

Alamo Colleges

# WFAC Black Box Addition PKG 1

1801 Martin Luther King Dr.,  
San Antonio, TX, 78203

## ISSUE FOR CONSTRUCTION

2024/06/14



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Table with columns SHEET NUMBER and SHEET NAME. Lists architectural, mechanical, and plumbing sheets including general information, site plans, and details.

ADD ALTERNATES

- 1. PROVIDE SEPARATE PRICING TO REMOVE THE LOBBY ADDITION IN FRONT OF THE EXISTING WATSON THEATER ENTRANCE. THIS IS TO INCLUDE PIERS, FOUNDATION.
2. MUD SLAB:
2A - PROVIDE SEPARATE PRICING TO REMOVE MUD SLAB DOWN TO A PATHWAYS FROM THE FLOOR HATCH TO THE PLUMBING DRAINS. REFER TO SHEET A-100.
2B - PROVIDE SEPARATE PRICING TO REMOVE THE MUD SLAB.

ABBREVIATIONS AND LEGEND KEYS

Table of abbreviations and legend keys. Includes sections for 'REFER TO SCHEDULES AND LEGENDS FOR ADDITIONAL ABBREVIATIONS', 'PROJECT GRAPHIC REFERENCES', and 'CONSTRUCTION TYPE SYMBOLS'. Lists various materials and construction types with their corresponding symbols.

GENERAL NOTES

- A. THE CONTRACT DOCUMENTS ARE TO INCLUDE AIA DOCUMENT A201 "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION". CLIENT SHALL BE DESIGNATED AS "THE OWNER".
B. THE WORK SHALL BE DONE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF ALL APPLICABLE SAFETY AND BUILDING CODES.
C. CONTRACTOR SHALL REVIEW AND VERIFY EXISTING CONDITIONS AS PROVIDED IN THE CONSTRUCTION DOCUMENTS.
D. CONTRACTOR SHALL BE RESPONSIBLE FOR AND PROVIDE PROTECTION OF ANY EXISTING FINISHES, MATERIALS, AND EQUIPMENT TO REMAIN.
E. ALL MATERIALS AND SYSTEMS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
F. ONLY NEW MATERIALS AND EQUIPMENT OF RECENT MANUFACTURE, OF STANDARD QUALITY, AND FREE FROM DEFECTS, WILL BE PERMITTED IN THE WORK.
G. DO NOT SCALE DRAWINGS. STATED & WRITTEN DIMENSIONS GOVERN.
H. CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST BETWEEN THE LOCATIONS OF EXISTING AND PROPOSED NEW MECHANICAL, ELECTRICAL, PLUMBING, DATA, AND SPRINKLER EQUIPMENT.
I. CONTRACTOR SHALL PROVIDE THE ARCHITECT WITH SHOP DRAWINGS FOR REVIEW AND APPROVAL FOR ALL, BUT NOT LIMITED TO, THE FOLLOWING: SHOP-FABRICATED MILLWORK, CARPET LAYOUT, FLOORING, LIGHT FIXTURES, DOORS, MISC. STEEL, METAL FABRICATION, GLASS/GLAZING, SPRINKLER LAYOUTS, HARDWARE.
J. CONTRACTOR SHALL REVIEW AND COORDINATE THE SIZE AND LOCATION OF ALL SLAB OPENINGS WITH ALL RELATED DISCIPLINES.
K. CONTRACTOR SHALL PROVIDE THE ARCHITECT WITH MANUFACTURER'S CUT SHEETS AND SPECIFICATIONS FOR ALL EQUIPMENT INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PLUMBING EQUIPMENT, ELECTRICAL EQUIPMENT, FANS, SUPPLEMENTARY HEATING AND COOLING ELEMENTS, ALL HARDWARE AND SECURITY EQUIPMENT.
L. CONTRACTOR SHALL NOT PROCEED WITH WORK FOR WHICH ADDITIONAL COMPENSATION BEYOND THE CONTRACT AMOUNT IS EXPECTED WITHOUT WRITTEN AUTHORIZATION FROM THE ARCHITECT AND OWNER.
M. CONTRACTOR SHALL REVIEW AND COORDINATE THE SIZE AND LOCATION OF ALL SLAB OPENINGS WITH ALL RELATED DISCIPLINES.
N. PATCH, REPAIR, AND INSTALL ALL FIREPROOFINGS AS REQUIRED BY CODE. FIREPROOF ALL NEW PENETRATIONS AS REQUIRED FOR APPROVAL BY THE AUTHORITY HAVING JURISDICTION.
O. CONTRACTOR SHALL CONTINUOUSLY CHECK ARCHITECTURAL AND STRUCTURAL CLEARANCES FOR ACCESSIBILITY OF EQUIPMENT AND MECHANICAL AND ELECTRICAL SYSTEMS.
P. FINISHED WORK SHALL BE FIRM, WELL-ANCHORED, IN TRUE ALIGNMENT, PLUMB, LEVEL, WITH SMOOTH, CLEAN, UNIFORM APPEARANCE WITHOUT WAVES, DISTORTIONS, HOLES, MARKS, CRACKS, STAINS, OR DISCOLORATION.
Q. ATTACHMENTS, CONNECTIONS OR FASTENERS OF ANY NATURE ARE TO PROPERLY AND PERMANENTLY BE SECURED IN CONFORMANCE WITH INDUSTRY BEST PRACTICES.
R. CONTRACTOR SHALL WAIVE "COMMON PRACTICE" AND "COMMON USAGE" AS CONSTRUCTION CRITERIA WHEREVER DETAILS AND CONTRACT DOCUMENTS OR GOVERNING CODES, ORDINANCES, ETC. REQUIRE QUANTITY OR BETTER QUALITY THAN COMMON PRACTICE OR COMMON USAGE WOULD REQUIRE.
S. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SUBMITTALS AND SHALL ORDER AND SCHEDULE DELIVERY OF MATERIALS TO AVOID DELAYS IN CONSTRUCTION.
T. CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY WITH A PROPOSED ALTERNATIVE.
U. UNREPORTED DEFICIENCIES WILL BECOME THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO CORRECT.
V. CONTRACTOR SHALL EXERCISE INDUSTRY BEST PRACTICES FOR CARE AND CAUTION DURING THE CONSTRUCTION OF THE WORK AND SHALL SCHEDULE WORK TO MINIMIZE DISTURBANCES TO OCCUPANTS.
W. ADJACENT SPACES AND/OR STRUCTURES, PROPERTY, PUBLIC THOROUGHFARES, ETC. THE GENERAL CONTRACTOR SHALL TAKE PRECAUTIONS AND BE RESPONSIBLE FOR THE SAFETY OF ALL BUILDING OCCUPANTS DURING CONSTRUCTION PROCEDURES.
X. ALL DEBRIS SHALL BE REMOVED FROM THE SITE ON A DAILY BASIS, OR AS DIRECTED BY THE AUTHORITY HAVING JURISDICTION.
Y. ALL ABANDONED AND MISCELLANEOUS NAILS, HANGERS, STAPLES, WIRES, CONDUITS AND DEBRIS SHALL BE REMOVED FROM EXPOSED AREAS OF THE FLOORS, WALLS, AND CEILINGS.
Z. CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY ACCESS PANELS WHICH MAY BE REQUIRED PRIOR TO PROCEEDING WITH THE WORK.
ZB. CONTRACTOR SHALL PROVIDE THE TEAM WITH A CONSTRUCTION SCHEDULE SHOWING THE PROPOSED PHASING. LONG LEAD ITEMS THAT WILL AFFECT THE SUBSTANTIAL COMPLETION DATE SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION IMMEDIATELY.



Table listing project team members and roles: ARCHITECT (SAN ANTONIO), PBK Architects, Inc., SAN ANTONIO, 601 N.W. Loop 410, Suite 400, San Antonio, TX 78216.

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1801 Martin Luther King Dr., San Antonio, TX, 78203
ISSUE FOR CONSTRUCTION

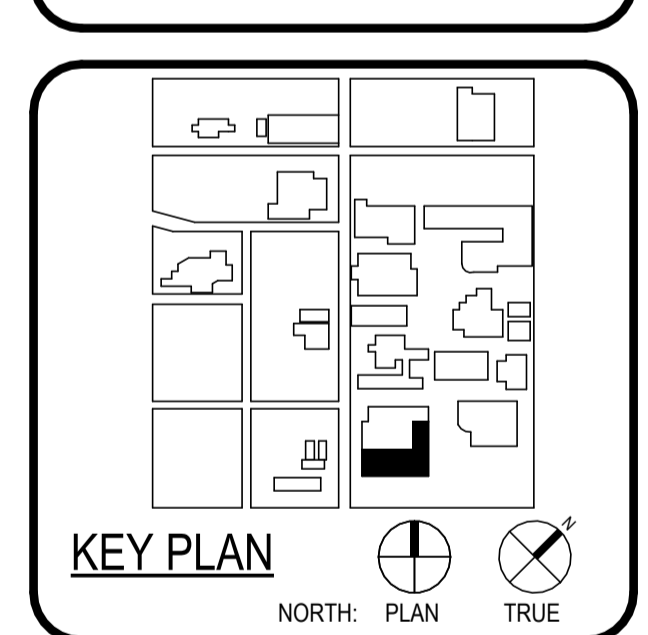


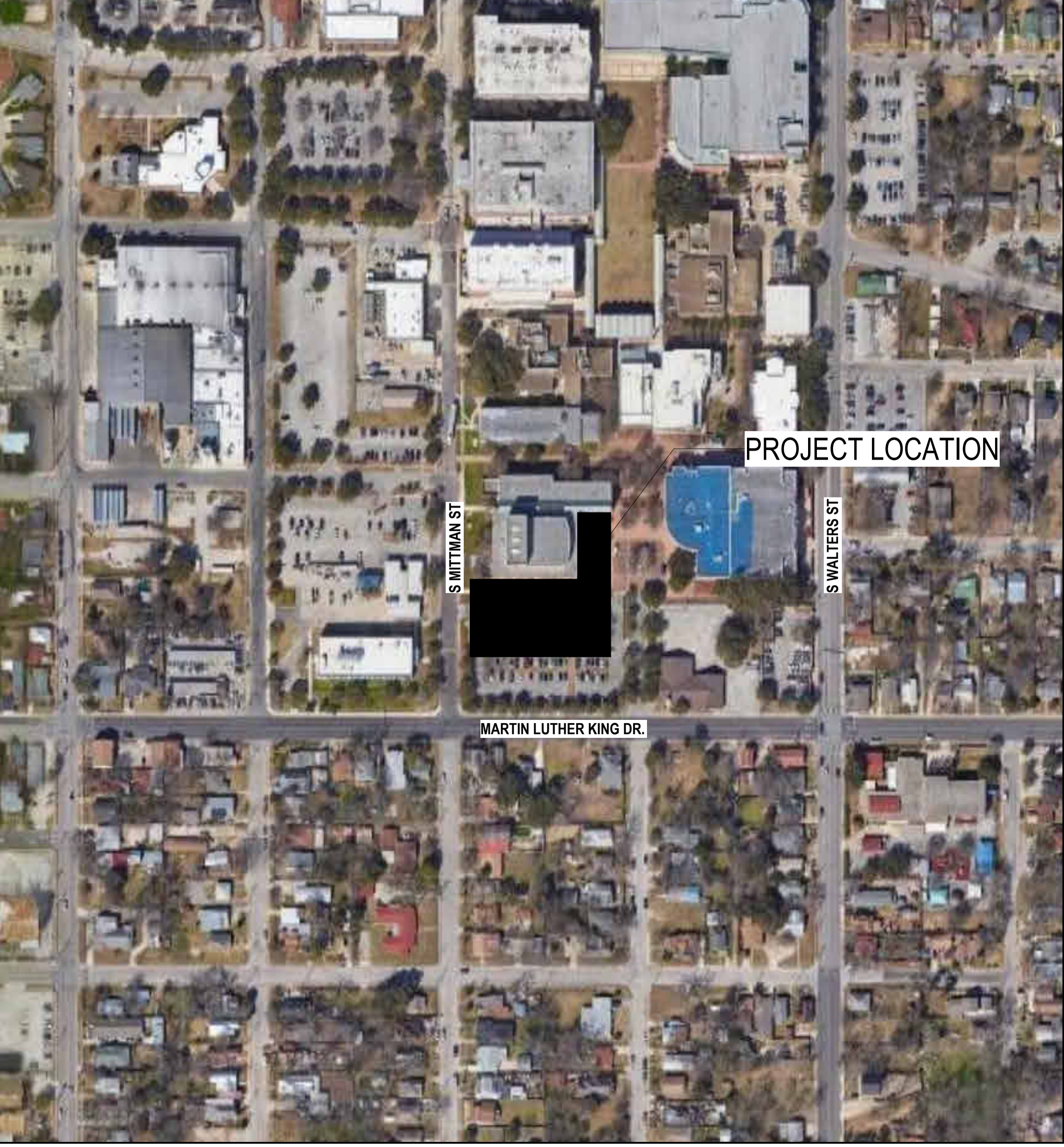
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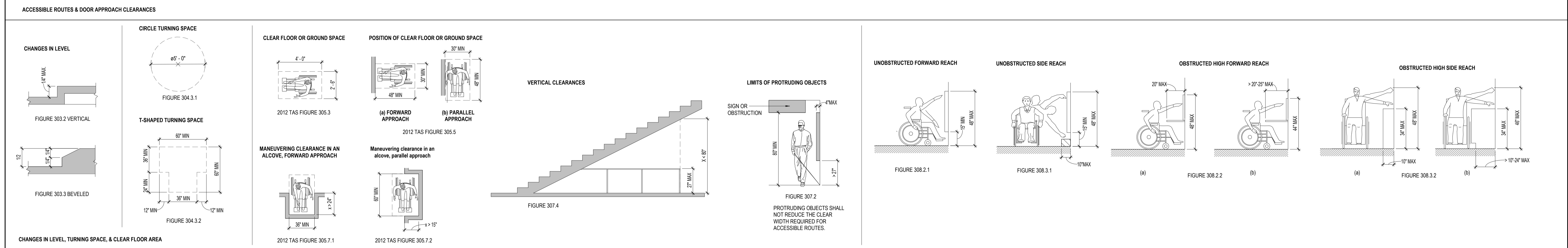
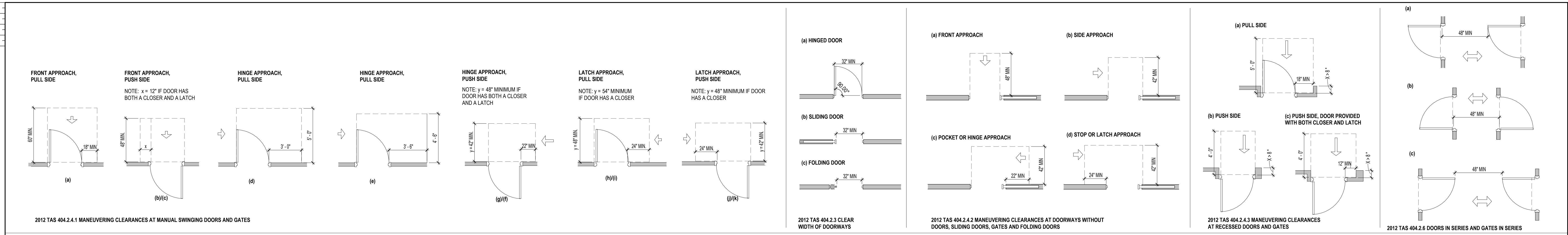
ISSUE FOR CONSTRUCTION
BUILDING NUMBER 1

GENERAL PROJECT INFORMATION

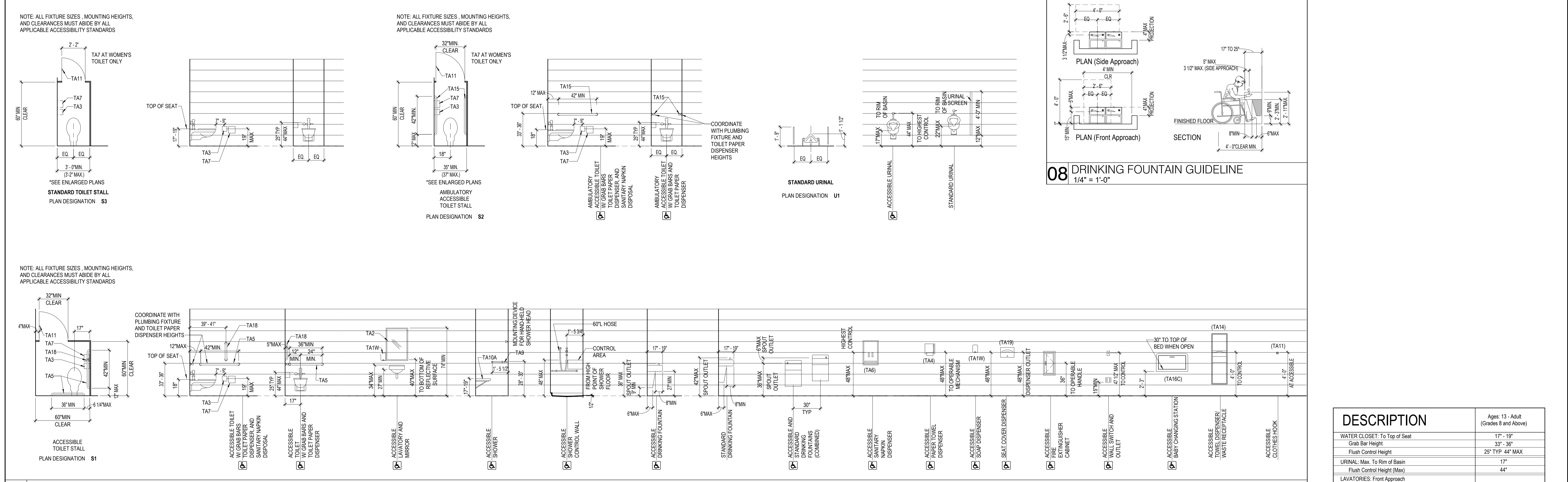
G-002

VICINITY MAP

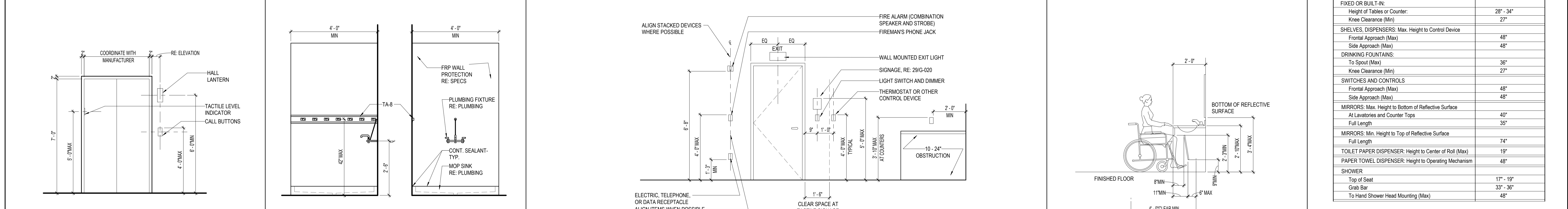




**24 TEXAS ACCESSIBILITY STANDARDS**  
1/4" = 1'-0"



**12 ACCESSIBILITY - AGES 13 THRU ADULT (GRADES 8 AND ABOVE)**  
1/4" = 1'-0"



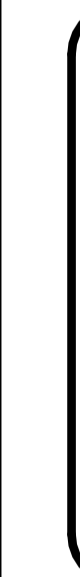
DESCRIPTION	AGES 13 - ADULT (GRADES 8 AND ABOVE)
WATER CLOSET: To Top of Seat	17" - 19"
Grab Bar Height	33" - 38"
Flush Control Height	25" TYP 44" MAX
URINAL: Max. To Rim of Basin	17"
Flush Control Height (Max)	44"
LAVATORIES: Front Approach	
Knee Clearance (Min)	27"
To Top (Max)	34"
To Faucet (Max)	29"
FIXED OR BUILT-IN:	
Height of Tables or Counter	28" - 34"
Knee Clearance (Min)	27"
SHELVES, DISPENSERS: Max. Height to Control Device	
Frontal Approach (Max)	48"
Side Approach (Max)	48"
DRINKING FOUNTAINS:	
To Spout (Max)	36"
Knee Clearance (Min)	27"
SWITCHES AND CONTROLS:	
Frontal Approach (Max)	48"
Side Approach (Max)	48"
MIRRORS: Max. Height to Bottom of Reflective Surface	
At Lavatories and Counter Tops	40"
Full Length	35"
MIRRORS: Min. Height to Top of Reflective Surface	
Full Length	74"
TOILET PAPER DISPENSER: Height to Center of Roll (Max)	19"
PAPER TOWEL DISPENSER: Height to Operating Mechanism	48"
SHOWER:	
Top of Seat	17" - 19"
Grab Bar	33" - 38"
To Hand Shower Head Mounting (Max)	48"

This document is for interim review only.

ARCHITECT PBK Architects, Inc.

WFAC Black Box Addition PKG 1

ALAMO COLLEGES



CLIENT: Alamo Colleges  
DATE: 2024/06/14  
PROJECT NUMBER: 230462

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER: 1

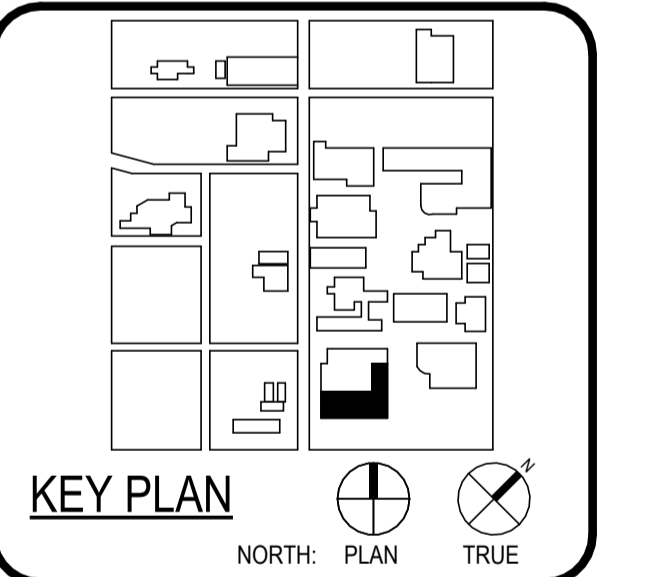
TEXAS ACCESSIBILITY STANDARDS



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ALAMO COLLEGES  
ST. PHILIP'S COLLEGE



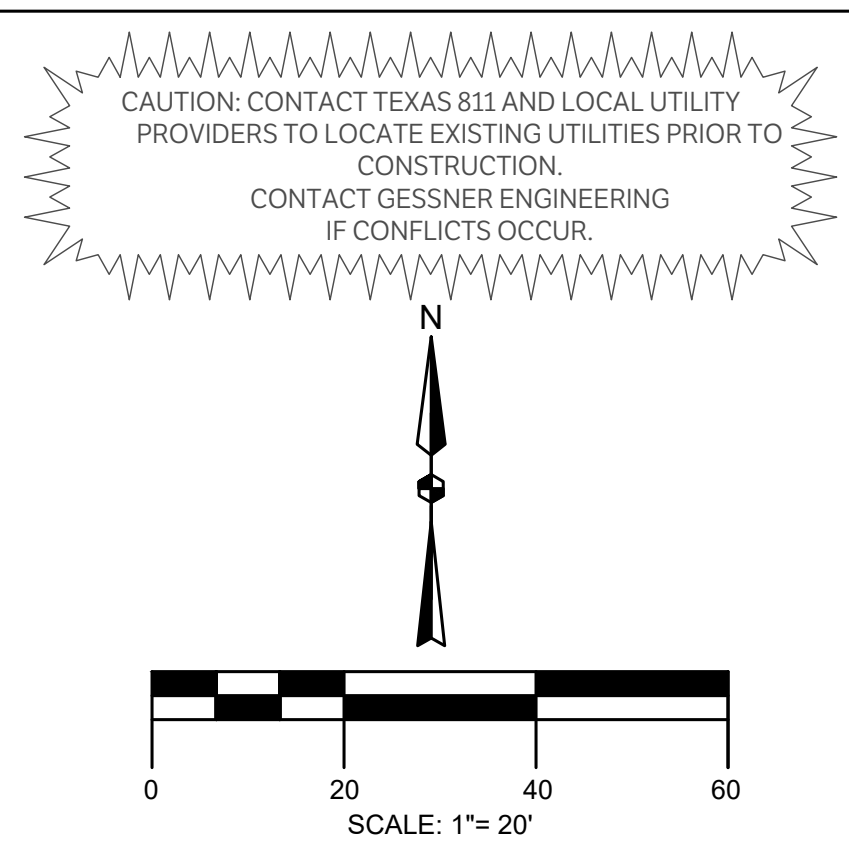
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DATE: 2024/06/14  
PROJECT NUMBER: 230462

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER: 1

TEXAS ACCESSIBILITY STANDARDS



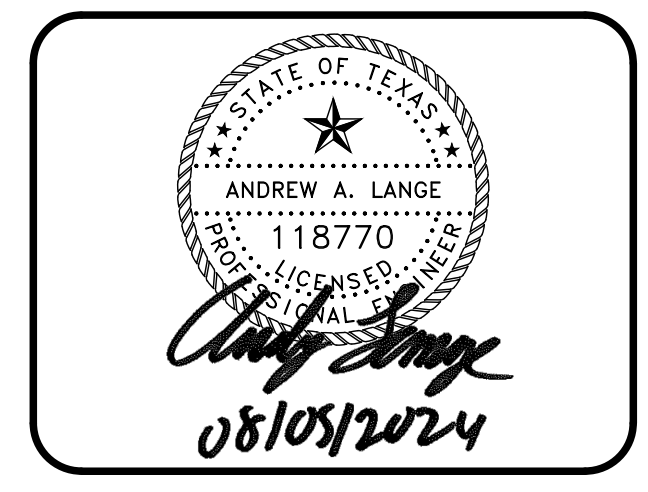
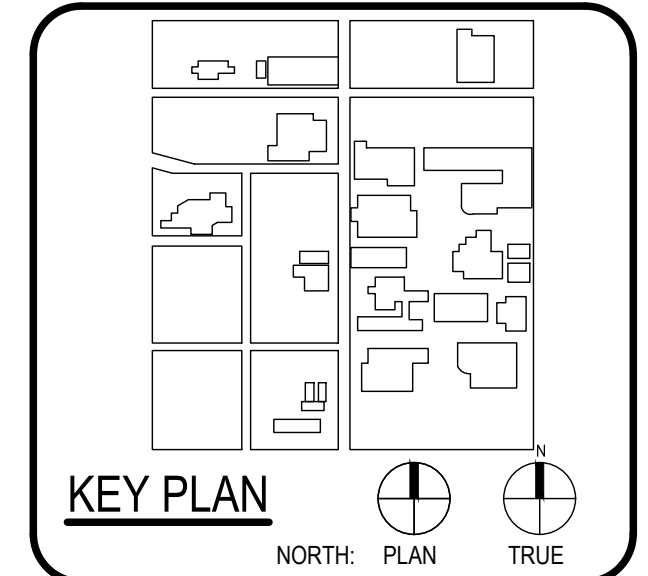
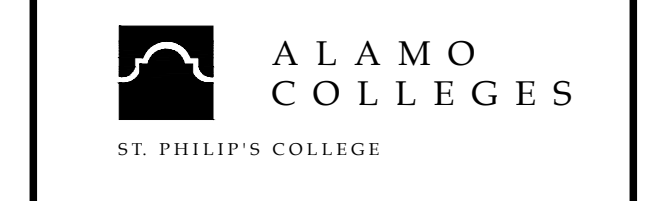
# ISSUE FOR PERMIT



ARCHITECT: SAN ANTONIO PBK Architects, Inc.  
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PROJECT: WFAC Black Box Addition PKG 1  
600 S Milgram St.  
San Antonio, TX 78203  
ISSUE FOR PERMIT

## WFAC Black Box Addition PKG 1



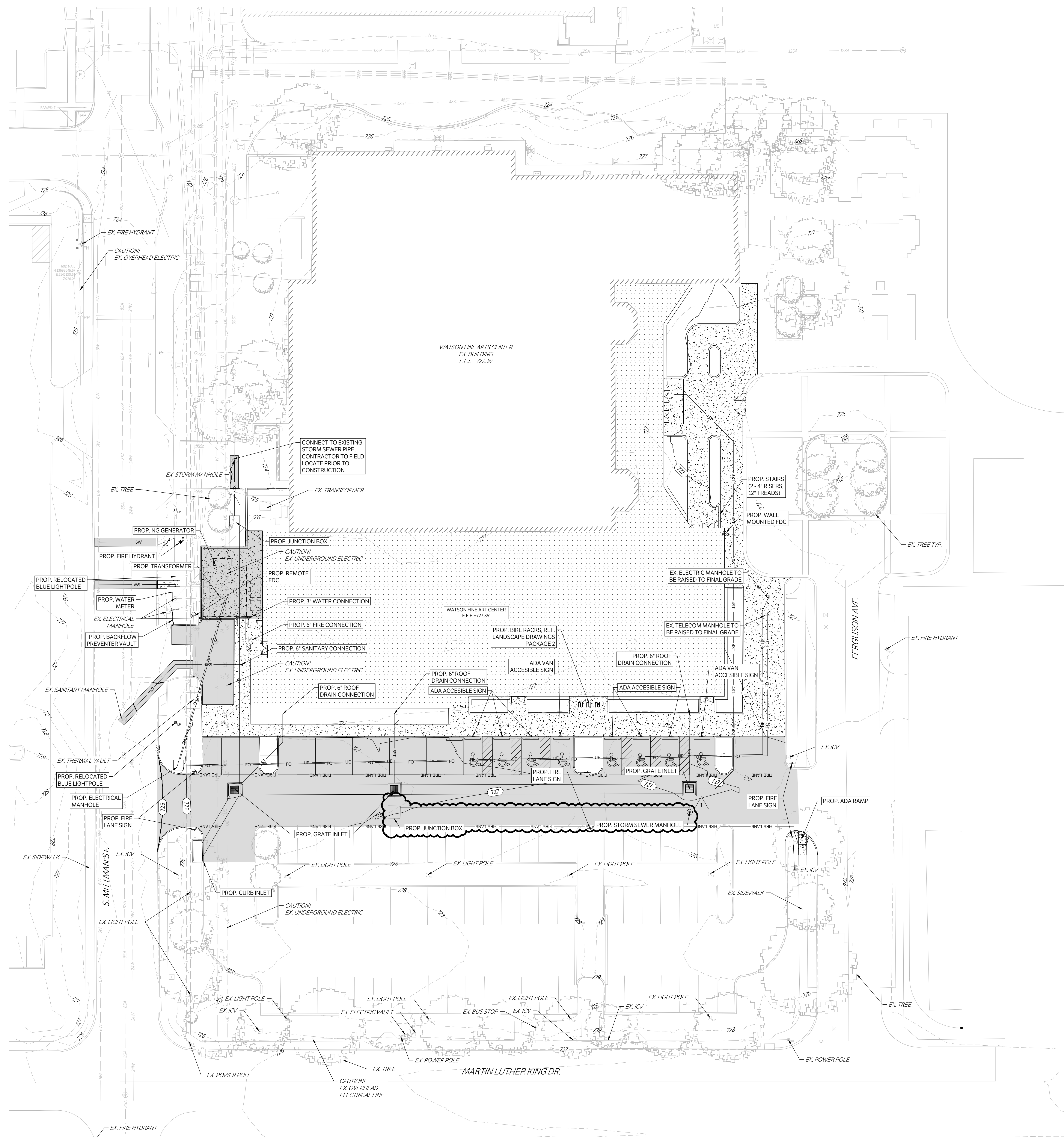
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DATE	2024/06/12	PROJECT NUMBER
		230462
DRAWING HISTORY		
No.	Description	Date
1	ADDENDUM 1	08/05/2024

## ISSUE FOR PERMIT

BUILDING NUMBER

### SITE PLAN

# C200



### LEGEND

[Pattern]	PROPOSED ASPHALT PAVEMENT
[Pattern]	PROPOSED STRUCTURAL PAVEMENT REF. STRUCTURAL
[Pattern]	PROPOSED 4\"/>

### PARKING TABLE

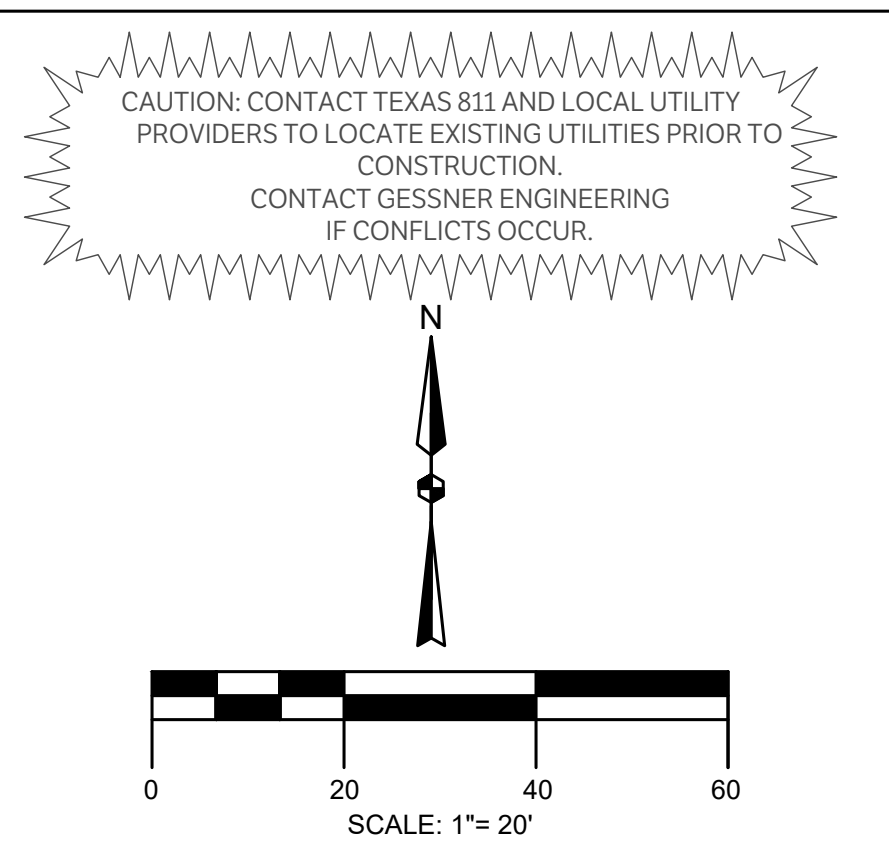
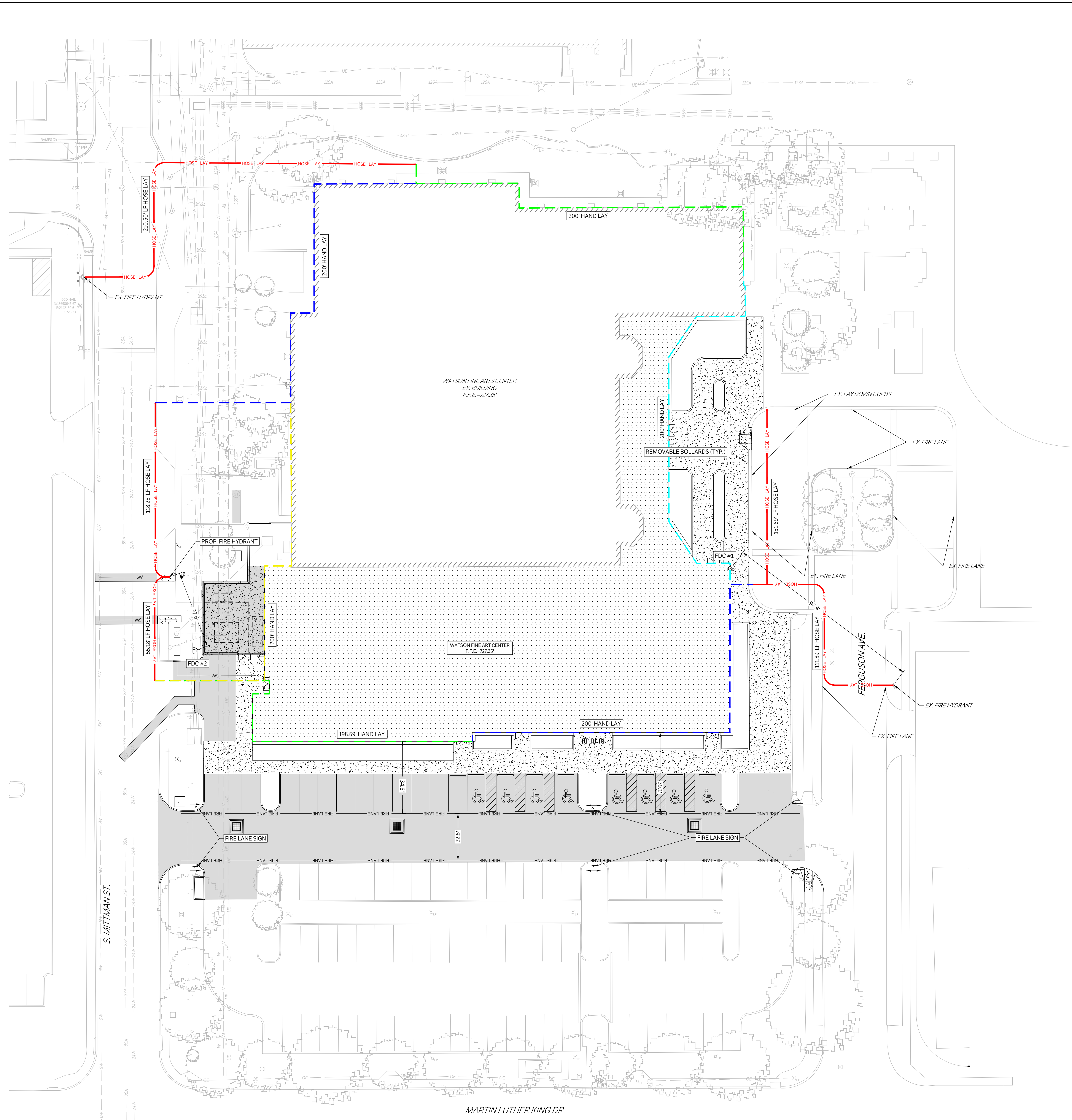
ITEM	QUANTITY
EXISTING PARKING SPOTS	125
EXISTING ADA SPOTS	9
REQUIRED ADA SPOTS	4
PROPOSED PARKING SPOTS	81
PROPOSED ADA SPOTS	8

### IMPERVIOUS COVER COMPARISON

	PERVIOUS	IMPERVIOUS	TOTAL
EXISTING	15497.11	66628.36	82125.47
PROPOSED	6426.58	75698.89	82125.47
IMPERVIOUS INCREASE		9070.53	

# ISSUE FOR CONSTRUCTION

Sheet Grids Template  
2400  
FOR BLUEBAM LABELING CORR.



**LEGEND**

[Symbol]	PROPOSED ASPHALT PAVEMENT
[Symbol]	PROPOSED STRUCTURAL PAVEMENT REF. STRUCTURAL
[Symbol]	PROPOSED 4" CONCRETE SIDEWALK
[Symbol]	PROPOSED BUILDING
[Symbol]	EXISTING PAVEMENT EDGE
[Symbol]	PROPERTY LINE
[Symbol]	EXISTING EASEMENT
[Symbol]	PROPOSED EASEMENT
[Symbol]	EXISTING CONTOURS
[Symbol]	PROPOSED CONTOURS
[Symbol]	EX.   PROP. STORM LINE
[Symbol]	EX.   PROP. WATER LINE
[Symbol]	EX.   PROP. SANITARY SEWER LINE
[Symbol]	EXISTING THERMALS
[Symbol]	PROPOSED THERMALS
[Symbol]	EX.   PROP. GAS LINE
[Symbol]	EX.   PROP. DATA/TELECOM
[Symbol]	EX.   PROP. UNDERGROUND ELECTRIC
[Symbol]	EX.   PROP. FIBER OPTIC
[Symbol]	EX.   PROP. OVERHEAD ELECTRIC
[Symbol]	EX.   PROP. FIRE HYDRANT
[Symbol]	EX.   PROP. WATER METER
[Symbol]	EX.   PROP. GATE VALVE
[Symbol]	EX. IRRIGATION CONTROL VALVE
[Symbol]	PROP. FIRE DEPARTMENT CONNECTION
[Symbol]	PROP. POST INDICATOR VALVE
[Symbol]	PROP. HOSE LAY
[Symbol]	EX.   PROP. SANITARY SEWER MANHOLE
[Symbol]	EX.   PROP. SANITARY SEWER CLEANOUT
[Symbol]	EX. STORM SEWER MANHOLE
[Symbol]	PROP. STORM SEWER CURB INLET
[Symbol]	EX.   PROP. LIGHT POLE
[Symbol]	PROPOSED PUBLIC ACCESS EASEMENT
[Symbol]	PROPOSED UTILITY EASEMENT

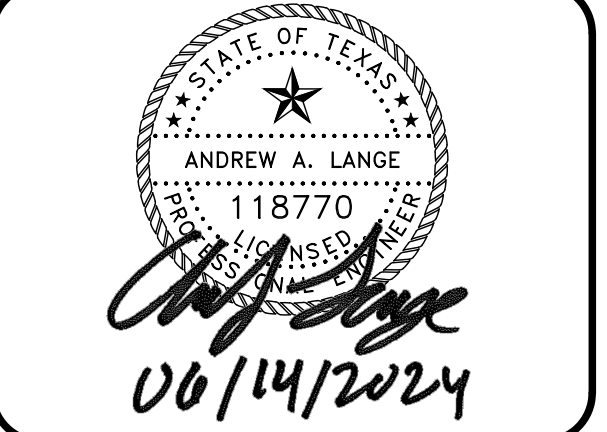
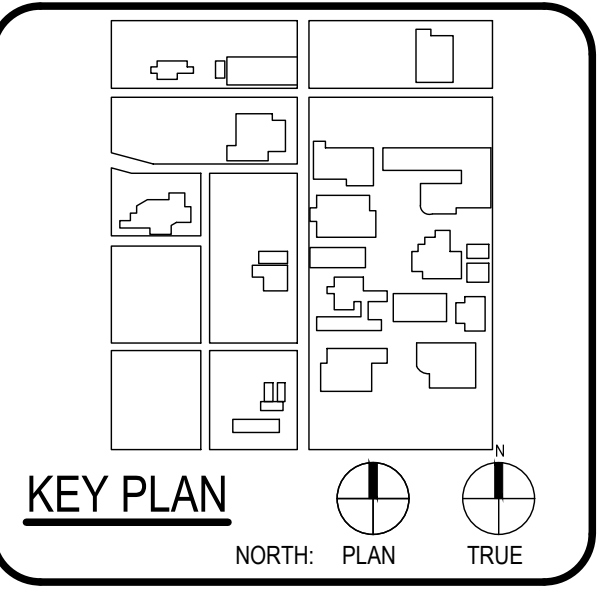
**FIRE PROTECTION INFO**

OWNER:	ST. PHILLIPS COLLEGE
SITE AREA (SF)	21,863
NO. OF STORIES	1
PROPOSED BUILDING	TOTAL GSF   HEIGHT   TYPE
	26,114   38 ft   IIB
TOTAL REQUIRED FLOW (GPM)	3,500
BUILDING SPRINKLER SYSTEM:	YES
REDUCTION DUE TO SPRINKLERS:	75%
FINAL REQUIRED FIRE FLOW	875
AVAILABLE FLOW @ 20 PSI (GPM)	940



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TX Firm BR 1608

WFAC Black Box Addition PKG 1



CLIENT: Alamo Colleges  
DATE: 2024/06/12 PROJECT NUMBER: 230462

No.	Description	Date

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER

SITE FIRE PLAN

C201

CHECKED BY: SH & AL  
DRAWN BY: JC

# ISSUE FOR CONSTRUCTION

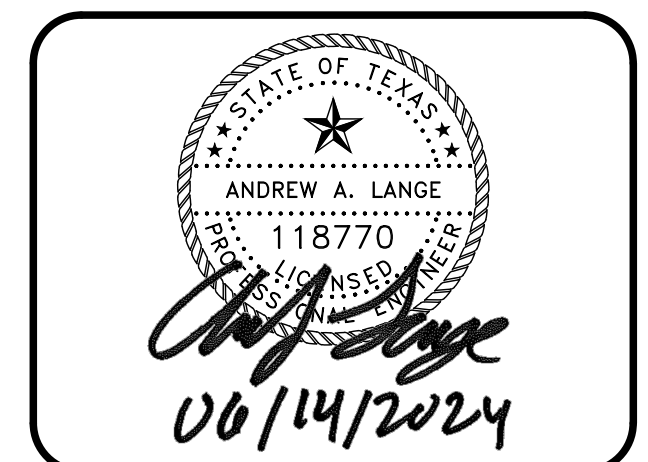
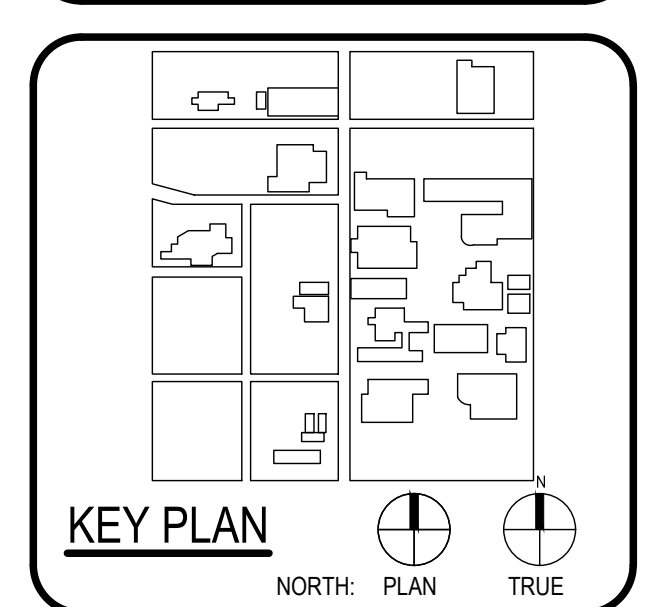
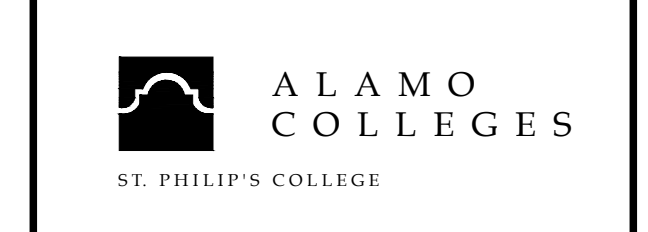


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TX Firm BR 1608

WFAC Black Box Addition PKG 1

600 S. Miltman St.  
San Antonio, TX 78203

ISSUE FOR CONSTRUCTION



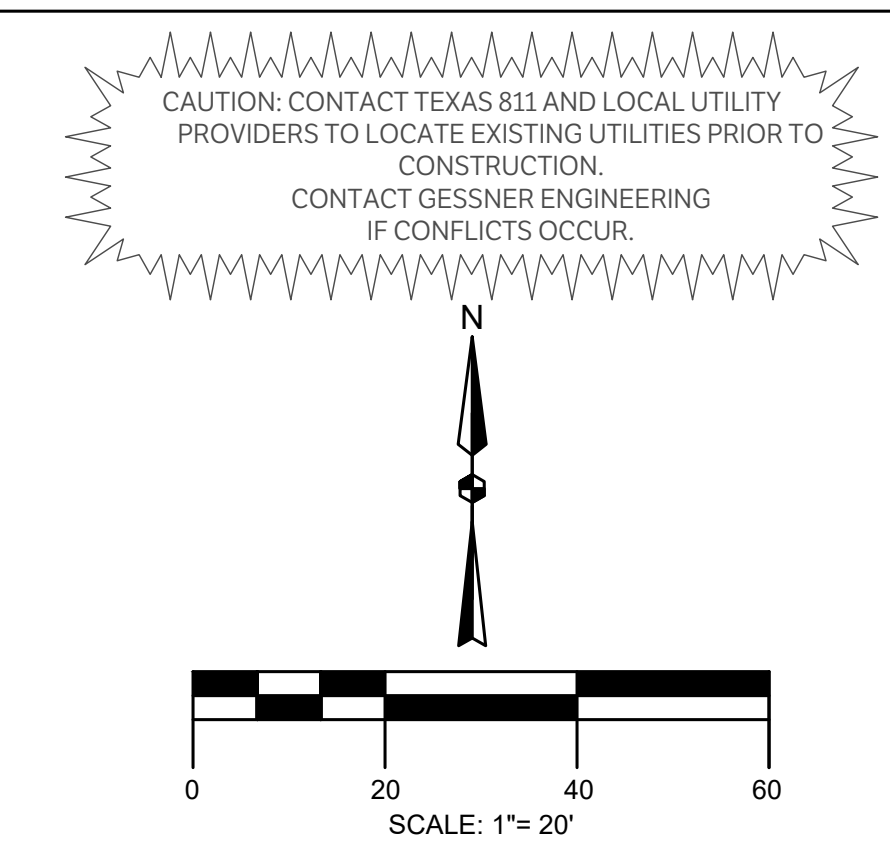
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DATE	PROJECT NUMBER	230462
DRAWING HISTORY		
No.	Description	Date

ISSUE FOR CONSTRUCTION

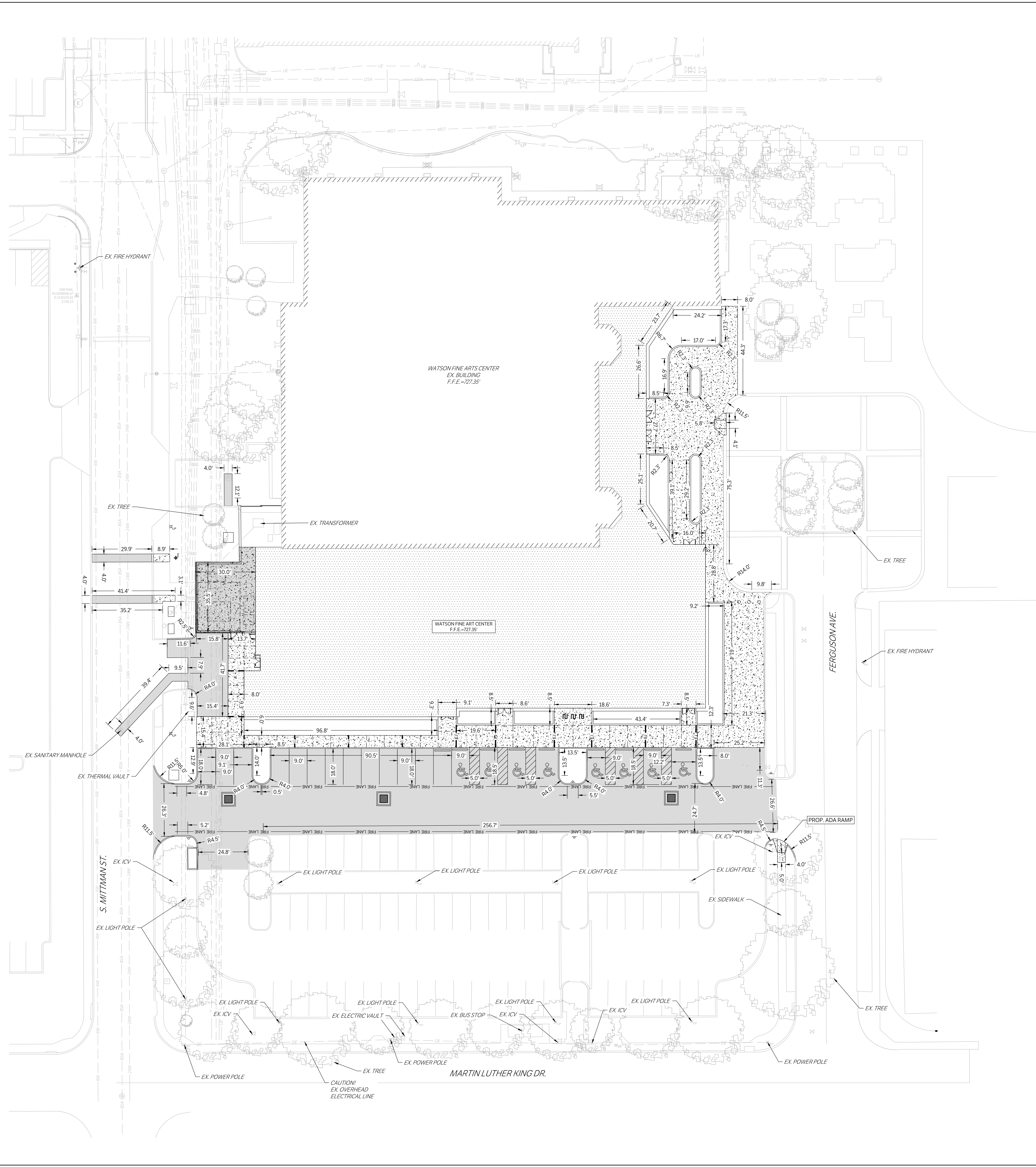
BUILDING NUMBER

**DIMENSION CONTROL & PAVING PLAN**

**C202**



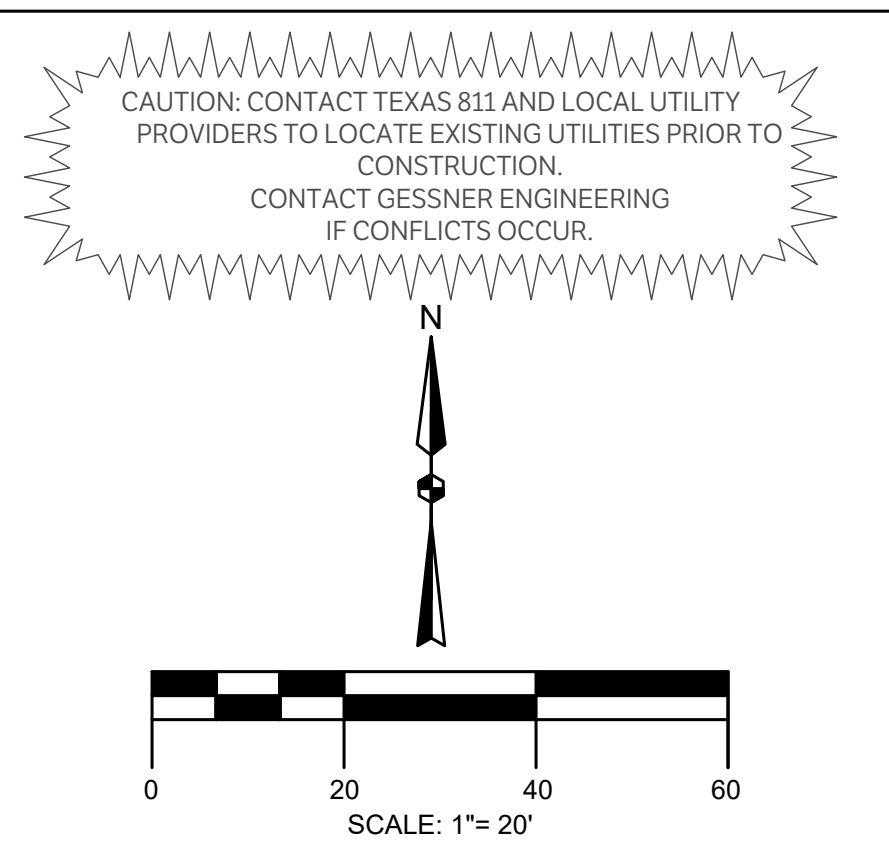
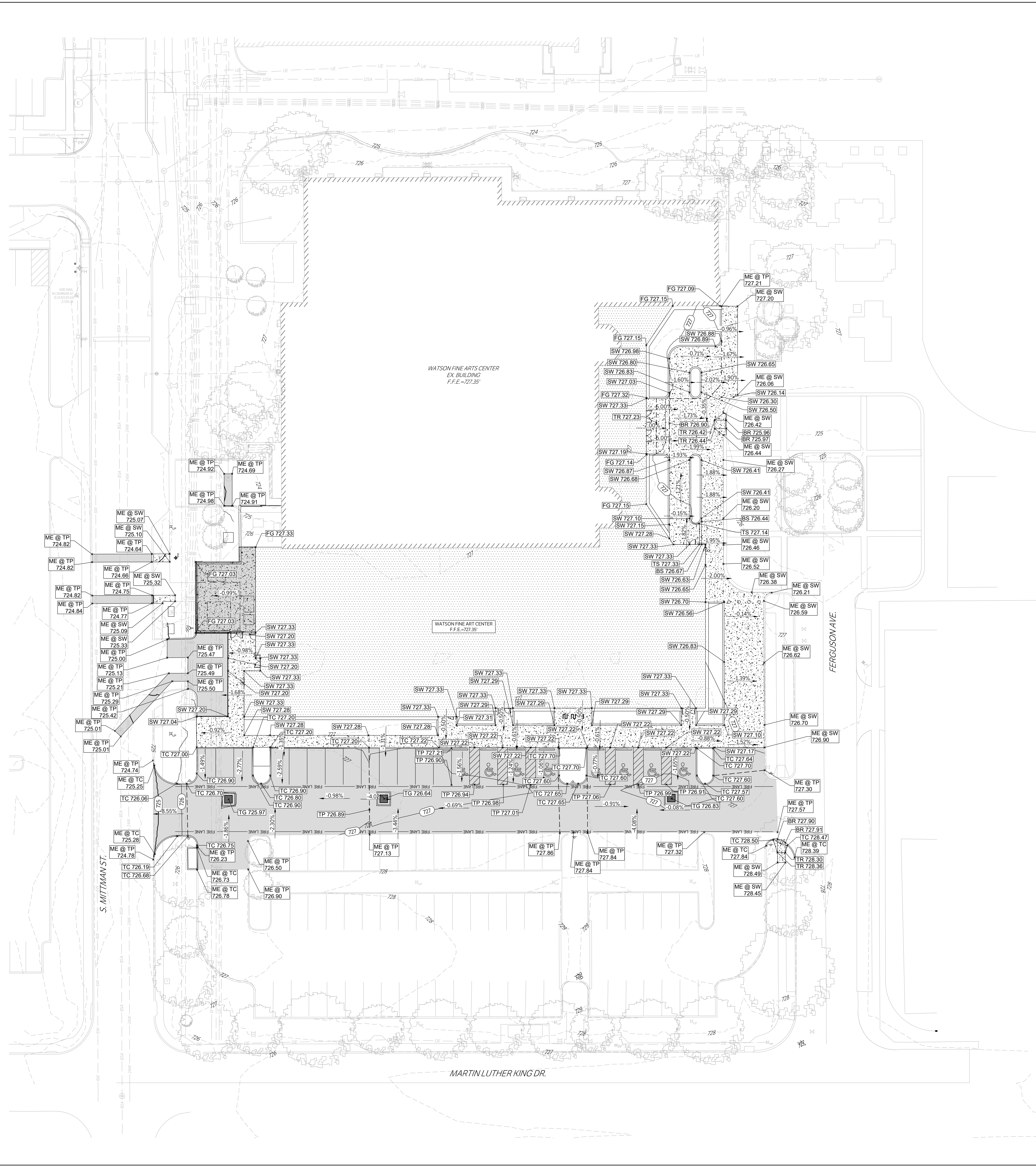
LEGEND	
[Pattern]	PROPOSED ASPHALT PAVEMENT
[Pattern]	PROPOSED STRUCTURAL PAVEMENT REF. STRUCTURAL
[Pattern]	PROPOSED 4" CONCRETE SIDEWALK
[Pattern]	PROPOSED BUILDING
[Line]	EXISTING PAVEMENT EDGE
[Line]	PROPERTY LINE
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[Line]	EX.   PROP. STORM LINE
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[Line]	EX.   PROP. FIBER OPTIC
[Line]	EX.   PROP. OVERHEAD ELECTRIC
[Symbol]	EX.   PROP. FIRE HYDRANT
[Symbol]	EXPANSION JOINT
[Symbol]	EX.   PROP. WATER METER
[Symbol]	CONTRACTION JOINT
[Symbol]	EX.   PROP. GATE VALVE
[Symbol]	EX. IRRIGATION CONTROL VALVE
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[Symbol]	PROPOSED PUBLIC ACCESS EASEMENT
[Symbol]	PROPOSED UTILITY EASEMENT







# ISSUE FOR CONSTRUCTION



**LEGEND**

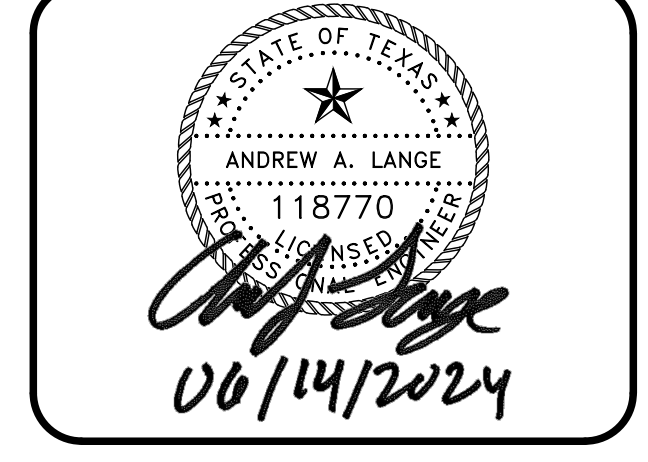
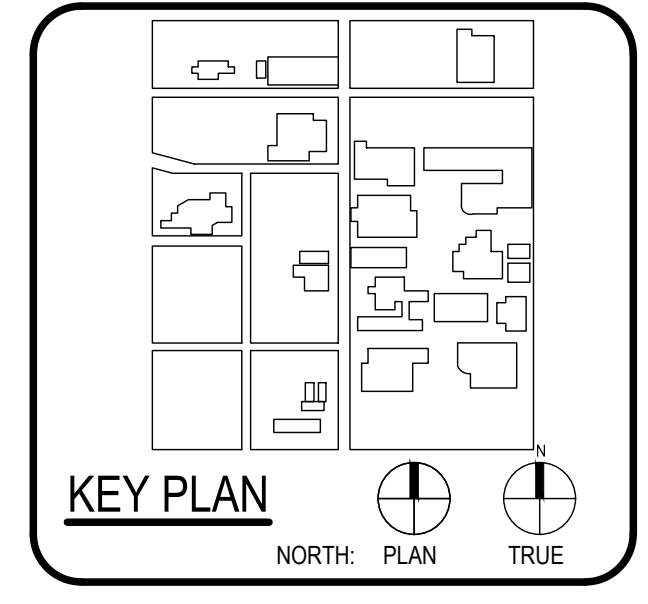
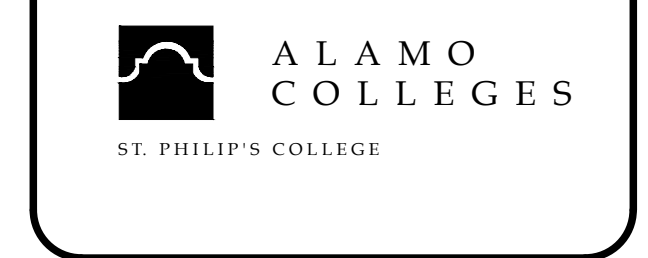
- 340 --- EXISTING CONTOURS
- (340) PROPOSED CONTOURS
- PROPERTY LINE
- PROPOSED SWALE WITH DIRECTION OF FLOW ARROWS
- GRADE BREAK
- BR PROPOSED FINISHED GRADE AT BOTTOM OF RAMP
- BS PROPOSED FINISHED GRADE AT BOTTOM OF STAIR
- BW PROPOSED FINISHED GRADE AT BASE OF WALL
- FG PROPOSED FINISHED GRADE ELEVATION
- FL PROPOSED FLOWLINE ELEVATION
- G PROPOSED GUTTER FLOWLINE ELEVATION
- GB PROPOSED GRADE BREAK
- JB PROPOSED TOP OF JUNCTION BOX ELEVATION
- ME @ SW MATCH EXISTING SIDEWALK ELEVATION
- ME @ TC MATCH EXISTING TOP OF CURB ELEVATION
- ME @ TP MATCH EXISTING AT TOP OF PAVEMENT ELEVATION
- SW PROPOSED TOP OF PAVEMENT AT SIDEWALK ELEVATION
- TC PROPOSED TOP OF CURB ELEVATION
- TG PROPOSED TOP OF GRATE ELEVATION
- TP PROPOSED TOP OF PAVEMENT ELEVATION
- TR PROPOSED TOP OF RAMP ELEVATION
- TW PROPOSED TOP OF WALL ELEVATION
- TMS PROPOSED TOP MUD SLAB
- BMS PROPOSED BOTTOM OF MUD SLAB



**ARCHITECT** PBK Architects, Inc.  
 SAN ANTONIO  
 601 N.W. Loop 410, Suite 400  
 San Antonio, TX 78216  
 210-829-0123 P  
 210-829-0578 F  
 TX Firm BR 1608

**WFAC Black Box Addition PKG 1**

600 S Milgram St.  
 San Antonio, TX 78203  
 ISSUE FOR CONSTRUCTION



CLIENT: Alamo Colleges  
 DATE: 2024/06/12 PROJECT NUMBER: 230462

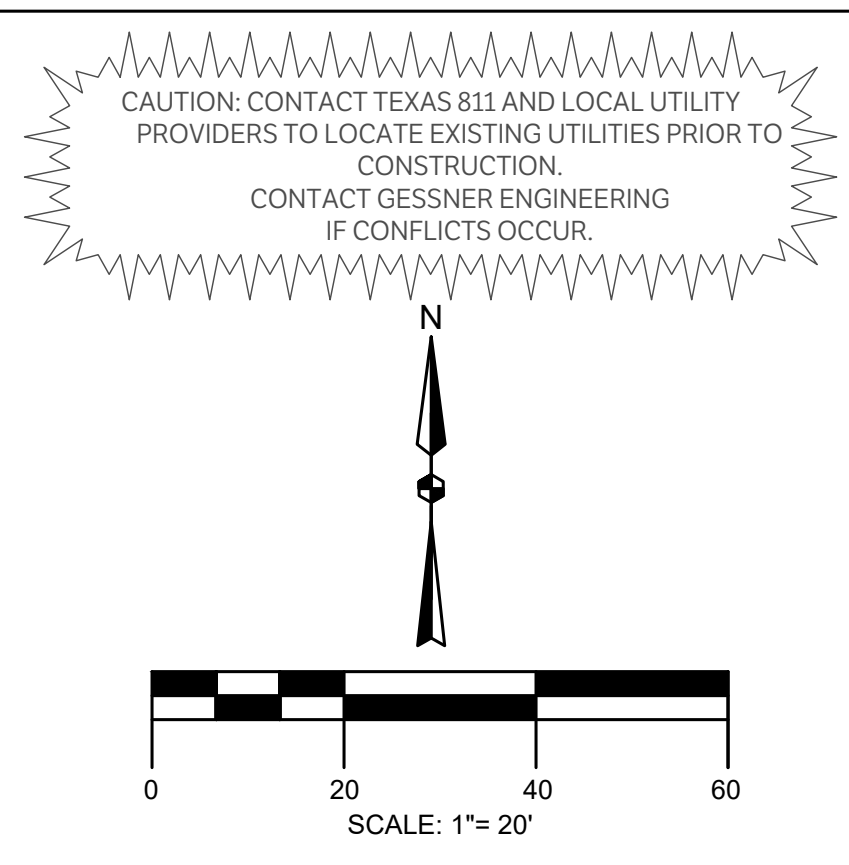
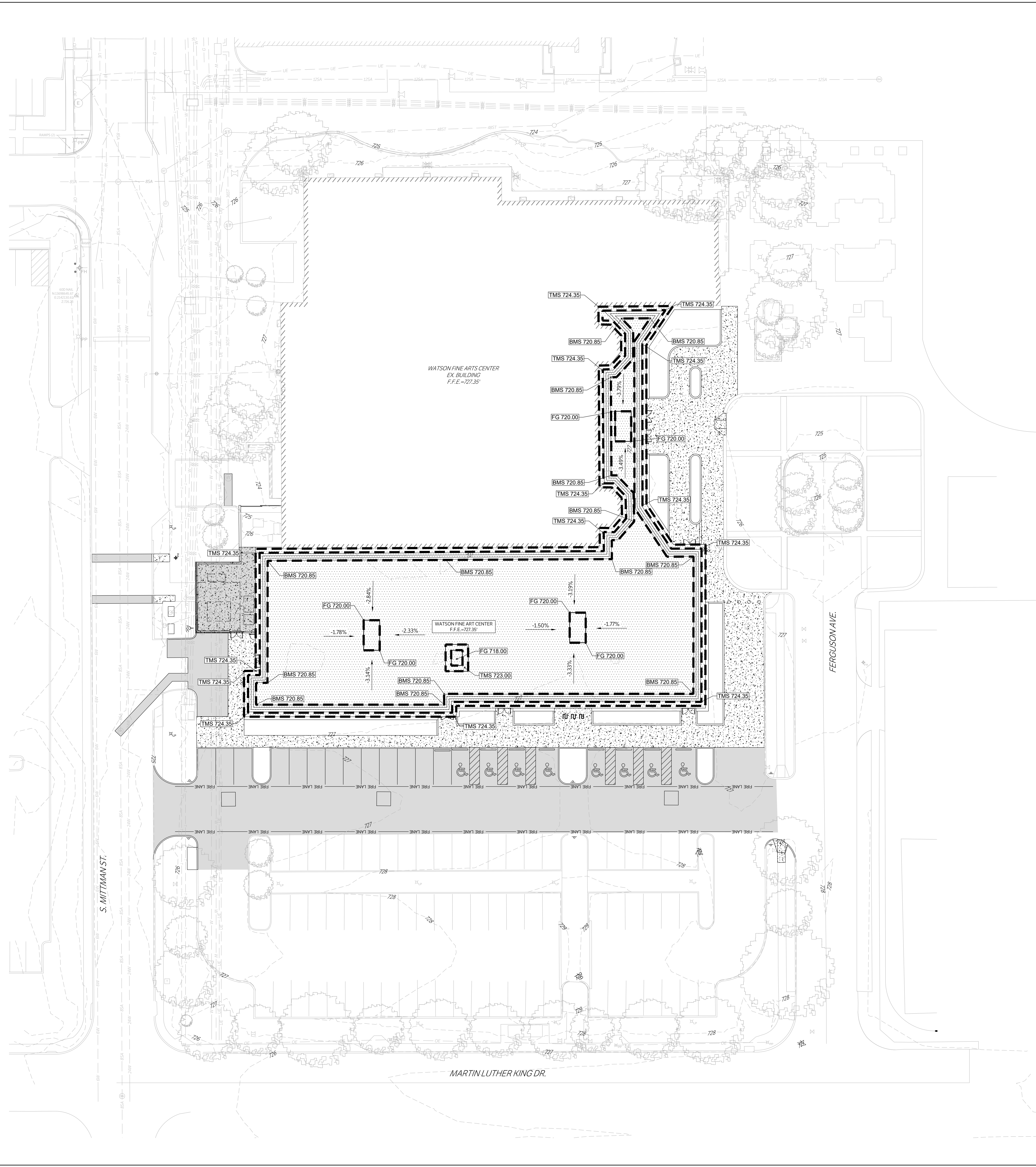
DRAWING HISTORY		
No.	Description	Date

**ISSUE FOR CONSTRUCTION**  
 BUILDING NUMBER

**GRADING PLAN**

**C400**

# ISSUE FOR CONSTRUCTION



**LEGEND**

- 340 --- EXISTING CONTOURS
- (340) PROPOSED CONTOURS
- PROPERTY LINE
- >--- PROPOSED SWALE WITH DIRECTION OF FLOW ARROWS
- GRADE BREAK
- BR PROPOSED FINISHED GRADE AT BOTTOM OF RAMP
- BS PROPOSED FINISHED GRADE AT BOTTOM OF STAIR
- BW PROPOSED FINISHED GRADE AT BASE OF WALL
- FG PROPOSED FINISHED GRADE ELEVATION
- FL PROPOSED FLOWLINE ELEVATION
- G PROPOSED GUTTER FLOWLINE ELEVATION
- GB PROPOSED GRADE BREAK
- JB PROPOSED TOP OF JUNCTION BOX ELEVATION
- ME @ SW MATCH EXISTING SIDEWALK ELEVATION
- ME @ TC MATCH EXISTING TOP OF CURB ELEVATION
- ME @ TP MATCH EXISTING TOP OF PAVEMENT ELEVATION
- SW PROPOSED TOP OF PAVEMENT AT SIDEWALK ELEVATION
- TC PROPOSED TOP OF CURB ELEVATION
- TG PROPOSED TOP OF GRATE ELEVATION
- TP PROPOSED TOP OF PAVEMENT ELEVATION
- TR PROPOSED TOP OF RAMP ELEVATION
- TW PROPOSED TOP OF WALL ELEVATION
- TMS PROPOSED TOP MUD SLAB
- BMS PROPOSED BOTTOM OF MUD SLAB

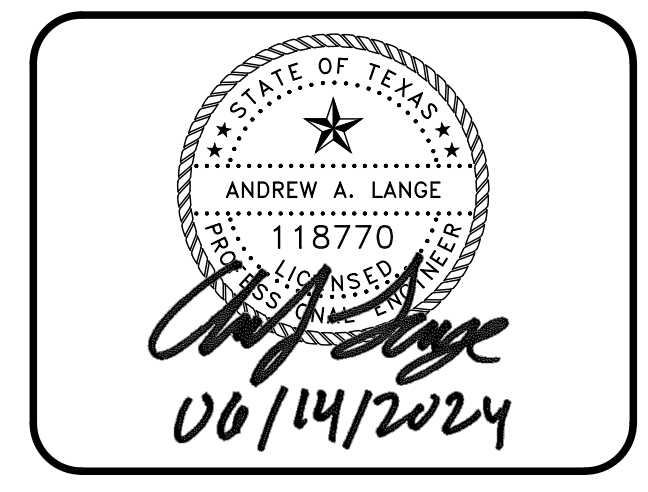
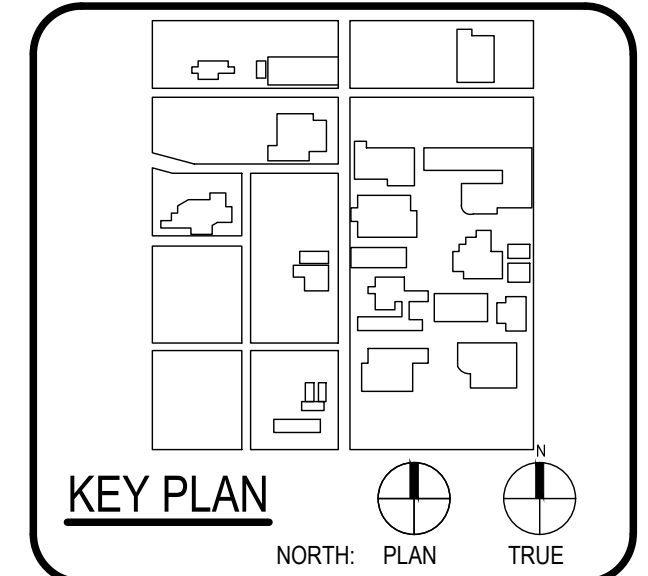
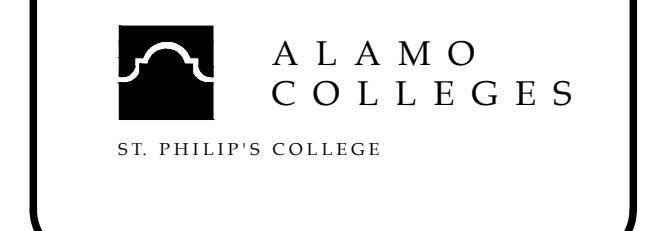


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San Antonio, TX 78216  
210-820-0123 P  
210-829-0578 F  
TX Firm BR 1608

**ASSOCIATE ARCHITECT** BA & ARCHITECTS  
1111 N. LOOP WEST  
SUITE 1000  
SAN ANTONIO, TEXAS 78205  
210-441-0000  
LINDY & HARRIS ENGINEERING  
1111 N. LOOP WEST  
SUITE 1000  
SAN ANTONIO, TEXAS 78205  
210-441-0000  
PROFESSOR  
MEAN PROFESSIONALS  
1111 N. LOOP WEST  
SUITE 1000  
SAN ANTONIO, TEXAS 78205

**WFAC Black Box Addition PKG 1**

600 S. Mittman St.  
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ISSUE FOR CONSTRUCTION



CLIENT		
Alamo Colleges		
DATE	PROJECT NUMBER	
2024/06/12	230462	
DRAWING HISTORY		
No.	Description	Date

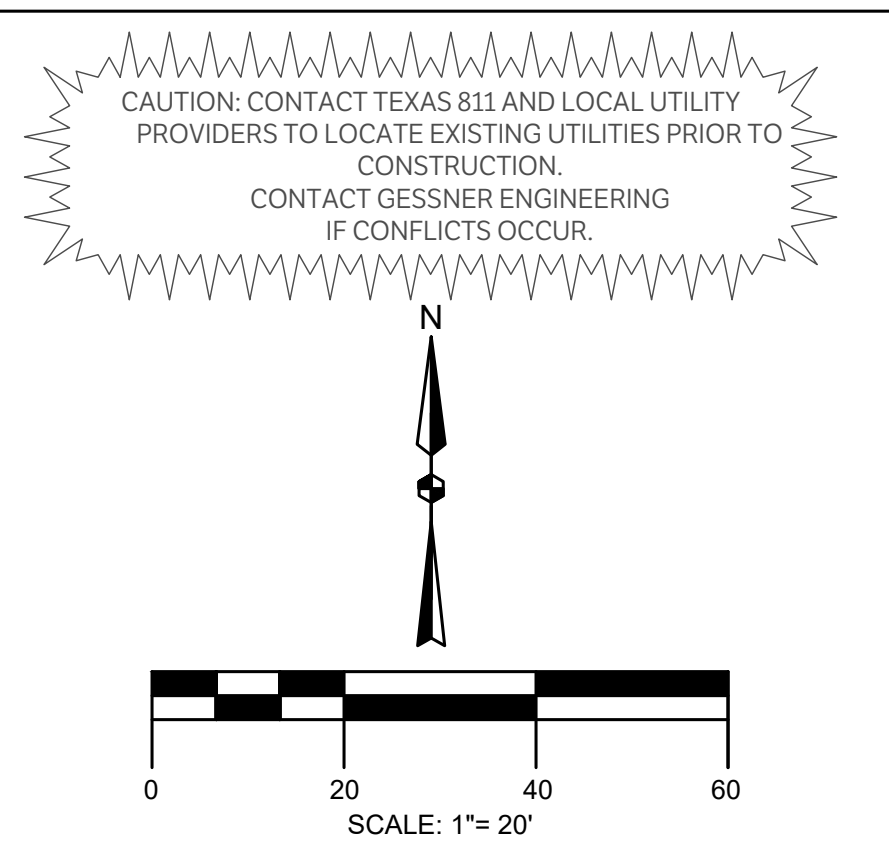
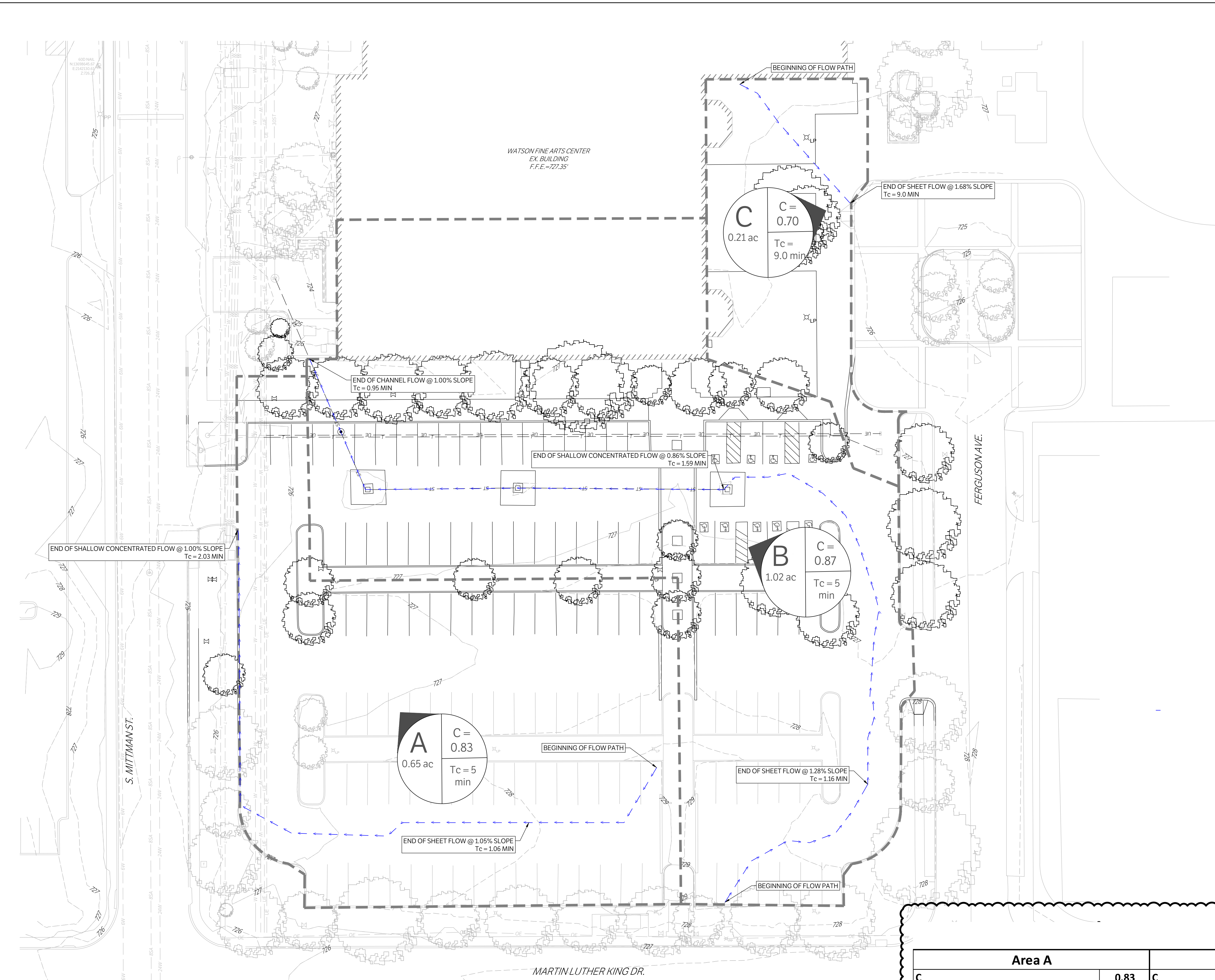
**ISSUE FOR CONSTRUCTION**  
BUILDING NUMBER

**CRAWLSPACE**

**C401**

Sheet Grids Template  
Z400  
FOR BLUEBAM LABELING.COR.

# ISSUE FOR PERMIT



**LEGEND**

- DRAINAGE AREA BOUNDARY
- ⊙ A1 DRAINAGE AREA LABEL AND FLOW DIRECTION
- PROPERTY LINE
- - - - - EXISTING CONTOURS
- - - - - PROPOSED CONTOURS
- FLOW PATH

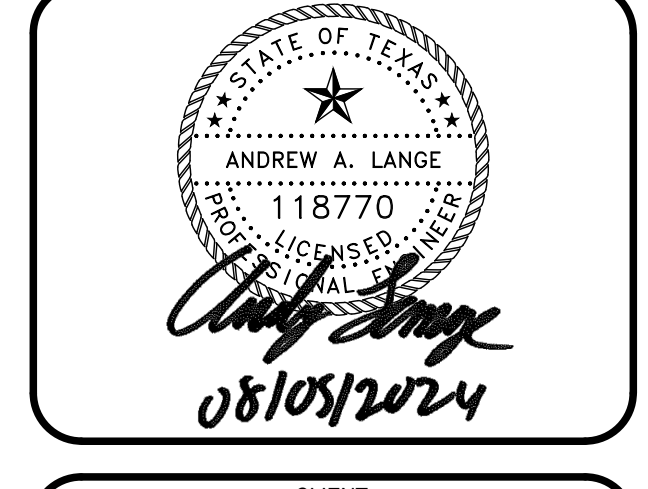
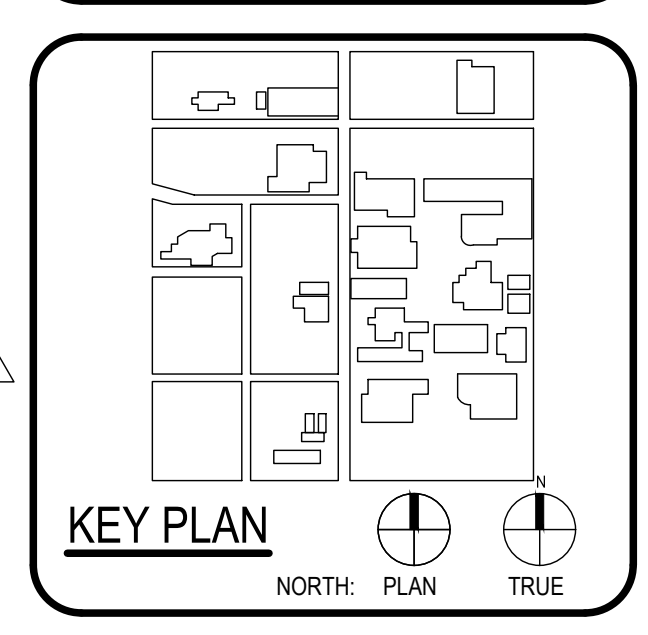
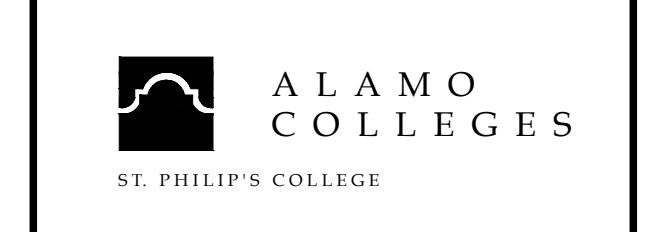
CAUTION: CONTACT TEXAS 811 AND LOCAL UTILITY PROVIDERS TO LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION.  
CONTACT GESSNER ENGINEERING IF CONFLICTS OCCUR.



