



AIA[®] Document G710[™] – 2017

Architect's Supplemental Instructions

PROJECT: *(name and address)*
CN Catoosa Child Development Center

CONTRACT INFORMATION:
Contract For: General Construction
Date: 08/16/2024

ASI INFORMATION:
ASI Number: 002
Date: 06/20/2025

OWNER: *(name and address)*
Cherokee Nation
17675 S. Muskogee Ave.
Tahlequah, OK 74464

ARCHITECT: *(name and address)*
Blue River Architects, LLC
320 South Boston Ave., Suite 103
Tulsa, OK 74103

CONTRACTOR: *(name and address)*
Maska Builders
555 N. Elm St.
Jenks, OK 74037

The Contractor shall carry out the Work in accordance with the following supplemental instructions without change in Contract Sum or Contract Time. Proceeding with the Work in accordance with these instructions indicates your acknowledgment that there will be no change in the Contract Sum or Contract Time.

(Insert a detailed description of the Architect's supplemental instructions and, if applicable, attach or reference specific exhibits.)

- Section 11 6833 Athletic Field Netting System
- Section 00 3100 Available Project Information
- Ball Trajectory/ Netting Plan
- Net engineering from Engel & Company engineers

ISSUED BY THE ARCHITECT:

Blue River Architects

ARCHITECT *(Firm name)*

SIGNATURE

Chris Seat, AIA

PRINTED NAME AND TITLE

06/20/2025

DATE

**SECTION 00 3100
AVAILABLE PROJECT INFORMATION**

PART 1 GENERAL

1.01 EXISTING CONDITIONS

- A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of Bidders' own investigations. They are made available for Bidders' convenience and information, but are not a warranty of existing conditions, interpretations, or recommendations. This Document and all attachments are not part of the Contract Documents.
- B. Certain information relating to existing surface and subsurface conditions and structures is available to bidders but will not be part of Contract Documents, as follows:
- C. Site Survey: Entitled Topographical Survey, dated 09/21/23.
 - 1. Prepared by: Wallace Design Collective
 - 2. Reference copy is indicated on Civil Drawings.
- D. Geotechnical Report: Entitled REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL EVALUATION CHEROKEE NATION CHILD DEVELOPMENT CENTER CATOOSA, OKLAHOMA , dated March 05, 2024.
 - 1. Prepared by: Building & Earth
 - a. This report identifies properties of below grade conditions and offers recommendations for the design of foundations, prepared primarily for the use of Architect.
 - b. The recommendations described shall not be construed as a requirement of this Contract, unless specifically referenced in Contract Documents.
 - c. This report, by its nature, cannot reveal all conditions that exist on the site. Should subsurface conditions be found to vary substantially from this report, changes in the design and construction of foundations will be made, with resulting credits or expenditures to the Contract Sum accruing to Owner.
 - d. Contractor is expected to examine the site and all geotechnical data and investigation reports and then decide for himself the character of the materials to be encountered. Contractor shall employ a consultant qualified to interpret the geotechnical data and investigation reports if the Contractor does not feel qualified to interpret any part of the geotechnical data and investigation reports.
 - e. The Owner, Tenant, Architect, and Architect's Consultants disclaim any responsibility for the accuracy, true location and extent of the geotechnical data and investigation reports that have been prepared by others. They further disclaim responsibility for interpretations and recommendations related to that data by Bidders, such as, but not limited to, predicting soils bearing values or the depth to soils bearing materials, rock profiles or hardness, soils stability and the presence, level and extent of underground water.
- E. CNIT Network Construction Standards Manual, dated 02/06/2024 Ver. 1.
- F. Cherokee Nation Finish Hardware Standards for New Construction and Renovations., dated August 2023
- G. Ball Trajectory/Netting Plan, dated November 13, 2024
 - 1. Prepared by Tanner Consulting Group
- H. CN Catoosa CDC Golf Barrier, dated June 13, 2025
 - 1. Prepared by Engel & Company Engineers

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

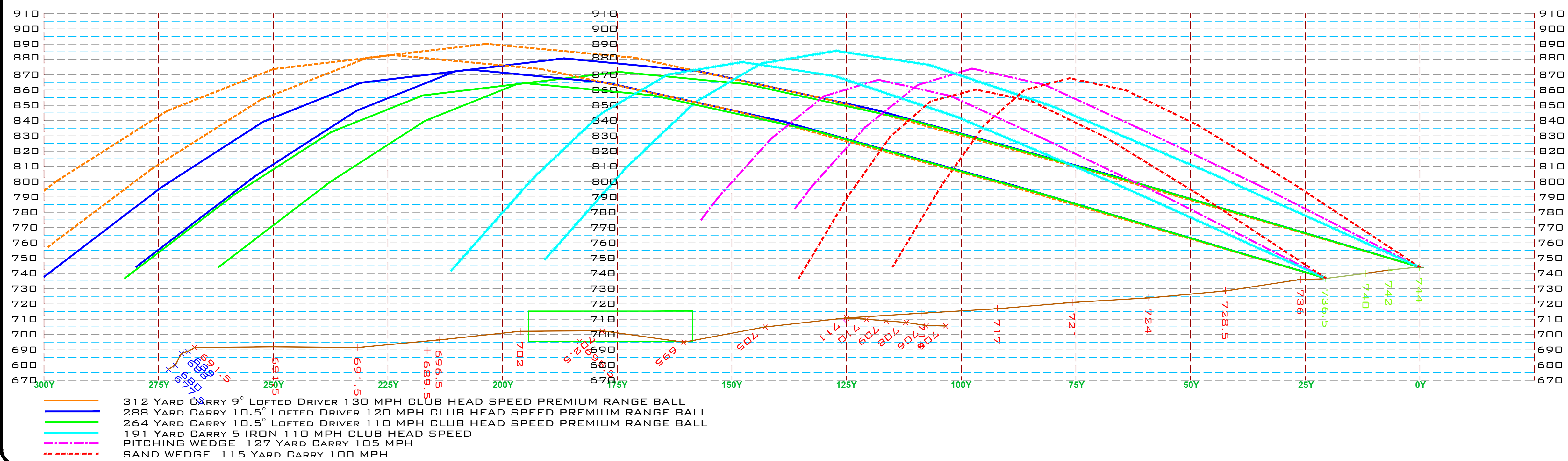
3.01 OBTAINMENT OF PERMITS

- A. Contractor to obtain the following required permits, at no cost to Owner:
 - 1. Building Permit for all trades.
- B. Building Permit Procedures: When required to obtain this permit:
 - 1. Complete and file permit application(s) with appropriate agency.
 - a. Submit application within five days of the Notice to Proceed.
 - 2. Pay required fees.
 - 3. Provide expediting services, either directly or by hiring a firm specializing in these kind of services.
 - 4. Advise Architect if submission of modified documents is necessary to have the authorities having jurisdiction complete the plan review and approval process. Submit modified documents expeditiously.
 - 5. Do not commence execution of any item of work for which a permit has not been obtained.

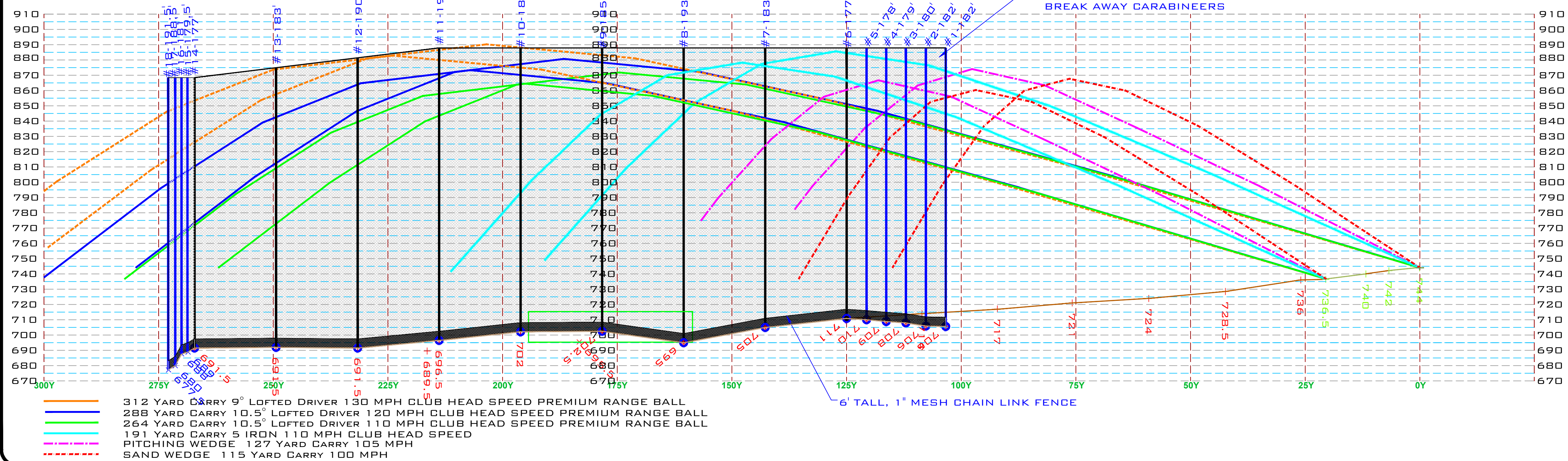
END OF SECTION

BALL TRAJECTORY/NETTING PLAN

BALL TRAJECTORY ELEVATION AROUND SCHOOL



NETTING ELEVATION AROUND SCHOOL



DESIGN TRAJECTORY

The USGA tests golf equipment to determine if it conforms to certain specifications relating to the speed with which golf ball leaves the face of a driver. Their testing equipment uses a club-head speed of 109 MPH. However, it is important to note it is possible for a person to swing with faster speeds (for example: Professional Golf level driver swing speed has been measured 130 +-MPH). This trajectory design uses a swing speed for the Driver of 110, 130 MPH in an effort to model a swing by a strong male golfer to achieve a 264.0, 288.0, 312.0 yard carries using a Premium Range Ball.

For the purpose of this study, this illustration prepared by Tanner Consulting Group depicts the path of a Premium Range Ball hit with a 9° and 10.5° degree lofted driver. Additionally, it assumes the ball was struck in the middle of the club-face that was square to a correct alignment at impact. There is no guarantee that a golfer will be proficient enough to mimic the exact swing conditions to generate this ideal result. If a golf ball is struck with less power and/or accuracy than modeled above, the flight will not be nearly as straight or as far as shown. In addition, it is quite possible that a golfer can exceed the swing speed modeled in this ball trajectory. This can happen when a golfer uses a higher lofted club and/or a taller tee. These factors can increase the height and distance of the ball flight.

Also, if a golfer maliciously or purposely attempts to exceed the netting height, they may exceed the height of the netting and balls will exit the facility. Golfers must be responsible for using the facility as it is intended and in a safe and responsible manner. Site management should provide proper supervision and marshalling.

The equipment mentioned is specific. New technology is constantly improving golf equipment and with that fact, players will have an increased ability to hit the ball further and higher. For this reason Tanner Consulting Group recommends that the facility has structural engineering allowing for increasing the pole heights of the netting system if needed in the future. A minimum recommendation to consider would be the ability to increase the pole height and netting by 10%.

Tanner Consulting Group Disclaimer: Given the unlimited number of variables in the sport of golf, there is no way to guarantee 100% containment of golf balls with any netting installation. The design provided will help to reduce wayward golf shots from exiting the property and is consistent with other netting designs utilized in the golf industry.

Tanner Consulting Group is not responsible for golf balls that ricochet off poles, equipment or any other object on or near the facility.

Golf Club Driver: CALLAWAY EPIC FLASH 9"-10.5° LOFT
Tee Height: MAXIMUM .75" ABOVE THE TURF
Golf Ball: Premium Range Ball

FOR THE PURPOSE OF THIS STUDY, OUR ILLUSTRATION SHOW THE BALL HEIGHT AND DISTANCE HIT BY A SPECIFIC CLUB, BALL AND SWING SPEED. THESE ARE ALL SHOTS THAT ARE HIT STRAIGHT AND CORRECT. THERE IS NO GUARANTY THAT A GOLFER WILL HIT AT THIS SAME SPEED OR ANGLE. IF A GOLF SHOT IS MIS-HIT IT WILL USUALLY NOT TRAVEL AS FAR OR STRAIGHT. FOR THIS REASON, OUR STUDY REFLECTS WHAT WE DETERMINE TO BE A "WORSE CASE SCENARIO WITH THE DETAILED INFORMATION". THE GOLF CLUB WAS SELECTED BY POPULARITY.

CONTRACTOR MUST VERIFY SETBACKS, PROPERTY LINES AND ALLOWABLE BUILDING HEIGHTS BEFORE BUILDING THE RECOMMENDED NETTING. DRAWINGS ARE DIAGRAMMATIC AND ALL DIMENSIONS AND ELEVATIONS MUST BE VERIFIED.

