Lembke-Mellul Residence

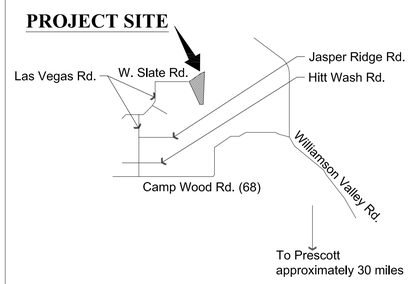
Las Vegas Ranch, Yavapai County, Arizona

Deferred Submittals

The following item is required and will be provided as a deferred submittal:

1. Fire Sprinkler System.
Automatic Fire Sprinkler System submittal documents for deferred submittal shall be submitted to the local fire district, who shall review them and forward them to the building official, with a notation indicating that the deferred submittal documents have been reviewed and that they have been found to be in general conformance with the design of the building. The deferred submittal items shall "NOT" be installed until their design and submittal documents have been approved by the fire marshal having jurisdiction.

Vicinity Map

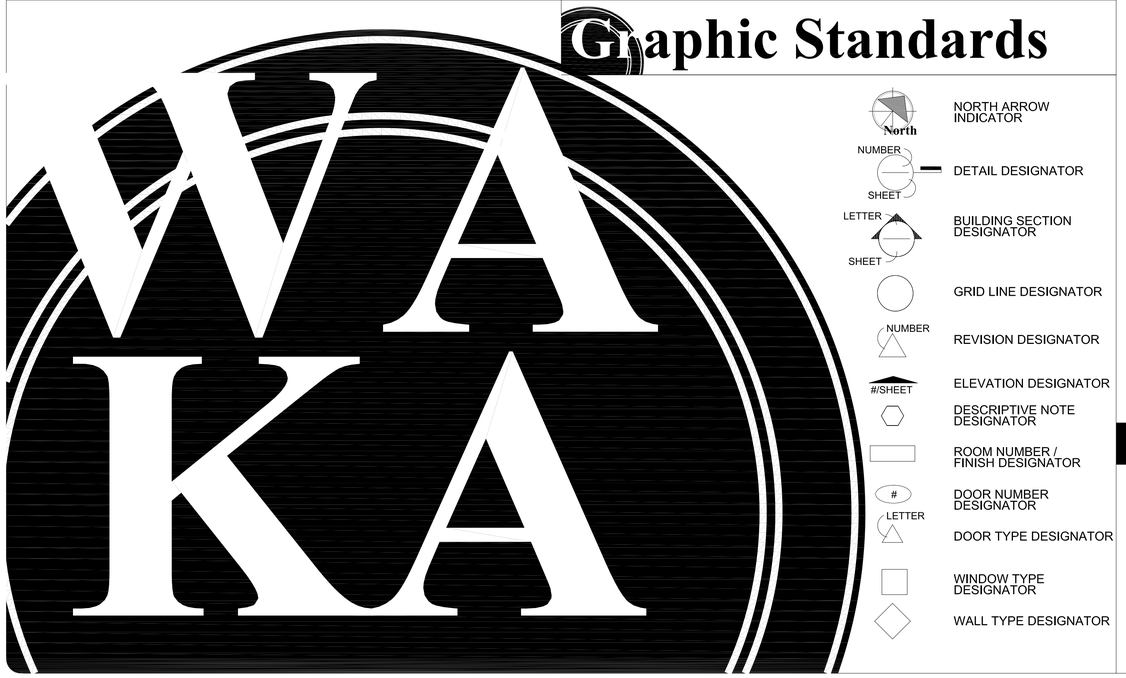


Project Information

CLIENT:	Leslie & Bob Lembke, Lani Mellul 7214 N. Valley Vista Rd. Prescott Valley, AZ 86315	PH: 219-929-6908 CONTACT: Bob Lembke
PREPARED BY:	W. Alan Kenson & Assoc., P.C. P.O. Box 11593 Prescott, AZ 86304	PH: 928-443-5812 CONTACT: Alan Kenson WAKA@cableone.net
JOBSITE ADDRESS:	12255 Slate Road, Las Vegas Ranch Prescott, AZ	
PARCEL NUMBER:	300-37-129	
ZONING:	Residential Rural	
SITE USE:	Residential	
OCCUPANCY:	Residential Group R	
CONST. TYPE:	VB	
CURRENT CODE:	2012 International Residential Code 2012 International Fire Code 2012 International Plumbing Code 2012 International Mechanical Code 2012 International Fuel Gas Code 2012 International Electrical Code 2012 National Electrical Code 2006 International Energy Conservation Code	
AREA SUMMARY:	Livable: 5,005 S.F. Garages: 1,542 S.F. Covered Patios: 2,354 S.F. Total under roof: 8,901 S.F.	

Sheet Index

Graphic Standards



Feb 02, 2016 - 8:55am

Architect:

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ARCHITECTURE & PLANNING

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

DRAWING: COVER SHEET

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	CS1

Lembke-Mellul Residence

Las Vegas Ranch, Yavapai County, Arizona

General Notes

1. A COPY OF THE YAVAPAI COUNTY APPROVED CONSTRUCTION DRAWINGS SHALL BE KEPT AT THE JOB SITE.

2. EXTERIOR WALLS: CONSTRUCTION, PROJECTIONS, OPENINGS AND PENETRATIONS OF EXTERIOR WALLS OF DWELLINGS AND ACCESSORY BUILDINGS SHALL COMPLY WITH IRC 2012 TABLE 302.1.

3. CEMENT, FIBER-CEMENT AND GLASS MAT GYPSUM BACKERS SHALL BE USED AS BACKERS FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL PANELS IN SHOWER AREAS. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.

4. EVERY SLEEPING ROOM AND BASEMENT WITH HABITABLE SPACE SHALL HAVE AT LEAST ONE WINDOW WITH A NET CLEAR OPENING OF 5.7 SQUARE FEET (MIN. 5 SQUARE FEET NET CLEAR OPENING AT GRADE FLOOR), MINIMUM OPENING WIDTH OF 20" MINIMUM OPENING HEIGHT OF 24" AND THE FINISHED SILL HEIGHT SHALL NOT BE MORE THAN 44" ABOVE THE FLOOR, OR PROVIDE EXTERIOR DOOR FOR EMERGENCY EGRESS.

5. WINDOWS SHALL BE FLASHED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

6. GLAZING IN HAZARDOUS LOCATIONS SHALL COMPLY WITH IRC 308.

7. ALL INTERIOR AND EXTERIOR GLAZING IN BATHROOMS MUST BE SAFETY GLAZING WHEN THE BOTTOM EDGE IS LESS THAN FIFTY-SIX INCHES ABOVE THE FLOOR LEVEL. (BATHROOM SHALL BE DEFINED AS A ROOM PROVIDED WITH A TUB OR SHOWER.)

8. CEILING INSULATION: 7" RIGID INSULATION BELOW TPO SINGLE PLY ROOFING MEMBRANE WITH 1" SPRAY FOAM INSULATION AT TOP OF ROOF TRUSSES.

9. WOOD FRAMED WALLS: INSULATION SHALL BE IN SUBSTANTIAL CONTACT WITH THE SURFACE BEING INSULATED TO AVOID AIR PATHS THAT BYPASS THE INSULATION. INSULATION SHALL NOT BE COMPRESSED BY THE INSET STAPLING OF BATT INSULATION OR OTHER MEANS. INSULATION SHALL FILL CAVITIES COMPLETELY BY CUTTING INSULATION AROUND ELECTRICAL OUTLETS AND SWITCHES, AND BY SLICING INSULATION TO FIT BEHIND AND IN FRONT OF ELECTRICAL WIRING IN THE CAVITY AND PLUMBING PIPE. BAND JOISTS AND OTHER INTERSTITIAL FLOOR ELEMENTS OF THE WALL SHALL BE INSULATED.

10. AIR LEAKAGE - THE CODE ALLOWS THE USE OF AIRFLOW RETARDERS (HOUSE WRAPS) OR OTHER SOLID MATERIALS AS ACCEPTABLE METHODS TO MEET THIS REQUIREMENT. TO BE EFFECTIVE, THE BUILDING THERMAL SEAL MUST BE:
- IMPERMEABLE TO AIR FLOW.
- CONTINUOUS OVER THE ENTIRE BUILDING ENVELOPE.
- ABLE TO WITHSTAND THE FORCES THAT MAY ACT ON IT DURING AND AFTER CONSTRUCTION.
- DURABLE OVER THE EXPECTED LIFETIME OF THE BUILDING.
- ALL SEAMS AND EDGES MUST BE SEALED/TAPED PER MANUFACTURER'S SPECIFICATIONS.

11. BUILDING THERMAL ENVELOPE - THE SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL ALLOW FOR DIFFERENTIAL EXPANSION AND CONTRACTION. THE FOLLOWING SHALL BE CAULKED, GASKETED, WEATHER-STRIPPED OR OTHERWISE SEALED WITH AN AIR BARRIER MATERIAL, SUITABLE FILM OR SOLID MATERIAL:
- ALL JOINTS, SEAMS AND PENETRATIONS.
- SITE BUILT WINDOWS, DOORS AND SKYLIGHTS.
- OPENINGS BETWEEN WINDOW AND DOOR ASSEMBLIES AND THEIR RESPECTIVE JAMBS AND FRAMING.
- UTILITY PENETRATIONS.
- DROPPED CEILINGS OR CHASES ADJACENT TO THE THERMAL ENVELOPE.
- KNEE WALLS.
- WALLS AND CEILINGS SEPARATING A GARAGE FROM CONDITIONED SPACES.
- BEHIND TUBS AND SHOWERS ON EXTERIOR WALLS.
- COMMON WALLS BETWEEN DWELLING UNITS.
- OTHER SOURCES OF INFILTRATION.

12. FENESTRATION AIR LEAKAGE - WINDOW, SKYLIGHT AND SLIDING GLASS DOORS SHALL HAVE AN AIR INFILTRATION RATE OF NO MORE THAN 0.3 CFM PER SQUARE FOOT, AND SWINGING DOORS NO MORE THAN 0.5 CFM. SPECIFICATION SHALL BE LISTED ON THE MANUFACTURER LABEL. ALL WINDOWS AND EXTERIOR DOORS COMPRISING THE BUILDINGS THERMAL ENVELOPE, SHALL HAVE A FENESTRATION U-FACTOR OF NOT MORE THAN .40.

13. RECESSED LIGHTING - RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES BY BEING:
- IC-RATED AND LABELED WITH ENCLOSURES THAT ARE SEALED OR GASKETED TO PREVENT AIR LEAKAGE TO THE CEILING CAVITY OR UNCONDITIONED SPACE
- OR:
- IC-RATED AND LABELED AS MEETING ASTM E283
- OR:
- LOCATED INSIDE AIRTIGHT SEALED BOX WITH CLEARANCES OF AT LEAST 0.5 INCH FROM COMBUSTIBLE MATERIAL AND 3 INCHES FROM INSULATION.

14. A SHUTOFF VALVE BETWEEN THE PROPANE TANK AND THE HOUSE IS REQUIRED.

15. ALL CIRCULATING SERVICE HOT WATER PIPING SHALL BE INSULATED TO AT LEAST R-2. ALL NEW RESIDENCES EXCEEDING 1,800 SQUARE FEET WITH TWO OR MORE BATHROOMS SHALL HAVE A CIRCULATING HOT WATER SYSTEM. CIRCULATING HOT WATER SYSTEMS SHALL INCLUDE AN AUTOMATIC OR READILY ACCESSIBLE MANUAL SWITCH THAT CAN TURN OFF THE HOT WATER CIRCULATING PUMP WHEN THE SYSTEM IS NOT IN USE. THERMAL SIPHONING SYSTEMS SHALL HAVE A VALVE TO REDUCE FLOW. ALTERNATE SYSTEM SHALL BE CONSIDERED.

16. A MINIMUM 0.019 INCH, CORROSION RESISTANT WEEP SCREED, WITH MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2 INCHES SHALL BE PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON THE EXTERIOR STUD WALL IN ACCORDANCE WITH ASTM C 926. THE WEEP SCREED SHALL BE PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE PAVED AREAS AND SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE WEATHER RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE. THE EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE WEEP SCREED.

17. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAT 1/2" GPDW APPLIED TO THE GARAGE SIDE.

18. A WATER HEATER RELIEF VALVE SHALL EXTEND OUTSIDE THE BUILDING WITH THE END OF PIPE NOT MORE THAN (2) TWO FEET OR LESS THAN (6) SIX INCHES ABOVE THE GROUND AND POINTING DOWNWARD.

19. MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105 F OR BELOW 55 F SHALL BE INSULATED TO A MINIMUM OF R-2.

Jan 29, 2016 - 8:28am

REVISIONS	BY

RECORD CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, U.S.A.

EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

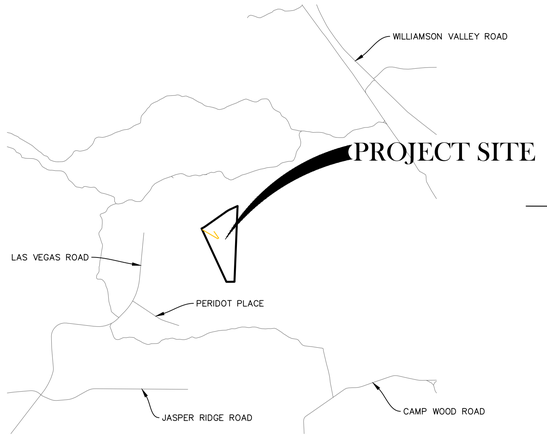
DRAWING: GENERAL NOTES

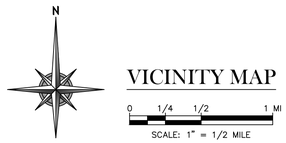
PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	CS2

LEMBKE-MELLUL RESIDENCE
GRADING & DRAINAGE PLAN

APN: 300-37-129, PARCEL 104 OF LAS VEGAS RANCH ESTATES,
LOCATED IN SECTION 21, TOWNSHIP 17 NORTH, RANGE 4 WEST
GILA AND SALT RIVER MERIDIAN, YAVAPAI COUNTY, ARIZONA





LEGEND

- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT
- BUILDING SETBACK
- 4970 EXISTING INDEX CONTOUR
- 4969 EXISTING INTERMEDIATE CONTOUR
- EXISTING EDGE OF DIRT ROAD
- PROPOSED DRAINAGE FLOWLINE
- 4790 PROPOSED ELEVATION CONTOUR
- E PROPOSED ELECTRIC SERVICE LINE
- TL PROPOSED TELEPHONE SERVICE LINE
- G PROPOSED GAS SERVICE LINE
- S PROPOSED SEWER SERVICE LINE
- W PROPOSED WATER SERVICE LINE
- O CALCULATED POINT
- PROPOSED FLOW PATTERNS
- PROPOSED STACKED ROCK HEADWALL
- PROPOSED HARDSCAPE
- PROPOSED HDPE DRAIN PIPE

ESTIMATED EARTHWORK:
RAW CUT = 3500 C.Y.
RAW FILL = 3000 C.Y.

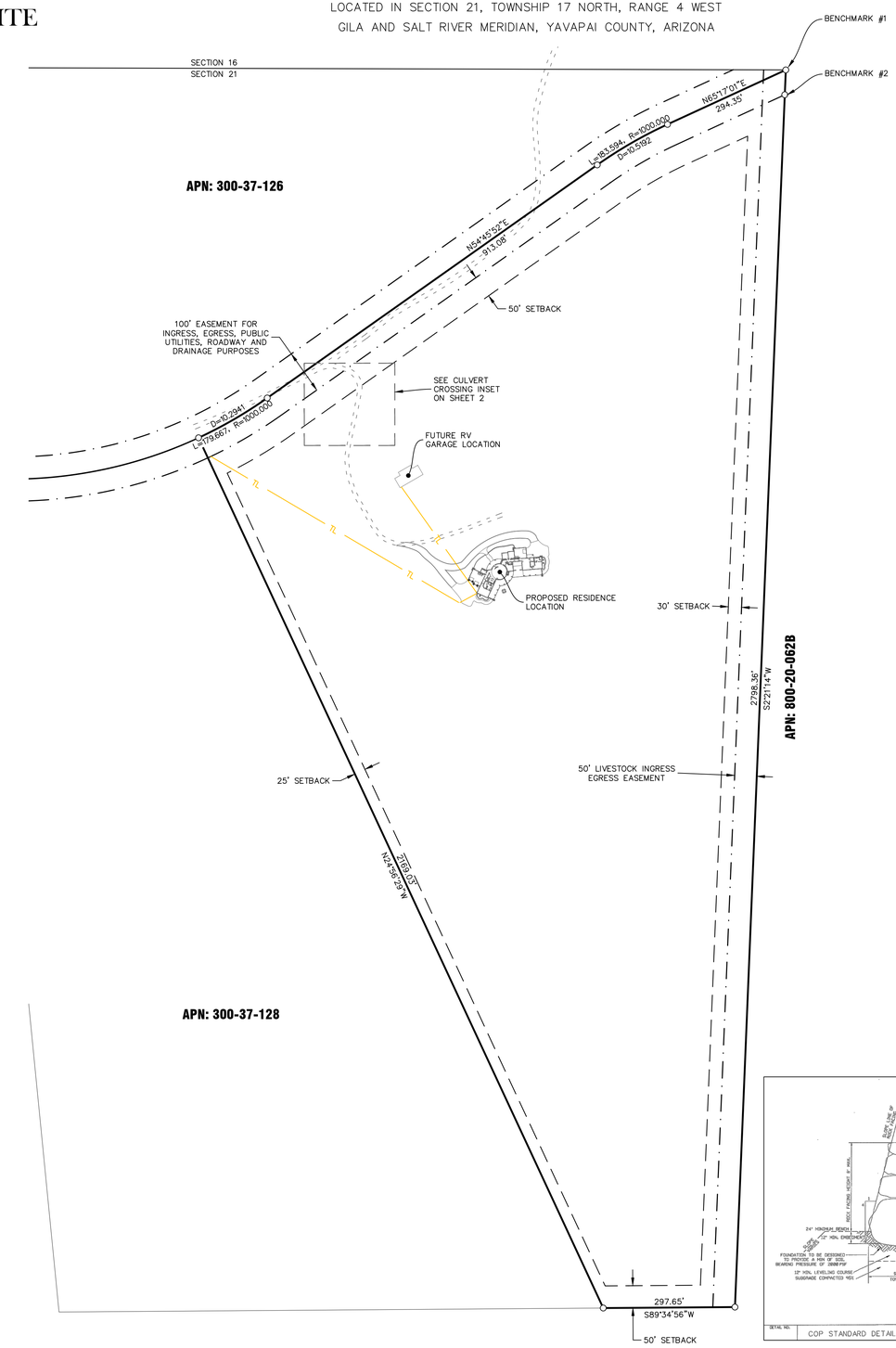
NOTES FOR EARTHWORK ASSUMPTIONS:

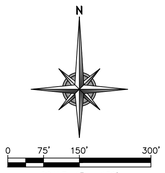
1. 8" OVER-EXCAVATION FOR DRIVEWAY SECTION.
2. 8" OVER-EXCAVATION FOR FOR SLAB ON GRADE.
3. NO OVER-EXCAVATION INCLUDED FOR UNDERLYING SOILS.
4. CONTRACTOR SHALL OBTAIN SEPARATE GRADING PERMIT FOR SURPLUS MATERIAL PLACED OFF-SITE IN CONFORMANCE WITH THE YAVAPAI COUNTY GRADING ORDINANCE.

BASIS OF BEARINGS & BENCHMARKS

THE BASIS OF BEARING FOR THIS PROJECT IS S2°21'14"W A DISTANCE OF 56.33 FEET ALONG THE EAST LINE OF THE SUBJECT PARCEL BETWEEN A 3" AL CAP MARKED RLS 12218 AND A REBAR MARKED RLS 16533 AT EASEMENT LINE

BENCHMARK POINT	NORTHING	EASTING	ELEVATION(88)
BENCHMARK #1	1401743.73	470409.63	4767.86
BENCHMARK #2	1401687.57	470407.51	4765.15





SITE PLAN NOTES:

1. THIS MAP DOES NOT REPRESENT THE RESULTS OF A BOUNDARY SURVEY. NO BOUNDARY SURVEY WAS PERFORMED OR IS IMPLIED BY THIS MAP.
2. PROPERTY BOUNDARY PER BOOK 184 OF MAPS AND PLATS, PAGE(S) 22, Y.C.R.O.
3. ALL EASEMENTS OF RECORD MAY NOT BE PLOTTED HEREON.
4. TOPOGRAPHIC SURVEY PROVIDED BY GRANITE BASIN ENGINEERING INC.
5. CONTOUR INTERVAL = 1'

GENERAL

ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH YAVAPAI COUNTY DESIGN GUIDELINES,, YAVAPAI COUNTY ENGINEERING STANDARDS AND SPECIFICATIONS, "MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD" (MAG SPECS), "MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION" (MAG DETAILS), "YAVAPAI COUNTY ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD AND DETAILS" (YAG SPECS & DETAILS), AND GENERALLY ACCEPTED GOOD CONSTRUCTION PRACTICES.

ALL IMPROVEMENTS SHALL BE CONSTRUCTED BY CONTRACTORS LICENSED BY THE ARIZONA STATE REGISTRAR OF CONTRACTORS, WITH A CLASS OF LICENSE(S) FOR THE SPECIFIC WORK BEING PERFORMED.

WORK PERFORMED WITHOUT APPROVAL OF THE COUNTY ENGINEER OR OWNER AND/OR ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE

ANY DEFECTS WHICH APPEAR IN THE WORK WITHIN TWO YEARS FROM THE DATE OF ACCEPTANCE AND WHICH ARE DUE TO IMPROPER WORKMANSHIP OR INFERIOR MATERIALS SUPPLIED SHALL BE CORRECTED BY OR AT THE EXPENSE OF THE CONTRACTOR.

QUANTITIES OF CONSTRUCTION MATERIALS ARE PROVIDED AS A GUIDE AND FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND PROVIDING ALL QUANTITIES REQUIRED.

CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTIONS METHODS, SEQUENCING, AND SAFETY DURING CONSTRUCTION.

CONTRACTOR IS REQUIRED TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION OF THIS PROJECT.

APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE WORKABLE UNIT. ACCEPTANCE OF COMPLETED IMPROVEMENTS WILL NOT BE GIVEN UNTIL DEFECTIVE OR UNAUTHORIZED WORK IS REMOVED AND FINAL CLEAN-UP IS COMPLETE.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ANY REQUIRED PERMITS NECESSARY FOR CONSTRUCTION.

YAVAPAI COUNTY REQUIRES THE ISSUANCE OF A GRADING PERMIT FOR ANY EXCAVATION OR GRADING (INCLUDING PLACEMENT OF FILL). A RIGHT-OF-WAY PERMIT IS REQUIRED PRIOR TO COMMENCING ANY WORK WITHIN ANY RIGHT-OF-WAY.

THESE PLANS ARE SUBJECT TO THE INTERPRETATION OF INTENT BY THE ENGINEER. ALL QUESTIONS REGARDING THESE PLANS SHALL BE DIRECTED TO THE ENGINEER. ANY INTERPRETATION OF THE PLANS BY ANYONE OTHER THAN THE ENGINEER SHALL BE RESPONSIBLE FOR ANY CONSEQUENCES THEREOF.

DRAINAGE

POSITIVE DRAINAGE OF SURFACE WATER AWAY FROM STRUCTURES SHALL BE PROVIDED DURING CONSTRUCTION AT ALL TIMES AND WITH FINAL GRADING OF LOT.

PONDING OF SURFACE WATER SHALL NOT BE PERMITTED DURING CONSTRUCTION OR BE PRESENT AFTER FINAL LOT GRADING.

ROOF DRAINS SHALL DISCHARGE A MINIMUM OF FIVE (5) FEET AWAY FROM BUILDING STRUCTURE.

UTILITIES

THESE PLANS REPRESENT A REASONABLE EFFORT TO SHOW LOCATIONS OF EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT LIMITS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES CAUSED DURING CONSTRUCTION. THE CONTRACTOR IS TO VERIFY THE LOCATION AND THE ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY EXCAVATION OR CONSTRUCTION. SHOULD ANY LOCATION OR ELEVATION DIFFER FROM THAT SHOWN ON PLANS, THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE PROPER UTILITY OWNER'S AGENT.

LOCATION OF UNDERGROUND UTILITIES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ARS 40-360.22 PRIOR TO ANY EXCAVATION. CONTRACTOR PERFORMING EXCAVATING OPERATIONS IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES. BLUE STAKE SHALL BE CALLED AT 1-800-STAKE-IT FOR ACCURATE LOCATION OF UTILITIES AS NECESSARY AND PRIOR TO ANY EXCAVATION.

LOCATION OF ALL WATER VALVES MUST BE REFERENCED AT ALL TIMES DURING CONSTRUCTION AND MADE AVAILABLE TO THE WATER COMPANY. ONLY WATER COMPANY EMPLOYEES ARE AUTHORIZED TO OPERATE THE WATER VALVES AND FIRE HYDRANT CONNECTIONS TO THE COMPANY'S WATER SYSTEM.

RELOCATIONS

SIGNS, TREES SHRUBS, MAILBOXES AND OTHER INCIDENTALS REQUIRING RELOCATION SHALL BE MOVED ONLY FAR ENOUGH TO ALLOW CONSTRUCTION OF THE PROJECT AND CAUSE THE LEAST DISRUPTION TO PRIVATE PROPERTY, AND LANDSCAPE. FINAL POSITIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO RELOCATION. ALL RELOCATED ITEMS SHALL CONTINUE TO WORK IN THEIR INTENDED CAPACITY AFTER THE RELOCATION HAS BEEN ACCOMPLISHED. NO SIGNS SHALL BE RELOCATED TO POSITIONS OUTSIDE DESIGNATED RIGHTS-OF-WAY. SAFETY SHALL BE A PRIMARY CONSIDERATION IN THE PLACEMENT OF SHRUBBERY AND SIGNS WHICH COULD POSSIBLY DISRUPT THE SIGHT DISTANCE OF MOTORISTS.

GRADING

TESTING:

A. TESTING OF MATERIALS AND CONSTRUCTION PERFORMANCE BY AN APPROVED TESTING LAB IS REQUIRED.

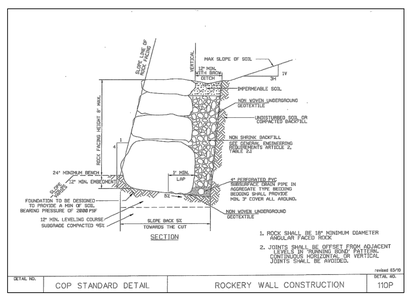
B. THE GEOTECHNICAL LAB SHALL DETERMINE THE NUMBER AND TYPE OF TESTS NEEDED.

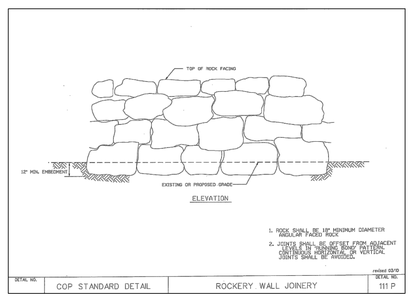
C. THE CONTRACTOR/DEVELOPER WILL NOTIFY THE TESTING LAB OF THE NEEDED TESTS, COORDINATE WITH THE INSPECTOR AND TESTING LAB AND PAY THE COSTS TO PERFORM THE TESTS.

THE MAXIMUM SLOPE FOR CUT SECTIONS IS 2:1 AND FOR FILL SECTIONS IS 2:1, HORIZONTAL TO VERTICAL.

MAXIMUM LIFT THICKNESSES IN FILL SECTIONS IS NOT TO EXCEED 6", ALL FILL IS TO BE COMPACTED TO 95% COMPACTION.

THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND GENERAL CONDITION OF ALL EXISTING TIE-IN AND MATCHING POINTS OF PAVEMENT PRIOR TO ANY STREET CONSTRUCTION. SHOULD ANY LOCATIONS, ELEVATIONS, CROSS SLOPES, OR CONDITIONS DIFFER FROM WHAT IS SHOWN ON THE PLANS, THE CONTRACTOR SHALL CONTACT THE OWNERS' AGENT IMMEDIATELY FOR APPROPRIATE CORRECTIVE ACTION. THE CONTRACTOR IS RESPONSIBLE FOR ANY COSTS INCURRED IF THIS PROCEDURE IS NOT FOLLOWED.





REVISIONS	BY

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ARCHITECTURE & PLANNING

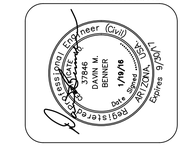
DRAWING: GRADING AND DRAINAGE PLAN

PROJECT: Lembke-Mellul Residence

DRAWN BY	TJL
CHECKED BY	DB
DATE	JANUARY 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	C1

Jan 22, 2016 - 12:47pm

REVISIONS	BY



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DRAWN BY	TJL
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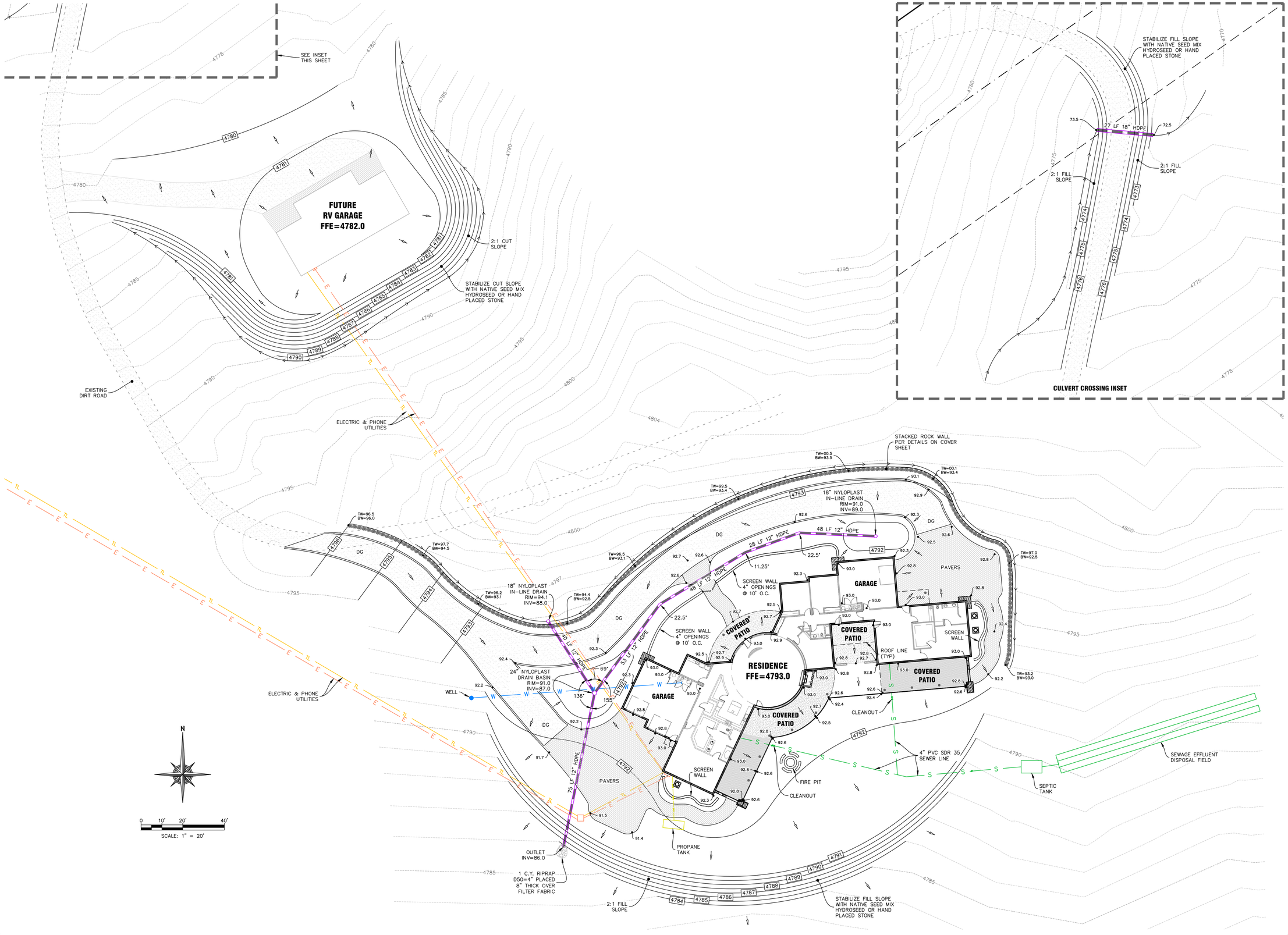
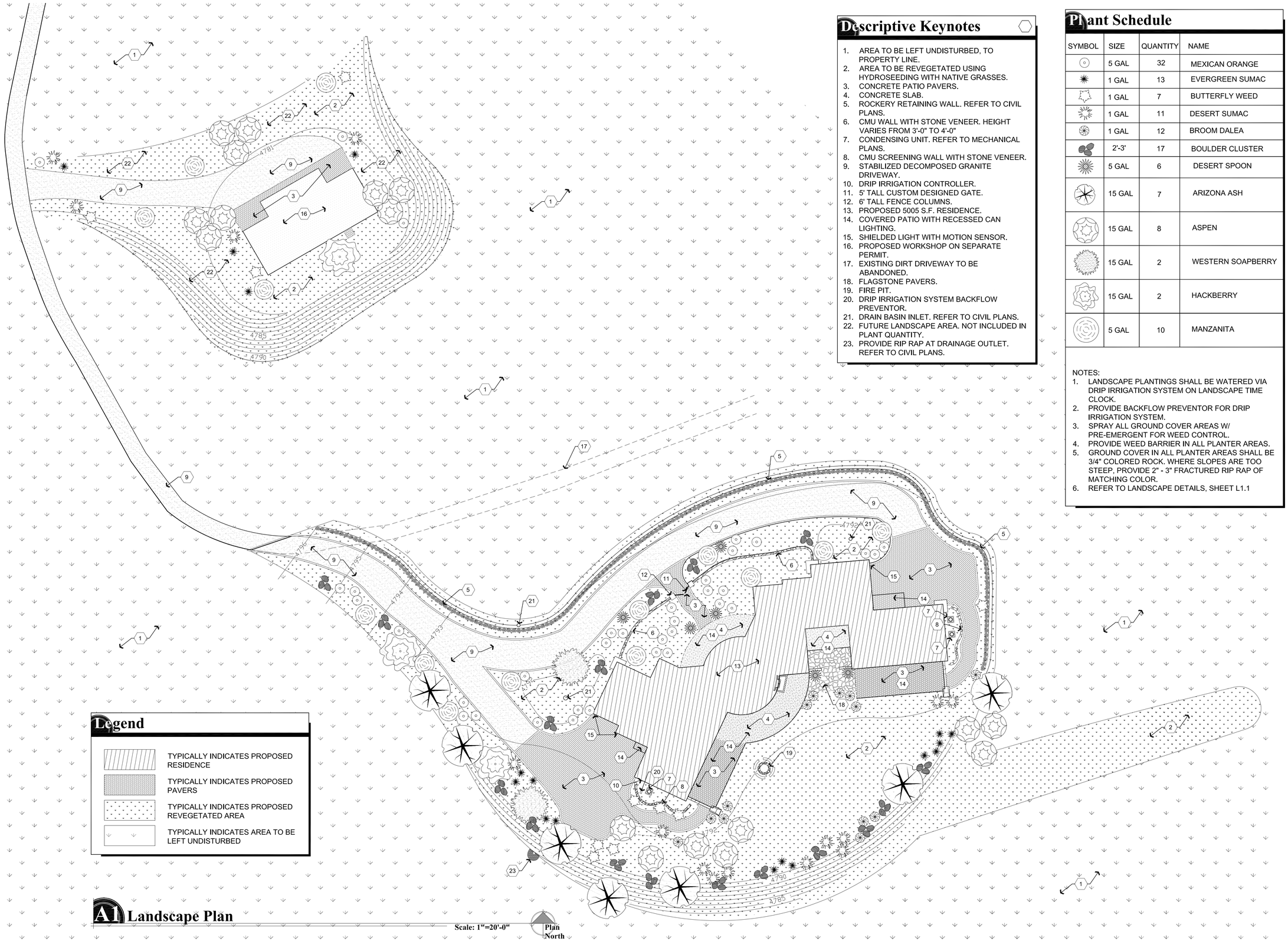


Jan 22, 2016 - 12:48pm



Descriptive Keynotes

1. AREA TO BE LEFT UNDISTURBED, TO PROPERTY LINE.
2. AREA TO BE REVEGETATED USING HYDROSEEDING WITH NATIVE GRASSES.
3. CONCRETE PATIO PAVERS.
4. CONCRETE SLAB.
5. ROCKERY RETAINING WALL. REFER TO CIVIL PLANS.
6. CMU WALL WITH STONE VENEER. HEIGHT VARIES FROM 3'-0" TO 4'-0"
7. CONDENSING UNIT. REFER TO MECHANICAL PLANS.
8. CMU SCREENING WALL WITH STONE VENEER.
9. STABILIZED DECOMPOSED GRANITE DRIVEWAY.
10. DRIP IRRIGATION CONTROLLER.
11. 5' TALL CUSTOM DESIGNED GATE.
12. 6' TALL FENCE COLUMNS.
13. PROPOSED 5005 S.F. RESIDENCE.
14. COVERED PATIO WITH RECESSED CAN LIGHTING.
15. SHIELDED LIGHT WITH MOTION SENSOR.
16. PROPOSED WORKSHOP ON SEPARATE PERMIT.
17. EXISTING DIRT DRIVEWAY TO BE ABANDONED.
18. FLAGSTONE PAVERS.
19. FIRE PIT.
20. DRIP IRRIGATION SYSTEM BACKFLOW PREVENTOR.
21. DRAIN BASIN INLET. REFER TO CIVIL PLANS.
22. FUTURE LANDSCAPE AREA. NOT INCLUDED IN PLANT QUANTITY.
23. PROVIDE RIP RAP AT DRAINAGE OUTLET. REFER TO CIVIL PLANS.

Plant Schedule

SYMBOL	SIZE	QUANTITY	NAME
	5 GAL	32	MEXICAN ORANGE
	1 GAL	13	EVERGREEN SUMAC
	1 GAL	7	BUTTERFLY WEED
	1 GAL	11	DESERT SUMAC
	1 GAL	12	BROOM DALEA
	2'-3'	17	BOULDER CLUSTER
	5 GAL	6	DESERT SPOON
	15 GAL	7	ARIZONA ASH
	15 GAL	8	ASPEN
	15 GAL	2	WESTERN SOAPBERRY
	15 GAL	2	HACKBERRY
	5 GAL	10	MANZANITA

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. WHERE SLOPES ARE TOO STEEP, PROVIDE 2" - 3" FRACTURED RIP RAP OF MATCHING COLOR.
6. REFER TO LANDSCAPE DETAILS, SHEET L1.1

Legend

- TYPICALLY INDICATES PROPOSED RESIDENCE
- TYPICALLY INDICATES PROPOSED PAVERS
- TYPICALLY INDICATES PROPOSED REVEGETATED AREA
- TYPICALLY INDICATES AREA TO BE LEFT UNDISTURBED

A1 Landscape Plan

Scale: 1"=20'-0"

Plan North

Jan 29, 2016 - 8:29am

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/21/16 ARIZONA, EXPIRES: 6/30/18

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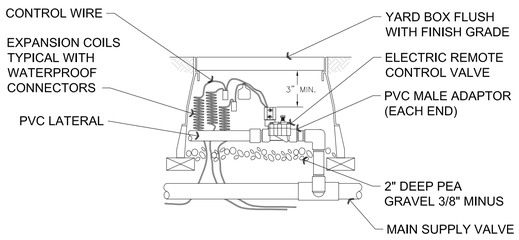
ARCHITECTURE & PLANNING

DRAWING: LANDSCAPE PLAN

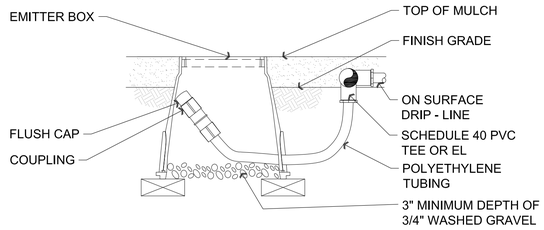
PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	**L1.0**



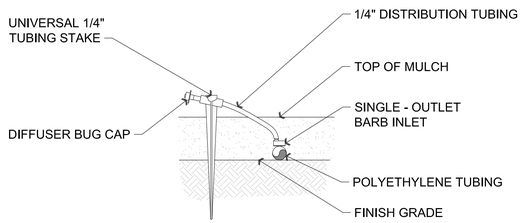
NOTE: SEAL ALL THREADED JOINTS / FITTINGS WITH APPROVED SEALANT PRIOR TO ASSEMBLY

A4 Typical Electric Remote Control Valve



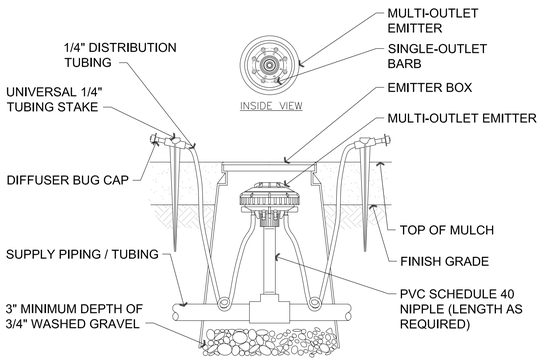
NOTE: ALLOW A MINIMUM 6" OF DRIP - LINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

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

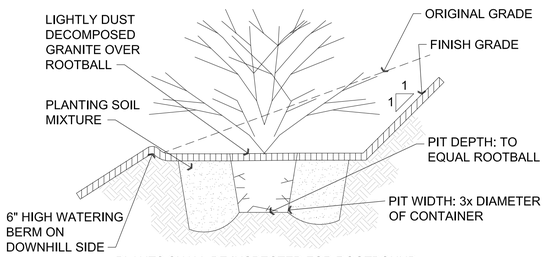


NOTE: COIL ADDITIONAL 9" OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.

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.)

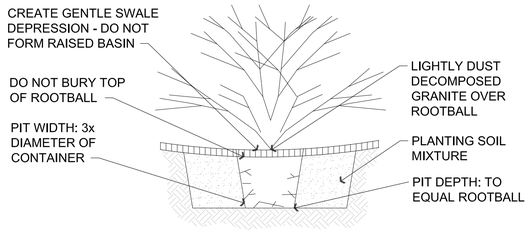
FOR SLOPED CONDITIONS PLACE DISTRIBUTION POINT AT THE HIGH POINT OF PLANTING WELL.

B1 Typical Multi - Port Emitter



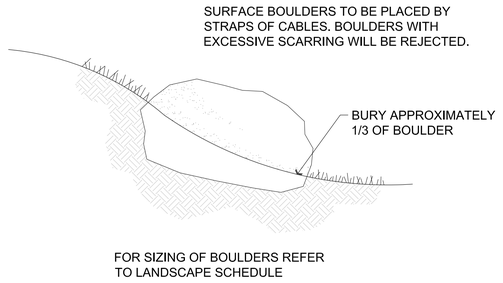
PLANTS SHALL BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED WITH SUITABLE PLANT.

C4 Typical Shrub Planting on Slope



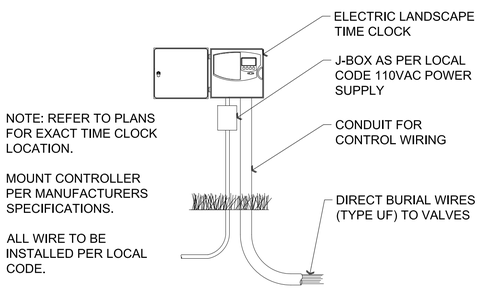
PLANTS SHALL BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED WITH SUITABLE PLANT.

C3 Typical Shrub Planting

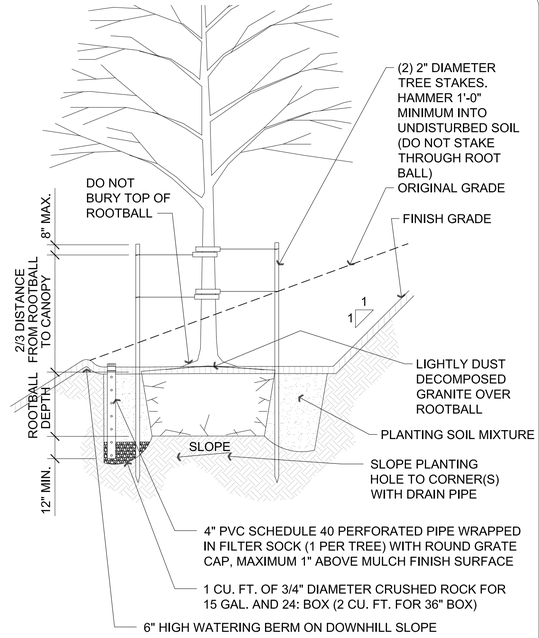


FOR SIZING OF BOULDERS REFER TO LANDSCAPE SCHEDULE

C2 Typical Boulder Detail



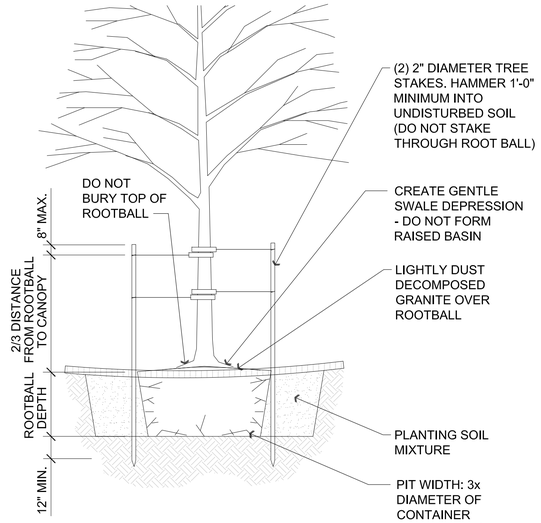
C1 Typical Electric Landscape Time Clock



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

REVISIONS	BY

RECISTERED ARCHITECT
CERTIFICATE NO.
25646
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Date Signed 01/21/16
ARIZONA, U.S.A.
EXPIRES: 6/30/18

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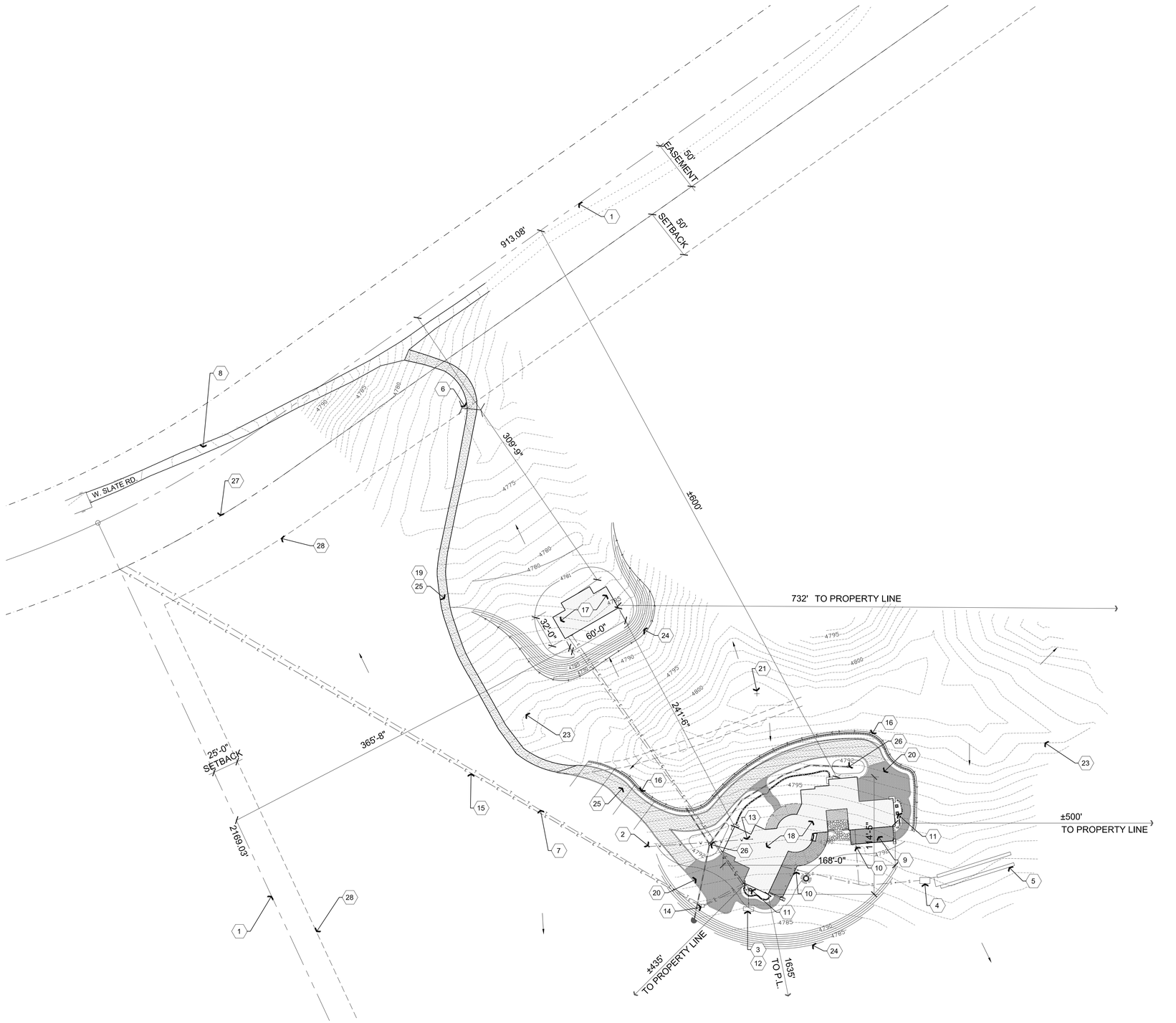
ARCHITECTURE & PLANNING

DRAWING: LANDSCAPE DETAILS

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	L1.1

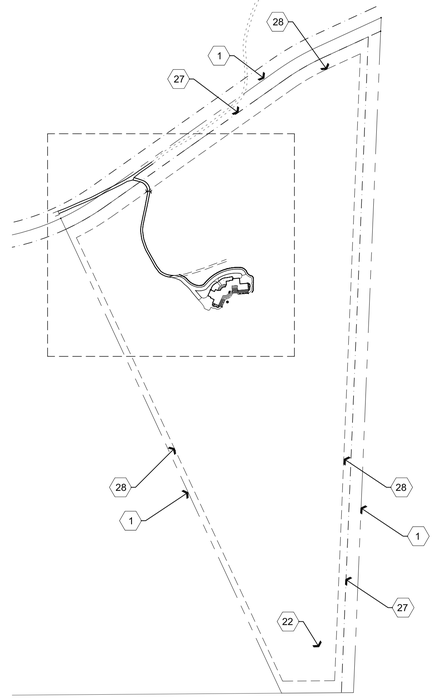
Jan 29, 2016 - 8:29am



A1 Site Plan

Scale: 1"=50'-0"

North



A2 Key Plan

Scale: N.T.S.

North

Descriptive Keynotes

1. PROPERTY LINE.
2. PROPOSED WELL HEAD.
3. 1000 GALLON PROPANE TANK BELOW GROUND.
4. SEPTIC TANK.
5. LEACH FIELD.
6. PROVIDE 18" DIAMETER HDPE CULVERT. REFER TO CIVIL PLANS.
7. PROVIDE 2" DB 120 ELECTRICAL CONDUIT FOR TELEPHONE CABLE.
8. EXISTING ROAD.
9. CONCRETE PAVERS.
10. PROVIDE TWO WAY SEWER CLEAN OUT.
11. CONDENSING UNIT REFER TO MECHANICAL PLANS.
12. PROPANE SHUT OFF VALVE.
13. 1 1/2" SCHEDULE 40 PVC WATER LINE.
14. UTILITY COMPANY TRANSFORMER.
15. DB 120 ELECTRICAL CONDUIT, SIZE TO BE DETERMINED BY ARIZONA PUBLIC SERVICE.
16. DRY STACK ROCKERY WALL. REFER TO CIVIL PLANS.
17. PROPOSED WORKSHOP ON A SEPARATE PERMIT.
18. PROPOSED 5,005 S.F. RESIDENCE. F.F.E. = 4793'
19. EXISTING DIRT DRIVEWAY.
20. PROPOSED CONCRETE PAVERS DRIVEWAY.
21. HIGH POINT ON LOT - 4804'.
22. LOW POINT ON LOT - 4740'. (SOUTHEAST CORNER OF LOT)
23. EXISTING CONTOURS. REFER TO CIVIL PLANS.
24. PROPOSED CONTOURS. REFER TO CIVIL PLANS.
25. STABILIZED DECOMPOSED GRANITE DRIVEWAY.
26. DRAIN BASIN INLET. REFER TO CIVIL PLANS.
27. EASEMENT LINE.
28. SETBACK LINE.

APN: 300-37-129

NOTES:
1. DIFFERENCE BETWEEN HIGH AND LOW POINT ON LOT IS 64'.
2. SURVEY ELEVATIONS USE THE NAVD88.

