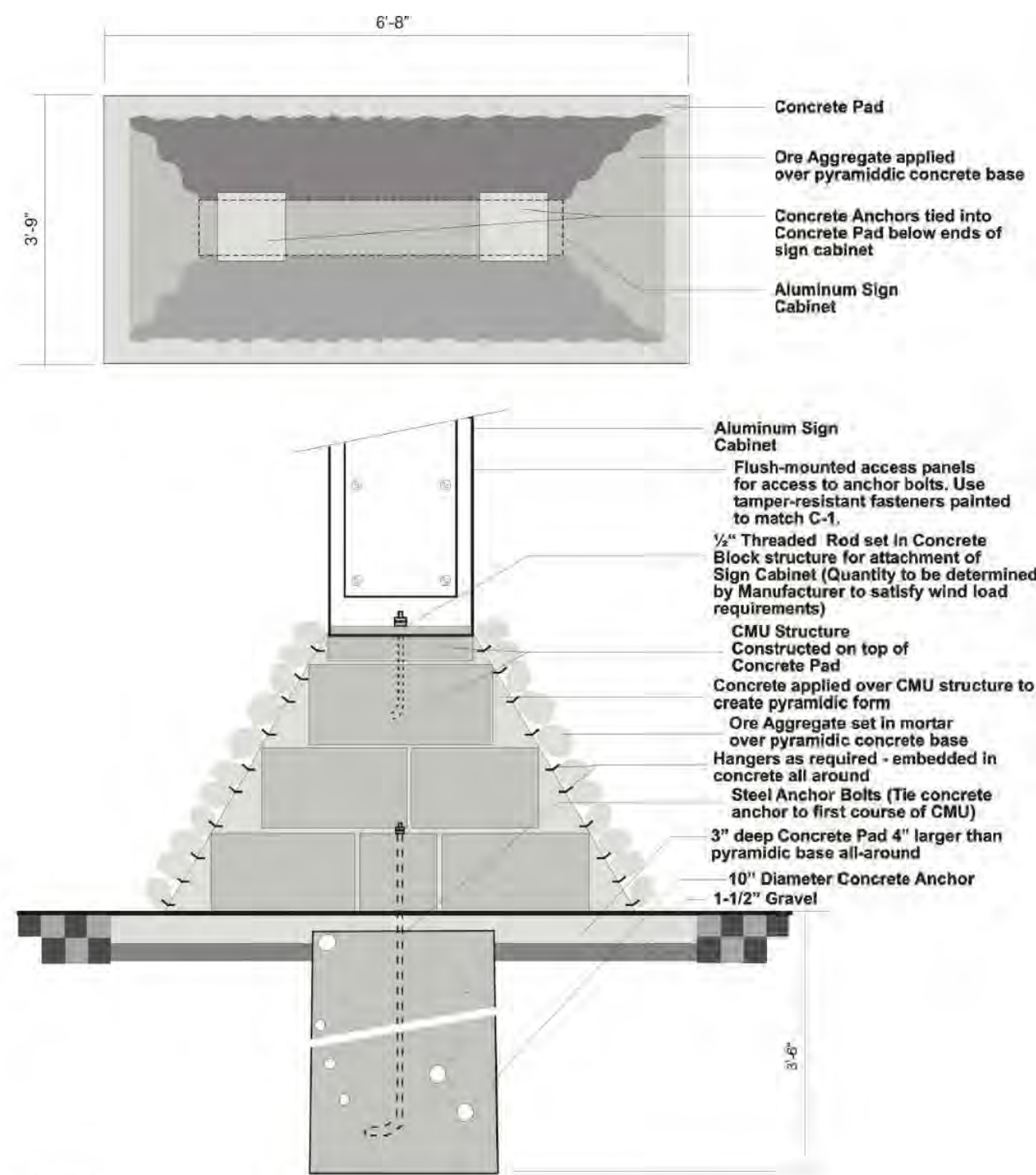
NOTES:

- SIGNS SHALL MEET ALL REQUIREMENTS OF THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2003 EDITION & N.Y.S. SUPPLEMENT EXCEPT THE TEXT SHALL READ AS STATED ON THE SIGN DATA TABLE.
- THE ACRONYM MUTCD REFERS TO THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES – 2003 EDITION, AND THE NEW YORK STATE SUPPLEMENT.
- SIGN LOCATIONS AS SHOWN ON PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL INSTALL NEW SIGNS IN ACCORDANCE WITH THE MUTCD.
- SIGN POST AND BASE SECTION SHALL BE AT LEAST 12 GAUGE GALVANIZED PREFORATED SQUARE STRUCTURAL STEEL TUBING MEETING THE REQUIREMENTS OF ASTM DESIGNATION A-466 GRADE A. INSTALLATION OF BASE SECTIONS OF GROUND MOUNTED SIGN POSTS SHALL BE IN ACCORDANCE WITH CITY OF BUFFALO STANDARD SPECIFICATIONS CONSTRUCTION DETAIL STANDARD SHEET – S.S.#21.



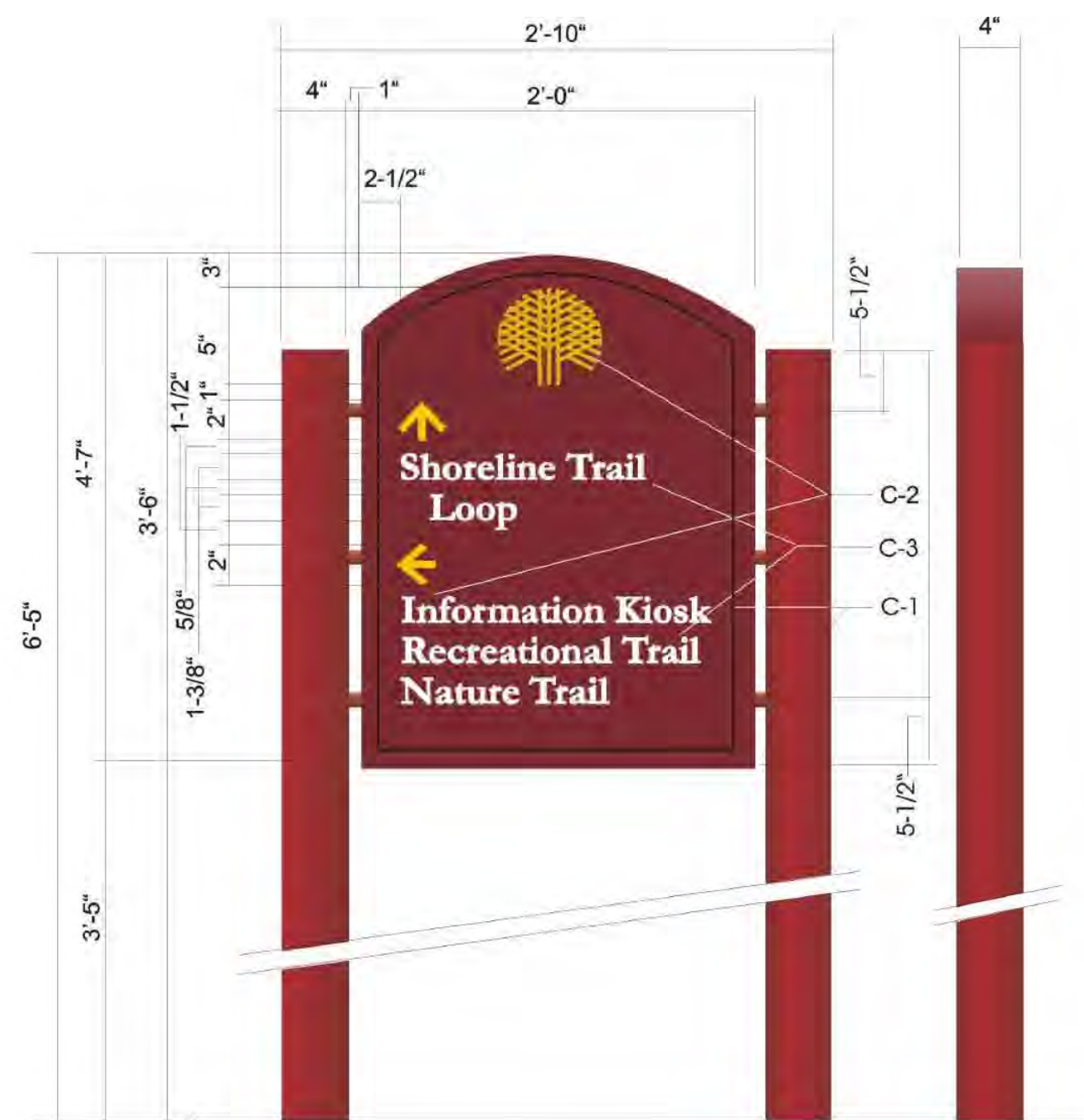
NOTES:

1. Sign panel to be fabricated aluminum painted to match C-1 (Rust) with C-2 and C-3 reflective Scotchlite graphics.
2. See Detail S-1D for mounting and sections.



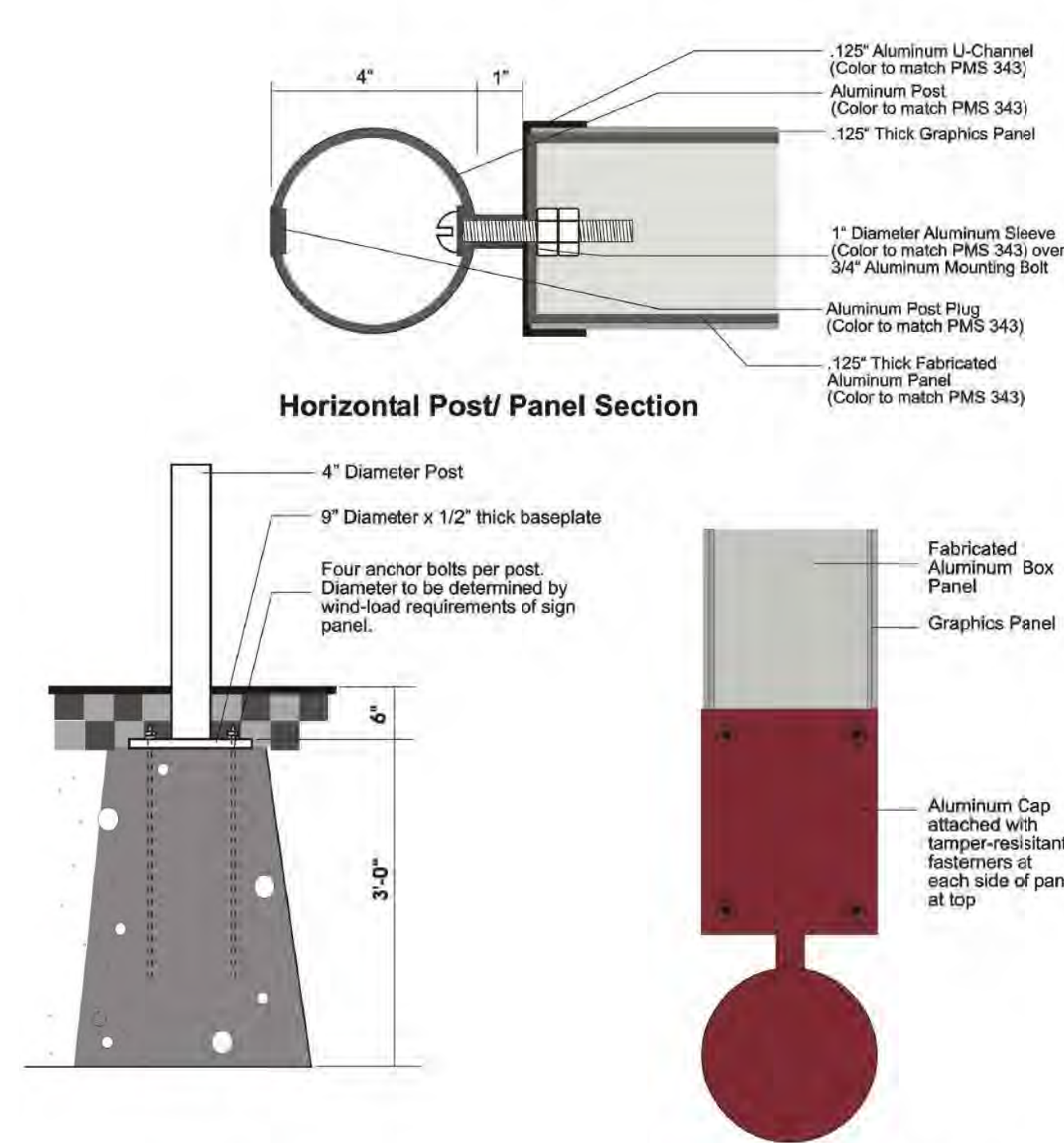
NOTES:

1. Fabricate Aluminum sign cabinet on ore aggregate base as shown above for Type A-2 signs.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation, stone facing and installation of sign cabinets.



NOTES:

1. Fabrication to include perimeter retainer to secure fused resin graphic panels. See Drawing S-2A for faceplate connection detail.
2. Colors, logo and typefaces same as Type A-1.
3. Owner will provide art on disk of all logos to be used on Directional Signage.
4. See S-2A for installation detail.
5. Arrow orientation and message copy to be as specified in the Signage Schedule.



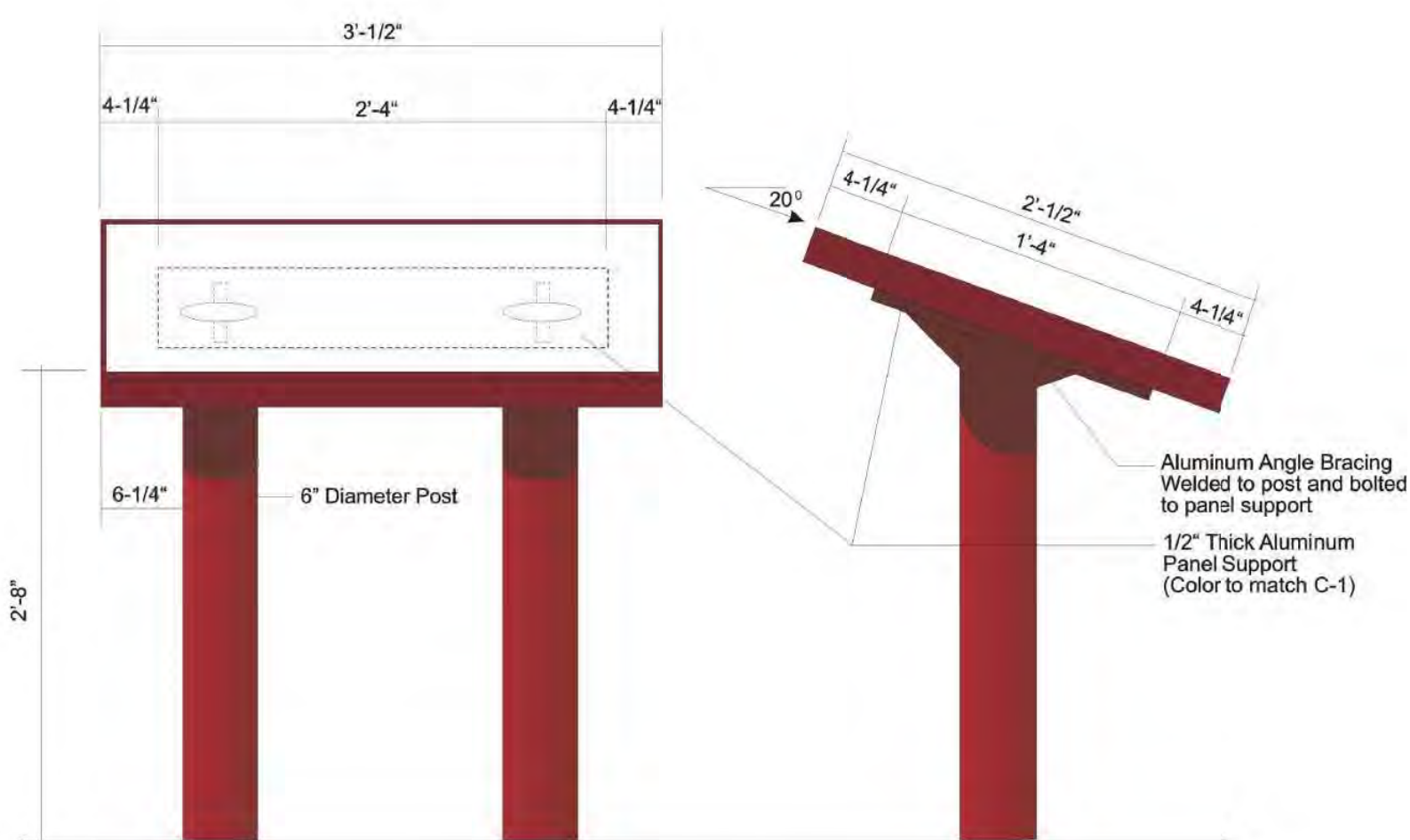
Foundation Detail

NOTES:

1. Solid composite phenolic graphics panel to be inserted behind U-Channel on front and back. Panel bottom will include stop for graphics panel assembly. All edges to be finished smooth and painted to match C-1.
2. Aluminum cap to be attached to fabricated aluminum panel with Tamper-resistant fasteners. All exposed edges and fastener heads to be painted to match C-1.

1 SIGN TYPE A-2 SITE IDENTIFICATION SIGN

2 SIGN TYPE B-1 PEDESTRIAN/BICYCLIST DIRECTIONAL SIGN



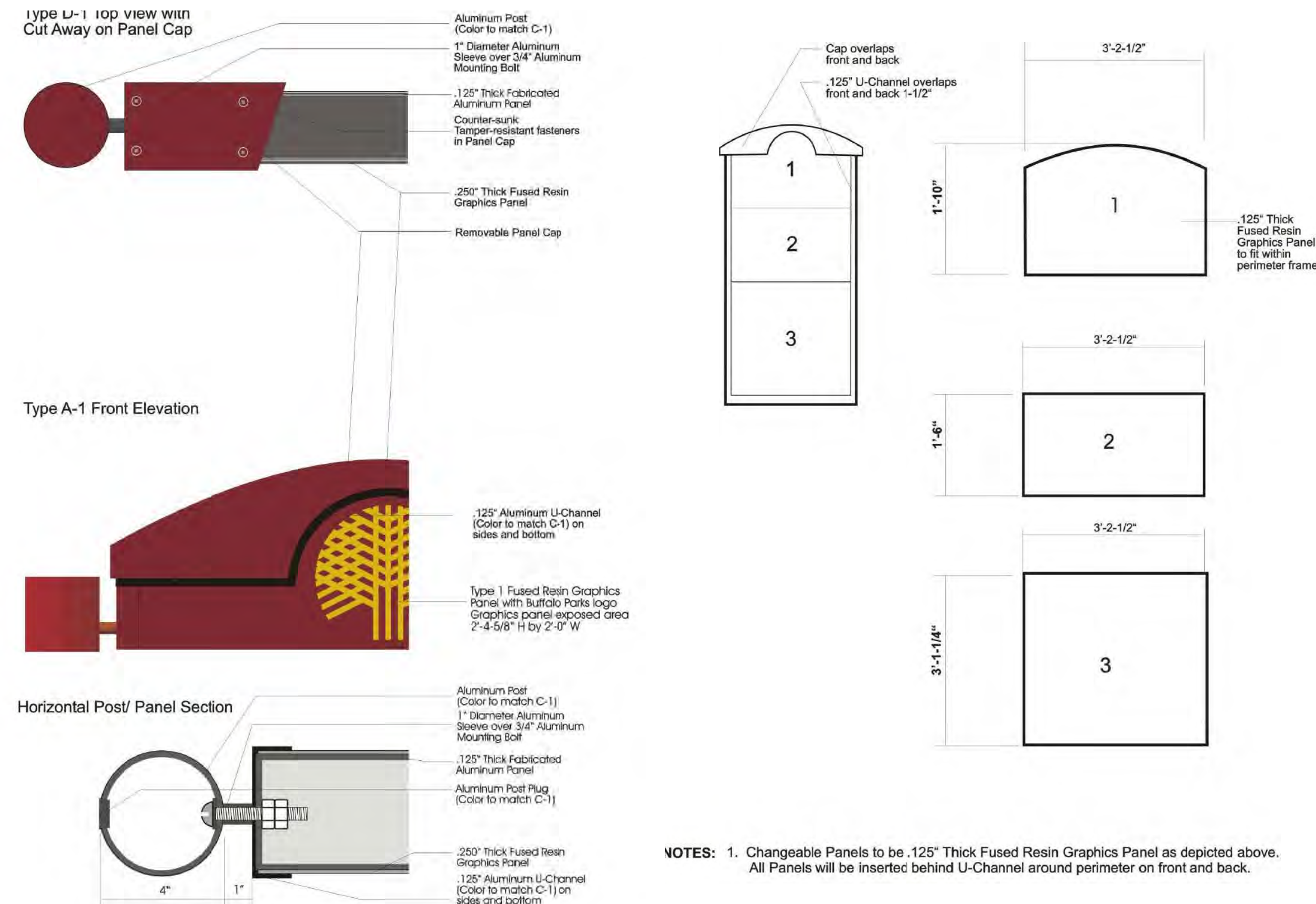
NOTES:

1. Materials, fabrication and anchorage same as Type B-1.
2. Fused Resin Graphics Panel to be 24" by 36".
3. Panel art to be furnished on disk by Owner.



NOTES:

1. Fabrication will include aluminum box panel core, Fused Resin changeable message panels and aluminum posts. Art for logo and map graphics graphics will be furnished by Owner. Remaining graphics will be furnished in schedule form.
2. See drawings S-4A and S-4B for fabrication details.



- NOTES: 1. Changeable Panels to be .125" Thick Fused Resin Graphics Panel as depicted above. All Panels will be inserted behind U-Channel around perimeter on front and back.

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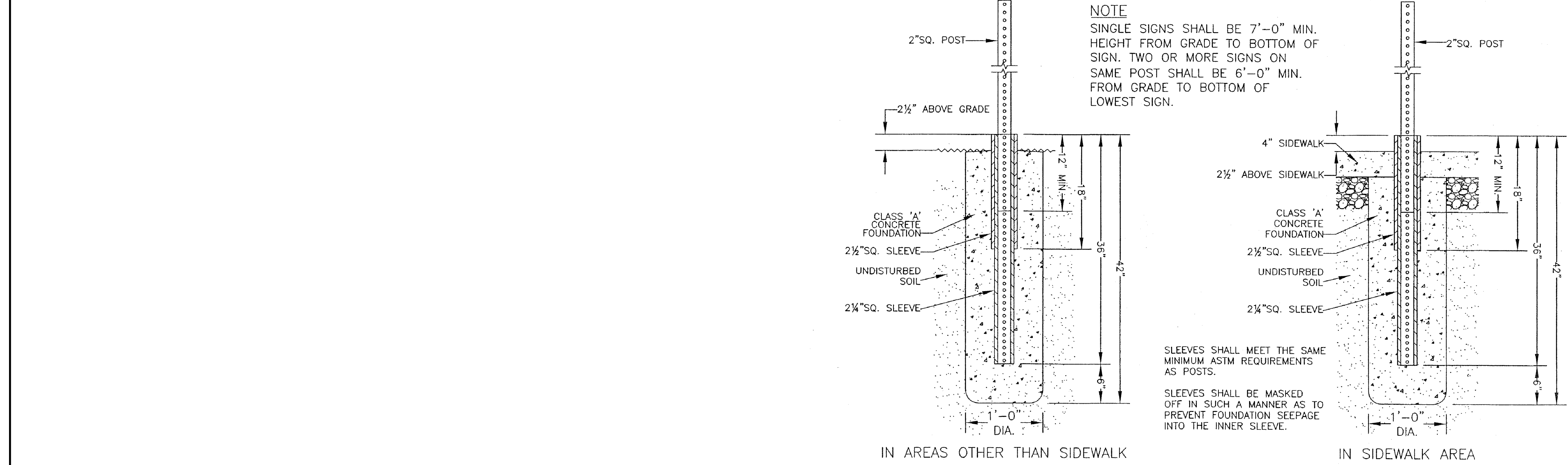
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SIGNAGE DETAILS

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1 STANDARD SIGN POST FOOTER DETAIL
NTS

SIGN DETAIL NOTES

GENERAL: ALL SIGN MATERIAL AND INSTALLATIONS SHALL CONFORM TO THE LATEST NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS AND STANDARD SHEETS EXCEPT AS MODIFIED BY THESE PLANS AND CONTRACT DOCUMENTS.

THE BACK SIDE OF ALL SIGNS SHALL BE PAINTED BLACK WHEN THEY OBSCURE THE SHAPE OF A STOP, YIELD OR WARNING SIGN WHEN PLACED BACK TO BACK.

ALL CORNER RADIUS OF PANELS SHALL BE 1-1/2" FOR STREET NAME AND PARKING SERIES SIGNS.

SIGN PANELS SHALL BE EITHER ALUMINUM ALLOY 6061-T6, 5154-H38, OR 5052-H38. ALL ALUMINUM SIGN PANELS SHALL CONFORM TO THE REQUIREMENTS OF NYSDOT MATERIAL SPECIFICATIONS 715-04, WROUGHT ALUMINUM AND 645-2.02 FOR MATERIAL THICKNESS.

SIGN POSTS AND FOOTINGS: SIGN POSTS AND BASE SECTION SHALL BE AT LEAST 12 GAGE GALVANIZED PERFORATED SQUARE STRUCTURAL STEEL TUBING MEETING REQUIREMENTS OF ASTM DESIGNATION A-466 GRADE A.

BASE POSTS DAMAGED OR DEFORMED ON THE TOP OR SIDES IN THE SPLICE CONTACT AREA SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.

CONCRETE FOOTINGS SHALL BE CLASS A CONCRETE AND REST AGAINST UNDISTURBED SOIL.

IN CURBED AREAS, A 3'-0" HORIZONTAL SETBACK FOR POSTS IS DESIRABLE WITH A 2'-0" MINIMUM. IN NO CASE SHALL A SIGN PANEL EXTEND WITHIN 6" OF THE CURB LINE.

THE DEPTH OF A FOUNDATION MAY BE REDUCED TO A MINIMUM OF 1'-0" INTO SOUND ROCK AND ENCASED IN CONCRETE. THE TOP OF CONCRETE SHALL BE SLOPED FOR DRAINAGE AWAY FROM THE POST AND FLUSH WITH-SURROUNDING GRADE AT THE PERIMETER.

IF IT IS FOUND DURING CONSTRUCTION THAT UTILITY OR TRAFFIC SIGNAL POLES EXIST IN APPROXIMATELY THE SAME LOCATION AS THAT SPECIFIED FOR GROUND MOUNTED SIGNS, THE SIGNS SHALL BE Banded TO THE POLE AS LONG AS THE POLE LOCATION SATISFIES REQUIREMENTS AS LISTED IN THE 'NYSDOT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES' AND PERMISSION TO USE THE POLE IS OBTAINED FROM THE OWNER AND ENGINEER IN CHARGE.

HARDWARE: STIFFENERS FOR PANELS 30" WIDE OR LESS SHALL BE ALUMINUM Z BARS 1-3/8" X 1-1/4" X 3/16" OR APPROVED EQUAL. ALL BOW BAR STIFFENERS AND U-BOLTS SHALL BE GALVANIZED STEEL.

ALL BANDING AND CLIPS SHALL BE 0.022" MINIMUM THICKNESS BY 3/4" WIDE STAINLESS STEEL.

FLAT WASHERS SHALL BE PLACED AFTER EACH BOLT HEAD, BEFORE EACH NUT, BEFORE EACH NYLON WASHER AND BETWEEN SPACERS AND SIGN PANELS. WASHERS IN CONTACT WITH REFLECTIVE SHEETING SHALL BE NYLON. ALL OTHER WASHERS SHALL BE STAINLESS STEEL. ALL BOLTS, WASHERS AND NUTS FOR U-BOLTS SHALL BE GALVANIZED STEEL. ALL OTHER NUTS AND BOLTS SHALL BE STAINLESS STEEL. ALL STAINLESS STEEL NUTS AND 5/16" DIAMETER BOLTS FOR BANDING BRACKETS SHALL HAVE NYLON PLUG OR RING LOCKING FEATURES.

ALL BOLT LENGTHS SHOWN ARE ESTIMATED. THE CONTRACTOR SHALL SELECT BOLT LENGTHS SUFFICIENT TO RESULT IN EACH BOLT EXTENDING BETWEEN 1/4" TO 1/2" BEYOND A PROPERLY TIGHTENED NUT. THE CONTRACTOR SHALL ALSO VERIFY PROPER BOLT LENGTHS WHERE NUTS ARE NOT REQUIRED. BOLT DIAMETERS SHALL BE AS SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.

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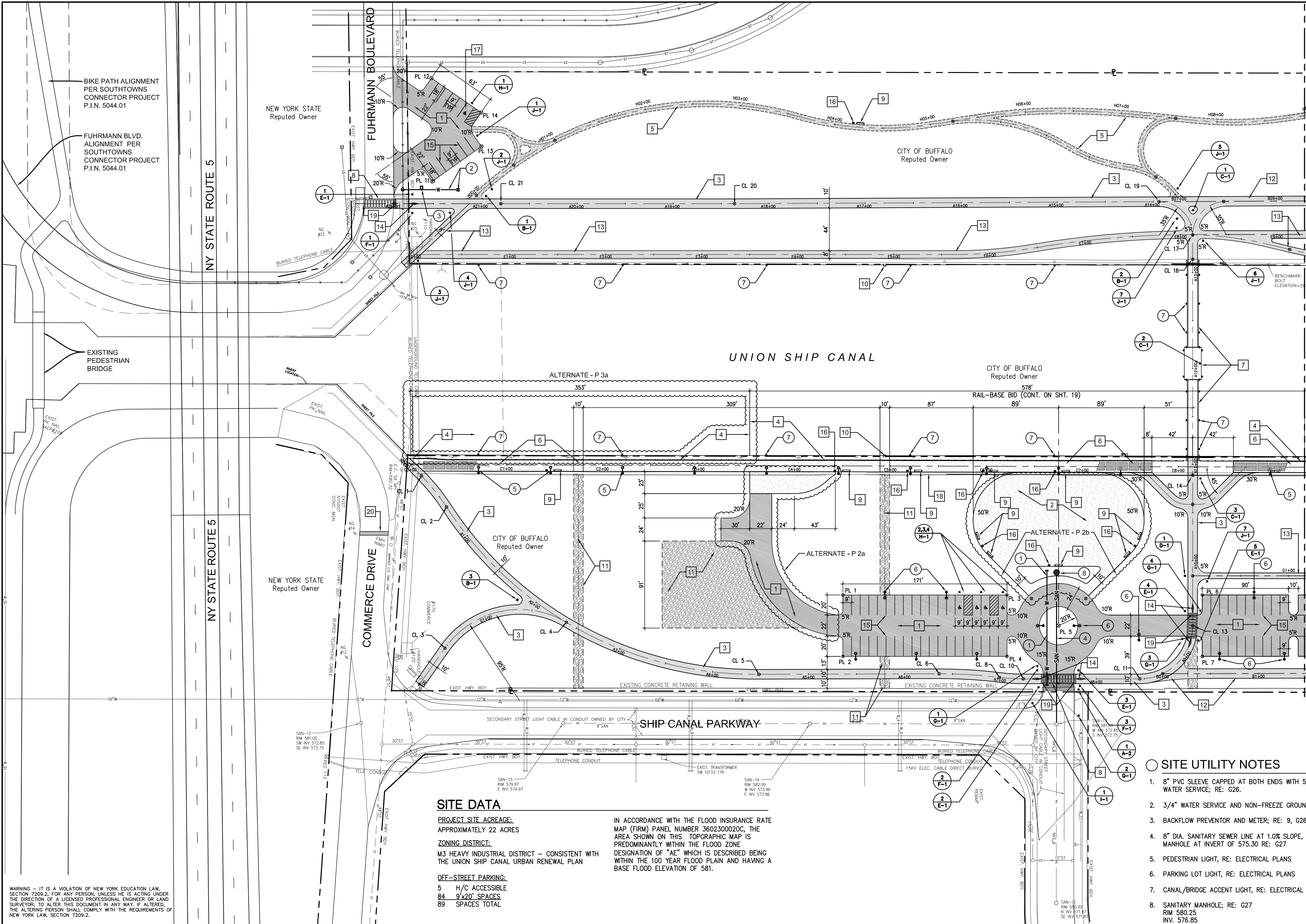
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NODE LOCATION TABLE

DESCRIPTION	NORTH	EAST	REMARKS
HORIZONTAL CONTROL			
HC No.1	10000.00	10000.00	EXISTING IRON PIN PROPERTY CORNER
HC No.2	9925.02	10002.45	EXISTING IRON PIN PROPERTY CORNER
MULTI-USE PATHWAY CENTERLINE "A"			
CL No.1	1032645.40	1075953.33	
CL No.2	1032624.14	1075989.24	
CL No.3	1032485.91	1076039.24	
CL No.4	1032555.38	1076148.18	
CL No.5	1032574.94	1076354.90	
CL No.6	1032641.35	1076530.71	
CL No.7	1033021.70	1075878.98	
CL No.8	1032659.81	1076590.75	
CL No.9	1033021.70	1075878.98	
CL No.10	1032667.16	1076614.78	
CL No.11	1032709.74	1076728.51	
CL No.12	1033021.70	1075878.98	
CL No.13	1032780.95	1076760.58	
CL No.14	1032927.74	1076705.64	
CL No.15	1033021.70	1075878.98	
CL No.16	1033138.44	1076626.77	
CL No.17	1033161.74	1076618.05	
CL No.18	1033021.70	1075878.98	
CL No.19	1033182.20	1076572.85	
CL No.20	1033025.25	1076159.50	
CL No.21	1032939.89	1075931.45	
PARKING LOT CORNERS			
PL No.1	1032683.14	1076408.08	
PL No.2	1032623.20	1076430.51	
PL No.3	1032743.09	1076568.23	
PL No.4	1032683.15	1076590.67	
PL No.5	1032731.95	1076629.77	
PL No.6	1032814.40	1076758.74	
PL No.7	1032754.46	1076781.18	
PL No.8	1032881.00	1076936.69	
PL No.9	1032821.07	1076959.12	
PL No.10	1032868.05	1076993.37	
PL No.11	1032936.50	1076856.34	
PL No.12	1033037.00	1075817.86	
PL No.13	1032968.70	1075891.62	
PL No.14	1033021.70	1075878.98	

NOTE: DIGITAL FILES WILL BE PROVIDED TO THE CONTRACTOR FOR THE PURPOSES OF PATH AND TRAIL LAYOUT. DIGITAL FILES MAY TAKE THE FORM OF A GEOREFERENCED AUTOCAD FILE AND/OR AN ASCII COORDINATE POINT FILE.

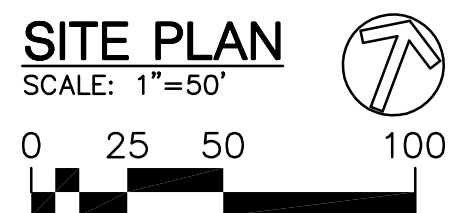
SITE IMPROVEMENT NOTES

- ASPHALT PAVEMENT; RE: 1, G24.
- CONCRETE PROMENADE; RE: 3, G24.
- MULTI-USE PATH; 10' WIDE ASPHALT; RE: 2, G24
- PEDESTRIAN RAIL; RE: 8, G24
- CRUSHED STONE NATURE TRAIL; 6' WIDE, RE: 6, G24.
- CONCRETE AND PERMEABLE PAVER PROMENADE; RE: 9, G24.
- PRE-ENGINEERED PEDESTRIAN BRIDGE; RE: BRIDGE PLANS
- CROSSWALK STRIPING; RE: 3, G25.
- BENCH; RE: 1, G25
- EMERGENCY LADDER; RE: 10, G24
- PEA GRAVEL MULCH, 4" DEPTH WITH STEEL EDGING, PLACED ON GEOTEXTILE FABRIC OVER SUBGRADE.
- RECREATIONAL TRAIL; ASPHALT; RE: 2, G24.
- PEDESTRIAN PATH; ASPHALT; RE: 2, G24.
- FLEXIBLE DELINEATOR; RE: 2, G25.
- ITEM 12.404 - 4" WHITE PREFORMED REFLECTORIZED PAVEMENT STRIPES.
- TRASH RECEPTACLE; RE: 1, G25.
- HANDICAPPED PARKING STALL; RE: 9, G25.
- BICYCLE RACK; RE: 11, G25.
- ADA DETECTABLE WARNING SURFACE; RE: 11, G24.
- SAWOUT AND REMOVE ASPHALT PAVEMENT, INSTALL CONCRETE ENCASED CONDUITS PER ELECTRICAL DRAWINGS. REPAIR ASPHALT PAVEMENT IN KIND PER CITY OF BUFFALO STANDARDS AND SPECIFICATIONS.

* CONTRACTOR SHALL STAKE OUT ALL PROPOSED PATHS FOR REVIEW AND ACCEPTANCE BY THE ARCHITECT'S/OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.

SITE UTILITY NOTES

- 8" PVC SLEEVE CAPPED AT BOTH ENDS WITH 5' COVER FOR FUTURE WATER SERVICE; RE: G26.
- 3/4" WATER SERVICE AND NON-FREEZE GROUND HYDRANT; RE: L503.
- BACKFLOW PREVENTOR AND METER; RE: 9, G26.
- 8" DIA. SANITARY SEWER LINE AT 1.0% SLOPE, CONNECT TO EXISTING MANHOLE AT INVERT OF 575.30 RE: G27
- PEDESTRIAN LIGHT, RE: ELECTRICAL PLANS
- PARKING LOT LIGHT, RE: ELECTRICAL PLANS
- CANAL/BRIDGE ACCENT LIGHT, RE: ELECTRICAL PLANS
- SANITARY MANHOLE; RE: G27
RIM 580.25
INV. 576.85



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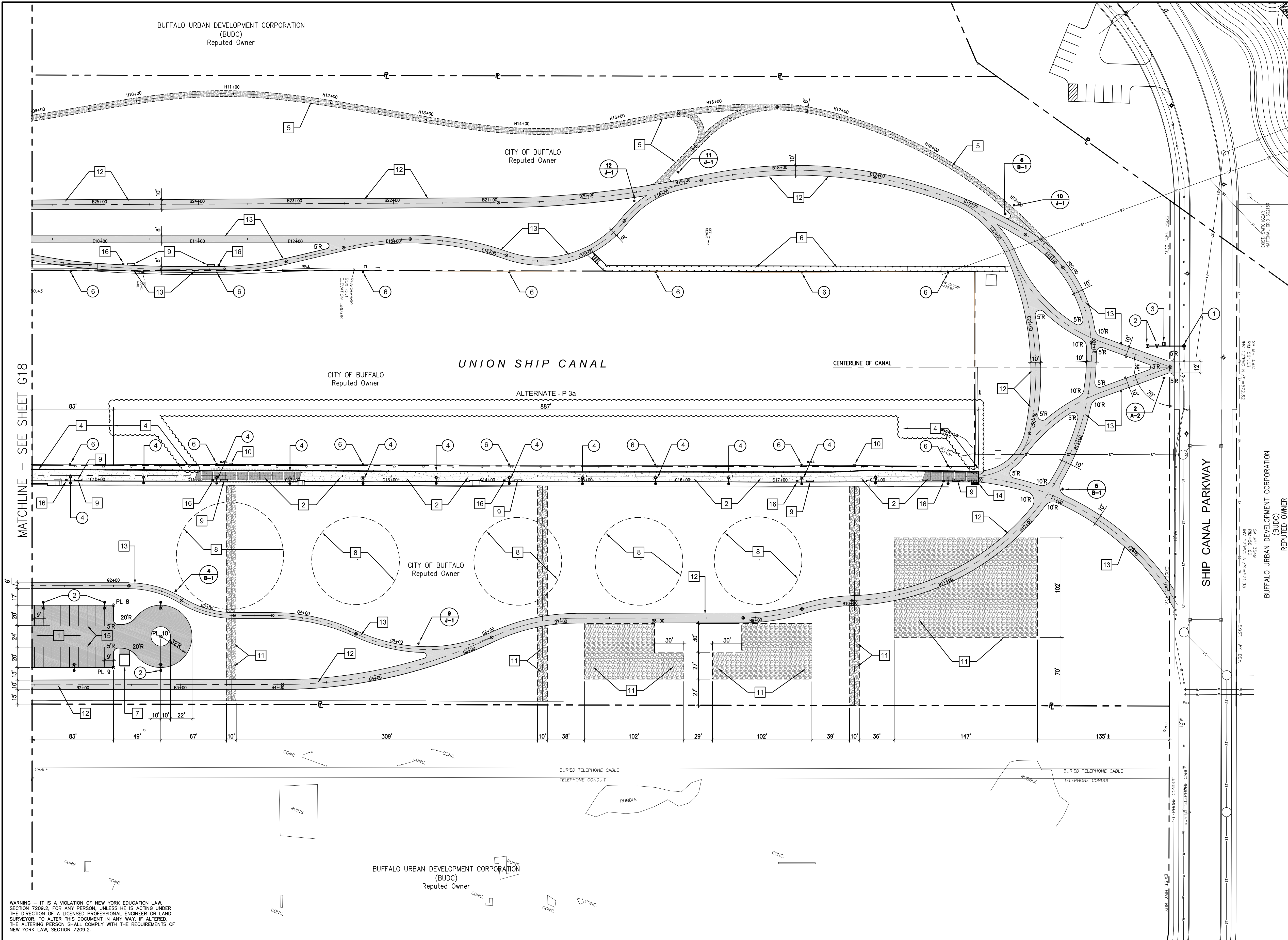
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SITE LAYOUT AND UTILITY PLAN
WEST
SCALE: 1"=50'

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SITE IMPROVEMENT NOTES

1. ASPHALT PARKING LOT; RE: 1, G24
2. CONCRETE AND PERMEABLE PAVER PROMENADE; RE: 9, G24
3. * MULTI-USE PATH; 10' WIDE ASPHALT; RE: 2, G24
4. PEDESTRIAN RAIL; RE: 8, G24.
5. * CRUSHED STONE NATURE TRAIL; 6' WIDE, RE: 6, G25
6. BOARDWALK OVER EMBAYMENT AREA; RE: 8, G25
7. 10'x12' PRECAST MAINTENANCE BUILDING WITH PITCHED ROOF AND SIMULATED BRICK FINISH AS MANUFACTURED BY HY-GRADE PRECAST OR ACCEPTABLE EQUIVALENT.
8. ARCHITECTURAL LANDFORMS AT 3:1 SLOPE; REFER TO GRADING PLANS.
9. BENCH; RE: 1, G25
10. EMERGENCY LADDER; RE: G24
11. PEA GRAVEL MULCH, 4" DEPTH WITH STEEL EDGING, PLACED ON GEOTEXTILE FABRIC OVER SUBGRADE.
12. * RECREATION TRAIL; ASPHALT; RE: 2, G24
13. * PEDESTRIAN PATH; ASPHALT; RE: 2, G24.
14. BICYCLE RACK; RE: 11, G25.
15. ITEM 12.404 - 4" WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES.
16. TRASH RECEPTACLE; RE: 1, G25.

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SITE UTILITY NOTES

1. WATER SERVICE COONECTON TO WATER MIAN PER CITY OF BUFFALO STANDARDS AND SPECIFICATIONS; RE: SHEET G26.
2. 3/4" WATER SERVICE TO NON-FREEZE GROUND HYDRANT; RE: SHEET G26.
3. BACKFLOW PREVENTER AND METER; RE: SHEET G26.
4. PEDESTRIAN LIGHT, RE: ELECTRICAL PLANS
5. PARKING LOT LIGHT, RE: ELECTRICAL PLANS
6. CANAL/BIDGE ACCENT LIGHT, RE: ELECTRICAL PLANS

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UPLAND IMPROVEMENTS
SITE LAYOUT AND UTILITY PLAN
EAST
SCALE: 1"=50'

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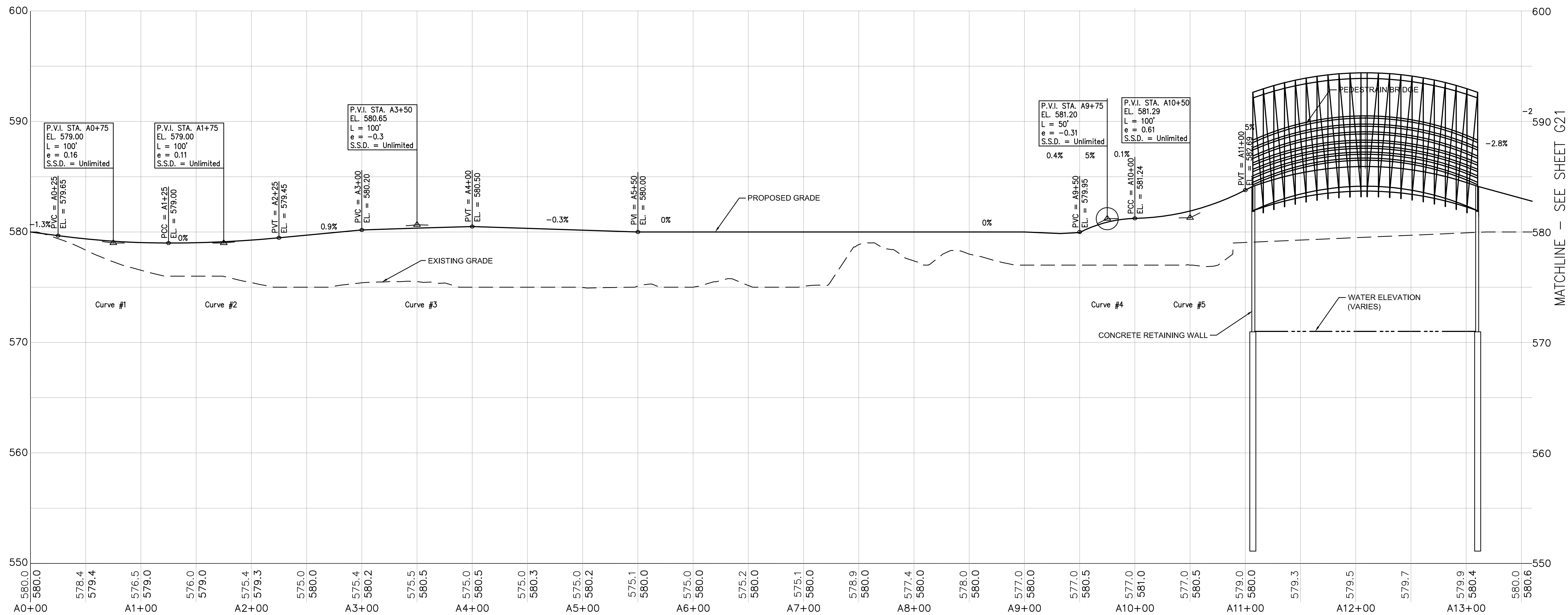
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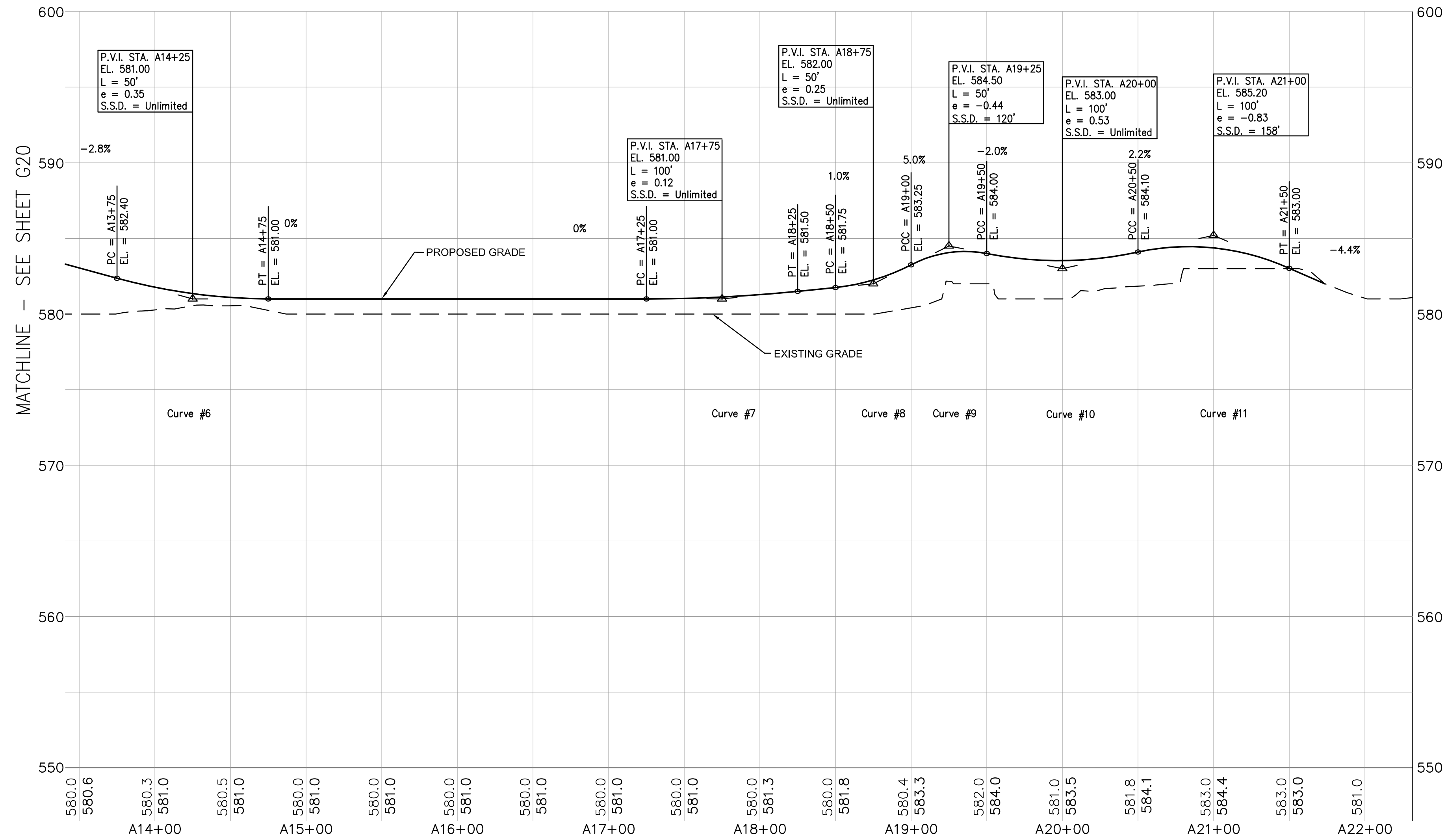
MULTI-USE TRAIL PROFILES

SCALE: AS SHOWN

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PROFILE 'A'
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



PROFILE 'A'
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

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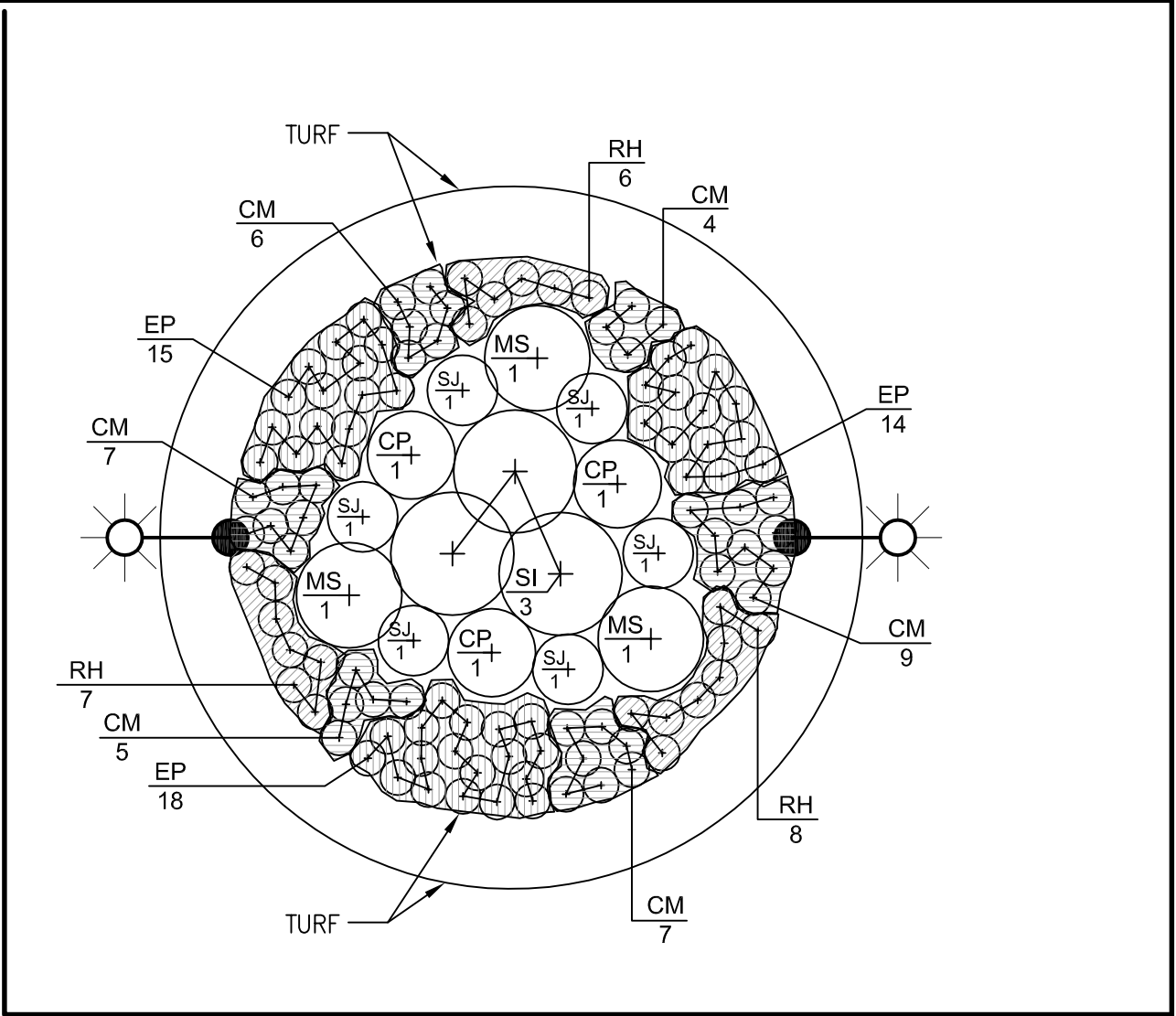
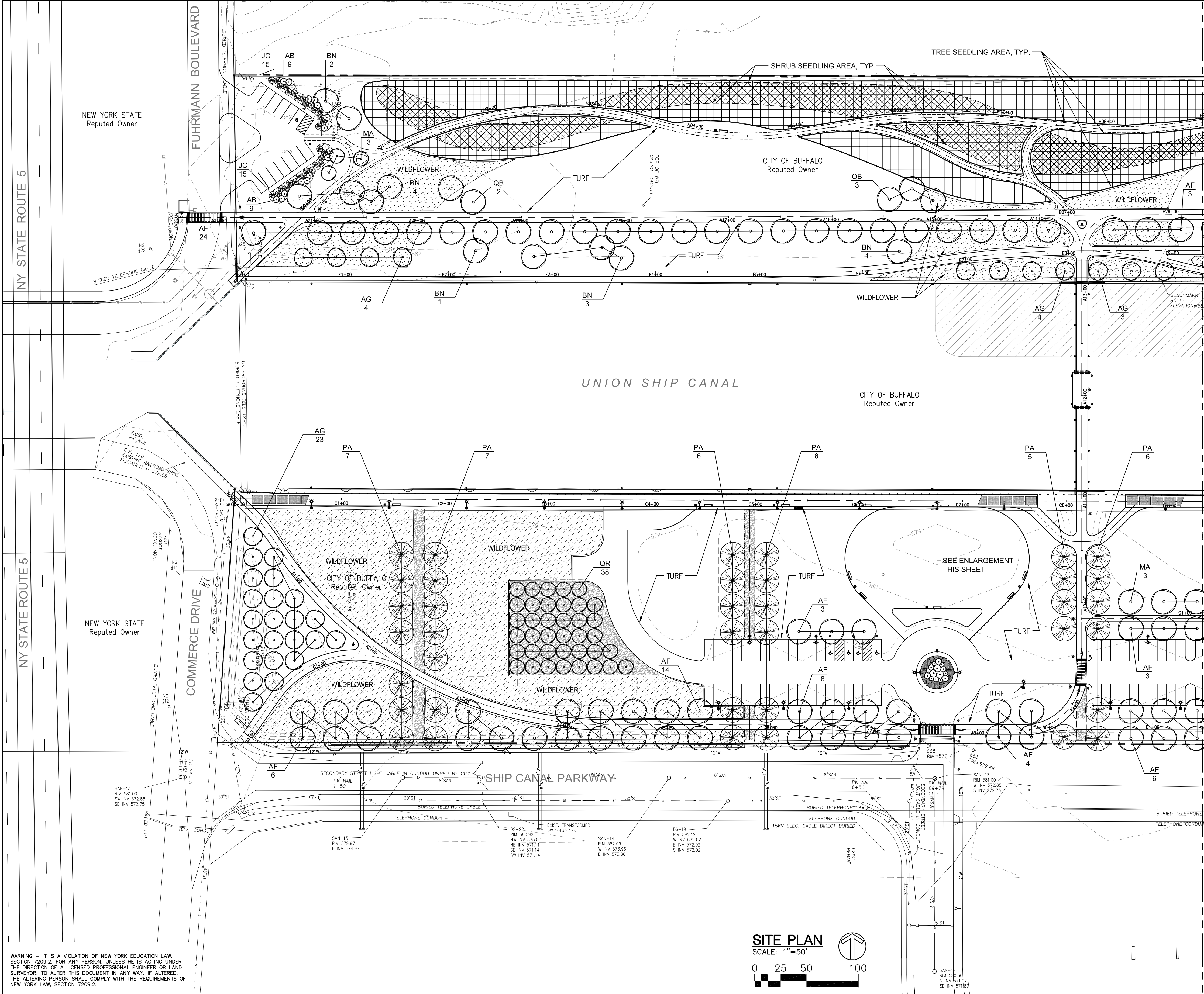
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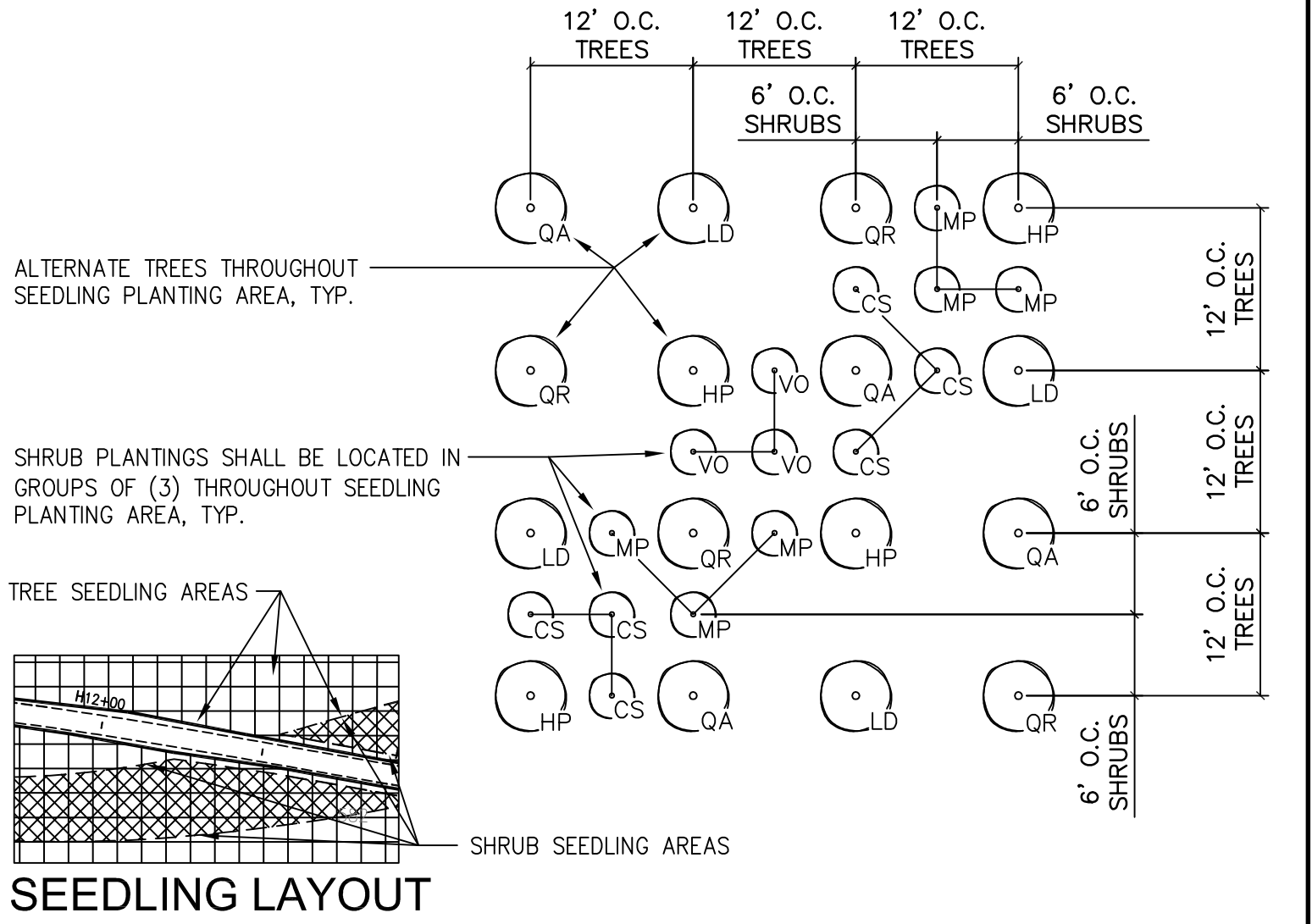
MULTI-USE TRAIL PROFILES

SCALE: AS SHOWN

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SITE ENLARGEMENT PLAN
SCALE: 1"=10'



PLANT SCHEDULE

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	COMMENT
TREES						
71	AF	Acer freemanii 'Jeffersred'	AUTUMN BLAZE MAPLE	1-1/2" CAL	BR	
34	AG	Amelanchier grandiflora 'Robin Hill'	ROBIN HILL PINK SERVICEBERRY	8' HT.	B&B	CLUMP FORM
11	BN	Betula nigra	RIVER BIRCH	12' HT	B&B	
6	MA	Malus 'Snowdrift'	SNOWDRIFT CRAB	1-1/2" CAL	BR	
37	PA	Picea abies	NORWAY SPRUCE	6' HT	B&B	
38	QR	Quercus robur 'Fastigiata'	FASTIGIATA ENGLISH OAK	1-1/2" CAL	BR	15' O.C.
5	QB	Quercus bicolor	SWAMP WHITE OAK	1-1/2" CAL	B&B	
SHRUBS						
18	AB	Aronia arbutifolia 'Brilliantissima'	BRILLIANT RED CHOKEBERRY	#3	CONT.	
3	CP	Chamaecyparis pisifera 'Filifera Aurea Nano'	SUNPROOF GOLD THREAD FALSE CYPRESS	#3	CONT.	
30	JC	Juniperus chinensis 'Seybrook Gold'	SAYBROOK GOLD JUNIPER	#3	CONT.	6' O.C.
3	MS	Miscanthus sinensis 'Purpureascens'	MAIDEN GRASS	#3	CONT.	
3	SI	Salix integra 'Hakuro Hahiki'	DAPPLED WILLOW	#5	CONT.	
6	SJ	Spiraea Japonica 'Little Princess'	LITTLE PRINCESS SPIRAEA	#3	CONT.	
PERENNIALS						
21	RH	Rudbeckia hirta	BLACKEYED SUSAN	#2	CONT.	2' O.C.
47	EP	Echinacea purpurea	PURPLE CONEFLOWER	#2	CONT.	2' O.C.
38	CM	Chrysanthemum maximum	SHASTA DAISY	#2	CONT.	2' O.C.
SEEDLINGS						
300	HP	Hybrid Poplars	POPLAR	1 YR. ROOTED CUTTING		12' O.C.
300	LD	Larix laricina	TAMARACK	TWO YR. SEEDLING		12' O.C.
300	QA	Quercus alba	WHITE OAK	TWO YR. SEEDLING		12' O.C.
300	QR	Quercus rubra	RED OAK	TWO YR. SEEDLING		12' O.C.
600	CS	Cornus sericea	REDOSIER DOGWOOD	TWO YR. SEEDLING		6' O.C.
600	MP	Myrica pensylvanica	NORTHERN BAYBERRY	TWO YR. SEEDLING		6' O.C.
600	VO	Viburnum opulus var. americanum	HIGHBUSH CRANBERRY	TWO YR. SEEDLING		6' O.C.

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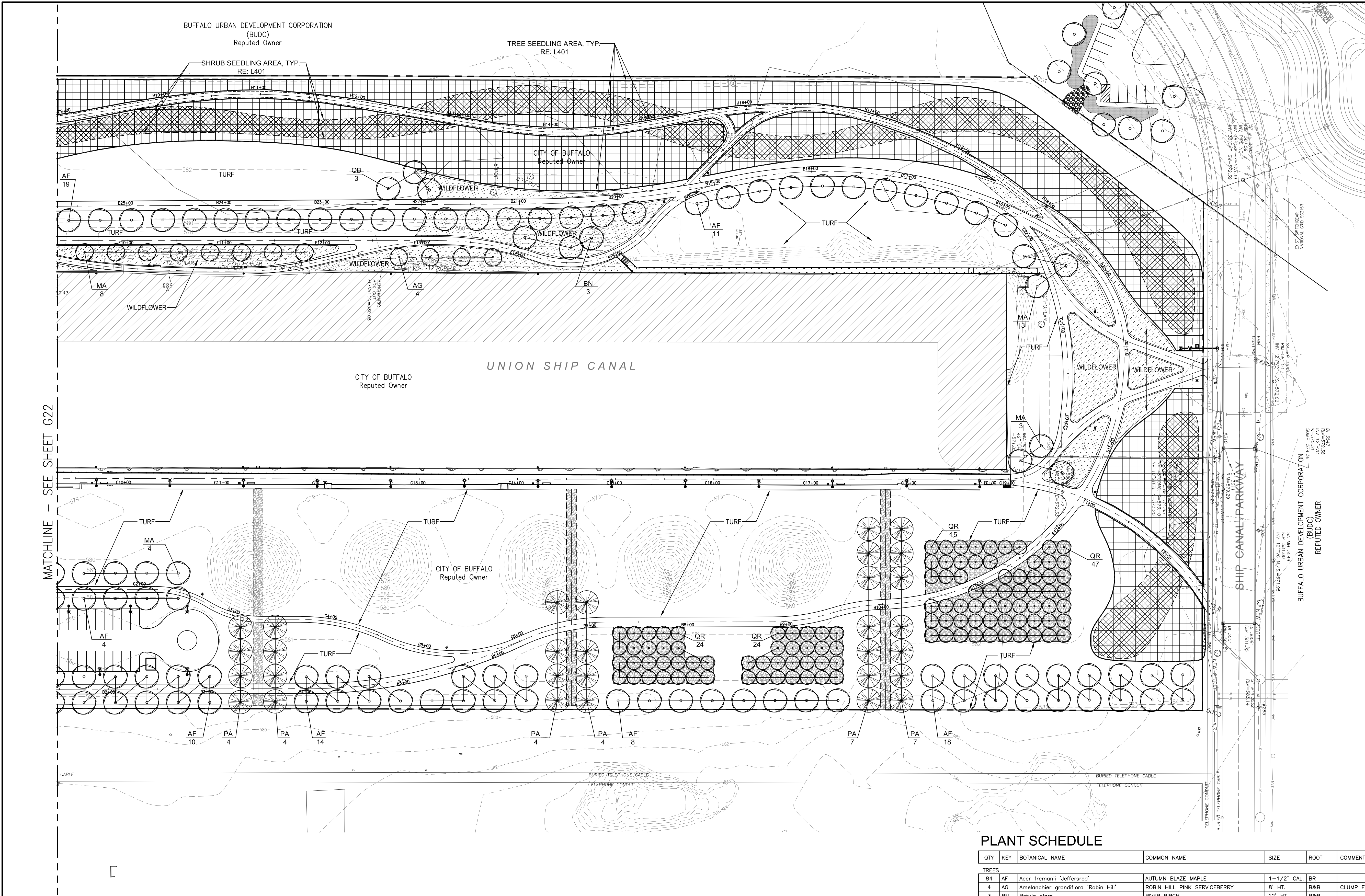
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UPLAND IMPROVEMENTS
LANDSCAPING PLAN
WEST
SCALE: 1"=50'

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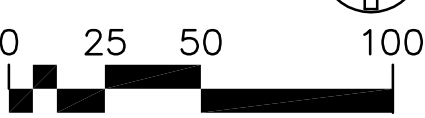


PLANT SCHEDULE

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	COMMENT
TREES						
84	AF	Acer fremanii 'Jeffersred'	AUTUMN BLAZE MAPLE	1-1/2" CAL.	BR	
4	AG	Amelanchier grandiflora 'Robin Hill'	ROBIN HILL PINK SERVICEBERRY	8' HT.	B&B	CLUMP FORM
3	BN	Betula nigra	RIVER BIRCH	12' HT	B&B	
18	MA	Malus 'Snowdrift'	SNOWDRIFT CRAB	1-1/2" CAL.	BR	
30	PA	Picea abies	NORWAY SPRUCE	6' HT	B&B	
3	QB	Quercus bicolor	SWAMP WHITE OAK	1-1/2" CAL	B&B	
110	QR	Quercus robur 'Fastigiata'	FASTIGIATA ENGLISH OAK	1-1/2" CAL.	BR	15' O.C.

SITE PLAN

SCALE: 1"=50'



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WENDEL DUCHSCHERER ARCHITECTS & ENGINEERS

MALCOLM PIRNIE

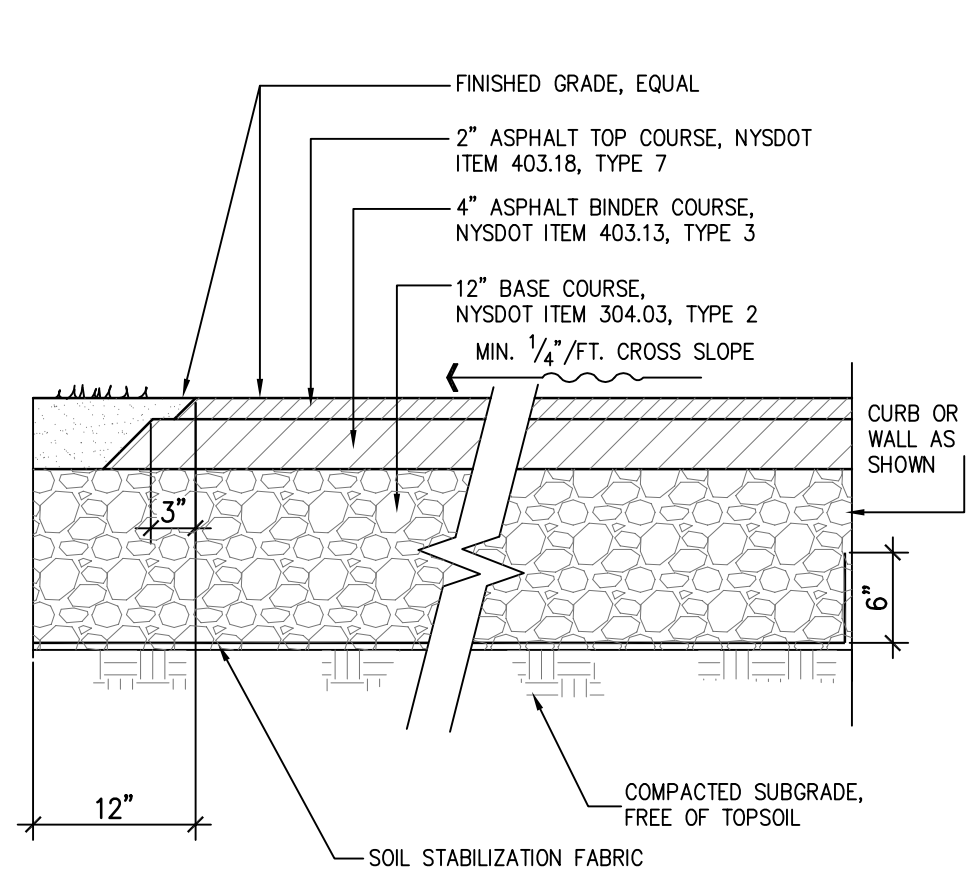
REVISIONS				REMARKS
NO.	BY	DATE		

DES AVT
DWN AVT
CKD MVM

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

UPLAND IMPROVEMENTS
LANDSCAPING PLAN
EAST
SCALE: 1"=50'

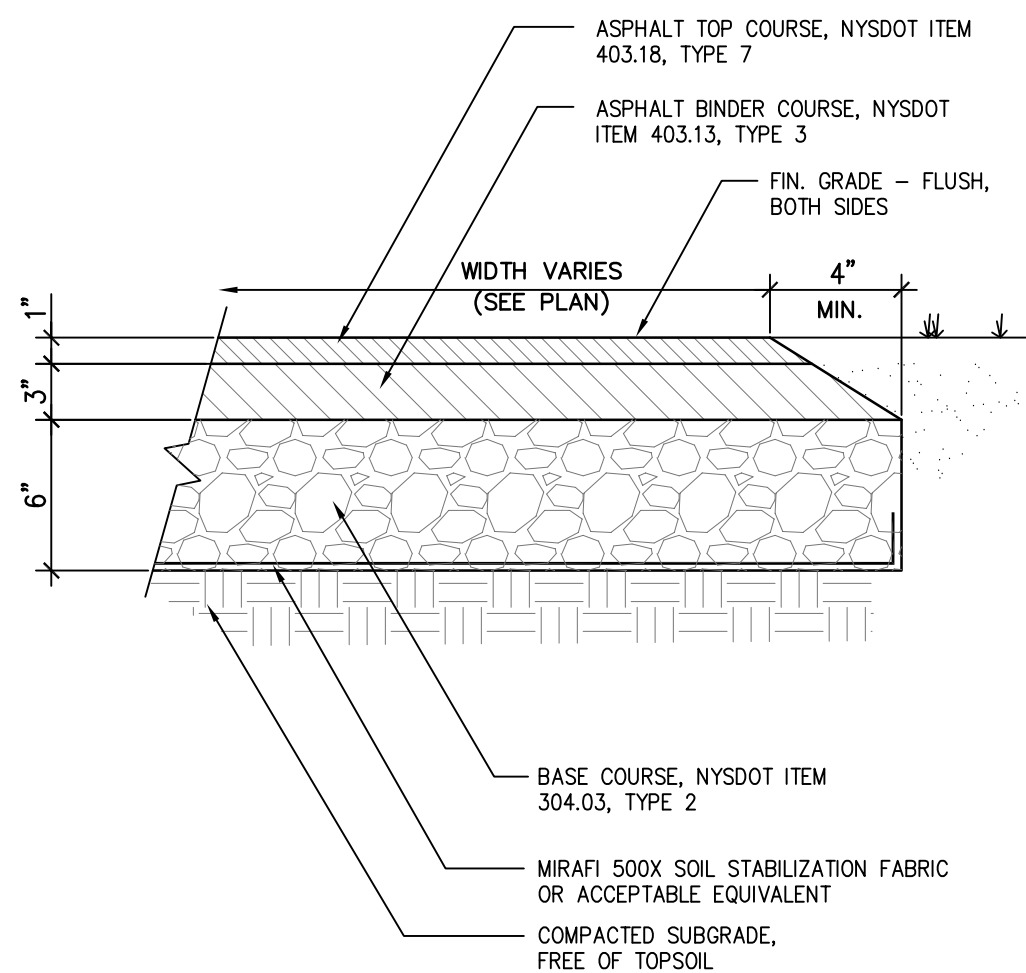
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CAD REF. NO. USC-L402



NOTE:
* DIMENSIONS GIVEN ON PLAN ARE TAKEN FROM EDGE OF ASPHALT TOP COURSE.

1 ASPHALT PAVEMENT

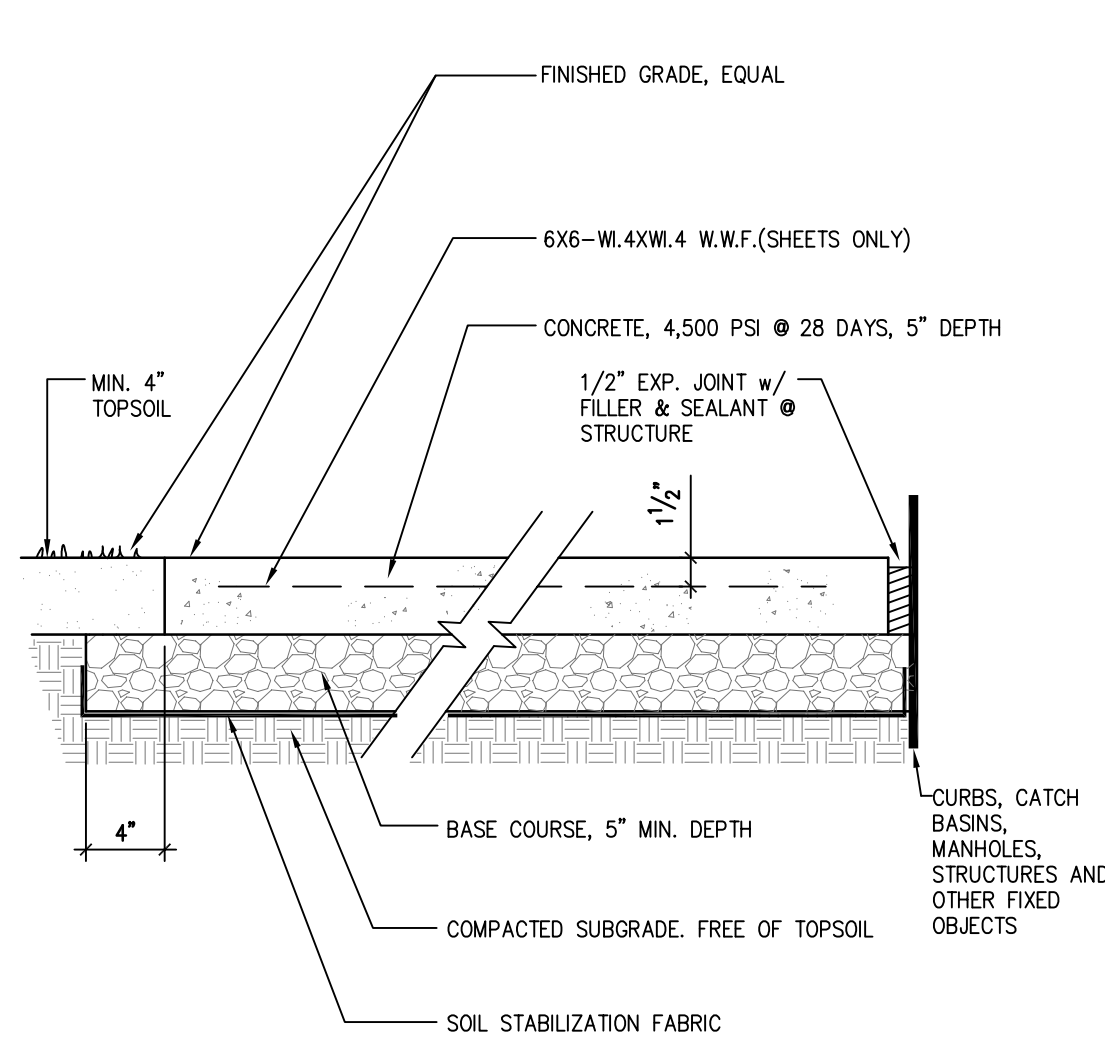
NTS



NOTE:
* PROVIDE 1/4" FT. SLOPE SLOPE IN DIRECTION OF ADJACENT GRADE. IN FLAT AREAS, WHERE NO APPARENT SLOPE EXISTS, RAISE PATH 1-1/2" ON ONE SIDE, ADJUST ADJACENT GRADES TO BE FLUSH.

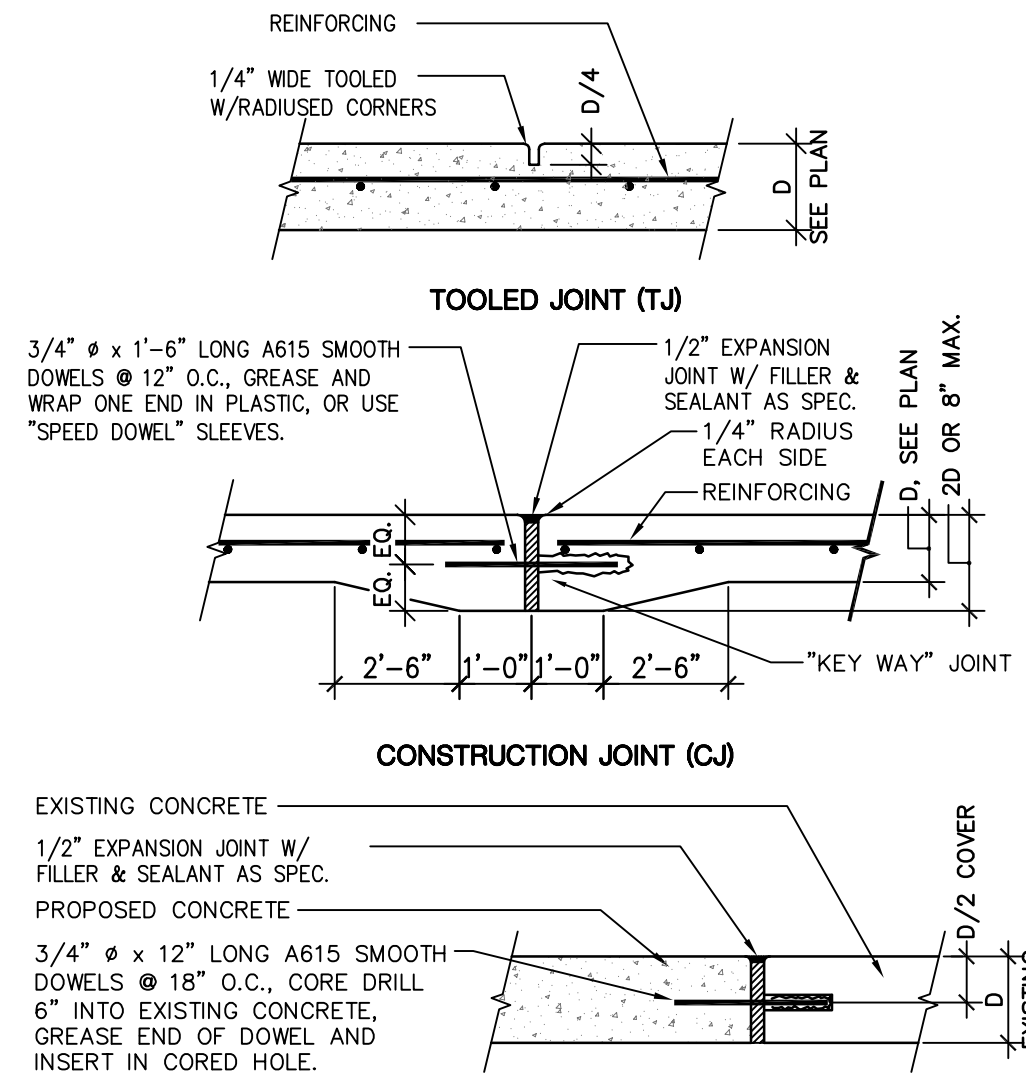
2 ASPHALT PATHWAY

NTS



3 CONCRETE WALK

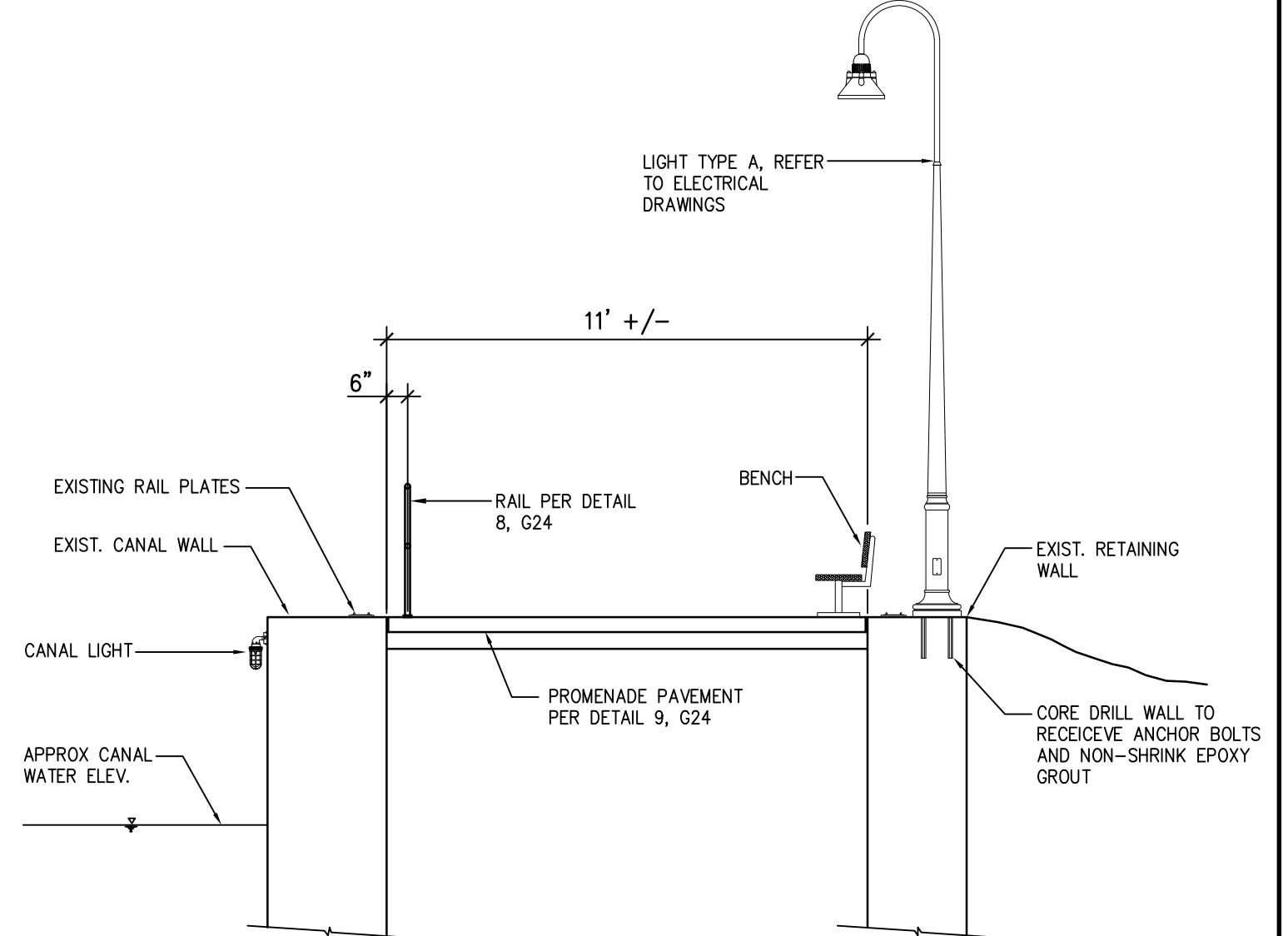
NTS



LOAD TRANSFER - SLIP DOWEL JOINT
* NOTE: "D" IS EQUAL TO DEPTH OF CONCRETE.

