THE WHITTIER - PHASE 1

BOOMTOWN DEVELOPMENT COMPANY

68 NORTH LEWIS
TULSA, OK  74110

PROJECT NO: P05093.0100

FOR PERMIT
06/12/2020
GENERAL NOTES

1. HORIZONTAL PLANE DIMENSIONS ARE GIVEN TO FACE OF STUD UNLESS NOTED OTHERWISE. DIMENSIONS GIVEN TO FACE OF FINISH MATERIAL ARE NOTED "CLEAR".

2. LARGE SCALE DETAILS AND PLANS TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS.

3. COORDINATE AND VERIFY ALL DIMENSIONS, OPENINGS AND CONDITIONS WITH CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL AND ALL OTHER PERTINENT DRAWINGS AND PLANS FROM CONSTRUCTION STAKES IF MADE NECESSARY AS ALSO AS PER CODE REQUIREMENTS.

4. DO NOT SCALE DRAWINGS.

5. FOR ALL DETAILS THAT ARE TYPICAL, INCORPORATE INTO PROJECT AT APPROPRIATE LOCATIONS WHETHER SPECIFICALLY INDICATED OR NOT.

6. PROVIDE ACCESS PANEL PLAN FOR APPROVAL BY ARCHITECT AND MECHANICAL ENGINEER PRIOR TO INSTALLATION.

7. EXPOSED ENDS OF ALL PROJECTING ELEMENTS SUCH AS SILLS, LEDGES & SIMILAR COMPONENTS FABRICATED IN METAL, STONE & OTHER MATERIALS SHALL BE FINISHED SAME AS FACE.

8. THE SITE WILL BE COMPRISED OF 27 BUILDINGS WITH 6 EXISTING BUILDINGS, EACH BUILDING TO BE EIGHTY-FOUR FEET BY EIGHTY-FOUR FEET, TOTALING 2,239,908 SQUARE FEET. A 20 FEET DEEP 96 FEET WIDE ACCESSIBLE DRIVEeway WILL BE PROVIDED ON EAST & WEST SIDES OF SITE.

9. THE SITE WILL BE EIGHTY-FOUR FEET BY EIGHTY-FOUR FEET PLUS 20 FEET DEEP ENTRANCE DRIVEWAY ON NORTH & SOUTH SIDES.

10. ALL CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF APPLICABLE LOCAL, STATE AND FEDERAL CODES OR REGULATIONS.

11. PROVIDE LINTELS OR HEADERS AS REQUIRED OR INDICATED OVER OPENINGS PENETRATED BY MECHANICAL EQUIPMENT.

12. PROVIDE MIN. 2X6 TREATED WOOD OR STEEL PLATE BLOCKING BETWEEN STUDS AT MOUNTING LOCATIONS FOR TOILET ACCESSORIES, HANDRAILS, GUARDRAILS, MILLWORK AND OTHER WALL MOUNTED ITEMS IN COMPLIANCE WITH CODE REQUIREMENTS.

13. PROVIDE MIN. 2X6 TREATED WOOD OR STEEL PLATE BLOCKING BETWEEN STUDS AT MOUNTING LOCATIONS FOR TOILET ACCESSORIES, HANDRAILS, GUARDRAILS, MILLWORK AND OTHER WALL MOUNTED ITEMS IN COMPLIANCE WITH CODE REQUIREMENTS.

14. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES BEFORE PROCEEDING WITH EXCAVATION, TRENCHING OR SIMILAR WORK.

15. THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES OF THE BUILDING OR STRUCTURE AS HEREIN AUTHORIZED.

16. PROVIDE BRANCH DISTRIBUTION AND HEAD LOCATIONS TO ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.

17. PROVIDE LINTELS OR HEADERS AS REQUIRED OR INDICATED OVER OPENINGS PENETRATED BY MECHANICAL EQUIPMENT.

18. ALLEYS AND DRIVEWAYS SHALL BE CONSTRUCTED TO A MIN. 14 FEET WIDTH AND SHALL BE CONSTRUCTED IN 갖은 BASE MATERIALS. THESE DRAWINGS DO NOT CERTIFY THE EXISTENCE OF UTILITIES WHICH MAY BE PRESENT BUT UNRECORDED OR UNDETECTED.

19. CONTRACTOR IS REQUIRED TO PROVIDE CONTROL AND EXPANSION JOINTS IN ALL ASSEMBLIES PER SPECIFICATIONS. VERIFY WITH ARCHITECT ALL LOCATIONS PRIOR TO INSTALLATION.

20. ALL PIPING, DUCTWORK AND CONDUIT IS TO BE CONCEALED UNLESS NOTED OTHERWISE.

21. THE CONTRACTOR SHALL CONTACT "OKIE" AT 811 OR 888-522-6543, THREE (3) WORKING DAYS BEFORE BEGINNING ANY WORK SO EXISTING UNDERGROUND UTILITIES MAY NOT BE LOCATED AND WORKED ON.

22. USTS OR OTHER STORAGE TANKS SHALL BE LOCATED AT THE NORTH, SOUTH OR EAST END OF THE BUILDING OR STRUCTURE AS HEREIN AUTHORIZED.

23. SPRINKLER HEADS ARE NOT SHOWN ON REFLECTED CEILING PLANS, HOWEVER, ALL AREAS SHALL BE SPRINKLED AS REQUIRED BY NFPA 13R. CONTRACTOR SHALL SUBMIT BRANCH DISTRIBUTION AND HEAD LOCATIONS TO ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.

24. PROVIDE B-storage RACKS AS REQUIRED OR INDICATED OVER OPENINGS PENETRATED BY MECHANICAL EQUIPMENT.

25. HOT WATER LINES AND DRAIN LINES UNDERNEATH ACCESSIBLE SINKS SHALL BE PROTECTED PER CODE REQUIREMENTS.

26. EXPOSED ENDS OF ALL PROJECTING ELEMENTS SUCH AS SILLS, LEDGES & SIMILAR COMPONENTS FABRICATED IN METAL, STONE & OTHER MATERIALS SHALL BE FINISHED SAME AS FACE.

27. PROVIDE ACCESS PANEL PLAN FOR APPROVAL BY ARCHITECT AND MECHANICAL ENGINEER PRIOR TO INSTALLATION.

GENERAL NOTES - CIVIL

1. THE CONTRACTOR SHALL CONTACT "OKIE" AT 811 OR 888-522-6543, THREE (3) WORKING DAYS BEFORE BEGINNING ANY WORK SO EXISTING UNDERGROUND UTILITIES MAY NOT BE LOCATED AND WORKED ON.

2. PROVIDE B-storage RACKS AS REQUIRED OR INDICATED OVER OPENINGS PENETRATED BY MECHANICAL EQUIPMENT.

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6. PROVIDE B-storage RACKS AS REQUIRED OR INDICATED OVER OPENINGS PENETRATED BY MECHANICAL EQUIPMENT.
Smoke alarms shall comply with NFPA72 and section R314.

R314.1 GENERAL

Automatic residential fire sprinkler system installed.

Exception: shall not be required where additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed.

R313.1 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEM

R313 AUTOMATIC FIRE SPRINKLER SYSTEMS

R302.12.1 MATERIALS

1. Concrete decks and slabs shall have a minimum thickness of 8" in accordance with section R302.5.3.

R302.12 DRAFTSTOPPING

Refer to section R302.5.3 for locations where draftstopping is required.

R302.11.1 FIREBLOCKING MATERIAL

1. Fireblocking material shall be installed in concealed spaces of stud walls and partitions, included furred spaces and parallel row of studs or staggered, 1 hr rated, and shall extend from foundation to underside of roof sheathing.

R302.5 DWELLING

1. Penetrations through the separation required in section R302.5 shall be protected as required by section R302.11.

R302.5.3 OTHER PENETRATIONS

1. Ducts in the garage and ducts penetrating the walls or ceiling separating the dwelling from the garage shall be protected as required by section R302.5.1.