TANNER CONSULTING GROUP

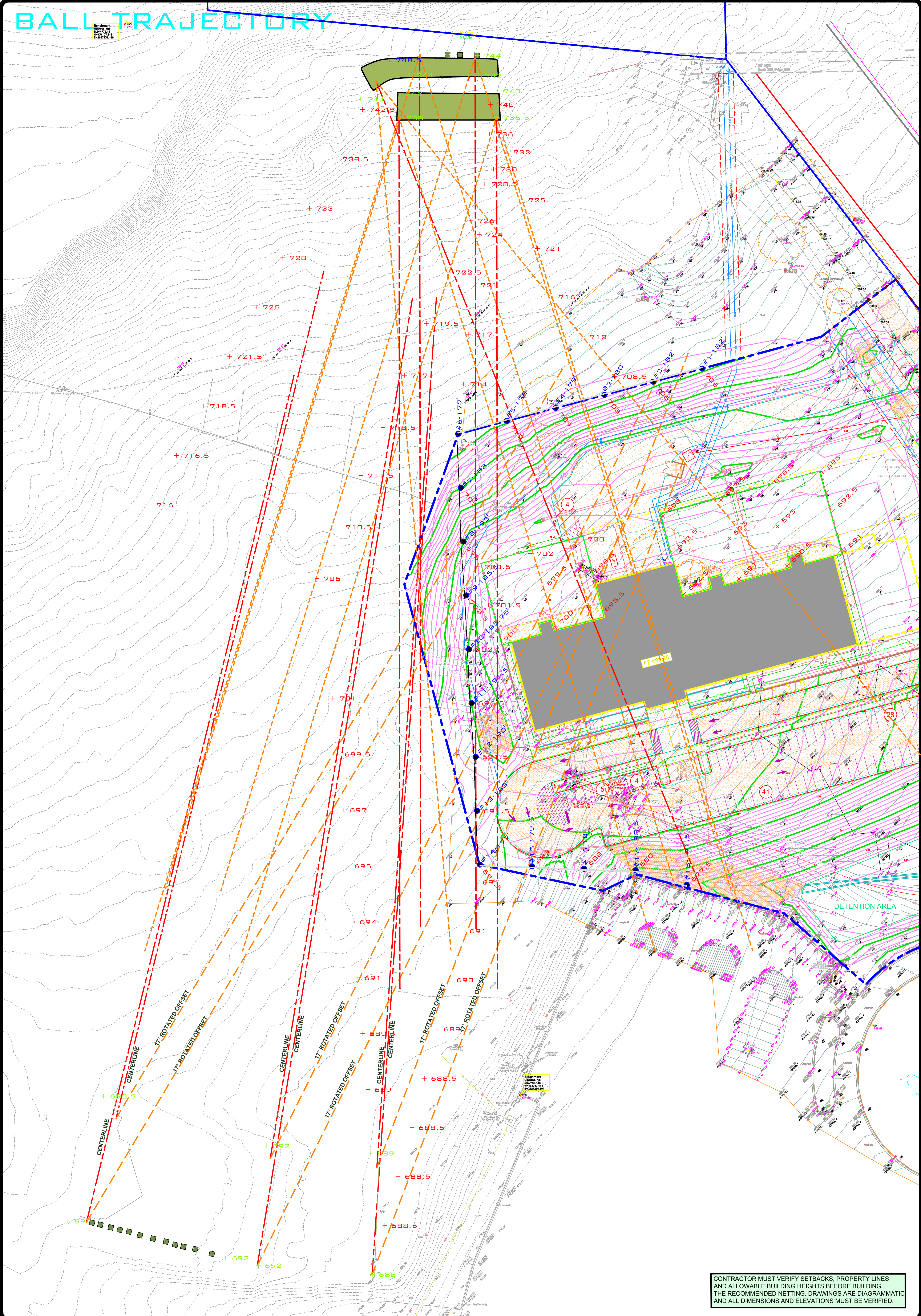
603 Stanford Ct. Valley Springs, CA 95252
Ph (209)772-2233 Fax (209)772-2230
e-mail: tannerconsulting@aol.com website: www.tannerconsulting.com

BALL TRAJECTORY/ NETTING PLAN

CHEROKEE HILLS GOLF CLUB
DRIVING RANGE
770 W. CHEROKEE STREET
CATOOSA, OK 74015

SHEET NAME
DRAWN BY
CHECKED
DATE
NOVEMBER 13, 2024
SCALE
1" = 40'
JOB No.
r-5
N-3

BALL TRAJECTORY



CONTRACTOR MUST VERIFY SETBACKS, PROPERTY LINES AND ALLOWABLE BUILDING HEIGHTS BEFORE BUILDING THE RECOMMENDED NETTING. DRAWINGS ARE DIAGRAMMATIC AND ALL DIMENSIONS AND ELEVATIONS MUST BE VERIFIED.

SHEET NAME	DRAWN DT CHECKED
N-4	DATE NOVEMBER 13, 2024
	SCALE 1" = 40'
	JOB No. r-5

CHEROKEE HILLS GOLF CLUB
DRIVING RANGE
770 W. CHEROKEE STREET
CATOOSA, OK 74015

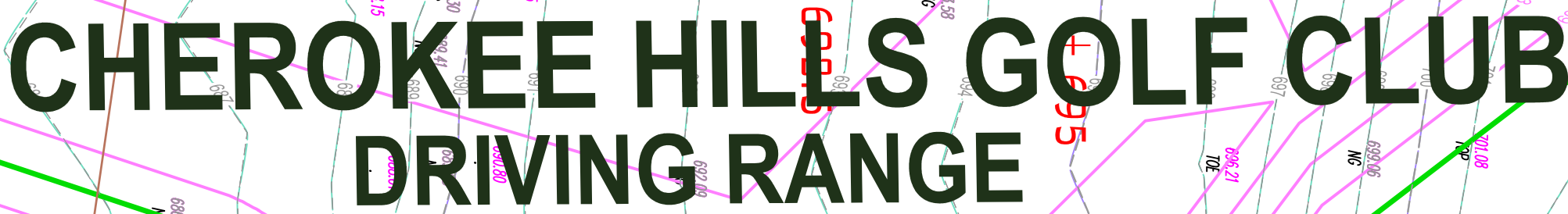
BALL TRAJECTORY

TANNER
CONSULTING GROUP

603 Stanford Ct. Valley Springs, CA 95252
Ph (209)772-2233 Fax (209)772-2230
e-mail: tannerconsulting@aol.com website: www.tannerconsulting.com

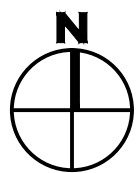
CHEROKEE HILLS GOLF CLUB

DRIVING RANGE



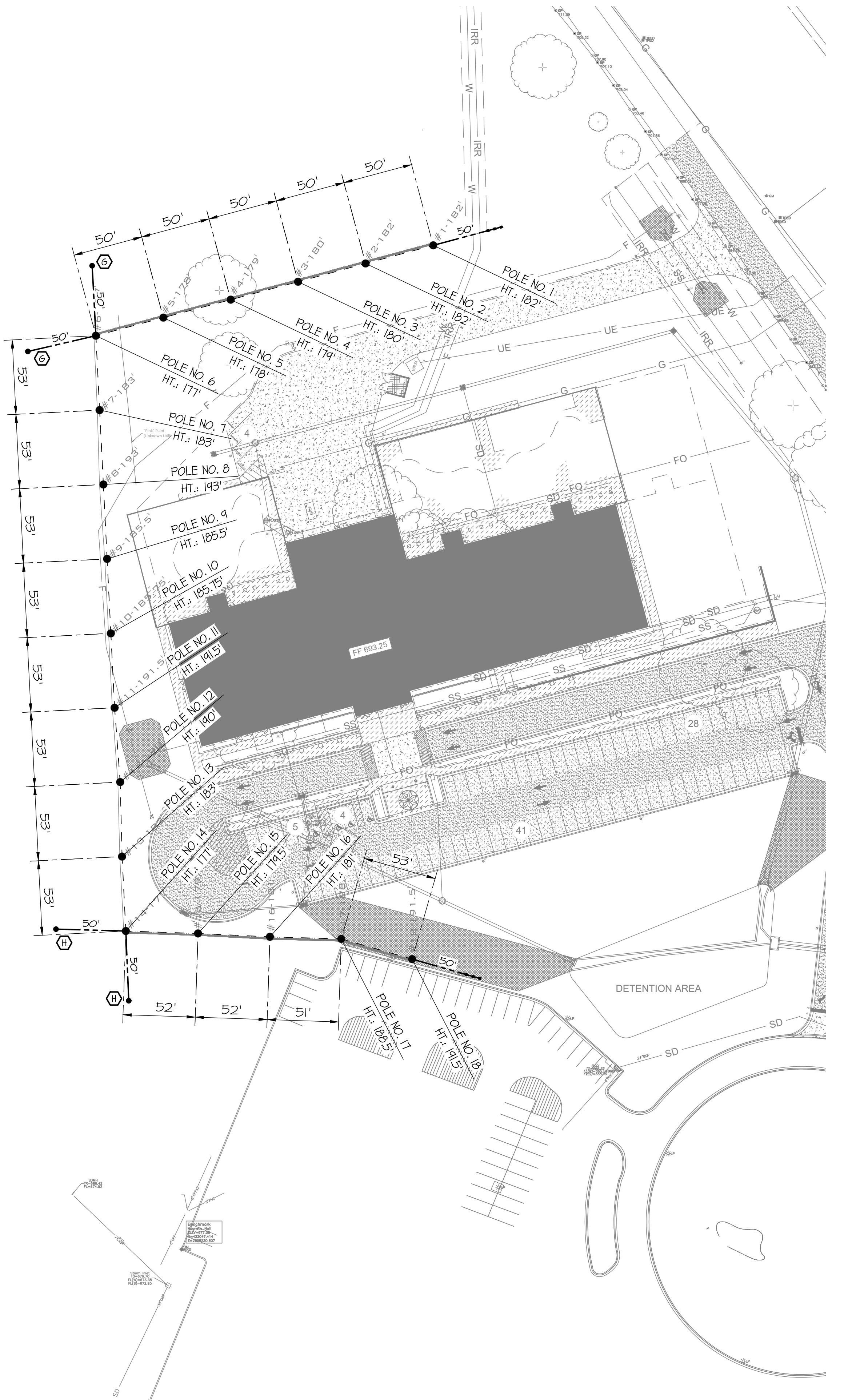
N-6 r-5

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POLE LAYOUT PLAN

- ⊙ - DENOTES A 25'-0" GUY CABLE STUD POLE
Ⓜ - DENOTES A 25'-0" GUY CABLE STUD POLE



1" = 50'

CN Catoosa CDC - Pole Schedule
LOWER DECK ELEV: 736.50

POLE NUMBER	POLE TYPE	PROPOSED GRADE @	DELTA TO LOWER DK	TOP ELEV OF POLE	LENGTH EXPOSURE	TOTAL FTNG EMBEDMENT	ELEV. AT FTNG BASE	TOTAL POLE LENGTH	POLE NUMBER
1	B	706.00	151.50	888.0	182.00	30.5	675.50	212.50	1
2	B	706.00	151.50	888.0	182.00	30.5	675.50	212.50	2
3	C	708.00	151.50	888.0	180.00	29.0	679.00	209.00	3
4	C	709.00	151.50	888.0	179.00	29.0	680.00	208.00	4
5	C	710.00	151.50	888.0	178.00	29.0	681.00	207.00	5
6	C	711.00	151.50	888.0	177.00	29.0	682.00	206.00	6
7	B	705.00	151.50	888.0	183.00	30.5	674.50	213.50	7
8	A	695.00	151.50	888.0	193.00	32.0	663.00	225.00	8
9	B	702.50	151.50	888.0	185.50	30.5	672.00	216.00	9
10	B	702.00	151.25	887.8	185.75	30.5	671.50	216.25	10
11	A	696.50	151.50	888.0	191.50	32.0	664.50	223.50	11
12	D	691.50	145.00	881.5	190.00	31.5	660.00	221.50	12
13	E	691.50	138.00	874.5	183.00	30.0	661.50	213.00	13
14	F	691.50	132.00	868.5	177.00	31.5	660.00	208.50	14
15	F	689.00	132.00	868.5	179.50	31.5	657.50	211.00	15
16	F	688.00	132.50	869.0	181.00	31.5	656.50	212.50	16
17	F	680.00	132.00	868.5	188.50	31.5	648.50	220.00	17
18	F	677.50	132.50	869.0	191.50	31.5	646.00	223.00	18