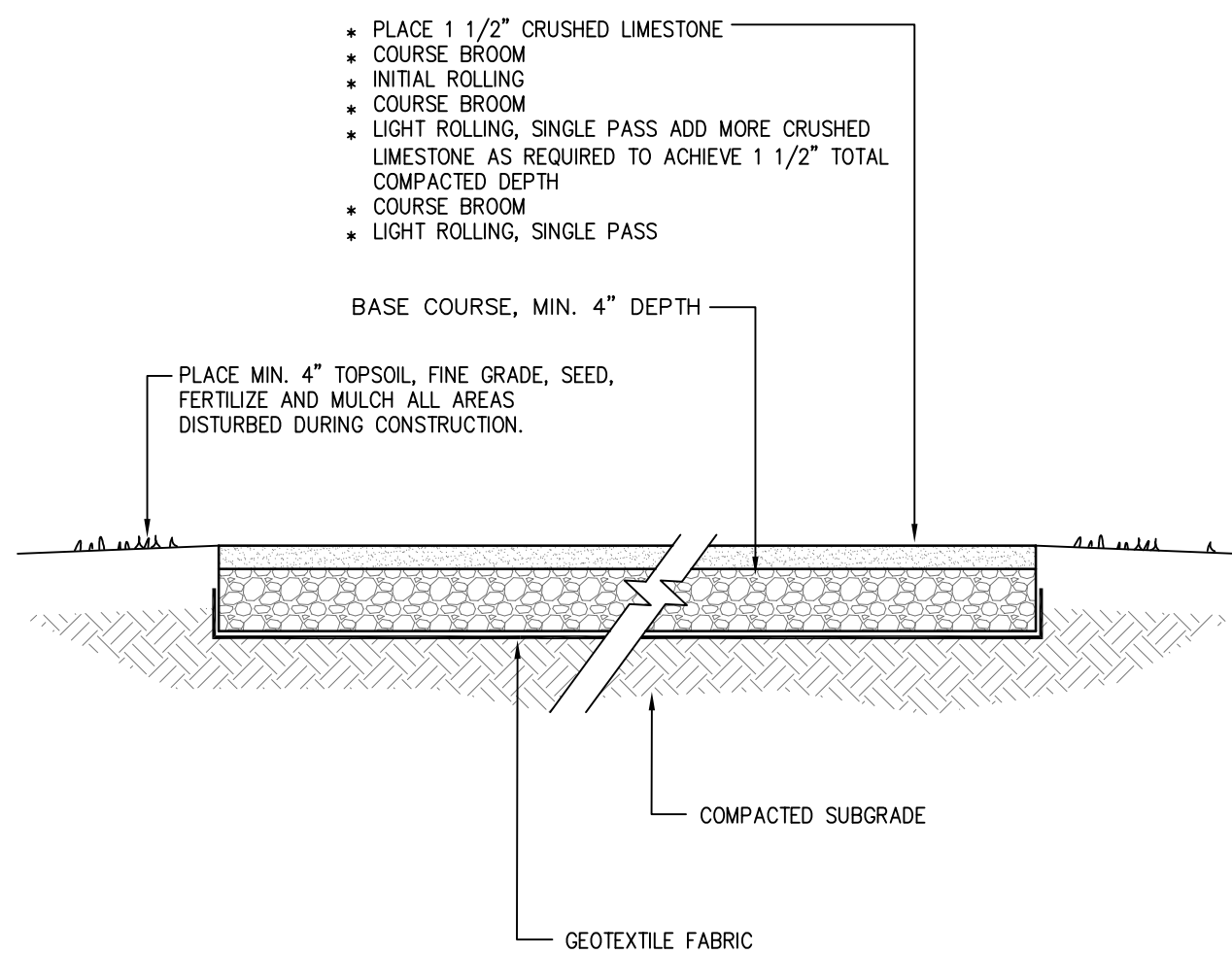
4 TYPICAL CONCRETE JOINTS

NTS



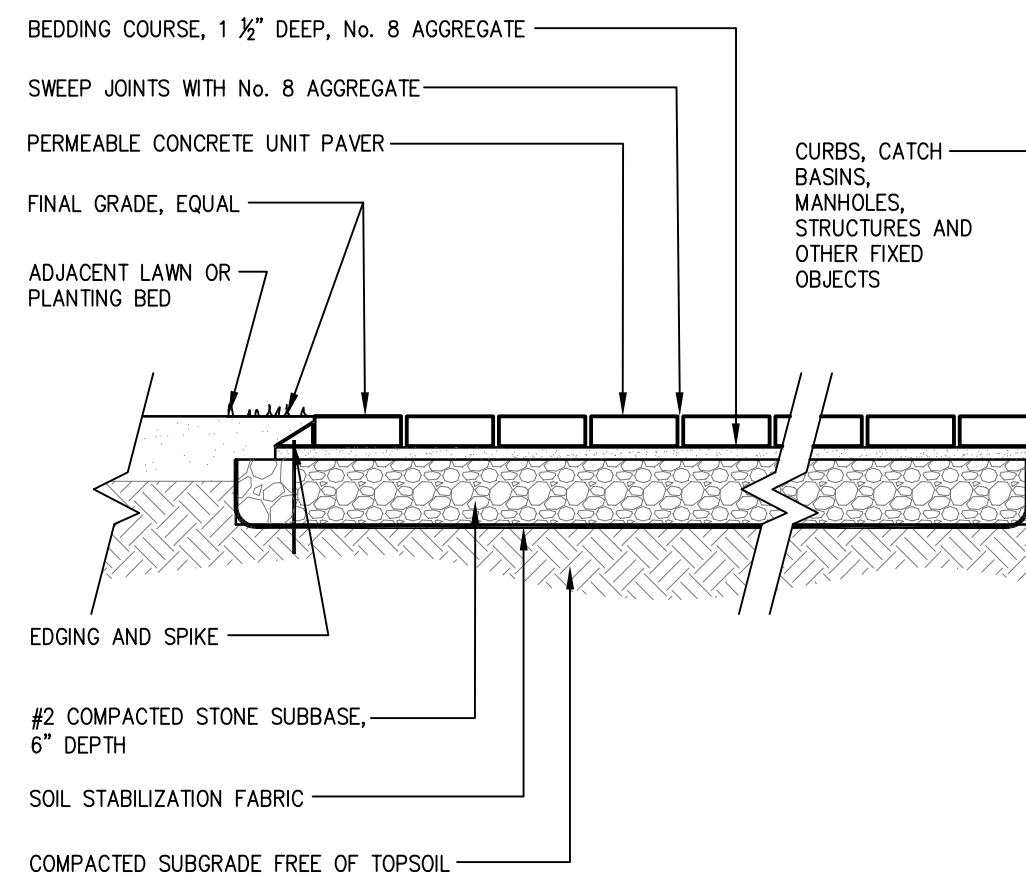
5 CONCRETE PROMENADE SECTION

NTS



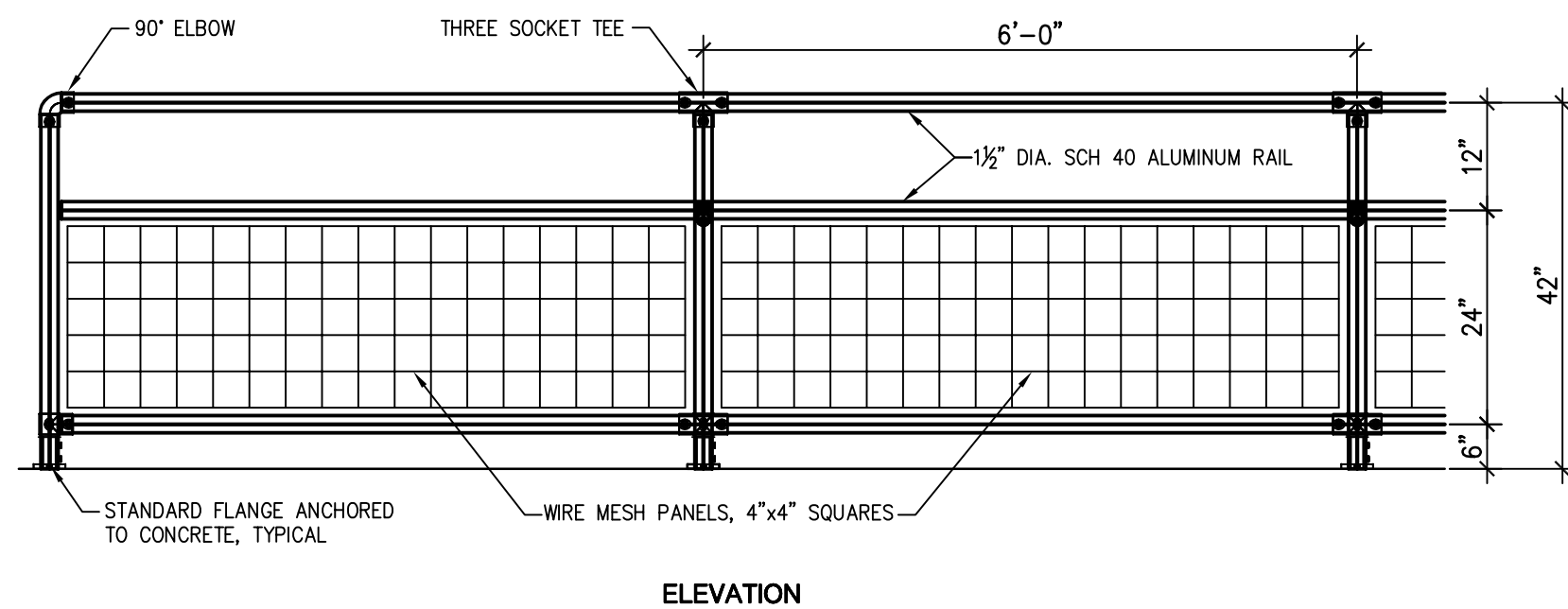
6 CRUSHED STONE TRAIL

NTS



7 PRECAST PERMEABLE UNIT PAVERS

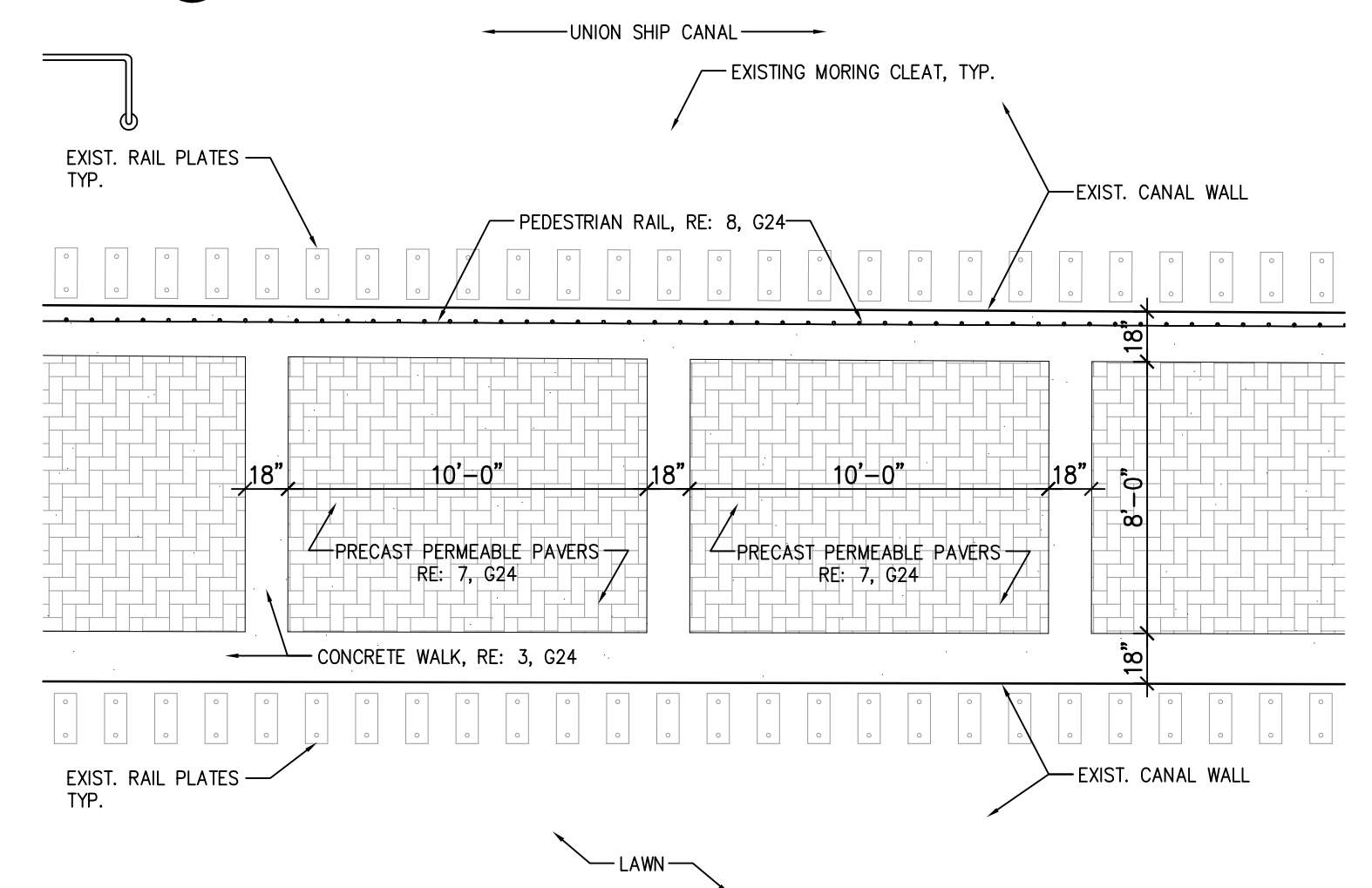
NTS



NOTES:
* 1 1/2" DIA. SCH 40 ALUMINUM SAFETY RAIL WITH WIRE MESH AS MANUFACTURED BY: KEE SAFETY, INC. (acceptable equivalent)
100 STRADMAN STREET
BUFFALO, NY 14206
(716)896-4949
www.KeeSafety.com

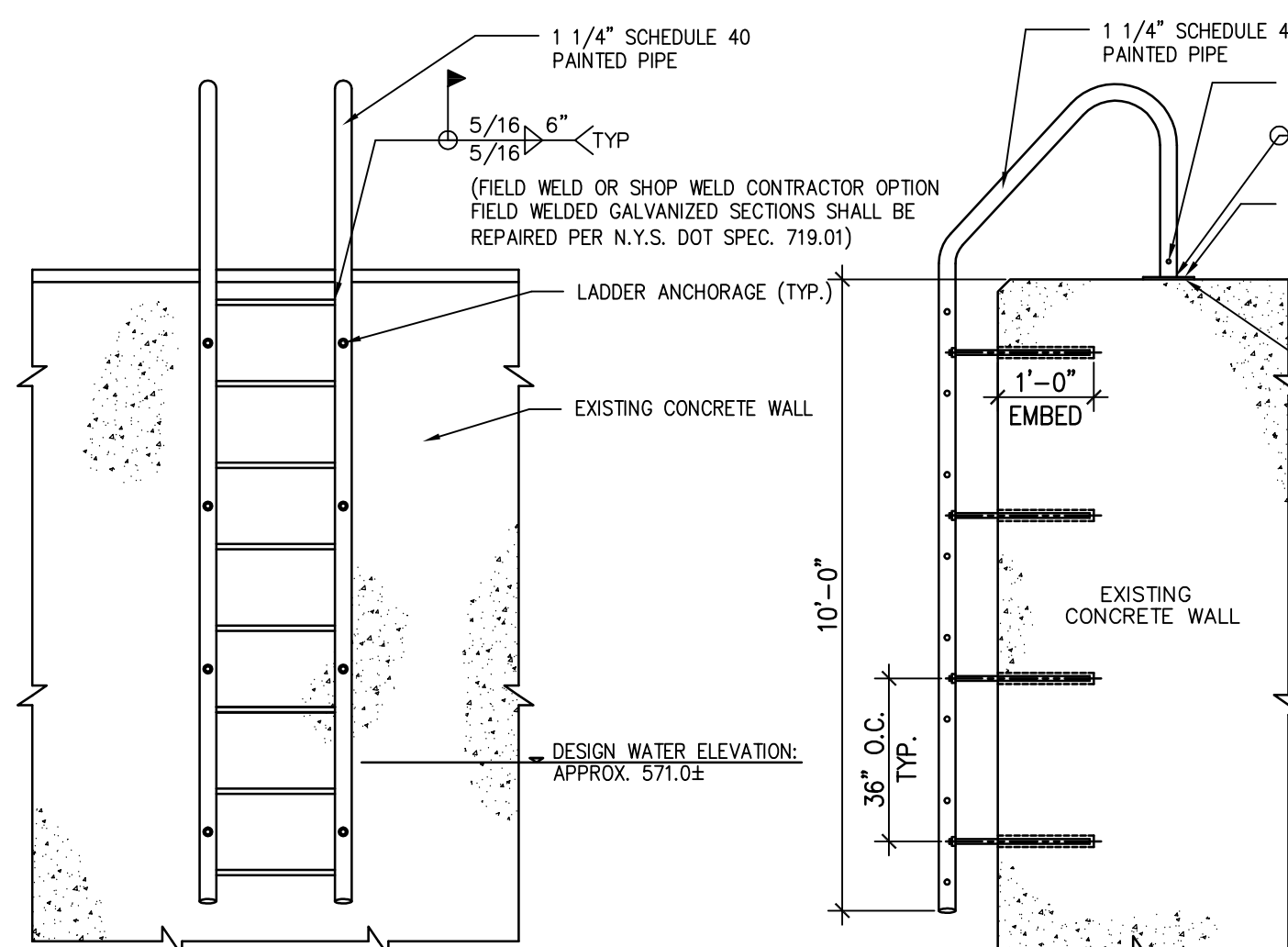
8 PEDESTRIAN RAIL

NTS



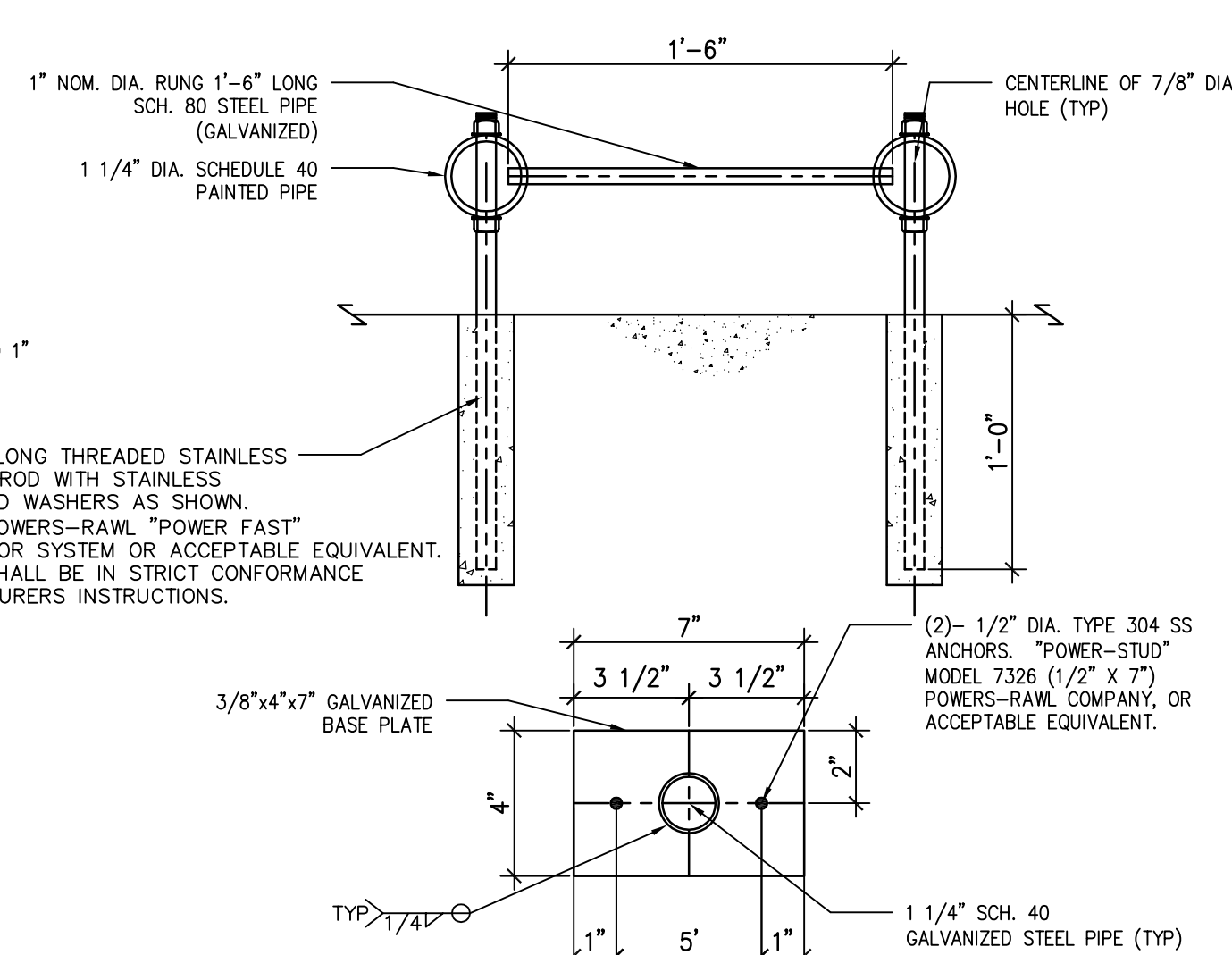
9 PROMENADE PAVEMENT ENLARGEMENT

NTS



10 CANAL LADDER

NTS



11 DETECTABLE WARNING SURFACE

NTS

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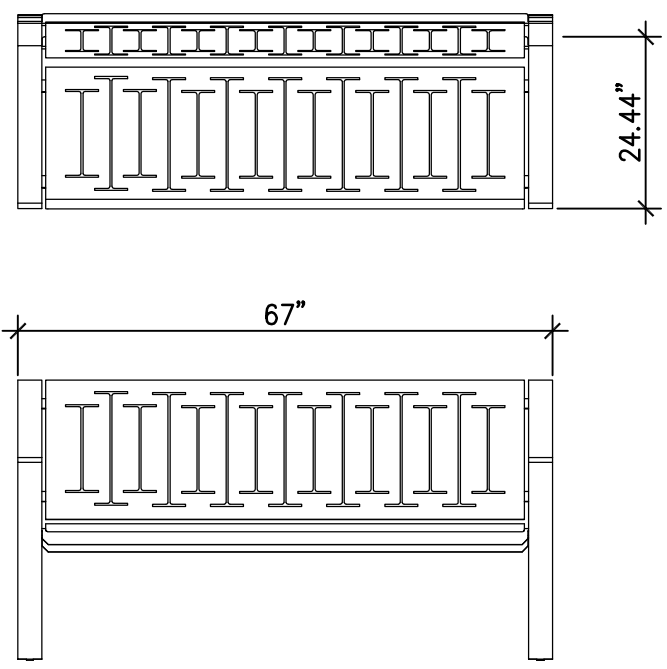
REVISIONS				REMARKS
NO.	BY	DATE		

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DWN WAL
CKD MVM

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UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

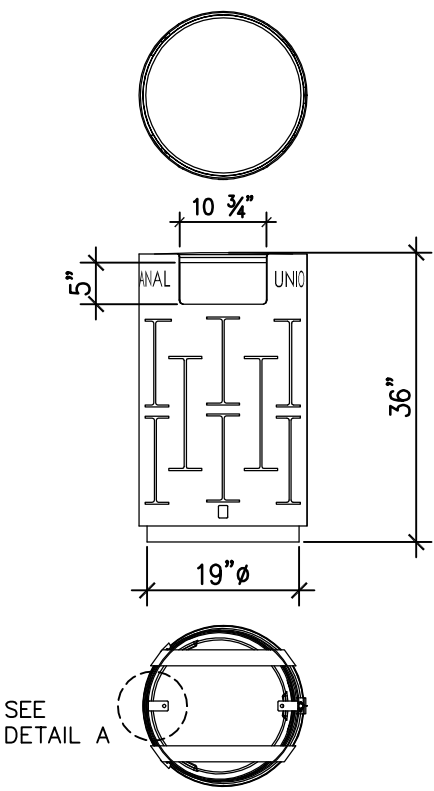
UPLAND IMPROVEMENTS
SITE DEVELOPMENT DETAILS

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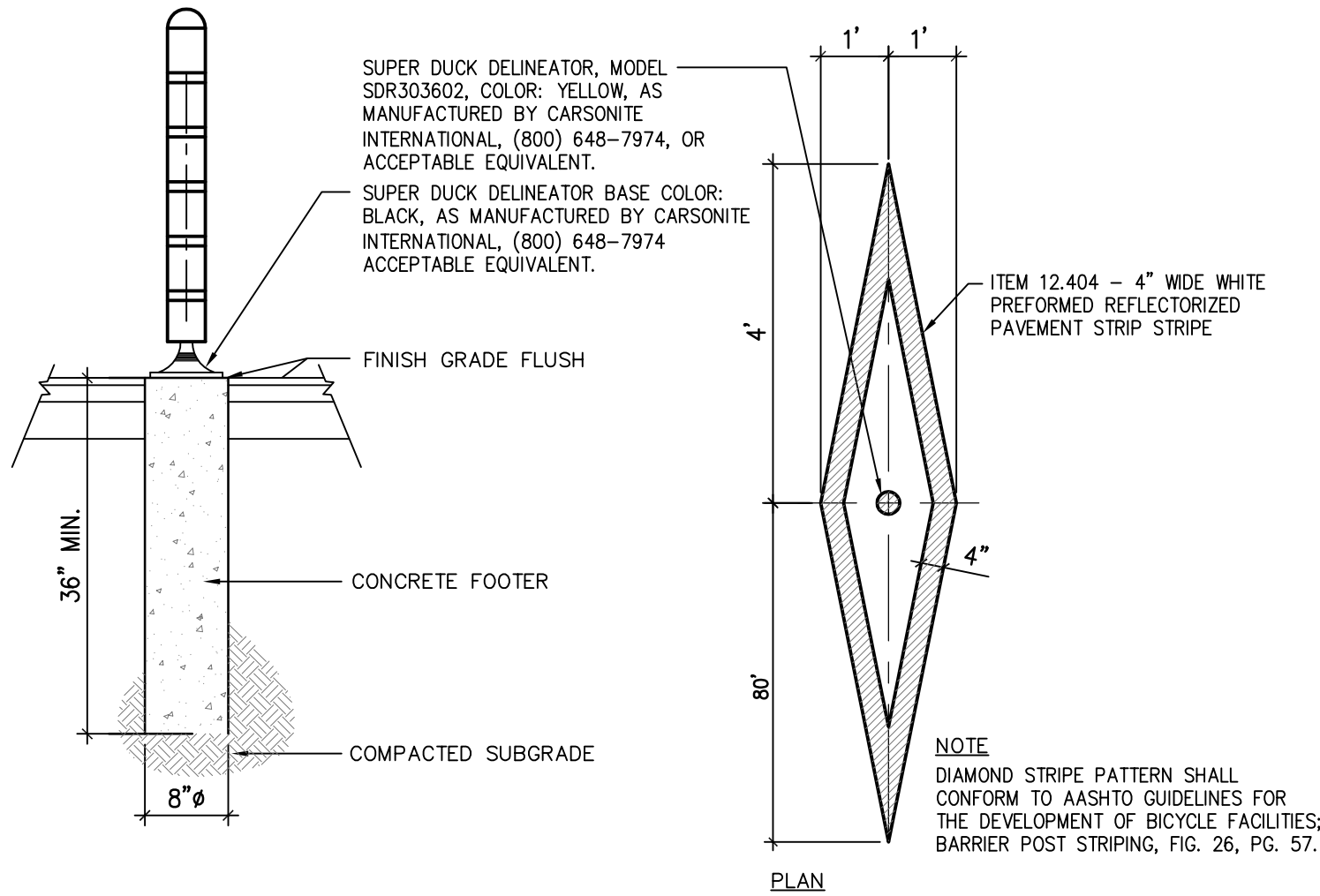


NOTES:
BENCH MODEL CUSTOM LS602-02 WITH I-BEAM MOTIF AS SUPPLIED BY LANDSCAPE ARCHITECT. COLOR: BLACK AS MANUFACTURED BY LANDSCAPE FORMS, INC. OR ACCEPTABLE EQUIVALENT.
TRASH RECEPTACLE MODEL CUSTOM LS602-02 WITH I-BEAM MOTIF AS SUPPLIED BY LANDSCAPE ARCHITECT. COLOR: BLACK AS MANUFACTURED BY LANDSCAPE FORMS, INC. OR ACCEPTABLE EQUIVALENT.
BENCHES AND TRASH RECEPTACLES SHALL BE ANCHORED TO CONCRETE PER MANUFACTURER'S SPECIFICATIONS.

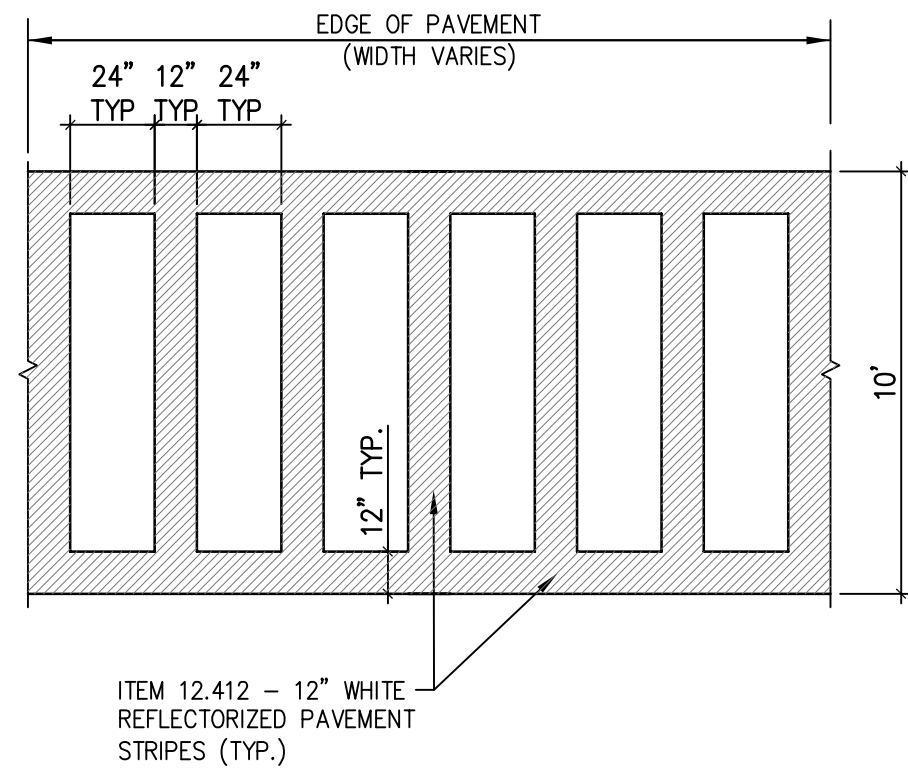
1 BENCH & TRASH RECEPTACLE
NTS



DETAIL A
FREESTANDING OR SURFACE MOUNT
OPTIONS 7/16" DIA. MOUNTING HOLES
HARDWARE SUPPLIED BY OTHERS

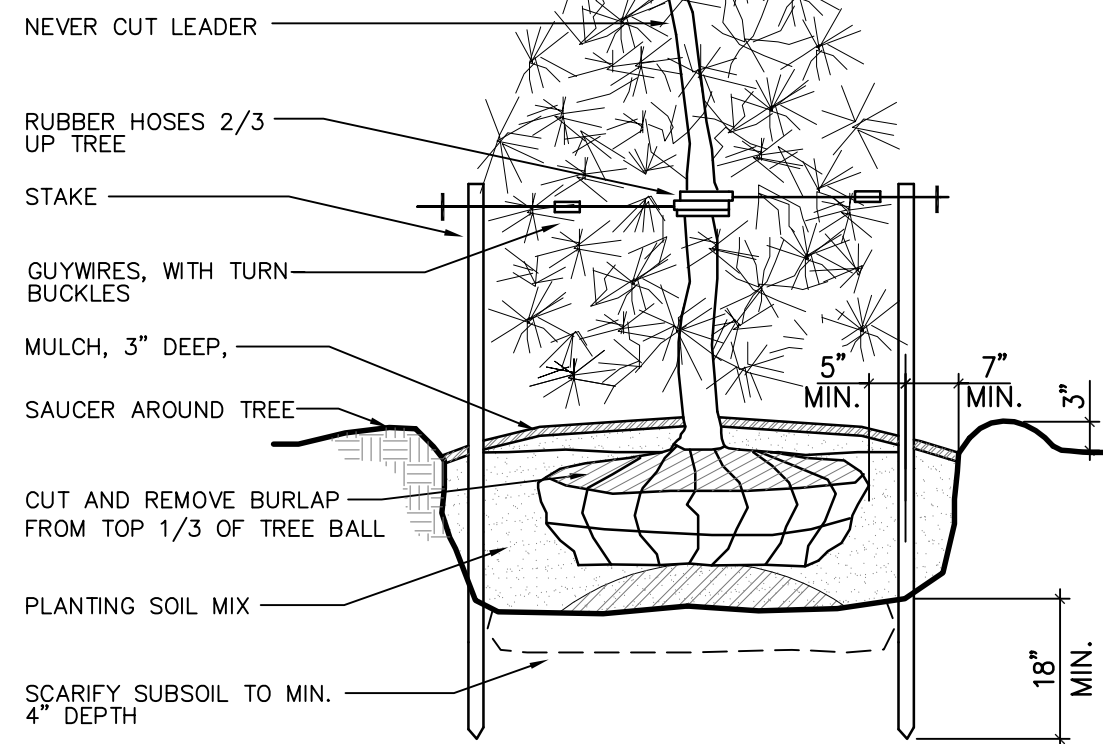


2 FLEXIBLE DELINEATOR
NTS

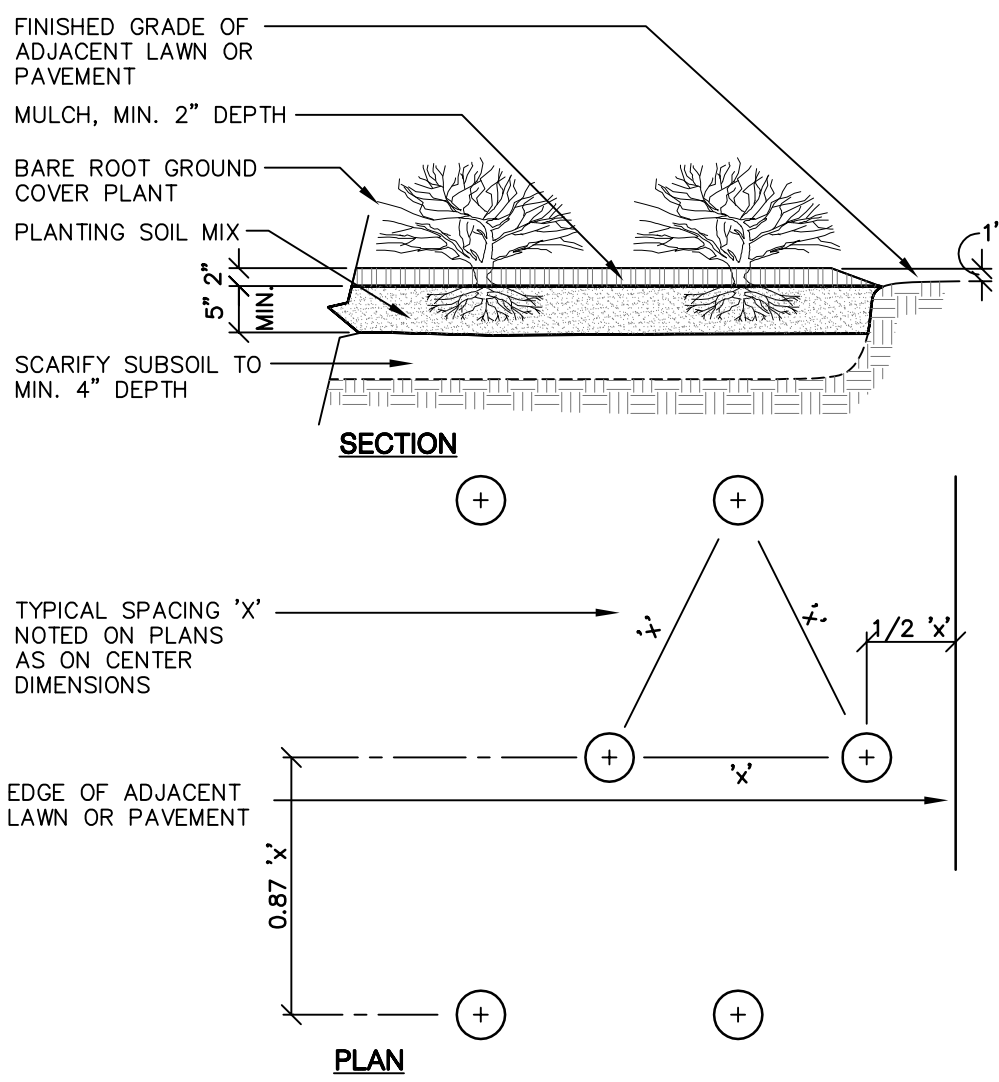


3 CROSSWALK PAVEMENT STRIPES
NTS

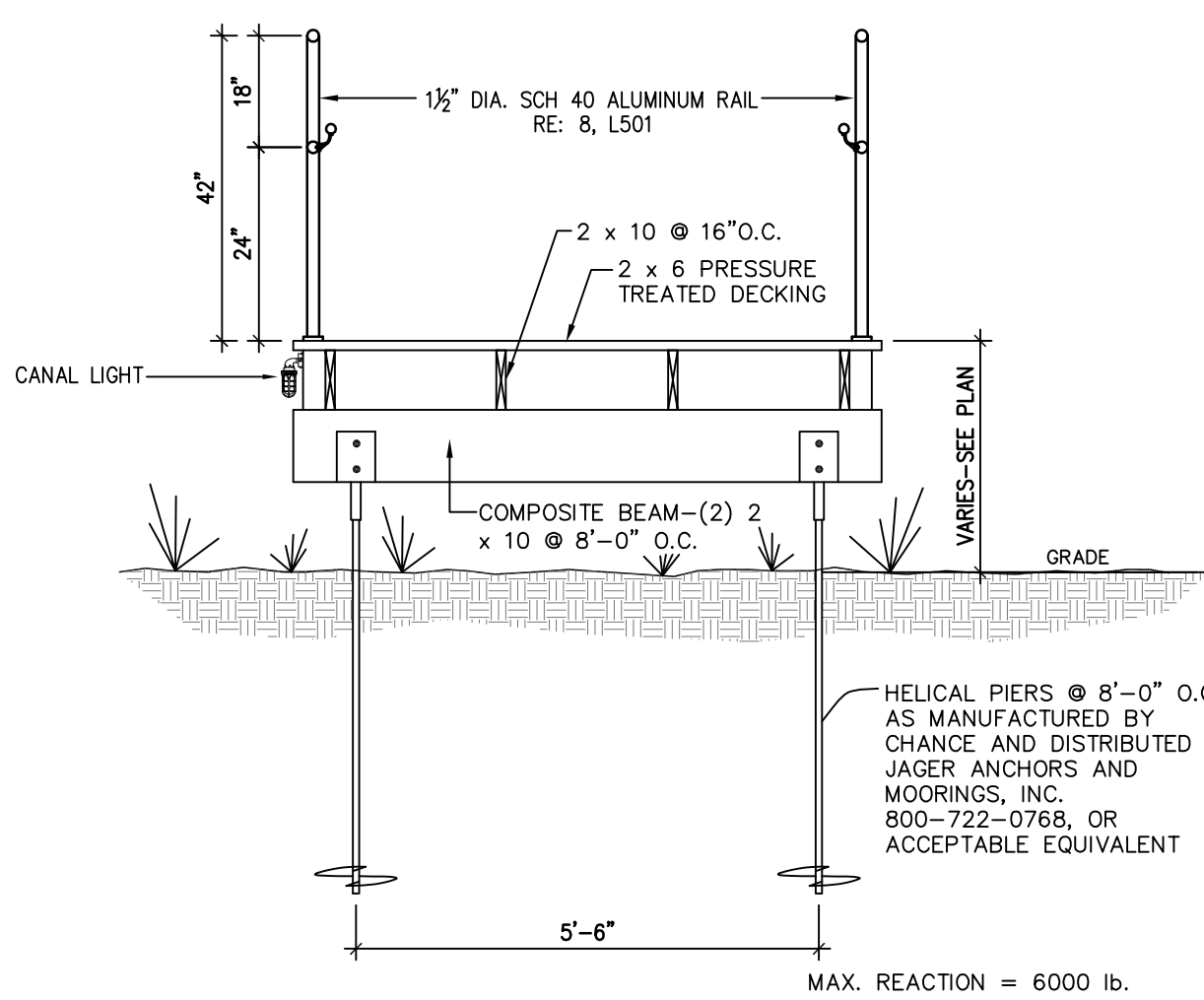
NOTES:
* TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUSLY EXISTING GRADE
* ALL TREES TO BE STAKED



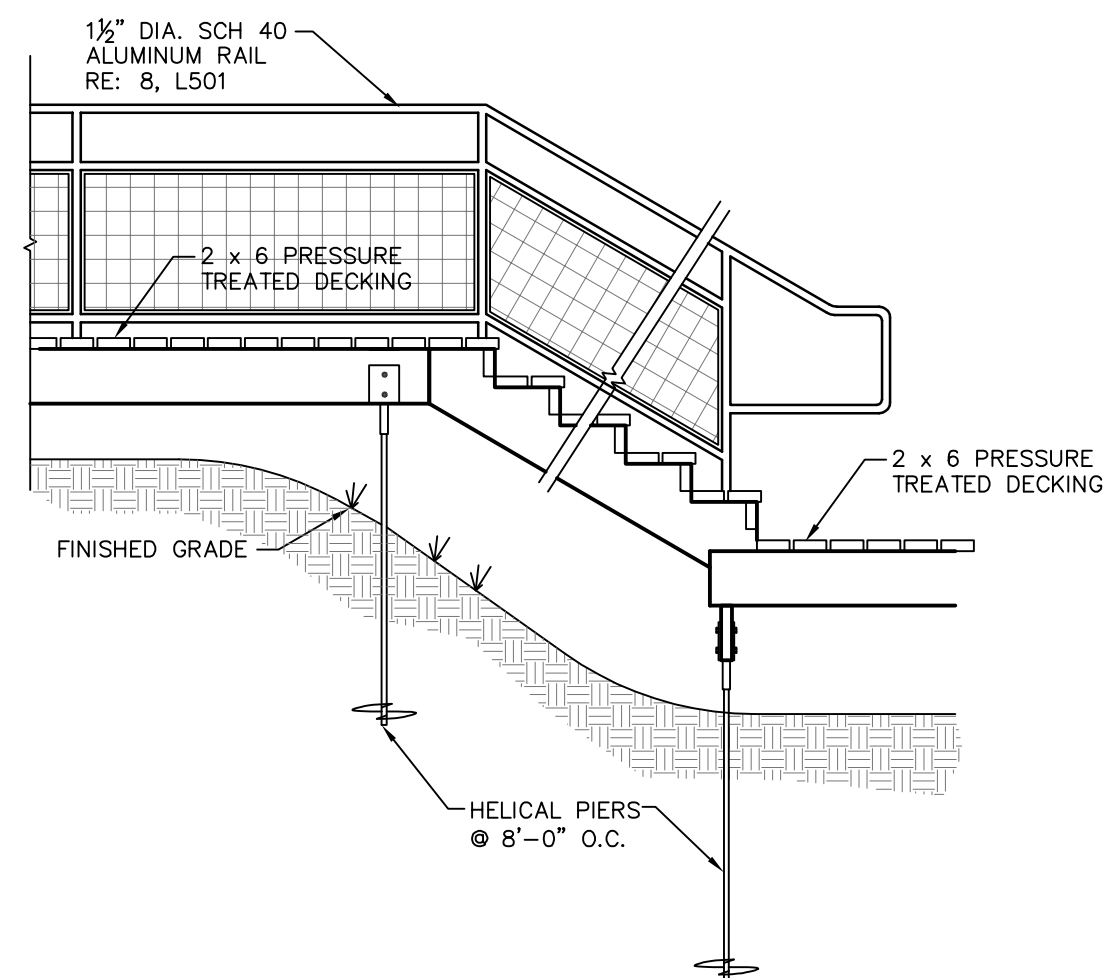
5 EVERGREEN TREE PLANTING
NTS



6 GROUNDCOVERING PLANTING
NTS

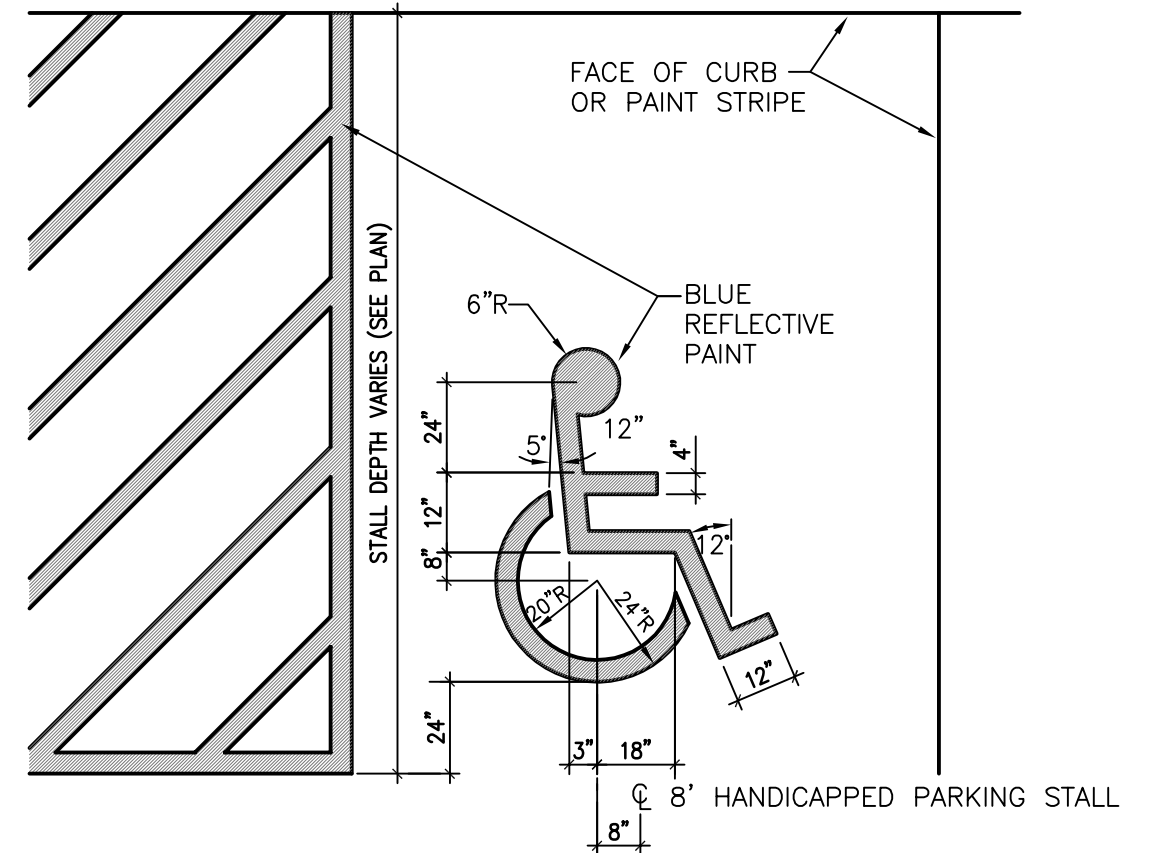


7 TYPICAL BOARDWALK SECTION
NTS

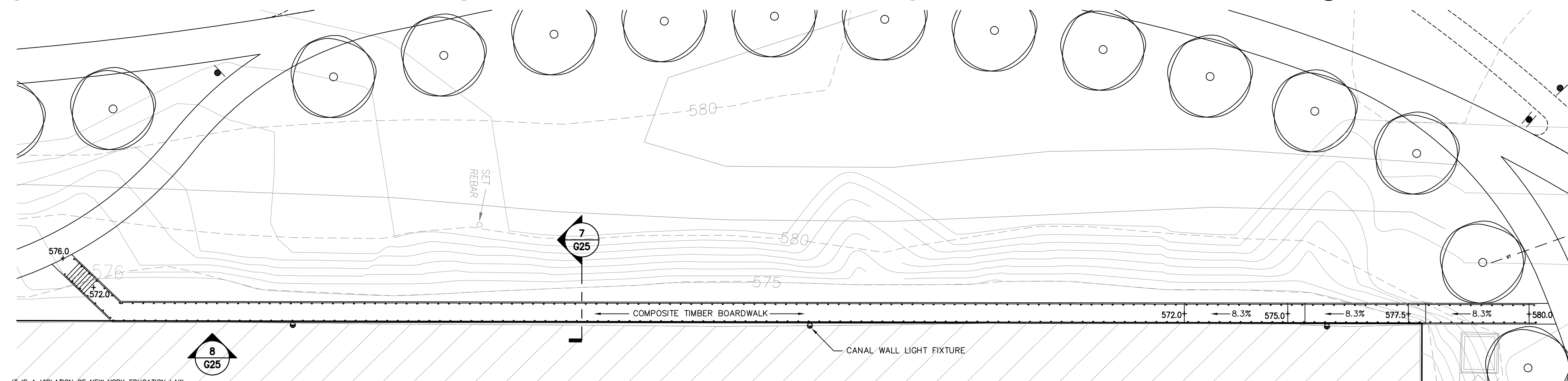


8 TYPICAL STAIRWAY ELEVATION
NTS

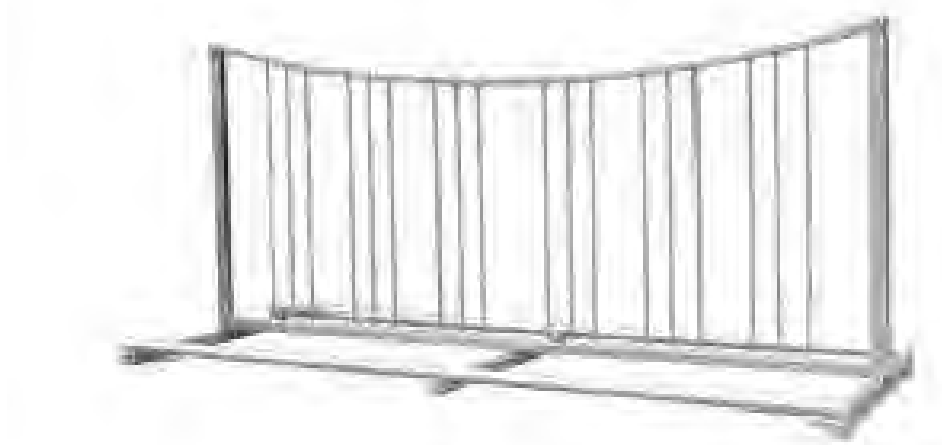
4 DECIDUOUS TREE PLANTING W/ STAKES
NTS



9 HANDICAPPED PARKING STALL
NTS



10 BOARDWALK PLAN ENLARGEMENT
SCALE: 1"=20'



NOTES:
BIKE RACK: EXETER MODEL EX-106-1 AS MANUFACTURED BY KEYSTONE RIDGE DESIGNS, OR ACCEPTABLE EQUIVALENT.
BIKE RACK SHALL BE ANCHORED TO CONCRETE PER MANUFACTURER'S SPECIFICATIONS.

11 BIKE RACK
NTS

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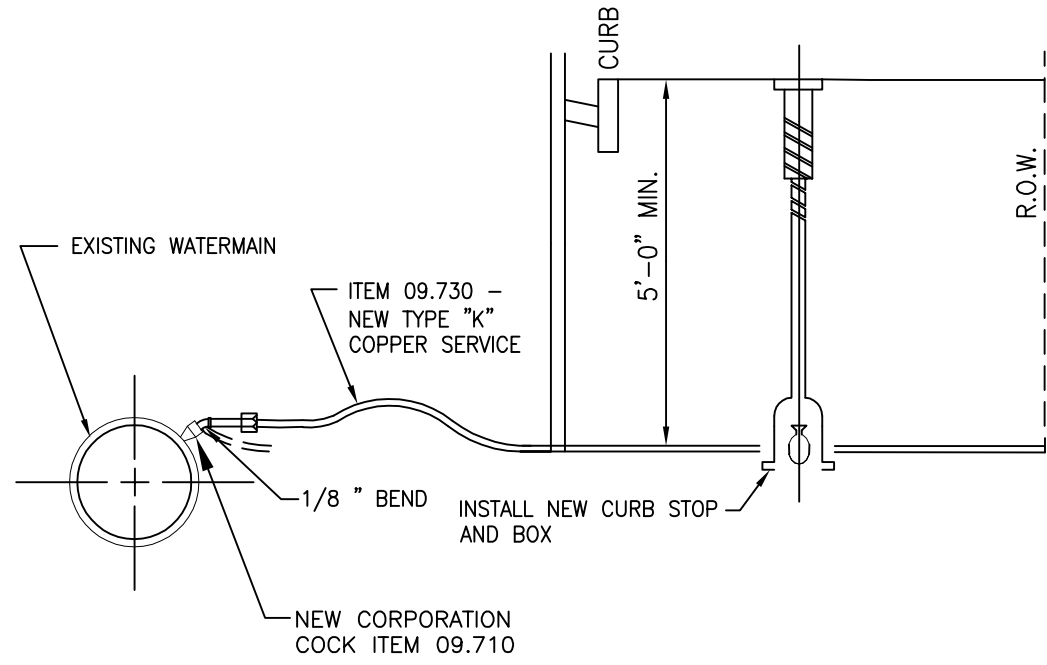
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CKD MVM

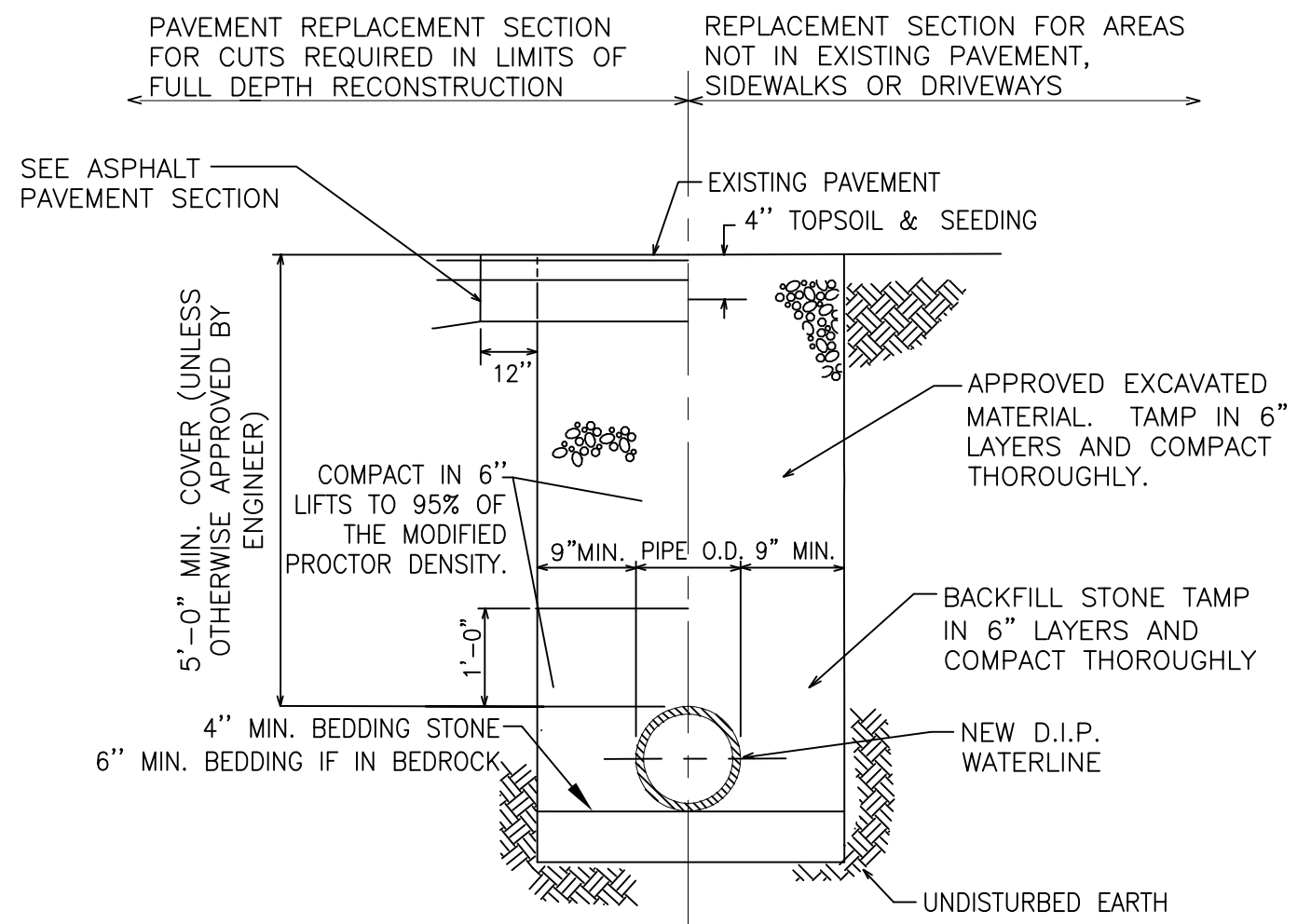
BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

UPLAND IMPROVEMENTS
SITE DETAILS

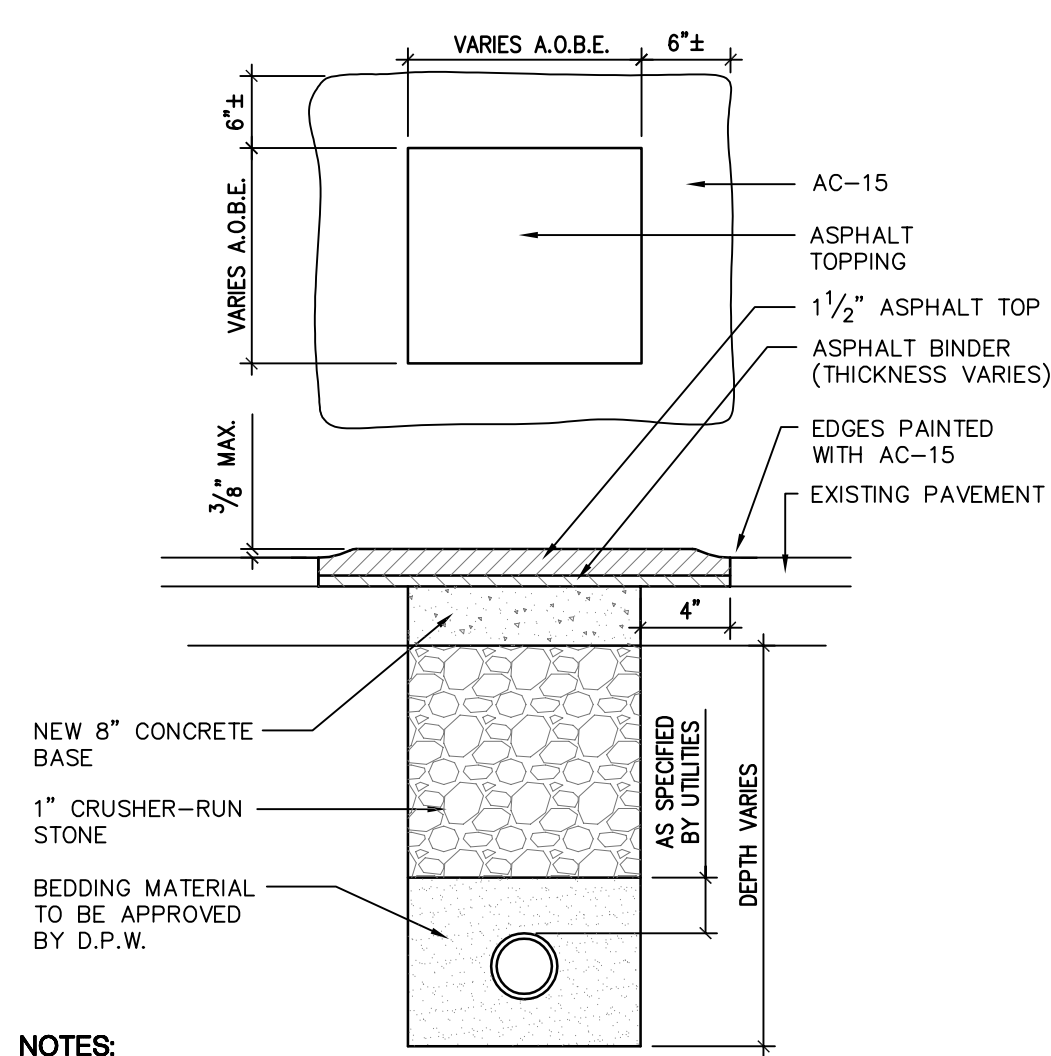
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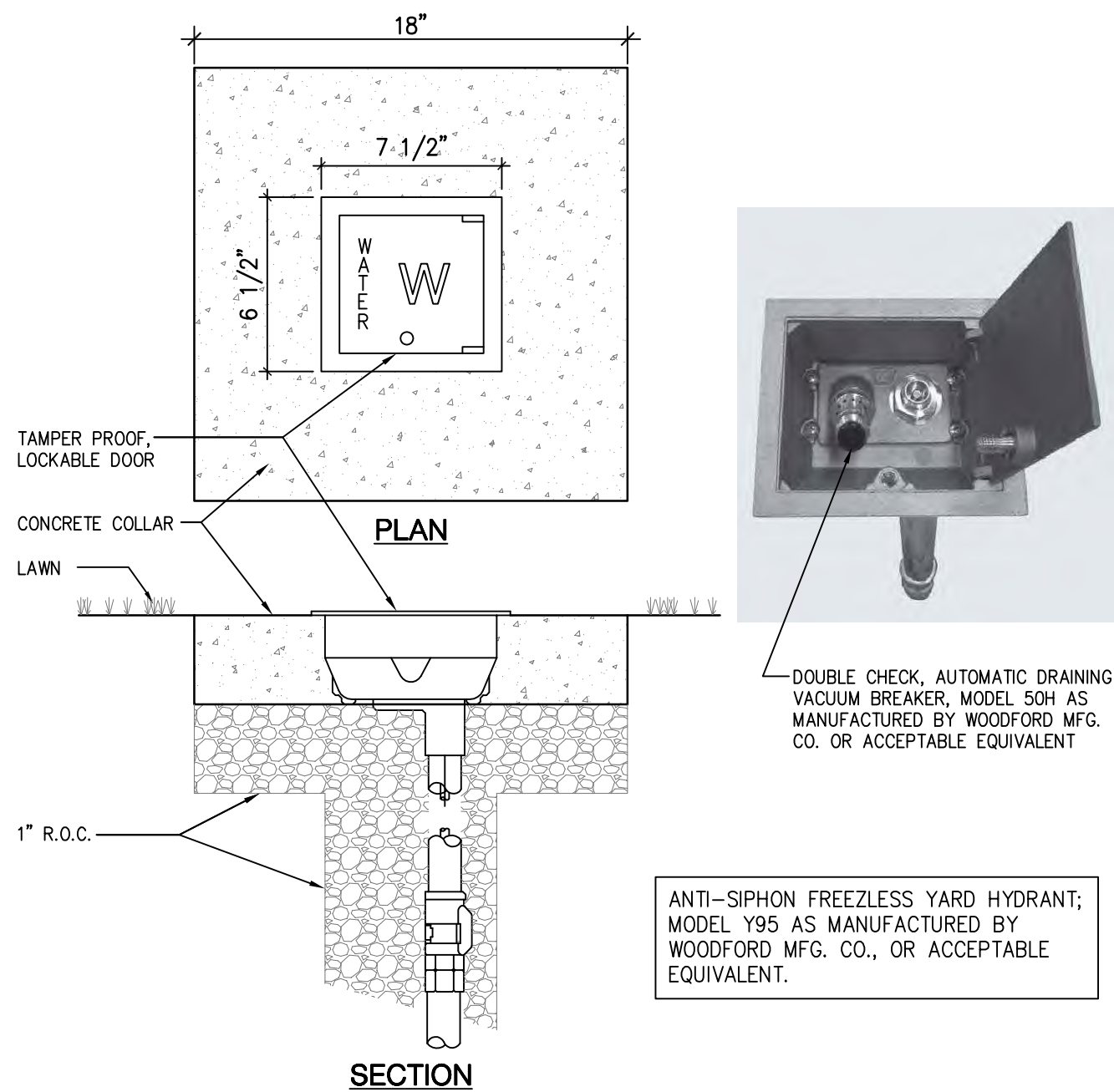
① WATER SERVICE INSTALLATION
NTS



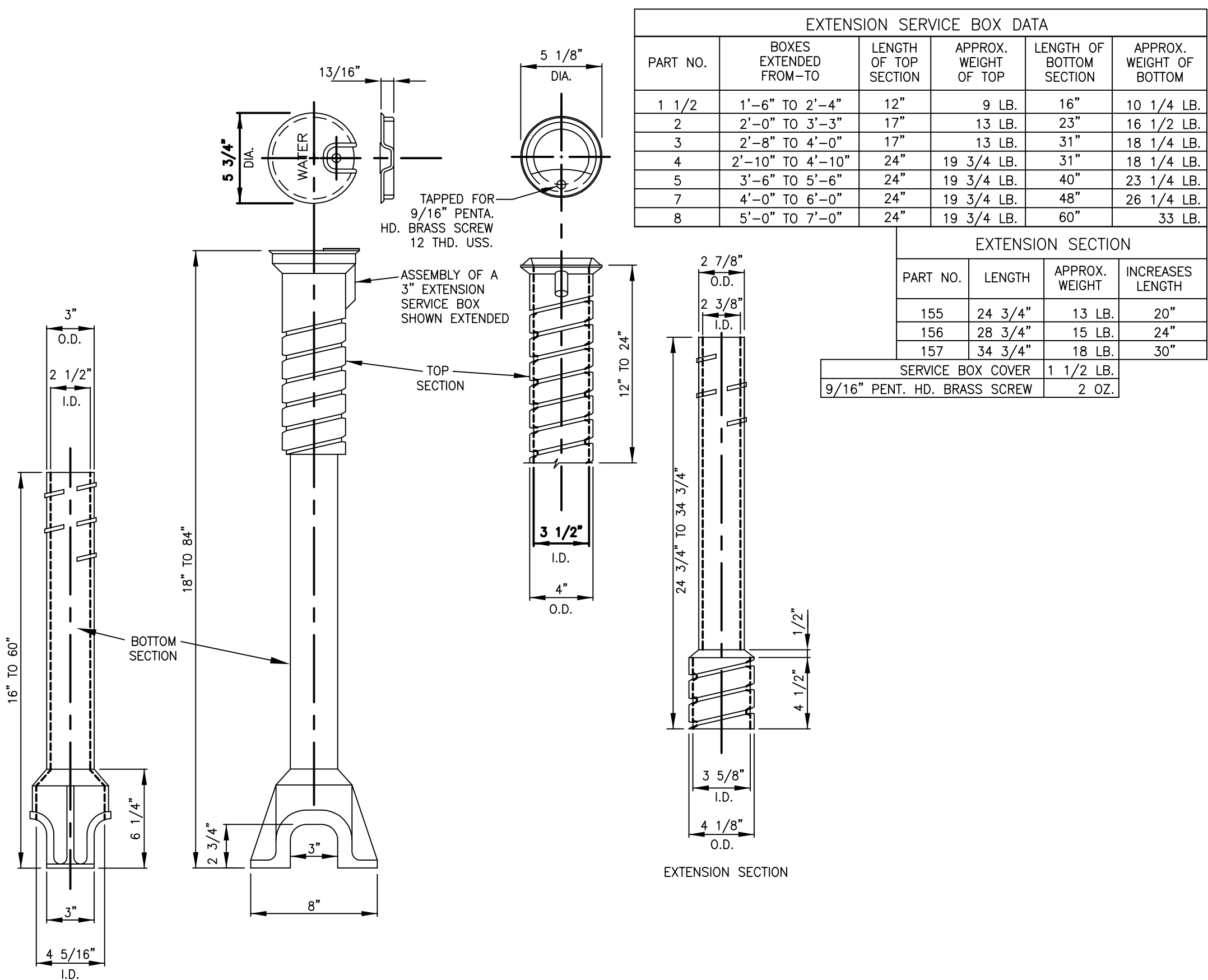
② TYPICAL WATERLINE TRENCH
NTS



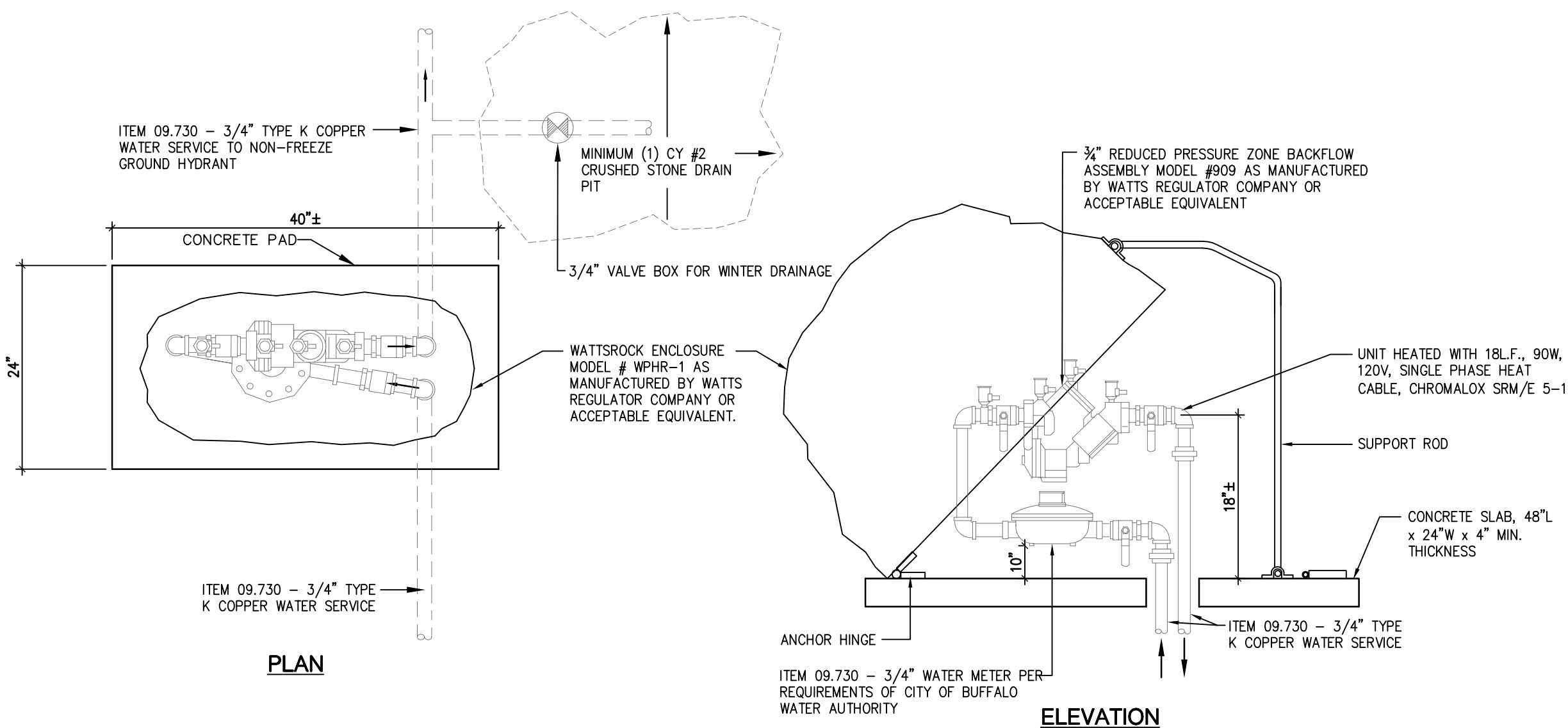
③ UTILITY RESTORATION IN STREET
NTS



④ NON-FREEZE GROUND HYDRANT
NTS



⑤ 3" WATER SERVICE BOX
NTS



⑥ BACKFLOW PREVENTER AND METER DETAIL
NTS

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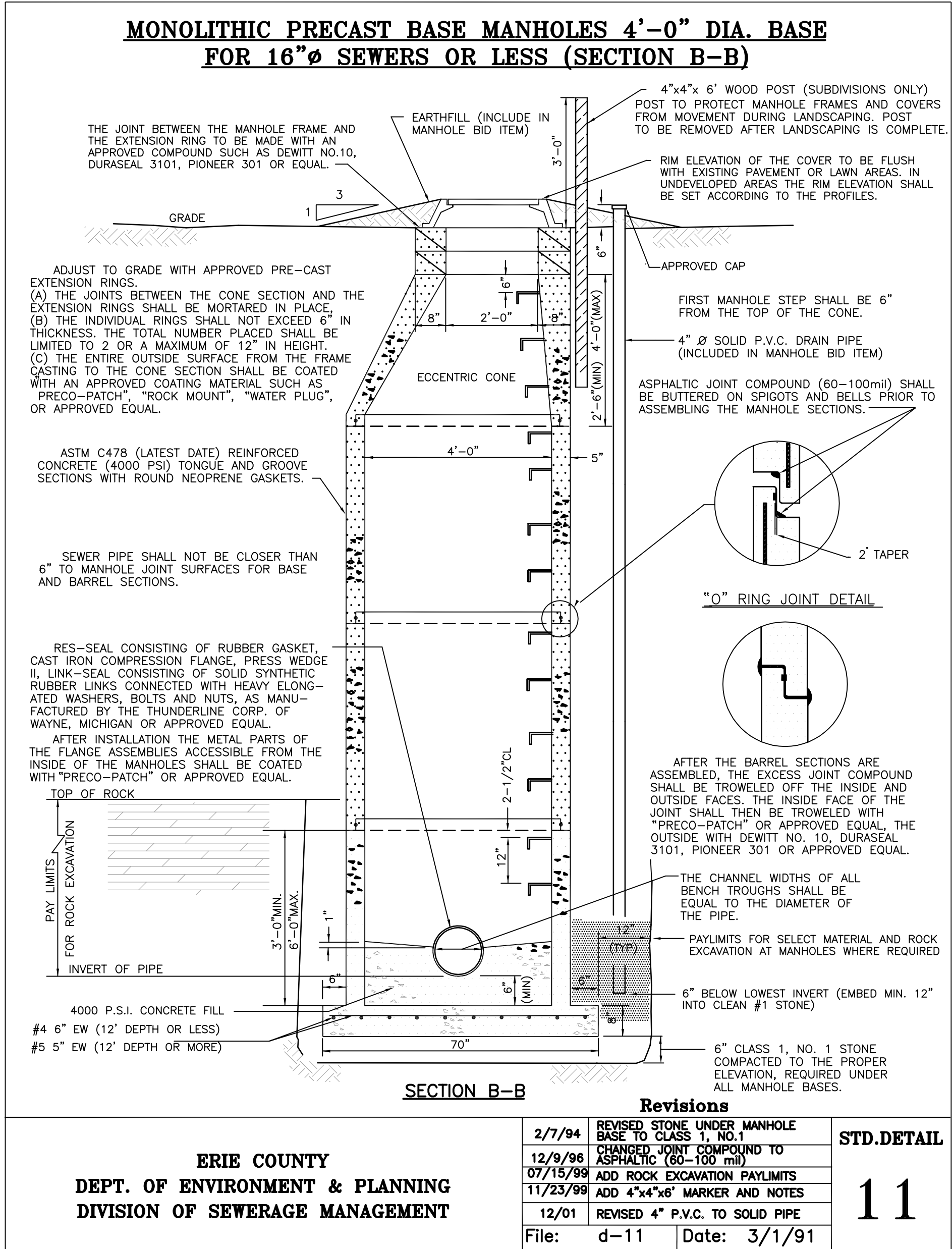
REVISIONS				
NO.	BY	DATE	REVISIONS	REMARKS

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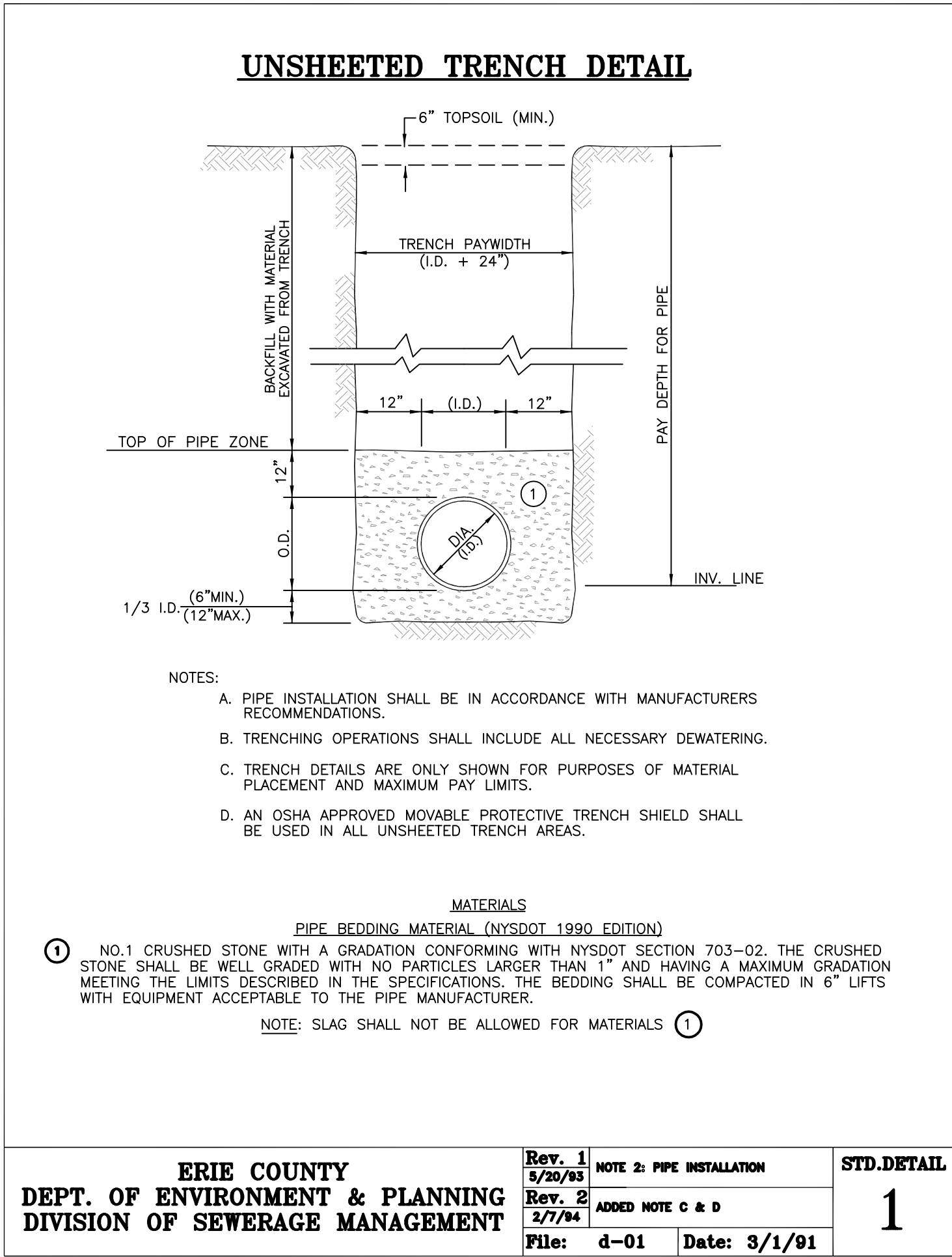
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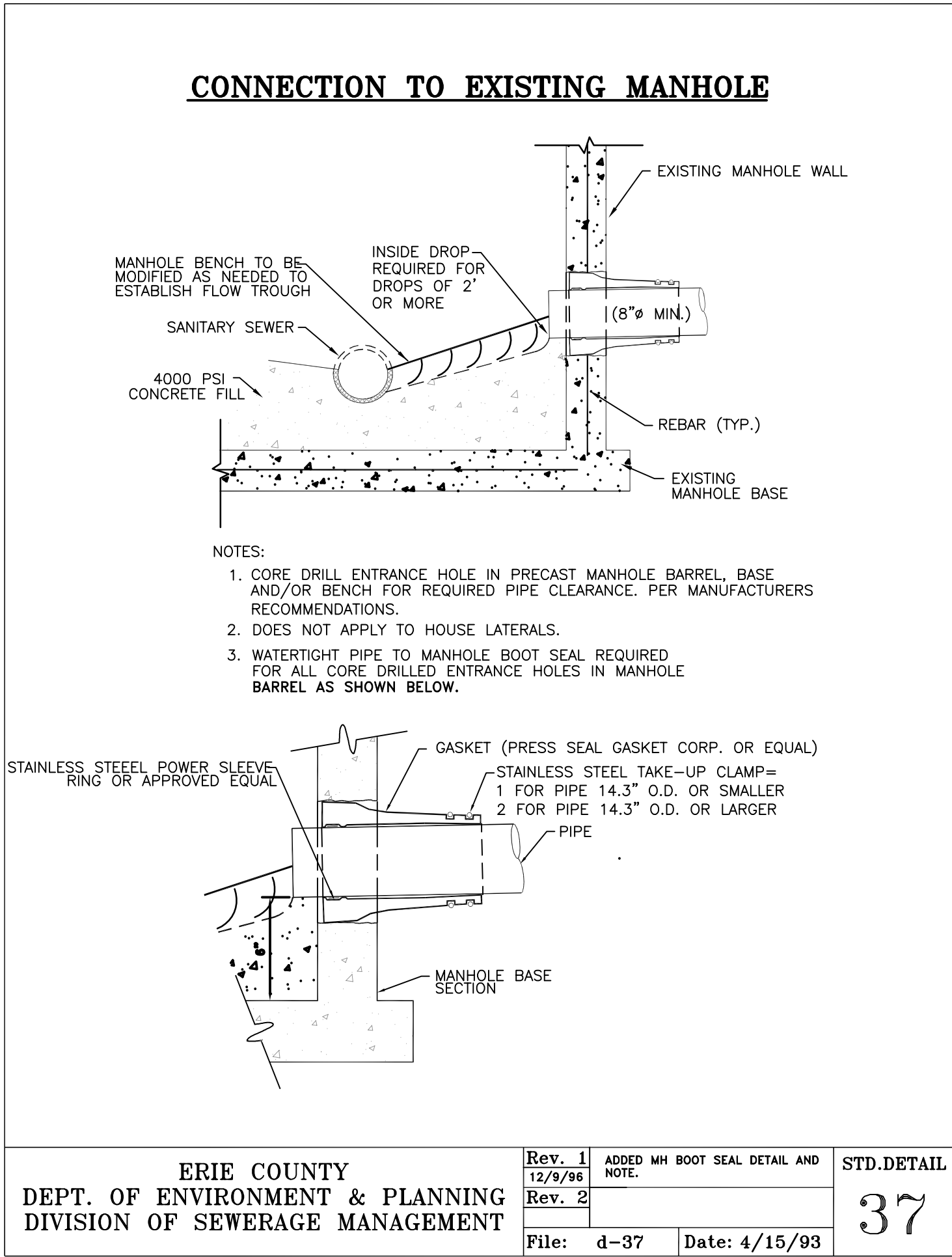
1 STANDARD PRECAST MANHOLE

NTS



2 P.V.C. PIPE TRENCH DETAIL IN R.O.W.

NTS



3 CONNECTION TO EXISTING MANHOLE

NTS

GENERAL SITE SANITARY NOTES:

- THE CONTRACTOR IS ADVISED A TRENCH SHIELD AND/OR SHORING DESIGNED IN ACCORDANCE WITH OSHA STANDARDS SHALL BE USED IN ALL OPEN EXCAVATIONS.
- ANY CONTRACTOR AND/OR PLUMBER PERFORMING WORK IN A CONFINED SPACE (I.E. MANHOLES, WETWELLS, CHAMBERS) OWNED BY AN ERIE COUNTY SEWER DISTRICT, MUST CERTIFY TO THE COUNTY THAT THEY HAVE THEIR OWN CONFINED SPACE ENTRY PROGRAM THAT MEETS OR EXCEEDS OSHA'S REGULATIONS. CERTIFICATION MUST BE NOTORIZED BY A NOTARY PUBLIC.
- CONSTRUCTION SHALL CONFORM TO THE RULES AND REGULATIONS FOR ERIE COUNTY SEWER DISTRICTS.
- IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AREA AND HAS LESS THAN FOUR (4) FEET OF COVER, THEN CONCRETE ENCASEMENT IS REQUIRED OR IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AND HAS MORE THAN FOUR (4) FEET OF COVER, THEN SELECT FILL IS REQUIRED.
- CONTRACTOR MUST CONTACT THE DISTRICT OFFICE 24 HOURS IN ADVANCE OF CONSTRUCTION.
- VENTS MUST BE INSTALLED SIX (6) INCHES ABOVE GRADE, IN A GRASSY AREA WITH MUSHROOM CAP.
- ABANDONED SANITARY SEWER CONNECTIONS FROM THE SITE, IF ANY, REQUIRE PROOF OF A DISTRICT PERMIT FOR DISCONNECTION PRIOR TO THE NEW CONNECTION BEING MADE.

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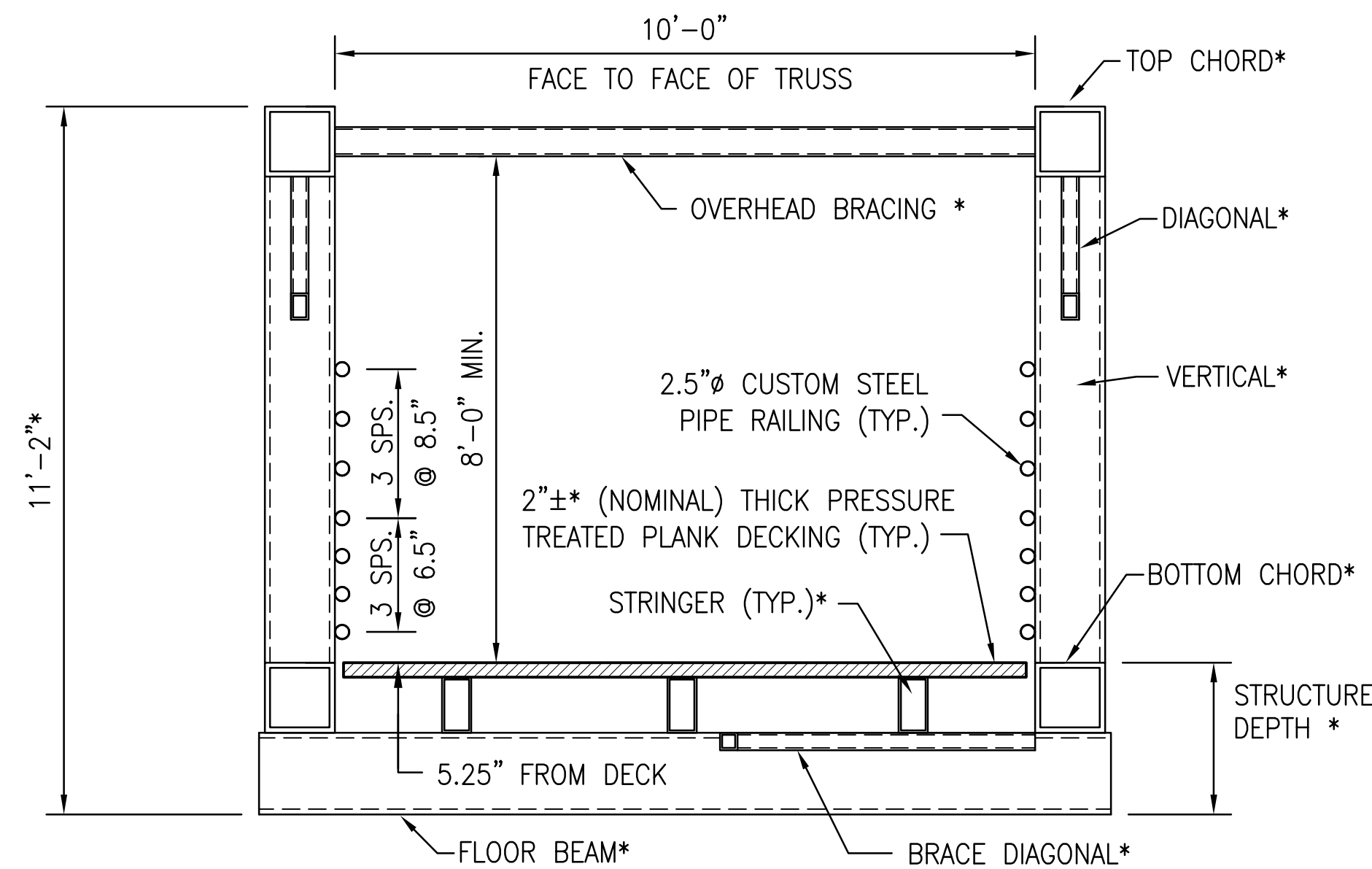
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SITE DETAILS

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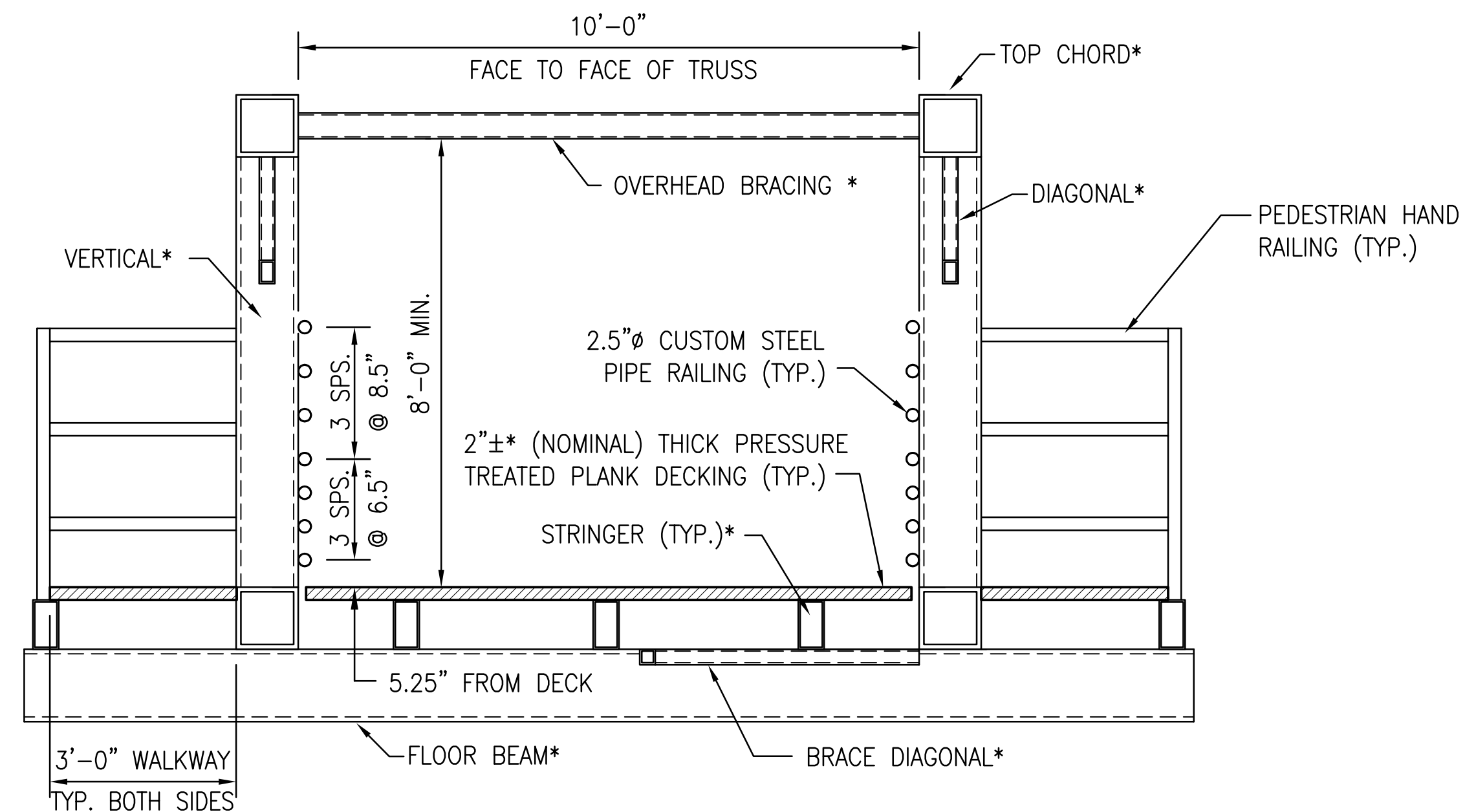
SECTION THRU BRIDGE

SCALE: N.T.S.

GENERAL NOTE FOR PEDESTRIAN BRIDGE

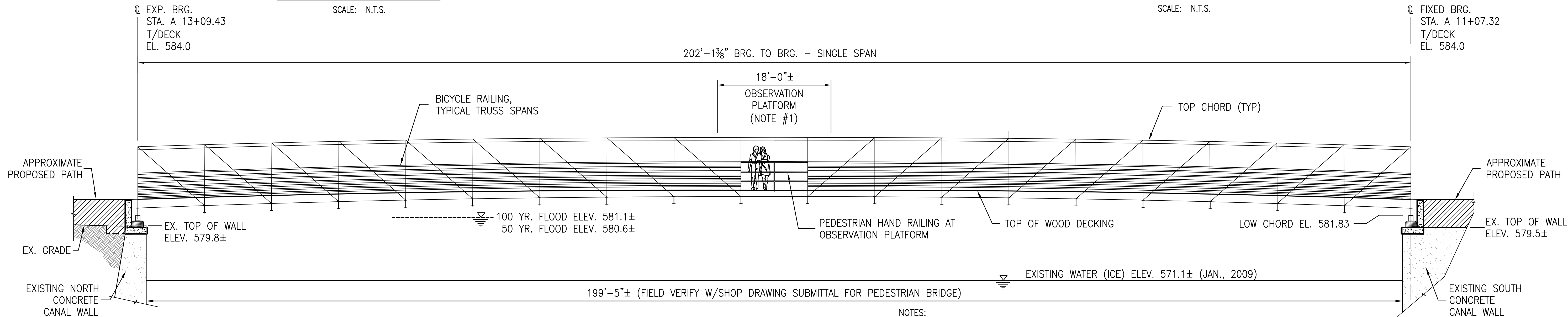
MATERIALS AND CONSTRUCTION SPECIFICATIONS FOR THE PEDESTRIAN BRIDGE AND RELATED BRIDGESEATS SHALL BE THE N.Y.S. DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS FOR MATERIALS AND CONSTRUCTION (2008) USING THE STANDARD ITEMS THEREIN, AND THE SPECIAL SPECIFICATION ITEMS INCLUDED IN THESE CONSTRUCTION DOCUMENTS.

* AS REQUIRED BY VENDOR'S DESIGN AND CONTROLLED BY SPECIFICATION FOR ITEM USC 16564.8001



SECTION THRU OBSERVATION PLATFORM

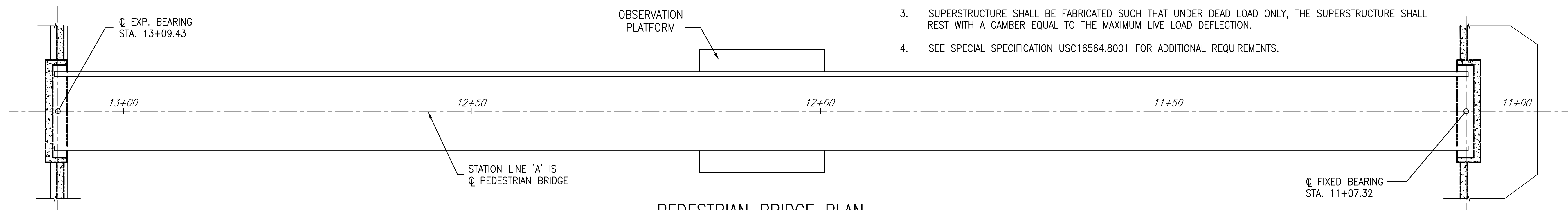
SCALE: N.T.S.



PEDESTRIAN BRIDGE ELEVATION

SCALE: 1/8" = 1'-0"

- NOTES:
1. TRUSS DIAGONALS SHALL BE ALTERED TO PROVIDE PEDESTRIAN ACCES TO OBSERVATION PLATFORM.
 2. PEDESTRIAN BRIDGE SUPERSTRUCTURE, DECKING, RAILING SYSTEM, AND STAINLESS STEEL DECK CLOSURE PLATES SHALL ALL BE INCLUDED UNDER ITEM USC16564.8001
 3. SUPERSTRUCTURE SHALL BE FABRICATED SUCH THAT UNDER DEAD LOAD ONLY, THE SUPERSTRUCTURE SHALL REST WITH A CAMBER EQUAL TO THE MAXIMUM LIVE LOAD DEFLECTION.
 4. SEE SPECIAL SPECIFICATION USC16564.8001 FOR ADDITIONAL REQUIREMENTS.



PEDESTRIAN BRIDGE PLAN

SCALE: 1/8" = 1'-0"

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PEDESTRIAN BRIDGE
PLAN & SECTIONS

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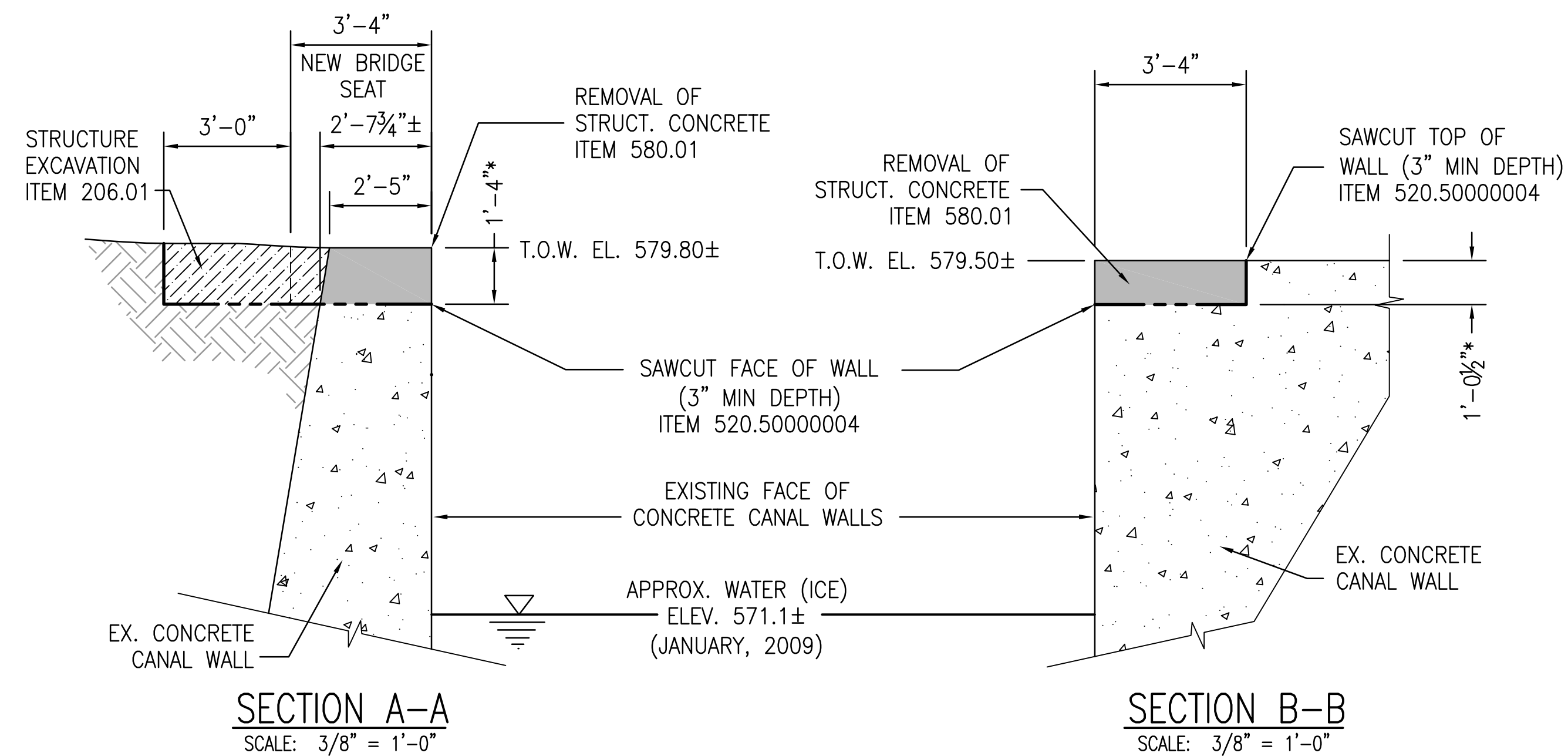
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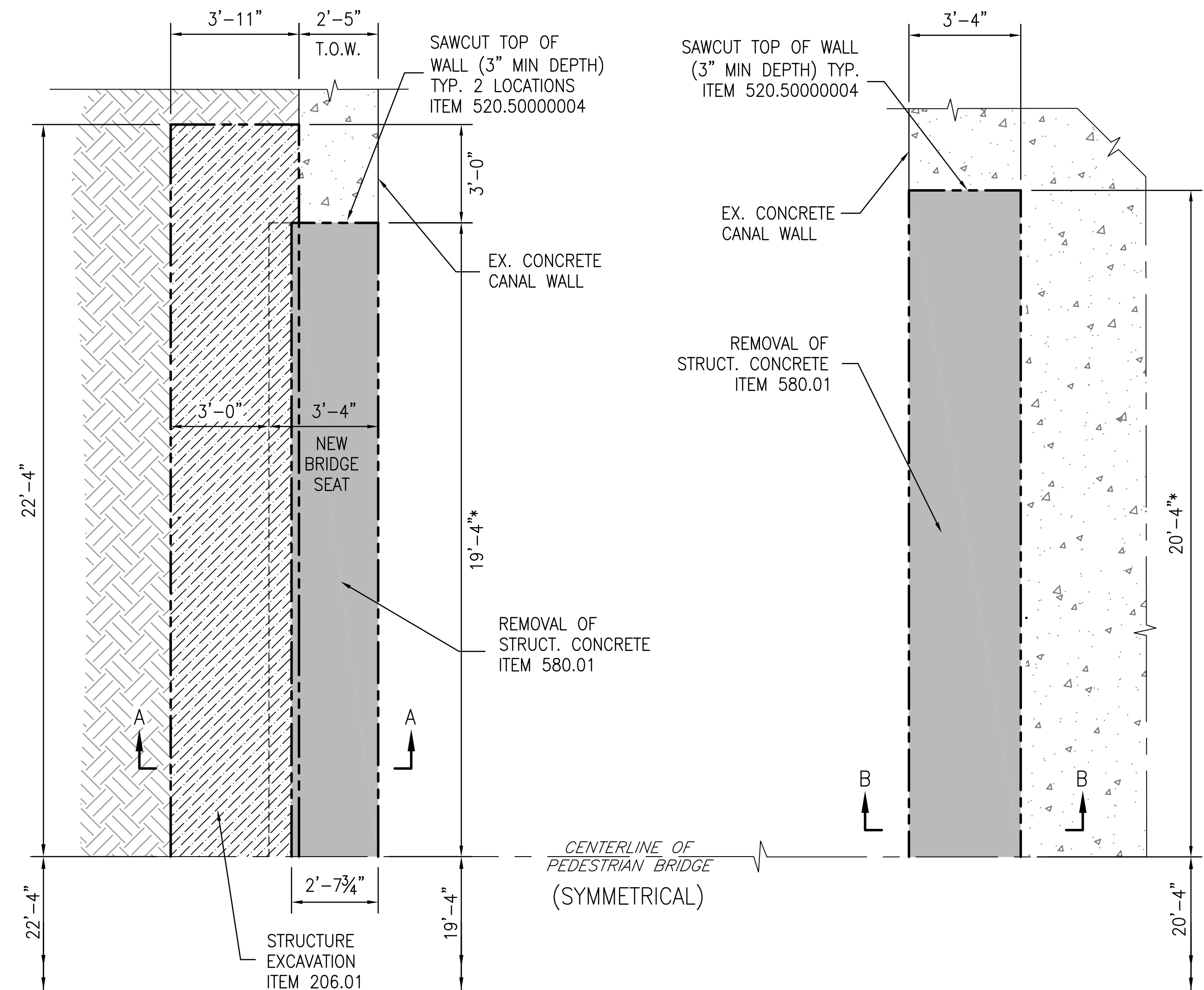
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NO.	BY	DATE		

DES _____
OWN _____
CKD _____



* - COORDINATE DIMENSIONS WITH SUBMITTAL FOR PROPRIETARY PEDESTRIAN BRIDGE.