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WFAC Black Box Addition PKG 1

600 S Milman St.  
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CLIENT Alamo Colleges  
DATE 2024/06/12 PROJECT NUMBER 230462

DRAWING HISTORY

No.	Description	Date
1	ADDENDUM 1	08/05/2024

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BUILDING NUMBER

**PRE DRAINAGE AREA MAP**

**C500**

**Pre AREA A**

COVER TYPE	SURFACE DESCRIPTION	C	AREA (SF)	AREA (AC)	C x AREA
Impervious Areas	Paved parking lots, roofs driveways etc.	0.95	23001.03	0.53	0.50
Grass Cover	Grass Cover > 75%	0.35	5475.37	0.13	0.04
<b>TOTAL</b>			<b>28476.40</b>	<b>0.65</b>	<b>0.55</b>
				<b>C</b>	<b>0.83</b>

**Pre AREA B**

COVER TYPE	SURFACE DESCRIPTION	C	AREA (SF)	AREA (AC)	C x AREA
Impervious Areas	Paved parking lots, roofs driveways etc.	0.95	38420.17	0.88	0.84
Grass Cover	Grass Cover > 75%	0.35	6070.51	0.14	0.05
<b>TOTAL</b>			<b>44490.68</b>	<b>1.02</b>	<b>0.89</b>
				<b>C</b>	<b>0.87</b>

**Pre AREA C**

COVER TYPE	SURFACE DESCRIPTION	C	AREA (SF)	AREA (AC)	C x AREA
Impervious Areas	Paved parking lots, roofs driveways etc.	0.95	5207.16	0.12	0.11
Grass Cover	Grass Cover > 75%	0.35	3951.23	0.09	0.03
<b>TOTAL</b>			<b>9158.39</b>	<b>0.21</b>	<b>0.15</b>
				<b>C</b>	<b>0.70</b>

**PRE DEVELOPMENT PEAK RUNOFF**

AREA	SIZE (AC)	C	TC (MIN)	1 YR (CFS)	5 YR (CFS)	25 YR (CFS)	100 YR (CFS)
A	0.65	0.83	5.0	2.9	4.2	5.9	7.4
B	1.02	0.87	5.0	4.7	7.0	9.7	12.2
C	0.21	0.70	9.0	0.7	1.0	1.3	1.6

**Atlas 14 Rainfall Intensity (in/hr)**

Time (minutes)	1 - YEAR	5 - YEAR	25 - YEAR	100 - YEAR
5	5.29	7.88	11.00	13.79
6	5.07	7.45	10.43	13.08
7	4.86	7.11	9.95	12.49
8	4.64	6.81	9.54	11.97
9	4.43	6.54	9.17	11.49
10	4.21	6.30	8.82	11.05

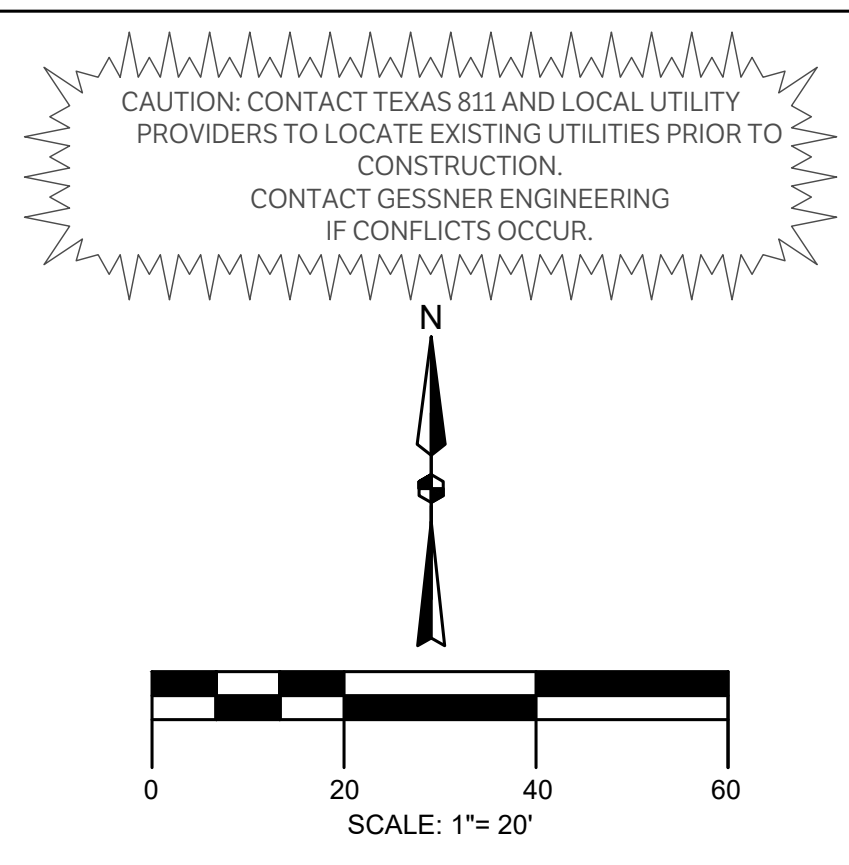
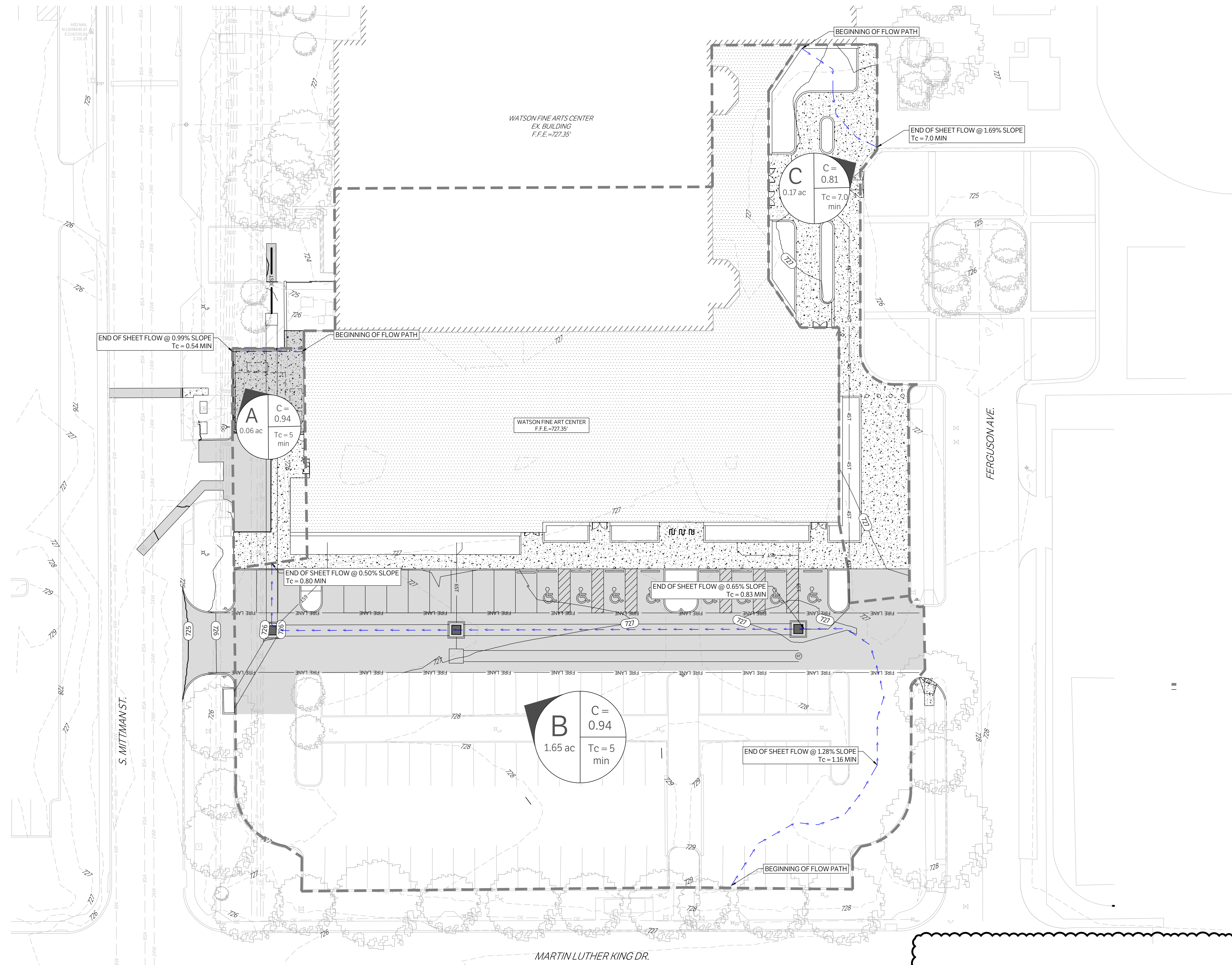
**Pre**

Area A		Area B		Area C	
C	0.83	C	0.87	C	0.70
Area (ac)	0.65	Area (ac)	1.02	Area (ac)	0.21
Flow Length (ft)	315.12	Flow Length (ft)	479.97	Flow Length (ft)	70.70
SCS Sheet Flow (ft)	68.20	SCS Sheet Flow (ft)	85.32	SCS Sheet Flow (ft)	47.40
Slope (%)	1.02	Slope (%)	1.28	Slope (%)	1.78
Manning's Roughness	0.013	Manning's Roughness	0.013	Manning's Roughness	0.300
Flow Time (min)	1.06	Flow Time (min)	1.16	Flow Time (min)	8.91
SCS Shallow Concentrated Flow (ft)	246.92	SCS Shallow Concentrated Flow (ft)	180.17	SCS Sheet Flow (ft)	23.30
PAVEMENT		PAVEMENT		Slope (%)	1.57
Slope (%)	1.00	Slope (%)	0.86	Manning's Roughness	0.011
Velocity (ft/s)	2.03	Velocity (ft/s)	1.89	Flow Time (min)	0.38
Flow Time (min)	2.03	Flow Time (min)	1.59	<b>Time of Concentration (min)</b>	<b>9.00</b>
<b>Time of Concentration (min)</b>	<b>3.09</b>	<b>SCS Channel Flow (ft)</b>	153.60	*COSA requires min TOC of 5 min*	
*COSA requires min TOC of 5 min*		Slope (%)	0.21		
		Manning's Roughness	0.012		
		Velocity (ft/s)	2.95		
		Flow Time (min)	0.85		
		<b>SCS Channel Flow (ft)</b>	60.88		
		Slope (%)	1.79		
		Manning's Roughness	0.011		
		Velocity (ft/s)	6.50		
		Flow Time (min)	0.10		
		<b>Time of Concentration (min)</b>	<b>3.70</b>		
		*COSA requires min TOC of 5 min*			

CHECKED BY: SH & AL  
DRAWN BY: JC

# ISSUE FOR PERMIT

Sheet Grids Template  
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**LEGEND**

- DRAINAGE AREA BOUNDARY
- ⊙ A1 DRAINAGE AREA LABEL AND FLOW DIRECTION
- PROPERTY LINE
- - - - - EXISTING CONTOURS
- PROPOSED CONTOURS
- FLOW PATH

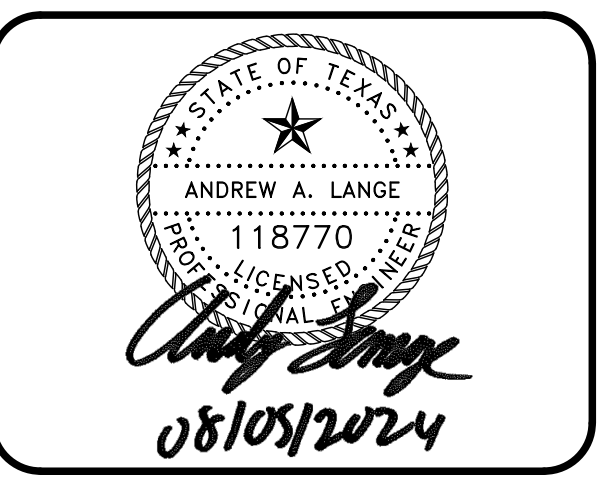
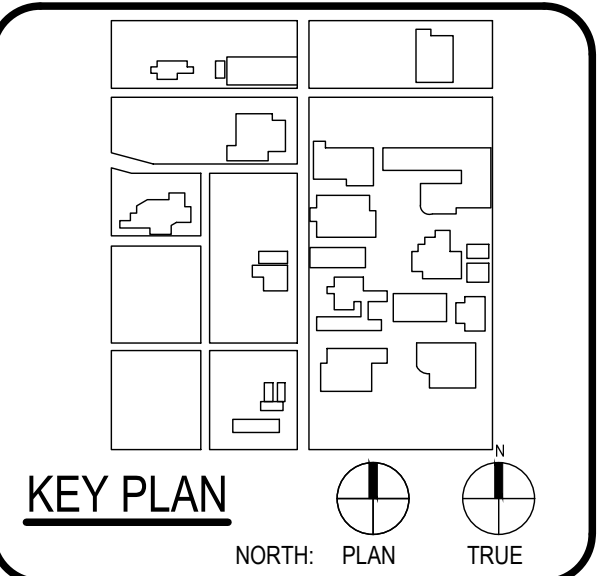
Required Storage	
Storm Event	Required Storage (ft <sup>3</sup> )
1 - Year	2037.00
5 - Year	2784.00
25 - Year	3698.00
100 - Year	4549.00



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 TX Firm BR 1608

**WFAC Black Box Addition PKG 1**

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No.	Description	Date
1	ADDENDUM 1	08/05/2024

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 BUILDING NUMBER

**POST DRAINAGE AREA MAP**

**C501**

POST AREA A					
COVER TYPE	SURFACE DESCRIPTION	C	AREA (SF)	AREA (AC)	C x AREA
Impervious Areas	Paved parking lots, roofs driveways etc.	0.95	2700.94	0.06	0.06
Grass Cover	Grass Cover > 75%	0.35	54.6	0.00	0.00
<b>TOTAL</b>			<b>2755.54</b>	<b>0.06</b>	<b>0.06</b>
			<b>C</b>		<b>0.94</b>

POST AREA B					
COVER TYPE	SURFACE DESCRIPTION	C	AREA (SF)	AREA (AC)	C x AREA
Impervious Areas	Paved parking lots, roofs driveways etc.	0.95	67228.61	1.54	1.47
Grass Cover	Grass Cover > 75%	0.35	4672.06	0.11	0.04
<b>TOTAL</b>			<b>71900.67</b>	<b>1.65</b>	<b>1.50</b>
			<b>C</b>		<b>0.91</b>

POST AREA C					
COVER TYPE	SURFACE DESCRIPTION	C	AREA (SF)	AREA (AC)	C x AREA
Impervious Areas	Paved parking lots, roofs driveways etc.	0.95	5769.34	0.13	0.13
Grass Cover	Grass Cover > 75%	0.35	1699.92	0.04	0.01
<b>TOTAL</b>			<b>7469.26</b>	<b>0.17</b>	<b>0.14</b>
			<b>C</b>		<b>0.81</b>

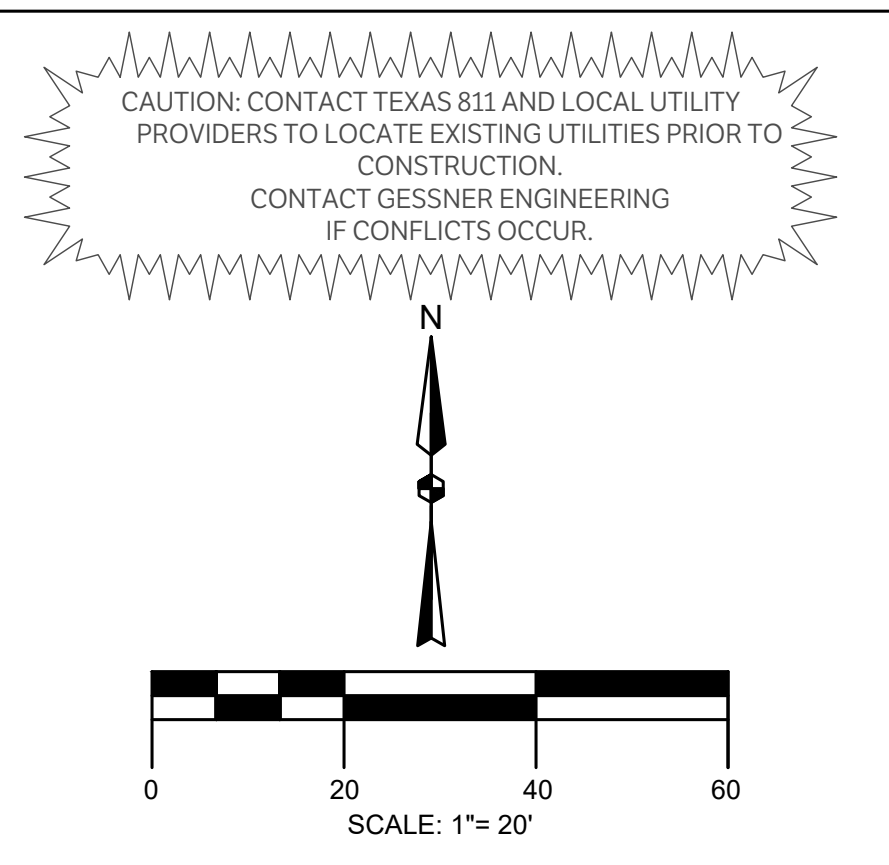
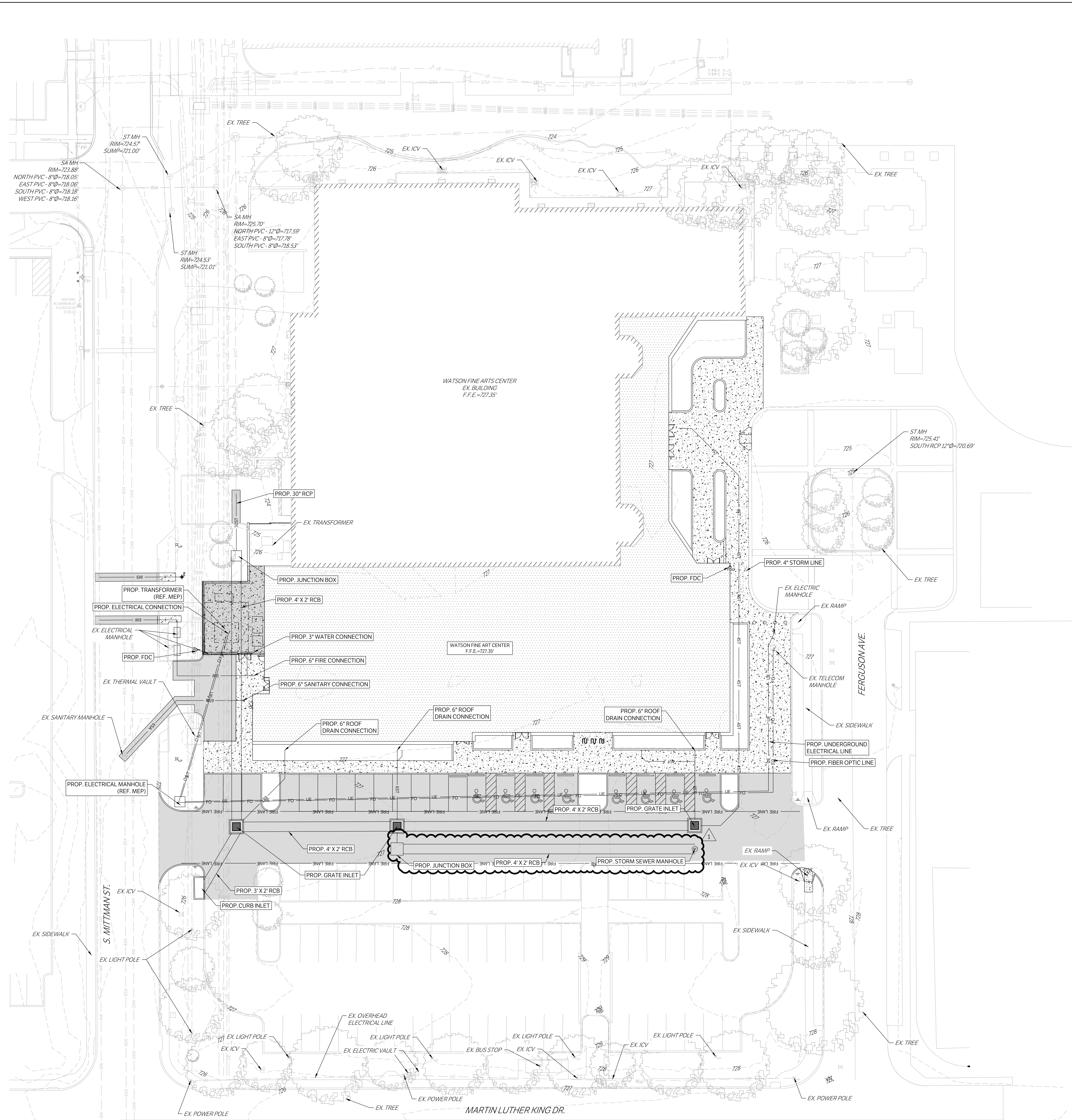
POST DEVELOPMENT PEAK RUNOFF							
AREA	SIZE (AC)	C	TC (MIN)	1 YR (CFS)	5 YR (CFS)	25 YR (CFS)	100 YR (CFS)
A	0.06	0.94	5.0	0.3	0.4	0.6	0.8
B	1.65	0.91	5.0	8.2	12.2	16.9	21.2
C	0.17	0.81	8.0	0.6	0.9	1.3	1.6

Time (minutes)	Atlas 14 Rainfall Intensity (in/hr)			
	1 - YEAR	5 - YEAR	25 - YEAR	100 - YEAR
5	5.29	7.88	11.00	13.79
6	5.07	7.45	10.43	13.08
7	4.86	7.11	9.95	12.49
8	4.64	6.81	9.54	11.97
9	4.43	6.54	9.17	11.49
10	4.21	6.30	8.82	11.05

Post			
Area A	Area B	Area C	
C	0.94	C	0.81
Area (ac)	0.06	Area (ac)	0.17
Flow Length (ft)	29.10	Flow Length (ft)	70.70
SCS Sheet Flow (ft)	29.10	SCS Sheet Flow (ft)	24.73
Slope (%)	0.99	Slope (%)	0.83
Manning's Roughness	0.011	Manning's Roughness	0.300
Flow Time (min)	0.54	Flow Time (min)	7.18
Time of Concentration (min)	0.54	SCS Shallow Concentrated Flow (ft)	81.23
*COSA requires min TOC of 5 min*			
PAVEMENT			
Slope (%)	0.65	Manning's Roughness	0.011
Velocity (ft/s)	1.64	Flow Time (min)	0.40
Flow Time (min)	0.83	Time of Concentration (min)	8.00
*COSA requires min TOC of 5 min*			
SCS Channel Flow (ft)	224.55		
Slope (%)	0.50		
Manning's Roughness	0.011		
Velocity (ft/s)	5.00		
Flow Time (min)	0.74		
SCS Channel Flow (ft)	25.67		
Slope (%)	0.50		
Manning's Roughness	0.011		
Velocity (ft/s)	7.00		
Flow Time (min)	0.06		
Time of Concentration (min)	2.95		
*COSA requires min TOC of 5 min*			

CHECKED BY: SH & AL  
 DRAWN BY: JC

# ISSUE FOR PERMIT



**LEGEND**

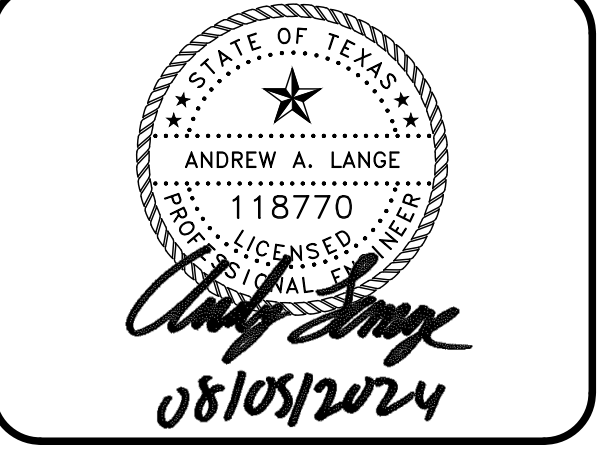
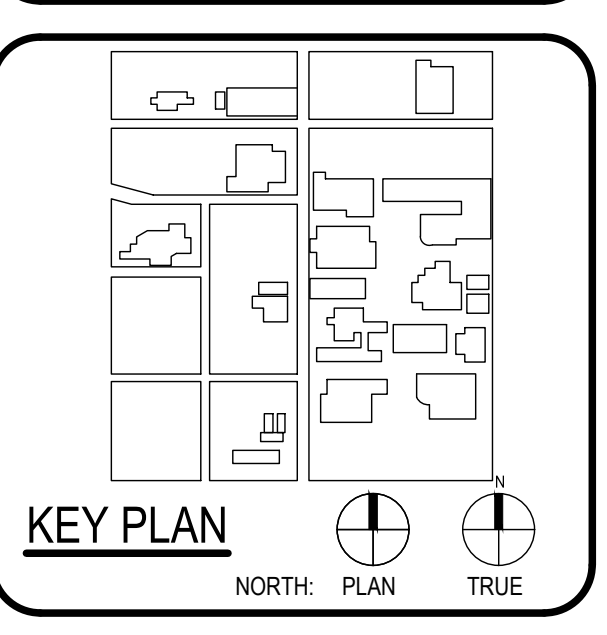
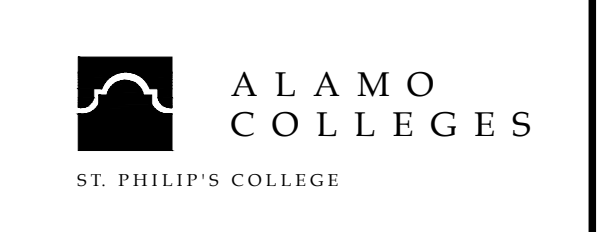
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TX Firm BR 1608

**WFAC Black Box Addition PKG 1**

600 S. Miltman St.  
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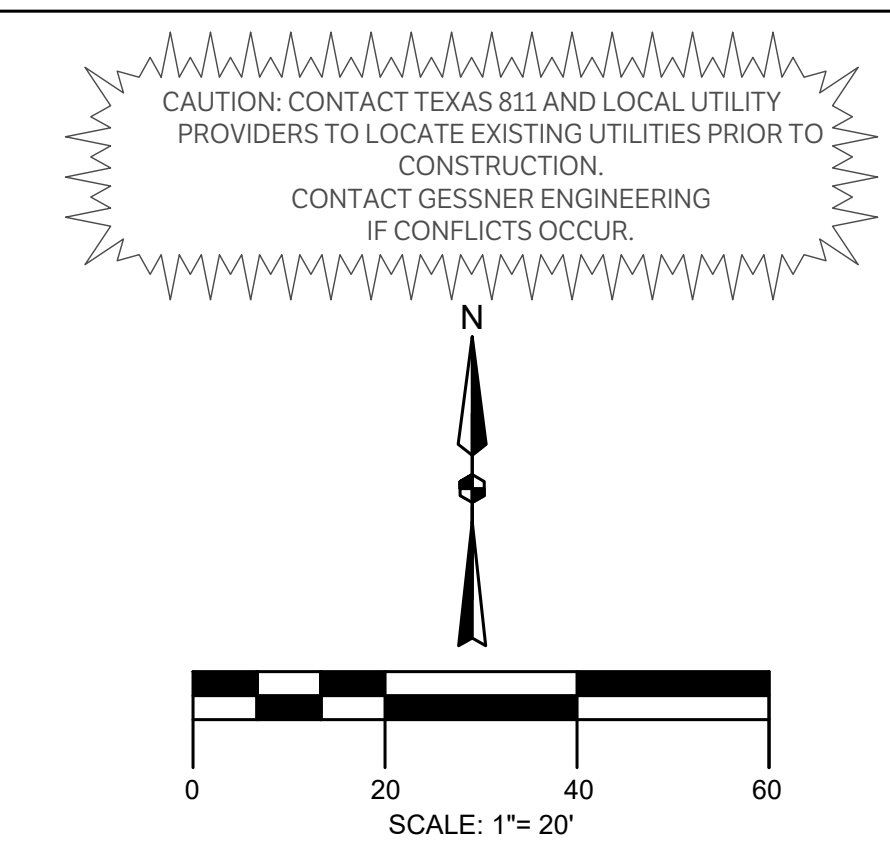
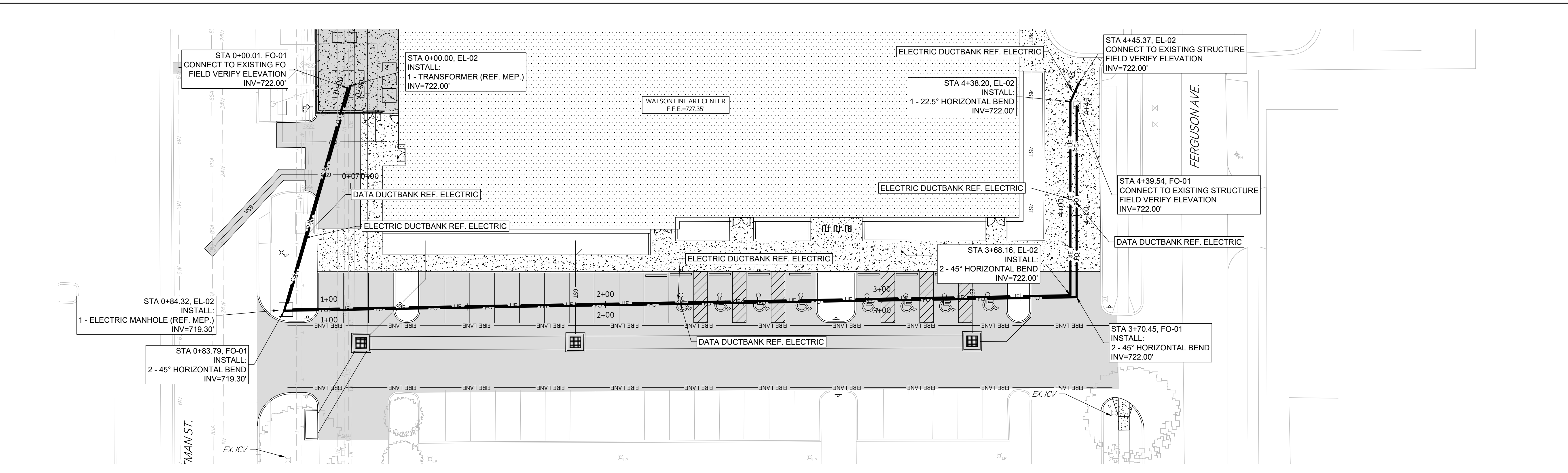


CLIENT: Alamo Colleges	PROJECT NUMBER: 230462	
DATE: 2024/06/12		
No.	Description	Date
1	ADDENDUM 1	08/05/2024

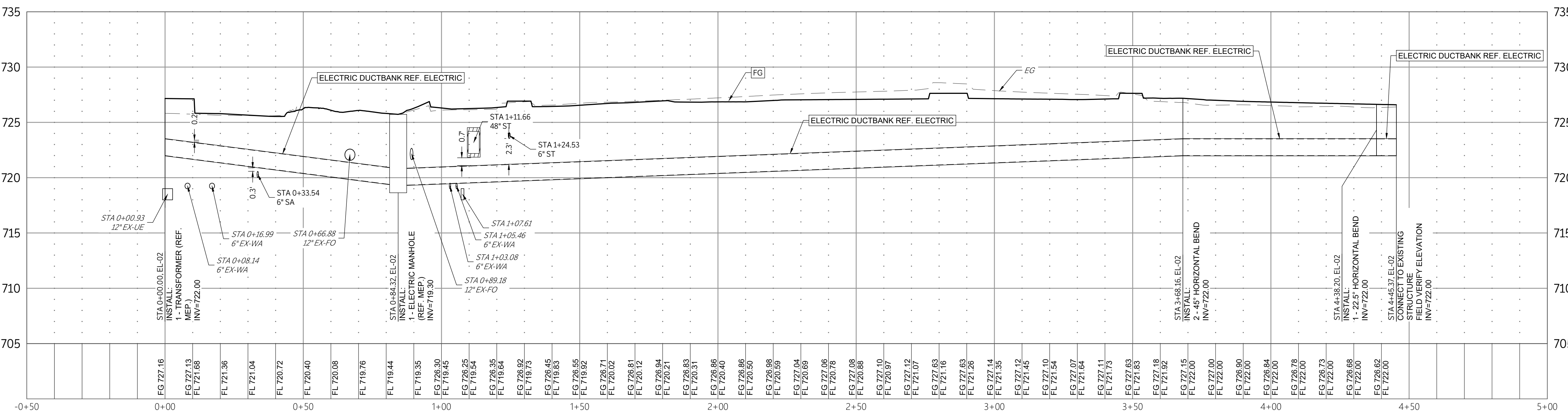
ISSUE FOR PERMIT  
BUILDING NUMBER

OVERALL UTILITY  
**C600**

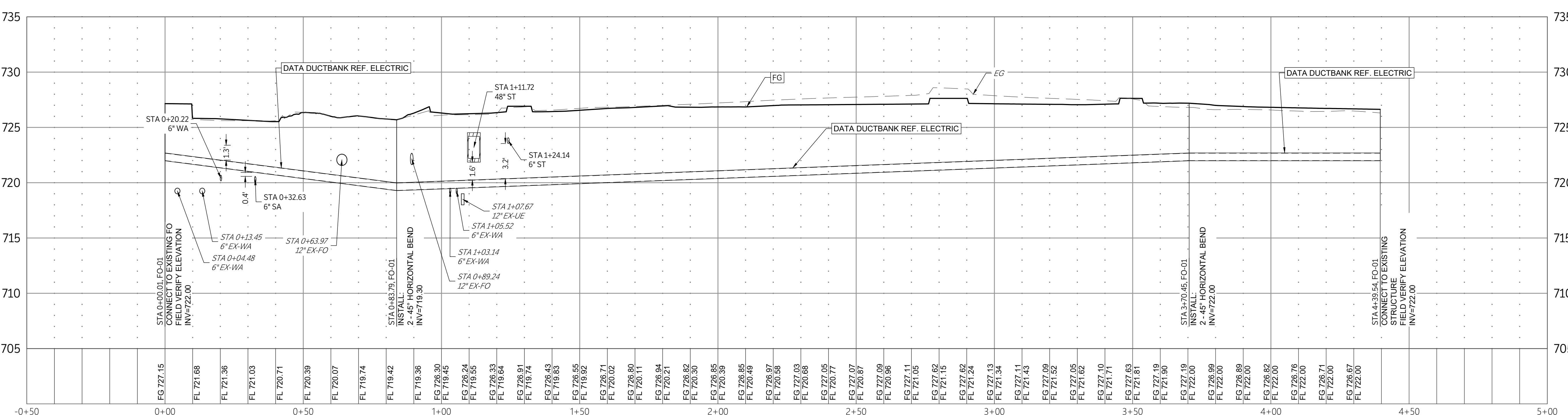
# ISSUE FOR CONSTRUCTION



NOTE:  
CONTRACTOR TO FIELD VERIFY EXISTING  
UTILITY INVERTS PRIOR TO CONSTRUCTION



EL-02  
SCALE: 1"=20' H, 1"=5' V



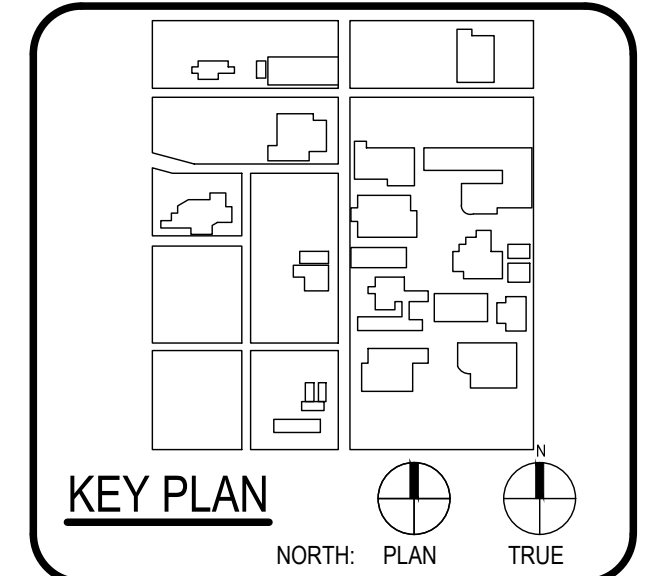
FO-01  
SCALE: 1"=20' H, 1"=5' V

LEGEND	
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[Symbol]	REF. STRUCTURAL
[Symbol]	PROPOSED 4" CONCRETE SIDEWALK
[Symbol]	PROPOSED BUILDING
[Symbol]	EXISTING PAVEMENT EDGE
[Symbol]	PROPERTY LINE
[Symbol]	EXISTING EASEMENT
[Symbol]	PROPOSED EASEMENT
[Symbol]	EXISTING CONTOURS
[Symbol]	PROPOSED CONTOURS
[Symbol]	EX.   PROP. STORM LINE
[Symbol]	EX.   PROP. WATER LINE
[Symbol]	EX.   PROP. SANITARY SEWER LINE
[Symbol]	EXISTING THERMALS
[Symbol]	PROPOSED THERMALS
[Symbol]	EX.   PROP. GAS LINE
[Symbol]	EX.   PROP. DATA/TELECOM
[Symbol]	EX.   PROP. UNDERGROUND ELECTRIC
[Symbol]	EX.   PROP. FIBER OPTIC
[Symbol]	EX.   PROP. OVERHEAD ELECTRIC
[Symbol]	EX.   PROP. FIRE HYDRANT
[Symbol]	EX.   PROP. WATER METER
[Symbol]	EX.   PROP. GATE VALVE
[Symbol]	EX. IRRIGATION CONTROL VALVE
[Symbol]	PROP. FIRE DEPARTMENT CONNECTION
[Symbol]	PROP. POST INDICATOR VALVE
[Symbol]	PROP. HOSE LAY
[Symbol]	EX.   PROP. SANITARY SEWER MANHOLE
[Symbol]	EX.   PROP. SANITARY SEWER CLEANOUT
[Symbol]	EX. STORM SEWER MANHOLE
[Symbol]	PROP. STORM SEWER CURB INLET
[Symbol]	EX.   PROP. LIGHT POLE
[Symbol]	PROPOSED PUBLIC ACCESS EASEMENT
[Symbol]	PROPOSED UTILITY EASEMENT



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601 N.W. Loop 410, Suite 400  
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TX Firm BR 1608

WFAC Black Box Addition PKG 1



STATE OF TEXAS  
ANDREW A. LANGE  
118770  
06/14/2024

CLIENT		
Alamo Colleges	PROJECT NUMBER 230462	
DATE 2024/06/12		
DRAWING HISTORY		
No.	Description	Date

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER

ELEC. & COMNS  
PLAN & PROFILES

C700







# ISSUE FOR PERMIT

Sheet Grids Template  
Z400  
FOR BLUEBAM LABELING.COR.

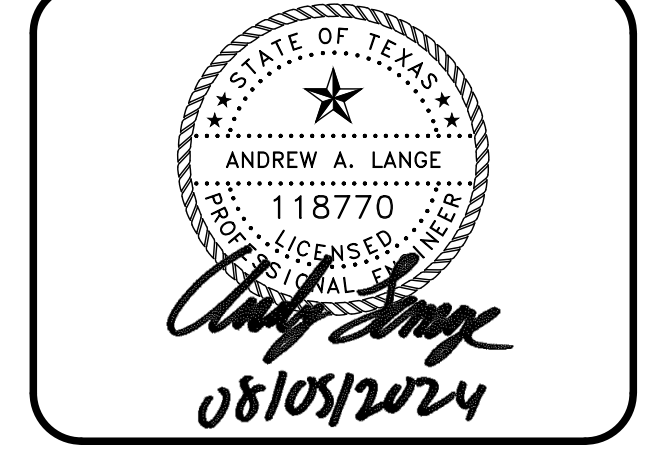
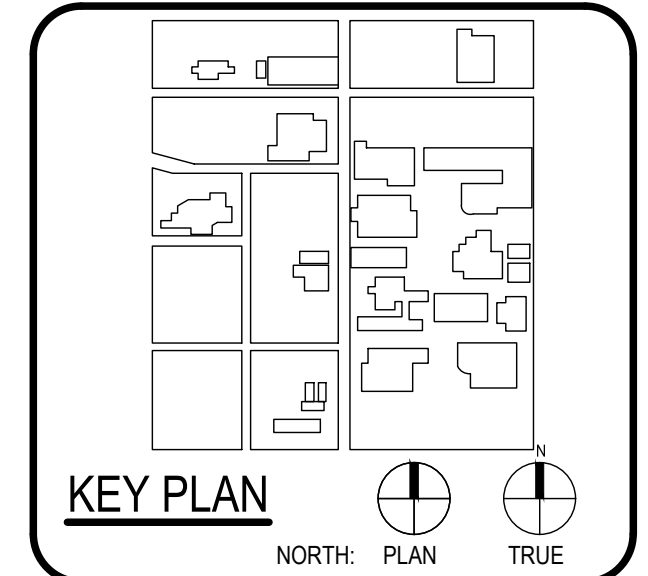
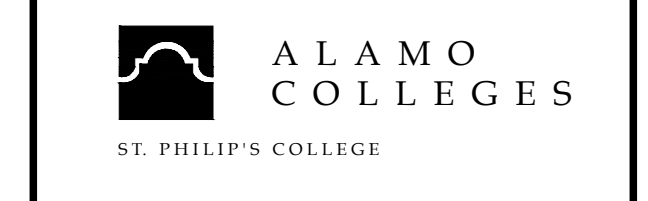
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SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P 210-829-0578 F TX Firm BR 1608	
ARCHITECT	BA & ARCHITECTS
2101 BRUNNEN CELEBRITY LANDSCAPE DESIGN GROUP 1133400000 1133400000 LUNDY & HARRIS ENGINEERING 1133400000 1133400000 1133400000 1133400000 1133400000 1133400000 1133400000 1133400000	

**WFAC Black Box Addition PKG 1**

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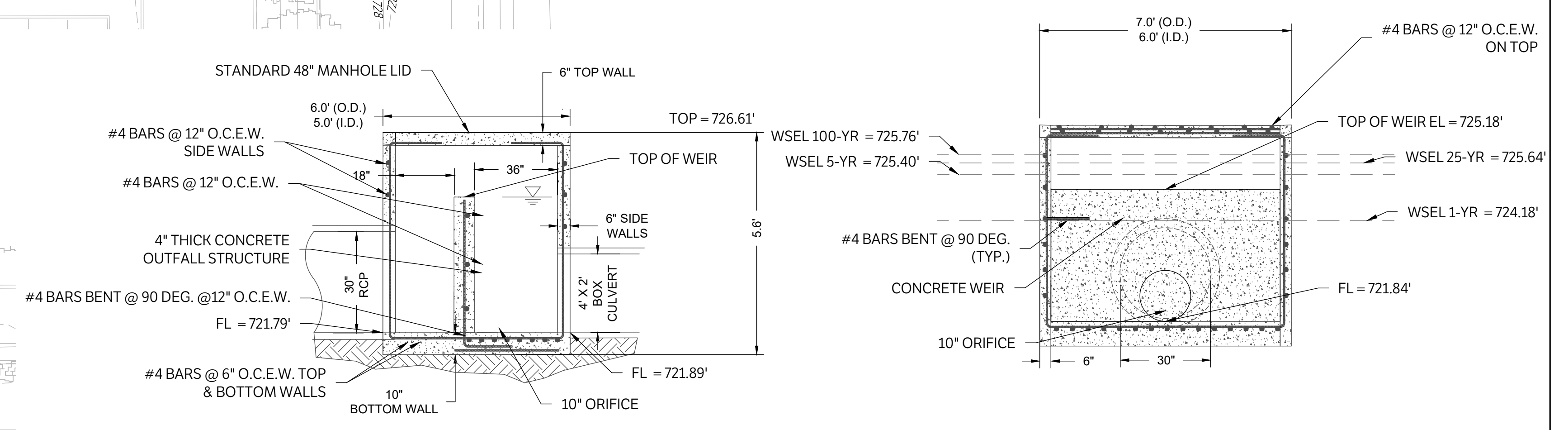
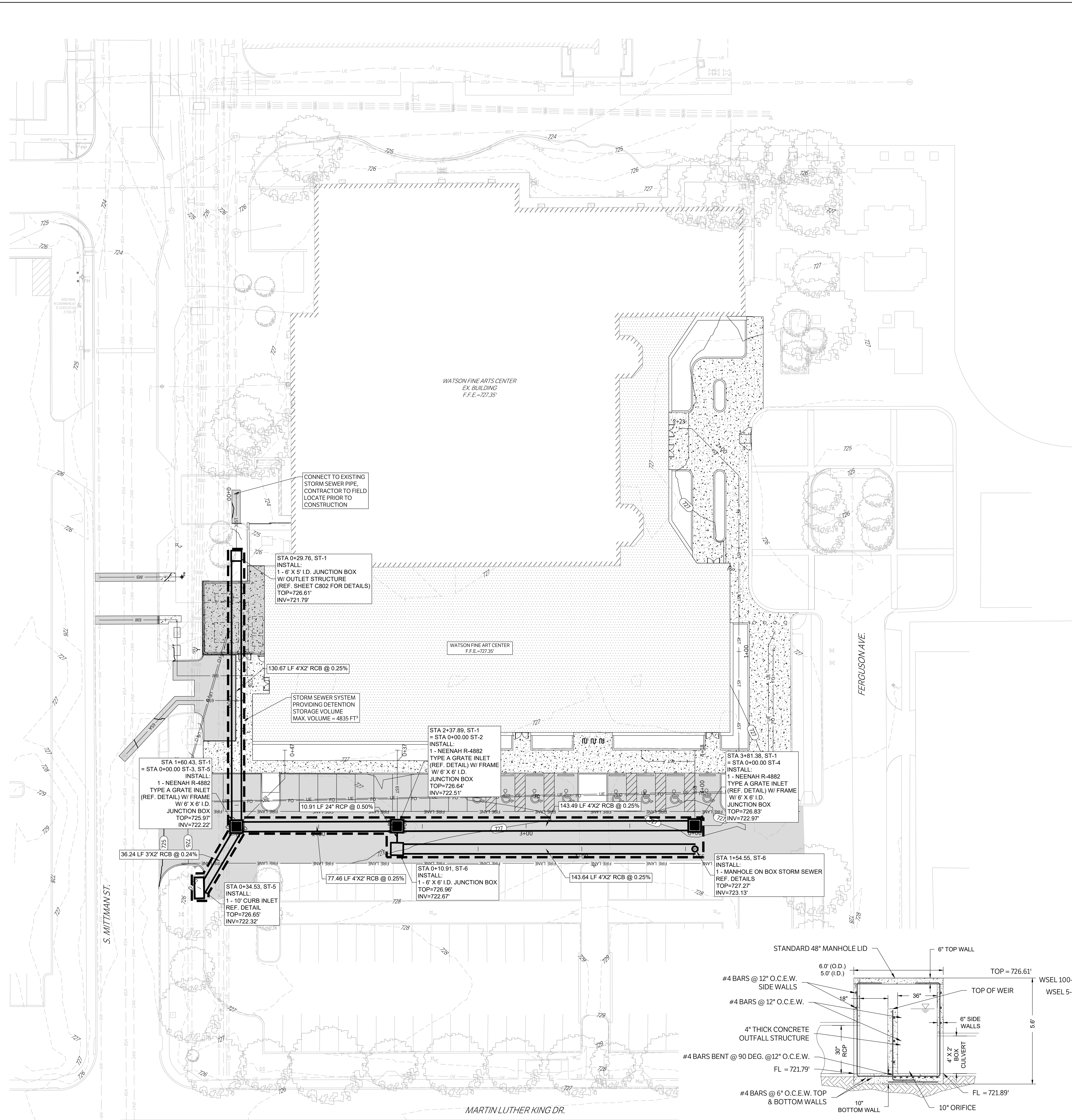


CLIENT	Alamo Colleges	
DATE	2024/06/12	
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DRAWING HISTORY		
No.	Description	Date
1	ADDENDUM 1	08/05/2024

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BUILDING NUMBER

**DETENTION PLAN**

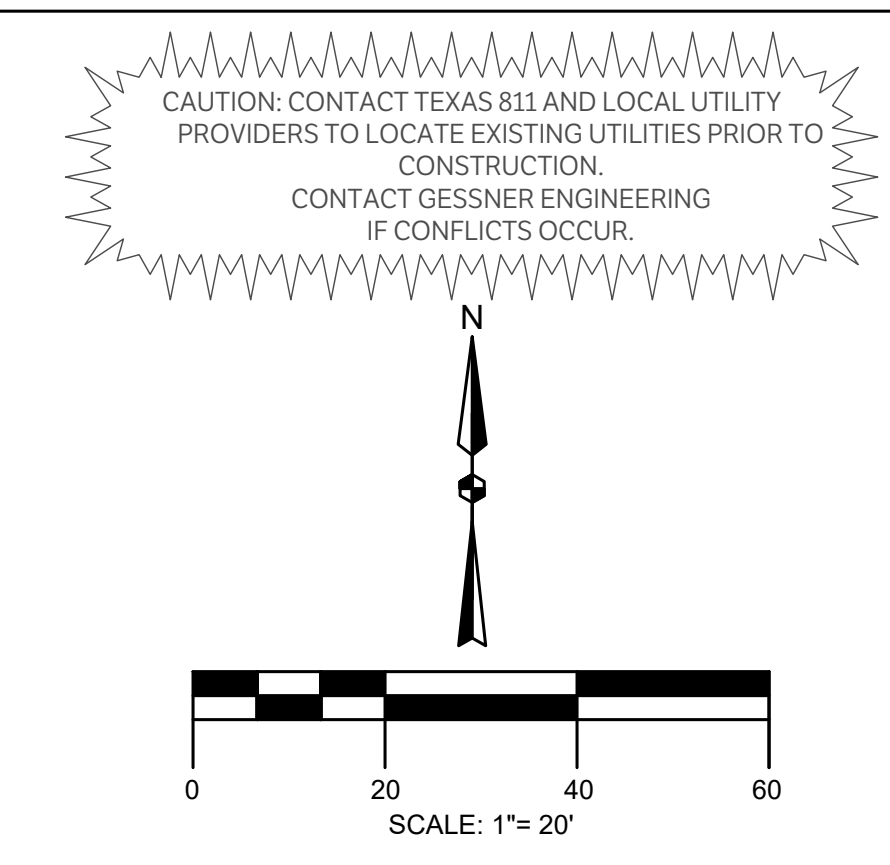
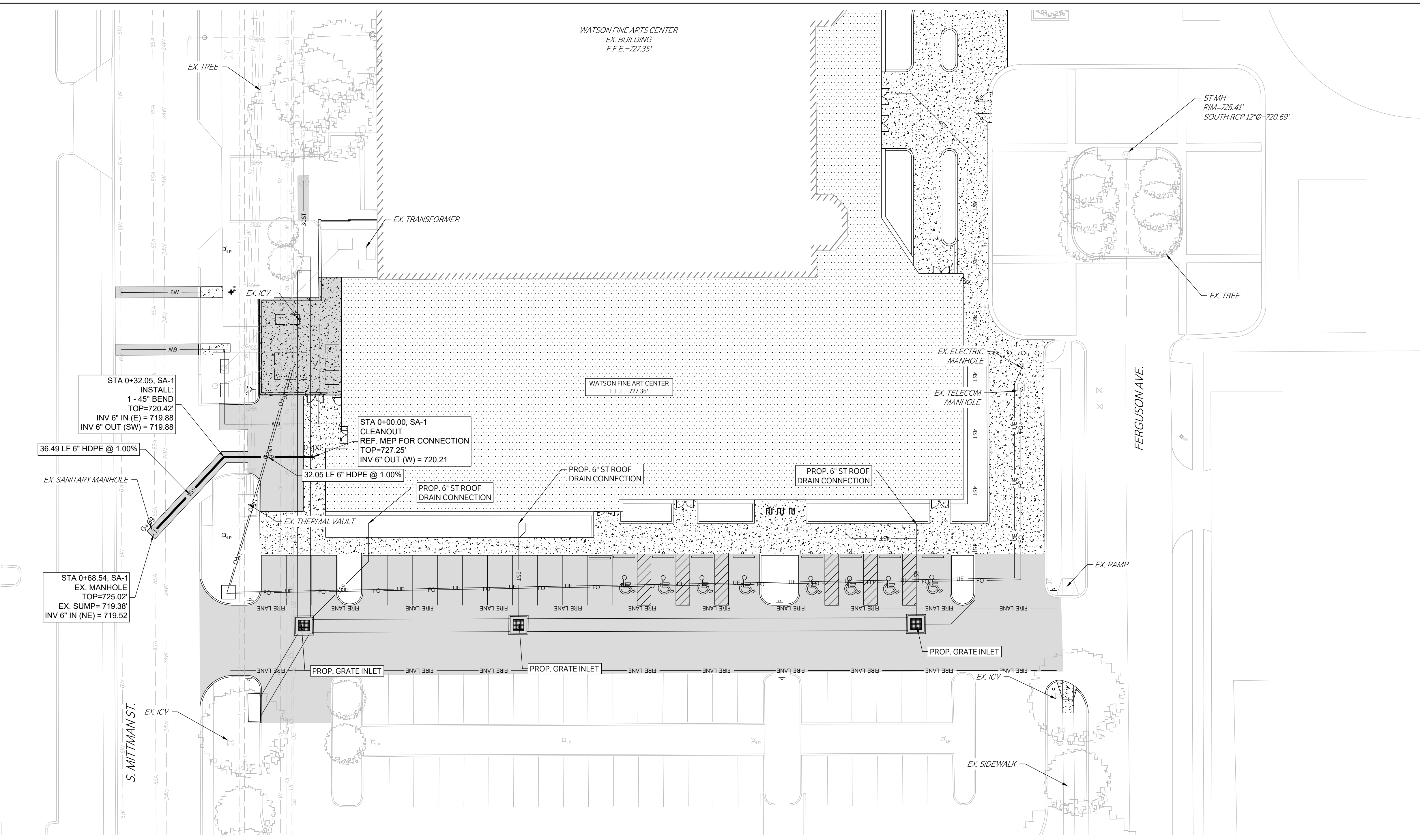
**C802**



UNDERGROUND DETENTION OUTLET STRUCTURE  
N.T.S.  
NOTES:  
1. ALL REINFORCEMENT BARS TO HAVE 2\"/>

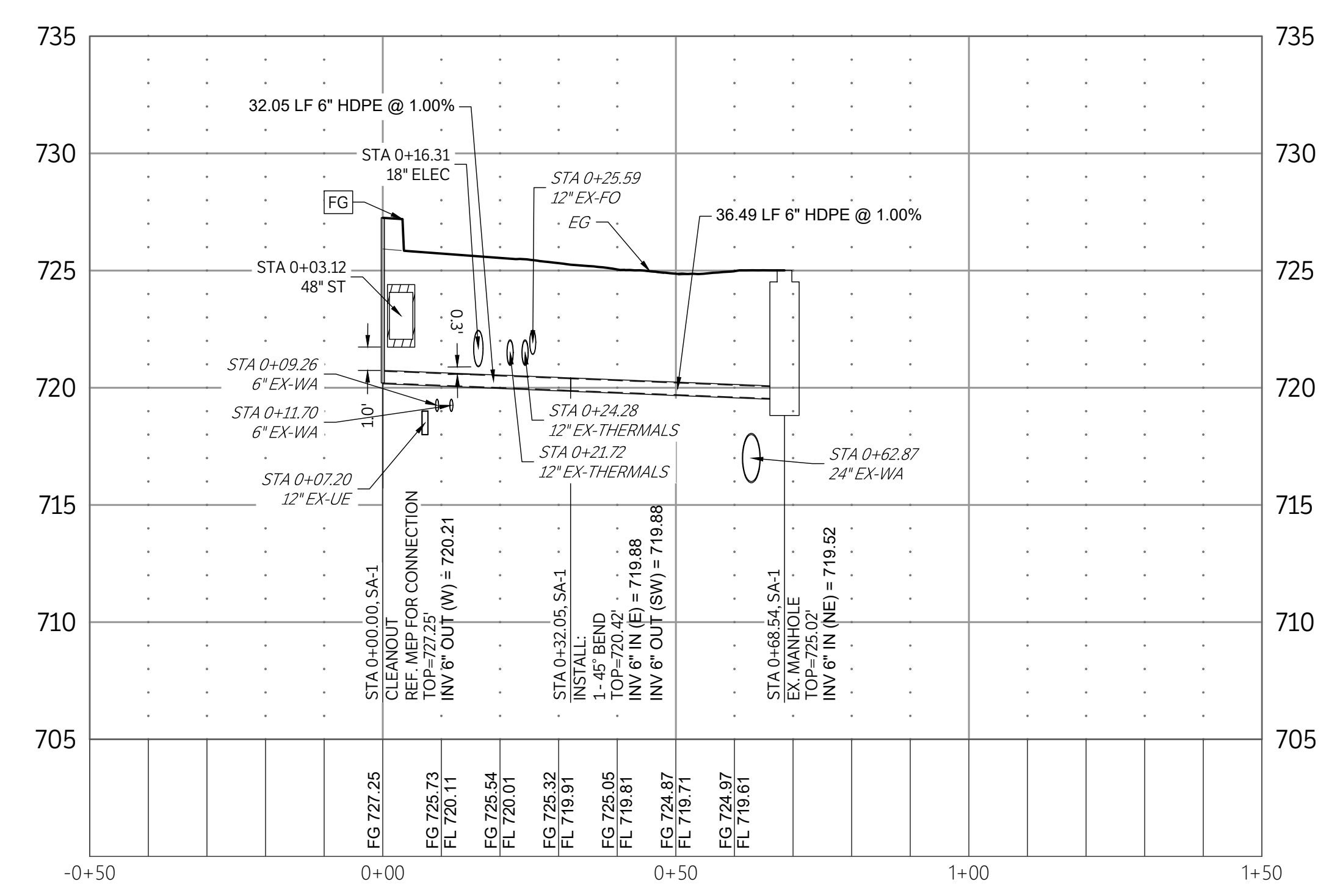
CHECKED BY: SH & AL  
DRAWN BY: JC

# ISSUE FOR CONSTRUCTION



NOTE:  
CONTRACTOR TO FIELD VERIFY EXISTING  
UTILITY INVERTS PRIOR TO CONSTRUCTION

LEGEND	
	PROPOSED ASPHALT PAVEMENT
	PROPOSED STRUCTURAL PAVEMENT

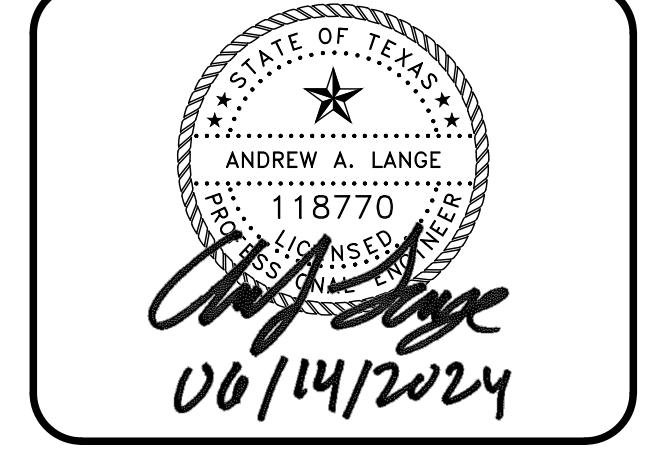
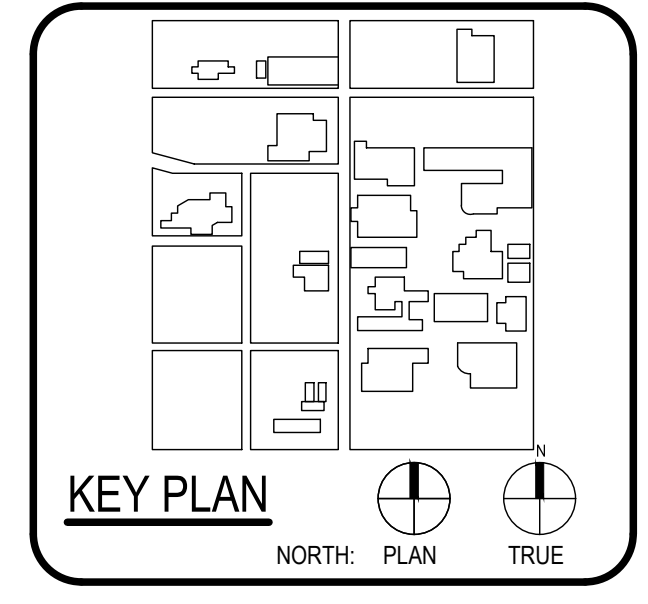


SA-1  
SCALE: 1"=20' H, 1"=5' V



ARCHITECT	PBK Architects, Inc.
SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P 210-829-0578 F TX Firm BR 1608	
ASSOCIATE ARCHITECT	BA & ARCHITECTS
1301 BRUNNEN CELEBRITY LANDSCAPE DESIGN GROUP 1131 W. 30th SAN ANTONIO, TX 78207 LUNDY & HARRIS ENGINEERING 1131 W. 30th SAN ANTONIO, TX 78207 TRAVIS 210-829-0123 NEAR POWER SIGNALS 1131 W. 30th SAN ANTONIO, TX 78207 210-829-0123	

## WFAC Black Box Addition PKG 1

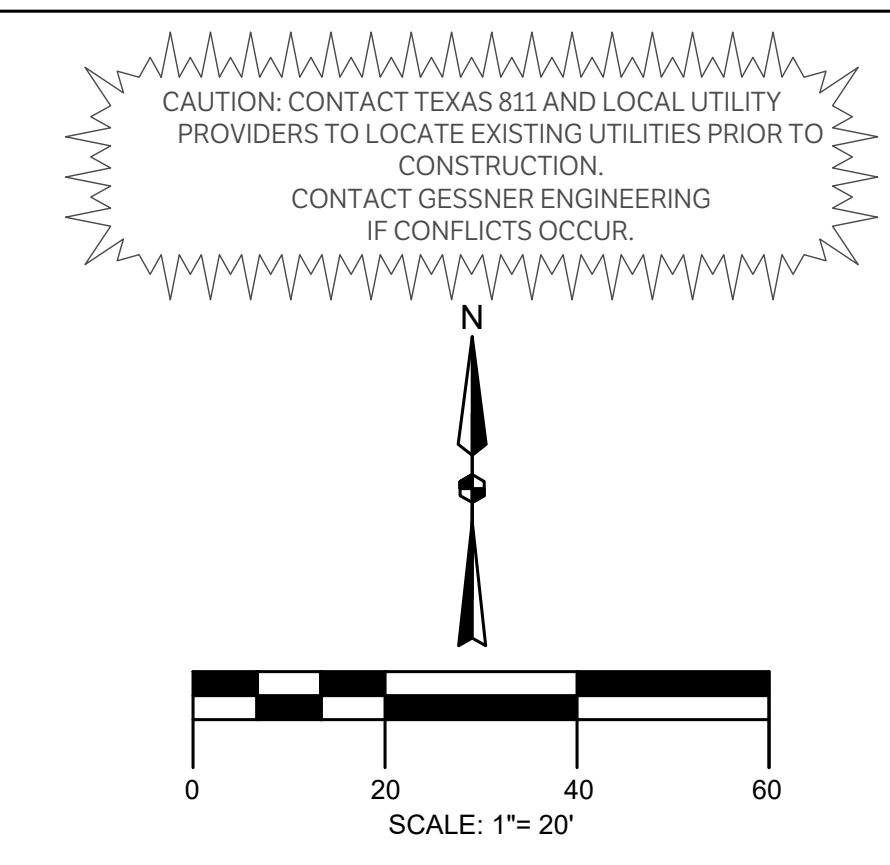
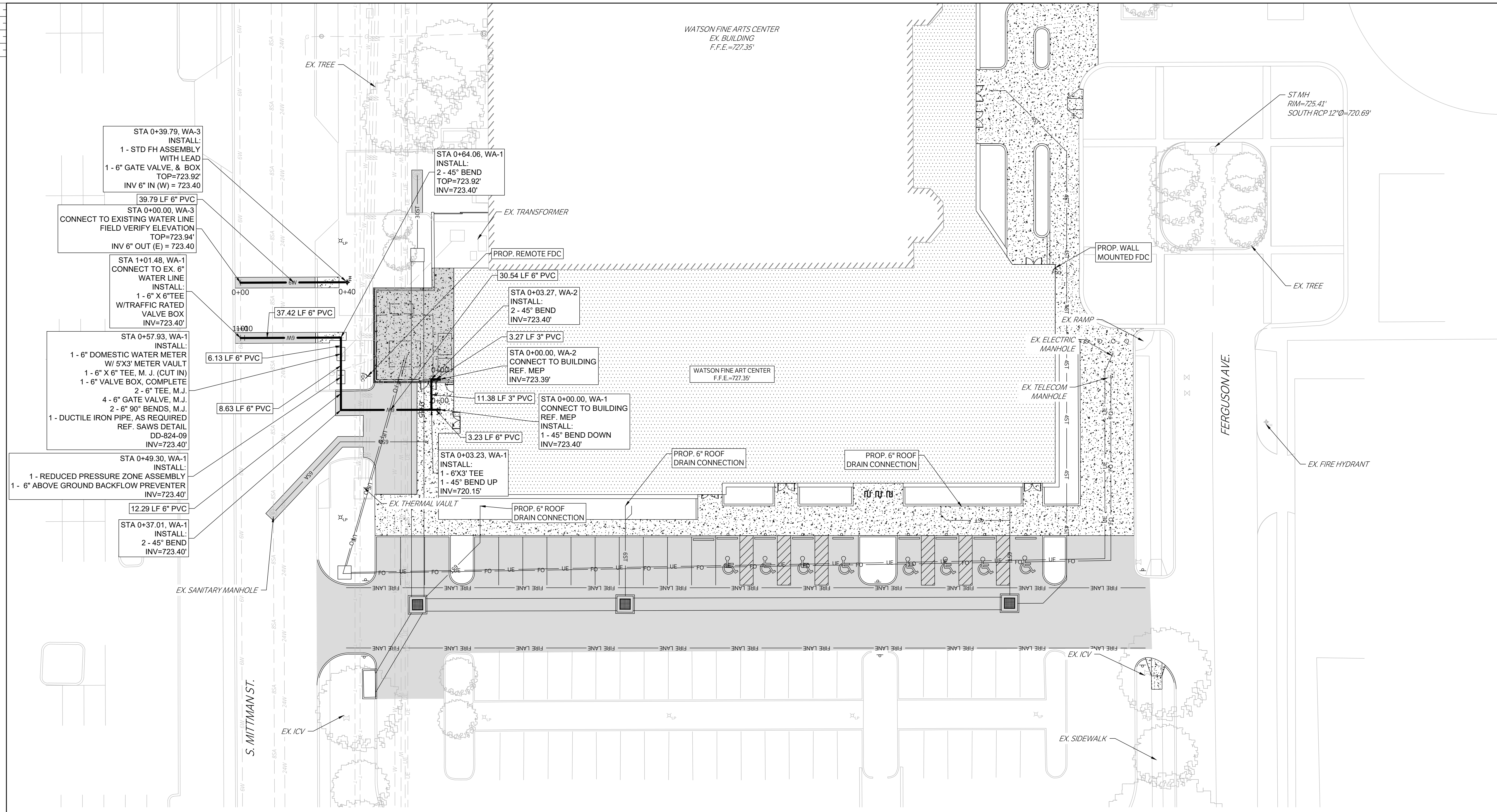


CLIENT		
Alamo Colleges	PROJECT NUMBER	
DATE	230462	
2024/06/12		
DRAWING HISTORY		
No.	Description	Date

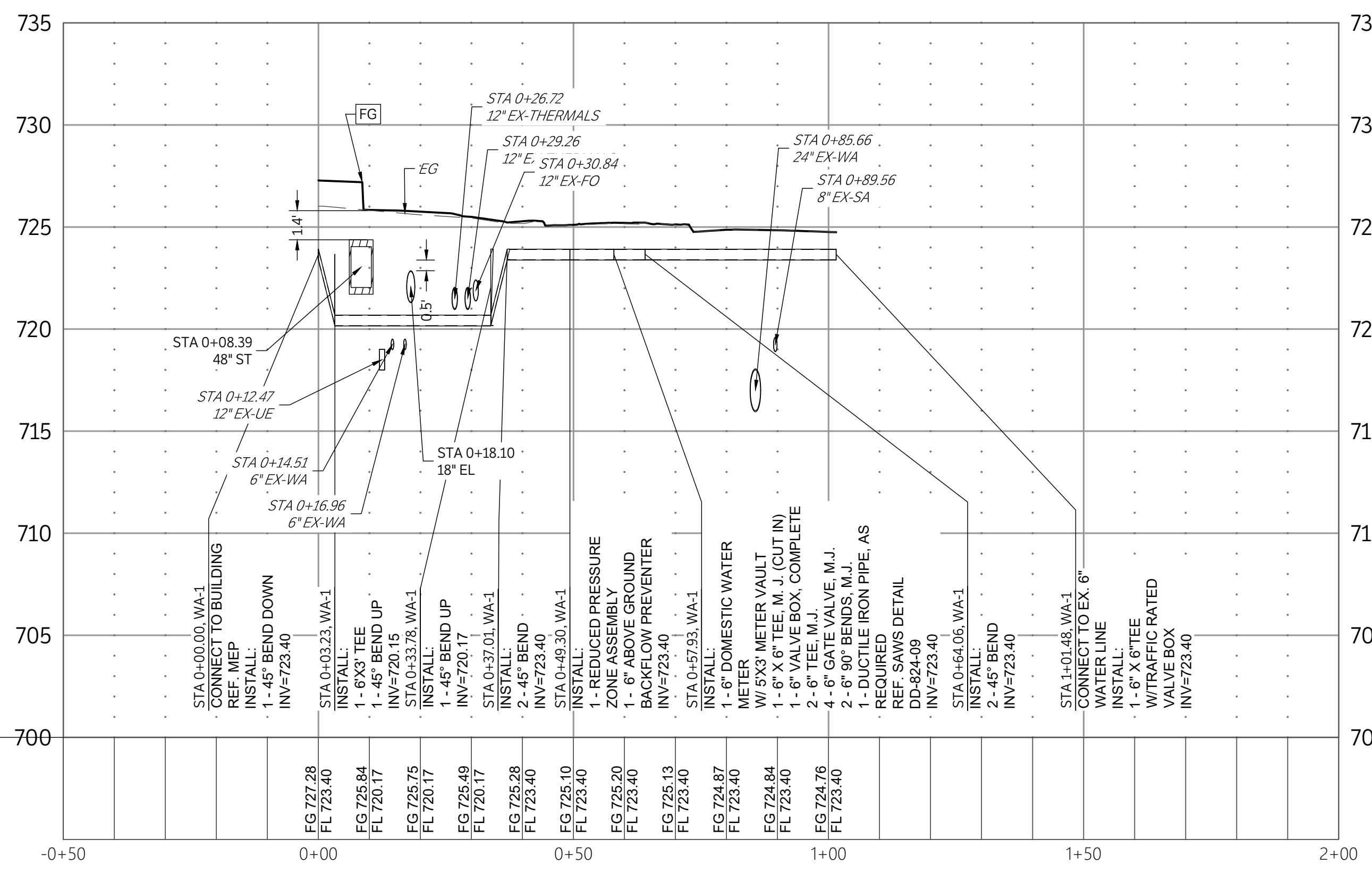
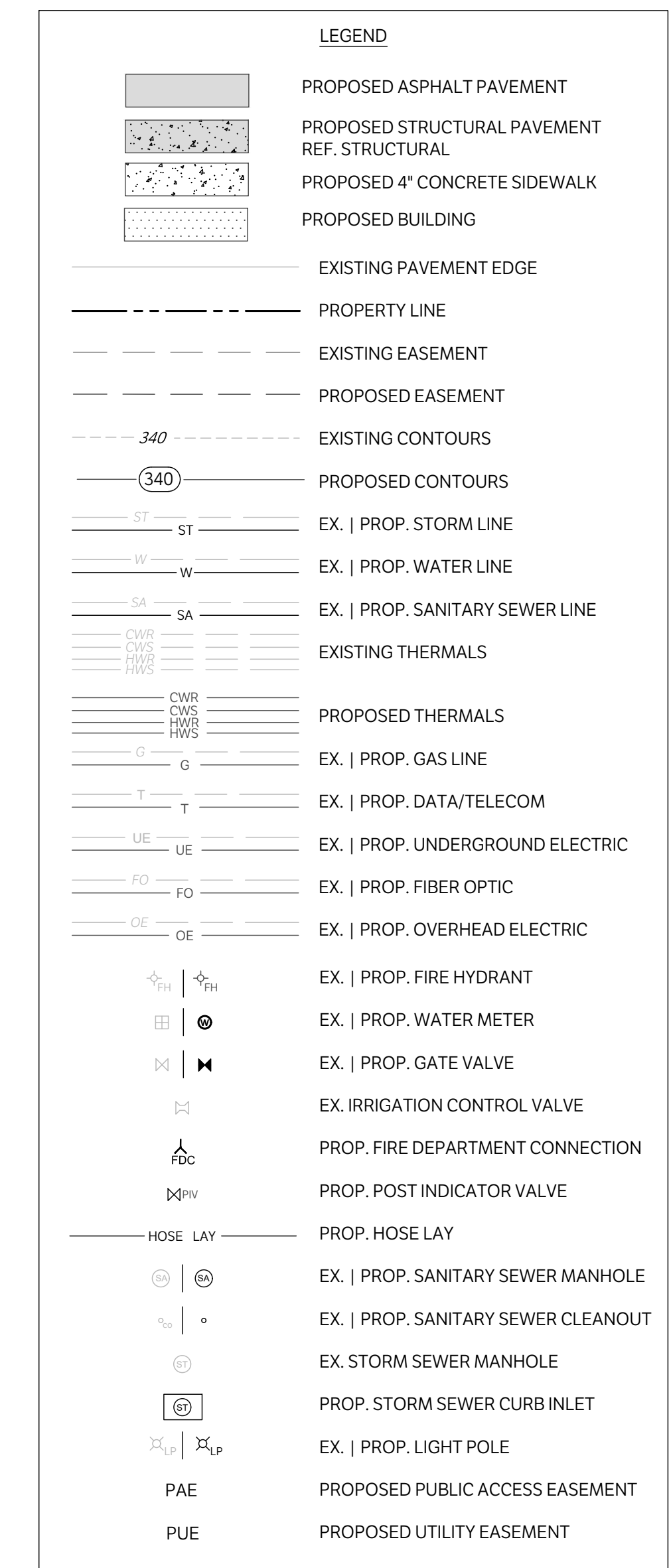
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BUILDING NUMBER  
**SANITARY PLAN & PROFILES**

**C900**

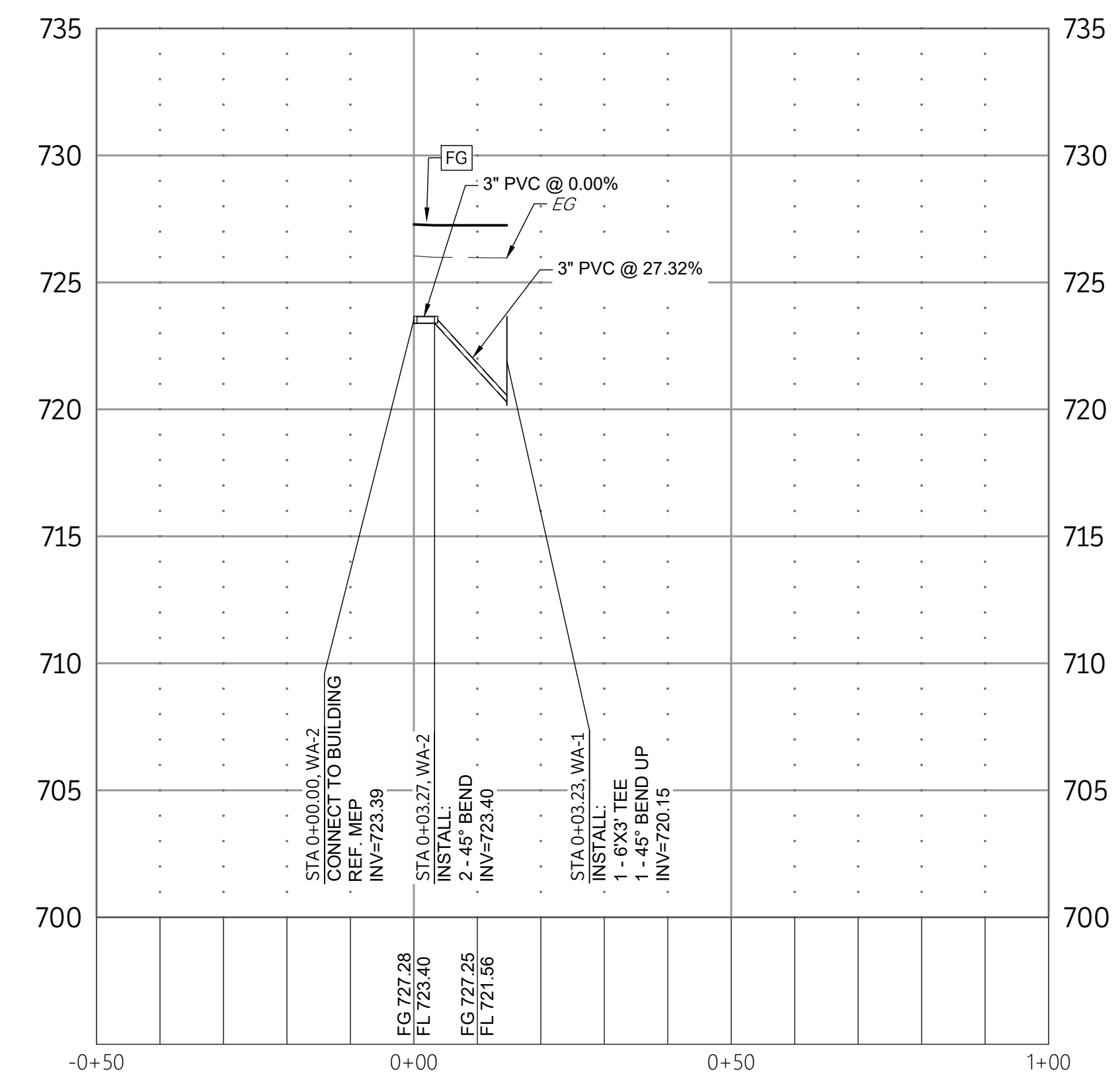
# ISSUE FOR CONSTRUCTION



NOTE:  
CONTRACTOR TO FIELD VERIFY EXISTING  
UTILITY INVERTS PRIOR TO CONSTRUCTION



WA-1  
SCALE: 1"=20' H, 1"=5' V



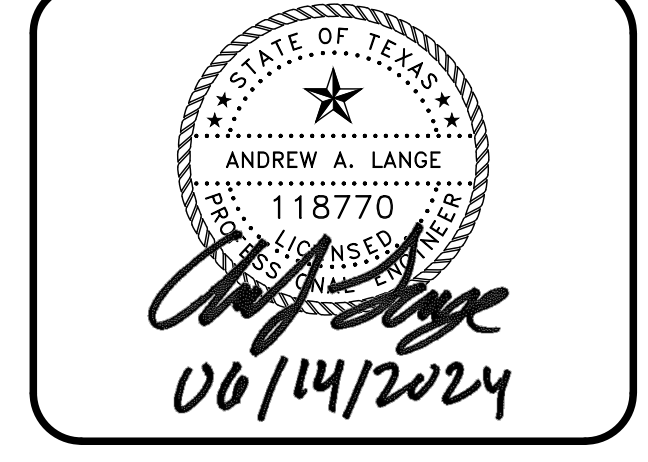
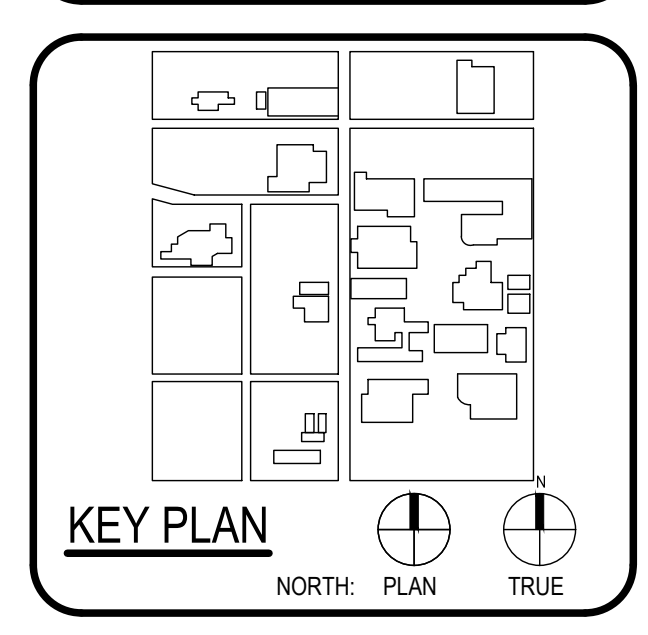
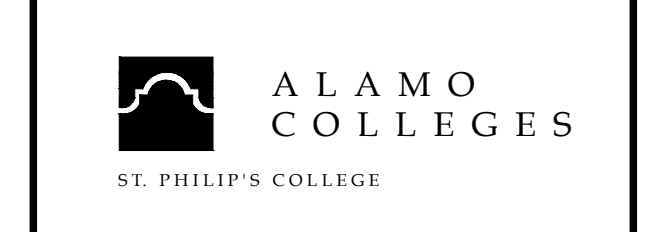
WA-2  
SCALE: 1"=20' H, 1"=5' V



ARCHITECT	PBK Architects, Inc.
SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P 210-829-0578 F TX Firm BR 1608	
ARCHITECT	BA & ARCHITECTS
1301 BRUNNEN CELEBRITY LANDSCAPE DESIGN GROUP 1131 W. 30th SAN ANTONIO, TX 78207 210-349-1234 LUNY & HARRIS ENGINEERING 1101 W. 30th SAN ANTONIO, TX 78207 210-349-1234 T. 210-349-1234 F. 210-349-1234 T. 210-349-1234	

**WFAC Black Box Addition PKG 1**

600 S. Mittman St.  
San Antonio, TX 78203  
ISSUE FOR CONSTRUCTION



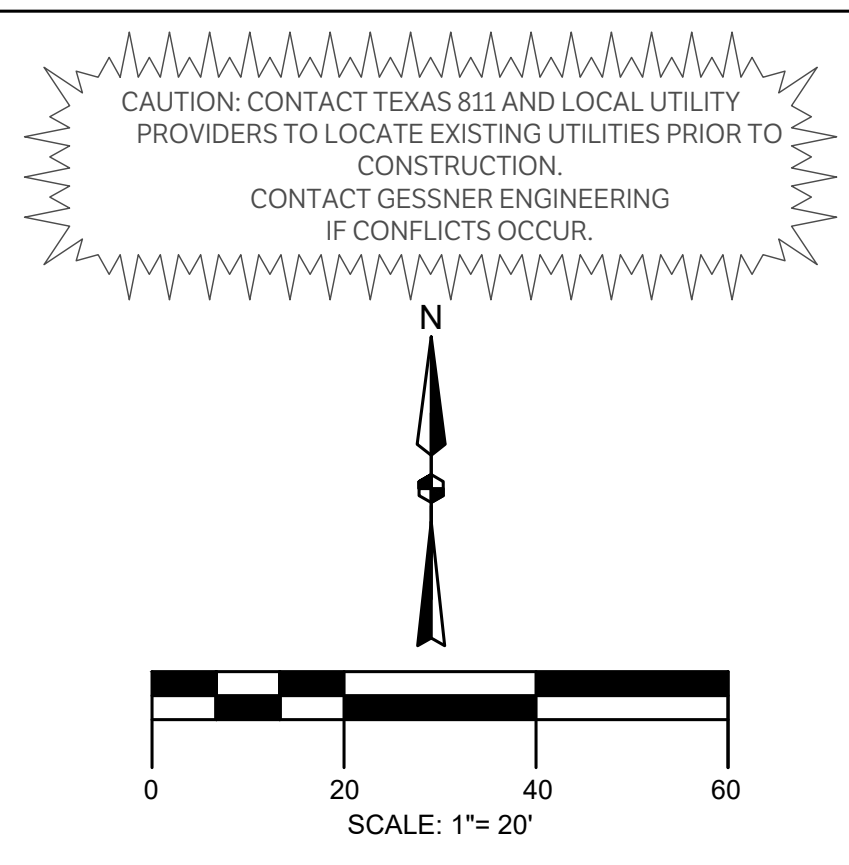
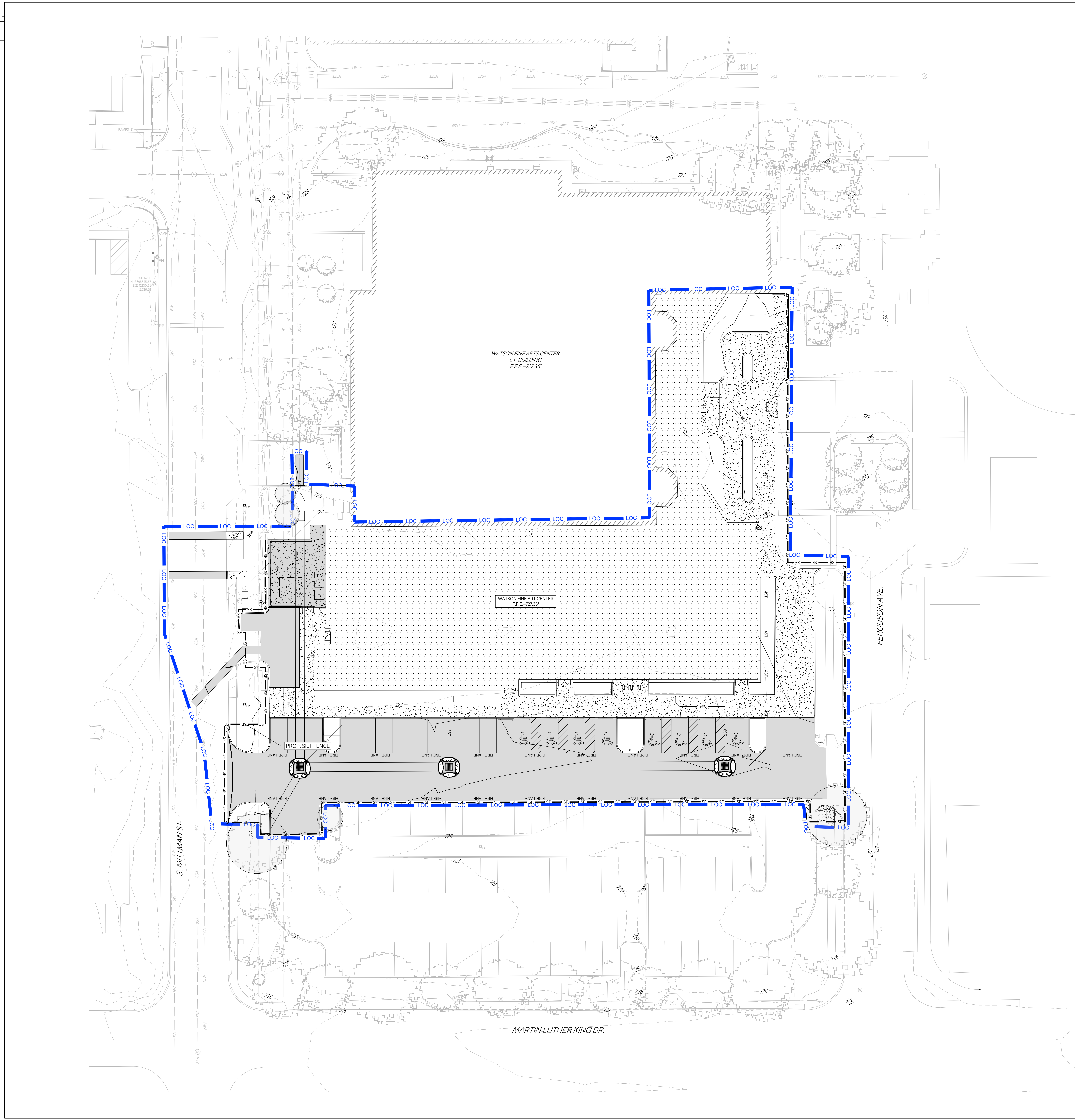
CLIENT		
Alamo Colleges	PROJECT NUMBER	
DATE	230462	
2024/06/12		
DRAWING HISTORY		
No.	Description	Date

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER

**WATER PLAN & PROFILES**

**C1000**

# ISSUE FOR CONSTRUCTION



**LEGEND**

	CONSTRUCTION ENTRANCE, INSTALLED PER DETAIL
	PROPERTY LINE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	EXISTING FLOW PATH
	PROPOSED FLOW PATH
	SILT FENCE, INSTALLED PER DETAIL
	PROPOSED DAM EROSION CONTROL, LOG-18"
	PROPOSED ROCK FILTER DAM TYPE 3
	PROP. TREE PROTECTION FENCE
	PROP. TREE PROTECTION FENCE

**EROSION CONTROL NOTES:**  
OWNER INFORMATION: ST PHILLIPS COLLEGE  
PROJECT NAME: ST PHILLIPS COLLEGE WATSON FINE ARTS CENTER BLACK BOX ADDITION  
PROJECT LOCATION: 600 S MITTMAN ST. SAN ANTONIO, TX 78203

LATITUDE: 29°24'49.57"N  
LONGITUDE: 98°27'14.61"W  
TOTAL SITE AREA IS: 1.89 ACRES  
TOTAL AREA OF SITE EXPECTED TO BE DISTURBED: 1.35 ACRES

**EXISTING SITE CONDITIONS**  
LAND USE: HIGHER EDUCATION  
LAND COVER: ~90% IMPERVIOUS  
RECEIVING WATERS: SALADO CREEK  
SEGMENT NO. OF CLASSIFIED WATER BODY: SALADO CREEK  
BASIN NAME: SAN ANTONIO RIVER

**SOIL INFORMATION**  
HYDROLOGIC SOIL GROUP: D

**POST DEVELOPED SITE CONDITIONS**  
LAND USE: HIGHER EDUCATION  
ACADEMIC BLDG

**NATURE OF ACTIVITIES**  
ACADEMIC BLDG

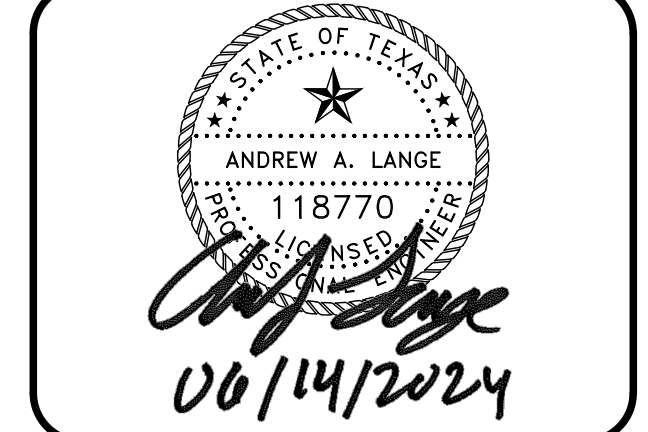
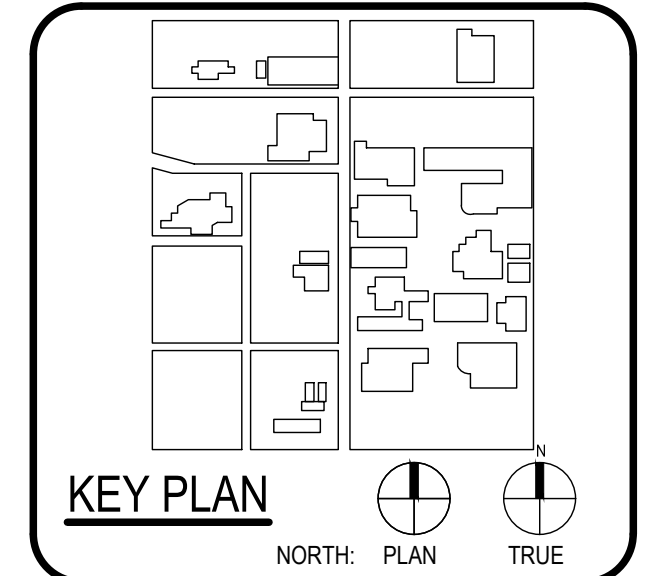
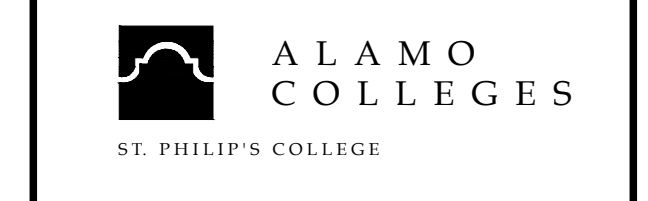
- SEQUENCE OF MAJOR ACTIVITIES**
1. INSTALL SILT FENCE AT STOCK PILE AREAS
  2. CLEARING, GRADING, GENERAL CONSTRUCTION SITE
  3. INSTALL FILTER ELEMENTS IMMEDIATELY AFTER DISTURBANCE AND/OR GRADING OPERATIONS.
  4. AFTER ESTABLISHMENT OF GRASS, REMOVE ALL TEMPORARY EROSION CONTROL.
  5. SEED ALL AREAS NOT HAVING PERMANENT GRASS COVERAGE AFTER APPROVAL BY COUNTY INSPECTOR.

