# SECURE GARAGE

# \$14405 E. 42ND STREET S. INDEPENDENCE, MISSOURI 64055

# ISSUED FOR: PERMIT - 08/04/2021



CONTRACTOR SHALL VISIT THE SITE, FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND OWNER REVIEW AND UNDERSTAND THE REQUIREMENTS OF THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL SUB-CONTRACTORS

**GENERAL NOTES** 

- SOLELY AS A CONVENIENCE TO THE OWNER AND CONTRACTOR, THE ARCHITECT MAY INCLUDE DOCUMENTS PREPARED BY CERTAIN CONSULTANTS (OR INCORPORATE THI RECOMMENDATIONS OF SAID CONSULTANTS INTO DOCUMENTS PREPARED BY THE ARCHITECT) WITHIN THE SET OF DOCUMENTS ISSUED BY THE ARCHITECT. IT IS EXPRESSLY UNDERSTOOD, THAT BY SUCH ISSUANCE, THE ARCHITECT ASSUMES NO LIABILITY FOR THE SERVICES OF SAID CONSULTANTS.
- ALL WORK AND MATERIALS SHALL CONFORM TO THE APPLICABLE CODES LISTED IN THE PROJECT CODE SUMMARY.
- UNLESS OTHERWISE INDICATED ON THESE DRAWINGS AND SPECIFICATIONS AS BEING N.I.C. OR EXISTING, ALL ITEMS, MATERIALS, ETC. AND INSTALLATIONS OF THE SAME ARE A PART OF THE CONTRACT DEFINED BY THESE DRAWINGS AND SPECIFICATIONS AND THEIR
- CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS AND COMPLY WITH SAFETY REGULATIONS AND RESTRICTIONS AS REQUIRED FOR WORKERS AND PEDESTRIAN PROTECTION DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. PROVIDE PROTECTION AS REQUIRED TO PREVENT ANY DAMAGE TO EXISTING CONSTRUCTION WITHIN AND ADJACENT TO JOB SITE. WHERE DAMAGE OCCURS, THE CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED AREA AND/OR MATERIAL AS REQUIRED TO THE OWNER'S APPROVAL AT NO ADDITIONAL COST. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND MAY NOT BE LIMITED TO NORMAL WORKING HOURS. PROVIDE SECURITY FENCE AND GATES AS NECESSARY AROUND THE AREA WITHIN THE SCOPE OF WORK.
- IF THERE ARE TRENCHES OR EXCAVATION 5'-0" OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, CONTRACTOR SHALL OBTAIN NECESSARY PERMIT FROM THE APPROPRIATE LOCAL GOVERNING AGENCY.
- PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, UTILITIES. OTHER SERVICES AND RELATED TASKS NECESSARY FOR PROPER EXECUTION OF THE CONSTRUCTION REQUIRED BY CONTRACT DOCUMENTS.
- ANY REVISION OR ADDITIONAL WORK REQUIRED BY FIELD CONDITIONS OR LOCAL GOVERNING AUTHORITIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS, LICENSES, INSPECTIONS AND TESTING INDICATED ON THE PLANS AND BY SPECIFICATIONS OR REQUIRED BY THE SOILS REPORT AND/OR REQUIRED BY ANY GOVERNMENT AGENCY.
- CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL UTILITY LINES AND STUBS TO THE BUILDING(S) AS MAY BE INDICATED ON THE PLANS.
- NO ADDITIONAL ROOF OPENING OR ROOF MOUNTED EQUIPMENT IS ALLOWED BEYOND THAT WHICH IS SHOWN ON THESE PLANS WITHOUT WRITTEN CONSENT OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, HVAC DUCTS, ETC., UNLESS SPECIFICALLY DETAILED AND/OR APPROVED BY THE ARCHITECT AND STRUCTURAL ENGINEER.
- ALL SHOP WELDING TO BE DONE IN A CERTIFIED LICENSED SHOP. ALL FIELD WELDING SHALL BE DONE ONLY BY CERTIFIED WELDERS UNDER CONTINUOUS INSPECTION WITH CERTIFICATE ISSUED AS REQUIRED BY BUILDING OFFICIAL.
- WHERE LARGER STUDS OR FURRING IS REQUIRED TO COVER DUCTS, PIPING, CONDUIT, ETC., THE LARGER SIZE STUD OR FURRING SHALL EXTEND THE FULL LENGTH OF THE SURFACE WHERE THE FURRING OCCURS.
- NO HAZARDOUS MATERIALS WILL BE STORED AND/OR USED WITHIN THE BUILDING WHICH EXCEED THE QUANTITIES ALLOWED BY CODE.
- INSTALLATION OF ANY BUILDING INSULATION WHICH CONTAINS OR UTILIZES AN OZONE DEPLETING COMPOUND IS PROHIBITED.
- PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY. THE BUILDING AND FACILITIES MUST BE ACCESSIBLE TO AND FUNCTIONAL FOR THE PHYSICALLY DISABLED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA)

AND ALL OTHER STATE/FEDERAL GOVERNING AGENCIES.

NO BUILDING OR PORTION OF A BUILDING SHALL BE OCCUPIED OR USED FOR STORAGE

#### **CONSTRUCTION NOTES**

- OF THE AUTHORITY HAVING JURISDICTION AND THE RULES AND REGULATIONS OF ALL AGENCIES, DEPARTMENTS AND COMMISSIONS HAVING JURISDICTION WHERE DISCREPANCIES OCCUR AND/OR WHERE THERE ARE CONFLICTS OR NOTIFY THE ARCHITECT IMMEDIATELY AND REFRAIN FROM STARTING AND COMPLETING SUCH WORK, OR DEPENDENT WORK, UNTIL TOLD BY THE
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO COMMENCING WORK, AND SHALL REPORT TO THE ARCHITECT ANY CONDITION OR DISCREPANCY BETWEEN DRAWINGS AND FIELD CONDITIONS REQUIRING MODIFICATIONS BEFORE PROCEEDING WITH THE
- MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER CONSTRUCTION OF ANY PART OF THE WORK SHALL BE INCLUDED AS IF THEY WERE INDICATED IN THE DRAWINGS.
- REFERENCING OF DRAWINGS IS FOR CONVENIENCE ONLY AND DOES NOT LIMIT APPLICATION OF ANY DRAWING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL CONDITIONS AND MATERIALS WITHIN THE PROPOSED CONSTRUCTION AREAS. THE CONTRACTOR SHALL DESIGN AND INSTALL ADEQUATE SHORING AND BRACING FOR ALL STRUCTURAL OR REMOVAL TASKS. THE CONTRACTOR SHALL HAVE SOLE RESPONSIBILITY FOR ANY DAMAGE OR INJURIES CAUSED BY OR DURING THE EXECUTION OF THE WORK.
- NOTES APPEAR ON VARIOUS SHEETS FOR VARIOUS SYSTEMS AND MATERIALS SHEETS ARE TO BE OWNER REVIEWED AND NOTES ON ANY ONE SHEET ARE TO BE APPLIED TO RELATED SYSTEMS AND MATERIALS DEPICTED ON OTHER
- DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE THAT ARE. WHERE SPECIFIC DIMENSIONS, DETAILS, OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT THE ARCHITECT BEFORE PROCEEDING WITH THE
- THE CONTRACTOR SHALL LAY OUT HIS OWN WORK, AND SHALL PROVIDE ALL DIMENSIONS REQUIRED FOR OTHER TRADES.
- THE CONTRACTOR SHALL DO ALL CUTTING, PATCHING AND REPAIRING AS REQUIRED TO PERFORM ALL OF THE WORK INDICATED ON THE DRAWINGS, AND ALL OTHER WORK THAT MAY BE REQUIRED TO COMPLETE THE JOB.
- GUTTER AND DOWNSPOUT SIZING PER OWNER'S CONTRACTOR.

#### INSTRUCTION TO CONTRACTOR

- THE INTENT OF THE SET OF CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR AS BINDING PERFORMANCE. THE CONTRACTOR SHALL BE REQUIRED ONLY TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INDICATED RESULTS.
- ORGANIZATION OF THE SPECIFICATIONS INTO DIVISIONS, SECTIONS AND ARTICLES, ARRANGEMENT OF DRAWINGS SHALL NOT CONTROL THE CONTRACTOR, IN DIVIDING THE WORK AMONG SUBCONTRACTORS OR IN ESTABLISHING THE EXTENT OF WORK TO BE PERFORMED BY ANY TRADE.
- UNLESS OTHERWISE STATED IN THE CONTRACT DOCUMENTS, WORDS WHICH HAVE WELL-KNOWN TECHNICAL OR CONSTRUCTION INDUSTRY MEANINGS ARE USED IN THE CONTRACT DOCUMENTS IN ACCORDANCE WITH SUCH RECOGNIZED MEANINGS.
- GENERAL CONTRACTOR AND ELECTRICAL SUBCONTRACTOR TO FULLY COORDINATE ALL ELECTRICAL DEVICE BODIES AND COVER PLATES PER THE SPECIFICATIONS. DEVICE BODIES AND COVER PLATES ARE COLOR COORDINATED WITH SPECIALTY FINISHES. PROVIDE DEVICE BODY AND COVER PLATES TO THE ARCHITECT FOR OWNER REVIEW AND APPROVAL
- GENERAL CONTRACTOR TO FULLY COORDINATE WITH MECHANICAL/PLUMBING SUBCONTRACTORS. ALL FIXTURE/DEVICE COLORS WHERE FIXTURE/DEVICE UNITS ARE PLACED WITHIN WALLS AND CEILING ASSEMBLIES VS ADJACENT MATERIAL FINISH COLOR.

## **VICINITY MAP**

ELECTRICAL SCHEDULES, SPECS, AND LEGENDS

SHEET INDEX

COVER SHEET

CIVIL COVER

PLANS & ELEVATIONS

STRUCTURAL TYPICAL DETAILS STRUCTURAL TYPICAL DETAILS

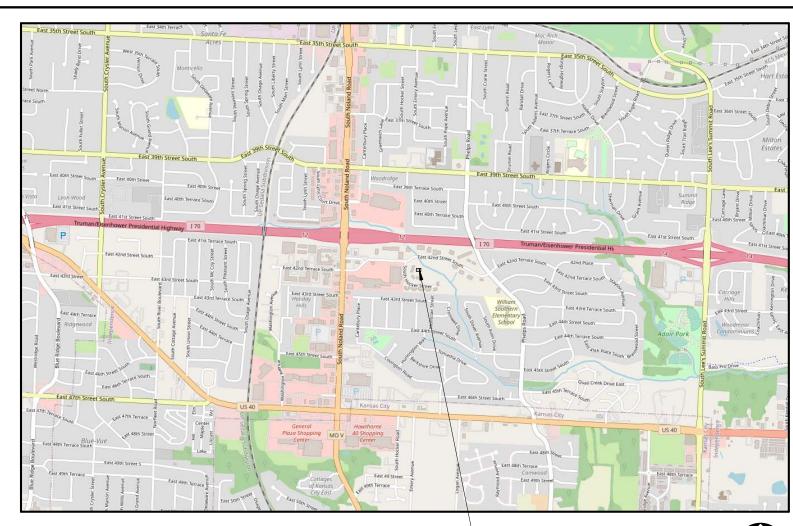
STRUCTURAL FRAMING PLANS

ELECTRICAL FLOOR PLANS

SITE PLAN

DETAILS

ARCHITECTURE



AREA OF WORK

# N.T.S.

## PROJECT DIRECTORY



INDEPENDENCE HOUSING AUTHORITY 4215 S. HOCKER DR., BLDG 5 INDEPENDENCE, MO 64055

MICHAEL BISHOP, EXEC. DIRECTOR PHONE: (816) 836-9200 x307 EMAIL: MBISHOP@IHA1.ORG

## STRUCTURAL ENGINEER



STAND SEI 8234 ROBINSON ST. OVERLAND PARK, KS 66204

PAUL SPEARS, STRUCT. ENGINEER PHONE: (913) 214-2169 EMAIL:

#### ARCHITECT / CIVIL ENGINEER



3200 S. State Route 291, Bldg. 1, Independence, MO 64057

POWELL CWM, INC. 3200 S STATE ROUTE 291, BLDG 1 INDEPENDENCE, MO 64057

NAME: NATHAN BOEN, ARCHITECT PHONE: 816.373.4800 EMAIL: NBOEN@POWELLCWM.COM

TOBY WILLIAMS, ENGINEER PHONE: 816.373.4800 TWILLIAMS@POWELLCWM.COM EMAIL:



INDIAN CREEK PARKWAY, STE. 300 OVERLAND PARK, KS 66210 LOGAN UNREIN 913.693.5999 LUnrein@fscmep.com

**IBC SECTION 312.1** 

**CODE ANALYSIS** 

THE BUILDING SHALL BE IN COMPLIANCE WITH THE FOLLOWING:

2018 INTERNATIONAL BUILDING CODE 2018 INTERNATIONAL MECHANICAL CODE 2018 INTERNATIONAL PLUMBING CODE

2018 INTERNATIONAL FIRE CODE 2018 INTERNATIONAL ENERGY CONSERVATION CODE

2017 NATIONAL ELECTRIC CODE 2010 ADA ACCESSIBILITY REQUIREMENTS

U: UTILITY AND MISCELLANEOUS (PRIVATE GARAGES)

**IBC SECTION 602** 

ALLOWABLE HEIGHT = 40 FT | 1 STORY \( \sqrt{2} \)

ALLOWABLE FLOOR AREA - TABLE 506.2 ALLOWABLE AREA = 5,500 SF PER STORY ACTUAL BUILDING AREA = 797 SF

**BEARING WALLS EXTERIOR:** 0 HOURS BEARING WALLS INTERIOR: 0 HOURS NONBEARING WALLS EXTERIOR 0 HOURS NONBEARING WALLS INTERIOR 0 HOURS 0 HOURS FLOOR CONSTRUCTION:

AUTOMATIC SPRINKLER SYSTEM, SECTION 903,2,11 REQUIRED: NO

PROVIDED: NO

**ROOF CONSTRUCTION:** 

FIRE EXTINGUISHERS FIRE EXTINGUISHERS ARE FOR INTERIOR USE AS REQUIRED BY NFPA. OWNER SHALL PROVIDE FIRE EXTINGUISHERS. PLANS SHOW LOCATIONS THAT MEET REQUIRED 75' MAXIMUM DISTANCE.

FINAL LOCATIONS OF ALL PORTABLE FIRE EXTINGUISHERS ARE TO BE COORDINATED BY OWNER REPRESENTATIVE WITH THE LOCAL GOVERNING AUTHORITY.

A 2A10BC FIRE EXTINGUISHER WILL BE SUPPLIED BY OWNER AND INSTALLED BY GENERAL CONTRACTOR.

FIRE EXTINGUISHER SHALL BE INSTALLED WITH STANDARD MANUFACTURER BRACKET @ 40" AFF.

#### <u>MEANS OF EGRESS (CHAPTER 10</u> OCCUPANT LOAD - TABLE 1004.1.

_AREA LOAD	SF	OCC LOAD FACTOR	OCCUPANT
GARAGE	797 SF	200 GROSS	4 OCCUPANTS
TOTAL OCCU	PANTS:		4 OCCUPANTS

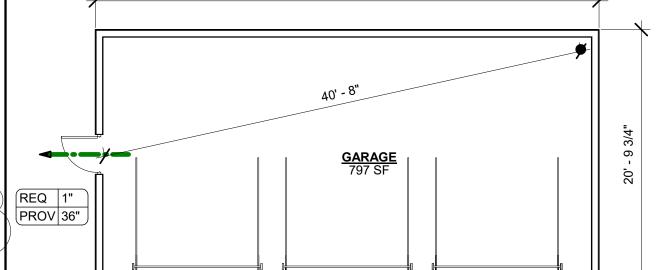
MINIMUM REQUIRED EGRESS WIDTH - 1005.1 REQUIRED: 4 OCC. X 0.2" = 1" REQUIRED

PROVIDED: 1 DOORS @ 36" CLEAR = 36" = 36" TOTAL PROVIDED

NUMBER OF EXITS, TABLE 1006.3.2: **REQUIRED: 1** PROVIDED: 1

ACCESSIBLE MEANS OF EGRESS, SECTION 1009: **REQUIRED: 1** PROVIDED: 1

**EXIT ACCESS TRAVEL DISTANCE - TABLE 1017.2** REQUIRED: 300 FT PROVIDED: 40 FT 8 IN



42' - 0"

**COVER SHEET** 

ARCHITECTURE/ENGINEERING/SURVEYIN 3200 S. State Route 291, Bldg. 1, Independence, MO 6405

Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36 CLIENT

MICHAEL BISHOP INDEP. HOUSING AUTH. INDEPENDENCE, MO 64055 (816) 836-9200 x307

KENT BOEN

NATHAN KENT BOEN, R.A. A-2017009063 (MISSOURI#

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DRAWN BY: NC CHECKED BY: NB PROJECT #: 20-1718:02 ISSUE DATE: 08/04/2021

ISSUED FOR:

# Independence Housing Authority Secured Parking Garage

14405 E. 42ND STREET S INDEPENDENCE, JACKSON COUNTY, MO Section 23 Township 49N Range 32W

**GENERAL NOTES** 

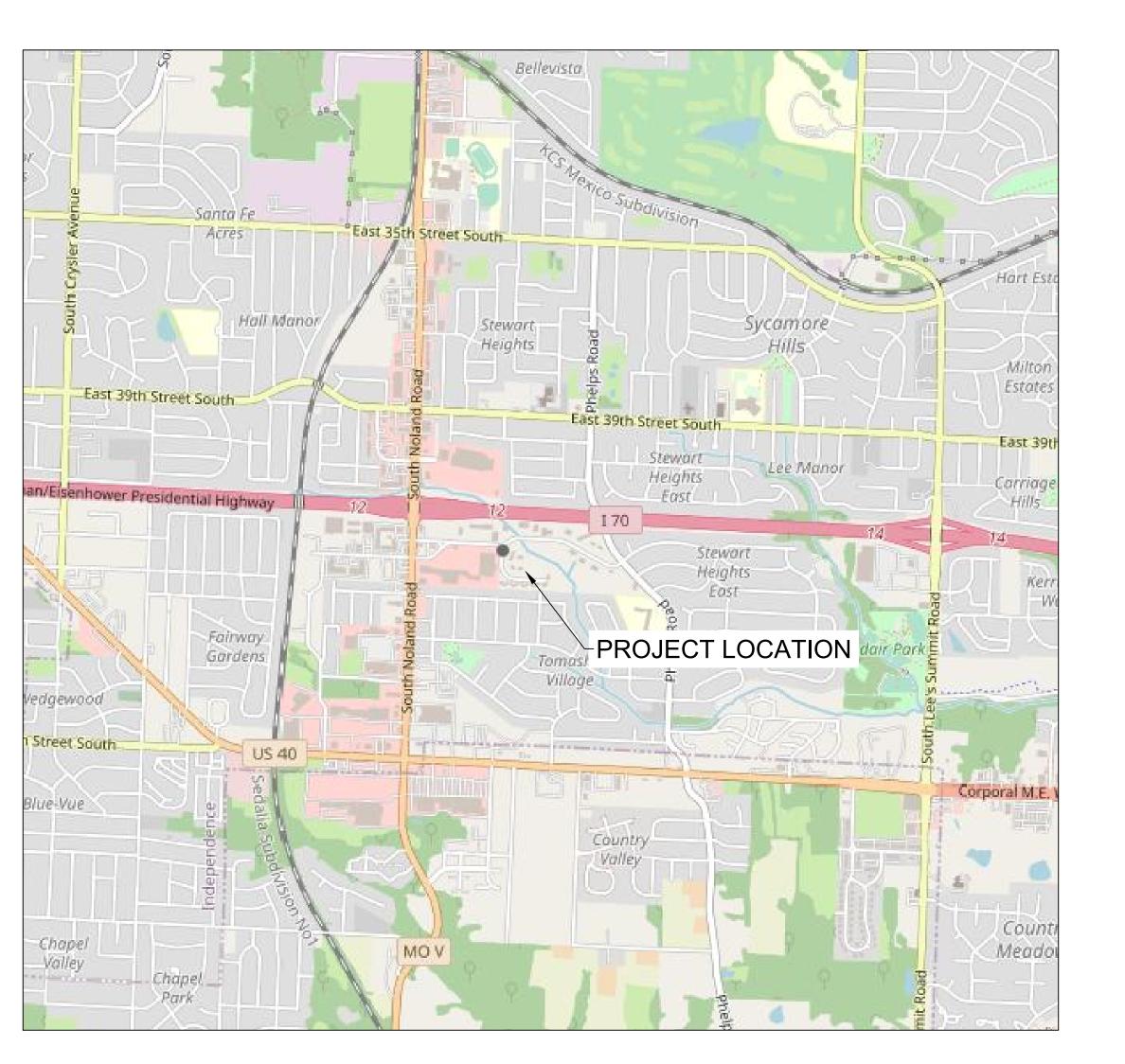
- 1. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL APPLICABLE STANDARDS AND SPECIFICATIONS OF THE PUBLIC WORKS DEPARTMENT OF THE CITY OF INDEPENDENCE, MISSOURI, IN CURREN **USAGE AND ALL SUPPLEMENTS THERE TO.**
- 2. DO NOT SCALE THESE DRAWINGS
- 3. NO GEOLOGICAL INVESTIGATION WAS PERFORMED ON THIS SITE
- 4. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, BONDS, AND INSURANCE REQUIRED BY THE CITY.
- 5. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND ARE APPROXIMATE ONLY. THEY DO NOT CONSTITUTE ACTUAL FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 6. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL STATE AND LOCAL CODES
- 7. THE DEVELOPER / OWNER SHALL CONTROL EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS
- 8. ALL EXCESS MATERIAL SHALL BE REMOVED LEGALLY FROM SITE AND DISPOSED OF OFF SITE.
- TRAFFIC CONTROL AND MAINTENANCE OF TRAFFIC DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC WORKS
- 10. EROSION CONTROL MEASURES SHALL BE PROVIDED AT ALL LOCATIONS WHERE DRAINAGE IS LEAVING THE PROJECT SITE. THE EROSION CONTROL PLAN SHOWS MINIMUM EROSION CONTROL MEASURES TO BE PROVIDED. ADDITIONAL SITE SPECIFIC MEASURES MAY BE NECESSARY AND SHALL BE PROVIDED BY THE DEVELOPER OWNER, AT THE CONTRACTOR'S EXPENSE.
- 11. ANY EXISTING OR NEW STORM SEWER INLETS IN USE DURING DEMOLITION, GRADING OR CONSTRUCTION SHALL
- 12. THE CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN ACTUAL AND PLAN SHOWN CONDITIONS TO THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION
- 13. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND QUANTITIES SHOWN ON THESE PLANS AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING ANY RELAT
- 14. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND INSTALLATIONS, INCLUDING SERVICE CONNECTIONS, IN ADVANCE OF EXCAVATION OR TRENCHING, AND PROTECT THE SAME AS REQUIRED TO MAINTAIN GOOD OPERATING CONDITION
- 15. THE CONTRACTOR SHALL USE HIS OWN INFORMATION AND NOT RELY UPON ANY INFORMATION SHOWN ON TH DRAWINGS CONCERNING EXISTING UNDERGROUND INSTALLATIONS
- 16. ANY DELAY, ADDITIONAL WORK, OR EXTRA COST TO THE CONTRACTOR CAUSED BY OR RESULTING FROM DAMAGE TO EXISTING UNDERGROUND INSTALLATIONS SHALL NOT CONSTITUTE A CLAIM FOR EXTRA WORK, ADDITIONAL PAYMENT, OR DAMAGES. ALL DAMAGE TO EXISTING UTILITIES INCLUDING SERVICE CONNECTIONS SHALL RE REPAIRED BY AND AT THE EXPENSE OF THE CONTRACTOR
- 17. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES AND OBTAIN ALL NECESSARY INSPECTIONS THROUGHOUT THE CONSTRUCTION ACTIVITIES.
- 18. ALL EXCAVATION SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.
- 19. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO ALL UTILITIES, STORM DRAINAGE, AND SIGNS AS REQUIRED, ALL WORK SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN THE CONTRACTOR'S CONTRACT WITH THE OWNER. ADDITIONALLY, ALL EXISTING UTILITY TOPS SHALL BE ADJUSTED
- 20. REMOVAL OF EXISTING PAVING AND/OR BORING AT THE CONTRACTOR'S DISCRETION SHALL BE INCLUDED AS A PART OF ALL UTILITY INSTALLATIONS WHERE APPLICABLE AT THE CONTRACTOR'S EXPENSE AS WELL AS REPLACEMENT/REPAIR OF ALL DISTURBED MATERIALS IN ACCORDANCE WITH LOCAL SPECIFICATIONS AND
- 26. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION SCHEDULES AND ACTIVITIES WITH THE APPROPRIATE UTILITY OWNER AND ADJACENT PROPERTY OWNERS TO MINIMIZE DISRUPTION TO ADJACENT PROPERTY OWNERS INCLUDING VEHICULAR ACCESS.
- 27. THE CONTRACTOR SHALL COORDINATE ALL UTILITY WORK, INCLUDING DEMOLITION AND REMOVAL, WITH THE APPROPRIATE UTILITY COMPANIES AND SERVICE PROVIDERS PRIOR TO DISCONTINUATION OF SERVICE. UTILITIES NOT NOTED FOR DEMOLITION SHALL REMAIN IN SERVICE AT ALL TIMES.
- 28. THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES UNTIL THE RELOCATED UTILITIES ARE INSPECTED AND APPROVED.
- 29. ALL EXISTING UTILITIES SHALL BE REMOVED BACK TO THE CLOSEST STRUCTURE AND CAPPED AT THAT LOCATION UNLESS OTHERWISE INDICATED IN THESE PLANS.

30. REMOVE ALL TREES, GRASS, WEEDS, ROOTS, AND OTHER DEBRIS FROM THE AREA TO BE EXCAVATED, FILLED OR

- 31. IF EXCAVATED MATERIAL IS UNSUITABLE FOR COMPACTION, AS DETERMINED BY THE GEOTECHNICAL ENGINEER, THE CONTRACTOR SHALL FURNISH SUITABLE BORROW.
- 32. ALL SLOPES, CUT OR FILL, SHALL BE GRADED TO MAXIMUM FINISH SLOPE OF THREE (3) FEET HORIZONTAL TO ONE (1) FOOT VERTICAL. NO GRADED SLOPE SHALL EXCEED 3:1 WITHOUT SPECIFIC SLOPE PLANTING OR
- 33. SITE SHALL BE GRADED TO ENSURE DRAINAGE OF WATER FROM ALL SURFACES.
- 34. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL SURFACE AND GROUNDWATER CONTROL MEASURES.
- 35. GRADES NOT OTHERWISE INDICATED ON THE PLANS SHALL BE UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE GIVEN. ABRUPT CHANGES IN SLOPES SHALL BE WELL ROUNDED.
- 36. STORM DRAINAGE SYSTEMS WITHIN THE PROJECT AREA ARE TO BE COMPLETELY CLEANED AT THE COMPLETION OF THE PROJECT.
- 37. EXISTING TREES WHERE INDICATED SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. ALL TREE PROTECTION FENCING TO BE INSPECTED DAILY AND ALL GRADING ACTIVITIES TO REMAIN OUTSIDE THE DRIP
- 38. ALL TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO GRADING.
- 39. ALL SOILS UNDERCUTTING, OVER EXCAVATION, UNDER DRAIN INSTALLATION, AND ROCK FILLS SHALL BE DETERMINED AND DIRECTED BY THE SOILS ENGINEER.
- 40. FILL AREAS TO BE COMPACTED TO 95% STANDARD PROCTOR MINIMUM UNLESS OTHERWISE INDICATED BY
- 41. UNLESS OTHERWISE INDICATED, ALL DISTURBED SOIL AREAS TO RECEIVE 6 INCHES OF TOPSOIL AND TO BE SEEDED AND MULCHED.
- 42. THE CONTRACTOR SHALL PERFORM ALL CUTTING, PATCHING, AND REPAIRING AS REQUIRED TO PERFORM ALL OF THE WORK INDICATED ON THE DRAWINGS, AND ALL OTHER WORK THAT MAY BE REQUIRED TO COMPLETE THE JOB.

# CONSTRUCTION PLANS

LITTLE BLUE RIVER IS THE WATERSHED FOR THIS PROJECT. THE TOTAL DISTURBED AREA IS 0.09 ac.



## LIST OF DRAWINGS

SHEET NO. **DESCRIPTION** 

SITE PLAN **DETAILS** 

**TOTAL NUMBER OF SHEETS = 3** 

# E 39TH ST S23 T49N R32W

## PROPERTY DESCRIPTION

RNG-32 TWP-49 SEC-03 PT OF SE 1/4 DAF: BEG AT A PT 453' W & 40' N OF SE COR SD 1/4 TH W 655' M/L TH N 40' TH W 180' TH NLY ALG CURV TO RI 55.73' TH N 1080' M/L TH E 1320' M/L TH S 250' M/L TH W 499' TH S 944' TO POB

Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36

TOBY L. WILLIAMS, PE PE-2019038948 (MISSOURI #)

PREPARED FOR:

Michael S. Bishop, PHM, HCCP

Independence Housing Authority

4215 S. Hocker Drive, Building 5

michael-bishop@independenceha.or

Independence, MO 64055

**COVER SHEET** C-001



#### **UTILITY CONTACTS**

CITY OF INDEOENDENCE 816-325-7000 800-582-1234 **EVERGY** 888-471-5275 800-286-8313 816-358-5360 MISSOURI ONE CALL 1-800-DIG-RIGHT **UTILITIES:** THE INFORMATION CONCERNING LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON WHICH ARE NOT VISIBLE FROM THE SURFACE, HAS BEEN TAKEN FROM THE RECORDS AND FIELD LOCATIONS OF THE VARIOUS UTILITY COMPANIES AND HAS NOT BEEN FIELD VERIFIED BY THIS COMPANY. THESE LOCATIONS ARE NOT TO BE CONSTRUED AS **ACCURATE OR EXACT.** 

NOTE: NO PUBLIC IMPROVEMENTS WILL BE CONSTRUCTED AS PART OF THIS PROJECT

☐ NOT FOR CONSTRUCTION 

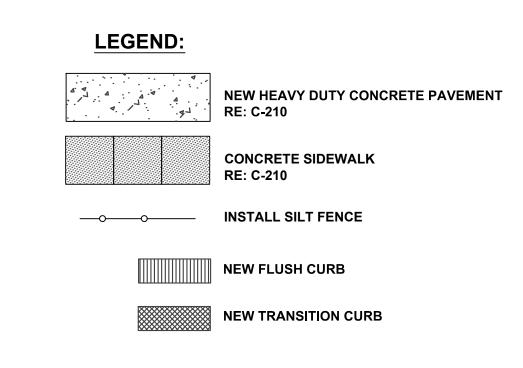


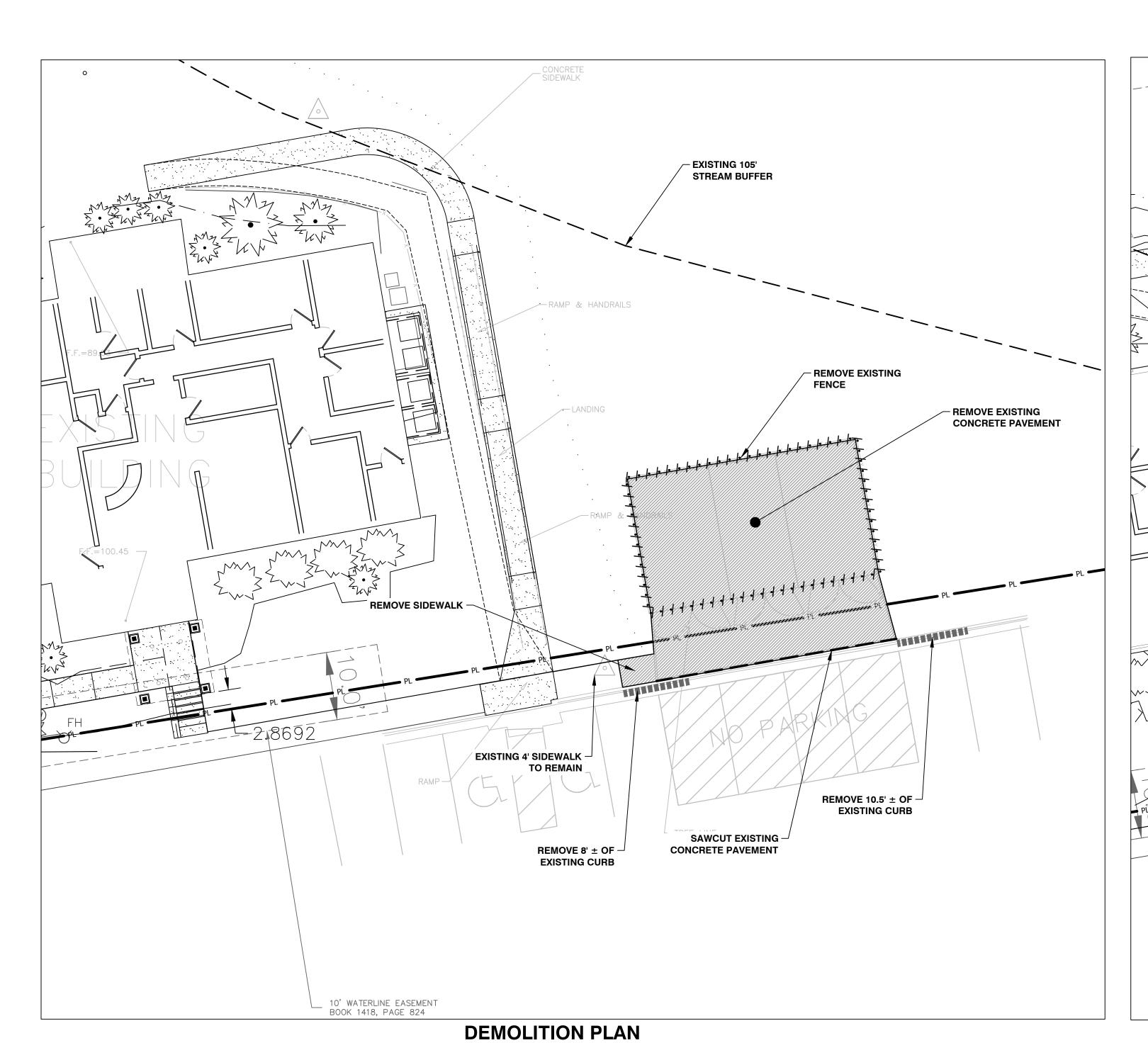
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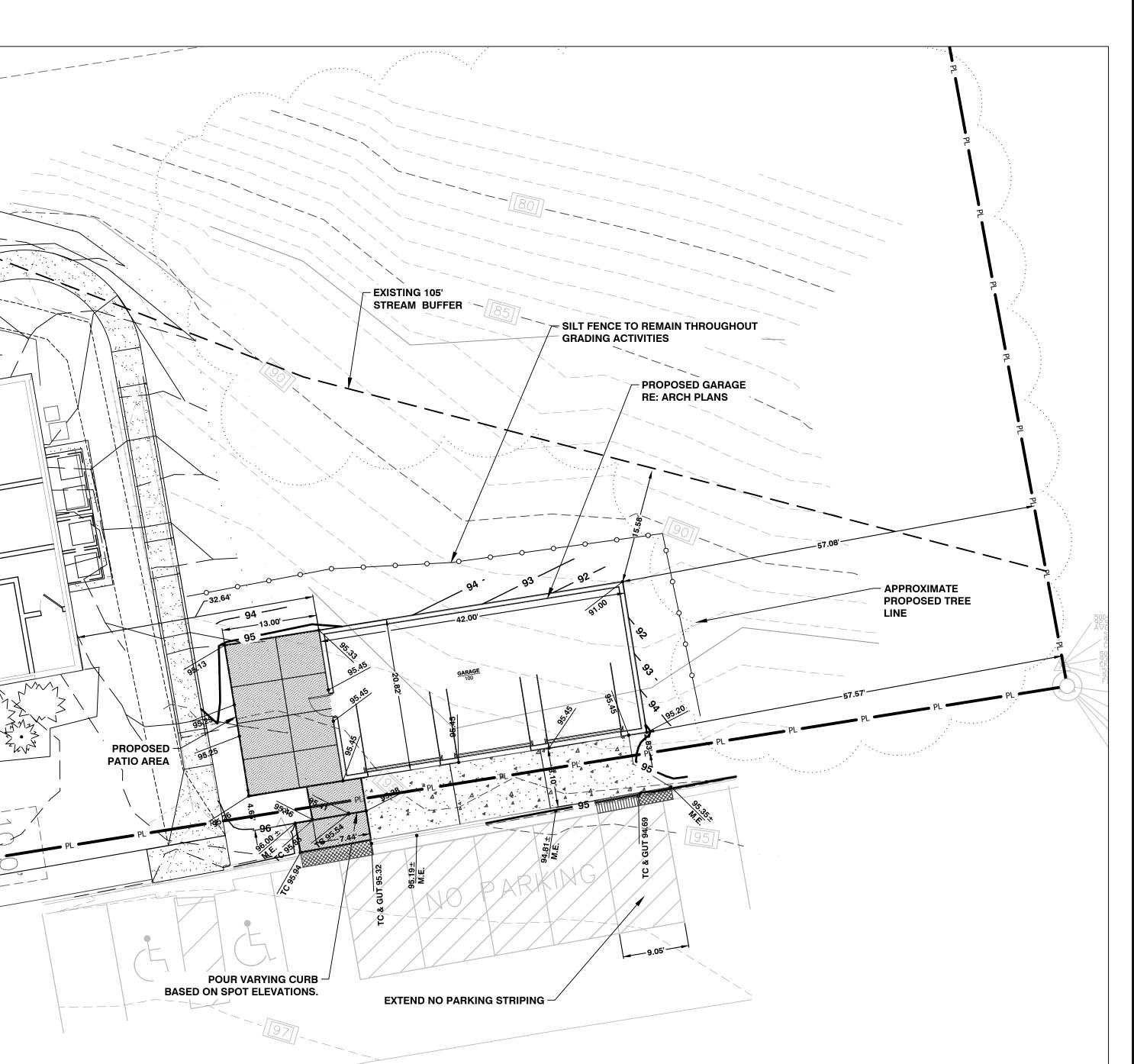
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CONSTRUCTION