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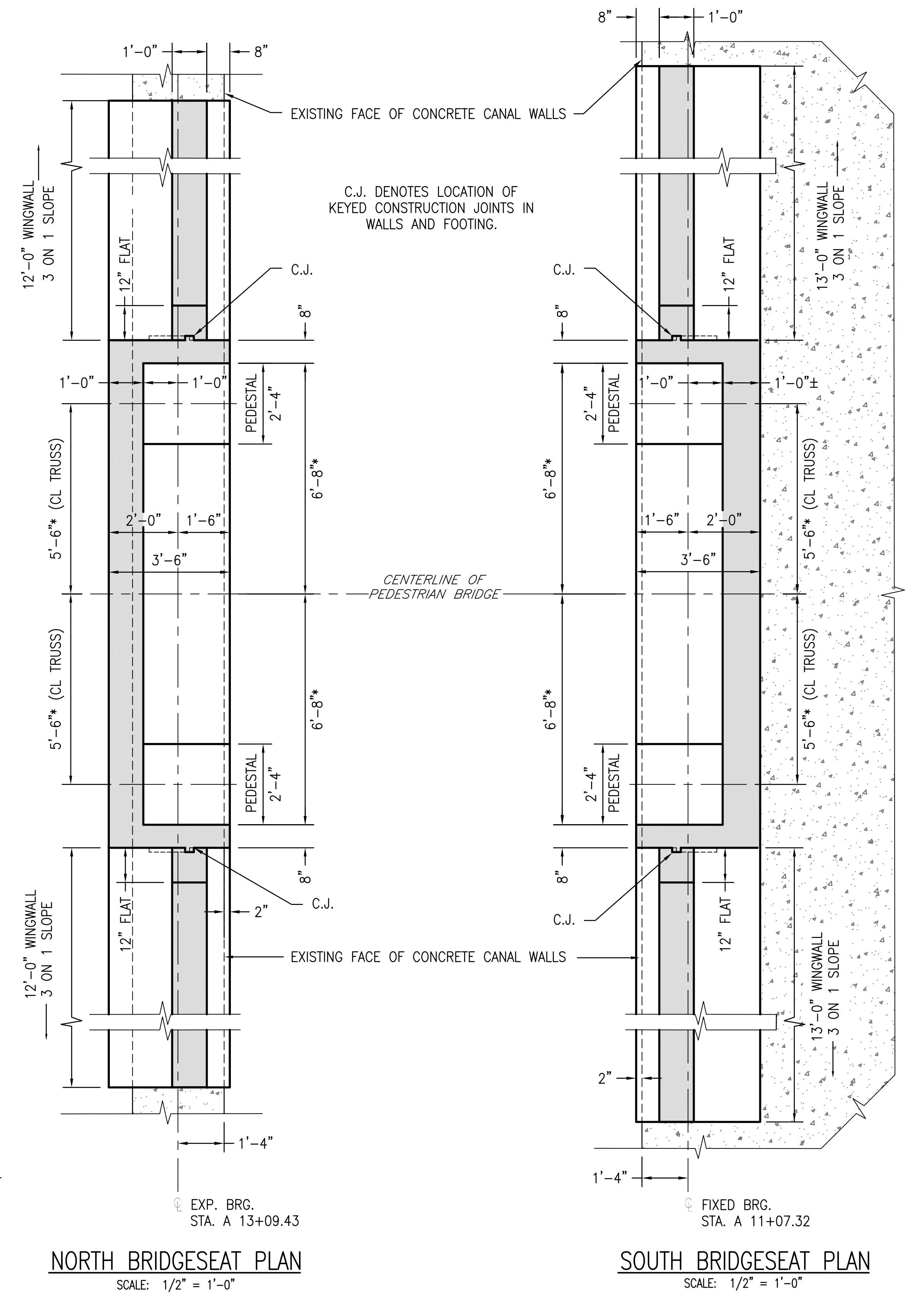
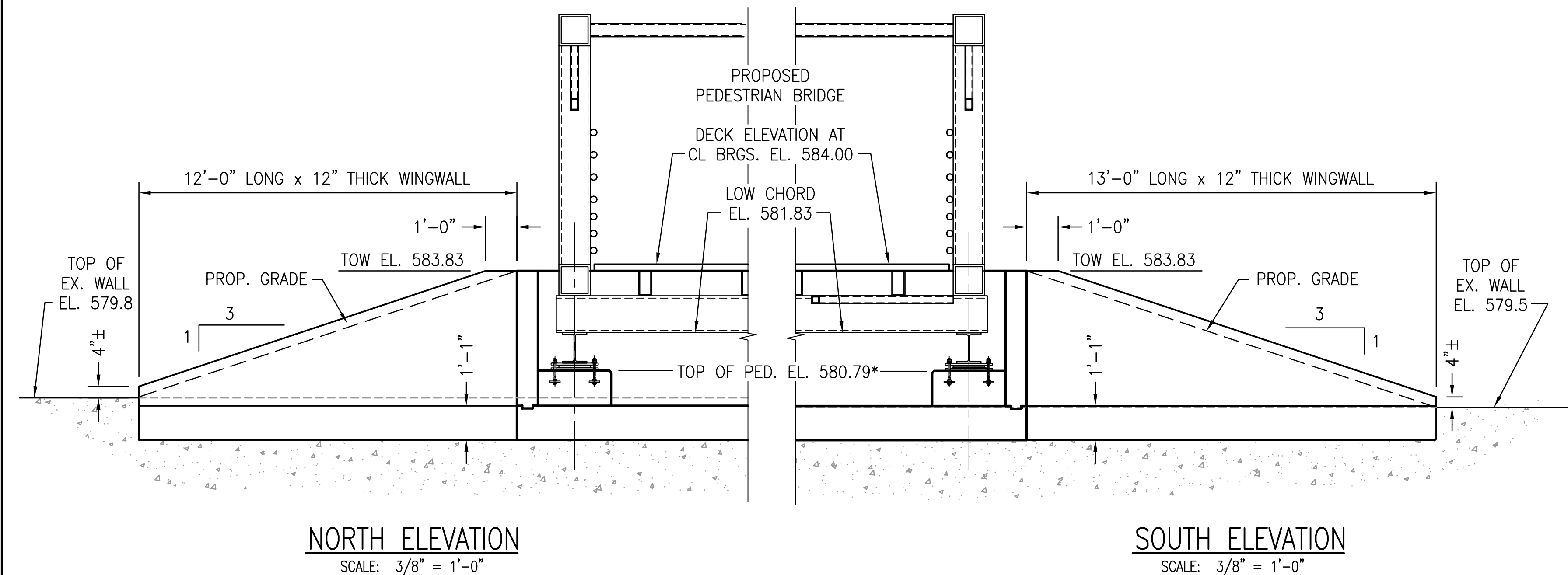
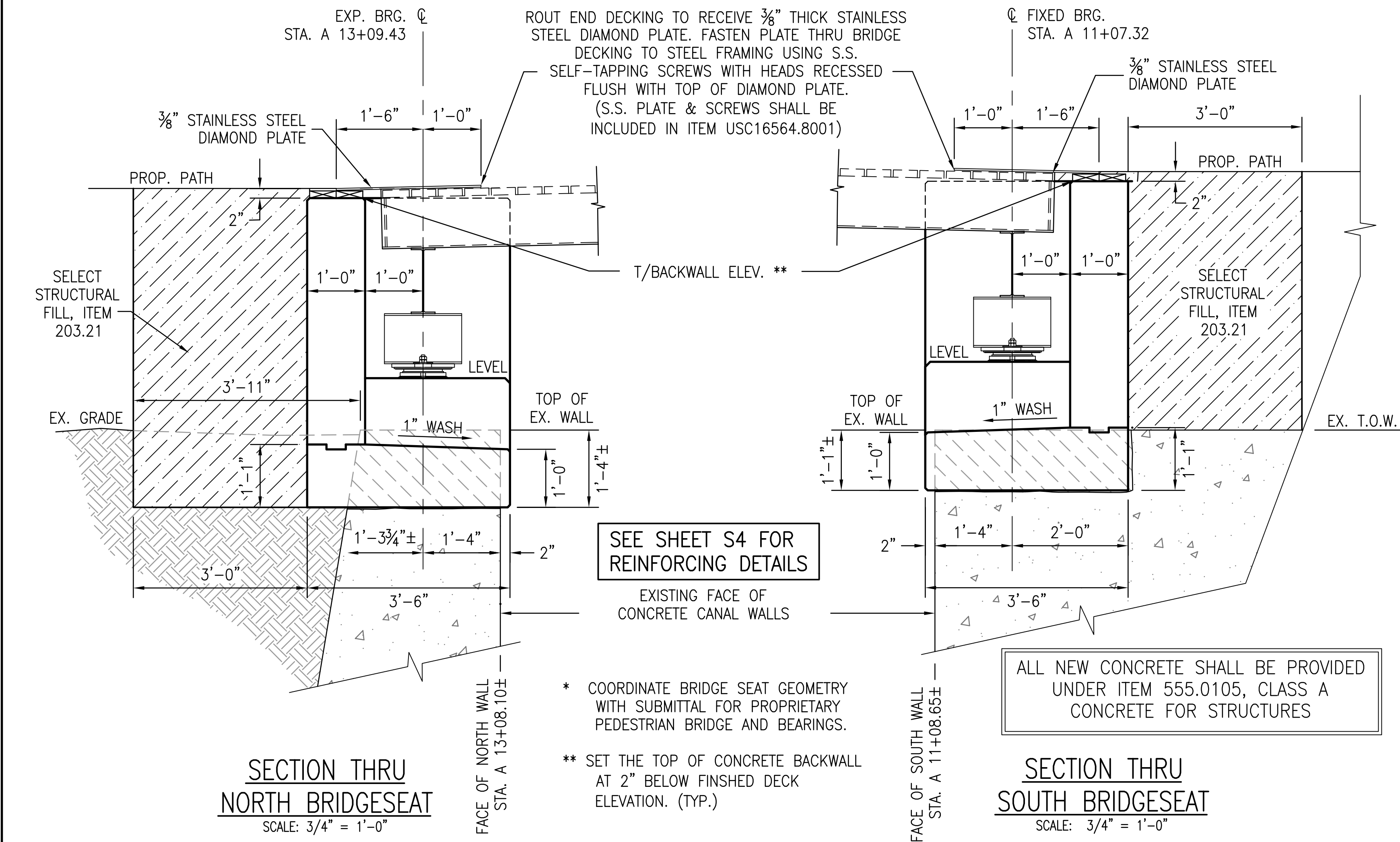
DWN _____

CKD _____

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PEDESTRIAN BRIDGE
EXCAVATION PLAN & SECTIONS

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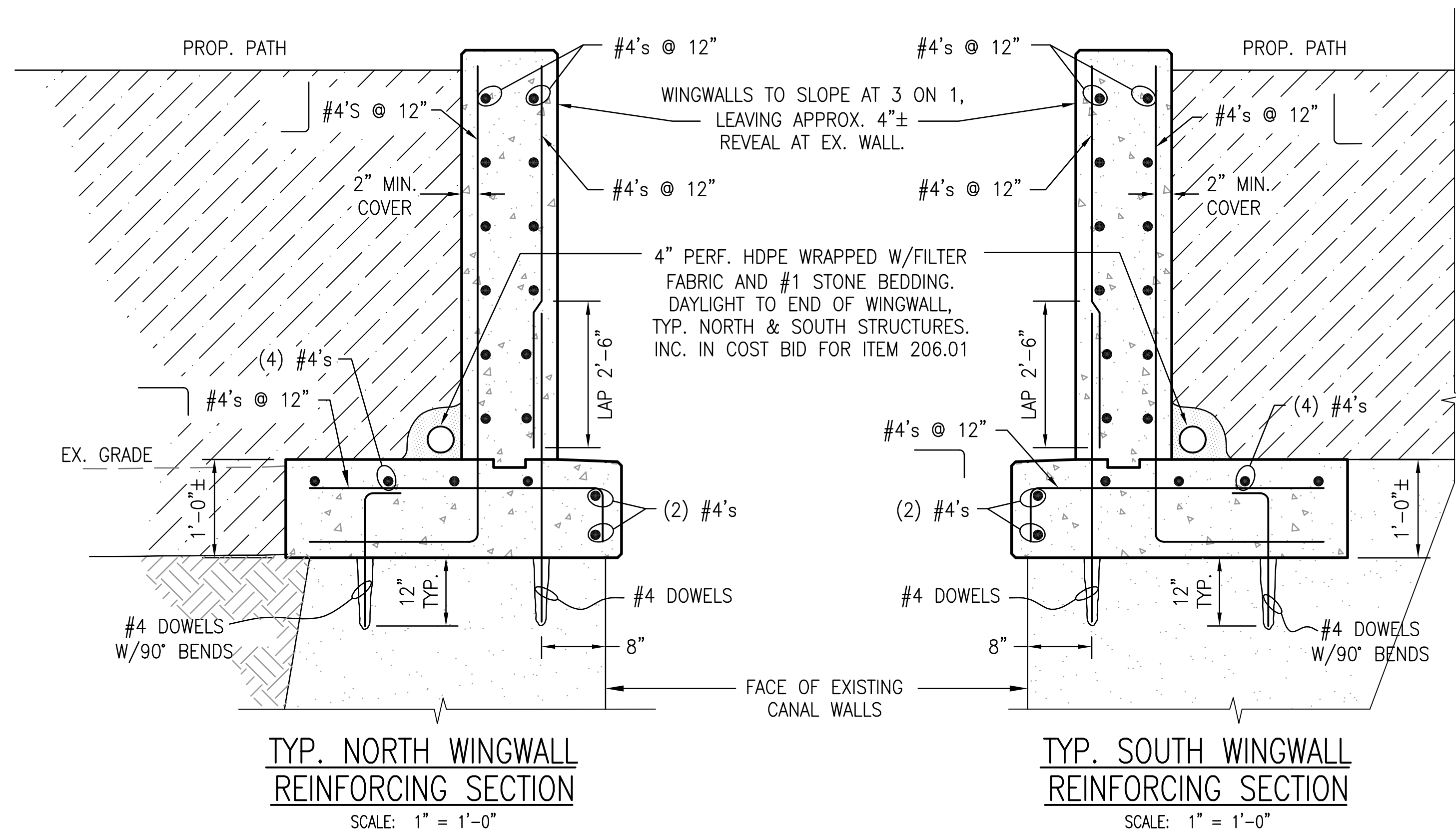
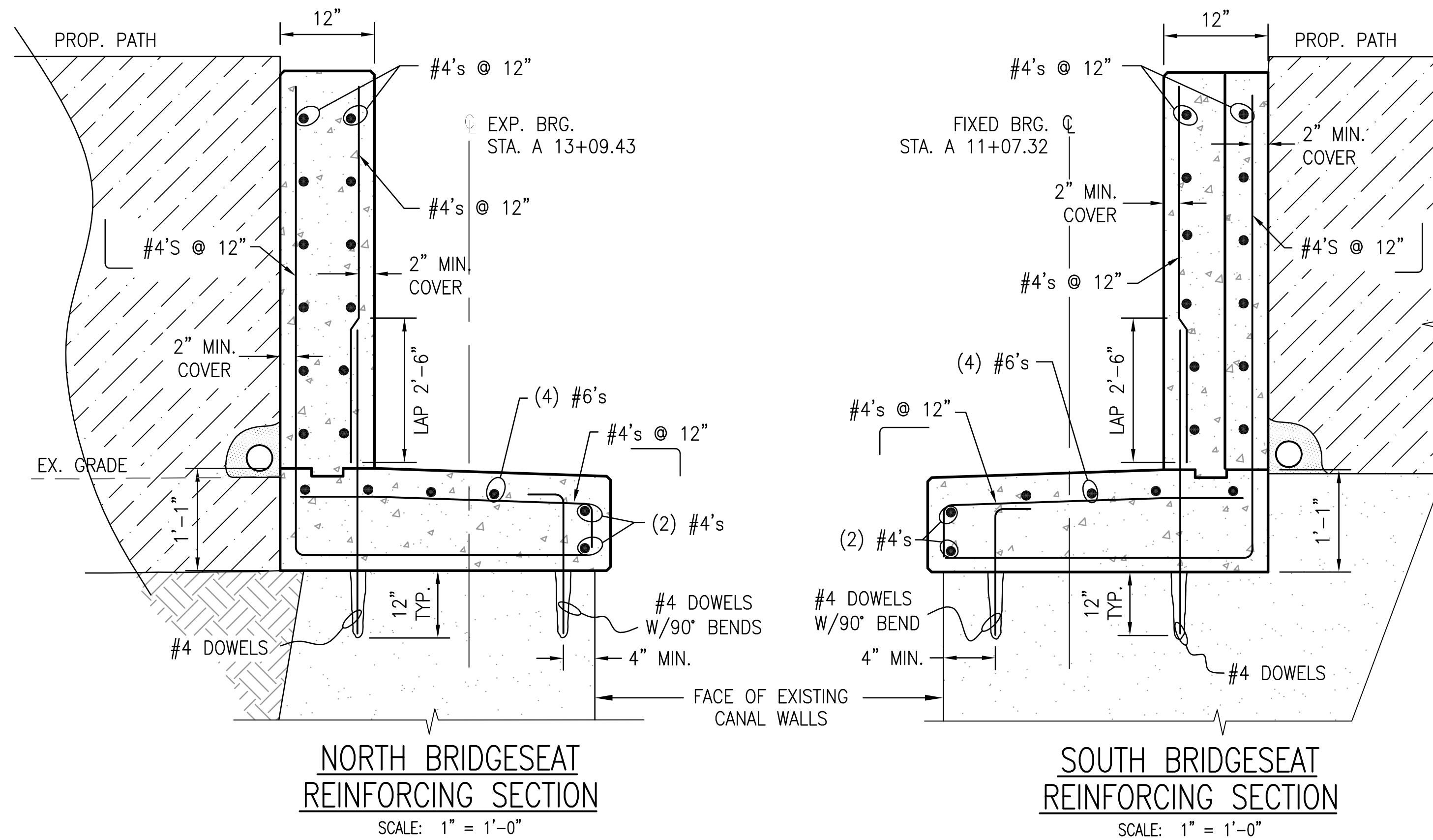
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NO.	BY	DATE	REMARKS

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DWN _____
CKD _____

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PEDESTRIAN BRIDGE
BRIDGESEAT PLAN & SECTIONS

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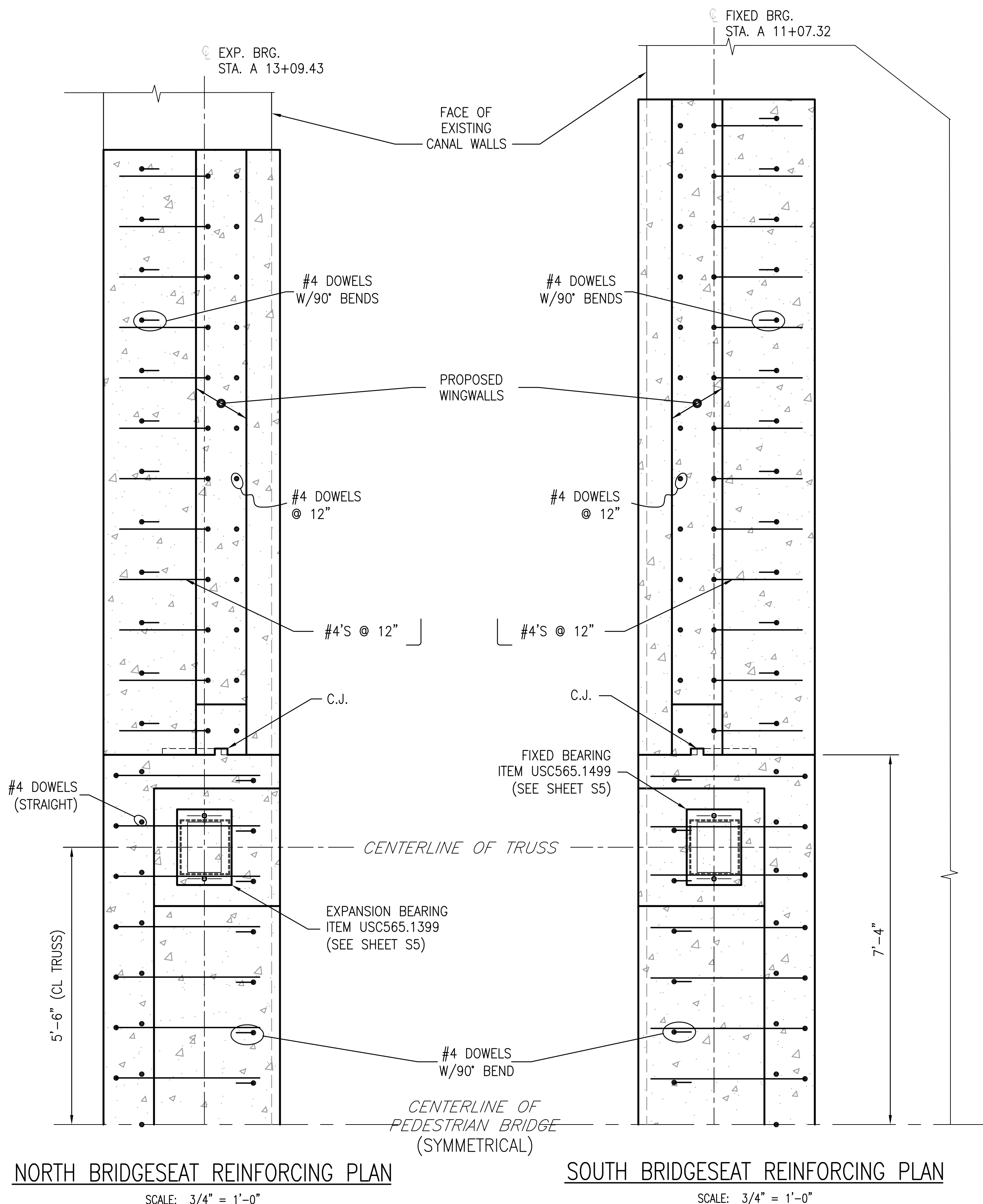
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NO.	BY	DATE	REVISIONS	REMARKS

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DWN _____
CKD _____

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PEDESTRIAN BRIDGE
REINFORCING PLAN & ELEVATIONS

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S SHEET 4 OF 5
CAD REF. NO. 290001.dwg

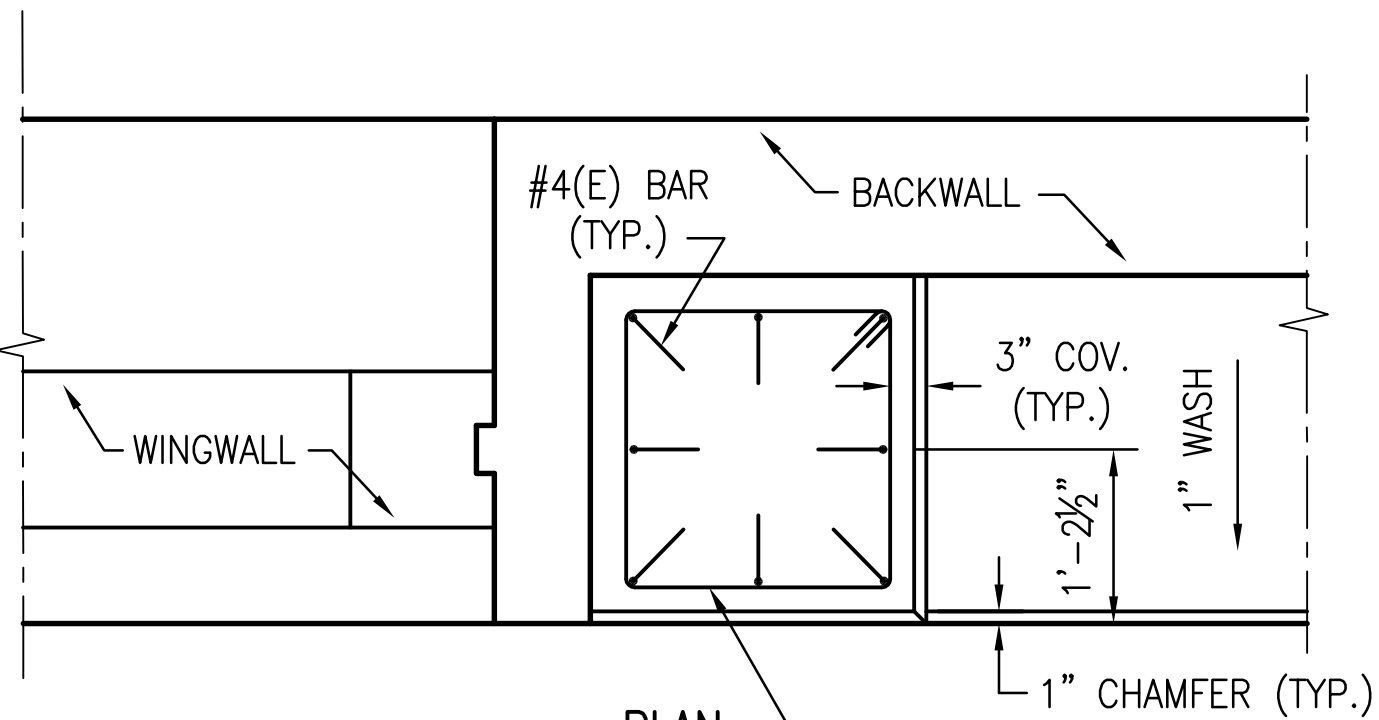


EXPANSION BEARING TABLE					
LOCATION	ITEM No.	QUANTITY REQUIRED	DL + SDL (Kips)	LL W/O IMP. (Kips)	TOTAL DESIGN REACTION (Kips)
NORTH ABUT.	USC 565.1399	2	43.75	49.45	93.2

NOTES:

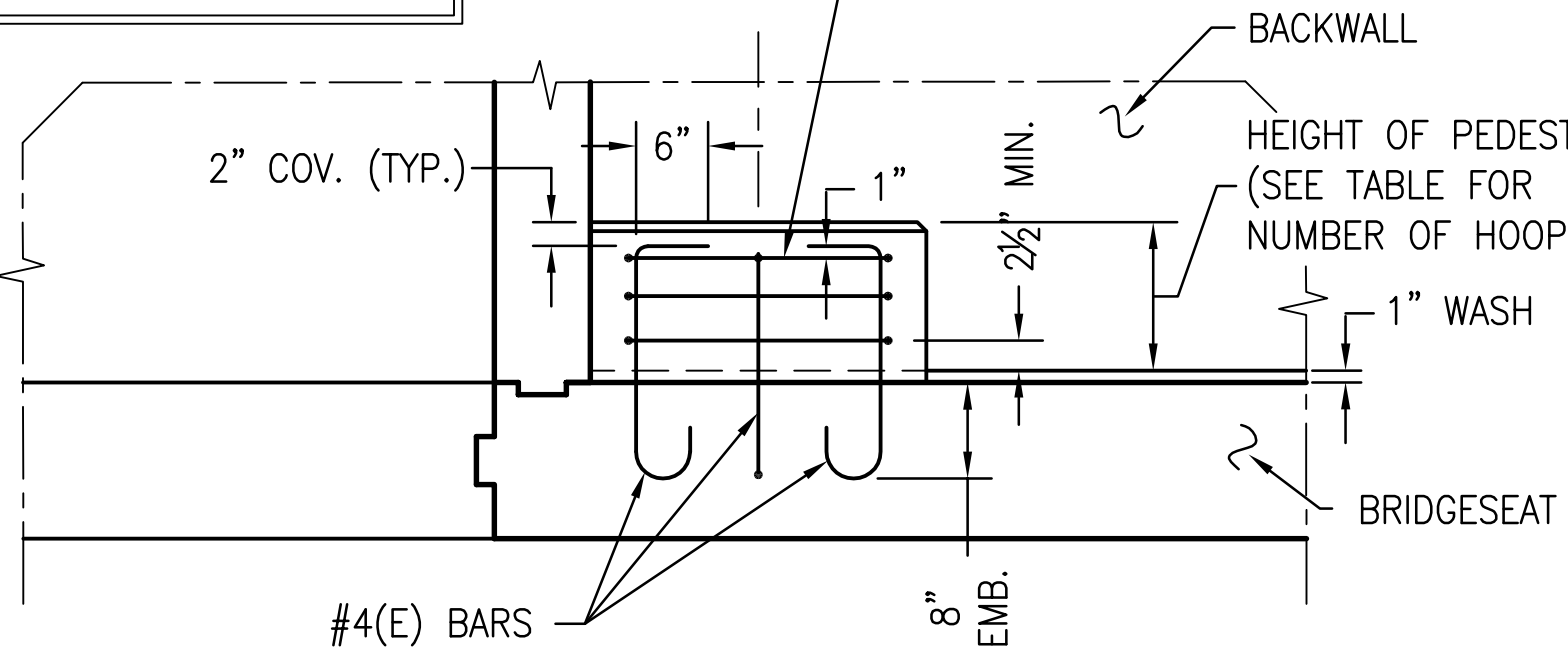
1. COORDINATE THE PEDESTAL ELEVATION WITH VENDOR'S SHOP DRAWINGS FOR BRIDGE AND BEARINGS.
2. BEARING DETAILS SHOWN ARE BASED ON THE USE OF PREFORMED RUBBER IMPREGNATED COTTON DUCT PAD ASSEMBLIES (TYPE STX) AS MANUFACTURED BY FABREEKA INTERNATIONAL USING 1,000 psi AVG. COMPRESSIVE STRESS PAD MATERIAL AT 3/8" THICKNESS.

FIXED BEARING TABLE					
LOCATION	ITEM No.	QUANTITY REQUIRED	DL + SDL (Kips)	LL W/O IMP. (Kips)	TOTAL DESIGN REACTION (Kips)
SOUTH ABUT.	USC 565.1499	2	43.75	49.45	93.2



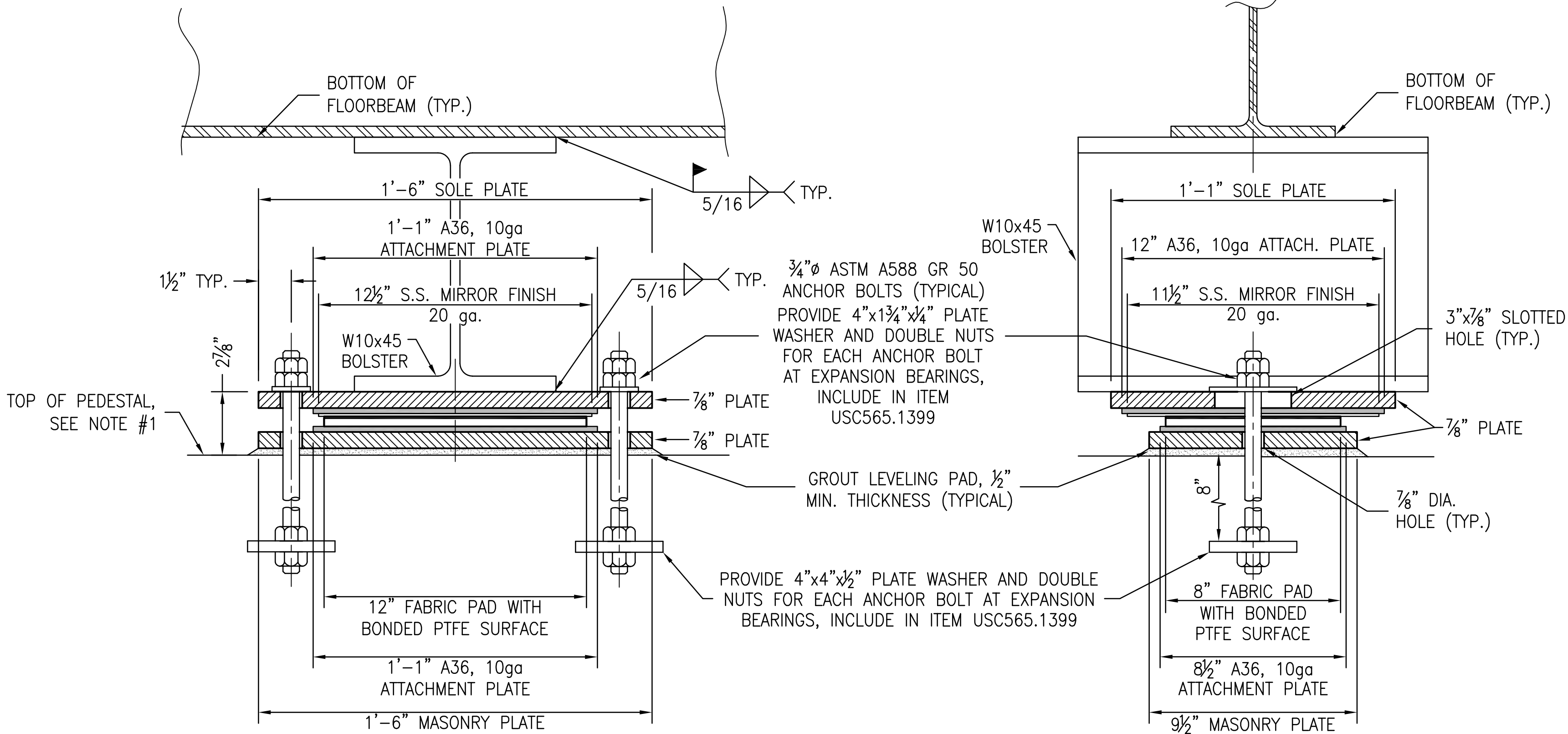
DESIGNER:
BARS SHOULD BE LOCATED SO AS TO NOT INTERFERE WITH THE BEARING ANCHOR BOLTS, MAX. SPACING BETWEEN BARS IS 1'-6".

PEDESTAL HEIGHT	No. OF HOOPS
6" TO 8"	1
8" TO 11"	2
11" TO 14"	3
14" TO 17"	4
17" TO 20"	5



TYPICAL PEDESTAL REINFORCING

SCALE: 3/4" = 1'-0"

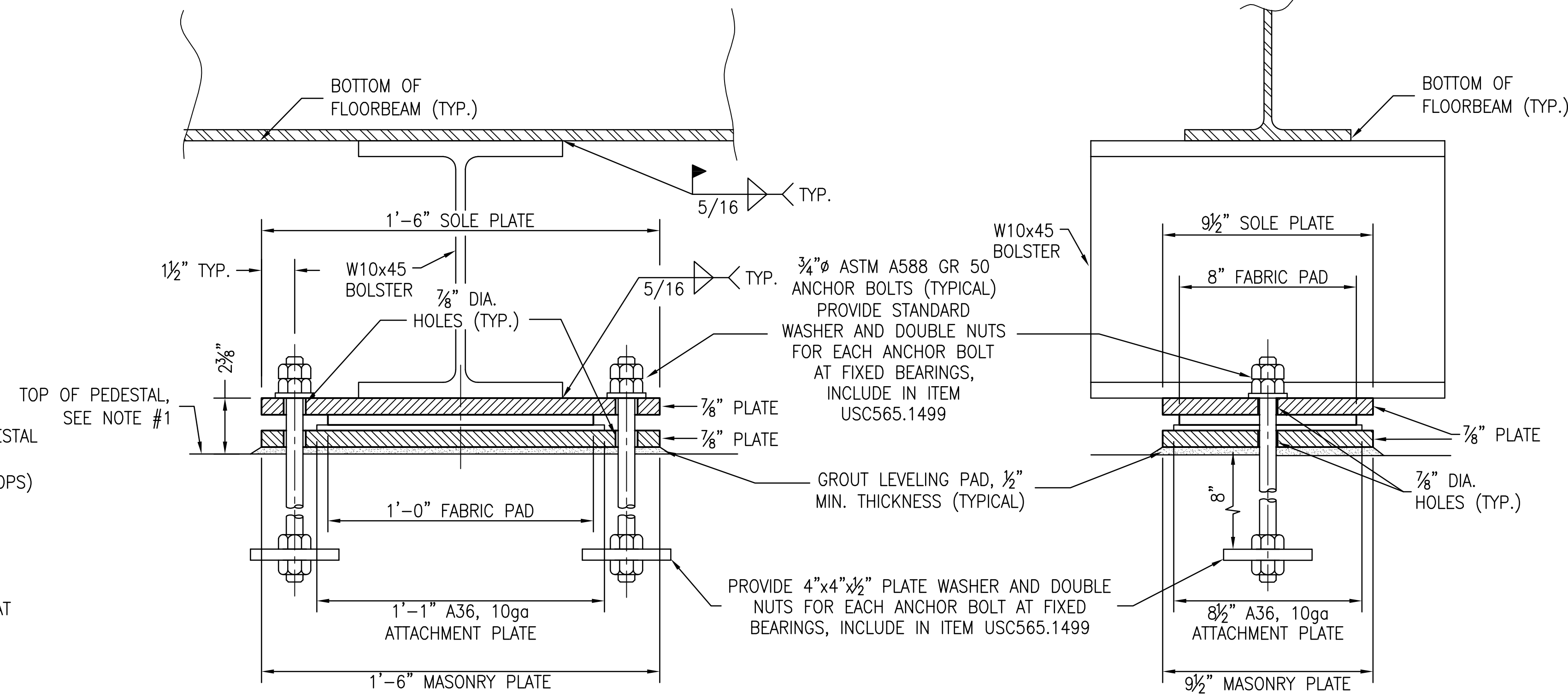


EXPANSION BEARING, TRANSVERSE SECTION

SCALE: 3" = 1'-0"

EXPANSION BEARING, LONGITUDINAL SECTION

SCALE: 3" = 1'-0"



FIXED BEARING, TRANSVERSE SECTION

SCALE: 3" = 1'-0"

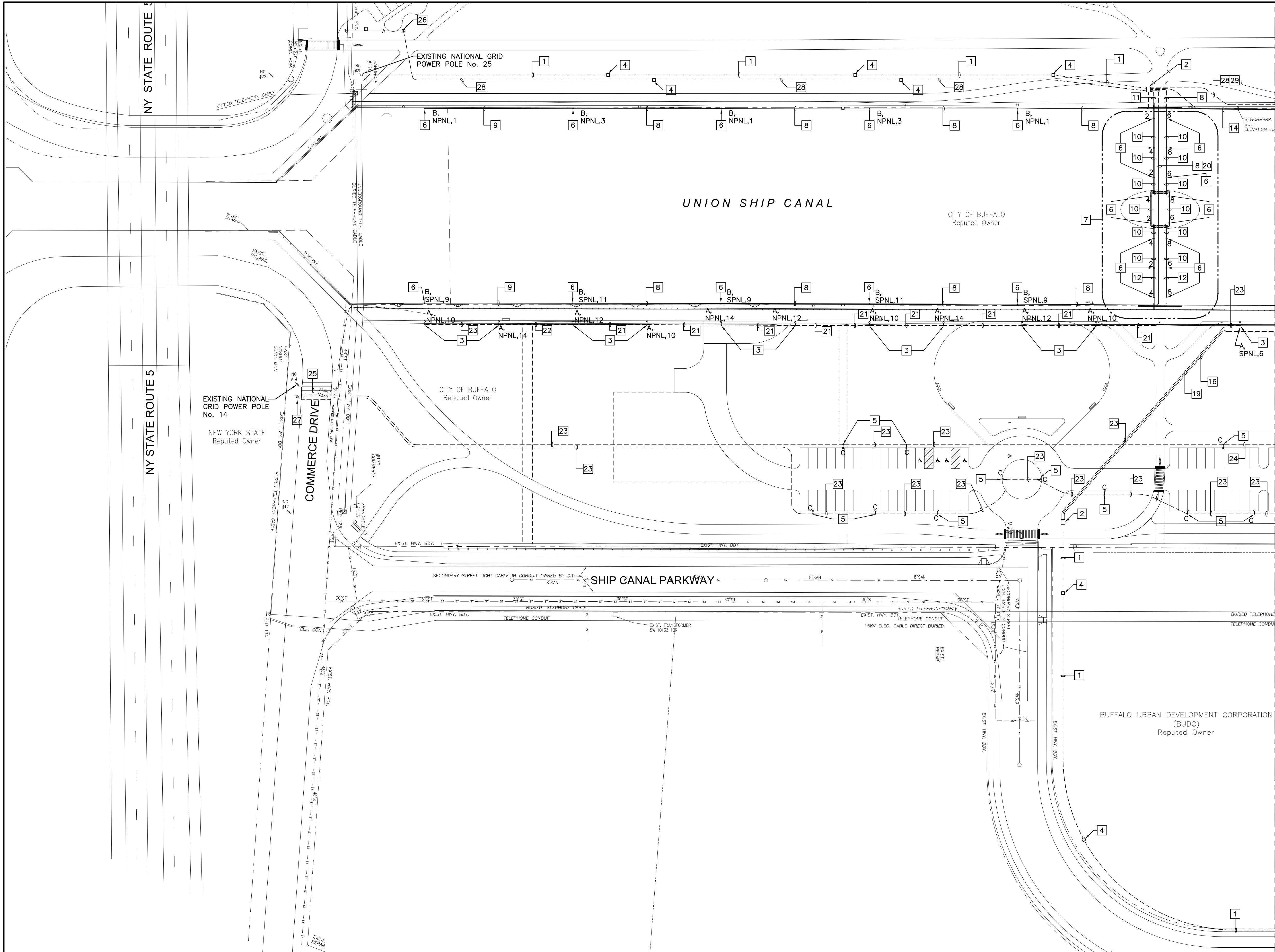
FIXED BEARING, LONGITUDINAL SECTION

SCALE: 3" = 1'-0"

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REVISIONS				DES
NO.	BY	DATE	REMARKS	

DES _____
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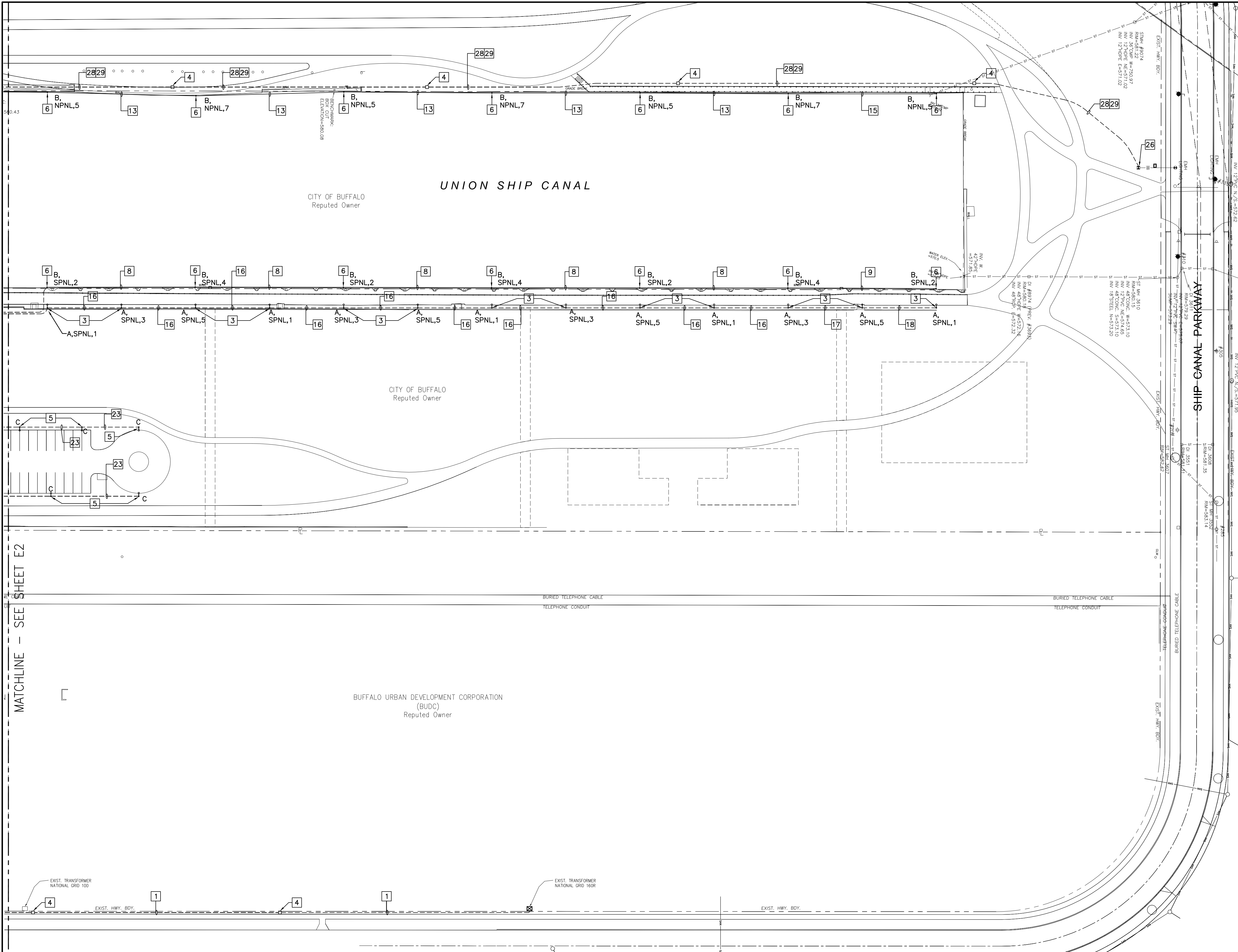
- CONSTRUCTION NOTES** ALTERNATE BID ITEM
- 2" SCHEDULE 40 PVC CONDUIT WITH (3)#4/0 AWG & (1)#4 AWG GROUND WIRE 24" BELOW FINAL GRADE. PROVIDE CONCRETE ENCASUREMENT UNDER ROAD.
 - NEW METER PEDESTAL/PANELBOARD, SINGLE PHASE, 100 AMP AS MANUFACTURED BY SQUARE D. REFER TO 1/E1 FOR ADDITIONAL INFORMATION.
 - AREA LIGHTING FIXTURE AS MANUFACTURED BY KIM LIGHTING. REFER TO LIGHTING SCHEDULE FOR SPECIFICATIONS.
 - NONMETALLIC PULLBOX 24"x24" NEMA 3R. TOP OF PULLBOX SHALL BE FLUSH WITH TOP OF FINISHED GRADE.
 - AREA LIGHTING FIXTURE AS MANUFACTURED BY KIM LIGHTING. REFER TO LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.
 - VAPORTIGHT TYPE LIGHT FIXTURE AS MANUFACTURED BY HUBBELL. REFER TO LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.
 - PROVIDE TYPE B LIGHT FIXTURES ON SIDE OF BRIDGE. CONNECT TO PANEL NPPL, CIRCUIT NO. AS INDICATED.
 - 1" RIGID GALVANIZED CONDUIT WITH (6)#8 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED ON FACE OF EXISTING CANAL WALL OR SIDE OF BRIDGE.
 - 1" RIGID GALVANIZED CONDUIT WITH (3)#8 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED ON SIDE OF EXISTING CANAL WALL OR SIDE OF BRIDGE.
 - 1" RIGID GALVANIZED CONDUIT WITH (6)#12 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED ON SIDE OF THE BRIDGE.
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 - 2" SCHEDULE 40 PVC CONDUIT WITH (3)#2 AWG WIRES (TYPE THHN/THWN) CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
 - PROVIDE CONCRETE ENCASUREMENT UNDER ROAD.
 - NEW HOT BOX ELECTRICAL CONNECTION TO HEATER TRACE TAPE. PROVIDE NON FUSED DISCONNECT IN HOT BOX.
 - PROVIDE NONMETALLIC PULLBOX WITH TWO (2) SETS OF FUSES TO BE 20 AMPS EACH AND THE SECOND SET TO BE 35 AMPS EACH.
 - 2" SCHEDULE 40 PVC CONDUIT WITH (3) #8 AWG WIRES (TYPE THHN/THWN) CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
 - SPARE 2" SCHEDULE 40 PVC CONDUIT WITH FISHLINE.
- ALTERNATE BID ITEM

REVISIONS					REMARKS
NO.	BY	DATE			

DES MAD
DWN RB
CKD

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYS DOT P.I.N. 5757.98

SITE LAYOUT & ELECTRICAL PLAN
WEST
SCALE: 1"=50'



CONSTRUCTION NOTES

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ALTERNATE BID ITEM

MATCHLINE - SEE SHEET E2



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REVISIONS					REMARKS
NO.	BY	DATE			

DES MAD
DWN RB
CKD .

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYS DOT P.I.N. 5757.98

SITE LAYOUT & ELECTRICAL PLAN
EAST
SCALE: 1"=50'

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DATE AUGUST 2009
E SHEET 3 OF 3
CAD REF. NO. USC-E202

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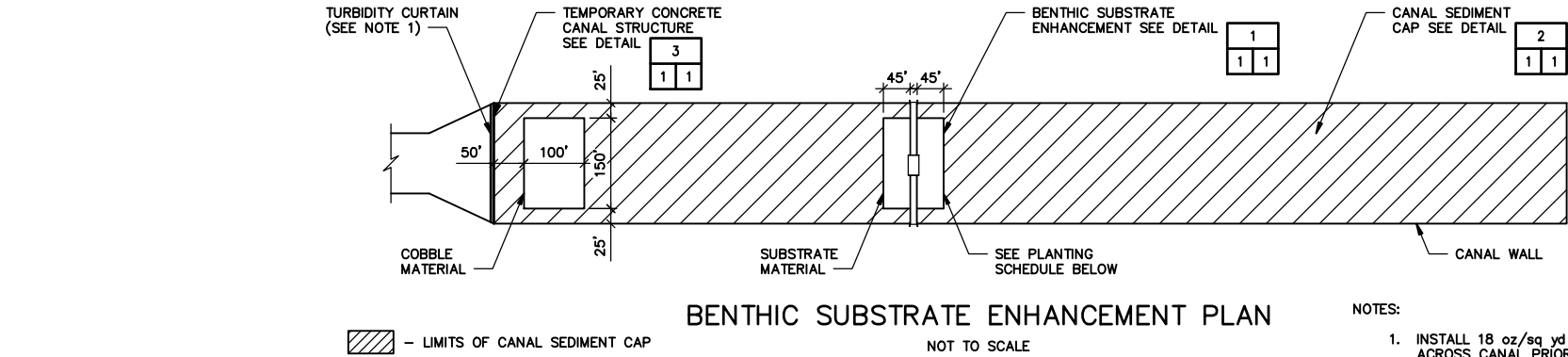
REVISIONS				
NO.	BY	DATE	REMARKS	

DES BG
DWN MAW
CKD KRM

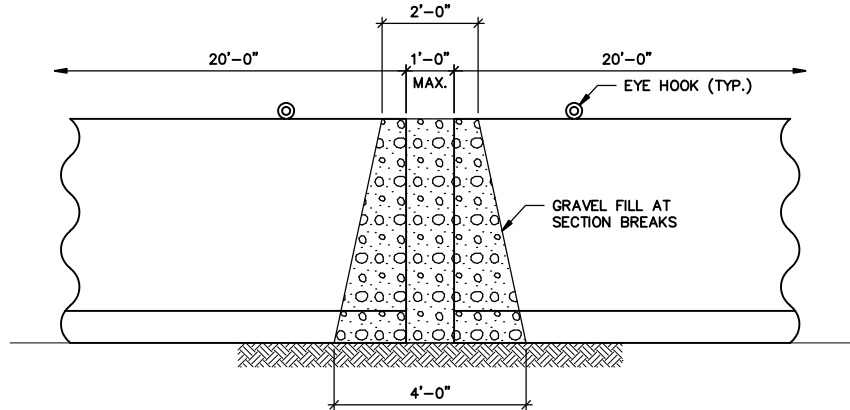
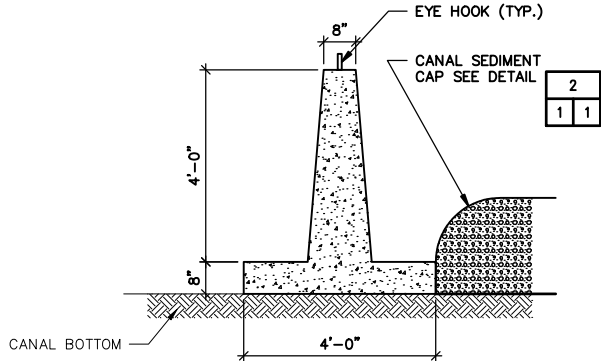
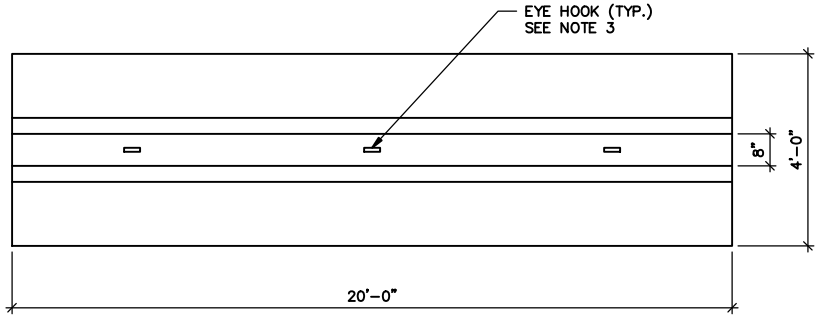
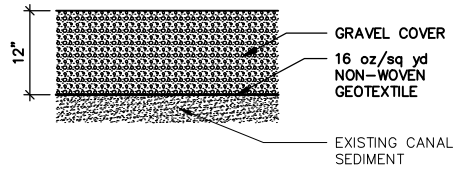
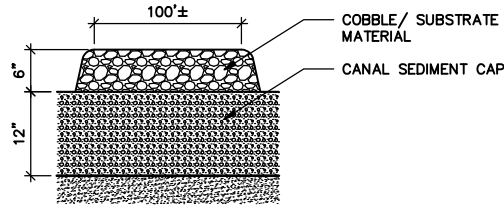
BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYS DOT P.I.N. 5757.98

CANAL SEDIMENT CAP
DETAILS
AS NOTED

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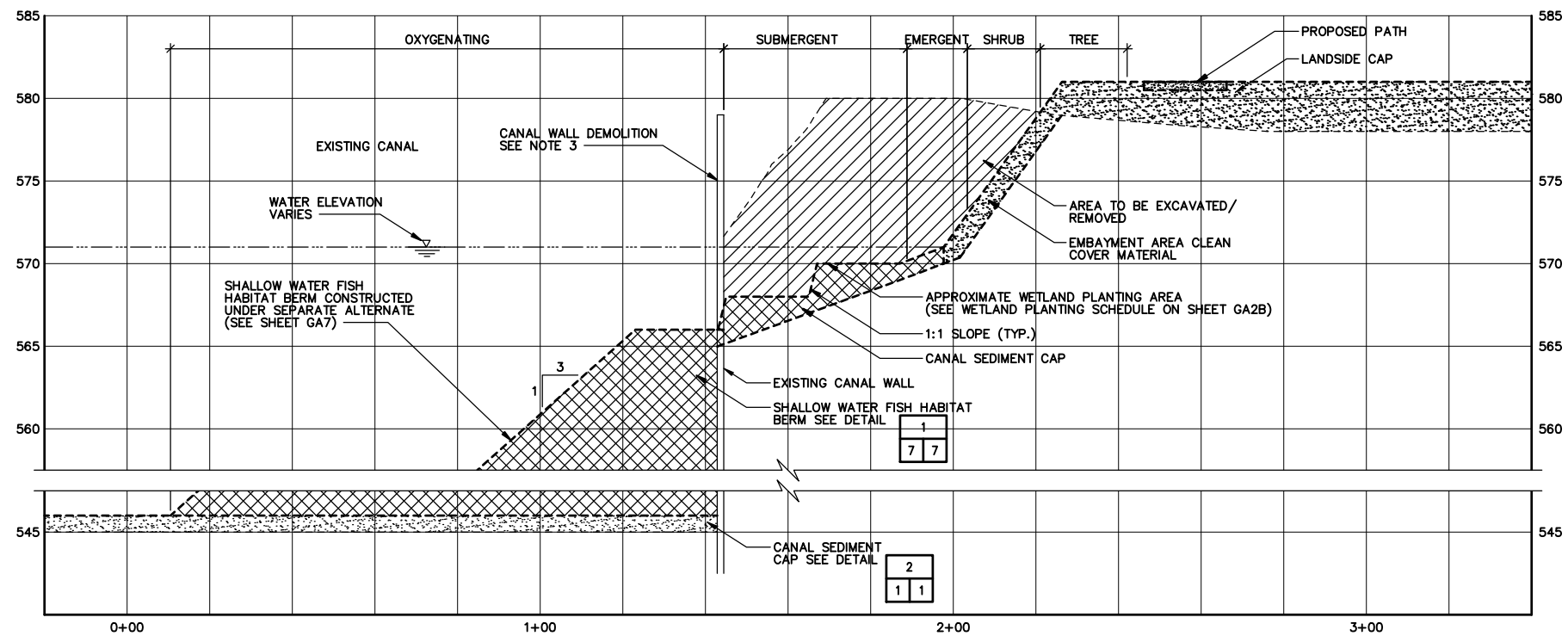
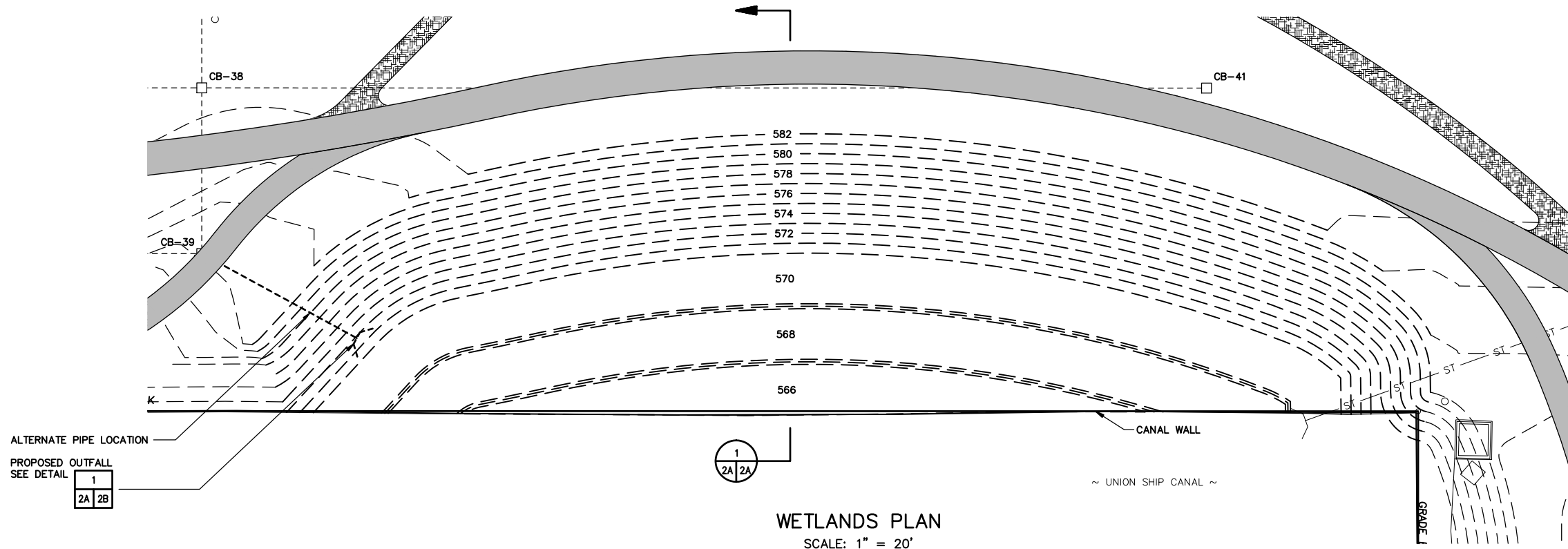
SUBSTRATE MATERIAL PLANTING SCHEDULE		
SCIENTIFIC NAME	COMMON NAME	QUANTITY
<i>Ceratophyllum demersum</i>	Coontail	20
<i>Elodea canadensis</i>	American waterweed	20
<i>Vallisneria americana</i>	Wild Celery	20



NOTES:

1. PROVIDE PRECAST CONCRETE STRUCTURE AS MANUFACTURED BY KISTNER CONCRETE OR EQUAL.
2. 20 - FOOT SECTIONS SHALL BE PLACED ACROSS CANAL, WITH A MAXIMUM SPACING OF 1' BETWEEN SECTIONS. GRAVEL SHALL BE PLACED AT SECTION BREAKS AS SHOWN.
3. EYE HOOKS SHALL BE EMBEDDED AT SUFFICIENT DEPTH TO SUPPORT FULL WEIGHT OF STRUCTURE.

**TEMPORARY CONCRETE
CANAL STRUCTURE DETAIL**
NOT TO SCALE



- NOTES:
1. VERTICAL SCALE IS EXAGGERATED FOR CLARITY.
 2. CATCH BASIN NO. 42 AND STORM PIPE RUN NO. 63 WILL BE DELETED UNDER THIS ALTERNATIVE. ADDITIONALLY, REVISED LOCATION FOR OUTFALL WILL BE AS SHOWN.
 3. CONTRACTOR SHALL PARTIALLY DEMOLISH EXISTING CONCRETE CANAL WALL TO FACILITATE WETLAND EXCAVATION. CANAL WALL CRIBBING SHALL NOT BE DISTURBED AT ANY TIME DURING WETLAND EXCAVATION/ PLANTING ACTIVITIES. DEMOLISHED CONCRETE SHALL BE CRUSHED TO A MAXIMUM 2" NOMINAL DIAMETER AND PLACED AT THE BOTTOM OF THE CANAL BELOW CANAL WALL STABILIZATION BERM AND CANAL SEDIMENT CAP.
 4. PLANTING SCHEDULE SHOWN ON SHEET 2B.

25 0 25 50
SCALE: 1" = 50'

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NO.	BY	DATE	REMARKS	

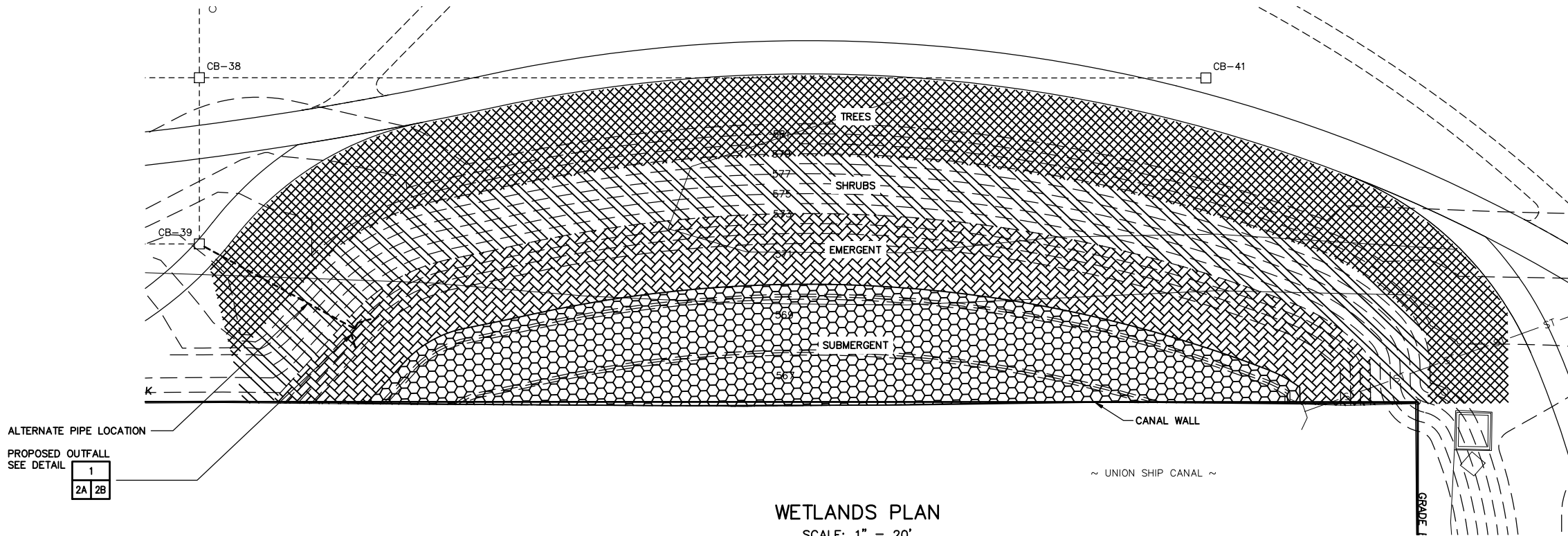
DES BG
DWN MAW
CKD KRM

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

WETLAND PLAN
AND PROFILE
SCALE: AS NOTED

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CAD REF. NO. 4080GALT-1

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PLANTING LEGEND:

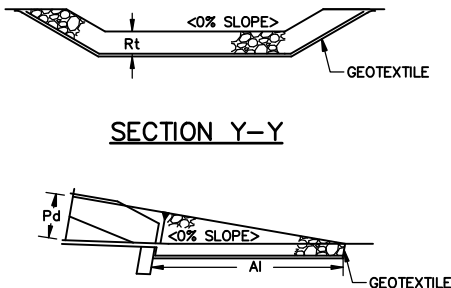
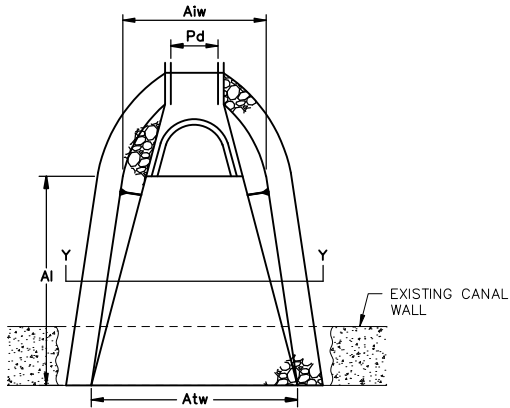
- TREE PLANTING
- SHRUB PLANTING
- EMERGENT WETLAND PLANTING
- SUBMERGENT WETLAND PLANTING

SUBMERGENT WETLAND PLANTING SCHEDULE		
SCIENTIFIC NAME	COMMON NAME	QUANTITY
Asclepias incarnate	Swamp milkweed	400
Hibiscus moscheutos	Crimsoneyed rosemallow	400
Iris versicolor	Blue flag	400
Juncus Canadensis	Canada rush	400
Lobelia siphilitica	Great blue lobelia	400
Nuphar advena	Yellow pond lily	50
Nymphaea odorata	White water lily	150
Peltandra virginica	Arrow arum	400
Pontederia cordata	Pickeral weed	100
Sagittaria latifolia	Duck potato (arrowhead)	400
Scirpus acutus	Hard stemmed bulrush	400

SHRUB PLANTING SCHEDULE		
SCIENTIFIC NAME	COMMON NAME	QUANTITY
Alnus incana	Speckled alder	40
Hamamelis virginiana	Witch hazel	40
Ilex verticillata	Winterberry	40
Lindera benzoin	Spicebush	40
Salix discolor	Pussy willow	40
Sambucus Canadensis	Elderberry	40
Viburnum trilobum	American cranberry	40

EMERGENT WETLAND PLANTING SCHEDULE		
SCIENTIFIC NAME	COMMON NAME	QUANTITY
Asclepias incarnate	Swamp milkweed	50
Aster novae-angliae	New England aster	50
Chelone glabra	Turtlehead	50
Eryngium yuccifolium	Rattlesnake master	50
Hibiscus moscheutos	Crimsoneyed rosemallow	50
Juncus Canadensis	Canada rush	50
Lobelia siphilitica	Great blue lobelia	50
Mimulus ringens	Square stemmed monkey flower	50
Rosa palustris	Swamp rose	50
Rudbeckia hirta	Black eyed susan	50
Scirpus acutus	Hard stemmed bulrush	50
Verbena hastate	Blue vervain	50
Vernonia fasciculata	Common Ironweed	50
Viburnum trilobum	American cranberry	50

TREE PLANTING SCHEDULE		
SCIENTIFIC NAME	COMMON NAME	QUANTITY
Acer rubrum	Red maple	40
Alnus incana	Speckled alder	40
Cornus amomum	Silky dogwood	40
Hamamelis virginiana	Witch hazel	40
Lindera benzoin	Spicebush	40
Platanus occidentalis	American sycamore	40
Quercus rubra	Red oak	40



OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP		APRON		TERMINAL WIDTH Atr (FT)
		SIZE (R-)	THICK. Rt (IN)	LENGTH Ai (FT)	INITIAL WIDTH Aiw (FT)	
1	15	4	12	20	4	10

PROPOSED WETLAND OUTFALL DETAIL
NOT TO SCALE

25 0 25 50
SCALE: 1" = 50'

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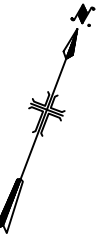
REVISIONS					REMARKS
NO.	BY	DATE			

DES BG
DWN MAW
CKD KRM

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
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WETLAND PLANTING PLAN
AND DETAILS
1"=20'

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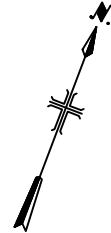
DES BG
DWN MAW
CKD KRM

ALTERNATIVE SUBGRADE GRADING PLAN WEST

DATE AUGUST 2009

GA SHEET 2C OF 8

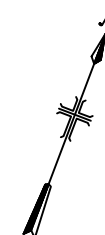
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DES	_____	BG
DWN	_____	MAW
CKD	_____	KRM

ALTERNATIVE SUBGRADE GRADING PLAN EAST



 NORTH/ SOUTH STORM
WATER CONVEYANCE CHANNEL
 EAST/ WEST STORM
WATER CONVEYANCE PIPE
 DRAINAGE CONVEYANCE
(NORTH OF CANAL)

CATCH BASIN SCHEDULE	
CATCH BASIN ID	RIM EL.
CB-12C	579.5
CB-13	578.8
CB-14	579.5
CB-15	580.5
CB-16	578.8
CB-17	580.2
CB-18	580.8
CB-19	578.8
CB-20	581.4
CB-21	581.6
CB-34	581.8
CB-35	581.8
CB-36	579.8
CB-37	581.8
CB-38	581.6
CB-39	578.2
CB-40	581.8
CB-41	581.8

1. SEE SHEET G17 FOR CONTINUATION OF THE STORM WATER PIPING SCHEDULE.
2. INVERTS REMAIN THE SAME.
3. CONTRACTOR SHALL MODIFY THE EXISTING OUTFALL STRUCTURES/ CATCH BASIN AS SHOWN ON DETAIL.

13
10 13
4. GRADES SHOWN ARE APPROXIMATE, SLOPES TO BE MAINTAINED UNLESS OTHERWISE APPROVED BY ENGINEER.



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				DES <u>BG</u>
				DWN <u>MAW</u>
				CKD <u>KRM</u>

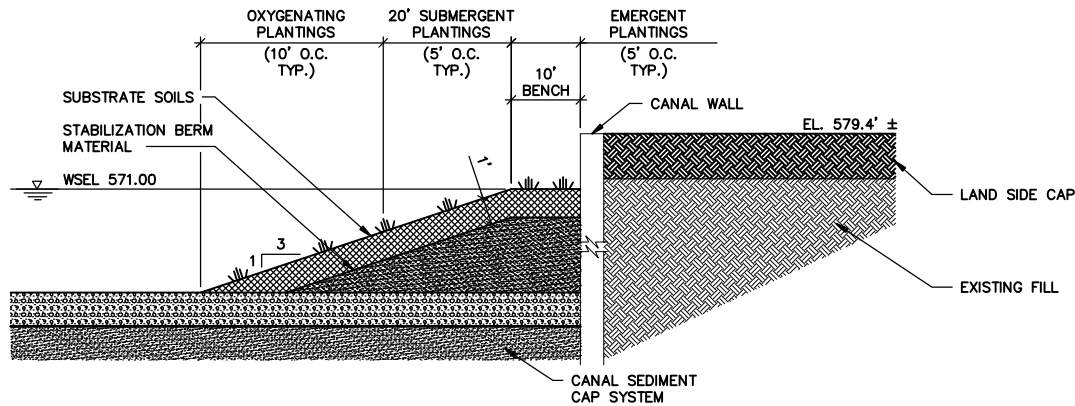
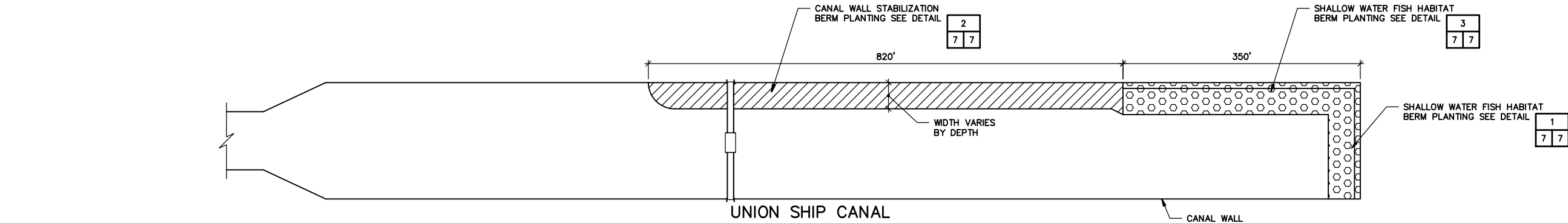
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DWN	MAW
CKD	KRM

ALTERNATIVE SITE GRADING PLAN EMBAYMENT AREA

$$1'' = 50'$$

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 DATE AUGUST 2009
 GA SHEET 2E OF 8
 CAD REF. NO. 4080GALT-6-C

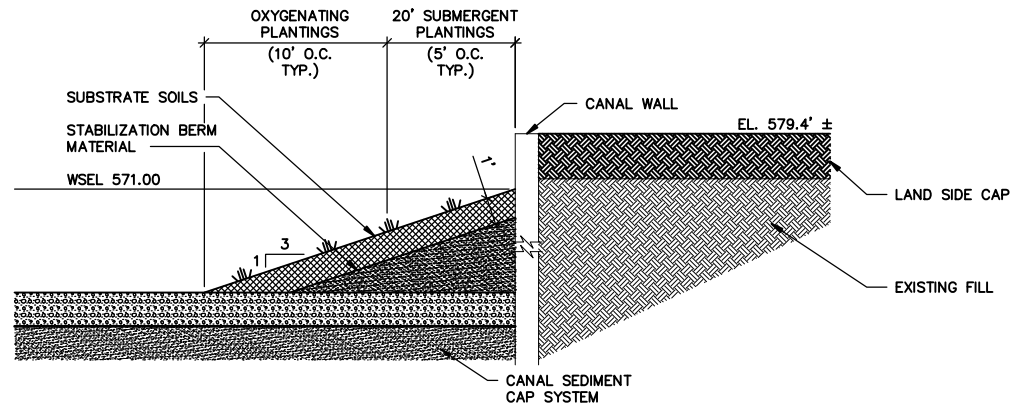
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User:welshons Spec:PIRNE STANDARD File:F:\Projects\4080GALT-4.DWG Scale:1:1 Date:08/13/2009 Time:10:03 Layout:046



SHALLOW WATER FISH HABITAT BERM AND PLANTING TYPICAL DETAIL 1
NOT TO SCALE

NOTES:

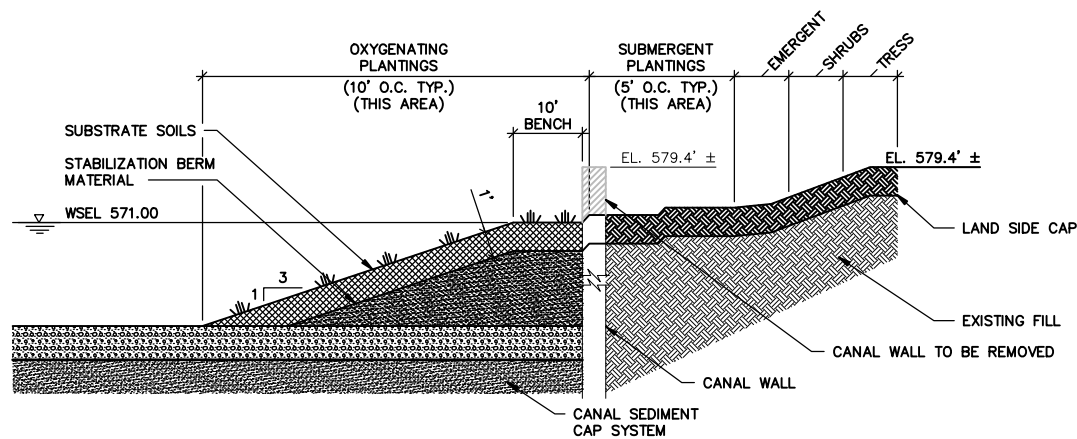
1. CANAL WALL STABILIZATION BERM SHALL BE MODIFIED AS SHOWN FOR THIS ALTERNATIVE.



CANAL WALL STABILIZATION BERM PLANTING TYPICAL DETAIL 2
NOT TO SCALE

NOTES:

1. CANAL WALL STABILIZATION BERM SHALL BE MODIFIED AS SHOWN FOR THIS ALTERNATIVE.



SHALLOW WATER FISH HABITAT BERM AND PLANTING TYPICAL DETAIL 3
NOT TO SCALE

NOTES:

1. CANAL WALL STABILIZATION BERM SHALL BE MODIFIED AS SHOWN FOR THIS ALTERNATIVE.

EMERGENT BERM PLANTING SCHEDULE		
SCIENTIFIC NAME	COMMON NAME	QUANTITY
<i>Asclepias incarnate</i>	Swamp milkweed	20
<i>Aster novae-angliae</i>	New England aster	20
<i>Chelone glabra</i>	Turtlehead	20
<i>Eryngium yuccifolium</i>	Rattlesnake master	20
<i>Hibiscus moscheutos</i>	Crimsoneyed rosemallow	20
<i>Juncus Canadensis</i>	Canada rush	20
<i>Lobelia siphilitica</i>	Great blue lobelia	20
<i>Mimulus ringens</i>	Square stemmed monkey flower	20
<i>Rosa palustris</i>	Swamp rose	20
<i>Rudbeckia hirta</i>	Black eyed susan	20
<i>Scirpus acutus</i>	Hard stemmed bulrush	20
<i>Verbena hastate</i>	Blue vervain	20
<i>Vernonia fasciculata</i>	Common Ironweed	20
<i>Viburnum trilobum</i>	American cranberry	20

SUBMERGENT BERM PLANTING SCHEDULE		
SCIENTIFIC NAME	COMMON NAME	QUANTITY
<i>Decodon verticillatus</i>	Swamp loosestrife	300
<i>Nelumbo lutea</i>	Lotus	300
<i>Nuphar advena</i>	Yellow pond lily	100
<i>Nymphaea odorata</i>	White water lily	200
<i>Peltandra virginica</i>	Arrow arum	400
<i>Pontederia cordata</i>	Pickeral weed	200
<i>Potamogeton natans</i>	Common pondweed	300
<i>Potamogeton pectinatus</i>	Sago pondweed	300
<i>Sparganium americanum</i>	American bur reed	400

OXYGENATING BERM PLANTING SCHEDULE		
SCIENTIFIC NAME	COMMON NAME	QUANTITY
<i>Ceratophyllum demersum</i>	Coontail	200
<i>Elodea canadensis</i>	American waterweed	200
<i>Vallisneria spiralis</i>	Wild Celery	200

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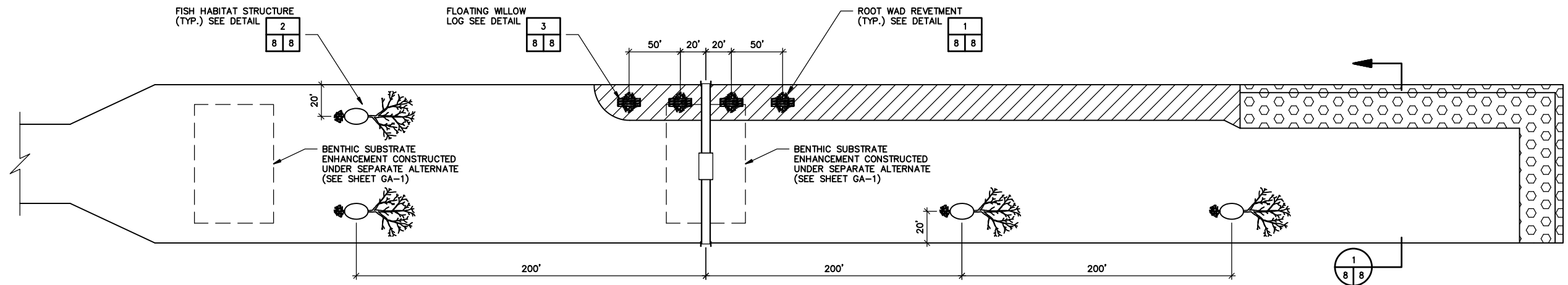
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NO.	BY	DATE	REVISIONS	REMARKS

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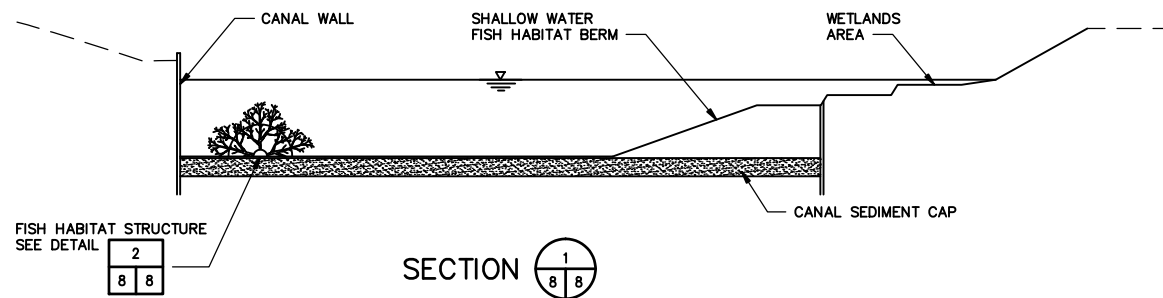
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UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSDOT P.I.N. 5757.98

SHALLOW WATER FISH HABITAT
AND CANAL STABILIZATION
BERM PLANTING DETAILS
AS NOTED

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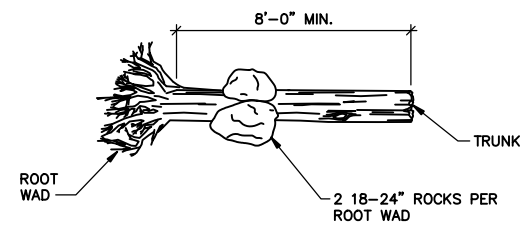


UNION SHIP CANAL
CANAL PLAN
NOT TO SCALE

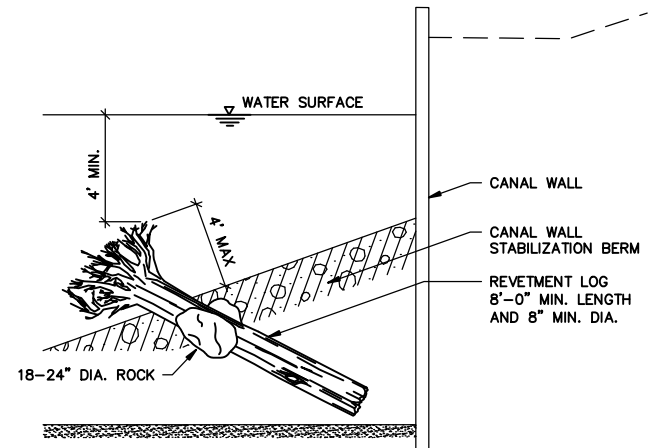


SECTION 1
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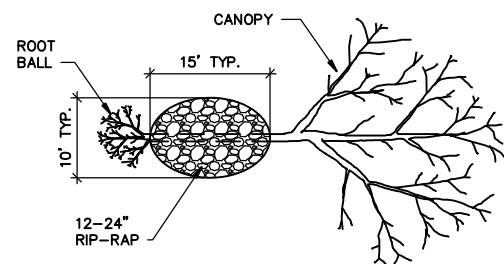
NOTE:
1. ARTIFICIAL BASE MATERIAL SHALL BE PLACED OVER CANAL SEDIMENT CAP AND BENEATH CLUSTERED REEFS (ARTIFICIALREEF STRUCTURES)



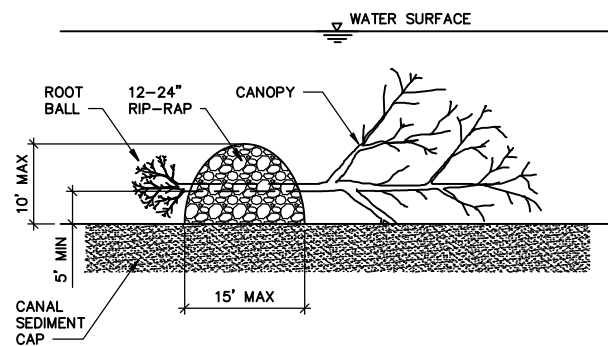
PLAN
ROOT WAD REVETMENT DETAIL 1
NOT TO SCALE



SECTION

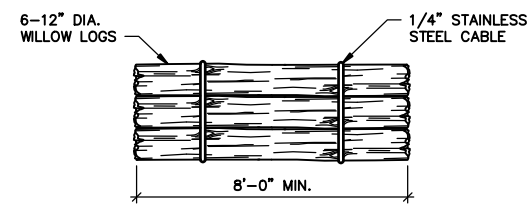


PLAN

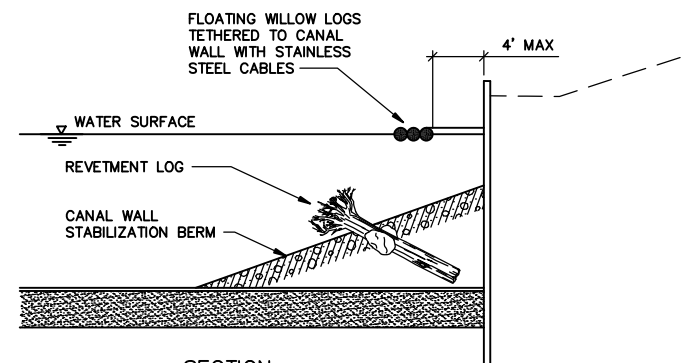


SECTION

FISH HABITAT STRUCTURE DETAIL 2
NOT TO SCALE



PLAN



SECTION

FLOATING WILLOW LOG DETAIL 3
NOT TO SCALE

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PIRNIE**

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NO.	BY	DATE			

DES BG
DWN MAW
CKD KRM

BUFFALO URBAN DEVELOPMENT CORPORATION
**UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT**
NYSOT P.I.N. 5757.98

**AQUATIC HABITAT
PLAN AND DETAILS**
AS NOTED

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DATE AUGUST 2009
GA SHEET 8 OF 8
CAD REF. NO. 4080GALT-3

General Notes

1. ECHO BRIDGE/DECKER, INC. STRONGLY DISCOURAGES THE USE OF WOOD PRODUCTS FOR HAND RAIL AND RUB RAIL APPLICATIONS, DUE TO CRACKING, SPLITTING AND SHRINKAGE ISSUES, PRIMARILY AS A RESULT OF EXPOSURE TO DIRECT SUNLIGHT. AS AN ALTERNATIVE, STEEL MATERIAL IS RECOMMENDED FOR THESE APPLICATIONS. THE CUSTOMER IS ADVISED THAT, SHOULD WOODEN PRODUCTS BE SELECTED FOR THESE APPLICATIONS, ECHO BRIDGE/DECKER, INC. IS, IN NO WAY RESPONSIBLE FOR ANY FAILURE DUE TO CRACKING, SPLITTING OR SHRINKAGE ISSUES, ONCE THE BRIDGE HAS BEEN SHIPPED FROM OUR FACILITY.
2. USE OF DE-ICING AGENTS IS DISCOURAGED.
3. ECHO BRIDGE RESERVES THE RIGHT TO UPGRADE/MODIFY THIS STRUCTURE DURING FABRICATION WITH CUSTOMER APPROVAL.
4. IN THE EVENT THAT THIS PROJECT MAY BE SUBJECT TO THIRD PARTY INSPECTION AS REQUIRED BY A STATE D.O.T., THE CONTRACTOR MUST NOTIFY BOTH ECHO BRIDGE/DECKER, INC. AND SAID D.O.T. IN WRITING TO SCHEDULE THE INSPECTOR FOR NON-DESTRUCTIVE EXAMINATION (NDE) SO THAT FABRICATION MAY COMMENCE UPON RECEIPT OF APPROVED SHOP DRAWINGS.

Anchor Bolts

1. SEE ANCHOR BOLT DETAIL SHEET 5 OF 10. ANCHOR BOLTS AND RELATED HARDWARE TO BE SUPPLIED BY OTHERS.
2. WHERE NOTED AS "EXPANSION", NUTS ON ANCHOR BOLTS SHOULD BE LOOSELY "HAND TIGHTENED" SO AS TO ALLOW THE BEARING PLATE TO SLIDE ON THE BEARING PLATE PAD.

Conformance

1. THIS STRUCTURE CONFORMS TO AASHTO ALLOWABLE STRESS LEVELS AS PER STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AND/OR THE GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES (17th EDITION, AUGUST 1997).
2. ALL TOLERANCES ARE IN ACCORDANCE WITH NYS STEEL CONSTRUCTION MANUAL.

Welding

1. ALL WELDING SHALL BE FLUX CORE ARC WELDING (FCAW) AND CONFORM TO THE REQUIREMENTS OF AWS D11.1/D11.1M:2006 STEEL STRUCTURAL WELDING CODE. ALL WELDING WILL BE PERFORMED BY CERTIFIED WELDERS, QUALIFIED IN ACCORDANCE WITH AWS PROCEDURES.
2. ALL WELDS SHALL BE 3/16 FILLET WELDS UNLESS OTHERWISE NOTED ON THESE DRAWINGS.
3. ALL WELDS TO BE 100% VISUALLY INSPECTED BY A C.W.I. O.C.I. ALL FULL PENETRATION WELDS TO BE UT INSPECTED. 10% OF ALL FILLET WELDS AND 100% OF ALL PARTIAL PENETRATION WELDS TO BE MAGNETIC PARTIAL TESTED.
4. PERSONNEL PERFORMING ULTRASONIC TESTS SHALL BE QUALIFIED UNDER THE NYSDOT ULTRASONIC TESTING TECHNICIAN PROGRAM IN ACCORDANCE WITH THE NYS STEEL CONSTRUCTION MANUAL.

Material

1. ALL STRUCTURAL STEEL FOR WEATHERING BRIDGES SHALL BE ASTM A588, A847, A242, AND A606; STRUCTURAL STEEL FOR PAINTED AND/OR GALVANIZED BRIDGES SHALL ALSO INCLUDE A500 AND A992; STRUCTURAL MEMBERS SHALL BE A MINIMUM YIELD STRENGTH OF 50,000 P.S.I. STRUCTURAL FASTENERS SHALL BE ASTM A325 TYPE 3 BOLTS, A563 GRADE DH3 NUTS, AND F436 TYPE 3 FLAT WASHERS.

2. ALL STRUCTURAL STEEL SHALL RECEIVE 1/4" DIA. DRAIN HOLES TO PREVENT BUILD-UP OF CONDENSATION. LOCATION OF DRAIN HOLES SHALL BE AT FABRICATORS DISCRETION.

3. ALL STEEL SHALL COMPLY WITH "BUY AMERICAN" REQUIREMENTS OF THE SPECIFICATIONS. DOCUMENTATION SHALL BE PROVIDED PRIOR TO SURFACE PREPARATION. ACCEPTANCE OF THE BRIDGE FOR DELIVERY.

1. TO AID IN A UNIFORMLY "WEATHERED" APPEARANCE, ALL EXPOSED STEEL SURFACES SHALL BE BLAST CLEANED TO CONFORM WITH SSPC-SP6 SPECIFICATIONS. EXPOSED SURFACES OF STEEL SHALL BE DEFINED AS THOSE SURFACES SEEN FROM THE DECK AND FROM THE OUTSIDE OF THE STRUCTURE.

Decking

1. DECKING SHALL BE 3 x 8 (NDM), PRESSURE TREATED S.Y.P. AND SHALL HAVE A DIMENSIONAL TOLERANCE OF ±1/8" DECKING SHALL BE PLACED TRANSVERSALLY AND SECURED (2) PLACES AT DECK STRINGERS USING 3/8 x 4 ZINC PLATED CARRIAGE BOLTS W/NUT AND WASHER.

2. AN ISOLATION BARRIER, TITE SEAL SELF ADHESIVE WATERPROOF FLASHING, IS TO BE PLACED BETWEEN DECKING AND STEEL MATING SURFACES TO ELIMINATE MOISTURE AND PREVENT MOLD.

Field Splice Connections

1. FIELD SPLICE CONNECTION BOLTS, SUPPLIED BY ECHO BRIDGE/DECKER, INC., SHALL BE ASTM A325 TYPE 3, 7/8-9 UNC x 2 1/2" AND SHALL BE INSTALLED AND TIGHTENED BY THE BRIDGE ERECTION CONTRACTOR TO 39 KIPS, USING TORQUE WRENCHES CALIBRATED DAILY IN ACCORDANCE WITH NYSSCM.

2. OBSERVATION PLATFORM CONNECTION BOLTS, SUPPLIED BY ECHO BRIDGE/DECKER, INC., SHALL BE ASTM A325 TYPE 3 3/4-9 UNC x 2 1/2" AND SHALL BE INSTALLED AND TIGHTENED BY THE BRIDGE ERECTION CONTRACTOR, USING TORQUE WRENCHES CALIBRATED DAILY IN ACCORDANCE WITH NYSSCM.

Erection and Installation

1. A REPRESENTATIVE OF ECHO BRIDGE/DECKER INC. SHALL BE PRESENT WHEN THE BRIDGE IS DELIVERED AND INSTALLATION COMMENCES TO ENSURE PROPER INSTALLATION.

2. ECHO BRIDGE, INC. IS AVAILABLE TO ASSIST THE CONTRACTOR IN DEVELOPING AN ERECTION PLAN, HOWEVER THE APPROVAL AND EXECUTION OF SAID PLAN REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

ECHO
BRIDGE

ECHO BRIDGE, INC

123 Bob Masia Drive
Pine City, NY 14871
1-888-327-4343

ECHO BRIDGE PROJECT #: 999-E

CUSTOMER NAME: MAN O' TREES

CUSTOMER ADDRESS: 1500 UNION ROAD, SUITE 210

WEST SENECA, NY 14224

INDEX

SHEET #	DESCRIPTION
1	TITLE SHEET
2	PLAN & ELEVATIONS
3	SECTIONS & DETAILS
4	TYPICAL DETAILS
5	BEARING DETAILS
6	LAYOUT
7	MATERIAL CUT SHEET
8	MATERIAL CUT SHEET
9	MATERIAL CUT SHEET
10	MATERIAL CUT SHEET

THE PEDESTRIAN BRIDGE CONSTRUCTION IS IN CONFORMANCE WITH THE SHOP DRAWINGS SUBMITTED BY ECHO BRIDGE, INC.; AND APPROVED BY ABATE ASSOCIATES ENGINEERS & SURVEYORS, P.C. ON 04/15/11.

AS-BUILT

OWNERS NAME: BUFFALO URBAN DEVELOPMENT CORPORATION

PROJECT NAME: UNION SHIP CANAL PEDESTRIAN BRIDGE

LOCATION: CITY OF BUFFALO, NY

☐ APPROVED ☐ NOT APPROVED
☒ APPROVED AS CORRECTED ☐ NOTED
☐ REVISE AND RESUBMIT

Checking is only for conformance with the design concept of the project and complies with the information given in the Contract Documents. Contractor is responsible for field notes to be confirmed and correlated at the job site for information that pertains solely to the technical processes or to techniques of construction and for coordination of the work of all trades.