R302.5.1 OPENING PROTECTION

1. Each individual townhouse shall be structurally independent and shall be separated from each other by a wall of equal fire resistance as required by section R302.2.

R302.2 TOWNHOUSES:

1. The Rated wall shall extend from foundation to underside of roof sheathing.

R302.2.1 CONTINUITY

1. Common wall 1 hr rated with sprinklers OR 2 hr rated without sprinklers.

R302.2.2 PARAPETS FOR TOWNHOUSES

1. Roof covering complies with class C rating per astm E108 or UL790 AND roof decking is noncombustible or class A or B rated with 1 hr rated wall without sprinkler.

R302.2.3 FLOR FRAMING

1. Flor framing is constructed of truss or joists with at least 1" minimum thickness and at least 1" thickness of materials above framing members.

R302.6 DWELLING

1. Enclosed accessible space under stairs shall have walls, under stair railings, and shall be equipped with solid wood doors not less than 1 hr fire rated.

R302.6.1 Stair Protection

1. Stair surface shall be protected with 1 hr fire rated with sprinklers system (UL U341).

R302.7.1 CONSTRUCTION METHOD

1. Townhouses separated by a common wall as provided in section R302.2 item 1 (1 1/2 hr rated door equipped with self-closingstops and a smoke barrier).
CONCRETE WASH-OUT AREA INSTALLATION NOTES:
1. Do not locate the concrete wash-out area within 600 feet of any natural drainage pathway or water body, or within 200 feet of any wells or drinking water sources.
2. The concrete wash-out area shall be installed prior to concrete placement on site.
3. Concrete wash-out area shall include a flat sub-base with a minimum slope of 2% toward the concrete wash-out area.
4. The concrete wash-out area shall be lined with either a compacted clay liner, 20 mil thick synthetic liner, or similar equivalent liners to make the pit leak proof.
5. Berm along the sides and back of the concrete wash-out area shall have a minimum height of 1'.
6. Vehicle tracking pad shall be sloped 2% towards the concrete wash-out area.
7. It shall be placed at the construction entrance, at the concrete wash-out area, and elsewhere as necessary to clearly indicate the location of the concrete wash-out area to operators of concrete trucks and pump rigs.
8. Use excavated material for perimeter berms construction.
9. Storage alternatives using prefabricated concrete wash-out devices or a lined, above-ground, storage area are acceptable.

CONCRETE WASH-OUT AREA MAINTENANCE NOTES:
1. The concrete wash-out area shall be repaired, cleaned, or enlarged as necessary to maintain capacity for concrete waste. Concrete materials, accumulated in the pit, shall be removed once the materials have reached a depth of 12 feet.
2. Concrete wash-out water, waster pieces of concrete, and all other debris in the concrete wash-out area shall be transported from the job site in a watertight container and disposed of properly.
3. The concrete wash-out area shall remain in place until all concrete for the project is placed.
4. The concrete wash-out area is removed, cover the disturbed area with topsoil, seed, and mulch or otherwise stabilized in an approved manner.
### Geotechnical Report

**For Approved Method of Subgrade Preparation**

1. **4" Thick Concrete Paving**
   - 6x6 10 GA. W.W.F. placed 2" below top of paving
   - 4" Aggregate Base
   - Finished dirt grade 2" below top of sidewalk

2. **Site Plan**
   - 1/2" Radius, Typ
   - #4 Nosing, Typ
   - #4 at 12" O.C.

3. **Slab**
   - 8"
   - 3" Clear
   - 3" Clear
   - 4" Thick
   - 7"

4. **Existing Sidewalk**
   - 1'-4 3/8"
   - 8"
   - 1 1/2" Clear
   - 1 1/2" Clear

5. **Concrete Step Detail**
   - Typical footing at stairs
   - Upper stair connection

6. **Concrete Paving Sections**
   - Portland Cement Concrete (Driveways)
     - 4" PCC Pavement
     - 12" Prepared Subgrade
     - Separator Fabric

   - Asphaltic Concrete (Street)
     - 4" PCC Pavement
     - 12" Prepared Subgrade
     - Separator Fabric

7. **Roll Over Curb Detail**
   - Curb and Gutter Detail COT Detail No. 762

8. **Sidewalk Joint Details**
   - Contraction Joint
   - Expansion Joint

9. **Notes**
   - Contraction joints shall be placed every 6' unless otherwise noted.
   - Expansion joints shall be placed every 54' unless otherwise noted.

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**Details (1 of 2)**

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**Printed:**

810 South Cincinnati
Second Floor
Tulsa, OK 74119
918.877.6000
www.cyntergy.com
1. RE: SITE PLAN FOR LOCATION OF ADA PARKING SPACES AND ACCESS AISLE IN RELATIONSHIP TO THE DOOR LOCATION. (THIS DETAIL IS FOR STRIPING LAYOUT ONLY)

2. PARKING STRIPES AND THE ADA INTERNATIONAL HANDICAP SYMBOL ARE TO BE PAINTED PER THE MANUFACTURER’S RECOMMENDATIONS.

3. STANDARD PARK PAINT

4. 2% MAX

5. 11'-10 1/2" 6'-1 1/2" 7' TO BOTTOM OF SIGN

6. 1. REQUIRED FOR ALL PRIVATE PROPERTY INTERIOR LOCATIONS.

2. RE: PROJECT SPECS FOR PRODUCT COLOR & TYPE.

3. PRODUCT SHOULD BE APPLIED PER MANUFACTURER’S SPECIFICATIONS.

4. PREPARATION OF THE SURFACE SHALL CONSIST OF A MINIMUM OF TWO APPLICATIONS OF POWER WASHING.

5. TWO APPLICATIONS OF PRODUCT SHALL BE ROLLED ON.

6. RE: DETAIL 5, SHEET CS101

7. ISOLATION JOINT

8. 1:12 MAX.

9. 1.5% (2% MAX.)

10. 27' (MIN.)
3. **Utility Crossing Detail**

1. Riser diameter to match downstream pipe size. Maximum riser diameter is 10 inches.
2. Where line does not extend, install a plug or substitute a length of straight pipe and another 45° elbow for Y.

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**Cleanout Detail**

1. 6" wide plastic utility marking tape installed at 12" below grade; tape to be color coded by utility.
2. Water main under utility.
3. Concrete encasement 4".

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**Cleanout Detail**

1. 6" wide plastic utility marking tape installed at 12" below grade; tape to be color coded by utility.
2. Water main under utility.
3. Concrete encasement 4".

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**Notes**

1. When the utility being crossed is not a storm drain, sanitary sewer, or a non-potable water line, then the "no joint" requirement does not apply.
2. When the utility being crossed is a storm drain, sanitary sewer, or non-potable water line, the minimum clearance is 24". Straight pipe must be cut out and pipe or work done or work done on either side of the crossing is greater than 24" times the pipe diameter, or the depth of the crossing is greater than 24" times the pipe diameter.
3. No joints allowed if less than 18 feet, or less than 20 feet if the utility being crossed is sewer. All joints between fittings must be restrained.
4. SEE PLAN FOR FLOWLINE ELEVATION AND PIPE SIZE.

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**Details**

1. Water main over utility.
2. Water main under utility.
3. Concrete encasement 4".
4. 6" wide plastic utility marking tape installed at 12" below grade; tape to be color coded by utility.
5. Water main under utility.
6. Concrete encasement 4".

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**Notes**

1. When the utility being crossed is not a storm drain, sanitary sewer, or a non-potable water line, then the "no joint" requirement does not apply.
2. When the utility being crossed is a storm drain, sanitary sewer, or non-potable water line, either above or below the potable waterline, and the minimum clearance is 24", then the type of pipe must be ductile iron pipe or AWWA C900 DR-14 PVC pipe. If the clearance is less than 24", then the crossing utility must also be encased with 4 inches of concrete, minimum for a distance 20', 10' on either side of the waterline.
3. No joints allowed if less than 18 feet, or less than 20 feet if the utility being crossed is sewer. All joints between fittings must be restrained.