BASEBALL AND SOFTBALL POLE AND FOUNDATION SCHEDULE

BASEBALL AND SOFTBALL POLE AND FOUNDATION SCHEDULE												
POLE TYPE	MAXIMUM POLE SPACING	* SPLICE HEIGHT	POLE SIZE			*S	SPLICE PIPE YIELD STRENGTH	SPLICE DETAIL	FOUNDATION			
			DIAMETER	WALL THICKNESS	PIPE YIELD STRENGTH				SIZE	DEPTH	CONSTRAINT COLLAR SIZE	COLLAR REINFORCEMENT
A	53'	105'	16"	0.375"	65 KSI	.375"	50 KSI	DETAIL 1 ON SHEET 55.0	4'-6" Ø	32'-0"	12'-0" SQ. XL'-6" THICK	(8) #5 BARS BOTH WAYS AT TOP & BOT.
		44'	30"	0.500"	65 KSI	.500"	50 KSI	DETAIL 2 ON SHEET 55.0				
		36'	0.141"	10 KSI	.141"	50 KSI	DETAIL 3 ON SHEET 55.0					
		-10'	42"	0.864"	10 KSI	.141"	50 KSI	DETAIL 3 ON SHEET 55.0				
B	53'	105'	16"	0.375"	65 KSI	.375"	50 KSI	DETAIL 1 ON SHEET 55.0	4'-6" Ø	30'-6"	12'-0" SQ. XL'-6" THICK	(8) #5 BARS BOTH WAYS AT TOP & BOT.
		44'	30"	0.500"	65 KSI	.500"	50 KSI	DETAIL 2 ON SHEET 55.0				
		36'	0.141"	10 KSI	.141"	50 KSI	DETAIL 3 ON SHEET 55.0					
		-10'	42"	0.600"	10 KSI	.141"	50 KSI	DETAIL 3 ON SHEET 55.0				
C	53'	105'	16"	0.375"	65 KSI	.375"	50 KSI	DETAIL 1 ON SHEET 55.0	4'-6" Ø	24'-0"	12'-0" SQ. XL'-6" THICK	(8) #5 BARS BOTH WAYS AT TOP & BOT.
		44'	30"	0.500"	65 KSI	.500"	50 KSI	DETAIL 2 ON SHEET 55.0				
		36'	0.618"	10 KSI	.618"	50 KSI	DETAIL 3 ON SHEET 55.0					
		0'	42"	0.120"	10 KSI	.618"	50 KSI	DETAIL 3 ON SHEET 55.0				
D	53'	95'	16"	0.375"	65 KSI	.375"	50 KSI	DETAIL 1 ON SHEET 55.0	4'-6" Ø	31'-6"	12'-0" SQ. XL'-6" THICK	(8) #5 BARS BOTH WAYS AT TOP & BOT.
		31'	30"	0.500"	65 KSI	.500"	50 KSI	DETAIL 2 ON SHEET 55.0				
		36'	0.141"	10 KSI	.141"	50 KSI	DETAIL 3 ON SHEET 55.0					
		-16'	42"	0.864"	10 KSI	.141"	50 KSI	DETAIL 3 ON SHEET 55.0				
E	53'	88'	16"	0.375"	65 KSI	.375"	50 KSI	DETAIL 1 ON SHEET 55.0	4'-6" Ø	30'-0"	12'-0" SQ. XL'-6" THICK	(8) #5 BARS BOTH WAYS AT TOP & BOT.
		42'	24"	0.562"	65 KSI	.562"	50 KSI	DETAIL 2 ON SHEET 55.0				
		36'	0.618"	10 KSI	.618"	50 KSI	DETAIL 3 ON SHEET 55.0					
		-11'	42"	0.120"	10 KSI	.618"	50 KSI	DETAIL 3 ON SHEET 55.0				
F	53'	86'	16"	0.375"	65 KSI	.375"	50 KSI	DETAIL 1 ON SHEET 55.0	4'-6" Ø	31'-6"	12'-0" SQ. XL'-6" THICK	(8) #5 BARS BOTH WAYS AT TOP & BOT.
		25'	30"	0.500"	65 KSI	.500"	50 KSI	DETAIL 2 ON SHEET 55.0				
		36'	0.141"	10 KSI	.141"	50 KSI	DETAIL 3 ON SHEET 55.0					
		-30'	42"	0.864"	10 KSI	.141"	50 KSI	DETAIL 3 ON SHEET 55.0				
G	-	N/A	24"	0.375"	65 KSI	N/A	N/A	N/A	3'-0" Ø	30'-6"	N/A	N/A
H	-	N/A	24"	0.500"	65 KSI	N/A	N/A	N/A	3'-0" Ø	32'-6"	N/A	N/A

- * SPLICE HEIGHTS INDICATED ARE DISTANCES ABOVE THE FIN. GRADE
- POLE SPACING IN SCHEDULE IS MAXIMUM, SEE PLAN
- *S INDICATED SOCKET OR SPLICE PIPE WALL THICKNESS
- WALL THICKNESS SHOWN ARE ACTUAL

GENERAL NOTES

2022 INTERNATIONAL BUILDING CODE GOVERNS DESIGN AND CONSTRUCTION.

THESE GENERAL NOTES SHALL APPLY TO ALL SHEETS IN THIS SET OF PLANS.

SAFETY REGULATIONS - ADMIN. CODE, GENERAL SAFETY ORDERS ("OSHA") IS APPLICABLE TO THE CONSTRUCTION OF THIS PROJECT AND PROVISIONS THEREOF MUST BE FOLLOWED. ENGEL & COMPANY ENGINEERS IS NOT RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION, NOR FOR SAFETY ON THE JOBSITE. THESE RESPONSIBILITIES ARE INTENDED TO BE AND TO REMAIN SOLELY THOSE OF THE BUILDER.

ALL DIMENSIONS WHICH ARE DEPENDENT ON EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

FOUNDATION DESIGN IS BASED ON THE SOILS REPORT PREPARED BY BUILDING & EARTH SCIENCES, INC., PROJECT NO. TU230102 DATED MARCH 5, 2024. THE SITE SHALL BE PREPARED IN ACCORDANCE WITH THE RECOMMENDATIONS FOUND IN THE SOILS REPORT.

CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI MINIMUM IN 28 DAYS. USE NO MORE THAN 6.8 GAL. OF WATER PER SACK OF CEMENT. (DESIGN IS BASED ON A COMPRESSIVE STRENGTH OF 2500 PSI IN 28 DAYS. THEREFORE SPECIAL INSPECTION IS NOT REQUIRED.)

WELDING SHALL BE DONE BY A CERTIFIED WELDER USING THE SHIELDED ARC PROCESS AND E80 SERIES ELECTRODES. WELDS SHALL BE FULL SECTION, FULL PENETRATION AND SHALL DEVELOP THE FULL STRENGTH OF THE SMALLER OF THE PARTS JOINED UNLESS THE PLANS SHOW OTHERWISE. ALL SHOP WELDING SHALL BE DONE USING THE SHIELDED ELECTRIC ARC PROCESS BY CERTIFIED WELDERS USING APPROVED ELECTRODES. NO FIELD WELDING WITHOUT SPECIAL INSPECTION. ALL WELDING PER AWS D1.1, USE E8018 ELECTRODES. NO FIELD WELDING IS EXPECTED TO BE PART OF THIS PROJECT.

STRUCTURAL STEEL

ALL PLATES AND SHAPES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36.

16" DIAMETER AND SMALLER PIPE SHALL BE DUAL CERTIFIED API 5L X65 (65 KSI MIN. YIELD) AND ASTM 572 GRADE 65. ALTERNATE FOR 16" DIAMETER AND SMALLER PIPE: PIPE SHALL BE ASTM A252 PROVIDED THAT THE STEEL CERTIFICATIONS ASSOCIATED WITH THE PIPE ARE AVAILABLE AND SHOW THE STEEL TO HAVE A MINIMUM YIELD STRENGTH OF 65 KSI.

36" AND 42" DIAMETER PIPE: PIPE SHALL BE ASTM A252 PROVIDED THAT THE STEEL CERTIFICATIONS ASSOCIATED WITH THE PIPE ARE AVAILABLE AND SHOW THE STEEL TO HAVE A MINIMUM YIELD STRENGTH OF 70 KSI.

30" DIAMETER PIPE: PIPE SHALL BE ASTM A252 PROVIDED THAT THE STEEL CERTIFICATIONS ASSOCIATED WITH THE PIPE ARE AVAILABLE AND SHOW THE STEEL TO HAVE A MINIMUM YIELD STRENGTH OF 70 KSI.

CABLE AND WIRE ROPE SHALL BE 7 x 19 GALVANIZED WIRE ROPE FOR TOP, BOTTOM AND VERTICAL CABLES AND 6 x 19 GALVANIZED WIRE ROPE FOR GUY CABLES WITH THE FOLLOWING MINIMUM BREAKING STRENGTHS:

7X19 GALVANIZED WIRE ROPE:
5/16" NOMINAL DIAMETER: 9,800 LBS.
3/8" NOMINAL DIAMETER: 33,300 LBS.

6X19 GALVANIZED EXTRA EXTRA IMPROVED PLOW WIRE ROPE:
1/2" NOMINAL DIAMETER: 26,280 LBS.
9/16" NOMINAL DIAMETER: 33,300 LBS.
5/8" NOMINAL DIAMETER: 40,880 LBS.
3/4" NOMINAL DIAMETER: 58,320 LBS.

FOR INTERMEDIATE CABLES USE 1X7 GALVANIZED STRAND WITH THE FOLLOWING MINIMUM BREAKING STRENGTHS:

3/8" NOMINAL DIAMETER: 15,400 LBS.

NETTING AND ITS ATTACHMENT IS BY OTHERS. NET SHALL HAVE NO MORE THAN 8% EQUIVALENT SOLID WIND DRAG. THE ATTACHMENT OF THE NET SHALL BE SUCH THAT IN WEATHER CONDITIONS WHICH RESULT IN HEAVY ICE BUILDUP ON THE NET (AND/OR HEAVY ICE BUILDUP AND STRONG WINDS), THE NETTING CONNECTION SHALL RELEASE OR "BREAK AWAY" SO AS TO PREVENT ANY DAMAGE TO THE STEEL CABLES, STEEL POLES AND/OR FOUNDATIONS.

WIRE ROPE FITTINGS SHALL DEVELOP THE BREAK STRENGTH OF THE CABLE PER THE MANUFACTURER (CROSBY OR EQUIV.).

PAINT/COATING SYSTEM SHALL BE WATER COATING SYSTEM AND SHALL BE APPLIED PER THE MANUFACTURER'S RECOMMENDATIONS AS FOLLOWS:

SURFACE PREPARATION: SSPC SP-6 COMMERCIAL BLAST AT 1.5 TO 3 MIL PROFILE.

PRIMER: APPLY A FULL, EVEN AND CONTINUOUS COAT OF WASSER MC-MOIZINC 100 PRIMER AT A RATE OF 3 TO 5 MILS DFT.

TOPCOAT: APPLY A FULL, EVEN AND CONTINUOUS COAT OF WASSER MC-LUSTER 100 STANDARD GRAY (OR OWNER APPROVED COLOR) TOPCOAT OVER THE FERROX B 100 AT A RATE OF 2 TO 4 MILS DFT.

GENERAL CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING AND SHORING ALL EXCAVATIONS, TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED PORTIONS OF THE WORK.

ENGEL & COMPANY IS NOT RESPONSIBLE FOR ONSITE INSPECTION TO ASSURE COMPLIANCE WITH MATERIALS AND/OR WORKMANSHIP SPECIFIED HEREIN. ENGEL & COMPANY IS NOT RESPONSIBLE FOR ANY CHANGES IN THE PLANS OR SPECIFICATIONS UNLESS APPROVAL IS AUTHORIZED IN WRITING. WORKMANSHIP IS TO BE OF THE HIGHEST QUALITY AND IN ALL CASES TO FOLLOW ACCEPTED CONSTRUCTION PRACTICES AND CITY/COUNTY STANDARDS. PLEASE REVIEW ALL PLANS AND SPECS PRIOR TO CONSTRUCTION.

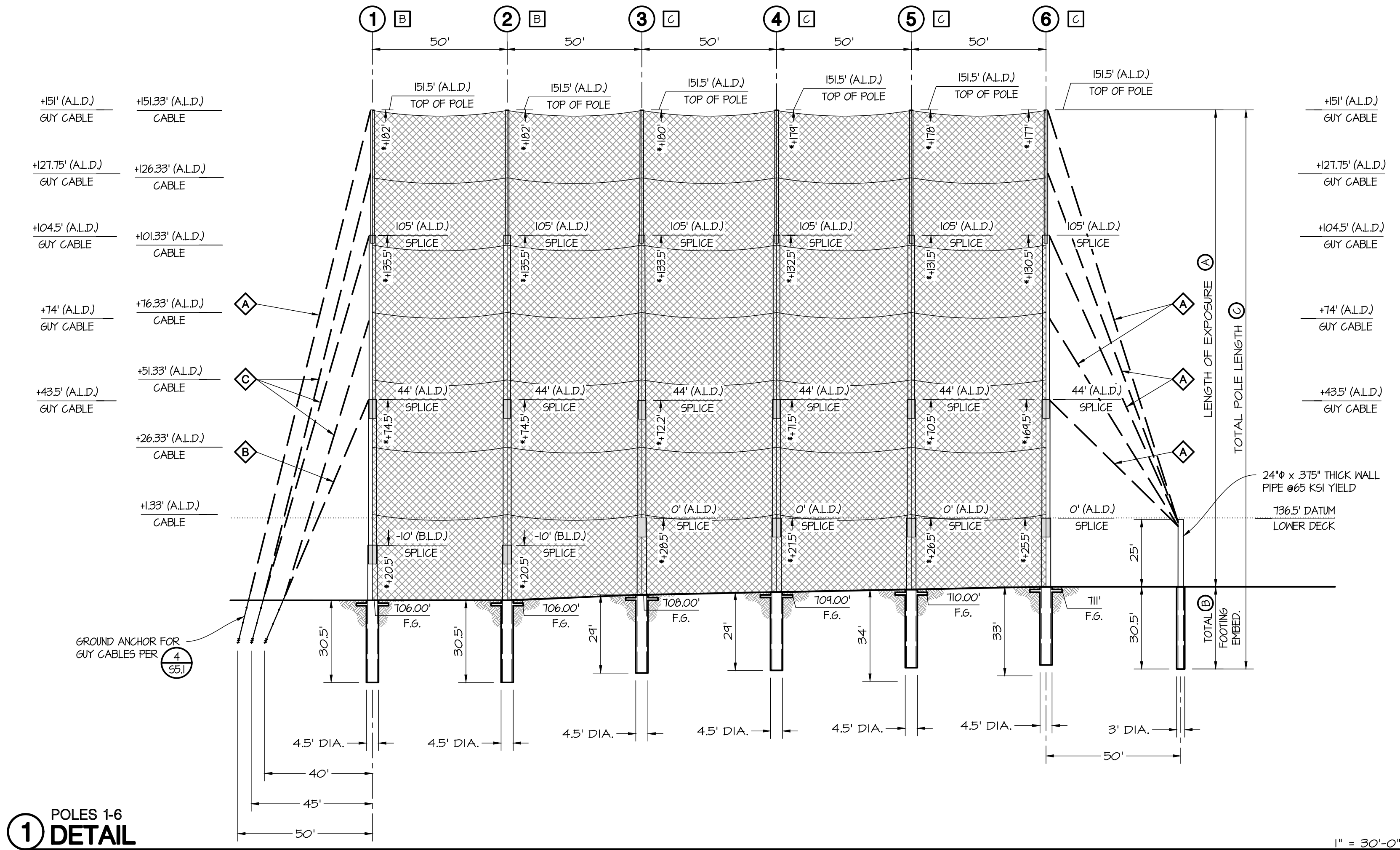
WIND LOADING INFORMATION

OCCUPANCY CATEGORY: II
BASIC WIND SPEED: 108 MPH, NET DENSITY= 8%
EXPOSURE: C

PRELIM - FOR PRICING
NOT FOR CONSTRUCTION
06/18/2025

		ENGEL & COMPANY <i>Engineers</i> 4009 UNION AVENUE BAKERSFIELD, CA 93305 www.engelengineers.com (661) 327-7025	DRAWN BAG	Pole Layout Plan Golf Netting Barrier CN Catoosa CDC Golf Barrier 19244 Country Club Drive Catoods, OK 74015	
			DATE 6/13/25	SHEET NO. S10 OF 25412	
			CHECKED EC		
DATE	ISSUED FOR		APPROVED		

