

GENERAL NOTES (THESE NOTES APPLY ONLY TO GS-SERIES DRAWINGS)

1. OWNER AND ENGINEER WILL NOT SUPERVISE, DIRECT, CONTROL, HAVE AUTHORITY OVER, OR BE RESPONSIBLE FOR CONTRACTOR'S MEANS, METHODS, TECHNIQUES, OR THE SAFETY PRECAUTIONS AND PROGRAMS INCIDENT TO THE WORK. OR WITH ANY FAILURE OF CONTRACTOR TO COMPLY WITH APPLICABLE LAWS AND REGULATIONS PERTAINING TO THE PERFORMANCE OF THE WORK. UNLESS NOTED OTHERWISE, OWNER AND ENGINEER WILL NOT SUPERVISE, DIRECT, CONTROL, OR HAVE AUTHORITY OVER OR BE RESPONSIBLE FOR CONTRACTOR'S SEQUENCES OR PROCEDURES OF CONSTRUCTION.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN ON THESE PLANS PRIOR TO CONSTRUCTION. IF FIELD DISCREPANCIES ARE IDENTIFIED, NOTIFY THE ENGINEER SO THAT APPROPRIATE REVISIONS CAN BE COMPLETED.
3. PERFORM CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS AND CONFORM TO ALL APPLICABLE SAFETY REGULATIONS INCLUDING THE PROVISIONS OF OSHA.
4. OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR CONSTRUCTION SITE SAFETY.
5. THE WORK IS TO BE PERFORMED PER THE PROJECT DRAWINGS AND SPECIFICATIONS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN THE PROJECT DRAWINGS AND SPECIFICATIONS PRIOR TO CONSTRUCTION.
6. OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR PROBLEMS RESULTING FROM IMPROPER CONSTRUCTION TECHNIQUES.
7. OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR LAYOUT OR SURVEYING.
8. CONTRACTOR TO TAKE ALL PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. CONCEALED AND BURIED FACILITIES (PIPING, CONDUIT, DUCT BANKS, ETC.) ARE NOT EXEMPT FROM THIS REQUIREMENT. CONTRACTOR IS TO UTILIZE ALL APPLICABLE METHODS AND TECHNOLOGIES TO ENSURE THE EXISTING FACILITIES ARE IDENTIFIED, LOCATED AND PROTECTED. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF THESE CONSTRUCTION OPERATIONS ARE TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE OWNER.
9. CONTRACTOR TO GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL OBTAIN ALL REQUIRED CONSTRUCTION PERMITS PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN ONLY BE ISSUED TO CONTRACTOR TO BE OBTAINED AT HIS EXPENSE.
10. OTHERS ARE RESPONSIBLE FOR FIELD LOCATING ALL NEARBY UTILITIES AND ADJACENT BURIED STRUCTURES. CONFLICTING UTILITIES MAY REQUIRE REDESIGN, AT THE DISCRETION OF OWNER AND ENGINEER. LIKEWISE, IT IS THE RESPONSIBILITY OF OTHERS TO OBTAIN ANY NECESSARY PERMITS OR EASEMENTS.
11. CONTRACTOR TO COORDINATE INTERRUPTIONS OF ALL UTILITIES AND SERVICES WITH THEIR RESPECTIVE OWNERS. ALL WORK TO BE IN ACCORDANCE WITH THE REQUIREMENT OF THE APPLICABLE UTILITY COMPANY OR AGENCY INVOLVED.
12. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS, AND PROJECT ENGINEERING REFERENCE POINTS. CONTRACTOR TO REESTABLISH DISTURBED OR DESTROYED ITEMS BY A REGISTERED PUBLIC SURVEYOR IN THE STATE OF NEW YORK AT NO COST TO THE OWNER.
13. THESE PLANS, PREPARED BY THE ENGINEER, DO NOT EXTEND TO OR INCLUDE DESIGNS OF SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONTRACTOR IS TO PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS.
14. ALL DEMOLITION DEBRIS, EXCESS EXCAVATED MATERIAL AND SOIL TO BECOME PROPERTY OF CONTRACTOR AND TO BE REMOVED FROM SITE AT NO ADDITIONAL COST TO THE OWNER.
15. THE ATTENTION OF ALL PROSPECTIVE BIDDERS IS DIRECTED TO THE POTENTIAL NEED FOR EFFECTIVE PRECAUTIONARY MEASURES WHEN OPERATING IN THE VICINITY OF ELECTRICAL LINES. IF THE CONTRACTOR CHOOSES TO USE EQUIPMENT WITH THE POTENTIAL OF ENCRDACHING ON OFFSET DISTANCES PRESCRIBED BY SAFETY STATUTES, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE WORK WITH THE APPROPRIATE ELECTRICAL UTILITY COMPANY. ALL COSTS ASSOCIATED WITH THIS EFFORT ARE TO BE BORNE BY THE CONTRACTOR.
16. ENGINEER IS NOT RESPONSIBLE FOR THE HANDLING, DISPOSAL, OR TREATMENT OF CONTAMINATED GROUNDWATER, OR ESTABLISHING OR ENFORCING ANY ENVIRONMENTAL REQUIREMENTS AT THE SITE.
17. ALL MALE END DOWELS FOR THREADED REBAR SPLICING SYSTEM INDICATED ON THE GS SERIES DRAWINGS SHALL BE PROVIDED IN THIS CONTRACT.

MATERIALS (THESE NOTES APPLY ONLY TO GS-SERIES DRAWINGS)

1. CONCRETE
 - A. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH @ 28 DAYS OF 5,000 PSI, OR BETTER UNLESS NOTED OTHERWISE.
 - B. MIX DESIGNS SHALL BE SUBMITTED TO THE OWNER'S ENGINEER IN ACCORDANCE WITH SPECIFICATION SECTION 03300.
 - C. CONCRETE PLACEMENT SHALL CONFORM TO ACI 304 & IN ACCORDANCE WITH CONTRACT SPECIFICATION UNLESS NOTED OTHERWISE.
 - D. CONCRETE FIELD CURING SHALL CONFORM TO ACI 305, 306 AND SHALL BE ACCOMPLISHED IN ACCORDANCE WITH CONTRACT SPECIFICATIONS UNLESS NOTED OTHERWISE.
 - E. CONCRETE FINISH SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 03350.
2. DEFORMED BAR REINFORCEMENT
 - A. REINFORCEMENT SHALL BE PLAIN DEFORMED STEEL BARS CONFORMING TO ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.
 - B. REINFORCEMENT SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 03200.
 - C. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 03200 AND THE FOLLOWING TABLE UNLESS NOTED OTHERWISE:

MINIMUM CONCRETE COVER		
CONDITION		CLEAR COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH		3"
ALL OTHER CONDITIONS	SLABS & JOISTS	
	BEAMS & COLUMNS	TRANSVERSE STL
		PRIMARY STL
	WALLS	

- D. ALL REINFORCING BAR LAP SPLICE LENGTHS SHALL BE CLASS B CONFORMING TO THE FOLLOWING TABLE UNLESS NOTED OTHERWISE:

LAP SPLICE LENGTHS (CLASS B)*		
BAR SIZE	UNCOATED BARS	
	TOP BARS**	OTHER BARS
#4	24" (2'-0")	18" (1'-6")
#5	30" (2'-6")	24" (2'-0")
#6	36" (3'-0")	30" (2'-6")
#7	54" (4'-6")	42" (3'-6")
#8	60" (5'-0")	48" (4'-0")
#9	72" (6'-0")	54" (4'-6")
#10	84" (7'-0")	60" (5'-0")
#11	96" (8'-0")	72" (6'-0")

*CLEAR SPACING & COVER FOR BARS BEING DEVELOPED OR SPLICED NOT LESS THAN CODE MINIMUM
 **TOP BARS ARE SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST BELOW THE BARS FOR CLASS B SPLICE NO MORE THAN 50 PERCENT OF BARS SHALL BE SPLICED AT ONE LOCATION

- E. ALL UNCOATED REINFORCING BAR DEVELOPMENT LENGTHS FOR STANDARD HOOKS SHALL CONFORM TO THE FOLLOWING TABLE UNLESS NOTED OTHERWISE:

BAR SIZE	DEVELOPMENT LENGTHS OF STANDARD HOOKS			
	SIDE COVER REQUIREMENTS NOT MET		SIDE COVER REQUIREMENTS MET*	
	CONFINING REINFORCEMENT REQUIREMENTS NOT MET	CONFINING REINFORCEMENT REQUIREMENTS MET**	CONFINING REINFORCEMENT REQUIREMENTS NOT MET	CONFINING REINFORCEMENT REQUIREMENTS MET**
#4	8"	7"	6"	5"
#5	11"	8"	7"	6"
#6	1'-1"	10"	9"	7"
#7	1'-3"	1'-0"	10"	8"
#8	1'-5"	1'-2"	1'-0"	10"
#9	1'-7"	1'-3"	1'-1"	11"
#10	1'-10"	1'-5"	1'-3"	1'-0"
#11	2'-0"	1'-7"	1'-5"	1'-1"

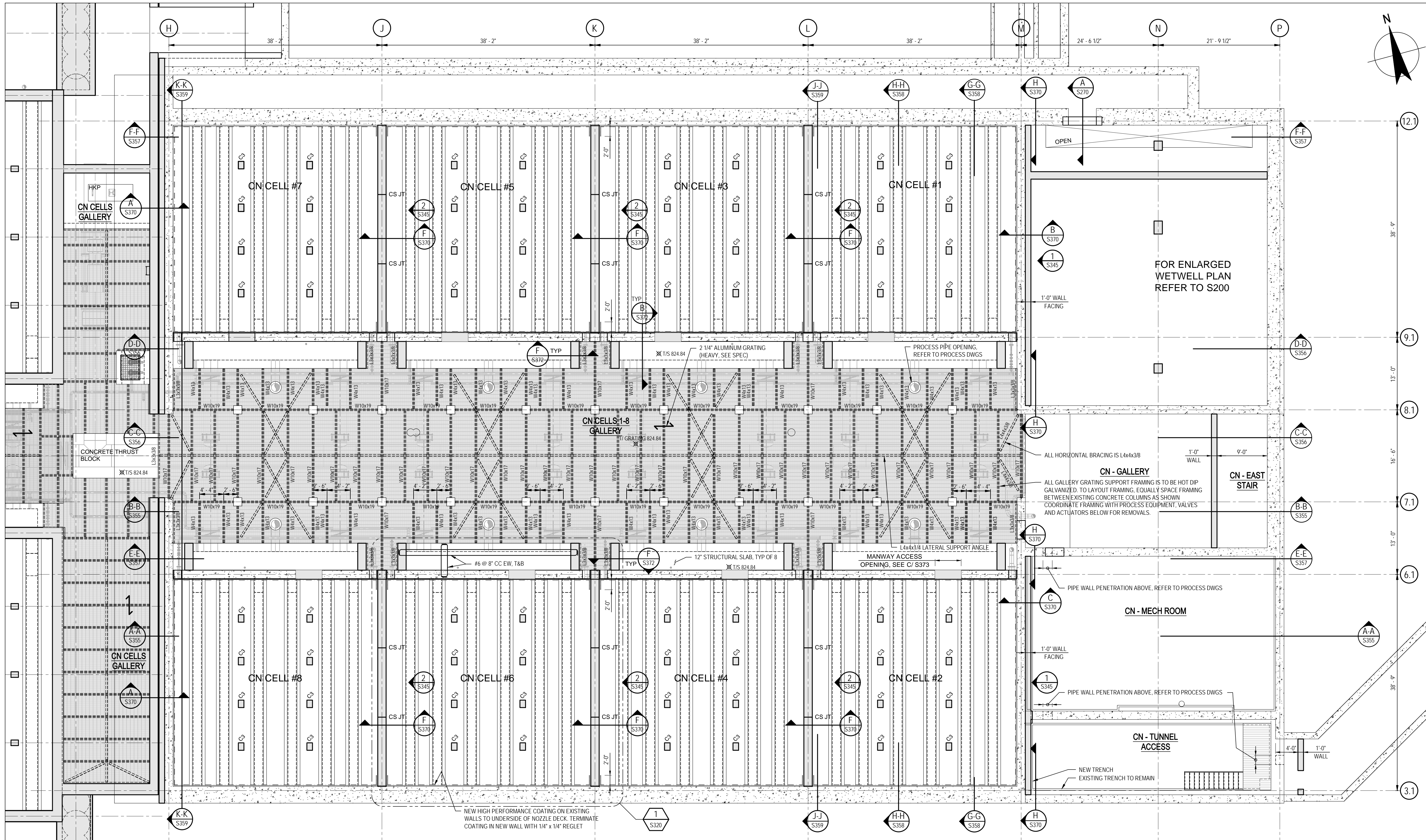
*FOR #11 BAR AND SMALLER HOOKS WITH SIDE COVER (NORMAL TO THE PLANE OF HOOK) NOT LESS THAN 2-1/2", & FOR 90-DEG & 180-DEG HOOK WITH COVER ON BAR EXTENSION BEYOND HOOK NOT LESS THAN 2"
 **FOR 90-DEG & 180-DEG HOOKS OF #11 AND SMALLER BARS THAT ARE ENCLOSED WITHIN TIES OR STIRRUPS PERPENDICULAR TO THE BAR BEING DEVELOPED, SPACED NOT GREATER 3 BAR DIAMETERS ALONG THE DEVELOPMENT LENGTH

NOTE:
 UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
2	CONFORMED FOR CONSTRUCTION		RHL	JMJ	MET	03/16
1	ADDENDUM NO. 3		RHL	JMJ	MET	02/16
0	FOR BID		RHL	JMJ	MET	12/15

Drawn	RHL	Designer	JMJ
Drafting Check	KPB	Design Check	PAB
Approved (Project Director)	MET		
Date	12/2015		
Scale	This Drawing shall not be used for Construction unless Signed and Sealed For Construction		

Contract No.	5
Original Size	ANSI D
Drawing No:	86-18134-GS300
Rev:	2



1	CONFORMED FOR CONSTRUCTION	TBM	JUL	MET	03/16	
0	FOR BID	TBM	JUL	MET	12/15	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

26613

0 4'-0" 8'-0" 12'-0" 16'-0"

SCALE 1/8"=1'-0" AT ORIGINAL SIZE

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

and Sealed For Construction

C
P

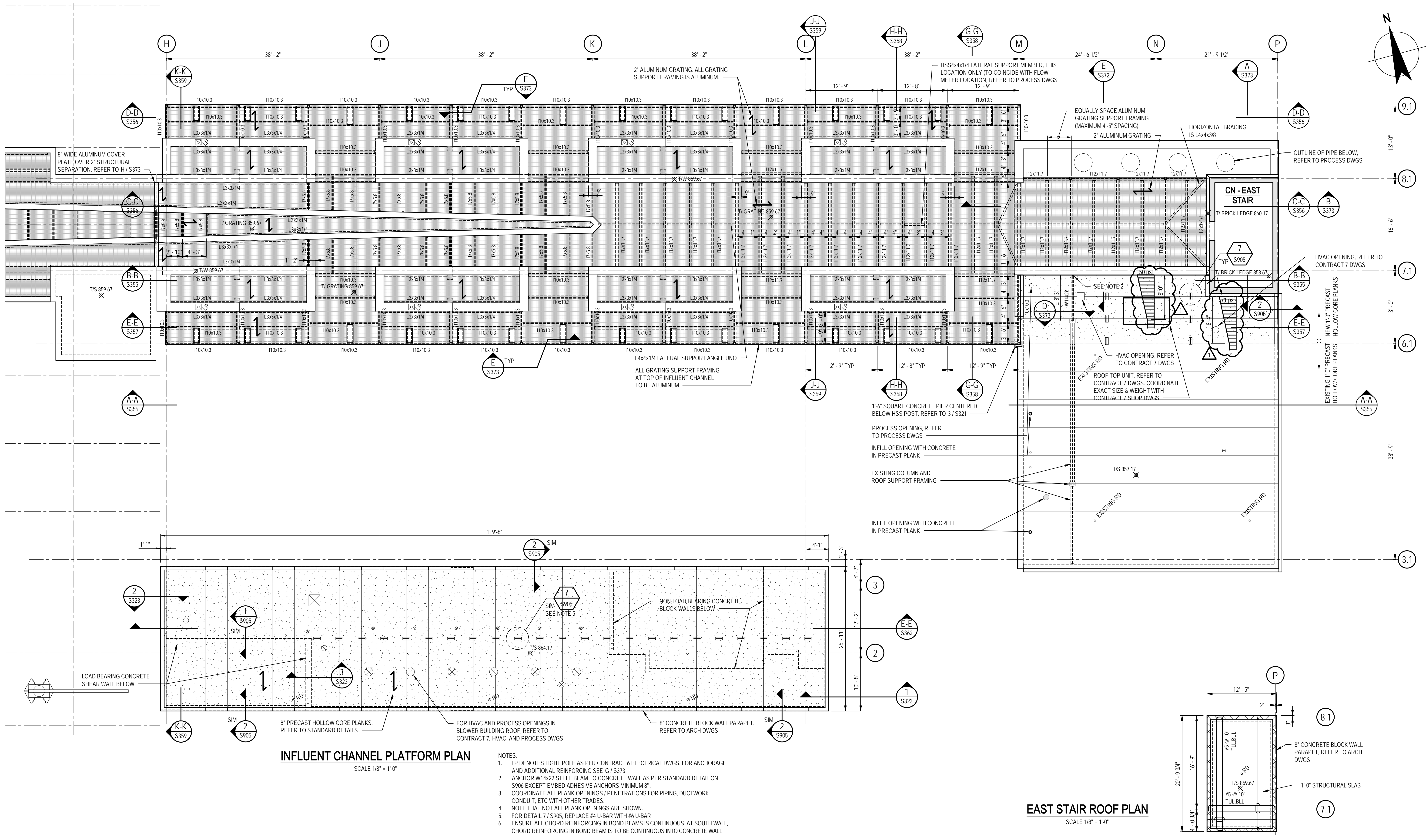
Title **CN CELLS 1 - 8 GALLERY LEVEL PLAN**

Contract No. 5

Original Size

Ansi D Drawing No: 86-18134-S304

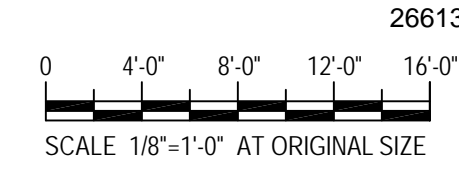
Rev: 1



INFLUENT CHANNEL PLATFORM PLAN
SCALE 1/8" = 1'-0"

EAST STAIR ROOF PLAN
SCALE 1/8" = 1'-0"

- NOTES:
1. LP DENOTES LIGHT POLE AS PER CONTRACT 6 ELECTRICAL DWGS. FOR ANCHORAGE AND ADDITIONAL REINFORCING SEE G / S373
 2. ANCHOR W14x22 STEEL BEAM TO CONCRETE WALL AS PER STANDARD DETAIL ON S906 EXCEPT EMBED ADHESIVE ANCHORS MINIMUM 8"
 3. COORDINATE ALL PLANK OPENINGS / PENETRATIONS FOR PIPING, DUCTWORK CONDUIT, ETC WITH OTHER TRADES
 4. NOTE THAT NOT ALL PLANK OPENINGS ARE SHOWN
 5. FOR DETAIL 7 / S905, REPLACE #4 U-BAR WITH #6 U-BAR
 6. ENSURE ALL CHORD REINFORCING IN BOND BEAMS IS CONTINUOUS. AT SOUTH WALL, CHORD REINFORCING IN BOND BEAM IS TO BE CONTINUOUS INTO CONCRETE WALL

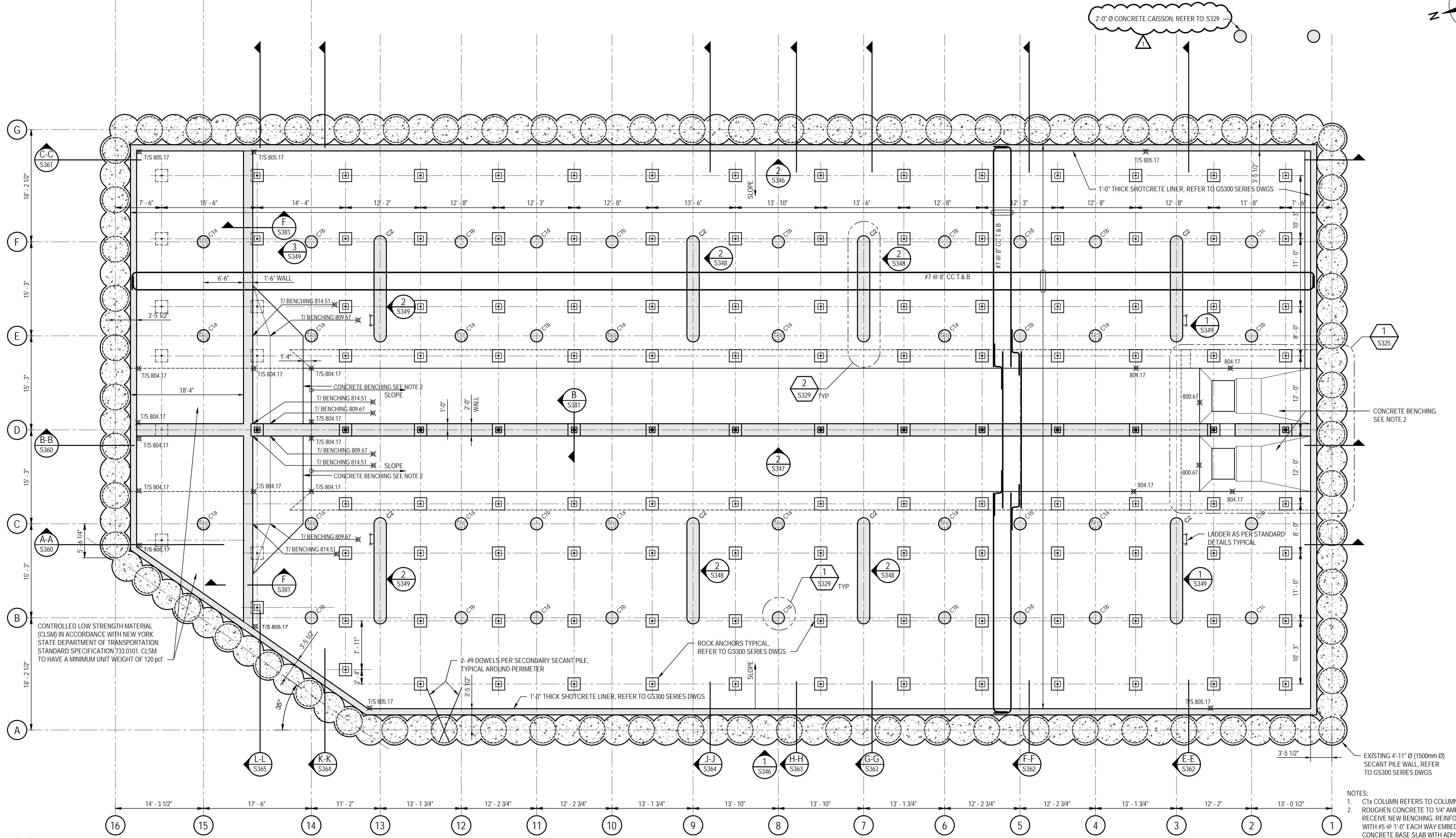
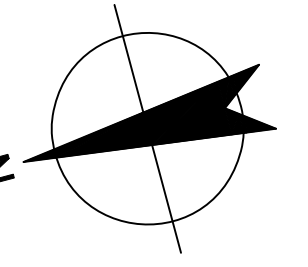


2	CONFORMED FOR CONSTRUCTION	TBM	JUL	MET	03/16	
1	REVISED FOR ADDENDUM No. 6	TBM	JUL	MET	2/16	
0	FOR BID	TBM	JUL	MET	12/15	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

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Title	CN CELLS 1 - 8 TOP OF INFLUENT CHANNEL PLAN
Contract No.	5
Original Size	
ANSI D	Drawing No: 86-18134-S307
Rev:	2



BASE SLAB PLAN
SCALE 1/8" = 1'-0"

BAR PLACEMENT ORDER (UNO)
 → TLL / BUL
 ↓ TUL / BLL

- NOTES:
1. C1x COLUMN REFERS TO COLUMN DETAILS ON S329
 2. ROUGHEN CONCRETE TO 1/4" AMPLITUDE TO RECEIVE NEW BENCHING. REINFORCE BENCHING WITH #5 @ 1'-0" EACH WAY EMBEDDED 6" INTO CONCRETE BASE SLAB WITH ADHESIVE ANCHOR SYSTEM

2	CONFORMED FOR CONSTRUCTION	TBM	JUL	MET	03/16	
1	REVISED FOR ADDENDUM No. 2	TBM	JUL	MET	1/16	
0	FOR BID	TBM	JUL	MET	12/15	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

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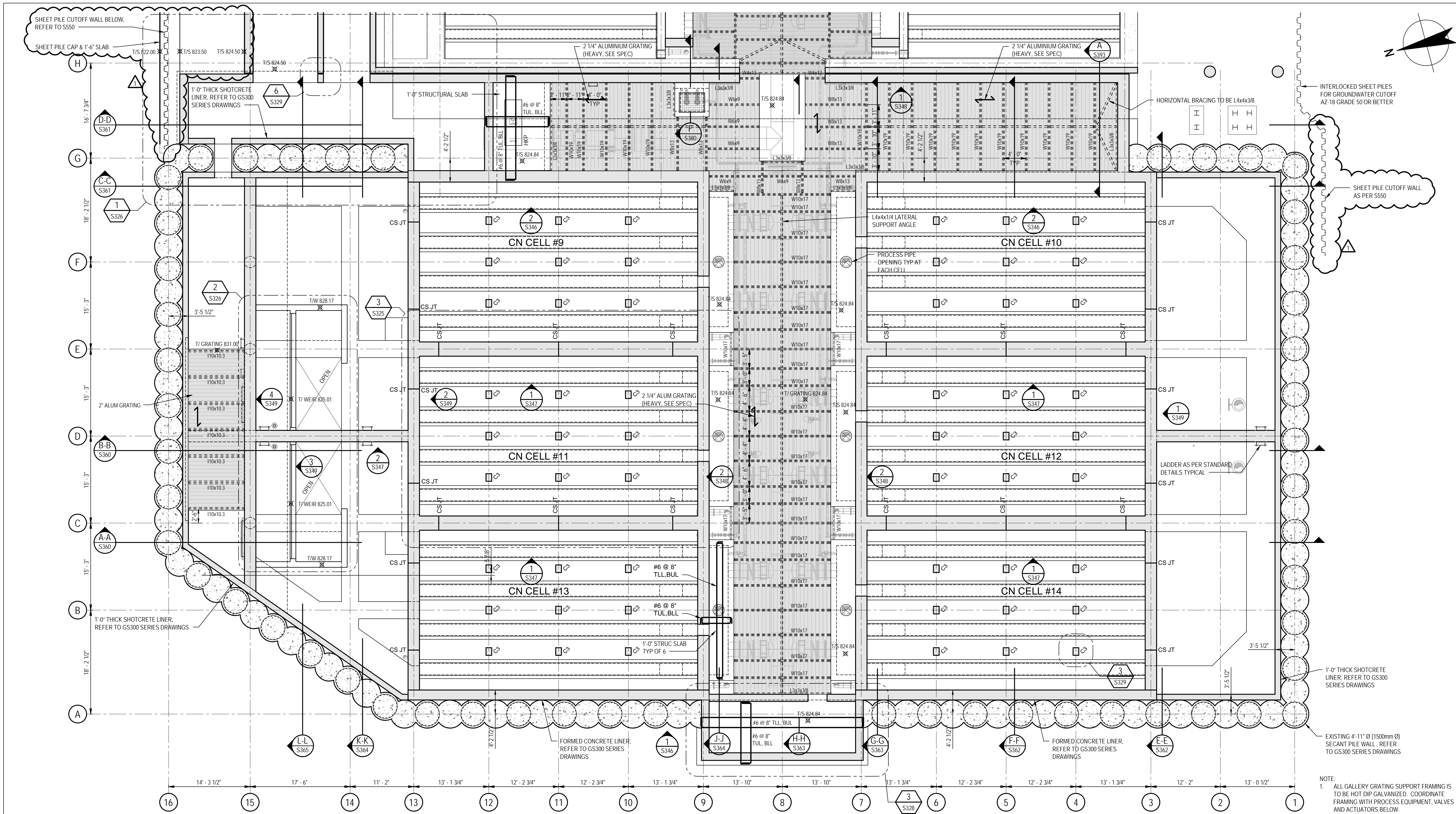
Title **CN CELLS 9 - 14 - BASE SLAB PLAN**

Contract No. 5

Original Size

Ansi D Drawing No: 86-18134-S311

Rev: 2



GALLERY LEVEL PLAN

SCALE 1/8" = 1'-0"

No	Revision	Note	Drawn	Job Manager	Project Director	Date
2	CONFORMED FOR CONSTRUCTION		TBM	JUL	MET	03/16
1	REVISED FOR ADDENDUM No. 6		TBM	JUL	MET	2/16
0	FOR BID		TBM	JUL	MET	12/15

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SCALE 1/8" = 1'-0" AT ORIGINAL SIZE

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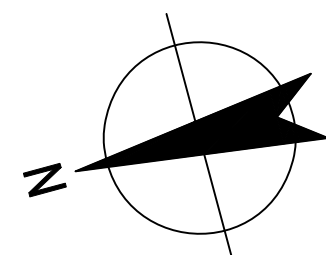
Title **CN CELLS 9 - 14 - GALLERY LEVEL PLAN**

Contract No. 5

Original Size

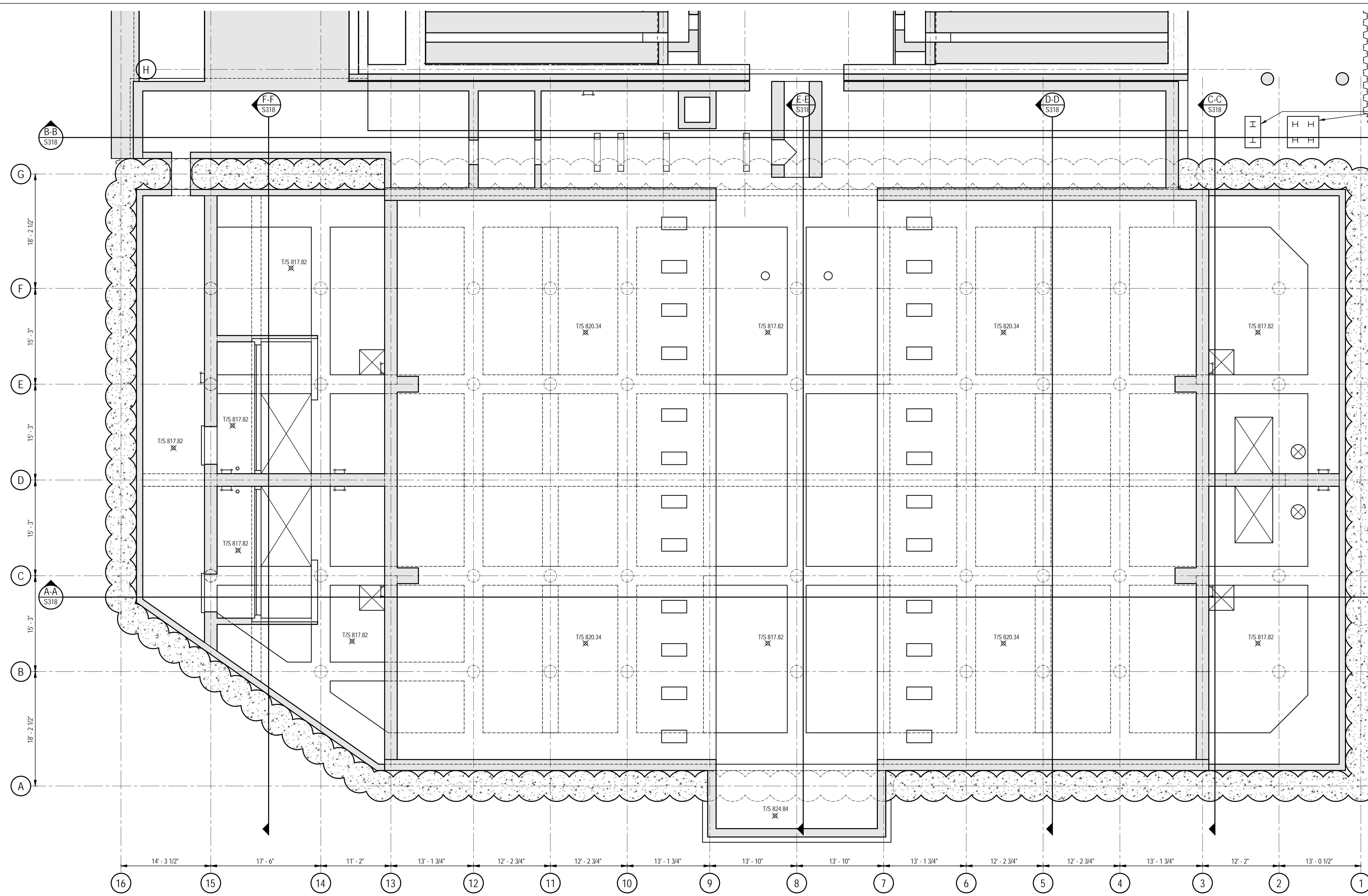
used on **Ansi D Drawing No: 86-18134-S313**