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**Utility Details**

- Printed:
- Sheet number: 68 North Lewis
- Tulsa, OK 74110
- Engineer of Record: Robert L. Day, P.E.
1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH ASTM C150 TYPE I OR II LOW ALKALI UNLESS NOTED OTHERWISE.

2. ALL REINFORCING BARS SHALL BE IN ACCORDANCE WITH ASTM A615 GRADE 60 OR ASTM A706.

3. PROVIDE CONCRETE MIX DESIGN MEETING ACI 318 FOR REVIEW PRIOR TO IMPLEMENTATION.

4. SHOP DRAWINGS MUST INDICATE CHANGES TO CONSTRUCTION DOCUMENTS; THE CHANGES HAVE NOT BEEN DESIGNED FOR ERECTION EQUIPMENT LOADS. SHOULD THE CONTRACTOR MAINTAIN THE FOLLOWING REINFORCEMENT COVERAGE FOR REINFORCING STEEL UNLESS NOTED OTHERWISE.

5. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE I OR II LOW ALKALI UNLESS NOTED OTHERWISE.

6. DIMENSIONS SHOWN ON CONSTRUCTION DOCUMENTS TAKE PRIORITY OVER SCALING DIMENSIONS. IN SOME CASES PLANS AND DETAILS MAY NOT BE DRAWN TO SCALE FOR CLARITY.

7. MAINTAIN THE FOLLOWING REINFORCEMENT COVERAGE FOR REINFORCING STEEL UNLESS NOTED OTHERWISE.

8. DIMENSIONS SHOWN ON CONSTRUCTION DOCUMENTS TAKE PRIORITY OVER SCALE DRAWINGS. WITHOUT CLARIFICATION IN WRITING FROM THE ARCHITECT/ENGINEER.

9. CONCRETE, MASONRY, OR STUD WALLS AND CONCRETE FLOORS WITH ARCHITECTURAL, INSULATION 1 PSF

10. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 (Fy = 36 KSI).

11. S. Healing Bar Lap Splice:

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12. THESE STRUCTURAL CONSTRUCTION DOCUMENTS ARE TO BE USED IN CONJUNCTION WITH THE PLANS AND SPECIFICATIONS MAY BE APPROVED IF FOUND ACCEPTABLE BY THE ARCHITECT/ENGINEER. ALL SUBSTITUTION REQUESTS, INCLUDING "ENGINEER APPROVED EQUALS", FOR EQUIPMENT AND MATERIALS SHALL BE SUBMITTED FOR REVIEW AFTER PRIOR TO SUBSTITUTING COMPARABLE MATERIALS OR MANUFACTURED OR PRE-ENGINEERED PRODUCTS.

13. SUBMITTING/RECEIVING APPROVAL FROM THE ARCHITECT/EEROY IS REQUIRED PRIOR TO CONSTRUCTION. CONSTRUCTION DOCUMENTS MUST BE COMPLETE FOR ALL STRUCTURAL WORK. AN APPROVAL REPORT MUST BE SUBMITTED TO THE ARCHITECT/EEROY PRIOR TO CONSTRUCTION DOCUMENTS.

14. TECHNICAL AND OTHER SYSTEMS SHOWN ON THE STRUCTURAL PLANS REQUIRES AN APPROVAL REPORT TO THE ARCHITECT/EEROY PRIOR TO CONSTRUCTION DOCUMENTS TO BE COMPLETE FOR ALL STRUCTURAL WORK. AN APPROVAL REPORT MUST BE SUBMITTED TO THE ARCHITECT/EEROY PRIOR TO CONSTRUCTION DOCUMENTS.

15. MECHANICAL UNITS AND OTHER SYSTEMS SHOWN ON THE STRUCTURAL PLANS INDICATE A IMPORTANCE FACTOR 1.0

16. CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, AS WELL AS DESIGN CHANGES THAT DO NOT IMPACT THE FLOOR DESIGN AS SHOWN ON THE PLANS.

17. CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, AS WELL AS DESIGN CHANGES THAT DO NOT IMPACT THE FLOOR DESIGN AS SHOWN ON THE PLANS.

18. CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, AS WELL AS DESIGN CHANGES THAT DO NOT IMPACT THE FLOOR DESIGN AS SHOWN ON THE PLANS.
PERIODIC SPECIAL INSPECTIONS

2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW.

2. SPECIAL TESTS AND INSPECTIONS: CONDUCTED BY A QUALIFIED TESTING AGENCY AND SPECIAL INSPECTOR AS REQUIRED BY AUTHORITIES HAVING JURISDICTION AND AS FOLLOWS:

- CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.
- VERIFYING USE OF REQUIRED MIX DESIGNS.
- DEFICIENCIES OBSERVED IN THE WORK DURING THE PERFORMANCE OF ITS SERVICE.
- CLAY SOILS OF 19%, AND SHALL CONFORM TO THE GRADING RULES AS PUBLISHED BY THE SPIB FOR SUBSTANTIAL COMPLETION, WHICH INCLUDES A LIST OF UNRESOLVED DEFICIENCIES.
- NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE LATERTAL COMPRESSION PARALLEL TO GRAIN, Fc, perp > 425 PSI.
- MODULUS OF ELASTICITY, E > 1,400,000 PSI.
- FACE TO FACE NAILING (WITH SAME SIZE NAILS) IN ALL WALLS, SHEATHING MUST EXTEND AT LEAST 1/4 IN. beyond the Collar Tie or Plate, with minimum of 2 nails per wall joist, with minimum of 2 nails per wall joist, except where noted otherwise. SCREWS ARE NOT AN ACCEPTABLE SUBSTITUTION FOR NAILS.
- LUMBER MAY NOT BE CUT OR NOTCHED FOR PIPES, CONDUIT, ETC. EXCEPT AS SHOWN ON THE CONSTRUCTION DOCUMENTS. SCREWS ARE NOT AN ACCEPTABLE SUBSTITUTION FOR NAILS.

- FACE NAILING IS PROHIBITED.
- SINKERS, RING SHANK, OR BOX NAILS ARE ALLOWED UNLESS SPECIFICALLY INDICATED OTHERWISE.
- METAL PLATE CONNECTED WOOD TRUSSES' BRACING OF METAL PLATE CONNECTED TRUSSES' shall be performed by the TRUSSE DESIGNER. TRUSS TO TRUSS CONNECTIONS ARE THE RESPONSIBILITY OF THE TRUSS DESIGNER.

- ANY FIELD CHANGES TO THE METAL PLATE CONNECTED TRUSSES IS NOT ALLOWED.

- USE OF COMPUTERIZED SHOP DRAWING MATERIALS AND SUBSTITUTIONS ARE NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CONTRACTOR PRIOR TO USE. THE CONTRACTOR SHALL CLEARLY INDICATE ON THE SUBMITTAL THE SIZE, QUANTITY, AND LOCATION (AT EACH CONDITION) WHERE THE DESIGN IS TO BE CHANGED.

- LUMBER MUST NOT BE CUT AT AN ANGLE OF 45 DEGREES OR LESS.

- THE USE OF COMPUTER-QUIP DESIGN STANDARDS FOR METAL PLATE CONNECTED TRusses IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CONTRACTOR PRIOR TO USE. THE CONTRACTOR SHALL CLEARLY INDICATE ON THE SUBMITTAL THE SIZE, QUANTITY, AND LOCATION (AT EACH CONDITION) WHERE THE DESIGN IS TO BE CHANGED.

- THE CONTRACTOR SHALL NOT SUBMIT A SPECIAL INSPECTION REQUEST FOR A SPECIAL INSPECTION WORK SHOP WHERE THE CONTRACTOR SHALL PREPARE ALL INSPECTION REPORTS AND DO INSPECTIONS.

- ALL POSTS SHALL BE CONTINUOUS TO THE FOUNDATION OR SUPPORTING BEAM.