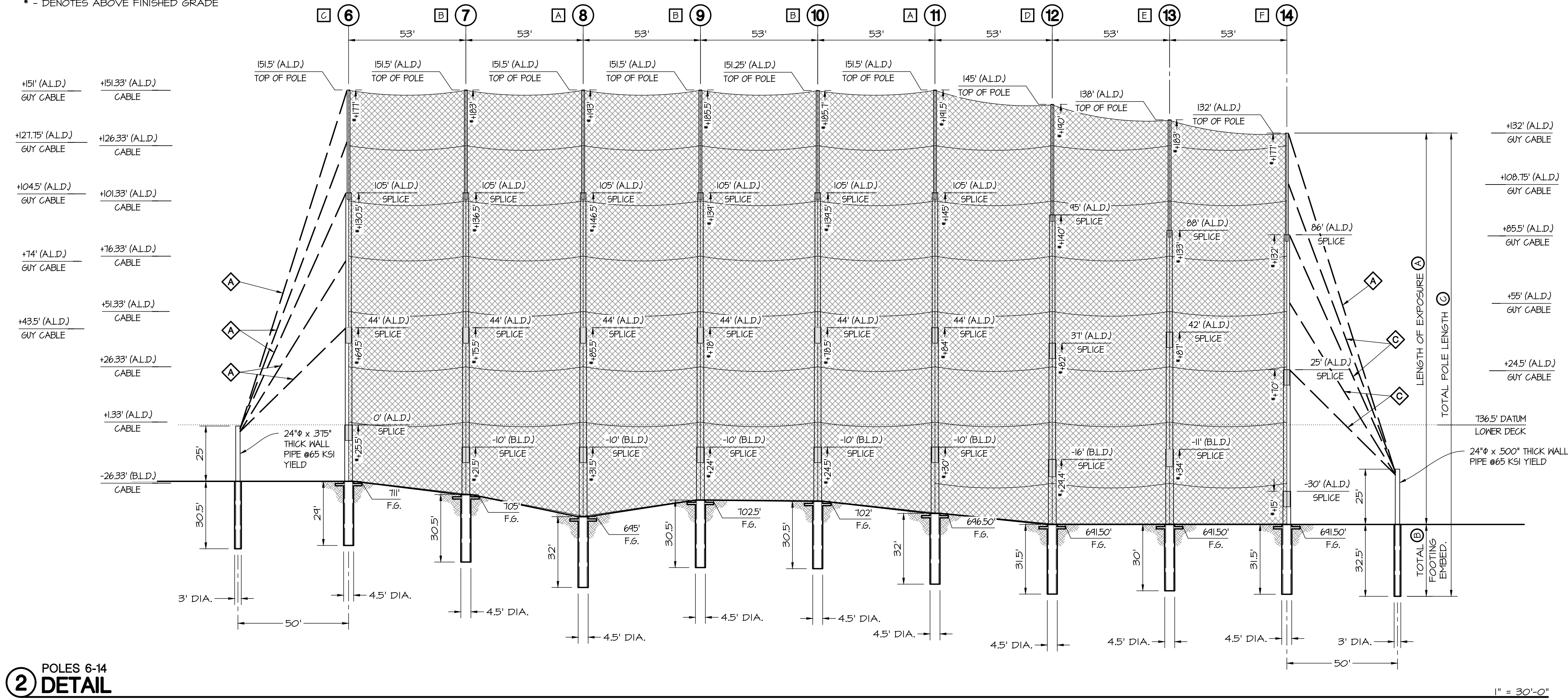
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- NOTES
- A - DENOTES 1/2" Ø GALVANIZED 6x19 EXTRA EXTRA IMPROVED PLOW WIRE ROPE
 - B - DENOTES 3/4" Ø GALVANIZED 6x19 EXTRA EXTRA IMPROVED PLOW WIRE ROPE
 - C - DENOTES 5/8" Ø GALVANIZED 6x19 EXTRA EXTRA IMPROVED PLOW WIRE ROPE

1 POLES 1-6 DETAIL

A.L.D. - ABOVE LOWER DECK
B.L.D. - BELOW LOWER DECK
* - DENOTES ABOVE FINISHED GRADE



2 POLES 6-14 DETAIL

A.L.D. - ABOVE LOWER DECK
B.L.D. - BELOW LOWER DECK
* - DENOTES ABOVE FINISHED GRADE

NOT FOR CONSTRUCTION

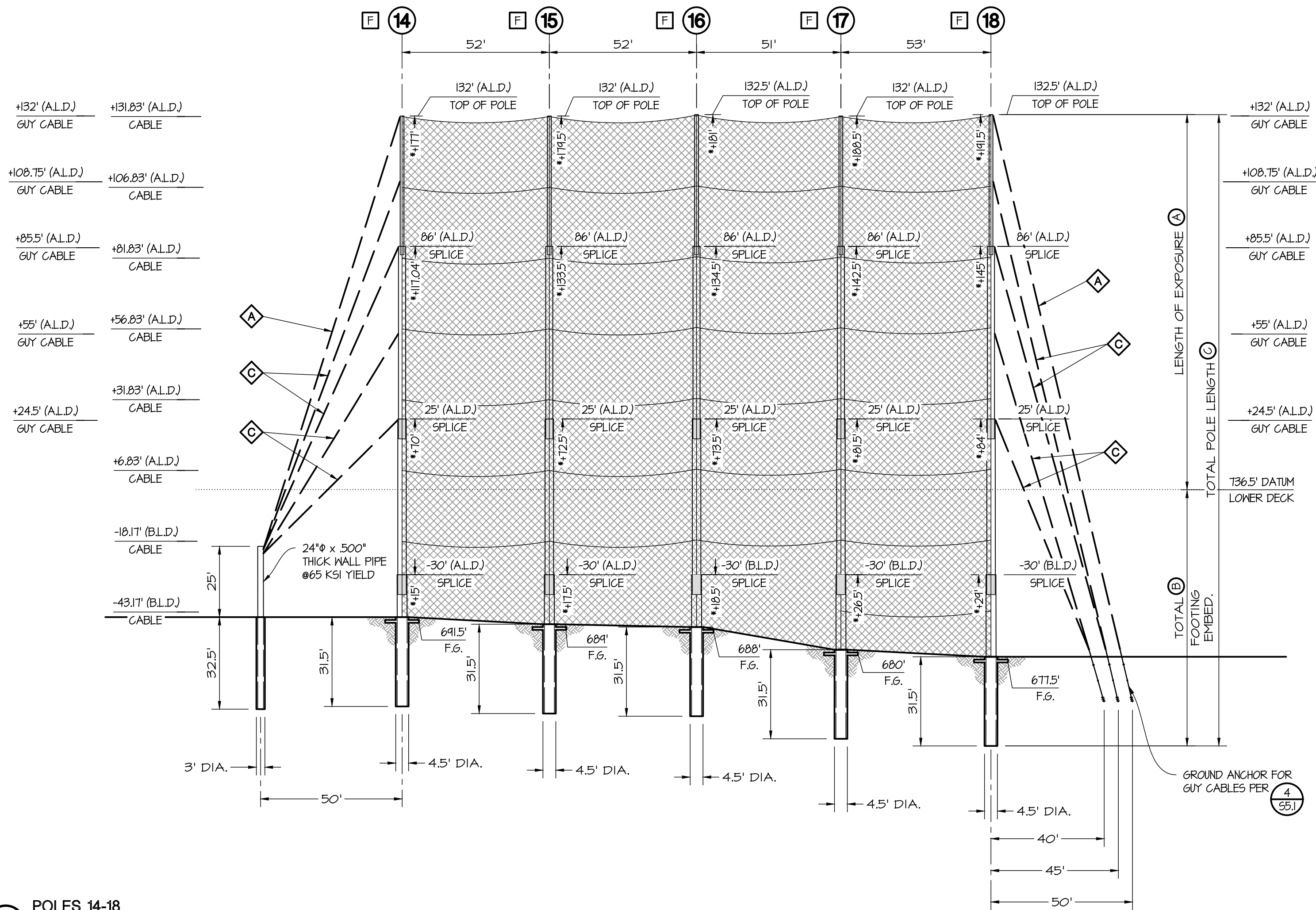
PRELIM - FOR PRICING
06/18/2025

		ENGEL & COMPANY <i>Engineers</i> 4009 UNION AVENUE BAKERSFIELD, CA 93305 www.engelengineers.com (661) 327-7025	DRAWN BAG	Pole Elevations		
			DATE 6/13/25	Golf Netting Barrier		SHEET NO.
			CHECKED BC	CN Catoosa CDC Golf Barrier		S20
DATE	ISSUED FOR			19244 Country Club Drive Catoosa, OK 74015		OF

file p:\blue river architects, llc\25412 - cn catoosa cdc golf barrier\drawings\25412251.dwg layout 2541231 scale 1 by bc date 6/18/2025 4:39 PM

POLES 14-18 1 DETAIL

A.L.D. - ABOVE LOWER DECK
B.L.D. - BELOW LOWER DECK
* - DENOTES ABOVE FINISHED GRADE



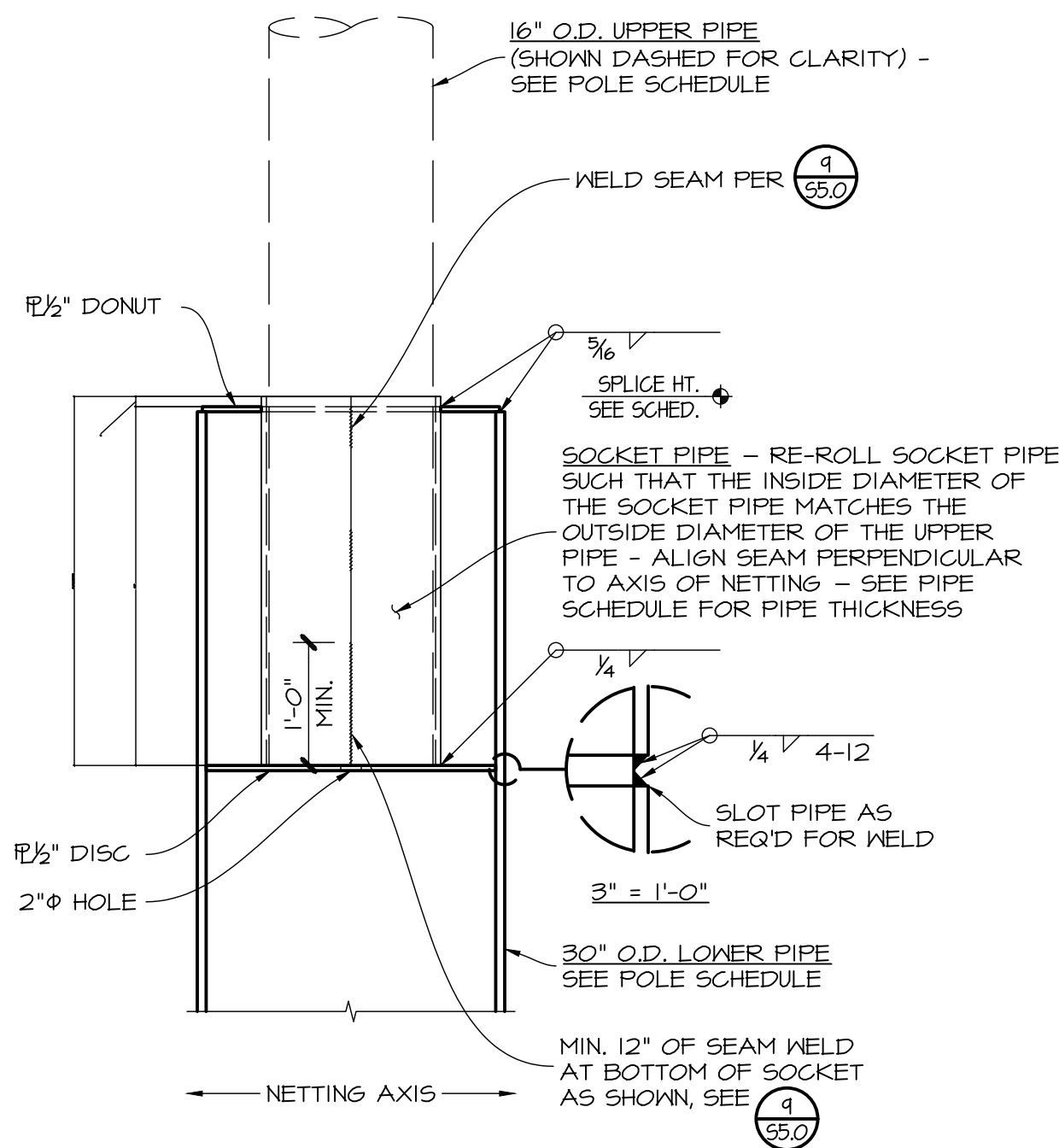
- NOTES:
- A - DENOTES 1/2" Ø GALVANIZED 6x19 EXTRA EXTRA IMPROVED PLOW WIRE ROPE
 - B - DENOTES 3/4" Ø GALVANIZED 6x19 EXTRA EXTRA IMPROVED PLOW WIRE ROPE
 - C - DENOTES 5/8" Ø GALVANIZED 6x19 EXTRA EXTRA IMPROVED PLOW WIRE ROPE