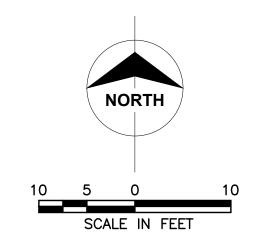
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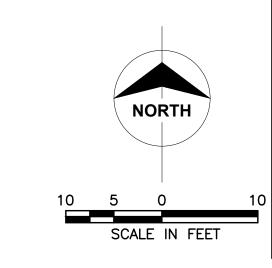






**GRADING AND DIMENSION PLAN** 



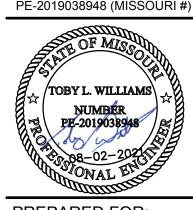




Certificates of Authority
Architecture: MO 310 / KS 73 Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36

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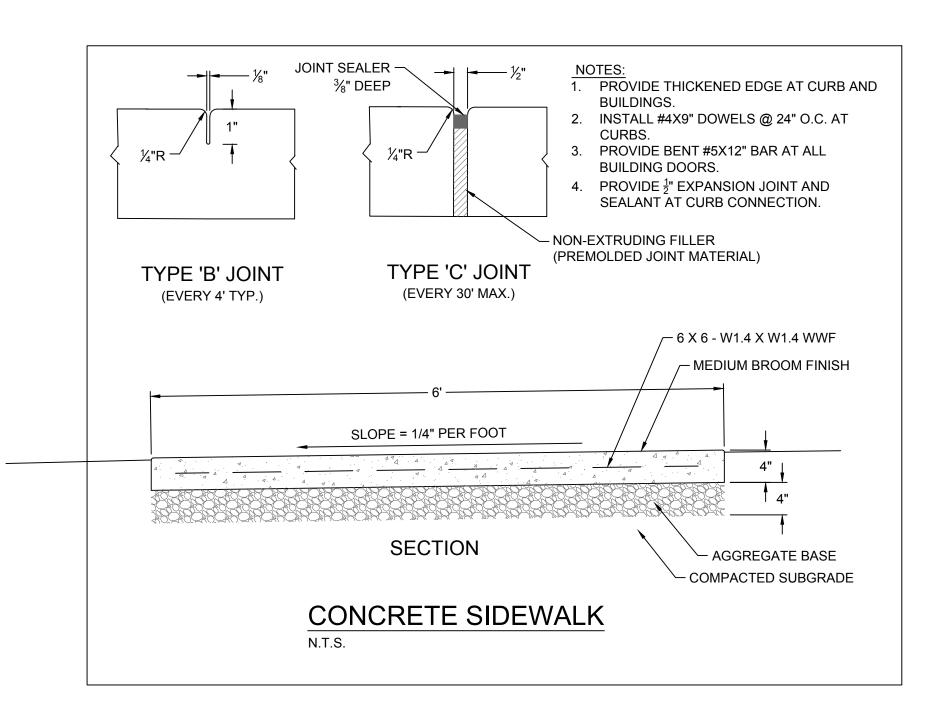
PREPARED FOR: Michael S. Bishop, PHM, HCCP Independence Housing Authority 4215 S. Hocker Drive, Building 5 Independence, MO 64055 816-836-9200

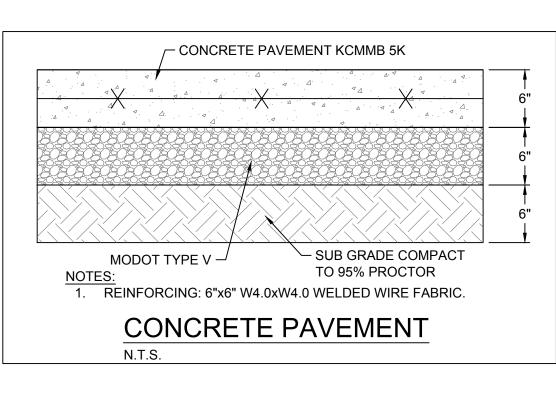
michael-bishop@independenceha.org

Independence Housir 14405 E. 42nd Street S Independence, Jackson C

PROJECT #: 1558-20-1718 ISSUE DATE: \_ 08/02/2020 FOR CONSTRUCTION SITE PLAN

C-100





4215 S. Hocker Drive, Building 5 Independence, MO 64055 816-836-9200 michael-bishop@independenceha.org **Garage** Authority Secured Parking Garag Independence Housing Authori 14405 E. 42nd Street S Independence, Jackson County, MO

ARCHITE (

Certificates of Authority
Architecture: MO 310 / KS 73

Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36

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TOBY L. WILLIAMS, PE PE-2019038948 (MISSOURI #)

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PREPARED FOR:

Michael S. Bishop, PHM, HCCP Independence Housing Authority

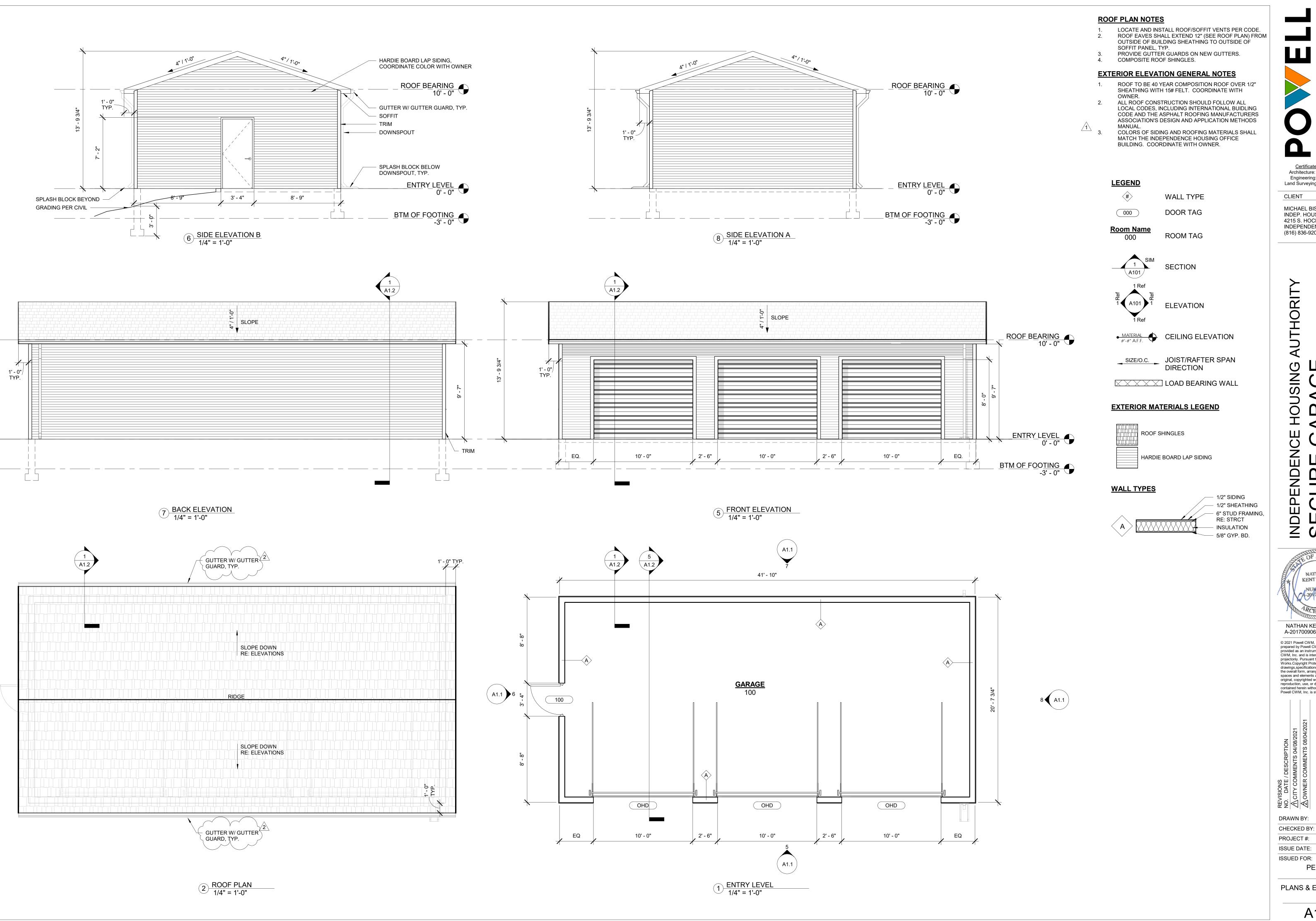
6405

PROJECT #: 1558-20-1718
ISSUE DATE: \_ 08/02/2020

FOR CONSTRUCTION

DETAILS

C-210



ARCHITECTURE/ENGINEERING/SURVEYING
3200 S. State Route 291, Bldg. 1, Independence, MO 64057

Certificates of Authority
Architecture: MO 310 / KS 73 Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36

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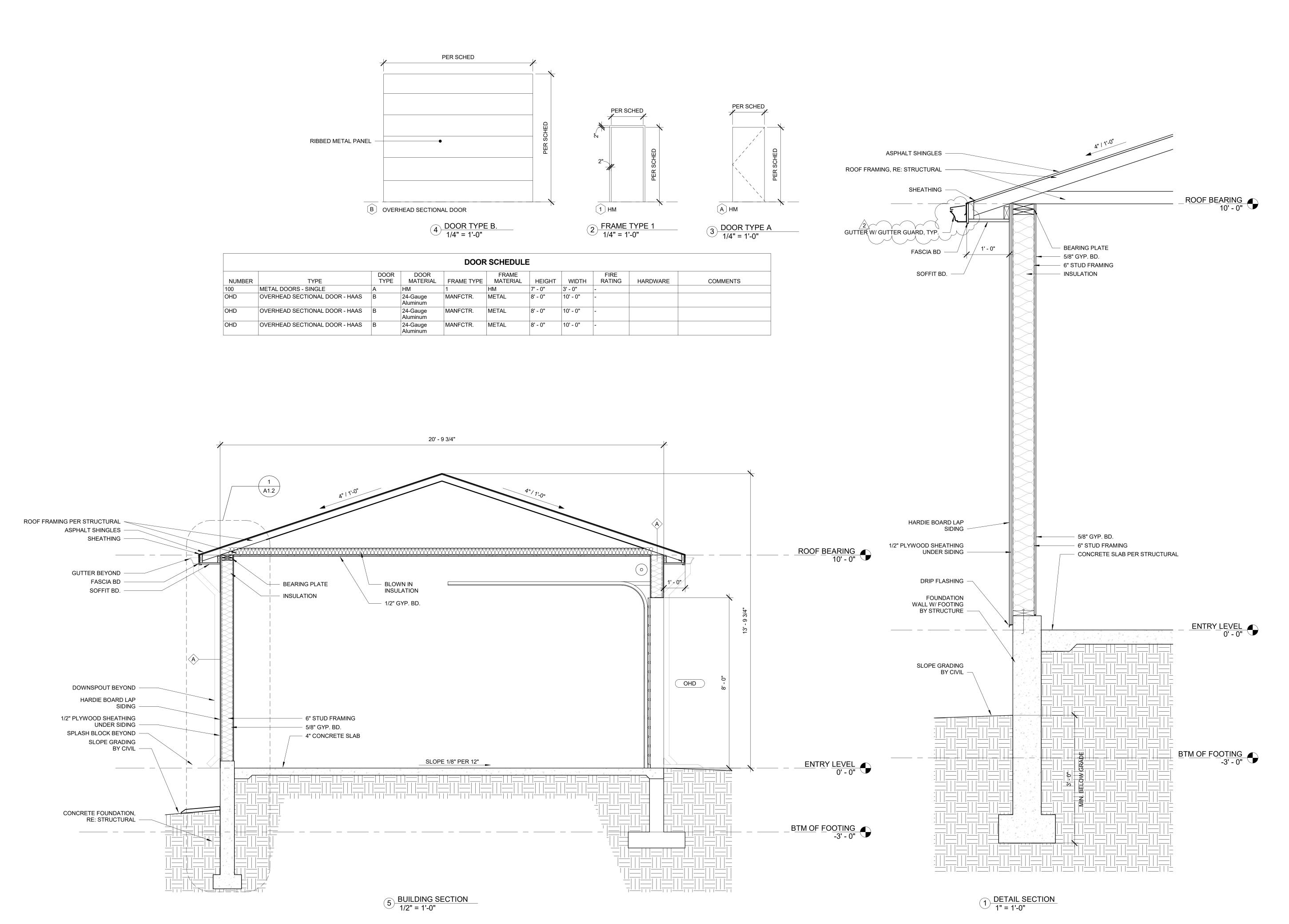
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PLANS & ELEVATIONS

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ARCHITECTURE/ENGINEERING/SURVEYING 3200 S. State Route 291, Bldg. 1, Independence, MO 64057

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**SPECIFICATION &** 

DETAILS

#### STRUCTURAL GENERAL NOTES

#### **DESIGN CRITERIA**

1. LIVE LOADS [UNIFORM (PSF) / POINT LOAD	S (KIPS)]:
ROOF:	20 PSF / 1.0 K
ELEVATED FLOORS	40 PSF / 1.0 K
ELEVATED GARAGE FLOORS	50 PSF / 2.0 K
2. GROUND SNOW LOAD (Pg):	20 PSF

3. BASIC WIND SPEED (3 SEC GUST):..... 109 MPH

ļ.	PREFABRICATED WOOD TRUSS DESIGN (	CRITERIA:	
	TOP CHORD DEAD LOAD	10 PSF	
	TOP CHORD FLOOR LIVE LOAD	40 PSF	
	BOT CHORD DEAD LOAD	5 PSF	
	LIVE LOAD DEFLECTION CRITERIA	MIN OF L/480 OR 0	.5
	TOTAL LOAD DEFLECTION CRITERIA	MIN OF L/240 OR 1'	"

AREA	MIN DEAD LOAD	MIN LIVE LOAD
BALCONIES (EXTERIOR) AND DECKS	10	40
CEILING JOISTS W/O STORAGE (SCUTTLE ACCESS ONLY)	10	10
CEILING JOISTS - ATTICS W/ STORAGE (DOOR OR PULL DOWN LADDER ACCESS)	10	20
ROOMS - NON SLEEPING	15	40
SLEEPING ROOMS	15	30
ROOF-LIGHT ROOF COVERING	15	20
ROOF-HEAVY ROOF COVERING (CONCRETE/TILE/SLATE)	20	20

#### STRUCTURAL GENERAL NOTES:

1. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE "INTERNATIONAL RESIDENTIAL CODE, 2018 EDITION". CONSULT WITH THE LOCAL JURISDICTION FOR INSPECTION REQUIREMENTS AND AMENDMENTS

2. CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO

3. IF DISCREPANCIES EXIST BETWEEN STRUCTURAL PLANS, ARCHITECTURAL PLANS, OTHER PLANS, OR SPECIFICATIONS, THE CONTRACTOR OR SUBCONTRACTOR SHALL PROVIDE A WRITTEN REQUEST FOR CLARIFICATION FROM THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH THE WORK

4. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO EXECUTE AND DETERMINE FINAL ERECTION PROCEDURES, SEQUENCING AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION.

5. FABRICATORS AND SUPPLIERS SHALL CLEARLY NOTE AND HIGHLIGHT CHANGES MADE IN SHOP DRAWINGS, WHICH DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.