Rev: 2



INTERLOCKED SHEET PILES FOR GROUNDWATER CUTOFF
AZ-18 GRADE 50 OR BETTER
EXISTING PILES AND PILE CAPS TO BE REMOVED IF NECESSARY

SHEET PILE CUTOFF WALL AS PER S550



CELL SLAB PLAN
SCALE 1/8" = 1'-0"

0 4'-0" 8'-0" 12'-0" 16'-0"
SCALE 1/8"=1'-0" AT ORIGINAL SIZE

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2	CONFORMED FOR CONSTRUCTION		TBM	JUL	MET	03/16
1	REVISED FOR ADDENDUM No. 6		TBM	JUL	MET	2/16
0	FOR BID		TBM	JUL	MET	12/15

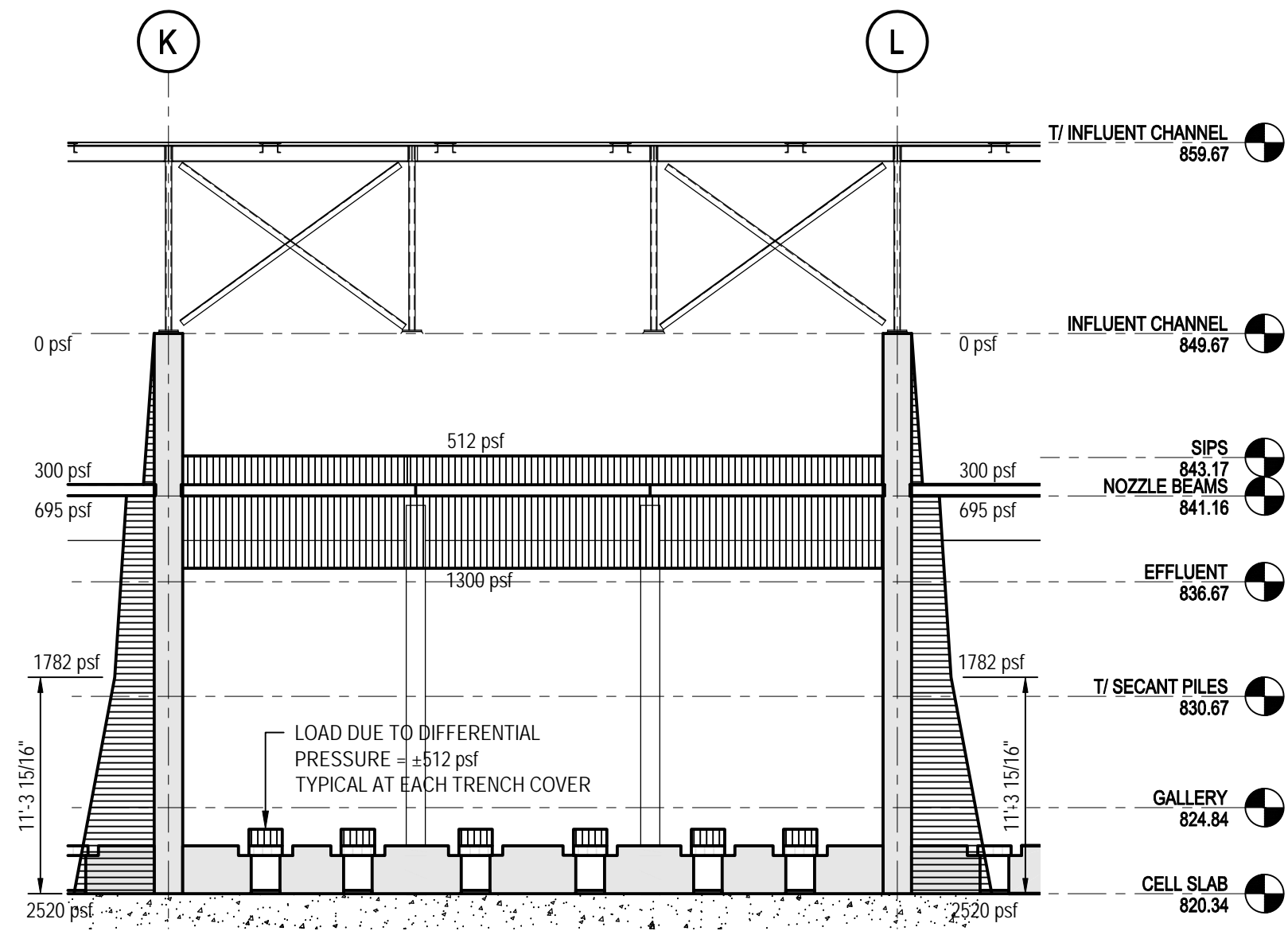
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Title **CN CELLS 9 - 14 - STAGING PLAN**

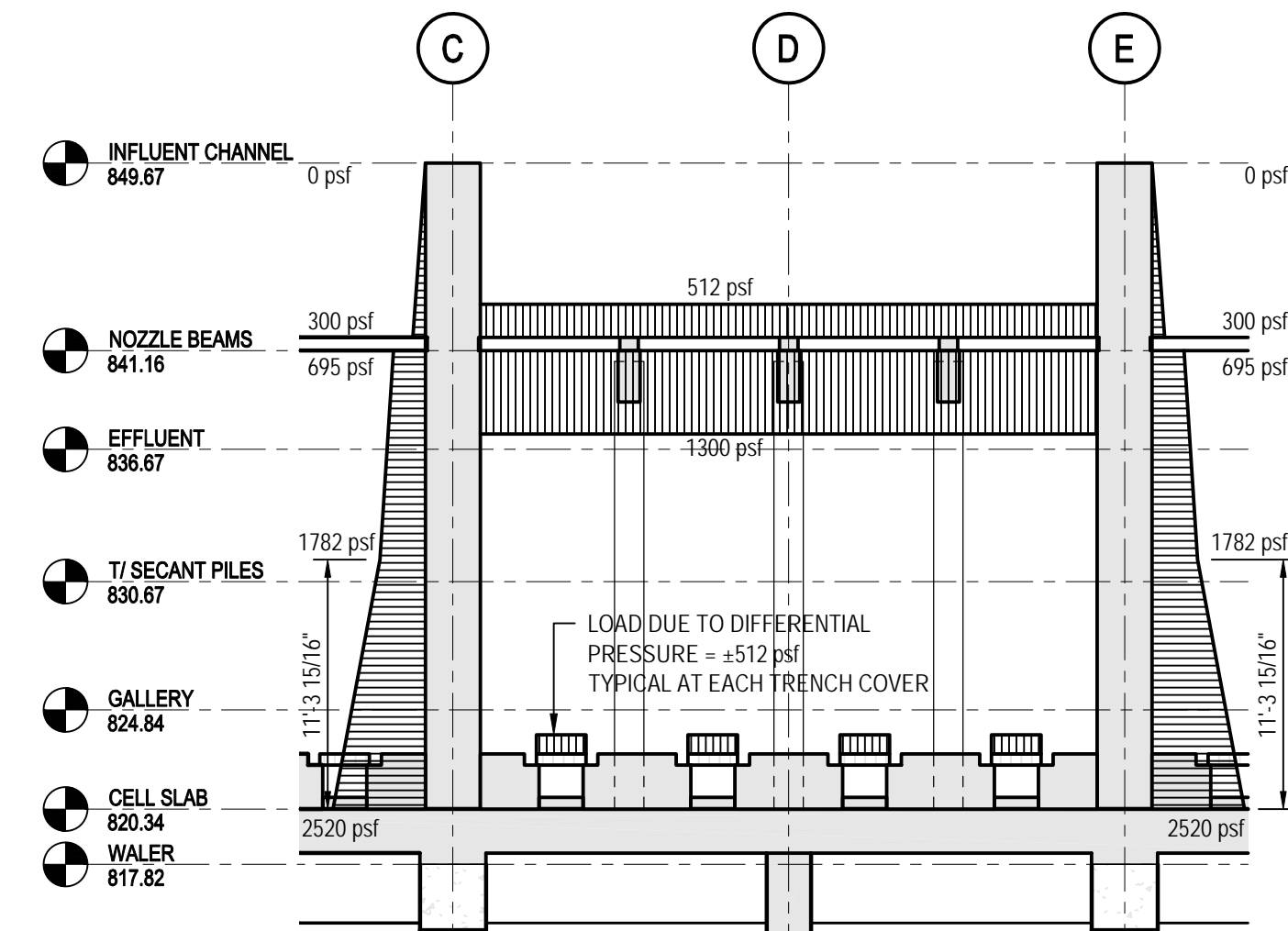
Contract No. 5

Original Size
Ansi D Drawing No: **86-18134-S317**

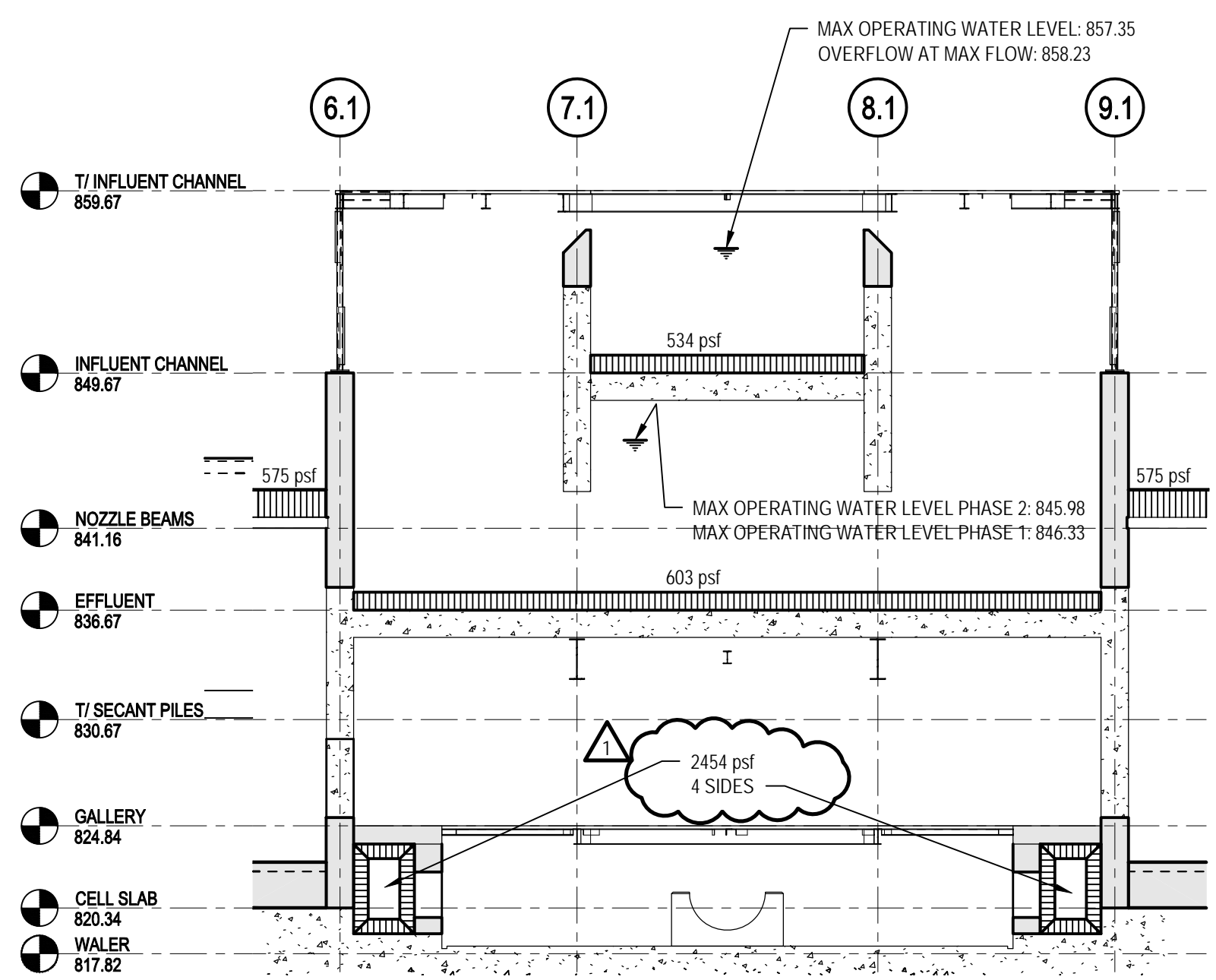
Rev: 2



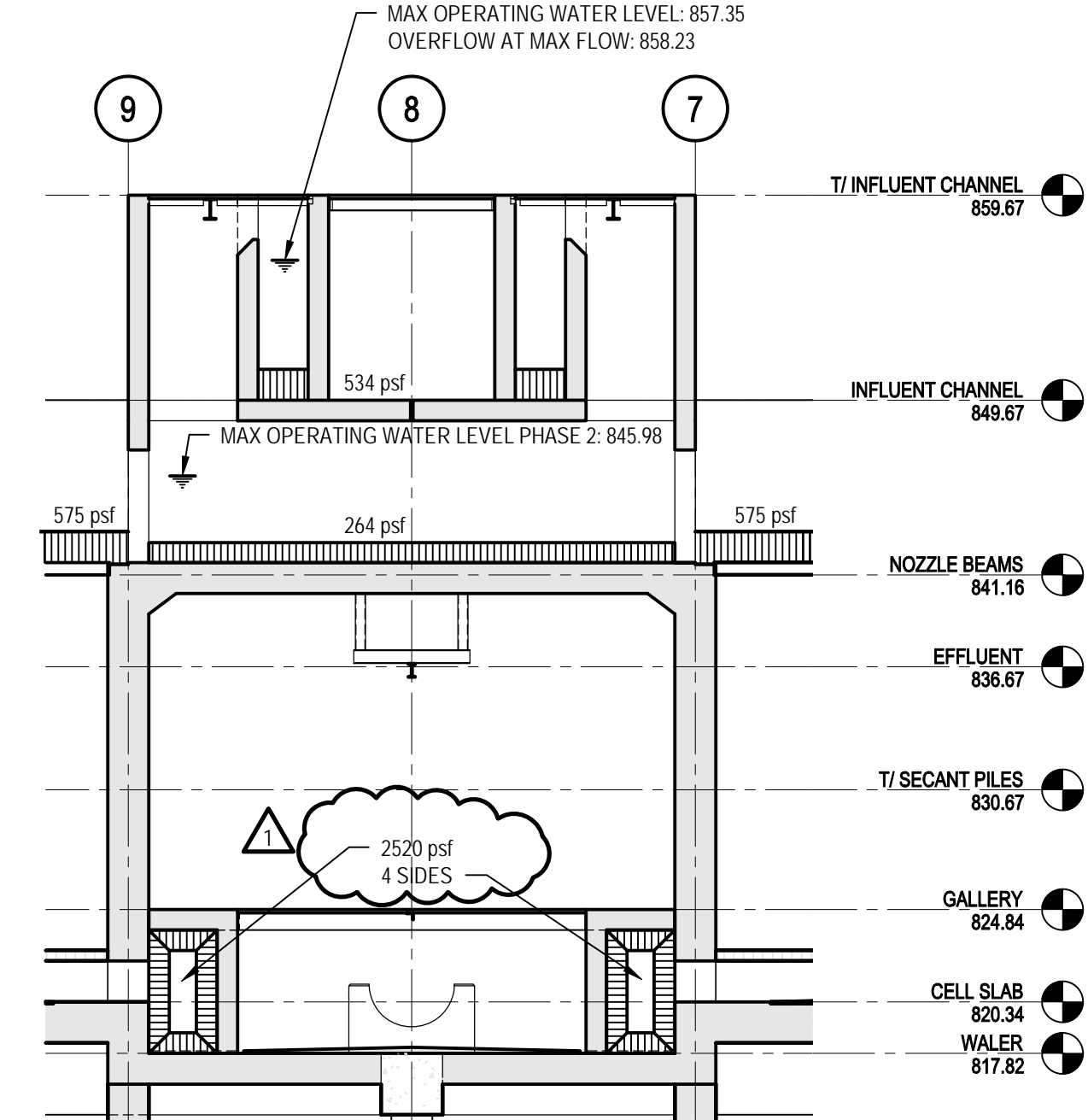
1
CN CELLS 1-8 OPERATING PRESSURES SECTION
S319 SCALE 1/8" = 1'-0"



2
CN CELLS 9-14 OPERATING PRESSURES SECTION
S319 SCALE 1/8" = 1'-0"



3
CN CELLS 1-8 HYDROSTATIC PRESSURES SECTION
S319 SCALE 1/8" = 1'-0"



4
CN CELLS 9-14 HYDROSTATIC PRESSURES SECTION
S319 SCALE 1/8" = 1'-0"

STRUCTURAL DESIGN CRITERIA

FLOOR LIVE LOADS:

Gallery Slab (CN 9-14)	300 (psf) Construction Live
Gallery Level Grating (CN 1-14)	100 (psf)
• (Along Gallery between 7.1 and 8.1, UNO)	4000 lbf Point Load over 4'x4' Area
• (Between Gridlines H & G, 3.1 to 12.1)	6000 lbf Point Load over 4'x4' Area
Effluent Level (CN 1-14):	Per water levels on loading drawing.
Influent Level Slab (CN 1-14):	Per water levels on loading drawing.
BAF Main Electrical Room:	100 (psf)
SIPS Ground Floor Slab (Blw. Gr. M & P, Gr. 8.1 & 12.1):	250 (psf)
Blower Building Ground Floor Slab:	125 (psf)
Stairwells (CN 1-14):	100 (psf)
Influent Level Grating (CN 1-14):	100 (psf)
Cell Slab (CN 1-14):	Per Kruger Design Loading (See Dwgs.)
Cell Nozzle Deck (CN 1-14)	Per Kruger Design Loading (See Dwgs.)
North/South Backwash Tank Maintenance Slab	300 (psf)

ROOF LIVE LOADS:

Minimum Roof Live Load:	20 (psf)
West Stairwell:	100 (psf)

ROOF PLANK DEAD LOADS:

Roofing Dead Loads:	10 (psf)
Collateral Loads:	15 (psf)
Roof Plank Self Weight:	62 (psf - assumed)
Roof Concentrated Loads:	3000 (lbf)
	(suspended from anywhere along span)

ROOF SNOW LOAD:

See S901 for snow loading. Refer to drawings for snow accumulation.

WIND LOAD:

Basic Wind Speed, V3s:	90 (mph)
Wind Importance Factor:	1.15
Wind Exposure:	C
Internal Pressure Coefficients:	+/- 0.18

Design Wind Pressure used for Components & Cladding:

@ Wall Surfaces:	+23/-30 (psf)
@ Roof Surfaces:	+10/-57 (psf)

EARTHQUAKE DESIGN DATA:

Seismic Importance Factor, I:	
Occupancy Category:	
Mapped Spectral Response Accelerations:	
Ss	0.127g
S1	0.056g

Site Class:

- Backwash Tank: B
- Blower Building: C
- Cells 1-14: C

Design Spectral Response Accelerations:

Sds	0.136g
Sd1	0.09g

Seismic Design Category: A

Basic Seismic Force Resisting System (s): Bearing Wall System - Ordinary Reinforced Masonry Shear Walls

Ordinary Reinforced Concrete Shear Walls

Design Base Shear, V:	Blower Building:	165	kips
Response Modification Factor(s), R:		2.0	

Analysis Procedure: Equivalent Lateral Force Procedure

SOIL DATA:

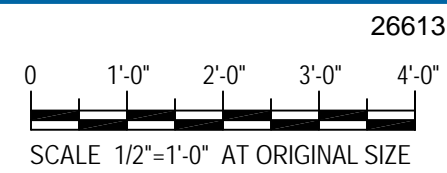
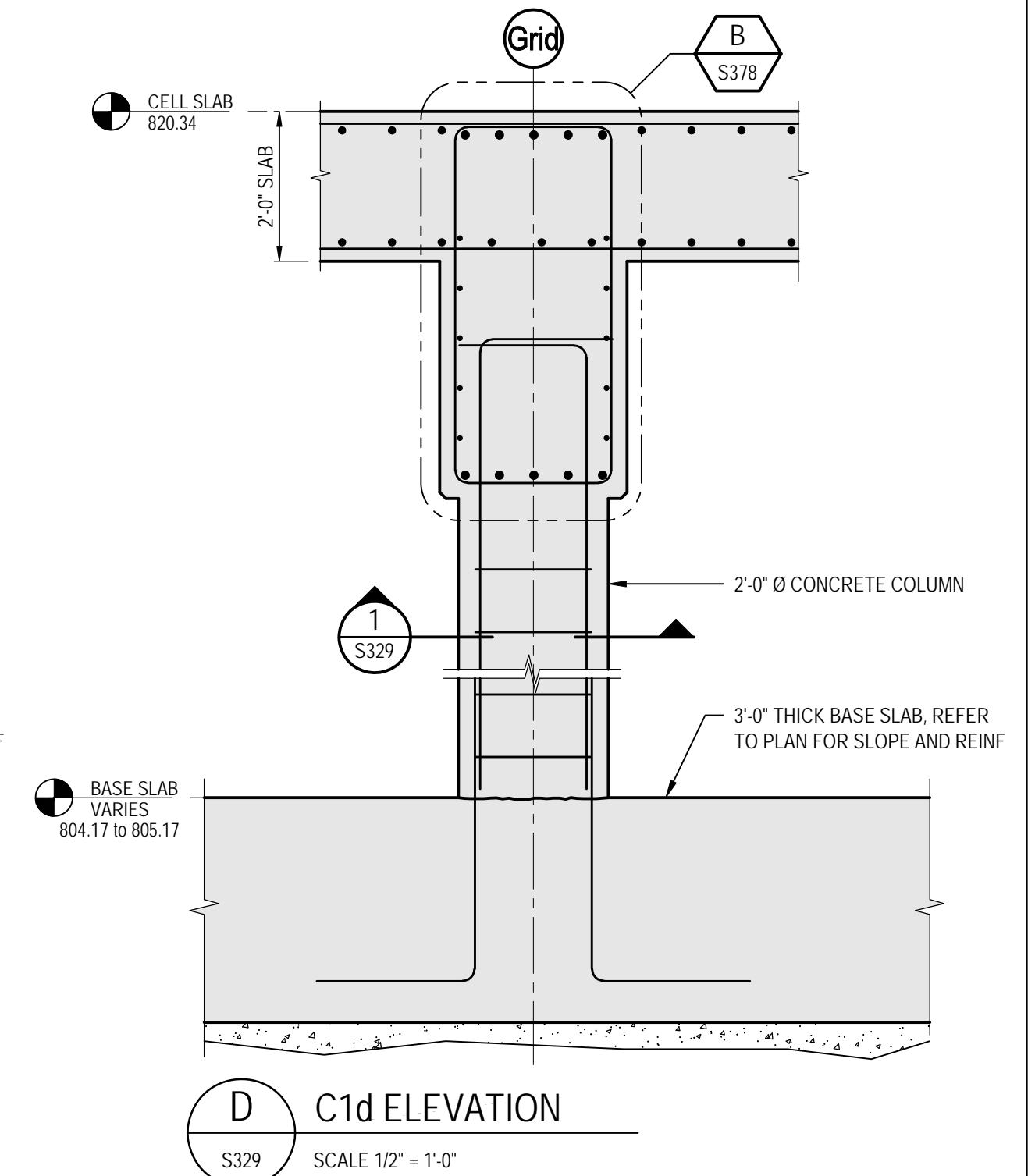
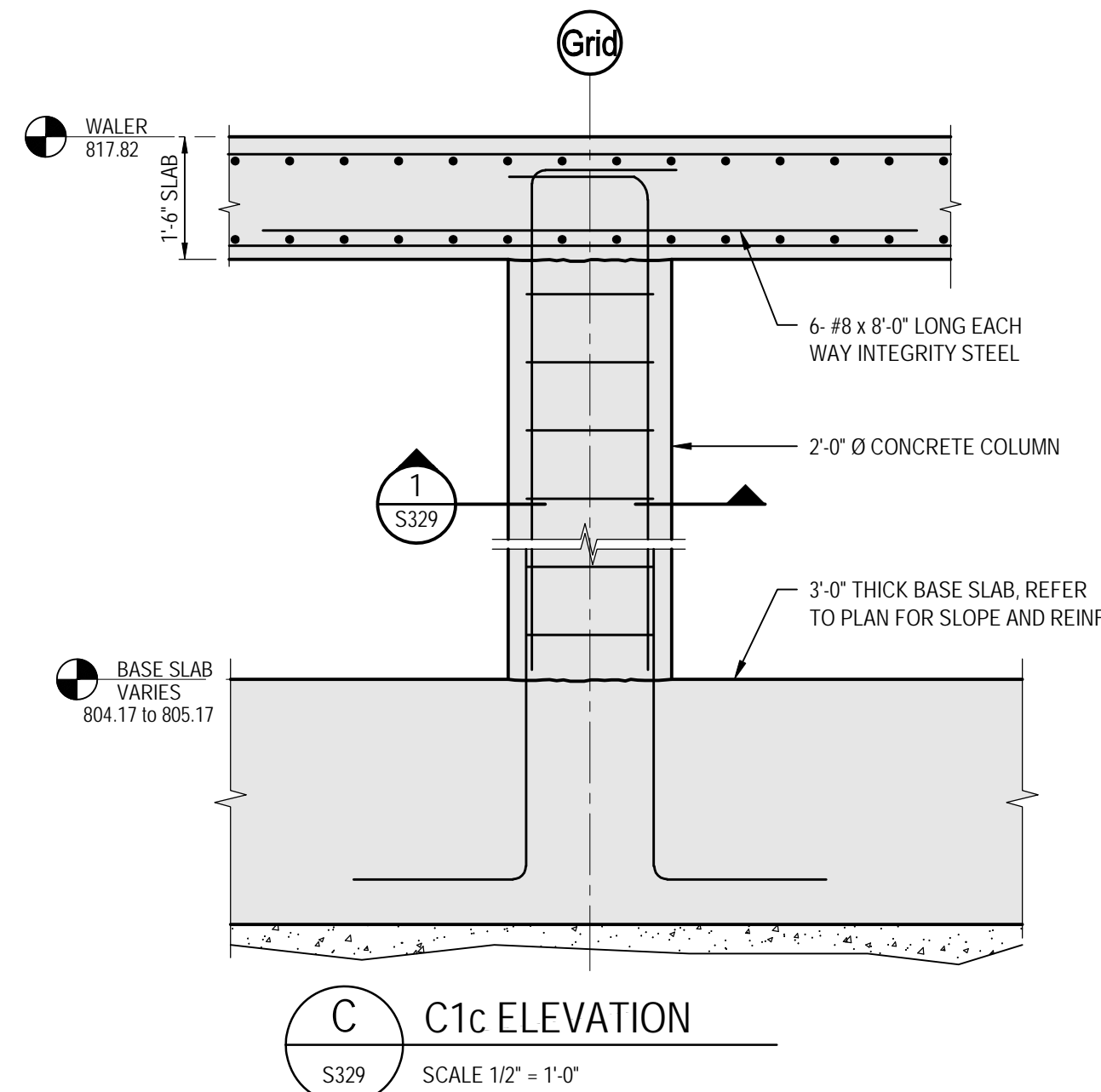
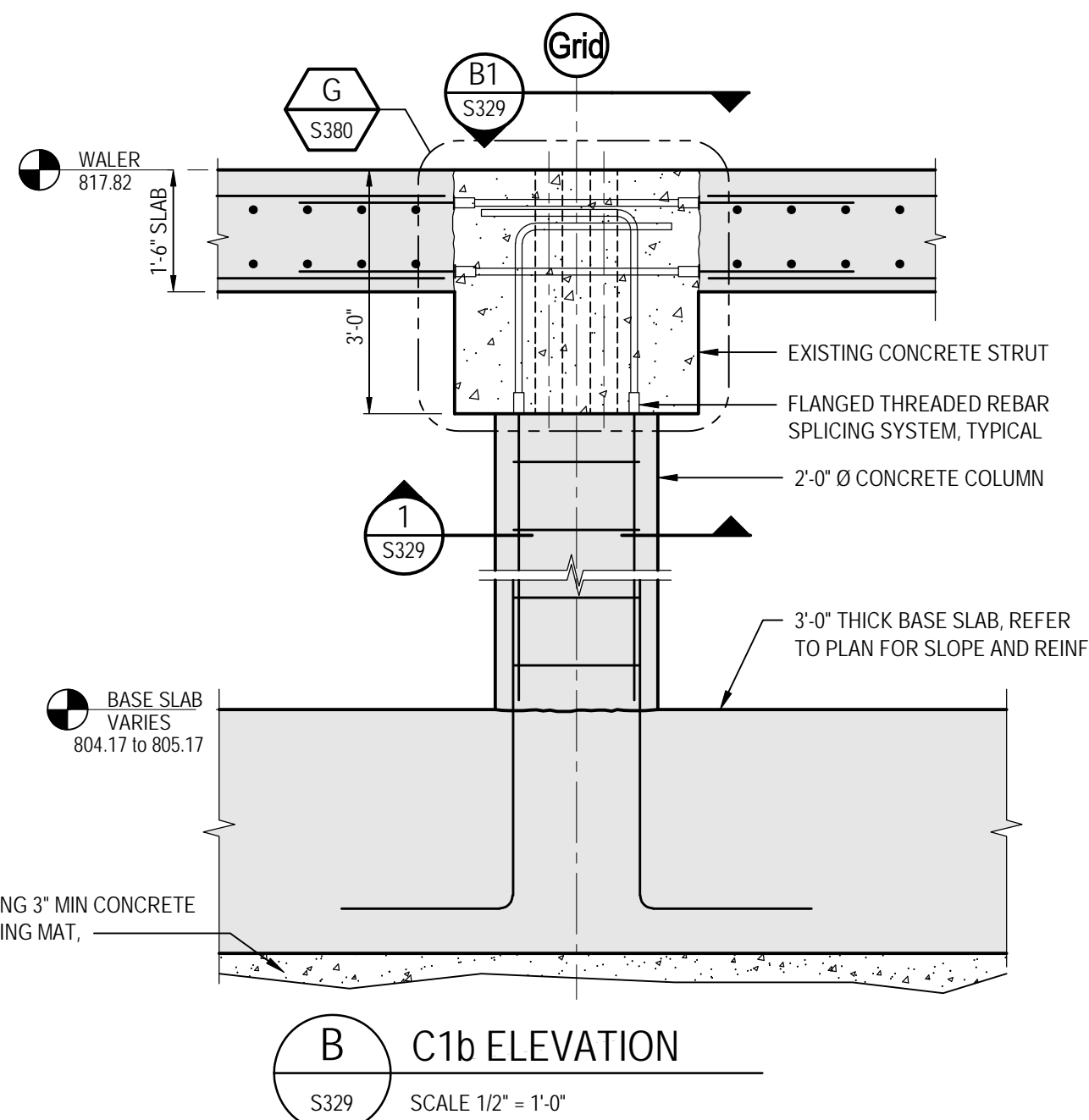
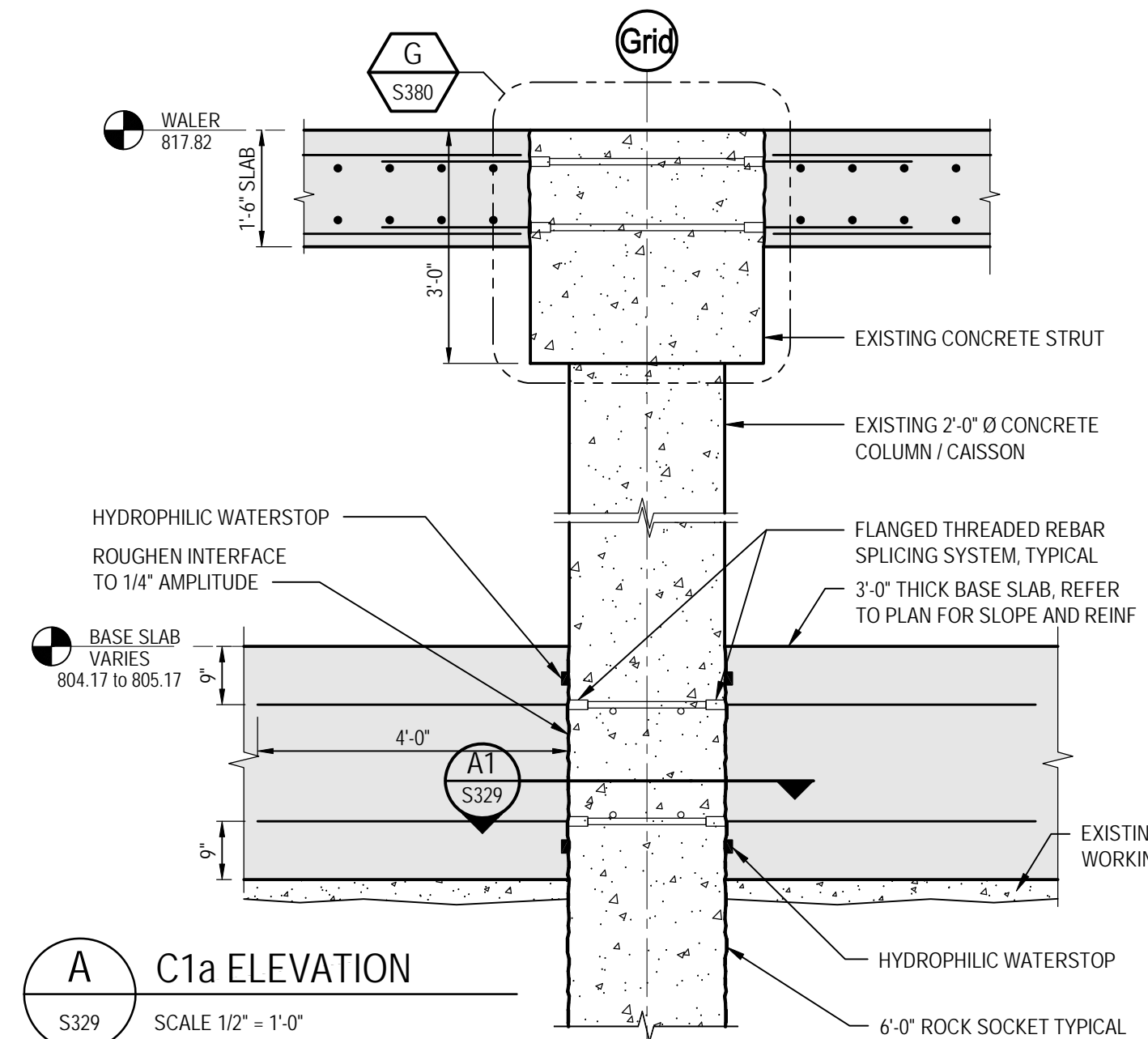
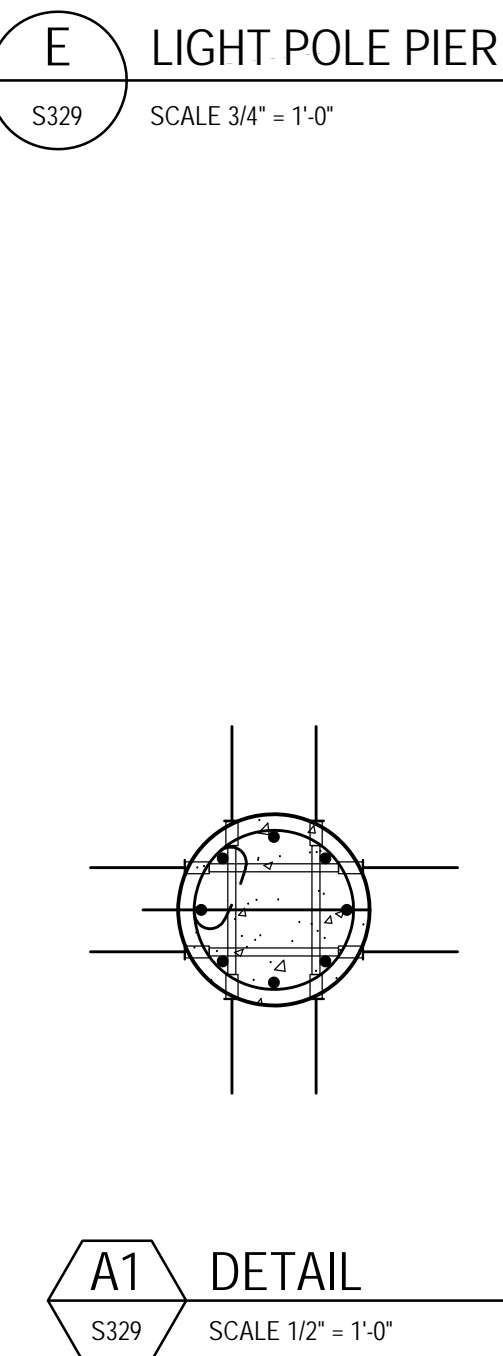
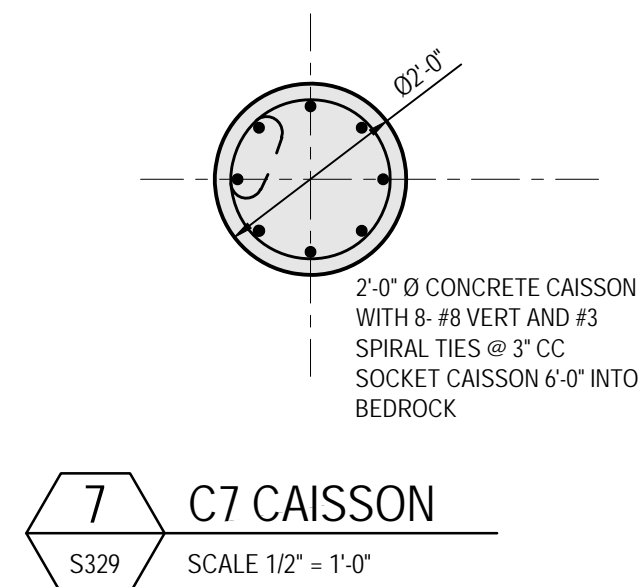
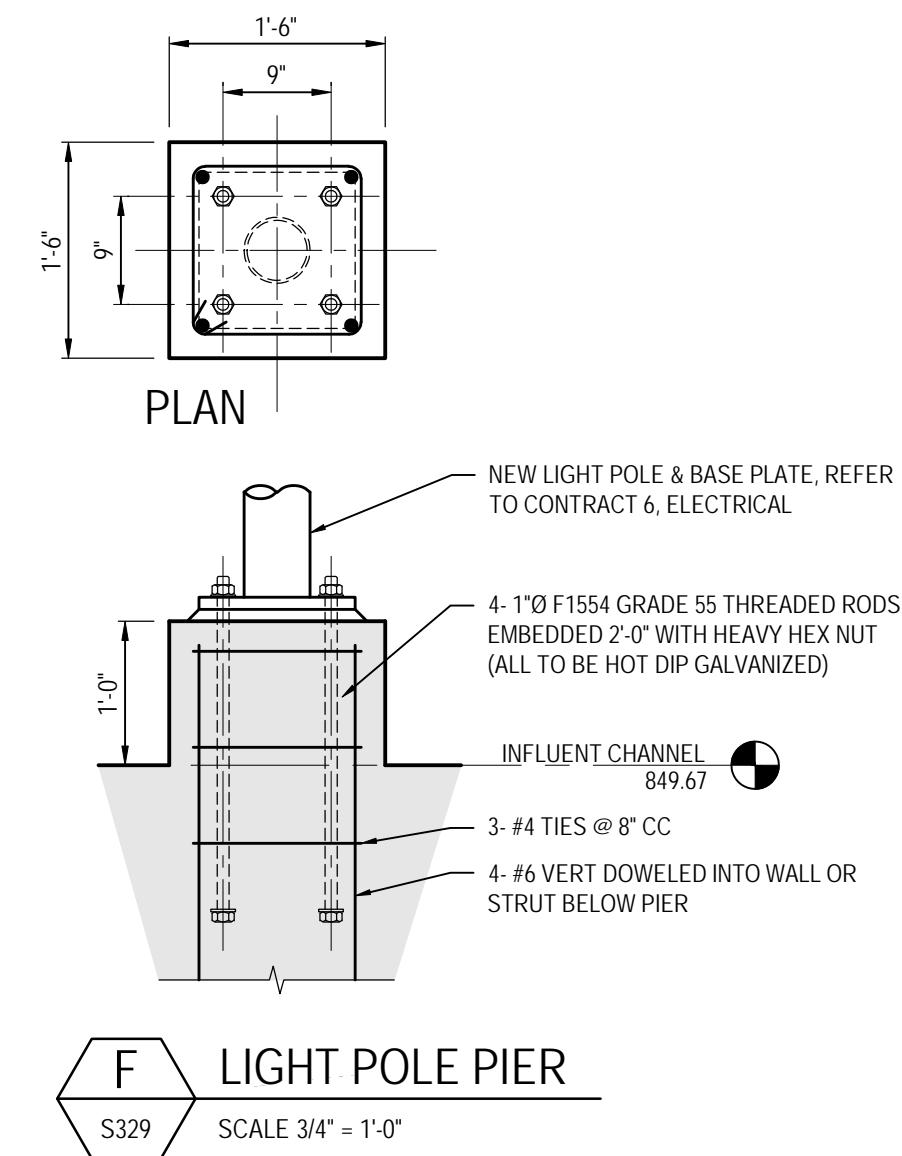
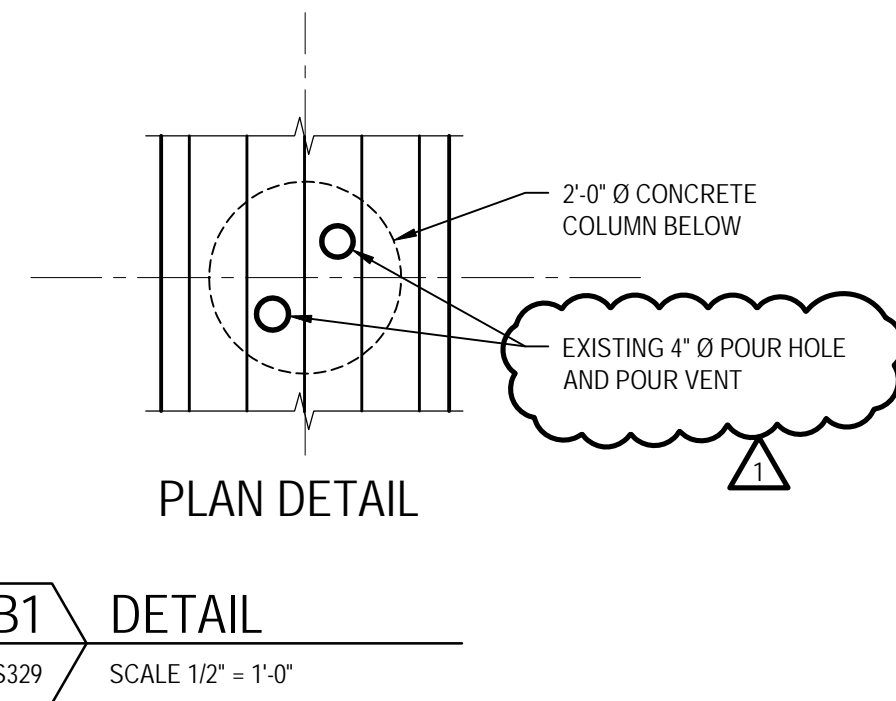
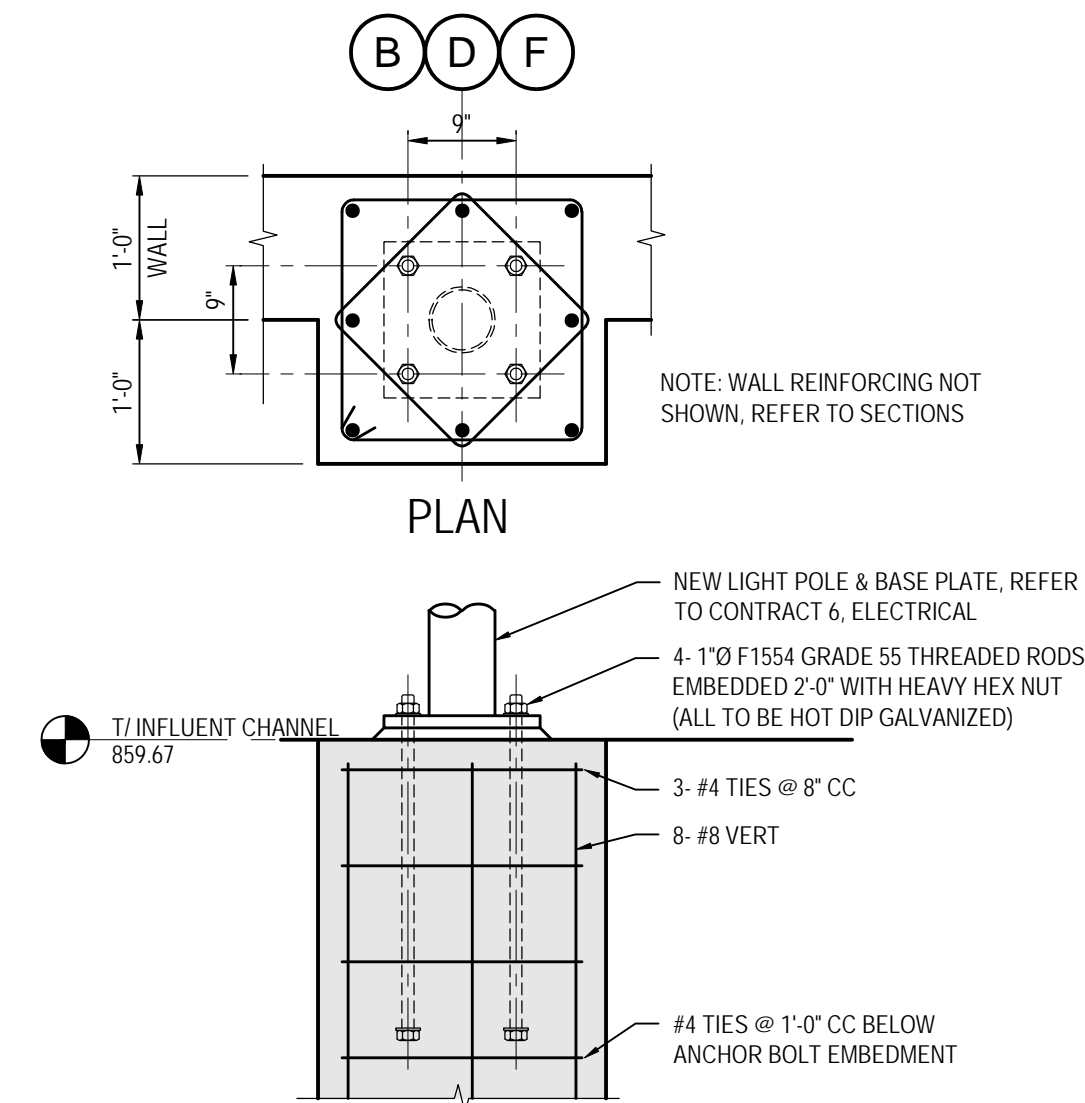
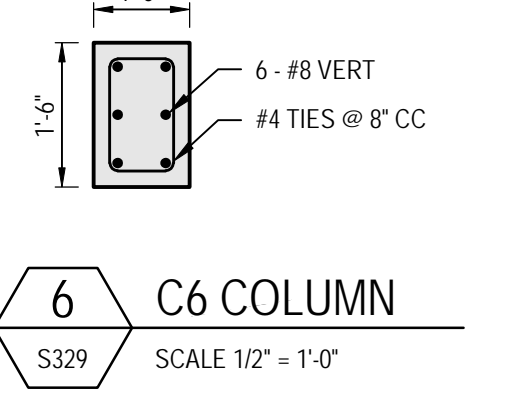
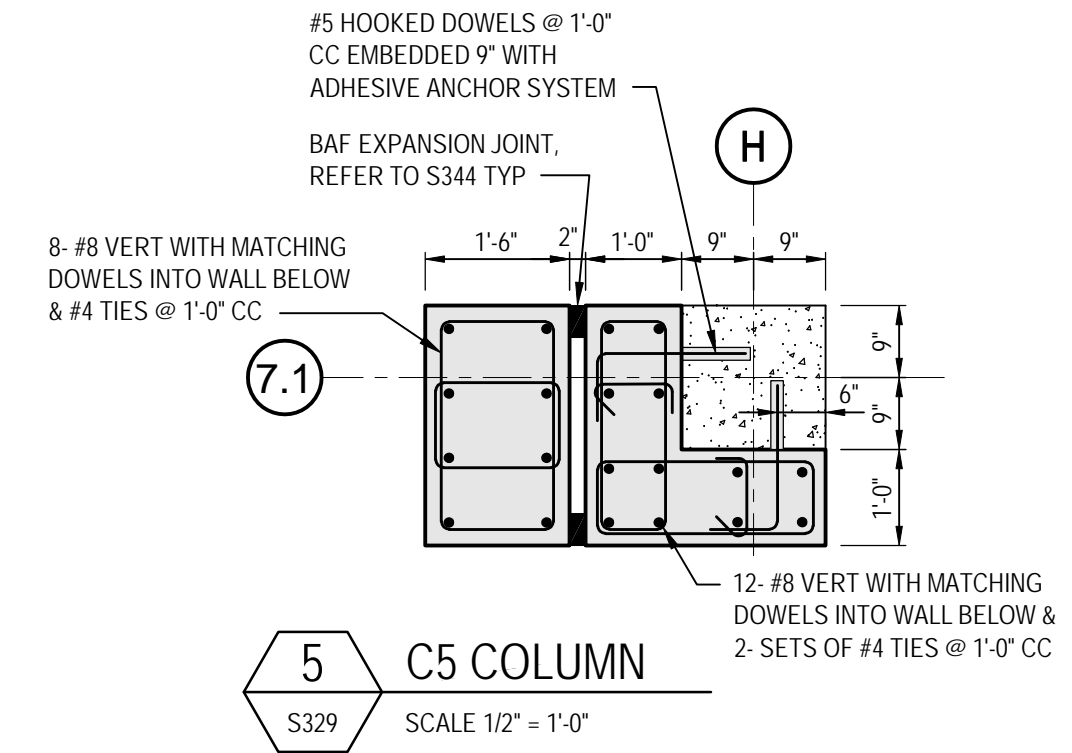
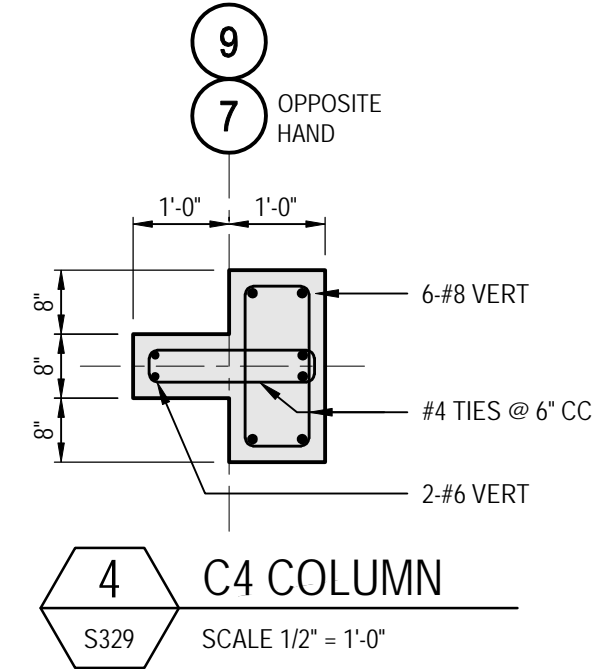
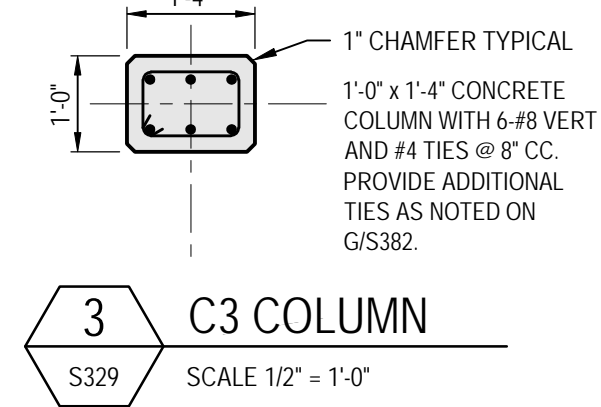
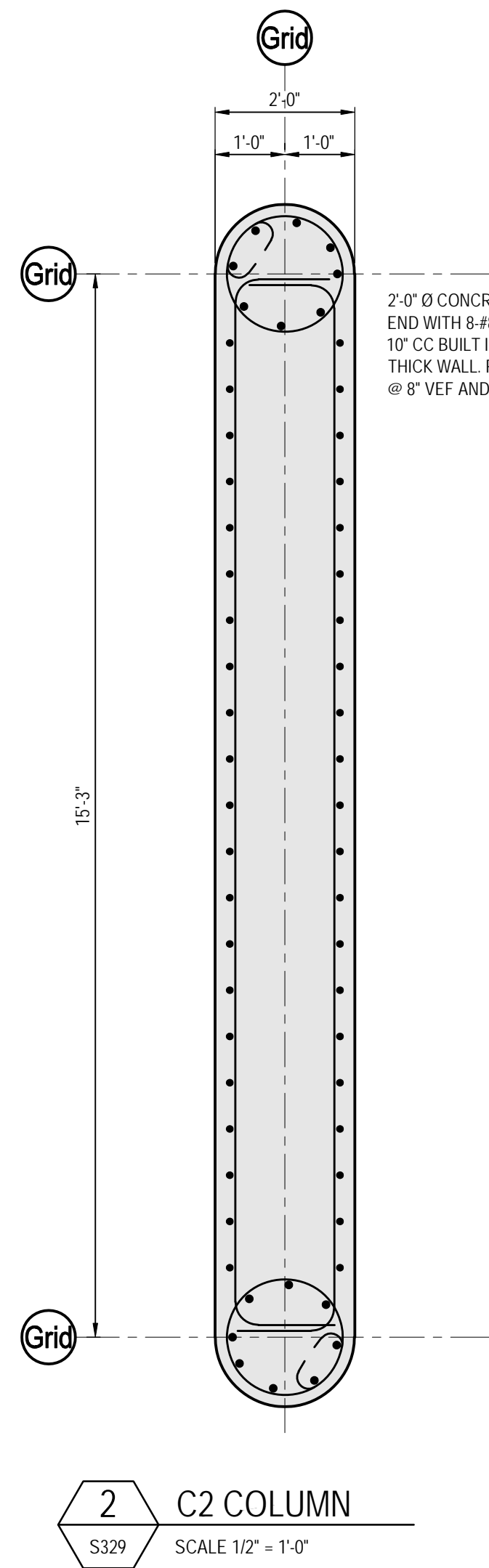
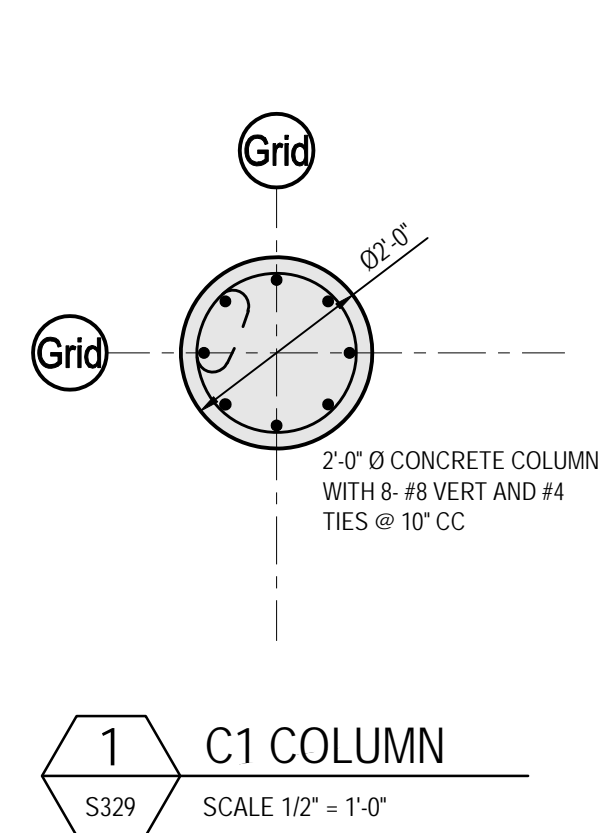
Design Frost Depth:	48	inches
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PILE DATA:

Design Pile Capacity (Blower Building):	550	kips (service)
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26613		0 4'-0" 8'-0" 12'-0" 16'-0"		SCALE 1/8"=1'-0" AT ORIGINAL SIZE		
2	CONFORMED FOR CONSTRUCTION	TBM	JUL	MET	03/16	
1	REVISED FOR ADDENDUM No. 5	TBM	JUL	MET	2/16	
0	FOR BID	TBM	JUL	MET	12/15	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.						

Title	CN CELLS 1 -14 - DESIGN LOADING
Contract No.	5
Original Size	
Ansi D Drawing No:	86-18134-S319
Rev:	2



No	Revision	Note	Drawn	Job Manager	Project Director	Date
2	CONFORMED FOR CONSTRUCTION		TBM	JUL	MET	03/16
1	REVISED FOR ADDENDUM No. 4		TBM	JUL	MET	2/16
0	FOR BID		TBM	JUL	MET	12/15

26613

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

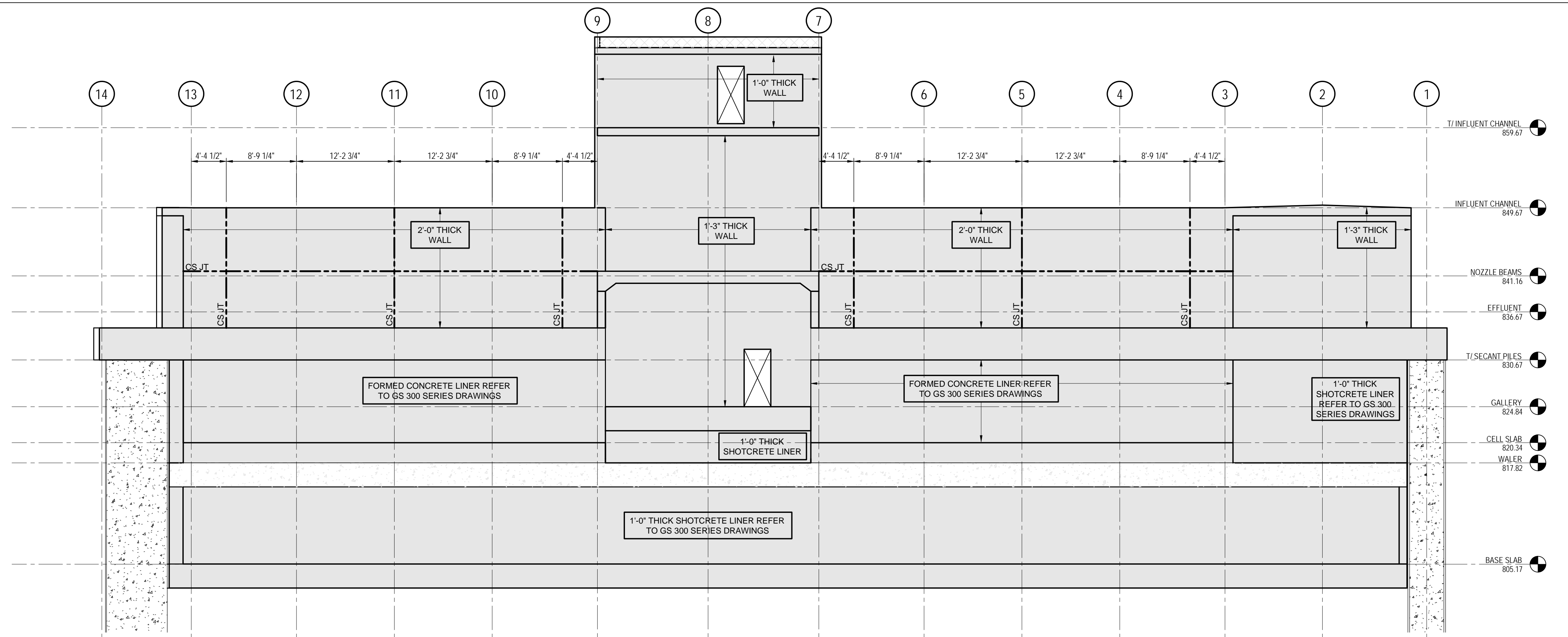
Title **CN CELLS 9 - 14 - ENLARGED PLANS**

Contract No. 5

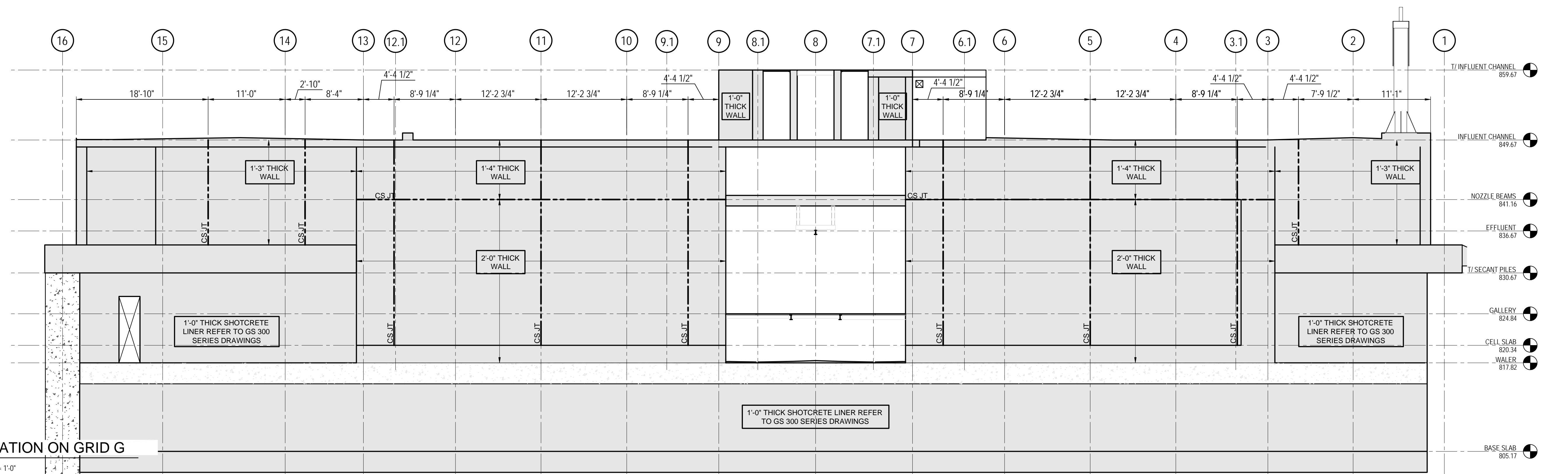
Original Size

Ansi D Drawing No: **86-18134-S329**

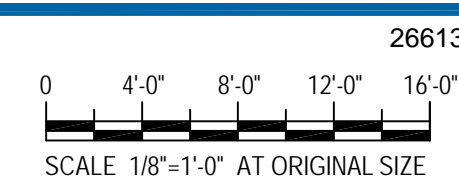
Rev: 2



1 ELEVATION ON GRID A
 S346 SCALE 1/8" = 1'-0"



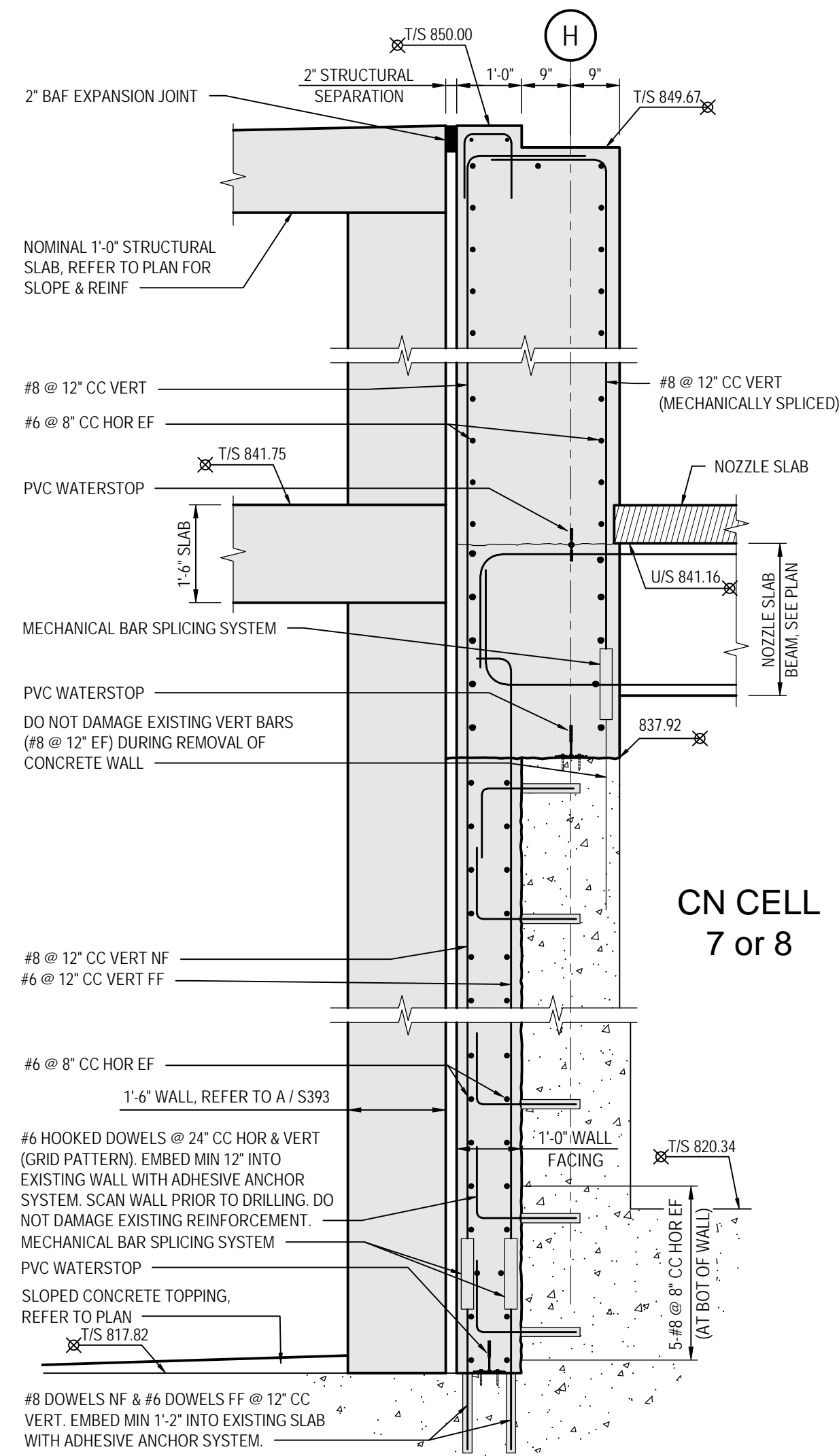
2 ELEVATION ON GRID G
 S346 SCALE 1/8" = 1'-0"



