GENERAL NOTES

1. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED, AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF FLORIDA.
2. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2014 (5TH EDITION) EDITION.
3. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH ANSI/TIA-1019-A "STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS".
4. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR THE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
7. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OR FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
8. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE THE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATION, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
10. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
11. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
12. IF APPLICABLE, ALL CONCRETE WORK SHALL COMPLY TO LOCAL CODES AND THE ACI 318-05, "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
13. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY, OR CITY) ENGINEER.
14. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
15. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION, NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLY FOR CONTACT BY COVERING AGENCY INSPECTORS.

STRUCTURAL STEEL NOTES

1. THE FEBRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN, 13th EDITION.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
   STRUCTURAL STEEL:
   - ANGLE: ASTM A36
   - PIPE/TUBE: ASTM A500-50
   - PLATE: ASTM A36 (SELF SUPPORTING AND GUYED TOWERS)
   - PLATE: ASTM A572-65 (MONOPOLE)

   A. ALL BOLTS, ASTM A325 TYPE 1 GALVANIZED HIGH STRENGTH BOLTS.
   B. ALL U-BOLTS, ASTM A193 GRADE
3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANDCE WITH AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN, 13TH EDITION.
4. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER.
5. HOT-DIP CALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE.
6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE; MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL.
7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
8. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
10. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.

BOLT TIGHTENING PROCEDURE

1. TIGHTENING CONNECTION BOLTS BY AISC - "TURN OF THE NUT" METHOD, USING THE CHART BELOW.

   - BOLT LENGTHS UP TO AND INCLUDING FOUR DIA.

3/8" BOLTS UP TO AND INCLUDING 1.5" LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1/2" BOLTS UP TO AND INCLUDING 2.0" LENGTH	+1/3 TURN BEYOND SNUG TIGHT
5/8" BOLTS UP TO AND INCLUDING 2.5" LENGTH	+1/3 TURN BEYOND SNUG TIGHT
3/4" BOLTS UP TO AND INCLUDING 3.0" LENGTH	+1/3 TURN BEYOND SNUG TIGHT
7/8" BOLTS UP TO AND INCLUDING 3.5" LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1" BOLTS UP TO AND INCLUDING 4.0" LENGTH	+1/3 TURN BEYOND SNUG TIGHT

   - BOLT LENGTHS OVER FOUR DIA. BUT NOT EXCEEDING EIGHT DIA

3/8" BOLTS 1.75" TO 3.0" LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1/2" BOLTS 2.25" TO 4.0" LENGTH	+1/2 TURN BEYOND SNUG TIGHT
5/8" BOLTS 2.75" TO 5.0" LENGTH	+1/2 TURN BEYOND SNUG TIGHT
3/4" BOLTS 3.25" TO 6.0" LENGTH	+1/2 TURN BEYOND SNUG TIGHT
7/8" BOLTS 3.75" TO 7.0" LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1" BOLTS 4.25" TO 8.0" LENGTH	+1/2 TURN BEYOND SNUG TIGHT

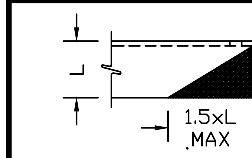
2. CONNECTION BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTIONS 8.2.1 OF THE AISC SPECIFICATION FOR STRUCURAL JOINTS USING A325 OR A490 BOLTS, LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:

3. FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8.2.1 THROUGH 8.2.4

   - 8.2.1 TURN-OF-THE-NUT TIGHTENING
   BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1, UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT IN A MANNER THAT WILL MINIMIZE RELAXATION OF PREVIOUSLY PRETENSIONED BOLTS.

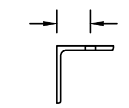
4. ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE SPECIFICATION.

ALLOWED ANGLE COPE



WORKABLE GAGES

LEG	4"	3 1/2"	3"	2 1/2"	2"	1 3/4"
G	2 1/2"	2"	1 3/4"	1 3/8"	1 1/8"	1"



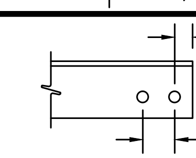
NOTE:
MATCH EXISTING WHEN APPLICABLE

NOMINAL HOLE SIZES

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT
1/2"	9/16"	9/16" X 11/16"
5/8"	11/16"	11/16" X 7/8"
3/4"	13/16"	13/16" X 1"
7/8"	15/16"	15/16" X 1 1/8"
1"	1 1/16"	1 1/16" X 1 5/16"

BOLT EDGE & SPACING

BOLT DIAMETER	MIN. EDGE	SPACING
1/2"	7/8"	1 1/2"
5/8"	1 1/8"	1 7/8"
3/4"	1 1/4"	2 1/4"
7/8"	1 1/2"	2 5/8"
1"	1 3/4"	3"



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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION
GENERAL NOTES

SHEET NUMBER
GN1

REV	DATE	DESCRIPTION
0	12/25/16	SAMPLE DRAWING
1		
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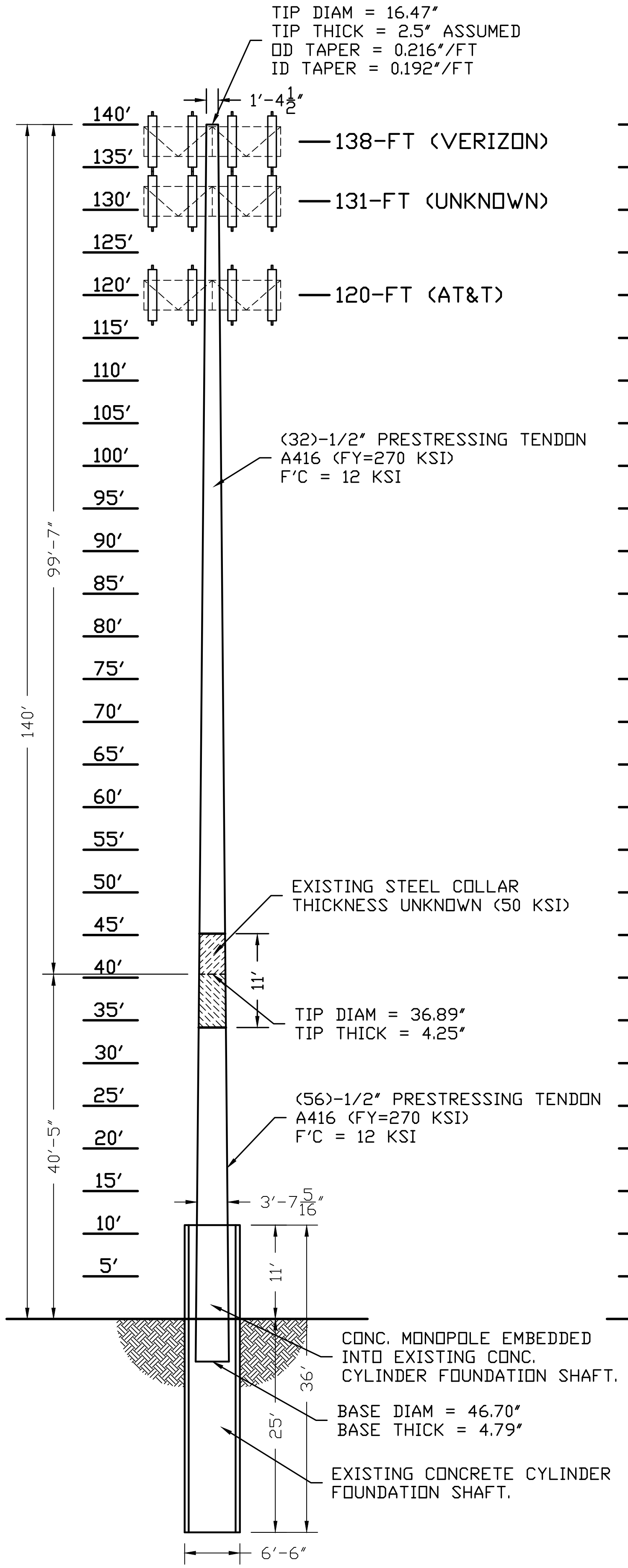
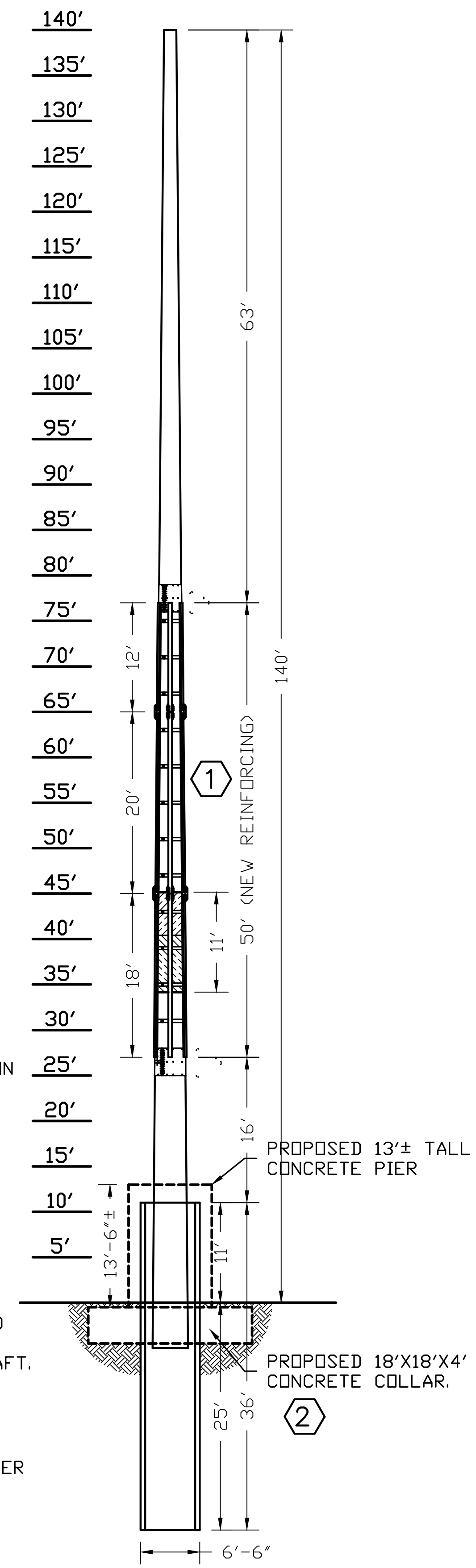
PROJECT NO: 16-???

