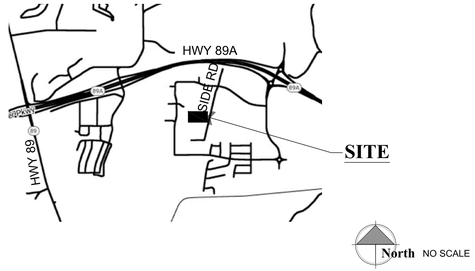
Commercial Building on Side Road

PRESCOTT, ARIZONA

Area Map



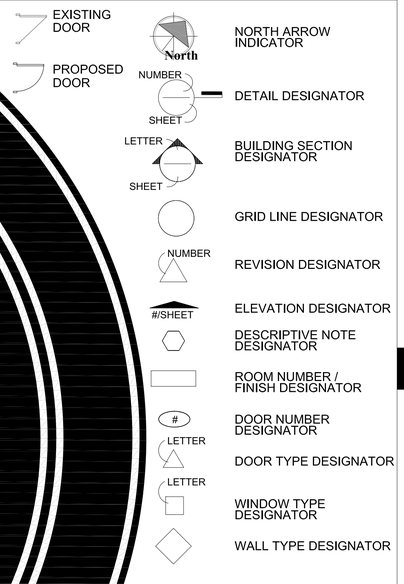
Project Information

Owner:	Deo Iuvante L.L.C.
Contact:	Scott Hicks drscottpusd@gmail.com
Prepared by:	W. Alan Kenson & Associates, P.C. P.O. Box 11593 Prescott, AZ 86304
Contact:	Alan Kenson, 928-443-5812 waka@cableone.net
Jobsite Address:	5416 Side Road Prescott, AZ
Parcel Number:	103-01-038
Lot Area:	.39 Acres
Zoning:	IL
Current Code:	2018 International Building Code
Proposed Building :	2,765 S.F.
Occupancy:	U - Utility and Miscellaneous
Construction Type:	Type II-B

Sheet Index

NOTE: METAL BUILDING PLANS SUBMITTED UNDER SEPARATE COVER

Graphic Standards



Project Description

SCOTT HICKS, IS PROPOSING TO BUILD A 2,625 S.F. METAL BUILDING ON HIS EXISTING PROPERTY. IT WILL BE USED AS A PERSONAL STORAGE GARAGE WITH A PORTION TO BE LEASED OUT.

Architect:

W. Alan Kenson & Associates, P.C.

P 928-443-5812 P.O. Box 11593
F 928-443-5815 Prescott, AZ 86304

email: wakaarchitect@gmail.com
www.kenson-associates.com

ARCHITECTURE & PLANNING

Jul 11, 2023 - 2:23pm

REVISIONS	BY

REGISTERED ARCHITECT
REGISTRATION NO.
25646
W. ALAN KENSON
Date Signed 07/10/23
ARIZONA
EXPIRES: 6/30/24

W. Alan Kenson & Associates, P.C.

P 928-443-5812 P.O. Box 11593
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email: waka@cableone.net
www.kenson-associates.com
ARCHITECTURE & PLANNING

DRAWING: Cover Sheet

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: June 30th, 2023
JOB NO.: 777
SHEET: CS1

EXIT SIGNS:

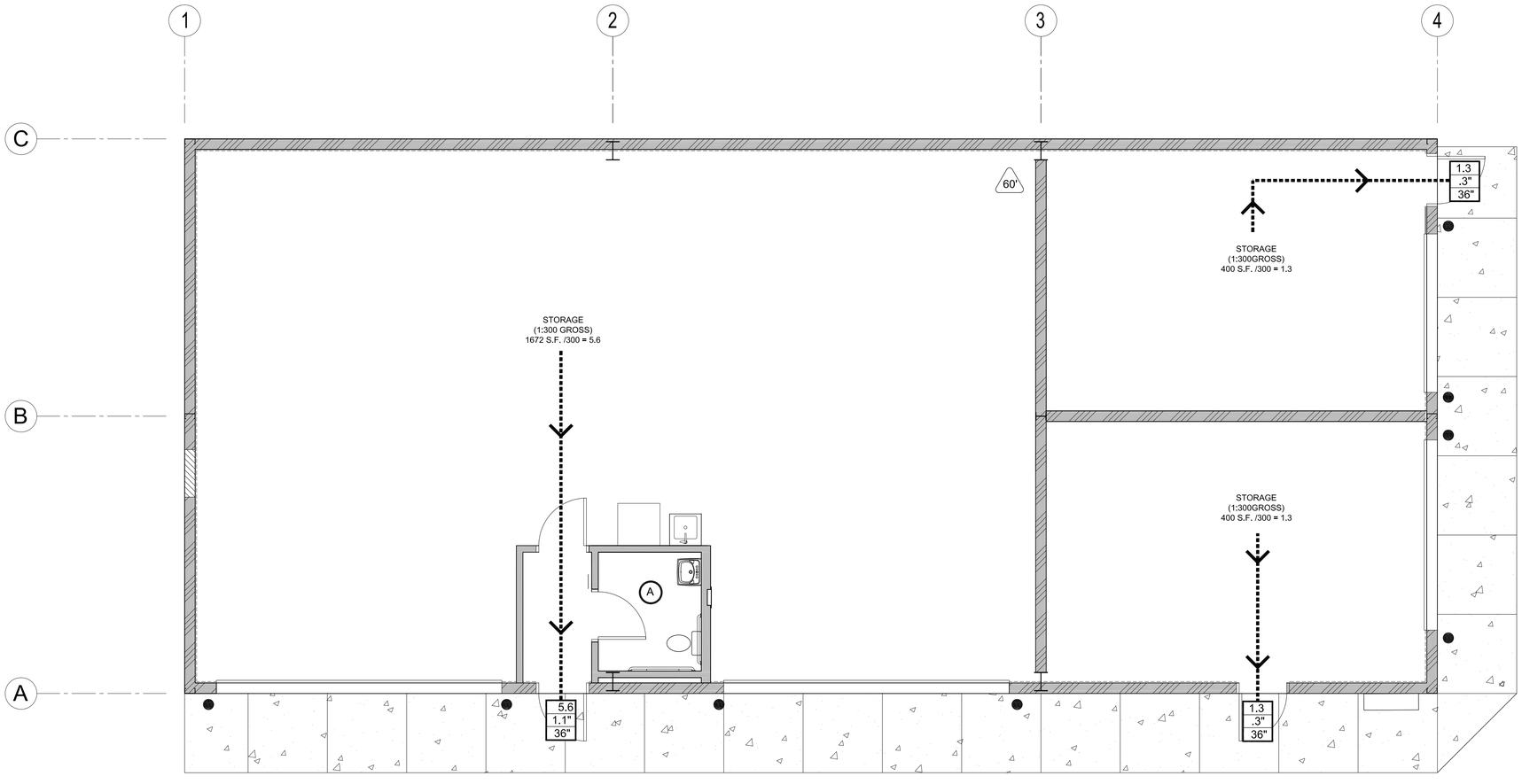
- PROVIDE A 6"x9" BLUE TACTILE, BRAILLE, 'EXIT' SIGN AS MANUFACTURED BY 'SIMPLY EXIT SIGNS (#SE-1980)' OR EQUAL COMPLYING WITH ICC/ANSI A117.1 SECTION 703.1 AND IBC SECTIONS 1013 & 1111, ADJACENT TO EACH DOOR TO AN EXIT PASSAGEWAY AND THE EXIT DISCHARGE.

FIRE DEPARTMENT NOTES:

- FIRE EXTINGUISHERS SHALL BE PROVIDED IN ACCORDANCE WITH THE INTERNATIONAL FIRE CODE (IFC) AND NFPA 10.
- HAZARDOUS MATERIAL INVENTORY STATEMENTS (HMIS) MUST BE COMPLETED AND SUBMITTED ALONG WITH THE MATERIAL SAFETY DATA SHEETS (MSDS) PROVIDED BY THE MANUFACTURER OF THE PRODUCTS AND MATERIALS FOR ALL HAZARDOUS MATERIALS ONCE THE OCCUPANTS OF THE SUITES ARE IDENTIFIED. THE HMIS FORM MAY BE FOUND ON THE CITY WEB SITE AT WWW.PRESCOTT-AZ.GOV/DOCUMENTS.
- DOOR HARDWARE TO MEET 2018 IFC AND IBC REQUIREMENTS FOR EGRESS.
- PROVIDE ADDRESS NUMBERS IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET FRONTING THE PROPERTY. THESES NUMBERS SHALL BE A MINIMUM OF 6 INCHES WITH CONTRASTING BACKGROUND.

Plumbing Calculations

OCCUPANCY CLASSIFICATION	OCCUPANCY COUNT	WATER CLOSETS	LAVATORIES	SERVICE SINK
STORAGE	9	.09	.09	
TOTAL REQUIRED		.09	.09	
TOTAL PROVIDED		1	1	1



A1 Occupancy / Egress Plan

Scale: 1/4"=1'-0"

Plan North

Egress Legend:

- EXIT ACCESS
- (A) ACCESSORY USE (NO OCCUPANCY)
- [XX] ROOM OCCUPANCY LOAD
- (XX) SUBTOTAL OCCUPANCY LOAD
- XX / XX / XX — OCCUPANCY TOTAL / REQUIRED EXIT WIDTH (FACTOR = 0.2) / PROVIDED EXIT WIDTH
- (#) WORST CASE TRAVEL DISTANCE TO COMMON PATH OF EGRESS TRAVEL

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR
STORAGE	300 GROSS

Occupant load

NOTE:
GROSS SQUARE FOOTAGE LISTED BELOW DOES NOT INCLUDE ACCESSORY AREAS.

STORAGE AREA	2,472 SQ. FT.	8.24 OCCUPANTS
TOTAL:	2,472 SQ. FT.	8.24 OCCUPANTS

Accessibility Notes

1. ACCESS TO THESE FACILITIES SHALL BE AT PRIMARY ENTRANCES.
2. THE SLOPE OF PUBLIC WALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 2%.
3. WALKING SURFACES GREATER THAN 2% SHALL BE SLIP RESISTANT.
4. PROVIDE A 44"x60" MINIMUM LANDING ON THE STRIKE SIDE OF THE ENTRANCE DOOR WITH 44" MINIMUM WIDTH IN THE DIRECTION OF TRAVEL.
5. WALLS SHALL EXTEND 18" TO THE SIDE OF THE STRIKE EDGE OF A DOOR OR GATE THAT SWINGS TOWARDS THE OCCUPANT.
6. RAMPS SHALL HAVE A NON-SLIP SURFACE.
7. RAMPS SHALL BE A MINIMUM OF 36" WIDE.
8. EVERY REQUIRED EXIT DOORWAY SHALL BE SIZED FOR A DOOR NOT LESS THAN 36" WIDE BY NOT LESS THAN 6'-8" HIGH CAPABLE OF OPENING 90 DEGREES AND MOUNTED SO THE CLEAR WIDTH OF THE EXIT WAY IS 32" MINIMUM.
9. THRESHOLDS TO BE A MAXIMUM OF 1/4" ABOVE ADJACENT FLOOR FINISH. ONE-HALF INCH THRESHOLD MAY BE USED IF BEVELED PER A.D.A. STANDARDS.
10. MAXIMUM EFFORT TO OPERATE A DOOR SHALL NOT EXCEED 5 POUNDS.
11. THE BOTTOM 10 INCHES OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING DOORS SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE.
12. PROVIDE LEVER TYPE HARDWARE, PANIC BARS, PUSH AND PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. (30" TO 44" A.F.F.)

REVISIONS	BY

REGISTERED ARCHITECT — REGISTERED NO. 25646 — W. ALAN KENSON — Date Signed 07/10/23 — ARIZONA — EXPIRES: 6/30/24

W. Alan Kenson & Associates, P.C.
P.O. Box 11593
Prescott, AZ 86304
P 928-443-5812
F 928-443-5815
email: waka@cableone.net
www.kenson-associates.com
ARCHITECTURE & PLANNING

DRAWING: Occupancy / Egress Plan

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: June 30th, 2023
JOB NO.: 777
SHEET: **CS2**

Jul 10, 2023 - 12:26pm

COMMERCIAL BUILDING ON SIDE ROAD

APN: 103-01-038
5416 SIDE ROAD

LOCATED IN A PORTION OF SECTION 31, T15N, R1W
AND A PORTION OF SECTION 31, T15N, R1W,
GILA AND SALT RIVER MERIDIAN,
YAVAPAI COUNTY, PRESCOTT, ARIZONA

CITY OF PRESCOTT
Everybody's Hometown

OWNER:
PER THE YAVAPAI COUNTY INTERACTIVE MAPPING APPLICATION AND THE WARRANTY DEED RECORDED AS INSTRUMENT NO.: 2021-0043908, Y.C.R.O. APN. 103-01-038 IS OWNED BY DEO IUVANTE LLC.

NOTE:
THIS MAP DOES NOT REPRESENT A LAND BOUNDARY SURVEY. THE LOT BOUNDARY LINES, AS SHOWN ARE PER THE WARRANTY DEED LISTED ABOVE, AND THE LIMITED EXISTENT PARCEL CORNER MONUMENTS FOUND IN THE FIELD BY NEXUS SOUTHWEST LLC.

THE CONTOUR INTERVAL DEPICTED HEREON IS 1'.

THE HORIZONTAL AND VERTICAL DATUM FOR THIS SURVEY IS THE CITY OF PRESCOTT SURVEY DATUM.

NO TITLE REPORT FURNISHED, THEREFORE ALL EASEMENTS OF RECORD MAY NOT BE SHOWN HEREON.

UTILITIES AS SHOWN HEREON ARE BASED ON PHYSICALLY APPARENT ABOVE GROUND APPURTENANCES AND LIMITED UTILITY LOCATE MARKINGS BY OTHERS.

PROJECT BENCH MARK:
DATUM: NAVD-88 (CITY OF PRESCOTT SURVEY DATUM)

ELEVATION DEPICTED HEREON ARE BASED ON GPS OBSERVATIONS UTILIZING THE CITY OF PRESCOTT GPS BASE STATION AND THE GEOID-99 MODEL.

SEE THE TEMPORARY SITE BENCH MARKS PLOTTED ON SHEET 4 PER NEXUS SOUTHWEST LLC.

BASIS OF BEARING:
THIS TOPOGRAPHIC SURVEY AND MEASURED BEARINGS, WHERE SHOWN HEREON, ARE BASED ON THE CITY OF PRESCOTT'S SURVEY DATUM. THE LINE AS SHOWN HAS BEEN SELECTED AS THE LOCAL BASIS OF BEARING. THE CITY OF PRESCOTT SURVEY DATUM IS ON FILE WITH THE CITY OF PRESCOTT PUBLIC WORKS DEPARTMENT AND PUBLISHED ON THE CITY OF PRESCOTT WEBSITE AT WWW.PRESCOTT-AZ.GOV.

FEMA FLOODPLAIN:
PER FEMA FIRM PANEL 04025C1693H DATED 03/06/2018, SUBJECT PROPERTY LIES IN ZONE X.

REGISTRANTS:
THESE PLANS WERE PREPARED UNDER THE DIRECTION OF GARY R. KELLEY, PE 22880 AND CHRISTOPHER J. KIMBALL, RLS 48100.

TOPOGRAPHIC SURVEY NOTE:
THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS PER A TOPOGRAPHIC SURVEY PERFORMED BY NEXUS SOUTHWEST LLC., MAY 2021. SUPPLEMENTAL OFFSITE TOPOGRAPHIC INFORMATION SHOWN HEREON PERFORMED BY KELLEY/WISE ENGINEERING INC., APRIL 2023.

LEGEND:

[---]	DENOTES RECORD DIMENSION
— —5470— —	EXISTING GRADE CONTOUR BY THIS SURVEY. (NAVD-88)
ADOT	ARIZONA DEPARTMENT OF TRANSPORTATION
APN.	ASSESSOR'S PARCEL NUMBER
BK.	BOOK
BWV	BACK WATER VALVE
EL. OR ELEV.	ELEVATION
EX.	EXISTING
FIR	FOUND IRON REBAR
L.S.	LAND SURVEYS
M.P.	MAPS AND PLATS
PG.	PAGE
PRV	PRESSURE REDUCING VALVE
PUE	PUBLIC UTILITY EASEMENT
ROW	RIGHT OF WAY
RPZ	REDUCED PRESSURE ZONE ASSEMBLY
SCO	SEWER CLEAN OUT
SOV	SHUT-OFF VALVE
SS MH	SANITARY SEWER MANHOLE
Y.C.R.O.	YAVAPAI COUNTY RECORDER OFFICE
—— – ——	CENTERLINE
— — — —	EASEMENT LINE
———	PARCEL BOUNDARY LINE
— – – –	RIGHT-OF-WAY LINE
- - — - -	TOE OF SLOPE
— - — - —	TOP OF SLOPE
	EX. POWER POLE
	LIGHT POLE
	EX. CONTROL POINTS
	EX. SIGN
	EX. FIRE HYDRANT

SPECIAL NOTE:
THE CITY OF PRESCOTT STANDARD DETAILS AND SPECIFICATIONS MEET MINIMUM DESIGN REQUIREMENTS OF THE EQUIVALENT MAG SPECIFICATIONS AND STANDARD DETAILS.

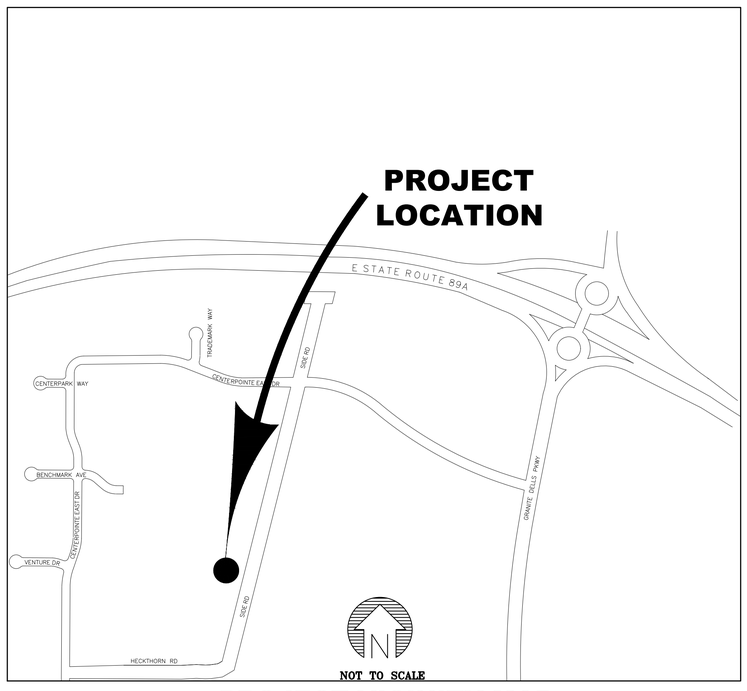
APPROVED TRAFFIC CONTROL PLAN AND R.O.W. PERMIT MUST BE OBTAINED FROM PUBLIC WORKS PRIOR TO BEGINNING WORK IN THE R.O.W.

LEGEND:

	FIRE HYDRANT
	WATER VALVE
	WATER METER BOX
	RPZ ASSEMBLY
	SEWER CLEANOUT
	SEWER BACKWATER VALVE
SS	SANITARY SEWER MANHOLE
	EXISTING TREE
	EXISTING LIGHT
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING POWER POLE
8" S	SEWER LINE (SIZE AS NOTED)
8" W	WATER LINE (SIZE AS NOTED)
G	GAS LINE
E	ELECTRIC LINE
OHE	OVERHEAD ELECTRIC LINE
T	TELEPHONE LINE
4" F	FIRE LINE (SIZE AS NOTED)
4965	DESIGN FINISH GRADE
----4965----	EXISTING GRADE CONTOUR

ABBREVIATION LEGEND:

BOC	BACK OF CURB
EC	EXISTING CONCRETE ELEVATION
EG	EXISTING GROUND ELEVATION
EP	EXISTING PAVEMENT
ETC	EXISTING TOP OF CURB
EX	EXISTING
FC	NEW FINISHED CONCRETE ELEVATION
FF	NEW FINISHED FLOOR ELEVATION
FG	NEW FINISHED GRADE ELEVATION
FL	NEW FLOWLINE ELEVATION
G/B	GRADE BREAK
H/P	HIGH POINT
INV	INVERT
L/P	LOW POINT
P	PAVEMENT OR FINISHED SURFACE
PUE	PUBLIC UTILITY EASEMENT
ROW	RIGHT-OF-WAY
TC	NEW TOP OF CURB ELEVATION
TYP	TYPICAL
TW	NEW TOP OF WALL ELEVATION
WM	WATER METER



PROJECT VICINITY MAP

APPROVED BY

CITY ENGINEER _____ Date _____

UTILITIES MANAGER _____ Date _____

UTILITY INFORMATION

COMPANY	CONTACT	TELEPHONE
ARIZONA PUBLIC SERVICE CO. 6672 CORSAIR AVE PRESCOTT, ARIZONA 86301	MICHELLE CURLEY	(928)443-6697
CENTURYLINK 1445 MASONRY WAY PRESCOTT, ARIZONA 86301	DELL HOWARD	(520)838-3050
UNISOURCE GAS CO. 6405 WILKINSON DRIVE PRESCOTT, ARIZONA 86301	JEFF BROWN	(928)771-7226
SPARKLIGHT 3801 TOWER RD. PRESCOTT, ARIZONA 86301	DOUG HAMILTON	(928)910-3096
CITY OF PRESCOTT UTILITIES 433 NORTH VIRGINIA ST. PRESCOTT, ARIZONA 86301	STEVE OLFERS	(928)777-1130

BLUE STAKE CALL TWO WORKING DAYS BEFORE YOU DIG
1-800-STAKE-IT
outside Maricopa County

CALL TWO WORKING DAYS BEFORE YOU DIG
1-800-STAKE-IT
1-800-782-5348
(OUTSIDE MARICOPA COUNTY)

NOTE:
CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY NECESSARY UTILITY RELOCATION WITH THE APPLICABLE UTILITY.

SHEET INDEX

RECORD DRAWING CERTIFICATION

I HEREBY CERTIFY, TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS PROJECT HAS BEEN COMPLETED IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND REFERENCED STANDARDS, EXCEPT AS SHOWN HEREON; THAT THESE AS-BUILT PLANS REFLECT THE POSITION OF CONSTRUCTED IMPROVEMENTS BASED ON FIELD MEASUREMENTS; AND THAT THE MATERIALS USED IN CONSTRUCTION ARE AS SHOWN BASED ON FIELD OBSERVATION AND TEST RESULTS.

THIS CERTIFICATION DOES NOT WARRANT MATERIALS, WORKMANSHIP, METHODS OF CONSTRUCTION, OR OTHER ITEMS AFFECTING THE WARRANTY OF THIS PROJECT, TO THE CITY OF PRESCOTT. USERS OF THIS INFORMATION ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ACTUAL CONDITIONS.

REGISTERED PROFESSIONAL ENGINEER (CIVIL) _____ DATE _____

PUBLIC IMPROVEMENT QUANTITIES*
*SEE GENERAL NOTE 6 SHEET C-002

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT
WATER MAIN IMPROVEMENTS			
1	8" CLASS 350 DIP WATER MAIN	210	LF
3	8"x8"x8" TAPPING SLEEVE W/ 8" G.V.B.&C.	1	EA
4	FIRE HYDRANT COMPLETE W/ TEE AND 6" G.V.B.&C.	1	EA
5	1" WATER SERVICE BOX AND COVER	1	EA

CALL TWO WORKING DAYS BEFORE YOU DIG
(602) 263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

1/2" 1" 2"

NO.	REVISION	DATE

KELLEY/WISE ENGINEERING, INC.
146 GROVE AVENUE
PRESCOTT, ARIZONA 86301
(928) 778-2220
FAX 778-2220
gkelley@kelley-wise.com

COMMERCIAL BUILDING ON SIDE ROAD
APN: 103-01-038
5416 SIDE ROAD
PRESCOTT, AZ

COVER

Registered Professional Engineer (Civil)
22880
GARY R. KELLEY
Date signed 5/8/23
ARIZONA, U.S.A.

DRAWN	DESIGN	CHECK	DATE	KWE JOB #
ZAJ	ZAJ	GRK	5/8/23	23-014

SHEET
C-001
1 OF 9

MAY, 2023

COMMERCIAL BUILDING ON SIDE ROAD

Path: X:\KWE\PROJECTS\2023\23-014 KENSON-HICKS 5416 SIDE ROAD FILENAME: 23-014 COVER.DWG PLOT DATE: 5/8/2023 9:43 AM SHEET SET: 23-014 SIDE ROAD SHEET TOTAL: 9

1. ALL CONSTRUCTION SHALL CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENTS (MAG), & CITY OF PRESCOTT (COP) CONSTRUCTION STANDARDS & SPECIFICATIONS. LATEST REVISIONS, UNLESS SPECIFICALLY APPROVED BY THE CITY AND MODIFIED ON THE PLANS, IN CONJUNCTION WITH THE LATEST REVISIONS OF THE MARICOPA ASSOCIATION OF GOVERNMENTS STANDARD SPECIFICATIONS AND DETAILS (MAG STANDARDS), UNLESS SPECIFICALLY MODIFIED ON THE PLANS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF MAG AND CITY OF PRESCOTT STANDARDS AND SPECIFICATIONS AS WELL AS ALL OTHER STANDARDS AND SPECIFICATIONS NECESSARY TO COMPLETELY AND ACCURATELY INTERPRET THESE PLANS.
3. ALL PLANS SIGNED BY THE CITY ENGINEER ARE NULL AND VOID ONE YEAR FROM DATE OF SIGNATURE IF CONSTRUCTION HAS NOT STARTED. RESUBMITTAL AND REVIEW SHALL BE REQUIRED, AFTER ONE YEAR.
4. ALL QUANTITIES SHOWN ON THE PLANS ARE APPROXIMATE, ARE NOT VERIFIED BY THE PUBLIC WORKS DIRECTOR, AND ARE FURNISHED SOLELY FOR THE CONTRACTOR'S CONVENIENCE. THEY DO NOT NECESSARILY CORRESPOND TO BID SCHEDULE ITEMS. PAYMENT SHALL BE BASED ON BID SCHEDULE ITEMS FOR ACTUAL QUANTITIES PROVIDED AND INSTALLED. THE CONTRACTOR SHALL NOT BE RELIEVED OF HIS RESPONSIBILITY FOR INDEPENDENTLY ESTIMATING WORK QUANTITIES PRIOR TO BIDDING.
5. CITY OF PRESCOTT PUBLIC WORKS DEPARTMENT PERMID(S) WILL BE REQUIRED FOR ALL OFF–SITE CONSTRUCTION AND CONSTRUCTION WITHIN THE PUBLIC RIGHT OF WAY.
6. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AT HIS OWN EXPENSE, SUCH PERMITS AS ARE REQUIRED FROM THE APPROPRIATE AGENCIES.
7. THE PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION IN THE PUBLIC RIGHT OF WAY.
8. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE AND APPROVAL OF THE PUBLIC WORKS DIRECTOR AND/OR ALL WORK MATERIALS NOT IN CONFORMATION WITH THE PLANS AND SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
9. A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATION OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA. THE ENGINEER AND THE CITY OF PRESCOTT WILL NOT GUARANTEE ANY LOCATIONS OR ELEVATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR MAKING A COMPLETE AND ACCURATE ON–SITE DETERMINATION OF THE LOCATIONS, MATERIAL, AND SIZE OF ALL UTILITIES, STRUCTURES, AND FIELD CONDITIONS WHICH MAY AFFECT THE PROGRESS OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO STRUCTURES AND UTILITIES ENCOUNTERED DURING CONSTRUCTION AND SHALL FIELD EXPOSE EXISTING UNDERGROUND UTILITIES PRIOR TO TRENCHING IN THEIR VICINITY.
10. THE CONTRACTOR IS REQUIRED TO CONTACT BLUE STAKE (1–800–STAKEIT) A MINIMUM OF TWO WORKING DAYS (48) HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION AND/OR SUPPORT OF ALL UTILITIES, POWER POLES, ETC., THAT MAY BE NECESSARY.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE PUBLIC WORKS DEPARTMENT FOR APPROVAL, TRAFFIC CONTROL PLANS PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL DETERMINE AND SUBMIT FOR APPROVAL THE EXACT SIGNING/TRAFFIC CONTROL DEVICES NECESSARY AND ALL TRAFFIC CONTROL WORK SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS THEREOF. NO STREET IS TO BE CLOSED, RESTRICTED, OR CONSTRUCTED UPON UNTIL A TRAFFIC CONTROL PLAN IS PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE PUBLIC WORKS DIRECTOR ONE WEEK IN ADVANCE FOR REVIEW AND APPROVAL.
13. APPROPRIATE EMERGENCY AGENCIES SHALL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO ANY CLOSING OF STREETS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION SURVEYING AND LAYOUT WITH CONTROL PROVIDED BY THE DESIGN ENGINEER OR HIS DESIGNEE.
15. THE CONTRACTOR IS RESPONSIBLE FOR QUALITY CONTROL MEASURES SUFFICIENT TO PRODUCE MATERIALS AND WORKMANSHIP OF ACCEPTABLE QUALITY. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL SUBMIT A QUALITY CONTROL PLAN. THE CONTRACTOR AT HIS OWN EXPENSE SHALL PROVIDE AN INDEPENDENT GEOTECHNICAL FIRM TO PERFORM QUALITY CONTROL TESTING SUCH AS SOILS AND CONCRETE TESTING, AND FULL TIME ASPHALTIC CONCRETE LAYDOWN COMPACTION TESTING AND ADEQUATE PLANT CONTROL FOR EACH PAVING DAY. THE CITY, BY SEPARATE CONTRACT, WILL BE RESPONSIBLE FOR QUALITY ASSURANCE TESTING AS IT MAY DEEM NECESSARY.
16. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS OF TESTING AND INSPECTION, INCLUDING THE PRESENCE OF CITY INSPECTORS, REQUIRED AT NIGHT OR ON WEEKENDS.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RE–WORK AND/OR REMOVAL AND REPLACEMENT OF ALL MATERIALS REPRESENTED BY FAILING TESTS OR SUBSTANDARD WORKMANSHIP.
18. THE CONTRACTOR SHALL IMPLEMENT BEST–HOUSE–KEEPING MEASURES, AND EROSION AND SEDIMENT CONTROL MEASURES, TO PREVENT THE TRANSPORT OF CONSTRUCTION MATERIALS INTO DRAINAGE INLETS, STORM DRAIN MANHOLES, UTILITY STRUCTURES, OR ONTO ADJACENT STREETS AND PROPERTIES.
19. APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL THE WRITTEN FINAL ACCEPTANCE OF A COMPLETE AND WORKABLE UNIT.
20. THE CITY OF PRESCOTT MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN ITS JUDGEMENT, PROGRESS IS UNSATISFACTORY, WORK BEING DONE IS UNAUTHORIZED OR DEFECTIVE, WEATHER CONDITIONS ARE UNSTABLE, OR THERE IS A DANGER TO THE PUBLIC HEALTH AND SAFETY.
21. ALL OBSTRUCTIONS IN THE RIGHT OF WAY SHALL BE REMOVED BEFORE ANY CONSTRUCTION IS PERMITTED.
22. REMOVAL OF STRUCTURES AND OBSTRUCTIONS AS NECESSARY TO COMPLETE THE WORK, OTHER THAN SPECIFICALLY SCHEDULED IN THE BID, IS INCIDENTAL TO THE CONTRACT. NO SEPARATE MEASUREMENT OF OR PAYMENT FOR UNSCHEDULED REMOVAL ITEMS WILL BE MADE.
23. CLEARING AND GRUBBING IS CONSIDERED INCIDENTAL TO THE WORK UNLESS SPECIFICALLY IDENTIFIED IN THE BID SCHEDULE. NO SEPARATE MEASUREMENT OF OR PAYMENT FOR CLEARING AND GRUBBING, AND TREE REMOVAL, WILL BE MADE. THE SITE OF ALL EXCAVATION, EMBANKMENTS, AND FILLS SHALL FIRST BE CLEARED OF STUMPS, TRASH, WEEDS, RUBBISH, TOPSOIL, AND LOOSE BOULDERS WHICH SHALL BE REMOVED AND DISPOSED OF. PRIOR TO BIDDING THE CONTRACTOR MUST SATISFY HIMSELF REGARDING THE CHARACTER OF THE SUBSOILS TO INCLUDE THE AMOUNT OF LOAM, CLAY, SAND, QUICKSAND, HARDPAN, GRAVEL, ROCK, WATER, AND ALL OTHER MATERIAL TO BE ENCOUNTERED AND WORK TO BE PERFORMED.
24. THE CONTRACTOR SHALL GUARD AGAINST DAMAGE DURING CONSTRUCTION TO EXISTING PROPERTIES AND IMPROVEMENTS. ANY ITEMS DAMAGED BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND OR BETTER AT THE CONTRACTOR'S EXPENSE.
25. THE CONTRACTOR SHALL KEEP SUITABLE EQUIPMENT ON HAND AT THE JOBSITE FOR MAINTENANCE DUST CONTROL, AND SHALL CONTROL DUST AS DIRECTED BY THE APPROPRIATE AGENCY.
26. STREET AND TRAFFIC SIGNS SHALL BE RELOCATED BY THE CONTRACTOR IF NECESSARY, AT THE DIRECTION OF THE PUBLIC WORKS DIRECTOR.
27. BACKFILL COMPACTION SHALL BE TYPE 1 (MAG, SECTION 601) UNLESS OTHERWISE NOTED.
28. AGGREGATE BASE COURSE SHALL NOT BE PLACED ON SUBGRADE UNTIL SUBGRADE REQUIREMENTS HAVE BEEN ACHIEVED.
29. NO PAVING CONSTRUCTION SHALL BE STARTED UNTIL ALL UNDERGROUND UTILITIES WITHIN THE ROADWAY PRISM ARE VERIFIED FOR DETAIL CONFORMANCE, COMPLETED AND TESTED (TO INCLUDE BUT NOT LIMITED TO) SEWER TESTING, LOW AIR TESTING OF MAIN LINE AND SERVICES, TRACE WIRE TESTING, DEFLECTION TESTING AND VERIFICATION OF MANHOLES CONFORMING TO COP DETAIL 420P. WATER TESTING CHLORINATION/DISINFECTING OF MAIN LINE AND SERVICES, PRESSURE TESTING, TRACE WIRE TESTING AND VERIFICATION OF VALVE BOXES CONFORMING TO COP DETAIL 391P.
30. ALL ASPHALT CONCRETE PAVEMENT SHALL BE PER APPLICABLE MAG SPECIFICATIONS AS AMENDED BY THE CITY OF PRESCOTT. ASPHALT CONCRETE MIX DESIGN SHALL BE SUBMITTED TO THE PUBLIC WORKS DIRECTOR OR HIS DESIGNEE FOR APPROVAL PRIOR TO START OF CONSTRUCTION.
31. ALL UTILITY FRAMES, COVERS, VALVE BOXES, MANHOLES, ETC. SHALL BE ADJUSTED TO FINISH ASPHALT GRADE AFTER PLACEMENT OF SURFACE COURSE BY THE CONTRACTOR PER COP STANDARD DETAILS.
32. ACCEPTANCE OF THE COMPLETED PAVING STRUCTURES WILL NOT BE GIVEN UNTIL REPRODUCIBLE "AS–BUILT" PLANS HAVE BEEN SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CITY.
33. ALL CONCRETE TO BE AT LEAST 3000 PSI CLASS "A" PORTLAND CEMENT CONCRETE, UNLESS OTHERWISE SPECIFIED ON THE PLANS, SPECIFICATIONS, OR IN STANDARD DETAILS.
34. EDGES OF CONCRETE STRUCTURES TO HAVE A ¾" CHAMFER, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
35. CONCRETE SURFACES TO HAVE A BROOM FINISH UNLESS OTHERWISE NOTED ON THE PLANS.
36. ALL EXPANSION JOINTS TO BE SEALED WITH ½" EXPANSION JOINT, PRE–FORMED JOINT FILLER AND SEALER, IN ACCORDANCE WITH MAG SECTION 729.
37. DRIVEWAY ENTRANCES WILL BE LOCATED AS SPECIFIED ON THE PLANS UNLESS MODIFIED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAY ENTRANCES SHALL BE CONSTRUCTED OVER 6" THICK AGGREGATE BASE COURSE PER MAG SPECIFICATION 702 AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY, UNLESS OTHERWISE NOTED.
38. ALL DISTURBED FENCES SHALL BE REPLACED IN KIND. CONTRACTOR SHALL EXTEND FENCE REPLACEMENT TO THE CLOSEST UPRIGHT SUPPORT NECESSARY FOR STABILITY.
39. MAILBOXES SHALL BE REMOVED AND REINSTALLED AS DIRECTED BY THE U.S. POSTAL SERVICE AND THE CITY OF PRESCOTT TEMPORARY LOCATIONS SHALL BE PER U.S.P.S.
40. NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL CURBS, PAVEMENT, AND SIDEWALKS HAVE BEEN SWEPT CLEAN OF ALL DIRT AND DEBRIS.
41. THE CONTRACTOR SHALL WARRANT ALL WORK FOR A MINIMUM TWO YEAR PERIOD AFTER FORMAL ACCEPTANCE OF THE WORK BY THE CITY.

COP STANDARD DETAIL	GENERAL NOTES	Charles Andrews (signature) CITY ENGINEER	REVISED: 07/16	DETAIL No. 101P

1. ALL WORK SHALL CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENTS (MAG), & CITY OF PRESCOTT (COP) CONSTRUCTION STANDARDS & SPECIFICATIONS, WHICH ARE ON FILE IN THE OFFICE OF THE CITY ENGINEER.
2. ALL EXISTING FRAMES, COVERS, VALVE BOXES, & MANHOLES SHALL BE EITHER REPLACED OR ADJUSTED TO FINISH GRADE DEPENDING ON PLAN CALL OUT UPON COMPLETION OF PAVING, UTILITY, OR RELATED CONSTRUCTION.
3. ANY QUANTITIES SHOWN ON PLANS ARE NOT VERIFIED BY THE PUBLIC WORKS UTILITIES DIRECTOR.
4. ACCEPTANCE OF THE COMPLETED WORK WILL NOT BE GIVEN UNTIL 3 MIL MYLAR & CAD FORMAT DIGITAL 'AS–BUILT' PLANS ON CITY OF PRESCOTT SURVEY DATUM & COORDINATES HAVE BEEN SUBMITTED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER AND APPROVED BY THE PUBLIC WORKS DEPARTMENT.
5. CITY OF PRESCOTT PUBLIC WORKS UTILITIES SHALL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO THE START OF ANY WORK.
6. ALL WORK & MATERIALS WHICH DO NOT CONFORM TO THE SPECIFICATIONS ARE SUBJECT TO REMOVAL & REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
7. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE OF THE CITY INSPECTOR OR HIS REPRESENTATIVE IS SUBJECT TO REMOVAL & REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR SHALL PROVIDE SUFFICIENT MEN, EQUIPMENT, & MATERIAL ON THE JOB AT ALL TIMES DURING CONSTRUCTION TO COMPLY WITH SPECIFICATIONS & TO COMPLETE THE WORK.
9. CIP INSPECTION TO BE DONE BY THE CITY OF PRESCOTT PUBLIC WORKS DEPARTMENT OR THEIR REPRESENTATIVE. PRIVATE DEVELOPMENTS SHALL PROVIDE FOR INDEPENDENT 3RD PARTY INSPECTIONS.
10. CONTRACTOR TO NOTIFY PROJECT ENGINEER 72 HOURS (3 WORKING DAYS) IN ADVANCE OF CONSTRUCTION TO SCHEDULE CONSTRUCTION CONTROL STAKING.
11. THE CONTRACTOR IS TO UNCOVER ALL EXISTING LINES BEING TIED INTO AND VERIFY GRADES, MATERIAL, SIZE & ELEVATIONS BEFORE COMMENCING CONSTRUCTION & ORDERING MATERIALS.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND PIPELINES, TELEPHONE & ELECTRICAL CONDUITS & STRUCTURES IN ADVANCE OF ANY CONSTRUCTION & OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO SUCH. THE ENGINEER &/OR OWNER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS, OR THOSE OMITTED FROM SAME.
13. CONTRACTOR SHALL NOTIFY 'BLUE STAKE' AT 1–800–STAKEIT (1–800–782–5348) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
14. CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN & MAKE HIS BID BASED UPON THOSE VERIFICATIONS. IF ANY DISCREPANCY IN QUANTITIES IS FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SUCH.
15. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS MUST BE COMPLIED WITH.
16. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS SHALL APPLY WHEN MORE STRINGENT THAN THE MAG OR CITY OF PRESCOTT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION; MORE SPECIFICALLY WHERE THEY PERTAIN TO MAXIMUM ALLOWABLE SEWER LINE/PRESSURE SEWER LINE EXFILTRATION–INFILTRATION RATES.
17. ALL PLANS SIGNED BY THE CITY ARE NULL & VOID ONE YEAR FROM DATE OF SIGNATURE IF CONSTRUCTION HAS NOT STARTED AND/OR IS NOT ACTIVELY PROGRESSING.
18. PROJECT CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TRAFFIC CONTROL PLANS WHICH SHALL BE MADE A PART OF THE PLAN REVIEW REQUEST TO THE CITY ENGINEER FOR APPROVAL.
19. WATER–SEWER SEPARATION SHALL BE PURSUANT TO AAC R–18–5–502C.
20. ALL TRENCHES & BEDDING SHALL BE PER COP DETAIL 200P & TECHNICAL SPECIFICATIONS.
21. ALL REVISIONS TO ORIGINAL PLANS MUST BE APPROVED BY THE PUBLIC WORKS DIRECTOR PRIOR TO CONSTRUCTION. ANY UNAPPROVED REVISIONS ARE SUBJECT TO REMOVAL & REPLACEMENT AT CONTRACTOR'S EXPENSE.
22. SEWER FORCE MAIN LINES SHALL BE DESIGNED AND CONSTRUCTED OF A MATERIAL SUITABLE FOR SANITARY SEWER PRESSURE PIPE AS APPROVED BY THE CITY ENGINEER. SEWER LINES SHALL BE PRESSURE TESTED TO A MINIMUM OF 50 PSI ABOVE DESIGN WORKING PRESSURE AT THE LOWEST POINT IN THE SYSTEM FOR A MINIMUM OF 4 HOURS IN ACCORDANCE WITH AAC R18–9.
23. SEWER LINE LOW PRESSURE AIR TESTS SHALL BE DONE ON 100% OF ALL LINES AFTER PLACEMENT OF BACKFILL TO PAVEMENT SUBGRADE. TEST EACH SEGMENT OF THE SEWER LINE FOR LEAKAGE USING THE APPLICABLE METHOD BELOW AND RECORD THE RESULTS:
    - 23A. "STANDARD TEST METHOD FOR INSTALLATION OF ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW–PRESSURE AIR, F1417–92(1998)" PUBLISHED BY THE AMERICAN SOCIETY FOR TESTING AND MATERIALS.
24. SEWER MANHOLES EXFILTRATION TESTS SHALL BE DONE ON 100% OF ALL MANHOLES. VACUUM TESTING IN ACCORDANCE WITH CITY STANDARDS MAY BE USED IN LIEU OF EXFILTRATION TEST. THE CONTRACTOR SHALL TEST EACH MANHOLE USING ONE OF THE FOLLOWING TEST PROTOCOLS:
    - 24A. WATERTIGHTNESS TESTING BY FILLING THE MANHOLE WITH WATER. THE CONTRACTOR SHALL ENSURE THAT THE DROP IN WATER LEVEL FOLLOWING PRESOAKING DOES NOT EXCEED 0.00034 OF THE TOTAL MANHOLE VOLUME PER HOUR.
    - 24B. NEGATIVE AIR PRESSURE TESTING USING THE "STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY NEGATIVE AIR PRESSURE" (VACUUM) TEST, C1244–02e1(2002), PUBLISHED BY THE AMERICAN SOCIETY FOR TESTING AND MATERIALS. THIS MATERIAL IS INCORPORATED BY REFERENCE & DOES NOT INCLUDE ANY LATER AMENDMENTS OR EDITIONS OF THE INCORPORATED MATERIAL, & MAY BE VIEWED AT THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY, 1110 W. WASHINGTON, PHOENIX, AZ. 85007, OR OBTAINED FROM THE AMERICAN SOCIETY FOR TESTING & MATERIALS INTERNATIONAL, 100 BAR HARBOR DRIVE, WEST CONSHOHOCKEN, PA. 19428–2959.
25. SEWER LINE DEFLECTION TESTS WITH AN APPROPRIATELY SIZED MANDREL SHALL BE DONE ON 100% OF ALL NON–RIGID PIPE LINES.
26. THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL SEWER MAINS AND LATERALS INSTALLED WITHIN THE CITY'S COLLECTION SYSTEM UTILIZING A SEWER CCTV SYSTEM AFTER COMPLETE BACKFILL AND COMPACTION BUT BEFORE INSTALLING ANY PORTION OF THE PAVEMENT STRUCTURAL SECTION. THE INSPECTION SHALL COMPLY WITH THE CITY'S VIDEO ACCEPTANCE PROCEDURE. THE CONTRACTOR SHALL PROVIDE 72 HOURS ADVANCE NOTICE FOR CITY STAFF TO BE PRESENT DURING THE VIDEO OPERATION AND SHALL PROVIDE THE CITY A VIDEO DVD AND HARD COPY OF THE INSPECTION REPORT UPON COMPLETION.
27. COVER EACH SEWER LINE WITH AT LEAST 3 FEET OF EARTH COVER MEETING THE REQUIREMENTS "TRENCH EXCAVATION, BACKFILLING, & COMPACTION" (SECTION 601) REVISED 2004, PUBLISHED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS; & "RIGID PIPE BEDDING FOR SANITARY SEWERS" (WWM 104) REVISED JULY 2002, PUBLISHED BY PIMA COUNTY WASTEWATER MANAGEMENT.
28. PRESSURE SEWER MAINS AND SERVICE LATERALS (LPS) SHALL BE SUBJECT TO A PRESSURE & LEAKAGE TEST IN ACCORDANCE WITH AWWA–C–600 STANDARD. TEST PRESSURE SHALL BE A MINIMUM OF 100 PSI, OR 50 PSI OVER WORKING PRESSURE, WHICHEVER IS GREATER. TESTING SHALL BE DONE AFTER BACKFILL TO SUBGRADE.

COP STANDARD DETAIL	WASTEWATER PLAN GENERAL NOTES	Charles Andrews (signature) CITY ENGINEER	REVISED: 07/16	DETAIL No. 104P

1. ALL WORK SHALL CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENTS (MAG), & CITY OF PRESCOTT (COP) CONSTRUCTION STANDARDS & SPECIFICATIONS, WHICH ARE ON FILE IN THE OFFICE OF THE CITY ENGINEER.
2. ALL EXISTING FRAMES, COVERS, VALVE BOXES, & MANHOLES SHALL BE EITHER REPLACED OR ADJUSTED TO FINISH GRADE DEPENDING ON PLAN CALL OUT UPON COMPLETION OF PAVING, UTILITY, OR RELATED CONSTRUCTION.
3. ANY QUANTITIES SHOWN ON PLANS ARE NOT VERIFIED BY THE PUBLIC WORKS UTILITIES DIRECTOR.
4. ACCEPTANCE OF THE COMPLETED WORK WILL NOT BE GIVEN UNTIL 3 MIL MYLAR & CAD FORMAT DIGITAL 'AS–BUILT' PLANS ON CITY OF PRESCOTT SURVEY DATUM & COORDINATES HAVE BEEN SUBMITTED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER AND APPROVED BY THE PUBLIC WORKS DEPARTMENT.
5. CITY OF PRESCOTT PUBLIC WORKS UTILITIES SHALL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO THE START OF ANY WORK.
6. ALL WORK & MATERIALS WHICH DO NOT CONFORM TO THE SPECIFICATIONS ARE SUBJECT TO REMOVAL & REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
7. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE OF THE CITY INSPECTOR OR HIS REPRESENTATIVE IS SUBJECT TO REMOVAL & REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR SHALL PROVIDE SUFFICIENT MEN, EQUIPMENT, & MATERIAL ON THE JOB AT ALL TIMES DURING CONSTRUCTION TO COMPLY WITH SPECIFICATIONS & TO COMPLETE THE WORK.
9. CIP INSPECTION TO BE DONE BY THE CITY OF PRESCOTT PUBLIC WORKS DEPARTMENT OR THEIR REPRESENTATIVE. PRIVATE DEVELOPMENTS SHALL PROVIDE FOR INDEPENDENT 3RD PARTY INSPECTIONS.
10. CONTRACTOR TO NOTIFY PROJECT ENGINEER 72 HOURS (3 WORKING DAYS) IN ADVANCE OF CONSTRUCTION TO SCHEDULE CONSTRUCTION CONTROL STAKING.
11. THE CONTRACTOR IS TO UNCOVER ALL EXISTING LINES BEING TIED INTO AND VERIFY GRADES, MATERIAL, SIZE & ELEVATIONS BEFORE COMMENCING CONSTRUCTION & ORDERING MATERIALS.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND PIPELINES, TELEPHONE & ELECTRICAL CONDUITS & STRUCTURES IN ADVANCE OF ANY CONSTRUCTION & OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO SUCH. THE ENGINEER &/OR OWNER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS, OR THOSE OMITTED FROM SAME.
13. CONTRACTOR SHALL NOTIFY 'BLUE STAKE' AT 1–800–STAKEIT (1–800–782–5348) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
14. CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN & MAKE HIS BID BASED UPON THOSE VERIFICATIONS. IF ANY DISCREPANCY IN QUANTITIES IS FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SUCH.
15. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS MUST BE COMPLIED WITH.
16. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY REQUIREMENTS SHALL APPLY WHEN MORE STRINGENT THAN THE MAG OR CITY OF PRESCOTT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
17. ALL PLANS SIGNED BY THE CITY ARE NULL & VOID ONE YEAR FROM DATE OF SIGNATURE IF CONSTRUCTION HAS NOT STARTED AND/OR IS NOT ACTIVELY PROGRESSING.
18. PROJECT CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TRAFFIC CONTROL PLANS WHICH SHALL BE MADE A PART OF THE PLAN REVIEW REQUEST TO THE CITY ENGINEER FOR APPROVAL.
19. ALL WATER LINES & APPURTENANCES SHALL BE PROVIDED WITH TRACE WIRE PER CITY STANDARD DETAIL. TRACE WIRE SHALL BE SUBJECT TO A TRACEABILITY TEST, EASILY ACCESSIBLE, & ANY DEFICIENCIES SHALL BE CORRECTED PRIOR TO PAVING. THE TRACE WIRE SHOULD BE TESTED AND SUBMITTED AS A PACKAGE WITH THE TESTING PACKET.
20. WATER–SEWER SEPARATION SHALL BE PURSUANT TO AAC R–18–5–502C.
21. WATER MAINS SHALL BE SUBJECT TO A PRESSURE & LEAKAGE TEST IN ACCORDANCE WITH AWWA C–600 STANDARD.
22. WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH ADEQ ENGINEERING BULLETIN NO. 8 'DISINFECTION OF WATER SYSTEMS'.
23. OPERATION OF VALVES TO BE DONE BY CITY PERSONNEL ONLY.
24. DUCTILE IRON PIPE TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. ALL MATERIALS USED IN THE INSTALLATION OF DUCTILE IRON PIPE SHALL BE PURSUANT TO AAC R–18–4.
25. ALL MATERIALS & PRODUCTS THAT COME INTO CONTACT WITH DRINKING WATER OR DRINKING WATER TREATMENT CHEMICALS MUST COMPLY WITH NSF STANDARD 61. ANY 'OR EQUAL' SUBSTITUTION SHALL ALSO MEET NSF STANDARD 61.
26. ALL TRENCHES & BEDDING SHALL BE PER COP DETAIL 200P & TECHNICAL SPECIFICATIONS.
27. ALL MATERIALS USED IN THE INSTALLATION OF WATER MAINS SHALL BE PURSUANT TO AAC R–18–4 & SHALL BE NSF APPROVED FOR POTABLE WATER.
28. ALL REVISIONS TO ORIGINAL PLANS MUST BE APPROVED BY THE PUBLIC WORKS DIRECTOR PRIOR TO CONSTRUCTION.
29. ALL DUCTILE IRON, COPPER, & BRASS FITTINGS SHALL BE ENCASED IN POLYETHYLENE PROTECTIVE WRAPPING IN ACCORDANCE WITH MAG SECTION 610.5 UNLESS COUNTERINDICATED BY GEOTECHNICAL CORROSIVITY TESTING OF BEDDING AND SHADING MATERIALS & APPROVED BY THE PUBLIC WORKS DIRECTOR.
30. WATER LINES SHALL BE INSTALLED WITH MECHANICAL RESTRAINTS WHERE JOINT RESTRAINTS IS REQUIRED.
31. WATER SERVICE INTERRUPTION NOTICES SHALL BE GIVEN TO AFFECTED RESIDENTS BY THE CONTRACTOR AT HIS EXPENSE. ADVANCE NOTIFICATION REQUIREMENTS MUST BE APPROVED BY THE PUBLIC WORKS DIRECTOR PRIOR TO SCHEDULING A SHUTDOWN.
32. WATER MAIN TAPS, SERVICE TAPS, SHUTDOWN REQUESTS, AND METER REQUESTS MUST BE INITIATED WITH THE CITY INSPECTOR A MINIMUM OF 5 WORKING DAYS IN ADVANCE.

COP STANDARD DETAIL	WATER PLAN GENERAL NOTES	Charles Andrews (signature) CITY ENGINEER	REVISED: 07/16	DETAIL No. 103P

GENERAL GRADING AND PAVING NOTES:

A. GRADING

1. Borrow material should be free of debris, organic materials, and three inch (3–inch) size particles or larger. We recommend fill material conform to the following general specification or approved equal:

U.S. STANDARD SIEVE	PERCENT PASSING
3.0–inch	100
NO. 40	40–60
NO. 200	0–30

The Plasticity Index should be between 2 and 15 unless otherwise specified in the project soils report.

2. All subgrade materials shall be scarified to a depth of eight inches (8"), the moisture content adjusted to near optimum, then compacted to 95 percent of ASTM D–698.
3. Sufficient compaction tests shall be taken to verify compliance with the project specifications.
4. Clearing and grubbing shall extend to the limits of grading and construction shall be in accordance with MAG Specifications, Section 201.
5. Trench excavations, backfilling and compaction shall conform to MAG Specifications, Section 601, Type I, unless noted otherwise.

B. PAVING

1. All aggregate base course (ABC) shall be placed in 6 to 8–inch loose lifts, the moisture content adjusted to near optimum, then compacted to 98 percent of ASTM D–698.
2. All asphaltic concrete (A.C.) shall be 19 mm as per applicable MAG Specifications. Mix design shall be submitted to the City for approval prior to start of construction.
3. A.C. compaction shall be 95 percent of ASTM D–1559, 75 blow Marshall Density test.

GENERAL CONSTRUCTION NOTES:

1. The positions of existing underground utilities as shown on the construction plans were determined from site inspection, and other "Best Available" information. The Contractor shall contact "Blue Stake" for utility location and carefully excavate (including potholing if required) to determine the true horizontal and vertical positions of utilities. The contractor is responsible for protecting existing utilities and shall notify the owner of any conflicting conditions.
2. All existing underground utilities shown are approximate and are to be verified by each Subcontractor. Owner does not accept any responsibility for the accuracy of the location of existing utilities indicated on the Drawings. Verify location of existing utilities and exercise every precaution when working on or near these areas, to avoid damage to those existing facilities. Utility lines may be encountered in excavations that were not known (or shown to exist), so caution should be taken in all excavations. Active or inactive utilities encountered shall be handled in accordance with the requirements of the utility companies.
3. Prior to bidding the work, the Contractor shall thoroughly satisfy himself as to the actual conditions and requirements of the work. No claim shall be made against the Owner or the Engineer for any alleged misunderstanding of the conditions or nature of the work.
4. Nothing contained in the construction drawings shall create, nor shall be construed to create, any contractual relationship between the Engineer and the Contractor or any Subcontractor.
5. The Engineer will not be responsible for construction means, methods, techniques, sequences or procedures or for safety precautions or programs utilized in connection with the work.
6. It shall be the responsibility of the bidder to verify all quantities, including excavation, borrow, embankment, shrink or swell, ground compaction, haul and any other items affecting his bid and to base his bid per the intent of the bid schedule. It shall be the bidder's responsibility to notify the City prior to bidding of any discrepancies.
7. Disposal and/or stockpiling of excess material shall be done in such a way that will not create a nuisance. The placing of material on private property of another requires written authorization.
8. The contractor shall verify all pipe sizes and material at every point of connection prior to ordering material. Notify the City of any discrepancy in pipe size or material.

APPROVED TRAFFIC CONTROL PLAN AND R.O.W. PERMIT MUST BE OBTAINED FROM PUBLIC WORKS PRIOR TO BEGINNING WORK IN THE R.O.W.

1/2" 1" 2"

CALL TWO WORKING DAYS BEFORE YOU DIG
(602) 263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

NO.	REVISION	DATE

KELLEY/WISE ENGINEERING, INC.
146 GROVE AVENUE
PRESCOTT, ARIZONA 86301
(928) 771–1730
FAX 778–2220
gkelley@kelley–wise.com

COMMERCIAL BUILDING ON SIDE ROAD
APN: 103–01–038
5416 SIDE ROAD
PRESCOTT, AZ

NOTES

Registered Professional Engineer (Civil)
CERTIFICATE NO. 22880
GARY R. KELLEY
Date signed 5/8/23
ARIZONA, U.S.A.

DRAWN	ZAJ
DESIGN	ZAJ
CHECK	GRK
DATE	5/8/23
KWE JOB #	23–014

SHEET
C-002
2 OF 9

Path: X:\KWE\PROJECTS\2023\23-014 KENSON-HICKS 5416 SIDE ROAD FILENAME: 23-014 NOTES.DWG PLOT DATE: 5/8/2023 9:43 AM SHEET SET: 23-014 SIDE ROAD SHEET TOTAL: 9

1. ALL GRADING SHALL CONFORM TO THE CURRENT CITY ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE, AND CITY OF PRESCOTT LAND DEVELOPMENT CODE (REFERENCE CITY OF PRESCOTT STANDARD SECTIONS).
2. ALL PROVISIONS OF THE PRELIMINARY SOILS REPORT PREPARED BY _____ETC_____, DATED APRIL 27, 2023, SHALL BE COMPLIED WITH DURING OPERATIONS.
3. THIS PLAN IS FOR GRADING PURPOSES ONLY. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF DRIVEWAY LOCATIONS OR SIZES, PARKING LOT LAYOUT, SEWER AND WATER FACILITIES, BUILDING LOCATIONS, OFF-SITE DRAINAGE FACILITIES OR OTHER ITEMS NOT RELATED DIRECTLY TO THE BASIC GRADING OPERATION.
4. CERTIFICATION FROM THE REGISTERED CIVIL ENGINEER AND SOILS/GEOLOGICAL ENGINEER STATING THAT THE ROUGH GRADING HAS BEEN COMPLETED PER THE APPROVED PLAN, AND A COMPACTION REPORT FROM THE SOILS ENGINEER ON ANY FILL AREAS THAT ARE REQUIRED SHALL BE PROVIDED PRIOR TO BUILDING PERMITS BEING ISSUED.
5. PARTIES NAMED ON ADEQ'S NOTICE OF INTENT (N.O.I.) ARE RESPONSIBLE FOR EROSION, DUST, MUD, SILT, DEBRIS, AND TEMPORARY DRAINAGE CONTROL DURING GRADING OPERATIONS AND MAY BE REQUIRED TO PROVIDE A SWPPP.
6. ANY ON-SITE RETAINING WALLS WILL REQUIRE APPROVAL AS PART OF THESE PLANS. ANY NECESSARY RETAINING WALLS ON THE PERIMETER OF THIS SITE MAY BE REQUIRED TO BE IN PLACE AND APPROVED BY THE CITY BUILDING DEPARTMENT PRIOR TO THE START OF GRADING. A SEPARATE PLAN WITH REQUIRED STRUCTURAL CALCULATIONS MAY BE REQUESTED FOR RETAINING WALLS.
7. ANY INFRASTRUCTURE CONSTRUCTED IN THE PUBLIC RIGHT OF WAY WILL REQUIRE SEPARATE PLAN APPROVAL AND INSPECTION FROM THE CITY ENGINEER.
8. ANY WALLS, FENCES, STRUCTURES AND/OR APPURTENANCES ADJACENT TO THIS PROJECT SHALL BE PROTECTED IN PLACE. IF GRADING OPERATIONS DAMAGE OR ADVERSELY AFFECT SAID ITEMS IN ANY WAY, THE CONTRACTOR AND/OR DEVELOPER IS RESPONSIBLE FOR WORKING OUT AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY OWNER(S).
9. THE CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR ENSURING THAT RETAINING WALLS DO NOT INTERFERE WITH PROVISION OF UTILITIES. WALLS MUST BE CONSTRUCTED ON SITE AND OUTSIDE OF THE RIGHT OF WAY. THIS SHALL INCLUDE THE FOOTINGS.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT COMPACTION HAS BEEN ATTAINED ON THE ENTIRE GRADING SITE IN ACCORDANCE WITH THE GENERAL ENGINEERING PLAN, INCLUDING FILL AREAS OUTSIDE THE BUILDING PADS AND ON ALL FILL SLOPES, AND SHALL BE CERTIFIED BY THE SOIL'S ENGINEER.
11. CITY APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER FROM THE RESPONSIBILITY FOR CORRECTION OR ERROR OR OMISSION DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
12. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CALL THE CITY ENGINEER'S OFFICE AT (928) 777-1140 FOR ANY REQUIRED CIVIL INSPECTION 24 HOURS PRIOR TO PERFORMING ANY WORK. WORK PERFORMED WITHOUT CALLING FOR INSPECTION MAY BE REJECTED AND, IF REJECTED, SHALL BE REMOVED SOLELY AT THE CONTRACTOR'S EXPENSE.
13. NO GRADING SHALL COMMENCE WITHOUT OBTAINING A GRADING PERMIT AND NOTIFYING THE CITY OF PRESCOTT OR DEVELOPER'S GRADING INSPECTOR TO SCHEDULE A PREGRADING MEETING TWO WORKING DAYS PRIOR TO THE START OF WORK.
14. PRIOR TO THE START OF GRADING ALL SWPPP MEASURES SHALL BE IN PLACE, ALL DEBRIS, INCLUDING EXISTING STRUCTURES, FOOTINGS, FOUNDATIONS AND RUBBLE SHALL BE REMOVED FROM THE SITE TO THE SATISFACTION OF THE SOILS ENGINEER.
15. AFTER REMOVAL OF DEBRIS, ANY EXISTING FILL OR DISTURBED NATURAL SOILS SHALL BE EXCAVATED TO THE SATISFACTION OF THE SOILS ENGINEER.
16. THE EXPOSED SOILS SHALL THEN BE INSPECTED BY THE SOILS ENGINEER, AND ANY ADDITIONAL OVER-EXCAVATION SHALL THEN BE MADE IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS AND AS CONTAINED IN THE SOIL'S REPORT.
17. THE EXPOSED SOILS SHALL THEN BE SCARIFIED TO PROVIDE A BOND WITH NEW FILL, BROUGHT TO PROPER MOISTURE CONTENT AND COMPACTED TO AT LEAST 90% OF THE MAXIMUM DENSITY, AS DETERMINED BY ASTM D1557-78 OR EQUIVALENT COMPACTION SHALL BE OBTAINED BY METHODS SPECIFIED BY THE SOILS ENGINEER. ROAD PRISM SUBGRADE SHALL BE COMPACTED TO AT LEAST 95% STANDARD OR MODIFIED PER SOILS ENGINEER'S RECOMMENDATIONS.
18. THE SOILS AND DESIGN ENGINEER OF RECORD SHALL ALSO BE RESPONSIBLE TO INSPECT, VERIFY AND REPORT THAT PROPER COMPACTION HAS BEEN OBTAINED BY EARTHWORK CONTRACTOR OR SUBCONTRACTOR AND PRIVATE UTILITY FRANCHISES CONCERNING UTILITY LINE BACKFILL, TO INCLUDE ELECTRICAL, GAS, CABLE, FIBEROPTIC AND LANDSCAPE IRRIGATION LINES. ADDITIONALLY, WATER AND SEWER LINES TO BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH GENERAL ENGINEERING REQUIREMENTS SECTION AND DETAIL.
19. AN AS-GRADED GRADING PLAN AND THE CERTIFICATION OF COMPLIANCE FORMS FOR SAID GRADING PLAN WITH THE PROPER STAMPS AND SIGNATURES ARE TO BE SUBMITTED TO THE CITY ENGINEER PRIOR TO RELEASE OF GRADING BOND AND PRIOR TO FINAL GRADING INSPECTION. BUILDING PAD CERTIFICATION SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT WHEN REQUESTED.
20. NO FILL SHALL BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS, AND INSTALLATION OF SUBDRAINS (IF ANY) HAVE BEEN INSPECTED AND APPROVED BY THE SOILS ENGINEER.
21. ENGINEER MUST SET GRADE STAKES FOR ALL DRAINAGE DEVICES AND OBTAIN INSPECTION BEFORE POURING.
22. GRADING SHALL NOT BE STARTED WITHOUT FIRST NOTIFYING CITY PUBLIC WORKS INSPECTION DEPARTMENT. A PRE-GRADING MEETING ON THE SITE IS REQUIRED BEFORE BEGINNING GRADING ACTIVITIES BY THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOIL ENGINEER/GEOLOGIST, PUBLIC WORKS INSPECTOR, AND WHEN REQUIRED, THE ARCHAEOLOGIST AND PALEONTOLOGIST. THE REQUIRED INSPECTIONS FOR GRADING WILL BE EXPLAINED AT THE PRE-CONSTRUCTION MEETING.
23. ALL EXISTING FILLS SHALL BE APPROVED AND CERTIFIED BY THE SOILS ENGINEER OR REMOVED PRIOR TO PLACING ADDITIONAL FILLS.
24. ALL TRENCH BACKFILLS SHALL BE TESTED AND APPROVED BY THE SOIL ENGINEER.
25. THE COMPACTION REPORT AND APPROVAL FROM THE SOIL ENGINEER SHALL INDICATE THE TYPE OF FIELD TESTING PERFORMED. EACH TEST SHALL BE IDENTIFIED WITH THE METHOD OF OBTAINING THE IN-PLACE DENSITY, WHETHER SAND CONE OR NUCLEAR GAUGE, AND SHALL BE SO NOTED FOR EACH TEST.
26. EXPORT SOIL MUST BE TRANSPORTED TO A LEGAL DUMP OR TO A PERMITTED SITE SHOWN CLEARLY ON APPROVED PLANS.
27. ALL EXISTING DRAINAGE COURSES THROUGH THIS SITE SHALL REMAIN OPEN UNTIL FACILITIES TO HANDLE STORM WATER ARE APPROVED AND FUNCTIONAL; HOWEVER, IN ANY CASE, THE PERMITTEE SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.

COP STANDARD DETAIL	GRADING AND DRAINAGE NOTES	Charles Andrews CITY ENGINEER	REVISED: 07/16	DETAIL No. 105P-1

1. A COPY OF THE APPROVED GRADING AND DRAINAGE PLAN FOR THIS PROJECT AND EROSION AND SEDIMENT CONTROL (ESC) PLAN OR STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE MAINTAINED ON THE SITE AND AVAILABLE FOR REVIEW. THOSE ELEMENTS OF THE GRADING AND DRAINAGE PLAN PERTINENT TO OR REFERENCED ON THE SWPPP SHALL BE CONSIDERED A PART OF THE SWPPP.
2. THE ESC/SWPPP AND RELATED RECORDS MUST BE MADE AVAILABLE UPON REQUEST TO ADEQ AND THE CITY OF PRESCOTT.
3. THE IMPLEMENTATION OF THESE PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED AND A NOTICE OF TERMINATION HAS BEEN SUBMITTED.
4. THE SCHEMATIC EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE A MINIMUM. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS TO PROTECT EXISTING FACILITIES AND ADJACENT PROPERTIES FROM NOISE, DUST, AND STORM WATER RUNOFF THROUGHOUT CONSTRUCTION OF THE PROJECT AND BUILDINGS ON LOTS, AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER THAT STORM WATER WILL BE CONTAINED ON SITE OR CHANNELED INTO A STORM DRAIN SYSTEM, PROVIDED THAT IT IS FREE FROM POLLUTANTS AND DEBRIS.
5. CONTRACTOR SHALL PERMANENTLY STABILIZE ALL DISTURBED SLOPES AS STATED ON APPROVED CONSTRUCTION PLANS. ALL EROSION CONTROL STRUCTURES SHALL REMAIN IN PLACE UNTIL EXPOSED SLOPES HAVE BEEN PERMANENTLY STABILIZED.
6. CONTRACTOR SHALL TAKE MEASURES TO PREVENT OR MINIMIZE THE GENERATION, EMISSION AND/OR TRANSPORT OF FUGITIVE DUST FROM CONSTRUCTION ACTIVITIES.
7. THIS PLAN SHALL BE IN EFFECT UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED, TRANSFERRED TO NEW OWNERSHIP, OR DEVELOPED UNDER FUTURE PLANS WITH A NEW NOTICE OF INTENT (NOI), SWPPP, AND PERMIT. ONCE THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS MET THE FINAL STABILIZATION REQUIREMENTS OF THE PERMIT, THE AUTHORIZED SITE REPRESENTATIVE MAY FILE A NOTICE OR TERMINATION (NOT) WITH ADEQ, WITH A COPY SUBMITTED TO THE CITY OF PRESCOTT ENGINEERING DIVISION TO TERMINATE COVERAGE UNDER THE PERMIT.
8. A CONCRETE WASHOUT SHALL BE INSTALLED FOR ALL PROJECTS THAT PROPOSE CONCRETE TO BE MIXED ON SITE OR BE DELIVERED FROM A BATCH PLANT. THE CONCRETE WASHOUT SHALL BE LOCATED A MINIMUM OF FIFTY (50) FEET FROM ANY DRAINAGE INFRASTRUCTURE OR NATURAL DRAINAGE FEATURES OR WATER BODIES AND INCORPORATE AN IMPERMEABLE LINER TO CONTAIN THE REQUIRED VOLUME. ALL DRIED CONCRETE WASTE SHALL BE BROKEN INTO MANAGEABLE PIECES AND DISPOSED OF OFF-SITE AT AN APPROVED FACILITY.