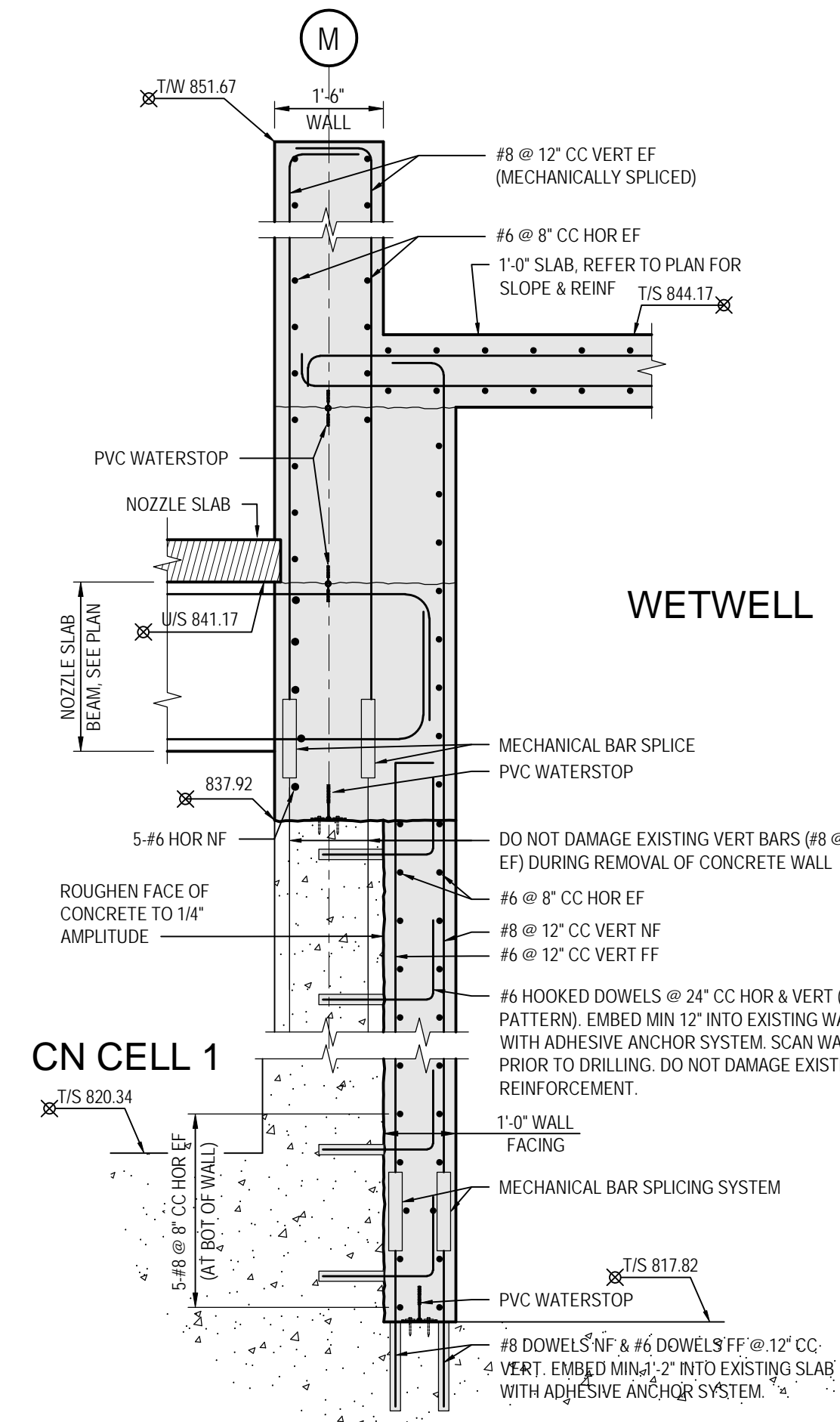
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
1	CONFORMED FOR CONSTRUCTION		TBM	JUL	MET	03/16
0	FOR BID		TBM	JUL	MET	12/15

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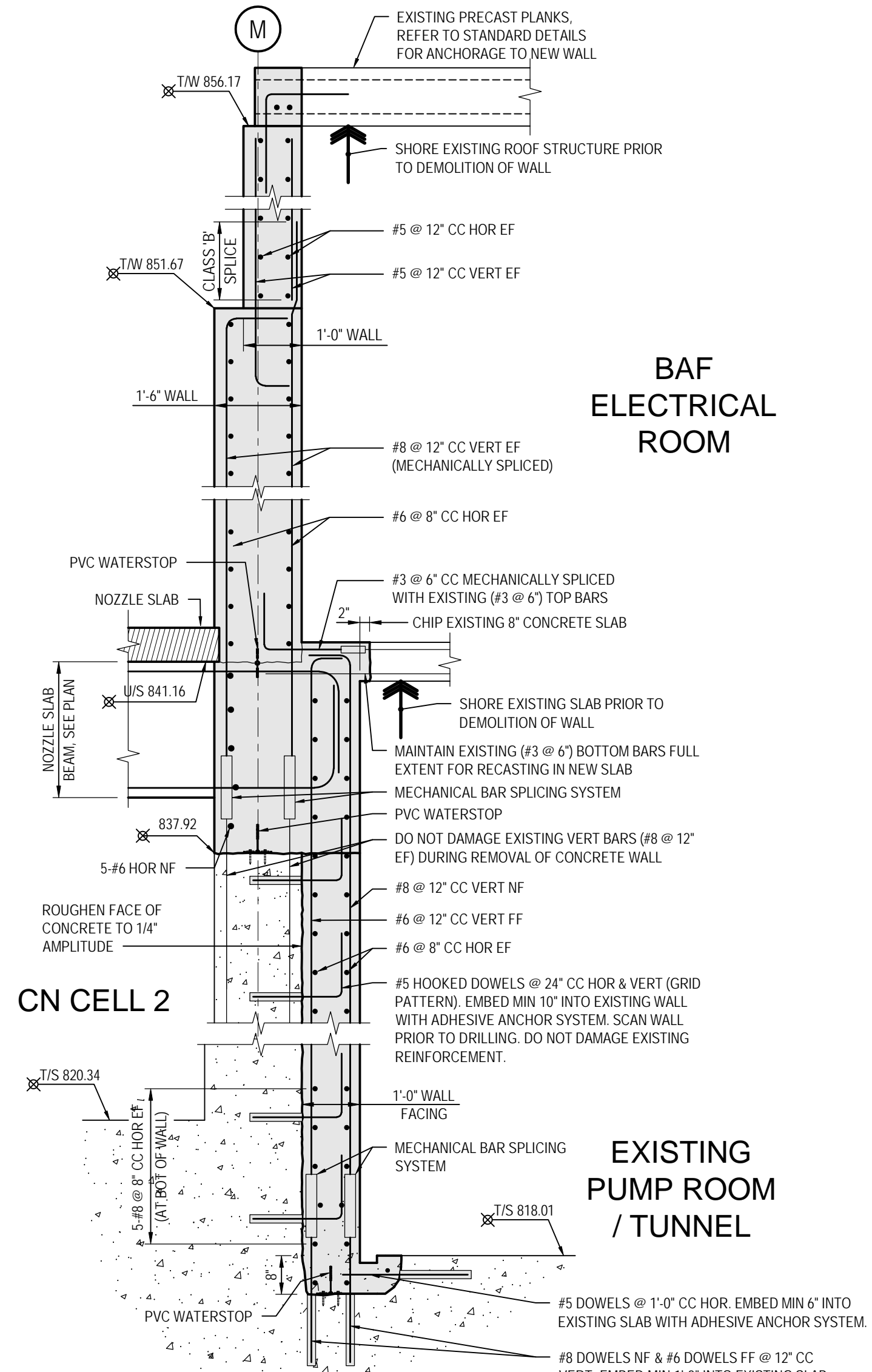
Title **CN CELLS 9 - 14 - WALL ELEVATIONS**
 Contract No. 5
 Original Size
Ansi D Drawing No: 86-18134-S346
 Rev: 1



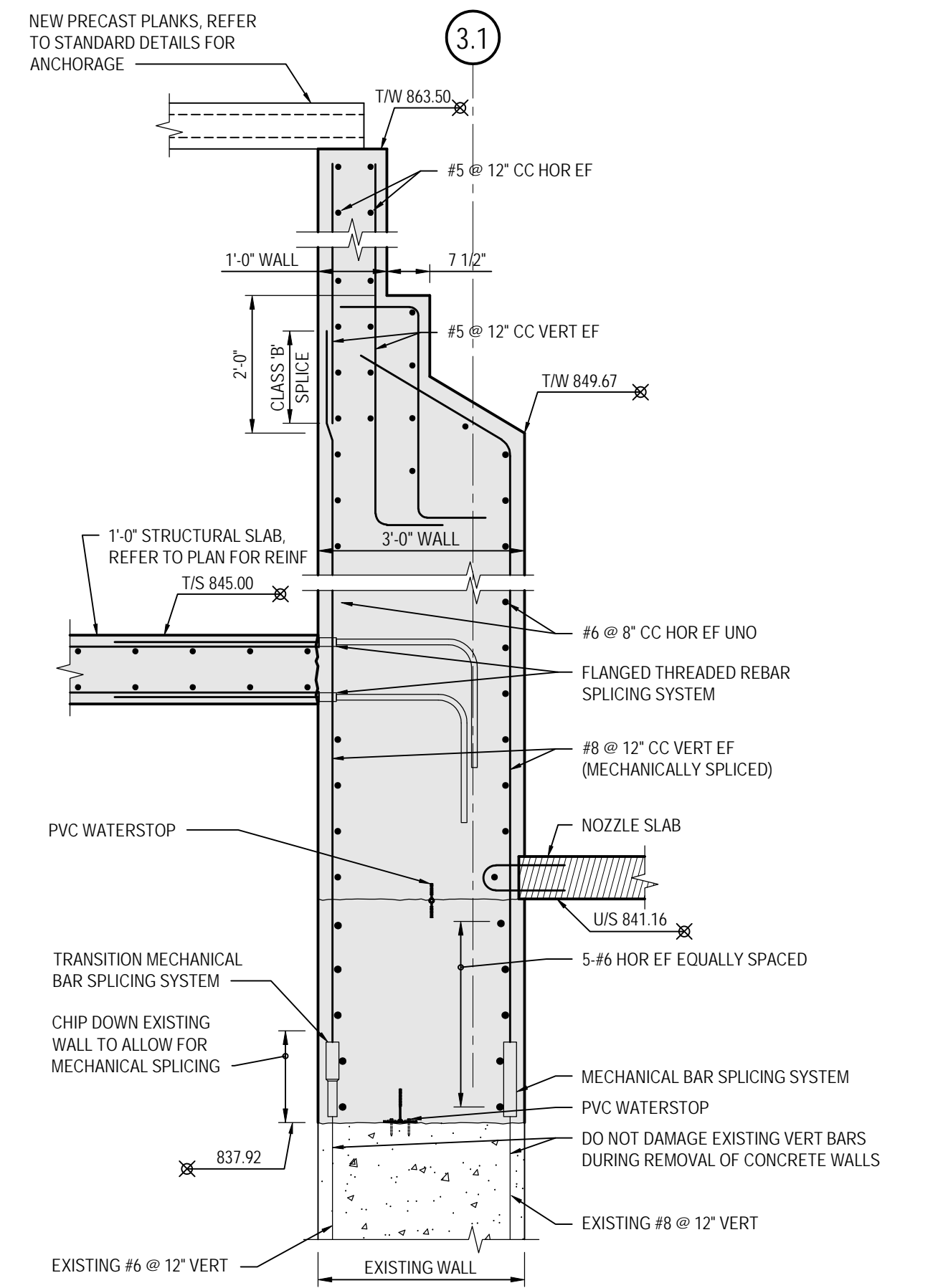
A CELL WALL SECTION GRID H
S370 SCALE 1/2" = 1'-0"



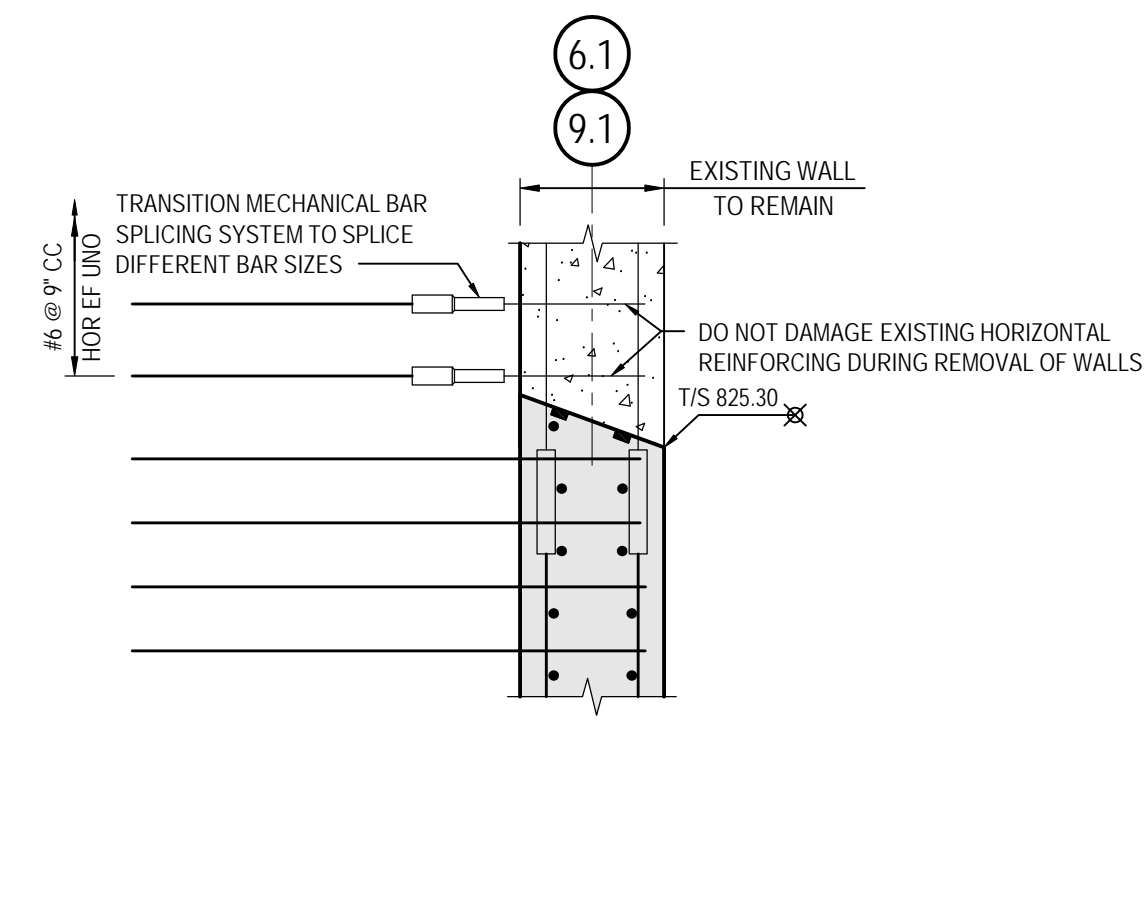
B CELL WALL SECTION GRID M
S370 SCALE 1/2" = 1'-0"



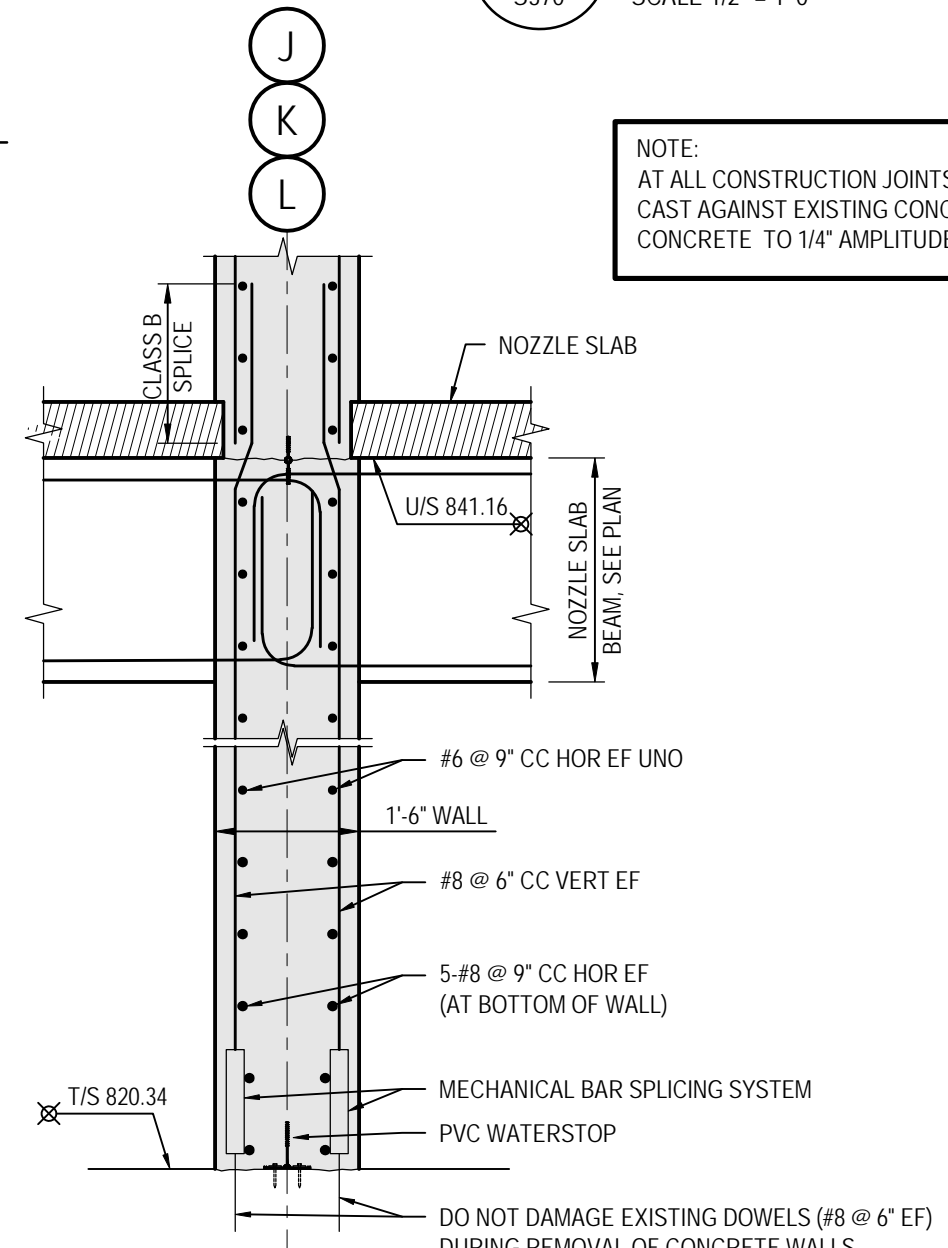
C CELL WALL SECTION GRID M
S370 SCALE 1/2" = 1'-0"



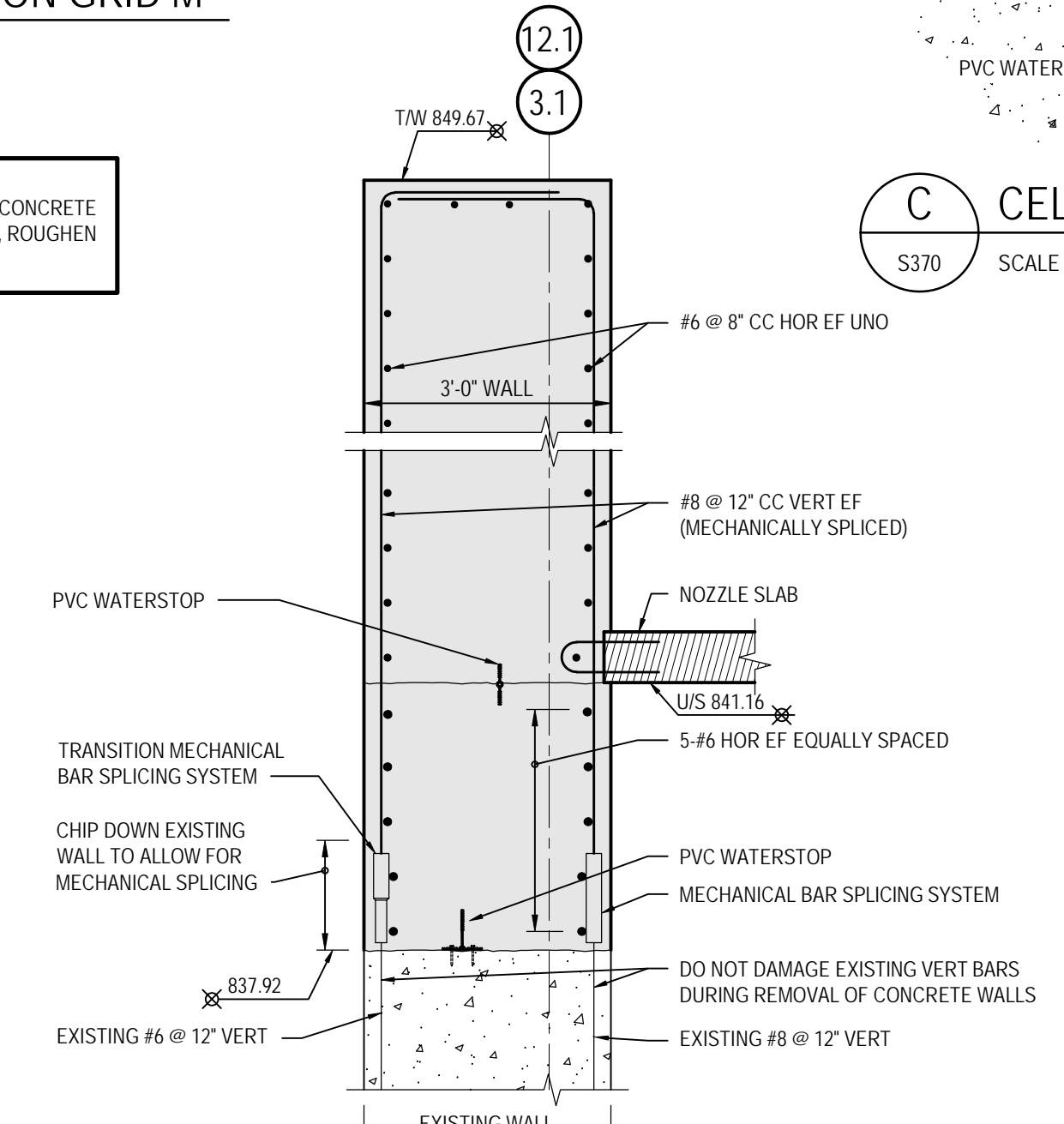
D CELL WALL SECTION BLOWER BLDG
S370 SCALE 1/2" = 1'-0"



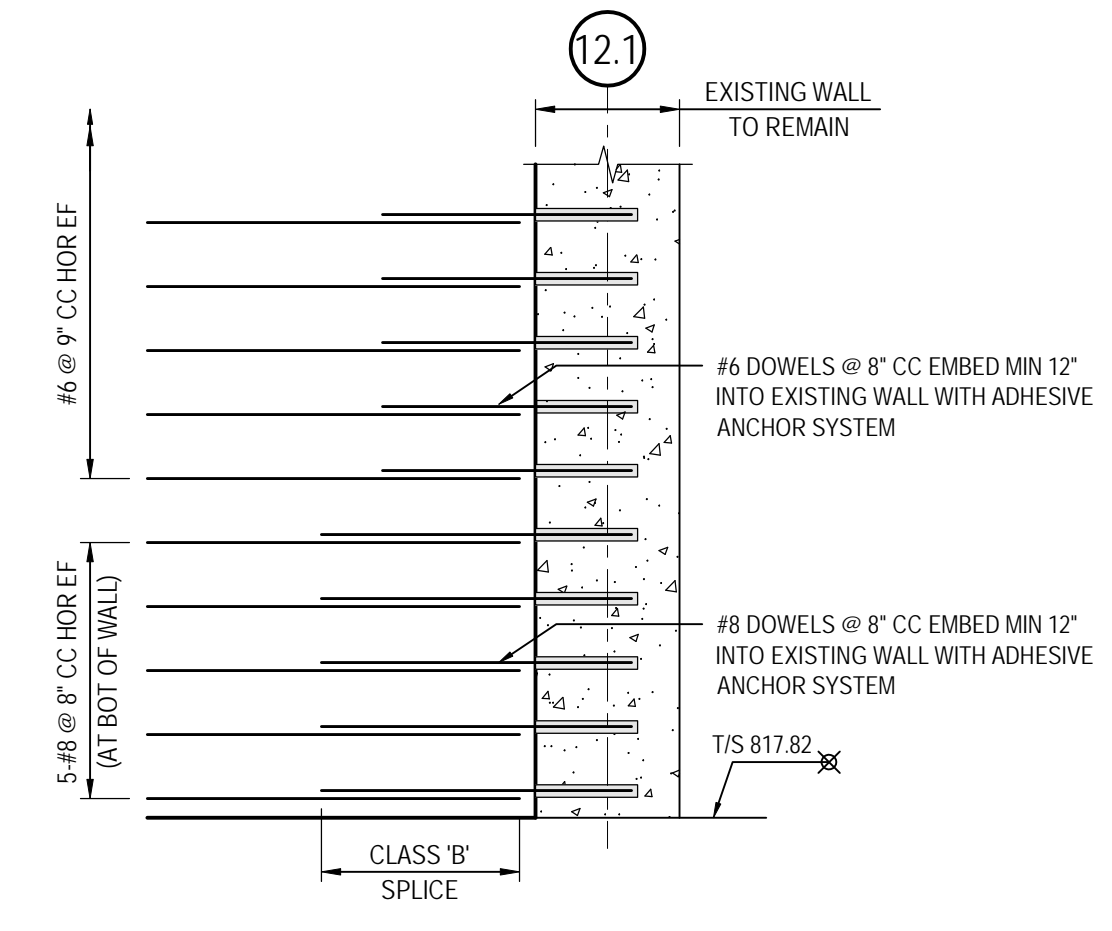
E SECTION AT GALLERY WALL
S370 SCALE 1/2" = 1'-0"



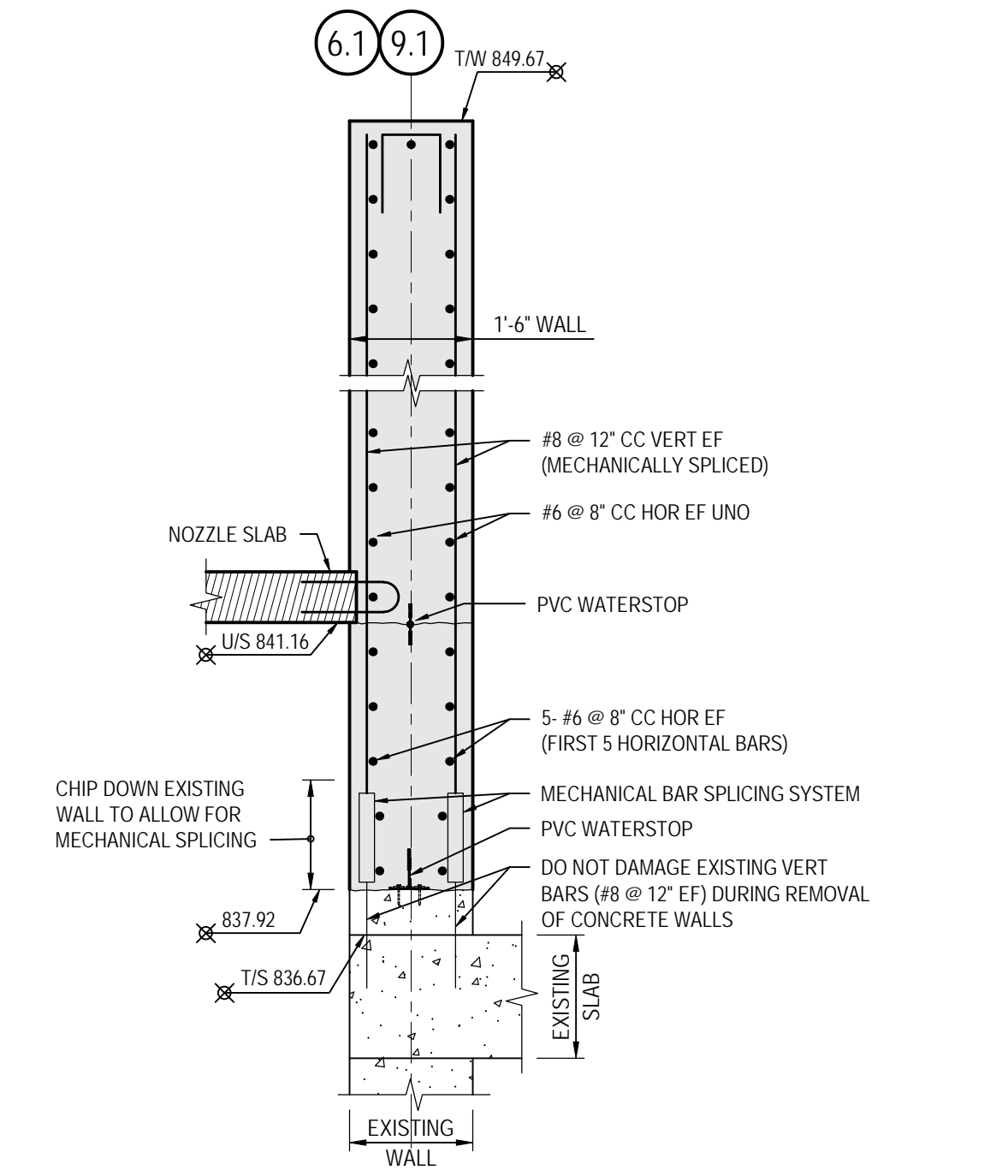
F INTERMEDIATE CELL WALL SECTION
S370 SCALE 1/2" = 1'-0"



G CELL WALL SECTION
S370 SCALE 1/2" = 1'-0"

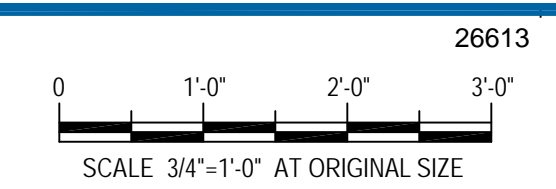


H WETWELL WALL SECTION
S370 SCALE 1/2" = 1'-0"



J CELL WALL SECTION AT CHANNEL
S370 SCALE 1/2" = 1'-0"

NOTE:
AT ALL CONSTRUCTION JOINTS AND CONCRETE
CAST AGAINST EXISTING CONCRETE, ROUGHEN
CONCRETE TO 1/4" AMPLITUDE



No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
1	CONFORMED FOR CONSTRUCTION		TBM	JUL	MET	03/16
0	FOR BID		TBM	JUL	MET	12/15

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Title **CN CELLS 1 - 8 SECTION DETAILS**

Contract No. 5

Original Size
Ansi D Drawing No: **86-18134-S370**

Rev: 1

GENERAL STRUCTURAL NOTES

- STRUCTURAL DRAWINGS SHALL BE COORDINATED AND USED IN CONJUNCTION WITH OTHER DRAWINGS, INCLUDING GENERAL ARCHITECTURAL, CIVIL (SITE), MECHANICAL, HVAC, PLUMBING, AND ELECTRICAL DRAWINGS. ANY APPARENT DISCREPANCIES SHALL BE BROUGHT TO ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO PROCEEDING ON SUCH WORK.
- NO CHANGES OF THE STRUCTURAL SYSTEM AS INDICATED ON THESE STRUCTURAL DRAWINGS SHALL BE DONE PRIOR TO RECEIVING WRITTEN APPROVAL FROM THE ENGINEER.
- THESE STRUCTURAL DRAWINGS DO NOT IDENTIFY COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND PROVIDE COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS PRIOR TO STARTING AND CONTINUOUSLY DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARILY BRACING AND MAINTAINING THE STABILITY OF THE STRUCTURES DURING DEMOLITION AND CONSTRUCTION. THE STRUCTURES SHALL BE ASSUMED UNSTABLE WITHOUT ALL OF THE WALLS, ROOF (IF APPLICABLE), CONNECTIONS, AND PERMANENT BRACING FULLY INSTALLED.
- SECTIONS AND DETAILS ON THE STRUCTURAL DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR SIMILAR CONSTRUCTION NOT FULLY DETAILED.
- ALL LIQUID CONTAINMENT CONCRETE STRUCTURES (TANKS, CHANNELS, ETC.) SHALL BE LEAK TESTED IN ACCORDANCE WITH SECTION 03301.
- CHEMICAL ADHESIVE SYSTEMS SHALL BE USED TO INSTALL ALL COMPONENTS AND ACCESSORIES (BOLTS, DOWELS, ETC.) INTO HARDENED CONCRETE AND MASONRY, UNLESS NOTED OTHERWISE.
- THE NOTES ON THIS SHEET ARE ONLY INTENDED TO SUPPLEMENT THE SPECIFICATIONS. REFER TO THE APPLICABLE SPECIFICATIONS FOR ALL REQUIREMENTS AND ADDITIONAL INFORMATION.