- GENERAL EROSION CONTROL NOTES**
1. ALL UTILITIES AND SERVICE LINES SHOWN ARE TAKEN FROM RECORD INFORMATION SUPPLIED BY THE UTILITY OWNER OR HORIZONTALLY LOCATED BY INDEPENDENT LOCATORS. CONTRACTOR IS RESPONSIBLE TO REPORT ANY CONFLICTS BETWEEN PLAN AND ACTUAL CONDITIONS PRIOR TO CONSTRUCTION. OWNER AND ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF INFORMATION OR DATA RELIED ON TO DEPICT UNDERGROUND FACILITIES. CONTRACTOR IS TO CONTACT OWNERS OF ALL UTILITIES AND SERVICE LINES WITHIN THE PROJECT AREA AND NOTIFY OF INTENT AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH FACILITY OWNERS, CONTRACTOR IS TO VERIFY THE EXACT LOCATION AND VERTICAL POSITIONING OF ALL PIPELINES, EXISTING UTILITIES, AND SERVICE LINES WITHIN THE PROJECT AREA WHETHER SHOWN ON THE PLANS OR NOT, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. CONTRACTOR IS TO MAINTAIN STRUCTURAL INTEGRITY OF ALL PIPELINES, ELECTRIC TRANSMISSION POLES AND LINES, PERMANENT AND TEMPORARY UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING UTILITY FACILITIES, PAVEMENT, ETC. AS A RESULT OF CLEARING/DIRTWORK ACTIVITIES.
  2. CONTRACTOR TO CONTACT TEXAS 811 AND LOCAL UTILITY PROVIDERS TO LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTACT GESSNER ENGINEERING IF CONFLICTS OCCUR.
  3. ALL DISTURBED AREAS NOT TO BE PAVED ARE TO HAVE ESTABLISHMENT OF GRASS.
  4. ALL SWALE AREAS (BOTTOM WIDTHS & SIDE SLOPES) ARE TO BE PREPARED AND HYDROMULCHED FOR PERMANENT ESTABLISHMENT OF VEGETATION. PRIOR TO HYDROMULCHING OPERATIONS, CONTRACTOR TO REPLACE TOPSOIL TO A DEPTH OF 6". TOPSOIL IS TO BE DISKED TO A DEPTH OF AT LEAST 4" AND LIGHTLY COMPACTED. FINAL GRADES WITH ESTABLISHED VEGETATION SHALL BE AS CALLED OUT ON THE GRADING PLAN.
  5. CONTRACTOR IS TO MAINTAIN EROSION CONTROL AT ALL LOCATIONS OF CONSTRUCTION THROUGHOUT DURATION OF THE PROJECT AND UNTIL VEGETATION IS ESTABLISHED. INSURE SEDIMENT IS NOT TRANSPORTED DOWNSTREAM FROM PROJECT VIA GRAVEL FILTER BAGS AND SILT FENCE INSTALLATIONS. IF EXCESSIVE EROSION IS OBSERVED IN THE FIELD, ADDITIONAL EROSION CONTROLS SHALL BE INSTALLED.
  6. CONTRACTOR SHALL NOT ALLOW SEDIMENT TO ENTER THE DOWNSTREAM CHANNEL. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING OF THE DOWNSTREAM CHANNEL AREAS AND RESTORING TO ORIGINAL CONDITION, INCLUDING ESTABLISHMENT OF REVEGETATION SHOULD CONSTRUCTION SEDIMENT BE FOUND OUTSIDE THE LIMITS OF CONSTRUCTION.
  7. THE CONTRACTOR WILL REMOVE ALL EXCESS SOIL FROM CONSTRUCTION VEHICLES PRIOR TO EXITING THE SITE.
  8. THE CONTRACTOR SHALL UNDERTAKE PROPER METHODS TO REDUCE DUST GENERATION FROM THE SITE.
  9. THE CONTRACTOR MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING SEDIMENTS AND EROSION CONTROL.
  10. A COPY OF THIS PLAN MUST BE KEPT AT THE CONSTRUCTION FACILITY DURING THE ENTIRE CONSTRUCTION PERIOD.
  11. ALL FINISHED GRADES ARE TO BE HYDRO-MULCHED, SPOT SODDED OR SEEDED AND WATERED UNTIL GROWTH IS ESTABLISHED.
  12. CONTRACTOR IS RESPONSIBLE TO FILE THE NOTICE OF INTENT AND NOTICE OF TERMINATION WITH AUTHORITY HAVING JURISDICTION.



ARCHITECT	PBK Architects, Inc.
601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P 210-829-0578 F TX Firm BR 1608	
ASSISTANT ARCHITECT	BA ARCHITECTS
1711 W. Loop West Suite 100 San Antonio, TX 78201 210-491-9999	
LANDSCAPE ARCHITECT	LUNY & HARRIS ENGINEERING
1711 W. Loop West Suite 100 San Antonio, TX 78201 210-491-9999	
ENGINEER	MEYER ENGINEERS
1711 W. Loop West Suite 100 San Antonio, TX 78201 210-491-9999	

WFAC Black Box Addition PKG 1



CLIENT		
Alamo Colleges		
DATE	PROJECT NUMBER	
2024/06/12	230462	
DRAWING HISTORY		
No.	Description	Date

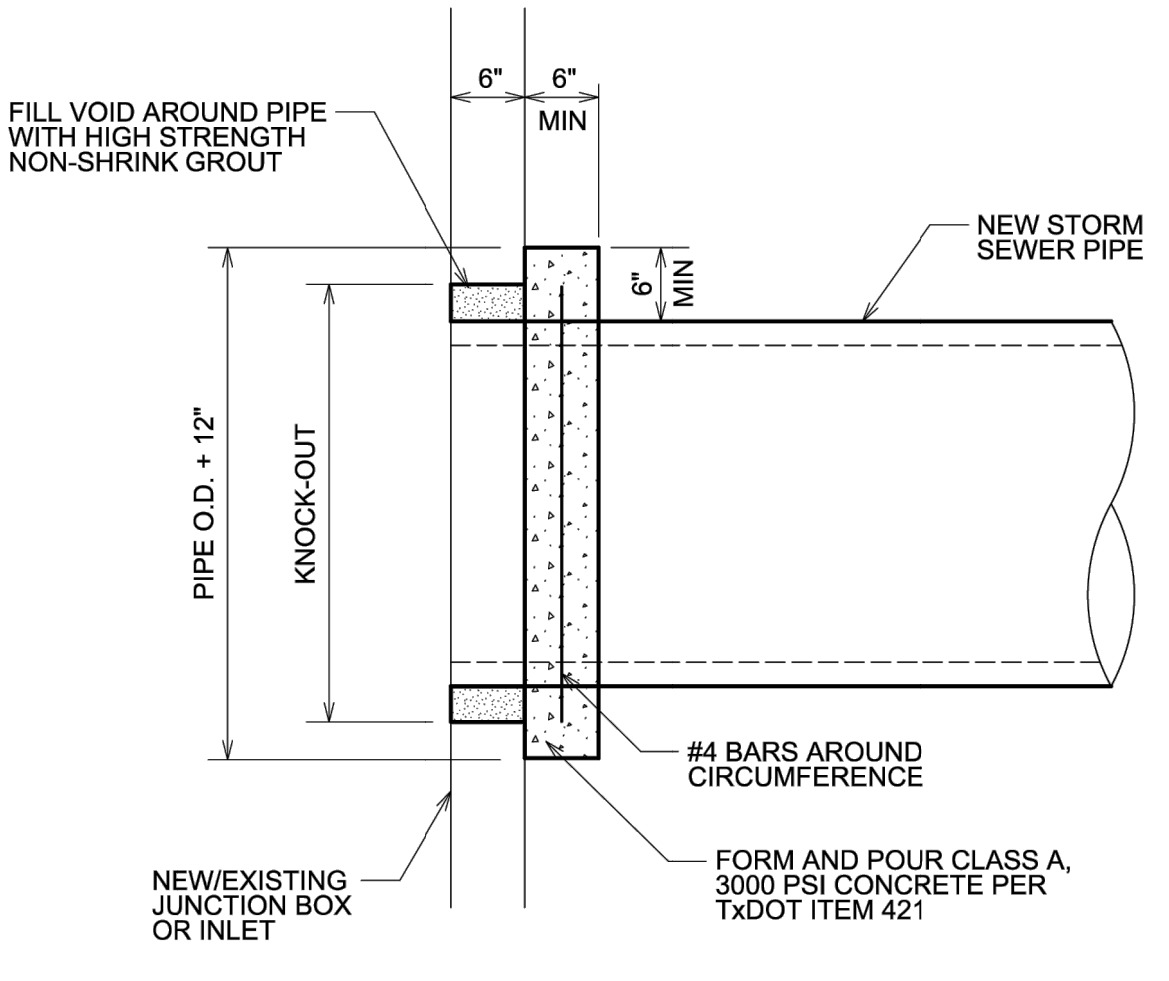
**ISSUE FOR CONSTRUCTION**  
BUILDING NUMBER

**EROSION CONTROL**

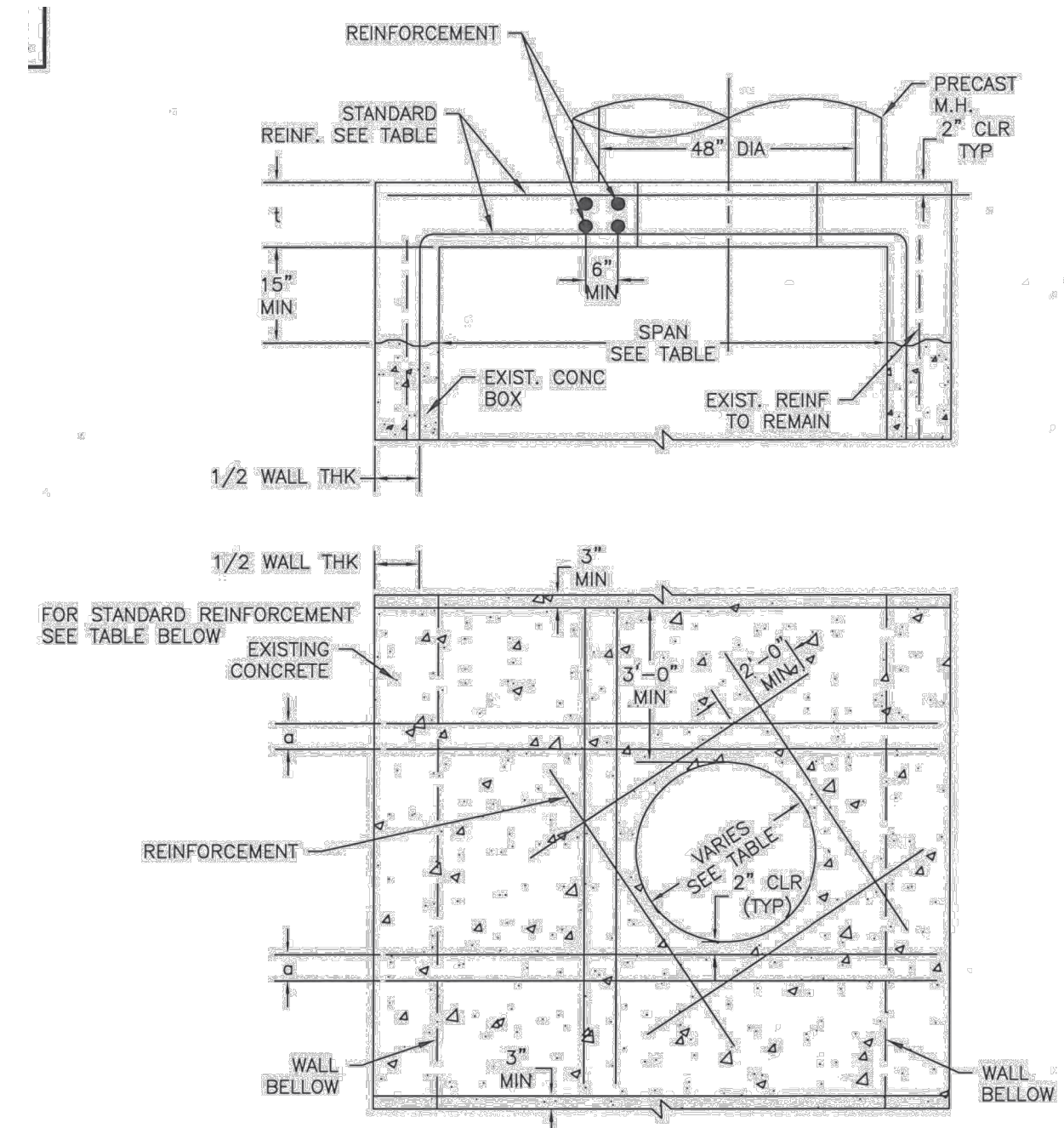
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**GENERAL NOTES**

1. NEW PIPE TO BE SET FLUSH WITH INSIDE WALL OF STRUCTURE.



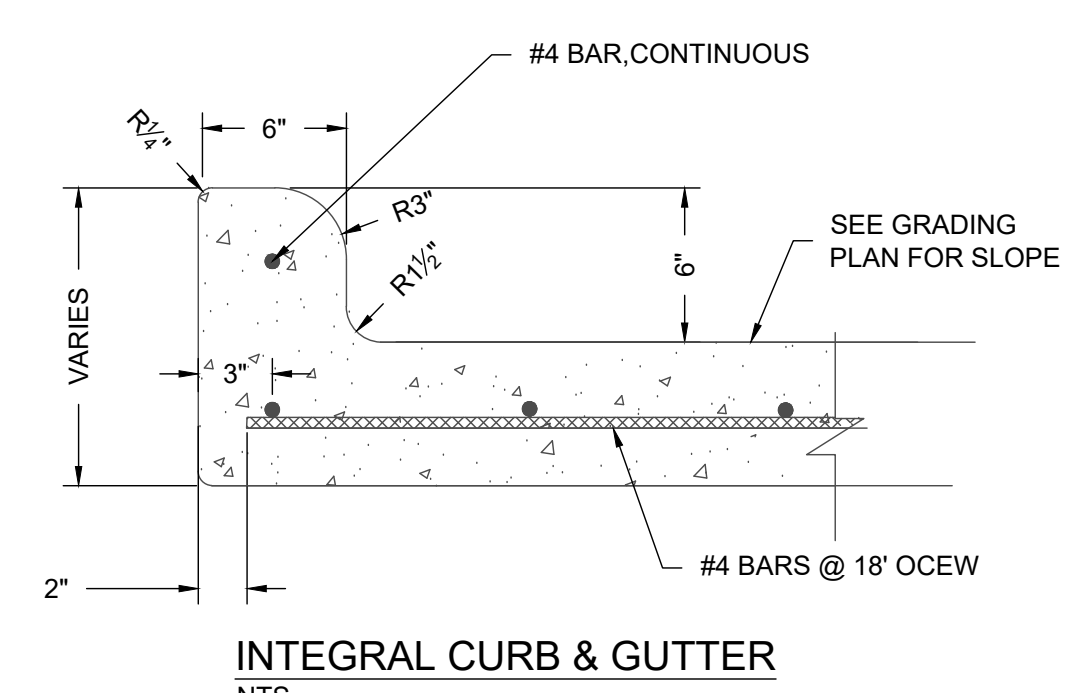
**GRAouted STORM SEWER CONNECTION DETAIL**  
NTS



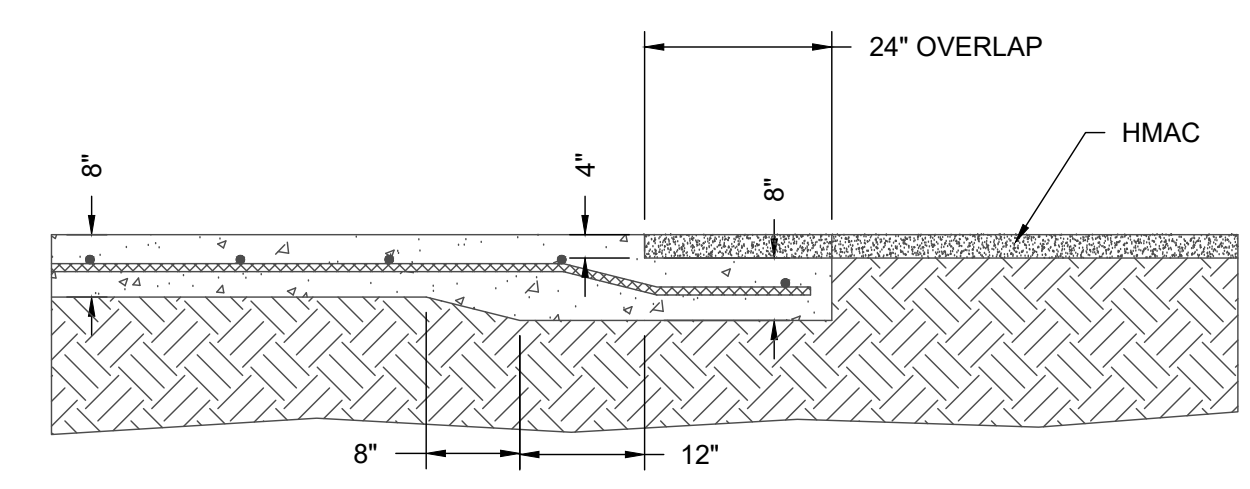
**PROPOSED MANHOLE ON EXISTING BOX STORM SEWER**  
NTS

**TABLE**  
SEWER SIZE VS. OPENING

SEWER SIZE (INCHES)	MANHOLE BASE DIAMETER
48"	36"
54"	36"
60"	42"
66" OR GREATER	48"

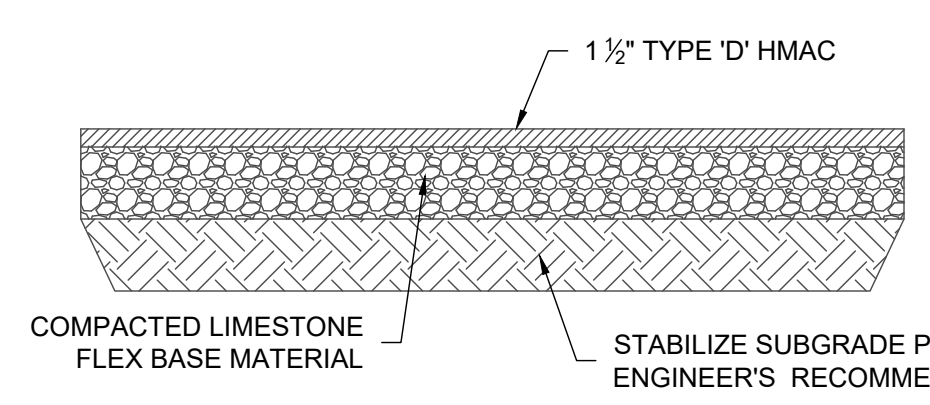


**INTEGRAL CURB & GUTTER**  
NTS

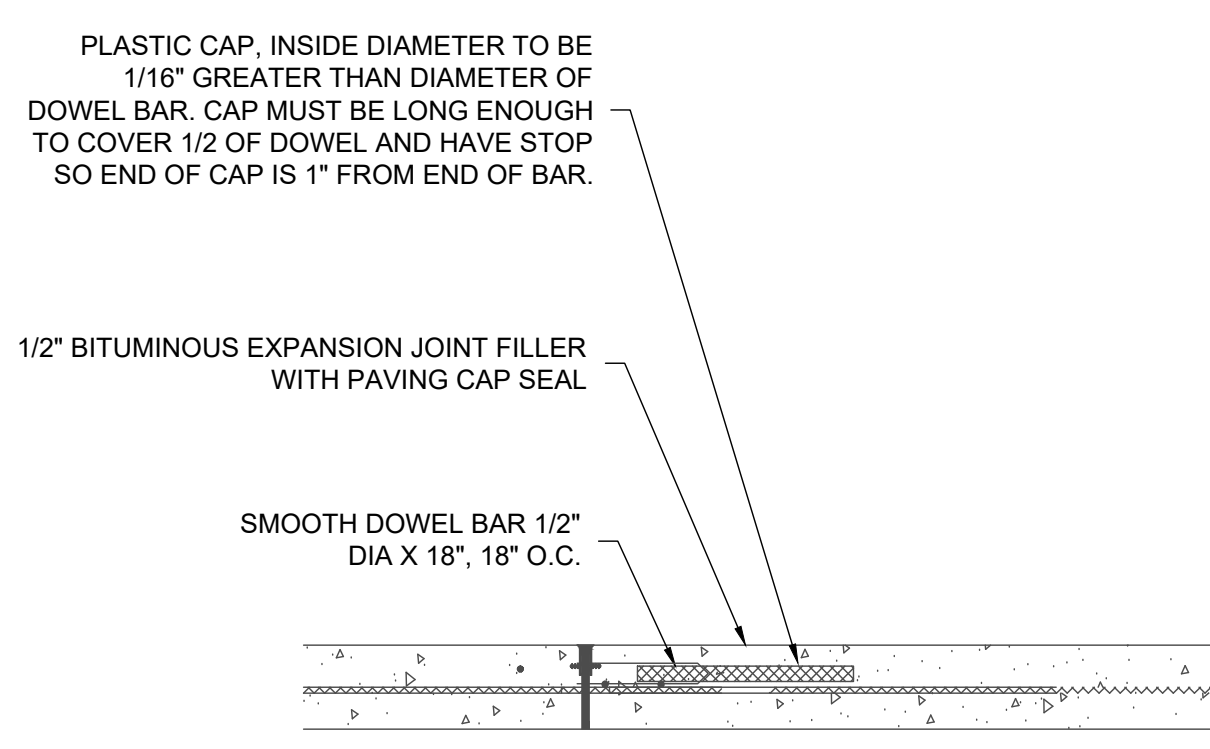


NOTE: SEE PLAN C.X.X FOR JOINT LOCATIONS

**CONCRETE TO ASPHALT J-JOINT**  
NTS

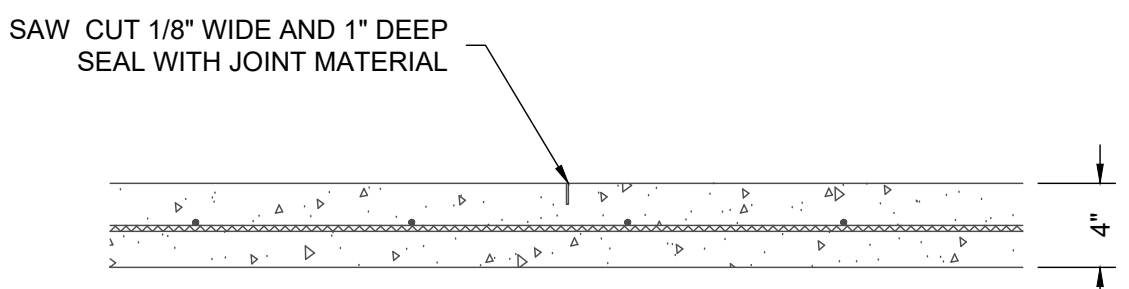


**1 1/2" HMAC PAVEMENT**  
NTS



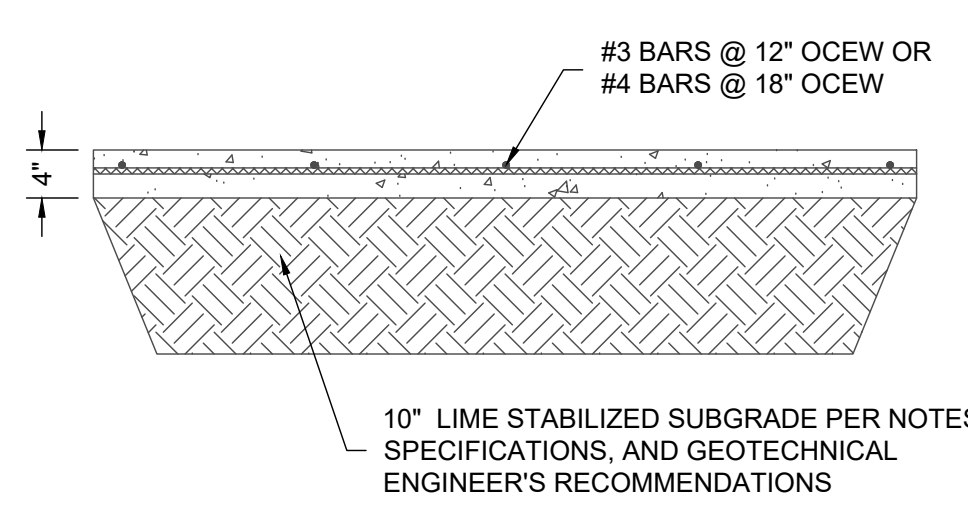
NOTE: SIDEWALK EXPANSION JOINTS SHALL BE INSTALLED AS SHOWN ON PLANS

**SIDEWALK EXPANSION JOINT**  
NTS



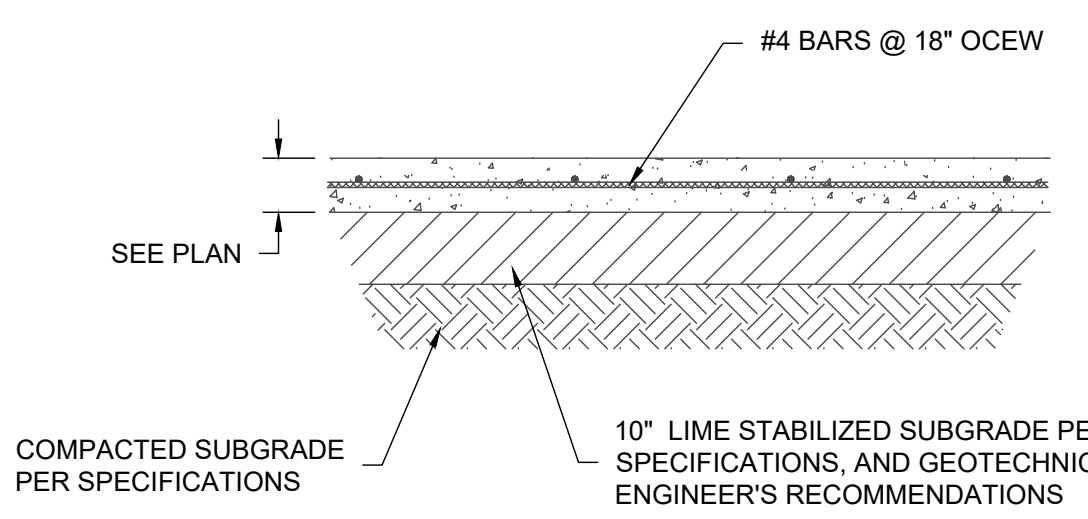
NOTE: SIDEWALK JOINT SPACING PER LANDSCAPE ARCHITECT OR JOINT PLAN. IF NOT SPECIFIED, SPACING SHALL BE EQUAL TO SIDEWALK WIDTH WITH A MAXIMUM SPACING OF 8-FOOT.

**SIDEWALK CONTRACTION JOINT**  
NTS



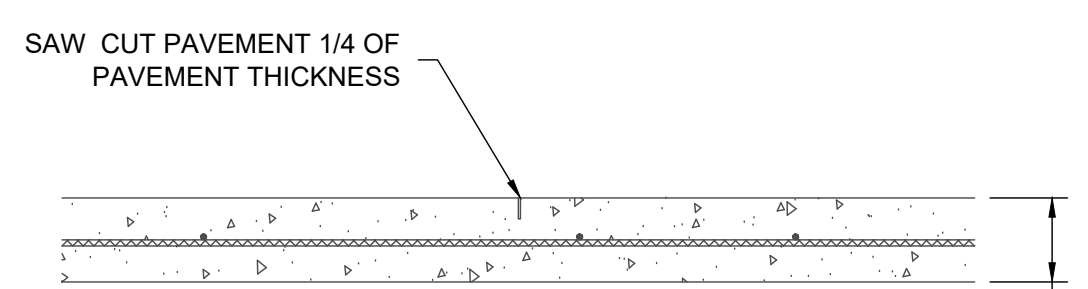
NOTES:  
1. SUBGRADE STABILIZATION SHALL BE PER GEOTECHNICAL RECOMMENDATIONS AND LIME/CEMENT SERIES BASED ON ACTUAL SUBGRADE CONDITIONS.  
2. SAW CUT OPERATIONS SHALL BEGIN AS SOON AS POSSIBLE AFTER CONCRETE PLACEMENT.  
3. SEAL ALL EXPANSION JOINTS WITH SEAL CAP AND CONTROL JOINTS WITH SELF LEVELING JOINT SEALANT MATERIAL PER SPECIFICATIONS. USE SELF LEVELING JOINT SEALANT ADJACENT TO EXISTING PAVEMENT.

**SIDEWALK SECTION**  
NTS



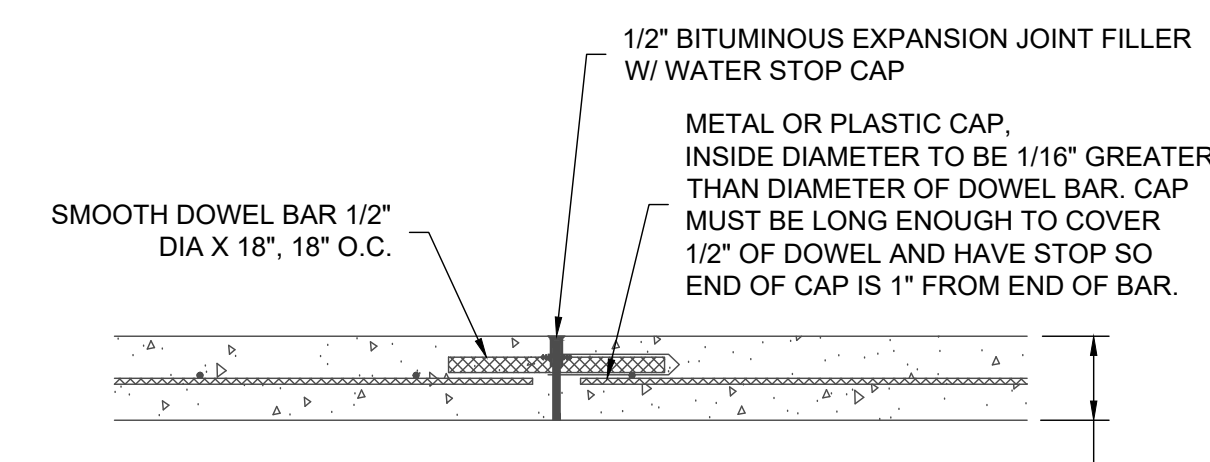
NOTES:  
1. SEE PLAN FOR JOINT SPACING, COMPRESSIVE STRENGTH, PAVEMENT THICKNESS, AND REINFORCING.  
2. DEPTH OF STABILIZATION SHALL BE A MINIMUM OF 6 INCHES OR BASED ON GEOTECHNICAL RECOMMENDATIONS SUBGRADE CONDITIONS.  
3. SUBGRADE STABILIZATION SHALL BE PER GEOTECHNICAL RECOMMENDATIONS AND LIME/CEMENT SERIES BASED ON ACTUAL SUBGRADE CONDITIONS.

**CONCRETE PAVEMENT**  
NTS

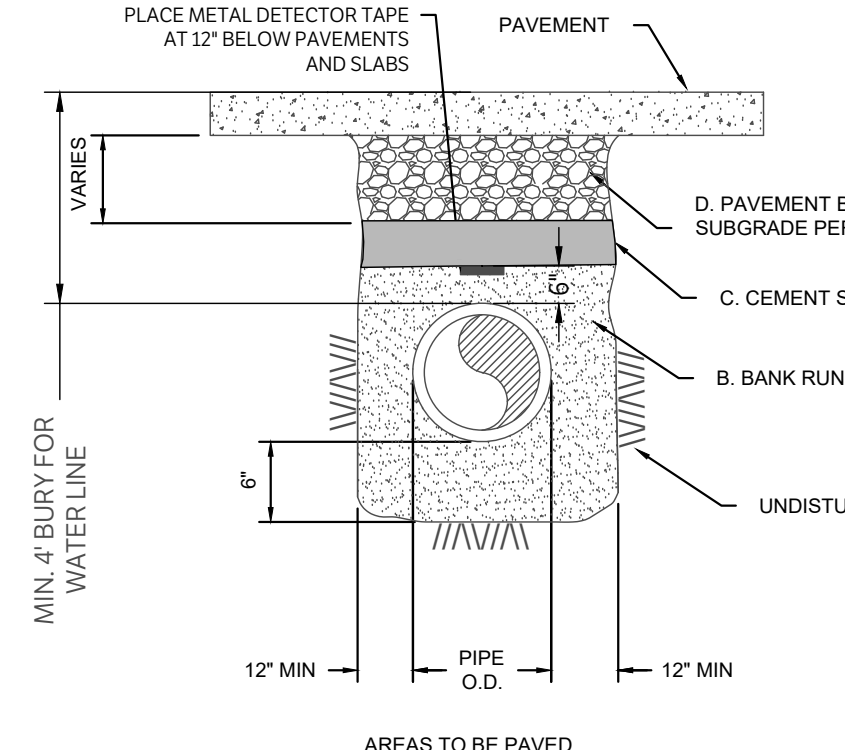
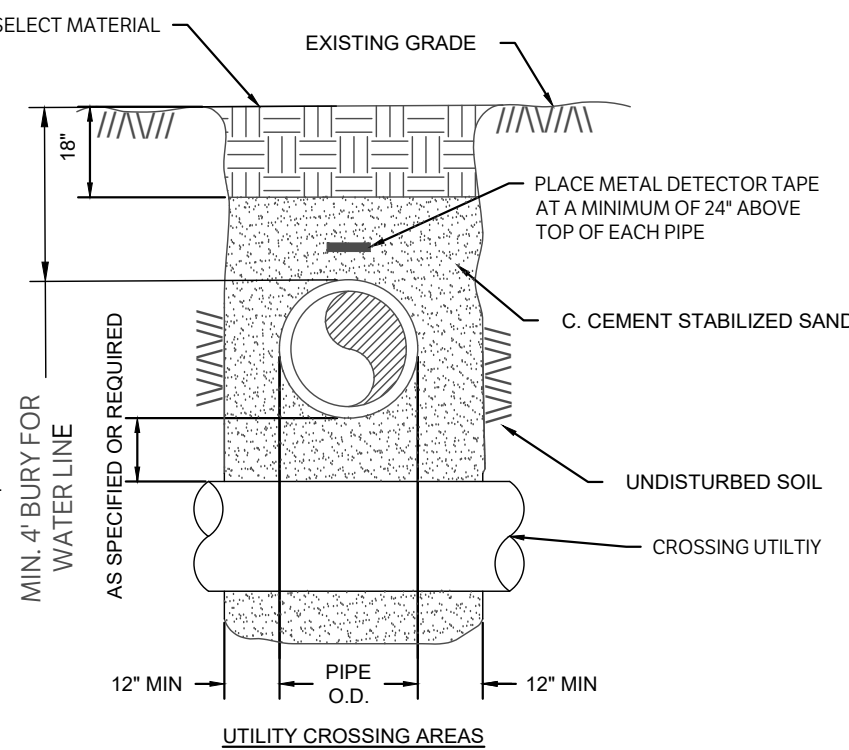
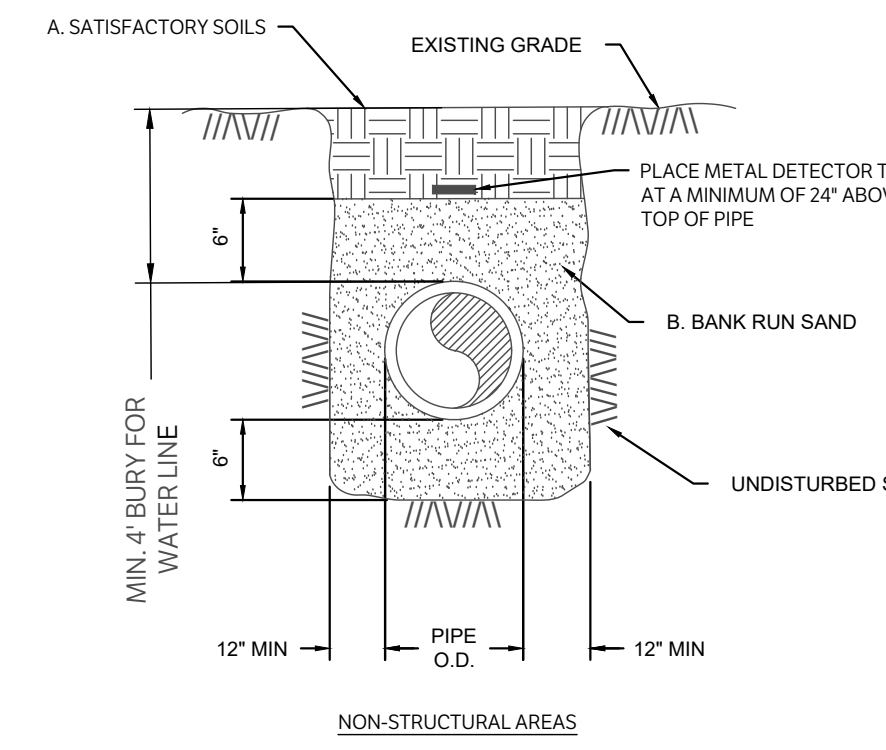


NOTES:  
1. SEE PLANS FOR JOINT SPACING, COMPRESSIVE STRENGTH, PAVEMENT THICKNESS, AND REINFORCING.  
2. SAW CUT OPERATIONS SHALL BEGIN AS SOON AS POSSIBLE AFTER CONCRETE PLACEMENT.  
3. SEAL ALL JOINTS WITH SELF LEVELING JOINT SEALANT MATERIAL PER SPECIFICATIONS.

**CONTROL JOINT**  
NTS



**EXPANSION JOINT**  
NTS



A. SATISFACTORY SOILS  
MATERIAL EXCAVATED FROM THE DITCH, (WHICH IS FREE OF ROCKS, LUMPS, CLODS, OR DEBRIS LARGER THAN TWO (2) INCHES IN THE LARGEST DIMENSION), COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO 2% OF OPTIMUM UNDER NON-STRUCTURAL AREAS (IE. YARDS, PASTURES, EASEMENTS) AND TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO 2% OF OPTIMUM UNDER NEW STREET AND PAVEMENT AREAS.

B. BANK RUN SAND  
GRANULAR MATERIAL FREE OF DETRIMENTAL QUANTITIES OF CLAY, DEBRIS, OR ORGANIC MATERIAL. REFERENCE SPECIFICATION FOR REQUIREMENTS.

C. CEMENT STABILIZED SAND  
MATERIALS SHALL BE TYPE PORTLAND CEMENT CONFORMING TO ASTM C150 AND CLEAN DURABLE SAND MEETING GRADING REQUIREMENTS FOR FINE AGGREGATES OF ASTM C33. THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 SACKS OF CEMENT PER CUBIC YARD OF MIXTURE). COMPACT MIX TO 90% OF ASTM D698 WITH A MOISTURE CONTENT BETWEEN .2% TO 2% ABOVE OPTIMUM.

D. PAVEMENT SUBGRADE  
REFERENCE PAVEMENT SECTION DETAIL AND SPECIFICATION FOR MATERIALS AND DEPTHS.

GENERAL NOTES:  
ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SOODED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOO WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SOODED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

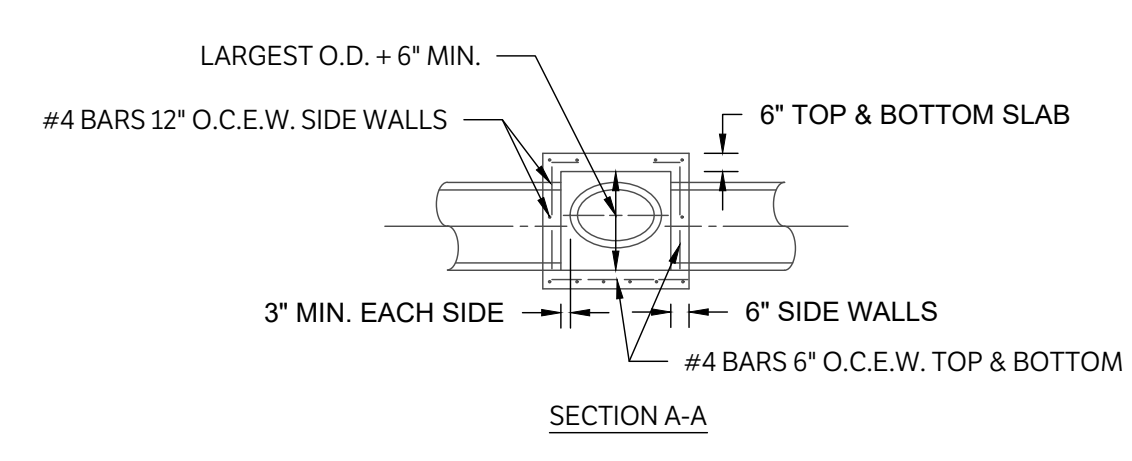
APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

ESTABLISHMENT OF VEGETATION MAY BE A WARRANTY ITEM.

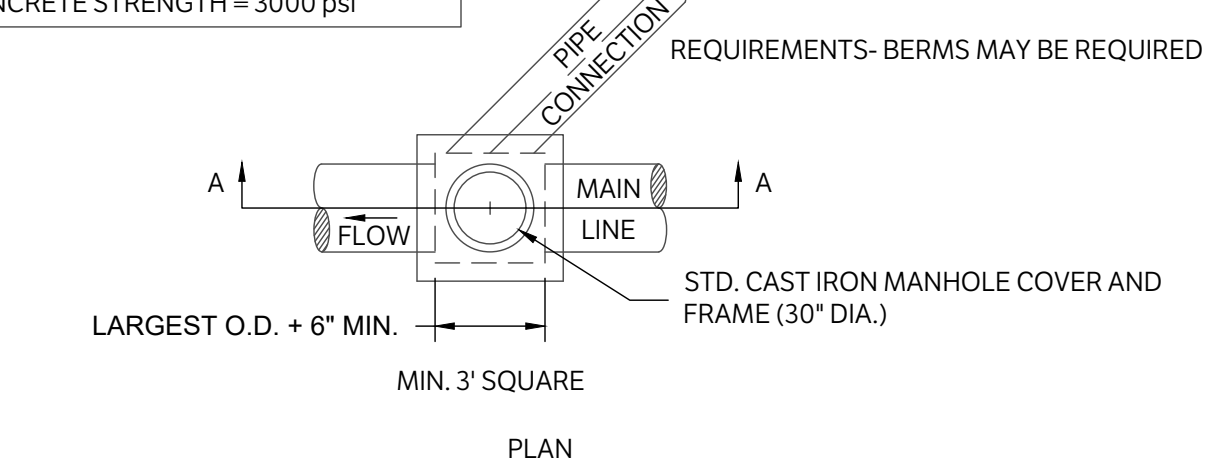
NOTES:  
1. FOR BEDDING AND TRENCHING WITHIN ALL PAVED AREAS SEE DETAILS FOR OPEN CUT STREETS.  
2. ALL BEDDING & INSTALLATION OF HDPE PIPE SHALL BE IN ACCORDANCE WITH ANSII/AWA STANDARDS FOR HOPE PIPE.  
3. COMPACTION SHALL BE ATTAINED BY MECHANICAL TAMPING.  
4. RELATIVE COMPACTION SHALL BE TESTING IN THE PRESENCE OF THE ENGINEER.  
5. DUST RESULTING FROM THE CONTRACTOR'S PERFORMANCE OF THE WORK, EITHER INSIDE OR OUTSIDE THE RIGHT-OF-WAY, SHALL BE CONTROLLED BY THE CONTRACTOR.  
6. ALL TRENCHES SHALL BE BACK FILLED AND TEMPORARY PAVING OR PLATING PLACED AT THE END OF EACH WORKING DAY IN AREAS TO BE PAVED. PROTECT ALL OPEN TRENCHES AT THE END OF EACH WORKING DAY.  
7. HOPE LINES WITH WELDED JOINTS MAY BE BACKFILLED PRIOR TO TESTING AT CONTRACTOR'S RISK.

**BEDDING AND TRENCH FOR HDPE PIPE**  
NTS

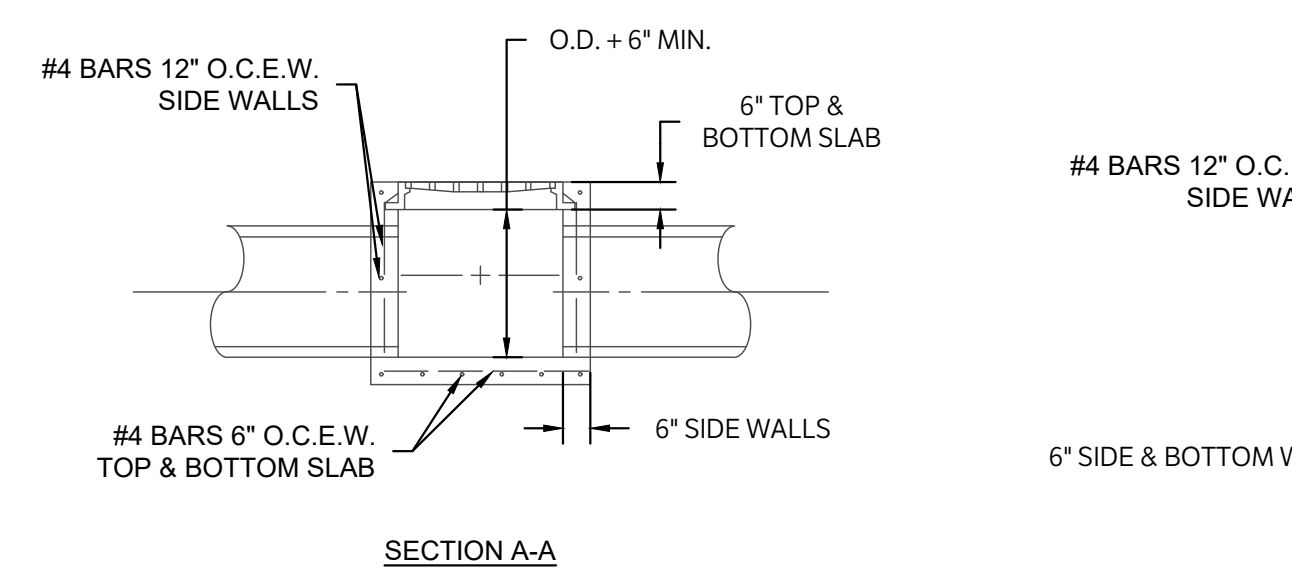


**SINGLE GRATE INLET**  
NTS

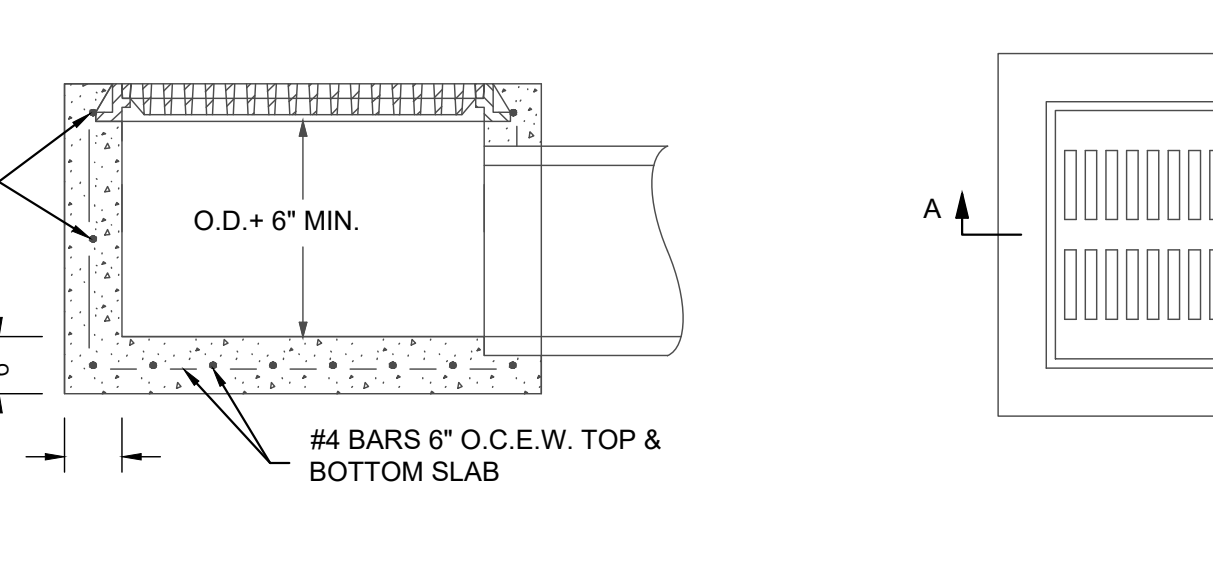
**STORM SEWER JUNCTION BOX**  
NTS



**STORM SEWER JUNCTION BOX**  
NTS



**SINGLE GRATE INLET**  
NTS

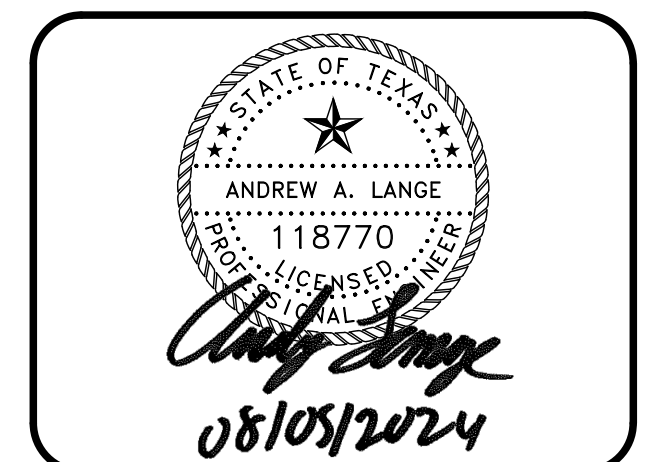
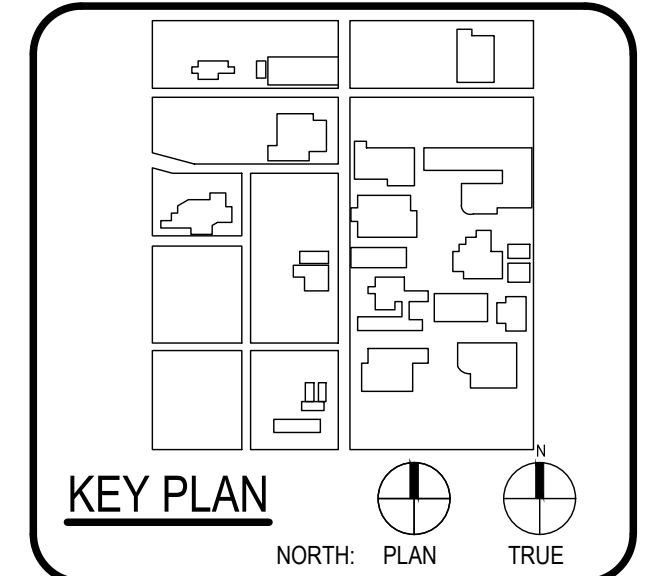


**GRATE INLET**  
NTS



ARCHITECT: SAN ANTONIO PBK Architects, Inc.  
601 N.W. Loop 410, Suite 400  
San Antonio, TX 78216  
210-820-0123 P  
210-829-0578 F  
TX Firm BR 1608

WFAC Black Box Addition PKG 1



CLIENT	Alamo Colleges
DATE	2024/06/12
PROJECT NUMBER	230462

No.	Description	Date
1	ADDENDUM 1	08/05/2024

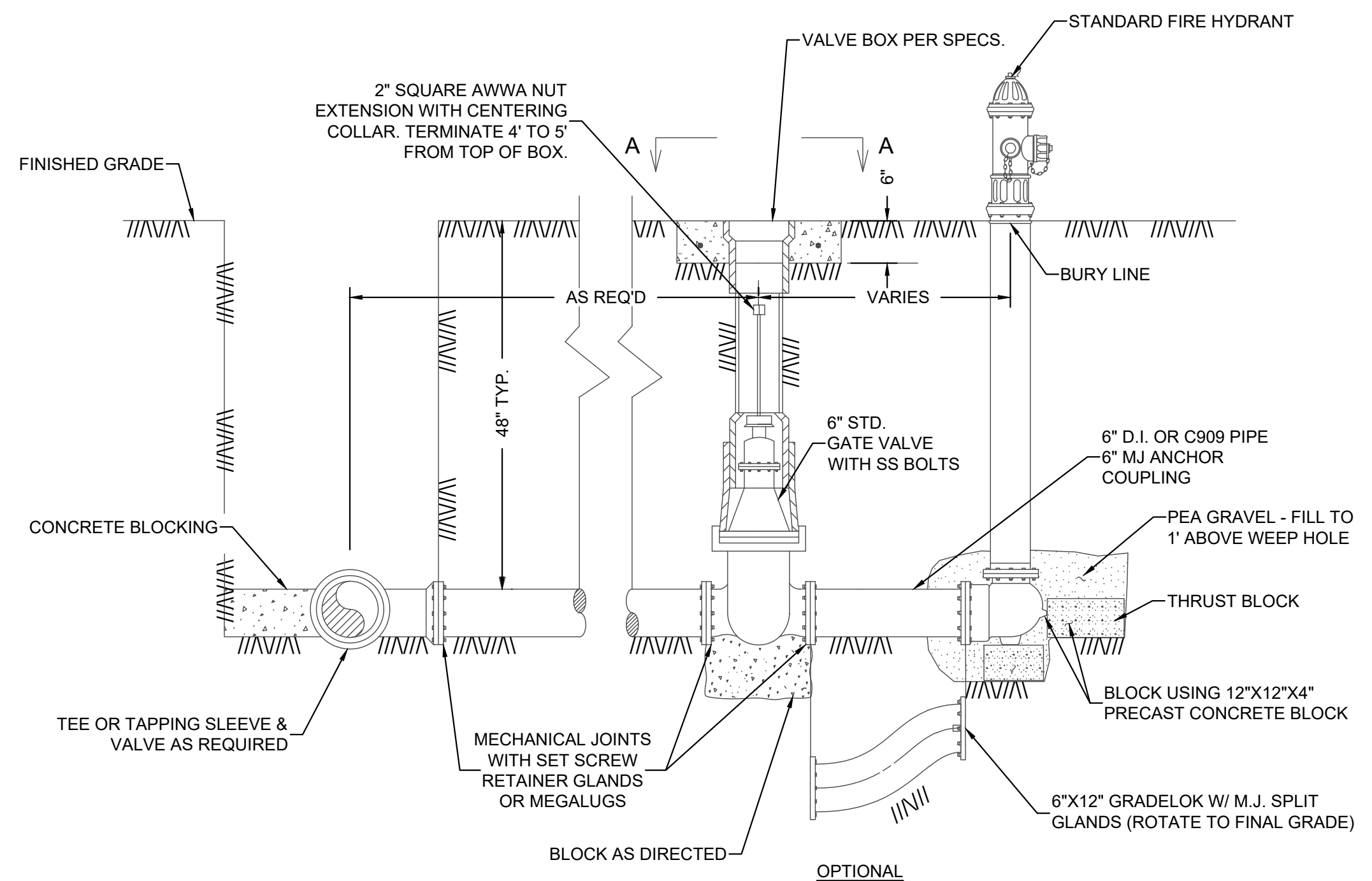
ISSUE FOR PERMIT  
BUILDING NUMBER

DETAILS  
**C1200**

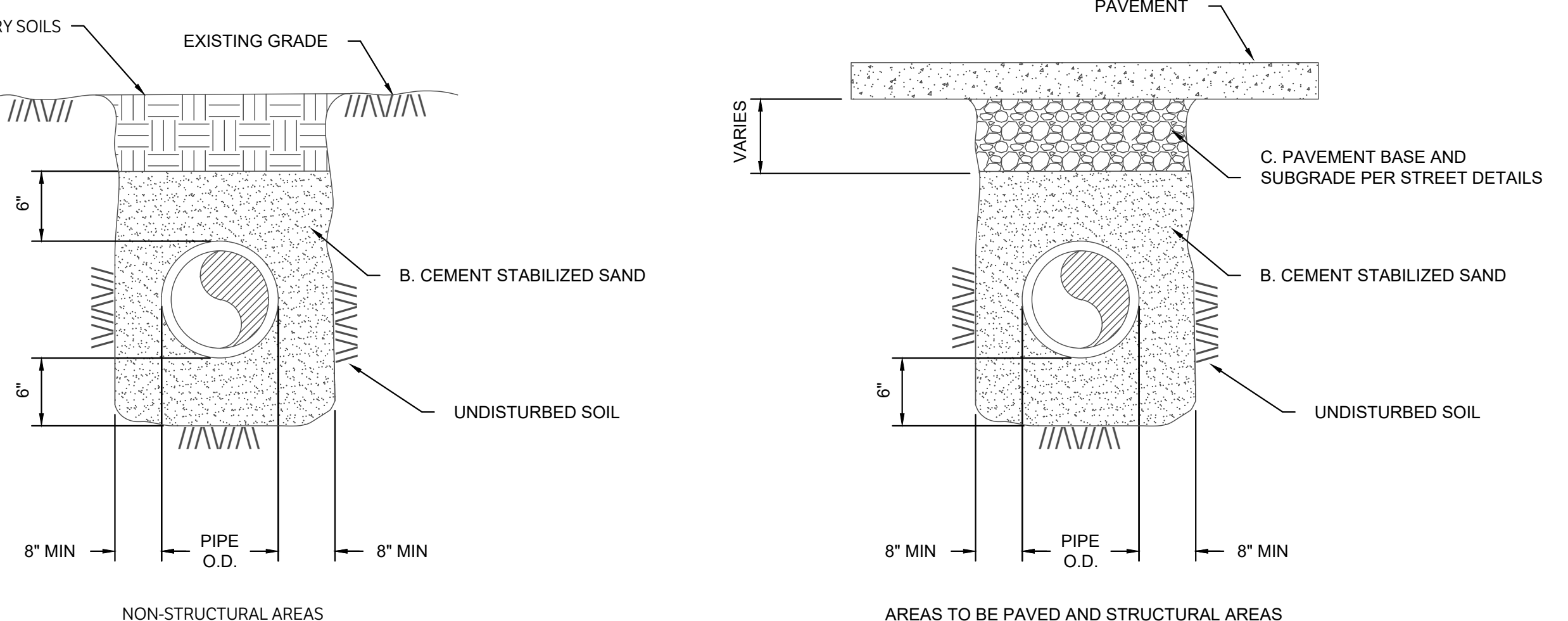
ISSUE FOR PERMIT

**GENERAL NOTES:**

- FINELY DIVIDED EARTH FREE OF ROCK, LUMPS AND CLODS EXCEEDING 6" SHALL BE PLACED BY HAND, AND COMPACTED AROUND THE CAST IRON PIPE TO A DEPTH OF 12" OVER THE TOP OF THE PIPE BEFORE BACKFILL IS BEGUN BY ANY MECHANICAL EQUIPMENT.
- ALL CONCRETE BLOCKING SHALL BE - 28 DAY CONCRETE STRENGTH = 2000psi.
- ALL THRUST BLOCKING SHALL PROVIDE A MINIMUM OF 2 SQUARE FEET OF BEARING AREA OF CONCRETE ON UNDISTURBED SOIL, OR AS DIRECTED BY THE ENGINEER.
- WATER MAINS WILL NOT BE FULLY PRESSURIZED UNTIL CONCRETE HAS REACHED 7 DAY STRENGTH.
- ALL PIPE WILL BE LAID SO AS THE ENTIRE BARRELL WILL HAVE FULL BEARING ON THE FINE GRADED TRENCH BOTTOM. BELL HOLES SHALL BE CUT FOR EACH BELL AND FIRE HYDRANT.
- ALL FITTINGS SHALL BE MECHANICAL JOINTS UNLESS OTHERWISE DIRECTED.
- HYDRANTS SHALL BE LOCATED NO CLOSER THAN 3 FEET MEASURED FROM THE BACK OF CURB TO THE FACE OF THE STEAMER ON THE FIRE HYDRANT.



**STANDARD FIRE HYDRANT ASSEMBLY NTS**



**BEDDING AND TRENCH FOR REINFORCED CONCRETE PIPE NTS**

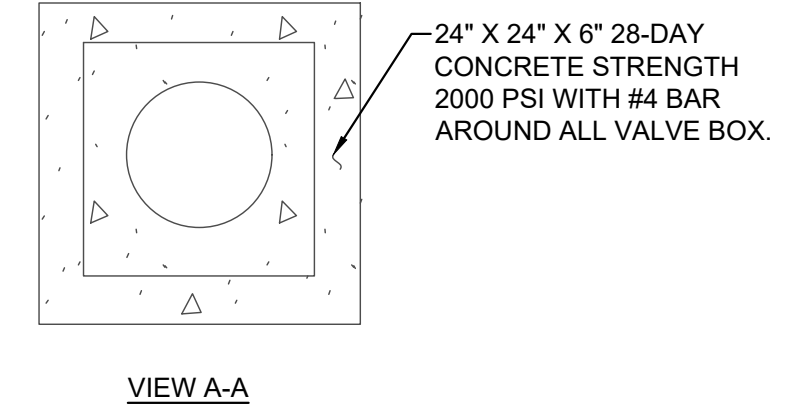
- A. SATISFACTORY SOILS**  
MATERIAL EXCAVATED FROM THE DITCH, (WHICH IS FREE OF ROCKS, LUMPS, CLODS, OR DEBRIS LARGER THAN TWO (2) INCHES IN THE LARGEST DIMENSION), COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN -2% TO 2% ABOVE OPTIMUM UNDER NON-STRUCTURAL AREAS (IE., YARDS, PASTURES, EASEMENTS) AND TO A MINIMUM OF 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN -2% TO 2% ABOVE OPTIMUM UNDER PAVED AREAS.
- B. CEMENT STABILIZED SAND**  
MATERIALS SHALL BE TYPE I PORTLAND CEMENT CONFORMING TO ASTM C150 AND CLEAN DURABLE SAND MEETING GRADING REQUIREMENTS FOR FINE AGGREGATES OF ASTM C33. THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2 SACKS OF CEMENT PER CUBIC YARD OF MIXTURE), COMPACT MIX TO 95% OF ASTM D558 WITH A MOISTURE CONTENT BETWEEN -2% TO 2% ABOVE OPTIMUM.
- C. PAVEMENT SUBGRADE**  
REFERENCE PAVEMENT SECTION DETAIL AND SPECIFICATION FOR MATERIALS AND DEPTHS.

**GENERAL NOTES:**  
ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

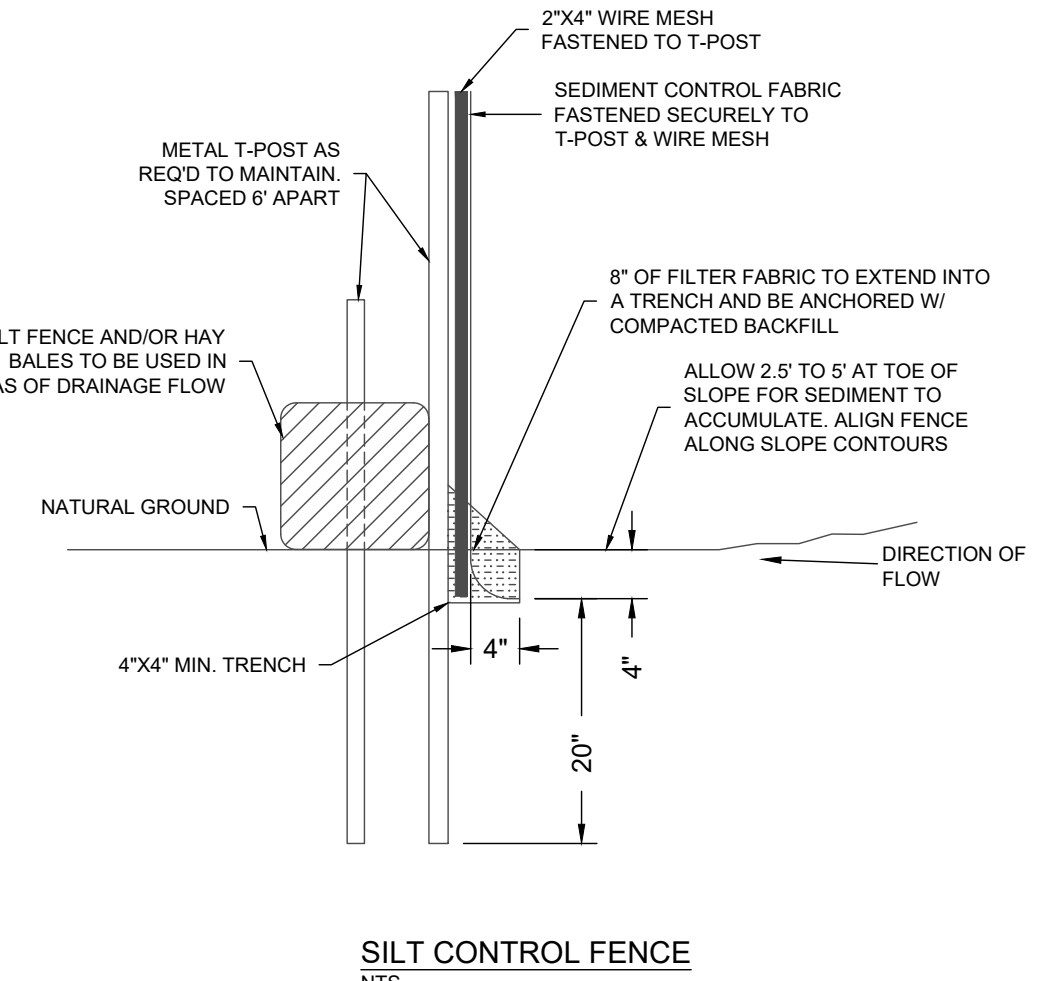
APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

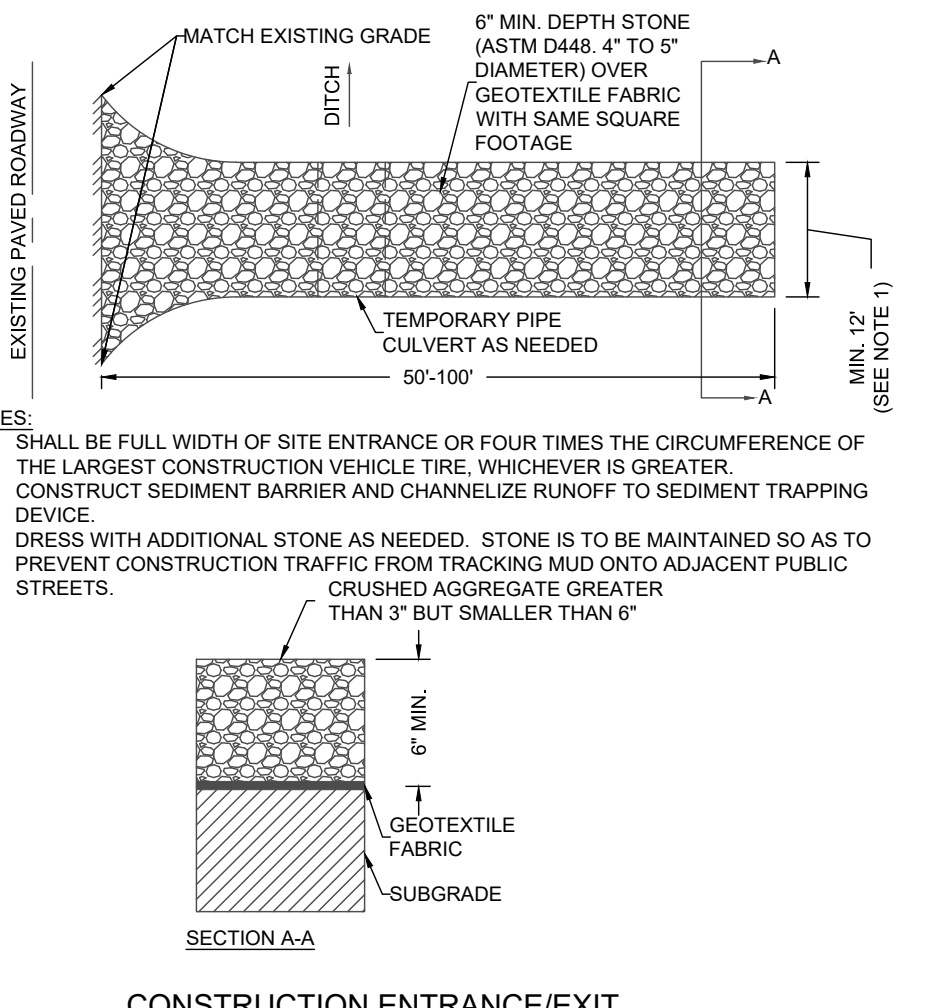
ESTABLISHMENT OF VEGETATION MAY BE A WARRANTY ITEM



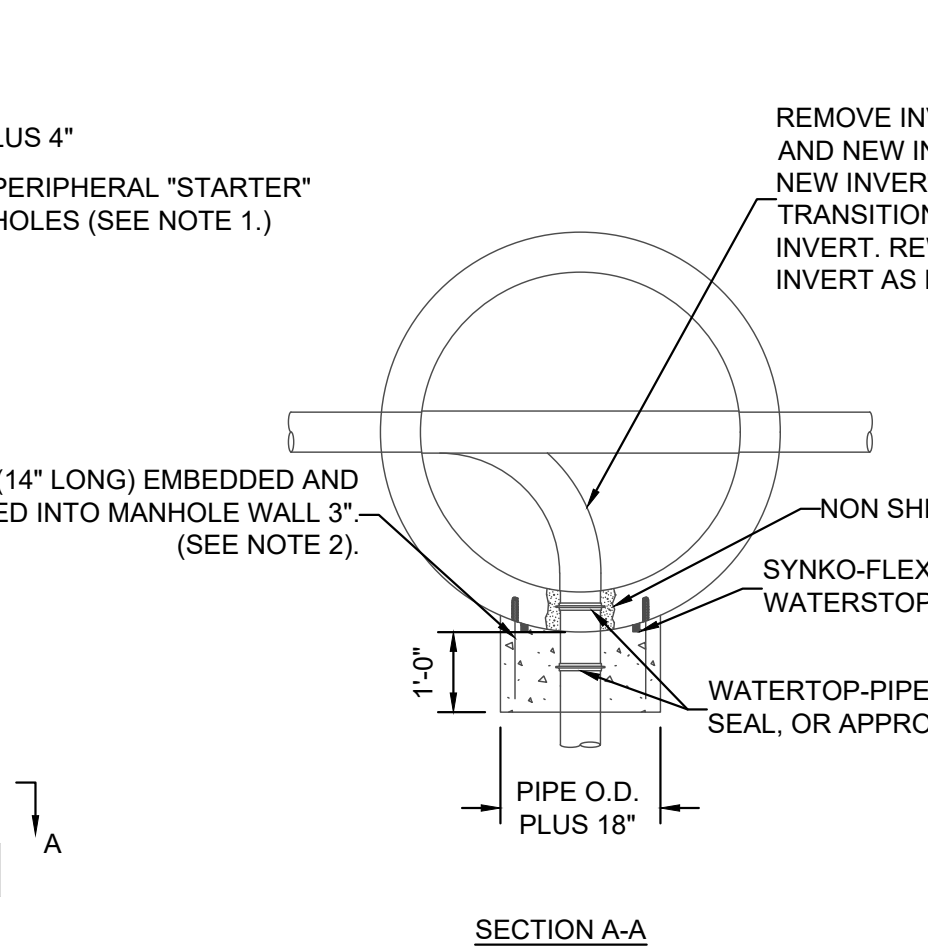
**VIEW A-A**



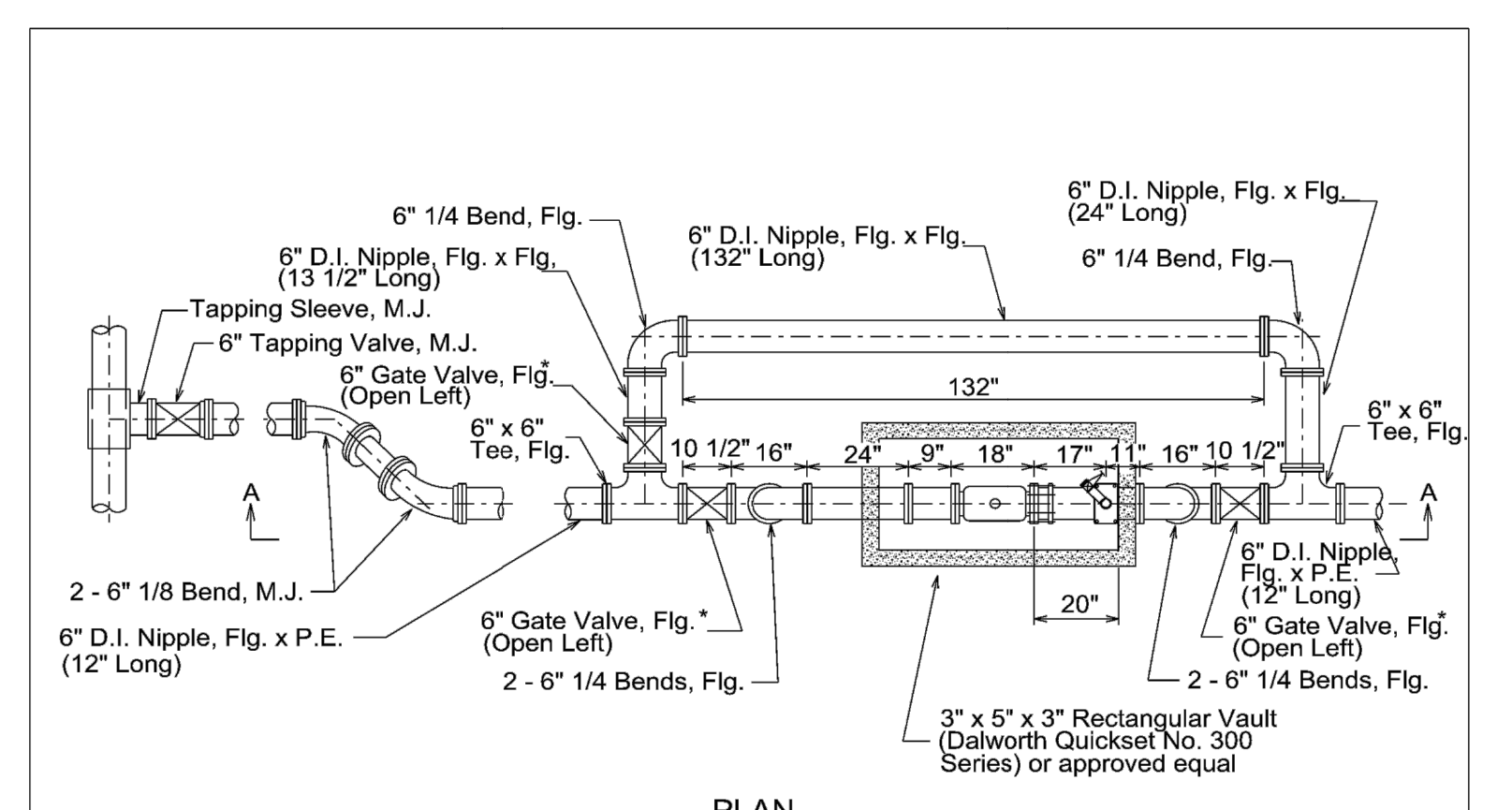
**SILT CONTROL FENCE NTS**



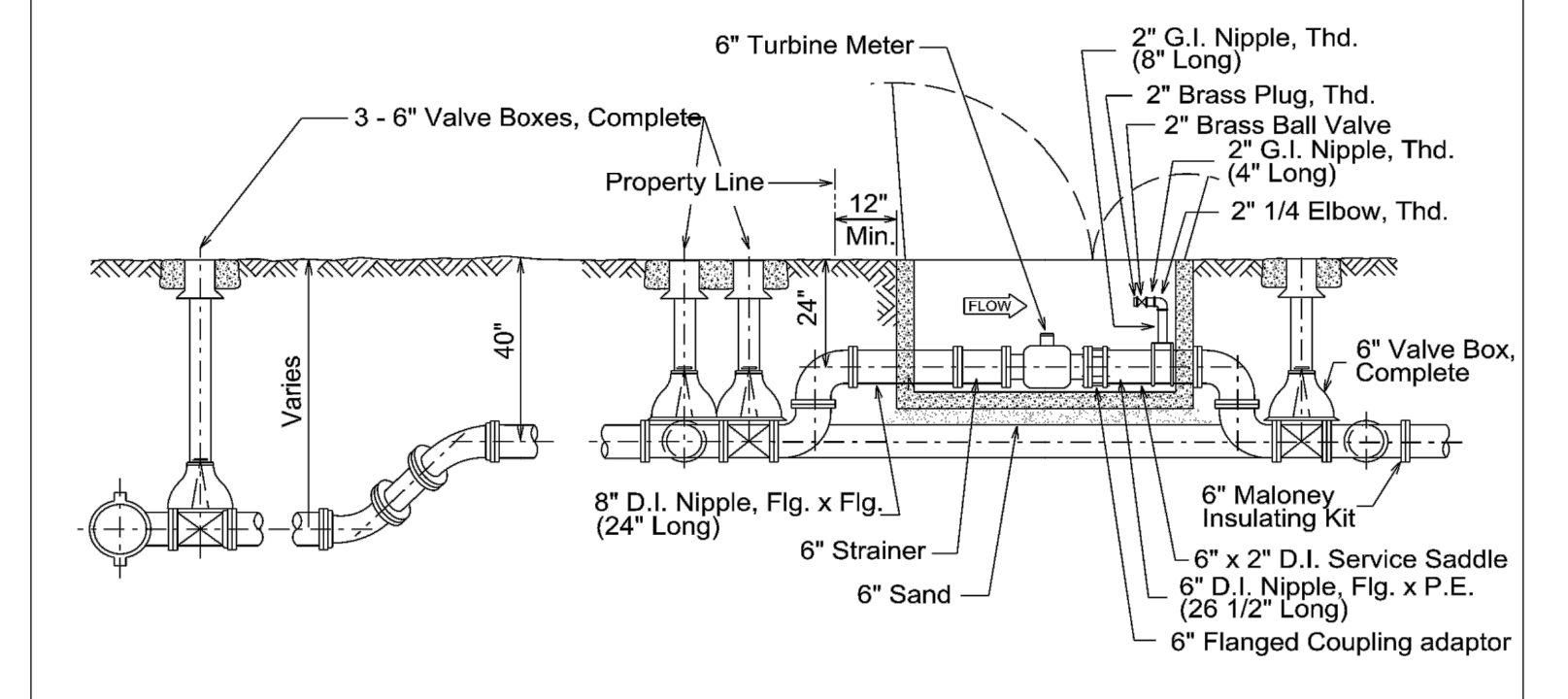
**CONSTRUCTION ENTRANCE/EXIT NTS**



**STANDARD MANHOLE TIE-IN NTS**

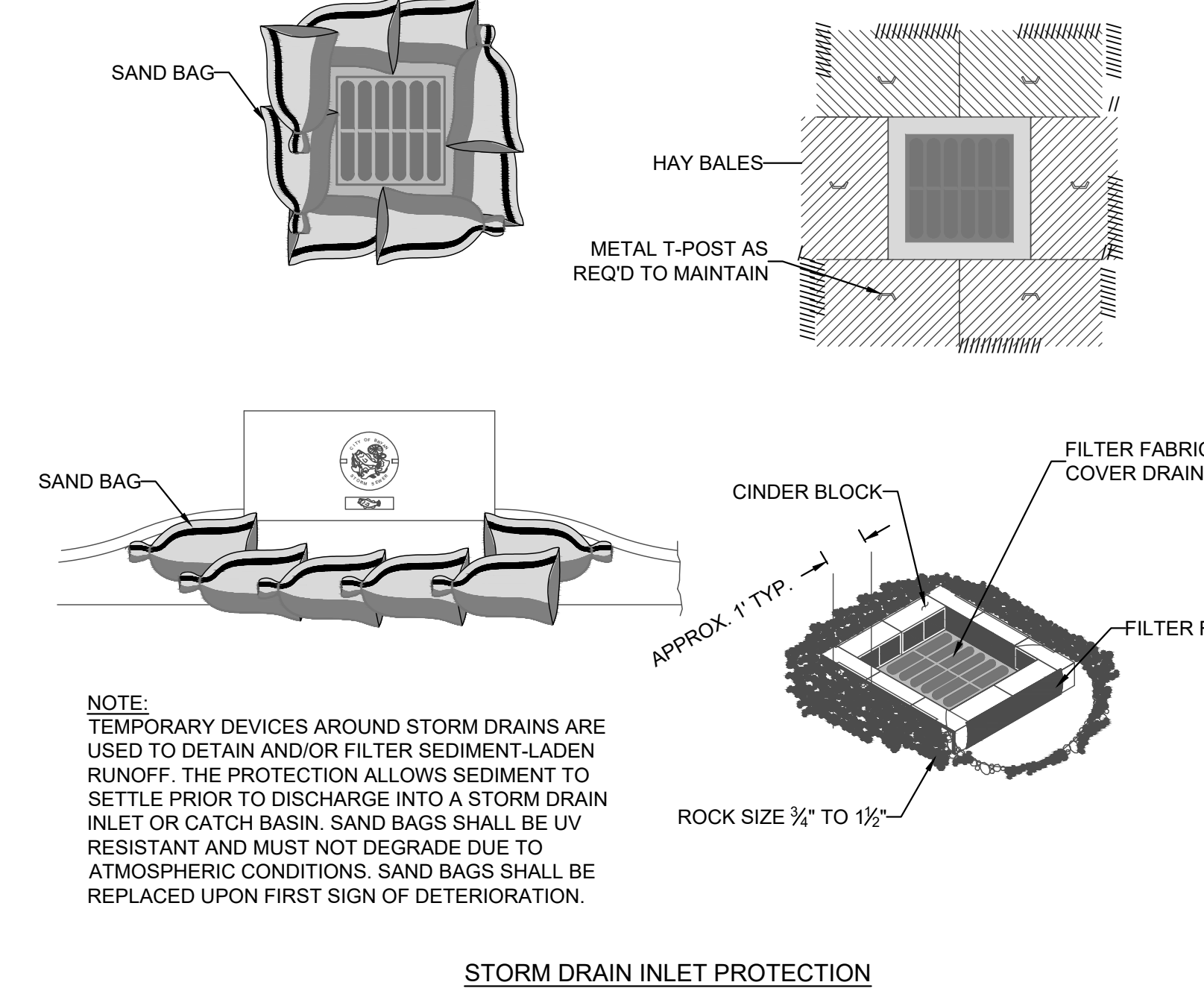


**PLAN**

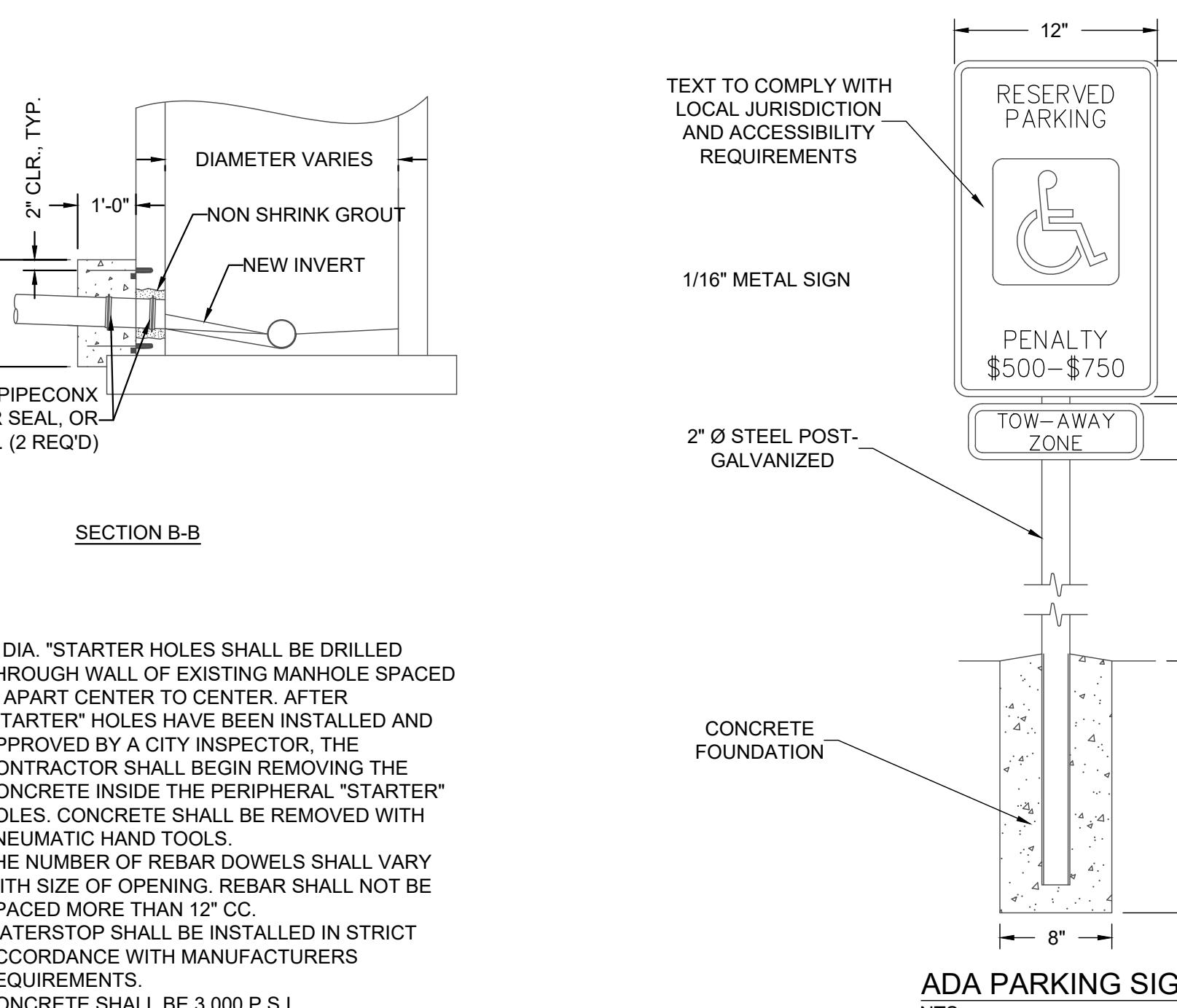


**SECTION A-A**

PROPERTY OF <b>SAN ANTONIO WATER SYSTEM</b> SAN ANTONIO, TEXAS	<b>6\" TURBINE METER INSTALLATION</b>	APPROVED March 2008	REVISED AUG 2019
		<b>DD-824-09</b>	
		SHEET <b>2 OF 2</b>	



**STORM DRAIN INLET PROTECTION NTS**



**ADA PARKING SIGN NTS**

- NOTE:**
- 1" DIA "STARTER HOLES SHALL BE DRILLED THROUGH WALL OF EXISTING MANHOLE SPACED 3" APART CENTER TO CENTER. AFTER "STARTER" HOLES HAVE BEEN INSTALLED AND APPROVED BY A CITY INSPECTOR, THE CONTRACTOR SHALL BEGIN REMOVING THE CONCRETE INSIDE THE PERIPHERAL "STARTER" HOLES. CONCRETE SHALL BE REMOVED WITH PNEUMATIC HAND TOOLS.
  - THE NUMBER OF REBAR DOWELS SHALL VARY WITH SIZE OF OPENING. REBAR SHALL NOT BE SPACED MORE THAN 12" OC.
  - WATERSTOP SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
  - CONCRETE SHALL BE 3,000 P.S.I.