DRAWN BY:	CHECKED BY:
DFA	



EXISTING MONOPOLE

SCALE: N.T.S.



PROPOSED REINFORCING

SCALE: N.T.S.

DESIGN CRITERIA

ANALYSIS CRITERIA:

Referenced Codes:	Florida Building Code-2014 (5th Edition)	ASCE-7-10	TIA-222-G Addendum-2
Wind Speed:	**Vult =** 136 mph (3 Second Gust)	**Vasd =** 105 mph (3 Second Gust)	
Exposure Category: C	**Structure Class: II**	**Radial Ice Thickness: 0.0"**	
Importance Factor: 1.0	**Topographic Category: I**	**Seismic Response: N/A**	

PROPOSED TOWER LOADING

TABLE 1.1 LC1: APPURTENANCE LOADING

Elev	Status	Carrier	Appurtenance Description	Transmission/Feed Lines
***138'**	**Reserved**	**Verizon**	**(15)-CSS-X7CQAP-86-865**	**(12)-LDF7-50A (1-5/8" Foam) (Inside)**
***138'**	**Reserved**	**Verizon**	**(6)-RRUS-12**	**(12)-LDF7-50A (1-5/8" Foam) (Outside)**
***138'**	**Reserved**	**Verizon**	**(6)-A2 module**	**(6)-1.25" Hybrid (Outside)**
***138'**	**Reserved**	**Verizon**	**(9)-RRUS-32**	
***138'**	**Reserved**	**Verizon**	**(4)-GPS**	
138'	Existing	Verizon	(3)-Sector Mounts	
131'	Existing		(6)-PCSX065-18	(12)-LDF7-50A (1-5/8" Foam) (Inside)
131'	Existing		(6)-TMBA-6517-R2M	(6)-LDF7-50A (1-5/8" Foam) (Outside)
131'	Existing		(9)-TMA	
131'	Existing		(3)-Sector Mounts	
121'	Existing	AT&T	(9)-DBXNH-6565B-R2M	(18)-AVA5-50A (7/8" Foam) (Inside)
~~*121'~~	Remove	AT&T	~~(3)-DBXNH-6565B-R2M~~	(3)-RET Cable (Inside)
***121'**	**Proposed**	**AT&T**	**(3)-SBNHH-1D65B**	(1)-3/8" Fiber Cable (Inside)
121'	Existing	AT&T	(9)-E15S09P78 TMA	(1)-7/8" Power Cable (Inside)
121'	Existing	AT&T	(3)-RRUS-11	
***121'**	**Proposed**	**AT&T**	**(3)-RRUS-11**	
***121'**	**Proposed**	**AT&T**	**(3)-A2 Modules**	**(1)-7/8" Power Cable (Inside)**
***121'**	**Proposed**	**AT&T**	**RRU Mounts**	
121'	Existing	AT&T	(1)-DC6-48-60-18-8F	
121'	Existing	AT&T	(3)-Sector Mounts	

*** Future/Reserved/Proposed/Removed**

1) All existing antennas and locations were obtained from supporting documents. Daniel F. Ardito, PE did not survey this site.

MODIFICATION SCHEDULE

NO.	MODIFICATION DESCRIPTION	ELEVATION (FT.)	DETAIL SHEET
1	REINFORCE EXISTING CONC. MONOPOLE W/ (6)-NEW PL5"X1.5" 50 KSI STEEL PLATES	27 – 77	
2	INSTALL NEW FOUNDATION COLLAR	0	

NOTE:

A. IT'S THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE THE MODIFICATION INSPECTOR/ENGINEER OF RECORD WITH A SEALED CERTIFIED WELD INSPECTION REPORT. THIS REPORT SHALL DOCUMENT THE ENTIRE WELDING PROCESS (PRE/DURING/POST) WITH PROPER PHOTOS. WELDING SHALL CONFORM TO AWS D1.1/S1.1M: 2010 "STRUCTURAL WELDING CODE–STEEL", FOR ADDITIONAL NOTES, SEE WELDING NOTES.

B. ANTENNAS AND OTHER APPURTENANCES MAY NEED TO BE TEMPORARILY REMOVED OR MOVED DURING THE INSTALLATION OF THE MODIFICATIONS SHOWN ABOVE.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

TOWER ELEVATION

SHEET NUMBER

S1

REV	DATE	DESCRIPTION
0	12/25/16	SAMPLE DRAWING
1		
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PROJECT NO: 16-???

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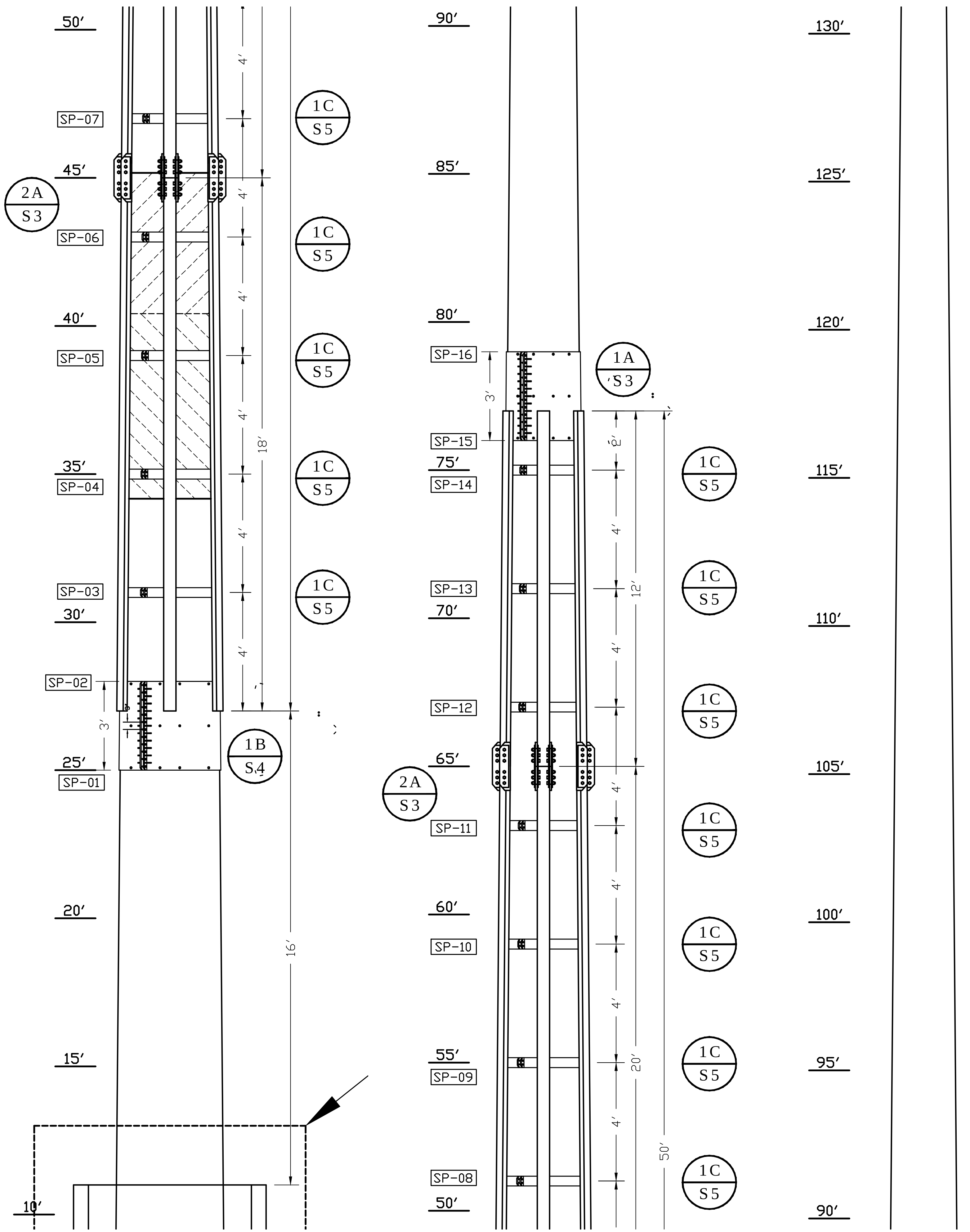
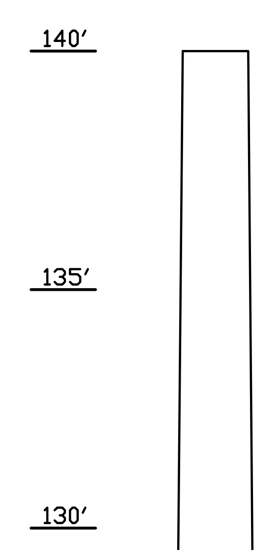
DFA	