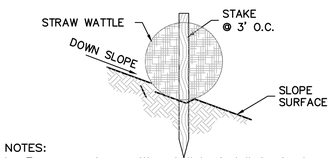
COP STANDARD DETAIL	EROSION AND SEDIMENTATION CONTROL NOTES	Charles Andrews CITY ENGINEER	REVISED: 07/16	DETAIL No. 105P-2

EROSION CONTROL/SWPPP GENERAL NOTES

1. The Notice of Intent (NOI) shall be completed and submitted to the Arizona Department of Environmental Quality (ADEQ) prior to any construction activity (including clearing & grubbing and grading).
2. The prime contractor shall perform, at a minimum, a visual inspection of the construction site once every seven days and within 24 hours of rainfall greater than or equal to a half an inch (1/2-inch). The operator shall prepare a report documenting his/her findings on the conditions of the SWPPP controls and note any erosion problem areas. The operator's report is to be maintained on site by the operator. Facilities shall be maintained as necessary to ensure their continued functioning. In addition, all temporary siltation controls shall be maintained in a satisfactory condition until such time that construction is completed, permanent drainage facilities are operational, and the potential for erosion has passed as determined by the City Engineer or his designee.
3. The facilities shown on this plan must be constructed in conjunction with all clearing and grading activities in such a manner as to insure that sediment-laden water does not enter the drainage system or violate applicable water standards. Additionally, they must be installed and in operation prior to any grading or land clearing. Wherever possible, natural vegetation should be retained and maintained for silt and erosion control.
4. The general contractor to whom the "at-risk"/final grading permit will be issued must be included on the approved NOI issued by ADEQ.
5. The owner (operator)/contractor of the site must also maintain records with the following information:
   - The dates when major grading activities occur in a particular area;
   - The dates when construction activities cease in an area, temporarily or permanently; and
   - The dates when any maintenance/replacement or removal of required BMP's.
6. Construction sites are dynamic in nature. The site operator is required to maintain full compliance with the general construction permit, as issued by ADEQ, to maintain an effective SWPPP. As such, this plan must be updated to accurately reflect site features and operations which may become evident during construction, and/or during or after rainfall events. The plan must also be amended if it is determined by the Design Engineer, or the City Engineer as not effective at minimizing pollutant discharges from the site.
7. Contractor shall hydro-seed all exposed slopes employing best management practices and/or recommended soil preparation to promote and sustain growth. All erosion control structures shall remain in place until exposed slopes have been permanently stabilized. Contractor shall be responsible for watering and maintaining hydro-seed until stabilized. Any deviation shall be approved by the engineer.
8. All site revegetation shall be completed within 90 days of completion of grading work, or prior to release of subdivision guarantee or issuance of Certificate of Occupancy, which ever occurs first. Permanent bank/slope stabilization shall be certified by the Project Engineer or Landscape Architect documenting the bank/slope stabilization was completed according to plan prior to final subdivision release or certificate of occupancy.
9. Contractor shall protect all permanent and existing storm water facilities from sediment/silt during construction.
10. Silt fencing and/or other sediment control (i.e. straw baffles, hay bales, etc.) shall be used at the toe of any erodible slope, following contours of slope (do not install silt fence across any drainage course).
11. Contractor to coordinate erosion control/SWPPP implementation with the City's environmental coordinator.

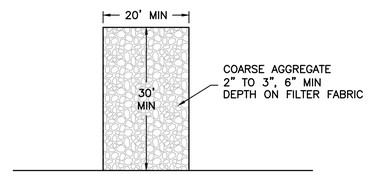
1. THE CONTRACTOR SHALL SPOT LAYOUT THE ENTIRE PROJECT AND CONTACT THE CITY INSPECTOR TO MAKE ARRANGEMENTS FOR INSPECTION PRIOR TO INSTALLING TRAFFIC SIGNS OR PAVEMENT MARKINGS. ANY SIGNING OR STRIPING INSTALLED BEFORE LAYOUT APPROVAL SHALL BE SUBJECT TO REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S EXPENSE.
2. TRAFFIC SIGN DIMENSIONS, COLORS AND LETTERING SHALL CONFORM TO THE LATEST MUTCD SPECIFICATIONS. TRAFFIC SIGN SIZE SHALL BE STANDARD UNLESS OTHERWISE SPECIFIED ON THE PLANS.
3. SIGN LOCATION SHALL BE COORDINATED WITH LANDSCAPING PLANS TO ENSURE SIGN VISIBILITY PER AASHTO STANDARDS.
4. ALL R1-1 "STOP" SIGNS AND PEDESTRIAN WARNING SIGNS SHALL BE RETRO-REFLECTIVE WITH SHEETING MATERIAL TO BE DIAMOND VIP GRADE, MEETING OR EXCEEDING ASTM 4956-04.
5. ALL OTHER SIGNS ARE TO BE RETRO-REFLECTIVE WITH SHEETING MATERIAL TO BE HIGH INTENSITY PRISMATIC MEETING OR EXCEEDING ASTM 4956-04.
6. SIGN BLANKS SHALL BE 5052-H38 ALLOY TREATED ALUMINUM WITH ALODINE 1200 CONVERSION COATING, 0.080" THICK WITH ROUNDED CORNERS.
7. SIGNS SHALL BE MOUNTED ON STREET LIGHT POLES WHENEVER FEASIBLE.
8. STRIPING SHALL CONFORM TO THE MOST RECENT EDITION OF THE MUTCD WITH REGARD TO SIZE, COLOR, REFLECTIVITY AND PLACEMENT UNLESS OTHERWISE SPECIFIED ON THE PLANS.
9. ALL THERMOPLASTIC APPLICATIONS SHALL CONFORM TO ADOT SPECIFICATION 704. TRANSVERSE MARKINGS, SYMBOLS AND LEGENDS SHALL BE 90 MIL (0.090 INCH) THICK, LONGITUDINAL MARKINGS SHALL BE 60 MIL (0.060 INCH) THICK ALKYD EXTRUDED THERMOPLASTIC.
10. ALL PAINT APPLICATION SHALL CONFORM TO ADOT SPECIFICATION 708.
11. ALL CONFLICTING STRIPING, PAVEMENT MARKINGS, AND CURB PAINT SHALL BE REMOVED BY WET SANDBLASTING OR OTHER APPROVED METHOD PRIOR TO THE INSTALLATION OF NEW STRIPING. SLURRY OR PAINT SHALL NOT BE USED TO COVER EXISTING PAINT. PAVEMENT THAT IS DAMAGED DUE TO THE REMOVAL OF MARKERS OR STRIPING SHALL BE REPAIRED TO THE SATISFACTION OF THE CITY ENGINEER OR HIS DESIGNEE.

COP STANDARD DETAIL	SIGNING AND STRIPING NOTES	Charles Andrews CITY ENGINEER	REVISED: 07/16	DETAIL No. 106P-1



NOTES:
1. Temporary straw wattles shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Anchors shall be rebar, steel pickets or 2" x 2" stakes, and shall be long enough to extend at least 1.5 to 2.0 feet into the ground when the top is flush.

(10) STRAW WATTLE BARRIER
N.T.S



HARD SURFACE PUBLIC ROAD

(12) STABILIZED CONSTRUCTION ENTRANCE
N.T.S

CALL TWO WORKING DAYS BEFORE YOU DIG
(602) 263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

1/2" 1" 2"

NO.	REVISION	DATE

KELLEY/WISE ENGINEERING, INC.
146 GROVE AVENUE
PRESCOTT, ARIZONA 86301
(928) 778-2220
FAX
gkelley@kelley-wise.com

COMMERCIAL BUILDING ON SIDE ROAD
APN: 103-01-038
5416 SIDE ROAD
PRESCOTT, AZ

NOTES

Registered Professional Engineer (Civil) GARY R. KELLEY 22880 Date signed 6/30/23 ARIZONA, U.S.A.

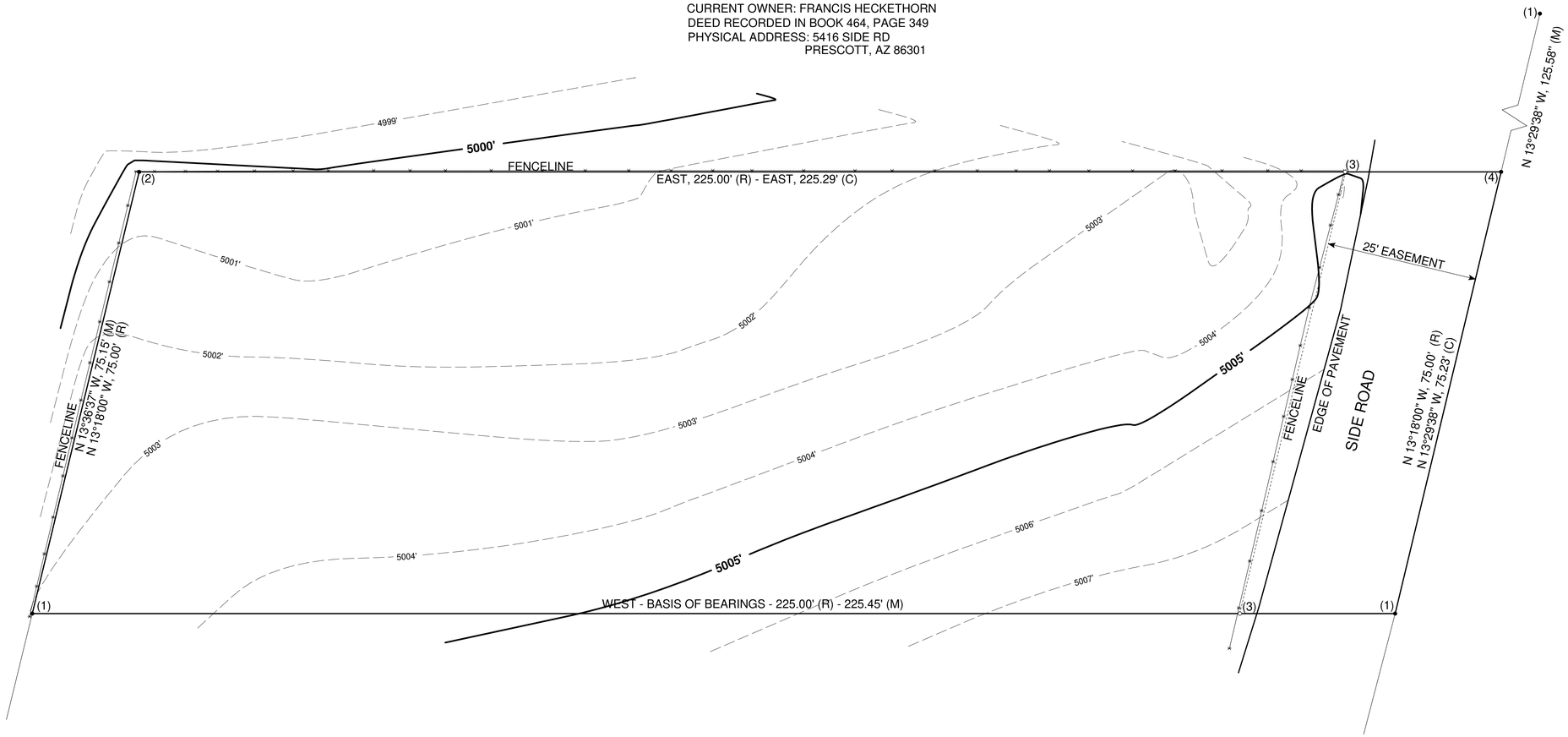
DRAWN	DESIGN	CHECK	DATE	KWE JOB #
ZAJ	ZAJ	GRK	5/8/23	23-014

SHEET
C-003
3 OF 9

Path: X:\KWE\PROJECTS\2023\23-014 KENSON-HICKS 5416 SIDE ROAD FILENAME: 23-014 NOTES.DWG PLOT DATE: 5/8/2023 9:43 AM SHEET SET: 23-014 SIDE ROAD SHEET TOTAL: 9

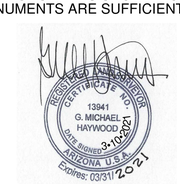
TOPOGRAPHIC SURVEY OF A PORTION OF
SEC. 31, T15N, R1W, G&SRB&M
YAVAPAI COUNTY, ARIZONA

SITE INFO
APN 103-01-038
CURRENT OWNER: FRANCIS HECKETHORN
DEED RECORDED IN BOOK 464, PAGE 349
PHYSICAL ADDRESS: 5416 SIDE RD
PRESCOTT, AZ 86301



CERTIFICATION

I, G. MICHAEL HAYWOOD, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR IN THE STATE OF ARIZONA; THAT THIS PLAT REPRESENTS A SURVEY MADE UNDER MY DIRECT SUPERVISION DURING THE MONTH OF MAY 2021; THAT THE SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF; THAT THE BOUNDARY FORMS A MATHEMATICALLY CLOSED FIGURE; AND THAT ALL MONUMENTS SHOWN ACTUALLY EXIST OF THE DATE HEREOF AND THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED



BENCHMARK DATA

ELEVATIONS ESTBLISHED USING CITY OF PRESCOTT MINGO BASE IN NAVD 88 VERTICAL DATUM.

SITE BENCHMARK IS THE SOUTHEAST EASEMENT CORNER OF SUBJECT PARCEL BEING A 1/2" REBAR W/ CAP STAMPED LS 13941 W/ NAVD 88 EL = 5008.40'

NOTES

1' CONTOURS ARE ACCURATE TO ½ CONTOUR INTERVAL SHOWN

SUBECT PARCEL IS CURRENTLY ZONED CITY OF PRESCOTT SF-9.
IT IS THE INTENT OF THIS LAND OWNER TO RE-ZONE THIS PARCEL.
NO SETBACKS SHOWN ON THIS MAP

THIS SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS, RIGHTS-OF-WAY, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE, OR ANY OTHER INFORMATION THAT AN ACCURATE AND CURRENT TITLE REPORT MAY DISCLOSE.

FEMA PANEL 04025C1693H -
SUBJECT PARCEL NOT AFFECTED BY FEMA FLOODPLAIN.

NO BLUE STAKE SERVICES WERE PROVIDED AND UNDERGROUND UTLILITIES MAY NOT BE SHOWN.

LEGEND

- • = PROPERTY CORNER AS NOTED
- ◦ = EASEMENT CORNER AS NOTED
- (1) = FOUND 1/2" REBAR W/ CAP LS 23383
- (2) = FOUND 1/2" REBAR W/ CAP LS 13941
- (3) = SET 1/2" REBAR W/ CAP LS 13941
- (4) = NOTHING FOUND OR SET DURING THIS SURVEY

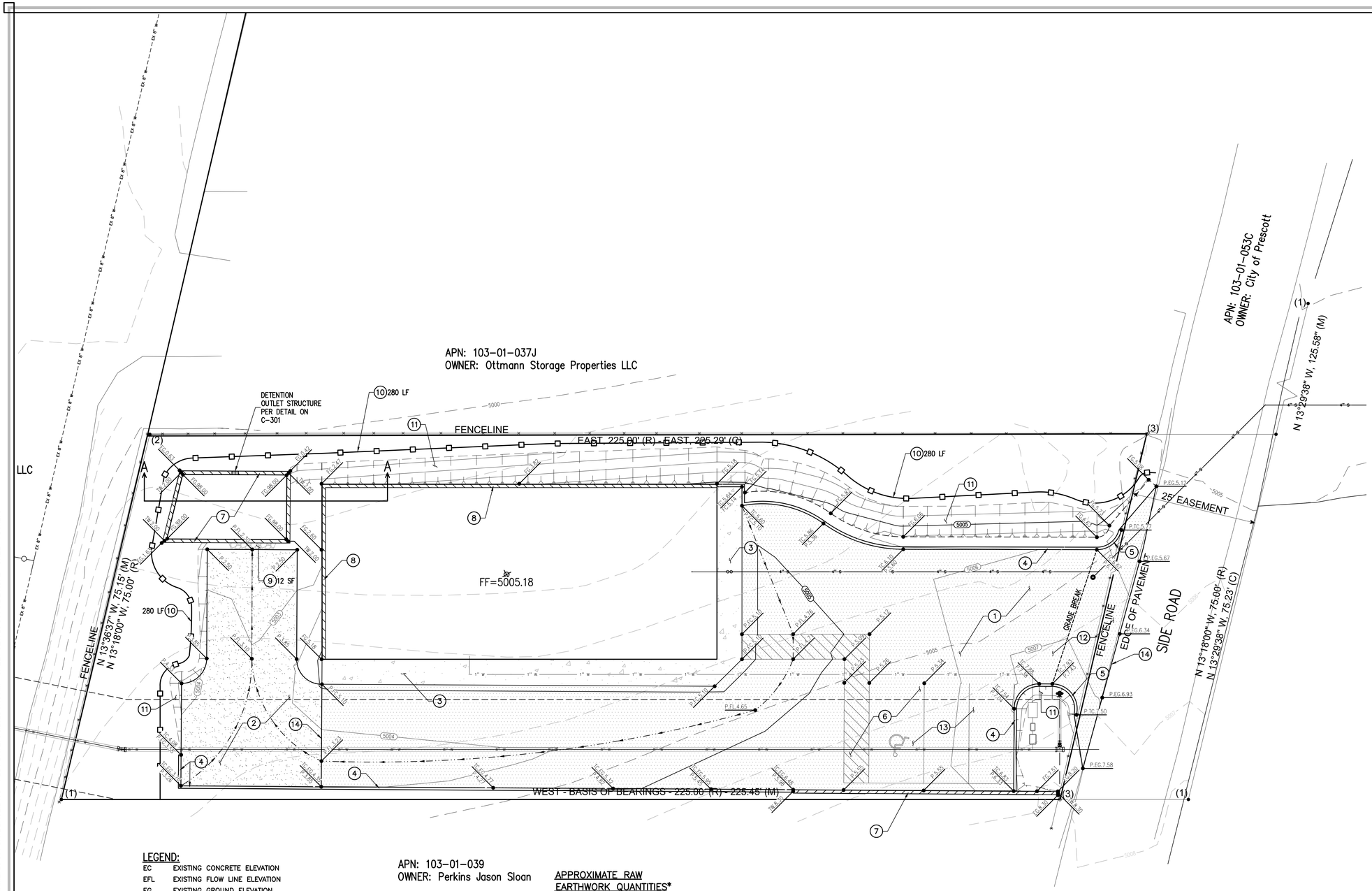
N

SCALE = 1" : 10'

5 10 20 30

NEXUS SOUTHWEST LLC
REGISTERED LAND SURVEYORS
212 S. MARINA ST.
PRESCOTT, AZ 86303
(928)778-5101
INFO@NEXUS-SW.NET

JOB NO. 21-542	DRAWN: PMH - 5/27/2021
CLIENT: HICKS	CHECK: GMH
CREW: JV/BV	CREW: 5/2021
SCALE = 1" : 10'	SHEET SIZE: 24X36"



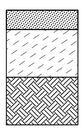
GRADING AND PAVING KEY

1. FURNISH AND INSTALL 3" AC ON 7" ABC ON 8" PREPARED SUBGRADE PER COP STANDARDS AND PROJECT SOILS REPORT.
2. FURNISH AND INSTALL 4" ABC ON 8" PREPARED SUBGRADE PER COP STANDARDS AND PROJECT SOILS REPORT.
3. CONSTRUCT CONCRETE SIDEWALK PER QC SD 230Q AND ARCHITECTURAL REQUIREMENTS (WIDTH PER ARCHITECTURAL SITE PLAN). CONCRETE FRONTING OVERHEAD DOORS PER ARCHITECTURAL PLANS.
4. CONSTRUCT SINGLE CURB (TYPE 'A') PER MAG SD 222.
5. CONSTRUCT CURB TRANSITION FROM FLUSH WITH PAVEMENT TO SINGLE CURB (TYPE 'A') PER MAG SD 222.
6. CONSTRUCT ADA COMPLIANT HANDICAP SPACE AND ACCESS AISLE WITH ADA HANDICAP EMBLEM, STRIPING, AND SIGNAGE PER ADA REQUIREMENTS AND ARCHITECTURAL DETAILS. MAXIMUM SLOPE IS 2% IN ANY DIRECTION.
7. CONSTRUCT RETAINING WALL PER ARCHITECTURAL PLANS. PROVIDE HANDRAIL/FALL PROTECTION PER QC SD 145Q, OR PER ARCHITECTURAL PLANS, WHERE ELEVATION DIFFERENCE IS 30" OR MORE.
8. BUILDING STEM WALL PER ARCHITECTURAL PLANS.
9. FURNISH AND PLACE STONE RIP RAP ON FABRIC FILTER, 12" THICK, D_{50}=6" PER PLAN AND PER MAG SPECIFICATIONS SECTIONS 703 AND 796.
10. FURNISH AND INSTALL STRAW WATTLE PROTECTION ALONG TOE OF FILL SLOPE PER PLAN.
11. LANDSCAPE DISTURBED GRADING LIMITS OR SLOPE STABILIZATION, INCLUDING HORIZONTAL SLOPE SCARIFICATION AND HYDROSEEDING, PER LANDSCAPE PLANS. 2H:1V SLOPES TYPICAL.
12. CONSTRUCT 20'x30' TEMPORARY GRAVEL STABILIZED CONSTRUCTION ENTRANCE TO PREVENT TRACKING SOIL ONTO EXISTING PAVEMENT.
13. CONSTRUCT TEMPORARY CONCRETE WASH OUT AREA WITH 6" MIN DEPRESSION TO PREVENT WASH OUT WATER FROM LEAVING THE SITE. WASH OUT AREA TO COMPLY WITH AAC R18-9-B301.L.A.1.12.
14. FURNISH AND INSTALL THICKENED EDGE PAVEMENT PER QC SD 201Q.

LEGEND:

EC	EXISTING CONCRETE ELEVATION
EFL	EXISTING FLOW LINE ELEVATION
EG	EXISTING GROUND ELEVATION
EP	EXISTING PAVEMENT
ETC	EXISTING TOP OF CURB
FC	NEW FINISHED CONCRETE ELEVATION
FF	NEW FINISHED FLOOR ELEVATION
FG	NEW FINISHED GRADE ELEVATION
FL	NEW FLOWLINE ELEVATION
G/B	GRADE BREAK
H/P	HIGH POINT
L/P	LOW POINT
P	PAVEMENT OR SURFACE PER ARCH. PLANS
SD	STORM DRAIN
TBC	NEW TOP BACK OF CURB ELEVATION
TC	NEW TOP OF CURB ELEVATION
TW	NEW TOP OF WALL ELEVATION
VC&G	VERTICAL CURB AND GUTTER

APN: 103-01-039
OWNER: Perkins Jason Sloan



3" AC, 95% ASTM D 1559, MAG 321

7" ABC, 95% ASTM D 698, MAG 310

8" MIN SUBGRADE, 95% ASTM D 698 MAG 301.

TYPICAL PAVEMENT STRUCTURAL SECTION (1) NTS

APPROXIMATE RAW EARTHWORK QUANTITIES*

EXCAVATION = 165 CY

EMBANKMENT = 435 CY

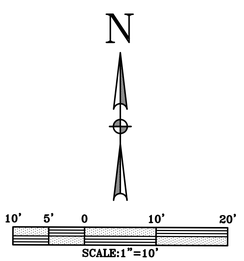
***SPECIAL NOTE:** IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO VERIFY ALL QUANTITIES, INCLUDING EXCAVATION, BORROW, EMBANKMENT, SHRINK OR SWELL, GROUND COMPACTION, HAUL AND ANY OTHER ITEMS AFFECTING THE BID AND TO BASE THE BID PER THE INTENT OF THE PLANS. IT SHALL BE THE BIDDER'S RESPONSIBILITY TO NOTIFY THE ENGINEER PRIOR TO BIDDING OF ANY DISCREPANCIES. THESE QUANTITIES ASSUME SUBGRADE AT THE BLDG IS 8" BELOW FINISHED FLOOR, 8" BELOW SIDEWALK GRADES, 10" BELOW PAVEMENT GRADES, AND 4" BELOW COMPACTED ABC GRADES. THESE QUANTITIES DO NOT INCLUDE ANY OVER-EXCAVATION THAT MAY BE REQUIRED PER THE SOILS REPORT, TRENCHING OR OTHER EXCAVATION.

APPROXIMATE DISTURBED AREA = ±0.27 ACRES

APPROVED TRAFFIC CONTROL PLAN AND R.O.W. PERMIT MUST BE OBTAINED FROM COP PRIOR TO BEGINNING WORK IN THE R.O.W.

SPECIAL NOTE:
EXISTING BOUNDARY CORNER MONUMENTS SHALL BE PROTECTED IN PLACE. IF ANY BOUNDARY CORNER MONUMENTS ARE DISTURBED OR DESTROYED, THEY SHALL BE REPLACED IN ACCORDANCE WITH THE ARIZONA BOUNDARY SURVEY MINIMUM STANDARDS.

SPECIAL NOTE:
THE TOP OF WALL (TW) GRADES SHOWN AND CALLED OUT ON THE PLAN REPRESENT THE MINIMUM WALL HEIGHT REQUIRED FOR THE GRADING PLAN. THE GRADES SHOWN DO NOT ACCOUNT FOR ANY RETAINING WALL DESIGN OR APPLICATION THEREOF RELATIVE TO FOOTING ELEVATIONS, FOOTING AND/OR TOP OF WALL STEPS, WALL CONSTRUCTION MATERIALS OR METHODS OR ANY OTHER RETAINING WALL DESIGN ELEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INCORPORATING ANY RETAINING WALL DESIGN TO MEET THE INTENT OF THE GRADES PER THIS PLAN.



CALL TWO WORKING DAYS BEFORE YOU DIG (602) 263-1100 1-800-STAKE-IT (OUTSIDE MARICOPA COUNTY)

1/2" 1" 2"

NO.	REVISION	DATE

KELLEY/WISE ENGINEERING, INC.
146 GROVE AVENUE
PRESCOTT, ARIZONA 86301
(928) 445-4772
FAX 778-2220
gkelley@kelley-wise.com

COMMERCIAL BUILDING ON SIDE ROAD
APN: 103-01-038
5416 SIDE ROAD
PRESCOTT, AZ

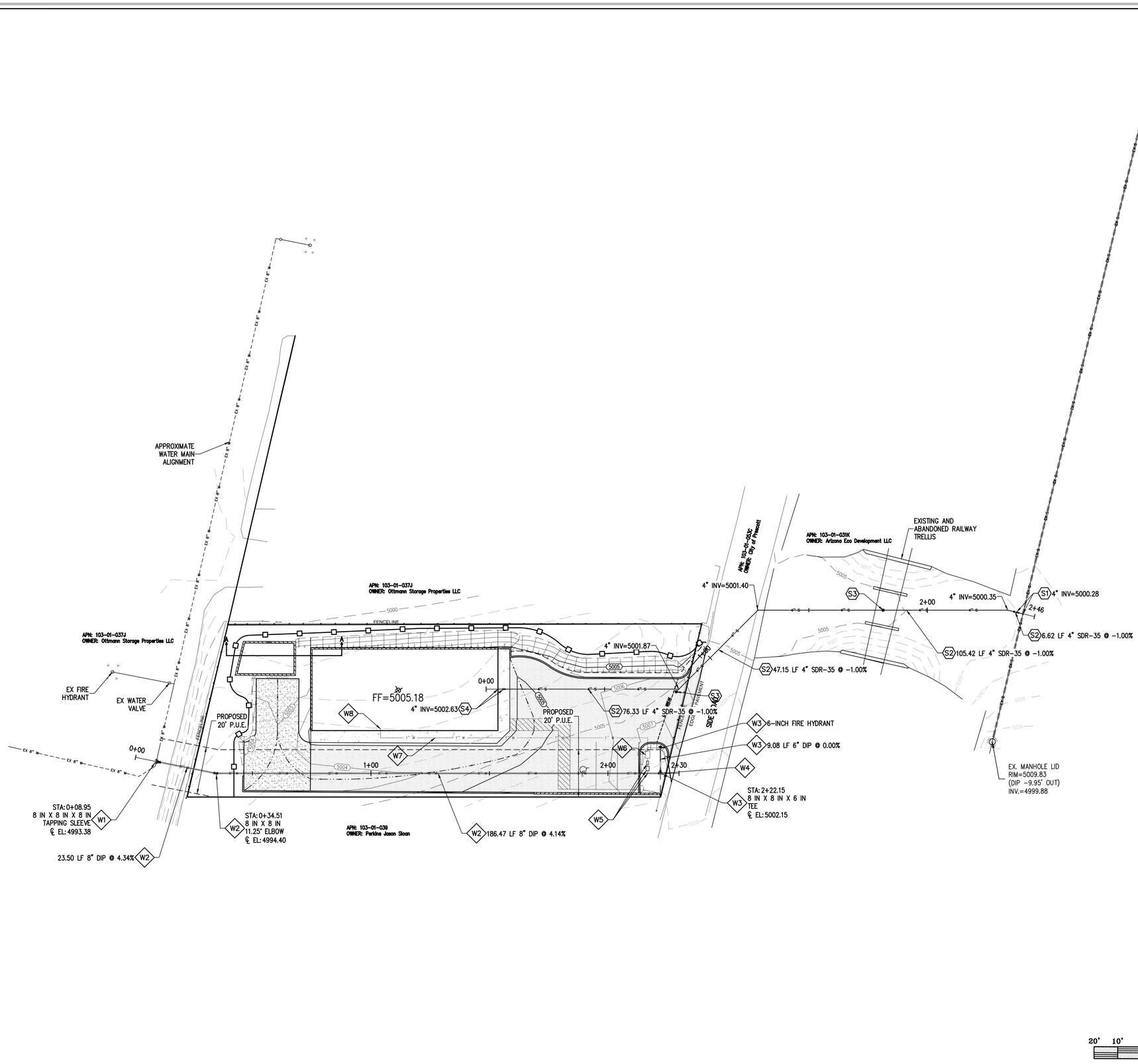
GRADING AND DRAINAGE PLAN

Registered Professional Engineer (Civil) 22880 GARY R. KELLEY Date Signed 5/8/23 ARIZONA, U.S.A.

DRAWN	DESIGN	CHECK	DATE	KWE JOB #
ZAJ	ZAJ	GRK	5/8/23	23-014

SHEET
C-101
5 OF 9

Path: X:\KWE\PROJECTS\2023\23-014 KENSON-HICKS 5416 SIDE ROAD FILENAME: 23-014 CIVIL BASE.DWG PLOT DATE: 5/8/2023 9:43 AM SHEET SET: 23-014 SIDE ROAD SHEET TOTAL: 9



WATER KEY

W1 CONNECT TO EXISTING WATER MAIN. FURNISH AND INSTALL 8"X8"X8" TAPPING SLEEVE, 8" GATE VALVE, BOX AND COVER PER QC SD 301Q, 340Q-1, AND -2. FIELD VERIFY EXISTING PIPE, SIZE, LOCATION, INVERT, AND MATERIAL PRIOR TO CONSTRUCTION.

W2 FURNISH AND INSTALL FULLY RESTRAINED (AT ALL JOINTS AND BENDS) 8" CLASS 350 PER AWWA C600 DUCTILE IRON PIPE (DIP) WATER MAIN. TRENCH PER QC SD 200Q-1.

W3 FURNISH AND INSTALL COMPLETE FIRE HYDRANT ASSEMBLY INCLUDING 8"X6"X8" TEE, 6" VALVE, BOX AND COVER PER QC SD 301Q AND 391Q, HYDRANT AND PIPING PER QC SD 360Q AND 362Q AND PER AWWA AND ASTM STANDARDS.

W4 FURNISH AND INSTALL BLIND FLANGE OR MECHANICAL PLUG.

W5 FURNISH AND INSTALL 1" WATER SERVICE CONNECTION ON NEW MAIN, WATER METER BOX AND COVER PER QC SD 316P WITH CUSTOMER SHUTOFF AND PRESSURE REDUCING VALVES. TRENCH EXCAVATION AND BACKFILL PER QC SD 200Q-1 AND PLAN DETAILS.

W6 FURNISH AND INSTALL COMPLETE 1" BACKFLOW PREVENTION ASSEMBLY (BPA) ASSEMBLY PER QC SD 324Q-1 AND INTERNATIONAL BUILDING CODE (IBC). NO INTERCONNECTION ALLOWED BETWEEN WATER METER AND BPA ASSEMBLY. THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS OF THE BPA ASSEMBLY AND ABOVE GROUND HOT BOX CLASS 1 PER ASSE 1060 PROTECTIVE ENCLOSURE PER IBC FOR SIGNED APPROVAL BY THE OWNER'S REPRESENTATIVE AND THE CITY OF PRESCOTT PRIOR TO INSTALLATION.

W7 FURNISH AND INSTALL 1" SCHEDULE 40 PVC PRIVATE YARD LINE PER INTERNATIONAL PLUMBING CODE. TRENCH EXCAVATION AND BACKFILL PER QC SD 200Q-1 AND PLAN DETAILS.

W8 EXACT LOCATION OF 1" BUILDING CONNECTION PER PLUMBING PLANS.

SEWER KEY

S1 CONNECT TO EXISTING SEWER MAIN PER COP SD 440P-1 AND 440P-3 WITH DOUBLE BARREL TWO-WAY CLEANOUT AND BACKWATER VALVE WITH CAST IRON COVER PER QC SD 270Q. FIELD VERIFY EXACT PIPE SIZE, INVERT, LOCATION, MATERIAL AND CONDITION PRIOR TO CONSTRUCTION.

S2 FURNISH AND INSTALL 4" SDR-35 PVC PRIVATE BUILDING SEWER SERVICE PIPE, TRENCH EXCAVATION AND BACKFILL PER MAG SPECIFICATION 601 AND QC SD 200Q-1 UTILITY TRENCH DETAIL.

S3 FURNISH AND INSTALL SEWER SERVICE CLEANOUT PER QC SD 441Q AND PER INTERNATIONAL PLUMBING CODE.

S4 FURNISH AND INSTALL DOUBLE BUILDING SEWER CLEANOUTS PER PLUMBING PLANS AND CITY OF PRESCOTT REQUIREMENTS WITH CAST IRON COVER PER QC SD 270Q. EXACT LOCATION OF BUILDING CONNECTION PER PLUMBING PLANS.

1/2" 1" 2"

NO.	REVISION	DATE

KELLEY/WISE ENGINEERING, INC.
146 GROVE AVENUE
PRESCOTT, ARIZONA 86301
(928) 778-2220
FAX 778-2220
gkelley@kelley-wise.com

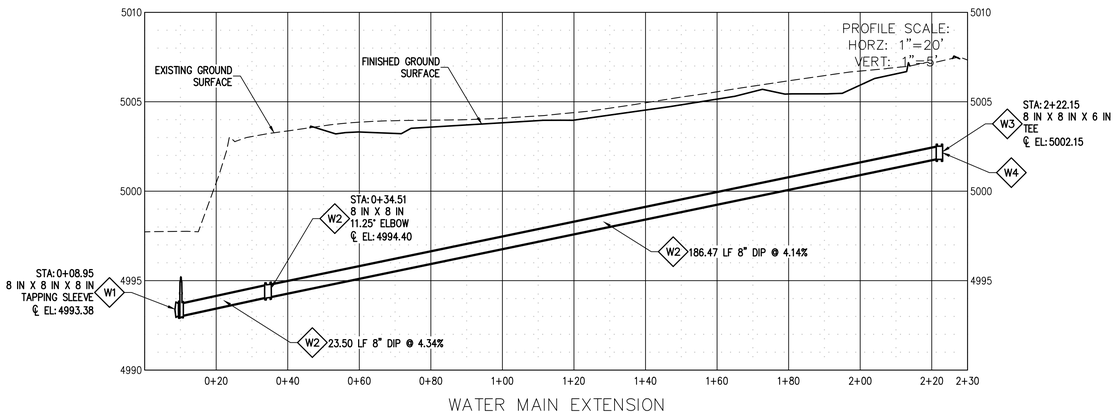
COMMERCIAL BUILDING ON SIDE ROAD
APN: 103-01-038
5416 SIDE ROAD
PRESCOTT, AZ

WATER AND SEWER PLAN

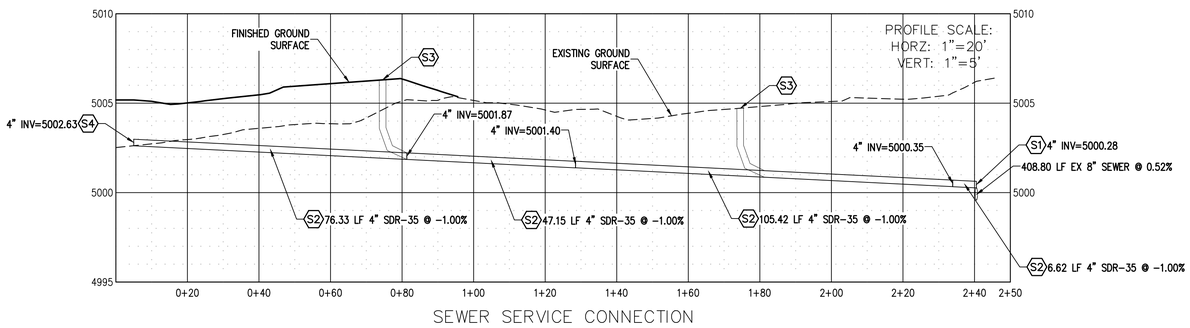
DRAWN	DESIGN	CHECK	DATE	KWE JOB #
ZAJ	ZAJ	GRK	5/8/23	23-014

SHEET C-201
6 OF 9

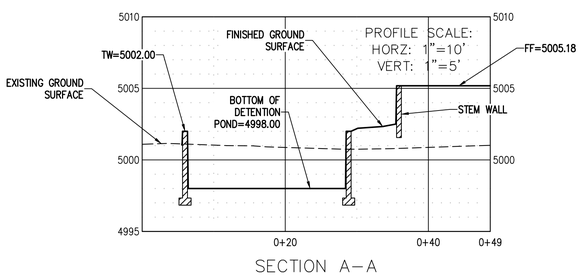
Path: X:\KWE\PROJECTS\2023\23-014 KENSON-HICKS 5416 SIDE ROAD FILENAME: 23-014 CIVIL BASE.DWG PLOT DATE: 5/8/2023 9:43 AM SHEET SET: 23-014 SIDE ROAD SHEET TOTAL: 9



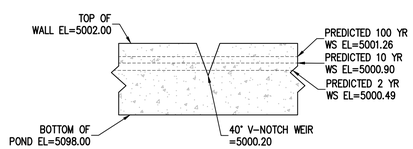
WATER MAIN EXTENSION



SEWER SERVICE CONNECTION



SECTION A–A



DETENTION OUTLET STRUCTURE

WATER KEY

W1 CONNECT TO EXISTING WATER MAIN. FURNISH AND INSTALL 8"X8"X8" TAPPING SLEEVE, 8" GATE VALVE, BOX AND COVER PER QC SD 301Q, 340Q–1, AND –2. FIELD VERIFY EXISTING PIPE, SIZE, LOCATION, INVERT, AND MATERIAL PRIOR TO CONSTRUCTION.

W2 FURNISH AND INSTALL FULLY RESTRAINED (AT ALL JOINTS AND BENDS) 8" CLASS 350 PER AWWA C600 DUCTILE IRON PIPE (DIP) WATER MAIN. TRENCH PER QC SD 200Q–1.

W3 FURNISH AND INSTALL COMPLETE FIRE HYDRANT ASSEMBLY INCLUDING 8"X6"X8" TEE, 6" VALVE, BOX AND COVER PER QC SD 301Q AND 391Q, HYDRANT AND PIPING PER QC SD 360Q AND 362Q AND PER AWWA AND ASTM STANDARDS.

W4 FURNISH AND INSTALL BLIND FLANGE OR MECHANICAL PLUG.

W5 FURNISH AND INSTALL 1" WATER SERVICE CONNECTION ON NEW MAIN, WATER METER BOX AND COVER PER QC SD 316P WITH CUSTOMER SHUTOFF AND PRESSURE REDUCING VALVES. TRENCH EXCAVATION AND BACKFILL PER QC SD 200Q–1 AND PLAN DETAILS.

W6 FURNISH AND INSTALL COMPLETE 1" BACKFLOW PREVENTION ASSEMBLY (BPA) ASSEMBLY PER QC SD 324Q–1 AND INTERNATIONAL BUILDING CODE (IBC). NO INTERCONNECTION ALLOWED BETWEEN WATER METER AND BPA ASSEMBLY. THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS OF THE BPA ASSEMBLY AND ABOVE GROUND HOT BOX CLASS 1 PER ASSE 1060 PROTECTIVE ENCLOSURE PER IBC FOR SIGNED APPROVAL BY THE OWNER'S REPRESENTATIVE AND THE CITY OF PRESCOTT PRIOR TO INSTALLATION.

W7 FURNISH AND INSTALL 1" SCHEDULE 40 PVC PRIVATE YARD LINE PER INTERNATIONAL PLUMBING CODE. TRENCH EXCAVATION AND BACKFILL PER QC SD 200Q–1 AND PLAN DETAILS.

W8 EXACT LOCATION OF 1" BUILDING CONNECTION PER PLUMBING PLANS.

SEWER KEY

S1 CONNECT TO EXISTING SEWER MAIN PER COP SD 440P–1 AND 440P–3 WITH DOUBLE BARREL TWO–WAY CLEANOUT AND BACKWATER VALVE WITH CAST IRON COVER PER QC SD 270Q. FIELD VERIFY EXACT PIPE SIZE, INVERT, LOCATION, MATERIAL AND CONDITION PRIOR TO CONSTRUCTION.

S2 FURNISH AND INSTALL 4" SDR–35 PVC PRIVATE BUILDING SEWER SERVICE PIPE, TRENCH EXCAVATION AND BACKFILL PER MAG SPECIFICATION 601 AND QC SD 200Q–1 UTILITY TRENCH DETAIL.

S3 FURNISH AND INSTALL SEWER SERVICE CLEANOUT PER QC SD 441Q AND PER INTERNATIONAL PLUMBING CODE.

S4 FURNISH AND INSTALL DOUBLE BUILDING SEWER CLEANOUTS PER PLUMBING PLANS AND CITY OF PRESCOTT REQUIREMENTS WITH CAST IRON COVER PER QC SD 270Q. EXACT LOCATION OF BUILDING CONNECTION PER PLUMBING PLANS.

NO.	REVISION	DATE

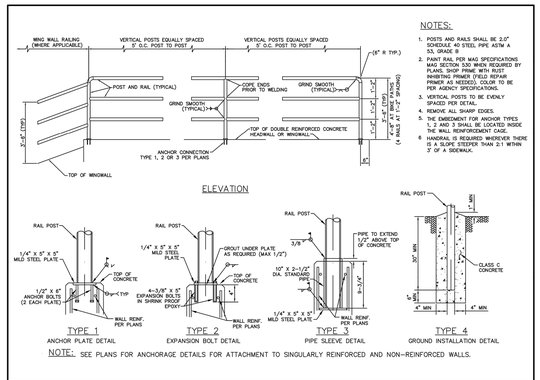
KELLEY/WISE ENGINEERING, INC.
146 GROVE AVENUE
PRESCOTT, ARIZONA 86301
(928) 778–7220
FAX 778–2220
gkelley@kelley–wise.com

COMMERCIAL BUILDING ON SIDE ROAD
APN: 103–01–038
5416 SIDE ROAD
PRESCOTT, AZ

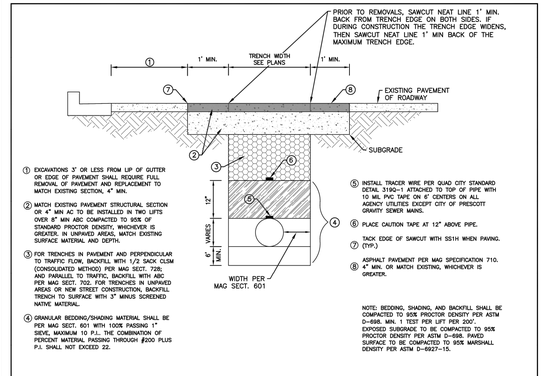
PROFILES AND SECTIONS

DRAWN	DESIGN	CHECK	DATE	KWE JOB #
ZAJ	ZAJ	GRK	5/8/23	23–014

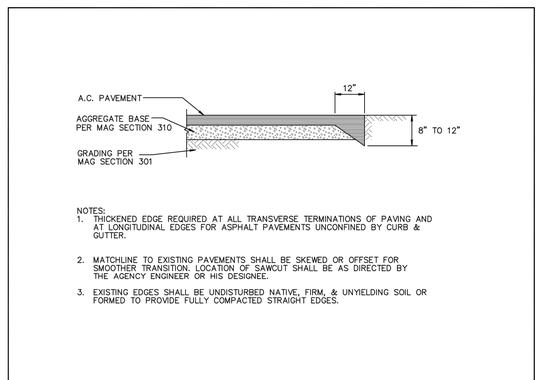
SHEET
C-301
7 OF 9



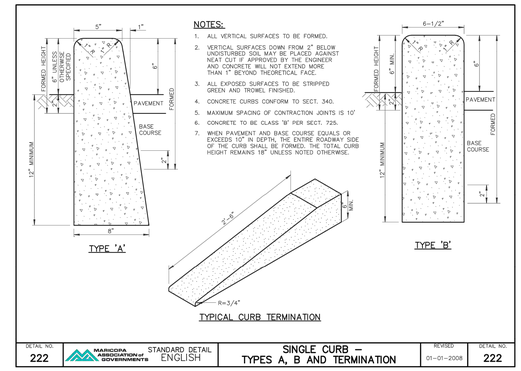
QUAD CITY STANDARD DETAIL	SAFETY RAIL	REVISED: 07/16	DETAIL No. 145Q



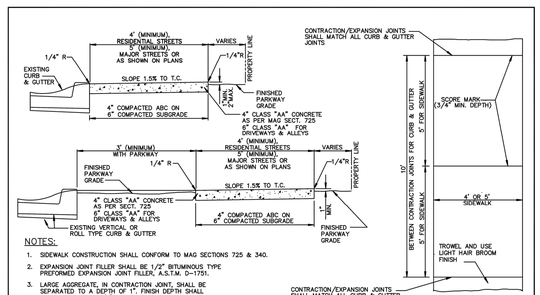
QUAD CITY STANDARD DETAIL	TRENCH BACKFILL AND SURFACE REPLACEMENT	REVISED: 07/16	DETAIL No. 200Q-1



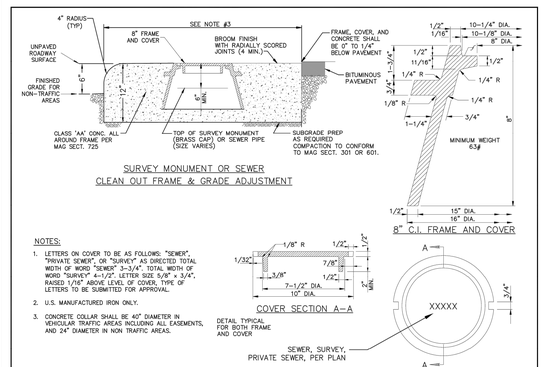
QUAD CITY STANDARD DETAIL	THICKENED EDGE PAVEMENT SECTION	REVISED: 07/16	DETAIL No. 201Q



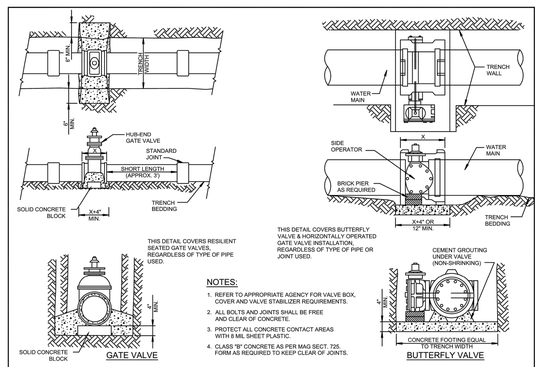
DETAIL NO. 222	MARICOPA ASSOCIATION OF GOVERNMENTS STANDARD DETAIL ENGLISH	SINGLE CURB – TYPES A, B AND TERMINATION	REVISED 01-01-2008	DETAIL NO. 222



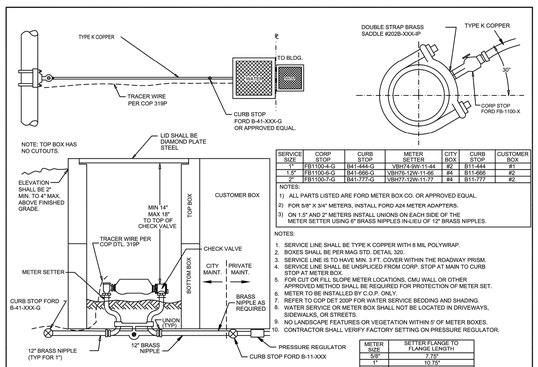
QUAD CITY STANDARD DETAIL	SIDEWALKS	REVISED: 07/16	DETAIL No. 230Q



QUAD CITY STANDARD DETAIL	8" FRAME AND COVER	REVISED: 07/16	DETAIL No. 270Q



QUAD CITY STANDARD DETAIL	VALVE BLOCKING	REVISED: 07/16	DETAIL No. 301Q



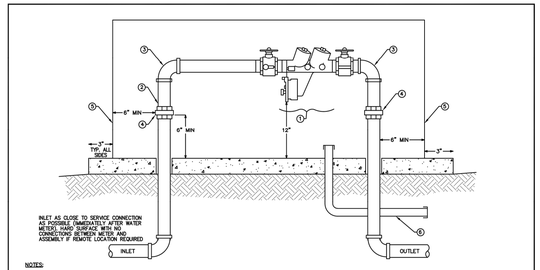
SERVICE SIZE	CORP STOP	CURB STOP	METER SETTER	CITY BOX	CURB STOP	CUSTOMER BOX
1"	FB1100-G	B41-444-G	VBH74-9W-11-44	#2	B11-444	#1
1.5"	FB1100-G	B41-666-G	VBH76-12W-11-66	#4	B11-666	#2
2"	FB1100-7-Q	B41-777-G	VBH77-12W-11-77	#4	B11-777	#2

NOTES:
1) ALL PARTS LISTED ARE FORD METER BOX CO. OR APPROVED EQUAL.
2) FOR 5/8" X 3/4" METERS, INSTALL FORD A24 METER ADAPTERS.
3) ON 1.5" AND 2" METERS INSTALL UNIONS ON EACH SIDE OF THE METER SETTER USING 6" BRASS NIPPLES IN-LIEU OF 12" BRASS NIPPLES.

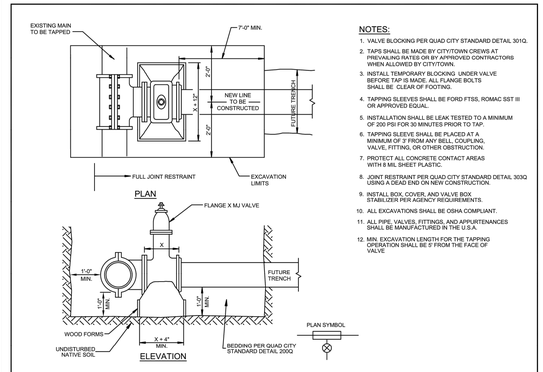
NOTES:
1. SERVICE LINE SHALL BE TYPE K COPPER WITH 8 MIL POLYWRAP.
2. BOXES SHALL BE PER MAG STD. DETAIL 320.
3. SERVICE LINE IS TO HAVE MIN. 3 FT. COVER WITHIN THE RIGHAWAY PRISM.
4. SERVICE LINE SHALL BE UNSPLICED FROM CORP. STOP AT MAIN TO CURB STOP AT METER BOX.
5. FOR CUT OR FILL SLOPE METER LOCATIONS, CMU WALL OR OTHER APPROVED METHOD SHALL BE REQUIRED FOR PROTECTION OF METER SET.
6. METER TO BE INSTALLED BY C.O.P. ONLY.
7. REFER TO COP DET 200P FOR WATER SERVICE BEDDING AND SHADING.
8. WATER SERVICE OR METER BOX SHALL NOT BE LOCATED IN DRIVEWAYS, SIDEWALKS, OR STREETS.
9. NO LANDSCAPE FEATURES OR VEGETATION WITHIN 9' OF METER BOXES.
10. CONTRACTOR SHALL VERIFY FACTORY SETTING ON PRESSURE REGULATOR.

METER SIZE	SETTER FLANGE TO FLANGE LENGTH
5/8"	7.75"
1"	10.75"
1.5"	12.75"
2"	17.25"

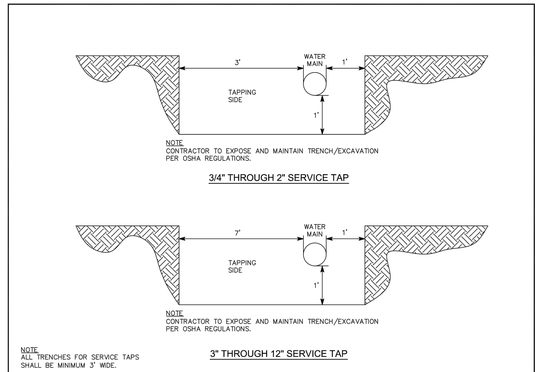
COP STANDARD DETAIL	1" - 2" WATER SERVICE CONNECTIONS	Charles Andrews CITY ENGINEER	REVISED: 07/16	DETAIL No. 316P



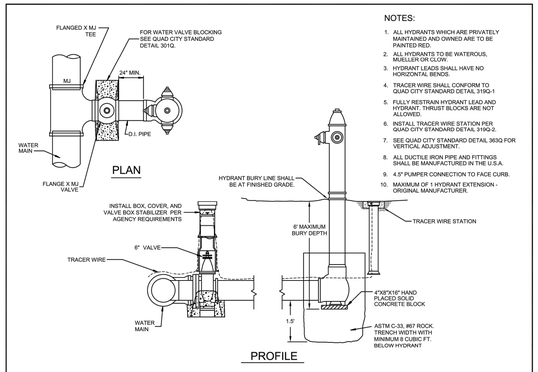
QUAD CITY STANDARD DETAIL	BACKFLOW PREVENTION ASSEMBLY INSTALLATION 3" AND UNDER	REVISED: 07/16	DETAIL No. 324Q-1



QUAD CITY STANDARD DETAIL	TAPPING SLEEVES AND VALVES	REVISED: 07/16	DETAIL No. 340Q-1



QUAD CITY STANDARD DETAIL	EXPOSING WATER MAIN FOR HOT TAP	REVISED: 07/16	DETAIL No. 340Q-2



QUAD CITY STANDARD DETAIL	FIRE HYDRANT INSTALLATION	REVISED: 07/16	DETAIL No. 360Q

SPECIAL NOTES:
THE STANDARD DETAILS AND SPECIFICATIONS SHOWN HEREON HAVE BEEN FORMALLY ADOPTED BY THE CITY OF PRESCOTT. COMPLIANCE WITH THESE STANDARD DETAILS AND SPECIFICATIONS IS REQUIRED IN CONSTRUCTING ALL APPLICABLE PUBLIC IMPROVEMENTS. KELLEY/WISE ENGINEERING IS NOT RESPONSIBLE FOR THE CONTENT OF THE CITY OF PRESCOTT STANDARD DETAILS AND SPECIFICATIONS.

ALL CONCRETE USED IN CONSTRUCTION OF THE STANDARD DETAIL CONCRETE IMPROVEMENTS AS SHOWN HEREON SHALL BE MINIMUM 4500 PSI CONCRETE WITH ENTRAINED AIR, WATER/CEMENT RATIO OF 0.45 AND 18% FLY ASH.

CALL TWO WORKING DAYS BEFORE YOU DIG
(602) 263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

1/2" 1" 2"

NO.	REVISION	DATE

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146 GROVE AVENUE
PRESCOTT, ARIZONA 86301
(928) 778–2220
gkelley@kelley–wise.com

COMMERCIAL BUILDING ON SIDE ROAD
APN: 103–01–038
5416 SIDE ROAD
PRESCOTT, AZ

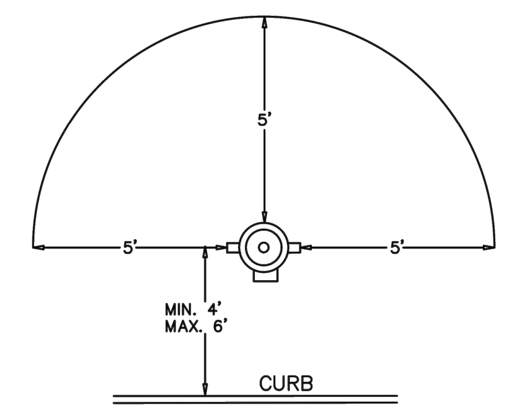
STANDARD DETAILS

Registered Professional Engineer (Civil)
22860
GARY R. KELLEY
Date signed 5/8/23
ARIZONA, U.S.A.

DRAWN	DESIGN	CHECK	DATE	KWE JOB #
ZAJ	ZAJ	GRK	5/8/23	23–014

SHEET
C-501
8 OF 9

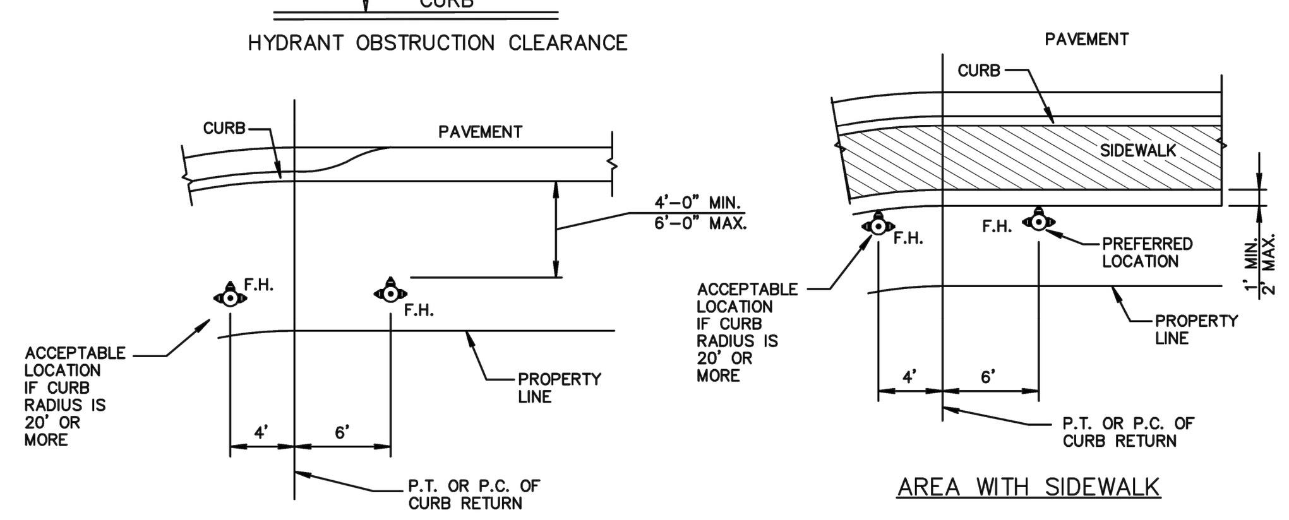
Path: X:\KWE\PROJECTS\2023\23-014 KENSON-HICKS 5416 SIDE ROAD FILENAME: 23-014 DETAILS.DWG PLOT DATE: 5/8/2023 9:43 AM SHEET SET: 23-014 SIDE ROAD SHEET TOTAL: 9



HYDRANT OBSTRUCTION CLEARANCE

NOTES:

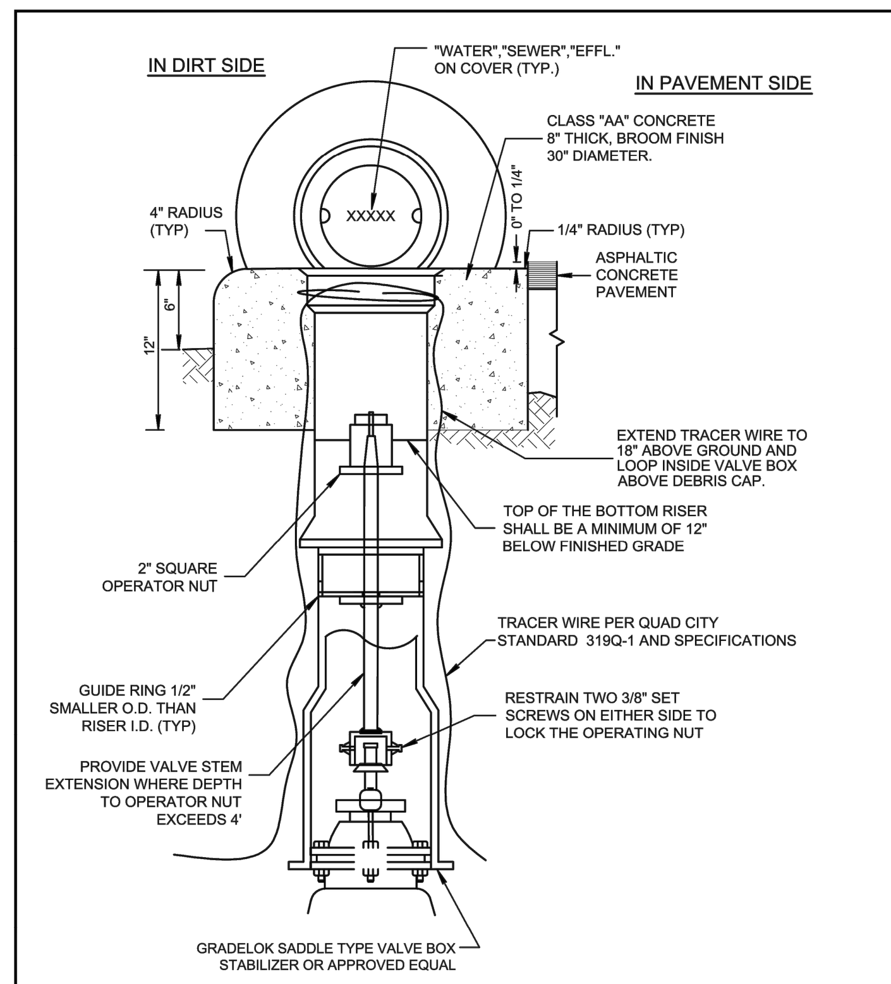
1. OBSTRUCTIONS SUCH AS UTILITY POLES, STREET SIGNS, IRRIGATION BOXES, FENCES, LANDSCAPE VEGETATION, ETC. MUST NOT BE PLACED BETWEEN CURB AND HYDRANT
2. SOME LOCATIONS APPLY AT EITHER END OF CURB RETURNS.
3. ALL HYDRANTS WHICH ARE PRIVATELY MAINTAINED AND OWNED ARE TO BE PAINTED RED.
4. IN PARKING LOT ISLANDS, HYDRANT TO BE MIN. 3' IN ALL DIRECTIONS FROM BACK OF CURB.
5. HYDRANTS TO BE CLEAR OF LANDSCAPE & VEGETATION WITHIN A 5' RADIUS.



PARKWAY AREA OR NO SIDEWALK

AREA WITH SIDEWALK

QUAD CITY STANDARD DETAIL	LOCATIONS FOR NEW FIRE HYDRANTS	REVISED: 07/16	DETAIL No. 362Q



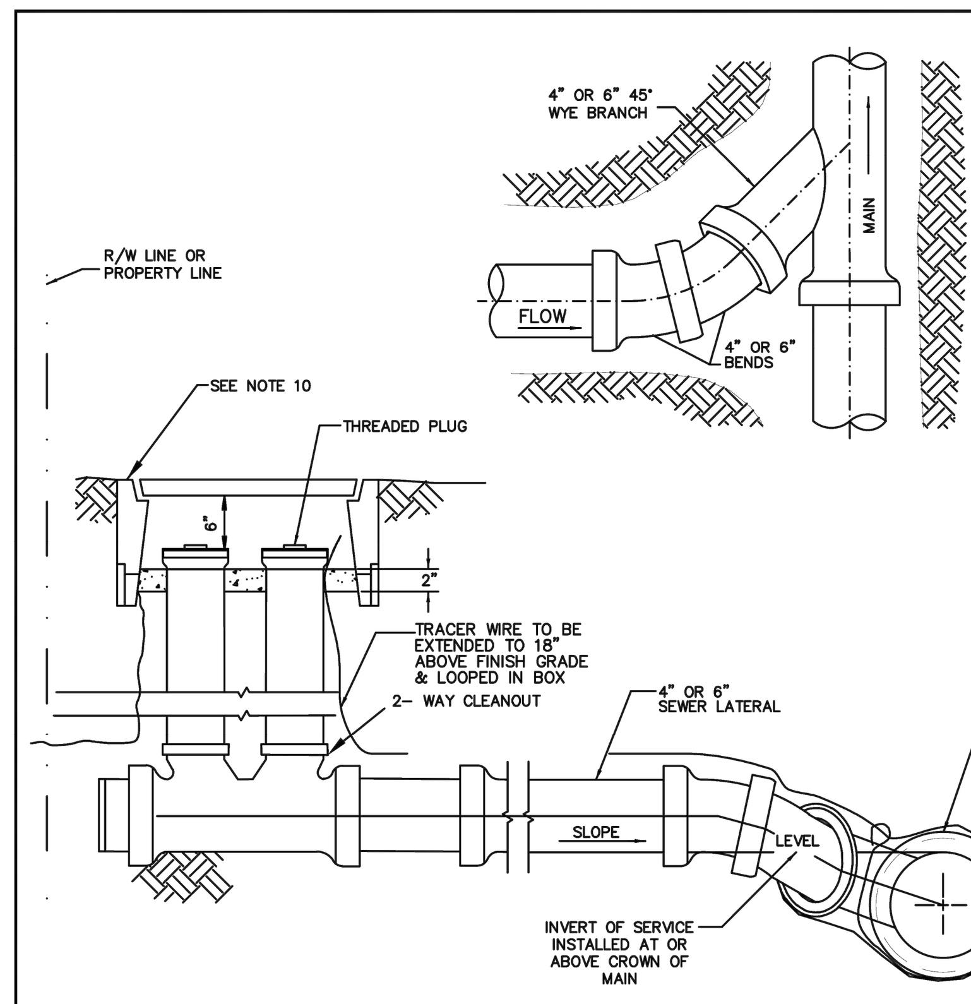
NOTES:

1. VALVE BOX SHALL BE ADJUSTED TO THE FINISHED GRADE AFTER PLACING OF THE FINISH PAVEMENT SURFACE.
2. USE PARKSON TYLER #6855, APCO OR EQUAL DEEP SKIRTED LID (4" OR MORE) TYPE, SLIDING ADJUSTABLE CAST IRON VALVE BOX C.I. MIN. T.S. 30,000 P.S.I.
3. ALL VALVES CONNECTED TO EXISTING MAINS ARE TO BE OPERATED BY AGENCY PERSONNEL ONLY.
4. U.S. MANUFACTURED IRON ONLY.
5. ALL STEEL FOR EXTENSION TO HAVE SHOP PRIME COAT ZINC CHROMATE, AND ONE HEAVY APPLICATION NO-OX-10 "A" IN ACCORDANCE WITH MANUFACTURE'S DIRECTION.
6. DEBRIS CAP PER MAG DETAIL 392.
7. VALVE BLOCKING REQUIRED PER QUAD CITY STANDARD DETAIL 301Q.