TEXT TO COMPLY WITH LOCAL JURISDICTION AND ACCESSIBILITY REQUIREMENTS

1/16" METAL SIGN

2" Ø STEEL POST-GALVANIZED

CONCRETE FOUNDATION

80" MIN.

18"

8"

12"

20"

12"

8"

2"

1'-0"

2" CLR. TYP.

DIAMETER VARIES

NON SHRINK GROUT

NEW INVERT

WATERTOP-PIPECONX MANHOLE ADAPTER SEAL, OR APPROVED EQUAL. (2 REQ'D)

PIPE O.D. PLUS 18"

1'-0"

1'-0"

REMOVE INVERT AS REQUIRED AND NEW INVERT FOR NEW LINE. NEW INVERT SHALL HAVE SMOOTH TRANSITION INTO EXISTING INVERT. REWORK EXISTING INVERT AS REQUIRED.

NON SHRINK GROUT

SYNKO-FLEX PREFORMED PPLASTIC ADHESIVE WATERSTOP, OR APPROVED EQUAL. (SEE NOTE 3.)

WATERTOP-PIPECONX MANHOLE ADAPTER SEAL, OR APPROVED EQUAL. (2 REQ'D)

PIPE O.D. PLUS 4"

PERIPHERAL "STARTER" HOLES (SEE NOTE 1.)

CONCRETE BLOCK

#3 REBAR (14" LONG) EMBEDDED AND EPOXYED INTO MANHOLE WALL 3" (SEE NOTE 2.)

CONCRETE BLOCK

PIPE O.D. PLUS 4"

PERIPHERAL "STARTER" HOLES (SEE NOTE 1.)

CONCRETE BLOCK

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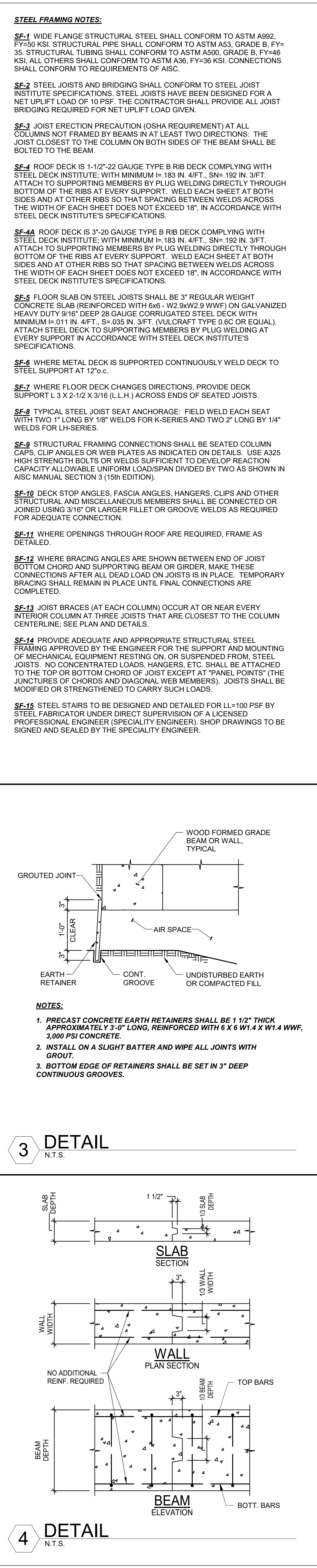
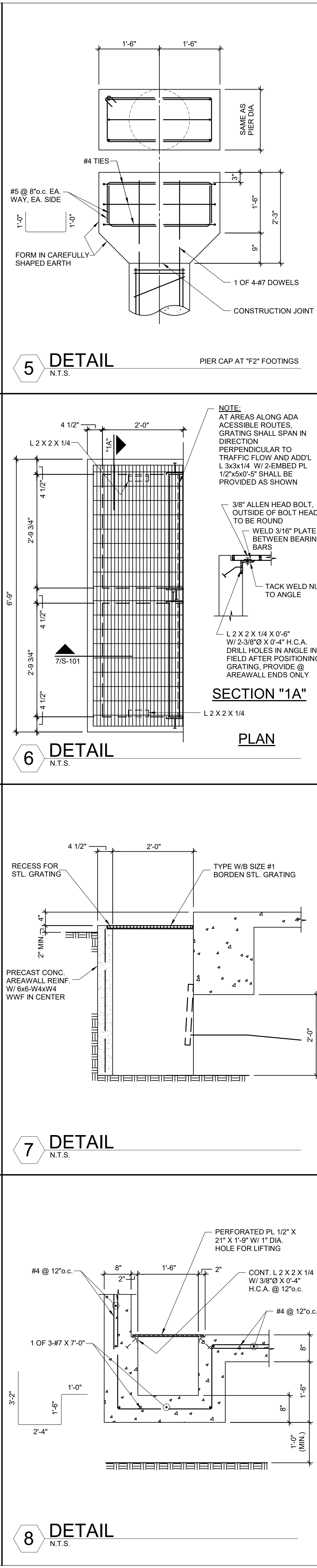
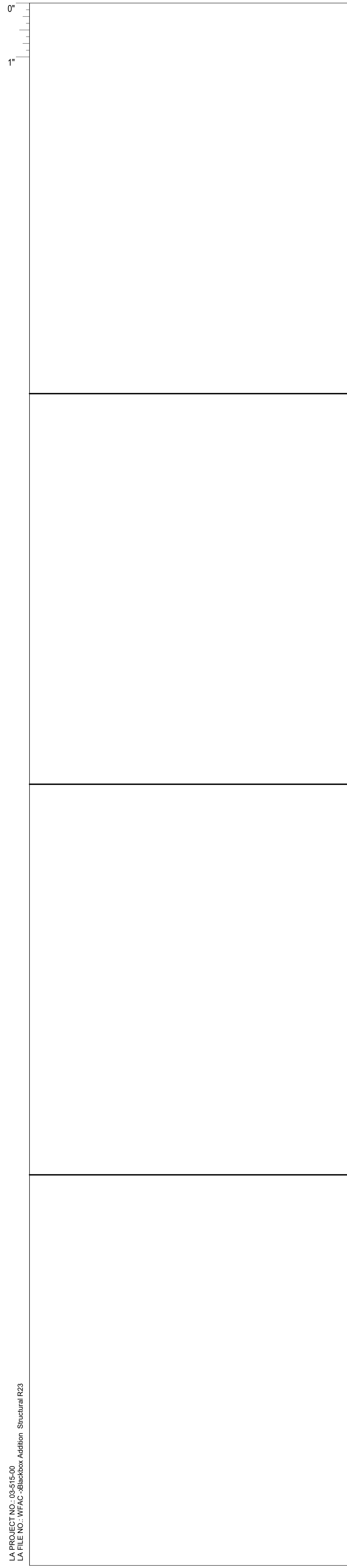
CONCRETE BLOCK

PIPE O.D. PLUS 4"

PERIPHERAL "STARTER" HOLES (SEE NOTE 1.)

CONCRETE BLOCK





**STEEL FRAMING NOTES:**

**SE-1** WIDE FLANGE STRUCTURAL STEEL SHALL CONFORM TO ASTM A992, F<sub>y</sub>=50 KSI. STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B, F<sub>y</sub>=35. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, F<sub>y</sub>=46 KSI. ALL OTHERS SHALL CONFORM TO ASTM A36, F<sub>y</sub>=36 KSI. CONNECTIONS SHALL CONFORM TO REQUIREMENTS OF AISC.

**SE-2** STEEL JOISTS AND BRIDGING SHALL CONFORM TO STEEL JOIST INSTITUTE SPECIFICATIONS. STEEL JOISTS HAVE BEEN DESIGNED FOR A NET UPLIFT LOAD OF 10 PSF. THE CONTRACTOR SHALL PROVIDE ALL JOIST BRIDGING REQUIRED FOR NET UPLIFT LOAD GIVEN.

**SE-3** JOIST ERECTION PRECAUTION (OSHA REQUIREMENT) AT ALL COLUMNS NOT FRAMED BY BEAMS IN AT LEAST TWO DIRECTIONS: THE JOIST CLOSEST TO THE COLUMN ON BOTH SIDES OF THE BEAM SHALL BE BOLTED TO THE BEAM.

**SE-4** ROOF DECK IS 1-1/2" 22 GAUGE TYPE B RIB DECK COMPLYING WITH STEEL DECK INSTITUTE, WITH MINIMUM I=183 IN. 4/FT., S<sub>N</sub>=192 IN. 3/FT. ATTACH TO SUPPORTING MEMBERS BY PLUG WELDING DIRECTLY THROUGH BOTTOM OF THE RIBS AT EVERY SUPPORT. WELD EACH SHEET AT BOTH SIDES AND AT OTHER RIBS SO THAT SPACING BETWEEN WELDS ACROSS THE WIDTH OF EACH SHEET DOES NOT EXCEED 16", IN ACCORDANCE WITH STEEL DECK INSTITUTE'S SPECIFICATIONS.

**SE-4A** ROOF DECK IS 3" 20 GAUGE TYPE B RIB DECK COMPLYING WITH STEEL DECK INSTITUTE, WITH MINIMUM I=183 IN. 4/FT., S<sub>N</sub>=192 IN. 3/FT. ATTACH TO SUPPORTING MEMBERS BY PLUG WELDING DIRECTLY THROUGH BOTTOM OF THE RIBS AT EVERY SUPPORT. WELD EACH SHEET AT BOTH SIDES AND AT OTHER RIBS SO THAT SPACING BETWEEN WELDS ACROSS THE WIDTH OF EACH SHEET DOES NOT EXCEED 16", IN ACCORDANCE WITH STEEL DECK INSTITUTE'S SPECIFICATIONS.

**SE-5** FLOOR SLAB ON STEEL JOISTS SHALL BE 3" REGULAR WEIGHT CONCRETE SLAB (REINFORCED WITH #6 - W2 @W2 (2 W/F)) ON GALVANIZED HEAVY DUTY 9/16" DEEP 28 GAUGE CORRUGATED STEEL DECK WITH MINIMUM I=111 IN. 4/FT., S<sub>N</sub>=103 IN. 3/FT. (VULCRAFT TYPE 06 OR EQUAL). ATTACH STEEL DECK TO SUPPORTING MEMBERS BY PLUG WELDING AT EVERY SUPPORT IN ACCORDANCE WITH STEEL DECK INSTITUTE'S SPECIFICATIONS.

**SE-6** WHERE METAL DECK IS SUPPORTED CONTINUOUSLY WELD DECK TO STEEL SUPPORT AT 12" o.c.

**SE-7** WHERE FLOOR DECK CHANGES DIRECTIONS, PROVIDE DECK SUPPORT L x X 2-1/2 X 3/16 (L.L.H.) ACROSS ENDS OF SEALED JOISTS.

**SE-8** TYPICAL STEEL JOIST SEAT ANCHORAGE: FIELD WELD EACH SEAT WITH TWO 1" LONG BY 1/8" WELDS FOR K-SERIES AND TWO 2" LONG BY 1/4" WELDS FOR LH-SERIES.

**SE-9** STRUCTURAL FRAMING CONNECTIONS SHALL BE SEATED COLUMN CAPS, CLIP ANGLES OR WEB PLATES AS INDICATED ON DETAILS. USE A325 HIGH STRENGTH BOLTS OR WELDS SUFFICIENT TO DEVELOP REACTION CAPACITY ALLOWABLE UNIFORM LOAD/SPAN DIVIDED BY TWO AS SHOWN IN AISC MANUAL SECTION 3 (15th EDITION).

**SE-10** DECK STOP ANGLES, FASCIA ANGLES, HANGERS, CLIPS AND OTHER STRUCTURAL AND MISCELLANEOUS MEMBERS SHALL BE CONNECTED OR JOINED USING 3/16" OR LARGER FILLET OR GROOVE WELDS AS REQUIRED FOR ADEQUATE CONNECTION.

**SE-11** WHERE OPENINGS THROUGH ROOF ARE REQUIRED, FRAME AS DETAILED.

**SE-12** WHERE BRACING ANGLES ARE SHOWN BETWEEN END OF JOIST BOTTOM CHORD AND SUPPORTING BEAM OR GIRDER, MAKE THESE CONNECTIONS AFTER ALL DEAD LOAD ON JOISTS IS IN PLACE. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL FINAL CONNECTIONS ARE COMPLETED.

**SE-13** JOIST BRACES (AT EACH COLUMN) OCCUR AT OR NEAR EVERY INTERIOR COLUMN AT THREE JOISTS THAT ARE CLOSEST TO THE COLUMN CENTERLINE. SEE PLAN AND DETAILS.

**SE-14** PROVIDE ADEQUATE AND APPROPRIATE STRUCTURAL STEEL FRAMING AND BRACING FOR THE APPLICABLE WELDING CODE. BEND TESTING OF MECHANICAL EQUIPMENT RESTING ON, OR SUSPENDED FROM, STEEL JOISTS, NOT CONCENTRATED LOADS, HANGERS, ETC. SHALL BE ATTACHED TO THE TOP OR BOTTOM CHORD OF JOIST EXCEPT AT "PANEL POINTS" (THE JUNCTURES OF CHORDS AND DIAGONAL WEB MEMBERS). JOISTS SHALL BE MODIFIED OR STRENGTHENED TO CARRY SUCH LOADS.

**SE-15** STEEL STAIRS TO BE DESIGNED AND DETAILED FOR LL=100 PSF BY STEEL FABRICATOR UNDER DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER (SPECIALTY ENGINEER). SHOP DRAWINGS TO BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER.

**CONCRETE NOTES:**

**CM-1** CONCRETE SHALL BE LABORATORY DESIGNED TO DEVELOP MINIMUM 28-DAY COMPRESSIVE STRENGTHS AS GIVEN BELOW. REFER TO SPECIFICATIONS FOR AGGREGATES, CEMENT, ADMIXTURES, ETC.

DRILLED PIERS & PIER CAPS ..... 4,000 PSI  
GRADE BEAMS, SLABS-ON-GRADE ..... 3,000 PSI  
BEAMS AND FLAT SLAB FLOOR SYSTEM ..... 4,000 PSI  
BEAM, GIRDER, AND JOIST FLOOR SYSTEM ..... 4,000 PSI  
SLABS ON METAL FORMS ..... 3,000 PSI  
COMPOSITE SLABS ON METAL FORMS ..... 4,000 PSI  
COLUMNS AND WALLS ..... SEE SCHEDULE  
PRECAST CONCRETE ..... 5,000 PSI

NOTE: FLY ASH WILL BE PERMITTED UP TO 20% PORTLAND CEMENT REPLACEMENT PFR TYPE I, II, III, IV, NO FLY ASH FOR TYPE II, REFER TO SPECIFICATIONS.

**CM-2** REINFORCING STEEL SHALL BE FROM NEW BILLET AND SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:

A615-GR 60 ..... FOOTING SPIRALS  
A185 ..... WELDED WIRE FABRIC  
A615-GR 60 ..... BEAM STIRRUPS, COLUMN TIES  
A615-GR 60 ..... ALL OTHER REINFORCING  
ASTM A106-GR 60 ..... HEADED CONCRETE ANCHORS  
ASTM A496 ..... DEFORMED BAR ANCHORS

**CM-3** DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL BE IN ACCORDANCE WITH LATEST ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315). BAR SUPPORTS SHALL HAVE PLASTIC COATED LEGS OR BE HOT DIPPED GALVANIZED AFTER FABRICATION.

**CM-4** PROVIDE BAR LAPS AND SPLICES PER REINFORCING BAR LAP SPLICE TABLE BELOW. USE "CORNER DETAILS" FOR CONTINUOUS BARS AT CORNERS. SPIRALS SHALL BE LAPPED 1-1/2 TURNS. WELDED WIRE MESH SHALL BE LAPPED 3" MINIMUM AT SPLICE POINTS, OR 1-1/2 MESHES, WHICHEVER IS GREATEST.

**CM-5** CONTRACTOR SHALL PROVIDE NECESSARY CONSTRUCTION JOINTS IN MONOLITHIC CONCRETE FORMING SO THAT NOT MORE THAN 400 CUBIC YARDS IS POURED IN ONE DAY. LOCATION OF CONSTRUCTION JOINTS MUST HAVE PRIOR APPROVAL OF STRUCTURAL ENGINEER OF RECORD AND SHALL GENERALLY BE LOCATED AT OR NEAR MID-POINTS OF SPANS OF SLAB, BEAMS AND WALLS. ALL CONTINUOUS REINFORCING SHALL BE CARRIED THROUGH THE JOINT. SEE DETAILS FOR CONTINUOUS KEY BETWEEN ADJACENT POURS.

**CM-6** SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR LOCATION AND SIZES OF ALL SLAB OPENINGS AND SLEEVES, INSERTS, ANCHORS AND BOLTS REQUIRED BY ABOVE.

**CM-7** REFER TO ARCHITECTURAL DRAWINGS FOR ALL FLOOR FINISHES, DIMENSIONS AND LOCATIONS OF SLAB DROPS AND DEPRESSIONS.

**CM-8** MECHANICAL AND ELECTRICAL CONDUITS IN SLABS SHALL RUN UNDER THE TOP LAYER OF SLAB REINFORCING OR WELDED WIRE FABRIC. PROVIDE A MINIMUM OF 1-1/2" CLEAR BETWEEN INDIVIDUAL CONDUITS, AND BETWEEN CONDUIT AND PARALLEL REINFORCING. DO NOT "BUNDLE" CONDUITS.

**CM-9** "HEADED CONCRETE ANCHORS" (HCA) SHALL BE OF 50,000 PSI STEEL ROD WITH UPSET ENDS, AUTOMATICALLY ARC WELDED THROUGH CERAMIC FERRULES, "NELSON CONCRETE ANCHORS" OR EQUAL.

MECHANICAL TESTING OF HCA IN SHOP  
MECHANICAL TESTS SHALL BE MADE BEFORE INITIATION OF PRODUCTION WELDING AND AFTER ANY EQUIPMENT MAINTENANCE TO ENSURE THAT THE WELDING SCHEDULE IS SATISFACTORY. THEY MAY ALSO BE MADE DURING THE PRODUCTION RUN OR AT THE BEGINNING OF A SHIFT TO ENSURE THAT WELDING CONDITIONS HAVE NOT CHANGED. ARC WELDED STUDS ARE TESTED BY BENDING THE STUD. BENDING MAY BE DONE BY STRIKING THE STUD WITH A HAMMER OR BY BENDING IT USING A TUBE OR PIPE. THE ANGLE THROUGH WHICH THE STUD WILL BEND WITHOUT WELD FAILURE WILL DEPEND ON THE STUD AND BASE METAL COMPOSITIONS, CONDITIONS (COLD WORKED, HEAT TREATED), AND STUD DESIGN. ACCEPTABLE BENDING SHOULD BE DETERMINED WHEN THE WELDING PROCEDURE SPECIFICATION IS ESTABLISHED OR FROM THE APPLICABLE WELDING CODE. BEND TESTING MAY DAMAGE THE STUD. THEREFORE, IT SHOULD BE DONE ON QUALIFICATION SAMPLES ONLY. THE METHOD USED TO APPLY TENSILE LOAD ON AN ARC WELDED STUD WILL DEPEND ON THE STUD DESIGN. SPECIAL TOOLING MAY BE REQUIRED TO GRIP THE STUD PROPERLY WITHOUT DAMAGE, AND A SPECIAL LOADING DEVICE MAY BE NEEDED.

MECHANICAL TESTING OF HCA IN FIELD  
MECHANICAL TESTS SHALL BE MADE IN THE FIELD BEFORE PLATES ARE INSTALLED IN CONCRETE. THE CONTRACTOR SHALL SUPPLY A MINIMUM OF ADDITIONAL PER 50 PLATES OF EACH TYPE OR ADDITIONAL STUDS SHALL BE PLACED ON SPECIAL CONFIGURATION PLATES AND MEMBERS. THESE STUDS SHALL BE TESTED IN THE FIELD. ARC WELDED STUDS ARE TESTED BY BENDING THE STUD. BENDING MAY BE DONE BY STRIKING THE STUD WITH A HAMMER OR BY BENDING IT USING A TUBE OR PIPE. THE ANGLE THROUGH WHICH THE STUD WILL BEND WITHOUT WELD FAILURE WILL DEPEND ON THE STUD AND BASE METAL COMPOSITIONS, CONDITIONS (COLD WORKED, HEAT TREATED), AND STUD DESIGN. BEND TESTING MAY DAMAGE, THUS THEY MAY NOT BE USED. THE STUD, THEREFORE, IT SHOULD BE DONE ON QUALIFICATION SAMPLES ONLY. THE METHOD USED TO APPLY TENSILE LOAD ON AN ARC WELDED STUD WILL DEPEND ON THE STUD DESIGN. PROPERLY WITHOUT DAMAGE, AND A SPECIAL LOADING DEVICE MAY BE NEEDED.

**CM-10** REFER TO SPECIFICATIONS FOR TESTING REQUIREMENTS. ALL TESTING SHALL BE AT POINT OF DISCHARGE. IF PUMP IS USED, TESTING SHALL BE AT THE END OF THE HOSE.

**GENERAL NOTES:**

**GN-1** THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (2021) AS AMENDED AND ADOPTED BY THE GOVERNING AUTHORITY, AND APPLICABLE INDUSTRY STANDARDS (AISC, ACI, ETC.).

**GN-2** THE DESIGN LOADS ARE:

FLOOR LIVE LOAD ..... 100 PSF  
OFFICES ..... 50 PSF  
MOVABLE PARTITIONS ..... 20 PSF  
MECHANICAL ROOMS ..... 150 PSF (NON REDUCIBLE)

ASSEMBLY AREAS:  
FIXED SEATS ..... 60 PSF  
LOBBIES ..... 100 PSF  
MOVABLE SEATS ..... 100 PSF  
STAGES & PLATFORMS ..... 125 PSF  
CATWALKS ..... 40 PSF

ROOF LIVE LOAD  
FLAT ROOF ..... 20 PSF  
PITCHED ROOF ..... 20 PSF

ROOF SNOW LOAD  
GROUND SNOW P<sub>s</sub> ..... 5 PSF  
SNOW EXPOSURE FACTOR C<sub>e</sub> ..... 1.0  
SNOW LOAD IMPORTANCE FACTOR I<sub>s</sub> ..... 1.1  
THERMAL FACTOR C<sub>t</sub> ..... 1.0

WIND LOAD  
BASIC WIND SPEED (ULTIMATE DESIGN) ..... 120  
BUILDING CATEGORY ..... III  
WIND EXPOSURE ..... C

EARTHQUAKE LOADS  
SITE CLASS ..... D  
SEISMIC RESPONSE ACCELERATION S<sub>s</sub> ..... 14%  
SPECTRAL RESPONSE ACCELERATION S<sub>1</sub> ..... 3%  
SPECTRAL RESPONSE COEF. S<sub>d</sub> ..... 14%  
SPECTRAL RESPONSE COEF. S<sub>2</sub> ..... 5%  
SEISMIC DESIGN CATEGORY ..... A

RETAINING WALLS  
GLOBAL STABILITY ANALYSIS FACTOR OF SAFETY ..... 1.5  
TYPE ..... CANTILEVER  
EQUVALENT FLUID PRESSURE ..... 50 PCF  
BACKFILL ..... DRAINED/ONSITE  
FOOTING BEARING ..... 1,500 PSF SURCHARGE

**GN-3** ALLOWABLE STRESS DESIGN LOAD COMBINATIONS (FOR ALL DESIGNS EXCEPT CONCRETE)

D  
D+L  
D+(L<sub>r</sub> or S or R)  
D+0.75L+0.75(L<sub>r</sub> or S or R)  
D+0.6W  
D+0.75L+0.75(0.6W)+0.75(L<sub>r</sub> or S or R)  
0.6D+0.6W  
D+0.7E

STRENGTH DESIGN LOAD COMBINATIONS (FOR CONCRETE DESIGN)

1.4D  
1.2D+1.6L+0.5(L<sub>r</sub> or S or R)  
1.2D+1.6(L<sub>r</sub> or S or R)+0.5W  
1.2D+1.0W+1.0(L<sub>r</sub> or S or R)  
0.9D+1.0W  
1.2D+1.0L+0.2S

**GN-4** PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR AND FABRICATOR SHALL VERIFY ALL QUANTITIES, DIMENSIONS AND CONDITIONS AND NOTIFY ARCHITECT/STRUCTURAL ENGINEER OF RECORD OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

**GN-5** PROVIDE PENETRATING BUILDING SHALL BE FLEXIBLE, USING SLEEVE JOINTS, BENDS, LOOPS, ETC. TO PERMIT MOVEMENTS DUE TO EXPANSIVE UNDERLYING SOILS.

**GN-6** PROVIDE ADEQUATE AND APPROPRIATE STRUCTURAL STEEL FRAMING FOR THE SUPPORT AND MOUNTING OF MECHANICAL EQUIPMENT RESTING ON, OR SUSPENDED FROM, STEEL SUPERSTRUCTURE.

**GN-7** THE STRUCTURAL DRAWINGS FOR THIS PROJECT ARE COPYRIGHTED AND SHALL NOT BE REPRODUCED FOR USE AS FABRICATOR'S ERECTION DRAWINGS. THE CONTRACTOR SHALL ALLOW ADEQUATE TIME AND EXPENSE FOR SUBCONTRACTORS TO PRODUCE THEIR OWN ORIGINAL REVISION AND PLACEMENT DRAWINGS.

**GN-8** THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE. ANY PROPOSED APPLICATION OF CONSTRUCTION LOADS OR OF ANY LOADS TO THE PARTIALLY COMPLETED STRUCTURE WHICH EXCEEDS THE DESIGN LOADS WILL REQUIRE REANALYSIS AND PROBABLE REDESIGN.

**GN-9** PROVIDE 1.0 TONS OF EXTRA REINFORCING STEEL. DETAILING, LABOR FOR PLACING AND FABRICATION AS DIRECTED IN THE FIELD AND SHOP.

**REINFORCING BAR LAP SPLICE TABLE (MASONRY)**

BAR SIZE	POSITION	CONCRETE f <sub>c</sub> (PSI) AND LAP CLASS	
		2500	3000
#3 thru #6	ALL	40db	40db
#7 thru #11	ALL	72db	72db

**REINFORCING BAR LAP SPLICE TABLE (BEAMS AND COLUMNS)**

BAR SIZE	POSITION	CONCRETE f <sub>c</sub> (PSI) AND LAP CLASS			
		3000	4000	5000	6000
#3 thru #6	ALL	74db	64db	58db	50db
#7 thru #11	ALL	93db	80db	72db	60db

**REINFORCING BAR LAP SPLICE TABLE (SLABS AND WALLS)**

BAR SIZE	POSITION	CONCRETE f <sub>c</sub> (PSI) AND LAP CLASS		
		3000	4000	5000
#3 thru #6	0.75" COVER 2.0" COVER	75db 46db	64db 40db	58db 40db
#7 thru #11	0.75" COVER 2.0" COVER	138db 74db	120db 65db	106db 56db

**REBAR LAP SPLICE TABLE NOTES:**

**RL-1** "db" DENOTES BAR DIAMETER.

**RL-2** ALL SPLICES SHALL BE CLASS B UNLESS OTHERWISE NOTED.

**RL-3** VALUES APPLY TO ALL BARS WITH MINIMUM CONCRETE COVER 1.0db AND MINIMUM CENTER TO CENTER SPACING OF 2.0db.

**RL-4** FOR LIGHTWEIGHT CONCRETE, MULTIPLY BY 1.3.

**RL-5** THE CHART ABOVE IS A SIMPLIFIED AND CONSERVATIVE METHOD FOR MEETING THE REQUIREMENTS OF ACI 12.2.2. THE CONTRACTOR MAY SUBMIT A DETAILED REBAR SPLICING PLAN IN ACCORDANCE WITH ACI 12.2.2 FOR APPROVAL.

**COLUMN SCHEDULE**

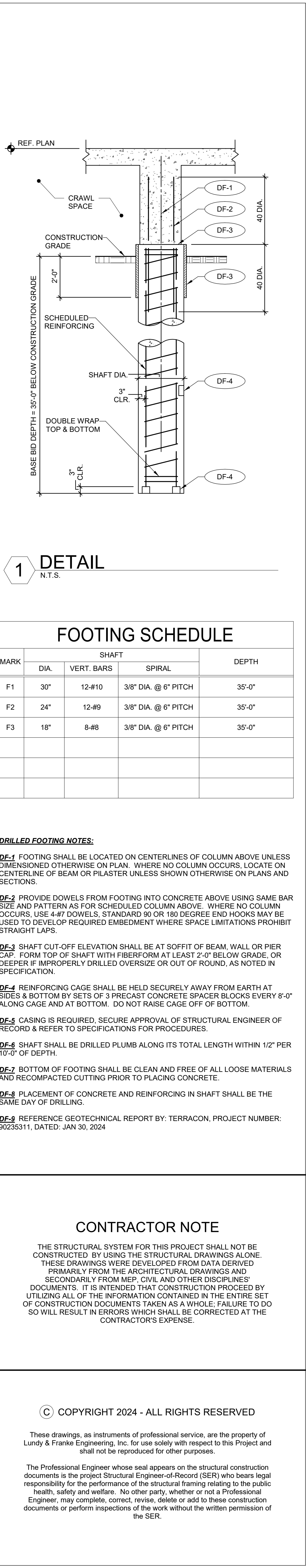
MARK	SECT.	TOP CONN.	BASE PLATE		REMARKS
			W x D x t	ANCHORS	
C1	HSS44x43B	9/8-101	8 x 8 x 1	4-3/4" DIA. X 1-4" HCA	2/S-101
C2	HSS66x65/16	9/8-101	10 x 10 x 1	4-3/4" DIA. X 1-4" HCA	2/S-101
C3	HSS86x83B	9/8-101	12 x 12 x 1	4-3/4" DIA. X 1-4" HCA	2/S-101
C4	8" STD PIPE	9/8-101	12 x 12 x 1	4-3/4" DIA. X 1-4" HCA	2/S-101
C5	12" STD PIPE	9/8-101	16 x 16 x 1	4-3/4" DIA. X 1-4" HCA	2/S-101
C6	HSS 63X11/4	-	-	-	STUB

**STEEL COLUMN NOTES:**

**1.** COLUMN MARKS AT ANY LEVEL INDICATE THE TYPE COLUMN WHICH IS BELOW THAT LEVEL.

**2.** PROVIDE 1" OF A 1/4" FILLET WELD TO EA. SIDE OF COLUMN PRIOR TO RELEASE OF COLUMN FROM ERECTION EQUIPMENT.

**DETAIL**



**PRK ARCHITECTS**

ARCHITECT: SAN ANTONIO PRK Architects, Inc.  
601 N.W. Loop 410, Suite 400  
San Antonio, TX 78216  
210-820-0123 P  
210-829-5578 F  
TX Firm BR 1608

ARCHITECT: LUNDY & FRANKE ENGINEERING  
568 HEIMER ROAD  
SAN ANTONIO, TEXAS 78232  
PH: (210) 979-7900  
TX FIRM REG. #3388

ARCHITECT: ALAMO COLLEGES  
ST. PHILLIP'S COLLEGE

KEY PLAN

DATE: 06/15/2024  
SHAWN J. FRANKE  
LICENSED PROFESSIONAL ENGINEER  
82639  
Shawn Franke

CLIENT: Alamo Colleges  
DATE: 2024/05/23  
PROJECT NUMBER: 230462

DRAWING HISTORY

No.	Description	Date

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER: AB

NOTES, SECTIONS & DETAILS

S-101



DEFERRED SUBMITTALS			
BUILDING CONSTRUCTION	YES	NO	DESCRIPTION
STEEL		X	-
CONCRETE		X	-
WOOD		X	-

DEFERRED SUBMITTALS			
BUILDING CONSTRUCTION	YES	NO	DESCRIPTION
STEEL		X	-
CONCRETE		X	-
WOOD		X	-

DEFERRED SUBMITTALS			
BUILDING CONSTRUCTION	YES	NO	DESCRIPTION
STEEL		X	-
CONCRETE		X	-
WOOD		X	-

6. MASONRY CONSTRUCTION			
EMPIRICALLY DESIGNED MASONRY, GLASS UNIT MASONRY, AND MASONRY VENEER IN NON-ESSENTIAL FACILITIES.	SPECIAL INSPECTIONS NOT REQUIRED PER 1704.5.1	IBC 1705.4	
<b>LEVEL 1 INSPECTION:</b>	ENGINEERED MASONRY IN NON-ESSENTIAL FACILITIES AND EMPERICALLY DESIGNED MASONRY IN ESSENTIAL FACILITIES.	IBC 1705.4	QUALIFICATIONS BASED ON ASTM C1093
<b>A. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:</b>	<ul style="list-style-type: none"> <li>1. PROPORTIONS OF SITE-PREPARED MORTAR.</li> <li>2. CONSTRUCTION OF MORTAR JOINTS.</li> <li>3. LOCATION OF REINFORCEMENT AND CONNECTORS.</li> <li>4. PRESTRESSING TECHNIQUE</li> <li>5. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.</li> </ul>		
<b>B. THE INSPECTION PROGRAM SHALL VERIFY:</b>	<ul style="list-style-type: none"> <li>1. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.</li> <li>2. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.</li> <li>3. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT.</li> <li>4. WELDING OF REINFORCING BARS.</li> <li>5. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40 DEGREES F) OR HOT WEATHER (TEMPERATURE ABOVE 90 DEGREES F).</li> <li>6. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.</li> </ul>		
<b>C. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:</b>	<ul style="list-style-type: none"> <li>1. GROUT SPACE IS CLEAN.</li> <li>2. PLACEMENT OF REINFORCEMENT AND CONNECTORS AND PRESTRESSING TENDONS AND ANCHORAGES.</li> <li>3. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.</li> <li>4. CONSTRUCTION OF MORTAR JOINTS.</li> </ul>		
<b>D. GROUT PLACEMENT</b>	<ul style="list-style-type: none"> <li>1. VERIFY COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENTS PROVISIONS.</li> <li>2. GROUTING OF PRESTRESSING BONDED TENDONS.</li> </ul>		QUALIFICATIONS BASED ON C1093
<b>E. PREPARATION OF ANY AT THE COVERED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.</b>	<ul style="list-style-type: none"> <li>1. VERIFY COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENTS PROVISIONS.</li> </ul>		QUALIFICATIONS BASED ON C1093
<b>F. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.</b>	<ul style="list-style-type: none"> <li>1. VERIFY COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENTS PROVISIONS.</li> </ul>		QUALIFICATIONS BASED ON C1093
<b>G. TESTING OF GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS.</b>	<ul style="list-style-type: none"> <li>1. TEST ONE SET OF MORTAR CUBES PER 2000 sq OR PORTION THEREOF.</li> <li>2. TEST ONE SET OF GROUT CYLINDERS PER 2000 sq OR PORTION THEREOF.</li> <li>3. TEST ONE PRISM PER 6000 sq OR PORTION THEREOF. (SUBMITTED PRISM WILL BE ACCEPTABLE FOR FIRST PRISM TEST).</li> </ul>	IBC 1704.5.1, IBC 1704.5.2	QUALIFICATIONS BASED ON ASTM C1093
<b>LEVEL 1 INSPECTION CONT.:</b>	ENGINEERED MASONRY IN NON-ESSENTIAL FACILITIES AND EMPERICALLY DESIGNED MASONRY IN ESSENTIAL FACILITIES.	IBC 1704.5.1, IBC 1704.5.2	QUALIFICATIONS BASED ON ASTM C1093
<b>H. POST INSTALLED REINFORCING &amp; ANCHORS (EXPANSION ANCHORS, SCREW ANCHORS ADHESIVE ANCHORS, ECT.).</b>	THE SPECIAL INSPECTOR SHALL BE ON THE JOB SITE CONTINUOUSLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, MASONRY TYPE AND COMPRESSION STRENGTH, PRE-DRILLED HOLE DIMENSIONS ANCHOR SPACING, EDGE DISTANCES, MASONRY THICKNESS AND ANCHOR EMBEDMENT.	ACI 318 APPENDIX D-CH. D.9.1	QUALIFICATIONS BASED ON ASTM E829 & ASTM C1077 OR CERTIFIED MANUFACTURER REPRESENTATIVE

3. CONCRETE CONSTRUCTION CONT.			
<b>G. PLACEMENT OF CONCRETE &amp; SHOTCRETE.</b>	CONTINUOUS	ACI 318-CH. 5.9, 5.10	QUALIFICATIONS BASED ON ASTM C1077
<b>H. MAINTENANCE OF SPECIFIED CURING TEMPERATURE &amp; TECHNIQUES.</b>	PERIODIC	EACH CONCRETE POUR	ACI 318-CH. 5.11, 5.13
<b>I. PRESTRESSED CONCRETE.</b>	NA	1. APPLICATION OF PRESTRESSING FORCE	2. GROUTING OF BONDED PRESTRESSING TENDONS IN SEISMIC-FORCE RESISTING SYSTEMS.
<b>J. ERECTION OF PRECAST CONCRETE MEMBERS.</b>	NA	1. VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS.	
<b>K. POST-TENSIONED CONCRETE.</b>	NA	1. VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS.	
<b>L. REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.</b>	PERIODIC	VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL.	ACI 318-CH. 5.11, 5.13
<b>M. POST INSTALLED REINFORCING &amp; ANCHORS (EXPANSION ANCHORS, SCREW ANCHORS ADHESIVE ANCHORS, ECT.).</b>	CONTINUOUS	THE SPECIAL INSPECTOR SHALL BE ON THE JOB SITE CONTINUOUSLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE AND COMPRESSION STRENGTH, PRE-DRILLED HOLE DIMENSIONS ANCHOR SPACING, EDGE DISTANCES, CONCRETE THICKNESS AND ANCHOR EMBEDMENT.	ACI 318 APPENDIX D-CH. D.9.1
<b>4. STEEL CONSTRUCTION</b>			IBC 1705.2
<b>A. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS.</b>	NA	1. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	STRUCTURAL STEEL GENERAL NOTES
<b>2. MANUFACTURERS CERTIFICATE OF COMPLIANCE REQUIRED.</b>	NA	2. MANUFACTURERS CERTIFICATE OF COMPLIANCE REQUIRED.	APPLICABLE ASTM MATERIAL SPECIFICATIONS: AISC 336, SECTION A3.4; AISC LRFD, SECTION A3.3
<b>4. STEEL CONSTRUCTION CONT.:</b>			IBC 1704.3
<b>B. HIGH STRENGTH BOLTING:</b>	NA	1. BEARING-TYPE CONNECTIONS.	IBC 1705.2 STRUCTURAL STEEL GENERAL NOTES
<b>2. SLIP-CRITICAL CONNECTIONS.</b>	NA	2. SLIP-CRITICAL CONNECTIONS.	AWSD, SECTION A3.6; AISC LRFD, SECTION A3.5
<b>C. MATERIAL VERIFICATION OF STRUCTURAL STEEL.</b>	NA	1. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	IBC 1705.2 STRUCTURAL STEEL GENERAL NOTES
<b>2. MANUFACTURERS CERTIFIED MILL TEST REPORTS.</b>	NA	2. MANUFACTURERS CERTIFIED MILL TEST REPORTS.	ASTM A 6 OR ASTM A 588
<b>D. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:</b>	NA	1. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	STRUCTURAL STEEL GENERAL NOTES
<b>2. MANUFACTURERS CERTIFIED OF COMPLIANCE REQUIRED.</b>	NA	2. MANUFACTURERS CERTIFIED OF COMPLIANCE REQUIRED.	AWSD, SECTION A3.6; AISC LRFD, SECTION A3.5
<b>E. WELDING OF STRUCTURAL STEEL:</b>	NA	1. COMPLETE & PARTIAL PENETRATION GROOVE WELDS.	IBC 1705.2.1 STRUCTURAL STEEL GENERAL NOTES
<b>2. MULTIPASS FILLET WELDS.</b>	NA	2. MULTIPASS FILLET WELDS.	AWSD D.1
<b>3. SINGLE-PASS FILLET WELDS &gt; 5/16"</b>	NA	3. SINGLE-PASS FILLET WELDS > 5/16"	CWI AND ASNT OR LICENSED ENGINEER
<b>4. SINGLE-PASS FILLET WELDS &lt; 5/16"</b>	NA	4. SINGLE-PASS FILLET WELDS < 5/16"	
<b>5. FLOOR AND DECK WELDS.</b>	NA	5. FLOOR AND DECK WELDS.	AWSD D.13
<b>F. WELDING OF REINFORCING STEEL:</b>	NA	1. VERIFICATION OF WELD ABILITY OF REINFORCING STEEL OTHER THAN TIA.	IBC 1705.2.2.1 STEEL
<b>2. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.</b>	NA	2. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.	CWASSOCIATE/TECHNICAL TRAINED IN FIELD OF WORK AND HAS AT LEAST ONE YEAR OF EXPERIENCE.
<b>3. SHEAR REINFORCEMENT.</b>	NA	3. SHEAR REINFORCEMENT.	
<b>4. OTHER REINFORCING STEEL.</b>	NA	4. OTHER REINFORCING STEEL.	
<b>G. STEEL FRAME JOINT DETAILS: COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS:</b>	NA	1. DETAILS SUCH AS BRACING & STIFFENING.	IBC 1705.2.1 STRUCTURAL DRAWINGS
<b>2. MEMBER LOCATIONS.</b>	NA	2. MEMBER LOCATIONS.	
<b>3. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.</b>	NA	3. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	
<b>H. POST INSTALLED REINFORCING &amp; ANCHORS (EXPANSION ANCHORS, SCREW ANCHORS ADHESIVE ANCHORS, ECT.).</b>	NA	THE SPECIAL INSPECTOR SHALL BE ON THE JOB SITE CONTINUOUSLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE OR MASONRY TYPE AND COMPRESSION STRENGTH, PRE-DRILLED HOLE DIMENSIONS, ANCHOR SPACING, EDGE DISTANCES, CONCRETE OR MASONRY THICKNESS AND ANCHOR EMBEDMENT.	ACI 318 APPENDIX D-CH. D.9.1
<b>5. INSPECTION OF FABRICATORS FOR STRUCTURAL STEEL</b>			IBC 1705.2.1
<b>FABRICATION &amp; IMPLEMENTATION PROCEDURES</b>	NA	FABRICATION AND IMPLEMENTATION PROCEDURES. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL RECORDS OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK. <b>EXCEPTION:</b> SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR THAT IS ENROLLED IN A NATIONALLY ACCEPTED INSPECTIONS PROGRAM ACCEPTABLE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO BUILDING OFFICIAL. UPON REQUEST AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.	IBC 1705.2.1

Pursuant to IBC Chapter 17 (1704.2.1) provide the following Special Inspector Qualifications to the RDP/RC prior to start of inspections;

- Testing Laboratory Qualifications meeting ASTM0329 and accreditation by AASHTO and/or A2LA, and CCRL of the National Bureau of Standards.
- Special Inspector's name and proof of meeting the qualification requirements set forth in:
  - ASTM C1077 for concrete,
  - ASTM D3740 for soils,
  - ASTM C1093 for masonry.
  - ASTM D-2922 and D-3017 for Density control of compaction

IBC 1704.2.1 "written documentation demonstrating the competence and relevant experience or training of special inspectors who will perform special inspections and tests during construction. Experience or training shall be considered relevant where the documented experience or training is related in complexity to the same type of special inspection or testing activities for projects of similar complexity and material qualities." These qualifications are in addition to qualifications specified in other sections of the IBC.

TESTING & INSPECTION REQUIREMENTS (INCLUDING SPECIAL INSPECTIONS)

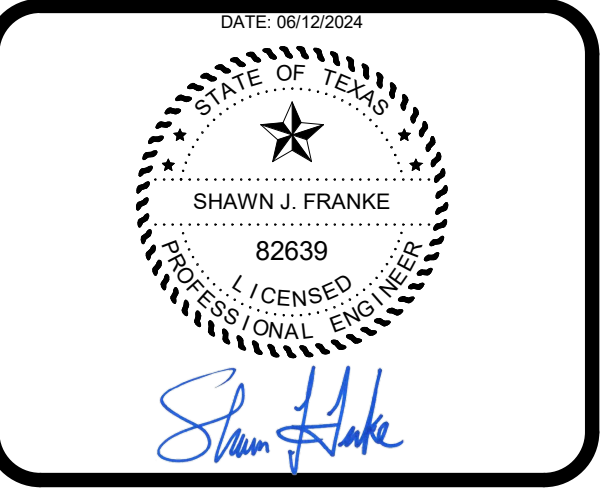
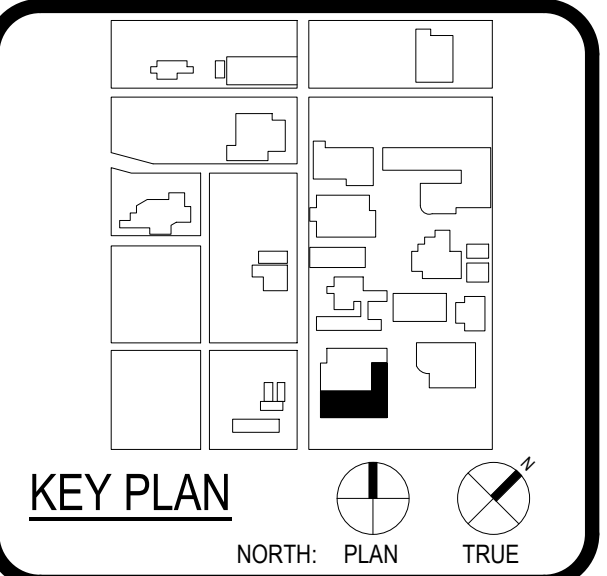
REQUIRED INSPECTION VERIFICATION, OR TEST	VERIFICATION MONITORING FREQUENCY	TYPE AND/OR FREQUENCY OF TESTING	IBC SECTION & REFERENCE CODES	INSPECTOR QUALIFICATIONS
<b>1. SOILS (SLAB ON GRADE)</b>				
<b>A. SUB-GRADE:</b>	PERIODIC	1. VISUAL OBSERVATION	SITE PREPARATION: AT THE CONTRACTOR'S EXPENSE, INSTRUMENT READINGS SHALL BE TAKEN BY A LICENSED SURVEYOR TO VERIFY FINAL SUBGRADE ELEVATIONS AND SLOPES.	QUALIFICATIONS BASED ON ASTM D3740 LICENSED SURVEYOR
<b>2. PROFFROLLING OBSERVATIONS</b>	CONTINUOUS	PROFFROLLING SHALL BE MONITORED BY A GEOTECHNICAL ENGINEER SHALL BE APPROVE THE TYPE OF PROFFROLLING EQUIPMENT AND PROCEDURES.	PROFFROLLING SHALL BE MONITORED BY A GEOTECHNICAL ENGINEER SHALL BE APPROVE THE TYPE OF PROFFROLLING EQUIPMENT AND PROCEDURES.	GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES
<b>3. MOISTURE CONDITIONING &amp; CURE</b>	PERIODIC	PROVIDE (1) ON DENSITY TEST FOR EACH 3000 SQ. FT. REFER TO UNDERFLOOR FILL NOTES FOR TESTING SPECIFICATIONS.	PROVIDE (1) ON DENSITY TEST FOR EACH 3000 SQ. FT. REFER TO UNDERFLOOR FILL NOTES FOR TESTING SPECIFICATIONS.	GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES
<b>B. CHEMICAL INJECTION</b>	NA	QUALITY CONTROLLED TESTING AND EVALUATION PRIOR AND SUBSEQUENT TO INJECTION SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER TO DETERMINE THE EFFECTIVENESS OF THE CHEMICAL INJECTION PROCESS. THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE SHALL MONITOR THE INJECTION PROCESS TO VERIFY AREA COVERAGE, INJECTION DEPTH AND TO REVIEW AND MONITOR THE SWELL TEST RESULTS.	QUALITY CONTROLLED TESTING AND EVALUATION PRIOR AND SUBSEQUENT TO INJECTION SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER TO DETERMINE THE EFFECTIVENESS OF THE CHEMICAL INJECTION PROCESS. THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE SHALL MONITOR THE INJECTION PROCESS TO VERIFY AREA COVERAGE, INJECTION DEPTH AND TO REVIEW AND MONITOR THE SWELL TEST RESULTS.	GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES
<b>C. DURING FILL PLACEMENT</b>	PERIODIC	VISUAL OBSERVATIONS: DURING PLACEMENT AND COMPACTION OF FILL, SPECIAL INSPECTOR SHALL DETERMINE THE MATERIAL BEING USED AND THE MAXIMAL LIFT THICKNESS COMPLY WITH ADDITIONAL SAMPLES TESTED EACH DAY, OR MORE OFTEN IF MATERIAL APPEARS TO VARY.	VISUAL OBSERVATIONS: DURING PLACEMENT AND COMPACTION OF FILL, SPECIAL INSPECTOR SHALL DETERMINE THE MATERIAL BEING USED AND THE MAXIMAL LIFT THICKNESS COMPLY WITH ADDITIONAL SAMPLES TESTED EACH DAY, OR MORE OFTEN IF MATERIAL APPEARS TO VARY.	IBC 1705.6 GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES
<b>D. EVALUATION OF IN-PLACE DENSITY OF FILL</b>	PERIODIC	PROVIDE (1) ON DENSITY TEST FOR EACH 3000 SQ. FT. REFER TO UNDERFLOOR FILL NOTES FOR TESTING SPECIFICATIONS.	PROVIDE (1) ON DENSITY TEST FOR EACH 3000 SQ. FT. REFER TO UNDERFLOOR FILL NOTES FOR TESTING SPECIFICATIONS.	IBC 1705.6 GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES
<b>E. TRENCH BACKFILLING:</b>	PERIODIC	TRENCH BACKFILLING: TRENCH BACKFILLING WITH CLAY CAP AND PLACING OF CLAY PLUG SHALL BE MONITORED BY GEOTECHNICAL ENGINEER.	TRENCH BACKFILLING: TRENCH BACKFILLING WITH CLAY CAP AND PLACING OF CLAY PLUG SHALL BE MONITORED BY GEOTECHNICAL ENGINEER.	IBC 1705.6 GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES
<b>2A. PILE FOUNDATIONS</b>				
<b>A. THE GEOTECHNICAL ENGINEER OR A QUALIFIED E.I.T. INVOLVED IN THE ORIGINAL GEOTECHNICAL INVESTIGATION AND UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING THE EXCAVATION OF THE FIRST PILE.</b>	NA	1. VERIFY THE BEARING STRATH IS ENCOUNTERED AT THE ANTICIPATED DEPTH.	1. VERIFY THE BEARING STRATH IS ENCOUNTERED AT THE ANTICIPATED DEPTH.	IBC 1705.7 GEOTECHNICAL REPORT;
<b>2. ADDRESS UNFORESEEN SUBSURFACE CONDITIONS, IF ANY.</b>	NA	2. ADDRESS UNFORESEEN SUBSURFACE CONDITIONS, IF ANY.	2. ADDRESS UNFORESEEN SUBSURFACE CONDITIONS, IF ANY.	
<b>3. VERIFY CONFORMANCE WITH THE FOUNDATION RECOMMENDATIONS PROVIDED IN THE PROJECT "GEOTECHNICAL ENGINEERING STUDY" AND THE STRUCTURAL DRAWINGS ISSUED FOR THE PROJECT.</b>	NA	3. VERIFY CONFORMANCE WITH THE FOUNDATION RECOMMENDATIONS PROVIDED IN THE PROJECT "GEOTECHNICAL ENGINEERING STUDY" AND THE STRUCTURAL DRAWINGS ISSUED FOR THE PROJECT.	3. VERIFY CONFORMANCE WITH THE FOUNDATION RECOMMENDATIONS PROVIDED IN THE PROJECT "GEOTECHNICAL ENGINEERING STUDY" AND THE STRUCTURAL DRAWINGS ISSUED FOR THE PROJECT.	GRADUATE ENGINEER
<b>B. ALL FOOTINGS SHALL BE OBSERVED AND MONITORED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF STRUCTURAL DRAWINGS THAT ARE TO REMAIN WITH THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.</b>	NA	1. PROVIDE RECORD OF EACH PILE INSTALLED.	1. PROVIDE RECORD OF EACH PILE INSTALLED.	IBC 1705.7 GEOTECHNICAL REPORT;
<b>2. RECORD LOAD TESTS, CUTOFF AND TIP OF EACH PILE.</b>	NA	2. RECORD LOAD TESTS, CUTOFF AND TIP OF EACH PILE.	2. RECORD LOAD TESTS, CUTOFF AND TIP OF EACH PILE.	QUALIFICATIONS BASED ON ASTM E829 & ASTM C1077
<b>2B. PIER FOUNDATIONS</b>				
<b>A. THE GEOTECHNICAL ENGINEER OR A QUALIFIED E.I.T. INVOLVED IN THE ORIGINAL GEOTECHNICAL INVESTIGATION AND UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING THE EXCAVATION OF THE FIRST PIER SHAFT.</b>	CONTINUOUS	1. VERIFY THE BEARING STRATH IS ENCOUNTERED AT THE ANTICIPATED DEPTH.	1. VERIFY THE BEARING STRATH IS ENCOUNTERED AT THE ANTICIPATED DEPTH.	IBC 1705.8 GEOTECHNICAL REPORT;
<b>2. ADDRESS UNFORESEEN SUBSURFACE CONDITIONS, IF ANY.</b>	CONTINUOUS	2. ADDRESS UNFORESEEN SUBSURFACE CONDITIONS, IF ANY.	2. ADDRESS UNFORESEEN SUBSURFACE CONDITIONS, IF ANY.	
<b>3. VERIFY CONFORMANCE WITH THE FOUNDATION RECOMMENDATIONS PROVIDED IN THE PROJECT "GEOTECHNICAL ENGINEERING STUDY" AND THE STRUCTURAL DRAWINGS ISSUED FOR THE PROJECT.</b>	CONTINUOUS	3. VERIFY CONFORMANCE WITH THE FOUNDATION RECOMMENDATIONS PROVIDED IN THE PROJECT "GEOTECHNICAL ENGINEERING STUDY" AND THE STRUCTURAL DRAWINGS ISSUED FOR THE PROJECT.	3. VERIFY CONFORMANCE WITH THE FOUNDATION RECOMMENDATIONS PROVIDED IN THE PROJECT "GEOTECHNICAL ENGINEERING STUDY" AND THE STRUCTURAL DRAWINGS ISSUED FOR THE PROJECT.	QUALIFICATIONS BASED ON ASTM E829 & ASTM C1077
<b>B. ALL FOOTINGS SHALL BE OBSERVED AND MONITORED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF STRUCTURAL DRAWINGS THAT ARE TO REMAIN WITH THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.</b>	CONTINUOUS	1. PROVIDE RECORD OF EACH PIER INSTALLED.	1. PROVIDE RECORD OF EACH PIER INSTALLED.	IBC 1705.8 GEOTECHNICAL REPORT;
<b>2. RECORD LOAD TESTS, CUTOFF AND TIP OF EACH PIER.</b>	CONTINUOUS	2. RECORD LOAD TESTS, CUTOFF AND TIP OF EACH PIER.	2. RECORD LOAD TESTS, CUTOFF AND TIP OF EACH PIER.	QUALIFICATIONS BASED ON ASTM E829 & ASTM C1077
<b>3. CONCRETE CONSTRUCTION</b>				
<b>A. REINFORCING STEEL</b>	PERIODIC	PROVIDE PERIODIC INSPECTION OF REINFORCING SIZES, SPACING, GRADE OF REBAR, AND PLACEMENT AT THE FOLLOWING FREQUENCY: COILS: 10% BEAMS: 30% JOIST: 10% OTHER MEMBERS: RANDOMLY @ 20%	PROVIDE PERIODIC INSPECTION OF REINFORCING SIZES, SPACING, GRADE OF REBAR, AND PLACEMENT AT THE FOLLOWING FREQUENCY: COILS: 10% BEAMS: 30% JOIST: 10% OTHER MEMBERS: RANDOMLY @ 20%	IBC 1705.3 ACI 318-CH. 3.5, 7.1.7.7
<b>B. REINFORCING STEEL WELDING</b>	-	NO FIELD WELDING PERMITTED.	NO FIELD WELDING PERMITTED.	AWSD D.4 ACI 318-3.5.2
<b>C. BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO &amp; DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.</b>	CONTINUOUS	VERIFY LOCATION, SIZE AND SPACING OF ANCHORS.	VERIFY LOCATION, SIZE AND SPACING OF ANCHORS.	IBC 1705.3
<b>D. ANCHORS TO BE INSTALLED IN EXISTING CONCRETE</b>	CONTINUOUS	VERIFY LOCATION, SIZE AND SPACING OF ANCHORS	VERIFY LOCATION, SIZE AND SPACING OF ANCHORS	IBC 1705.3
<b>E. VERIFY USE OF CONCRETE MIX DESIGN</b>	PERIODIC	EACH CONCRETE POUR	EACH CONCRETE POUR	ACI 318-CH. 4, 5.2.4
<b>F. SAMPLES OF FRESH CONCRETE</b>	CONTINUOUS EACH CONCRETE POUR	1. ALL CONCRETE TESTING IS TO BE MADE AFTER WATER, IF ANY, IS ADDED AT SITE. 2. TAKE SAMPLES & PERFORM SLUMP, AIR & COMPRESSION TESTS IN ACCORDANCE WITH ASTM C-39 ON CONCRETE PLACED EACH DAY AT THE RATE OF ONE SET OF FOUR CYLINDERS FOR EACH 80 cu. yds. OR FRACTION THEREOF. WHEN MORE THAN 80 cu. yds. IS BEING CONTINUOUSLY PLACED, THE INTERVAL BETWEEN TEST SAMPLES SHALL BE AT LEAST 90 cu. yds. SO AS TO BE REPRESENTATIVE OF THE WHOLE DAYS POUR. SAMPLES SHALL BE TAKEN AT THE POINT OF DEPOSIT IN THE FIELD & ALL CYLINDERS SHALL BE ACCURATELY MARKED & REFERENCED TO SHOW DATE, TIME & EXACT LOCATION IN THE STRUCTURE FROM WHICH THEY CAME. MAKE 7-DAY TEST ON TWO CYLINDERS & 28-DAY TEST ON TWO CYLINDERS. REPORTS OF TESTS SHALL BE PROMPTLY SENT AS FOLLOWS: TWO TO THE PORTING (ARCHITECT), ONE TO THE ENGINEER AND ONE TO THE CONTRACTOR.	1. ALL CONCRETE TESTING IS TO BE MADE AFTER WATER, IF ANY, IS ADDED AT SITE. 2. TAKE SAMPLES & PERFORM SLUMP, AIR & COMPRESSION TESTS IN ACCORDANCE WITH ASTM C-39 ON CONCRETE PLACED EACH DAY AT THE RATE OF ONE SET OF FOUR CYLINDERS FOR EACH 80 cu. yds. OR FRACTION THEREOF. WHEN MORE THAN 80 cu. yds. IS BEING CONTINUOUSLY PLACED, THE INTERVAL BETWEEN TEST SAMPLES SHALL BE AT LEAST 90 cu. yds. SO AS TO BE REPRESENTATIVE OF THE WHOLE DAYS POUR. SAMPLES SHALL BE TAKEN AT THE POINT OF DEPOSIT IN THE FIELD & ALL CYLINDERS SHALL BE ACCURATELY MARKED & REFERENCED TO SHOW DATE, TIME & EXACT LOCATION IN THE STRUCTURE FROM WHICH THEY CAME. MAKE 7-DAY TEST ON TWO CYLINDERS & 28-DAY TEST ON TWO CYLINDERS. REPORTS OF TESTS SHALL BE PROMPTLY SENT AS FOLLOWS: TWO TO THE PORTING (ARCHITECT), ONE TO THE ENGINEER AND ONE TO THE CONTRACTOR.	ACI 318-CH. 4, 5.2.4 ACI 318-CH. 5.6, 5.8



ARCHITECT SAN ANTONIO PBK Architects, Inc. INC.  
601 N.W. Loop 410, Suite 400  
San Antonio, TX 78216  
210-829-0123 P  
210-829-0578 F  
TX Firm BR 1608

ENGINEERING  
1801 Marlin Luther King Dr.,  
San Antonio, TX 78203  
PH 210 979-7900  
TX FIRM REG. #3388

WFAC Black Box Addition PKG 1



CLIENT Alamo Colleges	PROJECT NUMBER 230462
DATE 2024/05/23	
DRAWING HISTORY	
No. Description Date	
2 City Comments 06/12/24	

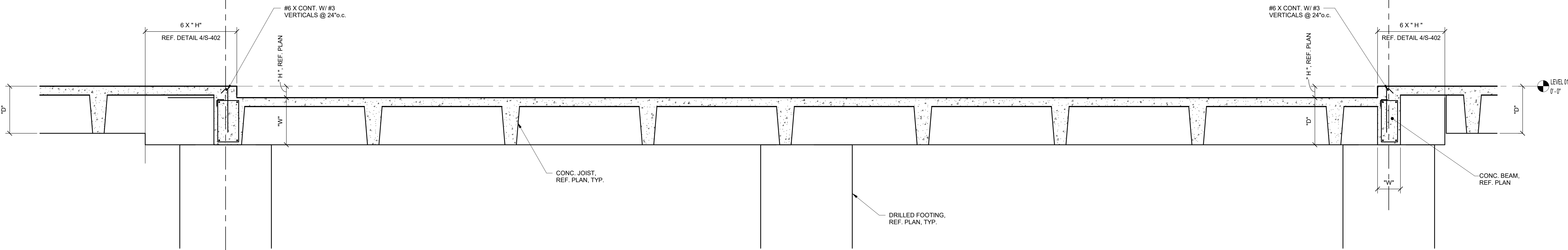
ISSUE FOR CONSTRUCTION  
BUILDING NUMBER AB  
SPECIAL INSPECTION NOTES





# ISSUE FOR CONSTRUCTION

LA PROJECT NO.: 09316-00  
 LA FILE NO.: WFAC-Blackbox Addition- Structural R23



**1** SECTION  
 1/2" = 1'-0"

EE

W

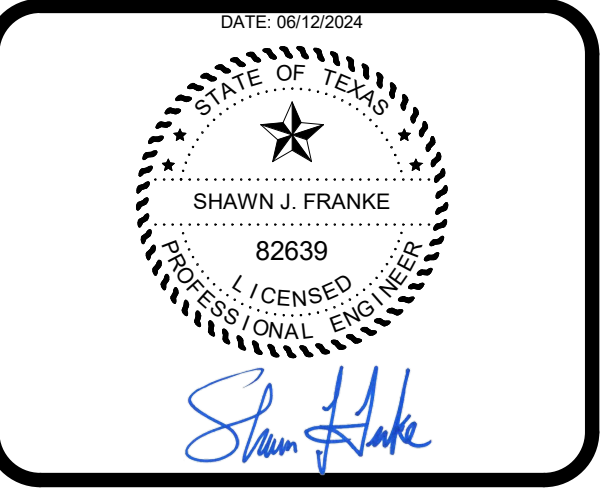
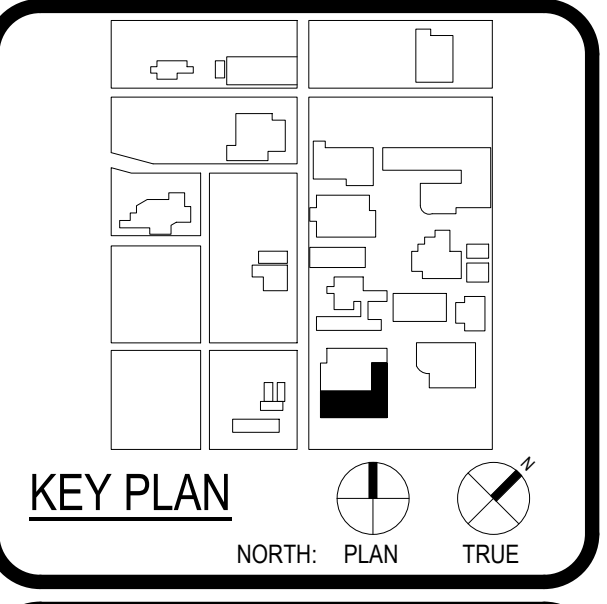


ARCHITECT	PBK Architects, Inc. 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P 210-829-5578 F TX Firm BR 1606
ASSOCIATE ARCHITECT	BA ARCHITECTS 1111 N. Loop West San Antonio, TX 78205
CONSULTANT	LANDSCAPE ROSE AND DESIGN 1111 N. Loop West San Antonio, TX 78205
STRUCTURAL	LUNDY & FRANKE ENGINEERING 548 HEIMER ROAD SAN ANTONIO, TEXAS 78232 PH 210-979-7800 FX 210-979-7800 TX FIRM REG. #3388
MECHANICAL	
ELECTRICAL	
PLUMBING	
BEAM PROFESSIONALS	
MEASUREMENT	
CONSTRUCTION	



WFAC Black Box Addition PKG 1

1801 Marlin Luther King Dr.,  
 San Antonio, TX 78203  
 ISSUE FOR CONSTRUCTION

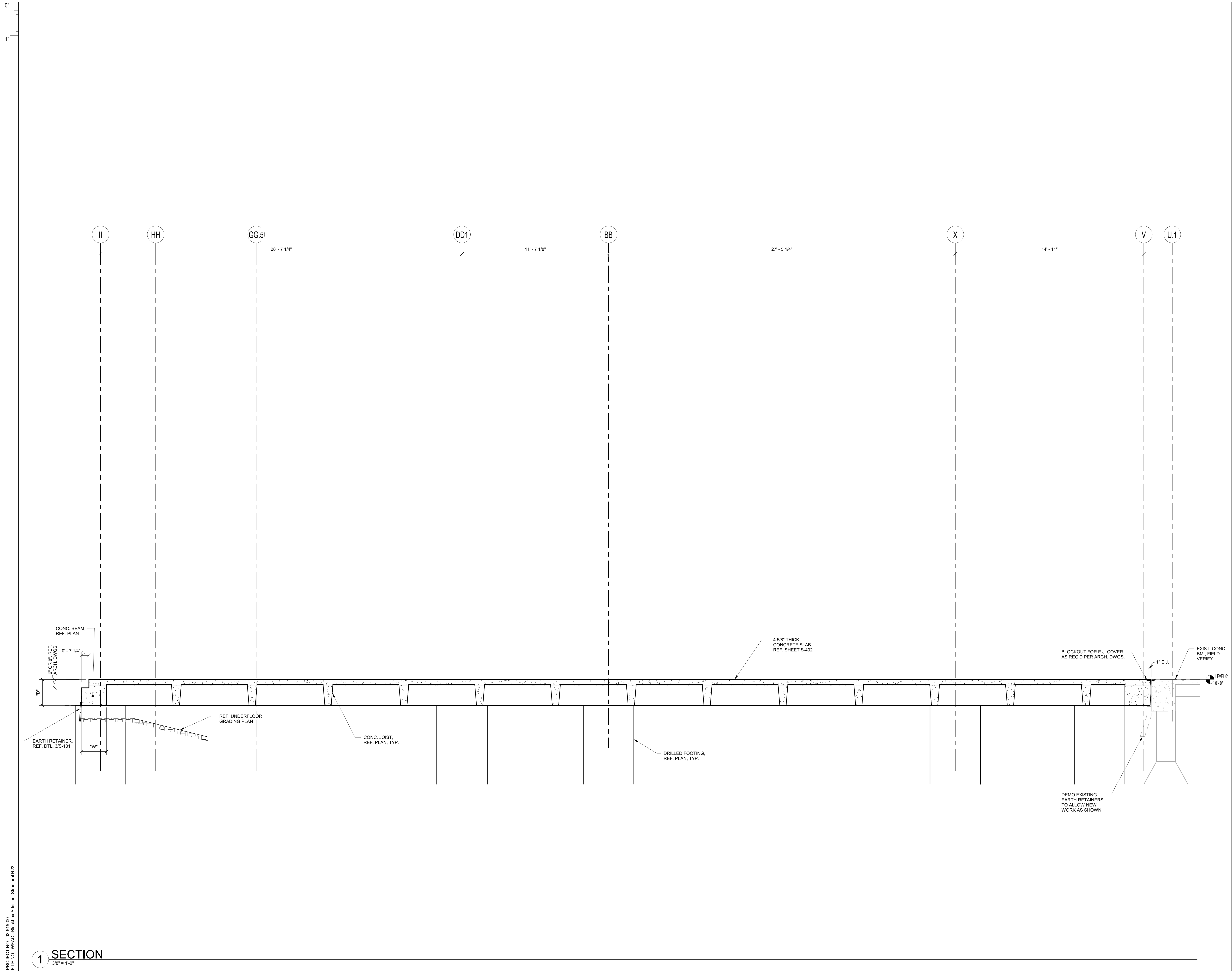


CLIENT		Alamo Colleges
DATE	PROJECT NUMBER	230462
2024/05/23		
DRAWING HISTORY		
No.	Description	Date
ISSUE FOR CONSTRUCTION		
BUILDING NUMBER	AB	

**SECTION**

**S-302**

# ISSUE FOR CONSTRUCTION



**1** SECTION  
3/8" = 1'-0"

LA PROJECT NO.: 09316-00  
LA FILE NO.: WFAC-38blackbox Addition, Structural R23



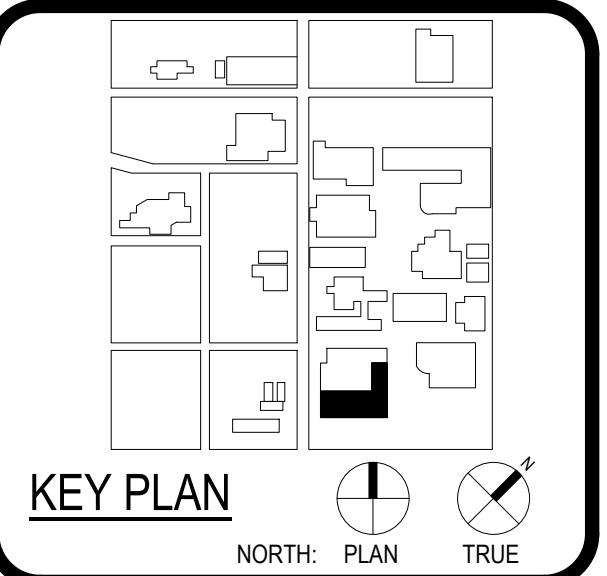
ARCHITECT	PBK Architects, Inc.
SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-820-0123 P 210-829-5578 F TX Firm BR 1606	
ASSOCIATE ARCHITECT	BA & ARCHITECTS
DATE	05/23/24
DESIGNER	T.J. BOGUE
LANDSCAPE	
ROOF AND CEILING	
STRUCTURAL	LUNDY & FRANKE ENGINEERING
MEP	
PROVISIONS	
BEAM PROFESSIONALS	
SCALE	
DATE	05/23/24

**LUNDY & FRANKE ENGINEERING**  
548 HEIMER ROAD  
SAN ANTONIO, TEXAS 78232  
TX FIRM REG. #3388

PH: (210) 979-7900  
FX: (210) 979-7800

WFAC Black Box Addition PKG 1

1801 Main, Luther King Dr.,  
San Antonio, TX 78203  
ISSUE FOR CONSTRUCTION



DATE: 05/23/2024

SHAWN J. FRANKE  
82639  
LICENSED PROFESSIONAL ENGINEER

CLIENT	Alamo Colleges	
DATE	2024/05/23	
PROJECT NUMBER	230462	
DRAWING HISTORY		
No.	Description	Date

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER AB

SECTION

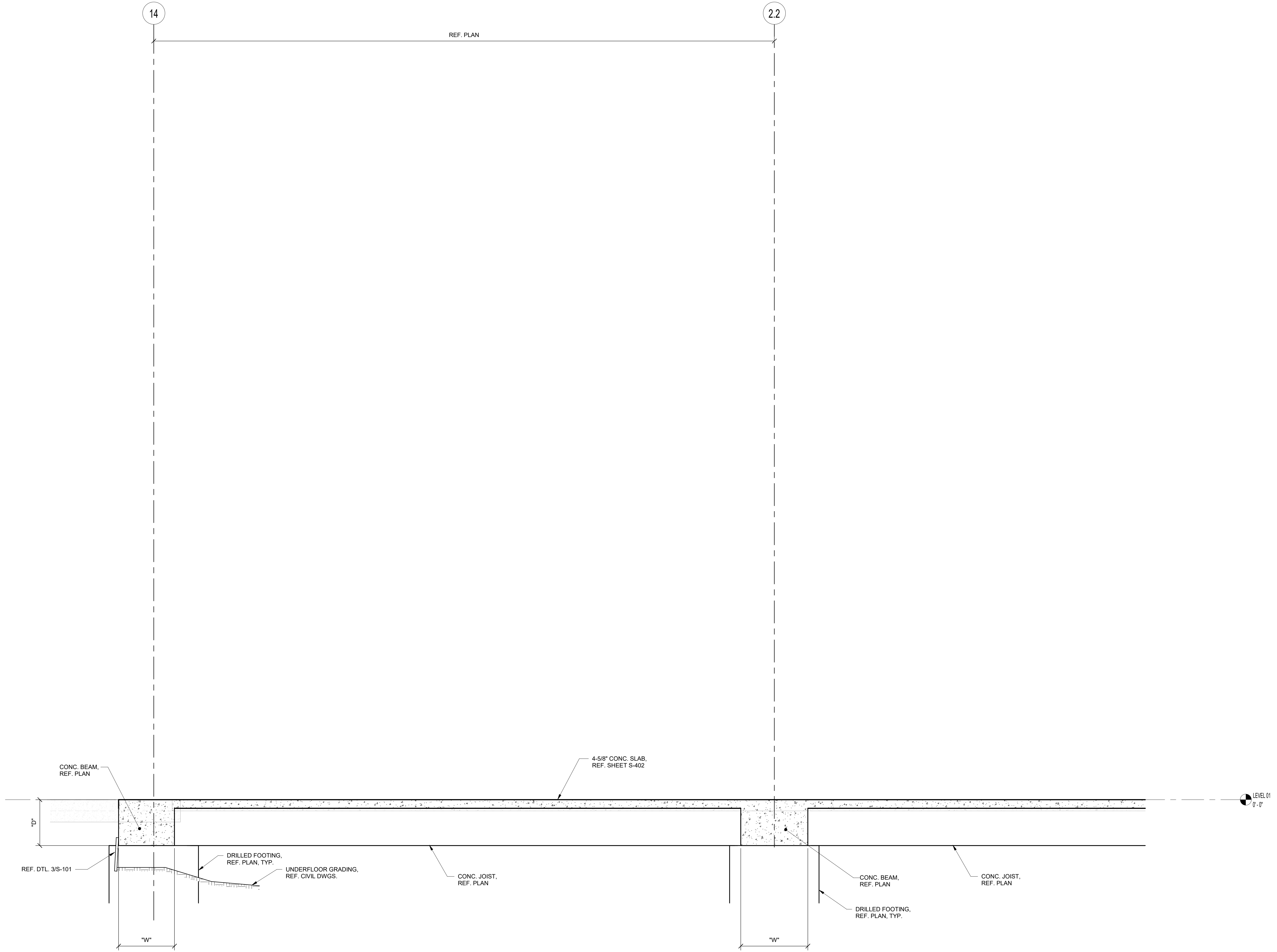
**S-303**





# ISSUE FOR CONSTRUCTION

0'  
1'



1 SECTION  
1/2" = 1'-0"

LA PROJECT NO.: 09316-00  
LA FILE NO.: WFAC-38blackbox Addition, Structural R23

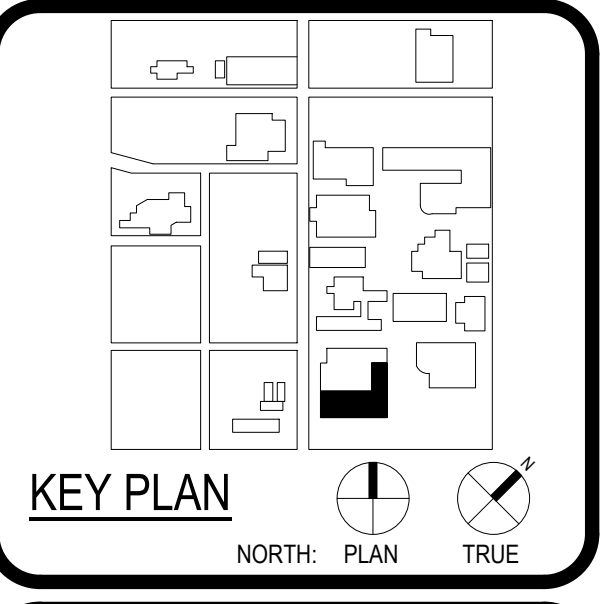


ARCHITECT	PBK Architects, Inc.
SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-823-0123 P 210-823-5578 F TX Firm BR 1606	
ASSOCIATE ARCHITECT	BA ARCHITECTS
OWNER	ALAMO COLLEGES
DESIGNER	ALAMO COLLEGES
LANDSCAPE	ALAMO COLLEGES
ROSE AND DESIGN	ALAMO COLLEGES
STRUCTURAL	LUNDY & FRANKE ENGINEERING
M.E.P.	LUNDY & FRANKE ENGINEERING
MEP	LUNDY & FRANKE ENGINEERING
PROVISIONS	LUNDY & FRANKE ENGINEERING
BEAM PROFESSIONALS	LUNDY & FRANKE ENGINEERING
MEASUREMENT	LUNDY & FRANKE ENGINEERING
DATE	12/20/2024