REVISIONS	BY

REGISTERED ARCHITECT
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ARIZONA,
EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

DRAWING: SITE PLAN

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A1.0

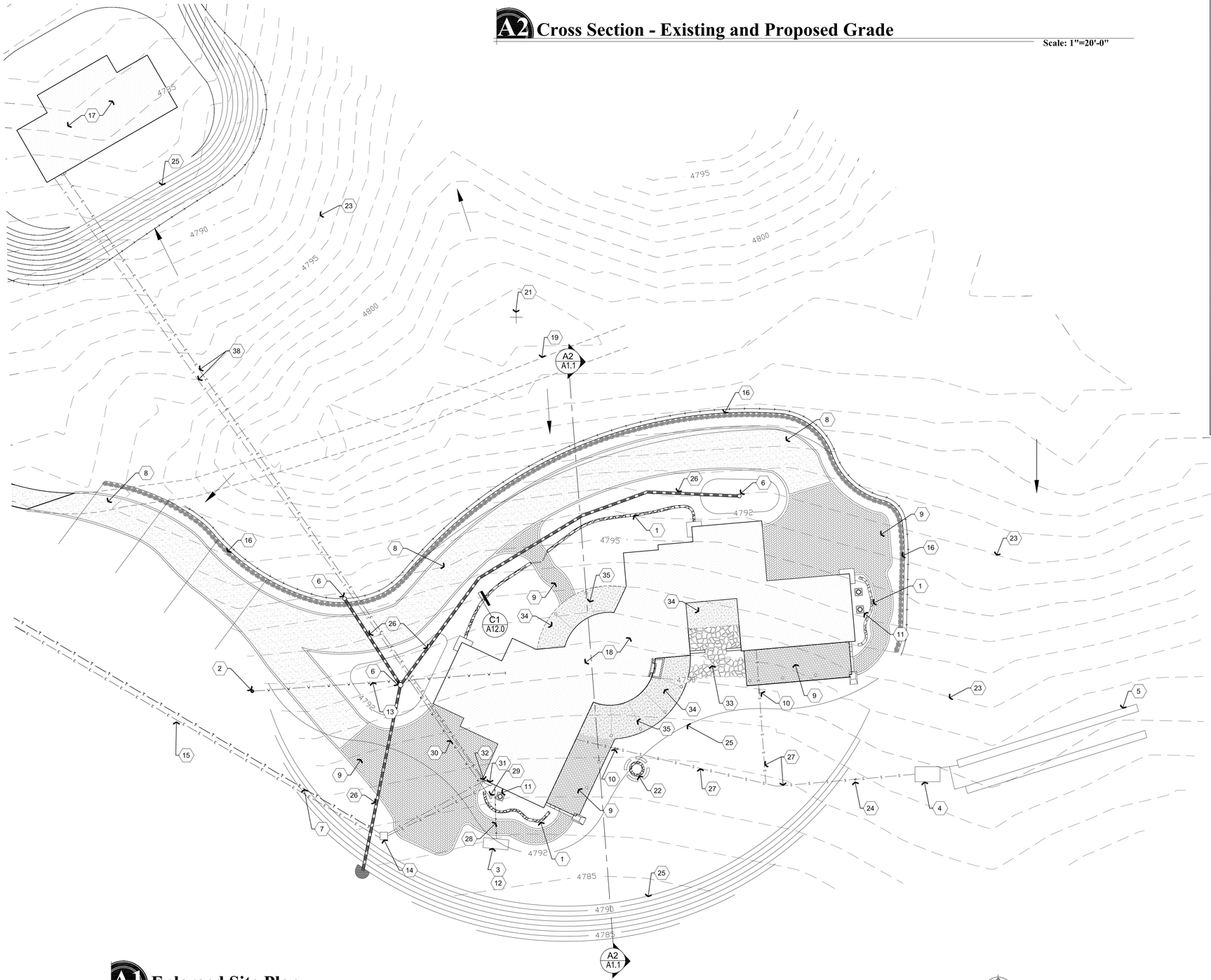
Feb 01, 2016 - 12:52pm

A2 Cross Section - Existing and Proposed Grade

Scale: 1"=20'-0"

Descriptive Keynotes

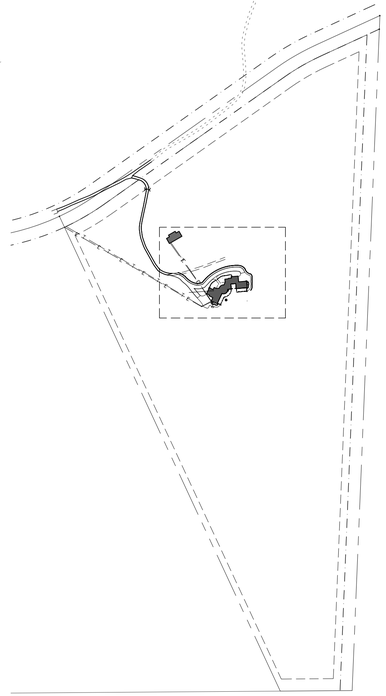
1. LANDSCAPE WALL. REFER TO LANDSCAPE PLAN.
2. WELL HEAD.
3. 1000 GALLON PROPANE TANK BELOW GROUND .
4. SEPTIC TANK.
5. LEACH FIELD.
6. DRAIN BASIN INLET. REFER TO CIVIL PLANS.
7. PROVIDE 2" DB 120 ELECTRICAL CONDUIT FOR TELEPHONE CABLE.
8. STABILIZED DECOMPOSED GRANITE DRIVEWAY.
9. CONCRETE PAVERS.
10. PROVIDE TWO WAY SEWER CLEAN OUT.
11. CONDENSING UNIT REFER TO MECHANICAL PLANS.
12. PROPANE SHUT OFF VALVE.
13. 1 1/2" SCHEDULE 40 PVC WATER LINE.
14. UTILITY COMPANY TRANSFORMER.
15. DB 120 ELECTRICAL CONDUIT, SIZE TO BE DETERMINED BY ARIZONA PUBLIC SERVICE.
16. DRY STACK ROCKERY WALL. REFER TO CIVIL PLANS.
17. PROPOSED WORKSHOP ON A SEPARATE PERMIT.
18. PROPOSED 5,005 S.F. RESIDENCE. F.F.E. = 4793'
19. EXISTING DRIVEWAY, TO BE ABANDONED.
21. HIGH POINT ON LOT - 4804'.
22. FIRE PIT.
23. EXISTING CONTOURS. REFER TO CIVIL PLANS.
24. PROVIDE ONE WAY SEWER CLEAN OUT.
25. PROPOSED CONTOURS. REFER TO CIVIL PLANS.
26. BELOW GRADE DRAINAGE PIPE. REFER TO CIVIL PLANS.
27. PROVIDE 4" SDR 35 WASTE LINE.
28. PROVIDE BELOW GRADE PROPANE LINE. REFER TO PLUMBING PLANS.
29. LANDSCAPE DRIP IRRIGATION SYSTEM BACKFLOW PREVENTION DEVICE. REFER TO LANDSCAPE PLAN.
30. 3/4" SCHEDULE 40 PVC WATER LINE SERVING LANDSCAPE DRIP IRRIGATION SYSTEM.
31. ELECTRICAL SERVICE ENTRANCE SECTION. REFER TO ELECTRICAL PLANS.
32. TELEPHONE TERMINAL BOX.
33. FLAGSTONE PAVERS.
34. CONCRETE SLAB. REFER TO REFERENCE FLOOR PLAN.
35. CONCRETE CONTROL JOINT.
36. EXISTING GRADE.
37. PROPOSED GRADE.
38. UTILITY LINES TO WORKSHOP, UNDER SEPARATE PERMIT.



A1 Enlarged Site Plan

Scale: 1"=20'-0"

Plan North



B1 Key Plan

Scale: N.T.S.

Plan North

Feb 01, 2016 - 12:54pm

REVISIONS	BY

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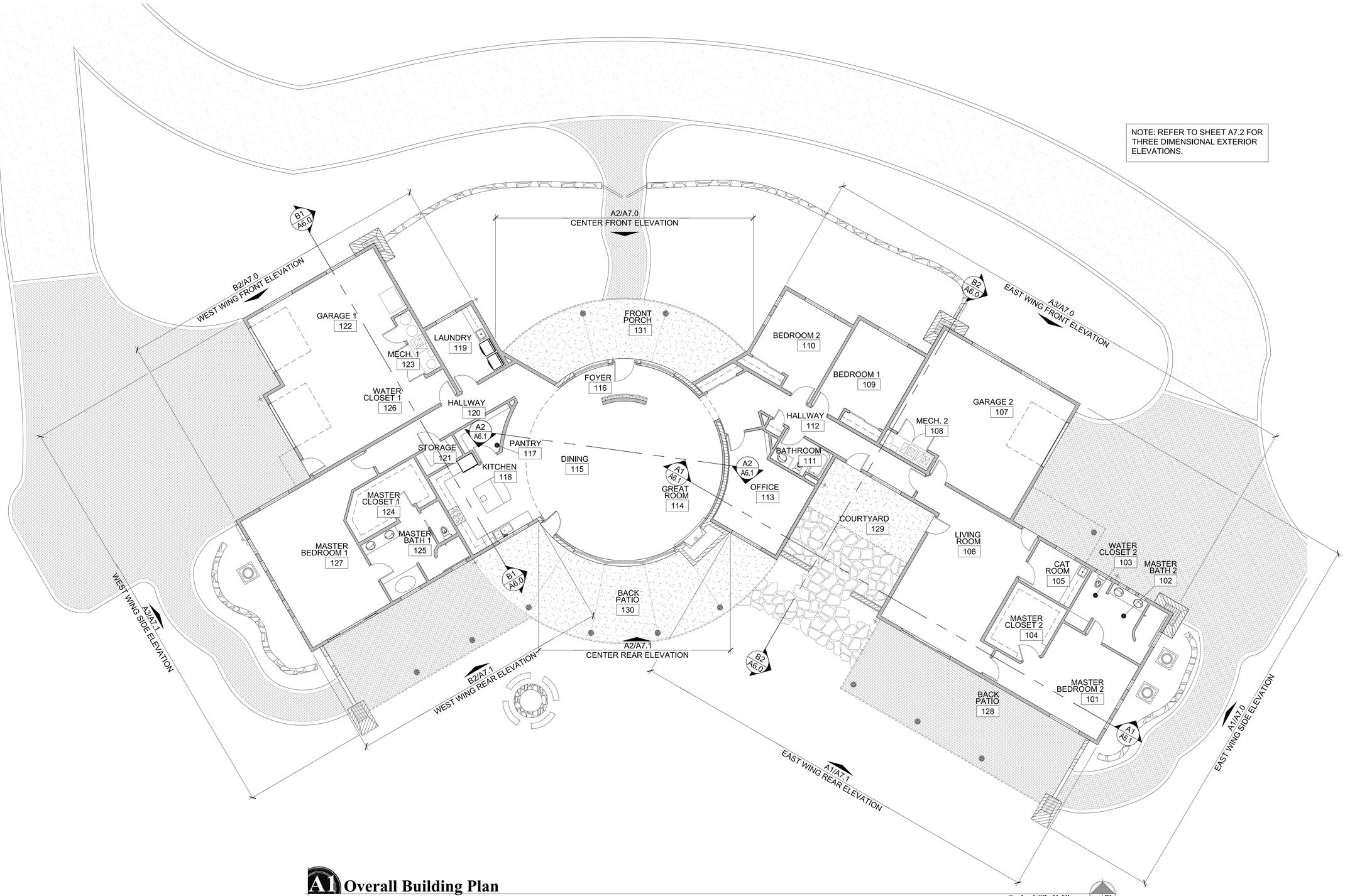
ARCHITECTURE & PLANNING

DRAWING: ENLARGED SITE PLAN

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A1.1

NOTE: REFER TO SHEET A7.2 FOR THREE DIMENSIONAL EXTERIOR ELEVATIONS.



A1 Overall Building Plan

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

Plan North

Jan 29, 2016 - 8:30am

REVISIONS	BY

REGISTERED ARCHITECT
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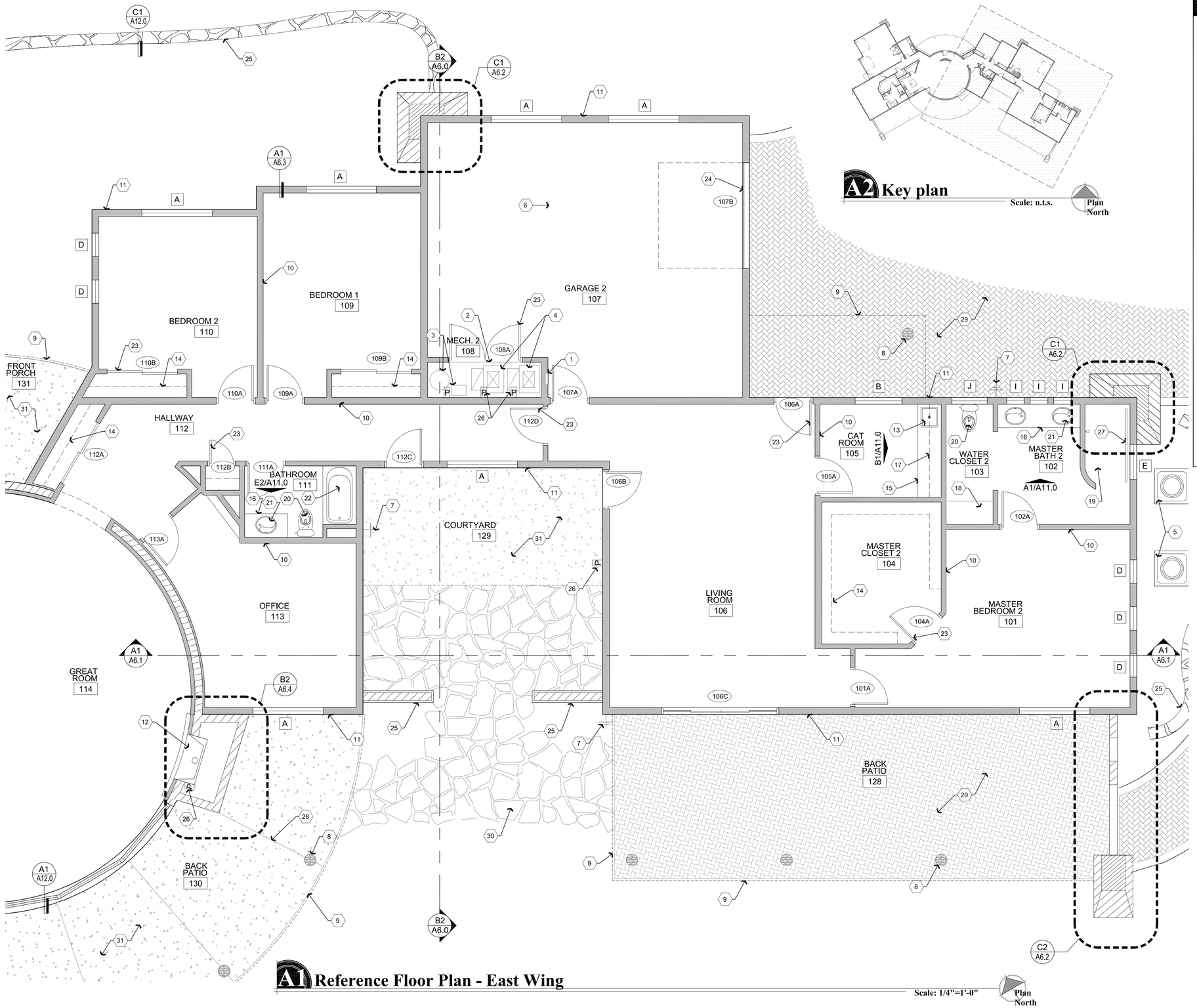
ARCHITECTURE & PLANNING

DRAWING: OVERALL BUILDING PLAN

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A2.0



A2 Key plan

Scale: n.t.s.

Plan North

Descriptive Keynotes

1. ELECTRICAL SUB-PANEL. REFER TO ELECTRICAL PLANS.
2. PROVIDE 18" HIGH PLATFORM FOR GAS FURNACE AND WATER STORAGE TANK.
3. PROVIDE TANKLESS WATER HEATER WITH HOT WATER STORAGE TANK AND RECIRCULATING PUMP.
4. AIR HANDLER. REFER TO MECHANICAL PLANS.
5. CONDENSING UNIT, REFER TO MECHANICAL PLANS.
6. GARAGE FLOOR SURFACE USED FOR PARKING OF AUTOMOBILE OR OTHER VEHICLES SHALL BE SLOPED TO FACILITATE THE MOVEMENT OF LIQUIDS TO A DRAIN OR TOWARD THE MAIN VEHICLE ENTRY DOORWAY.
7. PROVIDE FROST PROOF HOSE BIBB.
8. WOOD COLUMN. REFER TO STRUCTURAL PLANS.
9. LINE OF ROOF ABOVE.
10. INTERIOR WALL, REFER TO WALL TYPES PLAN.
11. EXTERIOR WALL, REFER TO WALL TYPES PLAN.
12. GAS FIRED LOG FIREPLACE BY OWNER.
13. PROVIDE UTILITY SINK.
14. CLOSET ROD / SHELVING BY OWNER.
15. PROVIDE COUNTERTOP AS SELECTED BY OWNER.
16. PROVIDE WOOD BASE CABINETRY.
17. PROVIDE WOOD BASE / UPPER CABINETRY. REFER TO INTERIOR ELEVATIONS.
18. PROVIDE 2'-0" DEEP SHELVING.
19. PROVIDE CERAMIC TILED, DOORLESS SHOWER.
20. TOILET AS SELECTED BY OWNER.
21. LAVATORY AS SELECTED BY OWNER.
22. BATH TUB AS SELECTED BY OWNER.
23. PROVIDE DOOR, TYPICAL. REFER TO DOOR SCHEDULE.
24. PROVIDE GARAGE DOOR. REFER TO DOOR SCHEDULE.
25. LANDSCAPE WALL. REFER TO SITE PLAN.
26. PROPANE STUB OUT. REFER TO PLUMBING PLANS.
27. TRENCH DRAIN.
28. CONCRETE CONTROL JOINT, TYPICAL.
29. CONCRETE PAVERS OVER COMPACTED ABC.
30. FLAGSTONE OVER COMPACTED ABC.
31. 4" CONCRETE SLAB WITH #3 @ 3'-0" O.C. OVER 6" COMPACTED ABC.

A1 Reference Floor Plan - East Wing

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

Plan North

GENERAL NOTES:

1. A SHUTOFF VALVE BETWEEN THE PROPANE TANK AND THE HOUSE IS REQUIRED.
2. A HOT WATER RE-CIRCULATING PUMP SHALL BE INSTALLED WITH THE HOT WATER PIPING BEING INSULATED TO A MINIMUM OF R-2.
3. A MINIMUM 0.019 INCH, CORROSION RESISTANT WEEP SCREED, WITH MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2 INCHES SHALL BE PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON THE EXTERIOR STUD WALL IN ACCORDANCE WITH ASTM C 926. THE WEEP SCREED SHALL BE PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE PAVED AREAS AND SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE WEATHER RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE. THE EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE WEEP SCREED.
4. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAT 1/2" GPDW APPLIED TO THE GARAGE SIDE.
5. A WATER HEATER RELIEF VALVE SHALL EXTEND OUTSIDE THE BUILDING WITH THE END OF PIPE NOT MORE THAN (2) TWO FEET OR LESS THAN (6) SIX INCHES ABOVE THE GROUND AND POINTING DOWNWARD.
6. MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105 F OR BELOW 55 F SHALL BE INSULATED TO A MINIMUM OF R-2.

Jan 29, 2016 - 8:31am

REVISIONS	BY

REGISTERED ARCHITECT
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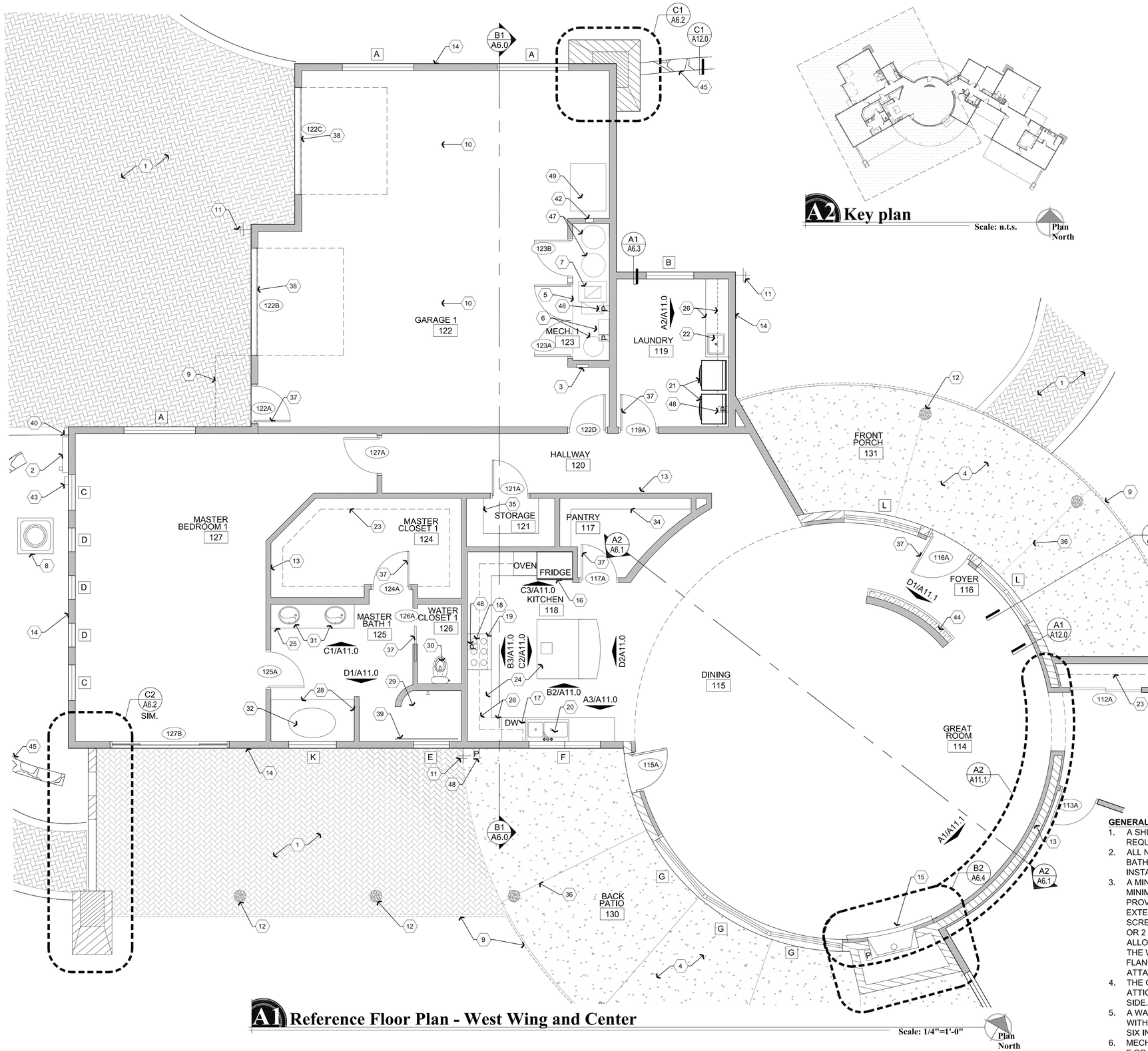
DRAWING: REFERENCE FLOOR PLAN - EAST WING

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	**A3.0**



A2 Key plan

Scale: n.t.s.

Plan North

A1 Reference Floor Plan - West Wing and Center

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

Plan North

Descriptive Keynotes

1. CONCRETE PAVERS OVER COMPACTED ABC.
2. ELECTRICAL SERVICE ENTRANCE SECTION. REFER TO ELECTRICAL PLANS.
3. ELECTRICAL SUB-PANEL. REFER TO ELECTRICAL PLANS.
4. 4" CONCRETE SLAB WITH #3 @ 3'-0" O.C. OVER 6" COMPACTED ABC.
5. PROVIDE 18" HIGH PLATFORM FOR GAS FURNACE AND WATER STORAGE TANK.
6. PROVIDE TANKLESS WATER HEATER WITH HOT WATER STORAGE TANK AND RECIRCULATING PUMP.
7. AIR HANDLER. REFER TO MECHANICAL PLANS.
8. CONDENSING UNIT, REFER TO MECHANICAL PLANS.
9. LINE OF ROOF ABOVE.
10. GARAGE FLOOR SURFACE USED FOR PARKING OF AUTOMOBILE OR OTHER VEHICLES SHALL BE SLOPED TO FACILITATE THE MOVEMENT OF LIQUIDS TO A DRAIN OR TOWARD THE MAIN VEHICLE ENTRY DOORWAY.
11. PROVIDE FROST PROOF HOSE BIBB.
12. WOOD COLUMN, TYPICAL. REFER TO STRUCTURAL PLANS.
13. INTERIOR WALL, REFER TO WALL TYPES PLAN.
14. EXTERIOR WALL, REFER TO WALL TYPES PLAN.
15. GAS FIRED LOG FIREPLACE BY OWNER.
16. REFRIGERATOR BY OWNER.
17. DISHWASHER PROVIDED BY OWNER.
18. STOVE / OVEN PROVIDED BY OWNER.
19. EXHAUST HOOD PROVIDED BY OWNER.
20. KITCHEN SINK AS SELECTED BY OWNER.
21. WASHER & DRYER PROVIDED BY OWNER.
22. PROVIDE UTILITY SINK.
23. PROVIDE CLOSET ROD / SHELVING AS SELECTED BY OWNER.
24. PROVIDE GRANITE COUNTERTOP AS SELECTED BY OWNER.
25. PROVIDE WOOD BASE CABINETRY.
26. PROVIDE WOOD BASE / UPPER CABINETRY. REFER TO INTERIOR ELEVATIONS.
27. NOT USED.
28. PROVIDE MUD SET CERAMIC TILE FINISH OVER 2x WOOD FRAMED BATHTUB SURROUND.
29. PROVIDE CERAMIC TILE WALK-IN SHOWER WITHOUT DOOR.
30. TOILET AS SELECTED BY OWNER.
31. LAVATORY AS SELECTED BY OWNER.
32. BATH TUB AS SELECTED BY OWNER.
33. NOT USED.
34. PROVIDE 1'-0" DEEP SHELVING.
35. PROVIDE 1'-4" DEEP SHELVING
36. CONCRETE CONTROL JOINT, TYPICAL.
37. PROVIDE DOOR, TYPICAL. REFER TO DOOR SCHEDULE.
38. PROVIDE GARAGE DOOR. REFER TO DOOR SCHEDULE.
39. TRENCH DRAIN.
40. TELEPHONE CLOSURE.
41. NOT USED.
42. FIRE SPRINKLER RISER.
43. DRIP IRRIGATION CONTROLLER.
44. TROUGH FOR WATER FEATURE BY OWNER.
45. LANDSCAPE WALL. REFER TO ARCHITECTURAL SITE PLAN.
46. NOT USED.
47. PRESSURE TANK.
48. PROPANE STUB OUT, TYPICAL.
49. 350 GALLON WATER TANK FOR FIRE SUPPRESSION SYSTEM.

GENERAL NOTES:

1. A SHUTOFF VALVE BETWEEN THE PROPANE TANK AND THE HOUSE IS REQUIRED.
2. ALL NEW RESIDENCES EXCEEDING 1200 S.F. WITH TWO OR MORE BATHROOMS SHALL HAVE A HOT WATER RE-CIRCULATING PUMP INSTALLED.
3. A MINIMUM 0.019 INCH, CORROSION RESISTANT WEEP SCREED, WITH MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2 INCHES SHALL BE PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON THE EXTERIOR STUD WALL IN ACCORDANCE WITH ASTM C 926. THE WEEP SCREED SHALL BE PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE PAVED AREAS AND SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE WEATHER RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE. THE EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE WEEP SCREED.
4. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAT 1/2" GPDW APPLIED TO THE GARAGE SIDE.
5. A WATER HEATER RELIEF VALVE SHALL EXTEND OUTSIDE THE BUILDING WITH THE END OF PIPE NOT MORE THAN (2) TWO FEET OR LESS THAN (6) SIX INCHES ABOVE THE GROUND AND POINTING DOWNWARD.
6. MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105 F OR BELOW 55 F SHALL BE INSULATED TO A MINIMUM OF R-3.

REVISIONS	BY

REGISTERED ARCHITECT
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25646
W. ALAN KENSON
Date Signed 01/21/16
ARIZONA
EXPIRES: 6/30/18

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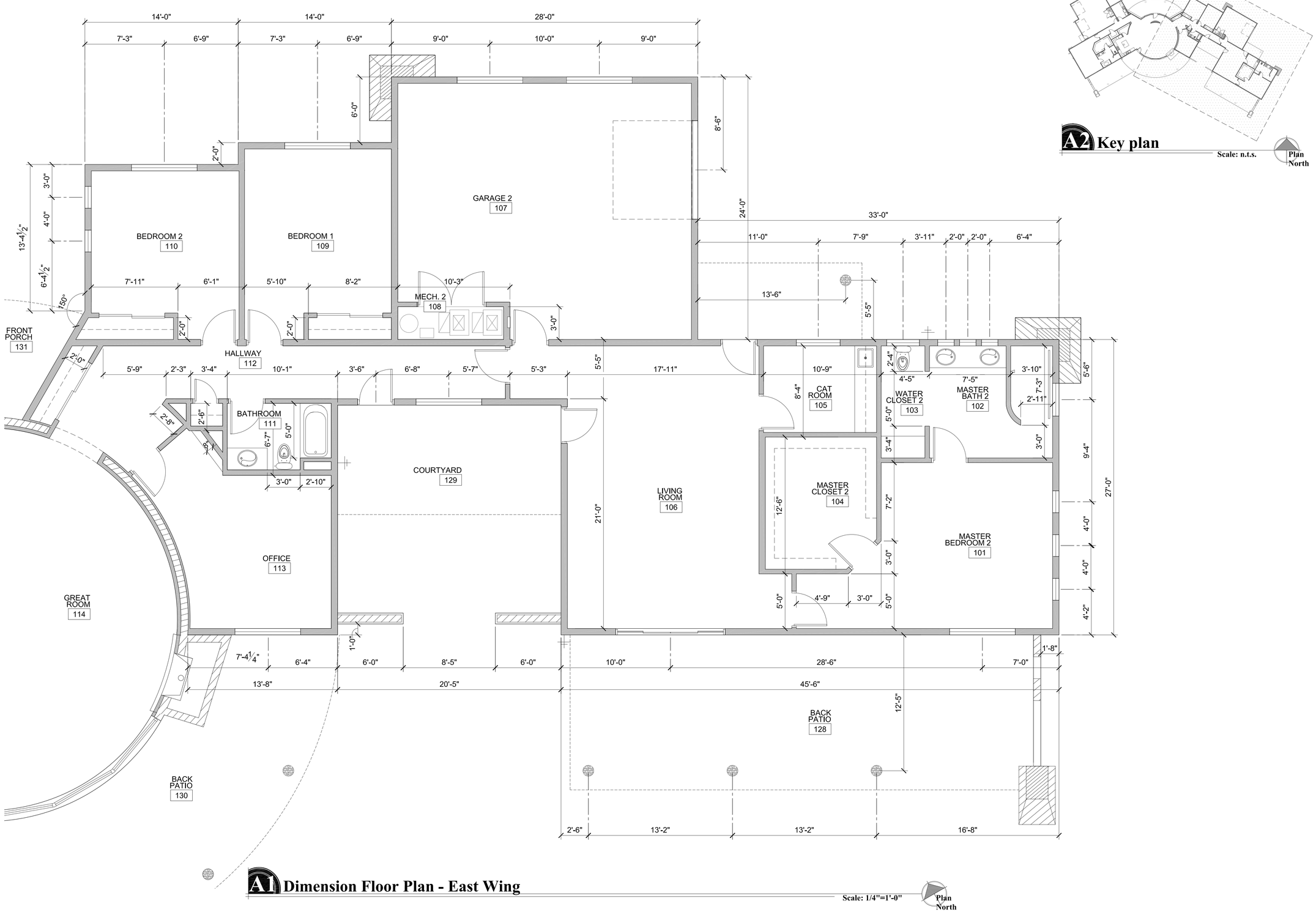
ARCHITECTURE & PLANNING

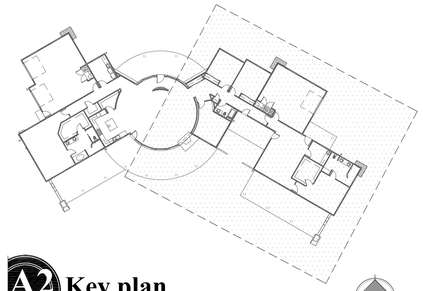
DRAWING: REFERENCE FLOOR PLAN WEST WING AND CENTER

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A3.1

Jan 29, 2016 - 8:31am





A2 Key plan Scale: n.t.s. Plan North

A1 Dimension Floor Plan - East Wing Scale: 1/4"=1'-0" Plan North

Jan 29, 2016 - 8:31am

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, U.S.A. EXPIRES: 6/30/18

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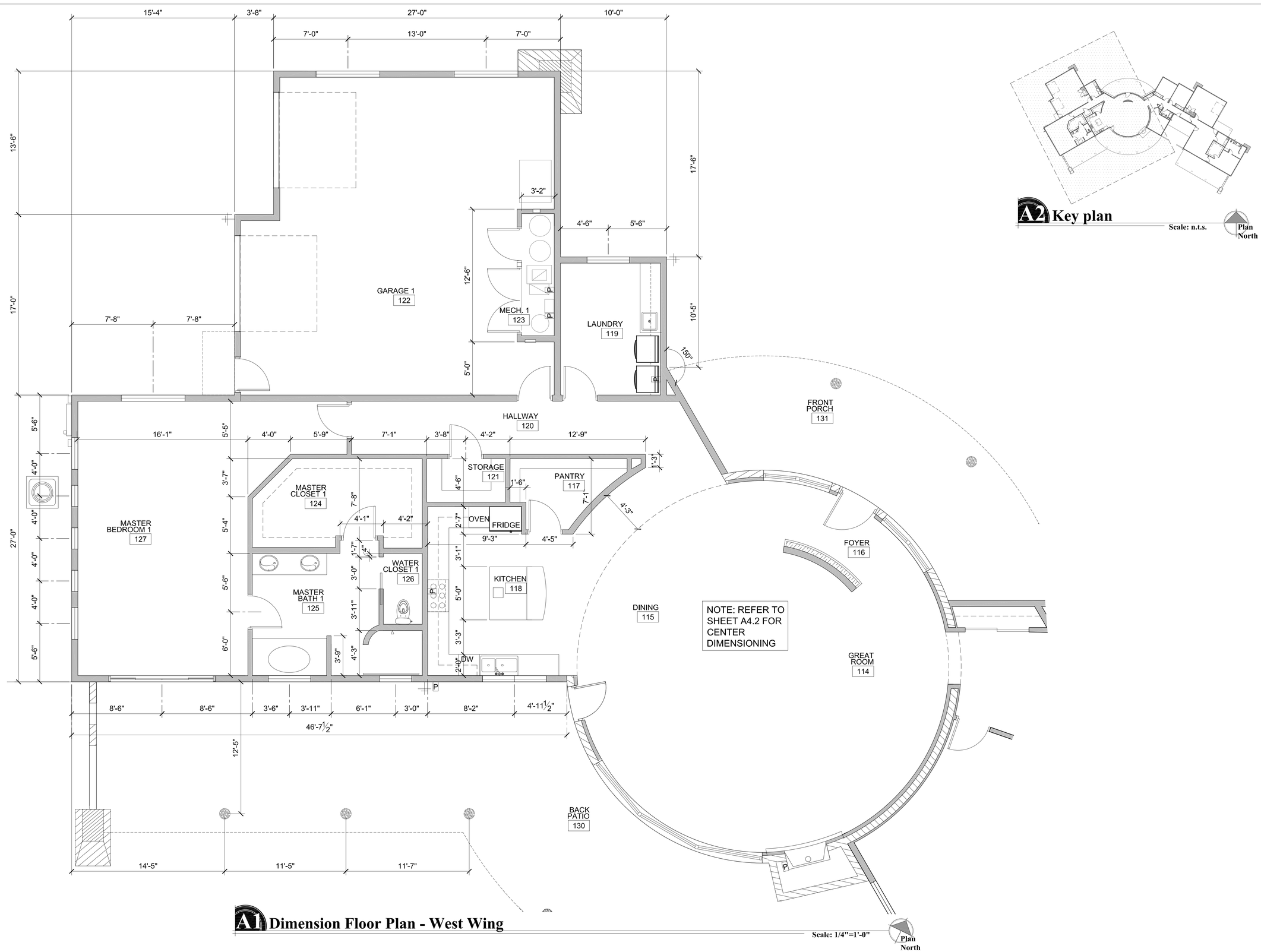
DRAWING: DIMENSION FLOOR PLAN - EAST WING

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	**A4.0**



A1 **Dimension Floor Plan - West Wing**

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

Plan North

A2 **Key plan**

Scale: n.t.s.

Plan North

REVISIONS	BY

REGISTERED ARCHITECT
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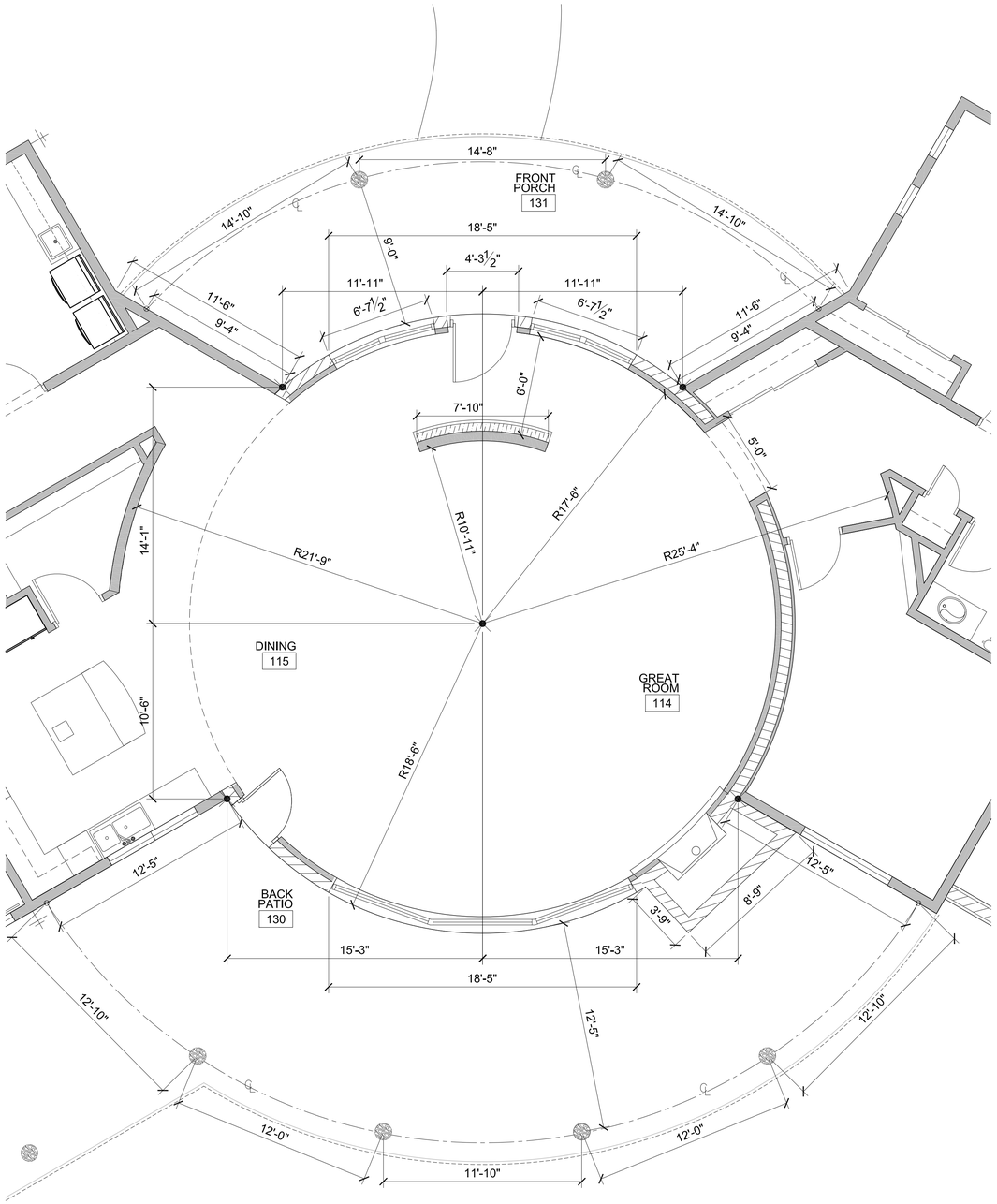
ARCHITECTURE & PLANNING

DRAWING: DIMENSION FLOOR PLAN - WEST WING

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	**A4.1**

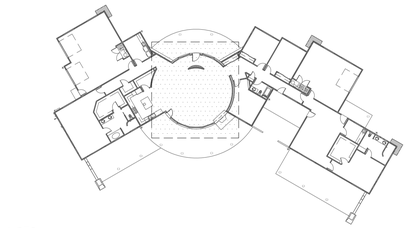
Jan 29, 2016 - 8:31am



A1 **Dimension Floor Plan - Center**

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

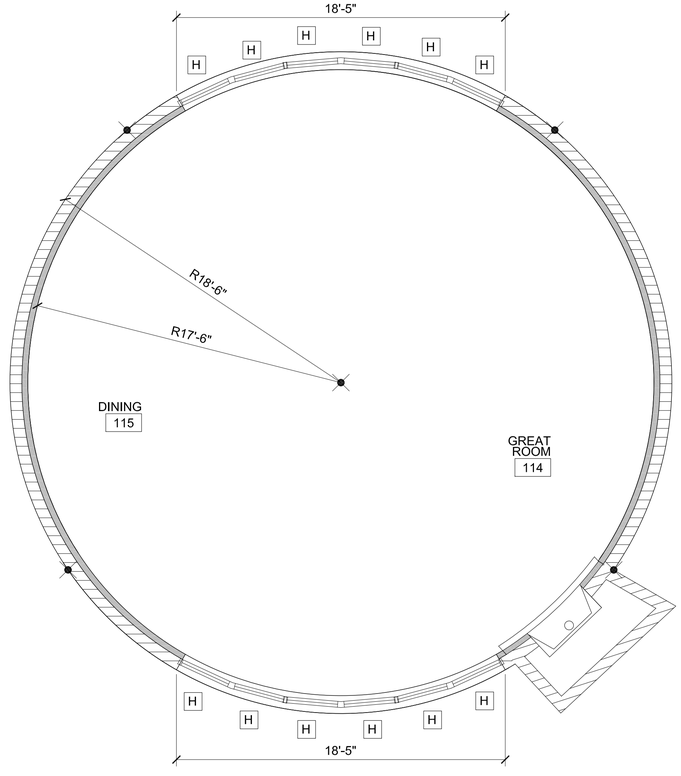
Plan North



A2 **Key plan**

Scale: n.t.s.

Plan North



B1 **Reference Floor Plan - Center Upper Atrium**

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

Plan North

Jan 29, 2016 - 8:32am

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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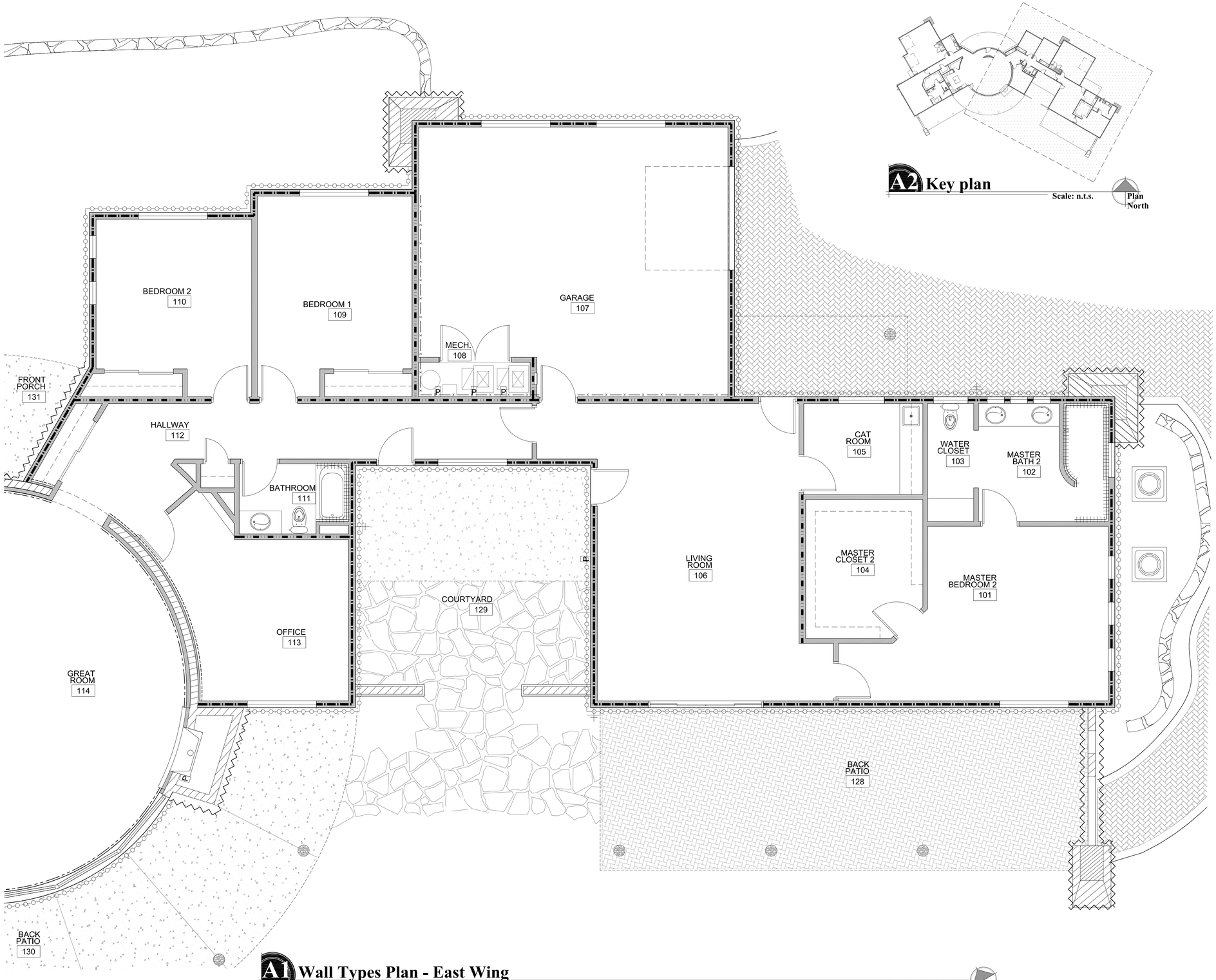
DRAWING: DIMENSION FLOOR PLAN - CENTER

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	**A4.2**



A1 **Wall Types Plan - East Wing**

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

Plan North

A2 **Key plan**

Scale: n.t.s.

Plan North

Wall Types Legend

EXTERIOR 6" STUD WALL: PROVIDE FULL-HEIGHT 2x6 WOOD STUDS AT 1'-4" ON CENTER WITH 1/2" GPDW ON INTERIOR SIDE AND 1/2" OSB ON EXTERIOR SIDE. PROVIDE R-19 UNFACED BATT INSULATION. REFER TO STRUCTURAL PLANS, EXTERIOR ELEVATIONS AND ROOM FINISH SCHEDULE FOR FINISHES.

EXTERIOR WALL: PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC FINISH OVER 1" POLYSTYRENE OVER TYVEK HOME WRAP (ESR-2375).

EXTERIOR CMU WALL: PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC FINISH OVER 1" POLYSTYRENE ATTACH TO CMU WALL. REFER TO EXTERIOR ELEVATIONS FOR LOCATIONS.

EXTERIOR STONE VENEER: PROVIDE STONE VENEER, AS SELECTED BY OWNER, FULL HEIGHT OVER METAL LATH OVER TYVEK HOME WRAP (ESR-2375).

EXTERIOR STONE VENEER: PROVIDE STONE VENEER, AS SELECTED BY OWNER, FULL HEIGHT OVER CMU ACCENT COLUMNS AND KNIFE WALLS.

INTERIOR 6" STUD WALL: PROVIDE 1-LAYER 1/2" GPDW ON EACH SIDE OF 2x6 WOOD STUDS AT 1'-4" O.C. PROVIDE SOUND INSULATION AS DIRECTED BY OWNER.

INTERIOR 2x4 STUD WALL: PROVIDE 1-LAYER 1/2" GPDW ON EACH SIDE OF 2x4 WOOD STUDS AT 1'-4" ON CENTER. PROVIDE SOUND INSULATION AS DIRECTED BY OWNER.

INTERIOR 2x4 STUD WALL: PROVIDE 1-LAYER 1/2" GPDW ON ONE SIDE OF 2x4 WOOD STUDS AT 1'-0" ON CENTER. PROVIDE R-13 BATT INSULATION.

INTERIOR 2x2 STUD WALL: PROVIDE 1-LAYER 1/2" GPDW ON ONE SIDE OF 2x2 WOOD STUDS AT 1'-0" ON CENTER.

WALL BETWEEN GARAGE AND LIVABLE SPACE: PROVIDE TYVEK OR EQUAL TO BE APPLIED TO THE GARAGE SIDE OF THE WALL BENEATH DRYWALL SEPARATING THE GARAGE FROM THE LIVABLE SPACE.

BACKERS FOR WALL TILE IN TUB AND SHOWER AREAS: PROVIDE CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BACKERS FOR WALL TILE IN TUB AND SHOWER AREAS. SUCH WALL SURFACES SHALL EXTEND TO THE CEILING.

INTERIOR 6" STUD WALL: 60" HIGH PONY WALL. PROVIDE 1-LAYER 1/2" GPDW ON EACH SIDE OF 2x6 WOOD STUDS AT 1'-4" O.C.

REVISIONS	BY

REGISTERED ARCHITECT
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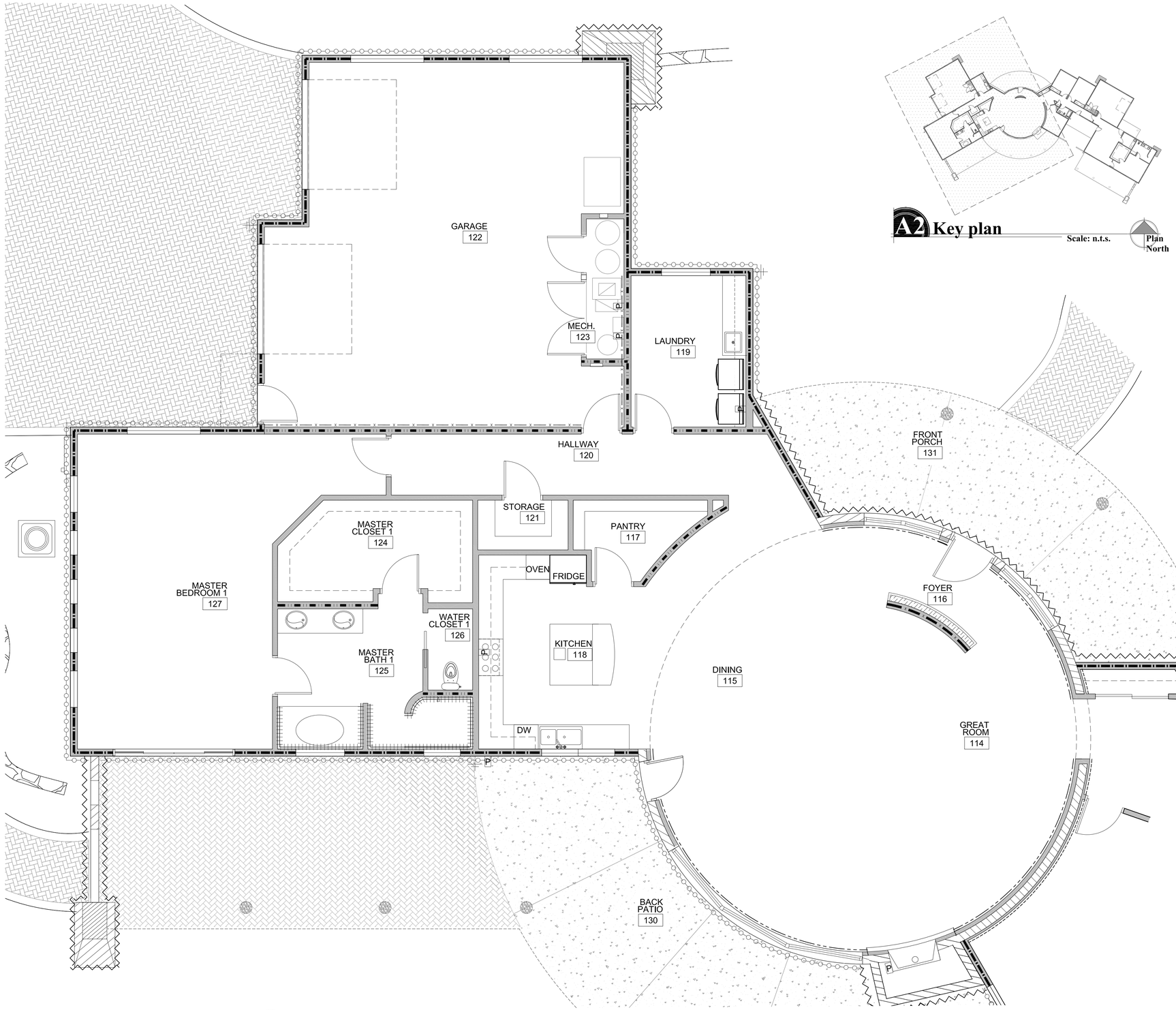
ARCHITECTURE & PLANNING

DRAWING: WALL TYPES PLAN - EAST WING

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A5.0

Jan 29, 2016 - 8:32am



A1 **Wall Types Plan - West Wing and Center**

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

Plan North

A2 **Key plan**

Scale: n.t.s.