SPLICE DESIGN DATA

Splice Location ID	Existing Pole OD (in)	Plate Width (in)	Plate Thick (in)	Note: (3)-Bolt Groups Per Splice — Number of Bolts	Bolt Diam (in)	Bolts Grade	Torque Requirements
SP16	28.978	36	0.5	12	0.75	A325	DTI Washer
SP15	29.594						
SP14	29.799	4	0.375	2	0.625	A325	Snug Tight
SP13	30.619	4	0.375	2	0.625	A325	Snug Tight
SP12	31.439	4	0.375	2	0.625	A325	Snug Tight
SP11	32.259	4	0.375	2	0.625	A325	Snug Tight
SP10	33.079	4	0.375	2	0.625	A325	Snug Tight
SP09	33.900	4	0.375	2	0.625	A325	Snug Tight
SP08	34.720	4	0.375	2	0.625	A325	Snug Tight
SP07	35.540	4	0.375	2	0.625	A325	Snug Tight
SP06	36.360	4	0.375	2	0.625	A325	Snug Tight
SP05	37.198	4	0.375	2	0.625	A325	Snug Tight
SP04	38.068	4	0.375	2	0.625	A325	Snug Tight
SP03	38.939	4	0.375	2	0.625	A325	Snug Tight
SP02	39.591	36	0.5	12	0.75	A325	DTI Washer
SP01	40.244						



WELDING NOTES

1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1/D1.1M: 2008 "STRUCTURAL WELDING CODE–STEEL".
2. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
3. CONTRACTOR SHALL RETAIN AND AWS CERTIFIED WELD INSPECTOR TO PERFORM VISUAL INSPECTIONS ON FIELD WELDS. A LETTER AND REPORT SHALL BE ISSUED TO THE CONTRACTOR. CONTRACTOR SHALL SUBMIT LETTER AND REPORT TO THE ENGINEER OF RECORD.
4. GRIND THE SURFACE ADJACENT TO THE WELD FOR A DISTANCE OF 2" MINIMUM ALL AROUND. GRIND THE SURFACE OF THE ROD TO BE INSTALLED FOR A DISTANCE OF 2" MINIMUM ALL AROUND THE AREA TO BE WELDED. ENSURE BOTH AREAS ARE 100% FREE OF ALL GALVANIZING. SURFACES TO BE WELDED SHALL BE FREE FROM SCALE, SLAG, RUST, MOISTURE, GREASE OR ANY OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING.
5. DO NOT WELD IF THE TEMPERATURE OF THE STEEL IN THE VICINITY OF THE WELD AREA IS BELOW 0°F, PREHEAT AND MAINTAIN THE STEEL IN THE VICINITY OF THE WELD AREA AT 70°F DURING THE WELDING PROCESS.
6. DO NOT WELD ON WET OR FROST–COVERED SURFACES & PROVIDE ADEQUATE PROTECTION FROM HIGH WINDS.
7. FOR ALL WELDING, USE E70XX ELECTRODES.
8. AFTER FINAL INSPECTION, THE AREA OF THE WELDS, THE INSTALLATION AND ALL SURFACES DAMAGED BY WELDING OR GRINDING SHALL RECEIVE A COLD–GALVANIZED COATING. THIS COATING SHALL BE APPLIED BY BRUSH. THE GALVANIZING COMPOUND SHALL CONTAIN A MINIMUM OF 95% ± PURE ZINC. THE FINISHED COATING SHALL BE A MINIMUM THICKNESS OF 3 MILS.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

ENLARGED ELEVATION

SHEET NUMBER

S2

REV	DATE	DESCRIPTION
0	12/25/16	SAMPLE DRAWING
1		
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PROJECT NO: 16-???

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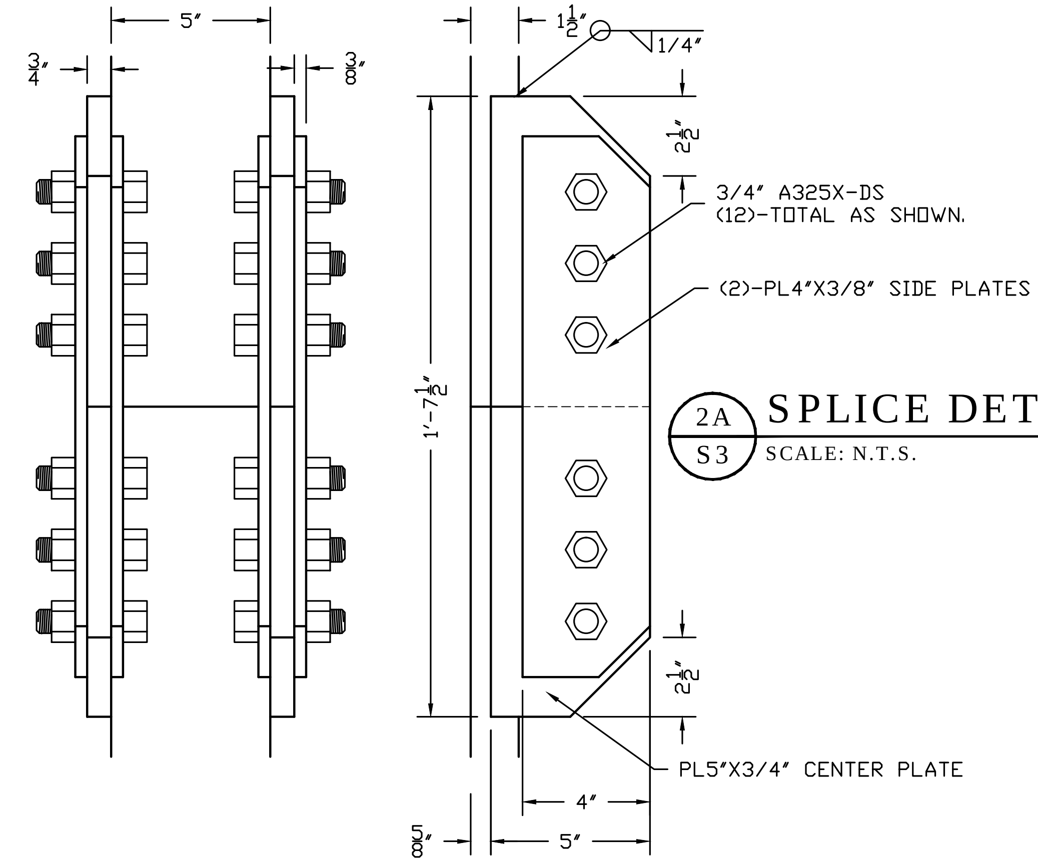
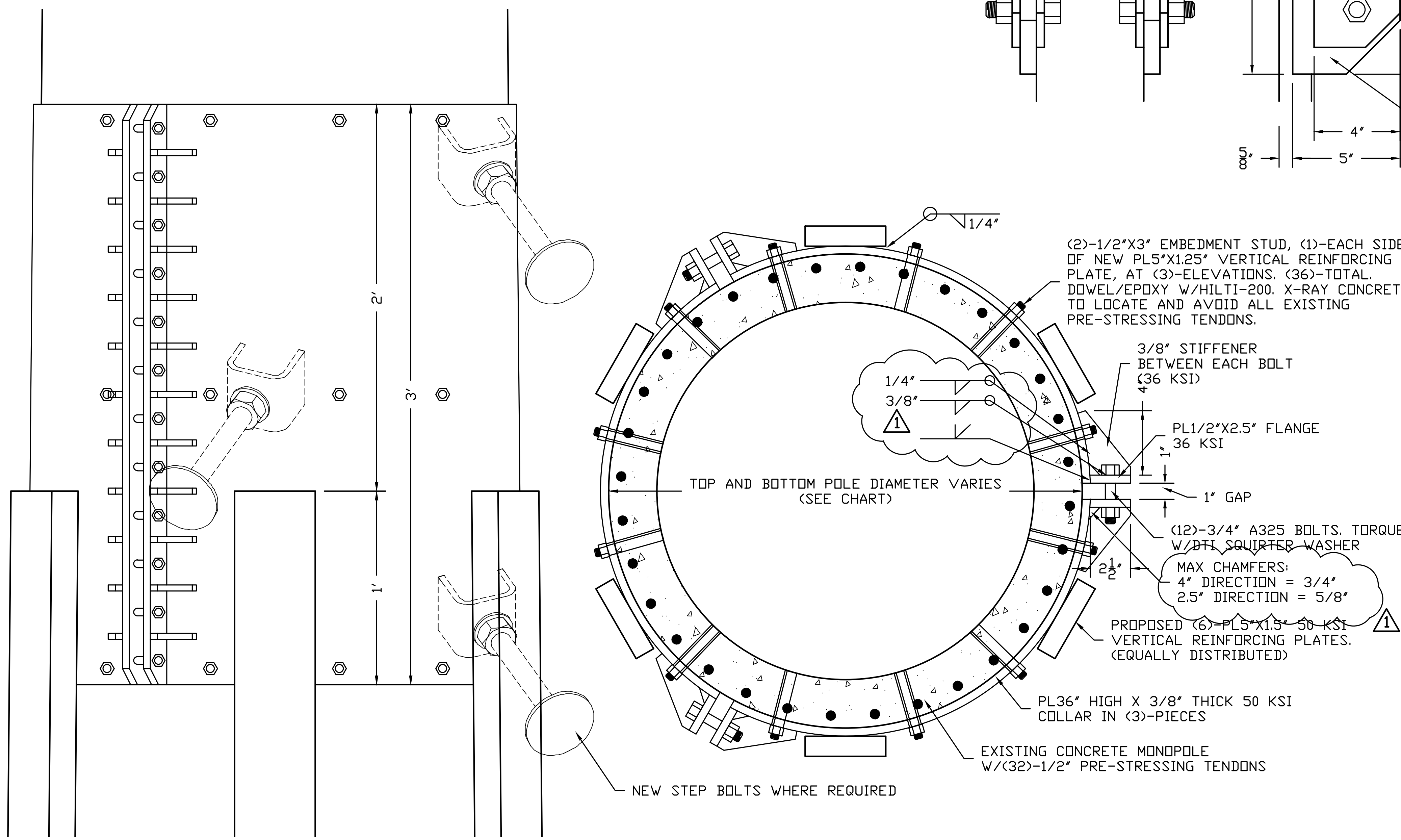
DTI SQUIRTER WASHERS

SLIP CRITICAL CONNECTION NOTES:

1) REMOVE PAINT FROM ALL FRICTION CONTACT SURFACES. (GALVANIZING SHALL NOT BE REMOVED)
2) BOLTS SHALL BE TORQUED WITH SQUIRTER DTI WASHERS SIZED FOR DIAMETER AND GRADE OF THE SPECIFIED BOLT.
3) IT IS HIGHLY RECOMMENDED THAT PICTURES BE TAKEN OF THE FINAL INSTALLED BOLTS WITH SQUIRTER DTI WASHER SILICON VISIBLE.