WFAC Black Box Addition PKG 1

1801 Mathis Luther King Dr.,  
San Antonio, TX 78203  
ISSUE FOR CONSTRUCTION



CLIENT	Alamo Colleges	
DATE	2024/05/23	
PROJECT NUMBER	230462	
DRAWING HISTORY		
No.	Description	Date

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER AB

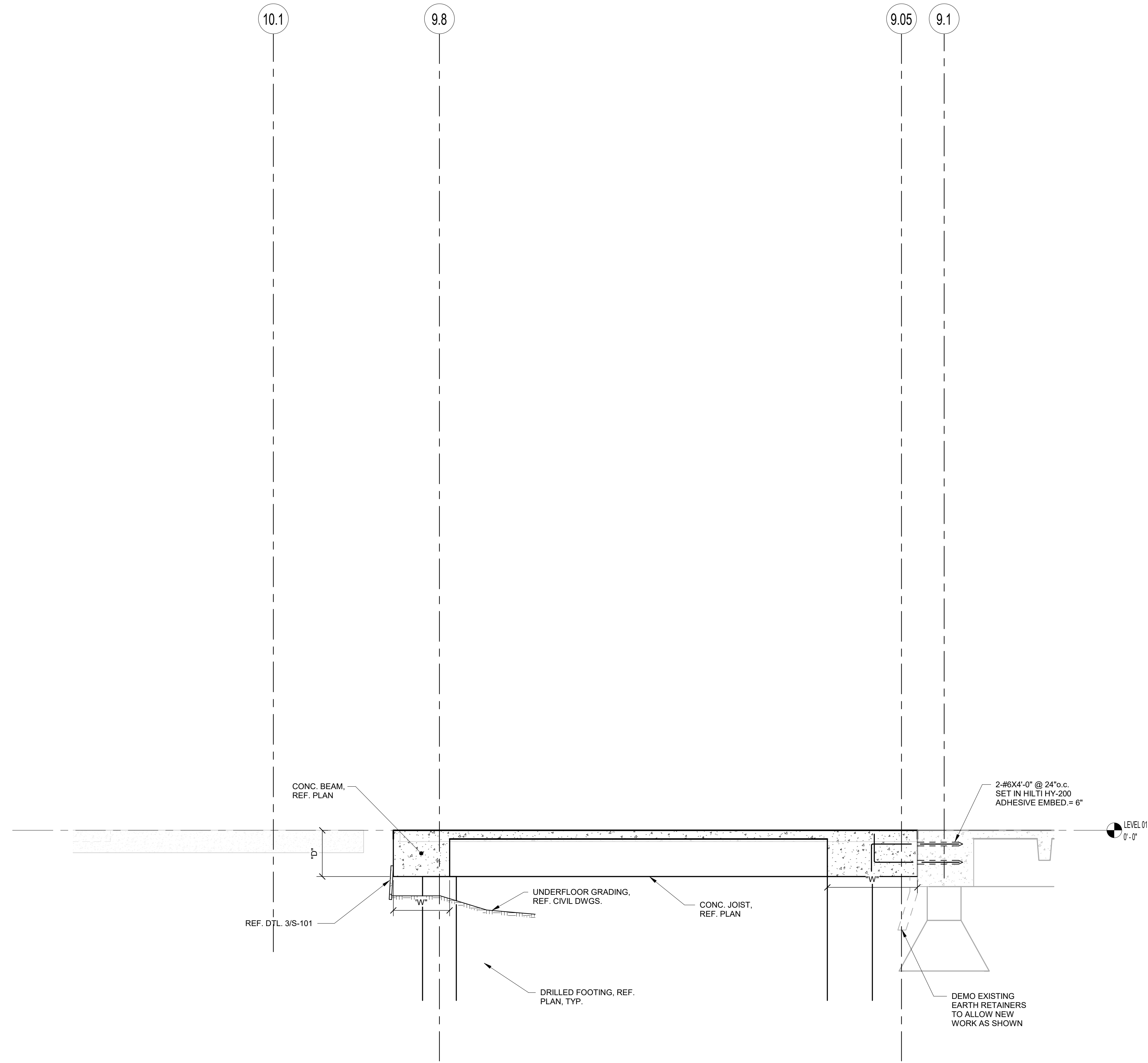
SECTION

S-306



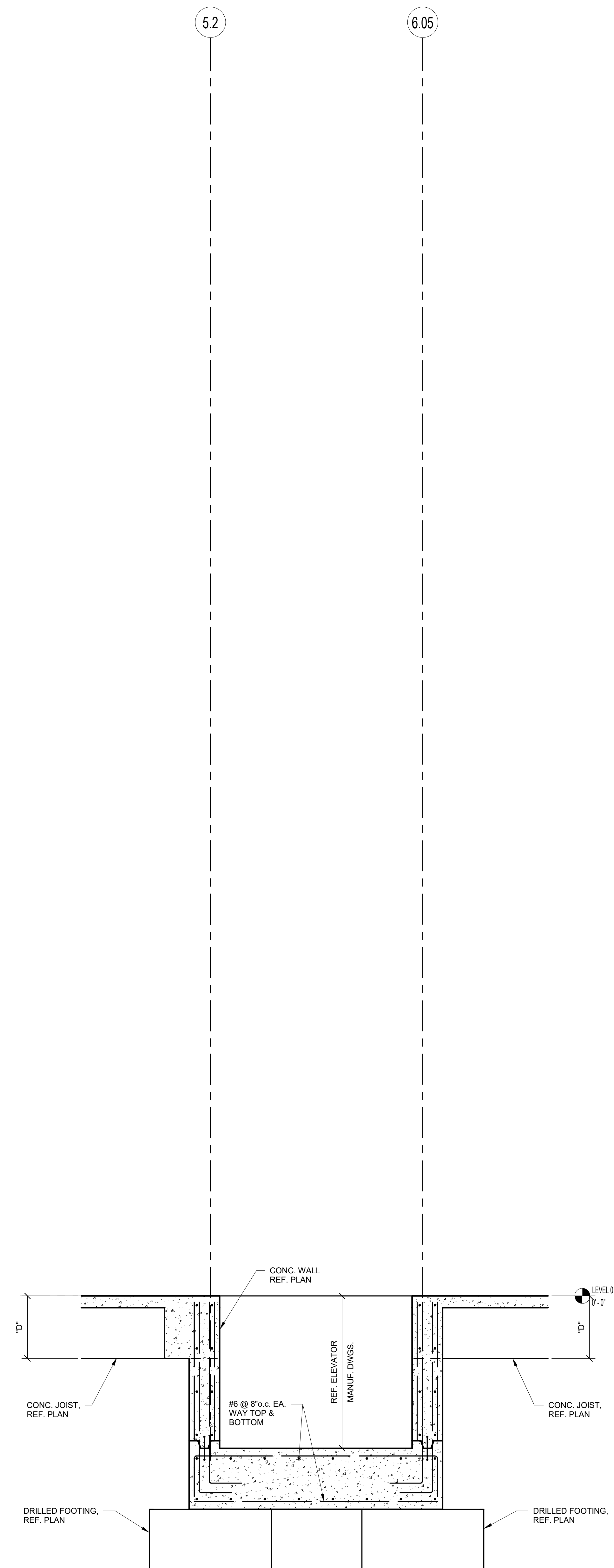
ISSUE FOR CONSTRUCTION

LA PROJECT NO.: 09316-00  
LA FILE NO.: WFAC-Blackbox Addition- Structural R23



**2 SECTION**  
3/8" = 1'-0"

NOT USED



**1 SECTION**  
1/2" = 1'-0"

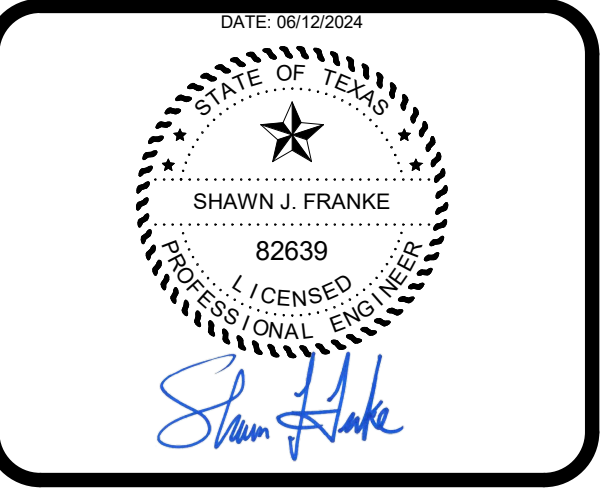
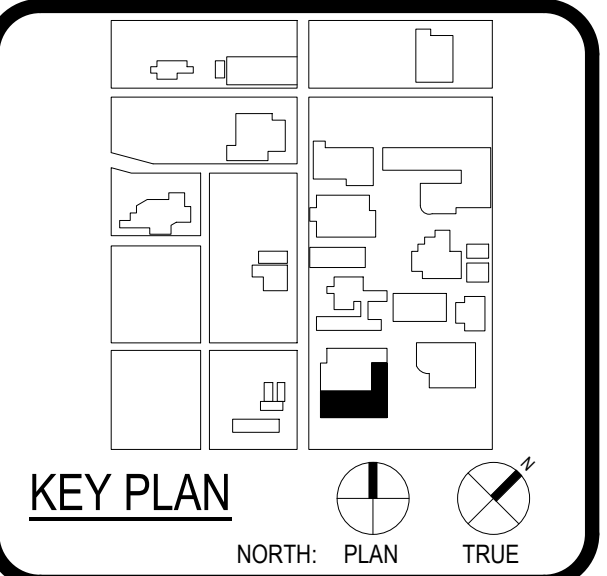


**ARCHITECT** PBK Architects, Inc.  
SAN ANTONIO  
601 N.W. Loop 410, Suite 400  
San Antonio, TX 78216  
210-820-4123 P  
210-829-5578 F  
TX Firm BR 1606  
pk.com

**LUNDY & FRANKE ENGINEERING**  
548 HEIMER ROAD PH 210-979-7900  
SAN ANTONIO, TEXAS 78232 FX 210-979-7800  
TX FIRM REG. #3388

WFAC Black Box Addition PKG 1

1801 Marlin Luther King Dr.,  
San Antonio, TX 78203  
ISSUE FOR CONSTRUCTION

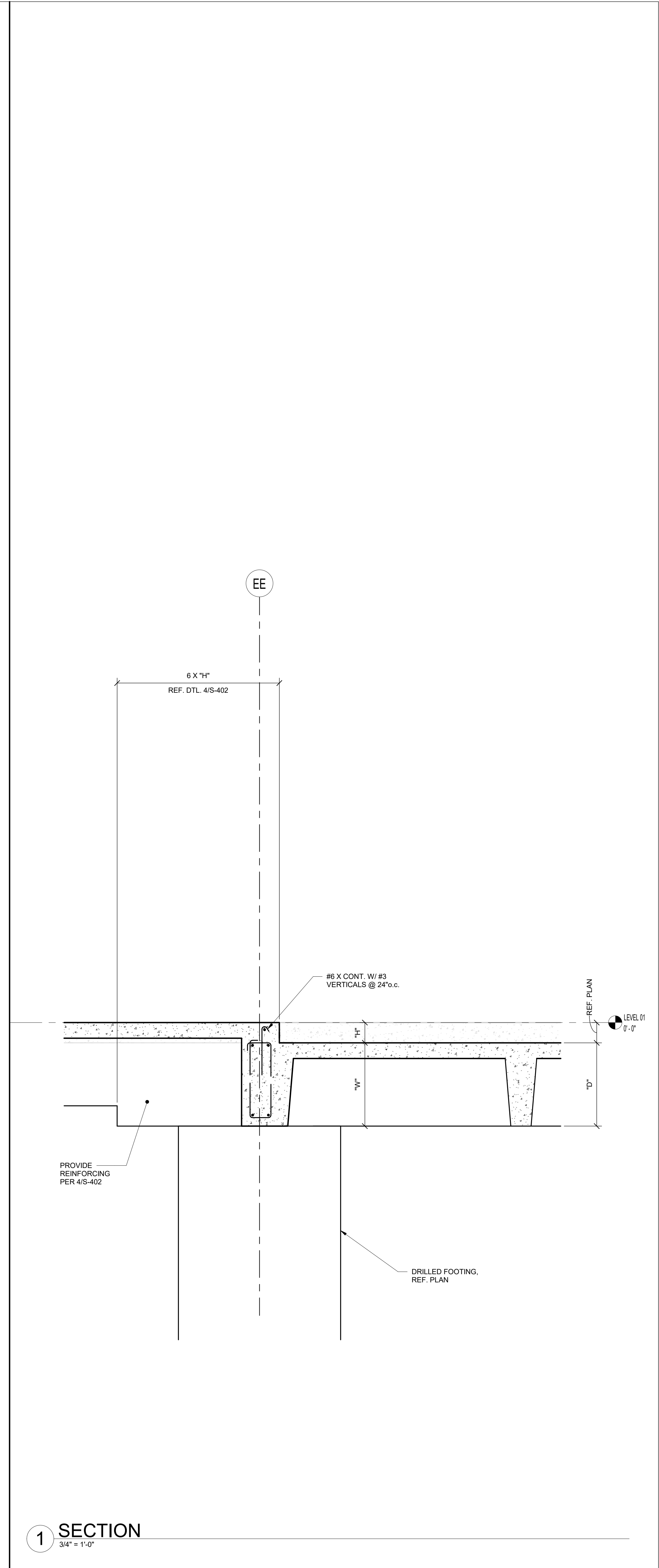
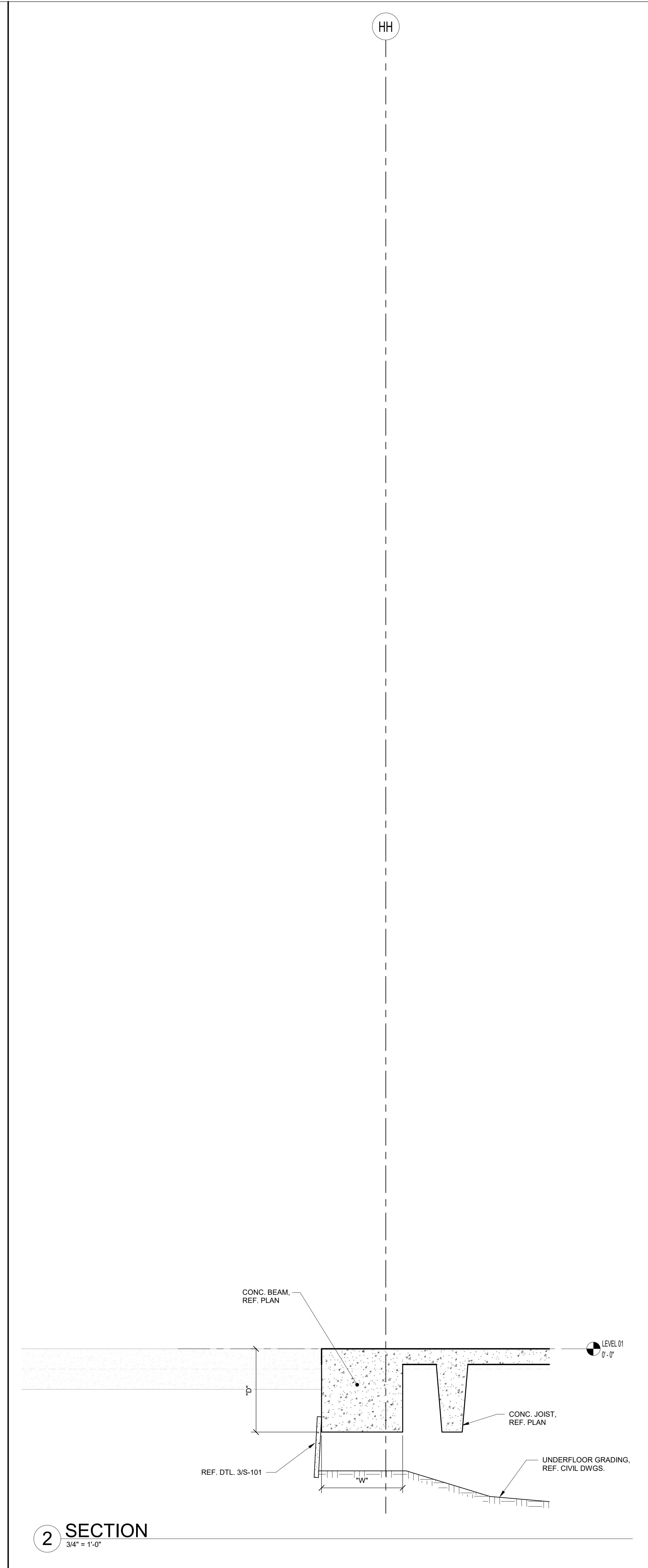
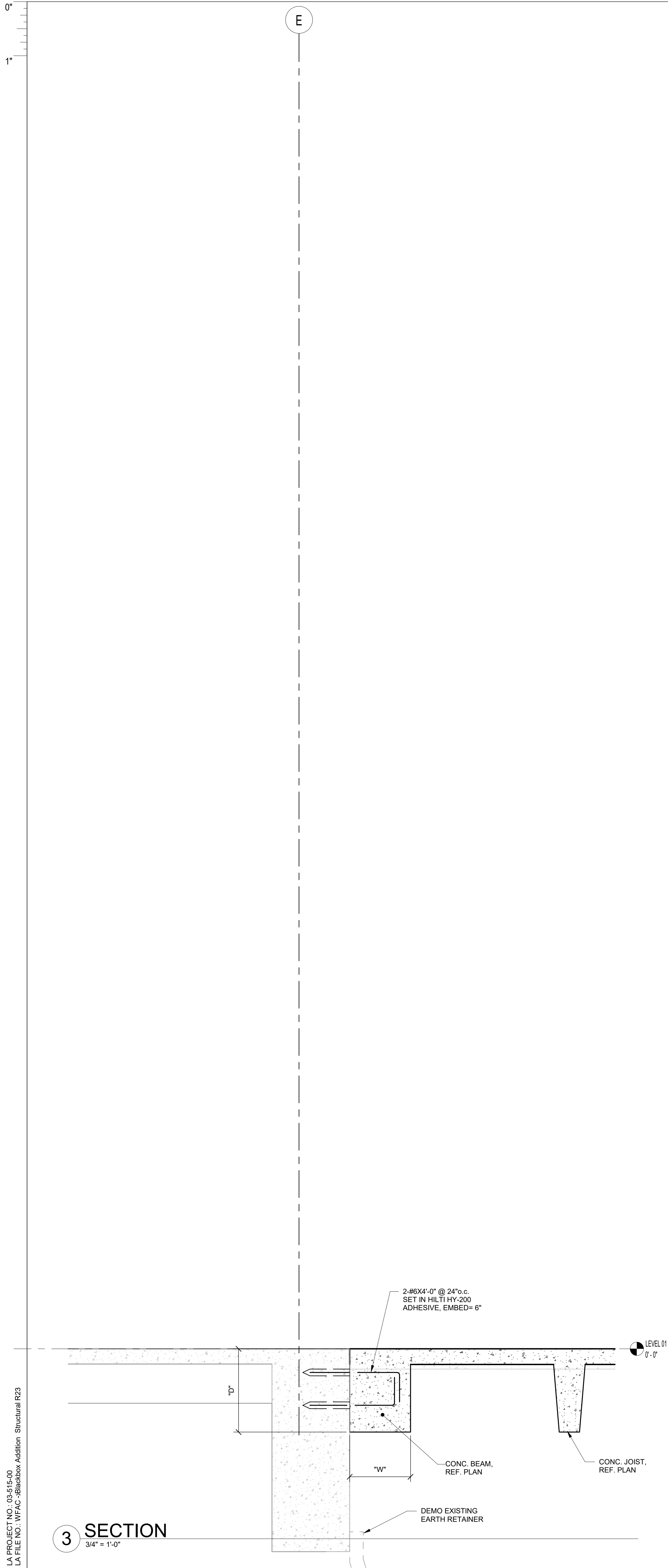


CLIENT		Alamo Colleges
DATE	2024/05/23	PROJECT NUMBER
DRAWING HISTORY		230462
No.	Description	Date
<b>ISSUE FOR CONSTRUCTION</b>		
BUILDING NUMBER		AB

SECTIONS

S-307

# ISSUE FOR CONSTRUCTION



LA PROJECT NO.: 09315-00  
LA FILE NO.: WFAC-3blackbox Addition- Structural R23



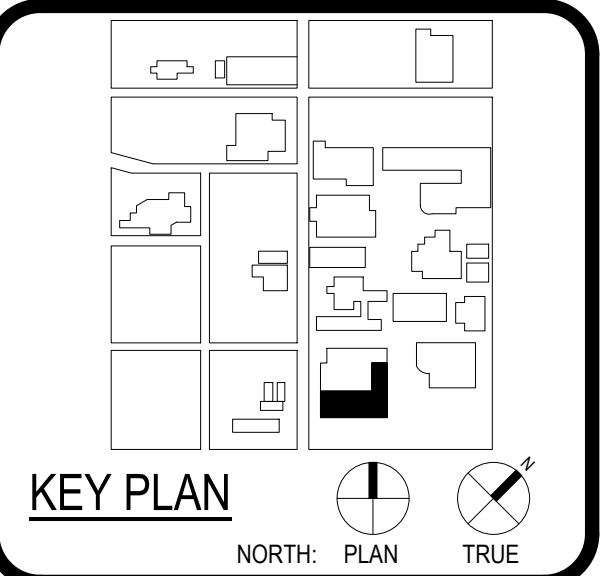
ARCHITECT	PBK Architects, Inc.
SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-820-0123 P 210-829-5578 F TX Firm BR 1608	
ASSOCIATE ARCHITECT	B&A ARCHITECTS
CONSULTANT	CEC
DESIGNER	T.S. BRYAN
LANDSCAPE	LANDSCAPE
ROOF AND DRIP	LANDSCAPE
STRUCTURAL	LUNDY & FRANKE ENGINEERING
MECHANICAL	LUNDY & FRANKE ENGINEERING
ELECTRICAL	LUNDY & FRANKE ENGINEERING
PLUMBING	LUNDY & FRANKE ENGINEERING
MECHANICAL	LUNDY & FRANKE ENGINEERING
MECHANICAL	LUNDY & FRANKE ENGINEERING

**LUNDY & FRANKE ENGINEERING**  
548 HEIMER ROAD  
SAN ANTONIO, TEXAS 78232  
TX FIRM REG. #3388

1801 Marlin Luther King Dr.,  
San Antonio, TX 78203  
PH 210-979-7900  
FX 210-979-7800

**WFAC Black Box Addition PKG 1**

ISSUE FOR CONSTRUCTION



SHAWN J. FRANKIE  
82639  
LICENSED PROFESSIONAL ENGINEER  
Shawn Franke

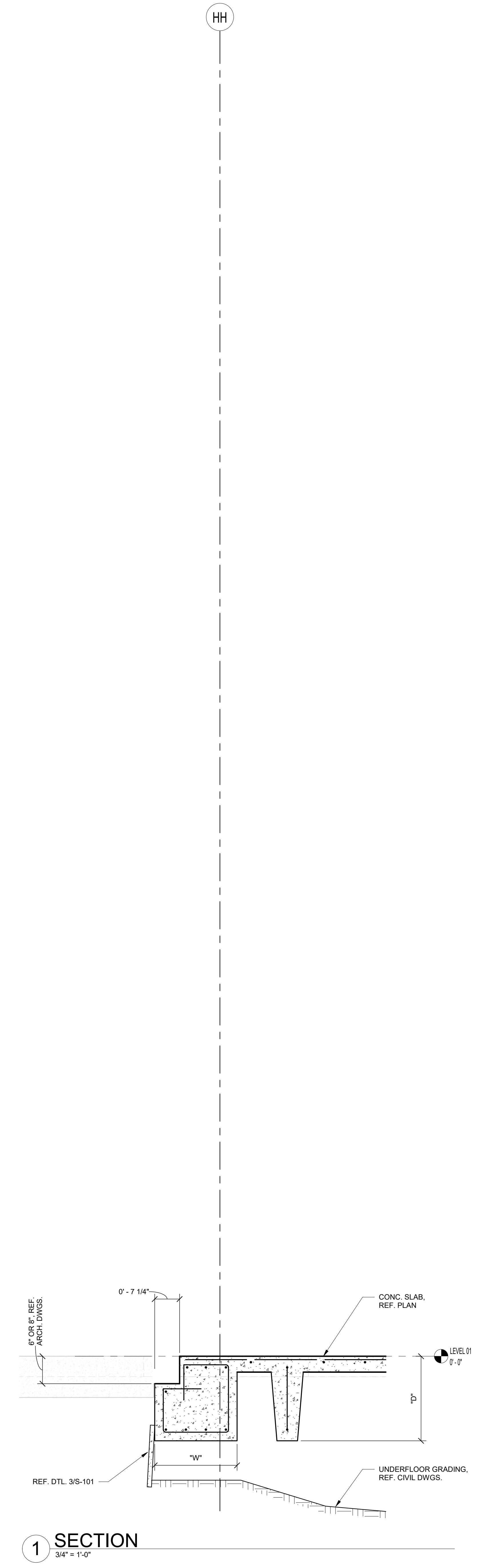
CLIENT	Alamo Colleges	
DATE	2024/05/23	
PROJECT NUMBER	230462	
DRAWING HISTORY		
No.	Description	Date
ISSUE FOR CONSTRUCTION		
BUILDING NUMBER	AB	

**SECTIONS**

**S-308**

# ISSUE FOR CONSTRUCTION

LA PROJECT NO.: 09316-00  
 LA FILE NO.: WFAC-Blackbox Addition Structural R23

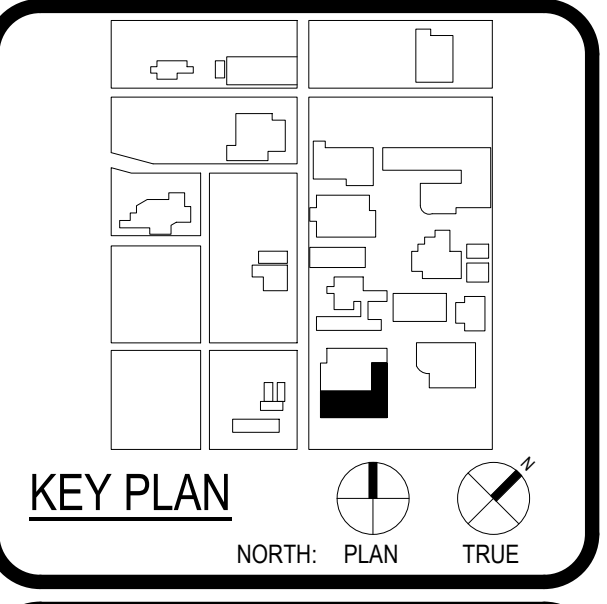


ARCHITECT	PBK Architects, Inc.
SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P 210-829-0578 F TX Firm BR 1606	
ASSOCIATE ARCHITECT	MAX ARCHITECTS
DESIGNER	TRAVIS BAKER
LANDSCAPE	TRAVIS BAKER
ROOF AND GROUND	TRAVIS BAKER
STRUCTURAL	LUNDY & FRANKE ENGINEERING
MECHANICAL	TRAVIS BAKER
ELECTRICAL	TRAVIS BAKER
PLUMBING	TRAVIS BAKER
MECHANICAL	TRAVIS BAKER
MECHANICAL	TRAVIS BAKER



WFAC Black Box Addition PKG 1

1801 Main, Luther King Dr.,  
 San Antonio, TX, 78203  
 ISSUE FOR CONSTRUCTION



CLIENT	Alamo Colleges	
DATE	2024/05/23	
PROJECT NUMBER	230462	
DRAWING HISTORY		
No.	Description	Date
ISSUE FOR CONSTRUCTION		
BUILDING NUMBER	AB	

SECTIONS & DETAILS

S-309

**CONCRETE WALL NOTES:**

**CW-1** UNLESS SHOWN OTHERWISE, AT CORNERS, ANGLE BENDS, AND AT JUNCTION WITH OTHER WALLS, LAP ALL HORIZONTAL BARS PER REINFORCING BAR LAP SCHEDULE.

**CW-2** UNLESS SHOWN OTHERWISE, WHERE WALLS STOP, POSITION TWO (2) OF THE WALL VERTICAL BARS AT THE END OF THE WALL. PROVIDED THAT VERTICAL BARS ARE #6 OR LARGER. IF WALL VERTICAL BARS ARE SMALLER THAN #6, USE #4#6 AT WALL VERTICAL BARS. PROVIDE #4 U-BARS (60 DIAMETER LAPS) ENCLOSING VERTICAL BARS AT END FACES, SAME SPACING AS HORIZONTAL BARS.

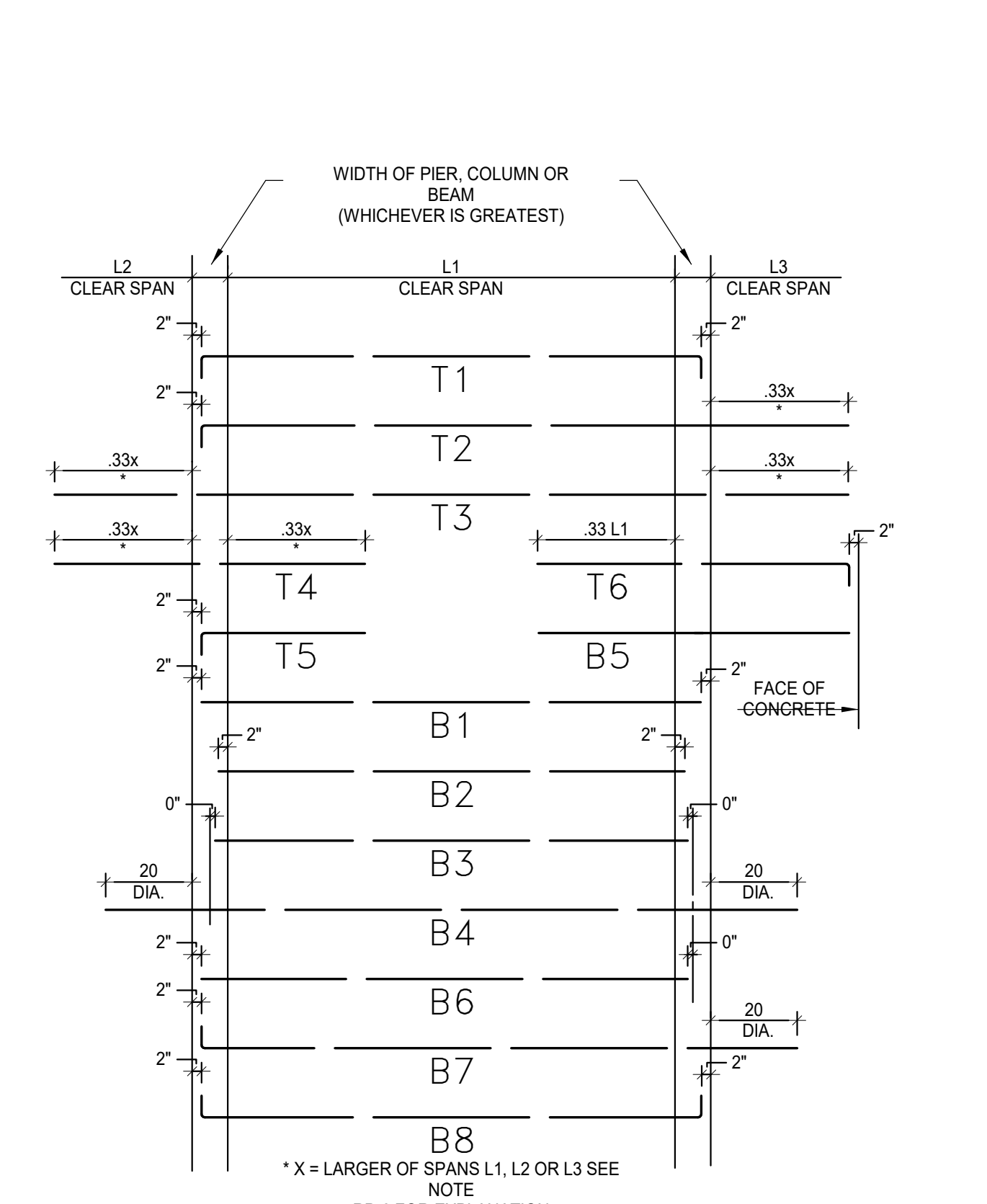
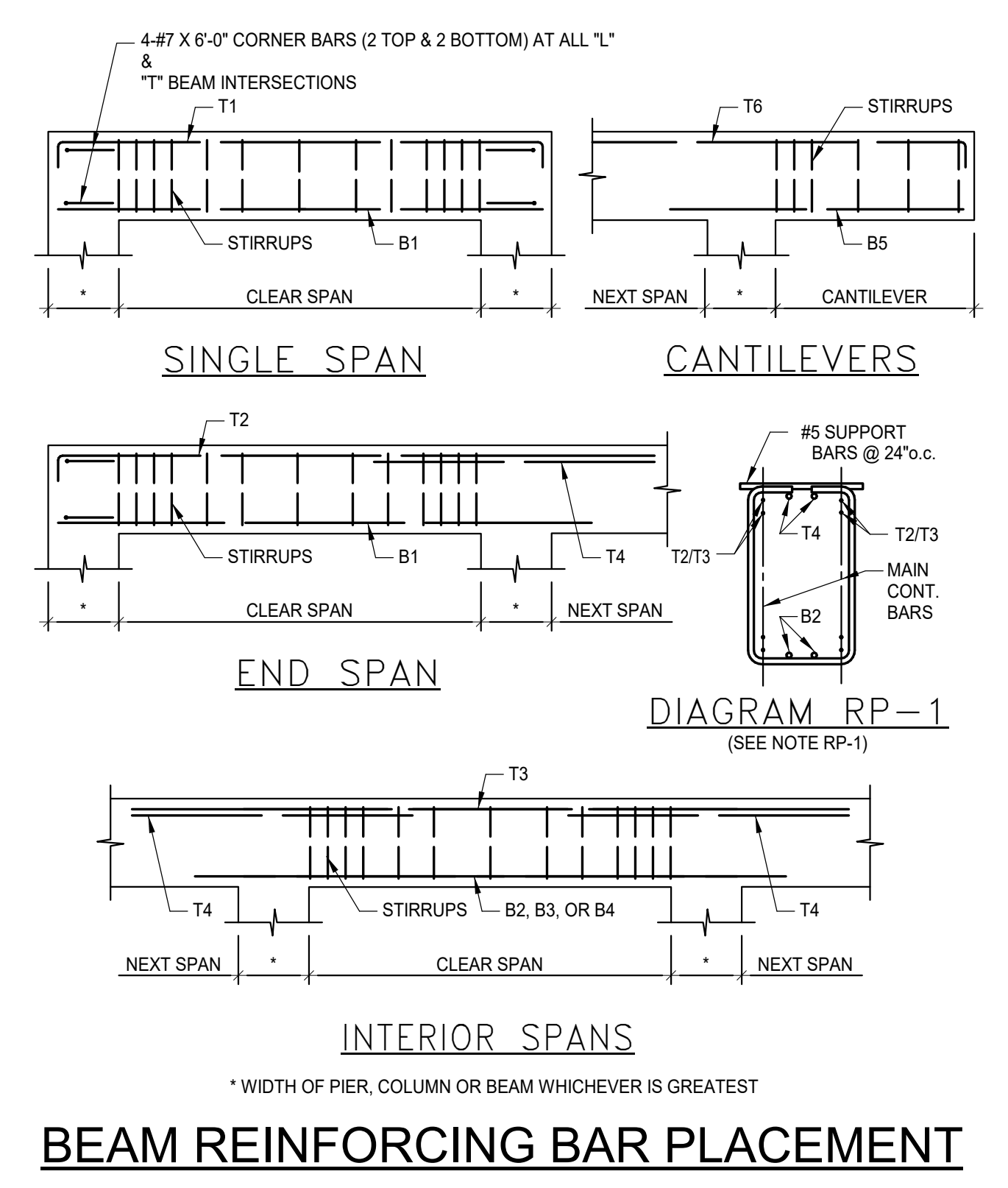
**CW-3** UNLESS SHOWN OTHERWISE, ADD 2-#6 BARS IN EACH FACE OVER OPENING, EXTENDING 60 DIAMETERS BEYOND LIMITS OF OPENING, AND ADD 2-#5X5-0" PLACED DIAGONALLY AT EACH CORNER OF OPENING. PROVIDE #4 U-BARS (60 DIAMETER LAPS) AT END FACES FOR EACH BAR (HORIZONTAL OR VERTICAL) INTERRUPTED BY OPENING. U-BARS SHALL ENCLOSE HORIZONTAL OR VERTICAL BARS AT OPENING. NOTIFY A/E PRIOR TO FABRICATION AND CONSTRUCTION FOR OPENINGS LARGER THAN 2'-0"X2'-0".

**CW-4** UNLESS SHOWN OTHERWISE, USING REINFORCING BAR LAP SCHEDULE LAP WALL DOWELS FROM BEAM OR FOOTING TO MATCH THE SIZE AND SPACING OF ALL VERTICAL BARS IN WALL ABOVE. EXTEND INTO WALL USING REINFORCING BAR LAP SCHEDULE. AT CONSTRUCTION JOINTS, EITHER CONTINUE ALL VERTICAL BARS PROVIDE LAPS OF ALL VERTICAL BARS INTO WALL ABOVE USING REINFORCING BAR LAP SCHEDULE.

CONCRETE WALL SCHEDULE						
MK	THICKNESS	VERTICAL BARS		HORIZONTAL BARS		REMARKS
		I.S. FACE	O.S. FACE	I.S. FACE	O.S. FACE	
CW-1	12"	#5 @ 10"o.c.	#5 @ 10"o.c.	#4 @ 12"o.c.	#4 @ 12"o.c.	4000PSI REF. CW-NOTES

1st FLOOR CONCRETE BEAM SCHEDULE														
MARK	SIZE			MAIN REINFORCING								STIRRUPS		REMARKS
	W	D	SECT.	TOP BARS		BOTTOM BARS		TOP BARS AT SUPPORT				SIZE	TYPE	
				REINF.	TYP.	REINF.	TYP.	REINF.	TYP.	REINF.	TYP.	SUPP.		
B1	30	24 5/8		4-#8	T1	3-#8	B1	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B2	30	24 5/8		4-#8	T1	3-#8	B1	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B3	30	24 5/8		4-#6	T2	3-#8	B6	-	-	-	-	#4	1 @ 2.10 @ 10 BAL @ 24"o.c.	
B4	30	24 5/8		4-#6	T3	3-#8	B3	-	-	-	-	#4	1 @ 2.10 @ 10 BAL @ 24"o.c.	
B5	30	24 5/8		4-#6	T3	3-#8	B3	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B6	30	24 5/8		4-#6	T2	3-#8	B6	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B7	48	24 5/8		4-#9	T2	3-#9	B6	-	-	-	-	#4	1 @ 2.15 @ 10 BAL @ 24"o.c.	
B8	48	24 5/8		4-#9	T3	3-#9	B4	-	-	-	-	#4	1 @ 2.15 @ 10 BAL @ 24"o.c.	
B9	48	24 5/8		4-#9	T3	3-#9	B3	-	-	-	-	#4	1 @ 2.15 @ 10 BAL @ 24"o.c.	
B10	48	24 5/8		4-#9	T2	3-#9	B6	-	-	-	-	#4	1 @ 2.10 @ 10 BAL @ 24"o.c.	EXTEND HOOK END INTO CANT.
B11	48	24 5/8		4-#9	T6	3-#9	B3	-	-	-	-	#4	1 @ 2.10 @ 10 BAL @ 24"o.c.	CANTILEVER
B12	48	24 5/8		4-#9	T2	3-#9	B6	-	-	-	-	#4	1 @ 2.10 @ 10 BAL @ 24"o.c.	
B13	48	24 5/8		4-#9	T2	3-#9	B6	-	-	-	-	#4	1 @ 2.12 @ 10 BAL @ 24"o.c.	
B14	48	24 5/8		4-#9	T3	3-#9	B3	-	-	-	-	#4	1 @ 2.12 @ 10 BAL @ 24"o.c.	
B15	48	24 5/8		4-#9	T3	3-#9	B8	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B16	48	24 5/8		4-#9	T2	3-#9	B1	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B17	48	24 5/8		4-#9	T3	3-#9	B3	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B18	48	24 5/8		4-#9	T3	3-#9	B4	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B19	48	24 5/8		4-#9	T1	3-#9	B1	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	CANTILEVER
B20	48	24 5/8		4-#9	T3	3-#9	B3	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B21	48	24 5/8		4-#9	T2	3-#9	B6	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B22	30	24 5/8		4-#7	T2	3-#8	B6	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B23	30	24 5/8		4-#7	T3	3-#8	B3	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B24	30	24 5/8		4-#7	T3	3-#8	B4	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B25	24	24 5/8		4-#6	T2	3-#8	B6	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B26	24	24 5/8		4-#6	T3	3-#8	B4	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B27	24	24 5/8		4-#6	T3	3-#8	B3	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B28	12	24 5/8		2-#6	T2	2-#8	B6	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B29	12	24 5/8		2-#6	T3	2-#8	B3	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B30	30	24 5/8		4-#6	T1	3-#8	B1	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B31	30	24 5/8		4-#6	T2	3-#8	B7	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	EXTEND HOOK END INTO CANT.
B32	30	24 5/8		4-#6	T3	3-#8	B3	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B33	30	24 5/8		4-#6	T6	4-#8	B5	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	CANTILEVER
B34	24	24 5/8		4-#6	T1	2-#8	B1	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B35	48	24 5/8		4-#6	T1	3-#8	B1	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B36	24	24 5/8		4-#6	T1	2-#8	B8	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B37	24	24 5/8		4-#6	T1	2-#8	B8	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B38	48	24 5/8		4-#7	T2	3-#8	B6	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	
B39	48	24 5/8		4-#7	T3	3-#8	B3	-	-	-	-	#4	1 @ 2.6 @ 10 BAL @ 24"o.c.	

- REINFORCING PLACEMENT NOTES:**
- RP-1** WHERE BAR TYPES T2 AND T3 LAP OVER SUPPORTS, BUNDLE VERTICALLY TO PREVENT CONGESTION. IF BAR TYPE T4 ARE ALSO SCHEDULED, USE #5 SUPPORT BARS TO HOLD THEM NEAR MIDDLE OF STIRRUP WIDTH AS SHOWN IN DIAGRAM RP-1.
- RP-2** FABRICATE OFFSET BENDS IN MAIN REINFORCING BARS FOR FLOOR DROPS, OFFSET BEAM FACES, BRICK LUG VARIATIONS, ETC. SHOP BEND BARS ON A 1:6 SLOPE AND MODIFY STIRRUP SHAPE ACCORDINGLY.
- RP-3** UNLESS NOTED OTHERWISE, REBARS SHALL HAVE CONCRETE COVER AS FOLLOWS: STIRRUPS AND TIES = 1-1/2" AND SLABS = 3/4".
- RP-4** WHERE BEAM DEPTHS EXCEED 36", PROVIDE ADDITIONAL CONTINUOUS #4 HORIZONTAL BARS IN EACH FACE SPACED NOT MORE THAN 16"o.c.
- RP-5** BARS NOTED IN SCHEDULE AS "CONT." SHALL BE FULLY CONTINUOUS USING STOCK LENGTH STEEL AND RANDOM SPLICES OF 40 BAR DIAMETERS.
- RP-6** DISTANCE "X" SHALL BE THE LARGEST DISTANCE BETWEEN SUPPORTS OF THE SPANS L1, L2 OR L3 AND SHALL BE MADE THE SAME AMOUNT AT THE LEFT AND RIGHT ENDS SO THAT BARS ARE PLACED SYMMETRICALLY IN THE SPAN.
- RP-7** SLEEVES THROUGH BEAMS SHALL HAVE INDIVIDUAL APPROVAL OF THE ENGINEER AND MAY REQUIRE AN INCREASE IN BEAM SIZE.



**REINFORCING BAR TYPES**

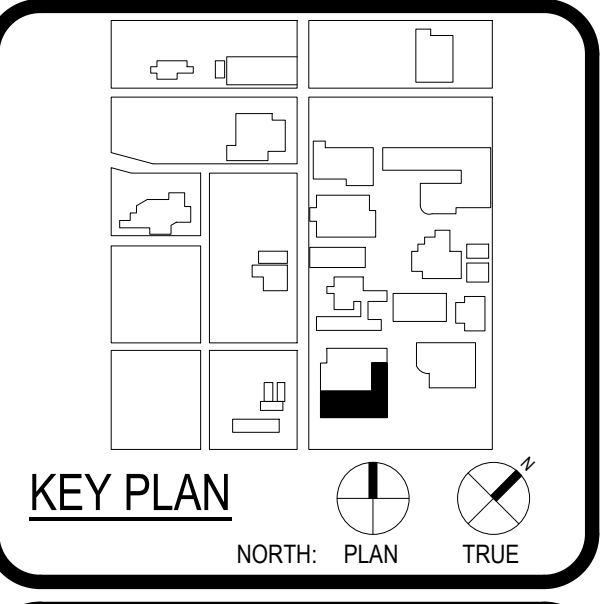


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**WFAC Black Box Addition PKG 1**

1801 Mainth Luther King Dr., San Antonio, TX, 78203  
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DATE: 05/23/24

SHAWN J. FRANKE  
 82639  
 LICENSED PROFESSIONAL ENGINEER

*Shawn Franke*

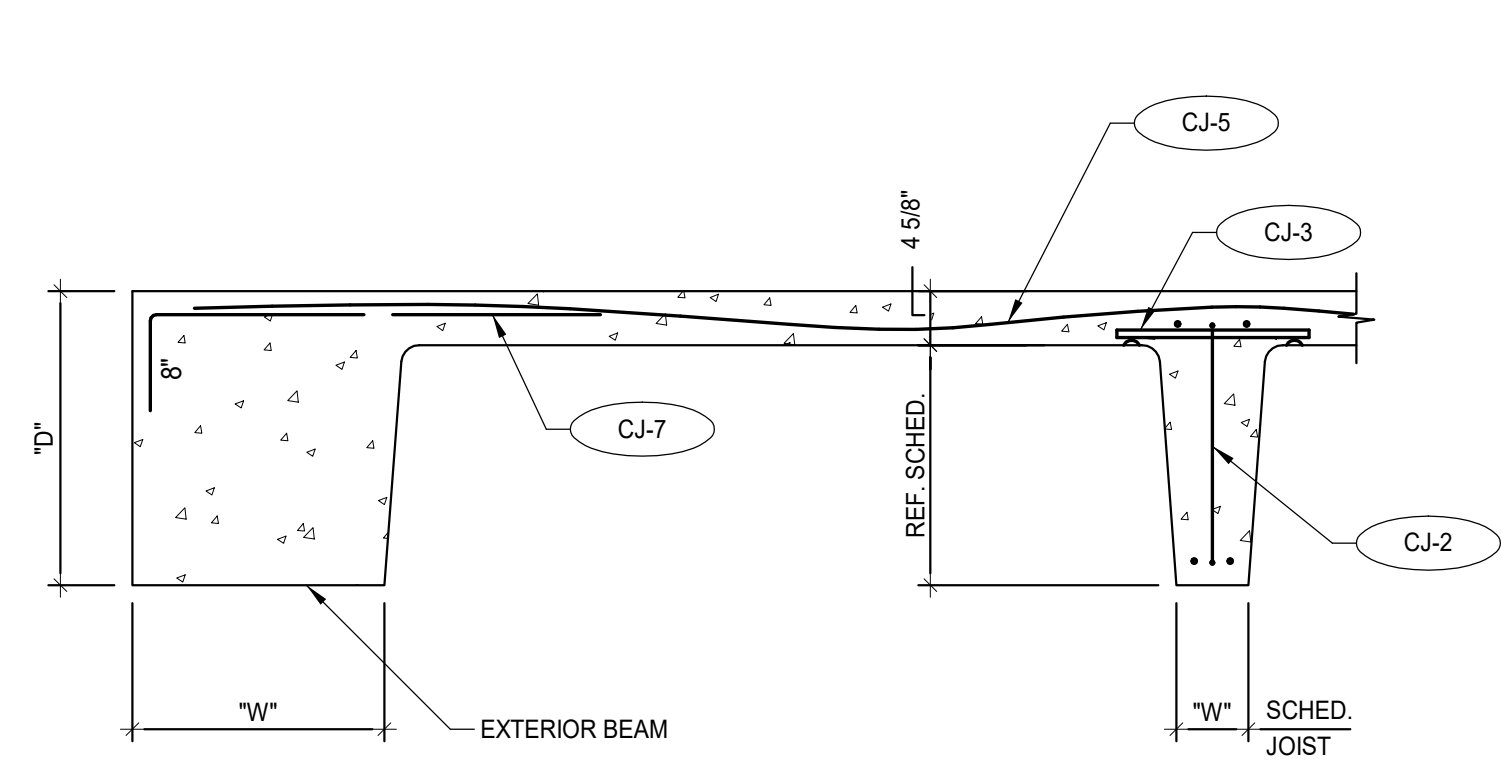
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Alamo Colleges		
DATE	PROJECT NUMBER	
2024/05/23	230462	
DRAWING HISTORY		
No.	Description	Date

**ISSUE FOR CONSTRUCTION**

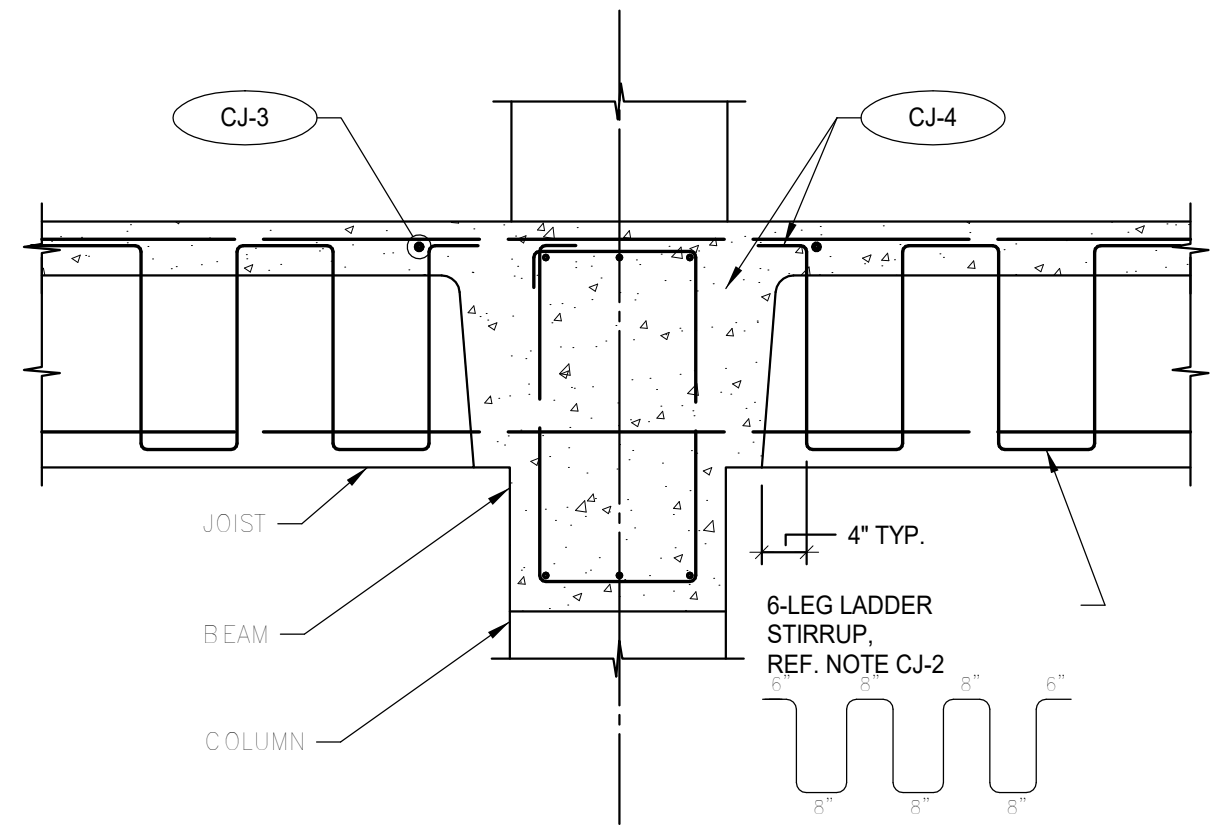
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**CONC. BEAM SCHED & NOTES**

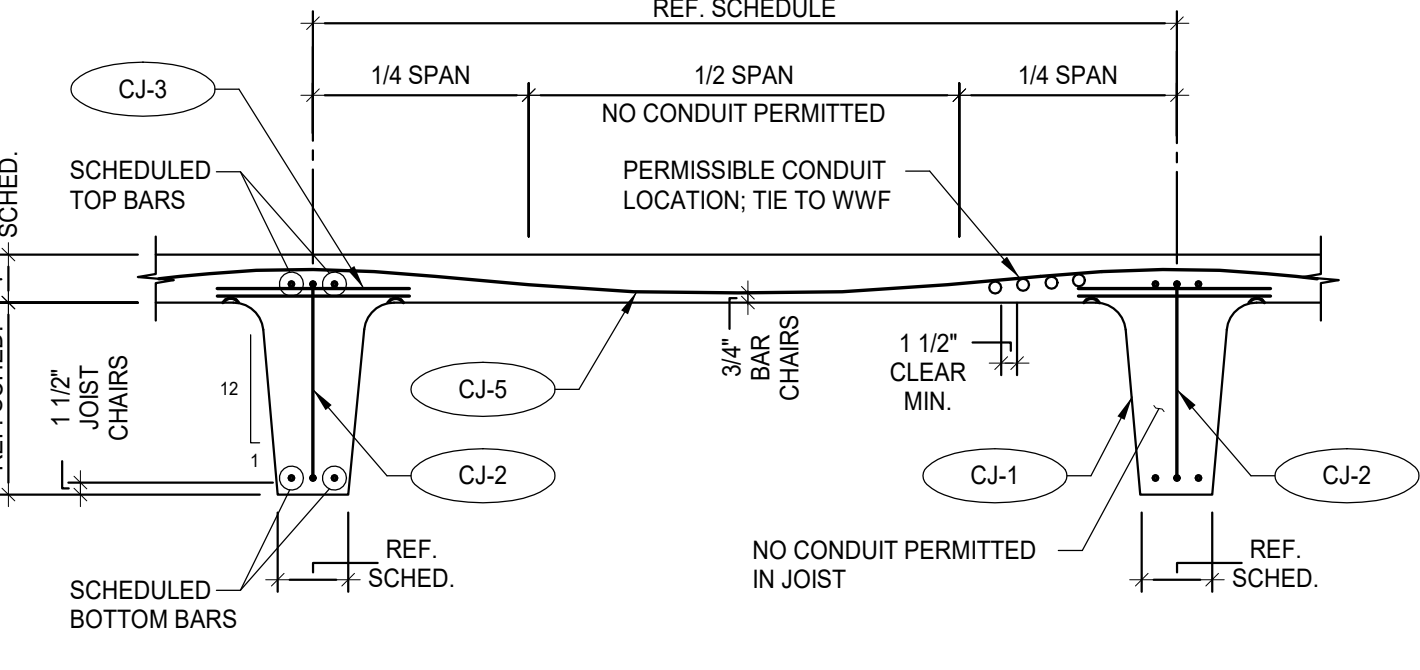
1st FLOOR CONCRETE JOIST SCHEDULE															
MARK	SIZE			MAIN REINFORCING						STIRRUPS			REMARKS		
	W	D	SECT.	SPCG.	TOP BARS		BOTTOM BARS		TOP BARS AT SUPPORT		SIZE	NO. LEGS		SPACING AT EACH END OF JOIST	
					REINF.	TYP.	REINF.	TYP.	REINF.	TYP.	SUPP.				
J1	6	20		6'-0"	2-#6	T2	1-#8	B6	-	-	-	#4	10	11" O.C.	
J2	6	20		6'-0"	1-#8	T3	1-#8	B3	-	-	-	#4	10	11" O.C.	
J3	6	20		6'-0"	1-#6	T1	1-#6	B1	-	-	-	#4	8	11" O.C.	



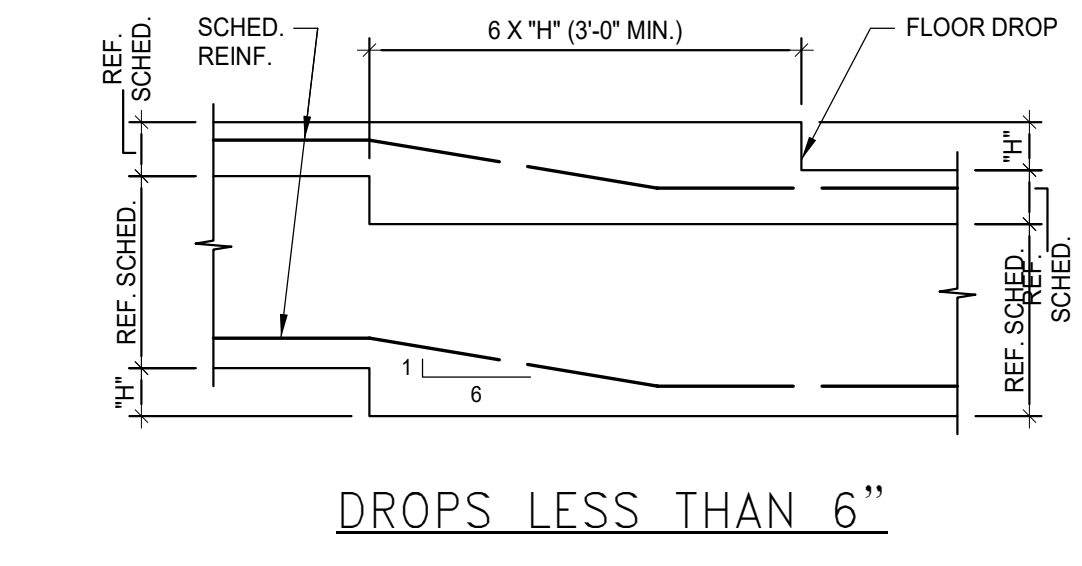
5 DETAIL TYP. SECT. @ REIN. BM. SCALE: 3/4" = 1'-0"



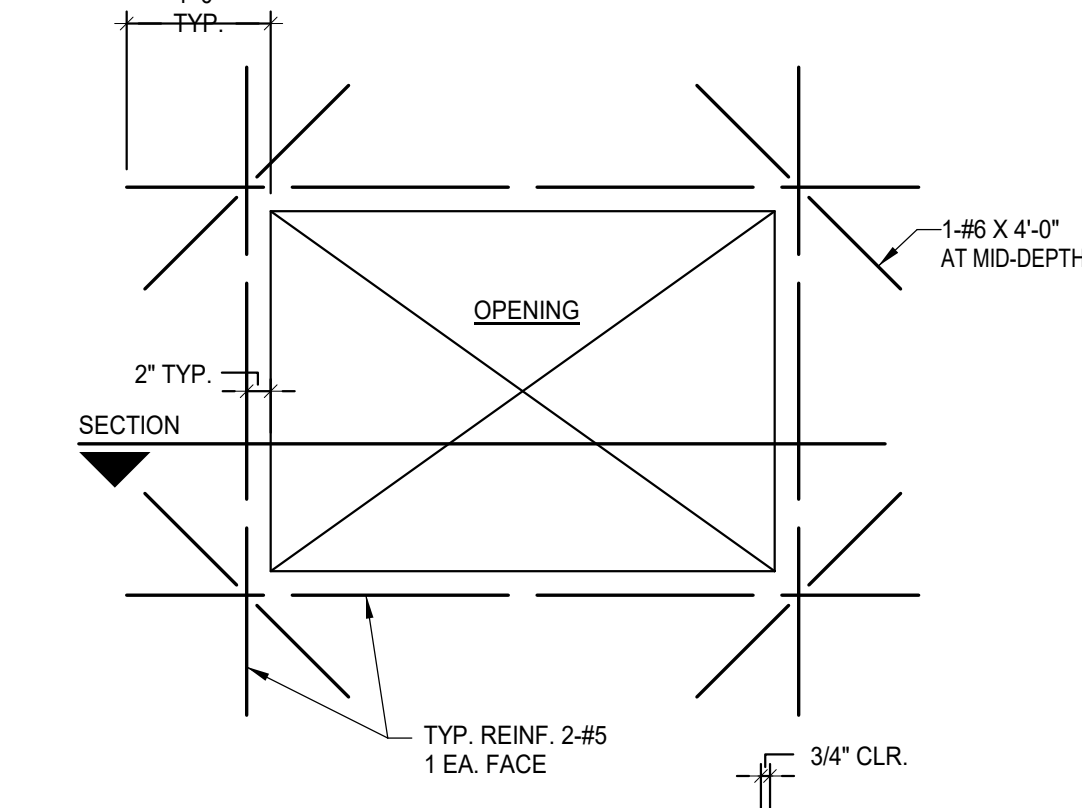
6 DETAIL TYP. SECT. @ INT. BM. SCALE: 3/4" = 1'-0"



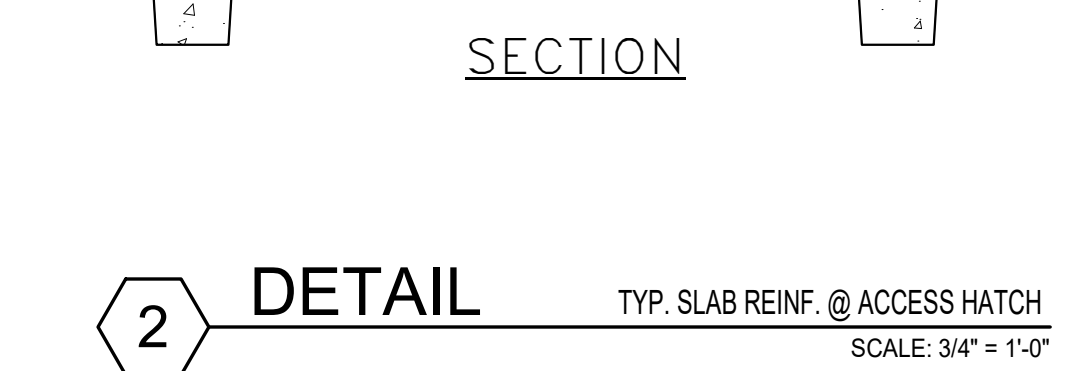
7 DETAIL TYP. ALLOWABLE CONDUIT PLACEMENT SCALE: 3/4" = 1'-0"



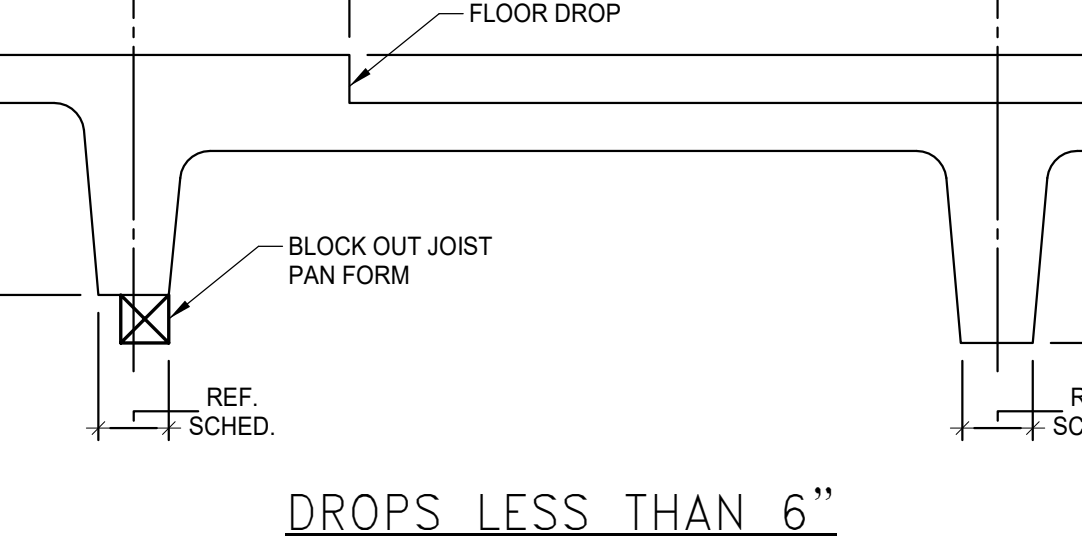
1 DETAIL TYP. REINF. @ SLAB DROP SCALE: 3/4" = 1'-0"



2 DETAIL TYP. SLAB REINF. @ ACCESS HATCH SCALE: 3/4" = 1'-0"



3 DETAIL TYP. SLAB SECT. @ FLR. DROP SCALE: 3/4" = 1'-0"



4 DETAIL TYP. REINF. @ SLAB DROP SCALE: 3/4" = 1'-0"

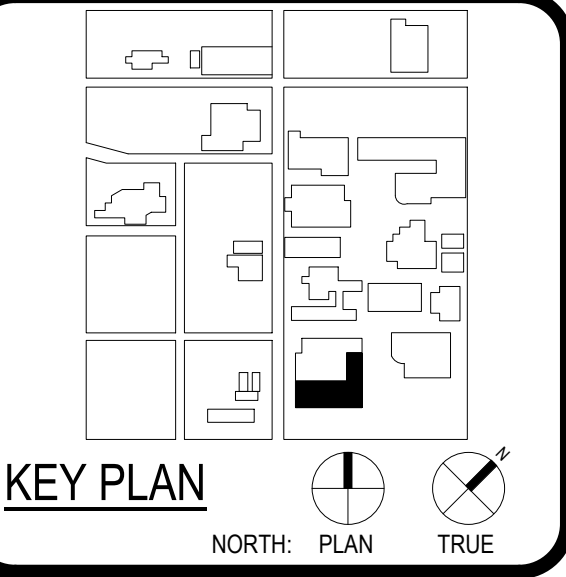
- CONCRETE JOIST NOTES:**
- CJ-1 STEEL PAN-JOIST FORMS SHALL BE SPACED SO THAT JOISTS IN ADJACENT SPANS ARE IN EXACT ALIGNMENT UNLESS SHOWN OTHERWISE. NARROWER WIDTH FORMS SHALL BE COORDINATED WITH BASIC SPACING WHERE MAKE-UPS ARE REQUIRED.
  - CJ-2 WHERE STIRRUPS ARE SCHEDULED, (1) 6-LEG LADDER STIRRUP ASSEMBLY WITH VERTICAL LEGS AT 11" O.C. IS THE MINIMUM. IF SCHEDULE CALLS FOR MORE THAN 6 LEGS, USE A COMBINATION OF LADDER STIRRUP ASSEMBLIES TO PROVIDE REQUIRED NUMBER OF LEGS AT SPACING SCHEDULED.
  - CJ-3 JOIST TOP BARS SHALL BE SUPPORTED ON 1" DIA. X 1'-0" SUPPORT BARS PLACED ON 3/4" BAR CHAIRS ACROSS PAN FORMS AT 4'-0" O.C. TIED TO STIRRUPS BEGINNING AT FIRST LEG.
  - CJ-4 BEAM STEEL SHALL HAVE CLEARANCE OF 1-1/2" TO STIRRUPS AT BOTTOM AND SIDES BUT 2-1/2" AT TOP. JOIST STEEL SHALL HAVE CLEARANCE OF 1-1/2". THEREFORE, REINFORCEMENT SHALL BE PLACED IN THE FOLLOWING SEQUENCE:
    1. PLACE ALL BEAM BARS.
    2. PLACE BOTTOM JOIST BARS.
    3. PLACE SUPPORT BARS (NOTE CJ-3).
    4. PLACE TOP JOIST BARS.
    5. PLACE EXTRA SLAB BARS (NOTE CJ-7).
    6. PLACE WELDED WIRE FABRIC.
  - CJ-5 REINFORCE SLAB WITH 4x4-W3.5x3.5 WELDED WIRE FABRIC, LAPPED 1-1/2 MESHES AT SPLICES. DRAPE OVER TOP JOIST BARS AND TIE DOWN SECURELY IN BOTTOM OF SLAB MIDWAY BETWEEN JOISTS. 3/4" OFF BOTTOM WITH BAR CHAIRS AND TIED TO FROM AT 24" O.C. MESH SHALL EXTEND OVER THE ENTIRE WIDTH OF BEAMS.
  - CJ-6 WHERE FLOOR DROPS (DEPRESSIONS) OCCUR, ADJUST PAN FORMS SO THAT SLAB THICKNESS IS MAINTAINED AS SHOWN IN DETAILS.
  - CJ-7 WHERE JOIST RUN PARALLEL TO BEAMS OR WALLS, PROVIDE #3 DOWELS AT 2'-0" O.C. AT EDGE BEAMS ONLY. (SEE DETAIL).
  - CJ-8 UNLESS SPECIFICALLY SHOWN ON FRAMING PLANS, JOISTS SHALL NOT BE INTERRUPTED OR REDUCED IN CROSS SECTIONAL AREAS WITHOUT ENGINEER'S APPROVAL.
  - CJ-9 IF VERTICAL MECHANICAL SLEEVE PROJECTS INTO A JOIST BY MORE THAN 1-1/2", WIDEN JOIST BY USING NEXT SMALLER PAN WIDTH FOR A DISTANCE OF 4'-0" BOTH SIDES OF SLEEVE AND FIELD DRAPE BARS AROUND SLEEVES (NO TORCHING).
  - CJ-10 CONDUITS IN 4-1/2" SLABS SHALL NOT BE LARGER THAN 1" DIAMETER, WHERE CONDUIT IS PARALLEL (OR NEARLY PARALLEL) TO JOIST, DO NOT LOCATE IN CENTER THIRD OF SLAB SPAN.
  - CJ-11 PROVIDE 6" WIDE BRIDGING JOIST WHERE INDICATED "BJ" ON PLAN. REINFORCE WITH 1-#6 CONTINUOUS TOP AND BOTTOM AND ANCHOR INTO TERMINAL BEAMS WITH #6 X 5'-0" CORNER BAR TOP AND BOTTOM.
  - CJ-12 WHERE PARTITIONS RUNNING PARALLEL TO JOISTS ARE DESIGNATED BY THE SYMBOL ON THE FRAMING PLAN, OR NOTED ON ARCHITECTURAL DRAWINGS, ADD #4 X 6'-0" AT 9" O.C. FOR ENTIRE LENGTH OF JOIST SPAN, IN BOTTOM OF SLAB ON 3/4" BAR CHAIRS, RUNNING PERPENDICULAR TO JOISTS FROM JOIST CENTERLINE TO JOIST CENTERLINE.



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WFAC Black Box Addition PKG 1



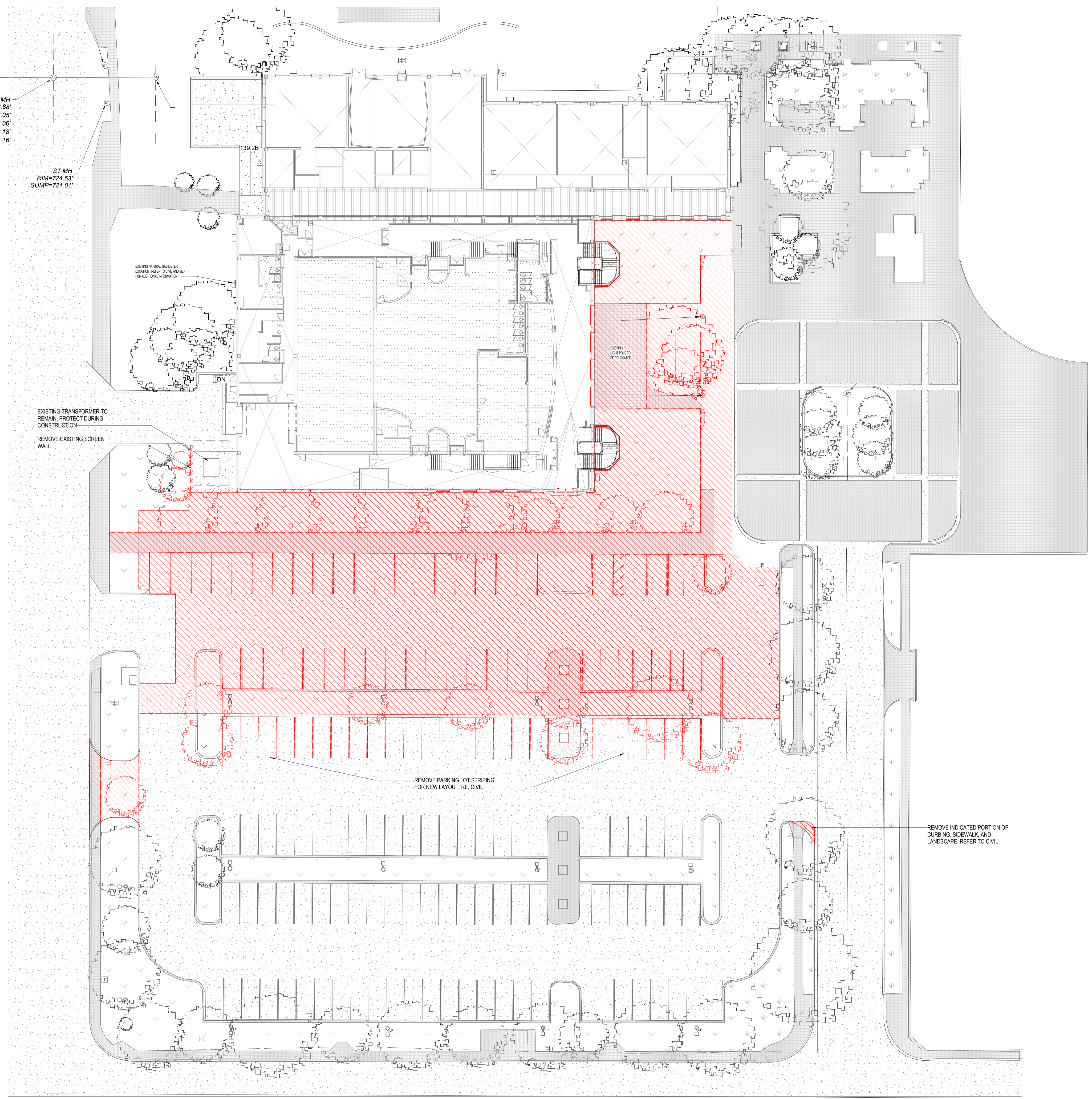
CLIENT Alamo Colleges  
 DATE 2024/05/23 PROJECT NUMBER 230462

No.	Description	Date

ISSUE FOR CONSTRUCTION  
 BUILDING NUMBER AB

CONC. JOIST SCHED,  
 NOTES & DETAILS

# ISSUE FOR CONSTRUCTION



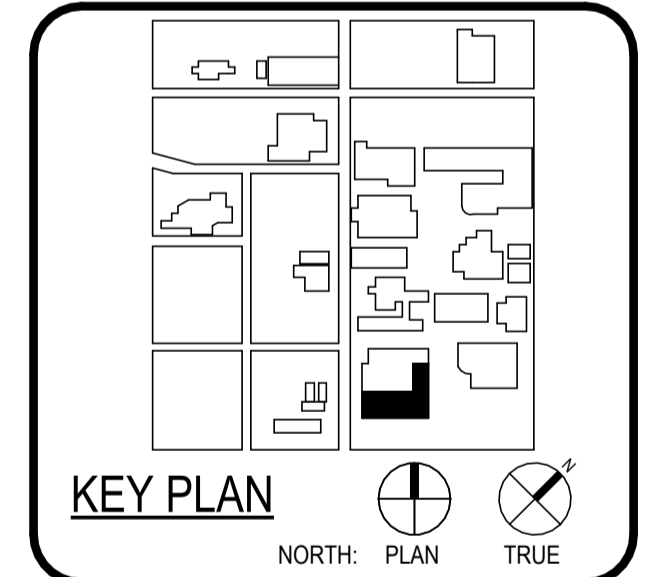
## GENERAL SITE DEMOLITION NOTES

- DEMOLITION PLANS INDICATE SOME OF THE SCOPE OF WORK INVOLVED FOR THE DEMOLITION PHASE OF THIS PROJECT. CONTRACTOR SHALL REVIEW ALL SHEETS FOR ADDITIONAL DEMOLITION SCOPE.
- CONTRACTOR SHALL VERIFY EXISTING SITE AND BUILDING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO DEMOLITION ACTIVITIES AND WORK.
- CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES IN WRITING.
- CONTRACTOR SHALL NOTIFY ARCHITECT AND OWNER OF ANY POSSIBLE ASBESTOS CONTAINING MATERIALS DISCOVERED BEFORE PROCEEDING WITH WORK. PROTECT INTERIOR CONSTRUCTION TO REMAIN DURING DEMOLITION AND CONSTRUCTION.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS BEFORE COMMENCING WORK.
- AFTER AWARD OF THE CONTRACT, CHANGE ORDER REQUESTS FOR ADDITIONAL MONEY WILL NOT BE APPROVED IF THE WORK COULD HAVE BEEN ANTICIPATED DURING A SITE VISIT BY THE CONTRACTOR.
- CONTRACTOR SHALL NOT SCALE DRAWINGS.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY SHORING, TEMPORARY BRACING, AND OR TEMPORARY SUPPORTS AS REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF EXISTING STRUCTURE TO REMAIN AND OR EXISTING BUILDING ELEMENTS TO REMAIN.
- CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES AND WORK.
- CONTRACTOR SHALL REMOVE TRASH AND DEBRIS REGULARLY AS NECESSARY TO ELIMINATED INTERFERENCE WITH ROADS, STREET, WALKS, AND ALL OTHER ADJACENT FACILITIES.
- CONTRACTOR SHALL REMOVE TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF TEMPORARY DUST AND OR SOUND PARTITION BETWEEN CONSTRUCTION AREA AND AREAS NOT IN SCOPE AS NECESSARY. DEMOLITION ACTIVITIES SHALL BE PERFORMED SO AS TO PRODUCE MINIMAL DISTURBANCE TO EXISTING FACILITY AND OCCUPANTS (I.E. MINIMIZE EXCESSIVE AND PROLONGED NOISE LEVELS AND DUST).
- CONTRACTOR SHALL REPAIR, REPLACE, OR PATCH EXISTING BUILDINGS, DRIVEWAYS, SIDEWALKS, CANOPIES, AND OR PARKING AREAS DAMAGED, MODIFIED, AND OR DISTURBED BY DEMOLITION WORK AT NO COST TO THE OWNER.
- ALL EXISTING EQUIPMENT THAT REMAINS SHALL BE PROTECTED DURING DEMOLITION AND OR CONSTRUCTION TO PREVENT DAMAGE. ANY DAMAGE TO REMAINING EXISTING EQUIPMENT SUSTAINED DURING DEMOLITION AND OR CONSTRUCTION SHALL BE EQUIVALENTLY REPLACED OR EQUIVALENTLY REPAIRED AT NO COST TO THE OWNER.
- CONTRACTOR SHALL PROVIDE TRAFFIC HANDLING MEASURES TO PROTECT THE GENERAL PUBLIC AT ALL TIMES, AS NECESSARY AND AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- DO NOT INTERRUPT EXISTING UTILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES AS ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
- WHEN UTILITY SERVICES ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, PROVIDE BYPASS CONNECTIONS TO MAINTAIN CONTINUITY OF SERVICE BEFORE PROCEEDING WITH DEMOLITION.
- CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ELECTRIC, GAS, WATER, TELEPHONE, STORM SEWER, AND SANITARY SEWER FOR FIELD LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITY LINES. PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK, CONTRACTOR SHALL IDENTIFY ALL ELECTRICAL CIRCUITS SERVICING THE AREA INVOLVED WITH THIS DEMOLITION. THOSE CIRCUITS SHALL THEN BE LOCKED OUT AND TAGGED OUT IF THEY DO NOT SERVICE ANY OF THE REMAINING BUILDING. THOSE CIRCUITS WHICH ARE IDENTIFIED TO SERVICE BOTH THE AREA TO BE DEMOLISHED AND THE REMAINING BUILDING SHALL BE SPLIT SO AS TO KILL ALL ELECTRICAL POWER TO THE AREA TO BE DEMOLISHED WHILE MAINTAINING POWER TO THE REMAINDER OF THE BUILDING.
- CONTRACTOR SHALL RELOCATE UTILITIES AND EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW HVAC, ELECTRICAL, PLUMBING, AND TECHNOLOGY REQUIREMENTS FOR NEW WORK.
- PROTECT EXISTING SITE ELEMENTS AND EXISTING LANDSCAPING TO REMAIN. PROTECTION SHALL INCLUDE BUT NOT BE LIMITED TO EXISTING TREES AND OTHER EXISTING VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING, OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIAL OR EXCAVATED MATERIAL WITHIN DRIP LINES.
- CONTRACTOR SHALL REGRADE AND HYDROMULCH AREAS AFFECTED BY DEMOLITION.
- OWNER HAS RIGHT OF FIRST REFUSAL OF ALL ITEMS REMOVED AS PART OF THE SCOPE OF WORK, WHETHER IDENTIFIED AS SALVAGE OR NOT.
- NOTIFY THE BUILDING OWNER OF ANY MATERIALS, FIXTURES, ETC. TO BE REMOVED THAT ARE DESIRED SALVAGEABLE. TURN OVER ANY REQUESTED ITEMS TO THE BUILDING OWNER IN GOOD AND CLEAN CONDITION.
- ALL FURNITURE WILL BE REMOVED OR RELOCATED BY THE OWNER AS NECESSARY PRIOR TO THE DEMOLITION WORK OF THIS PROJECT. CONTRACTOR SHALL COORDINATE WITH OWNER AS REQUIRED.



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TX Firm BR 1608	

WFAC Black Box Addition PKG 1



CLIENT		
Alamo Colleges		
DATE	PROJECT NUMBER	
2024/06/14	230462	
DRAWING HISTORY		
No.	Description	Date
ISSUE FOR CONSTRUCTION		
BUILDING NUMBER	1	

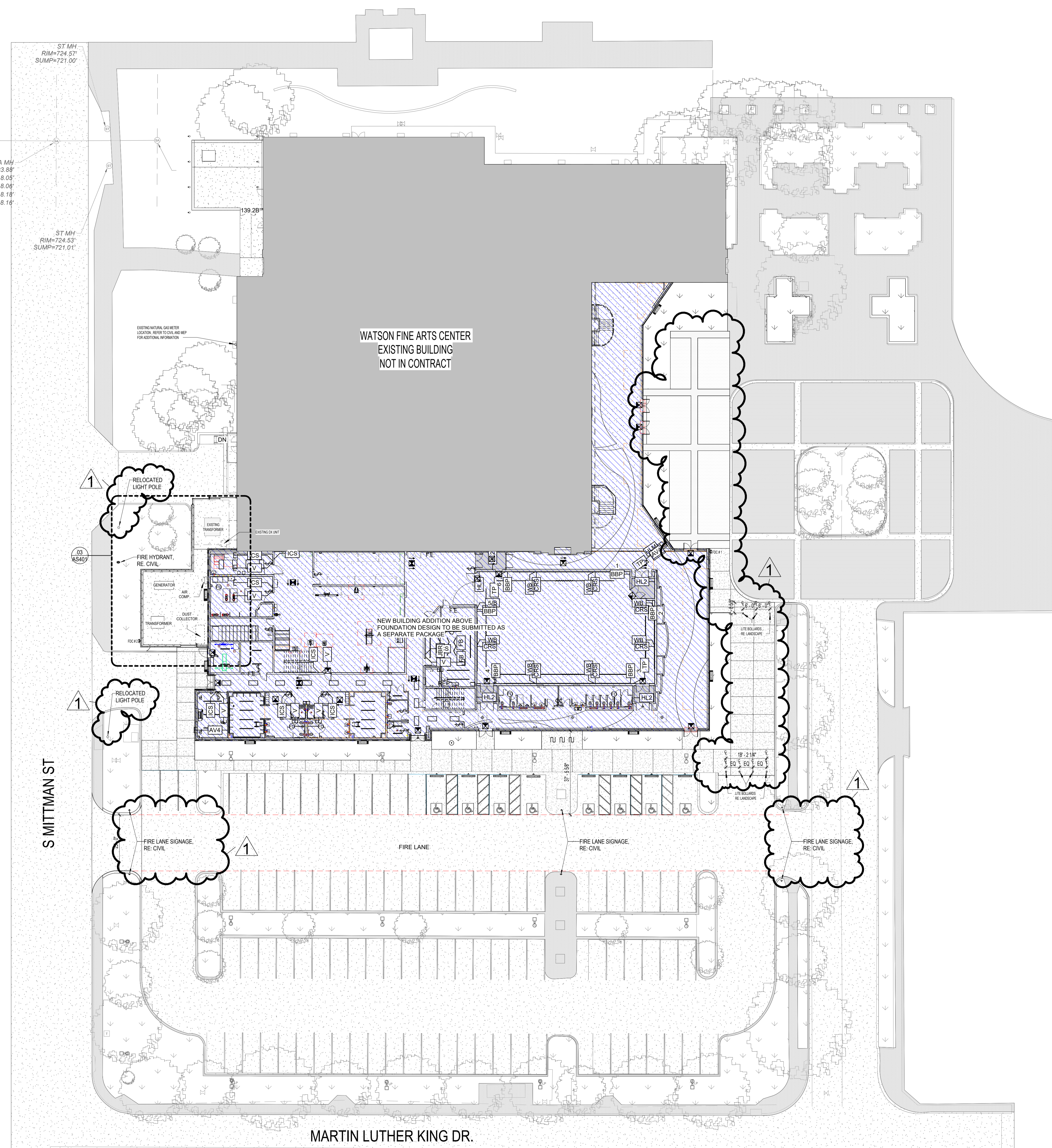
## DEMOLITION ARCHITECTURAL SITE PLAN

ASD101

## SITE DEMOLITION PLAN LEGEND

- EXISTING BUILDING
- DEMO ENTIRE FACILITY (FOUNDATION, STRUCTURE, WALLS, ROOFS)
- DEMO CHAINLINK FENCE
- DEMO ORNAMENTAL FENCE

06 DEMOLITION SITE PLAN  
1" = 20'-0"



GENERAL ARCH SITE PLAN NOTES

- REFER TO CIVIL DOCUMENTS.
- COORDINATE ALL SPOT ELEVATIONS AND DIMENSIONS WITH CIVIL, LANDSCAPE, AND OR STRUCTURAL DOCUMENTS.
- PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS OF 1% MINIMUM, 2% MAXIMUM AT ALL EXTERIOR PAVED PEDESTRIAN AREAS, INCLUDING BUT NOT LIMITED TO SIDEWALKS, PATIOS, STAIRS, PAVING, U.N.O.
- PROVIDE AND INSTALL POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS OF 5% FOR A HORIZONTAL DISTANCE OF 10 FEET AT ALL EXTERIOR NON-PAVED AREAS U.N.O.
- REFER TO CIVIL DOCUMENTS FOR CONCRETE SIDEWALK EXPANSION JOINTS AND CONCRETE SIDEWALK CONTROL JOINTS.
- VERIFY AND CONFIRM ALL JOINT LAYOUTS AT ALL CONCRETE SIDEWALKS WITH ARCHITECT PRIOR TO POURING OF CONCRETE.
- PROVIDE AND INSTALL CONCRETE SIDEWALK EXPANSION JOINTS AT AREAS NOT SPECIFICALLY INDICATED AT 50 FEET ON-CENTER MAX. U.N.O.
- PROVIDE AND INSTALL CONCRETE SIDEWALK CONTROL JOINTS AT AREAS NOT SPECIFICALLY INDICATED AT DISTANCES EQUIVALENT TO SIDEWALK WIDTH, BUT NOT TO EXCEED 10 FEET ON-CENTER MAX.
- VERIFY ALL SITE SIGNAGE LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION OF SITE SIGNAGE.