DEBRIS CAP COLOR TABLE

VALVE TYPE	COLOR
IN-LINE-RW	BLACK
HYDRANT	BLUE
BUTTERFLY	YELLOW
ZONE	RED
FIRE LINE	WHITE
EFFLUENT	PURPLE
SEWER FORCE MAIN	GREEN

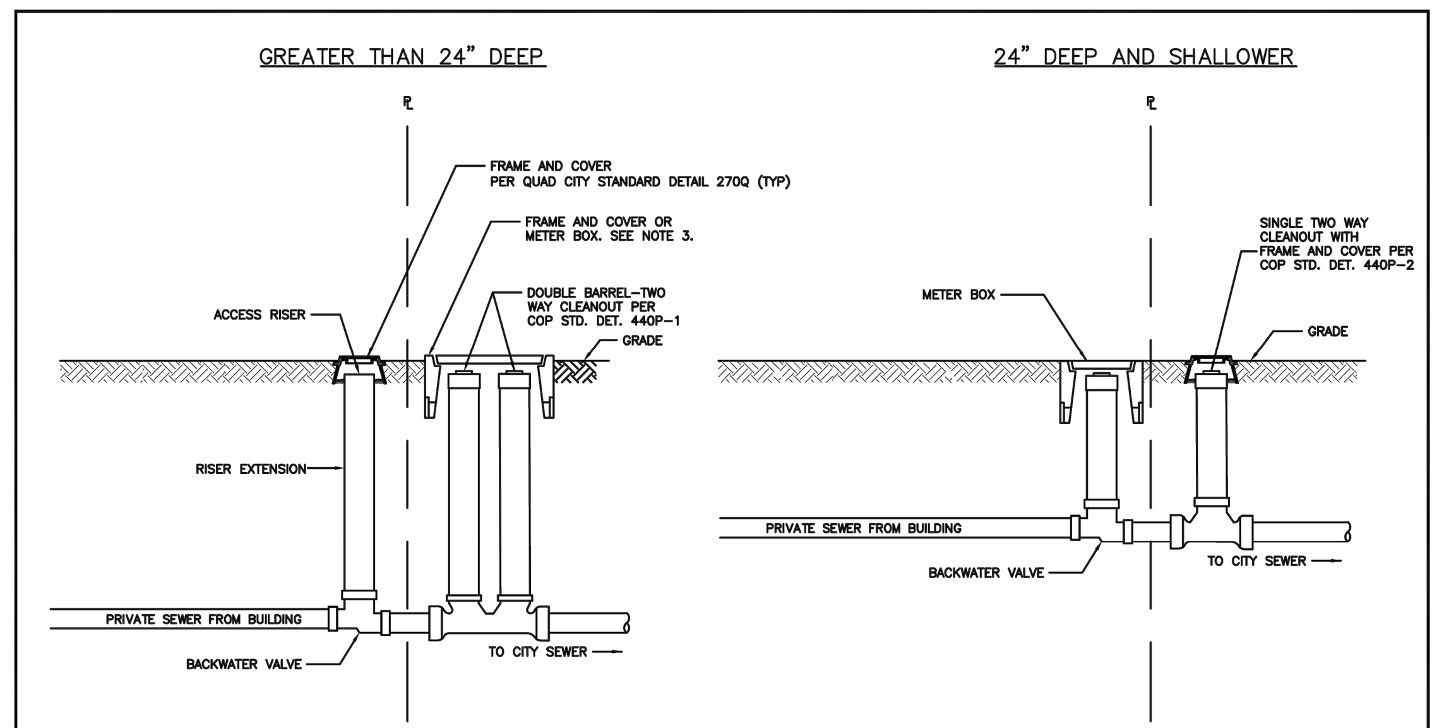
QUAD CITY STANDARD DETAIL	VALVE BOX	REVISED: 07/16	DETAIL No. 391Q



NOTES:

1. SERVICE LATERAL EXTENDS TO PROPERTY LINE OR TO EASEMENT LINE.
2. SIZE OF TAP AND SERVICE LATERAL SHALL BE DESIGNATED ON PLANS.
3. CONSTRUCT SERVICE LATERAL AT MINIMUM SLOPE OF ¼" PER FOOT.
4. IF DEPTH REQUIRES, MINIMUM SLOPE CAN BE REDUCED TO 1/8" PER FOOT PROVIDED SERVICE LATERAL IS SURVEYED & STAKED TO GRADE.
5. CONTRACTOR SHALL USE THE APPROPRIATE FITTINGS TO ENSURE NO MISALIGNMENT OF PIPE AND NO JOINT DEFLECTION.
6. END OF SERVICE LATERAL TO BE SEALED. BACKWATER VALVE SHALL BE INSTALLED PER COP STD. DETAIL 440P-3 WHEN USER CONNECTION IS MADE.
7. FOR CLEANOUTS LESS THAN 24", REFER TO COP STD. DETAIL 440P-2.
8. FOR INSTALLATION OF A TAP TO AN EXISTING MAIN, A SADDLE TEE SHALL BE USED IN LIEU OF A WYE FITTING. TAPS SHALL BE PERFORMED BY COP PERSONNEL ONLY.
9. PLACE CONCRETE AROUND PIPE INSIDE FRAME OR METER BOX.
10. ON DOUBLE BARREL TWO-WAY CLEANOUT, IF HORIZONTAL SPACING ALLOWS, CONTRACTOR SHALL INSTALL FRAMES AND COVERS, IF FRAMES AND COVERS ARE NOT USED, A MINIMUM OF A MAG #2 METER BOX SHALL BE USED. STAMP OR WELD A 2" TALL LETTER "S" ON LID OF METER BOX.

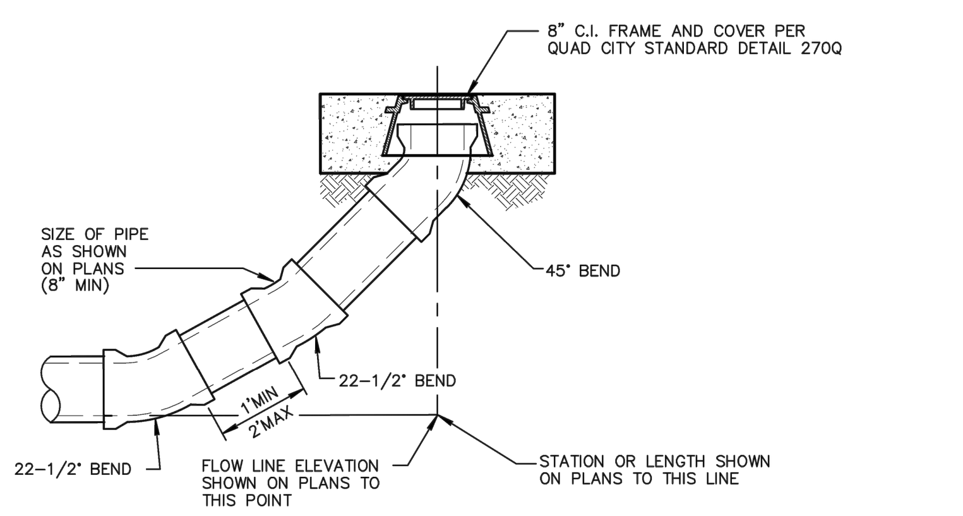
COP STANDARD DETAIL	SEWER SERVICE LATERAL GREATER THAN 2 FEET DEEP	CITY ENGINEER	REVISED: 07/16	DETAIL No. 440P-1



NOTES:

1) BACKWATER VALVE SHALL BE LOCATED BETWEEN THE BUILDING CLEAN-OUT AND PROPERTY LINE.
2) AN EXTENDABLE TYPE BACKWATER VALVE SHALL BE INSTALLED WHEN VALVES ARE DEEPER THAN 24".
3) ON DOUBLE BARREL TWO-WAY CLEANOUT, IF HORIZONTAL SPACING ALLOWS, CONTRACTOR SHALL INSTALL FRAMES AND COVERS, IF FRAMES AND COVERS ARE NOT USED, A MINIMUM OF A MAG #2 METER BOX SHALL BE USED. STAMP OR WELD A 2" TALL LETTER "S" ON LID OF METER BOX.

COP STANDARD DETAIL	BACKWATER VALVE	CITY ENGINEER	REVISED: 07/16	DETAIL No. 440P-3



NOTES:
1. NO SERVICE TAPS SHALL BE LOCATED CLOSER THAN 4 FEET DOWNSTREAM OF FIRST BEND.
2. ALL JOINTS ARE TO BE WATER TIGHT.
3. CLEAN OUTS SHALL NOT BE PLACED IN VALLEY GUTTERS, SPANDRELS, CURB & GUTTERS, CATCH BASINS, OR OTHER DRAINAGE STRUCTURES.
4. CLEAN OUTS INSTALLED OFF SITE REQUIRE CARSONITE MARKERS RUNNING PARALLEL TO THE LINE, AS DIRECTED BY AGENCY ENGINEER.
5. BEDDING AND SHADING PER QUAD CITY STANDARD DETAIL 200Q.
6. PLACE CONCRETE AROUND 45° BEND INSIDE FRAME AND COVER.

QUAD CITY STANDARD DETAIL	SEWER MAIN CLEANOUT	REVISED: 07/16	DETAIL No. 441Q

SPECIAL NOTES:
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COMMERCIAL BUILDING ON SIDE ROAD
APN: 103-01-038
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PRESCOTT, AZ

STANDARD DETAILS

Registered Professional Engineer (Civil) 22880 GARY R. KELLEY ARIZONA, U.S.A.

DRAWN	ZAJ
DESIGN	ZAJ
CHECK	GRK
DATE	5/8/23
KWE JOB #	23-014

SHEET
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9 OF 9

Path: X:\KWE\PROJECTS\2023\23-014 KENSON-HICKS 5416 SIDE ROAD FILENAME: 23-014 DETAILS.DWG PLOT DATE: 5/8/2023 9:44 AM SHEET SET: 23-014 SIDE ROAD SHEET TOTAL: 9

Legend

- RIP RAP
- NEW ASPHALTIC PAVEMENT
- COMPACTED ABC
- LANDSCAPE AREA

Plant Schedule

SYMBOL	SIZE	QUANTITY	COMMON NAME / SCIENTIFIC NAME
	1 GAL	18	RED YUCCA
	1 GAL	6	PRAIRIE SAGE
	5 GAL	18	BLUE CHIP JUNIPER
	15 GAL	3	HONEY LOCUST

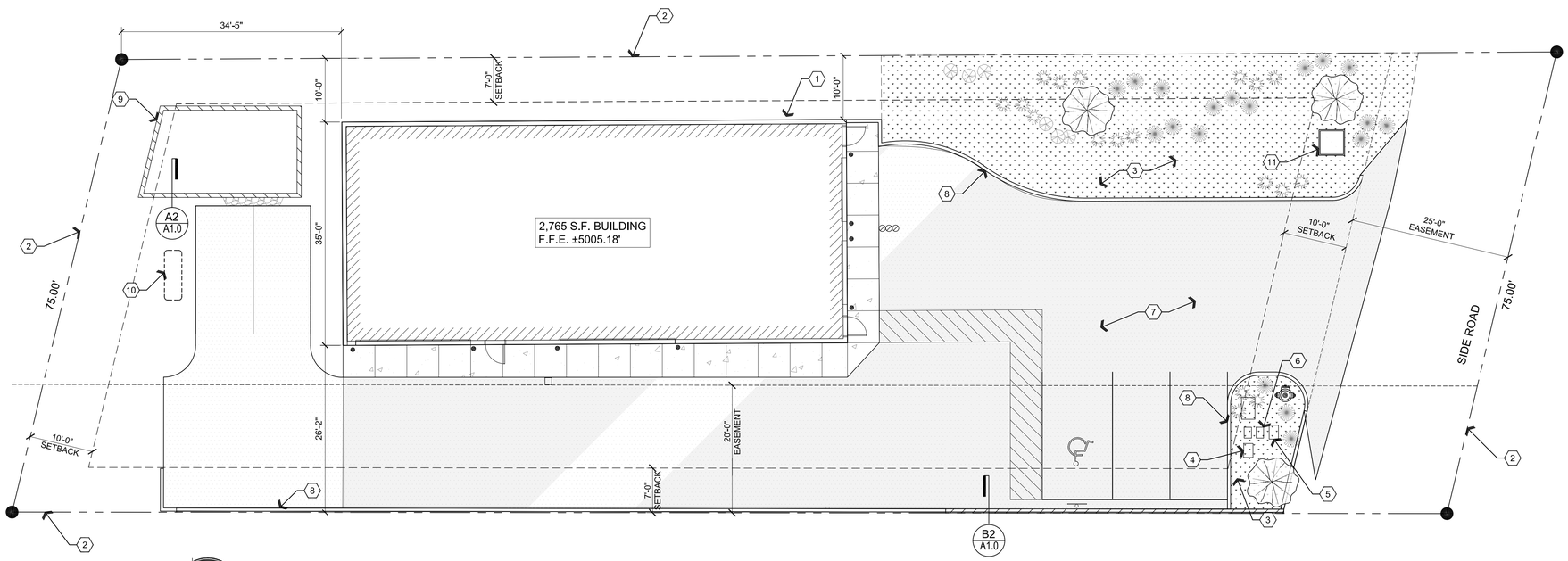
LANDSCAPED AREAS:

TOTAL TREES PROVIDED: 3
TOTAL SHRUBS PROVIDED: 42

NOTES:
1. LANDSCAPE PLANTINGS SHALL BE WATERED VIA DRIP IRRIGATION SYSTEM ON LANDSCAPE TIME CLOCK.
2. PROVIDE BACKFLOW PREVENTOR FOR DRIP IRRIGATION SYSTEM.
3. SPRAY ALL GROUND COVER AREAS W/ PRE-EMERGENT FOR WEED CONTROL.
4. PROVIDE WEED BARRIER IN ALL PLANTER AREAS.
5. GROUND COVER IN ALL PLANTER AREAS SHALL BE 3/4" COLORED ROCK, UNLESS NOTED OTHERWISE. WHERE SLOPES ARE TOO STEEP, PROVIDE 2" - 3" FRACTURED RIP RAP OF MATCHING COLOR.
6. REFER TO CIVIL PLANS FOR GRADING AND DRAINAGE.

Descriptive Keynotes

1. PROVIDE LANDSCAPE TIMER.
2. PROPERTY LINE.
3. LANDSCAPE AREA. PROVIDE GROUND COVER. REFER TO PLANT SCHEDULE NOTES.
4. DOMESTIC SERVICE WATER METER IN YARD BOX. REFER TO CIVIL PLANS.
5. BACKFLOW PREVENTOR FOR LANDSCAPE IRRIGATION SYSTEM. PROVIDE 120V DEDICATED ELECTRICAL CIRCUIT WITH WEATHERPROOF GFCI DUPLEX OUTLET WITHIN ENCLOSURE.
6. 3/4" VALVED SCHEDULE 40 PVC STUB-OUT IN BELOW GRADE YARD BOX FOR LANDSCAPE IRRIGATION SYSTEM.
7. ASPHALTIC PAVEMENT, REFER TO CIVIL PLANS.
8. CAST-IN-PLACE CONCRETE CURB. REFER TO CIVIL PLANS.
9. DETENTION AREA WITH RIP RAP, REFER TO CIVIL PLANS.
10. ABOVE GROUND PROPANE TANK.
11. ELECTRICAL TRANSFORMER.



A1 Landscape Plan

Scale: 1"=10'-0"

Plan North

Jul 10, 2023 - 1:11pm

REVISIONS	BY

REGISTERED ARCHITECT
REGISTERED NO. 25646
W. ALAN KENSON
Date Signed 07/10/23
ARIZONA
EXPIRES: 6/30/24

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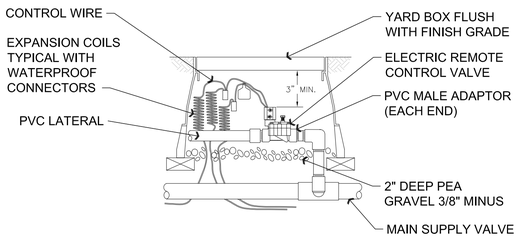
ARCHITECTURE & PLANNING

DRAWING: Landscape Plan

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

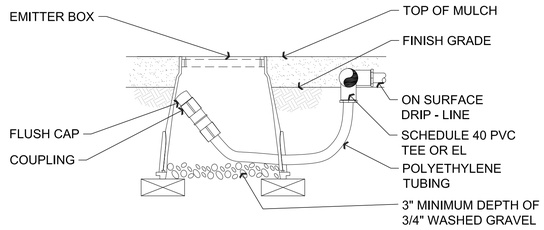
APN: 103-01-038

DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: June 30th, 2023
JOB NO.: 777
SHEET: **L1.0**



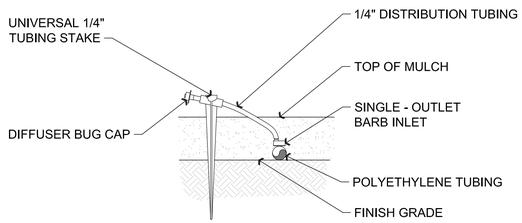
NOTE: SEAL ALL THREADED JOINTS / FITTINGS WITH APPROVED SEALANT PRIOR TO ASSEMBLY

A4 Typical Electric Remote Control Valve



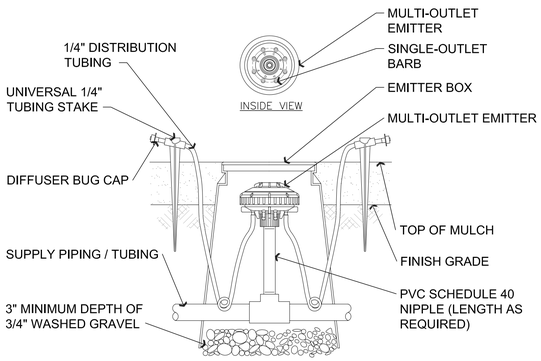
NOTE: ALLOW A MINIMUM 6" OF DRIP - LINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

B4 Typical Drip Line Flush Box



NOTE: FOR SLOPED CONDITIONS PLACE DISTRIBUTION POINT AT THE HIGH POINT OF THE PLANTING WELL.

B3 Typical Single - Port Emitter

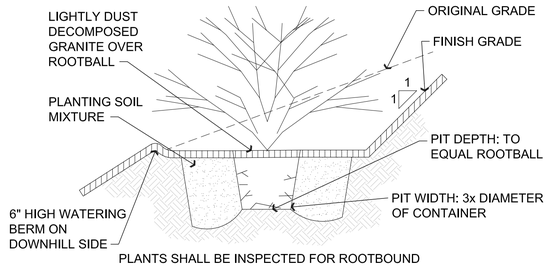


NOTE: COIL ADDITIONAL 9" OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.

INSTALL A MINIMUM OF (1) MULTI-PORT EMITTER PER TREE - EQUALLY SPACED AROUND DRIP LINE OF TREE CANOPY TYPICAL. OPEN ADDITIONAL PORTS AND INSTALL SPAGHETTI DISTRIBUTION TUBING TO PROVIDE ADEQUATE WATER AS TREE MATURES, (TYP.)

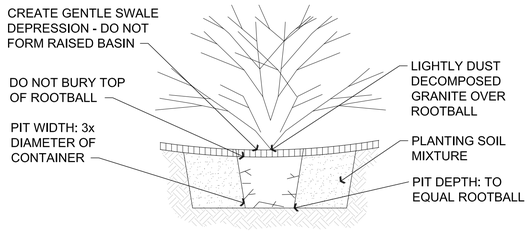
FOR SLOPED CONDITIONS PLACE DISTRIBUTION POINT AT THE HIGH POINT OF PLANTING WELL.

B1 Typical Multi - Port Emitter



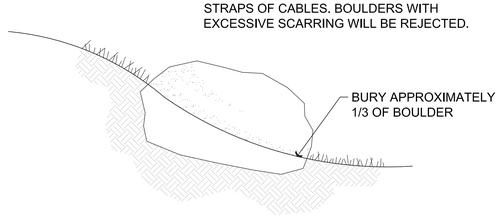
PLANTS SHALL BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED WITH SUITABLE PLANT.

C4 Typical Shrub Planting on Slope



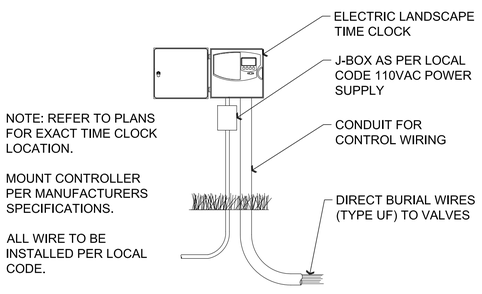
PLANTS SHALL BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED WITH SUITABLE PLANT.

C3 Typical Shrub Planting

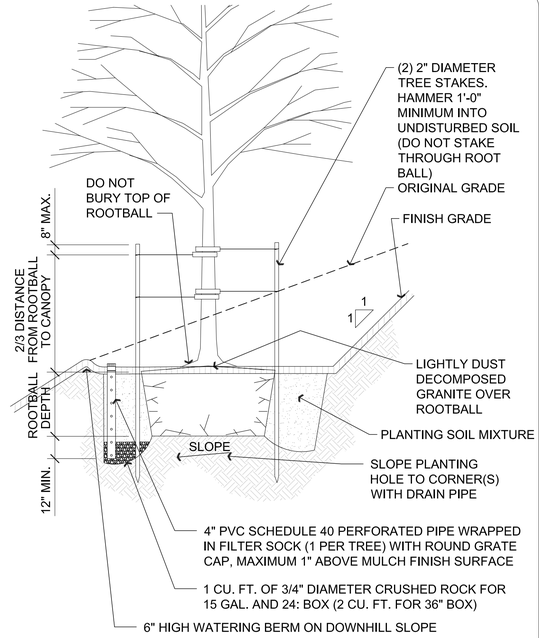


FOR SIZING OF BOULDERS REFER TO LANDSCAPE SCHEDULE

C2 Typical Boulder Detail



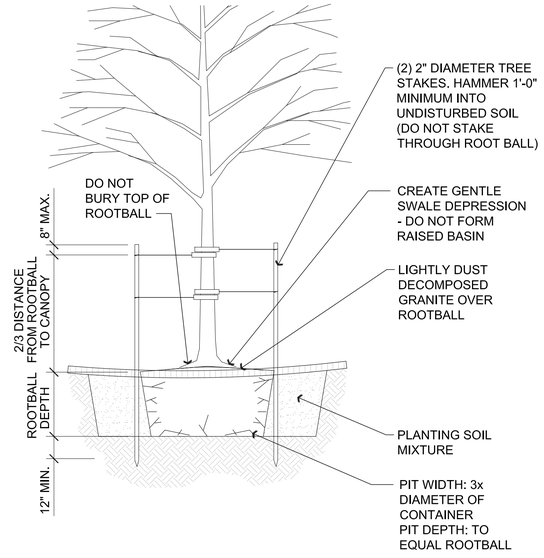
C1 Typical Electric Landscape Time Clock



NOTE: STAKE TREE PERPENDICULAR TO DIRECTION OF PREVAILING WIND.

PLANTS SHALL BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED WITH SUITABLE PLANT.

D3 Typical Tree Planting on Slope



NOTE: STAKE TREE PERPENDICULAR TO DIRECTION OF PREVAILING WIND.

PLANTS SHALL BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED WITH SUITABLE PLANT.

D1 Typical Tree Planting

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ARCHITECTURE & PLANNING

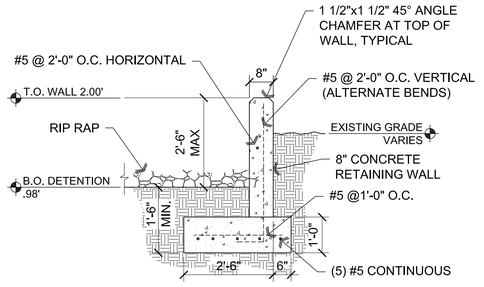
DRAWING: Landscape Details

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

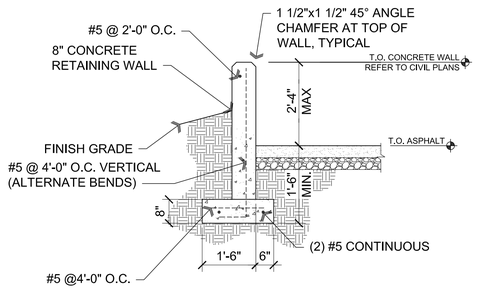
DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	June 30th, 2023
JOB NO.	777
SHEET	L1.1

Jul 12, 2023 - 8:37am



A2 Detention Area Section

SCALE: 1/2" = 1'-0"



B2 Curb Section

SCALE: 1/2" = 1'-0"

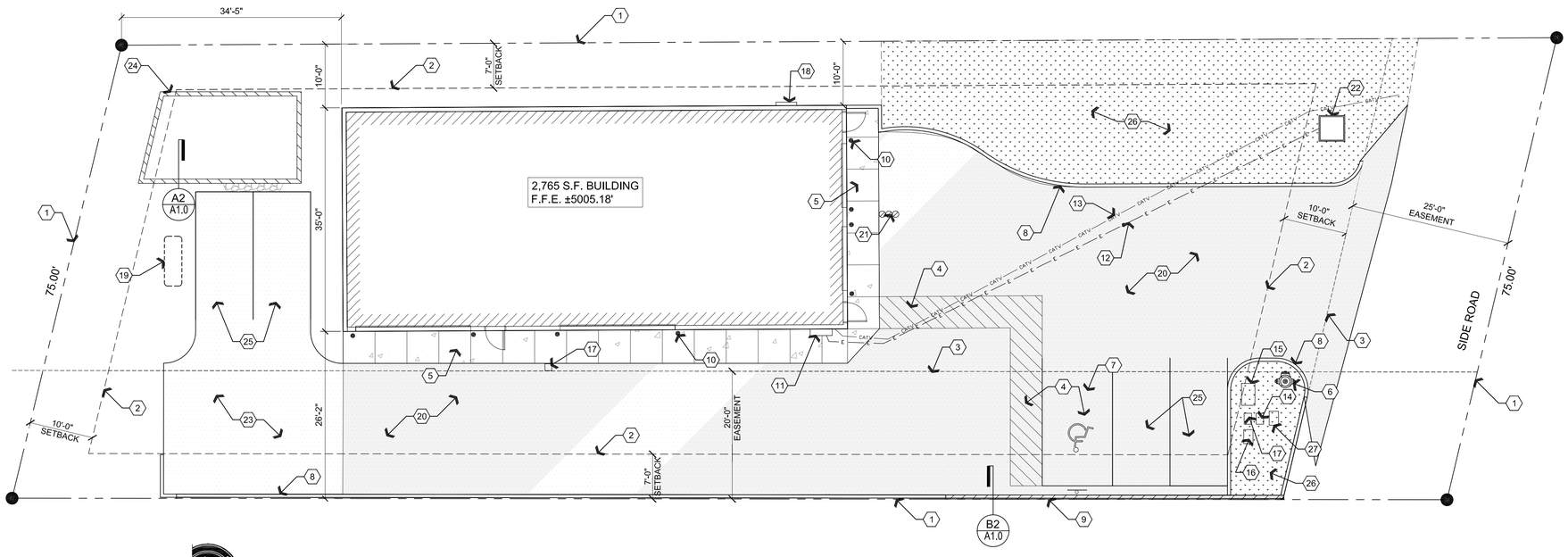
Descriptive Keynotes

1. PROPERTY LINE.
2. BUILDING SETBACK LINE.
3. EASEMENT LINE.
4. THE MAXIMUM SLOPE OF THE A.D.A. ACCESSIBLE PARKING AREA SHALL NOT EXCEED 2% AND THE SLOPE OF THE DOORWAY LANDING AND ACCESSIBLE ROUTE TO PUBLIC ACCESS SHALL NOT EXCEED 2%.
5. PROPOSED CONCRETE PAVEMENT OVER COMPACTED A.B.C., REFER TO CIVIL PLANS.
6. PROPOSED FIRE HYDRANT, REFER TO CIVIL PLANS.
7. PROPOSED ADA ACCESSIBLE PARKING.
8. PROPOSED CAST IN PLACE CONCRETE CURB, REFER TO CIVIL PLANS.
9. PROPOSED CONCRETE RETAINING WALL.
10. PROPOSED 6'-0" LONG, 4" DIAMETER, CONCRETE FILLED, PROTECTIVE STEEL BOLLARDS, EMBEDDED 2'-0" BELOW GRADE INTO CONCRETE FOOTING, TYPICAL AT EACH ROLL-UP DOOR AND AS INDICATED ELSEWHERE.
11. PROPOSED ELECTRICAL SERVICE ENTRANCE SECTION.
12. PROPOSED DB 120 ELECTRICAL CONDUIT.
13. PROPOSED DB 120 CATV CONDUIT.
14. 3/4" VALVED SCHEDULE 40 PVC STUB-OUT IN BELOW GRADE YARD BOX FOR LANDSCAPE IRRIGATION SYSTEM.
15. PROPOSED REDUCED PRESSURE BACKFLOW PREVENTION DEVICE IN ASSE HOT BOX.
16. PROPOSED DOMESTIC WATER METER.
17. PROPOSED WATER SHUT OFF VALVE.
18. LANDSCAPE TIMER.
19. ABOVE GROUND PROPANE TANK.
20. PROPOSED ASPHALTIC PAVEMENT, REFER TO CIVIL PLANS.
21. PROPOSED TWO WAY SEWER CLEANOUT AND BACKWATER VALVE.
22. PROPOSED ELECTRIC TRANSFORMER.
23. 4" COMPACTED ABC.
24. PROPOSED DETENTION AREA, REFER TO CIVIL PLANS.
25. PROPOSED PARKING SPACE, TYPICAL.
26. PROPOSED LANDSCAPE AREA, REFER TO LANDSCAPE PLAN.
27. PROPOSED DRIP IRRIGATION SYSTEM BACKFLOW PREVENTOR IN HOT BOX.

PARKING CALCULATIONS

STORAGE 2,625 S.F. / 500 S.F. = 5.2 PARKING SPACES

TOTAL PARKING SPACES PROVIDED =5



A1 Architectural Site Plan

Scale: 1"=10'-0"

Plan North

REVISIONS	BY

REGISTERED ARCHITECT
REGISTRATION NO.
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Date Signed 07/10/23
ARIZONA
EXPIRES: 6/30/24

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ARCHITECTURE & PLANNING

DRAWING: Proposed Site Plan

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: June 30th, 2023
JOB NO.: 777
SHEET: A1.0

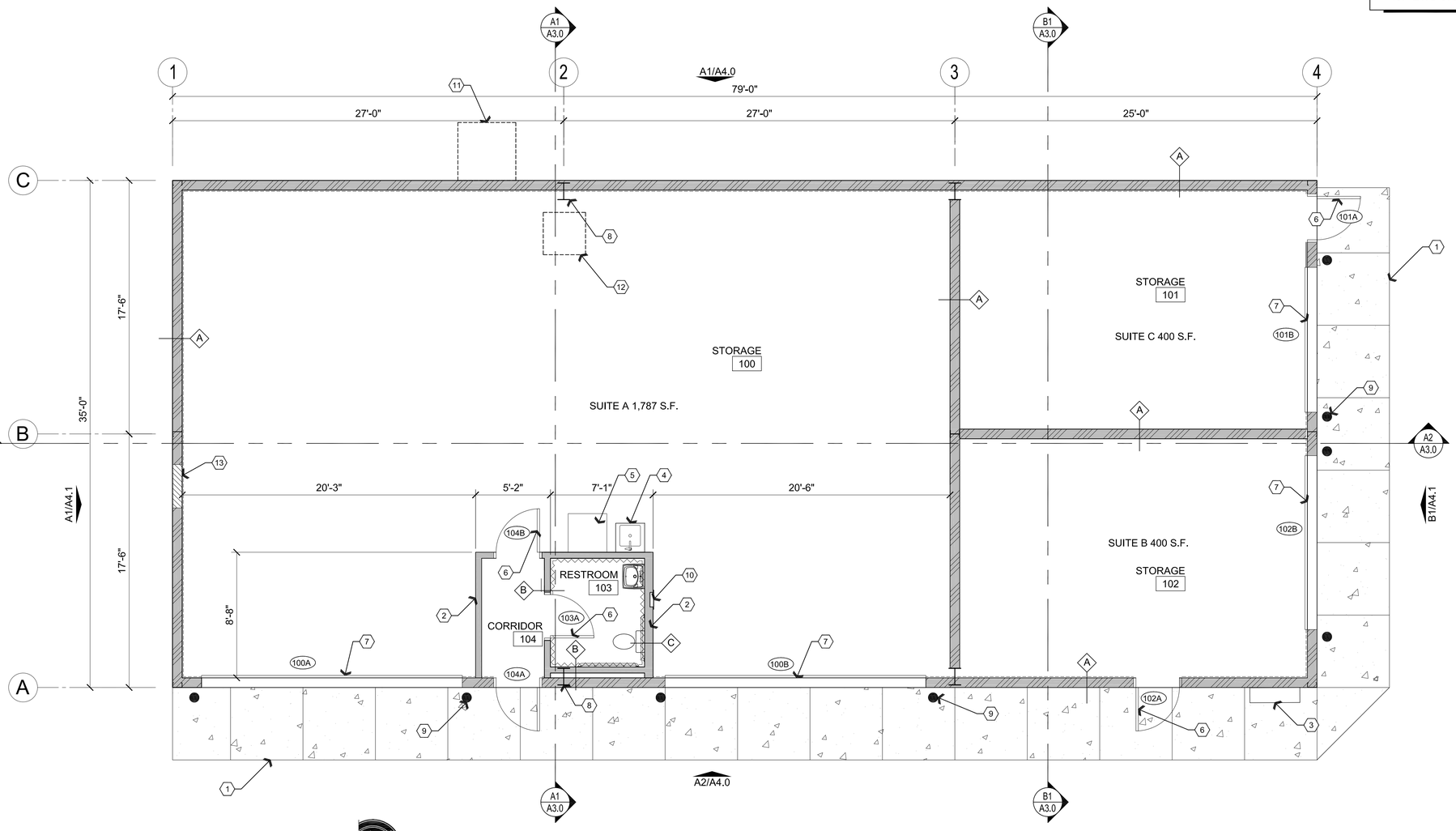
Jul 10, 2023 - 1:11pm

Wall Types Legend

- (A) EXTERIOR / INTERIOR METAL BUILDING WALL: REFER TO METAL BUILDING MANUFACTURER'S SPECIFICATIONS. PROVIDE R-25 LINER SYSTEM AT EXTERIOR WALLS. PROVIDE INTERIOR LINER PANEL AS INDICATED ON METAL BUILDING PLANS AND BUILDING SECTIONS.
- (B) 4" WOOD STUD WALL: PROVIDE 2x4 WOOD STUDS @ 1'-4" O.C. , 8'-0" TALL, WITH 5/8" GPDW EACH SIDE. PROVIDE R-11 BATT INSULATION.
- (C) 6" WOOD STUD WALL: PROVIDE 2x6 WOOD STUDS @ 1'-4" O.C. , 8'-0" TALL, WITH 5/8" GPDW EACH SIDE. PROVIDE R-11 BATT INSULATION.
- 48" HIGH FRP

Descriptive Keynotes

1. PROVIDE CONCRETE SIDEWALK OVER COMPACTED A.B.C., REFER TO SITE PLAN AND CIVIL PLANS.
2. PROVIDE INTERIOR WALL, REFER TO WALL TYPES LEGEND FOR TYPE OF CONSTRUCTION.
3. PROVIDE ELECTRICAL SERVICE ENTRANCE SECTION, REFER TO ELECTRICAL PLANS.
4. PROVIDE UTILITY SINK, REFER TO PLUMBING PLANS.
5. STACKABLE WASHER/DRYER PROVIDED BY OWNER.
6. PROVIDE DOOR, REFER TO DOOR SCHEDULE. (TYPICAL)
7. PROVIDE ROLL-UP DOOR, REFER TO DOOR SCHEDULE. (TYPICAL)
8. PROVIDE STEEL COLUMN, REFER TO METAL BUILDING PLANS. (TYPICAL)
9. PROVIDE 6'-0" LONG 4" DIAMETER, CONCRETE FILLED, PROTECTIVE STEEL BOLLARDS, EMBEDDED 2'-0" BELOW GRADE INTO CONCRETE FOOTING, TYPICAL AT EACH OVERHEAD DOOR.
10. PROVIDE ELECTRIC PANEL, REFER TO ELECTRICAL PLANS.
11. PROVIDE SIDEWALL EVAPORATIVE COOLER, REFER TO MECHANICAL PLANS.
12. PROVIDE PROPANE UNIT HEATER, REFER TO MECHANICAL PLANS.
13. EVAPORATIVE COOLER LOUVERS.



A1 Reference / Dimension / Wall Types Floor Plan

Scale: 1/4"=1'-0"

Plan North

Jul 12, 2023 - 9:00am

REVISIONS	BY

REGISTERED ARCHITECT
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Date Signed 07/10/23
ARIZONA
EXPIRES: 6/30/24

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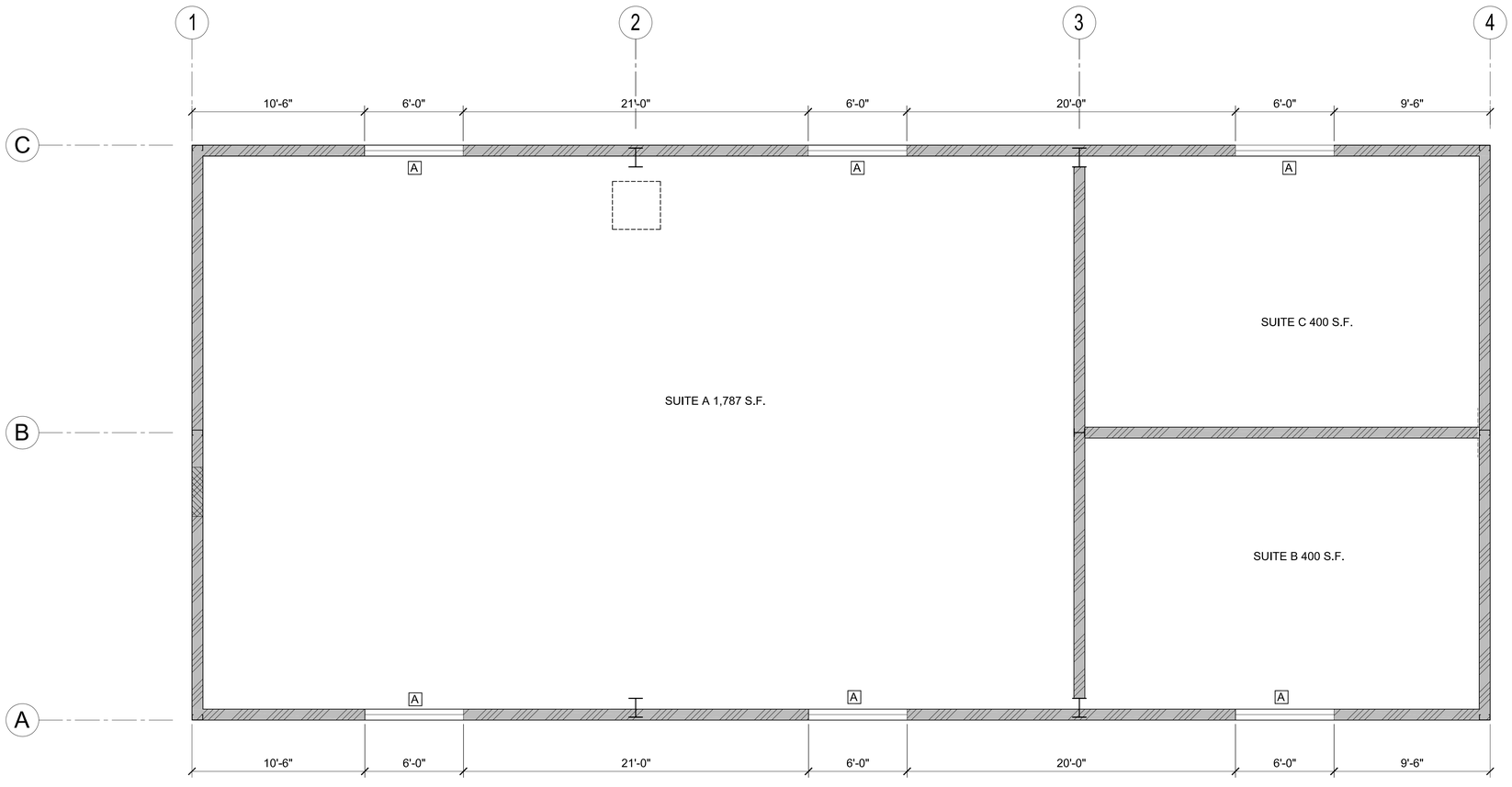
ARCHITECTURE & PLANNING

DRAWING: Reference / Dimension / Wall Types Floor Plan

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	June 30th, 2023
JOB NO.	777
SHEET	A2.0



A1 High Window Plan

Scale: 1/4"=1'-0"

Plan North

Jul 10, 2023 - 12:29pm

REVISIONS	BY

REGISTERED ARCHITECT
CERTIFICATE NO.
25646
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ARIZONA
EXPIRES: 6/30/24

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ARCHITECTURE & PLANNING

DRAWING: High Window Plan

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	June 30th, 2023
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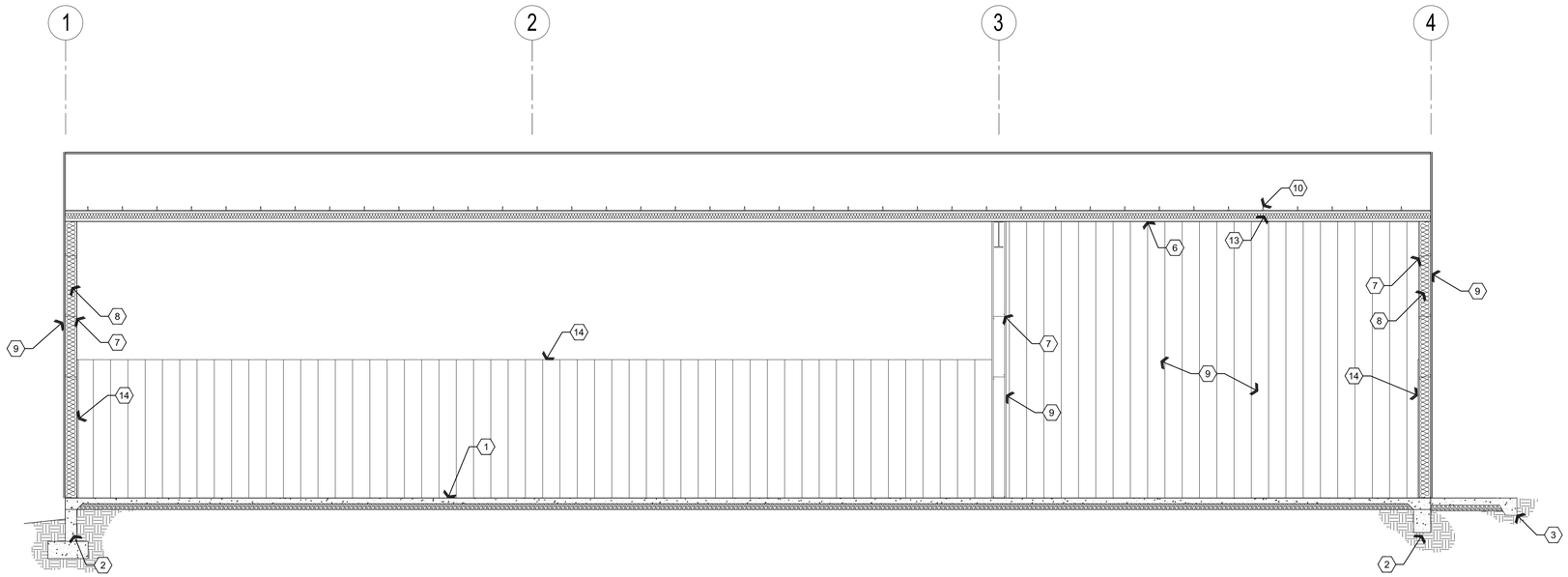
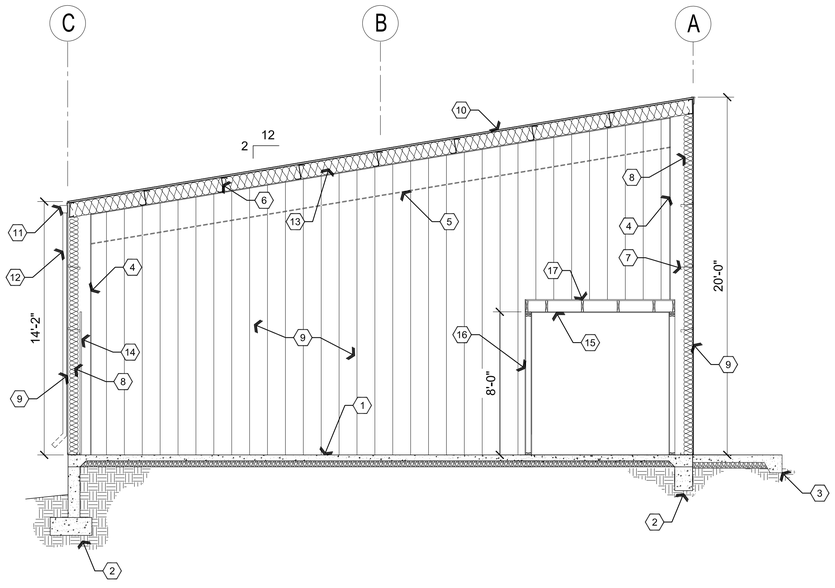
SHEET	A2.1



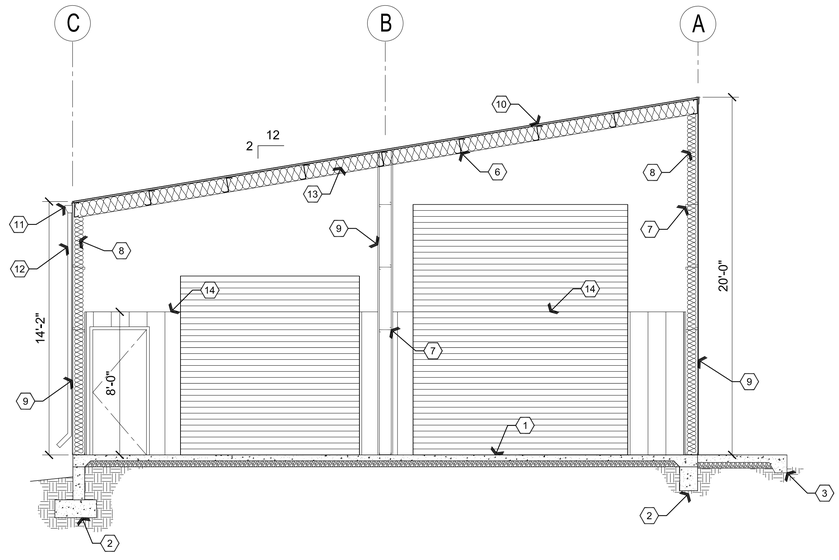
A2 Building Section

Scale: 1/4"=1'-0"



A1 Building Section

Scale: 1/4"=1'-0"



B1 Building Section

Scale: 1/4"=1'-0"

Descriptive Keynotes

1. PROVIDE CONCRETE SLAB OVER COMPACTED A.B.C., REFER TO STRUCTURAL FOUNDATION PLAN.
2. PROVIDE CONCRETE FOOTING. REFER TO STRUCTURAL FOUNDATION PLAN.
3. PROVIDE 8" TURNDOWN AT CONCRETE SIDEWALK.
4. PROVIDE STEEL COLUMN, REFER TO METAL BUILDING PLANS.
5. PROVIDE STEEL BEAM, REFER TO METAL BUILDING PLANS.
6. PROVIDE ROOF PURLIN, TYPICAL, REFER TO METAL BUILDING PLANS
7. PROVIDE STEEL GIRT, TYPICAL, REFER TO METAL BUILDING PLANS.
8. PROVIDE R-25 LINER SYSTEM.
9. PROVIDE METAL SIDING, REFER TO METAL BUILDING PLANS, REFER TO METAL BUILDING PLANS.
10. PROVIDE R PANEL, SHEET METAL ROOF PANELS, REFER TO METAL BUILDING PLANS.
11. PROVIDE SHEET METAL GUTTER, REFER TO METAL BUILDING PLANS.
12. PROVIDE SHEET METAL DOWNSPOUT, REFER TO METAL BUILDING PLANS.
13. PROVIDE R-30 LINER SYSTEM.
14. PROVIDE SHEET METAL LINER PANEL, REFER TO METAL BUILDING PLANS.
15. PROVIDE GPDW CEILING.
16. PARTITION WALL. REFER TO REFERENCE FLOOR PLAN AND WALL TYPES PLAN.
17. PROVIDE CEILING JOIST, REFER TO CEILING FRAMING PLAN.

REVISIONS	BY

REGISTERED ARCHITECT
CERTIFICATE NO.
25646
W. ALAN KENSON
Date Signed 07/10/23
ARIZONA
EXPIRES: 6/30/24

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ARCHITECTURE & PLANNING

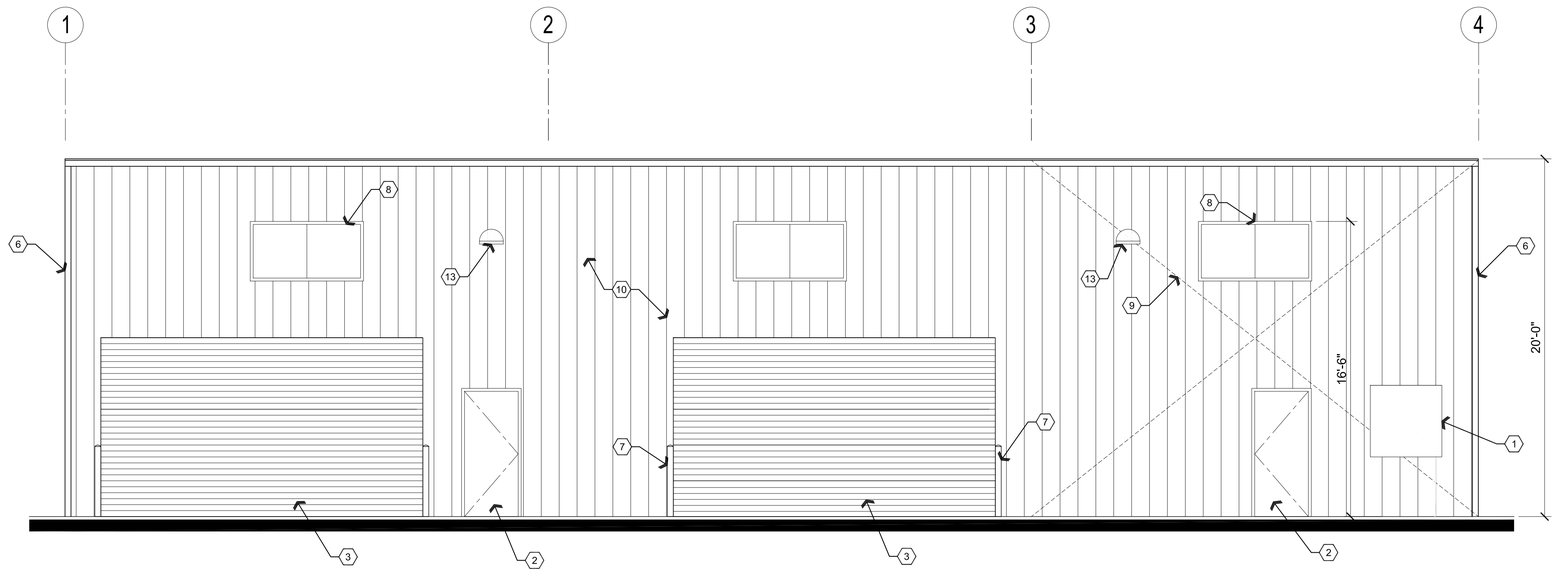
DRAWING: Proposed Exterior Elevations

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

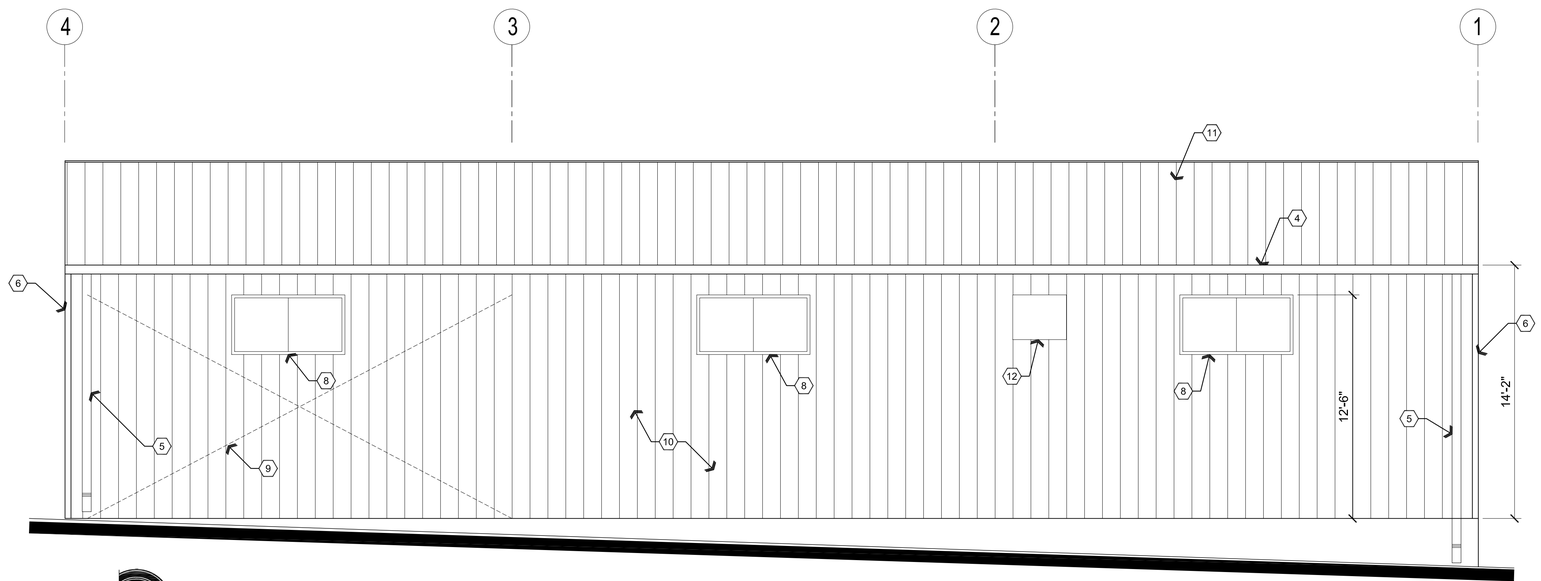
DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	June 30th, 2023
JOB NO.	777
SHEET	A3.0

Jul 12, 2023 - 10:37am



A2 South Elevation

Scale: 1/4"=1'-0"



A1 North Elevation

Scale: 1/4"=1'-0"

Descriptive Keynotes

1. PROVIDE ELECTRICAL SERVICE ENTRANCE SECTION, REFER TO ELECTRICAL PLANS.
2. HOLLOW METAL DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
3. ROLL-UP DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
4. PROVIDE SHEET METAL GUTTER, REFER TO METAL BUILDING PLANS.
5. PROVIDE SHEET METAL DOWNSPOUT, REFER TO METAL BUILDING PLANS.
6. PROVIDE SHEET METAL CORNER TRIM, REFER TO METAL BUILDING PLANS.
7. 4" STEEL CONCRETE FILLED BOLLARDS, 4'-0" ABOVE CONCRETE WITH 2'-0" EMBEDDED INTO CONCRETE FOOTING BELOW, TYPICAL.
8. EXTERIOR WINDOW. REFER TO HIGH WINDOW PLAN AND WINDOW TYPES.
9. LOCATION OF CROSS BRACING, REFER TO METAL BUILDING PLANS.
10. PROVIDE SHEET METAL SIDING PANELS, REFER TO METAL BUILDING PLANS.
11. PROVIDE SHEET METAL ROOF PANELS, REFER TO METAL BUILDING PLANS.
12. EVAPORATIVE COOLER, REFER TO MECHANICAL PLANS.
13. LIGHT FIXTURE, REFER TO ELECTRICAL PLANS.

REVISIONS	BY

REGISTERED ARCHITECT
CERTIFICATE NO.
25646
W. ALAN KENSON
Date Signed 07/10/23
ARIZONA
EXPIRES: 6/30/24

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ARCHITECTURE & PLANNING

DRAWING: Exterior Elevations

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

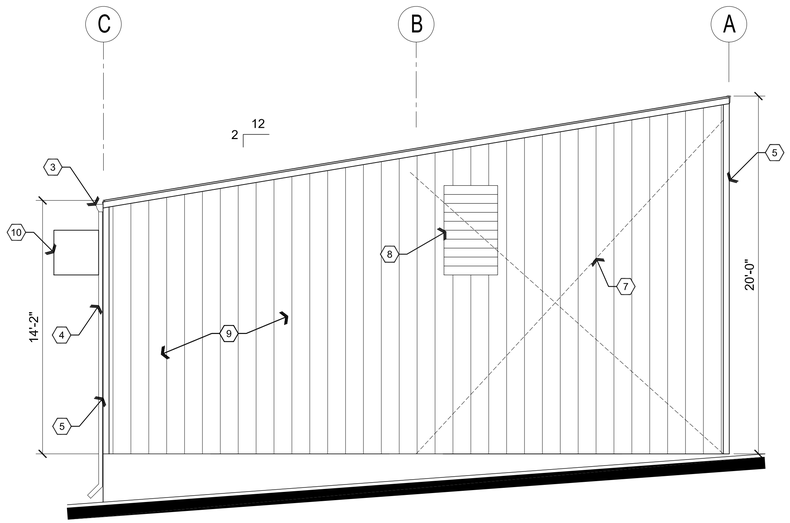
APN: 103-01-038

DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: June 30th, 2023
JOB NO.: 777
SHEET: **A4.0**

Jul 10, 2023 - 12:30pm

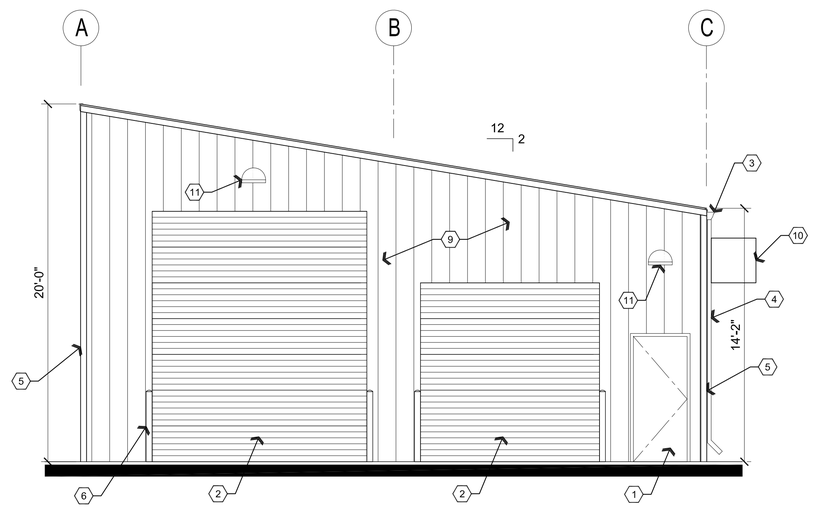
Descriptive Keynotes

1. HOLLOW METAL DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
2. ROLL-UP DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
3. PROVIDE SHEET METAL GUTTER, REFER TO METAL BUILDING PLANS.
4. PROVIDE SHEET METAL DOWNSPOUT, REFER TO METAL BUILDING PLANS.
5. PROVIDE SHEET METAL CORNER TRIM, REFER TO METAL BUILDING PLANS.
6. 4" STEEL CONCRETE FILLED BOLLARDS, 4'-0" ABOVE CONCRETE WITH 2'-0" EMBEDDED INTO CONCRETE FOOTING BELOW, TYPICAL.
7. LOCATION OF CROSS BRACING, REFER TO METAL BUILDING PLANS.
8. RELIEF AIR LOUVERS, REFER TO MECHANICAL PLANS.
9. PROVIDE SHEET METAL SIDING PANELS, REFER TO METAL BUILDING PLANS.
10. EVAPORATIVE COOLER, REFER TO MECHANICAL PLANS.
11. LIGHT FIXTURE, REFER TO ELECTRICAL PLANS.



A1 West Elevation

Scale: 1/4"=1'-0"



B1 East Elevation

Scale: 1/4"=1'-0"

Jul 10, 2023 - 12:30pm

REVISIONS	BY

REGISTERED ARCHITECT
25646
W. ALAN
KENSON
Date Signed 07/10/23
ARIZONA
EXPIRES: 6/30/24

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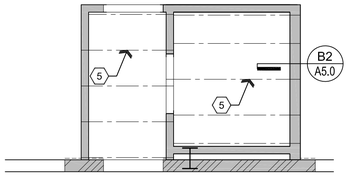
ARCHITECTURE & PLANNING

DRAWING: Exterior Elevations

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

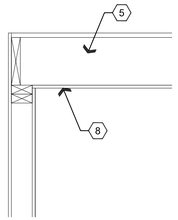
APN: 103-01-038

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	June 30th, 2023
JOB NO.	777
SHEET	A4.1



A2 Ceiling Framing Plan

Scale: 1/4"=1'-0"

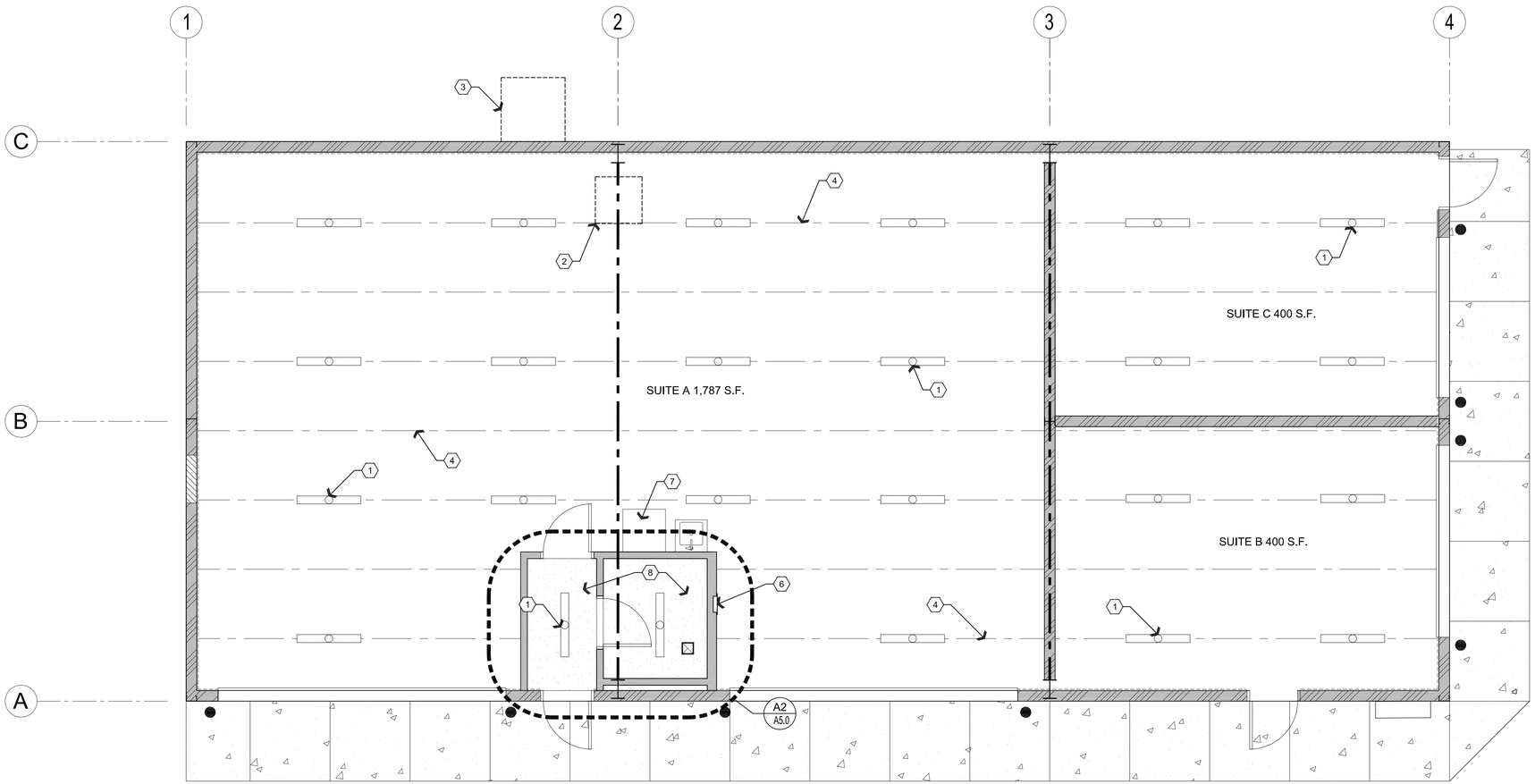


B2 Ceiling Framing Detail

Scale: 1"=1'-0"

Descriptive Keynotes

1. LIGHT FIXTURE(S) SHOWN FOR QUANTITY AND LOCATION ONLY. REFER TO ELECTRICAL PLANS.
2. PROVIDE PROPANE UNIT HEATER, REFER TO MECHANICAL PLANS.
3. PROVIDE EVAPORATIVE COOLER, REFER TO MECHANICAL PLANS.
4. ROOF PURLIN, REFER TO METAL BUILDING PLANS.
5. PROVIDE 2x8 CEILING JOIST @ 2'-0" O.C.
6. ELECTRICAL PANEL.
7. STACKABLE WASHER/DRYER, BY OWNER.
8. PROVIDE 5/8" GPDW CEILING.



A1 Reflected Ceiling Plan

Scale: 1/4"=1'-0"

Plan North

Jul 11, 2023 - 2:23pm

REVISIONS	BY

REGISTERED ARCHITECT
REGISTRATION NO.
25646
W. ALAN KENSON
Date Signed 07/10/23
ARIZONA
EXPIRES: 6/30/24

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ARCHITECTURE & PLANNING

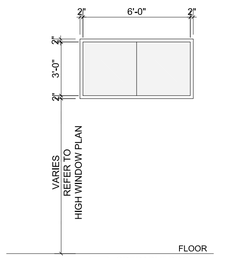
DRAWING: Reflected Ceiling Plan, Ceiling Framing Plan and Detail

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

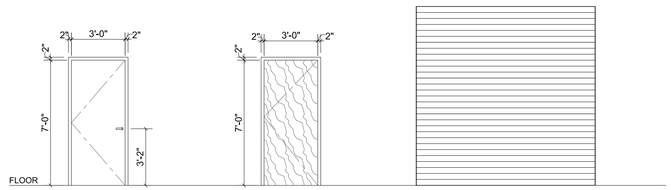
APN: 103-01-038

DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: June 30th, 2023
JOB NO.: 777
SHEET:

A5.0



A OPERABLE BRONZE ALUMINUM FRAME WITH BRONZE TINTED INSULATED GLASS WINTECH 2500 OR EQUAL U-FACTOR .45 OR BETTER



A 18 GAUGE HOLLOW METAL DOOR WITH 16 GAUGE HOLLOW METAL FRAME U-FACTOR .39 OR BETTER

B SOLID CORE, OAK LEGACY AS MANUFACTURED BY HALEY IN BLACK TIMELY FRAME

C ROLL-UP DOOR U-FACTOR .125 OR BETTER

Hardware Schedule

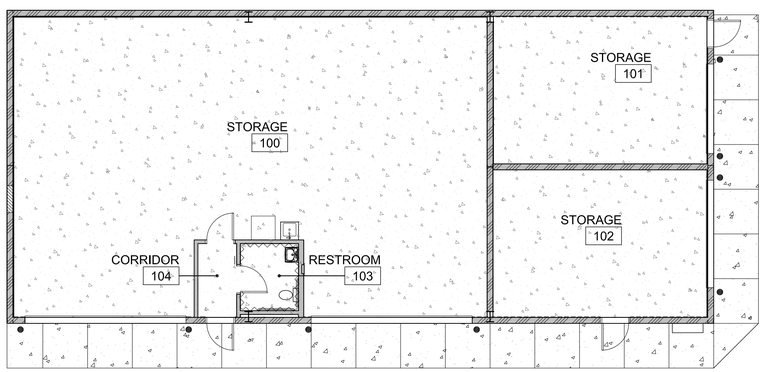
HW-01	LEVER ENTRY LOCK, CHAIN STOP, WEATHER STRIP, THRESHOLD, DOOR BOTTOM, HINGES
HW-02	LEVER PRIVACY LOCK, WALL STOP, HINGES
HW-03	ROLL-UP DOOR
HW-04	LEVER PASSAGE LOCK WALL STOP, HINGES

Door Schedule

NO.	ROOM NAME	SIZE	TYPE	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	HARDWARE TYPE
100A	STORAGE	18'-0"x10'-0"	C	STEEL	PAINT	STEEL	PAINT	03
100B	STORAGE	18'-0"x10'-0"	C	STEEL	PAINT	STEEL	PAINT	03
101A	STORAGE	3'-0"x7'-0"	A	STEEL	PAINT	STEEL	PAINT	01
101B	STORAGE	10'-0"x10'-0"	C	STEEL	PAINT	STEEL	PAINT	03
102A	STORAGE	3'-0"x7'-0"	A	HM	PAINT	HM	PAINT	01
102B	STORAGE	12'-0"x14'-0"	C	STEEL	PAINT	STEEL	PAINT	03
103A	RESTROOM	3'-0"x7'-0"	B	SCWD	STAIN	STEEL	PAINT	02
104A	CORRIDOR	3'-0"x7'-0"	A	HM	PAINT	HM	PAINT	01
104B	CORRIDOR	3'-0"x7'-0"	B	SCWD	STAIN	STEEL	PAINT	04

NOTES:

1. ALL EXIT DOORS & HARDWARE SHALL COMPLY WITH THE 2018 I.B.C.
2. DOOR THRESHOLDS SHALL HAVE A MAX HEIGHT OF 1/2" FOR H.C. ACCESSIBILITY. THRESHOLD SHALL HAVE A MAXIMUM RISE OF 1/4" AND 1/2" RISE WHEN BEVELED WITH MAXIMUM 1:2 SLOPE.
3. ALL GLAZING IN DOORS SHALL BE SAFETY GLAZING.
4. ALL INTERIOR DOORS SHALL BE OPERABLE FOR EMERGENCY EXITING PURPOSES WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE NOR EFFORT.
5. ALL GLAZING WITHIN 24" OF OPENINGS SHALL BE SAFETY GLASS.
6. IF A DOOR HAS A CLOSER, THEN THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.
7. DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. HARDWARE REQUIRED FOR DOOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" ABOVE FINISH FLOOR.
8. DOOR OPENING FORCE SHALL BE: 5lbf MAX INTERIOR HINGED, SLIDING OR FOLDING DOORS; FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY.