SPECIAL INSPECTIONS (REFERENCE SPECIFICATION SECTION 01420)

- SPECIAL INSPECTIONS ARE REQUIRED FOR PORTIONS OF THIS WORK. REFER TO SECTION 01420 AND THE INCLUDED STATEMENT OF SPECIAL INSPECTIONS.
- SPECIAL INSPECTIONS AND STRUCTURAL TESTING SHALL BE COORDINATED WITH CONTRACTOR'S WORK.

EARTHWORK/FOUNDATION NOTES (REFERENCE DIVISION 2 SPECIFICATIONS):

- ALL FOUNDATION WORK, INCLUDING (BUT NOT LIMITED TO) SUBGRADE PREPARATION AND PLACEMENT OF FILL MATERIAL, SHALL BE PERFORMED AS DESCRIBED IN DIVISION 2 OF THE SPECIFICATIONS.
- STRUCTURAL FILL MATERIAL SHALL MEET THE REQUIREMENTS OF SECTION 02223 AND SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 02228.
- ALL FOUNDATIONS SHALL BE CONSTRUCTED ON FIRM SUBGRADE, BEDROCK, OR STRUCTURAL FILL.
- OPEN EXCAVATIONS SHALL BE PROTECTED FROM RAIN AND/OR GROUNDWATER. SUCH EXCAVATIONS MAY BE PROTECTED BY CASTING A MINIMUM 3 INCH THICK CLSM MUD MAT.
- FOUNDATIONS SHALL NOT BE CAST ON FROZEN SUBGRADE.
- CONTRACTOR SHALL ALLOW OWNERS REPRESENTATIVE OR ENGINEER SHALL VERIFY ALL SUBGRADE CONDITIONS PRIOR TO PLACEMENT OF FOUNDATIONS, BASE SLABS, AND SLABS-ON-GRADE.
- CONTROLLED LOW-STRENGTH MATERIAL (CLSM) SHALL BE NYSDOT APPROVED FLOWABLE FILL WITH SPECIFIED COMPRESSIVE STRENGTH OF 200 PSI.

CONCRETE NOTES (REFERENCE DIVISION 3 SPECIFICATIONS):

- ALL CONCRETE SHALL BE MIXED, CONVEYED, PLACED, CURED, AND TESTED IN ACCORDANCE WITH ACI 301, ACI 318, ACI 350, AND CHAPTER 19 OF THE BUILDING CODE REFERENCED IN THE "STRUCTURAL DESIGN CRITERIA". REFER TO DIVISION 3 SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- CONCRETE CLASSES AND THEIR USE AS SPECIFIED IN SECTION 03300:
 MIX A - ALL GENERAL USES NOT OTHERWISE SPECIFIED OR PROVIDED FOR BELOW.
 MIX B - LIQUID CONTAINMENT STRUCTURES - ALL STRUCTURAL REINFORCED CONCRETE IN CONTACT WITH PROCESS WATER.
 MIX C - CONCRETE FILL/TOPPING (AVERAGE THICKNESS GREATER THAN 3 INCHES), PIPE SUPPORTS AND ENCASUREMENTS, AND DUCT BANKS.
 MIX D - CONCRETE TOPPING WITH FIBER REINFORCING (AVERAGE THICKNESS LESS THAN 3 INCHES).
 MIX E - CONCRETE THRUST BLOCKS (BELOW GRADE), AND FILL CONCRETE BELOW STRUCTURES.
 MIX F - EXTERIOR SLABS, PLATFORMS, WALKWAYS, SIDEWALKS, ROAD CURBS, AND TRUCK UNLOADING PADS. SECANT PILE CAP BEAMS AND BAR LINER.
- AIR ENTRAINMENT IS REQUIRED FOR ALL EXTERIOR EXPOSED CONCRETE AND FOR ALL LIQUID CONTAINMENT STRUCTURES.
- CLEAR COVER SHALL CONFORM TO ACI 318 AND ACI 350 AS FOLLOWS (UNLESS NOTED OTHERWISE):
 CONCRETE CAST AGAINST EARTH = 3"
 TOP OF BASE SLABS WITH PVC WATERSTOPS = 3"
 CONCRETE EXPOSED TO EARTH, WEATHER, AND WATER BEAMS AND COLUMNS (TIES AND STIRRUPS) = 2"
 BEAMS AND COLUMNS (PRIMARY REINFORCEMENT) = 1 1/2"
 BEAMS AND COLUMNS (SECONDARY REINFORCEMENT) = 2"
- ALL REINFORCING STEEL BARS SHALL BE ASTM A615, GRADE 60, DEFORMED BARS.
- TYPICAL REINFORCING BAR LAP LENGTHS (SPICES) SHALL BE AS SHOWN IN THE "REINFORCEMENT SPLICE LENGTHS" TABLE ON THIS SHEET, UNLESS NOTED OTHERWISE ON THE CONTRACT DRAWINGS.
- WELDED WIRE REINFORCEMENT (WWR) SHALL CONFORM TO ASTM A185. THE MINIMUM LAP SPICE SHALL BE 6 INCHES.
- APPLY BONDING AGENT PRIOR TO CASTING CONCRETE AGAINST HARDENED CONCRETE, EXCEPT ALONG VERTICAL JOINTS.
- ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 1/4" BY 1/4" CHAMFER (INCLUDING TOP EDGES AND OUTSIDE CORNERS OF WALLS AND SLABS), UNLESS NOTED OTHERWISE.
- BEAM POCKETS SHALL BE 8 INCHES DEEP AND FULL WIDTH OF THE BEAM, UNLESS NOTED OTHERWISE.
- PROVIDE WATERSTOPS IN ALL STRUCTURES THAT ARE INTENDED TO BE WATERTIGHT OR DRY SPACES BELOW GRADE.
 a. ALL PVC WATERSTOPS SHOWN ON THE DRAWINGS SHALL BE 6 INCHES, UNLESS NOTED OTHERWISE.
 b. PVC WATERSTOPS SHALL BE HEAT-WELDED/GLUED AT ALL SEAMS, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 c. WATERSTOPS SHALL BE INSTALLED AS A CONTINUOUS LOOP, INTERCONNECTING ALL CONCRETE JOINTS.
 d. WATERSTOPS IN LIQUID CONTAINMENT STRUCTURES SHALL BE TERMINATED 3 INCHES BELOW THE TOP OF WALLS.
- VERTICAL JOINTS IN FOUNDATION FROST WALLS SHALL LINE UP WITH MASONRY BLOCK (CMU) CONTROL JOINTS.
- EXTERIOR SLABS (PADS) SHALL BE MINIMUM 10" THICK WITH #4@12" T&B EW, OR AS SHOWN ON THE DRAWINGS.
- ALL EXTERIOR SLABS SHALL HAVE A 1/4" PER FOOT SLOPE (1/8" PER FOOT MINIMUM) IN ORDER TO PROVIDE POSITIVE DRAINAGE.
- CONTRACTOR SHALL PROPOSE ADDITIONAL CONSTRUCTION JOINTS AS NEEDED TO FACILITATE CONSTRUCTION. ALL PROPOSED CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTING.
- CONTRACTOR SHALL COORDINATE ALL OPENINGS AND PENETRATIONS IN CONCRETE WITH ALL ARCHITECTURAL, MECHANICAL, HVAC, PLUMBING, AND ELECTRICAL WORK. NOTE THAT NOT ALL OPENINGS AND PENETRATIONS ARE SHOWN ON THE STRUCTURAL DRAWINGS.
- COORDINATE AND CAST IN ALL EMBEDDED CONCRETE ACCESSORIES REQUIRED FOR ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL ACCESSORIES AND EQUIPMENT. POST INSTALLATION OF EMBEDDED ITEMS WILL NOT BE ACCEPTABLE.
- COORDINATE SIZE OF ALL CONCRETE PADS, CURBS, AND PIERS WITH APPROVED EQUIPMENT MANUFACTURER. CONTRACT NO. 5 SHALL PROVIDE ALL CONCRETE PADS (SLAB-ON-GRADE, HOUSEKEEPING PADS, EQUIPMENT PADS, ETC.) AND ASSOCIATED CURBS INDICATED ON CONTRACT NOS. 5, 6, 7, AND 8.
- ALL CONCRETE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR IN AN APPROVED MANNER.
- ALL EXISTING AND NEW PENETRATIONS INTO UNDERGROUND STRUCTURES SHALL BE SEALED WATERTIGHT AGAINST INFILTRATION OF GROUNDWATER AND SUBMERGENCE.
- REFER TO DIVISION 3 OF THE SPECIFICATIONS FOR ALL OTHER REQUIREMENTS.

PRECAST CONCRETE NOTES (REFERENCE DIVISION 3 SPECIFICATIONS):

- ALL STRUCTURAL PRECAST CONCRETE UNITS SHALL BE DESIGNED TO WITHSTAND ALL DEAD LOADS, LIVE LOADS, AND ERECTION FORCES INCLUDING THOSE PROVIDED IN THE STRUCTURAL DESIGN CRITERIA ON THIS SHEET.
- PRECAST UNITS SHALL BE DESIGNED TO ACCOMMODATE CONSTRUCTION TOLERANCES, DEFLECTION OF BUILDING STRUCTURAL MEMBERS, AND CLEARANCES OF INTENDED OPENINGS.
- CONNECTIONS SHALL ACCOMMODATE BUILDING MOVEMENT AND THERMAL MOVEMENT, PERMITTING ADJUSTMENT TO ACCOMMODATE MISALIGNMENT OF STRUCTURE.
- CONNECTIONS BETWEEN PRECAST ROOF PLANKS SHALL BE MADE SO THE PRECAST ROOF SYSTEM CAN ACT AS A DIAPHRAGM. GROUT SOLID THE KEYWAY BETWEEN HOLLOW CORE PLANKS.
- PRECAST PLANKS SHALL BE CONNECTED TO THE MASONRY WALLS AND CONCRETE BEAMS THAT THEY BEAR ON ALONG THE ENDS AND SIDELAPS. REFERENCE THE PLANK CONNECTION DETAILS ON THE CONTRACT DRAWINGS.
- CONTRACTOR SHALL COORDINATE ALL ROOF PLANK PENETRATIONS MADE IN THE FIELD WITH PRECAST MANUFACTURER FOR ACCEPTABILITY OF THE FIELD CUTS.
- MANUFACTURER SHALL BE A PCI-CERTIFIED PLANT FOR PRODUCTION OF PRECAST CONCRETE UNITS.
- WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PCI MNL-117, PCI MNL-120, AND PCI MANUAL FOR STRUCTURAL DESIGN OF PRECAST CONCRETE.
- DAMAGED PRECAST UNITS OR DIMENSIONAL INCONSISTENCIES BETWEEN DELIVERED PRECAST UNITS WILL BE CAUSE FOR REJECTION BY THE ENGINEER. REJECTED UNITS SHALL BE REMOVED FROM THE SITE AND REPLACED AT CONTRACTOR'S EXPENSE.

MASONRY NOTES (REFERENCE DIVISION 4 SPECIFICATIONS):

- ALL MASONRY WALLS SHALL BE REINFORCED. REFERENCE DETAILS IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- CONTINUOUS BOND BEAMS SHALL BE CONSTRUCTED AT THE TOPS OF WALLS THAT SUPPORT A ROOF OR CEILING. CONTROL JOINTS SHALL NOT INTERRUPT THESE TOP BOND BEAMS.
- ALL MASONRY CELLS CONTAINING REINFORCING BARS SHALL BE GROUTED SOLID.
- BASE WALL DOWELS ARE TO BE LOCATED IN EVERY REINFORCED CELL.
- FULLY GROUT ALL CELLS OF MASONRY EXTENDING BELOW GRADE.
- INFILL MASONRY AROUND BEAMS AND COLUMNS THAT ARE POCKETED IN THE MASONRY.
- LINTELS ARE REQUIRED FOR ALL OPENINGS GREATER THAN 16 INCHES IN CMU WALLS.

STEEL FABRICATIONS (REFERENCE SECTION 05500):

- THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXISTING CONDITIONS AND ALL DIMENSIONS PRIOR TO FABRICATION.
- ALL STRUCTURAL STEEL MEMBERS AND CONNECTIONS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - 2005" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC (AISC).
- MATERIALS FOR STRUCTURAL MEMBERS SHALL [CONFORM WITH THE ASTM DESIGNATIONS AS FOLLOWS] [BE AS SPECIFIED IN SECTION 05500]:
 - W-SHAPES --> ASTM A992, GRADE 50
 - S-SHAPES, CHANNELS, TEES & ANGLES --> ASTM A36
 - HSS SHAPES --> ASTM A500, GRADE B (46 KSI)
 - STRUCTURAL PLATES --> ASTM A36
- ALL FABRICATIONS SHALL CONSIST OF FULLY WELDED CONNECTIONS.
- ALL WELDING SHALL BE IN ACCORDANCE WITH THE (AMERICAN WELDING SOCIETY) AWS D1.1:2004 STRUCTURAL WELDING CODE STEEL". ALL FIELD WELDS SHALL BE CLEANED, AND SHALL BE PRIMED AND TOP COATED WITH PAINT TO PROTECT FROM RUSTING.
- MATERIALS FOR FASTENERS SHALL CONFORM WITH THE ASTM AND ANSI DESIGNATIONS AS FOLLOWS:
 - STRUCTURAL BOLTS --> ASTM A325N
 - STRUCTURAL NUTS --> ASTM A563
 - STEEL WASHERS --> ASTM F436
 - FILLER METAL --> AWS 5.1 OR 5.5
 - WELDING ELECTRODES --> E70XX SMAW
- ALL STEEL FRAMING (NOT GALVANIZED) SHALL BE PAINTED IN ACCORDANCE WITH SECTION 09900.
- ALL STEEL MEMBERS AND FASTENERS SHALL BE HOT-DIP GALVANIZED, UNLESS NOTED OTHERWISE.
- REFERENCE SECTION 05500 FOR ALL OTHER REQUIREMENTS.

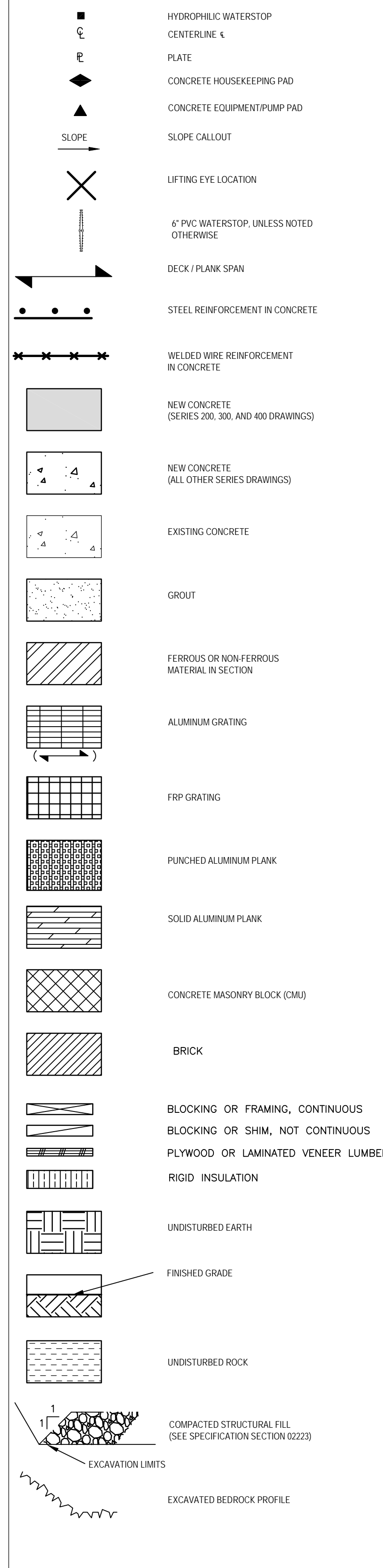
METAL AND MISCELLANEOUS FABRICATIONS (REFERENCE DIVISION 5 SPECIFICATIONS):

- ALL ALUMINUM TO BE IN CONTACT, CAST-IN OR EMBEDDED INTO MASONRY OR CONCRETE SHALL BE BACKPAINTED WITH A BITUMINOUS COATING.
- ALL FASTENERS USED TO FASTEN ALUMINUM SHALL BE TYPE 316, STAINLESS STEEL WITH TEFLON WASHERS.
- ALL FASTENERS USED TO FASTEN FIBERGLASS SHALL BE TYPE 316, STAINLESS STEEL.

REINFORCEMENT SPLICE LENGTHS (DEVELOPMENT AND LAP SPLICES FOR TYPICAL STRUCTURES)		
SIZE	HORIZONTAL BARS *	OTHER BARS
#4	24" (2'-0")	18" (1'-6")
#5	30" (2'-6")	24" (2'-0")
#6	36" (3'-0")	30" (2'-6")
#7	54" (4'-6")	42" (3'-6")
#8	60" (5'-0")	48" (4'-0")
#9	72" (6'-0")	54" (4'-6")
#10	84" (7'-0")	60" (5'-0")

- * HORIZONTAL BARS INCLUDE:
- HORIZONTAL WALL REINFORCING BARS.
 - TOP REINFORCING BARS IN BEAMS.
 - TOP REINFORCING BARS IN SLABS AND WALL FOOTINGS GREATER THAN 12" THICK.

SYMBOLS AND LEGEND



STRUCTURAL ABBREVIATIONS

AB	ANCHOR BOLT
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECT OR ARCHITECTURAL
ASSY	ASSEMBLY
BT	BOTTOM OF
BIF	BOTTOM OF FOOTING
BIT	BITUMINOUS
BLDG	BUILDING
BLL	BOTTOM LOWER LAYER
BM	BEAM
BOT OR B	BOTTOM
BP	BASE PLATE
BRG	BEARING
BRK	BRICK
BUL	BOTTOM UPPER LAYER
CL	CENTERLINE
CC	CENTER TO CENTER
CF	CUBIC FEET
CI	CAST IRON
CC OR CU FT	CIRCLE/CIRCULAR
CIRC	CONTROL JOINT
CL JT	CLEAR
CLR	CONCRETE MASONRY UNIT
CMU	COLUMN
COL	CONCRETE
CONC	CONSTRUCTION
CONST	CONTINUOUS
CONT	CONTROLLED LOW-STRENGTH MATERIAL
CLSM	CHEMICAL RESISTANT FINISH
CRF	CONSTRUCTION JOINT
CS JT	CUBIC YARD
CY OR CU YD	DEFLECTION
DEFL	DIAMETER
DIA OR Ø	DIAGONAL
DIAG	DIMENSION
DIM	DEAD LOAD
DL	DOWN
DN	DRAWING
DWG	DWL
DWL	EF
EF	EXPANSION JOINT
EJ	ELEVATION
EL	EQUAL
EQ	EACH WAY
EW	EXISTING
EXP	EXPANSION
FAB	FABRICATE
FD	FLOOR DRAIN
FF	FINISH
FW	FAR FACE / FINISHED FLOOR
FLR	FLOOR
FND	FOUNDATION
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FOOTING STEP
FT	FEET
FTG	FOOTING
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
HD	HEAVY DUTY
HKP	HOUSE KEEPING PAD
HOR OR H	HORIZONTAL
HPT	HIGH POINT
HSS	HOLLOW STRUCTURAL SHAPE
HT	HEIGHT
IF	INSIDE FACE
INT	INTERIOR
INT	INTERIOR
ISO	ISOLATION
JST	JOIST
JT	JOINT
K	1000 POUNDS (1 KIP)
LPT	LOW POINT
L OR L	ANGLE
LE	LEFT END
LL	LONG
LLH	LIVE LOAD
LLV	LONG LEG HORIZONTAL
MAS	MATERIAL
MATL	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTO	MASONRY OPENING
MTL	METAL
MULT	MULTIPLE
NF	NEAR FACE
NTS	NOT TO SCALE
OC	ON CENTERS / ODDOR CONTROL
OD	OUTSIDE DIAMETER
OP	OF
OPNG	OPENING
OPP	OPPOSITE
PL	PLATE
PAR	PARALLEL
PCF	POUNDS PER CUBIC FOOT
PEP	PERSONAL ENTRY POINT
PEFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RISER / REACTION / RADIUS
RAD	RADIUS
RD	ROOF DRAIN
RE	RIGHT END
REF	REFERENCE
REIN	REINFORCEMENT
RM	ROOM
RO	ROUGH OPENING
SF	SQUARE FOOT
SMT	SHEET
SH	SHILLAR
STL JST	STEEL JOIST
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRU	STRUCTURAL
T & B	TOP AND BOTTOM
T	TREAD OR TOP
TIF	TOP OF FOOTING
TIG	TOP OF GROUT GRATING
TIM	TOP OF MASONRY
TIS	TOP OF SLAB / STEEL
TW	TOP OF WALL
THK	THICK
TLL	TOP LOWER LAYER
TU	TOP UPPER LAYER
UNOU N O	UNLESS OTHERWISE NOTED
US	UNLESS OTHERWISE NOTED
VERT	VERTICAL

STRUCTURAL DESIGN CRITERIA

(Per 2010 Building Code of New York State)

FLOOR LIVE LOADS:

Electrical Room	250	(psf)
Mechanical Rooms	250	(psf)
Office & Control Rooms	100	(psf)
Stairways and Landings	100	(psf)
Access Platforms	60	(psf)

ROOF LIVE LOADS:

Minimum Roof Live Load:	20	(psf)
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ROOF PLANK DEAD LOADS:

Roofing Dead Loads:	10	(psf)
Collateral Loads:	15	(psf)
Concentrated Loads:	3000	(lbs)

(located anywhere along plank length)

CANOPY ROOF DEAD LOADS:

Roofing Dead Loads:	5	(psf)
Collateral Loads:	10	(psf)

ROOF SNOW LOAD:

Ground Snow Load, P _g :	40	(psf)
Flat-roof Snow Load, P _r :	31	(psf)
Canopy (unheated)	37	(psf)
Sloped-roof Snow Load, P _s :	34	(psf)

Snow Drift Load: (Refer to roof plans for loading requirements)

Snow Exposure Factor, C _e :	1.0
Snow Load Importance Factor, I _s :	1.1
Thermal Factor, C _t :	1.0
(unheated)	1.1

WIND LOAD:

Basic Wind Speed, V _{3s} :	90	(mph)
Wind Importance Factor, I _w :	1.15	
Wind Exposure:	C	
Internal Pressure Coefficients:	+/- 0.18	

Design Wind Pressure used for Components & Cladding:

@ Wall Surfaces:	+23/-30	(psf)
@ Roof Surfaces:	+23/-57	(psf)

EARTHQUAKE DESIGN DATA:

Seismic Importance Factor, I _s :	1.25
Occupancy Category:	III

Mapped Spectral Response Accelerations:

S _s	0.127g
S ₁	0.056g
D	D

Site Class:

Design Spectral Response Accelerations:	
S _{D5}	0.136g
S _{D1}	0.090g
B	B

Seismic Design Category:

Basic seismic-force-resisting system(s):

Bearing Wall System - Ordinary Reinforced Masonry Shear Walls	
Moment-Resisting Frame Systems - Ordinary Reinforced Concrete Moment Frames	
Steel Systems not Specifically Detailed for Moment Resistance	

Seismic Response Coefficient(s), C_s:

0.049

Response Modification Factor(s), R:

Reinforced Masonry Shear Walls	3.5
Concrete Moment Frame	3
Steel Systems	3

Analysis Procedure: Equivalent Lateral Force Procedure

SOIL DATA:

Design Frost Depth:	48	inches
Design Soil Bearing Pressure:	3,000	(psf)

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
3	CONFORMED FOR CONSTRUCTION		JDS	JLL	MET	03/16
2	REVISED PER ADDENDUM No. 6		JDS	JLL	MET	02/16
1	REVISED PER ADDENDUM No. 3		JDS	JLL	MET	03/16
0	FOR BID		JDS	JLL	MET	12/15

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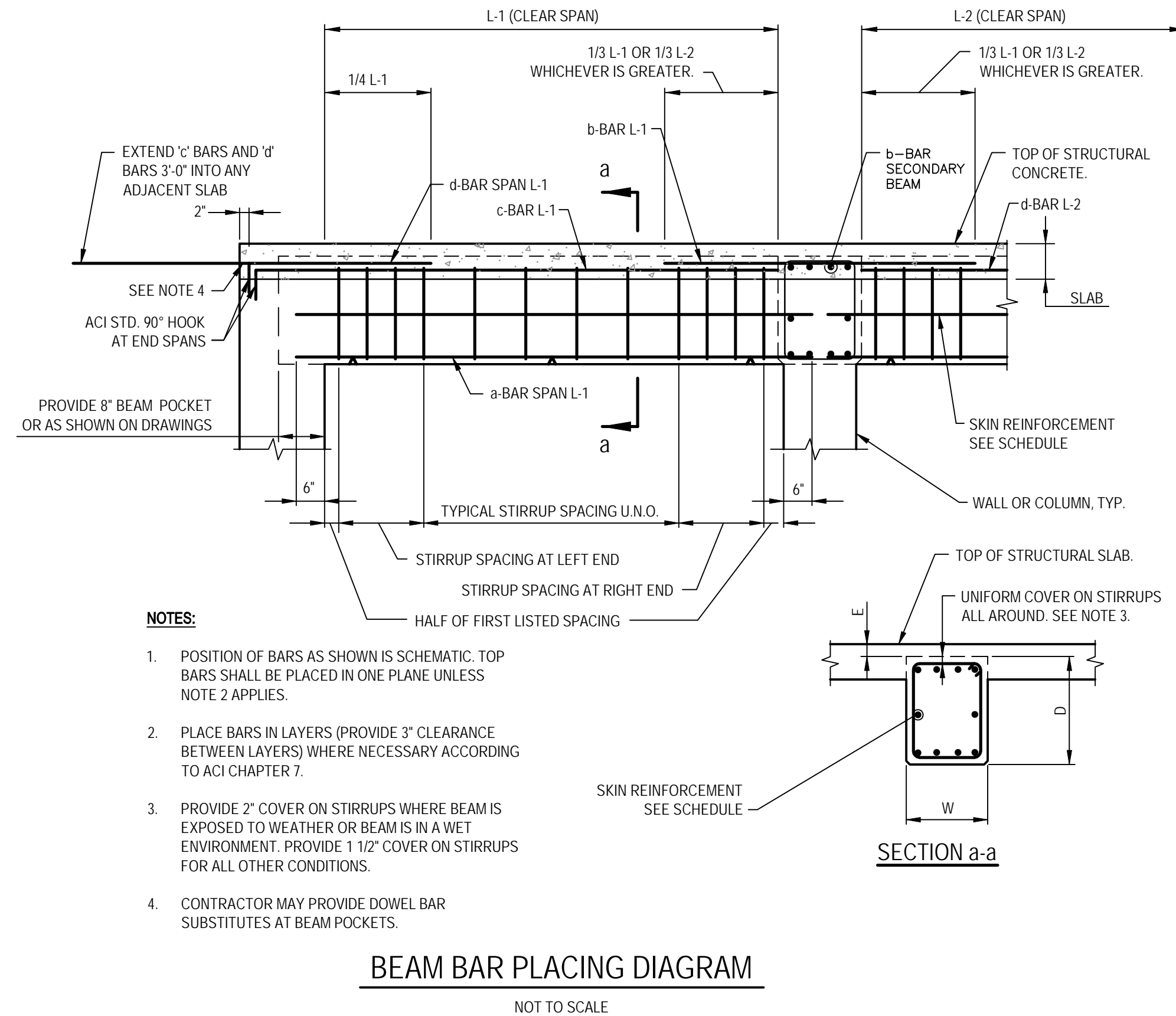
Title **STRUCTURAL DESIGN CRITERIA, GENERAL NOTES, ABBREVIATIONS AND LEGEND**