BY: *[Signature]*
DATE: 4-15-2011

ABATE ASSOCIATES
ENGINEERS & SURVEYORS, P.C.
BUFFALO, NEW YORK 14225

BILL OF MATERIALS									
SHOP MARK	QTY	ITEM DESCRIPTION	MATERIAL DESCRIPTION	LENGTH			WEIGHT		
TUBE				FEET	INCHES	TOTAL	LBS /FT.	TOTAL	
TC-1	4	Top Chord	12 x 12 x 3/8	69'	6"	278'-0"	58.10	16151.80	
TC-2	2	Top Chord	12 x 12 x 3/8	62'	6"	125'-0"	58.10	7262.50	
BC-1	4	Bottom Chord	12 x 12 x 3/8	69'	6"	278'-0"	58.10	16151.80	
BC-2	2	Bottom Chord	12 x 12 x 3/8	62'	6"	125'-0"	58.10	7262.50	
V-1	4	End Vertical	12 x 12 x 3/8	12'	10"	51'-4"	58.10	2982.47	
V-2	48	Internal Vertical	8 x 4 x 1/4	10'	7"	508'-0"	19.02	9662.16	
V-15	2	Middle Vertical	8 x 4 x 1/4	1'	6"	3'-0"	19.02	57.06	
D-1	28	Diagonal	4 x 4 x 1/4	12'	9"	357'-0"	12.21	4358.97	
D-2	20	Diagonal	4 x 4 x 1/4	12'	10"	256'-8"	12.21	3133.90	
D-3	4	Diagonal	4 x 4 x 1/4	12'	8"	50'-8"	12.21	618.64	
WB-1	2	Wind Brace	4 x 4 x 1/4	9'	3"	18'-6"	12.21	225.89	
WB-2	2	Wind Brace	4 x 4 x 1/4	9'	0"	18'-0"	12.21	219.78	
WB-3	18	Wind Brace	4 x 4 x 1/4	9'	1"	163'-6"	12.21	1996.34	
WB-4	4	Wind Brace	4 x 4 x 1/4	8'	10"	35'-4"	12.21	431.42	
OB-1	25	Overhead Brace	6 x 4 x 1/4	10'	0"	250'-0"	15.62	3905.00	
LB-1	26	Overhead Lateral Brace	6 x 4 x 1/4	9'	0"	234'-0"	15.62	3655.08	
PV-1	6	Platform Vertical	3 x 3 x 1/4	5'	9"	34'-6"	3.26	112.47	
PV-2	8	Platform Vertical	3 x 3 x 1/4	4'	3 1/2"	34'-4"	3.26	111.93	
PT	2	Platform Transition Piece	8 x 4 x 1/4	5'	0"	10'-0"	19.02	190.20	

Total Tube Weight = 78490 lbs

ANGLE				FEET	INCHES	TOTAL	LBS /FT.	TOTAL
DE-1	4	Deck Edge	3 x 3 x 1/4	28'	8"	114'-8"	4.90	561.87
DE-2	4	Deck Edge	3 x 3 x 1/4	69'	7"	278'-4"	4.90	1363.83
PDE-1	2	Platform Deck Edge	3 x 3 x 1/4	15'	5"	30'-10"	4.90	151.08
PDE-2	4	Platform Deck Edge	3 x 3 x 1/4	5'	5 1/2"	21'-10"	4.90	106.98
PDE-3	4	Platform Deck Edge	3 x 3 x 1/4	3'	0"	12'-0"	4.90	58.80

Total Angle Weight = 2243 lbs

CHANNEL & BEAM				FEET	INCHES	TOTAL	LBS /FT.	TOTAL
V-3	8	Splice Vertical	C8 x 13.75	10'	7"	84'-8"	13.75	1164.17
FB-1	2	End Floor Beam	W10 x 17	10'	0"	20'-0"	17.00	340.00
FB-2	23	Internal Floor Beam	W10 x 17	10'	4"	237'-8"	17.00	4040.33
FB-3	4	Splice Floor Beam	C10 x 20	10'	3"	41'-0"	20.00	820.00
OB-2	4	Splice Overhead Brace	C6 x 8.2	10'	0"	40'-0"	8.20	328.00
FS-1	10	Deck Stringer	C4 x 7.25	62'	3"	622'-6"	7.25	4513.13
FS-2	5	Deck Stringer	C4 x 7.25	70'	10"	354'-2"	7.25	2567.71
PFB	6	Platform Floor Beam	W10 x 22	3'	0"	18'-0"	22.00	396.00
PS	4	Platform Stringer	C4 x 7.25	15'	11"	63'-8"	7.25	461.58

Total Channel Weight = 14631 lbs

PLATE				WIDTH	LENGTH	TOTAL	LBS /Sq. Ft.	TOTAL
VC-1	4	Vertical End Cap	1/4	11 3/4"	11 3/4"	4 Sq. Ft.	10.21	39.16
VC-2	20	Vertical End Cap	1/4	2 3/4"	2 3/4"	1 Sq. Ft.	10.21	10.72
	60	Hand Rail Bracket	1/4			16 Sq. Ft.	10.21	164.85
SP	16	Splice Plate	1	8 1/2"	41"	39 Sq. Ft.	40.84	1581.42
	32	Splice Plate Components	3/16	8 1/2"	40"	76 Sq. Ft.	7.66	578.76

Total Plate Weight = 2375 lbs

LUMBER				FEET	INCHES	TOTAL	LBS / LINEAR FT.	TOTAL
DK-1		Deck	3 x 8 (Nom) x 10' SYP			#####		#####

Total Lumber Weight = #####

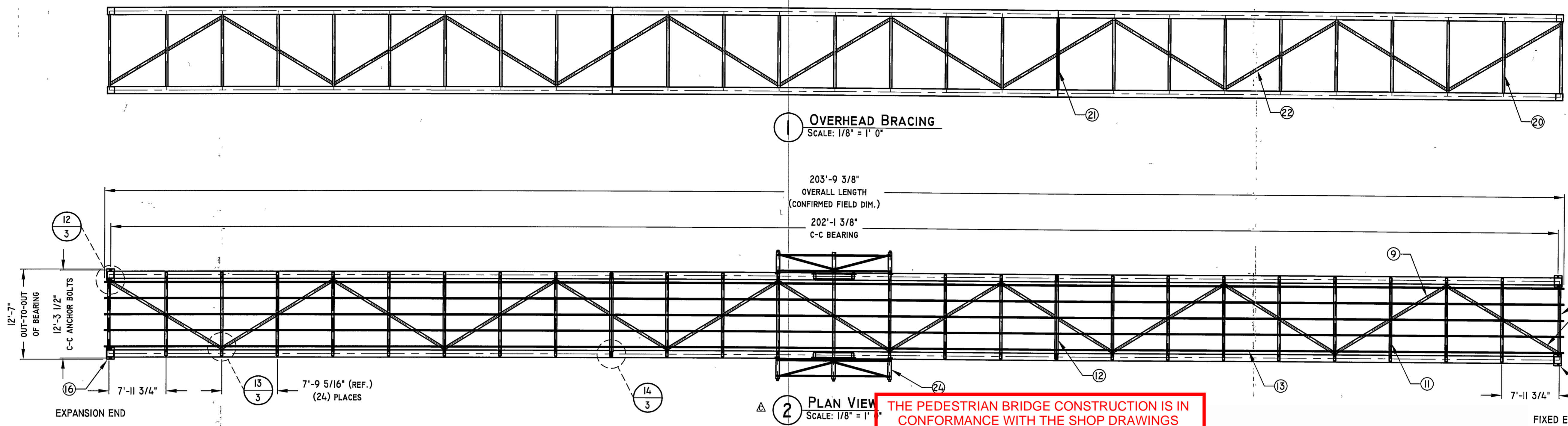
MISC.				FEET	INCHES	TOTAL	LBS /FT.	TOTAL
SR-1	1	Safety Rail	Ø2.5 Schedule 40 Galv. Pipe	3100'	0"	3100'-0"	5.79	17949.00

Total Misc Weight = 17949 lbs

Total Matenal Weight = 115687 Lbs

NOTE
THIS INFORMATION IS FOR MATERIAL ESTIMATING ONLY
FOR ACTUAL ITEM DIMENSIONS, SEE CUT SHEET(S)

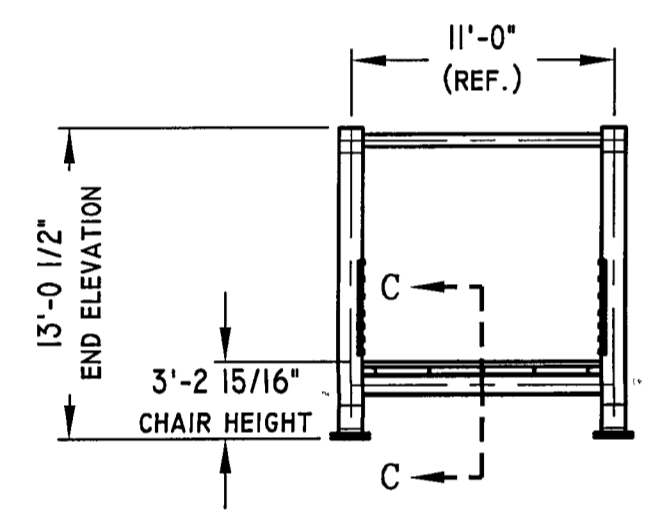
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THIS BRIDGE STRUCTURE SHALL NOT BE FIELD MODIFIED IN ANY MANNER AND SHALL NOT BE USED FOR CONSTRUCTION UNLESS OTHERWISE INDICATED BY ECHO BRIDGE, INC.



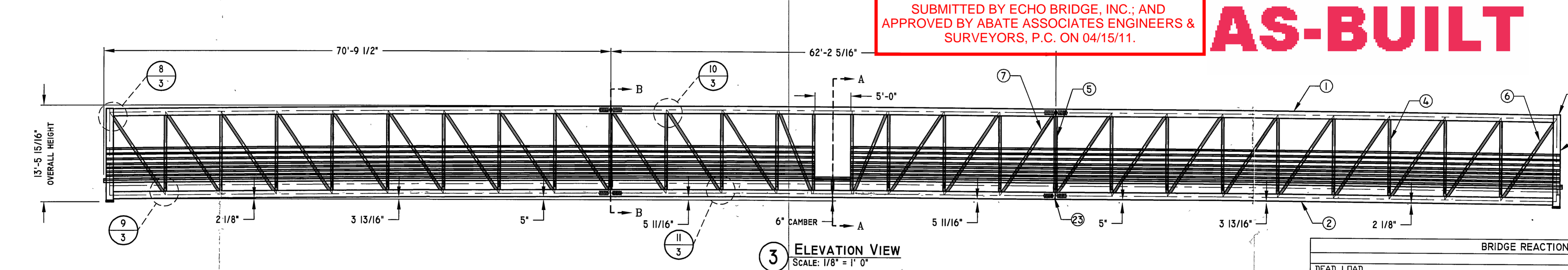
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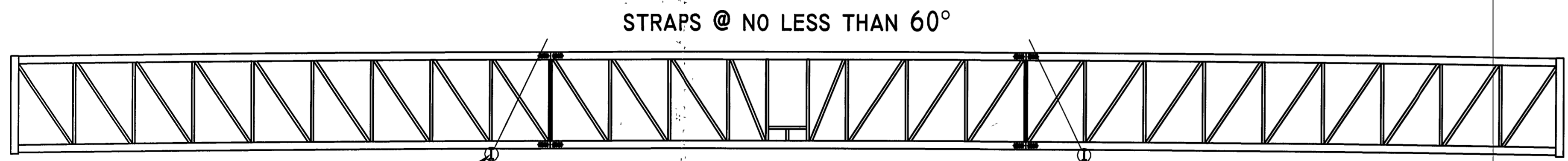
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 APPROVED AS CORRECTED ☐
 REVISE AND RESUBMIT ☐
 Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. The Contractor is responsible for compliance with the information given in the Contract Documents. The Contractor is responsible for the job site for information techniques of construction and for coordination of the work of all trades.
 BY: *[Signature]*
 DATE: 4-15-2011
 ABATE ASSOCIATES
 ENGINEERS & SURVEYORS, P.C.
 BUFFALO, NEW YORK 14226



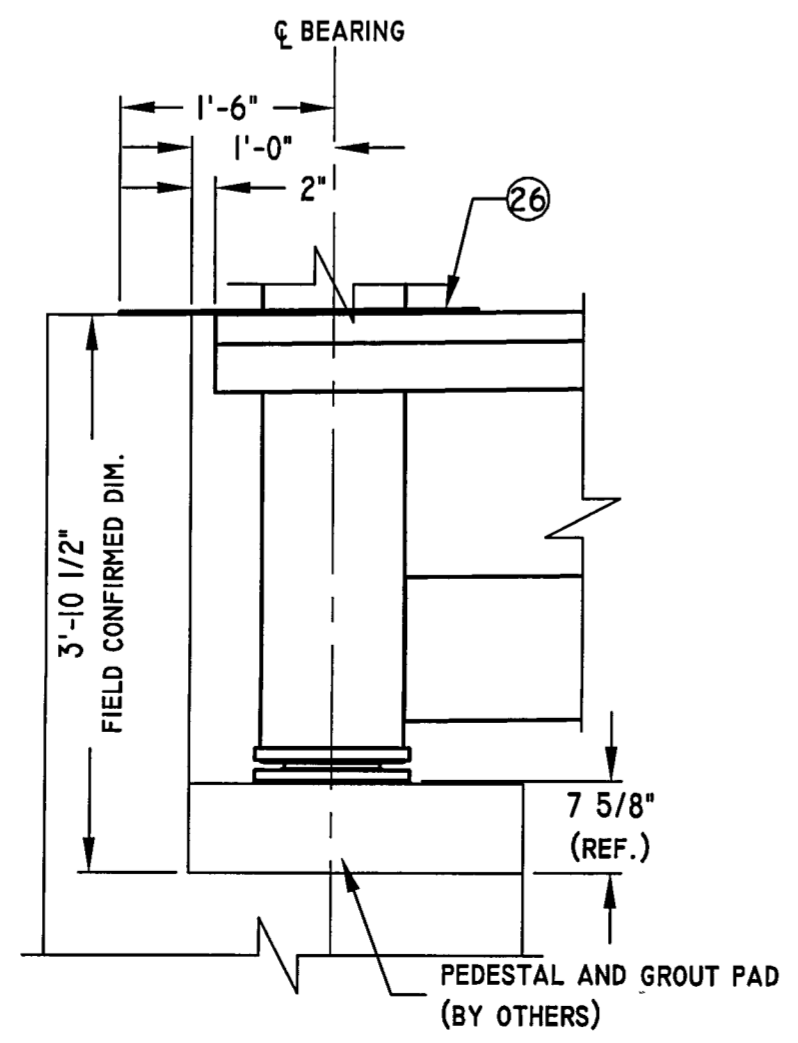
4 END VIEW
SCALE: 1/8" = 1' 0"



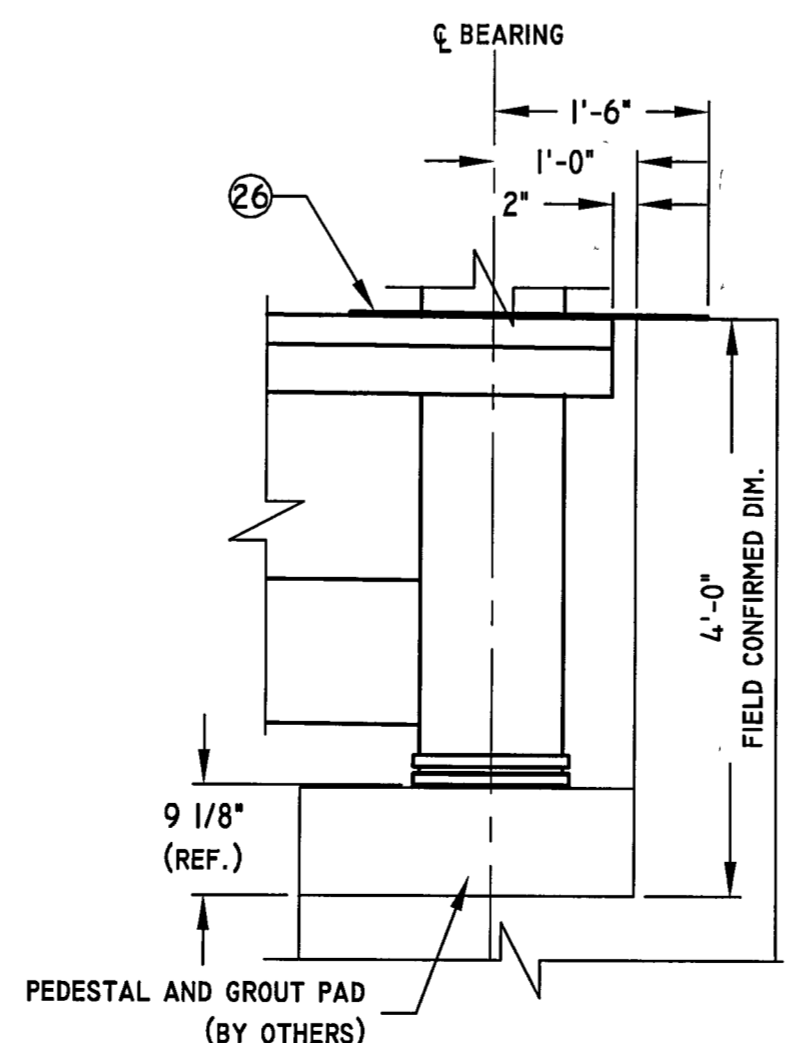
3 ELEVATION VIEW
SCALE: 1/8" = 1' 0"



3A LIFTING DIAGRAM
SCALE: 3/32" = 1' 0"



3B NORTH BRIDGESEAT (EXPANSION END)
SCALE: 3/4" = 1' 0"



3C SOUTH BRIDGESEAT (FIXED END)
SCALE: 3/4" = 1' 0"



SCHEDULE OF MEMBERS					
ITEM NUMBER	SHOP MARK	QNT'Y	ITEM DESCRIPTION	MATERIAL SIZE	MATERIAL SHAPE
①	TC-1	6	Top Chord	12 x 12 x 3/8	Tube Steel
②	BC-1	6	Bottom Chord	12 x 12 x 3/8	Tube Steel
③	V-1	4	End Vertical	12 x 12 x 3/8	Tube Steel
④	V-2	48	Internal Vertical	8 x 4 x 1/4	Tube Steel
⑤	V-3	8	Splice Vertical	C8 x 13.75	Channel
⑥	D-1	36	End Diagonal	4 x 4 x 1/4	Tube Steel
⑦	D-2	16	Internal Diagonal	4 x 4 x 1/4	Tube Steel
⑧	WB-1	2	End Wind Brace	4 x 4 x 1/4	Tube Steel
⑨	WB-2	24	Internal Wind Brace	4 x 4 x 1/4	Tube Steel
⑩	FB-1	2	End Floor Beam	W10 x 17	Wide Flange Beam
⑪	FB-2	23	Internal Floor Beam	W10 x 17	Wide Flange Beam
⑫	FB-3	4	Splice Floor Beam	C10 x 20	Channel
⑬	FS-1	5	Deck Stringer	C4 x 7.25	Channel
⑭	DE-1	2	Deck Edge	3 x 3 x 1/4	Angle
⑮	BP-1	2	Bearing Assembly - Fixed		
⑯	BP-2	2	Bearing Assembly - Expansion		
⑰	VC-1	4	Vertical End Cap	11.75 x 9.75 x 1/4	Plate
⑱	SR-1		Safety Rail	Ø2 5 Schedule 40	Galvanized Pipe (non domestic)
⑲	DK-1		Deck	3 x 8 (Nom) x 10'	Southern Yellow Pine
㉔	OB-1	25	Overhead Bracing	6 x 4 x 1/4	Tube Steel
㉕	OB-2	4	Overhead Splice Bracing	C6 x 8.2	Channel
㉖	LB-1	26	Overhead Lateral Bracing	4 x 4 x 1/4	Tube Steel
㉗	SP-1	8	Top Chord Splice Assembly		Plate
㉘		2	Observation Platform		
㉙		4	Top Chord Reinforcement Plate	1/4	Plate
㉚		2	Cover Plate	30 x 120 x 3/8	Stainless Steel Diamond Plate

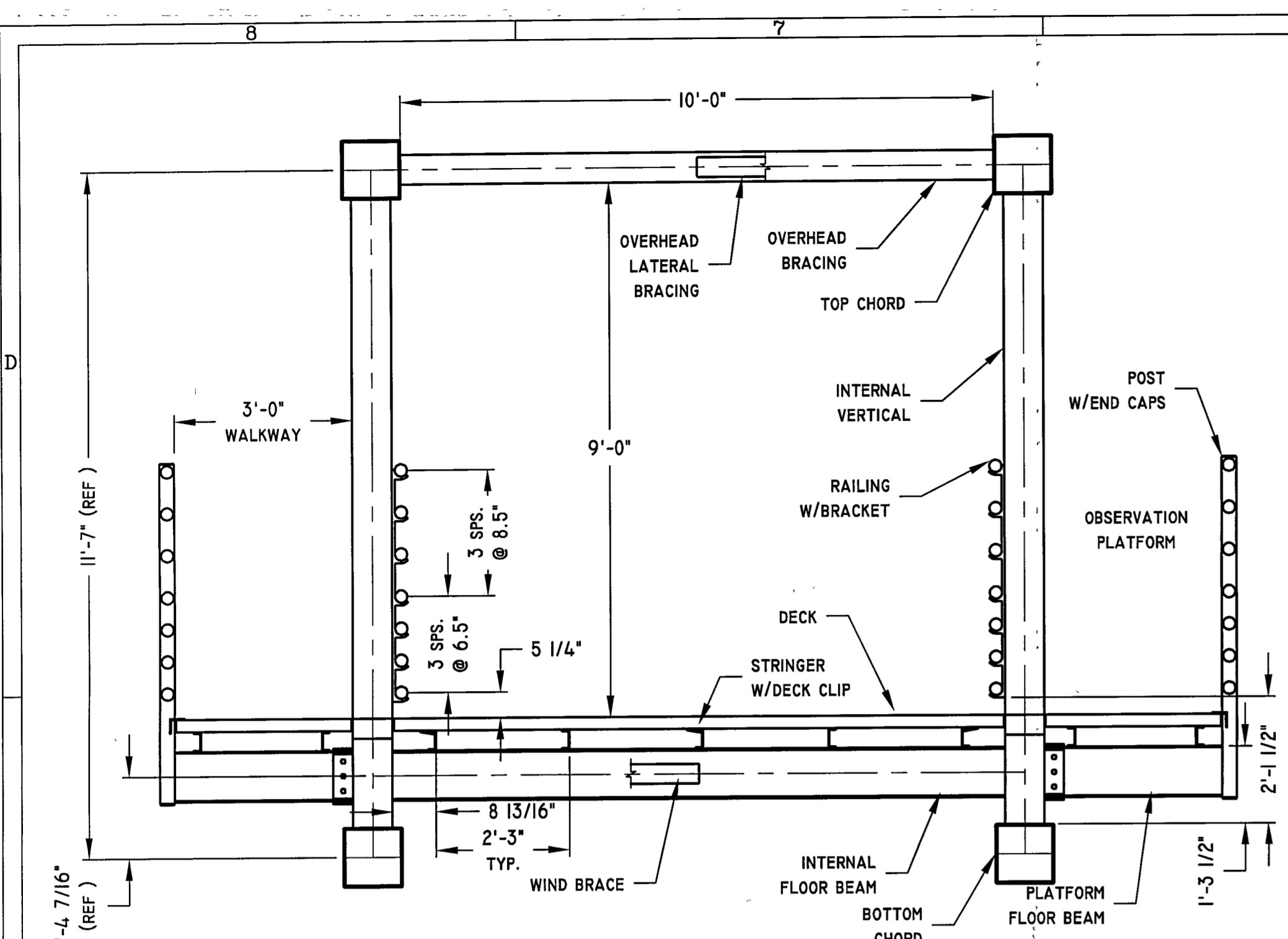
BRIDGE REACTIONS			
	P (LBS)	H (LBS)	L (LBS)
DEAD LOAD	31,971		
UNIFORM LIVE LOAD (RATED FOR 85 PSF)	34,397		
VEHICLE LOAD: H-S	2570		
WIND UPLIFT @ 20 PSF	15,150		
WIND: @ 35 PSF	5050		
THERMAL		± 40,948	3198
BRIDGE LIFTING WEIGHT = 127,741 LBS.			
THERMAL EXPANSION (BASED ON A SEASONAL TEMPERATURE VARIATION OF 120° F.) = 1.89"			
P = VERTICAL LOAD @ EACH BEARING PLATE (4 TOTAL)			
H = HORIZONTAL LOAD @ EACH FOOTING (2 PER BRIDGE, 1 @ EACH END)			
L = LONGITUDINAL LOAD @ EACH FIXED BEARING PLATE (2 PER BRIDGE)			
+ = DOWNWARD LOAD			
- = UPWARD LOAD			

TOLERANCES		FABRICATION	
± 1/16" (Ø62) ON MEMBERS LESS THAN 30"		± 1/4" (25) ON VERT. & DIAG. PLACEMENTS	
± 1/8" (125) ON MEMBERS GREATER THAN 30"		± 1/4" (25) FOR EVERY 100 FEET IN LENGTH	
± 0.5 DEGREES ON ANGLES		± 0.5 DEGREES ON ANGLES	
		± L/500 FOR CAMBER	

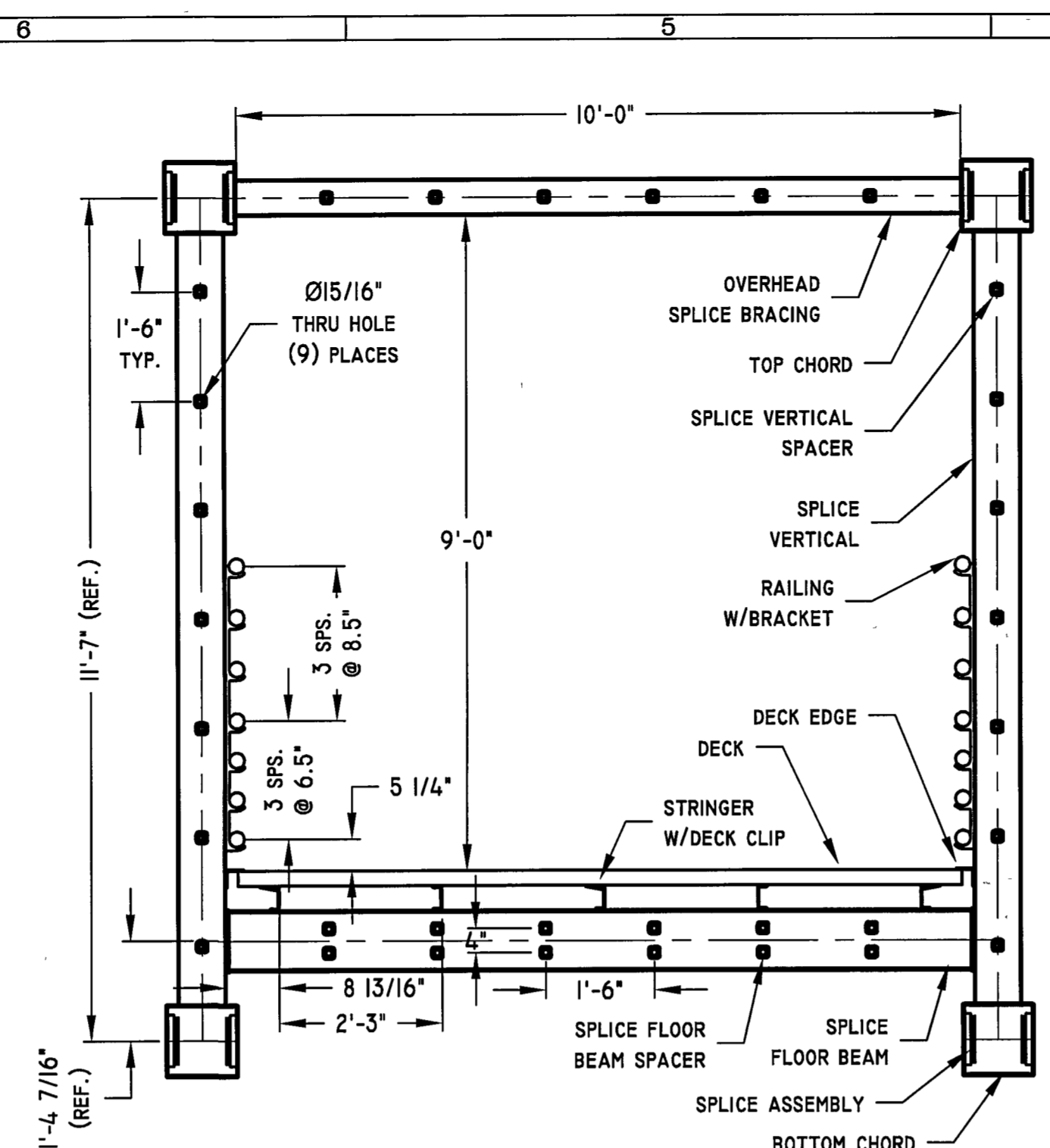
CUSTOMER APPROVAL		ENGINEERS STAMP	
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<input type="checkbox"/> APPROVED AS NOTED			
<input type="checkbox"/> NOT APPROVED			
<input type="checkbox"/> REVISE AND RESUBMIT			

REV	REV. DATE	DESCRIPTION	BY
1	3/17/11	Revised bearing assembly, chord material size	MLD
2	11/17/10	Add wind bracing to observation platforms, lifting diagram	MLD
3	9/13/10	Address comments	MLD

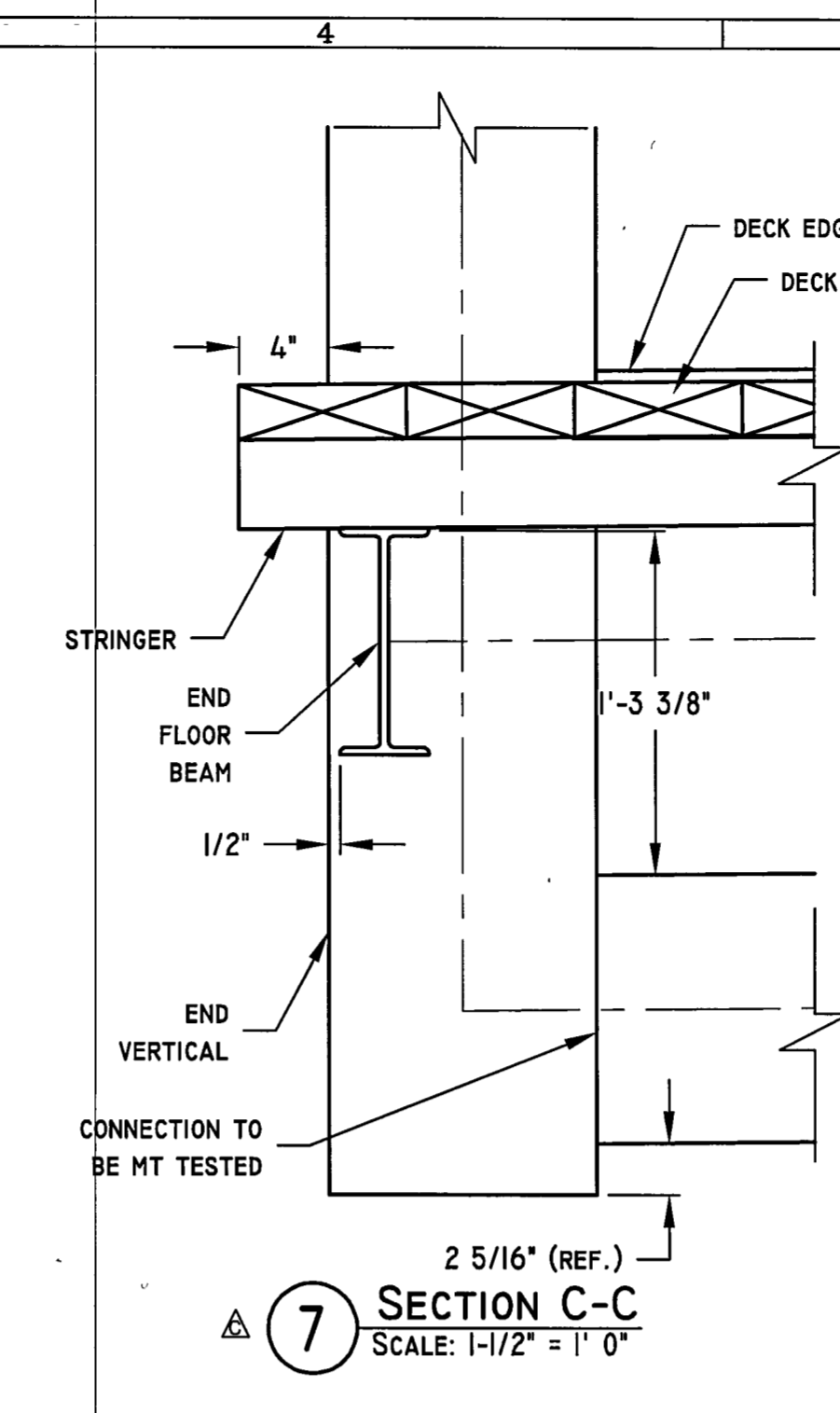
		ECHO BRIDGE, INC 123 Bob Masia Drive Pine City, NY 14871 1-888-327-4343			<u>QUALITY CERTIFICATION</u> SIMPLE BRIDGE MAJOR BRIDGE
JOB TITLE: UNION SHIP CANAL PEDESTRIAN BRIDGE				DRAWN BY: MLD	
CUSTOMER: MAN O'TREES				CHECKED BY:	
LOCATION: 1500 UNION ROAD, SUITE 201 WEST SENECA, NY 14224				CREATION DATE: 7/1/10	
DRAWING TITLE: PLAN & ELEVATIONS					
DRAWING # 999-E				SHEET 2 OF 10	
				REV C	



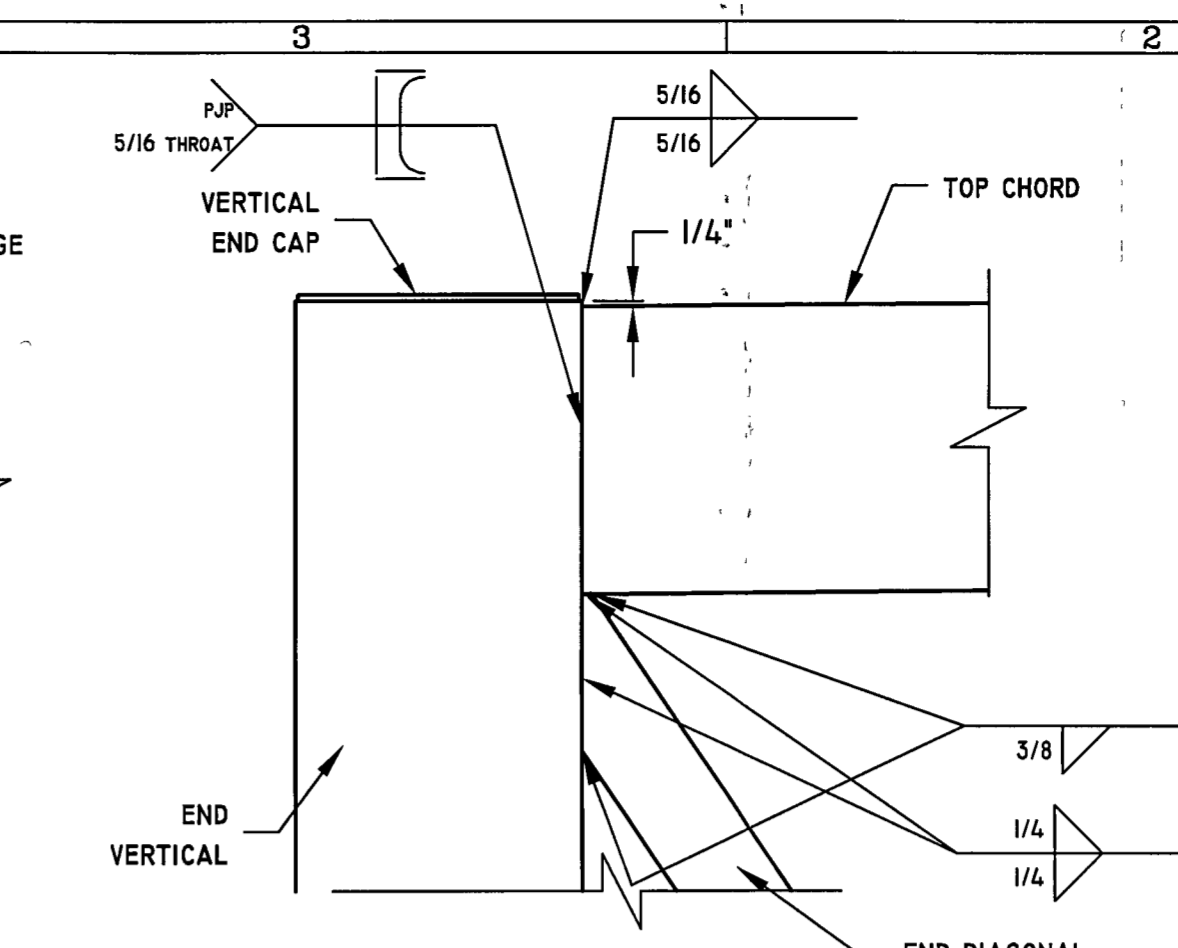
5 SECTION A-A
SCALE: 1/2" = 1' 0"



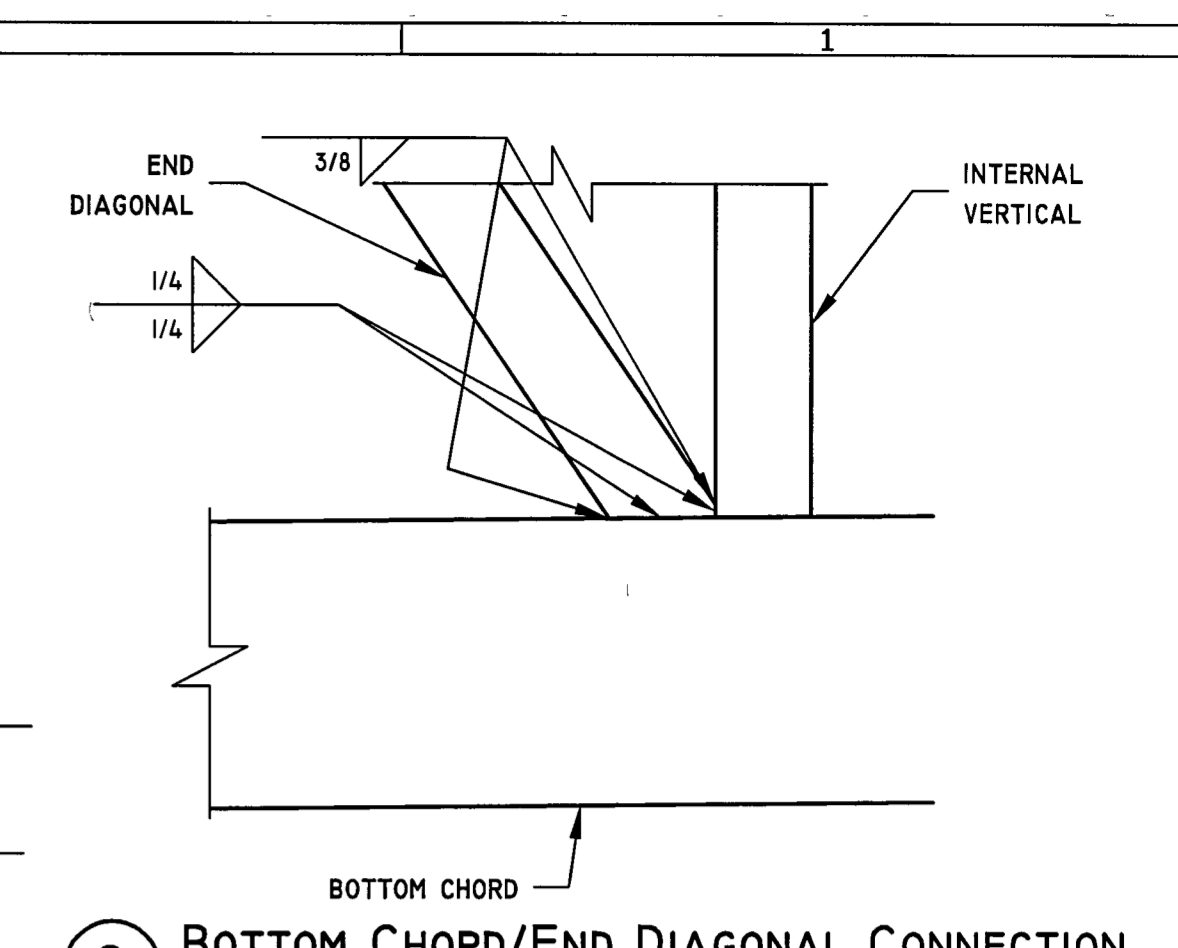
6 SECTION B-B
SCALE: 1/2" = 1' 0"



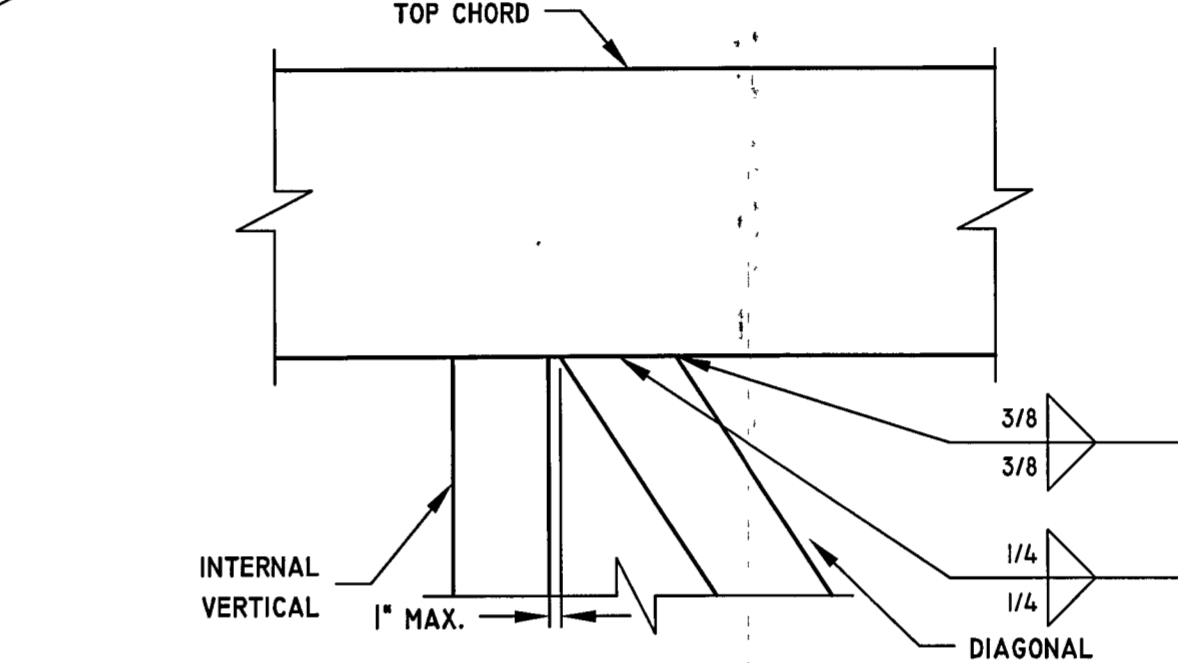
7 SECTION C-C
SCALE: 1-1/2" = 1' 0"



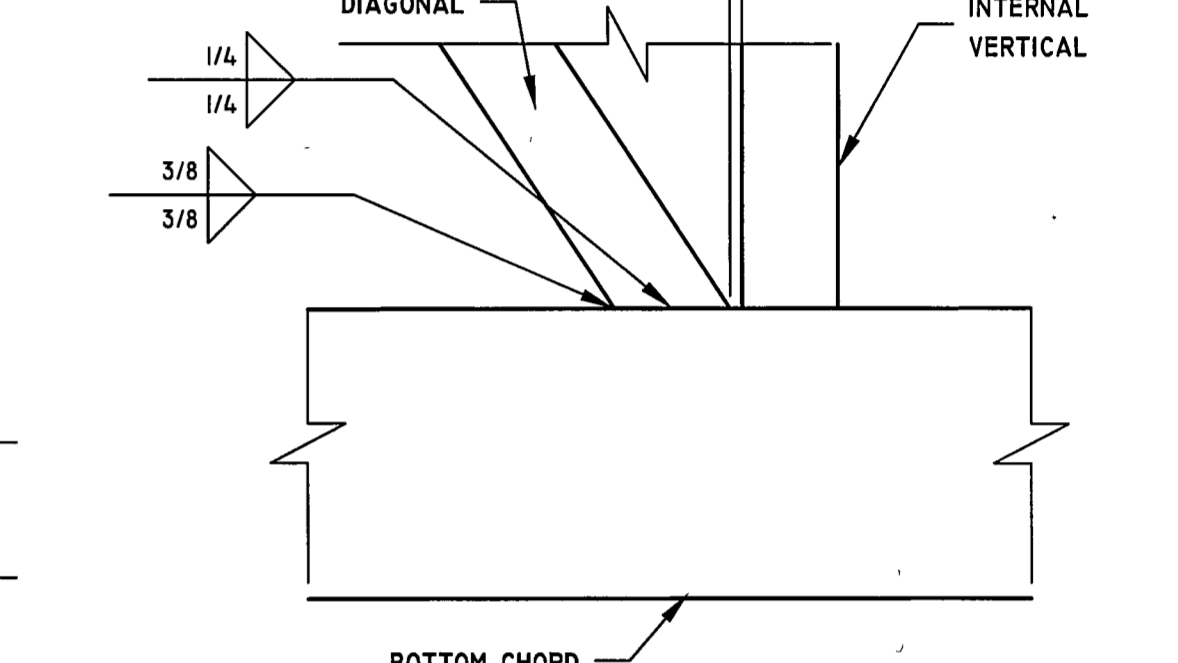
8 TOP CHORD/END DIAGONAL CONNECTION
SCALE: 1 1/2" = 1' 0"



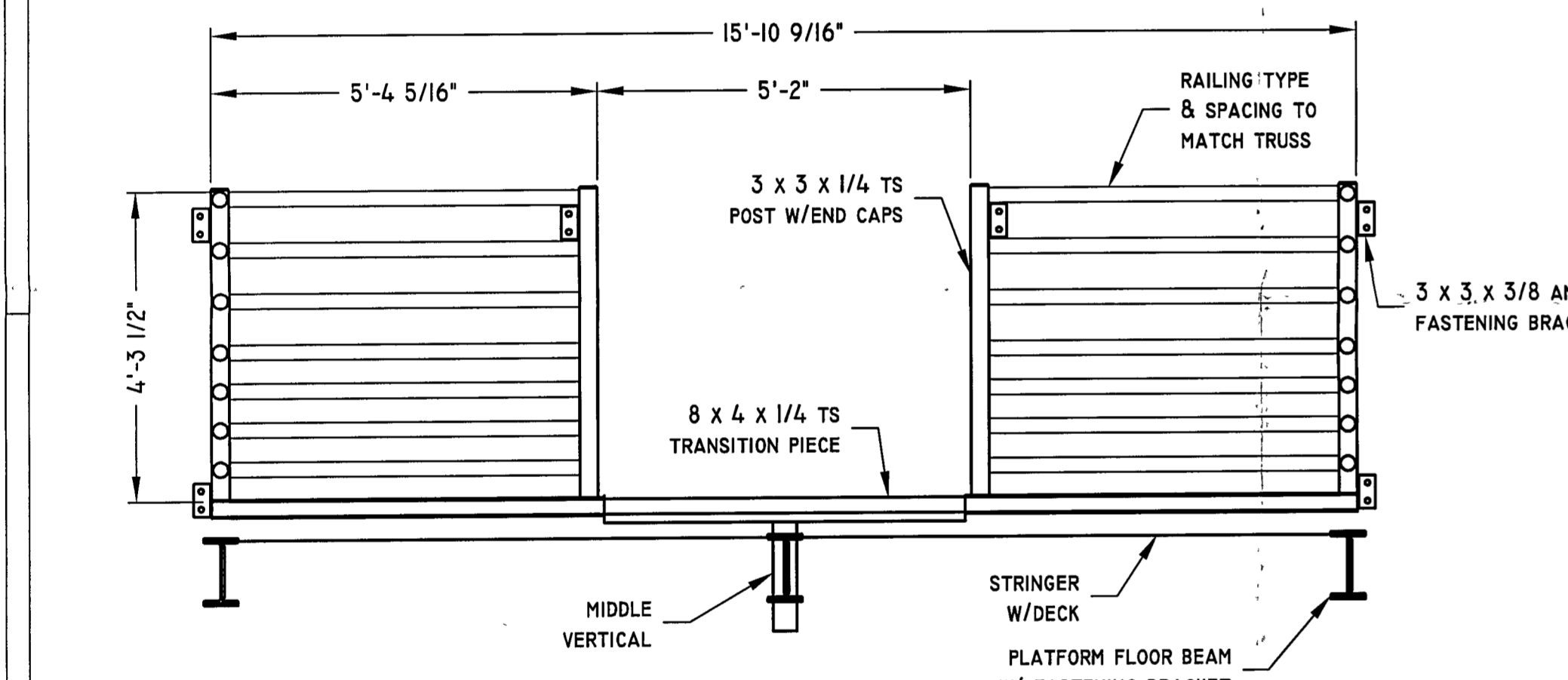
9 BOTTOM CHORD/END DIAGONAL CONNECTION
SCALE: 1 1/2" = 1' 0"



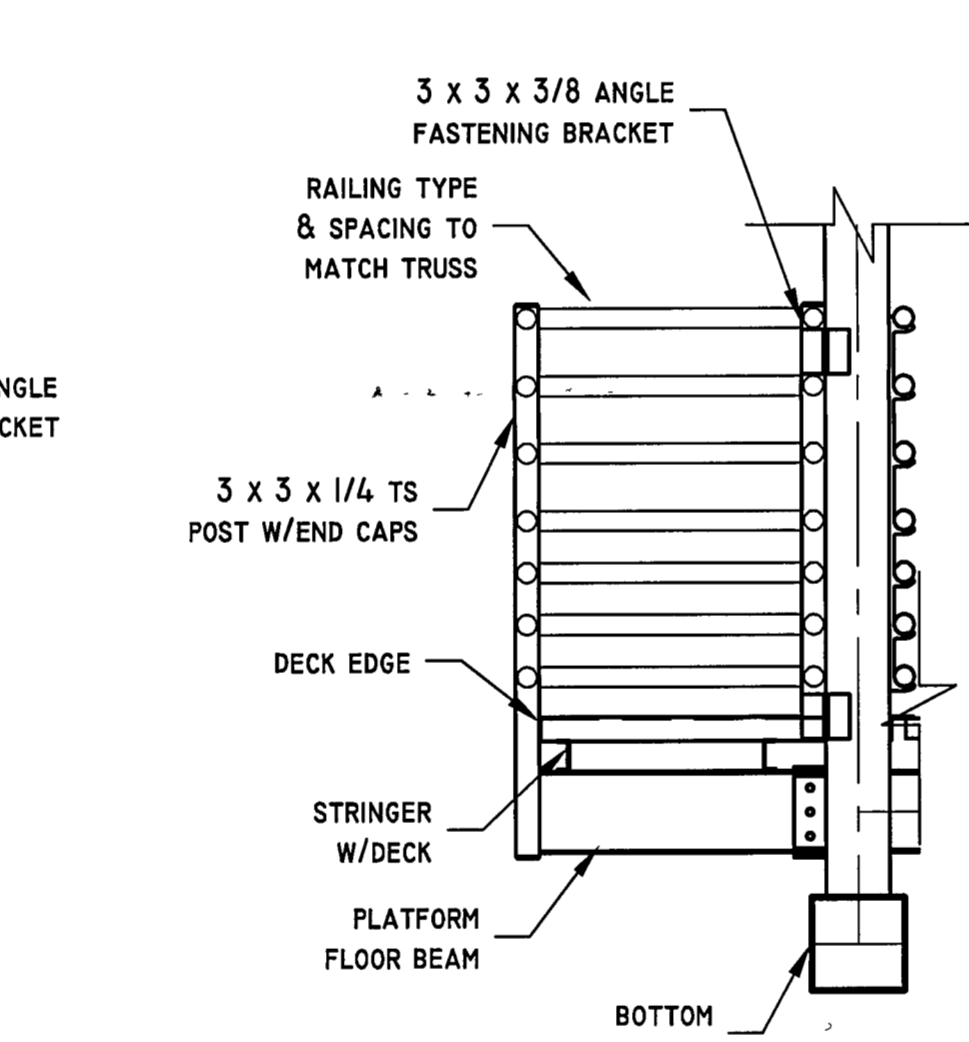
10 TOP CHORD/DIAGONAL CONNECTION
SCALE: 1 1/2" = 1' 0"



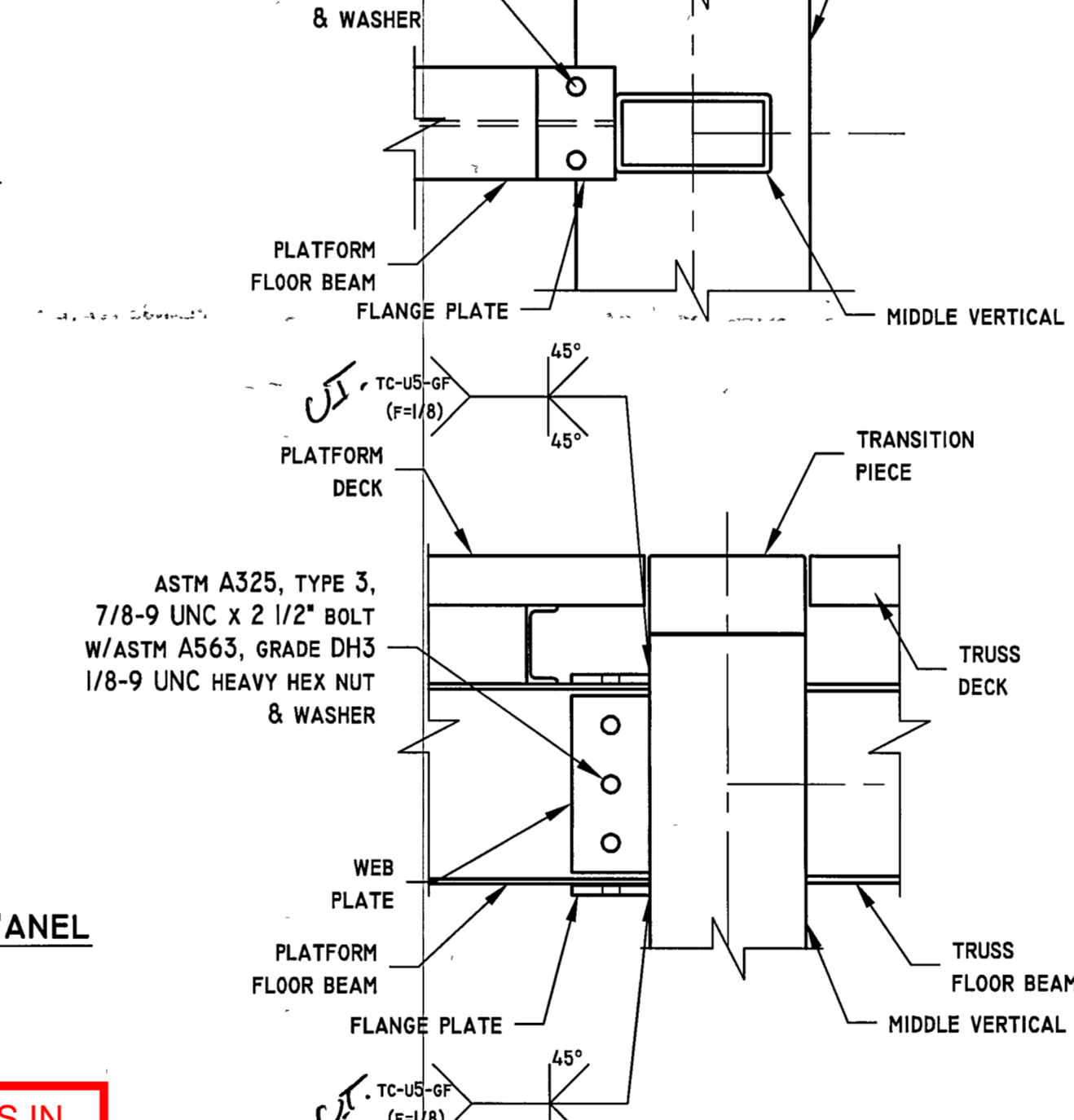
11 BOTTOM CHORD/DIAGONAL CONNECTION
SCALE: 1 1/2" = 1' 0"



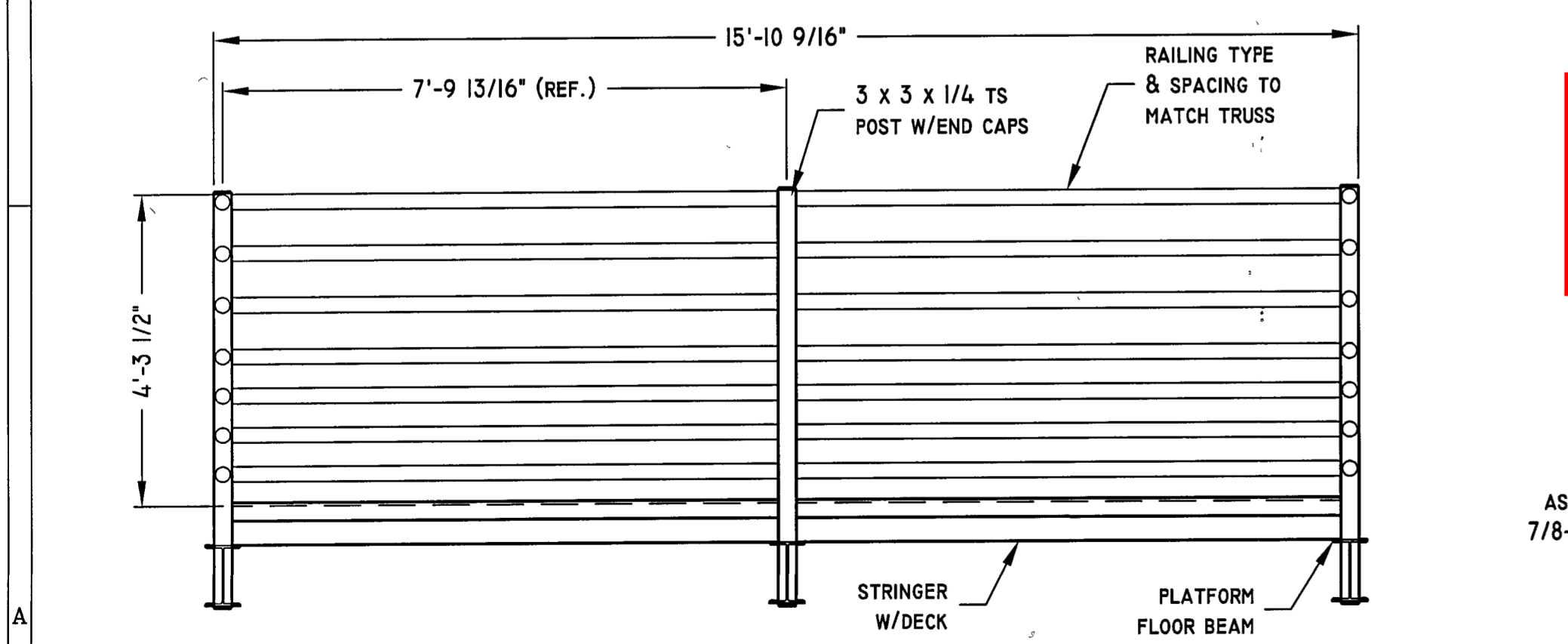
14 OBSERVATION PLATFORM REAR PANELS
SCALE: 1/2" = 1' 0"



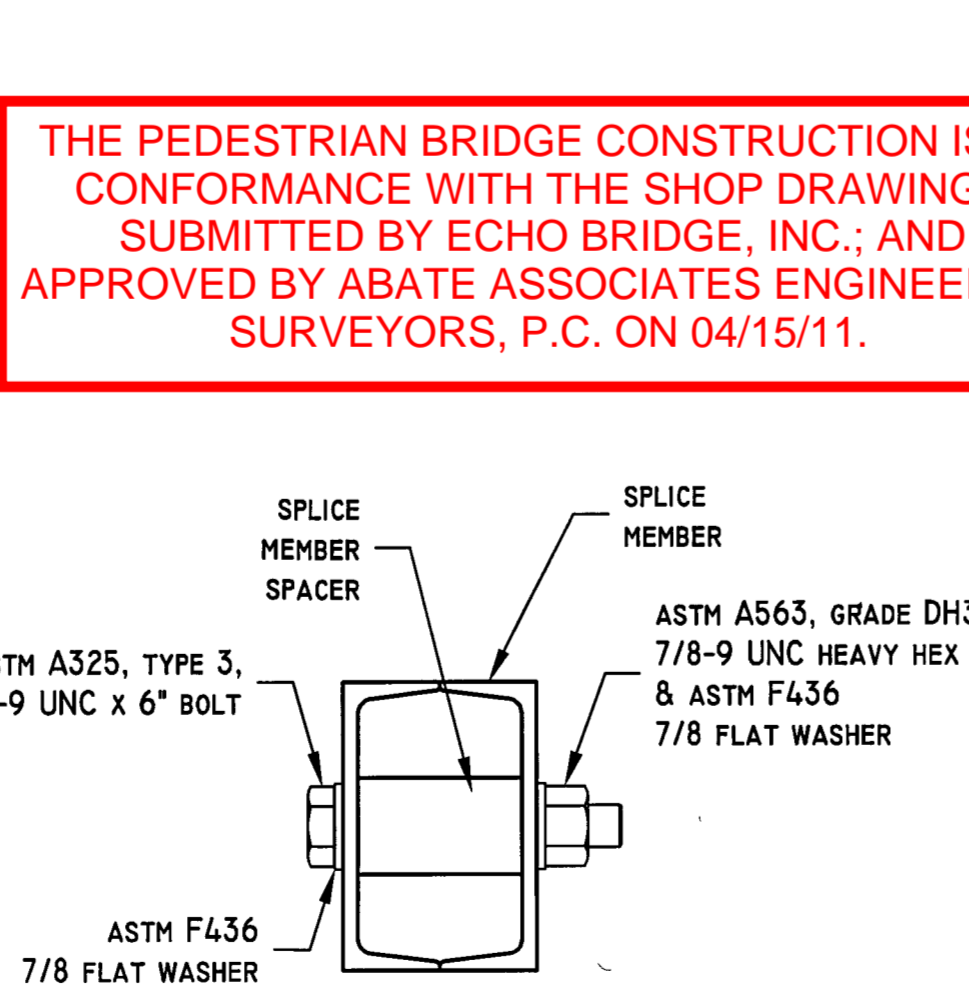
16 OBSERVATION PLATFORM SIDE PANEL
SCALE: 1/2" = 1' 0"



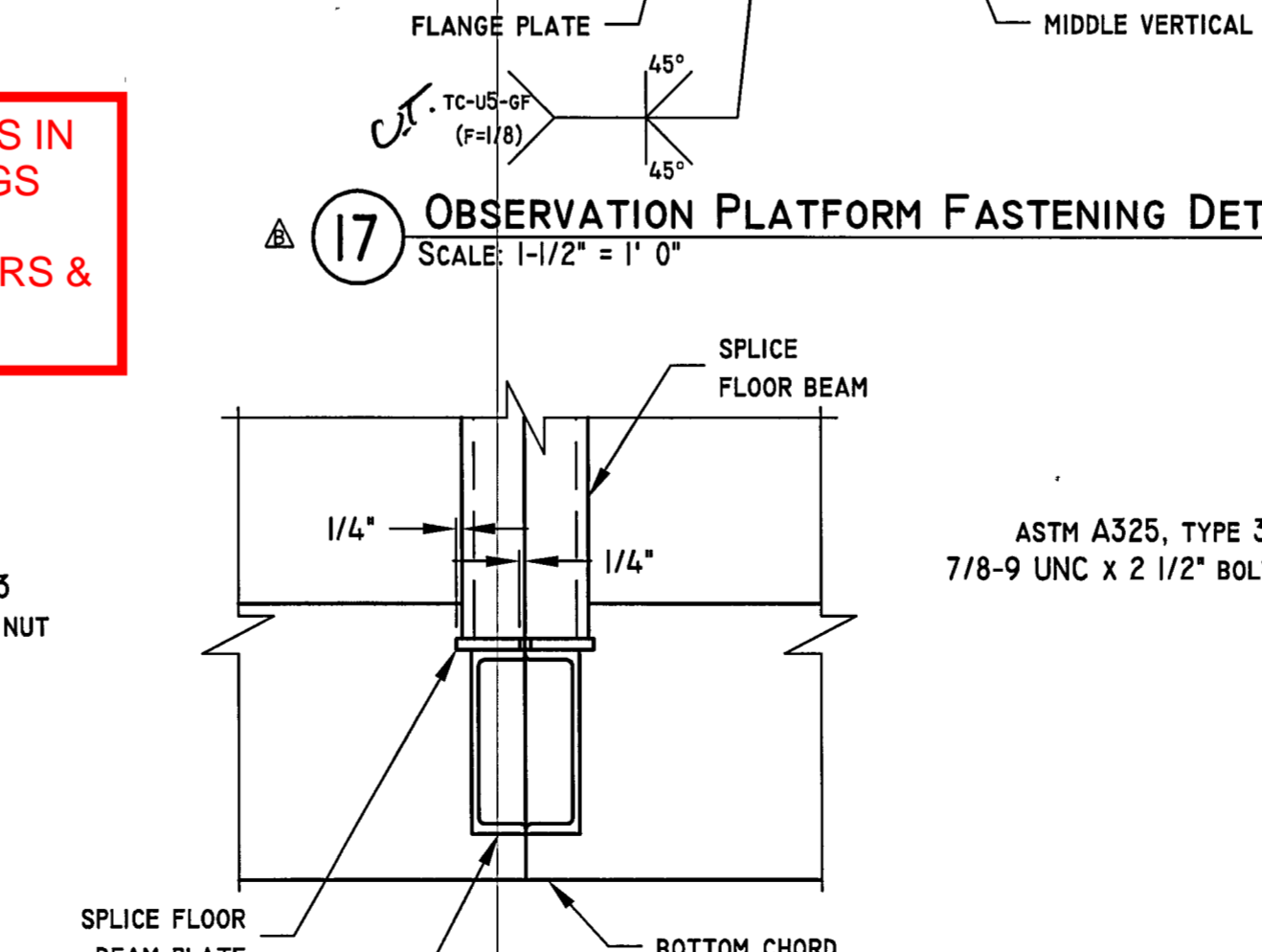
17 OBSERVATION PLATFORM FASTENING DETAIL
SCALE: 1-1/2" = 1' 0"



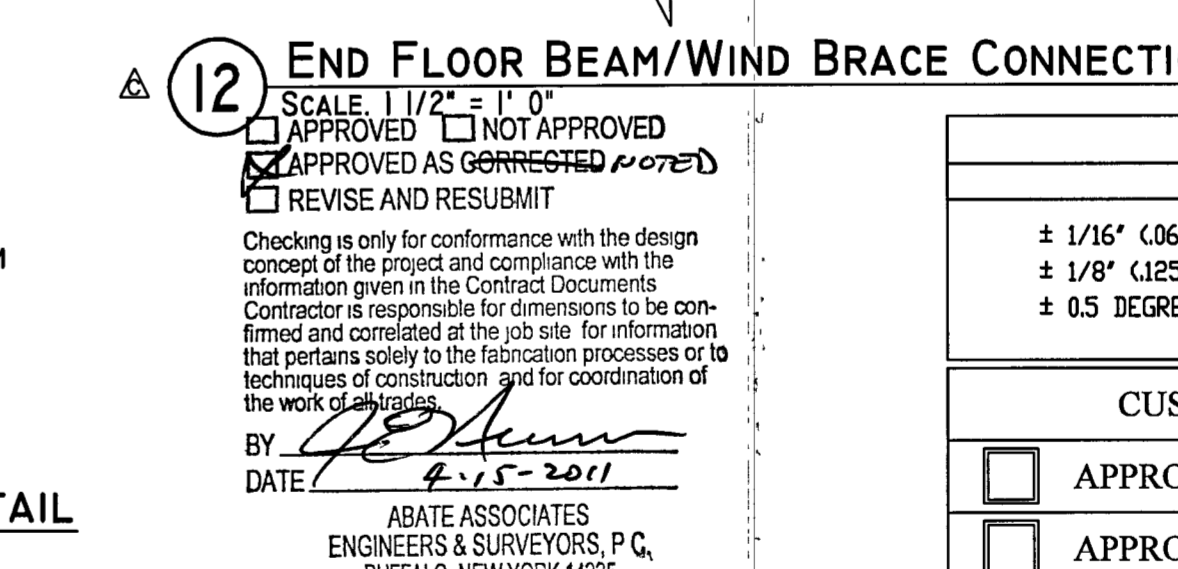
15 OBSERVATION PLATFORM OUTER PANEL
SCALE: 1/2" = 1' 0"



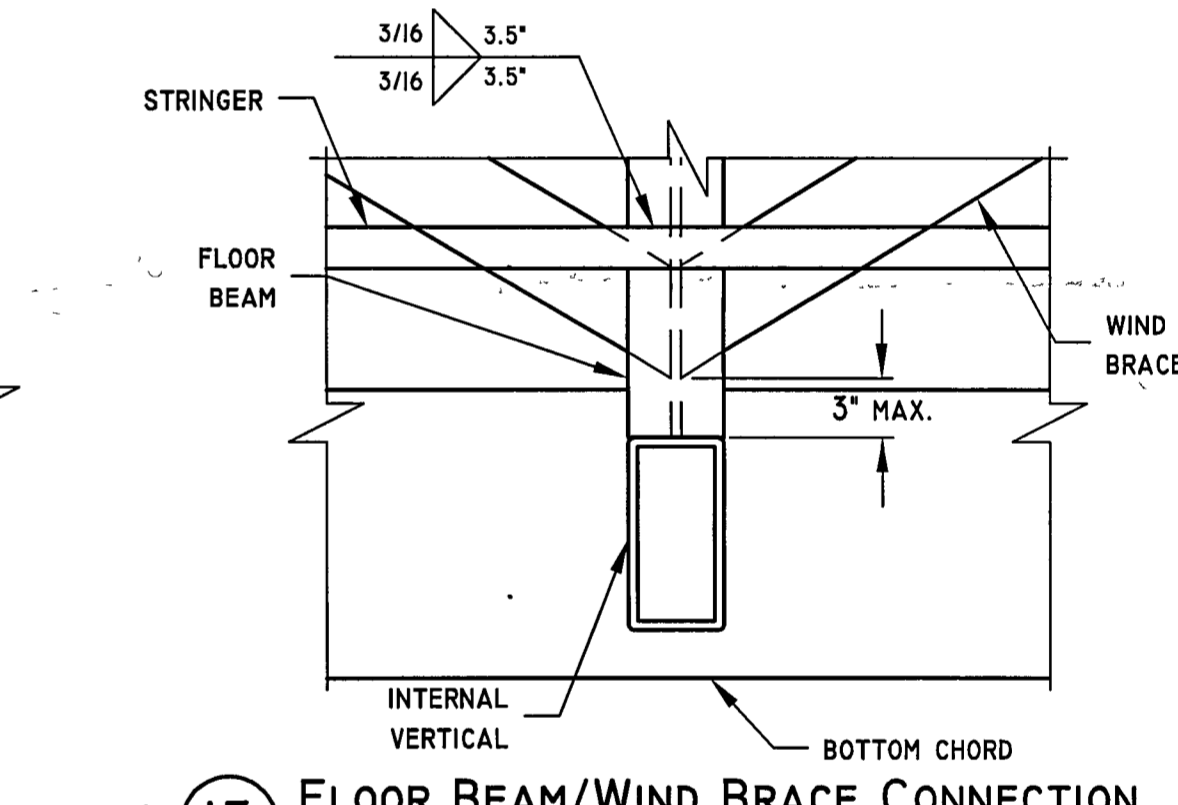
18 SPLICE MEMBER ASSEMBLY DETAIL
SCALE: NTS



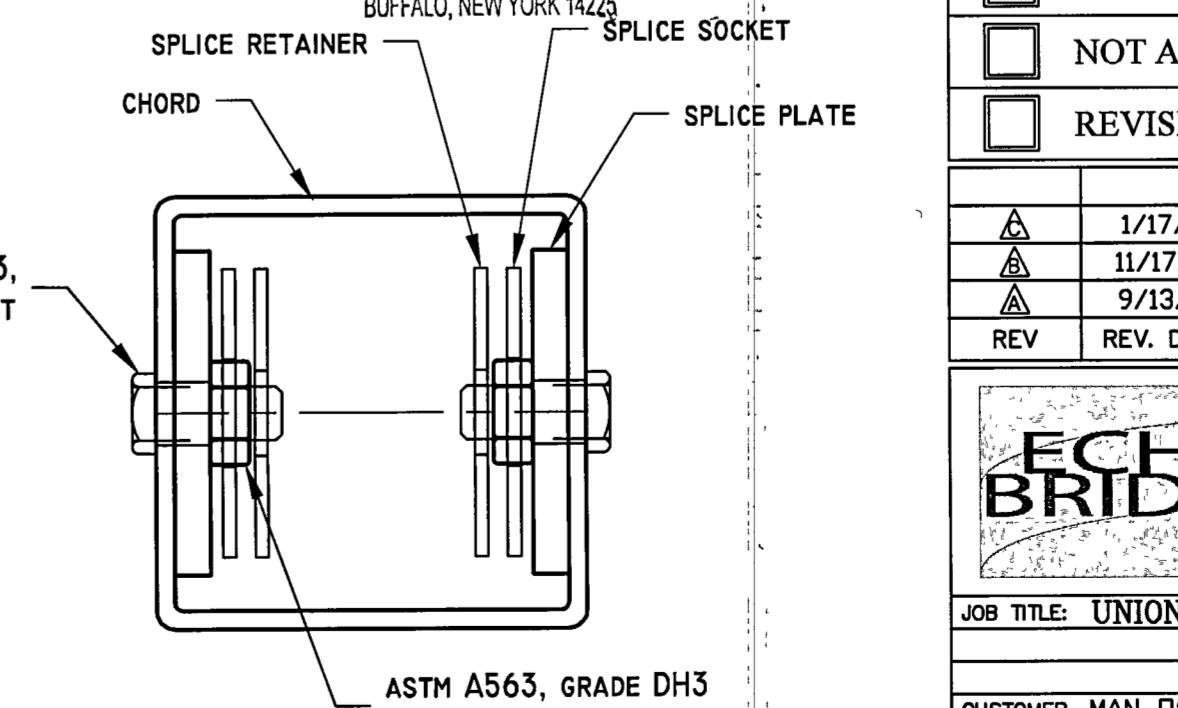
19 SPLICE MEMBER CONNECTION
SCALE: 1 1/2" = 1' 0"



12 END FLOOR BEAM/WIND BRACE CONNECTION
SCALE: 1 1/2" = 1' 0"







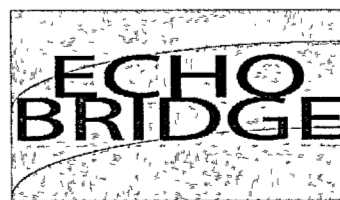

13 FLOOR BEAM/WIND BRACE CONNECTION
SCALE: 1 1/2" = 1' 0"



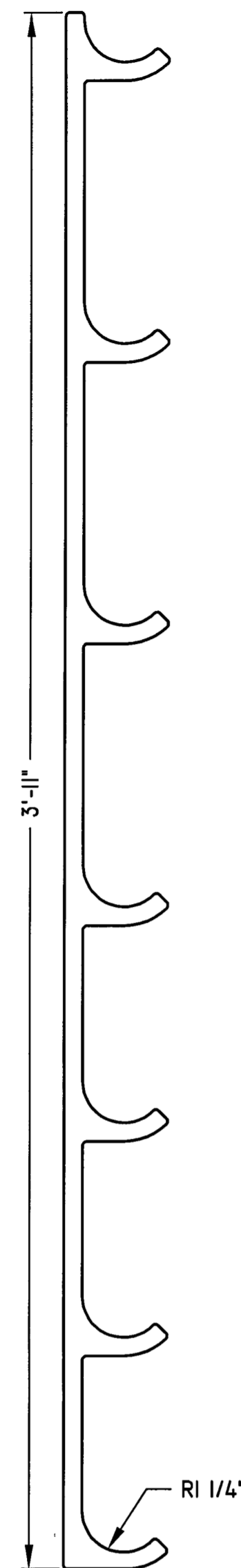
20 SPLICE PLATE ASSEMBLY DETAIL
SCALE: NTS

THE PEDESTRIAN BRIDGE CONSTRUCTION IS IN CONFORMANCE WITH THE SHOP DRAWINGS SUBMITTED BY ECHO BRIDGE, INC.; AND APPROVED BY ABATE ASSOCIATES ENGINEERS & SURVEYORS, P.C. ON 04/15/11.

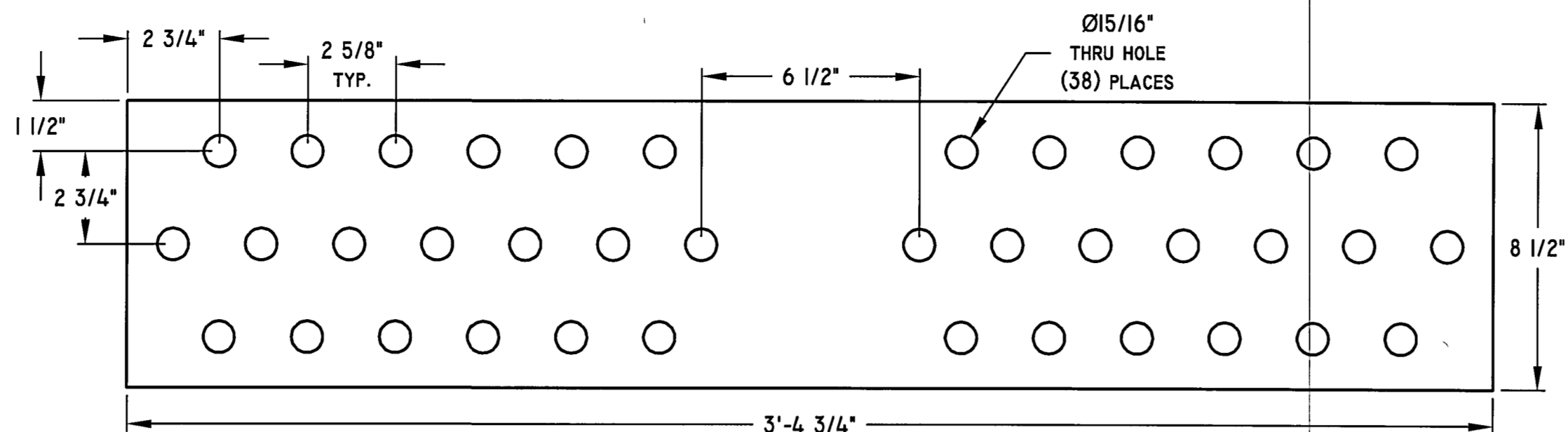
APPROVED AS NOTED
APPROVED AS CORRECTED
REVISE AND RESUBMIT
Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site. For information that pertains solely to the fabrication processes or to techniques of construction and for coordination of the work of sub-contractors.
BY: [Signature]
DATE: 4-15-2011
ABATE ASSOCIATES ENGINEERS & SURVEYORS, P.C.
BUFFALO, NEW YORK 14225

TOLERANCES				FABRICATION			
CUT STEEL				FABRICATION			
± 1/16" (0.62) ON MEMBERS LESS THAN 30'				± 1/4" (25) ON VERT. & DIAG. PLACEMENTS			
± 1/8" (1.25) ON MEMBERS GREATER THAN 30'				± 1/4" (25) FOR EVERY 100 FEET IN LENGTH			
± 0.5 DEGREES ON ANGLES				± 0.5 DEGREES ON ANGLES			
				± L/500 FOR CAMBER			
CUSTOMER APPROVAL				ENGINEERS STAMP			
<input type="checkbox"/> APPROVED							
<input type="checkbox"/> APPROVED AS NOTED							
<input type="checkbox"/> NOT APPROVED							
<input type="checkbox"/> REVISE AND RESUBMIT							
	1/17/11	Revised bearing assembly				MLD	
	11/17/10	Expand Detail #17 for clarity				MLD	
	9/13/10	Address comments				MLD	
REV	REV. DATE	DESCRIPTION				BY	
<div><div></div><div><div>ECHO BRIDGE, INC</div><div>123 Bob Massa Drive Pine City, NY 14871 1-888-327-4343</div></div><div><div>QUALITY CERTIFICATION SIMPLE BRIDGE MAJOR BRIDGE</div></div></div>							
JOB TITLE: UNION SHIP CANAL PEDESTRIAN BRIDGE						DRAWN BY: MLD	
						CHECKED BY:	
CUSTOMER: MAN O'TREES							
LOCATION: 1500 UNION ROAD, SUITE 201						CREATION DATE: 7/1/10	
WEST SENECA, NY 14224							
DRAWING TITLE: SECTIONS & DETAILS							
DRAWING #: 999-E				SHEET: 3 OF 10			REV C

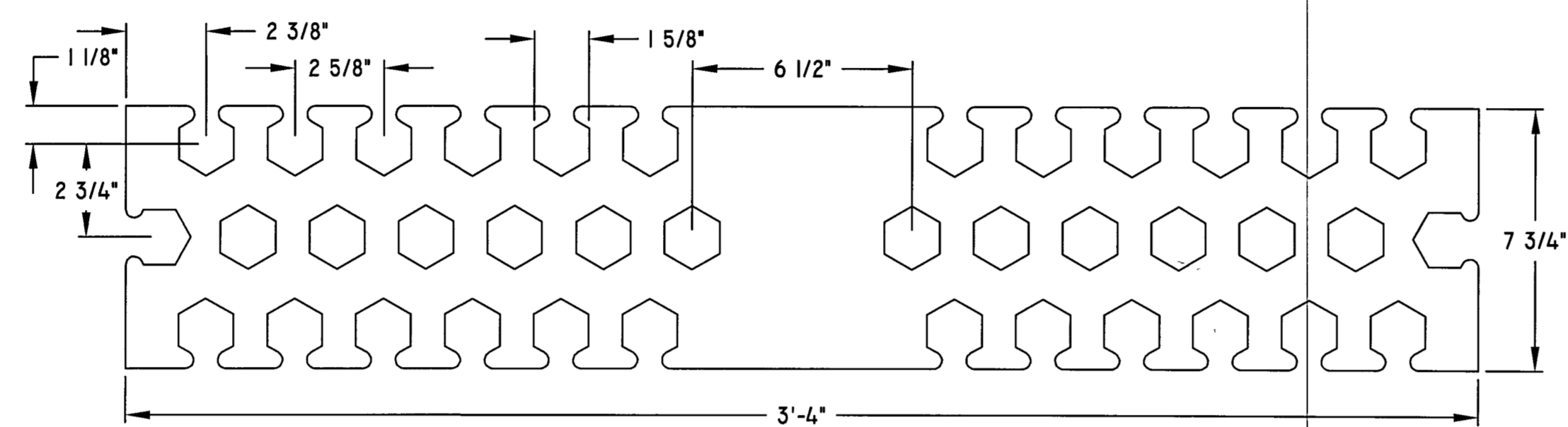
AS-BUILT



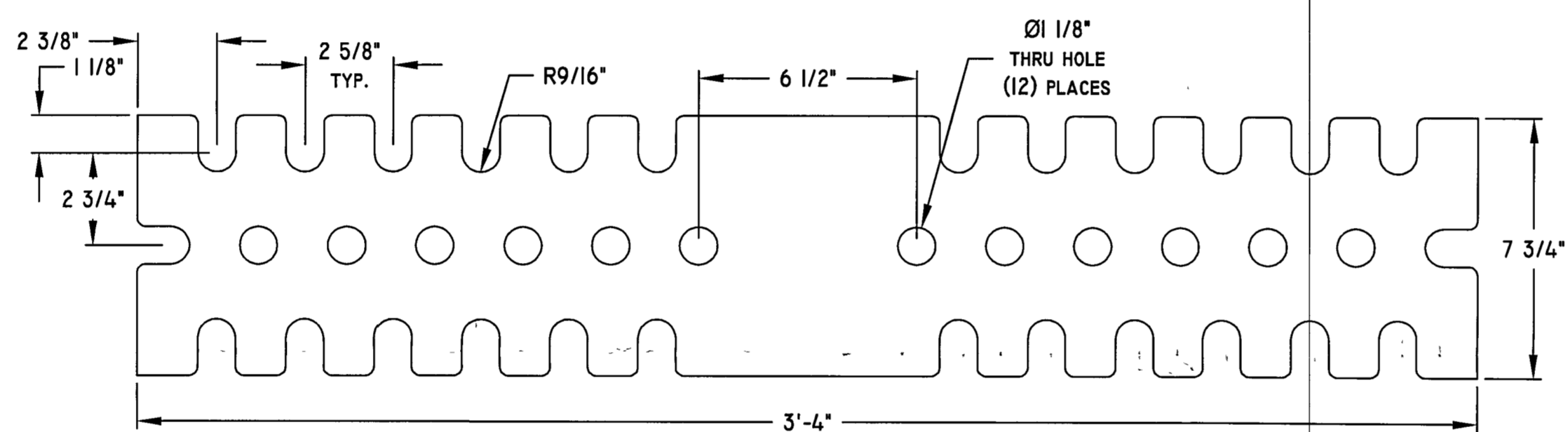
HAND RAIL BRACKET
SCALE: 3" = 1' 0"
MAT'L: 1/4" PLATE
PIECES REQ'D: 60



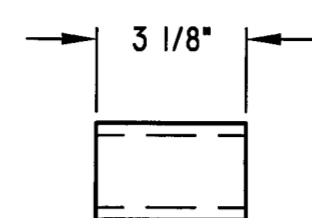
SPLICE PLATE - SP-1
SCALE: 3" = 1' 0"
MAT'L: 1" PLATE
PIECES REQ'D: 16



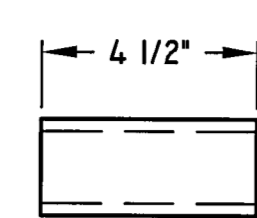
SPLICE SOCKET - SP-2
SCALE: 3" = 1' 0"
MAT'L: 3/16" PLATE
PIECES REQ'D: 16



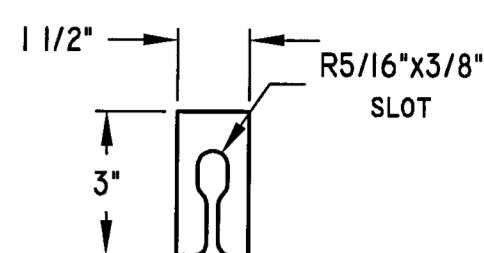
SPLICE RETAINER - SP-3
SCALE: 3" = 1' 0"
MAT'L: 3/16" PLATE
PIECES REQ'D: 16



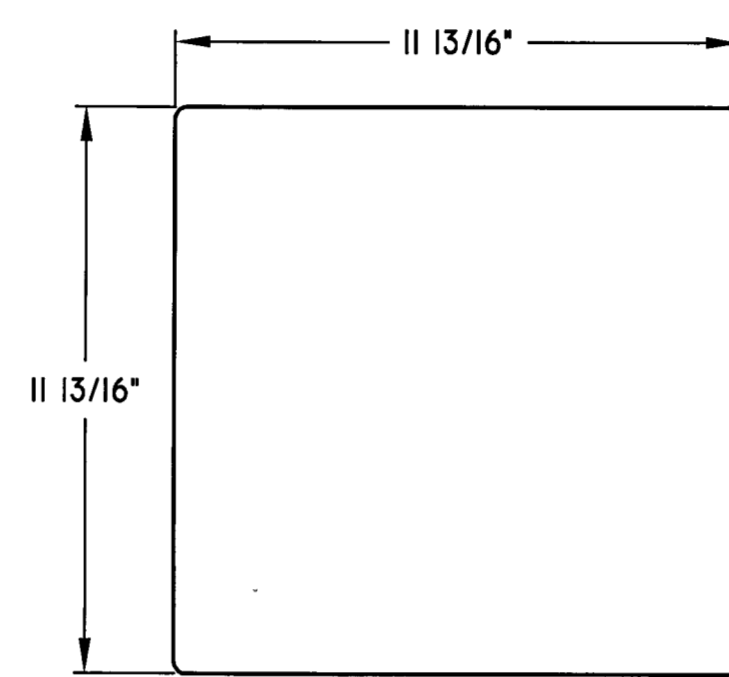
SPLICE VERTICAL SPACER - SS-1
SCALE: 3" = 1' 0"
2 x 2 x 1/4" TS
PIECES REQ'D: 28



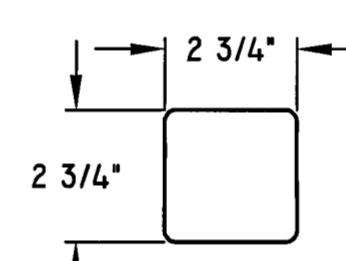
SPLICE FLOOR BEAM SPACER - SS-2
SCALE: 3" = 1' 0"
MAT'L: 2 x 2 x 1/4" TS
PIECES REQ'D: 12



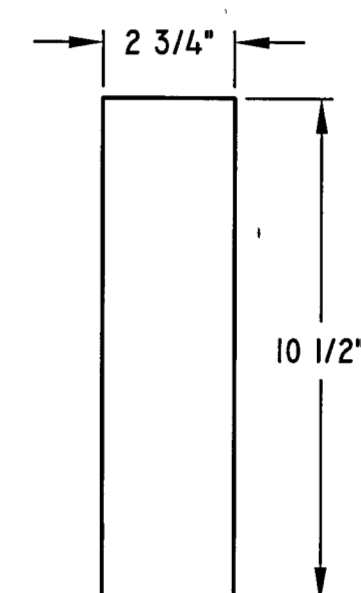
DECK CLIP
SCALE: 3" = 1' 0"
MAT'L: 3/16" PLATE
PIECES REQ'D: 918



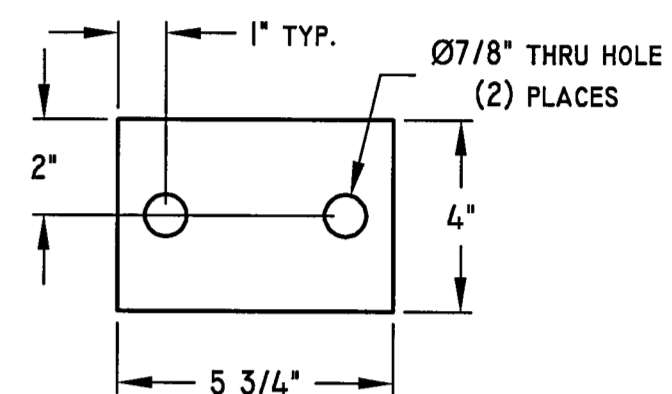
VERTICAL END CAP - VC-1
SCALE: 3" = 1' 0"
MAT'L: 1/4" PLATE
PIECES REQ'D: 4



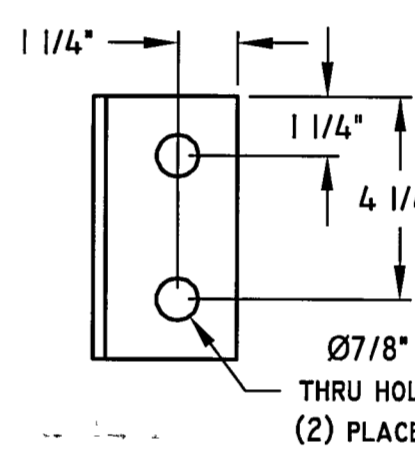
VERTICAL END CAP - VC-2
SCALE: 3" = 1' 0"
MAT'L: 1/4" PLATE
PIECES REQ'D: 20



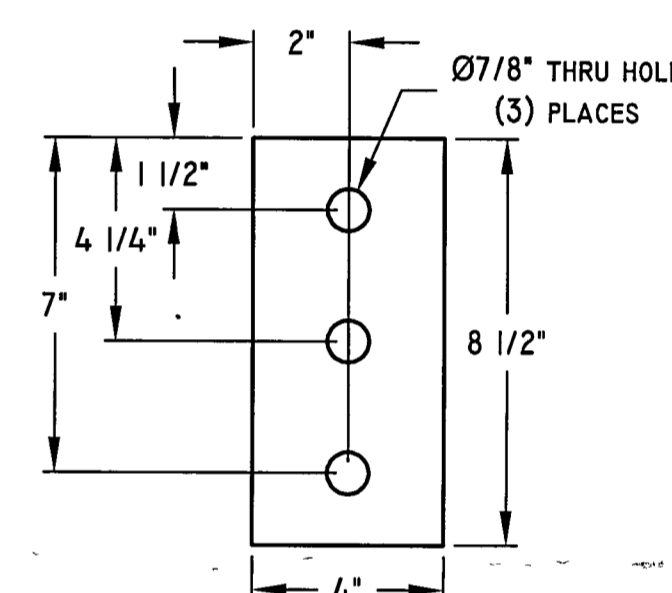
SPLICE FLOOR BEAM PLATE - SF-1
SCALE: 3" = 1' 0"
MAT'L: 1/2" PLATE
PIECES REQ'D: 8



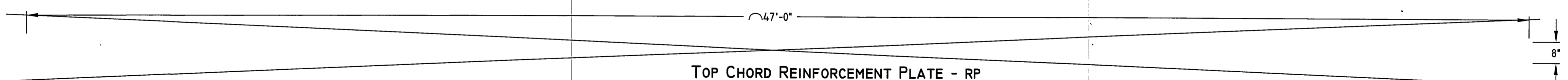
FLANGE PLATE - FP-1
SCALE: 3" = 1' 0"
MAT'L: 1/2" PLATE
PIECES REQ'D: 12



FASTENING BRACKET
SCALE: 3" = 1' 0"
MAT'L: 3 x 3 x 3/8" ANGLE
PIECES REQ'D: 12



WEB PLATE - WP-1
SCALE: 3" = 1' 0"
MAT'L: 1/2" PLATE
PIECES REQ'D: 6



TOP CHORD REINFORCEMENT PLATE - RP
SCALE: 1/2" = 1' 0"
MAT'L: 1/4" PLATE
PIECES REQ'D: 4

- ☒ APPROVED ☐ NOT APPROVED
☐ APPROVED AS CORRECTED
☐ REVISE AND RESUBMIT

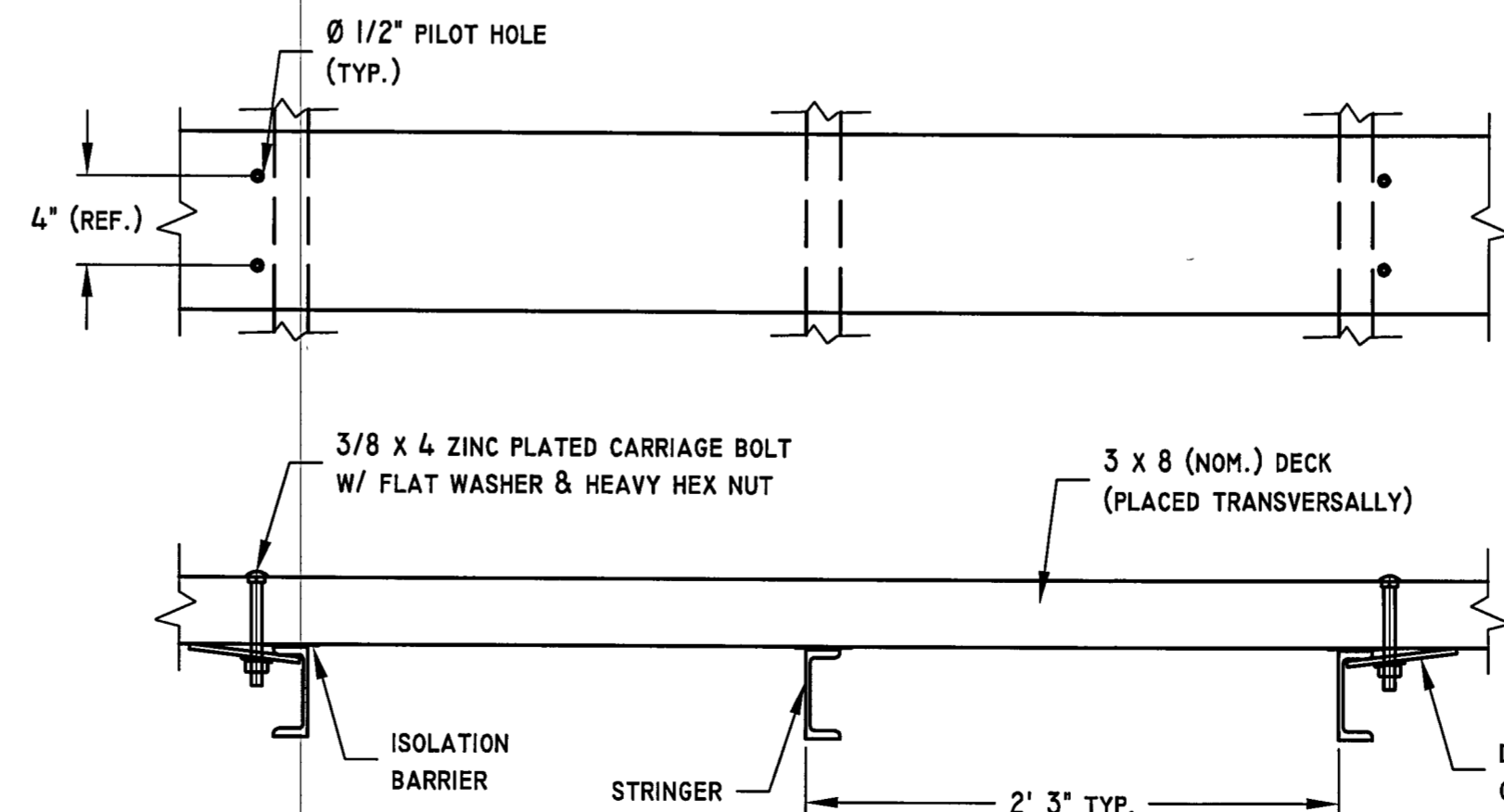
Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to the fabrication processes or to techniques of construction and for coordination of the work of all trades.