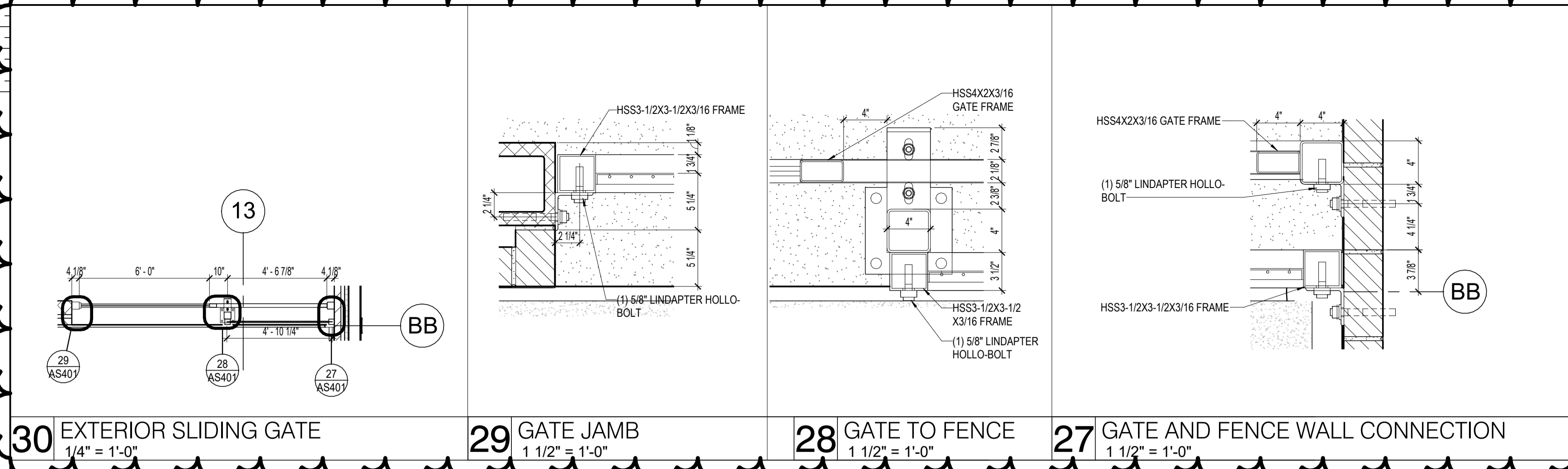
ARCHITECT	PBK Architects, Inc. SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P 210-829-0578 F TX Firm BR 1608
ARCHITECT	B&A ARCHITECTS 1325 W. W. WALKER SAN ANTONIO, TX 78207 210-442-0000 210-442-0001 210-442-0002 210-442-0003 210-442-0004 210-442-0005 210-442-0006 210-442-0007 210-442-0008 210-442-0009 210-442-0010 210-442-0011 210-442-0012 210-442-0013 210-442-0014 210-442-0015 210-442-0016 210-442-0017 210-442-0018 210-442-0019 210-442-0020 210-442-0021 210-442-0022 210-442-0023 210-442-0024 210-442-0025 210-442-0026 210-442-0027 210-442-0028 210-442-0029 210-442-0030 210-442-0031 210-442-0032 210-442-0033 210-442-0034 210-442-0035 210-442-0036 210-442-0037 210-442-0038 210-442-0039 210-442-0040 210-442-0041 210-442-0042 210-442-0043 210-442-0044 210-442-0045 210-442-0046 210-442-0047 210-442-0048 210-442-0049 210-442-0050 210-442-0051 210-442-0052 210-442-0053 210-442-0054 210-442-0055 210-442-0056 210-442-0057 210-442-0058 210-442-0059 210-442-0060 210-442-0061 210-442-0062 210-442-0063 210-442-0064 210-442-0065 210-442-0066 210-442-0067 210-442-0068 210-442-0069 210-442-0070 210-442-0071 210-442-0072 210-442-0073 210-442-0074 210-442-0075 210-442-0076 210-442-0077 210-442-0078 210-442-0079 210-442-0080 210-442-0081 210-442-0082 210-442-0083 210-442-0084 210-442-0085 210-442-0086 210-442-0087 210-442-0088 210-442-0089 210-442-0090 210-442-0091 210-442-0092 210-442-0093 210-442-0094 210-442-0095 210-442-0096 210-442-0097 210-442-0098 210-442-0099 210-442-0100

BRICK QUANTITY TAKEOFF

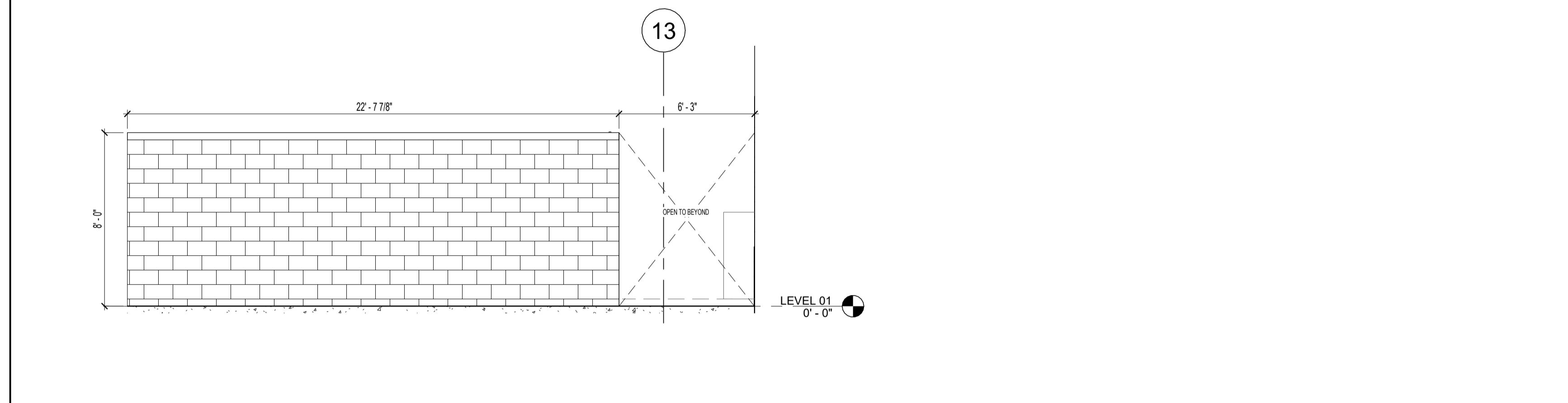
LISTED AREAS ARE ACTUAL SQ. FT. TAKE-OFF FORM FROM THE PACKAGE 2  
 60% CD SET. GC TO ORDER OVERAGE/WASTE AS REQUIRED.  
 ORANGE BRICK - 12,200 SF  
 WHITE BRICK - 2,275 SF  
 IF SPANDREL REPLACEMENT FOR BRICK VE OPTION IS SELECTED  
 ADDED BRICK COUNT  
 ORANGE BRICK - 490 SF  
 WHITE BRICK - 155 SF

ARCH SITE PLAN LEGEND

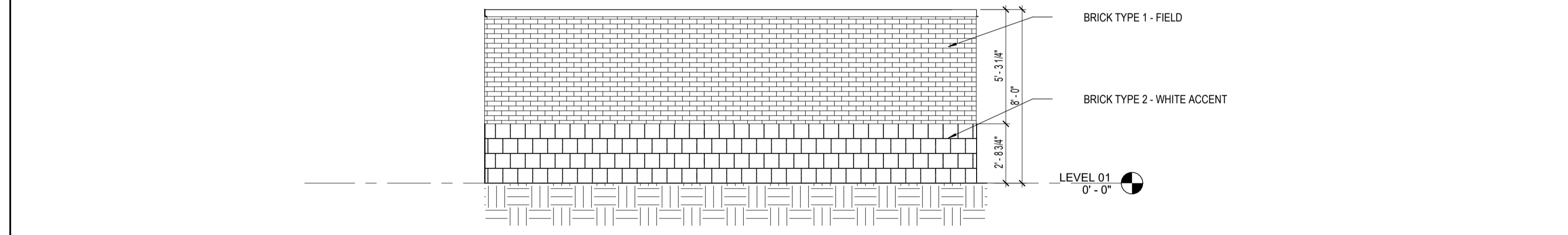
- EXISTING BUILDING
- NOT IN SCOPE
- NEW BUILDING / ADDITION
- GRASS
- SIDEWALK
- TOP CAST CONCRETE; RE: LANDSCAPE
- SALT FINISH CONCRETE; RE: LANDSCAPE



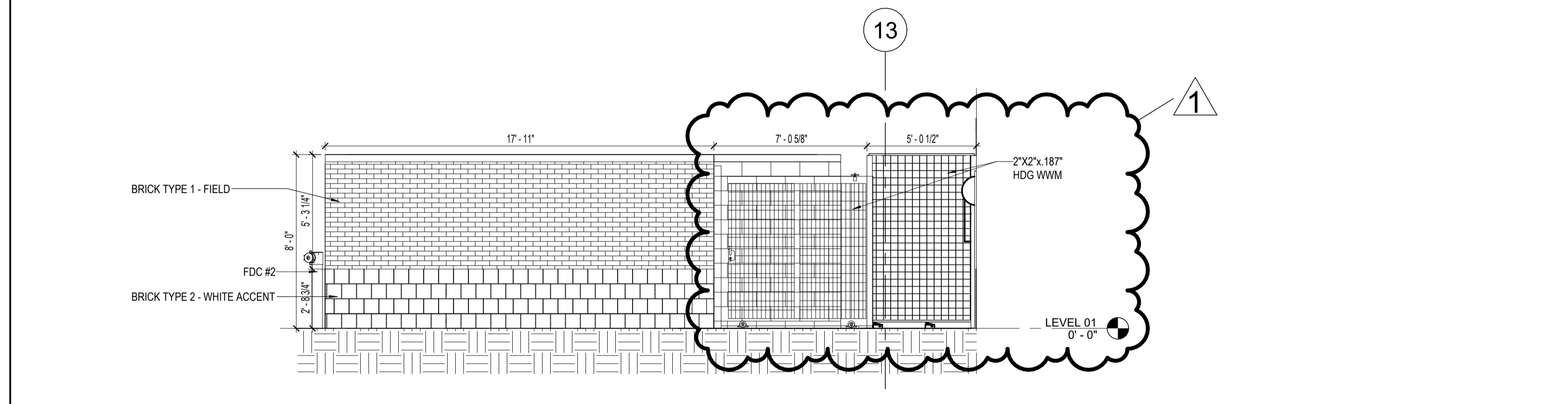
**30** EXTERIOR SLIDING GATE 1/4" = 1'-0"  
**29** GATE JAMB 1 1/2" = 1'-0"  
**28** GATE TO FENCE 1 1/2" = 1'-0"  
**27** GATE AND FENCE WALL CONNECTION 1 1/2" = 1'-0"



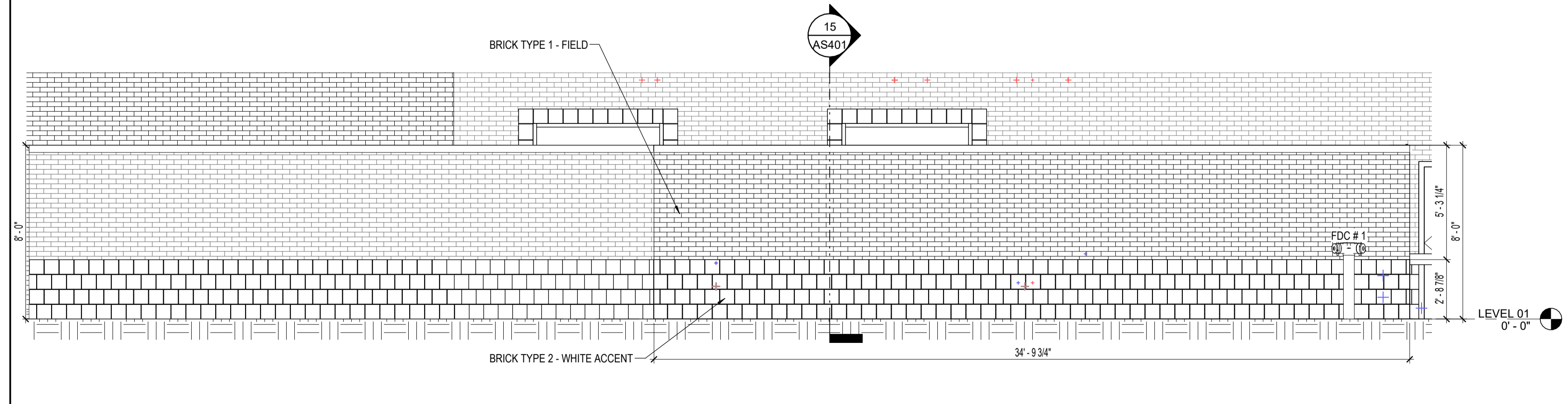
**24** NORTH EQUIPMENT ELEVATION 1/4" = 1'-0"



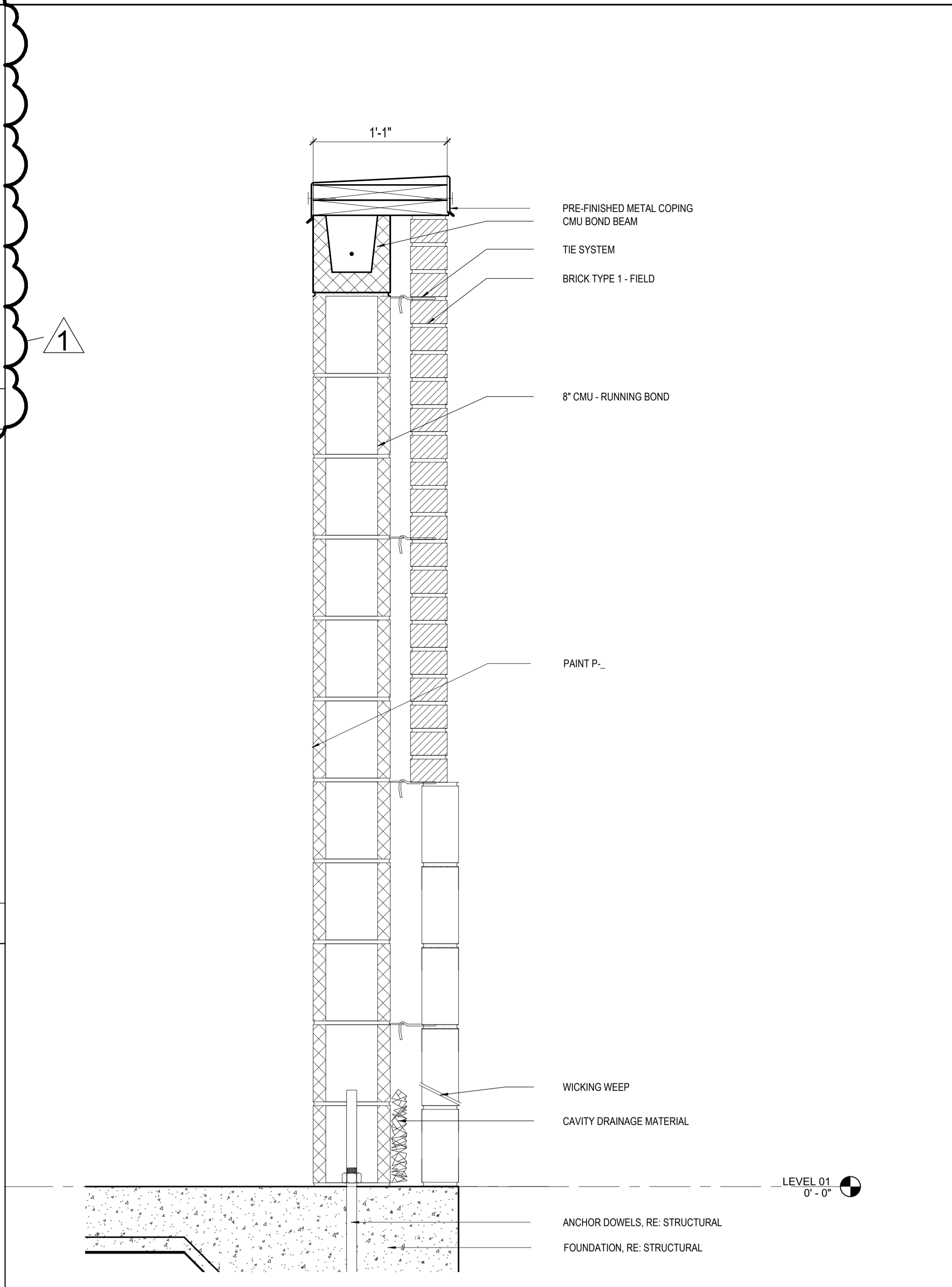
**18** EQUIPMENT ELEVATION NORTH 1/4" = 1'-0"



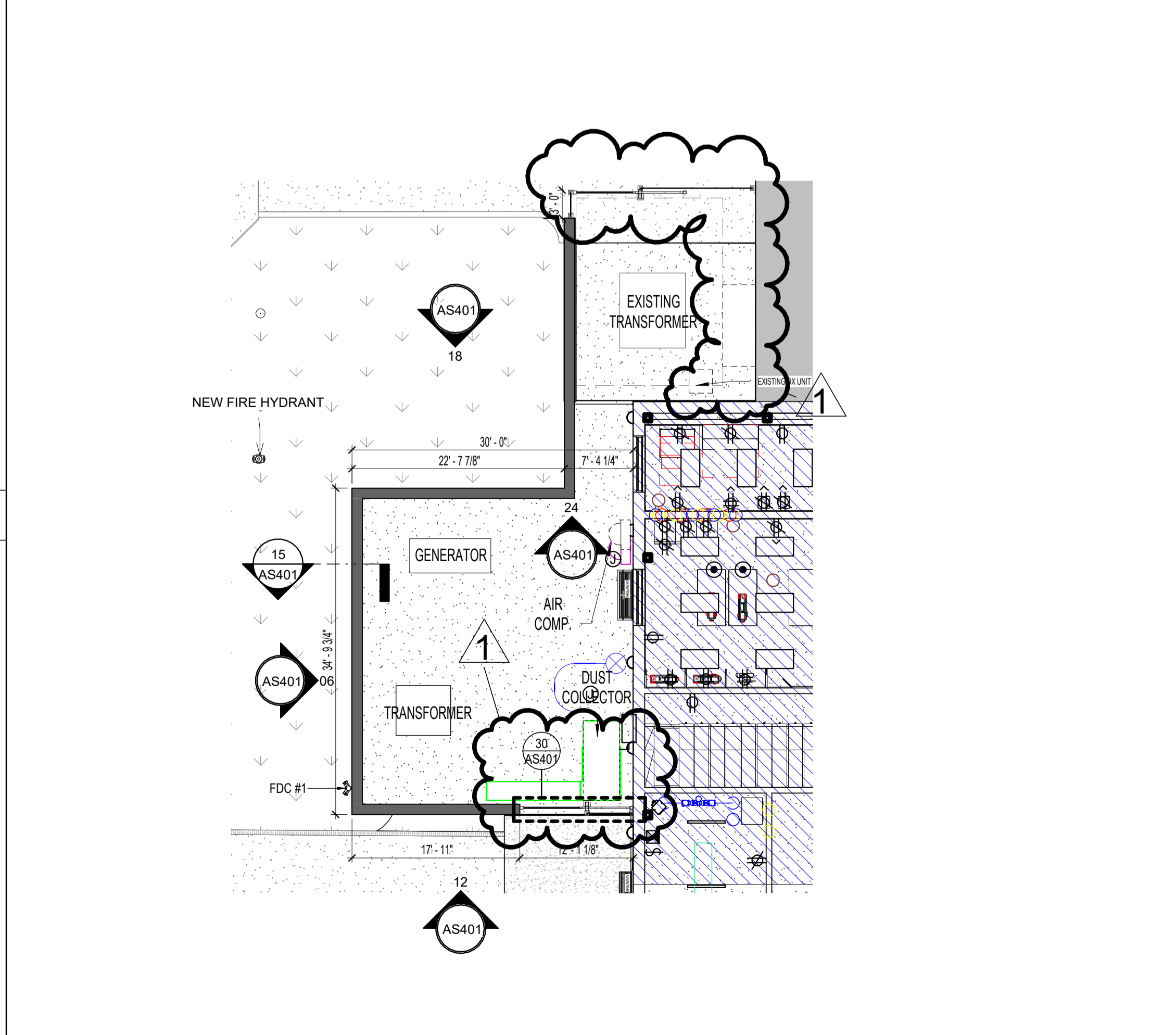
**12** EQUIPMENT ELEVATION SOUTH 1/4" = 1'-0"



**06** EQUIPMENT ELEVATION EAST 1/4" = 1'-0"



**15** CMU WALL SECTION 1 1/2" = 1'-0"



**03** EQUIPMENT ENCLOSURE 3/32" = 1'-0"

GENERAL ARCH SITE PLAN NOTES

- REFER TO CIVIL DOCUMENTS.
- COORDINATE ALL SPOT ELEVATIONS AND DIMENSIONS WITH CIVIL, LANDSCAPE, AND/OR STRUCTURAL DOCUMENTS.
- PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS OF 1% MINIMUM, 2% MAXIMUM AT ALL EXTERIOR PAVED PEDESTRIAN AREAS, INCLUDING BUT NOT LIMITED TO SIDEWALKS, PATIOS, STAIRS, PAVING, U.N.O.
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- REFER TO CIVIL DOCUMENTS FOR CONCRETE SIDEWALK EXPANSION JOINTS AND CONCRETE SIDEWALK CONTROL JOINTS.
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- PROVIDE AND INSTALL CONCRETE SIDEWALK EXPANSION JOINTS AT AREAS NOT SPECIFICALLY INDICATED AT 50 FEET ON-CENTER MAX. U.N.O.
- PROVIDE AND INSTALL CONCRETE SIDEWALK CONTROL JOINTS AT AREAS NOT SPECIFICALLY INDICATED AT DISTANCES EQUIVALENT TO SIDEWALK WIDTH, BUT NOT TO EXCEED 10 FEET ON-CENTER MAX.
- VERIFY ALL SITE SIGNAGE LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION OF SITE SIGNAGE.

KEYNOTE LEGEND

NUMBER	DESCRIPTION
04 05 00 CDP	CAVITY DRAINAGE MATERIAL
04 05 00 TIE	TIE SYSTEM
04 05 00 WWV	WICKING WEEP
04 20 00 BK1	BRICK TYPE 1 - FIELD
04 20 00 BK2	BRICK TYPE 2 - WHITE ACCENT
04 20 00 CBB	CMU BOND BEAM
04 20 00 CUB (R)	8\"/>

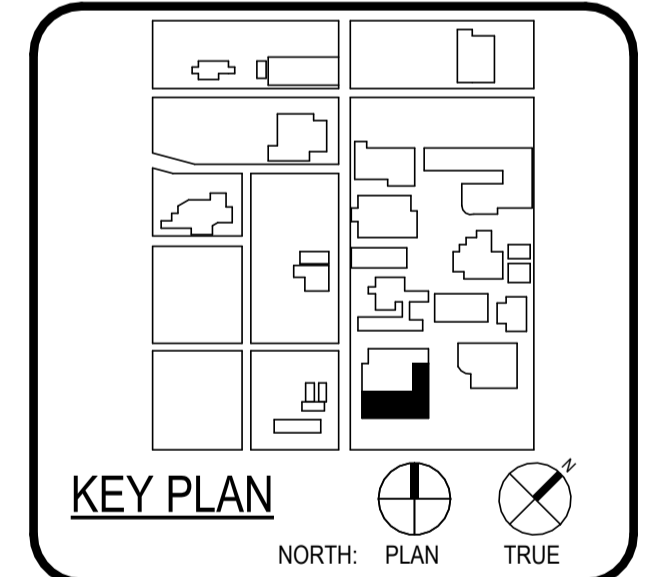
ARCH SITE PLAN LEGEND

- EXISTING BUILDING
- NOT IN SCOPE
- NEW BUILDING / ADDITION
- GRASS
- SIDEWALK
- TOP CAST CONCRETE, RE. LANDSCAPE
- SALT FINISH CONCRETE, RE. LANDSCAPE



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WFAC Black Box Addition PKG 1



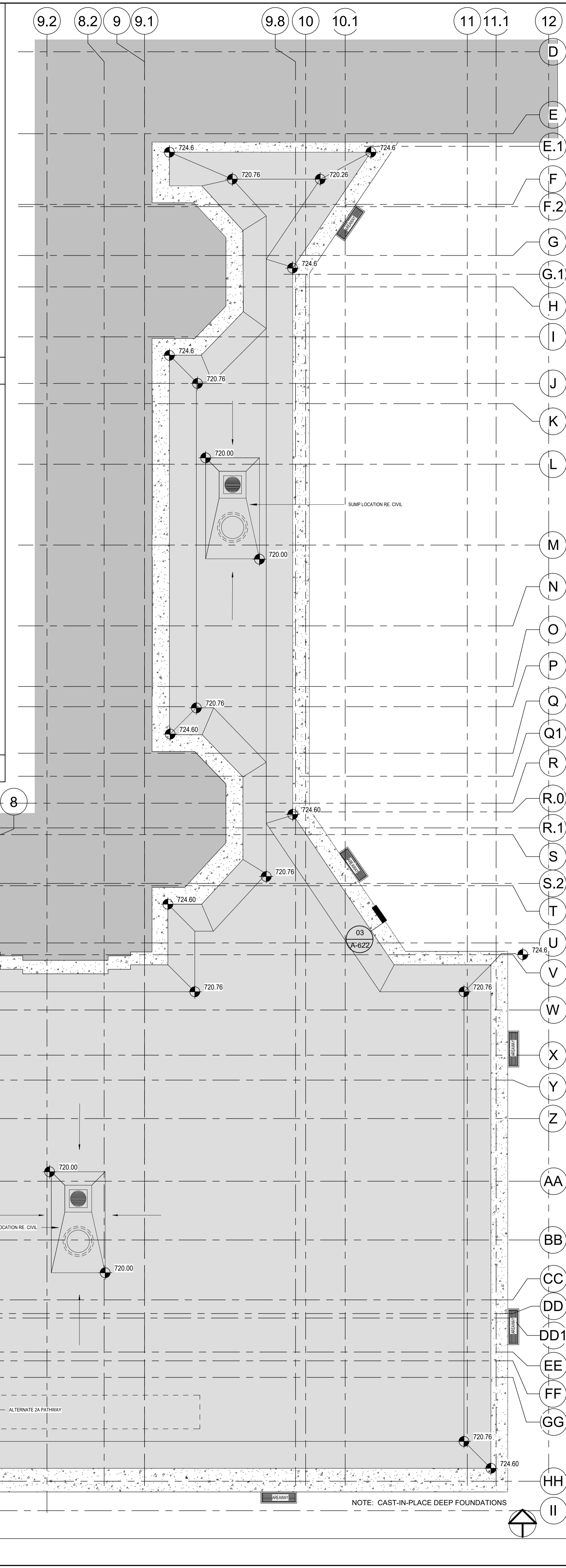
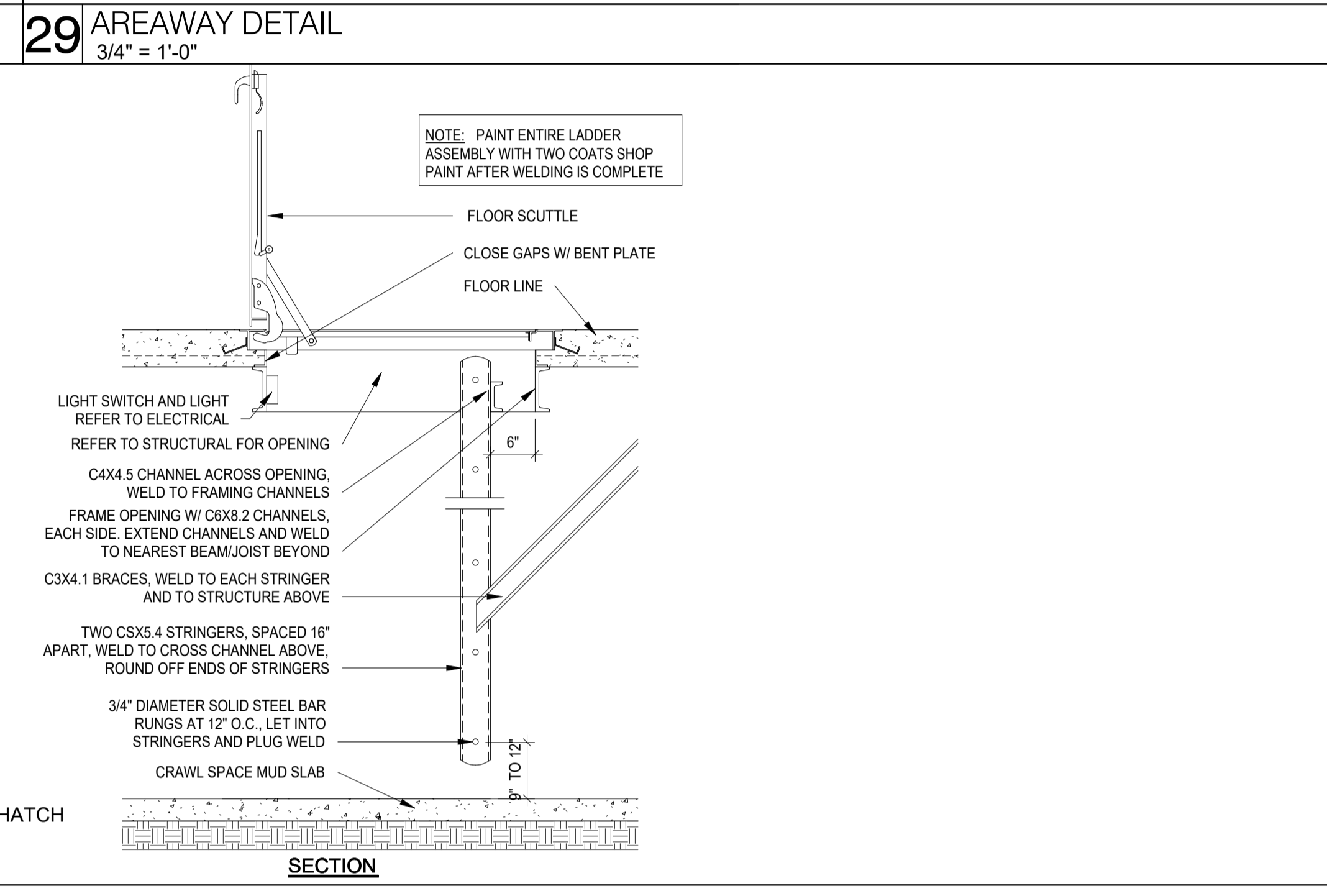
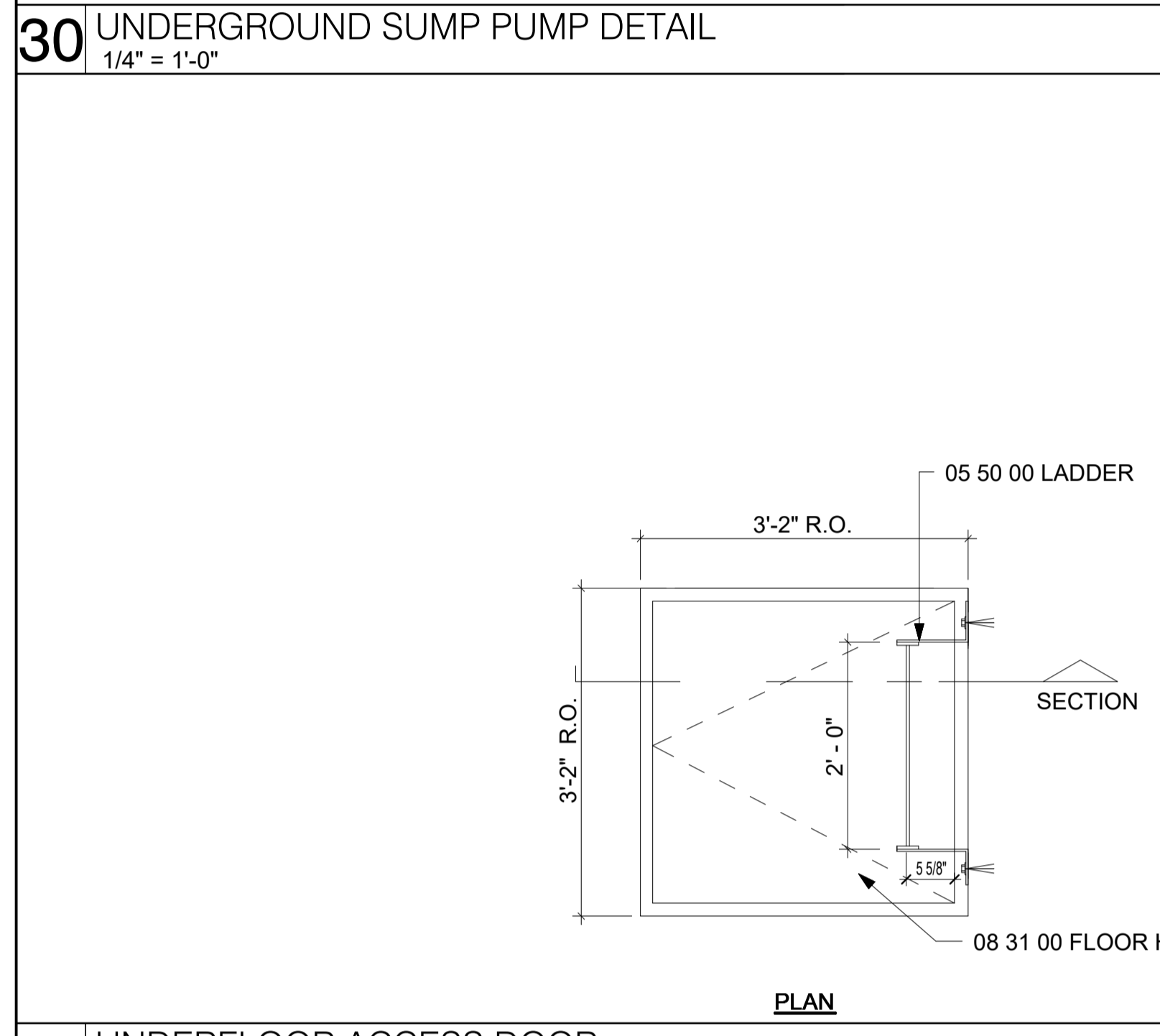
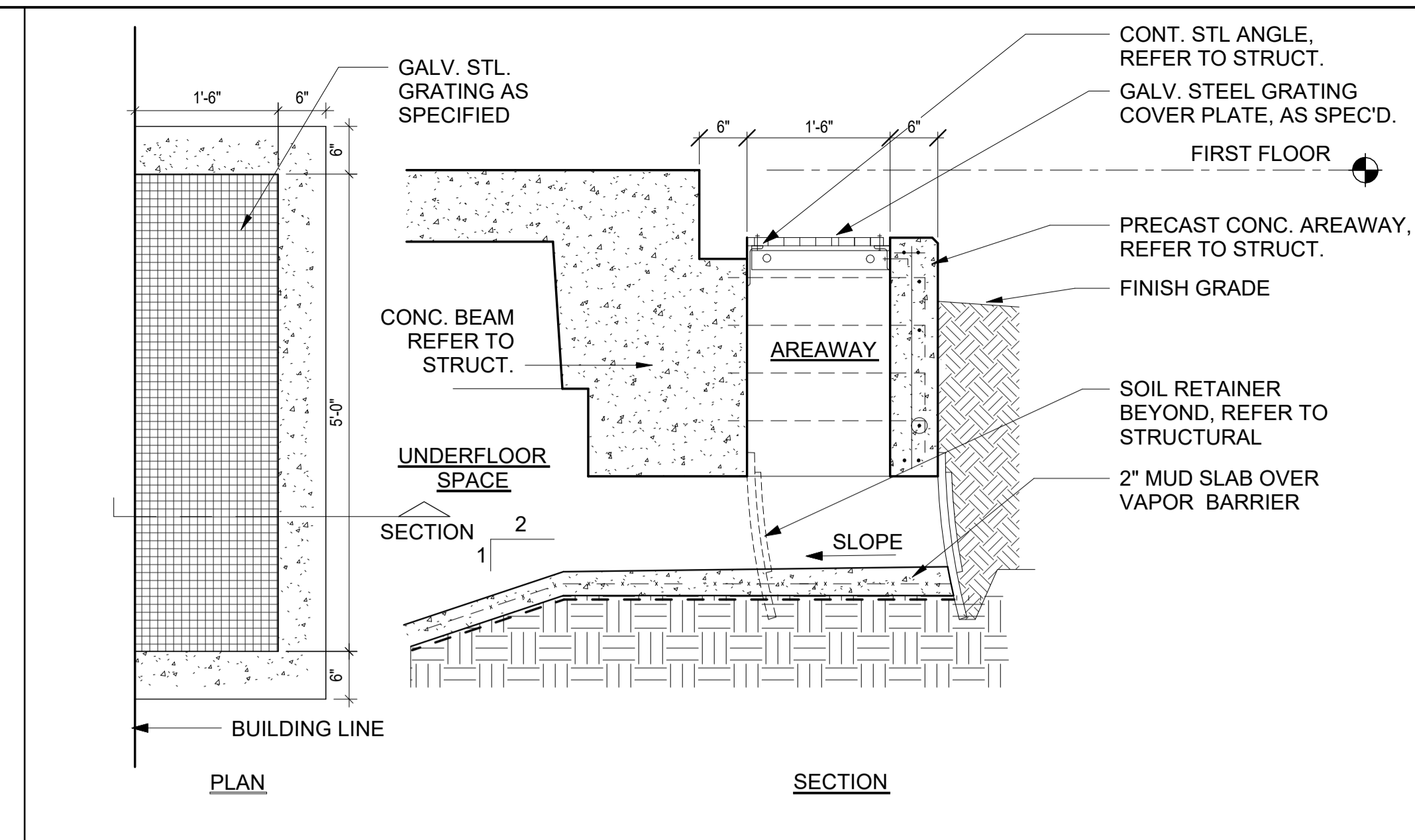
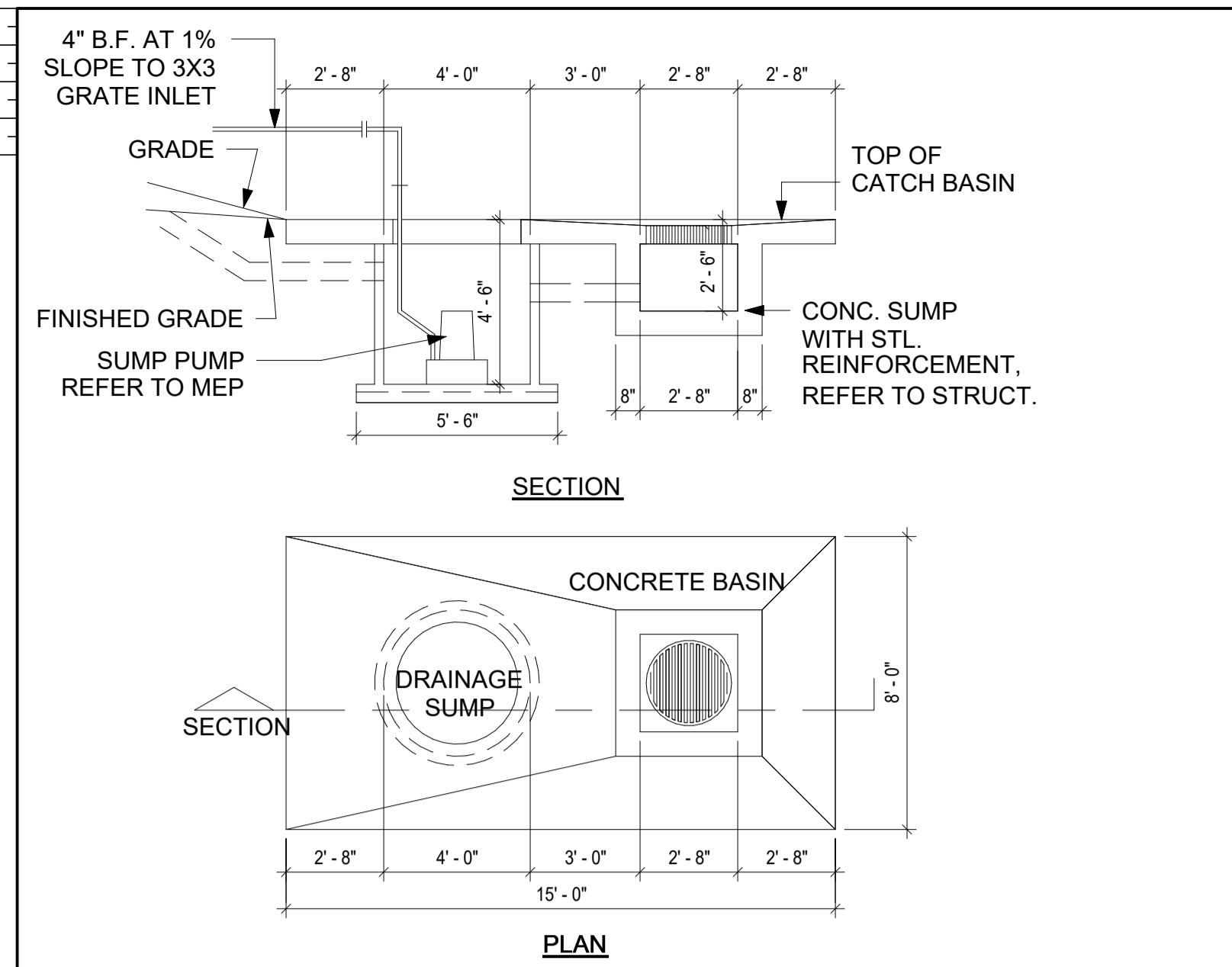
CLIENT		
Alamo Colleges	PROJECT NUMBER	
DATE	230462	
2024/06/14		
DRAWING HISTORY		
No.	Description	Date
1	AS1 #1 - CITY & OWNER COMMENTS	6-14-2024

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER 1

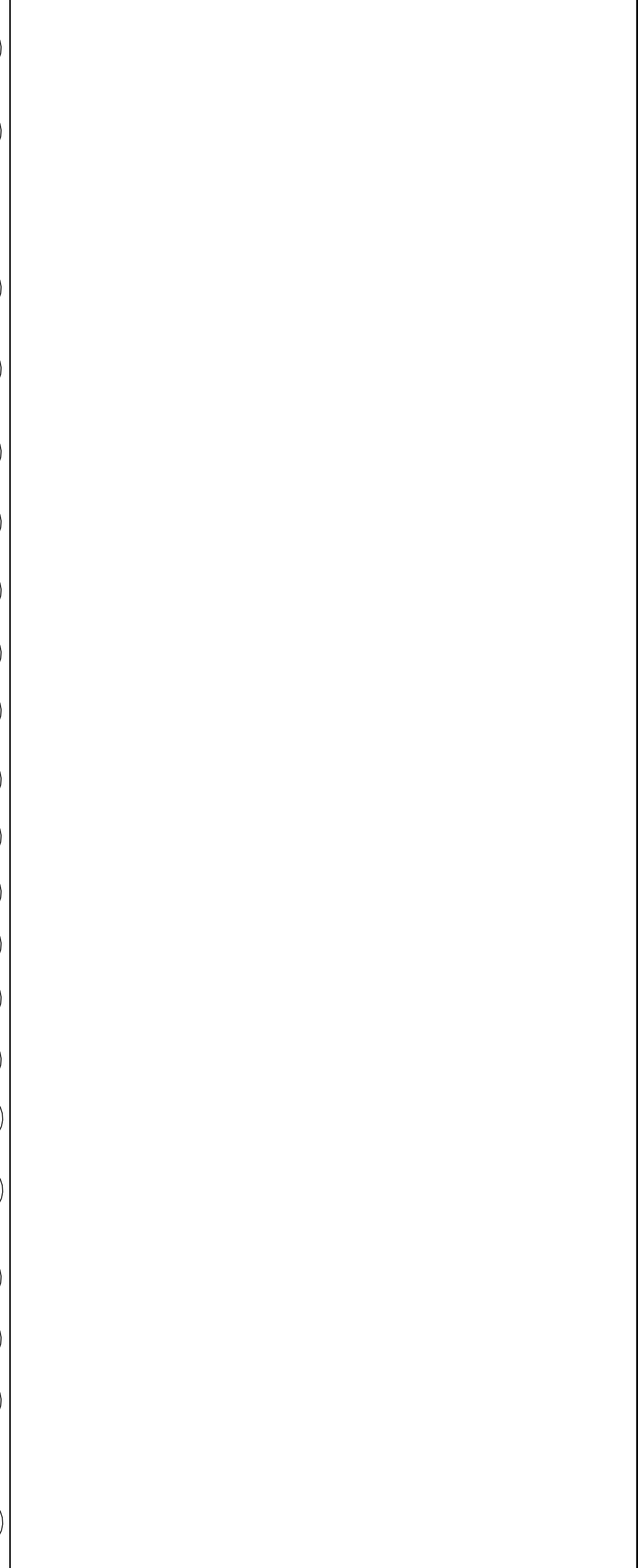
ARCHITECTURAL ENLARGED SITE PLANS

AS401





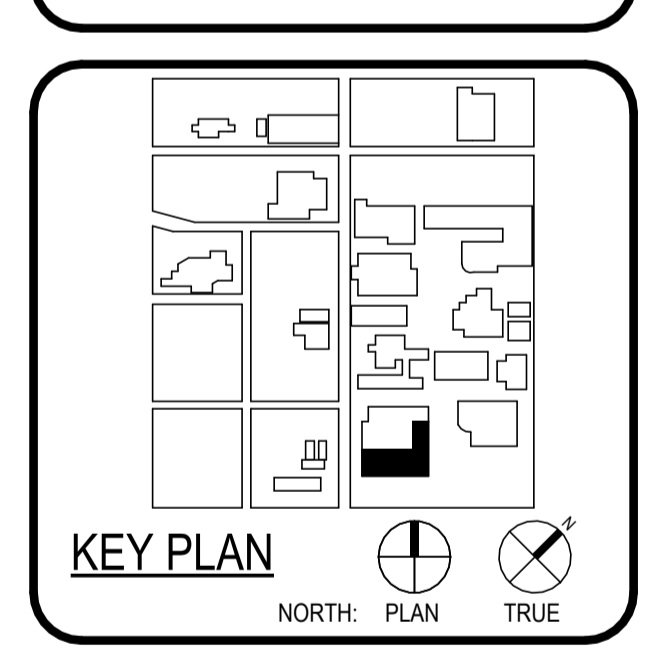
- ### GENERAL ARCH PLAN NOTES
- DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE. CONTACT ARCH IF CLARIFICATION IS NECESSARY IN ORDER TO DETERMINE THE INTENT OF THE CONTRACT DOCUMENTS.
  - DRAWINGS NOTED AS "N.T.S." OR "N.T.S." ARE NOT TO SCALE.
  - ALL DIMENSIONS ARE TO STRUCTURAL COLUMN LINES OR THE SURFACE OF PARTITION ASSEMBLY U.N.O.
  - FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE COMMENCING WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED WORK.
  - NOTES OR DIMENSIONS NOTED AS "TYPICAL" OR "TYP." OR "TYP." SHALL APPLY TO CONDITIONS THAT ARE THE SAME OR SIMILAR.
  - DIMENSIONS NOTED AS "FIELD VERIFY" OR "V.I.F." OR "V.I.P." SHALL BE MEASURED AND CONFIRMED AT THE PROJECT SITE BY THE CONTRACTOR AND REVIEWED WITH THE ARCH. BEFORE INCORPORATING INTO THE WORK.
  - DIMENSIONS NOTED AS "CLEAR" OR "CLEAR INSIDE" OR "CLR" REQUIRE SPECIFIC COORDINATION AMONG DISCIPLINES AND OR MANUFACTURERS.
  - REFER TO PARTITION TYPES ON A-800 SERIES SHEETS.
  - ALL INTERIOR PARTITIONS THIS SHEET, EXCEPT FOR FURR-OUT PARTITIONS, SHALL BE PARTITION TYPE \_38\_ U.N.O.
  - ALL INTERIOR FURR-OUT PARTITIONS THIS SHEET SHALL BE PARTITION TYPE \_F3\_ U.N.O.
  - ADJOIN FINISHED FACE OF WALLS WHERE WALL PARTITIONS OF DIFFERING THICKNESS ABUT AND OR ADJOIN IN THE SAME PLANE.
  - PROVIDE AND INSTALL CONTINUOUS REVEAL TRIM AT JOINT WHERE GYPSUM BOARD WALL PARTITIONS ABUT AND OR ADJOIN MASONRY WALL PARTITIONS IN THE SAME PLANE.
  - ALL INTERIOR CMU OUTSIDE CORNERS SHALL HAVE BULLNOSE U.N.O.
  - ALL DOORS SHALL BE SET 4 INCHES OFF THE ADJACENT PERPENDICULAR WALL ON THE HINGE SIDE OF THE DOOR U.N.O. NOTIFY ARCH. OF ANY DOOR-RELATED CONFLICTS, INCLUDING BUT NOT LIMITED TO CONFLICTS CONCERNING ACCESSIBILITY STANDARDS.
  - ALL DOOR THRESHOLDS AT ALL EXTERIOR DOORS SHALL BE SET IN FULL BED OF SEALANT.
  - COORDINATE ALL ROOF DRAIN LEADER LOCATIONS WITH FLOOR PLAN PRIOR TO FLOOR SLAB CONSTRUCTION.
  - ALL FLOOR SLOPES TO FLOOR DRAINS SHALL NOT EXCEED 1:48.
  - PROVIDE AND INSTALL SELF-LEVELING UNDERLAYMENT WHERE UNEVEN FLOOR SLAB EXISTS PRIOR TO INSTALLATION OF FLOOR FINISHES.
  - COORDINATE HOUSEKEEPING PAD LOCATIONS AND DIMENSIONS WITH EQUIPMENT TO BE INSTALLED.
  - ALL FLOOR FINISH CHANGES SHALL OCCUR AT THE CENTERLINE OF DOORS U.N.O.
  - ALL FLOOR FINISH MATERIAL CHANGES SHALL HAVE REDUCER STRIPS.
  - ALL REQUIRED ACCESSIBLE CLEARANCES FOR ALL ITEMS, INCLUDING BUT NOT LIMITED TO ALL COUNTER TOPS, ALL PLUMBING FIXTURES, ALL DRINKING FOUNTAINS, ALL ELECTRIC WATER COOLERS, ALL LAVATORIES, ALL URINALS, ALL TOILETS SHALL BE STRICTLY ENFORCED.
  - APPLY BITUMINOUS COATING TO ALL CONCEALED STRUCTURAL STEEL MEMBERS AT ALL EXTERIOR CANOPY LOCATIONS.
  - REFER TO OTHER DISCIPLINE DOCUMENTS FOR ADDITIONAL SCOPE OF WORK.



**ARCHITECT** PBK Architects, Inc.  
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 San Antonio, TX 78216  
 210-820-0123 P  
 210-829-0578 F  
 TX Firm BR 1608

**ARCHITECT** BA & ARCHITECTS  
 1801 Marlin Luther King Dr.,  
 San Antonio, TX 78203

**ISSUE FOR CONSTRUCTION**



CLIENT		
Alamo Colleges	PROJECT NUMBER 230462	
DATE 2024/06/14		
DRAWING HISTORY		
No.	Description	Date

**ISSUE FOR CONSTRUCTION**

BUILDING NUMBER 1

**CRAWLSPACE FLOOR PLAN - COMPOSITE**

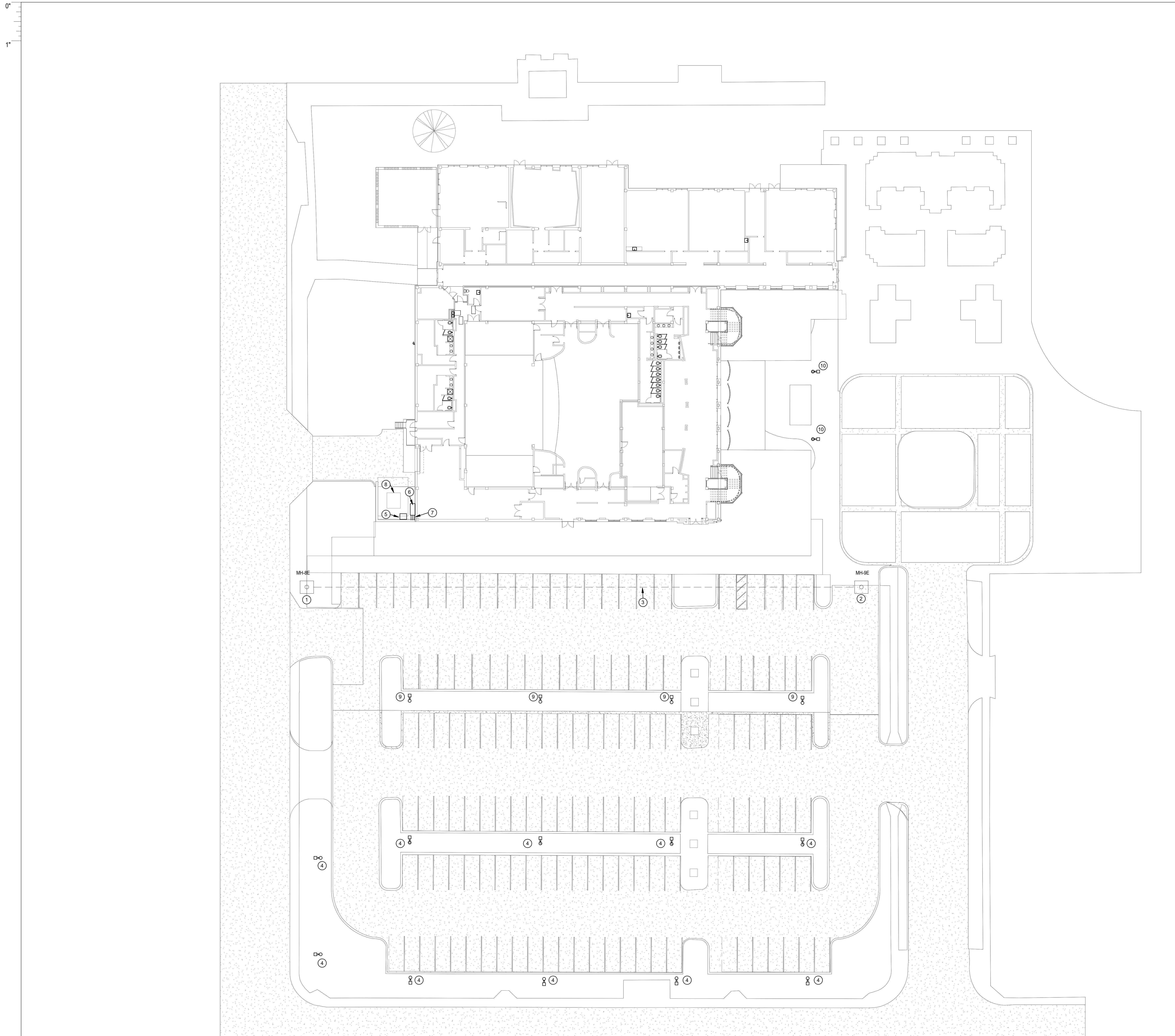




# ISSUE FOR CONSTRUCTION

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- DEMO SITE PLAN GENERAL NOTES:**
- COORDINATE ROUTING FOR ALL UNDERGROUND ELECTRICAL BRANCH CIRCUITS AND FEEDERS WITH OTHER DISCIPLINES PRIOR TO TRENCHING.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY INSTALLATION OF NEW WORK.

- SITE PLAN KEYED NOTES:**
- EXISTING ELECTRICAL MANHOLE.
  - EXISTING ELECTRICAL MANHOLE SHALL BE DEMOLISHED AND RELOCATED.
  - EXISTING UNDERGROUND ELECTRICAL DUGBANK WITH 4 EXISTING CONDUITS TO BE REROUTED FOR NEW BLACK BOX EXPANSION.
  - CONTRACTOR TO VERIFY NEW CONSTRUCTIONS DOES NOT OVERLAP EXISTING PARKING LOT LIGHTING. IF NEW CONSTRUCTIONS OVERLAPS EXISTING FEEDER FOR PARKING LOT LIGHTING, EXISTING FEEDERS FOR SITE LIGHTING SHALL BE RELOCATED.
  - EXISTING CONDENSING UNIT SHALL BE RELOCATED. DISCONNECT AND CONDUCTORS SHALL BE REROUTED. UTILIZE EXISTING CIRCUIT. COORDINATE EXACT LOCATION WITH MECHANICAL DRAWINGS.
  - EXISTING DISTRIBUTION MAIN SERVICE DISCONNECT DP-6 FOR ADJACENT WATSON FINE ARTS BUILDING.
  - EXISTING CONDUITS FROM DP-6 TO WATSON'S FINE ARTS BUILDING SHALL BE RELOCATED TO ACCOMMODATE NEW BUILDING. CONTRACTOR SHALL VERIFY PATH WAY AND RELOCATED CONDUITS AND CONDUCTORS TO NEW AVAILABLE LOCATION WITHOUT IMPEDEING ANY OTHER SERVICES.
  - EXISTING UTILITY TRANSFORMER FOR WATSON FINE ARTS.
  - EXISTING PARKING LOT FIXTURES SHALL BE DEMOLISHED. CONTRACTOR SHALL PRESERVE CIRCUIT RUN FOR ANY EXISTING FIXTURES REMAINING OR TIED TO DEMOLISHED FIXTURES.
  - EXISTING PEDESTRIAN LOT FIXTURES SHALL BE RELOCATED. CONTRACTOR SHALL PRESERVE CIRCUIT RUN FOR ANY EXISTING FIXTURES REMAINING OR TIED TO DEMOLISHED FIXTURES.

**1 DEMO SITE POWER PLAN**  
SCALE: 1" = 20'-0"



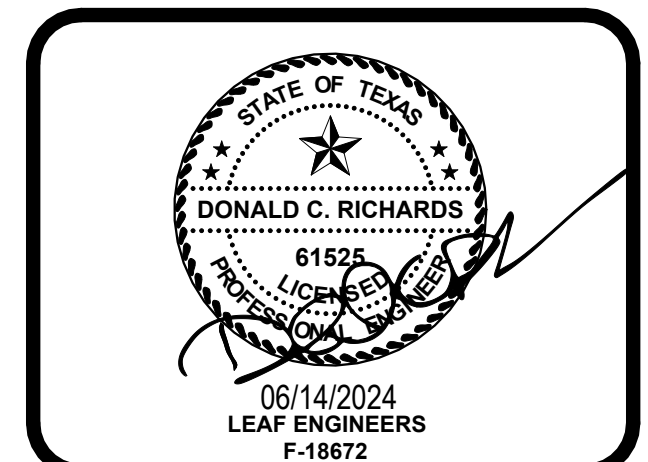
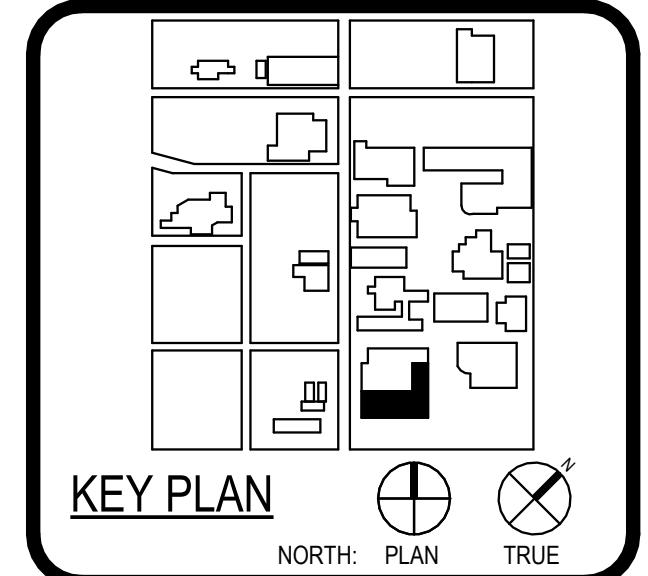
ARCHITECT	PBK Architects, Inc. SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-820-0123 P 210-829-5578 F TX Firm BR 1608
ASSOCIATE ARCHITECT	B&A ARCHITECTS 1100 N. LOOP WEST SUITE 1000 SAN ANTONIO, TX 78207 210-454-0000
ENGINEER	LEAF ENGINEERS 1801 Main Luther King Dr., San Antonio, TX 78203 210-226-0000
LANDSCAPE ARCHITECT	LANDSCAPE 1111 W. LOOP WEST SUITE 1000 SAN ANTONIO, TX 78207 210-454-0000
MECHANICAL ENGINEER	LUNY & FRANK ENGINEERING 1111 W. LOOP WEST SUITE 1000 SAN ANTONIO, TX 78207 210-454-0000
ELECTRICAL ENGINEER	LEAF ENGINEERS 1801 Main Luther King Dr., San Antonio, TX 78203 210-226-0000
PLUMBING ENGINEER	LEAF ENGINEERS 1801 Main Luther King Dr., San Antonio, TX 78203 210-226-0000
MECHANICAL ENGINEER	LEAF ENGINEERS 1801 Main Luther King Dr., San Antonio, TX 78203 210-226-0000



**WFAC Black Box Addition PKG 1**

1801 Main Luther King Dr.,  
San Antonio, TX 78203

ISSUE FOR CONSTRUCTION



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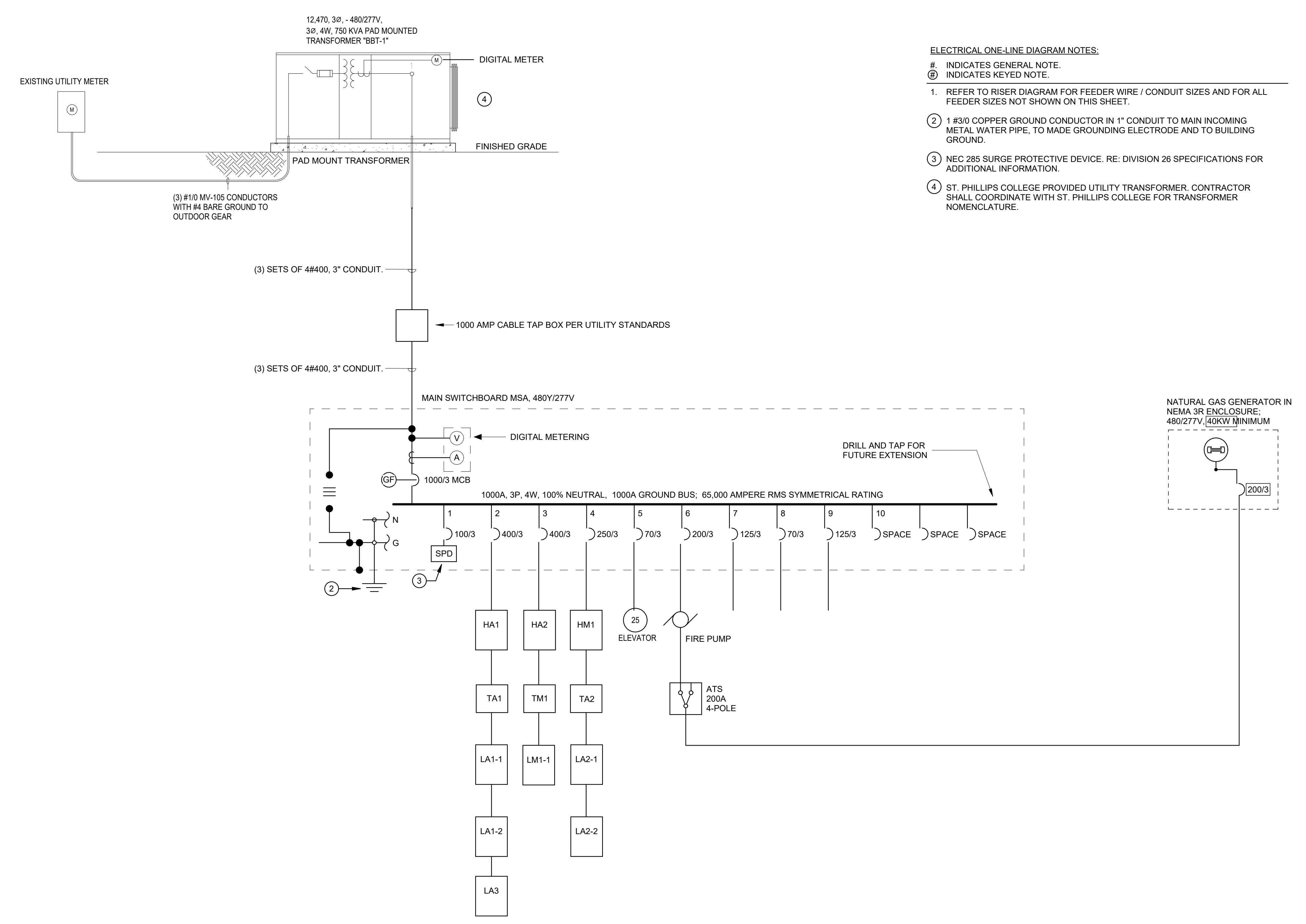
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**DEMO SITE POWER PLAN**

# ISSUE FOR CONSTRUCTION

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- ELECTRICAL ONE-LINE DIAGRAM NOTES:**
- # INDICATES GENERAL NOTE.
  - ④ INDICATES KEYED NOTE.
  - 1. REFER TO RISER DIAGRAM FOR FEEDER WIRE / CONDUIT SIZES AND FOR ALL FEEDER SIZES NOT SHOWN ON THIS SHEET.
  - 2. 1 #3/0 COPPER GROUND CONDUCTOR IN 1" CONDUIT TO MAIN INCOMING METAL WATER PIPE, TO MAKE GROUNDING ELECTRODE AND TO BUILDING GROUND.
  - 3. NEC 285 SURGE PROTECTIVE DEVICE. RE: DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  - 4. ST. PHILLIPS COLLEGE PROVIDED UTILITY TRANSFORMER. CONTRACTOR SHALL COORDINATE WITH ST. PHILLIPS COLLEGE FOR TRANSFORMER NOMENCLATURE.

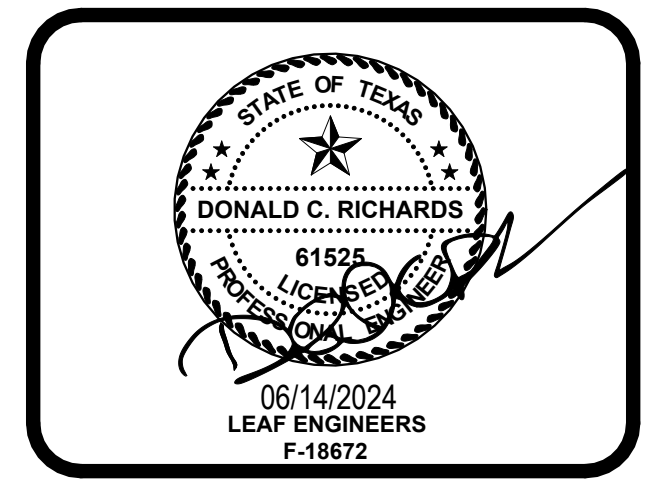
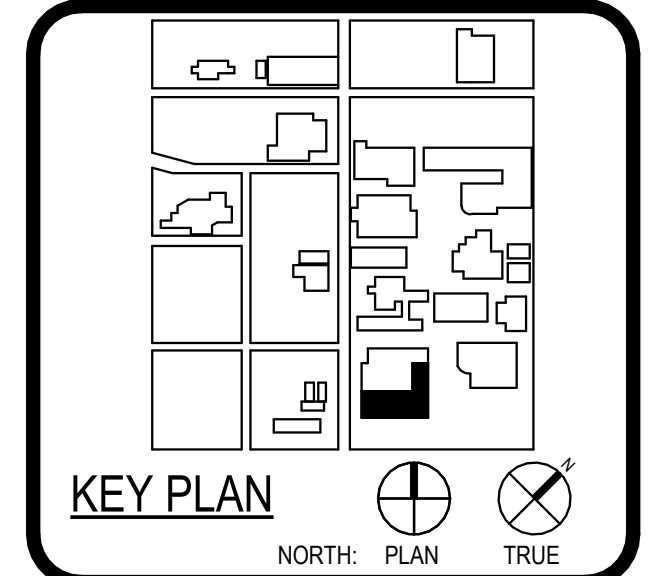


ARCHITECT	PBK Architects, Inc.
SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-820-0123 P 210-829-5578 F TX Firm BR 1608	
ASSOCIATE ARCHITECT	B&A ARCHITECTS
2200 S. W. 15th St. Suite 200 San Antonio, TX 78204 210-341-0000 210-341-0001 210-341-0002 210-341-0003 210-341-0004 210-341-0005 210-341-0006 210-341-0007 210-341-0008 210-341-0009 210-341-0010	



WFAC Black Box Addition PKG 1

1801 Main St, Luther King Dr.,  
 San Antonio, TX 78203  
 ISSUE FOR CONSTRUCTION



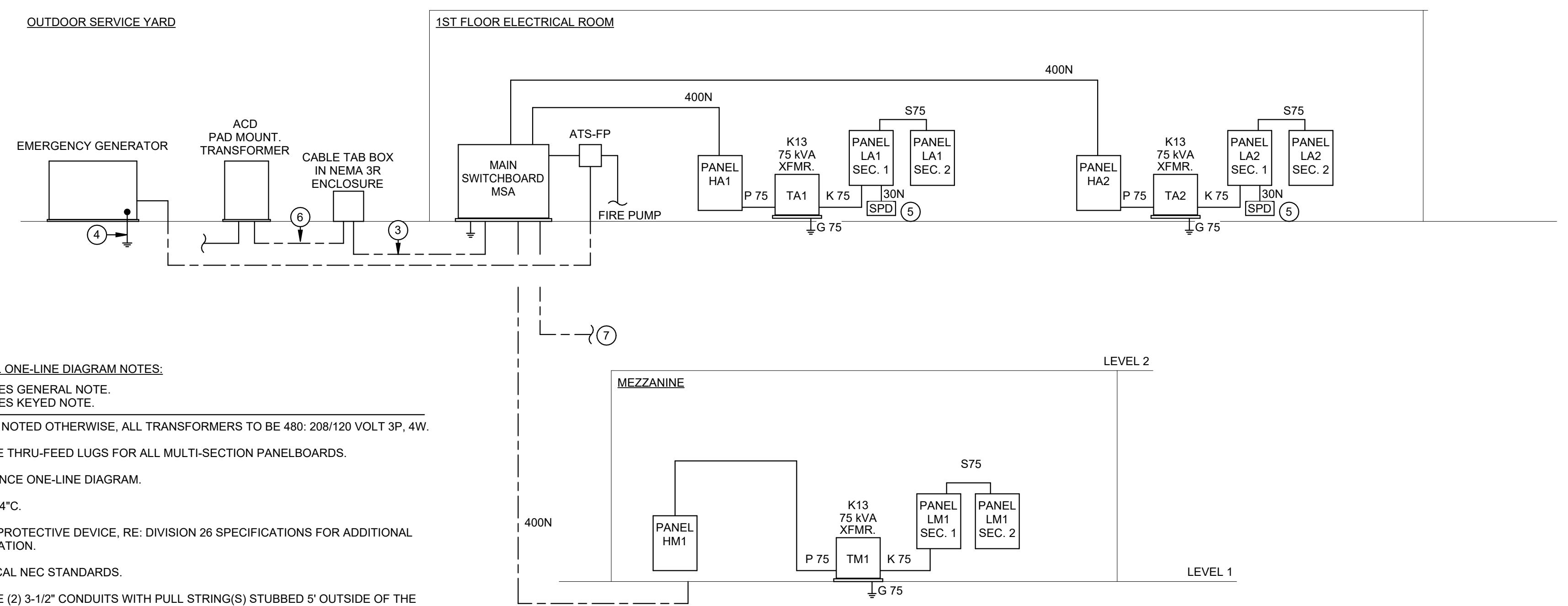
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ISSUE FOR CONSTRUCTION  
 BUILDING NUMBER 1

ELECTRICAL  
 ONE-LINE DIAGRAM

E-501

5  
1



- ELECTRICAL ONE-LINE DIAGRAM NOTES:**
- # INDICATES GENERAL NOTE.
  - Ⓢ INDICATES KEYED NOTE.
1. UNLESS NOTED OTHERWISE, ALL TRANSFORMERS TO BE 480/208/120 VOLT 3P, 4W.
  2. PROVIDE THRU-FEED LUGS FOR ALL MULTI-SECTION PANELBOARDS.
  3. REFERENCE ONE-LINE DIAGRAM.
  4. 1#6 G, 3/4"C.
  5. SURGE PROTECTIVE DEVICE, RE: DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  6. PER LOCAL NEC STANDARDS.
  7. PROVIDE (2) 3-1/2" CONDUITS WITH PULL STRING(S) STUBBED 5' OUTSIDE OF THE MAIN BUILDING FOR FUTURE USE.

ALUMINUM FEEDER SCHEDULE				
TAG NUMBER	CONDUCTOR QUANTITY AND SIZE	CONDUIT SIZE	SETS	COMMENTS
200	3#250, 1#4G	2"	1	
200N	4#250, 1#4G	2 1/2"	1	
225	3#300, 1#2G	2 1/2"	1	
225N	4#300, 1#2G	3"	1	
250	3#350, 1#2G	2 1/2"	1	
250N	4#350, 1#2G	3"	1	
300	3#500, 1#2G	3"	1	
300N	4#500, 1#2G	3"	1	
400	3#250, 1#1G	2 1/2"	2	
400N	4#250, 1#1G	2 1/2"	2	
600	3#500, 1#2OG	3"	2	
600N	4#500, 1#2OG	3 1/2"	2	
800	3#400, 1#3OG	3"	3	
800N	4#400, 1#3OG	3"	3	
1200	3#500, 1#3OG	3"	4	
1200N	4#500, 1#3OG	3 1/2"	4	

FEEDER SCHEDULE				
TAG NUMBER	CONDUCTOR QUANTITY AND SIZE	CONDUIT SIZE	SETS	COMMENTS
30N	4#10, 1#10G	1"	1	
50N	4#6, 1#10G	1"	1	
60N	4#6, 1#10G	1"	1	
100	3#1, 1#6G	1 1/2"	1	
100N	4#1, 1#6G	1 1/2"	1	
125	3#1, 1#6G	1 1/2"	1	
125N	4#1, 1#6G	2"	1	
150	3#1/0, 1#6G	1 1/2"	1	
150N	4#1/0, 1#6G	2"	1	
175	3#2/0, 1#6G	2"	1	
175N	4#2/0, 1#6G	2"	1	
200	3#3/0, 1#6G	2"	1	
200N	4#3/0, 1#6G	2"	1	
225	3#4/0, 1#4G	2"	1	
225N	4#4/0, 1#4G	2 1/2"	1	
250	3#250, 1#4G	2 1/2"	1	
250N	4#250, 1#4G	3"	1	
300	3#350, 1#4G	3"	1	
300N	4#350, 1#4G	3"	1	
400	3#3/0, 1#3G	2"	2	
400N	4#3/0, 1#3G	2"	2	
400S	4#500	3 1/2"	1	
600	3#350, 1#1G	3"	2	
600N	4#350, 1#1G	3"	2	
600S	4#350	3"	2	
800	3#500, 1#1OG	3"	2	
800N	4#500, 1#1OG	3 1/2"	2	
800S	4#500	3 1/2"	2	
1000	3#400, 1#2OG	3"	3	
1000N	4#400, 1#2OG	3"	3	
1000S	4#400	3"	3	
1200	3#250, 1#3OG	3"	4	
1200N	4#250, 1#3OG	3"	4	
1200S	4#250	3"	4	
1600S	4#400	3"	5	
2000S	4#400	3"	6	
2500S	4#500	3 1/2"	7	
3000S	4#500	3 1/2"	8	
4000S	4#500	3 1/2"	11	

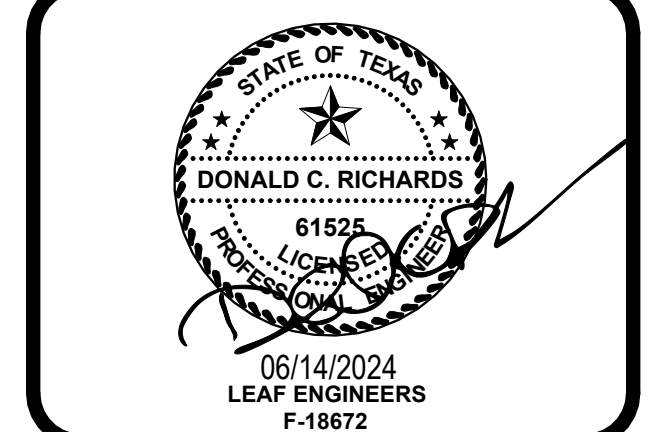
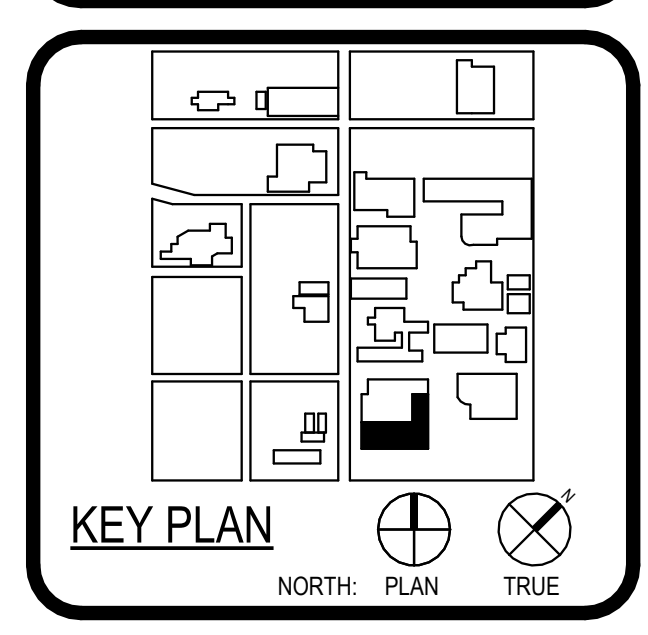
TRANSFORMER FEEDER SCHEDULE				
TAG NUMBER	CONDUCTOR QUANTITY AND SIZE	CONDUIT SIZE	SETS	COMMENTS
P15	3#10, 1#10G	3/4"	1	
S15	4#6, 1#6G	1 1/2"	1	
K15	3#4, 1#6N, 1#6G	1 1/4"	1	
G15	1#6G	1/2"	1	
P15	2#6, 1#10G	3/4"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
S15	3#4, 1#6G	1 1/2"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
G15	1#6G	3/4"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
P25	2#6, 1#10G	1"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
D25	3#1, 1#6G	1 1/2"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
G25	1#6G	3/4"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
P30	3#6, 1#10G	3/4"	1	
S30	4#1, 1#6G	1 1/2"	1	
K30	3 #1/0, 1#2/0N, 1#6G	2"	1	
G30	1#6G	1/2"	1	
P37	2#1, 1#6G	1 1/4"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
D37	3#3/0, 1#4G	3"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
G37	1#4G	3/4"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
P45	3#4, 1#6G	1"	1	
S45	4#1/0, 1#6G	1 1/2"	1	
K45	3#2/0, 1#250, 1#4G	2"	1	
G45	1#6G	1/2"	1	
P50	2#1, 1#6G	1 1/4"	1	
S50	3#3/0, 1#3G	2"	1	
G50	1#3G	3/4"	1	
P75	3#1, 1#6G	1 1/2"	1	
S75	4#4/0, 1#2G	2 1/2"	1	
K75	3#4/0, 2#3/0N, 1#2G	2 1/2"	1	
G75	1#1/0G	1/2"	1	
P75	2#3/0, 1#6G	2"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
S75	3#3/0, 1#4G	2"	2	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
G75	1#4G	3/4"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
P75A	3#1, 1#6G	1 1/2"	1	FOR 480 3Ø: 120/240 3Ø TRANSFORMERS
S75A	4#4/0, 1#2G	2 1/2"	1	FOR 480 3Ø: 120/240 3Ø TRANSFORMERS
G75A	1#2/0	1/2"	1	FOR 480 3Ø: 120/240 3Ø TRANSFORMERS
P112	3#2/0, 6G	2"	1	
S112	4#3/0, 1#10G	2"	2	
K112	3#4/0, 1#350N, 1#1/0G	2 1/2"	2	
G112	1#1/0G	3/4"	1	
P150	3#250, 1#4G	2 1/2"	1	
S150	4#350, 1#2OG	3"	2	
K150	3#350, 2#3/0N, 1#2OG	3"	2	
G150	1#2OG	3/4"	1	
P167	2#4/0, 1#2OG	2"	2	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
S167	3#350, 1#3OG	3"	3	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
G167	1#3OG	3/4"	1	FOR 480 1Ø: 120/240 1Ø TRANSFORMERS
P225	3#500, 3#3G	3"	1	
S225	4#350, 1#2OG	3"	1	
K225	3#350, 2#4/0, 1#1G	3 1/2"	3	
G225	1#2OG	3/4"	1	



ARCHITECT  
SAN ANTONIO  
601 N.W. Loop 410, Suite 400  
San Antonio, TX 78216  
210-820-0123 P  
210-829-5578 F  
TX Firm BR 1608



WFAC Black Box Addition PKG 1  
1801 Main Luther King Dr.,  
San Antonio, TX 78203  
ISSUE FOR CONSTRUCTION



CLIENT Alamo Colleges		PROJECT NUMBER 230462
DATE 06/14/2024		
DRAWING HISTORY		
No.	Description	Date

ISSUE FOR CONSTRUCTION  
BUILDING NUMBER 1

**ELECTRICAL RISER DIAGRAM**

**GENERAL ELECTRICAL NOTES**

- UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR OTHERWISE INSTRUCTED BY THE ARCHITECT, ELECTRICAL OUTLETS SHALL HAVE THE FOLLOWING MOUNTING HEIGHTS. DIMENSIONS ARE TO CENTER OF BOX UNLESS OTHERWISE NOTED.
  - WALL SWITCHES
    - 15" AFF TO BOTTOM OF BOX
    - 15" AFF TO BOTTOM OF BOX
  - WALL CONVENIENCE RECEPTACLES
    - 15" AFF TO BOTTOM OF BOX
  - WALL DATA/VOICE OUTLETS
    - 7'-0" AFF (OR ABOVE CHALKBOARDS WHERE REQUIRED)\*
  - WALL OUTLETS FOR WALL MTD. TELEPHONE
    - 7'-0" AFF (OR ABOVE CHALKBOARDS WHERE REQUIRED)\*
  - WALL CLOCK OUTLETS
    - 7'-0" AFF (OR ABOVE CHALKBOARDS WHERE REQUIRED)\*
  - MANUAL FIRE ALARM PULL STATIONS
    - 1'-0" BELOW CEILING, OR IN CEILING, AS REQUIRED\*
  - FIRE ALARM SPEAKER/HORN
    - 1'-0" BELOW CEILING, OR IN CEILING, AS REQUIRED\*
  - INTERIOR BELLS BUZZERS, HORNS
    - 15" AFF TO BOTTOM OF BOX (OR HIGHER AS REQUIRED TO SERVE EQUIPMENT)
  - SPECIAL PURPOSE WALL OUTLETS
    - 15" AFF TO BOTTOM OF BOX (OR HIGHER AS REQUIRED TO SERVE EQUIPMENT)
  - PUSH BUTTONS
    - 80" AFF TO BOTTOM OF LENS OR 6" BELOW CEILING, WHICHEVER IS LOWER, ENTIRE LENS TO BE WITHIN 80" TO 96" AFF\*
  - ADA VISUAL ALARM
    - 80" AFF TO BOTTOM OF LENS OR 6" BELOW CEILING, WHICHEVER IS LOWER, ENTIRE LENS TO BE WITHIN 80" TO 96" AFF\*

AFF = ABOVE FINISHED FLOOR  
AFG = ABOVE FINISHED GRADE

- UNLESS SPECIFICALLY INDICATED ON THE ELECTRICAL DRAWINGS, OUTLETS LOCATED AT COUNTERS AND CABINETS SHALL BE MOUNTED AS SHOWN ON ARCHITECTURAL DETAILS AND ELEVATIONS, OR AS DIRECTED BY ARCHITECT.
- COORDINATE MOUNTING HEIGHTS AND DETAILS OF ALL OUTLETS (POWER, SIGNAL, ETC.) WITH ARCHITECTURAL CASEWORK DRAWINGS PRIOR TO DIVISION 26 ROUGH-IN. PROVIDE COORDINATION DRAWINGS IN ACCORDANCE WITH DIVISION 26 SPECIFICATIONS WHERE CONFLICTS EXIST. OBTAIN APPROVAL FROM ARCHITECT BEFORE ELECTRICAL ROUGH-IN WHEN CONFLICTS ARISE.
- REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF ALL HVAC AND PLUMBING EQUIPMENT. CIRCUITING
  - BRANCH CIRCUITING IS SCHEMATIC IN NATURE AND IS INTENDED TO INDICATE CIRCUIT LOADING AND CONTROL. NOT METHODS OF INSTALLATION. REFER TO SPECIFICATIONS FOR METHODS OF INSTALLATION AND MATERIALS, INCLUDING WHETHER OR NOT BX IS ALLOWED AND WHETHER "THROUGH-FIXTURE" OR "OCTOPUS (EMT WITH FLEXIBLE WHIPS)" TYPE LIGHTING BRANCH CIRCUITING IS REQUIRED.
  - WHERE WIRE SIZE AND CONDUIT SIZE IS NOT INDICATED ON THE DRAWINGS AND/OR PANEL SCHEDULES, REFER TO SPECIFICATIONS FOR MINIMUM SIZE REQUIRED.
  - BRANCH CIRCUITS ON THE DRAWINGS ARE GENERALLY NOT SHOWN GROUPED IN SINGLE RACEWAYS, HOWEVER, GROUPING IS ALLOWED UNDER CERTAIN CONDITIONS. REFER TO DIVISION 26 SPECIFICATIONS UNDER SECTION ENTITLED "ELECTRICAL WIRING" FOR REQUIREMENTS.
  - THE DRAWINGS GENERALLY INDICATE QUANTITY OF CONDUCTORS ON BRANCH CIRCUIT HOME RUNS ONLY. ELSEWHERE WITHIN CIRCUITS, PROVIDE QUANTITY OF CONDUCTORS AS NEEDED TO ACCOMPLISH CIRCUITING AND SWITCHING REQUIREMENTS SHOWN.
- THE ELECTRICAL CONTRACTOR SHALL COMPLY WITH ALL AUTHORITIES HAVING JURISDICTION, NEC, ALL STATE AND LOCAL CODES AND AMENDMENTS.