Plan North

Wall Types Legend

EXTERIOR 6" STUD WALL: PROVIDE FULL-HEIGHT 2x6 WOOD STUDS AT 1'-4" ON CENTER WITH 1/2" GPDW ON INTERIOR SIDE AND 1/2" OSB ON EXTERIOR SIDE. PROVIDE R-19 UNFACED BATT INSULATION. REFER TO STRUCTURAL PLANS, EXTERIOR ELEVATIONS AND ROOM FINISH SCHEDULE FOR FINISHES.

EXTERIOR WALL: PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC FINISH OVER 1" POLYSTYRENE OVER TYVEK HOME WRAP (ESR-2375).

EXTERIOR CMU WALL: PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC FINISH OVER 1" POLYSTYRENE ATTACH TO CMU WALL. REFER TO EXTERIOR ELEVATIONS FOR LOCATIONS.

EXTERIOR STONE VENEER: PROVIDE STONE VENEER, AS SELECTED BY OWNER, FULL HEIGHT OVER METAL LATH OVER TYVEK HOME WRAP (ESR-2375).

EXTERIOR STONE VENEER: PROVIDE STONE VENEER, AS SELECTED BY OWNER, FULL HEIGHT OVER CMU ACCENT COLUMNS AND KNIFE WALLS.

INTERIOR 6" STUD WALL: PROVIDE 1-LAYER 1/2" GPDW ON EACH SIDE OF 2x6 WOOD STUDS AT 1'-4" O.C. PROVIDE SOUND INSULATION AS DIRECTED BY OWNER.

INTERIOR 2x4 STUD WALL: PROVIDE 1-LAYER 1/2" GPDW ON EACH SIDE OF 2x4 WOOD STUDS AT 1'-4" ON CENTER. PROVIDE SOUND INSULATION AS DIRECTED BY OWNER.

INTERIOR 2x4 STUD WALL: PROVIDE 1-LAYER 1/2" GPDW ON ONE SIDE OF 2x4 WOOD STUDS AT 1'-0" ON CENTER. PROVIDE R-13 BATT INSULATION.

INTERIOR 2x2 STUD WALL: PROVIDE 1-LAYER 1/2" GPDW ON ONE SIDE OF 2x2 WOOD STUDS AT 1'-0" ON CENTER.

WALL BETWEEN GARAGE AND LIVABLE SPACE: PROVIDE TYVEK OR EQUAL TO BE APPLIED TO THE GARAGE SIDE OF THE WALL BENEATH DRYWALL SEPARATING THE GARAGE FROM THE LIVABLE SPACE.

BACKERS FOR WALL TILE IN TUB AND SHOWER AREAS: PROVIDE CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BACKERS FOR WALL TILE IN TUB AND SHOWER AREAS. SUCH WALL SURFACES SHALL EXTEND TO THE CEILING.

INTERIOR 6" STUD WALL: 60" HIGH PONY WALL. PROVIDE 1-LAYER 1/2" GPDW ON EACH SIDE OF 2x6 WOOD STUDS AT 1'-4" O.C.

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, U.S.A. EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

DRAWING: WALL TYPES PLAN - WEST WING AND CENTER

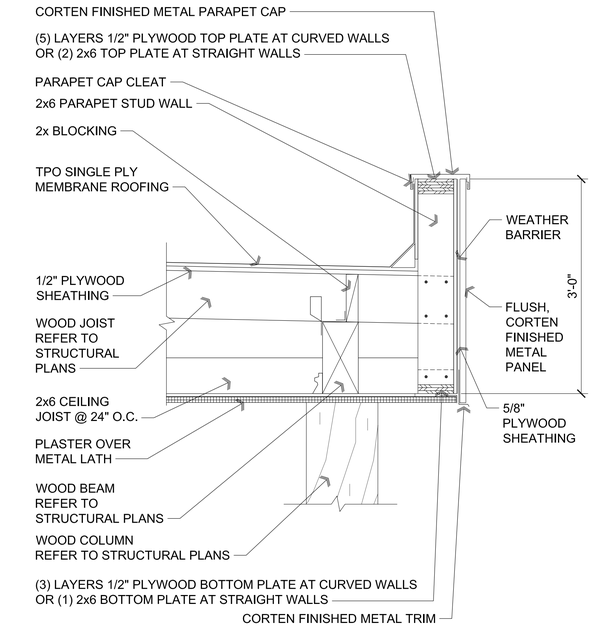
PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	**A5.1**

Jan 29, 2016 - 1:09pm

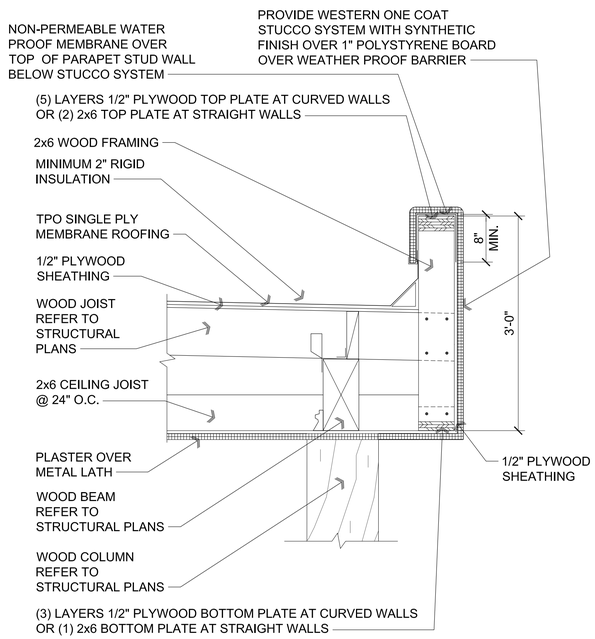
Descriptive Keynotes

1. PROVIDE TPO SINGLE PLY MEMBRANE ROOFING OVER 7/16" OSB.
2. PROVIDE PRE-MANUFACTURED WOODEN ROOF TRUSS, REFER TO STRUCTURAL PLANS.
3. PROVIDE 7" RIGID INSULATION (R-47.7).
4. PROVIDE 1" SPRAY FOAM INSULATION (R-7).
5. PROVIDE 1" SPRAY FLASH COAT FOAM INSULATION OVER 3 1/2" RIGID INSULATION.
6. PROVIDE R-19 BATT INSULATION.
7. PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC FINISH OVER 1" POLYSTYRENE BOARD OVER TYVEK HOME WRAP (ESR-2375).
8. APPROXIMATE FINISH GRADE.
9. PROVIDE 2'-0" HORIZONTAL R-10 RIGID INSULATION AT SLAB/FOUNDATION.
10. PROVIDE CONCRETE FOOTING, REFER TO STRUCTURAL PLANS.
11. EXTERIOR WALL, REFER TO WALL TYPES PLAN FOR TYPE OF CONSTRUCTION.
12. INTERIOR WALL, REFER TO WALL TYPES PLAN.
13. PROVIDE STONE VENEER OVER MASONRY WALL. REFER TO STRUCTURAL PLANS.
14. STRUCTURAL BEAM, REFER TO STRUCTURAL PLANS.
15. CONCRETE SLAB OVER AGGREGATE BASE COURSE, REFER TO STRUCTURAL PLANS.
16. EXTERIOR OPENING IN MASONRY WALL.
17. EXTERIOR DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
18. INTERIOR DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
19. PROVIDE STUCCO WEEP SCREED 1" BELOW TOP OF CONCRETE FLOOR SLAB.
20. NOT USED.
21. PROVIDE 12" ROUND WOOD COLUMN. REFER TO STRUCTURAL PLANS.
22. PROVIDE CMU PONY WALL WITH STONE VENEER.
23. PROVIDE GARAGE DOOR. REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
24. PROVIDE PLYWOOD SHEATHING. REFER TO STRUCTURAL PLANS.
25. LINE OF PARAPET BEYOND.
26. ROOF JOIST. REFER TO STRUCTURAL PLANS.
27. LINE OF ROOF BEYOND.
28. 3" DRAIN LINE. REFER TO ROOF DRAINAGE PLAN.
29. ½" GPDW CEILING.
30. NON-PERMEABLE WATER PROOF MEMBRANE OVER TOP OF PARAPET STUD WALL BELOW STUCCO SYSTEM.
31. MECHANICAL DUCTWORK. REFER TO MECHANICAL PLANS.



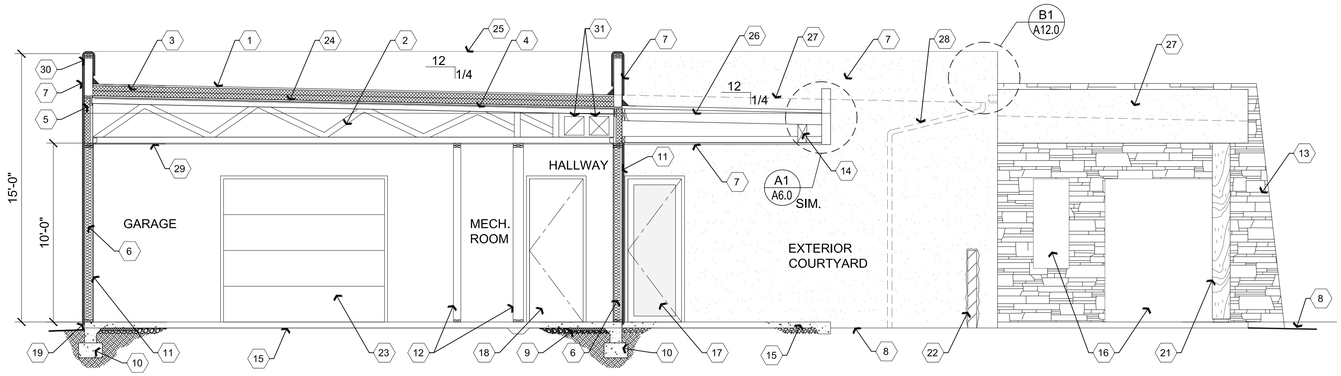
A2 Wood Joist at Wood Beam - Metal

SCALE: 1" = 1'-0"



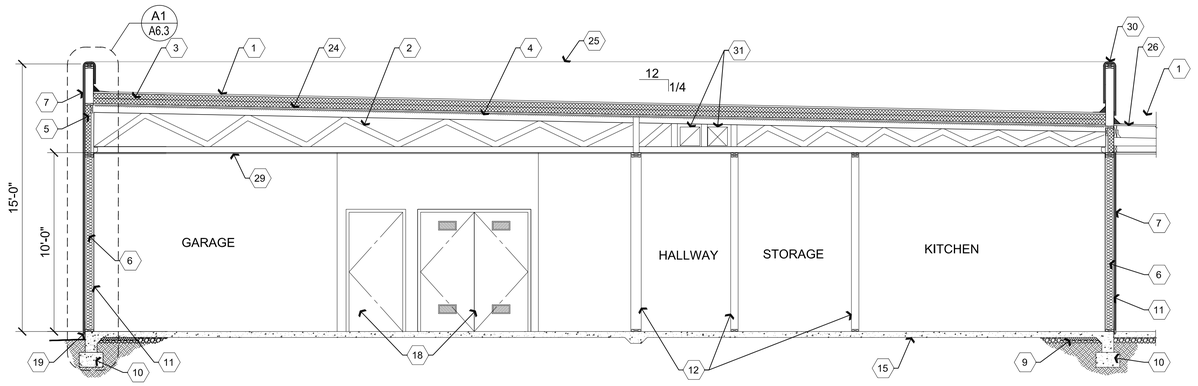
A1 Wood Joist at Wood Beam - Stucco

SCALE: 1" = 1'-0"



B2 Building Section

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



B1 Building Section

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

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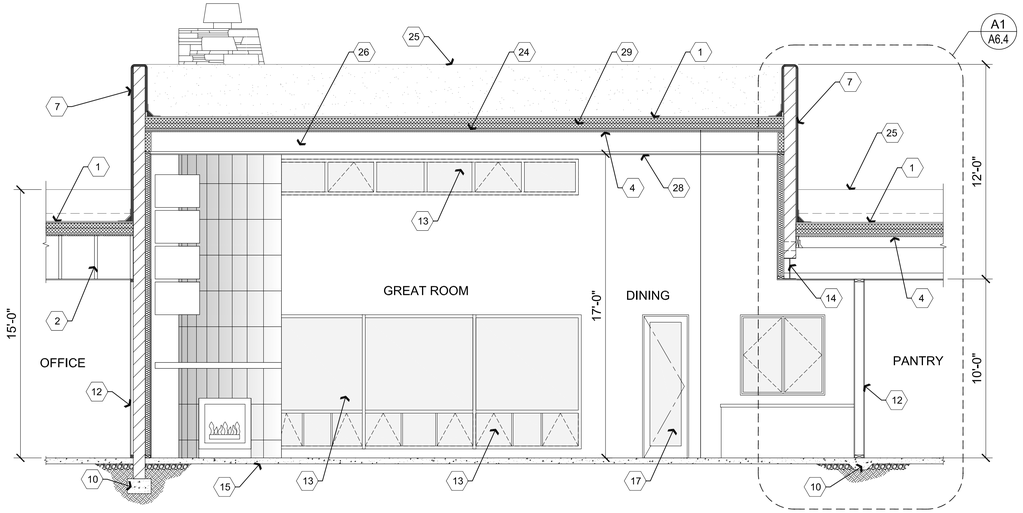
ARCHITECTURE & PLANNING

DRAWING: BUILDING SECTIONS

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

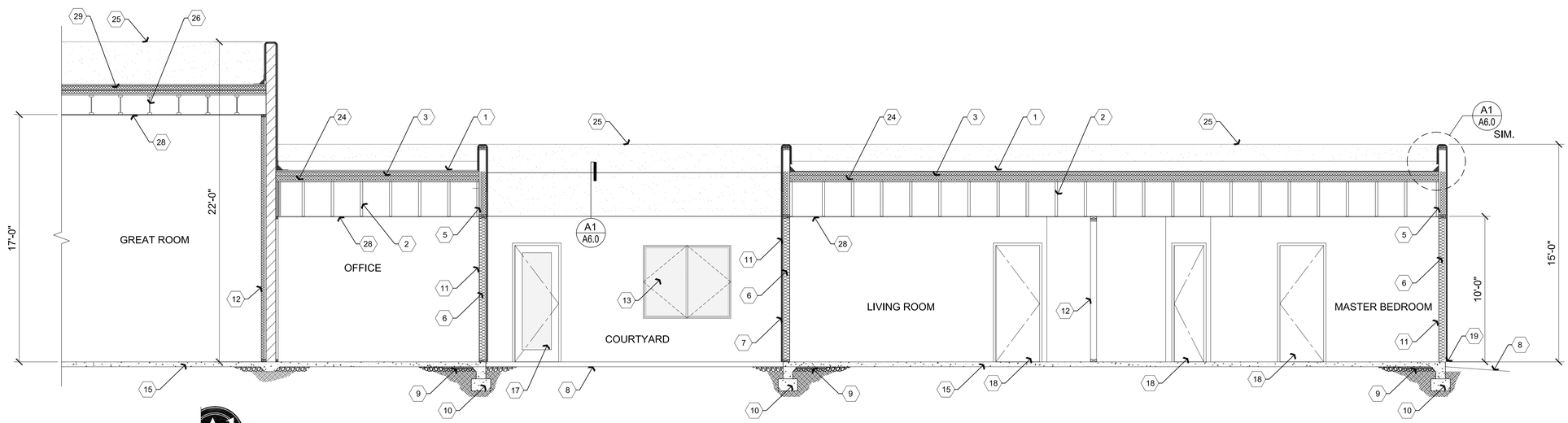
DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: JANUARY 27, 2016
SCALE: AS NOTED
JOB NO.: 674
SHEET: A6.0

Jan 29, 2016 - 8:33am



A2 Building Section

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



A1 Building Section

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

Descriptive Keynotes

1. PROVIDE TPO SINGLE PLY MEMBRANE ROOFING OVER 7/16" OSB.
2. PROVIDE PRE-MANUFACTURED WOODEN ROOF TRUSS, REFER TO STRUCTURAL PLANS.
3. PROVIDE 7" RIGID INSULATION (R-47.7).
4. PROVIDE 1" SPRAY FOAM INSULATION (R-7).
5. PROVIDE 1" SPRAY FLASH COAT FOAM INSULATION OVER 3 1/2" RIGID INSULATION..
6. PROVIDE R-19 BATT INSULATION.
7. PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC FINISH OVER 1" POLYSTYRENE BOARD OVER TYVEK HOME WRAP (ESR-2375).
8. APPROXIMATE FINISH GRADE.
9. PROVIDE 2'-0" HORIZONTAL R-10 RIGID INSULATION AT SLAB/FOUNDATION.
10. PROVIDE CONCRETE FOOTING, REFER TO STRUCTURAL PLANS.
11. EXTERIOR WALL, REFER TO WALL TYPES PLAN FOR TYPE OF CONSTRUCTION.
12. INTERIOR WALL, REFER TO WALL TYPES PLAN.
13. WINDOW. REFER TO REFERENCE FLOOR PLAN AND WINDOW TYPES.
14. STRUCTURAL BEAM, REFER TO STRUCTURAL PLANS.
15. CONCRETE SLAB OVER AGGREGATE BASE COURSE, REFER TO STRUCTURAL PLANS.
16. NOT USED.
17. EXTERIOR DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
18. INTERIOR DOOR, REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
19. PROVIDE STUCCO WEEP SCREED 1" BELOW TOP OF CONCRETE FLOOR SLAB.
20. NOT USED.
21. NOT USED.
22. NOT USED.
23. NOT USED.
24. PROVIDE ½" PLYWOOD.
25. LINE OF PARAPET BEYOND.
26. PROVIDE ROOF JOIST. REFER TO STRUCTURAL PLANS.
27. NOT USED
28. ½" GPDW CEILING.
29. PROVIDE 7" MINIMUM TAPERED RIGID INSULATION. REFER TO ROOF PLAN.

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

DRAWING: BUILDING SECTIONS

PROJECT: Lembke-Mellul Residence
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DRAWN BY	L.O.
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DATE	JANUARY 27, 2016
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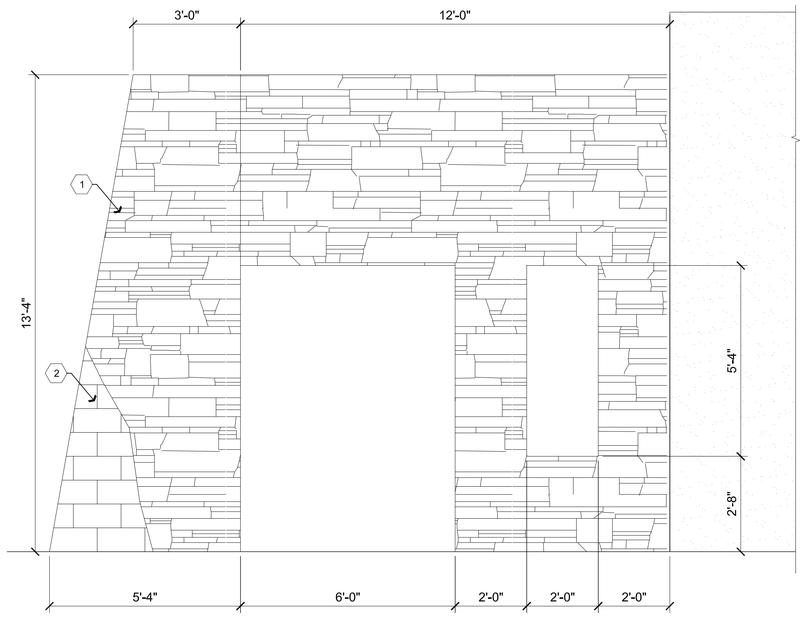
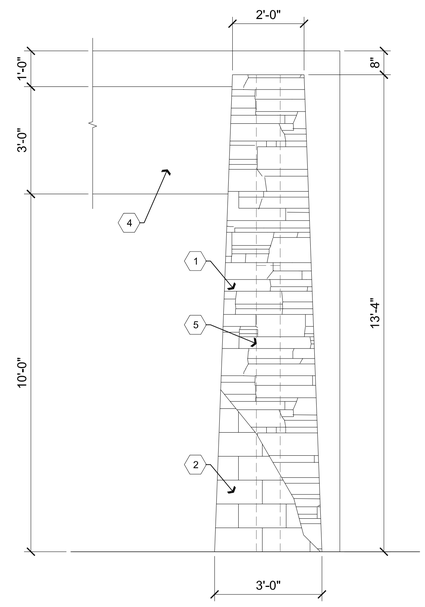
JOB NO.	674
SHEET	A6.1

Jan 29, 2016 - 8:33am



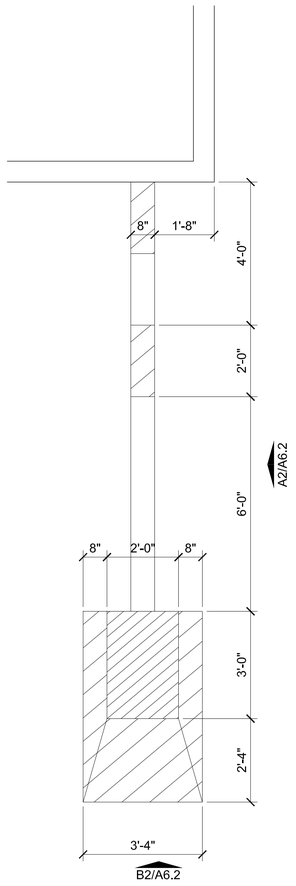
A2 Elevation

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



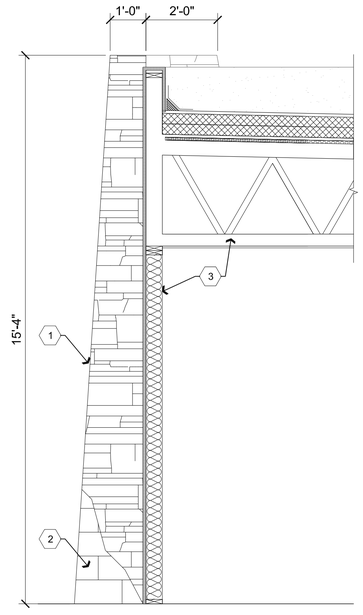
B2 Elevation

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



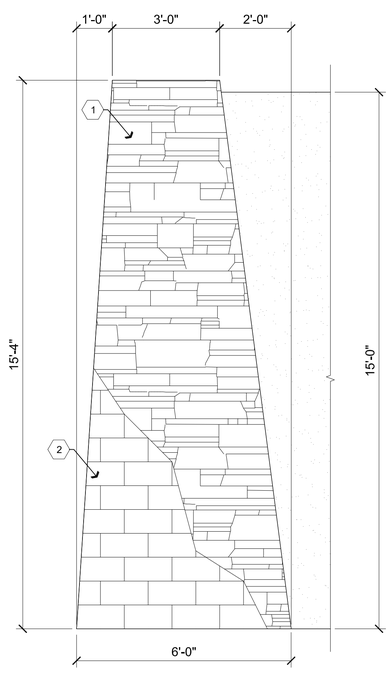
C2 Plan View From Top

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



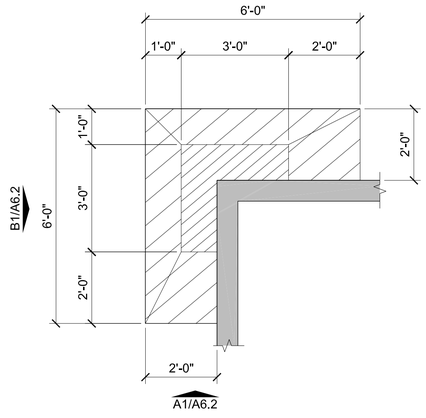
A1 Elevation / Section

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



B1 Elevation

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



C1 Plan View From Top

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

Descriptive Keynotes

1. STONE VENEER OVER CMU.
2. 8"x8"x16" CMU. REFER TO STRUCTURAL PLANS.
3. REFER TO BUILDING SECTIONS, WALL SECTIONS AND STRUCTURAL PLANS FOR ROOF, CEILING AND WALL CONSTRUCTION.
4. FASCIA SYSTEM. REFER TO EXTERIOR ELEVATIONS.
5. WALL BEYOND.

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, U.S.A. EXPIRES: 6/30/18

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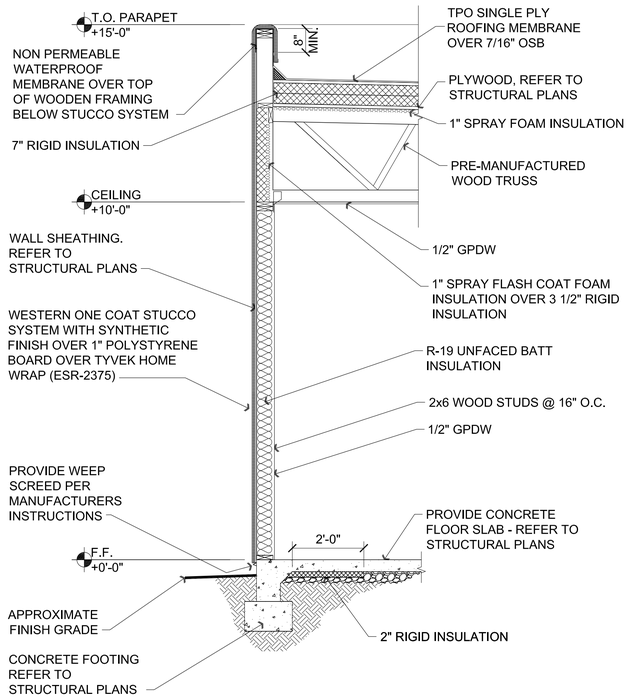
ARCHITECTURE & PLANNING

DRAWING: BUILDING DETAILS

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

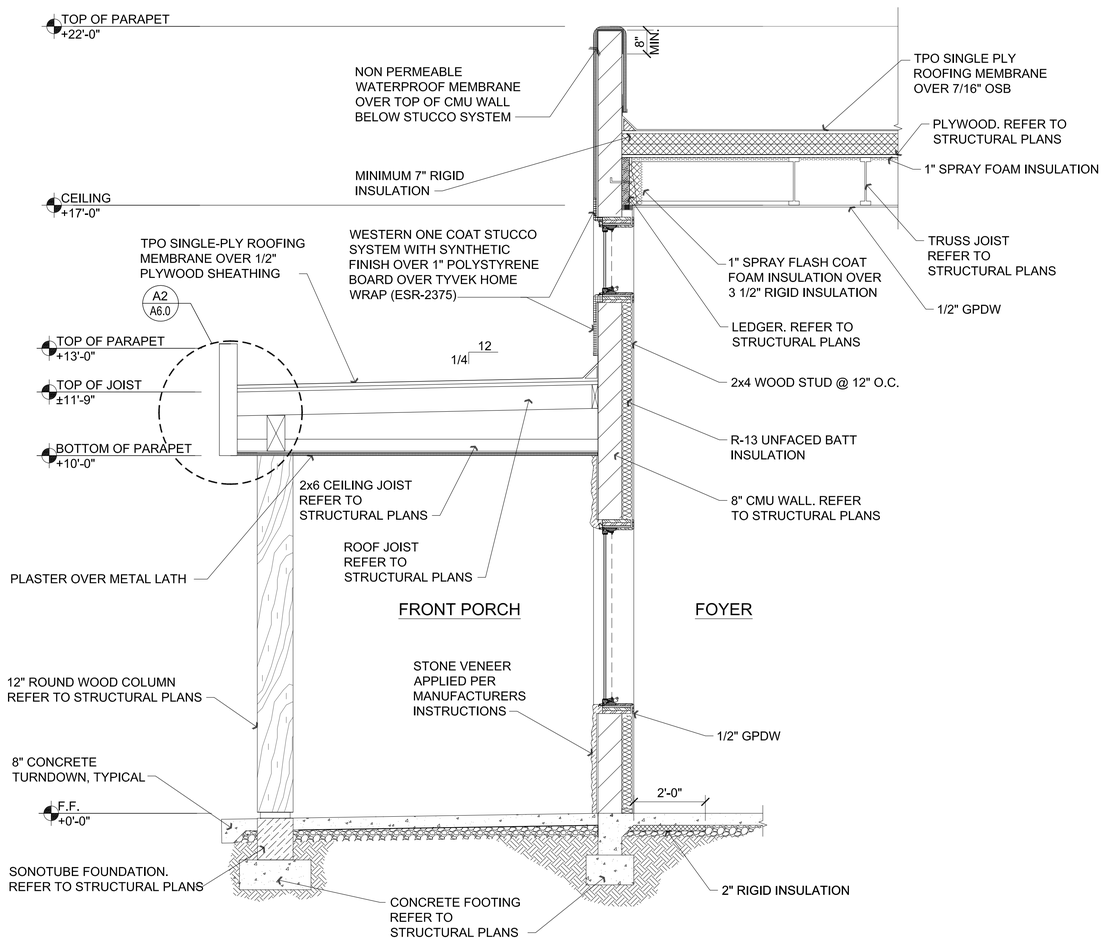
DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A6.2

Jan 29, 2016 - 8:33am



A1 Typical Wall Section

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



A2 Wall Section

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

Jan 29, 2016 - 8:34am

REVISIONS	BY

REGISTERED ARCHITECT
CERTIFICATE NO.
25646
W. ALAN KENSON
Date Signed 01/27/16
ARIZONA
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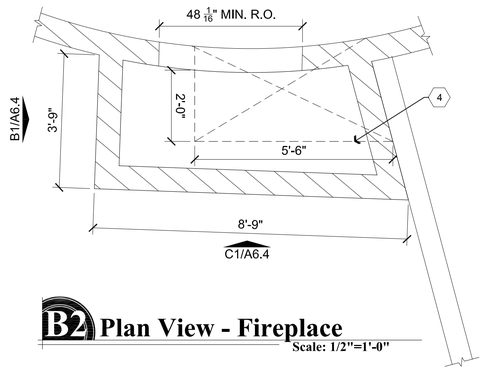
DRAWING: WALL SECTIONS

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A6.3

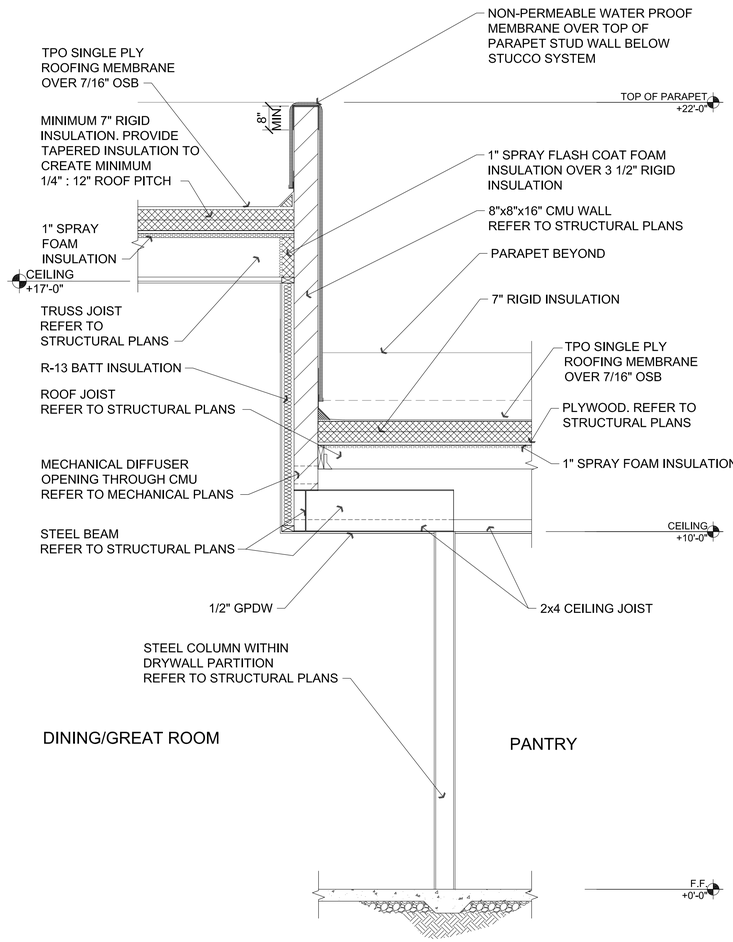


B2 Plan View - Fireplace

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

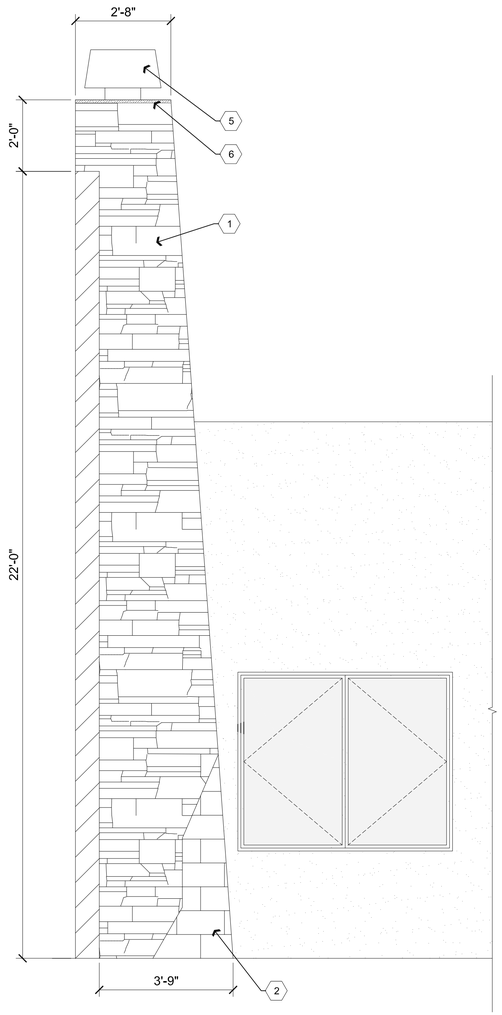
Descriptive Keynotes

1. STONE VENEER OVER METAL LATH .
2. 8"x8"x16" CMU.
3. REFER TO BUILDING PLANS, SECTIONS, WALL SECTIONS AND STRUCTURAL PLANS FOR ROOF, CEILING AND WALL CONSTRUCTION.
4. DASHED LINES INDICATE TOP OF CHIMNEY.
5. DECORATIVE CHIMNEY FLUE CAP.
6. PROVIDE SHEET METAL CAP.



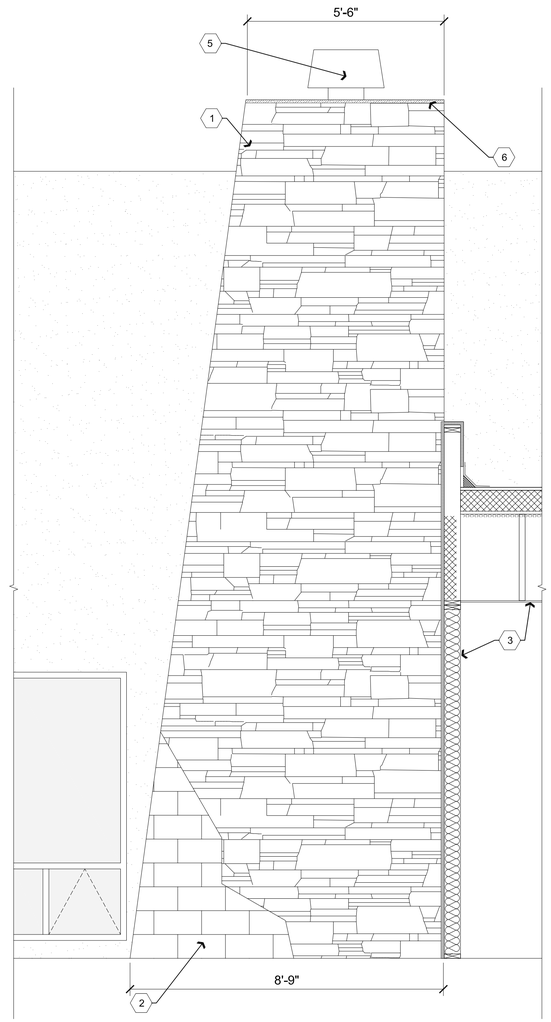
A1 Wall Section

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



B1 Elevation/Section Fireplace

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



C1 Elevation/Section Fireplace

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

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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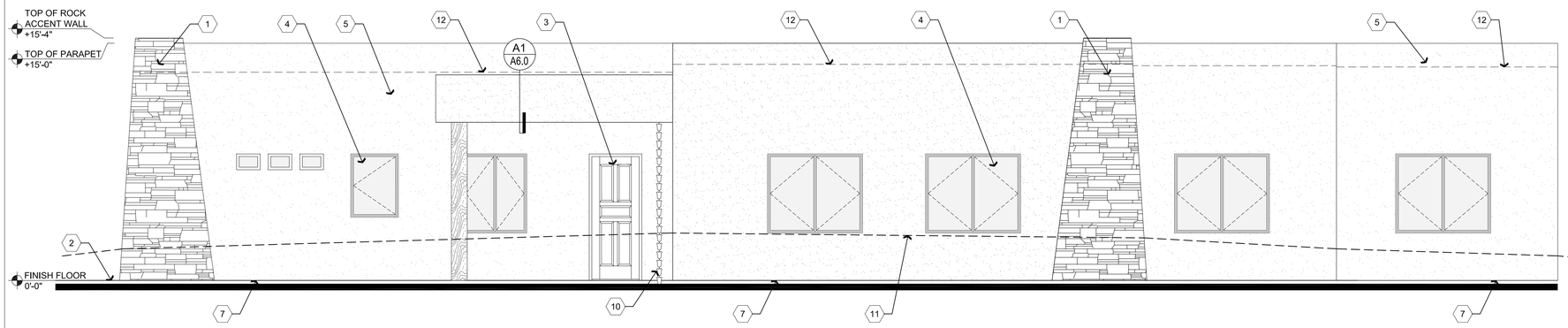
DRAWING: WALL SECTIONS

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A6.4

Jan 29, 2016 - 8:34am



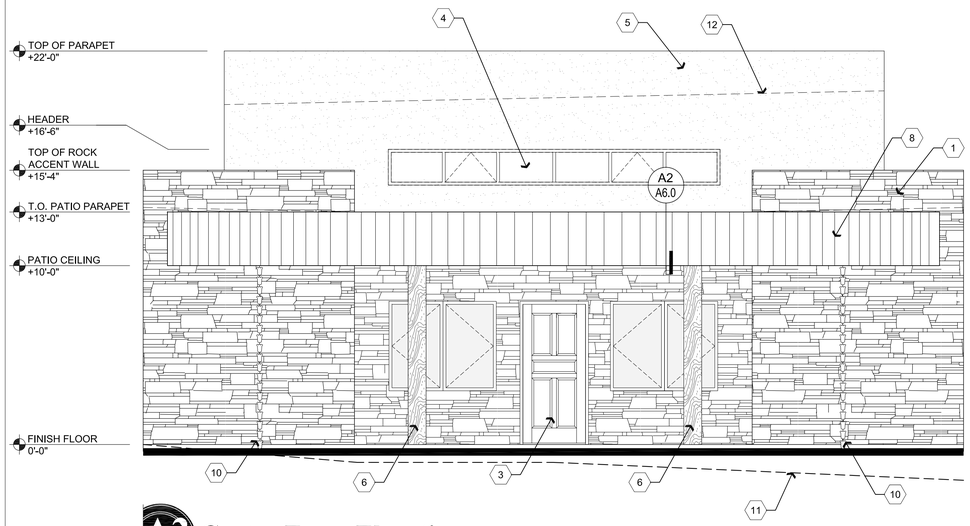
A3 East Wing Front Elevation

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

Descriptive Keynotes

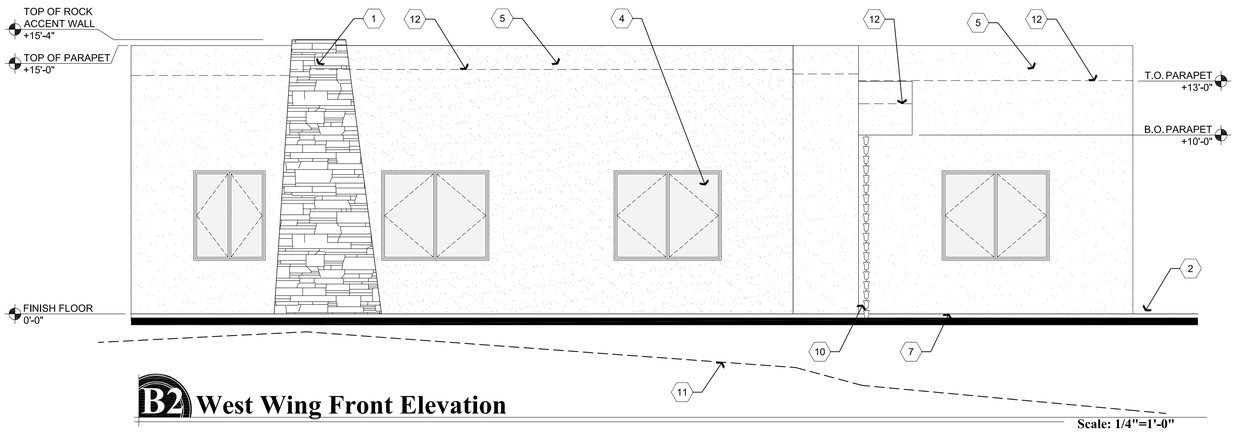
AC-1

1. STONE VENEER FINISH.
2. FINISH GRADE TO SLOPE AWAY FROM STRUCTURE.
3. EXTERIOR DOOR. REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
4. EXTERIOR WINDOW. REFER TO REFERENCE FLOOR PLAN AND WINDOW TYPES.
5. PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC FINISH OVER 1" POLYSTYRENE OVER TYVEK HOME WRAP (ESR-2375).
6. PROVIDE 12" ROUND WOOD COLUMNS. REFER TO STRUCTURAL PLANS.
7. PROVIDE STUCCO WEEP SCREED 1" BELOW TOP OF CONCRETE FLOOR SLAB.
8. CORTEN FASCIA METAL PANEL.
9. HVAC CONDENSER ON PRE-MANUFACTURED PAD.
10. RAIN CHAIN.
11. EXISTING GROUND ELEVATION PRIOR TO GRADING OF THE SITE.
12. PROPOSED ROOF LINE BEHIND PARAPETS.



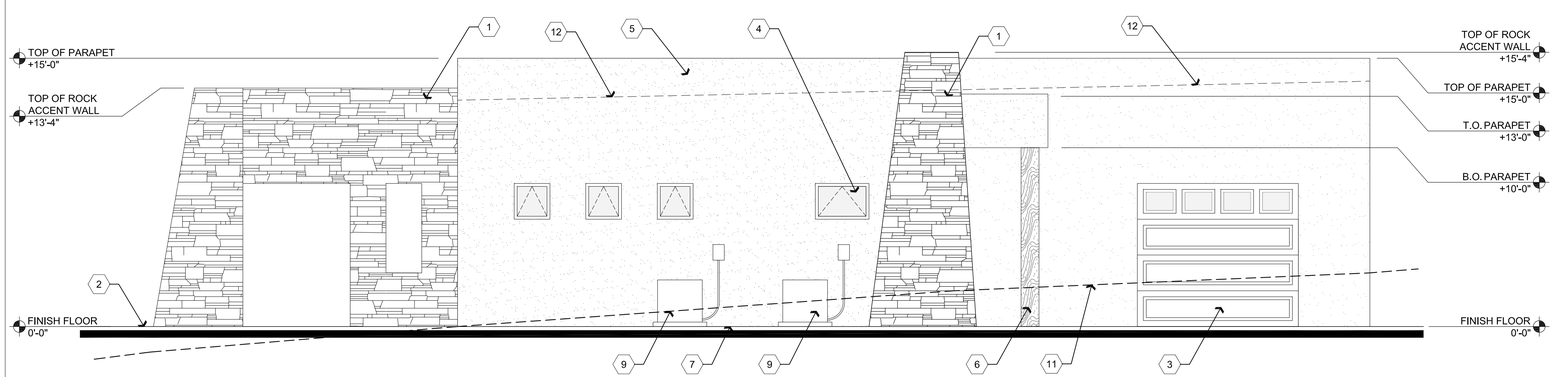
A2 Center Front Elevation

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



B2 West Wing Front Elevation

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



A1 East Wing Side Elevation

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

Jan 29, 2016 - 8:34am

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, U.S.A. EXPIRES: 6/30/18

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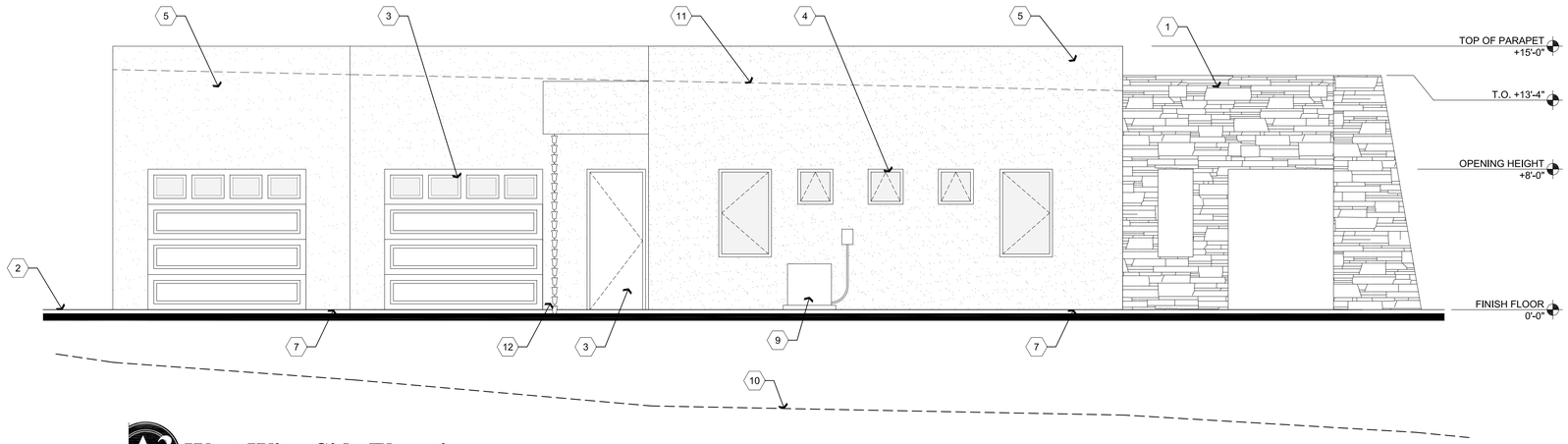
DRAWING: EXTERIOR ELEVATIONS

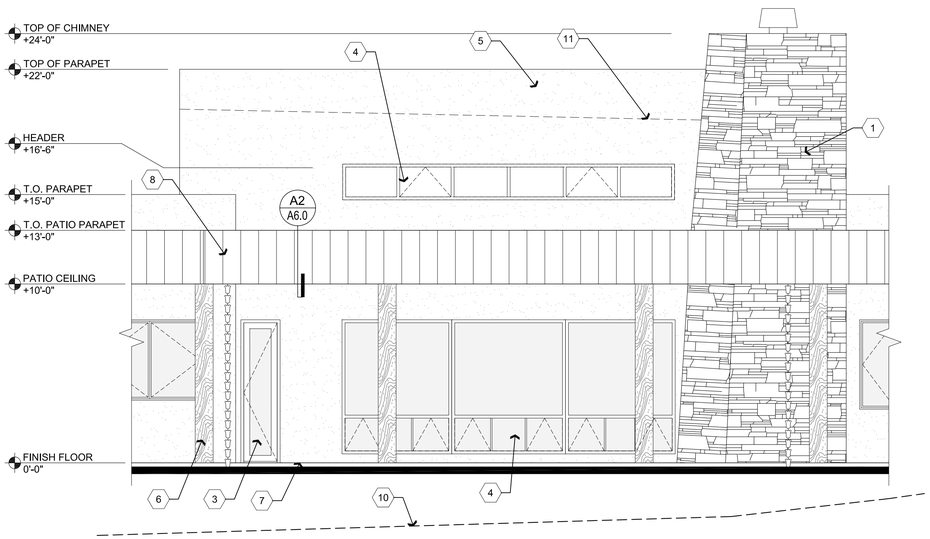
PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A7.0



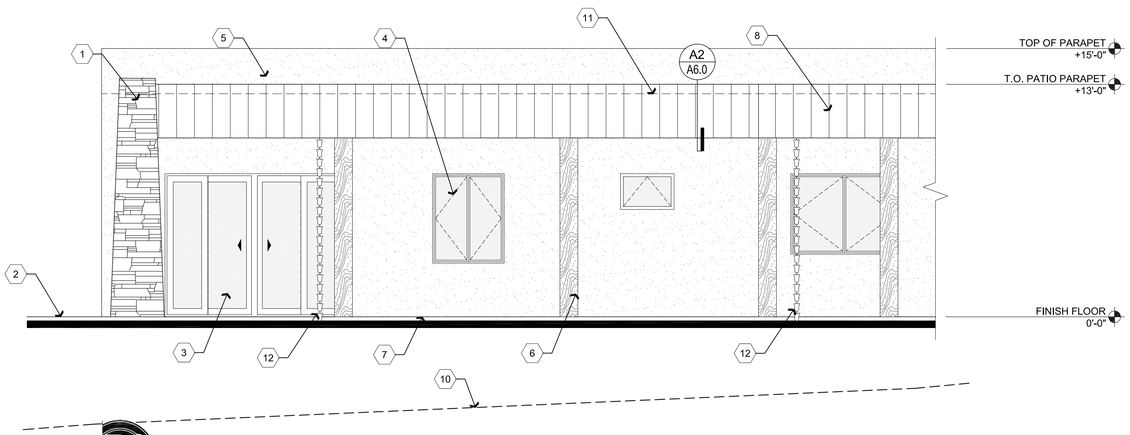
A3 West Wing Side Elevation

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



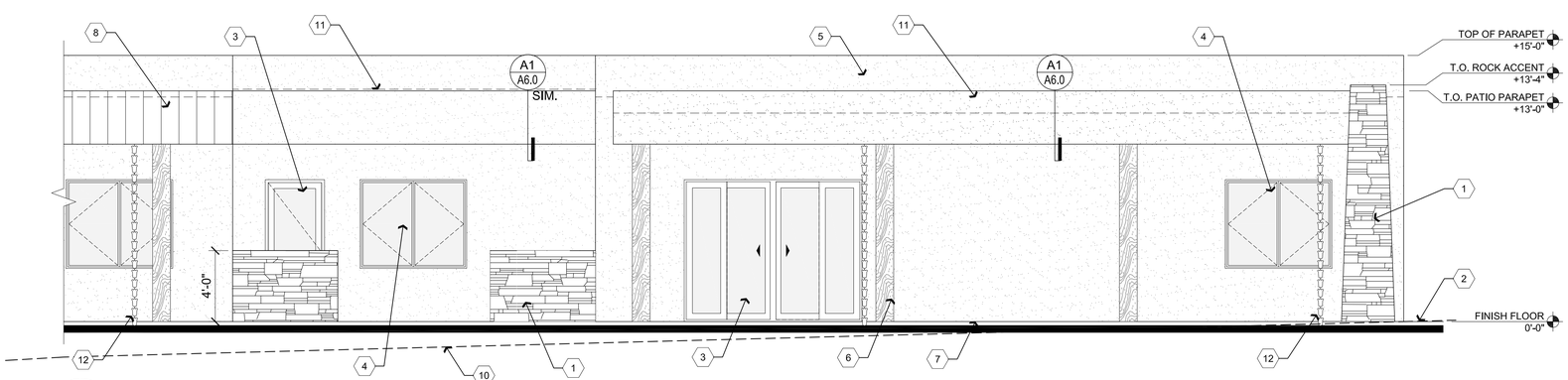
A2 Center Rear Elevation

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



B2 West Wing Rear Elevation

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



A1 East Wing Rear Elevation

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

Descriptive Keynotes

1. STONE VENEER FINISH.
2. FINISH GRADE TO SLOPE AWAY FROM STRUCTURE.
3. EXTERIOR DOOR. REFER TO REFERENCE FLOOR PLAN AND DOOR SCHEDULE.
4. EXTERIOR WINDOW. REFER TO REFERENCE FLOOR PLAN AND WINDOW TYPES.
5. PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC FINISH OVER 1" POLYSTYRENE OVER TYVEK HOME WRAP (ESR-2375).
6. PROVIDE 12" ROUND WOOD COLUMNS. REFER TO STRUCTURAL PLANS.
7. PROVIDE STUCCO WEEP SCREED 1" BELOW TOP OF CONCRETE FLOOR SLAB.
8. CORTEN FASCIA METAL PANEL.
9. HVAC CONDENSER ON PRE-MANUFACTURED PAD.
10. EXISTING GROUND ELEVATION PRIOR TO GRADING OF THE SITE.
11. PROPOSED ROOF LINE. BEHIND PARAPETS
12. RAIN CHAIN.