Contract No. 5
 Original Size
 Ansi D Drawing No: **86-18134-S901** Rev: 3

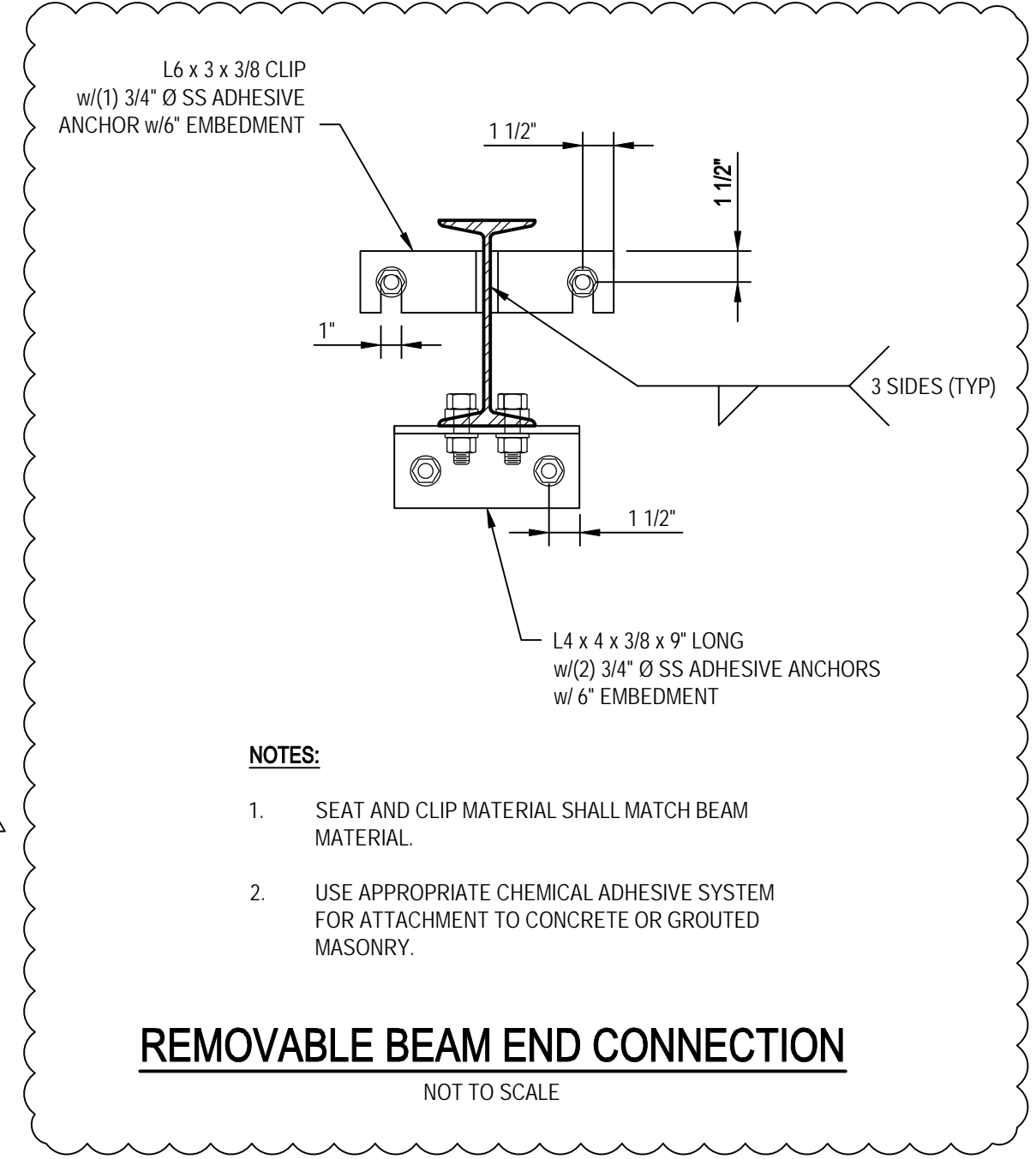
BEAM SCHEDULE

BEAM MARK	BEAM DIMENSIONS			BEAM TYPE	MAIN REINFORCEMENT				STIRRUPS & SPACING (SEE NOTE 3)			SKIN BARS (SEE NOTE 4)	REMARKS
	W	D	E		P or S	a	b	c	d	LEFT END	TYPICAL STIRRUPS		
BBF-B1	16	24	5	P	(4) #8	-	(3) #8	-	(5) #3 @ 8	#3 @ 10	(5) #3 @ 8	-	-
BBF-B1A	16	24	5	S	(4) #8	-	(3) #8	-	(5) #3 @ 8	#3 @ 10	(5) #3 @ 8	-	-
BBF-B2	16	30	5	S	(4) #9	-	(3) #9	-	(7) #3 @ 8	#3 @ 10	(7) #3 @ 8	(2) #4	-
BBF-B3	18	30	5	S	(6) #9	-	(4) #9	-	(21) #3 @ 4	#3 @ 12	(21) #3 @ 4	(2) #4	-
BBF-B4	20	30	5	P	(6) #9	(6) #9	(4) #9	-	(12) #4 @ 4	#4 @ 5	(12) #4 @ 4	(2) #4	SKIN BARS TOP & BOTTOM
BBF-B5	16	44	5	P	(4) #9	-	(4) #9	-	-	#3 @ 12	-	(3) #4	-
BBF-B6A	18	18	5	P	(5) #9	-	(5) #9	-	-	#3 @ 6	-	-	-
BBF-B6B	18	18	5	S	(5) #9	-	(5) #9	-	-	#3 @ 6	-	-	-
HWF-B1A	16	24	5	P	(4) #8	-	(3) #8	-	-	#3 @ 10	-	-	-
HWF-B1B	16	24	5	S	(4) #8	-	(3) #8	-	-	#3 @ 10	-	-	-
HWF-B2	18	24	5	P	(5) #9	(5) #9	(3) #9	-	(16) #4 @ 5	#4 @ 10	(16) #4 @ 5	-	3 LEG STIRRUPS
HWF-B3	16	48	5	P	(3) #9	-	(3) #9	-	-	#3 @ 12	-	(3) #4	-
HWF-B4	16	24	5	P	(4) #8	(4) #8	(4) #8	-	-	#4 @ 8	-	-	-
HH-B1	12	18	5	P	(3) #8	(3) #8	(2) #8	-	(13) #3 @ 5	#3 @ 7	(13) #3 @ 5	-	-
HH-B2	12	18	5	S	(3) #8	(3) #8	(2) #8	-	(13) #3 @ 5	#3 @ 7	(13) #3 @ 5	-	-
HH-B3	16	20	-	P	(4) #9	-	(4) #9	-	-	#3 @ 8	-	-	-
HH-B4	12	16	-	S	(2) #8	(2) #8	(2) #8	-	-	#3 @ 6	-	-	-
CH-B1	16	24	-	S	(3) #8	(3) #8	(2) #8	-	-	#3 @ 6	-	-	-
CH-B2	16	24	-	P	(4) #9	-	(4) #9	-	-	#3 @ 10	-	-	-
UV-B1	16	24	5	P	(3) #9	-	(3) #9	-	-	#4 @ 5	-	-	c-BARS CONTINUOUS OVER SUPPORT
UV-B2	12	40	-	P	(3) #6	-	(3) #6	-	-	#3 @ 12	-	(3) #4 T&B	c-BARS CONTINUOUS OVER SUPPORT
UV-B2A	12	40	-	S	(3) #6	-	(3) #6	-	-	#3 @ 12	-	(3) #4 T&B	-
UV-B3	18	18	4	P	(3) #9	-	(3) #9	-	-	#4 @ 7	-	-	c-BARS CONTINUOUS OVER SUPPORT
SW-B1	12	12	4	P	(3) #6	-	(3) #6	-	(12) #3 @ 4	#3 @ 12	(12) #3 @ 4	-	-
SIPS-B1	20	40	1	P	(4) #8	(4) #8	(2) #8	(2) #8	(11) #4 @ 8	#4 @ 10	(11) #4 @ 8	(5) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
SIPS-B1a	20	40	1	P	(4) #8	(4) #8	(2) #8	(2) #8	(9) #4 @ 8	#4 @ 10	(9) #4 @ 8	(5) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
SIPS-B2	28	44	1	P	(6) #8	(6) #8	(3) #8	(3) #8	(11) #4 @ 8	#4 @ 10	(11) #4 @ 8	(5) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
SIPS-B2a	28	44	1	P	(6) #8	(6) #8	(3) #8	(3) #8	(9) #4 @ 8	#4 @ 10	(9) #4 @ 8	(5) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
SIPS-B3	18	32	3	S	(4) #8	(4) #8	(2) #8	(2) #8	(11) #4 @ 8	#4 @ 10	(11) #4 @ 8	(5) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
SIPS-B3a	18	32	3	S	(4) #8	(4) #8	(2) #8	(2) #8	(9) #4 @ 8	#4 @ 10	(9) #4 @ 8	(5) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
SIPS-B4	18	44	1	P	(4) #8	(4) #8	(2) #8	(2) #8	(12) #4 @ 8	#4 @ 10	(12) #4 @ 8	(5) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
BAF-BM1	12	24	1	P	(3) #9	-	(2) #9	(3) #9	-	#4 @ 8	-	(1) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
BAF-BM2	18	28	1	P	(5) #8	-	(3) #8	(5) #8	-	#4 @ 10	-	(2) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
BAF-BM3	16	20	3	S	(4) #8	-	(2) #8	(4) #8	-	#4 @ 8	-	(1) #4	CUTOFF HALF OF a-BARS AT 4" FROM COLUMN FACE
BAF-BM4	18	32	1	P	(4) #8	(2) #8	(2) #8	(2) #8	#4 @ 12	-	-	-	-
BAF-BM5	18	32	1	P	(4) #8	-	(2) #8	(2) #8	#4 @ 12	-	-	-	-
BAF-BM6	24	32	1	P	(4) #8	-	(4) #8	-	#4 @ 12	-	-	-	-
BAF-BM7	24	32	1	P	(4) #8	(2) #8	(2) #8	(2) #8	#4 @ 12	-	-	-	-
BAF-BM8	24	32	1	P	(4) #8	-	(2) #8	(2) #8	#4 @ 12	-	-	-	-

- NOTES:**
- DETAIL ALL BARS AS SHOWN ON THE BEAM BAR PLACING DIAGRAM.
 - INSTALL "TYPICAL" STIRRUPS THROUGHOUT ENTIRE LENGTH OF BEAM IF STIRRUP SPACING IS NOT INDICATED FOR LEFT END AND/OR RIGHT END.
 - BEAM TYPE INDICATES (P) PRIMARY BEAM OR (S) SECONDARY BEAM. NOTE THAT TOP REINFORCEMENT IN SECONDARY BEAMS SHALL BE LOCATED BELOW TOP REINFORCING IN PRIMARY BEAMS.
 - ONE OF THE LISTED SKIN BARS SHALL BE PLACED AT THE CENTER OF THE BEAM, EACH SIDE. THE REMAINDER OF THE SKIN BARS SHALL BE EQUALLY DISTRIBUTED BETWEEN THE FIRST BAR AND THE BOTTOM LAYER OF BARS, EACH SIDE.



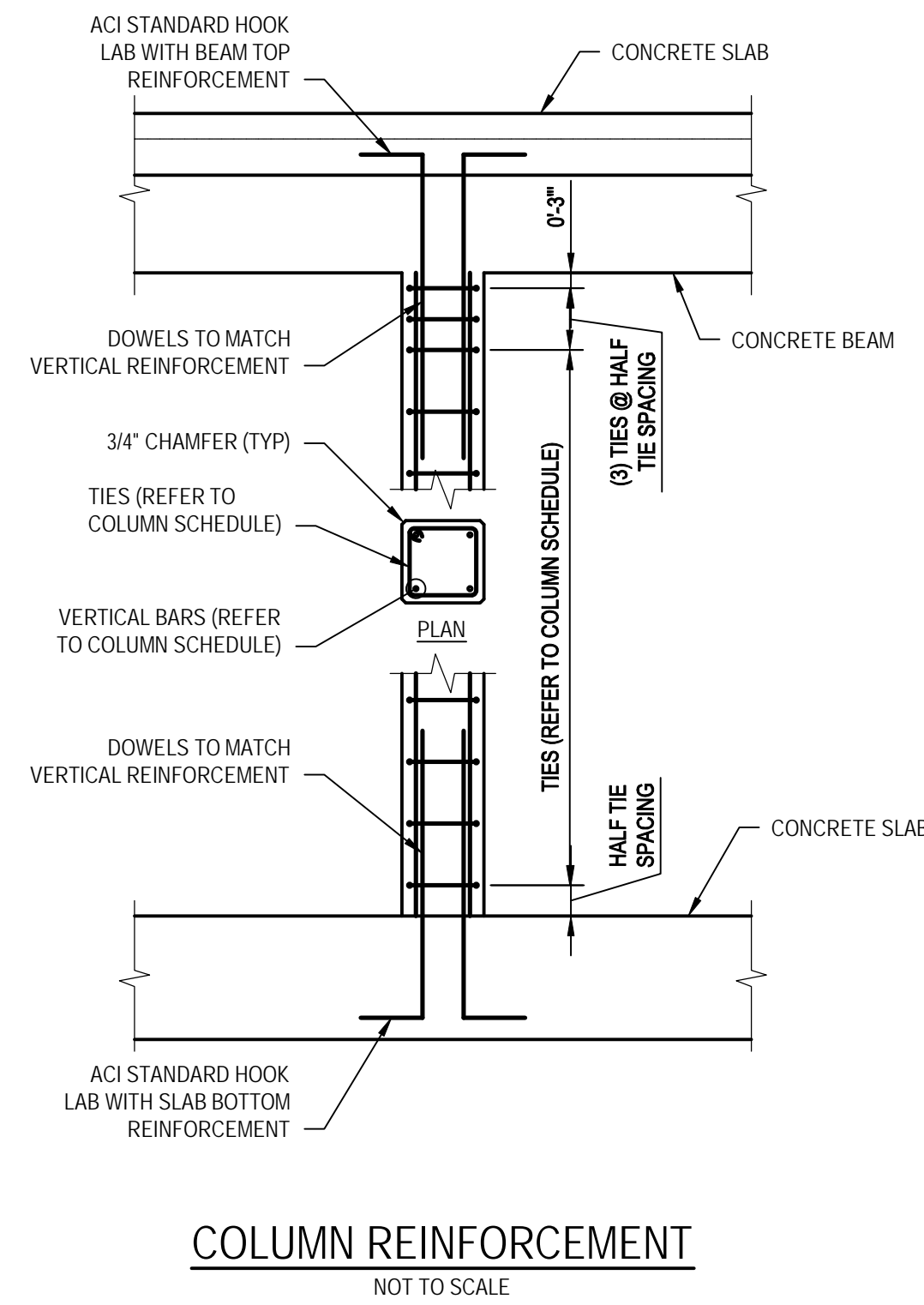
- NOTES:**
- POSITION OF BARS AS SHOWN IS SCHEMATIC. TOP BARS SHALL BE PLACED IN ONE PLANE UNLESS NOTE 2 APPLIES.
 - PLACE BARS IN LAYERS (PROVIDE 3" CLEARANCE BETWEEN LAYERS) WHERE NECESSARY ACCORDING TO ACI CHAPTER 7.
 - PROVIDE 2" COVER ON STIRRUPS WHERE BEAM IS EXPOSED TO WEATHER OR BEAM IS IN A WET ENVIRONMENT. PROVIDE 1 1/2" COVER ON STIRRUPS FOR ALL OTHER CONDITIONS.
 - CONTRACTOR MAY PROVIDE DOWEL BAR SUBSTITUTES AT BEAM POCKETS.



- NOTES:**
- SEAT AND CLIP MATERIAL SHALL MATCH BEAM MATERIAL.
 - USE APPROPRIATE CHEMICAL ADHESIVE SYSTEM FOR ATTACHMENT TO CONCRETE OR GROUTED MASONRY.

COLUMN SCHEDULE

COLUMN MARK	COLUMN SIZE	VERTICAL REINFORCEMENT	TIES & SPACING	TIE TYPE	REMARKS
BBF-C1	16 x 18	(12) #10	#3 @ 12	1	-
HH-C1	10 x 10	(8) #8	#3 @ 10	2	-
HH-C2	10 x 14	(4) #8	#3 @ 10	2	-
CH-C1	10 x 14	(4) #8	#3 @ 10	1	-
DB2-C1	16 x 16	(8) #8	#3 @ 12	2	-
UV-C1	14 x 14	(4) #8	#3 @ 12	1	-
HWF-C1	14 x 14	(8) #9	#3 @ 12	2	-
HWF-C2	16 x 16	(8) #9	#3 @ 12	2	-
HWF-C3	14 x 14	(4) #8	#3 @ 12	1	-



COLUMN TIE TYPES
NOT TO SCALE

2	CONFORMED FOR CONSTRUCTION	JDS	JUL	MET	03/16
1	REVISED PER ADDENDUM No. 6	BTM	JUL	MET	03/16
0	FOR BID	BTM	JUL	MET	12/15

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Title **BEAM AND COLUMN SCHEDULES AND DETAILS**
 Contract No. **5**
 Original Size
Ansi D Drawing No: 86-18134-S908
 Rev: **2**

HEAD HOUSE			
Code Summary Per 2010 Existing Building Code of New York State			
CODE SECTION	TOPIC	REQUIRED or ALLOWED	PROPOSED or ACTUAL
Chapter 4			
407	Classification of Work - Addition	Comply with Chapter 10	The work area defined as the "Head House" in this project meets the definition of "Addition" because, although it replaces a portion of the building having the same footprint and function; it is a few feet taller than the portion to be demolished. Chapter 10 requires that additions comply with the current BCNYS, and provides exceptions for some specific conditions. The Head House addition complies with BCNYS and associated Mechanical, Plumbing, Energy and Electrical Codes.

HEAD HOUSE			
Code Review Complies with 2010 Building Code of New York State			
CODE SECTION	TOPIC	REQUIRED or ALLOWED	PROPOSED or ACTUAL
Chapter 3			
	Use & Occupancy Classification	Classify Occupancies	F-1 Moderate-Hazard Factory Industrial
Chapter 4			
	Special Detailed Requirements Based on Use and Occupancy	N/A	N/A
Chapter 5			
Table 503	Allowable Height & Building Areas	F-1 occupancy limits for Type IIB construction: Fire Area: 15,500 square feet Height in Feet: 55 Height in Stories: 2	Height of the addition: 22' +/- mid-point of skylight slope to grade plane. Gross building area of the addition is 827 SF, which forms a part of the overall gross building area which is > 3,900 SF but less than 9,000 SF. 1 Story.
Chapter 6			
Table 601	Fire Resistance Rating Requirements	No rating required for Type IIB	Designed to be Type IIB
Table 602	Fire Resistant Rating for Exterior Walls based on Distance	No rating required for F-1 occupancy at Type-IIB if fire separation distance is ≥10'.	Building is 17' new BAF Backwash Facility (also F-1), so distance separation is from an imaginary line 3.5' from each building. Exterior building walls within 10 feet of the imaginary line must have a fire-resistance rating of 1 hour, which distance includes the west wall (including one window type W05) and Door HH300 of the Head House.
Chapter 7			
Table 715.4	Opening Protectives	0.75-hour rated opening protectives required for 1-hour rated exterior walls.	Provided.
Chapter 8			
Table 803.5	Interior Wall & Ceiling Finishes		
	Exit Access Corridors & Other Exitways	Class C (non-sprinklered)	No separated corridors or exitways within the addition.
	Rooms and Enclosed Spaces	Class C	Class A wall and ceiling finishes.
Chapter 9			
903.2.3	Automatic Sprinkler System	Required for F-1 if fire area > 12,000 SF; building > 3 stories; or total SF > 24,000.	N/A
906	Fire Extinguishers	Required.	Provided.
Chapter 10			
Table 1004.1.1	Maximum Floor Area per Occupant	All rooms are "mechanical equipment" rooms: 300 gross SF per occupant.	Occupants:
	HH-200	820 SF	3
	HH-300	700 SF (827 gross - 127 stair opening)	3
1003.1.9	Panic Hardware	Required for Group A or E with more than 50 occupants, or any Group H.	Not required, but provided on all swing doors.
1009.1	Stairway Width	36" for Occupant Load < 50	36"
Table 1015.1	Space W/ One Means of Egress: F-1 Occupancy	Max. Occupant Load of 49; Max. Common Path of 75 Ft.	Lower Screen Room HH-200: 3 occupants; < 71' of travel from farthest point, up stairs and out door.
Table 1016.1	Exit Access Travel Distance	Most restrictive: 200' for F-1	Longest travel < 71', unsprinkled.
1017.1	Corridor Fire Rating	1-hour if >30 occupants	N/A
Table 1019.1	Minimum # of Exits 1-500 Occupants	2 required if not exempted by 1019.2	1 provided, exempted by 1019.2.1: < 49 occupants; less than 75 ft. travel.
Table 1020.1	Vertical Exit Enclosures - Enclosures Required	1-hour connecting <4 stories	No enclosed stairways or passageways: N/A.
Chapter 11			
1103.2.9	General Exceptions/Equipment Spaces	Accessibility not required.	All rooms are equipment spaces.
Chapter 29			
Table 2902.1	Minimum Required Plumbing Facilities	-	-
2902.4.2	Toilet facilities within 500 feet: not more than one story above or below	Provided in the Generator Building	

HEADWORKS FACILITY			
Code Summary Per 2010 Building Code of New York State			
CODE SECTION	TOPIC	REQUIRED or ALLOWED	PROPOSED or ACTUAL
Chapter 3			
	Use & Occupancy Classification	Classify Occupancies	F-1 Moderate-Hazard Factory Industrial
Chapter 4			
	Special Detailed Requirements Based on Use and Occupancy	N/A	N/A
Chapter 5			
Table 503	Allowable Height & Building Areas -	2 Stories, 55 ft., 15,500 sq. ft.	Combined fire area of Headworks Facility and Generator Building is 9,846 sq. ft.
Subsection 503.1.2	Buildings on same lot	Two or more buildings considered as portions of one building.	Combined HWF + GB area meets limits set by Table 503.
Chapter 6			
Table 601	Fire Resistance Rating Requirements	No rating required for Type IIB	Designed to be Type IIB
Table 602	Fire Resistant Rating for Exterior Walls based on Distance	2 hour rating required for F-1 occupancy if distance separation is less than 5 ft.	Headworks Facility and Generator Building are evaluated as a single fire area, so no fire-ratings are required for exterior walls. See reference to Subsection 503.1.2 above.
Chapter 7			
Table 715.4	Opening Protectives	0.75-hour rated opening protectives required for 1-hour shaft and exitway enclosures.	0.75-hour ratings to be provided for interior stairwell doors.
Chapter 8			
Table 803.5	Interior Wall & Ceiling Finishes		
	Exit Access Corridors & Other Exitways	Class C (non-sprinklered)	Class A wall and ceiling finishes. Class B for inside faces of FRP doors and skylights.
	Rooms and Enclosed Spaces	Class C	Class A wall and ceiling finishes.
Chapter 9			
903.2.3	Automatic Sprinkler System	Required for F-1 where fire area exceeds 12,000 SF, where building is more than 3 stories, or total square feet exceeds 24,000 SF	N/A
906	Fire Extinguishers	Required.	Provided.
Chapter 10			
Table 1004.1.1	Maximum Floor Area per Occupant	All rooms are "mechanical equipment" rooms: 300 gross SF per occupant.	Occupants:
	HWF-100, HWF-101, HWF-103, HWF-104	2,961 SF	10
	HWF-200, HWF-200A	2,685 SF	9
	HWF-202, HWF-203	626 SF	3
1008.1.9	Panic Hardware	Required for Group A or E with more than 50 occupants, for electrical rooms with certain equipment, and any Group H.	Required at Electrical Room. Not required elsewhere, but provided at exterior doors and stairway doors.
1009.1	Stairway Width	36" for Occupant Load < 50	36"
Table 1015.1	Space W/ One Means of Egress: F-1 Occupancy	Max. Occupant Load of 49; Max. Common Path of 75 Ft.	Complies: 10 occupants, 75' travel (lower level)
Table 1016.1	Exit Access Travel Distance	Most restrictive: 200' for F-1	Longest travel: 75'; unsprinkled.
1017.1	Corridor Fire Rating	1-hour if >30 occupants	N/A
Table 1019.1	Minimum # of Exits 1-500 Occupants	2 required if not exempted by 1019.2	6 provided
Table 1020.1	Vertical Exit Enclosures - Enclosures Required	1-hour connecting <4 stories	1-hour enclosure provided
Chapter 11			
1103.2.9	General Exceptions/Equipment Spaces	Accessibility not required.	All rooms are equipment spaces.
Chapter 29			
Table 2902.1	Minimum Required Plumbing Facilities	-	-
2902.4.2	Toilet facilities within 500 feet: not more than one story above or below	Provided in the Generator Building	

NOTE:
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

1	CONFORMED FOR CONSTRUCTION	TML	JUL	MET	03/16	
0	FOR BID	CMS	JUL	MET	12/15	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

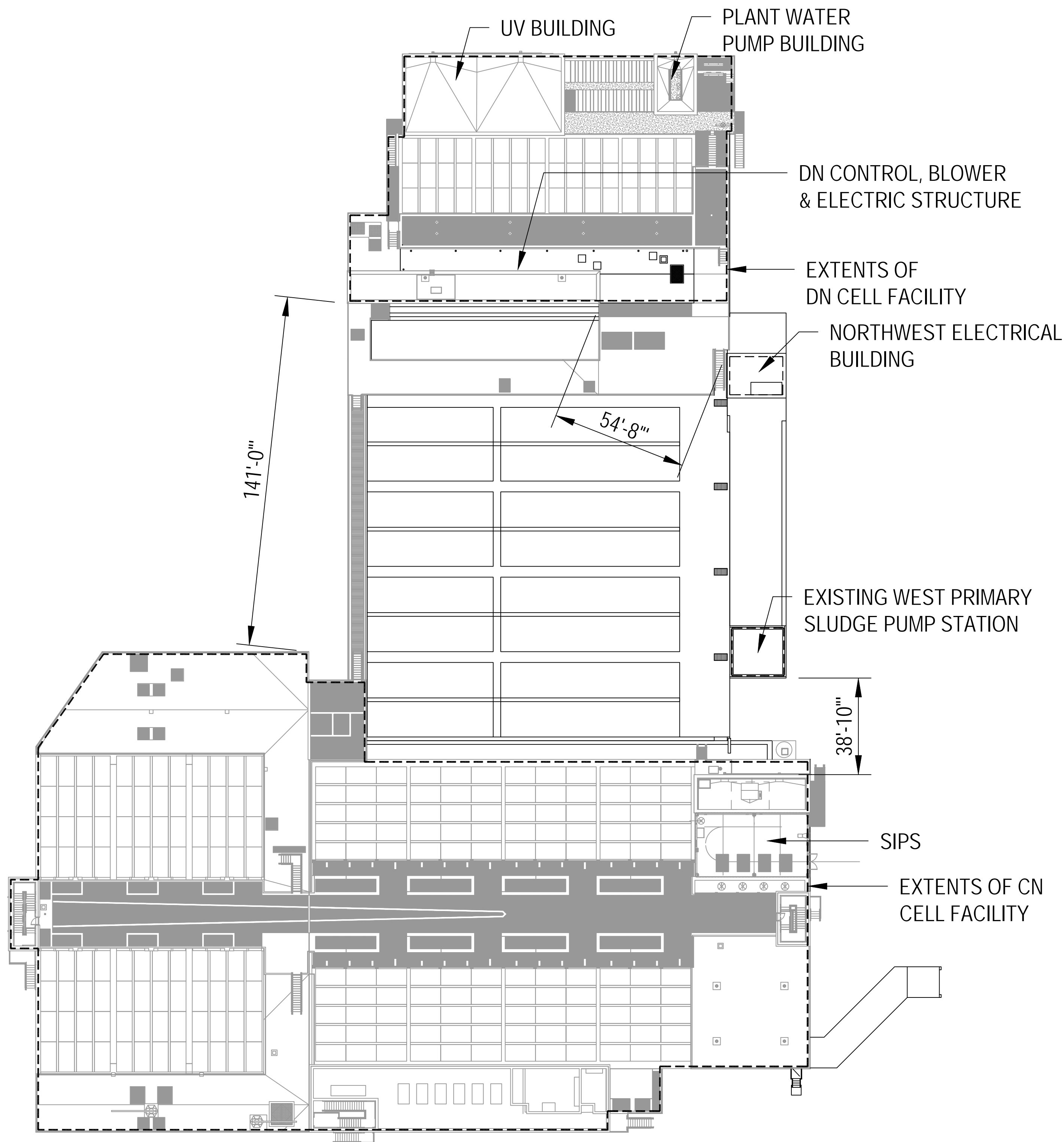
Title **CODE REVIEW TABLES - HEAD HOUSE AND HEADWORKS FACILITY**

Contract No. 5

Original Size

Ansi D Drawing No: **86-18134-A001**

Rev: 1



CN CELLS WITH SECONDARY INFLUENT PUMP STATION (SIPS) + DN CELLS WITH UV FACILITY				
Code Summary Per 2010 Building Code of New York State				
CODE SECTION	TOPIC	REQUIRED or ALLOWED	PROPOSED or ACTUAL - CN CELLS INCLUDING SIPS	PROPOSED or ACTUAL - DN CELLS INCLUDING UV FACILITY
Chapter 3				
306	Use & Occupancy Classification	Classify Occupancies	F-2 Low-Hazard Factory Industrial: Special Industrial Occupancy	F-2 Low-Hazard Factory Industrial: Special Industrial Occupancy
Chapter 4				
	Special Detailed Requirements Based on Use and Occupancy	N/A	N/A	N/A
Chapter 5				
Table 503	Allowable Height & Building Areas	These Buildings are "Special Industrial Occupancies" per 503.1.1 and are therefore exempt from the height and fire area limitations of Table 503	Height: 31' +/- above grade plane of 836 Gross Building Area: 49,415 SF 1 Story	Height: 27'-0" +/- above grade plane of 834 Gross Building Area: 13,775 SF 2 Story
Chapter 6				
Table 601	Fire Resistance Rating Requirements	1-hour rating required for Type IIB	Designed to be Type IIB	Designed to be Type IIB
Table 602	Fire Resistant Rating for Exterior Walls based on Distance	No rating required for F-2 occupancy at Type-IIB construction if fire separation distance is > 10'	Building is > 38' from the existing West Primary Sludge P.S., so distance separation is > 19' from an imaginary line between buildings. No rating required.	Building superstructure (DN Control, Blower & Electric Structure) is > 54' from the Northwest Electrical Building, so distance separation is > 27' from an imaginary line between buildings. No rating required.
Chapter 7				
Table 715.4	Opening Protectives	Exit enclosures with required fire rating of 1-hour must have 3/4-hour opening protectives	Provided.	Provided.
Chapter 8				
Table 803.5	Interior Wall & Ceiling Finishes			
	Exit Access Corridors & Other Exitways	Class B (non-sprinklered)	Class A wall and ceiling finishes. Class B for inside faces of FRP doors and skylights.	Class A wall and ceiling finishes. Class B for inside faces of FRP doors and skylights.
	Rooms and Enclosed Spaces	Class C	Class A wall and ceiling finishes.	Class A wall and ceiling finishes.
Chapter 9				
903.2.3	Automatic Sprinkler System	Not required for F-2 Occupancies	Not required.	Not required.
906	Fire Extinguishers	Required.	Provided.	Provided.
Chapter 10				
Table 1004.1.1	Maximum Floor Area per Occupant	All rooms are "mechanical equipment" rooms: 300 gross SF per occupant.	Occupants at CN with SIPS:	Occupants at DN with UV Facility:
	CN-301	2355 SF	8	-
	CN-302	907 SF	3	-
	CN-303	783 SF	3	-
	CN-304	6198 SF	21	-
	CN-305	836 SF	3	-
	CN-307	1217 SF	4	-
	CN-308	592 SF	2	-
	CN-311	275 SF	1	-
	CN-314	177 SF	1	-
	CN-315	1829 SF	6	-
	CN-316	472 SF	2	-
	CN-318	42 SF	1	-
	CN-319	2783 SF	10	-
	SIPS-200	562 SF	2	-
	SIPS-201	1155 SF	4	-
	UVB-100	1575 SF	5	-
	UVB-101	288 SF	1	-
	UVB-102	102 SF	1	-
	DN-401	3406 SF	-	12
	DN-411	391 SF	-	2
	DN-412	280 SF	-	-
	DN-413	84 SF	-	-
1008.1.9	Panic Hardware	Required for Electrical Room	Provided on all doors.	Provided on all doors.
1009.1	Stairway Width	36" for Occupant Load < 50	36"	36"
Table 1015.1	Spaces With One Means of Egress	Allowed if Occupants ≤ 49 and Travel Distance ≤ 75'	All single exit spaces < 49 occupants and < 75' travel	All single exit spaces < 49 occupants and < 75' travel
Table 1016.1	Exit Access Travel Distance	300' for F-2, unsprinkled	Longest travel: 145'-0", unsprinkled	Longest travel: 67'-5", unsprinkled
Table 1019.1	Minimum # of Exits 1-500 Occupants	2 required if not exempted by 1019.2	2 or more provided wherever not exempted	2 or more provided wherever not exempted

NOTE:
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

2	CONFORMED FOR CONSTRUCTION	TML	JUL	MET	03/16	
1	REPLACED SHEET PER ADDENDUM NO. 3	CMS	JUL	MET	02/16	
0	FOR BID	CMS	JUL	MET	12/15	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

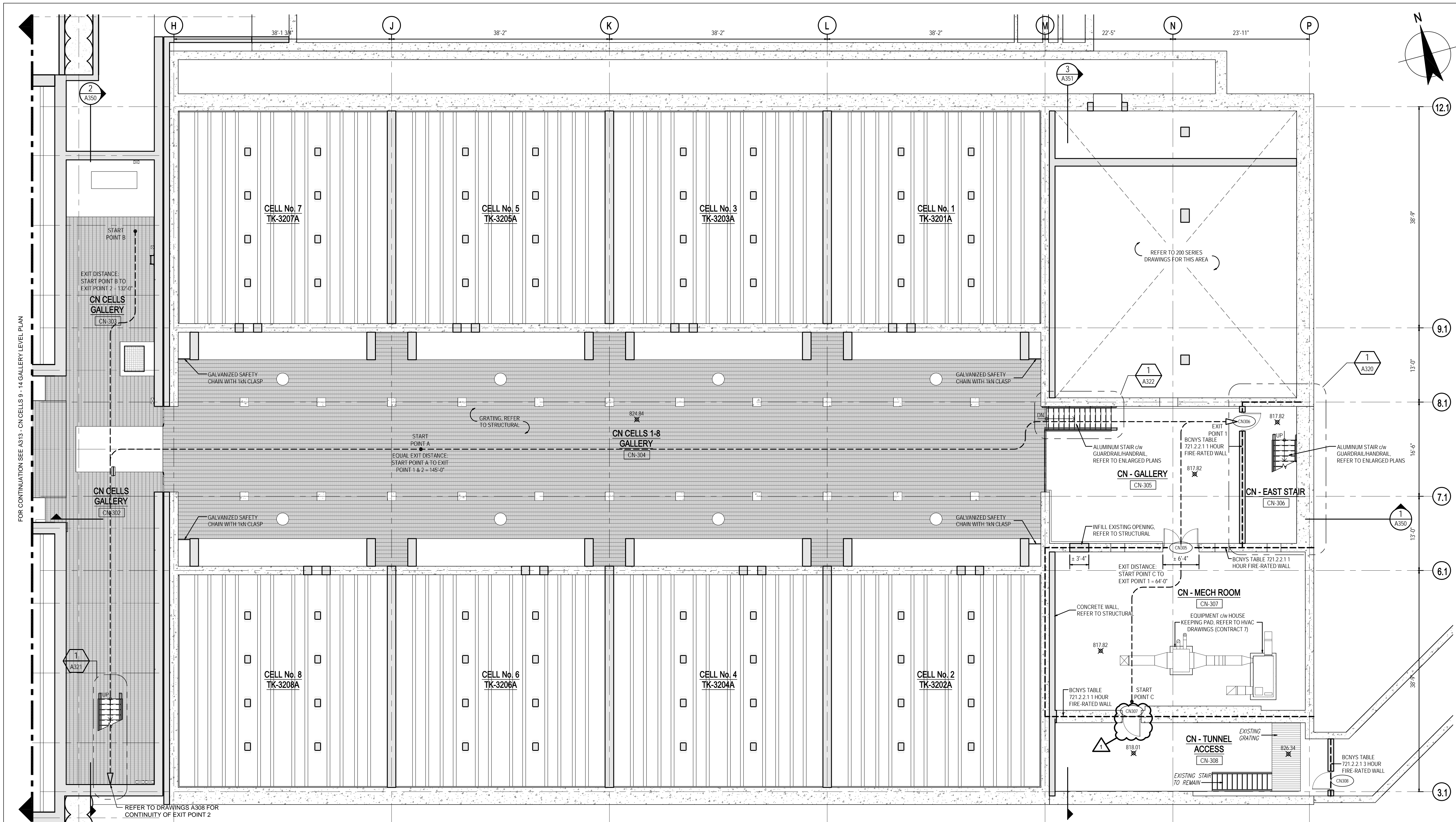
Title **CODE REVIEW TABLES - SECONDARY INFLUENT PUMP STATION AND CN DN BUILDING**

