

### **Bryant Development and Review Committee Meeting**

Boswell Municipal Complex - City Hall Conference Room

210 SW 3rd Street

Date: July 18, 2024 - Time: 9:00 AM

#### **Call to Order**

#### **Old Business**

#### **New Business**

#### 1. Senor Tequila - 2919 N Reynolds Road - Patio Roof Addition

- Requesting Approval for Site Plan Addition
  - 0891-PLN-03.jpg
  - <u>0891-PLN-02.jpg</u>
  - <u>0891-PLN-01.jpg</u>

#### 2. Dunkin Donuts - 2234 Reynolds Road

- Requesting Site Plan Approval for Renovation
- <u>0892-PLN-01.pdf</u>

#### 3. 19 Tanglewood Drive - Conditional Use Permit

Donald Whitfield - Requesting Recommendation for Conditional Use Permit for more than the allotted Square footage for Accessory Structures

• <u>0888-APP-01.pdf</u>

#### 4. 611 Providence Drive - Variance

Smith Associates Architects - Requesting Recommendation for Approval of Variance to allow for an increase of lot coverage from 25% to 30.1%

• <u>0897-APP-01.pdf</u>

#### 5. Little Caesar's - N Reynold's Road and Brown Ln

Thomas Engineering - Requesting Site Plan Approval

- <u>0886-PLN-02.pdf</u>
- <u>0886-DRN-01.pdf</u>

#### 6. Hillcrest Addition Subdivison - Springhill Road

Lemons Engineering Consultants - Requesting Recommendation for Approval of Preliminary Plat

- <u>0890-SWP-02.pdf</u>
- <u>0890-SWP-01.pdf</u>
- <u>0890-DRN-01.pdf</u>

- <u>0890-BOA-01.pdf</u>
- <u>0890-LTR-01.pdf</u>
- <u>0890-PLN-01.pdf</u>

#### 7. Glenn Hills Estates - Replat - Lot 6

Hope Consulting - Requesting Recommendation for Approval of Replat

• <u>0896-PLN-01.pdf</u>

#### 8. Skye Blue Duplexes - Subdivison Plat

Hope Consulting - Requesting Recommendation for Subdivison Plat Approval

- <u>0889-DRN-01.pdf</u>
- <u>0889-PLN-01.pdf</u>

#### 9. Shoal Road Two Lot Subdivison - Plat

Hope Consulting - Requesting Recommendation for Approval of Two Lot Subdivison

• <u>0894-PLN-01.pdf</u>

#### 10. Andres Woods - Lot 22 and 23 - Replat

Hope Consulting - Requesting Recommendation for Approval of Replat

• <u>0895-PLN-01.pdf</u>

#### 11. Hilltop Landing - Proposed Rezoning from R-2 to R-1.S

Hope Consulting - Requesting Discussion on Proposed Rezoning

- <u>0893-PLN-02.pdf</u>
- <u>0893-PLN-01.pdf</u>
- <u>0893-APP-01.pdf</u>
- <u>0893-LTR-01.pdf</u>

#### **Staff Approved**

**Permit Report** 

Adjournments







# Lagunita Franchise Operations Tony Antoon/Lee Millwood lee@lfops.com 601.940.6914







Store Number: 350624 2234 N Reynolds Road Bryant, AR 72022

# COOL PALETTE

ROOM INDENTIFICATION



# John S Vaci, Architect

1138 BERWICK ROAD BIRMINGHAM, AL 35242 205.541.7898 john@johnvaciarchitect.com



7/1/2024

| T-1.0  | COVER/TITLE SHEET (THIS PAGE)                    |
|--------|--|
| T-1.1  | SPECIFICATIONS                                   |
| T-1.2  | GENERAL NOTES AND NATIONAL ACCOUNTS              |
| F-1.1  | TOILET ACCESSORIES AND TILE FINISH SCHEDULE      |
| SP-1   | SITE PLAN  |
| SP-1.1 | SITE DETAILS                                     |
| A-1.0  | LIFE SAFETY PLAN                                 |
| A-1.1  | FLOOR PLAN, DOOR SCHEDULE & WALL TYPES           |
| A-1.2  | REFLECTED CEILING PLAN & CEILING FINISH SCHEDULE |
| A-1.3  | FLOOR FINISH PLAN                                |
| A-5.0  | EXTERIOR ELEVATIONS                              |
| A-5.1  | EXTERIOR ELEVATIONS                              |
| A-5.2  | EXISTING PHOTOS                                  |
| A-5.3  | EXTERIOR DETAILS                                 |
| A-6.0  | SIGN GUIDELINES AND DETAILS                      |
| A-8.0  | INTERIOR ELEVATIONS                              |
| A-9.0  | INTERIOR DETAILS                                 |
| K-1.0  | KITCHEN EQUIPMENT SCHEDULES                      |
| K-1.1  | KITCHEN EQUIPMENT PLAN                           |
| P-1.0  | PLUMBING SANITARY AND WATER PLANS                |
| P-2.0  | PLUMBING SANITARY AND WATER PLANS                |
| E-1.0  | ELECTRICAL LIGHTING PLAN                         |
| E2.0   | ELECTRICAL POWER PLAN                            |
| E-2.1  | ELECTRICAL OMNI DETAILS                          |
| E-3.0  | EXISTING DATA/RECONNECTION PLAN                  |
| E-3.1  | EXISTING DATA/RECONNECTION DETAILS               |
| ER-1.0 | EXISTING ELECTRICAL                              |

NOTE: GENERAL INFORMATION, CONDITIONS OF CONTRACT AND SUPPLEMENTAL CONTRACT CONDITIONS ARE REQUIRED BY DICKEY'S RESTAURANTS INCORPORATED AND ARE FULLY PART OF THIS WORK.

## **SECTION 03 3000**

# CAST-IN-PLACE CONCRETE

MATERIALS 4000 PSI

EXECUTION: Install concrete smooth and flush to receive floor finishes. Install 2' longx5/8 " dowels at 48" OC both sides of trench cuts. Float low spots with leveler and grind off high spots so no telegraphing of trenches is evident.

#### **SECTION 06 4100** ARCHITECTURAL WOOD CASEWORK

MANUFACTURERS

Acceptable Manufacturers - Plastic Laminate:

Formica Corp. (www.formica.com) Wilsonart International, Inc. (www.wilsonart.com)

MATERIALS

Lumber:

- Graded in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 3 requirements for quality grade specified, average moisture content of 6 percent.
- Exposed and semi-exposed locations: Closed grain hardwood, of quality suitable for opaque finish.

Plastic Laminate: NEMA LD-3.

High pressure decorative laminate:

Horizontal surfaces:

Backing sheet: 3 /4 inch INT-APA A-D plywood. Vertical surfaces:

Backing sheet: 25/32 inch exterior grade plywood.

#### Colors

Formica #459-58 "Bright White" Matte Finish

Formica #909-58 "Black" Matte Finish

- Wilsonart #7560K-18 "Studio Teak" Linearity Finish
- ACCESSORIES Fasteners: Type and size as required by conditions of use.
- Adhesives:
- Waterproof, water based type, compatible with backing and laminate materials.

Finish Hardware: As scheduled at end of Section. FABRICATION

Plastic Laminate Countertops:

Quality: AWI/AWMAC/WI Architectural Woodwork Standards, Section 11, Premium Grade.

Fabricate from sheet product with lumber fronts.

- Provide holes and cutouts for mounting of accessories.
- Shop assemble for delivery to project site in units easily handled. Prior to fabrication, field verify dimensions to ensure correct fit. Apply plastic laminate in full uninterrupted sheets; fit corners and joints to hairline. Slightly bevel arises. Apply laminate backing sheet to reverse side of laminate faced surfaces. Where field fitting is required, provide ample allowance for cutting. Provide trim for scribing and site conditions. Provide cutouts and reinforcement for plumbing, electrical, appliances, and accessories. Prime paint surfaces of cut edges.

#### EXECUTION

INSTALLATION

Install in accordance with AWI/AWMAC/WI Architectural Woodwork Standards. Set plumb, rigid and level. Scribe to adjacent construction with maximum 1/8 inch gaps. Fill joints between tops and adjacent construction with joint sealer as specified in Section 07 9200; finish flush.

FINISH HARDWARE SCHEDULE

Shelves shall be installed on heavy duty, adjustable knife brackets, Knape & Vogt No. 180-12, and Knape & Vogt No. 80 standards, as noted on Drawings. Standards and brackets to be steel with anochrome finish. Isolated, individual shelves shall be mounted directly to the wall with Knape & Vogt No. 204 steel brackets, anochrome finish, and length as shown on the Drawings.

#### WOOD TRIM

MATERIALS-National Account--Interior Trim:

ACCESSORIES

Fasteners: Type and size as required by conditions of use; plain steel for interior use; hot dip galvanized steel for exterior use.

Adhesives:

Waterproof, water based type, compatible with trim and substrate materials.

Fasteners: Type and size as required by conditions of use; plain steel for interior use; hot dip galvanized steel for exterior use.

FINISHES

Pre finished and touched up in field

Paint or stain as indicated on drawings PREPARATION

Provide blocking at all locations to 300 lb pull out at each fastener. Prior to installation, condition wood to average humidity that will prevail after installation.

INSTALLATION

Install in accordance with AWI/AWMAC/WI Architectural Woodwork Standards.

Install in longest practical lengths.

Set plumb and level.

Miter ends, corners, and intersections. Scribe to adjacent construction with maximum paper thick gaps. Fasten or adhere to supporting construction.

#### **SECTION 07 2115 BATT INSULATION**

MATERIALS

Thermal Batt Insulation:

Type: ASTM C665, glass fiber composition Facing: Reinforced Kraft paper vapor barrier on one side with stapling flanges or aluminum foil/scrim/Kraft paper vapor barrier on one side with stapling flanges. Free from urea-formaldehyde resins. Thermal resistance: 3-1/2 inches thick: R-value of 11.00. 3-5/8 inches thick: R-value of 13.00. 6-1/4 inches thick: R-value of 19.00. 6-1/2 inches thick: R-value of 22.0.

application.

opaque finish.

FABRICATION

Number of plies: 5.

INSTALLATION

mastic and secure.

free from binding and rattling.

HARDWARE SCHEDULE

with applicable accessibility code.

See Hardware schedule on sheet A2.1

GA-214 - Levels of Gypsum Board Finish.

GA-600 - Fire Resistance Design Manual.

GP Gypsum Corporation. (www.gp.com)

Temple-Inland. (www.templeinland.com)

USG Corporation. (www.usg.com)

USG Corporation. (www.usg.com)

MATERIALS - GYPSUM PANELS

to fire rated assemblies.

specified on drawings.

walls at locations specified on drawings.

MATERIALS - CEMENTITIOUS PANELS

locations as indicated on drawings.

ACCESSORIES

Adhesive:

Control joint.

INSTALLATION

penetration into framing.

Casing: GA-216, Type LC.

Joint Treatment Materials:

manufacturer's instructions.

At changes in backup material.

At maximum 30 feet on center,

JOINT TREATMENT

Above one jamb of openings in partitions

Trim Accessories: ASTM C1047.

galvanized finish, expanded flanges.

Finishing of Gypsum Board

PROJECT CONDITIONS

MANUFACTURERS

surfaces.

completed.

Adhesives: Water Resistant.

Performance duty level: Heavy Duty.

to match factory finish.

8-1/2 inches thick: R-value of 25.0. 9 inches thick: R-value of 26.0 10 inches thick: R-value of 30.00

12 inches thick: R-value of 38.00.

- INSTALLATION
- Staple or nail in place at maximum 12 inches on center.

Butt insulation to adjacent construction. Butt ends and edges.

- Carry insulation around pipes, wiring, boxes, and other components. Ensure complete enclosure of spaces without voids.
- Apply with vapor barrier facing towards exterior or interior of structure

based on local climate design requirements. Tape seal lapped flanges, butt ends, and tears and holes in facings.

#### **SECTION 07 9200** JOINT SEALERS

MATERIALS

Joint Sealer Type 1:

ASTM C920, Grade NS, single component butyl rubber type, non sag. Movement capability: Plus or minus 12-1/2 percent.

Color: To be selected from manufacturer's full color range, match adjacent finish.

Joint Sealer Type 2:

ASTM C920, Grade NS, single component silicone, non sag, mildew resistant

Movement capability: Plus or minus 25 percent.

Color: To be selected from manufacturer's full color range, match adjacent finish.

ACCESSORIES

Primers, Bondbreakers, and Solvents: As recommended by sealer manufacturer

Joint Backing:

- ASTM C1330, closed cell polyethylene foam, preformed round joint filler, non absorbing, non staining, resilient, compatible with sealer and primer, recommended by sealer manufacturer for each sealer type
- Size: Minimum 1.25 times joint width.
- PREPARATION

Remove loose and foreign matter that could impair adhesion. If surface has been subject to chemical contamination, contact sealer manufacturer for recommendation.

Clean and prime joints in accordance with manufacturer's instructions. Protect adjacent surfaces with masking tape or protective coverings.

Sealer Dimensions:

- Minimum joint size: 1/4 x 1/4 inch.
- Joints 1/4 to 1/2 inch wide: Depth equal to width Joints over 1/2 inch wide: Depth equal to one half of width.
- APPLICATION
- Apply products in accordance with manufacturer's instructions. Install sealers and accessories in accordance with ASTM C1193. Install joint backing to maintain required sealer dimensions. Compress
- backing approximately 25 percent without puncturing skin. Do not twist or stretch.

Use bondbreaker tape where joint backing is not installed. Fill joints full without air pockets, embedded materials, ridges, and sags.

Tool sealer to smooth profile.

Apply sealer within manufacturer's recommended temperature range. CLEANING

Clean adjacent surfaces.

#### SECTION 08 1113

HOLLOW METAL DOORS AND FRAMES Acceptable Manufacturers: National Account Timely.

MATERIALS

Steel Sheet: ASTM A1008/1008M, cold rolled-and galvanized at exterior

Door Core: Exterior doors: Foamed-in-place polyurethane insulation and galvanized

FABRICATION

Frames:

Anchors:

Undercut:

INSTALLATION

Set plumb and level.

08 7100; weld in place.

Design Clearances:

Fabricate doors and frames in accordance with ANSI/SDI A250.8. Fabricate exterior doors and frames from galvanized steel sheet. Doors:

Close top and bottom edges of doors with steel channel, minimum 16,

gage, extending full width of door, and spot welded to both faces,

Provide self-aligning tabs and slots to hold corners in alignment.

Do not use metallic filler to conceal manufacturing defects.

Provide one anchor at each jamb for each 30 inches of door height.

Fabricate with internal reinforcement for hardware specified in Section

with top channel flush and bottom channel recessed.

Fabricate from minimum 18 ga sheets.

Fabricate from minimum 18 gage sheets.

Provide one floor anchor welded to each jamb.

Between door and frame: Maximum 1/8 inch.

Between face of door and stop: 1/16 to 3/32 inch.

Install doors and frames in accordance with ANSI/SDI A250.11

Non-fire rated doors: Maximum 3/4 inch.