REVISIONS	BY

REGISTERED ARCHITECT
CERTIFICATE NO.
25646
W. ALAN KENSON
Date Signed 01/27/16
ARIZONA, U.S.A.
EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

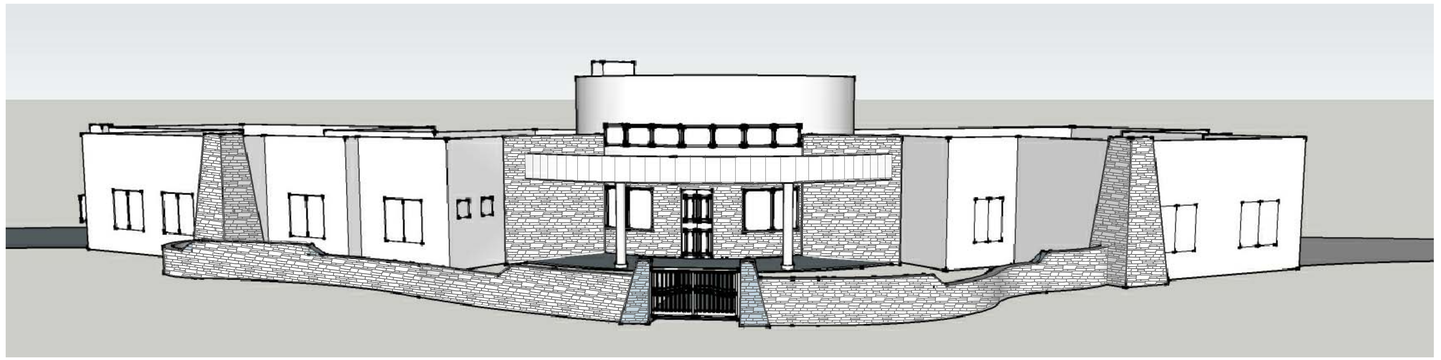
DRAWING: EXTERIOR ELEVATIONS

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A7.1

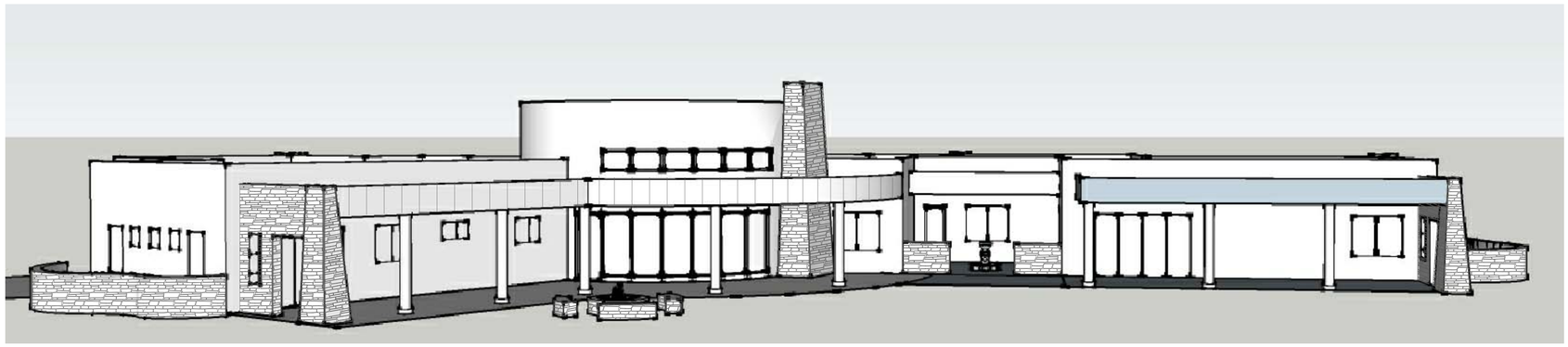
Jan 29, 2016 - 8:34am

NOTE: REFER TO EXTERIOR ELEVATION SHEETS FOR NOTES.



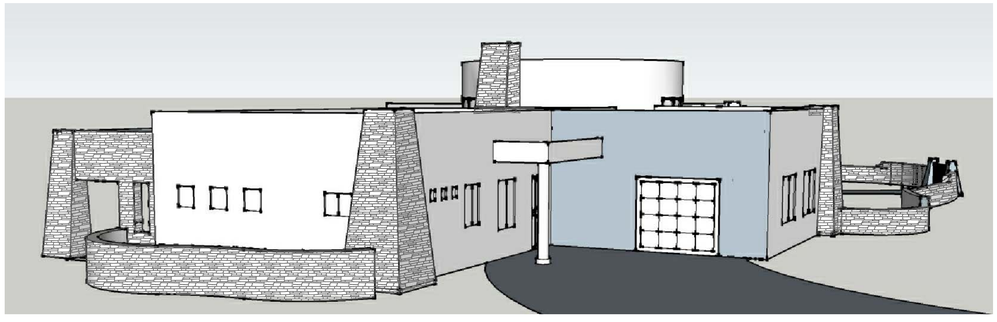
A3 North View

Scale: n.t.s.



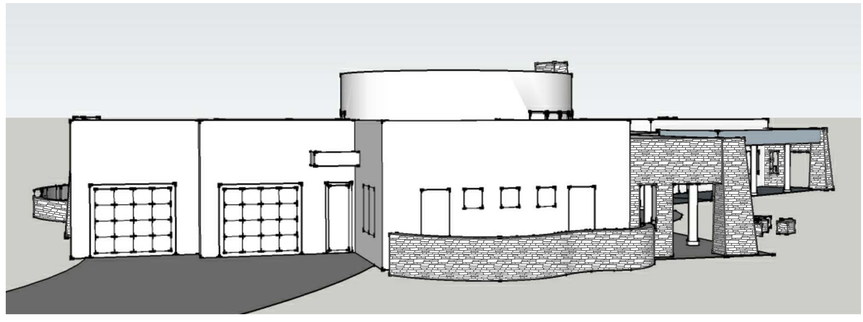
A2 South View

Scale: n.t.s.



A1 East View

Scale: n.t.s.



B1 West View

Scale: n.t.s.

Jan 29, 2016 - 8:35am

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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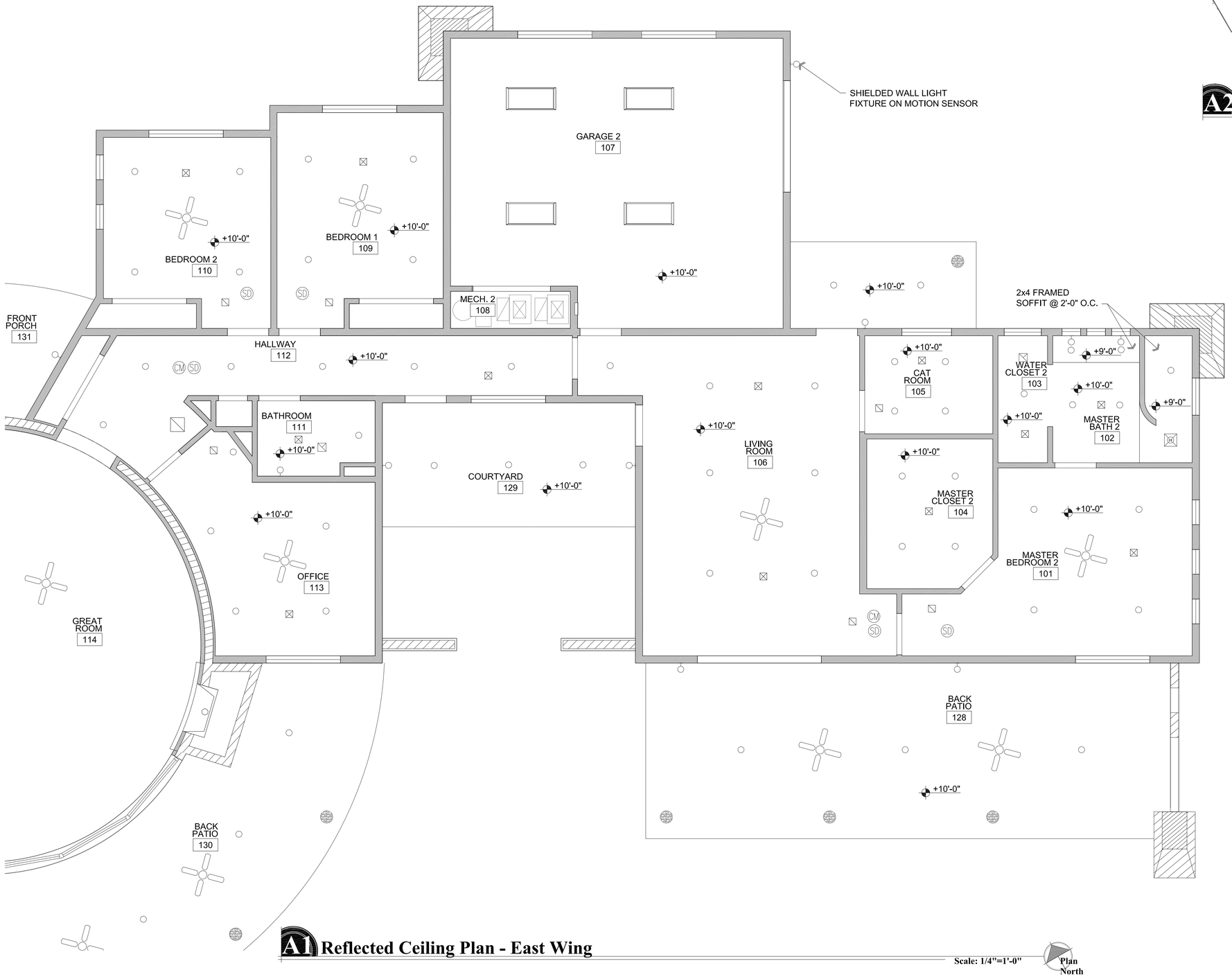
ARCHITECTURE & PLANNING

DRAWING: 3 DIMENSIONAL EXTERIOR ELEVATIONS

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

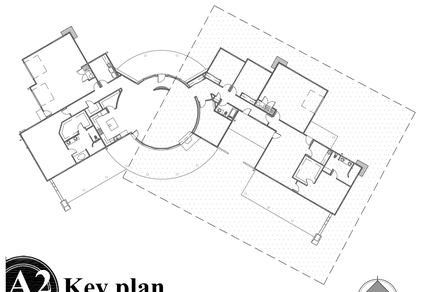
DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A7.2



A1 **Reflected Ceiling Plan - East Wing**

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

Plan North



A2 **Key plan**

Scale: n.t.s.

Plan North

Legend

- TYPICALLY INDICATES CEILING FAN
- TYPICALLY INDICATES 2' x 4' SURFACE MOUNTED FLUORESCENT LIGHT FIXTURE
- SD — TYPICALLY INDICATES SMOKE DETECTOR
- CM — TYPICALLY INDICATES CARBON MONOXIDE ALARM
- TYPICALLY INDICATES EXHAUST FAN
- TYPICALLY INDICATES RECESSED INCANDESCENT LIGHT FIXTURE
- TYPICALLY INDICATES SUSPENDED PENDANT LIGHT FIXTURE
- TYPICALLY INDICATES WALL MOUNTED LIGHT FIXTURE
- TYPICALLY INDICATES SUSPENDED CHANDELIER LIGHT FIXTURE
- TYPICALLY INDICATES RETURN AIR
- TYPICALLY INDICATES SUPPLY AIR
- EX — TYPICALLY INDICATES EXHAUST FAN WITH HEAT LAMP

NOTES:

- EXTERIOR CEILING SURFACES ARE TO BE PORTLAND CEMENT PLASTER WITH ACRYLIC EIFS FINISH.
- INTERIOR CEILING SURFACES ARE TO BE PAINTED GPDW.

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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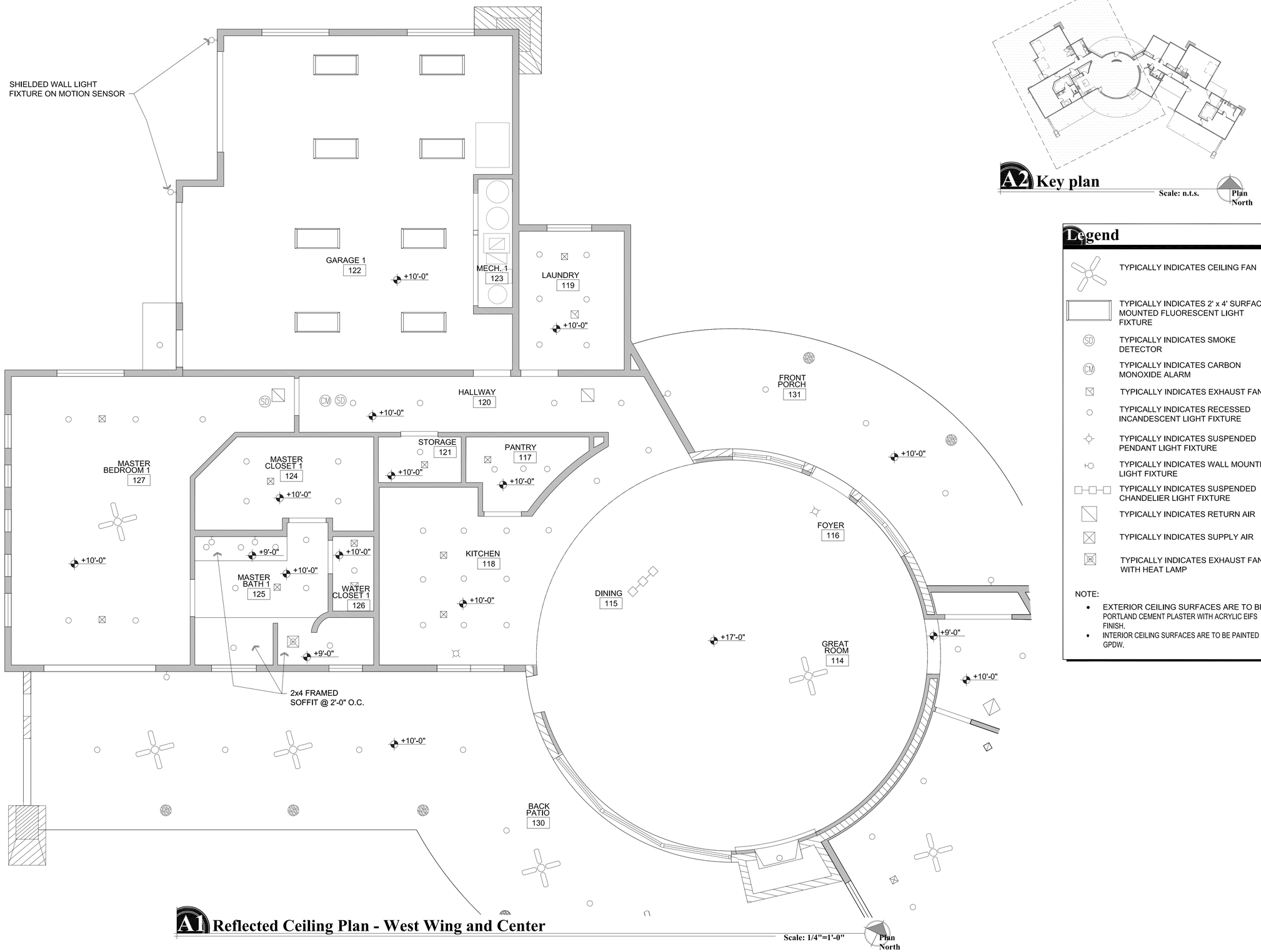
ARCHITECTURE & PLANNING

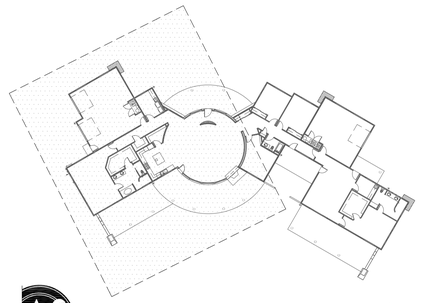
DRAWING: REFLECTED CEILING PLAN - EAST WING

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	**A8.0**

Jan 29, 2016 - 8:35am





A2 Key plan

Scale: n.t.s.

Plan North

Legend

- TYPICALLY INDICATES CEILING FAN
- TYPICALLY INDICATES 2' x 4' SURFACE MOUNTED FLUORESCENT LIGHT FIXTURE
- SD — TYPICALLY INDICATES SMOKE DETECTOR
- CM — TYPICALLY INDICATES CARBON MONOXIDE ALARM
- TYPICALLY INDICATES EXHAUST FAN
- TYPICALLY INDICATES RECESSED INCANDESCENT LIGHT FIXTURE
- TYPICALLY INDICATES SUSPENDED PENDANT LIGHT FIXTURE
- TYPICALLY INDICATES WALL MOUNTED LIGHT FIXTURE
- TYPICALLY INDICATES SUSPENDED CHANDELIER LIGHT FIXTURE
- TYPICALLY INDICATES RETURN AIR
- TYPICALLY INDICATES SUPPLY AIR
- EF — TYPICALLY INDICATES EXHAUST FAN WITH HEAT LAMP

NOTE:

- EXTERIOR CEILING SURFACES ARE TO BE PORTLAND CEMENT PLASTER WITH ACRYLIC EIFS FINISH.
- INTERIOR CEILING SURFACES ARE TO BE PAINTED GPDW.

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

DRAWING: REFLECTED CEILING PLAN - WEST WING AND CENTER

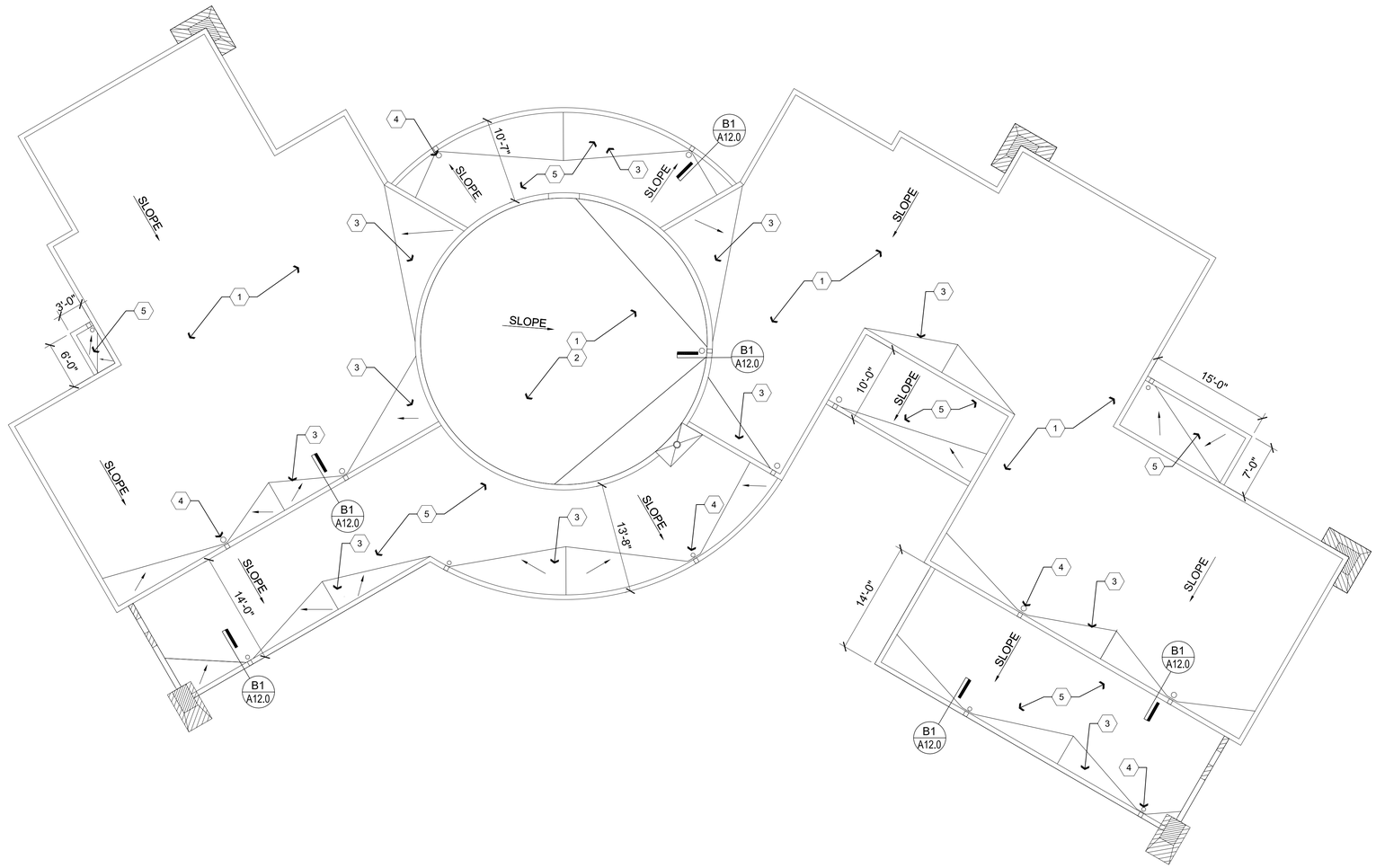
PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	**A8.1**

Jan 29, 2016 - 8:35am

Descriptive Keynotes

1. TPO SINGLE PLY ROOFING MEMBRANE OVER 7/16" OSB.
2. PROVIDE TAPERED INSULATION @ 1/4" : 12" OVER MINIMUM 7" THICK RIGID INSULATION BOARD.
3. PROVIDE CRICKET, TYPICAL. SLOPE SHALL BE DOUBLE THAT OF ADJACENT ROOF SLOPE.
4. ROOF DRAIN AND OVERFLOW, TYPICAL. REFER TO ROOF DRAINAGE PLAN.
5. TPO SINGLE PLY ROOFING MEMBRANE OVER 1/2" PLYWOOD.



A1 Roof Plan

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

Plan North

W. Alan Kenson & Associates, P.C.

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ARCHITECTURE & PLANNING

DRAWING: ROOF PLAN

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: JANUARY 27, 2016
SCALE: AS NOTED
JOB NO.: 674
SHEET: **A9.0**

Jan 29, 2016 - 8:35am

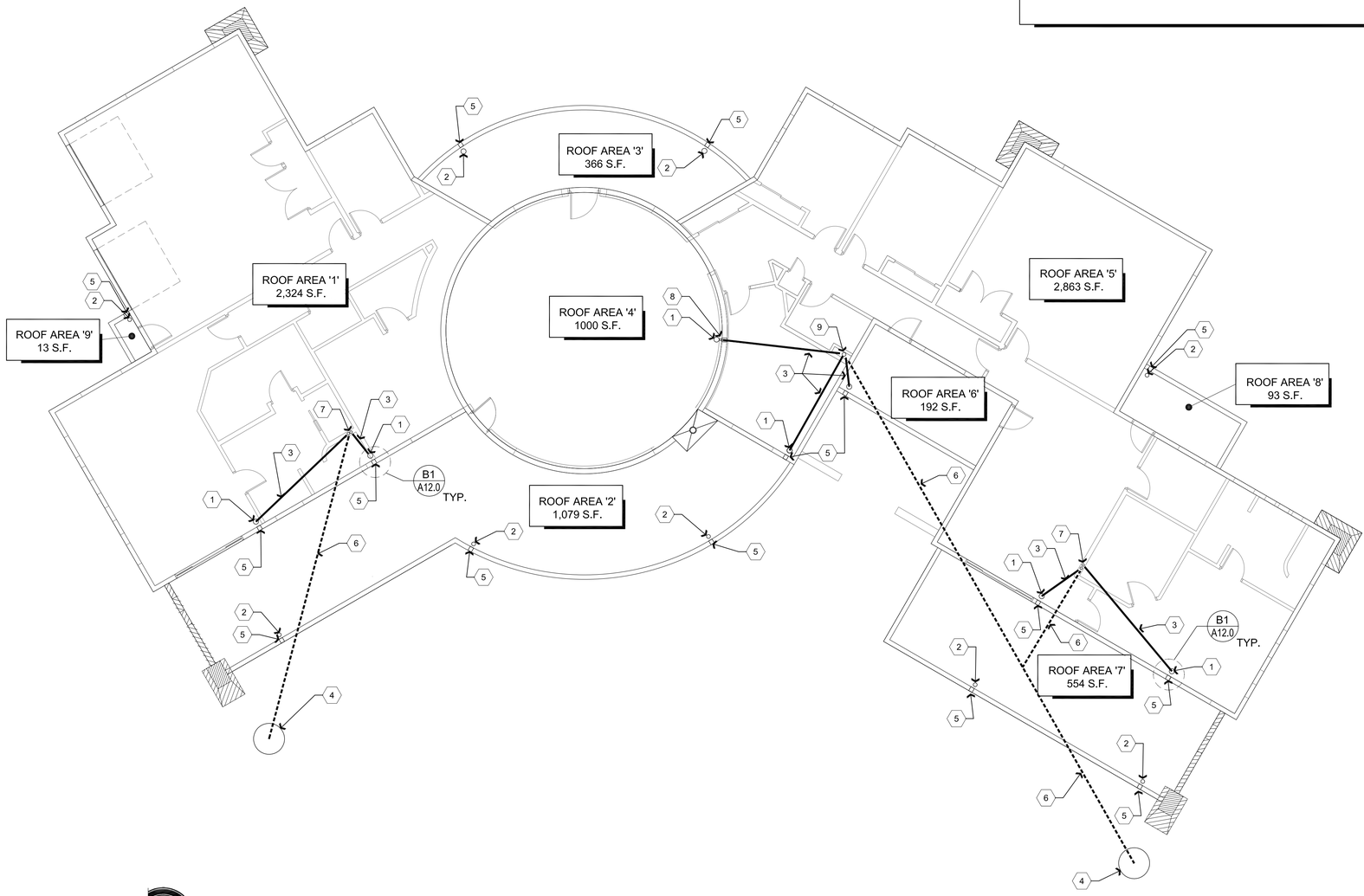
Descriptive Keynotes

1. 3" ROOF DRAIN.
2. 3" ROOF DRAIN WITH RAIN CHAIN BY OWNER.
3. 3" SCHEDULE 40 PVC DRAIN LINE.
4. UNDERGROUND RAIN WATER COLLECTION TANK BY OWNER.
5. 6"x3" OVERFLOW OPENING THROUGH PARAPET.
6. 6" SCHEDULE 40 PVC DRAIN LINE BELOW GRADE.
7. (2) - 3" SCHEDULE 40 PVC DRAIN LINE IN WALL.
8. 3" SCHEDULE 40 PVC DRAIN LINE IN WALL.
9. 6" SCHEDULE 40 PVC DRAIN LINE IN WALL.

Roof Drain Leader Sizes:

PER 2012 IPC SECTION 1106 (TABLE 1106.2)

1. ROOF AREA '1': 2,324 S.F. x 3" RAINFALL P.H. = (1) 3" DIAMETER LEADER REQUIRED (2) 3" LEADERS PROVIDED
2. ROOF AREA '2': 1,079 S.F. x 3" RAINFALL P.H. = (1) 3" DIAMETER LEADER REQUIRED (3) 3" LEADERS PROVIDED (3 RAIN CHAINS)
3. ROOF AREA '3: 366 S.F. x 3" RAINFALL P.H. = (1) 2" DIAMETER LEADER REQUIRED (2) 3" DIA. LEADERS PROVIDED (2 RAIN CHAINS)
4. ROOF AREA '4' 1,000 S.F. x 3" RAINFALL P.H. = (1) 3" DIAMETER LEADER REQUIRED (1) 3" LEADER PROVIDED
5. ROOF AREA '5' 2,863 S.F. x 3" RAINFALL P.H. = (2) 3" DIAMETER LEADER REQUIRED (3) 3" LEADERS PROVIDED
6. ROOF AREA '6' 192 S.F. x 3" RAINFALL P.H. = (1) 2" DIAMETER LEADER REQUIRED (1) 3" LEADERS PROVIDED
7. ROOF AREA '7' 554 S.F. x 3" RAINFALL P.H. = (1) 2" DIAMETER LEADER REQUIRED (2) 3" LEADERS PROVIDED (2 RAIN CHAINS)
8. ROOF AREA '8' 93 S.F. x 3" RAINFALL P.H. = (1) 2" DIAMETER LEADER REQUIRED (1) 3" LEADERS PROVIDED (1 RAIN CHAIN)
9. ROOF AREA '9' 13 S.F. x 3" RAINFALL P.H. = (1) 2" DIAMETER LEADER REQUIRED (1) 3" LEADERS PROVIDED (1 RAIN CHAIN)



A1 Roof Drainage Plan

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

Plan North

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

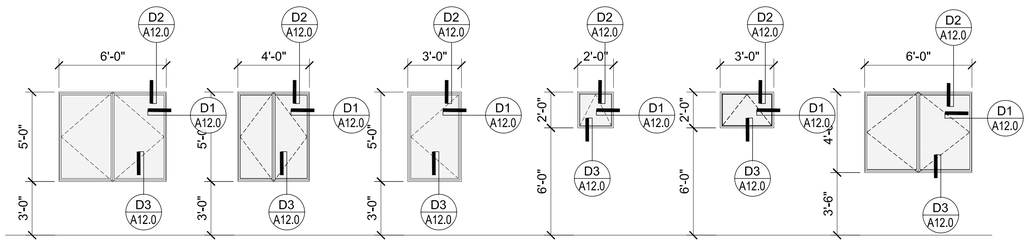
DRAWING: ROOF DRAINAGE PLAN

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A9.1

Jan 29, 2016 - 8:36am

NOTE:
ALL WINDOWS ALUMINUM CLAD
EXTERIOR, WOOD INTERIOR



A DOUBLE CASEMENT
U-FACTOR: MAX 0.40

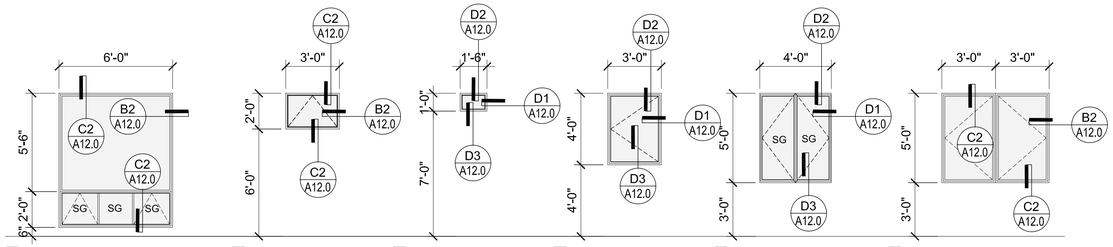
B DOUBLE CASEMENT
U-FACTOR: MAX 0.40

C SINGLE CASEMENT
U-FACTOR: MAX 0.40

D AWNING
U-FACTOR: MAX 0.40

E AWNING (SHOWER)
U-FACTOR: MAX 0.40

F DOUBLE CASEMENT
U-FACTOR: MAX 0.40



G FIXED AND DOUBLE CASEMENT
FIXED U-FACTOR: MAX 0.40
CASEMENT U-FACTOR: MAX 0.40

H AWNING, 6 UNITS
MULLED TOGETHER
(2 AWNING & 4 FIXED,
UPPER ATRIUM)
U-FACTOR: MAX 0.40

I FIXED
U-FACTOR: MAX 0.40

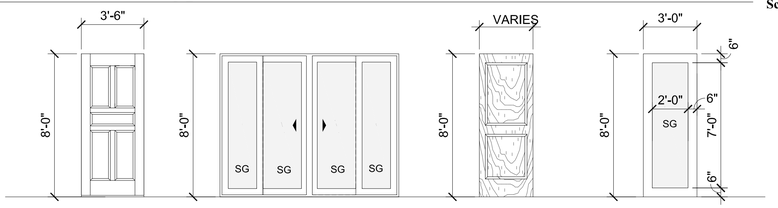
J SINGLE CASEMENT
U-FACTOR: MAX 0.40

K DOUBLE CASEMENT
WITH SAFETY GLAZING
U-FACTOR: MAX 0.40

L CASEMENT, 2 UNITS
MULLED TOGETHER
U-FACTOR: MAX 0.40

A2 Window Types

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

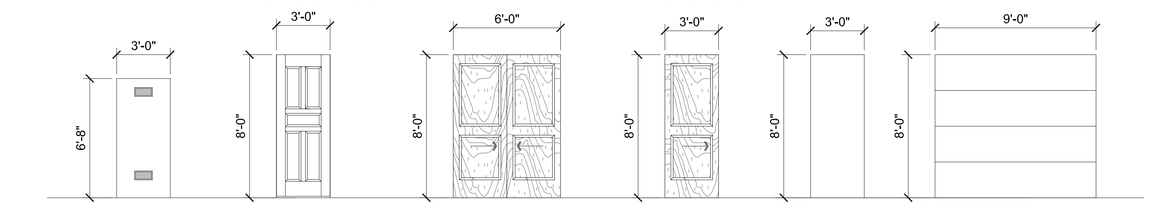


A SOLID CORE DOOR

B ALUMINUM CLAD EXTERIOR,
WOOD INTERIOR
SLIDING GLASS DOOR
U-FACTOR: MAX 0.40

C INTERIOR RAISED
PANEL DOOR

D ALUMINUM CLAD EXTERIOR,
WOOD INTERIOR
w/ SAFETY GLASS LIGHT
U-FACTOR: MAX 0.40



E INTERIOR DOOR WITH
HIGH AND LOW LOUVERS.
REFER TO MECHANICAL
PLANS FOR SIZE AND
LOCATION OF LOUVERS.

J SOLID CORE DOOR

F BI-PASS CLOSET
DOORS

G POCKET DOOR

H HOLLOW METAL
DOOR

I SECTIONAL
OVERHEAD
GARAGE DOOR

A1 Door Types

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

Door Schedule

NO.	ROOM NAME	SIZE	TYPE	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	HARDWARE TYPE	COMMENTS
101A	MASTER BEDROOM 2	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	A	
102A	MASTER BATH 2	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	A	
104A	MASTER CLOSET 2	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	B	
105A	CAT ROOM	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	B	
106A	LIVING ROOM	3'-0"x8'-0"	J	WOOD	STAIN	WOOD	STAIN	D	EXTERIOR
106B	LIVING ROOM	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	D	EXTERIOR
106C	LIVING ROOM	10'-0"x8'-0"	B	WOOD	STAIN	WOOD	STAIN	F	SLIDER
107A	GARAGE	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	D	20 MINUTE FIRE RATED, PROVIDE SELF-CLOSING HINGES
107B	GARAGE	9'-0"x8'-0"	I	WOOD/STEEL	PAINT	WOOD	PAINT	E	
108A	MECHANICAL	(2) 3'-0"x6'-8"	E	WD/MASONITE	PAINT	WOOD	PAINT	B	WITH LOUVERS, REFER TO MECHANICAL
109A	BEDROOM 1	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	A	
109B	BEDROOM 1	6'-0"x8'-0"	F	WOOD	STAIN	WOOD	STAIN	-	BI-PASS DOORS
110A	BEDROOM 2	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	A	
110B	BEDROOM 2	6'-0"x8'-0"	F	WOOD	STAIN	WOOD	STAIN	-	BI-PASS DOORS
111A	BATHROOM	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	A	
112A	HALLWAY	6'-0"x8'-0"	F	WOOD	STAIN	WOOD	STAIN	-	BI-PASS DOORS
112B	HALLWAY	2'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	B	
112C	HALLWAY	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	D	EXTERIOR
112D	HALLWAY	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	D	NO WEATHER STRIP OR THRESHOLD REQUIRED
113A	OFFICE	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	A	
115A	DINING	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	D	EXTERIOR
116A	FOYER	3'-6"x8'-0"	A	WOOD	STAIN	WOOD	STAIN	D	EXTERIOR
117A	PANTRY	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	B	
119A	LAUNDRY	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	B	
121A	STORAGE	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	B	
122A	GARAGE	3'-0"x8'-0"	H	H.M.	PAINT	H.M.	PAINT	D	EXTERIOR
122B	GARAGE	9'-0"x8'-0"	I	WOOD/STEEL	PAINT	WOOD	PAINT	E	
122C	GARAGE	9'-0"x8'-0"	I	WOOD/STEEL	PAINT	WOOD	PAINT	E	
122D	GARAGE	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	D	20 MINUTE FIRE RATED, PROVIDE SELF-CLOSING HINGES
123A	MECHANICAL	(2) 3'-0"x6'-8"	E	WD/MASONITE	PAINT	WOOD	PAINT	B	WITH LOUVERS, REFER TO MECHANICAL
123B	MECHANICAL	3'-0"x6'-8"	E	WD/MASONITE	PAINT	WOOD	PAINT	B	NO LOUVERS
124A	MASTER CLOSET 1	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	B	
125A	MASTER BATH 1	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	A	
126A	WATER CLOSET 1	3'-0"x8'-0"	G	WOOD	STAIN	WOOD	STAIN	C	POCKET
127A	MASTER BEDROOM 1	3'-0"x8'-0"	C	WOOD	STAIN	WOOD	STAIN	A	
127B	MASTER BEDROOM 1	10'-0"x8'-0"	B	WOOD	STAIN	WOOD	STAIN	F	

NOTES:
1. ALL GLAZING IN DOORS SHALL BE SAFETY GLAZING.
2. ALL GLAZING WITHIN 24" OF OPENINGS SHALL BE SAFETY GLASS.
3. 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.

Door Hardware Schedule

HARDWARE SET A:

LEVER PRIVACY LOCK.

HARDWARE SET B:

LEVER PASSAGE.

HARDWARE SET C:

RECESSED PULL FOR POCKET DOOR.

HARDWARE SET D:

LEVER ENTRY LOCK, WEATHER STRIP, THRESHOLD, DEADBOLT.

HARDWARE SET E:

ELECTRICALLY OPERATED OPENER.

HARDWARE SET F:

BY MANUFACTURER.

REVISIONS	BY

REGISTERED ARCHITECT
CERTIFICATE NO.
25646
W. ALAN
KENSON
Date Signed 01/21/16
ARIZONA, U.S.A.
EXPIRES: 6/30/18

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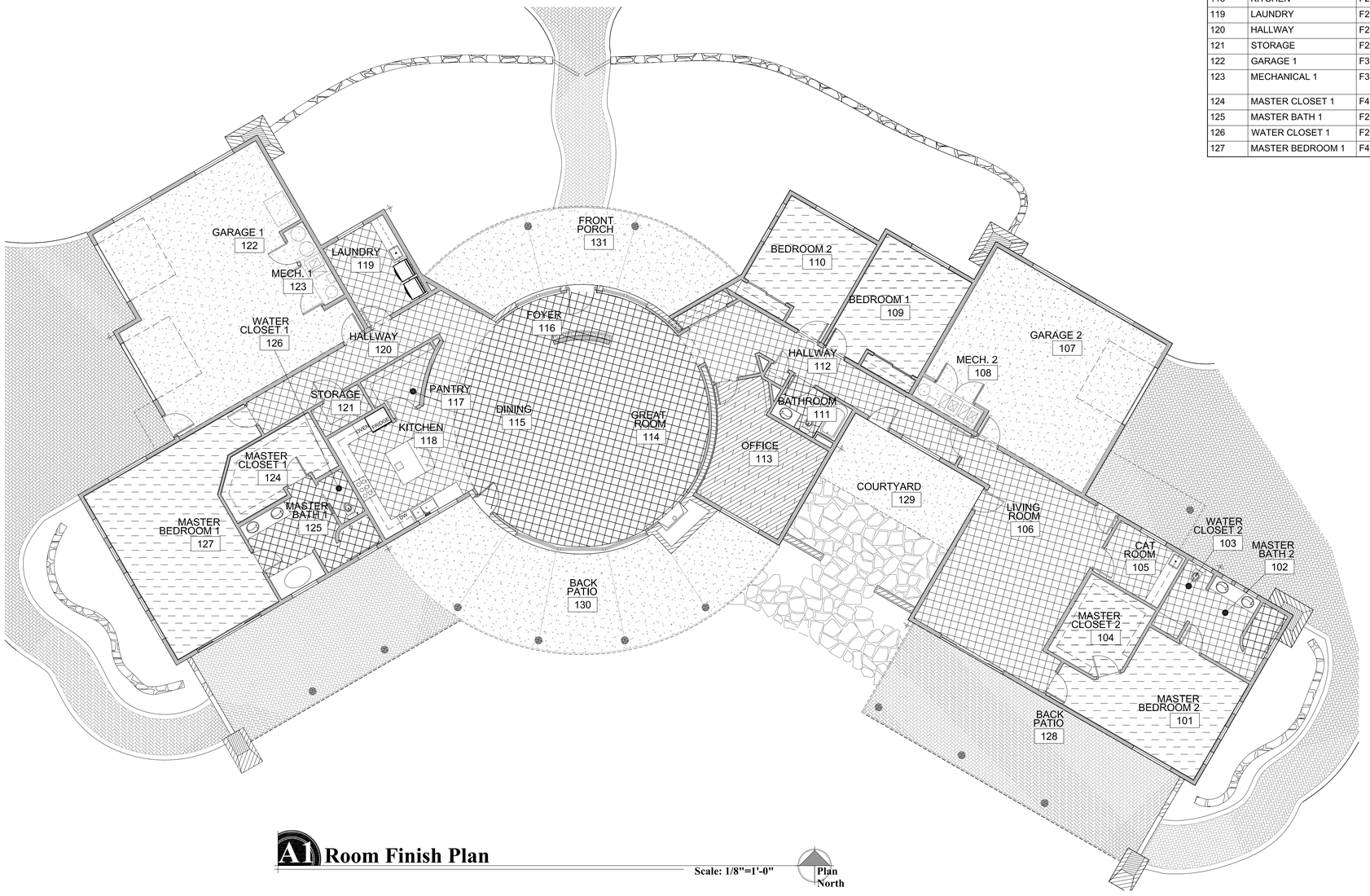
ARCHITECTURE & PLANNING

DRAWING: DOOR AND WINDOW SCHEDULES

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: JANUARY 27, 2016
SCALE: AS NOTED
JOB NO.: 674
SHEET: A10.0

Jan 29, 2016 - 8:36am



A1 Room Finish Plan

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

Plan North

Room Finish Schedule

NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	HEIGHT	COMMENTS
101	MASTER BEDROOM 2	F4	B1	W1	C1	10'-0"	
102	MASTER BATH 2	F2	B2	W1	C1	10'-0"	
103	WATER CLOSET 2	F2	B2	W1	C1	10'-0"	
104	MASTER CLOSET 2	F4	B1	W1	C1	10'-0"	
105	CAT ROOM	F2	B2	W1	C1	10'-0"	
106	LIVING ROOM	F2	B2	W1	C1	10'-0"	
107	GARAGE 2	F3	B3/B1	W1	C1	10'-0"	
108	MECHANICAL 2	F3	B3	W1	C1	10'-0"	PROVIDE 18" HIGH RAISED PLATFORM
109	BEDROOM 1	F2	B2	W1	C1	10'-0"	
110	BEDROOM 2	F2	B2	W1	C1	10'-0"	
111	BATHROOM	F2	B2	W1	C1	10'-0"	
112	HALLWAY	F2	B2	W1	C1	10'-0"	
113	OFFICE	F1	B1	W1	C1	10'-0"	
114	GREAT ROOM	F2	B2	W1	C1	17'-0"	
115	DINING	F2	B2	W1	C1	17'-0"	
116	FOYER	F2	B2	W1	C1	17'-0"	
117	PANTRY	F2	B2	W1	C1	10'-0"	
118	KITCHEN	F2	B2	W1	C1	10'-0"	
119	LAUNDRY	F2	B2	W1	C1	10'-0"	
120	HALLWAY	F2	B2	W1	C1	10'-0"	
121	STORAGE	F2	B2	W1	C1	10'-0"	
122	GARAGE 1	F3	B3/B1	W1	C1	10'-0"	
123	MECHANICAL 1	F3	B3	W1	C1	10'-0"	PROVIDE 18" HIGH RAISED PLATFORM
124	MASTER CLOSET 1	F4	B1	W1	C1	10'-0"	
125	MASTER BATH 1	F2	B2	W1	C1	10'-0"	
126	WATER CLOSET 1	F2	B2	W1	C1	10'-0"	
127	MASTER BEDROOM 1	F4	B1	W1	C1	10'-0"	

FLOORS:
F1 ENGINEERED WOOD FLOORING
F2 CERAMIC TILE
F3 EXPOSED CONCRETE
F4 CARPET

BASE:
B1 WOOD
B2 CERAMIC TILE
B3 NONE

WALLS:
W1 PAINTED GPDW

CEILING:
C1 PAINTED GPDW

Legend:

- TYPICALLY INDICATES ENGINEERED, TONGUE & GROOVE HARDWOOD FLOORING
- TYPICALLY INDICATES CERAMIC TILE FLOORING
- TYPICALLY INDICATES CONCRETE SURFACE
- TYPICALLY INDICATES CARPET
- TYPICALLY INDICATES CONCRETE PAVERS

REVISIONS	BY

REGISTERED ARCHITECT
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Date Signed 01/27/16
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EXPIRES: 6/30/18

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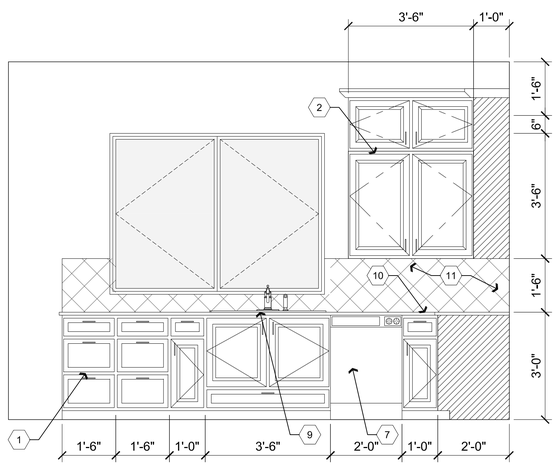
ARCHITECTURE & PLANNING

DRAWING: ROOM FINISH PLAN & SCHEDULE

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

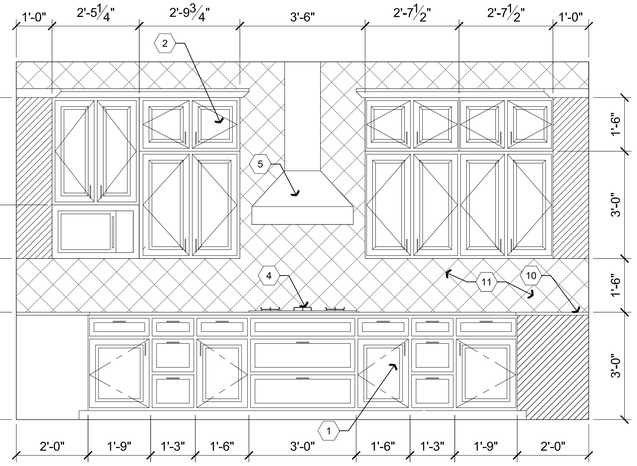
DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: JANUARY 27, 2016
SCALE: AS NOTED
JOB NO. 674
SHEET: A10.1

Jan 29, 2016 - 8:36am



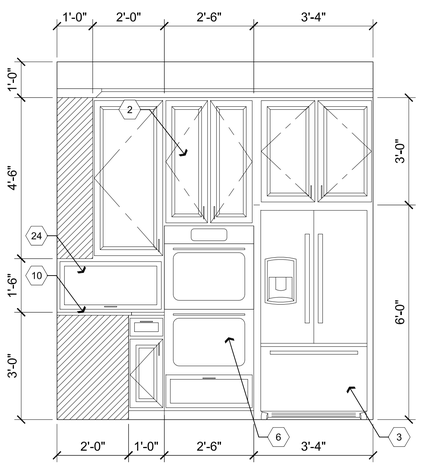
A3 Kitchen Elevation

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



B3 Kitchen Elevation

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



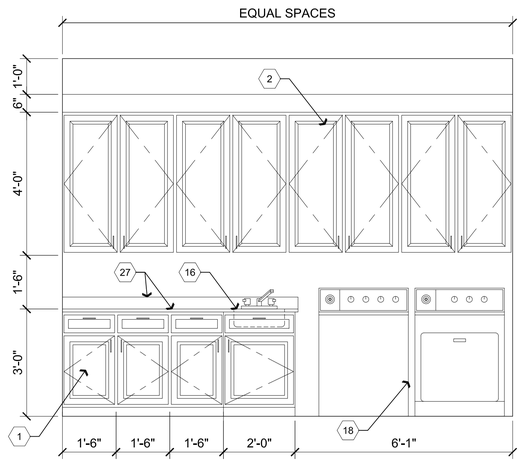
C3 Kitchen Elevation

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

Descriptive Keynotes

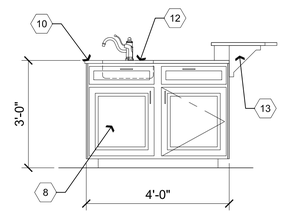
AC-1

1. PROVIDE WOOD BASE CABINETRY.
2. PROVIDE WOOD UPPER CABINETRY.
3. REFRIGERATOR/FREEZER BY OWNER.
4. COOKTOP AS SELECTED BY OWNER.
5. RANGE HOOD AS SELECTED BY OWNER.
6. DOUBLE OVENS AS SELECTED BY OWNER.
7. DISHWASHER AS SELECTED BY OWNER.
8. FINISHED END PANEL.
9. SINK AS SELECTED BY OWNER.
10. GRANITE COUNTERTOP AS SELECTED BY OWNER.
11. TILE BACKSPLASH AS SELECTED BY OWNER.
12. PROVIDE SINK AS SELECTED BY OWNER.
13. COUNTERTOP SUPPORT.
14. PROVIDE CERAMIC TILE FINISH OVER 2x WOOD FRAMED BATH TUB SURROUND.
15. PROVIDE BATH TUB AS SELECTED BY OWNER.
16. PROVIDE UTILITY SINK SET INTO COUNTERTOP.
17. PROVIDE BELOW COUNTER VANITY SINK.
18. CLOTHES WASHER AND DRYER BY OWNER. STUB OUT FOR PROPANE.
19. MIRROR AS SELECTED BY OWNER.
20. VANITY LIGHT AS SELECTED BY OWNER.
21. QUARTZITE COUNTERTOP AS SELECTED BY OWNER.
22. QUARTZITE BACKSPLASH AS SELECTED BY OWNER.
23. SHELF BRACKETS AS SELECTED BY OWNER.
24. APPLIANCE GARAGE.
25. WINDOW. REFER TO REFERENCE FLOOR PLAN AND WINDOW TYPES.
26. CERAMIC TILE.
27. PLASTIC LAMINATE COUNTERTOP AND BACKSPLASH AS SELECTED BY OWNER.
28. 4" GRANITE BACKSPLASH.