2A / S3 SPLICE DETAIL
SCALE: N.T.S.



1A / S3 UPPER STEEL COLLAR
SCALE: N.T.S.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

DETAILS

SHEET NUMBER

S3

REV	DATE	DESCRIPTION
0	12/25/16	SAMPLE DRAWING
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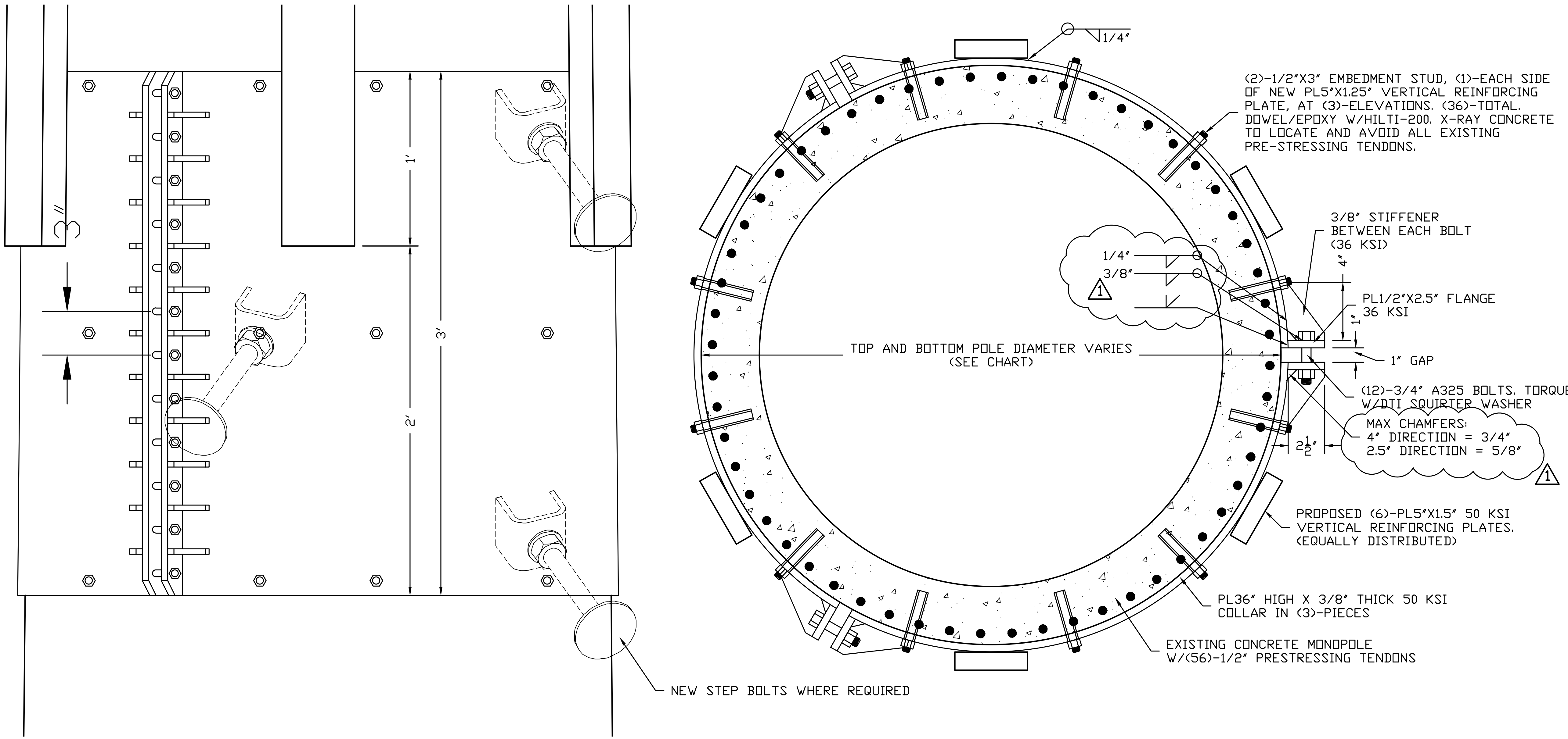
PROJECT NO: 16-???

DRAWN BY:	CHECKED BY:
DFA	



1B
S4
LOWER STEEL COLLAR
SCALE: N.T.S.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

DETAILS

SHEET NUMBER

S4

REV	DATE	DESCRIPTION
0	12/25/16	SAMPLE DRAWING
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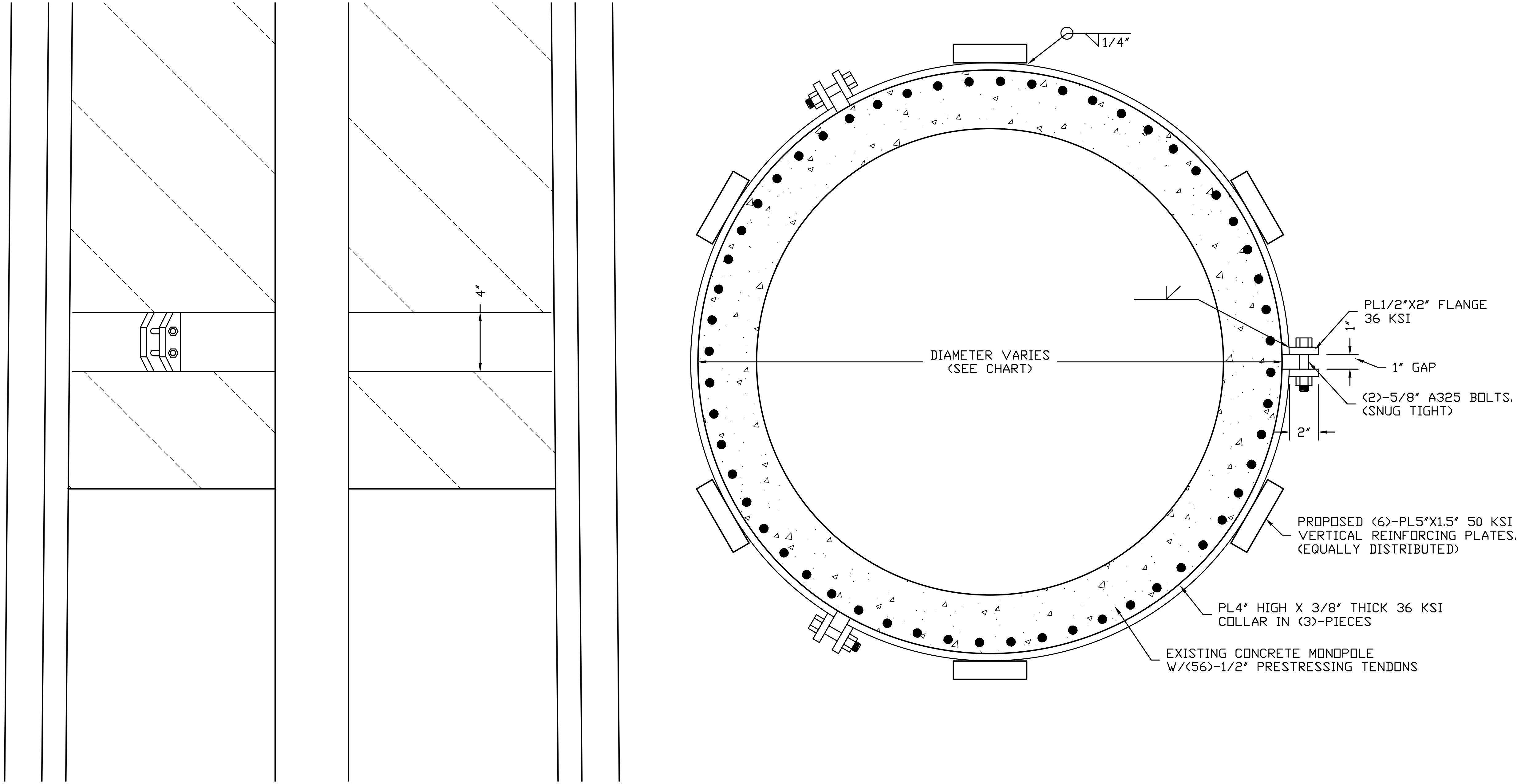
PROJECT NO: 16-???

DRAWN BY:	CHECKED BY:
DFA	



1C / S5 INTERMEDIATE STEEL COLLAR

SCALE: N.T.S.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

DETAILS

SHEET NUMBER

S5

REV	DATE	DESCRIPTION
0	12/25/16	SAMPLE DRAWING
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PROJECT NO: 16-???