BY: *[Signature]*
DATE: 4-15-2011

ABATE ASSOCIATES
ENGINEERS & SURVEYORS, P.C.
BUFFALO, NEW YORK 14225

THE PEDESTRIAN BRIDGE CONSTRUCTION IS IN CONFORMANCE WITH THE SHOP DRAWINGS SUBMITTED BY ECHO BRIDGE, INC.; AND APPROVED BY ABATE ASSOCIATES ENGINEERS & SURVEYORS, P.C. ON 04/15/11.

AS-BUILT



21 TYPICAL TRANSVERSE DECK FASTENING DETAIL
SCALE: NTS

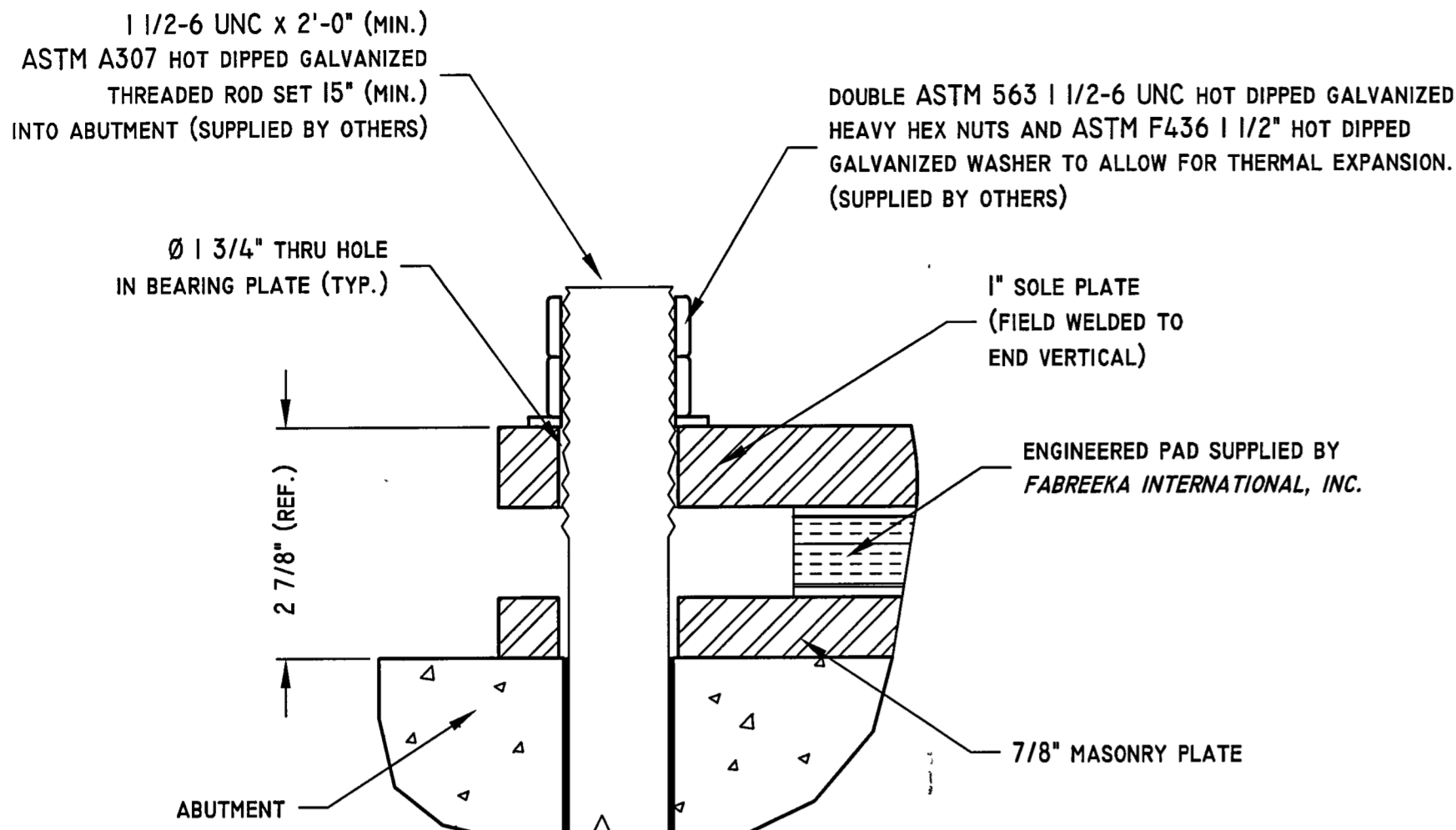
TOLERANCES			
CUT STEEL		FABRICATION	
± 1/16" (.062) ON MEMBERS LESS THAN 30'		± 1/4" (.25) ON VERT. & DIAG. PLACEMENTS	
± 1/8" (.125) ON MEMBERS GREATER THAN 30'		± 1/4" (.25) FOR EVERY 100 FEET IN LENGTH	
± 0.5 DEGREES ON ANGLES		± 0.5 DEGREES ON ANGLES	
		± L/500 FOR CAMBER	

CUSTOMER APPROVAL		ENGINEERS STAMP	
<input type="checkbox"/> APPROVED			
<input type="checkbox"/> APPROVED AS NOTED			
<input type="checkbox"/> NOT APPROVED			
<input type="checkbox"/> REVISE AND RESUBMIT			

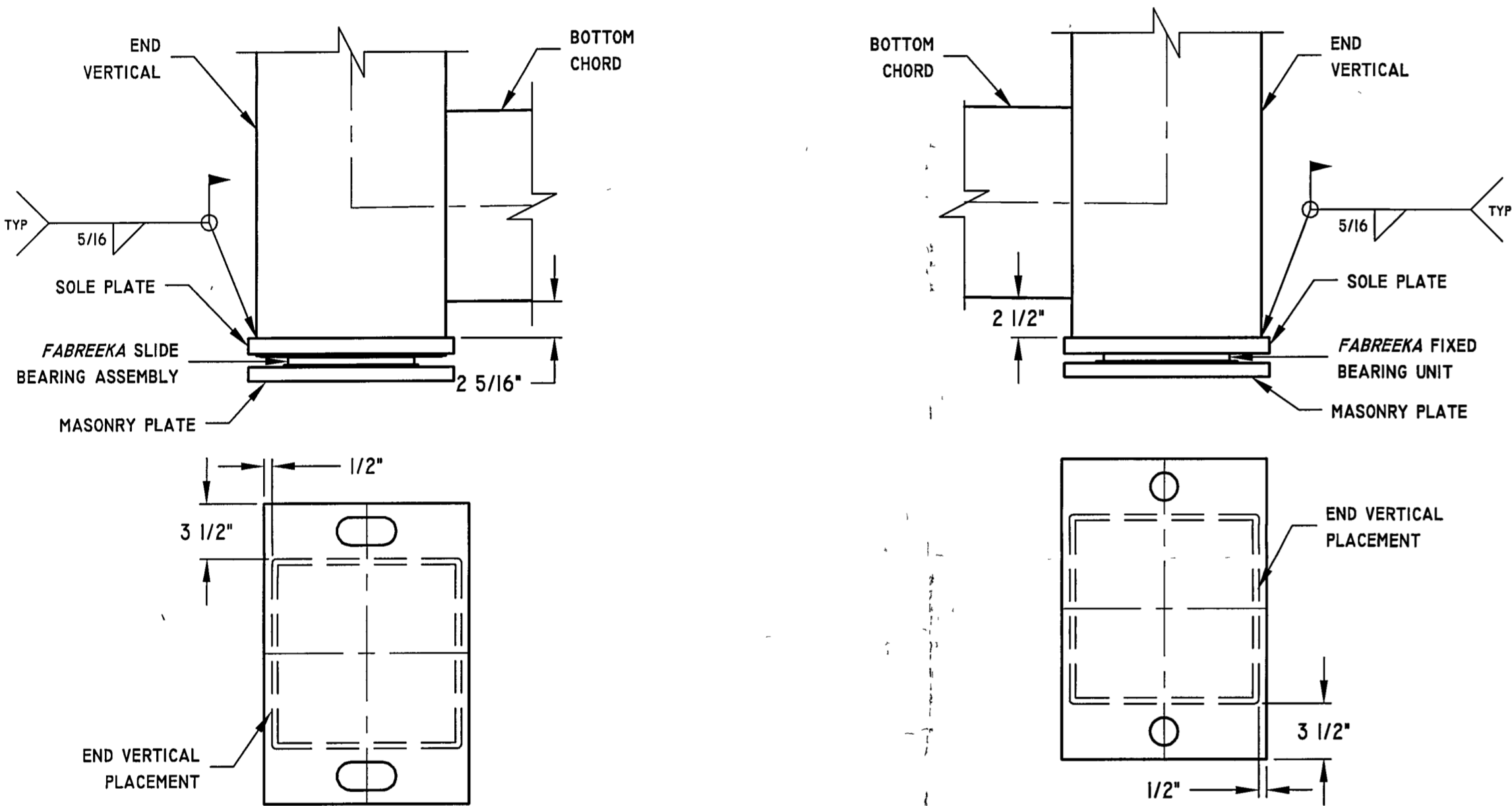
REV	REV. DATE	DESCRIPTION	BY
1	3/17/11	Delete top chord reinforcement plate	MLD
2	11/17/10	Splice plate, Move Bearing Plates & Detail #22 to Sh. 5	MLD
3	9/13/10	Address comments	MLD

ECHO BRIDGE, INC.		QUALITY CERTIFICATION	
123 Bob Masia Drive Pine City, NY 14871 1-888-327-4343		SIMPLE BRIDGE MAJOR BRIDGE	
JOB TITLE: UNION SHIP CANAL PEDESTRIAN BRIDGE		DRAWN BY: MLD	
CUSTOMER: MAN O'TREES		CHECKED BY:	
LOCATION: 1500 UNION ROAD, SUITE 201 WEST SENeca, NY 14224		CREATION DATE: 7/1/10	
DRAWING TITLE: TYPICAL DETAILS			
DRAWING # 999-E		SHEET 4 OF 10	
		REV C	

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
1	PRELIMINARY RELEASE	9/20/10	NH
2	REVISED PER CUSTOMER	1/13/11	NH

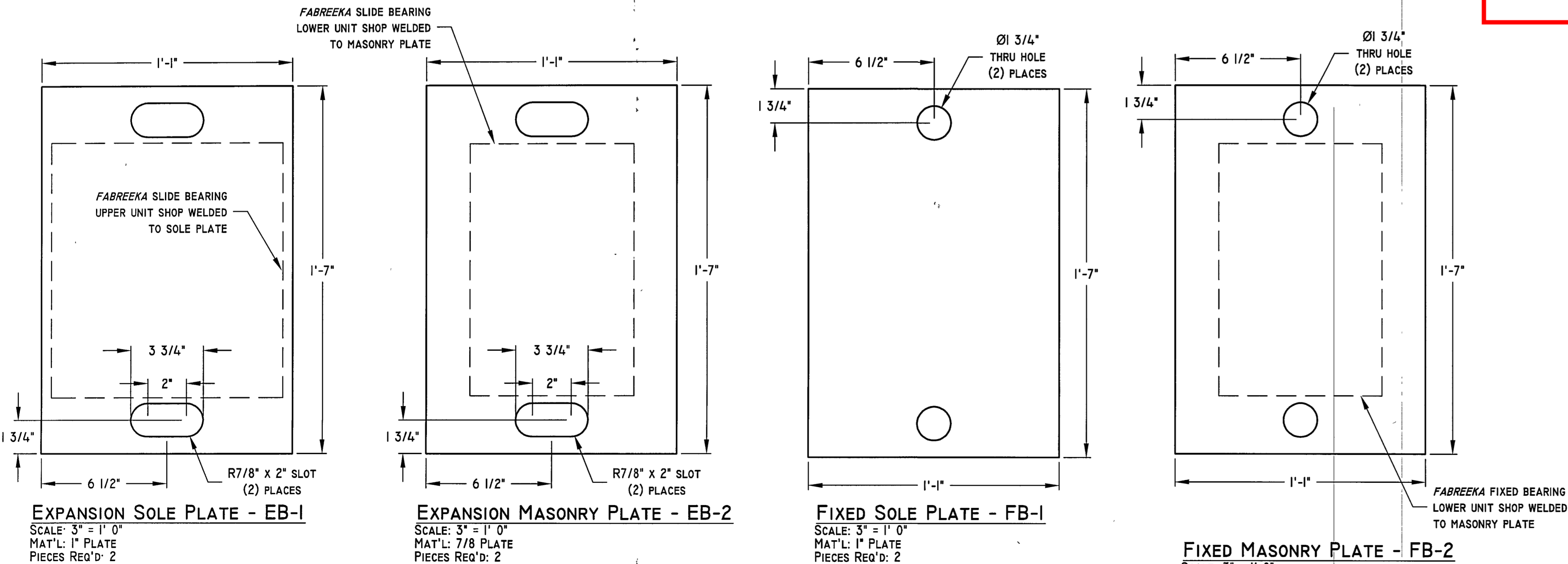


22 TYPICAL ANCHOR BOLT INSTALLATION DETAIL
BRIDGE SPANS OVER 150 FT.

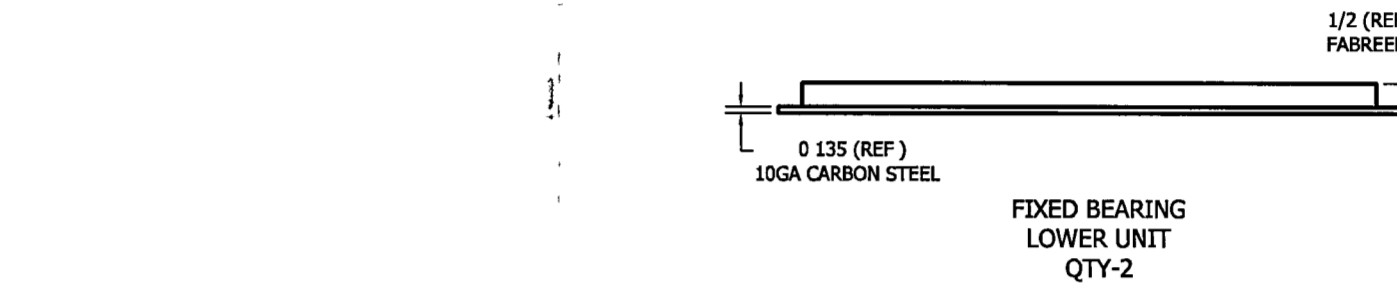
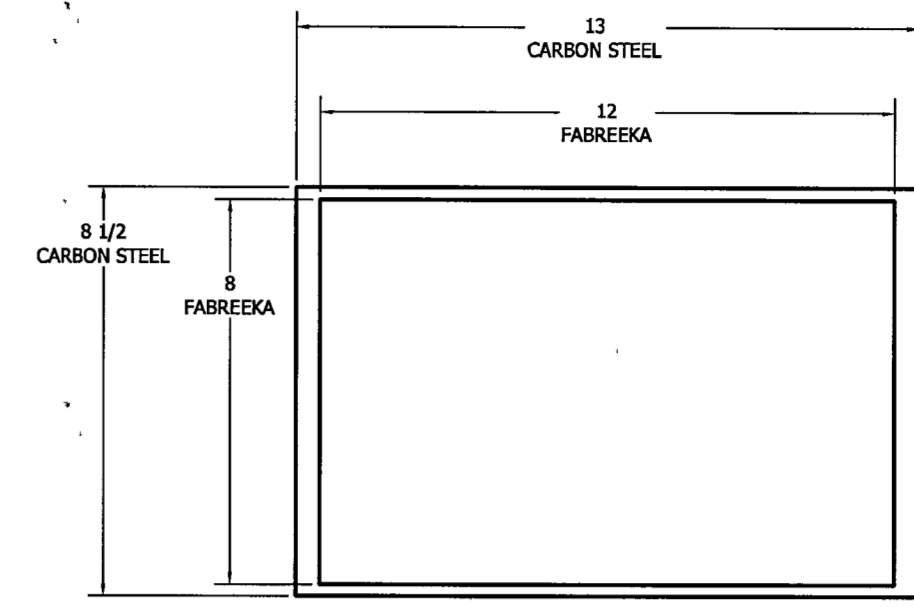
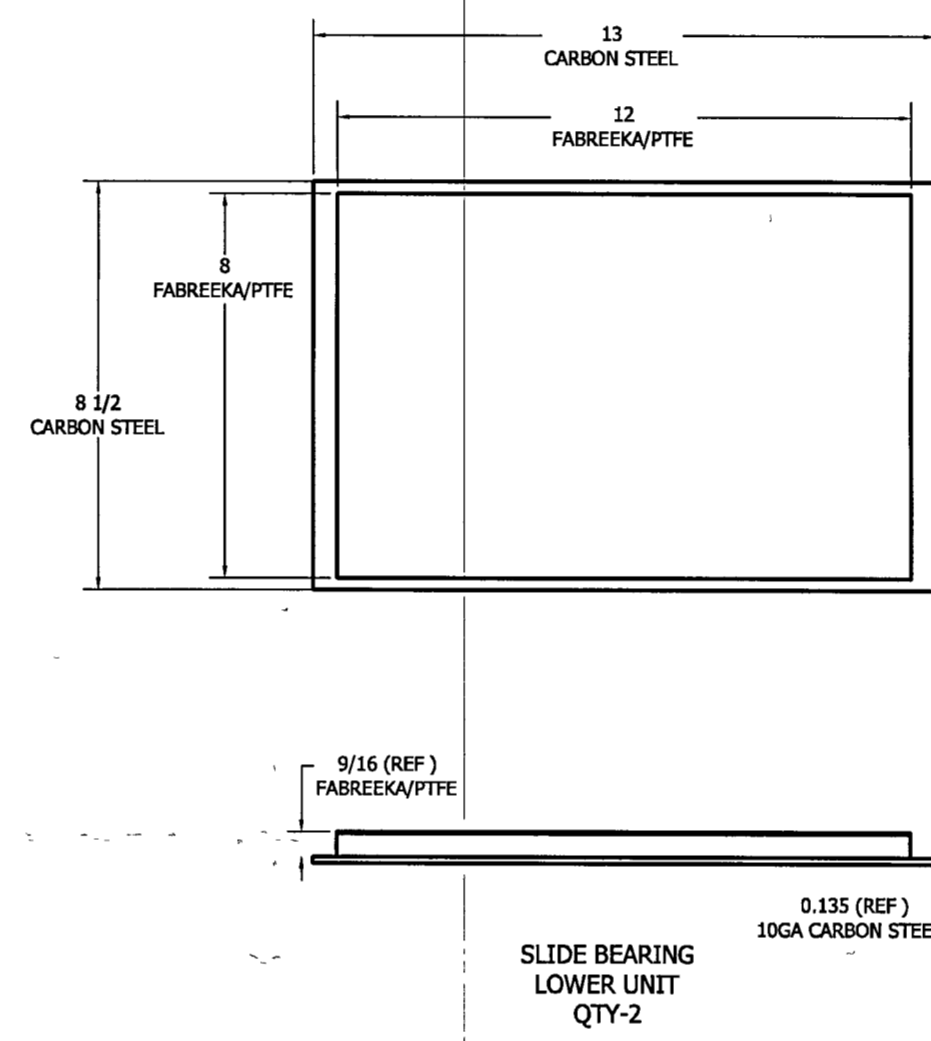
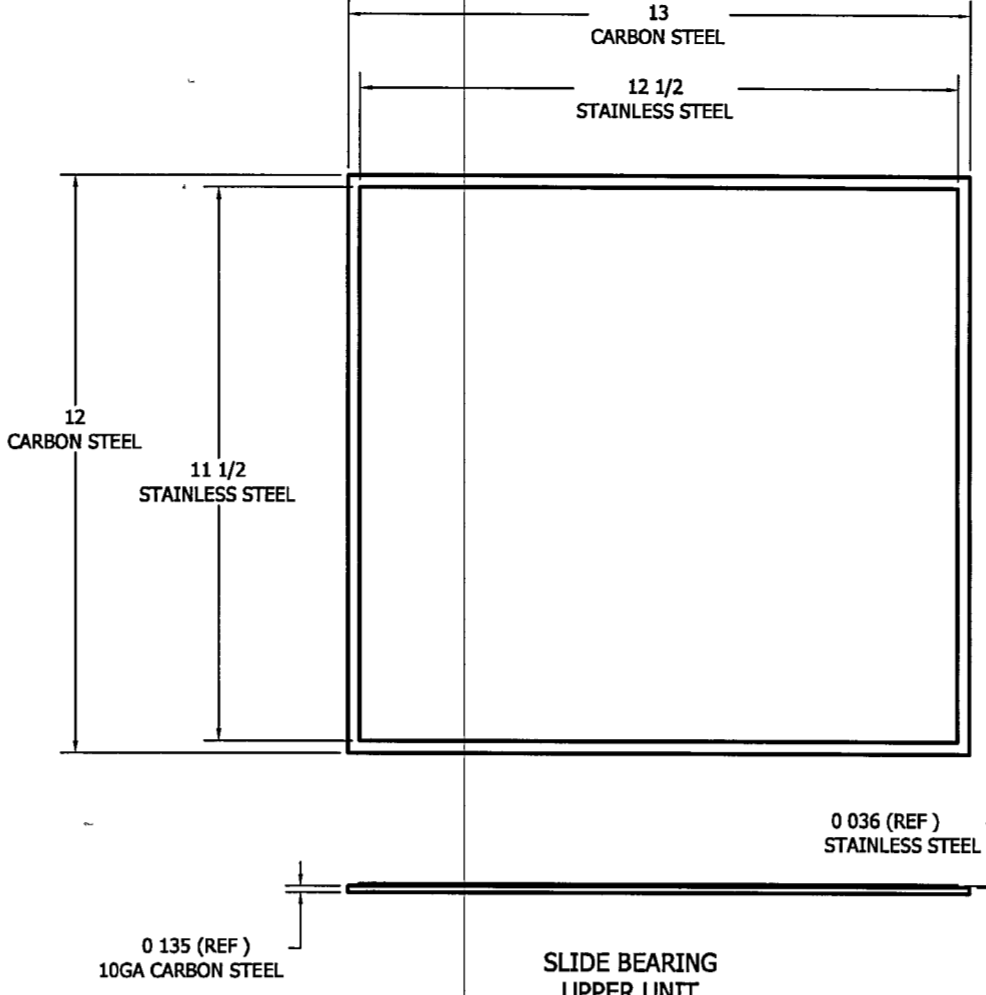


23 EXPANSION BEARING ATTACHMENT DETAIL
SCALE: NTS

24 FIXED BEARING ATTACHMENT DETAIL
SCALE: NTS



25 ANCHOR BOLT LAYOUT
SCALE: NTS



MATERIAL:
CARBON STEEL-ASTM A1011 P & O
STAINLESS STEEL - ASTM A240 TYPE 304, #8 MIRROR FINSH ONE SIDE
PTFE - VIRGIN UNFILLED
PREFORMED FABRIC PAD-AASHTO 18.4.9.1 DIV. II

NOTES:
1. PROTECT STAINLESS STEEL & TEFLON AT ALL TIMES IN THE FIELD BEFORE INSTALLATION

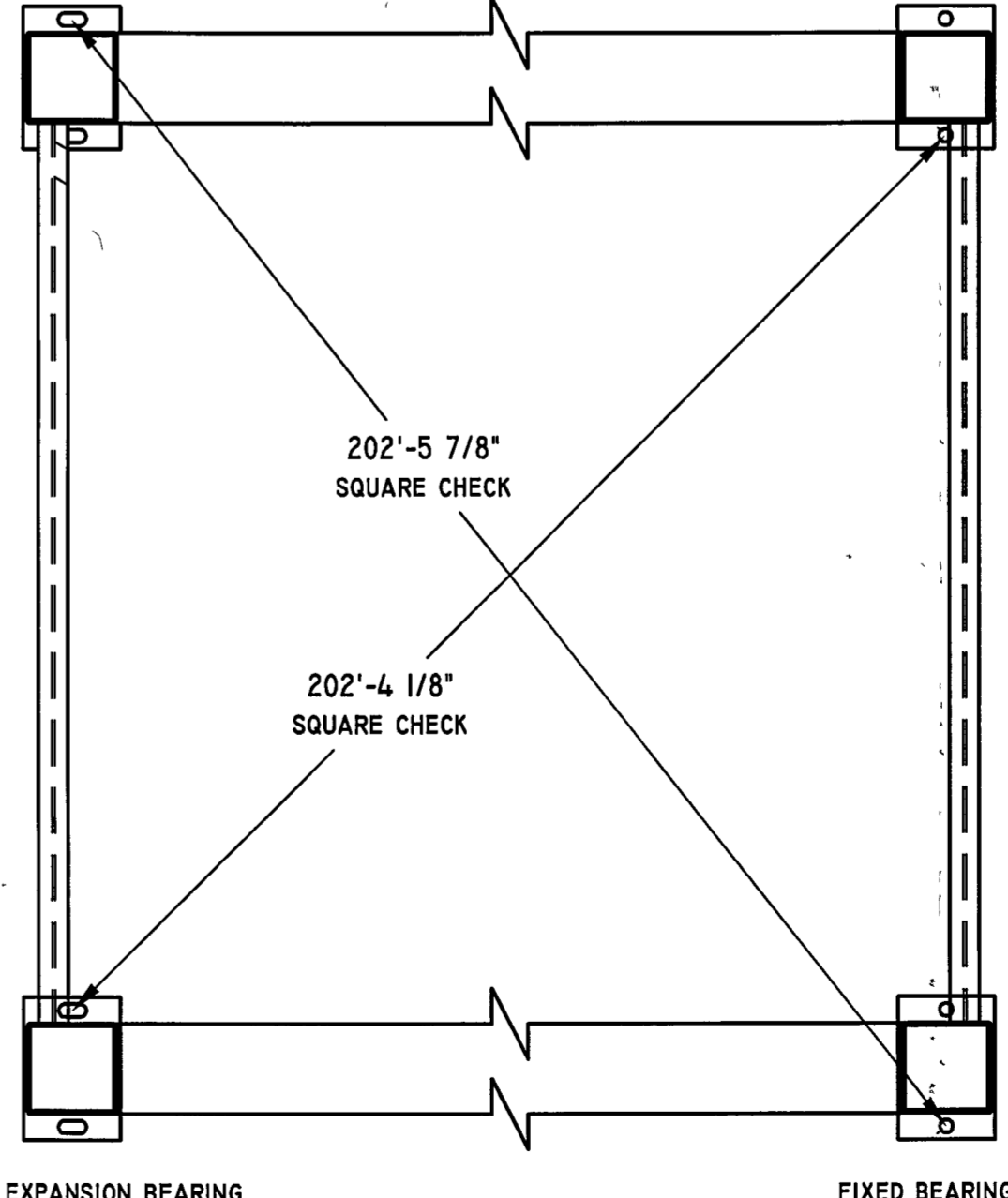
THIS DRAWING CONTAINS DESIGNS AND OTHER INFORMATION WHICH ARE THE PROPERTY OF FABREEKA INTERNATIONAL. THIS DRAWING MAY NOT, IN WHOLE OR IN PART, BE REPRODUCED OR USED FOR PURPOSES OF MANUFACTURE, OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF FABREEKA INTERNATIONAL. ANY COPIES OF THIS DRAWING DISTRIBUTED FOR INFORMATIONAL PURPOSES WEATHER UNDER THE TERMS OF A CONTRACT OR OTHERWISE, ARE TO BE RETURNED TO FABREEKA INTERNATIONAL ON REQUEST OR WHEN THE PURPOSE FOR WHICH THEY WERE ISSUED IS ACCOMPLISHED. FABREEKA INTERNATIONAL WILL ELECT TO TAKE ALL NECESSARY ACTION TO ENFORCE ITS RIGHTS TO THIS PROPRIETARY INFORMATION.

DO NOT SCALE PRINT- UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ANGLES ± 0° 30' DIMENSIONS X & Y: 1/16" 95 X 1/8" 1: 0.05 REMOVE BURRS & SHARP EDGES 0.04" MEET DIMENSIONS AFTER FINISH	MATERIAL AS NOTED	DRAWN CK CHECKED NH CA	9/20/2010 1/31/2011	FABREEKA INTERNATIONAL, INC.	VIBRATION AND SHOCK TECHNOLOGY
FINISH AS NOTED	APPROVED	DATE	9/20/2010 1/31/2011	TITLE BEARING, EXPANSION, 12 1/2" X 12 1/2", BEARING, FIXED, 12 1/2" X 12 1/2", DECKER INC	REV 2
SIZE D	DRAWING NO. 9401	PART NO. 9401	REV 2	DATE 4-15-2011	BY 4-15-2011

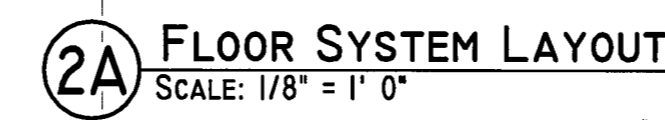
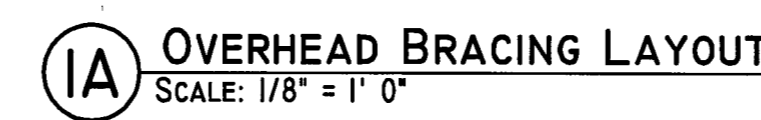
APPROVED AS CORRECTED
REVISE AND RESUBMIT
Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to the fabrication processes or to techniques of construction and for coordination of the work of all trades.

THE PEDESTRIAN BRIDGE CONSTRUCTION IS IN CONFORMANCE WITH THE SHOP DRAWINGS SUBMITTED BY ECHO BRIDGE, INC.; AND APPROVED BY ABATE ASSOCIATES ENGINEERS & SURVEYORS, P.C. ON 04/15/11.

AS-BUILT

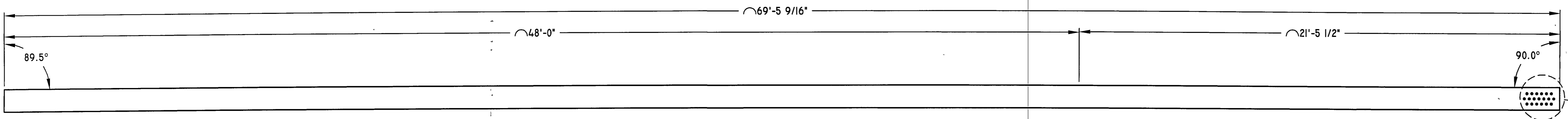


TOLERANCES			
CUT STEEL		FABRICATION	
± 1/16" (0.062) ON MEMBERS LESS THAN 30'		± 1/4" (25) ON VERT. & DIAG. PLACEMENTS	
± 1/8" (125) ON MEMBERS GREATER THAN 30'		± 1/4" (25) FOR EVERY 100 FEET IN LENGTH	
± 0.5 DEGREES ON ANGLES		± 0.5 DEGREES ON ANGLES	
		± 1/500 FOR CAMBER	
CUSTOMER APPROVAL		ENGINEERS STAMP	
<input type="checkbox"/> APPROVED <input type="checkbox"/> APPROVED AS NOTED <input type="checkbox"/> NOT APPROVED <input type="checkbox"/> REVISE AND RESUBMIT			
REV	REV. DATE	DESCRIPTION	BY
3/17/11	11/17/10	Revised bearing design/assembly	MLD
		New Sheet	MLD
ECHO BRIDGE, INC. 123 Bob Masia Drive Pine City, NY 14871 1-888-327-4343			
JOB TITLE: UNION SHIP CANAL PEDESTRIAN BRIDGE		DRAWN BY: MLD	
CUSTOMER: MAN O'TREES		CHECKED BY:	
LOCATION: 1500 UNION ROAD, SUITE 201		CREATION DATE: 7/1/10	
WEST SENECA, NY 14224			
DRAWING TITLE: BEARING DETAILS			
DRAWING #: 999-E		SHEET: 5 OF 10	
		REV C	

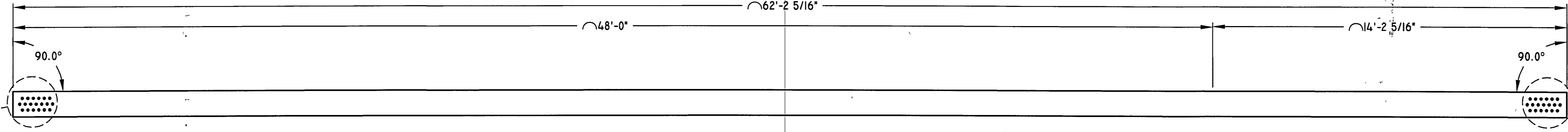
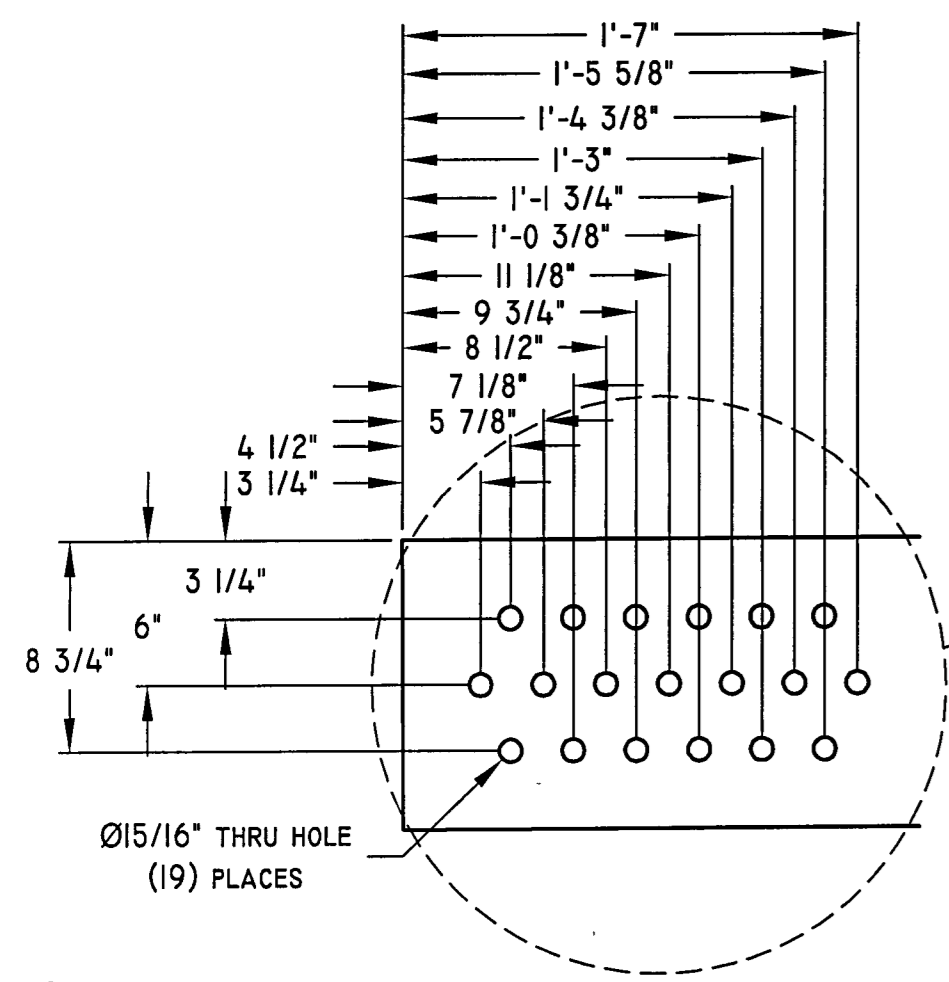


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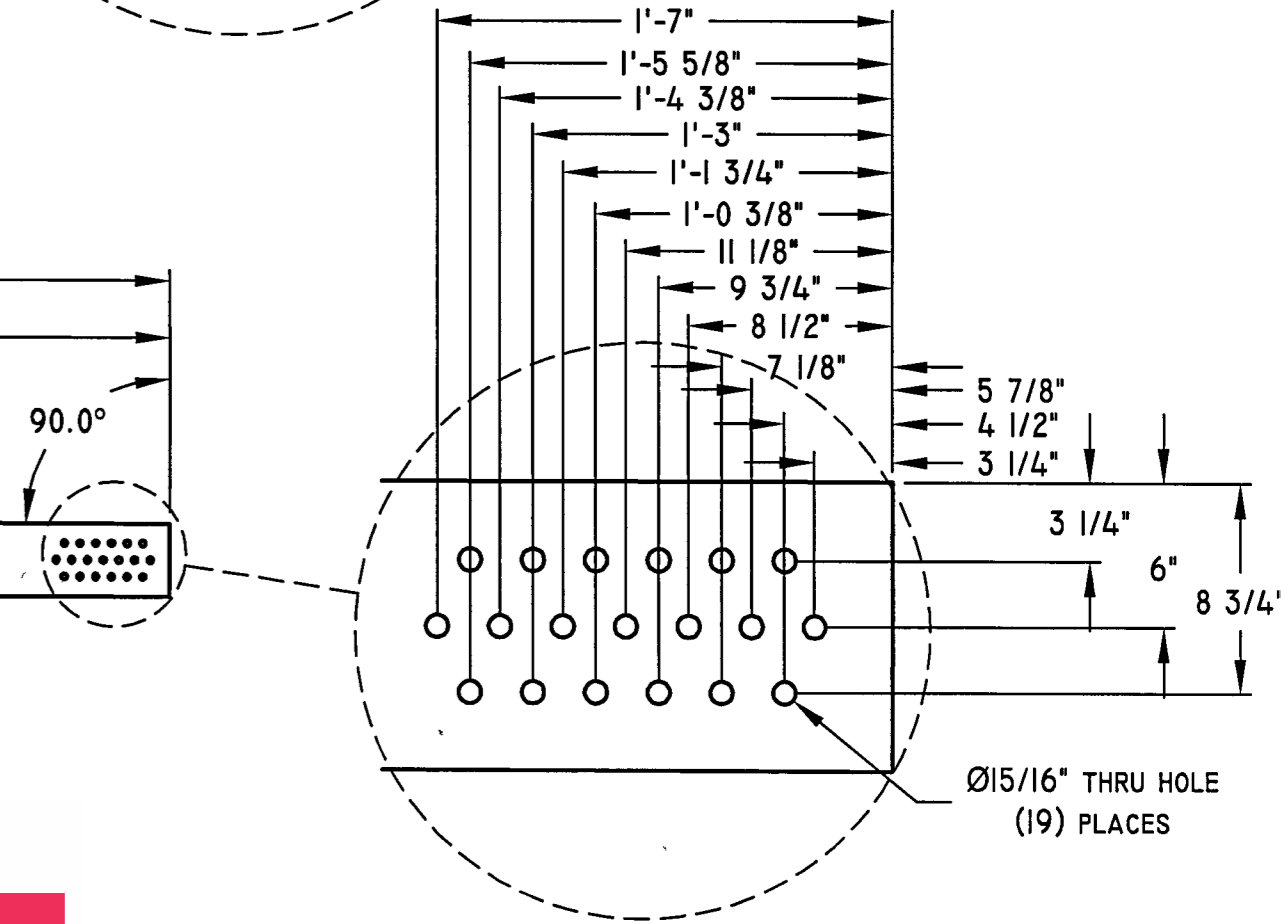
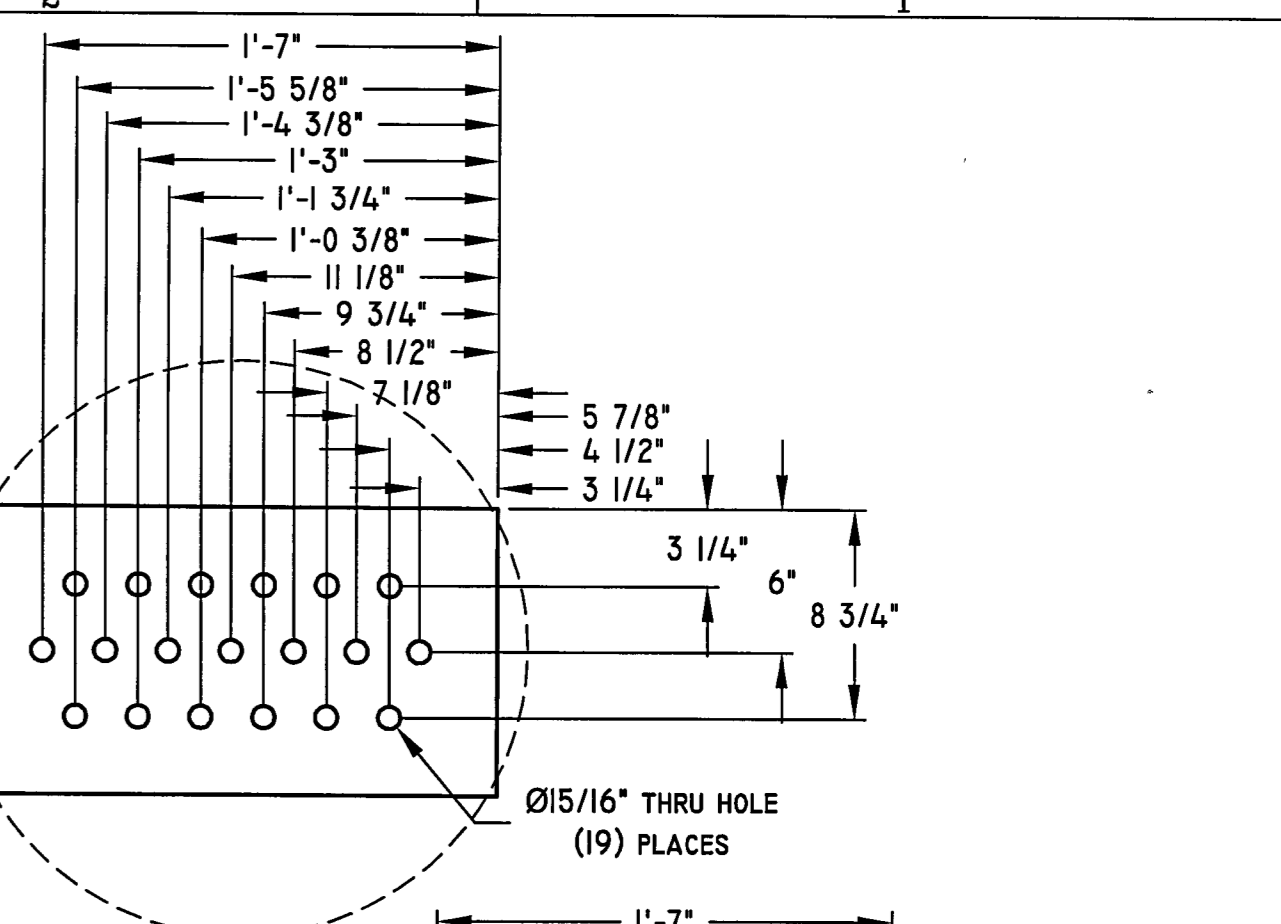
4/6/2011 12:44:46 PM



TOP CHORD, BOTTOM CHORD - TC-1, BC-1
SCALE: 3/8" = 1' 0"
MAT'L: 12 x 12 x 3/8 TS
PIECES REQ'D: 8

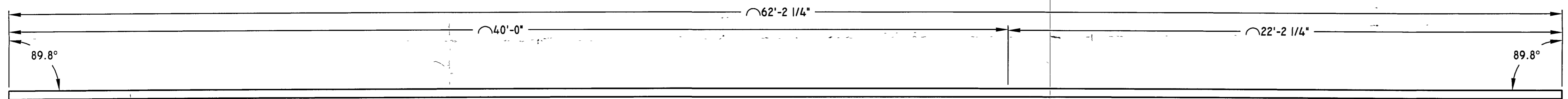


TOP CHORD, BOTTOM CHORD - TC-2, BC-2
SCALE: 3/8" = 1' 0"
MAT'L: 12 x 12 x 3/8 TS
PIECES REQ'D: 4



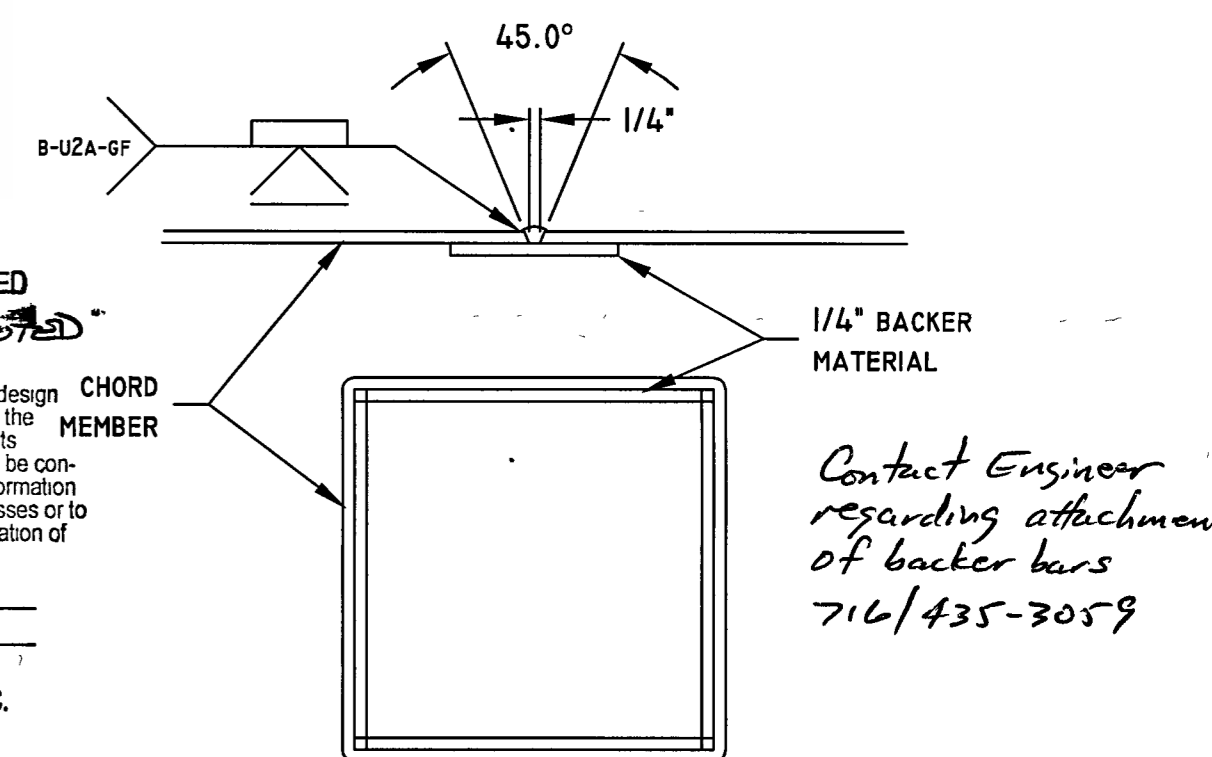
THE PEDESTRIAN BRIDGE CONSTRUCTION IS IN CONFORMANCE WITH THE SHOP DRAWINGS SUBMITTED BY ECHO BRIDGE, INC.; AND APPROVED BY ABATE ASSOCIATES ENGINEERS & SURVEYORS, P.C. ON 04/15/11.

AS-BUILT

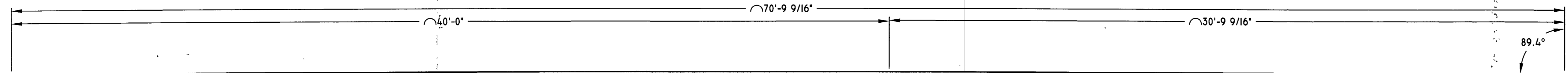


STRINGER - S-1
SCALE: 3/8" = 1' 0"
MAT'L: C4 x 7.25 CHANNEL
PIECES REQ'D: 10

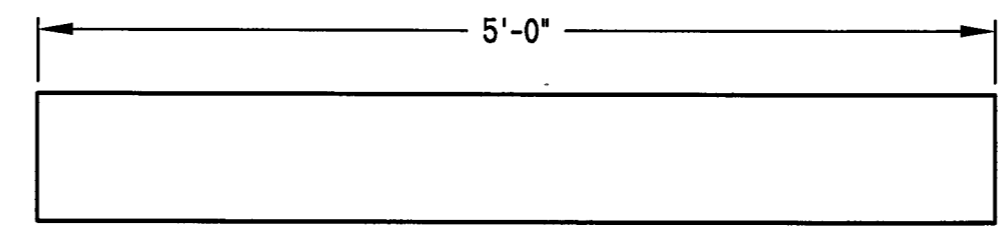
☐ APPROVED ☐ NOT APPROVED
☒ APPROVED AS CORRECTED
☐ REVISE AND RESUBMIT
Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to the fabrication processes or to techniques of construction, and for coordination of the work of all trades.
BY: 7/15/2011
DATE: 7/15/2011
ABATE ASSOCIATES
ENGINEERS & SURVEYORS, P.C.
BUFFALO, NEW YORK 14225



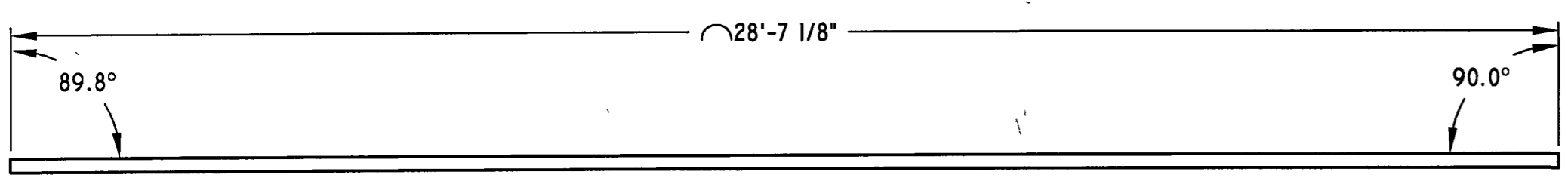
26 TYPICAL CHORD SPLICE DETAIL
SCALE: NTS



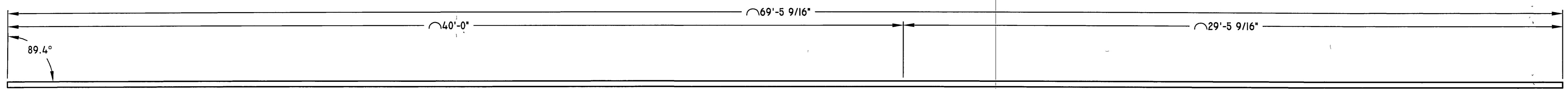
STRINGER - S-2
SCALE: 3/8" = 1' 0"
MAT'L: C4 x 7.25 CHANNEL
PIECES REQ'D: 5



PLATFORM TRANSITION PIECE - PT
SCALE: 1" = 1' 0"
MAT'L: 8 x 4 x 1/4 TS
PIECES REQ'D: 2

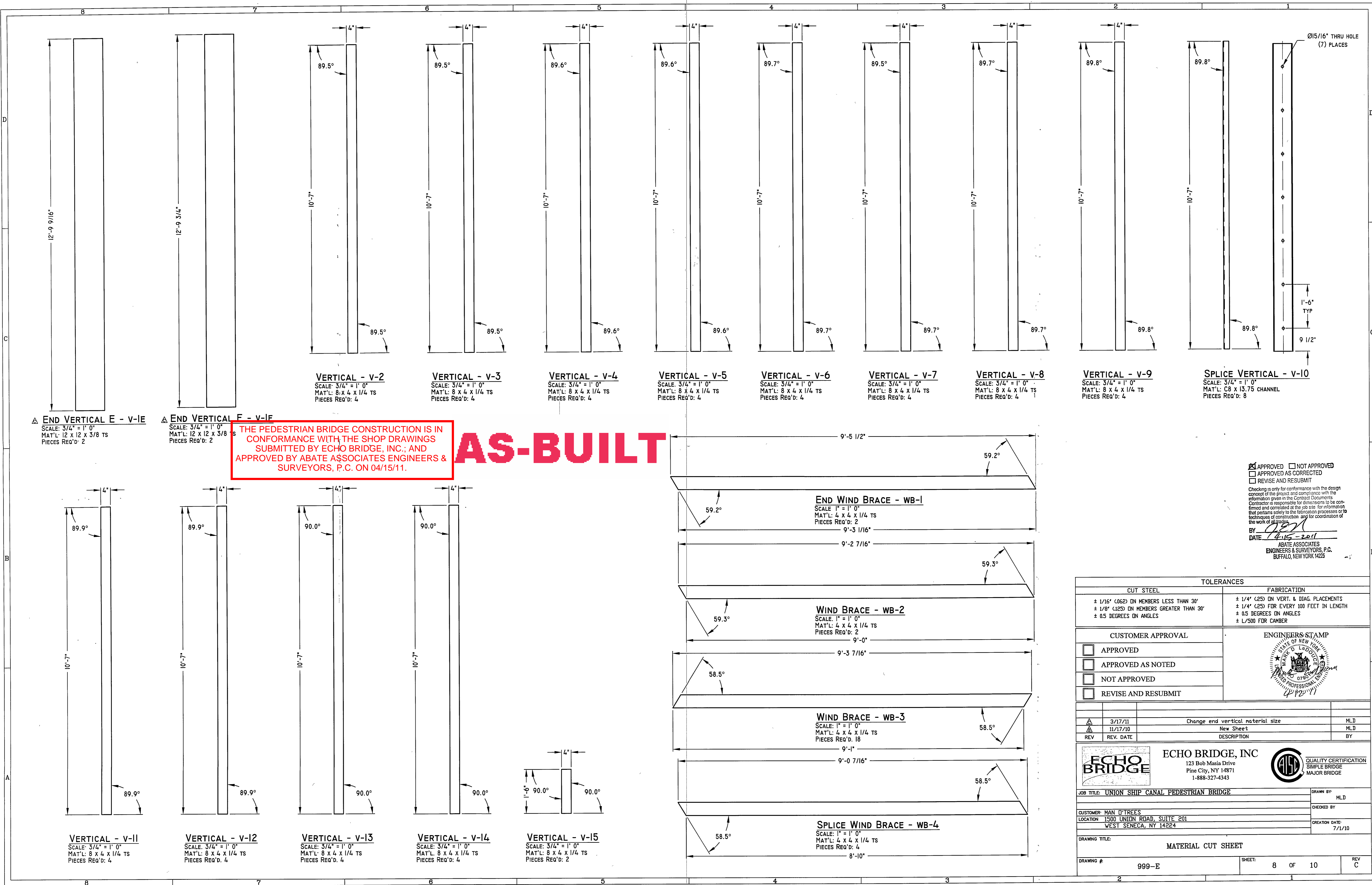


DECK EDGE - DE-1
SCALE: 3/8" = 1' 0"
MAT'L: 3 x 3 x 1/4 ANGLE
PIECES REQ'D: 4



DECK EDGE - DE-2
SCALE: 3/8" = 1' 0"
MAT'L: 3 x 3 x 1/4 ANGLE
PIECES REQ'D: 4

TOLERANCES			
CUT STEEL		FABRICATION	
± 1/16" (.062) ON MEMBERS LESS THAN 30'		± 1/4" (.25) ON VERT. & DIAG. PLACEMENTS	
± 1/8" (.125) ON MEMBERS GREATER THAN 30'		± 1/4" (.25) FOR EVERY 100 FEET IN LENGTH	
± 0.5 DEGREES ON ANGLES		± 0.5 DEGREES ON ANGLES	
		± L/500 FOR CAMBER	
CUSTOMER APPROVAL		ENGINEER'S STAMP	
<input type="checkbox"/> APPROVED			
<input type="checkbox"/> APPROVED AS NOTED			
<input type="checkbox"/> NOT APPROVED			
<input type="checkbox"/> REVISE AND RESUBMIT			
	3/17/11	Change chord material size	MLD
	11/17/10	New Sheet	MLD
REV	REV. DATE	DESCRIPTION	BY
ECHO BRIDGE, INC			
123 Bob Mastia Drive		QUALITY CERTIFICATION	
Pine City, NY 14871		SIMPLE BRIDGE	
1-888-327-4343		MAJOR BRIDGE	
JOB TITLE: UNION SHIP CANAL PEDESTRIAN BRIDGE			DRAWN BY: MLD
			CHECKED BY:
CUSTOMER: MAN O'TREES			CREATION DATE: 7/1/10
LOCATION: 1500 UNION ROAD, SUITE 201			
WEST SENECA, NY 14224			
DRAWING TITLE:			
MATERIAL CUT SHEET			
DRAWING #	999-E	SHEET:	7 OF 10
			REV C



THE PEDESTRIAN BRIDGE CONSTRUCTION IS IN CONFORMANCE WITH THE SHOP DRAWINGS SUBMITTED BY ECHO BRIDGE, INC.; AND APPROVED BY ABATE ASSOCIATES ENGINEERS & SURVEYORS, P.C. ON 04/15/11.

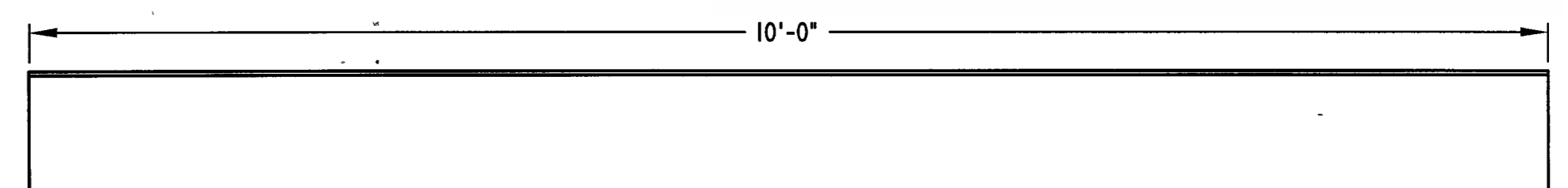
AS-BUILT

☒ APPROVED ☐ NOT APPROVED
☐ APPROVED AS CORRECTED
☐ REVISE AND RESUBMIT
Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to the fabrication processes or to techniques of construction and for coordination of the work of all trades.
BY: *[Signature]*
DATE: 4-15-2011
ABATE ASSOCIATES
ENGINEERS & SURVEYORS, P.C.
BUFFALO, NEW YORK 14225

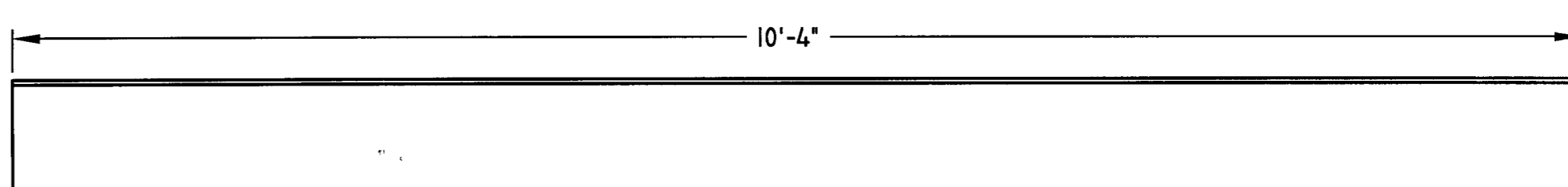
TOLERANCES			
CUT STEEL		FABRICATION	
± 1/16" (.062) ON MEMBERS LESS THAN 30'		± 1/4" (.25) ON VERT. & DIAG. PLACEMENTS	
± 1/8" (.125) ON MEMBERS GREATER THAN 30'		± 1/4" (.25) FOR EVERY 100 FEET IN LENGTH	
± 0.5 DEGREES ON ANGLES		± 0.5 DEGREES ON ANGLES	
		± L/500 FOR CAMBER	
CUSTOMER APPROVAL		ENGINEER'S STAMP	
<input type="checkbox"/>	APPROVED		
<input type="checkbox"/>	APPROVED AS NOTED		
<input type="checkbox"/>	NOT APPROVED		
<input type="checkbox"/>	REVISE AND RESUBMIT		
	3/17/11	Change end vertical material size	MLD
	11/17/10	New Sheet	MLD
REV	REV. DATE	DESCRIPTION	BY
<div><div></div><div><div>ECHO BRIDGE, INC</div><div>123 Bob Masia Drive Pine City, NY 14871 1-888-327-4343</div></div></div>			
			<div>QUALITY CERTIFICATION</div> <div>SIMPLE BRIDGE</div> <div>MAJOR BRIDGE</div>
JOB TITLE: UNION SHIP CANAL PEDESTRIAN BRIDGE		DRAWN BY: MLD	
		CHECKED BY:	
CUSTOMER: MAN O'TREES		CREATION DATE: 7/1/10	
LOCATION: 1500 UNION ROAD, SUITE 201 WEST SENECA, NY 14224			
DRAWING TITLE: MATERIAL CUT SHEET			
DRAWING #: 999-E		SHEET: 8 OF 10	
		REV C	

THE PEDESTRIAN BRIDGE CONSTRUCTION IS IN
CONFORMANCE WITH THE SHOP DRAWINGS
SUBMITTED BY ECHO BRIDGE, INC.; AND
APPROVED BY ABATE ASSOCIATES ENGINEERS &
SURVEYORS, P.C. ON 04/15/11.

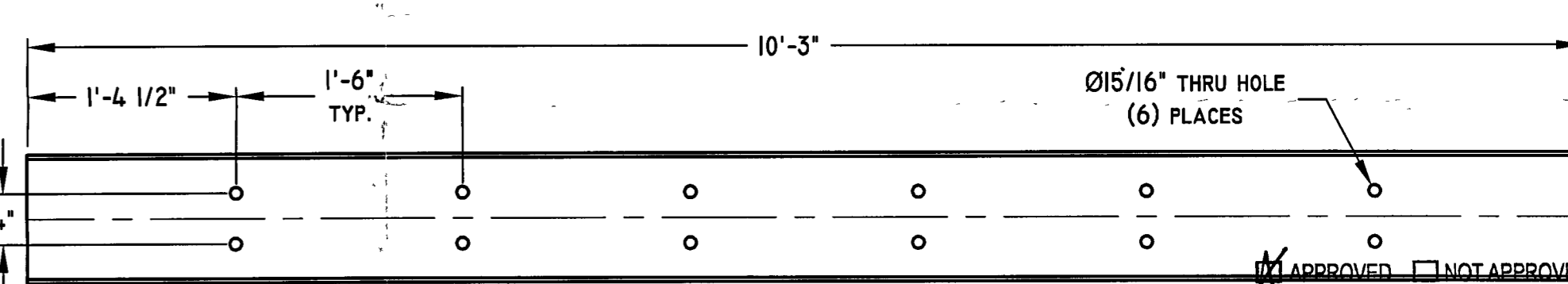
AS-BUILT



END FLOOR BEAM - FB-1
SCALE: 1" = 1' 0"
MAT'L: W10 x 17
PIECES REQ'D: 2



FLOOR BEAM - FB-2
SCALE: 1" = 1' 0"
MAT'L: W10 x 17
PIECES REQ'D: 23



SPLICE FLOOR BEAM - FB-3
SCALE: 1" = 1' 0"
MAT'L: C10 x 20
PIECES REQ'D: 4

APPROVED AS CORRECTED
REVISE AND RESUBMIT
Checking is only for conformance with the design
concept of the project and compliance with the
information given in the Contract Documents.
Contractor is responsible for dimensions to be con-
firmed and correlated at the job site for information
that pertains solely to the fabrication processes or to
techniques of construction, and for coordination of
the work of all trades.
BY: *[Signature]*
DATE: 4-15-2011
ABATE ASSOCIATES
ENGINEERS & SURVEYORS, P.C.
BUFFALO, NEW YORK 14223

TOLERANCES	
CUT STEEL	FABRICATION
± 1/16" (.062) ON MEMBERS LESS THAN 30"	± 1/4" (.25) ON VERT. & DIAG. PLACEMENTS
± 1/8" (.125) ON MEMBERS GREATER THAN 30"	± 1/4" (.25) FOR EVERY 100 FEET IN LENGTH
± 0.5 DEGREES ON ANGLES	± 0.5 DEGREES ON ANGLES
	± 1/500 FOR CAMBER

CUSTOMER APPROVAL	ENGINEER'S STAMP
<input type="checkbox"/> APPROVED	
<input type="checkbox"/> APPROVED AS NOTED	
<input type="checkbox"/> NOT APPROVED	
<input type="checkbox"/> REVISE AND RESUBMIT	

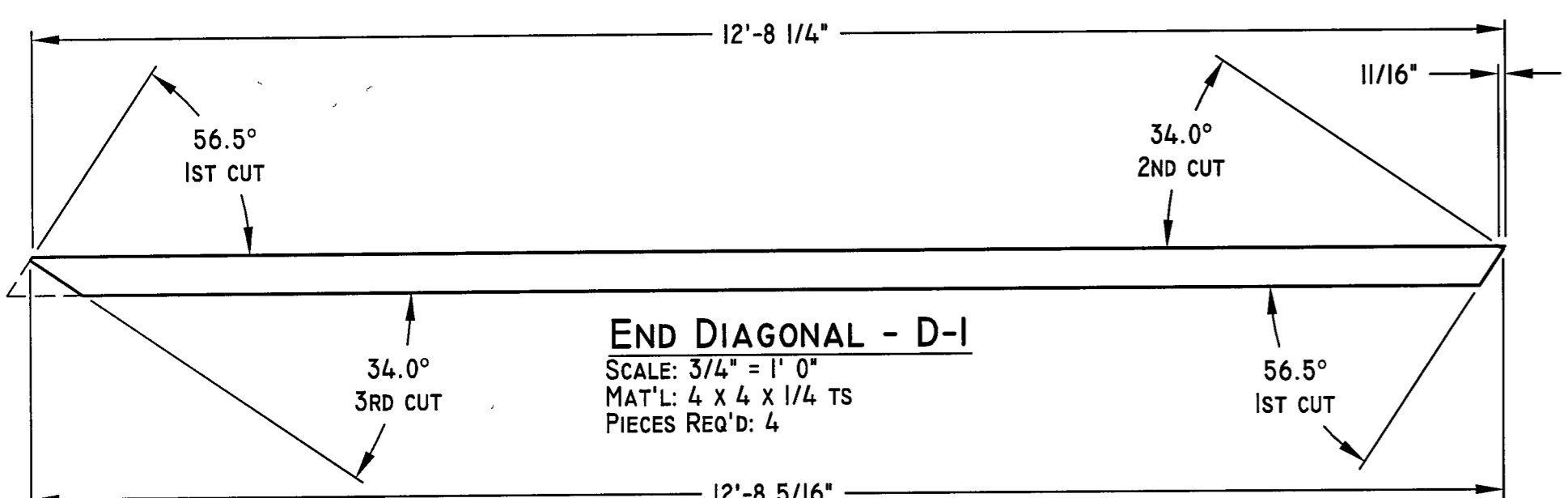
REV	REV. DATE	DESCRIPTION	BY
1	3/17/11	Increase bolt pattern for splice floor beam	MLD
2	11/17/10	New Sheet	MLD

ECHO BRIDGE, INC
123 Bob Masia Drive
Pine City, NY 14871
1-888-327-4343

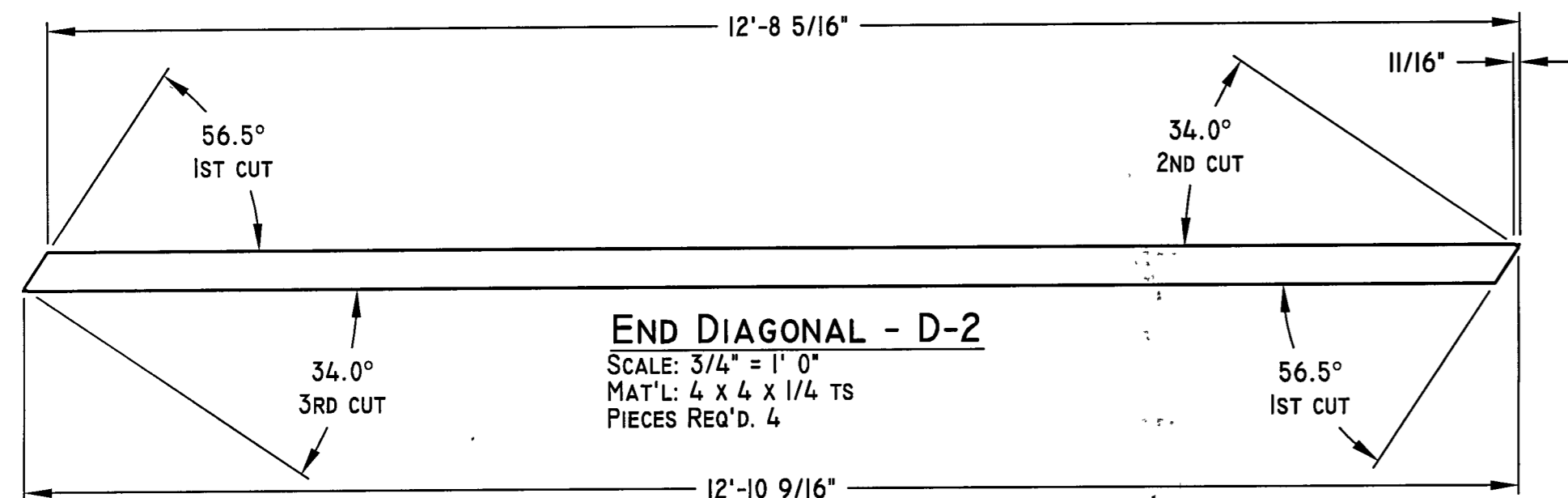
QUALITY CERTIFICATION
SIMPLE BRIDGE
MAJOR BRIDGE

JOB TITLE: UNION SHIP CANAL PEDESTRIAN BRIDGE	DRAWN BY: MLD
CUSTOMER: MAN O'TREES	CHECKED BY:
LOCATION: 1500 UNION ROAD, SUITE 201 WEST SENeca, NY 14224	CREATION DATE: 7/1/10

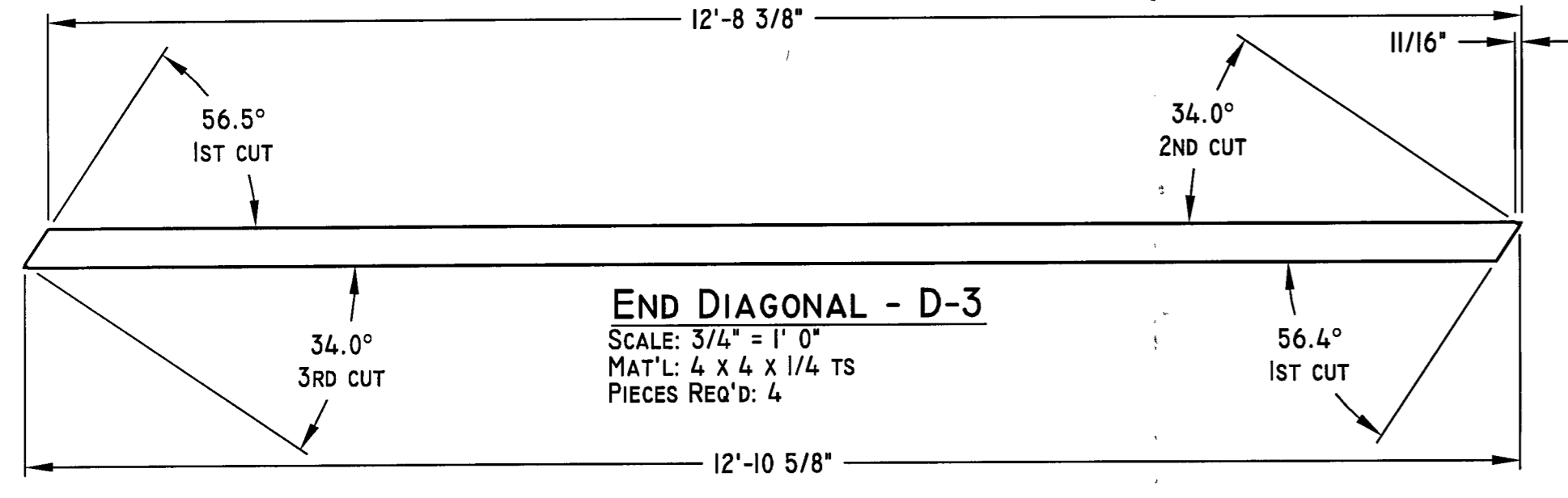
DRAWING TITLE: MATERIAL CUT SHEET	DRAWING # 999-E	SHEET: 9 OF 10	REV C
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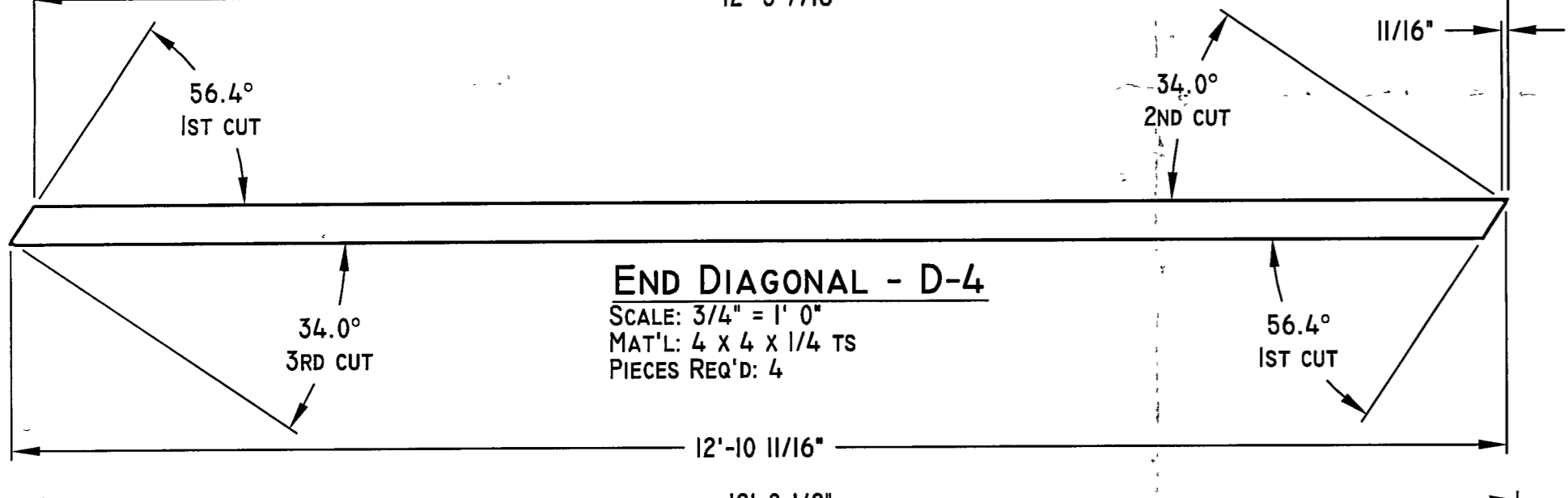
END DIAGONAL - D-1
SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



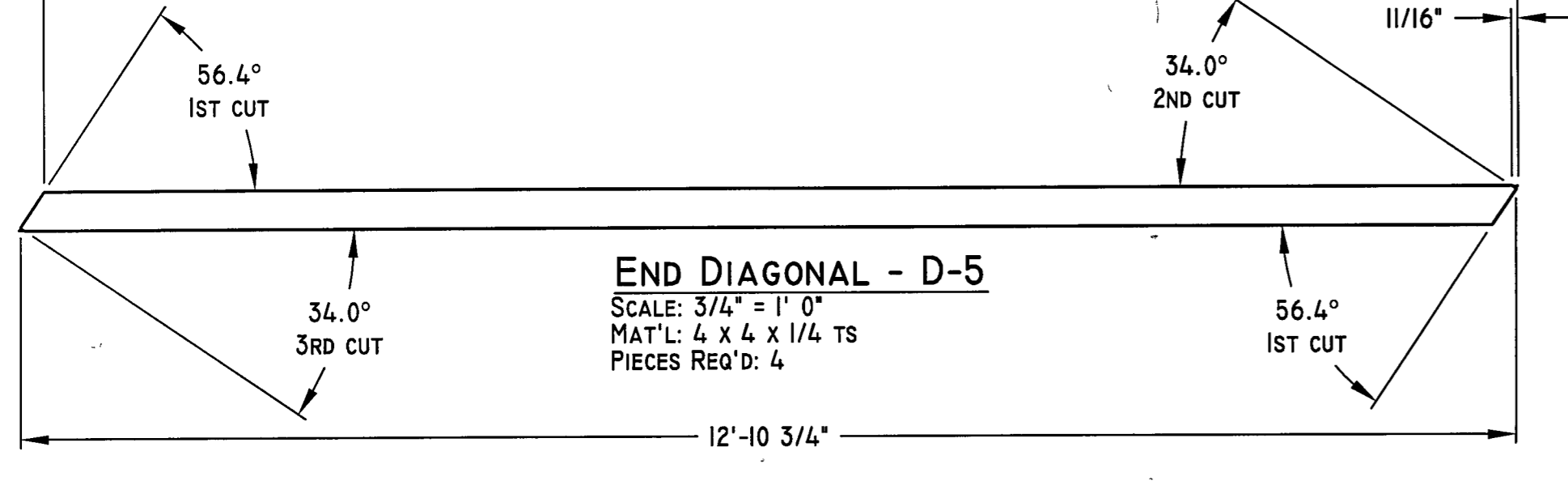
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SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



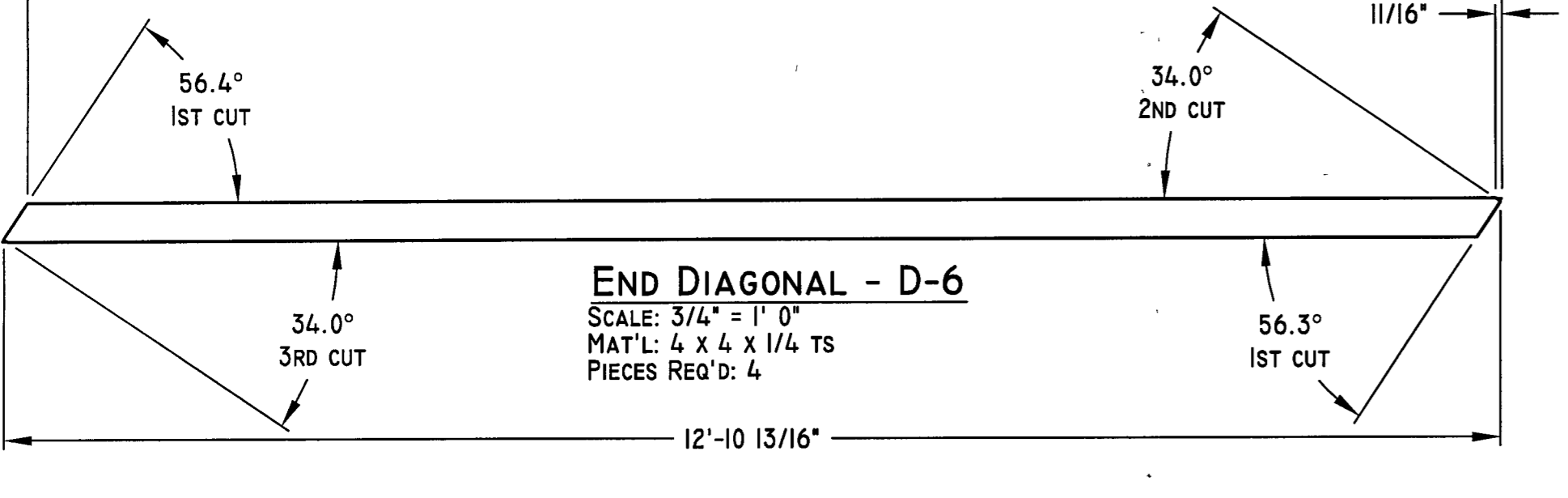
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SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



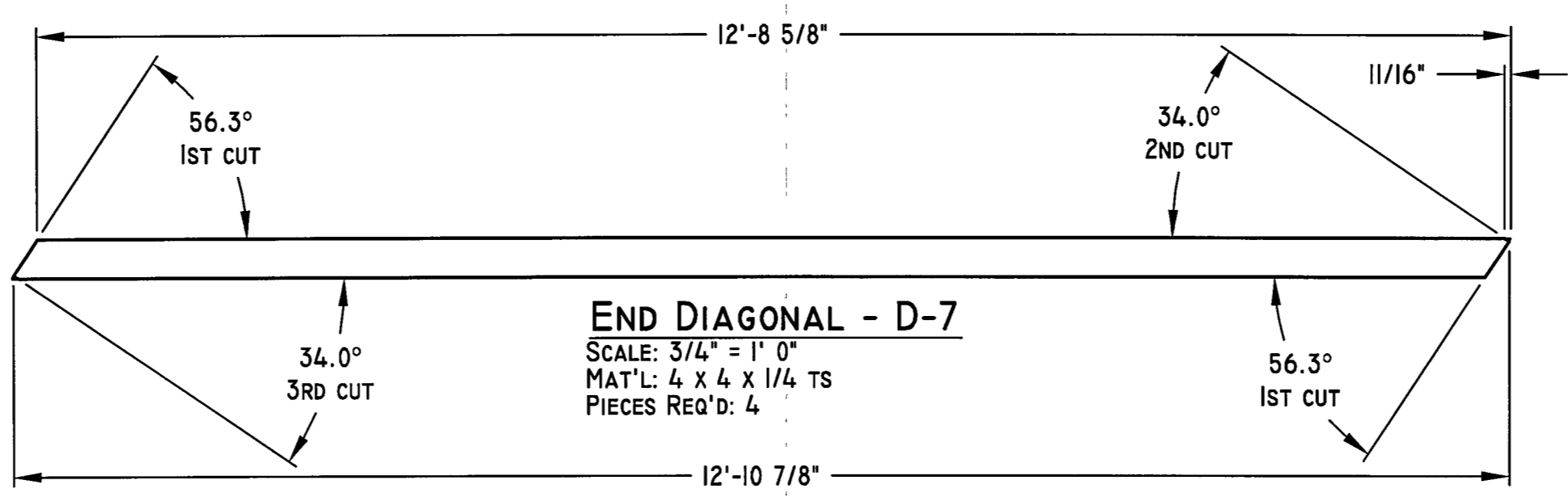
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SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



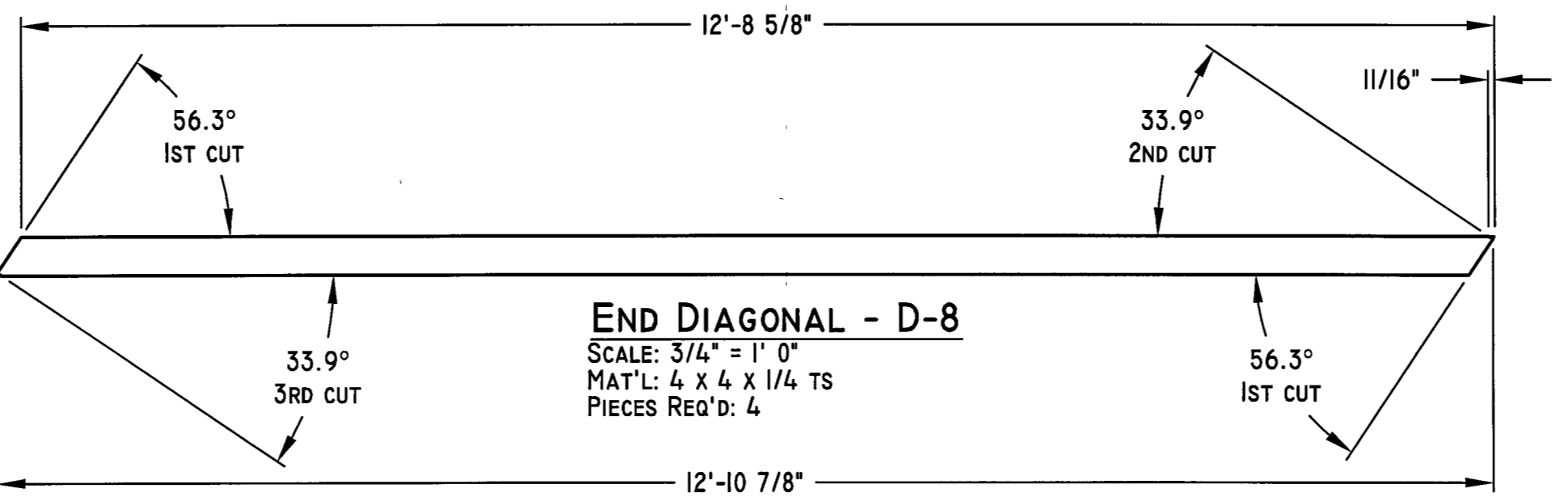
END DIAGONAL - D-5
SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



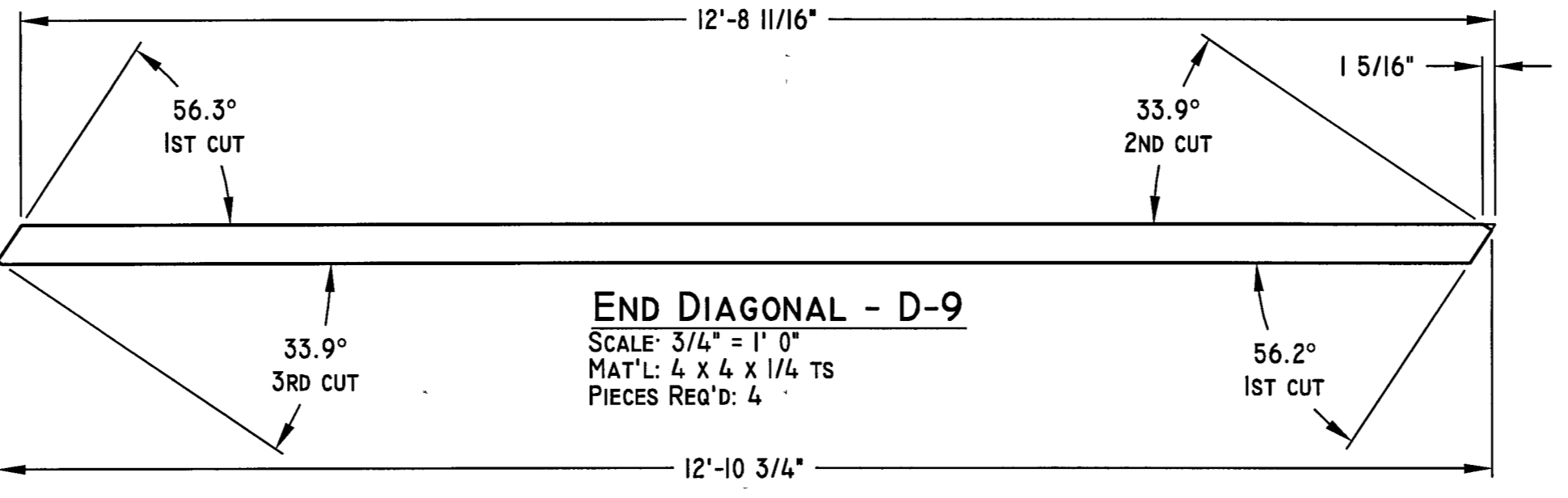
END DIAGONAL - D-6
SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



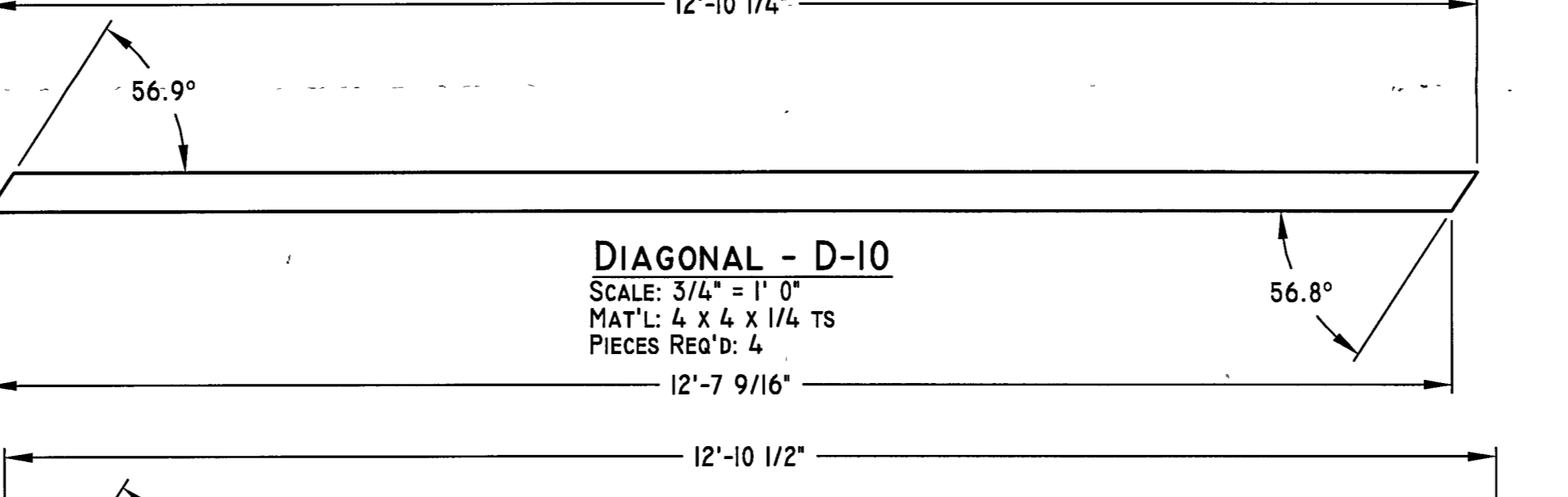
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SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



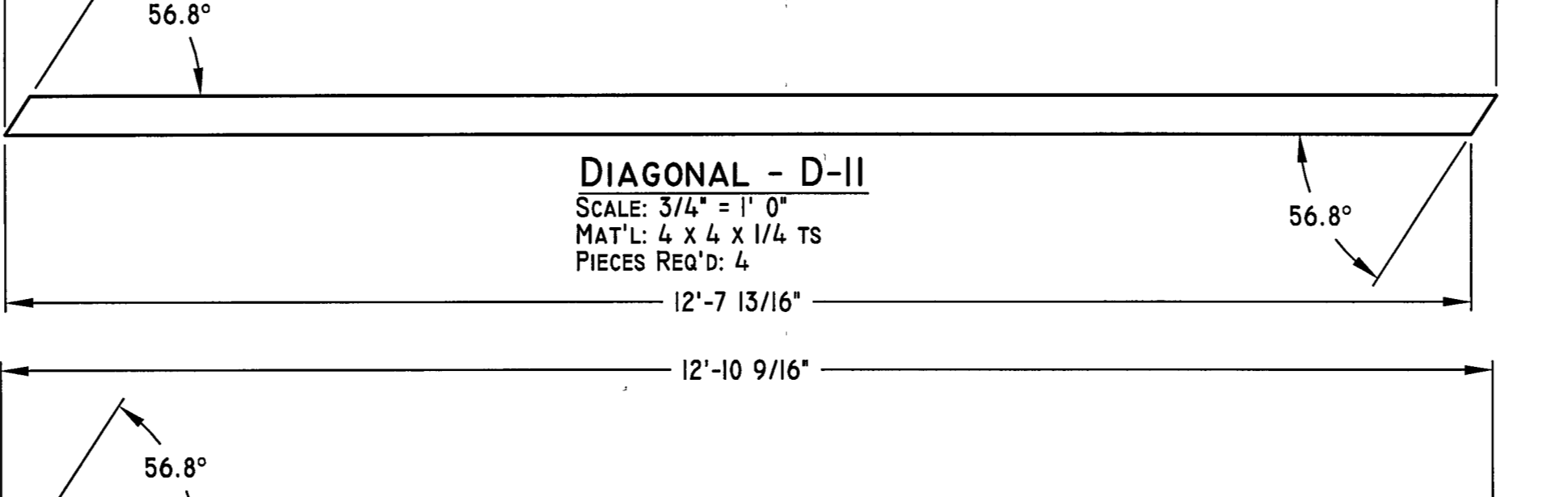
END DIAGONAL - D-8
SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



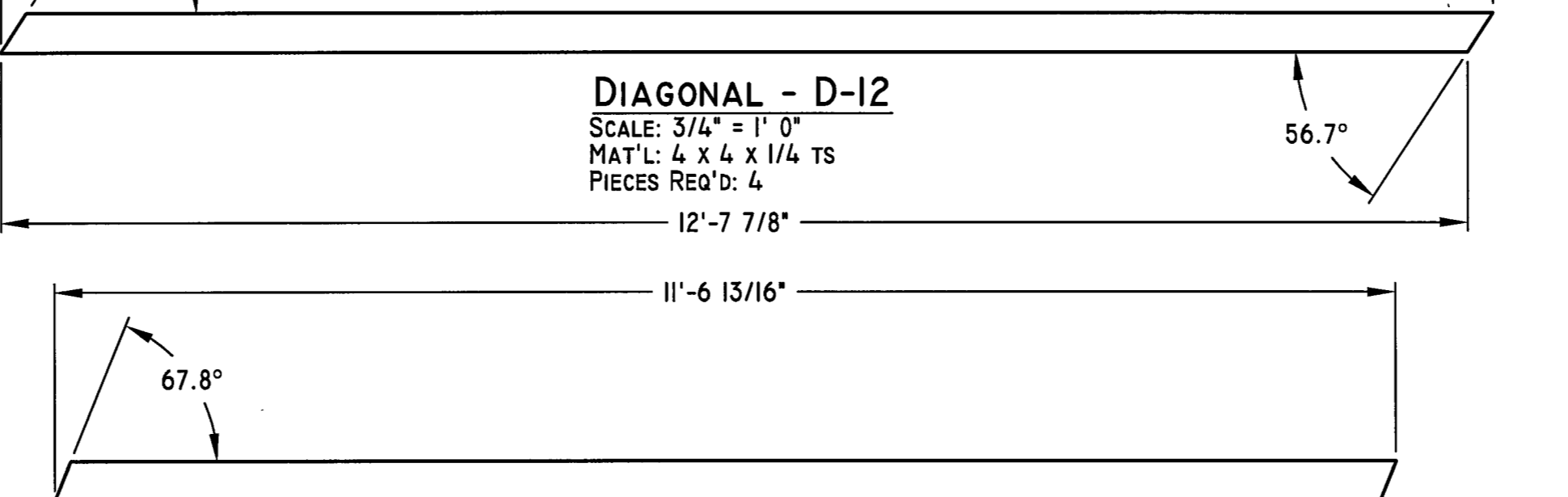
END DIAGONAL - D-9
SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