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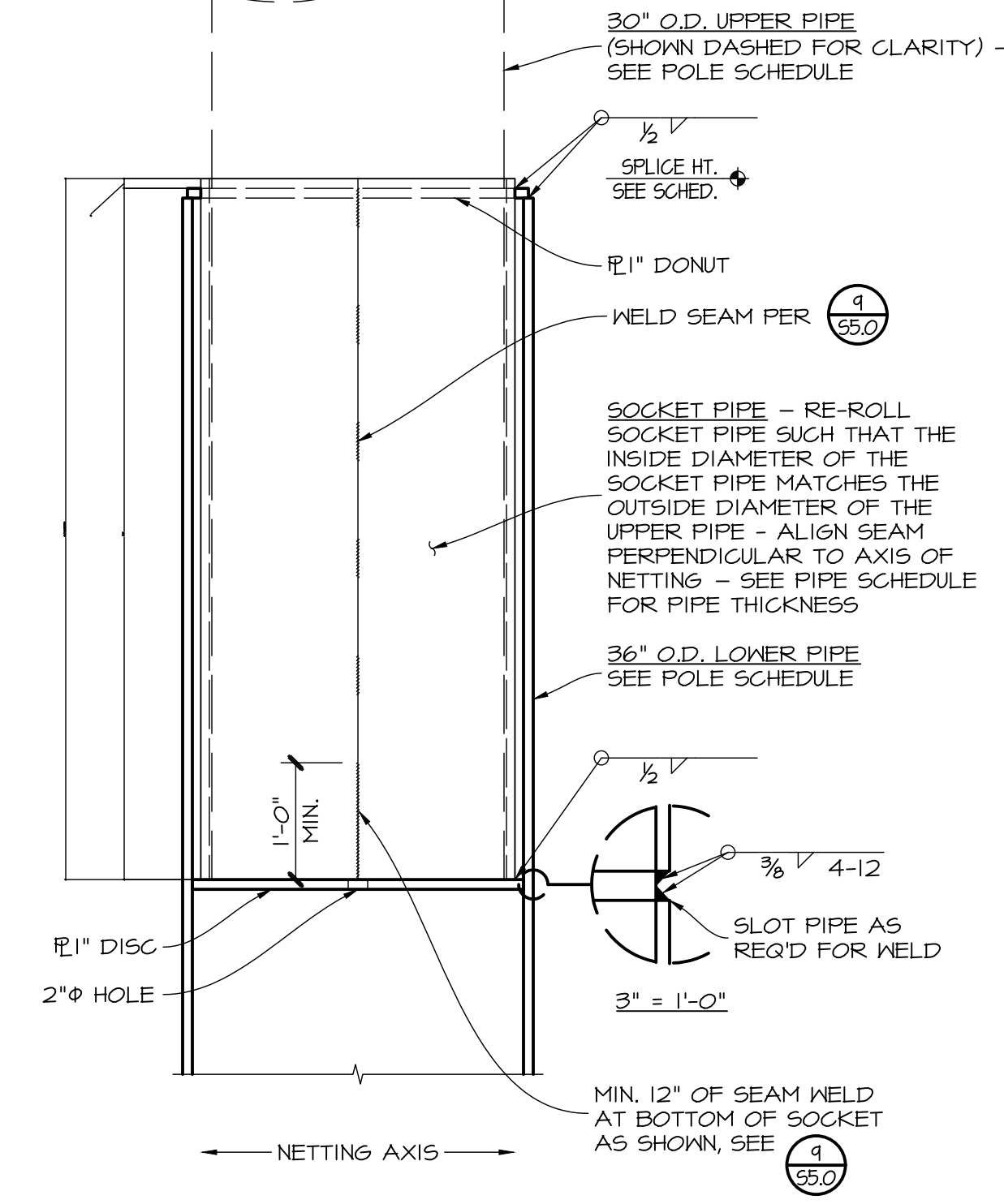
PRELIM - FOR PRICING
06/18/2025

DATE	ISSUED FOR	ENGEL & COMPANY Engineers 4009 UNION AVENUE BAKERSFIELD, CA 93305 www.engelengineers.com (661) 327-7025	DRAWN BAG	Pole Elevations Golf Netting Barrier CN Catoosa CDC Golf Barrier 19244 Country Club Drive Catoosa, OK 74015	SHEET NO. S21
			DATE 6/13/25		
			CHECKED BC		
			APPROVED		

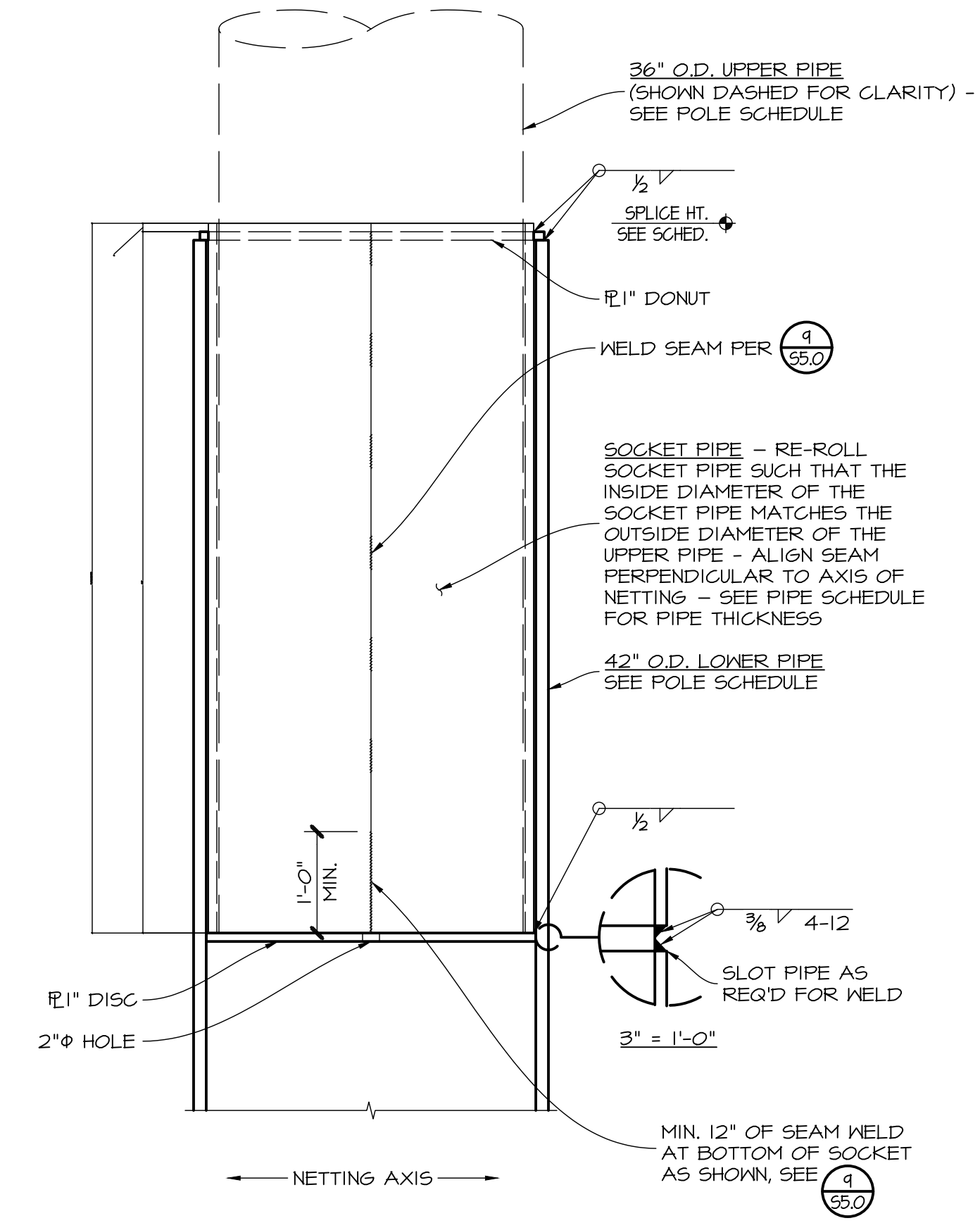
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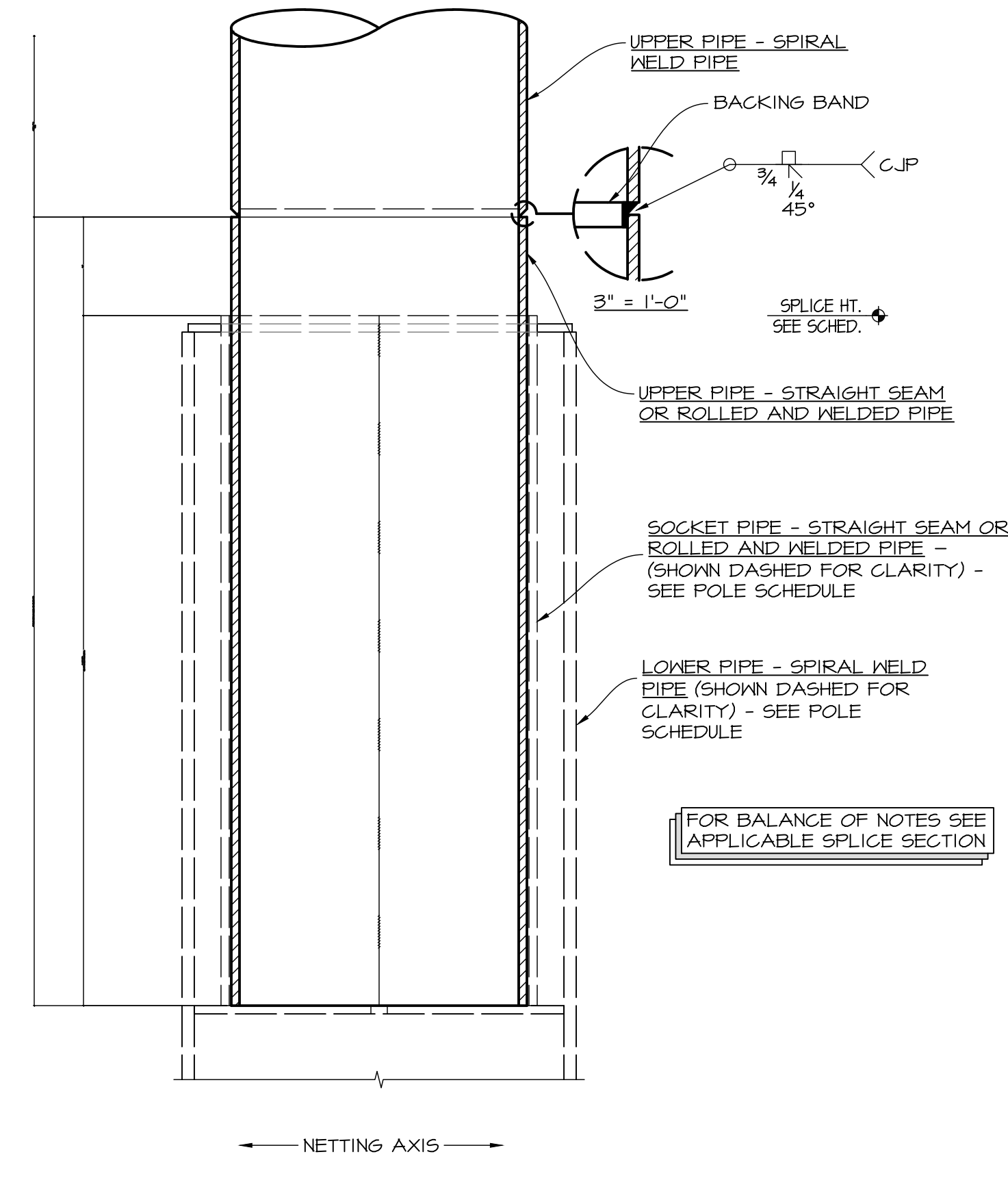
1 30 INCH TO 16 INCH POLE SPLICE
DETAIL
SEE SCHEDULE FOR SPLICE LOCATIONS 3/4" = 1'-0"