- ALL ATTACHMENT OF ROOF AND EXTERIOR WALL CLADDING AND VERIFICATION OF GRADE MATERIAL (MASONRY, CONCRETE, STEEL, ETC.). ALL TESTS SHALL BE PER ASTM STANDARDS.

- 3-16d box (3 1/2" x 0.135"); or 4-10d box (3" x 0.128"); or 4 staples, 1" crown, 16 ga., 1 1/4" long 6d common (2" x 0.113") nail; or 6d deformed (2" x 0.120") nail; or 8d 1 3/4" galvanized roofing nail; staple 0.128"); or 4-3" x 0.131" nails.

- 2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128"); or 2 staples, 1" crown, 16 ga., 1 1/4" long 6d common (2" x 0.113") nail; or 6d deformed (2" x 0.120") nail; or 8d 1 3/4" galvanized roofing nail; staple 0.128"); or 4-3" x 0.131" nails.

- Items with lapped or nailed joints at corners and intersections:
  - Top plates, laps at corners and intersections 6d common (2" x 0.113") nail (roof)
  - 1" × 8" and wider sheathing to each bearing 6d common (2" x 0.113") nail (roof)
  - 1 3/4" galvanized roofing nail; staple 0.128"); or 4-3" x 0.131" nails.

- The following are restrictions for nailing:
  - 3-16d box nails (3 1/2" x 0.135"); or 6d common (2" x 0.113") nail; or 6d deformed (2" x 0.120") nail; or 8d 1 3/4" galvanized roofing nail; staple 0.128"); or 4-3" x 0.131" nails.

- 1. Blocking between ceiling joists or rafters to top plate
2. Attaching of roof and exterior wall cladding and verification of grade material (masonry, concrete, steel, etc.). All tests shall be per ASTM standards.
3. Verifying sill plate continuity, connector type, and installation and sheathing nailed to blocking as specified.
4. Verification of in-situ concrete strength, prior to removal of shores and forms.
5. Erection of slabs to concrete strength prior to removal of shores and forms.
6. Comparison for shape, location and embossment of the concrete member (where applicable).
7. Special tests and inspections conducted by a qualified testing agency and special inspector as required by authorities having jurisdiction and as follows:
   - Special inspections and testing performed by a qualified testing agency and special inspector as required by authorities having jurisdiction and as follows:
   - 1. Nailing, bolting, anchoring and other fastening of components within the lateral compression parallel to grain, Fc, perp > 425 PSI.
   - 2. Modulus of elasticity, E > 1,400,000 PSI.
   - 3. Wood shear walls
   - 4. Attaching of roof and exterior wall cladding and verification of grade material (masonry, concrete, steel, etc.). All tests shall be per ASTM standards.
   - 5. Verification of in-situ concrete strength, prior to removal of shores and forms.
   - 6. Comparison for shape, location and embossment of the concrete member (where applicable).
FOUNDATION PLAN NOTES

1. CONCRETE SLAB DECK WITHIN 4" OF OC #4, #6 AT 18" OC, EW IN MID DEPTH OF SLAB, OVER 15 MIL VAPOR BARRIER OVER 4" CLEAN CRUSHED ROCK

2. ST1 = SIMPSON CS14, RE: 1 & 6/S-003

3. HD1 = HOLDOWN SIMPSON HDQ8 WITH 7/8" DIA. ANCHOR BOLT W x8" EMBED INTO FOOTING WITH SIMPSON SET-XP AT (2) 2x6 POST

4. REFER TO CIVIL FOR EXTERIOR CONCRETE/PAVING

5. GIRDER POST INDICATES SHEAR WALL, RE: SCHEDULE

6. DRAWN BY: KJW

7. CHECKED BY: RLR/EAE

8. ISSUE DATE: 06/12/2020

9. PERMIT SET - PHASE 1

10. FOUNDATION PLAN

11. SCALE: 1/4" = 1'

12. S-102

13. THE WHITTIER - PHASE 1

14. BOOMTOWN DEVELOPMENT COMPANY

15. 68 NORTH LEWIS

16. TULSA, OK  74110

17. CONTACT: 918.877.6000

18. www.cyntergy.com

19. 10/2020

1. **Floor Sheathing:** 23/32" Exposure 1, 48/24 OC at supported edges and floor perimeters, and 12" OC in field. Floor sheathing stops at demising walls.

2. **Typical Floor Framing:** UNO, 11 7/8" TJI 230 plywood web joists at 16" OC.

3. **Stair Stringers:** (3) 1 1/4"x9 1/2" LSL Simpson A35 to support beam, typical UNO.

4. **Patio Canopy Decking:** 2x6 Tongue and Groove perpendicular to framing. Attach to framing with (3) 16d nails per board, per support.

**Notes:**
- North varies re: 1/S-100
- Typical second floor framing plan notes
- Professional engineer re: A-315 and A-316 for patio canopy dimensions.
ROOF FRAMING PLAN NOTES

1. Roof framing plan water marks:
   - Notation with Symbols at 1/8" OC
   - Available at above sketch roof
   - Available in current roof

2. Dimensions will not be depicted on the plans:
   - All dimensions will be taken from the building.
   - Dimensions will be provided in the associated drawings.

3. Omitting the use of symbols that may be misleading.

4. Dimensions will be taken from the building.

ATTIC ACCESS LADDER
- Truss manufacturer to provide framing
- Coordinate with attic access ladder
- Provide clear space in truss framing above mechanical chase

THE WHITTIER - PHASE 1
BOOMTOWN DEVELOPMENT COMPANY

S-107
INTERNAL SCREEN BRACING

SCREEN WALL SLAB DETAIL

CORNER DETAIL

SCREEN BASE DETAIL

TRIM DETAIL

CORNER SCREEN PLAN

U-SHAPED SCREEN PLAN

SCREEN TOP DETAIL

FENCE PILASTERS

STRAIGHT SCREEN SECTION 2

SCREEN SECTION

STRAIGHT SCREEN ELEVATION

STRAIGHT SCREEN PLAN

AS102
Provide double-layer felt underlayment at shaded area, lap minimum of 18 inches under single-layer felt underlayment.

No ridge vent at 1 HR partition, typical.

Ridge vent, typical.

Pre-finished metal gutter, typical.

Asphalt shingles, color Rustic Black (Heritage Series/Tamko)

Standing seam metal roof, color Cityscape (Berridge)
A-313
4" X 3" PREFINISHED ALUMINUM DOWNSPOUT
PREFINISHED ALUMINUM GUTTER
FIRST FLOOR
0'-0"
SECOND FLOOR
10'-0"
STANDING SEAM METAL ROOF
ON UNDERLAYMENT ON T&G 2X6
STANDING SEAM METAL ROOF
ON UNDERLAYMENT ON T&G 2X6
PREFINISHED ALUMINUM GUTTER
PREFINISHED ALUMINUM GUTTER
5'-4"
7 1/4"
5 5/8"
110'-7 3/8"
SLOPE 1/8"/1'
STANDING SEAM METAL ROOF ON UNDERLAYMENT ON T&G 2X6
PREFINISHED ALUMINUM GUTTER
PREFINISHED ALUMINUM GUTTER
5 1/2"
5'-4"
7 1/4"
5 5/8"
6 1/2"
11'-0 1/2"
8'-5 1/2"
2 3/4"
2'-3"
3'-9 3/4"
3'-11 5/8"
3 1/2"
6"
1. Supply hydrants shall be located where accessible to the sprinkler contractor. Each fire protection site utility plan shall be drawn by a fire alarm technician.

2. Fire alarm system shall be compatible with NFPA 72, the building’s central alarm panel, and shall incorporate a fire alarm control panel.

3. Fire sprinkler risers shall be properly groused and sealed block walls.

4. Fire sprinkler heads shall be equipped with approved head guards.

5. Horizontal dry sidewall sprinklers shall be provided with smooth bore orifice piping.

6. Vertical dry sidewall sprinklers shall be provided with smooth bore orifice piping.
GENERAL NOTES
1. REFER TO SHEETS PLUMBING AND FIRE SUPPRESSION SHEETS FOR CONTINUATION OF WATER.

