

ROCK RIVER WATER RECLAMATION DISTRICT

CLARIFIER RAILINGS (PRIMARY CLARIFIER TANKS 5-10) CAPITAL IMPROVEMENT PROJECT #1706

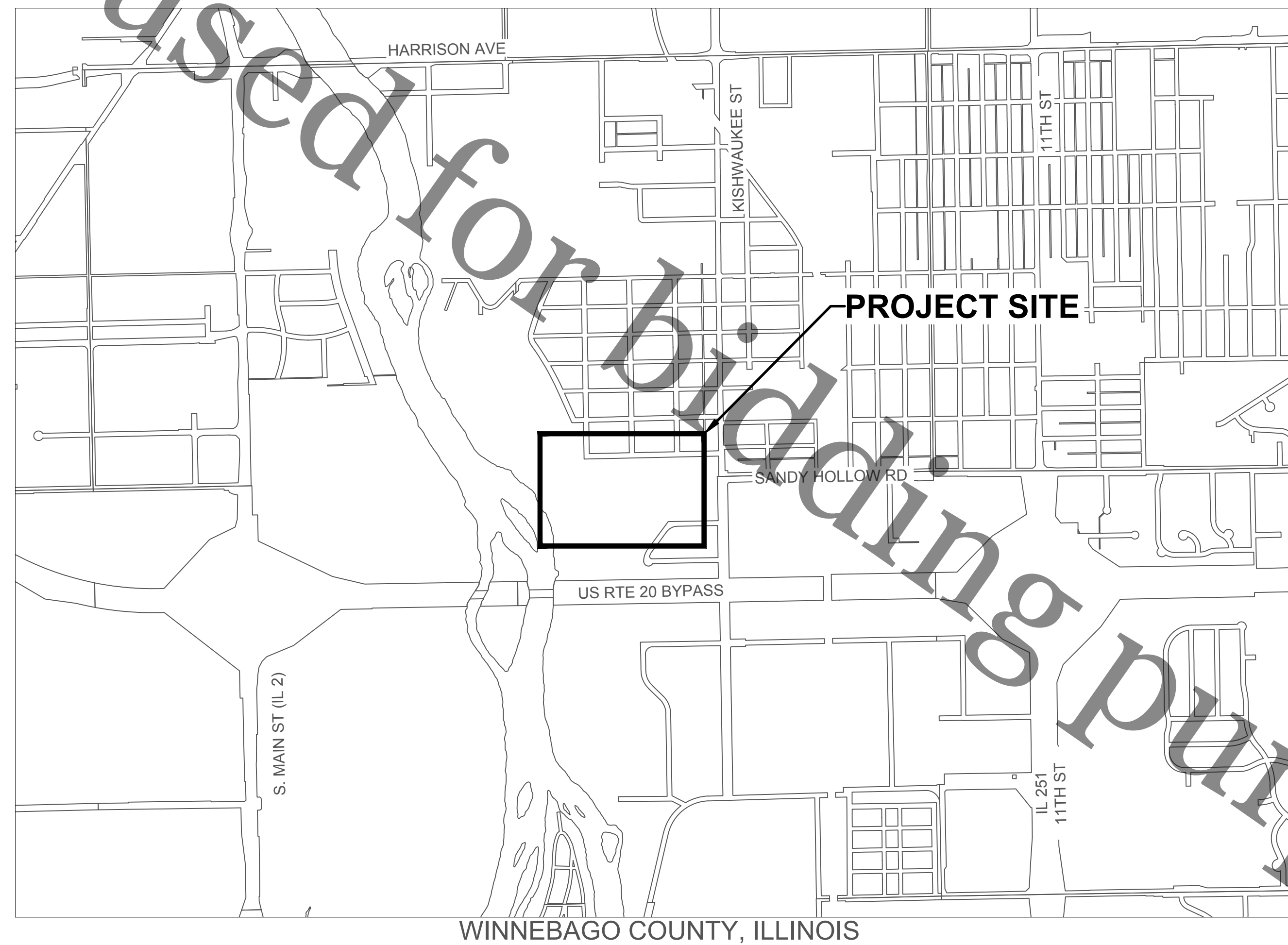
2018

BOARD OF TRUSTEES

DONALD MASSIER	PRESIDENT
ELMER JONES	VICE-PRESIDENT
RICHARD POLLACK	CLERK/TREASURER
JOHN SWEENEY	TRUSTEE
BEN BERNSTEN	TRUSTEE

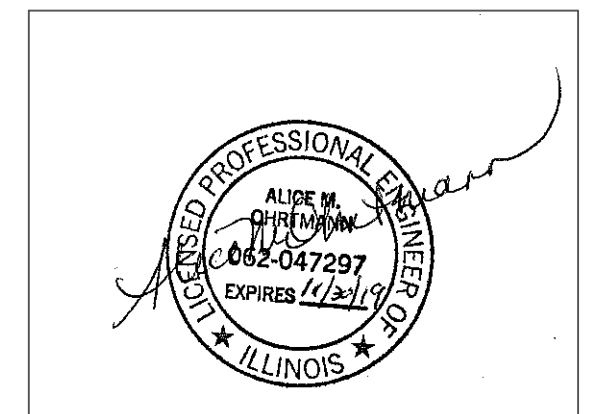
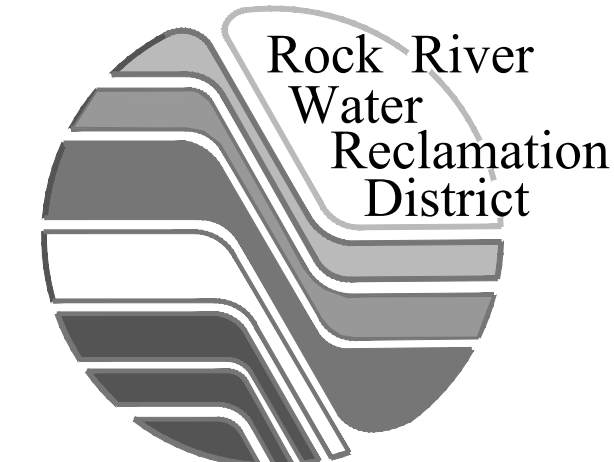
OFFICIALS

TIMOTHY S. HANSON	DISTRICT DIRECTOR
CHRISTOPHER T. BAER, PE	ENGINEERING MANAGER



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7-23-2018

LEGEND

EXISTING	PROPOSED	
---	---	RIGHT OF WAY LINE
---	---	PROPERTY LINE
///	///	BUILDING
~	~	WATER EDGE
---	---	EASEMENT - SANITARY
---	---	EASEMENT - TEMPORARY CONSTRUCTION
~	~	BRUSH OR TREE LINE
→	→	DITCH FLOWLINE
---	---	CONTOUR - MAJOR
---	---	CONTOUR - MINOR
-x-x-	-x-x-	FENCE
- - -	- - -	FENCE - TEMPORARY CONSTRUCTION
-SF-	-SF-	FENCE - SILT
---	---	ROADWAY CENTERLINE
---	---	EDGE OF PAVEMENT
---	---	CURB & GUTTER
		GUARD RAIL
- -	- -	RAILROAD TRACKS
OC	OC	CABLE - OVERHEAD
UC	UC	CABLE - UNDERGROUND
OE	OE	ELECTRIC - OVERHEAD
UE	UE	ELECTRIC - UNDERGROUND
FO	FO	FIBER OPTIC
G	G	GAS LINE
OT	OT	TELEPHONE - OVERHEAD
UT	UT	TELEPHONE - UNDERGROUND
TV E T HH GM EM	TV E T HH GM EM	PEDESTALS (CATV, ELEC, TELE), HANDHOLE, GAS METER, ELEC. METER
⊕	⊕	SOIL BORING
⊙ BM 1	⊙ BM 1	BENCHMARK
△	△	MAILBOX
○	○	UTILITY POLE W/ GUY WIRE & MAST ARM LIGHT POLE
○	○	TREE (DECIDUOUS & CONIFEROUS)
⊕	⊕	BRUSH & SHRUB
XXX.XX	XXX.XX	SPOT ELEVATION
HMA CONC.	AGG. TURF	EXISTING SURFACE TYPE (HOT-MIX ASPHALT, AGGREGATE, CONCRETE, TURF)
HMA CONC.	AGG. TURF	

LEGEND

EXISTING	PROPOSED	
○	⊙	SANITARY MANHOLE & SANITARY SEWER
○	⊙	SANITARY SEWER SERVICE & CLEANOUT
FM	FM	SANITARY FORCEMAIN
---	---	STORM SEWER
○	⊙	STORM MANHOLE, CATCH BASIN, CURB INLET, INLET SPECIAL
---	---	DRAINAGE CULVERT
W	W	WATER MAIN
WS	WS	WATER SERVICE & WATER SERVICE VALVE
⊗	⊗	WATER MAIN VALVE
⊗	⊗	WATER MAIN VALVE WITH BOX
⊗	⊗	WATER MAIN VALVE WITH VAULT
▲	▲	WATER MAIN REDUCER
⊙	⊙	FIRE HYDRANT
⊗	⊗	DITCH CHECK
⊗	⊗	INLET OR PIPE PROTECTION
⊗	⊗	STABILIZED CONSTRUCTION ENTRANCE
⊗	⊗	EROSION CONTROL BLANKET
⊗	⊗	SEEDING AREA
⊗	⊗	PAVEMENT REPLACEMENT
⊗	⊗	AGGREGATE REPLACEMENT
⊗	⊗	RIP RAP

ABBREVIATIONS

SAN. = SANITARY	LF = LINEAR FEET
MH = MANHOLE	FT = FEET
C.O. = CLEANOUT	SY = SQUARE YARD(S)
VCP = VITRIFIED CLAY PIPE	EA = EACH
LINCIPP = LINED WITH CURED IN PLACE PIPE	CY = CUBIC YARD(S)
RCP = REINFORCED CONCRETE PIPE	LS = LUMP SUM
DI = DUCTILE IRON	PVMNT = PAVEMENT
CMP = CORRUGATED METAL PIPE	TY. = TYPE
ABD = ABANDON(ED)	UNK = UNKNOWN
REM = REMOVE(D)	EL = ELEVATION
REPL. = REPLACE(D)	EX = EXISTING
	PR. = PROPOSED

DTL	DETAIL DESC.	= DETAIL OR SECTION #, SHEET DETAIL OR SECTION IS ORIGINATED FROM, DESCRIPTION, AND SCALE.
SHT	SCALE: AS NOTED	
SEC		= SECTION #, SHEET SECTION IS SHOWN ON.
SHT		
DTL		= DETAIL #, SHEET DETAIL IS SHOWN ON, AND POINT OF VIEW.
SHT		

GENERAL NOTES
ALUM. MECH. SUB-ASSEMBLED

100

- ALL RAILS WHEN PROPERLY INSTALLED SHALL MEET OR EXCEED OSHA REQUIREMENTS.
- ALL RAIL IS TO BE OF MECHANICAL CONSTRUCTION.
- ALL RAIL, POSTS, & COMPONENTS ARE TO BE 6061-T6.
- ALL FASTENERS ARE TO BE 304 STAINLESS STEEL.
- ALL RAILING SURFACES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS SHALL RECEIVE ONE COAT OF ZINC CHROMATE.
- ALL RAILS ARE SHIPPED LOOSE IN 24'-0" STOCK LENGTHS FOR FIELD CUTTING & DRILLING AS REQUIRED.
- ALL POSTS ARE CUT TO LENGTH WITH FITTINGS ATTACHED. (EXCEPT FOR TOP FITTINGS AT INTERMEDIATE POSTS)
- CAST BASE PLATES TO BE FIELD ATTACHED.
- FINISH TO BE CLEAR SATIN ANODIZED (.7 MIL.) AA-M10-C22-A41
- MAX. POST SPACING IS 5'-0" O.C.
- ALL BENDS TO BE FIELD CUT.