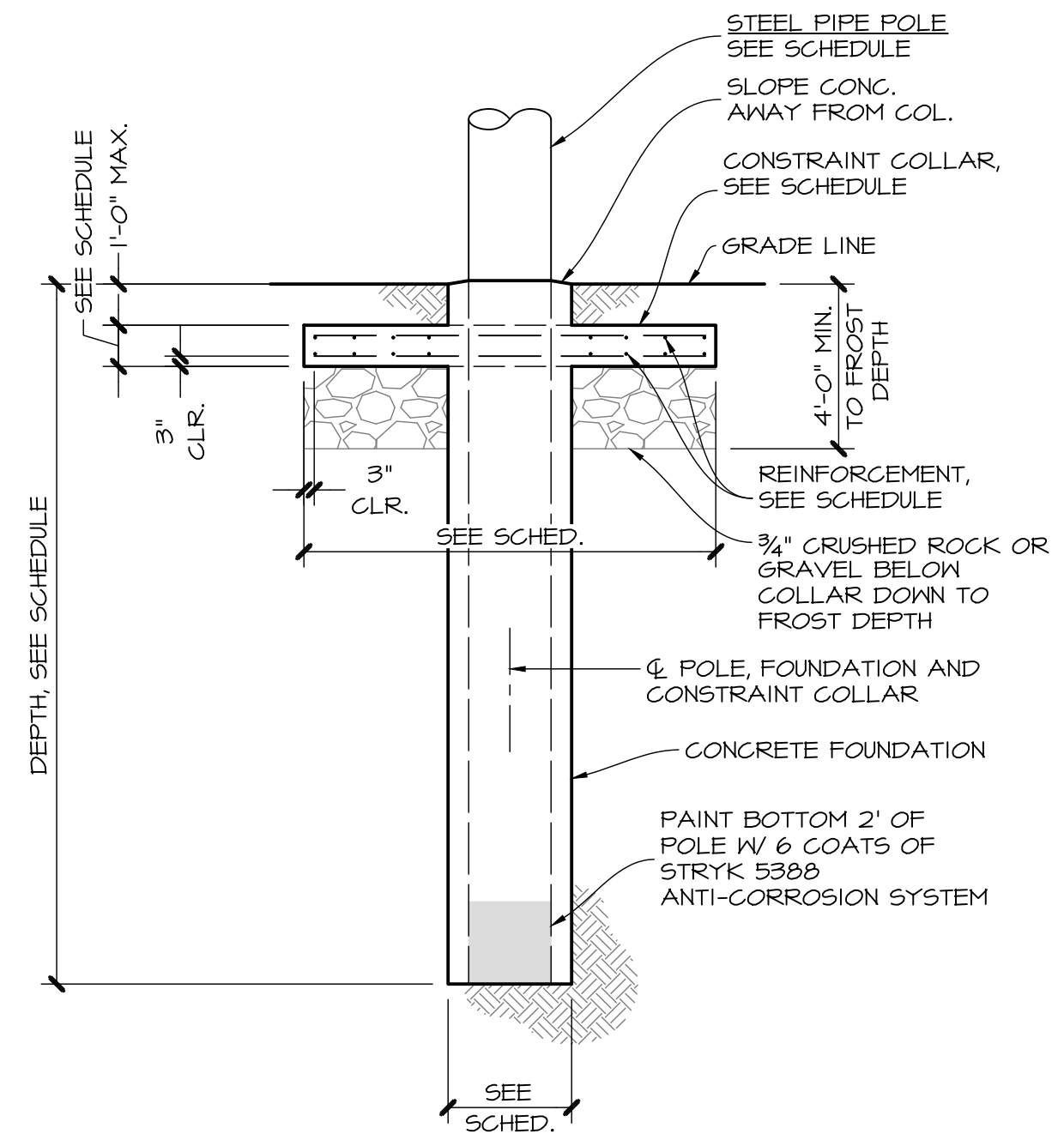
2 36 INCH TO 30 INCH POLE SPLICE
DETAIL
SEE SCHEDULE FOR SPLICE LOCATIONS 3/4" = 1'-0"



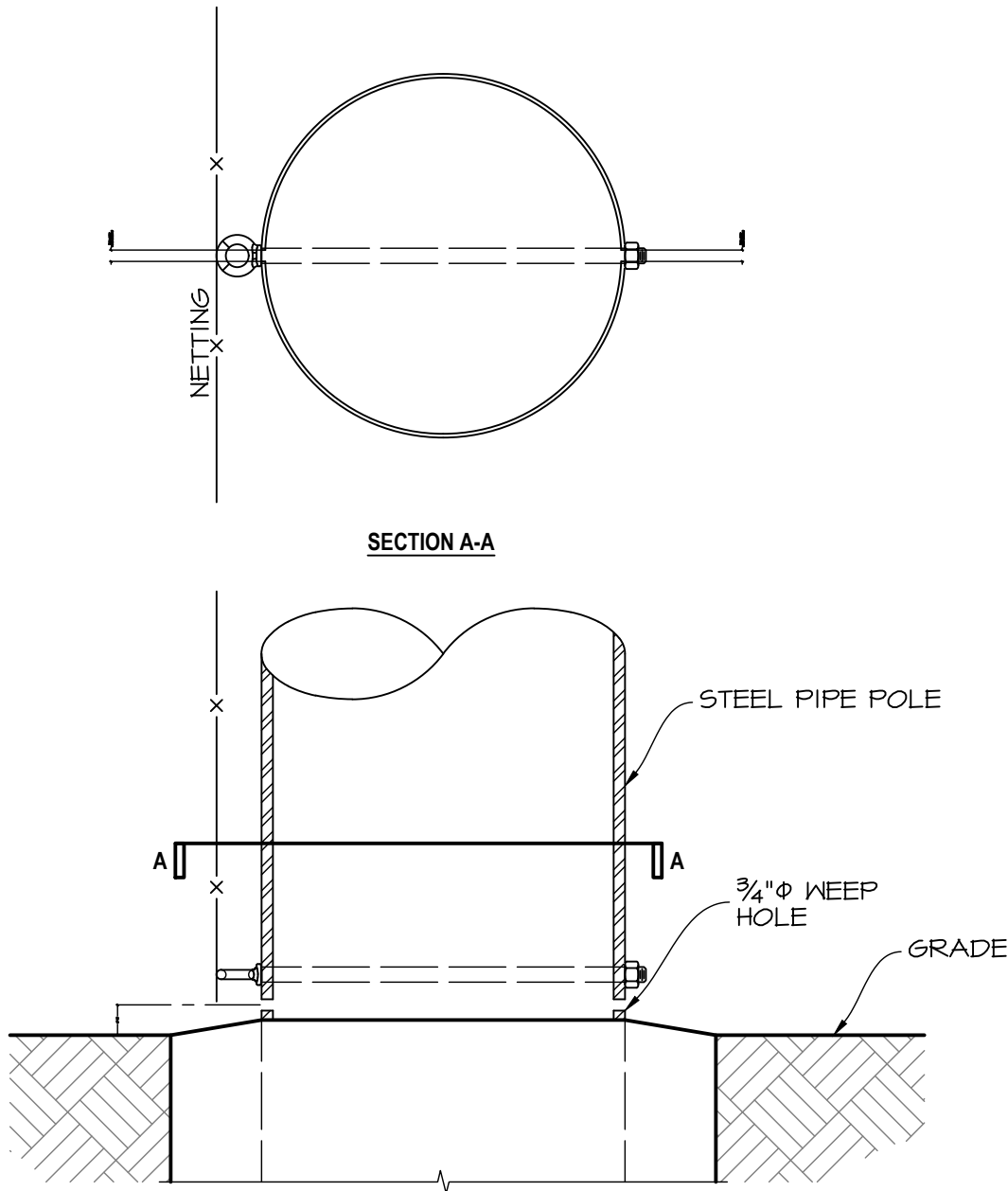
3 42 INCH TO 36 INCH POLE SPLICE
DETAIL
SEE SCHEDULE FOR SPLICE LOCATIONS 3/4" = 1'-0"



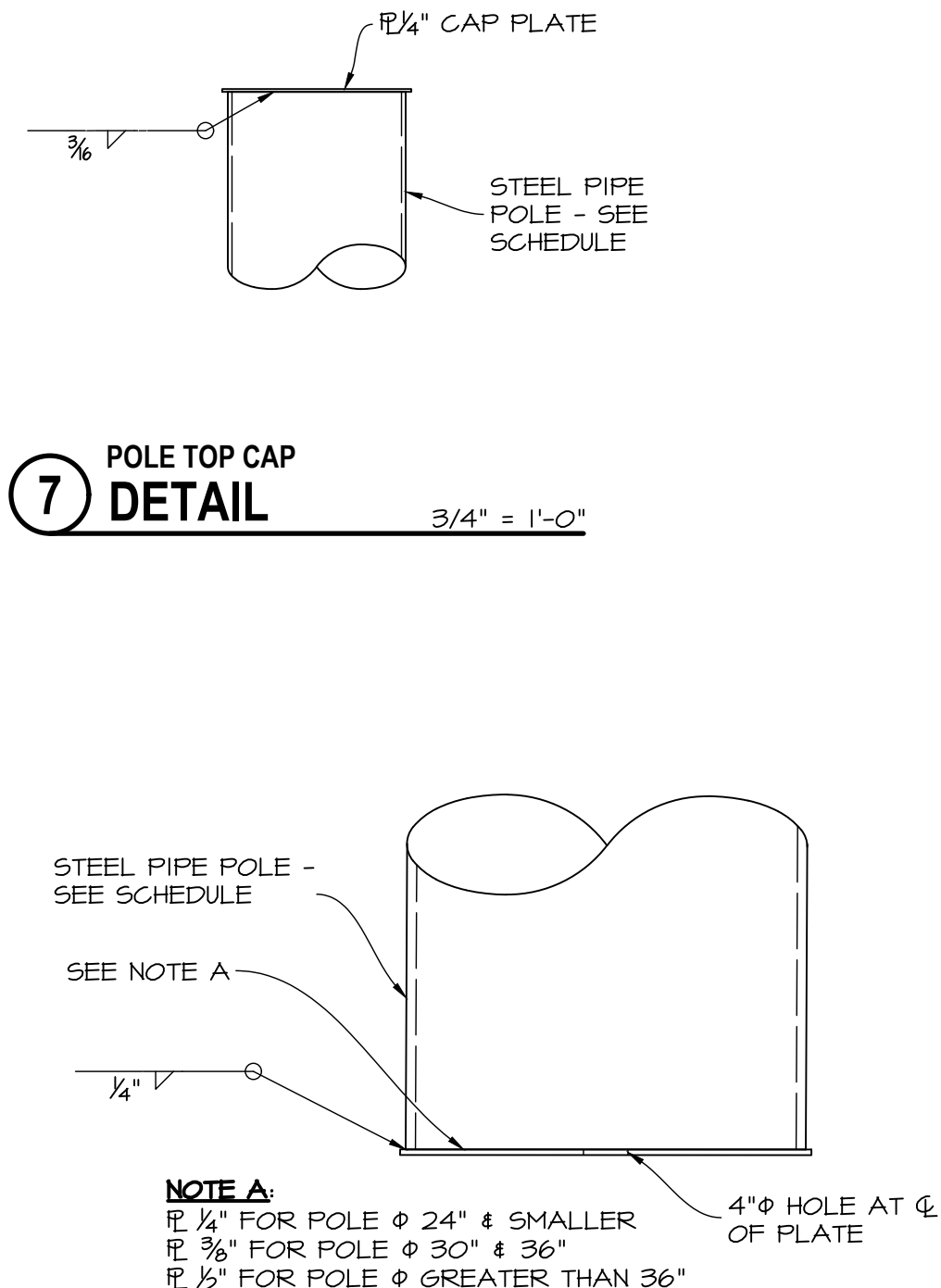
4 SPIRAL WELD TO STRAIGHT SEAM OR ROLLED PIPE
DETAIL
SEE SCHEDULE FOR SPLICE LOCATIONS 3/4" = 1'-0"



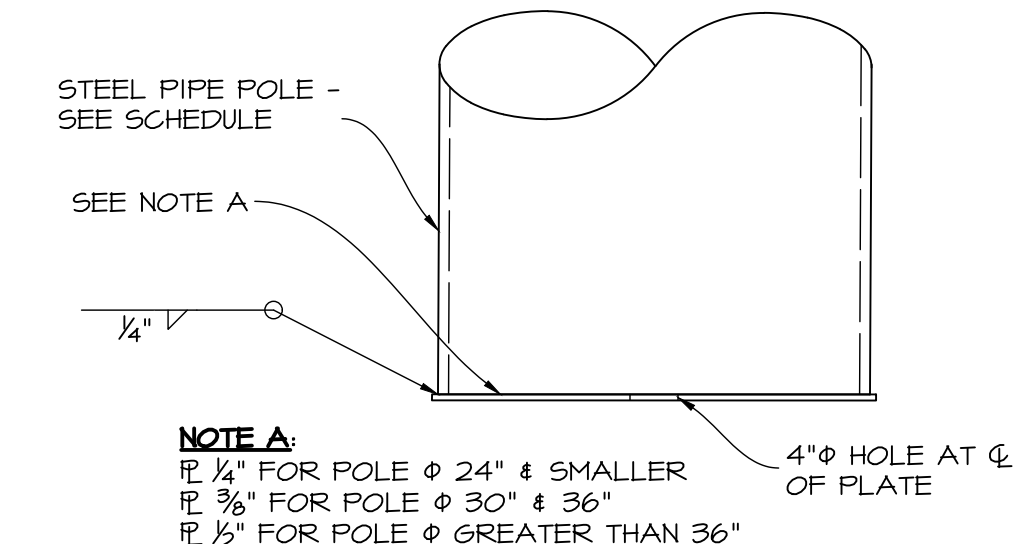
5 POLE FOUNDATION
DETAIL
1/4" = 1'-0"