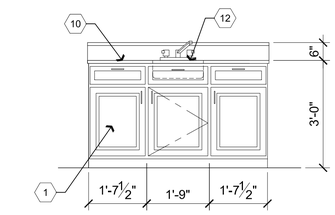
A2 Laundry Room Elevation

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



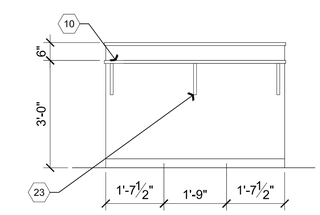
B2 Kitchen Island Elevation

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



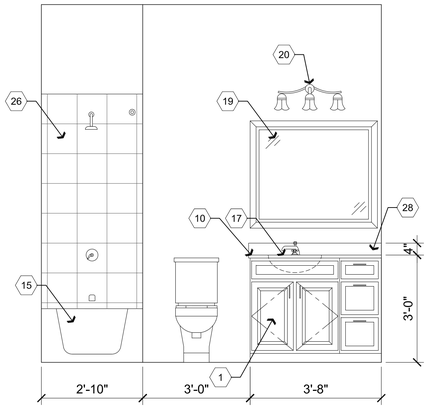
C2 Kitchen Island Elevation

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



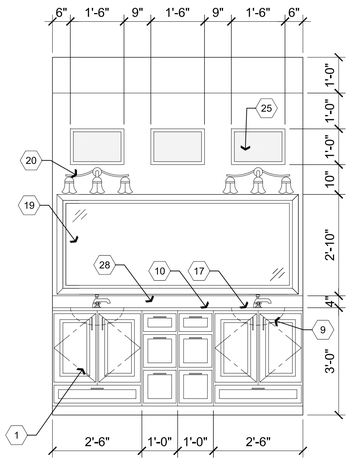
D2 Kitchen Island Elevation

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



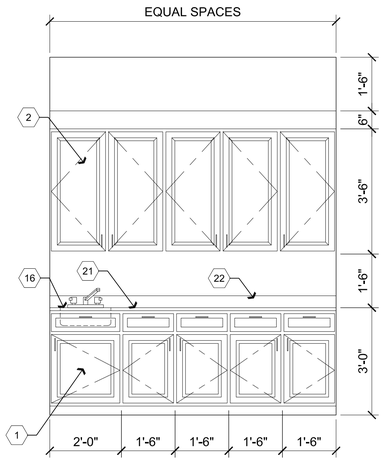
E2 Bathroom Elevation

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



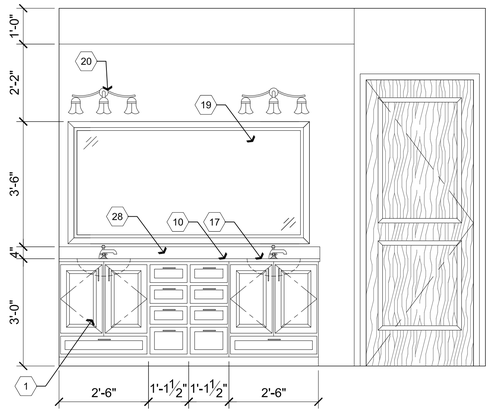
A1 Master Bathroom 2 Elevation

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



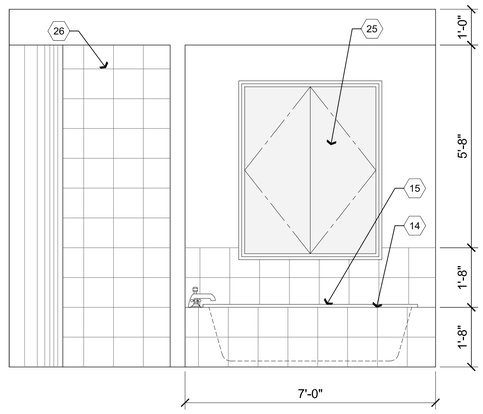
B1 Cat Room Elevation

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



C1 Master Bathroom 1 Elevation

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



D1 Master Bathroom 1 Elevation

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

Jan 29, 2016 - 8:37am

REVISIONS	BY

REGISTERED ARCHITECT
CERTIFICATE NO.
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Date Signed 01/27/16
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EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

DRAWING: INTERIOR ELEVATIONS

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
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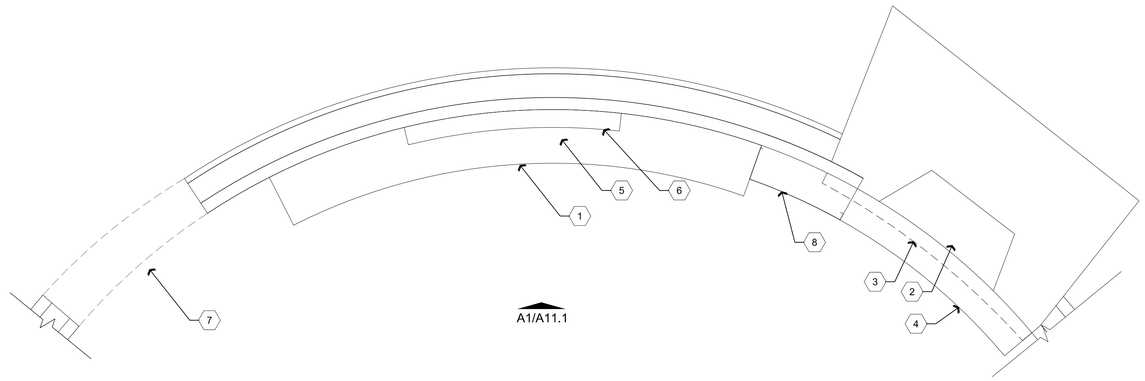
DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A11.0

Descriptive Keynotes

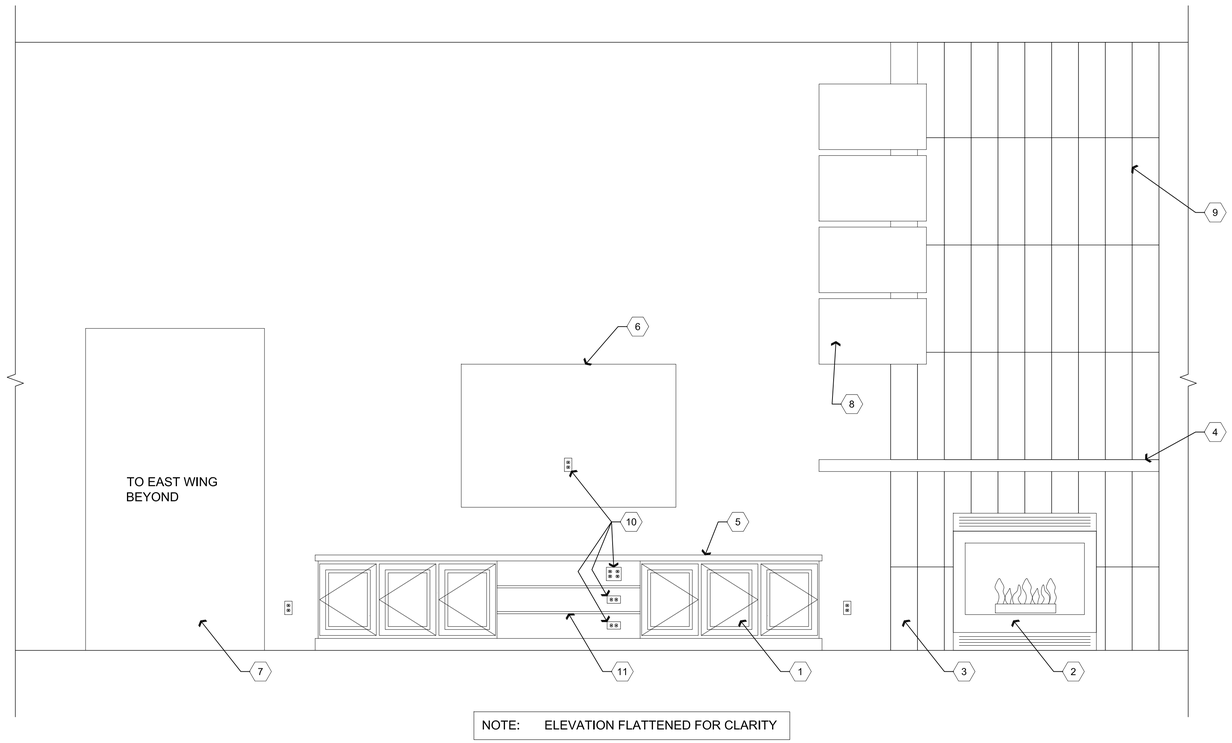
AC-1

1. PROVIDE CURVED WOOD BASE CABINETRY.
2. PROVIDE FIREPLACE AS SELECTED BY OWNER.
3. FACE OF FIREPLACE SURROUND, CURVED TO MATCH WALL AND OFFSET 4" FROM WALL.
4. 12" WOOD MANTLE, CURVED TO MATCH CURVE OF WALL.
5. WOOD COUNTER TOP CURVED TO MATCH CURVE OF WALL.
6. TV POPOUT 6" FROM WALL CURVED TO MATCH.
7. ENTRANCE TO EAST WING HALLWAY.
8. FLOATING METAL DESIGN ELEMENTS.
9. TILE AS SELECTED BY OWNER.
10. ELECTRIC OUTLET.
11. OPEN SHELVING.



A2 Great Room Enlarged Plan East Side

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



NOTE: ELEVATION FLATTENED FOR CLARITY

A1 Great Room East Elevation

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

Jan 29, 2016 - 8:37am

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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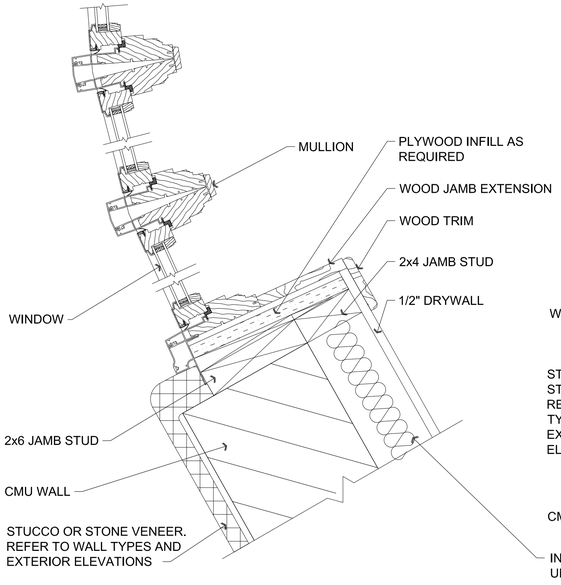
ARCHITECTURE & PLANNING

DRAWING: INTERIOR ELEVATIONS

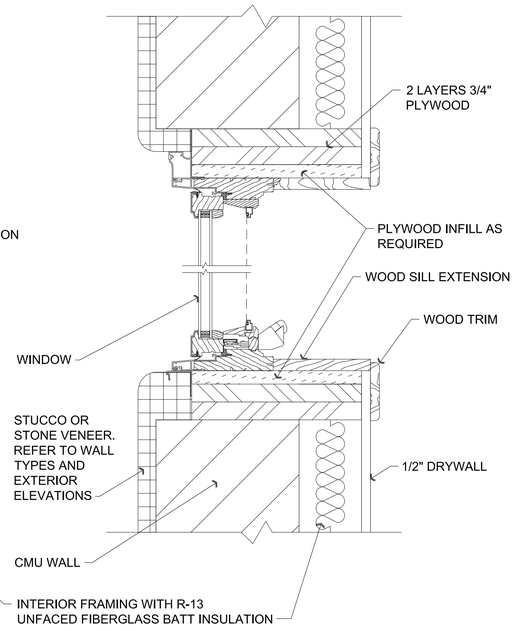
PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	A11.1



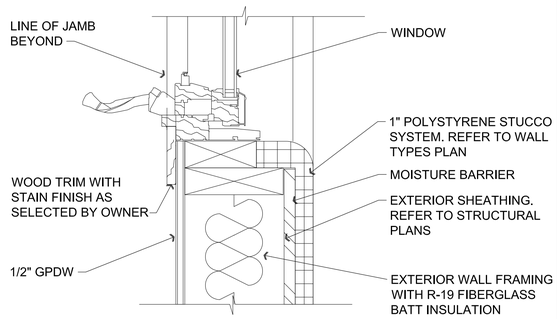
B2 Window Jamb at CMU

SCALE: 3" = 1'-0"



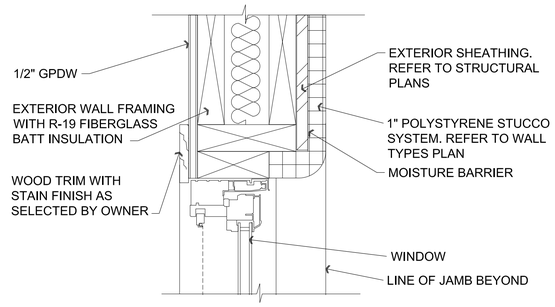
C2 Window Sill and Head at CMU

SCALE: 3" = 1'-0"



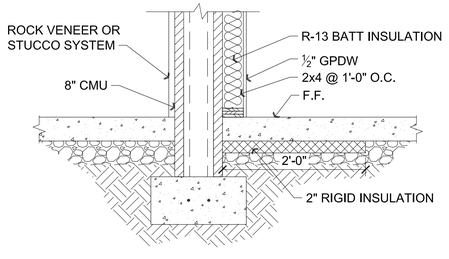
D3 Window Sill at Stucco

SCALE: 3" = 1'-0"



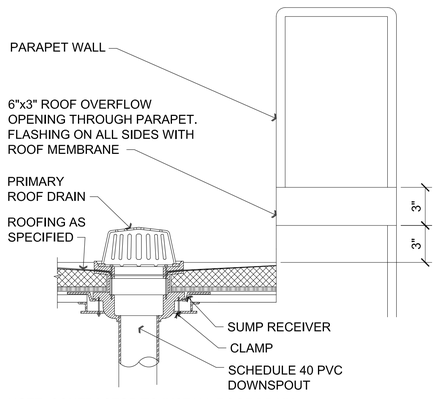
D2 Window Head at Stucco

SCALE: 3" = 1'-0"



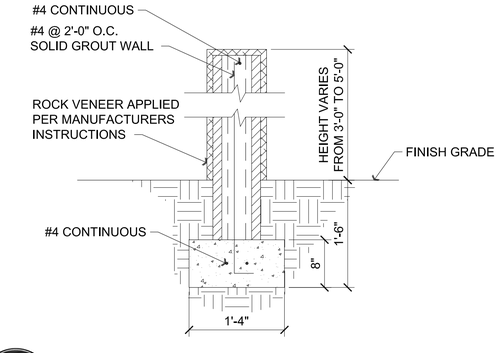
A1 Mass Wall Detail

SCALE: 1" = 1'-0"



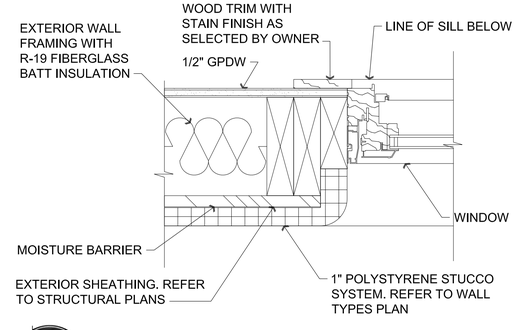
B1 Roof Drain

SCALE: N.T.S.



C1 CMU Wall Section

SCALE: 1" = 1'-0"



D1 Window jamb at Stucco

SCALE: 3" = 1'-0"

Jan 29, 2016 - 8:38am

REVISIONS	BY

RECORDED REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/21/16 ARIZONA, EXPIRES: 6/30/18

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DRAWING: DETAILS

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

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SHEET	A12.0

GENERAL STRUCTURAL NOTES

(APPLY UNLESS NOTED OTHERWISE ON PLANS/DETAILS)

GENERAL REQUIREMENTS:

1. THE STRUCTURAL SYSTEMS AND MEMBERS DEPICTED HEREIN HAVE BEEN DESIGNED PRIMARILY TO SAFEGUARD AGAINST MAJOR STRUCTURAL DAMAGE AND LOSS OF LIFE, NOT TO LIMIT DAMAGE OR MAINTAIN FUNCTION (IBC SECTION 101.3).

2. THESE DRAWINGS, AND THEIR ASSOCIATED STRUCTURAL CALCULATIONS, HAVE BEEN PERFORMED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEER'S IN THIS OR SIMILAR LOCALITIES. THEY NECESSARILY ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKMEN WHO HAVE A WORKING KNOWLEDGE OF THE INTERNATIONAL BUILDING CODE CONVENTIONAL FRAMING REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR FRAMING ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, IT IS UNDERSTOOD THAT THE CONTRACTOR WILL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR ALL MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.

3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION SUCH THAT DESIGN LIVE LOAD PER SQUARE FOOT AS STATED HEREIN IS NOT EXCEEDED. OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS USED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES, AND SHALL COORDINATE ALL DETAILS.

4. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN. TYPICAL DETAILS AND NOTES ARE NOT NECESSARILY INDICATED ON THE PLANS, BUT SHALL APPLY NONE-THE-LESS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETAILS MAY SHOW ONLY ONE SIDE OF CONNECTION OR MAY OMIT INFORMATION FOR CLARITY.

5. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT AND STRUCTURAL ENGINEER.

6. ANY INSPECTIONS, SPECIAL (IBC CHAPTER 17) OR OTHERWISE THAT ARE REQUIRED BY THE BUILDING CODES, LOCAL BUILDING DEPARTMENTS, OR BY THESE PLANS SHALL BE DONE BY AN INDEPENDENT INSPECTION COMPANY OR THE BUILDING DEPARTMENT, SITE VISITS BY THE STRUCTURAL ENGINEER DO NOT CONSTITUTE AN OFFICIAL INSPECTION, UNLESS SPECIFICALLY CONTRACTED FOR.

BASIS FOR DESIGN:

1. BUILDING CODE: 2012 EDITION OF THE IBC WITH CITY/COUNTY AMENDMENTS.

   RISK CATEGORY = II

2. VERTICAL LOADS:

LOCATION	LIVE / SNOW LOAD	DEAD LOAD
ROOF	20 PSF	15 PSF

3. SEISMIC DESIGN PARAMETERS:

ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PROCEDURE
IMPORTANCE FACTOR	Ie = 1.00
SITE CLASS	D
SEISMIC DESIGN CATEGORY	C
SPECTRAL RESPONSE ACCELERATIONS	Sms = 0.511, Sm1 = 0.235
SPECTRAL RESPONSE COEFFICIENTS	Sds = 0.340, Sd1 = 0.157
HORIZONTAL SHEAR TRANSFER ELEMENTS:	
PLYWOOD – FLEXIBLE DIAPHRAM(S)	R = 6.5
VERTICAL SHEAR TRANSFER ELEMENTS:	
GYPBOARD SHEARWALL(S)	R = 2.0
PLYWOOD SHEARWALL(S)	R = 6.5
INTERMEDIATE MASONRY SHEARWALL(S)	R = 3.5

4. WIND DESIGN PARAMETERS (STRENGTH):

ULTIMATE WIND SPEED	115 MPH (3 SECOND GUST)
WIND EXPOSURE	C
IMPORTANCE FACTOR	Iw = 1.00
INTERNAL PRESSURE COEFFICIENT	-0.18
COMPONENT AND CLADDING PRESSURE	31.1 PSF
NET UPLIFT ON ROOF	6.3 PSF

FOUNDATION NOTES:

1. FOUNDATIONS DESIGNED IN CONFORMANCE WITH RECOMMENDATIONS BY: **ENGINEERING TESTING CONSULTANTS, INC. REPORT NO. 9086 DATED JANUARY 26, 2016.**

2. SITE PREPARATION AND GRADING REQUIREMENTS OF THE SOIL REPORT AND ANY ADDENDUM'S SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF FOUNDATIONS. ANY TESTS OR INSPECTIONS REQUIRED BY THE SOIL REPORT SHALL BE PERFORMED PRIOR TO PLACEMENT OF FOUNDATION REINFORCING STEEL OR CONCRETE. ALTERATIONS TO SITE PREPARATION OR GRADING SHALL BE REPORTED TO THE GEOTECHNICAL ENGINEER PRIOR TO FOUNDATION CONSTRUCTION.

THE SOIL DESIGN VALUES FOR THE FOUNDATION ARE:

ALLOWABLE BEARING PRESSURE	2000 PSF
ALLOWABLE LATERAL BEARING PRESSURE	300 PSF/FT
ALLOWABLE LATERAL SLIDING COEFFICIENT	0.35
LATERAL BACKFILL PRESSURE (UNRESTRAINED)	35 PSF/FT
LATERAL BACKFILL PRESSURE (RESTRAINED)	56 PSF/FT
SITE CLASS	D

3. A ONE-THIRD INCREASE IN BEARING PRESSURES IS ALLOWED WITH SEISMIC OR WIND LOAD COMBINATIONS. LATERAL BEARING AND LATERAL SLIDING RESISTANCE MAY BE COMBINED.

FOUNDATION BEARING DEPTH
30" BELOW FINISHED GRADE

4. ALL FOUNDATIONS SHALL BEAR ON COMPACTED ENGINEERED FILL 30 INCHES MINIMUM BELOW FINISH GRADE. GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS AND LOWEST ADJACENT GRADE WITHIN 5 FEET OF THE BUILDING FOR PERIMETER FOOTINGS. WHERE EXTERIOR PAVING OR CONCRETE IS DIRECTLY ADJACENT TO BUILDING, GRADE IS DEFINED AS TOP OF EXTERIOR PAVING AT LEAST 5 FEET FROM BUILDING. CONCRETE FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE OF LOOSE DEBRIS OR UN-COMPACTED MATERIAL AT TIME OF CONCRETE PLACEMENT.

5. CONCRETE SLABS ON GRADE SHALL BE SUPPORTED ON A 4 INCH LAYER OF SELECT FILL MATERIAL ACCORDING TO THE SPECIFICATIONS OF THE SOIL REPORT. FILL MATERIAL SHOULD BE MOISTENED, BUT NOT SATURATED JUST PRIOR TO PLACING CONCRETE.

6. BACKFILL AGAINST RESTRAINED WALLS SHALL NOT BE PLACED UNTIL AFTER THE WALLS ARE SUPPORTED BY THE COMPLETION OF INTERIOR FLOOR SYSTEMS AND CONCRETE OR GROUT STRENGTH HAS REACHED THE 28 DAY STRENGTH LISTED BELOW.

CONCRETE:

1. MINIMUM 28 DAY CONCRETE STRENGTH SHALL BE AS FOLLOWS:

USE:	CONCRETE STRENGTH:	REMARKS:
FOUNDATIONS	2500 PSI	DESIGNED FOR 2500 PSI
CONCRETE SLABS ON GRADE	3000 PSI	W/O INSPECTION

2. ALL NORMAL WEIGHT CONCRETE SHALL BE REGULAR WEIGHT OF 150 POUNDS PER CUBIC FOOT USING HARD-ROCK AGGREGATES. AGGREGATE USED IN CONCRETE SHALL CONFORM TO ASTM C67 FOR ¾", ASTM C57 FOR 1" AND ASTM C467 FOR 1½" AGGREGATE.

3. TENSION LAP SPLICES OF REINFORCING STEEL IN CONCRETE SHALL BE AS FOLLOW:

REBAR SIZE	STANDARD LAP	RETAINING WALLS (AT FACE OF WALL)
#3	24"	N/A
#4	32"	41"
#5	39"	51"

LAP SPLICES FOR BEAMS AND FLOOR SLABS SLABS SHALL BE ACCORDING TO CHAPTER 12 OF ACI 318 OR LAP SCHEDULE ON THESE DRAWINGS.

STAGGER SPLICES A MINIMUM OF ONE LAP LENGTH. NO TACK WELDING OF REINFORCING BARS ALLOWED WITHOUT PRIOR REVIEW OF PROCEDURE WITH THE STRUCTURAL ENGINEER. LATEST ACI CODE AND DETAILING MANUAL APPLY. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT ALL CORNERS AND INTERSECTIONS PER TYPICAL DETAILS. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES.

4. ALL DIMENSIONS SHOWING THE LOCATION OF REINFORCING STEEL NOT NOTED AS "CLEAR" OR "CLR" ARE TO CENTER OF STEEL. MINIMUM COVER FOR NON-PRESTRESSED CONCRETE REINFORCING SHALL BE AS FOLLOWS:

LOCATION:	MINIMUM COVER	TOLERANCE
CAST AGAINST EARTH (FOOTINGS)	3"	± ⅜"
SLABS ON GRADE	1½"	± ¼"
EXPOSED TO EARTH OR WEATHER – #5 AND SMALLER	1½"	± ⅜"

5. MAXIMUM SLUMP FOR ALL CONCRETE SHALL BE 4". SLUMP FOR EXTERIOR SLABS SHALL BE 6". PORTLAND CEMENT SHALL CONFORM TO ASTM C150. TYPE V CEMENT SHALL BE USED FOR CONCRETE IN CONTACT WITH ALKALINE SOIL, AND TYPE II ELSEWHERE.

6. NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT UNLESS APPROVED BY THE TESTING AGENCY.

7. CONCRETE PLACEMENT AND QUALITY SHALL BE PER RECOMMENDATIONS IN ACI 614, ACI 301 AND ACI 318. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND AND UNDER FLOOR DUCTS, ETC. CAST CLOSURE POUR, WHERE SHOWN ON PLANS AROUND COLUMNS AFTER COLUMN DEAD LOAD IS APPLIED. REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING CONCRETE.

   ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCING, DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURELY POSITIONED IN THE FORMS BEFORE PLACING THE CONCRETE.

8. ALL CONCRETE SLABS ON GRADE SHALL BE DIVIDED INTO AREAS BY CONTROL JOINTS (KEYED OR SAW CUT) SUCH THAT ONE SLAB AREA DOES NOT EXCEED 250 SQUARE FEET, OR BE MORE THAN TWO TIMES LONGER THAN THE SLAB AREA WIDTH. THE FOUNDATION PLAN SHOWS A SUGGESTED METHOD OF CONTROL JOINT LAYOUT. IT IS RECOMMENDED THAT SAW CUTS BE MADE WITHIN 16 HOURS OF CONCRETE BATCHING.

   KEYED CONTROL JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING, ALL OTHER JOINTS MAY BE SAW CUT.

9. HORIZONTAL PIPES AND ELECTRICAL CONDUITS SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE AND SLABS ON GRADE EXCEPT WHERE SPECIFICALLY APPROVED OR NOTED BY THE STRUCTURAL ENGINEER. PIPES AND CONDUITS SHALL NOT IMPAIR THE STRENGTH OF THE WORK.

10. FLY ASH MAY BE USED ONLY IF PERMITTED BY ARCHITECTURAL SPECIFICATIONS AND SHALL BE LIMITED TO 18 PERCENT OF CEMENTITIOUS MATERIALS AND SHALL HAVE A REPLACEMENT FACTOR OF 1.2 RELATIVE TO CEMENT REPLACED. NO FLY ASH ADDITIVES SHALL BE USED IN FLATWORK OR ARCHITECTURALLY EXPOSED CONCRETE.

11. COLD/HOT WEATHER CONCRETE CONSTRUCTION: PROTECT CONCRETE FROM DAMAGE OR REDUCED STRENGTH IN COMPLIANCE WITH ACI 305 AND 306.

12. CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY AND APPROVED BY THE STRUCTURAL ENGINEER.

MASONRY (CONCRETE BLOCK):

MINIMUM 28 DAY MASONRY STRENGTH SHALL BE 1500 PSI.

1. VERTICAL REINFORCING: #5 AT 48 INCHES ON CENTER FULL HEIGHT OF WALL, CENTERED IN GROUTED CELL AND AT ALL WALL INTERSECTIONS, CORNERS, WALL ENDS, JAMBS, OVER LINTELS, AND EACH SIDE OF CONTROL JOINTS (MINIMUM UNLESS NOTED OTHERWISE ON PLANS/DETAILS). TIE AT 8'-0" VERTICALLY, WITH SINGLE WIRE LOOP TIE OR EQUIVALENT. DOWEL ALL REINFORCING TO FOUNDATION WITH DOWELS TO MATCH AND LAP VERTICAL WALL OR COLUMN REINFORCING.

2. CONTROL JOINTS: UNLESS NOTED OTHERWISE ON THE PLANS, PLACE CONTROL JOINTS IN MASONRY WALLS SUCH THAT NO STRAIGHT RUN OF WALL EXCEEDS 24'-0". CONTROL JOINTS SHALL NOT OCCUR AT WALL CORNERS, INTERSECTIONS, ENDS, WITHIN 24" OF CONCENTRATED POINTS OF BEARING OR JAMBS, OR OVER OPENINGS UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.

3. HORIZONTAL REINFORCING: (MINIMUM UNLESS NOTED OTHERWISE ON PLANS/DETAILS) (2) #4 BARS IN CENTER OF 16 INCH DEEP MINIMUM CONTINUOUS GROUTED BOND BEAM AT ELEVATED FLOOR AND ROOF LINES. FOR 8 INCH THICK WALLS, ONE #4 BAR IN CENTER OF 8 INCH DEEP CONTINUOUS GROUTED BOND BEAM AT INTERVALS NOT TO EXCEED 48 INCHES ON CENTER AND AT TOP OF PARAPET OR FREE STANDING WALLS.

   HORIZONTAL BARS AT TOP OF PARAPET OR FREE STANDING WALLS SHALL BE PLACED 8 INCHES DOWN FROM THE TOP IN AN UPSIDE DOWN BOND BEAM BLOCK.

   PLACE HORIZONTAL BARS CONTINUOUS THROUGH CONTROL JOINTS. PROVIDE BENT BARS PER TYPICAL DETAILS, TO MATCH HORIZONTAL BOND BEAM REINFORCING, AT CORNERS AND WALL INTERSECTION TO MAINTAIN BOND BEAM CONTINUITY.

4. TENSION LAP SPLICES OF REINFORCING STEEL IN MASONRY SHALL BE AS FOLLOWS:

REBAR SIZE	STANDARD LAP	RETAINING WALLS (AT FACE OF WALL)
#4	24"	30"
#5	30"	46"

5. REINFORCING PLACEMENT TOLERANCES: ALL DIMENSIONS SHOWING THE LOCATION OF REINFORCING STEEL NOT NOTED AS "CLEAR" OR "CLR" ARE TO CENTER OF STEEL. TOLERANCES FOR PLACEMENT OF VERTICAL REINFORCING SHALL BE (±) ½" PERPENDICULAR TO WALL AND (±) 2" ALONG THE LENGTH OF THE WALL. PROVIDE ½" CLEARANCE BETWEEN MASONRY UNITS AND REINFORCING, AND REINFORCING RUNNING IN THE SAME DIRECTION. LAPS MAY BE BESIDE OR OVER THE REINFORCING BEING SPLICED.

6. BLOCK QUALITY: CONCRETE BLOCK SHALL BE HOLLOW LIGHTWEIGHT LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM 90-75 WITH A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI. USE BOND BEAM UNITS AT HORIZONTAL REINFORCING.

7. MORTAR: MORTAR MIX SHALL CONFORM TO REQUIREMENTS OF THE IBC STANDARDS, TYPE M OR S. MORTAR SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI AT 28 DAYS.

8. GROUT: GROUT SHALL CONFORM TO REQUIREMENTS OF CHAPTER 21 OF THE IBC FOR COARSE GROUT. USE SUFFICIENT WATER FOR GROUT TO FLOW INTO ALL JOINTS OF THE MASONRY WITHOUT SEGREGATION. GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS. ALL CELLS IN CONCRETE BLOCKS CONTAINING REINFORCING SHALL BE FILLED SOLID WITH GROUT. ALL MASONRY BELOW FINISHED FLOOR OR GRADE SHALL BE GROUTED SOLID. ALL GROUT SHALL BE MECHANICALLY VIBRATED.

   GROUT LIFTS OF 5 FEET OR LESS IS RECOMMENDED. FOR HIGHER GROUT LIFTS, CLEANOUTS (3"X3") AT THE BOTTOM OF ALL VERTICALLY REINFORCED CELLS SHALL BE PROVIDED. IN ADDITION, MECHANICAL DEVICES SHALL BE USED TO POSITION AND SECURE REINFORCING WHEN GROUT LIFTS EXCEED 5 FEET IN HEIGHT. IN SOLID GROUTED MASONRY, CLEANOUTS SHALL NOT BE SPACED MORE THAN 32" O.C.

9. BLOCK CONSTRUCTION: ALL BLOCKS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION (UNLESS OTHERWISE NOTED) WITH ALL VERTICAL CELLS IN ALIGNMENT.

10. MISCELLANEOUS LINTELS:
    FOR MISCELLANEOUS OPENINGS (4'-8" OR LESS) NOT SHOWN ON PLANS OR IN A SCHEDULE, BUT REQUIRED BY OTHER DISCIPLINES (MECHANICAL, ELECTRICAL, PLUMBING, ETC.) THE FOLLOWING OPTIONS MAY BE USED IN 8" MASONRY WALLS.

    OPTION #1: GROUTED REINFORCED MASONRY LINTEL: REINFORCE WITH (2) #4 HORIZONTAL BARS IN BOTTOM OF BOND BEAM OR LINTEL BLOCK AND SHALL BE GROUTED SOLID TO A MINIMUM DEPTH OF 12 INCHES. ALL LINTEL REINFORCING AND GROUT SHALL EXTEND 16 INCHES PAST JAMBS.

    OPTION #2: DOUBLE ANGLE LINTELS: USE (2) L3½X3½X¼ BACK-TO-BACK. PROVIDE 12" MINIMUM OF GROUT OVER LINTELS. BEARING FOR STEEL ANGLE LINTELS SHALL BE 4" (±) 1" AT EACH JAMB.

    OPTION #3: POWERS STEEL LINTEL: PS8-8. GROUT LINTEL 8" DEEP. BEARING FOR POWERS STEEL LINTELS SHALL BE 4" (±) 1" AT EACH JAMB.

    THESE LINTELS, OR THE OPENING THEY SPAN, SHALL NOT BE PLACED SO AS TO INTERFERE WITH THE REQUIREMENTS OF OTHER STRUCTURAL ELEMENTS (I.E. BOND BEAMS, LINTELS, CONTROL JOINTS, CONCENTRATED POINTS OF BEARING, ETC.) WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

    SOLID GROUT SHALL BE PROVIDED BETWEEN WEBS AND MASONRY FACE SHELLS FOR FULL LENGTH OF ALL STEEL LINTELS. MORTAR MAY BE USED FOR GROUT FOR THIS PURPOSE ONLY. FACE UNITS, SOAPS, ROMANS, ETC., SHALL BE LAID WITH FULL HEAD AND BED JOINTS.

    FOR ADDITIONAL INFORMATION AT OPENINGS IN MASONRY WALLS, SEE TYPICAL DETAILS.

REINFORCING STEEL:

1. ASTM A615 GRADE 60 (FY = 60 KSI) DEFORMED BARS FOR ALL BARS #5 AND LARGER. ASTM A615 GRADE 40 (FY = 40 KSI) DEFORMED BARS FOR ALL BARS #4 AND SMALLER. GRADE 60 DEFORMED BARS SHALL BE USED FOR CONCRETE WALLS, BEAMS, ELEVATED SLABS AND COLUMN REINFORCING.

2. WELDING OF REINFORCING BARS SHALL BE MADE ONLY TO ASTM A706 GRADE 60 BARS AND ONLY USING E90 SERIES RODS. WELDING OF REINFORCING BARS SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS.

3. REINFORCING BAR SPACING GIVEN ARE MAXIMUM ON CENTERS. ALL BARS PER CRSI SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE.

STEEL:

1. MATERIALS: ROLLED W SHAPES, SHALL CONFORM TO ASTM A992 (FY=50 KSI). ALL OTHER STRUCTURAL STEEL SHAPES, ROLLED SECTIONS, BARS AND PLATES SHALL CONFORM TO ASTM A36 (FY = 36 KSI). ALL PIPE STEEL SHALL BE ASTM A501 (FY = 36 KSI) OR ASTM A53, TYPE E OR S, GRADE B (FY = 35 KSI). ALL TUBULAR STEEL SHALL BE ASTM A500 (FY = 46 KSI).

2. ALL BOLTS AND STUDS SHALL BE ASTM A307, UNLESS NOTED OTHERWISE. ALL EXPANSION BOLTS TO HAVE CURRENT ICBO RATING FOR MATERIAL INTO WHICH INSTALLATION TAKES PLACE. HEADED STUDS SHALL CONFORM TO ALL REQUIREMENTS OF THE LATEST EDITION OF THE "RECOMMENDED PRACTICES FOR STUD WELDING" AND THE "STRUCTURAL WELDING CODE" PUBLISHED BY AWS. ALL BOLTS, ANCHOR BOLTS, EXPANSION BOLTS, ETC. SHALL BE INSTALLED WITH STEEL WASHERS AT FACE OF WOOD OR AT SLOTTED HOLES IN STEEL SECTIONS.

3. ALL STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, LATEST EDITION.

4. WELDING SHALL BE BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES. ALL WELDING SHALL USE E70 SERIES LOW HYDROGEN RODS UNLESS NOTED OTHERWISE. ALL WELDING PER LATEST AMERICAN WELDING SOCIETY STANDARDS. ALL WELDS ON DRAWINGS ARE SHOWN AS SHOP WELDS. CONTRACTOR MAY SHOP WELD OR FIELD WELD AT HIS DISCRETION. ALL FULL PENETRATION WELDS SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY.

5. STEEL TO STEEL BOLTED CONNECTIONS: HIGH STRENGTH BOLTS SHALL BE ASTM A325N AND SHALL BE INSTALLED AS BEARING-TYPE CONNECTIONS WITH THREADS INCLUDED IN SHEAR PLANE (TYPE "N" CONNECTION). BOLTS MAY BE TIGHTENED USING ANY AISC APPROVED METHOD.

6. DRYPACK SHALL BE 5,000 PSI FIVE STAR NON-SHRINK GROUT OR EQUIVALENT. INSTALL DRYPACK UNDER BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED. AT COLUMNS, INSTALL DRYPACK UNDER BASE PLATES AFTER COLUMN HAS BEEN PLUMBED BUT PRIOR TO FLOOR OR ROOF INSTALLATION.

WOOD:

1. SAWN LUMBER: FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB). ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY. SAWN LUMBER SHALL HAVE THE FOLLOWING MINIMUM GRADE UNLESS NOTED OTHERWISE IN SCHEDULES:

USE:	MATERIAL:
2X4 STUDS	HEM-FIR STUD
2X6 STUDS	HEM-FIR NO. 2
JOISTS, TOP PLATES AND ALL OTHER SAWN LUMBER	DOUGLAS-FIR NO. 2 OR BETTER
BEAMS AND POSTS	DOUGLAS-FIR NO. 2 OR BETTER

2. PLYWOOD: ALL PLYWOOD SHALL BE C-D OR C-C SHEATHING CONFORMING TO STANDARD PS 1-95. LAY UP PLYWOOD WITH FACE GRAIN IN PERPENDICULAR TO SUPPORTS (ON ROOFS WHERE PLYWOOD IS LAID UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE A MINIMUM OF 5-PLY PLYWOOD, STAGGER JOINTS). ALL NAILING, COMMON NAILS. BLOCKING AT PANEL EDGES WHERE INDICATED ON PLANS. ALL PLYWOOD SHALL BE OF THE FOLLOWING NOMINAL THICKNESS, SPAN/INDEX RATING AND SHALL BE NAILED AS FOLLOWS UNLESS NOTED OTHERWISE ON THE PLANS:

LOCATION:	NOMINAL THICKNESS:	SPAN INDEX RATING:	EDGE ATTACHMENT:	FIELD ATTACHMENT:
WALLS	½" OR ⅜"	24/0	8d AT 6" O.C.	8d AT 12" O.C.
ROOF	½"	32/16	10d AT 6" O.C.	10d AT 12" O.C.

   PLYWOOD ALTERNATE: AMERICAN PLYWOOD ASSOCIATION PERFORMANCE RATED SHEATHING MAY BE USED AS AN ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER, ARCHITECT AND ROOFER. IT MAY NOT BE USED ON ROOFS WHERE BUILT-UP ROOF SYSTEM IS TO BE GUARANTEED BY ROOFER. RATED SHEATHING SHALL COMPLY WITH ICBO REPORT NER-108, EXPOSURE 1, AND SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

3. GLUED-LAMINATED BEAMS (GLULAM): GLUED-LAMINATED BEAMS SHALL BE DOUGLAS FIR COMBINATION AT 24F-V4 AT SIMPLE SPAN BEAMS AND 24F-V8 AT CANTILEVERED BEAMS WITH THE FOLLOWING MINIMUM PROPERTIES: FB = 2,400 PSI, FV = 190 PSI, FC (PERPENDICULAR) = 650 PSI, E =1,800 KSI. ALL BEAMS SHALL BE FABRICATED USING WATERPROOF GLUE. FABRICATION AND HANDLING PER LATEST AITC AND WCLA STANDARDS. BEAMS TO BEAR GRADE STAMP AND AITC STAMP AND CERTIFICATE. CAMBER AS SHOWN ON DRAWINGS. STANDARD CAMBER IS BASED ON A RADIUS OF CURVATURE OF 2000 FEET.

4. LAMINATED VENEER LUMBER: DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH LATEST EDITION OF ICBO REPORT NER-119, OR OTHER EQUIVALENT REPORT. LAMINATED VENEER LUMBER SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: FB = 2,600 PSI, FV = 285 PSI, E = 1,900 KSI.

5. PARALLEL STRAND LUMBER: DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH LATEST EDITION OF ICBO REPORT NER-292, OR OTHER EQUIVALENT REPORT. LAMINATED VENEER LUMBER SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: FB = 2,900 PSI, FV = 290 PSI, E =2,000 KSI.

6. SILL PLATES RESTING ON CONCRETE OR MASONRY SHALL BE OF TREATED FIR OR FOUNDATION GRADE REDWOOD. SHEAR WALLS AND EXTERIOR WALL SILLS AT CONCRETE SLAB SHALL HAVE A MINIMUM OF (2) ½"ø ANCHOR BOLTS PER PIECE. PROVIDE ANCHOR BOLT AT 9" MAXIMUM, 4" MINIMUM FROM THE END OF EACH PIECE AT SPLICE OR END OF WALL. MAXIMUM ANCHOR BOLT SPACING SHALL BE 72" ON CENTER UNLESS NOTED OTHERWISE ON PLANS OR DETAILS. ALL ANCHOR BOLTS (OTHER THAN BOLTS FOR HOLDOWNS) SHALL EMBED 7" INTO CONCRETE. ANCHOR BOLTS FOR HOLDOWNS SHALL NOT BE CONSIDERED AS PART OF REQUIRED ANCHOR BOLTS ON SHEAR WALLS. ALL EXTERIOR WALLS SHALL BE SECURED WITH MINIMUM ANCHOR BOLTS. INTERIOR WALLS MAY BE SECURED TO CONCRETE WITH EITHER ANCHOR BOLTS OR POWER DRIVEN SHOT PINS UNLESS NOTED OTHERWISE ON PLANS.

7. GENERAL: DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT. DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER PARTITIONS. PROVIDE 2" (NOMINAL) SOLID BLOCKING AT SUPPORTS OF ALL JOISTS. UNLESS NOTED OTHERWISE ON PLANS/DETAILS PROVIDE 2X SOLID BLOCKING AT MID-HEIGHT OF BEARING STUD WALLS. ALL NAILING NOT NOTED SHALL BE ACCORDING TO IBC TABLE 2304.9.1. JOIST HANGERS AND OTHER MISCELLANEOUS FRAMING ANCHORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. OR OTHER MANUFACTURER WITH CURRENT ICBO APPROVAL.

8. BOLTING: ALL BOLTS IN WOOD CONNECTIONS SHALL CONFORM TO ASTM A307. BOLTS SHALL BE INSTALLED IN HOLES BORED WITH A BIT 1/16" LARGER THAN THE ø (DIAMETER) OF THE BOLT. BOLTS AND NUTS SEATING ON WOOD SHALL HAVE CUT STEEL WASHERS UNDER HEADS AND NUTS. NICK THREADS TO PREVENT LOOSENING.

9. PREFABRICATED PLYWOOD WEB I-JOIST/PURLINS (TJI SERIES OR EQUAL): DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH THE LATEST EDITION ICBO REPORT NER-119. CONNECTIONS AND BEARING MATERIAL TO BE DESIGNED AND FURNISHED BY JOIST FABRICATOR. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY A REGISTERED STRUCTURAL ENGINEER FOR REVIEW PRIOR TO MANUFACTURE. ADDITIONAL I-JOISTS SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT. TOTAL LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/240. FLOOR LIVE LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/480.

GYPSUM BOARD SHEATHING:

1. ALL GYPSUM BOARD SHEATHING MATERIALS SHALL CONFORM TO ASTM C79 AND SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C1280. FOUR-FOOT WIDE PIECES OF GYPSUM SHEATHING SHALL BE APPLIED PARALLEL OR PERPENDICULAR TO THE STUDS. TWO-FOOT WIDE PIECES OF GYPSUM SHEATHING SHALL BE APPLIED PERPENDICULAR TO THE STUDS. END JOINTS OF ADJACENT COURSES OF GYPSUM BOARD SHALL BE STAGGERED.

2. FOR FIRE RATED WALLS WITH GYPSUM SHEATHING EACH SIDE, GYPSUM SHEATHING SHALL BE INSTALLED SO THAT ALL EDGES ARE SUPPORTED EXCEPT ⅝" TYPE-X GYPSUM SHEATHING SHALL BE PERMITTED TO BE INSTALLED HORIZONTALLY WITH THE HORIZONTAL JOINTS STAGGERED 24" FROM THE OPPOSITE SIDE, BUT JOINTS ARE UNSUPPORTED AND FINISHED.

SPECIAL INSPECTION ITEMS:

1. THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR DURING CONSTRUCTION OF CERTAIN TYPES OF WORK. PER IBC SECTION 1704 AND THE STRUCTURAL ENGINEER OF RECORD, SPECIAL INSPECTION IS (IS NOT) REQUIRED AS FOLLOWS:

TYPE OF WORK:	REQUIRED:	REMARKS:
CONCRETE SLAB ON GRADE	NO	DESIGN BASED ON f'c=2500 PSI
CONCRETE FOUNDATIONS	NO	DESIGN BASED ON f'c=2500 PSI
REINFORCING STEEL FOR ALL CONCRETE/ MASONRY THAT REQUIRES INSPECTION	YES	PRIOR TO PLACEMENT OF CONCRETE OR GROUT
EPOXY ANCHORS	YES	DURING INSTALLATION OF ANCHORS
WELDING	YES	AFTER WORK IS COMPLETE
STEEL TO STEEL BOLTED CONNECTIONS	YES	AFTER WORK IS COMPLETE
MASONRY (CMU)	YES	DURING PLACEMENT OF GROUT

SPECIAL INSPECTIONS NOT LISTED ABOVE ARE NOT REQUIRED.

2. DESIGNATION OF SPECIAL INSPECTOR:

   A. FOR STRUCTURAL ITEMS LISTED ABOVE, THE SPECIAL INSPECTOR SHALL BE, OR WORK UNDER THE DIRECT SUPERVISION OF THE STRUCTURAL ENGINEER OF RECORD – FROST STRUCTURAL ENGINEERING (928)776-4757.

   B. FOR GEOTECHNICAL ITEMS LISTED ABOVE, THE SPECIAL INSPECTOR SHALL BE, OR WORK UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER OF RECORD. SEE GEOTECHNICAL REPORT FOR CONTACT INFORMATION.

   C. THE OWNER, AT HIS OPTION, MAY DESIGNATE AN ALTERNATE SPECIAL INSPECTOR, OBTAIN THE REQUIRED CERTIFICATE(S), AND MAKE THE NECESSARY NOTIFICATIONS TO ALL PARTIES INVOLVED. THE ALTERNATE SPECIAL INSPECTOR SHALL BE A LICENSED STRUCTURAL ENGINEER (OR GEOTECHNICAL ENGINEER FOR GEOTECHNICAL ITEMS) OR AN ICBO CERTIFIED SPECIAL INSPECTOR.

   D. TO SCHEDULE ANY SPECIAL INSPECTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE SPECIAL INSPECTOR AT LEAST ONE DAY IN ADVANCE.

3. QUALITY ASSURANCE PROGRAM:

   A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

   B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE STRUCTURAL ENGINEER OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.

   C. UPON COMPLETION OF THE ASSIGNED WORK THE STRUCTURAL ENGINEER SHALL COMPLETE AND SIGN THE APPROPRIATE FORMS CERTIFYING THAT TO THE BEST OF HIS KNOWLEDGE THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.

DRAWING INDEX

JOB NO.: 2015-0287 | PROJECT MANAGER: AGK | CAD OPERATOR: MJS

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Registered Professional Engineer (Structural) CERTIFICATE NO. 27341 RICHARD K. FROST Date Signed ARIZONA, U.S.A. EXPIRES 9/30/2017

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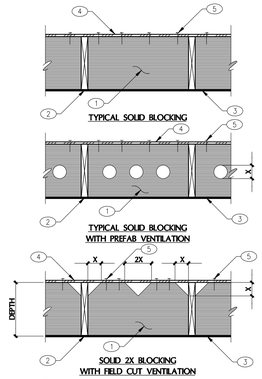
DRAWING: □ENERAL STRUCTURAL NOTES

PROJECT: Lembke-Mellul Residence
. PRESCOTT, A□ 86□0□

DRAWN BY: MJS
C□ECKED BY: A□K
DATE: 2□1□16
SCALE: AS NOTED
JOB NO.: 201□-0287
S□EET: □1

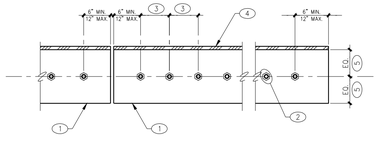


KEY NOTES:
1. SOLID BLOCKING TO BE TIGHT AGAINST PLYWOOD.
2. PREFAB WOOD TRUSS OR WOOD JOIST.
3. TOP OF WOOD PLATE OR BEAM AS OCCURS.
4. PLYWOOD SHEATHING.
5. EDGE NAILING.

VENTILATION OPENINGS	
DEPTH	X
6"	2"
8"	2.5"
10"	3"
12"	3"

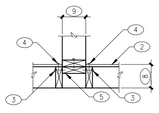
NOTES:
1. FOR CONSTRUCTION BELOW BLOCKING, SEE PLAN AND DETAILS. BLOCKING IS CONTINUOUS.
2. INDIVIDUAL SHEAR BLOCKS MAY BE OMITTED EVERY 5TH BLOCK.

T10 ELEVATION – TYPICAL SOLID 2X BLOCKING
W0502 NO SCALE

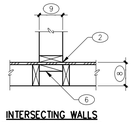


KEY NOTES:
1. WOOD LEDGER.
2. BOLT SIZE PER LEDGER SCHEDULE.
3. BOLT SPACING PER LEDGER SCHEDULE.
4. PLYWOOD SHEATHING OR DECKING AS OCCURS.
5. ± 1" TOLERANCE.

T11 ELEVATION – CONTINUOUS WOOD LEDGER
W1301 NO SCALE



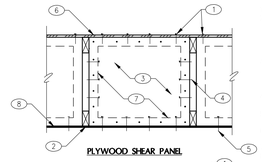
INTERSECTING WALLS GYPSUM SHEARWALLS



INTERSECTING WALLS PLYWOOD SHEARWALLS

KEY NOTES:
1. WOOD STUD WALL.
2. PLYWOOD SHEATHING SHALL BE CONTINUOUS THRU WALL INTERSECTIONS. GYPSUM SHEATHING MAY BE DISCONTINUOUS.
3. 16d FACENAIL AT 16" O.C.
4. EDGE NAILING.
5. FULL HEIGHT STUD.
6. (3)–2X BLOCKS 18" LONG.
7. (2)–16d FACENAILS EACH SIDE OF EACH BLOCK.
8. PLYWOOD OR GYPSUM SHEARWALL.
9. INTERSECTING WALL.

T12 PLAN VIEW – SHEARWALL INTERSECTIONS
W0801 NO SCALE



KEY NOTES:
1. EDGE NAILING.
2. REFAB WOOD TRUSS. TRUSS MANUFACTURER SHALL PROVIDE VERTICAL WEB TO MATCH LOCATION OF SHEAR PANEL.
3. ⅜" PLYWOOD SHEAR PANEL WITH 8d AT 6" O.C. AT PANEL EDGES AND 8d AT 12" O.C. AT INTERMEDIATE SUPPORTS.
4. 16d AT 6" O.C. TO TRUSS VERTICAL WEB.
5. 16d TO MATCH EDGE NAILING SPACING.
6. PLYWOOD SHEATHING AS OCCURS.
7. 2X4 AT 4–SIDES.
8. TOP OF WOOD PLATE OR BEAM AS OCCURS.
9. PREFAB BLOCKING PER TRUSS MANUFACTURER. IN–PLANE SHEAR CAPACITY TO BE 200#.

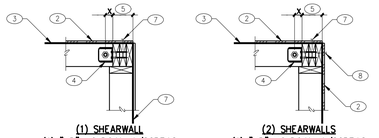
NOTES:
1. FOR CONSTRUCTION BELOW PANEL, SEE PLAN AND DETAILS. BLOCKING IS CONTINUOUS.
2. INDIVIDUAL SHEAR PANEL BLOCKS MAY BE PENETRATED OR OMITTED FOR PASSAGE OF HVAC DUCTS.

T13 ELEVATION – TYPICAL PLYWOOD SHEAR PANEL BLOCKING
W0501 NO SCALE

HOLDOWN	X
HDU2, HDU4 HDU8, HDU11	1–1/4"
HDU14	1–9/16"
PHD2, PHD5 PHD6	1–3/8"
HTT16	1–3/8"
HTT22	
MTT28B	1–1/2"
HDH08	1–1/4"
HHD011 HHD014	1–1/2"

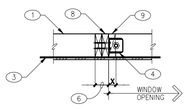
NOTES:
ALL CONDITIONS MAY NOT BE SHOWN. FOR CONDITIONS NOT SHOWN, USE THESE DETAILS AS A GUIDE.
SOME LARGER HOLDOWNS REQUIRE 6X6 POSTS, SEE PLANS AND SCHEDULES.
WHERE MULTIPLE TRIMMER STUDS OR KING STUDS OCCUR, MAKE ADJUSTMENTS AS REQUIRED.

KEY NOTES:
1. WOOD STUD WALL.
2. SHEARWALL SHEATHING.
3. EDGE OF FOUNDATION.
4. SIMPSON HD TYPE HOLDOWN WITH SCREWS.
5. SHEARWALL END POST (3–STUD) TYPICAL, EXCEPT AT HDU1, HDU14, HHDQ11, AND HHDQ14 WHERE A 6X6 POST IS REQUIRED.
6. SHEARWALL END POST (2–STUDS).
7. SHEARWALL EDGE NAILING.
8. TRIMMER STUD TO SUPPORT HEADER.
9. BLOCK TO SUPPORT WINDOW SILL.
10. 6X6 WOOD POST.
11. (25)–SIMPSON SDS ¼"X4.5" LONG WOOD SCREWS STAGGERED.
12. (25)–SIMPSON SDS ¼"X6" LONG WOOD SCREWS STAGGERED.
13. SIMPSON HD TYPE HOLDOWN WITH 6" LONG SIMPSON SDS ¼" SCREWS.

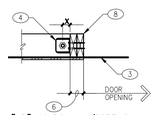


(1) SHEARWALL (1) "HD" HOLDOWN W/SCREWS AT EXTERIOR CORNER

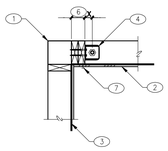
(2) SHEARWALLS (1) "HD" HOLDOWN W/SCREWS AT EXTERIOR CORNER



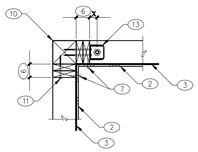
"HD" HOLDOWN W/SCREWS WINDOW JAMB



"HD" HOLDOWN W/SCREWS DOOR JAMB OR WALL END

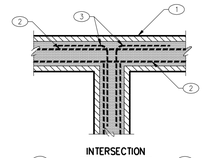


(1) SHEARWALL (1) "HD" HOLDOWN W/SCREWS AT RE–ENTRANT CORNER



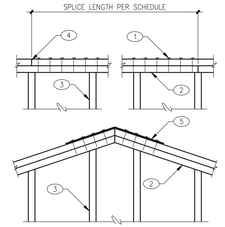
(2) SHEARWALLS (1) "HD" HOLDOWN W/SCREWS AT RE–ENTRANT CORNER

T8 PLAN VIEW – HOLDOWN LOCATIONS/SHEARWALL END POSTS "HD" TYPE HOLDOWNS USING SCREWS
W0802 NO SCALE



KEY NOTES:
1. MASONRY WALL.
2. BOND BEAM REINFORCING.
3. CORNER BARS SAME SIZE AND SPACING AS HORIZONTAL REINFORCING – MINIMUM LAP PER G.S.N..