Secure to adjacent construction using fastener type best suited to Treat joints and fasteners in gypsum board in accordance with GA-214. ADJUSTING: Touch up minor scratches and abrasions in primer paint Levels of Finish: Surfaces in service areas: Level 1 finish Surfaces to receive tile: Level 2 finish. **SECTION 08 1416** Surfaces to receive wall coverings: Level 4 finish FLUSH WOOD DOORS Surfaces to receive semigloss or gloss paints: Level 5 finish. MATERIALS--Order through National Account Flush Wood Doors: WDMA I.S.1A. Pre-Hung Timely **SECTION 093000** Core type: Solid, non-rated: Type PC - Particleboard Core, bonded, TILING Wood veneer faces: Closed grain hardwood, of quality suitable for MANUFACTURERS Per drawings and Dunkin' Standard MATERIALS Fabricate doors in accordance with WDMA I.S.1A. See Finish Schedule ACCESSORIES See Drawings for corner guards, wall trim and floor ramp details. Latex-Portland Cement Mortar: ANSI A118.4, polymer modified dry set **SECTION 087100** DOOR HARDWARE Dry Set Portland Cement Mortar: ANSI A118.1, polymer modified dry MANUFACTURERS--Order through National Account set type. Epoxy Adhesive: ANSI A118.3, thin set bond type. Install hardware in accordance with approved hardware schedule and manufacturer's instructions. Install mortise items flush with adjacent PREPARATION Install locksets, closers, and trim after finish painting. Set thresholds in Clean surfaces to remove loose and foreign matter that could impair adhesion. Mount closers so that closers and closer arms are not visible on Remove ridges and projections. Fill voids and depressions with corridor or public side of doors or on exterior of building. patching compound compatible with setting materials. PROTECTION Remove or protect hardware until painting is Allowable Substrate Tolerances: Thin set method: ADJUSTING Test and adjust hardware for quiet, smooth operation, Maximum variation in substrate surface: 1/8 inch in 8 feet. Maximum height of abrupt irregularities: 1/32 inch. Adjust doors to operate with maximum opening forces in accordance Thick set method: Maximum 1/4 inch in 10 feet variation in substrate surface. Test concrete substrate to ASTM D4263; do not install tile until surfaces are sufficiently dry. INSTALLATION Install crack suppression membrane in accordance with manufacturer's instructions. Methods: **SECTION 092900** Walls: ANSI A108.6, thin set with epoxy adhesive. **GYPSUM BOARD** Floors: ANSI A108.5, thin set with latex-portland cement mortar. Gypsum Association (GA) (www.gypsum.org): Minimize pieces less than one half size. Locate cuts to be GA-216 - Recommended Specifications for the Application and inconspicuous. Lay tile to pattern shown on Drawings. Do not interrupt tile pattern through openings. Joint Widths: Do not install gypsum board until building is substantially weathertight. Ceramic tile: 1/8 inch, plus or minus 1/16 inch Maintain temperature in spaces in which work is being performed Porcelain and Quarry tile: 1/4 inch, plus or minus 1/8 inch. PREPARATION above 50 degrees F during and after installation. Make joints watertight, without voids, cracks, excess mortar, or excess grout. Align joints in wall and floor of same-sized tile. Acceptable Manufacturers - Gypsum Panels: Fit tile around projections and at perimeter. Smooth and clean cut edges. Ensure that trim will completely cover cut edges. Miter all outside corners of tile. National Gypsum Co. (www.nationalgypsum.com) Install Trim: Inside corners: Cove units. Outside corners: Bead units. Acceptable Manufacturers - Cementitious Panels: Base: Base units. Exposed tile ends: Bullnose units. Allow tile to set for a minimum of 48 hours before grouting. Regular Gypsum Board: ASTM C1396; 48 inches wide x thickness Grout tile joints in accordance with ANSI A108.10 without excess indicated, maximum practical length, tapered edge. grout. Fire Resistant Gypsum Board: ASTM C1396, Type X; 48 inches wide x thickness indicated, maximum practical length, tapered edge; apply **SECTION 095100** Water Resistant Gypsum Board: ASTM C1396; 48 inches wide x ACOUSTICAL CEILINGS thickness indicated, maximum practical length, water resistant; apply MANUFACTURERS to walls to receive tile, sanitary wall panels and walls at locations Acceptable Manufacturers - Suspension System: Armstrong World Industries Fire Resistant, Water Resistant Gypsum Board: ASTM C1396, Type X; USG Corporation (www.usg.com) 48 inches wide x[thickness indicated, maximum practical length, Acceptable Manufacturers - Acoustical Units: water resistant; apply to walls to receive tile, sanitary wall panels and Armstrong World Industries USG Corporation (www.usg.com) Substitutions: Not permitted. Cementitious Panels: ANSI A 118.9, high density, cementitious with MATERIALS glass fiber reinforcing, 5/8 inch thick x 48 inches wide, maximum practical length, ends and edges square cut; apply to walls in Suspension Grid System Grid type: Exposed T. Material: Galvanized steel. Fasteners: ASTM C1002, Type W screws, minimum 5/8 inch Runners: 1-1/2 inches high, 15/16 inch exposed width, flush slotted profile. Perimeter molding: Angle shape. Type recommended by gypsum panel manufacturer. Finish: Factory applied enamel paint, sprayed and baked, Color: See Finish Schedule Material: Formed steel, minimum 26 gage core steel, hot dip Accessories: Stabilizer bars, clips and splices Acoustical Panels (Public Areas) Corner reinforcement: GA-216, Type CB-100 x 100. Size: 24 x 48 inches x 3/4 inch thick. Edge configuration: Square Performance requirements: Tested in accordance with ASTM E1264. NRC: 0.55 Reinforcing tape and joint compound; ASTM C475. CAC: 35 Light reflectance: LR-0.84. Install panels and accessories in accordance with ASTM C754, Acoustical Panels (Kitchen, Service Line and Food Areas) : GA-216, and manufacturer's instructions. Finish: Embossed, vinyl-laminated face with sealed back and edges, Apply panels at fire-rated assemblies as required by design assembly. color: white INSTALLATION OF CEMENTITIOUS PANELS Size: 24 x 48 inches x 5/8 inch thick. Install cementitious panel in accordance with ANSI A108.11 and Edge configuration: Square. Performance requirements: Tested in accordance with ASTM E1264 Install control joints at walls and partitions: NRC: N/A CAC: 40. Light reflectance: LR-0.80. ACCESSORIES

Support Channels: Galvanized steel; size and type to suit application. Hanger Wire:

ASTM A641, minimum 12 gage galvanized steel.

Touch-Up Paint: Color to match acoustical panels and suspension grid

INSTALLATION

Install ceilings in accordance with ASTM C636 and CISCA Handbook. Minimize panels less than one half size. Install molding around perimeters and abutting surfaces. Miter molding at exterior corners; cut flanges and bend web to form interior corners. Space hanger wires maximum 48 inches on center. Install additional hangers where required to support light fixtures and ceiling supported equipment. Do not suspend hangers directly from metal deck. Attach steel channel horizontally to adjacent framing members; place hanger at regular spacing. Hang suspension system independent of walls, columns, ducts, pipes, and conduit.

Where ducts or other equipment prevent regular spacing of hangers: Reinforce nearest related hangers to span extra distance, or: Suspend steel channel horizontally beneath duct or equipment; place hanger at regular spacing.

Install main tees at maximum 48 inches on center. Install cross tees to form 24 x 48 inch modules. Lock cross tees to main tees. Support ends of tees on flange of perimeter molding.

Place acoustical panels with edges resting flat on suspension grid. Cutting Acoustic Units:

Cut to fit irregular grid and perimeter edge trim and around penetrations.

Locate cuts to be concealed.

Cut and field paint exposed edges of reveal edge units to match factory edge.

Installation Tolerances: Ceilings level to 1/8 inch in 12 feet measured in any direction.

ADJUSTING

Touch up minor scratches and abrasions to match factory finish.

#### **SECTION 097200** WALL COVERINGS

PROJECT CONDITIONS

Maintain minimum temperature of 50 degrees F in areas to receive wall covering for three days prior to, during, and after installation. MANUFACTURERS

Acceptable Manufacturers: National Accounts Furnished by Owner Substitutions: Not permitted

Sealer: Type recommended by wall covering manufacturer. Adhesive:

Type recommended by wall covering manufacturer; water based, mildew resistant.

Patching Compound: White latex type.

Prepare substrate to receive wall covering:

Remove high spots. Fill holes, cracks, and depressions with patching compound; sand smooth and flush. Remove loose and foreign matter that could impair adhesion. Apply sealer as recommended by wall covering manufacturer.

Remove wall covering from packaging, place in installation area, and allow to acclimatize for minimum 24 hours prior to installation. INSTALLATION

Install in accordance with manufacturer's instructions. Install panels vertically.

Provide field measurement of wall areas to supplier--graphics are to be scaled to fit field measurements. Do not cut off or crop graphics--use full sized pieces.

Smooth wall covering to eliminate bubbles and ensure adhesion. Remove excess adhesive from seams immediately. Use panels in

exact order they are cut from roll. Reverse every other panel of non-matching patterns. Fill in above and below openings with panels cut in consecutive order from roll.

Install wall covering free from bubbles, wrinkles, open or loose seams, and other visible defects

## **SECTION 097733**

SANITARY WALL PANELS MANUFACTURERS Acceptable Manufacturers: Crane Composites. (www.cranecomposites.com) Marlite. (www.marlite.com) Substitutions: Not permitted. MATERIALS Sanitary Wall Panels: Type: Glass fiber reinforced plastic, USDA approved for incidental food contact. Size: 3/32 inch thick x 48 inches wide x maximum practical length. Color: White Surface texture: Low gloss, pebbled ACCESSORIES Trim: One piece extruded PVC, manufacturer's standard profile. Inside and outside corners, division bar, and J-molding. Color: To match panels. Adhesive: Compatible with panels and substrate; recommended by panel manufacturer Joint Sealer: Specified in Section 07 9200. Patching Compound: White latex type. PREPARATION Prepare substrate to receive panels: Remove high spots. Fill low spots with patching compound; sand smooth. Remove loose and foreign matter that could impair adhesion. INSTALLATION

Install in accordance with manufacturer's instructions. Install trim:

construction.

**PROJECT CONDITIONS** 

Do not apply materials when surface and ambient temperatures or relative humidity are outside ranges required by paint manufacturer. Maintain ambient and substrate temperatures above manufacturer's minimum requirements for 24 hours before, during and after paint application. Do not apply materials when relative humidity is above 85 percent or when dew point is less than 5 degrees F different than ambient or surface temperature. Provide lighting level of 30 footcandles at substrate surface.

MANUFACTURERS Acceptable Manufacturers: Sherwin Williams. (www.sherwin-williams.com)

ACCESSORIES Latex filler. Fastener Head Cover Materials: Latex filler. EXAMINATION

Test shop applied primer for compatibility with subsequent coatings Measure moisture content of surfaces using electronic moisture meter. Do not apply coatings unless moisture content of surfaces are below following maximums:

Gypsum board and plaster: 12 percent. Wood: 15 percent, measured to ASTM D4442. PREPARATION General:

Protect adjacent and underlying surfaces. Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing. Correct defects and clean surfaces capable of affecting work of this section. Seal marks that may bleed through surface finishes with shellac.

dry. Gypsum Board:

Plaster:

neutralize high alkali surfaces.

Uncoated Ferrous Metals: SSPC Method SP2 - Hand Tool Cleaning or Method SP3 - Power Tool Cleaning Shop Primed Ferrous Metals:

SSPC Method SP2 - Hand Tool Cleaning or Method SP3 - Power Tool Cleaning. Feather edges to make patches inconspicuous. Prime bare steel surfaces. Interior Wood:

Wipe off dust and grit. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Existing Surfaces:

Remove loose, flaking, powdery, and peeling paints. Lightly sand glossy painted surfaces. Fill holes, cracks, depressions and other imperfections with patching compound; sand flush with surface. Remove oil, grease, and wax by scraping; solvent wash and thoroughly rinse. Remove rust by wire brushing to expose base

metal. APPLICATION

Apply paints in accordance with MPI Painting Manual, Premium Grade finish requirements. Apply primer or first coat closely following surface preparation to prevent recontamination. Do not apply finishes to surfaces that are not dry. Apply coatings to minimum dry film thickness recommended by manufacturer. Apply each coat of paint slightly darker than preceding coat unless specified otherwise. Apply coatings to uniform appearance without laps, sags, curtains, holidays, and brush marks. Allow applied coats to dry before next coat is applied. When required on deep and bright colors apply an additional finish coat to ensure color consistency. Continue paint finishes behind wall-mounted accessories. Sand between coats on interior wood and metal surfaces. Match final coat to approved color samples. Where clear finishes are specified, tint fillers to match wood. Work fillers into grain before set. Wipe excess from surface. Prime concealed surfaces of exterior wood and interior wood in contact with masonry or cementitious materials] with one coat primer paint. Remove paint from adjacent surfaces. Touch up or refinish

disfigured surfaces Mechanical and Electrical Components: Paint factory primed equipment. Remove unfinished and primed louvers, grilles, covers, and access panels; paint separately. Paint exposed and insulated pipes, conduit, boxes, ducts, hangers, brackets, collars, and supports unless factory finished. Do not paint name tags or identifying markings. Paint exposed conduit and electrical equipment in finished areas. Paint duct work behind louvers, grills, and diffusers flat black to minimum of 18 inches or beyond sight line.

Do not Paint: Surfaces indicated on Drawings or specified to be unpainted or

unfinished. Surfaces with factory applied finish coat or integral finish. Architectural metals, including brass, bronze, stainless steel, and chrome plating. **FINISH SCHEDULE** Doors and Trim

Back Door Galvanized Iron, New

Panel-to-panel joints: Division bar. Internal and external corners. Exposed edges: J molding. Secure to substrate

Cut panels to fit at perimeter and around penetrations. Ensure that trim will completely cover cut edges. Maintain 1/8 to 3/16 inch expansion space at perimeter and around penetrations. Adhere panels to substrate with full bed of adhesive. Install continuous bead of joint sealer between panels and trim and between trim and adjacent

#### **SECTION 099100** PAINTING

Extra Materials: 1 gallon of each color and sheen.

Accessory Materials: Paint thinners and other materials required to achieve specified finishes; commercial quality. Patching Materials:

Impervious Surfaces: Remove mildew by scrubbing with solution of trisodium phosphate and bleach. Rinse with clean water and allow to

Fill minor defects with filler compound. Spot prime defects after repair.

Fill hairline cracks, small holes, and imperfections with latex patching plaster. Finish smooth and flush with adjacent surfaces. Wash and

Aluminum: SSPC Method SP1 - Solvent Cleaning.

Pro Industrial Pro-Cryl Universal Primer, B66-310 Primer: series, <100 g/L VOC

1st coat: Pro Industrial Zero VOC Acrylic Semi-Gloss, B66-650 series, 0 g/L VOC

2nd coat: Pro Industrial Zero VOC Acrylic Semi-Gloss, B66-650 series, 0 g/L VOC Aluminum Trim

Prime Coat: S-W DTM Wash Primer. B71Y1 (3.4 mils. wet. 0.7 mils. dry)

1st coat: Pro Industrial Zero VOC Acrylic Semi-Gloss, B66-650 series 0 g/L VOC

2nd coat: Pro Industrial Zero VOC Acrylic Semi-Gloss, B66-650 series 0 g/L VOC

Doors and Trim

Galvanized Iron, New

Semi-Gloss Finish

Primer: Pro Industrial Pro-Cryl Universal Primer, B66-310 series, <100 g/L VOC

1st coat: Pro Industrial Zero VOC Acrylic Semi-Gloss, B66-650 series 0 g/L VOC

Pro Industrial Zero VOC Acrylic Semi-Gloss, 2nd coat: B66-650 series 0 g/L VOC

Wood, New Prefinished

Walls in Sales Area (where wall covering is not used) Egg-Shell Finish -- Low Odor Zero VOC System

ProMar 200 Zero VOC Interior Latex Primer, Primer:

B28W2600 0 g/L VOC

1st coat: ProMar 200 Zero VOC Eg-Shel B26-2600 series, 0 g/L VOC

2nd coat: ProMar 200 Zero VOC Eg-Shel B26-2600 series, 0 g/L VOC

Soffits, Ceilings at Restroom, Drive-Thru, Vestibule

Egg-Shel Finish -- Low Odor Zero VOC System

ProMar 200 Zero VOC Interior Latex Primer. Primer: B28W2600 0 g/L VOC

1st coat: ProMar 200 Zero VOC Eg-Shel B26-2600 series, 0 g/L VOC

2nd coat: ProMar 200 Zero VOC Eg-Shel B26-2600 series, 0 g/L VOC

#### **SECTION 10 2813 TOILET AND KITCHEN ACCESSORIES**

PRODUCTS MANUFACTURERS--Purchase from National Account ACCESSORIES

Fasteners: Stainless steel where exposed, hot dip galvanized where concealed; type best suited to substrate conditions.

INSTALLATION

Install in accordance with manufacturer's instructions.

Set plumb, level, square, and rigid.

Install wiring between power supply and accessories if required.

Install iron pipe toilet tissue and paper towel dispenser on solid blocking and use fasteners able to withstand a 200lb vertical load applied during walk through inspection

SCHEDULE

See Toilet Accessories Schedule.

#### **EXCAVATION AND FILL**

MATERIALS

- Engineered Fill: Crushed stone or gravel graded per ASTM C136. Sand: Natural river or bank sand, washed, free from silt, clay, loam, friable or soluble materials, and organic matter, graded per ASTM C136.
- Common Fill: Reused site or imported soils free from trash, debris, roots over 1 inch in diameter, matted roots, rocks over 3 inches in diameter, topsoil, and other deleterious matter.

TRENCHING

Cut trenches sufficiently wide to allow for installation of utilities and for inspection of work.

Hand trim excavations; remove loose matter.

Remove rocks and obstructions.

Correct over-excavation by use of lean concrete or pipe bedding material.

BACKFILLING

Backfill under structures with Engineered Fill.

Place backfill in loose, even, horizontal lifts maximum 8 inches deep. Compact each lift to 95 percent of ASTM D1557 modified] Proctor maximum dry density.

Backfill outside of structures and under paving with Common Fill. Place backfill in loose, even, horizontal lifts maximum 8 inches deep. Compact each lift to 95 percent of ASTM D1557 modified] Proctor maximum dry density.