TYPICAL NOTES
"Z" TOE BOARD

250

- 4" EXTRUDED ALUM. "Z" SHAPE.
- SHIPPED LOOSE IN 24'-0" LENGTHS FOR FIELD CUTTING, DRILLING, MITERING, NOTCHING AND CURVING.
- INSTALL TOE BOARD ON WALKING SURFACE SIDE OF RAILING W/ 1/4" CLEARANCE FROM WALKING SURFACE.
- ALL FASTENERS ARE TO BE 304 STAINLESS STEEL.
- ALL HARDWARE TO FIELD DRILLED.

SUMMARY OF QUANTITIES

No.	ITEM	UNIT	QTY.
1	REMOVAL & DISPOSAL OF EXISTING GUARDRAIL SYSTEM, COMPLETE	FT	400.0
2	1 1/2" DIA. ALUMINUM PIPE RAILING WITH 4" TOE PLATE, COMPLETE	LF	3200.0
3	REMOVABLE 4' GUARDRAIL SECTIONS, COMPLETE	EA	60
4	DAVIT	EA	12
5	DAVIT RECEIVER BRACKETS	EA	60

PROJECT LOCATION & ACCESS MAP



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Rock River Water Reclamation District
ROCK RIVER WATER RECLAMATION DISTRICT
 3501 KISHWAUKEE STREET
 ROCKFORD, ILLINOIS 61109
 (815) 387-7660

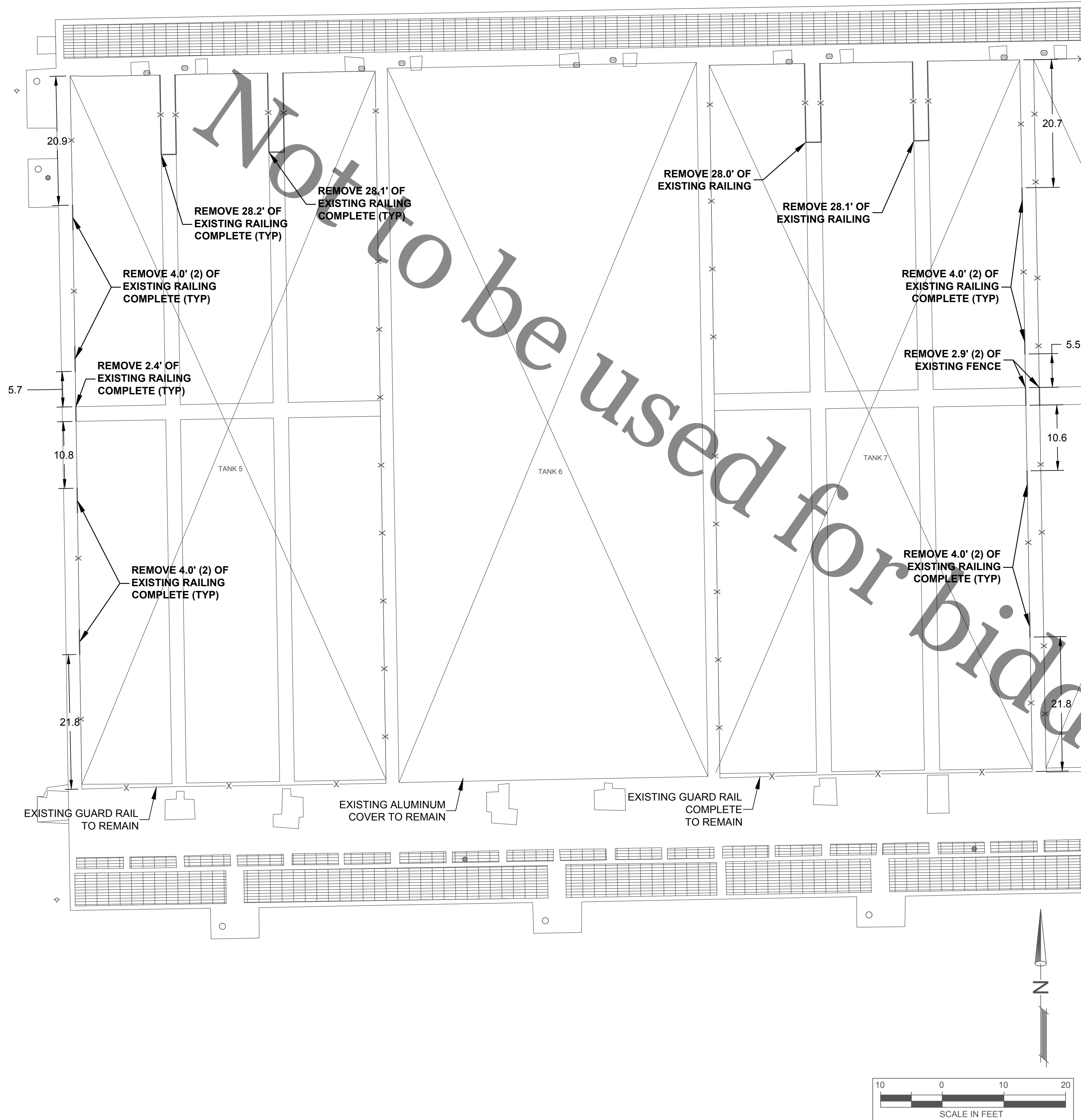
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CLARIFIER RAILINGS (PRIMARY CLARIFIER TANKS 5-10)
CAPITAL IMPROVEMENT PROJECT #1706

LEGEND, GENERAL NOTES, & SUMMARY OF QUANTITIES

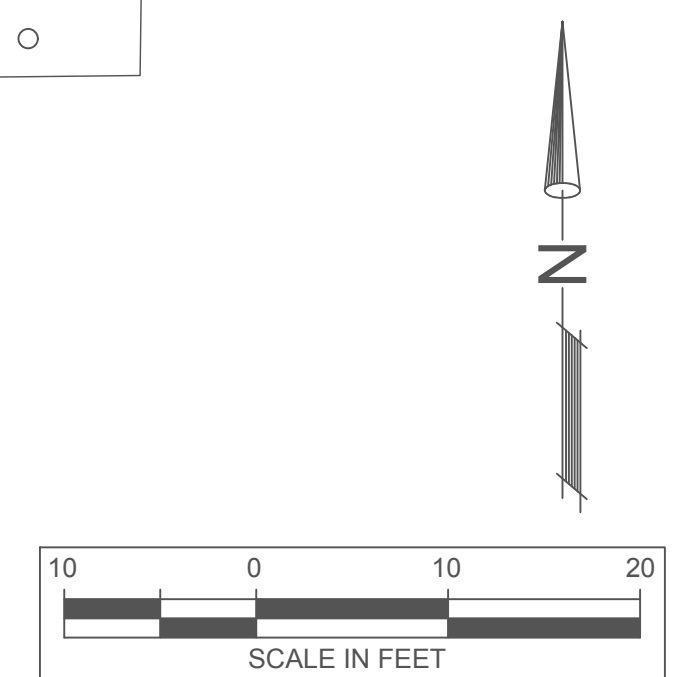
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Date 7/30/2018



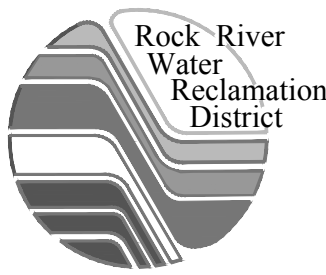
NOTE:
 • REMOVE AND PROPERLY DISPOSE OF EXISTING 1 1/2" DIA. GALVANIZED STEEL RAILING, (2 RAILS AND 4" TOE PLATE).