DRAWN BY:	CHECKED BY:
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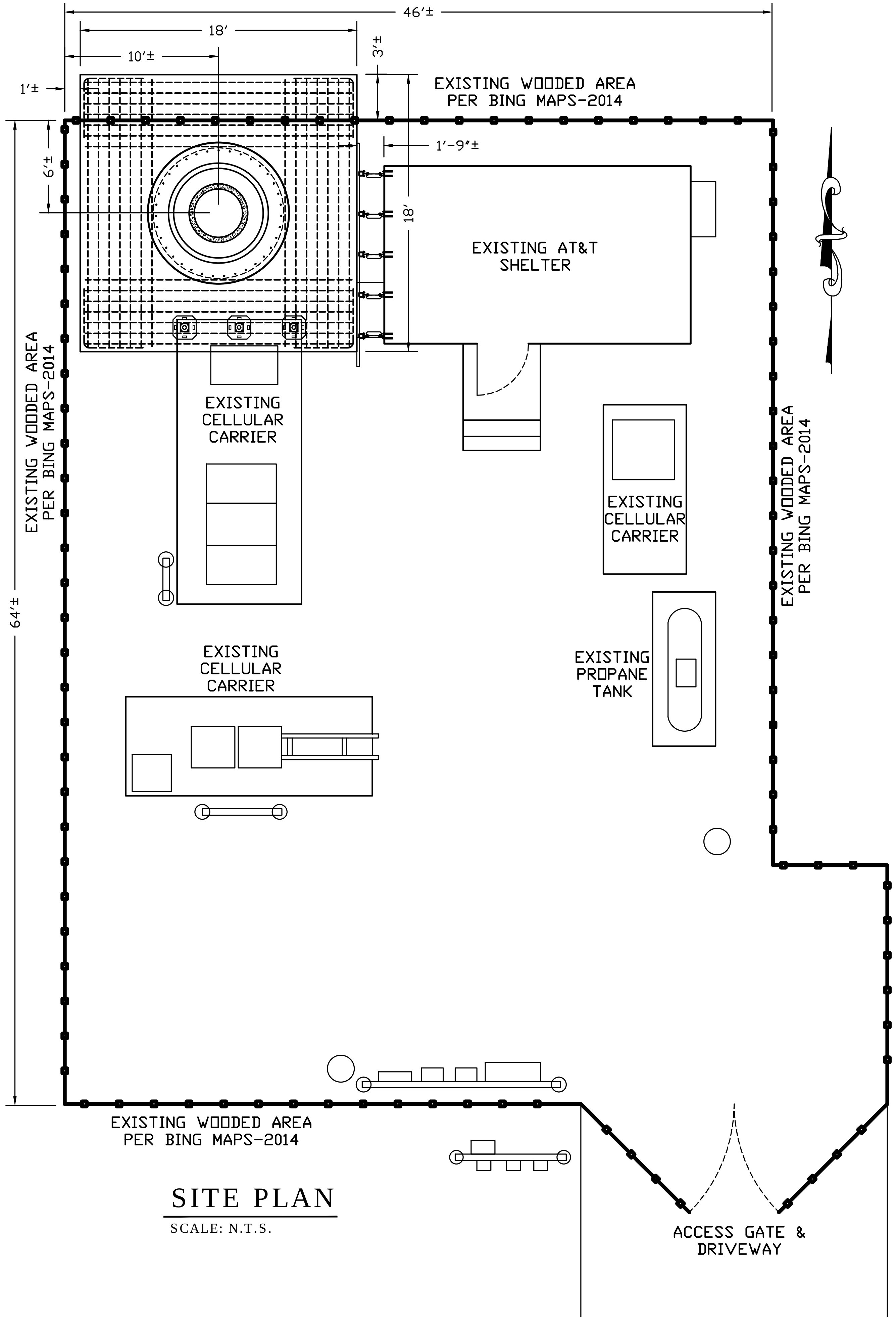

SITE PLAN

SCALE: N.T.S.

FOUNDATION LAYOUT NOTES

1. THE FOUNDATION MODIFICATIONS HAVE BEEN LAID OUT BASED ON REVIEWING A (2)–DIMENSIONAL SITE PLAN OBTAINED FROM TRILEAF PROPERTY DESIGN CONSULTANTS PREVIOUS CONSTRUCTION DRAWINGS DATED 8/5/2014.
2. ENGINEER DID NOT VISIT THIS SITE AND HIGHLY RECOMMENDS THAT BUILDER VISIT THE SITE PRIOR TO BIDDING TO CONFIRM LOCATIONS OF EXISTING EQUIPMENT AND TO IDENTIFY CONSTRUCTION ISSUES NOT CONTAINED WITHIN A (2)–DIMENSIONAL SITE PLAN.
3. IT IS ALSO THE ENGINEER'S EXPERIENCE THAT THE SITE PLANS FOR CELLULAR SITES CHANGE QUITE RAPIDLY AND THIS SITE PLAN MAY BE OUT OF DATE.
4. THE FOUNDATION MODIFICATIONS HAVE BEEN LAID OUT TO CONFINE ALL PERMANENT CONSTRUCTION TO WITHIN THE "APPARENT" PROPERTY LINES OF THIS SITE EXCEPT FOR AT THE NORTH FENCELINE.
5. THE CONSTRUCTION LAYOUT, LEASES, EASEMENTS, ETC. MUST BE DISCUSSED AND APPROVED BY PROPERTY OWNER(S) PRIOR TO CONSTRUCTION.

NOTE:

SOIL BORING INDICATES THE WATER TABLE TO BE LESS THAN 4-FT BELOW GRADE. DE-WATERING WILL MOST LIKELY BE REQUIRED.

SITE PICTURE

SCALE: N.T.S.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

SITE PLAN

SHEET NUMBER

S6

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PROJECT NO: 16-???

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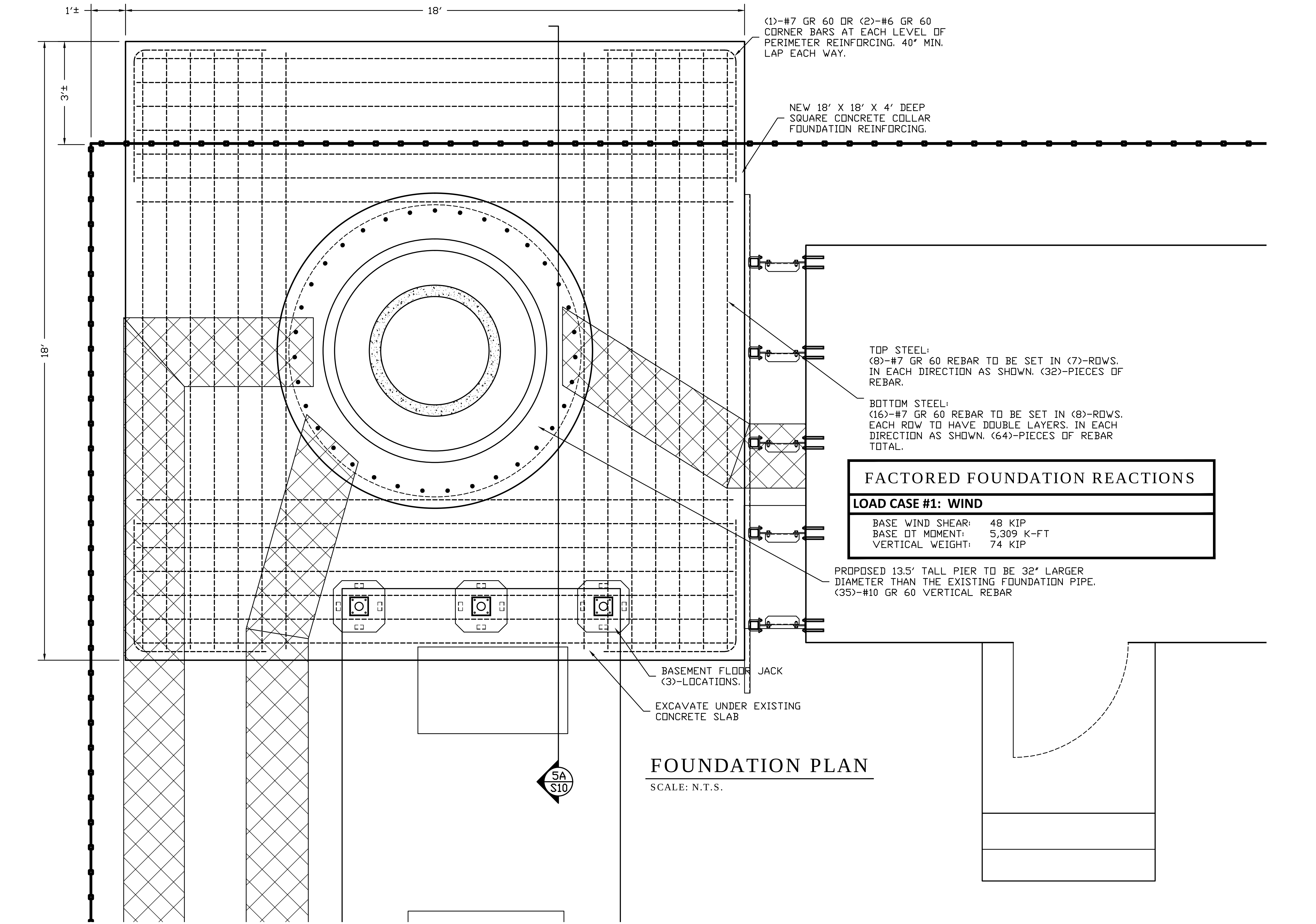

FOUNDATION PLAN

SCALE: N.T.S.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

FOUNDATION PLAN

SHEET NUMBER

S 7

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PROJECT NO: 16-???