**DIVISION 22 - PLUMBING** See Plumbing Drawings **DIVISION 23 - HEATING, VENTILATING AND AIR CONDITIONING** (HVAC) See HVAC Drawings

**DIVISION 26 - ELECTRICAL** See Electrical Drawings







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|---|--------------|--------|---------|-------|
| U | paatea       | vendor | Contact | LIST  |

Please use this updated / revised list for vendor contacts - some details have recently changed. Also available on the Extranet / National Accounts

| Direct Purchase Category                 | Lead Time 🔻 | Vendor/Order Form 💎             | Vendor Contact Person 🛛 👻         | Vendor Phone 🔹 🔻                               | Vendor Email 🔹   |
|--|-------------|---------------------------------|-----------------------------------|--|--|
| Air Curtains                             | 4 weeks     | Parts Town                      | Michael Freeburg                  | 815-823-5489                                   | mfreeburg@partstown.com  |
| Awning Material                          | 5 Week      | Flexcon (previously Arlon)      | Monica Navejar                    | 210-798-1921                                   | <u>Mnaveiar@flexconindustrial.com</u>  |
| Bollard Covers                           | 2 Week      | Post Guard                      | Michelle Mobbs                    | 248-663-9115                                   | michelle@postguard.com   |
| Bollard Covers (orange)                  | 3 Week      | Ideal Shield                    | Bindu Abraham or Richard<br>Popp  | Bindu 888-308.7290<br>Rich 248-219-2907        | BAbraham@idealshield.com or<br>rpopp@idealshield.com   |
| Ceiling Tile & Grid                      | 2. Week     | Armstrong World<br>Industries   | Sherry Brunt / Maureen<br>Cone    | 1-800-442-4212 ext. 1                          | sabrunt@armstrongceilings.com /<br>mmcone@armstrongceilings.com  |
| Cleaning and Sanitation program          | 4 Week      | Proctor & Gamble                | Abby Craig                        | 513-983-7928                                   | craiga 1@pg.com  |
| Coming Soon Banners                      | 5 Week      | LSM Now                         | Megan Buckley                     | 1-855-576-6669                                 | Ismnow@weldmedia.com   |
| Door Handles (DD and BR)                 | 2 Week      | Trimco                          | Anthony Mastrojanni               | 410-804-5070                                   | amastroianni@trimcohardware.com  |
| Drive Thru Windows                       | 3 Week      | QuikServ                        | Brian McClocskey                  | 713-849-5882                                   | hmccloskev@quikserv.com  |
| Drive Thru Windows                       | 6-8 Week    | Ready Access                    | Anna Ellis                        | 1-800-621-5045 X120                            | Anna@ready-access.com  |
| Drive Thru Head Sets and Timers          | 3 Week      | HME                             | Mike Marques                      | 858-535-6000                                   | mmarques@hme.com   |
| Drive Thru Timers                        | o week      | Acrelec                         | Kavin Donohua                     | 0.412-950-4116                                 | kevin donobue@acrelec.com  |
| EIFS (Exterior Insulation Finish         |             | Acielec                         | Kevin Dononde                     | 0412-300-4110                                  | <u>keyntaonondelwacherec.com</u>   |
| System)                                  | 4 Week      | Dryvit Systems                  | Robert Dazel                      | C: 734-276-0404                                | <u>bob.dazel@dryvit.com</u>  |
| Exterior Finishes                        | 2 Week      | Nichiba                         | Bianca Jimenez / Matt<br>Hatfield | 470-388-3957 460-401-3                         | dunkindonuts@nichiha.com:dunkin@nichiha.com  |
| Exterior Finishes                        | 2 Week      | Woodtone                        | Tim Foster                        | 800-663-9844 X1122                             | timf@woodtone.com  |
| Exterior Metal (Building                 |             |                                 |                                   |  |  |
| Band/Canopy)<br>Exterior Metal (Building |             | AGI                             | Jetf Ogle                         | (865)771-5676                                  | Dunkinbrands@agi.net   |
| Band/Canopy)                             | 8 Week      | Uni-Structures, Inc.            | Dana Fredericks                   | 678-974-1773                                   | d.fredericks@unistructures.com   |
| Exterior Metal (Canopy)                  | 10-12 Week  | LSI Industries                  | Sandi Halo                        | 330.495.4692                                   | sandi.halo@lsicorp.com   |
| Flooring & Wall: Tile                    | 2 Week      | Crossville/Hamilton             | Aaron Graves                      | 614-358-7963                                   | Agraves@hamiltonparker.com   |
| Flooring & Wall: Tile                    | 8-10 Week   | Dal Tile                        | Paula Tosti/Terrie Miller         | 978-835-7793;216.409.31                        | paula.tosti@daltile.com;terrie.miller@daltile.com  |
| Flooring, Epoxy                          | 2 Week      | Stonhard                        | Scott Garstka                     | 1-800-854-0310                                 | sgarstka@stonard.com   |
| FRP (Crane Composites) from HJC          | 4 Week      | ніс                             | Barry Bryant                      | 3555   | barry.bryant@hjcinc.com  |
| Generators                               | 10 Week     | Grainger                        | Valerie Jenkins                   | 503-887-6775                                   | Valerie.ienkins@grainger.com   |
| High Speed Internet                      |             | Comcast                         | ***                               | 844-389-4641                                   | DBI Comcast Ordering@comcast.com   |
| HVAC                                     | 30 Week     | Carrier (Dunkin Acct<br>NA7621) | Dennis Lane; Tom Dowling          | 860-422-5862; 470-323-<br>6471 Use Acct NA7621 | dennis.m.lane@carrier.com,<br>thomas.dowling@carrier.com   |
| HVAC                                     | 27 week     | Trane                           | Ionathan Balys                    | M-781-938-9700/F-8912                          | ionathan ralvs@trane.com   |
| нилс                                     | 25 week     | Rheem                           | Brett Smith                       | (918) 519-7251                                 | hrett smith@rheem.com  |
| HVAC Design Services                     | 2 Week      | NCA Consultants                 | Chris Witts                       | 877-530-0078                                   | marketing@ncaconsultants.com   |
| Interior & Exterior Craphics             | 4 Week      | DCS Petail                      | Karen McCue                       | 508-997-3000 EV- 3/1                           | harman weeks and a second and a second and a second a s |
| Vitchan Doors / Swing Doors              | 4 Week      | Elizon Corn                     | App Sprandal                      | E10 067 9901                                   | acarandal @cannoca.com   |
| Kitchen Doors / Swing Doors              | 4 week      | chason corp                     | Ann sprander                      | 212-201-2201                                   | reg62@captiveaire.com  |
| Kitchen Hoods / Exhaust                  | 4 Week      | Captive Aire Systems            | Woody Brink/Erin McEwen           | 813-435-3388 EX: 3                             | erin.mcewen@captiveaire.com  |
| Kitchen Hoods / Exhaust                  | 4 Week      | Horacio Sheet Metal             | Mike Tavares                      | 508-985-9940 X211                              | mike@horacios.com  |
| LED Reader Board                         | 4 Week      | Watchfire                       | David Watson                      | 877-446-4731                                   | david.watson@watchfiresigns.com  |
| Light Fixtures                           | 2-4 Week    | Villa Lighting                  |                                   | 1-800-325-0963                                 | dunkin@villalighting.com   |
| Light Fixtures                           | 3 Week      | Specialty Lighting              | Anush Kazarian                    | O:860-767-0110 X252                            | anush.kazarian@sslighting.com  |
| Light Fixtures                           | 1 week      | Light Check                     | Ralph Mosher                      | 508-422-9778                                   | ralph@lightcheck.com   |
| Loss Prevention Surveillance             | 6 Week      | March Networks                  | Graham Shelton                    | 909-622-4899                                   | Gshelton@marchproducts.com   |
| Loss Prevention Surveillance             |             | DTIQ                            | Sharon Costanza                   | 954-649-0951                                   | scostanza@dtiq.com   |
| Metal Trim (Branded)                     | 6 Week      | Tamlyn                          | Ian Daniels                       | 713-446-3075                                   | idaniels@tamlyn.com  |
| Metal Trim (Branded)                     | 8 Week      | Uni-Structures, Inc.            | Dana Fredericks                   | 678-974-1773                                   | d.fredericks@unistructures.com   |
| . 0                                      |             | *                               |                                   |  |  |
| Metal Trim (Branded)                     |             | Everbrite                       | Theresa Behr                      | 414-529-7280                                   | <u>tBehr@everbrite.com</u>   |
| Millwork Fabricator                      | 12 Week     | Horacio Sheet Metal             | Mike Tavares                      | 508-985-9940 X211                              | mike@horacios.com  |
| Millwork/Equipment Consolidator          | 8 Week      | Franke                          | Cathy Martin                      | 615-462-4109                                   | Cathy.Martin@franke.com  |
| minimony equipment consorration          |             |                                 |                                   |  | la a nan nanan n   |
| Millwork/Equipment Consolidator          | 12 Week     | Hockenbergs                     | Travis Hollenbeck                 | 913-980-3558                                   | travis.hollenbeck@trimarkusa.com   |

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| Millwork/Fourinment Consolidator  | 12 Week    | NDCP                              | John Duffy/James Mattick   | John: 508-440-1641      | john.duffy@natdcp.com/<br>iames.mattick@natdcp.com                |
|-----------------------------------|------------|-----------------------------------|----------------------------|-------------------------|---|
| Outdoor Patio Euroiture           | 8-10 Week  | Wasau Tile                        | Caitlin Gustafson          | (715) 241-0311          | roustafson@wausautile.com   |
| Outdoor Patio Furniture           | 2 week     | 24/7                              | Dorien Rose                | (323) 319-2727          | dorien rose@twentyfour7-global.com                                |
| Outdoor Patio Furniture           | 2 week     | Plantation Prestige               | Brian Bothmever            | 612-839-8752            | brothmever@plantationprestige.com                                 |
| Outdoor Patio Furniture (BR Only) | 2 Week     | Union Office Interiors            | Douglas Bumstead           | P: 978-752-1830         | Dhumstead@unionoffice.com   |
| Outdoor Patio Furniture (Dunkin'  | 2 WCCN     | onion office interiors            | bougius buinsteau          | 1.570752 2000           | boansteady antonomec.com  |
| and BR)                           | 10 Week    | Wabash                            | Tess Folk                  | 214.205.1044            | <u>tess.folk@playpower.com</u>                                    |
| Paint                             | N/A        | Benjamin Moore                    | Stacey White               | 857-250-7395            |   |
| Paint                             | N/A        | Sherwin Williams                  | Heather Bourgeois          | 646-841-4412            | Heather.R.Bourgeois@sherwin.com                                   |
| Pavement Stencils                 | 2 Week     | Pavement Stencil Company          | Calvin Bell                | 800.250.5547            | stencils@pavementstencil.com                                      |
|                                   |            |                                   | Mike Higgins/Tearesa       | Mike: 630-330-7577      | Mike.Higgins@pepsico.com;   |
| Pepsi Coolers                     | 4 Week     | Pepsi<br>Haines Japas and Cadhura | Hudson                     | Teresa: 803-413-3064    | tearesa.hudson@pepsico.com  |
| Restroom Fixtures & Accessories   | 1 Week     | LLC                               | Barry Bryant               | 800-459-7099; 479-899-3 | barry.bryant@hjcinc.com   |
| Restroom Fixtures & Accessories   | 2 Week     | Newton Distributors               | Jason Reyes                | 617-431-4433            | jason@newtondistributing.com                                      |
|                                   |            |                                   | x.                         |                         | Keith@restroomremodels.com /                                      |
| Restroom Fixtures & Accessories   | 2 Week     | Restroom Remodels                 | Keith Vanderbilt           | 617-500-2554            | Sales@restroomremodels.com  |
| Roofing: ALL                      | 6 Week     | Duro-Last Roofing                 | Terri Karr                 | 989-823-4501            | <u>terri.karr@holcim.com</u>                                      |
| Sign Manufacturer                 | 6 Week     | AGI                               | Jeff Ogle                  | (865)771-5676           | Dunkinbrands@agi.net  |
| Sign Manufacturer                 | 6-8 Week   | Everbrite                         | Theresa Behr               | 414-529-7280            | <u>dunkinbrands@everbrite.com /</u><br><u>tBehr@everbrite.com</u> |
| Sign Manufacturer                 | 8 week     | Persona Signs                     | Samantha Fieber            | 800-843-9888 Ext 304    | sfieber@personasigns.com  |
| Sign Manufacturer                 | 6-8 Week   | Poyant Signs                      | Bill Gavigan               | C:860-324-1353          | bgavigan@poyantsigns.com  |
| Solar Shades                      | 4 Week     | Roll-a-shade                      | Kristen Fannin             | P: 951.245.5077 x 114   | Kristen.Fannin@RollAShade.com                                     |
| Solid Surface Material            | 2 Week     | LG Hausy's                        | Michelle Allen             | 513-214-9939            | mallen@lxhausys.com   |
| Switchgear                        | 24-30 Week | Villa Lighting                    | use email                  | 314-633-0482            | dunkin@villalighting.com  |
| Switchgear                        | 20-24 Week | Accusery                          | Mike Thomas                | 502-400-8677            | mthomas@accu-serv.com   |
| Umbrellas & Umbrella Stands       | 5 Week     | East Coast Umbrellas              | Nicole Mason               | 910-462-2500 Ext 1226   | umbrellas@eastcoastumbrella.com /<br>nicole@eastcoastumbrella.com |
| Umbrellas & Umbrella Stands       | 6 week     | Plantation Prestige               | Brian Rothmever            | 612-839-8752            | brothmever@plantationprestige.com                                 |
| Umbrellas & Umbrella Stands       | 6-8 week   | Wabash                            | Tess Folk                  | 214.206.1044            | tess.folk@playpower.com   |
| Walk-In Box                       | 4-6 Week   | NDCP                              | Purchase Ops Team          | 609-845-2719            | WIBquotes@natdcp.com  |
|                                   | 1          |                                   | Alfrada Ortiz / Cindu      | Alfredo 718-201-5452    | Alfrede Ortiz@welfreeden.com (                                    |
| Wall Covering                     | 2 Week     | Wolf Gordon                       | Cedrone                    | Cindy 781-320-2972      | Cindy.Cedrone@wolfgordon.com                                      |
| Wall Covering                     | 2 Week     | Momentum                          | Kaitlyn Feaster/Ellen Ford |                         | EFord@momtex.com<br>Customerservice@momtex.com                    |
| Wall protection (Crane Corners,   |            |                                   |                            |                         | JBohannon@c-  |
| End caps)                         | 4 Week     | Impact Specialties                | Jay Bohannon               | 888.331.2031            | sgroup.com orders@impactspecialties.com                           |
| End caps)                         | 1 week     | нјс                               | Barry Bryant               | 800-459-7099; 479-899-3 | barry.bryant@hjcinc.com   |
| Water Booster System              | 2 Week     | McCann's Engineering              | Eleanor Hinson             | 818-637-7219            | eleanor.hinson@manitowoc.com                                      |
| Water Filtratation                | 3 Week     | 3M Filtration                     | Leticia Guzman             | (630) 836-1790          | lguzman@AWSDistributing.com /<br>AWS@AWSDistributing.com          |
| Water Filtratation                | 3 Week     | Everpure                          | John Hiner / Linda Morse   | 201-417-5564            | John.hiner@pentair.com /<br>linda.morse@pentair.com               |
| Water Heaters (Tankless)          | 1 Week     | Rinnai / HJC                      | Barry Bryant               | 800-459-7099; 479-899-3 | barry.bryant@hjcinc.com   |
|                                   | -          | ,                                 |                            |                         |   |

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# **GENERAL NOTES**

- - - g. Install finishes

    - THE HOOD.
    - clean and polish.

1. These General Notes are instructions to the Contractor and apply generally to all the work unless more specific information is shown in drawings or written in the specifications, standards and/or contracts.

2. All construction work shall be in accordance with the most current drawings, specifications and standards as modified by the Architect/Engineer--do not use outdated drawings.

3. An approved set of plans shall be maintained on the job site at all times.

4. All construction shall be conform to the best practice of each trade. Unless shown or noted otherwise, construction details or practices are common to the standard of the trade and per manufacturer's instructions.

#### 5. All construction shall conform to the applicable codes and authority requirements.

6. Provide partial lien wavers with any request for payment and final waivers at completion of the work and Certificate of Occupancy

7. The General Contractor is solely responsible for the scheduling and coordination of the work by all trades and the delivery of equipment. Complete the work in the following sequence--provide a schedule indicating the projected start and completion of each event AND FOR HOOD/OVEN, WALK-IN AND EQUIPMENT DELIVERY DATES: a. Demolition and space preparation--schedule utility services if required

b. Underground utilities, testing, inspection, photograph

c. Rough-in, keep the floors clear and unobstructed for all trades requiring ladders and scaffolding

d. Rough-in testing and inspection--photograph all rough-in prior to covering and photograph each signed off inspection sheet--send to architect for verification prior to payment

e. Install flooring under ovens and any flooring that extends under the walk in walls

f. Install ovens and walk in upon arrival, install hood duct and fan, light test in the presence of the Fire Marshall and then wrap duct. PROTECT EQUIPMENT FROM DAMAGE

h. Set fixtures, equipment, furnishing, signage and install trim

i. Schedule final inspections in the proper order and obtain the Certificate of Occupancy

8. The contractor shall visit the site prior to contract bidding and familiarize himself with any conditions relevant to the successful construction of the store.

9. The General contractor shall provide fire extinguisher in the locations and quantities and directed by the Fire Marshall but shall provide at least one.

10. ALL SHELVES, SINKS, AND GRAB BARS ARE TO BE MOUNTED ON SOLID BACKING AND WOOD BACKING MATERIALS ARE TO BE FIRE RATED IN FIRE WALLS

11. HOODS ARE TO SUPPORTED ON HEAVY DUTY UNISTRUT OR 3X3X1/4" STEEL ANGLES SPANNING BETWEEN FRAMING MEMBERS WITH 4@3/8" THREADED RODS EXTENDING DOWN TO BRACKETS ON

#### 12. Large equipment to be set before counters

13. Accept, unload, and check all equipment and material deliveries to the store--PROTECT ALL EQUIPMENT AND MATERIALS and if necessary arrange for offsite storage. Assemble and place equipment and remove all films and

14. Seal all tile joints with penetrating silicone sealant in two applications after the grout has been allowed to fully

15. Seal small joints with flush clear silicone caulk.

16. Prepare floors for smooth finish installation with no telegraphing. Bridge cracks in concrete floors with elastomeric membrane primed and fully adhered to floor-use RedGard liquid for cracks up to 1/8" and Crack Buster sheet for cracks up to 3/8" Custom Building Products 800.272.8786.

17. Drawings have been submitted for review by the Building and Health Departments. The Contractor shall obtain the necessary permits required for the works shown on these drawings prior to the start of the construction.

18. The Contractor shall locate and uncover all the underground utilities in advance of the construction and inform the Architect/Engineer of locations and depths and any issues related thereto or conflicts. DO NOT DAMAGE THE BUILDING UTILITIES.