SEE SHEET 4



Not to be used for bidding purposes

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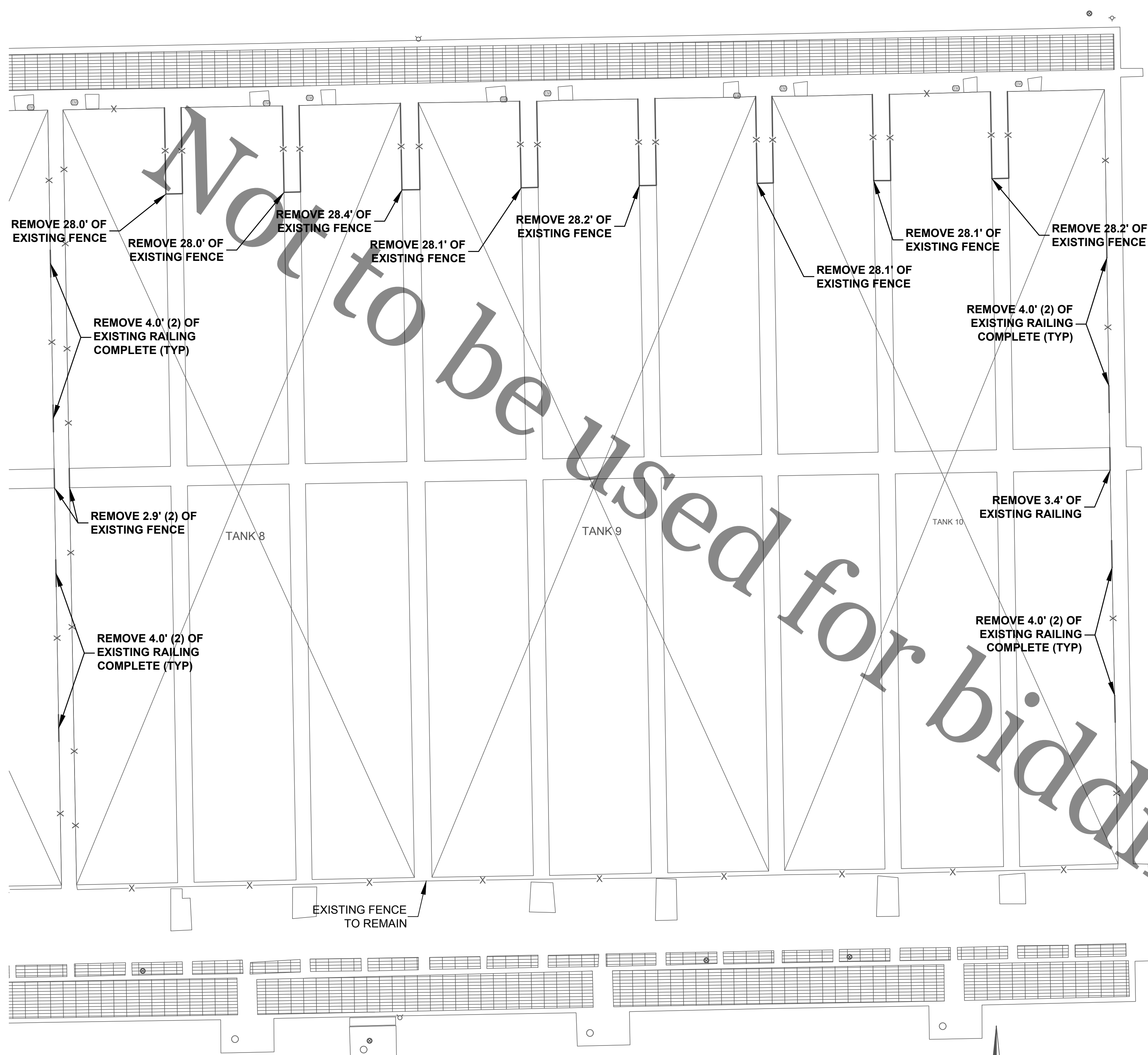
EXISTING CONDITIONS, DETAILS, & REMOVALS - CLARIFIERS 5-7

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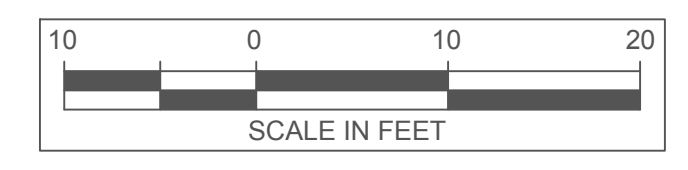
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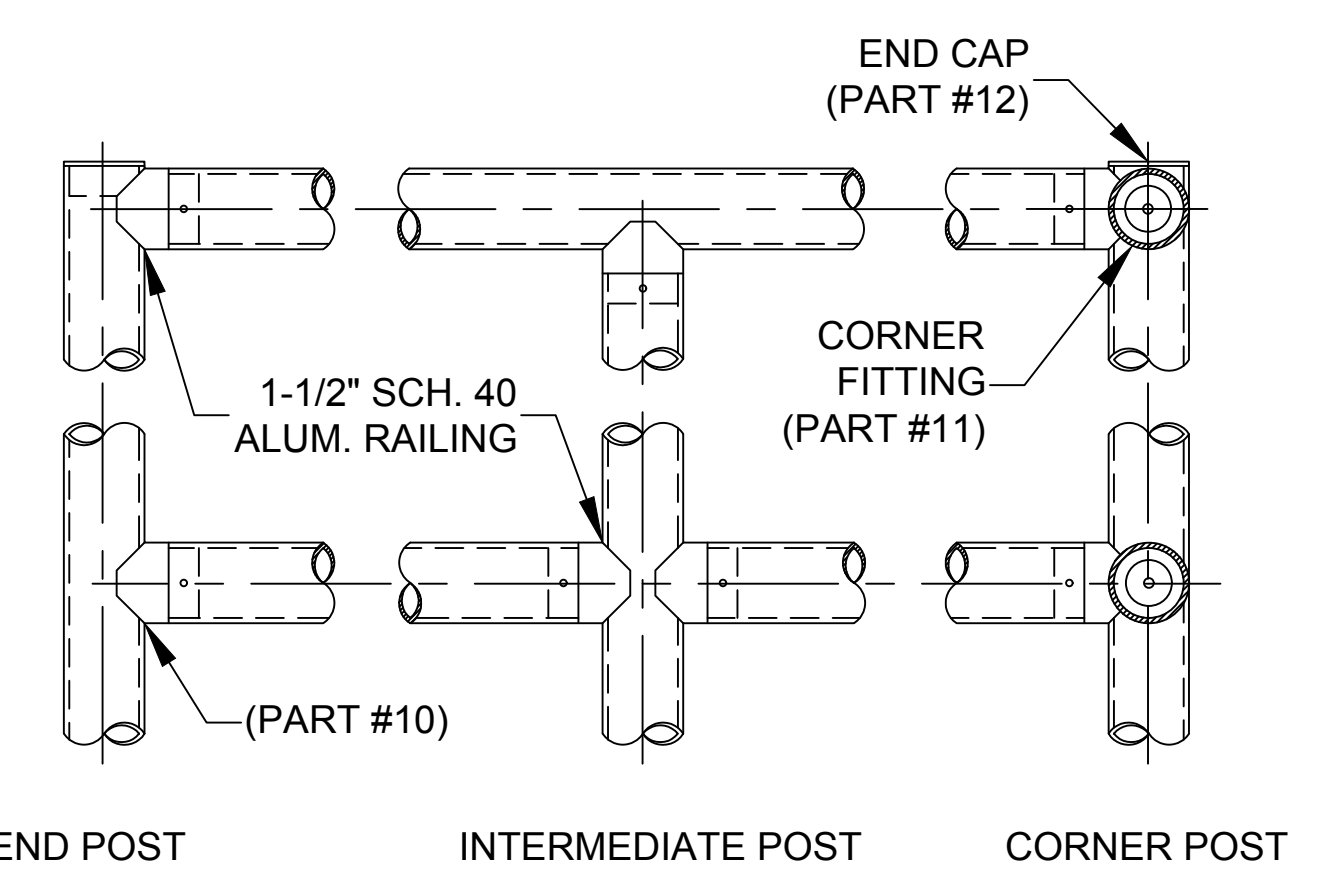
SEE SHEET 3



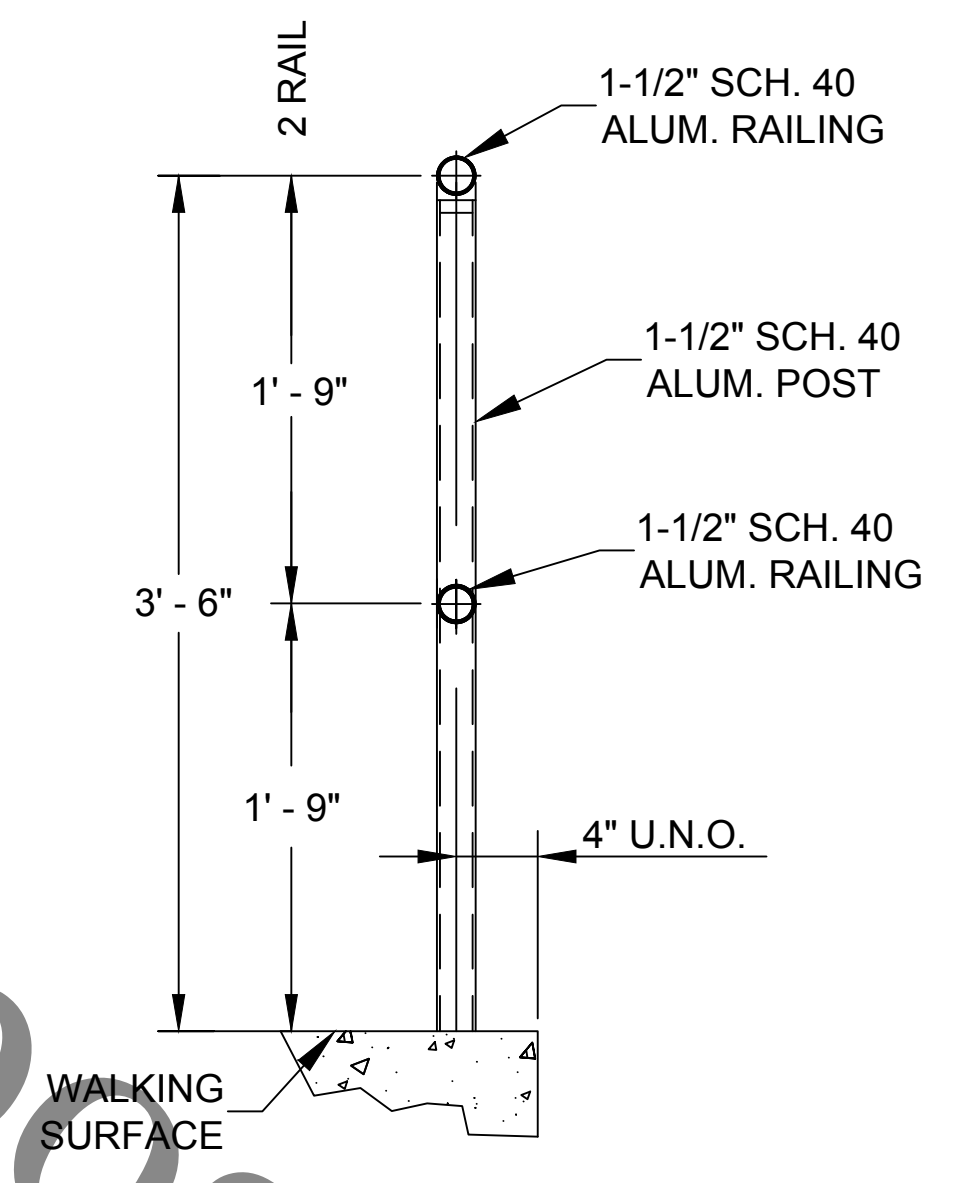
NOTE:
 • REMOVE AND PROPERLY DISPOSE OF EXISTING 1 1/2" DIA. GALVANIZED STEEL RAILING, (2 RAILS AND 4" TOE PLATE).