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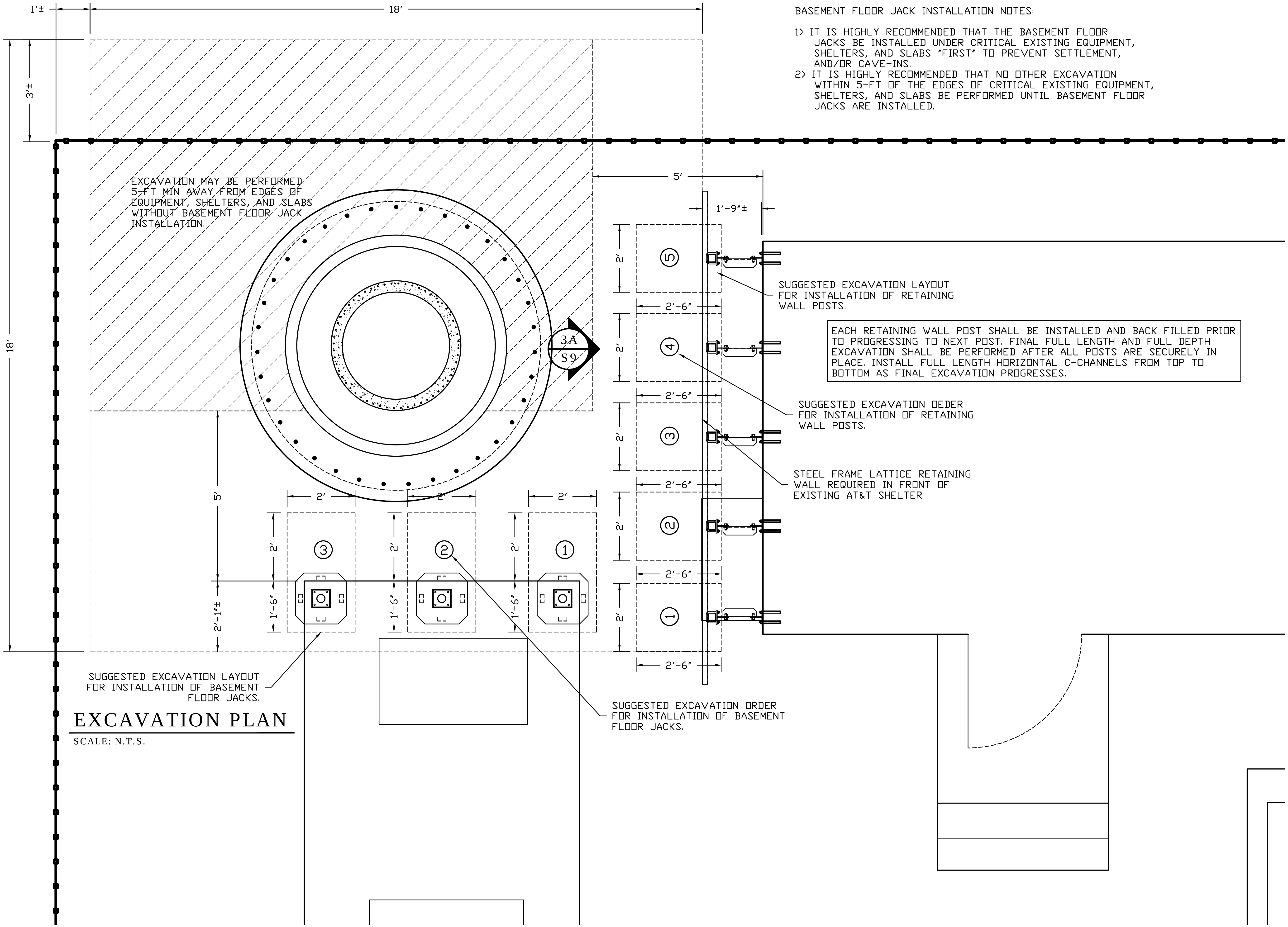
BASEMENT FLOOR JACK INSTALLATION NOTES:

1) IT IS HIGHLY RECOMMENDED THAT THE BASEMENT FLOOR JACKS BE INSTALLED UNDER CRITICAL EXISTING EQUIPMENT, SHELTERS, AND SLABS "FIRST" TO PREVENT SETTLEMENT, AND/OR CAVE-INS.
2) IT IS HIGHLY RECOMMENDED THAT NO OTHER EXCAVATION WITHIN 5-FT OF THE EDGES OF CRITICAL EXISTING EQUIPMENT, SHELTERS, AND SLABS BE PERFORMED UNTIL BASEMENT FLOOR JACKS ARE INSTALLED.



EXCAVATION PLAN

SCALE: N.T.S.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

EXCAVATION PLAN

SHEET NUMBER

S8

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PROJECT NO: 16-???

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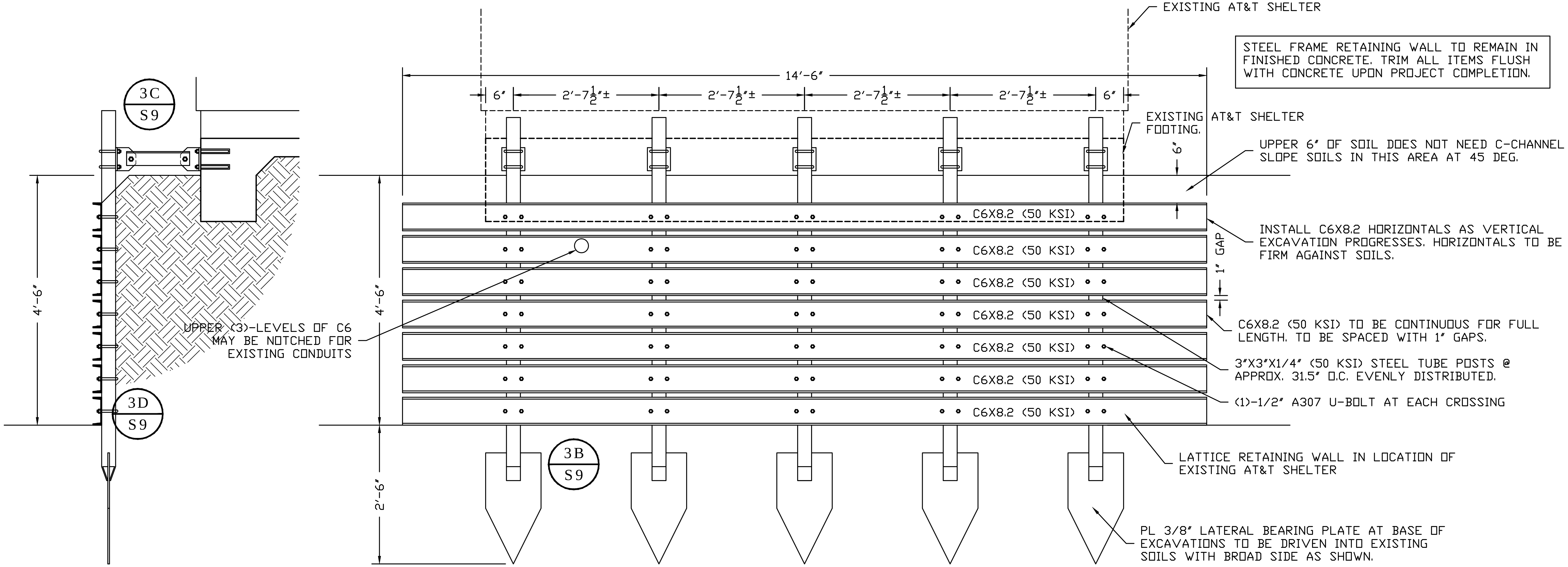
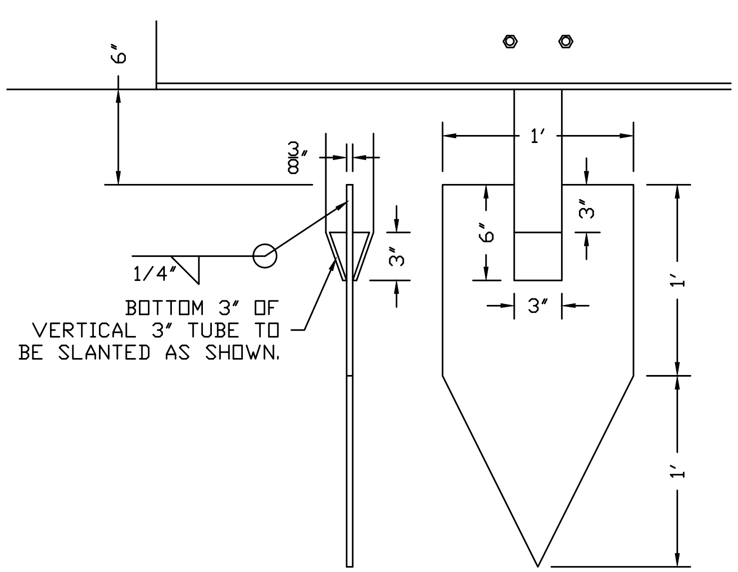