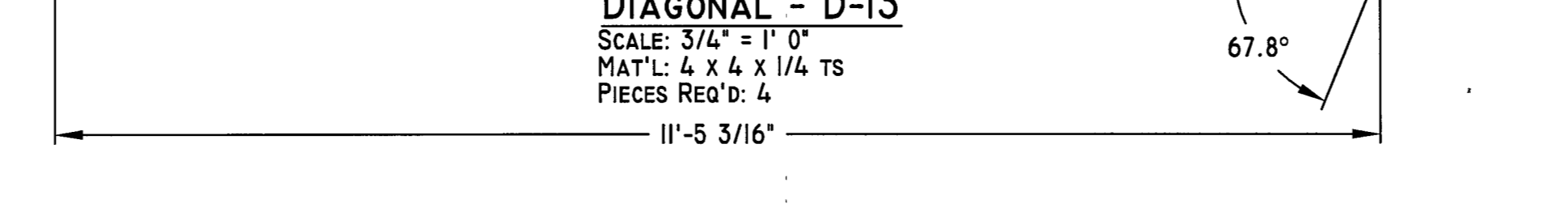
DIAGONAL - D-10
SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



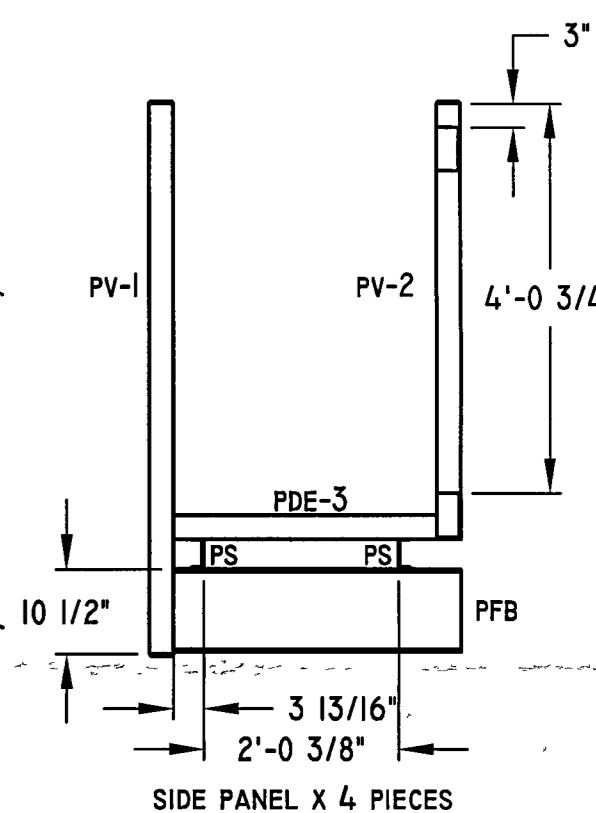
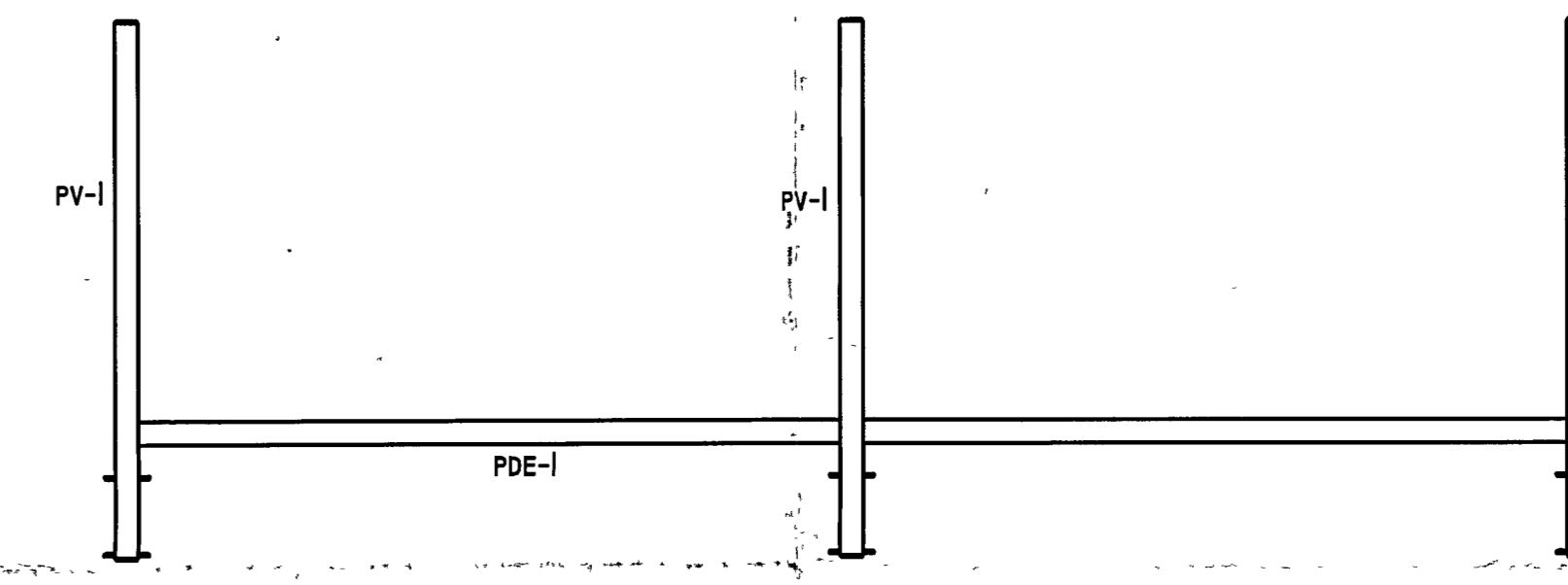
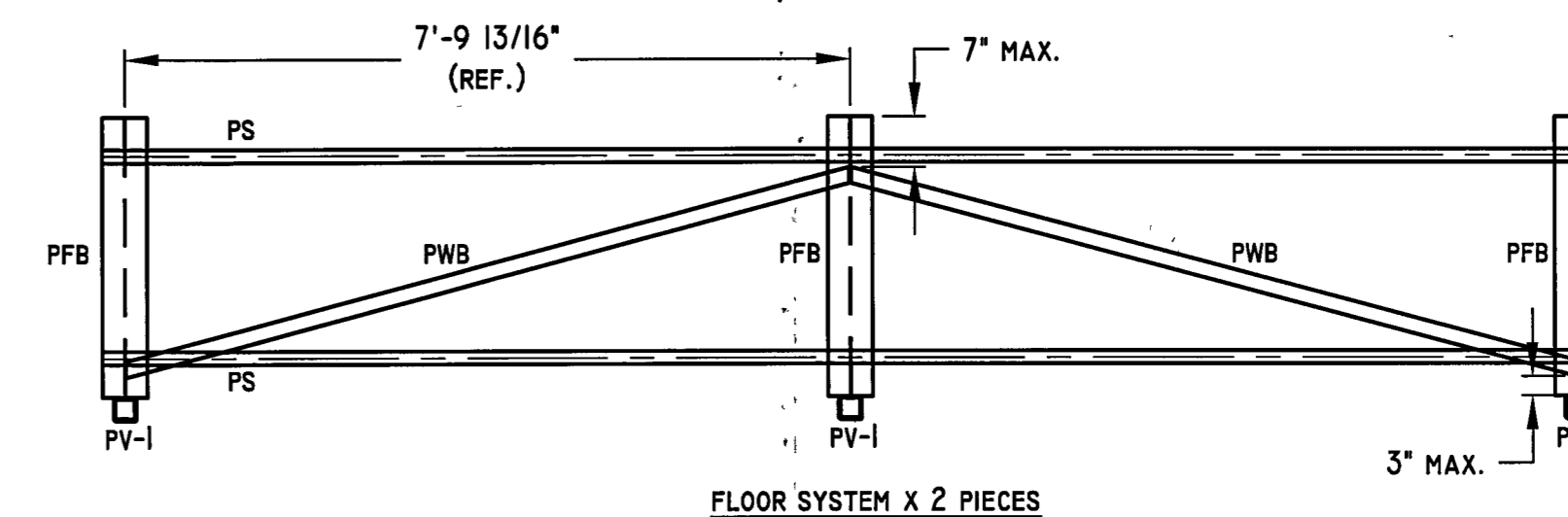
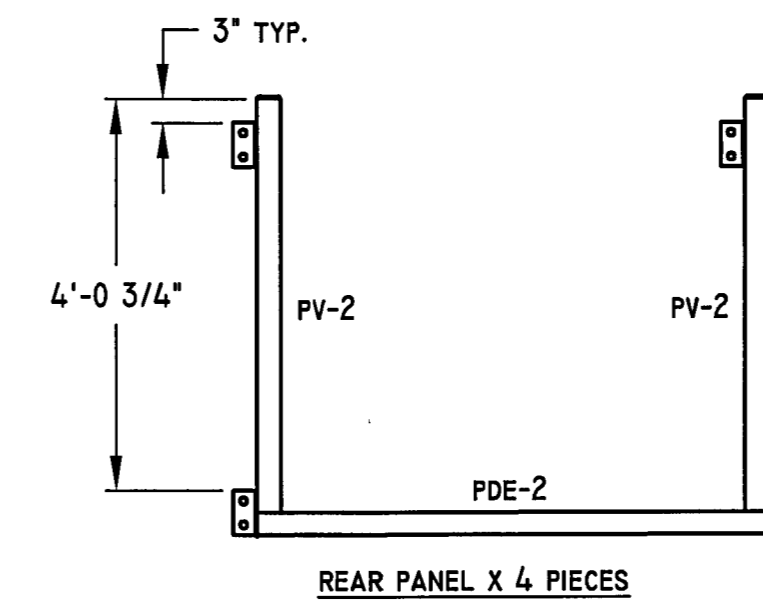
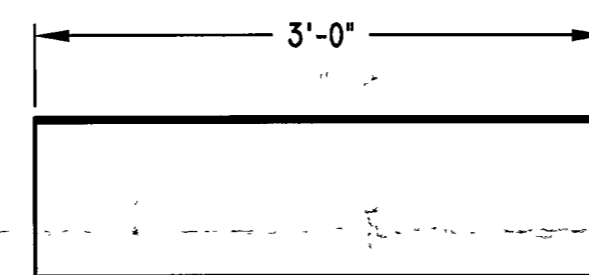
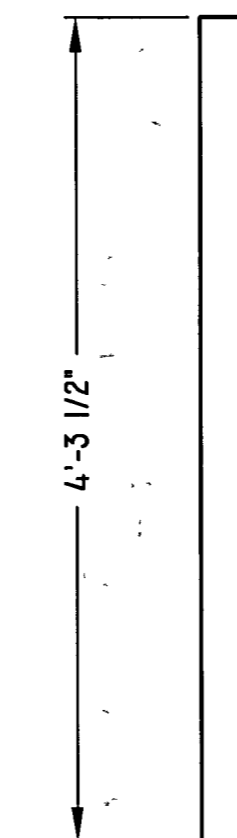
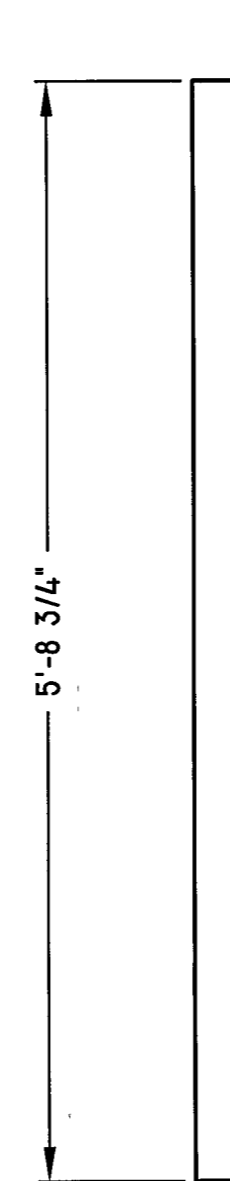
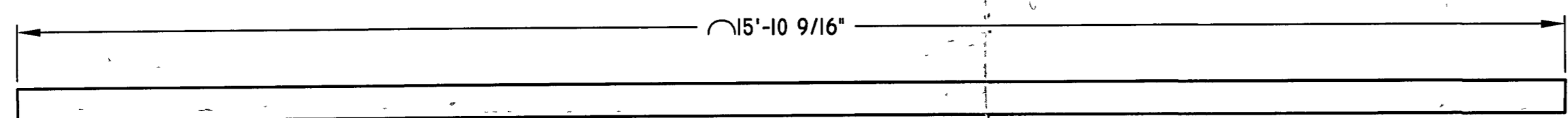
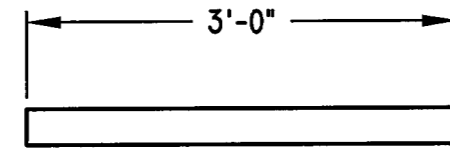
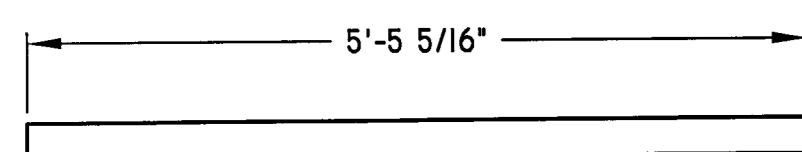
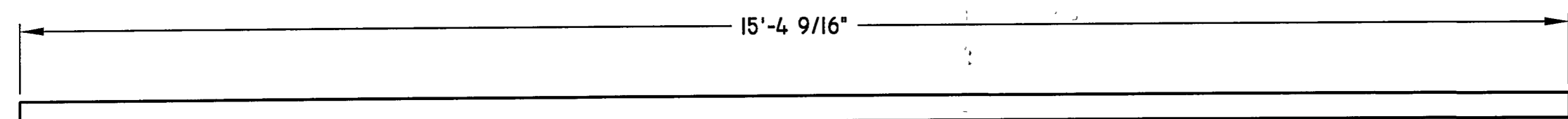
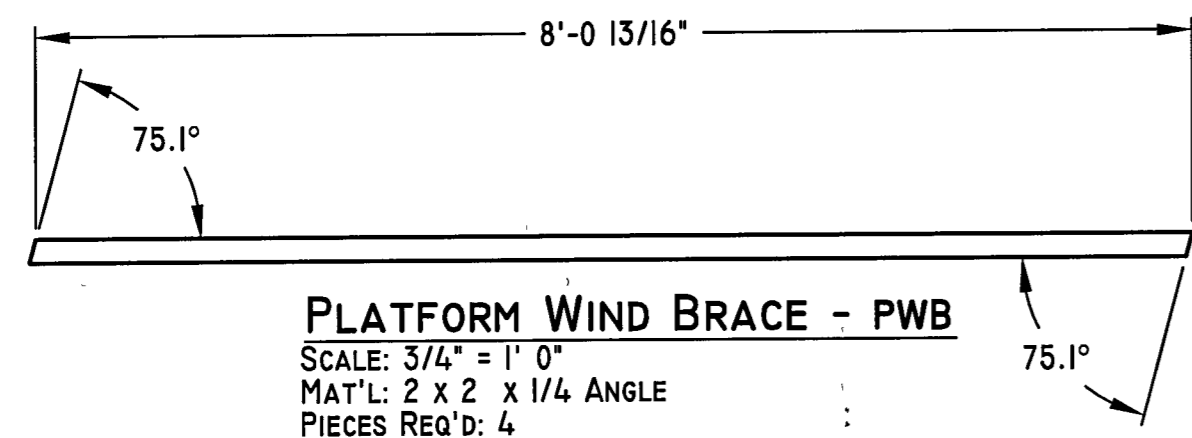
DIAGONAL - D-11
SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



DIAGONAL - D-12
SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



DIAGONAL - D-13
SCALE: 3/4" = 1' 0"
MAT'L: 4 x 4 x 1/4 TS
PIECES REQ'D: 4



27 OBSERVATION PLATFORM LAYOUT
 SCALE: 1/2" = 1' 0"

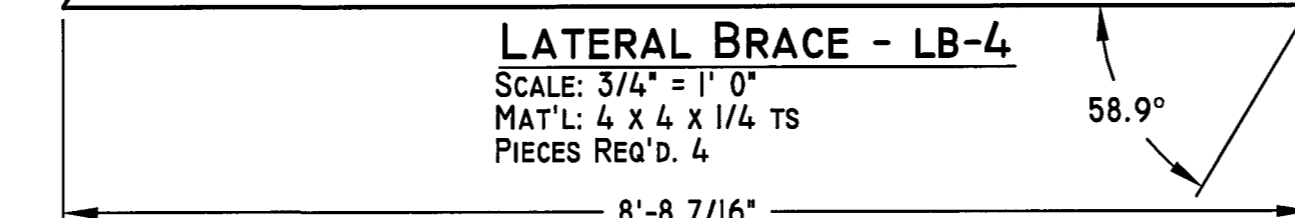
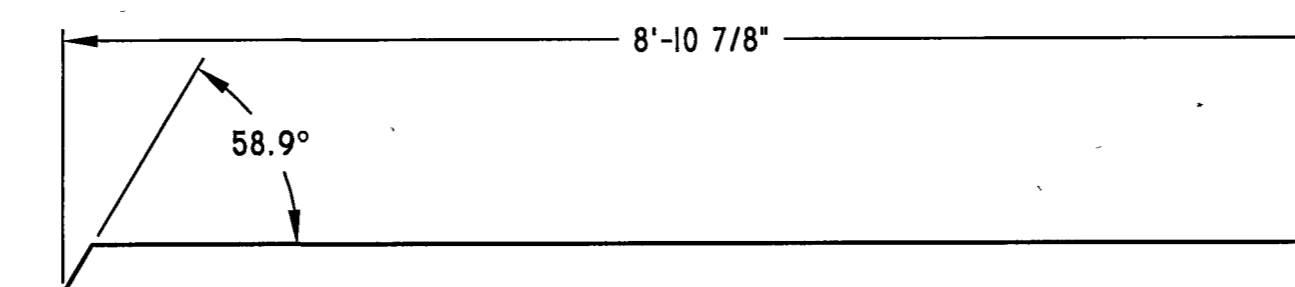
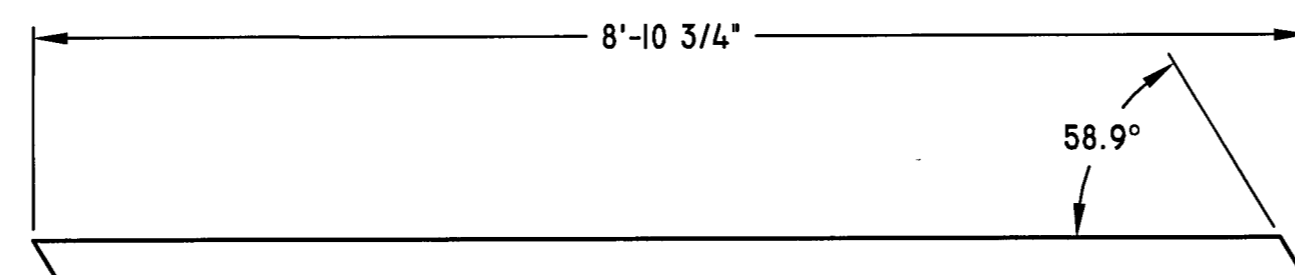
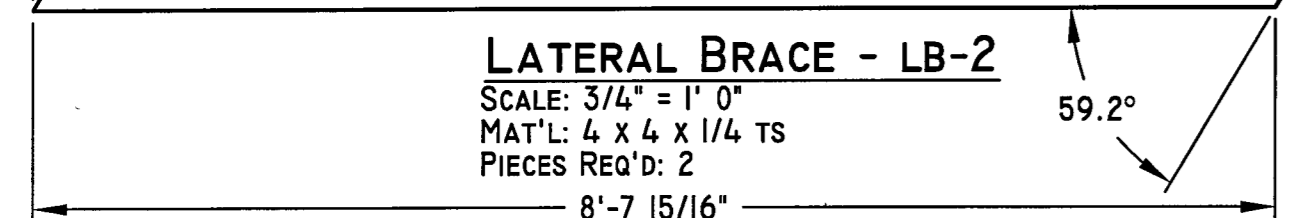
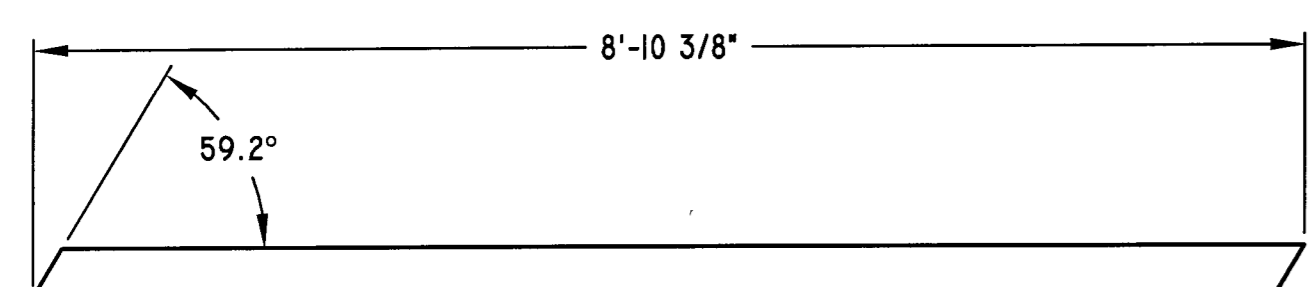
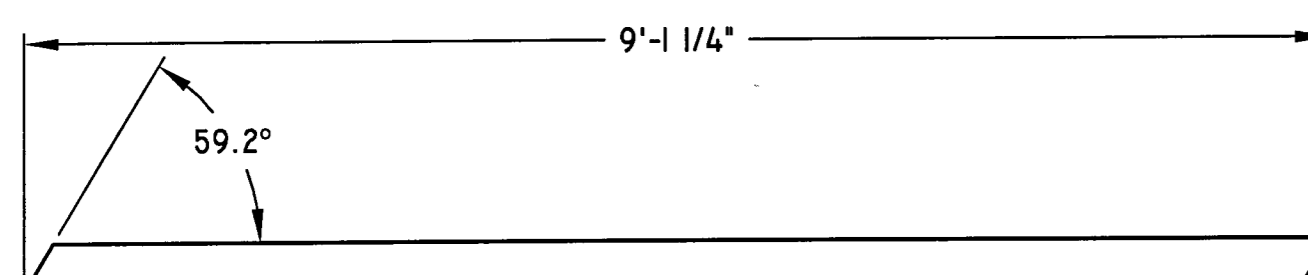
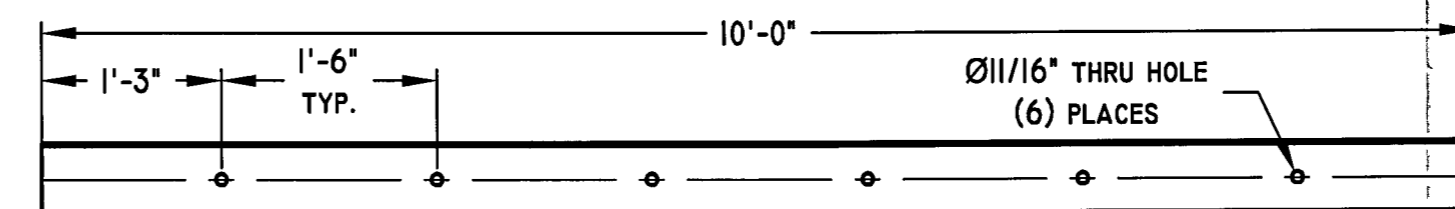
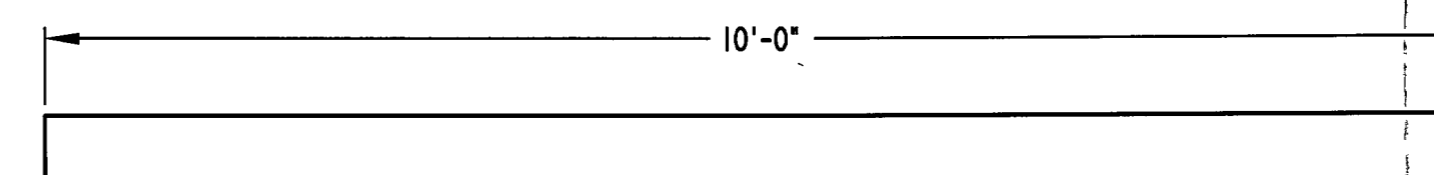
☒ APPROVED ☐ NOT APPROVED
☐ APPROVED AS CORRECTED
☐ REVISE AND RESUBMIT

Checking is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to the fabrication processes or to techniques of construction and for coordination of the work of all trades.

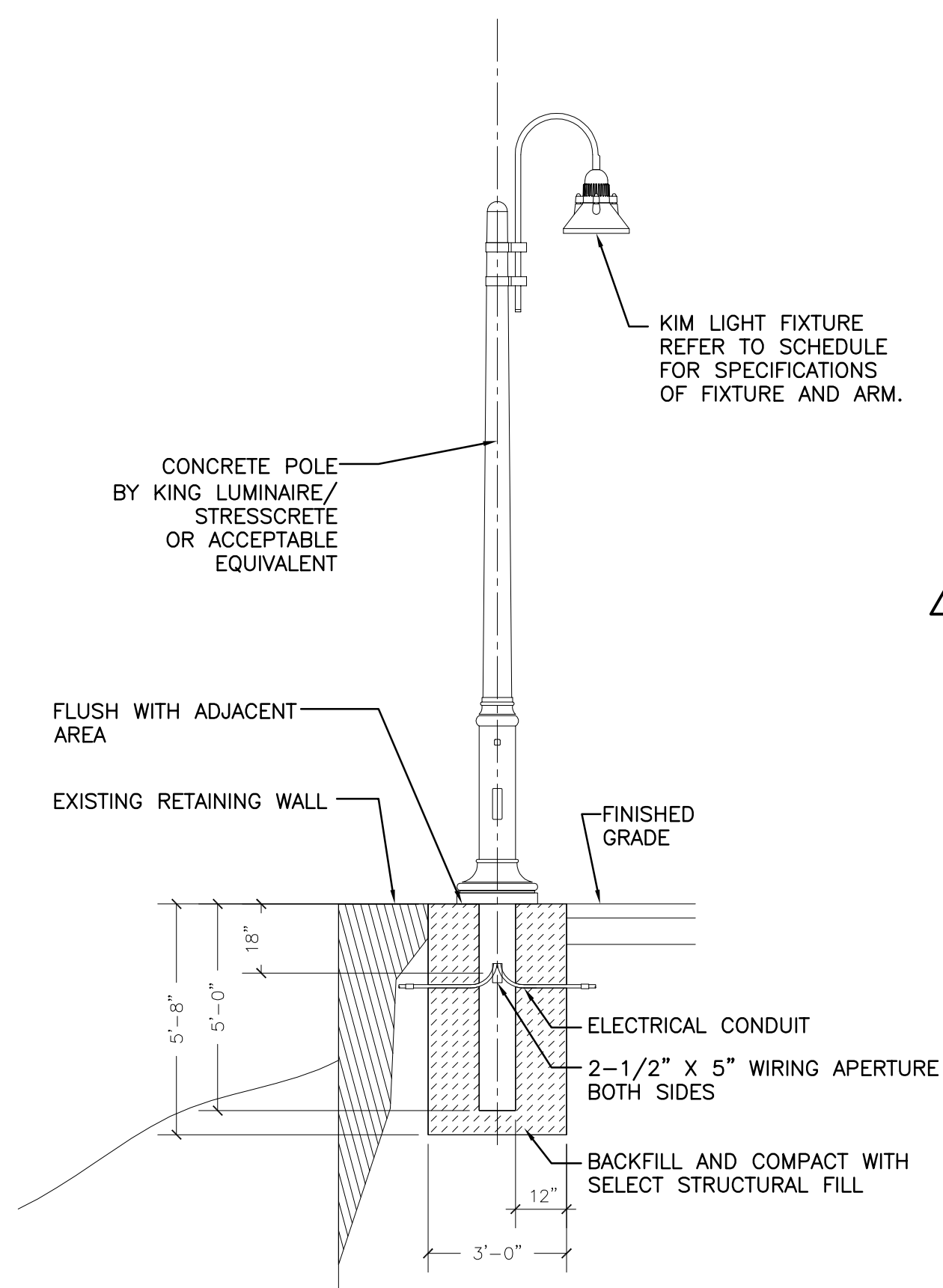
BY: *ABE*
 DATE: 4-15-11
 ABATE ASSOCIATES
 ENGINEERS & SURVEYORS, P.C.
 BUFFALO, NEW YORK 14225

THE PEDESTRIAN BRIDGE CONSTRUCTION IS IN CONFORMANCE WITH THE SHOP DRAWINGS SUBMITTED BY ECHO BRIDGE, INC.; AND APPROVED BY ABATE ASSOCIATES ENGINEERS & SURVEYORS, P.C. ON 04/15/11.

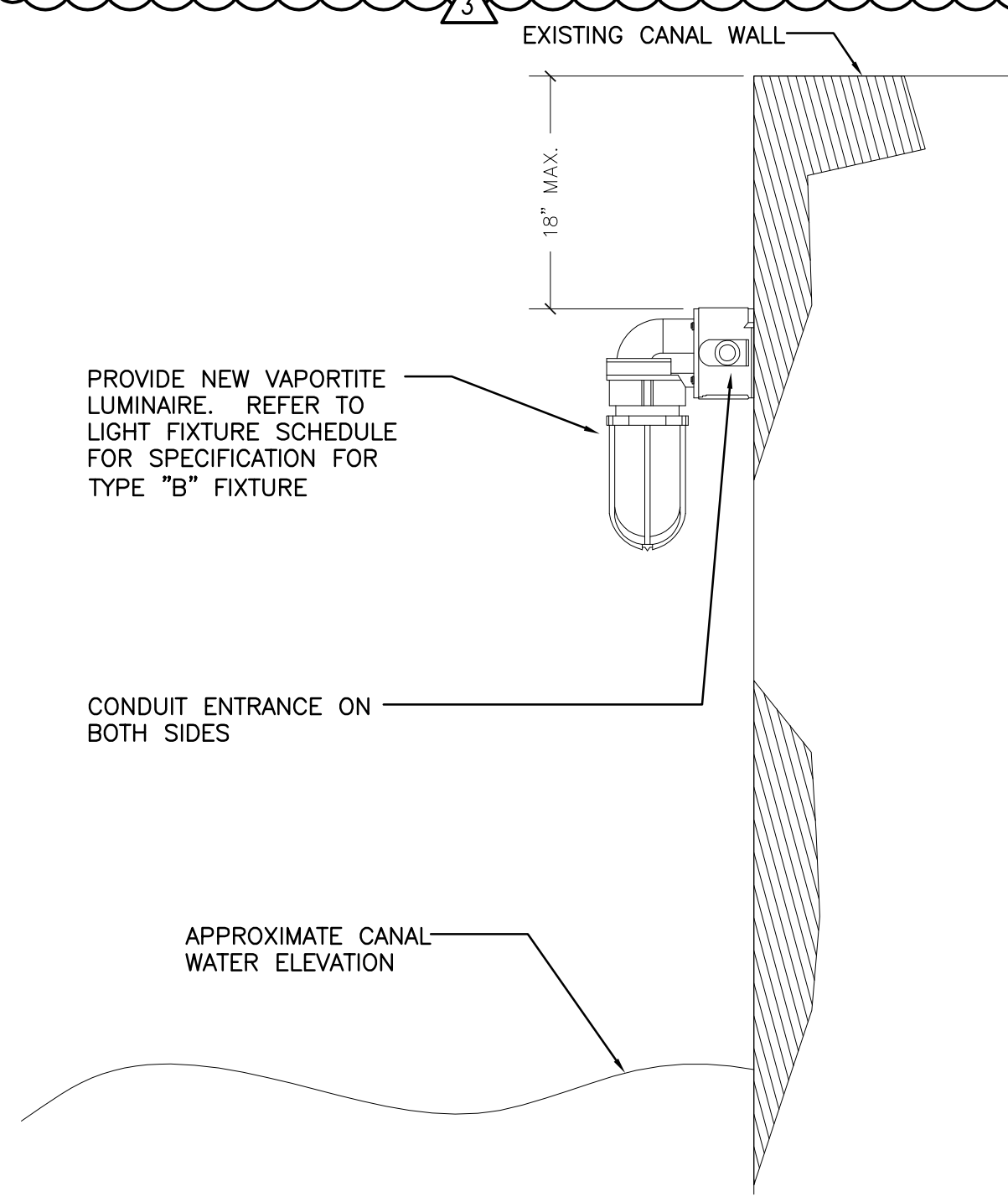
AS-BUILT



TOLERANCES			
CUT STEEL		FABRICATION	
± 1/16" (.062) ON MEMBERS LESS THAN 30'		± 1/4" (.25) ON VERT. & DIAG. PLACEMENTS	
± 1/8" (.125) ON MEMBERS GREATER THAN 30'		± 1/4" (.25) FOR EVERY 100 FEET IN LENGTH	
± 0.5 DEGREES ON ANGLES		± 0.5 DEGREES ON ANGLES	
		± L/500 FOR CAMBER	
CUSTOMER APPROVAL		ENGINEERS STAMP	
<input type="checkbox"/>	APPROVED		
<input type="checkbox"/>	APPROVED AS NOTED		
<input type="checkbox"/>	NOT APPROVED		
<input type="checkbox"/>	REVISE AND RESUBMIT		
REV	REV. DATE	DESCRIPTION	
A	1/17/11	No changes this sheet	
A	11/17/10	New Sheet	
		MLD	MLD
		BY	
		QUALITY CERTIFICATION SIMPLE BRIDGE MAJOR BRIDGE	
ECHO BRIDGE, INC 123 Bob Masia Drive Pine City, NY 14871 1-888-327-4343			
JOB TITLE: UNION SHIP CANAL PEDESTRIAN BRIDGE		DRAWN BY: MLD	
		CHECKED BY:	
CUSTOMER: MAN O'TREES		CREATION DATE: 7/1/10	
LOCATION: 1500 UNION ROAD, SUITE 201 WEST SENECA, NY 14224			
DRAWING TITLE: MATERIAL CUT SHEET			
DRAWING # 999-E		SHEET: 10 OF 10	
		REV C	

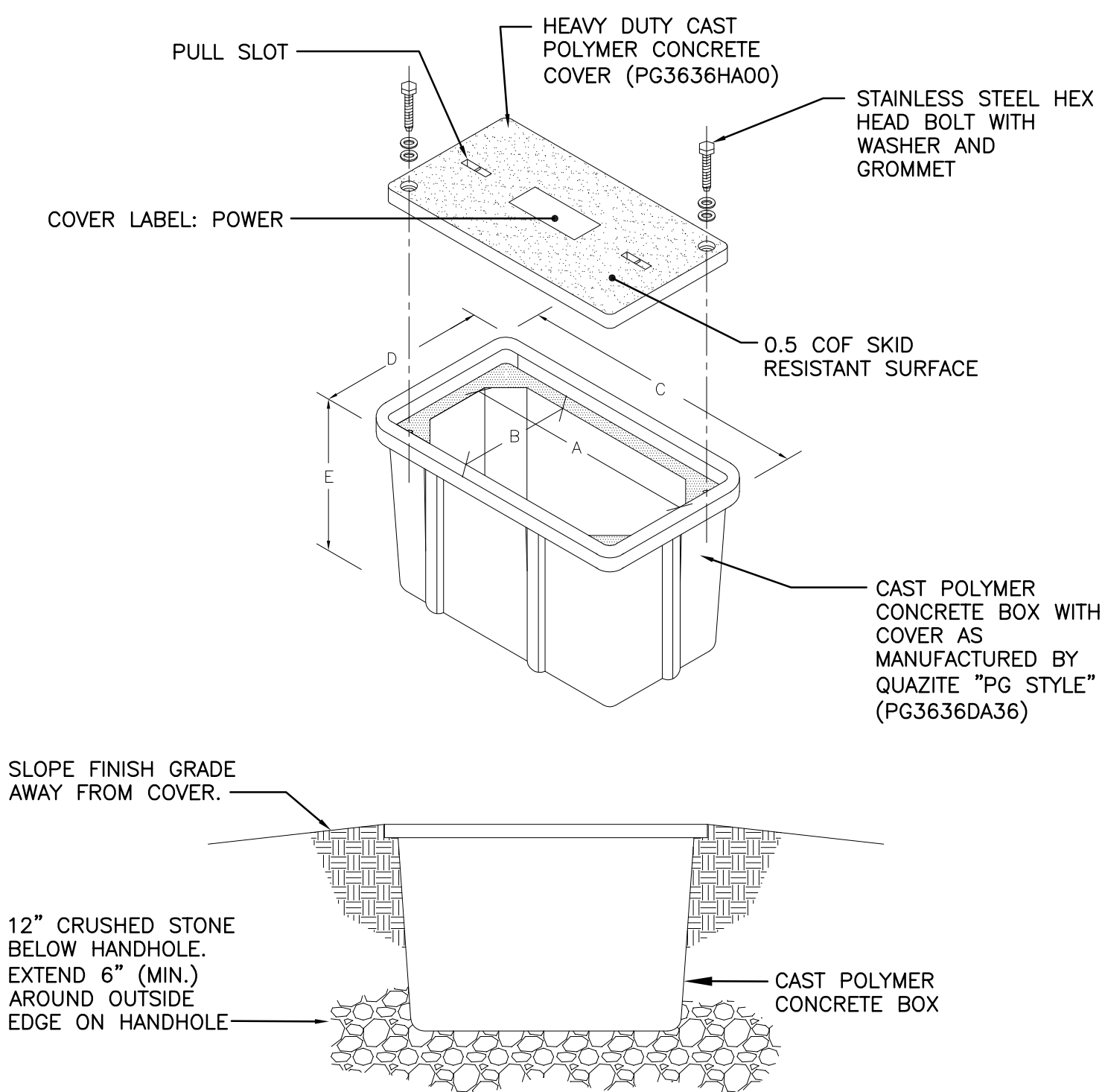


ALTERNATE BID ITEM
TYPE A LUMINAIRE INSTALLATION DETAIL
SCALE: NONE



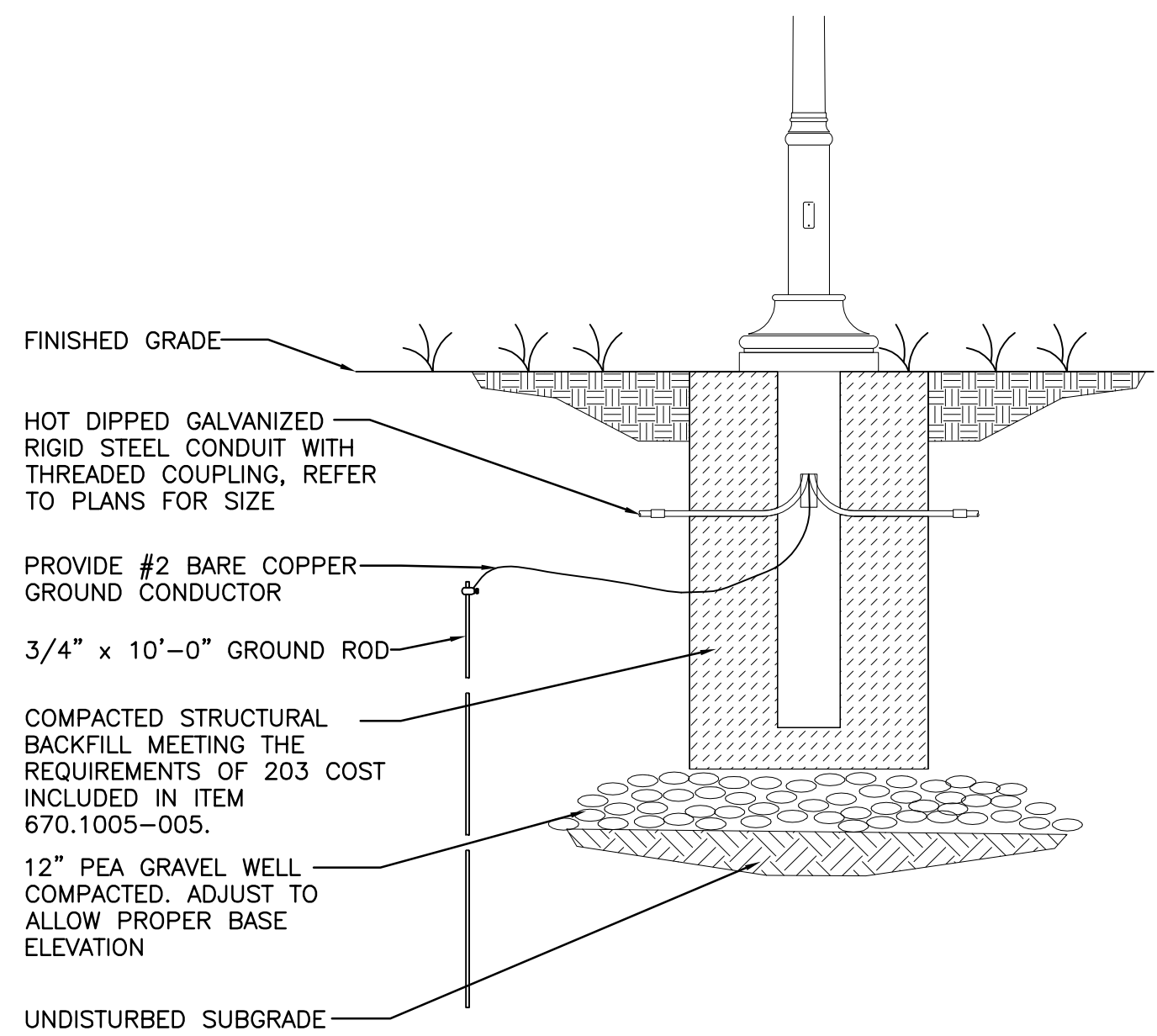
TYPE B LUMINAIRE INSTALLATION DETAIL
SCALE: NONE

WARNING - IT IS A VIOLATION OF NEW YORK EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK LAW, SECTION 7209.2.



NAME	A	B	C	D	E
HH-1	24"	24"	28"	28"	9"

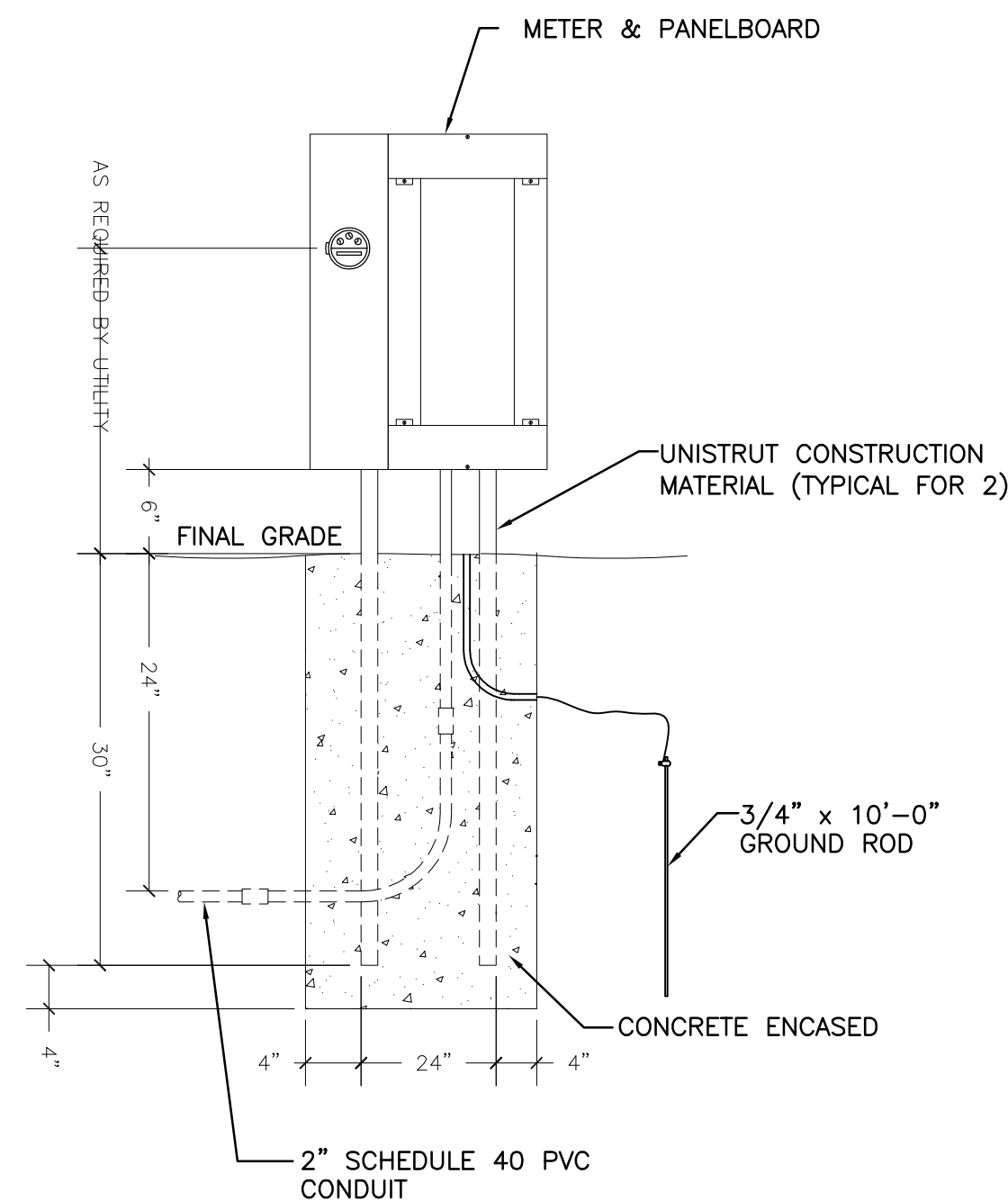
HANDHOLE DETAIL
SCALE: NONE



NOTES:

- CONTRACTOR SHALL COMPACT ALL BACKFILL.
- CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS WITH SELECTED LUMINAIRE MANUFACTURER & ADJUST (INCREASE) ANY DIMENSIONS AS REQUIRED.
- PROVIDE GROUND ROD AT ALL POLE LOCATIONS.

ALTERNATE BID ITEM
FOUNDATION DETAIL - SITE LUMINAIRE (ROUND BASE)
SCALE: NONE



METER & PANELBOARD PEDESTAL DETAIL
SCALE: NONE

SPNL PANELBOARD SCHEDULE									
PANELBOARD		VOLTS: 240		1 PH 3		WIRE 60 HZ			
		MAINS: MCB: 100 A				MLO:			
		ENCLOSURE: NEMA 3R				SURFACE			
LOCATION		AIC RATING:							
No.	BKR	DESCRIPTION	LOAD	L1	L2	LOAD	DESCRIPTION	BKR	No.
1	20A/1P	SOUTHEAST WALKWAY	900	1102		202	SOUTHEAST WALL LIGHTS	20A/1P	2
3	20A/1P	SOUTHEAST WALKWAY	720		872	152	SOUTHEAST WALL LIGHTS	20A/1P	4
5	20A/1P	SOUTHEAST WALKWAY	720	820		100	SOUTHEAST WALL LIGHTS	20A/1P	6
7		SPACE			0		SPACE		8
9		SPACE		0			SPACE		10
11		SPACE			0		SPACE		12
13		SPACE		0			SPACE		14
15		SPACE			0		SPACE		16
17		SPACE		0			SPACE		18
19		SPACE			0		SPACE		20

LIGHT FIXTURE SCHEDULE:

TYPE	DESCRIPTION	LENS/DIFFUSER	BALLAST	LAMP(S)	MANUFACTURER
ALTERNATE BID ITEM A	AREA LIGHTING POLE MOUNTED LUMINAIRE WITH FOLLOWING MINIMUM SPECIFICATIONS: NOMINAL 17" DIAMETER, HOUSING SHALL BE ONE PIECE DIE-CAST. GLASS LENS. SHALL BE MOUNTED ON SIDE ARM CROOK ATTACHED TO 15'-0" CONCRETE POLE. PROVIDE PHOTOCCELL CONTROL IN FIXTURE*	CLEAR FLAT GLASS LENS	(1) HIGH POWER FACTOR WITH COLD WEATHER STARTING CAPABILITY DOWN TO -30°C. 120VAC SYSTEM	(1) 150 WATT MH, MEDIUM BASE	FIXTURE - ERA 17" KIM LIGHTING MOUNTING ARM - SIDE MOUNT CROOK ARM KIM LIGHTING POLE - 15FT. STRESSCRETE, CANTERBURY FAMILY STRESSCRETE
B	SURFACE, WALL MOUNTED, NON-METALIC LIGHT, VAPORTITE TYPE LUMINAIRE WITH FOLLOWING MINIMUM SPECIFICATIONS. LUMINAIRE SHALL CONSIST OF CLEAR GLOBE, GUARD, & INTEGRAL JUNCTION BOX FOR DIRECT CONNECTION OF RIGID GALVANIZED CONDUITS. BOX SHALL BE DESIGNED TO ACCEPT CONDUIT UP TO & INCLUDING 1-1/2". LUMINAIRE ASSEMBLY SHALL BE FULLY SEALED & GASKETED WITH NEMA 3 TYPE RATED HOUSING. UL LISTED FOR MARINE TYPE APPLICATIONS.	CLEAR, TEMPERED GLASS GLOBE WITH GUARD	(1) INTEGRAL, ELECTRONIC, <10% THD, INSTANT START FOR USE WITH COMPACT FLUORESCENT LAMPS. COLD WEATHER RATED FOR STARTING DOWN TO 0°C. 120VAC SYSTEM	(1) 42 WATT COMPACT FLUORESCENT	HUBBELL - NV2 SERIES
ALTERNATE BID ITEM C	AREA LIGHTING POLE MOUNTED LUMINAIRE WITH FOLLOWING MINIMUM SPECIFICATIONS: NOMINAL 25" DIAMETER, HOUSING SHALL BE ONE PIECE DIE-CAST. GLASS LENS. SHALL BE MOUNTED ON SIDE ARM CROOK ATTACHED TO 25'-0" CONCRETE POLE. PROVIDE PHOTOCCELL CONTROL IN FIXTURE*	CLEAR FLAT GLASS LENS	(1) HIGH POWER FACTOR WITH COLD WEATHER STARTING CAPABILITY DOWN TO -30°C. 120VAC SYSTEM	(1) 250 WATT MH, MEDIUM BASE	FIXTURE - ERA 25" KIM LIGHTING MOUNTING ARM - SIDE MOUNT CROOK ARM KIM LIGHTING POLE - 25FT. STRESSCRETE, CANTERBURY FAMILY STRESSCRETE

PROVIDE 42 SPACE PANELBOARD.

*ALTERNATE BID ITEM:

CONTRACTOR SHALL INCLUDE (1) 15'-0" STRESSCRETE CANTERBURY CONCRETE POLE & (1) 25'-0" STRESSCRETE CANTERBURY POLE DELIVERED TO THE CITY OF BUFFALO STORAGE YARD ON SENECA STREET IN BUFFALO.

WENDEL DUCHSCHERER ARCHITECTS & ENGINEERS

MALCOLM PIRNIE

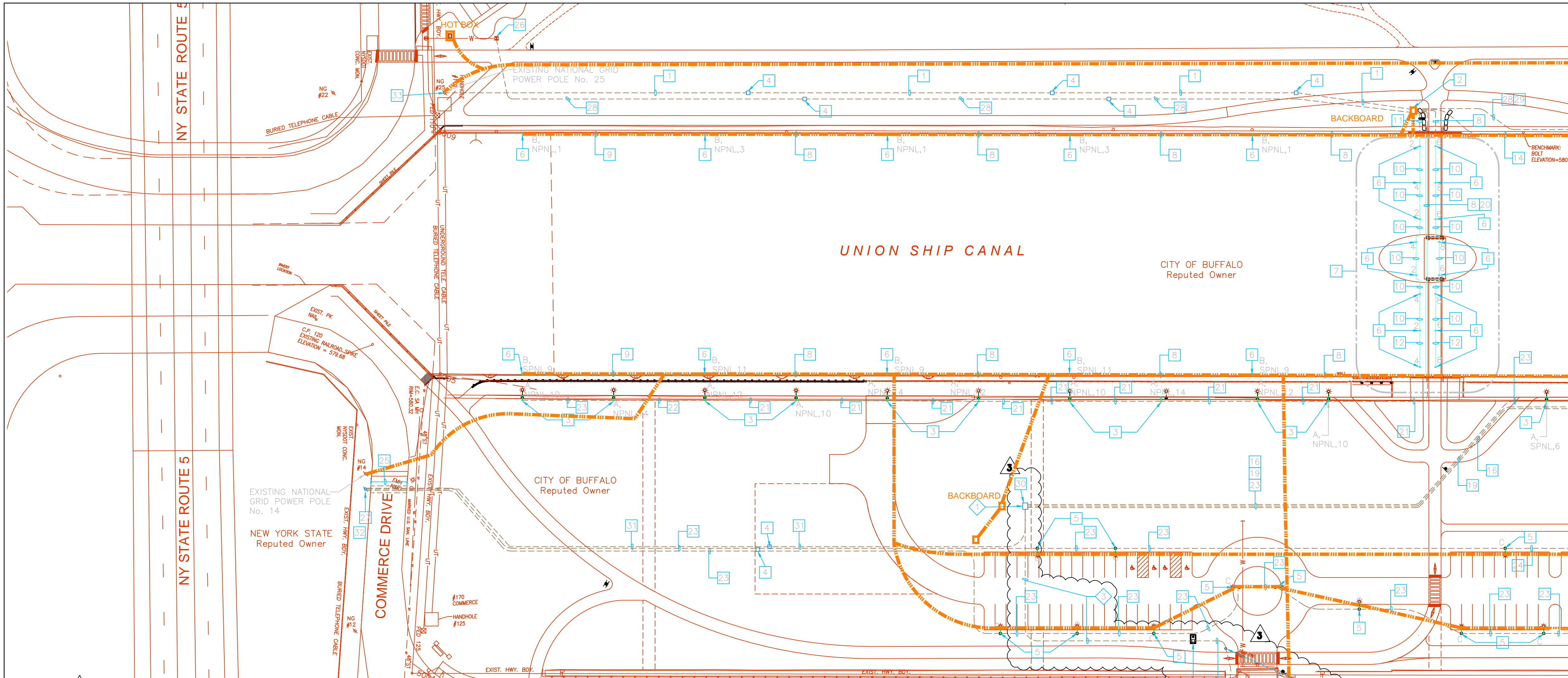
REVISIONS				DES	MAD
NO.	BY	DATE	REMARKS		
1	MAD	5/6/10	REVISIONS PER OWNER & NATIONAL GRID COMMENTS		
2	MAD	6/17/10	REVISIONS PER NATIONAL GRID DIRECTIVE		
3		8/24/10	REVISIONS PER COMMENT		

DES MAD
DWN RB
CKD PTV

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

SYMBOLS & ABBREVIATIONS,
ELECTRICAL DETAILS
SCALE: AS NOTED

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MALCOLM PIRNIE, INC.
DATE AUGUST 2009
E SHEET 1 OF 3
CAD REF. NO. USC-E001



CONSTRUCTION NOTES

- 2" SCHEDULE 40 PVC CONDUIT WITH (3)#4/0 AWG & (1)#4 AWG GROUND WIRE 24" BELOW FINAL GRADE. PROVIDE CONCRETE ENCASUREMENT UNDER ROAD.
- NEW METER PEDESTAL/PANELBOARD, SINGLE PHASE, 100 AMP AS MANUFACTURED BY SQUARE D. REFER TO 1/E1 FOR ADDITIONAL INFORMATION.
- ALTERNATIVE BID ITEM: TYPE "A" LIGHTING FIXTURE. REFER TO LIGHTING SCHEDULE FOR SPECIFICATIONS.
- NONMETALLIC PULLBOX 24"x24" NEMA 3R. TOP OF PULLBOX SHALL BE FLUSH WITH TOP OF FINISHED GRADE.
- ALTERNATIVE BID ITEM: TYPE "C" LIGHTING FIXTURE. REFER TO LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.
- VAPORTIGHT TYPE LIGHT FIXTURE AS MANUFACTURED BY HUBBELL. REFER TO LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.
- PROVIDE TYPE B LIGHT FIXTURES ON SIDE OF BRIDGE. CONNECT TO PANEL NPNL, CIRCUIT NO. AS INDICATED.
- 1" RIGID GALVANIZED CONDUIT WITH (6)#8 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED ON FACE OF EXISTING CANAL WALL OR SIDE OF BRIDGE.
- 1" RIGID GALVANIZED CONDUIT WITH (3)#8 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED ON SIDE OF EXISTING CANAL WALL OR SIDE OF BRIDGE.
- 1" RIGID GALVANIZED CONDUIT WITH (6)#12 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED ON SIDE OF THE BRIDGE.
- 1" RIGID GALVANIZED CONDUIT WITH (6) #12 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED 24" BELOW GRADE TO SIDE OF EXISTING CANAL WALL.
- 1" RIGID GALVANIZED CONDUIT WITH (3)#12 AWG WIRES (TYPE THHN/THWN) CONDUIT SHALL BE INSTALLED ON SIDE OF BRIDGE.
- 1" RIGID GALVANIZED CONDUIT WITH (6)#6 AWG WIRES (TYPE THHN/THWN) CONDUIT SHALL BE INSTALLED ON SIDE OF EXISTING CANAL WALL.
- 1" RIGID GALVANIZED CONDUIT WITH (6)#6 AWG WIRES (TYPE THHN/THWN) CONDUIT SHALL BE INSTALLED 24" BELOW GRADE TO SIDE OF EXISTING CANAL WALL.
- 1" RIGID GALVANIZED CONDUIT WITH (3)#6 AWG WIRES (TYPE THHN/THWN) CONDUIT SHALL BE INSTALLED ON SIDE OF EXISTING CANAL WALL.
- 2" SCHEDULE 40 PVC CONDUIT WITH (9)#4 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
- 2" SCHEDULE 40 PVC CONDUIT WITH (6)#4 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
- 2" SCHEDULE 40 PVC CONDUIT WITH (3)#4 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
- 2" SCHEDULE 40 PVC CONDUIT WITH (6)#8 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED 24" BELOW GRADE. TRANSITION TO 1" RGS FOR WALL LIGHTING FIXTURES.
- 2" RIGID GALVANIZED CONDUIT WITH (9)#6 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED TO THE UNDERSIDE OF BRIDGE.
- 2" SCHEDULE 40 PVC CONDUIT WITH (9)#6 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
- 2" SCHEDULE 40 PVC CONDUIT WITH (6)#6 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
- 2" SCHEDULE 40 PVC CONDUIT WITH (3)#6 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
- 2" SCHEDULE 40 PVC CONDUIT WITH (3)#2 AWG WIRES (TYPE THHN/THWN). CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
- PROVIDE CONCRETE ENCASUREMENT UNDER ROAD.
- NEW HOT BOX ELECTRICAL CONNECTION TO HEATER TRACE TAPE. PROVIDE NON FUSED DISCONNECT IN HOT BOX.
- PROVIDE NONMETALLIC PULLBOX WITH TWO (2) SETS OF FUSES TO BE 20 AMPS EACH AND THE SECOND SET TO BE 35 AMPS EACH.
- 2" SCHEDULE 40 PVC CONDUIT WITH (3) #8 AWG WIRES (TYPE THHN/THWN) CONDUIT SHALL BE INSTALLED 24" BELOW GRADE.
- SPARE 2" SCHEDULE 40 PVC CONDUIT WITH FISHLINE.

MATCHLINE - SEE SHEET E3

UNDERGROUND ELECTRIC AS-BUILTS BY 'MAN O TREES'
12 / 5 / 2014

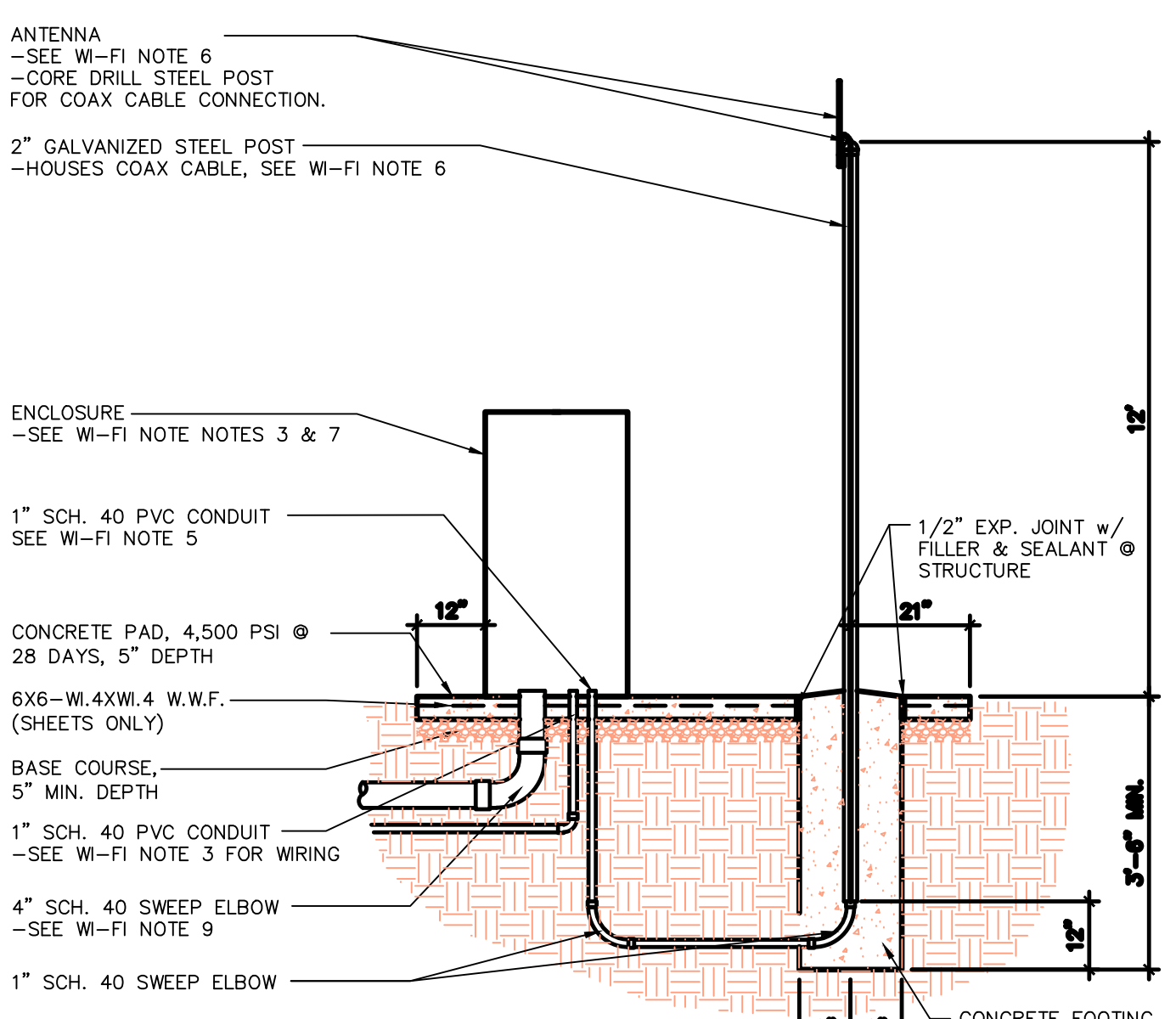
THIS DOCUMENT WAS PREPARED FOR THE NEW YORK STATE DEPARTMENT OF STATE WITH FUNDS PROVIDED UNDER TITLE 11 OF THE ENVIRONMENTAL PROTECTION FUND.

WI-FI NOTES

- IN PANELBOARD SPNL PROVIDE ONE (1) SINGLE POLE 20AMP CIRCUIT BREAKER.
- PROVIDE A 7' L X 4' W CONCRETE PAD FOR MOUNTING OF ENCLOSURE & ANTENNA POST. THE PAD SHALL BE LOCATED AS SHOWN, SEE PLAN VIEW THIS SHEET.
- 4" SCHEDULE 40 PVC MIN. 24" BELOW FINISHED GRADE.
- PROVIDE A 1" SCH. 40 PVC CONDUIT FROM PANELBOARD STUBBED UP THRU CONCRETE PAD INSIDE OF ENCLOSURE. THERE SHALL BE 3-NO.10 AWG WIRES IN CONDUIT. PROVIDE A TWO GANGED BOX, TWO (2) 20 AMP DUPLEX RECEPTACLES WITH A STAINLESS STEEL COVER ATTACHED TO CONDUIT.
- PROVIDE A 2" GALVANIZED STEEL POST.
- PROVIDE A 1" SCH. 40 PVC CONDUIT FROM POST STUBBED UP THRU THE CONCRETE PAD INSIDE OF ENCLOSURE BOX.
- INSTALL THE NEW ANTENNA AT THE TOP OF THE POST W/ MASTER MOUNT. INSTALL A LENGTH OF 400 SERIES COAX CABLE FROM PANEL IN ENCLOSURE THROUGH 1" SCH. 40 PVC CONDUIT AND STEEL POST TO THE ANTENNA, TERMINATING AT BOTH ENDS. ANTENNA SHALL BE TERRA WAVE MODEL NO. T24060010006S OR APPROVED EQUAL.
- ENCLOSURE SHALL BE DDB UNLIMITED (MODEL OD-50DX), ALUMINUM FINISH, 50"HT X 25"W X 25"D; OR APPROVED EQUAL. ENCLOSURE SHALL INCLUDE: ADJUSTABLE RACKING, FRONT & REAR LOCKING DOORS WITH LOUVERS AND FILTERS, AND TOP LOUVER
- CONTRACTOR SHALL ANCHOR ENCLOSURE TO PAD PER MANUFACTURER RECOMMENDATION.
- PROVIDE THE FOLLOWING COMPONENTS: 3 SMT-17 MOUNTING TRAYS, F-15-11ST 115VOLT 110 CFM FAN KIT W/ THERMOSTAT, HT-300 300 WATT HEATER WITH THERMOSTAT, UPS-APC, BACKUP UPS PRO 1000, APC-BR 1000G, POWERSTRIP-APC, SWITCHED RACK PDU, AP7900, CISCO ASA 5505 ROUTER, CISCO 1310 ACCESS POINT, POWER INJECTOR, LIGHTNING ARRESTOR / SURGE SUPPRESSOR FOR COAX LINE, GROUND BLOCK, AND NOMADIX AG3100 GATEWAY.
- PROVIDE A 4" SCH. 40 SWEEP ELBOW THRU THE CONCRETE PAD INSTALLED IN DIRECTION OF VERIZON'S CONNECTION POINT.
- INSTALL A LIGHTNING ARRESTOR TO THE TOP OF ENCLOSURE. PROVIDE A 3/4" X 10' GROUND ROD THRU CONCRETE PAD. PROVIDE A GREEN NO. 4 AWG CONDUCTOR FROM ARRESTOR TO THE GROUND ROD.

CONSTRUCTION NOTES (CONTD)

- NEW METER PEDESTAL/PANELBOARD, SINGLE PHASE, 200 AMP AS MANUFACTURED BY SQUARE "D". THE NEW PANELBOARD SHALL BE RATED AT 200 AMPS MAIN CIRCUIT BREAKER AND 42 SPACES. THE EXISTING DETAIL ON SHEET E1 FOR SPNL WILL STILL REMAIN AS IS. THE ADDITIONAL SPACES FOR CIRCUIT BREAKERS WILL FOR FUTURE USE.
- 2-2" SCHEDULE 40 PVC CONDUITS WITH (3) 2/0 AND (1) NO. 4 AWG IN EACH. CONDUITS TO BE LOCATED 24" BELOW FINAL GRADE.
- PROVIDE TWO (2) NONMETALLIC PULLBOX. ONE PULLBOX IS FOR THE PARKING LOT LIGHTING FIXTURES. THE SECOND IS FOR THE METER / PANELBOARD PEDESTAL. EACH PULLBOX SHALL BE 24" DIAMETER WITH FUSE HOLDERS AS REQUIRED BY NATIONAL GRID. THE CONTRACTOR SHALL ALSO INSTALL THE CONDUITS FROM THE MANHOLES 10'-0" UP THE POLE, AND REQUIRED LENGTH OF WIRE AS REQUIRED BY NATIONAL GRID.
- PROVIDE ONE (1) NONMETALLIC PULLBOX. PULL BOX SHALL BE 24" DIAMETER WITH FUSE HOLDERS AS REQUIRED BY NATIONAL GRID. THE CONTRACTOR SHALL ALSO INSTALL THE CONDUIT FROM THE MANHOLE 10'-0" UP THE POLE, AND REQUIRED LENGTH OF WIRE AS REQUIRED BY NATIONAL GRID.



WI-FI SECTION
SCALE:

REVISIONS				
NO.	BY	DATE	REVISIONS	REMARKS
1	MAD	5/6/10	REVISIONS PER OWNER & NATIONAL GRID COMMENTS	
2	MAD	6/26/10	REVISIONS PER ADDITION OF WI-FI SERVICE	
3	DLK	7/29/10	REVISIONS TO WI-FI SERVICE PER VERIZON COORDINATION	

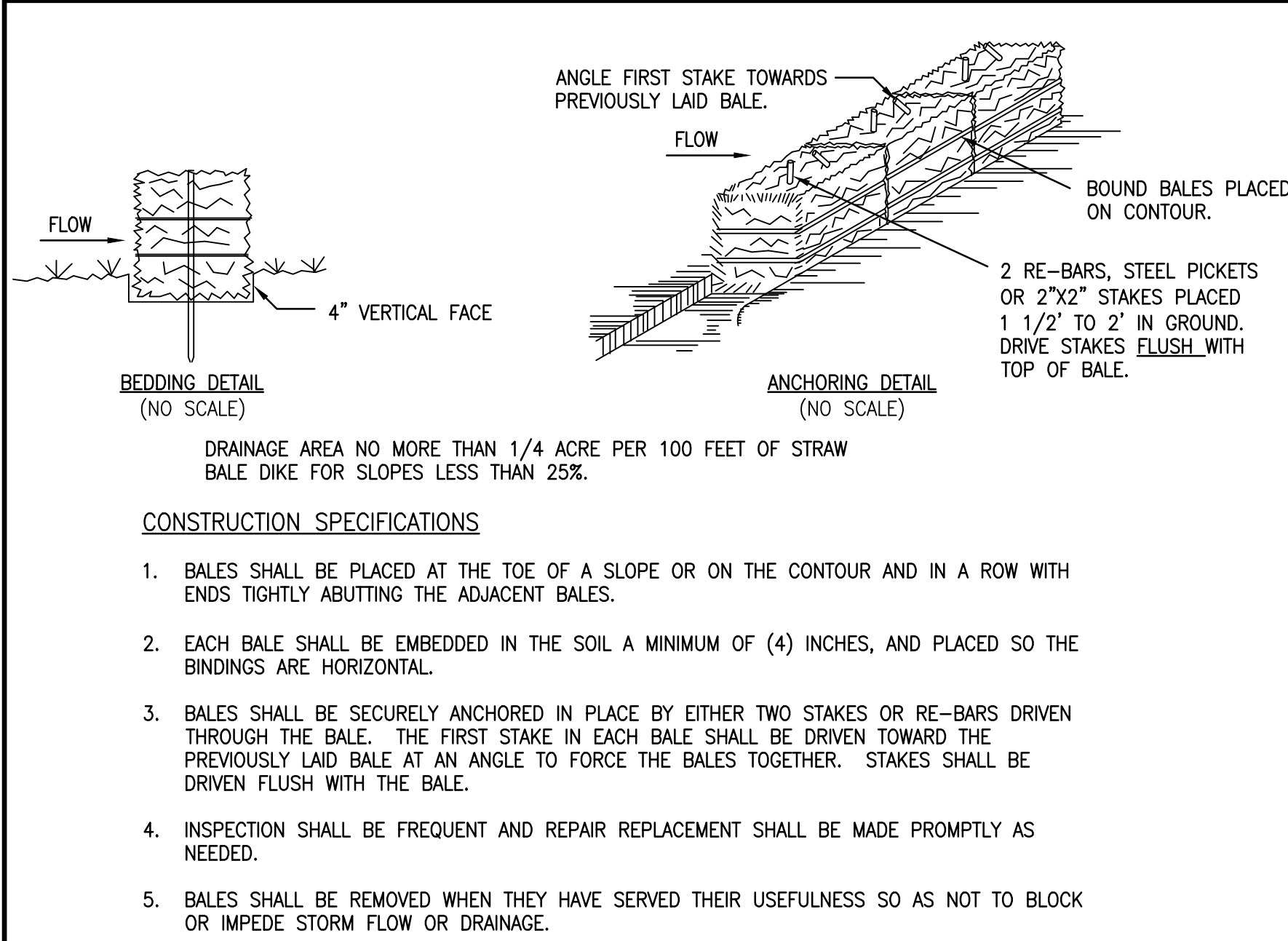
BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

SITE LAYOUT & ELECTRICAL PLAN
WEST
SCALE: 1"=50'

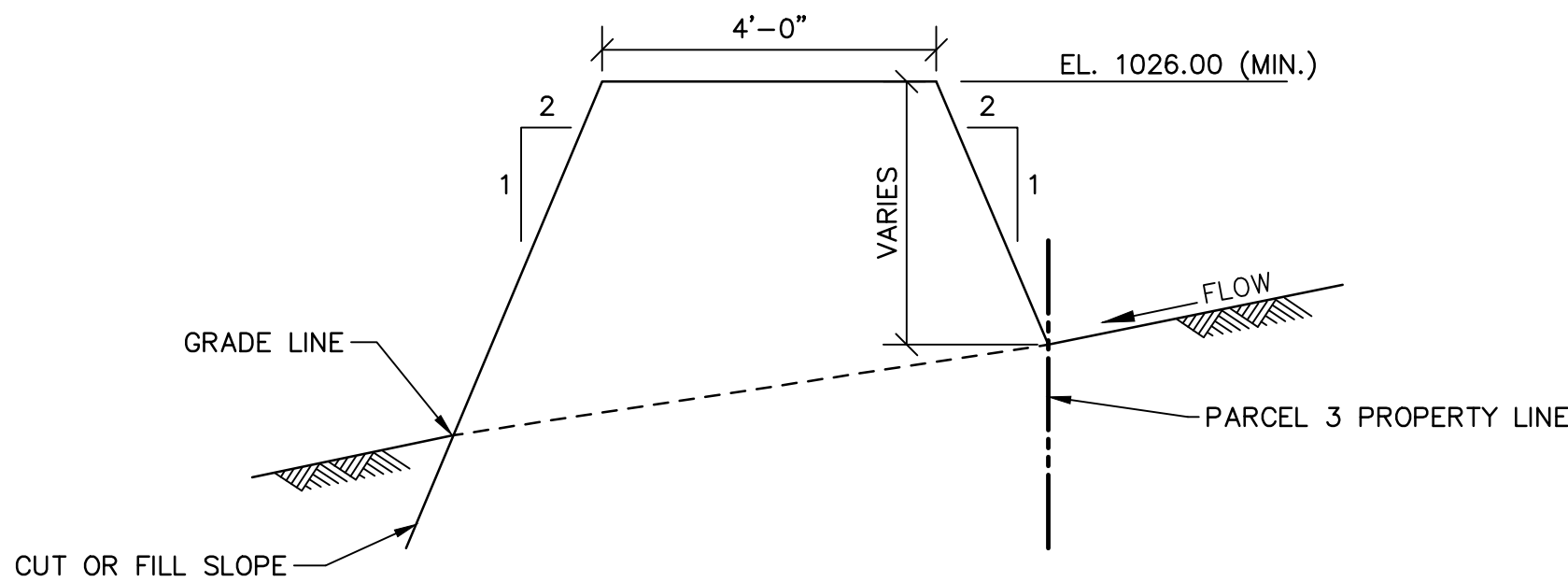
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MALCOLM PIRNIE, INC.
DATE **AUGUST 2009**
SHEET **2** OF **3**
CAD REF. NO. USC-E201



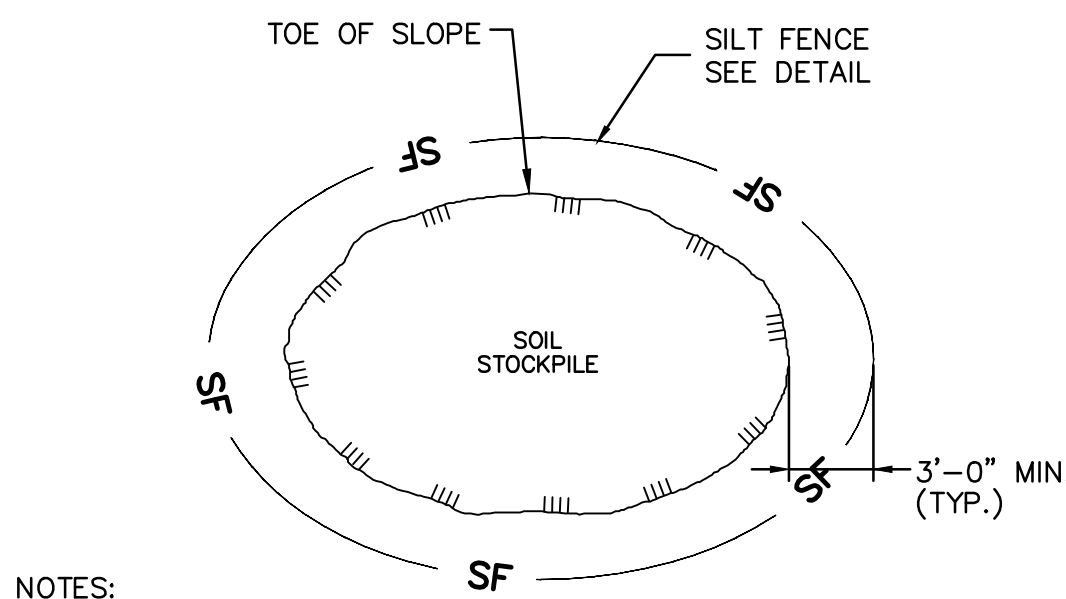
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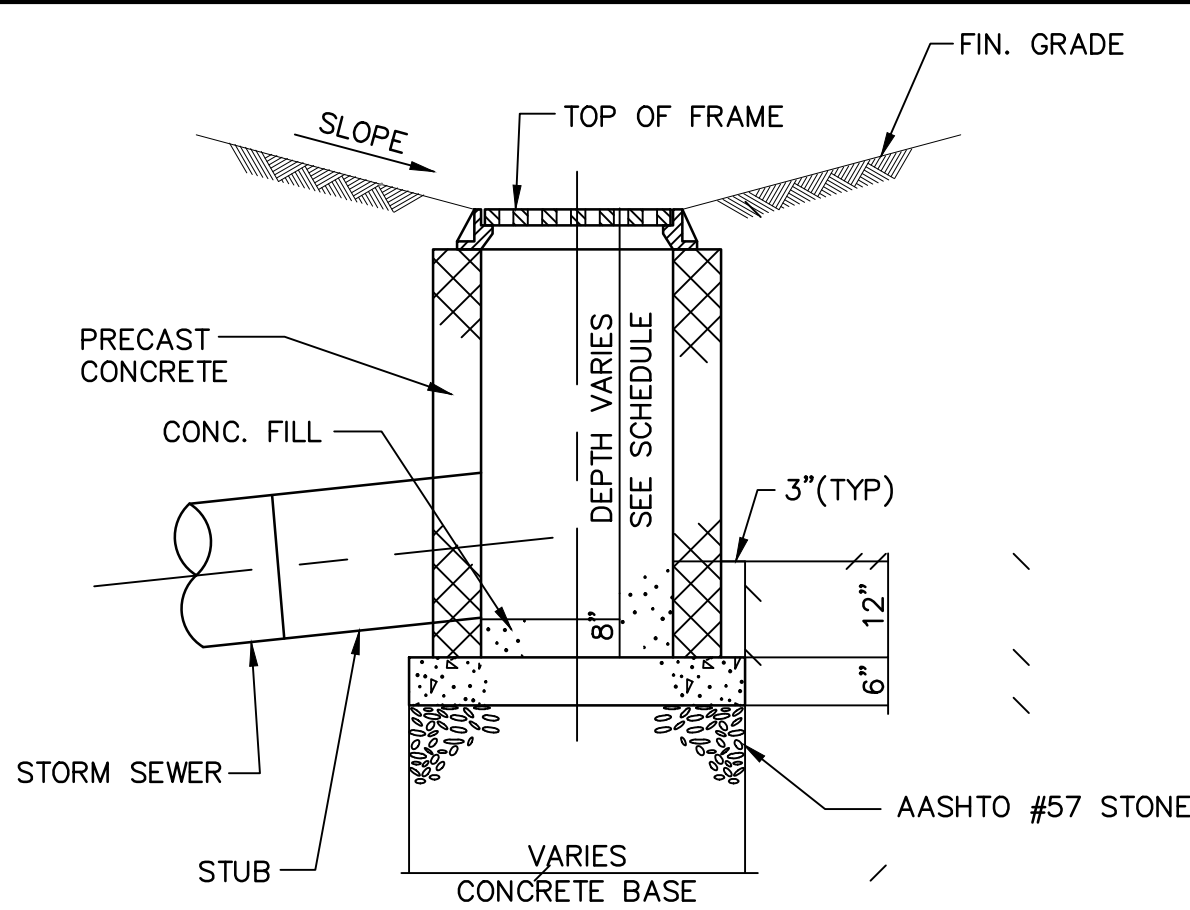
STRAW BALE DIKE
NOT TO SCALE



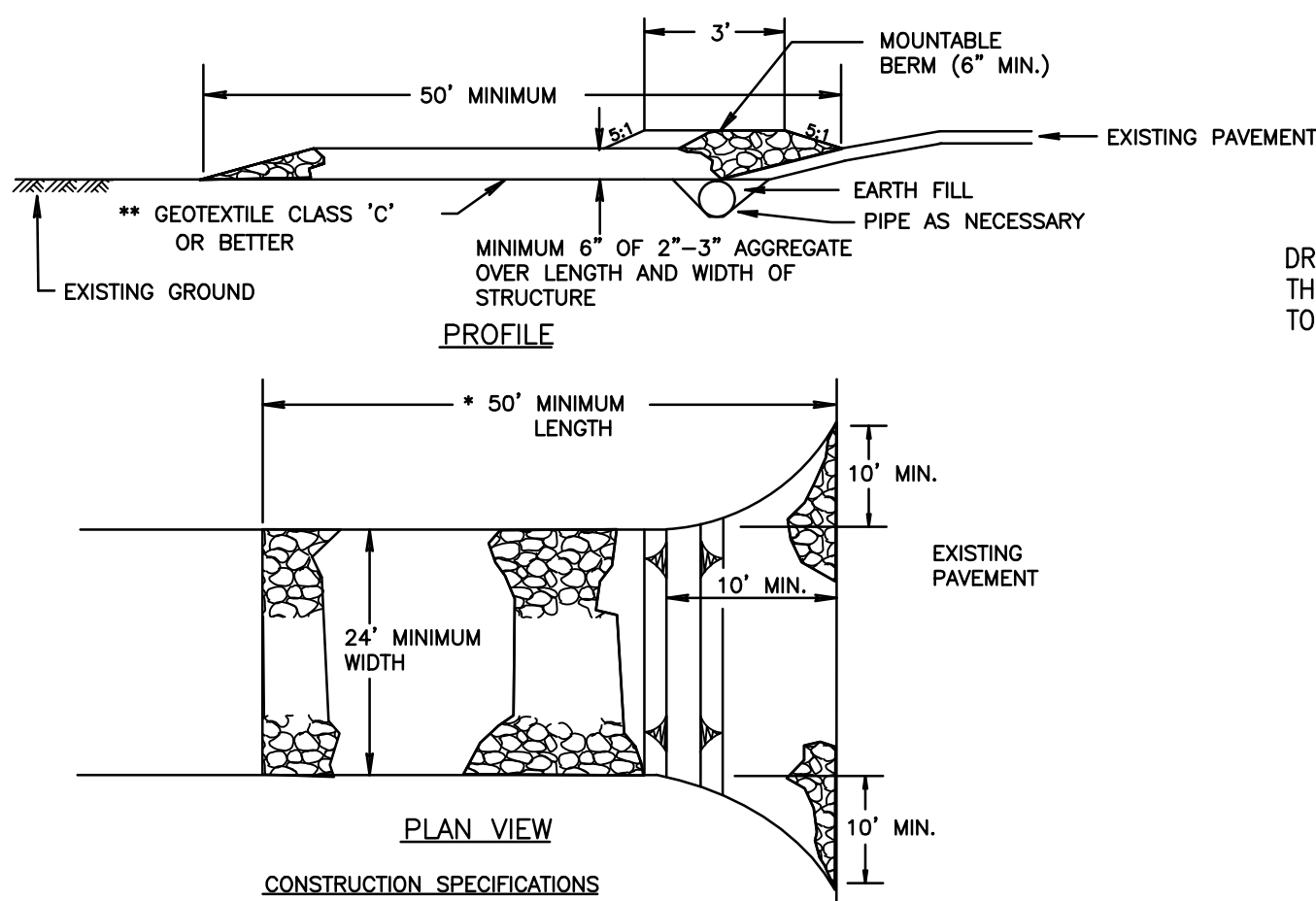
STORMWATER DIVERSION
BERM DETAIL
NOT TO SCALE



SOIL STOCKPILE DETAIL
NOT TO SCALE

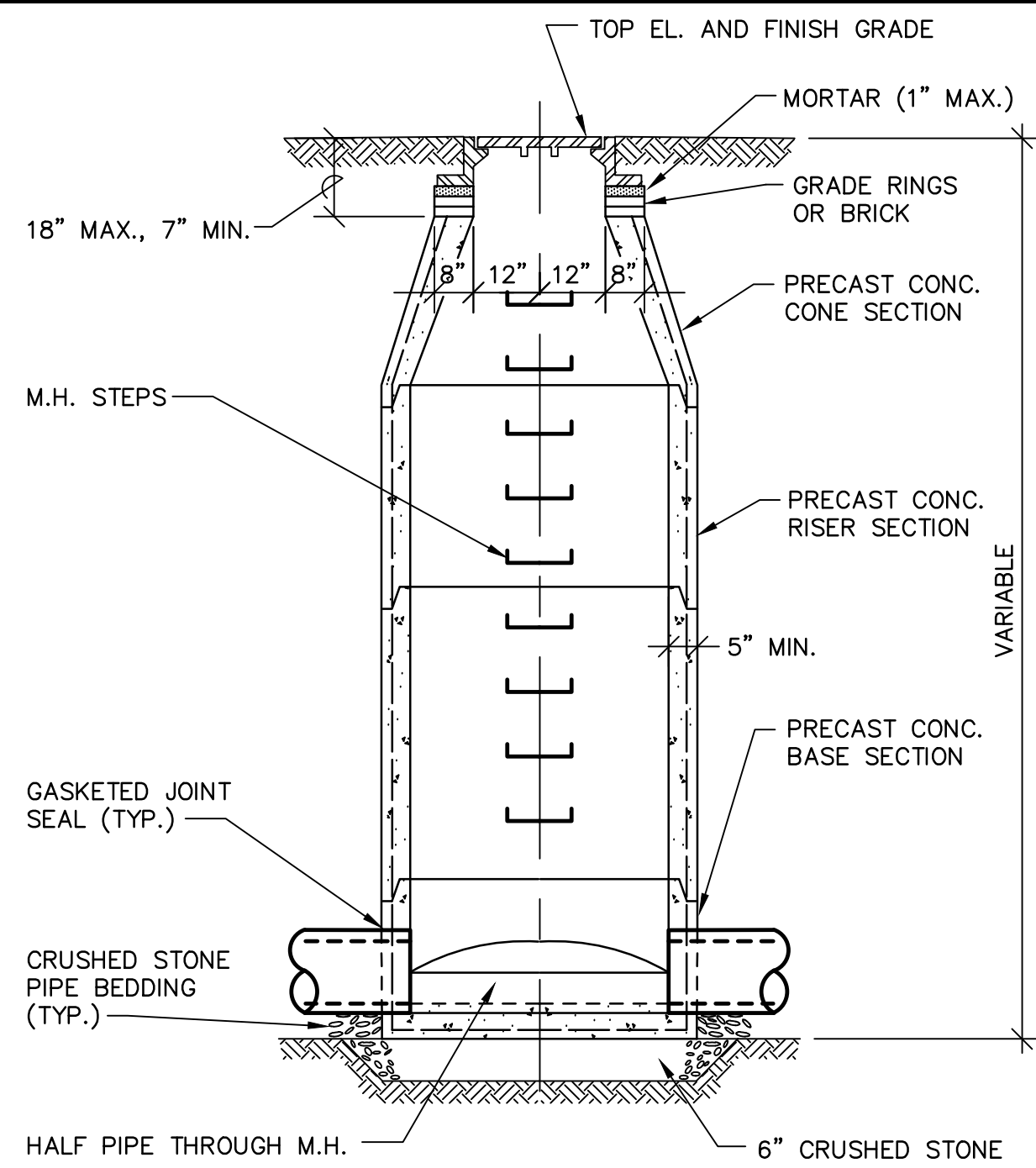


SECTION A-A'
TYPICAL CATCH
BASIN DETAIL
NOT TO SCALE

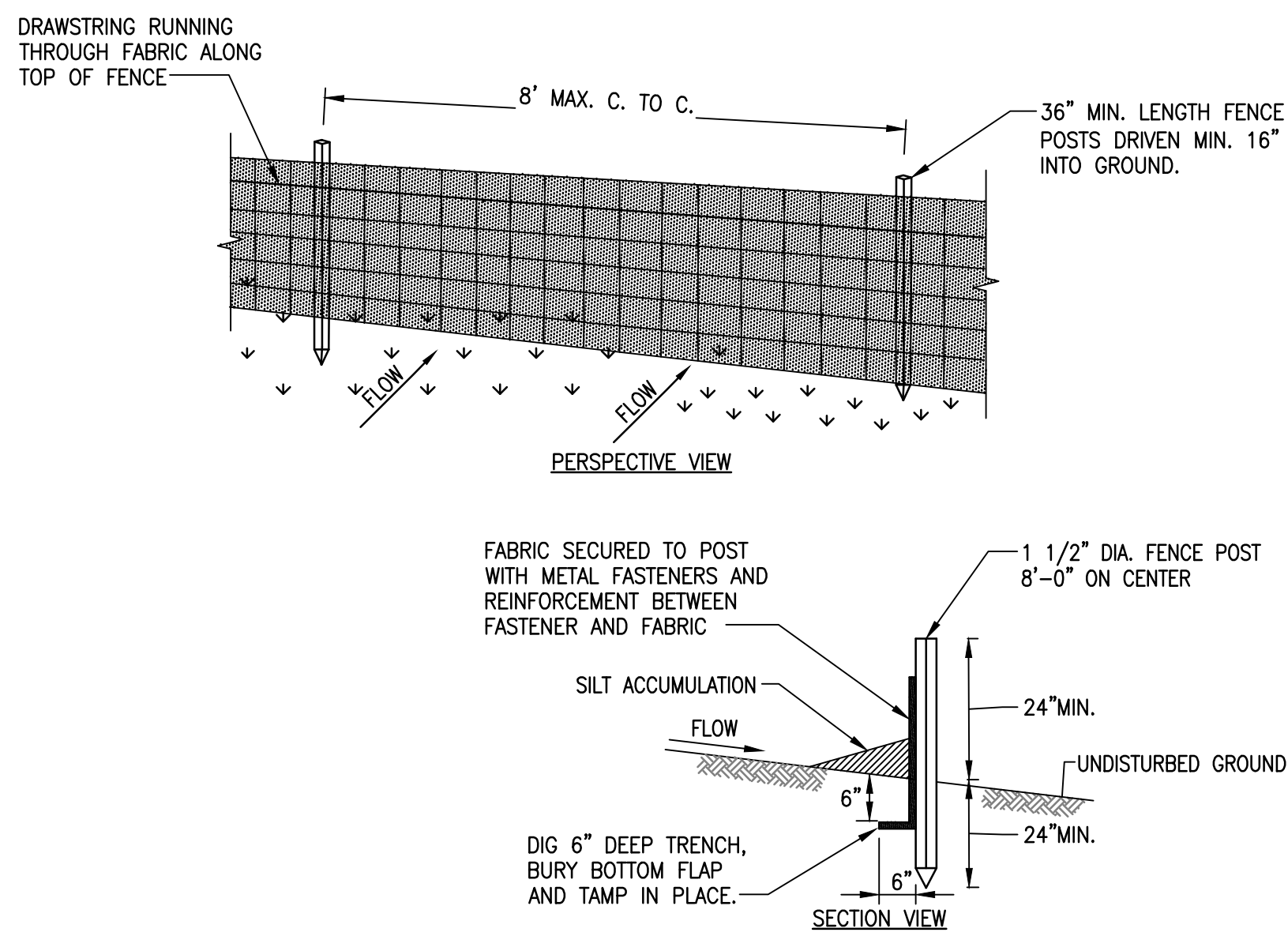


- LENGTH - MINIMUM OF 50'.
- WIDTH - 12' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS. WIDTH SHALL BE 24'-FEET IF SINGLE ENTRANCE TO THE SITE.
- GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE.
- STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
- SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
- LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES THE CONSTRUCTION SITE AND ENTERS ONTO PAVED BLOC ROADWAYS. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON THE AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION
ENTRANCE DETAIL
NOT TO SCALE



TYPICAL STORM WATER
MANHOLE DETAIL
NOT TO SCALE



NOTES:

- FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE THE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1 1/2".
- A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
- A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEO-TEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

SILT FENCE DETAIL
NOT TO SCALE

Pipe #	Upper Invert Elev.	Lower Invert Elev.	Length Ft.	Slope Ft.Ft.	Pipe Dia. (Inch)
P1	577.3	576.5	165	0.0048	10
P2	576.7	576.3	200	0.0020	8
P3	576.5	576.3	220	0.0009	8
P4	576.3	576.2	65	0.0015	15
P5	576.5	576.2	65	0.0046	18
P6	576.5	---	---	---	21
P7	576.9	576.5	270	0.0015	15
P8	577.1	576.2	270	0.0033	15
P9	577.2	576.3	180	0.0050	10
P10	577.4	577.1	175	0.0017	12
P10A	577.3	577.2	80	0.0012	10
P10B	577.5	577.4	50	0.0020	10
P10C	577.4	577.3	30	0.0033	10
P11	577.0	576.9	65	0.0015	12
P12	577.1	574.7	310	0.0077	15
P13	577.1	576.3	310	0.0026	15
P14	577.5	577.2	185	0.0016	10
P14A	577.2	577.0	90	0.0022	10
P15	575.8	575.0	50	0.0160	15
P16	---	---	---	---	---
P17	574.9	574.7	75	0.0027	21
P18	---	---	---	---	---
P19	574.4	---	---	---	21
P20	577.4	574.7	340	0.0079	12
P21	577.7	576.3	340	0.0041	12
P22	577.4	577.0	95	0.0042	12
P23	577.7	577.6	50	0.0020	10
P24	577.7	577.5	85	0.0024	12
P25	577.5	577.5	240	0.0000	12
P26	577.7	577.4	240	0.0013	12
P27	577.6	577.4	240	0.0008	10
P28	577.4	576.1	45	0.0289	15
P29	576.0	575.9	85	0.0012	18
P30	575.8	---	---	---	18
P30A	579.0	---	55	---	8
P31	579.0	577.4	240	0.0067	8
P32	577.8	577.3	240	0.0021	8
P33	578.4	577.4	240	0.0042	8
P34	581.7	579.2	235	0.0106	8
P35	580.7	578.9	255	0.0071	8
P36	581.5	577.0	220	0.0205	8
P37	579.1	578.9	40	0.0050	12
P38	578.9	577.0	40	0.0475	15
P39	577.0	---	---	---	18
P40	---	---	---	---	---
P41	---	---	---	---	---
P42	578.4	577.0	272	0.0051	10
P43	579.4	579.1	40	0.0075	8
P44	579.0	578.5	40	0.0125	10
P45	---	---	---	---	---
P46	---	---	---	---	---
P47	---	---	---	---	---
P48	573.9	573.8	40	0.0025	48
P49	573.8	573.5	40	0.0075	48
P50	573.5	---	---	---	48
P51	---	---	---	---	---
P52	---	---	---	---	---
P53	---	---	---	---	---
P54	578.0	578.0	40	0.0000	8
P55	578.0	577.5	40	0.0125	10
P56	---	---	---	---	---
P57	---	---	---	---	---
P58	577.2	571.9	272	0.0195	10
P59	572.7	572.0	40	0.0175	12
P60	572.0	571.9	40	0.0025	15
P61	571.9	---	---	---	15
P62	575.4	572.8	175	0.0149	8
P63	573.3	572.0	315	0.0041	8
P63A	576.0	574.6	103	0.0136	8
P64	---	---	---	---	---

DRAINAGE AS-BUILTS BY 'MAN O TREES'
12 / 5 / 2014

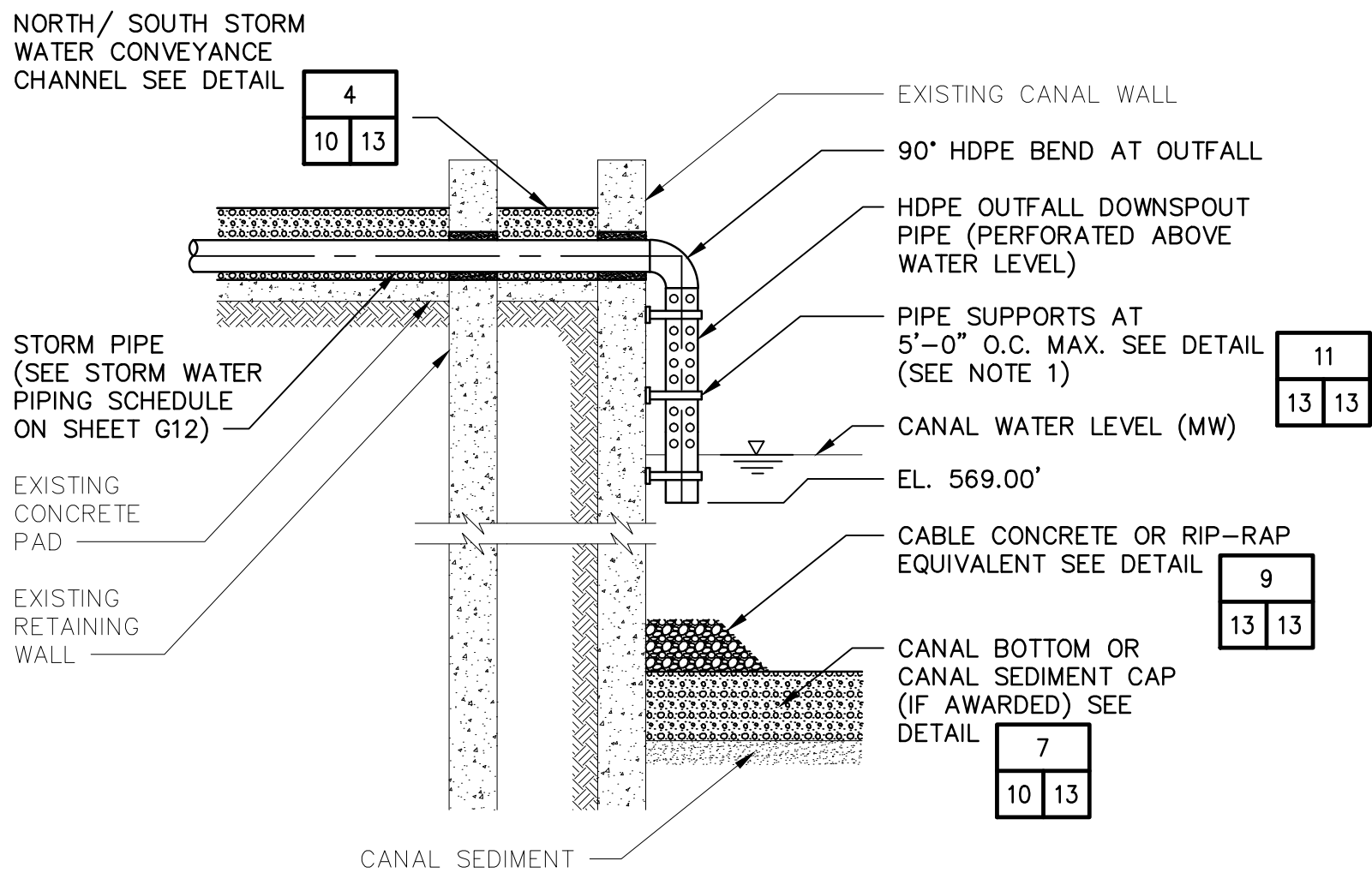
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UNION SHIP CANAL OPEN SPACE
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NYSDOT P.I.N. 5757.98

STORM WATER REMEDIATION
DETAILS
AS NOTED

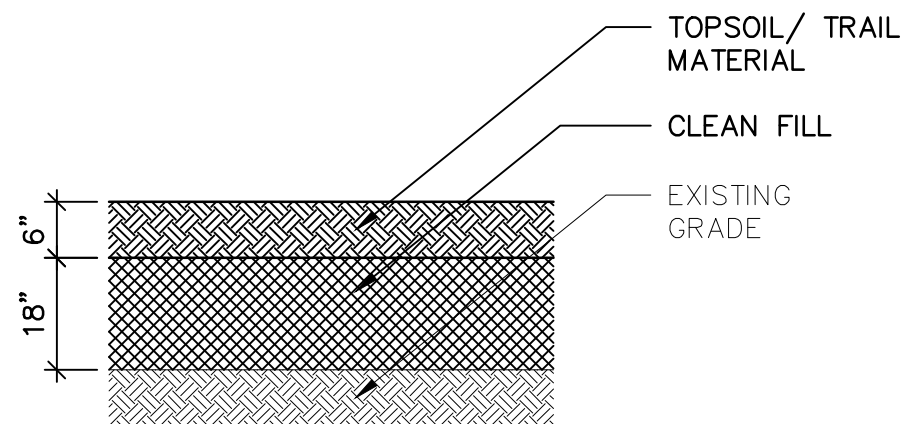
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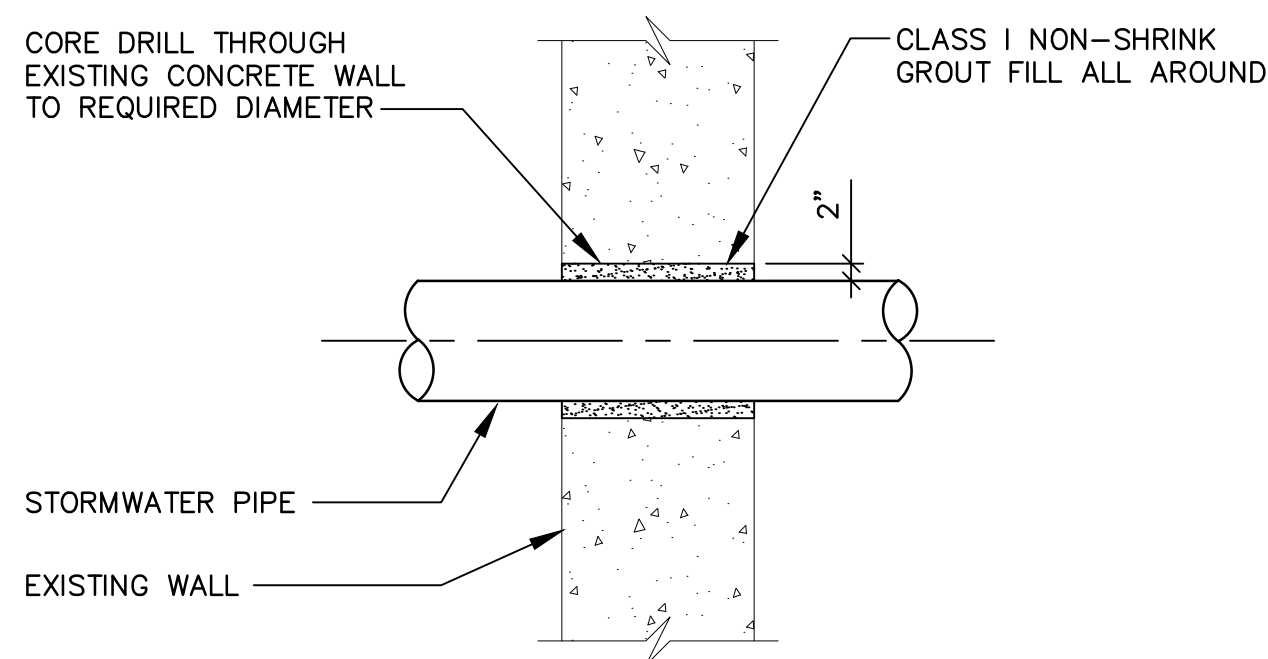
PROPOSED OUTFALL DETAIL
NOT TO SCALE

NOTE:

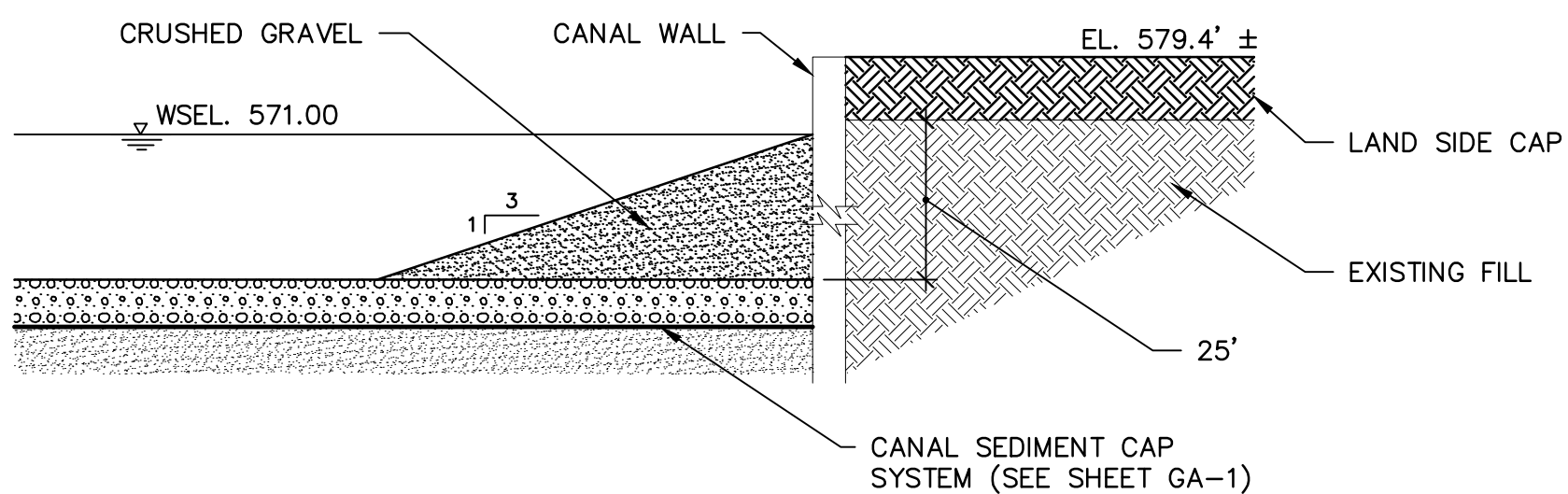
- PIPE SUPPORTS SHALL BE EVENLY SPACED ON CONCRETE PORTION OF THE WALL AS APPROVED BY ENGINEER.