T9 PLAN – CORNER REINFORCING IN MASONRY WALLS
M0201 NO SCALE

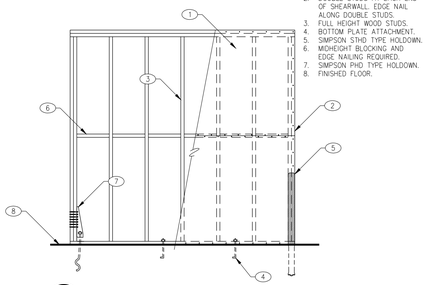


KEY NOTES:
1. NAILS BETWEEN SPLICE LOCATION PER SCHEDULE – STAGGERED.
2. DOUBLE 2X TOP PLATE.
3. WOOD STUD WALL.
4. SPLICE OVER STUD.
5. SIMPSON ST6224 STRAP AT LOCATIONS WHERE PLATES CAN NOT BE SPLICED.

LENGTH OF WALL (BETWEEN CORNERS)	SPLICE LENGTH MINIMUM	NAILS ALONG SPLICE LENGTH
OVER 30'	4'–0"	18–16d
OVER 20'	2'–8"	10–16d
OVER 10'	1'–4"	6–16d
LESS THAN 10'	1'–4"	4–16d

NOTE:
DO NOT SPLICE TOP PLATES WITHIN 6'–0" OF ENDS OF PLYWOOD SHEAR WALLS. THIS DETAIL REQUIRED AT ALL EXTERIOR WALLS AND OVER SHEAR WALLS – NOT REQUIRED AT INTERIOR NON–SHEAR WALLS.

T4 ELEVATION – TYPICAL TOP PLATE SPLICE
W09 NO SCALE



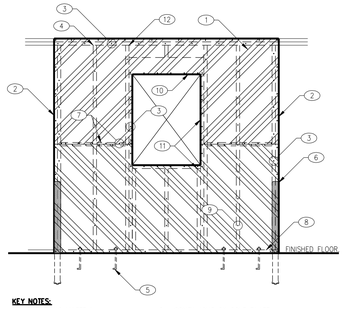
KEY NOTES:
1. SHEATHING MATERIAL.
2. DOUBLE STUDS AT EACH END OF SHEARWALL. EDGE NAIL ALONG DOUBLE STUDS.
3. FULL HEIGHT WOOD STUDS.
4. BOTTOM PLATE ATTACHMENT.
5. SIMPSON STHD TYPE HOLDOWN.
6. MIDHEIGHT BLOCKING AND EDGE NAILING REQUIRED.
7. SIMPSON PHD TYPE HOLDOWN.
8. FINISHED FLOOR.

T5 ELEVATION–TYPICAL 1–STORY SHEARWALL
W0602 NO SCALE

CONNECTION	NAILING	TYPE
JOIST OR TRUSS BEARING ON SILL OR GIRDER	(3)–8d	TOENAIL
BRIDGING TO JOIST	(2)–8d	TOENAIL
SOLE PLATE TO JOIST OR BLOCKING	16d AT 16" O.C.	FACE NAIL
TOP PLATE TO STUD	(2)–16d	END NAIL
STUD TO SOLE PLATE	(2)–16d, END NAIL	–NA–
DOUBLE STUDS	16d AT 24" O.C.	FACE NAIL
DOUBLE TOP PLATES	16d AT 16" O.C.	FACE NAIL
TOP PLATES, LAP AND INTERSECTIONS	(2)–16d	FACE NAIL
CONTINUOUS HEADER, TWO PIECES	16d AT 16" O.C. ALONG EACH EDGE	–NA–
CEILING JOISTS TO PLATE	(3)–8d	TOENAIL
CONTINUOUS HEADER TO STUD	(4)–8d	TOENAIL
CEILING JOISTS, LAPS OVER PARTITIONS	(3)–16d	FACE NAIL
CEILING JOISTS TO PARALLEL RAFTERS	(3)–16d	FACE NAIL
RAFTER OR TRUSS TO PLATE	(3)–8d	TOENAIL
1" BRACE TO EACH STUD AND PLATE	(2)–8d	FACE NAIL
BUILT–UP CORNER STUDS	16d AT 24" O.C.	–NA–

NOTE:
1. MINIMUM NAILING SPECIFIED HEREIN SHALL BE PROVIDE UNLESS NOTED OTHERWISE ON PLANS, DETAILS OR GENERAL STRUCTURAL NOTES.
2. NAILING NOT NOTED ON THESE PLANS OR DETAILS SHALL BE PER I.B.C. TABLE 2304.9.1.

T6 MINIMUM NAILING SCHEDULE – UNLESS NOTED OTHERWISE
W01–2012 NO SCALE

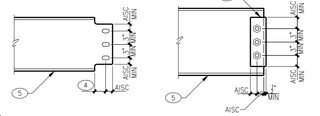


KEY NOTES:
1. SHEATHING MATERIAL.
2. SHEARWALL END POST (DOUBLE STUD AT HOLDOWN U.N.O.).
3. EDGE NAILING AT ALL SHEATHING PANEL EDGES – STAGGER NAILS AT DOUBLE STUD END POSTS.
4. FULL HEIGHT WOOD STUDS.
5. ANCHOR BOLTS TO FOUNDATION OR NAILS TO LOWER FRAMING PER SHEARWALL SCHEDULE.
6. SIMPSON STRAP TYPE HOLDOWN.
7. SOLID BLOCKING AND EDGE NAILING REQUIRED AT PLYWOOD SHEET EDGES.
8. CONTINUOUS 2X SOLE PLATE.
9. FIELD NAILING AWAY FROM PANEL EDGES.
10. WOOD HEADER.
11. TRIMMER STUD UNDER HEADER AND SILL. PROVIDE ADDITIONAL TRIMMER STUDS WHERE INDICATED ON PLANS.
12. FULL HEIGHT KING STUD.
13. PROVIDE ADDITIONAL KING STUDS WHERE INDICATED ON PLANS.

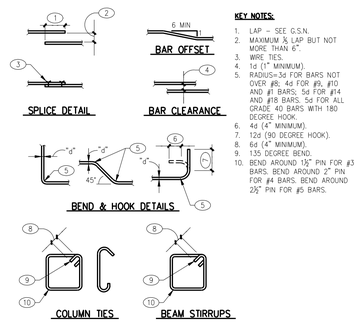
T7 ELEVATION–PERFORATED SHEARWALL AT FOUNDATION
W0604 NO SCALE

NOMINAL BEAM DEPTH "D"	NUMBER OF 3/4" DIA. ASTM, A325N BOLTS
UP TO 7"	2
8" – 11"	2
12" – 14"	3
15" – 17"	4
18" – 20"	5
21" – 23"	6
24" – 29"	7
30" – 32"	8
33" – 35"	9
36"	10

KEY NOTES:
1. THE TYPICAL STEEL BEAM TO STEEL COLUMN OR STEEL BEAM TO STEEL BEAM CONNECTION CONSISTS OF ⅜" THICK SINGLE SHEAR PLATES WITH ¾"ø ASTM A325N BOLTS. USE ⅜" SHEAR PLATES WHERE "D"=27" OR GREATER.
2. ALL BOLTS SHALL BE INSTALLED USING SHORT SLOTTED HOLES IN EITHER THE BEAM WEB OR THE SHEAR PLATE PER LATEST AISC SPECIFICATIONS.
3. MAINTAIN MINIMUM BOLT SPACING AND EDGE DISTANCES PER AISC SPECIFICATIONS, 1.16.4 AND 1.16.5, AND AS SHOWN BELOW.
4. CLIP FLANGE FOR ½" CLR.
5. STEEL BEAM.
6. SHEAR PLATE.

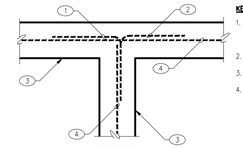


T1 BOLT SCHEDULE FOR STEEL CONNECTIONS
S02 NO SCALE



KEY NOTES:
1. LAP – SEE G.S.N.
2. MAXIMUM ¾ LAP BUT NOT MORE THAN 6".
3. WIRE TIES.
4. 1d (1" MINIMUM).
5. RADIUS=3d FOR BARS NOT OVER #8. 4d FOR #9, #10 AND #11 BARS. 5d FOR #14 AND #18 BARS. 5d FOR ALL GRADE 40 BARS WITH 180 DEGREE HOOK.
6. 4d (4" MINIMUM).
7. 12d (90 DEGREE HOOK).
8. 6d (4" MINIMUM).
9. 135 DEGREE BEND.
10. BEND AROUND 1½" PIN FOR #3 BARS. BEND AROUND 2" PIN FOR #4 BARS. BEND AROUND 2½" PIN FOR #5 BARS.

T2 TYPICAL REINFORCING DETAILS
C01 NO SCALE



KEY NOTES:
1. CORNER BARS SAME SIZE AND SPACING AS HORIZONTAL REINFORCING, MINIMUM LAP PER G.S.N..
2. ALTERNATE DIRECTION OF BENDS.
3. CONCRETE STEM WALL OR FOOTING.
4. REINFORCING PER PLANS AND SCHEDULES.

T3 PLAN – CORNER REINFORCING IN CONCRETE FOOTINGS AND/OR CONCRETE STEM WALLS
F02 NO SCALE

TYPICAL DETAILS T1–T13

JOB NO.: 2015–0287	PROJECT MANAGER: AGK	CAD OPERATOR: MJS

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DRAWING: TYPICAL DETAILS T1–T1□

PROJECT: Lembke-Mellul Residence
PRESCOTT, A□ 86 0□

DRAWN BY	MJS
C□ECKED BY	A□K
DATE	2□16
SCALE	AS NOTED
JOB NO.	201□-0287
S□EET	□1.1

ALTERNATE FASTENER SCHEDULE

MATERIAL: 1/2" SHEARWALL OR ROOF SHEATHING

SPECIFIED FASTENER	ALTERNATE FASTENER
8d COMMON AT 12" O.C.	16 GA STAPLE AT 12" O.C.
	15 GA STAPLE AT 12" O.C.
	14 GA STAPLE AT 12" O.C.
	13 GA STAPLE AT 12" O.C.
8d COMMON AT 6" O.C.	16 GA STAPLE AT 4" O.C.
	15 GA STAPLE AT 5" O.C.
	14 GA STAPLE AT 6" O.C.
	13 GA STAPLE AT 6" O.C.
10d COMMON AT 12" O.C.	16 GA STAPLE AT 12" O.C.
	15 GA STAPLE AT 12" O.C.
	14 GA STAPLE AT 12" O.C.
	13 GA STAPLE AT 12" O.C.
10d COMMON AT 6" O.C.	16 GA STAPLE AT 3" O.C.
	15 GA STAPLE AT 4" O.C.
	14 GA STAPLE AT 5" O.C.
	13 GA STAPLE AT 6" O.C.

NOTES:
1. STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF 7/16 INCH OUSIDE DIMENSION.
2. FRAMING SHALL BE 3X OR WIDER WHEN NAIL OR STAPLE SPACING IS LESS THAN 3 INCHES ON CENTER.
3. ALL STAPLES SHALL HAVE 1-1/2" LONG LEGS MINIMUM.
4. STAPLE SIZES AND SPACING PER REPORT NO. NER-272.

SCH0903

WALL REINFORCING (W) SCHEDULE

MARK	THICKNESS	REINFORCING	REMARKS
W1	8" CMU	#5 AT 48" O.C. CENTERED	---

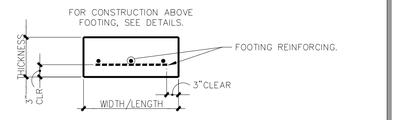
SCH14A

MASONRY COLUMN (MC) SCHEDULE

MARK	SIZE	REINFORCING		REMARKS
		VERTICAL	TIES	
MC1	56" X 32"	(8) #5	#3 AT 8" O.C.	SEE ARCHITECTURAL FOR DIMENSIONS AND SLOPE
MC2	72" X 72"	(12) #5	#3 AT 8" O.C.	SEE ARCHITECTURAL FOR DIMENSIONS AND SLOPE

SCH0301

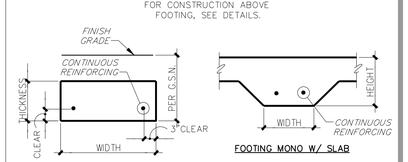
CONCRETE FOOTING (F) SCHEDULE



MARK	DIMENSIONS			FOOTING REINFORCING	REMARKS
	LENGTH	WIDTH	THICKNESS		
F1	2'-0"	2'-0"	10"	(4) #4 EACH WAY	---
F2	3'-6"	3'-6"	10"	(7) #4 EACH WAY	---
F3	6'-0"	4'-0"	10"	(8) #4 LONG WAY (11) #4 SHORT WAY	---
F4	7'-0	3'-6"	10"	(7) #4 LONG WAY (13) #4 SHORT WAY	SEE PLAN TO CLARIFY DIMENSIONS

SCH02

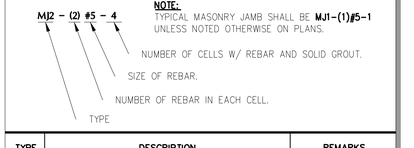
WALL FOOTING (WF) SCHEDULE



MARK	DIMENSIONS		FOOTING REINFORCING	FOOTING TYPE
	WIDTH	HEIGHT OR THICKNESS		
WF1	16"	10"	(2) #4 CONT.	STRIP FOOTING
WF2	24"	10"	(3) #4 CONT.	STRIP FOOTING
WF3	16"	12"	(2) #4 CONT.	MONO W/ SLAB
WF4	16"	8"	N/A	MONO W/ SLAB

SCH01

MASONRY JAMB (MJ) SCHEDULE



TYPE	DESCRIPTION	REMARKS
MJ1	MASONRY JAMB W/ REBAR CENTERED	---
MJ2	MASONRY JAMB W/ REBAR AT EACH FACE OF WALL	---

MJ-SCH01

LEDGER (L) SCHEDULE

NOTES: 1. ALL LEDGERS SHALL HAVE MINIMUM OF 2 WELD PLATES OR ANCHOR BOLTS AS NOTED BELOW.
2. WELD PLATES OR ANCHOR BOLTS SHALL BE LOCATED NOT LESS THAN 6" NOR MORE THAN 1'-4" FROM END OF LEDGER OR LEDGER SPLICE.

MARK	SIZE	CONNECTION
L1	2.5"X7.25" (5) ½" LAYERS BUILT-UP-PLYWOOD	⅝"ø BOLTS AT 24" O.C.
L2	2.5"X12" (5) ½" LAYERS BUILT-UP-PLYWOOD	(2) ⅝"ø BOLTS AT 24" O.C.
L3	2.5"X7.25" (5) ½" LAYERS BUILT-UP-PLYWOOD	⅝"ø BOLTS AT 24" O.C.
L4	2X8	(4) #10X3.5 SCREWS AT 24" O.C.

SCH0402

SHEARWALL SCHEDULE
(ALL EXTERIOR WALLS ARE 5 UNLESS NOTED OTHERWISE)

NOTES:
1. SHEARWALL TYPES LISTED BELOW ARE NOT JOB SPECIFIC. SOME TYPES MAY NOT BE USED ON PLANS.
2. BLOCK ALL PANEL EDGES WHERE INDICATED ON SCHEDULE. EDGE NAIL SHEATHING AT BLOCKED EDGES.
3. FRAMING MEMBER SUPPORTING MATERIAL SHALL BE SPACED AT 16" ON CENTER MAXIMUM.
4. ANCHOR BOLTS TO FOUNDATION SHALL BE 10 LONG AND SHALL BE EMBEDDED 7 INCHES INTO CONCRETE. EXPANSION BOLTS OR SHOT PINS MAY BE USED AT INTERIOR WALLS (AWAY FROM EDGE OF SLAB OR SLAB STEPDOWN) PER SUPPLEMENTAL INSTRUCTIONS.
5. A MINIMUM OF 2 ANCHOR BOLTS SHALL BE USED ON EACH BASE PLATE PIECE. PROVIDE 1 ANCHOR BOLT MINIMUM WITHIN 9 INCHES OF EACH END OF EACH PIECE.
6. PROVIDE CONTINUOUS DOUBLE 2X PLATE TOP PLATE AT ALL SHEAR WALLS AND EXTERIOR WALLS. UNLESS NOTED OTHERWISE, LAP SPLICE TOP PLATE A MINIMUM OF 6'-0" WITH 16d NAILS STAGGERED AT 4" ON CENTER (18-16d NAILS TOTAL BETWEEN SPLICE JOINTS).
7. PROVIDE FULL HEIGHT DOUBLE STUDS AT ENDS OF SHEAR WALLS UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.
8. ELEVATED SHEAR WALLS TO BE FRAMED OVER DOUBLE JOIST OR SOLID BLOCKING UNLESS NOTED OTHERWISE.
9. "L=P.P." DESIGNATES LENGTH OF SHEARWALL (±3").

MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	BOTTOM PLATE ATTACHMENT	
1 L=P.P.	1/2" GYPBOARD (UNBLOCKED) ONE SIDE OF WALL	5d COOLER AT 7" O.C. OR #6 SCREWS AT 6" O.C.	5d COOLER AT 7" O.C. OR #6 SCREWS AT 12 O.C.	CONCRETE: 1/2" DIA. A.B. AT 72" O.C.	
				WOOD: 16d STAGGERED AT 16" O.C.	
2 L=P.P.	5/8" GYPBOARD (UNBLOCKED) ONE SIDE OF WALL	6d COOLER AT 7" O.C. OR #6 SCREWS AT 6" O.C.	6d COOLER AT 7" O.C. OR #6 SCREWS AT 12 O.C.	CONCRETE: 1/2" DIA. A.B. AT 72" O.C.	
				WOOD: 16d STAGGERED AT 12" O.C.	
3 L=P.P.	1 BOTH SIDES	5d COOLER AT 7" O.C. OR #6 SCREWS AT 6" O.C.	5d COOLER AT 7" O.C. OR #6 SCREWS AT 12 O.C.	CONCRETE: 1/2" DIA. A.B. AT 48" O.C.	
				WOOD: 16d STAGGERED AT 8" O.C.	
4 L=P.P.	1 ONE SIDE 2 OTHER SIDE	SEE ABOVE	SEE ABOVE	CONCRETE: 1/2" DIA. A.B. AT 36" O.C.	
				WOOD: 16d STAGGERED AT 6" O.C.	
5 L=P.P.	1/2" OR 3/8" PLYWOOD OR OSB (BLOCKED) ONE SIDE OF WALL	8d COMMON AT 6" O.C.	8d COMMON AT 12" O.C.	CONCRETE: 1/2" DIA. A.B. AT 36" O.C.	
				WOOD: 16d STAGGERED AT 6" O.C.	
6. L=P.P.	1/2" OR 3/8" PLYWOOD OR OSB (BLOCKED) ONE SIDE OF WALL	8d COMMON AT 4" O.C.	8d COMMON AT 12" O.C.	CONCRETE: 1/2" DIA. A.B. AT 24" O.C.	
				WOOD: 16d STAGGERED AT 4" O.C.	

SCH0901

SHEARWALL HOLDOWN SCHEDULE

MARK	HOLDOWN	SHEARWALL END POST	DETAIL REFERENCE	ALTERNATE HOLDOWN
1	SIMPSON HDU2	(2) 2X6 STUDS	107	NONE
2	SIMPSON HDU4	(2) 2X6 STUDS	108	NONE
3	SIMPSON HDU8	(2) 2X6 STUDS	107	NONE
4	SIMPSON HDU2	(2) 2X6 STUDS	108	NONE

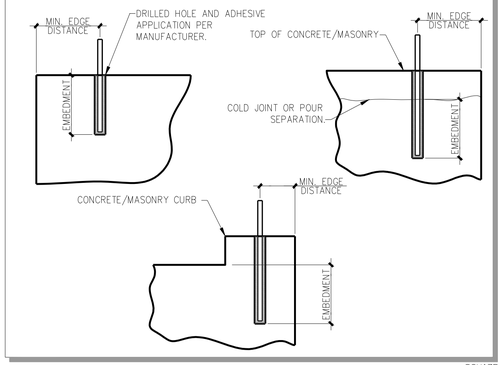
SCH17

ALTERNATE EPOXY ANCHOR SCHEDULE

NOTE: TO BE USED WHEN CAST-IN-PLACE HOLDOWN ANCHORS ARE INCORRECTLY INSTALLED. SPECIAL INSPECTION IS REQUIRED

SPECIFIED ANCHOR	ALTERNATE ANCHOR	DRILLED HOLE	MINIMUM EDGE DISTANCE
SIMPSON SSTB16	15" LONG X 5/8"ø A307 THREADED ROD	3/4"ø X 12" DEEP	1.75 INCHES
SIMPSON SSTB28	27" LONG X 7/8"ø A307 THREADED ROD	1"ø X 24" DEEP	1.75 INCHES

SCHEDULE NOTES:
1. CLEAN ALL DRILLED HOLES WITH COMPRESSED AIR.
2. CONCRETE: USE HILTI HIT-RE 500-SD ADHESIVE (ESR-2322) OR SIMPSON SET-XP (ESR-2508). MASONRY: USE SIMPSON "SET" ADHESIVE (ESR-1772).
3. INSTALL ALL SYSTEMS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
4. DO NOT PLACE ALL-THREAD ROD WITHIN MINIMUM EDGE DISTANCE TO FREE EDGE OF CONCRETE OR ADJACENT BOLTS.



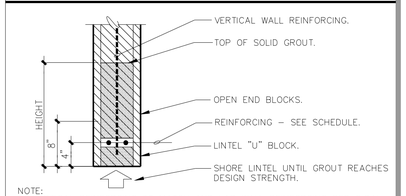
SCH17B

SHEARWALL HOLDOWN FASTENERS

HOLDOWN	HOLDOWN CONNECTS TO STRUCTURE BELOW WITH:	HOLDOWN CONNECTS TO SHEARWALL ENDPOST WITH:
SIMPSON HDU2	CAST-IN-PLACE SIMPSON SSTB16 ANCHOR BOLT	(6) 1/4"X2.5" SDS SCREWS
SIMPSON HDU4	CAST-IN-PLACE SIMPSON SSTB16 ANCHOR BOLT	(10) 1/4"X2.5" SDS SCREWS
SIMPSON HDU8	CAST-IN-PLACE SIMPSON SSTB28 ANCHOR BOLT	(20) 1/4"X2.5" SDS SCREWS

SCH17C

MASONRY LINTEL (ML) SCHEDULE



NOTE:
1. VERTICAL REINFORCING TO MATCH AND LAP WALL REINFORCING PER G.S.N.
2. EXTEND GROUT, OPEN END MASONRY UNITS AND REINFORCING 2'-0" PAST EACH JAMB. USE CORNER BARS WHERE 2'-0" CANNOT BE ACHIEVED.

MARK	HEIGHT	REINFORCING
ML1	80"	(2) #5 HORIZONTAL
ML2	80"	(2) #5 HORIZONTAL AND #5 AT 16" O.C. VERTICAL
ML3	64"	(2) #5 HORIZONTAL AND #5 AT 16" O.C. VERTICAL
ML4	64"	(2) #5 HORIZONTAL

SCH0701

PERFORATED SHEARWALL TYPES

MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	BOTTOM PLATE ATTACHMENT
13 L=P.P.	1/2" OR 3/8" PLYWOOD OR OSB ONE SIDE OF WALL	8d COMMON AT 6" O.C.	8d COMMON AT 12" O.C.	CONCRETE: 1/2" DIA. A.B. AT 28" O.C.
				WOOD: 16d STAGGERED AT 6" O.C.

NOTES:
1. SHEARWALL TYPES LISTED ABOVE ARE NOT JOB SPECIFIC. SOME TYPES MAY NOT BE USED ON THE PLANS.
2. FRAMING MEMBER SUPPORTING MATERIAL SHALL BE SPACED AT 16" O.C. MAXIMUM.
3. ANCHOR BOLTS TO FOUNDATION SHALL BE 10" LONG AND SHALL BE EMBEDDED 7" INTO CONCRETE. WASHERS SHALL BE 2" SQUARE x 1/4" THICK AND PLACED ON TOP OF BOTTOM PLATE.
4. A MINIMUM OF 2 ANCHOR BOLTS SHALL BE USED ON EACH BASE PLATE PIECE. PROVIDE 1 ANCHOR BOLT MINIMUM WITHIN 9 INCHES OF EACH END OF EACH PIECE.
5. PROVIDE CONTINUOUS DOUBLE 2X PLATE TOP PLATE AT ALL SHEAR WALLS AND EXTERIOR WALLS. UNLESS NOTED OTHERWISE, LAP SPLICE TOP PLATE A MINIMUM OF 6'-0" WITH 16d NAILS STAGGERED AT 4" ON CENTER (18-16d NAILS TOTAL BETWEEN SPLICE JOINTS).
6. PROVIDE FULL HEIGHT DOUBLE STUDS AT ENDS OF SHEAR WALLS UNLESS NOTED OTHERWISE ON PLANS OR DETAILS. ONE TRIMMER/ONE KING STUD EACH SIDE OF EACH OPENING.
7. BLOCK ALL PANEL EDGES. EDGE NAIL SHEATHING AT BLOCKED EDGES.
8. **PLYWOOD SHEATHING SHALL CONTINUE ABOVE AND BELOW OPENING.**

SCH0905

BEAM (B) SCHEDULE

MARK	SIZE	CAMBER
B1	5⅛X12 GLB	.
B2	5⅛X12 GLB	.
B3	W12X40	.

SCH10

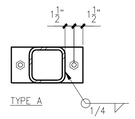
HEADER (H) SCHEDULE

MARK	SIZE	REMARKS
H1	4X8	OR (2) 2X10
H2	4X8	OR (2) 2X8
H3	6X12 DF#1	OR 3⅛X10.5 GLB
H4	4X10	OR 3⅛X6 GLB

SCH12

COLUMN (C) SCHEDULE

MARK	SIZE	BASE CONNECTION	BASE CONNECTION TYPE	
C1	HSS4X4X5/16 STEEL COLUMN	10"X4"X½" THK STEEL PLATE W/ (2) ⅝"ø EXPANSION ANCHORS	TYPE A	



SCH0601

ROOF JOIST (RJ) SCHEDULE

MARK	SIZE	REMARKS
RJ1	16" TJI 560 SERIES AT 24" O.C.	---
RJ2	2X8 AT 24"O.C.	---
RJ3	2X10 AT 24" O.C.	---

SCH1302

PLAN SCHEDULES

JOB NO.: 2015-0287 | PROJECT MANAGER: AGK | CAD OPERATOR: MJS

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DRAWING: PLAN SCHEDULES

PROJECT: Lembke-Mellul Residence
PRESCOTT, AZ 86 0

DRAWN BY	MJS
CHECKED BY	AGK
DATE	2/1/16
SCALE	AS NOTED
JOB NO.	201 -0287
SHEET	1.2

WALL REINFORCING (W) SCHEDULE

MARK	THICKNESS	REINFORCING	REMARKS
W1	8" CMU	#5 AT 48" O.C. CENTERED	---

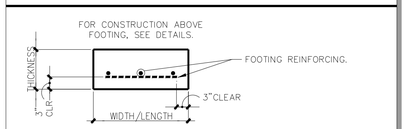
SCH14A

MASONRY COLUMN (MC) SCHEDULE

MARK	SIZE	REINFORCING		REMARKS
		VERTICAL	TIES	
MC1	56" X 32"	(8) #5	#3 AT 8" O.C.	SEE ARCHITECTURAL FOR DIMENSIONS AND SLOPE
MC2	72" X 72"	(12) #5	#3 AT 8" O.C.	SEE ARCHITECTURAL FOR DIMENSIONS AND SLOPE

SCH0301

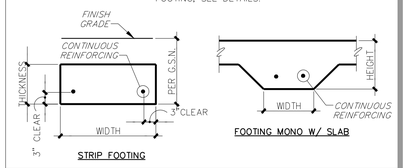
CONCRETE FOOTING (F) SCHEDULE



MARK	DIMENSIONS			FOOTING REINFORCING	REMARKS
	LENGTH	WIDTH	THICKNESS		
F1	2'-0"	2'-0"	10"	(4) #4 EACH WAY	---
F2	3'-6"	3'-6"	10"	(7) #4 EACH WAY	---
F3	6'-0"	4'-0"	10"	(8) #4 LONG WAY (11) #4 SHORT WAY	---
F4	7'-0	3'-6"	10"	(7) #4 LONG WAY (13) #4 SHORT WAY	SEE PLAN TO CLARIFY DIMENSIONS

SCH02

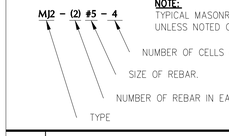
WALL FOOTING (WF) SCHEDULE



MARK	DIMENSIONS		FOOTING REINFORCING	FOOTING TYPE
	WIDTH	HEIGHT OR THICKNESS		
WF1	16"	10"	(2) #4 CONT.	STRIP FOOTING
WF2	24"	10"	(3) #4 CONT.	STRIP FOOTING
WF3	16"	12"	(2) #4 CONT.	MONO W/ SLAB
WF4	16"	8"	N/A	MONO W/ SLAB

SCH01

MASONRY JAMB (MJ) SCHEDULE



NOTE: TYPICAL MASONRY JAMB SHALL BE MJ1-(1)#5-1 UNLESS NOTED OTHERWISE ON PLANS.

TYPE	DESCRIPTION	REMARKS
MJ1	MASONRY JAMB W/ REBAR CENTERED	---
MJ2	MASONRY JAMB W/ REBAR AT EACH FACE OF WALL	---

MJ-SCH01

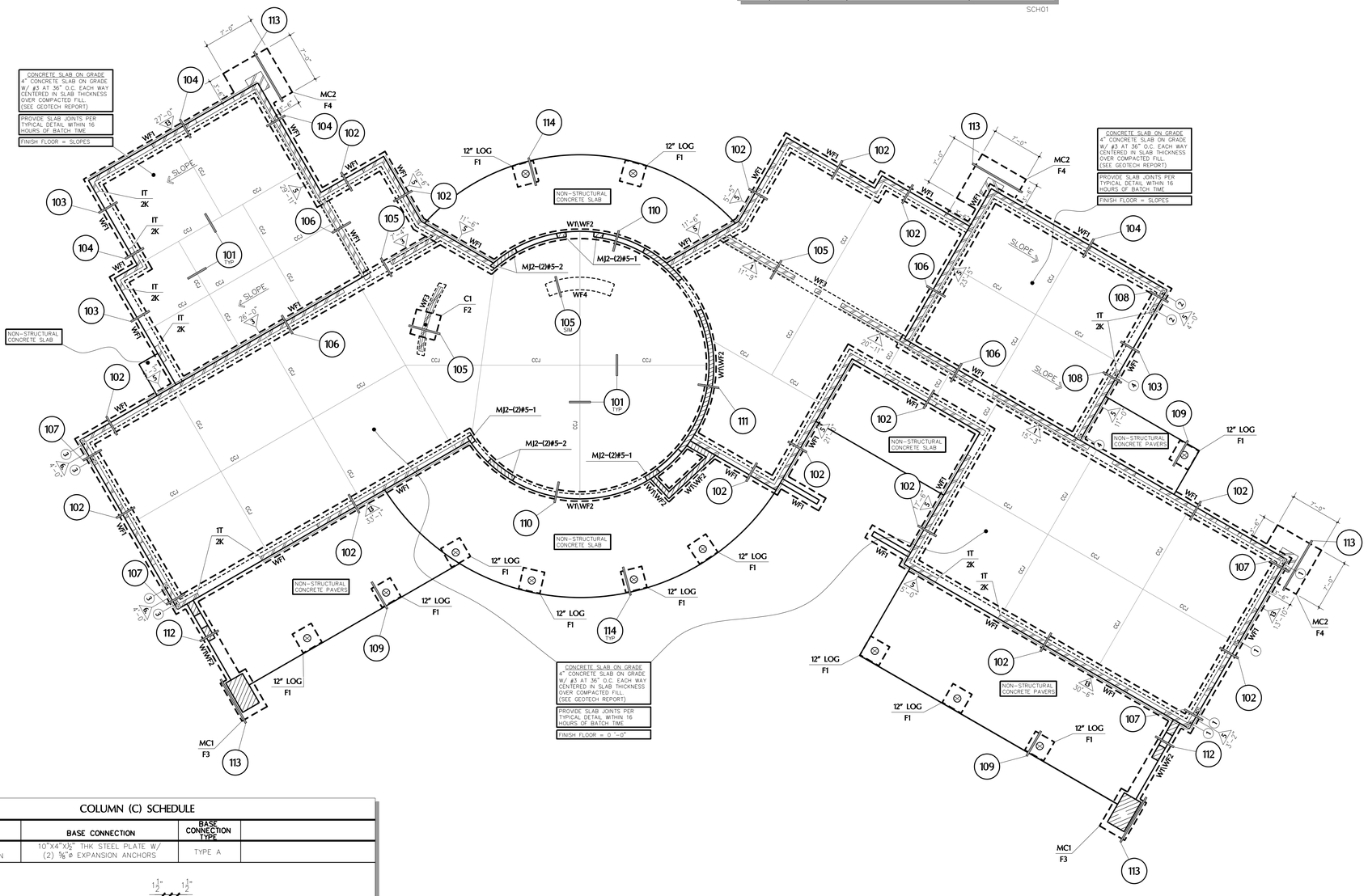
WALL SCHEDULE

NOTE: -HATCHING INDICATES STRUCTURAL ELEMENT CONTINUES TO THE NEXT LEVEL (VERIFY WITH ARCHITECTURAL DRAWINGS).
-SEE PLAN SCHEDULES, DETAILS, AND GENERAL STRUCTURAL NOTES FOR ADDITIONAL INFORMATION.

TYPICAL STEM WALL	8" CMU STEM WALL UP TO 4'-0" RETAINING #4 AT 48" O.C. VERTICAL #4 AT 48" O.C. HORIZONTAL CENTERED IN WALL
AS SEEN ON PLANS	INDICATES-
	4" WOOD STUD WALL. USE 2X4 AT 16" O.C. ALL OPENINGS HAVE 1 TRIMMER STUD AND 1 KING STUD AT EACH SIDE. (MIN. U.N.O.) BEAM/GIRDER POSTS: DOUBLE STUD (MIN. U.N.O.) SHEARWALL ENDPOSTS: DOUBLE STUD (MIN. U.N.O.)
	6" WOOD STUD WALL. USE 2X6 AT 16" O.C. ALL OPENINGS HAVE 1 TRIMMER STUD AND 1 KING STUD AT EACH SIDE. (MIN. U.N.O.) BEAM/GIRDER POSTS: DOUBLE STUD (MIN. U.N.O.) SHEARWALL ENDPOSTS: DOUBLE STUD (MIN. U.N.O.)
5 / 4'-0"	SHEARWALL. SEE SHEARWALL SCHEDULE FOR WALL SHEATHING AND NAILING.
	8" MASONRY (CMU) WALL. MINIMUM REINFORCING UNLESS NOTED OTHERWISE: VERTICAL: #4 AT 48" O.C. HORIZONTAL: #4 AT 4'-0" O.C. MAXIMUM.

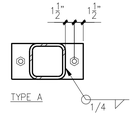
FOUNDATION PLAN NOTES

1. VERIFY ALL DIMENSIONS WITH ALL ARCHITECTURAL DRAWINGS.
2. THE DEPTH OF FOOTING DIMENSION INDICATED IN THE G.S.N. IS A MINIMUM. FOUNDATION CONTRACTOR SHALL COORDINATE WITH THE SOILS REPORT AND OTHER TRADES TO INSURE THAT THESE MINIMUMS ARE SUFFICIENT FOR THE WORK. SEE TYPICAL DETAILS FOR ADDITIONAL REQUIREMENTS.
3. WF1, WF2, ETC. – AS SHOWN ON PLAN INDICATES A CONTINUOUS WALL FOOTING. SEE WALL FOOTING SCHEDULE FOR ADDITIONAL INFORMATION.
4. F1, F2, ETC. – AS SHOWN ON PLAN INDICATES A CONCRETE FOOTING. SEE FOOTING SCHEDULE FOR ADDITIONAL INFORMATION.
5. W1, W2, ETC. – AS SHOWN ON PLAN INDICATES WALL REINFORCING. SEE WALL REINFORCING SCHEDULE FOR ADDITIONAL INFORMATION.
6. C1, C2, ETC. – AS SHOWN ON PLAN INDICATES A COLUMN. SEE COLUMN SCHEDULE FOR ADDITIONAL INFORMATION. COLUMNS START AT THE LEVEL THEY ARE CALLED OUT ON.
7. MC1, MC2, ETC. – AS SHOWN ON PLAN INDICATES A MASONRY COLUMN. SEE MASONRY COLUMN SCHEDULE FOR ADDITIONAL INFORMATION.
8. (1), (2), – AS SHOWN ON PLAN INDICATES A SHEARWALL HOLDOWN. SEE HOLDOWN SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION.
9. CCJ – AS SHOWN ON PLAN INDICATES LOCATION OF EITHER A KEYED OR A SAW CUT CONTROL JOINT IN THE SLAB ON GRADE AT CONTRACTOR'S OPTION. SEE GENERAL STRUCTURAL NOTES AND DETAIL (101)
10. VERIFY EXACT SIZE AND LOCATION OF DEPRESSED AND/OR RAISED SLABS WITH ARCHITECTURAL DRAWINGS.
11. FOR SIDEWALK AND LANDING LOCATIONS, SEE ARCHITECTURAL DRAWINGS.
12. MCJ – AS SHOWN ON PLAN INDICATES A MASONRY CONTROL JOINT IN A MASONRY WALL. SEE GENERAL STRUCTURAL NOTES AND TYPICAL DETAIL.



COLUMN (C) SCHEDULE

MARK	SIZE	BASE CONNECTION	BASE CONNECTION TYPE	
C1	HSS4X4X3/16 STEEL COLUMN	10"X4"X1/2" THK STEEL PLATE W/ (2) 3/8"ø EXPANSION ANCHORS	TYPE A	



SCH0601

FOUNDATION PLAN

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

LOCATION OF DETAILS

DETAILS	SHEET	DESCRIPTION
---	S1	GENERAL STRUCTURAL NOTES
T1-T12	S1.1	TYPICAL DETAILS
101-114	S4	FOUNDATION DETAILS
201-220	S5	FRAMING DETAILS

JOB NO.: 2015-0287 | PROJECT MANAGER: AGK | CAD OPERATOR: MJS

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Registered Professional Engineer (Structural) CERTIFICATE NO. 27941 RICHARD K. FROST U.S.A. Date Signed 11-30-16 ARIZONA U.S. EXPIRES 9/30/2017

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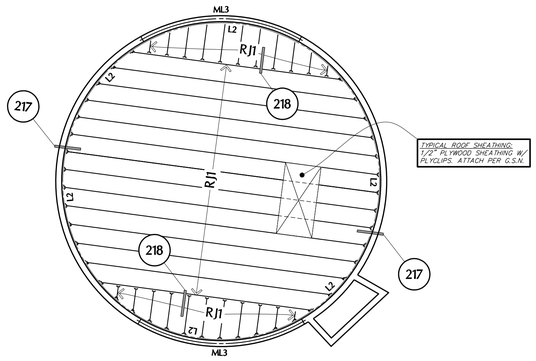
ARCHITECTURE & PLANNING

DRAWING: FOUNDATION PLAN

PROJECT: Lembke-Mellul Residence
PRESCOTT, AZ 86301

DRAWN BY	MJS
CHECKED BY	AGK
DATE	2.1.16
SCALE	AS NOTED
JOB NO.	2015-0287
SHEET	S2



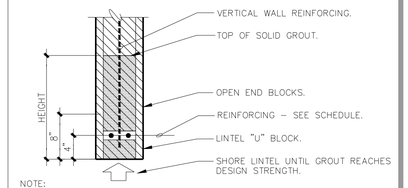
LEDGER (L) SCHEDULE

NOTES: 1. ALL LEDGERS SHALL HAVE MINIMUM OF 2 WELD PLATES OR ANCHOR BOLTS AS NOTED BELOW.
2. WELD PLATES OR ANCHOR BOLTS SHALL BE LOCATED NOT LESS THAN 6" NOR MORE THAN 1'-4" FROM END OF LEDGER OR LEDGER SPLICE.

MARK	SIZE	CONNECTION
L1	2.5"X7.25" (5) ½" LAYERS BUILT-UP-PLYWOOD	⅝"ø BOLTS AT 24" O.C.
L2	2.5"X12" (5) ½" LAYERS BUILT-UP-PLYWOOD	(2) ⅝"ø BOLTS AT 24" O.C.
L3	2.5"X7.25" (5) ½" LAYERS BUILT-UP-PLYWOOD	⅝"ø BOLTS AT 24" O.C.
L4	2X8	(4) #10X3.5 SCREWS AT 24" O.C.

SCH0402

MASONRY LINTEL (ML) SCHEDULE



NOTE:
1. VERTICAL REINFORCING TO MATCH AND LAP WALL REINFORCING PER G.S.N.
2. EXTEND GROUT, OPEN END MASONRY UNITS AND REINFORCING 2'-0" PAST EACH JAMB. USE CORNER BARS WHERE 2'-0" CANNOT BE ACHIEVED.

MARK	HEIGHT	REINFORCING
ML1	80"	(2) #5 HORIZONTAL
ML2	80"	(2) #5 HORIZONTAL AND #5 AT 16" O.C. VERTICAL
ML3	64"	(2) #5 HORIZONTAL AND #5 AT 16" O.C. VERTICAL
ML4	64"	(2) #5 HORIZONTAL

SCH0701

WALL SCHEDULE

NOTE: –SEE PLAN SCHEDULES, DETAILS AND GENERAL STRUCTURAL NOTES FOR ADDITIONAL INFORMATION.

AS SEEN ON PLANS	INDICATES–
[dashed]	STRUCTURAL WALL BELOW (BEARING WALL, SHEARWALL, OR EXTERIOR WALL)
	NON-STRUCTURAL WALL BELOW.
[solid]	PARAPET WALL

ROOF FRAMING PLAN NOTES

1. VERIFY ALL DIMENSIONS WITH ALL ARCHITECTURAL DRAWINGS.
2. B1, B2, ETC. – AS SHOWN ON PLAN INDICATES A BEAM. SEE BEAM SCHEDULE FOR ADDITIONAL INFORMATION.
3. RJ1, RJ2, ETC. – AS SHOWN ON PLAN INDICATES ROOF JOISTS. SEE ROOF JOIST SCHEDULE FOR ADDITIONAL INFORMATION.
4. H1, H2, ETC. – AS SHOWN ON PLAN INDICATES A HEADER. SEE HEADER SCHEDULE FOR ADDITIONAL INFORMATION.
5. ML1, ML2, ETC. – AS SHOWN ON PLAN INDICATES A MASONRY LINTEL. SEE MASONRY LINTEL SCHEDULE FOR ADDITIONAL INFORMATION.
6. FOR MISCELLANEOUS LINTELS NOT SHOWN, SEE G.S.N. MASONRY CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR SIZES AND LOCATIONS.
7. L1, L2, ETC. – AS SHOWN ON PLAN INDICATES A LEDGER. SEE LEDGER SCHEDULE FOR ADDITIONAL INFORMATION.
8. MCJ – AS SHOWN ON PLAN INDICATES A MASONRY CONTROL JOINT IN A MASONRY WALL. SEE G.S.N. AND TYPICAL DETAIL. JOINTS MAY BE SHOWN, BUT NOT NOTED ON THIS PLAN. SEE FOUNDATION PLAN FOR NOTED LOCATIONS.
9. FOR CLARITY, DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
10. [ ] INDICATES HVAC EQUIPMENT ON ROOF OR IN ATTIC SPACE. SEE TYPICAL DETAILS FOR FRAMING INFORMATION.
11. VERIFY EXACT SIZE AND WEIGHT OF EQUIPMENT ON ROOF WITH MECHANICAL CONTRACTOR.

BEAM (B) SCHEDULE

MARK	SIZE	CAMBER
B1	5⅛X12 GLB	-
B2	5⅛X12 GLB	-
B3	W12X40	-

SCH10

HEADER (H) SCHEDULE

MARK	SIZE	REMARKS
H1	4X8	OR (2) 2X10
H2	4X8	OR (2) 2X8
H3	6X12 DF#1	OR 3⅛X10.5 GLB
H4	4X10	OR 3⅛X6 GLB

SCH12

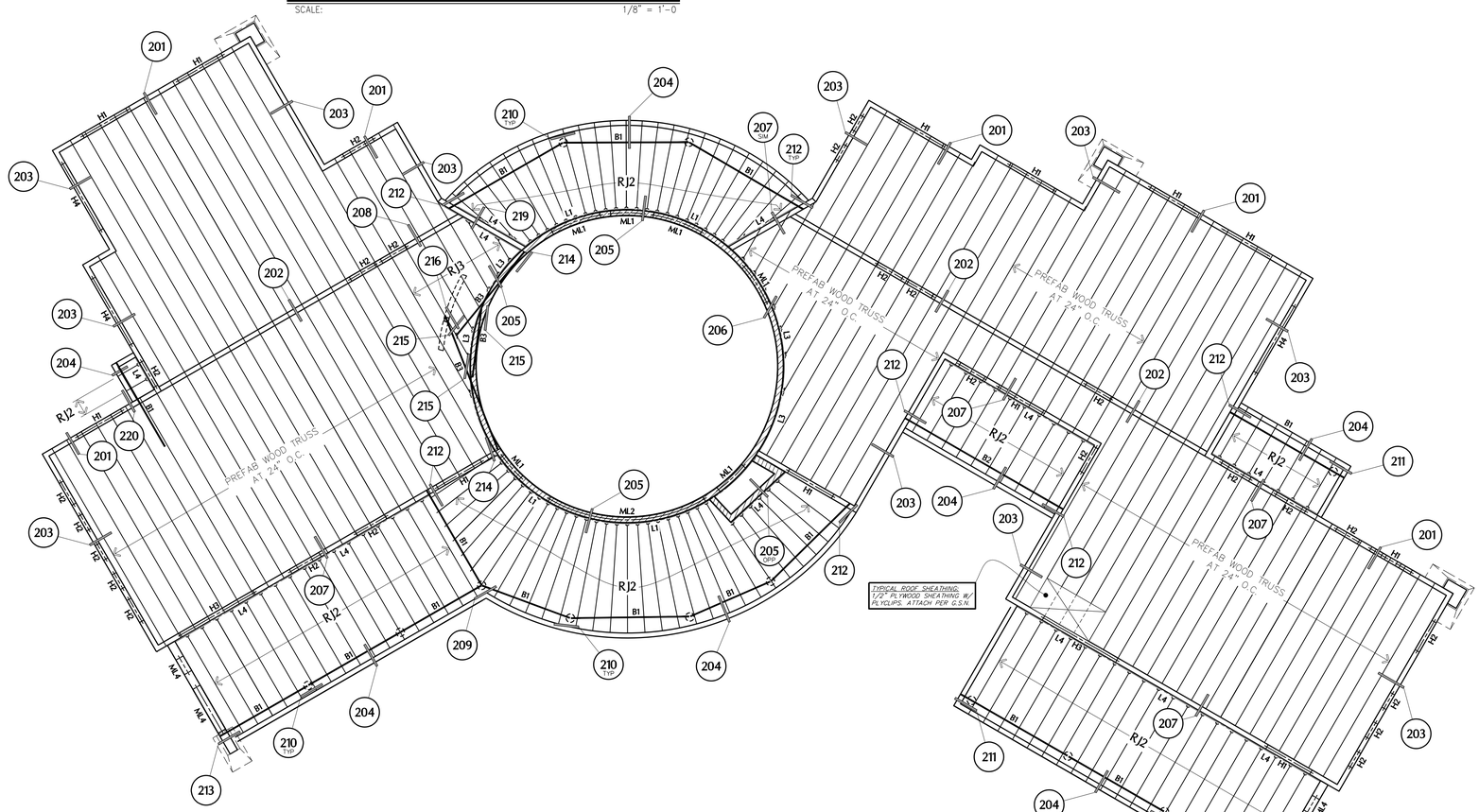
ROOF JOIST (RJ) SCHEDULE

MARK	SIZE	REMARKS
RJ1	16" TJI 560 SERIES AT 24" O.C.	---
RJ2	2X8 AT 24"O.C.	---
RJ3	2X10 AT 24" O.C.	---

SCH1302

HIGH ROOF FRAMING PLAN

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



ROOF FRAMING PLAN

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

LOCATION OF DETAILS

DETAILS	SHEET	DESCRIPTION
---	S1	GENERAL STRUCTURAL NOTES
T1-T12	S1.1	TYPICAL DETAILS
101-114	S4	FOUNDATION DETAILS
201-220	S5	FRAMING DETAILS

JOB NO.: 2015-0287 | PROJECT MANAGER: AGK | CAD OPERATOR: MJS

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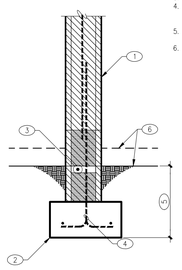
ARCHITECTURE & PLANNING

DRAWING: ROOF FRAMING PLAN

PROJECT: Lembke-Mellul Residence
PRESCOTT, AZ 86301

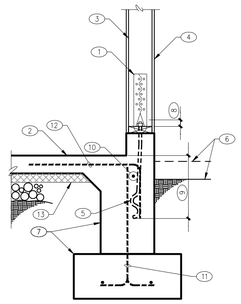
DRAWN BY	MJS
CHECKED BY	AGK
DATE	2.1.16
SCALE	AS NOTED
JOB NO.	2015-0287
SHEET	3



KEY NOTES:

1. MASONRY WALL.
2. CONCRETE FOOTING.
3. (1) #4 CONTINUOUS.
4. DOWELS TO MATCH AND LAP VERTICAL WALL REINFORCING PER G.S.N.–ALTERNATE BENDS.
5. MINIMUM FOOTING DEPTH PER G.S.N.
6. SIDEWALK, PAVEMENT OR FINISH GRADE PER ARCHITECTURAL DRAWINGS.

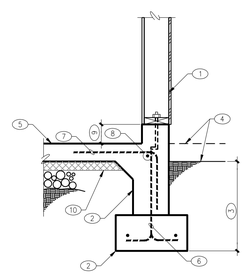
112 MASONRY WALL AT CONCRETE FOOTING
MW–CF0409 NO SCALE



KEY NOTES:

1. HOLDOWN PER SCHEDULE.
2. CONCRETE SLAB ON GRADE.
3. SHEARWALL END POST (DOUBLE STUD AT HOLDOWN U.N.O.)
4. WALL SHEATHING PER PLAN.
5. SIMPSON SSTB TYPE ANCHOR BOLT.
6. SIDEWALK, PAVEMENT, OR FINISH GRADE PER ARCHITECTURAL DRAWINGS.
7. CONCRETE STEMWALL AND FOOTING.
8. 1" MINIMUM / 12" MAXIMUM.
9. MINIMUM EMBEDMENT AS REQUIRED BY MANUFACTURER.
10. CONTINUOUS REBAR PER FOUNDATION DETAILS.
11. #4 VERTICAL AT 48" O.C.
12. #4 HOOK 24"/12"AT 48" O.C.
13. R–10 RIGID INSULATION.

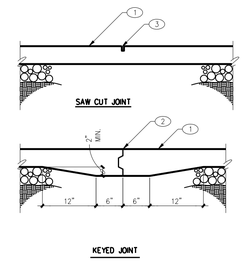
108 "HDU" TYPE HOLDOWN AT CONCRETE FOUNDATION
NO SCALE



KEY NOTES:

1. WOOD STUD WALL.
2. CONCRETE STEM WALL AND CONCRETE FOOTING W/ REINFORCING CONTINUOUS FROM BEYOND.
3. MINIMUM FOOTING DEPTH PER G.S.N.
4. SIDEWALK, PAVEMENT OR FINISH GRADE PER ARCHITECTURAL DRAWINGS.
5. CONCRETE SLAB ON GRADE.
6. #4 VERTICAL, 48" O.C.
7. #4 HOOK 24"/12" AT 48" O.C.
8. (1) #4 CONTINUOUS.
9. CURB HEIGHT VARIES.
10. R–10 RIGID INSULATION.

104 WOOD STUD WALL AT CONCRETE FOOTING
WSW–CF0307 NO SCALE



KEY NOTES:

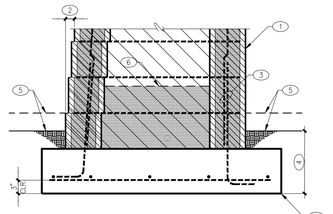
1. CONCRETE SLAB ON GRADE.
2. CONTINUOUS KEYED JOINT.
3. SAWCUT–¼" WIDE X ¼" SLAB THICKNESS IN DEPTH–CUT SHALL BE MADE SOON ENOUGH TO PREVENT SHRINKAGE CRACKING, BUT NOT SO SOON AS TO CAUSE SPALLING OF THE CONCRETE WHILE SAWING. WORK MUST BE COMPLETE WITHIN 16 HOURS OF CONCRETE PLACEMENT.