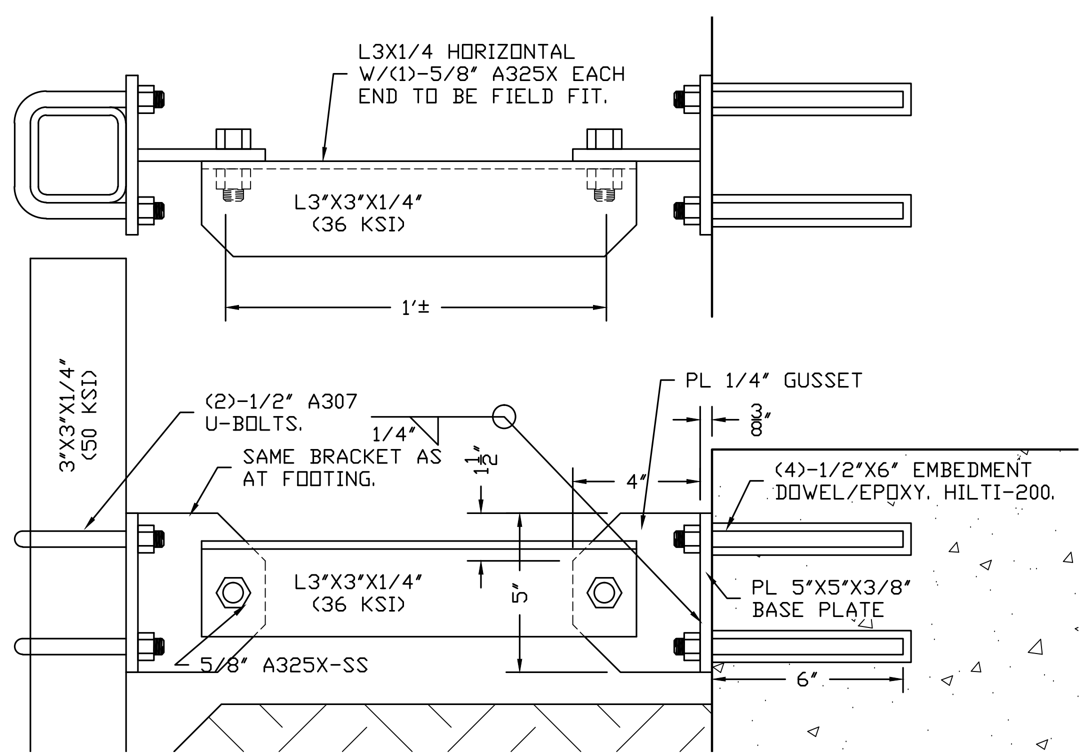
3A S9 LATTICE RETAINING WALL

SCALE: N.T.S.



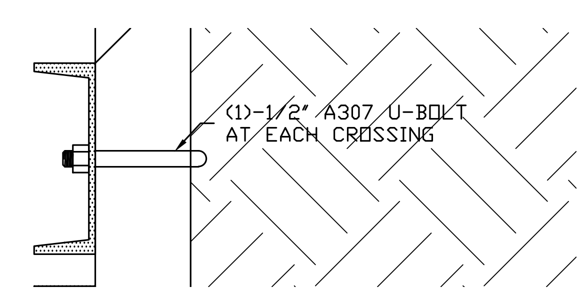
3B S9 DETAIL

SCALE: N.T.S.



3C S9 DETAIL

SCALE: N.T.S.



3D S9 DETAIL

SCALE: N.T.S.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION
LATTICE RETAINING WALL

SHEET NUMBER
S9

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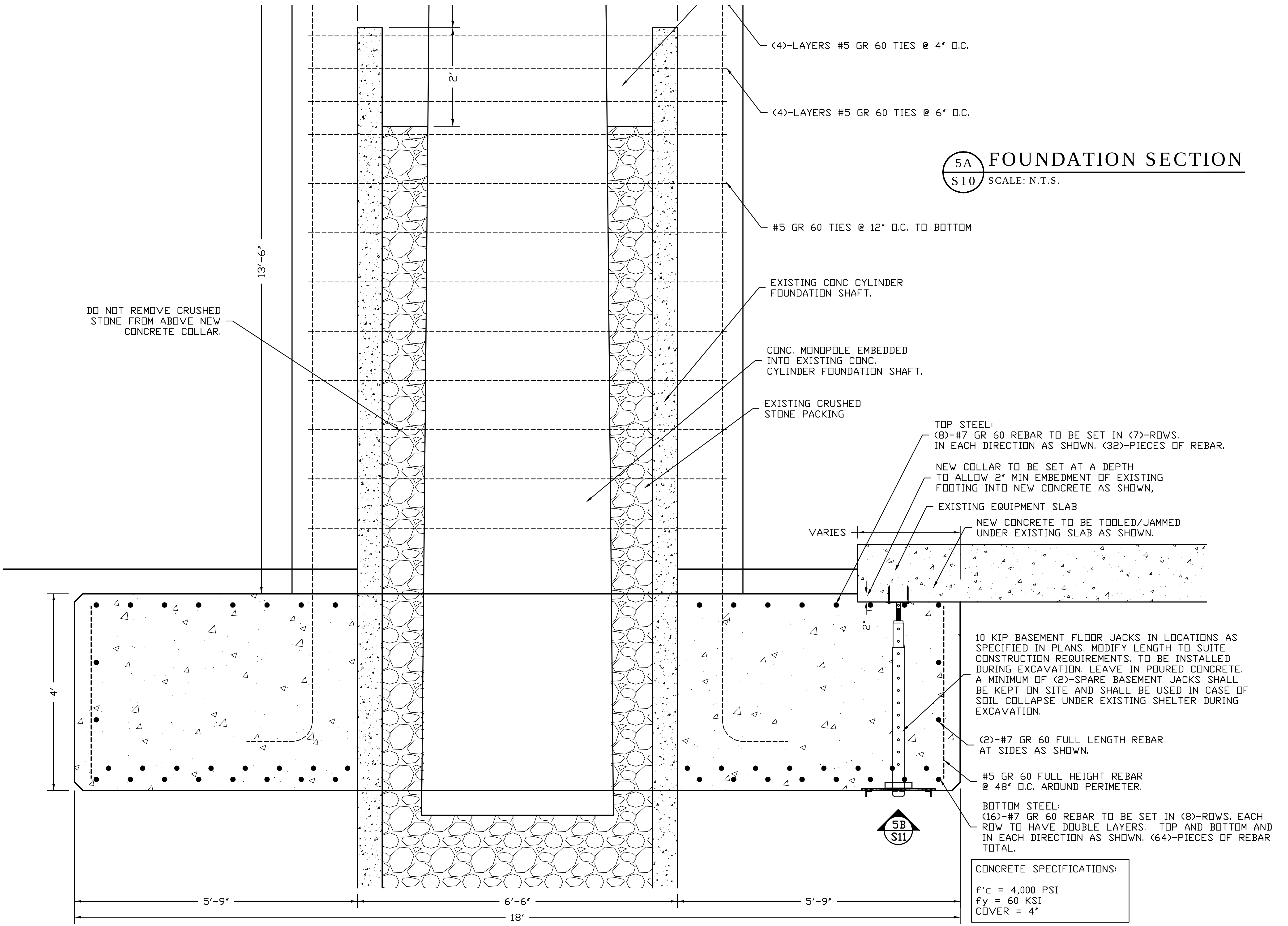

5A / S10 FOUNDATION SECTION

SCALE: N.T.S.

CONCRETE SPECIFICATIONS:

f'c = 4,000 PSI
fy = 60 KSI
COVER = 4"

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

FOUNDATION SECTION

SHEET NUMBER

S10

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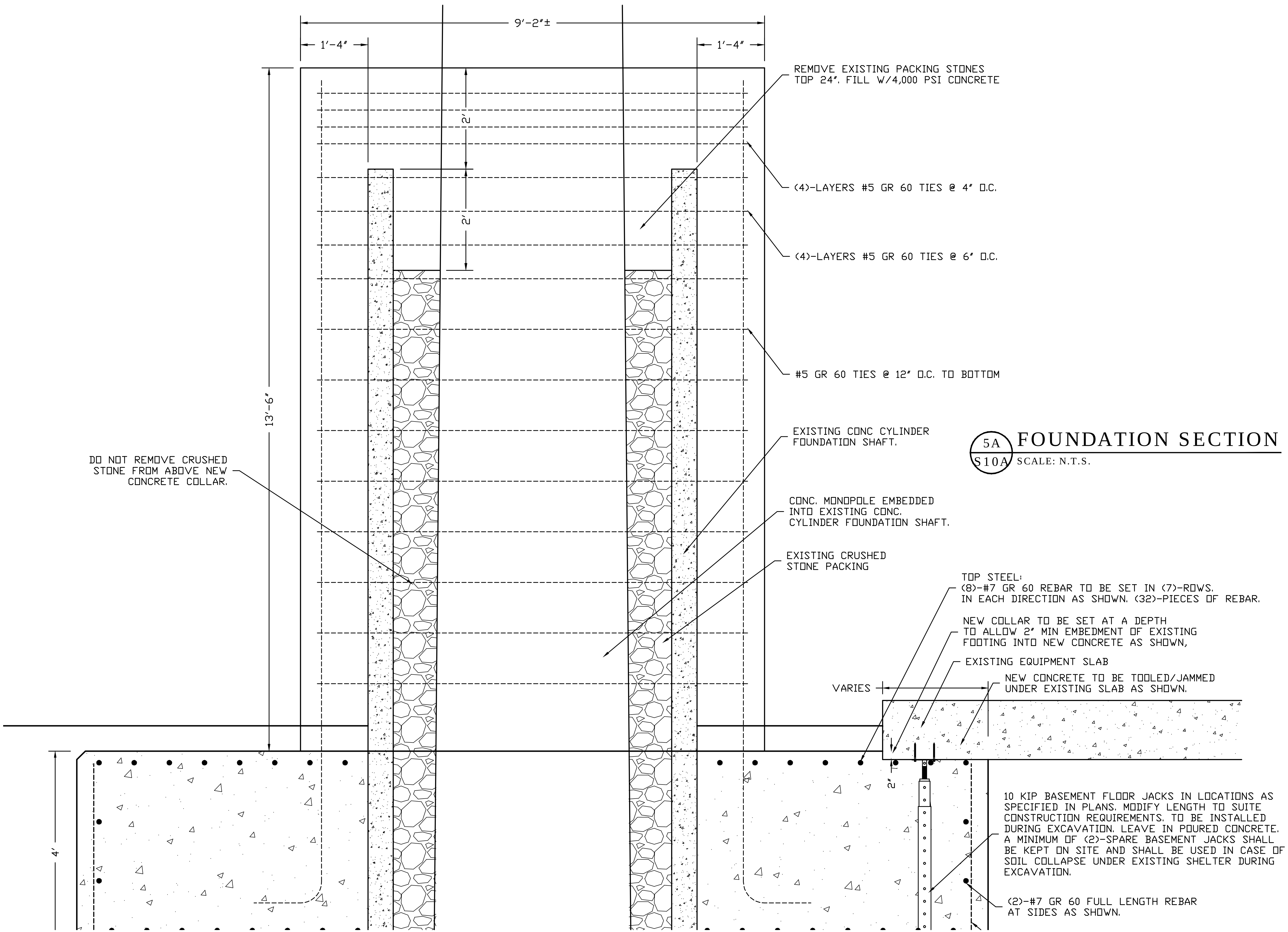

5A / S10A FOUNDATION SECTION

SCALE: N.T.S.