6 WEEP HOLE
DETAIL
1" = 1'-0"
* WEEP HOLE TO BE INSTALLED PERPENDICULAR TO AXIS OF NETTING

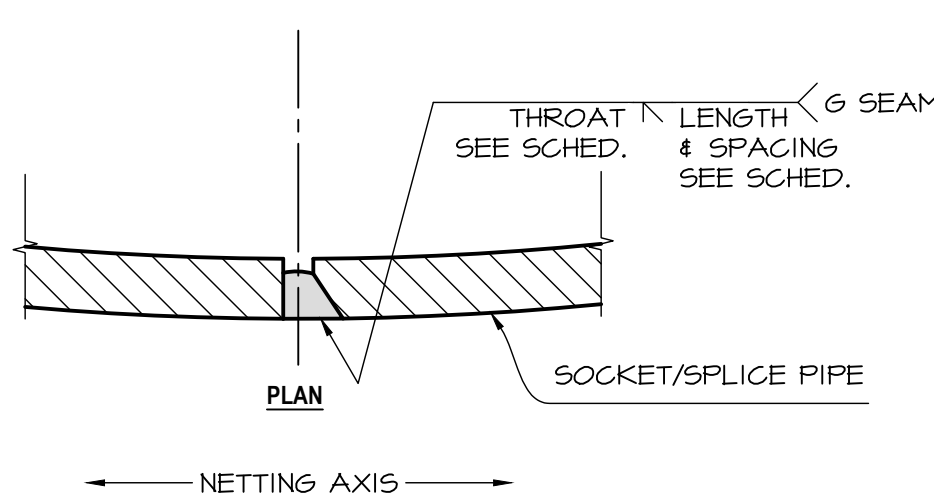


7 POLE TOP CAP
DETAIL
3/4" = 1'-0"

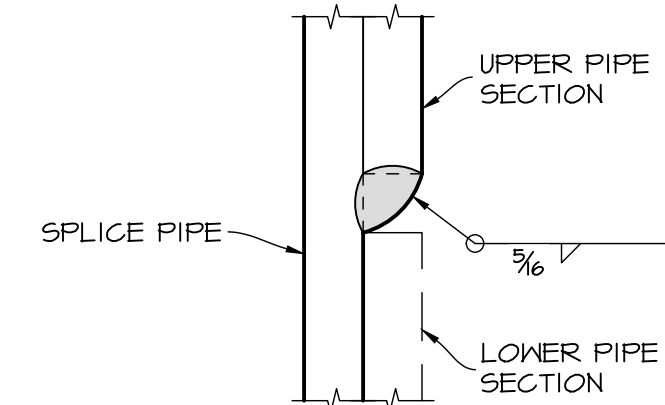


8 POLE BASE CAP
DETAIL
3/4" = 1'-0"

SEAM WELD SCHEDULE			
SOCKET SPLICE THICKNESS	MIN. THROAT REQUIRED	WELD LENGTH	WELD SPACING
3/16" WALL AND SMALLER	1/4"	3"	12" O.C.
500" WALL	3/8"	4"	12" O.C.
625" WALL	7/16"	4"	12" O.C.
750" WALL	1/2"	4"	12" O.C.



9 SINGLE SEAM WELD
DETAIL
N.T.S.
- ALIGN SEAM PERPENDICULAR TO AXIS OF NETTING
- SEE PIPE SCHEDULE FOR PIPE THICKNESS

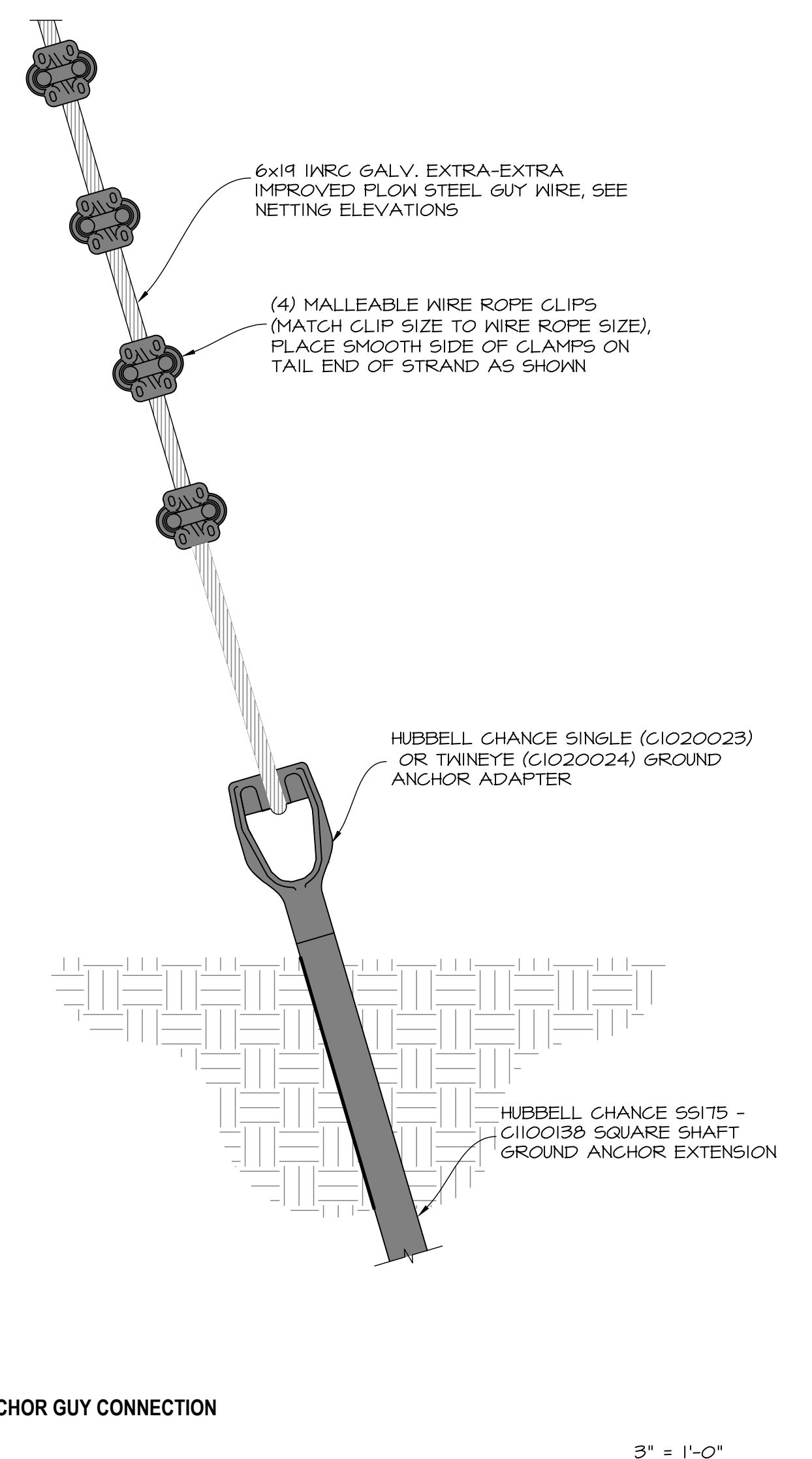
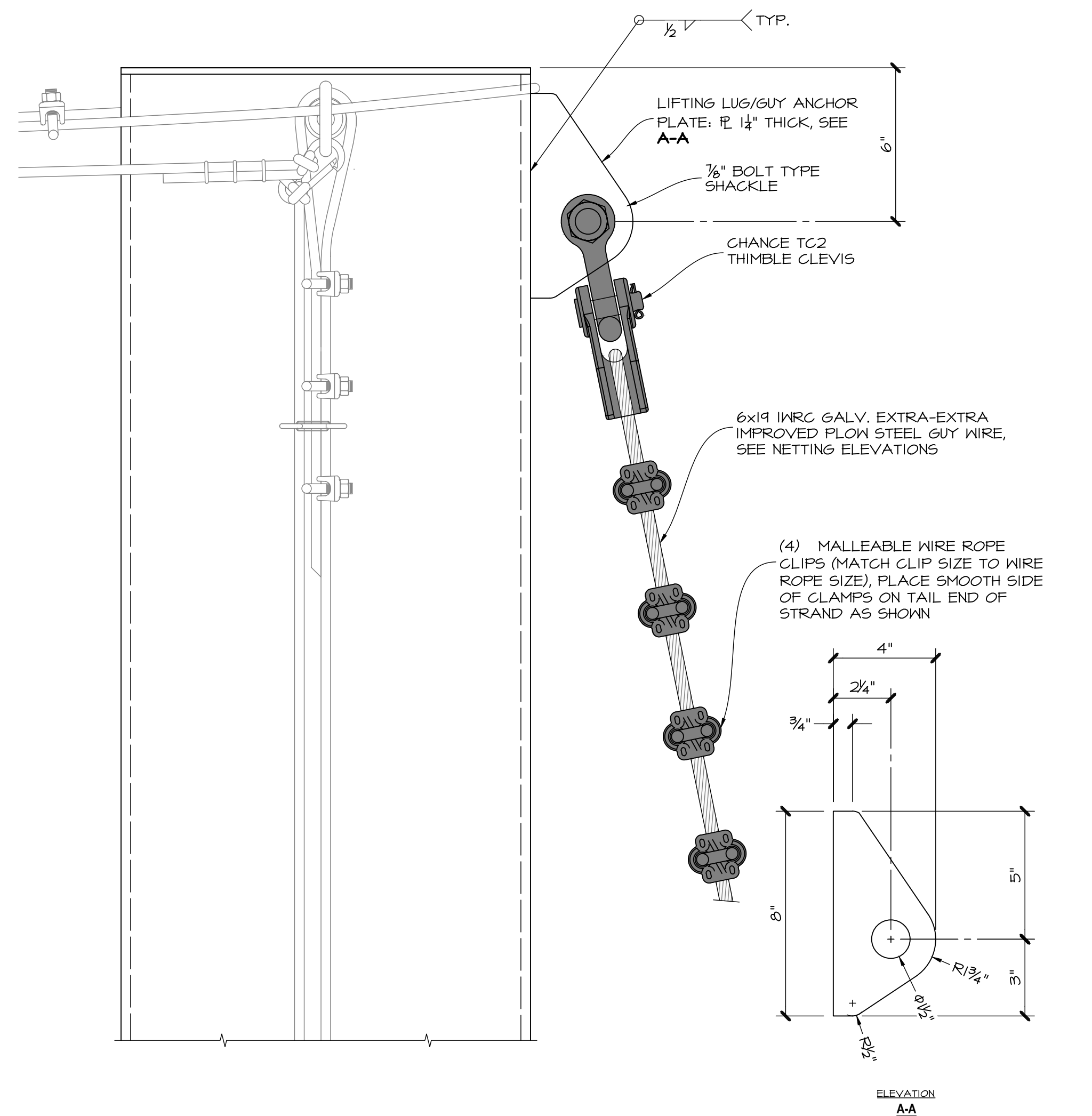
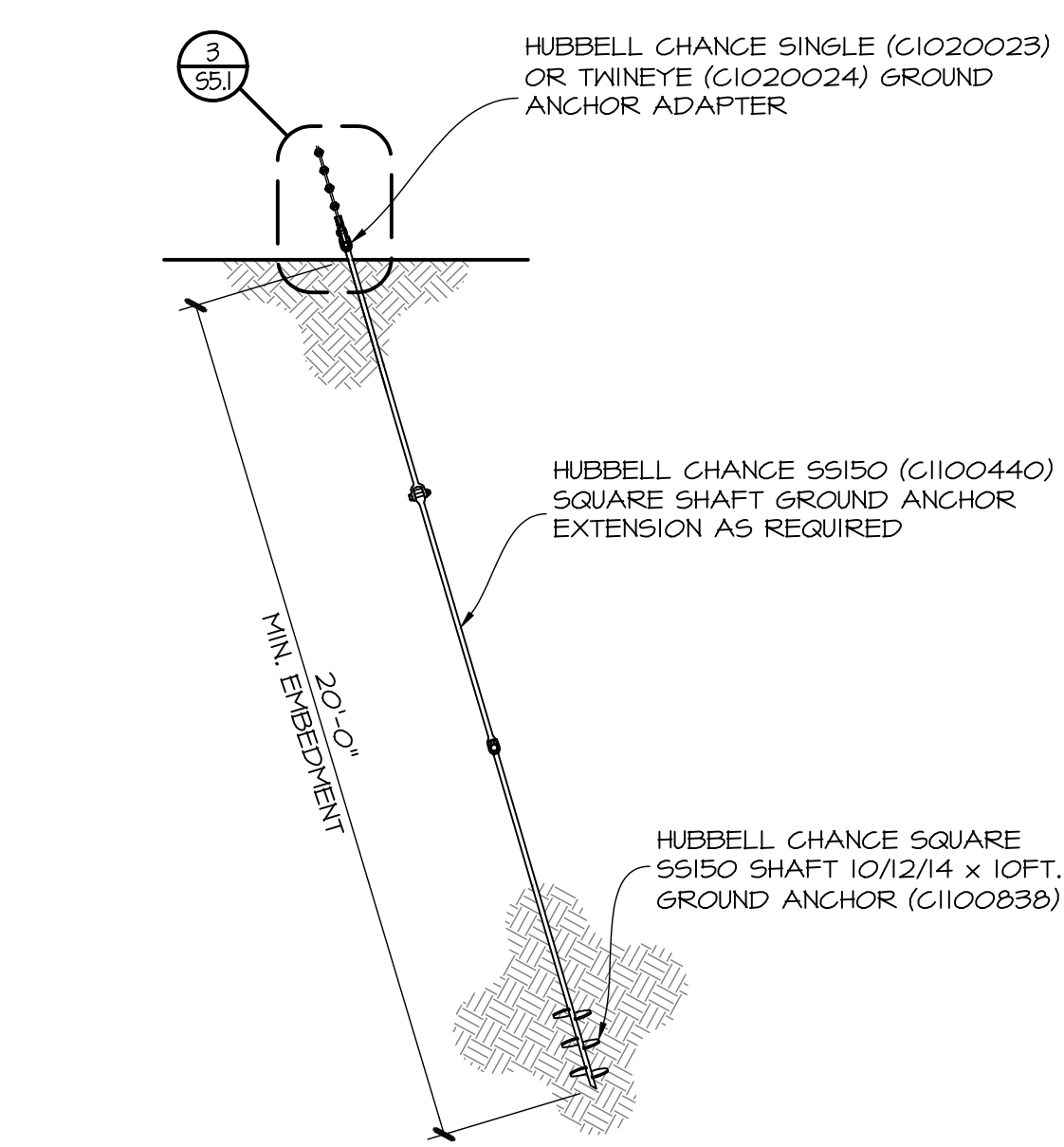
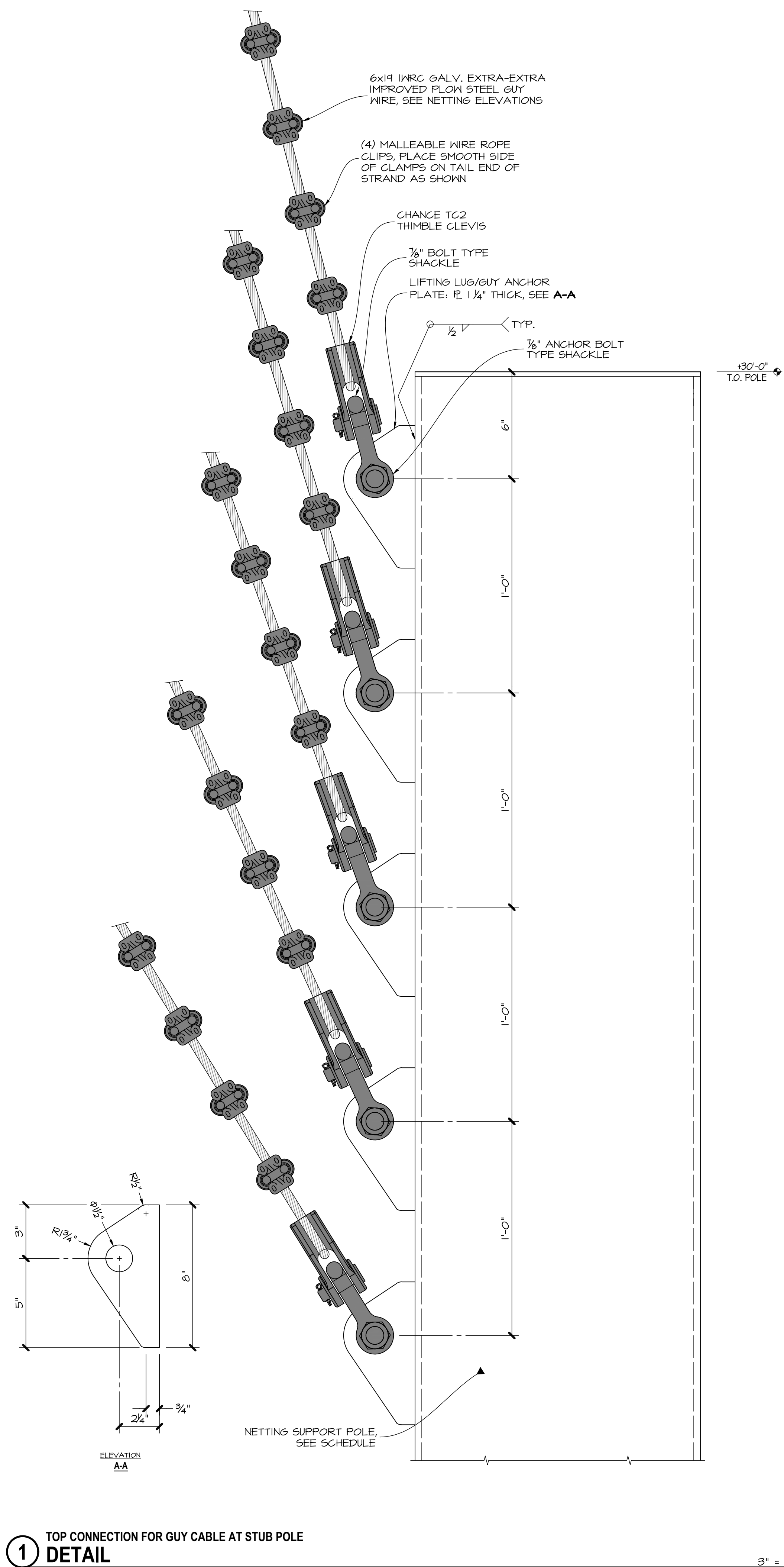