- FITTINGS ATTACHED TO INTERMEDIATE POSTS W/ (1) 1/4"Ø x 2-3/4" LG. S.S.M.B. (PART #49)
- FITTINGS ATTACHED TO END POSTS, CORNER POSTS, & TOP RAILS W/ (1) #17 x 1" LG. S.S. TEK-SCREW. (PART #46)
- RAILING ATTACHED TO FITTINGS W/ (2) 1/8"Ø S.S. RIVETS. (PART #47)



HORIZONTAL RAIL CONNECTIONS 102



HORIZONTAL RAIL SPACING 103

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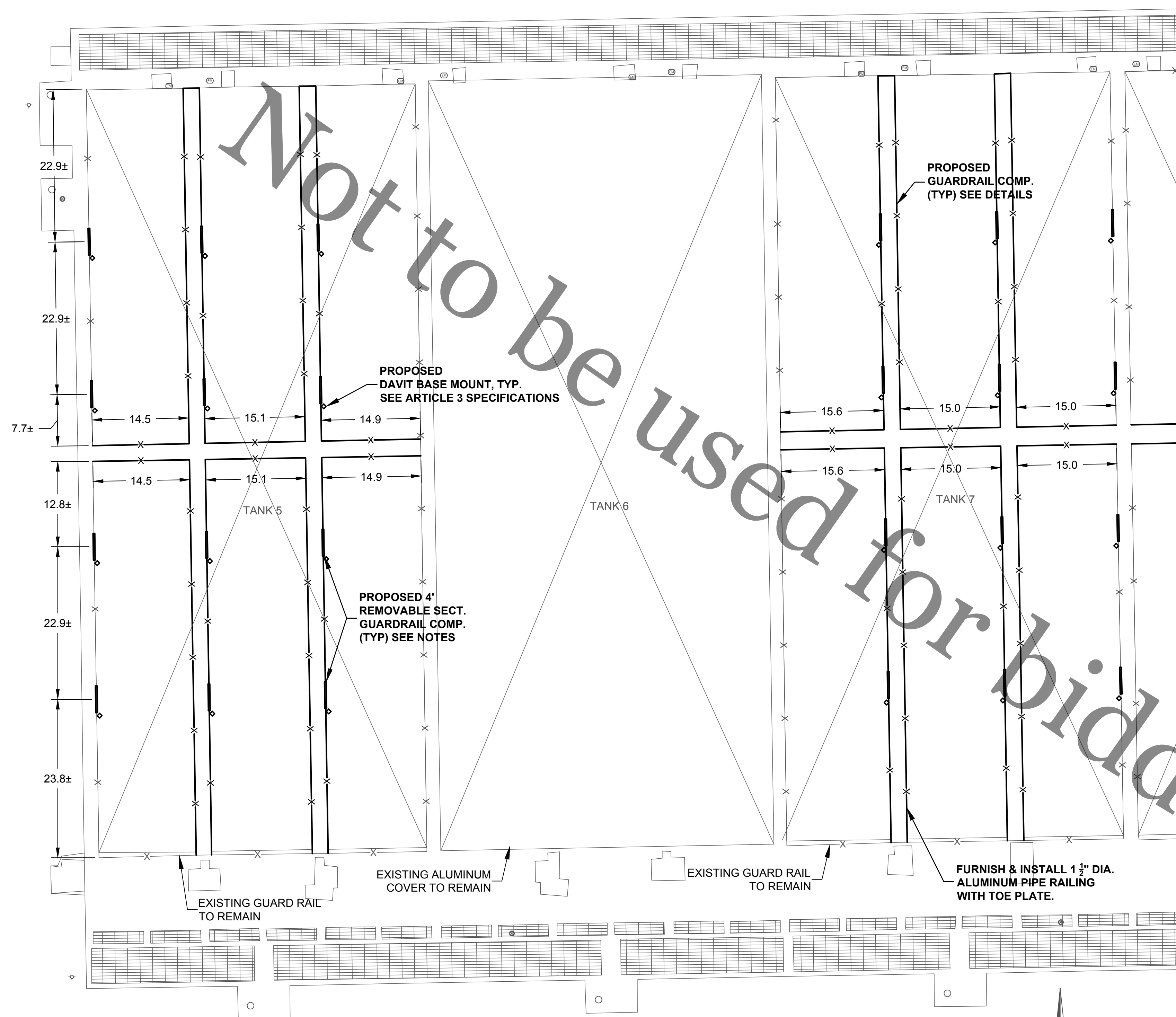
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**CLARIFIER RAILINGS (PRIMARY CLARIFIER TANKS 5-10)
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EXISTING CONDITIONS, DETAILS, & REMOVALS - CLARIFIERS 8-10

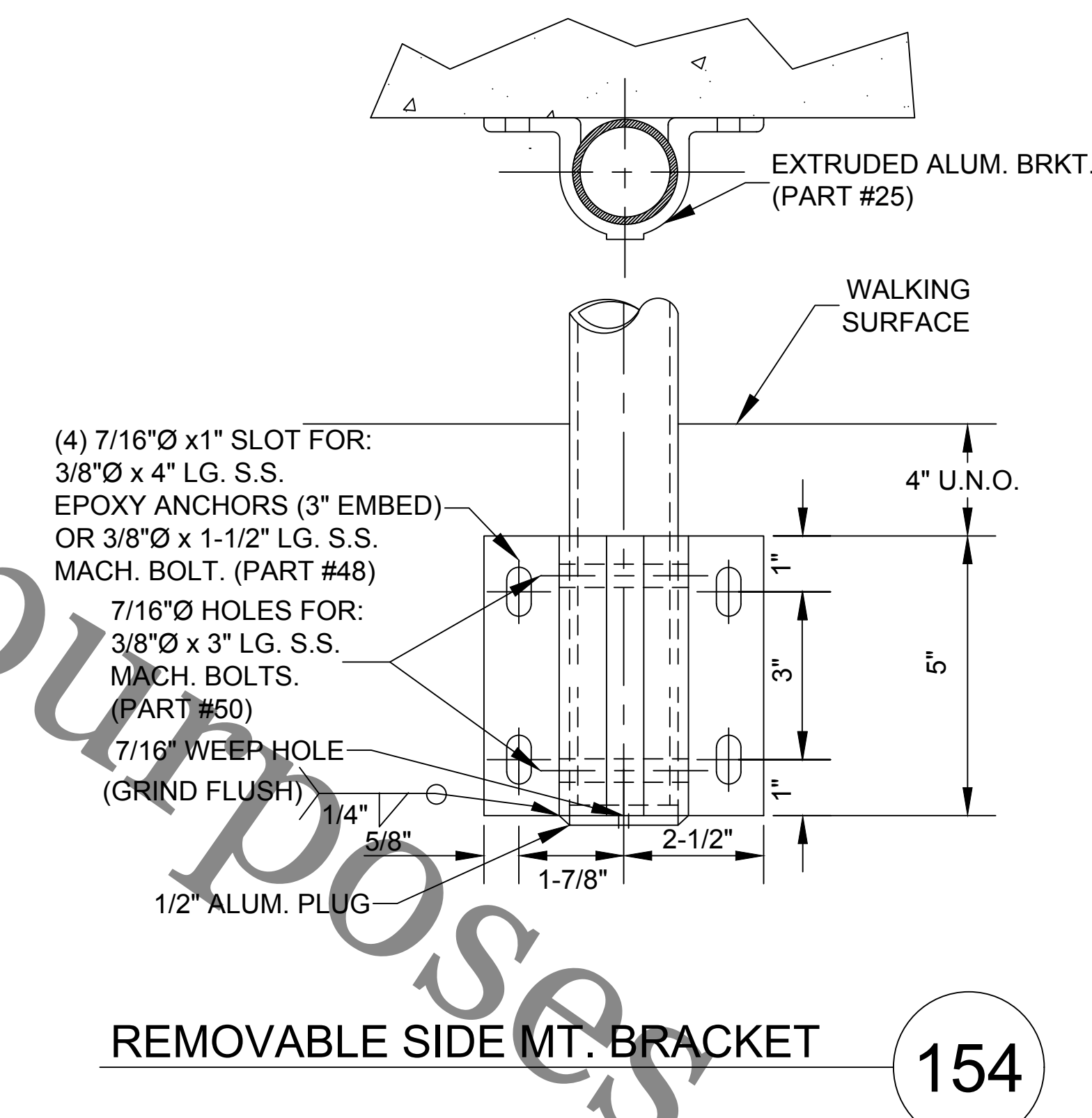
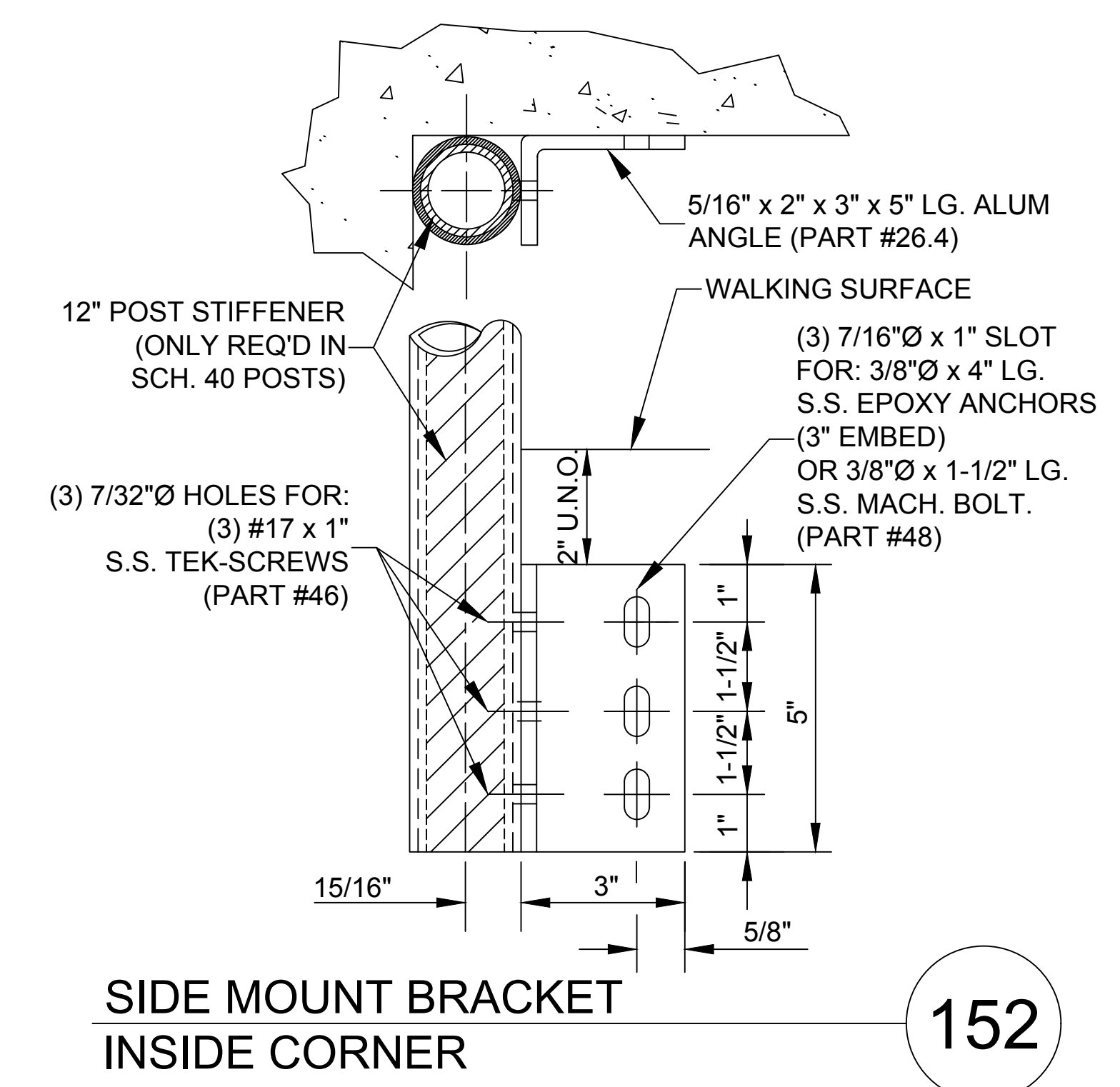
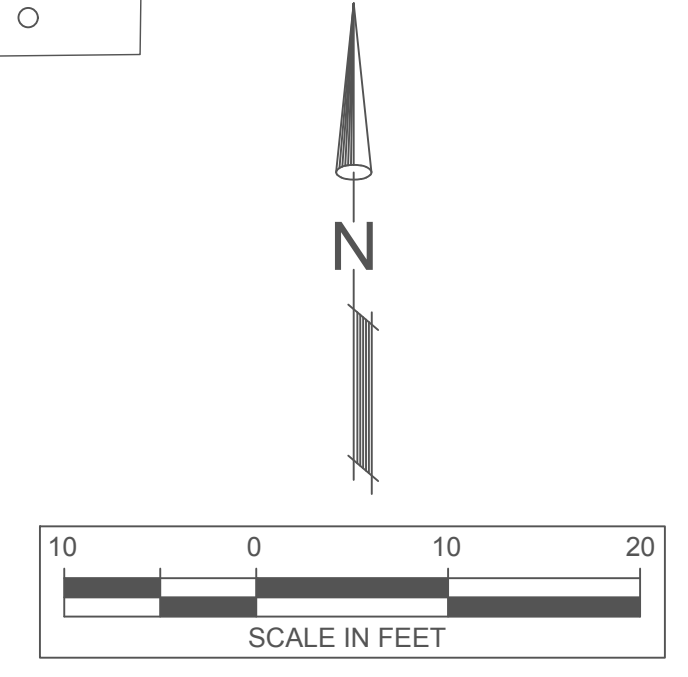
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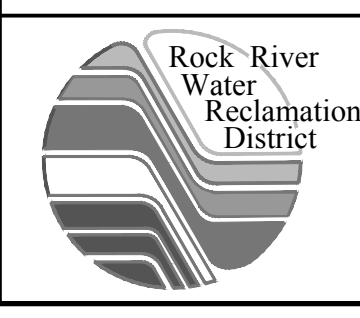