6. BEAMS, COLUMNS, WALLS AND FOOTING CENTERS SHALL BE CENTERED UNDER SUPPORTING MEMBERS (TYPICAL UNLESS

1. PRESUMPTIVE ALLOWABLE BEARING PRESSURE = 1500 PSF (PER THE IRC). ALL FOOTINGS AND FOUNDATIONS SHALL BEAR ON NATIVE UNDISTURBED SOIL. NOTIFY ENGINEER IF FILL IS ENCOUNTERED BELOW FOOTING BEARING LOCATIONS.

2. ALL PERIMETER AND EXTERIOR FOOTINGS SHALL EXTEND AT LEAST 3'-0" BELOW FINAL ADJACENT GRADE. DEEPEN FOOTINGS AS REQUIRED TO PROVIDE THIS MINIMUM BOTTOM OF FOOTING.

3. SURFACE WATER SHALL NOT BE ALLOWED TO STAND ADJACENT TO OR DRAIN TOWARDS THE FOUNDATION UNDER ANY CIRCUMSTANCES. PAVEMENTS OR GRADED SOILS AT THE PERIMETER OF THE BUILDING, EXCEPT AS REQUIRED AT EXITS OR AS NOTED, SHALL BE SLOPED AWAY AT 5% OR 6" MIN FOR THE FIRST TEN FEET.

4. FOOTINGS MAY BE POURED TO NEAT LINES OF EXCAVATIONS PROVIDING VERTICAL LINES OF EXCAVATIONS CAN BE MAINTAINED DURING CONCRETE PLACEMENT.

5. FOUNDATION CONTRACTOR TO ENSURE PROPER ANCHOR ROD PROJECTION AND THAT ANCHOR RODS ARE HELD SECURELY IN POSITION PRIOR TO CONCRETE PLACEMENT. STRUCTURAL STEEL COLUMN ANCHOR RODS SHALL BE SET WITH A TEMPLATE

6. FOUNDATION WALL BACKFILL SHALL NOT BE UNBALANCED BY MORE THAN TWO FEET ON EITHER SIDE AT ANY TIME. BASEMENT WALL AND RESTRAINED RETAINING WALL BACKFILL SHALL NOT BE PLACED, UNLESS THE WALL IS ADEQUATELY

BRACED. RETAINING WALL AND BASEMENT WALL BACKFILL SHALL BE FREE DRAINING GRANULAR BACKFILL. 7. SOIL CONDITIONS AT THE TIME OF CONSTRUCTION SHOULD BE EVALUATED BY THE CONTRACTOR. SOIL THAT IS TOO DRY

OR TOO WET MAY BE SUBJECT TO EXCESSIVE SHRINKING OR SWELLING. IN ADDITION, SOME ON-SITE SOILS MAY BE UNSUITABLE FOR BACK FILL. CONSULT WITH A GEOTECHNICAL ENGINEER AS NEEDED FOR SITE PREP REQUIREMENTS.

#### **CONCRETE AND MASONRY REINFORCING STEEL:**

1. ALL REINFORCING BARS SHALL MEET ASTM A615 GRADE 40.

2. ALL MESH SHALL MEET ASTM A-185: LAP A MINIMUM OF 8" OR ONE FULL MESH, WHICHEVER IS GREATER.

3. CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE 3/4" CLEAR FOR SLABS, 2" CLEAR FOR FORMED SURFACES AND 3" CLEAR FOR FOOTINGS (TYPICAL UNLESS NOTED).

4. CONTRACTOR SHALL VERIFY THAT ALL REINFORCEMENT, SLAB DOWELS, INSERTS, SLEEVES AND EMBEDDED ITEMS ARE PROPERLY LOCATED AND RIGIDLY SECURED PRIOR TO CONCRETE PLACEMENT, "WET STICKING" DOWELS WILL NOT BE

#### **CAST IN PLACE CONCRETE:**

1. CONCRETE CONSTRUCTION SHALL ADHERE TO THE RECOMMENDATIONS AND REQUIREMENTS OF ACI 332 - "REQUIREMENTS FOR RESIDENTIAL CONCRETE CONSTRUCTION" (UNLESS NOTED OTHERWISE)

2. REQUIRED MINIMUM CONCRETE COMPRESSIVE STRENGTHS AT 28 DAYS

- a. FOOTING AND GRADEBEAM CONCRETE.... b. BASEMENT / FOUNDATION WALL CONCRETE......4000 PSI
- c. INTERIOR SOG & STRUC SLAB ABOVE GRADE......3500 PSI d. EXTERIOR SLAB ON GRADE AND GARAGE FLOOR SLABS...4000 PSI

3. EXTERIOR CONCRETE (FLOOR SLABS, WALLS, ETC) INCLUDING GARAGE FLOORS SHALL HAVE 6% (PLUS/MINUS 1%) ENTRAINED AIR.

4. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" (VERIFY WITH ARCHITECT).

- 5. NO ALUMINUM SHALL BE EMBEDDED IN ANY CONCRETE.
- 6. NO CALCIUM CHLORIDE SHALL BE USED IN CONCRETE

7. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK IS THE RESPONSIBILITY OF THE CONTRACTOR

8. ALL CONCRETE IS REINFORCED UNLESS SPECIFICALLY NOTED AS UNREINFORCED. REINFORCE ALL CONCRETE NOT OTHERWISE SHOWN WITH THE SAME REINFORCING AS SIMILAR SECTIONS OR AREAS.

9. CONSTRUCTION JOINTS IN GRADE BEAMS, CONTINUOUS FOOTINGS, AND WALLS THAT DO NOT CHANGE DIRECTION SHALL BE SPACED NO GREATER THAN 60'-0". INTERMEDIATE CONTROL JOINTS SHALL BE SPACED AT 25'-0" MAX FOR WALLS. CONTROL JOINTS IN WALLS SHALL ALSO BE LOCATED 15'-0" FROM CORNERS AND AT CHANGES IN WALL THICKNESS

10. WHERE FRESH CONCRETE IS DEPOSITED AGAINST HARDENED CONCRETE (GREATER THAN 8 HRS OLD), CLEAN EXISTING SURFACE OF LAITANCE AND FOREIGN MATERIAL AND DAMPEN THE EXISTING SURFACE. IF REQUIRED, ROUGHEN EXISTING CONCRETE TO 1/4" AMPLITUDE.

11. SLABS ON GRADE SHALL BE 4" THICK MIN ON 6" OF GRANULAR FILL. REINF SLAB WITH 6 X 6-W2.1xW2.1 W.W.F., #3 BARS AT 18" OC, OR #4 BARS AT 24" OC (UNO). ALL REINF SHALL BE PLACED IN UPPER 1/3 OF SLAB THICKNESS. AT INTERIOR SLABS, AN 8 MIL VAPOR BARRIER SHALL BE PLACED BETWEEN THE CONCRETE AND GRANULAR BASE AND CARE SHOULD BE TAKEN DURING CURING TO PREVENT SLAB CURLING. THIS NOTE SHALL BE TYPICAL UNLESS NOTED OTHERWISE

12. SAW CUT JOINTS OR KEYED CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL BE SPACED TO DIVIDE THE SLAB INTO PANELS NOT TO EXCEED 225 SQUARE FEET. THE LONGER DIMENSION OF EACH PANEL SHALL NOT EXCEED THE SHORTER DIMENSIONS BY MORE THAN 40%. JOINTS SHALL BE LOCATED AT COLUMN CENTERLINES WHERE POSSIBLE. SPACING BETWEEN JOINTS SHALL NOT EXCEED 15 FEET. CONTRACTOR SHALL SUBMIT JOINT LAYOUT TO ARCHITECT FOR APPROVAL

13. REINFORCEMENT SHALL BE CONTINUOUS AND LAPPED 53 BAR DIAMETERS (2' -6" MIN.) EXCEPT AS NOTED AND PROVIDE CORNER BARS OF SAME SIZE AND SPACING.

14. MINIMUM REINFORCING AROUND CONCRETE WALL OPENINGS 2'-0" OR GREATER (TYPICAL UNLESS NOTED): 2 - #5, EXTEND REINF 2'-0" PAST OPENINGS. PROVIDE 2-#5 x 4'-0" DIAGONAL BARS AT CORNERS

15. MINIMUM REINFORCING IN PERIMETER STEM WALL SHALL BE #4 VERTS @ 16" OC WITH STD HOOKS INTO FOOTING AND #4 HORIZ @ 16" OC MAX. IN FOOTING PROVIDE (2) #4 CONTINUOUS W/ #4 TRANSVERSE @ 16"

16. MINIMUM REINFORCING IN ROUND PIERS SHALL BE (5) #3 VERTS W/ #3 TIES AT 16" OC MAX.

#### STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHAPES AND PLATE MATERIAL REQUIREMENTS (TYPICAL UNLESS NOTED OTHERWISE):

- a. WIDE FLANGE SHAPES ASTM A992 (FY = 50 KSI MIN.)
- b. CHANNELS, ANGLES, AND PLATES: ASTM A36 (FY = 36 KSI MIN)
- c. RECTANGULAR HSS ASTM A500, GR B (FY = 46 KSI) d. ANCHOR RODS – ASTM F1554 (FY = 36 KSI MIN)

e. ROUND PIPE - ASTM A53, GRB (FY=35 KSI MIN) 2. STRUCTURAL STEEL SHALL BE NEW AND MEET THE 15TH EDITION A.I.S.C. "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS AND BRIDGES", AND THE "CODE OF STANDARD PRACTICES FOR STEEL

3. WELDING SHALL CONFORM TO THE CURRENT AND APPLICABLE AWS STANDARDS AND BE COMPLETED BY AN AWS CERTIFIED WELDER

a. AWS D1.1 - STRUCTURAL WELDING CODE - STEEL

BUILDINGS AND BRIDGES", EXCLUDING SECTION 4.4.1.B.

b. AWS D1.3 - STRUCTURAL WELDING CODE - SHEET STEEL c. AWS D1.6 – STRUCTURAL WELDING CODE – STAINLESS STEEL

4. WELD SIZES SHALL BE INCREASED TO MEET THE REQUIRED EFFECTIVE THROAT WIDTH IF GAPS EXIST

5. NO COLUMN OR BEAM SPLICES. UNLESS CLEARLY INDICATED ON THE STRUCTURAL DRAWINGS. WILL BE ALLOWED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.

6. GROUT WHERE INDICATED ON PLANS AT BASE PLATES SHALL BE NON-METALLIC NON-SHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI AT 28 DAYS CONFORMING TO ASTM C1107

7. ALL POST INSTALLED ANCHORS WHERE NOTED SHALL BE MANUFACTURED BY HILTI, INC. OR SIMPSON STRONG TIE AND BE INSTALLED PER THE MANUFACTURERS SPECIFICATIONS. SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL WITH APPROPRIATE ICBO EVALUATION REPORTS.

A. NOMINAL STRUCTURAL LUMBER -- NO.2 OR BETTER, KD D. FIR, MIN Fb = 900 PSI, MIN E = 1400 KSI. B. EXPOSED NOMINAL STRUCT LUMBER -- PRESS TREATED NO.2 OR BETTER, MIN Fb = 1000 PSI, MIN E = 1300 KSI

C. MICROLLAM LVL (LAMINATED VENEER LUMBER) BEAMS SHALL MEET TRUS JOIST SPECIFICATIONS: MINIMUM Fb = 2600 PSI AND MINIMUM E = 1900 KSI D. TIMBERSTRAND LSL (LAMINATED STRAND LUMBER) BEAMS SHALL MEET TRUS JOIST SPECIFICATIONS: MINIMUM Fb = 2600 PSI AND MINIMUM E = 1700 KSI.

E. GLULAM FRAMING: 24F-V4 DOUGLAS FIR, ARCHITECTURAL FINISH (COORDINATE WITH ARCH).

2. SUBSTITUTIONS OF SPECIFIED WOOD MEMBERS SHALL NOT BE MADE WITHOUT REVIEW OF THE ARCHITECT/ENGINEER.

A. ROOF SHEATHING SHALL BE 15/32" OR 1/2" WITH AN APA SPAN RATING OF 32/16, EXPOSURE 1, MINIMUM 2 SPAN, FASTEN PER THE CHART ON THIS PAGE. IF ROOF RAFTER SPACING IS 24" OR GREATER THEN USE PLYCLIPS AT MIDSPAN.

B. FLOOR SHEATHING SHALL BE TONGUE AND GROOVE, EXPOSURE 1, MINIMUM 2 SPAN, FASTENED WITH APA APPROVED ADHESIVE AND PER THE CHART ON THIS PAGE --WHEN CLEAR DISTANCE BETWEEN FLOOR JOISTS OR FLOOR TRUSSES IS 16" OR LESS USE

3/4" SHEATHING WITH AN APA SPAN RATING OF 48/24. --WHEN CLEAR DISTANCE BETWEEN FLOOR JOISTS OR FLOOR TRUSSES IS GREATER THAN 16" USE 7/8" SHEATHING WITH AN APA SPAN RATING OF 60/32.

C. WALL SHEATHING FOR EXTERIOR WALLS SHALL BE 7/16" WITH AN APA SPAN RATING OF 24/16, UNLESS NOTED OTHERWISE. ALL PANEL EDGES SHALL BE BACKED WITH 2 INCH NOMINAL OR WIDER FRAMING. FASTEN WITH 8d COMMON NAILS AT 6" O.C. MAXIMUM AT ALL TOP PLATES, BLOCKING, BOUNDARIES AND 10" O.C. MAXIMUM IN THE FIELD.

4. ALL WOOD SHEATHING TO BE STAGGERED 4'X8' SHEETS ORIENTED PERPENDICULAR TO SUPPORTING

5. PROVIDE 1/8" GAP AT ALL SHEATHING PANEL EDGES AND END JOINTS UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. DUE TO CONSTRUCTION CONDITIONS, TEMPORARY EXPANSION JOINTS MAY BE REQUIRED IN FLOOR/ROOF SHEATHING.

6. ALL HEADERS IN EXTERIOR OR INTERIOR BEARING WALLS SPANNING MORE THAN 3'-8" SHALL BE SUPPORTED ON DOUBLE STUDS UNLESS NOTED.

7. MINIMUM NAILING SHALL CONFORM TO IRC TABLE R602.3 (1). USE COMMON NAILS EXCEPT WHERE NOTED. ALL FASTENERS (BOLTS, SCREWS, NAILS, ETC) IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED.

8. LIGHT GAGE WOOD FRAMING CONNECTORS AS NOTED ON THE PLANS FOR WOOD JOISTS, COLUMNS, BEAMS AND TRUSSES SHALL BE "STRONG – TIE" CONNECTORS BY THE SIMPSON CO. OR REVIEWED EQUIVALENT. CONNECTORS IN DIRECT CONTACT WITH PRESSURE TREATED LUMBER SHALL HAVE "ZMAX" G185 HOT DIP GALVANIZED COATING OR REVIEWED EQUIVALENT.

9. STAINLESS STEEL FASTENERS, ANCHOR BOLTS, LIGHT GAGE CONNECTORS, ETC. MAY BE SUBSTITUTED FOR HOT DIP GALVANIZED MATERIALS AT THE CONTRACTORS OPTION.

10. ALL RAFTER AND CEILING JOIST CONNECTIONS SHALL COMPLY WITH IRC SECTION 802.3. PROVIDE UPLIFT CONNECTORS AT ROOF TO WALL CONNECTIONS PER IRC SECTION 802.11

11. STUDS SHALL BE CONTINUOUS FROM FLOOR TO ROOF DIAPHRAGM PER IRC SECTION 602.3. WALL STUDS SHOULD NOT BE INTERRUPTED AT GABLE WALLS UNLESS BRACED BY A CEILING. WALLS EXTENDING HIGHER THAN TYPICAL SINGLE FLOOR PLATFORM FRAMING, SHALL BE CONTINUOUS (NOT INTERRUPTED) TO NEXT FLOOR ELEVATION OR ROOF.

12. SILL ANCHOR RODS SHALL BE 1/2" DIAMETER EMBEDDED 7" MIN INTO CONCRETE, SPACED NO FURTHER THAN 3'-0" OC, AND SHALL OCCUR WITHIN 12" OF THE ENDS OF A SILL PLATE. EACH SILL PLATE SHALL HAVE A MINIMUM OF 2 ANCHOR RODS. PROVIDE 2" SQ PLATE WASHERS AND NUTS.

13. PROVIDE FULL DEPTH 2X BLOCKING BETWEEN JOISTS OVER ALL INTERIOR LOAD BEARING WALLS AND AT DOWNSET GIRDERS

#### **GENERAL NOTES:**

1. THE DRAWING SET IS CONSIDERED TO BE "BUILDERS PLANS" WHEREBY SOME ASPECTS OF THE PROJECT'S REQUIREMENTS ARE LEFT TO THE CONTRACTOR TO UNDERSTAND AND IMPLEMENT. AS SUCH, IT IS A REQUIREMENT THAT THE CONTRACTOR (BUILDER) BE COMPETENT IN RESIDENTIAL CONSTRUCTION AND HAVE A THOROUGH UNDERSTANDING OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODES (IRC). THE CONTRACTOR IS RESPONSIBLE FOR MEETING THE REQUIREMENTS OF THE BUILDING CODE WHETHER EXPLICITLY STATED OR NOT. IF ADDITIONAL DETAIL OR GUIDANCE IS NEEDED BY THE CONTRACTOR OR HOMEOWNER, A WRITTEN REQUEST FOR SUCH GUIDANCE MAY BE SUBMITTED TO THE ENGINEER.

2. REFER TO THE IRC FOR ALL REQUIREMENTS NOT SPECIFICALLY STATED IN THE PLANS. THIS INCLUDES FIRE RATINGS, LIGHTING AND VENTILATION, SANITATION, GLAZING, GARAGES, SMOKE ALARMS AND CARBON MONOXIDE ALARMS, MEANS OF EGRESS, AND PROTECTION AGAINST DECAY AND TERMITES.

3. CONTRACTOR SHALL ENSURE THAT ALL MECHANICAL, ELECTRICAL, AND PLUMBING IS DESIGNED AND INSTALLED TO MEET THE REQUIREMENTS OF THE APPLICABLE IRC.