19. Backfilling shall not be started until newly installed underground piping is tested and inspected. Backfill shall be installed in accordance with the relevant standards in 6 inch compacted lifts.

20. Keep dust and noise to an absolute minimum and protect the adjacent spaces from water penetration during cutting and cleaning operations. Clean up after completed work at the end of each day and keep the jobsite free and clear of any debris. Store materials carefully and if required obtain and pay for off-site storage.

21. Disposal of and stockpiling of excess material within the planning area shall be done in such a way that it will not create a nuisance to the ongoing works in general and the neighboring surroundings.

22. The Contractor shall not trespass beyond the project boundary lines unless a permit or written authorization has been obtained from the neighboring property owners involved.

23. Any damage on public area and/or on the clients premises caused by the ongoing project works shall be restored in its original condition, with no additional cost implication to the owners involved, as per following requirements: 24. All trees impacted by the ongoing construction works shall be replaces with the same size and type of tree at

same location or at a new location given by the local authorities or by the client.

25. Trim FRP walls typically with FRP trim corners except in main aisle ways trim corners with stainless steel corners. Trim any exposed walk in cooler corners with stainless steel.

26. Locate utilities before cutting or digging--know where they are and mark them--underground utilities shown on the plans are schematic only. It the contractor's responsibility to locate and avoid interference with existing lines. 27. ADA standards are to be followed and in general 40 inch clearance is maintained throughout the store and 36 inches at limited passageways. Questions about ADA heights and clearances should be directed to the Architect. All door hardware, lavatory fixtures and faucets shall meet ADA standards.

28. Gypsum Wall Board and ceilings: Provide US manufactured materials and finish in accordance with the Gypsum Board Association's guidelines and instructions. Follow fire rated assembly construction and mark wall ratings in 4" red letters above ceiling every 10'. Use vertical expansion track at all decks or framing members. 1/2" thickness may be used behind FRP if rating is not required. Use greenboard in all wet areas. Provide fire rated sealants where required and flash wall to floor along demising walls. Use fire treated wood and plywood for backing where wood is not allowed. Install ceilings in strict accordance with the manufacturer's instruction.

29. Metal or Wood Frames Walls: Use wood framing only where allowed and metal framing where the building is not allowed to have combustible materials. Provide materials from a Steel Framing Industry Association (SFIA) member and follow the guidelines and instructions set forth by SFIA. 3 1/2" track and utility stud framing 22mil. 30. Do not install walk-in cooler tight to walls--allow min 1" air space Stub wall closure is to be trimmed with FRP

corner molding. Any exposed corners of walk in cooler are to be trimmed with 4' high SS corner trim. 31. Conform to manufacturer's installation instructions and provide all warrantees.

32. Dimensions are to face of finish unless clearly shown otherwise.

33. The General contractor shall layout equipment and walls and clearly and accurately instruct other trades as to locations for rough in and provide study support for all rough in to hold in place through finish.

34. The General Contractor is to hang the front window signs, the menu boards, ADA SIGNS, AND THE HEALTH RELATED SIGNS REQUIRED FOR INSPECTION AT HAND SINKS





Lagunita Franchise Operations Tony Antoon and Damon Dunn tony@lfops.com 601.940.6914



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OTHER TILE OPTIONS--ALL INQUIRIES MUST MENTION THE NATIONAL ACCOUNT ASK THEM TO MATCH DALTILE (SAME COLOR NUMBERS)

CREATIVE==CONTACT INFORMATION PHONE: 800.207.2967 EXT. 3865 (DUNK) FAX: 518-452-9153 EMAIL: DUNKINTILE@CREATIVEMATERIALSCORP.COM

HAMILTON PARKER PHONE: 614-358-7887 EMAIL:TLEE@HAMILTONPARKER.COM DBI REP : TOM LEE 614.935.1465 EMAIL:JCAMPBELL@HAMILTONPARKER.COM DBI REP : JANET CAMPBELL 614.358.7815

|      | RESTROOM EQUIPMENT SCHEDULE        |   |                                      |  |  |  |  |  |  |
|------|------------------------------------|---|--------------------------------------|--|--|--|--|--|--|
| CODE | ITEM                               | MANUFACTURER &<br>PRODUCT #   | MOUNTING HEIGHT                      | REMARKS                                |  |  |  |  |  |
| 1    | GRAB BARS                          | ASI 3701-18P (18"), -36P<br>(36") & -42P (42")  | 36" MAX. A.F.F.                      | NOTE C                                 |  |  |  |  |  |
| 2    | SWING-UP GRAB BAR                  | BOBRICK #B-4998.99  | SEE INSTALLATION<br>INSTRUCTIONS     | NOTE C,<br>INSTALL<br>WHEN<br>REQUIRED |  |  |  |  |  |
| 3    | TOILET PAPER HOLDER                | KC PROFESSIONAL<br>09551  | 20" BOT OF UNIT,<br>SURFACE MOUNTED  |  |  |  |  |  |  |
| 4    | СОАТ НООК                          | ASI 0751  | 48" A.F.F. , MOUNTED<br>ON DOOR      |  |  |  |  |  |  |
| 5    | SOAP DISPENSER                     | DERMA FOAM E- KAY<br>CHEMICAL COMPANY   |                                      | NOTE A, C                              |  |  |  |  |  |
| 6    | AUTOMATIC HAND DRYER               | "WORLD VERDIDRI"<br>Q974-A - WHITE OR<br>Q973-A - STAINLESS<br>OR "EXCEL"<br>XLERATOR THIN AIR TA-<br>SI WG - WHITE OR TA-<br>SI WG - STAINLESS |                                      | NOTE A, C &<br>E                       |  |  |  |  |  |
| 7    | HAND DRYER WALL GUARD              | WORLD   | -                                    | NOTE F                                 |  |  |  |  |  |
| 8    | MIRROR (18"x30")                   | ASI 0620-2436   | 40" A.F.F. TO BOTTOM                 | NOTE C                                 |  |  |  |  |  |
| 9    | TRASH RECEPTACLE                   | ASI 0458  | 41"-45" A.F.F. TO<br>OPENING FOR ADA |  |  |  |  |  |  |
| 10   | BABY CHANGING STATION              | ASI 9012 HORIZONTAL<br>OR ASI 9015 VERTICAL   | 27" TO BOTTOM OF<br>UNIT             | NOTE C                                 |  |  |  |  |  |
| 11   | SANITARY NAPKIN DISPOSAL           | ASI 0852  | 24" TO TOP OF UNIT                   | WOMEN'S<br>RESTROOM<br>ONLY            |  |  |  |  |  |
| 12   | SEAT COVER DISPENSER<br>(OPTIONAL) | ASI 0477 SM   |                                      | (OPTIONAL)                             |  |  |  |  |  |
| 13   | WALL SHELF                         | ASI 0692-516 (5"x16")   | 42" A.F.F. FOR ADA;<br>NOTE C        | (OPTIONAL)                             |  |  |  |  |  |
|      |                                    | NOTES   |                                      |  |  |  |  |  |  |

NOTE A: OPERATING CONTROLS OF ALL HAND DRYERS, SOAP DISPENSERS AND MULTI PURPOSE UNITS TO BE 42" A.F.F. NOTE B: G.C. TO FIELD VERIFY ALL SIZES

NOTE C: PROVIDE BLOCKING FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES

NOTE F: AVAILABLE WITH HAND DRYER; CAN BE PURCHASED SEPARATELY (FOR REMODELS).

NOTE D: TOILET TISSUE & PAPER TOWEL DISPENSERS SUPPLIED FREE FROM LOCAL DCP; INSTALLED BY G.C.

NOTE E: HAND DRYER TO BE ORDERED FROM NATIONAL ACCOUNT SUPPLIER AND IS REQUIRED TO HAVE STANDARD DBI GREEN MESSAGING/BRANDING.

# **RESTROOM EQUIPMENT LIST**

ALTERNATE HANDS-FREE TOILET EQUIPMENT IS AVAILABLE FOR OPTIONAL USE IN RESTROOMS

WALL MOUNTED LAVATORY: "LUCERNE" BY AMERICAN STANDARD #0355.012. AUTOMATIC FAUCET (STANDARD): SLOAN #ETF-600-B-BDT, W/ TRANSFORMER #EL-154 AND 0.5 GPM AERATOR #ETEF-1024

#### TANK TOILET (STANDARD):

STANDARD OPTION: AMERICAN STANDARD CADET PRO RIGHTHEIGHT ELONGATED 1.28 GPF #215AA.104 (LEFT TRIP) #215AA.105 (RIGHT TRIP)

PRESSURE-ASSIST OPTION: AMERICAN STANDARD CADET FLOWISE WIGHTHEIGHT ELONGATED, PRESSURE ASSIST 1.1 GPF #2467.00 (LEFT TRIP) #2467.XXX (SPECIFY RIGHT TRIP)

TANKLESS TOILET (OPTIONAL):

AMERICAN STANDARD MADERA FLOWISE ELONGATED, 1.28 GPF #3043.001 MANUAL FLUSH (STANDARD): SLOAN REGAL 111.1.28 (3780046) FLUSHOMETER

AUTOMATIC FLUSH (OPTIONAL): SLOAN 8111-1.28 (3790071) EXPOSED, BATTERY POWERED, SENSOR ACTIVATED DUAL FLUSH FLUSHOMETER

URINAL:

AMERICAN STANDARD WASHBROOK FLOWISE 0.5 GPF HIGH EFFICIENCY URINAL #6590.001 <u>MANUAL</u>

FLUSH (STANDARD): SLOAN 186-0.5 (3782655) REGAL 186-1 AUTOMATIC FLUSH (OPTIONAL): SLOAN 8186-0.5 (3790068) TOUCHFREE OPERATION, METAL COVER, OVERRIDE BUTTON & FLUSHO METER BODY LESS HANGLE OPENNER. 'WATERLESS' URINAL (OPTIONAL - DD ELITE):

SLOAN WATERFREE URINAL WITH SLOANTEC GLAZE WES-4000-STG (1074000)

1. LOW FLOW PLUMBING FIXTURES MUST MEET FLUSH/FLOW FIXTURE VOLUMES STANDARDS OF 1.28 GPF TOILETS, 0.5 GPF URINALS, 0.5 GPM HAND WASH FAUCETS, AND 2.2 GPM POT SINK FAUCET (BY OTHERS) WITH 1.24 GPM SPRAY HEAD

(BY OTHERS) 2. G.C. TO PROVIDE PRICING FOR STANDARD EQUIPMENT UNLESS DIRECTED OTHERWISE BY FRANCHISEE.

VENDOR

**ACCESSORIES** 

CONTACT INFO FOR RESTROOM FIXTURES AND

RESTROOM REMODELS 15 HAMMATT ST. - PO BOX 34 IPSWICH, MA 01938 PHONE: 617-500-2554 / FAX: 617-845-0350 WWW.RESTROOMREMODELS.COM SALES@RESTROOMREMODELS.COM

NEWTON DISTRIBUTORS VENDOR CONTACT: PEDRO GRULLON P: 877-837-7745

E: PEDRO@NEWTONDISTRIBUTING.COM WWW.NEWTONDISTRIBUTING.COM

| DAL TILE PALETTE         |   |                 |   |   |   |   | RESERVED                                |
|--------------------------|---|-----------------|---|---|---|---|---|
| CODE                     | MATERIAL  | MANUFACTURER    | PRODUCT #   | DESCRIPTION / REMARKS   | VENDOR CONTACTS   | bite                                      | COM<br>LL RIGHTS ARE                    |
| G-01(C)                  | GROUT   | MAPEI           | ULTRSCOLOR PLUS FA<br># 107 - IRON  | CUSTOMER AREA<br>GROUT- SEE FINISH SCHEDULE FLOOR<br>TILE (FT) COMMENTS FOR LOCATION  |   | <b>CI, Arc</b><br>ICK ROAD<br>M, AL 3524; | 7898<br>ciarchitect.c                   |
|                          |   | CBP             | # 335 WINTER GRAY   | CUSTOMER AREA<br>GROUT- SEE FINISH SCHEDULE FLOOR<br>TILE (FT) COMMENTS FOR LOCATION  | ALL INQUIRIES MUST MENTION THE NATIONAL   | S VA<br>138 BERW<br>RMINGHA               | 205.541<br>n@johnva<br>ehted and are us |
| C 02                     | GROUT   | MAPEI           | ULTRSCOLOR PLUS FA<br># 11 - SAHARA BEIGE   | BACK OF HOUSE<br>GROUT- SEE FINISH SCHEDULE FLOOR<br>TILE (FT) COMMENTS FOR LOCATION  | ACCOUNT<br>WITH DUNKIN BRANDS<br>PHONE: 877-556-5728<br>EMAIL:NATIONAL.ACCOUNTS@DALTILE.COM | <b>NHC</b>                                | joh                                     |
| <u>0-02</u>              | CBP       #335 WINTER GRAY       BACK OF HOUSE       DBI REP : PAULA TOSTI         DBI REP : PAULA TOSTI       978.835.7793       978.835.7793         TILE (FT) COMMENTS FOR LOCATION       EMAIL: PAULA.TOSTI@DALTILE.COM |                 | DBI REP : PAULA TOSTI<br>978.835.7793<br>EMAIL: PAULA.TOSTI@DALTILE.COM                     |   | THESE DR  |   |   |
| <u>G-03</u>              | GROUT   | MAPEI           | ULTRSCOLOR PLUS FA<br># 38 - AVALANCHE  | BACK LINE<br>GROUT- SEE FINISH SCHEDULE FLOOR<br>TILE (WT) COMMENTS FOR LOCATION<br>BACK LINE   |   | 4 JOH                                     | DARCHITECT                              |
|                          |   | CBP             | #381 BRIGHT WHITE   | GROUT- SEE FINISH SCHEDULE FLOOR<br>TILE (WT) COMMENTS FOR LOCATION   |   | License N                                 | lumber 8725                             |
| <u>G-04</u>              | GROUT   | MAPEI           | ULTRSCOLOR PLUS FA<br># 10 - BLACK  | GROUT- SEE FINISH SCHEDULE FLOOR<br>TILE (FT) OR WALL TILE (WT) COMMENTS<br>FOR LOCATION<br>BRICK TILE  |   | 5/1/2                                     | 024                                     |
|                          |   | CBP             | #60 CHARCOAL  | GROUT- SEE FINISH SCHEDULE FLOOR<br>TILE (FT) OR WALL TILE (WT) COMMENTS<br>FOR LOCATION  |   |   | oad 22                                  |
| G-05                     | GROUT   | MAPEI           | ULTRSCOLOR PLUS FA<br># 09 - GRAY   | GROUT- SEE FINISH SCHEDULE WALL<br>TILE (WT) COMMENTS FOR LOCATION  |   | 0624                                      | lds R<br>7202                           |
|                          |   | СВР             | #185 NEW TAUPE  | RESTROOM<br>GROUT- SEE FINISH SCHEDULE WALL<br>TILE (WT) COMMENTS FOR LOCATION  |   |   | t, AR                                   |
| G-06                     | GROUT   | CUSTOM BUILDING | 335 WINTER GREY   | COMBO ONLY - COOL PALETTE<br>CEG-LITE EPOXY GROUT<br>DINING - SEATING AREA  |   |   | 84 N F<br>Bryan                         |
| G-07                     | GROUT   | CUSTOM BUILDING | 543 DRIFTWOOD   | COMBO ONLY - COOL PALETTE<br>CEG-LITE EPOXY GROUT<br>CAKERY WALL  |   | Stor                                      | 223<br>I                                |
| <u>FT-01(C)</u>          | PORCELAIN TILE  | DAL TILE        | ASTRONOMY AT72 SOLSTICE<br>- 12X24 FLOOR<br># AT7212241P6                                   | COOL PALETTE -<br>12"X24" FRONT OF HOUSE (PUBLIC<br>AREAS) AND RESTROOM AREA TILE - USE<br>W/ GROUT G-01 (C)  |   |   |   |
| <u>FT-02</u>             | QUARRY TILE   | DAL TILE        | QUARRY TEXTURES - 6X6X1/2<br>FLOOR CE 0T03 "ASHEN<br>GRAY STD"<br># 0T03661P                | <ul> <li>COOL AND WARM PALETTE -</li> <li>6"X6"; BACKLINE/SERVICE AREA &amp; B.O.H.</li> <li>AREAS -</li> <li>USE W/ GROUT G-02</li> <li>COOL PALETTE -</li> <li>CUT 12"X24" FLOOR TILE W/ BRUSHED</li> </ul>                                       |   | -   |   |
| <u>FTB-01 CUT(C)</u>     | PORCELAIN TILE  | DAL TILE        | ASTRONOMY AT72 SOLSTICE<br>- 12X24 FLOOR<br># AT7212241P6                                   | NICKEL SCHLUTER STRIP CAP JOLLY -<br>- ANIGB<br>COLOR MATCH WALL TILE ALUMINUM<br>TRIM<br>MATTE WHITE<br>TSDA DARK ANTHRACITE<br>TSSG STONE GREY  |   | tions                                     |   |
| <u>FTB-01 COVE ( C )</u> | PORCELAIN TILE  | DAL TILE        | ASTRONOMY AT72 SOLSTIC<br>COVE BASE   | <b>COOL PALETTE -</b><br>6"X12" COVED BASE TILE (OPTIONAL<br>UPGRADE FOR FRONT OF HOUSE PUBLIC<br>AREAS AND RESTROOMS)  |   | e Opera<br>Damon I                        | s.com<br>6914                           |
| FTB-02 COVE              | QUARRY TILE WALL BASE   | DAL TILE        | QUARRY TEXTURES Q3565U<br>0T03 "ASHEN GRAY STD"<br># 0T03Q3565U1P                           | 5"X 6" COVE BASE- SEE NATIONAL<br>ACCOUNTS FOR INSIDE/OUTSIDE<br>CORNER PRODUCT NUMBERS<br># 0T03Q3565U1P - COVE BASE<br># 0T03QCL3565U1P - LEFT CORNER<br># 0T03QCR3565U1P - RIGHT CORNER<br># 0T03QB3565U1P - INSIDER CORNER USE<br>W/ GROUT G-02 |   | agunita Franchis                          | tony@lfop<br>601.940.                   |
| <u>WT-01(C)</u>          | PORCELAIN TILE  | DAL TILE        | DUNKIN COOL SWITCH TILE<br>12" x 24" (backline wall)<br># N812DD12241P2                     | COOL PALETTE -<br>NSTALL PER PATTERN SHOWN IN DETAIL<br># 5/A9.0 BACKLINE WALL TIILE - 12X24<br>BACKLINE WALL TIILE - USE W/ GROUT<br>G-03<br>ALUMINUM PROFILE: SCHLUTER, JOLLY,<br>MBW MATTE WHITE HEIGHT 10 mm (3/8")<br>A100MBW                  |   | <u> Ч</u> С                               |   |
| <u>WT-02</u>             | PORCELAIN TILE  | DAL TILE        | COLOR WHEEL LINEAR 0780<br>MATTE CHALKBOARD 8X24<br># 07808241P2                            |   |   |   | SCHEDU                                  |
| <u>WT-03</u>             | PORCELAIN TILE  | DAL TILE        | FIELD - 6"X18"<br>(RESTROOMS)<br>COLOR WHEEL LINEAR -<br>MATTE ARCTIC WHITE<br># 07906181P2 | COOL AND WARM PALETTE - RESTROOMS<br>INSTALL IN A STACK BOND PATTERN<br>6"X18" - USE W/ GROUT G-5<br>ALUMINUM PROFILE: SCHLUTER, JOLLY,<br>MBW MATTE WHITE HEIGHT 8 mm (5/16")<br>A80MBW  |   | ZEVISED<br>PERMIT                         | FINISH                                  |
| <u>WT-04(C)</u>          | PORCELAIN TILE  | DAL TILE        | DUNKIN BLOCK PARTY<br>CARBON 6" X 6" - 2TILE<br>ACCENT (RESTROOMS)<br># N515BP01661P4       | COOL PALETTE -<br>INSTALL PER PATTERN SHOWN IN DETAIL<br># 3/A9.0 RESTROOM ACCENT 6" X 6" -<br>USE W/ GROUT G-5<br>ALUMINUM PROFILE: SCHLUTER, JOLLY,<br>TSSG STONE GREY 8 mm (5/16") A80TSSG   |   | ISSUED / F<br>ISSUED FOR                  |   |