Room Finish Schedule

NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	HEIGHT
100	STORAGE	F1	B1/B2	W1/W2	C1	VARIES
101	STORAGE	F1	B1	W1	C1	VARIES
102	STORAGE	F1	B1	W1	C1	VARIES
103	RESTROOM	F1	B1/B2	W2/W3	C2	8'-0"
104	CORRIDOR	F1	B1/B2	W2	C2	8'-0"

FLOOR:
F1 CONCRETE

BASE:
B1 NONE
B2 RUBBER BASE

WALLS:
W1 OPEN TO STRUCTURE / METAL LINER PANELS
W2 PAINTED GPDW
W3 FRP WAINSCOT

CEILING:
C1 OPEN TO STRUCTURE
C2 PAINTED GPDW

Legend

CONCRETE

A1 Room Finish Plan

Scale: 1/8"=1'-0"

Plan North

Jul 12, 2023 - 8:56am

REVISIONS	BY

REGISTERED ARCHITECT
25646
W. ALAN KENSON
Date Signed 07/10/23
ARIZONA
EXPIRES: 6/30/24

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P 928-443-5812
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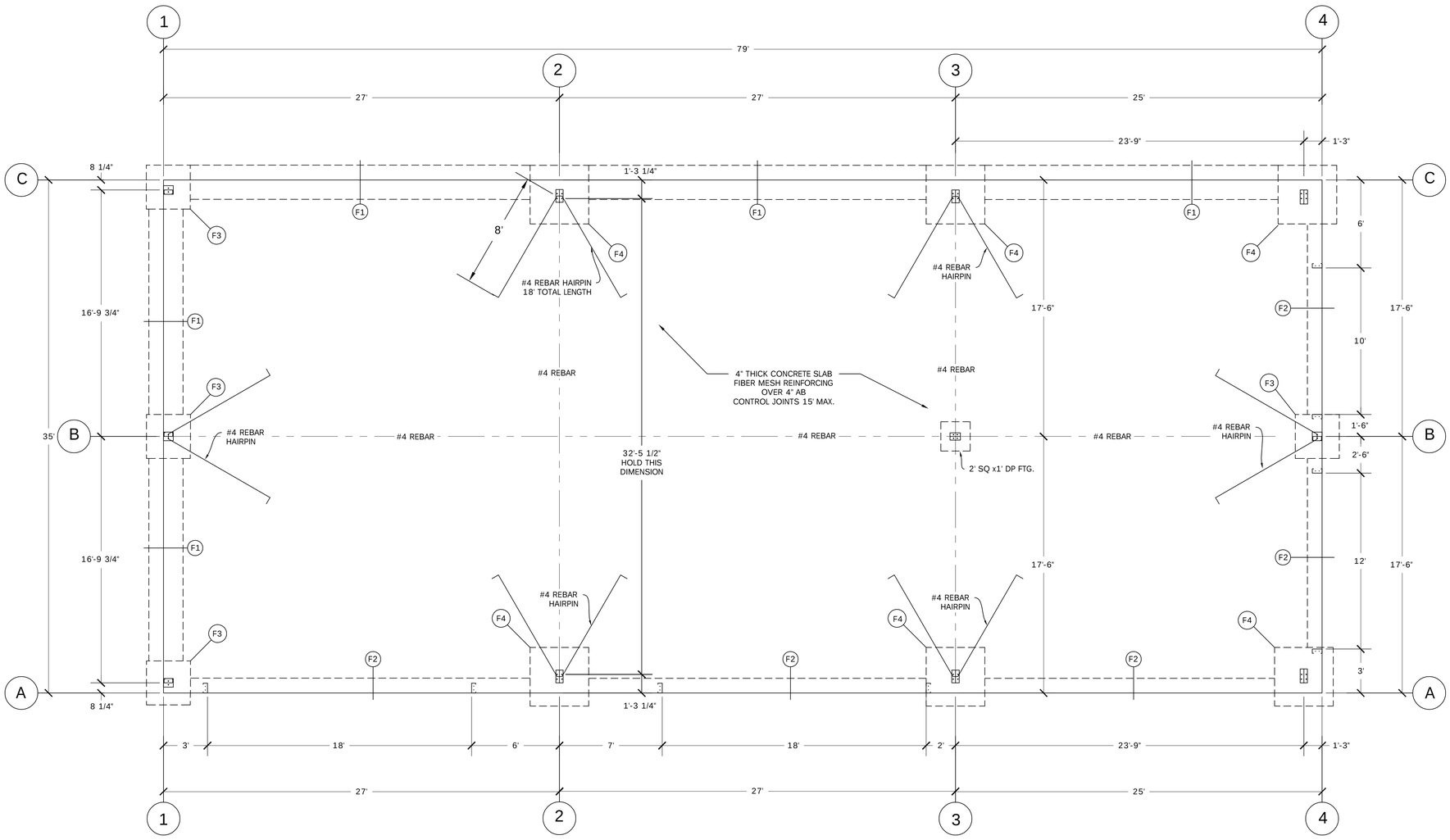
www.kenson-associates.com
ARCHITECTURE & PLANNING

DRAWING: Door & Window Schedule
Room Finish Plan & Schedule

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

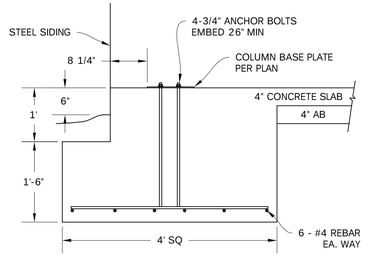
DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: June 30th, 2023
JOB NO.: 777
SHEET: A6.0



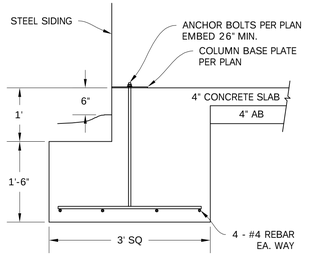
NOTE: REFERENCE METALLIC BUILDING SYSTEMS JOB # 19-B-34172

FOUNDATION PLAN

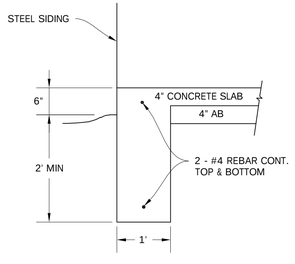
SCALE: 1/4" = 1' -0"



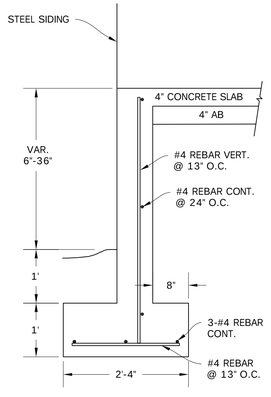
SPREAD FOOTING F4
SCALE: 3/4" = 1'-0"



SPREAD FOOTING F3
SCALE: 3/4" = 1'-0"



CONTINUOUS FOOTING F2
SCALE: 3/4" = 1'-0"



STEM WALL FOOTING F1
SCALE: 3/4" = 1'-0"

FOUNDATION NOTES

VERIFY SOIL TEST REQUIREMENTS WITH LOCAL BUILDING OFFICALS PRIOR TO LOT EXCAVATION PER IBC UNLESS DETERMINED OTHERWISE BY A GEOTECHNICAL EVALUATION. FOUNDATION AND STRUCTURAL DESIGN TO ASSUME STANDARD AREA SOIL CHARACTERISTICS AND SOIL BEARING CAPACITY VALUES AS SET IN TABLE R401.4.1.

MINIMUM SOIL BEARING PRESSURE IS 1500 PSF.

LOT SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS A MINIMUM OF 6" IN FIRST 10' PER IBC.

SLABS SHALL BE 4" CONCRETE OVER 4" AGGREGATE BASE (AB) OVER 12" COMPACTED NATIVE MATERIAL (90% COMPACTION).

ALL FOOTINGS TO EXTEND A MINIMUM OF 12" INTO NATURAL UNDISTURBED SOIL. VERIFY DEPTH OF EXCAVATION WITH LOCAL BUILDING OFFICIAL. EXCAVATE BELOW FOOTING 12" AND RE-COMPACT TO 95%.

EXPANSION JOINTS TO OCCUR BETWEEN BUILDING SLAB AND ALL OTHER POURS OR EXISTING SLABS.

INTERIOR CONCRETE SLABS TO RECEIVE A HARD STEEL TROWEL FINISH. EXTERIOR CONCRETE SLABS TO RECEIVE A ROCK SALT FINISH OR LIGHT BROOM FINISH. SLOPE EXTERIOR SLABS AT A MINIMUM 1/4" PER FOOT AWAY FROM BUILDING.

CONCRETE IS DESIGNED FOR 2500 PSI. CONCRETE SHALL BE READY MIXED CONFORMING TO ASTMC-94 AND SHALL ATTAIN A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI, NO SPECIAL INSPECTION REQUIRED.

ALL FOUNDATION BOLTS FOR STEEL BUILDING SHALL BE A307.

CODES SUMMARY:

2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL RESIDENTIAL CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL FUEL GAS CODE
2018 INTERNATIONAL FIRE CODE
2018 INTERNATIONAL EXISTING BUILDING CODE
2017 NATIONAL ELECTRIC CODE
2018 INTERNATIONAL PROPERTY MAINTENANCE COD

DESIGN CRITERIA

1. DEAD LOADS:

   METAL ROOF..... 2.36 PSF
   COLLATERAL ..... 5.00 PSF

2. LIVE LOADS:

   ROOF..... 20 PSF
   ROOF (SNOW)..... 30 PSF

3. LATERAL LOADS:

   SEISMIC PER IBC 1613
   CATEGORY 'C' SITE CLASS 'D' RISK CAT. 'I'

   Sds = 0.345 g
   Sd1 = 0.162 g

   WIND PER IBC 1609 Exposure 'C'
   Basic Wind Speed = 101 MPH

MARSH ENGINEERING LLC
8642 N ARCHER AVE
TUCSON, AZ, 85742
PH. 520-401-8020

DESIGNER/ ENGINEER:
DAVID A. MARSH

STAMP:

EXP. 6/30/25

REVISIONS

No.	Des.	Date

FOUNDATION PLAN

SCOTT HICKS
5416 SIDE RD
PRESCOTT, AZ 86301

DATE: 05/15/2023
SCALE: AS NOTED
DRAWN BY: BRITTANY BARNEY
JOB NUMBER: 23-1742

SHEET: S1

WAREHOUSE COMBUSTION AIR CALC

WAREHOUSE VOLUME

1795 FT. SQ. X 16 FT. = 28,720 CU. FT.

TOTAL GAS MBH

UH–1 60 MBH (60,000 BTU/H)

VOLUME PER MBH

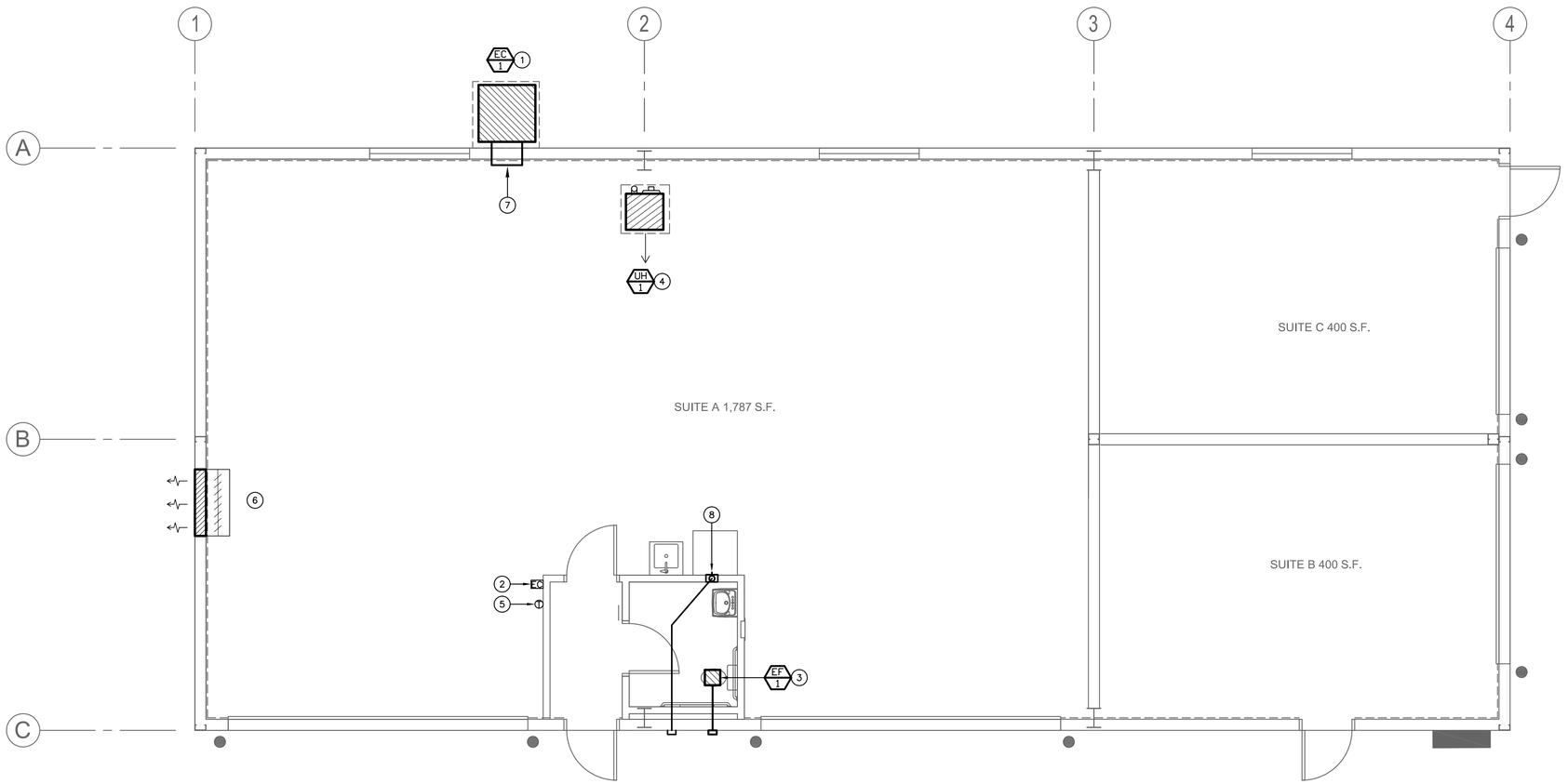
28,720 CU. FT. / 60 MBH = 478 FT. CU./MBH

VOLUME PER MBH IS MORE THAN 50 FT. CU./MBH

COMBUSTION AIR DELIVERED VIA INFILTRATION

KEYNOTES

1. SIDE DRAFT EVAPORATIVE COOLER MOUNTED ON FIELD FABRICATED WALL BRACKET. UNIT SHALL BE COMPLETE WITH CIRCULATING PUMP AND PUMP/FAN CONTROLS. PROVIDE 3/4" DRAIN AND 1/2" WATER TO EVAP COOLER, SEE PLUMBING PLANS.
2. PUMP/FAN EVAPORATIVE COOLER CONTROL(S).
3. CEILING MOUNTED EXHAUST FAN WITH BACKDRAFT DAMPER. TRANSITION EXHAUST DUCT FROM UNIT DISCHARGE AND ROUTE TO MANUFACTURER'S WALL DISCHARGE. MAINTAIN A MINIMUM 10' CLEARANCE FROM ALL OUTSIDE AIR INTAKES.
4. GAS–FIRED UNIT HEATER SUPPORTED FROM STRUCTURE, WITH TYPE "B" FLUE UP THROUGH ROOF. COORDINATE UNIT HEATER MOUNTING HEIGHT.
5. PROVIDE UNIT HEATER WITH LOW VOLTAGE THERMOSTAT WITH INSULATED SUB–BASE.
6. 48x60 RELIEF LOUVER WITH BAROMETRIC BACKDRAFT DAMPER BALANCED TO OPEN WITH EVAPORATIVE COOLER OPERATION.
7. EVAP DUCT OPEN DISCHARGE.
8. 4"ø RIGID DRYER DUCT WITH RECESSED DRYER BOX RECEPTACLE. INSTALL PER CODE TO WALL DISCHARGE. MAXIMUM LENGTH SHALL NOT EXCEED 35 FEET (EXCEPT AS ALLOWED BY DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS). EXHAUST DUCT SHALL BE SECURED TO FRAMING MEMBERS WITH STRAPS AND NOT CONNECTED OR SECURED USING SCREWS OR OTHER FASTENING MEANS WHICH EXTEND INTO DUCT. PROVIDE DRYER DISCHARGE CAP, WITH BACKDRAFT DAMPER. DRYER BOX INSTALLATION SHALL MAINTAIN WALL FIRE RATING.



1 **Mechanical Floor Plan**

Scale: 1/4"=1'-0"

Plan North

OSE Design Group, LLC Consulting Engineers

611 West Delano Ave Prescott, AZ 86301 (928) 443.7353

Project #23030

11759 N. 143rd Ave. Surprise, AZ 85379 (623) 444-6143

Mar 28, 2023 - 3:04pm

REVISIONS	BY

Registered Professional Engineer
33491
WILLIAM MARK ODELL
Date Signed 05/12/23
ARIZONA U.S.A.

W. Alan Kenson & Associates, P.C.
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P.O. Box 11593
Prescott, AZ 86304
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ARCHITECTURE & PLANNING

DRAWING: Mechanical Floor Plan

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY

CHECKED BY

DATE
March 24th, 2023

JOB NO.
777

SHEET

M1.0

MECHANICAL SPECIFICATIONS

GENERAL REQUIREMENTS
GENERAL PROVISIONS WHICH MAKE SPECIFIC REFERENCE TO ELECTRICAL DIVISION ONLY ARE INCLUDED HEREIN FOR CLARITY AND SIMPLIFICATION OF SPECIFICATIONS WRITING AND ARE NOT PART OF THE MECHANICAL WORK. THE WORK OF DIVISION 15, MECHANICAL, IS SUBJECT TO THE CONDITIONS OF THE CONDITIONS OF THE CONTRACT, DIVISION 1, GENERAL REQUIREMENTS, AND APPLICABLE REQUIREMENTS OF OTHER PORTIONS OF THE CONTRACT DOCUMENTS. EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS AND COORDINATE THE MECHANICAL WORK ACCORDINGLY.

INTENT
IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. ANY APPARATUS, APPLIANCE, MATERIAL OR WORK NOT SHOWN ON THE DRAWINGS, BUT MENTIONED IN THE SPECIFICATIONS OR VICE VERSA, OR ANY INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND READY FOR OPERATION, EVEN IF NOT PARTICULARLY SPECIFIED, SHALL BE PROVIDED WITHOUT ADDITIONAL EXPENSE TO THE OWNER. SHALL THERE APPEAR TO BE DISCREPANCIES OR QUESTIONS OF INTENT IN THE CONTRACT. DOCUMENTS, REFER THE MATTER TO THE ARCHITECT FOR HIS DECISION BEFORE ORDERING ANY MATERIALS OR EQUIPMENT OR BEFORE THE START OF ANY RELATED WORK. THE DECISION OF THE ARCHITECT SHALL BE FINAL, CONCLUSIVE AND BINDING.

DRAWINGS AND DATA
DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE OF WORK AND TO INDICATE GENERAL ARRANGEMENT OF EQUIPMENT, DUCTS, CONDUITS, PIPING AND FIXTURES. THEY ARE NOT INTENDED TO SHOW EVERY OFFSET OR FITTINGS OR EVERY STRUCTURAL DIFFICULTY THAT MAY BE ENCOUNTERED DURING INSTALLATION OF THE WORK. LOCATION OF ALL ITEMS NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. EXACT LOCATIONS NECESSARY TO SECURE BEST CONDITIONS AND RESULTS MUST BE DETERMINED AT PROJECT AND SHALL HAVE APPROVAL OF ARCHITECT BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS. IF SO DIRECTED BY ARCHITECT, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF WORK. INCLUDE MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER INSTALLATION AND OPERATION OF A SYSTEM OR PIECE OF EQUIPMENT IN BID PRICE.

CODES
INCLUDE IN WORK, WITHOUT EXTRA COST TO OWNER, LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS) REQUIRED TO COMPLY WITH APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS. DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT THAN CODES, ORDINANCES, STANDARDS AND STATUTES. CODES, ORDINANCES, STANDARDS AND STATUES TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH DRAWINGS OR SPECIFICATIONS. FOLLOWING INDUSTRY STANDARDS, SPECIFICATIONS AND CODES ARE MINIMUM REQUIREMENTS:

A. APPLICABLE CITY, COUNTY, AND STATE MECHANICAL, ELECTRICAL, GAS, PLUMBING, HEALTH AND SANITARY CODES, LAWS AND ORDINANCES.
B. CITY OR OTHER APPLICABLE BUILDING CODES.
C. 2018 INTERNATIONAL MECHANICAL CODE WITH LOCAL AMENDMENTS.
D. REGULATIONS, PERMITS, INSPECTIONS: COMPLY WITH ALL APPLICABLE CODED, RULES AND REGULATIONS. ALL MATERIALS, EQUIPMENT AND WORK MUST CONFORM TO THE INTERNATIONAL MECHANICAL CODE. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES. WHEN REQUIRED BY CODE, ALL WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES.

GENERAL
MATERIALS AND EQUIPMENT STANDARD PRODUCTS OF A REPUTABLE MANUFACTURER REGULARLY ENGAGED IN MANUFACTURE OF THE SPECIFIED ITEMS. WHERE MORE THAN ONE UNIT IS REQUIRED OF ANY ITEM, FURNISHED BY THE SAME MANUFACTURER, EXCEPT WHERE SPECIFIED OTHERWISE. INSTALL MATERIAL AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. SHOULD VARIANCE BETWEEN PLANS AND SPECIFICATIONS OCCUR WITH THESE, CONTACT ARCHITECT IMMEDIATELY SO THAT VARIATIONS IN INSTALLATION CAN BE KNOWN BY ALL PARTIES CONCERNED. PROVIDE EQUIPMENT FROM MANUFACTURER WHOSE PRODUCTS HAVE LOCAL REPRESENTATION.

EXECUTION
PROTECT EXISTING ACTIVE SERVICES (WATER, GAS, SEWER, ELECTRIC) WHEN ENCOUNTERED, AGAINST DAMAGE FROM CONSTRUCTION WORK. DO NOT PREVENT OR DISTURB OPERATION OF ACTIVE SERVICES WHICH ARE TO REMAIN. IF WORK MAKES TEMPORARY SHUTDOWNS OF SERVICES UNAVOIDABLE, CONSULT WITH OWNER AS TO DATES, PROCEDURES, AND ESTIMATED DURATION OF AT LEAST TO WORKING DAYS IN ADVANCE OF DATE WHEN WORK IS TO BE PERFORMED. ARRANGE WORK FOR CONTINUOUS PERFORMANCE TO ASSURE THAT EXISTING OPERATING SERVICES WILL BE SHUT DOWN ONLY DURING THE TIME REQUIRED TO MAKE NECESSARY CONNECTIONS. IF A SYSTEM CANNOT SHUT DOWN, INSTALL TEMPORARY BYPASSES OR JUMPERS UNTIL CONNECTIONS ARE COMPLETE. CONTRACTOR RESPONSIBLE FOR ALL COSTS INCURRED BY ABOVE SHUTDOWNS, INCLUDING BYPASS OR JUMPER INSTALLATIONS, FOR WORK PERFORMED UNDER THIS SECTION. IF EXISTING ACTIVE UTILITY SERVICES ARE ENCOUNTERED WHICH REQUIRE RELOCATION, MAKE REQUEST TO PROPER AUTHORITIES FOR DETERMINATION OF PROCEDURES. PROPERLY TERMINATE EXISTING SERVICES TO BE ABANDONED IN CONFORMANCE WITH REQUIREMENTS OF AUTHORITIES. WHERE CONNECTIONS OR DISRUPTIONS ARE MADE TO EXISTING SYSTEMS, REACTIVATE, REFILL, AND RECHARGE ALL COMPONENTS AND RESTORE SYSTEMS TO OPERATING CONDITIONS AT TIME OF DISRUPTION.

GUARANTEE
EACH COMPLETE SYSTEM GUARANTEED BY CONTRACTOR FOR A PERIOD OF ONE YEAR, FROM DATE OF ACCEPTANCE OF WORK BY OWNER IN WRITING, TO BE FREE OF DEFECTS OF MATERIALS AND WORKMANSHIP, AND TO PERFORM SATISFACTORILY UNDER ALL CONDITIONS OF LOAD OR SERVICE. THE GUARANTEES PROVIDE THAT ANY ADDITIONAL CONTROLS, PROTECTIVE DEVICES, OR EQUIPMENT BE PROVIDED AS NECESSARY TO MAKE THE SYSTEM OF EQUIPMENT OPERATE SATISFACTORILY, AND THAT ANY FAULTY MATERIALS OR WORKMANSHIP BE REPLACED OR REPAIRED. ON FAILURE OF GUARANTOR TO DO THE ABOVE AFTER WRITTEN NOTICE FROM OWNER, THE OWNER MAY HAVE THE WORK DOWN AT THE COST OF GUARANTOR. LOSS OF REFRIGERANT IS CONSIDERED A DEFECT IN WORKMANSHIP AND/OR EQUIPMENT, TO BE CORRECTED AS REQUIRED AT NO EXTRA COST TO THE OWNER. PROVIDE EXTENDED FIVE (5) YEAR FACTORY PARTS & LABOR WARRANTY ON ALL AIR CONDITIONING COMPRESSORS.

AIR CONDITIONING, HEATING AND VENTILATING

SCOPE
WORK UNDER THIS SECTION INCLUDES FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE REMODELING, INSTALLATION AND PLACING INTO OPERATION THE HEATING, VENTILATING AND AIR CONDITIONING WORK AS SPECIFIED HEREIN AND INDICATED ON THE DRAWINGS.

VERIFICATION OF DIMENSIONS:
SCALED AND FIGURED DIMENSIONS ARE APPROXIMATE ONLY. BEFORE PROCEEDING WITH WORK, CAREFULLY CHECK AND VERIFY AT THE SITE, AND RESPONSIBLE FOR PROPERLY FITTING EQUIPMENT AND MATERIALS TOGETHER AND TO THE STRUCTURE IN SPACES PROVIDED. DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND MANY OFFSETS, BENDS, SPECIAL FITTINGS AND EXACT LOCATIONS ARE NOT INDICATED. CAREFULLY STUDY DRAWINGS AND PREMISES I ORDER TO DETERMINE BEST METHODS, EXACT LOCATIONS, ROUTES AND BUILDING OBSTRUCTIONS, PRESERVE HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR.

CUTTING AND PATCHING:
CUT EXISTING WORK AND PATCH AS NECESSARY TO PROPERLY INSTALL THE NEW WORK. AS THE WORK PROGRESSES, LEAVE NECESSARY OPENINGS, HOLES AND CHASES, ETC., IN THEIR CORRECT LOCATIONS. IF THE REQUIRED OPENINGS, HOLES AND CHASES ETC., ARE NOT IN THEIR CORRECT LOCATIONS, MAKE THE NECESSARY CORRECTIONS AT NO COST TO THE OWNER. AVOID EXCESSIVE CUTTING AND DO NOT CUT STRUCTURAL MEMBERS WITHOUT CONSENT OF ARCHITECT.

REGULATIONS, PERMITS & INSPECTIONS
COMPLY WITH ALL APPLICABLE CODES, RULES AND REGULATIONS. ALL MATERIALS, EQUIPMENT AND WORK MUST CONFORM TO THE INTERNATIONAL MECHANICAL CODE. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES. WHEN REQUIRED BY CODE, ALL WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES.

DUCTWORK
ALL DUCTWORK FABRICATED AS PER LATEST INTERNATIONAL MECHANICAL CODE REQUIREMENTS AND SMACNA MANUAL. EXTENSION OF EXISTING DUCTWORK SHALL BE MADE WITH SOME MATERIAL. DUCTWORK SHALL BE CONSTRUCTED OF NEW HOT-DIPPED GALVANIZED SHEET METAL ASTM A-120 FOR EACH SIDE. TAPE ALL CROSS-JOINTS IN SHEET METAL DUCT WITH HARDCAST. TAKE-OFF FITTINGS SHALL BE CONICAL SPIN-IN WITH QUADRANT DAMPER. TURNING VANES SHALL BE INSTALLED IN ALL MITERED ELBOWS.

HVAC EQUIPMENT CONDENSATE DRAINS
USE TYPE M COPPER TUBING AND WROUGHT COPPER MECHANICAL FITTINGS. EXTEND DRAINS TO NEAREST ROOF DRAIN OR LAVATORY TAIL-PIECE (FURNISHED BY PLUMBER). SLOPE DRAIN AT A MINIMUM OF 1/8" PER FOOT.

UH- UNIT HEATER SCHEDULE

EQUIP. NO.	MANUFACTURER	MODEL NO.	BLOWER			MOTOR		HEATER				FLUE (DIA.)	WT. (LBS)	REMARKS
			CFM	ESP	MIN. THROW	HP	VOLTS/ PHASE	FUEL	EFF.	MAX. INPUT MBH	MIN. OUTPUT MBH			
1	REZNOR	UDX-75	961	0	x	0.06	120/1	NAT. GAS	83%	60,000	49,800	4" RD	76	1 2 3 4

1. PROVIDE UNIT HEATER WITH LOW VOLTAGE THERMOSTAT WITH INSULATED SUB-BASE, W/ LOCKING COVER.
2. PROVIDE UNIT WITH ELECTRONIC SPARK IGNITION.
3. PROVIDE UNIT WITH 2-POINT SUSPENSION KIT.
4. INPUT RATINGS SHOWN HAVE BEEN DERATED FOR 5,000 FT ELEVATION. INPUT RATE CHANGES FROM STANDARD CAN BE MADE BY ADJUSTING MANIFOLD PRESSURE (MIN 3.0 - MAX 3.7) OR BY CHANGING ORIFICE.

EF- EXHAUST FAN SCHEDULE

MARK	SERVES	MANUF.	MODEL	CFM	E.S.P. (in. wg)	ELEC			DRIVE	SONES	WEIGHT LBS	REMARKS
						AMPS	HEAT	V/PH				
1	RESTROOM	BROAN	BHF80	75	.175	12	1300 W	120/1	DIRECT	1.5	12	1 2

1. UNIT TO OPERATE VIA WALL SWITCH WITH SEPERATE FAN & HEATER CONTROL..
2. PROVIDE #JV6 FAMCO ROOF DISCHARGE CAP.

EC- EVAPORATIVE COOLER SCHEDULE

MARK	MANUFACT.	MODEL	CFM	EXT. S.P.	HP	ELECTRIC			CIRC. PUMP	WT. (lbs)	REMARKS
						VOLTS	PHASE	HERTZ			
1	PMI	H8801	6300	0.30	1-1/2	230	1	60	6.8 gpm @ 115V/1ø	476	1 2 3

1. UNIT SHALL BE MOUNTED ON FIELD FABRICATED STAND.
2. CONTRACTOR SHALL PROVIDE AND INSTALL A BLEED-OFF KIT.
3. PROVIDE OFF/ON/PUMP CONTROLS AND ALL CONNECTING WIRING.

REVISIONS	BY

Registered Professional Engineer
33491
WILLIAM MARK ODELL
Date Signed 05/12/23
ARIZONA U.S.A.

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ARCHITECTURE & PLANNING

DRAWING: Mechanical Schedules

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY

CHECKED BY

DATE
March 24th, 2023

JOB NO.
777

SHEET
M2.0

OSE Design Group, LLC
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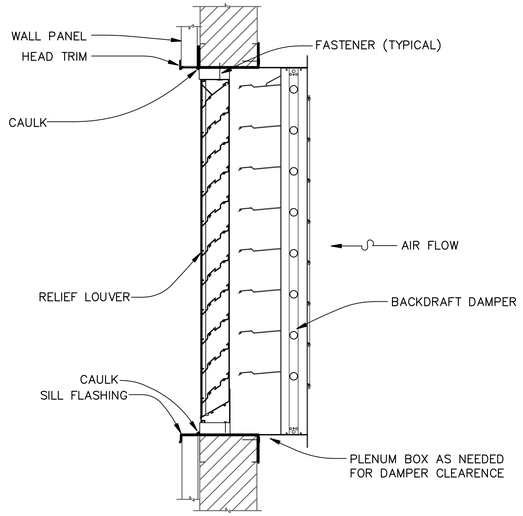
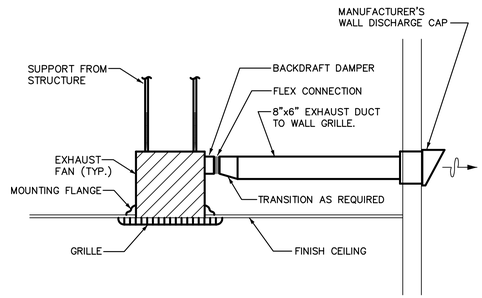


RELIEF LOUVER WITH BACKDRAFT DAMPER

NOT TO SCALE

1 M3.0



EXHAUST FAN DETAIL

NOT TO SCALE

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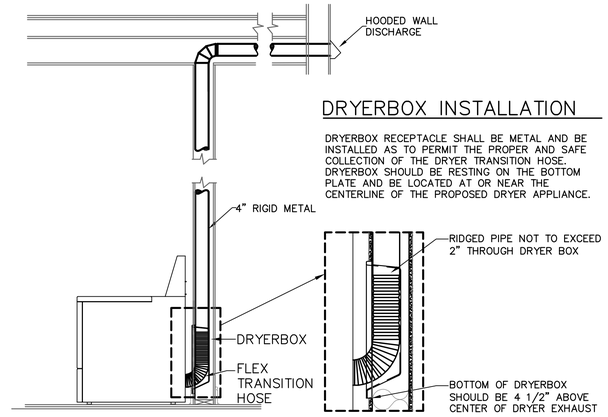

DRYER BOX DETAIL

NOT TO SCALE

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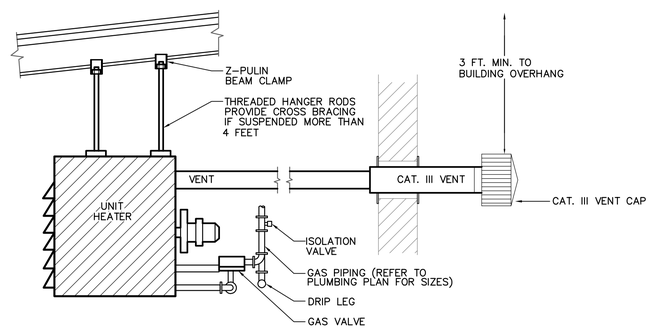
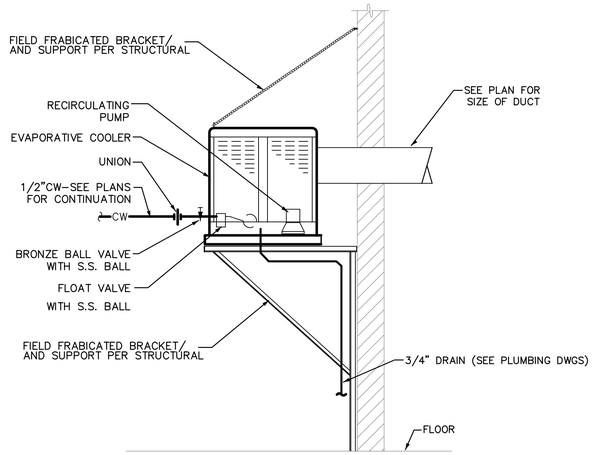


GAS FIRED UNIT HEATER

4 M3.0



EVAPORATIVE COOLER DETAIL

NO SCALE

5 M3.0

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ARCHITECTURE & PLANNING

DRAWING: Mechanical Details

PROJECT: Commercial Building on Side Rd.
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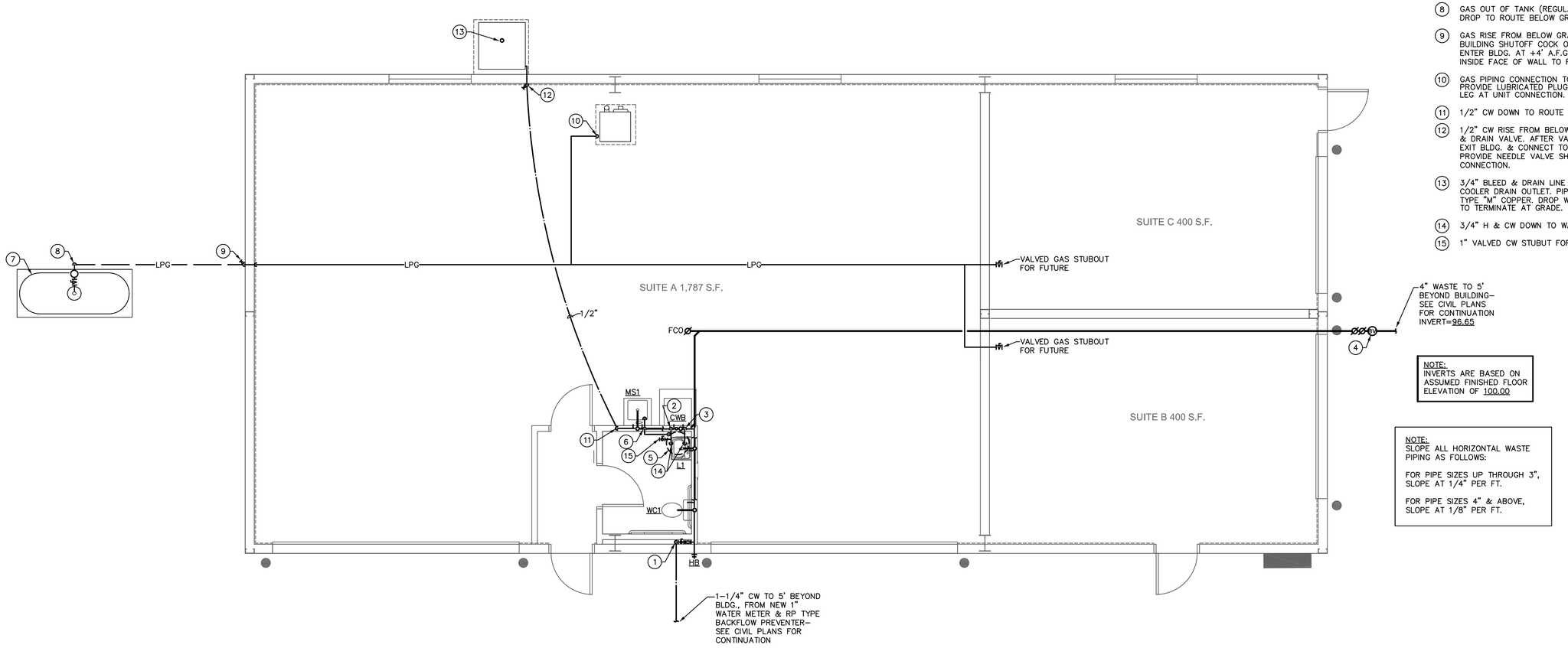
KEYNOTES:

1. 1–1/4" CW RISE FROM BELOW GRADE TO BALL VALVE & PRESSURE REDUCING VALVE (SET AT 80 PSI) IN WALL. PROVIDE ACCESS PANEL AT INTERIOR WALL FOR VALVE ACCESS. TAKE 1–1/4" OUT OF VALVE TO 1–1/4" HEADER, WITH 3/4" TO HOSE BIBB, 1/2" TO WC, LAV, CLOTHESWASHER BOX & MOP SINK.
2. 1" CW OFF 1–1/4" HEADER, UP TO 1" STUBOUT, 3/4" TO WATER HEATER.
3. 3/4" HW OUT OF WATER HEATER, DOWN, WITH 1/2" TO MOP SINK, CLOTHESWASHER BOX, & LAV.
4. PROVIDE BACKWATER VALVE TO COMPLY WITH PRESCOTT VALLEY REQUIREMENTS. PROVIDE TRAFFIC RATED COVER.
5. ELECTRIC WATER HEATER WH–1 SEE DETAIL, SCHEDULE, SHEET P2.0.
6. FULL SIZE WATER HEATER P & T RELIEF DRAIN LINE DOWN TO TERMINATE +2" ABOVE MOP SINK RIM.
7. PROPANE TANK ON CONCRETE PAD UNDER SEPARATE PERMIT.
8. GAS OUT OF TANK (REGULATE TO 11" W.C.). DROP TO ROUTE BELOW GRADE.
9. GAS RISE FROM BELOW GRADE (PROVIDE BUILDING SHUTOFF COCK ON RISER) & ENTER BLDG. AT +4' A.F.G.; RISE ALONG INSIDE FACE OF WALL TO ROUTE AT CEILING.
10. GAS PIPING CONNECTION TO UNIT HEATER. PROVIDE LUBRICATED PLUG COCK & 6" DIRT LEG AT UNIT CONNECTION.
11. 1/2" CW DOWN TO ROUTE BELOW SLAB.
12. 1/2" CW RISE FROM BELOW SLAB TO STOP & DRAIN VALVE. AFTER VALVE RISE TO EXIT BLDG. & CONNECT TO EVAP. COOLER. PROVIDE NEEDLE VALVE SHUTOFF AT UNIT CONNECTION.
13. 3/4" BLEED & DRAIN LINE CONNECTION TO COOLER DRAIN OUTLET. PIPING MATERIAL: TYPE "M" COPPER. DROP WITH DRAIN LINE TO TERMINATE AT GRADE.
14. 3/4" H & CW DOWN TO WATER HEATER.
15. 1" VALVED CW STUBUT FOR FUTURE TI'S.



NOTE:
INVERTS ARE BASED ON ASSUMED FINISHED FLOOR ELEVATION OF 100.00

NOTE:
SLOPE ALL HORIZONTAL WASTE PIPING AS FOLLOWS:

FOR PIPE SIZES UP THROUGH 3", SLOPE AT 1/4" PER FT.

FOR PIPE SIZES 4" & ABOVE, SLOPE AT 1/8" PER FT.

1 Plumbing Floor Plan

Scale: 1/4"=1'-0"

Plan North

PLUMBING NOTE:

ALL PLUMBING FIXTURES SHALL BE OF A LOW–FLOW DESIGN WHICH LIMITS THE WATER FLOW NOT TO EXCEED THE FOLLOWING:

WATER CLOSETS: 1.6 GALLONS PER FLUSH
LAV FAUCETS: .5 GALLONS PER MINUTE

PLUMBING NOTES:

1. WATER PIPING LOCATED IN EXTERIOR WALLS SHALL BE INSTALLED ON THE BUILDING INTERIOR SIDE OF THE BLDG. INSULATION.
2. EXTERIOR WATER PIPING SHALL BE INSTALLED BELOW FROST LINE.

PLUMBING LEGEND

SYMBOL	ABBR.	DESCRIPTION
	W	WASTE PIPING
	V	VENT PIPING
LPG	LPG	PROPANE GAS PIPING
CW	CW	COLD WATER PIPING
HW	HW	HOT WATER PIPING
HWR	HWR	HOT WATER RETURN PIPING
BV	BV	BALL VALVE
Ø	FCO, SCO	FLOOR OR SURFACE CLEANOUT
	WCO	WALL CLEANOUT
	VTR	VENT THRU ROOF
	HB	HOSE BIBB

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ARCHITECTURE & PLANNING

DRAWING: Plumbing Floor Plan

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Mar 28, 2023 - 3:04pm

PLUMBING SPECIFICATIONS:

1. GENERAL

1..1 Scope: Work under this section includes coordinating and furnishing all labor and material necessary to install a complete plumbing system as shown and specified and in accordance with the codes. Contractor shall pay for all permits, meters, fees, city inspections, legal notices, etc., as required.

1..2 Submittals: Within 15 days after award of contract, submit 8 copies of all items.

1..3 Record Drawings: Provide a set to the Architect at completion of project.

1..4 Instructions: Provide maintenance manual and instruct Owner in the proper operation and maintenance of the equipment.

1..5 Guarantee: One year on labor, material and equipment.

2. PRODUCTS

2..1 Piping:

2..1.1 Water Lines:

2..1.1.1 Copper: Type "L" hard drawn, conforming to ASTM B88, for all water pipe not set under concrete or in the ground.

2..1.1.2 Copper: Type "K" soft drawn, conforming to ASTM B88, for water pipe set in or under concrete or in the ground. Wrap lines below concrete floors with 20 mils of polykon tape.

2..1.1.3 Fittings: Wrought copper conforming to ANSI B16.22.

2..1.1.4 Plastic: If permitted by Administrative Authority, IAPMO approved, NSF–61 listed, crosslinked polyethylene (PEX) tubing, equal to Wirsbo "AQUAPEX" system is acceptable for potable water piping.

2..1.2 Sanitary Waste and Vent Piping:

2..1.2.1 Cast Iron conforming to CISPI Standard 301–95 and ASTM A–888 for all no–hub pipe and fittings installed above and below grade.

2..1.2.2 Galvanized Iron: Standard weight, Schedule 40 galvanized iron conforming to ASTM A–120 for all vent lines 2–1/2" or smaller.

2..1.2.3 Fittings (Waste and Vent System, no–hub cast iron): No–hub cast iron drainage pattern fittings conforming to CISPI #301–95.

2..1.2.4 Fittings (Waste and Vent, galvanized steel): Threaded cast iron fittings conforming to ANSI B16.4.

2..1.2.5 Couplings (Waste and Vent, above and below grade): Double band, stainless steel couplings conforming to CISPI 310–95, with neoprene gasket conforming to ASTM Standard C564 (NOTE: Screened stainless shield is not approved).

2..1.2.6 Plastic: Subject to Architect approval, PVC piping conforming to ASTM D–2665–88 is acceptable for sanitary waste piping installed below grade or slab. Fittings: Drainage fittings to match pipe.

2..1.3 LP Gas (Propane) Piping:

2..1.3.1 (Underground): All pipe, tubing, and fittings shall be polyethylene 2306/2406 conforming to ASTM D–1248 and D–3350 for P.E. 2306/2406.

2..1.3.2 (Above grade, exterior): All pipe sizes, black steel pipe, Schedule 40, wrought steel buttwelded fittings.

2..1.3.3 (Above grade, inside building): Schedule 40 black steel. Pipe fittings shall conform to the following:

Pipe 2" and Smaller: Malleable iron threaded fittings.

Pipe 2–1/2" and Larger: Wrought steel buttwelded fittings.

2..1.3.4 Risers: All risers in the system from below grade shall be pre–manufactured anodeless type as manufactured by Central Maufacturing Co., Shawnee, OK, or approved equal.

2..1.4 Tracer Wire: Provide approved 14 gage copper (orange covered) tracer wire along all non metallic underground piping.

2..2 Pipe Hangers and Supports: Fee & Mason Figure 103 clevis hanger for insulated pipe and Figure 104 clevis hanger for cast iron pipe. Install #500 Trisolators on uninsulated copper lines at all hangers and wall penetrations.

2..3 Pipe Insulation: Use fiberglass premolded insulation with all–service jacket, minimum density of 3.5 pcf. Provide an additional 8–ounce canvas jacket with Arabol finish around all exposed pipe insulation. Cover fittings and valves (except unions) with insulation cement worked on in two applications to a smooth, hard surface, flush with pipe covering. Provide 8" long, 20 gauge, galvanized iron metal insulation guards at locations of hanger rods and supports. Provide 12" long rigid insulation blocks on bottom half of pipe 1" and larger at hangers. Insulation wall thickness shall conform to the following schedule:

Domestic Hot Water, Hot Water Recirculating Lines:

Mains and horizontal branches – 1" thickness.
Drops in walls and partitions – 1/2" thickness.

2..4 Valves:

2..4.1 Gate Valves: Milwaukee 115, 125#, bronze body, solder type gate valve with nonrising stem for all lines up through 3" size.

2..4.2 Check Valves: Milwaukee #1509, 125#, bronze body, solder joint check valve with horizontal bronze disc for all valves up to 2" size. Milwaukee #F2974, 125#, iron body, bronze trimmed, flanged horizontal check valve for all valves larger than 2" size.

2..4.3 Shutoff Valve: Milwaukee BB1–350 bronze body, solder joint valve for all lines up through 2".

2..5 Cleanouts:

2..5.1 Concrete and Tile Floors: J.R. Smith 4023, with scoriated nickel–bronze top.

2..5.2 Cleanouts (exposed vertical piping): J.R. Smith 4512 cast iron branch cleanout tee with bronze plug.

2..5.3 Interior Finished Walls: J.R. Smith 4532.

2..5.4 Exterior Surface Cleanouts: J.R. Smith 4253. Provide 18" x 18" x 6" concrete pad at landscape areas; provide concrete ring below grade at asphalt areas.

2..5.5 Provide all cleanouts with heavy threaded bronze plugs.

2..6 Plumbing Fixtures: Use polished chrome–plated, adjustable brass P–traps with wall escutcheons at all exposed locations. Use polished chrome–plated faucets with removable trim, brass body and brass handles. Fixtures and supply fitting shall be of one manufacturer. Provide diaphragm type, polished chrome–plated flush valves with integral vacuum breakers and screwdriver stops. Provide fixture stops or valves ahead of all equipment or fixtures. After fixtures are set in place and secured to walls, caulk all around between fixtures and wall with either Dow Corning #780 or G.E. Construction Sealant white silicone caulking compound.

2..7 Acceptable Manufacturers: The following is a list of manufacturers whose equipment is acceptable as to manufacturer, subject to conformance with all drawings, specifications and addenda items:

Fixtures: American Standard, Eljer, Kohler.

Electric Water Heaters: Ruud, A. O. Smith, American.

Mop Sinks: Fiat, Mustee, Swan.

Valves: Crane, Kennedy, Stockham, Grinnell, Milwaukee, Wolverine.

Supplies, Stops: Eastman, Kohler, Eljer, Brasscraft, McGuire.

P–Traps: Crane. Kohler, Eljer, Frost, McGuire.

Drains and Cleanouts: J. R. Smith, Zurn, Josam, Wade, Western.

Hangers: Grinnell, Fee & Mason, Elcen, Kin–Line, F & S, B–Line, Michigan.

3. EXECUTION

3..1 Tests and Inspections:

3..1.1 All work to be tested and approved before covering as directed by Architect. Remake all leaking joints.

3..1.2 Water System: 125 psi hydrostatic pressure held for four hours.

3..1.3 Sanitary Waste and Vent System: Fill with water to highest point in the system and let stand without loss for two hours.

3..1.4 Gas System: Hold at 50 psi pneumatic for four hours with no pressure loss.

3..1.6 Sterilization (Domestic Water System): After tests have been completed, the entire domestic water distribution system shall be thoroughly flushed with water until all entrained dirt and mud have been removed, and shall be sterilized with solutions of either liquid chlorine conforming to Federal Specification BB–B–120 or hypochlorite conforming to Fed. Spec. O–C–114, Type II, Grade G, or Fed. Spec. O–S–602, Grade A or B. The chlorinating material shall privide a dosage of less than 50 parts per million and shall be introduced into the system in an approved manner, and retained in the system for 8 hours before flushing.

3..2 Flashing, Sleeves and Escutcheon Plates:

3..2.1 Flashing: Supply flashing for all vent pipe and other types of piping through roof to be installed with roofing. Flash vents with Stoneman S1300–4 or with sheet lead weighing not less than 4 pounds per square foot or equal. Extend flashing into roofing at least 10" from vent and turn flashing over and down into vent opening.

3..2.2 Sleeves: Use 20 gauge galvanized steel sleeves around pipes passing through masonry walls and concrete slabs.

3..2.3 Escutcheon Plates: Install cast brass split ring with setscrew at all locations where exposed pipes pass through walls, floors and/or ceilings. Provide polished chrome–plated escutcheons in finished rooms, all others polished brass.

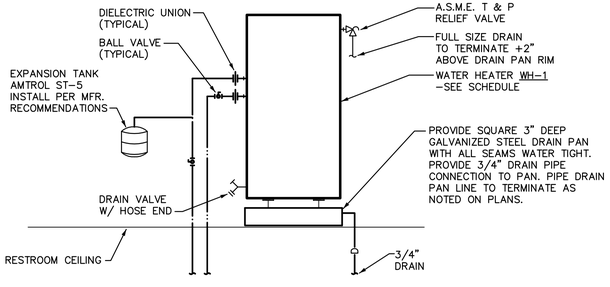
3..3 Underground Water Piping: Bury all underground water piping a minimum of 24" below finished grade.Install copper lines below concrete floors so that no joints occur below floor and wrap with 20 mils of polyethylene tape with a minimum of 50% overlap.

3..4 Electrical: Wiring by Electrical Contractor.

PLUMBING FIXTURE SPECIFICATIONS

SYMBOL	DESCRIPTION
WC–1	WATER CLOSET (HANDICAPPED): FIXTURE: AMERICAN STANDARD "CADET PRO" 215AA.104, 1.28 GALLONS PER FLUSH, 16–1/2" HIGH RIM, FLOOR MOUNTED, VITREOUS CHINA, ELONGATED BOWL. SEAT: CHURCH 9500 WHITE OPEN FRONT SEAT WITH CONCEALED CHECK HINGE AND WITHOUT COVER. SUPPLIES: EASTMAN C5CR–20–LK, 1/2" x 3/8" ANGLE STOP WITH FLEXIBLE TUBE RISER.
L–1	LAVATORY (WALL HUNG– ADA COMPLIANT): FIXTURE: AMERICAN STANDARD, MODEL No. 0355.012, WALL HUNG, 20" x 18" VITREOUS CHINA, FRONT OVERFLOW. PROVIDE CAST–IRON WALL HANGER BOLTED TO WALL. FAUCET: MOEN 8400 SINGLE LEVER DECK MOUNTED FAUCET WITH BLADE TYPE ADA HANDLE. SUPPLIES: EASTMAN C5RC–15–LK, ANGLE STOPS WITH FLEXIBLE TUBE RISERS. WASTE: McGUIRE 155WC OFFSET WHEELCHAIR LAVATORY STRAINER WITH GRID DRAIN, CAST BRASS ELBOW AND OFFSET TAILPIECE. TRAP: McGUIRE 8902, 1–1/4" x 1–1/2" CAST BRASS P TRAP. INSULATE EXPOSED WATER AND WASTE PIPING WITH TRUEBRO LAV–GUARD INSULATION KIT, MODEL 102, WITH ACCESSORY #105.
MS–1	MOP SINK: FIXTURE: FIAT MODEL MSB–2424, 24" x 24" x 10", FLOOR MOUNTED, MOLDED STONE WITH INTEGRAL STAINLESS STEEL STRAINER EXTENSION. FAUCET: CHICAGO FAUCET 897 CHROME–PLATED SUPPLY FITTING WITH INTEGRAL STOPS, VACUUM BREAKER, 3/4" HOSE THREAD, FLEXIBLE 3/4" RUBBER HOSE AND HOSE BRACKET; MOP HANGER; SILICONE SEALANT INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TRAP: PROVIDE 2" TRAP.
WH–1	ELECTRIC WATER HEATER: PPROVIDE UL LISTED ELECTRIC WATER HEATER OF SIZE, CAPACITY AND MAKE AS SCHEDULED. HEATER SHALL BE WARRANTED FOR A MINIMUM OF 5 FULL YEARS AFTER FINAL ACCEPTANCE OF THE BUILDING. FURNISH HEATER WITH THE FOLLOWING ACCESSORIES: 1. ASME COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVE RATED IN EXCESS OF HEATER INPUT. RUN FULL SIZE DRAIN TO TERMINATE AS SHOWN ON DRAWINGS. 2. AUTOMATIC THERMOSTAT ACTUATED CONTROLS WITH 100% SHUTOFF. 3. HIGH–LIMIT CONTROLS. 4. TANK DRAIN. 5. BRASS NIPPLES FOR PIPE CONNECTIONS. 6. HEATER SHALL BE FACTORY INSULATED AND SHEET METAL JACKETED.
HB	HOSE BIBB (FREEZE PROOF): WOODFORD MODEL No. MB65, CHROME PLATED FINISH, 3/4" HOSE CONNECTION WITH INTEGRAL VACUUM BREAKER, SELF–DRAINING, LOOSE TEE OPERATOR, ENCLOSED IN A FLUSH MOUNTED 14 GAUGE STAINLESS STEEL WALL BOX WITH LOCKABLE COVER.
CWB	CLOTHES WASHER BOX: ACORN MODEL No. 8186–18GA, STAINLESS STEEL BOX WITH WASTE OUTLET AND "FLO–CLOZ" CARTRIDGE OPERATED CONTROL VALVES AND STOPS. COMPLETE WITH INTEGRAL VACUUM BREAKERS.

NOTE:
EXPANSION TANK SHALL BE SUPPORTED INDEPENDANTLY OF THE WATER PIPING, STRAP TO UNISTRUT MOUNTED ON WALL.



WATER HEATER DETAIL

NO SCALE

PLUMBING GENERAL NOTES:

1. ALL PLUMBING WORK SHALL COMPLY WITH THE MOST STRINGENT OF APPLICABLE CODES, ORDINANCES, OR THE SPECIFICATIONS.

2. DETERMINE EXACT LOCATION & MOUNTING HEIGHT OF PLUMBING FIXTURES FROM ARCHITECTURAL DRAWINGS.

3. COORDINATE LOCATION OF ALL PLUMBING LINES WITH DUCTWORK AND ELECTRICAL SERVICES.

4. PRIOR TO SUBMITTING BID, CONTRACTOR SHALL REVIEW THE ARCHITECTURAL DRAWINGS & INCLUDE IN HIS BID AN AMOUNT TO FURNISH & INSTALL ANY FIXTURES SHOWN IN ADDITION TO PLUMBING DRAWINGS.

5. PROVIDE VACUUM BREAKERS ON HOSE BIBBS & ALL HOSE END FITTINGS.

6. LOCATE ALL VENTS THROUGH ROOF 10'–0" FROM ALL AIR INTAKES, EVAPORATIVE COOLERS, ETC.

7. VERIFY INVERT ELEVATIONS (WASTE LINES), SIZES, & LOCATIONS OF ALL EXISTING GAS, WATER & WASTE LINES TO WHICH NEW PIPING CONNECTS PRIOR TO MAKING–UP OR INSTALLATION OF PIPING.

8. LOCATE ALL VALVES, UNIONS, THERMOMETERS, GAUGES, OR OTHER EQUIPMENT REQUIRING FREQUENT READING. REPAIRS, ADJUSTMENTS, INSPECTION, REMOVAL OR REPLACEMENT SO AS TO BE ACCESSIBLE WITH REFERENCE TO THE FINISHED BUILDING.

9. ROUGH–IN ALL WATER & WASTE PIPING TO SPECIAL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS' SHOP DRAWINGS. VALVE ALL SUPPLIES AND MAKE FINAL CONNECTIONS.

10. INSTALL APPROVED DIELECTRIC ISOLATORS AT ALL CONNECTIONS OF DISSIMILAR METALS.

11. WHERE POSSIBLE, TIE VENTS TOGETHER SO THAT A MINIMUM NUMBER TERMINATE THROUGH ROOF.

12. CONTRACTOR SHALL NOT CUT HOLES IN STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.

WATER CALCULATION:

FIXTURE UNITS = 28 FU / 19 GPM

PIPE LENGTH TAP TO METER	10 FT.
PIPE LENGTH METER TO LAST FIXTURE	194 FT.
VERTICAL PIPE LENGTH TO HIGHEST FIXTURE	5 FT.
TOTAL PIPE LENGTH	209 FT.
FITTING LOSS (25%)	52 FT.
TOTAL DEVELOPED LENGTH	261 FT.

WATER PIPE SIZING CRITERIA

STREET PRESSURE	65.00 PSI*
WATER METER LOSS (1")	8.50 PSI
BACKFLOW PREVENTER LOSS (1")	12.00 PSI
STATIC LOSS (5' x 0.43)	2.20 PSI
FIXTURE LOSS	20.00 PSI
PRESSURE AVAILABLE FOR PIPING	22.30 PSI

22.30 PSI / 261 FEET x 100 = 8.4 PSI MAXIMUM ALLOWABLE DROP PER 100 FEET PIPE LENGTH

*ASSUMED WATER PRESSURE– CONTRACTOR SHALL VERIFY ACTUAL WATER PRESSURE PRIOR TO CONSTRUCTION. IF PRESSURE IS LESS THAN 65 PSI, CONTRACTOR SHALL CONTACT ENGINEER FOR PIPE SIZING EVALUATION. IF PRESSURE EXCEEDS 80 PSI, A PRESSURE REDUCING VALVE SHALL BE PROVIDED. PIPING VELOCITY NOT TO EXCEED 8 FEET PER SECOND.

BRANCH PIPE SIZING CHART FOR 8.4 PSI LOSS

PIPE SIZE	G.P.M.	F.U.(TANK)
1/2"	3	3
3/4"	9	11
1"	18	26
1–1/4"	32	57

FIXTURE UNIT CALCULATIONS

DESCRIPTION	QTY	F.U. EACH		TOTAL F.U.	
		WASTE	WATER	WASTE	WATER
WATER CLOSET (F.T.)	1	4	5	4	5
LAVATORY	1	1	2	1	2
MOP SINK	1	2	3	2	3
CLOTHESWASHER BOX	1	3	4	3	4
ALLOWANCE FOR FUTURE FIXTURES					14
					28

ELECTRIC WATER HEATER SCHEDULE

MARK	MANUFAC.	MODEL	STORAGE CAPACITY IN GALS.	KW INPUT	VOLTAGE/ PHASE	GALLON PER HR. REC. AT 100° F T.R.	WATER OUTLET TEMP °F	REMARKS
WH–1	RHEEM	EGSP30	30	4.5/ 4.5	240/1	18.5	140	NON SIMULTANEOUS WIRING

FIXTURE CONNECTION SCHEDULE

MARK	DESCRIPTION	TRAP SIZE	WASTE	VENT	COLD WATER	HOT WATER	REMARKS
WC–1	WATER CLOSET	INT.	4"	2"	1/2"	–	TANK TYPE, ADA
L–1	LAVATORY	1–1/4" x 1–1/2"	1–1/2"	1–1/2"	1/2"	1/2"	WALL HUNG, ADA
MS–1	MOP SINK	2"	2"	1–1/2"	1/2"	1/2"	FLOOR TYPE
CWB	CLOTHESWASHER BOX	2"	2"	1–1/2"	1/2"	1/2"	

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Registered Professional Engineer
33491
WILLIAM MARK ODELL
Date Signed 05/12/23
ARIZONA U.S.A.

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ARCHITECTURE & PLANNING

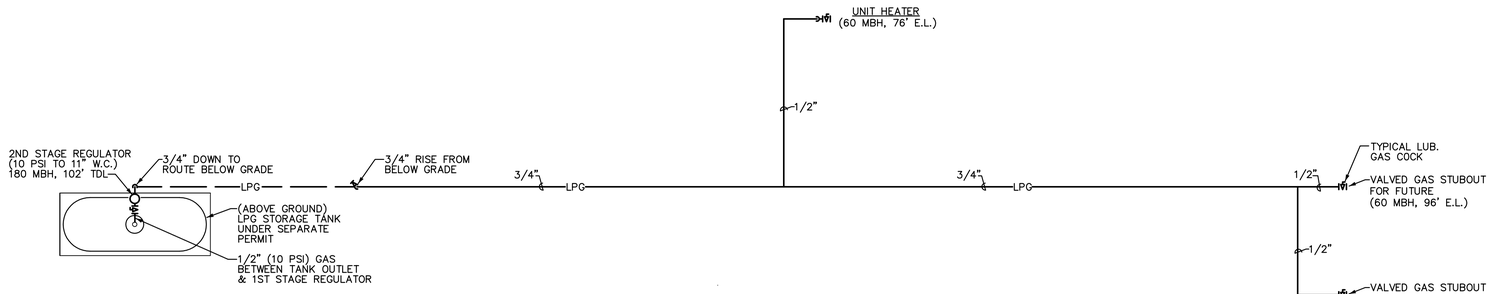
DRAWING: Plumbing Details & Schedules

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY	
CHECKED BY	
DATE	March 24th, 2023
JOB NO.	777
SHEET	P2.0

Mar 28, 2023 - 3:04pm



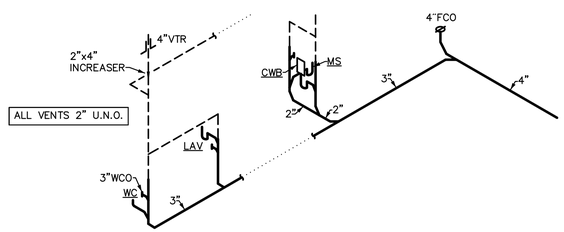
NOTE:
PIPING BETWEEN 2ND STAGE PIPING SIZED PER IFGC, TABLE 402.4.

GAS PIPING DIAGRAM

NTS

GAS PIPING NOTES:

1. MINIMUM DEPTH OF GAS PIPING TO BE 18" BELOW GRADE.
2. GAS PIPING SHALL NOT BE INSTALLED IN OR ON THE GROUND UNDER ANY BUILDING.
3. GAS PIPING SHALL NOT RUN IN HOLLOW CORE OF BLOCK.
4. PROVIDE SHUT-OFF COCK, UNION AND 6" LONG DIRT LEG WITH CAP AT EACH GAS LINE DROP TO APPLIANCE.
5. ALL GAS USING EQUIPMENT TO BE LIQUID PROPANE FUEL.
6. DO NOT USE FLEXIBLE PIPE CONNECTIONS TO EQUIPMENT.
7. ALL GAS PIPING UNDER ASPHALT OR CONCRETE PAVING ADJOINING BUILDING MUST BE SLEEVED IN GAS TIGHT PIPE (SCHEDULE 40 PVC PIPE), SLEEVE SIZE SHALL (MINIMUM) 2 PIPE SIZES LARGER THAN THE GAS PIPE.
8. ALL GAS PIPING, MATERIALS, VALVES, FITTINGS, INSTALLATION AND TESTING SHALL COMPLY WITH CHAP. 4, INTERNATIONAL FUEL GAS CODE.
9. VERIFY ALL GAS BTU/H INPUTS WITH ACTUAL BTU/H INPUT OF APPLIANCE SUPPLIED.
10. ALL GAS LINES INSTALLED THROUGH CMU WALLS, ETC., SHALL BE SLEEVED WITH STEEL PIPE A MINIMUM OF (2) (TWO) PIPE SIZES LARGER THAN THE GAS PIPE.