4. EGRESS WINDOWS SHALL COMPLY WITH SECTION 310 OF THE IRC

5. WALL COVERINGS SHALL BE WATER-RESISTANT AND COMPLY WITH SECTION 703.2 OF THE IRC

6. WINDOWS SHALL HAVE FALL PROTECTION PER IRC 312.2

7. PROVIDE CARBON MONOXIDE DETECTORS PER IRC SECTION R315.

8. ALL NEW CONSTRUCTION SHALL COMPLY WITH THE ENERGY CONSERVATION CODE AS LISTED IN CHAPTER 11 OF THE IRC 2012. THIS INCLUDES:

-- WALLS - INSULATE WITH R-13 MIN

-- ATTICS - INSULATE WITH R-49 MIN (EXCEPTION: R-38 FOR VAULTED CEILINGS); USE 8" OF RIGID INSULATION (R40) IN VAULTED CEILINGS -- FLOORS OVER UNCONDITIONED SPACE - INSULATE WITH R-19 MIN

-- CRAWL SPACE WALLS - INSULATE WITH R-10 MIN

-- BASEMENT WALLS - R-13 CAVITY OR R-10 CONTINUOUS

-- SLABS SHALL BE R-10 FOR A DEPTH OF 2'-0" -- DUCTWORK OUTSIDE OF CONDITIONED SPACES - R-8 MIN -- WINDOWS SHALL HAVE A "U" VALUE OF 0.35 OR BETTER

9. ALL EXTERIOR DOORS INCLUDING THE DOOR LEADING FROM THE GARAGE TO THE DWELLING UNIT SHALL INCORPORATE THE PHYSICAL SECURITY REQUIREMENTS OF THE LOCAL JURISDICTION AS REQD.

10. THE THERMAL ENVELOPE OF THE BUILDING IS REQUIRED TO BE SEALED PER IRC SECTION N1102.4.1 AND TABLE N1102.4.1.1

11. ALL DUCTS, AIR HANDLERS, FILTER BOXES, AND BUILDING CAVITIES USED AS DUCTS SHALL BE SEALED PER IRC SECTION N1103.2.2.

## 1. THE GARAGE FLOOR SHALL SLOPE TOWARD THE GARAGE DOOR

2. 1/2" GYP BD SHALL BE USED ON WALLS BETWEEN GARAGE AND HOUSE. 5/8" TYPE X GYP BD SHALL BE USED ON THE GARAGE CEILING.

1. GLAZING IN HAZARDOUS LOCATIONS SHALL BE APPROVED SAFETY GLAZING MATERIALS PER IRC SECTION R308.

FASTE	NER SCHEDULE FOR ROOF, WALL, AND FLOOR	STRUCTURAL MEMBERS
		FASTENER REQUIREMENTS
ITEM	DESCRIPTION OF BUILDING ELEMENT	LOCATION, NUMBER AND TYP OF FASTENER, AND SPACING
		ROOF a b c
1	BLOCKING B/W JOISTS OR RAFTERS TO TOP PLATE.	TOE NAIL: (4) 8d BOX(2 1/2" x 0.113") OR (3) 8d COMMON ( 2.5" x 0.131") OR (3) 10d BOX (3" x 0.128") OR (3) 3" x 0.131" NAILS
2	CEILING JOISTS TO PLATE, PER JOIST	TOE NAIL: (4) 8d BOX(2 1/2" x 0.113") OR (3) 8d COMMON ( 2.5" x 0.131") OR (3) 10d BOX (3" x 0.128") OR (3) 3" x 0.131" NAILS
3	CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS.	FACE NAIL: (4) 10d BOX (3" x 0.128") OR (3) 16d COMMON (3.5" x 0.162") OR (4) 3" x 0.131" NAILS
4	CEILING JSTS ATTACHED TO PARALLEL RAFTER (HEEL JNT). SEE IRC SECT R802.5.2	SEE TABLE R802.5.2
5	COLLAR TIE TO RAFTER, FACE NAIL OR 1.25" X 20 GA RIDGE STRAP; AT EACH RAFTER	FACE NAIL: (4) 10d BOX (3" x 0.128") OR (3) 10d COMMON (3" x 0.148") OR (4) 3" x 0.131" NAILS
6	RAFTER OR ROOF TRUSS TO PLATE;	2 TOE NAILS ON 1 SIDE AND 1 TOE NAIL ON OPP SIDE OF EA RAFTER OR TRUSS; (3) 16d BOX(3.5" x 0.135") OR (3) 10d COMMON ( 3" x 0.148") OR (4) 10d BOX (3" x 0.128") OR (4) 3" x 0.131" NAILS
7	ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS OR ROOF RAFTER TO MIN 2" RIDGE BEAM	TOE NAIL: (4) 16d BOX(3.5" x 0.135") OR (3) 10d COMMON ( 3" x 0.148") OR (4) 10d BOX (3" x 0.128") OR (4) 3" x 0.131" NAILS END NAIL: (3) 16d BOX(3.5" x 0.135") OR (2) 10d COMMON ( 3" x 0.148") OR (3) 10d BOX (3" x 0.128") OR (3) 3" x 0.131" NAILS
	I	WALL (a)b)c)
8	STUD TO STUD (NOT AT BRACED WALL PANEL)	16d COMMON (3.5"x 0.162") @ 24" OC FACE NAIL; 10d BOX (3" x 0.128") @ 16" oc FACE NAIL; OR 3" x 0.131" @ 16" OC FACE NAIL
9	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (3.5"x 0.162") @ 16" OC FACE NAIL; 16d BOX (3.5" x 0.135") @ 12" oc FACE NAIL; OR 3" x 0.131" @ 12" OC FACE NAIL
10	BUILT-UP HEADER, TWO PIECES W/ 1/2" SPACER	ALONG EA EDGE (TYP); 16d COMMON (3.5"x 0.162") @ 16" OC FACE NAIL ; 16d BOX (3.5" x 0.135") @ 12" oc FACE NAIL
11	CONTINUOUS HEADER TO STUD	TOE NAIL: (5) 8d BOX(2 1/2" x 0.113") OR (4) 8d COMMON ( 2.5" x 0.131") OR (4) 10d BOX (3" x 0.128") OR (4) 3" x 0.131" NAILS
12	TOP PLATE TO TOP PLATE	10d BOX (3" x 0.128") @ 12" oc FACE NAIL; OR 3" x 0.131" @ 12" OC FACE NAIL
13	DOUBLE TOP PLATE SPLICE	FACE NAIL ON EA SIDE OF END JOINT, 24" LAP SPLICE. (TYP) (8) 16d COMMON (3.5"x 0.162"), OR (12) 16d BOX (3.5" x 0.135"); OR (12) 10d BOX (3" x 0.128"); OR (12) 3" x 0.131"
14	BOTTOM PLATE TO JST, RIM JST, BAND JST, OR BLOCKING (NOT AT A BRACED WALL LINE)	16d COMMON (3.5"x 0.162") @ 16" OC FACE NAIL; 16d BOX (3.5" x 0.135") @ 12" oc FACE NAIL; OR 3" x 0.131" @ 12" OC FACE NAIL
15	BOTTOM PLATE TO JST, RIM JST, BAND JST, OR BLOCKING (AT A BRACED WALL LINE)	(2) 16d COMMON (3.5"x 0.162") @ 16" OC FACE NAIL; (3) 16d BOX (3.5" x 0.135") @ 16" oc FACE NAIL; OR (4) 3" x 0.131" @ 16" OC FACE NAIL
16	TOP OR BOTTOM PL TO STUD	TOE NAIL: (4) 8d BOX (2.5" x 0.113"), OR (3) 16d BOX (3.5" x 0.135") OR (4) 8d COMMON ( 2.5" x 0.131") OR (4) 10d BOX (3" x 0.128") OR (4) 3" x 0.131" NAILS END NAIL: (3) 16d BOX(3.5" x 0.135") OR (2) 16d COMMON ( 3.5" x 0.162") OR (3) 10d BOX (3" x 0.128") OR (3) 3" x 0.131" NAILS
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	FACE NAIL: (3) 10d BOX (3" x 0.128") OR (2) 16d COMMON (3.5" x 0.162") OR (3) 3" x 0.131" NAILS
18	1" BRACE TO EA STUD AND PLATE	FACE NAIL: (3) 8d BOX (2.5" x 0.113"), OR (2) 8d COMMON ( 2.5" x 0.131") OR (2) 10d BOX (3" x 0.128")
19	1" X 6" SHEATHING TO EACH BEARING	FACE NAIL: (3) 8d BOX (2.5" x 0.113"), OR (2) 8d COMMON ( 2.5" x 0.131") OR (2) 10d BOX (3" x 0.128")
20A	1" x 8" SHEATHING TO EACH BEARING	FACE NAIL: (3) 8d BOX (2.5" x 0.113"), OR (3) 8d COMMON ( 2.5" x 0.131") OR (3) 10d BOX (3" x 0.128")
20B	WIDER THAN 1" X 8" SHEATHING TO EA BRG	FACE NAIL: (4) 8d BOX (2.5" x 0.113"), OR (3) 8d COMMON ( 2.5" x 0.131") OR (3) 10d BOX (3" x 0.128")

OR (3) 10d BOX (3" x 0.128")

		FLOOR (a)b)c)					
21	JOIST TO SILL, TOP PLATE OR GIRDER	TOE NAIL: (4) 8d BOX (2.5" x 0.113"), OR (3) 8d COMMON ( 2.5" x 0.131") OR (3) 10d BOX (3" x 0.128") OR (3) 3" x 0.131" NAILS					
22	RIM JOIST, BAND JST, OR BLOCKING TO SILL OR TOP PLATE. (ROOF APPLICATIONS ALSO)	TOE NAIL: 8d BOX (2.5" x 0.113") @ 4" oc, OR 8d COMMON ( 2.5" x 0.131") @ 6" oc, OR 10d BOX (3" x 0.128") @ 6" oc, OR 3" x 0.131" NAILS @ 6" oc					
23	1"X6" SUBFLOOR OR LESS TO EACH JOIST	FACE NAIL: (3) 8d BOX (2.5" x 0.113"), OR (2) 8d COMMON ( 2.5" x 0.131") OR (3) 10d BOX (3" x 0.128")					
24	2" SUBFLOOR TO JOIST OR GIRDER	BLIND AND FACE NAIL; (2) 16d COMMON (3.5"x 0.162"); (3) 16d BOX (3.5" x 0.135")					
25	2" PLANKS (PLANK & BEAM - FLOOR AND ROOF)	AT EA BRG, FACE NAIL; (2) 16d COMMON (3.5"x 0.162"); (3) 16d BOX (3.5" x 0.135")					
26	BAND OR RIM TO JOIST	END NAIL; (3) 16d COMMON (3.5"x 0.162"), OR (4) 10d BOX (3" x 0.128"); OR (4) 3" x 0.131"					
27	BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d COMMON (4"x0.192") @ 32" oc STAGGERED TOP AND BOT (2 NAILS @ EA END AND AT SPLICES).  (3) 3"x0.131" @ 24" oc STAGGERED TOP AND BOT FROM EA SIDE (3 NAILS @ EA END AND AT SPLICES).					
28	LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	AT EACH JST OR RAFTER, FACE NAIL: (4) 16d BOX (3.5"x0.135"), OR (4) 10d BOX (3" x 0.128") OR (3) 16d COMMON (3.5" x 0.162") OR (4) 3" x 0.131" NAILS					
29	BRIDGING OR BLOCKING TO JST	EA END, TOE NAIL; (2) 10d BOX (3" x 0.128") OR (2) 8d COMMON (2.5"x0.131") OR (2) 3" x 0.131" NAILS					
	WOOD STRUCTURAL PANELS	, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING (a) b) c) e) h)					
30	3/8" TO 1/2"	6d COMMON (2" X 0.113") NAIL (SUBFLOOR, WALL) 8d COMMON (2 1/2" X 0.131") NAIL (ROOF) OR RSRS-01 (2.375"x0.113") (ROOF) SPACING: 6" OC EDGES, 12" OC FIELD (f)					
31	19/32" TO 1"	8d COMMON (2 1/2" X 0.131") NAIL OR RSRS-01 (2.375"x0.113") (ROOF) SPACING: 6" oc EDGES, 12" oc FIELD (f) (i)					
32	1 1/8" TO 1 1/4"	10d COMMON (3" X 0.148") NAIL OR 8d (2 1/2" X 0.131") DEFORMED NAIL SPACING: 6" oc EDGES, 12" oc FIELD					
		OTHER WALL SHEATHING (g)					
33	1/2" STRUC CELLULOSIC FIBERBOARD SHEATHING	1 1/2" GALV ROOFING NAIL 3" AT EDGES, 6" IN FIELD					
34	25/32" STRUC CELLULOSIC FIBERBOARD SHEATHING	1 3/4" GALV ROOFING NAIL 3" AT EDGES, 6" IN FIELD					
35	1/2" GYP SHEATHING (d)	1 1/2" GALV ROOFING NAIL OR 1 1/4" SCREWS (TYP W OR S) 7" AT EDGES, 7" IN FIELD					
36	5/8" GYP SHEATHING (d)	1 3/4" GALV ROOFING NAIL OR 1 5/8" SCREWS (TYP W OR S) 7" AT EDGES, 7" IN FIELD					
	WOOD STRUCTURAL PAN	ELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING					
37	3/4" AND LESS	6d DEFORMED (2" X 0.120") NAIL OR 8d COMMON (2 1/2" X 0.131") NAIL SPACING: 6" OC EDGES, 12" OC FIELD					
38	7/8" TO 1"	8d COMMON (2 1/2" X 0.131") NAIL OR 8d DEFORMED (2 1/2" X 0.120") NAIL SPACING: 6" OC EDGES, 12" OC FIELD					
39	1 1/8" TO 1 1/4"	10d COMMON (3" X 0.148") NAIL OR 8d DEFORMED (2 1/2" X 0.120") NAIL SPACING: 6" OC EDGES, 12" OC FIELD					

#### **FASTENER SCHEDULE NOTES:**

(a) ALL NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED. NAILS USED FOR FRAMING AND SHEATHING CONN SHALL HAVE MIN AVERAGE BENDING YIELD STRENGTHS AS SHOWN: 80 KSI FOR SHANK DIAMETER OF 0.192 IN (20d COMMON NAIL), 90 KSI FOR SHANK DIAMETERS LARGER THAN 0.142 INCH BUT NOT LARGER THAN 0.177 INCH, AND 100 KSI FOR SHANK DIAMETERS OF 0.142 INCH OR LESS.

(c) NAILS SHALL BE SPACED @ NOT MORE THAN 6" OC AT ALL SUPPORTS WHERE SPANS ARE 48" OR GREATER

(d) 4'x8' OR 4'x9' PANELS SHALL BE APPLIED VERTICALLY

(e) SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3(2).

(i) RSRS-01 IS A ROOF SHEATHING RING SHANK NAIL MEETING SPECIFICATION IN ASTM F1667

(f) FOR WOOD STRUCTURAL PANEL ROOF SHEATHING ATTACHED TO GABLE END ROOF FRAMING AND TO INTERMEDIATE SUPPORTS WITHIN 48" OF ROOF EDGES AND RIDGES. NAILS SHALL BE SPACED AT 6" ON CENTER WHERE THE ULTIMATE DESIGN WIND SPEED IS LESS THAN 130 MPH AND SHALL BE SPACED 4" ON CENTER WHERE THE ULTIMATE DESIGN WIND SPEED IS 130 MPH OR GREATER BUT LESS THAN 140 MPH

(g) GYP SHEATHING SHALL CONFORM TO ASTM C1396 AND SHALL BE INSTALLED IN ACCORDANCE TO GA 253. FIBERBOARD SHEATHING SHALL CONFORM TO ASTM C208.

(h) SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQD BLOCKING. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERP TO THE FRAMING MEMBERS NEED NOT BE PROVIDED EXCEPT AS REQD BY OTHER PROVISIONS OF THE IRC. FLOOR PERIMETER MEMBERS SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID

( i ) WHERE RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE, PROVIDE (2) TOE NAILS ON ONE SIDE OF THE RAFTER AND TOE NAILS FROM THE CEILING JOIST TO TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE. THE TOE NAIL ON THE OPPOSITE SIDE OF THE RAFTER SHALL NOT BE REQUIRED.

Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36



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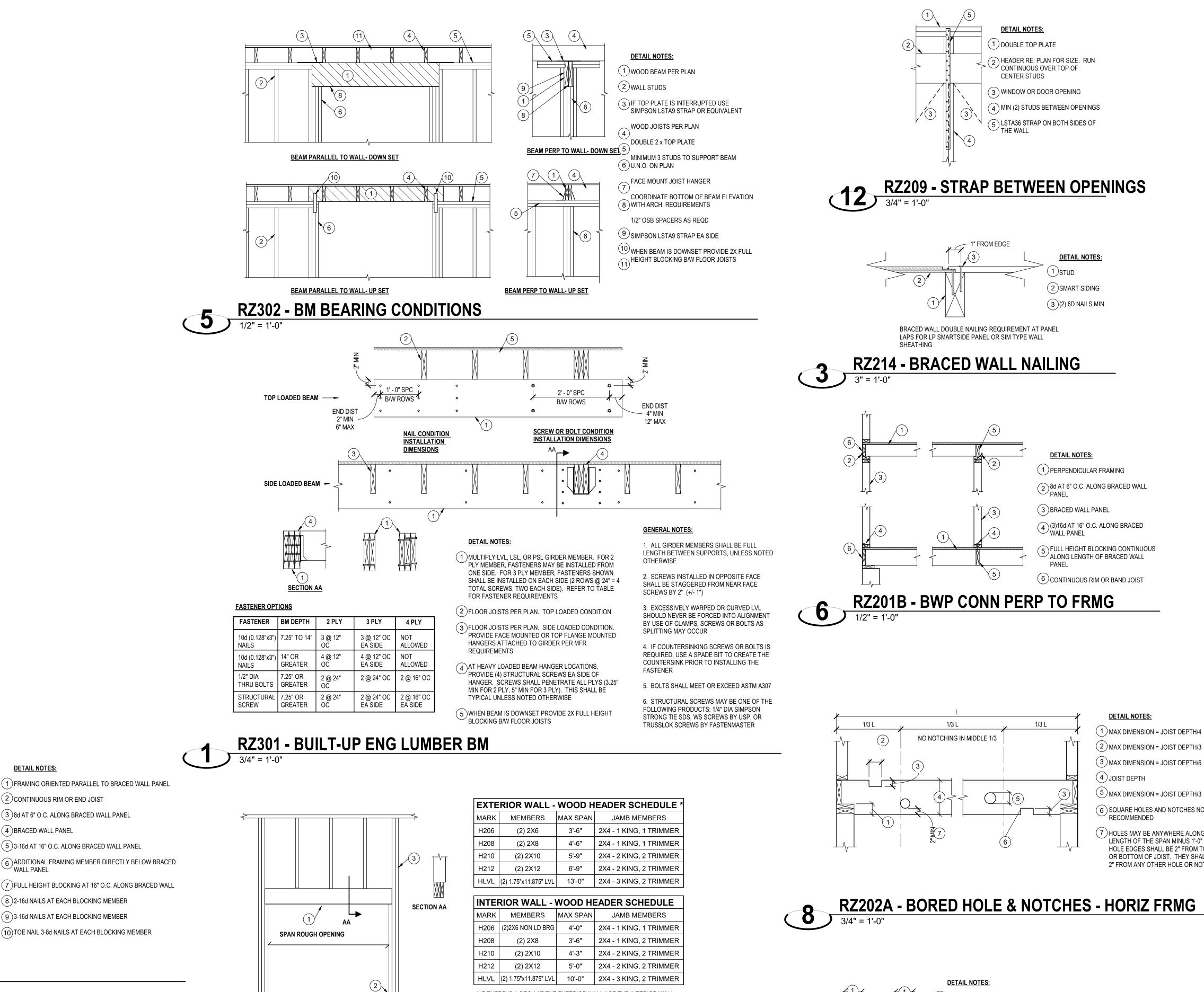
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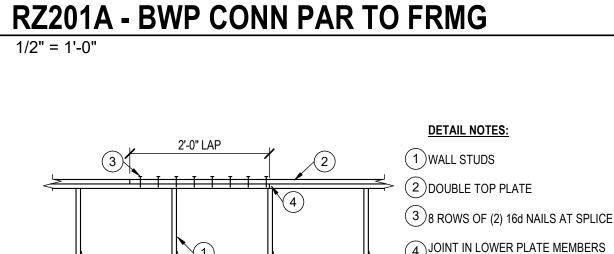


FIELD: DRAWN: CGB CHECKED: PROJ NO.

3/10/2021

**GENERAL NOTES** 





**DETAIL NOTES:** 

(4) BRACED WALL PANEL

SHALL OCCUR OVER A STUD

(2)CONTINUOUS RIM OR END JOIST

(3)8d AT 6" O.C. ALONG BRACED WALL PANEL

(5)3-16d AT 16" O.C. ALONG BRACED WALL PANEL

(8)2-16d NAILS AT EACH BLOCKING MEMBER

(9)3-16d NAILS AT EACH BLOCKING MEMBER

(10) TOE NAIL 3-8d NAILS AT EACH BLOCKING MEMBER

**9** RZ203A - TOP PLATE SPLICE

3/4" = 1'-0"

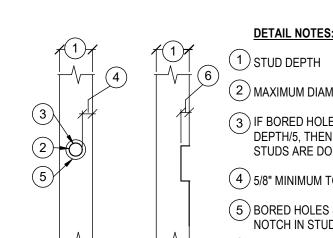
# **RZ207 - HEADER SCHEDULE**

\* IF THERE IS A DECK AT THE EXTERIOR WALL USE THE INTERIOR WALL SCHEDULE

#### **DETAIL NOTES:**

(1) WOOD HEADER PER SCHEDULE. FOR EXTERIOR WALLS WITH DECK ON THE OUTSIDE USE THE INTERIOR WALL CHART. ALL HEADERS SHALL BE NAILED TOGETHER AT 16" O.C. MAX. PROVIDE PLYWOOD FILLER AS REQUIRED TO MATCH STUD THICKNESS.

- (2) TRIMMER STUDS PER SCHEDULE
- (3) KING STUDS PER SCHEDULE
- (4) PROVIDE STUD UNDER SILL END OR SIMPSON A35 CLIP ANGLE.



# (1) STUD DEPTH

(2) MAXIMUM DIAMETER OF BORED HOLE = STUD DEPTH/2.5 (3) IF BORED HOLE IS GREATER THAN STUD DEPTH/2.5 AND LESS THAN 3\*STUD DEPTH/5, THEN STUD MUST BE DOUBLED AND NO MORE THAN TWO SUCCESSIVE STUDS ARE DOUBLED AND SO BORED

1) DOUBLE TOP PLATE

CENTER STUDS

RZ209 - STRAP BETWEEN OPENINGS

BRACED WALL DOUBLE NAILING REQUIREMENT AT PANEL LAPS FOR LP SMARTSIDE PANEL OR SIM TYPE WALL

**RZ201B - BWP CONN PERP TO FRMG** 

NO NOTCHING IN MIDDLE 1/3

RZ214 - BRACED WALL NAILING

(3) WINDOW OR DOOR OPENING

HEADER RE: PLAN FOR SIZE. RUN CONTINUOUS OVER TOP OF

(4) MIN (2) STUDS BETWEEN OPENINGS

5 LSTA36 STRAP ON BOTH SIDES OF THE WALL

**DETAIL NOTES:** 

1)STUD

(2)SMART SIDING

(3)(2) 6D NAILS MIN

**DETAIL NOTES:** 

(3) BRACED WALL PANEL

(1) PERPENDICULAR FRAMING

2 8d AT 6" O.C. ALONG BRACED WALL PANEL

(3)16d AT 16" O.C. ALONG BRACED WALL PANEL

6 CONTINUOUS RIM OR BAND JOIST

FULL HEIGHT BLOCKING CONTINUOUS

**DETAIL NOTES:** 

(4) JOIST DEPTH

RECOMMENDED

(1) MAX DIMENSION = JOIST DEPTH/4

(2) MAX DIMENSION = JOIST DEPTH/3

(3) MAX DIMENSION = JOIST DEPTH/6

(5) MAX DIMENSION = JOIST DEPTH/3

(6) SQUARE HOLES AND NOTCHES NOT

(7) HOLES MAY BE ANYWHERE ALONG THE

2" FROM ANY OTHER HOLE OR NOTCH

LENGTH OF THE SPAN MINUS 1'-0" ON EA END.

HOLE EDGES SHALL BE 2" FROM TOP OF JOIST

OR BOTTOM OF JOIST. THEY SHALL ALSO BE

ALONG LENGTH OF BRACED WALL

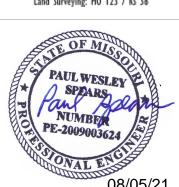
(4) 5/8" MINIMUM TO EDGE

(5) BORED HOLES SHALL NOT BE LOCATED IN THE SAME CROSS SECTION OF CUT OR NOTCH IN STUD

6 MAXIMUM NOTCH = STUD DEPTH/4

RZ202B - BORED HOLE & NOTCHES - VERT FRMG

Certificates of Authority Architecture: MO 310 / KS 73 Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36



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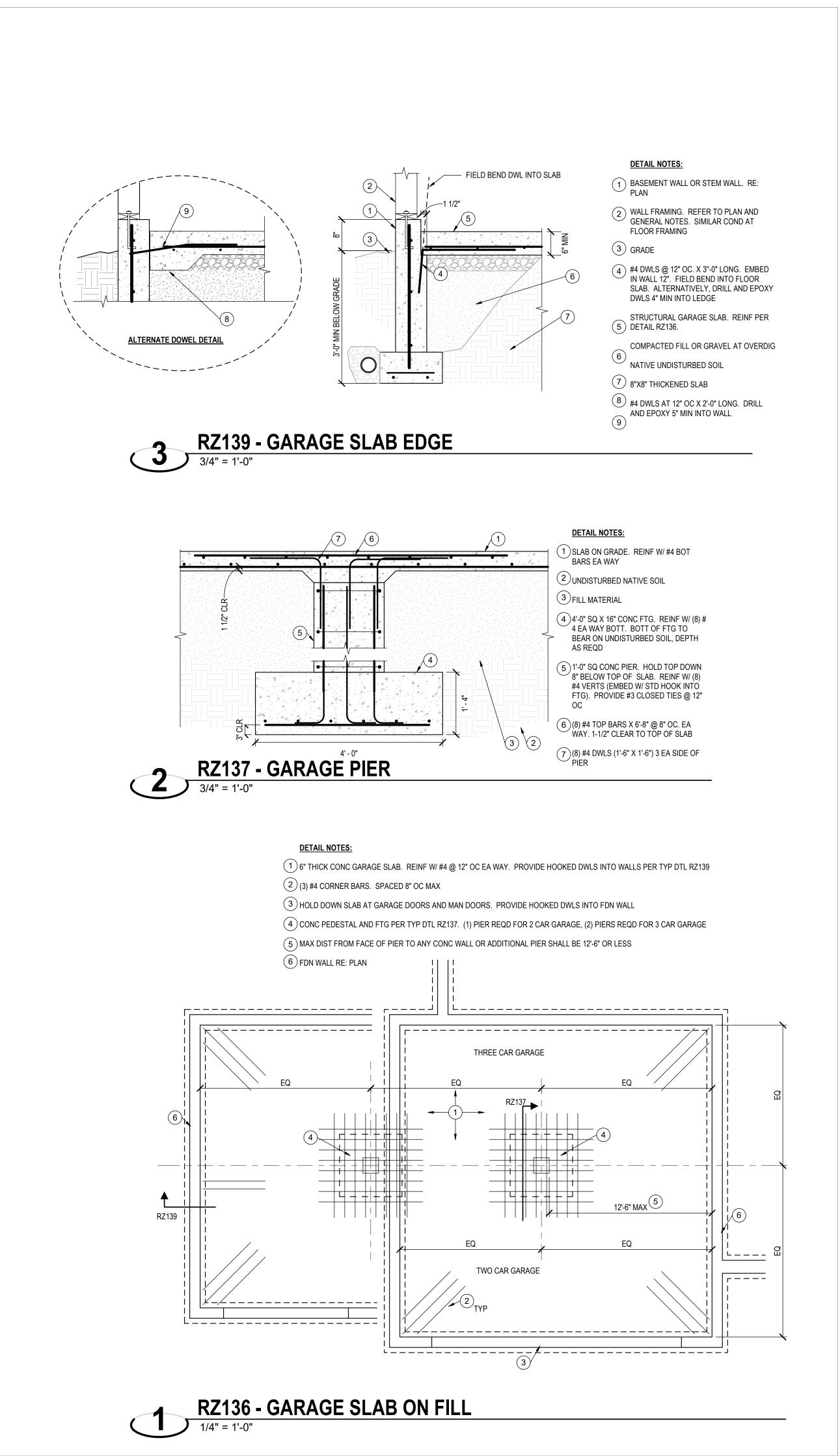
8234 Robinson Street Overland Park, KS 66204

FIELD: DRAWN: CGB CHECKED: PWS PROJ NO.

STRUCTURAL TYPICAL DETAILS

3/10/2021

**S010** 



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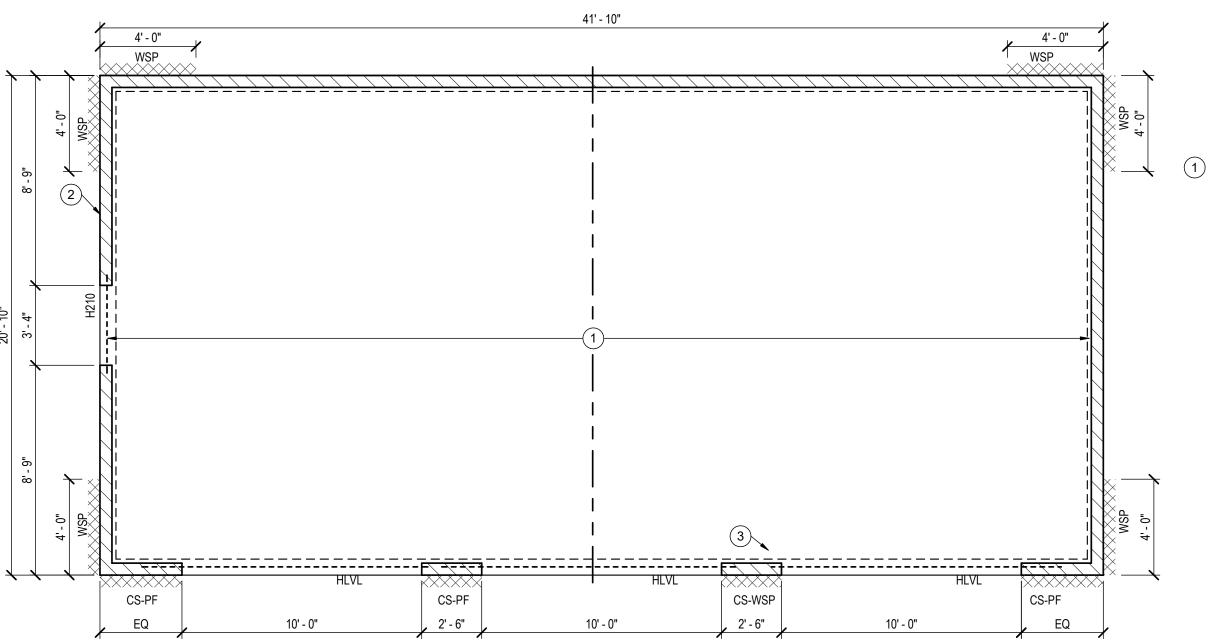


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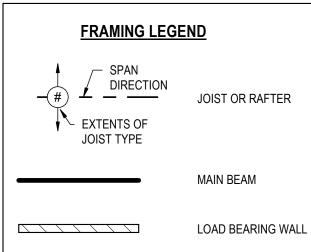
STRUCTURAL TYPICAL DETAILS

**S011** 



#### **CEILING PLAN NOTES:**

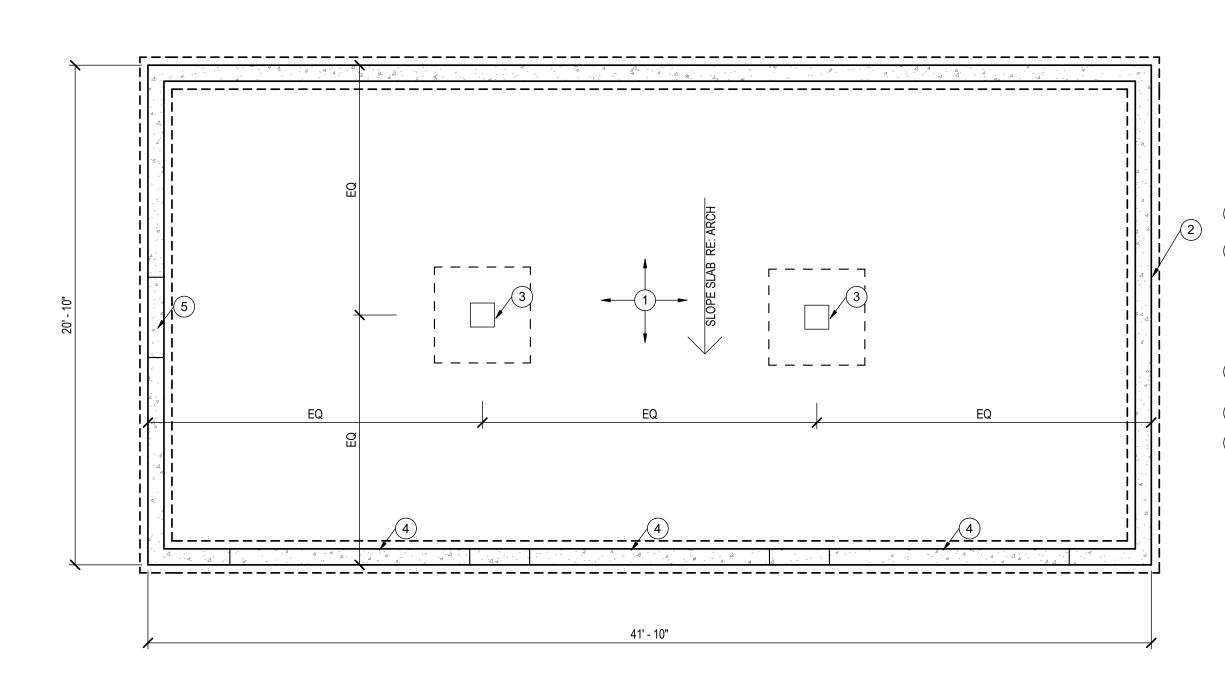
(1) PREFAB WOOD ROOF TRUSSES @ 24" OC. AT BEARING POINTS, PROVIDE SIMPSON H2.5T TIE TO WALL TOP PLATE



2ND FLOOR CEILING FRAMING PLAN

FDN AND 1ST FLOOR FRAMING PLAN

1/4" = 1'-0"



GARAGE SLAB. RE: TYP DTL RZ136 FOR GARAGE SLAB ON FILL REQUIREMENTS.

(2) 8" CONCRETE STEM WALL ON 16" WIDE X 8" DEEP CONT FTG. REINF WALL W/ #4 VERTS @ 18" OC AND (3) #4 HORIZ EQ SPCD. EMBED VERTS 6" MIN INTO FTG. REINF FTG W/ (2) #4 CONT AND #4 TRANSV @ 24" OC. FTG. TO BE MIN. 3'-0" BELOW GRADE.