F-1.1





# SITEWORK NOTES

1. The contractor is to endeavor to maintain the store open during normal hours in the following sequence.

- 1.1. Lobby/Restrooms Closed to the Public: Erect dust barriers to separate dust from the drive thru window and
- kitchen including a temporary door and protection of the HVAC duct intakes. See plan. 1.2. Entire store closed Sunday and Monday: Once the lobby is complete, remove barriers and compete the work
- in the drive thru area, hood shrouds and drive up menu boards. Then reopen entire store.
- 2. Owner is to furnish and install height detector, menu boards and speaker-post--general contractor is to furnish wiring and base support
- 3. General contractor is to reseal the pavement and restripe per site plan and pressure wash all concrete curbs walks and pavement.
- 4. Refer to existing drawings but verify field conditions.
- 5. PRESSURE WASH AND PAINT DUMPSTER WALLS AND DOORS TO MATCH BUILDING

SP1



![](_page_10_Figure_1.jpeg)

![](_page_10_Figure_2.jpeg)

![](_page_10_Figure_3.jpeg)

The contractor shall conform with the latest Building, Electrical, Mechanical and Plumbing Codes as adopted by the city of Bryant and the state of Arkansas 2610 GROSS SF DUNKIN TYPE B (LESS THAN 49 PERSONS) SHELL BUILDING IS UNDER 9,000SF ALLOWABLE NON-SPRINKLERED TYPE VB CONSTRUCTION 2 ADA RESTROOMS REQUIRED PER IPC SECTION 403.2 IN DUNKIN' SPACE 1 WC PER 75 OCCUPANTS--1 LAV PER 40 OCCUPANTS--DRINKING WATER AVAILABLE OCCUPANT LOAD (DOES NOT INCLUDE RESTROOMS AND COOLER): BUSINESS: 2610 SF @ 150 SF/PERSON = 18 PERSONS TOTAL = 18 PERSONS TYPE C FINISHES REQUIRED TWO EXITS REQUIRED FOR MORE THAN 49 OCCUPANTS--EXITS ARE SEPARATED BY MORE THAN HALF THE DIAGONAL DISTANCE FIRE EXTINGUISHER REQUIRED

MINIMUM EXIT WIDTH @ .2/OCCUPANT: 4.0"

150' MAX EXIT ACCESS TRAVEL DISTANCE (69' ACTUAL)

![](_page_11_Figure_1.jpeg)

|     | LIGHTING SCHEDULE                                 |
|-----|---|
|     | EXIT LIGHT WITH COMBO EMER LIGHTS                 |
| 2_9 | EMERGENCY BATT LIGHTS                             |
| 8   | EMERGENCY REMOTE LIGHTS                           |
| FEO | FIRE EXTINGUISHER                                 |
|     | LONGEST EXIT DISTANCE SHOWN IS 65' (150' ALLOWED) |
|     | NO RATED WALLS OR PARTITIONS                      |
|     |   |

EXISTING EXIT LIGHTS AND EMERGENCY TO REMAIN

![](_page_11_Picture_4.jpeg)

![](_page_11_Picture_5.jpeg)

![](_page_11_Picture_7.jpeg)

N

 $\sim$ 

![](_page_12_Figure_0.jpeg)

# GENERAL NOTES

TYPICAL SUBSTRATES FOR INTERIOR WALLS SHALL BE AS FOLLOWS: PREP/ KITCHEN AND STORAGE AREAS: 0'-0" TO 3'-0" - 5/8" DUROCK CEMENT BOARD, 3'-0" AND ABOVE - 5/8" ORIENTED

A1.1

STRAND BOARD (OSB) SERVICE AREA:

5/8" MIN. ORIENTED STRAND BOARD (OSB), 5/8" DUROCK CEMENT BOARD BEHIND PORCELAIN/ CERAMIC TILES.

SALES AND SEATING AREAS: 5/8" GYPSUM BOARD, 5/8" DUROCK CEMENT BOARD BEHIND CERAMIC TILES, 5/8" ORIENTED STRAND BOARD @ DECORATIVE PLAM "WOOD" WALLS. RESTROOMS:

5/8" DUROCK CEMENT BOARD

- GENERAL CONTRACTOR SHALL PROVIDE ADEQUATE BLOCKING AS REQUIRED THROUGHOUT: IN RESTROOMS FOR GRAB BARS, LAVATORIES, HAND DRIERS, MIRRORS, PAPER TOWEL DISPENSERS, SOAP DISPENSERS, AND OTHER ACCESSORIES UNLESS OTHERWISE NOTED; IN SERVICE AREA FOR: VDU, WALL SHELVES, ETC. DIMENSIONS SHOWN ARE TO THE FACE OF FINISH.

REFER TO EQUIPMENT "K" SHEETS FOR INFORMATION REGARDING THE EQUIPMENT AND EQUIPMENT LAYOUT.

4. SEE SHEET A-10.0 FOR DOOR SCHEDULE AND DOOR & FRAME TYPES.

ARRANGE FOR FIRE EXTINGUISHERS, TYPE ABC, WALL HUNG, TOP @ 5'-0" A.F.F. (BY G.C.). - NUMBER AND LOCATION AS DETERMINED BY LOCAL CODE

## KEYED PLAN NOTES

- CASEWORK--EXISTING AND NEW FURNISHED BY FRANCHISEE AND
- INSTALLED BY GC. 2 EXISTING SLIDING DRIVE-THRU WINDOW
- 3 REMOVE EXISTING WALLS AND PATCH
- EXISTING RACK WASH
- 5 EXISTING HAND DRYER SEE E3.0 FOR POS REQUIREMENTS
- 6 EXISTING TANKLESS HOT WATER HEATER
- 7 EXISTING WALK IN COOLER
- 8 EXISTING 3 COMPARTMENT SINK
- EXISTING OUTDOOR STORAGE TO BE CONVERTED TO INDOOR STORAGE SHED-PRESSURE WASH AND PREP CONCRETE FOLLOR AND PAINT WITH MEDIUM GREY EPOXY FLOOR PAINT AND EXTEND UP WALL ONE COURSE OF BLOCK. PAINT EXTERIOR SAME AS EXTERIOR
- 10 EXISTING ELECTRICAL PANELS
- 11 REMOVE EXISTING HANDSINK
- 12 GC TO REMOVE AND PATCH EXISTING AWNINGS AND LIGHTS
- 13 REPLACE CEILING AND LIGHTS IN KITCHEN AREA-PROTECT AND CLEAN
- 14 REMOVE REPLACE EXISTING CASEWORK AND TABLES
- 15 CONCRETE FLOOR IS TO BE PREPPED FOR NEW TILE
- 15 REMOVE DOOR HANDLE HARDWARE FROM DOOR AND COVER-CYLINDER LOCK IS TO REMAIN

## SCOPE OF WORK

- INTERIOR REMODEL OF EXISTING SEATING, SALES, SERVICE AND RESTROOMS
- NEW ARRANGEMENT OF EQUIPMENT INCLUDING SOME NEW EQUIPMENT 2
- RECONNECTING OF EQUIPMENT AND DATA EXTERIOR REMOLDING OF BRANDING AND "LOOK"
- NEW ROOF AND DOOR AT REAR ENCLOSURE
- **REVISE AND REFINISH CEILING REGISTERS**
- EXTERIOR SIGNAGE AND MENU BOARDS BY OWNER 7
- 8 NEW TILE IN FRONT OF HOUSE RESTROOMS ARE REFINISHED
- 10. CHECK AND ADJUST EXISTING DOORS--REPAINT RESTROOM DOORS

![](_page_12_Figure_37.jpeg)

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

A-1.1

| G              | BEN   | ERAL NOTES:   |
|----------------|---|---|
| 1.<br>2.<br>3. | all i<br>The<br>Refe<br>Opei<br>Opti              | NTERIOR & EXTERIOR LIGHTING TO BE LED (INCLUDING IN<br>WALK-IN BOX).<br>ER TO MASTER FINISH SCHEDULE FOR CEILING FINISHES.<br>N CEILING IN SALES & SEATING AREA TO BE ALTERNATIVE<br>ON.  |
| 4.<br>5.       | ALL I<br>TO M<br>DUC <sup>-</sup><br>PAIN<br>LAYC | DEVICES (DIFFUSERS, RETURNS, SMOKE DETECTORS, ETC.)<br>IATCH CEILING. WHEN OPEN CEILING IS USED ALL PIPES AND<br>IS AND ALL OTHER ITEMS THAT ARE ON CEILING TO BE<br>TED TO MATCH CEILING.<br>DUT NOTES:  |
|                | Α.  | PROVIDE EMERGENCY LIGHTS & SMOKE DETECTORS AS REQUIRED BY LOCAL GOVERNING CODE.   |
|                | В.  | ADD THE RH REMOTE WEATHER PROOF EMERGENCY HEAD<br>(PRODUCT #Z1PB) TO THE EXTERIOR EGRESS DOORS AS<br>REQUIRED BY CODE.  |
| 7.             | MUS<br>OF T<br>LISTI                              | IC SYSTEM NOTES: THE MUSIC SYSTEM IS A REQUIREMENT<br>HE BRAND. ARCHITECTS TO FOLLOW ALL GUIDELINES<br>ED BELOW.  |
|                | A.  | MUSIC SYSTEM IS REQUIRED IN ALL NEW AND REMODEL<br>STORES. ALL CEILING SPEAKERS TO BE FLUSH MOUNTED @<br>GYP. BOARD CLG. & ACT CLG. SPEAKERS @ OPEN CEILING<br>TO BE MOUNTED ON LOWER CORD OF ROOF TRUSSES.ALL<br>INTERIOR SPEAKERS TO MATCH SURFACE IT IS MOUNTED<br>ON. ALL EXTERIOR SPEAKERS TO BE BLACK, WITH EXTERIOR<br>GRADE CONSTRUCTION. |
|                | В.  | ONE SPEAKER IN EACH RESTROOM- FLUSH MOUNT.  |
|                | C.  | A MINIMUM OF TWO SPEAKERS IN THE SEATING AREA NO SPEAKERS IN THE SERVICE AREA.  |
|                | D.  | A MINIMUM OF TWO SPEAKERS AT EXTERIOR SEATING AREAS WHERE APPLICABLE.   |
|                | E.  | SPEAKER AT EXTERIOR OF BUILDING ADJACENT TO ENTRY.  |
|                | F.  | PROVIDE AND INSTALL SEPARATE VOLUME CONTROLS FOR<br>EACH AREA (RESTROOMS, SEATING AREA, EXTERIOR)   |
|                | G.  | HARDWARE TO BE INSTALLED IN THE OFFICE. FIELD VERIFY<br>AND COORDINATE WITH FRANCHISE FOR THE EXACT<br>LOCATION OF THE UNIT AND VOLUME CONTROLS.  |

![](_page_13_Figure_1.jpeg)