NOTE:
KEYED JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING PLACEMENT UNLESS SPECIFICALLY NOTED ON THE PLANS. "TOOL WET JOINT", "ZIP STRIP", ETC. SHALL MATCH SAWCUT REQUIREMENTS.

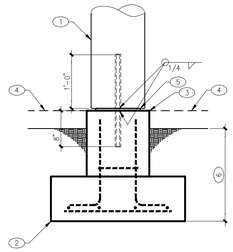
101 CONTROL JOINTS IN CONCRETE SLAB ON GRADE
CS0101 NO SCALE

KEY NOTES:

1. MASONRY "BOX COLUMN W/ BATTERED SIDES – SEE SCHEDULE FOR REINFORCING.
2. BATTER. VERIFY W/ ARCHITECTURAL PLANS.
3. MINIMUM LAP PER G.S.N.
4. MINIMUM FOOTING DEPTH PER G.S.N.
5. SIDEWALK, PAVEMENT OR FINISH GRADE PER ARCHITECTURAL DRAWINGS.
6. FILL CORE W/ GROUT 6" ABOVE GRADE MINIMUM.
7. CONCRETE FOOTING.



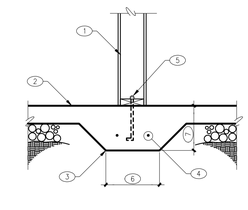
113 MASONRY COLUMN AT CONCRETE FOOTING
NO SCALE



KEY NOTES:

1. WOOD COLUMN.
2. CONCRETE FOOTING.
3. 12"ø CONCRETE PIER W/ (2) #4 VERTICAL
4. PAVERS PER ARCHITECTURAL DRAWINGS.
5. 10"wx½" THICK STEEL PLATE W/ ¾"ø A.307 THREADED ROD EPOXIED INTO WOOD COLUMN AND CONCRETE PIER W/ SIMPSON SET–XP.
6. MINIMUM FOOTING DEPTH PER G.S.N.

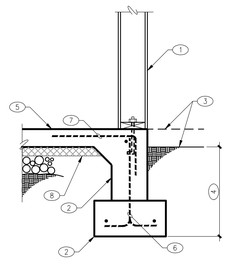
109 WOOD COLUMN AT CONCRETE FOOTING
WC–CF0302 NO SCALE



KEY NOTES:

1. WOOD STUD WALL.
2. CONCRETE SLAB.
3. THICKENED SLAB.
4. (2) #4 CONTINUOUS.
5. ⅝"ø X 10" LONG A.B. AT 48" O.C.
6. FOOTING WIDTH PER PLAN.
7. FOOTING DEPTH PER PLAN.

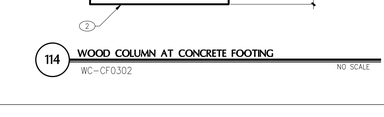
105 WOOD STUD WALL AT THICKENED SLAB
WSW–CF0105 NO SCALE



KEY NOTES:

1. WOOD STUD WALL.
2. CONCRETE STEM WALL AND CONCRETE FOOTING W/ REINFORCING CONTINUOUS FROM BEYOND.
3. SIDEWALK, PAVEMENT OR FINISH GRADE PER ARCHITECTURAL DRAWINGS.
4. MINIMUM FOOTING DEPTH PER G.S.N.
5. CONCRETE SLAB ON GRADE.
6. #4 VERT. AT 48" O.C.
7. #4 HOOK 24"/12" AT 48" O.C.
8. R–10 RIGID INSULATION.

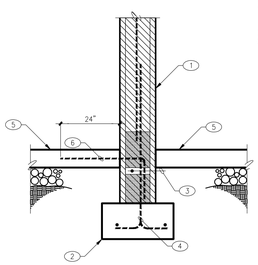
102 WOOD STUD WALL AT CONCRETE FOOTING
WSW–CF0301 NO SCALE



KEY NOTES:

1. WOOD COLUMN.
2. CONCRETE FOOTING.
3. CONCRETE SLAB ON GRADE.
4. SIDEWALK, PAVEMENT OR FINISH GRADE PER ARCHITECTURAL DRAWINGS.
5. 10"wx½" THICK STEEL PLATE W/ ¾"ø A.307 THREADED ROD EPOXIED INTO WOOD COLUMN AND CONCRETE W/ SIMPSON SET–XP.
6. MINIMUM FOOTING DEPTH PER G.S.N.
7. CONCRETE SLAB ON GRADE W/ TURNDOWN AT EDGE BEYOND.

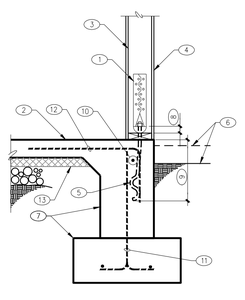
114 WOOD COLUMN AT CONCRETE FOOTING
WC–CF0302 NO SCALE



KEY NOTES:

1. MASONRY WALL.
2. CONCRETE FOOTING.
3. (1) #4 CONTINUOUS.
4. DOWELS TO MATCH AND LAP VERTICAL WALL REINFORCING PER G.S.N.–ALTERNATE BENDS.
5. CONCRETE SLAB ON GRADE.
6. #4 HOOK AT 48" O.C.

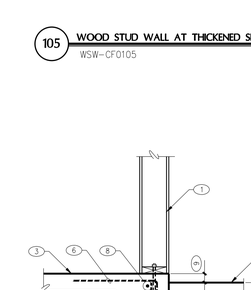
111 MASONRY WALL AT CONCRETE FOOTING
MW–CF0102 NO SCALE



KEY NOTES:

1. HOLDOWN PER SCHEDULE.
2. CONCRETE SLAB ON GRADE.
3. SHEARWALL END POST (DOUBLE STUD AT HOLDOWN U.N.O.)
4. WALL SHEATHING PER PLAN.
5. SIMPSON SSTB TYPE ANCHOR BOLT.
6. SIDEWALK, PAVEMENT, OR FINISH GRADE PER ARCHITECTURAL DRAWINGS.
7. CONCRETE STEMWALL AND FOOTING.
8. 1" MINIMUM / 12" MAXIMUM.
9. MINIMUM EMBEDMENT AS REQUIRED BY MANUFACTURER.
10. CONTINUOUS REBAR PER FOUNDATION DETAILS.
11. #4 VERTICAL AT 48" O.C.
12. #4 HOOK 24"/12"AT 48" O.C.
13. R–10 RIGID INSULATION.

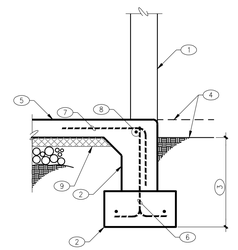
107 "HDU" TYPE HOLDOWN AT CONCRETE FOUNDATION
NO SCALE



KEY NOTES:

1. WOOD STUD WALL.
2. CONCRETE STEM WALL AND CONCRETE FOOTING W/ REINFORCING CONTINUOUS FROM BEYOND.
3. CONCRETE SLAB ON GRADE.
4. MINIMUM FOOTING DEPTH PER G.S.N.
5. #4 VERT. AT 48" O.C.
6. #4 HOOK 24"/12" AT 48" O.C.
7. R–10 RIGID INSULATION.
8. (1) #4 CONTINUOUS.
9. VARIES.

106 WOOD STUD WALL AT CONCRETE FOOTING
NO SCALE



KEY NOTES:

1. WOOD STUD WALL.
2. CONCRETE STEM WALL AND CONCRETE FOOTING W/ REINFORCING CONTINUOUS FROM BEYOND.
3. MINIMUM FOOTING DEPTH PER G.S.N.
4. SIDEWALK, PAVEMENT OR FINISH GRADE PER ARCHITECTURAL DRAWINGS.
5. CONCRETE SLAB ON GRADE, TOOLED EDGE AT OPENING.
6. #4 VERTICAL 48" O.C.
7. #4 HOOK 24"/12" AT 48" O.C.
8. (1) #4 CONTINUOUS.
9. R–10 RIGID INSULATION.

103 DOOR OPENING AT CONCRETE FOOTING
WSW–CF0302 NO SCALE

FOUNDATION DETAILS 101–113

JOB NO.: 2015–0287	PROJECT MANAGER: AGK	CAD OPERATOR: MJS

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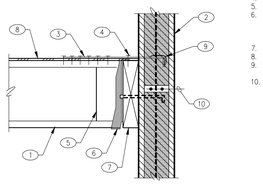
ARCHITECTURE & PLANNING

DRAWING: FOUNDATION DETAILS 101-113

PROJECT: Lembke-Mellul Residence
PRESCOTT, AZ 86 0

DRAWN BY	MJS
CHECKED BY	AGK
DATE	2.1.16
SCALE	AS NOTED
JOB NO.	201 -0287
SHEET	4



KEY NOTES:

1. WOOD I-JOIST.
2. MASONRY WALL.
3. SIMPSON PA23 TYPE PURLIN ANCHOR AT 8'-0" O.C.
4. EDGE NAILING.
5. WEB STIFFENER.
6. SIMPSON ITS TYPE HANGER OR SIMPSON W TYPE HANGER AT SKEWED LOCATIONS.
7. CONTINUOUS WOOD LEDGER.
8. PLYWOOD SHEATHING.
9. SOLID GROUT STRAP INTO WALL.
10. CONTINUOUS GROUTED BOND BEAM PER G.S.N.

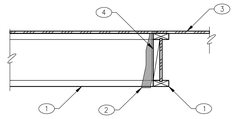
NOTE:

STRAP MAY BE PLACED UNDER PLYWOOD AT CONTRACTOR'S OPTION.

217 WOOD I-JOIST AT MASONRY WALL

WIJ-MW0101

NO SCALE

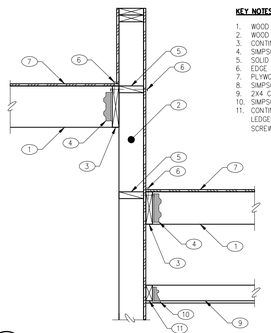


KEY NOTES:

1. WOOD I-JOIST.
2. SIMPSON ITS TYPE HANGER.
3. PLYWOOD SHEATHING.
4. WEB STIFFENER.

218 WOOD I-JOIST AT WOOD I-JOIST

NO SCALE

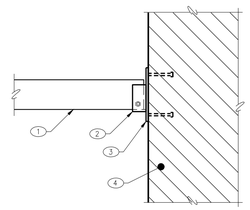


KEY NOTES:

1. WOOD JOIST.
2. WOOD STUD WALL.
3. CONTINUOUS WOOD LEDGER.
4. SIMPSON L90 ONE SIDE.
5. SOLID 2X BLOCKING.
6. EDGE NAILING.
7. PLYWOOD SHEATHING.
8. SIMPSON L70 ONE SIDE.
9. 2X4 CEILING JOIST.
10. SIMPSON A34 ONE SIDE.
11. CONTINUOUS 2X4 WOOD LEDGER W/ (3) #10X3.5" SCREWS AT 16" O.C.

219 WOOD JOIST AT WOOD STUD WALL

NO SCALE

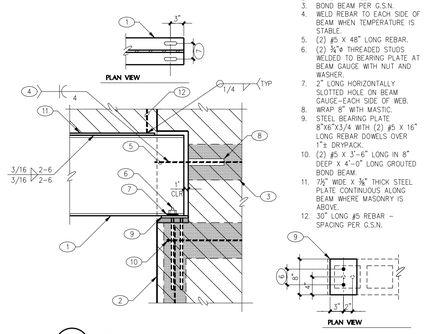


KEY NOTES:

1. WOOD BEAM.
2. ⅜" THICK X 3" BENT PLATE W/ (1) ⅞"ø THRU-BOLT.
3. ¼"X6"X12" BACK PLATE W/ (4) ⅜"ø HEADED STUDS.
4. MASONRY WALL/COLUMN.

213 WOOD BEAM AT MASONRY WALL

NO SCALE



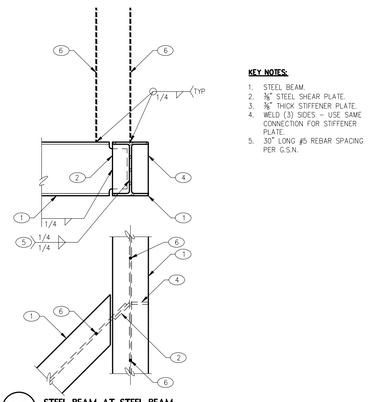
KEY NOTES:

1. STEEL BEAM.
2. MASONRY WALL.
3. BOND BEAM PER G.S.N.
4. WELD REBAR TO EACH SIDE OF BEAM WHEN TEMPERATURE IS STABLE.
5. (2) #5 X 48" LONG REBAR.
6. (2) ⅞"ø THREADED STUDS WELDED TO BEARING PLATE AT BEAM GAUGE WITH NUT AND WASHER.
7. 2" LONG HORIZONTALLY SLOTTED HOLE ON BEAM GAUGE-EACH SIDE OF WEB.
8. WRAP 8" WITH MASTIC.
9. STEEL BEARING PLATE 8"X6"X3/4 WITH (2) #5 X 16" LONG REBAR DOWELS OVER 1"± DRYPACK.
10. (2) #5 X 3'-6" LONG IN 8" DEEP X 4'-0" LONG GROUTED BOND BEAM.
11. 7/8" WIDE X ⅜" THICK STEEL PLATE CONTINUOUS ALONG BEAM WHERE MASONRY IS ABOVE.
12. 30" LONG #5 REBAR @ SPACING PER G.S.N.

214 STEEL BEAM AT MASONRY WALL

SB-MW0301

NO SCALE

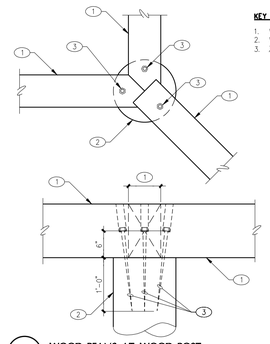


KEY NOTES:

1. STEEL BEAM.
2. ⅜" STEEL SHEAR PLATE.
3. ⅜" THICK STIFFENER PLATE.
4. WELD (3) SIDES – USE SAME CONNECTION FOR STIFFENER PLATE.
5. 30" LONG #5 REBAR SPACING PER G.S.N.

215 STEEL BEAM AT STEEL BEAM

NO SCALE

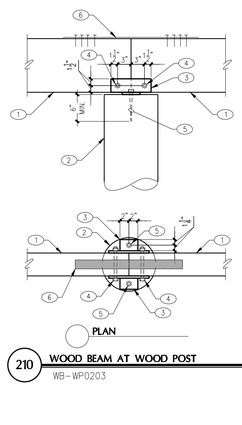


KEY NOTES:

1. WOOD BEAM.
2. WOOD POST.
3. ½"øX18" LONG LAG BOLT.

209 WOOD BEAMS AT WOOD POST

NO SCALE



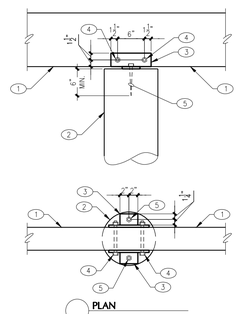
KEY NOTES:

1. WOOD BEAM.
2. WOOD COLUMN.
3. L3X2½X5/16 CLIPPED AS SHOWN.
4. ⅝"ø THRU BOLT.
5. ⅝"ø LAG BOLT.
6. SIMPSON ST6224 TYPE STRAP.

210 WOOD BEAM AT WOOD POST

WB-WP0203

NO SCALE

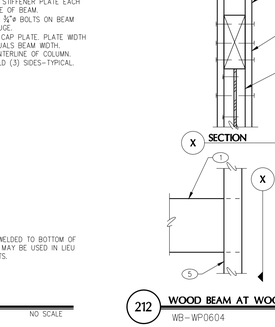


KEY NOTES:

1. WOOD BEAM.
2. WOOD COLUMN.
3. L3X2½X5/16 CLIPPED AS SHOWN.
4. ⅝"ø THRU BOLT.
5. ⅝"ø LAG BOLT.

211 WOOD BEAM AT WOOD POST

NO SCALE



KEY NOTES:

1. STEEL BEAM.
2. ⅜" STEEL COLUMN.
3. ⅜" STIFFENER PLATE EACH SIDE OF BEAM.
4. (2) ¾"ø BOLTS ON BEAM GAUGE.
5. ½" CAP PLATE. PLATE WIDTH EQUALS BEAM WIDTH.
6. CENTERLINE OF COLUMN.
7. WELD (3) SIDES-TYPICAL.

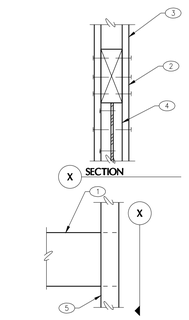
NOTE:

STUDS WELDED TO BOTTOM OF FLANGE MAY BE USED IN LIEU OF BOLTS.

216 STEEL BEAM AT STEEL COLUMN

SB-SC0101

NO SCALE



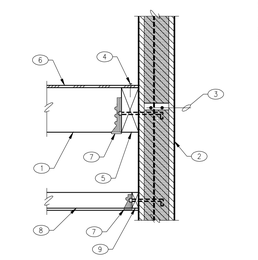
KEY NOTES:

1. WOOD BEAM.
2. WOOD STUD WALL.
3. FRAMING ABOVE NOT SHOWN FOR CLARITY.
4. MULTIPLE STUD BENEATH BEAM BEARING WITH PLYWOOD FILLER AS REQUIRED – NAIL TOGETHER WITH 16d AT 12" O.C.
5. RUN STUD ALONG SIDE OF BEAM AND NAIL WITH (3) 16d MIN.

212 WOOD BEAM AT WOOD STUD WALL

WB-WP0604

NO SCALE



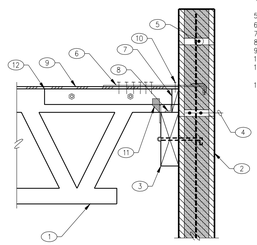
KEY NOTES:

1. 2X WOOD JOIST.
2. MASONRY WALL.
3. CONTINUOUS BOND BEAM PER G.S.N.
4. EDGE NAILING.
5. CONTINUOUS WOOD LEDGER.
6. PLYWOOD SHEATHING.
7. SIMPSON LU TYPE HANGER.
8. 2X4 CEILING JOIST.
9. CONTINUOUS 2X4 WOOD LEDGER W/ ½"ø ANCHORS (CAST-IN-PLACE OR EXPANSION) AT 48" O.C.

205 WOOD JOIST AT MASONRY WALL

WJ-MW0101

NO SCALE



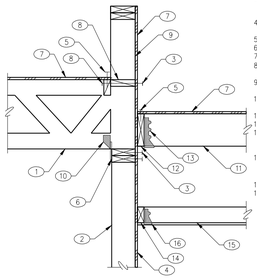
KEY NOTES:

1. PREFAB WOOD TRUSS.
2. MASONRY WALL.
3. CONTINUOUS BOND BEAM PER G.S.N.
4. CONTINUOUS WOOD LEDGER.
5. (1) #4 CONTINUOUS.
6. SIMPSON PA23 AT 48" O.C.
7. 2X BLOCKING.
8. SIMPSON A34 AT EACH BLOCK.
9. PLYWOOD SHEATHING.
10. EDGE NAILING.
11. SIMPSON H2.5 TYPE CONNECTOR AT EACH TRUSS.
12. 30" LONG 2X4 WITH (2) ½"ø BOLTS W/ NUTS AND WASHERS.

206 2X PREFAB WOOD TRUSS AT MASONRY WALL

WT-MW0301

NO SCALE



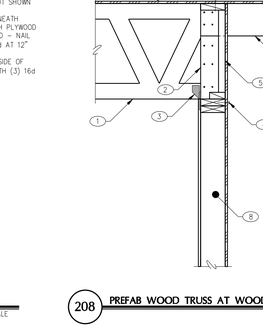
KEY NOTES:

1. PREFAB WOOD TRUSS.
2. WOOD STUD WALL.
3. EDGE NAILING AT TOP AND BOTTOM OF PANEL AT 6" O.C.
4. WALL SHEATHING AS OCCURS.
5. EDGE NAILING.
6. DOUBLE TOP PLATE.
7. PLYWOOD SHEATHING.
8. 2X BLOCKING WITH (2)-16d PER BLOCK.
9. WOOD PARAPET STUD BUILT AS PART OF TRUSS.
10. SIMPSON H2.5A TYPE CONNECTOR AT EACH TRUSS.
11. WOOD JOIST.
12. CONTINUOUS WOOD LEDGER.
13. SIMPSON LU TYPE HANGER OR SIMPSON L90 ONE SIDE AT SIMILAR CONDITION.
14. CONTINUOUS 2X4 WOOD LEDGER W/ (2) #10X3.5" SCREWS AT 16" O.C.
15. 2X4 CEILING JOIST.
16. SIMPSON LU TYPE HANGER OR SIMPSON L30 AT SIMILAR CONDITION.

207 2x PREFAB WOOD TRUSS AT WOOD STUD WALL

WT-WSW0201

NO SCALE

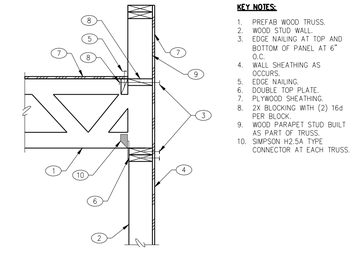


KEY NOTES:

1. PREFAB WOOD TRUSS.
2. 2X JOIST SUPPORT W/ (4) 10d FACE NAILS TO TRUSS.
3. SIMPSON H2.5A EACH TRUSS.
4. EDGE NAILING.
5. PLYWOOD BLOCKING PER TYPICAL DETAIL.
6. WOOD JOIST W/ (4) 10d FACE NAILS TO TRUSS.
7. PLYWOOD SHEATHING.
8. WOOD STUD WALL.

208 PREFAB WOOD TRUSS AT WOOD STUD WALL

NO SCALE



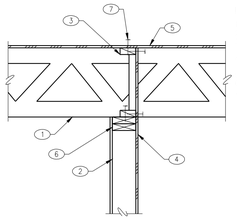
KEY NOTES:

1. PREFAB WOOD TRUSS.
2. WOOD STUD WALL.
3. EDGE NAILING AT TOP AND BOTTOM OF PANEL AT 6" O.C.
4. WALL SHEATHING AS OCCURS.
5. EDGE NAILING.
6. DOUBLE TOP PLATE.
7. PLYWOOD SHEATHING.
8. 2X BLOCKING WITH (2) 16d PER BLOCK.
9. WOOD PARAPET STUD BUILT AS PART OF TRUSS.
10. SIMPSON H2.5A TYPE CONNECTOR AT EACH TRUSS.

201 2x PREFAB WOOD TRUSS AT WOOD STUD WALL

WT-WSW0201

NO SCALE



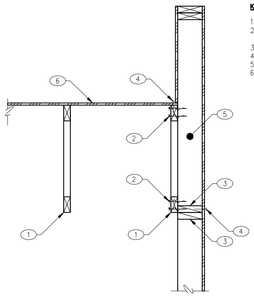
KEY NOTES:

1. PREFAB WOOD TRUSS.
2. WOOD STUD WALL.
3. PLYWOOD BLOCKING PER TYPICAL DETAIL.
4. WALL SHEATHING AS OCCURS.
5. PLYWOOD SHEATHING.
6. DOUBLE TOP PLATE.
7. EDGE NAILING.

202 PREFAB 2X WOOD TRUSS AT WOOD STUD WALL

WT-WSW0202

NO SCALE

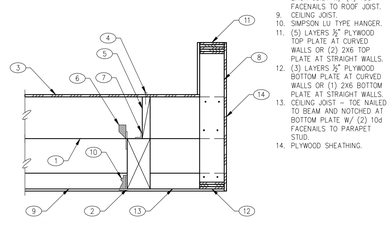


KEY NOTES:

1. PREFAB WOOD TRUSS.
2. (2) ø8X3.5" SCREWS AT EACH STUD.
3. SOLID 2X BLOCKING.
4. EDGE NAILING.
5. WOOD STUD WALL.
6. PLYWOOD SHEATHING.

203 WOOD TRUSS AT WOOD STUD WALL

NO SCALE



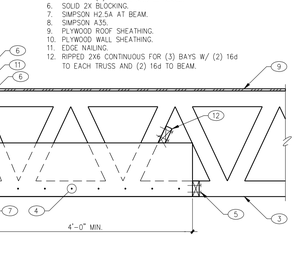
KEY NOTES:

1. WOOD JOIST.
2. WOOD BEAM.
3. PLYWOOD SHEATHING.
4. EDGE NAILING.
5. SOLID 2X BLOCKING.
6. SIMPSON H2.5A AT EACH JOIST.
7. SIMPSON A35 AT 48" O.C.
8. 2X6 PARAPET STUD AT EACH JOIST W/ (4) 10d FACENAILS TO ROOF JOIST.
9. CEILING JOIST.
10. SIMPSON LU TYPE HANGER.
11. (5) LAYERS ⅝" PLYWOOD TOP PLATE AT CURVED WALLS OR (2) 2X6 TOP PLATE AT STRAIGHT WALLS.
12. (3) LAYERS ⅝" PLYWOOD BOTTOM PLATE AT CURVED WALLS OR (1) 2X6 BOTTOM PLATE AT STRAIGHT WALLS.
13. CEILING JOIST – TOE NAILED TO BEAM AND NOTCHED AT BOTTOM PLATE W/ (2) 10d FACENAILS TO PARAPET STUD.
14. PLYWOOD SHEATHING.

204 WOOD JOIST AT WOOD BEAM

WJ-WB0101

NO SCALE



KEY NOTES:

1. WOOD BEAM.
2. WOOD STUD WALL.
3. PREFAB WOOD TRUSS.
4. 16d NAILS TRUSS TO BEAM AT 6" O.C.
5. 2X6 BLOCK BETWEEN TRUSSES W/ (2) 16d AT EACH END AND (4) 16d TO END OF BEAM.
6. SOLID 2X BLOCKING.
7. SIMPSON H2.5A AT BEAM.
8. SIMPSON A35.
9. PLYWOOD ROOF SHEATHING.
10. PLYWOOD WALL SHEATHING.
11. EDGE NAILING.
12. RIPPED 2X6 CONTINUOUS FOR (3) BAYS W/ (2) 16d TO EACH TRUSS AND (2) 16d TO BEAM.

220 WOOD BEAM AT WOOD STUD WALL

NO SCALE

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ARCHITECTURE & PLANNING

DRAWING: RAMIN DETAILS 201-220

PROJECT: Lembke-Mellul Residence
PRESCOTT, AZ 86 0

DRAWN BY	MJS
CHECKED BY	AK
DATE	2.1.16
SCALE	AS NOTED
JOB NO.	201.-0287
SHEET	5

FRAMING DETAILS 201-220

JOB NO.: 2015-0287	PROJECT MANAGER: AGK	CAD OPERATOR: MJS

FROST STRUCTURAL ENGINEERING
1678 Oaklawn Drive, Suite C
Prescott, Arizona 86305
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MAIN RESIDENCE
2012 IRC M1507 VENTILATION CALC

TABLE M1507.3.3(1)
CONTINUOUS WHOLE-HOUSE MECHANICAL VENTIALTION SYSTEM AIRFLOW RATE REQUIREMENTS

DWELLING UNIT FLOOR AREA (SQUARE FEET)	NUMBER OF BEDROOMS				
	0-1	2-3	4-5	6-7	7+
	AIRFLOW IN CFM				
< 1,500	30	45	60	75	90
1,501 – 3,000	45	60	75	90	105
3,001 – 4,500	60	75	90	105	120
4,501 – 6,000	75	90	105	120	135
6,001 – 7,500	90	105	120	135	150
> 7,500	105	120	135	150	165

DWELLING UNIT FLOOR AREA = 4,520
NUMBER OF BEDROOMS = 4

MECHANICAL VENTILATION REQUIRED = 105 CFM (PER TABLE TABLE M1507.3.3(1)

ZONE 1 (MASTER 1) FLOOR AREA =1,910 (42% OF TOTAL DWELLING)
ZONE 2 (GREAT RM) FLOOR AREA =1,480 (33% OF TOTAL DWELLING)
ZONE 3 (MASTER 2) FLOOR AREA =1,130 (25% OF TOTAL DWELLING)

VENTILATION TO EACH ZONE
ZONE 1 = 105 x 42% = 44 CFM
ZONE 2 = 105 x 33% = 35 CFM
ZONE 3 = 105 x 25% = 26 CFM

F-1 AND F-2 INTAKES SHALL BE BALANCED TO 100 CFM
F-3 INTAKE SHALL BE BALANCED TO 50 CFM

SINCE PROVIDED AIR EXCEEDS THAT REQUIRED, HOURLY RUNTIME CAN BE REDUCED;

VENTILATION HOURLY RUN TIME
ZONE 1 (F-1) = 44 CFM / 100 CFM X 60 MINUTES = 26 MINUTES
ZONE 2 (F-2) = 35 CFM / 100 CFM X 60 MINUTES = 21 MINUTES
ZONE 3 (F-3) = 36 CFM / 50 CFM X 60 MINUTES = 31 MINUTES

Residential Requirements

1. Exterior wall penetrations by pipes, ducts or conduits shall be caulked. (R307.6)
2. Energy compliance shall be demonstrated by a passing REScheck energy compliance score. (N1101.2).
3. Supply and return ducts shall be insulated to a minimum R-8. Ducts in floor trusses shall be insulated to minimum R-6. (N1103.2.1).
4. Registers, diffusers and grilles shall be mechanically fastened to rigid supports or structural members on at least two opposite sides in addition to being connected to the ductwork they serve.
5. Dryer exhaust ducts shall conform to the requirements of Sections (M1502.4.5 amended), M1502.4.1 thru M1502.4.6.
6. Exhaust air from kitchens, bathrooms and toilet rooms shall not be re-circulated within a residence or to another dwelling unit, shall not discharge into an attic and/or crawl space and shall be exhausted directly to the outdoors. (M1507.2).
7. Provide outside combustion air to all indoor fireplaces, with air intake located not higher than the firebox. (R1006.2).
8. At least one thermostat shall be provided for each separate heating and cooling system. (N1103.1).
9. The building shall be provided with ventilation that meets the requirements of Section M1507 or with other approved means of ventilation. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating. (N1103.5).
10. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the building official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope. (N1102.4.1.2).
11. Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with Section M1601.4.1, (N1103.2.2). Duct tightness shall be verified by either of the following:
    1. Post-construction test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m2) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
    2. Rough-in test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 ft2 (9.29 m2) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm (85 L/min) per 100 square feet (9.29 m2) of conditioned floor area.

MECHANICAL SHEET INDEX

MECHANICAL DESIGN CRITERIA

IMPORTANT NOTICE

MECHANICAL SYSTEMS SPECIFIED ON THESE DRAWINGS HAVE BEEN SIZED AND DESIGNED BASED ON A SPECIFIC DESIGN CRITERIA TO MEET THE ENERGY CONSERVATION REQUIREMENTS OF THE 2012 INTERNATIONAL RESIDENTIAL CODE.

INSULATION AND/OR WINDOW VALUES DIFFERENT FROM THOSE SHOWN BELOW MAY IMPACT THE SIZING OF THE MECHANICAL SYSTEMS WHICH SHOULD BE CONSIDERED AND EVALUATED BEFORE IMPLEMENTATION.

SUMMER OUTDOOR TEMP	96°F
SUMMER INDOOR TEMP	75°F
WINTER OUTDOOR TEMP	20°F
WINTER INDOOR TEMP	70°F
ROOF INSULATION	R-38
WALL INSULATION	R-19

WINDOWS	U-VALUE	SHGC
TYPE 1	0.30	0.30

COMBUSTION AIR CALC MECH ROOM 1

GARAGE VOLUME

789 FT. SQ. X 9 FT. = 7,101 CU. FT.

TOTAL GAS MBH
FC-1 100 MBH
WH 100 MBH (ALLOWANCE)
TOTAL 200 MBH

VOLUME PER MBH

7,101 CU. FT. / 200 MBH = 35 FT. CU./MBH

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

COMBUSTION AIR MUST BE PROVIDED INTO GARAGE

TOTAL GAS MBH
FC-1 100 MBH
WH 100 MBH (ALLOWANCE)
TOTAL 200 MBH

FOR HORIZONTAL OPENINGS FROM ADJACENT SPACE IN PROVIDE 1 SQUARE INCH PER 1000 MBH. (MIN. 100 SQUARE INCHES)

200,000/ 1000 = 200 SQUARE INCHES

200 SQ. IN. / 144 = 1.39 SQ. FT. FREE AREA

PROVIDE 2 OPENINGS, ONE 12" ABOVE FLOOR AND THE OTHER 12" BELOW CEILING EACH WITH A MINIMUM 1.39 SQ. FT. FREE AREA OPENING. OPENINGS MAY BE SPLIT BETWEEN THE 2 DOORS.

COMBUSTION AIR CALC MECH ROOM 2

GARAGE VOLUME

593 FT. SQ. X 9 FT. = 5,337 CU. FT.

TOTAL GAS MBH
FC-2 80 MBH
FC-3 60 MBH
WH 100 MBH (ALLOWANCE)
TOTAL 240 MBH

VOLUME PER MBH

5,337 CU. FT. / 240 MBH = 22 FT. CU./MBH

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

COMBUSTION AIR MUST BE PROVIDED INTO GARAGE

TOTAL GAS MBH
FC-2 80 MBH
FC-3 60 MBH
WH 100 MBH (ALLOWANCE)
TOTAL 240 MBH

FOR HORIZONTAL OPENINGS FROM ADJACENT SPACE IN PROVIDE 1 SQUARE INCH PER 1000 MBH. (MIN. 100 SQUARE INCHES)

240,000/ 1000 = 240 SQUARE INCHES

240 SQ. IN. / 144 = 1.67 SQ. FT. FREE AREA

PROVIDE 2 OPENINGS, ONE 12" ABOVE FLOOR AND THE OTHER 12" BELOW CEILING EACH WITH A MINIMUM 1.67 SQ. FT. FREE AREA OPENING. OPENINGS MAY BE SPLIT BETWEEN THE 2 DOORS.

COMBUSTION AIR CALC GARAGE 1

F-1 100 MBH
WH 100 MBH (ALLOWANCE)
TOTAL 200 MBH

FOR HORIZONTAL OPENINGS DIRECTLY TO THE OUTDOORS PROVIDE 1 SQUARE INCH PER 4000 MBH.

200,000/ 4000 = 50 SQUARE INCHES

50 SQ. IN. / 144 = 0.35 SQ. FT. FREE AREA

PROVIDE 2 OPENINGS, ONE 12" ABOVE FLOOR AND THE OTHER 12" BELOW CEILING EACH WITH A MINIMUM 0.35 SQ. FT. FREE AREA OPENING.

COMBUSTION AIR CALC GARAGE 2

F-2 80 MBH
F-3 60 MBH
WH 100 MBH (ALLOWANCE)
TOTAL 240 MBH

FOR HORIZONTAL OPENINGS DIRECTLY TO THE OUTDOORS PROVIDE 1 SQUARE INCH PER 4000 MBH.

240,000/ 4000 = 60 SQUARE INCHES

60 SQ. IN. / 144 = 0.42 SQ. FT. FREE AREA

PROVIDE 2 OPENINGS, ONE 12" ABOVE FLOOR AND THE OTHER 12" BELOW CEILING EACH WITH A MINIMUM 0.42 SQ. FT. FREE AREA OPENING.

MECHANICAL SYMBOLS AND ABBREVIATIONS

SYMBLE	DESCRIPTION	SYMBLE	DESCRIPTION
———	SUPPLY AIR DUCT		CEILING EXHAUST FAN W/ DUCT UP THROUGH ROOF
— —	RETURN AIR DUCT		REFRIGERANT PIPING UP IN WALL
	CEILING SUPPLY DIFFUSER	T	THERMOSTAT
	3-WAY THROW CEILING DIFFUSER	CD	CEILING DIFFUSER
	CEILING RETURN GRILLE	CU	CONDENSING UNIT
	SIDEWALL SUPPLY GRILLE	EF	EXHAUST FAN
	SUPPLY AIR DUCT UP	F	FURNACE
	SUPPLY AIR DUCT DOWN	RG	RETURN GRILLE
	RETURN AIR DUCT UP		
	RETURN AIR DUCT DOWN		

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ARCHITECTURE & PLANNING

DRAWING: MECHANICAL COMPLIANCE

PROJECT: Lembke-Mellul Residence

DRAWN BY	
CHECKED BY	
DATE	
SCALE	AS NOTED
JOB NO.	674
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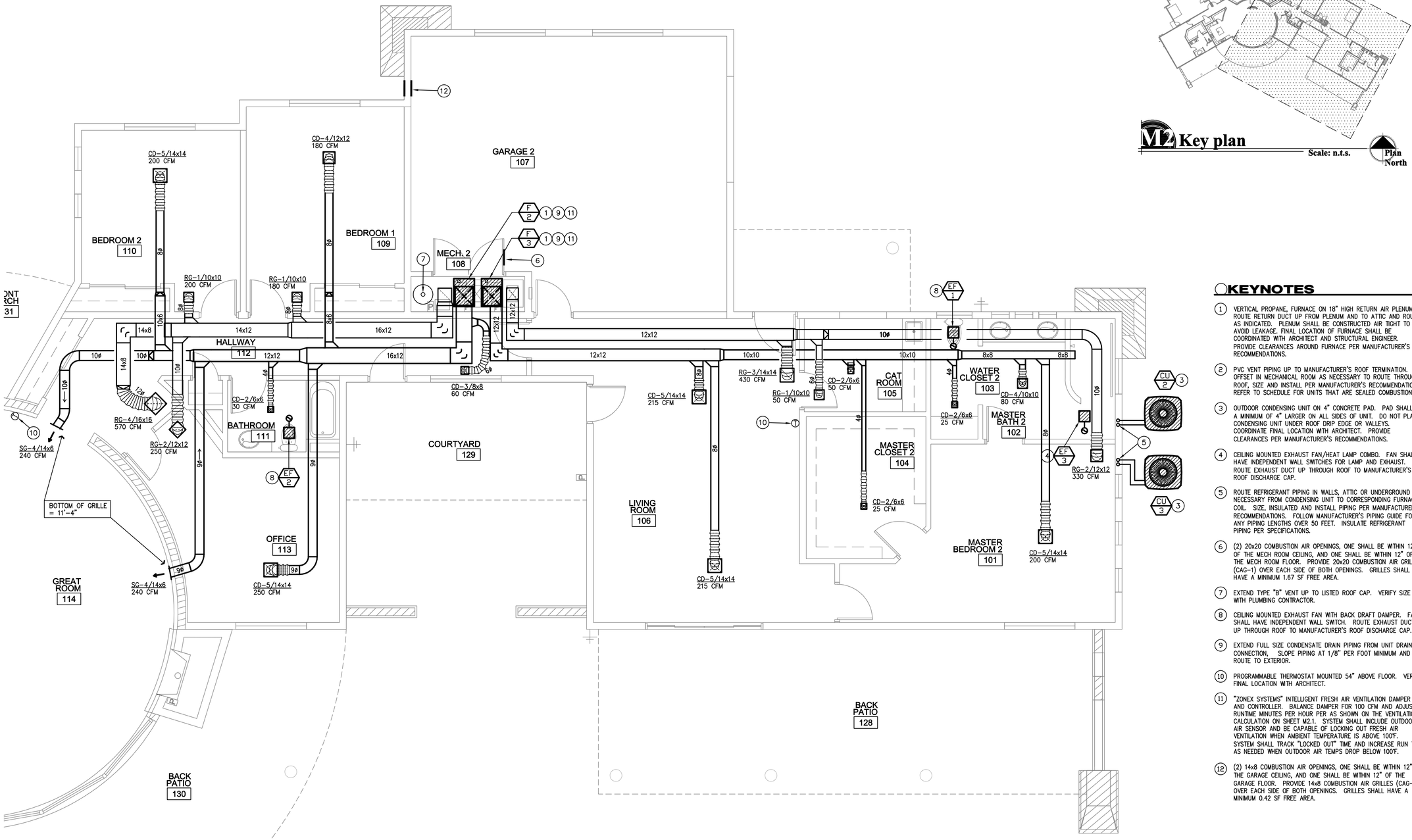
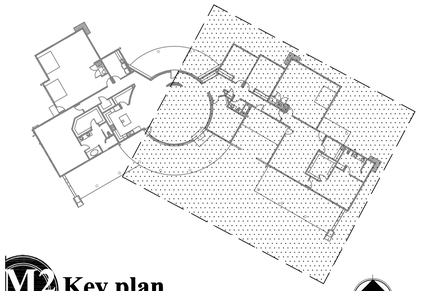


M1 Dimension Floor Plan - East Wing

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

Plan North



M2 Key plan

Scale: n.t.s.

Plan North

KEYNOTES

1. VERTICAL PROPANE, FURNACE ON 18" HIGH RETURN AIR PLENUM. ROUTE RETURN DUCT UP FROM PLENUM AND TO ATTIC AND ROUTE AS INDICATED. PLENUM SHALL BE CONSTRUCTED AIR TIGHT TO AVOID LEAKAGE. FINAL LOCATION OF FURNACE SHALL BE COORDINATED WITH ARCHITECT AND STRUCTURAL ENGINEER. PROVIDE CLEARANCES AROUND FURNACE PER MANUFACTURER'S RECOMMENDATIONS.
2. PVC VENT PIPING UP TO MANUFACTURER'S ROOF TERMINATION. OFFSET IN MECHANICAL ROOM AS NECESSARY TO ROUTE THROUGH ROOF, SIZE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. REFER TO SCHEDULE FOR UNITS THAT ARE SEALED COMBUSTION.
3. OUTDOOR CONDENSING UNIT ON 4" CONCRETE PAD. PAD SHALL BE A MINIMUM OF 4" LARGER ON ALL SIDES OF UNIT. DO NOT PLACE CONDENSING UNIT UNDER ROOF DRIP EDGE OR VALLEYS. COORDINATE FINAL LOCATION WITH ARCHITECT. PROVIDE CLEARANCES PER MANUFACTURER'S RECOMMENDATIONS.
4. CEILING MOUNTED EXHAUST FAN/HEAT LAMP COMBO. FAN SHALL HAVE INDEPENDENT WALL SWITCHES FOR LAMP AND EXHAUST. ROUTE EXHAUST DUCT UP THROUGH ROOF TO MANUFACTURER'S ROOF DISCHARGE CAP.
5. ROUTE REFRIGERANT PIPING IN WALLS, ATTIC OR UNDERGROUND AS NECESSARY FROM CONDENSING UNIT TO CORRESPONDING FURNACE COIL. SIZE, INSULATED AND INSTALL PIPING PER MANUFACTURER'S RECOMMENDATIONS. FOLLOW MANUFACTURER'S PIPING GUIDE FOR ANY PIPING LENGTHS OVER 50 FEET. INSULATE REFRIGERANT PIPING PER SPECIFICATIONS.
6. (2) 20x20 COMBUSTION AIR OPENINGS, ONE SHALL BE WITHIN 12" OF THE MECH ROOM CEILING, AND ONE SHALL BE WITHIN 12" OF THE MECH ROOM FLOOR. PROVIDE 20x20 COMBUSTION AIR GRILLES (CAG-1) OVER EACH SIDE OF BOTH OPENINGS. GRILLES SHALL HAVE A MINIMUM 1.67 SF FREE AREA.
7. EXTEND TYPE "B" VENT UP TO LISTED ROOF CAP. VERIFY SIZE WITH PLUMBING CONTRACTOR.
8. CEILING MOUNTED EXHAUST FAN WITH BACK DRAFT DAMPER. FAN SHALL HAVE INDEPENDENT WALL SWITCH. ROUTE EXHAUST DUCT UP THROUGH ROOF TO MANUFACTURER'S ROOF DISCHARGE CAP.
9. EXTEND FULL SIZE CONDENSATE DRAIN PIPING FROM UNIT DRAIN CONNECTION, SLOPE PIPING AT 1/8" PER FOOT MINIMUM AND ROUTE TO EXTERIOR.
10. PROGRAMMABLE THERMOSTAT MOUNTED 54" ABOVE FLOOR. VERIFY FINAL LOCATION WITH ARCHITECT.
11. "ZONEX SYSTEMS" INTELLIGENT FRESH AIR VENTILATION DAMPER AND CONTROLLER. BALANCE DAMPER FOR 100 CFM AND ADJUST RUNTIME MINUTES PER HOUR PER AS SHOWN ON THE VENTILATION CALCULATION ON SHEET M2.1. SYSTEM SHALL INCLUDE OUTDOOR AIR SENSOR AND BE CAPABLE OF LOCKING OUT FRESH AIR VENTILATION WHEN AMBIENT TEMPERATURE IS ABOVE 100F. SYSTEM SHALL TRACK "LOCKED OUT" TIME AND INCREASE RUN TIME AS NEEDED WHEN OUTDOOR AIR TEMPS DROP BELOW 100F.
12. (2) 14x8 COMBUSTION AIR OPENINGS, ONE SHALL BE WITHIN 12" OF THE GARAGE CEILING, AND ONE SHALL BE WITHIN 12" OF THE GARAGE FLOOR. PROVIDE 14x8 COMBUSTION AIR GRILLES (CAG-1) OVER EACH SIDE OF BOTH OPENINGS. GRILLES SHALL HAVE A MINIMUM 0.42 SF FREE AREA.

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DRAWING: PARTIAL MECHANICAL FLOOR PLAN

PROJECT: Lembke-Mellul Residence

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SCALE	AS NOTED
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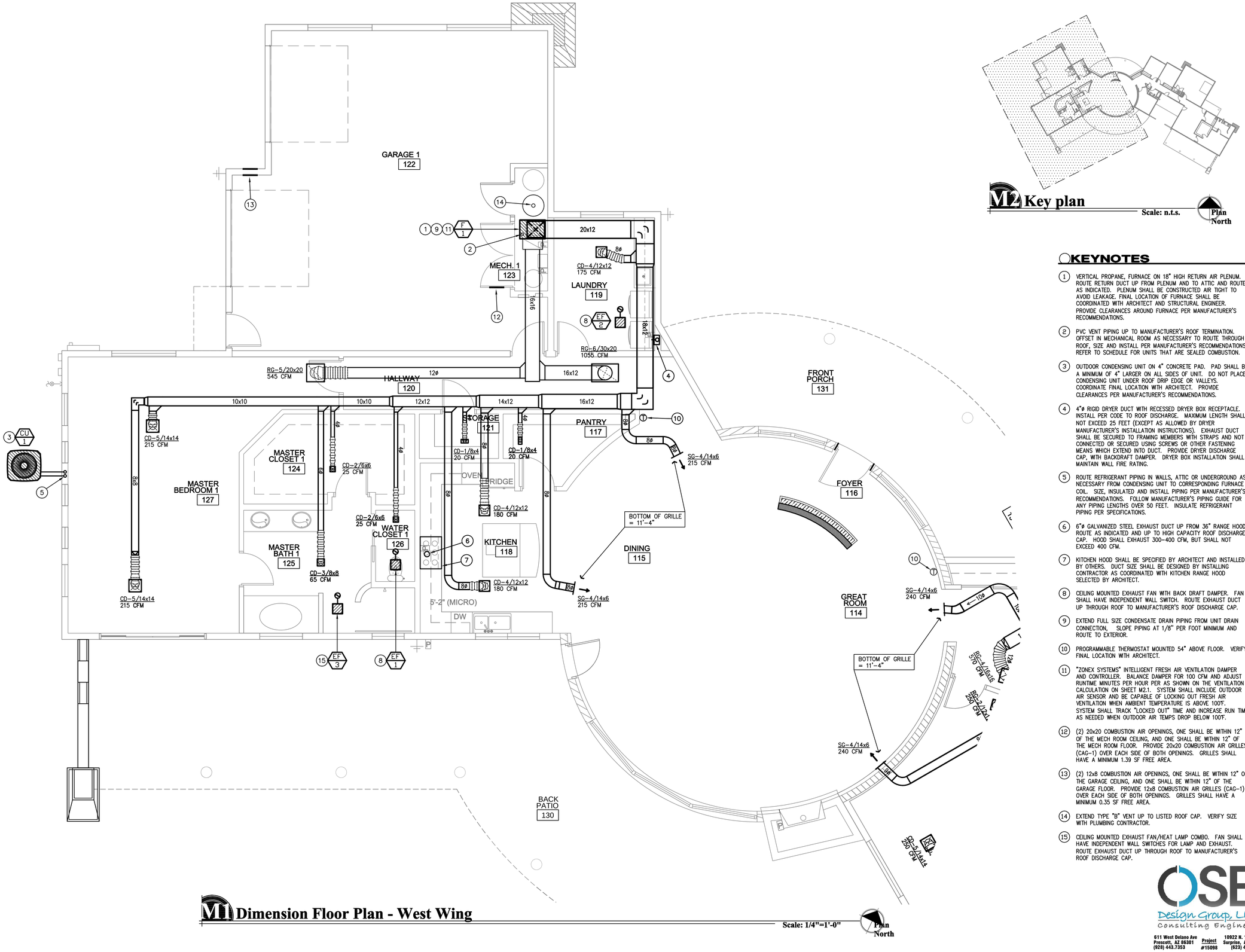

M1 Dimension Floor Plan - West Wing

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

Plan North

M2 Key plan

Scale: n.t.s.

Plan North

KEYNOTES

1. VERTICAL PROPANE, FURNACE ON 18" HIGH RETURN AIR PLENUM. ROUTE RETURN DUCT UP FROM PLENUM AND TO ATTIC AND ROUTE AS INDICATED. PLENUM SHALL BE CONSTRUCTED AIR TIGHT TO AVOID LEAKAGE. FINAL LOCATION OF FURNACE SHALL BE COORDINATED WITH ARCHITECT AND STRUCTURAL ENGINEER. PROVIDE CLEARANCES AROUND FURNACE PER MANUFACTURER'S RECOMMENDATIONS.
2. PVC VENT PIPING UP TO MANUFACTURER'S ROOF TERMINATION. OFFSET IN MECHANICAL ROOM AS NECESSARY TO ROUTE THROUGH ROOF, SIZE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. REFER TO SCHEDULE FOR UNITS THAT ARE SEALED COMBUSTION.
3. OUTDOOR CONDENSING UNIT ON 4" CONCRETE PAD. PAD SHALL BE A MINIMUM OF 4" LARGER ON ALL SIDES OF UNIT. DO NOT PLACE CONDENSING UNIT UNDER ROOF DRIP EDGE OR VALLEYS. COORDINATE FINAL LOCATION WITH ARCHITECT. PROVIDE CLEARANCES PER MANUFACTURER'S RECOMMENDATIONS.
4. 4"ø RIGID DRYER DUCT WITH RECESSED DRYER BOX RECEPTACLE. INSTALL PER CODE TO ROOF DISCHARGE. MAXIMUM LENGTH SHALL NOT EXCEED 25 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.
5. ROUTE REFRIGERANT PIPING IN WALLS, ATTIC OR UNDERGROUND AS NECESSARY FROM CONDENSING UNIT TO CORRESPONDING FURNACE COIL. SIZE, INSULATED AND INSTALL PIPING PER MANUFACTURER'S RECOMMENDATIONS. FOLLOW MANUFACTURER'S PIPING GUIDE FOR ANY PIPING LENGTHS OVER 50 FEET. INSULATE REFRIGERANT PIPING PER SPECIFICATIONS.
6. 6"ø GALVANIZED STEEL EXHAUST DUCT UP FROM 36" RANGE HOOD. ROUTE AS INDICATED AND UP TO HIGH CAPACITY ROOF DISCHARGE CAP. HOOD SHALL EXHAUST 300–400 CFM, BUT SHALL NOT EXCEED 400 CFM.
7. KITCHEN HOOD SHALL BE SPECIFIED BY ARCHITECT AND INSTALLED BY OTHERS. DUCT SIZE SHALL BE DESIGNED BY INSTALLING CONTRACTOR AS COORDINATED WITH KITCHEN RANGE HOOD SELECTED BY ARCHITECT.
8. CEILING MOUNTED EXHAUST FAN WITH BACK DRAFT DAMPER. FAN SHALL HAVE INDEPENDENT WALL SWITCH. ROUTE EXHAUST DUCT UP THROUGH ROOF TO MANUFACTURER'S ROOF DISCHARGE CAP.
9. EXTEND FULL SIZE CONDENSATE DRAIN PIPING FROM UNIT DRAIN CONNECTION, SLOPE PIPING AT 1/8" PER FOOT MINIMUM AND ROUTE TO EXTERIOR.
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13. (2) 12x8 COMBUSTION AIR OPENINGS, ONE SHALL BE WITHIN 12" OF THE GARAGE CEILING, AND ONE SHALL BE WITHIN 12" OF THE GARAGE FLOOR. PROVIDE 12x8 COMBUSTION AIR GRILLES (CAG–1) OVER EACH SIDE OF BOTH OPENINGS. GRILLES SHALL HAVE A MINIMUM 0.35 SF FREE AREA.
14. EXTEND TYPE "B" VENT UP TO LISTED ROOF CAP. VERIFY SIZE WITH PLUMBING CONTRACTOR.
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ARCHITECTURE & PLANNING

DRAWING: PARTIAL MECHANICAL FLOOR PLAN

PROJECT: Lembke-Mellul Residence

DRAWN BY	
CHECKED BY	
DATE	
SCALE	AS NOTED
JOB NO.	674
SHEET	M1.2

MECHANICAL SPECIFICATIONS

DRAWINGS AND DATA
DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE OF WORK AND TO INDICATE GENERAL ARRANGEMENT OF EQUIPMENT. 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.