WASTE AND VENT SCHEMATIC

NTS

OSE
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Mar 28, 2023 - 3:04pm

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ARCHITECTURE & PLANNING

DRAWING: Plumbing Schematics

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY
CHECKED BY
DATE March 24th, 2023
JOB NO. 777
SHEET

P3.0

ELECTRICAL SYMBOLS

NOTE: NOT ALL SYMBOLS ARE USED ON THIS PROJECT

- A / a — FLUORESCENT FIXTURE, WITH FIXTURE DESIGNATED BY LETTER. SMALL LETTER INDICATES SWITCH LEG
- NL — NIGHT LIGHT– NOT SWITCHED
- FLUORESCENT STRIP FIXTURE.
- CEILING OR WALLMOUNTED FIXTURE.
- PC — PORCELAIN PULL CHAIN FIXTURE
- J — JUNCTION BOX
- JUNCTION BOX WITH FLEX CONNECTION.
- SINGLE FACE EXIT SIGN– NOT SWITCHED
- DOUBLE FACED EXIT SIGN– NOT SWITCHED.
- TWO HEAD EMERGENCY LIGHT WITH BATTERY.
- POLE–MOUNTED FIXTURE – No. OF LUMINAIRES AS SHOWN & SCHEDULED
- S — SINGLE POLE SWITCH, + 48" A.F.F. (20A–120/277V)
- S_3 — THREE WAY SWITCH, + 48" A.F.F. (20A–120/277V)
- S_4 — 4–WAY SWITCH +48" AFF (20A–120/277V)
- S_P — SWITCH AND PILOT LIGHT (20A–120–/277V)
- S_K — SINGLE POLE SWITCH, KEY OPERATED (20A)
- DIMMER CONTROL, + 48" A.F.F. EQUAL TO LUTRON "NOVA" SERIES, SIZED TO MATCH LOAD SERVED
- VS — VARIABLE SPEED FAN CONTROL, +48" A.F.F.
- DUPLEX RECEPTACLE, + 18" A.F.F. (20A)
- DUPLEX RECEPTACLE ABOVE COUNTER, VERIFY HEIGHT. (20A)
- FOURPLEX RECEPTACLE, + 18" A.F.F. (20A)
- SPECIAL RECEPTACLE – SIZE & TYPE AS NOTED
- POWER FLUSH FLOOR OUTLET
- TELEPHONE OUTLET PLASTER RING AT + 18" A.F.F. HUBBELL #P12 COVERPLATE. 3/4"C TO CEILING SPACE UNLESS SHOWN WITH HOMERUNS.
- DATA SYSTEM OUTLET, 4" SQUARE BOX AND COVERPLATE, 3/4" C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUN, + 18" A.F.F.
- TELE/DATA COMBO OUTLET, 4" SQUARE BOX AND COVERPLATE, 3/4" C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUN, + 18" A.F.F.
- CABLE TELEVISION (CATV) OUTLET PLASTER RING AT + 18" A.F.F. U.N.O. HUBBELL COVERPLATE. 3/4"C TO CEILING SPACE UNLESS SHOWN WITH HOMERUNS.
- —T— TELPHONE SYSTEM CONDUIT HOMERUN WITH NYLON PULLWIRE (1"C MIN UNO)
- TV — CLOSED CIRCUIT TV (CCTV) OUTLET SAME AS CATV OUTLET
- DOOR CHIME
- REMOTE CONTROL STATION @ +48" AFF
- DISCONNECT SWITCH, FUSE PER EQUIPMENT MANUFACTURERS RECOMMENDATION. OUTSIDE NEMA 3R – N.F. = NON–FUSED.
- COMBINATION STARTER AND FUSIBLE DISCONNECT SWITCH SIZE AS NOTED
- E — EQUIPMENT TERMINATION CONNECTION POINT VERIFY EXACT LOCATION LOAD AND VOLTAGE AS NOTED
- MOTOR
- S_M — THERMAL PROTECTED SWITCH
- MOTOR STARTER – SHADING INDICATES F.B.O.
- DISTRIBUTION PANELBOARD.
- BRANCH CIRCUIT PANELBOARD.
- CONDUIT BELOW FLOOR OR UNDERGROUND
- CONDUIT IN WALL OR ABOVE CEILING
- HOMERUN TO PANEL, NEUTRAL AND PHASE WIRING DESIGNATION (SEE GROUNDING NOTE)
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CONDUIT STUB–OUT, MARK AND CAP AS DIRECTED
- GROUND WIRE (SIZE AS NOTED) EXTENDED AND CONNECTED TO APP'D GROUND

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR (℄ OF OUTLET)
A.F.G.	ABOVE FINISHED GRADE (℄ OF OUTLET)
E.C.	EMPTY CONDUIT
G.F.I.	GROUND FAULT INTERRUPTER
WP	WEATHERPROOF
UNO	UNLESS OTHERWISE NOTED
NL	NIGHT LIGHT
TYP	TYPICAL
EDF	ELECTRIC DRINKING FOUNTAIN
TMB	TELEPHONE MOUNTING BOARD

OUTLET MOUNTING HEIGHTS PER AMERICAN DISABILITY ACT

ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE 2010 ADA SAD REQUIREMENTS FOR ALL SWITCHES. RECEPTACLES, TELE./DATA AND SIDE REACH CONTROL SWITCHES. ALL WALL CONTROLS, SWITCHES AND THERMOSTATS TO BE MOUNTED WITH TOP OF J–BOX AT 48" A.F.F. ALL ABOVE COUNTER CONTROLS, SWITCHES & OUTLETS TO BE MOUNTED WITH HORIZONTAL ORIENTATION WITH TOP OF J–BOX AT 44" A.F.F.. ALL WALL OUTLETS TO BE MOUNTED AT 15" A.F.F. TO BOTTOM OF J–BOX.

SPECIAL REQUIREMENTS PER: THE FAIR HOUSING ACT.

ALL RECEPTACLES AT RESTROOM LAVATORIES TO BE GFCI TYPE. ALL WALL CONTROLS, SWITCHES AND THERMOSTATS TO BE MOUNTED WITH TOP OF J–BOX AT 48" A.F.F. ALL ABOVE COUNTER CONTROLS, SWITCHES & OUTLETS TO BE MOUNTED WITH HORIZONTAL ORIENTATION WITH TOP OF J–BOX AT 44" A.F.F. ALL WALL OUTLETS TO BE MOUNTED AT 15" A.F.F. TO BOTTOM OF J–BOX.

SPECIFICATIONS

1. PRIOR TO SUBMITTING BID, SUBCONTRACTORS SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS AND VISIT THE CONSTRUCTION SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH IN ANY WAY AFFECTS THE WORK UNDER HIS CONTRACT. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.
2. THE SUBCONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING, PAINTING AND /OR OTHER REPAIR DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THE CONTRACT. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC., AS REQUIRED.
3. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, ELEVATIONS AND BUILDING DETAILS. VERIFY LOCATION OF ALL OUTLETS, SWITCHES, AND WALL MOUNTED LIGHTING FIXTURES WITH ARCHITECTURAL DRAWINGS AND ACTUAL CONDITIONS. VERIFY ALL CEILING TYPES WITH ARCHITECTURAL DRAWINGS BEFORE ORDERING FIXTURES.
4. PRIOR TO ROUGH–IN AND FINAL CONNECTION, VERIFY ELECTRICAL CHARACTERISTICS AND EXACT LOCATION OF EQUIPMENT.
5. GROUT AND SEAL ALL CONDUIT PENETRATIONS OF WALLS AND FLOOR SLABS TO PRESERVE FIRE RATING AND WATERTIGHT INTEGRITY.
6. BRANCH CIRCUIT WIRING SHALL BE THHN/THWN INSULATION. PANEL FEEDERS SHALL BE TYPE XHHW. ALL WIRE SHALL BE COPPER. MINIMUM WIRE SIZE SHALL BE #12.
7. ALL WIRING TO BE INSTALLED IN RACEWAYS. TYPE OF RACEWAY SHALL BE AS REQUIRED BY CODE. MINIMUM CONDUIT SIZE SHALL BE 1/2".
8. PROVIDE CODE SIZED BOND WIRE IN ALL EMT, FLEXIBLE CONDUIT
9. ALL ELECTRICAL EQUIPMENT SHALL BE NEW , U.L. APPROVED AND COMMERCIAL GRADE.
10. WIRE RATED FOR 150° CENTIGRADE SHALL BE USED FOR ALL INCANDESCENT LIGHTING FIXTURES.
11. ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL CODE, (N.E.C.), AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES.
12. PROVIDE TYPEWRITTEN DESCRIPTIVE PANEL DIRECTORIES

NOTE:

1.) ALL SUB–PANELS, SERVICE EQUIPMENT, AND EQUIPMENT DISCONNECTS SHALL BE PROVIDED WITH THE WORKING CLEARENCES REQUIRED BY THE LATEST ADOPTED NEC.

SITE RELATED WORK

PRIOR TO COMMENCING WORK AND/OR SUBMITTING BASE BID, THE CONTRACTOR SHALL VISIT THE SITE AND SATISFY HIMSELF TO EXISTING WORK RELATED CONDITIONS WITH REGARDS TO THE FOLLOWING:

1. TRENCH AND BACKFILL FOR CONDUITS PER UTILITY CO. REQUIREMENTS. (FIELD VERIFY)
2. TRANSFORMER MOUNTING PAD PER UTILITY CO. REQUIREMENTS.
3. PROVIDE SECONDARY AND/OR PRIMARY CONDUITS. (SEE ONE LINE DIAGRAM).
4. SERVICE ENTRANCE SECTION (S.E.S.). VERIFY PROPOSED EQUIPMENT WILL FIT THE SPACE ALLOTED PRIOR TO ORDERING AND/OR CONSTRUCTION.
5. P.V.C. TELEPHONE CONDUIT WITH PULL WIRE AND RIGID FACTORY STEEL BENDS PER TELEPHONE CO. REQUIREMENTS. (SIZE AS NOTED OR REQUIRED BY UTILITY VERIFY PRIOR TO INSTALLATION).
6. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND COMPLIANCE WITH ALL UTILITY COMPANIES REQUIREMENTS, INCLUDING, BUT NOT LIMITED TO ANY AND ALL ADDITIONAL COSTS FOR MATERIAL AND LABOR FOR WORK WHETHER SHOWN ON THE PLANS OR NOT. ACTUAL ROUTING, CONDUIT, TRENCH AND PAD REQUIREMENTS SHALL BE AS SPECIFIED BY UTILITY COMPANIES. VERIFY REQUIREMENTS WITH UTILITIES PRIOR TO INSTALLATION.
7. WHERE APPLICABLE, PROVIDE EQUIPMENT GROUNDING (BOND) CONDUCTOR FOR METALLIC PROCESSING AND FIRE SPRINKLER PIPING PER NEC 250–80 AND SIZED PER NEC 250–95 TABLE.

ELECTRICAL DESIGN & CADD SERVICES INC.
1600 LAMB LANE
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CELL (928) 430–1200
E–MAIL: archie@elecdesign.net

JOB# 23–27

ONE LINE GENERAL NOTES·

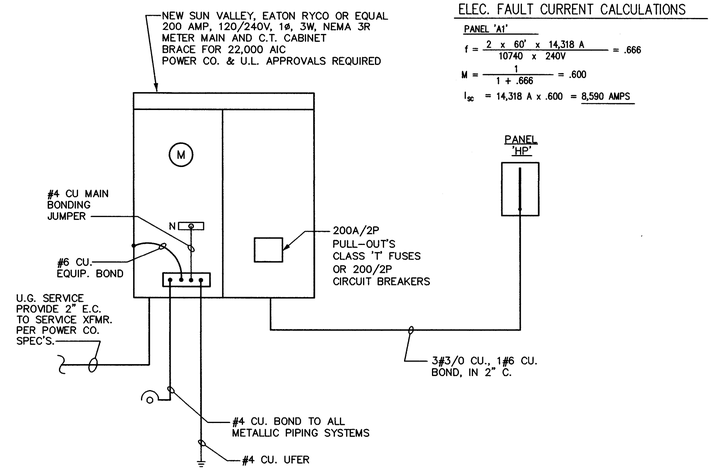
1. SYSTEM SHOWN IS A TWO TIER SERIES RATED SYSTEM 22/10K. MANUFACTURER SHALL PROVIDE A UL LISTED SYSTEM TO MATCH THIS RATING.
2. MOTOR SHORT CIRCUIT CONTRIBUTION IS LESS THAN 1% OF SYSTEM SHORT CIRCUIT AMPS.
3. NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT THE PRIOR APPROVAL OF THE DESIGN ELECTRICAL ENGINEER AND THE ELECTRICAL INSPECTOR

ONE LINE KEYNOTES·

(1) PROVIDE A PERMANENT LABEL READING "THIS CIRCUIT BREAKER IS PART OF A SERIES RATED SYSTEM WITH DOWNSTREAM PANELS 22/10K. 22,000 AMPS AVAILABLE. IDENTIFIED REPLACEMENT COMPONENT REQUIRED"

(2) PROVIDE A PERMANENT LABEL READING "CAUTION– SERIES RATED SYSTEM 22/10, IDENTIFIED REPLACEMENT COMPONENTS REQUIRED"

MAXIMUM AVAILABLE FAULT CURRENT = 14,318 AMPS SYMM (VERIFY WITH UTILITY COMPANY PRIOR TO ORDERING EQUIPMENT)



ELEC. FAULT CURRENT CALCULATIONS

PANEL 'A1'

$f = \frac{.2 \times 60' \times 14{,}318\ A}{10740 \times 240V} = .666$

$M = \frac{1}{1 + .666} = .600$

$I_{sc} = 14{,}318\ A \times .600 = 8{,}590\ AMPS$

ELEC. ONE-LINE DIAGRAM - 'SES'

N.T.S.

REVISIONS	BY

REGISTERED PROFESSIONAL ENGINEER — CERTIFICATE NO. 7450 — ANGELO OSSANNA — 1/11/23 — Date Signed — ARIZONA, U.S.A. — EXPIRES 12/30/2024

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ARCHITECTURE & PLANNING

DRAWING: Electrical Symbols, Specifications, One-Line Diagram & Notes

PROJECT: Commercial Building on Side Rd. 5416 Side Rd. Prescott, AZ 86301

APN: 103-01-038

DRAWN BY	
CHECKED BY	
DATE	March 24th, 2023
JOB NO.	777
SHEET	E1.0

Jul 11, 2023 - 12:56pm

GENERAL POWER NOTES:

1. ELECTRICAL CONTRACTOR SHALL VERIFY MOUNTING HEIGHT OR LOCATION OF ANY ELECTRICAL EQUIPMENT AND OR DEVICES HE IS TO VERIFY ITEMS WITH ELECTRICAL ENGINEER, ARCHITECT OR OWNER PRIOR TO ROUGH-IN.
2. ALL RECEPTACLES AT RESTROOM LAVATORIES TO BE GFCI TYPE INSTALLED AT +42" A.F.F.
3. ALL RECEPTACLES IN AREAS WITHIN 6'-0" OF A SINK SHALL BE GFCI TYPE PER NEC
4. EXTERIOR & ROOF MOUNTED MAINT. RECEPT'S. SHALL BE WP, GFCI TYPE PER NEC
5. VERIFY THE EXACT LOCATIONS OF ALL TELEPHONE OUTLETS, DATA OUTLETS AND SPECIAL SYSTEMS OUTLETS WITH THE ARCHITECT/OWNER PRIOR TO ROUGH-IN.
6. ELECTRICAL CONTRACTOR SHALL VERIFY MECHANICAL EQUIPMENT REQUIREMENTS BREAKER, DISC. & WIRE SIZE WITH MANUFACTURER PRIOR TO ROUGH-IN.
8. ELECTRICAL CONTRACTOR IS APPROVED TO USE SURFACE MOUNTED RECEPTACLES & CONDUIT IN STORAGE AREA VERIFY PRIOR TO ROUGH-IN.
9. ALL RECEPTACLES IN WAREHOUSE SUITE A, B & C TO BE INSTALLED AT +48" A.F.F. GFCI TYPE.

GENERAL LIGHTING NOTES:

1. IF ELECTRICAL CONTRACTOR IS NOT CERTAIN OF MOUNTING HIEGHT OR LOCATION OF ANY LIGHTING FIXTURES OR SWITCHES HE IS TO VERIFY ITEMS WITH ELCTRICAL ENG., ARCHITECT OR OWNER PRIOR TO ROUGH-IN.
2. NIGHT LIGHTS (NL), EMERGENCY & EXIT LIGHT FIXTURES SHALL BE CONNECTED TO UNSWITCHED LEG OF CIRCUIT.

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JOB# 23-27

REVISIONS	BY

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ARCHITECTURE & PLANNING

Lighting & Power Floor Plan

Scale: 1/4"=1'-0"

Plan North

PANELBOARD A SCHEDULE

MAINS:	200A MLO
VOLTAGE:	120/240V, 1ø, 3W
TYPE:	EQ. D, GE, EATON OR EQUAL
LOCATION:	SEE PLAN
MOUNTING:	SURFACE/FLUSH
MIN. A.I.C.:	22/10K SERIES RATED

CIRCUIT DESCRIPTION	BKR.	CIR. NO.	LOAD-VA ØA	LOAD-VA ØC	CIR. NO.	BKR.	CIRCUIT DESCRIPTION
LIGHTS	20/1	1	875		2	20/1	RECEPTACLES – SUITE A
		3	720		4		
LIGHTS		5		500	6		RECEPTACLES – SUITE A
LIGHTS – EXTERIOR		7	400	540	8		RECEPTACLES – SUITE B & C
SPARE		9		800	10		RECEPTACLE CLOTHS WASHER
SPARE		11	2250		12		ELECTRIC WATER HEATER
UNIT HEATER		13		200	14		4.5 KW, 240V, 1ø
DRYER	30/2	15	3000	2250	16		ELECTRIC GARAGE DOOR OPENER
		17	1000	3000	18		ELECTRIC GARAGE DOOR OPENER
EVAP COOLER	20/2	19	1200	1000	20		FUTURE GATE
		21	200	1200	22		SPARE
SPACE		23			24		SPACE
		25			26		
		27			28		
		29			30		
		31			32		
		33			34		
		35			36		
		37			38		
		39			40		
		41			42		
TOTAL LOAD PER PHASE:			10985	10190	HI# 10985 / 120V = 91.5 AMPS		

Schedule

Symbol	Label	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	Lumen Multiplier	LLF	Wattage
	A	Lithonia Lighting	CLX L48 7000LM SEF FDL MVOLT GZ10 40K 80CRI WH	CLX LED Linear 48" 7,000 lumens, Standard Efficiency, Less louver, Flat diffuse lens, General distribution, MVOLT, 0-10V dimming, 4000 CCT, 80 CRI	4000K LED	1	6810	1	0.91	49.05
	B	Lithonia Lighting	CLX L48 3000LM SEF FDL MVOLT GZ10 40K 80CRI WH	CLX LED Linear 48" 3,000 lumens, Standard Efficiency, Less louver, Flat diffuse lens, General distribution, MVOLT, 0-10V dimming, 4000 CCT, 80 CRI	4000K LED	1	2813	1	1	20.32
	SA	Lithonia Lighting	WDGE1 LED P1 30K 80CRI VW MVOLT SRM (BRONZE)	WDGE1 LED WITH P1 - PERFORMANCE PACKAGE, 3000K, 80CRI, VISUAL COMFORT WIDE OPTIC	3000K LED	1	1163	1	0.91	18.0
	SE	Lithonia Lighting	WDGE1 LED P1 30K 80CRI VW MVOLT SRM E4WH (BRONZE)	WDGE1 LED WITH P1 - PERFORMANCE PACKAGE, 3000K, 80CRI, WITH EMERGENCY BATTERY-BACKUP	3000K LED	1	1163	1	0.91	18.0
		Lithonia Lighting	LHQM LED R HO	QUANTUM LED EMERGENCY COMBO (ONE HEAD ONLY)	TWO 1.5-WATT LED ASSEMBLY	1	Absolute	1	0	3
		Lithonia Lighting	ELMLT W LP06VS LTP	ELMLT W LP06VS LTP	TWO 5.4-WATT LED ASSEMBLY	1	523	1	0	11

KEY NOTE:

(1) ELECTRICAL CONTRACTOR SHALL PROVIDE & INSTALL 1/2" CONDUIT FOR FUTURE GATE VERIFY EXACT STUB-UP LOCATION AND REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.

DRAWING: Lighting & Power Floor Plan

PROJECT: Commercial Building on Side Rd.
5416 Side Rd.
Prescott, AZ 86301

APN: 103-01-038

DRAWN BY	
CHECKED BY	
DATE	March 24th, 2023
JOB NO.	777
SHEET	E1.1

Jul 11, 2023 - 12:57pm

BUILDER/CONTRACTOR RESPONSIBILITIES

Drawing Validity – These drawings, supporting structural calculations and design certification are based on the order documents as of the date of these drawings. These documents describe the material supplied by the manufacturer as of the date of these drawings. Any changes to the order documents after the date on these drawings may void these drawings, supporting structural calculations and design certification. The Builder/Contractor is responsible for notifying the building authority of all changes to the order documents which result in changes to the drawings, supporting structural calculations and design certification.

Builder Acceptance of Drawings – Approval of the manufacturer's drawings and design data affirms that the manufacturer has correctly interpreted and applied the requirements of the order documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (AISC code of standard practice APR 10 Section 4.4.1)

Code Official Approval – It is the responsibility of the Builder/Contractor to ensure that all project plans and specifications comply with the applicable requirements of any governing building authority. The Builder/Contractor is responsible for securing all required approvals and permits from the appropriate agency as required.

Builder is responsible for State, Federal and OSHA safety compliance – The Builder/Contractor is responsible for applying and observing all pertinent safety rules and regulations and OSHA standards as applicable.

Building Erection – The Builder/Contractor is responsible for all erection of the steel and associated work in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as temporary guys, braces, false work or other elements required for erection will be determined, furnished and installed by the erector. (AISC Code of Standard Practice APR 10 Section 7.10.3)

Discrepancies – Where discrepancies exist between the Metal Building plans and plans for other trades, the Metal Building plans will govern. (AISC Code of Standard Practice APR 10 Section 3.3)

Materials by Others – All interface and compatibility of any materials not furnished by the manufacturer are the responsibility of and to be coordinated by the Builder/Contractor or A/E firm. Unless specific design criteria concerning any interface between materials if furnished as a part of the order documents, the manufacturers assumptions will govern.

Modification of the Metal Building from Plans – The Metal Building supplied by the manufacturer has been designed according to the Building Code and specifications and the loads shown on this drawing. Modification of the building configuration, such as removing wall panels or braces, from that shown on these plans could affect the structural integrity of the building. The Metal Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any changes to the building configuration shown on these drawings. The Metal Building Manufacturer will assume no responsibility for any loads applied to the building not indicated on these drawings.

Foundation Design – The Metal Building Manufacturer is not responsible for the design, materials and workmanship of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only location, diameter and projection of the anchor rods required to attach the Metal Building System to the foundation. It is the responsibility of the end customer to ensure that adequate provisions are made for specifying rod embedment, bearing values, tie rods and or other associated items embedded in the concrete foundation, as well as foundation design for the loads imposed by the Metal Building System, other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA MBSM Chapter 4 Section 3.2.2 and Section A3)

Shimming – In accordance with Section 6.10 of Chapter 4, Common Industry Practices in the Metal Building Systems Manual, shimming is a normal part of erection and is not subject to claim.

PROJECT NOTES

Material properties of steel bar, plate, and sheet used in the fabrication of built–up structural framing members conform to ASTM A529, ASTM A572, or ASTM A1011 with 55 ksi min. yield, except flanges wider than 12" and thicker than 3/8", all flanges thicker than 1", and all webs thicker than 3/8" are 50 ksi min. yield. Rod X–bracing conforms to ASTM A529 or ASTM A572 with 50 ksi min. yield. Cable X–bracing conforms to ASTM A475 7 Strand Extra High–Strength grade. Hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with 50 ksi min. yield. Hot rolled angles, other than flange braces, conform to ASTM A36 minimum. Round and rectangular HSS conforms to ASTM A500 Grade B. Cold–formed steel secondary framing Members conform to ASTM A1011 or ASTM A653 Grade 55 with 55 ksi min. yield.

The manufacturer does not assume any responsibility for the erection nor field supervision of the structure and or any special inspections that may be required by the local building authority during erection (including inspection of the high strength bolts or field welds) as required during erection. The coordination and the costs associated for setting up and Special Inspections are the responsibility of the Erector, Owner, Architect, or Engineer of Record.

Design is based upon the more severe loading of either the roof snow load or the roof live load.

Loads, as noted, are given within order documents and are applied in general accordance with the applicable provisions of the model code and/or specification indicated. Neither the manufacture nor the certifying engineer declares or attests that the loads as designated are proper for the local provisions that may apply or for site specific parameters. The manufacturer's Engineer's certification is limited to design loads supplied by an Architect and/or engineer of record for the overall construction project.

This project is designed using manufacture's standard serviceability standards. Generally this means that all stresses and deflections are within typical performance limits for normal occupancy and standard metal building products. If special requirements for deflections and vibrations must be adhered to, then they must be clearly stated in the contract documents.

This metal building system is designed as enclosed. All exterior components (i.e. doors, windows, vents, etc.) must be designed to withstand the specified wind loading for the design of components and cladding in accordance with the specified building code. Doors are to be closed when a maximum of 50% of design wind velocity is reached.

Unless otherwise noted, special inspection of fabricated items is not required. Per IBC section 1704.2.5.1, The fabricator is approved to perform such work without special inspection through maintenance of IAS AC 472 certification MB–136

The design collateral load has been uniformly applied to the design of the building. Hanging loads are to be attached to the purlin web. This may not be appropriate for heavily concentrated loads. Any attached load in excess of 150 pounds shall be accounted for by special design performed by a licensed engineer using concentrated loads and may require separate support members within the roof system.

The metal building manufacturer has not designed the structure for snow accumulation loads at the ground level which may impose snow loads on the wall framing provided by the manufacturer.

Using 7x7 gutter with 4 x 5 downspouts, the roof drainage system has been designed using the method outlined in the MBMA Metal Building Systems Manual. Downspout locations have not been located on these drawings. The downspouts are to be placed on the building sidewalls at a spacing not to exceed 50 feet with the first downspout from both ends of the gutter run within 25 feet of the end. Downspout spacing that does not exceed the maximum spacing will be in compliance with the building code. The gutter and downspout system as provided by the manufacturer is designed to accommodate 4 in/hr rainfall intensity.

BOLT TIGHTENING – All bolted joints with A325 Type 1 bolts are specified as snug–tightened joints in accordance with the with the most recent edition of the RCSC Specification for Structural Joints Using ASTM A325 OR A490 bolts. Pre–tensioning methods, including turn–of–nut, calibrated wrench, twist–off–type tension–control bolts or direct–tension–indicator are NOT required. Installation inspection requirements for snug–tight bolts (Specification for Structural Joints Section 9.1) is suggested.

ENGINEERING DESIGN CRITERIA

Building Code..... IBC 18
Building Risk Category..... II – Normal

Roof Dead Load
Superimposed..... 2.360 psf
Collateral..... 5 psf

Roof Live Load.....20.00 psf (Not Reducible)

Snow
Ground Snow Load (Pg)..... 43.00 psf
Snow Load Importance Factor (Is) 1.00
Snow Exposure Factor (Ce)..... 1.00
Thermal Factor (Ct)..... 1.00
Flat Roof Snow Load (Pf)..... 30.1 psf
Minimum Roof Snow Load (Pm)..... 30.10 psf

Wind
Ultimate Wind Speed (Vult)..... 101 mph
Nominal Wind Speed (Vasd)..... 78 mph
Serviceability Wind Speed..... 71 mph
(IBC Section 1609.3.1)
Wind Exposure Category..... C
Internal Pressure Coefficient (GCpi) 0.18 / –0.18
Loads for components not provided by building manufacturer.
Wall Edge Zones (within 3.50 ' of corner)
17.00 psf pressure
–22.67 psf suction
Other Wall Zones 17.00 psf pressure
–18.42 psf suction
These values are the maximum values required based on a 10 square foot area.
Components with larger areas may have lower wind loads.
Zones per ASCE 7–16; FIG. 30.3–1
Zones pressures shown are Un–Factored

Seismic
Seismic Importance Factor (Ie)..... 1.00
Seismic Design Category..... C
Soil Site Class..... d
Ss..... 0.338 g Sds..... 0.345 g
S1..... 0.101 g Sd1..... 0.162 g
Analysis Procedure..... Equivalent Lateral Force

Location...	Int	RF	Front SW	Back SW	Left EW	Right EW
System.....	H		H	H	H	H
R.....	3		3	3	3	3
Cs.....	0.115		0.115	0.115	0.115	0.115

Design Base Shear in kips (V) Transverse 5.83
Design Base Shear in kips (V) Longitudinal 5.56

System – Basic Force Resisting System
H – Steel System not Specifically Detailed for Seismic Resistance
C4 – Steel Ordinary Moment Frames
B3 – Steel Ordinary Concentric Braced Frames
G2 – Steel Ordinary Cantilevered Column Systems
R – Response Modification Coefficient
Cs – Seismic Response Coefficient
Transverse – Direction Parallel to the Rigid Frames
Longitudinal – Direction Perpendicular to the Rigid Frames

Drawing Index

DRAWING STATUS

☐ FOR APPROVAL
These drawings, being For Approval, are by definition not final, and are for conceptual representation only. Their purpose is to confirm proper interpretation of the project documents. Only drawings issued "For Erector Installation" can be considered as complete.

☐ FOR CONSTRUCTION PERMIT
These drawings, being for Permit, are by definition not final. Only drawings issued "For Erector Installation" can be considered as complete.

☒ FOR ERECTOR INSTALLATION
Final drawings for construction.

For questions or assistance Concerning Erection call:
800–784–9795
Monday–Friday 7:30am to 5:00pm

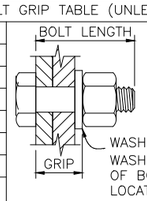
ENGINEERING SEAL

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Download panel installation manuals from:
www.cornerstonebuildingbrands.com/installationmanuals/

Descargue los manuales de instalación del panel desde:
www.cornerstonebuildingbrands.com/installationmanuals/

1/2"ø A325 BOLT GRIP TABLE (UNLESS NOTED)	
GRIP	LENGTH
0 TO 9/16"	1 1/4" F.T.
Over 9/16" TO 1 1/16"	1 3/4" F.T.
Over 1 1/16" TO 1 5/16"	2"
Over 1 5/16" TO 1 9/16"	2 1/4"
Over 1 9/16" TO 1 13/16"	2 1/2"
Over 1 13/16" TO 2 1/16"	2 3/4"
LOCATIONS OF BOLTS LONGER THAN 2 3/4" NOTED ON ERECTION DRAWINGS	
F.T. DENOTES FULLY THREADED	



NOTE:
FULL THREAD ENGAGEMENT IS DEEMED TO HAVE BEEN MET WHEN THE END OF THE BOLT IS FLUSH WITH THE FACE OF THE NUT.

WASHER REQUIRED ONLY WHEN SPECIFIED.
WASHER MAY BE LOCATED UNDER HEAD OF BOLT, UNDER NUT, OR AT BOTH AT LOCATIONS NOTED ON ERECTION DRAWINGS.
ADD 5/32" FOR EACH WASHER TO MATERIAL THICKNESS TO DETERMINE GRIP.

Rev. 9/29/2022

Building Descriptions				
Building ID	Width(ft)	Length(ft)	Height(ft)	Slope
Building A	35	79	20	

This item has been electronically signed and sealed by Yuangang (Bill) Li, S.E., P.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

Registered Professional Engineer (Structural)
CERTIFICATE NO.
49484
YUANGANG (BILL) LI
Apr 21, 2023
Date Signed
ARIZONA, U.S.A.
Expires 06/30/2024

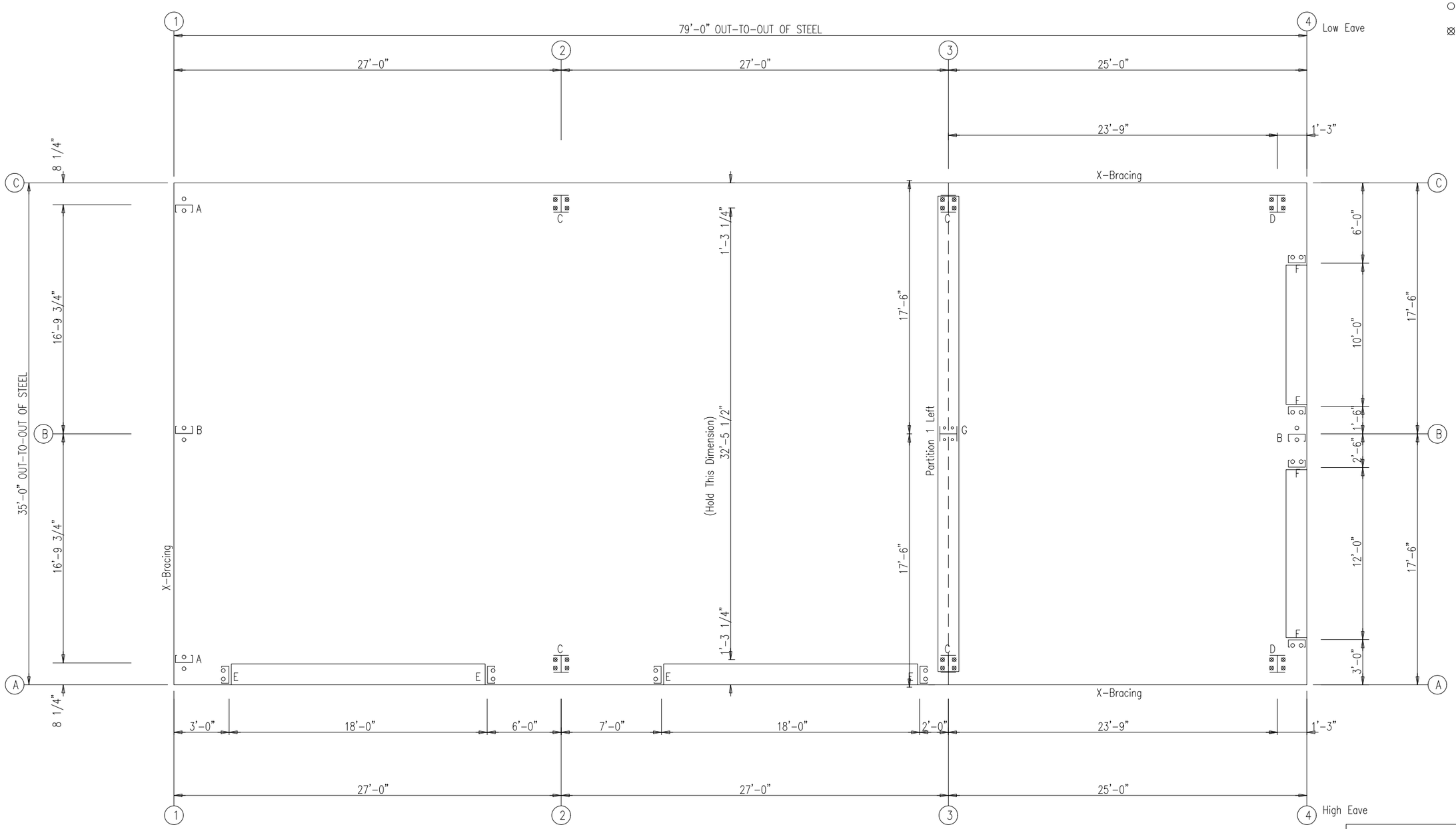
ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, ZIP 77041 (713) 466–7788 P.O. BOX 40338 ZIP 77240

PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE
OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19–B–34172	C1	0



ANCHOR BOLT PLAN

— — — Partition Wall (See KeyDwg)

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

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PROJECT: JIM CRAWFORD

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GENERAL NOTES

1) THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.
2) THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THE FOLLOWING LAYOUT (UNLESS NOTHED OTHERWISE)
   A) A REACTION TABLE IS PROVIDED WITH REACTIONS FOR EACH LOAD GROUP
   B) RIGID FRAMES
      (1) SEE NOTE 3.
   C) ENDWALLS
      (1) SEE NOTE 3.
   D) X-BRACING
      1) X-BRACING REACTIONS ARE INCLUDED IN VALUES SHOWN IN THE REACTION TABLES AS NOTED IN THE BRACING REACTIONS TABLE.
      2) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE SIDEWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS DO NOT INCLUDE THE AMPLIFICTION FACTOR, OMEGAo.
      3) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE ENDWALL, INDIVIDUAL TRANSVERSE SEISMIC LOADS DO NOT INCLUDE THE AMPLIFICATION FACTOR, OMEGAo.
   E) THE METAL BUILDING MANUFACTURER IS RESPONSIBLE ONLY FOR THE PORTION OF THE ANCHOR ROD DESIGN PERTAINING TO THE TRANSFER OF FORCES BETWEEN THE BASE PLATE BEARING AND THE ANCHOR ROD?S SHEAR AND TENSION. THE METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR THE ANCHOR ROD EMBEDMENT FOR TRANSFER OF FORCES TO THE FOUNDATION. THE METAL BUILDING MANUFACTURER DOES NOT DESIGN AND IS NOT RESPONSIBLE FOR THE DESIGN, MATERIAL, AND CONSTRUCTION OF THE FOUNDATION EMBEDMENT. THE END USE CUSTOMER SHALL ASSURE THAT ADEQUATE PROVISIONS ARE MADE TO THE FOUNDATION DESIGN FOR LOADS IMPOSED BY COLUMN REACTIONS OF THE BUILDING, OTHER IMPOSED LOADS, AND BEARING CAPACITY OF THE SOIL AND OTHER CONDITIONS OF THE BUILDING SITE. IT IS RECOMMENDED THAT THE ANCHORAGE AND FOUNDATION OF THE BUILDING BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER COMPETENT IN THE DESIGN OF SUCH STRUCTURES.
      i) (REF. APPENDIX A3 OF THE MBMA METAL BUILDING BUILDING SYSTEMS MANUAL)
   F) ANCHOR RODS ARE ASTM F1554 GR. 36 MATERIAL UNLESS NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.
3) REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN. THE FOUNDATION ENGINEER SHALL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS FOR PROPER FOUNDATION DESIGN.
   A) FOR PROJECTS USING ULTIMATE DESIGN WIND SPEEDS SUCH AS 2012 IBC, 2015 IBC, OR FLORIDA BUILDING CODE, THE WIND LOAD REACTIONS ARE AT A STRENGTH VALUE WITH A LOAD FACTOR OF 1.0.
   B) FOR IBC CODES, THE SEISMIC REACTIONS PROVIDED ARE AT A STRENGTH LEVEL WITH A LOAD FACTOR OF 1.0, AND DO NOT CONTAIN THE RHO FACTOR.

THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COMBINATION REACTIONS. HOWEVER, THE INDIVIDUAL LOAD REACTIONS PROVIDED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APPLICABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN.

FLOOR REACTION NOTE:

FOR VERTICAL LOADS, UPWARD IS POSITIVE AND DOWNWARD IS NEGATIVE. FOR HORIZONTAL REACTIONS, TO THE RIGHT IS POSITIVE AND TO THE LEFT IS NEGATIVE. FOUNDATION LOADS ARE IN OPPOSITE DIRECTIONS.

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind Press Horz
1	C	0.3	0.5	1.9	3.0	0.0	−1.9	0.0	−1.5	0.0	−1.0	0.0	−0.7	−1.0
1	B	1.0	1.5	5.7	9.2	−2.2	−8.7	0.0	0.1	−2.2	−6.5	0.0	1.9	−2.3
1	A	0.4	0.5	2.0	3.2	0.0	0.3	3.2	−5.0	0.0	0.8	2.9	−4.1	−1.5

Frm Line	Col Line	Wind Suct Horz	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seis_Left Horz	Seis_Left Vert	Seis_Right Horz	Seis_Right Vert	Seis Long Vert	−MIN_SNOW− Horz	−MIN_SNOW− Vert
1	C	1.2	0.0	−2.3	0.0	−1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.9
1	B	2.6	0.0	−4.8	0.0	−3.1	−1.1	−1.0	0.0	1.2	0.0	0.0	5.7
1	A	1.7	1.2	−3.1	0.5	−1.5	0.0	1.0	1.1	−1.2	0.0	0.0	2.0

Frm Line	Col Line	E1PAT_SL_1− Horz	E1PAT_SL_1− Vert	E1PAT_SL_2− Horz	E1PAT_SL_2− Vert
1	C	0.0	1.7	0.0	−0.2
1	B	0.0	2.3	0.0	2.3
1	A	0.0	−0.2	0.0	1.8

Frm Line	Col Line	Dead Vert	Wind Press Horz	Wind Suct Horz	Seis Long Vert
4	B	0.1	−2.2	2.2	0.0

NOTES FOR REACTIONS

BUILDING REACTIONS ARE BASED ON THE FOLLOWING BUILDING DATA:

WIDTH (FT)	= 35
LENGTH (FT)	= 79
EAVE HEIGHT (FT)	= 14.17 / 20
ROOF SLOPE (rise/12)	= 2.0:12 /
DEAD LOAD (psf)	= 2.360
COLLATERAL LOAD (psf)	= 5
ROOF LIVE LOAD (psf)	= 20.00
FRAME LIVE LOAD (psf)	= 20
ROOF SNOW LOAD (psf)	= 30.1
MINIMUM ROOF SNOW LOAD (psf)	= 30.1
GROUND SNOW LOAD (psf)	= 43.00
WIND SPEED (MPH)	= 101
WIND CODE	= IBC 18
EXPOSURE	= C
CLOSED/OPEN	= Closed
IMPORTANCE − WIND	= 1.00
IMPORTANCE − SEISMIC	= 1.00
SEISMIC ZONE	= C

REACTION KEY:

WIND Left/Right 1 = (with +GCpi Internal Pressure)
WIND Left/Right 2 = (with −GCpi Internal Pressure)
Wind_Long 1 = Wind Load Case B at Left EW
Wind_Long 2 = Wind Load Case B at Right EW
MIN_SNOW = Minimum Snow (Pm) per code
E#UNB_SL_L = Endwall Unbalanced Snow Left
E#UNB_SL_R = Endwall Unbalanced Snow Right
F#UNB_SL_L = Rigid Frame Unbalanced Snow Left
F#UNB_SL_R = Rigid Frame Unbalanced Snow Right

ANCHOR BOLT SUMMARY

Qty	Locate	Dia (in)	Type	Proj (in)
○ 16	Jamb	5/8"	F1554	2.00
○ 8	Endwall	5/8"	F1554	2.00
☒ 24	Frame	3/4"	F1554	2.50
○ 4	PC	5/8"	F1554	2.00

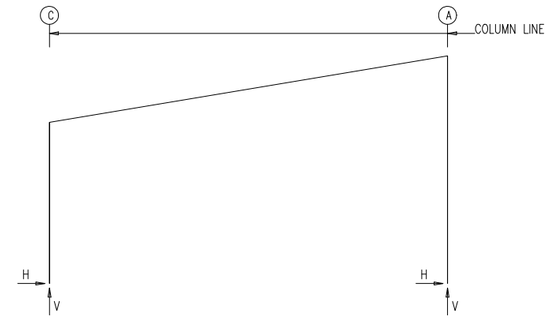
BUILDING BRACING REACTIONS

Wall Loc	Wall Line	Col Line	Reactions in plane of wall ± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Panel_Shear (lb/ft) Seis	Note
L_EW	1	B,A	Bracing, see EW reactions						
F_SW	A	3,4	2.6	*	2.8	*			
R_EW	4								
B_SW	C	4,3	2.2	*	2.7	*			(h)

(h)Rigid frame at endwall

*See RF reactions table for vertical and horizontal reactions in plane of the rigid frame.

FRAME LINES: 2 3 4



RIGID FRAME: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc._Bolt Qty	Anc._Bolt Dia	Base_Plate (in) Width	Base_Plate (in) Length	Base_Plate (in) Thick	Grout (in)
2*	C	4	0.750	6.000	10.50	0.375	0.0
2*	A	4	0.750	6.000	10.50	0.375	0.0

2* Frame lines: 2 3

RIGID FRAME: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc._Bolt Qty	Anc._Bolt Dia	Base_Plate (in) Width	Base_Plate (in) Length	Base_Plate (in) Thick	Grout (in)
4	C	4	0.750	6.000	11.50	0.375	0.0
4	A	4	0.750	6.000	11.50	0.375	0.0

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	−−−−−Dead−−−−− Horiz	Dead Vert	Collateral− Horiz	Collateral− Vert	−−−−−Live−−−−−−−−−Snow−−−−− Horiz	Live Vert	Snow Horiz	Snow Vert	−Wind_Left1− Horiz	−Wind_Left1− Vert	−Wind_Right1− Horiz	−Wind_Right1− Vert
4	C	0.2	0.9	0.3	1.1	1.1	4.5	1.8	7.3	−2.8	−5.5	2.4	−1.5
4	A	−0.2	1.0	−0.3	1.2	−1.1	4.7	−1.8	7.5	−0.8	−4.3	2.9	−4.8

Frame Line	Column Line	−−Wind_Left2− Horiz	Wind_Left2− Vert	−Wind_Right2− Horiz	Wind_Right2− Vert	−−Wind_Long1− Horiz	Wind_Long1− Vert	−−Wind_Long2− Horiz	Wind_Long2− Vert	−Seismic_Left Horiz	Seismic_Left Vert	Seismic_Right Horiz	Seismic_Right Vert
4	C	−3.2	−3.8	2.1	0.2	0.5	−5.6	0.6	−4.0	−0.7	−0.5	0.7	0.5
4	A	−0.4	−2.7	3.2	−3.1	0.1	−7.1	−0.6	−4.7	−0.4	0.5	0.4	−0.5

Frame Line	Column Line	−Seismic_Long Horiz	Seismic_Long Vert	−MIN_SNOW− Horiz	MIN_SNOW− Vert
4	C	0.0	−1.4	1.1	4.5
4	A	0.0	−2.1	−1.1	4.6

Frame Line	Column Line	−−−−−Dead−−−−− Horiz	Dead Vert	Collateral− Horiz	Collateral− Vert	−−−−−Live−−−−−−−−−Snow−−−−− Horiz	Live Vert	Snow Horiz	Snow Vert	−Wind_Left1− Horiz	−Wind_Left1− Vert	−Wind_Right1− Horiz	−Wind_Right1− Vert
2*	C	0.4	1.6	0.7	2.4	2.6	9.3	4.2	15.0	−5.4	−9.8	3.6	−2.9
2*	A	−0.4	1.7	−0.7	2.4	−2.6	9.6	−4.2	15.5	−1.9	−7.0	5.1	−8.3

Frame Line	Column Line	−−Wind_Left2− Horiz	Wind_Left2− Vert	−Wind_Right2− Horiz	Wind_Right2− Vert	−−Wind_Long1− Horiz	Wind_Long1− Vert	−−Wind_Long2− Horiz	Wind_Long2− Vert	−Seismic_Left Horiz	Seismic_Left Vert	Seismic_Right Horiz	Seismic_Right Vert
2*	C	−6.4	−6.2	3.1	0.6	0.6	−9.1	0.9	−6.5	−1.1	−0.9	1.1	0.9
2*	A	−1.0	−3.6	5.6	−4.8	0.1	−10.6	−1.1	−7.0	−0.7	0.9	0.7	−0.9

Frame Line	Column Line	−Seismic_Long Horiz	Seismic_Long Vert	−MIN_SNOW− Horiz	MIN_SNOW− Vert
2*	C	0.0	−1.4	2.6	9.3
2*	A	0.0	−2.1	−2.6	9.6

2* Frame lines: 2 3

ENDWALL COLUMN: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc._Bolt Qty	Anc._Bolt Dia	Base_Plate (in) Width	Base_Plate (in) Length	Base_Plate (in) Thick	Grout (in)
1	C	2	0.625	7.000	8.000	0.250	0.0
1	B	2	0.625	7.000	8.000	0.250	0.0
1	A	2	0.625	7.000	8.000	0.250	0.0
4	B	2	0.625	7.000	8.000	0.250	0.0

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

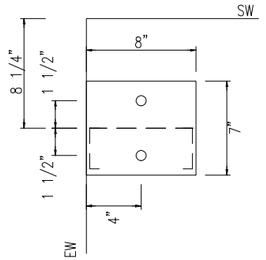
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	F2	0

This item has been electronically signed and sealed by Yuangang (Bill) Li, S.E., P.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

Registered Professional Engineer (Structural)
CERTIFICATE NO.
49484
YUANGANG (BILL) LI
Apr 21, 2023
Date Signed
ARIZONA, U.S.A.

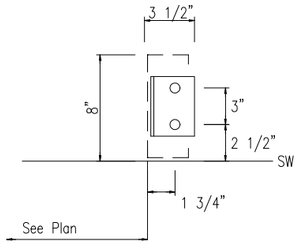
Expires 06/30/2024

Dia= 5/8"



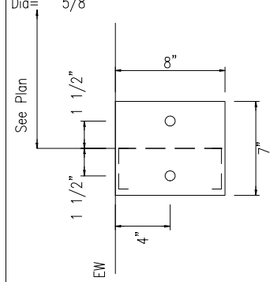
DETAIL A

Dia= 5/8"



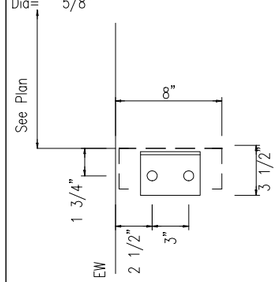
DETAIL E

Dia= 5/8"



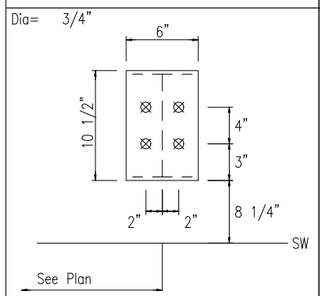
DETAIL B

Dia= 5/8"



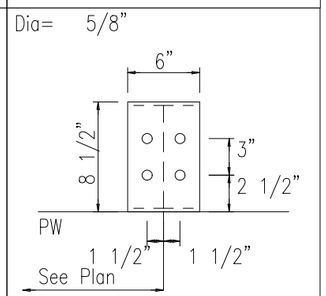
DETAIL F

Dia= 3/4"



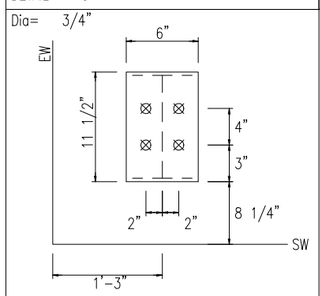
DETAIL C

Dia= 5/8"

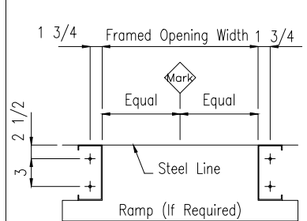


DETAIL G

Dia= 3/4"



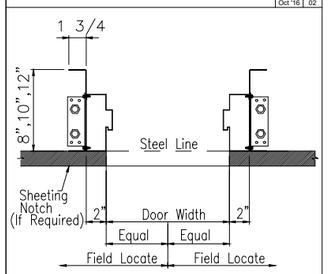
DETAIL D



ARDia 5/8" | Framed Opening AR Layout

Pre-Assembled Walk Door

Dwg AC05110
Date Oct '16 Rev 02



ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

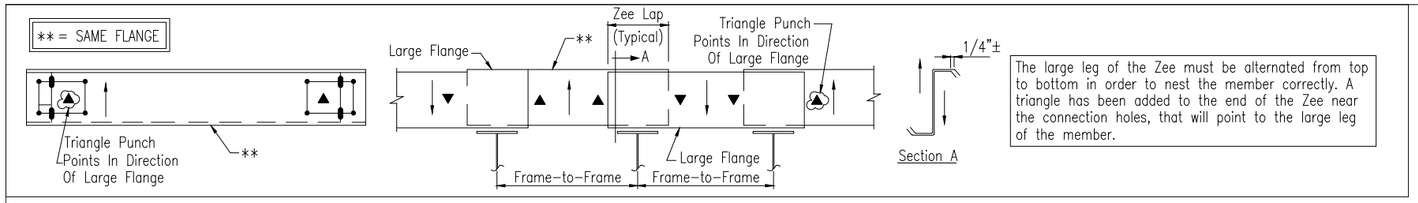
7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD

CUSTOMER: STEEL ERECTION & MAINTENANCE | OWNER: JIM CRAWFORD

LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	F3	0



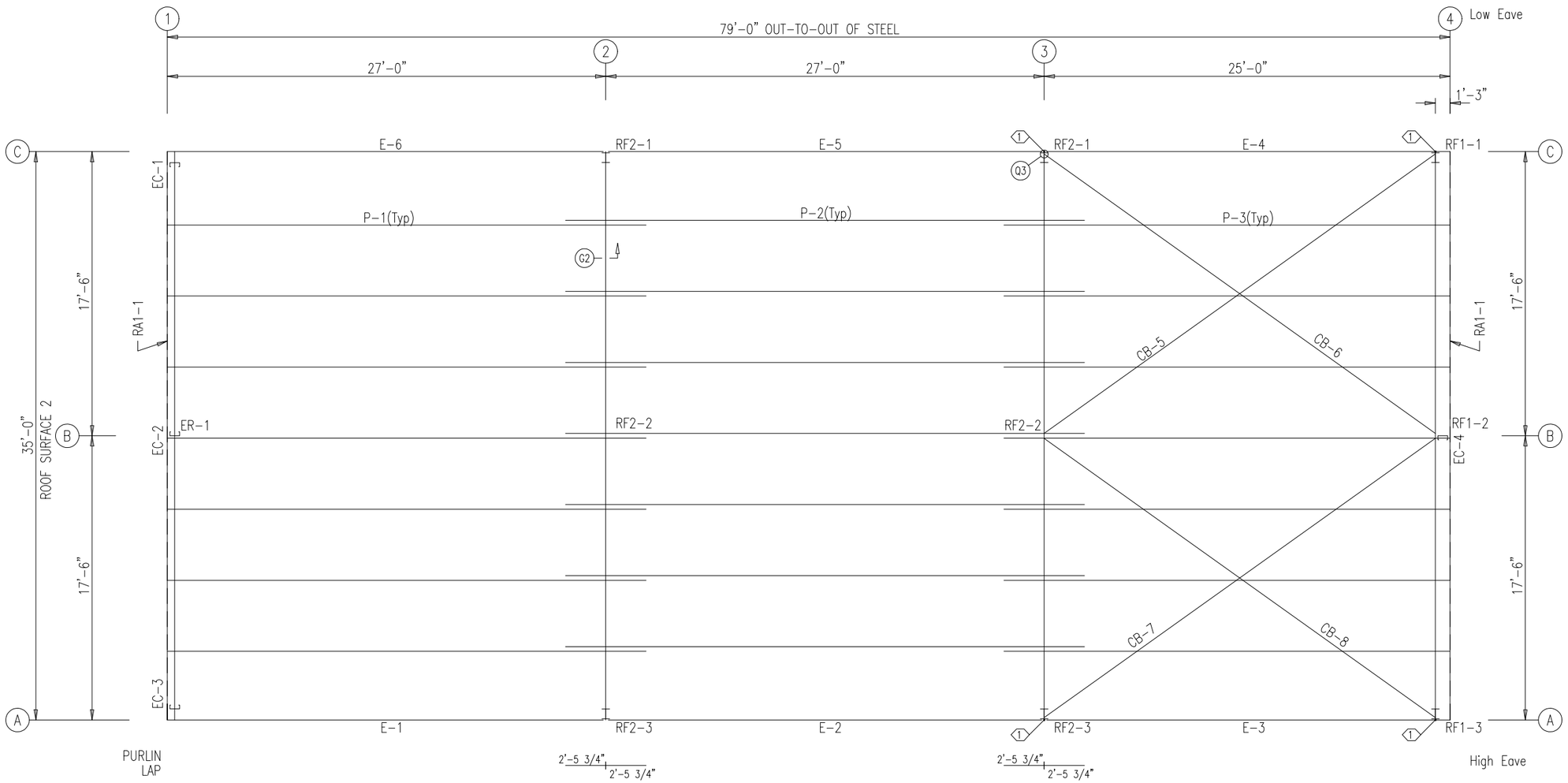
The large leg of the Zee must be alternated from top to bottom in order to nest the member correctly. A triangle has been added to the end of the Zee near the connection holes, that will point to the large leg of the member.

SPECIAL BOLTS
ROOF PLAN

◇ ID	QUAN	TYPE	DIA	LENGTH	WASH
1	2	A325	1/2"	1 1/4"	2

MEMBER TABLE
ROOF PLAN

MARK	PART	LENGTH
P-1	10X25Z13	29'-5 1/2"
P-2	10X25Z12	31'-11 1/2"
P-3	10X25Z13	27'-5 1/2"
E-1	10ES2H14	26'-11 1/2"
E-2	10ES2H14	26'-11 1/2"
E-3	10ES2H14	24'-11 1/2"
E-4	10ES2L14	24'-11 1/2"
E-5	10ES2L14	26'-11 1/2"
E-6	10ES2L14	26'-11 1/2"
CB-5	1/2" DIA. ROD	28'-11"
CB-6	1/2" DIA. ROD	29'-4"
CB-7	1/2" DIA. ROD	29'-2"
CB-8	1/2" DIA. ROD	28'-10"



ROOF FRAMING PLAN

GENERAL NOTES:

1. INSTALL ALL PURLIN AND FLANGE BRACES (FB) AS SHOWN.
2. ROOF PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. STRUT PURLINS, IF PROVIDED, MUST BE INSTALLED AND FASTENED TO ROOF SHEETING PER "PBR" PANEL ROOF DETAIL.
4. DO NOT ADD ANY ADDITIONAL ROOF OPENINGS WITHOUT BUILDING MANUFACTURER APPROVAL OR PROFESSIONAL ENGINEER APPROVAL.
5. DO NOT STACK SHEET BUNDLES ON ROOF. ONLY RAISE INDIVIDUAL SHEETS AS NEEDED.
6. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

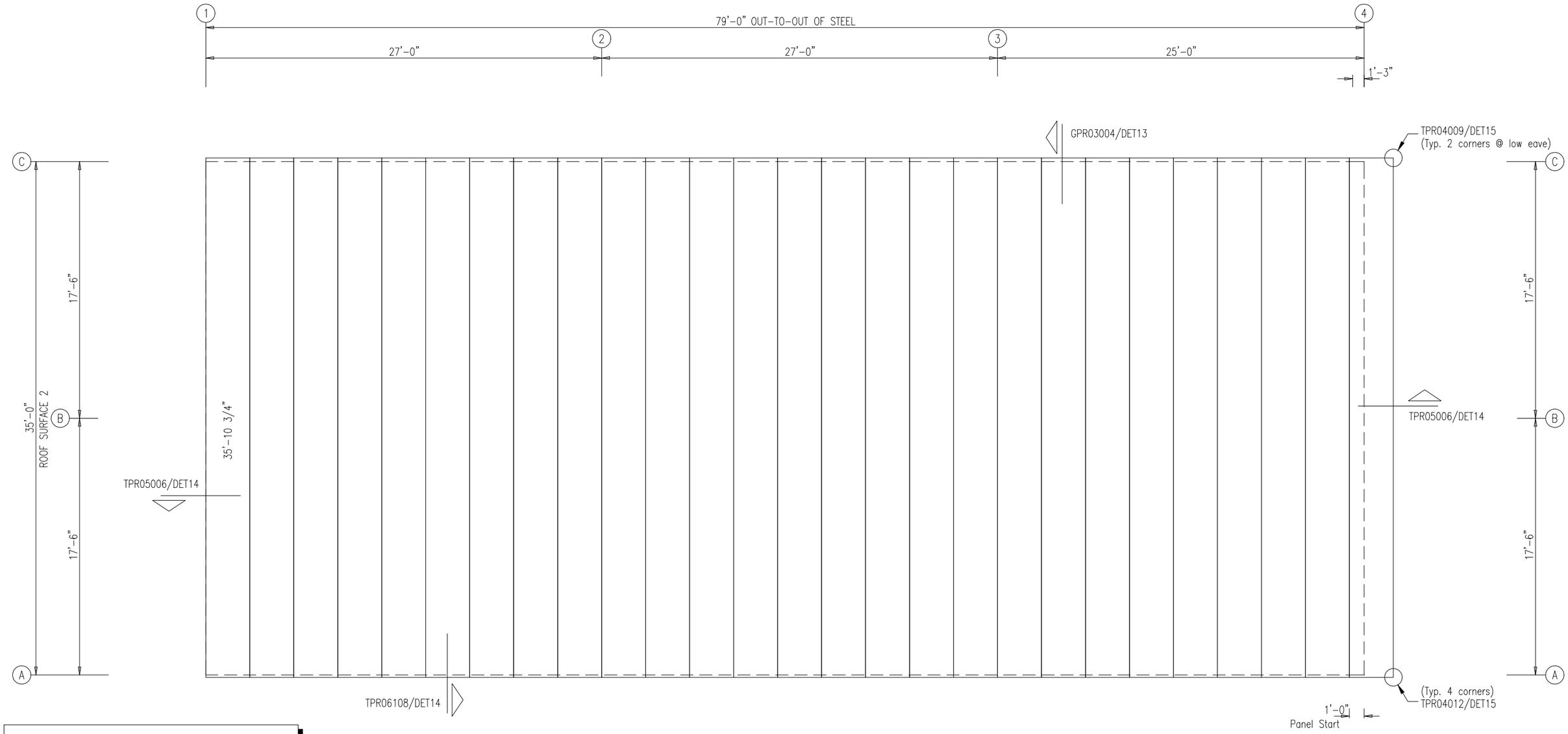
METALLIC BUILDING SYSTEMS
7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE
OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	E1	0

PBR ROOF SHEETING NOTE:

PBR ROOF PANELS ARE TO BE FIELD CUT IF THE PANELS EXTEND OUTSIDE OF THE ROOF PLANE, PANELS ARE NOT TO BE BACK LAPPED.



Non-Standard PBR Roof Panel Fasteners

#3A member fasteners are to be used for panel to secondary attachment in lieu of #3 shown on the R Drawings

GENERAL NOTES:

1. INSTALL ALL PURLIN AND FLANGE BRACES (FB) AS SHOWN.
2. ROOF PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. STRUT PURLINS, IF PROVIDED, MUST BE INSTALLED AND FASTENED TO ROOF SHEETING PER "PBR" PANEL ROOF DETAIL.
4. DO NOT ADD ANY ADDITIONAL ROOF OPENINGS WITHOUT BUILDING MANUFACTURER APPROVAL OR PROFESSIONAL ENGINEER APPROVAL.
5. DO NOT STACK SHEET BUNDLES ON ROOF. ONLY RAISE INDIVIDUAL SHEETS AS NEEDED.
6. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

ROOF SHEETING PLAN

PANELS: 26 Gauge PBR – TBD

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD

CUSTOMER: STEEL ERECTION & MAINTENANCE | OWNER: JIM CRAWFORD

LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	E2	0

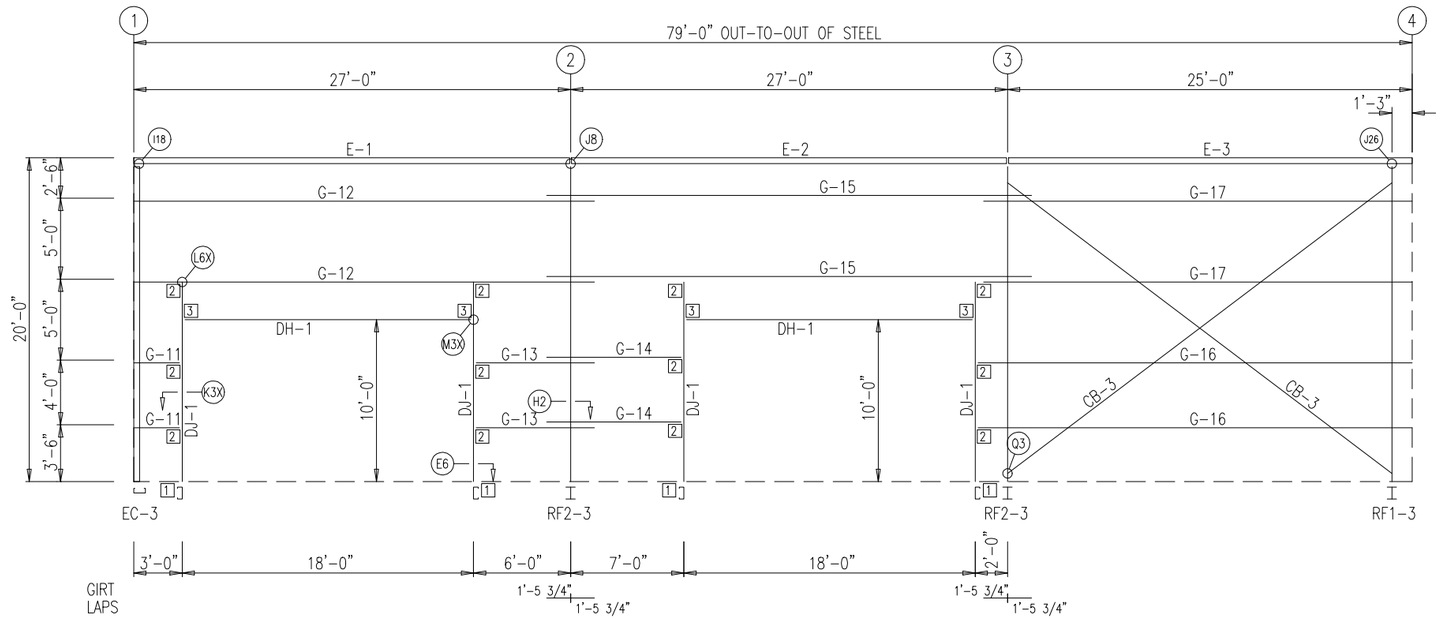
SPECIAL BOLTS					
◇ ID	QUAN	TYPE	DIA	LENGTH	WASH
2	2	A325	1/2"	1 1/4"	2

MEMBER TABLE
FRAME LINE A

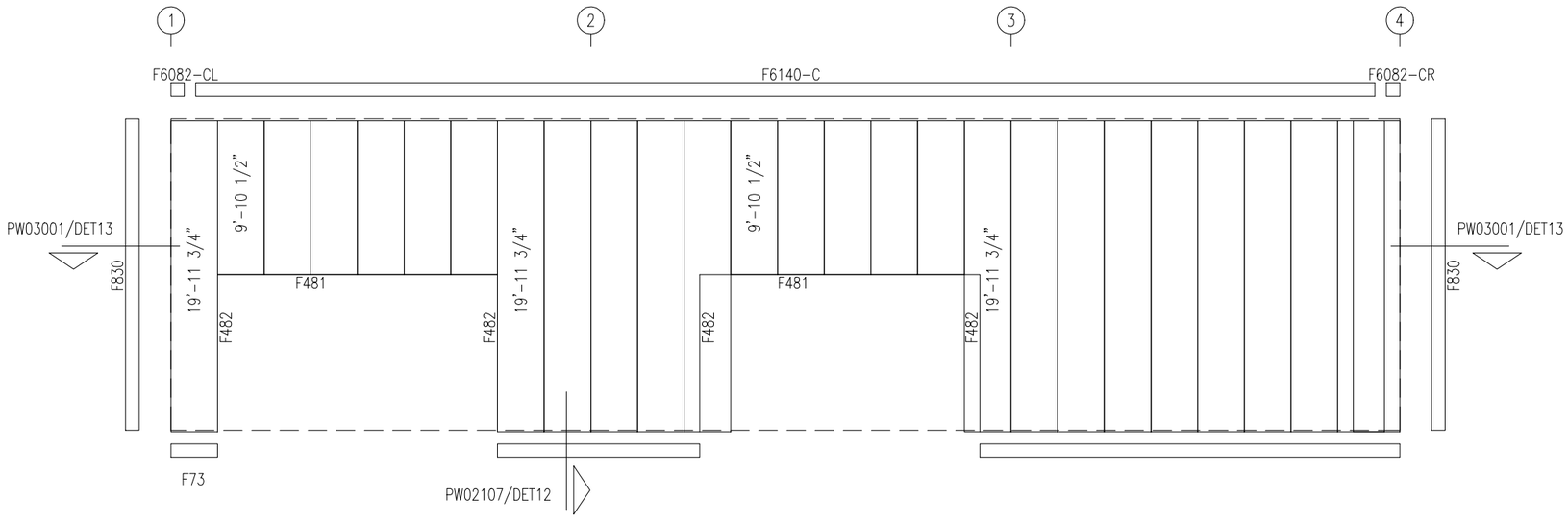
MARK	PART	LENGTH
DJ-1	8X35C14	12'-1 3/4"
DH-1	8X35C14	17'-11 3/4"
E-1	10ES2H14	26'-11 1/2"
E-2	10ES2H14	26'-11 1/2"
E-3	10ES2H14	24'-11 1/2"
G-11	8X25Z16	2'-7 3/4"
G-12	8X25Z16	28'-5 1/2"
G-13	8X25Z16	7'-1 3/4"
G-14	8X25Z16	8'-1 3/4"
G-15	8X25Z16	29'-11 1/2"
G-16	8X25Z16	26'-7 3/4"
G-17	8X25Z16	26'-5 1/2"
CB-3	5/8" DIA. ROD	30'-4"

CONNECTION PLATES
FRAME LINE A

ID	MARK/PART
1	CL753
2	CL751
3	SC425

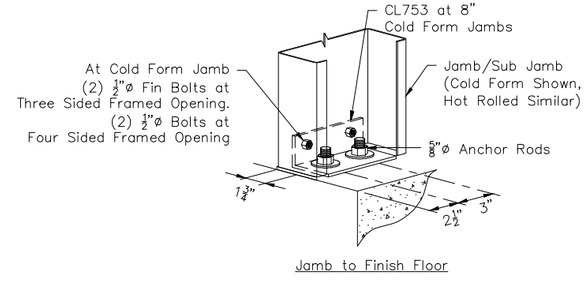


SIDEWALL FRAMING: FRAME LINE A



SIDEWALL SHEETING & TRIM: FRAME LINE A

PANELS: 26 Gauge PBR – TBD



Jamb to Finish Floor

Non-Standard PBR Wall Panel Fasteners

#17B member fasteners are to be used for panel to secondary attachment in lieu of #17A shown on the R Drawings

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.
4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

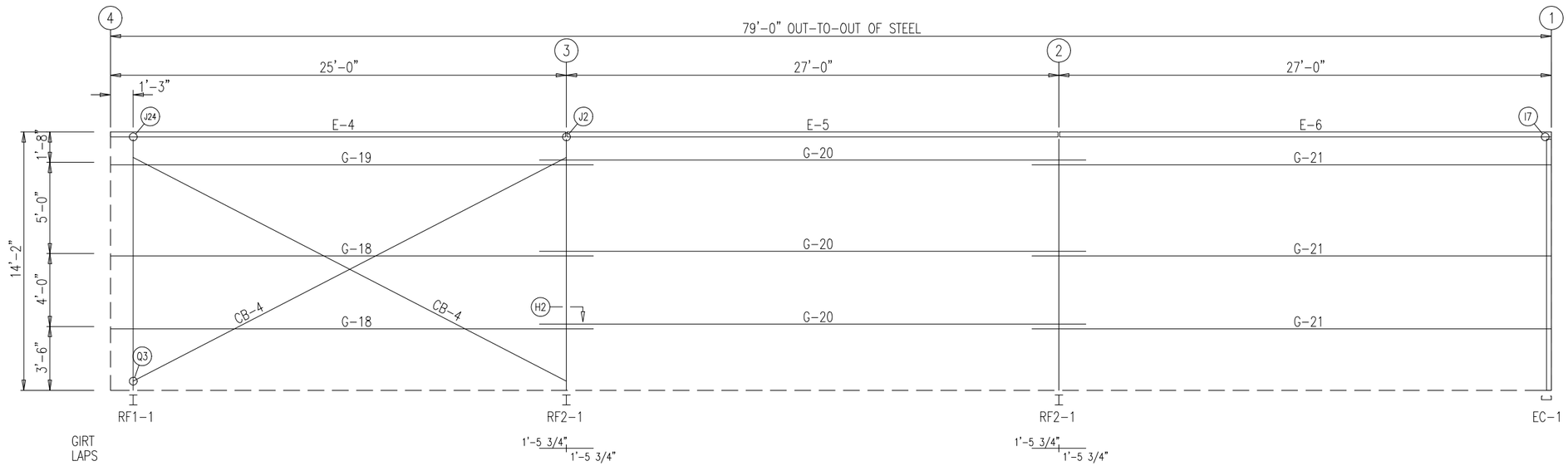
PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	E3	0

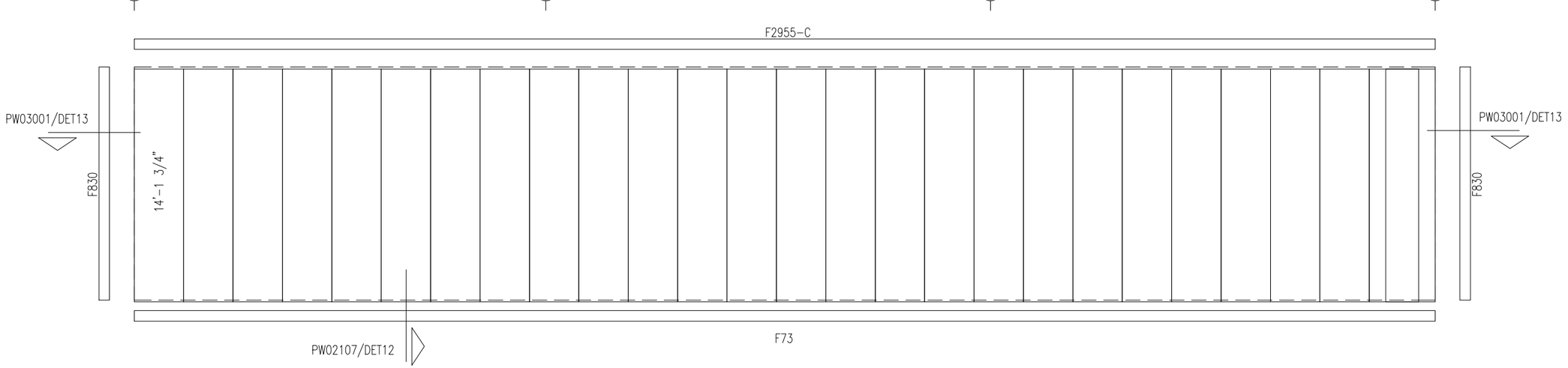
SPECIAL BOLTS					
◇ ID	QUAN	TYPE	DIA	LENGTH	WASH
2	2	A325	1/2"	1 1/4"	2

MEMBER TABLE
FRAME LINE C

MARK	PART	LENGTH
E-4	10ES2L14	24'-11 1/2"
E-5	10ES2L14	26'-11 1/2"
E-6	10ES2L14	26'-11 1/2"
G-18	8X25Z16	26'-5 1/2"
G-19	8X25Z16	26'-5 1/2"
G-20	8X25Z16	29'-11 1/2"
G-21	8X25Z16	28'-5 1/2"
CB-4	1/2" DIA. ROD	27'-4"



SIDEWALL FRAMING: FRAME LINE C



SIDEWALL SHEETING & TRIM: FRAME LINE C

PANELS: 26 Gauge PBR – TBD

Non-Standard PBR Wall Panel Fasteners

#17B member fasteners are to be used for panel to secondary attachment in lieu of #17A shown on the R Drawings

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.
4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, ZIP 77041 (713) 466-7788 P.O. BOX 40338 ZIP 77240

PROJECT: JIM CRAWFORD

CUSTOMER: STEEL ERECTION & MAINTENANCE OWNER: JIM CRAWFORD

LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	E4	0

BEARING FRAME ONLY!