PHASING LEGEND

KEYNOTES
1. REFER TO CIVIL FOR CONTINUATION.
### Protection Criteria Based on 2013 NFPA 13R

**Classification:** Residential

<table>
<thead>
<tr>
<th>Component Area Served</th>
<th>Design Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedrooms, Hallways, Restrooms, Closets, Garage</td>
<td>NFPA 13R Section 7.1</td>
</tr>
</tbody>
</table>

- **Design Basis:**
  - bedrooms, hallways, restrooms, closets, garage: 0.05 GPM/square foot per compartment or 4 most demanding sprinklers
  - 155°F
  - Maximum Sprinkler Spacing 400 sq. ft.

---

**Mark Protection Criteria Based on 2013 NFPA 13R**

**Classification:** Residential

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- **Design Basis:**
  - bedrooms, hallways, restrooms, closets, garage: 0.05 GPM/square foot per compartment or 4 most demanding sprinklers
  - 155°F
  - Maximum Sprinkler Spacing 400 sq. ft.
MARK PROTECTION CRITERIA BASED ON 2013 NFPA 13R

CLASSIFICATION          RESIDENTIAL

DEPARTMENT                   BEDROOMS/HALLWAYS/RESTROOMS/CLOSETS/GARAGE
SPLASH AREA (FT.2)       0.05 GPM/SQUARE FOOT PER COMPARTMENT OR 4 MOST DEMANDING SPRINKLERS
SPRINKLER DENSITY       155°
SPRINKLER TEMPERATURE (°F) 400 SQ. FT.
SPRINKLER RESPONSE          QUICK
MAXIMUM SPRINKLER SPACING (SQ. FT.)

DESIGN BASIS
NFPA 13R SECTION 7.1
NO SPRINKLER PROTECTION REQUIRED; NFPA 13R (2013) SECTION 6; IRC (2015) Section 2904.1.1

1/4" = 1' - 0"

ENLARGED UNIT A-1.1 FIRST FLOOR PLAN

ENLARGED UNIT A-1.1 SECOND FLOOR PLAN
Refer to civil drawings for extent of site work for phase 1 and phase 2.

General Notes:

1. Refer to sheets P-102 and P-104 for continuation.
2. Refer to sheets C-100 and C-101 for equipment.
3. Contractor to verify each fixture is operable at down to 9" WC.

Plumbing Site Plan

---

Keynotes:

- "S" = Standpipe
- "R" = Roof drain
- "D" = Drains
- "I" = Inlets
- "P" = Pressure
- "C" = Condensation
- "E" = Equipment
- "N" = Natural gas

Phasing Legend:

- Phase 1
- Phase 2
- Future: By Others

---

Plumbing Site Plan

---

Contractor shall coordinate all details of the plumbing system with the local gas company.

Natural gas into buildings.

NATURAL GAS DEMAND SHOWN IN MBH IS BASED ON A HEATING VALUE OF 1000 BTU (1 MBH) PER CUBIC FOOT, WITH A SPECIFIC GRAVITY OF 0.6, AND ON PRIMARY GAS PIPING SYSTEM WITH THE LOCAL GAS COMPANY.

Pressure downstream of service regulator to be provided and installed by utility company. Verify correct gas pressure requirements. See meter and equipment indications.

Gas company contact: Oklahoma Natural Gas

Share Company compact.

A specific gravity of 0.6, and on primary gas piping sizes shall be as noted on plans. Gas piping sizes shall be as noted on plans.

Gas company contact: Brandon Rainbolt

Oklahoma Natural Gas

(918) 831-8365

Reference to Civil for continuation.

---

References:

- Reference to Civil for continuation.
- Refer to sheets C-100 and C-101 for equipment.
- Contractor to verify each fixture is operable at down to 9" WC.
KEYNOTES

1. 4" SS, RE: CIVIL FOR CONTINUATION.
2. 4" SS DOWN FROM SECOND FLOOR.
3. 3" WENT UP TO SECOND FLOOR.
4. 2" SS DOWN FROM WB-2 ON SECOND FLOOR.
5. DISHWASHER, CONNECT DRAIN TO TAILPIECE OF SINK WITH SYPHONIC LOOP IN DISHWASHER DRAIN.
6. ROUTE VENT ABOVE DUCT IN SOFFIT.
7. 3" SS DOWN FROM SECOND FLOOR.

GENERAL NOTES

1. PLUMBING DESIGN SHOWN IS TYPICAL FOR ALL "A" UNITS.
2. FURNACE CLOSET IS AN ENVIRONMENTAL AIR PLENUM. INSTALL PLENUM-RATED MATERIALS ONLY IN CLOSET.

REFER TO P-101 FOR PHASING PLAN
06/12/2020 PERMIT SET - PHASE 1
KEYNOTES
1. 4" SS DOWN TO FIRST FLOOR.
2. 3" VTR TO ROOF, RE: DETAIL 11/P-501.
3. 2" SS OFFSET FROM WB-2 BELOW FLOOR AND DOWN TO FIRST FLOOR IN WALL BENEATH.
4. 2" VENT UP FROM FIRST FLOOR.
5. 3" SS OFFSET BELOW FLOOR AND DOWN TO FIRST FLOOR IN WALL BENEATH.

GENERAL NOTES
1. PLUMBING DESIGN SHOWN IS TYPICAL FOR ALL 'A' UNITS.
2. FURNACE CLOSET IS AN ENVIRONMENTAL AIR PLENUM. INSTALL PLENUM-RATED MATERIALS ONLY IN CLOSET.

GENERAL NOTES
1. PLUMBING DESIGN SHOWN IS TYPICAL FOR ALL 'A' UNITS.
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REFER TO P-101 FOR PHASING PLAN
06/12/2020 PERMIT SET - PHASE 1
**FLOOR DRAIN SCHEDULE**

<table>
<thead>
<tr>
<th>MARK</th>
<th>FIXTURE</th>
<th>MANUFACTURER MODEL NUMBER</th>
<th>TRIM</th>
<th>CONNECTIONS</th>
<th>REMARKS</th>
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</thead>
<tbody>
<tr>
<td>PD1</td>
<td>WASHER DRAIN</td>
<td>ZURN</td>
<td>11/4</td>
<td>F / 1-1/2</td>
<td></td>
</tr>
<tr>
<td>PD2</td>
<td>COORDINATE DRAIN</td>
<td>ZURN</td>
<td>1-1/2</td>
<td>F / 1-1/2</td>
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**PLUMBING FIXTURE SCHEDULE**

<table>
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<th>MARK</th>
<th>FIXTURE</th>
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<th>TRIM</th>
<th>CONNECTIONS</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>TOILET</td>
<td>PROFLO</td>
<td>11/4</td>
<td>F / 1-1/2</td>
<td></td>
</tr>
<tr>
<td>L1</td>
<td>LOOSE JOINT</td>
<td>PROFLO</td>
<td>1-1/2</td>
<td>F / 1-1/2</td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>BATH TRAP</td>
<td>PROFLO</td>
<td>1-1/2</td>
<td>F / 1-1/2</td>
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**GAS WATER HEATER SCHEDULE**

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<th>MARK</th>
<th>MANUFACTURER MODEL NUMBER</th>
<th>TRIM</th>
<th>CONNECTIONS</th>
<th>REMARKS</th>
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</thead>
<tbody>
<tr>
<td>GM1</td>
<td>ZURN</td>
<td>11/4</td>
<td>F / 1-1/2</td>
<td></td>
</tr>
<tr>
<td>GM2</td>
<td>ZURN</td>
<td>1-1/2</td>
<td>F / 1-1/2</td>
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**EXPANSION TANK SCHEDULE**

<table>
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<th>MARK</th>
<th>FIXTURE</th>
<th>MANUFACTURER MODEL NUMBER</th>
<th>TRIM</th>
<th>CONNECTIONS</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET1</td>
<td>TRAP PRIMER</td>
<td>ZURN</td>
<td>1-1/2</td>
<td>F / 1-1/2</td>
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**UNIT A NATURAL GAS SUMMARY SCHEDULE**