SEE SHEET 6

- NOTE:
- PROVIDE 1 REMOVABLE WALL MOUNT BASE FOR DAVIT AT EACH REMOVABLE GUARD RAIL SECTION; BEST HOIST PRO SERIES PERMANENT BASES, 4 POINT WALL MOUNT BASE OR APPROVED EQUAL (60 TOTAL).
 - DAVIT SHALL BE BEST HOIST PRO-3 HD SERIES DAVIT (12 TOTAL). SEE SPECIFICATION ARTICLE 3.
 - REMOVABLE GUARD RAIL SECTIONS SHALL MATCH PERMANENT GUARD RAIL (DETAIL 102/SHEET 4). THE WALL BRACKET SHALL BE AS SHOWN IN DETAIL 154/SHEET 5. (TYP. OF 60)



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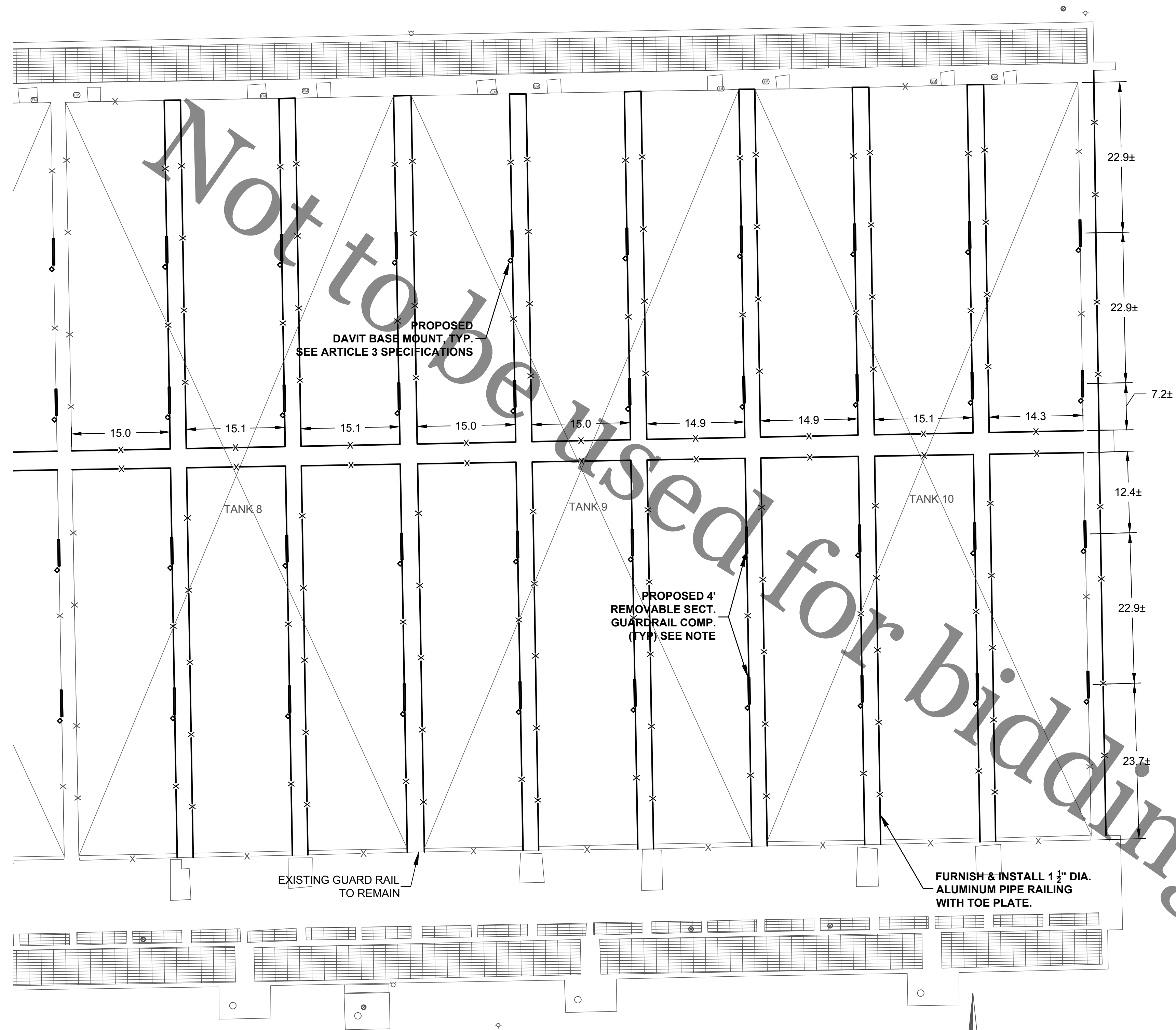
CLARIFIER RAILINGS (PRIMARY CLARIFIER TANKS 5-10)
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PROPOSED CONDITIONS & DETAILS - CLARIFIERS 5-7

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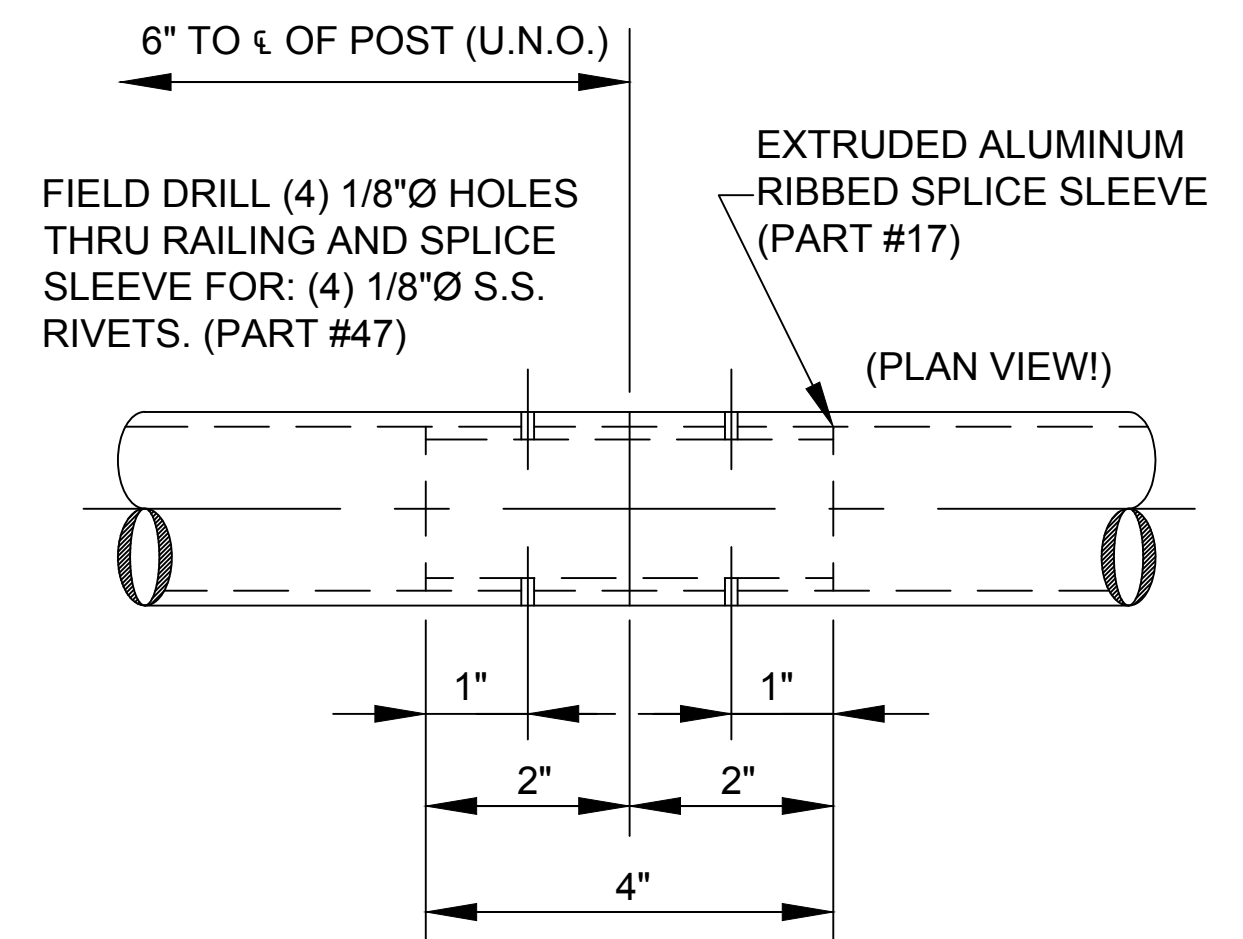
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SEE SHEET 5