WASHER TO BE USED AT ENDWALL COLUMN TO ENDWALL RAFTER CONNECTION. USE ONE WASHER ON COLUMN SIDE. WASHER NOT NEEDED ON CLIP SIDE.

BOLT TABLE
FRAME LINE 1

LOCATION	QUAN	TYPE	DIA	LENGTH
Columns/Raf	4	A325	1/2"	1 1/4"

MEMBER TABLE
FRAME LINE 1

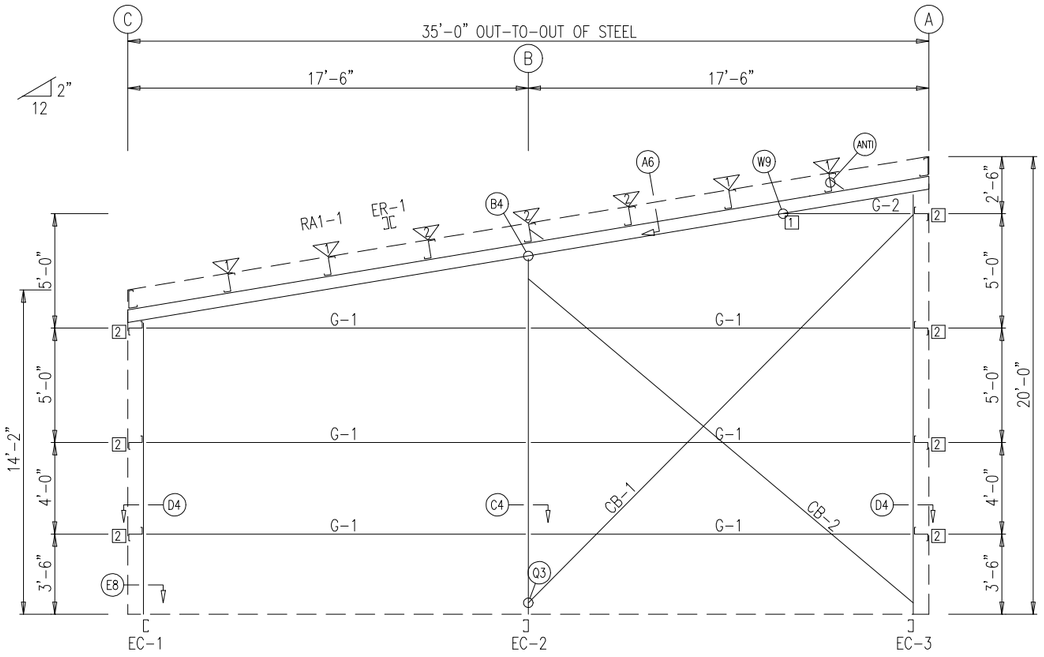
MARK	PART	LENGTH
EC-1	8F25C14	12'-7 7/8"
EC-2	8F35C12	15'-5 1/2"
EC-3	8F25C12	18'-3 1/8"
ER-1	8F70D12	35'-5 5/16"
G-1	8X25Z16	16'-1 3/4"
G-2	8X25Z16	4'-8 3/4"
CB-1	1/2" DIA. ROD	24'-6"
CB-2	1/2" DIA. ROD	22'-7"

FLANGE BRACE TABLE
FRAME LINE 1

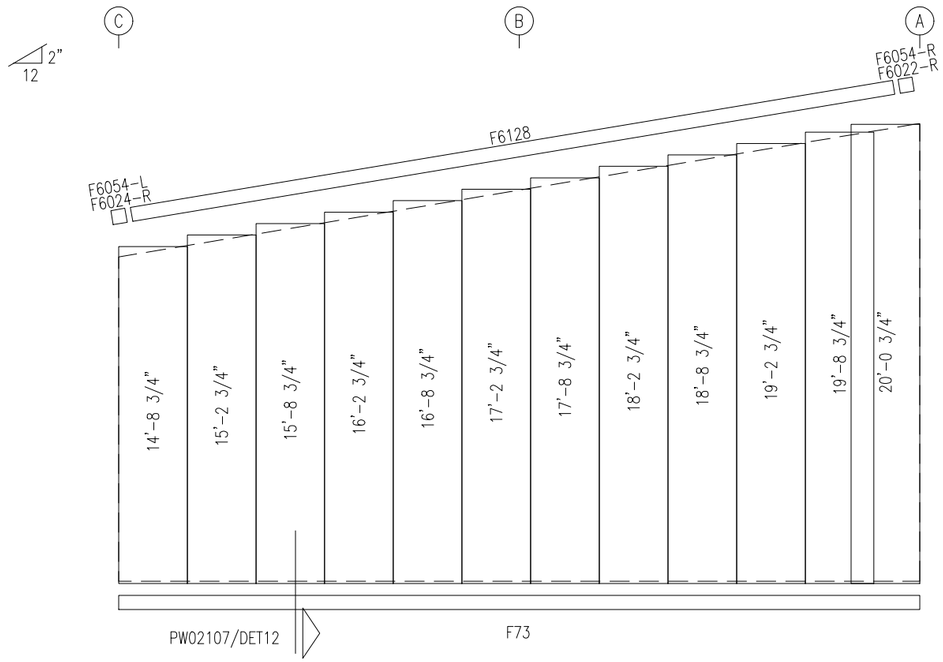
	▽ ID	PART	LENGTH
1	FB29.5	L2X2X14G	2'-5 1/2"
2	FB6-1	L2X2X1/8	2'-5 1/2"

CONNECTION PLATES
FRAME LINE 1

□ID	MARK/PART
1	CL558
2	SC5

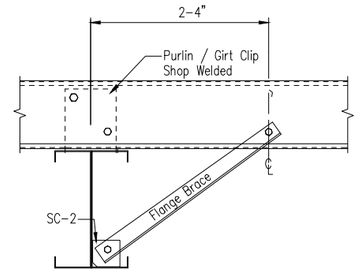


ENDWALL FRAMING: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Gauge PBR – TBD



Non-Standard PBR Wall Panel Fasteners

#17B member fasteners are to be used for panel to secondary attachment in lieu of #17A shown on the R Drawings

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
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3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.
4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

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METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	E5	0

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Registered Professional Engineer (Structural)
CERTIFICATE NO.
49484
YUANGANG
(BILL)
LI
Apr 21, 2023
Date Signed
ARIZONA, U.S.A.

Expires 06/30/2024

BEARING FRAME ONLY!

WASHER TO BE USED AT ENDWALL COLUMN TO ENDWALL RAFTER CONNECTION. USE ONE WASHER ON COLUMN SIDE. WASHER NOT NEEDED ON CLIP SIDE.

BOLT TABLE
FRAME LINE 4

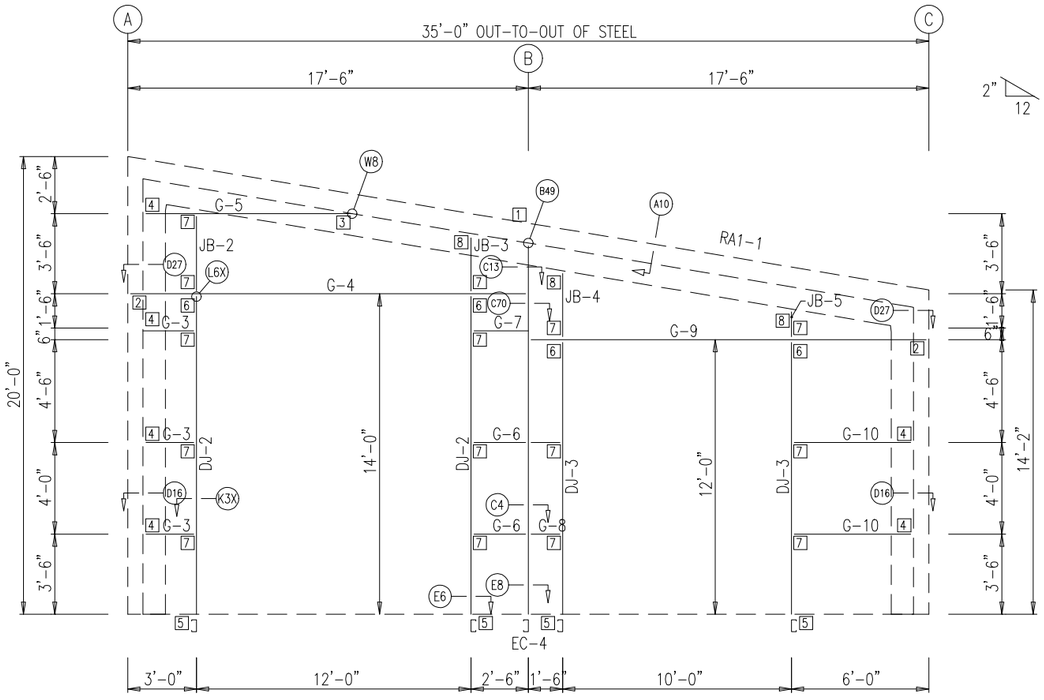
LOCATION	QUAN	TYPE	DIA	LENGTH
Columns/Raf	10	A325	1/2"	1 1/4"

MEMBER TABLE
FRAME LINE 4

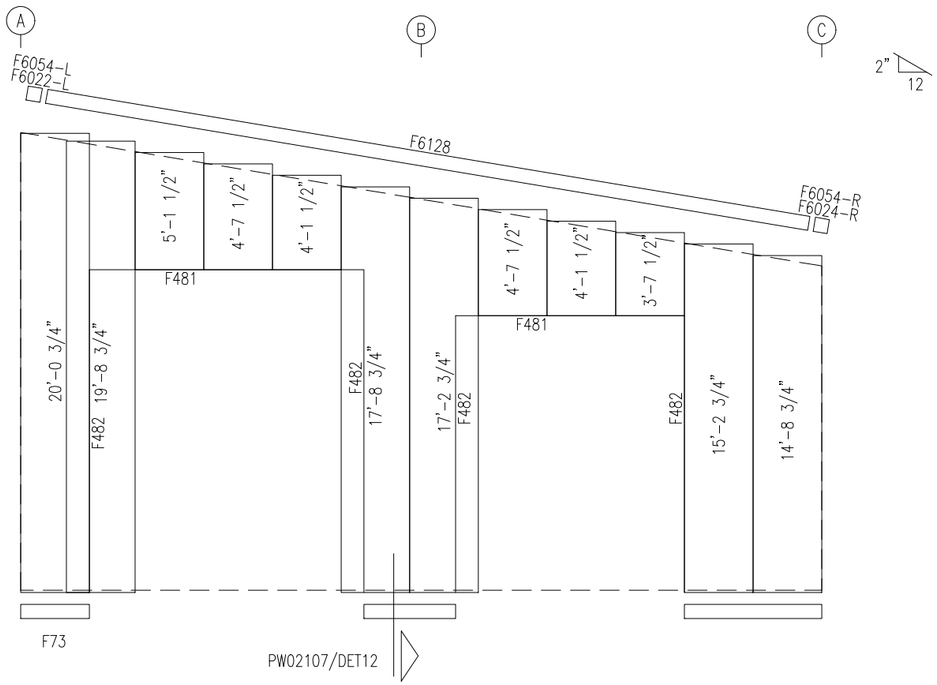
MARK	PART	LENGTH
EC-4	8f35C14	16'-0 9/16"
DJ-2	8X35C14	13'-11 3/4"
DJ-3	8X35C14	11'-11 3/4"
G-3	8X25Z16	1'-11 3/4"
G-4	8X25C16	17'-1 3/4"
G-5	8X25Z16	9'-1 3/8"
G-6	8X25Z16	1'-10"
G-7	8X25Z16	2'-1 3/4"
G-8	8X25Z16	10"
G-9	8X25C16	17'-1 3/4"
G-10	8X25Z16	4'-11 3/4"
JB-2	8X35C14	2'-10"
JB-3	8X35C14	2'-1 9/16"
JB-4	8X35C14	3'-5 9/16"
JB-5	8X35C14	1'-9 9/16"

CONNECTION PLATES
FRAME LINE 4

ID	MARK/PART
1	SC530
2	d2
3	d1
4	SC484
5	CL753
6	CL750
7	CL751
8	n2

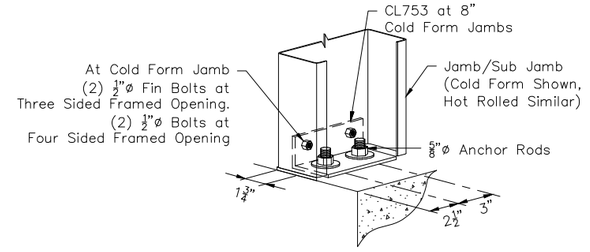


ENDWALL FRAMING: FRAME LINE 4



ENDWALL SHEETING & TRIM: FRAME LINE 4

PANELS: 26 Gauge PBR – Desert Sand



Jamb to Finish Floor

Non-Standard PBR Wall Panel Fasteners

#17B member fasteners are to be used for panel to secondary attachment in lieu of #17A shown on the R Drawings

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.
4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

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METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, ZIP 77041 (713) 466-7788 P.O. BOX 40338 ZIP 77240

PROJECT: JIM CRAWFORD

CUSTOMER: STEEL ERECTION & MAINTENANCE OWNER: JIM CRAWFORD

LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	E6	0

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Registered Professional Engineer (Structural)
CERTIFICATE NO.
49484
YUANGANG
(BILL)
LI
Apr 21, 2023
Date Signed
ARIZONA, U.S.A.

Expires 06/30/2024

SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	3/4"	2"	6"	1/2"	1'-6"

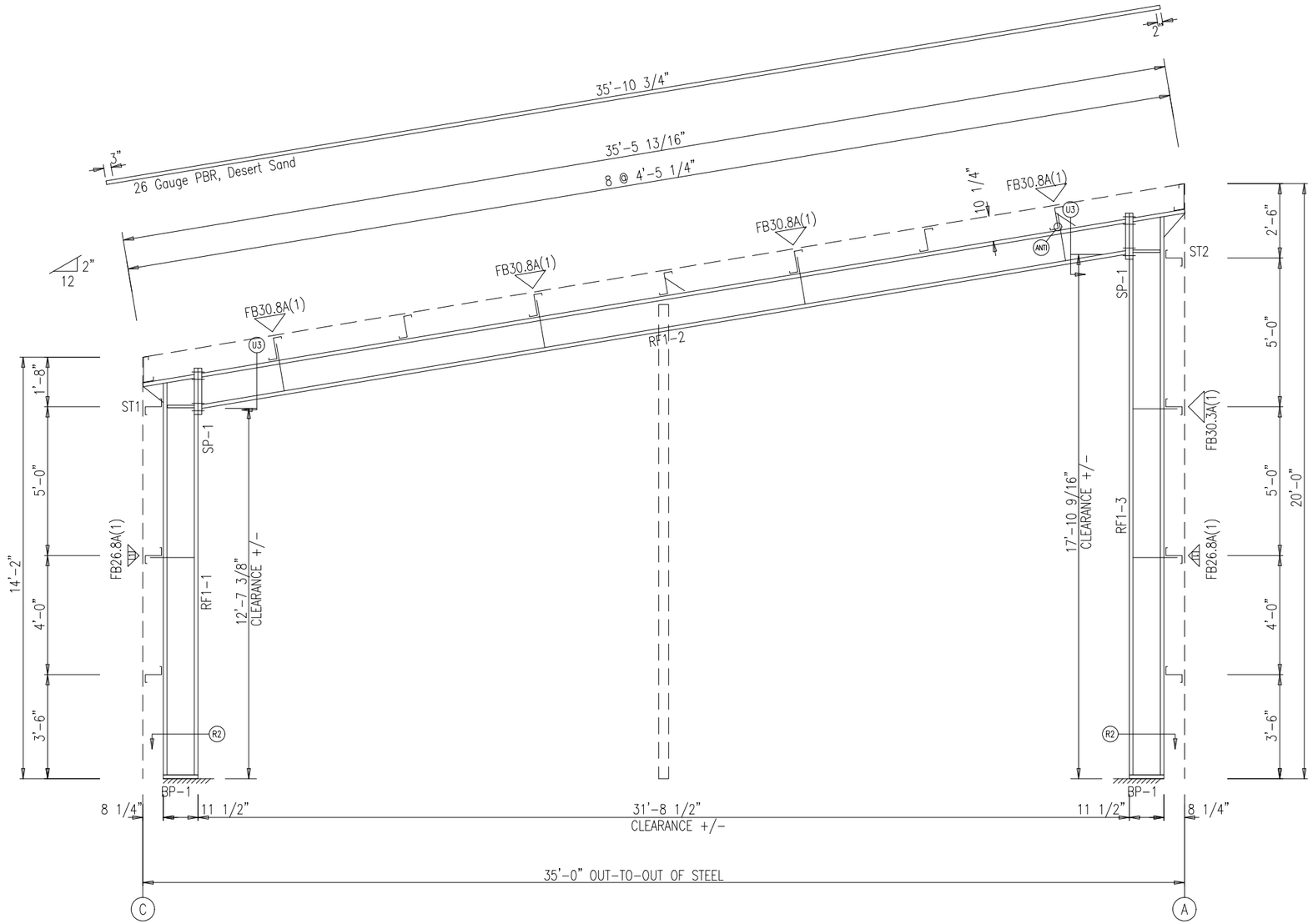
STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF1-1 RF1-3	ST1 ST2	2 1/2 2 1/2	1/4" 1/4"	11" 11"

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	6"	3/8"	11 1/2"

FLANGE BRACES: FBxx (1 or 2)
xx=length(in)
(1) One Side; (2) Two Sides
A - L2X2X14G

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF1-1	11.0/11.0	0.134	147.7	5 x 1/4" x 160.4	5 x 1/4" x 147.7
	11.0/11.0	0.156	14.5	5 x 1/4" x 19.7	
RF1-2	11.0/11.0	0.134	240.0	5 x 1/4" x 240.0	5 x 1/4" x 240.0
	11.0/11.0	0.134	146.1	5 x 1/4" x 144.2	5 x 1/4" x 144.2
RF1-3	11.0/11.0	0.250	16.5	5 x 1/4" x 19.7	5 x 1/4" x 211.1
	11.0/11.0	0.134	211.1	5 x 1/4" x 227.6	

CONNECTION PLATES	
☐ ID	Mark/Part
1	CL190



RIGID FRAME ELEVATION: FRAME LINE 4

GENERAL NOTES:

1. BOLT TIGHTENING - ALL BOLTED JOINTS WITH A325 TYPE 1 BOLTS ARE SPECIFIED AS SNUG-TIGHTENED JOINTS IN ACCORDANCE WITH THE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRE-TENSIONING METHODS, INCLUDING TURN-OF-NUT, CALIBRATED WRENCH, TWIST-OFF-TYPE TENSION-CONTROL BOLTS OR DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG-TIGHT BOLTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.1) IS SUGGESTED.
2. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.
3. INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS
7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE
OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	E7	0

SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	3/4"	2"	6"	1/2"	2'-0"

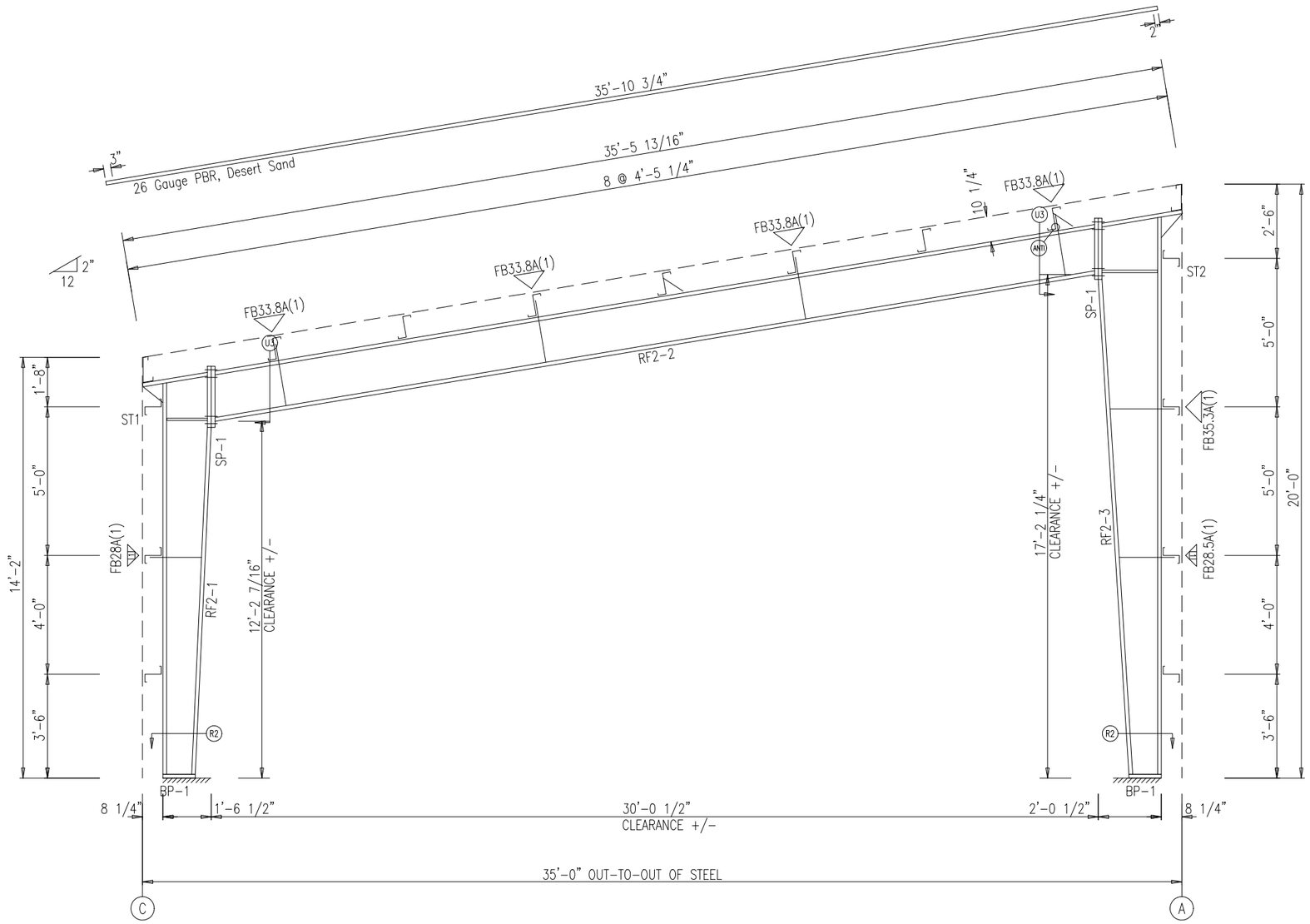
STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF2-1 RF2-3	ST1 ST2	2 1/2 2 1/2	1/4" 1/4"	18" 24"

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	6"	3/8"	10 1/2"

FLANGE BRACES: FBxx (1 or 2)
xx=length(in)
(1) One Side; (2) Two Sides
A - L2X2X14G

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF2-1	10.0/18.0	0.134	163.4	5 x 1/4" x 160.4 5 x 1/4" x 26.8	5 x 1/4" x 143.1
RF2-2	17.0/17.0 17.0/17.0	0.134 0.134	240.0 126.8	5 x 1/4" x 240.0 5 x 1/4" x 123.9	5 x 1/4" x 240.0 5 x 1/4" x 123.9
RF2-3	24.0/24.0 24.0/10.0	0.156 0.134	24.7 202.9	5 x 1/4" x 32.9 5 x 1/4" x 227.6	5 x 1/4" x 203.3

CONNECTION PLATES	
☐ ID	Mark/Part
1	CL190



RIGID FRAME ELEVATION: FRAME LINE 2 3

GENERAL NOTES:

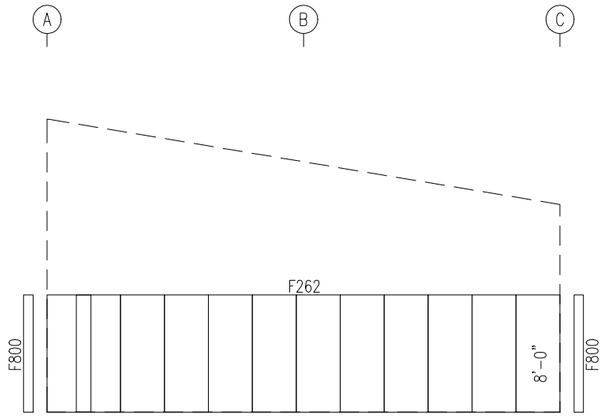
1. BOLT TIGHTENING - ALL BOLTED JOINTS WITH A325 TYPE 1 BOLTS ARE SPECIFIED AS SNUG-TIGHTENED JOINTS IN ACCORDANCE WITH THE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRE-TENSIONING METHODS, INCLUDING TURN-OF-NUT, CALIBRATED WRENCH, TWIST-OFF-TYPE TENSION-CONTROL BOLTS OR DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG-TIGHT BOLTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.1) IS SUGGESTED.
2. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.
3. INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN.

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS
7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

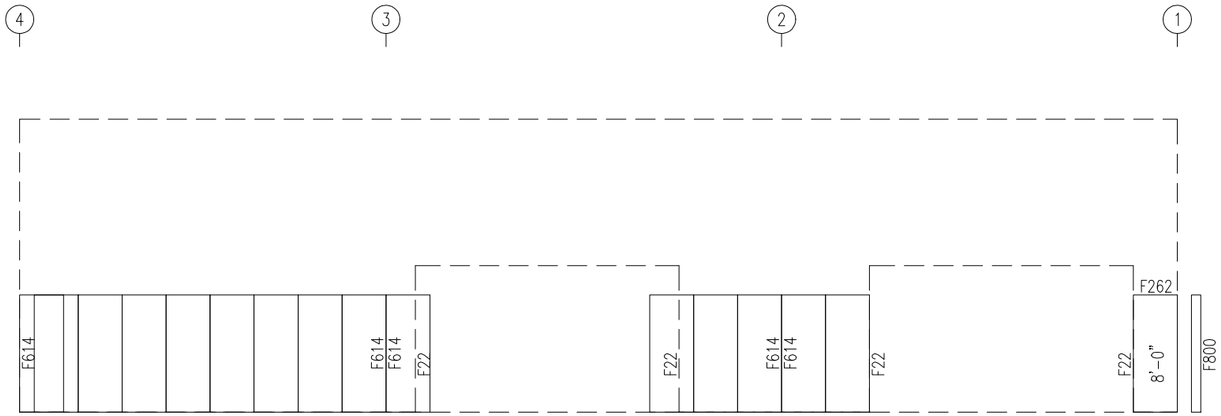
PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE
OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	E8	0



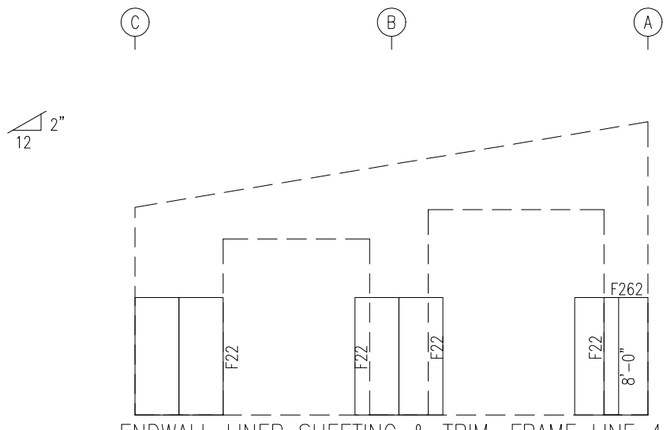
ENDWALL LINER SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Gauge PBR – Polar White



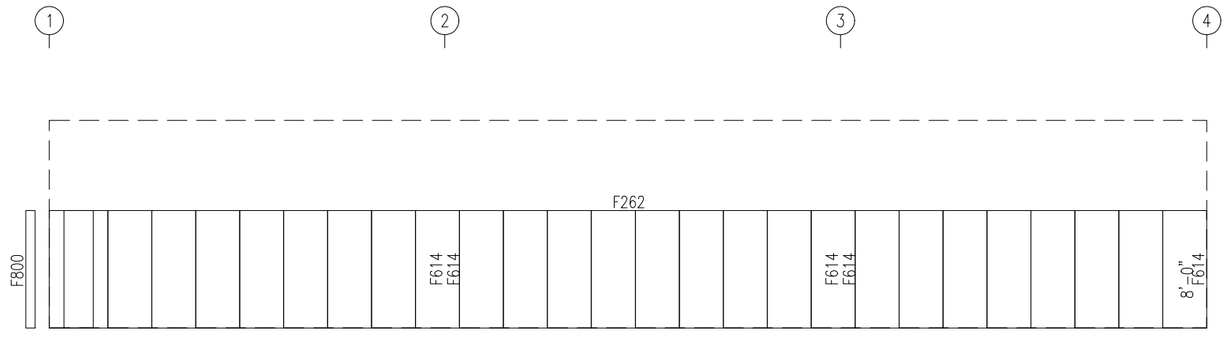
SIDEWALL LINER SHEETING & TRIM: FRAME LINE A

PANELS: 26 Gauge PBR – Polar White



ENDWALL LINER SHEETING & TRIM: FRAME LINE 4

PANELS: 26 Gauge PBR – Polar White



SIDEWALL LINER SHEETING & TRIM: FRAME LINE C

PANELS: 26 Gauge PBR – Polar White

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
A	4/17/23	FOR CONSTRUCTION PERMIT	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD

CUSTOMER: STEEL ERECTION & MAINTENANCE | OWNER: JIM CRAWFORD

LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/17/23	N.T.S.	1	A	19-B-34172	E-9	0

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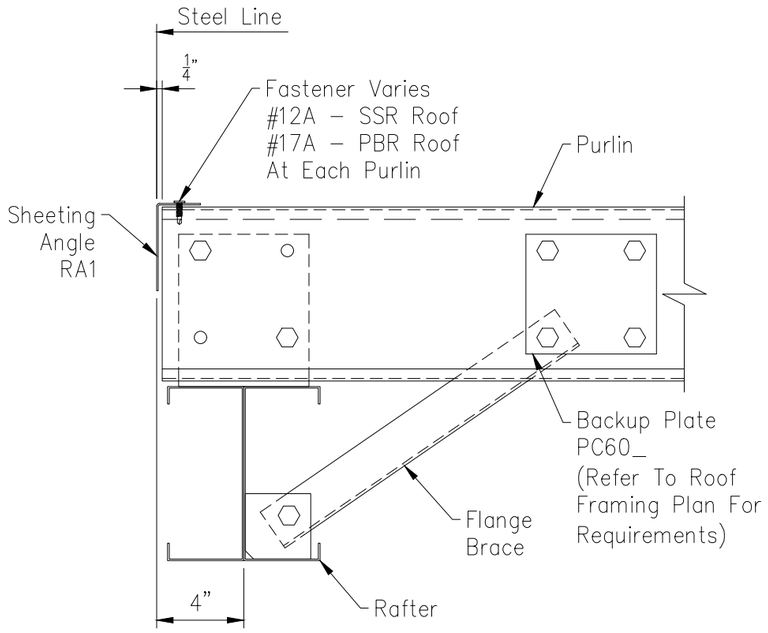
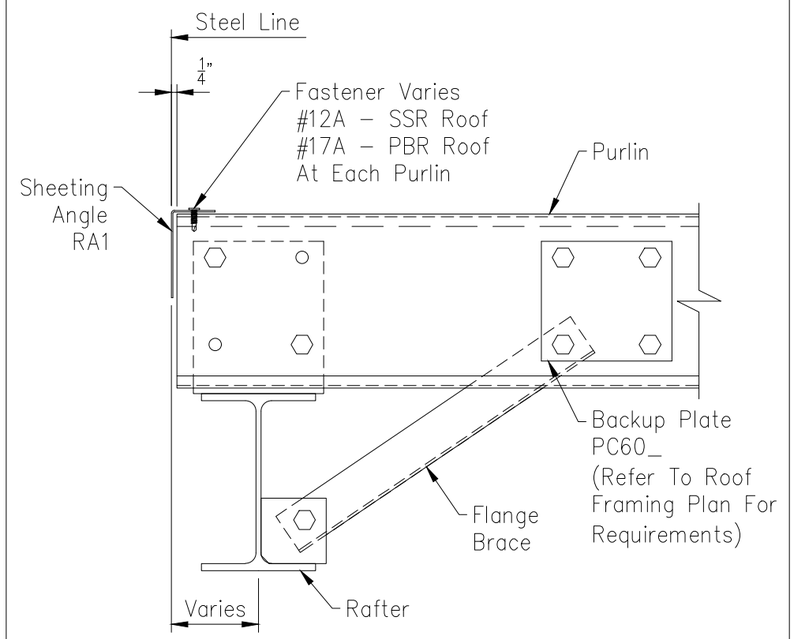
Registered Professional Engineer (Structural)
CERTIFICATE NO.
49484
YUANGANG
(BILL)
LI
Apr 21, 2023
Date Signed .....
ARIZONA, U.S.A.

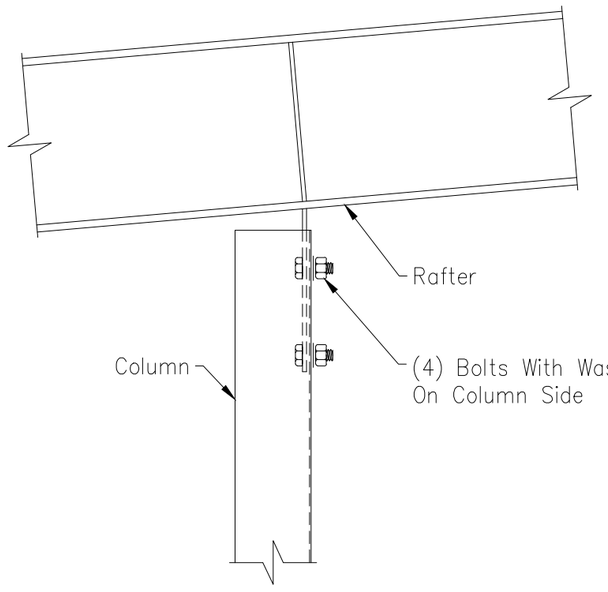
Expires 06/30/2024



A6	Purlin To Bearing Frame Double Cold Form Rafter	Date Jul '21
Page MB–A6		Rev 02



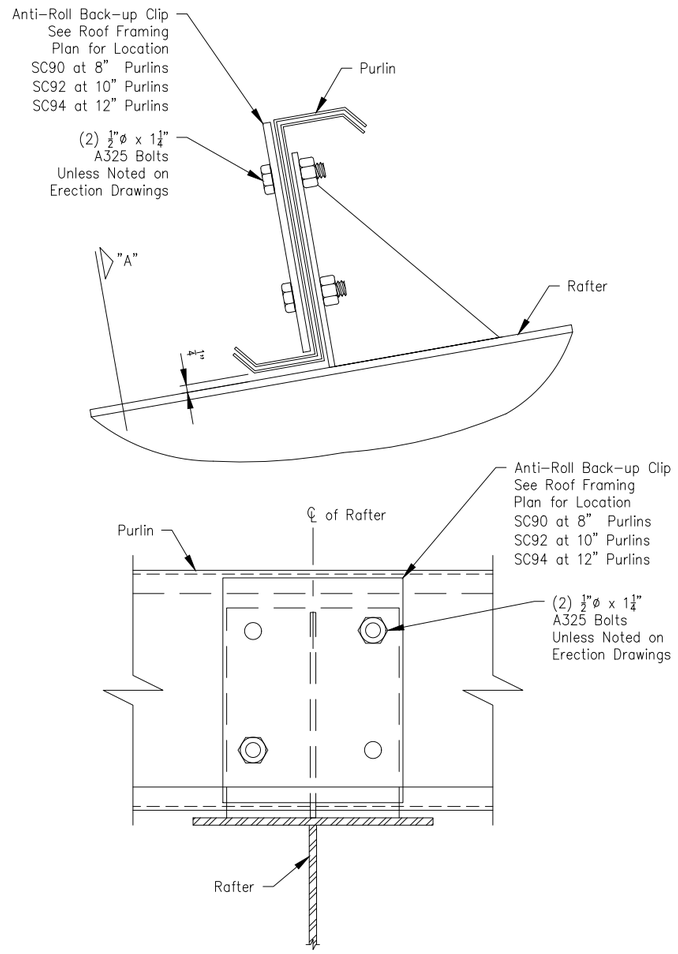
A10	Purlin To Rigid Frame	Date Jul '21
Page MB–A10		Rev 02



B4	Cold Form Endwall Column To Rafter	Date Aug '20
Page MB–B4		Rev 01

Purlin with Anti-Roll Back-up Clip at Rafter

Page CF02035	
Date Dec '14	Rev 04



Section A

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

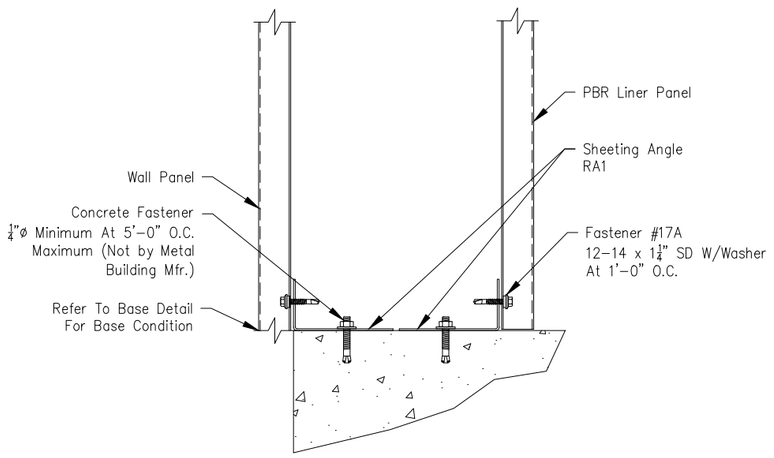
7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466–7788 ZIP 77240

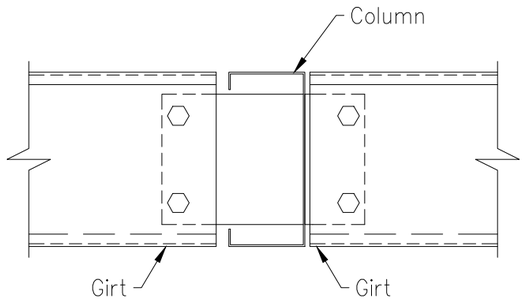
PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE
OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19–B–34172	DET1	0

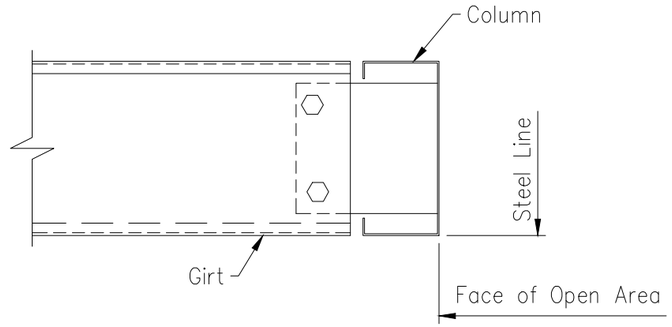
PBR Liner Panel
Base With Double Sheeting Angles

Page	
RL02128	
Date	Rev
Nov '19	01





C4	Girt To Cold Form Column	Date Jun '17
Page MB–C4		Rev 00



C13	Girt To Cold Form Endwall Column – Partially Open	Date Jun '17
Page MB–C13		Rev 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

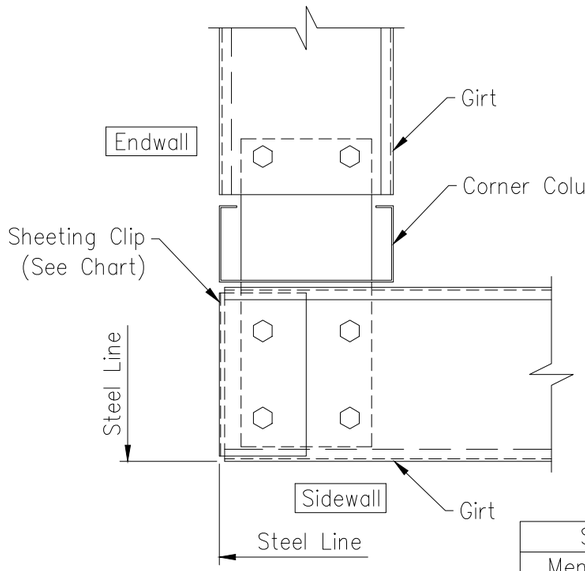
7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466–7788 ZIP 77240

PROJECT: JIM CRAWFORD

CUSTOMER: STEEL ERECTION & MAINTENANCE OWNER: JIM CRAWFORD

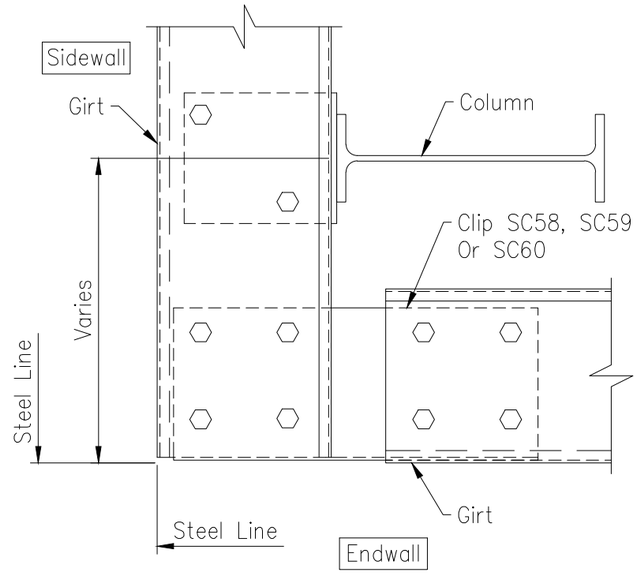
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19–B–34172	DET2	0

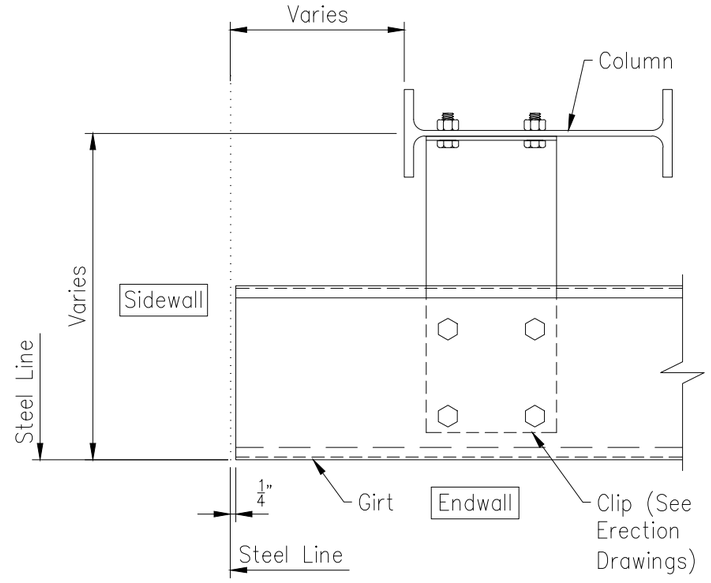


Sheeting Clip	
Member	Piece Mark
8"	SC5
10"	SC54
12"	SC55

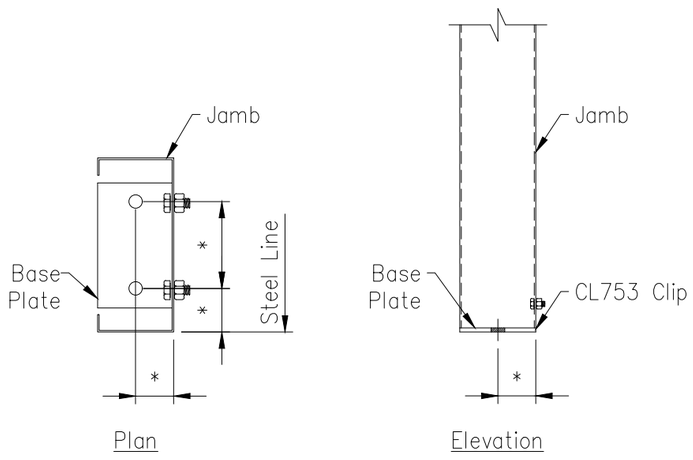
D4	Girt To Cold Form Corner Column	Date: Oct '19
Page: MB-D4		Rev: 01



D16	Girt To Rigid Frame Endwall Column	Date: Jun '17
Page: MB-D16		Rev: 00



D27	Girt To Rigid Frame Endwall Column	Date: Jun '17
Page: MB-D27		Rev: 00



* – Refer To Anchor Rod Setting Plan For Dimension

E6	Door Jamb Base Plate	Date: Dec '18
Page: MB-E5		Rev: 01

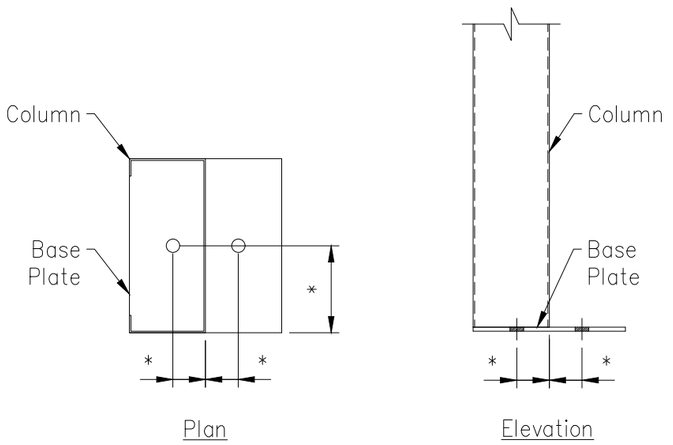
ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

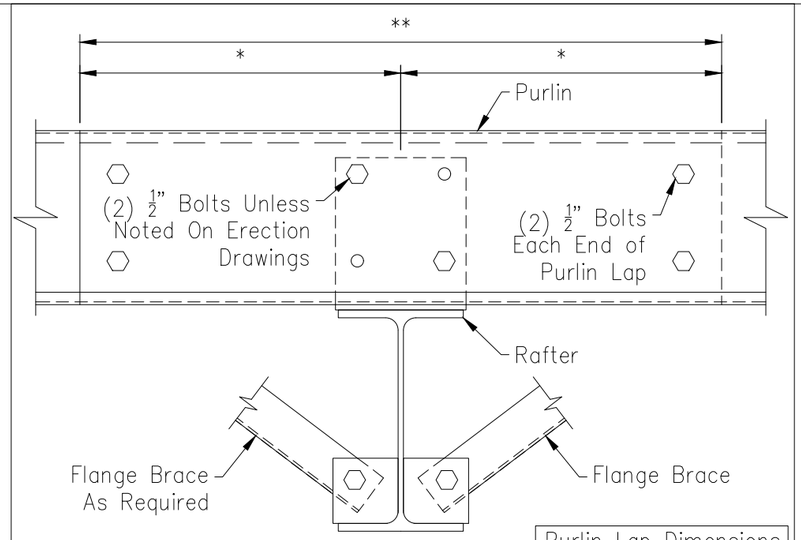
PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE
OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	DET3	0



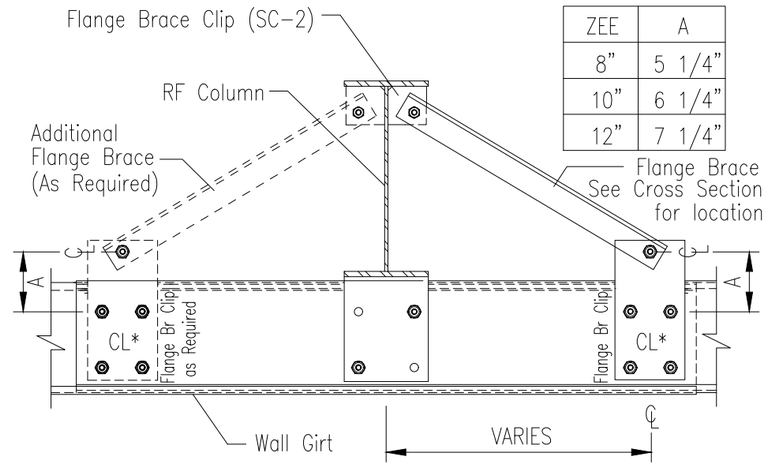
* – Refer To Anchor Rod Setting Plan For Dimension

E8	Cold Form Endwall Column Base Plate	Date: Dec '18
Page: MB–E8		Rev: 01



Purlin Lap Dimensions	
*	**
1'–5¾"	2'–11½"
2'–5¾"	4'–11½"
3'–1¾"	6'–3½"

G2	Purlin To Rigid Frame	Date: Sep '19
Page: MB–G2		Rev: 01

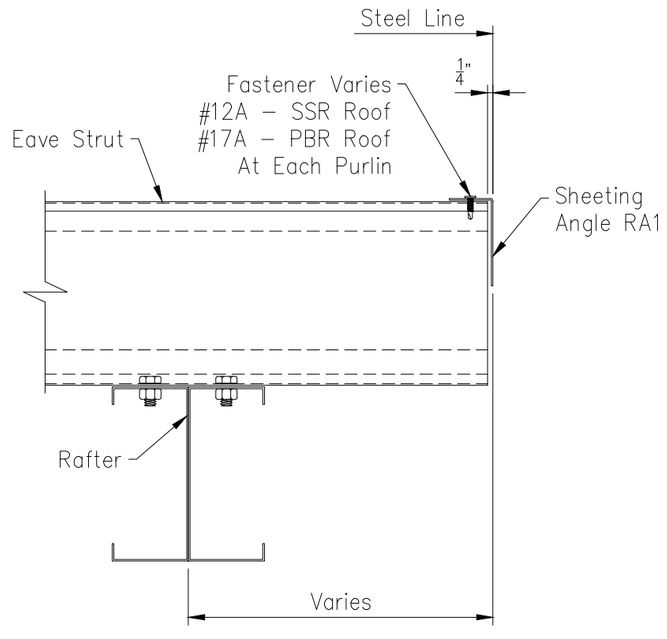


ZEE	A
8"	5 1/4"
10"	6 1/4"
12"	7 1/4"

Flange Br Clip	Member	8"	10"	12"
	Mark	CL190	CL191	CL192

1/2" x 1 1/4" A325 Bolts (Typ.) (U.N.)

H2	Wall Girt To Rigid Frame	Date: Sep '19
Page: MB–H2		Rev: 01



17	Low Side Eave Strut To Bearing Frame – Cold Form	Date: Jun '17
Page: MB–17		Rev: 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466–7788 ZIP 77240

PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE
OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19–B–34172	DET4	0

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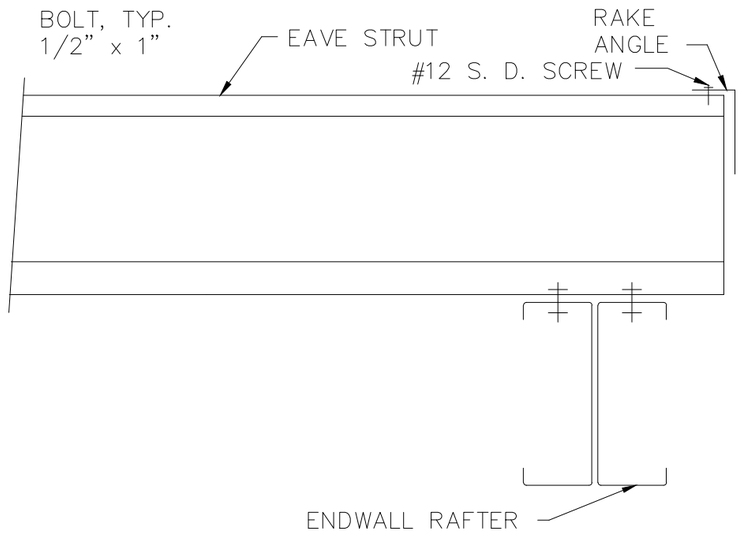
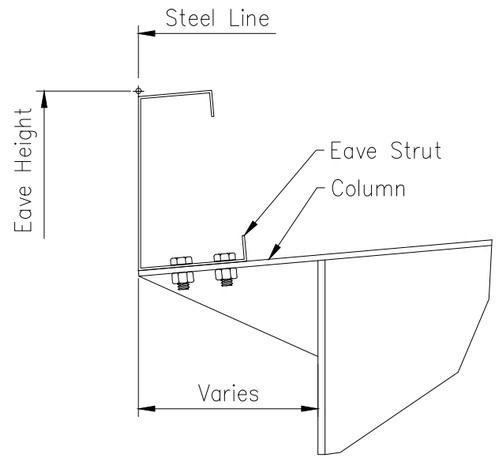
Registered Professional Engineer (Structural) CERTIFICATE NO. 49484 YUANGANG (BILL) LI Date Signed Apr 21, 2023 ARIZONA, U.S.A.

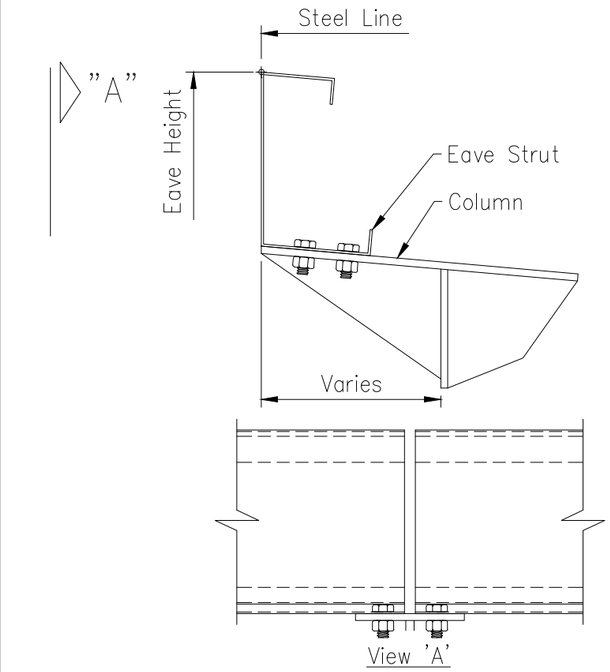
Expires 06/30/2024



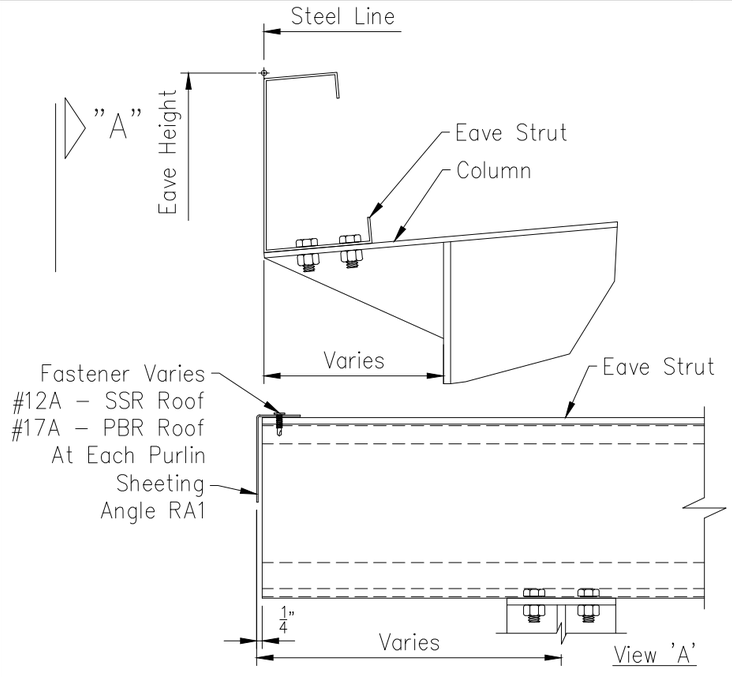
I18	High Eave Strut To Endwall Rafter	Date Oct '22
Page		Rev 00



J2	Eave Strut To By-Pass Rigid Frame At Interior	Date Dec '17
Page MB-J2		Rev 00



J8	Eave Strut To By-Pass Rigid Frame At Interior	Date Jun '17
Page MB-J8		Rev 00



J24	Eave Strut To By-Pass Rigid Frame At Endwall	Date Jun '17
Page MB-J24		Rev 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	DET5	0

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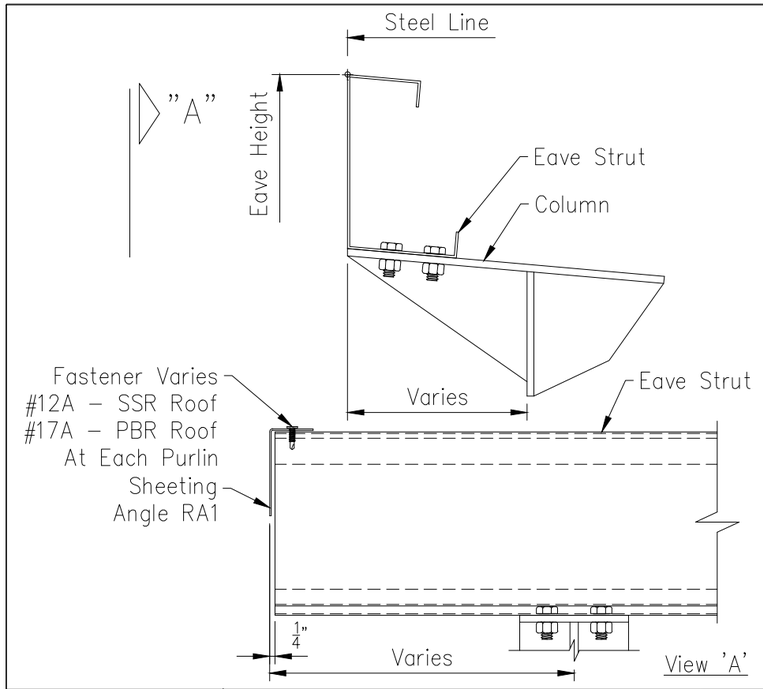
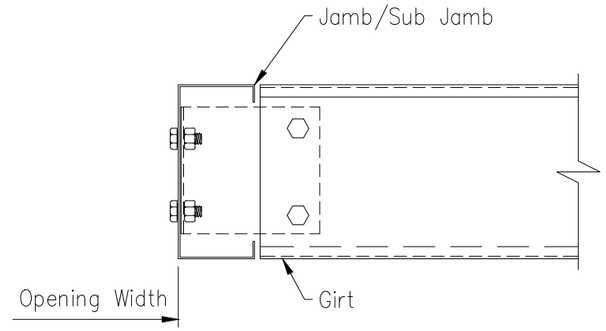
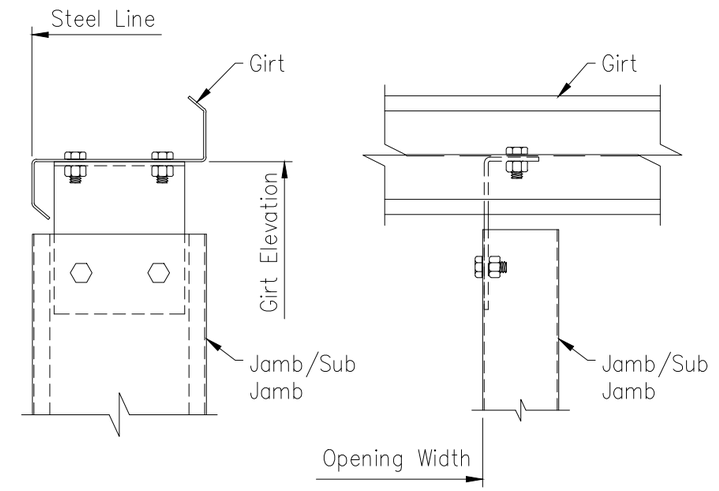
Registered Professional Engineer (Structural)
CERTIFICATE NO.
49484
YUANGANG
(BILL)
LI
Apr 21, 2023
Date Signed
ARIZONA, U.S.A.
Expires 06/30/2024



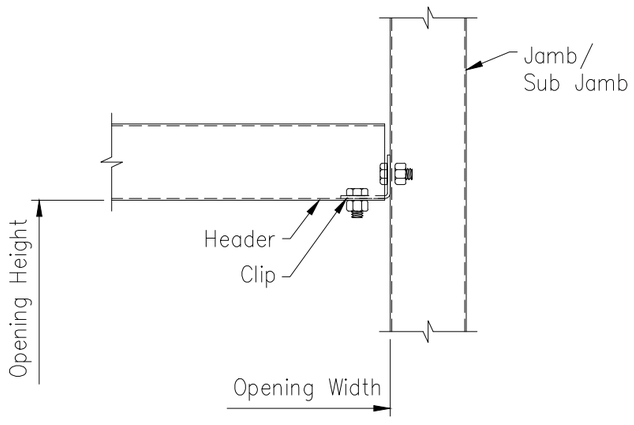
J26	Eave Strut To By-Pass Rigid Frame At Endwall	Date Jun '17
Page MB-J26		Rev 00



K3X	Girt To Single Cold Form Jamb/Sub Jamb	Date Dec '17
Page MB-K3		Rev 00



L6X	Single Cold Form Jamb/ Sub Jamb To Girt	Date Jun '17
Page MB-L8		Rev 00



M3X	Header To Cold Form Jamb/Sub Jamb	Date Dec '17
Page MB-M3		Rev 00

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD

CUSTOMER: STEEL ERECTION & MAINTENANCE | OWNER: JIM CRAWFORD

LOCATION: PRESCOTT,AZ 86301

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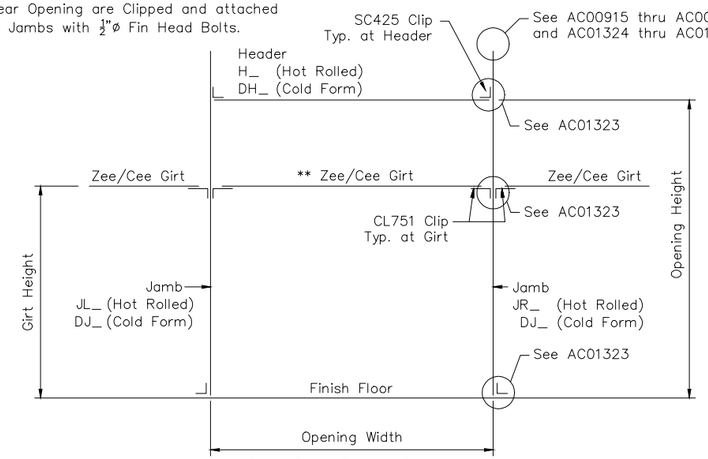
	4/20/23	N.T.S.	1	A	19-B-34172	DET6	0

Bolted Clips - Framed Opening Connections - Cold Form and Hot Rolled Cee - Three and Four Sided Openings

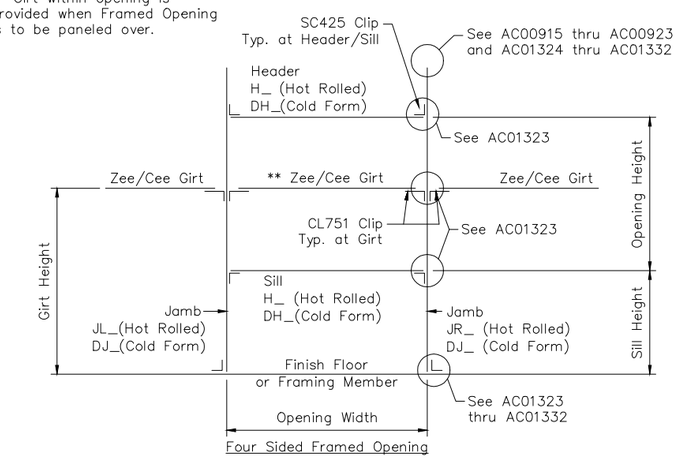
Page AC01320 | Date May '19 | Rev 03

Note; All Horizontal Members within clear Opening are Clipped and attached to Jambs with ½"ø Fin Head Bolts.



Three Sided Framed Opening

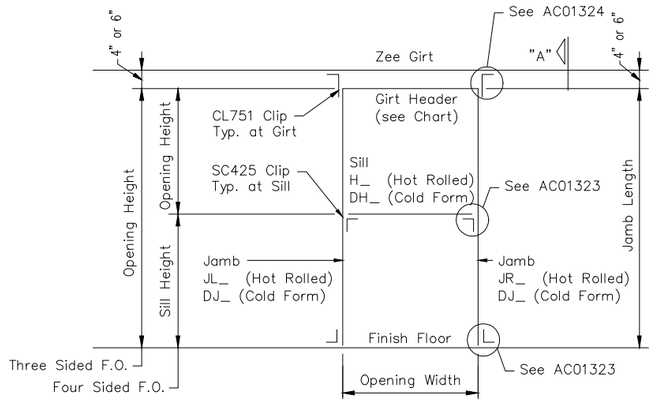
** Girt within opening is provided when Framed Opening is to be paneled over.