|   | LIGHTING SCHEDULE - VILLA LIGHTING  |                                    |  |  |  |  |  |  |  |
|---|---|------------------------------------|--|--|--|--|--|--|--|
| CODE  | DESCRIPTION   | MANUFACTURER                       | PRODUCT  |  |  |  |  |  |  |
| A   | WALL-WASH FIXTURE- TO BE USED AT ARTWORK AND LROD SIGN  | CONTECH                            | RL20SA3-35K-12-D/ CTR2002CLR-P                 |  |  |  |  |  |  |
| В   | PROVIDED BY WALK-IN BOX MANUF.  | VARIES                             | VARIES   |  |  |  |  |  |  |
| С   | TRACK LIGHT & HEAD- USED @ WALL W/ ART WORK AND WHERE<br>CEILING IS OPEN  | JUNO                               | R600L-35K-BL                                   |  |  |  |  |  |  |
| EBU-W   | ULTRA COMPACT LED EMERGENCY UNIT (WHITE)  | EXITRONIX                          | EBU-W-LED-51-52                                |  |  |  |  |  |  |
| EBU-B   | ULTRA COMPACT LED EMERGENCY UNIT- USED ON WT-02 WALL ONLY<br>(BLACK)  | EXITRONIX                          | EBU-BL-LED-51-52                               |  |  |  |  |  |  |
| EMR   | EXTERIOR COMBO LED REMOTE EXIST LIGHT HEAD- USED ABOVE OR<br>ADJACENT TO EXIT DOORS (GRAY)  | EXITRONIX                          | MLED-2-G-WP                                    |  |  |  |  |  |  |
| EWS-1   | WALL PACK (GRAY) EXTERIOR- USED ON DARK WALL FINSIH   | WAC                                | WP-LED227-30-AGH                               |  |  |  |  |  |  |
| EWS-2   | WALL PACK (WHITE) EXTERIOR- USED ON LIGHT WALL FINISH   | WAC                                | WP-LED227-30-AWT                               |  |  |  |  |  |  |
| G   | WALL PACK - ABOVE SERVICE DOOR  | COOPER                             | XTOR3A   |  |  |  |  |  |  |
| EX1   | COMBO LED EXIT SIGN W/ LIGHT HEADS (WHITE)  | EXITRONIX                          | VLED-U-WH-EL90                                 |  |  |  |  |  |  |
| BL  | BATHROOM SCONCE   | LUMENCIA                           | LLW260D3K-SN                                   |  |  |  |  |  |  |
| LED 2   | EXTERIOR RECESSED LIGHT FIXTURE- USED UNDER ORANGE BEAM/<br>CANOPY  | LUMARK                             | XTOR2B-W                                       |  |  |  |  |  |  |
| LED 11  |   |                                    |  |  |  |  |  |  |  |
| LED 12  | FIELD FRAMED ORANGE BEAM  | SOLID STATE LUMINARIES             | LSSL-LSSL-5165-400 LUMENS                      |  |  |  |  |  |  |
| LED 13  | EXTERIOR LIGHT FIXTURE- USED ON TOP OF AND ON THE UNDERSIDE<br>OF THE ORANGE BEAM WHEN USING THE PREFAB OPTION  |                                    | TO BE PROVIDED BY PREFAB ORANGE BEAM<br>VENDOR |  |  |  |  |  |  |
| LED 14  | EXTERIOR LIGHT FIXTURE - ACCENT LIGHT USED ON TOP OF<br>CHARCOAL TRIM AT BASE OF MONOLITH ONLY  | LED POWER                          | HB308-48"-41K-15D-AC                           |  |  |  |  |  |  |
| OC  | WALL MOUNTED OCCUPANCY SENSOR   | WATTSTOPPER                        | WS-250-W                                       |  |  |  |  |  |  |
| P1  | 8' SUSPENDED LINEAR LIGHT FIXTURE- USED IN SEATING/ SALES<br>AREA   | TEXAS FLUORESCENTS                 | SES-FR-96L-S62W6200L-DMV-35K-BK                |  |  |  |  |  |  |
| P2  | 4' SUSPENDED LINEAR LIGHT FIXTURE- USED IN SEATING/ SALES<br>AREA   | TEXAS FLUORESCENTS                 | SES-FR-48L-S62W3100L-DMV-35K-BK                |  |  |  |  |  |  |
| P3  | PENDANT CHANDELIER- USED ABOVE COMMUNITY TABLE  | TECH LIGHTING                      | 700TD-ALVPMC-OS-LED930                         |  |  |  |  |  |  |
| PKL3  | PARKING LOT LIGHTING  | COOPER LIGHTING                    | LUMARK PRV-PREVAIL PRV-A40-UNV-T3-SA-          |  |  |  |  |  |  |
| PKL4  | PARKING LOT LIGHTING  | COOPER LIGHTING                    | LUMARK PRV-PREVAIL PRV-A40-UNV-T4-SA-          |  |  |  |  |  |  |
| R1  | RECESSED LED LIGHT FIXTURE  | CREE                               | RC6/CR6T-1600L-35K                             |  |  |  |  |  |  |
| R2  | 2X2 LAY-IN TROFFER LED LIGHT FIXTURE, USED IN FRONT OF HOUSE  | CREE                               | CR22-32L-35K-S-HD                              |  |  |  |  |  |  |
| R3  | 4" LED ADJ DOWNLIGHT, 400K, 200 LUMEN   | NORA                               | NCH-436-L20-40-D-SF                            |  |  |  |  |  |  |
| R4  | LED LINEAR LIGHT BAR- USED ABOVE FRONT LINE [NOTE: AVAILABLE<br>IN INCREMENTS OF 1FT WITH A 1FTx1FT CORNER PIECE]   | PINNACLE ARCHITECTURAL<br>LIGHTING | EX3D-A-N-835VHO-8-S/AC120ST                    |  |  |  |  |  |  |
| R5  | 2X4 LAY-IN LED LIGHT FIXTURE, USED IN BACK OF HOUSE   | LSI                                | SFP24-LED-50-UE-DIM-35-U                       |  |  |  |  |  |  |
| R6  | 2X2 LAY-IN LED LIGHT FIXTURE, USED OVER SERVICE AREA -<br>REMODELS ONLY   | LSI                                | SFP22-LED-UE-30-DIM-35-U                       |  |  |  |  |  |  |
| R7  | 2X4 LAY-IN TROFFER LED LIGHT FIXTURE, USED IN FRONT OF HOUSE -<br>REMODELS ONLY   | CREE                               | CR24-40L-35K-S-HD                              |  |  |  |  |  |  |
| WSCX-2  | EXTERIOR SIGN LIGHT FIXTURE - USED AT ACCENT PANELS   | HI-LITE MFG INC.                   | H-HDMR16/18-1-119/ MR16AD1C293010T-10-S1       |  |  |  |  |  |  |
|   | LIGHTING SCHE   | DULE NOTES                         |  |  |  |  |  |  |  |
| <ol> <li>PROVIE</li> <li>ALL BAI</li> <li>PROVIE</li> <li>COORE</li> <li>LAMPS</li> </ol> | <ol> <li>PROVIDE ALL FIXTURES COMPLETE WITH LAMPS. REF. NATIONAL ACCOUNT SOURCE INFO FOR LAMP SPECS &amp; VILLA LIGHTING RE-LAMPING PROGRAM.</li> <li>ALL BALLASTS SHALL BE HIGH POWER FACTOR.</li> <li>PROVIDE HOLD-DOWN CLIPS FOR EACH CORNER OF FLUORESCENT GRID TROFFERS.</li> <li>COORDINATE AND VERIFY ALL FIXTURE INFORMATION, TYPES AND FINAL LOCATIONS WITH THE REFLECTED CEILING PLAN.</li> <li>LAMPS SHALL BE AS MANUFACTURED BY SYLVANIA. WESTINGHOUSE, GENERAL ELECTRIC OR APPROVED FOULAL.</li> </ol> |                                    |  |  |  |  |  |  |  |

![](_page_13_Figure_18.jpeg)

| CODE         | MATERIAL                     | MANUFACTURER |   |  |
|--------------|------------------------------|--------------|---|--|
| <u>CT-01</u> | ACOUSTIC CEILING TILE        | ARMSTRONG    |   |  |
| <u>CT-02</u> | CEILING TILE AND GRID SYSTEM | ARMSTRONG    | 1 |  |
| <u>CT-03</u> | VINYL FACED CLG TILE         | ARMSTRONG    |   |  |
| <u>CT-04</u> | VINYL FACED CLG TILE         | /USG         |   |  |
|              |                              |              |   |  |

![](_page_13_Figure_21.jpeg)

THE VENDOR FOR THE UNDERSIDE OF THE BEAM; WHEN USING THE NATIONAL ACCCOUNTS PREFABRICATED ORANGE BEAM LED-13 SHALL BE PROVIDED BY THE VENDOR FOR THE TOP OF THE BEAM

A-1.2

![](_page_14_Figure_0.jpeg)

![](_page_14_Figure_1.jpeg)

![](_page_14_Figure_3.jpeg)

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![](_page_14_Picture_5.jpeg)

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![](_page_14_Picture_7.jpeg)

![](_page_14_Picture_8.jpeg)

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![](_page_14_Figure_9.jpeg)

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

A-1.3

![](_page_15_Figure_0.jpeg)

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

|              |                  |                 |   | 7 |   |                     |              |                                       |   |   |  |   |   |
|--------------|------------------|-----------------|---|---|---|---------------------|--------------|---------------------------------------|---|---|--|---|---|
| MATERIAL     |                  | R PRODUCT #     | DESCRIPTION / REMARKS                         |   | EXTERIOR FIBER-CEMENT EXTERIOR SIDINGAND PANELS |                     |              |                                       |   |   |  |   |   |
|              |                  |                 |   |   | CODE  | MATERIAL            | MANUFACTURER | PRODUCT #                             | DESCRIPTION / REMARKS   | VENDOR CONTACTS   |  |   |   |
| PTE-01 PAINT | SHERWIN WILLIAMS | GRAY FINISH     | SW 7019 "GAUNTLET GRAY"                       |   | <u>PS-03</u>                                    |                     |              |                                       |   |   |  | COLOR:"HONEY GLAZE" WOOD PATTERN<br>SURFACE: WOOD PATTERN PLANK | FOR WOODTONE PRODUCTS:<br>LAURENCE TAYLOR,<br>WOODTONE<br>SALES REPRESENTATIVE<br>PHONE: (604) 792-3680<br>CELL: (604) 798-2664 |
| PTE-02 PAINT | SHERWIN WILLIAMS | CHARCOAL FINISH | SW 7069 "IRON ORE"                            | - |   | FIBER CEMENT SIDING | WOODTONE     | WOOD FINISH<br>RUSTIC SERIES WOODTONE | DIMENSION: 8 1/4" X 12' X 5/16" THK WITH<br>6" SIDDING EXPOSURE<br>NOTE: NAILS TO MATCH WOOD FINISH | LAURENCET@WOODTONE.COM<br>TIM FOLSTER<br>WOODTONE<br>MANAGER, STRATEGIC ACCOUNTS<br>PHONE: (604) 792-3680 |  |   |   |
|              |                  |                 |   |   |   |                     |              |                                       |   | CELL: (604) 845-9663<br>TIMF@WOODTONE.COM   |  |   |   |
|              |                  |                 | SVV 7003 NEBOLOOS VVIIIL                      |   |   |                     |              |                                       |   |   |  |   |   |
| PTE-05 PAINT | SHERWIN WILLIAMS | MID-TONE FINISH | SW 7066 "GRAY MATTERS"                        |   |   |                     |              |                                       |   |   |  |   |   |
| PTE-12 PAINT |                  | DD PINK         | COLOR MATCH PMS 219 C<br>MAP ULTRA LOW V.O.C. |   |   |                     |              |                                       |   |   |  |   |   |
| PTE-13 PAINT |                  | DD ORANGE       | COLOR MATCH PMS 165C<br>MAP ULTRA LOW V.O.C.  |   |   |                     |              |                                       |   |   |  |   |   |

|                 | PTE-02<br>SPLIT FACE BLOCK |   |
|-----------------|----------------------------|---|
| )4              |                            | _ |
| TH LED<br>DTTOM |                            |   |
| PTE-01          |                            |   |

![](_page_15_Figure_4.jpeg)

![](_page_15_Figure_6.jpeg)

![](_page_15_Figure_7.jpeg)

![](_page_15_Figure_8.jpeg)

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U > 5 1138 IRMI Ζ HOL

![](_page_16_Picture_0.jpeg)

![](_page_16_Figure_1.jpeg)

![](_page_16_Figure_2.jpeg)

![](_page_16_Picture_3.jpeg)

SIGNAGE WALL--7 ¼" FIBER CEMENT LAP SID**NGF(6**5REVEAL) WITH WOOD TEX<del>TURE</del>

DRIVE THRU SIDE ELEVATION SCALE: 1/4"=1'-0"

A-5.1

![](_page_17_Picture_0.jpeg)

![](_page_17_Picture_1.jpeg)

![](_page_17_Picture_2.jpeg)

![](_page_17_Picture_3.jpeg)

![](_page_17_Picture_4.jpeg)

![](_page_17_Picture_5.jpeg)

![](_page_17_Picture_6.jpeg)

![](_page_17_Picture_7.jpeg)

![](_page_17_Picture_8.jpeg)

A-5.2

License Number 8725

![](_page_18_Figure_0.jpeg)

![](_page_18_Figure_1.jpeg)

![](_page_18_Figure_2.jpeg)

6

1" = 1'-0"

NOTE:

![](_page_19_Picture_0.jpeg)

![](_page_19_Figure_1.jpeg)

Returns:<br/>3" D painted PMS 7540C Dark GrayLetter Interiors:<br/>Painted reflective whiteTrimcap:<br/>1" #313 BronzeFaces:<br/>3/16" #2447 white acrylic faces w/ 1st surface decoration:<br/>DUNKIN to be PMS 3564C, 3M 3630-3202 (Orange)<br/>Apostrophe to be PMS 7635C, 3M 3630-1511 (Pink)<br/>Apostrophe stands on its ownRegister Mark- I :<br/>. 063 aluminum disk painted white w/ orange vinyl applied<br/>to faceFont:<br/>Font is DUNKIN' SANS Level 5Area Squared:<br/>See size chart for varying square footageWind Load:<br/>Standard Wind load - Wind Speed / 35 PSFELECTRICAL:

.050 x 3" D aluminum returns; .063 aluminum backs; Mounting hardware as determined by site conditions;

GENERAL SPECIFICATIONS:

Weep holes as required

Materials:

Illumination to be Agilight LS-U650-71K-B200-A or equivalent LED's to be populated for even and consistent lighting without hot spots or shadows 1) 20A/120V circuit Remote power supply

UL Listed

**JOHN S VACI, Ar** 1138 BERWICK ROA BIRMINGHAM, AL 352 205.541.7898 john@johnvaciarchitect

![](_page_19_Picture_6.jpeg)

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![](_page_19_Figure_8.jpeg)

![](_page_19_Picture_9.jpeg)

![](_page_20_Figure_0.jpeg)

REMOVE ALL WALLPAPER AND PATCH/SAND PREP FOR NEW PAINT

![](_page_20_Figure_2.jpeg)

| ROOMF  |  | JLE (COC                      | DL PAL                           | .ETTE)                                   |            | ations                    | ,ood     |              |
|--|--|-------------------------------|----------------------------------|--|------------|---------------------------|----------|--------------|
| ROOM NAME  | FLOOR CODE                                 | BASE CODE                     | WALL                             | CEILING CODE                             | NOTES      | Dper                      | Millw    | <u>4</u>     |
| SALES AREA   | FT-01 (C)/ PT-02© NEW                      | NOTE #5                       | NOTE #1                          | PAINT EXIST BLACK                        | 1,3,4,5    |                           | <u>ح</u> | 010          |
| SEATING AREA   | FT-01 (C)/ PT-02© NEW                      | NOTE #5                       | NOTE #1                          | PAINT EXIST BLACK                        | 1,3,4,5    | Se l                      | ě        | s 0          |
| DRIVE THRU   | FT-02 EXISTING                             | NOTE #5                       | NOTE #1                          | CT-03 NEW                                | 3,4,5      | hi l                      | L        | <u> </u>     |
| SERVICE AREA   | FT-02 EXTEND SEE<br>PLAN                   | NOTE #5                       | NOTE #1                          | CT-03 NEW                                | 1,3,4,5    | anc                       | noc      | @Ifc         |
| MEN'S RESTROOM   | FT-01 © NEW                                | NOTE #5                       | NOTE #1                          | PAINT EXIST WHITE                        | 1,2,3,4,5  |                           | jt       | ě Ó          |
| WOMEN'S RESTROOM   | FT-01 © NEW                                | NOTE #5                       | NOTE #1                          | PAINT EXIST WHITE                        | 1,2,3,4,5  |                           | Ā        | <u>o o</u>   |
| OFFICE   | FT-02 EXIST CLEAN                          | NOTE #5                       | NIC                              | CT-03 NEW                                | 2,3,4,5    | ita –                     | Š        |              |
| PREP./STORAGE AREA   | FT-02 EXIST CLEAN                          | NOTE #5                       | NIC                              | CT-03 NEW                                | 3,4,5      |                           |          |              |
| ALCOVE   | FT-01 © NEW                                | NOTE #5                       | NOTE #1                          | CT-01                                    | 1,2,3,4,5  | םר<br>סר                  |          |              |
|  | NOT  | ES                            |                                  |  |            | <u>.</u>                  | 1        |              |
| O INTERIOR ELEVATIONS F  | FOR PROPER WALL FINISH                     | IES IN DESIGNAT               | ED AREA                          |  |            |                           |          |              |
| RIOR ELEVATIONS FOR DC   | OR FINISHES                                |                               |                                  |  |            |                           |          |              |
| E ALUMINUM CORNER GUA<br>DNS   | RDS AT ALL OUTSIDE COF                     | NERS OF WALLS                 | 6, SEE FLOC                      | DR PLAN FOR                              |            |                           |          |              |
| VERIFY ALL FINISHES WITH   | DBI CM PRIOR TO ORDER                      | ING MATERIALS.                |                                  |  |            |                           |          | ( )          |
| O FINISH FLOOR PLAN FOR  | WALL BASE OPTIONS                          |                               |                                  |  |            |                           |          | ź            |
| ISTOM COLOR: G122 B<br>EE AS SS-01 (W))<br>NISH: POLISHED<br>OGE PROFILE: REFERE<br>TAIL ALUMINU<br>CHLUTER, JOLLY | BAMBOO LEAF<br>NCE MILLWORK<br>JM PROFILE: | SOLID SUF                     | RFACE CH                         | IAIR RAIL                                |            |                           |          | DR ELEVATIO  |
| EE MILLWORK FINISHE<br>01 (C)  | S  | OPTIONAL<br>ONLYMA<br>CHESTNU | . UPGRAE<br>TCHES M<br>T #5884 N | DE FOR COOL PAL<br>ILLWORKFORMI<br>IATTE | ETTE<br>CA | D / REVISED<br>FOR PERMIT |          |              |
| GHT GREY SHEEN: "SATIN-/-EGGSHELL" -<br>V 7671 "ON THE ROCKS" WALL / SOFFIT PAINT WHERE INDICATED                  |  |                               |                                  |  |            |                           |          | <u> </u>     |
|  |  |                               |                                  | AND EDAN                                 |            |                           |          |              |
|  |  |                               |                                  |  |            |                           |          |              |
|  |  | SHEEN: FL                     |                                  | JEILING; SEIVIIGLU                       | 600        | Λ                         |          | $\mathbf{O}$ |
| V 6252 "ICE CUBE"  |  |                               | KS AND F                         | KAMES                                    |            | Ĥ                         | \-       | Ŏ.           |
|  |  |                               |                                  |  |            | _                         | -        |              |

![](_page_21_Figure_0.jpeg)

![](_page_21_Picture_1.jpeg)