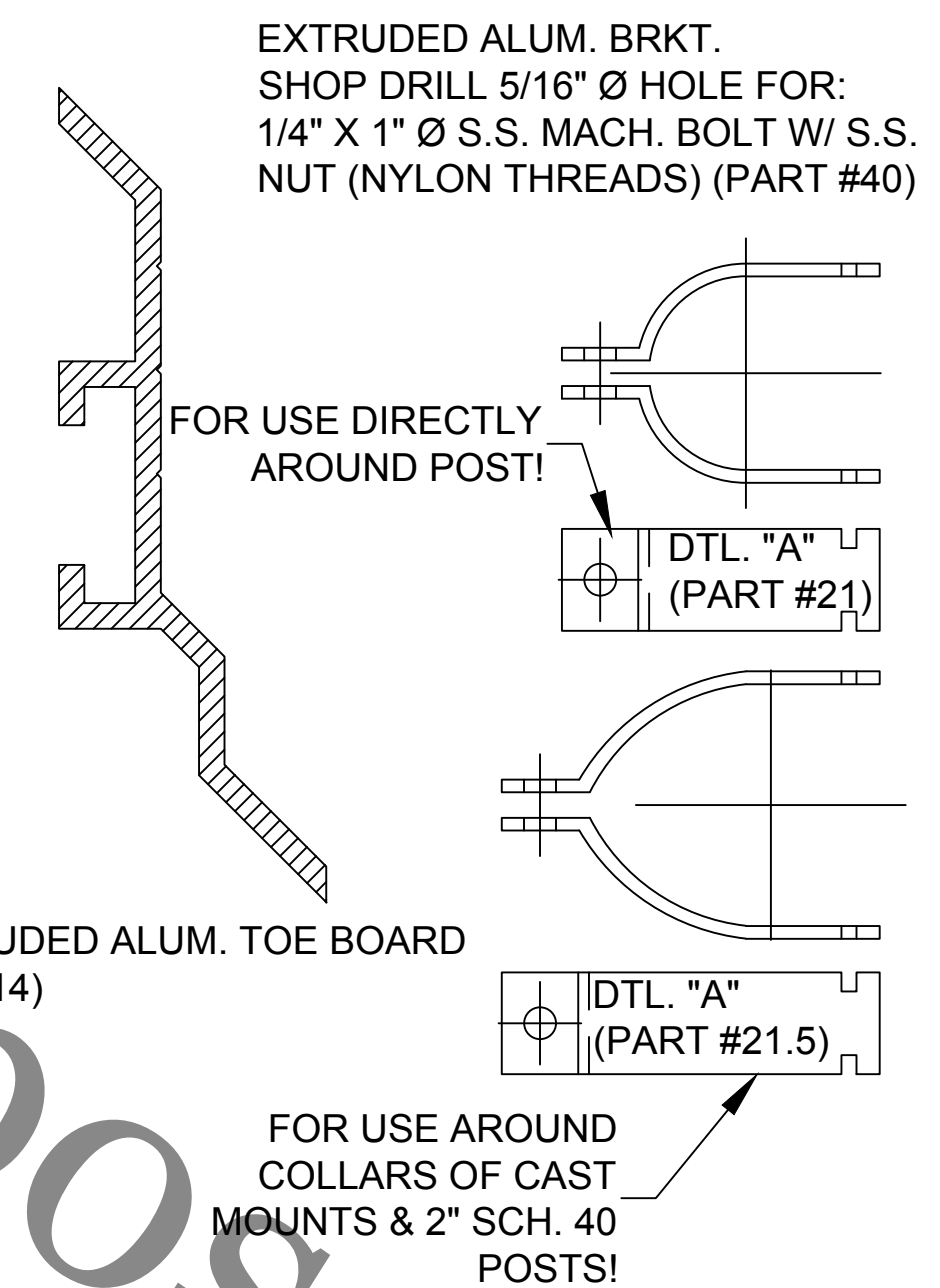
NOTE:

- PROVIDE 1 REMOVABLE WALL MOUNT BASE FOR DAVIT AT EACH REMOVABLE GUARD RAIL SECTION; BEST HOIST PRO SERIES PERMANENT BASES, 4 POINT WALL MOUNT BASE OR APPROVED EQUAL (60 TOTAL).
- DAVIT SHALL BE BEST HOIST PRO-3 HD SERIES DAVIT (12 TOTAL). SEE SPECIFICATION ARTICLE 3.
- REMOVABLE GUARD RAIL SECTIONS SHALL MATCH PERMANENT GUARD RAIL (DETAIL 102/SHEET 4). THE WALL BRACKET SHALL BE AS SHOWN IN DETAIL 154/SHEET 5. (TYP. OF 60)



FIELD JOINT
SPLICE SLEEVE

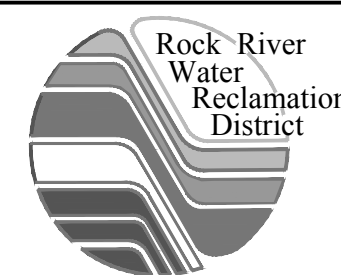
166



"Z" TOE BOARD
HARDWARE

251

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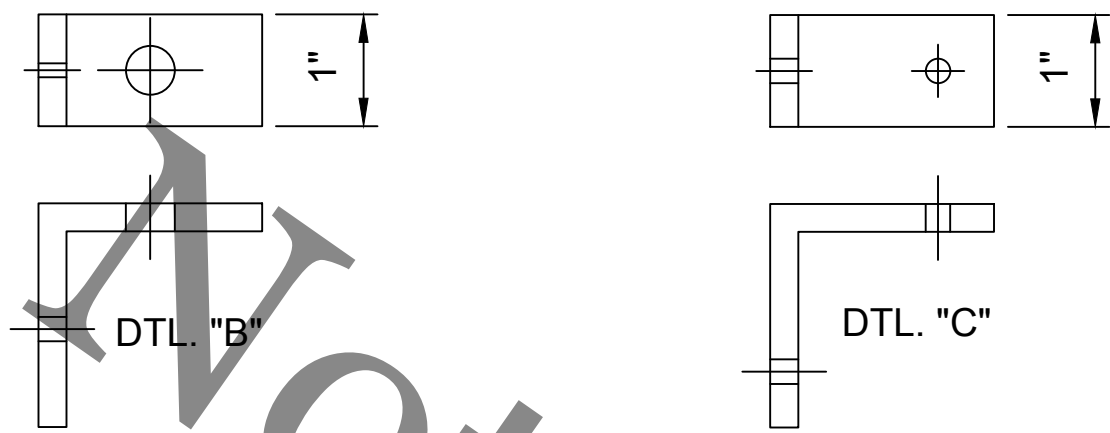
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PROPOSED CONDITIONS & DETAILS - CLARIFIERS 8-10

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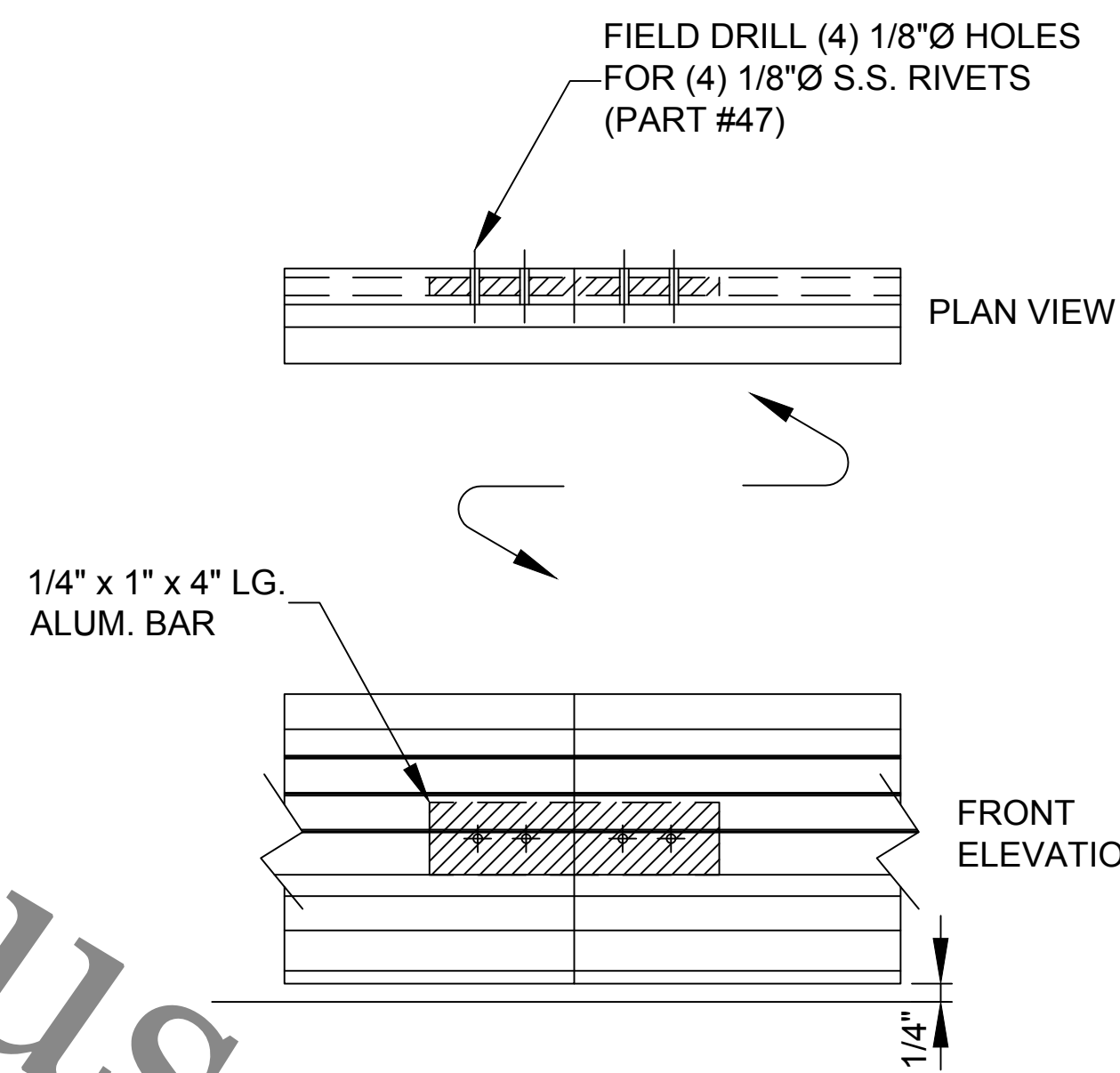
WALL TERMINATION CLIP
 (1) 7/32" Ø HOLE FOR
 (1) #17 x 1" LG. S.S. TEK-SCREW
 (PART #46) AND (1) 7/16" Ø HOLE
 FOR 3/8" x 3" S.S. EXP. ANCH.
 (PART #42)