**GENERAL ELECTRICAL REMODEL NOTES**

- UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR OTHERWISE INSTRUCTED BY THE ARCHITECT, ELECTRICAL OUTLETS SHALL HAVE THE FOLLOWING MOUNTING HEIGHTS. DIMENSIONS ARE TO CENTER OF BOX UNLESS OTHERWISE NOTED.
  - WALL SWITCHES
    - 15" AFF TO BOTTOM OF BOX
    - 15" AFF TO BOTTOM OF BOX
  - WALL CONVENIENCE RECEPTACLES
    - 15" AFF TO BOTTOM OF BOX
  - WALL DATA/VOICE OUTLETS
    - 7'-0" AFF (OR ABOVE CHALKBOARDS WHERE REQUIRED)\*
  - WALL OUTLETS FOR WALL MTD. TELEPHONE
    - 7'-0" AFF (OR ABOVE CHALKBOARDS WHERE REQUIRED)\*
  - WALL CLOCK OUTLETS
    - 7'-0" AFF (OR ABOVE CHALKBOARDS WHERE REQUIRED)\*
  - MANUAL FIRE ALARM PULL STATIONS
    - 1'-0" BELOW CEILING, OR IN CEILING, AS REQUIRED\*
  - FIRE ALARM SPEAKER/HORN
    - 1'-0" BELOW CEILING, OR IN CEILING, AS REQUIRED\*
  - INTERIOR BELLS BUZZERS, HORNS
    - 15" AFF TO BOTTOM OF BOX (OR HIGHER AS REQUIRED TO SERVE EQUIPMENT)
  - SPECIAL PURPOSE WALL OUTLETS
    - 15" AFF TO BOTTOM OF BOX (OR HIGHER AS REQUIRED TO SERVE EQUIPMENT)
  - PUSH BUTTONS
    - 80" AFF TO BOTTOM OF LENS OR 6" BELOW CEILING, WHICHEVER IS LOWER, ENTIRE LENS TO BE WITHIN 80" TO 96" AFF\*
  - ADA VISUAL ALARM
    - 80" AFF TO BOTTOM OF LENS OR 6" BELOW CEILING, WHICHEVER IS LOWER, ENTIRE LENS TO BE WITHIN 80" TO 96" AFF\*

AFF = ABOVE FINISHED FLOOR  
AFG = ABOVE FINISHED GRADE

- UNLESS SPECIFICALLY INDICATED ON THE ELECTRICAL DRAWINGS, OUTLETS LOCATED AT COUNTERS AND CABINETS SHALL BE MOUNTED AS SHOWN ON ARCHITECTURAL DETAILS AND ELEVATIONS, OR AS DIRECTED BY ARCHITECT.
- COORDINATE MOUNTING HEIGHTS AND DETAILS OF ALL OUTLETS (POWER, SIGNAL, ETC.) WITH ARCHITECTURAL CASEWORK DRAWINGS PRIOR TO DIVISION 26 ROUGH-IN. PROVIDE COORDINATION DRAWINGS IN ACCORDANCE WITH DIVISION 26 SPECIFICATIONS WHERE CONFLICTS EXIST. OBTAIN APPROVAL FROM ARCHITECT BEFORE ELECTRICAL ROUGH-IN WHEN CONFLICTS ARISE.
- REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF ALL HVAC AND PLUMBING EQUIPMENT. CIRCUITING
  - BRANCH CIRCUITING IS SCHEMATIC IN NATURE AND IS INTENDED TO INDICATE CIRCUIT LOADING AND CONTROL. NOT METHODS OF INSTALLATION. REFER TO SPECIFICATIONS FOR METHODS OF INSTALLATION AND MATERIALS, INCLUDING WHETHER OR NOT BX IS ALLOWED AND WHETHER "THROUGH-FIXTURE" OR "OCTOPUS (EMT WITH FLEXIBLE WHIPS)" TYPE LIGHTING BRANCH CIRCUITING IS REQUIRED.
  - WHERE WIRE SIZE AND CONDUIT SIZE IS NOT INDICATED ON THE DRAWINGS AND/OR PANEL SCHEDULES, REFER TO SPECIFICATIONS FOR MINIMUM SIZE REQUIRED.
  - BRANCH CIRCUITS ON THE DRAWINGS ARE GENERALLY NOT SHOWN GROUPED IN SINGLE RACEWAYS, HOWEVER, GROUPING IS ALLOWED UNDER CERTAIN CONDITIONS. REFER TO DIVISION 26 SPECIFICATIONS UNDER SECTION ENTITLED "ELECTRICAL WIRING" FOR REQUIREMENTS.
  - THE DRAWINGS GENERALLY INDICATE QUANTITY OF CONDUCTORS ON BRANCH CIRCUIT HOME RUNS ONLY. ELSEWHERE WITHIN CIRCUITS, PROVIDE QUANTITY OF CONDUCTORS AS NEEDED TO ACCOMPLISH CIRCUITING AND SWITCHING REQUIREMENTS SHOWN.
- WHEN REMOVING EXISTING ELECTRICAL WORK WHERE OTHER ITEMS REMAIN ON THE SAME CIRCUIT, THE CONTRACTOR SHALL TAKE WHATEVER STEPS ARE NECESSARY TO MAINTAIN CIRCUIT CONTINUITY. ALL ITEMS NOTED TO BE REMOVED ARE TO REMAIN THE PROPERTY OF THE OWNER. HOWEVER, CONTRACTOR SHALL REMOVE FROM JOB SITE ALL MATERIAL NOT RETAINED BY OWNER. FIELD VERIFY CONDITION OF, AND MODIFICATIONS AND ADDITIONS TO, ALL EXISTING ELECTRICAL FIXTURES, PANELS, WIRING, ETC.
- WHERE DOORS ARE ADDED, OR PORTIONS OF WALLS REMOVED, CONTRACTOR SHALL REMOVE OR RELOCATE ALL ELECTRICAL WORK NECESSARY FOR THE REMODELING MODIFICATION, WHETHER OR NOT THIS WORK IS NOTED ON PLANS.
- WHERE EXISTING JUNCTION BOXES ARE COVERED OR REMOVED, CONTRACTOR SHALL TAKE WHATEVER STEPS ARE NECESSARY TO COMPLY WITH NEC 314-19.
- EXISTING ELECTRICAL BOXES TO REMAIN IN AREAS WHERE NEW WALL FINISHES ARE TO BE APPLIED SHALL BE RESET AS NECESSARY TO PROVIDE FLUSH MOUNTING FOR BOXES.
- CONTRACTOR SHALL FIELD VERIFY EXISTING BRANCH CIRCUIT LOADING WHEN MAKING MODIFICATIONS AND/OR ADDITIONS TO THAT CIRCUIT. IF NEW WORK WOULD OVERLOAD EXISTING CIRCUIT, CONTRACTOR SHALL LOCATE ANOTHER EXISTING CIRCUIT (THE CLOSEST), WHICH WOULD NOT BE OVERLOADED UPON ADDING NEW LOAD, AND SHALL TIE NEW LOAD INTO THAT CIRCUIT.
- WHEN EXISTING ELECTRICAL WORK IS REMOVED, ALL EXPOSED CONDUIT, WIRING, CONTROL AND JUNCTION BOXES ALONG WALLS, FLOOR, AND CEILING SHALL BE REMOVED. BRANCH CIRCUIT WIRES SHALL BE REMOVED BACK TO CIRCUIT BREAKER(S). BLANK COVER PLATES SHALL BE PROVIDED FOR RECESSED UNDER WORK COVERED IN OTHER SECTIONS.
- EXISTING RECESSED INCANDESCENT AND HID LUMINAIRES DESIGNATED FOR TEMPORARY REMOVAL AND RE-USE SHALL BE STORED. ALL SUCH LUMINAIRES NOT THERMALLY PROTECTED PER NEC 410-118 AND 410-130(F) ARE NOT SUITABLE FOR RE-USE AND SHALL BE GIVEN TO THE OWNER. PROVIDE NEW REPLACEMENT LUMINAIRES WITH UL THERMAL PROTECTION, IDENTICAL APERTURE, EQUIVALENT PHOTOMETRICS AND NEW LAMPS.
- CONTRACTOR TO REFER TO ARCHITECTURAL DEMOLITION PLANS AND PHASING PLANS AND HAVE A GOOD UNDERSTANDING OF SCOPE OF PROJECT PRIOR TO COMMENCEMENT OF WORK.
- LUMINAIRE SUPPORT IN SUSPENDED CEILINGS
  - PROVIDE MEANS OF SUPPORT FOR LUMINAIRES PER NEC 410-16. T BAR CLIPS SHALL BE INSTALLED ON THE LUMINAIRE AND SHALL BE FIELD SECURED TO THE INVERTED CEILING TEES SO THAT THE LUMINAIRE IS SECURELY FASTENED TO THE CEILING SYSTEM FRAMING MEMBERS.
  - CEILING TILES SHALL NOT BEAR THE WEIGHT OF LUMINAIRES. SURFACE MOUNT LUMINAIRES, RECESSED DOWNLIGHTS, LIGHT TRACK, EXIT SIGNS, ETC. SHALL BE SUPPORTED BY PROPER FRAMES OR OTHER ATTACHMENT TO MAIN CEILING SYSTEM GRID OR BUILDING STRUCTURE ABOVE CEILING.
  - LUMINAIRES SHALL BE CENTERED IN CEILING TILE.
  - LUMINAIRE SHALL HAVE FLANGE OR TRIM RING FOR CLOSURE OF CEILING CUTOUT OR OPENING.
  - FIRE-RATED CEILING ASSEMBLY: FOR LUMINAIRES TO BE FLUSH-MOUNTED INTO A FIRE-RATED CEILING OR SURFACE MOUNTED TO A FIRE-RATED CEILING, INSTALL WITH INDEPENDENT, SECURE SUPPORT, RACEWAY, CABLE ASSEMBLIES BOXES AND FITTINGS LOCATED ABOVE A FIRE-RATED FLOOR/CEILING OR ROOF CEILING ASSEMBLY SHALL NOT BE SECURED TO, OR SUPPORTED BY, THE CEILING ASSEMBLY INCLUDING CEILING SUPPORT WIRES. PROVIDE AN INDEPENDENT MEANS OF SECURE SUPPORT. INDEPENDENT SUPPORT WIRES SHALL BE DISTINGUISHABLE BY COLOR, TAGGING, OR OTHER EFFECTIVE MEANS FROM THOSE THAT ARE PART OF THE FIRE-RATED DESIGN.
- CONTRACTOR SHALL FIELD VERIFY ANY EXISTING UNDERGROUND PIPING, WIRING, OR OTHER FACILITIES PRIOR TO TRENCHING, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY INSTALLATION OF NEW WORK.
- THE ELECTRICAL CONTRACTOR SHALL COMPLY WITH ALL AUTHORITIES HAVING JURISDICTION, NEC, AND STATE AND LOCAL CODES AND AMENDMENTS.

**ELECTRICAL SYMBOL LEGEND**

- EVERY SYMBOL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS.
- DASHED ELECTRICAL EQUIPMENT GENERALLY INDICATES EXISTING EQUIPMENT.
- LONG-SHORT-SHORT-LONG DASHING GENERALLY INDICATES MATCH LINE OR DEFINES AREA FOR SPECIAL NOTE.

**CIRCUIT RELATED:**

- LIGHTING OR POWER CIRCUIT(S). ARROW INDICATES HOME RUN. LONGER TICK(S) INDICATE NEUTRAL WIRE(S), SHORTER STRAIGHT TICK(S) INDICATE PHASE WIRE(S), SLANTED SHORTER TICK(S) INDICATE SWITCH LEG(S), DOT(S) INDICATE GROUNDING CONDUCTOR(S), DASHED WIRING (LONG-SHORT-LONG DASHES) INDICATES WIRING BELOW SLAB OR GRADE, DASHED WIRING (SERIES OF SHORT DASHES) INDICATES EXISTING WIRING, SLASH THROUGH ARROW INDICATES PARTIAL CIRCUIT, "D" ON HOMERUN ARROW INDICATES DEDICATED CIRCUIT. PROVIDE A SEPARATE NEUTRAL FOR EACH PHASE CONDUCTOR FOR ENTIRE LENGTH OF CIRCUIT FROM PANEL TO OUTLET. COUNT EACH NEUTRAL AS CURRENT-CARRYING AND GROUP A MAXIMUM OF SIX THHN/THWN CONDUCTORS IN A SINGLE RACEWAY; GROUNDING CONDUCTOR IS NOT COUNTED
- JUNCTION BOX
- GROUNDING FIXTURE

**LIGHTING:**

- LED LIGHTING FIXTURE. LETTER INDICATES TYPE, SMALL LETTER INDICATES SWITCH CONTROL, NUMBER INDICATES CIRCUIT, CROSS HATCHING INDICATES FIXTURE ON EMERGENCY SYSTEM, FOR SOLID CIRCLE WITHIN FIXTURE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL
- STRIP TYPE LED LIGHTING FIXTURE. LETTER INDICATES TYPE, SMALL LETTER INDICATES SWITCH CONTROL, NUMBER INDICATES CIRCUIT, FOR SOLID CIRCLE ATTACHED TO FIXTURE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL
- LED LIGHTING FIXTURE. LETTER INDICATES TYPE, SMALL LETTER INDICATES SWITCH CONTROL, NUMBER INDICATES CIRCUIT, FOR SOLID CIRCLE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL
- DESIGNATES FIXTURE ON EMERGENCY POWER. RE: LIGHTING PLAN NOTES AND FIXTURE SCHEDULE NOTES FOR ADDITIONAL INFORMATION
- WALL OR BRACKET MOUNTED FIXTURE OR DEVICE
- EXIT LIGHT FIXTURE. LETTER INDICATES TYPE, NUMBER INDICATES CIRCUIT, NUMBER AND LOCATION OF SHADED TRIANGLE SECTIONS INDICATE NUMBER OF EXIT SIGN FACES AND DIRECTION OF EACH FACE, PROVIDE CHEVRON DIRECTIONAL INDICATORS AS SHOWN ON DRAWINGS

**CONTROL:**

- SWITCH. SMALL LETTER INDICATES FIXTURES CONTROLLED, "PI" INDICATES PILOT LIGHT, "WP" INDICATES WEATHERPROOF, "K" INDICATES KEY OPERATED, "MO" INDICATES SPDT MOMENTARY CONTACT, "Z" INDICATES DPDT, "3" INDICATES 3-WAY, "4" INDICATES 4-WAY, "M" INDICATES MANUAL MOTOR STARTER, CIRCUIT DESIGNATION NEXT TO SWITCH INDICATES BRANCH CIRCUIT NUMBER
- WALL BOX DIMMER SWITCH. "MARK" INDICATES WATTAGE IF OTHER THAN 600, "3D" INDICATES 3-WAY DIMMER
- MULTI-LEVEL SWITCH. CIRCUIT DESIGNATION NEXT TO SWITCH INDICATES BRANCH CIRCUIT NUMBER
- DIGITAL TIME SWITCH
- PHOTOELECTRIC CONTROL
- EMERGENCY POWER OFF (EPO) PUSHBUTTON
- PUSH BUTTON
- WALL MOUNT OCCUPANCY SENSOR
- DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR
- CEILING MOUNTED RESTROOM OCCUPANCY SENSOR
- CEILING MOUNTED CORRIDOR OCCUPANCY SENSOR
- CEILING MOUNTED HIGH CEILING OCCUPANCY SENSOR

**POWER OUTLETS:**

- 20A-125V DUPLEX RECEPTACLE
- 20A-125V GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. "WP" INDICATES WEATHER PROOF DEVICE
- 20A-125V DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP. REFER TO ARCHITECT FOR EXACT HEIGHT ABOVE COUNTER
- 20A-125V CONTROLLED DUPLEX RECEPTACLE
- 20A-125V ISOLATED GROUND TYPE DUPLEX RECEPTACLE
- 20A-125V DUPLEX TAMPER RESISTANT RECEPTACLE WITH (2) USB CHARGING PORTS
- 20A-125V FOURPLEX RECEPTACLE. SAME SYMBOLOLOGY AS DUPLEX RECEPTACLE
- SPECIAL PURPOSE SINGLE POWER RECEPTACLE. RATED AS INDICATED (IF NO RATING INDICATED, RECEPTACLE RATING SHALL MATCH BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE AND SHALL MEET REQUIREMENTS OF EQUIPMENT BEING CONNECTED), "C" INDICATES CLOCK OUTLET
- 20A-125V FLUSH FLOOR DUPLEX RECEPTACLE. 20A WHEN INDICATED OR IF BRANCH CIRCUIT SERVES ONLY SINGLE DUPLEX. PROVIDE CARPED FLANGE WHERE APPLICABLE
- LC1-X CIRCUIT DESIGNATION NEXT TO RECEPTACLE DEVICES INDICATES BRANCH CIRCUIT NUMBER. RE: PANEL SCHEDULES FOR INFORMATION.

**TELEPHONE/DATA:**

- FLUSH FLOOR TELEPHONE OUTLET WITH CARPET FLANGE WHERE APPLICABLE
- WALL COMMUNICATIONS OR DATA OUTLET. REFER TO 'TS' SERIES SHEETS FOR EXACT BOX / CONDUIT REQUIREMENTS
- FLUSH FLOOR COMMUNICATIONS OR DATA OUTLET. REFER TO 'TS' SERIES SHEETS FOR EXACT BOX / CONDUIT REQUIREMENTS. PROVIDE CARPET FLANGE WHERE APPLICABLE
- SURFACE FLOOR COMMUNICATIONS OR DATA OUTLET. REFER TO 'TS' SERIES SHEETS FOR EXACT BOX / CONDUIT REQUIREMENTS. PROVIDE CARPET FLANGE WHERE APPLICABLE

**EQUIPMENT:**

- "42" A NOTATION INDICATING THE MOUNTING HEIGHT OF A DEVICE AS MEASURED FROM FINISHED FLOOR OR GRADE TO CENTER LINE OF DEVICE
- MOTOR
- DISCONNECT SWITCH. FRAME SIZE/FUSE SIZE/POLES AS INDICATED, "NF" INDICATES NON-FUSIBLE, NEMA 1 ENCLOSURE UNLESS OTHERWISE NOTED, PROVIDE FUSED BUSWAY PLUG WHEN SWITCH IS INDICATED ON BUSWAY. ALL DISCONNECT SWITCHES SHALL BE 30NF/3 UNLESS OTHERWISE NOTED
- SINGLE CIRCUIT BREAKER IN INDIVIDUAL ENCLOSURE
- MAGNETIC MOTOR CONTROLLER. NUMBER INDICATES NEMA SIZE. STARTER NEMA SIZE SHALL BE "NEMA 1" UNLESS OTHERWISE NOTED
- COMBINATION DISCONNECT SWITCH / MOTOR CONTROLLER
- CONTACTOR
- PANELBOARD
- SWITCHBOARD / DP
- TRANSFORMER
- GROUNDING CONNECTION TO GROUNDING ELECTRODE AS DEFINED IN NEC ARTICLE 250
- BELL. "WP" INDICATED OUTDOOR RATED

**LIGHTING FIXTURE NOTES**

KEY TO NOTE PREFIXES: "G" NOTES ARE "GENERAL" LIGHTING NOTES THAT APPLY TO THE ENTIRE PROJECT. "S" NOTES ARE "SCHEDULE" NOTES THAT APPLY TO SPECIFIC LUMINAIRES.

- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS, SECTIONS, AND DETAILS FOR THE EXACT LOCATION OF ALL LUMINAIRES. ARCHITECTURAL PLANS SHALL GOVERN FOR LOCATION AND LAYOUT. IF ARCHITECTURAL AND ELECTRICAL DRAWINGS CONFLICT IN EXACT COUNT OR FIXTURE TYPE, PROVIDE THE GREATER QUANTITY OR COST TYPE UNLESS OTHERWISE INSTRUCTED.
- REFER TO DIVISION 26 ELECTRICAL SPECIFICATIONS FOR ADDITIONAL LUMINAIRE AND ELECTRICAL REQUIREMENTS (LENS, AIR HANDLING CHARACTERISTICS, T-BAR CLIPS, BALLAST, LAMPS, TIME FRAME FOR SUBMITTAL OF SUBSTITUTE LIGHT FIXTURES FOR PRIOR APPROVAL, ETC.).
- FOR EACH SCHEDULED LUMINAIRE, PROVIDE ALL REQUIRED APPURTENANCES FOR INSTALLATION IN APPLICABLE STRUCTURE OR SPECIFIED ARCHITECTURAL EILING. ALL LUMINAIRES SHALL HAVE THE APPROPRIATE NEMA TYPE FRAME THAT IS COMPATIBLE WITH THE CEILING SYSTEM SPECIFIED BY THE ARCHITECT. ELECTRICAL DRAWINGS DO NOT INDICATE CEILING TYPES. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS TO DETERMINE CEILING TYPE (GRID, FLANGE, SPLINE, SCREW SLOT, ETC.) AND PROVIDE APPROPRIATE FRAME.
- EXIT SIGNS AND OTHER LUMINAIRES SHALL NOT BE SUPPORTED BY CEILING TILE. PROVIDE MOUNTING FRAME OR HANGERS TO SECURELY FASTEN IN PLACE. ALL LUMINAIRES MOUNTED IN CEILING TILE, FRAMING MEMBERS OF A SUSPENDED CEILING SYSTEM MAY BE USED WHERE DESIGNED FOR THE PURPOSE AND INSTALLED PER NEC 410-16(c).
- WHERE A SURFACE-MOUNTED LUMINAIRE CONTAINING A BALLAST IS TO BE INSTALLED ON COMBUSTIBLE LOW-DENSITY CELLULOSE FIBERBOARD, IT SHALL BE LISTED FOR THIS CONDITION OR SHALL BE SPACED NOT LESS THAN 1 1/2 INCHES FROM THE SURFACE OF THE FIBERBOARD (NEC 410-76(b)).
- REQUEST FOR SUBSTITUTION SHALL FOLLOW SPECIFIED PROCEDURES AND SHALL INCLUDE A WORKING SAMPLE SUITABLE FOR TABLE TOP EXAMINATION.
- UNLESS OTHERWISE NOTED, MOUNT EXIT SIGN DIRECTLY ABOVE EGRESS DOOR (MAXIMUM 24" ABOVE DOOR). PROVIDE WALL MOUNT EXIT SIGNS IN HIGH CEILING AREAS. PROVIDE WINDOW MULLION MOUNTING WITH CONCEALED WIRING WHERE REQUIRED. COORDINATE EXACT ELEVATION WITH ARCHITECT PRIOR TO ROUGH-IN.

CONTACTOR SCHEDULE								
DESIG-NATION	CIRCUITS SERVED	CONTACT AMPS	N.O. POLES	COIL VOLTS	CONTROL	SUPPLY CKT.	REMARKS	
C1	1HA-6	20	2	277	DDC	1HA-6	ASCO 918 REMOTE CONTROL SWITCH	

PROVIDE ASCO ACCESSORY 47 SOLID STATE TWO-WIRE CONTROL INTERFACE MODULE.



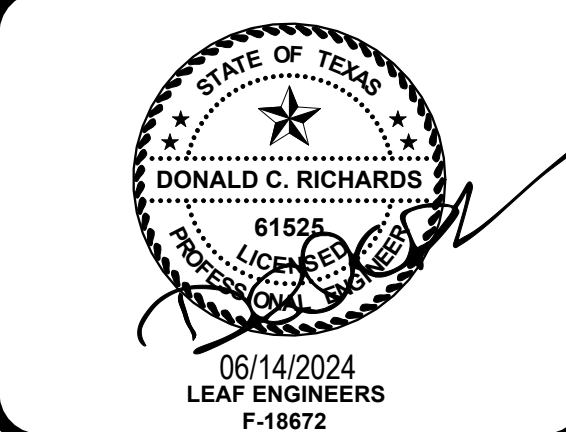
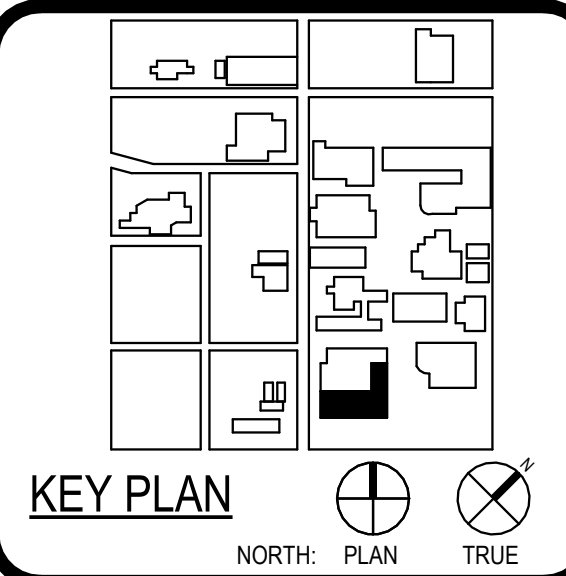
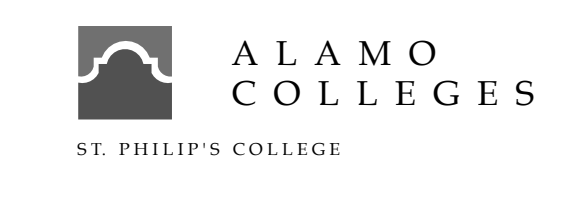
ARCHITECT	PBK Architects, Inc. SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P 210-829-0578 F TX Firm BR 1608
ARCHITECT	MAX ARCHITECTS 1101 N. LOOP WEST SUITE 1000 DALLAS, TEXAS 75202
LANDSCAPE	LANDSCAPE GROUP 1111 W. 14TH STREET DALLAS, TEXAS 75202
MECHANICAL	LINBY & HARRIS ENGINEERING 1111 W. 14TH STREET DALLAS, TEXAS 75202
ELECTRICAL	LEAF ENGINEERS 1111 W. 14TH STREET DALLAS, TEXAS 75202
PLUMBING	LEAF ENGINEERS 1111 W. 14TH STREET DALLAS, TEXAS 75202



**WFAC Black Box Addition PKG 1**

1801 Main/Luther King Dr.,  
San Antonio, TX, 78203

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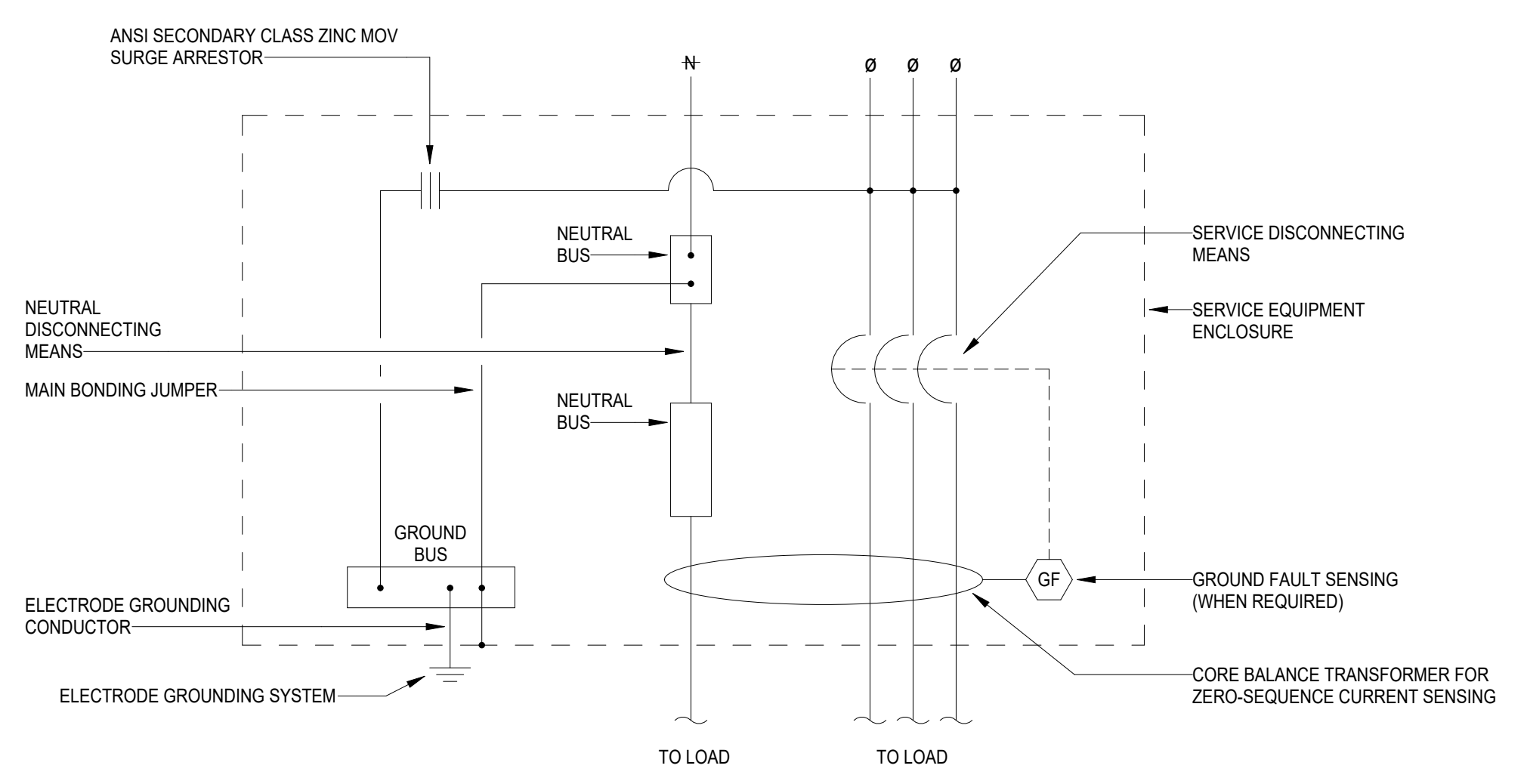


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Alamo Colleges	PROJECT NUMBER 230462	
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No.	Description	Date

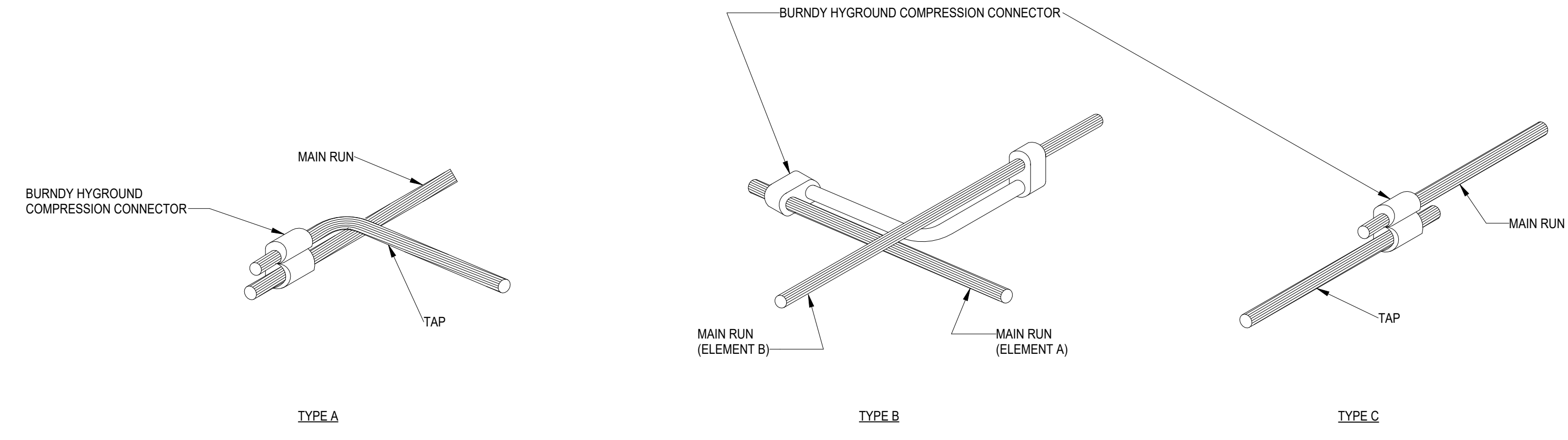
**ISSUE FOR CONSTRUCTION**

BUILDING NUMBER 1

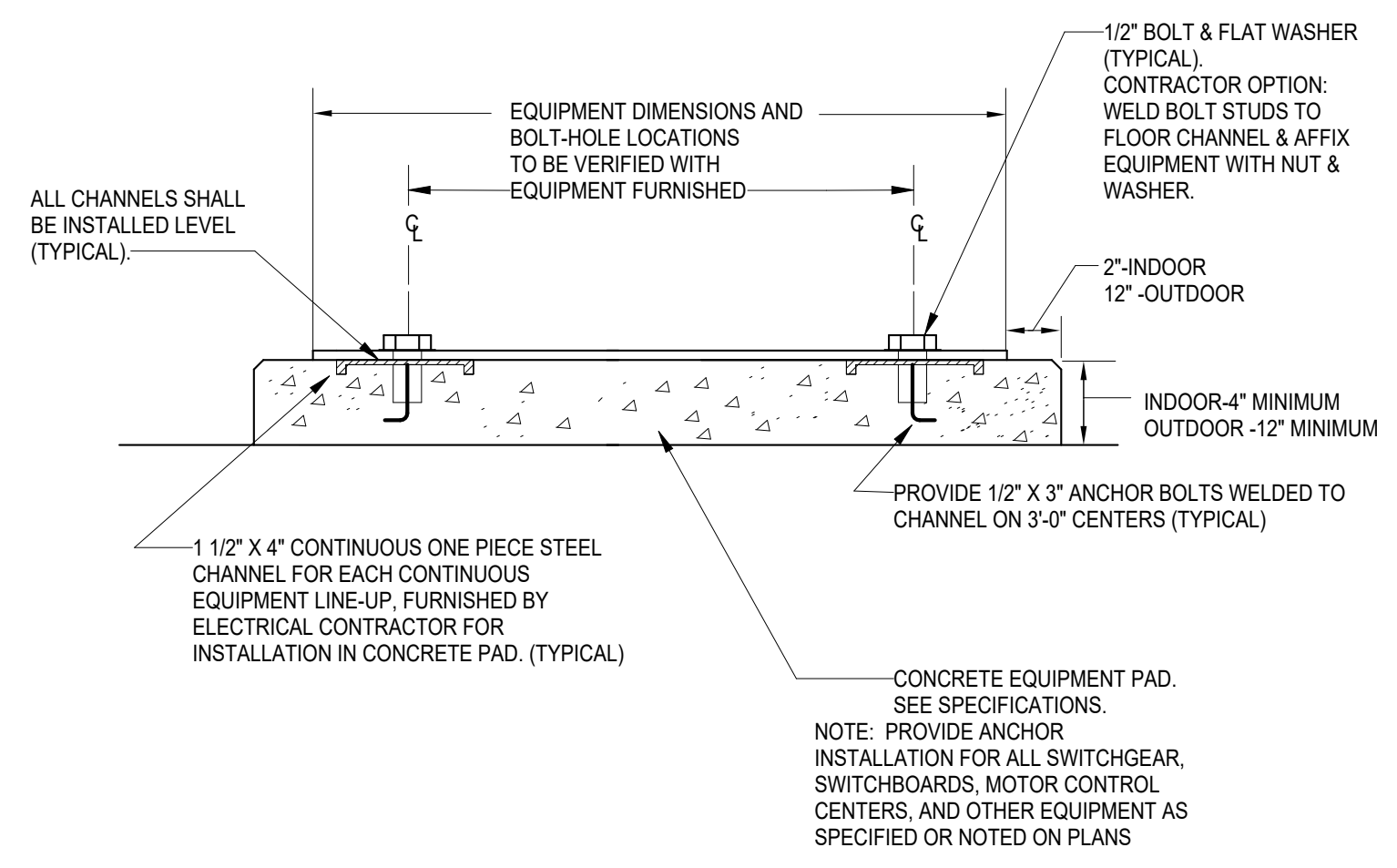
**ELECTRICAL SYMBOL LEGEND AND CONTACTOR SCHEDULE**



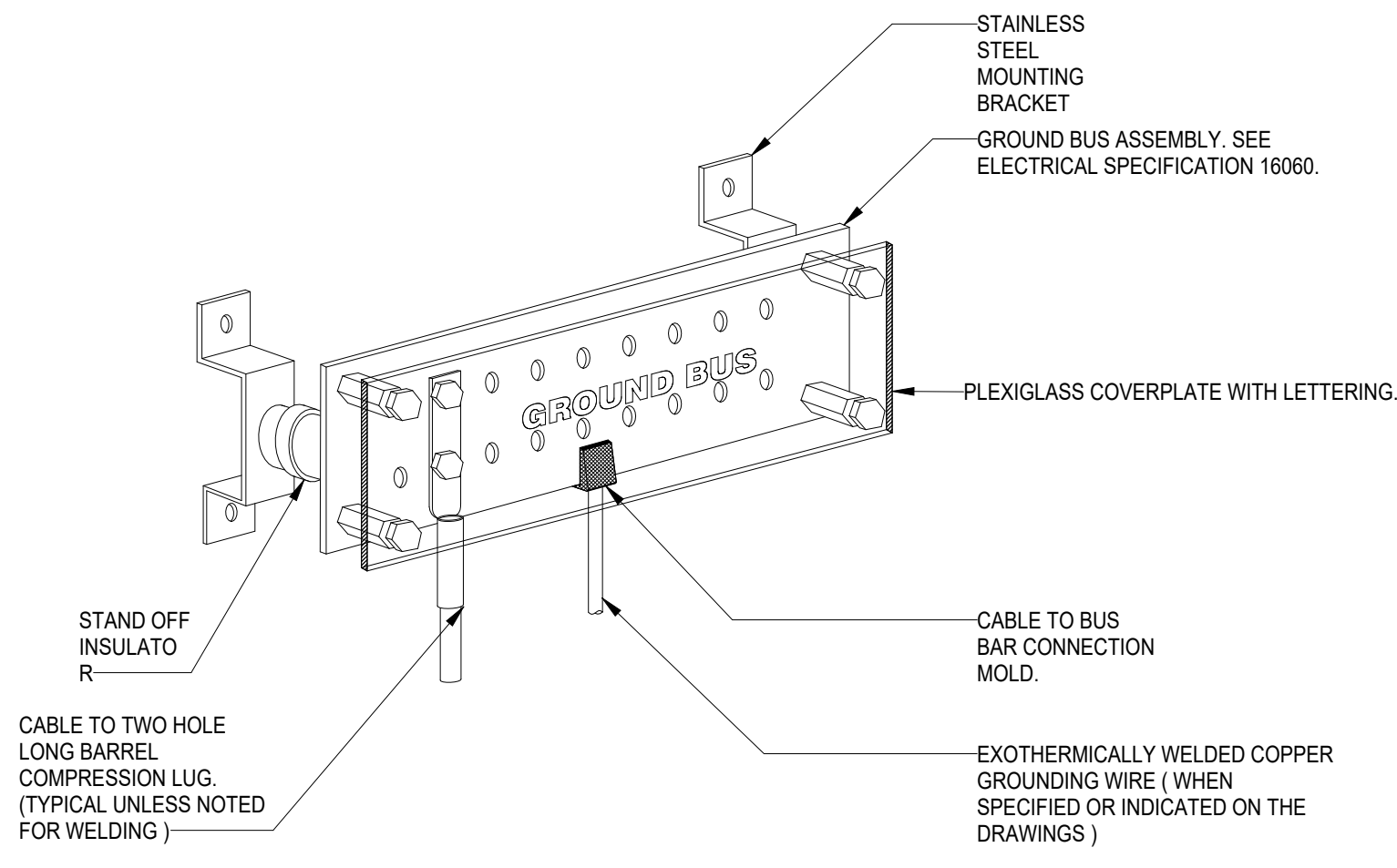
**4** ELECTRIC SERVICE GROUNDING DETAIL  
NOT TO SCALE



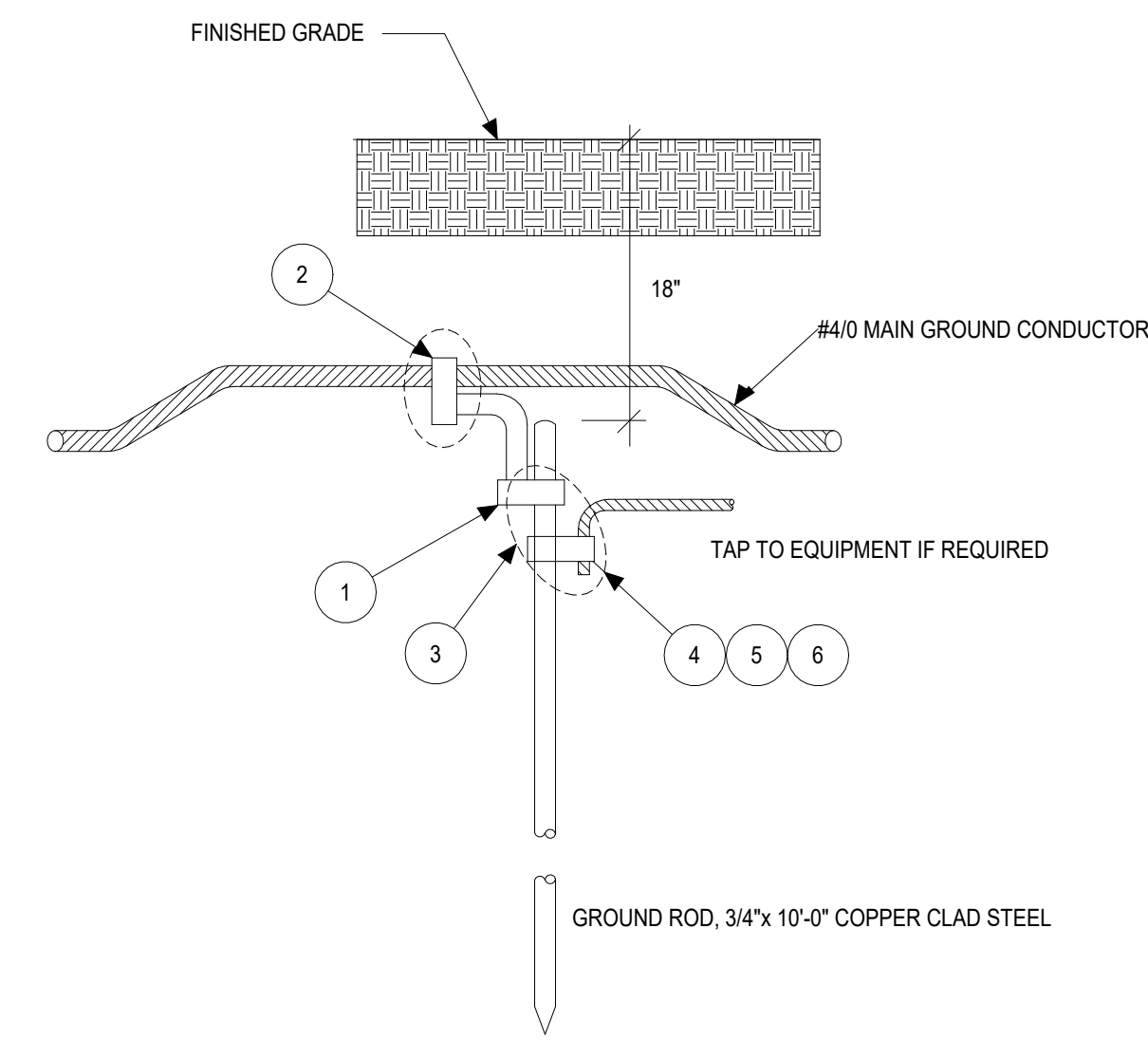
**8** GROUNDING COMPRESSION CONNECTIONS  
NOT TO SCALE



**3** EQUIPMENT ANCHOR DETAIL  
NOT TO SCALE



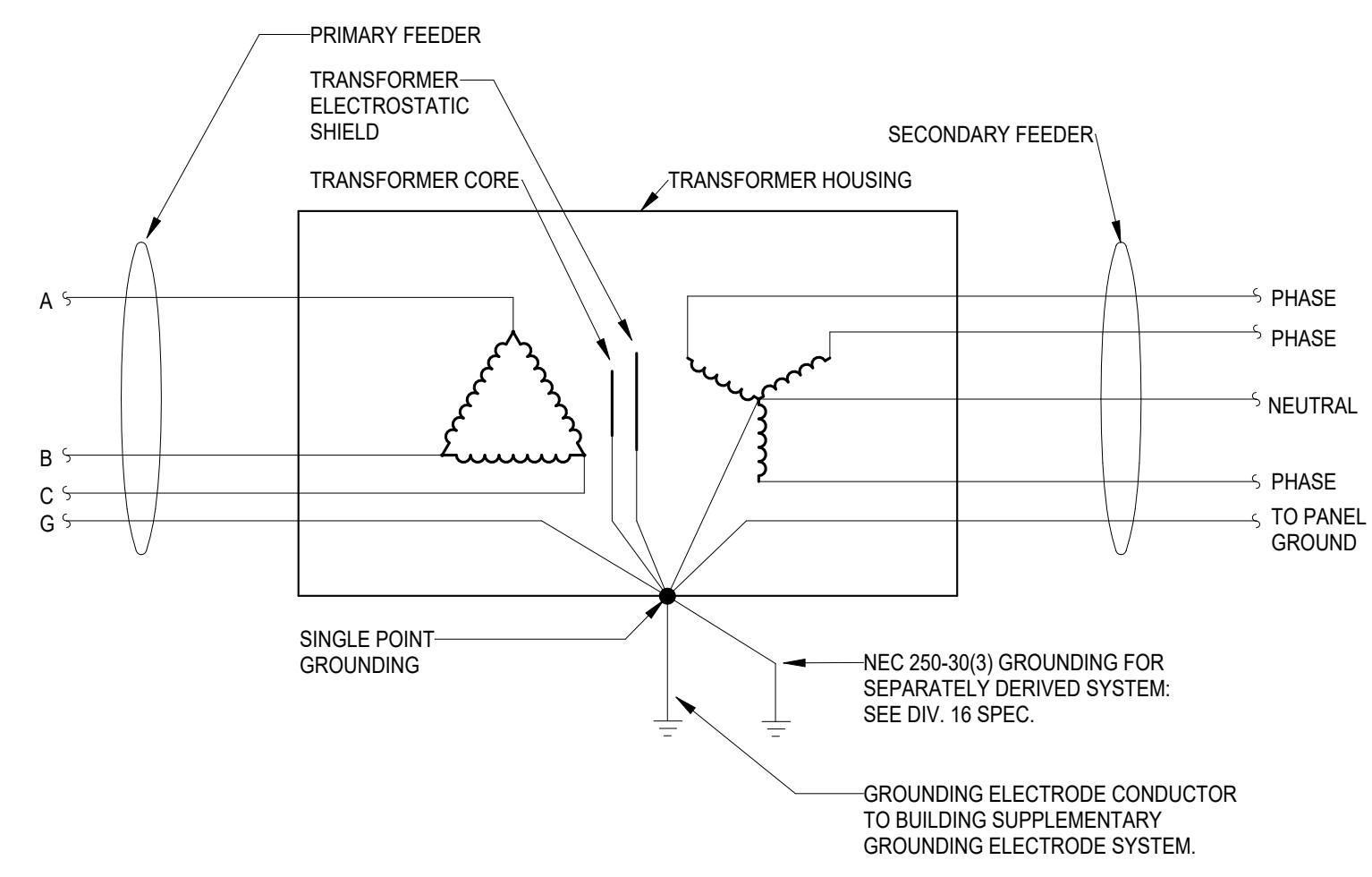
**6** GROUND BUS DETAIL  
NOT TO SCALE



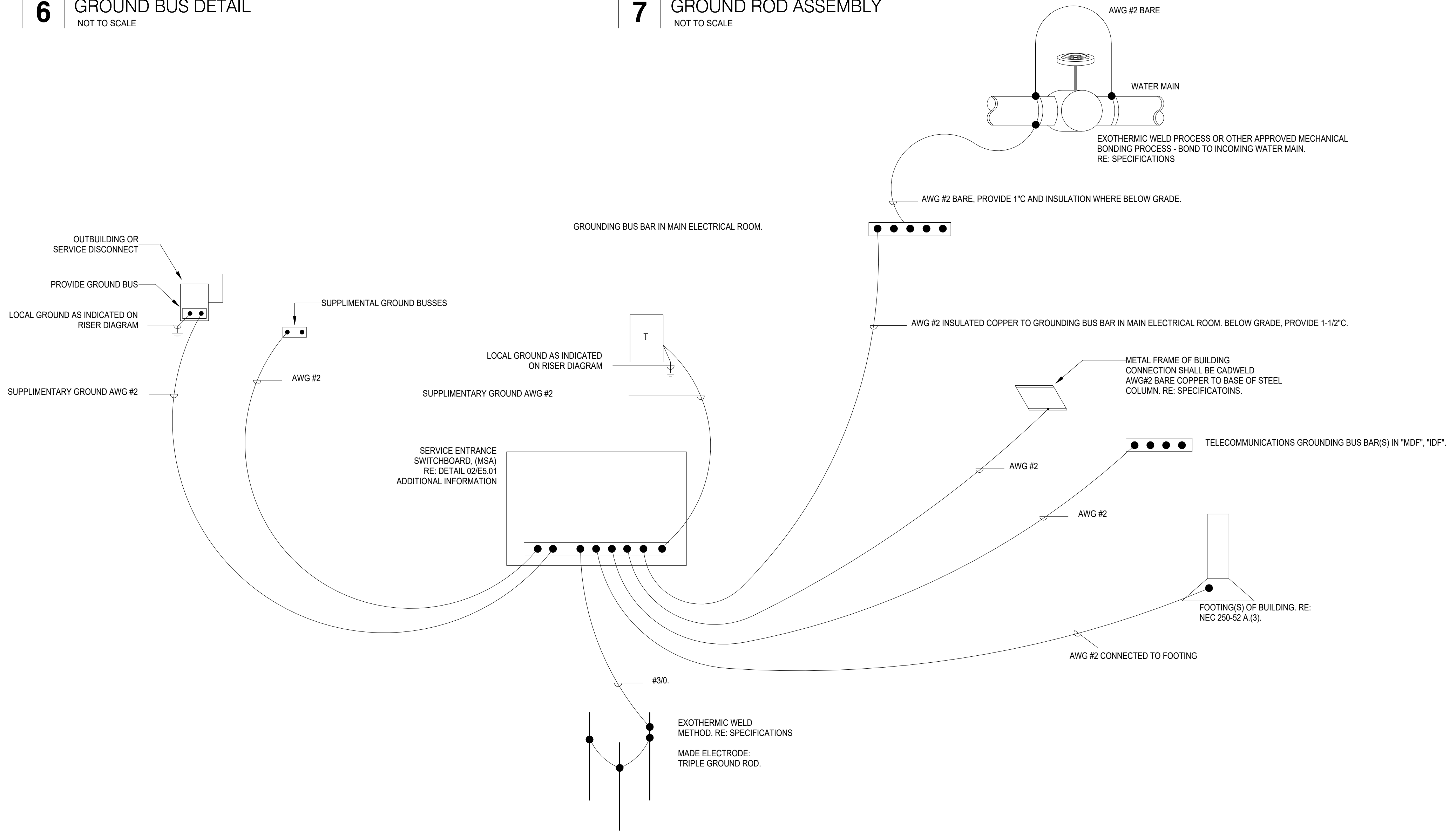
**7** GROUND ROD ASSEMBLY  
NOT TO SCALE

**KEYED NOTES:**

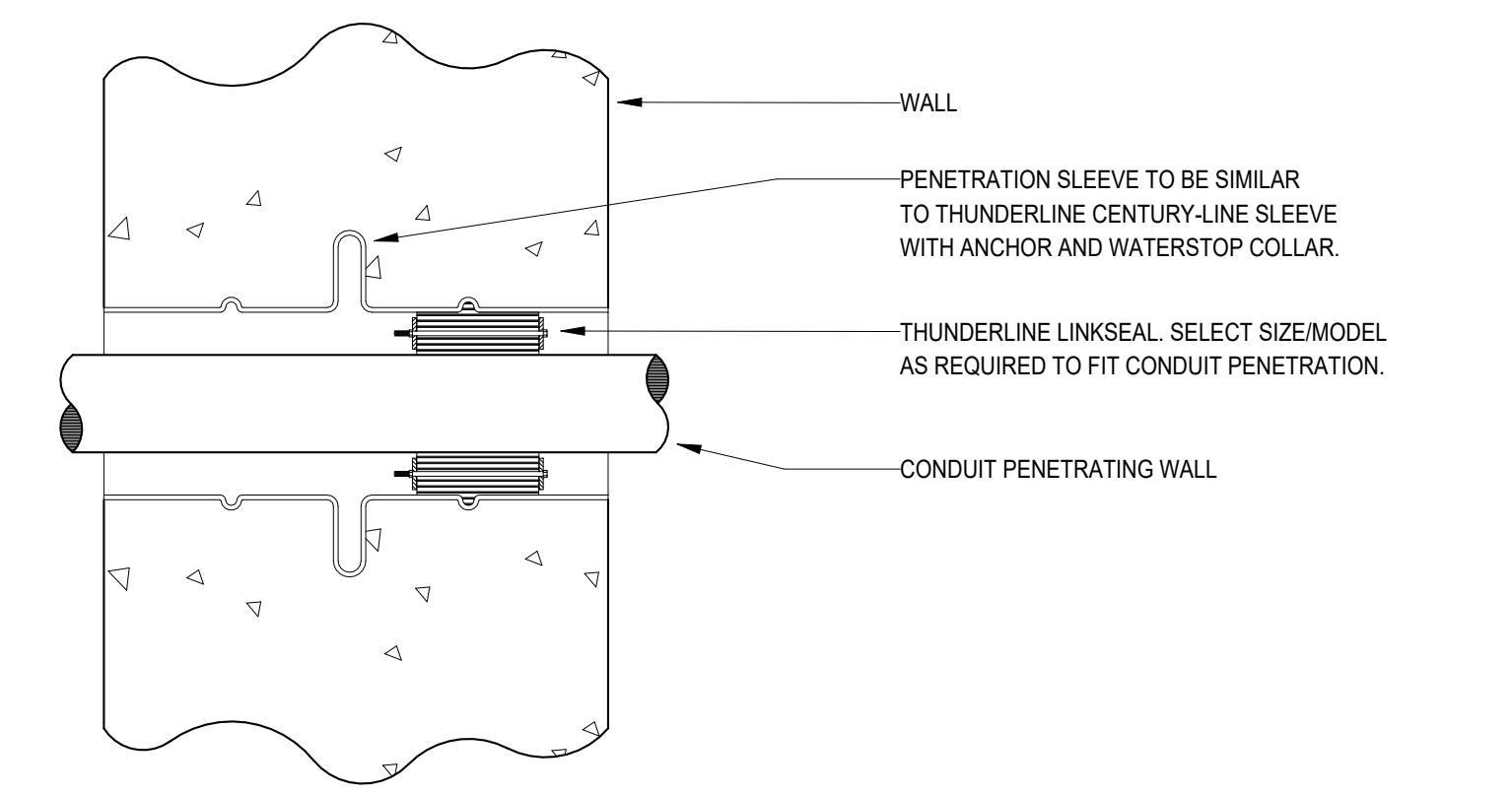
- 1 REQUIRES BURNDY750 PRESS WITH U99 FOR INSTALLATION.
- 2 CRIMP CONNECTOR, #2 TO 250 KCMIL TO 3/4\"/>



**2** DELTA-WYE TRANSFORMER SCHEMATIC  
NOT TO SCALE



**5** ELECTRICAL GROUNDING REQUIREMENTS  
NOT TO SCALE



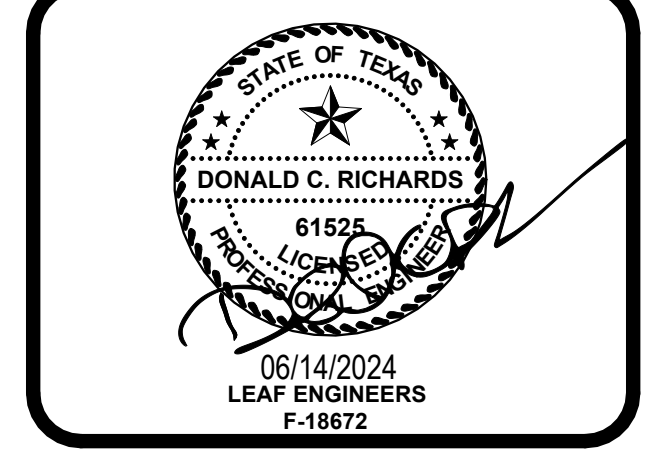
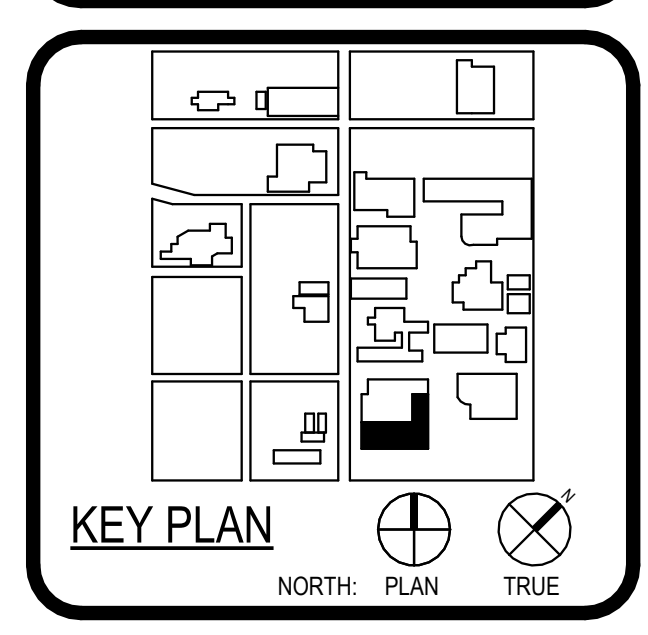
**1** CONDUIT PENETRATION DETAIL - EXTERIOR WALL  
NOT TO SCALE



ARCHITECT	PBK Architects, Inc.
SAN ANTONIO	
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TX Firm BR 1608	
ASSOCIATE ARCHITECT	B&A ARCHITECTS
210-820-0123 P	
210-829-5578 F	
TX Firm BR 1608	
ARCHITECT	LANDSCAPE
LUNY & FRANK ENGINEERING	
MECHANICAL	
ELECTRICAL	
PLUMBING	
HVAC	
TELECOMMUNICATIONS	
CONSTRUCTION	



**WFAC Black Box Addition PKG 1**  
 1801 Main Luther King Dr.,  
 San Antonio, TX 78203  
 ISSUE FOR CONSTRUCTION



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Alamo Colleges		
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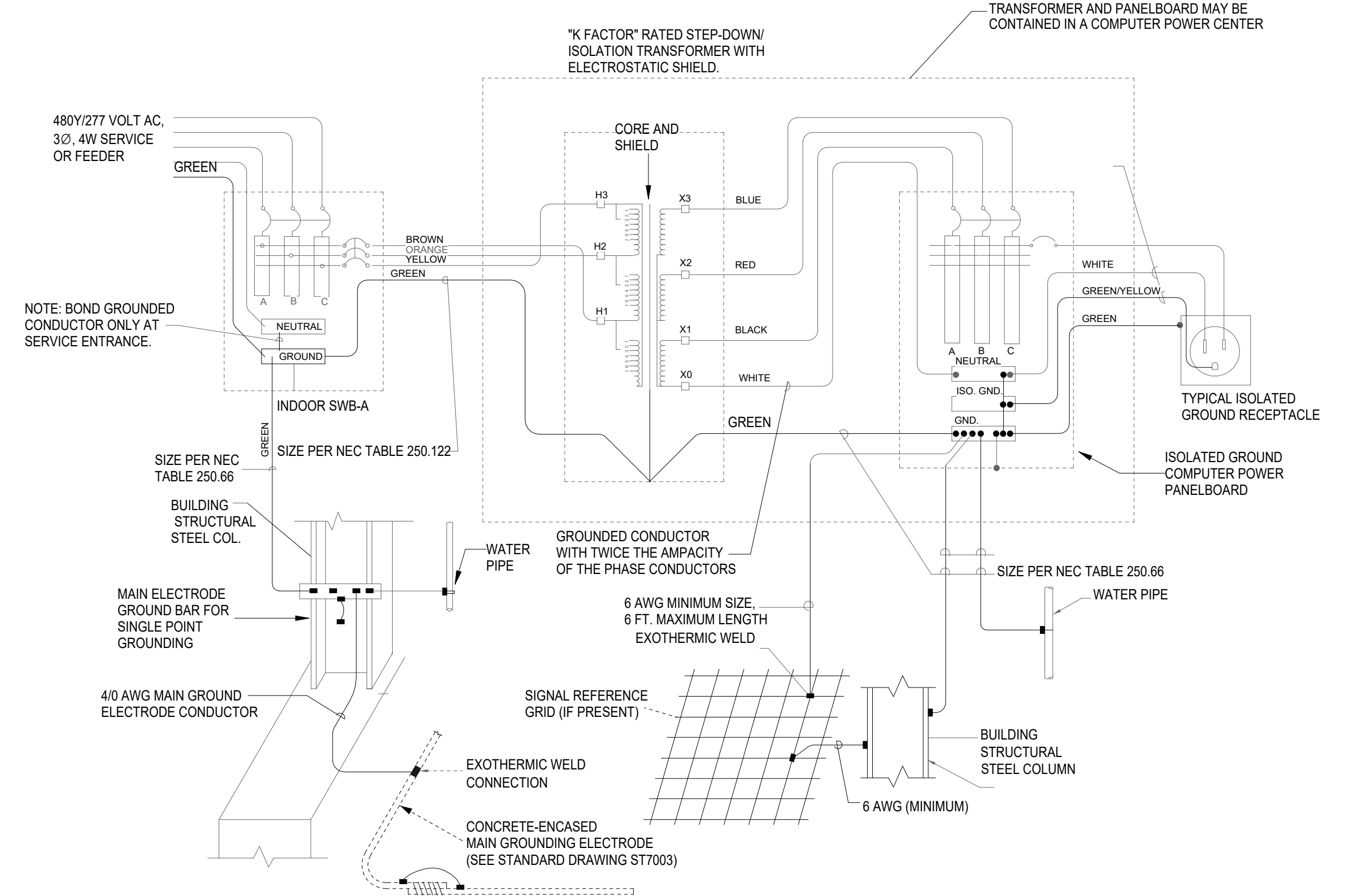
ISSUE FOR CONSTRUCTION  
BUILDING NUMBER 1

**ELECTRICAL DETAILS**

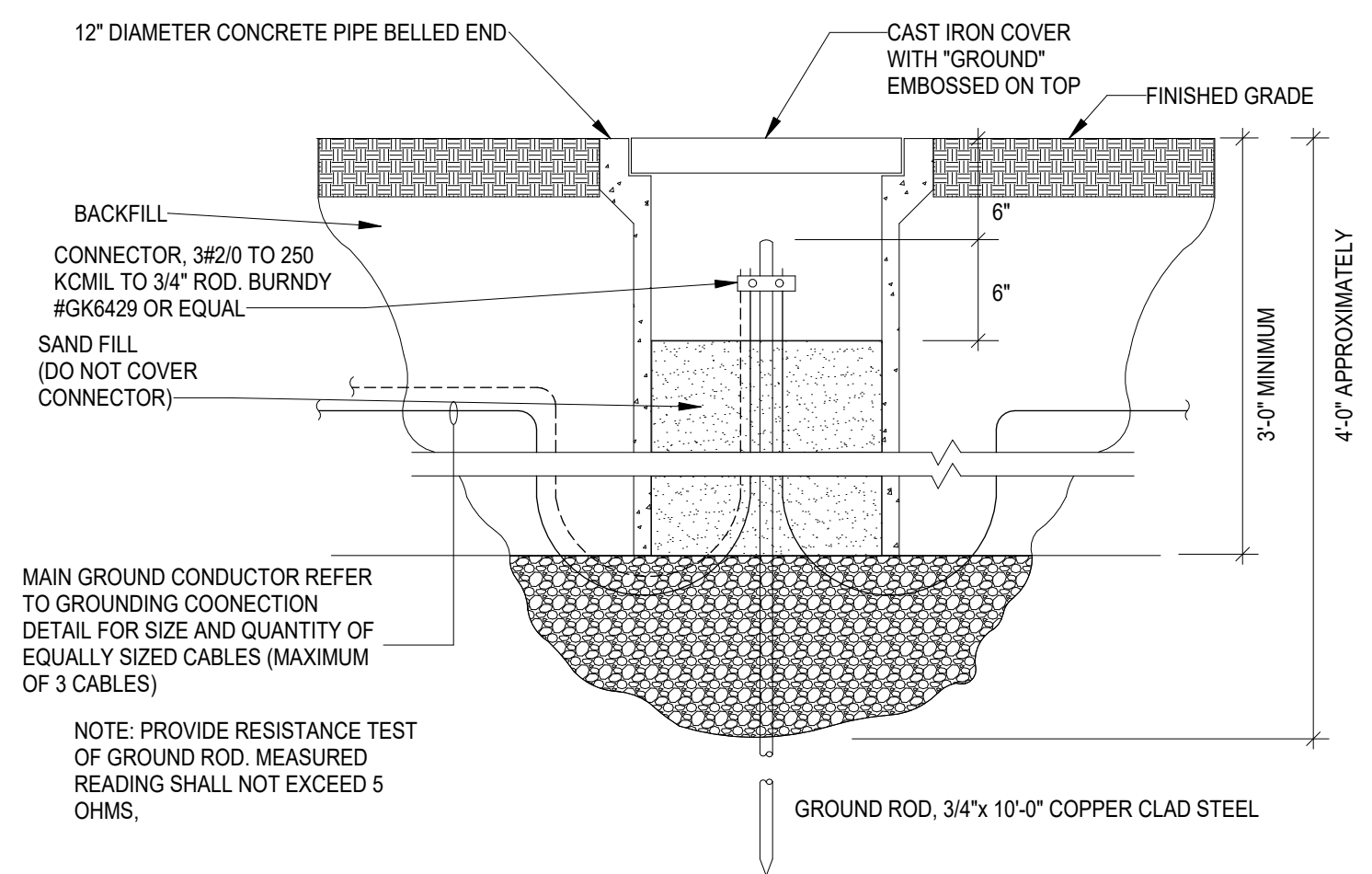
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**2** ISOLATED GROUND DETAIL  
NOT TO SCALE



**3** GROUND WELL ASSEMBLY  
NOT TO SCALE



**GENERAL NOTES**

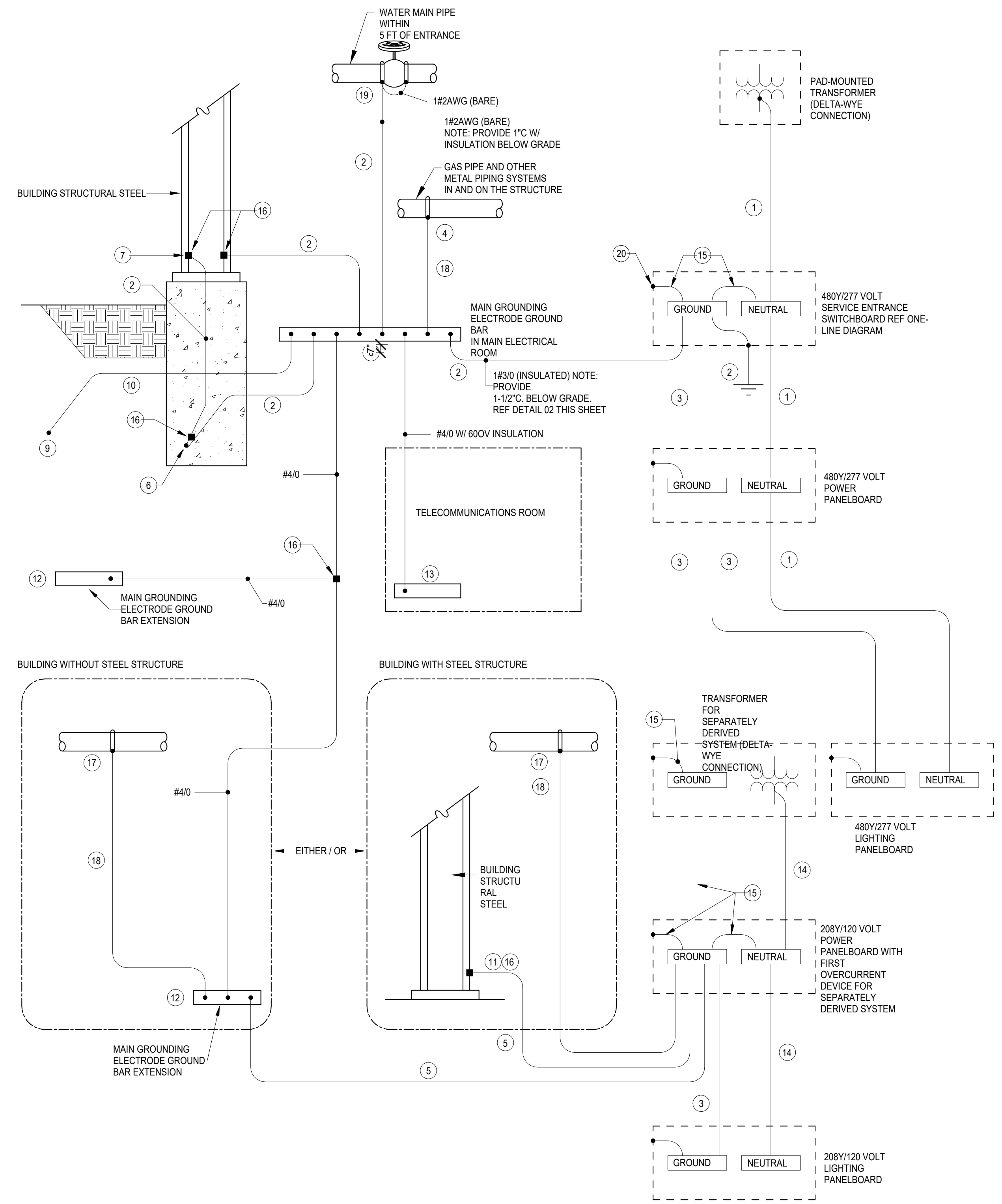
- CONDUCTOR SIZES SHOWN ARE MINIMUM AND MAY BE LARGER THAN THE MINIMUM SIZES REQUIRED BY NEC.
- INSTALL GROUNDING CONNECTIONS TO BUILDING STRUCTURE AND WATER PIPES AT LOCATIONS THAT ARE VISIBLE AND ACCESSIBLE FOR INSPECTION, MAINTENANCE, AND TESTING.
- INSTALL AN INSULATED THROAT GROUNDING BUSHING ON EACH METALLIC SERVICE ENTRANCE CONDUIT. BOND TO GROUND BUS USING CONDUCTOR THAT IS SIZED BASED ON NEC TABLE 250.66 USING THE SERVICE PHASE CONDUCTOR SIZE.
- INSTALL AN INSULATED THROAT GROUNDING BUSHING ON EACH METALLIC FEEDER CONDUIT. BOND TO GROUND BUS USING CONDUCTOR THAT IS SIZED BASED ON NEC TABLE 250.122 USING THE FEEDER CIRCUIT OVERCURRENT DEVICE SIZE OR THE SEPARATELY DERIVED SYSTEM OVERCURRENT DEVICE SIZE.
- BOND HOT AND COLD WATER PIPING SYSTEMS.

**KEYED NOTES**

- INSTALL GROUNDED (NEUTRAL) CONDUCTOR SAME SIZE AS THE LARGEST PHASE CONDUCTOR IF THE LINE-TO-NEUTRAL LOAD EXCEEDS 5% OF THE CONNECTED LOAD. IF NEUTRAL LOAD IS SMALLER, INSTALL THE NEC MINIMUM GROUNDED CONDUCTOR.
- INSTALL GROUNDING ELECTRODE CONDUCTOR, SIZED BASED ON NEC TABLE 250.66 USING THE SERVICE PHASE CONDUCTOR SIZE, BUT NOT SMALLER THAN 2 AWG UNLESS NOTED OTHERWISE.
- INSTALL EQUIPMENT GROUNDING CONDUCTOR SIZED BASED ON NEC TABLE 250.122 USING THE FEEDER OVERCURRENT DEVICE SIZE.
- BOND TO GAS PIPE ON THE BUILDING SIDE OF THE GAS METER.
- INSTALL GROUNDING ELECTRODE CONDUCTOR THAT IS SIZED BASED ON NEC TABLE 250.66 USING THE SEPARATELY DERIVED SYSTEM PHASE CONDUCTOR SIZE.
- INSTALL A CONCRETE-ENCASED MAIN GROUNDING ELECTRODE IN THE BUILDING FOUNDATION AROUND THE ENTIRE PERIMETER OF THE BUILDING. LOCATE ELECTRODE IN THE BOTTOM ONE-THIRD OF THE FOUNDATION WITH AT LEAST 3 INCHES OF CONCRETE COVER. USE EITHER OF THE FOLLOWING MATERIALS FOR THE ELECTRODE:  
  
BARE COPPER CABLE NOT SMALLER THAN THE GROUNDING ELECTRODE CONDUCTOR REQUIRED BY THE NEC AND NOT SMALLER THAN 2 AWG. REFER SPEC 28 05 26.  
  
BARE OR GALVANIZED REBARS THAT ARE MADE ELECTRICALLY CONTINUOUS USING COPPER JUMPERS NOT SMALLER THAN THE NEC REQUIRED GROUNDING ELECTRODE CONDUCTOR AND NOT SMALLER THAN 4 AWG. USE REINFORCING BARS NOT SMALLER THAN THE FOLLOWING BASED ON THE TOTAL LENGTH OF THE INTERCONNECTED AND PARALLELED REBARS:  

TOTAL LENGTH	MINIMUM REBAR SIZE
112 FT	1 3/8" (#1 BAR)
150 FT	1" (#6 BAR)
192 FT	3/4" (#6 BAR)
223 FT	5/8" (#6 BAR)
268 FT	1/2" (#4 BAR)
- BOND PERIMETER STRUCTURAL STEEL COLUMNS TO THE CONCRETE-ENCASED MAIN GROUNDING ELECTRODE. USE CANNULD CONNECTION TO ATTACH GROUNDING ELECTRODE CONDUCTOR TO BASE OF STEEL COLUMN. REFER SPEC 28 05 26.
- INSTALL A "MAIN GROUND ELECTRODE GROUND BAR" FOR SINGLE POINT GROUNDING. LOCATE AT AN ACCESSIBLE AND VISIBLE POINT NEAR THE SERVICE ENTRANCE EQUIPMENT. MAKE CONNECTIONS TO THE GROUND BAR USING TWO-HOLE COMPRESSION SPADE LUGS THAT MEET IEEE 837 REQUIREMENTS. LABEL EACH CONNECTION TO THE GROUND BAR.
- LIGHTNING PROTECTION GROUNDING COUNTERPOISE - 3/0 AWG COPPER (IF LIGHTING PROTECTION SYSTEM IS SPECIFIED IN PROJECT, RE: SECTION 26 41 00).
- IF LIGHTNING PROTECTION SYSTEM IS SPECIFIED IN PROJECT (26 41 00), BOND THE LIGHTNING PROTECTION SYSTEM GROUNDING COUNTERPOISE TO THE MAIN GROUND ELECTRODE GROUND BAR. USE 4/0 AWG COPPER CABLE WITH 600 VOLT INSULATION. AT THE UNDERGROUND CONNECTION USE A COMPRESSION CONNECTOR THAT MEETS IEEE 837 REQUIREMENTS OR USE AN EXOTHERMIC WELD.
- USE THE "MAIN GROUNDING ELECTRODE GROUND BAR" INSTEAD OF BUILDING STRUCTURAL STEEL IF THE FIRST OVERCURRENT DEVICE FOR THE SEPARATELY DERIVED SYSTEM IS WITHIN 50 FEET OF THE "MAIN GROUNDING ELECTRODE GROUND BAR".
- IF THE BUILDING STRUCTURE IS NOT STRUCTURAL STEEL, INSTALL "MAIN GROUNDING ELECTRODE GROUND BAR EXTENSIONS" AT AN ACCESSIBLE AND VISIBLE LOCATION ADJACENT TO SEPARATELY DERIVED SYSTEMS THAT ARE MORE THAN 50 FEET FROM THE MAIN GROUNDING ELECTRODE GROUND BAR.
- INSTALL A COPPER GROUNDING BAR IN EACH TELECOMMUNICATIONS ROOM. CONNECT TO THE "MAIN GROUNDING ELECTRODE GROUND BAR" USING 600V INSULATED 4/0 AWG COPPER CABLE AND COMPRESSION SPADE LUGS.
- INSTALL GROUNDED (NEUTRAL) CONDUCTOR THAT IS NOT LESS THAN THE PHASE CONDUCTOR AMPACITY. IF HIGH-HARMONICS ARE PRESENT MAKE NEUTRAL AMPACITY 200% OF THE PHASE CONDUCTOR.
- INSTALL BONDING CONDUCTOR THAT IS SIZED BASED ON NEC TABLE 250.66 USING THE SERVICE OR SEPARATELY-DERIVED SYSTEM PHASE CONDUCTOR SIZE.
- INSTALL IRREVERSIBLE COMPRESSION CONNECTOR WITH TAMPER-PROOF HARDWARE OR INSTALL EXOTHERMIC WELD. REFER SPEC 28 05 26.
- BOND TO METAL PIPING SYSTEMS IN THE AREA SERVED BY THE SEPARATELY DERIVED SYSTEM.
- INSTALL BONDING JUMPER THAT IS SIZED BASED ON NEC TABLE 250.66 USING THE LARGEST SERVICE OR SEPARATELY DERIVED SYSTEM PHASE CONDUCTOR.
- BOND TO INCOMING WATER MAIN USING EXOTHERMIC WELD PROCESS OR OTHER APPROVED MECHANICAL BONDING PROCESS. REFER SPEC 28 05 26.
- TYPICAL EXOTHERMIC WELD PROCESS OR OTHER APPROVED MECHANICAL BONDING PROCESS. REFER SPEC 28 05 26, UNLESS NOTED OTHERWISE.

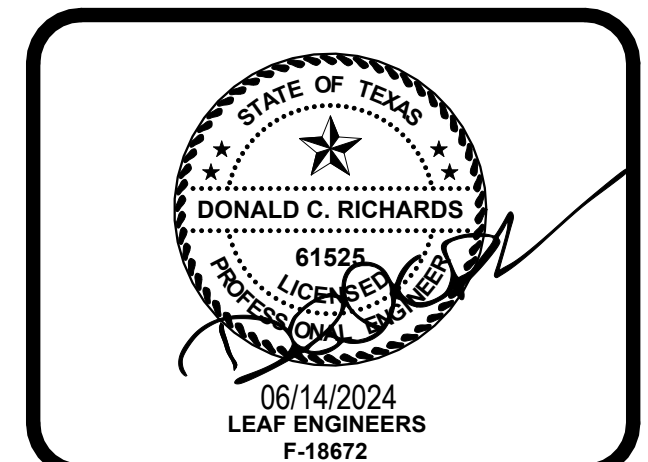
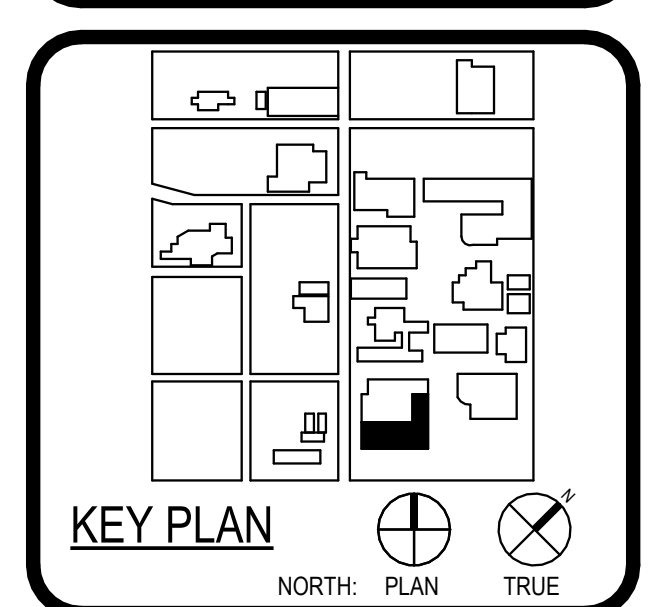
**1** GROUNDING CONNECTION DETAIL  
SCALE: NOT TO SCALE



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601 N.W. Loop 410, Suite 400	San Antonio, TX 78216
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TX Firm BR 1608	



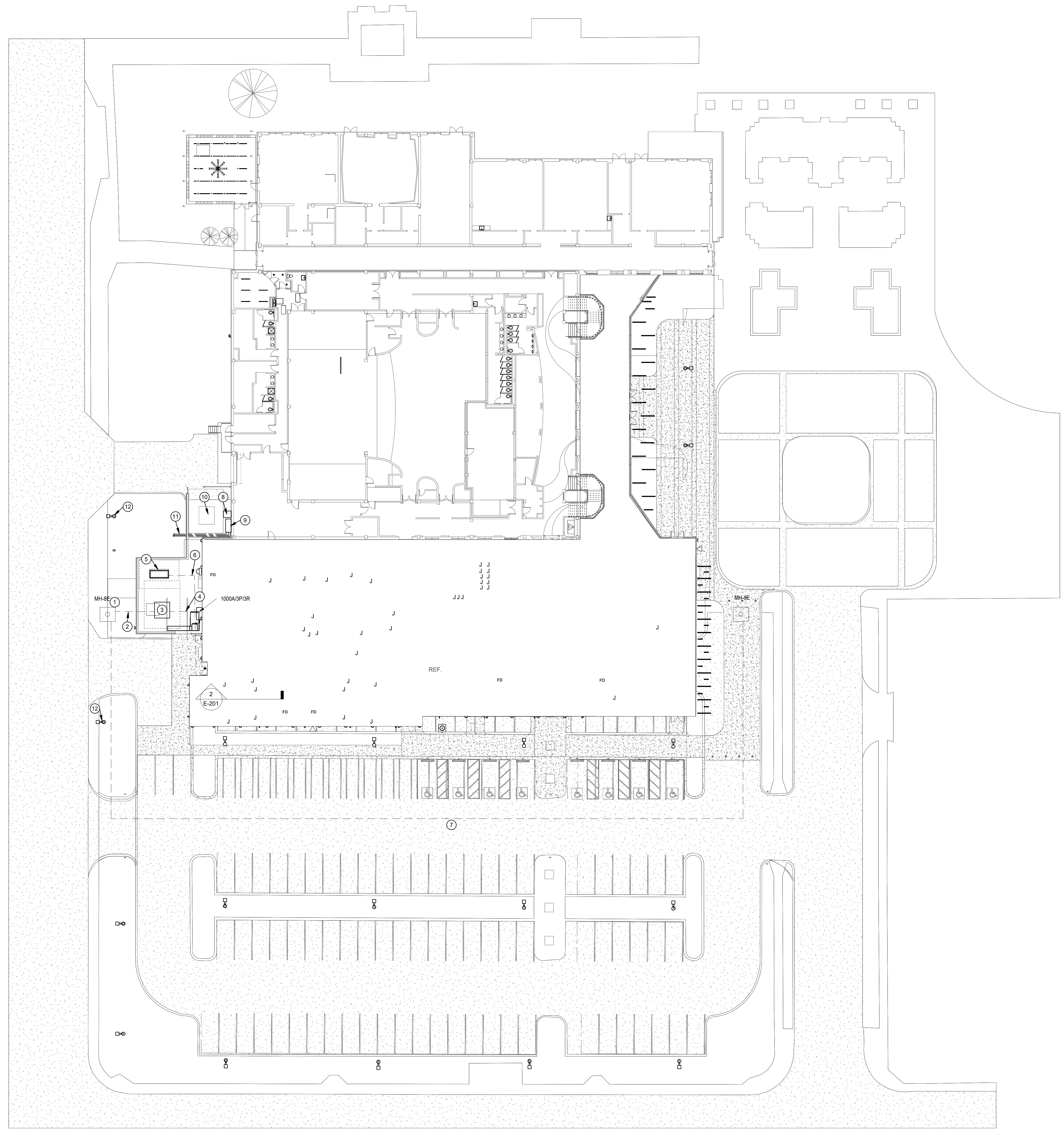
**WFAC Black Box Addition PKG 1**  
 1801 Marlin Luther King Dr.,  
 San Antonio, TX 78203  
 ISSUE FOR CONSTRUCTION



CLIENT	Alamo Colleges	
DATE	06/14/2024	
PROJECT NUMBER	230462	
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No.	Description	Date

**ISSUE FOR CONSTRUCTION**  
BUILDING NUMBER 1

# ISSUE FOR CONSTRUCTION



**SITE PLAN GENERAL NOTES:**

1. COORDINATE ROUTING FOR ALL UNDERGROUND ELECTRICAL BRANCH CIRCUITS AND FEEDERS WITH OTHER DISCIPLINES PRIOR TO TRENCHING.
2. UNLESS NOTED OTHERWISE ALL UNDERGROUND CONDUIT SHOWN ON THIS PLAN TO BE MINIMUM 1" IN SIZE.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY INSTALLATION OF NEW WORK.