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ISSUED / REVISED

![](_page_21_Picture_4.jpeg)

|                       |  |                                    |  |          |             |                          | EQUIPN  |                   | IEDULE         |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 | EQUIP |
|-----------------------|--|------------------------------------|--|----------|-------------|--------------------------|---|-------------------|----------------|---------------------|-----------------------|-------------|--------------------------|---|--|---|---|---------------------------------|--------------------------------------|---------------|-----------|-----------------|-------|
| ITEM #                | DESCRIPTION  |                                    | MODEL #                                | N.S.F.   | U.L. V      | PL<br>NATER WA           |   |                   |                | LOAD                |                       |             |                          |   | GENERAL REMARKS  |   | DECODIDITION  |                                 | MODEL #                              | N.S.F. U.L.   | WATER     | PLUMBI<br>WASTE |       |
|                       | CUSTOM CONDIMENT STATION   | MILLWORK SUPPLIER                  | MODEL #                                | E.T.L. I | E.T.L. H.W. | C.W. F.W. DIR.           | IND. REIVIAI  | KKS VI            | OLTS PHASE     | AMPS CIRCUIT        | #WIRES W/ (<br>GROUND | CORD & PLUG | RECEPT. SPEC             |   |  | 543   | BAKERY PAN RACK   | KELMAX                          | APRU1618-4-AT-BK-MOD                 | E.T.L. E.T.L. | H.W. C.W. | F.W. DIR. IND.  | REW/  |
| COND-NG               | 39" NEXT GEN CONDIMENT/ TRASH<br>UNIT  | MILLWORK SUPPLIER                  |  |          |             |                          |   |                   |                |                     |                       |             |                          |   |  | 560   | 48"X36" STAINLESS STEEL FINISHING<br>TABLE W/ 10" OVERSHELF                                     | UNIVERSAL                       | DD-4SLCB36-OS2ES                     |               |           |                 |       |
| DMB-1<br>OMO          | DIGITAL MENU BOARDS OMO SHELVING UNIT  | TEXAS DIGITAL<br>MILLWORK SUPPLIER | V463<br>OMO                            |          |             |                          |   |                   |                |                     |                       |             |                          |   | 46" LCD MENU BOARD (42" x 24")<br>Multiple shetving sizes  | 560.1<br>560.2                              | FLAT 14"X60" SOLID SHELVING<br>SINGLE DIRECT WALL MOUNT<br>BRACKET                              | METRO                           | 1460FG<br>1WD14C                     |               |           |                 |       |
| 40                    | HAND SINK - 18"W x 30"D W/ 12"<br>SPLASH GUARDS<br>TRASH RECEPTACLE - 23 1/8"D x 11"W 1                    |                                    | DD-18CBT32-RL                          | D036264  | 1/2"        | 1/2" 1-1/2"              |   |                   |                |                     |                       |             |                          |   | COMPONENT HARDWARE FAUCET T&S #TSB1100   | *560* 560.3                                 | DOUBLE DIRECT WALL MOUNT<br>BRACKET   | METRO                           | 2WD14C                               |               |           |                 |       |
| 408                   | 24 7/8"H<br>18"W X 34"D HAND SINK w/ 12" SPLASH  |                                    | 3341                                   | D026264  | 4.0"        | 10" 1 10"                |   |                   |                |                     |                       |             |                          |   |  | 560.4<br>560A                               | FLAT 14"X48" SOLID SHELVING<br>96"X36" STAINLESS STEEL FINISHING<br>TABLE W/ 10" DEED OVERSHELF | METRO<br>UNIVERSAL              | 1448FG<br>DD-8SLCB36-OS2ES           |               |           |                 |       |
| 41                    | PLUMB DWGS<br>HAND SINK - 12"W x 36"D W/ 12"   |                                    | DD-18CBT34-RL                          | D036264  | 1/2         | 1/2 1-1/2                |   |                   |                |                     |                       |             |                          |   |  | *560* 560B                                  | 72"X36" STAINLESS STEEL FINISHING<br>TABLE W/ 10" DEEP OVERSHELF                                | UNIVERSAL                       | DD-6SLCB36-OS2ES                     |               |           |                 |       |
| 42                    | SPLASH GUARDS<br>18"W X 34"D DUMP SINK w/ 12" SPLASH   | UNIVERSAL                          | DD-12CBT32-RL<br>DD-18CBT34RL-16       | D036264  | 1/2"        | 1/2 1-1/2<br>1/2" 1-1/2" | •   |                   |                |                     |                       |             |                          |   | COMPONENT HARDWARE FAUCET T&S #TSB1100   | 560C  | 36"X60" STAINLESS STEEL FINISHING<br>TABLE W/ 10" DEEP OVERSHELF                                | UNIVERSAL                       | DD-5SLCB36-OS2ES                     |               |           |                 |       |
| 45A                   | GUARDS<br>14" X 24" WALL MOUNT SHELF   |                                    | 1424NK3                                | YES      |             |                          |   |                   |                |                     |                       |             |                          |   |  | 561<br>562                                  | USE ONLY- NOT ENCLOSED)<br>TOPPINGS TRAY UNIT   | KELMAX                          | APRUE1326-5/AT/TG/BK                 |               |           |                 |       |
| 50E                   | ACRYLIC CUP HOLDER - 8 CUP<br>ACRYLIC CUP HOLDER - 8 CUP<br>FOUR SECTION VERTICAL WIRE RACK                | LD PLASTICS<br>LD PLASTICS         | LLDD50                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   | =  | 563   | POWER BASE<br>BASE FILTRATION - INSURICE 20" PF   | EDHARD                          | P-4010                               | 29051 SA 4027 |           |                 |       |
| 50F                   | CUP ORGANIZER<br>TISSUE BAG AND BOX HOLDER FOR   |                                    | DD-DSPN71435                           |          |             |                          |   |                   |                |                     |                       |             |                          |   |  | <sup>590*</sup> OR <sup>590A</sup><br>*591* | TRIPLE 7FC-S (75K GALLONS, 7.50<br>GPM)   | PENTAIR                         | CONFIG 1                             |               |           |                 |       |
| 70.5B                 | DRIVE THRU RACK<br>MOBILE DONUT/BAKERY CASE - 6 TIER<br>X 3 WIDE   | VULCAN                             | 1013776-00U0164                        |          |             |                          |   |                   | 120 1          | 20                  |                       |             |                          |   |  | 591A  | BASE WATER FILTRATION SYSTEM  | ЗМ                              | 56245-03                             |               |           |                 | +     |
| 82A                   | 4TIER x 4WIDE (16 FACING TROLLEY)<br>ERONT LINE BAKERY CASE (NEXT GEN                                      | VULCAN                             | 1019990-44                             |          |             |                          |   |                   | 120 1          | 1 15                | 2                     | Y           | NEMA 5-15                |   |  | 636-3                                       | FREESTANDING NEXTGEN COMMUNITY<br>TABLE (4 SMALL)   | SUPPLIER                        | COM-NG                               |               |           |                 |       |
| 96                    | ESPRESSO MACHINE   | SCHAERER                           | 15SO-PS-DD-40671                       |          |             | 1/2"                     | 1 1/2"  |                   | 208 1          | 30 30               | 2                     | Y           | NEMA L6-30               |   | PROVIDE WATER SHUT-OFF VALVE W/ 3/8° COMPRESSION FITTING   | 636-4                                       | FREESTANDING NEXTGEN COMMUNITY<br>TABLE (6 LARGE)   | SUPPLIER                        | COM-NG                               |               |           |                 |       |
| 96.1<br>96.2          | ESPRESSO MACHINE - SINGLE SHOT<br>ESPRESSO MACHINE   | WMF                                | 03.9467.8400                           |          |             | 1/2"                     | 1 1/2"<br>1 1/2"  |                   | 125 1<br>220 1 | 20 20<br>30 30      |                       | Y           | NEMA 5-20<br>NEMA L6-30  |   | REQUIRES ADDITIONAL 15A 110-120V AC 5-15R RECEPTACLE FOR COOLER  | 637   | COMMUNITY TABLE (SS-1) 63"W x 36"   | MILLWORK                        |                                      |               |           |                 |       |
| 96.4<br>101C-1        | ESPRESSO MACHINE<br>DAIRY DISPENSER  | AC DISPENSING                      | 320-FP-7                               |          |             | 1/2"                     | 1/2"  |                   | 220 1<br>120 1 | 24 30<br>3 15       | 3                     | Y           | NEMA L6-30R<br>NEMA 5-15 | **VERIFY ALL ELECT REQTS w/ MANUF   | PROVIDE WATER SHUT-OFF VALVE W/ 3/8" COMPRESSION FITTING   | 640   | SOFT SEATING - CLUB CHAIRS  | BEAUFURN                        | SEE NATIONAL ACCOUNTS                |               |           |                 |       |
| 101C-2<br>101DD       | DAIRY DISPENSER<br>SUGAR BOWL  | TAYLOR<br>VOLLRATH                 | C005<br>69014                          |          |             |                          |   |                   | 120 1          | 3 15                |                       |             | NEMA 5-15                |   |  | 643   | 30" x 48" ADA TABLE TOP   | MILLWORK SUPPLIER               |                                      |               |           |                 |       |
| 101E-1<br>101E-3      | FLAVOR SHOT DISPENSER<br>FLAVOR SHOT DISPENSER - USED FOR  | AC DISPENSING<br>AC DISPENSING     | AC-FS10<br>AC-FS-5-5                   |          |             |                          |   |                   | 120 1<br>120 1 | 15 15<br>15 15      |                       |             | NEMA 5-15<br>NEMA 5-15   |   |  | 645   | 24" ROUND TABLE TOP<br>WASTE RECEPTACLE FOR SALES AREA<br>(INCLUDES LINER)                      | RUBBERMAID                      | TBD 221044                           |               |           |                 |       |
| 101F                  | WIRE RACK COFFE CUP DISPENSER  | DISPENSE-RITE<br>MICROW/RE         | WRCT-4                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   | -  | 680<br>691C                                 | FREESTANDING QUEUEING SYSTEM  | LAVI INDUSTRIES<br>SUPPLIER     | B3000                                |               |           |                 |       |
| 101H                  | SUGAR/TEA BAG/STIRRER, HOLDER -<br>13"   | MICROWIRE                          | AD-SH-1                                |          |             |                          |   |                   |                |                     |                       |             |                          |   |  | 708X  | 24"X24" RECTANGULAR TABLE TOP24"<br>X 42" TABLE - NEXT GEN IMAGE                                | твр                             | твр                                  |               |           |                 |       |
| 101L                  | PORTION CONTROLLED GRANULAR &<br>POWDER DISPENSER  | SURE SHOT                          | AC2-GP                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   |  | 712<br>713X                                 | 24"X24" RECTANGULAR TABLE TOP<br>48" x 30" TABLE TOP, ACCESSIBLE -                              | PLYMOLD<br>TBD                  | TBD<br>TBD                           |               |           |                 |       |
| *101Q*<br>101Q-3      | MULTI HOPPER COFFEE GRINDER  | BUNN-O-MATIC                       | 35600.0011                             |          |             |                          |   |                   | 120 1          | 11 15               | 2                     | Y           | NEMA 5-15                | BUNN PROVIDED CORD & PLUG INSTALLED BY<br>GENERAL CONTRACTOR                            |  | 743a  | Horz. Wall Mounted Baby Changing Table  | ASI                             | 9012                                 |               |           |                 |       |
| 102A                  | FLAVOR SHOT 9 PUMP COUNTERTOP<br>RACK  | WIREFAB                            | WF30563                                |          |             |                          |   |                   |                |                     |                       |             |                          |   |  | 743b  | verucar vvaii iviounted Baby Changing Table<br>DD RIALTO EXTERIOR SIDE CHAIRS IN                | ADI<br>AMERICAN CHAIR & SEATING | 52-1800                              |               |           |                 |       |
| 107A                  | DUNKACCINO MACHINE   | BUNN-O-MATIC                       | 29250.0003                             | 18       | 197         | 1/2"                     | 20-90 PSI FROM A 3<br>SUPPLY LINE. A SHU                  | 8" OR LARGER      | 08/120 1       | 17 20               | 3                     |             | NEMA L14-20              | BUNN PROVIDED CORD & PLUG INSTALLED BY  |  | 775   | CAPRI DINING HEIGHT TABLE, 36"D x<br>29.5"OH W/ UMBRELLA HOLF                                   | AMERICAN CHAIR & SEATING        | 52-8036                              |               |           |                 |       |
| 116 1                 | MAGNABLEND BLENDER/ ISLAND   | TAYLOR                             | SB2412-WDD                             |          |             | 3/8"                     | SHOULD BE INSTAL<br>BEFORE THE UNIT<br>ISLAND OASIS (IO)  | O BE FILTERED     | 00-115 1       | 10                  |                       |             | •                        | VERIFY ALL ELECTRICAL REQUIREMENT   |  | 776   | CAPRI BAR HEIGHT DININD TABLE -<br>32"X42" OH W/ UMBRELLA HOLE                                  | AMERICAN CHAIR & SEATING        | 52-8032                              |               |           |                 |       |
| 116E                  | OASIS<br>ISLAND OASIS CUP / LID RACK   | TBD                                | TBD                                    |          |             |                          | WATER   | 10                |                |                     |                       |             |                          | WITH MANUFACTURER   |  | 780   | EXTERIOR POLISHED TABLE WITH<br>STEEL FRAME 71"X71"X29"<br>EXTERIOR POLISHED ACCESSIBLE         | AMERICAN CHAIR & SEATING        | TF3138                               |               |           |                 | +     |
| 120F-1                | ISLAND OASIS TOPPINGS RACK<br>UNDERCOUNTER REFRIGERATOR - 27<br>W/ CASTERS, RIGHT HINGE                    | DELFIELD                           | 406-CA-SPL-RHH                         | 7 S      | A 4769      |                          |   |                   | 115 1          | 7 15                | 3                     | Y           | NEMA 5-15                |   | RIGHT HAND HINGE   | 790   | TABLE 59"X69"X32"<br>EXTERIOR TRASH RECEPTACLE  | WASAU<br>WASAU                  | TF3139<br>TF1015                     |               |           |                 |       |
| *120F* 120F-2         | UNDERCOUNTER REFRIGERATOR - 27<br>W/ CASTERS, LEFT HINGE   | DELFIELD                           | 406-CA-SPL-LHH                         | 7 S      | A 4769      |                          |   |                   | 115 1          | 7 15                | 3                     | Y           | NEMA 5-15                |   | LEFT HAND HINGE  | 795<br>851                                  | EXTERIOR ASH URN W/O SAND<br>28" DD MENU SYSTEEM, 6 PANEL                                       | WASAU<br>POSTERLOID             | TF2040B<br>DD-NGN-28-6-5/09          |               |           |                 |       |
| 120F-3                | UNDERCOUNTER REFRIGERATOR - 27<br>W/ CASTERS, LEFT HINGE   |                                    | UR-27-SST<br>SKR27AD/C10               |          |             |                          |   |                   | 115 1<br>115 1 | 5.6 15<br>2.7 15    | 2                     | Y           | NEMA 5-15                |   | DOOR CAN BE RE-HINGED IN FIELD   | 851A<br>852                                 | 28" DD MENU SYSTEEM, 8 PANEL<br>18" DD MENU SYSTEM, 8 PANEL                                     | POSTERLOID<br>POSTERLOID        | DD-NGN-28-8-5/09<br>DD-NGN-18-8-5/09 |               |           |                 |       |
| 124A<br>124B          | TWIN SH BREWER<br>1.5 GAL SH SERVER  | BUNN-O-MATIC<br>BUNN-O-MATIC       | 51200.0106<br>27850.0200               |          |             | 1/2"                     |   | 12                | 20/208 1       | 38.5 50             | 3                     |             | NEMA 14-50P              |   |  | 852A  | 18" DD MENU SYSTEM, 4 PANEL   | POSTERLOID                      | DD-NGN-18-4-5/09                     |               |           |                 |       |
| 124C<br>124E          | TWIN SH STAND<br>SINGLE SH BREWER  | BUNN-O-MATIC<br>BUNN-O-MATIC       | 27875.0200<br>51100.0105               |          |             | 1/2"                     |   | 12                | 20/208 1       | 16.8 20             | 3                     |             | NEMA L14-20P             |   |  | 854<br>855                                  | 28" DD MENU SYSTEM, 4 PANEL PICK-UP OVAL DD EFECU PREMUDICIC UP STATION                         | POSTERLOID<br>DGS RETAIL        | DD-NGN-28-4-5/09                     |               |           |                 |       |
| 124G                  | TWIN SH STAND WITH WIFI<br>DONUT/BAKERY RACK AT DRIVE THRU   | BUNN-O-MATIC                       | 27875.0201                             |          |             |                          |   |                   | 120 1          | 1.8 20              | 2                     | Y           | NEMA 5-15P               |   |  | 856   | SIGN<br>MERCHANDISER TREE   | DGS<br>DGS RETAIL               | TBD<br>DD-NG-TREE                    |               |           |                 |       |
| 140A                  | 35"W x 28"D<br>DOME LID DISPENSER  | DISPENSE-RITE                      | WR-4                                   |          |             |                          |   |                   |                |                     |                       |             |                          |   |  | 882   | 28 1/4" DD MENU SYSTEM 8 PANEL (AM<br>ONLY) 200"L x 38"H  | POSTERLOID                      | DD-NG-288-AMO-5/09                   |               |           |                 |       |
| 171B<br>172           | DRIVE-THRU READY TO GO MAT<br>DRIVE-THRU STAGING CART  | METRO                              | 2.1<br>DD-DT30                         |          |             |                          |   |                   |                |                     |                       |             |                          |   |  | 883   | 28 1/4" DD MENU SYSTEM 6 PANEL (AM<br>ONLY) 165"L x 38"H<br>MIXER CUP HOLDER                    | POSTERLOID                      | DD-NG-286-AMO-5/09                   |               |           |                 | +     |
| 173B                  | SIZE<br>ICED COFFEE BREWER - #IC3-DBC W/   |                                    | WF31862                                |          | **          | 1/0"                     | 20-90 PSI MACHINE   | SUPPLIED WITH     | 20/208 1       | 10.5 20             |                       | ~           |                          |   | * = 24066  | 886C  | LID RACK<br>DINING CHAIR - GRAPHITE/MILL OAK  | WIREFAB                         | WF35873                              |               |           |                 | +     |
| 200A<br>201A          | ICDD<br>ICE CADDY  | CAMBRO                             | ICS100L                                |          |             | 1/2                      | 3/8" O.D. MALE FLAF                                       | E FITTING         | 20/208         | 19.5 50             | 4                     | T           | NEMA L 14-30             |   | E34000   | 910   | WOOD WITH BACK<br>DINING STOOL - GRAPHITE/MILL OAK  | ALLERMUIR                       | DB81<br>DB81                         |               |           |                 |       |
| 202A<br>203A          | ICED COFFEE DISPENSER<br>ICED CADDY  | BUNN-O-MATIC<br>BK RESOURCES       | 35100.1001<br>BK-MIB-2422              |          |             |                          |   |                   |                |                     |                       |             |                          |   |  | 917X  | WOOD WITH BACK<br>ALL IMAGE KIT - DRIVE THRU (18<br>PIECES)                                     | тво                             | твр                                  |               |           |                 |       |
| 215                   | (2) TRAYS - EXTENDED WARRANTY  | TURBOCHEF                          | NGC-1180-1-2019                        |          |             |                          |   |                   | 208 1          | 30 30               |                       | Y           | NEMA 6-30                |   | -  |   |   |                                 |                                      |               |           |                 |       |
| 217                   | SANDWICH STATION TABLE FOR NGSS 16"W x 30"D  | UNIVERSAL                          | DD-16SLC-30                            |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 244A<br>*246A* 246A-1 | DUAL LANE TOASTER SINGLE SIDED HOT HOLDING UNIT  | HATCO<br>CARTER HOFFMAN            | ITQ-1750-2C-DD<br>MZ343S-DD            |          |             |                          |   |                   | 208 1<br>120   | 23.8 30<br>15       | 3                     | Y<br>Y      | NEMA 6-30P<br>NEMA 5-20P |   |  |   |   |                                 |                                      |               |           |                 |       |
| 246A-2<br>257         | 8 TAP SYSTEM WITH GENERATOR  | MICROMATIC                         | MDD-68G-E-DD                           |          |             | 1/2"                     | 1"  | 20                | 115 1          | 9.6-11.2<br>11.1 20 | 2                     | Y           | NEM 6-15P<br>NEM 5-15    |   |  |   |   |                                 |                                      |               |           |                 |       |
| *275*<br>292          | NEXT GEN FLUSH DT WINDOW 36" SWING GATE  | READY ACCESS<br>EQUIPMENT SUPPLIER | 275E / 275SC<br>CUSTOM MILLWORK        |          |             |                          |   |                   |                |                     |                       |             |                          |   | SIGN TO BE PROVIDED AND INSTALLED BY THE EQUIPMENT SUPPLIER<br>SEE CUSTOM MILLWORK DRAWINGS FOR DETAILS.                                     |   |   |                                 |                                      |               |           |                 |       |
| 375                   | 94" ASSEMBLY STATION WITH 2<br>REFRIGERATED UNITS  | DUKE                               | DD94-DPC-UTR                           |          |             |                          |   |                   | 115            | 10.4                |                       |             | NEMA 5-15                |   |  |   |   |                                 |                                      |               |           |                 |       |
| 395                   | HAND WASHING SINK W/ SIDE  |                                    | EHS-1RI-WH                             |          | 1/2"        | 1/2" 1 1/2"              | 1 1/2"-2" PER LO  |                   | 120            | 3.9                 |                       |             | NEMA 5-15                |   |  |   |   |                                 |                                      |               |           |                 |       |
| 402                   | SPLASHES - FOR FRONT & BACK ROOM<br>EMPLOYEE LOCKER  | WIN-HOLT                           | WL-66 (156195)                         |          |             |                          |   |                   |                |                     |                       |             |                          |   | -  |   |   |                                 |                                      |               |           |                 | +     |
| 409A-<br>409J         |  | SCOTSMAN                           | B23OP, B842S, B530S, B948S             |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 414<br>419            | 1077 LBS/ 24 HRS)<br>STORE ROOM WIRE SHELVING  | SCOTSMAN<br>METRO                  | C1030SA-32B<br>VARIES                  |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 420A                  | SHELF - 24"W x 60"D - ORDER (5)<br>SHELVES PER UNIT  | METRO                              | 2460BR                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 420B                  | SHELF - 24 W X 48 D - ORDER (5)<br>SHELVES PER UNIT<br>SHELF - 24"W X 36"D - ORDER (5)                     | METRO                              | 2448BR                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 420C<br>420D          | SHELVES PER UNIT<br>SHELF - 24"W x 24"D - ORDER (5)  | METRO                              | 2436BR                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 420E                  | SHELVES PER UNIT<br>SHELF - 24"W x 72"D - ORDER (5)<br>SHELVES PER UNIT                                    | METRO                              | ADRUS2472NK3                           |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 421A                  | SHELF - 18"W x 60"D - ORDER (5)<br>SHELVES PER UNIT  | METRO                              | 1860BR                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 | 1     |
| 421B                  | SHELF - 18 W X 48 D - ORDER (5)<br>SHELVES PER UNIT<br>SHELF - 18"W X 36"D - ORDER (5)                     | METRO                              | 1848BR                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 4210                  | SHELVES PER UNIT<br>STAINLESS STEEL WIRE DRYING CART   | IVIE I RU                          | IOJOBK                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 421H                  | 18" x 36", TO BE USED IN LOCATIONS<br>THAT DO NOT HAVE (2) DRAIN BOARDS                                    | METRO                              | 2SPN33AS                               |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 421L                  | 72" X 18" SHELVING UNTIS   | METRO                              | 1872BR                                 |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 434A                  | 112"W X 34"D THREE COMPARTMENT<br>SINK (JUST BAKED)- 20"W X 28"D X 14"<br>BOWL W/ (2) 24"W DRAIN BOARD (3) | UNIVERSAL                          | DD-3N202814-2D24/TSB-133-<br>B/TSB-158 |          | 3/4"        | 3/4" 2"                  | DIR/IND WASTE   | AS<br>LOCAL       |                |                     |                       |             |                          |   | S.S. TOP, SPLASHES ON (3) SIDES. T&S PRE-RINSE WALL UNIT<br>(INCLUDES BRACKET) W/ ADD-A-FAUCET 12" SPOUT TO SHIP W/ 3 BAY                    |   |   |                                 |                                      |               |           |                 |       |
|                       | TWIST HANDLE LEVEL DRAINS<br>108" SINK TRAX SHELVING   |                                    |  |          |             |                          | CODES   |                   |                |                     |                       |             |                          |   | SINK   |   |   |                                 |                                      |               |           |                 |       |
| 435B                  | WORKSTATION- INCLUDES SHELVING<br>& BRACKETS (USED FOR 112" THREE<br>COMPARTMENT SINK)                     | ISS                                | WST1415E                               |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 462                   | S.S WORKTABLE - 36" x 30" W/<br>BACKSPLASH. FIXED S.S. UNDERSHELF  |                                    | 3SLSB-30                               |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 4624                  | (TABLE ONLY)<br>S.S. WORKTABLE - 36" x 30" W/  |                                    |  |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
|                       | BACKSPLASH. FIXED S.S. UNDERSHELF<br>S.S. WORKTABLE - 48"X30"  |                                    |  |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 463                   | W/BACKSPLASH. FIXED S.S.<br>UNDERSHELF (TABLE ONLY)  | UNIVERSAL                          | 4SLSB-30                               |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 463A                  | W/BACKSPLASH. FIXED S.S.<br>UNDERSHELF   | UNIVERSAL                          | DD-4SLSB-30-OSC12                      |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 464                   | S.S. WORKTABLE - 60"X30"<br>W/BACKSPLASH. FIXED S.S.   | UNIVERSAL                          | SSLSB-30                               |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 464A                  | S.S. WORKTABLE - 60"X30"<br>W/BACKSPLASH. FIXED S.S.   | UNIVERSAL                          | DD-SSLSB-30-OSC12                      |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 475A                  | UNDERSHELF<br>ICE BIN - 310 LB CAPACITY  | MANITOWAC                          | B420                                   |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| *475* 475B<br>475C    | ICE BIN - 150 LB CAPACITY<br>ICE BIN - 430 LB CAPACITY   | MANITOWAC<br>MANITOWAC             | B170<br>B570                           |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 475D                  |  |                                    | B970                                   |          |             | **                       | PROVIDE DRAIN FC  |                   | **             | **                  | **                    |             |                          | INCANDESCENT DOOR LIGHT/HEATER- 115V, 5A,<br>1PH; FL LIGHTS (EACH)- 115V, 1PH; HTD/ AIR | UTILITY INFO SHOWN IS FOR INDOOR UNIT- VERIFY ALL INFO FOR OUTDOOR UNITS;  |   |   |                                 |                                      |               |           |                 |       |
| *480*                 | VVALK-IN COOLER/FREEZER PACKAGE  |                                    | PER WALK-IN ORDER FORM                 |          |             |                          | LOCATED OUTDOO<br>PROVIDE DRAIN FO                        | R EVAPORATOR      | **             | **                  |                       | Ň           |                          | VENT-115V, 2A, 1PH; FREEZER SYSTEM- 208-<br>230V, 17A, 3PH                              | UTILITY INFO SHOWN IS FOR INDOOR UNIT- VERIFYALL INFO FOR OUTDOOR UNITS  |   |   |                                 |                                      |               |           |                 |       |
| 480-2                 | WALK-IN COOLER/FREEZER PACKAGE   | KOLPAK<br>BELSHAW                  | PER WALK-IN ORDER FORM                 | _        |             | **                       | COIL CONDENSATE<br>LOCATED OUTDOO                         | (HEATED IF<br>RS) | ** **          | ** **               | **                    | N           |                          |   | IF CONTROL WIRES REQUIRE EXTENSION, IT IS THE RESPONSIBILITY OF THE GC TO<br>RUN THE WIRING  |   |   |                                 |                                      |               |           |                 |       |
| 539-41                | HYDROVECTION OVEN- ELECTRIC,   | BLODGETT                           | HV-100E-ES-SINGI F-DD                  |          |             | 3/4"                     | 1" APPLIANCE TO BE I<br>BACKFLOW PROTE                    | NSTALLED WITH     | 208V 3         | 42 50               | 4                     | No          | NEMA 15-50R              |   |  |   |   |                                 |                                      |               |           |                 |       |
| *539A*                | SINGLE   |                                    |  |          |             |                          | ACCORDANCE WITH<br>STATE, OR LOCAL O<br>APPLIANCE TO BE I | NSTALLED WITH     |                |                     |                       |             |                          | BLODGETT RECOMMENDS A PASS & SEYMOUR  | 3/4" NPT CAS CONNECTION MAY INDUT. 100 000 PT 14. 11 PT PT   |   |   |                                 |                                      |               |           |                 |       |
| 539-A2                | HYDROVECTION OVEN- GAS, SINGLE   | BLODGETT                           | HV-100G-ES-SINGLE-DD                   |          |             | 3/4"                     | 1" BACKFLOW PROTE<br>ACCORDANCE WITH<br>STATE, OR LOCAL O | FEDERAL, 1        | 115V 1         | 10 20               | 3                     | Yes         | NEMA 5-20R               | MODEL 2095 FOR THIS OVEN DUE TO USE OF A<br>VARIABLE FREQUENCY DRIVE                    | WE TO THE CONTRECTION, MAX. INPUT: 120,000 BTU/MTINLET PRESSURE: NATURAL -<br>7.0° W.C. STATIC TO UNIT. PROPANE - 14.0° W.C. STATIC TO UNIT. |   |   |                                 |                                      |               |           |                 |       |
| 541-A                 | DUNNAGE RACK - 36"W x 20"D, SINGLE<br>TIER, USED FOR JUST BAKED<br>DUNNAGE RACK - 48"W/x 20"D, SINCLE      |                                    | D2036-8                                |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| *541* 541-C           | TIER, USED FOR JUST BAKED<br>DUNNAGE RACK - 60"W × 20"D, SINGLE  |                                    | D2048-8<br>D2060-8                     |          |             |                          |   |                   |                |                     | +                     |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 541-D                 | TIER, USED FOR JUST BAKED<br>DUNNAGE RACK - 72"W x 20"D, SINGLE<br>TIER, USED FOR HIST BAKED               | LOCKWOOD                           | D2072-8                                |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
| 541-E                 | DUNNAGE RACK - 32"W x 20"D, SINGLE<br>TIER, USED FOR JUST BAKED  | LOCKWOOD                           | D2032-8                                |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |
|                       |  |                                    |  |          |             |                          |   |                   |                |                     |                       |             |                          |   |  |   |   |                                 |                                      |               |           |                 |       |