<table>
<thead>
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<th>APPLIANCE</th>
<th>MARK</th>
<th>GAS VOLUME (GALLONS)</th>
<th>MINIMUM CLEARANCE (INCHES)</th>
<th>MAXIMUM CLEARANCE (INCHES)</th>
<th>WEIGHT (LBS)</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM1</td>
<td>GM1</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>1.2</td>
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**HEAT TRACE SCHEDULE**

<table>
<thead>
<tr>
<th>MARK</th>
<th>MANUFACTURER MODEL</th>
<th>SERVICE</th>
<th>VOLT-KW</th>
<th>WATT</th>
<th>REMARKS</th>
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<tr>
<td>HP1</td>
<td>PROFLO</td>
<td>240V</td>
<td>0.5</td>
<td>160</td>
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</tbody>
</table>
**REFRIGERANT PIPING GENERAL NOTES**

1. The contractor shall comply with current applicable local, state, federal, fire, and health codes and ordinances and is responsible to visit and examine the job site and become familiar with all existing conditions pertinent to the work to be performed.

2. The contractor shall take all necessary precautions to protect all material, equipment, apparatus and work from damage. Failure to do so to the satisfaction of the owner or owner's representative will be sufficient cause for the rejection of the material, equipment, workmanship and/or work included.

3. The contractor shall guarantee all equipment, materials and workmanship for a period of 1 year following the date of acceptance. The contractor shall also conform to the regulations and requirements of the owner and/or to obtain approval of the work.

4. The contractor shall prepare and submit complete plans and specifications to the architect/engineer a line-by-line comparison between scheduled manufacturer and "or approved equal" manufacturer. Refer to the manufacturer's catalog for actual conformance of equipment and materials, and the submitted manufacturer during the submittal phase.

5. The contractor shall ensure that the work is performed in accordance with the owner's insurance carrier. Notify the architect and engineer of any conflicts prior to installation.

6. The contractor shall comply with all regulations of regulatory agencies having jurisdiction. The contractor shall also conform to the requirements of the owner's insurance carrier. Notify the architect and engineer of any conflicts prior to installation.

**GENERAL NOTES**

1. The contractor shall provide for the installation of all materials, equipment, etc., in accordance with the owner's insurance carrier. Notify the architect and engineer of any conflicts prior to installation.

2. The contractor shall ensure that the work is performed in accordance with the owner's insurance carrier. Notify the architect and engineer of any conflicts prior to installation.

3. The contractor shall provide and submit complete plans and specifications to the architect/engineer a line-by-line comparison between scheduled manufacturer and "or approved equal" manufacturer. Refer to the manufacturer's catalog for actual conformance of equipment and materials, and the submitted manufacturer during the submittal phase.

4. The contractor shall ensure that the work is performed in accordance with the owner's insurance carrier. Notify the architect and engineer of any conflicts prior to installation.

5. The contractor shall comply with all regulations of regulatory agencies having jurisdiction. The contractor shall also conform to the requirements of the owner's insurance carrier. Notify the architect and engineer of any conflicts prior to installation.
REFER TO CIVIL DRAWINGS FOR EXTENT OF SITE WORK FOR PHASE 1 AND PHASE 2.

PHASING LEGEND

<table>
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<tr>
<th>PHASE 1</th>
<th>PHASE 2</th>
<th>FUTURE - BY OTHERS</th>
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The Whittier Boomtown Development Company
### Electric Heater Schedule

<table>
<thead>
<tr>
<th>MARK</th>
<th>MANUFACTURER</th>
<th>AREA</th>
<th>HEATING CAPACITY</th>
<th>AMPS</th>
<th>VPH/Hz</th>
<th>WEIGHT (LBS)</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td>MCA</td>
<td>M-601</td>
<td>100</td>
<td>120</td>
<td>42</td>
<td>8690</td>
<td>135</td>
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<tr>
<td>MOCP</td>
<td>MOCP-CU</td>
<td>100</td>
<td>120</td>
<td>42</td>
<td>8690</td>
<td>135</td>
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<td>MOCP-F</td>
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<td>120</td>
<td>42</td>
<td>8690</td>
<td>135</td>
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### Exhaust Fan Schedule

<table>
<thead>
<tr>
<th>MARK</th>
<th>MANUFACTURER</th>
<th>LOCATION</th>
<th>CPM</th>
<th>ESP (in)</th>
<th>AMPS</th>
<th>VPH/Hz</th>
<th>SOUND (dBA)</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td>M-1</td>
<td>L-2 GREENHECK</td>
<td>too low</td>
<td>75</td>
<td>3.0</td>
<td>2.0</td>
<td>93</td>
<td>3.5</td>
<td>1-1</td>
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### Louver Schedule

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<tr>
<th>MARK</th>
<th>MANUFACTURER</th>
<th>WIDTH (IN)</th>
<th>HEIGHT (IN)</th>
<th>MINIMUM AIR FLOW AREA (SQUARE IN.)</th>
<th>MAX PD (INWC)</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td>S-1</td>
<td>R/A  LOUVERED SURFACE SEE PLANS 1-5</td>
<td>32</td>
<td>32</td>
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<td>3.5</td>
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<tr>
<td>S-2</td>
<td>S/A  LOUVERED SURFACE SEE PLANS 2,3,4,5</td>
<td>32</td>
<td>32</td>
<td>8.0 x 8.0</td>
<td>3.5</td>
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### Air Device Schedule

<table>
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<tr>
<th>MARK</th>
<th>MANUFACTURER</th>
<th>MODEL</th>
<th>SERVICE</th>
<th>TYPE</th>
<th>MOUNTING</th>
<th>FACE SIZE</th>
<th>REMARKS</th>
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<tr>
<td>A-1</td>
<td>A-1</td>
<td>E. A.</td>
<td>LOUVERED</td>
<td>SURFACE</td>
<td>SEE PLANS</td>
<td>2,4</td>
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<tr>
<td>A-2</td>
<td>A-2</td>
<td>E. A.</td>
<td>LOUVERED</td>
<td>SURFACE</td>
<td>SEE PLANS</td>
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### Split-System Schedule

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<tr>
<th>MARK</th>
<th>TYPE</th>
<th>MANUFACTURER</th>
<th>NOMINAL SIZE (TONS)</th>
<th>COOLING CAPACITY (MBH)</th>
<th>HEATING CAPACITY (MBH)</th>
<th>DUTY FANS</th>
<th>ELECTRICAL</th>
<th>WEIGHT (LBS)</th>
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<tr>
<td>P-A1</td>
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<td>8890</td>
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<tr>
<td>P-A1</td>
<td>A-1</td>
<td>LENNOX</td>
<td>3.5</td>
<td>47</td>
<td>8890</td>
<td>120</td>
<td>200</td>
<td>34</td>
<td>15</td>
</tr>
<tr>
<td>CL-A1</td>
<td>A-1</td>
<td>LENNOX</td>
<td>3.5</td>
<td>47</td>
<td>8890</td>
<td>120</td>
<td>200</td>
<td>34</td>
<td>15</td>
</tr>
</tbody>
</table>

### Notes
- **1.** Coordinate electrical requirements with electrical contractor.
- **2.** Provide high-wind (SR-100) louver.
- **3.** Provide louver finish to match architectural finishes.
- **4.** Provide high-wind (SR-100) louver.
- **5.** Provide high-wind (SR-100) louver.
- **6.** Provide high-wind (SR-100) louver.
- **7.** Provide high-wind (SR-100) louver.
- **8.** Provide high-wind (SR-100) louver.
- **9.** Provide high-wind (SR-100) louver.
- **10.** Provide high-wind (SR-100) louver.
- **11.** Provide high-wind (SR-100) louver.
- **12.** Provide high-wind (SR-100) louver.