CORNER CLIPS
 (2) 7/32" Ø HOLES FOR
 (2) #17 x 1" LG. S.S. SELF
 TAPPING TEK-SCREWS
 (PART #46)

- ALL "CLIPS" TO BE:
- 3/16" x 2" x 2" ALUM. ANGLE
 - FIELD DRILLED
 - ALL CLIPS ARE (PART #38)

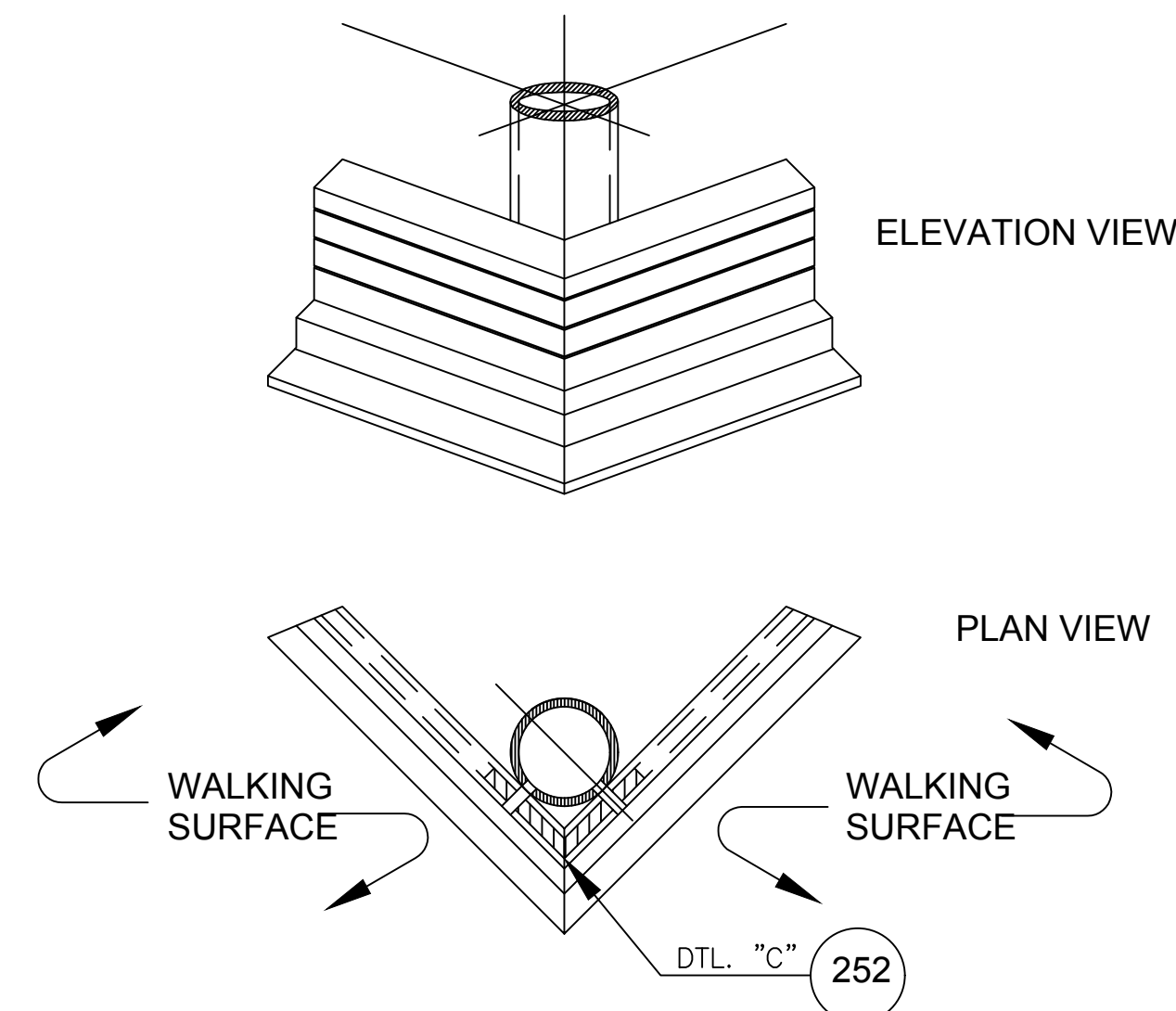
"Z" TOE BOARD
 HARDWARE (DTL. B & C)