TYPICAL LAND SIDE CAP DETAIL
NOT TO SCALE



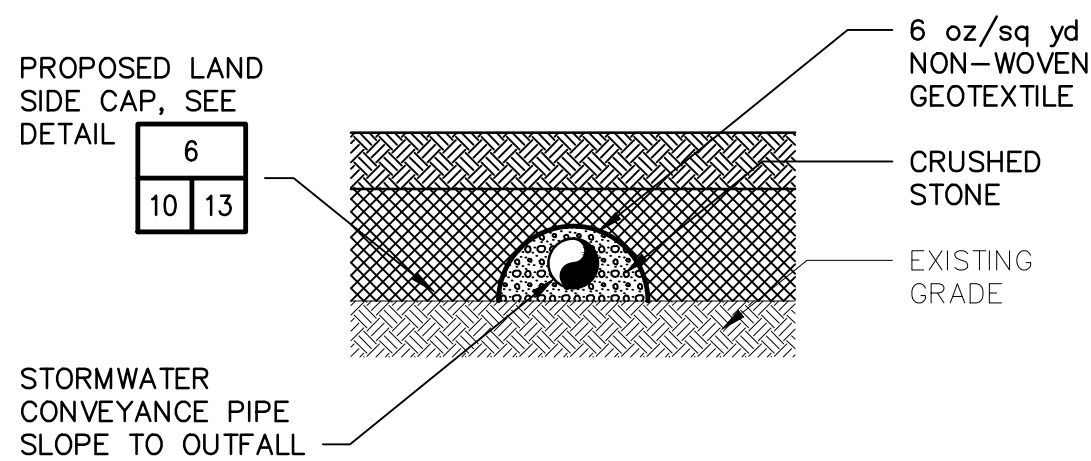
TYPICAL WALL CORE DETAIL
NOT TO SCALE



CANAL WALL STABILIZATION BERM TYPICAL DETAIL
NOT TO SCALE

NOTES:

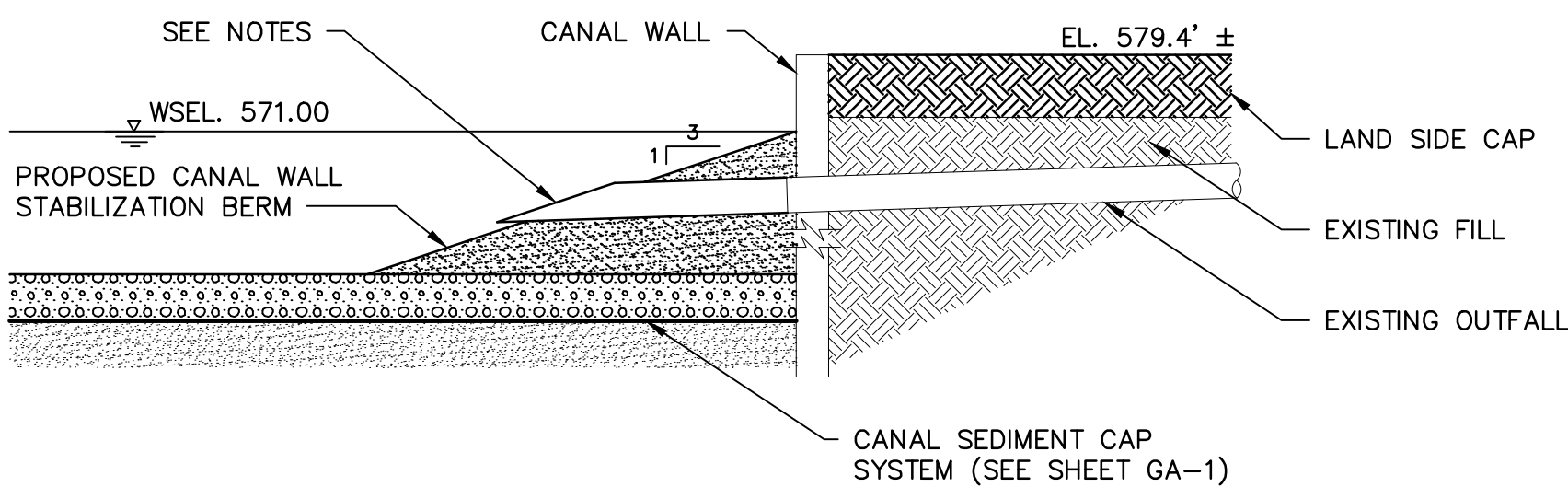
- EXISTING SEDIMENT THICKNESS AND DENSITY VARIES.
- CANAL WALL STABILIZATION BERM MATERIAL SHALL BE PLACED FROM BOTTOM OF CANAL (OR TOP OF CANAL SEDIMENT CAP SYSTEM, IF AWARDED) TO TOP OF CRIBBING AS SHOWN AND SPECIFIED.
- STABILIZATION BERM DIMENSIONS MAY VARY AS A RESULT OF FIELD CONDITIONS.



NORTH SIDE STORM WATER SYSTEM DETAIL
NOT TO SCALE

NOTES:

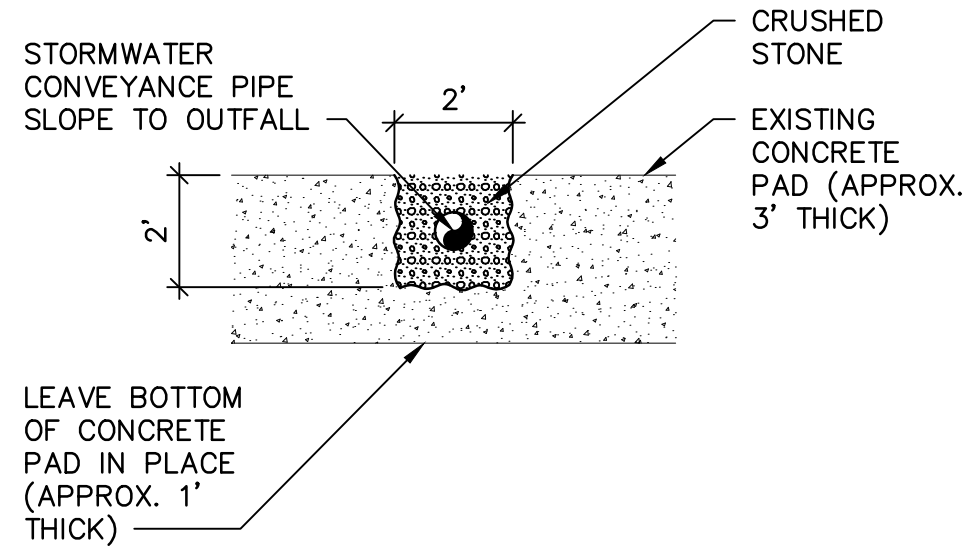
- PIPING/CHANNELS SHALL BE TIED IN WITH PROPOSED CATCH BASINS AS APPROPRIATE.
- STORMWATER PIPE MAY BE HDPE OR PVC.



EXISTING OUTFALL MODIFICATION DETAIL
NOT TO SCALE

NOTES:

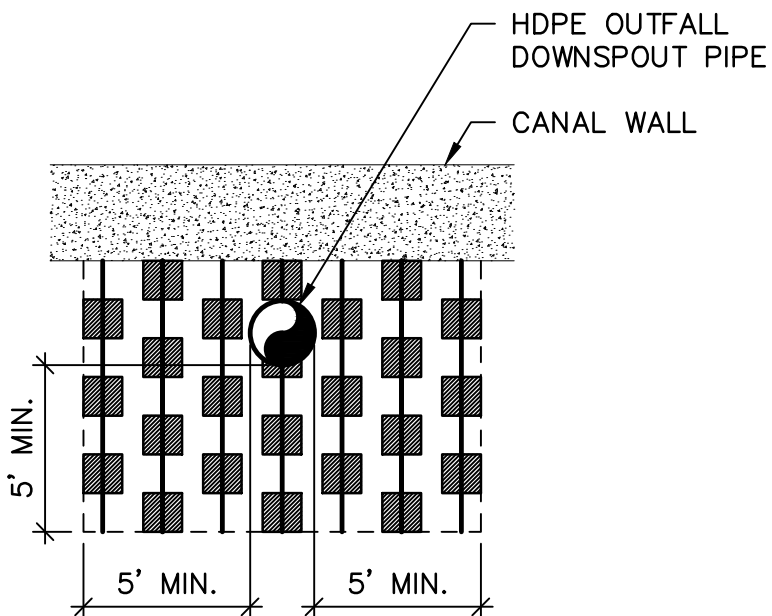
- EXTEND EXISTING OUTFALL PIPE THROUGH CANAL WALL STABILIZATION BERM
- EXISTING OUTFALL PIPING SHALL BE CLEANED PRIOR TO INSTALLATION OF NEW PIPE



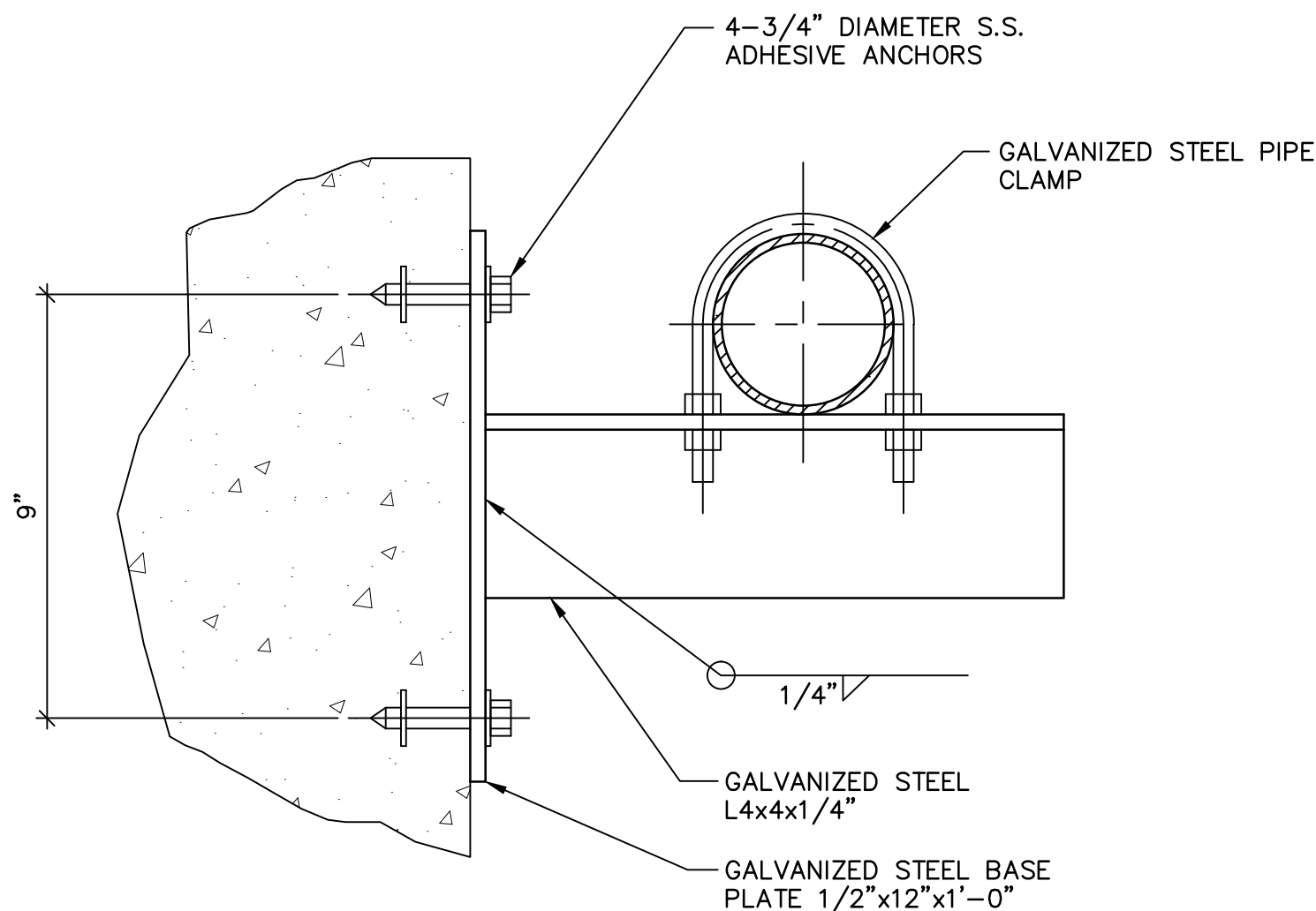
NORTH/ SOUTH STORM WATER CONVEYANCE CHANNEL DETAIL
NOT TO SCALE

NOTES:

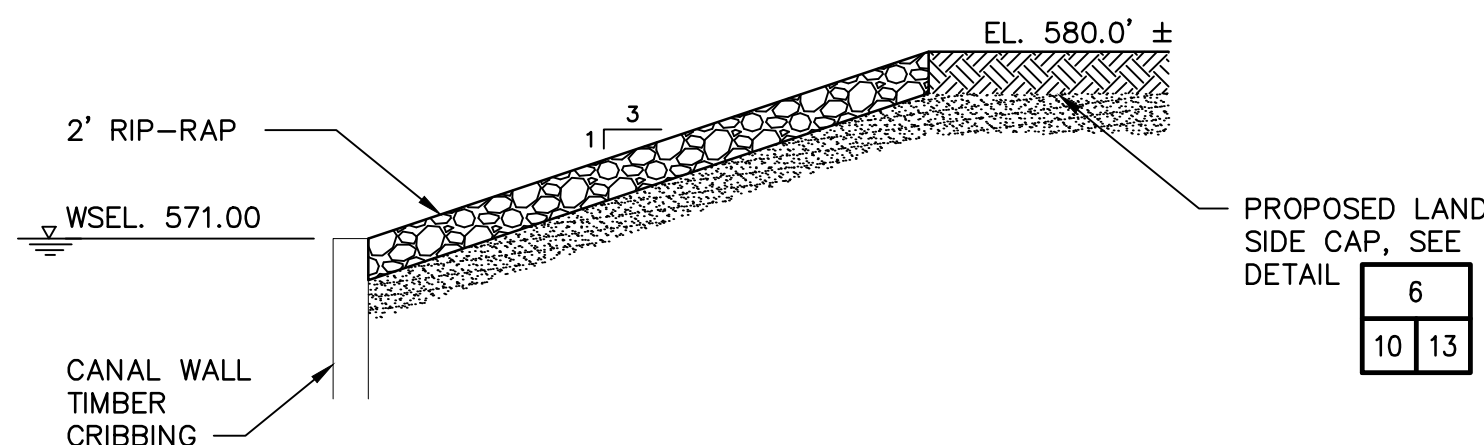
- PIPING/CHANNELS SHALL BE TIED IN WITH PROPOSED CATCH BASINS AS APPROPRIATE.
- STORMWATER PIPE MAY BE HDPE OR PVC.



CABLE CONCRETE DETAIL
NOT TO SCALE



PIPE SUPPORT PLAN DETAIL
NOT TO SCALE



RIP-RAP PLACEMENT DETAIL
NOT TO SCALE

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WENDEL DUCHSCHERER
ARCHITECTS & ENGINEERS

MALCOLM
PIRNIC

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UNION SHIP CANAL OPEN SPACE
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MISCELLANEOUS REMEDIATION
DETAILS
AS NOTED

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UPLAND IMPROVEMENTS
SIGN SCHEDULE & NOTES

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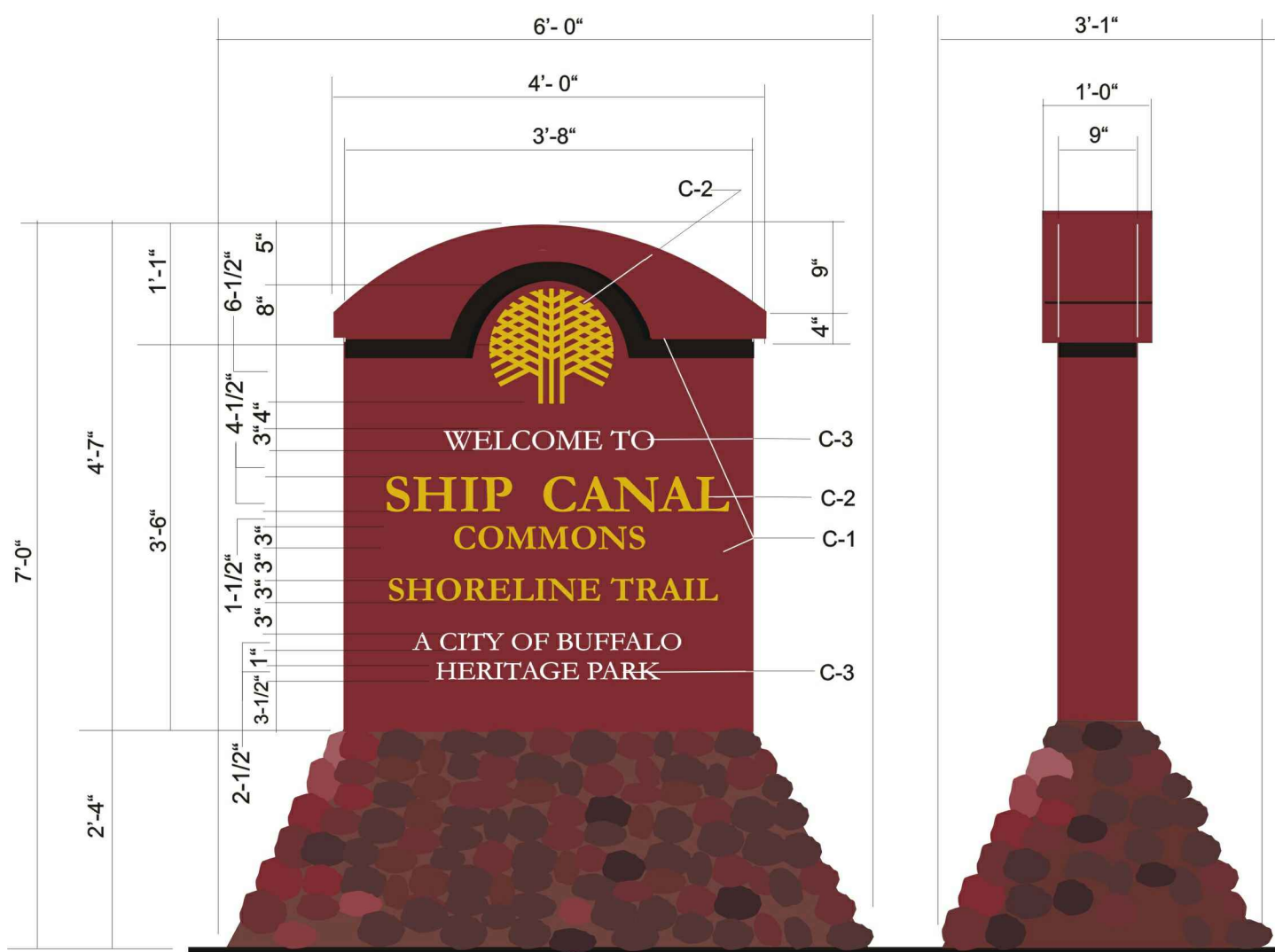
SIGN SCHEDULE

CITY OF BUFFALO ITEM NO.	NYSDOT ITEM NO.	SIGN TYPE	LOCATION	SIZE	TEXT	M.U.T.C.D. No.	MOUNT
		A-2	A7+80, 12'RT B13+25, 75'RT	NA	REFER TO DETAIL 1, L003	NA	1, L003
		B-1	A20+95, RT A13+65, LT A1+83, RT G2+14, LT B12+50, RT B15+65, RT	NA	REFER TO DETAIL 2, L003	NA	2, L003
		B-2	CORNER OF TIFT ROAD & UNION CANAL PARKWAY	NA	REFER TO DETAIL 1, L004	NA	2, L004
		C-1	A13+65, RT A12+05, RT A10+85, RT	NA	REFER TO DETAIL 3, L003	NA	2, L004
		D-1	A9+85, RT	NA	REFER TO DETAIL 4, L003	NA	2, L004
12.310	645.7111	E-1	A21+71, RT A7+40, RT A7+82, LT A9+17, RT A9+48, LT	30" x 30"		R1-1A	2, L004
12.310	645.7102	F-1	A21+71, LT A7+40, LT A7+82, RT	24" x 24"		R5-3	2, L004
12.310	645.7202 (04)	G-1	A7+40, 16' RT A7+82, 38' RT A9+17, LT A9+48, RT	30" x 30"		W11-2	2, L004
12.310	645.7101	H-1	A21+10, 105' RT A6+58, 85' LT A6+78, 87' LT A6+97, 89' LT	12" x 18"		P4-6C	2, L004
12.310	645.7112	I-1	A7+34, 25' RT	30" x 30"		R1-1A	2, L004
12.310	645.5102	J-1	(1) H 0+38 47' LT (2) H 0+16 RT (3) F 0+05 RT (4) A 21+32 LT (5) B 27+00 14' RT (6) E 8+24 RT (7) E 7+96 LT (8) G 0+13 RT (9) G 5+22 LT (10) H 19+00 LT (11) B 19+06 12' RT (12) E 15+74 LT	24" x 24"		R5-6	2, L004

NOTES:

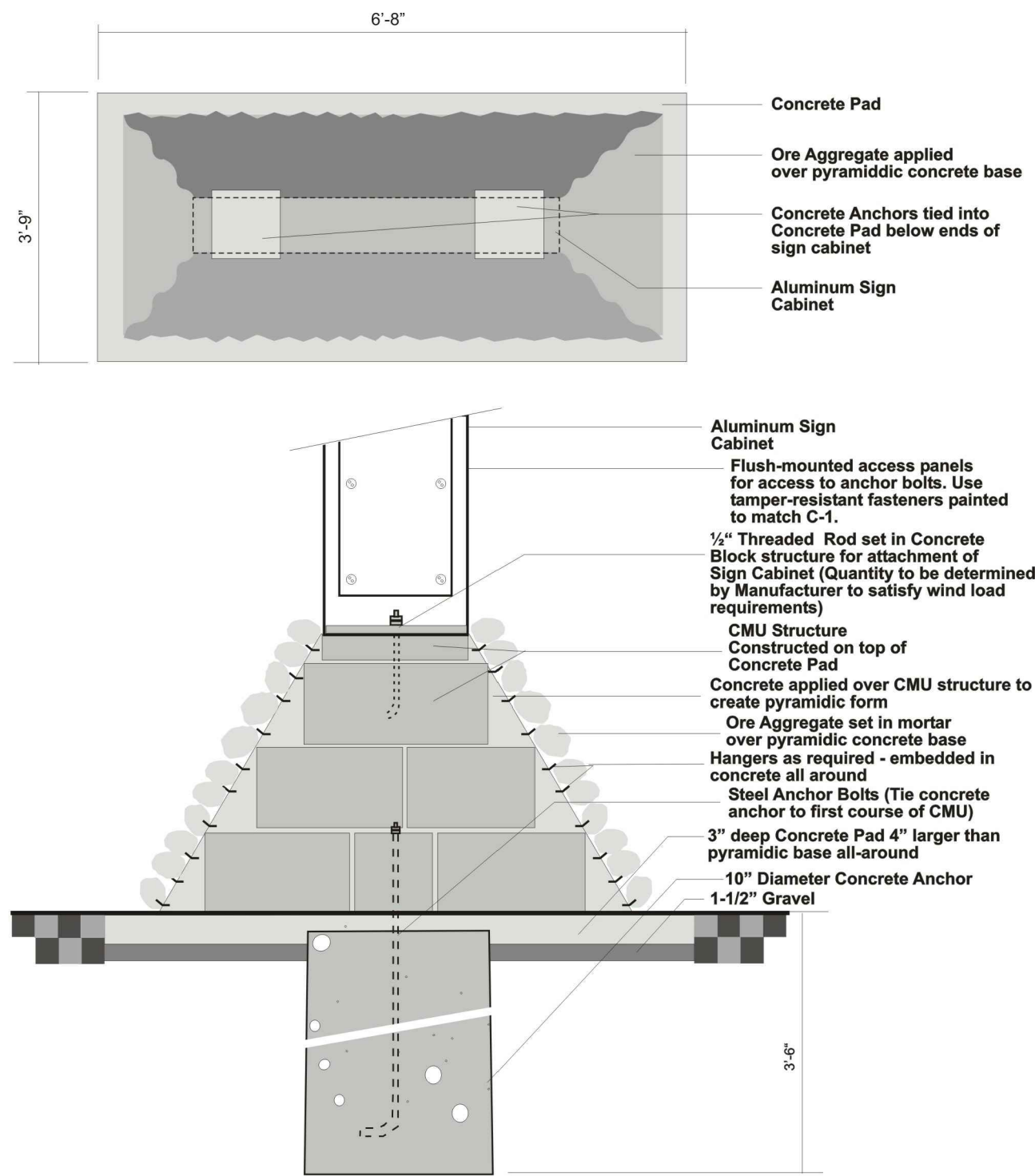
- SIGNS SHALL MEET ALL REQUIREMENTS OF THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2009 EDITION & N.Y.S. SUPPLEMENT EXCEPT THE TEXT SHALL READ AS STATED ON THE SIGN DATA TABLE.
- THE ACRONYM MUTCD REFERS TO THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES – 2003 EDITION, AND THE NEW YORK STATE SUPPLEMENT.
- SIGN LOCATIONS AS SHOWN ON PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL INSTALL NEW SIGNS IN ACCORDANCE WITH THE MUTCD.
- SIGN POST AND BASE SECTION SHALL BE AT LEAST 12 GAUGE GALVANIZED PREFORATED SQUARE STRUCTURAL STEEL TUBING MEETING THE REQUIREMENTS OF ASTM DESIGNATION A-466 GRADE A. INSTALLATION OF BASE SECTIONS OF GROUND MOUNTED SIGN POSTS SHALL BE IN ACCORDANCE WITH CITY OF BUFFALO STANDARD SPECIFICATIONS CONSTRUCTION DETAIL STANDARD SHEET – S.S.#21.

AS-BUILTS BY 'MAN O TREES'
1 / 21 /2015



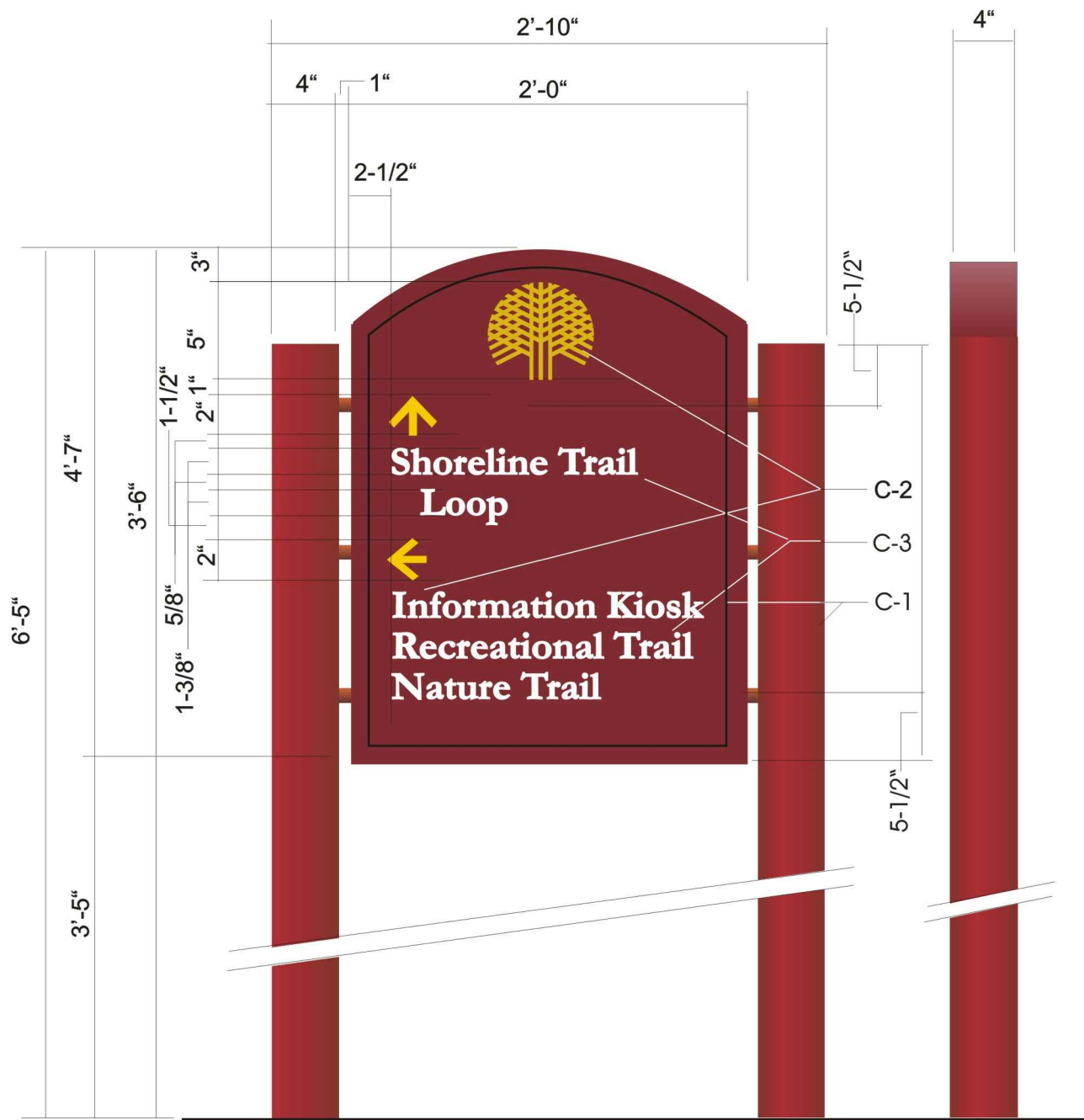
NOTES:

1. Sign panel to be fabricated aluminum painted to match C-1 (Rust) with C-2 and C-3 reflective Scotchlite graphics.
2. See Detail S-1D for mounting and sections.



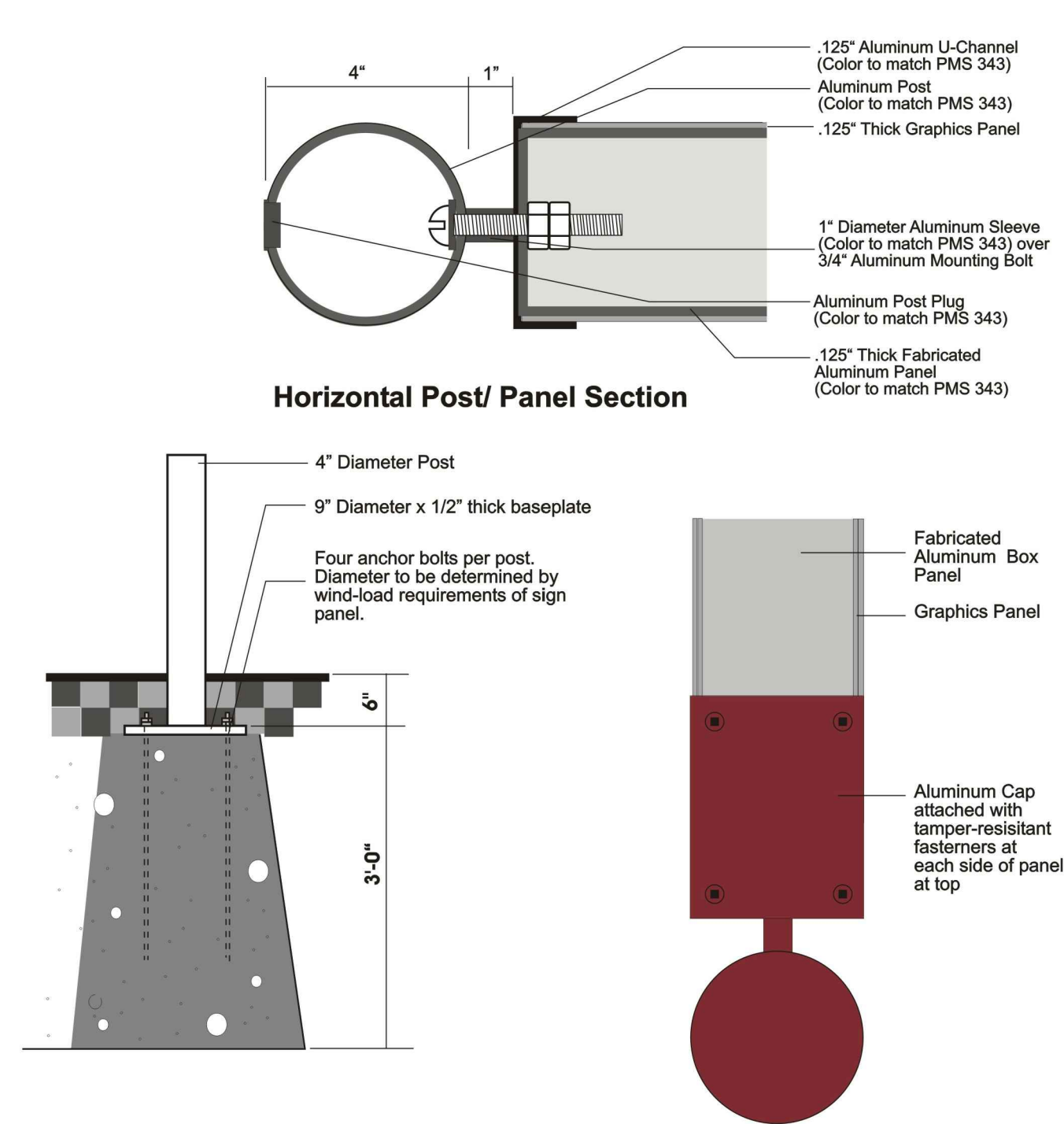
NOTES:

1. Fabricate Aluminum sign cabinet on ore aggregate base as shown above for Type A-2 signs.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation, stone facing and installation of sign cabinets.



NOTES:

1. Fabrication to include perimeter retainer to secure fused resin graphic panels. See Drawing S-2A for faceplate connection detail.
2. Colors, logo and typefaces same as Type A-1.
3. Owner will provide art on disk of all logos to be used on Directional Signage.
4. See S-2A for installation detail.
5. Arrow orientation and message copy to be as specified in the Signage Schedule.



Foundation Detail

NOTES:

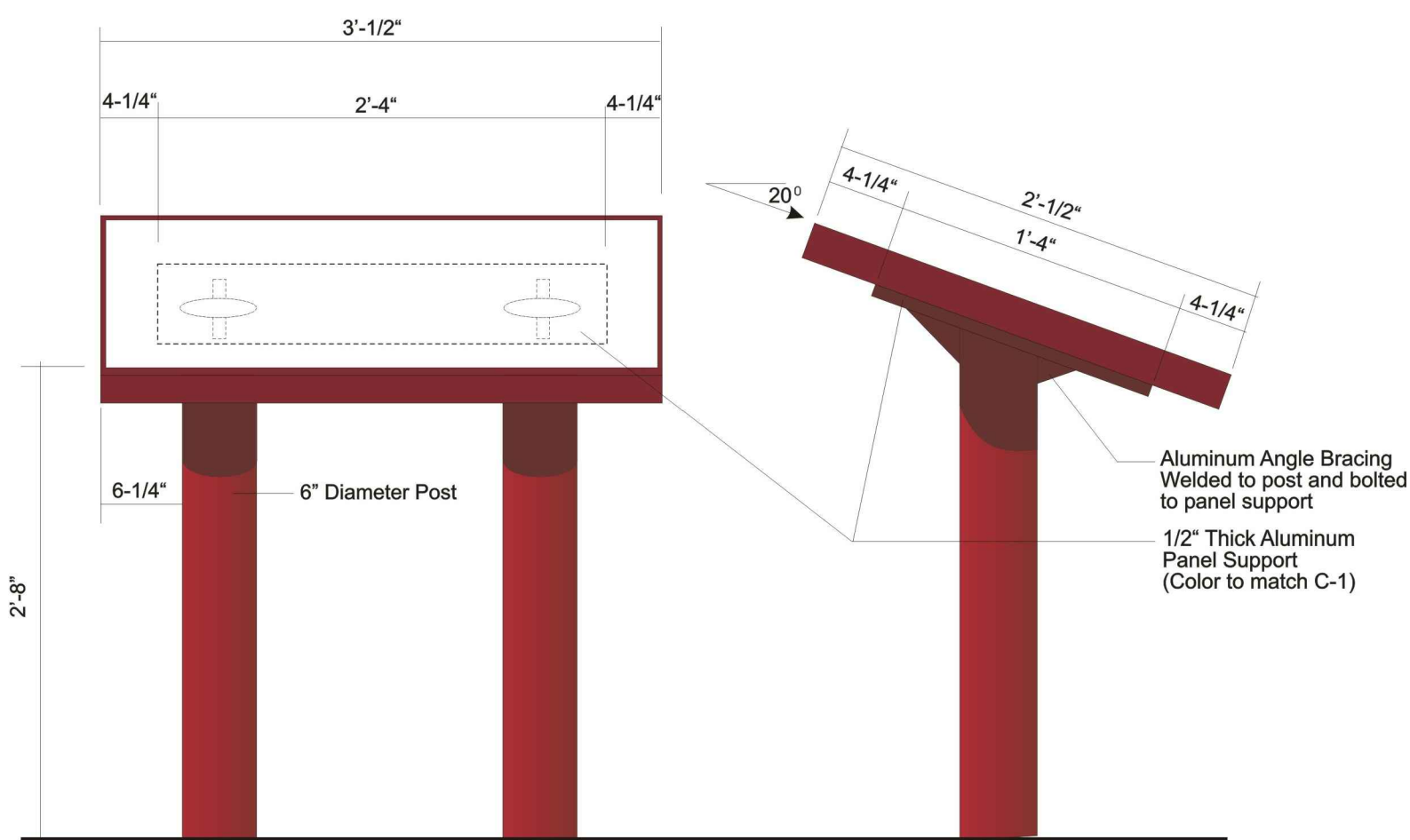
1. Solid composite phenolic graphics panel to be inserted behind U-Channel on front and back. Panel bottom will include stop for graphics panel assembly. All edges to be finished smooth and painted to match C-1
2. Aluminum cap to be attached to fabricated aluminum panel with Tamper-resistant fasteners. All exposed edges and fastener heads to be painted to match C-1.

1 SIGN TYPE A-2 SITE IDENTIFICATION SIGN

NTS

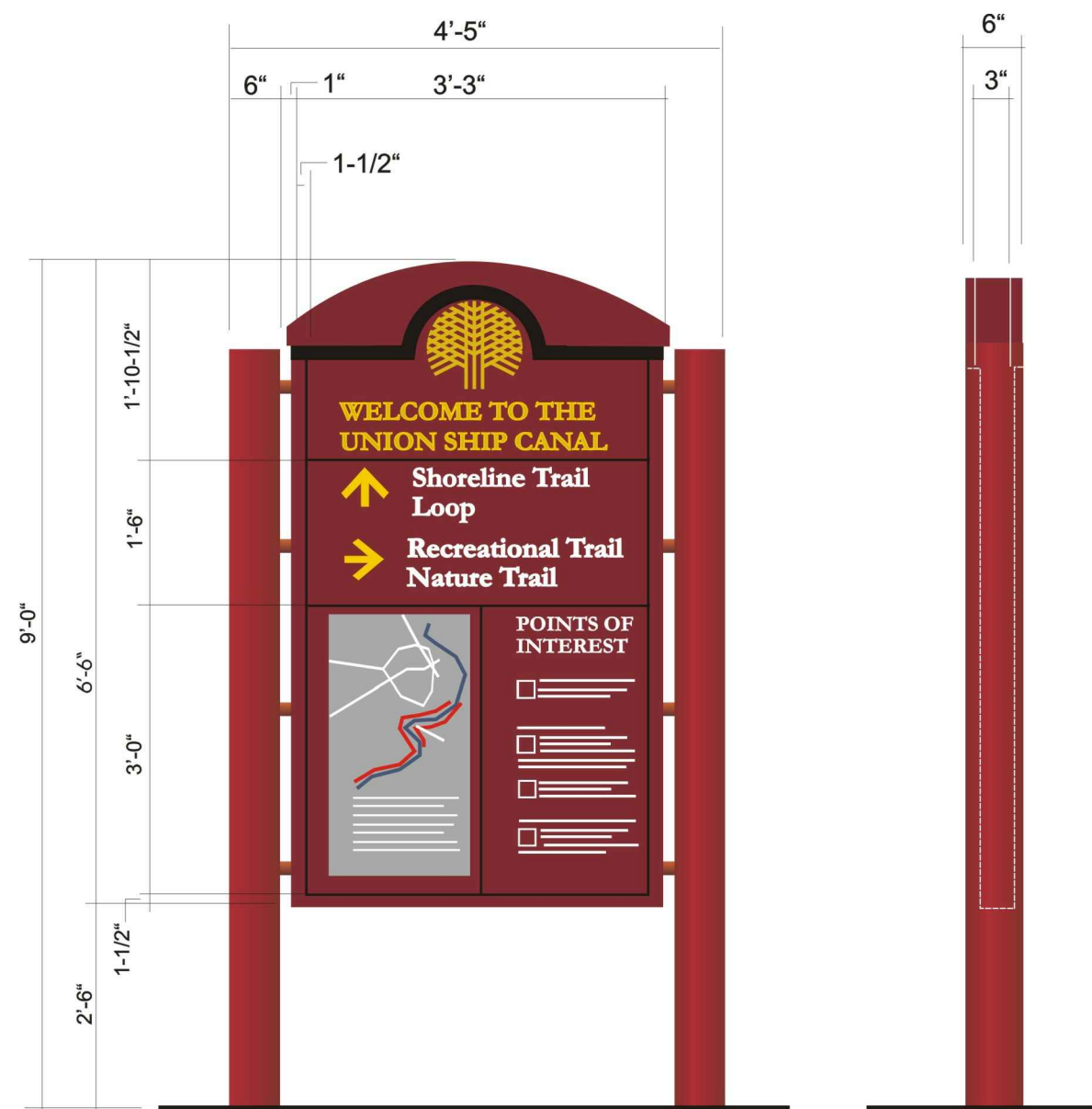
2 SIGN TYPE B-1 PEDESTRIAN/BICYCLIST DIRECTIONAL SIGN

NTS



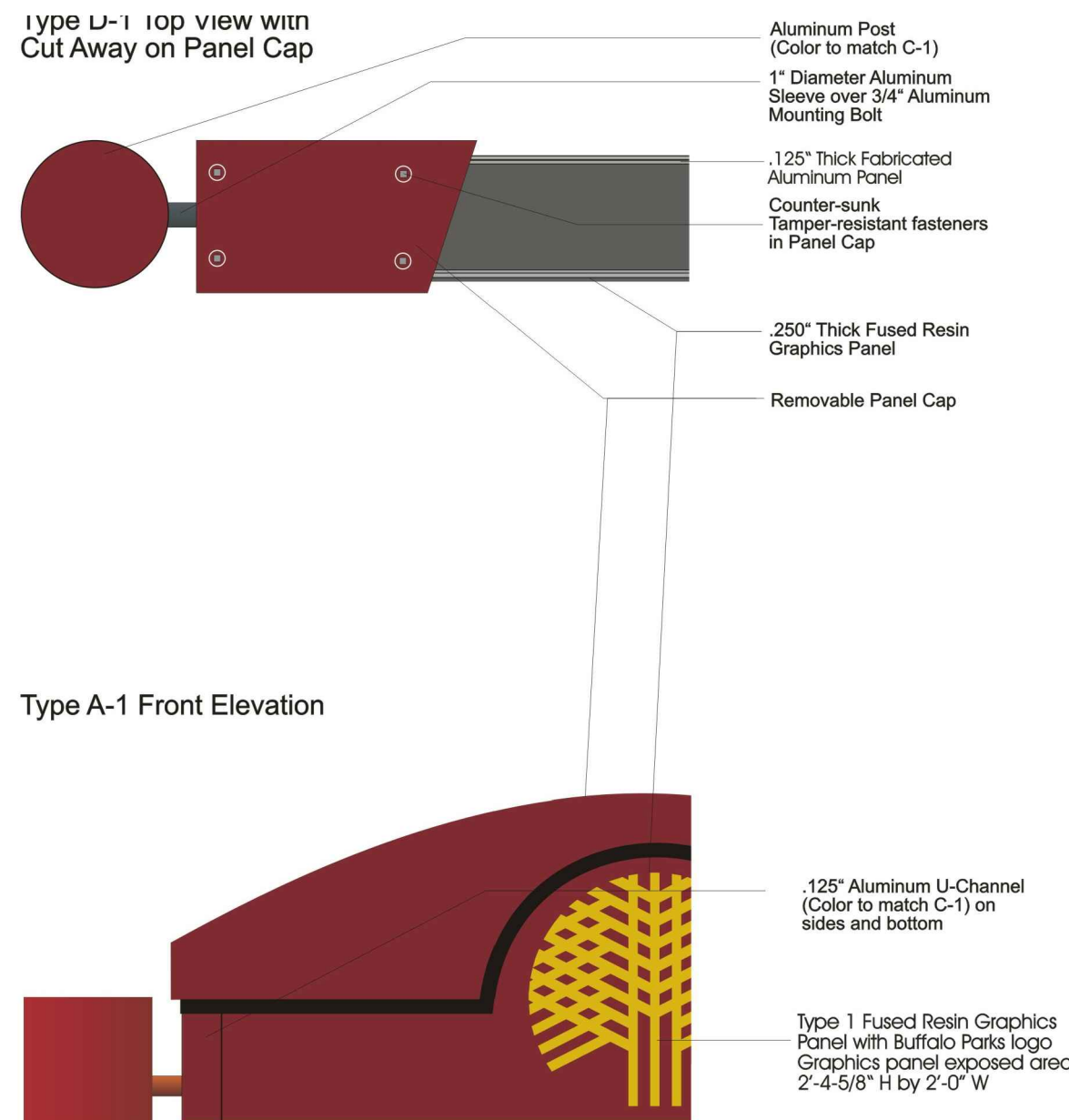
NOTES:

1. Materials, fabrication and anchorage same as Type B-1.
2. Fused Resin Graphics Panel to be 24" by 36".
3. Panel art to be furnished on disk by Owner.

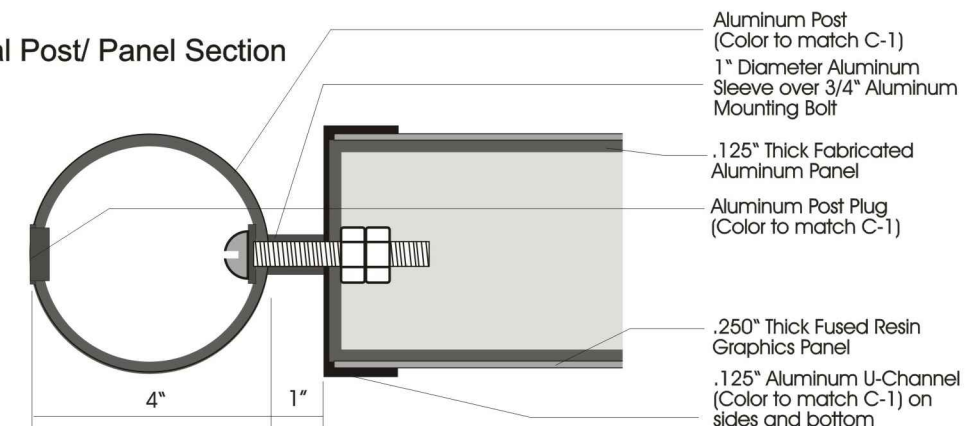


NOTES:

1. Fabrication will include aluminum box panel core, Fused Resin changeable message panels and aluminum posts. Art for logo and map graphics graphics will be furnished by Owner. Remaining graphics will be furnished in schedule form.
2. See drawings S-4A and S-4B for fabrication details.



Horizontal Post/ Panel Section



- NOTES: 1. Changeable Panels to be .125" Thick Fused Resin Graphics Panel as depicted above. All Panels will be inserted behind U-Channel around perimeter on front and back.

AS-BUILTS BY 'MAN O TREES'
1 / 21 / 2015

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UPLAND IMPROVEMENTS
SIGNAGE DETAILS

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SIGN DETAIL NOTES

GENERAL: ALL SIGN MATERIAL AND INSTALLATIONS SHALL CONFORM TO THE LATEST NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS AND STANDARD SHEETS EXCEPT AS MODIFIED BY THESE PLANS AND CONTRACT DOCUMENTS.

THE BACK SIDE OF ALL SIGNS SHALL BE PAINTED BLACK WHEN THEY OBSCURE THE SHAPE OF A STOP, YIELD OR WARNING SIGN WHEN PLACED BACK TO BACK.

ALL CORNER RADIUS OF PANELS SHALL BE 1-1/2" FOR STREET NAME AND PARKING SERIES SIGNS.

SIGN PANELS SHALL BE EITHER ALUMINUM ALLOY 6061-T6, 5154-H38 OR 5052-H38. ALL ALUMINUM SIGN PANELS SHALL CONFORM TO THE REQUIREMENTS OF NYSDOT MATERIAL SPECIFICATIONS 715-04, WROUGHT ALUMINUM AND 645-2.02 FOR MATERIAL THICKNESS.

SIGN POSTS AND FOOTINGS: SIGN POSTS AND BASE SECTION SHALL BE AT LEAST 12 GAGE GALVANIZED PERFORATED SQUARE STRUCTURAL STEEL TUBING MEETING REQUIREMENTS OF ASTM DESIGNATION A-466 GRADE A.

BASE POSTS DAMAGED OR DEFORMED ON THE TOP OR SIDES IN THE SPLICE CONTACT AREA SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.

CONCRETE FOOTINGS SHALL BE CLASS A CONCRETE AND REST AGAINST UNDISTURBED SOIL.

IN CURBED AREAS, A 3'-0" HORIZONTAL SETBACK FOR POSTS IS DESIRABLE WITH A 2'-0" MINIMUM. IN NO CASE SHALL A SIGN PANEL EXTEND WITHIN 6" OF THE CURB LINE.

THE DEPTH OF A FOUNDATION MAY BE REDUCED TO A MINIMUM OF 1'-0" INTO SOUND ROCK AND ENCASED IN CONCRETE. THE TOP OF CONCRETE SHALL BE SLOPED FOR DRAINAGE AWAY FROM THE POST AND FLUSH WITH SURROUNDING GRADE AT THE PERIMETER.

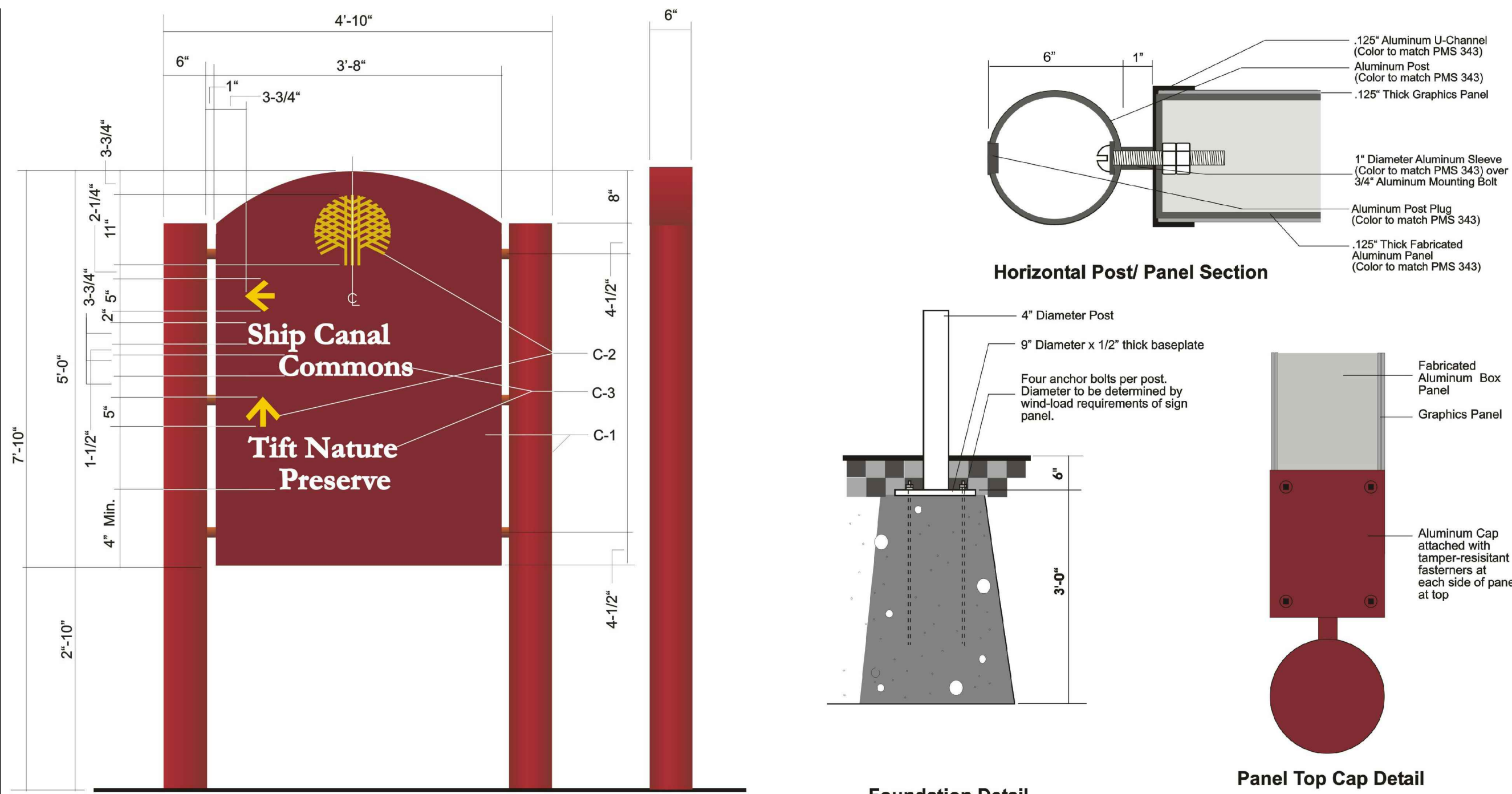
IF IT IS FOUND DURING CONSTRUCTION THAT UTILITY OR TRAFFIC SIGNAL POLES EXIST IN APPROXIMATELY THE SAME LOCATION AS THAT SPECIFIED FOR GROUND MOUNTED SIGNS, THE SIGNS SHALL BE Banded TO THE POLE AS LONG AS THE POLE LOCATION SATISFIES REQUIREMENTS AS LISTED IN THE 'NYSDOT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES' AND PERMISSION TO USE THE POLE IS OBTAINED FROM THE OWNER AND ENGINEER IN CHARGE.

HARDWARE: STIFFENERS FOR PANELS 30" WIDE OR LESS SHALL BE ALUMINUM Z BARS 1-3/8" X 1-1/4" X 3/16" OR APPROVED EQUAL. ALL BOW BAR STIFFENERS AND U-BOLTS SHALL BE GALVANIZED STEEL.

ALL BANDING AND CLIPS SHALL BE 0.022" MINIMUM THICKNESS BY 3/4" WIDE STAINLESS STEEL.

FLAT WASHERS SHALL BE PLACED AFTER EACH BOLT HEAD, BEFORE EACH NUT, BEFORE EACH NYLON WASHER AND BETWEEN SPACERS AND SIGN PANELS. WASHERS IN CONTACT WITH REFLECTIVE SHEETING SHALL BE NYLON. ALL OTHER WASHERS SHALL BE STAINLESS STEEL. ALL BOLTS, WASHERS AND NUTS FOR U-BOLTS SHALL BE GALVANIZED STEEL. ALL OTHER NUTS AND BOLTS SHALL BE STAINLESS STEEL. ALL STAINLESS STEEL NUTS AND 5/16" DIAMETER BOLTS FOR BANDING BRACKETS SHALL HAVE NYLON PLUG OR RING LOCKING FEATURES.

ALL BOLT LENGTHS SHOWN ARE ESTIMATED. THE CONTRACTOR SHALL SELECT BOLT LENGTHS SUFFICIENT TO RESULT IN EACH BOLT EXTENDING BETWEEN 1/4" TO 1/2" BEYOND A PROPERLY TIGHTENED NUT. THE CONTRACTOR SHALL ALSO VERIFY PROPER BOLT LENGTHS WHERE NUTS ARE NOT REQUIRED. BOLT DIAMETERS SHALL BE AS SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.

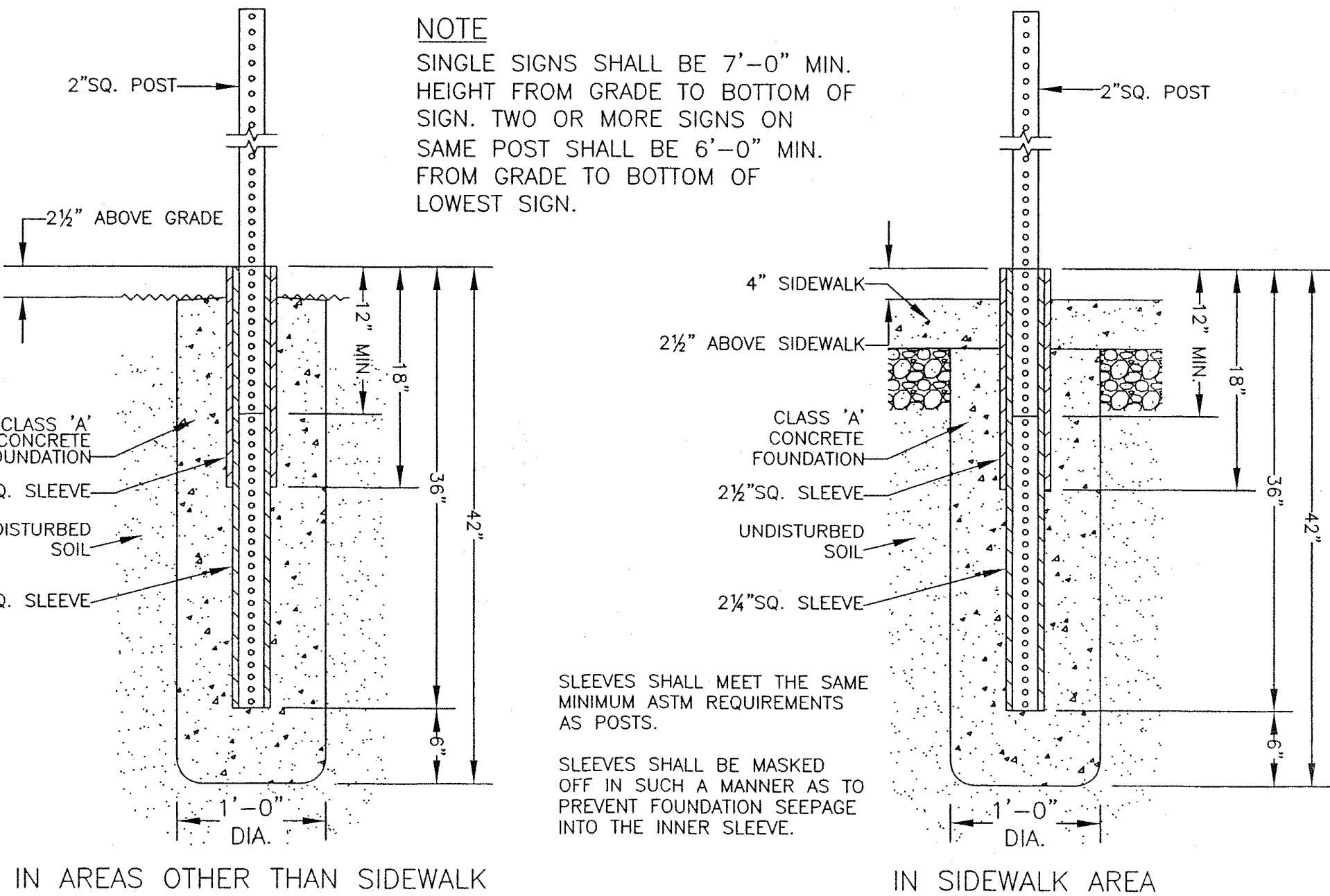


NOTES:

1. Sign panel to be fabricated aluminum painted to match C-1 (Rust) with C-2 (Gold) and C-3 (White) reflective scotchlite graphics.
2. Round posts and connecting rods to be aluminum and painted to match C-1.

1 STANDARD SIGN POST FOOTER DETAIL

NTS



NOTE

SINGLE SIGNS SHALL BE 7'-0" MIN. HEIGHT FROM GRADE TO BOTTOM OF SIGN. TWO OR MORE SIGNS ON SAME POST SHALL BE 6'-0" MIN. FROM GRADE TO BOTTOM OF LOWEST SIGN.

SLEEVES SHALL MEET THE SAME MINIMUM ASTM REQUIREMENTS AS POSTS.

SLEEVES SHALL BE MASKED OFF IN SUCH A MANNER AS TO PREVENT FOUNDATION SEEPAGE INTO THE INNER SLEEVE.

2 STANDARD SIGN POST FOOTER DETAIL

NTS

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REVISIONS				
NO.	BY	DATE	REMARKS	
1	CML	09/02/10	MISC. REVISIONS PER CHANGE ORDER.	

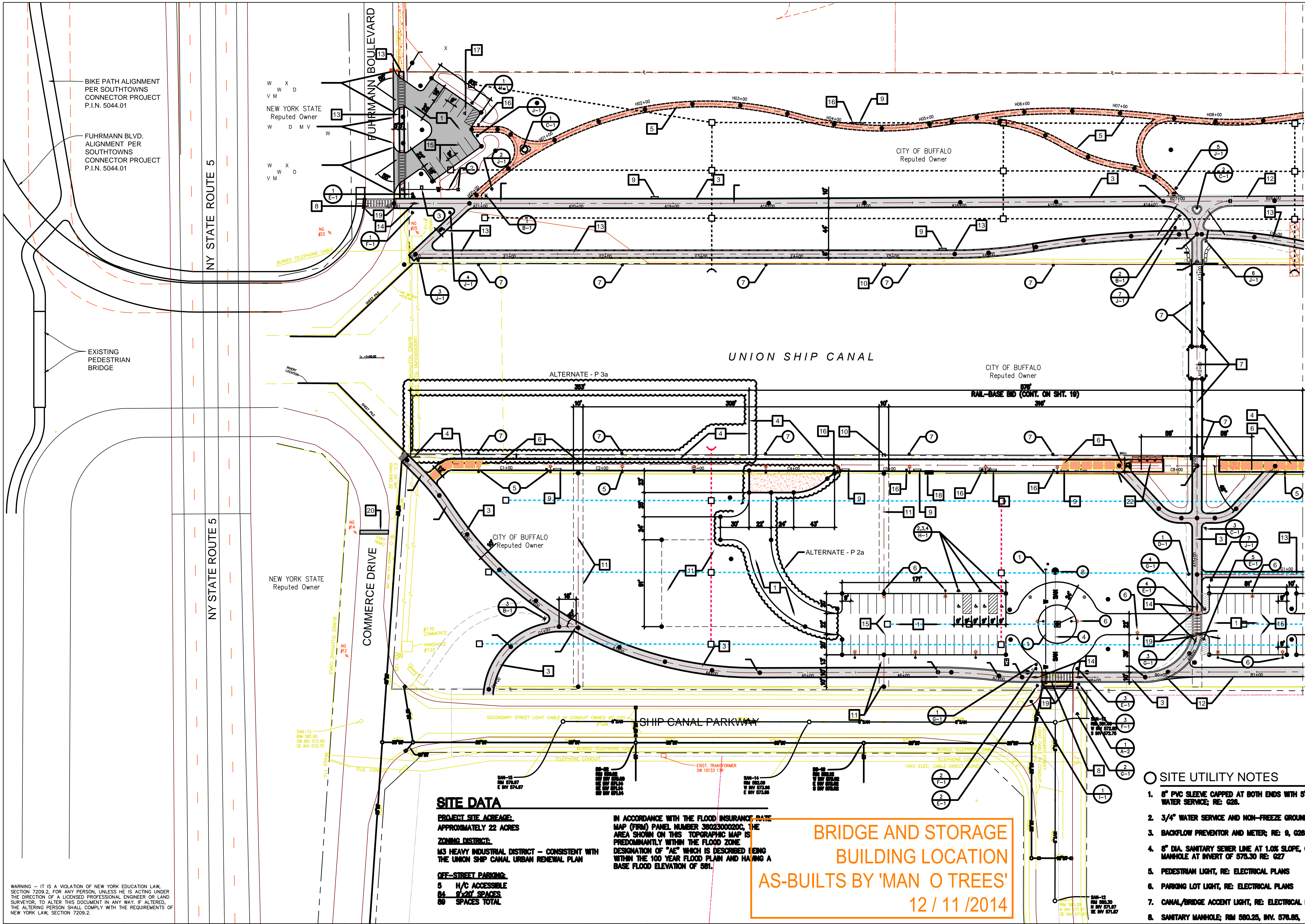
DES DLK
DWN WAL
CKD MVM

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSDOT P.I.N. 5757.98

UPLAND IMPROVEMENTS
SIGNAGE DETAILS

AS-BUILTS BY 'MAN O TREES'
1 / 21 / 2015

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DATE AUGUST 2009
G SHEET 17 OF 27
CAD REF. NO. USC-L004



NODE LOCATION TABLE

DESCRIPTION	NORTH	EAST	REMARKS
HORIZONTAL CONTROL			
HC No.1	1033034.46	1075791.48	EXISTING IRON PIN PROPERTY CORNER
HC No.2	1033706.22	1077595.65	EXISTING IRON PIN PROPERTY CORNER
MULTI-USE PATHWAY CENTERLINE 'A'			
C No.1	1032948.40	1076853.33	
C No.2	1032924.14	1076888.24	
C No.3	1032906.82	1076103.59	
C No.4	1032853.40	1076180.10	
C No.5	1032874.94	1076354.90	
C No.6	1032841.35	1076330.71	
C No.7	1033021.70	1075878.98	
C No.8	1033021.81	1075880.78	
C No.9	1033021.70	1075874.98	
C No.10	1032867.18	1076814.78	
C No.11	1032712.25	1076738.24	
C No.12	1033021.70	1075878.98	
C No.13	1032773.15	1076770.15	
C No.14	1032937.99	1076708.44	
C No.15	1033021.70	1075878.98	
C No.16	1033133.85	1076333.98	
C No.17	1033182.98	1076223.56	
C No.18	1033021.70	1075878.98	
C No.19	1033184.35	1075878.98	
C No.20	1033021.25	1076180.10	
C No.21	1032938.99	1075931.48	
PARKING LOT CORNERS			
P No.1	1032983.14	1076408.08	
P No.2	1032924.14	1076430.51	
P No.3	1032743.09	1076388.23	
P No.4	1032853.15	1076300.07	
P No.5	1032731.95	1076285.77	
P No.6	1032917.58	1076767.18	
P No.7	1032937.99	1076788.58	
P No.8	1032948.40	1076814.78	
P No.9	1032921.07	1076823.17	
P No.10	1032988.05	1076853.33	
P No.11	1032938.99	1076888.24	
P No.12	1033037.00	1076817.28	
P No.13	1032988.70	1076818.62	
P No.14	1032906.82	1076747.98	
P No.15	1033728.14	1077444.26	
P No.16	1033706.18	1077472.75	
P No.17	1033783.15	1077445.80	
P No.18	1033728.20	1077492.40	

NOTE:

DIGITAL FILES WILL BE PROVIDED TO THE CONTRACTOR FOR THE PURPOSES OF PATH AND TRAIL LAYOUT. DIGITAL FILES MAY TAKE THE FORM OF A GEOREFERENCED AUTOCAD FILE AND/OR AN ASCI COORDINATE POINT FILE.

SITE IMPROVEMENT NOTES

- ASPHALT PAVEMENT; RE: 1, G24
- CONCRETE PROMENADE; RE: 3, G24
- MULTI-USE PATH; 10' WIDE ASPHALT; RE: 2, G24
- PEDESTRIAN RAIL; RE: 8, G24
- CRUSHED STONE NATURE TRAIL; 6' WIDE, RE: 6, G24
- CONCRETE AND PERMEABLE PAVEMENT PROMENADE; RE: 9, G24
- PRE-ENGINEERED PEDESTRIAN BRIDGE; RE: BRIDGE PLANS
- CROSSWALK STRIPING; RE: 3, G25
- BENCH; RE: 1, G25
- EMERGENCY LADDER; RE: 10, G24
- CRUSHED Limestone GROUND TREATMENT; RE: 7, G25
- RECREATIONAL TRAIL; ASPHALT; RE: 2, G24
- PEDESTRIAN PATH; ASPHALT; RE: 2, G24
- FLEXIBLE DELINEATOR; RE: 2, G25
- ITEM 12.404 - 4" WHITE PREFORMED REFLECTORIZED PAVEMENT STRIPES
- TRASH RECEPTACLE; RE: 1, G25
- HANDICAPPED PARKING STALL; RE: 9, G25
- BICYCLE RACK; RE: 11, G25
- ADA DETECTABLE WARNING SURFACE; RE: 11, G24
- SAW CUT AND REMOVE ASPHALT PAVEMENT. INSTALL CONCRETE ENCASED CONDUITS PER ELECTRICAL DRAWINGS. REPAIR ASPHALT PAVEMENT IN 100' PER CITY OF BUFFALO STANDARDS AND SPECIFICATIONS.
- SAW CUT EXISTING CURB FLUSH WITH ADJACENT PAVEMENT.
- ALUMINUM GRATE; RE: 5, G27A

SITE UTILITY NOTES

- 8" PVC SLEEVE CAPPED AT BOTH ENDS WITH 5' COVER FOR FUTURE WATER SERVICE; RE: G28.
- 3/4" WATER SERVICE AND NON-FREEZE GROUND HYDRANT; RE: L503.
- BACKFLOW PREVENTOR AND METER; RE: 9, G28.
- 8" DIA. SANITARY SEWER LINE AT 1.0% SLOPE, CONNECT TO EXISTING MANHOLE AT INVERT OF 578.30 RE: G27
- PEDESTRIAN LIGHT; RE: ELECTRICAL PLANS
- PARKING LOT LIGHT; RE: ELECTRICAL PLANS
- CANAL/BIDGE ACCENT LIGHT; RE: ELECTRICAL PLANS
- SANITARY MANHOLE; RM 580.25, INV. 578.85, RE: G27

CONTRACTOR SHALL STAKE OUT ALL PROPOSED PATHS FOR REVIEW AND ACCEPTANCE BY THE ARCHITECT'S/OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.

SITE PLAN

SCALE: 1"=50'

WARNING - IT IS A VIOLATION OF NEW YORK EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK LAW, SECTION 7209.2.

REVISIONS			
NO.	BY	DATE	REVISIONS
1	R.J.F.	12/2/09	REVISIONS PER ADDENDUM No. 4
2	C.M.L.	05/27/10	CURB REVISIONS PER FIELD BULLETIN 21
3	C.M.L.	08/11/10	MISC. REVISIONS PER FIELD BULLETIN 20
4	C.M.L.	11/10/10	MISC. REVISIONS PER FIELD BULLETIN 22

DES DLK

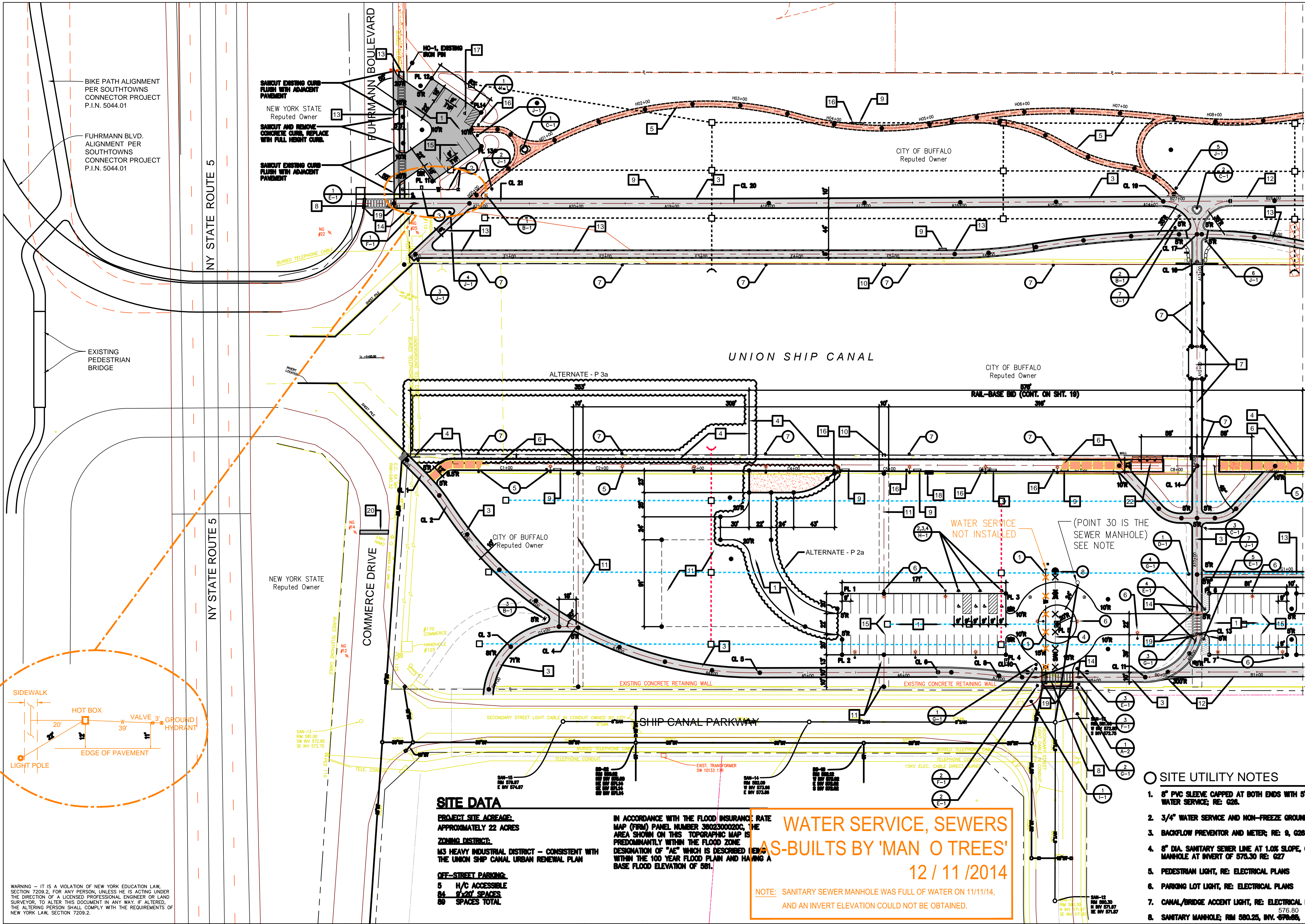
DWN WAL

ODD MVM

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

SITE LAYOUT AND UTILITY PLAN
WEST
SCALE: 1"=50'

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DATE AUGUST 2009
SHEET 18 OF 27
CAD REF. NO. USC-L201



NODE LOCATION TABLE			
DESCRIPTION	NORTH	EAST	REMARKS
HORIZONTAL CONTROL			
HC No.1	1033034.46	1075791.48	EXISTING IRON PIN PROPERTY CORNER
HC No.2	1033706.22	1077695.65	EXISTING IRON PIN PROPERTY CORNER
MULTI-USE PATHWAY CENTERLINE 'A'			
C No.1	1032641.40	1076833.33	
C No.2	1032641.40	1076833.33	
C No.3	1032641.40	1076833.33	
C No.4	1032641.40	1076833.33	
C No.5	1032641.40	1076833.33	
C No.6	1032641.40	1076833.33	
C No.7	1032641.40	1076833.33	
C No.8	1032641.40	1076833.33	
C No.9	1032641.40	1076833.33	
C No.10	1032641.40	1076833.33	
C No.11	1032641.40	1076833.33	
C No.12	1032641.40	1076833.33	
C No.13	1032641.40	1076833.33	
C No.14	1032641.40	1076833.33	
C No.15	1032641.40	1076833.33	
C No.16	1032641.40	1076833.33	
C No.17	1032641.40	1076833.33	
C No.18	1032641.40	1076833.33	
C No.19	1032641.40	1076833.33	
C No.20	1032641.40	1076833.33	
C No.21	1032641.40	1076833.33	
PARKING LOT CORNERS			
P No.1	1032641.40	1076833.33	
P No.2	1032641.40	1076833.33	
P No.3	1032641.40	1076833.33	
P No.4	1032641.40	1076833.33	
P No.5	1032641.40	1076833.33	
P No.6	1032641.40	1076833.33	
P No.7	1032641.40	1076833.33	
P No.8	1032641.40	1076833.33	
P No.9	1032641.40	1076833.33	
P No.10	1032641.40	1076833.33	
P No.11	1032641.40	1076833.33	
P No.12	1032641.40	1076833.33	
P No.13	1032641.40	1076833.33	
P No.14	1032641.40	1076833.33	
P No.15	1032641.40	1076833.33	
P No.16	1032641.40	1076833.33	
P No.17	1032641.40	1076833.33	
P No.18	1032641.40	1076833.33	
P No.19	1032641.40	1076833.33	
P No.20	1032641.40	1076833.33	
P No.21	1032641.40	1076833.33	

- NOTE: DIGITAL FILES WILL BE PROVIDED TO THE CONTRACTOR FOR THE PURPOSES OF PATH AND TRAIL LAYOUT. DIGITAL FILES MAY TAKE THE FORM OF A GEOREFERENCED AUTOCAD FILE AND/OR AN ASCII COORDINATE POINT FILE.
- SITE IMPROVEMENT NOTES**
1. ASPHALT PAVEMENT; RE: 1, G24
 2. CONCRETE PROMENADE; RE: 3, G24
 3. MULTI-USE PATH; 10' WIDE ASPHALT; RE: 2, G24
 4. PEDESTRIAN RAIL; RE: 8, G24
 5. CRUSHED STONE NATURE TRAIL; 6' WIDE, RE: 6, G24
 6. CONCRETE AND PERMEABLE PAVEMENT PROMENADE; RE: 9, G24
 7. PRE-ENGINEERED PEDESTRIAN BRIDGE; RE: BRIDGE PLANS
 8. CROSSWALK STRIPING; RE: 3, G25
 9. BENCH; RE: 1, G25
 10. EMERGENCY LADDER; RE: 10, G24
 11. CRUSHED Limestone GROUND TREATMENT; RE: 7, G25
 12. RECREATIONAL TRAIL; ASPHALT; RE: 2, G24
 13. PEDESTRIAN PATH; ASPHALT; RE: 2, G24
 14. FLEXIBLE DELINEATOR; RE: 2, G25
 15. ITEM 12.404 - 4" WHITE PREFORMED REFLECTORIZED PAVEMENT STRIPES
 16. TRASH RECEPTACLE; RE: 1, G25
 17. HANDICAPPED PARKING STALL; RE: 9, G25
 18. BICYCLE RACK; RE: 11, G25
 19. ADA DETECTABLE WARNING SURFACE; RE: 11, G24
 20. SAWCUT AND REMOVE ASPHALT PAVEMENT. INSTALL CONCRETE ENCASED CONDUITS PER ELECTRICAL DRAWINGS. REPAIR ASPHALT PAVEMENT IN 100' PER CITY OF BUFFALO STANDARDS AND SPECIFICATIONS.
 21. SAWCUT EXISTING CURB FLUSH WITH ADJACENT PAVEMENT.
 22. ALUMINUM GRATE; RE: 5, G27A

SITE UTILITY NOTES

1. 8" PVC SLEEVE CAPPED AT BOTH ENDS WITH 5' COVER FOR FUTURE WATER SERVICE; RE: G28.
2. 3/4" WATER SERVICE AND NON-FREEZE GROUND HYDRANT; RE: L503.
3. BACKFLOW PREVENTOR AND METER; RE: 9, G28.
4. 8" DIA. SANITARY SEWER LINE AT 1.0% SLOPE, CONNECT TO EXISTING MANHOLE AT INVERT OF 575.30 RE: G27
5. PEDESTRIAN LIGHT; RE: ELECTRICAL PLANS
6. PARKING LOT LIGHT; RE: ELECTRICAL PLANS
7. CANAL/BIDGE ACCENT LIGHT; RE: ELECTRICAL PLANS
8. SANITARY MANHOLE; RM 580.25, INV. 576.05, RE: G27

CONTRACTOR SHALL STAKE OUT ALL PROPOSED PATHS FOR REVIEW AND ACCEPTANCE BY THE ARCHITECT'S/OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.

SITE PLAN
SCALE: 1"=50'

0 25 50 100

SITE DATA			
PROJECT SITE ACREAGE: APPROXIMATELY 22 ACRES			
ZONING DISTRICT: M3 HEAVY INDUSTRIAL DISTRICT - CONSISTENT WITH THE UNION SHIP CANAL URBAN RENEWAL PLAN			
OFF-STREET PARKING: 5 H/C ACCESSIBLE 84 9'x20' SPACES 89 SPACES TOTAL			

WATER SERVICE, SEWERS AS-BUILTS BY 'MAN O TREES' 12/11/2014

NOTE: SANITARY SEWER MANHOLE WAS FULL OF WATER ON 11/11/14, AND AN INVERT ELEVATION COULD NOT BE OBTAINED.

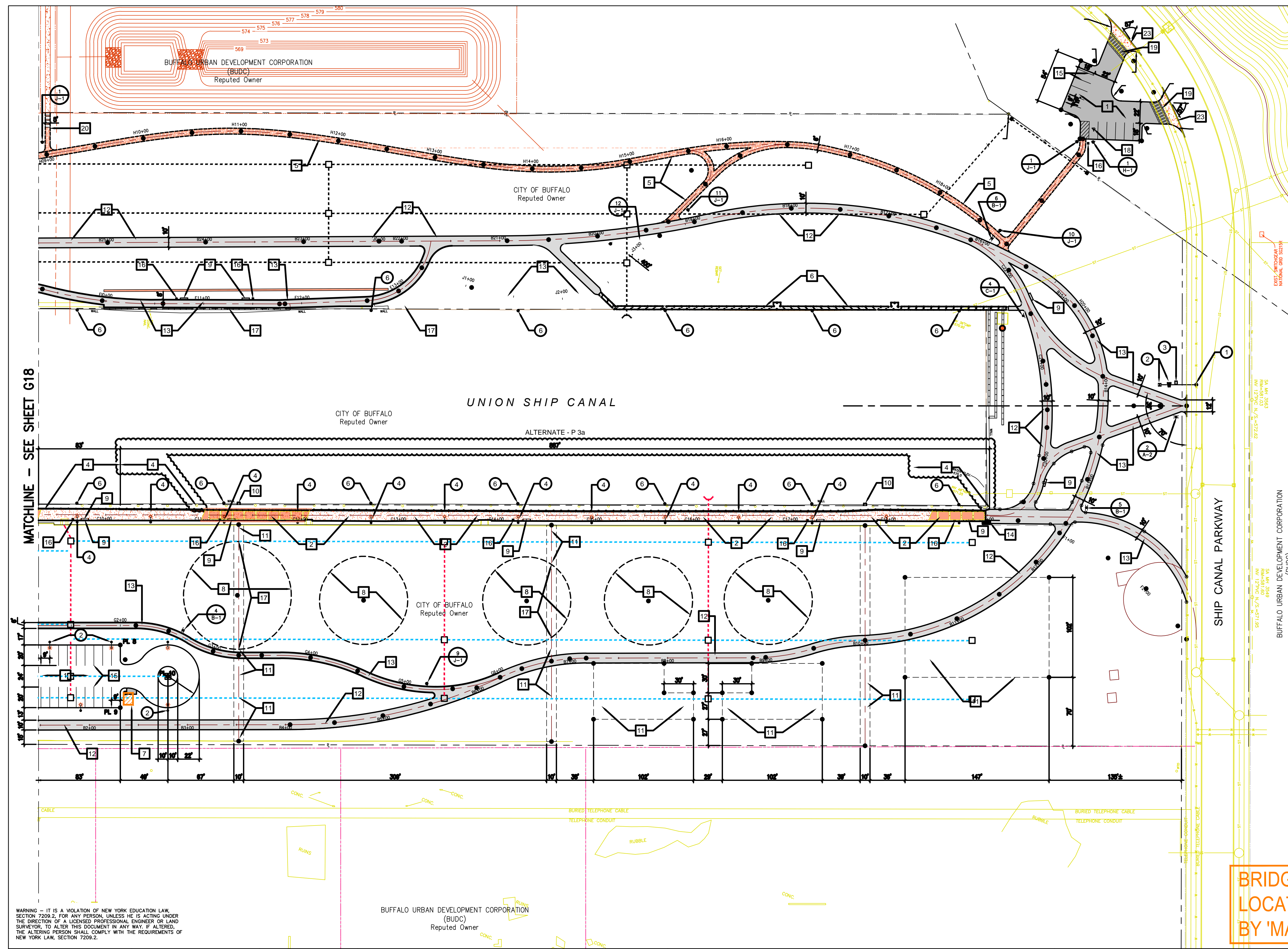
WARNING - IT IS A VIOLATION OF NEW YORK EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK LAW, SECTION 7209.2.