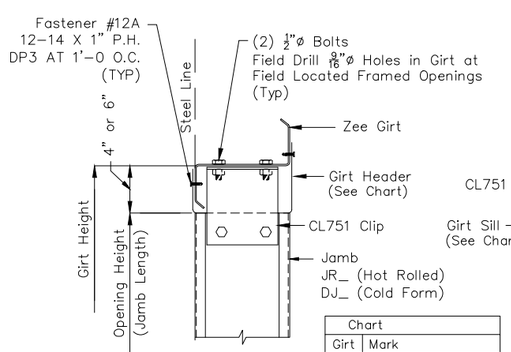


Four Sided Framed Opening

Bolted Clips - Framed Opening Connections - Three and Four Sided Openings - Girt Header

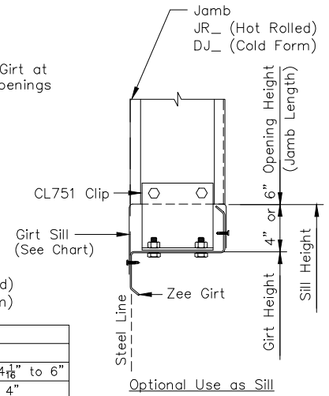
Page AC01322 | Date Apr '20 | Rev 05





Section "A"

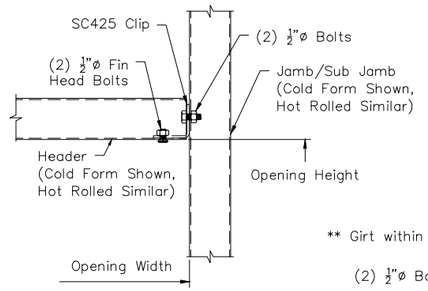
Chart	
Girt	Mark
8	GH06 = 4 1/16" to 6"
8	GH08 <= 4"
10	GH10
12	GH12



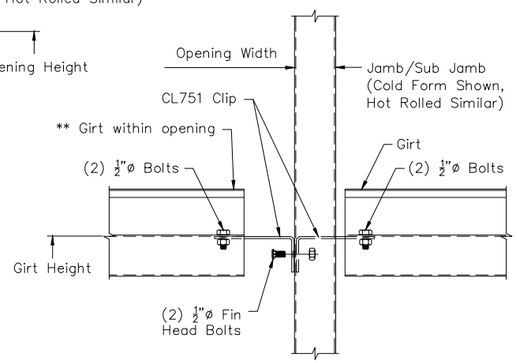
Optional Use as Sill

Bolted Clips - Framed Opening Connections - Cold Form and Hot Rolled Base, Girt, Header, and Sill to Jamb

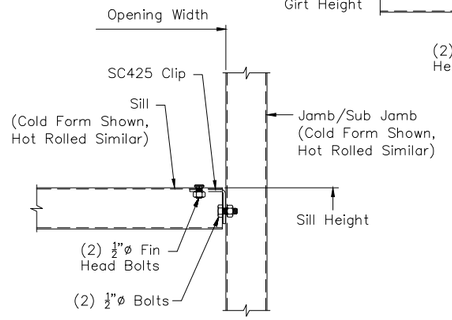
Page AC01323 | Date May '19 | Rev 03



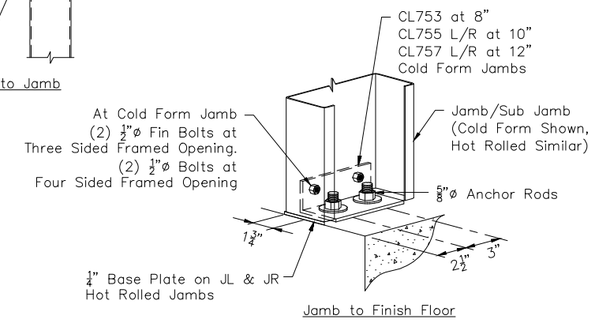
Header to Jamb



Girt to Jamb



Sill to Jamb



Jamb to Finish Floor

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METALLIC BUILDING SYSTEMS

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LOCATION: PRESCOTT,AZ 86301

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	4/20/23	N.T.S.	1	A	19-B-34172	DET7	0

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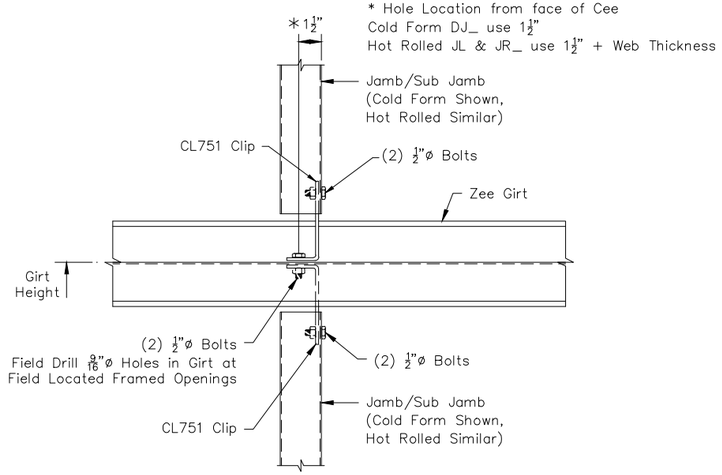
Registered Professional Engineer (Structural)
CERTIFICATE NO.
49484
YUANGANG
(BILL)
LI
Apr 21, 2023
Date Signed
ARIZONA, U.S.A.

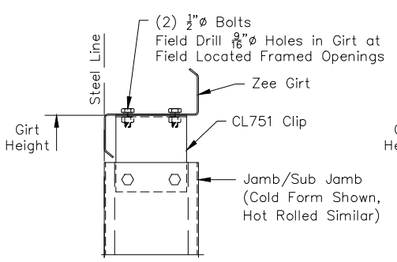
Expires 06/30/2024

Bolted Clips - Framed Opening Connections - Cold Form and Hot Rolled Jamb/Sub Jamb to Zee Girt

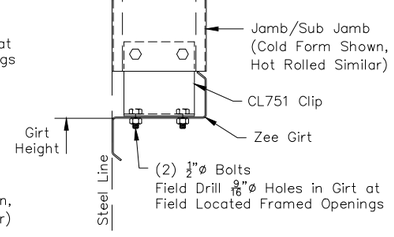
Page	Rev
AC01324	01
Date: May '19	



Jamb/Sub Jamb to Zee Girt

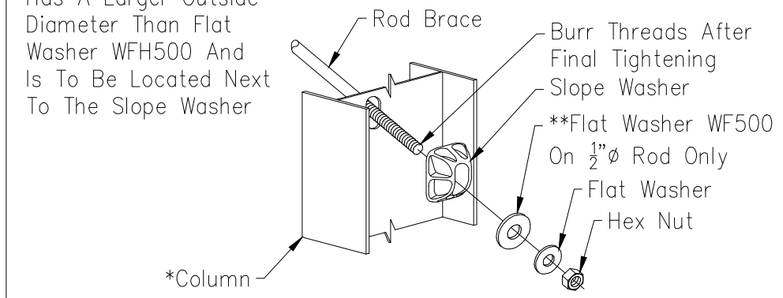


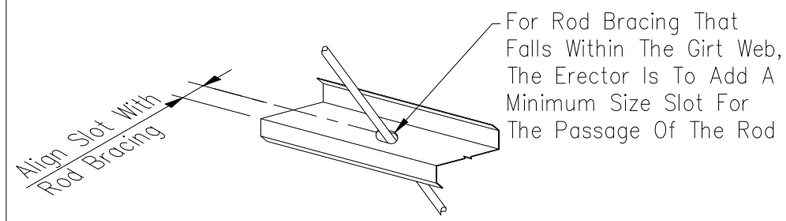
Jamb/Sub Jamb to Zee Girt



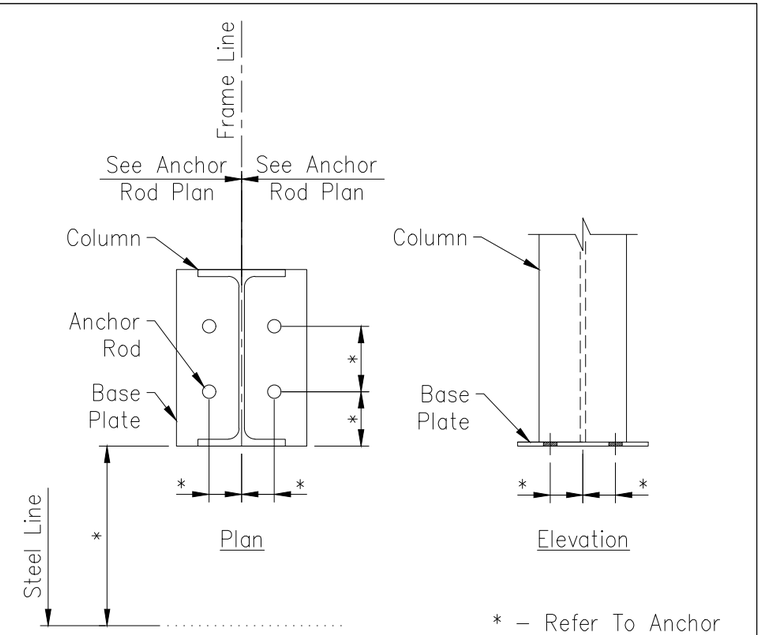
Jamb/Sub Jamb to Zee Girt

* Similar Connection at Rafter
** Flat Washer WF500 Has A Larger Outside Diameter Than Flat Washer WFH500 And Is To Be Located Next To The Slope Washer





Q3	Rod Brace Attachment At Web	Date: Mar '18
Page: MB-Q3		Rev: 01



* – Refer To Anchor Rod Setting Plan

R2	Anchor Rods At Frame Column	Date: Dec '17
Page: MB-R2		Rev: 00

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Expires 06/30/2024

Screw Application

Page TH06006 | Date May '19 | Rev 01

Standard Grade

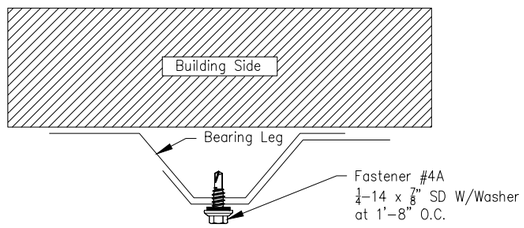
Description	Fastener Number	Application
1/4"–14 x 7/8" Type 2	4A	Stitch & Trim Screw
12–14 x 1 1/4" Type 2	17A	Member Screw (Up To 4" Insulation)
12–14 x 1 1/2" Type 2	17B	Member Screw (Up To 6" Insulation)

Long Life

Description	Fastener Number	Application
1/4"–14 x 7/8" Type 1	4	Stitch & Trim Screw
12–14 x 1 1/4" Type 2	3	Member Screw (Up To 4" Insulation)
12–14 x 1 1/2" Type 2	3A	Member Screw (Up To 6" Insulation)

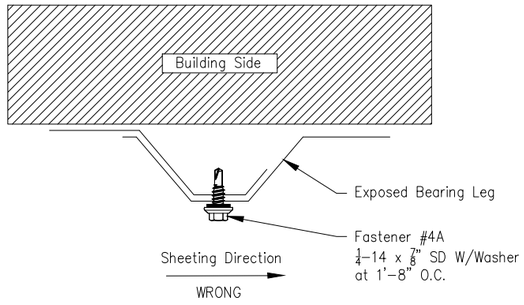
PBR Wall Panel
Panel Side Lap

Page PW05002 | Date Mar '19 | Rev 03



Sheeting Direction

CORRECT

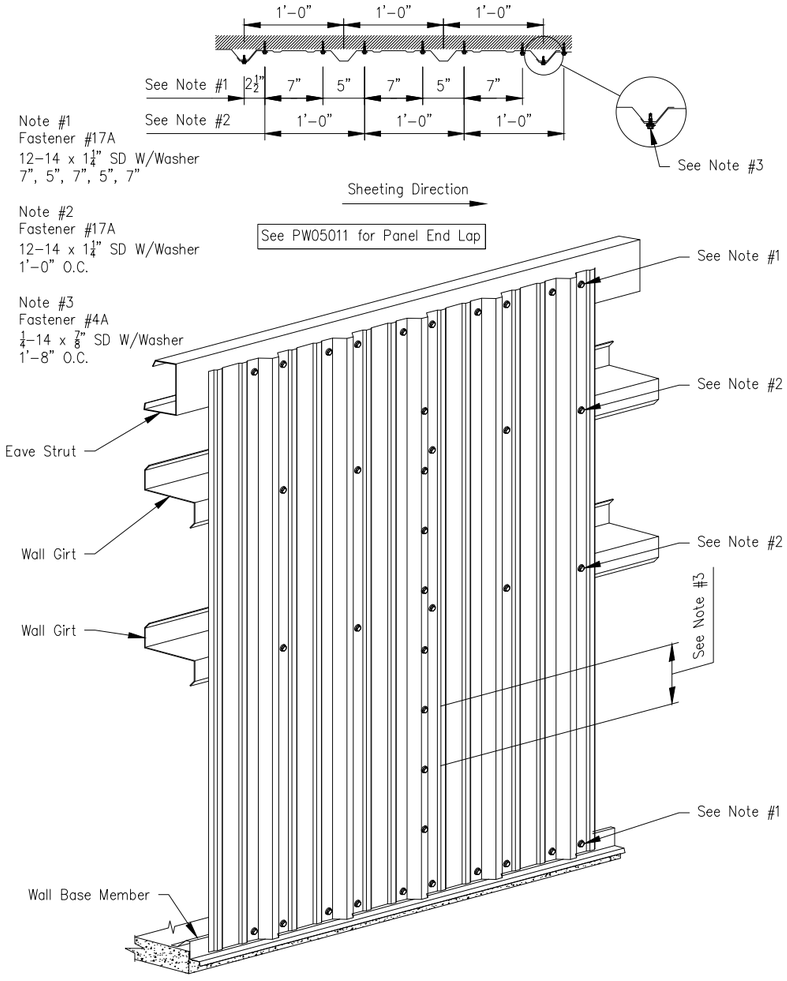


Sheeting Direction

WRONG

PBR Wall Panel
Fastener Location

Page PW05003 | Date Aug '15 | Rev 04



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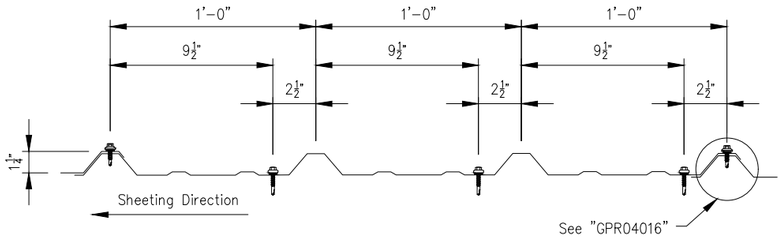
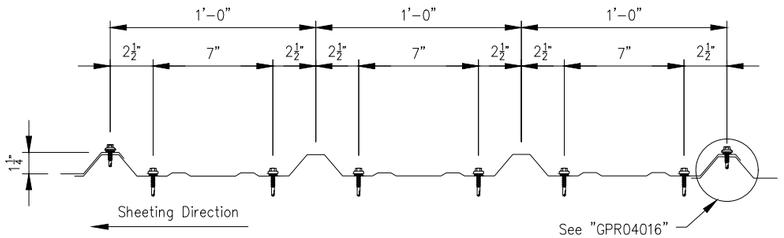
PBR Roof Panel
Fastener And Tape Sealant Location

Page GPR00011 | Date Apr '19 | Rev 01



All Roof Members Except As Noted Below

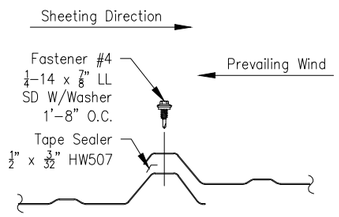


At Eave Strut, Panel End Lap And Peak Purlin

Note:
Screw patterns shown satisfy U.L. 90 requirements for roof.

PBR Roof Panel
Side Lap And End Lap Details

Page GPR04016 | Date Apr '19 | Rev 04



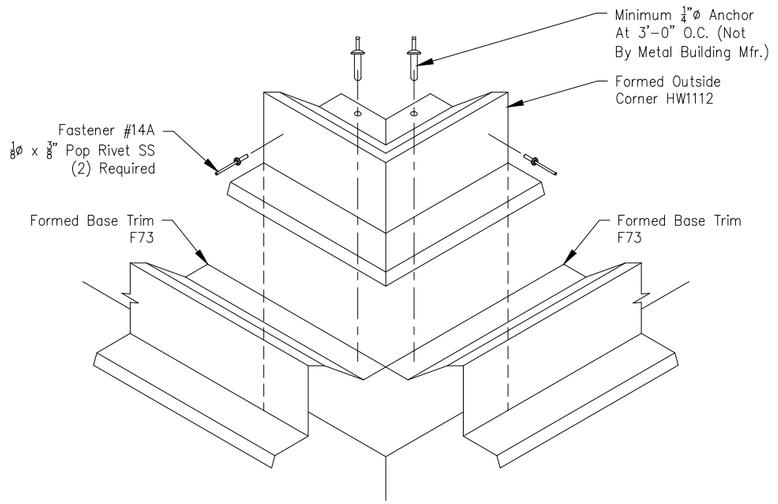
Section Thru Panel Side Lap

Panel Endlap Detail

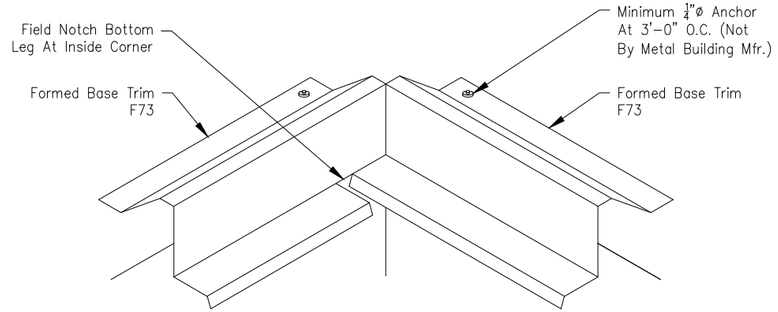
Panel Sidelap Detail
At Low Eave

Formed Base Trim Details

Page PW02010 | Date Feb '18 | Rev 01



Outside Corner Detail



Inside Corner Detail

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

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	4/20/23	N.T.S.	1	A	19-B-34172	DET10	0

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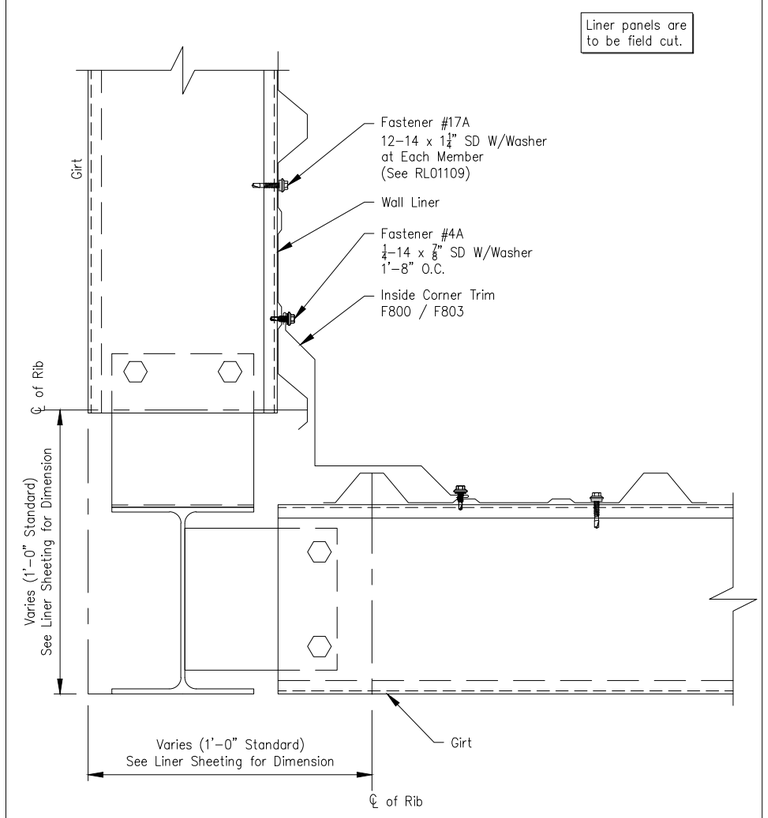
Registered Professional Engineer (Structural)
CERTIFICATE NO.
49484
YUANGANG (BILL) LI
Date Signed Apr 21, 2023
ARIZONA, U.S.A.

Expires 06/30/2024

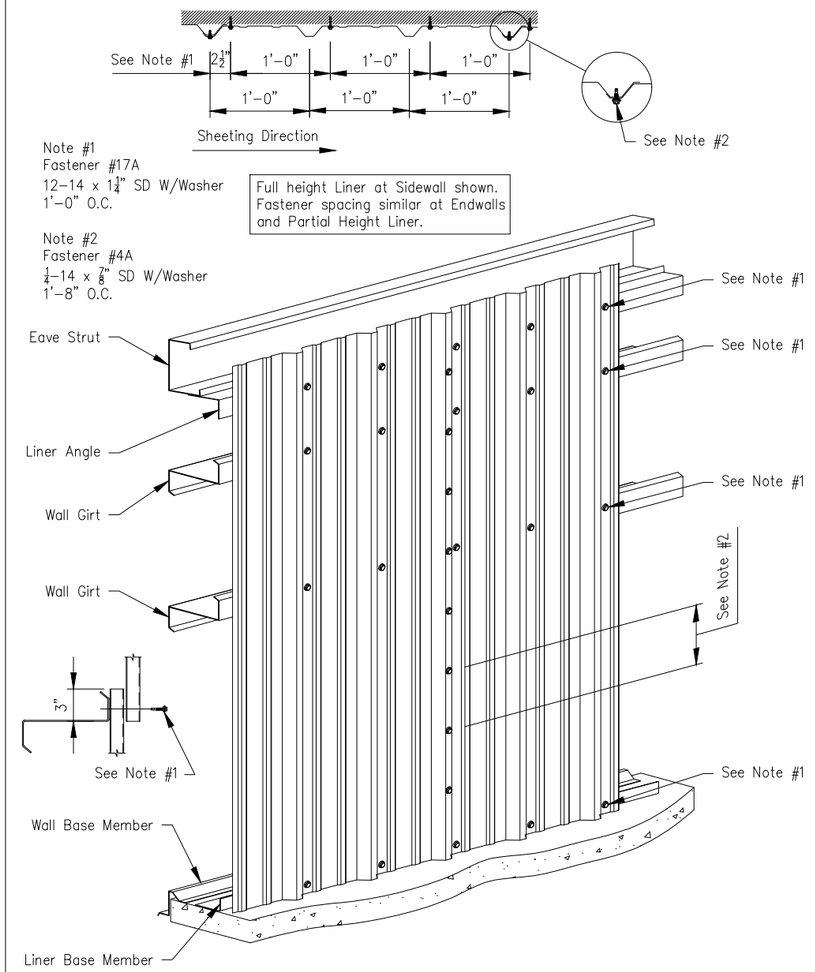
PBR Wall Liner
Flush Endwall

Page RL01117 | Date Aug '15 | Rev 01



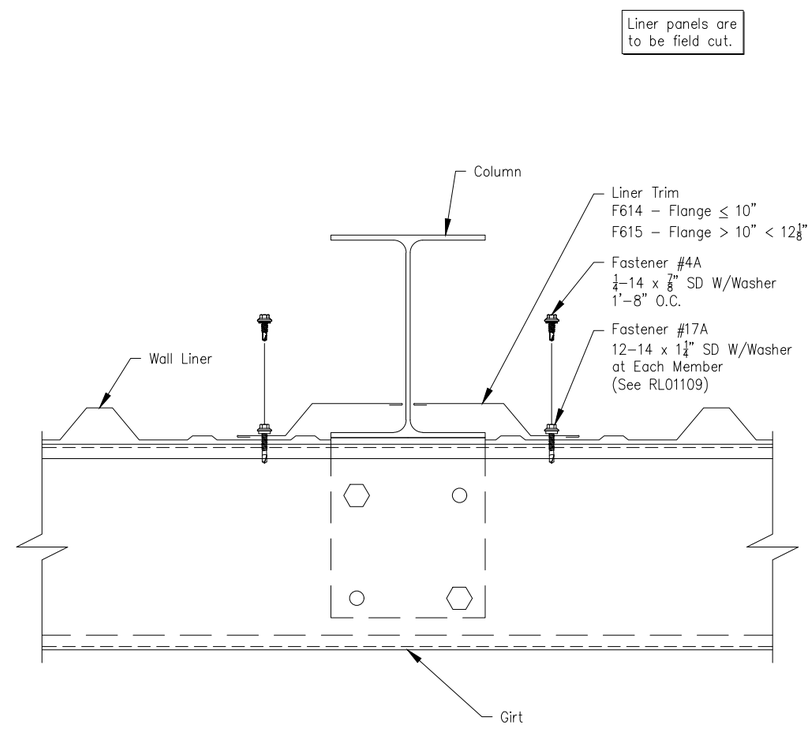
PBR Wall Liner
Fastener Location - Non-Windward

Page RL01109 | Date Jun '15 | Rev 00



PBR Wall Liner
Interior Column - By-Pass Girts

Page RL01113 | Date Aug '15 | Rev 01



ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
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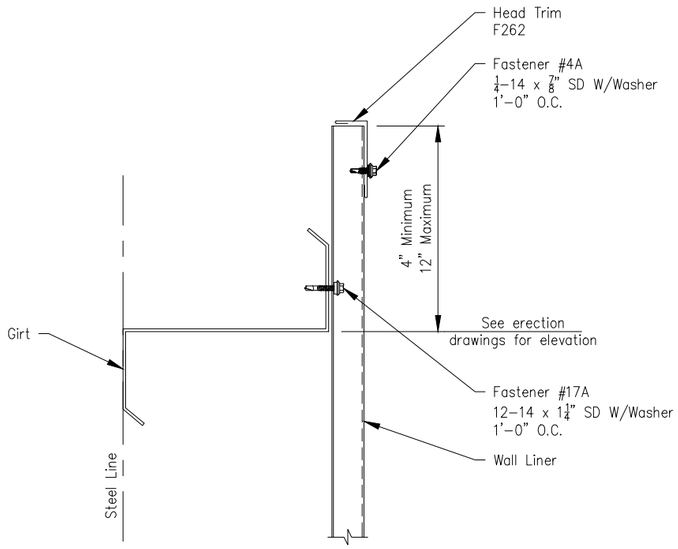
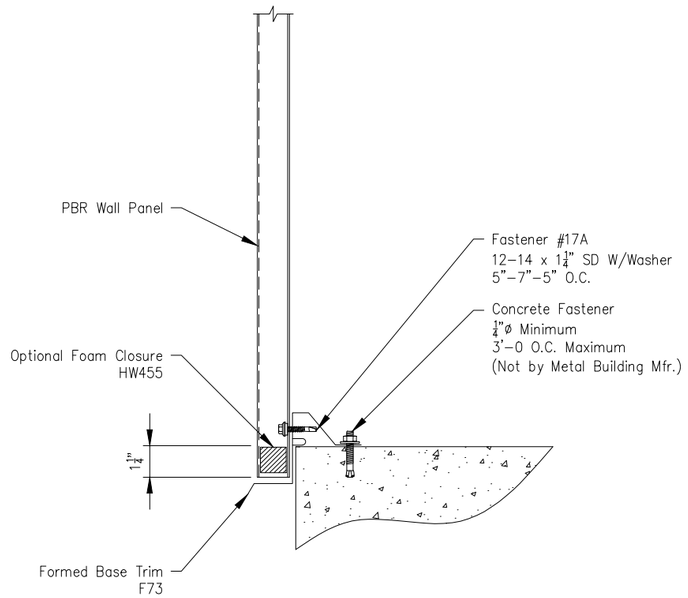
PBR Wall Liner
Termination at Girt Elevation

Page RL01112 | Date Jun '15 | Rev 00



PBR Wall Panel
F73 Formed Base Trim Without Panel Recess

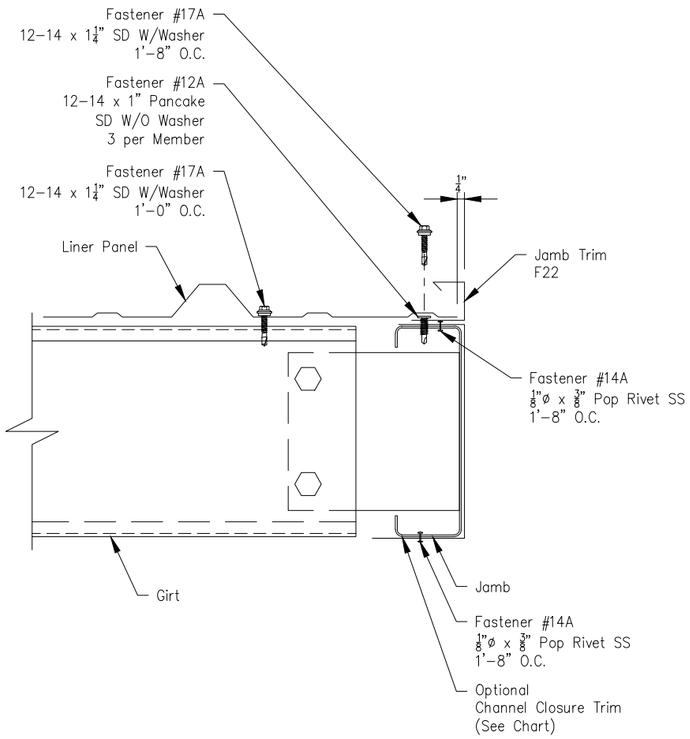
Page PW02107 | Date Jul '17 | Rev 01



Wall panel must be held off of base trim a minimum of ¼" to prevent bottom of wall panel from rusting.

PBR Liner
Framed Opening Jamb

Page RL01027 | Date Aug '15 | Rev 05



Channel Closure Trim Piece Mark						
Member Size	8"	8 ¼"	10"	10 ¼"	12"	12 ¼"
Piece Mark	F981	F2994	F982	F2993	F169	F2995

Note: The interior leg of the installed Channel Closure Trim is to be orientated (± ⅛") to match the interior leg of the Header or Jamb.

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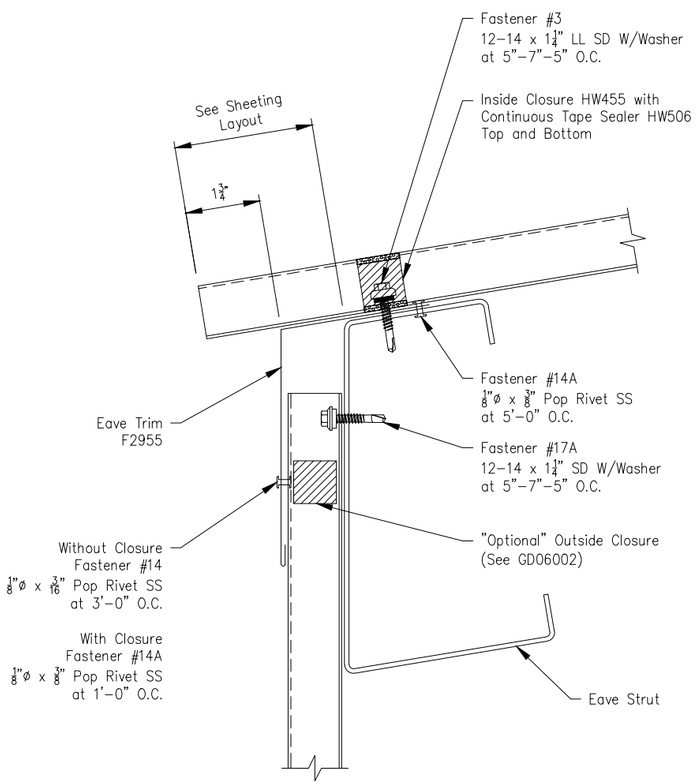
Registered Professional Engineer (Structural) CERTIFICATE NO. 49484 YUANGANG (BILL) LI Apr 21, 2023 Date Signed ARIZONA, U.S.A.

Expires 06/30/2024

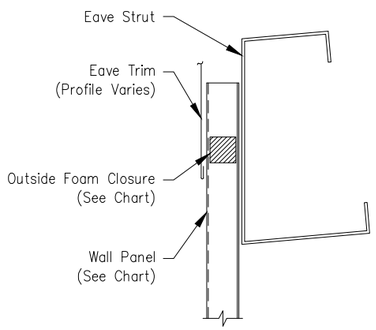
PBR Panel
Flat Eave Trim - Sheeted Wall

Page GPR03004 | Date Feb '17 | Rev 05

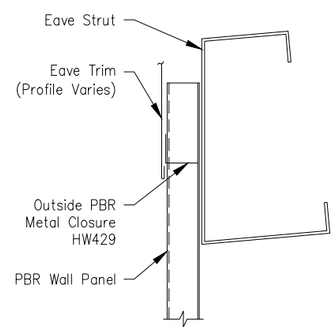


Single Skin Wall Panel Outside Closure Requirements at Eave

Page GD06002 | Date Feb '19 | Rev 02



Detail at Foam Closure
(Low Eave Shown High Eave Similar)



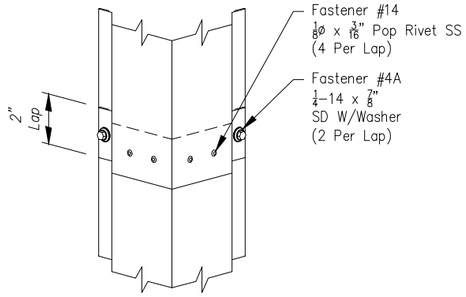
Detail at Optional Metal Closure
For PBR Panel Only
(Low Eave Shown High Eave Similar)

Note:
Foam Closures Are Required When Job Requires Air Infiltration
Or Sealed Wall Requirements, See GD16002.

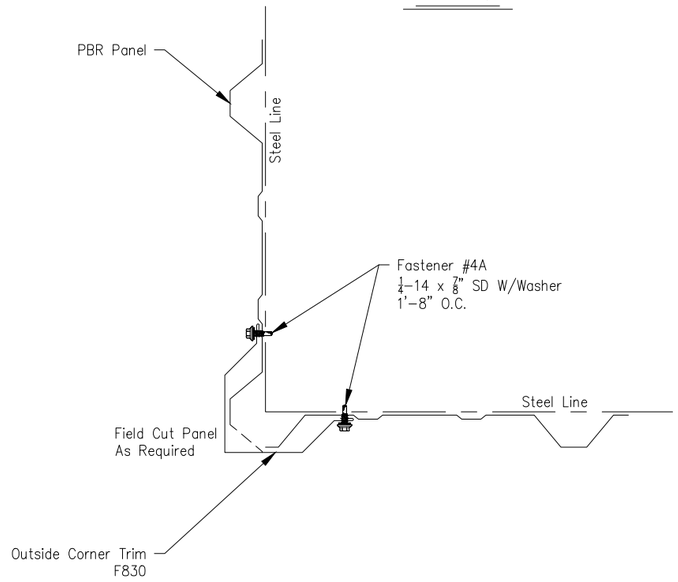
Wall Panel	Foam Closure
PBR	HW456
AVP	HW465
PBU	HW460
VistaShadow	HW465
NuWall	HW424
PBC	HW462
PBD	HW463
ShadowRib	HW412
Designer Series (Fluted Only)	HW4037
RBR (Reverse Rolled PBR)	HW455
RBU (Reverse Rolled PBU)	HW459
7.2	HW461

PBR Wall Panel
Outside Corner - On Module

Page PW03001 | Date Apr '19 | Rev 08



Trim Lap



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(BILL)
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Date Signed
ARIZONA, U.S.A.
Expires 06/30/2024

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

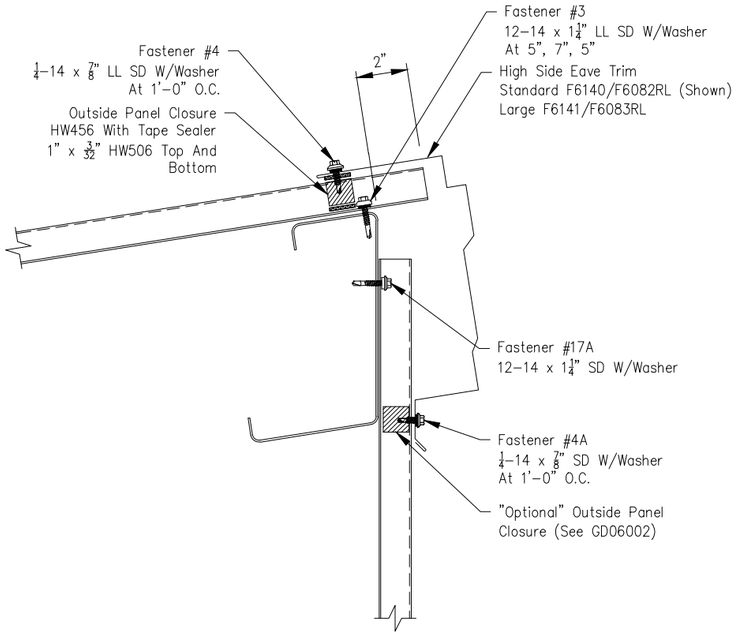
METALLIC BUILDING SYSTEMS
7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE
OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	DET13	0

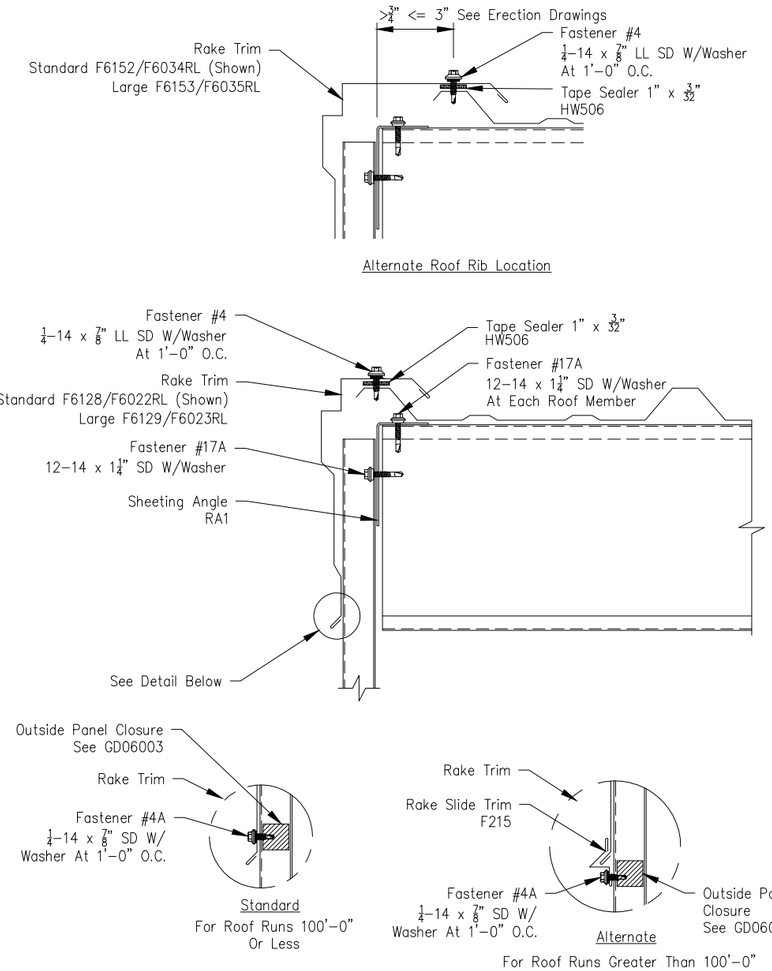
PBR Roof - Northern Standard And Northern Large Edgecraft High Side Eave Trim - $\frac{3}{4}$" thru $1\frac{3}{4}$" Wall Panels

Page TPR06108 | Date Jan '23 | Rev 01



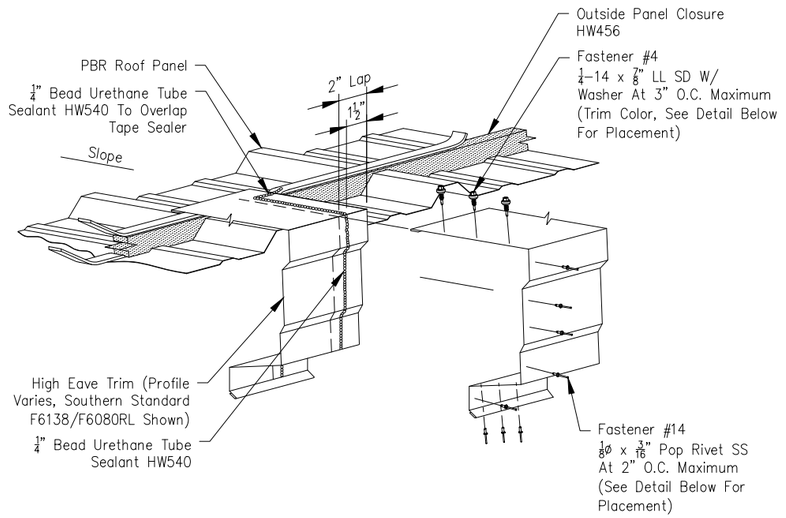
PBR Roof Panel - Northern Standard And Northern Large Edgecraft Rake Trim - Sheeted Wall

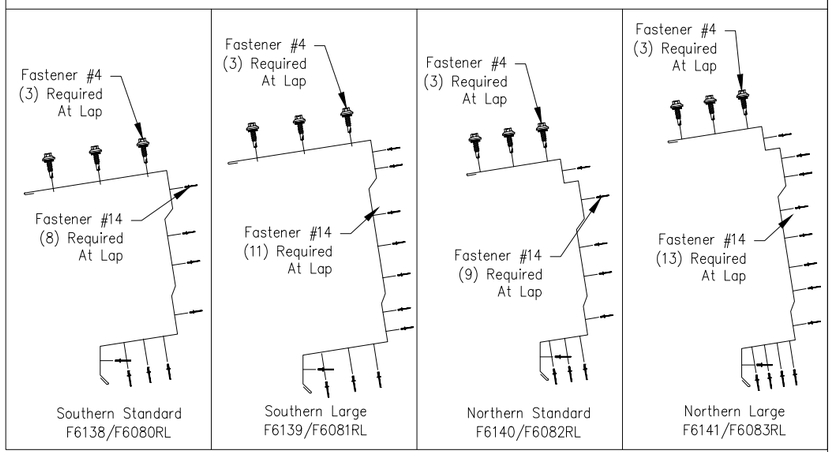
Page TPR05006 | Date Jul '20 | Rev 00



PBR Roof - Edgecraft High Side Eave Trim Lap Installation $\frac{3}{4}$" thru $1\frac{3}{4}$" Wall Panel

Page TPR06012 | Date Jul '20 | Rev 00





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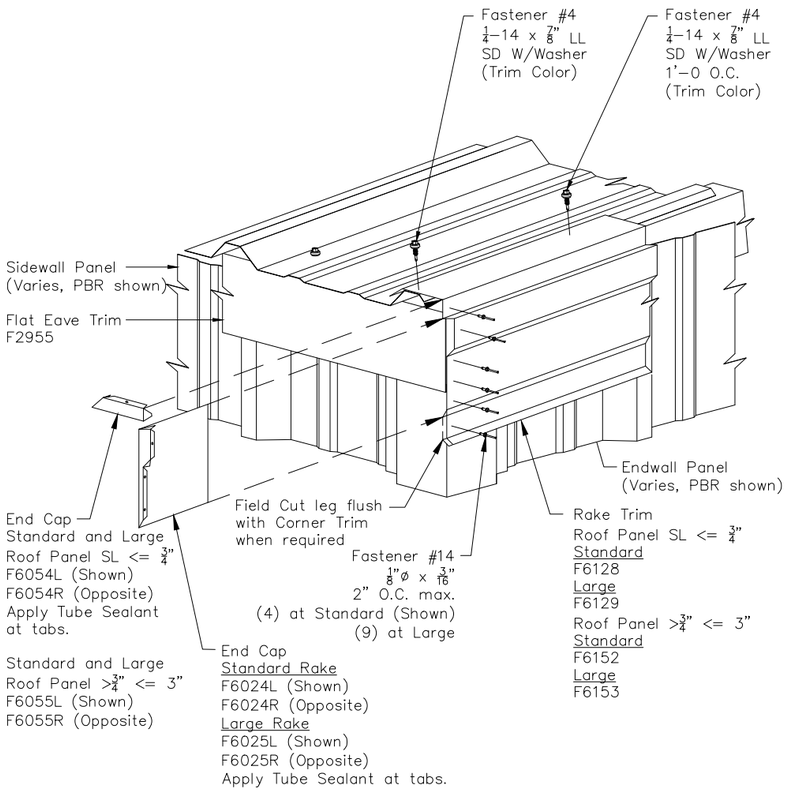
PBR Roof Panel - Northern Standard and Northern Large Edgecraft
Low Eave Rake Corner with Flat Eave Trim -$\frac{3}{4}$" thru $1\frac{3}{4}$" Wall Panel

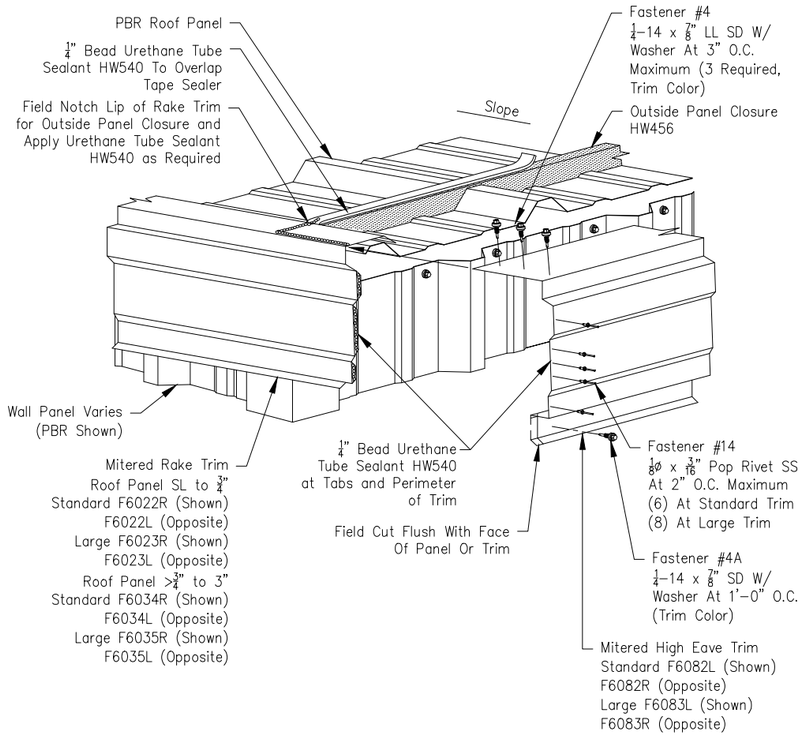
Page TPR04009 | Date Nov '20 | Rev 02



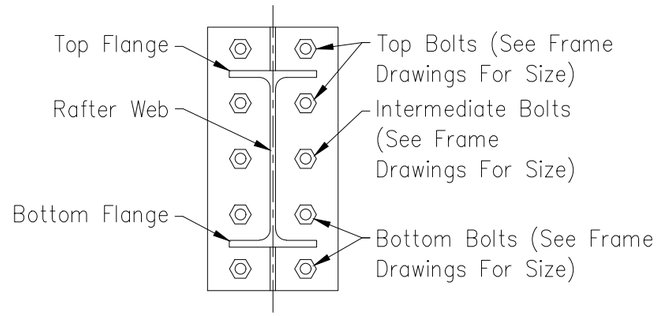
See Construction Details for required attachment of Eave Trim and Rake Trim to Wall. Wall Panel Closures not shown for clarity.

PBR Roof - Northern Standard And Northern Large Edgecraft
High Eave Rake Corner - $1\frac{1}{4}$" Wall Panel

Page TPR04012 | Date Jul '20 | Rev 00



See construction details for required attachment of eave trim and rake trim to roof and wall.
Wall panel closures not shown for clarity.



U3	Bolts At Rigid Frame Rafter To Column Connection	Date Jun '17
Page MB–U3		Rev 00

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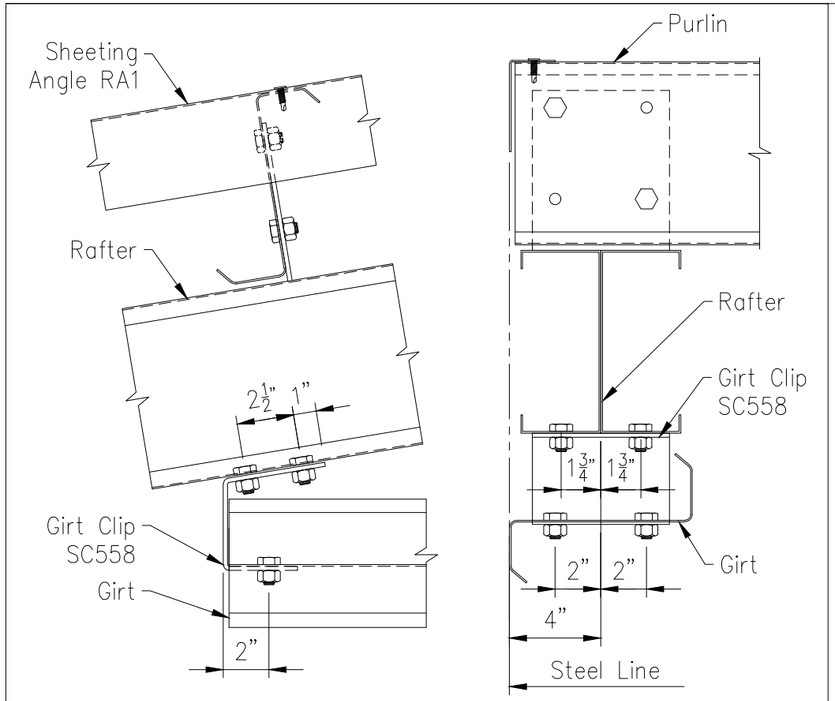
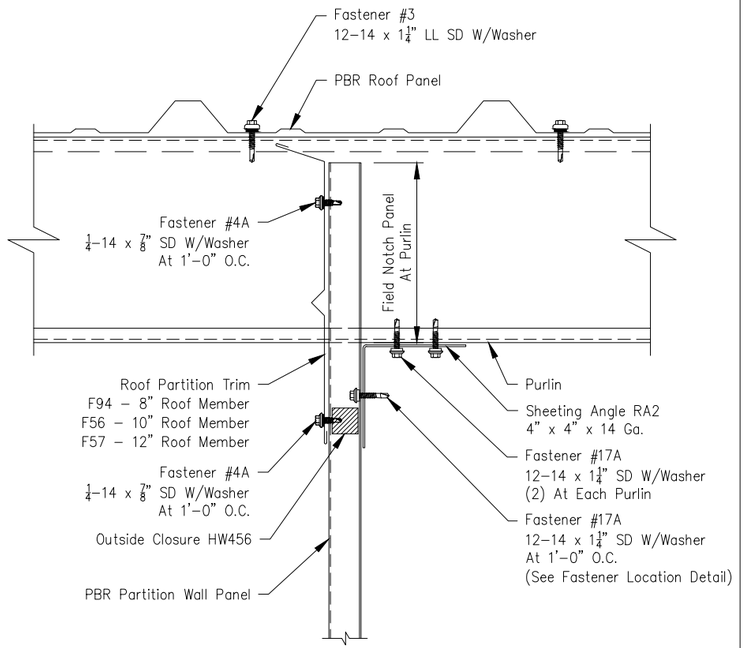


W9	Girt To Double Cold Form Endwall Rafter	Date May '19
Page MB–W9		Rev 00

Transverse PBR Partition Sheeting
Premium Package

Page	
TH13004	
Date Sep '17	Rev 01



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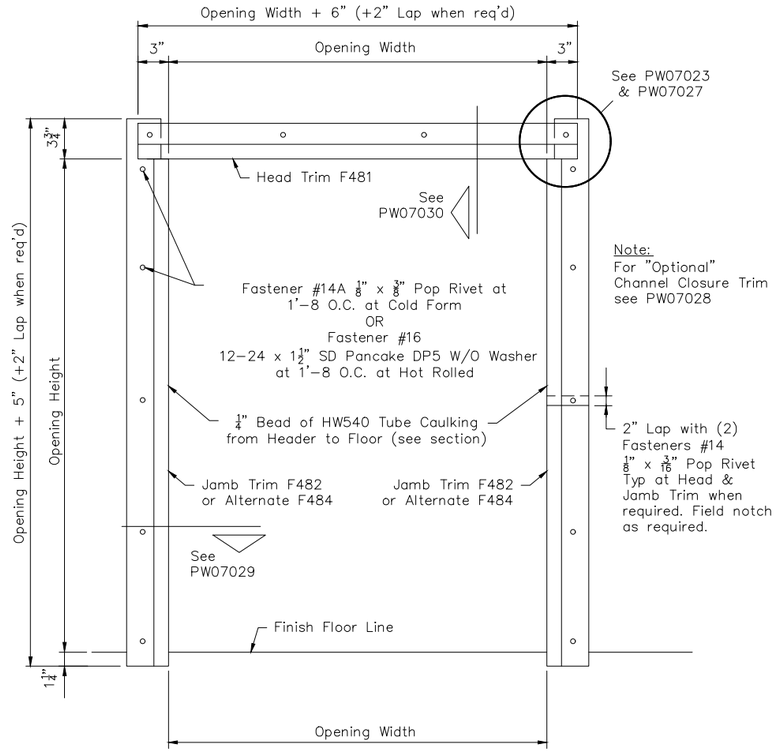
PBR Wall Panel - Three Sided Framed Opening - Trim Installation with Field Notch Panel at Head Trim

Page PW07022 | Date Mar '20 | Rev 05

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



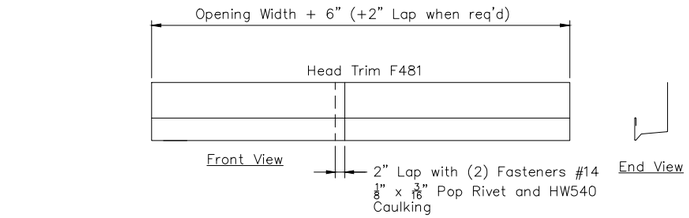
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

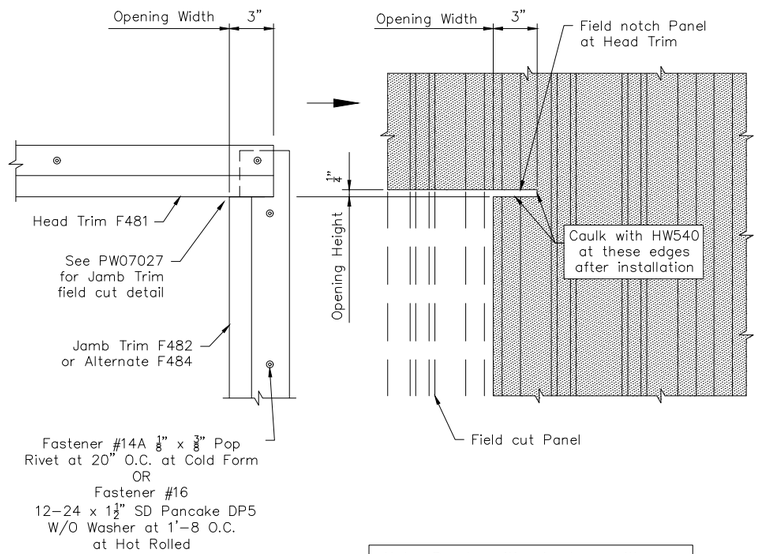
Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Three Sided Framed Opening Field Notch Panel at Head Trim

Page PW07023 | Date Mar '20 | Rev 05

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.





Note: All trim is to be installed BEFORE blanket insulation is applied to walls

Note: Panel position is shown with Panel Rib and Opening on 1'–0 module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

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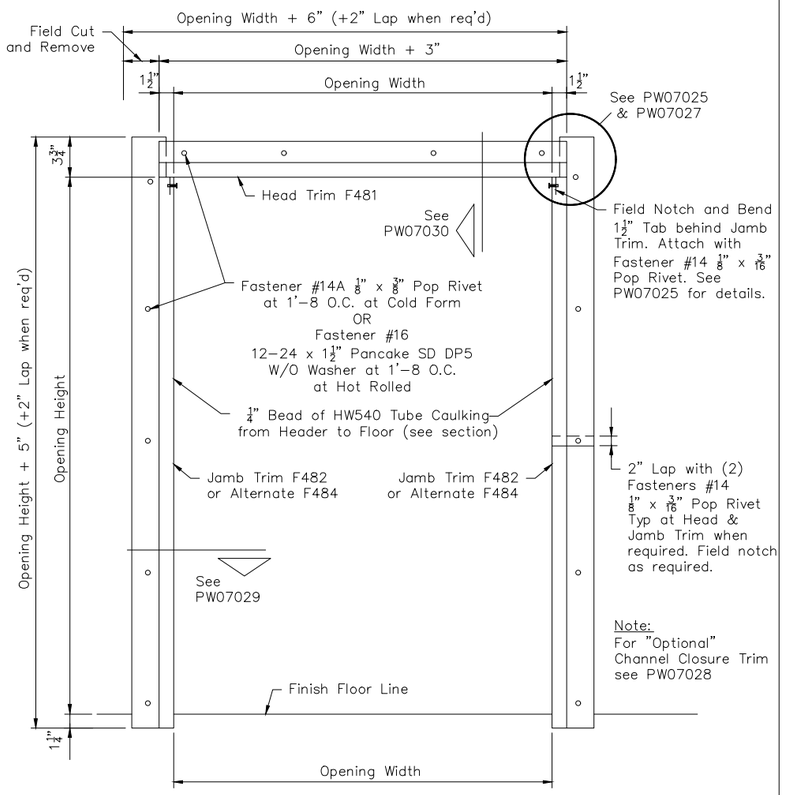
Registered Professional Engineer (Structural) CERTIFICATE NO. 49484 YUANGANG (BILL) LI Date Signed Apr 21, 2023 ARIZONA, U.S.A.

Expires 06/30/2024

PBR Wall Panel - Three Sided Framed Opening - Trim Installation with Field Notch and Bend Tabs at Head Trim

Page PW07024 | Date Mar '20 | Rev 05

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.



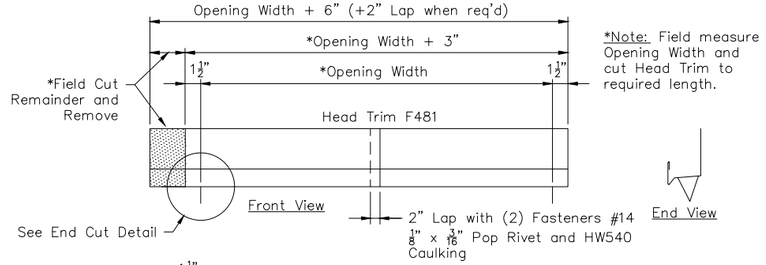
Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

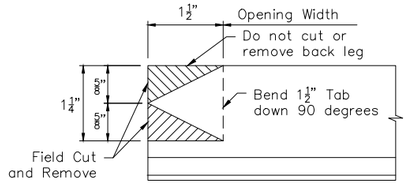
Note: Field measure Opening Width and Height before making field cuts and adjust cut dimensions accordingly.

PBR Wall Panel - Three Sided Framed Opening - Field Notch and Bend Tabs at Head Trim

Page PW07025 | Date Mar '20 | Rev 05

Note: Trim Installation can be done by Field Notch Panel as shown on PW07022 & PW07023 OR with Field Notch and Bend Tabs at Head Trim as shown on PW07024 & PW07025.

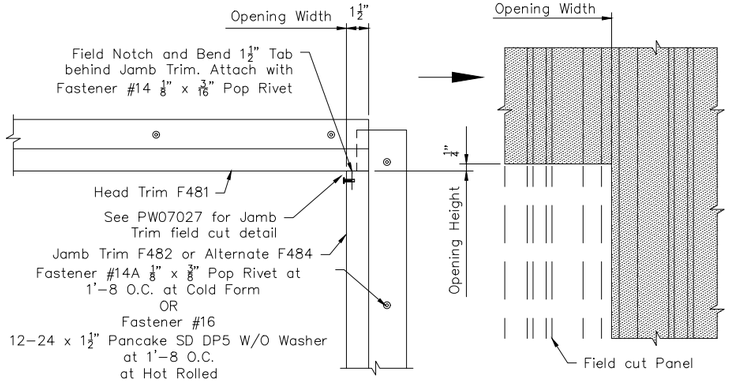




End Cut Detail
(Viewed from top of Head Trim)

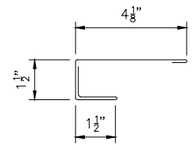
Note: All trim is to be installed BEFORE blanket insulation is applied to walls

Note: Panel position is shown with Panel Rib and Opening on 1'-0 module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

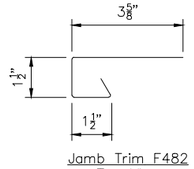


PBR Wall Panel - Three Sided Framed Opening Jamb Trim Field Cut Details

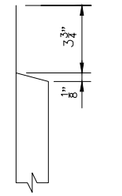
Page PW07027 | Date Mar '20 | Rev 04



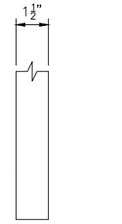
Alternate Jamb Trim F484
Top View



Jamb Trim F482
Top View

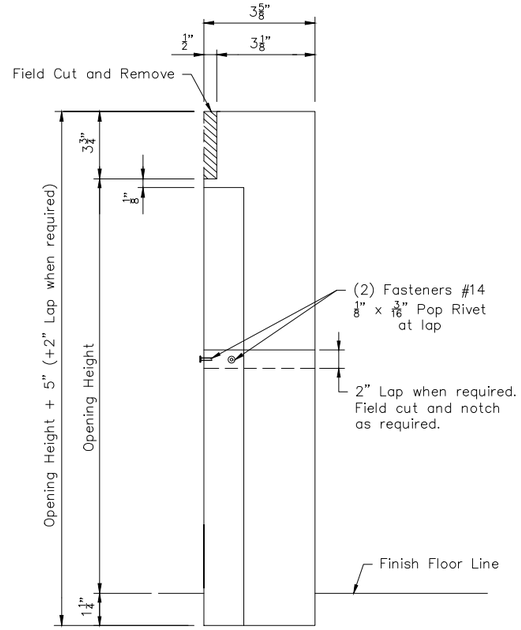


Side View at Head Trim



Side View at Floor Line

Note: Field measure Opening Height before making field cuts and adjust cut dimensions accordingly.



Jamb Trim F482 and Alternate Jamb Trim F484
Front View
Right Jamb Trim as shown
Left Jamb Trim opposite hand

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METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, ZIP 77041 (713) 466-7788 P.O. BOX 40338 ZIP 77240

PROJECT: JIM CRAWFORD

CUSTOMER: STEEL ERECTION & MAINTENANCE | OWNER: JIM CRAWFORD

LOCATION: PRESCOTT,AZ 86301

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	4/20/23	N.T.S.	1	A	19-B-34172	DET18	0

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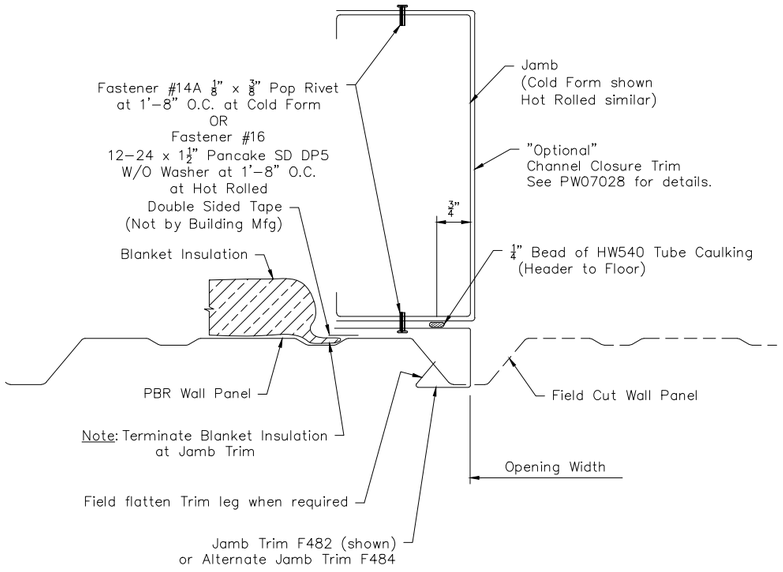
Expires 06/30/2024

PBR Wall Panel - Three Sided Framed Opening - Jamb Trim Installation

Page PW07029 | Date Mar '20 | Rev 05



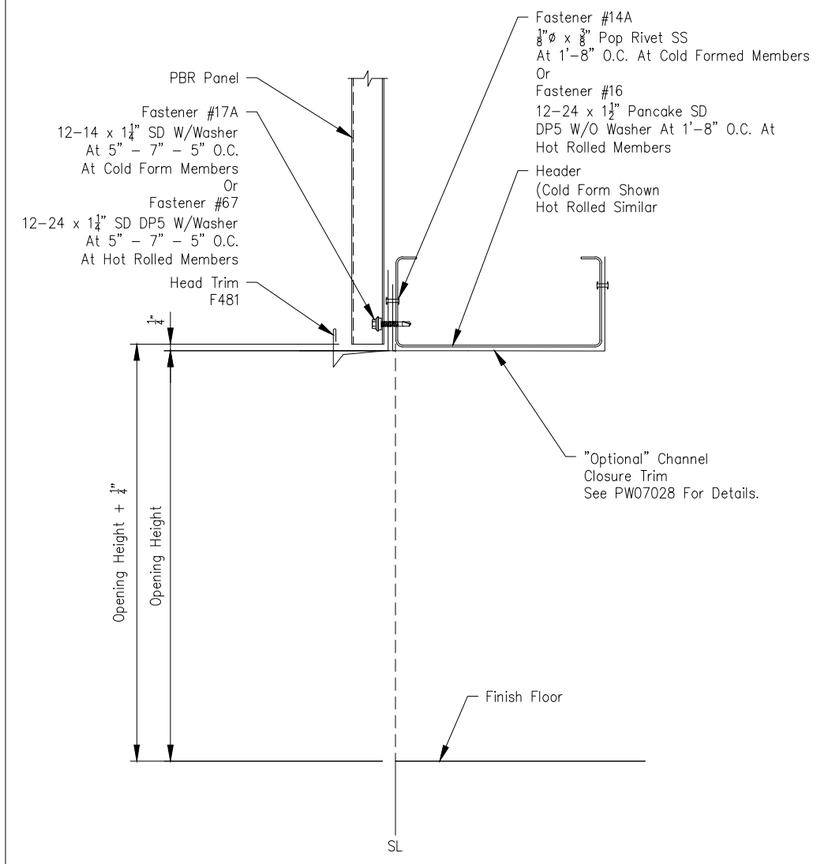
Alternate Jamb Trim F484 Profile

Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Opening on 1'–0" module. Location of Rib may vary depending on the Opening Width and location. Field measure before cutting Panel and Trim.

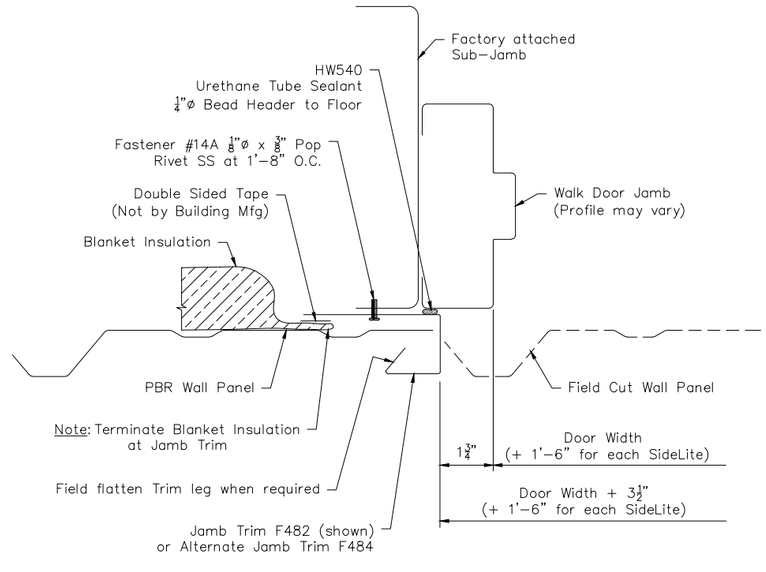
PBR Wall Panel - Three Sided Framed Opening Head Trim Installation

Page PW07030 | Date Oct '19 | Rev 03



PBR Wall Panel - Pre-Assembled Walk Door & Glass-Front Walk Door Jamb Trim Installation

Page PW09029 | Date Mar '20 | Rev 05



Alternate Jamb Trim F484 Profile

Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Note: Panel position is shown with Panel Rib and Door on 1'–0" module. Location of Rib may vary depending on the Door Width and location. Field measure before cutting Panel and Trim.