Contract No. 5

Original Size

Ansi D Drawing No: 86-18134-A002

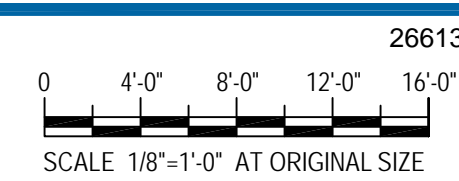
Rev: 2



CN CELLS 1-8 - GALLERY LEVEL PLAN

SCALE 1/8" = 1'-0"

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
2	CONFORMED FOR CONSTRUCTION		JDG	JUL	MET	03/16
1	REVISED PER ADDENDUM No.5		JDG	JUL	MET	03/16
0	FOR BID		JDG	JUL	MET	12/15

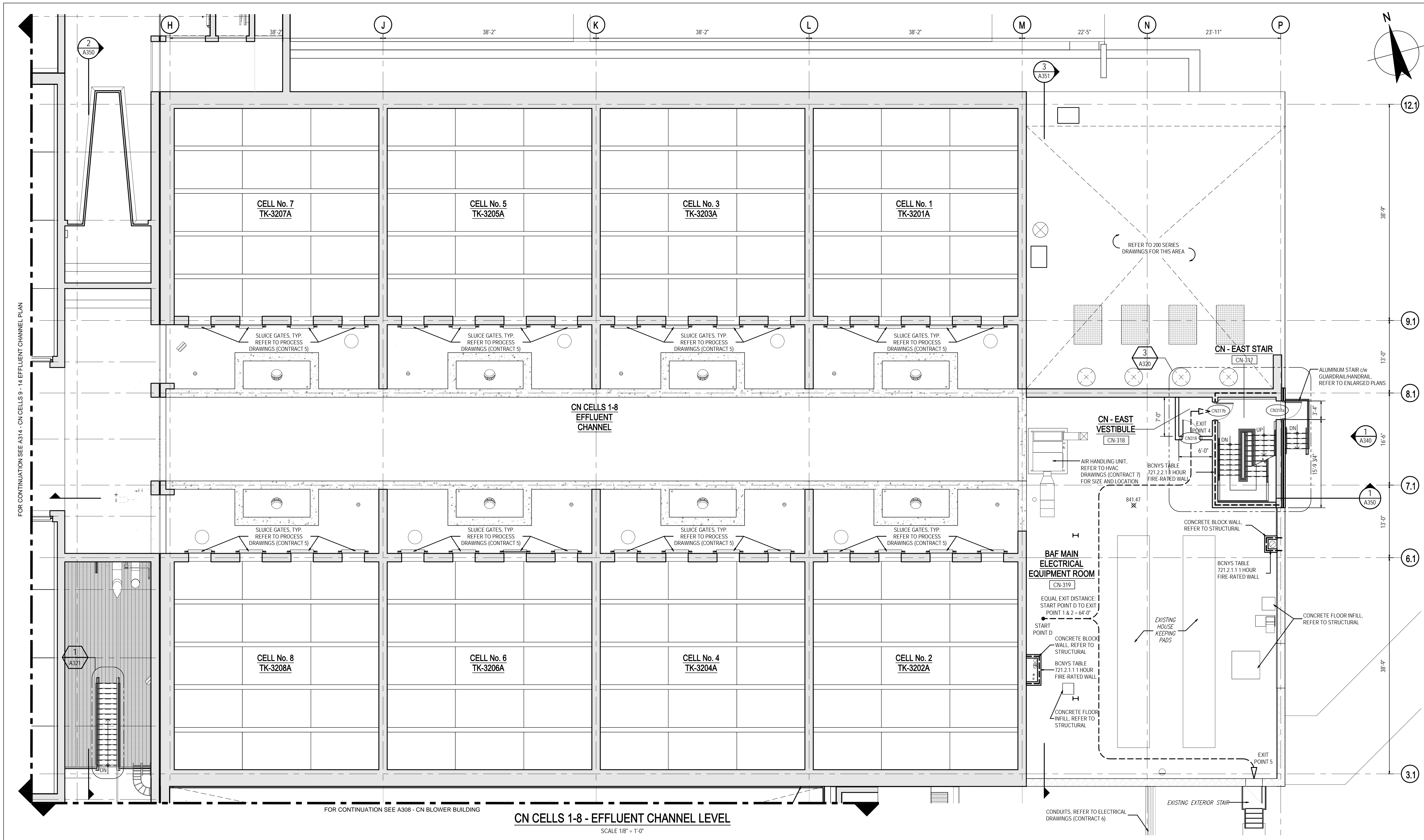


26613
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Title **CN CELLS 1-8 - GALLERY LEVEL PLAN**

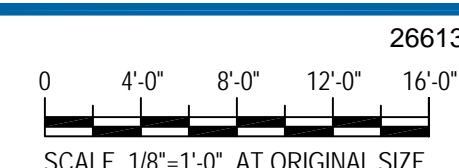
Contract No. 5
Original Size
Ansi D Drawing No: **86-18134-A304**

Rev: 2



CN CELLS 1-8 - EFFLUENT CHANNEL LEVEL

SCALE 1/8" = 1'-0"



No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
1	CONFORMED FOR CONSTRUCTION		JDG	JUL	MET	03/16
0	FOR BID		JDG	JUL	MET	12/15

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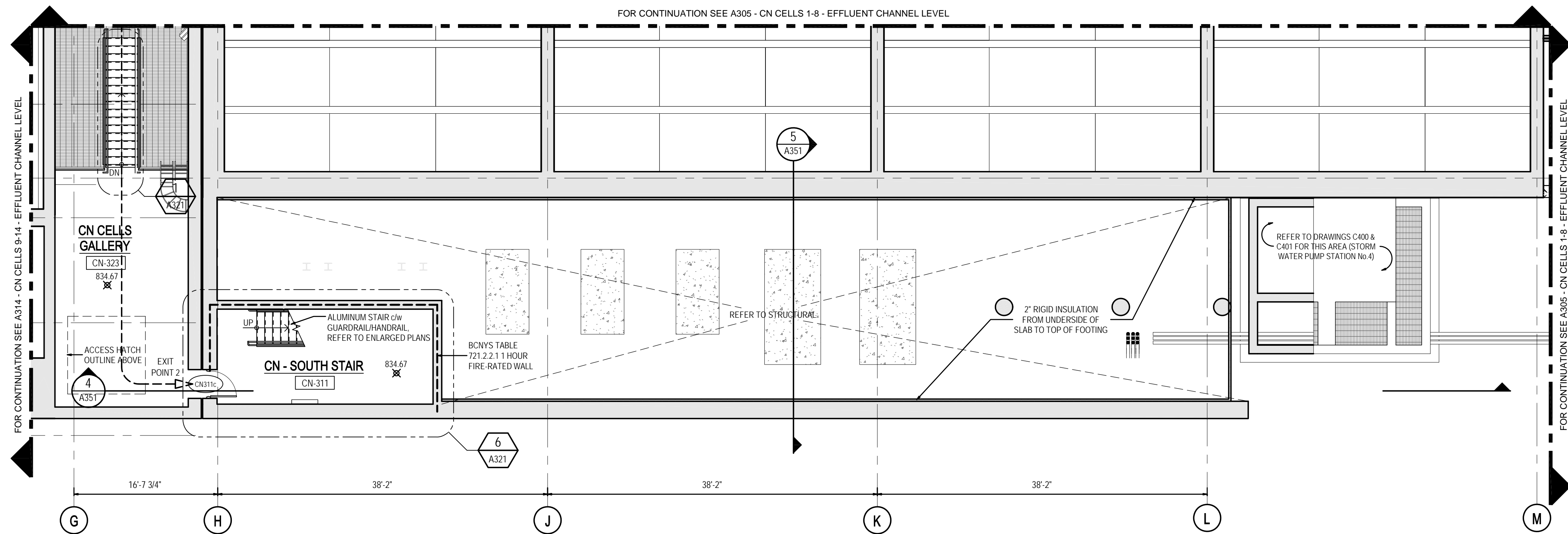
Title **CN CELLS 1-8 - EFFLUENT CHANNEL**

Contract No. 5

Original Size

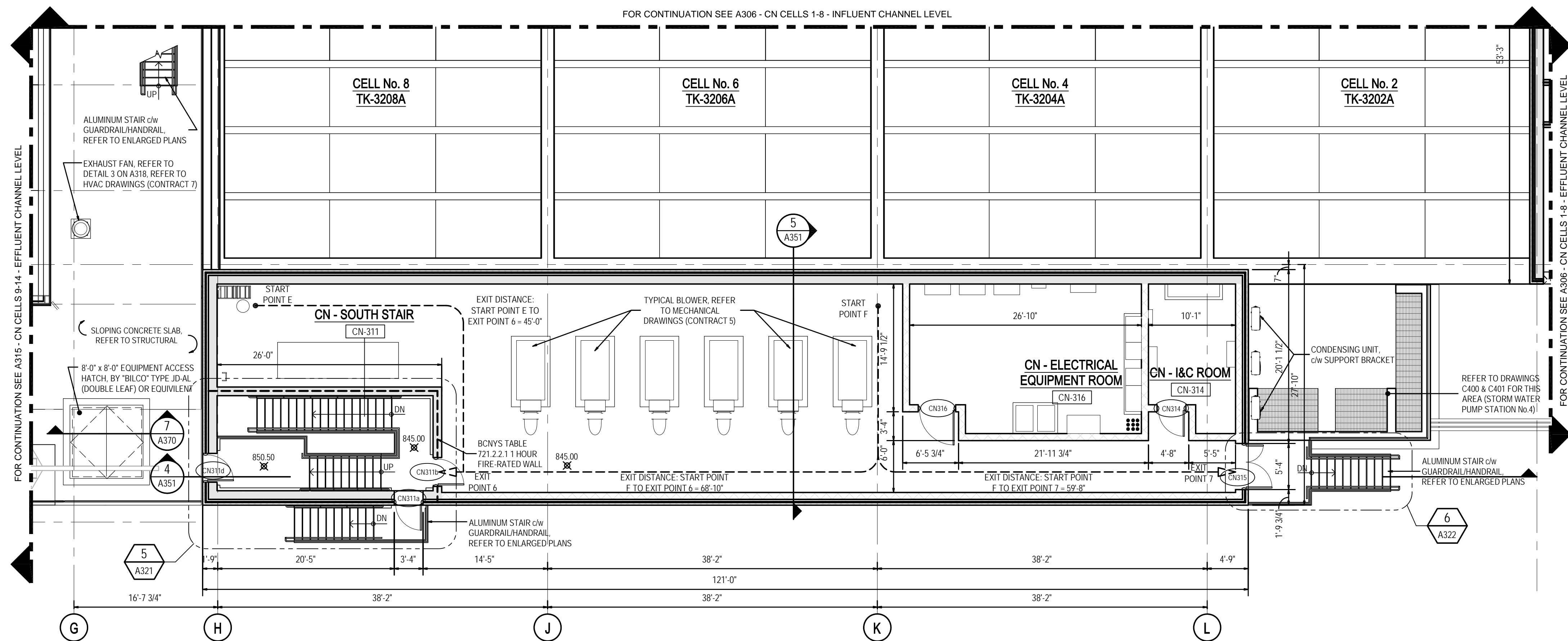
Ansi D Drawing No: 86-18134-A305

Rev: 1



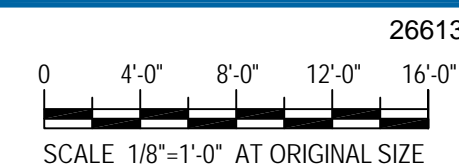
CN BUILDING - EFFLUENT CHANNEL LEVEL

SCALE 1/8" = 1'-0"



CN BUILDING - INFLUENT CHANNEL LEVEL

SCALE 1/8" = 1'-0"



1	CONFORMED FOR CONSTRUCTION	DMB/JDG	JUL	MET	03/16
0	FOR BID	DMB/JDG	JUL	MET	12/15
No	Revision	Drawn	Job Manager	Project Director	Date

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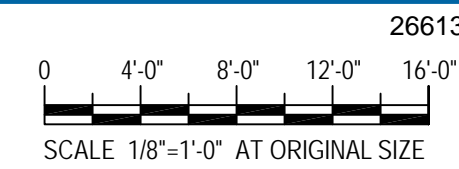
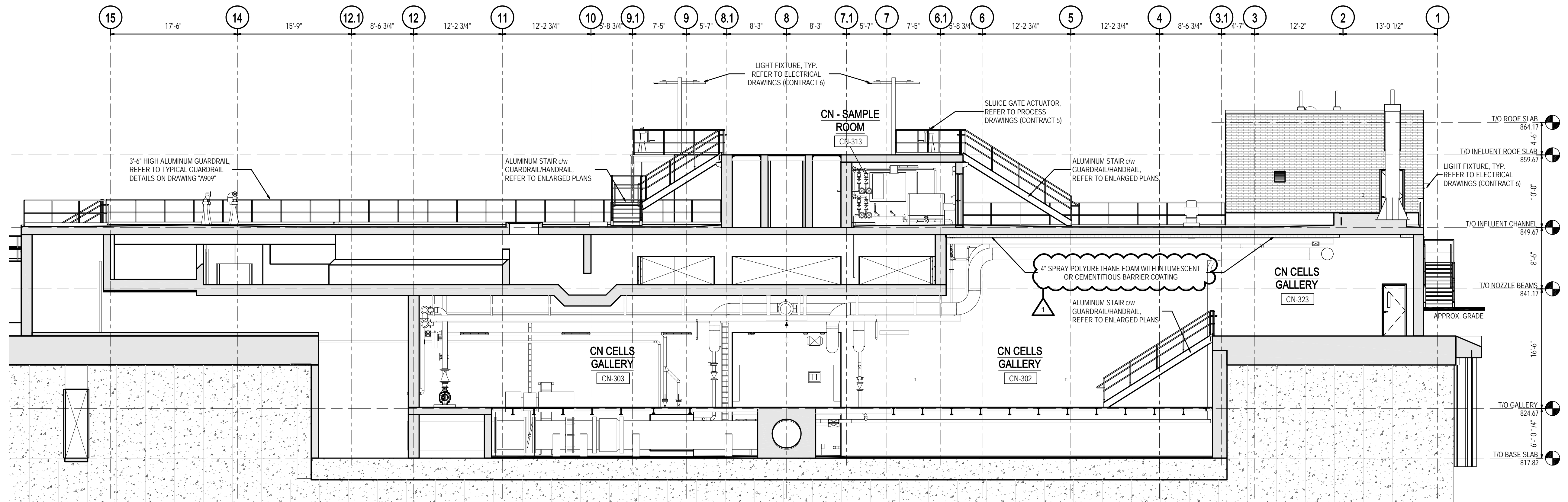
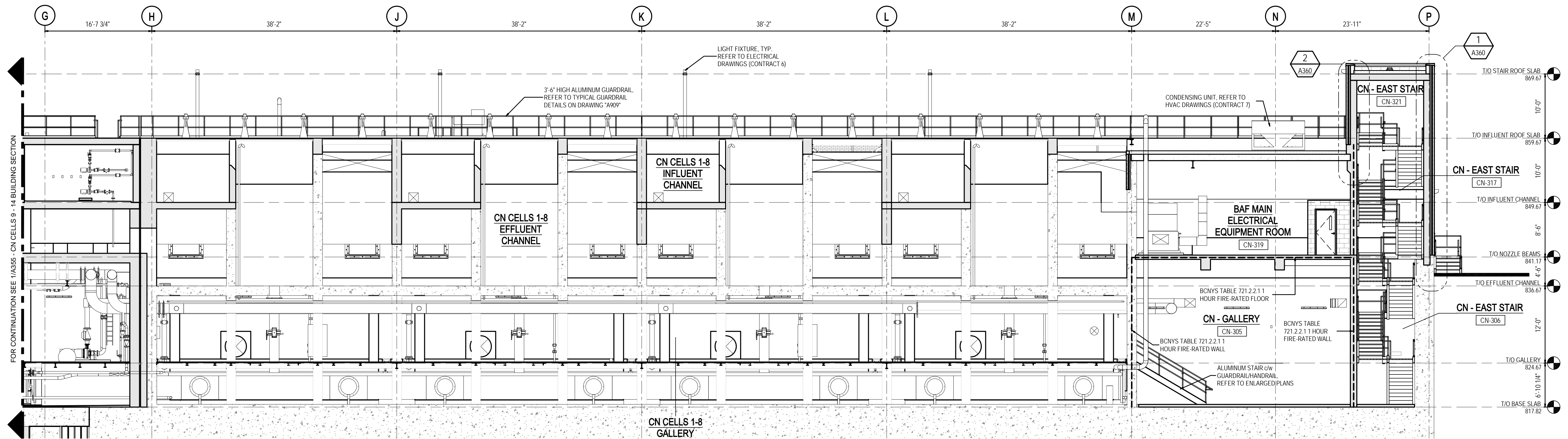
Title **CN BLOWER BUILDING**

Contract No. 5

Original Size

Ansi D Drawing No: **86-18134-A308**

Rev: 1



No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
2	CONFORMED FOR CONSTRUCTION		DMB/JDG	JUL	MET	03/16
1	REVISED PER ADDENDUM No.6		DMB/JDG	JUL	MET	03/16
0	FOR BID		DMB/JDG	JUL	MET	12/15

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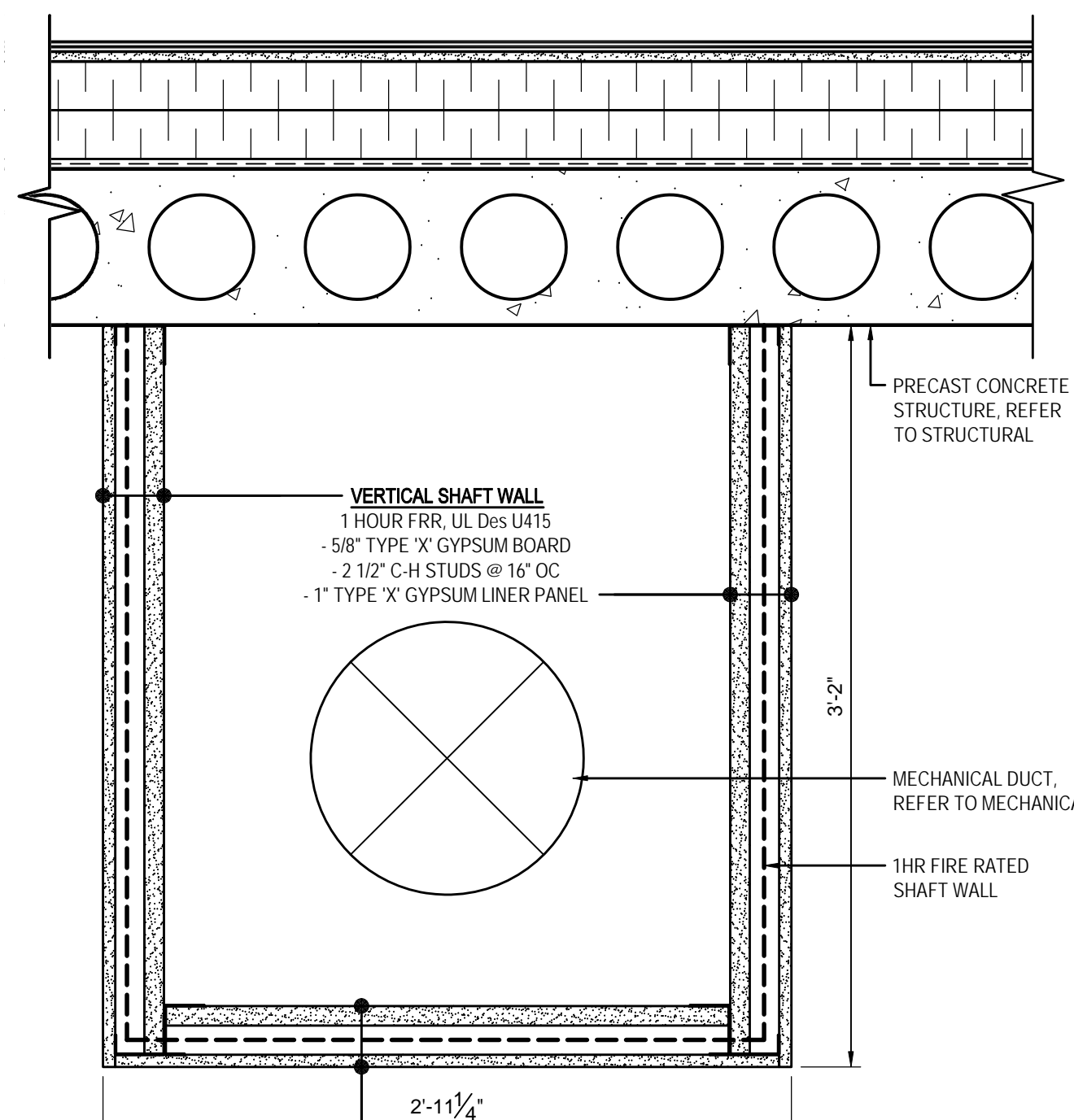
Title **CN CELLS 1-8 - BUILDING SECTIONS**

Contract No. 5

Original Size

Ansi D Drawing No: **86-18134-A350**

Rev: 2

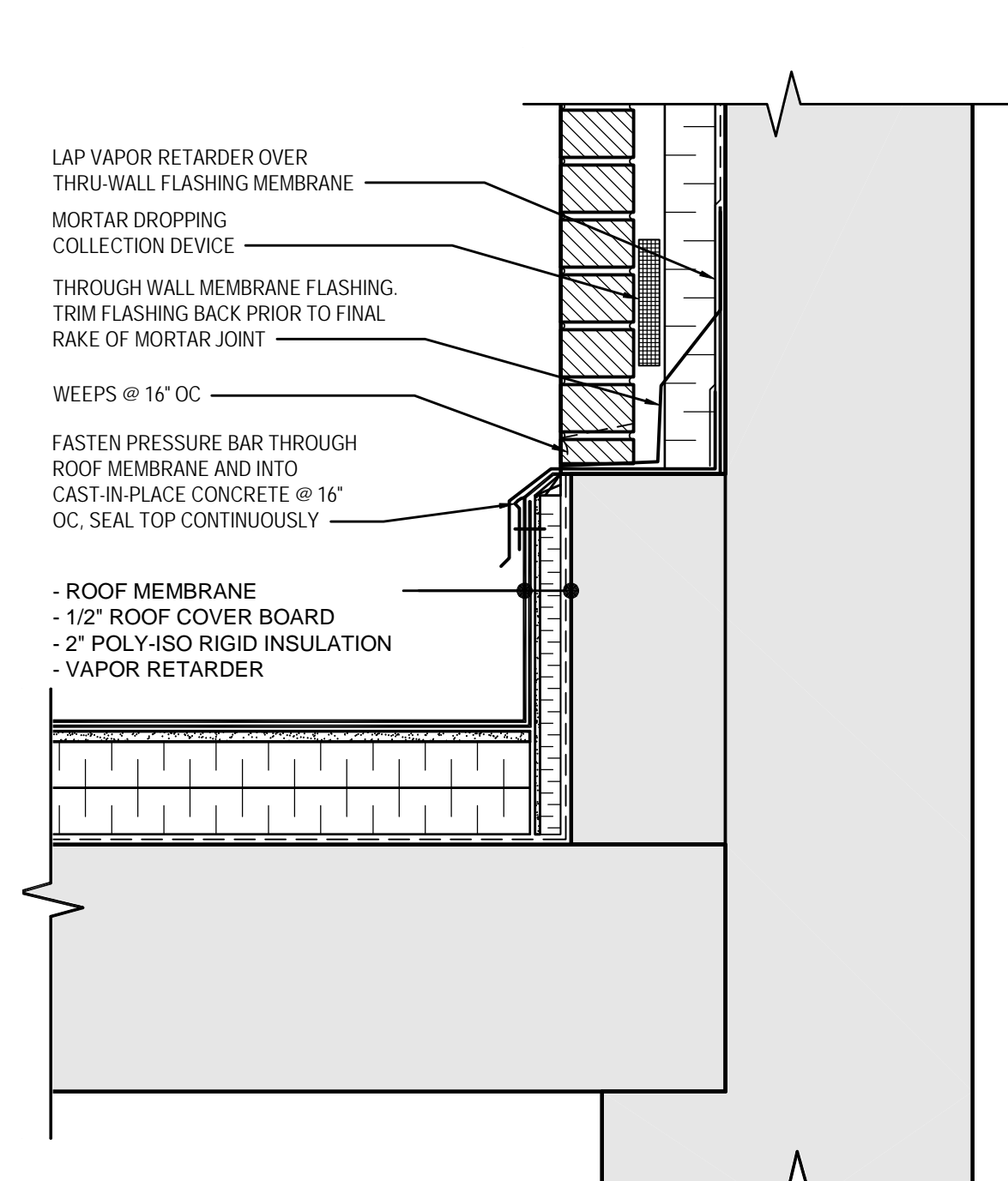


4 DETAIL
A370 SCALE 1 1/2" = 1'-0"

VERTICAL SHAFT WALL
1 HOUR FRP, UL Des U415
- 5/8" TYPE 'X' GYPSUM BOARD
- 2 1/2" C-H STUDS @ 16" OC
- 1" TYPE 'X' GYPSUM LINER PANEL

HORIZONTAL SHAFT WALL
1 HOUR FRP, UL Des U415
- 5/8" TYPE 'X' GYPSUM BOARD
- 2 1/2" C-H STUDS @ 16" OC
- 1" TYPE 'X' GYPSUM LINER PANEL

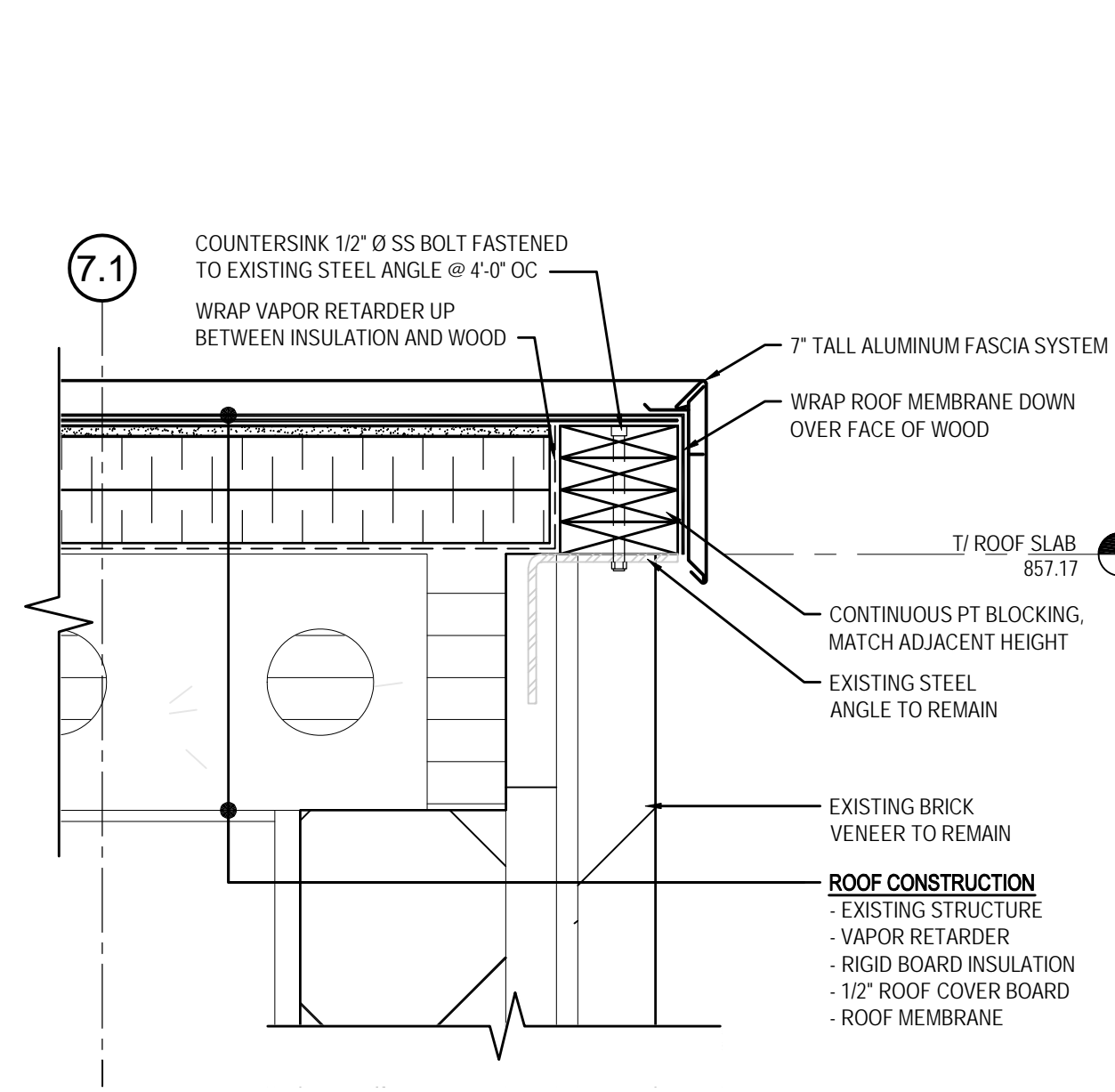
NOTE: PROVIDE BRACING AS REQUIRED FOR NEW FIRE RATED BULKHEAD.