10 SLIP JOINT SPLICE WELD
DETAIL
N.T.S.

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ENGEL & COMPANY Engineers 4009 UNION AVENUE BAKERSFIELD, CA 93305 www.engelengineers.com (661) 327-7025		DRAWN BAG DATE 6/13/25 CHECKED EC APPROVED	Pole Details Golf Netting Barrier CN Catoosa CDC Golf Barrier 19244 Country Club Drive Catoosa, OK 74015	SHEET NO. S5.0
DATE	ISSUED FOR			



File: p:\blue river architects, llc\25412 - cn catoosa cdc golf barrier\Drawings\25412SS1.dwg layout: 25412SS1 scale: 1 by: BC date: 6/18/2025 4:39 PM

NOT FOR CONSTRUCTION PRELIM - FOR PRICING
06/18/2025

		ENGEL & COMPANY <i>Engineers</i> 4009 UNION AVENUE BAKERSFIELD, CA 93305 www.engelengineers.com (661) 327-7025	DRAWN BAG	Connection Details Golf Netting Barrier CN Catoosa CDC Golf Barrier 19244 Country Club Drive Catoods, OK 74015	SHEET NO. S5.1 OF
			DATE 6/13/25		
			CHECKED BC		
DATE	ISSUED FOR		APPROVED -		



PART SCHEDULE (EQUAL OR EXCEED

- ① 3/4" GALV. D.A. BOLT w/ NUT
- ② 1/2x3/4 x 0'-3" GALV. CURVE WASHER
- ③ 3/4" GALV. THIMBLEYE NUT
- ④ GALV. DOWN GUY ATTACHMENT

- (5) 3/4" GALV. SPRING WASHER
- (6) 3/8" 7x19 GALV. WIRE ROPE
- (7) **3/8" (4) GALV. MALLEABLE WIRE ROPE CLIP
- (8) 6x19 EXTRA EXTRA IMPROVED PLOW GALV. WIRE ROPE

- ** INSTALL CLIPS PER MFR'S INSTRUCTION MANUAL
* INDICATES BOTH SIDE

- | | | | |
|------|--|------|---|
| (9) | (4) GALV. MALLEABLE WIRE ROPE CLIP | (15) | 3/8" T x 19 GALV. WIRE ROPE |
| (10) | 7/8" BOLT TYPE SHACKLE | (14) | **3/8" (4) GALV. MALLEABLE WIRE ROPE CLIP, (3) CLIPS ON VERTICAL LINES ONLY |
| (11) | CHANGE TC2 THIMBLE CLEVIS | | |
| (12) | HUBBELL POWER SYSTEMS - CHANGE 7404 CLAMP W/ 3/4" Φ MOUNTING BOLTS. OMIT OUTER BOLTS AND NUTS TO AVOID ROPE WEAR AND TEAR | | |

- ⑮ 3/8" 1X7 GALV. STAND

Diagram illustrating a 3-phase 3-wire system with a center tap. The top line pole is connected to phases 12, 4, 1, 2*, and 5*. The center tap is connected to phase 6. The bottom line pole is connected to phases 14 and 13.

TOP ANGLE POLE

TOP END POLE

The diagram shows a horizontal line with several vertical lines intersecting it. There are 15 numbered nodes:

- Node 15 is on the leftmost vertical line, below the horizontal line.
- Node 12 is on the second vertical line from the left, above the horizontal line.
- Node 13 is on the second vertical line from the left, below the horizontal line.
- Node 14 is on the third vertical line from the left, above the horizontal line.
- Node 1 is on the third vertical line from the left, above the horizontal line, to the right of node 14.
- Node 2 is on the third vertical line from the left, above the horizontal line, to the right of node 1.
- Node 5 is on the third vertical line from the left, above the horizontal line, to the right of node 2.
- Node 6 is on the third vertical line from the left, above the horizontal line, to the right of node 5.
- Node 3 is on the third vertical line from the left, above the horizontal line, to the right of node 6.
- Node 4 is on the third vertical line from the left, above the horizontal line, to the right of node 3.
- Node 7 is on the third vertical line from the left, above the horizontal line, to the right of node 4.
- Node 8 is on the third vertical line from the left, above the horizontal line, to the right of node 7.
- Node 9 is on the third vertical line from the left, above the horizontal line, to the right of node 8.
- Node 10 is on the third vertical line from the left, above the horizontal line, to the right of node 9.
- Node 11 is on the third vertical line from the left, above the horizontal line, to the right of node 10.

INTERMEDIATE ANGLE POLE

INTERMEDIATE END POLE

BOTTOM LINE POLE

BOTTOM ANGLE POLE

BOTTOM END POLE

2 TYPICAL CABLE ATTACHMENT DETAIL

* ALL HARDWARE CONNECTION HOLES TO BE 1/8"Ø MAG DRILLED

1" = 1'-0"

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06/18/2025

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CONSTRUCTION**

		ENGEL & COMPANY <i>Engineers</i> 4009 UNION AVENUE BAKERSFIELD, CA 93305 www.engelengineers.com (661) 327-7025	DRAWN BAG	Connection Details		
			DATE 6/13/25	Golf Netting Barrier		SHEET NO.
			CHECKED BC	CN Catoosa CDC Golf Barrier		S5.2 . OF .
			APPROVED .	19244 Country Club Drive Catoos, OK 74015		
DATE	ISSUED FOR					

SECTION 11 6833
ATHLETIC FIELD NETTING SYSTEM

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Provide equipment and materials, and perform work necessary to furnish and install the Netting System as indicated on the Drawings and as specified herein.
 - 1. Golf Netting System
 - a. Work includes the design, engineering, and installation of all system components required for system to function properly including but not limited to netting, attachments, poles, and foundations.

1.02 RELATED SECTIONS

- A. 00 3100 Available Project Information
 - 1. Geotechnical Report
 - 2. Ball Trajectory/ Netting Plan Study by Tanner Consulting Group, dated 11/13/2024
- B. 03 3000 Cast-in-Place Concrete
- C. 31 2001 Structural Earth Moving

1.03 REFERENCES

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.
 - 1. International Association of Athletics Federations (IAAF)
 - 2. American Sports Builders Association (ASBA)
 - 3. Manufacturers Data and Recommended Installation Requirements

1.04 SUBMITTALS

- A. Manufacturer's Product Data
 - 1. Provide manufacturer's product data for review prior to actual field installation work.
- B. Color samples of manufacturer's full color range of finishes for review and approval.
- C. Shop Drawings
 - 1. Provide drawings of the manufacturer's installation and foundation requirements for review prior to field installation work.
 - 2. Drawings shall be stamped and sealed by a Licensed Professional Engineer of Record in the State of Project Location.

1.05 QUALITY ASSURANCE

- A. Manufacturer's warranties shall be submitted and certification made that the product materials meet applicable grade trademarks and conform to industry standards and inspection requirements. The Manufacturer shall have a current American Sports Builders Association (ASBA) Supplier Certificate of Distinction designation.
- B. Installer to be a licensed contractor for specified work
- C. Installer to have a minimum of three (3) projects of similar size and scope

1.06 PRODUCT DELIVERY AND STORAGE

- A. Materials delivered to the site shall be examined for damage or defects in shipping. Any defects shall be noted and reported to the Architect. Replacements shall be immediately re-ordered, so as to minimize any conflict with the construction schedule. Sound materials shall be stored above ground under protective cover or indoors so as to provide proper protection.

PART 2 PRODUCTS

2.01 NETTING SYSTEM

- A. By LFS Sports & Industrial Netting or Approved equal

B. Components:

1. Netting
 - a. Netting Component
 - 1) #930, LFS Knotless polyester netting; 1" mesh size
 - 2) Long stitch knotless join
 - 3) U.V. treated yarn
 - 4) Resin dye and bonding treatment
 - 5) 116.7 lb. Average single mesh break strength
 - 6) Weight factor: 40.0 square feet = 1-lb.
 - b. Attachment Twine / Hanging Twine
 - 1) #48 Braided polyester twine
 - 2) 375 lb. Tensile strength
 - 3) Dye treated
 - c. Perimeter Border Ropes & Riblines
 - 1) Braided synthetic cover
 - 2) Parallel synthetic core
 - 3) 3,500 lb. Tensile strength
 - 4) 2,455 Wet abrasion cycles
 - d. Accessories
 - 1) RS3 Breakaway Carabiners
2. Cable
 - a. 6x19 Galvanized wire rope
 - 1) 3/8" diameter - horizontal and vertical cables

2.02 POLES

- A. Per engineering specifications for pipe diameter and wall thickness.
- B. Paint
 1. Properly prepare pipe prior to coating and painting
 2. Carboline Carbozinc or Approved equal

2.03 CHAIN LINK

- A. 48" tall chain link to be provided along bottom of structure for the entire length of the system
- B. 11 gauge, vinyl coated finish, fused and bonded – 8 gauge wire core chain link mesh.
 1. 1" mesh – knuckle-knuckle finish black
 2. 2-3/8" diameter, heavy duty line posts, SS40, vinyl coated, black
 3. 2-3/8" heavy duty brace bands and tension bands, vinyl coated, black
 4. Heavy duty carriage bolts, hot dip galvanized
 5. 11 gauge minimum, wire ties

2.04 ANCHORS

- A. Guy Wires and Helical Anchors to be provided at end poles and angle poles as needed.
- B. Hubbell-Chance SS175 – Square Shaft
- C. 14/14/14 x 10' ground anchor – C1100505

PART 3 EXECUTION

3.01 INSTALLATION OF EQUIPMENT

- A. Netting Systems and Accessories shall be installed as required per manufacturer's written directions and as indicated on the engineered shop drawings.

END OF SECTION