**SITE PLAN KEYED NOTES:**

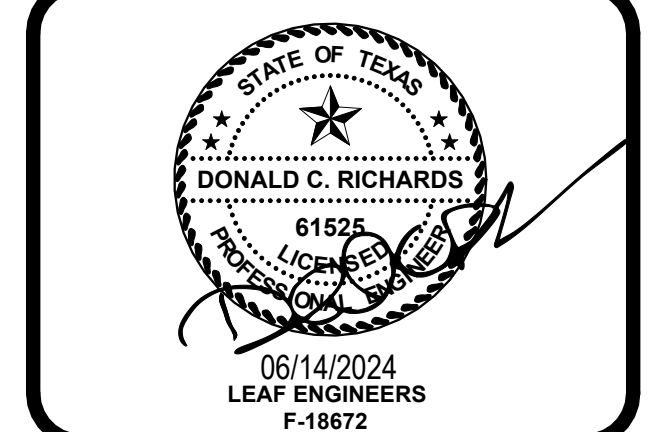
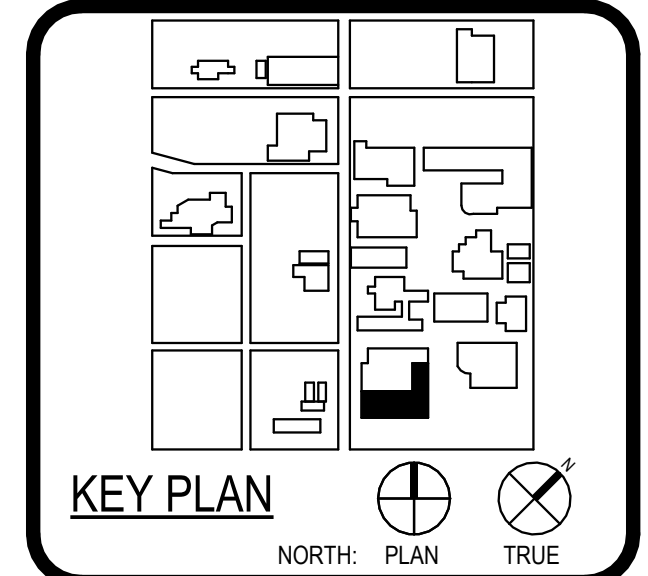
- 1 EXISTING ELECTRICAL MANHOLE.
- 2 NEW UNDERGROUND EASEMENT FOR NEW PRIMARY POWER FOR UTILITY TRANSFORMER. FIELD VERIFY THAT SPARE CAPACITY IS AVAILABLE.
- 3 NEW 480/277V 750KVA TRANSFORMER SHALL BE PROVIDED FROM ALAMO COLLEGES. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS PROVIDE (1) 1 1/2" CONDUIT FOR POWER.
- 4 NEW UNDERGROUND ROUTE FOR SECONDARY TO MAIN SERVICE DISCONNECT. PROVIDE (2) 3" CONDUITS FOR POWER.
- 5 NEW 480/277V, 40 KW CUMMINS MODEL NUMBER: C40 N6 FOR FIRE PUMP.
- 6 NEW UNDERGROUND PATHWAY FROM GENERATOR TO 2ND FLOOR ATS IN MEZZAINE.
- 7 REROUTED PATHWAY FOR EXISTING UNDERGROUND DUCKSANK WITH 4 EXISTING CONDUITS. CONTRACTOR SHALL VERIFY EXACT PATHWAY OF EXISTING CONDUITS AND FEEDERS SIZES WITHIN EXISTING MANHOLES. CONTRACTOR SHALL COORDINATE NEW PATHWAY WITH ST. PHILLIPS UTILITY FACILITIES TO ENSURE PATHWAY CAN BE Routed.
- 8 RELOCATED CONDENSING UNIT AND ASSOCIATED DISCONNECT. COORDINATE WITH MECHANICAL FOR EXACT LOCATION.
- 9 EXISTING DISTRIBUTION MAIN SERVICE DISCONNECT DP-6 FOR ADJACENT WATSON FINE ARTS BUILDING.
- 10 EXISTING UTILITY TRANSFORMER FOR WATSON FINE ARTS.
- 11 PROPOSED NEW PATHWAY FOR RELOCATED EXISTING CONDUITS FROM DP-6. CONTRACTOR SHALL VERIFY WHERE CONDUITS ARE FED TO.
- 12 NEW LOCATION OF PEDESTRIAN POLES. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS. UTILIZE EXISTING CIRCUIT IF AVAILABLE. IF CIRCUIT ISNT OBTAINABLE CONTRACTOR SHALL UTILIZE NEAREST AVAILABLE SPARE IN PANEL WITH IDENTICAL VOL TAG.



ARCHITECT	PBK Architects, Inc. SAN ANTONIO 601 N.W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P 210-829-0578 F TX Firm BR 1608
ASSOCIATE ARCHITECT	B&A ARCHITECTS 1100 N. LOOP WEST SUITE 1000 DALLAS, TEXAS 75202 214-750-1000
LANDSCAPE ARCHITECT	LANDSCAPE ARCHITECTS 1111 W. 14TH STREET SUITE 100 DALLAS, TEXAS 75202 214-750-1000
MECHANICAL ENGINEER	LUNY & FRANK ENGINEERING 1111 W. 14TH STREET SUITE 100 DALLAS, TEXAS 75202 214-750-1000
ELECTRICAL ENGINEER	MEYER PROFESSIONALS 1111 W. 14TH STREET SUITE 100 DALLAS, TEXAS 75202 214-750-1000



WFAC Black Box Addition PKG 1  
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SITE POWER PLAN

1 SITE POWER PLAN  
 SCALE: 1" = 20'-0"

PROJECT GENERAL NOTES

- A. ALL EQUIPMENT AND/OR SYSTEMS NOTED ON THE DRAWINGS TO REMAIN SHALL BE INSPECTED AND TESTED ON SITE TO CERTIFY WORKING CONDITION... B. THE PLUMBING WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE CODES AS WELL AS ALL LOCAL REGULATIONS THAT MAY APPLY...

PLUMBING TESTING NOTES

- 1. ALL EQUIPMENT AND/OR SYSTEMS NOTED ON THE DRAWINGS TO REMAIN SHALL BE INSPECTED AND TESTED ON SITE TO CERTIFY WORKING CONDITION... 2. PIPE COVER AND BACKFILLING: A. AFTER HYDROSTATIC TEST, EVENLY BACKFILL ENTIRE TRENCH WIDTH BY HAND PLACING BACKFILL MATERIAL...

PLUMBING ABBREVIATION SCHEDULE

Table with 4 columns: Symbol, Description, Abbreviation, and Full Name. Includes items like (A) ITEM NOTED TO BE ABANDONED, (D) ITEM NOTED TO BE DEMOLISHED, (E) EXISTING ITEM, etc.

NOTES: 1. NOT ALL ABBREVIATIONS MAY BE USED ON THESE DRAWINGS.

PLUMBING SYMBOLS LEGEND

Table with 4 columns: Drawings, Details, ABV., and Description. Includes symbols for AV ACID VENT, AW ACID WASTE, CA COMPRESSED AIR, CW COLD WATER, etc.

NOTES: 1. NOT ALL SYMBOLS MAY BE USED ON THESE DRAWINGS.

PLUMBING PIPE MATERIAL SCHEDULE

Table with 3 columns: Piping System, Below Grade, and Above Grade. Lists materials for Storm Water, Sanitary Waste, Domestic Water, Natural Gas, Fire Protection, and Compressed Air.

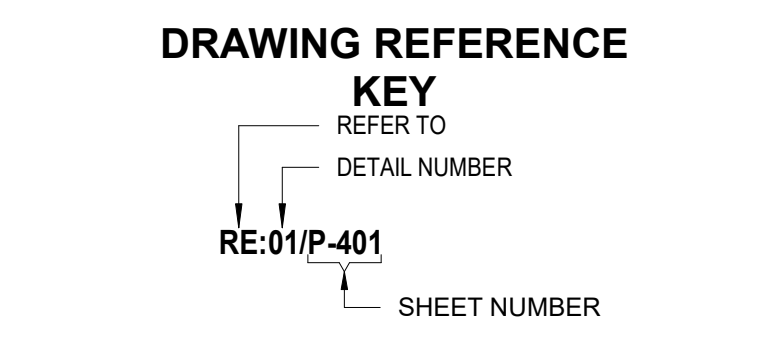
WATER HAMMER ARRESTER SCHEDULE

Table with 3 columns: Pipe Size, Cross Fixture Units, and PDI STD. Lists sizes from 1/2" to 2" and corresponding standards.

NOTES: 1. AIR CHAMBERS OR SHOCK ARRESTORS SHALL BE PROVIDED TO ALL FIXTURE RUNOUT AND SHALL BE SIZED ACCORDING TO LOCAL PLUMBING CODE (HHS) & PDI. AIR CHAMBERS OR SHOCK ARRESTORS SHALL BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS...

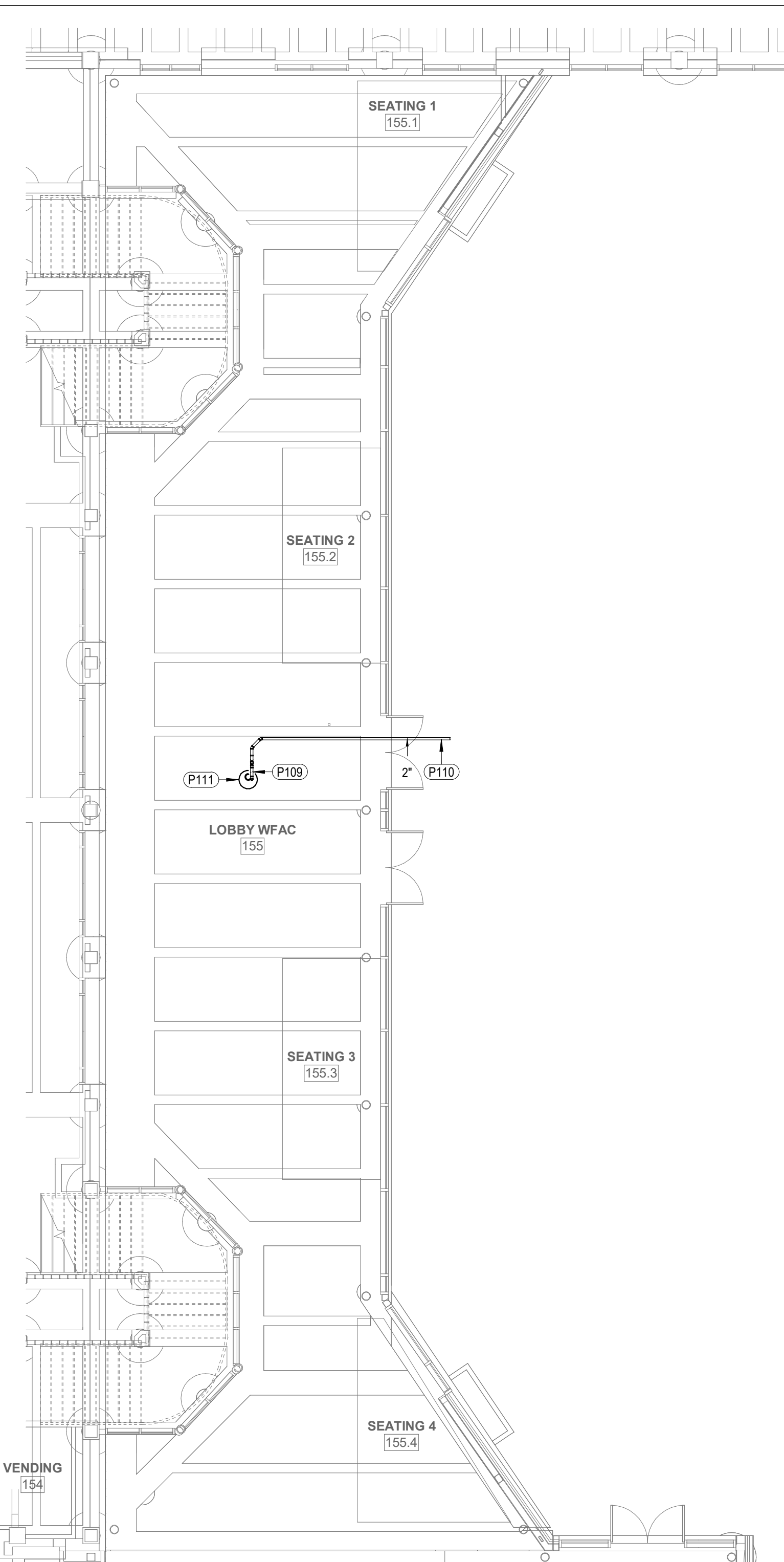
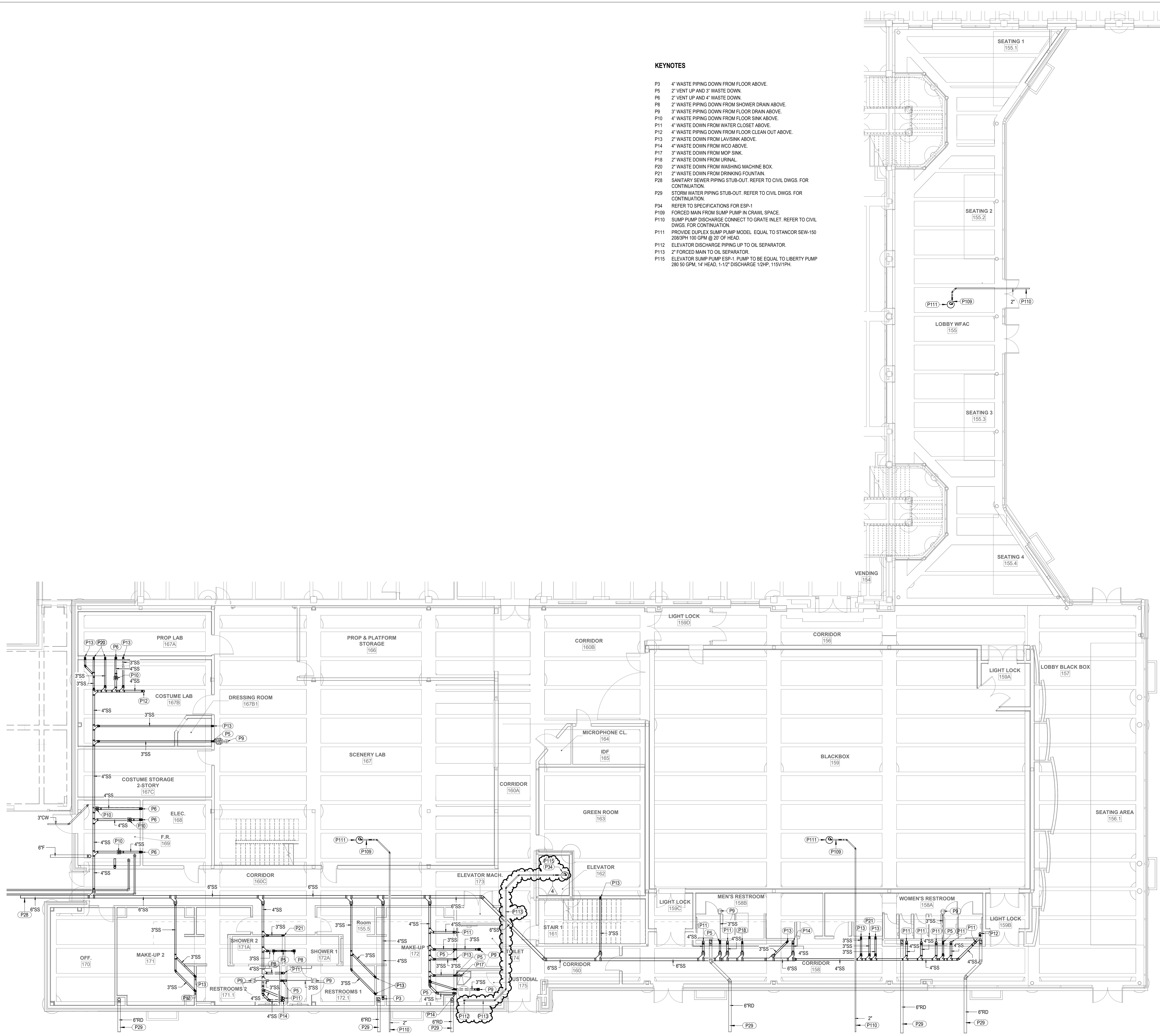
SLOPE OF HORIZONTAL DRAINAGE PIPE

Table with 2 columns: Pipe Size and Minimum Slope. Lists slopes for pipe sizes from 2-1/2" or less to 8" or larger.



**KEYNOTES**

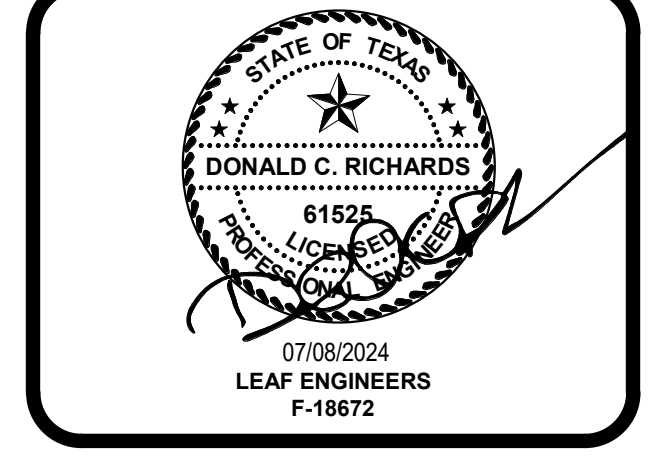
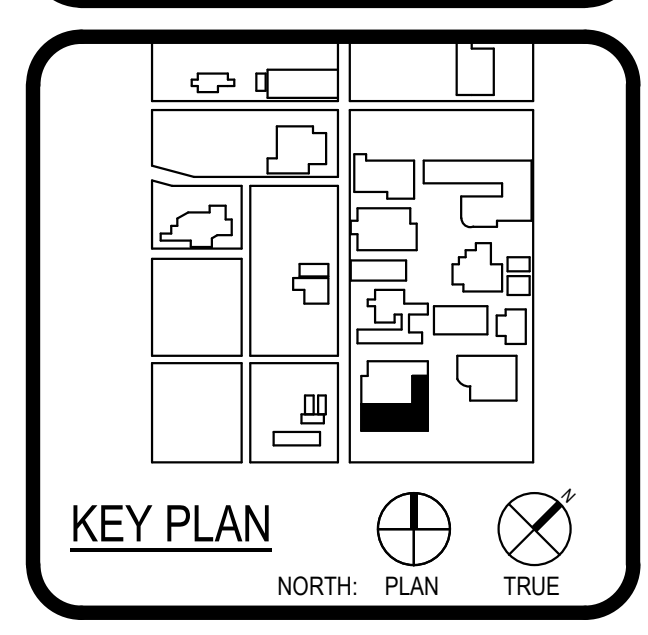
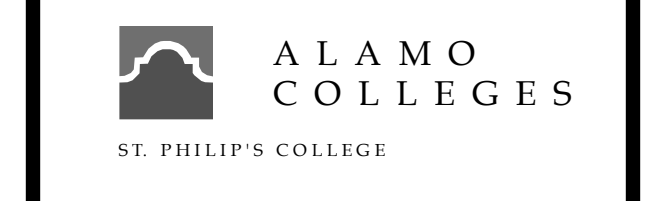
- P3 4" WASTE PIPING DOWN FROM FLOOR ABOVE.
- P5 2" VENT UP AND 3" WASTE DOWN.
- P6 2" VENT UP AND 4" WASTE DOWN.
- P8 2" WASTE PIPING DOWN FROM SHOWER DRAIN ABOVE.
- P9 3" WASTE PIPING DOWN FROM FLOOR DRAIN ABOVE.
- P10 4" WASTE PIPING DOWN FROM FLOOR SINK ABOVE.
- P11 4" WASTE DOWN FROM WATER CLOSET ABOVE.
- P12 4" WASTE PIPING DOWN FROM FLOOR CLEAN OUT ABOVE.
- P13 2" WASTE DOWN FROM LAV/SINK ABOVE.
- P14 4" WASTE DOWN FROM WCO ABOVE.
- P17 3" WASTE DOWN FROM MOP SINK.
- P18 2" WASTE DOWN FROM URINAL.
- P20 2" WASTE DOWN FROM WASHING MACHINE BOX.
- P21 2" WASTE DOWN FROM DRINKING FOUNTAIN.
- P28 SANITARY SEWER PIPING STUB-OUT. REFER TO CIVIL DWGS. FOR CONTINUATION.
- P29 STORM WATER PIPING STUB-OUT. REFER TO CIVIL DWGS. FOR CONTINUATION.
- P34 REFER TO SPECIFICATIONS FOR ESP-1
- P109 FORCED MAIN FROM SUMP PUMP IN CRAWL SPACE.
- P110 SUMP PUMP DISCHARGE CONNECT TO GRATE INLET. REFER TO CIVIL DWGS. FOR CONTINUATION.
- P111 PROVIDE DUPLEX SUMP PUMP MODEL EQUAL TO STANCOR SEW-150 200/3PH 100 GPM @ 20' OF HEAD.
- P112 ELEVATOR DISCHARGE PIPING UP TO OIL SEPARATOR.
- P113 2" FORCED MAIN TO OIL SEPARATOR.
- P115 ELEVATOR SUMP PUMP ESP-1. PUMP TO BE EQUAL TO LIBERTY PUMP 280 50 GPM, 14' HEAD, 1-1/2" DISCHARGE 1/2HP, 115V/1PH.



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 DONALD C. RICHARDS  
 6152  
 07/08/2024  
 LEAF ENGINEERS  
 F-18672



WFAC Black Box Addition PKG 1  
 1801 Main, Luther King Dr.,  
 San Antonio, TX 78203  
 90%CD - IFR



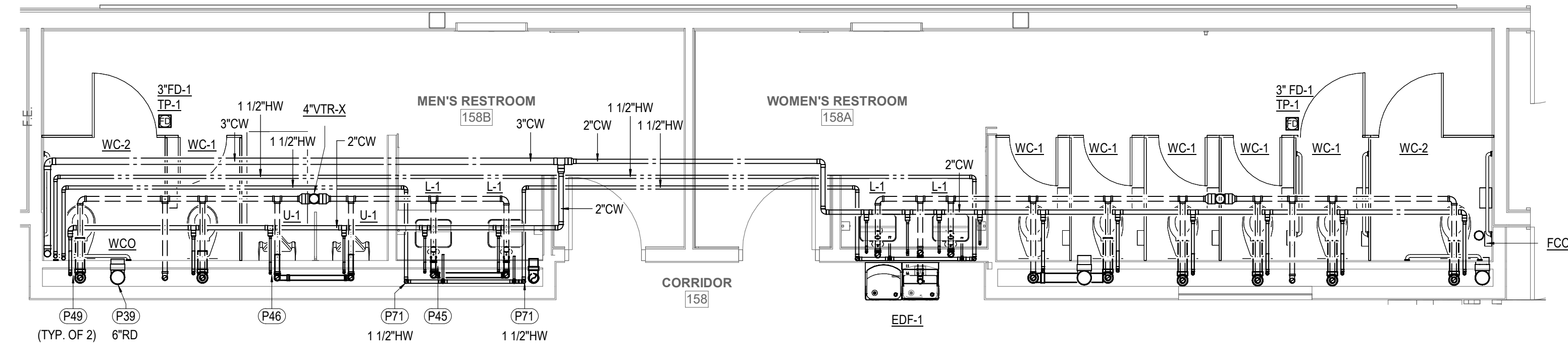
CLIENT		
Alamo Colleges		
DATE	PROJECT NUMBER	
07/08/2024	230462	
DRAWING HISTORY		
No.	Description	Date
1	CITY COMMENTS	06/05/2024
2	CITY COMMENTS	06/12/2024
3	CITY COMMENTS	06/24/2024
4	CITY COMMENTS	07/08/2024

90%CD - IFR  
 BUILDING NUMBER 1

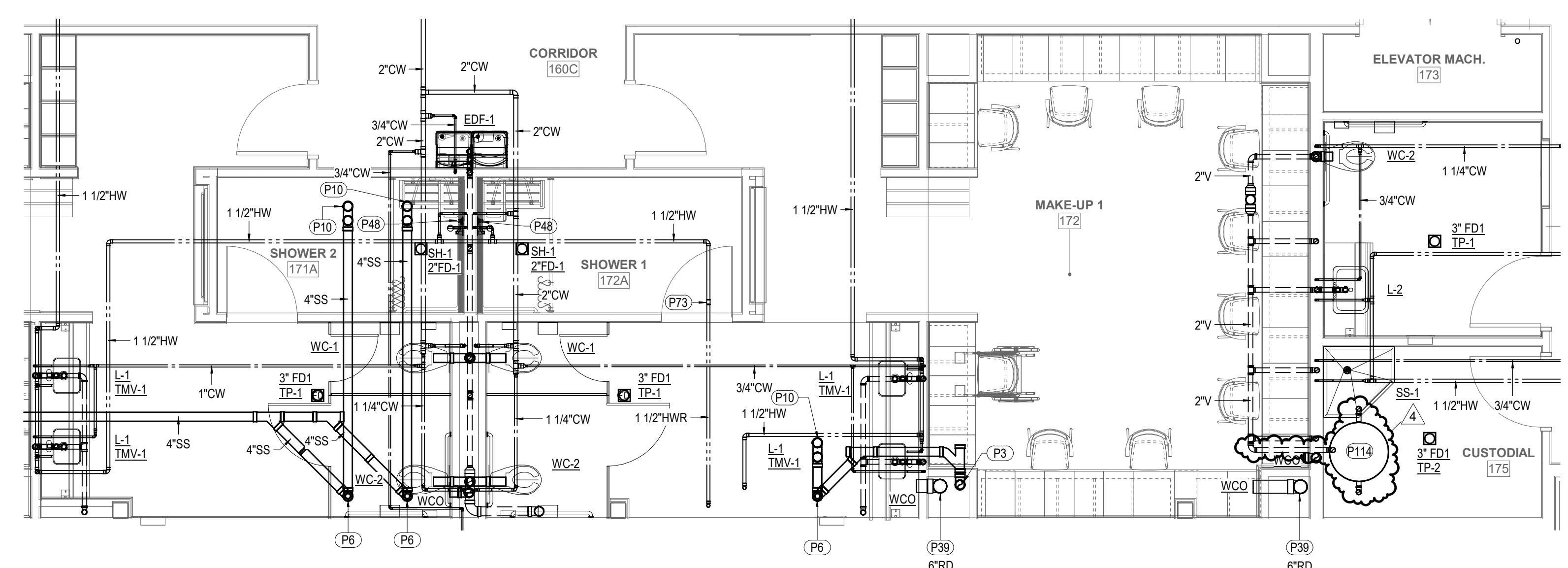
**CRAWLSPACE PLUMBING PLAN**

**PU-101-A**

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 CHECKED BY: Checker  
 DRAWN BY: Author  
 Plot Stamp: 7/8/2024 7:29:33 AM



**1** 1ST LEVEL ENLARGED PLUMBING PLAN - AREA C  
SCALE: 1/4" = 1'-0"



**2** 1ST LEVEL ENLARGED PLUMBING PLAN - AREA D  
SCALE: 1/4" = 1'-0"

**KEYNOTES**

- P3 4" WASTE PIPING DOWN FROM FLOOR ABOVE.
- P6 2" VENT UP AND 4" WASTE DOWN.
- P10 4" WASTE PIPING DOWN FROM FLOOR ABOVE.
- P39 ROOF DRAIN PIPING DOWN TO BELOW FLOOR. SIZE AS NOTED.
- P45 3/4" COLD WATER, 3/4" HOT WATER DOWN AND 2" VENT UP.
- P46 3/4" COLD WATER DOWN AND 2" VENT UP.
- P48 3/4" COLD WATER AND 3/4" HOT WATER DOWN TO SHOWER VALVE.
- P49 1 1/4" COLD WATER DOWN AND 2" VENT UP.
- P71 HOT WATER DOWN IN CHASE / WALL SIZE AS NOTED.
- P73 PROVIDE BALANCING VALVE.
- P114 PROVIDE ELEVATOR SLUMP SYSTEM EQUAL TO PARK ELYC-100 SEPARATOR MODEL ESC-100 50 GPM FLOW RATE 100 GALLON CAPACITY.

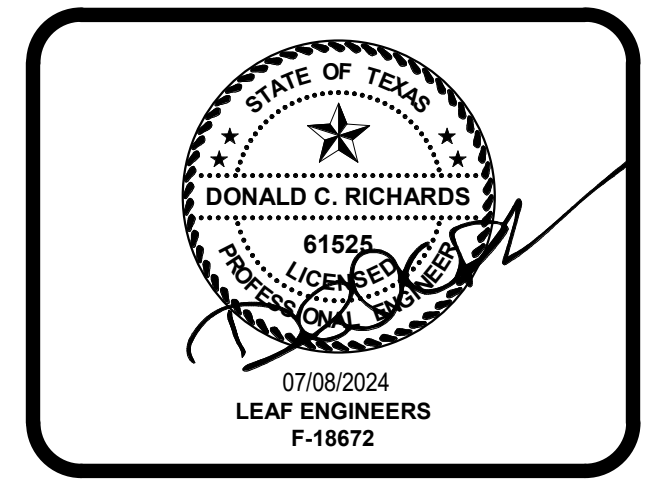
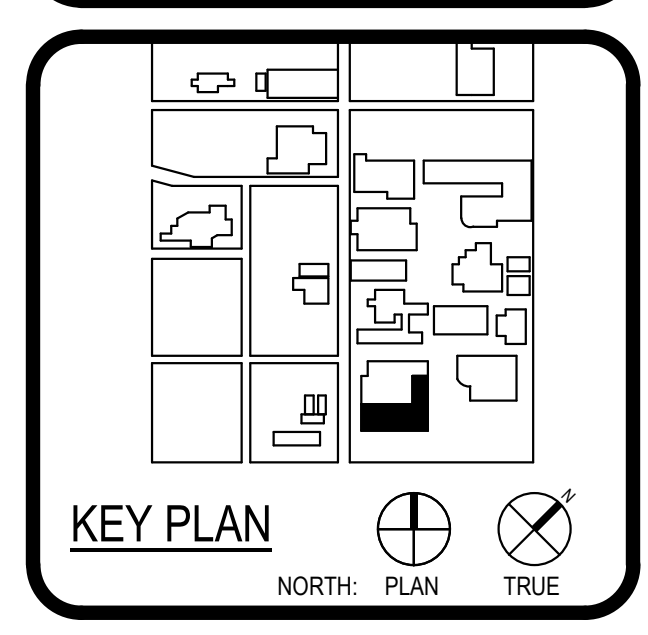
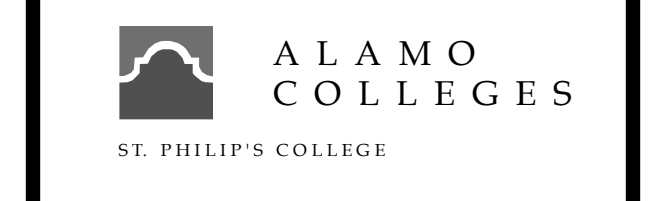


ARCHITECT	PBK Architects, Inc. SAN ANTONIO 601 N. W. Loop 410, Suite 400 San Antonio, TX 78216 210-829-0123 P TX Firm SR 1659
ASSOCIATE ARCHITECT	KEVIN ARCHITECTS 1710 S. 18TH ST SAN ANTONIO, TX 78205
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MECHANICAL ENGINEER	LEAF ENGINEERS 1801 MAHIN LUTHER KING DR. SAN ANTONIO, TX 78203
ELECTRICAL ENGINEER	LEAF ENGINEERS 1801 MAHIN LUTHER KING DR. SAN ANTONIO, TX 78203
PLUMBING ENGINEER	LEAF ENGINEERS 1801 MAHIN LUTHER KING DR. SAN ANTONIO, TX 78203
MECHANICAL PROFESSIONALS	LEAF ENGINEERS 1801 MAHIN LUTHER KING DR. SAN ANTONIO, TX 78203
ELECTRICAL PROFESSIONALS	LEAF ENGINEERS 1801 MAHIN LUTHER KING DR. SAN ANTONIO, TX 78203
PLUMBING PROFESSIONALS	LEAF ENGINEERS 1801 MAHIN LUTHER KING DR. SAN ANTONIO, TX 78203



WFAC Black Box Addition PKG 1

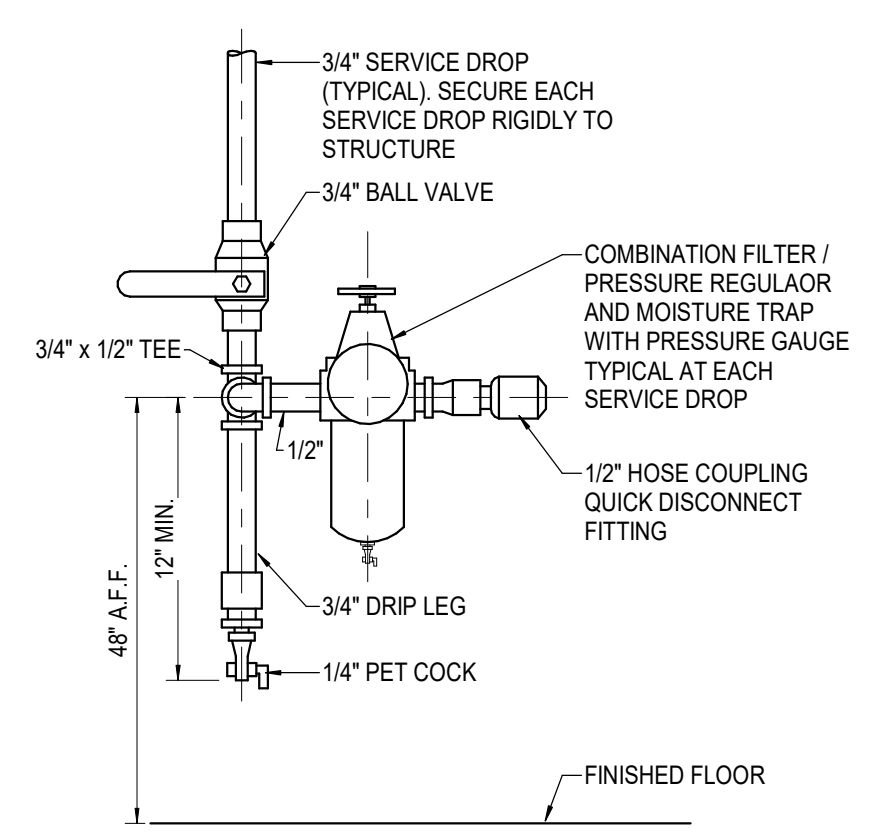
1801 Mahin Luther King Dr.,  
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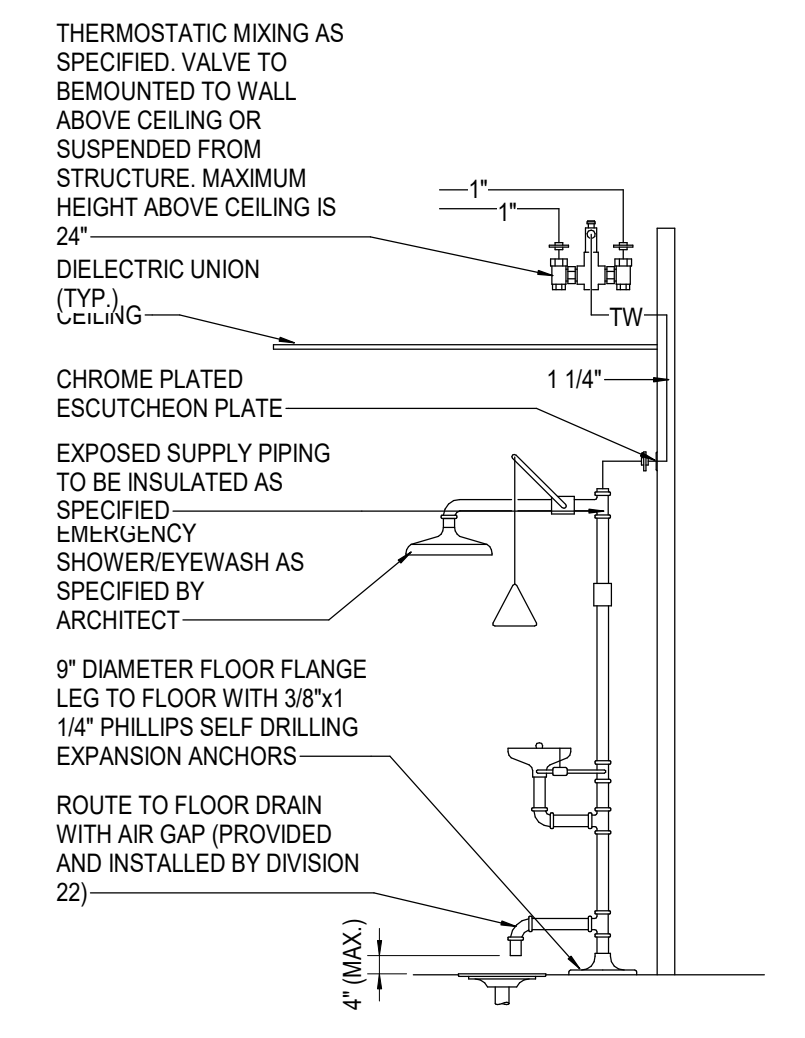
CLIENT		Alamo Colleges
DATE	07/08/2024	PROJECT NUMBER
DRAWING HISTORY		230462
No.	Description	Date
1	CITY COMMENTS	07/08/2024
90%CD - IFR		
BUILDING NUMBER	1	

**PLUMBING ENLARGED PLAN**

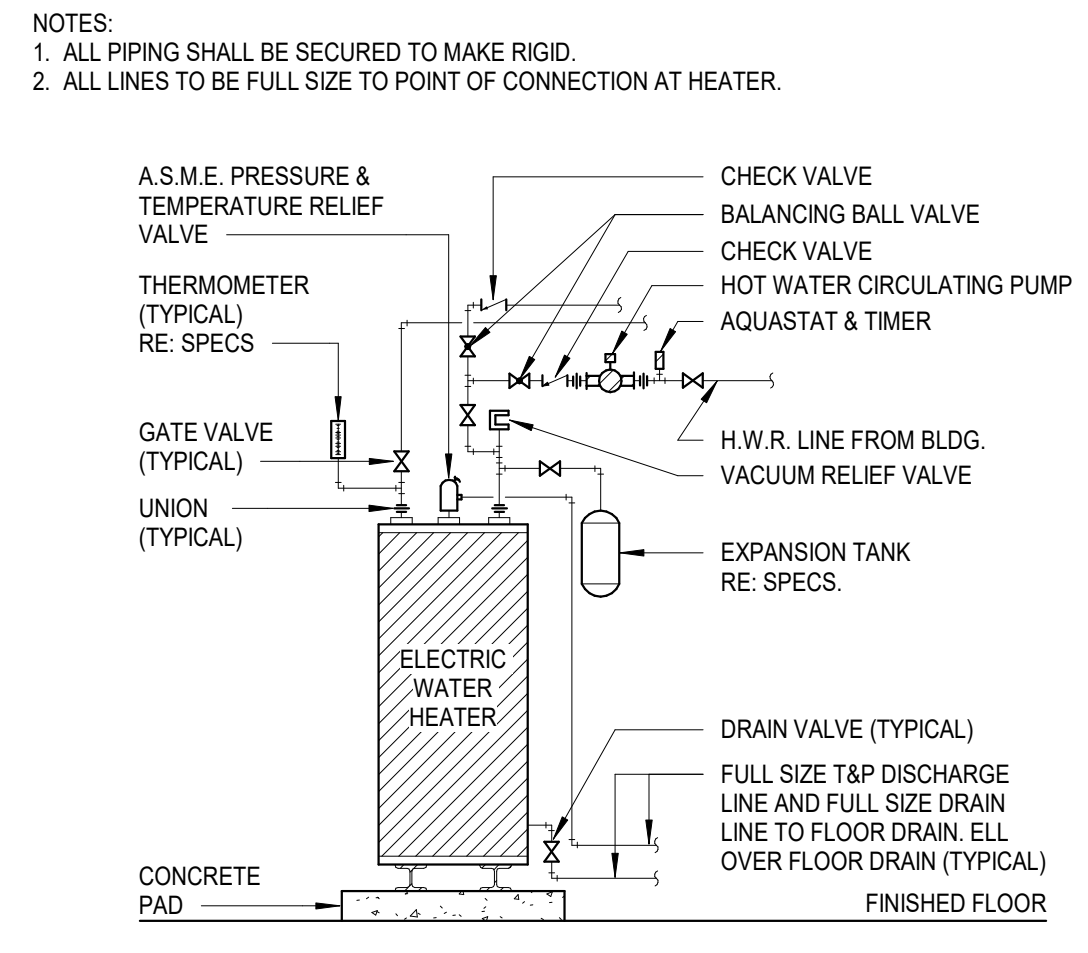
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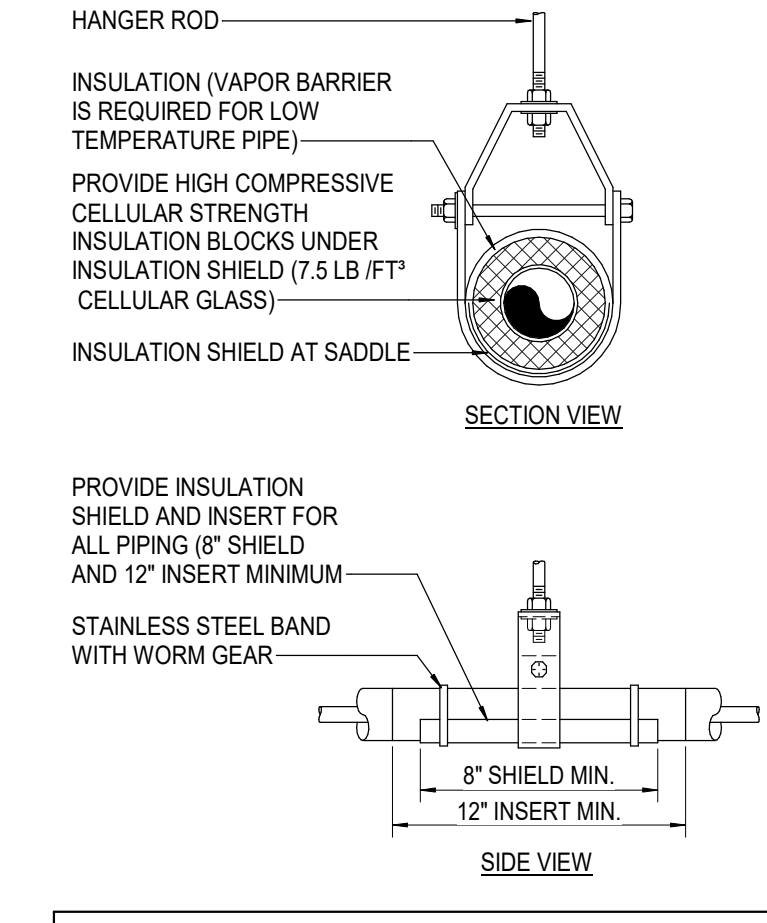
**10 COMPRESSED AIR OUTLET DETAIL**  
SCALE: NOT TO SCALE



**7 EMERGENCY SHOWER/EYEWASH DETAIL**  
SCALE: NOT TO SCALE



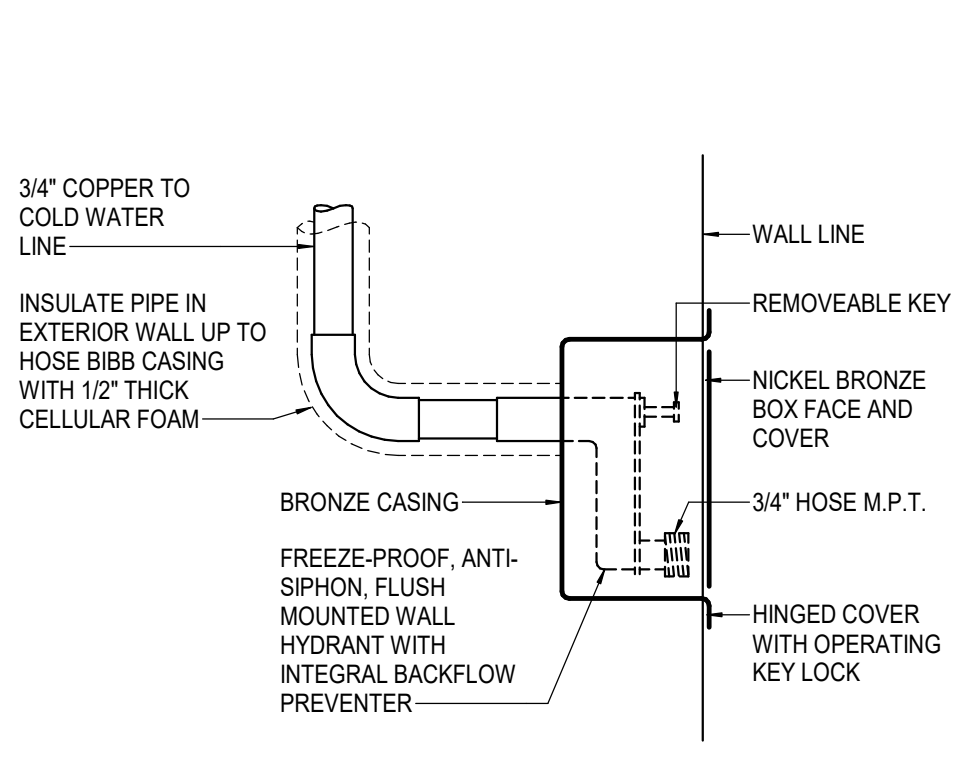
**4 ELECTRIC WATER HEATER PIPING**  
SCALE: N.T.S.



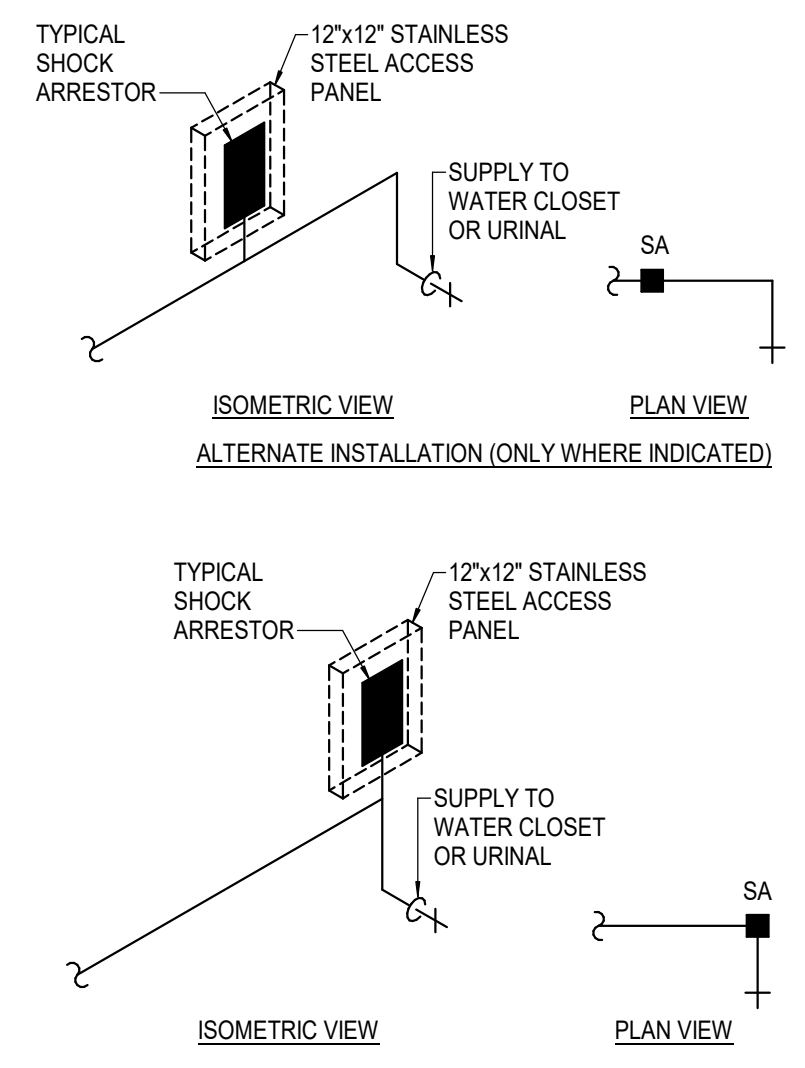
**1 ADJUSTABLE CLEVIS PIPE HANGER DETAIL**  
SCALE: NOT TO SCALE

MAXIMUM PIPING / TUBING SUPPORT SPACING																	
NOM. SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
PIPING	7'	7'	7'	9'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'
TUBING	5'	6'	6'	6'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'

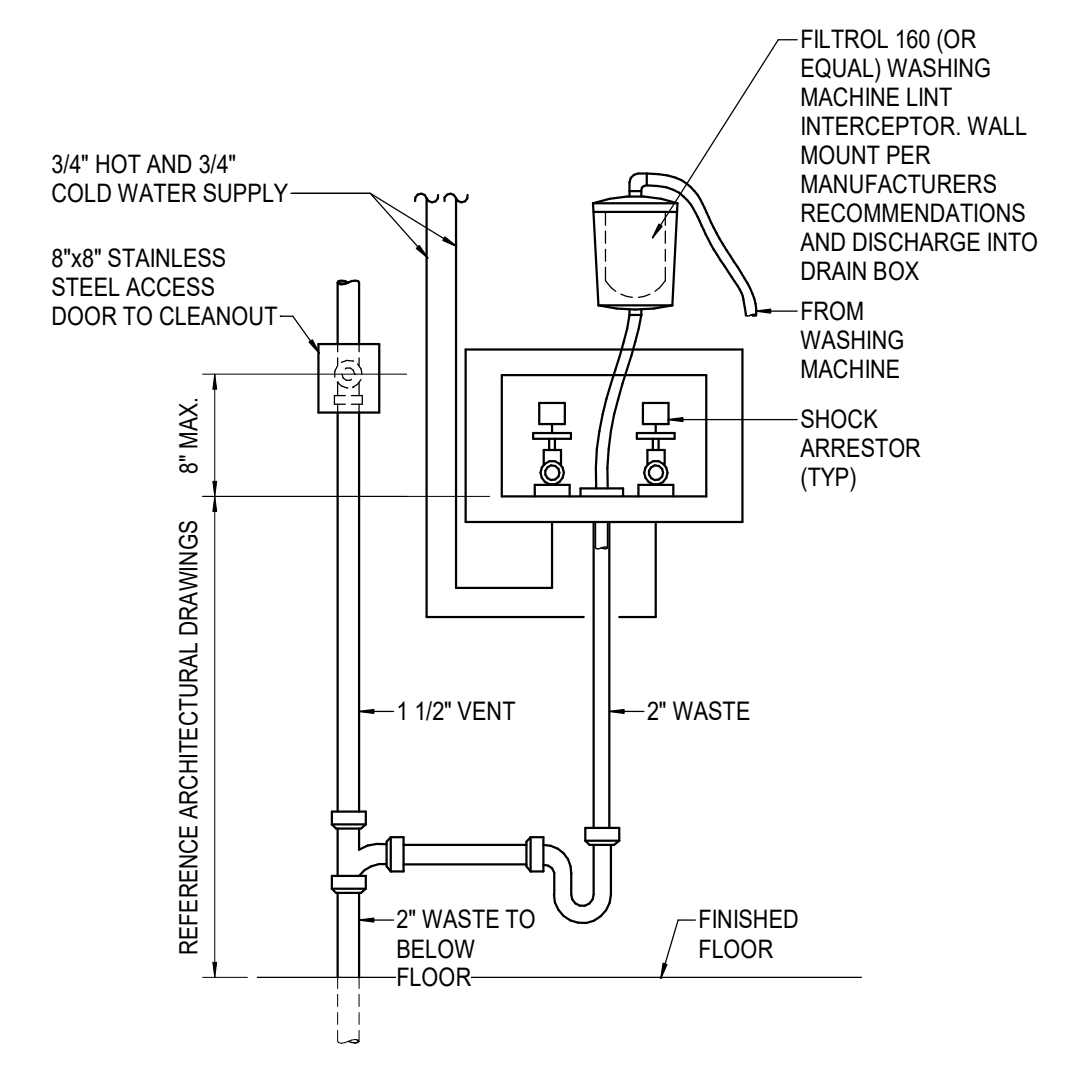
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.



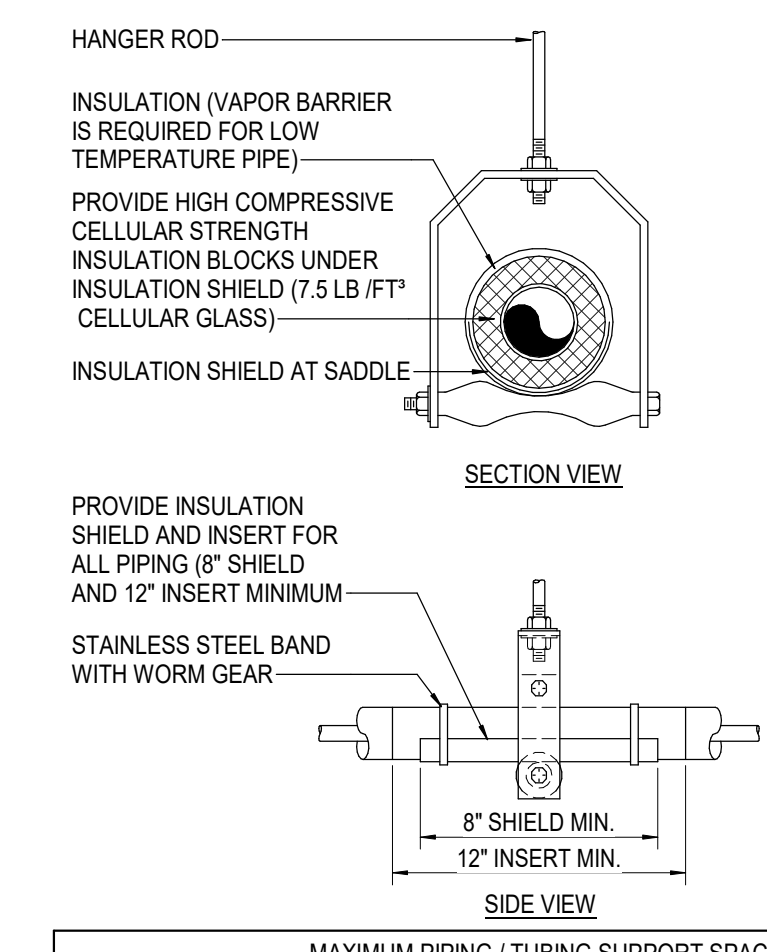
**11 WALL HYDRANT DETAIL**  
SCALE: NOT TO SCALE



**8 SHOCK ARRESTOR DETAIL**  
SCALE: NOT TO SCALE



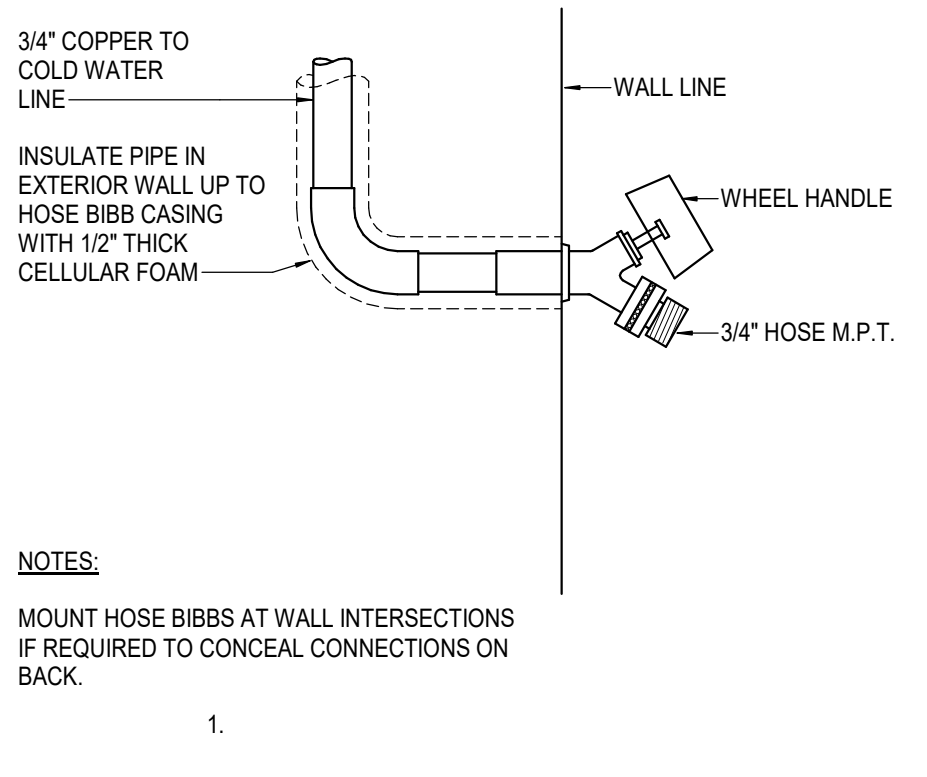
**5 WASHER / DRAIN BOX CONNECTION DETAIL**  
SCALE: NOT TO SCALE



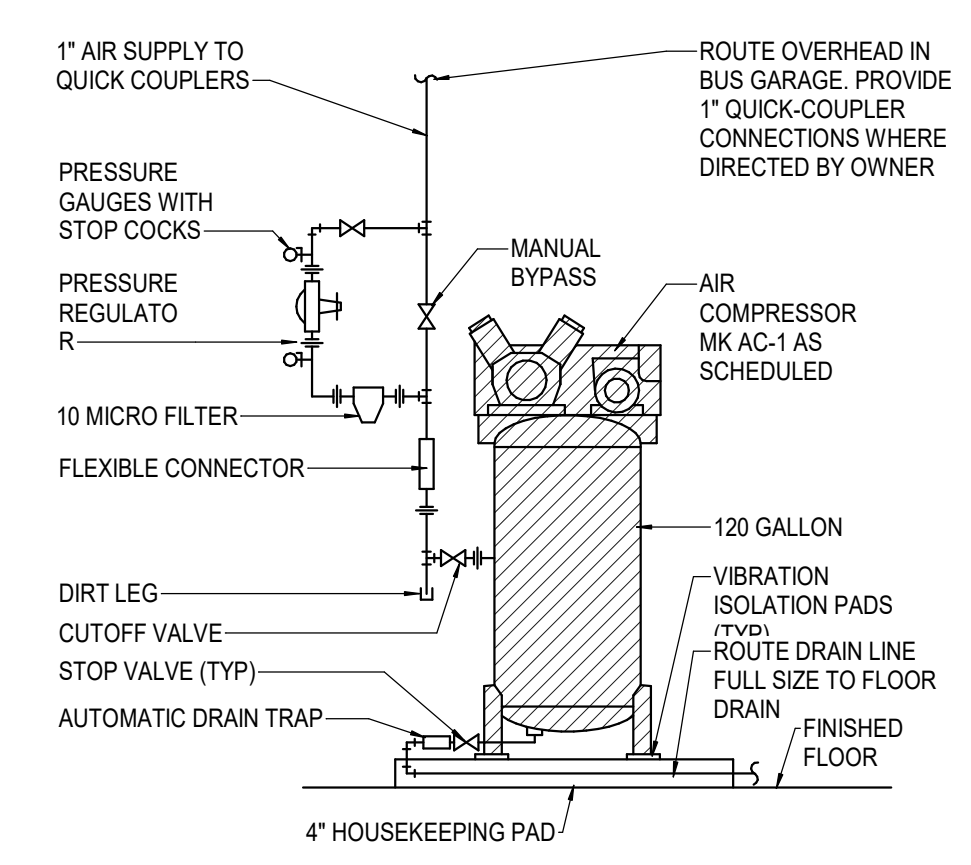
**2 ADJUSTABLE ROLLER PIPE HANGER DETAIL**  
SCALE: NOT TO SCALE

MAXIMUM PIPING / TUBING SUPPORT SPACING																	
NOM. SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
PIPING	7'	7'	7'	9'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'
TUBING	5'	6'	6'	6'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'

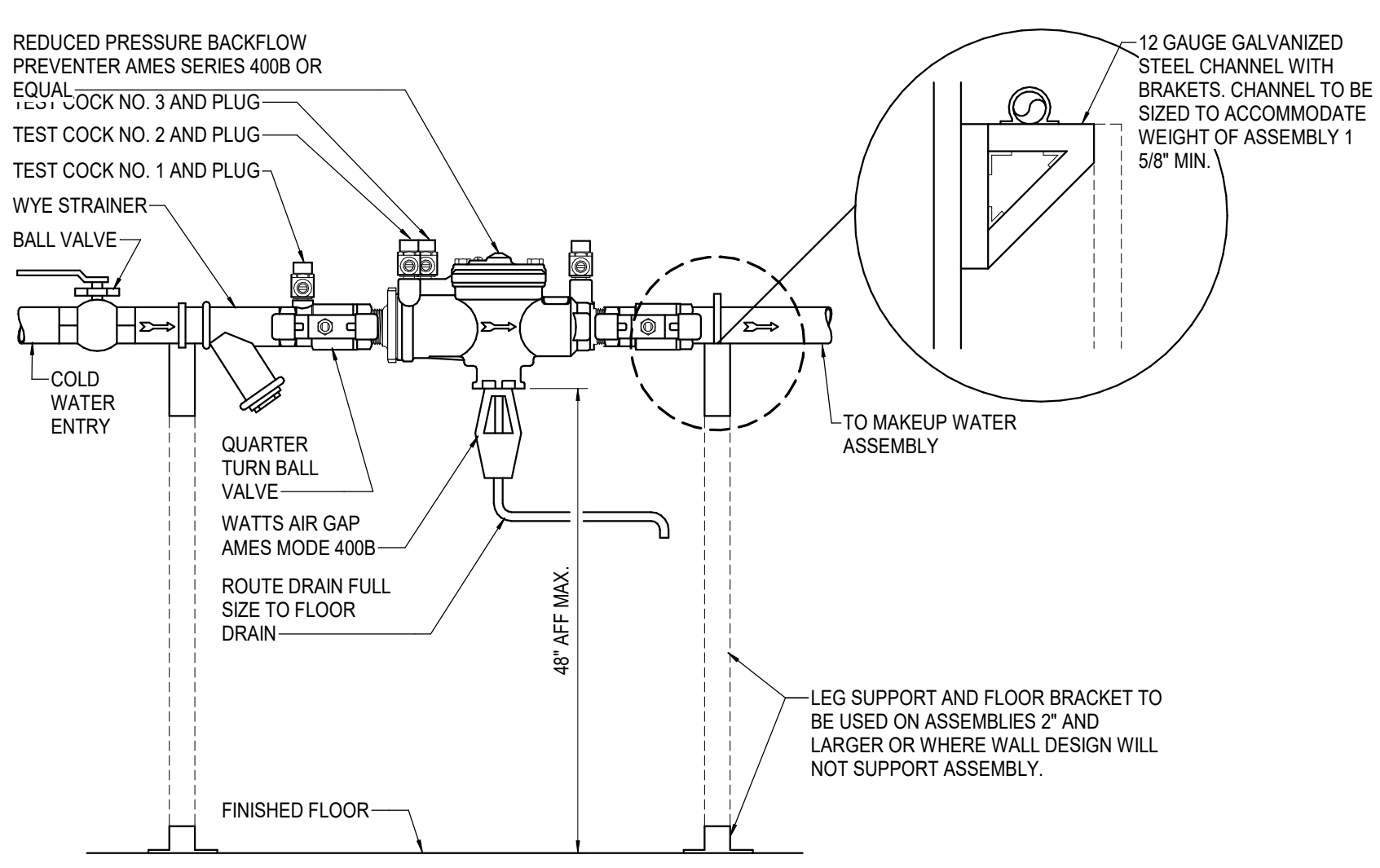
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.



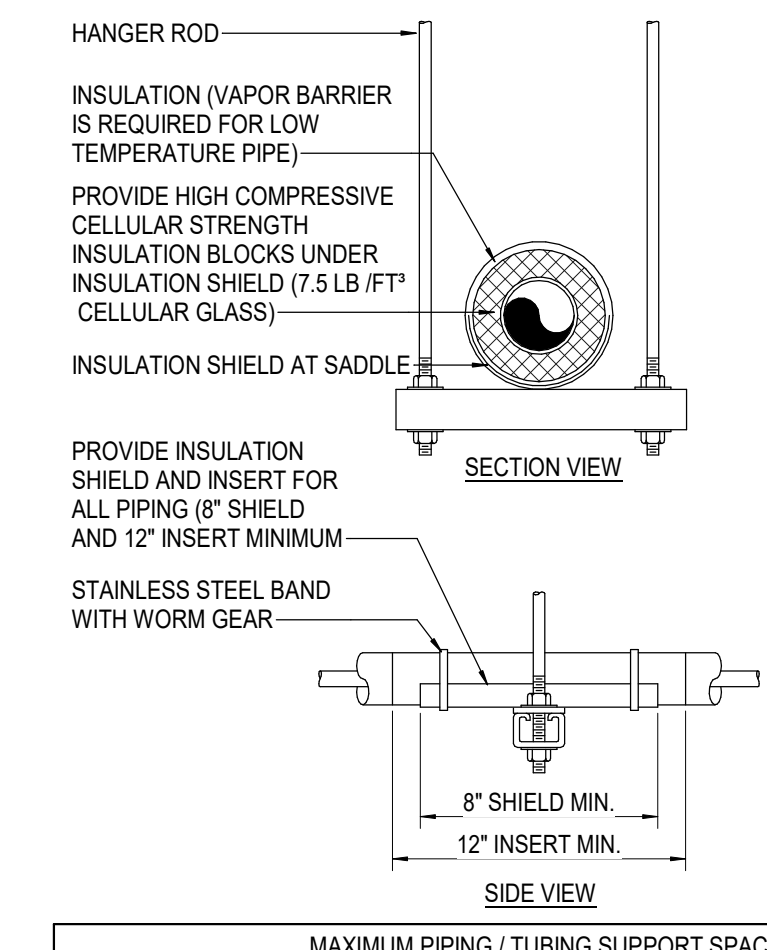
**12 WALL HYDRANT DETAIL**  
SCALE: NOT TO SCALE



**9 AIR COMPRESSOR PIPING DETAIL**  
SCALE: NOT TO SCALE



**6 BACKFLOW PREVENTER MOUNTING DETAIL**  
SCALE: NOT TO SCALE



**3 TRAPEZE PIPE HANGER DETAIL**  
SCALE: NOT TO SCALE

MAXIMUM PIPING / TUBING SUPPORT SPACING																	
NOM. SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
PIPING	7'	7'	7'	9'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'
TUBING	5'	6'	6'	6'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.



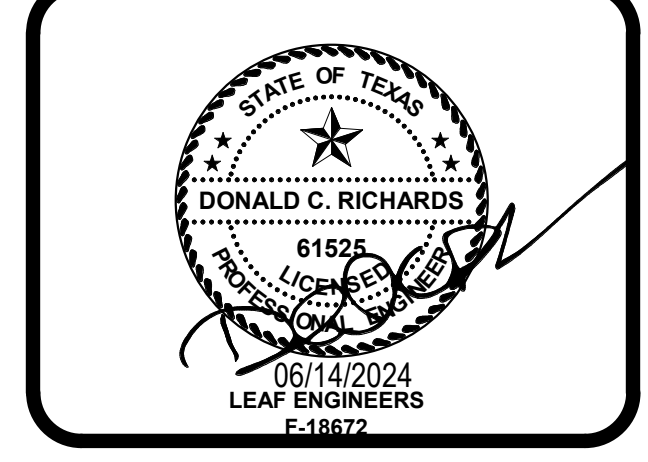
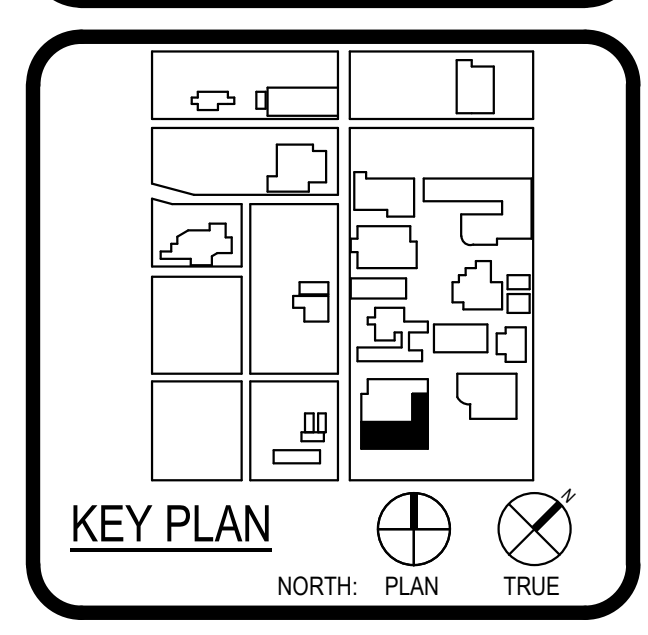
ARCHITECT	PBK Architects, Inc.
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601 N.W. Loop 410, Suite 400	
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210-820-0123 P	
210-829-0578 F	
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210-829-0578 F	
TX Firm BR 1608	
ASSOCIATE ARCHITECT	LANDSCAPE
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210-829-0123 P	
210-829-0578 F	
TX Firm BR 1608	
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210-829-0578 F	
TX Firm BR 1608	



**WFAC Black Box Addition PKG 1**

1801 Melvin Luther King Dr.,  
San Antonio, TX 78203

ISSUE FOR CONSTRUCTION

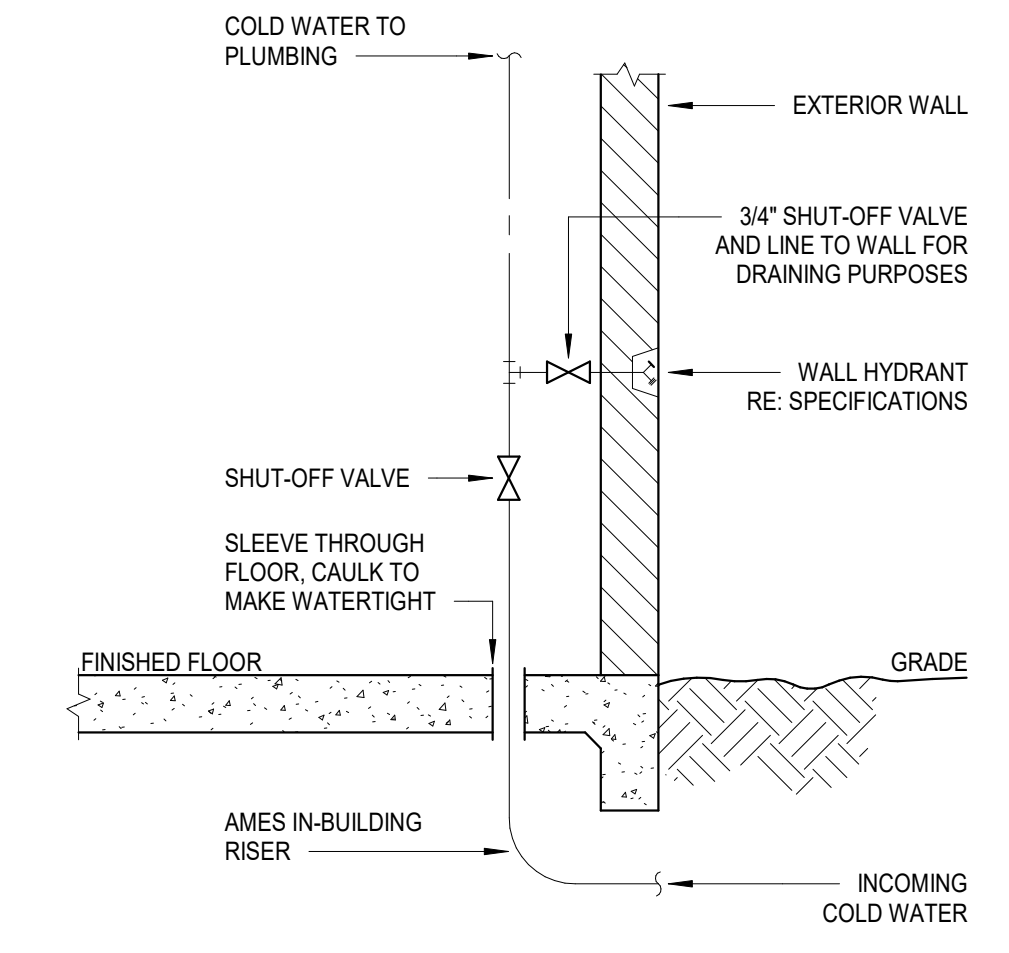
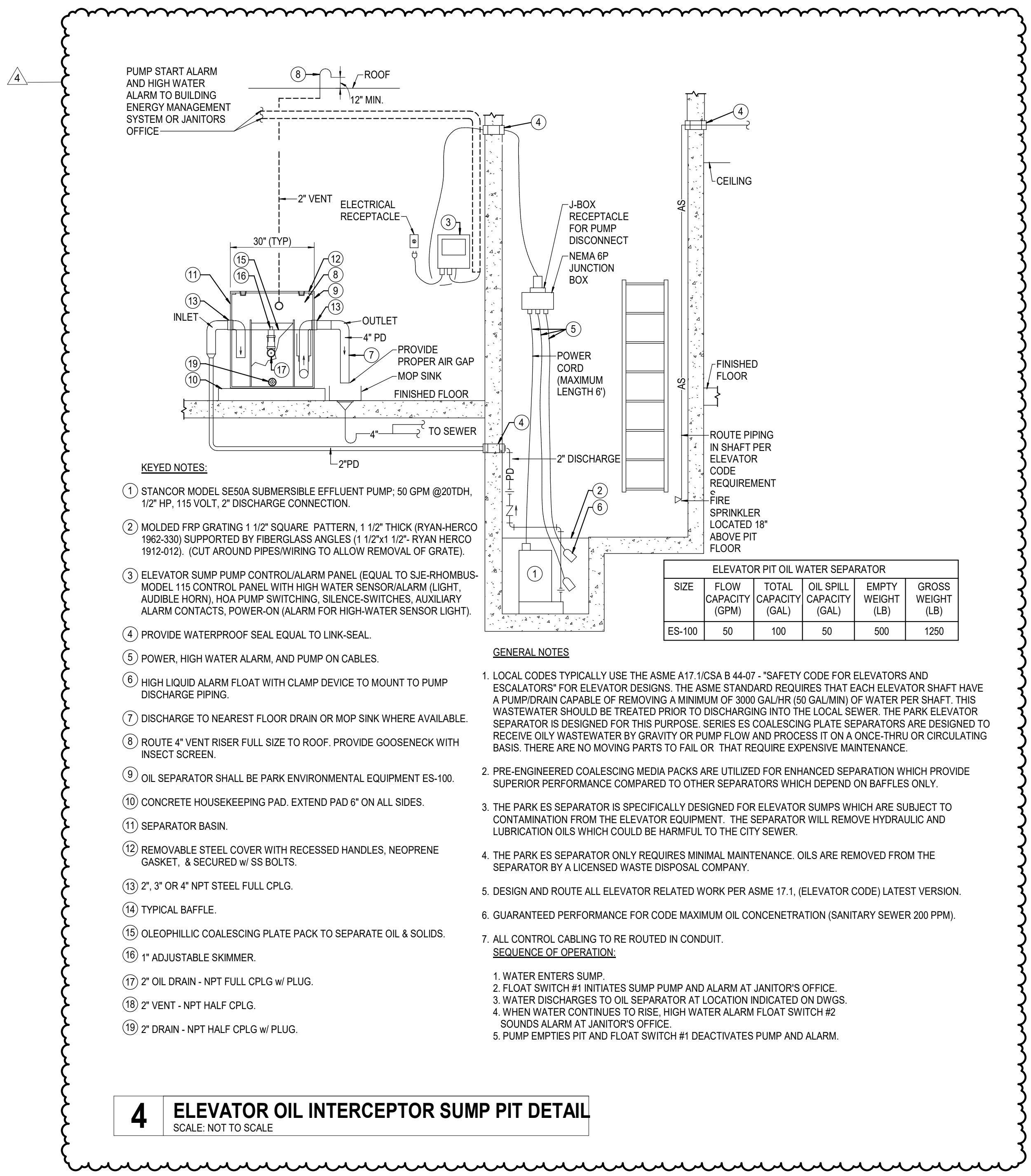


CLIENT	Alamo Colleges	
DATE	06/14/2024	
PROJECT NUMBER	230462	
DRAWING HISTORY		
No.	Description	Date

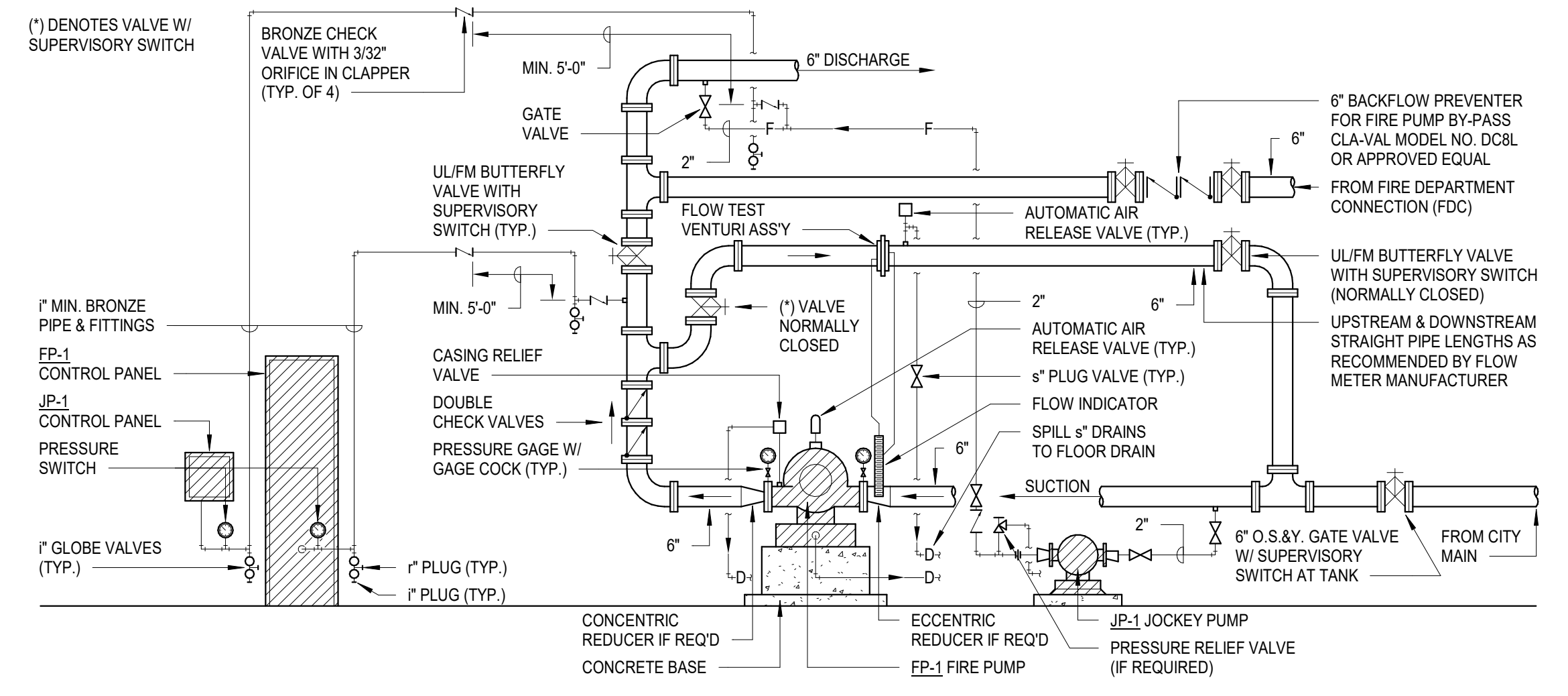
ISSUE FOR CONSTRUCTION

BUILDING NUMBER 1

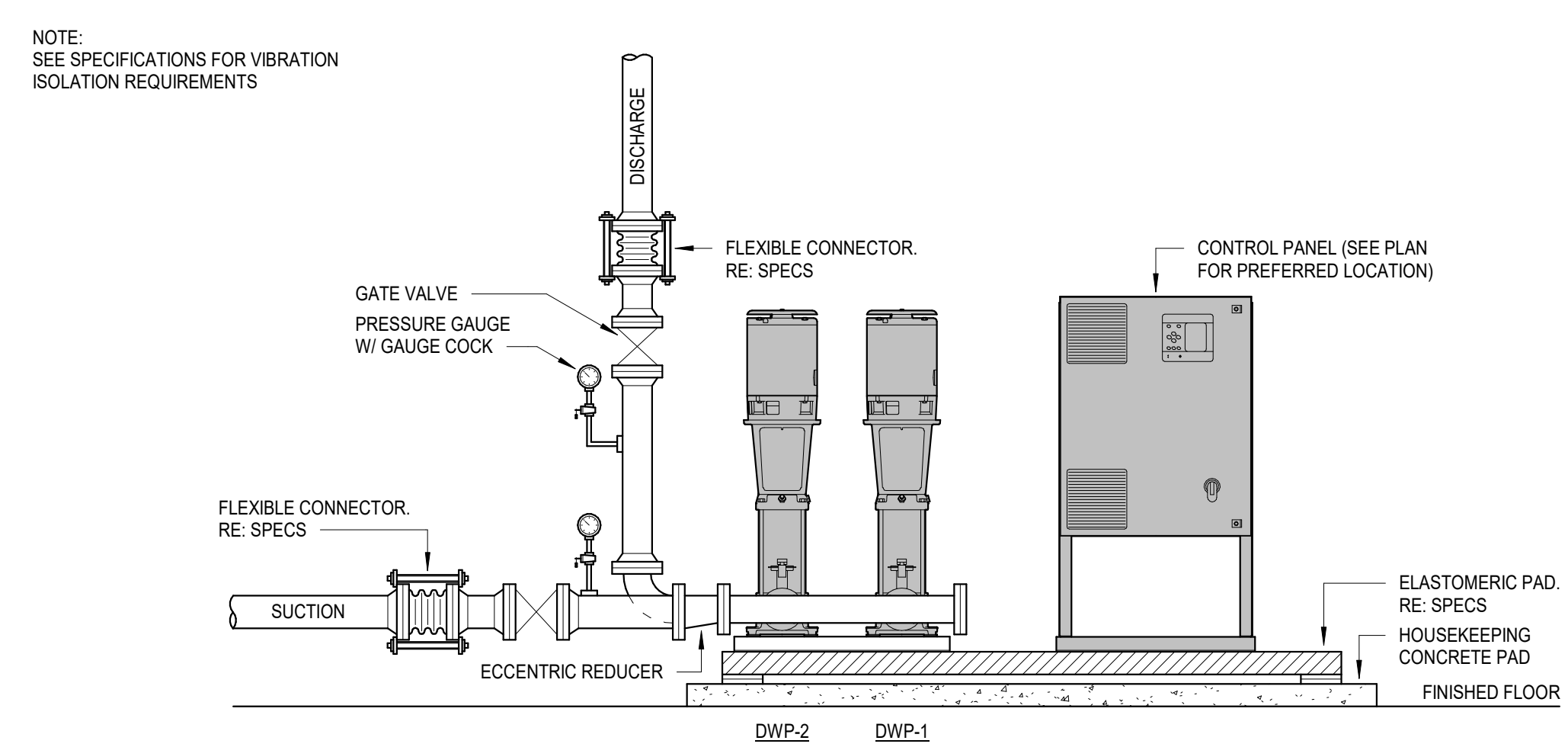
**PLUMBING DETAILS**



**1 DOMESTIC COLD WATER ENTRY**  
SCALE: N.T.S.



**2 FIRE PUMP**  
SCALE: N.T.S.



**3 DUPLIX PACKAGE PUMPING SYSTEM**  
SCALE: N.T.S.