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METALLIC BUILDING SYSTEMS

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ZIP 77041 (713) 466–7788 ZIP 77240

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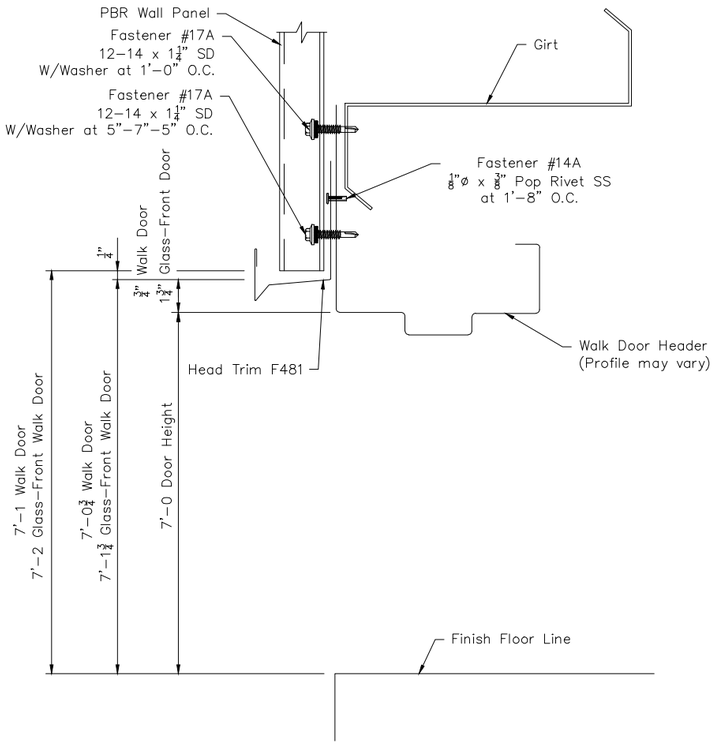
PBR Wall Panel - Pre-Assembled Walk Door And Glass-Front Walk Door Head Trim Installation

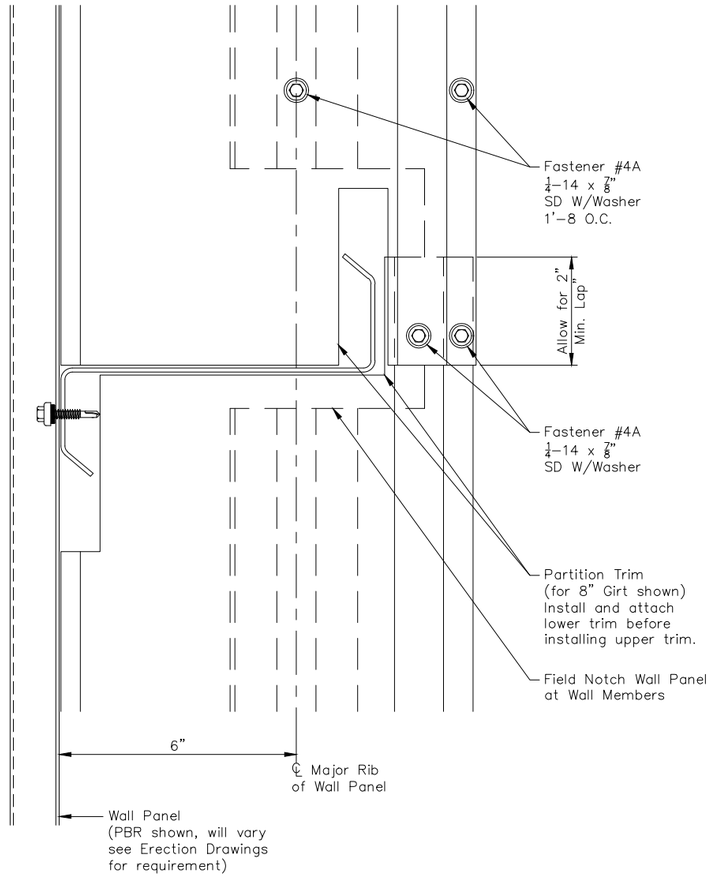
Page PW09030 | Date May '19 | Rev 03



Note: All trim is to be installed BEFORE blanket insulation is applied to walls.

Transverse Partition - PBR Wall Partition Trim Installation Section

Page CP05005 | Date May '19 | Rev 03



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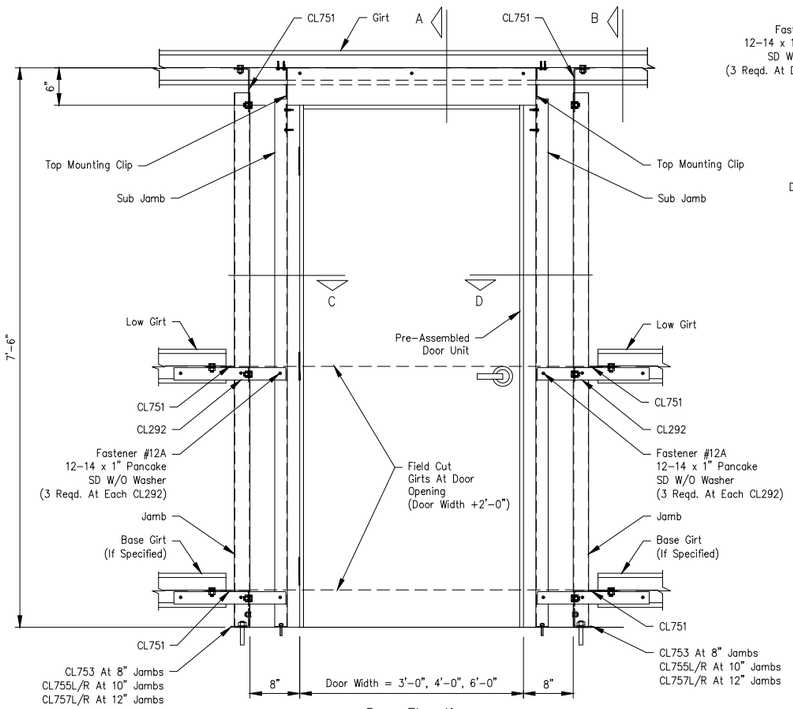
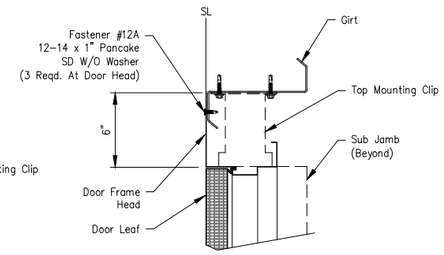
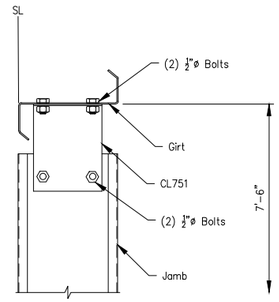


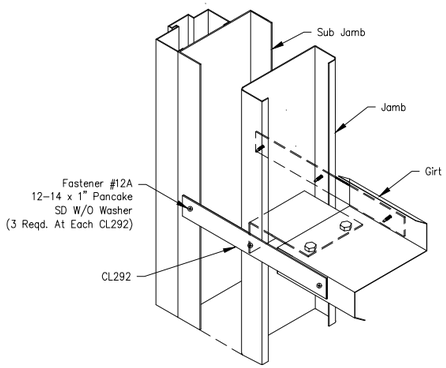
Door Elevation



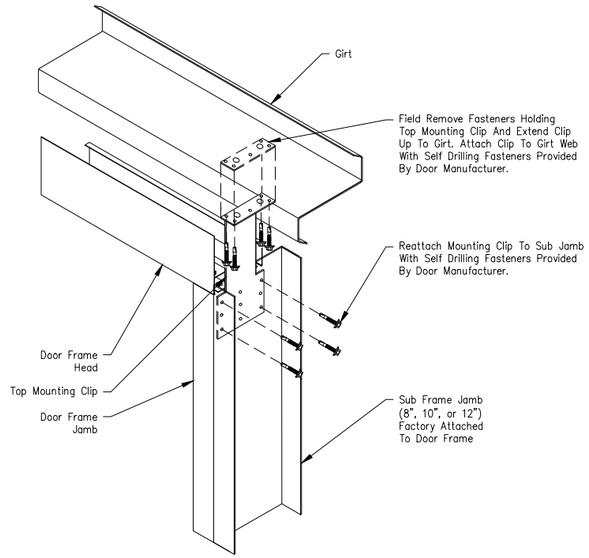
Section A



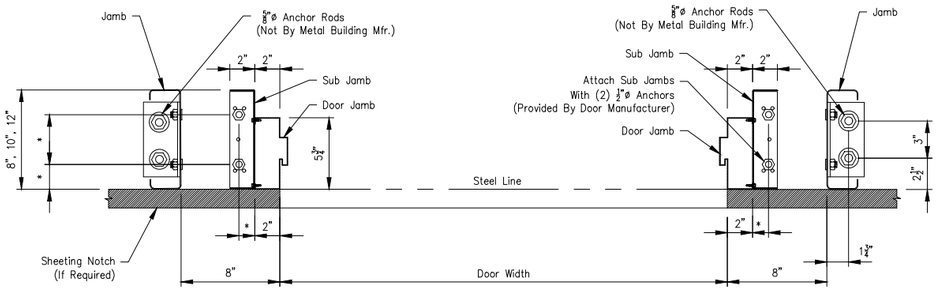
Section B



CL292 Connection To Sub Jamb Isometric



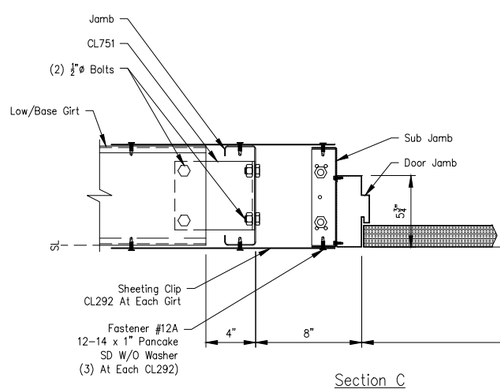
Door Jamb Connection To Girt Isometric



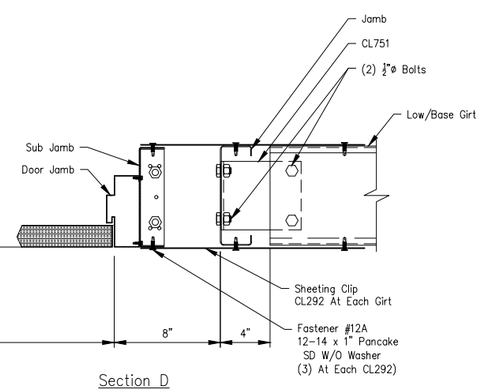
* Anchor Placement To Match Sub Jamb Base Dimensions As Determined By Door Manufacturer.

The Adequacy Of The ½"ø Base Anchor Is Not The Responsibility Of The Building Manufacturer.
The Adequacy Of These Base Anchors Should Be Determined By A Qualified Foundation Engineer.

Pre-Assembled Door Anchor Placement



Section C



Section D

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
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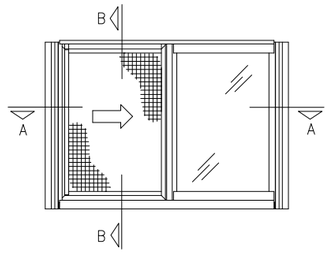
LOCATION: PRESCOTT,AZ 86301

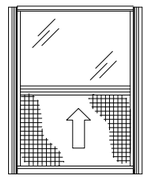
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	DET21	0

Pre-Assembled Door - Girt At 7'-6" With Low / Base Girt
Walk Door Frame Attaching To Bolted Clip Jambs

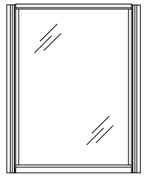
Page	AC05280	
Date	Nov '18	Rev 00



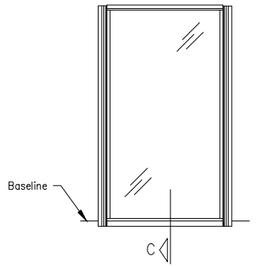
Horizontal Slide Window



Single Hung Window



Fixed Window
(FW2056, FW2060, FW3040, FW4040)



Fixed Window
(FW1070, FW2070)

PBR Jamb Fin E91
(2) per Window

Snap-On Trim E86
(2) per Window

*Vinyl Insulation
Retainer V03

*Vinyl Insulation Retainer V03 is optional and is not provided unless specified on the order documents

Installation Notes:

Window jamb fins are designed for installation at major panel ribs only. Typically windows are located between the 7'-6" girt and the baseline of the applicable wall.

Windows are typically packaged with two PBR Jamb Fins E91 that are not installed on the window unit. Prior to window installation install the jamb fins into the extruded grooves on each side of the window by sliding the fin in from the bottom of the window. The jamb fin should end flush with the top of the window head fin.

As the wall panels are installed, locate the jamb stiffeners at the wall panel major ribs at the desired window locations. Attach the jamb stiffeners to the girt and base members with Fastener #12A, see Jamb Stiffener/Window Isometric. Locate and mark window opening from the outside of the building, see Panel Cutout table for cutout width and height. Make sure the panel cutout height is correct and the panels are cut square. Push the window up until the window head contacts the upper wall panels. Make sure the window is square and level. Attach window unit with jamb fins installed to the jamb stiffeners with Fastener #12A at each corner. Apply Urethane Tube Sealant HW540 to both jamb fins, see Jamb Stiffener/Window Isometric.

Apply Urethane Tube Sealant HW540 to both sides of the inside panel closure and insert the closures between the wall panel and insulation at the window head and sill, See Section B.

Attach window head and sill to wall panels with #17A Fasteners at a 5", 7", 5" O.C., see Fastener Spacing at Window Head and Sill. Note: Fasteners are installed from the inside of the building at the window sill. Attach wall panels to window jamb fins/jamb stiffeners with Fastener #17A at 1'-0" O.C., see Section A.

Apply Urethane Tube Sealant HW540 along both sides between the window jambs and the wall panel to close any gaps. From the outside apply a continuous bead around the outside of the panel profile at the panel base, see Section B.

Install Snap-On Trim E86 at each jamb.

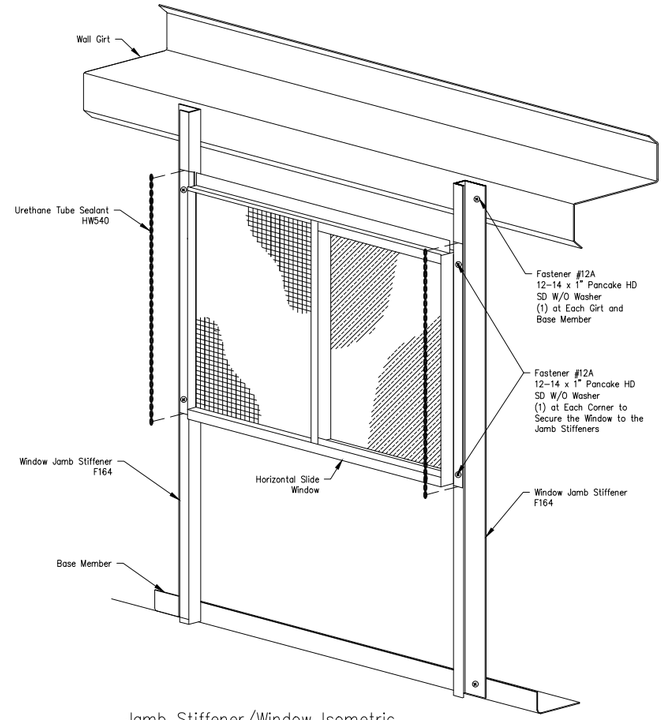
Vinyl Insulation Retainer Notes:
The optional Vinyl Insulation Retainer V03 can be installed before or after the window is installed. Install the retainer into the groove on the four interior sides, see Sections A and B. Notch back the tongue of the retainer at least 1½" on both ends of either the horizontal or vertical retainers, this will allow the retainers to overlap at the four corners.

Panel Cutout		
Horizontal Slide		
Window ID	Cutout Width	Cutout Height
HS2016	1'-10"	1'-6¼"
HS3020	2'-10"	2'-0¼"
HS3030	2'-10"	3'-0¼"
HS3040	2'-10"	4'-0¼"
HS4030	3'-10"	3'-0¼"
HS4040	3'-10"	4'-0¼"
HS5030	4'-10"	3'-0¼"
HS6020	5'-10"	2'-0¼"
HS6030	5'-10"	3'-0¼"
HS6040	5'-10"	4'-0¼"
Single Hung		
Window ID	Cutout Width	Cutout Height
H3030	2'-10"	3'-0¼"
H3040	2'-10"	4'-0¼"
H3050	2'-10"	5'-0¼"

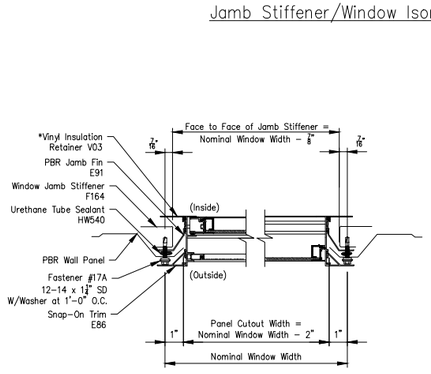
Panel Cutout		
Fixed		
Window ID	Cutout Width	Cutout Height
FW1070	0'-10"	7'-0¼" (*)
FW2056	1'-10"	5'-6¼"
FW2060	1'-10"	6'-0¼"
FW2070	1'-10"	7'-0¼" (*)
FW3040	2'-10"	4'-0¼"
FW4040	3'-10"	4'-0¼"

(*) Dimension is from baseline

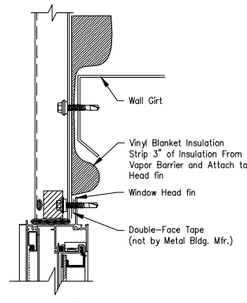
Details shown are for horizontal slide windows. Single hung and fixed window installation details are similar.



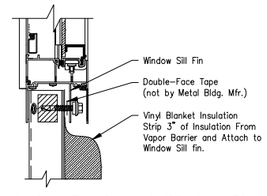
Jamb Stiffener/Window Isometric



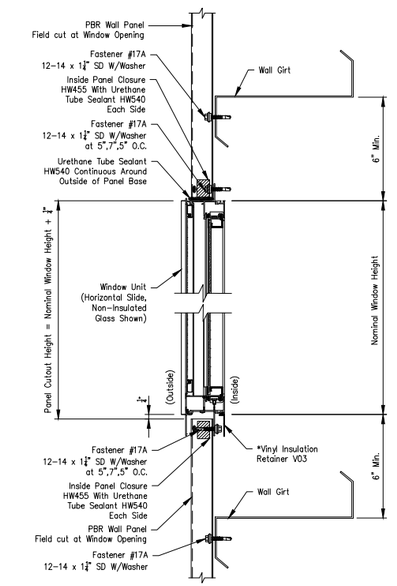
Section A – Jamb PBR Panel



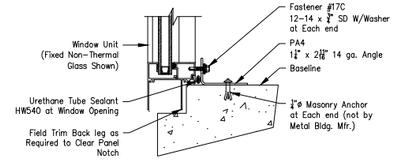
Insulation Section at Window Head



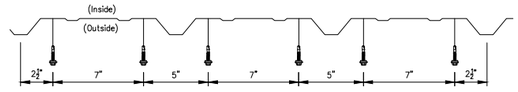
Insulation Section at Window Sill



Section B – Head/Sill

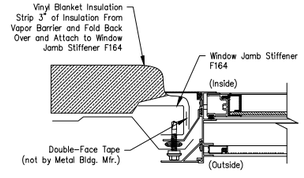


Section C – Sill at Baseline



Fastener Spacing at Head and Window Sill

Note: Fastener location shown is for the window head, fasteners are installed from the inside at the window sill.



Insulation Section at Window Jamb

ISSUE	DATE	DESCRIPTION	BY	CK'D	DSN
0	4/20/23	FOR ERECTOR INSTALLATION	MDB	SN	CM

METALLIC BUILDING SYSTEMS

7301 FAIRVIEW, HOUSTON, TEXAS, P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

PROJECT: JIM CRAWFORD
CUSTOMER: STEEL ERECTION & MAINTENANCE
OWNER: JIM CRAWFORD
LOCATION: PRESCOTT,AZ 86301

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/20/23	N.T.S.	1	A	19-B-34172	DET22	0

Non Thermal Window (C225) Installation Details
Horizontal Slide / Single Hung / Fixed Glass
PBR Panel With Jamb Stiffeners

Page	
AC08310	
Date	Rev
Apr '19	01

Field Service Procedures

In Order To Give You Prompt Services And Keep Problems To A Minimum, Please Handle Any Shortages Or Back Charges In The Following Manner:

1. Carefully Check Your Packing List While Unloading.
2. Mark Any Items Which Appear To Be Missing And Notify The Field Service Department At The Number Shown In The Title Block As Soon As Possible. Calling Someone Else Could Delay The Proper Response.

INITIAL CLAIM:
In The Event Of An Error, The Customer Must Promptly Make A Written Or Verbal "Initial Claim" to The Manufacturer For The Correction Of Design, Drafting, Bill Of Materials Or Fabrication Error.
The "Initial Claim" Includes:

1. Description Of The Nature And Extent Of The Errors, Including Quantities.
2. Description Of The Nature And Extent Of Proposed Corrective Work, Including Estimated Man-Hours.
3. Materials To Be Purchased From Other Than the Manufacturer, Including Estimated Quantities and Cost.
4. Maximum Total Cost Of Proposed Corrective Work And Materials To Be Purchased From Other Than The Manufacturer.

SHORT MATERIALS:
Immediately Upon Delivery Of Materials, Quantities Are To Be Verified By The Customer Against Quantities That Are Billed On The Shipping Documents. Neither The Manufacturer Nor The Carrier Is Responsible For Material Shortages Against The Quantities Billed On The Shipping Documents If Such Shortages Are Not Noted On The Shipping Documents When The Material Is Delivered And Acknowledged By The Carrier's Agent. If The Carrier Is The Manufacturer, Claims For Shortages Are To Be Made By The Customer To The Common Carrier. If The Material Quantities Received Are Correct According To The Quantities Billed On The Shipping Documents, But Are Less Than The Quantities Ordered Or The Quantities That Are Necessary To Complete The Metal Building According To The Order Documents, Claim Is To Be Made To The Manufacturer.

DAMAGED OR DEFECTIVE MATERIAL:
Damaged Or Defective Material, Regardless Of The Degree Of Damage, Must be Noted On The Shipping Documents By The Customer And Acknowledged By The Carrier's Agent. The Manufacturer Is Not Responsible For Material Damaged In Unloading Of Packages Or Nested Materials, Including, But Not Limited To: Fasteners, Sheet Metal, "C" And "Z" Sections And Covering Panels That Become Wet And/Or Damaged By Water While In The Possession Of Others. Packaged Or Nested Material That Become Wet In Transit Must Be Unpacked, Unstacked And Dried By The Customer. If The Carrier Is The Manufacturer, The Customer Must Make Claim For Damaged Directly To The Manufacturer. If The Carrier Is A Common Carrier, The Customer Must Make The Claim For Damage To The Common Carrier. The Manufacturer Is Not Liable For Any Claim Whatsoever Including, But Not Limited To Labor Charges Of Consequential Damages Resulting From Customer's Use Of Damaged Or Defective Materials That Can Be Detected By Visual Inspection.

EXCESSIVE MATERIAL:
The Manufacturer Reserves The Right To Recover Any Material Delivered In Excess Of Those Required By The Order Documents.

OIL CANNING IS NOT A CAUSE FOR REJECTION

Authorization For Corrective Work

Normal Erection Operations Include The Correction Of Minor Misfits By Amounts Of Reaming, Chipping, Welding Or Cutting And The Drawing Of Elements Into Line Through The Use Of Drift Pins. Errors That Cannot Be Corrected By The Foregoing Means Or Which Require Major Changes In The Member Configuration Should Be Reported Immediately To The Owner And The Fabricator By The Erector, To Enable Whoever Is Responsible Either To Correct The Error Or Approve The Most Efficient And Economical Method Of Correction To Be Used By Others. (AISC 303-10, Section 7.14). If The Error Is The Fault Of The Manufacturer An "Authorization For Corrective Work" Must Be Issued In Writing By The Manufacturer To Authorize The Corrective Work At A Cost Not To Exceed The Maximum Total Cost Set Forth. Alternative Corrective Work Other Than That Proposed In The "Initial Claim" May Be Directed By The Manufacturer In The "Authorization Of Corrective Work". Only The Field Service Department May Authorize Corrective Work.

FINAL CLAIM:
The "Final Claim" In Writing Must Be Forwarded By The Customer To The Manufacturer Within (10) Days Of The Completion Of The Corrective Work Authorized By The Manufacturer.

THE "FINAL CLAIM" MUST INCLUDE:

1. Actual Number Of Man-Hours By Dated Of Direct Labor Use On Corrective Work And Actual Hourly Rate Of Pay.
2. Taxes And Insurance On Total Actual Direct Labor.
3. Other Direct Costs On Actual Direct Labor.
4. Cost Of Materials (Not Minor Supplies) Authorized By The Manufacturer To Be Purchased From Other Than The Manufacturer, Including Copies Of Paid Invoices.
5. Total Actual Direct Cost Of Corrective Work (Sum Of 1, 2, 3, And 4). The "Final Claims Are Credited To The Customer By The Manufacturer In The Amount Not To Exceed The Lesser Of The Maximum Total Cost Set Forth In The "Authorization For Corrective Work" Or The Total Direct Cost Of Corrective Work.

** IMPORTANT NOTE **
Cost Of Equipment (Rental Or Depreciation), Small Tools, Supervision, Overhead And Profit Are Not Subjected To Claims.

SHIPMENT ARRIVAL TIME:
Every Effort Will Be Made To See That The Carrier Arrives At The Jobsite On The Requested Hour. Manufacturer Makes No Warranty And Accepts No Responsibility For Costs Associated With A Shipment Not Arriving At The Requested Time Unless A Separate Agreement Has Been Made In Writing For A Guaranteed Arrival Time.

Unloading, Handling And Storage

STRUCTURAL:
A Great Amount Of Time And Trouble Can Be Saved If The Building Parts Are Unloaded At The Building Site According To A Pre-Arranged Plan. Proper Location And Handling Of Components Will Eliminate Unnecessary Handling.

NOTE:
Piece Marks Are Stenciled On The Primary Structural Members At The Lower End, 1'-0" From The End. Inspect All Shipments Prior To Releasing The Tie-downs For Loads That May Have Shifted During Transit.

REMEMBER SAFETY FIRST:
Blocking Under Columns And Rafters Protect The Splice Plates And The Slab From Damage During The Unloading Process. It Also Facilitates The Placing Of Slings And Cables Around Members For Later Lifting And Allows Members To Be Bolted Together Into Sub-assemblies While On The Ground. Extra Care Should Always Be Exercised In The Unloading Operation To Prevent Injuries From Handling Steel And To Prevent Damage To Materials And The Concrete Slab. If Water Is Allowed To Remain For Extended Periods In Bundles Of Primed Parts Such As Girts, Purlins, Etc., The Pigment Will Fade And The Paint Will Gradually Soften Reducing Its Bond To The Steel. Therefore, Upon Receipt Of A Job, All Bundles Of Primed Parts Should Be Stored At An Angle To Allow Any Trapped Water To Drain Away And Permit Air Circulation For Drying. Puddles Of Water Should Not Be Allowed To Collect And Remain On Columns Or Rafters For Same Reason.

The Coat Of Shop Primer Is Intended To Protect The Steel Framing Only For A Short Period Of Exposure To Ordinary Atmospheric Conditions. The Coat Of Shop Primer Does Not Provide The Uniformity Of Appearance, Or The Durability And Corrosion Resistance Of A Field Applied Finish Coat Of Paint Over Shop Primer.

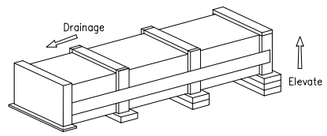
Roof And Wall Panels

Manufacturer's Roof And Wall Panels Include Color Coated, Galvalume, And Galvanized, Provide Excellent Service Under Widely Varied Conditions. All Unloading And Erection Personnel Should Fully Understand That These Panels Are Quality Merchandise, Which Merits Cautious Care And Handling.

UNDER NO CIRCUMSTANCES SHOULD PANELS BE HANDLED ROUGHLY
Packages Of Sheets Should Be Lifted Off The Truck With Extreme Care Taken To Ensure That No Damage Occurs To Ends Of The Sheets Or to Side Ribs. The Packages Should Be Stored Off The Ground Sufficiently High To Allow Air Circulation Underneath The Packages. This Avoids Ground Moisture And Deters People From Walking On The Packages. One End Of The Package Should Be Elevated To Encourage Drainage In Case Of Rain. The Manufacturer Exercises Caution During Fabrication An Shipping Operations To Ensure That All Panel Stock Is Kept Dry. However Due To Climatic Conditions, Water Formed By Condensation Of Humid Air Become Trapped Between Sheets. Water Can Also Be Trapped Between The Stacked Sheets When Exposed To Rain. This May Discoloration Caused By Trapped Moisture. The Stain Is Usually Superficial And Has Little Effect On The Appearance Or Service Life Of The Panels As Long As It Not Permitted To Remain On The Panel. However, Moisture In Contact With The Surface Of The panel Over An Extended Period Can Severely Attack The Finish And Reduce The Effective Service Life. See R1-07 Titled "Damage From Condensation Or Trapped Water".

CAUTION:
Care Should Always Be Taken When Walking On Panels. Use Safety Lines And Net When Necessary. Panels Are Slippery, Wipe Dry Any Moisture Or Surface Material That Has Puddle From Bundles Stored On A Slope. Dew, Frost, Or Other Forms Of Moisture Greatly Increase The Slipperiness Of The Panels. Always Assume Panel Surface Is Slippery And Act Accordingly. Never Walk Of Step On Skylights Or Translucent Panels.

Use Wood Blocking To Elevate And Slope The Panels In A Manner That Allows Moisture To Drain. Wood Blocking Placed Between Bundles Will Provide Additional Air Circulation. When Handling Or Uncrating The Panels, Lift Rather Than Slide Them Apart. Burred Edges May Scratch The Coated Surfaces When Sheets Are Slid Over One Another. Never Allow Panels To Be Walked On While On The Ground.



Roof And Wall Panel Damage During Construction

The Quality Of Workmanship In Steel Construction Practices And Handling Methods Used During The Construction Of The Metal Building Can Significantly Affect The Appearance And Performance Of The Building Panels. Panel Damage During Construction Can Be The Result Of Faulty Installation Methods And/or Carelessness.

Overdriven Fasteners Cause Indentations Or Shallow Pockets In The Panel Around The Fastener Head. Rain Water Or Condensation Moisture Combined With Atmospheric Pollutants (principally Sulfur Dioxides) And Dirt Particles Collect In These Pockets. The Combination Of Pollutants And Water Creates Acid Solutions That Will Cause Corrosion Damage To The Panel And Fastener. Rain May Wash Some Pollutants Away, But Moisture In Form Of High Humidity Can Keep These Areas Wet And Continue The Problem. Overdriving The Fastener Also Forces The Sealing Washer From Under The Head Creating A Leak At This Point. Proper Torque Adjustment Of The Screw Gun Or Preferably The Use Of A Depth Gauge Will Eliminate The Problem Of Overdriven Fasteners.

It Is Extremely Important That All Drill Shavings From The Installation Of Panel Fasteners And Fillings From The Saw Cutting Of Panels Be Removed From The Panel Surface. Corrosion Can Occur In A Matter Of Hours When These Shavings Or Fillings Are Not Removed And Are In Contact With Water Or Condensed Moisture. When Panels Are Pre-Drilled Or Cut In The Stack Prior To Erection All Shavings Must Be Cleaned From Both Sides Of The Panel To Prevent Corrosion Of The Panel By These Particles. It Is Imperative That The Roof Be Swept Clean At Least Daily And Certainly At Job Completion. The Final Cleaning Of The Roof Should Be Done Prior To Installing The Gutter So That The Shavings Are Not Deposited Into The Gutter And Left To Corrode. Any Other Foreign Objects Or Debris Left By Construction Personnel Should Also Be Removed From The Roof During The Erection Of The Roof And The Installation Of Such Equipment As Air Condition Units, Etc..

Personnel Walking On The Panel Can Cause Damage. Workmen Should Step Or Walk In The Broad Flat Areas Of The Panel And Avoid Stepping On The Panel Ends And Edges Which Can Be Bent By Careless Handling. If This Damage Is Severe, The Edges Must Be Straighten Prior To Erection Since The Appearance And/or Weather Tightness Of The Panel Could Be Affected. Dragging One Panel Across Another Can Cut Or Abrade The Coating Causing Unsightly Marks On The Panel Surface.

Attempts To Erect Panels During Windy Conditions Should Be Avoided To Prevent Damage And Of Safety Considerations.

Leaving Dirt Piled Against The Exterior Wall Panels At The Foundation Will Cause Panel Damage. This Dirt May Be Wet Or At Least Contain Some Moisture. Mud May Have Splashed Onto The Wall During Construction. Corrosion Damage May Occur Where This Dirt Or Mud Contacts The Panel. In Areas Where Lime Stabilization Of The Soil Is Required, Corrosion Damage From The Soil's Content Will Be Accelerated And Most Likely Be Severe. All Dirt Must Be Removed From The Panel Walls At The Time Of Completion Of Work. Pre-Painted Panels May Require Touch-up If The Coating Has Been Damaged During Handling Or Erection.

The Appearance Of The Building May Be Affected If Damaged Spots Or Scratches Are Located In Highly Visible Places Such As Around Doors, Windows, Etc.. If Damage Is Extensive Then Replacement Of The Entire Panel Should Be Considered.

Types Of Finishes

SHOP PRIMED STEEL:
All Structural Members Of The Metal Building System Not Fabricated Of Corrosion Resistant Material Or Protected By A Corrosion Resistant Coating Are Painted With One Coat Of Shop Primer Meeting The Performance Requirements Of SSPC Paint Specification No.15. The Coat Of Shop Primer Is Intended To Protect The Steel Framing For Only A Short Period Of Exposure To Ordinary Atmospheric Conditions. Shop Primed Steel Which Is Stored In The Field Pending Erection Should Be Kept Free Of The Ground And So Positioned As To Minimize Water Holding Pockets, Dust, Mud And Other Contamination Of The Primer Film. Repairs Of Damaged To Primed Surfaces And/Or Removal Of Foreign Material Due To Improper Field Storage Or Site Conditions Are Not The Responsibility Of The Manufacturer. The Manufacturer Is Not Responsible For Deterioration Of The Shop Coat Of Primer Or Corrosion That May Result From Exposure To Atmospheric And Environmental Conditions, Nor The Compatibility Of The Primer To Any Field Applied Coating. Minor Abrasions To The Shop Coat (Including Galvanizing) Caused By Handling, Loading, Shipping, Unloading And Erection After Painting Or Galvanizing Are Unavoidable. (MBMA 2012, Chapter IV 4.2.4).

GALVALUME:
Galvalume Is The Trade Name For A Patented Steel Sheet And Coil Product Having A Coating Of Corrosion Resistant Aluminum-Zinc Alloy. The Mixture Is Balanced To Obtain The Coating That Retains The Corrosion Resistance And Heat Reflectivity Of Aluminum And Galvanic Protection Of Zinc. The Best Properties Of Both Aluminum And Zinc Are Combined In This Coating And Offer Added Service Life For The Building.

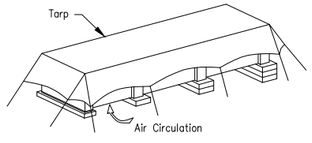
Pre-Painted:
Using Galvalume Steel As A Substrate, Pre-Painted Steel Is Given An Additional Rust Inhibitor Primer Coat. This Primer Coat Further Increases The Corrosion Resistance. These Coatings Are Applied To The Exterior Surface Of The Panels And A Wash Coat Designed Only For Interior Use, Is Applied On The Opposite Side. Galvalume And Pre-Painted Steel Can Give Excellent Service For Many Years If A Few Rules Concerning Their Care And Maintenance Are Observed. All Of These Finishes Are Equally Subject To Damage And Corrosion When Care Is Not Provided.

PAINT AND COATING MAINTENANCE:
Remove Smudge Marks From Bare Galvalume:
Formula 409 Has Proven To Be Somewhat Effective. Lightly Rub With A Clean Cloth And Rinse With Water. Do Not Rub More Than Required To Remove Smudge Marks. No Product Will Remove All Smudge Marks.
Remove Rust Stains:
Soft Scrub Without Bleach Has Proven To be Somewhat Effective. Rub With A Soft Cloth And Rinse With Water. Do Not Rub More Than Required To Remove Stain. No Product Will Completely Remove Rust Stains.
To Touch-Up Scratches In Paint (Not Bare Metal):
Clean Area To Be Painted With Mild Detergent. Rinse Thoroughly And Dry. Using A Small Artist's Brush, Lightly Apply A Minimal Amount Of Color Matched Touch-Up Pain Required To Fill/Cover The Scratch. Contact The Building Manufacturer For Assistance With Ordering/Purchasing Touch-Up Paint As Needed.

Damage From Condensation Or Trapped Water

It Is Extremely Important That The Panels Be Monitored For Evidence Or Trapped Water Or Moisture Condensation While Awaiting Erection. High Humidity Conditions With Temperature Cycling Will Cause Condensation Between Panels Within The Bundle. Condensation Can Occur Frequently Near The Sea Coast Or Other Large Bodies Of Water.

If Jobsite Covers Are Used, They Should Be Tied Away From The Bundle At Corners To Allow Air Circulation Around The Bundle. This Will Help Prevent Moisture Evaporating From The Ground Or Building Floor From Condensing On The Panels. Plastic Or Other Impermeable Covers Are Not Recommended. Immediate Action Is Required If The Panels Are Found To Be Wet From Any Cause. The Bundles Must Be Opened And Each Panel Un-Stacked And Thoroughly Dried On Both Sides. Re-Stacking The Panel At A Slight Angle To Each Other To Prevent Nesting Will Allow Air Circulation And Assist In Keeping The Panel Dry. In Severe Conditions Large Fans Can Be Used To Circulate Air Between The Un-Stacked Panels And Accelerate Drying. Damage To The panel Coating Occurs When Panels Become Wet And Are Allowed To stay wet. damage Can Occur To Nested Panels Within 24 to 48 Hours. This Damage Shows Corrosion And Discoloration Of The Panel Surface And Is Commonly Called Wet Storage. Stain, Zinc Oxidation, Or "White Rust".



A Softening Of The Paint Film Can Occur With Pre-Painted Steel Under Wet Storage Conditions And The Durability Of The Panel Finish Substantially Decrease. Bare Galvanized And Galvalume Panels React More Quickly To Surface Oxidation Since They Lack The Additional Protection Of Paint. Zinc Coated Or Galvalume Panels Under Normal Exposure Form A Zinc Aluminum Oxide Film On Their Surface Allowing A Slow Oxidation Process Called "Weathering" To Occur That Inhibits Further Corrosion. In Nested Bundles Constant Contact Of The Panels With Condensed Or Trapped Water Prevents This Weathering Process.

Rapid Oxidation Of The Zinc or Zinc Aluminum Coating Can Now Occur And May Lead To "Red Rust" In A Short Time. If Discoloration Or Stains Are Minor A Household Cleaner Of The Type Used On Porcelain Sinks And Bathtubs May Be Used To Remove Stains. Wire Brushing Or Abrasive Materials Should be Avoided Since Scratching Or Removal Of The Coating Could Occur. Panel With Significant Damage Should Be Replaced By The Buyer Prior To Erection.

Safety Commitment

The Builder/Contractor Is Responsible For Applying And Observing All Pertinent Safety Rules And OSHA Standards As Applicable.

The Building Manufacturer Has A Commitment To Manufacture Quality Building Components That Can Be Safely Erected. However The Safety Commitment And Job Site Practices Of The Erector Are Beyond The Control Of The Building Manufacturer.

It Is Strongly Recommended That Safe Working Conditions And Accident Prevention Practices Be The Top Priority Of Any Job Site.

Local, State And Federal Safety And health Standards, Whether Standard Statuary Or Customary, Should Always Be Followed To Help Ensure Worker Safety.

Make Sure All Employees Know The Safest And Most Productive Way Of Erecting A Building. Emergency Procedures Should Be Known To All Employees. Daily Meetings Highlighting Safety Procedures Are Also Recommended. The Use Of Hard Hats, Rubber Sole Shoes For Roof Work, Proper Equipment For Handling Material And Safety Nets Where Applicable Are Recommended
.
For The Purposes Of Determining Lift Requirements, No Bundle Supplied By The Manufacturer Will Exceed 4,000 Pounds. For Further Information Also reference The Bill Of Materials For Individual Member Weights Of Structural Members. If Additional Information Is Required Contact The Field Service Department.

ICE AND SNOW REMOVAL:
Excessive Ice And Snow Removal Should Be Removed From The Roof Immediately To Prevent Damage To Roof And Possible Collapse. Do Not Use Metal Tools To remove The Ice Or Snow As This Can Damage The Paint And/Or Galvalume Coatings. Also Be Careful Around Pipes And Flashing's.
Be Extremely Careful If Your Roof Has Light Transmitting Panels. These Panels Will Not Support A Person's Weight And Will Be Difficult Or Impossible To See If They Are Covered With Ice Or Snow. See MBMA Low-Rise Building Systems Manual, Appendix A8 For Details On Snow Removal Procedures. These Procedures Should Commence When Half Of The Design Roof Snow Load Is Realized.

DEBRIS REMOVAL:
Any Foreign Debris Such As Sawdust,Dirt, Leaves, Animal Droppings, Etc. Will Cause Corrosion Of The Roof, Gutters, Trim, Etc. If Left On The Building Surface For A Long Enough Time. The Roof Should Be Periodically Inspected For Such Conditions And If Found, They Should Be Rectified In A Manner Consistent With These Roof Maintenance Guidelines. Never Allow Treated Lumber Or Concrete/Mortar/Grout To Come In Contact With Roof Panels, Especially Galvalume For Extended Periods Of Time.

PERIODIC INSPECTION:
All High-Strength Shall Be Periodically Be Inspected For Tightness. Particularly In Crane Buildings And After Seismic Or Wind Activity. The Crane Manufacturer Will Specify A Minimum Period But It Should Not Exceed Two Years.

DRAINAGE:

1. Keep Roof Free Of Debris And Keep Debris Out Of Gutter To Allow Water Quickly Drain From The Roof.
2. Do Not Use Wood Blocking To Hold Equipment Off The Panel Seams. This Blocks The Flow Of Water And Hold Moisture.
3. Do Not Allow Rooftop AC Units Or Evaporative Coolers To Drain Onto The Roof.
4. Anything That Traps Or Holds Moisture On A Roof Will Cause Premature Corrosion.

Roof Maintenance Guidelines

1. Inspect Roof For Damage After Heavy Storms.

2. Inspect And Reseal As Necessary All Roof Curbs And Other Penetrations With Urethane Sealant.

3. Always Get Manufacturer Approval Before Making Any Modifications To The Roof.

4. Repaint Any Areas That Are Susceptible To Rust As Required.

5. When Performing Roof Maintenance, Always Take The Following Precautions:
   a. Use Fall Protection And Other Safety Protection As Required.
   b. Do Not Walk On Roof Flashing Such As Gutter, Rake, Hip Or Ridge Flash.
   c. Do Not Walk On Light Transmitting Panels (LTP's). They Will Not Support A Person's Weight.
   d. Guard All LTP's And Roof Openings.
   e. Step Only In The Panel Flat Directly On Or In Close Proximity To A Supporting Roof Structural.

6. After Other Trades Have Been On The Roof For Any Reason, Inspect The Roof For Damage Caused By Workers Including Chemical Or Solvent Spills, Scratches In The Paint Or Galvalume Coating, Excessive Foot Traffic And Punctures. Make Sure That All Debris Or Scrap Left Behind By Workers Is Removed From The Roof Immediately. Avoid Using Cutoff Saws And Welding Equipment Over The Roof. The Roof Must Adequately Protected.

FOOT TRAFFIC:
Keep Foot Traffic To A Minimum. Heavy Foot Traffic Can Cause Ponding On Low Pitched Roofs. This Is Particularly True Just Upslope From The Eave And At Endlaps.
Always Walk In The Flat Of The Panel Near A Supporting Roof Structural. Do Not Walk On Trim Or In Gutters.
On Bare Galvalume Roofs, Excessive Foot Traffic May Cause Black Burnish Marks. If Regular Foot Traffic Is Planned For A Roof, Provisions Should Be Made For A Properly Designed And Installed Walkway System. In Order To Limit Access To The Roof, Roof Hatches Or Access Ladders Should Be Locked At All Times. A Sign Posted At The Access Site Stating That Only Authorized Personnel Are Allowed On The Roof. In Addition A Log Book Should Be Kept Of All Visits To The Roof And The Reason For Such Visits.

DISSIMILAR METALS:
Never Allow Your Roof To Come In Contact With, Or Water Runoff From Any Dissimilar Metal Including But Not Limited To:
Copper, Lead Or Graphite, This Includes Copper And Arsenic Salts Used In Treated Lumber, Calcium Used In Concrete, Mortar And Grout.

Never Step On Light Transmitting Panels (LTP's) Or Unattended Roof Panels

Panels May Collapse
If Not Properly Secured

Roof Panels Must Be Completely Attached To The Purlins And To Panels On Either Side Before They Can Be A Safe Walking Surface. Light Transmitting Panels LTP's) Translucent Panels Can Never Be Considered As A Walking Surface.

Partially Attached Or Unattached Panels Should Never Be Walked On!

Do Not:

1. Step On Rib At Edge Of Panel.

2. Step Near Crease In Rib At Edge Of Panel.

3. Step Within 5 Feet Of Edge On Unsecured Panel.

A Single Roof Panel Must Never Be Used As A Work Platform. An OSHA Approved Runway Should Be Used For Work Platforms. (Consult OSHA Safety And Health Regulations For The Construction Industry). Safety First!

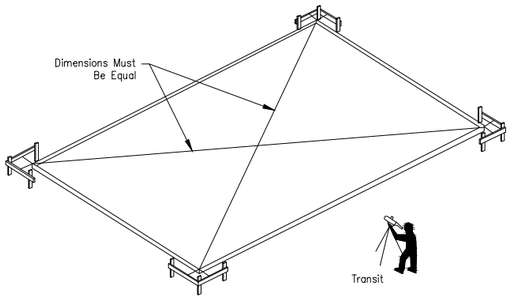
This item has been electronically signed and sealed by Yuangang (Bill) Li, S.E., P.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

Registered Professional Engineer (Structural)
CERTIFICATE NO.
49484
YUANGANG
(BILL)
LI
Apr 21, 2023
Date Signed
ARIZONA, U.S.A.

Expires 06/30/2024

Building Anchorage

1. To Determine That The Foundation Is Square, Measure Diagonal Dimensions To Be Sure They Are Of Equal Length.
2. To Determine That The Foundation Is Level, Set Up A Transit Or Level And Use A Level Rod To Obtain The Elevation At All Columns.
3. Carefully Check The Location Of All Anchor Rods Against The Anchor Rod Setting Plan Furnished By The Manufacturer. All Dimensions Must Be Identical To Assure A Proper Start-up.

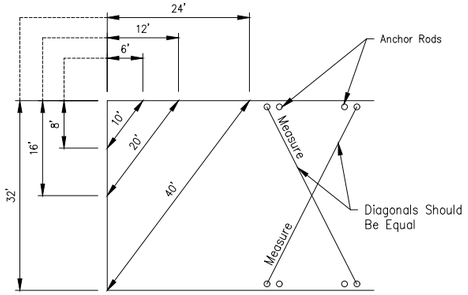


Pre-Erection Notes:

The Following Notes, Procedures And Suggested Recommendations Are Important Parts Of The Pre-Erection Process.

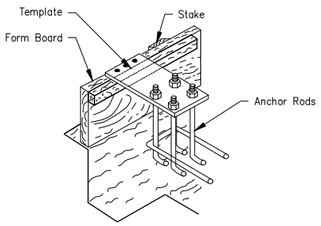
1.) Prior To The Time The Erection Crew Arrives, A Responsible Person Should Check The Job Site For Foundation Readiness, Square, And Accuracy And Anchor Rod Size And Location.

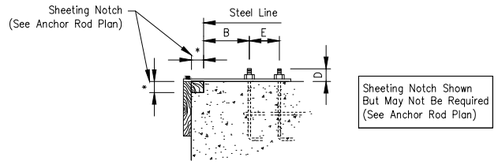
The Drawing Shown Below Indicates A Method Which May Be Used To Check The Foundation And Bolts For Square.



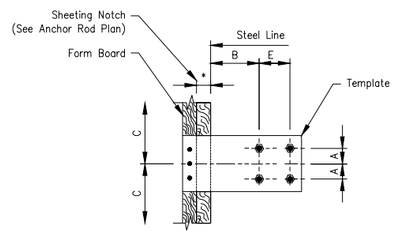
Measure Along Adjacent Sides Of Foundation Using A Pair Of Dimensions Shown. If The Diagonal Distance Between These Points Is As Noted, The Corner Is Square. Diagonal Measurements Between Opposite Anchor Rods Will Indicate If These Bolts Are Set Square.

It Is Extremely Important That Anchor Rods Are Placed Accurately And In Accordance With The Anchor Rod Setting Plan. All Anchor Rods Should Be Held In Place With A Template Or Similar Means, So That They Will Remain Plumb And In Correct Location During The Placement Of The Concrete. A Final Check Should Be Made After Completion Of The Concrete Work And Prior To The Steel Installation. This Will Allow Necessary Corrections To Be Made Before Costly Installation Labor And Equipment Arrives.





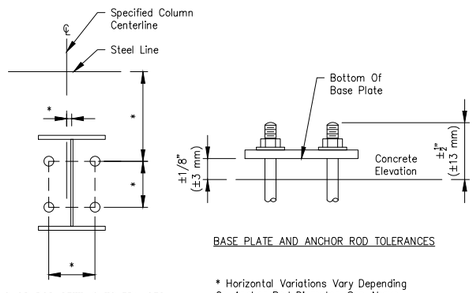
Projection Of Anchor Rods (D) Given On Anchor Rod Plan



Dimensions A, B, And C Given On Anchor Rod Plan

AISC Code Of Standard Practice For Steel Building And Bridges Tolerances For Setting Anchor Rods

Anchor Rod Diameter, Inches (mm)	*Horizontal Variation, Inches (mm)
¾" and ⅞" (19 And 22 mm)	¼" (6 mm)
1", 1¼", 1½" (25, 31, 38 mm)	⅜" (10 mm)
1¾", 2", 2½" (44, 50, 63 mm)	½" (13 mm)



ANCHOR ROD SETTING TOLERANCES

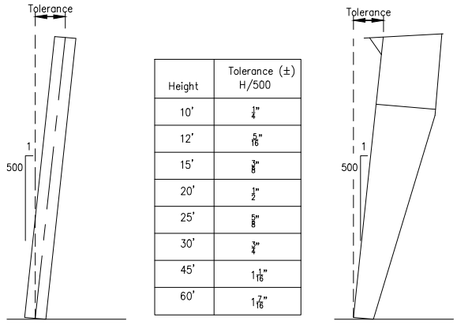
BASE PLATE AND ANCHOR ROD TOLERANCES

* Horizontal Variations Vary Depending On Anchor Rod Diameter. See Above

Erection Tolerances

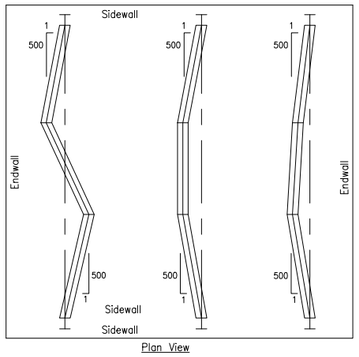
ERECTION BRACING:
It Is The Responsibility Of The Erector To Determine, Furnish And Install All Temporary Supports Such As Temporary Guys, Beams, Falsework, Cribbing, Or Other Elements Required For The Erection Operation (In Accordance With Section 7.10.3 Of ANSI/AISC 303, Code Of Standard Practice For Steel Building And Bridges).

COLUMN ALIGNMENT TOLERANCES



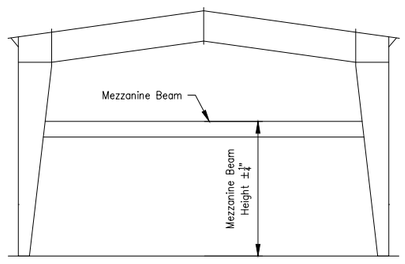
Height	Tolerance (±) H/500
10'	¼"
12'	5/16"
15'	⅜"
20'	½"
25'	5/8"
30'	¾"
45'	1 1/16"
60'	1 7/16"

ALIGNMENT TOLERANCE FOR MEMBERS WITH FIELD SPLICES



Plan View

MEZZANINE BEAM HEIGHT TOLERANCE



General Erection Notes

1.) All Structural Framing Members, Purlins, Girts, Clips, Flange Braces, Bolts, Bracing Systems, Roof And Wall Panels, Etc. Must Be Installed As Shown On Erection Drawings.

2.) It Is Extremely Important, Especially During Construction, That Panels At The Eaves, Rakes And Ridges Be Kept Secure.

Panel Cautions And Notes

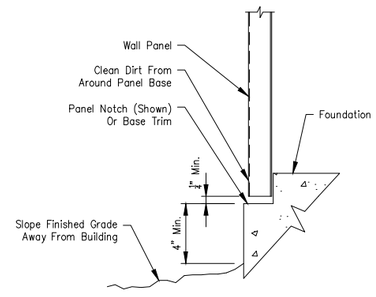
To Minimize Potential Of Corrosive Action At The Bottom Edge Of Wall Panels, The Contractor Must Assure That The Following Procedures Are Followed:

1.) The Concrete Foundation Should Be Cured For A Minimum Of Seven (7) Days Before Wall Panels Are Installed. (Uncured Concrete Is Highly Alkaline And Metal Panels Can Undergo Varying Degrees Of Corrosive Attack When In Direct Contact With The Concrete.) After The First Week Of The Curing Cycle, The Reaction Between Metallic Coatings On Steel And The Concrete Is Essentially Halted.

2.) Top Of Finish Grade At Building To Be A Minimum Of Four (4) Inches Below Bottom Of Panel.

3.) Finish Grade Is To Slope Away From Building To Ensure Proper Drainage.

4.) Upon Completion Of Finish Grading, All Dirt Is To Be Cleaned From Around Base Of Wall Panel Where It May Have Collected In Panel Notch Or On Base Trim.



Fastener Installation

Correct Fastener Installation Is One Of The Most Critical Steps When Installing Roof/Wall Panels. Drive The Fastener In Until It Is Tight And The Washer Is Firmly Seated. Do Not Overdrive Fasteners.
A Slight Extrusion Of Neoprene Around The Washer Is A Good Visual Tightness Check. Always Use The Proper Tool To Install Fasteners. A Fastener Driver (Screw Gun) With A RPM Of 1700-2000 Should Be Used For Self-Drilling Screws. A 500-600 RPM Fastener Driver Should Be Used For Self-Tapping Screws. Discard Worn Sockets, These Can Cause The Fastener To Wobble During Installation.

Note: Always Remove Metal Filings From Surface Of Panels At The End Of Each Work Period. Rusting Filings Can Destroy The Paint Finish And Void Any Warranty.

Correct Compression Of Sealing Washer | Too Tight Compression Of Sealing Washer | Too Loose Compression Of Sealing Washer

Tape And Tube Sealant

Proper Tape And Tube Sealant Application Is Critical To The Weather Tightness Of A Building. Tape Sealant Should Not Be Stretched When Installed. Apply Only To Clean, Dry Surfaces. Keep Only Enough Sealants On The Roof That Can Be Installed In A Day. During Warm Weather, Store Sealants In A Cool Dry Place. During Cold Weather (below 60°) Sealants Must Be Kept Warm (60°-90°) Until Application. After Tape Sealant Has Been Applied, Keep Protective Paper In Place Until Panel Is Ready To Be Installed.

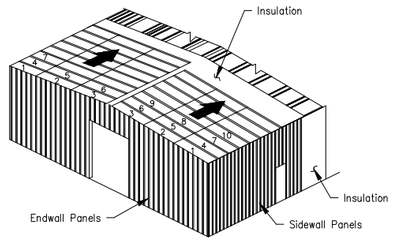
Important Note

All Details, Recommendations And Suggestions Contained In This Erection Guide Of This Drawings Set Are For General Guidelines Only, And Not Meant To Be All-inclusive. Industry Accepted Installation Practices With Regard To All Areas Not Specifically Discussed In This Section Should Be Followed. Only Experienced, Knowledgeable Installers Familiar With Accepted Practices Should Be Used To Assure A Quality Project.

It Is Emphasized That The Manufacturer Is Only A Manufacturer Of Metal Building Components And Is Not Engaged In The Installation Of Its Products. Opinions Expressed By The Manufacturer About Installation Practices Noted In The Erection Guide Are Intended To Represent Only A Guide. Both The Quality And Safety Of Installation And The Ultimate Customer Satisfaction With The Completed Building Are Determined By The Experience, Expertise, And Skills Of The Installation Crews, As Well As The Equipment Available For Handling The Materials. Actual Installation Operations, Techniques And Site Conditions Are Beyond The Manufacturers Control.

PBR Roof Panels

For PBR Roofs With Ridge Panels, It Is Recommended That Both Sides Of The Ridge Be Sheeted Simultaneously. This Will Keep The Insulation Covered For The Maximum Amount Of Time And The Panel Ribs Can Be Kept In Proper Alignment For The Ridge Panel. This Is Critical On The PBR Panels So That The Ridge Caps Can Be Properly Installed. Check For Proper Coverage As The Sheeting Progresses.



Install The First Run Of Roof Panels Across The Building From Eave To Eave Or Eave To Ridge. To Allow Proper Installation Of The Rake Trim, The Starting Location For The First Panel Must Be As Shown In The Rake Details Included With The Erection Drawings. When The First Run Is Properly Located And Aligned With The Correct Endlaps And Eave Overhangs, Fasten To Purlins. Roof Panels Should Be Installed So That The Sidelap Is In A Direction Away From Prevailing Wind. Refer To Appropriate Lap Details Included With The Erection Drawings.

Install Remaining Roof Insulation And Panels. To Avoid Accumulative Error Due To Panel Coverage Gain Or Loss, Properly Align Each Panel Before It Is Fastened. Occasional Checks Should Be Made To Ensure That Correct Panel Coverage Is Maintained. Special Attention Should Be Given To Fastener, Sealant and Closure Requirements. Refer To Details Included With The Erection Drawings.

At Finishing End Of Roof, The Last panels May Require Field Modification For Installation Of Rake Trim. Refer To Rake Details Included With The Erection Drawings. DO NOT BACK LAP THROUGH FASTENED ROOF PANELS.

NOTE: Roof Types And Installation Requirements Will Vary. Refer To The Appropriate Details For Specific Panel Used.

IMPORTANT: Loose Fasteners, Blind Rivets, Drill shavings, Etc.. Must Be Removed From The Roof To Guard Against Corrosion.

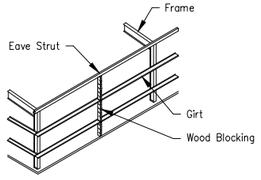
Wall Panels

Proper Horizontal And Vertical Alignment Of Supporting Structure (Girts Or Other Framing) Is The Responsibility Of The Installer. Failure To Align The Secondary members Properly Prior To Wall Installation Can Have A Direct Impact On The Final Appearance And Performance Of The Installed Wall System For Which The Metal Building Manufacturer Is Not Responsible.

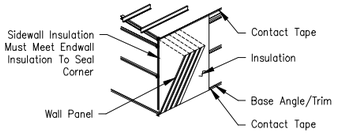
Before Installing Wall Panels, The Girts Must Be Aligned To A Level Position So That There Is No Visible Sag. This Should Be Done Directly Ahead Of Panel Installation.

Girt Leveling May Be Accomplished By Standing A Section Of Gable Angle Vertically Against The Outside Girt Flanges At Approximate Mid-bay Location. When Girts Are Level, Attach The Girt Flanges To The Angle With Vise Grip Pliers Or Temporary Screws. Wood Blocking Cut To Fit The Spaces May Also Be Used For Alignment.

Note:
Temporary Girt Blocking Is Not Recommended On Concealed Fastener Panels. The Removal Of The Blocks After Panel Installation Can Cause Oil Canning.



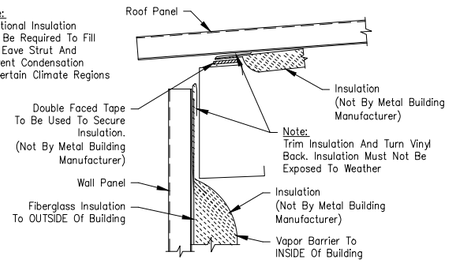
Note:
Wall Panel Type And Installation Details Will Vary. Refer To The Erection Drawings And Details For The Specific Panel Used For Your Building.



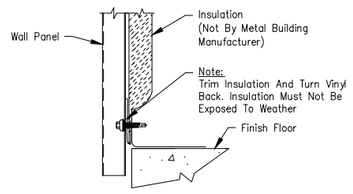
If Walls Are To Be Insulated With Blanket Insulation Over Girt Girt Flanges, Base And Eave, Place A Continuous Run Of Contact Tape Along The Eave Strut And Base Member.

Note:
At The Base, Cut Off The Insulation A Minimum Of $\frac{3}{8}$" Above The Bottom Of The Wall Panel. This Will Prevent The Insulation From Hanging Below The Wall Panel And Wicking Moisture.

Note:
Additional Insulation May Be Required To Fill The Eave Strut And Prevent Condensation In Certain Climate Regions



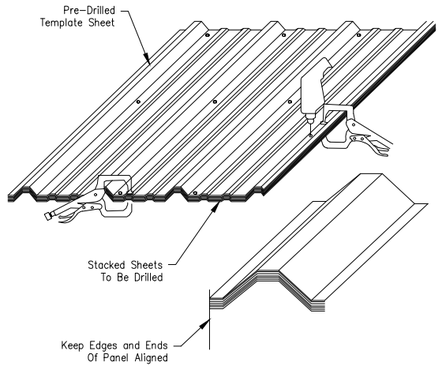
Eave Detail
(See Erection Drawings)



Base Detail
(See Erection Drawings)

Sidewall Panels Should Be Installed So That The Panel Sidelap Is In A Direction Away From The Prevailing Wind. Refer To Appropriate Lap Detail Included With Erection Drawings.)

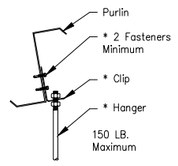
Note:
Check Periodically To Ensure That All Panels Are Aligned And Plumb.



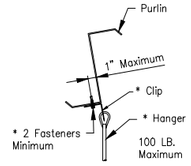
Screw Alignment Panel
(Through Fastened Panel Only)

Note:
After Drilling Panels, It Is Important To Clean Metal Filings Off All Panel Surfaces, Including Between Panels That Are Not Installed That Day, To Avoid Rust Stains.

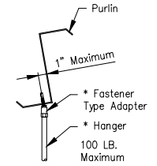
Suggested Method Of Purlin Attachment For Building Accessories



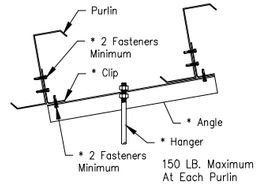
Clip Connection To Purlin Web



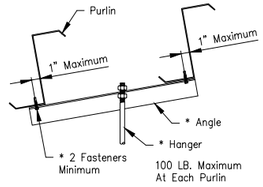
Clip Connection To Purlin Flange



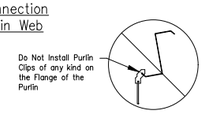
Fastener Type Adapter To Purlin Flange



Clip Connection To Purlin Web



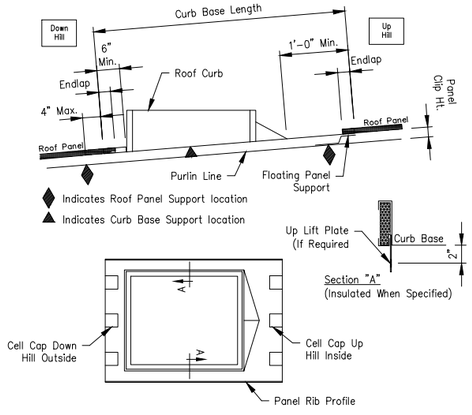
Angle Connection To Purlin Flange



* Denotes Material Not Provided By Metal Building Manufacturer.

The Total Hanger Load Shall Not Exceed The Design Collateral Load For The Building. Example:
5'-0 (Purlin Spacing) X 5'-0 (Hanger Spacing) X 6 PSF (collateral Load) = 150 Lbs.
See Cover Sheet For Design Collateral Load For This Building.
Note: If The Building Is Designed For 0 PSF Collateral Load, Then Adding Any Suspended System (i.e. Duct Work, Piping, Lights, Ceilings, Etc.) Will Correspondingly Reduce The Design Live Load.

Roof Curbs When Not Supplied By Building Manufacturer

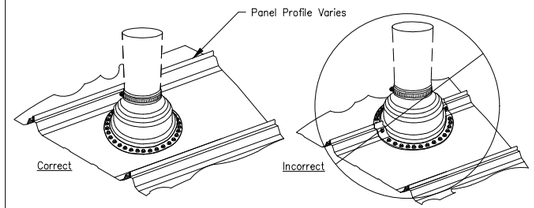


The Curb Details Shown Illustrate The Building Manufacturers Recommended Curb Style And Installation Method. It Is The Erector/Installer's Responsibility To Provide The Proper Curb Style And Install Them In Accordance With The Procedures Established By These Details. Failure By The Erector/Installer To Follow These Recommendations May Result In The Curbs Damaging The Roof System Or Excluded From Warranties.

All Roof Curbs To Be:
1. .080 Aluminum Or 18 Ga. Stainless Steel (No Galvalume® Or Galvanized).
2. Panel Rib To Panel Rib (No Flat Skirt Or Lay-Over Curbs).
3. Installed With Down Hill End Over Panel And Up Hill End Under Panel Application For Water Flow At Panel Splice.
4. Up Lift Prevention For Clip Applied Roof Systems Are Required If:
   a. Wind Loads Exceed 110 MPH.
   b. Curb Base Crosses A Purlin.
5. Supported on (4) Sides By Primary Or Secondary Framing.
6. Maximum Single Curb Weight Recommended Is 1500 Lbs.

Roof Jack Installation when Not Supplied By Building Manufacturer

General Installation Notes
- Do Not Use Galvanized Roof Jacks, Lead Hats, Or Other Residential Grade Roof Jacks. These Roof Jacks Do Not Have 20 Year Service Life And In Case Of Lead Hats Will Cause Galvanic Corrosion Of The Roof Panel.
- Use EPDM Rubber Roof Jacks With An Integral Aluminum Band Bonded Into The Perimeter Of The Base. EPDM Roof Jacks Have A Temperature Range From −65°F To 212°F. Use Silicone Roof Jacks For High Temperatures. Silicone Roof Jacks Have A Temperature Range Of −100° To 437°F.
- Retrofit Roof Jacks Are Available For Applications In Which The Top Of The Pipe Is Inaccessible, Eliminating The Possibility Of Sliding The Roof Jack Over The Top Of The Pipe.
- Do Not Use Tube Sealant To Seal The Roof Jack To The Roof Panels. Use Roll Tape Sealer Between The Roof Jack And The Roof Panel And Attach The Roof Jack To The Roof Panel With Fastener #4 $\frac{1}{2}$ – 14 X $\frac{3}{8}$" LL SD W/washer At 1" O.C. Around The Base Of The Roof Jack. See Table Below For Quantities.
- Trim The Top Of The Roof Jack To Fit Over The Pipe, Roll Down The Roof Jack Over The Pipe And Apply Tape Sealer For The Perimeter Of The Roof Jack Base Between The Roof Jack And The Roof Panel. Apply Tape Sealer Around The Pipe And Install A Stainless Steel Clamp (Not By Bldg. Mfr.) Over The Top Of The Roof Jack And Firmly Tighten To Form A Secure Compression Seal.
- If The Pipe Diameter Is So Large To Block The Flow Of Water Down The Roof Panel, A Flat Base Roof Curb Must Be Installed Into The Roof And The Roof Jack Will Be Sealed To The Curb. A Two Piece Curb May Be Required When The Top Of The Pipe Is Inaccessible.
- In Northern Climates, The Pipe Penetration Should Be Protected From Moving Ice Or Snow With A Snow Retention System Immediately Up Slope From The Pipe.



Install Pipe In Center To Allow Base Of Roof Jack To Lay Flat on Panel.
Cannot Encompass More Than 75% Of Panel.