---

**PROJECT NO:** P05093.0100

**ISSUE DATE:** 06/12/2020

**ISSUES / REVISIONS:**

**WHITTIER 810 SOUTH CINCINNATI
TULSA, OK 74119
SECOND FLOOR
W. TODD LESTER, PE
ENGINEER OF RECORD**

---

**CYNTERGY ENGINEERING, PLLC**

**TULSA, OK 74110**

**WEB: www.cyntergy.com**

**PHONE: 918.877.6000**

**FAX: 918.877.0583**

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**THE WHITTIER報告書つき開発会社**

**TULSA, OK 74110**

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**Sheet Name:** MECHANICAL SCHEDULES

**Sheet Number:** M-601
ELECTRICAL EQUIPMENT INSTALLED IN FIRE PROVIDE DEDICATED NEUTRALS FOR GFCI CIRCUITS. GFCI OUTLETS ARE SHOWN FOR ALL OUTLETS REQUIRED TO BE COORDINATE MOUNTING HEIGHTS OF WALL MOUNTED DEVICES WITH MASONRY AND ARCHITECTURAL WALL FINISHES (I.E. SLEEVE ALL WALL, FLOOR AND CEILING PENETRATIONS FOR CABLE INSTALLATIONS. SUPPORT SLEEVES ACCORDINGLY.

HANDLE PROTECTION, AND MECHANICAL DOCUMENTS, PRIOR TO BID, INCLUDING, BUT NOT LIMITED TO, DOOR SCHEDULES, COORDINATE WITH MECHANICAL FOR ELECTRICAL CONTROLS WORK NOT PART OF CONTROLS CONTRACTOR SCOPE OF WORK.

PROVIDE CEILING FAN RATED BOXES AND SUPPORT FOR CEILING FANS IN ACCORDANCE WITH CODE AND THE LABEL ALL DISCONNECTS AND STARTERS WITH EQUIPMENT DESIGNATION, SERVING A SEPARATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH THE CIRCUIT CONTRACTOR SHALL REVIEW ALL SPECIFICATIONS/PROJECT MANUAL, CIVIL, ARCHITECTURAL, INTERIORS, STRUCTURAL, OUTLETS SHALL NOT BE MOUNTED BACK TO BACK.

- HANDLE PROTECTION, AND MECHANICAL DOCUMENTS, PRIOR TO BID, INCLUDING, BUT NOT LIMITED TO, DOOR SCHEDULES, COORDINATE WITH MECHANICAL FOR ELECTRICAL CONTROLS WORK NOT PART OF CONTROLS CONTRACTOR SCOPE OF WORK.

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KEYNOTES

1. PROVIDE LOAD CENTER AT BACKSIDE OF MONUMENT SIGN WALL WITH NON-METALLIC OR STAINLESS STEEL (1.6125" MAXIMUM DEPTH) STRUT AND SECURELY MOUNT PANEL TO STRUT WITH STAINLESS STEEL HARDWARE.

2. FIXTURE TYPE 'J' LOCATED AT RECESS IN MONUMENT SIGN CAPSTONE. REFER TO ARCHITECTURAL DETAILS. FIXTURE TO BE PHOTOCELL ON/OFF CONTROLLED. LOCATE PHOTOCELL ON BACK OF MONUMENT SIGN AND FACE NORTH.

3. WEATHERPROOF GFCI RECEPTACLE WITH METALLIC LOCKABLE 'WHILE IN USE' COVER.

4. FOR BUILDINGS THAT ARE TO BE CONSTRUCTED IN LATER PHASES PROVIDE CONDUIT STUBBED OUT OF SECONDARY WELL OF TRANSFORMER 5' - 0' BEYOND PAD IN DIRECTION OF FUTURE BUILDING. RE: ONE-LINE DIAGRAM FOR MORE INFORMATION.

REFER TO CIVIL DRAWING FOR EXTENTS OF SITE WORK INCLUDED IN PHASE 1.

PHASING LEGEND

- PHASE 1
- PHASE 2
- FUTURE
- NOT OTHERS

06/12/2020 PERMIT SET - PHASE 1

THE WHITTIER - PHASE 1
BOOMTOWN DEVELOPMENT COMPANY

CYNTERGY ENGINEERING, PLLC
CA # 3537
EXPIRES 6/30/2020

ELECTRICAL SITE PLAN

CYNTERGY ENGINEERING, PLLC
21109 SOUTH CINCINNATI AVENUE
SECOND FLOOR
TULSA, OK 74119
918.877.6000
www.cyntery.com

ELECTRICAL SITE PLAN

810 SOUTH CINCINNATI AVENUE
SECOND FLOOR
TULSA, OK  74119
918.877.6000
www.cyntergy.com

Printed: 06/11/2020 5:01:55 PM

SHEET NUMBER: ES101
SHEET NAME: ELECTRICAL SITE PLAN
ISSUE DATE: 06/12/2020
CHECKED BY: CAH
DRAWN BY: JSL
ENGINEER OF RECORD: CHRISTOPHER A. HARWELL, PE
PROJECT NO: P05093.0100

CHRISTOPHER A. HARWELL, PE
810 SOUTH CINCINNATI AVENUE
SECOND FLOOR
TULSA, OK  74119
918.877.6000
www.cyntergy.com
FOR UNITS THAT HAVE A WINDOW OVER THE SINK PROVIDE 30A 120/240V, 1PH, 4W RECEPTACLE.

- FIXTURES LOCATED ON EXTERIOR SIDE WALL.

ENLARGED UNIT A
- LOCATE SWITCH TO HAVE 36" CLEAR IN FRONT.

ROUGH-DRYER.

PROVIDE KEYLESS PORCELAIN SOCKET.

COORDINATE INSTALLATION OF RECESSED BOX AND BRANCH CIRCUIT WITH FRAMING CONTRACTOR.

06/12/2020 PERMIT SET - PHASE 1

ENLARGED UNIT A
- EXHAUST FAN/LIGHT PROVIDED BY MECHANICAL COORDINATE INSTALLATION OF RECESSED BOX.
1. PROVIDE DEDICATED DUAL SOCKET FOR VENTILATION FAN AND LIGHT IN MECHANICAL ROOM IN ACCORDANCE WITH ACCESS HOOK-BACK TO ACCESS BOX.

2. PROVIDE TWO 12" OVERSIZE HOUSINGS, PROVIDE ACCESS TO HOUSING AND FITTINGS TO BE COMPLETELY COVERED BY FAN LIGHT FIXTURE IN AREA WHERE FAN LIGHTS ARE INSTALLED.

3. PROVIDE ENLARGEMENT OF TECHNOLOGY ROOM TO PROVIDE 90" CLEAR IN DEPTH AND 60" CLEAR IN WIDTH. CONTRACTOR SHALL PROVIDE MACH 24 HORIZONTAL OUTLET BOXES AS NECESSARY.

4. PROVIDE KEYLESS PORCELAIN SOCKET OUTLET WITH 20A 120/240V, 1 PHASE, 3 WIRE RECEPTACLE AND 30" CLEAR IN WIDTH. CONTRACTOR SHALL PROVIDE MACH 24 HORIZONTAL OUTLET BOXES AS NECESSARY.

5. COORDINATE INSTALLATION OF RECESSED BOX AND BRANCH CIRCUIT WITH FRAMING CONTRACTOR.

6. PROVIDE 30A 120/240V, 1 PHASE, 4 WIRE RECEPTACLE FOR GARAGE DOOR OPENER.

7. PROVIDE ENLARGEMENT OF ENTRY, PROVIDE BF 20A 120/240V, 1 PHASE, 3 WIRE RECEPTACLE IN ENTRY TO PROVIDE ACCESS DOOR.

8. PROVIDE KEYLESS PORCELAIN SOCKET OUTLET WITH 20A 120/240V, 1 PHASE, 3 WIRE RECEPTACLE AND 30" CLEAR IN WIDTH. CONTRACTOR SHALL PROVIDE MACH 24 HORIZONTAL OUTLET BOXES AS NECESSARY.