252



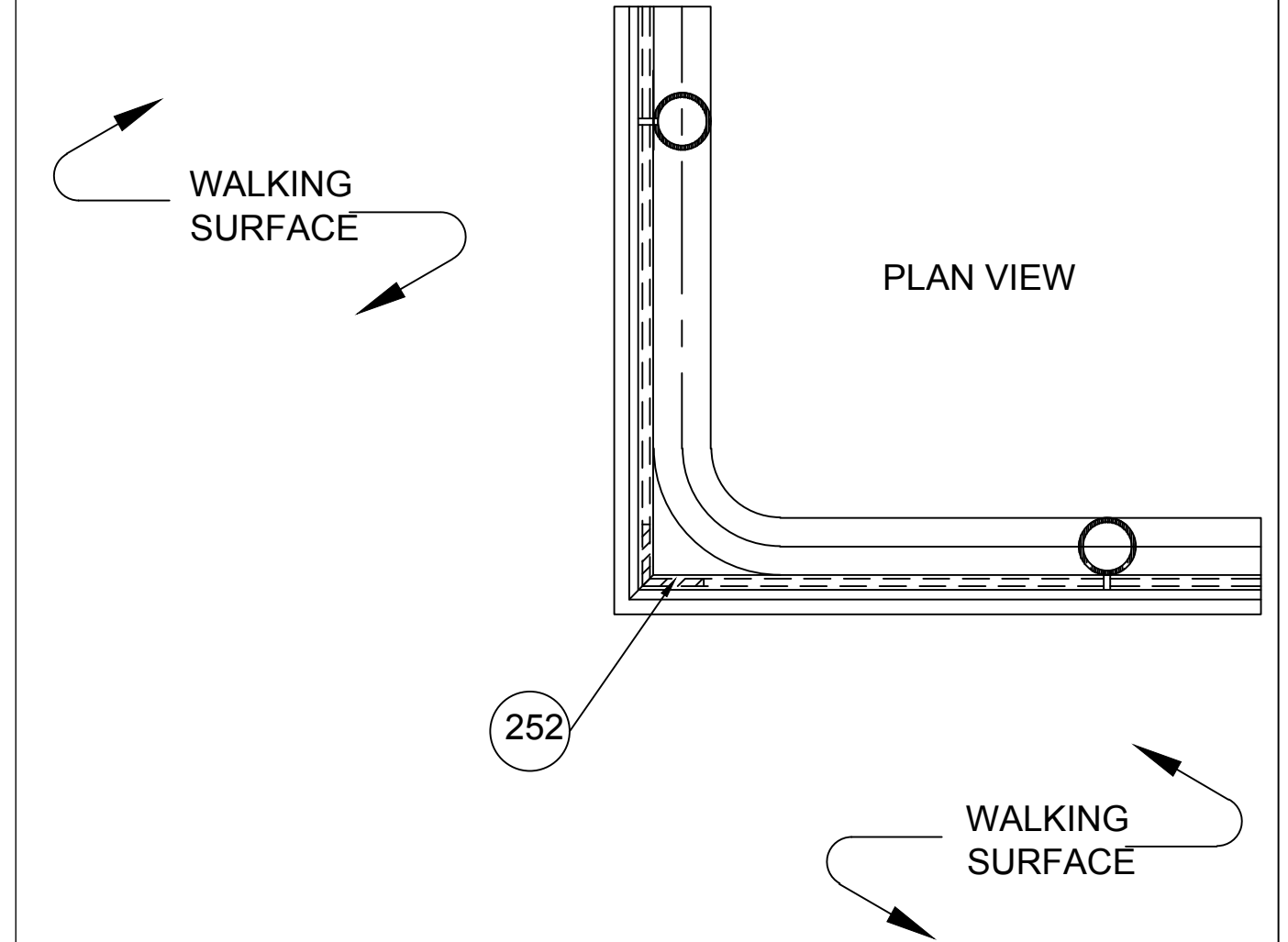
"Z" TOE BOARD
 FIELD JOINT

254



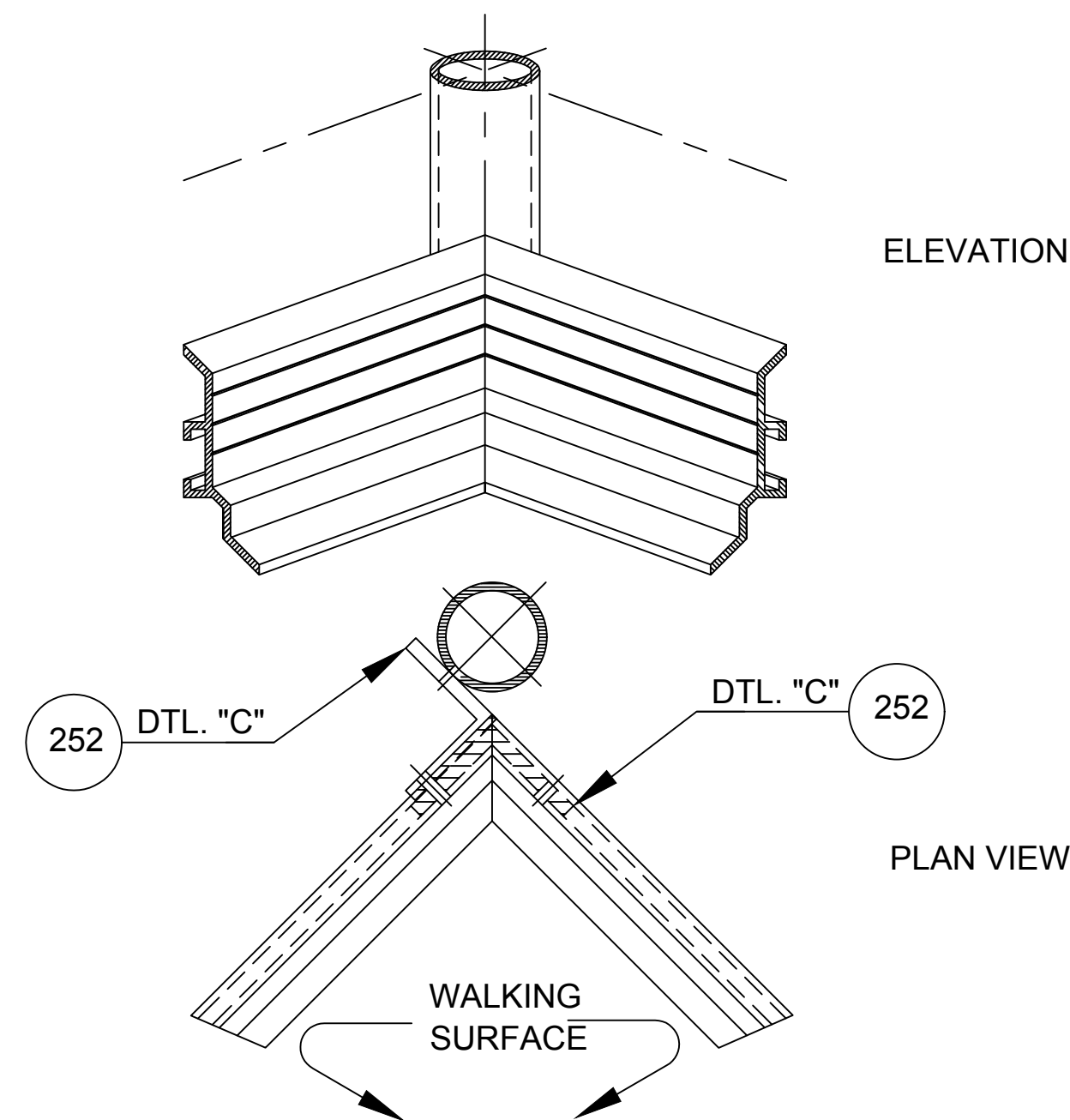
"Z" TOE BOARD
 OUTSIDE CORNER

256



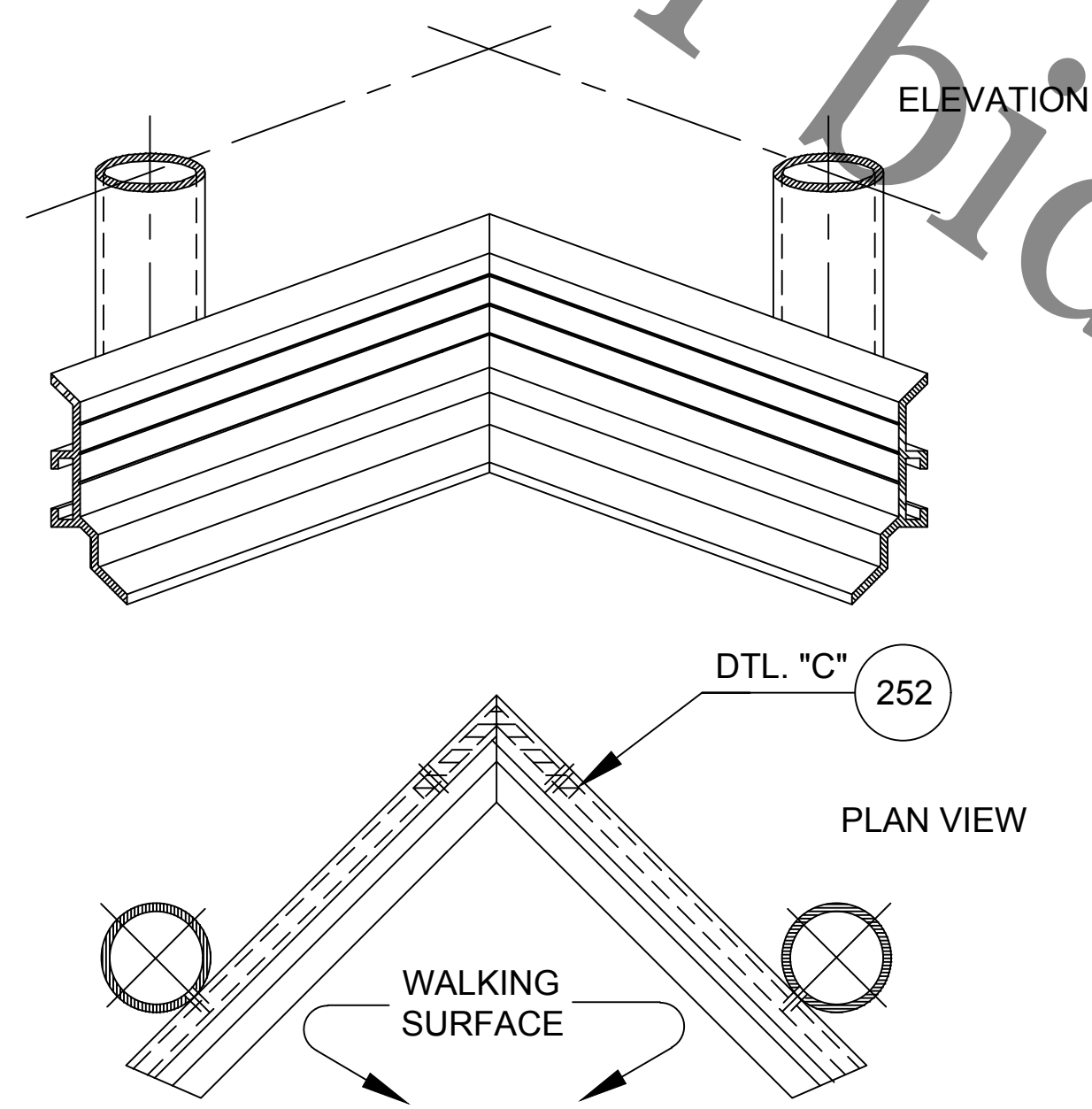
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 OUTSIDE CORNER

256
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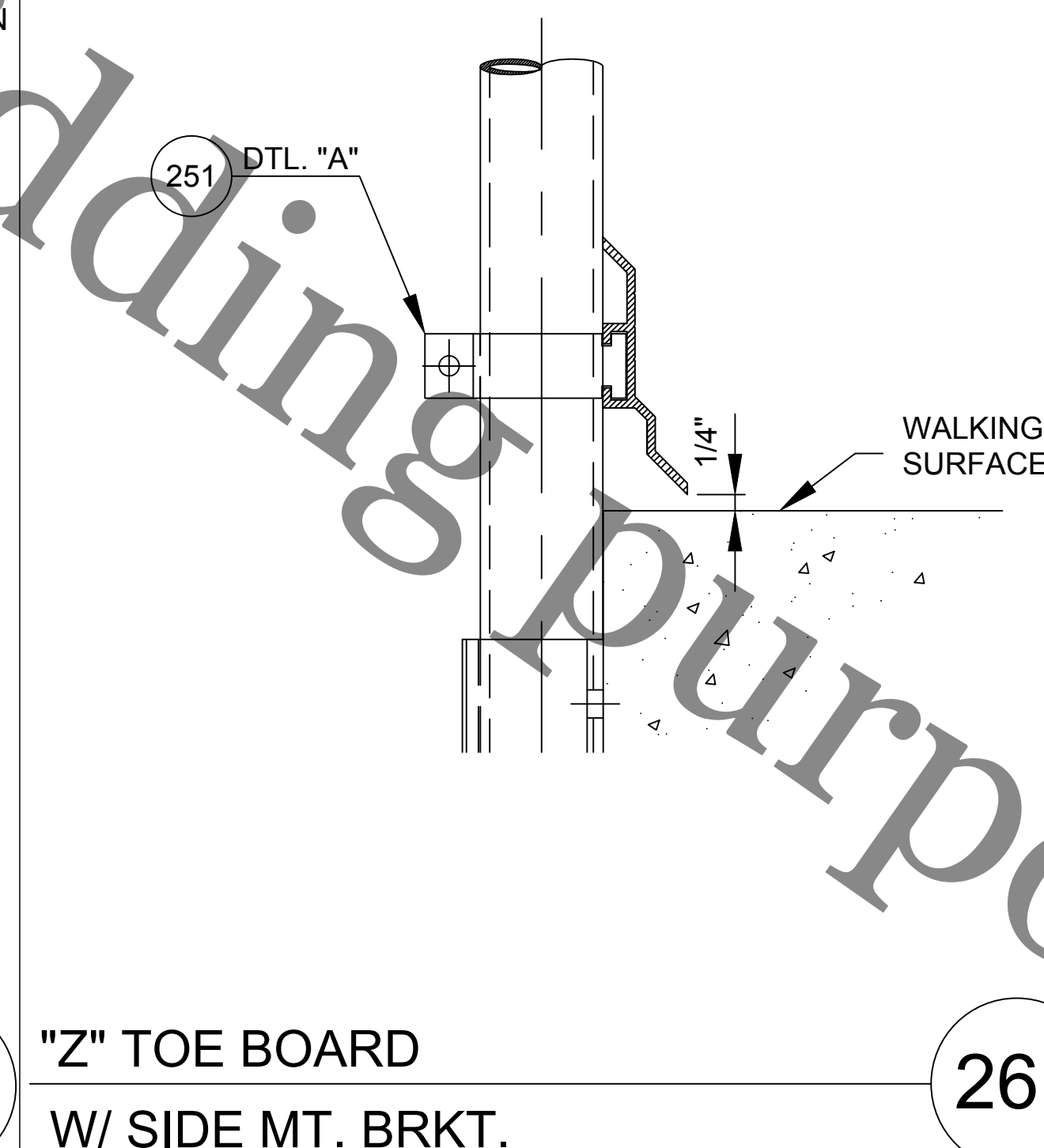
"Z" TOE BOARD
 INSIDE CORNER

257



"Z" TOE BOARD
 INSIDE CORNER

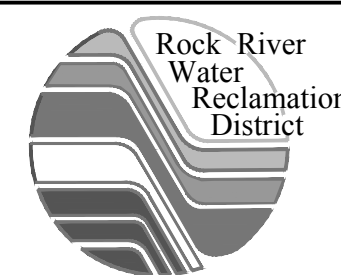
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"Z" TOE BOARD
 W/ SIDE MT. BRKT.

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DETAILS

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