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NO.	BY	DATE	REVISIONS
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BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

SITE LAYOUT AND UTILITY PLAN WEST
SCALE: 1"=50'

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DATE: AUGUST 2009
SHEET 18 OF 27
CAD REF. NO. USC-L201



- SITE IMPROVEMENT NOTES**
1. ASPHALT PARKING LOT; RE: 1, G24
 2. CONCRETE AND PERMEABLE PAVER PROMENADE; RE: 9, G24
 3. * MULTI-USE PATH; 10' WIDE ASPHALT; RE: 2, G24
 4. PEDESTRIAN RAIL; RE: 8, G24.
 5. * CRUSHED STONE NATURE TRAIL; 6' WIDE; RE: 6, G24
 6. BOARDWALK OVER EMBAYMENT AREA; RE: 8, G25
 7. 10'x12' PRECAST MAINTENANCE BUILDING WITH PITCHED ROOF AND SIMULATED BRICK FINISH AS MANUFACTURED BY HY-GRADE PRECAST OR ACCEPTABLE EQUIVALENT.
 8. ARCHITECTURAL LANDFORMS AT 3:1 SLOPE; REFER TO GRADING PLANS.
 9. BENCH; RE: 1, G25
 10. EMERGENCY LADDER; RE: G24
 11. CRUSHED LIMESTONE GROUND TREATMENT; RE: 7, G28.
 12. * RECREATION TRAIL; ASPHALT; RE: 2, G24
 13. * PEDESTRIAN PATH; ASPHALT; RE: 2, G24.
 14. BICYCLE RACK; RE: 11, G25.
 15. ITEM 12.404 - 4" WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES.
 16. TRASH RECEPTACLE; RE: 1, G25.
 17. APPROXIMATELY 3,800 SQ.FT. OF IMPORTED SALVAGED CONCRETE. CONCRETE SLABS TO BE 8-12" THICK AND IRREGULAR IN SHAPE, WITH A MINIMUM SIZE OF 3'x4' TO A MAXIMUM 5'x7'. SLABS TO BE LAYED IN A MOSAIC PATTERN ON TOP OF A 4" THICK STONE SETTING BED. JOINTS TO BE A MINIMUM 6" SPACING AND MAXIMUM OF 12" WITH TOPSOIL AND SEEDING JOINTS.
 18. HANDICAPPED PARKING STALL; RE: 9, G2
 19. CROSSWALK STRIPING; RE: 3, G25
 20. CONCRETE WALK EXTENDED FROM PARCEL 4 WALKWAY; RE: 3, G24.
 21. NOT USED.
 22. NOT USED.
 23. SAWCUT AND GRIND EXISTING CURB TO MATCH INTEGRAL CONCRETE CURB & AFFORD.
 24. NOT USED.
 25. MODIFIED ASPHALT PATHWAY; RE: 6, G27A
- NOTE: DIGITAL FILES WILL BE PROVIDED TO THE CONTRACTOR FOR THE PURPOSES OF PATH AND TRAIL LAYOUT. DIGITAL FILES MAY TAKE THE FORM OF A GEOREFERENCED AUTOCAD FILE AND/OR AN ASD COORDINATE POINT FILE.
- * CONTRACTOR SHALL STAKE OUT ALL PROPOSED PATHS FOR REVIEW AND ACCEPTANCE BY THE ARCHITECT'S/OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION.

- SITE UTILITY NOTES**
1. WATER SERVICE CONNECTION TO WATER MAIN PER CITY OF BUFFALO STANDARDS AND SPECIFICATIONS; RE: SHEET G28.
 2. 3/4" WATER SERVICE TO NON-FREEZE GROUND HYDRANT; RE: SHEET G28.
 3. BACKFLOW PREVENTER AND METER; RE: SHEET G28.
 4. PEDESTRIAN LIGHT, RE: ELECTRICAL PLANS
 5. PARKING LOT LIGHT, RE: ELECTRICAL PLANS
 6. CANAL/BIDGE ACCENT LIGHT, RE: ELECTRICAL PLANS



**BRIDGE AND STORAGE BUILDING
LOCATION AS-BUILTS
BY 'MAN O TREES'**

12 / 11 / 2014

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BUFFALO URBAN DEVELOPMENT CORPORATION
(BUDC)
Reputed Owner

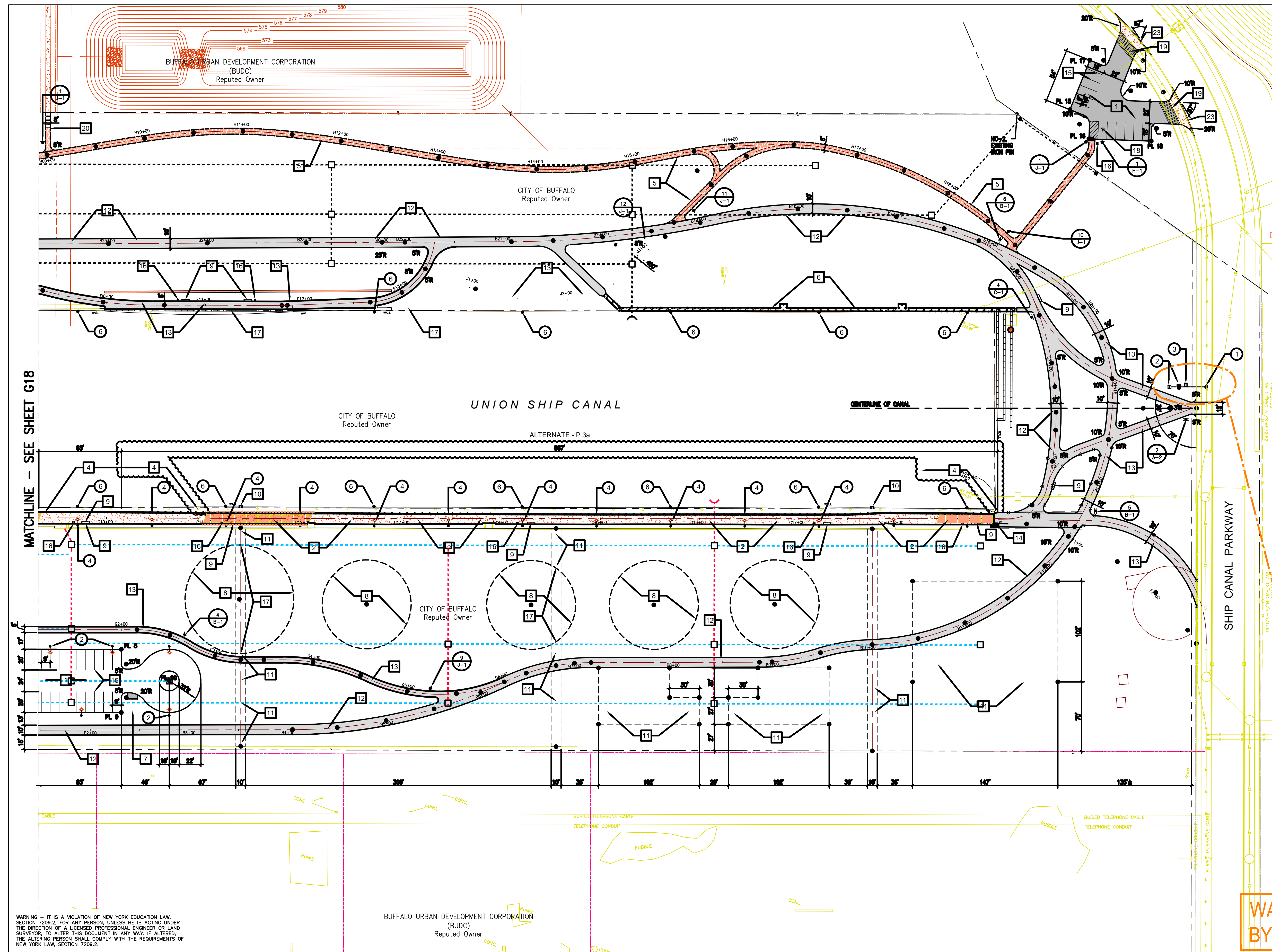
REVISIONS				
NO.	BY	DATE	REVISIONS	REMARKS
1	R.J.F.	12/2/09	REVISIONS PER ADDENDUM No. 4	
2	C.M.L.	05/27/10	MISC. REVISIONS PER CHANGE ORDER.	
3	C.M.L.	08/01/10	MISC. REVISIONS PER FIELD BULLETIN.	

DES - DLK
DWN - WAL
CDD - DLK

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSDOT P.I.N. 5757.98

UPLAND IMPROVEMENTS
SITE LAYOUT AND UTILITY PLAN
EAST
SCALE: 1"=50'

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DATE **AUGUST 2009**
G SHEET **19** OF **27**
CAD REF. NO. **USC-L202**



SITE IMPROVEMENT NOTES

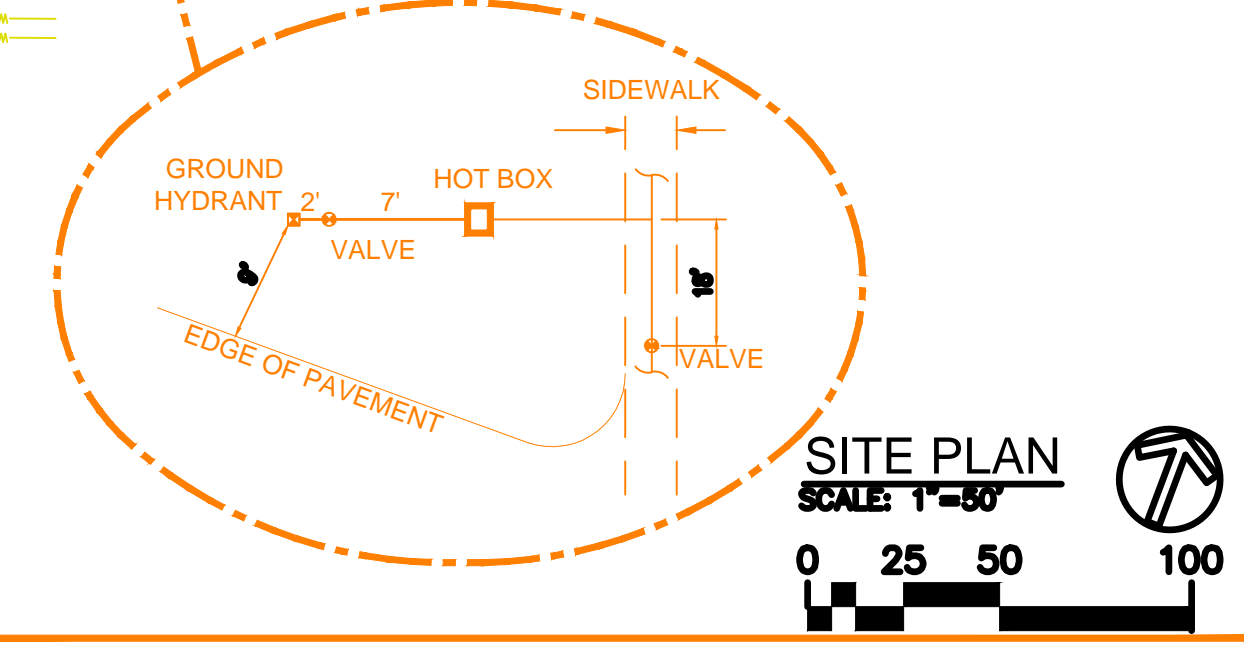
1. ASPHALT PARKING LOT; RE: 1, G24
2. CONCRETE AND PERMEABLE PAVER PROMENADE; RE: 9, G24
3. * MULTI-USE PATH; 10' WIDE ASPHALT; RE: 2, G24
4. PEDESTRIAN RAIL; RE: 8, G24.
5. * CRUSHED STONE NATURE TRAIL; 6' WIDE; RE: 6, G24
6. BOARDWALK OVER EMBAYMENT AREA; RE: 8, G25
7. 10'x12' PRECAST MAINTENANCE BUILDING WITH PITCHED ROOF AND SIMULATED BRICK FINISH AS MANUFACTURED BY HY-GRADE PRECAST OR ACCEPTABLE EQUIVALENT.
8. ARCHITECTURAL LANDFORMS AT 3:1 SLOPE; REFER TO GRADING PLANS.
9. BENCH; RE: 1, G25
10. EMERGENCY LADDER; RE: G24
11. CRUSHED LIMESTONE GROUND TREATMENT; RE: 7, G28.
12. * RECREATION TRAIL; ASPHALT; RE: 2, G24
13. * PEDESTRIAN PATH; ASPHALT; RE: 2, G24.
14. BICYCLE RACK; RE: 11, G25.
15. ITEM 12.404 - 4" WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES.
16. TRASH RECEPTACLE; RE: 1, G25.
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18. HANDICAPPED PARKING STALL; RE: 9, G2
19. CROSSWALK STRIPING; RE: 3, G25
20. CONCRETE WALK EXTENDED FROM PARCEL 4 WALKWAY; RE: 3, G24.
21. NOT USED.
22. NOT USED.
23. SAWCUT AND GRIND EXISTING CURB TO MATCH INTEGRAL CONCRETE CURB & AFFORD.
24. NOT USED.
25. MODIFIED ASPHALT PATHWAY; RE: 6, G27A

NOTE: DIGITAL FILES WILL BE PROVIDED TO THE CONTRACTOR FOR THE PURPOSES OF PATH AND TRAIL LAYOUT. DIGITAL FILES MAY TAKE THE FORM OF A GEOREFERENCED AUTOCAD FILE AND/OR AN ASD COORDINATE POINT FILE.

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SITE UTILITY NOTES

1. WATER SERVICE CONNECTION TO WATER MAIN PER CITY OF BUFFALO STANDARDS AND SPECIFICATIONS; RE: SHEET G28.
2. 3/4" WATER SERVICE TO NON-FREEZE GROUND HYDRANT; RE: SHEET G28.
3. BACKFLOW PREVENTER AND METER; RE: SHEET G28.
4. PEDESTRIAN LIGHT; RE: ELECTRICAL PLANS
5. PARKING LOT LIGHT; RE: ELECTRICAL PLANS
6. CANAL/BIDGE ACCENT LIGHT; RE: ELECTRICAL PLANS



**WATER SERVICE, SEWERS AS-BUILTS
BY 'MAN O TREES'**

12 / 11 / 2014

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BUFFALO URBAN DEVELOPMENT CORPORATION
(BUDC)
Reputed Owner

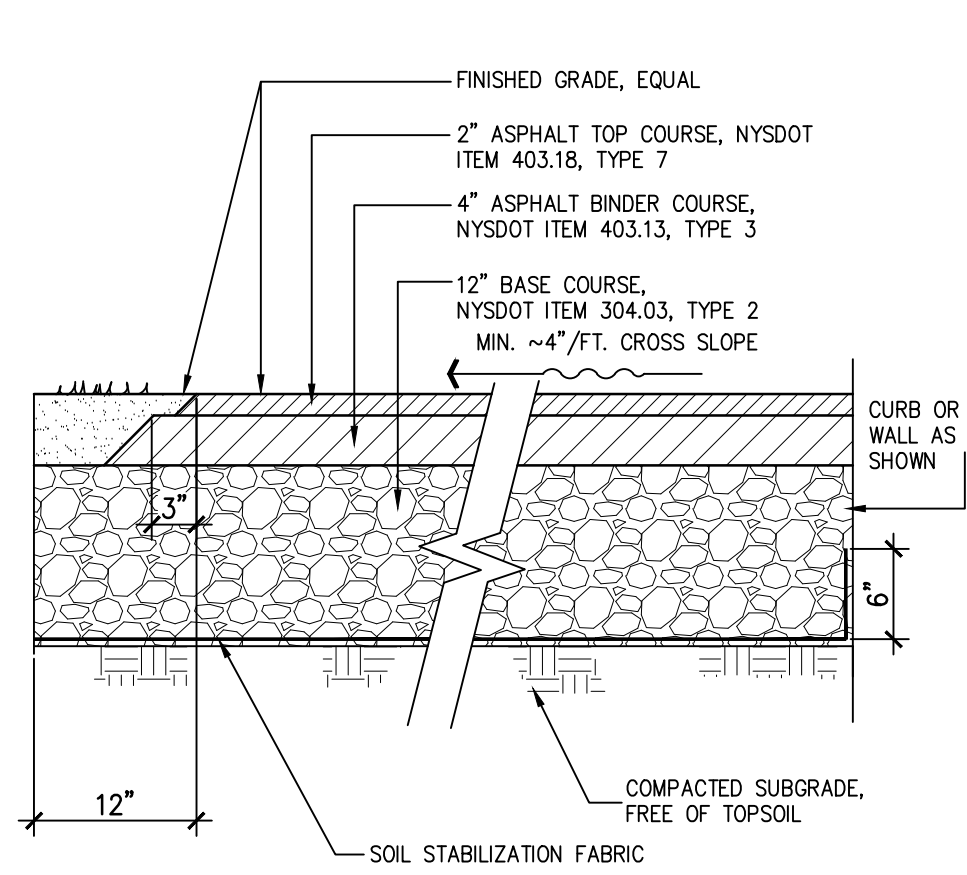
REVISIONS				
NO.	BY	DATE	REVISIONS	REMARKS
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DES - DLK
DWN - WAL
CDD - DLK

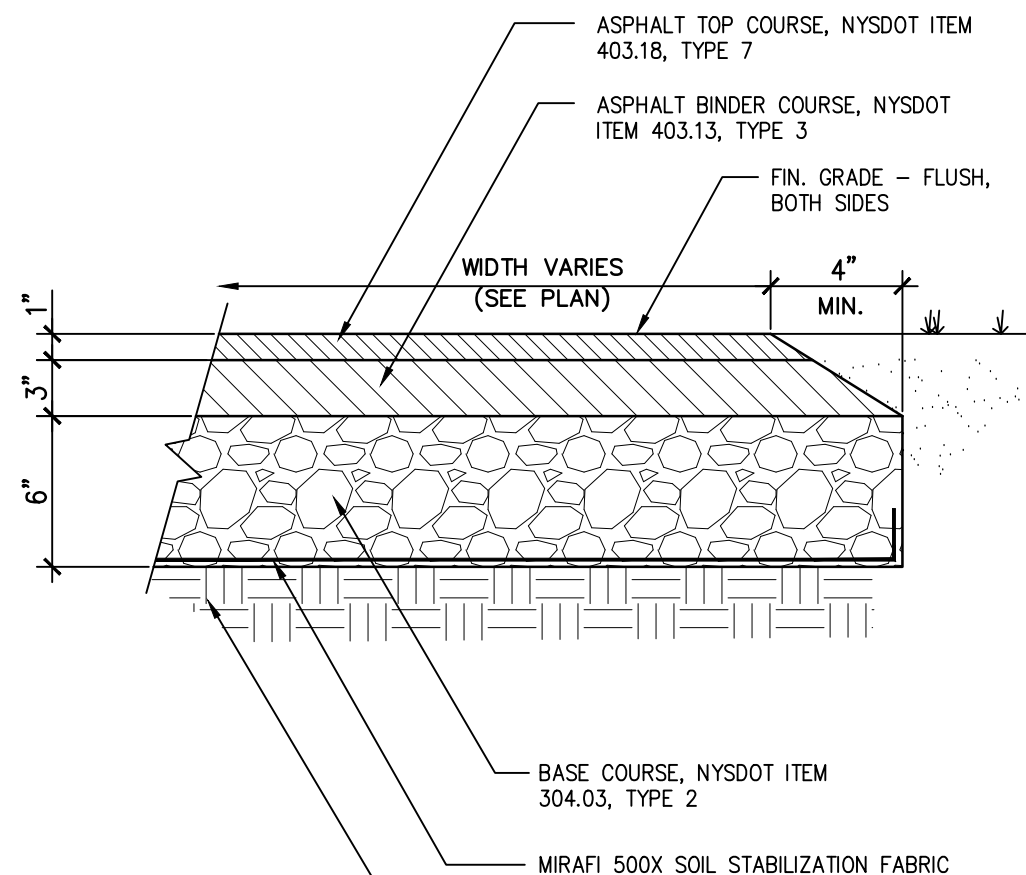
BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSDOT P.I.N. 5757.98

UPLAND IMPROVEMENTS
SITE LAYOUT AND UTILITY PLAN
EAST
SCALE: 1"=50'

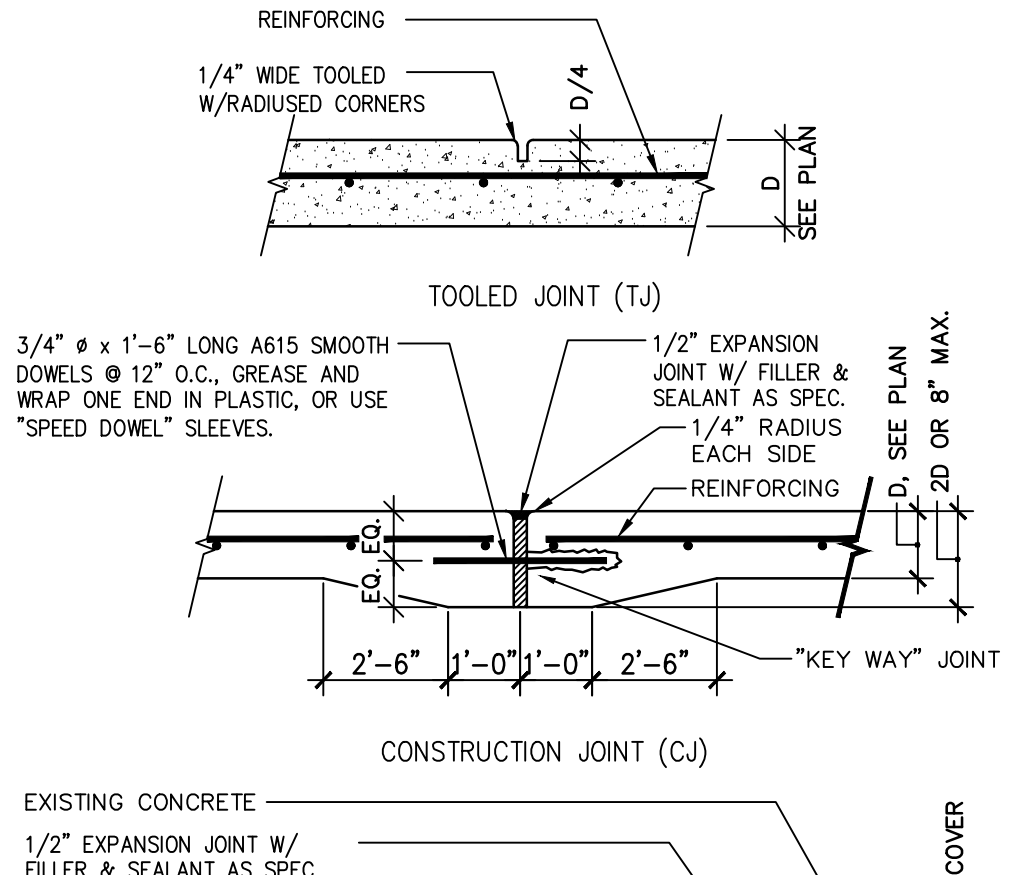
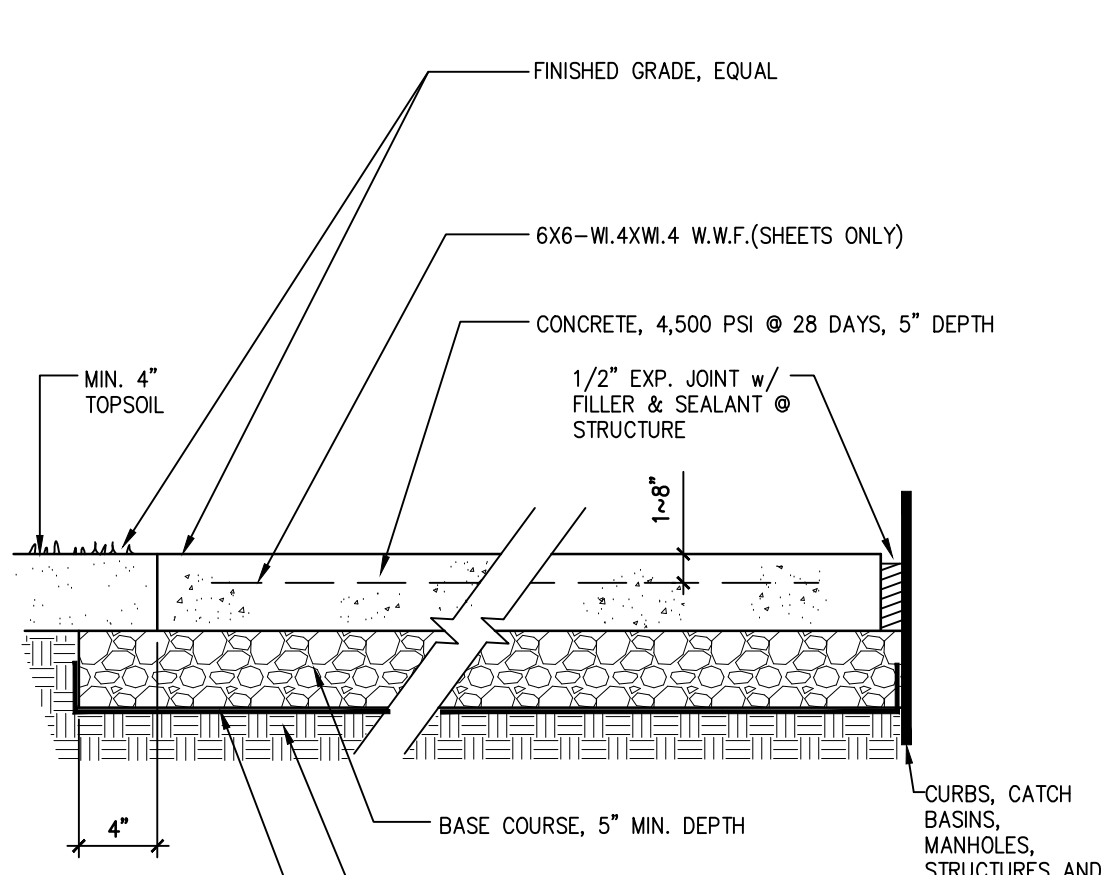
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DATE **AUGUST 2009**
G SHEET **19** OF **27**
CAD REF. NO. **USC-L202**



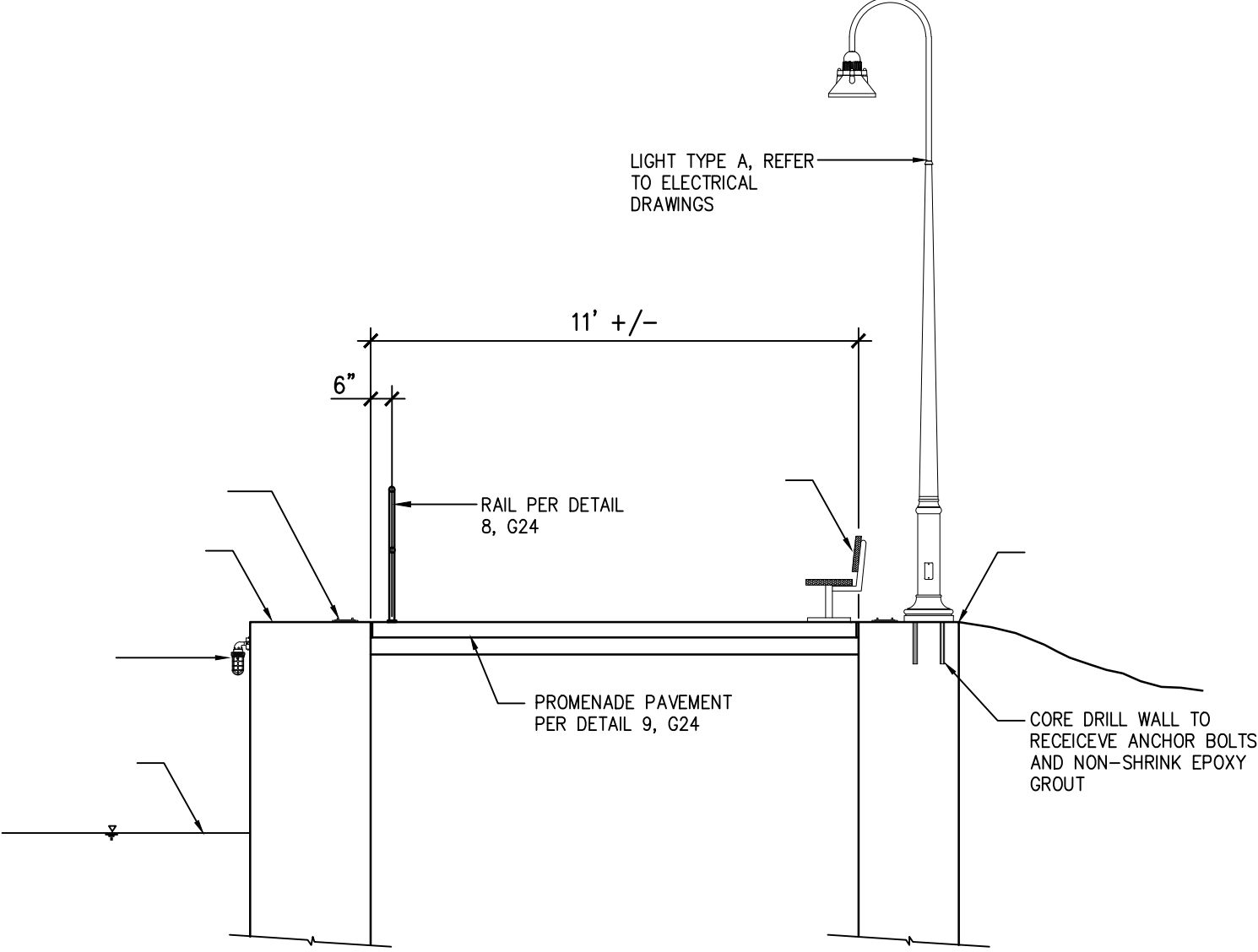
NOTE:
* DIMENSIONS GIVEN ON PLAN ARE TAKEN FROM EDGE OF ASPHALT TOP COURSE.



NOTE:
* PROVIDE 1/4" FT. SLOPE SLOPE IN DIRECTION OF ADJACENT GRADE. IN FLAT AREAS, WHERE NO APPARENT SLOPE EXISTS, RAISE PATH 1-1/2" ON ONE SIDE, ADJUST ADJACENT GRADES TO BE FLUSH.



LOAD TRANSFER - SLIP DOWEL JOINT
* NOTE: "D" IS EQUAL TO DEPTH OF CONCRETE.



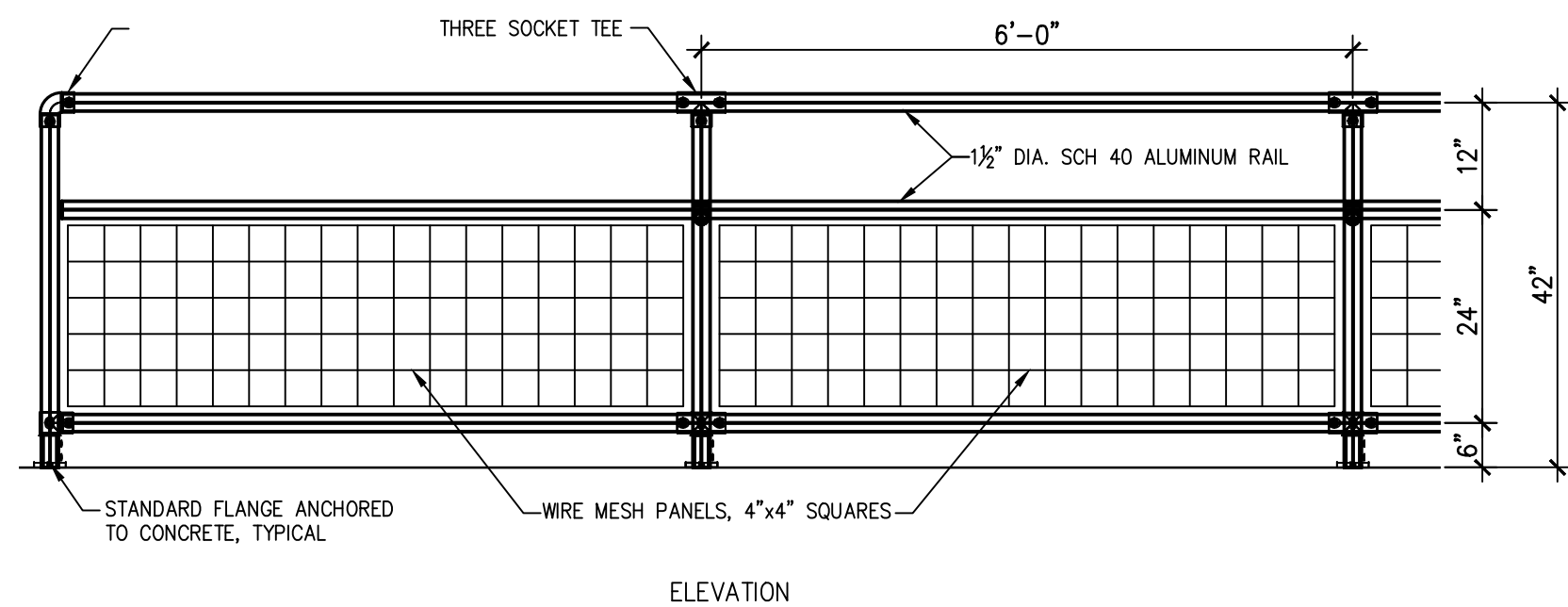
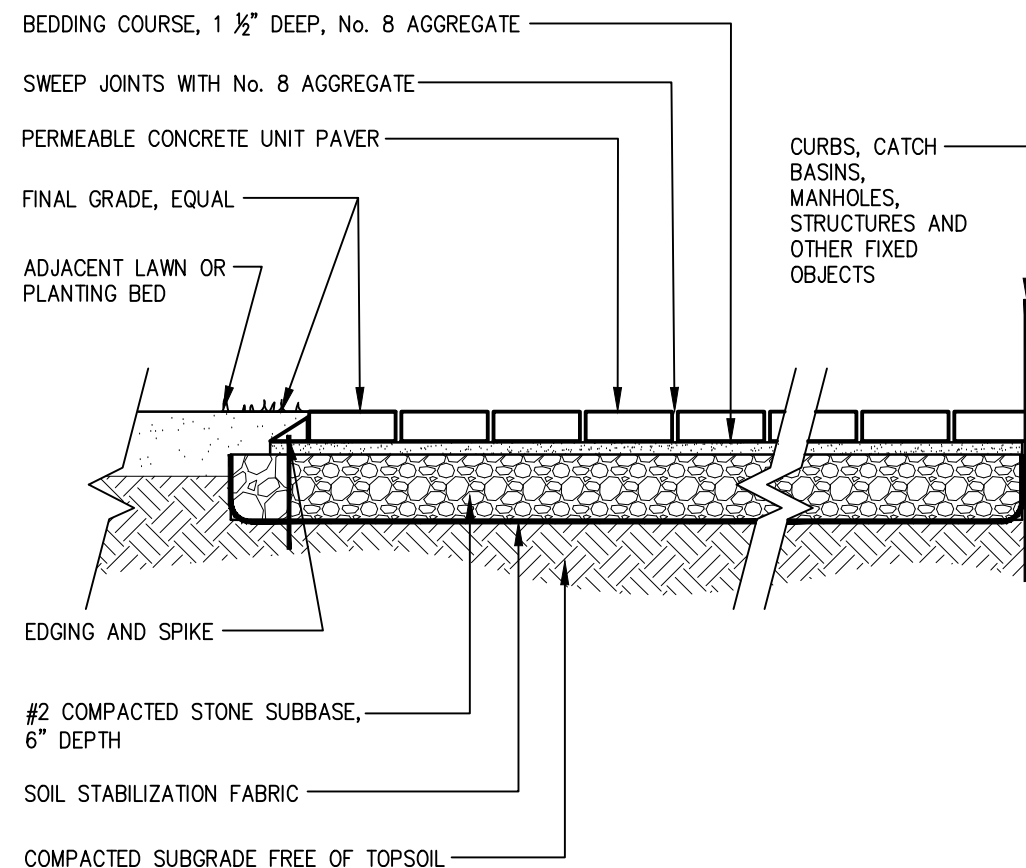
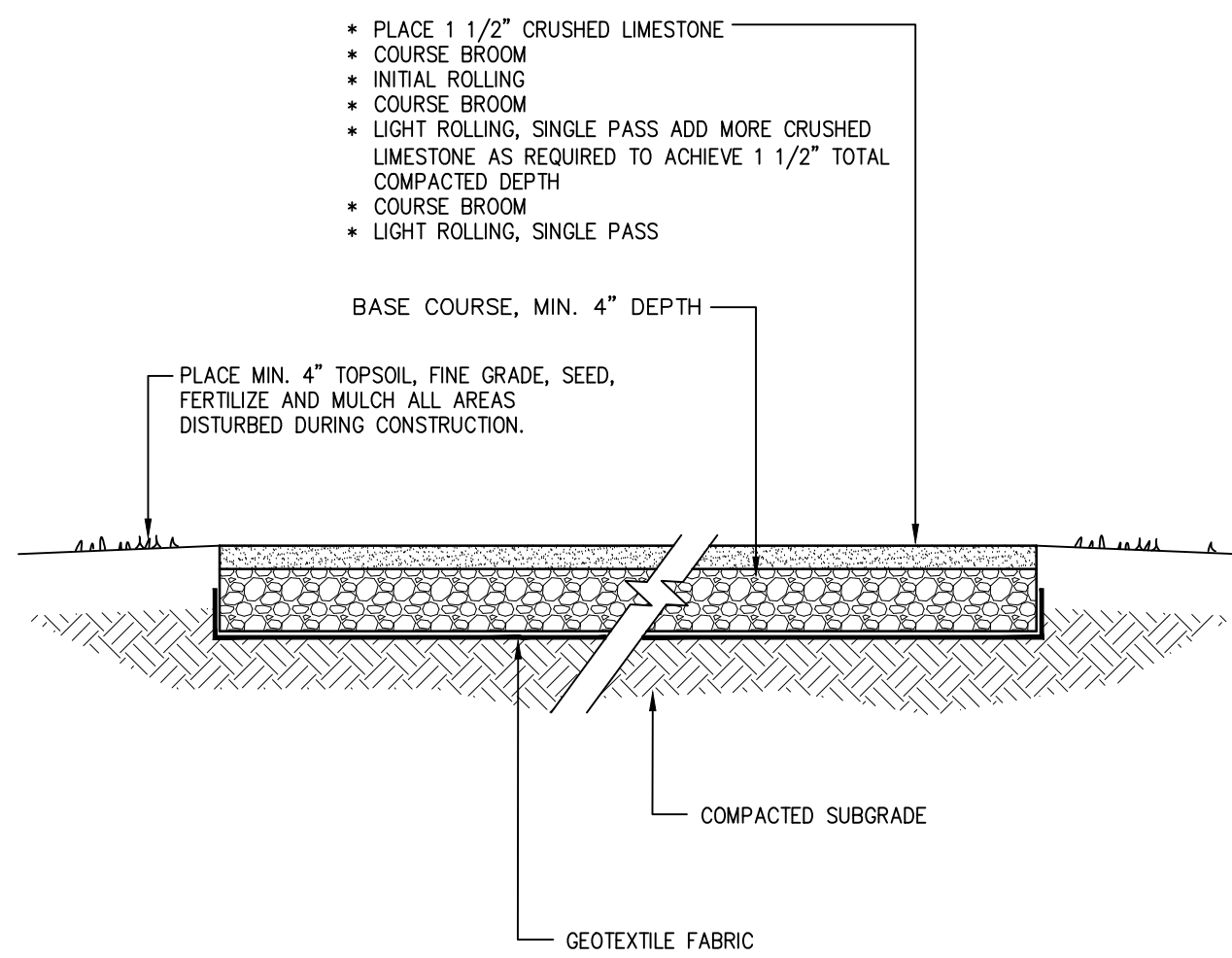
1 ASPHALT PAVEMENT NTS

2 ASPHALT PATHWAY NTS

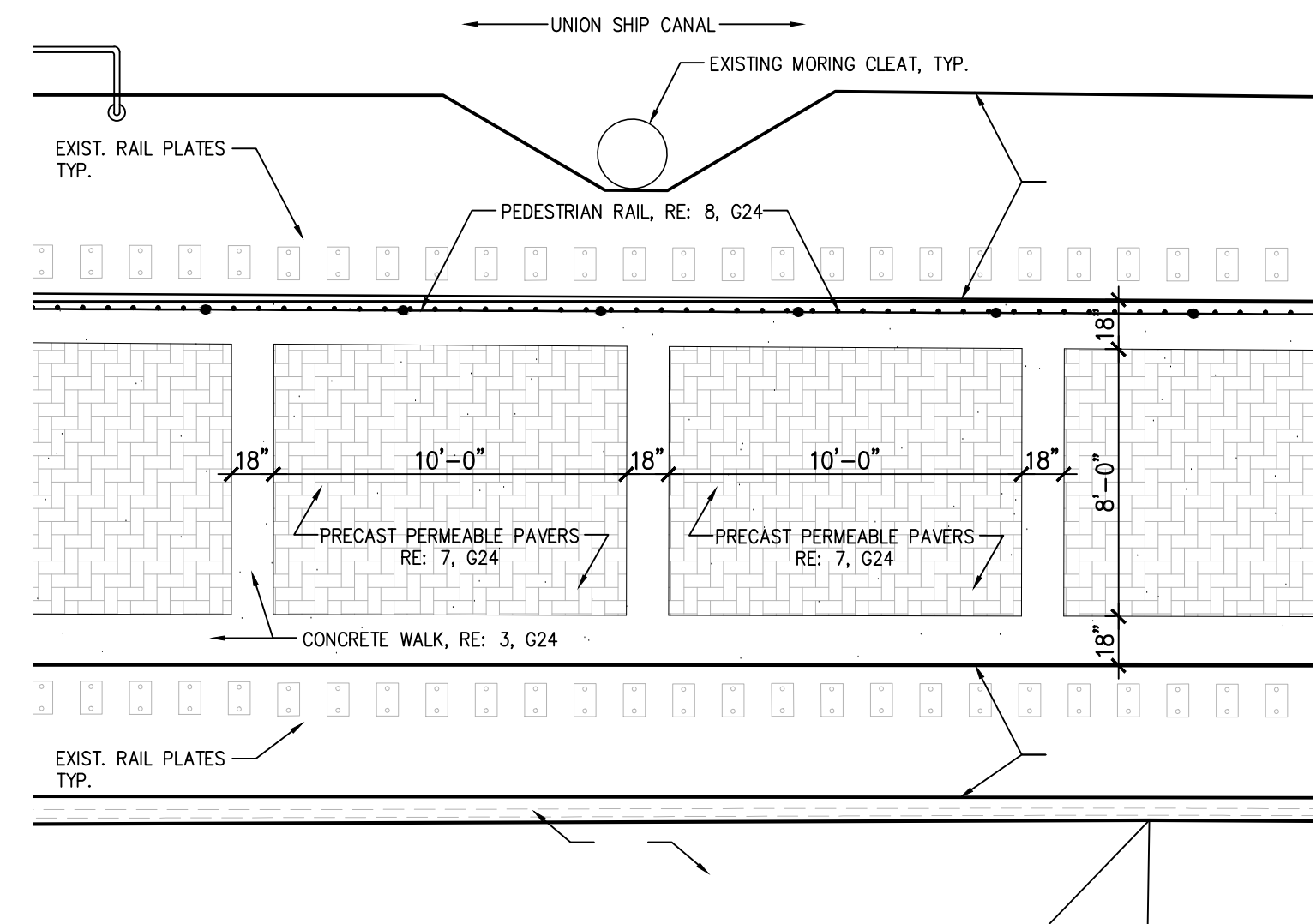
3 CONCRETE WALK NTS

4 TYPICAL CONCRETE JOINTS NTS

5 CONCRETE PROMENADE SECTION NTS



NOTES:
* 1 1/2" DIA. SCH 40 ALUMINUM SAFETY RAIL WITH WIRE MESH AS MANUFACTURED BY: KEE SAFETY, INC. (acceptable equivalent) 100 STRADMAN STREET BUFFALO, NY 14206 (716)896-4949 www.KeeSafety.com

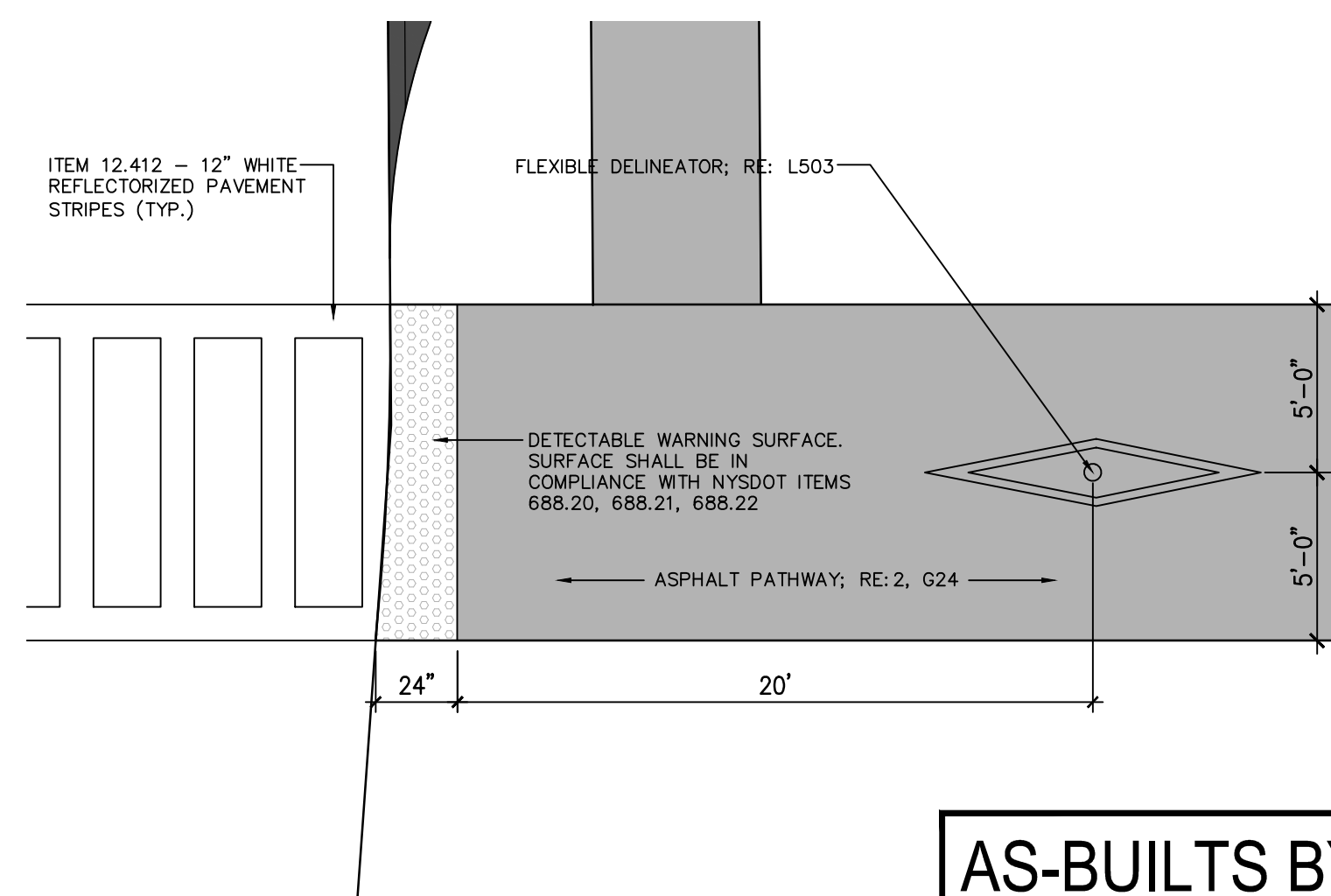
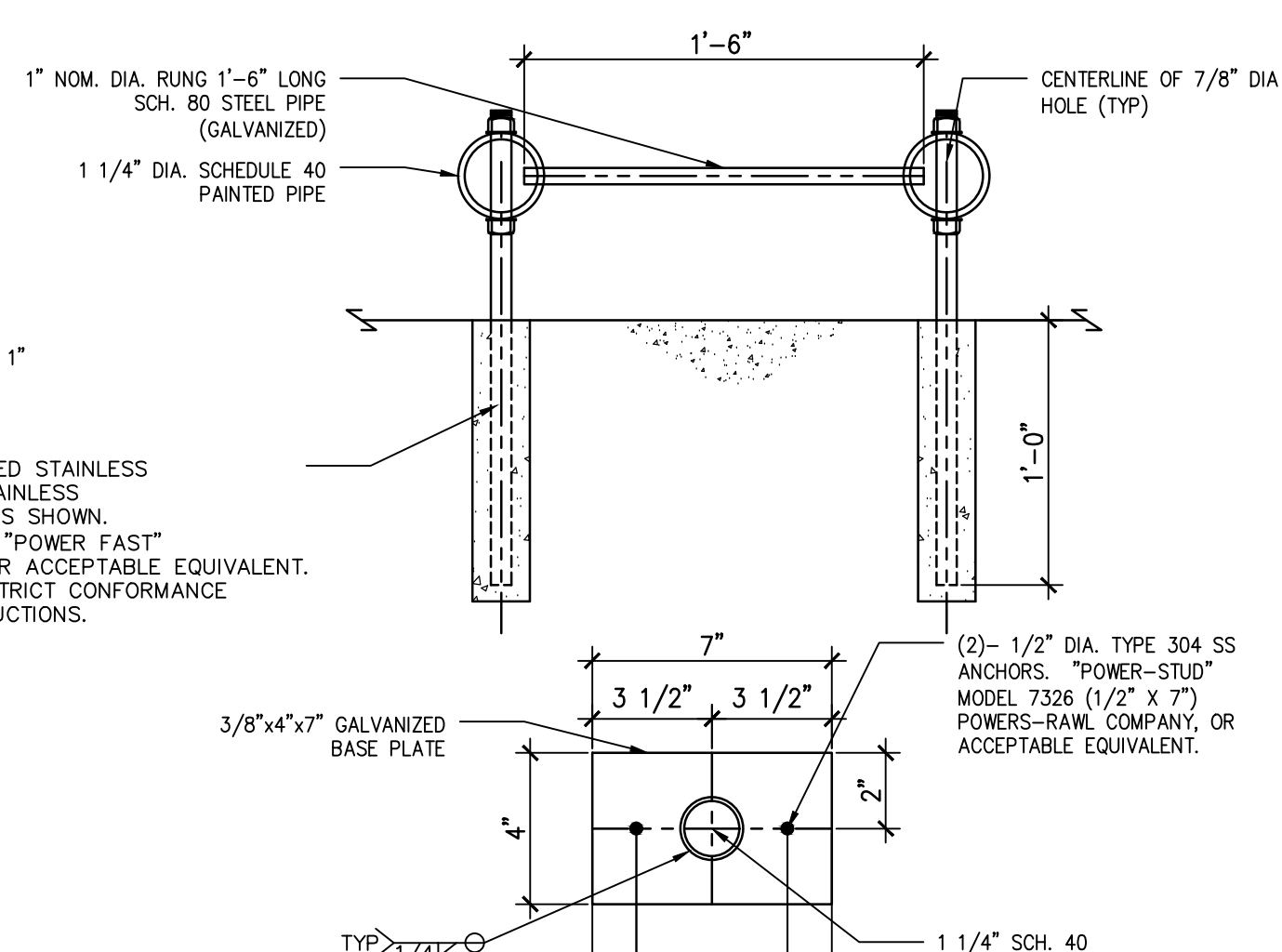
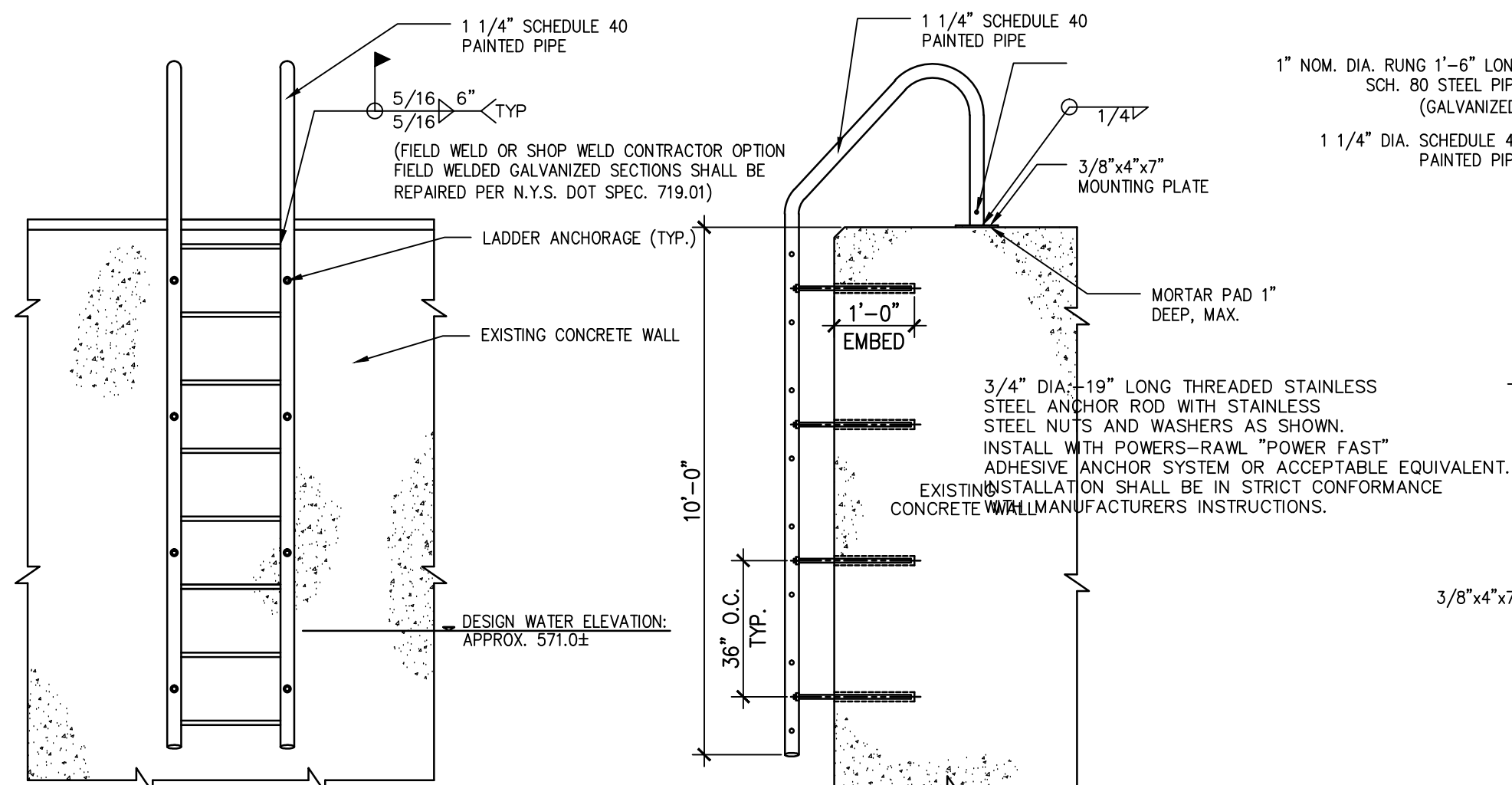


6 CRUSHED STONE TRAIL NTS

7 PRECAST PERMEABLE UNIT PAVERS NTS

8 PEDESTRIAN RAIL NTS

9 PROMENADE PAVEMENT ENLARGEMENT NTS



10 CANAL LADDER NTS

11 DETECTABLE WARNING SURFACE NTS

WARNING - IT IS A VIOLATION OF NEW YORK EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK LAW, SECTION 7209.2.

AS-BUILTS BY 'MAN O TREES'
1 / 21 / 2015

WENDEL DUCHSCHERER ARCHITECTS & ENGINEERS

MALCOLM PIRNIE
24GA27971200

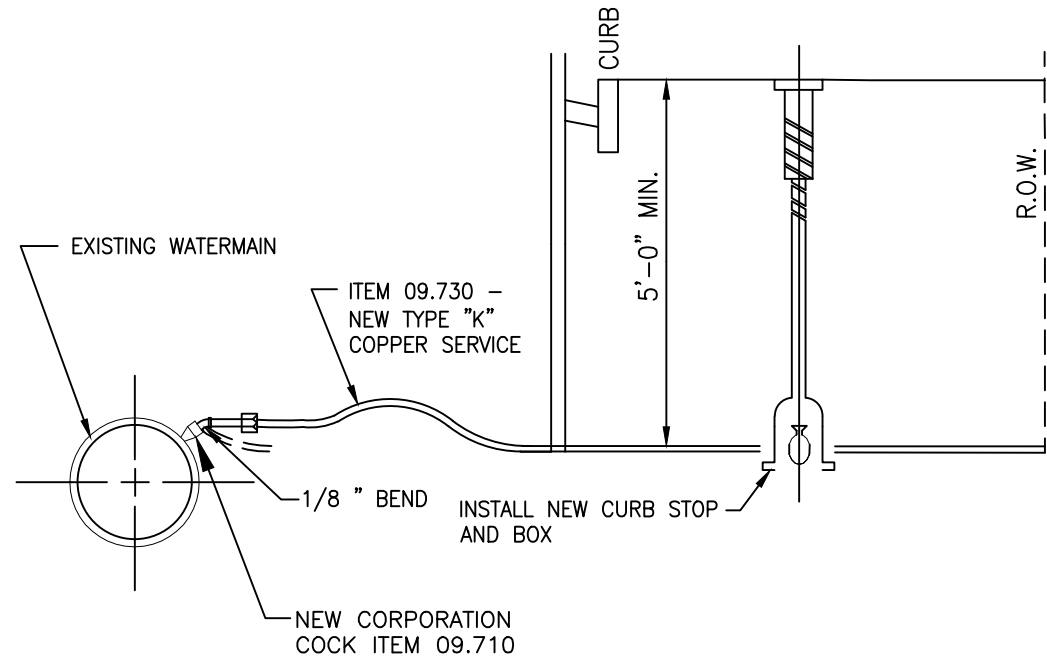
REVISIONS				
NO.	BY	DATE	REVISIONS	REMARKS

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DWN WAL
CKD MVM

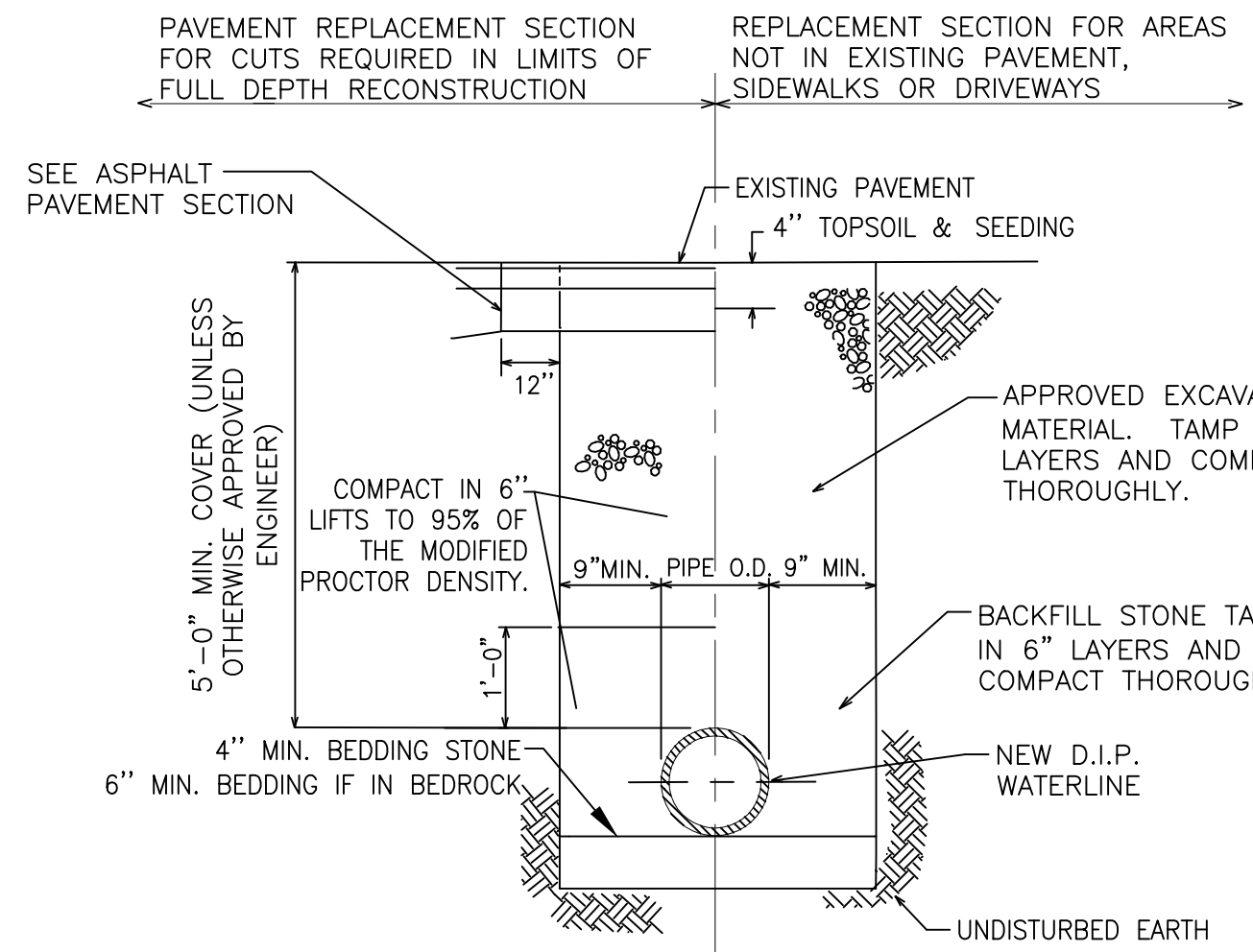
BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSOT P.I.N. 5757.98

UPLAND IMPROVEMENTS
SITE DEVELOPMENT DETAILS

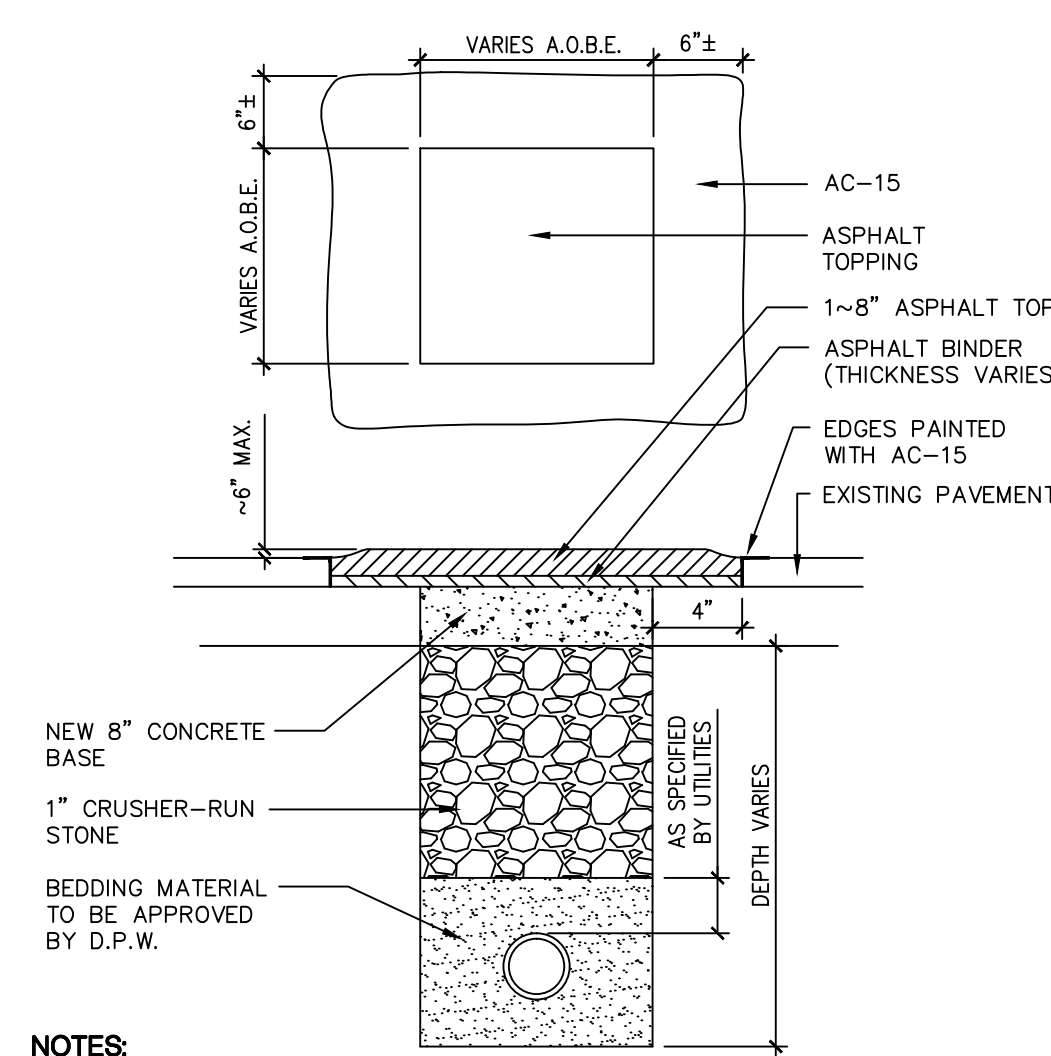
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MALCOLM PIRNIE, INC.
DATE AUGUST 2009
G SHEET 24 OF 27
CAD REF. NO. USC-L501



① WATER SERVICE INSTALLATION
NTS



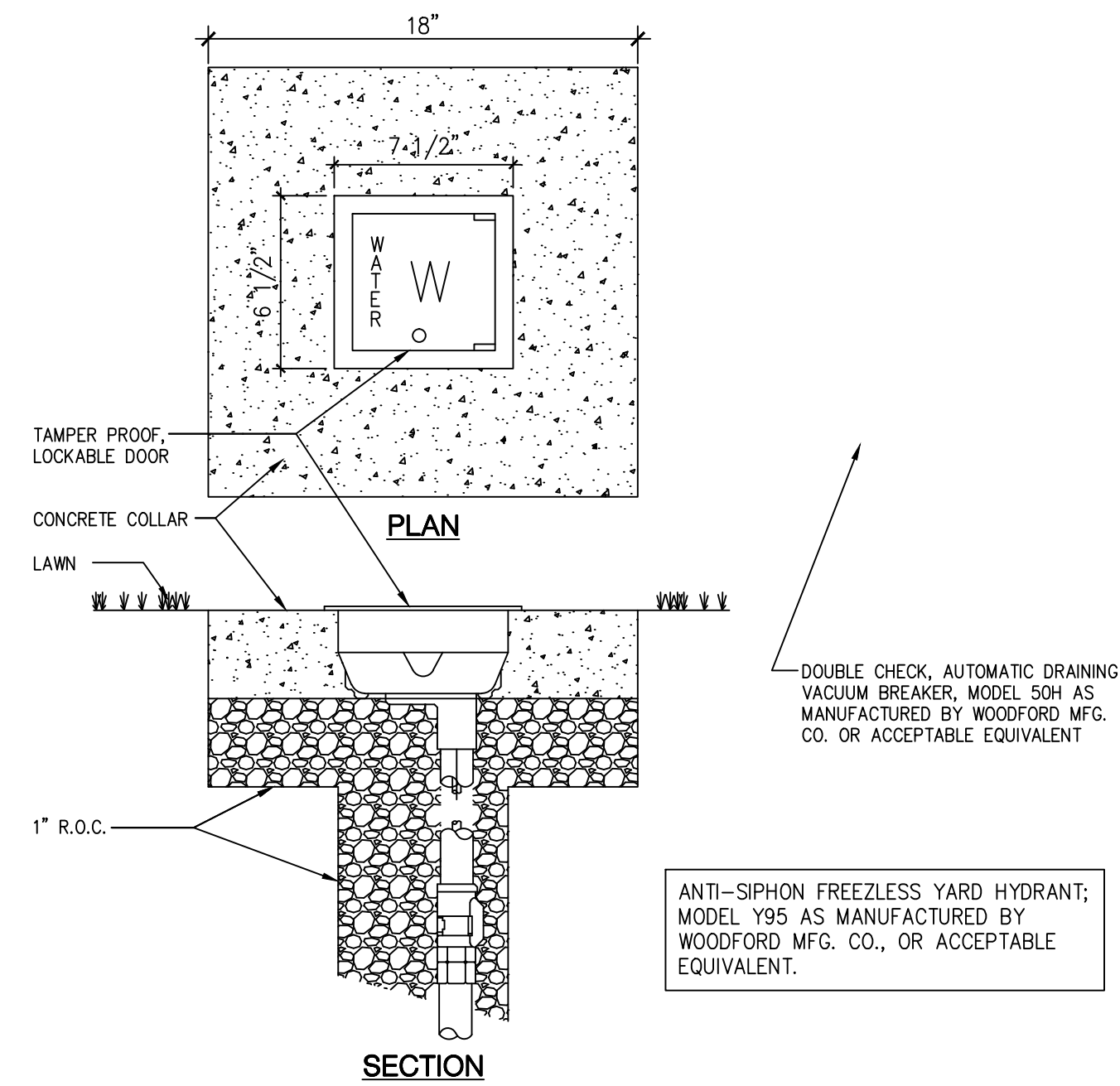
② TYPICAL WATERLINE TRENCH
NTS



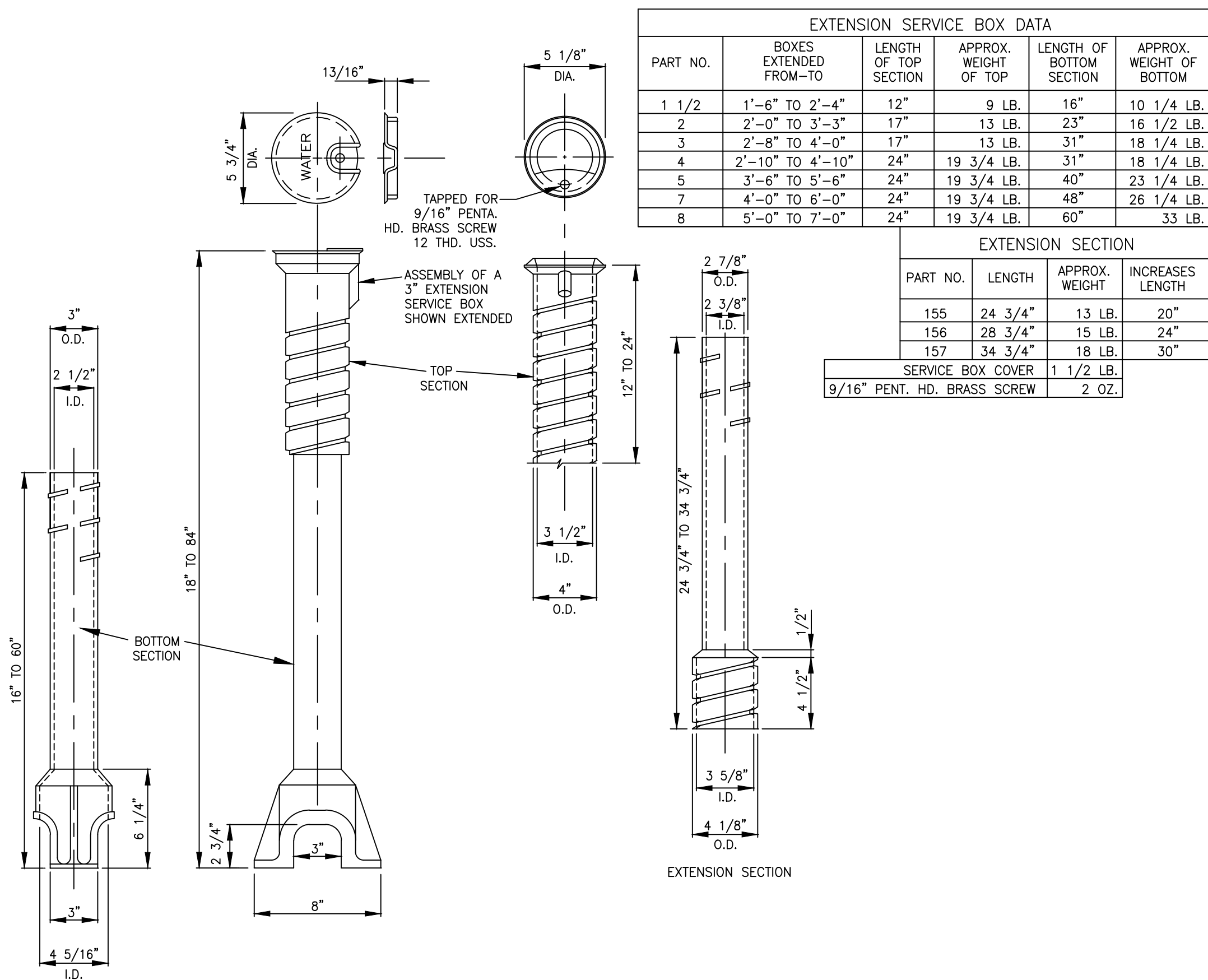
NOTES:

- * TACK-COAT EDGE OF ADJACENT PAVEMENT/ CURB PRIOR TO PLACING ASPHALT COURSES

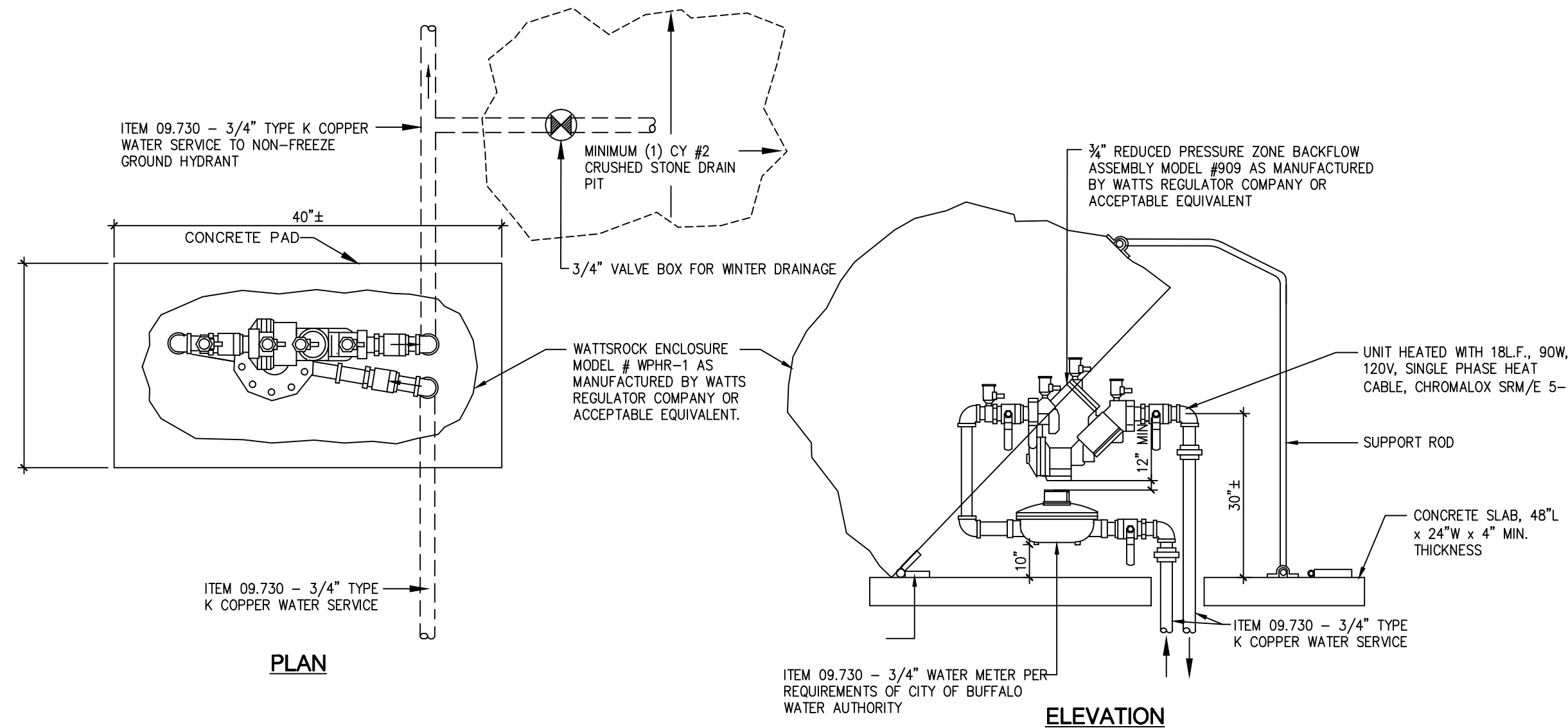
③ UTILITY RESTORATION IN STREET
NTS



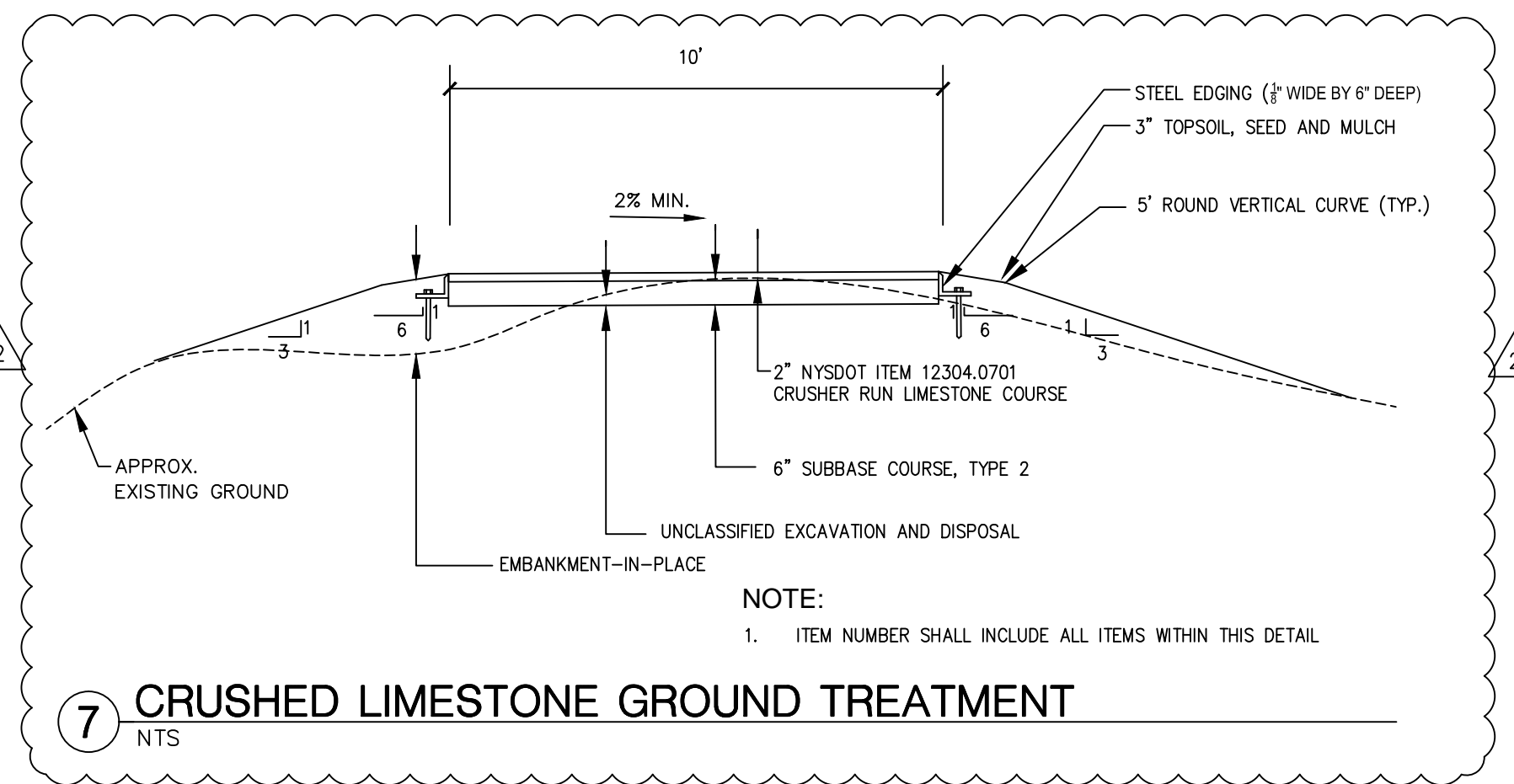
④ NON-FREEZE GROUND HYDRANT
NTS



⑤ 3" WATER SERVICE BOX
NTS



⑥ BACKFLOW PREVENTER AND METER DETAIL
NTS



NOTE:

1. ITEM NUMBER SHALL INCLUDE ALL ITEMS WITHIN THIS DETAIL

⑦ CRUSHED LIMESTONE GROUND TREATMENT
NTS

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WENDEL DUCHSCHERER
ARCHITECTS & ENGINEERS

MALCOLM
PIRNIE
24GA27971200

REVISIONS				
NO.	BY	DATE	REVISIONS	REMARKS
1	WAL	11/24/09	REVISIONS PER ADDENDUM No. 3	
2	R.J.F.	12/2/09	REVISIONS PER ADDENDUM No. 4	

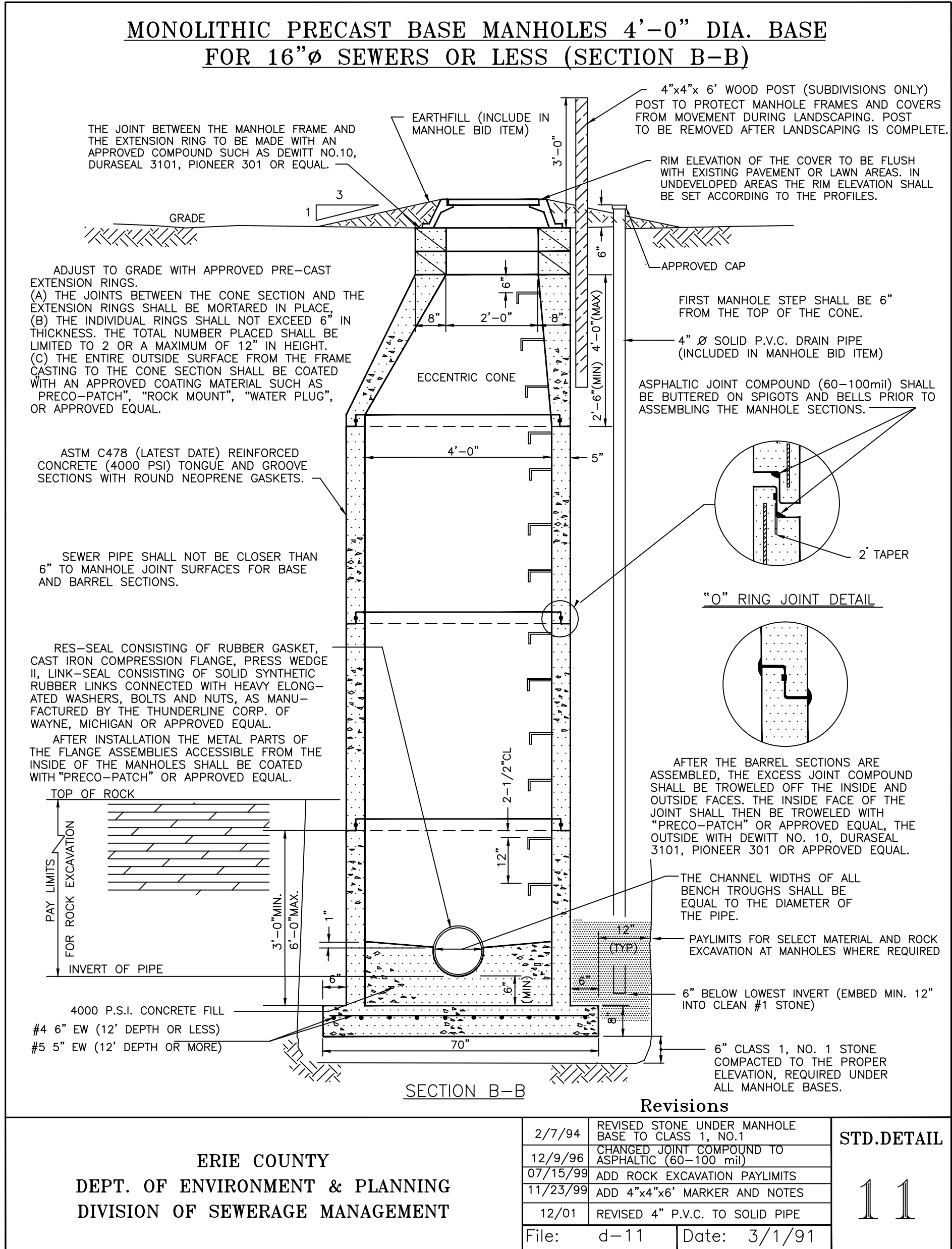
DES DLK
DWN WAL
CKD MVM

BUFFALO URBAN DEVELOPMENT CORPORATION
UNION SHIP CANAL OPEN SPACE
PARCEL 3 DEVELOPMENT
NYSDOT P.I.N. 5757.98

UPLAND IMPROVEMENTS
SITE DETAILS

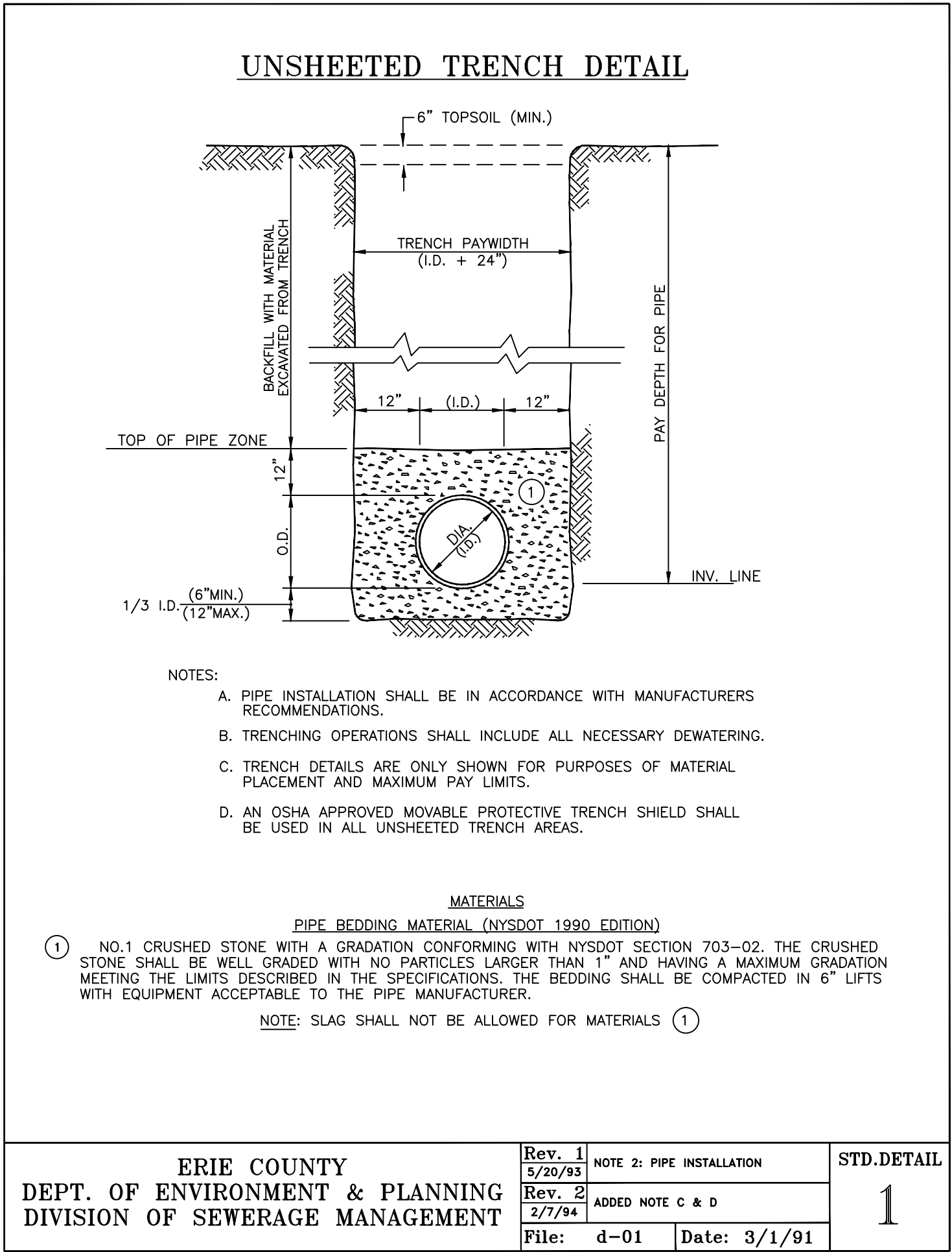
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1 / 21 / 2015

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DATE AUGUST 2009
SHEET 26 OF 27
CAD REF. NO. USC-L503



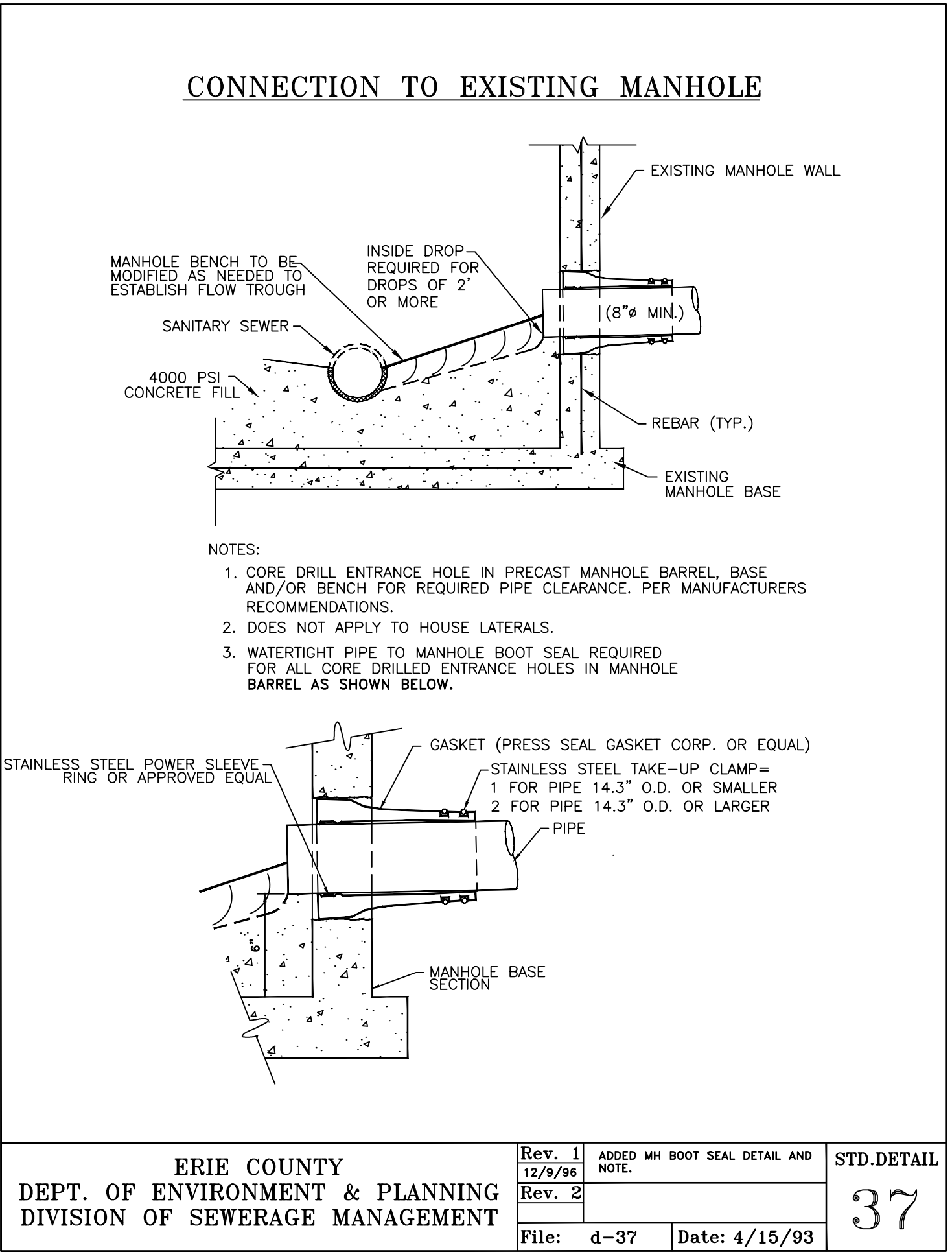
1 STANDARD PRECAST MANHOLE

NTS



2 P.V.C. PIPE TRENCH DETAIL IN R.O.W.

NTS



3 CONNECTION TO EXISTING MANHOLE

NTS

GENERAL SITE SANITARY NOTES:

- THE CONTRACTOR IS ADVISED A TRENCH SHIELD AND/OR SHORING DESIGNED IN ACCORDANCE WITH OSHA STANDARDS SHALL BE USED IN ALL OPEN EXCAVATIONS.
- ANY CONTRACTOR AND/OR PLUMBER PERFORMING WORK IN A CONFINED SPACE (I.E. MANHOLES, WETWELLS, CHAMBERS) OWNED BY AN ERIE COUNTY SEWER DISTRICT, MUST CERTIFY TO THE COUNTY THAT THEY HAVE THEIR OWN CONFINED SPACE ENTRY PROGRAM THAT MEETS OR EXCEEDS OSHA'S REGULATIONS. CERTIFICATION MUST BE NOTORIZED BY A NOTARY PUBLIC.
- CONSTRUCTION SHALL CONFORM TO THE RULES AND REGULATIONS FOR ERIE COUNTY SEWER DISTRICTS.
- IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AREA AND HAS LESS THAN FOUR (4) FEET OF COVER, THEN CONCRETE ENCASEMENT IS REQUIRED OR IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AND HAS MORE THAN FOUR (4) FEET OF COVER, THEN SELECT FILL IS REQUIRED.
- CONTRACTOR MUST CONTACT THE DISTRICT OFFICE 24 HOURS IN ADVANCE OF CONSTRUCTION.
- VENTS MUST BE INSTALLED SIX (6) INCHES ABOVE GRADE, IN A GRASSY AREA WITH MUSHROOM CAP.
- ABANDONED SANITARY SEWER CONNECTIONS FROM THE SITE, IF ANY, REQUIRE PROOF OF A DISTRICT PERMIT FOR DISCONNECTION PRIOR TO THE NEW CONNECTION BEING MADE.

AS-BUILTS BY 'MAN O TREES'
1 / 21 /2015

REVISIONS				DES	DLK
NO.	BY	DATE	REMARKS		

DES DLK
DWN WAL
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