3 DETAIL
A370 SCALE 1 1/2" = 1'-0"

LAP VAPOR RETARDER OVER THRU-WALL FLASHING MEMBRANE
MORTAR DROPPING COLLECTION DEVICE
THROUGH WALL MEMBRANE FLASHING TRIM FLASHING BACK PRIOR TO FINAL RAKE OF MORTAR JOINT
WEEPS @ 16" OC
FASTEN PRESSURE BAR THROUGH ROOF MEMBRANE AND INTO CAST-IN-PLACE CONCRETE @ 16" OC, SEAL TOP CONTINUOUSLY

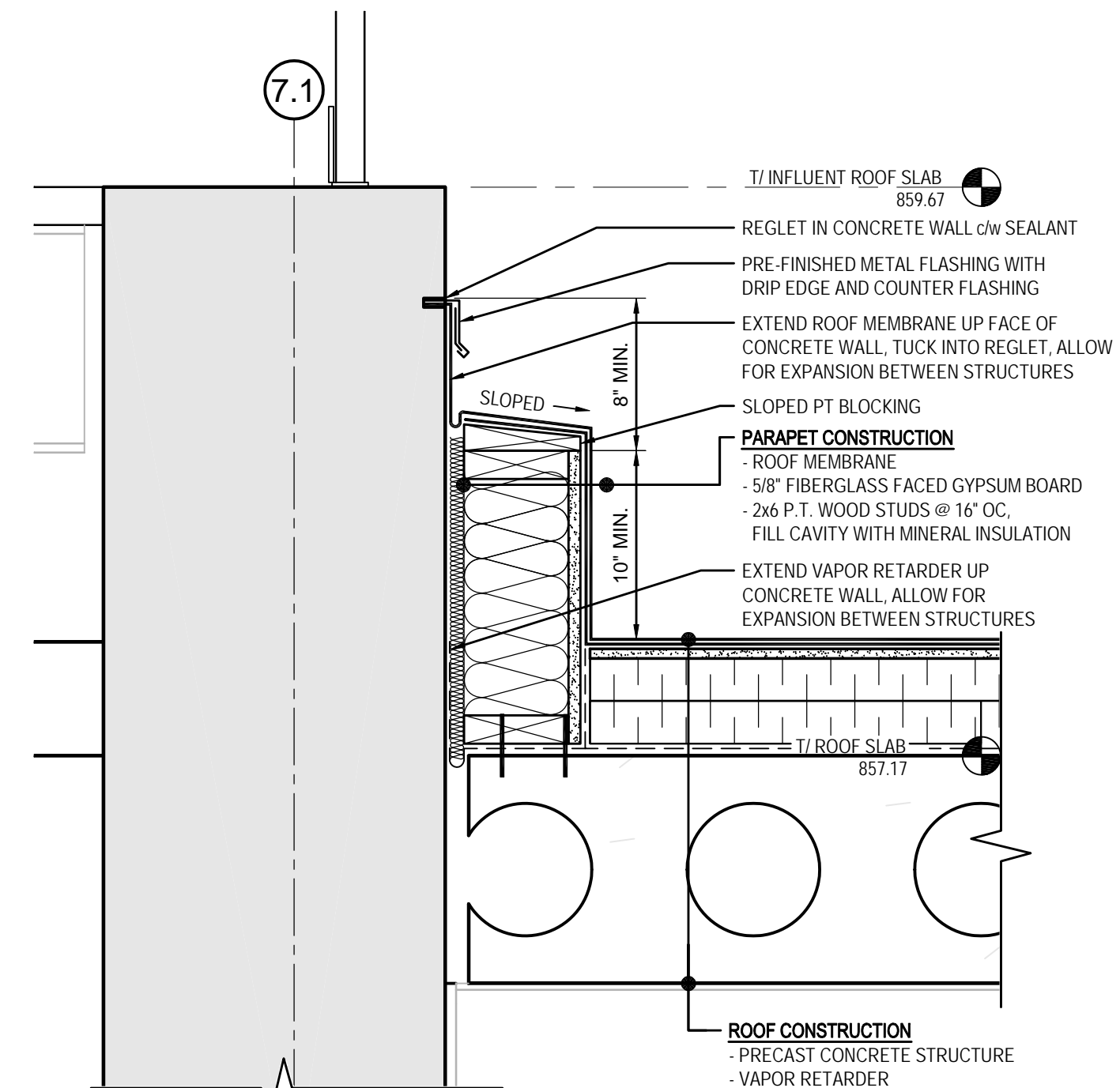
- ROOF MEMBRANE
- 1/2" ROOF COVER BOARD
- 2" POLY-ISO RIGID INSULATION
- VAPOR RETARDER



2 DETAIL
A370 SCALE 1 1/2" = 1'-0"

COUNTERSINK 1/2" Ø SS BOLT FASTENED TO EXISTING STEEL ANGLE @ 4'-0" OC
WRAP VAPOR RETARDER UP BETWEEN INSULATION AND WOOD
7" TALL ALUMINUM FASCIA SYSTEM
WRAP ROOF MEMBRANE DOWN OVER FACE OF WOOD
CONTINUOUS PT BLOCKING, MATCH ADJACENT HEIGHT
EXISTING STEEL ANGLE TO REMAIN
EXISTING BRICK VENEER TO REMAIN

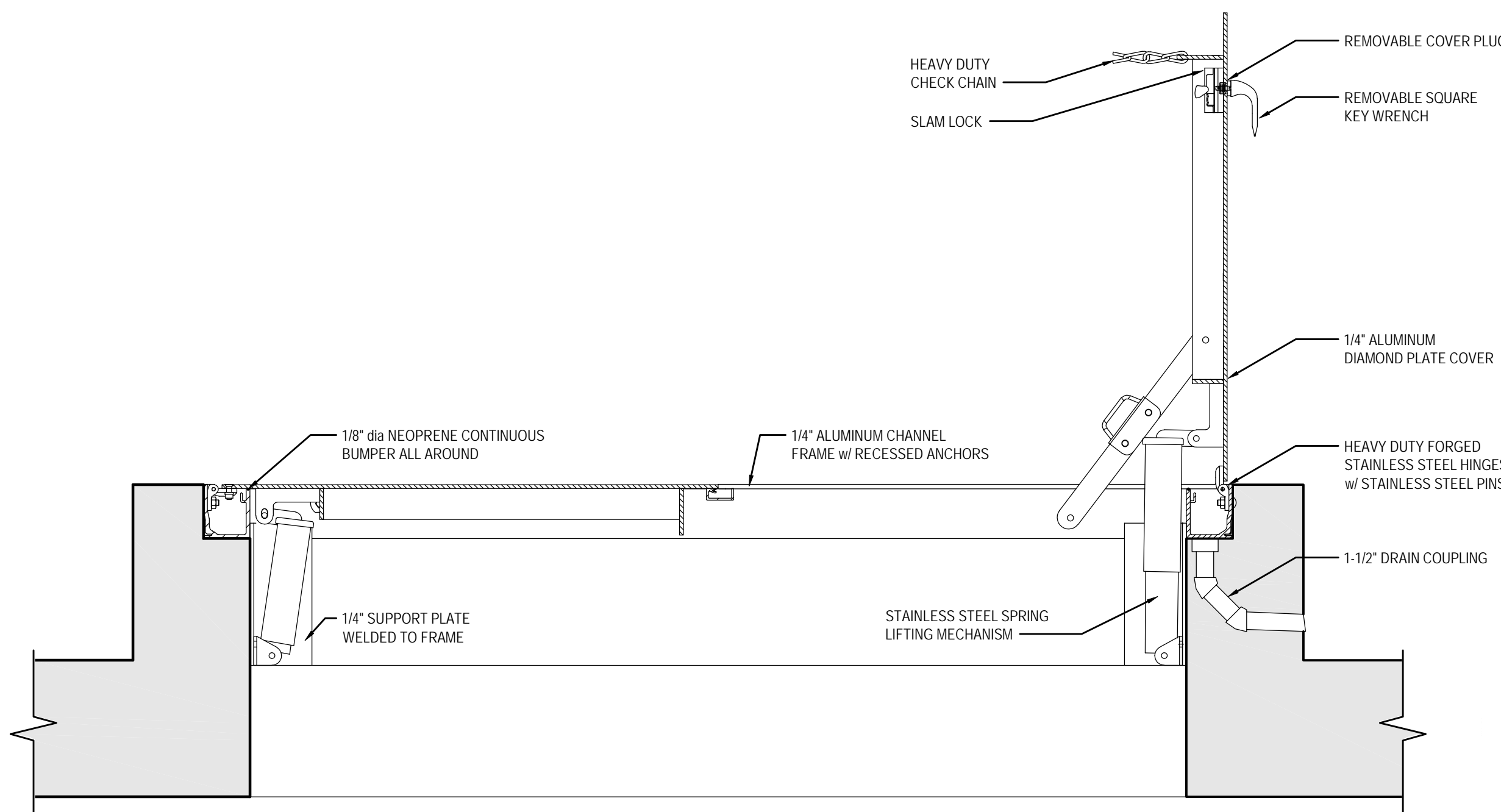
ROOF CONSTRUCTION
- EXISTING STRUCTURE
- VAPOR RETARDER
- RIGID BOARD INSULATION
- 1/2" ROOF COVER BOARD
- ROOF MEMBRANE



1 DETAIL
A370 SCALE 1 1/2" = 1'-0"

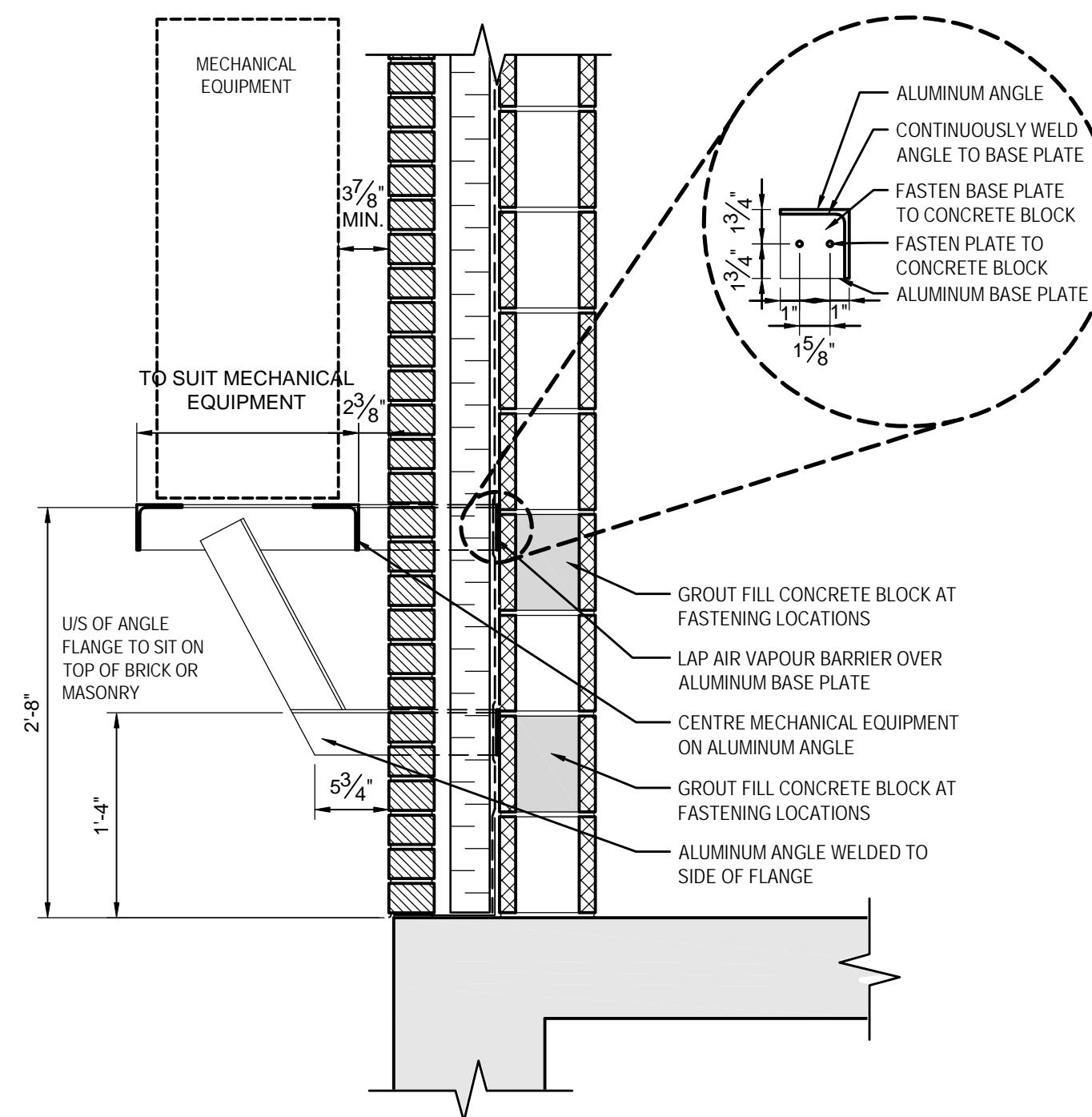
T/ INFLUENT ROOF SLAB 859.67
REGLET IN CONCRETE WALL w/ SEALANT
PRE-FINISHED METAL FLASHING WITH DRIP EDGE AND COUNTER FLASHING
EXTEND ROOF MEMBRANE UP FACE OF CONCRETE WALL, TUCK INTO REGLET, ALLOW FOR EXPANSION BETWEEN STRUCTURES
SLOPED PT BLOCKING
SLOPED 8" MIN.
10" MIN.
PARAPET CONSTRUCTION
- ROOF MEMBRANE
- 5/8" FIBERGLASS FACED GYPSUM BOARD
- 2x6 P.T. WOOD STUDS @ 16" OC
- FILL CAVITY WITH MINERAL INSULATION
- EXTEND VAPOR RETARDER UP CONCRETE WALL, ALLOW FOR EXPANSION BETWEEN STRUCTURES

ROOF CONSTRUCTION
- PRECAST CONCRETE STRUCTURE
- VAPOR RETARDER
- RIGID BOARD INSULATION
- 1/2" ROOF COVER BOARD
- ROOF MEMBRANE



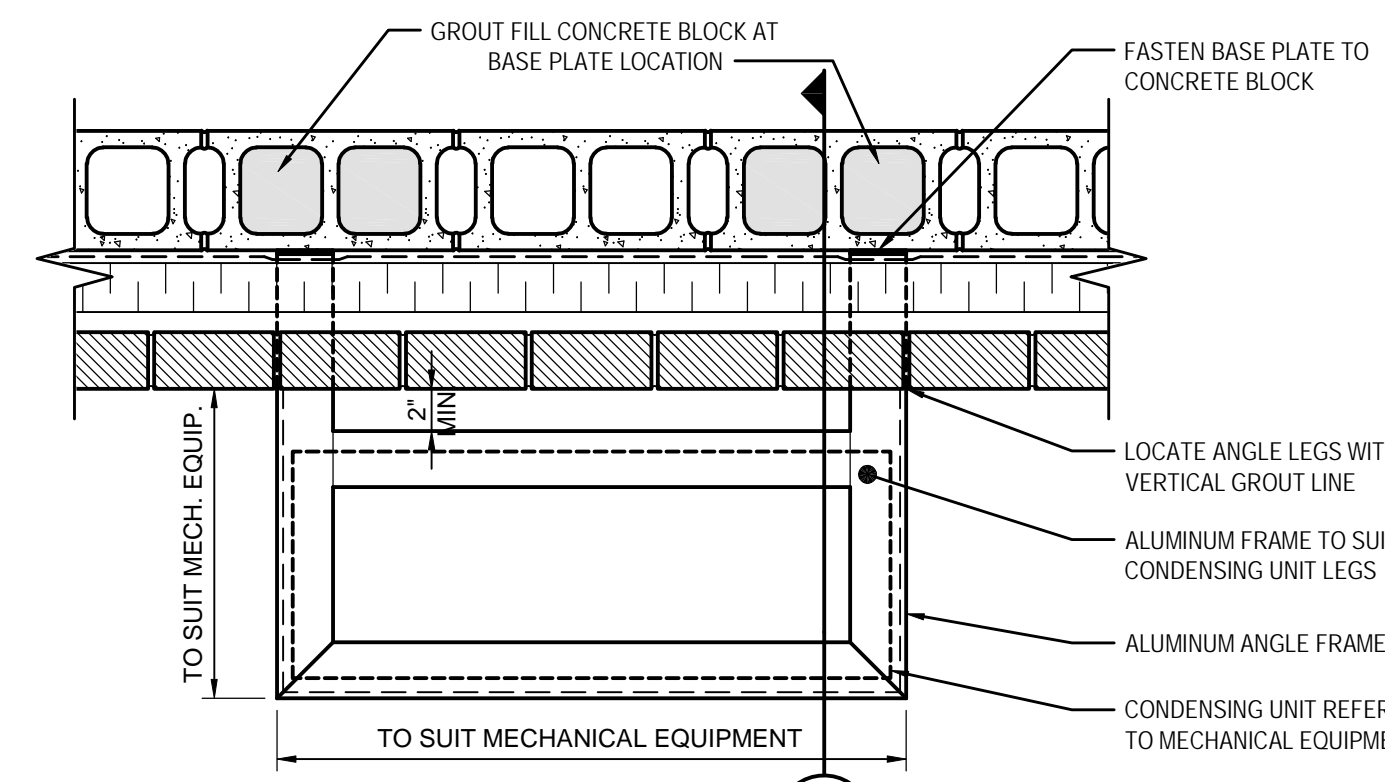
7 DETAIL
A370 SCALE 1" = 1'-0"

REMOVABLE COVER PLUG
HEAVY DUTY CHECK CHAIN
SLAM LOCK
REMOVABLE SQUARE KEY WRENCH
1/4" ALUMINUM DIAMOND PLATE COVER
1/4" ALUMINUM CHANNEL FRAME w/ RECESSED ANCHORS
HEAVY DUTY FORGED STAINLESS STEEL HINGES w/ STAINLESS STEEL PINS
1-1/2" DRAIN COUPLING
1/8" dia NEOPRENE CONTINUOUS BUMPER ALL AROUND
1/4" SUPPORT PLATE WELDED TO FRAME
STAINLESS STEEL SPRING LIFTING MECHANISM



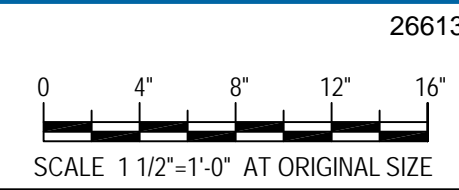
6 DETAIL
A370 SCALE 1" = 1'-0"

MECHANICAL EQUIPMENT
TO SUIT MECHANICAL EQUIPMENT
3 7/8" MIN.
2 7/8"
1 3/4" 1 3/4" 1 5/8"
ALUMINUM ANGLE CONTINUOUSLY WELD ANGLE TO BASE PLATE
FASTEN BASE PLATE TO CONCRETE BLOCK
FASTEN PLATE TO CONCRETE BLOCK ALUMINUM BASE PLATE
GROUT FILL CONCRETE BLOCK AT FASTENING LOCATIONS
LAP AIR VAPOUR BARRIER OVER ALUMINUM BASE PLATE
CENTRE MECHANICAL EQUIPMENT ON ALUMINUM ANGLE
GROUT FILL CONCRETE BLOCK AT FASTENING LOCATIONS
ALUMINUM ANGLE WELDED TO SIDE OF FLANGE



5 DETAIL
A370 SCALE 1" = 1'-0"

GROUT FILL CONCRETE BLOCK AT BASE PLATE LOCATION
FASTEN BASE PLATE TO CONCRETE BLOCK
TO SUIT MECH. EQUIP.
2" MIN.
TO SUIT MECH. EQUIP.
LOCATE ANGLE LEGS WITH VERTICAL GROUT LINE
ALUMINUM FRAME TO SUIT CONDENSING UNIT LEGS
ALUMINUM ANGLE FRAME
CONDENSING UNIT REFER TO MECHANICAL EQUIPMENT



No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
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0	FOR BID		DMB/JDG	JUL	MET	12/15

26613

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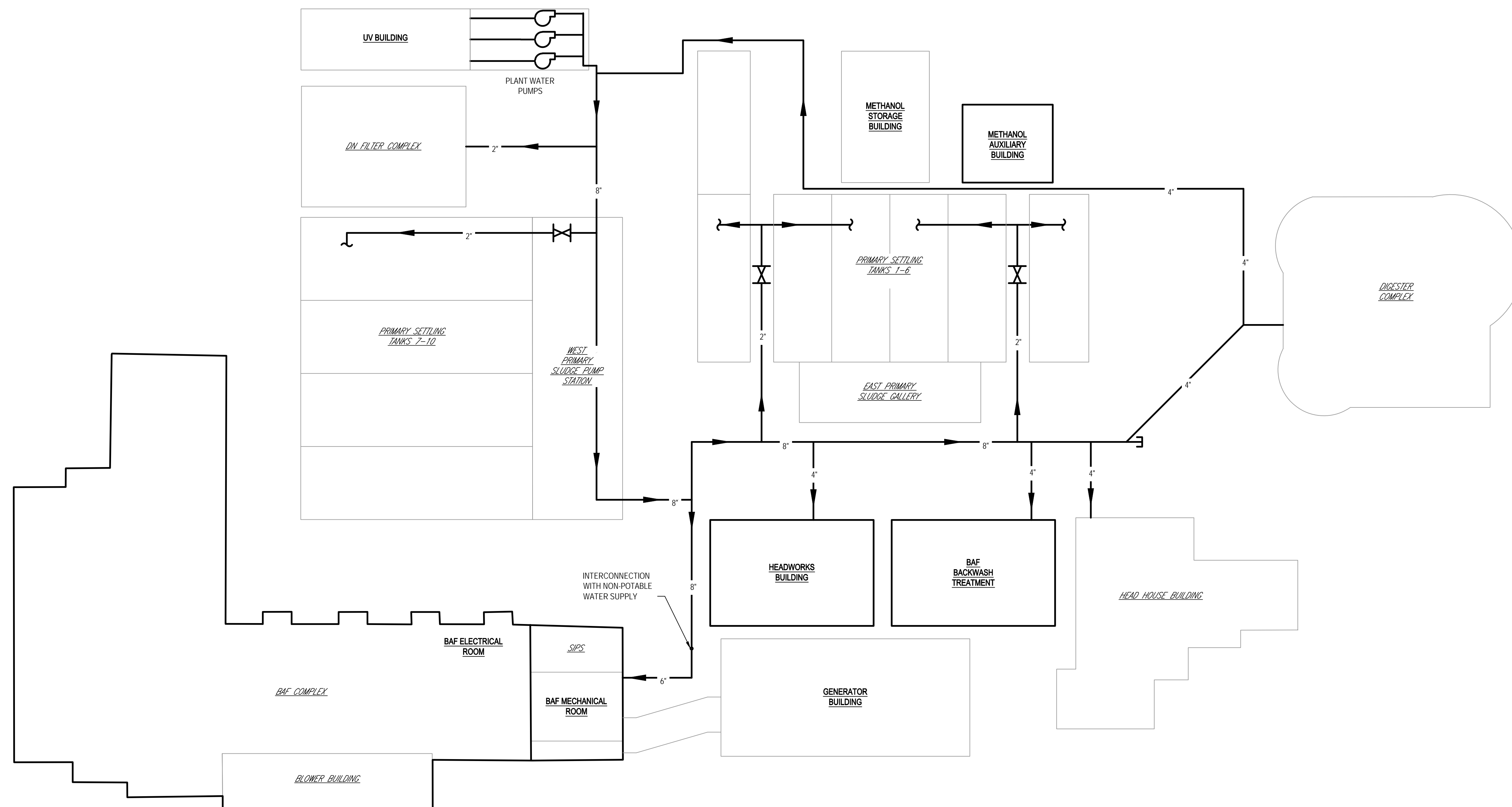
Title **CN CELLS - SECTION DETAILS**

Contract No. 5

Original Size

Ansi D Drawing No: 86-18134-A370

Rev: 1



LEGEND

	BACKFLOW PREVENTER
	PUMP
	YARD HYDRANT
	GATE VALVE
	PLANT WATER

PLANT WATER SCHEMATIC
SCALE: NOT TO SCALE

NOTE:
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	
1	CONFORMED FOR CONSTRUCTION		TAW	JJL	MET	03/16	IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.
0	FOR BID		TAW	JJL	MET	12/15	

Title **PLANT WATER SCHEMATIC**

Contract No. 5

Original Size

Ansi D Drawing No: 86-18134-M007

Rev: 1

FAN AND EXHAUSTER SCHEDULE - 15870 (2 of 3)

UNIT I.D.	BUILDING	ROOM SERVED	TYPE	FAN				dBA	ELECTRICAL			CONTROLS		DESIGN BASIS	NOTES
				AIRFLOW CFM	EXT. S.P. (" WG)	DRIVE	RPM		HP	VOLTS	PH	CONTROLLED BY	PROVIDED BY		
CN-F 1	CN-BAF FACILITY	CN CELLS 9-14 GALLERY	CENTRIFUGAL ROOFTOP EXHAUST FAN	625	0.25	BELT	1725	62	0.25	120	1	ON/OFF SWITCH	CONTRACT 6	GREENHECK / CUBE-099	5
CN-F 2	CN-BAF FACILITY	CN CELLS GALLERY	CENTRIFUGAL ROOFTOP EXHAUST FAN	625	0.25	BELT	1725	62	0.25	120	1	ON/OFF SWITCH	CONTRACT 6	GREENHECK / CUBE-099	5
CN-F 3	CN-BAF FACILITY	CN - ELECTRICAL EQUIPMENT ROOM	INLINE CENTRIFUGAL TRANSFER FAN	100	0.13	DIRECT	1725	57	0.25	120	1	ON/OFF SWITCH	CONTRACT 6	GREENHECK / SQ-80	
CN-F 4	CN-BAF FACILITY	CN - BLOWER ROOM	INLINE CENTRIFUGAL EXHAUST FAN	350	0.15	DIRECT	1710	57	0.17	120	1	ON/OFF SWITCH	CONTRACT 6	GREENHECK / SQ-85	
CN-F 5	CN-BAF FACILITY	CN - IBC ROOM	INLINE CENTRIFUGAL TRANSFER FAN	50	0.13	DIRECT	1550	45	0.03	120	1	ON/OFF SWITCH	CONTRACT 6	GREENHECK / SQ-80	
CN-F 6	CN-BAF FACILITY	CN - SAMPLE ROOM	CENTRIFUGAL CABINET EXHAUST FAN	50	0.13	DIRECT	1680		0.04	120	1	ON/OFF SWITCH	CONTRACT 6	GREENHECK / SP-A90	
DN-F 1	DN-FILTER COMPLEX	DN - GALLERY	CENTRIFUGAL ROOFTOP EXHAUST FAN	350	0.15	DIRECT	1622	56	0.17	120	1	ON/OFF SWITCH	CONTRACT 6	GREENHECK / G-085	5
DN-F 2	DN-FILTER COMPLEX	DN-BLOWER ROOM	INLINE CENTRIFUGAL EXHAUST FAN	350	0.15	DIRECT	1710	57	0.17	120	1	ON/OFF SWITCH / THERMOSTAT	CONTRACT 6	GREENHECK / SQ-85	
DN-F 3	DN-FILTER COMPLEX	DN - ELECTRICAL EQUIPMENT ROOM	INLINE CENTRIFUGAL EXHAUST FAN	100	0.13	DIRECT	1725	50	0.25	120	1	ON/OFF SWITCH	CONTRACT 6	GREENHECK / SQ-70	

SCHEDULE NOTES:

- SPLIT AC INDOOR UNIT TO BE POWERED BY ASSOCIATED OUTDOOR CONDENSING UNIT.
- SPLIT AC UNIT TO BE PROVIDED AND INSTALLED WITH A LOW AMBIENT KIT.
- SUPPLIER TO MEET ALL REQUIREMENTS IN THE SPECIFICATION AND DRAWINGS
- UNIT TO BE SUPPLIED WITH A VARIABLE FREQUENCY DRIVE (VFD).
- UNIT COMPLETE WITH CURB ADAPTERS
- REFER TO CONTRACT 6 ELECTRICAL DETAIL 2 / E383 FOR UNIT HEATER AND AC UNIT INTERLOCK REQUIREMENTS

SPLIT SYSTEM DUCTLESS HEAT PUMP AND AIR CONDITIONING SCHEDULE - 15786 (2 OF 3)

I.D.	DESCRIPTION	ROOM SERVED	DESIGN BASIS		NOMINAL TONS	SEER	AIRFLOW	COOLING CAPACITY	ELECTRICAL DATA			CONTROLS		NOTES
			MANUFACTURER	MODEL					BTU/HRW	CFM	BTU/HR	MCA	VOLT	
CN-AC 1	CN BAF ELECTRICAL EQUIPMENT ROOM INDOOR UNIT #1	CN - ELECTRICAL EQUIPMENT ROOM	mitsubishi	PKA-A38KA	3.0		920	36,000	1	208	1	T-STAT	CONTRACT 7	1.6
CN-AC 2	CN CONTROL ROOM INDOOR UNIT	CN - IBC ROOM	mitsubishi	PKA-A12HA	1.0		425	12,000	1	208	1	T-STAT	CONTRACT 7	1.6
CN-AC 3	CN BAF ELECTRICAL EQUIPMENT ROOM INDOOR UNIT #2	CN - ELECTRICAL EQUIPMENT ROOM	mitsubishi	PKA-A38KA	3		920	36,000	1	208	1	T-STAT	CONTRACT 7	1.6
CN-DO 1	CN BAF ELECTRICAL EQUIPMENT ROOM OUTDOOR UNIT #1	CN - ELECTRICAL EQUIPMENT ROOM	mitsubishi	PUY-A30NH4		14		35,000	25	208	1	CN-AC-1	CONTRACT 7	2
CN-DO 2	CN CONTROL ROOM OUTDOOR UNIT	CN - IBC ROOM	mitsubishi	PUY-A12NH4		15.2		12,000	13	208	1	CN-AC-2	CONTRACT 7	2
CN-DO 3	CN BAF ELECTRICAL EQUIPMENT ROOM OUTDOOR UNIT #2	CN - ELECTRICAL EQUIPMENT ROOM	mitsubishi	PUY-A30NH4		14		35,000	25	208	1	CN-AC-3	CONTRACT 7	2
DN-AC 1	DN ELECTRICAL EQUIPMENT ROOM INDOOR UNIT #1	DN - ELECTRICAL EQUIPMENT ROOM	mitsubishi	PKA-A30KA	2.5		775	30,000	1	208	1	T-STAT	CONTRACT 7	1.6
DN-AC 2	DN CONTROL ROOM INDOOR UNIT	DN - CONTROL ROOM	mitsubishi	PKA-A12HA	1		425	14,000	1	208	1	T-STAT	CONTRACT 7	1.6
DN-AC 3	DN ELECTRICAL EQUIPMENT ROOM INDOOR UNIT #2	DN - ELECTRICAL EQUIPMENT ROOM	mitsubishi	PKA-A30KA	2.5		775	30,000	1	208	1	T-STAT	CONTRACT 7	1.6
DN-DO 1	DN ELECTRICAL EQUIPMENT ROOM OUTDOOR UNIT #1	DN - ELECTRICAL EQUIPMENT ROOM	mitsubishi	PUY-A30NH4		15.5		30,000	25	208	1	DN-AC-1	CONTRACT 7	2
DN-DO 2	DN CONTROL ROOM OUTDOOR UNIT	DN - CONTROL ROOM	mitsubishi	PUY-A12NH4		15.2		12,000	13	208	1	DN-AC-2	CONTRACT 7	2
DN-DO 3	DN ELECTRICAL EQUIPMENT ROOM OUTDOOR UNIT #2	DN - ELECTRICAL EQUIPMENT ROOM	mitsubishi	PUY-A30NH4		15.5		30,000	25	208	1	DN-AC-3	CONTRACT 7	2

SPLIT SYSTEM AIR HANDLING UNIT SCHEDULE

UNIT ID	DESCRIPTION	BUILDING	ROOM SERVED	TYPE	DX COIL DATA										SUPPLY FAN DATA				CONDENSING UNIT DATA				CONTRACT RESPONSIBILITY				BASIS OF DESIGN		WEIGHT	NOTES										
					SUPPLY AIR		RETURN AIR		OUTSIDE AIR		S.P.		EXT. S.P.		TOTAL COOLING		SENSIBLE COOLING		ENTERING AIR		LEAVING AIR		HP	RPM	TYPE	FLA	MOCP	VOLTS / PHASE			CAPACITY (MBH)	FLA	MOCP	VOLTS / PHASE	PROVIDED BY	WIRED BY	CONTROL BY	COMM BY	MANUFACTURER	MODEL
					CFM	IN ("WG)	CFM	IN ("WG)	CFM	IN ("WG)	IN ("WG)	IN ("WG)	BTU/HR	BTU/HR	°F	°F	°F	°F	DB	WB	DB	WB																		
CN-AHU-1	CN MAIN ELECTRICAL ROOM COOLING UNIT	CN FACILITY	MAIN ELECTRICAL ROOM	HORIZONTAL SPLIT SYSTEM	6000	5700	300	1.6	1	222,000	178,000	76	62	48.2	48	2@4	2040	BACKWARD CURVED PLENUM	8.4	15	460/3P	222	38	50	480/3P	CONTRACT 7	CONTRACT 6	CONTRACT 7	CONTRACT 7	AAON	H3ERB	9001450	3							

DEHUMIDIFIER UNIT SCHEDULE - 15815

UNIT ID	DESCRIPTION	BUILDING	ROOM SERVED	TYPE	AIRFLOW					GAS HEATER	MOTOR								ELECTRICAL REQUIREMENTS					CONTRACT RESPONSIBILITY				BASIS OF DESIGN		WEIGHT	NOTES							
					SUPPLY AIR		RETURN AIR		OUTSIDE AIR		S.P.	EXT. S.P.	REACT AIR	TOTAL HEATING		SUPPLY ENTERING AIR		SUPPLY LEAVING AIR		REACT ENTERING AIR		REACT LEAVING AIR		SPEED	SUPPLY FAN		REACT FAN		FLA			MCA	VOLTS / PHASE	PROVIDED BY	WIRED BY	CONTROL BY	COMM BY	MANUFACTURER
					CFM	IN ("WG)	CFM	IN ("WG)	CFM	IN ("WG)	IN ("WG)	BTU/HR	BTU/HR	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F		°F	°F	HP	HP										
CN-DEH-1	CN GALLERY DEHUMIDIFIER	CN FACILITY	CN GALLERY	DESICANT	3000	3000	1250	4	1	850	250,000	79	65.3	120	50	284	81.5	137	101	16	5	3	14.6	19	480/3P	CONTRACT 7	CONTRACT 6	CONTRACT 7	CONTRACT 7	CDI	CDH-S0-130	3800	3.4					
CN-DEH-2	DN GALLERY DEHUMIDIFIER	DN FACILITY	DN GALLERY	DESICANT	1000	1000	350	1.7	1	250	102,000	79	65.3	120	45	284	81.5	110	104	16	1.5	0.5	4	5	480/3P	CONTRACT 7	CONTRACT 6	CONTRACT 7	CONTRACT 7	CDI	CDH-S0-130	3800	3.4					

26613

1	CONFORMED FOR CONSTRUCTION	AVK	JUL	MET	3/16	IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.
0	FOR BID	MN	JUL	MET	12/15	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	

Plot Date: 14 March 2016 - 10:10 AM

Cad File No: CN-HVAC-SCHED.dwg

Title **CN & DN CELLS HVAC SCHEDULES SHEET 1**

Contract No. 7

Original Size

Ansi D Drawing No: **86-18134-H003**

Rev: 1