9. COORDINATE INSTALLATION OF RECESSED BOX AND BRANCH CIRCUIT WITH FRAMING CONTRACTOR.

THE WHITTIER - PHASE 1
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BOOMTOWN DEVELOPMENT COMPANY
**NOTES:**

- **OVERCURRENT**
  - 100 AMP
  - 60 AMP
  - 50 AMP
  - 45 AMP
  - 40 AMP
  - 90 AMP

- 2#12, 1#12G, 1/2"C
- 2#10, 1#10G, 1/2"C
- 2#8, 1#10G, 1/2"C
- 2#8, 1#10G, 1/2"C
- 2#6, 1#10G, 3/4"C

**SERVICE ENTRANCE**

- RATED: LIGHTING LOAD 210 VA 125.00% 263 VA

**CIRCUIT DESCRIPTION**

- 27 GARAGE DOOR OPENER (GFCI) 20 A 1 POLE/1 PHASE
- 28 15 -- -- --
- 13 CLOTHES DRYER 30 A 2 POLES/2 PHASE
- 12 WASHING MACHINE 20 A 1 POLE/1 PHASE
- 10 REFRIGERATOR 20 A 1 POLE/1 PHASE
- 8 RANGE (GFCI) 20 A 1 POLE/1 PHASE

**CONDUCTOR SIZES ARE BASED ON 75°C, COPPER CONDUCTORS, AND EMT. CONTRACTOR SHALL PROVIDE LARGER CONDUITS AS REQUIRED.**

**CONDUCTOR AND CONDUIT SIZES LISTED ARE THE MINIMUM REQUIRED FOR THE ASSOCIATED OVERCURRENT DEVICE SHOWN. CONTRACTOR MAY UPSIZE CONDUCTORS AND/OR CONDUIT.**

**NOTES:**

A. ALL 20A/1P CIRCUIT BREAKERS ARE TO BE ARC-FAULT CIRCUIT (AFCI) BREAKERS UNLESS NOTED OTHERWISE.

C. PROVIDE TWO SPARE 1/2" CONDUITS STUBBED UP INTO ACCESSIBLE ATTIC SPACE.

- PROVIDE THREE TERMINAL BLOCKS AS SHOWN.
- PROVIDE SIZED CONDUIT AS SHOWN.
- PROVIDE SIZE 3/4" CONDUIT AS SHOWN.
- PROVIDE SIZED CONDUIT AS SHOWN.
- PROVIDE SIZED CONDUIT AS SHOWN.

**ONE-LINE DIAGRAM**

- TO UTILITY TRANSFORMER 3-UNIT METER BANK

**THE WHITTIER - PHASE 1**

**ONE-LINE DIAGRAM**

- SUPPLY FROM ONE-LINE DIAGRAM ENCLOSURE: VOLTAGE: 240/120V A.I.C. RATING: 10,000 LOAD CENTER SCHEDULE

- HOUSE PANEL
- GRAY PVC CONDUIT
- PROVIDE 3" GRAY PVC CONDUIT WITH SWEEP STEEL ELBOWS, ALONG CONSTRUCTION PER 5TH JAW.
- PROVIDE GROUNDING ELECTRODE AND GROUNDING ELECTRODE CONDUCTORS AS REQUIRED BY NEC 250. PROVIDE WEATHERPROOF INTERSYSTEM BONDING EQUIPMENT REQUIRED BY NEC 250. PROVIDE GROUNDING ELECTRODE AND GROUNDING ELECTRODE CONDUCTORS AS REQUIRED BY NEC 250.
## UNIT LOAD CALCULATION

### UNIT TYPE: A-1

#### SF/QTY VA TOTALS

<table>
<thead>
<tr>
<th>Description</th>
<th>SF QTY</th>
<th>VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWELLING UNIT LIGHTING, GENERAL-USE RECEPTS, BATHROOM RECEPT, OUTDOOR RECEPT</td>
<td>1,558</td>
<td>4,674</td>
</tr>
<tr>
<td>SMALL APPLIANCE CIRCUIT #1 LOAD (RESIDENTIAL UNIT)</td>
<td>1,500</td>
<td>1,500</td>
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<tr>
<td>SMALL APPLIANCE CIRCUIT #2 LOAD (RESIDENTIAL UNIT)</td>
<td>1,500</td>
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<tr>
<td>LAUNDRY CIRCUIT LOAD (RESIDENTIAL UNIT)</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>GARBAGE DISPOSAL</td>
<td>1,008</td>
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</tr>
<tr>
<td>MICROWAVE</td>
<td>1,000</td>
<td>1,000</td>
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<tr>
<td>DISHWASHER</td>
<td>740</td>
<td>740</td>
</tr>
<tr>
<td>CLOTHES DRYERS (NOT ON THE LAUNDRY CIRCUIT)</td>
<td>5,000</td>
<td>5,000</td>
</tr>
</tbody>
</table>

**TOTAL GENERAL LOAD:** 16,922 VA

### NEC 220.82 CALCULATION

**FIRST 10 kVA AT 100%, REMAINDER AT 40%**

- **FIRST 10,000 VA AT 100%**
- **REMAINDER AT 40%**

- **100% OF CONDENSING UNIT**
- **100% OF FURNACE SECTION**
- **100% ELEC HEATER**
- **100% ELEC HEAT TAPE**

**TOTAL DIVERSIFIED LOAD:** 20 kVA

### LOAD FOR UNIT SERVICE

AMPS AT 240V/1PH, 3W

- **81 AMPS**

**TOTAL CONNECTED LOAD:** 24 kVA

---

## RESIDENTIAL MULTI-FAMILY LOAD CALCULATION

### BUILDING #6

<table>
<thead>
<tr>
<th>UNIT TYPE: A-1</th>
<th>QTY</th>
<th>CONNECTED VA</th>
<th>TOTAL kVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>23,670</td>
<td>47</td>
</tr>
<tr>
<td>A-1.1</td>
<td>1</td>
<td>23,766</td>
<td>24</td>
</tr>
</tbody>
</table>

**TOTAL CONNECTED RESIDENTIAL LOAD:** 3 71 kVA

### NEC TABLE 220.84 DIVERSITY FACTOR

<table>
<thead>
<tr>
<th>TOTAL CONNECTED LOAD</th>
<th>DIVERSITY FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>0.45</td>
</tr>
</tbody>
</table>

**TOTAL DIVERSIFIED LOAD:** 32 kVA

### LOAD FOR RESIDENTIAL SERVICE

AMPS AT 240V, 1PH, 3W

- **133 AMPS**

---

## BUILDINGS #1, #2, #4, #7, #8

<table>
<thead>
<tr>
<th>UNIT TYPE: A-1</th>
<th>QTY</th>
<th>CONNECTED VA</th>
<th>TOTAL kVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>23,670</td>
<td>47</td>
</tr>
<tr>
<td>A-1.1</td>
<td>2</td>
<td>23,766</td>
<td>48</td>
</tr>
</tbody>
</table>

**TOTAL CONNECTED RESIDENTIAL LOAD:** 4 95 kVA

### NEC TABLE 220.84 DIVERSITY FACTOR

<table>
<thead>
<tr>
<th>TOTAL CONNECTED LOAD</th>
<th>DIVERSITY FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>0.45</td>
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</table>

**TOTAL DIVERSIFIED LOAD:** 43 kVA

### LOAD FOR RESIDENTIAL SERVICE

AMPS AT 240V, 1PH, 3W

- **178 AMPS**

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**MESSAGE:**

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**CYNTERGY ENGINEERING, PLLC**

**CA # 3537**

**EXPIRES 6/30/2020**

**06/12/2020 PERMIT SET - PHASE 1**

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**THE WHITTIER - PHASE 1**

**Boomtown Development Company**

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**Christopher A. Harwell**

**PE**

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**THE WHITTIER - PHASE 1**

**Boomtown Development Company**

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**Christopher A. Harwell**

**PE**