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. UNDERWRITER'S LABORATORIES, INC. STANDARDS.
C. 2012 INTERNATIONAL RESIDENTIAL CODE WITH LOCAL AMENDMENTS.
D 2012 INTERNATIONAL PLUMBING CODE WITH STATE AMENDMENTS.
E. 2012 INTERNATIONAL MECHANICAL CODE WITH STATE AMENDMENTS.
F. 2011 NEC
G. 2012 INTERNATIONAL FUEL GAS CODE WITH STATE AMENDMENTS.

GENERAL
THE WORK INCLUDED UNDER THIS SECTION CONSISTS OF FURNISHING ALL LABOR, MATERIALS, AND EQUIPMENT TO PROVIDE A COMPLETE FUNCTIONING HVAC SYSTEM AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. THE SYSTEM SHALL INCLUDE REQUIRED UNITS, THERMOSTATS, DUCTWORK, FANS, CONDENSATE DRAINS, REFRIGERANT PIPING, INSULATION, CLEAN FILTERS, FLUES AND ALL APPURTENANCES AS REQUIRED. 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.

INSTRUCT THE OWNER AS TO PROPER OPERATION AND CARE OF THE EQUIPMENT AFTER START-UP AND CHECK-OUT. PROVIDE THE OWNER WITH ALL WARRANTY AND OPERATING INSTRUCTIONS AT THE COMPLETION OF THE PROJECT.

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. LOSS OF REFRIGERANT IS CONSIDERED A DEFECT IN WORKMANSHIP AND/OR EQUIPMENT, TO BE CORRECTED AS REQUIRED AT NO EXTRA COST TO THE OWNER.

REGULATIONS, PERMITS & INSPECTIONS
COMPLY WITH ALL APPLICABLE CODES, RULES AND REGULATIONS. ALL MATERIALS, EQUIPMENT AND WORK MUST CONFORM TO THE INTERNATIONAL RESIDENTIAL 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 TO BE GALVANIZED LOCK FORMING SHEET METAL. SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS. CONSTRUCT ALL DUCTWORK AND FITTINGS TO PROVIDE MINIMUM RESISTANCE AND NOISE LEVELS. DUCTWORK SHALL BE FABRICATED AND INSTALLED BY SKILLED MECHANICS IN A WORKMANLIKE MANNER USING THE LATEST EDITION OF THE "SMACNA" MANUAL AS A GUIDELINE. SEAL ALL SUPPLY AIR DUCTWORK AND RETURN AIR PLATFORMS/PLENUMS AIRTIGHT WITH APPROVED DUCT SEALER. TURNING VANES SHALL BE INSTALLED IN ALL MITERED ELBOWS.

UPON APPROVAL BY ARCHITECT, CONTRACTOR MAY USE FIBER GLASS DUCT BOARD FOR ABOVE GROUND SUPPLY AND RETURN DUCT SYSTEMS. FIBER GLASS DUCT BOARD SHALL BE OWENS CORNING "ENDURAGOLD", TYPE 800, 1-1/2" THICK. (OR APPROVED EQUAL)

FLEXIBLE DUCT
FLEXIBLE DUCT MAY BE USED FOR FINAL CONNECTION TO AIR DISTRIBUTION DEVICES, BUT SHALL NOT EXCEED 8 FEET IN LENGTH. FLEXIBLE DUCT SHALL HAVE A MINIMUM R-8 INSULATION VALUE.

DUCT INSULATION
DUCT SIZES ON DRAWINGS ARE "CLEAR INSIDE." INCREASE SHEET METAL SIZES ACCORDINGLY FOR LINED DUCTWORK. ADHESIVE AND INSULATING MATERIALS SHALL HAVE COMPOSITE FIRE AND SMOKE HAZARD RATINGS MAXIMUM 25 FOR FLAME SPREAD AND 50 FOR SMOKE DEVELOPED. ADHESIVES SHALL BE WATERPROOF.

DUCTS IN FLOOR TRUSSES OR OTHER CONDITIONED SPACE:
LINED DUCTWORK - SEMI-RIGID GLASS FIBER INSULATION, 1 1/2 PCF,
1 1/2" THICK, THERMAL CONDUCTIVITY AT 75°. MAXIMUM 0.17 BTU/IN./SQ. FT./DEG./HR. MINIMUM "R-VALUE" SHALL BE 6.0.

WRAPPED DUCTWORK - FIBER GLASS BLANKET WITH FRK VAPOR RETARDING FACING. 1 1/2 PCF, 2" THICK, WITH A MINIMUM INSTALLED "R-VALUE" OF 6.0. (ASSUMES 25% COMPRESSION)

DUCTS IN ATTICS OR OTHER UNCONDITIONED SPACE:
LINED DUCTWORK - SEMI-RIGID GLASS FIBER INSULATION, 1 1/2 PCF, 2" THICK, THERMAL CONDUCTIVITY AT 75°. MAXIMUM 0.13 BTU/IN./SQ. FT./DEG./HR. MINIMUM "R-VALUE" SHALL BE 8.0.

WRAPPED DUCTWORK - FIBER GLASS BLANKET WITH FRK VAPOR RETARDING FACING. 0.75 PCF, 3" THICK, WITH A MINIMUM INSTALLED "R-VALUE" OF 8.0. (ASSUMES 25% COMPRESSION)

GRILLES AND DIFFUSERS
ACCEPTABLE MANUFACTURERS ARE TITUS, ANEMOSTAT, KRUEGER, CARNES, BARBERCOMAN, AGITAIR, E.A.P.C., METAL-AIR OR HART AND COOLEY. CONFIRM FINISHED AND COLOR WITH ARCHITECT. ALL GRILLES AND DIFFUSERS SHALL BE SUBMITTED TO ARCHITECT FOR FINAL APPROVAL.

EXHAUST FANS
FURNISH AND INSTALL EXHAUST FANS AS REQUIRED BY ARCHITECTURAL DRAWINGS. PROVIDE FANS WITH FACTORY ROOF OR WALL CAPS AS SHOWN. PROVIDE ALL EXHAUST FANS WITH BACKDRAFT DAMPER. MAXIMUM NOISE RATING 4.0 SONES. ACCEPTABLE MANUFACTURER'S ARE "BROAN", "NUTONE" OR "GREENHECK" OR AS APPROVED BY ARCHITECT.

CONDENSATE DRAIN LINES:
CONDENSATE AND FURNACE DRAIN PIPING SHALL BE SCHEDULE 40 PVC. RUN DRAIN LINE FULL SIZE TO NEAREST PLANTER AREA, FLOOR DRAIN, OR P-TRAP. INSTALL TRAPS IN LINES AS REQUIRED BY EQUIPMENT MANUFACTURER. COORDINATE SPECIAL REQUIREMENTS FOR DRAIN AND WATER LINES THAT MAY BE REQUIRED WITH SPECIAL EQUIPMENT WITH PLUMBING CONTRACTOR PRIOR TO COMPLETION OF ROUGH-IN.

REFRIGERANT PIPING
ABOVE GROUND, WITHIN BUILDING PIPING SHALL BE TYPE ACR DRAWN-TEMPER COPPER TUBE WITH WROUGHT COPPER UNIONS. PIPING BELOW GROUND SHALL BE TYPE L ANNEALED COPPER TUBING. EXPOSED SUCTION PIPING SHALL HAVE 1-1/2" INSULATION, CONCEALED SUCTION PIPING SHALL HAVE 1" INSULATION. INSULATION SHALL BE "ARMAFLEX" FLEXIBLE ELASOMERIC, OR EQUAL.

FURNACES AND CONDENSING UNITS
AIR CONDITIONING EQUIPMENT SHALL BE AS SPECIFIED ON SCHEDULES UNLESS SPECIFICALLY ALLOWED BY OWNER OR ARCHITECT.

THERMOSTAT AND CONTROLS
FURNISH AND INSTALL PROGRAMMABLE THERMOSTATS AS REQUIRED BY THE EQUIPMENT MANUFACTURER OR AS SPECIFIED ON THE EQUIPMENT SCHEDULES. FIELD VERIFY EXACT LOCATION AND MOUNTING HEIGHT FOR CONTROLS WITH ARCHITECT AND GENERAL CONTRACTOR.

VENTILATION BALANCING
AT A MINIMUM CONTRACTOR SHALL PROVIDE BALANCING OF ALL FRESH AIR SYSTEMS TO ENSURE COMPLIANCE WITH IRC M1507 AND A COMFORT BALANCE ON THE AIR DISTRIBUTION SYSTEM THROUGHOUT THE RESIDENCE. CONTRACTOR SHALL PROVIDE BALANCING DAMPERS AND/OR OBD'S AS MAY BE REQUIRED.

ZONEX SYSTEMS INTELLIGENT FRESH AIR CONTROLLER IS A MICROPROCESSOR BASED CONTROLLER DESIGNED TO PROVIDE REQUIRED FRESH AIR BASED ON TIME, OUTSIDE AIR TEMPERATURE AND AIR REQUIREMENTS FOR 24 HOUR OPERATIONS, BASED ON ASHRAE 62.2 VENTILATION AND INDOOR AIR QUALITY STANDARDS.

INTELLIGENT FRESH AIR CONTROLLER ALLOWS THE INSTALLER TO CONFIGURE TIME FROM 5 TO 40 MINUTES OF OPERATION AT THE TIME POTENTIOMETER. THIS SETTING REPRESENTS THE AMOUNT OF TIME FAN AND DAMPER OUTPUTS WILL BE ENERGIZED EACH HOUR.

IN ADDITION TO PROVIDING FAN OPERATION TIME PER HOUR, THE INTELLIGENT FRESH AIR CONTROLLER ALSO MONITORS OUTSIDE AIR TEMPERATURES (OSA) AND WILL LOCKOUT OPERATIONS WHEN OUTSIDE AIR TEMPERATURES ARE TO HIGH OR LOW FOR SYSTEM EFFICIENCY. LOCKOUT HIGH AND LOW LIMITS ARE ADJUSTABLE ON CONTROLLER POTENTIOMETERS. HIGH LIMIT CAN BE

ADJUSTED FROM 85° TO 115° AND LOW LIMIT CAN BE ADJUSTED FROM 15° TO 45°. WHEN OSA LOCKOUT OCCURS, THE CONTROLLER WILL STORE LOCKOUT MINUTES AND USE THESE MINUTES WHEN OSA RETURNS TO NORMAL TEMPERATURE.

TO MEET ASHRAE 62.2 AND ENERGY STAR INDOOR AIR QUALITY STANDARDS, THE INTELLIGENT FRESH AIR CONTROLLER MONITORS AND STORES MINUTES OF RUN TIME LOCKED OUT DUE TO OSA CONDITIONS. LOGIC IN THE CONTROLLER USES STORED MINUTES AND CONTROLLER TIME SETTING TO CALCULATE NEEDED RUN TIME TO MEET STANDARD WITHIN THE REMAINING 24 HOUR TIME PERIOD. ONCE TIME REQUIREMENT IS DETERMINED BY THE CONTROLLER, BASED ON TIME SETTING AND STORED MINUTES, THE CONTROLLER WILL ENERGIZE FAN AND DAMPER OUTPUTS FOR REMAINDER OF 24 HOUR PERIOD TO MEET FRESH AIR REQUIREMENT.

F-1 FURNACE SCHEDULE

MARK	AREA SERVED	NOMINAL TONS	MFG'R	MODEL #	ENERGY STAR	CFM (4)	E.S.P. ("W.G.)	HEATING CAP. LOW FIRE		HEATING CAP. HIGH FIRE		FLUE SIZE	FUEL	A.F.U.E.	ELECTRICAL DATA		FILTER SIZE	FILTER TYPE	NOTES
								INPUT	OUTPUT	INPUT	OUTPUT				H.P.	V/Ø/Hz			
F-1	MASTER 1 KITCHEN, DINING	4	TRANE	"XV95" TUH2C100	YES	1600	0.50	65,000	61,750	100,000	95,000	3"	PROPANE	93.0%	3/4	120/1/60	20x25x1	HIGH VELOCITY	
F-2	GREAT ROOM OFFICE, BEDROOMS	3	TRANE	"XV95" TUH2B080	YES	1200	0.50	52,000	49,500	80,000	76,000	2"	PROPANE	92.5%	1/2	120/1/60	17x25x1	HIGH VELOCITY	(1)(2)(3)(4)(5)
F-3	MASTER 2 LIVING ROOM	2	TRANE	"XV95" TUH2B060	YES	800	0.50	39,000	37,700	60,000	58,000	2"	PROPANE	93.0%	1/2	120/1/60	17x25x1	HIGH VELOCITY	(1)(2)(3)(4)(5)

(1) INSTALL WITH CLEARANCES PER MANUFACTURER'S RECOMMENDATIONS.
(2) SIZE AND INSTALL 1 PIPE VENT PIPING PER MANUFACTURER'S INSTRUCTIONS FOR ACTUAL INSTALLED LENGTHS. PROVIDE ROOF TERMINATION PER MANUFACTURER.
(3) PROVIDE WITH TRANE "PERFECT FIT" FILTER ENCLOSURE SUITABLE FOR UNIT SIZE AND ORIENTATION. FILTER ENCLOSURE SHALL ACCEPT 1" STANDARD, 5" HIGH EFFICIENCY AND ELECTRONIC FILTER CELLS. INSTALL WITH 5" HIGH EFFICIENCY PLEATED FILTER.
(4) PROVIDE LEFT OR RIGHT CONNECTIONS AS REQUIRED FOR ACCESS IN MECHANICAL ROOMS.
(5) REQUIRED VENTILATION - UNIT SHALL BE PROVIDED WITH "ZONEX SYSTEMS" INTELLIGENT FRESH AIR VENTILATOR. SEE DETAILS AND SPECIFICATIONS.

CU-1 CONDENSING UNIT SCHEDULE (2 Stage Compressor)

MARK	NOMINAL TONS	MFG'R	MODEL #	1st stage Cooling		2nd stage Cooling		DESIGN COND. DB/WB	INDOOR COIL MODEL #	COIL ENT. AIR DB/WB	ELECTRICAL DATA		MINIMUM SEER	ENERGY STAR	REFRIGERANT	NOTES
				TOTAL	SENS.	TOTAL	SENS.				MCA	V / Ø				
CU-1	4	TRANE	(XL16i) 4TTX6048	20.5	20.5	44.1	36.1	95/63	SELECTED BY MFG.	78°/63°	29	208/230 1ø	16	YES	R-410A	(1)(2)(3)(4)(5)(6)(7)
CU-2	3	TRANE	(XL16i) 4TTX6036	18.3	15.1	34.2	29.1	95/63	SELECTED BY MFG.	78°/63°	24	208/230 1ø	16	YES	R-410A	(1)(2)(3)(4)(5)(6)(7)
CU-3	2	TRANE	(XL16i) 4TTX6024	11.5	11.5	21.9	18.1	95/63	SELECTED BY MFG.	78°/63°	13	208/230 1ø	16	YES	R-410A	(1)(2)(3)(4)(5)(6)(7)

(1) INSTALL UNIT PER MANUFACTURER'S WRITTEN DIRECTIONS. SLEEVE PIPING PENETRATIONS THROUGH EXTERIOR WALL, SEAL WATERTIGHT AND PROVIDE ESCUTCHEONS.
(2) UNIT SHALL BE PROVIDED WITH "COMFORT LINK II" COLOR TOUCH SCREEN, PROGRAMMABLE THERMOSTAT
(3) PROVIDE 10-YEAR COMPRESSOR WARRANTY AND 5-YEAR FOR OTHER COMPONENTS.
(4) RUN ALL REFRIGERANT PIPING FULL SIZE PER MFG'RS. INSTRUCTIONS. FOLLOW LONG LENGTH PIPING GUIDELINES AS NECESSARY.
(5) PROVIDE UNIT COMPLETE WITH DISCONNECTS, CONTROLS AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERATIONAL COMMUNICATING SYSTEM.
(6) PROVIDE LOW AMBIENT CONTROL KIT FOR OPERATION DOWN TO 30°F.

EF-1 FAN SCHEDULE

MARK	MOUNTING /LOCATION	MANUFACTURER	MODEL	CFM	E.S.P.	SONES @ 0.1"	MOTOR		BAROM. DAMPER	WIRE SCREEN	DRIVE	REMARKS
							AMPS, HP OR WATTS	V/PH				
EF-1	CEILING	NUTONE	QTXEN80	65	0.3"	0.3	0.4 A	120/1	YES	YES	DIRECT	(1)(2)(3)(4)
EF-2	CEILING	NUTONE	QTXEN150	125	0.3"	1.4	0.5 A	120/1	YES	YES	DIRECT	(1)(2)(3)(4)
EF-3	CEILING	NUTONE	9417DN	70	0.3"	1.4	300 WATTS	120/1	YES	YES	DIRECT	(1)(2)(4)(5)(6)

(1) PROVIDE UNIT WITH FACTORY SUPPLIED EXHAUST GRILLE.
(2) PROVIDE EXHAUST FAN WITH BACK DRAFT DAMPER.
(3) EXHAUST FAN SHALL BE ENERGY STAR RATED.
(4) UNIT SHALL BE CONTROLLED BY WALL SWITCH.
(5) FAN/INFRARED BULB HEATER COMBO.
(6) WATTS INCLUDES "BR40" INFRARED 250 WATT BULB.

GRILLES AND REGISTERS SCHEDULE

MARK	SIZE	DESCRIPTION	MFG.	MODEL. NO.	FRAME TYPE	MAX. NC AT DESIGN CFM	DAMPER (OBD)	COLOR	MATERIAL	REMARKS
CD-1	8x4	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW
CD-2	6x6	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW
CD-3	8x8	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW
CD-4	12x12	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW
CD-5	14x14	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW
SG-1	14x6	SIDEWALL GRILLE	HART & COOLEY	821	SURFACE	25	NO	WHITE	ALUMINUM	DOUBLE DEFLECTION
RG-2	12x12	RETURN GRILLE	HART & COOLEY	672	SURFACE	25	NO	WHITE	ALUMINUM	
RG-3	14x14	RETURN GRILLE	HART & COOLEY	672	SURFACE	25	NO	WHITE	ALUMINUM	
RG-4	16x16	RETURN GRILLE	HART & COOLEY	672	SURFACE	25	NO	WHITE	ALUMINUM	
RG-5	20x20	RETURN GRILLE	HART & COOLEY	672	SURFACE	25	NO	WHITE	ALUMINUM	
RG-6	30x20	RETURN GRILLE	HART & COOLEY	672	SURFACE	25	NO	WHITE	ALUMINUM	

NOTES:
NECK SIZE SHOWN ON PLANS AND CORRESPONDS TO DUCT CONNECTION SIZE.
CONTRACTOR SHALL PROVIDE SQUARE TO ROUND ADAPTERS AS REQUIRED FOR INSTALLATION.
MOUNTING HEIGHT AND EXACT LOCATION TO BE DETERMINED BY THE ARCHITECT.
VERIFY COLOR OF ALL DEVICES WITH ARCHITECT.

GRILLES AND REGISTER FINAL SELECTION SHALL BE BY ARCHITECT. SCHEDULE PROVIDED TO INDICATE GENERAL PERFORMANCE REQUIREMENTS

REVISIONS	BY

Registered Professional Engineer (Mechanical) 33491 WILLIAM MARK ODELL Date Signed 1/24/16 ARIZONA U. S. A. Expires 3/31/17

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DRAWING: MECHANICAL SCHEDULES AND SPECS
PROJECT: Lembke-Mellul Residence

DRAWN BY	
CHECKED BY	
DATE	
SCALE	AS NOTED
JOB NO.	674
SHEET	M2.1

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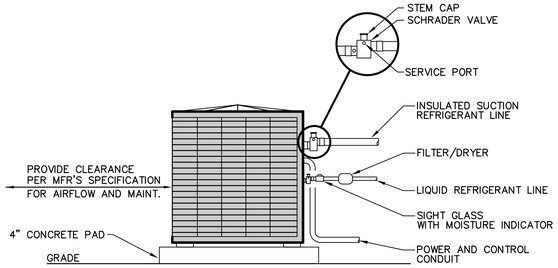
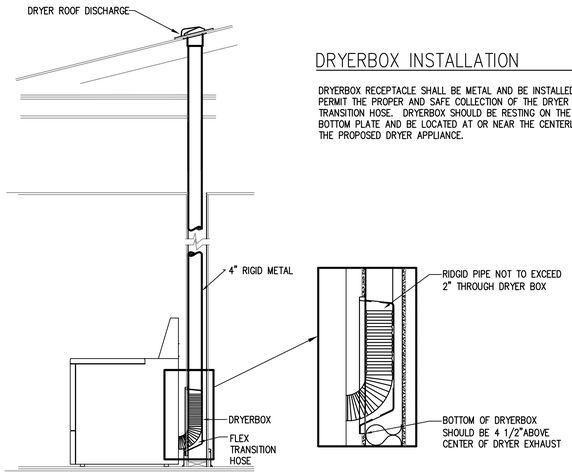


CONDENSING UNIT DETAIL

NOT TO SCALE

5 / M3.1



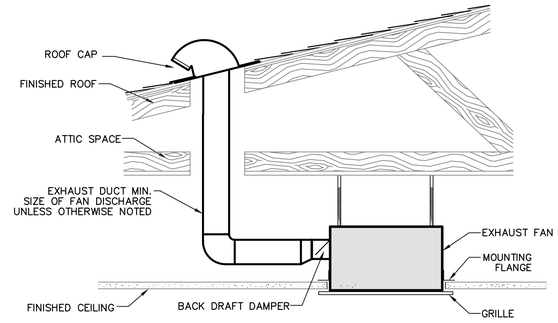
DRYERBOX INSTALLATION

DRYERBOX RECEPTACLE SHALL BE METAL AND BE INSTALLED AS TO PERMIT THE PROPER AND SAFE COLLECTION OF THE DRYER TRANSITION HOSE. DRYERBOX SHOULD BE RESTING ON THE BOTTOM PLATE AND BE LOCATED AT OR NEAR THE CENTERLINE OF THE PROPOSED DRYER APPLIANCE.

DRYER BOX DETAIL

NOT TO SCALE

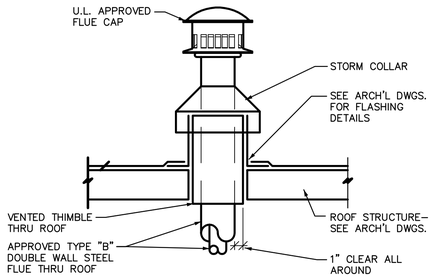
3 / M3.1



CEILING EXHAUST FAN DETAIL

NOT TO SCALE

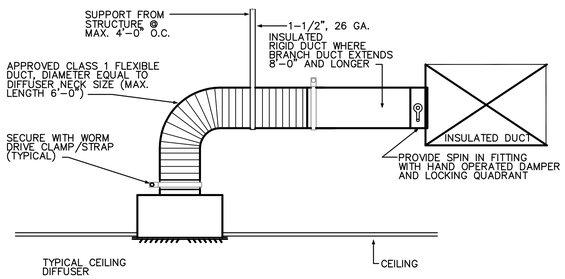
1 / M3.1



FLUE THRU ROOF DETAIL

NOT TO SCALE

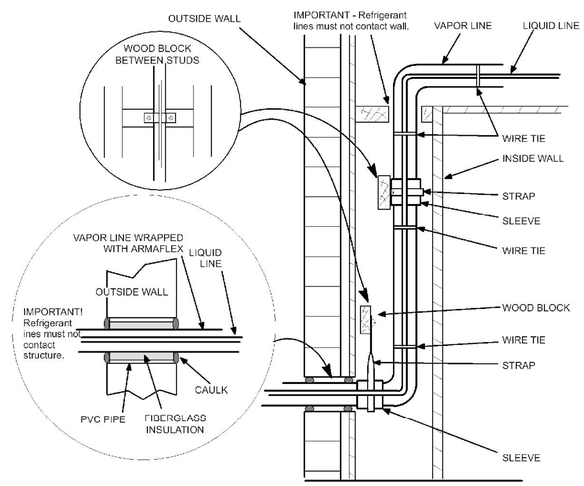
6 / M3.1



BRANCH DUCT DETAIL

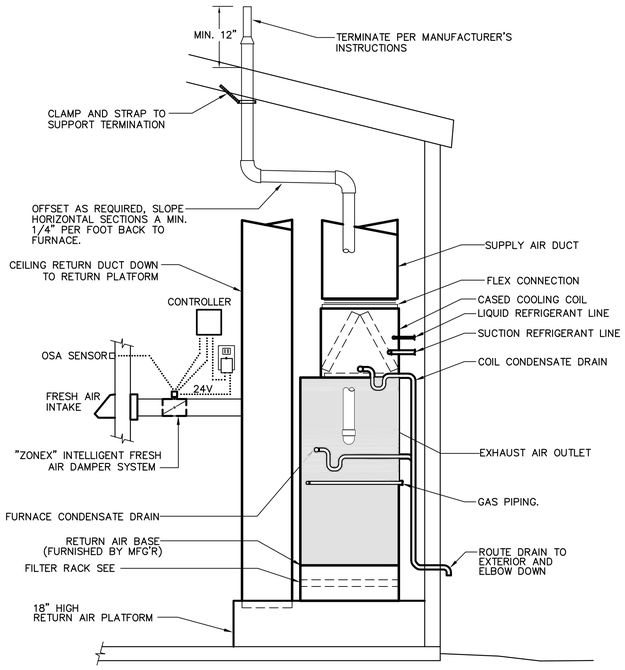
NOT TO SCALE

7 / M3.1



REFRIGERANT PIPING DETAIL

4 / M3.1



PROPANE FURNACE DETAIL

NOT TO SCALE

2 / M3.1

REVISIONS	BY

Registered Professional Engineer
33491
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Mark Signed 1/24/16
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ARCHITECTURE & PLANNING

DRAWING: MECHANICAL DETAILS

PROJECT: Lembke-Mellul Residence

DRAWN BY
CHECKED BY
DATE
SCALE AS NOTED
JOB NO. 674
SHEET M3.1

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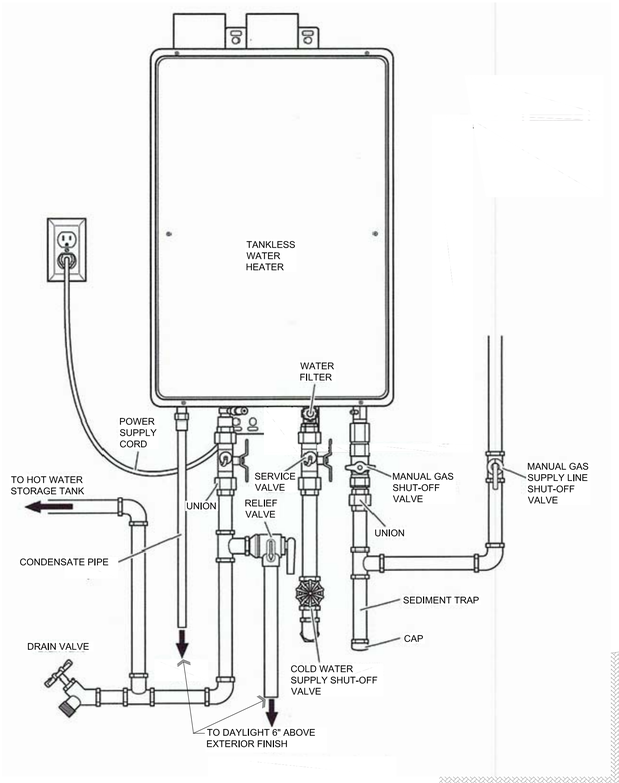
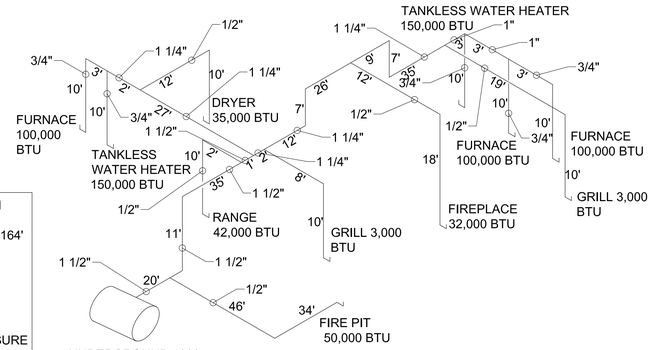


A2 Tankless Water Heater

Scale: N.T.S.



LENGTH OF PIPE FROM TANK TO FURTHEST APPLIANCE OUTLET IS 164'

TOTAL BTU DEMAND IS 760,000 BTUs

SIZED ACCORDING TO INTERNATIONAL FUEL CODE FOR LOW PRESSURE L.P. GAS / SCH 40 STEEL PIPE

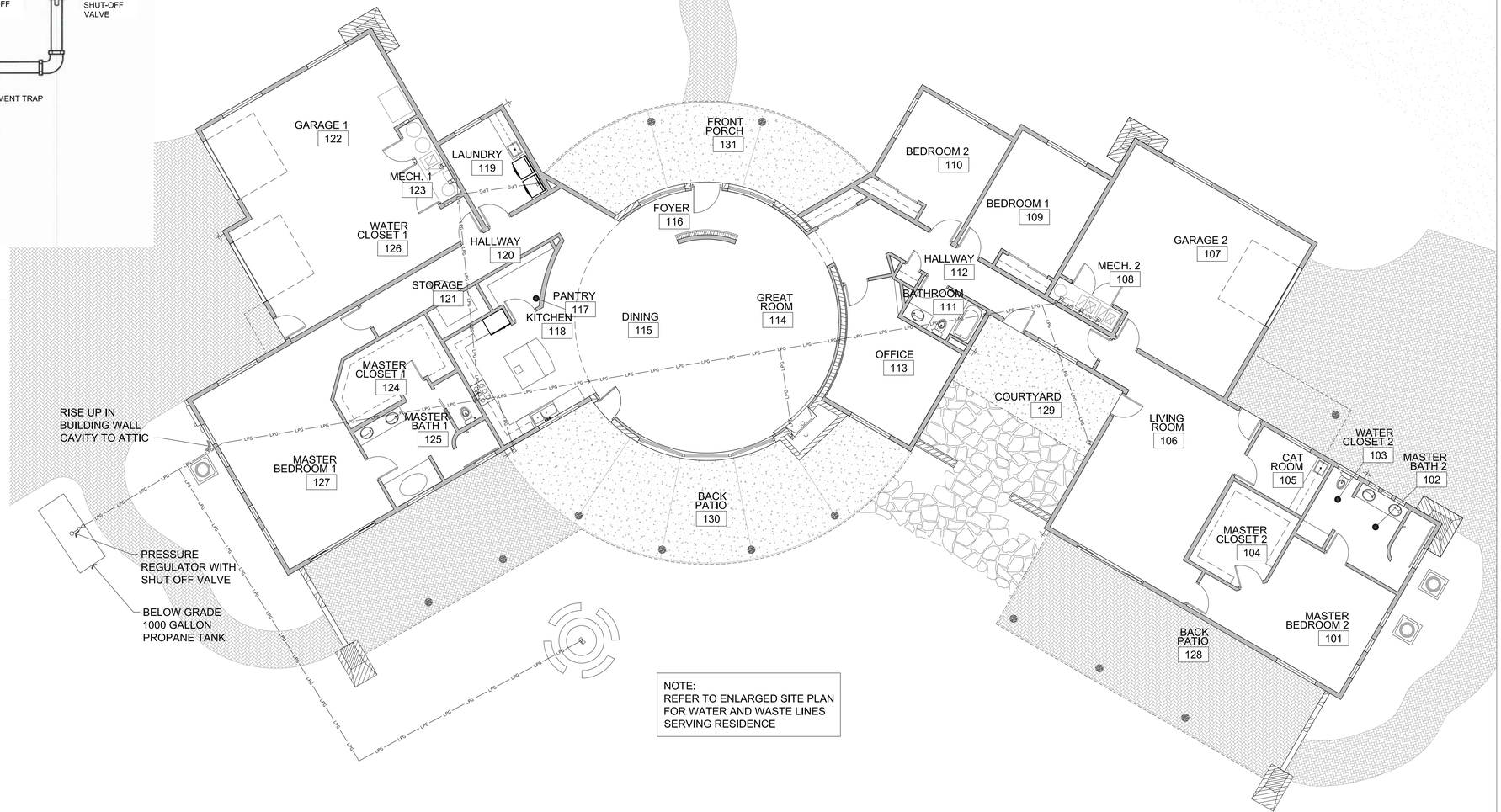
A3 One-Line Gas Isometric

Scale: N.T.S.

Fixture Unit Calculations

TYPE	COUNT	HOT	COLD	COMBINED	TOTAL
FULL BATH GROUP	3	1.5	2.7	3.6	10.8
KITCHEN GROUP	1	1.9	1	2.5	2.5
LAUNDRY GROUP	1	1.8	1.8	2.5	2.5
HOSE BIBB	6	0	2.5	2.5	15
LAVATORY	1	0.5	0.5	0.7	0.7
				TOTAL	31.5

31.5 WATER SUPPLY FIXTURE UNITS = 24.9 GALLONS PER MINUTE
1 1/2" WATER LINE PROPOSED



NOTE:
REFER TO ENLARGED SITE PLAN FOR WATER AND WASTE LINES SERVING RESIDENCE

A1 Propane Gas Plan

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

Plan North

Jan 29, 2016 - 8:38am

REVISIONS	BY

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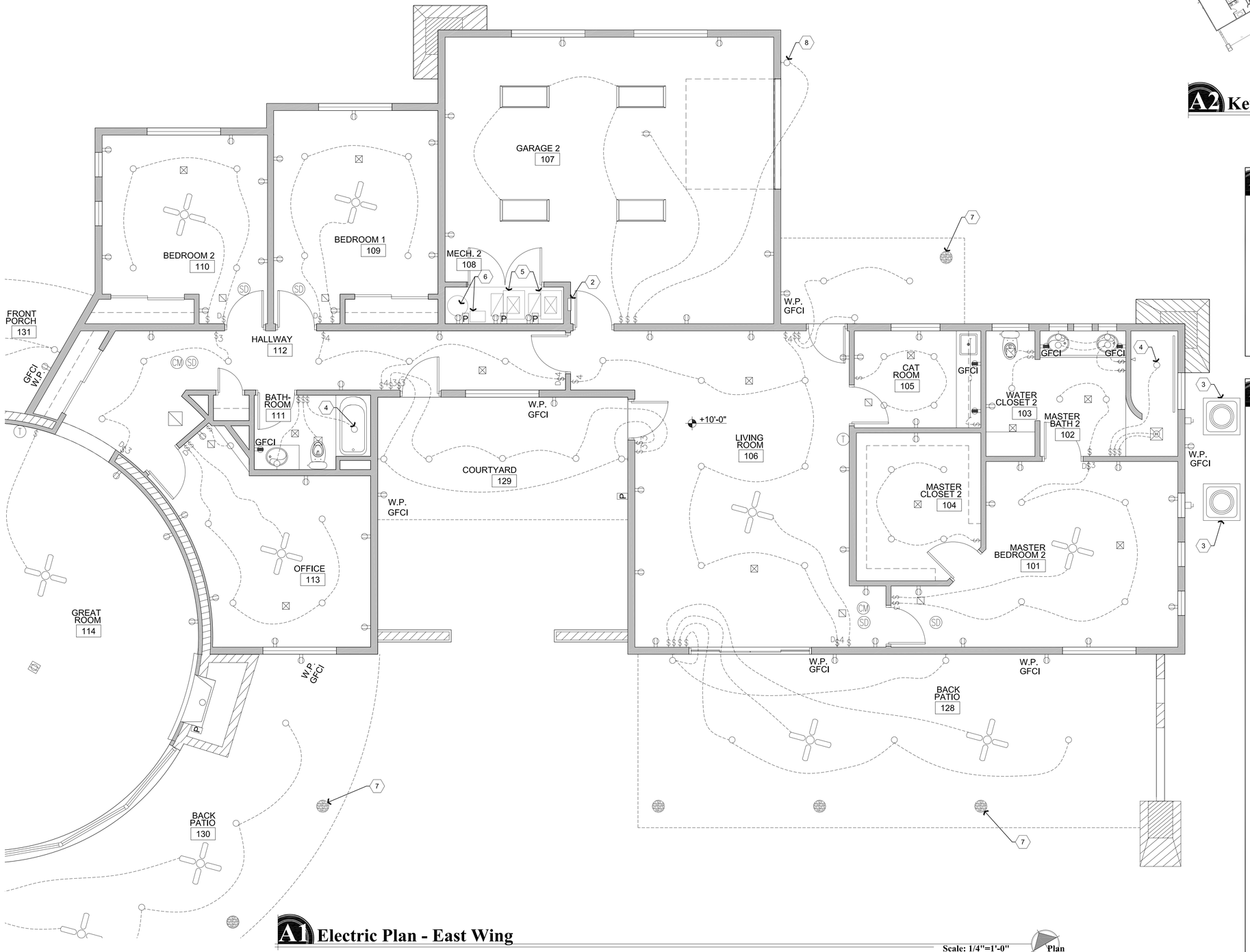
ARCHITECTURE & PLANNING

DRAWING: PROPANE GAS PLAN, GAS ISOMETRIC & WATER HEATER DETAIL

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	P1.0



A2 Key plan

Scale: n.t.s.

Plan North

Descriptive Keynotes

1. ELECTRICAL SERVICE ENTRANCE SECTION AND METER, 400 AMP, SINGLE PHASE SERVICE.
2. ELECTRICAL SUB-PANEL.
3. PROVIDE POWER TO CONDENSING UNIT.
4. PROVIDE RECESSED LIGHT FIXTURES WITH GASKETED LENS.
5. FURNACE / AIR HANDLER.
6. PROVIDE TANKLESS WATER HEATER WITH HOT WATER STORAGE TANK AND RECIRCULATING PUMP.
7. WOOD COLUMN.
8. SHIELDED WALL LIGHT FIXTURE ON MOTION SENSOR.

Legend

- ELECTRICAL PANEL
- DISCONNECT
- JUNCTION BOX
- DUPLEX RECEPTACLE, AT 18" A.F.F.
- DUPLEX RECEPTACLE ABOVE COUNTER OR HEIGHT AS INDICATED
- HALF SWITCHED DUPLEX RECEPTACLE
- SPECIAL RECEPTACLE
- FOURPLEX RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE IN CEILING
- $ SWITCH, SINGLE POLE AT 48" A.F.F.
- $3 SWITCH, THREE WAY AT 48" A.F.F.
- $D SWITCH, PRESET DIMMER , 48" A.F.F.
- LIGHT FIXTURE, FLUORESCENT
- UNDER CABINET LIGHTING
- LIGHT FIXTURE, CEILING MOUNTED
- LIGHT FIXTURE, RECESSED, TRIM TO BE DETERMINED
- LIGHT FIXTURE, ADJUSTABLE SPOT
- LIGHT FIXTURE, WALL MOUNTED
- TELEPHONE AND DATA PORT AT 18" A.F.F.
- CABLE TELEVISION OUTLET AT 18" A.F.F.
- DOORBELL SWITCH
- CHIME DOORBELL CHIME
- SD SMOKE DETECTOR / FIRE ALARM
- EXHAUST FAN
- T THERMOSTAT
- CM CARBON MONOXIDE ALARM
- EXHAUST FAN / HEAT LAMP
- SUSPENDED CHANDELIER LIGHT FIXTURE

A1 Electric Plan - East Wing

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

Plan North

Jan 29, 2016 - 8:39am

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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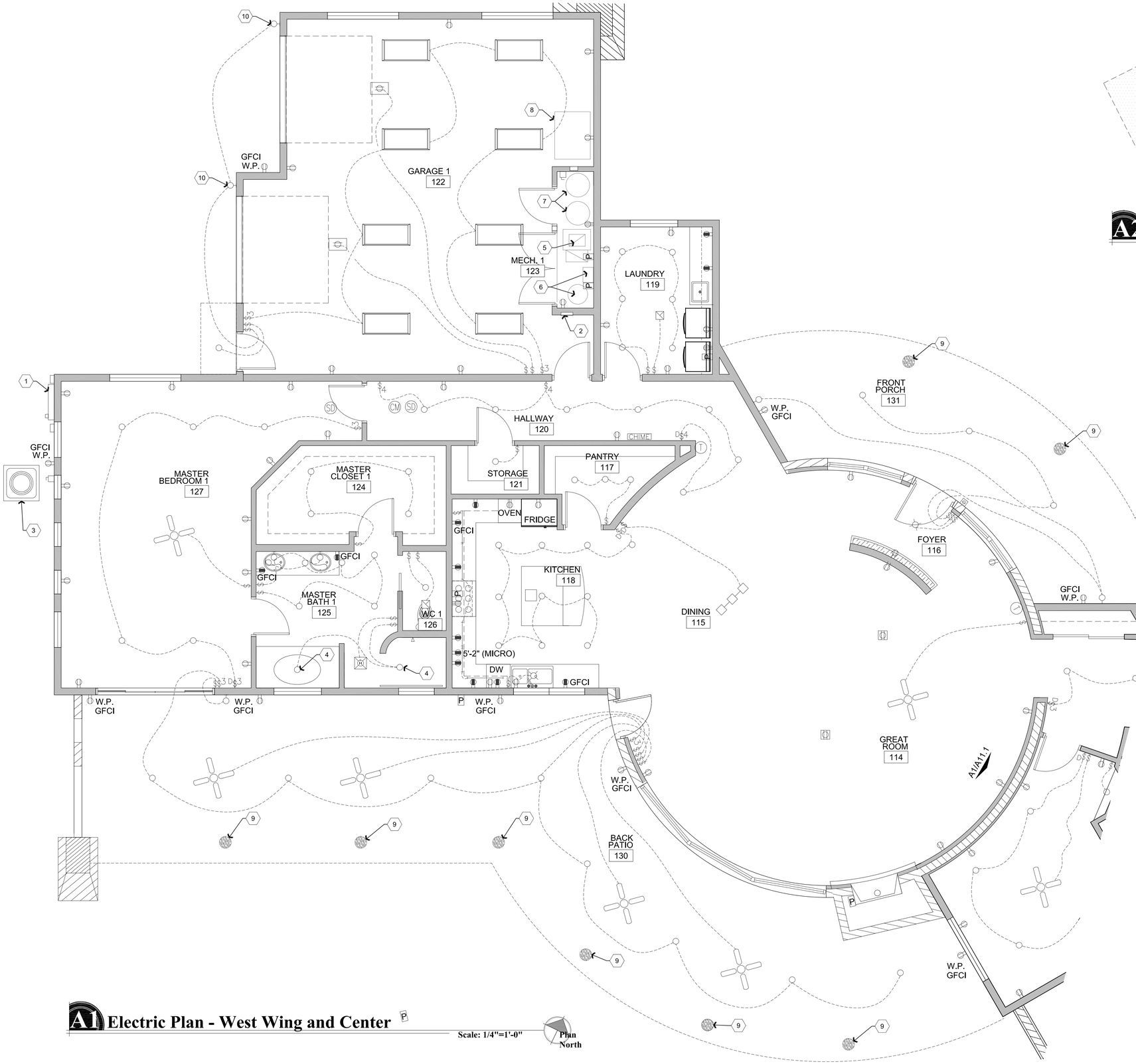
DRAWING: ELECTRIC PLAN - EAST WING

PROJECT: Lembke-Mellul Residence
12255 State Rd.
Prescott, AZ 86305

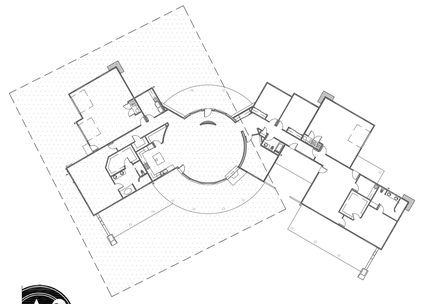
DRAWN BY	L.O.
CHECKED BY	W.A.K.
DATE	JANUARY 27, 2016
SCALE	AS NOTED
JOB NO.	674
SHEET	E1.0



A1 Electric Plan - West Wing and Center

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

Plan North



A2 Key plan

Scale: n.t.s.

Plan North

Descriptive Keynotes

1. ELECTRICAL SERVICE ENTRANCE SECTION AND METER, 400 AMP, SINGLE PHASE SERVICE.
2. ELECTRICAL SUB-PANEL.
3. PROVIDE POWER TO CONDENSING UNIT.
4. PROVIDE RECESSED LIGHT FIXTURES WITH GASKETED LENS.
5. FURNACE / AIR HANDLER.
6. PROVIDE TANKLESS WATER HEATER WITH HOT WATER STORAGE TANK AND RECIRCULATING PUMP.
7. PRESSURE TANK.
8. 350 GALLON WATER TANK FOR FIRE SUPPRESSION SYSTEM.
9. WOOD COLUMN.
10. SHIELDED WALL LIGHT FIXTURE ON MOTION SENSOR.

Legend

- ELECTRICAL PANEL
- DISCONNECT
- JUNCTION BOX
- DUPLEX RECEPTACLE, AT 18" A.F.F.
- DUPLEX RECEPTACLE ABOVE COUNTER OR HEIGHT AS INDICATED
- HALF SWITCHED DUPLEX RECEPTACLE
- SPECIAL RECEPTACLE
- FOURPLEX RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE IN CEILING
- $ SWITCH, SINGLE POLE AT 48" A.F.F.
- $3 SWITCH, THREE WAY AT 48" A.F.F.
- $D SWITCH, PRESET DIMMER , 48" A.F.F.
- LIGHT FIXTURE, FLUORESCENT
- UNDER CABINET LIGHTING
- LIGHT FIXTURE, CEILING MOUNTED
- LIGHT FIXTURE, RECESSED, TRIM TO BE DETERMINED
- LIGHT FIXTURE, ADJUSTABLE SPOT
- LIGHT FIXTURE, WALL MOUNTED
- TELEPHONE AND DATA PORT AT 18" A.F.F.
- CABLE TELEVISION OUTLET AT 18" A.F.F.
- DOORBELL SWITCH
- [CHIME] DOORBELL CHIME
- SD SMOKE DETECTOR / FIRE ALARM
- EXHAUST FAN
- T THERMOSTAT
- CM CARBON MONOXIDE ALARM
- EXHAUST FAN / HEAT LAMP
- SUSPENDED CHANDELIER LIGHT FIXTURE

REVISIONS	BY

REGISTERED ARCHITECT CERTIFICATE NO. 25646 W. ALAN KENSON Date Signed 01/27/16 ARIZONA, EXPIRES: 6/30/18

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ARCHITECTURE & PLANNING

DRAWING: ELECTRIC PLAN - WEST WING AND CENTER

PROJECT: Lembke-Mellul Residence
12255 Slate Rd.
Prescott, AZ 86305

DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: JANUARY 27, 2016
SCALE: AS NOTED
JOB NO.: 674
SHEET: **E1.1**

Jan 29, 2016 - 8:39am

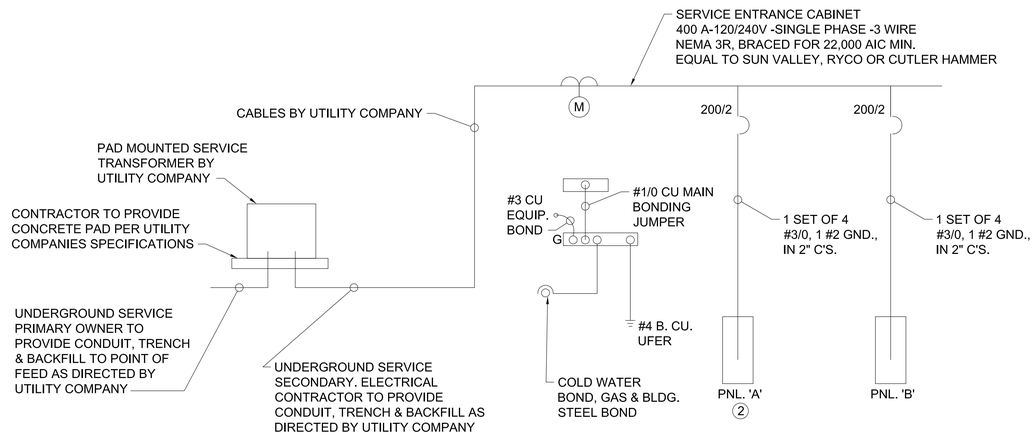
RESIDENTIAL ELECTRIC SERVICE LOAD CALCULATION

Load Type	Load Value	Multiplier/Demand	Total
General Lighting (includes future workshop)	10,597 s.f. x 3 VA = 31,791	68,641 VA: 10,000 VA @ 100% 58,641 VA @ 40%	33,456 VA
Small Appliance Branch Circuits	4 circuits x 1500 VA = 6000 VA		
Laundry Circuit	1 circuit x 1500 VA		
Electric Dryer	1 dryer x 5000 VA		
Electric Range	1 range x 11000 VA		
Double Ovens	9600 VA		
Microwave	1500 VA		
Refrigerator	1000 VA		
Dishwasher	1250 VA		
Air Conditioner	3 AC x 9600 VA		28,800 VA
		Total Calculated Load	62,256 VA

TOTAL CALCULATED DEMAND LOAD IN VOLT-AMPERES = 62,256 VA
TOTAL CALCULATED DEMAND LOAD IN AMPS AT 1 PHASE 3 WIRE, 120/240 VOLTS = 259 AMPS
MINIMUM SERVICE REQUIRED = 300 AMPS
SERVICE SIZE REQUESTED = 400 AMPS

General Electrical Notes:

1. A MINIMUM OF TWO 20-AMPERE RATED BRANCH CIRCUITS SHALL BE PROVIDED FOR RECEPTACLES LOCATED IN THE KITCHEN, PANTRY, BREAKFAST, AND DINING AREAS. AN ADDITIONAL 20 AMPERE RATED BRANCH CIRCUIT SHALL BE PROVIDED TO THE LAUNDRY AND A SEPARATE 20 AMPERE RATED BRANCH CIRCUIT SHALL BE PROVIDED FOR BATHROOM RECEPTACLES.
2. ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE OUTLETS INSTALLED IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATIONS ROOMS, CLOSETS, HALLWAYS AND SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
3. IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, PARLOR, LIBRARY, DEN, SUN ROOM, BEDROOM, RECREATION ROOM, OR SIMILAR ROOM OR AREA OF DWELLING UNITS, RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAT 6 FEET, MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE, INCLUDING ANY WALL SPACE 2 FEET OR MORE IN WIDTH.
4. IN KITCHEN AND DINING ROOMS, AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH ISLAND OR PENINSULAR COUNTER SPACE WITH A LONG DIMENSION OF 24 INCHES OR GREATER AND A SHORT DIMENSION OF 12 INCHES.
5. IN KITCHEN AND DINING ROOMS, AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH WALL COUNTER SPACE 12 INCHES OR WIDER SO THAT NO POINT ALONG THE WALL IS MORE THAN 24 INCHES FROM A RECEPTACLE OUTLET AND SHALL BE GFCI PROTECTED.
6. PROVIDE AT LEAST ONE WEATHERPROOF RECEPTACLE OUTLET, NOT MORE THAT 6 FEET 6 INCHES ABOVE GRADE AND GFCI PROTECTED, AT THE FRONT AND BACK OF EACH DWELLING. ALL RECEPTACLES INSTALLED OUTDOORS MUST BE GFCI PROTECTED.
7. PROVIDE AT LEAST (1) ONE RECEPTACLE OUTLET IN HALLWAYS 10 FEET OR MORE IN LENGTH.
8. A 125 VOLT, SINGLE PHASE, 15 OR 20 AMPERE RATED RECEPTACLE OUTLET SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR CONDITIONING AND REFRIGERATION EQUIPMENT. THE RECEPTACLE SHALL BE LOCATED ON THE SAME LEVEL AND WITHIN 25 FEET OF THE EQUIPMENT.
9. ALL 125 VOLT, SINGLE PHASE, 15 AND 20 AMPERE RECEPTACLES IN THE FOLLOWING LOCATIONS SHALL BE GFCI PROTECTED: BATHROOMS, GARAGES, UNFINISHED ACCESSORY BUILDINGS, CRAWL SPACES, UNFINISHED BASEMENTS, BAR SINKS (WITHIN 6 FEET) AND LAUNDRY ROOM SINKS (WITHIN 6 FEET).
10. PROVIDE AT LEAST (1) ONE WALL MOUNTED SWITCH CONTROLLED LIGHTING OUTLET IN EVERY HABITABLE ROOM AND BATHROOM.
11. PROVIDE A LIGHTING OUTLET ON THE EXTERIOR SIDE OF ALL EXITS/ENTRANCES.
12. A RECEPTACLE SHALL NOT BE INSTALLED WITHIN A BATHTUB OR SHOWER SPACE.
13. FIXTURES, FITTINGS, BOXES AND RECEPTACLES LOCATED IN DAMP OR WET LOCATIONS SHALL BE "LISTED" TO BE SUITABLE FOR SUCH LOCATION.
14. PROVIDE INTERCONNECTED SMOKE ALARMS IN EACH SLEEPING ROOM, IMMEDIATELY OUTSIDE EACH SLEEPING ROOM, ON EACH ADDITIONAL STORY INCLUDING BASEMENTS, AND IN THE HALLWAY. SMOKE ALARMS SHALL BE HARD WIRED WITH BATTERY BACKUP.
15. PROVIDE A GROUNDING ELECTRODE SYSTEM. PROVIDE BONDING TO THE INTERIOR WATER PIPING AND ABOVE GROUND PORTION OF GAS PIPING SYSTEM.



A1 Electrical One-Line Diagram

Scale: N.T.S.

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DRAWING: ELECTRICAL LOAD CALCULATIONS AND ONE-LINE DIAGRAM

PROJECT: Lembke-Mellul Residence
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DRAWN BY: L.O.
CHECKED BY: W.A.K.
DATE: JANUARY 27, 2016
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SHEET: E1.2

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