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION

FOUNDATION SECTION

SHEET NUMBER

S10A

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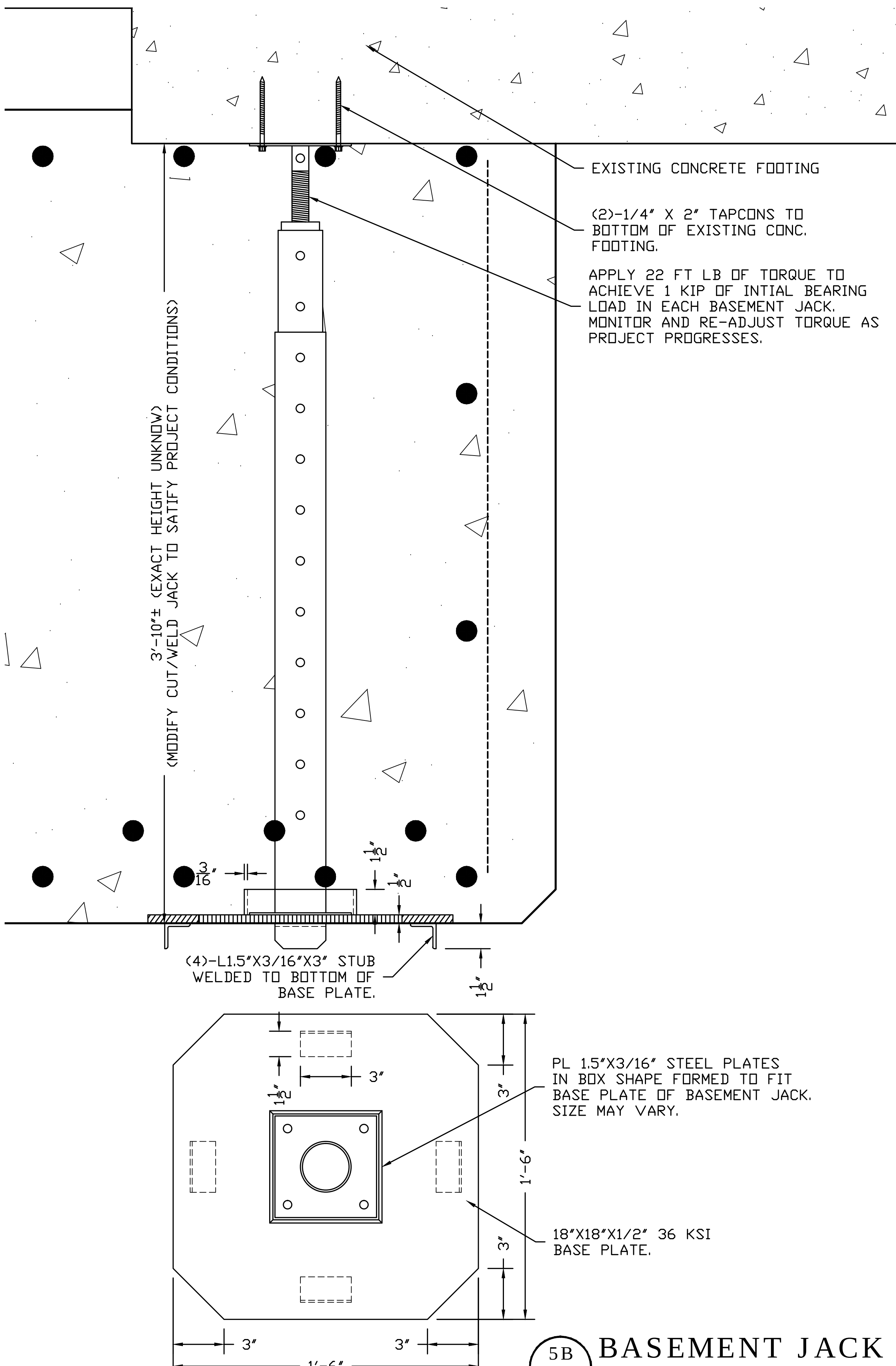

5B
S11
BASEMENT JACK DETAILS
SCALE: N.T.S.

FOUNDATION NOTES

GENERAL:

1. FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICES AND IN A GOOD WORKMAN-LIKE MANNER.
2. CONTRACTOR SHALL VERIFY DIMENSIONS WITH ORIGINAL DRAWINGS.
3. FOUNDATION DESIGN ASSUMES LEVEL GRADE AT THE SITE.
4. THE FOUNDATION DESIGN IS IN ACCORDANCE WITH GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRINCIPLES AND PRACTICES WITHIN THE LIMITS OF THE SUBSURFACE DATA PROVIDED.
5. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT THE DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.
6. THE FOUNDATION DESIGN ASSUMES FIELD INSPECTIONS WILL BE PERFORMED TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON THE CONDITIONS AT THE SITE.
7. THE FOUNDATION DESIGN ASSUMES NO CONSTRUCTION JOINTS. HOWEVER, CONSTRUCTION JOINTS SHALL BE PERMITTED UPON APPROVAL BY THE OWNER/ENGINEER.

EXCAVATION:

1. WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND SAFETY REGULATIONS. PROCEDURES FOR THE PROTECTION EXCAVATIONS EXCISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO BEGINNING WORK.
2. INTIMATE CONTACT BETWEEN THE CONCRETE AND THE SOIL WALLS OF THE DRILLED SHAFT IS ESSENTIAL. THE CONCRETE SHALL BE APPROPRIATELY VIBRATED DURING CONSTRUCTION.
3. THE SIDES OF THE EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
4. LOOSE MATERIAL TO BE REMOVED FROM THE BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT.
5. DRILLING FLUID, IF USED, SHALL BE FULLY DISPLACED BY CONCRETE AND SHALL NOT BE DETRIMENTAL TO THE CONCRETE OR SURROUNDING SOIL. CONTAMINATED CONCRETE SHALL BE REMOVED AND REPLACED WITH FRESH CONCRETE.

REINFORCING STEEL:

1. THE REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615, GRADE 60. IT SHALL BE DEFORMED AND SPLICES SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED.
2. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
3. REINFORCING CAGES SHALL BE BRACED TO RETAIN PROPER DIMENSIONS DURING HANDLING AND THROUGHOUT PLACEMENT OF CONCRETE. WHEN TEMPORARY CASING IS UTILIZED, BRACING SHALL BE ADEQUATE TO RESIST FORCES OCCURRING FROM FLOWING CONCRETE DURING CASING EXTRACTION.
4. SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF TIEBACK REINFORCING TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.
5. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3" UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3" MINIMUM COVER ON REINFORCEMENT.
6. THE CONCRETE COVER FROM THE TOP OF THE FOUNDATION TO THE ENDS OF THE VERTICAL REINFORCEMENT SHALL NOT EXCEED 4" NOR BE LESS THAN 2".
7. THE CONCRETE COVER FROM THE BOTTOM OF THE FOUNDATION TO THE ENDS OF THE VERTICAL REINFORCEMENT SHALL NOT EXCEED 4" NOR BE LESS THAN 3".

CONCRETE:

1. WORK SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE ACI-318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
2. THE CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28-DAYS.
3. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI-318 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE.
4. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS, INFILTRATION OF WATER AND SOIL, AND OTHER OCCURRENCES THAT MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.
5. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING THE SIDES OF THE EXCAVATION, FORMWORK, REINFORCING BARKS, FORM TIES, CAGE BRACING, OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
6. THE MAXIMUM SIZE OF THE AGGREGATE SHALL NOT EXCEED A SIZE SUITABLE FOR THE INSTALLATION METHOD UTILIZED OR 1/3- CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING THE MAXIMUM SIZE MAY BE INCREASES TO 2/3- CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS IF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS AND VOIDS.
7. A TEMPORARY PROTECTIVE STEEL CASING WILL BE REQUIRED TO KEEP THE SHAFT OPEN DURING CONSTRUCTION AND INSPECTIONS PRIOR TO PLACING CONCRETE. THIS CASINO SHOULD BE EXTRACTED AS THE CONCRETE IS PLACED.

FINISHING:

1. THE TOP OF THE FOUNDATION SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISH.
2. THE EXPOSED EDGES OF THE CONCRETE SHALL BE CHAMFERED 1" x 1".

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SAMPLE DRAWING

CONCRETE POLE MODIFICATIONS

SHEET DESCRIPTION
BASEMENT JACK DETAILS

SHEET NUMBER
S11

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