3 GARAGE PIER. REFERENCE TYPICAL DETAILS.

(4) RECESS STEM WALL AT GARAGE DOOR

(5) RECESS STEM WALL AT WALK DOOR

# EXTENT OF HEADER WITH DOUBLE PORTAL FRAMES (TWO BRACED WALL PANELS) EXTENT OF HEADER WITH SINGLE PORTAL FRAME (ONE BRACED WALL PANEL) 0 0 0 0 10/ PANEL WIDTH (W)

MINIMUM PANEL WIDTH 8'-0" 9'-0" 18"

10'-0" 20"

**DETAIL NOTES:** (1) MINIMUM 3" x 11.25" NET HEADER

(2) SPAN = 6'-0" TO 18'-0"

3 FASTEN TOP PLATE TO HEADER WITH TWO ROWS OF 16d SINKER NAILS AT 3" O.C. TYP

(4) 1000# STRAP OPPOSITE SHEATHING

(5) FASTEN SHEATHING TO HEADER WITH 8d COMMON OR GALVANIZED BOX NAILS IN 3" GRID PATTERN AS SHOWN AND 3" O.C. IN ALL FRAMING (STUDS, BLOCKING, AND SILLS) TYP

REFER TO PANEL WIDTH SCHEDULE

MIN. 2x4 FRAMING

MIN. 7/16" THICKNESS WOOD STRUCTURAL PANEL (8) SHEATHING

MIN. (2) 1/2" ANCHOR RODS WITH 2" x 2" x 3/16" PLATE (9) WASHÉR

MIN. DOUBLE 2x4 DOUBLE POST

TYPICAL PORTAL FRAME CONSTRUCTION

12) BLOCKED AND OCCUR WITHIN 24" OF MID-HEIGHT. ONE ROW OF TYP SHEATHING-TO-FRAMING NAILING IS REQUIRED. IF 2x4 BLOCKING IS USED, THE 2x4S MUST BE NAILED TOGETHER WITH 3 16d SINKERS

> STRUCTURAL FRAMING PLANS

3/10/2021

Certificates of Authority Architecture: MO 310 / KS 73

Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36

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A-2017009063

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**\$100** 

FIELD:

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## BRACED WALL PANEL LEGEND:

M. PROVIDE PERIMETER FOUNDATION DRAINS.

SHEET NOTES

WSP: WOOD STRUCTURAL PANEL. PANEL THICKNESS AND NAILING REQUIREMENTS IN GENERAL NOTES MEET BRACED WALL REQUIREMENTS.

A. REFER TO SHEET S001 FOR STRUCTURAL GENERAL NOTES.

B. REFER TO S010-S011 FOR TYPICAL STRUCTURAL DETAILS.

SIMPSON HUGS410 OR BETTER U.N.O.

FASTENED TOGETHER PER THE TYPICAL DETAILS.

F. REFER TO ARCHITECTURAL SHEETS FOR ALL DIMENSIONS.

THE SIZE FROM THE CHART ON THE TYP DETAIL SHEETS.

SELECTED FROM THE HEADER SCHEDULE ON TYPICAL DETAIL SHEETS.

C. ALL WOOD HEADERS IN PERIMETER WALLS AND INTERIOR LOAD BEARING WALLS NOT SPECIFICALLY CALLED OUT SHALL BE

D. ALL WOOD BEAMS SHALL BEAR ON A MINIMUM OF (3) 2x4 STUDS OR SHALL ATTACH TO INTERSECTING WOOD BEAMS WITH A

E. ALL MULTI-PLY ENGINEERING LUMBER BEAMS ARE DESIGNATED BY NUMBER OF PLYS AND DEPTH [EX: (3) 14" LVL]. THE PLYS SHALL BE 1.75" WIDTH UNLESS NOTED OTHERWISE AND STRENGTH SHALL BE PER THE GENERAL NOTES. BEAMS SHALL BE

G. ALL BEAMS IN CEILING FRAMING SHALL BE UPSET, UNLESS NOTED AS DOWNSET OR HDR. IF HEADER SIZE IS NOT GIVEN PICK

I. BEAM HANGERS ARE DENOTED ON PLANS AS "HXX". REFER TO SCHEDULE ON S101 FOR REQUIREMENTS. WHERE NOT CALLED

K. SPREAD FOOTINGS ARE DENOTED AS "FXX". REFER TO SPREAD FOOTING SCHEDULE ON THIS SHEET FOR FOOTING SIZES AND

H. ALL WALLS SHALL BE 2X4 @ 16" OC, UNLESS NOTED OTHERWISE. ALL EXTERIOR WALLS ARE LOAD BEARING.

OUT, CONTACT ENGINEER OR USED HEAVIEST HANGER FOR NUMBER OF PLYS IN BEAM BEING SUPPORTED.

L. ANCHOR RODS SHALL BE PLACED IN TO THE TOP OF THE FOUNDATION WALLS PER THE GENERAL NOTES.

K. SPECIFIC BEAMS CALLED OUT ON PLANS SHALL BE LOCATED UNDER THE LOAD BEARING ELEMENTS ABOVE.

GB: GYP BOARD. 1/2" GYP BOARD EA SIDE OF WALL. NAILS OR SCREWS PER GENERAL NOTES MAY BE USED. MAX FASTENER SPACING = 7" FOR BOTH EDGE AND FIELD FASTENERS.

PFG: PORTAL FRAME GARAGE. RE: TYP DETAIL WD-120 FOR REQUIREMENTS.

CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME. CONSTRUCT SIMILAR TO TYP DETAIL WD-120 EXCEPT THAT ALL SURFACES SHALL BE CONTINUOUSLY SHEATHED.

CS-WSP: CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANEL.

EC-#: END CONDITION FOR CONTINUOUSLY SHEATH WALL PANEL

SCREWS AND ANCHOR TO CONCRETE W/ 1/2" DIA SIMPSON TITEN HD SCREW ANCHOR X 4" MIN EMBED (6" OVERALL LENGTH). WHERE HOLDDOWN IS REQUIRED BETWEEN FLOORS, PROVIDE DTT2Z ABOVE AND BELOW FLOOR AND FASTEN TO WALL STUDS. CONNECT TOGETHER WITH 1/2" DIAMETER THREADED ROD.

END CONDITIONS (CONTINUOUSLY SHEATHED)

EC1: PROVIDE RETURN PANEL AT THE END OF

THE WALL. MIN RETURN PANEL LENGTH = 24".

EC2: PROVIDE SIMPSON DTT2Z HOLDDOWN AT

CORNER. FASTEN TO STUDS W/ (8) SIMPSON SDS

EC3: 48" WIDE BRACED WALL PANEL AT THE END OF THE WALL. NO RETURN PANEL IS REQUIRED.

EC5: SIMILAR TO EC2, EXCEPT HOLDDOWN DOES NOT OCCUR AT CORNER, BUT MAY BE UPTO 10'-0" AWAY FROM A CORNER.

END CONDITION IDENTIFIER. REQUIRED ON CONTINUOUS BRACED WALL LINES. BRACED WALL IDENTIFIER -BRACED WALL LINE IS EITHER CONTINUOUSLY SHEATHED ✓ CONT (CONT) OR INTERMITTENTLY SHEATHED (INT) \_\_\_\_\_CS-WSP (UNO) \_\_\_\_\_\_\_ PRIMARY TYPE OF WALL PANEL IN THE BRACED WALL LINE (UNLESS NOTED OTHERWISE) LOCATION OF BRACED WALL LINE

RZ206A - CS-PF (PORTAL FRAME @ GARAGE)

## **LEGEND**

DUPLEX GROUNDING TYPE RECEPTACLE CENTERED 4" ABOVE BACK SPLASH, COUNTER OR SURFACE. COORDINATE WITH ARCHITECTURAL CASEWORK

DUPLEX GROUNDING TYPE RECEPTACLE. CENTER 18" A.F.F. UNLESS NOTED.

GROUND FAULT INTERRUPTING RECEPTACLE. CENTER 18" A.F.F. UNLESS NOTED. PANELBOARD, TOP 84" A.F.F. DISCONNECT SWITCH, SIZE AND TYPE AS NOTED IN DISCONNECT SWITCH

SCHEDULE. HOME RUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER DESIGNATION INDICATES A 2-#12 WIRE CIRCUIT WITH GROUND. A GREATER NUMBER OF WIRES IS INDICATED AS FOLLOWS: "------" 3-#12 WIRES WITH

GROUND, "-+++-" 4-#12 WIRES WITH GROUND. CONDUIT SIZE PER N.E.C. IF HOME RUN IS ANNOTATED, SEE FEEDER AND BRANCH CIRCUIT SCHEDULE FOR SIZE.

**ELECTRICAL NOTE** 

CONTINUATION

12" ROUND FIXTURE.

OCCUPANCY SENSOR

WALL SWITCH SINGLE POLE, CENTER 48" A.F.F.

LIGHT WITH FIXTURE MARK, WALL BRACKET

COMPLY WITH NEC ARTICLE 250. ALL METALLIC RACEWAYS SHALL BE GROUNDED. 1.3 ELECTRICAL EQUIPMENT EXPOSED TO WEATHER SHALL BE WEATHERPROOF.

**ELECTRICAL SPECIFICATIONS** 

1.4 WIRE:

OTHER APPLICABLE LOCAL CODES.

A. ALL WIRE SHALL BE THWN FOR ALL EXTERIOR OR POSSIBLE WET LOCATIONS. B. ALL WIRE SHALL BE THWN OR THHN FOR ALL INTERIOR OR DRY LOCATIONS.

C. ALL BUILDING WIRE SHALL BE 600 VOLTS COPPER.

D. THE MINIMUM WIRE SIZE FOR POWER AND LIGHTING SHALL BE #12 AWG., FOR CONTROLS #14 AWG. E. THE USE OF ROMEX SHALL NOT BE PERMITTED.

1.1 THE ENTIRE ELECTRICAL SYSTEM SHALL COMPLY WITH THE 2011 NATIONAL ELECTRICAL CODE AND ANY

1.2 GROUNDING SHALL CONSIST OF COPPER CONDUCTORS IN CONDUIT. GROUNDING AND BONDING SHALL

F. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR CONDUIT AND WIRE ROUTING. ANY LENGTHS EXCEEDING 75' SHALL HAVE VOLT LOSS CALCULATED AND WIRE SIZES ADJUSTED AS REQUIRED BY CODE.

1.5 RACEWAYS:

A. ALL UNDERSLAB OR BELOW GRADE RACEWAYS SHALL BE SCHEDULE 40 PVC CONDUITS WITH RIGID GALVANIZED STEEL "RGS" ELBOWS AND RISERS TO ABOVE GRADE OR SLAB.

B. ALL CONDUITS INSIDE BUILDING SHALL BE 1/2" ELECTRICAL METALLIC TUBING "EMT" MINIMUM.

C. THE USE OF MC IS PERMITTED IF ALLOWED BY LOCAL AUTHORITY. MC CABLE IS ALLOWED ONLY WHERE CONCEALED IN INDOOR LOCATIONS.

D. FLEXIBLE METAL CONDUIT MAY BE USED FOR FINAL CONNECTION TO LIGHT FIXTURES AND MOTORS 6' MAXIMUM LENGTH ALLOWED. E. RIGID OR INTERMEDIATE GALVANIZED STEEL CONDUIT SHALL BE USED FOR ALL EXTERIOR APPLICATIONS

ABOVE GRADE. F. SEALTITE SHALL BE USED FOR ALL EXTERIOR CONNECTIONS TO EQUIPMENT.

G. ALL RACEWAYS SHALL BE SUPPORTED FROM ROOF STRUCTURAL MEMBERS PER N.E.C. NO RACEWAYS SHALL BE ATTACHED DIRECTLY TO ROOF DECK.

H. ALL RACEWAYS SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING WALLS OR FLOORS. I. PROVIDE PLASTIC BUSHINGS AT OPEN ENDS OF ALL CONDUITS WITH LOW VOLTAGE WIRING. J. SEAL ALL PENETRATIONS THROUGH WALLS OR FLOOR WITH APPROPRIATE CAULK OR GROUT. SEAL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS, OR CEILINGS WITH UL LISTED FIRE STOP

1.6 LUMINARIES:

COMPOUND.

A. ALL LIGHT FIXTURES SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. REFER TO LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.

B. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO SUPPORT LIGHT FIXTURES. LIGHT FIXTURES IN LAY-IN CEILING SHALL BE INDEPENDENTLY SUPPORTED WITH WIRE AT ALL FOUR CORNERS OF FIXTURE.

C. REPLACE DEFECTIVE LAMPS, LED ARRAYS, DRIVERS AND BALLASTS PRIOR TO PROJECT COMPLETION.

1.7 DEVICES:

A. ALL WIRING DEVICES, COVER PLATES, ETC. SHALL BE AS SPECIFIED ON POWER LEGEND.

B. POWER EQUIPMENT SHALL BE NEW AND BEAR A UL. LABEL. C. WIRING DEVICES SHALL BE GRAY IN COLOR, 20 AMP FEDERAL SPECIFICATION GRADE WITH STAINLESS STEEL COVER PLATES.

1.8 DISCONNECT SWITCHES

A. MATERIAL: DISCONNECT SWITCHES SHALL BE NEMA TYPE HD (HEAVY DUTY) QUICK-MAKE, QUICK-BREAK DISCONNECT SWITCHES: NOT FURNISHED BY OTHERS WITH EQUIPMENT, OR WHERE REQUIRED BY CODE. SWITCHES SHALL BE NON-FUSIBLE UNLESS INDICATED TO BE FUSIBLE.

1. MOTOR CIRCUIT DISCONNECT SWITCHES SHALL BE HORSEPOWER RATED TO MATCH THE MOTOR LOAD. 2. NON-FUSIBLE DISCONNECTS SHALL BE RATED 30 AMPS UNLESS OTHERWISE INDICATED.

B. ACCESSORIES: SWITCH ENCLOSURES SHALL BE RATED NEMA 3R FOR OUTDOOR AND WET LOCATIONS, UNLESS OTHERWISE SPECIFIED OR INDICATED ON THE DRAWINGS.

1. ELECTRICAL INTERLOCK: SWITCH SHALL BE FURNISHED WITH INTERLOCK CONTACTS.

C. CONTROLS: SWITCHES SHALL HAVE A DUAL COVER INTERLOCK TO PREVENT DOOR OPENING WITH SWITCH CLOSED AND TO PREVENT CLOSING SWITCH WITH DOOR OPEN.

1. SWITCH SHALL BE PAD LOCKABLE IN "OPEN" AND "CLOSED" POSITION.

D. ACCEPTABLE MANUFACTURERS:

1. CUTLER HAMMER/WESTINGHOUSE

2. GENERAL ELECTRIC 3. SQUARE D COMPANY

1.10 INDOOR OCCUPANCY SENSORS A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE

1. COOPER INDUSTRIES, INC.

2. HUBBELL BUILDING AUTOMATION, INC.

3. LEVITON MFG. COMPANY INC. 4. WATT STOPPER.

B. WALL- OR CEILING-MOUNTED, SOLID-STATE INDOOR OCCUPANCY SENSORS WITH A SEPARATE POWER PACK TO TURN LIGHTS ON WHEN COVERAGE AREA IS OCCUPIED. AND TURN THEM OFF WHEN UNOCCUPIED; WITH A TIME DELAY FOR TURNING LIGHTS OFF, ADJUSTABLE OVER A MINIMUM RANGE OF 1 TO 15 MINUTES.

D. POWER PACK: DRY CONTACTS RATED FOR 20-A BALLAST LOAD AT 120- AND 277-VAC, FOR 13-A TUNGSTEN AT 120-VAC. AND FOR 1 HP AT 120-VAC. SENSOR HAS 24-VDC. 150-MA, CLASS 2 POWER SOURCE, AS DEFINED BY NFPA 70.

E. SENSOR: SUITABLE FOR MOUNTING IN ANY POSITION ON A STANDARD OUTLET BOX.

F. RELAY: EXTERNALLY MOUNTED THROUGH A 1/2-INCH (13-MM) KNOCKOUT IN A STANDARD ELECTRICAL

G. TIME-DELAY AND SENSITIVITY ADJUSTMENTS: RECESSED AND CONCEALED BEHIND HINGED DOOR.

H. BYPASS SWITCH: OVERRIDE THE "ON" FUNCTION IN CASE OF SENSOR FAILURE.

I. DUAL-TECHNOLOGY TYPE: DETECT OCCUPANTS IN COVERAGE AREA USING PIR AND ULTRASONIC DETECTION METHODS. THE PARTICULAR TECHNOLOGY OR COMBINATION OF TECHNOLOGIES THAT CONTROL ON-OFF FUNCTIONS IS SELECTABLE IN THE FIELD BY OPERATING CONTROLS ON UNIT.

1. SENSITIVITY ADJUSTMENT: SEPARATE FOR EACH SENSING TECHNOLOGY.

2. DETECTOR SENSITIVITY: DETECT OCCURRENCES OF 6-INCH- (150-MM-) MINIMUM MOVEMENT OF ANY PORTION OF A HUMAN BODY THAT PRESENTS A TARGET OF NOT LESS THAN 36 SQ. IN. (232 SQ. CM), AND DETECT A PERSON OF AVERAGE SIZE AND WEIGHT MOVING NOT LESS THAN 12 INCHES (305 MM) IN EITHER A HORIZONTAL OR A VERTICAL MANNER AT AN APPROXIMATE SPEED OF 12 INCHES/S (305 MM/S).

3. DETECTION COVERAGE (STANDARD ROOM): DETECT OCCUPANCY ANYWHERE WITHIN A CIRCULAR AREA OF 1000 SQ. FT. (93 SQ. M) WHEN MOUNTED ON A 96-INCH- (2440-MM-) HIGH CEILING.

1.11 DISTRIBUTION EQUIPMENT:

A. ALL BREAKERS SHALL BE BOLT-ON TYPE. B. ALL BREAKERS SHALL BE RATED TO WITHSTAND INCOMING AVAILABLE FAULT CURRENT FROM UTILITY

COMPANY TRANSFORMER. C. SERIES RATING MAY BE ALLOWED IF ACCEPTABLE BY LOCAL CODES. ALL SERIES RATED APPLICATION MUST

MEET ALL N.E.C. REQUIREMENTS. D. PROVIDE NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT AND TYPED DIRECTORY CARDS FOR PANELBOARDS.

E. PROVIDE ENGRAVED PLAQUE WITH AVAILABLE FAULT CURRENT AT SERVICE DISCONNECT AND AT EACH PANELBOARD. F. CONTRACTOR SHALL PROVIDE ARC FLASH STUDY AND LABELING. LABELS SHALL BE PROVIDED AT SERVICE ENTRANCE, PANELBOARD, HVAC EQUIPMENT AND OTHER LOCATIONS AS REQUIRED.

		3	PHASE W/	NEUTRAL				3 PHASI	Ε				1 PHAS	E	
			E	3 POLE						2	POLE OR	1 POLE			
CIRCUIT BREAKER SIZE	NO. OF	нот	NO. OF	GROUND	CONDUIT SIZE (INCHES)	NO. OF COND	НОТ	NO. OF	GROUND	CONDUIT SIZE (INCHES)	NO. OF	НОТ	NO. OF	GROUND	CONDUIT SIZE (INCHES)
15	4	12	1	12	1/2	3	12	1	12	1/2	2	12	1	12	1/2
20	4	12	1	12	1/2	3	12	1	12	1/2	2	12	1	12	1/2
25	4	10	1	10	1/2	3	10	1	10	1/2	2	10	1	10	1/2
30	4	10	1	10	1/2	3	10	1	10	1/2	2	10	1	10	1/2
40	4	8	1	10	3/4	3	8	1	10	1/2	2	8	1	10	1/2
50	4	6	1	10	3/4	3	6	1	10	3/4	2	6	1	10	3/4
60	4	4	1	10	1	3	4	1	10	1	2	4	1	10	3/4

QO PANELBOARD TYPE									FEEDE	R ENTRA	PANEL LOCATION:		
120/208	VOLTAGE	1	PHASE		X	60	MAIN B	REAKER	,	TOP		GARAGE 100	
100	AMP MAIN BUS	3	WRE			MAIN LU				вотто	M	FEEDER CABLE: (3) #4 AWG CU WITH #	
1	NEMA ENCLOSURE		200% N	EUT.		SUB-FE	ED LUG	S	MOUNT	:		GROUND (CU) IN 1" C	;
10,000	RMS SYMMETRICAL AMP	PS @ 208	VOLTS		`	SUB-FE	ED BRE	AKER	X	SURFA	CE	SOURCE:	
2/23/21	DATE	•	COPPE	R BUSS	Х	SOLID I	NEUTRA	L	FLUSH				
		VA LOA	D	LOAD	C.B.		C.B		LOAD	VA LOA	D		
POLE#	SERVICE	L1	L2	TYPE	TRIP	POLE	TRIP	POLE	TYPE	L1	L2	SERVICE	POLE#
1	GARAGE OPENER	720		M	15	1	20	1	R	540		RECEPTACLE	2
3	GARAGE OPENER		720	М	15	1	20	1				SPARE	4
5	GARAGE OPENER	720		M	15	1	20	1	L	250		LIGHTING	6
7	SPACE											SPACE	8
		1440	720							790	0		
	CONNECTED VAPH	,				L1 -	2230		L2 -	720			
CONNECTED VA/PH FROM FEED THRU AND SUE													
TOTAL CONNECTED VA/PH L1							2230		L2 -	720			
LOAD TY	PE .			DEMAND				INECTE		DEMAN	D VA	MIN. CODE VA (1.25 x	CONT.)
			REQUI	REMENT	S		THIS PANEL	SUB	TOTAL			(NEC 210.19 & 215.2)	
ICHTINI	G (NEC 220.42)		125%				250	PNLS	250		313	391	
	ACLES (NEC 220.44)			00VA + 1	/2 v DEM	MINING	540		540	540		540	
	T MOTOR (NEC 430.24)			ARGEST		MININO	0		0	0		0	
	NG MOTORS (NEC 430.24)	,		EMAININ		RS	2160		2160	2160		2160	
	G (NEC 220.51)		100%				0		0		0	0	
KITCHEN EQUIPMENT (NEC 220.56) VARIES (SEE C					DDE SEC	TION)	0		0		0	0	
WATER HEATER (NEC 210.19 & 215.2) 100%							0		0		0	0	
MISC. (NEC 210.19 & 215.2) 100%							0		0		0	0	
SPARE			0	x CODE	MIN.VA				l.			0	
TOTAL LO	OADS						2950	0	2950		3013	3091	
				SIZING	LOAD			15	<b>AMPS</b>				

	LIGHT FIXTURE SCHEDULE										
MARK	RK MANUFACTURER CATALOG N			LAMP		FINISH	MOUNTING	VOLTS	INPUT	REMARKS	
			NO.	WATTS	DESCRIPTION				WATIS		
Δ	LITHONIA	OLF-2RH-40K-120-PE-DDB	N E-2RH-40K-120-PE-DDR   1		25	LED	DARK	WALL	120	25 1	LED WALL-MOUNTED FLOOD LIGHTS WITH TWO-HEADS AND DUSK-TO-
^	LITTONIA		'	20		BRONZE	DAWN PHOTOCELL.				
NOTES											
										·	



Certificates of Authority
Architecture: MO 310 / KS 73 Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36



HOU SECU 2510 INDP

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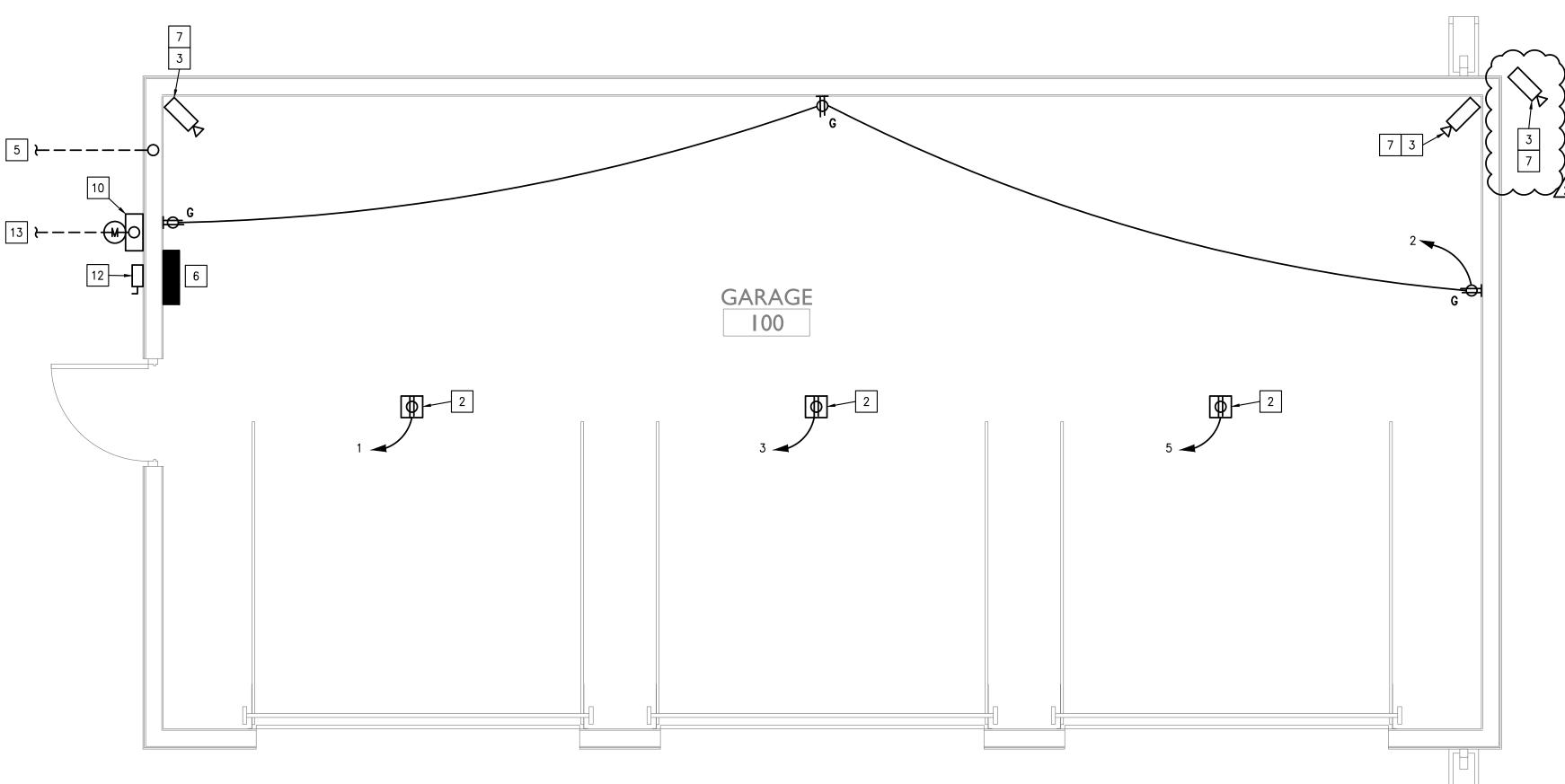
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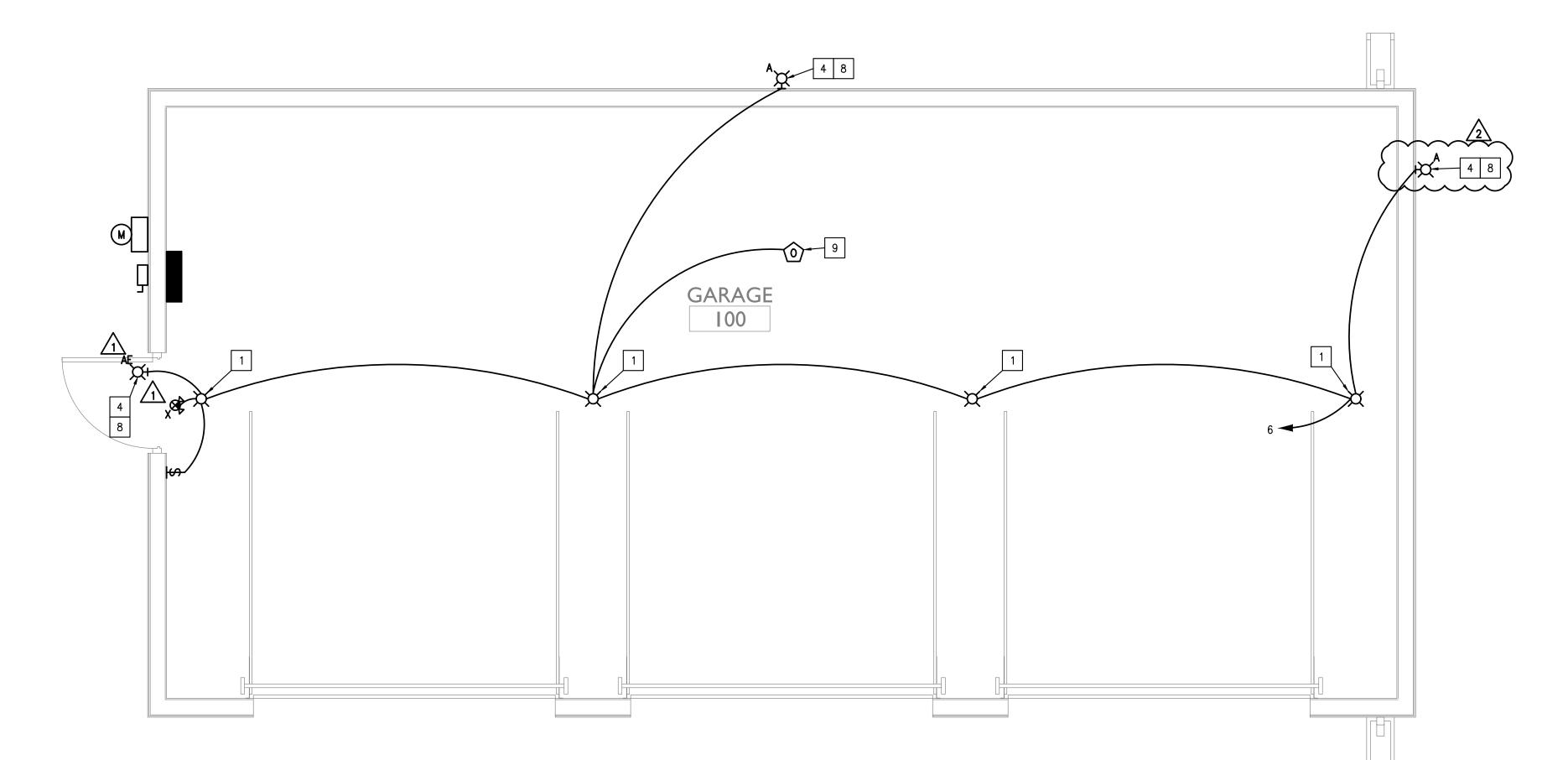
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DATE:	02/19/2021

**ELECTRICAL** SCHEDULES, SPECIFICATIONS, AND LEGEND



# 1 ELECTRICAL FLOOR PLAN SCALE: 3/8" = 1'-0"

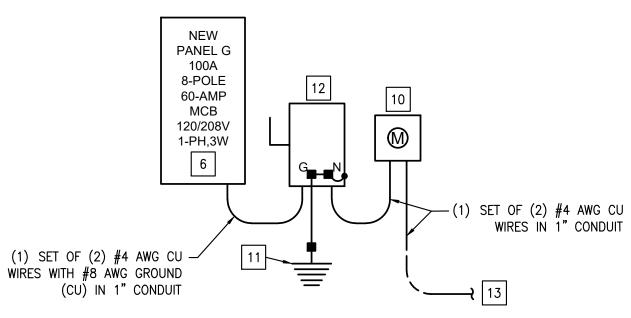


## **GENERAL NOTES**

- DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT GENERAL SCOPE OF WORK. CONTRACTOR IS RESPONSIBLE TO REVIEW GENERAL CONSTRUCTION DRAWINGS, ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND ASSOCIATED SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF CONSTRUCTION. NOTIFY ARCHITECT OF ANY CONFLICT OR DISCREPANCIES PRIOR TO BID.
- 2. REFERENCE SHEET E000 FOR LIGHT FIXTURE SCHEDULE, BRANCH CIRCUIT FEEDER SCHEDULE, ELECTRICAL SPECIFICATIONS AND SYMBOL LEGEND.

## **PLAN NOTES**

- OWNER PROVIDED LED FIXTURE COORDINATE WITH OWNER ON INSTALLATION REQUIREMENTS PROVIDE J-BOX FOR CEILING-MOUNTING.
- FIELD LOCATE CEILING-MOUNTED RECEPTACLE FOR AUTOMATIC GARAGE DOOR OPENER. LOCATE PER THE MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE 120V CONNECTION TO HEATER, IF REQUIRED, FOR CAMERA. COORDINATE WITH CAMERA MANUFACTURER.
- MOUNT EXTERIOR FIXTURE AT 9'-0" AFG.
- PROVIDE 3" CONDUIT UNDERGROUND FOR SECURITY/ALARM CABLING FROM MAIN BUILDING AND STUB UP INTO GARAGE. CONTRACTOR SHALL FIELD VERIFY LOCATION OF HEAD END SECURITY/ALARM EQUIPMENT WITHIN THE MAIN BUILDING, AND THE BEST ROUTING BELOW GRADE TO THE NEW GARAGE.
- PROVIDE SQUARE-D QO (OR APPROVED EQUAL) 100-AMP, 208V, SINGLE-PHASE, 8-POLE LOAD CENTER WITH SOLID NEUTRAL AND 60-AMP MAIN BREAKER. SEE PANELBOARD SCHEDULE ON SHEET E000 FOR ADDITIONAL INFORMATION.
- PROVIDE ROUGH-IN FOR OWNER PROVIDED SECURITY CAMERA. COORDINATE WITH CAMERA MANUFACTURER FOR ROUGH-IN REQUIREMENTS.
- CIRCUIT FIXTURE ON UNSWITCHED HOT LEG OF CIRCUIT.
- PROVIDE DUAL-TECHNOLOGY OCCUPANCY SENSOR FOR AUTOMATIC ON/OFF CONTROL OF LIGHTS ON THE INTERIOR OF THE GARAGE.
- CONTRACTOR TO PROVIDE METERING BASE, SUPPORTS, SLIP RISER AND SECONDARY CONDUITS FROM TRANSFORMER PER IP&L REQUIREMENTS.
- PROVIDE #8 AWG CU GROUNDING CONDUCTOR TO GROUNDING ELECTRICAL SYSTEM (GES) AND NEW MAIN BONDING JUMPER TO NEUTRAL AT NEW SERVICE ENTRANCÈ SYSTEM. PROVIDE GES TO (2) 3/4"x10FT COPPER CLAD GROUND RODS, AND REINFORCING RODS IN FOOTINGS/SLAB PER THE NEC ARTICLE 250. VERIFY WITH LOCAL AHJ PRIOR TO CONSTRUCTION.
- PROVIDE 120/208V, SINGLE-PHASE, 60-AMP, S/E RATED DISCONNECT SWITCH IN NEMA-3R ENCLOSURE. PROVIDE TAMPER RESISTANT "LOCK-ON" SYSTEM LOCK TO PREVENT PUBLIC ACTUATION/INTERIOR ACCESS.
- CONTRACTOR TO PROVIDE UNDERGROUND CONDUIT PER IP&L REQUIREMENTS FROM MAIN BUILDING'S HOUSE METER. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY ON TAPPING EXISTING HOUSE METER.



3 ONE-LINE DIAGRAM
SCALE: NTS

1 CITY COMMENTS 04.08.2021 OWNER COMMENTS 08.09.2021

ARCHITECTURE/E 3200 S. State Route 2 816.373.

Certificates of Authority
Architecture: MO 310 / KS 73

Engineering: MO 4 / KS 241 Land Surveying: MO 123 / KS 36

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ELECTRICAL **FLOOR PLANS** 