| MENT S |       | ULE   |      |      |                     | ELECTRI     | CAL          |        |         |  |  |
|--------|-------|-------|------|------|---------------------|-------------|--------------|--------|---------|--|--|
| ARKS   |       |       | LOAD |      |                     | SUPPLIED W/ |              |        | REMARKS | GENERAL REMARKS  |  |
|        | VOLTS | PHASE | AMPS | SIZE | #WIRES W/<br>GROUND | CORD & PLUG | RECEPT. SPEC | A.F.F. | REMARKS |  | ≣ 3 <b>2</b>   |
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|        | 120   | 1     |      | 15   |                     |             | NEMA 5-15    |        |         |  |  |
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|        |       |       |      |      |                     |             |              |        |         | chosen for table to match color of entire millwork package. Table is not pre-<br>wired. Table is built w/ chase to allow wires to be pulled through. |  |
|        |       |       |      |      |                     |             |              |        |         | To be used when not up against a wall, floating. Bar counter height. Laminate  |  |
|        |       |       |      |      |                     |             |              |        |         | wired. Table is built w/ chase to allow wires to be pulled through.  |  |
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|        |       |       |      |      |                     |             |              |        |         |  | 7/1/2024   |
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|        |       |       |      |      |                     |             |              |        |         |  |  |
|        |       |       |      |      |                     |             |              |        |         | Used for stainless cups at Tap station.  |  |
|        |       |       |      |      |                     |             |              |        |         | Hung on Tap System door.   |  |
|        |       |       |      |      |                     |             |              |        |         |  | e se se  |
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# KITCHEN EQUIPMENT SCHEDULES

K-1.0

DATE 00.00.19 ISSUED / REVISE ISSUED FOR PERMIT

![](_page_23_Figure_0.jpeg)

20 SEATS 44 LN. FT. SHELVING

2500 SQ. FT. (Building)
190 SF (iNTERIORWalk-In Box)
2 DRY DELIVERIES per WK.
2 REF'D DELIVERIES per WK.
750 DZNS. of DONUTS per WK.
250 DZNS. of Munchkins per WK.
20 SEATS

- ▼ = RECESSED TECHNOLOGY
- = RECESSED PLUMBING
- φ = ELECTRICAL DUPLEX OUTLETφ = ELECTRICAL SINGLE OUTLET
- = FLOOR SINK
- **C3** = PRINTER UNDERCOUNTER
- □ = PRINTER
- = D/T MONITOR
- = VIDEO DISPLAY UNIT
- = OPTIONAL OSB VDU

![](_page_23_Figure_12.jpeg)

NOTE: F'EE AND FIELD TEAM TO DETERMINE IF EXISTING BACK ROOM EQUIPMENT AND COLD/DRY STORAGE CAPACITIES CONFORM TO CURRENT STANDARDS. ENSURE ADEQUATE ICE MACHINE CAPACITY FOR NEXT GEN MENU REQUIREMENTS.

NOTES:

- 1. FRANCHISEE'S ARCHITECT SHALL ENSURE 40" MINIMUM CLEAR ACCESS INTO AND THROUGHOUT THE STORE FOR DELIVERY OF LARGE EQUIPMENT ITEMS.
- 2. FRANCHISEE'S ARCHITECT TO VERIFY COMPLIANCE WITH APPLICABLE ADA AND CODE REQUIREMENTS FOR RESTROOM(S) AND ENTRANCE(S).
- 3. WINDOW(S) TO BE IN-FILLED, TINTED, OR BLOCKED OUT WITH APPROVED DBI WINDOW GRAPHICS.
- 4. UNSIGHTLY UTILITIES:
  - TO ENHANCE THE D/T EXPERIENCE PLAN ACCORDINGLY TO EITHER REMOVE OR SCREEN WHEN POSSIBLE.
- 5. DEFAULT WATER FILTRATION SYSTEM SHOWN. ARCHITECT TO HAVE WATER TESTED TO VERIFY ACTUAL SYSTEM REQUIRED. BOOSTER PUMP CAN BE ELIMINATED IF INCOMING WATER PRESSURE TO THE BUILDING IS 65PSI OR HIGHER.
- 6. DEFAULT EQUIPMENT FOOTPRINT SHOWN. ARCHITECT TO COORDINATE WITH FRANCHISEE TO DETERMINE ACTUAL EQUIPMENT REQUIRED.

![](_page_23_Figure_22.jpeg)

![](_page_23_Picture_24.jpeg)

![](_page_23_Picture_25.jpeg)

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![](_page_23_Picture_27.jpeg)

K-1.1

![](_page_24_Figure_0.jpeg)

|      | PLUMBING FIXTURE SCHEDULE    |  |                 |                                       |                                     |                   |                  |                  |                  |            |            |  |
|------|------------------------------|--|-----------------|---------------------------------------|-------------------------------------|-------------------|------------------|------------------|------------------|------------|------------|--|
| MARK | DESCRIPTION                  | MFR & MDL.                                       | MATERIAL        | MOUNTING                              | ACCESSORIES                         | FAUCET & FITTINGS | SUPPLY           | TRAP             | WASTE            | WAT<br>HOT | ER<br>COLD | REMARKS  |
| WC-1 | WATER CLOSET - A.D.A.        | KOHLER K-4325                                    | VITREOUS CHINA  | CARRIER - WADE 310 SERIES             | KOHLER K-4731-C                     |                   | - KOHLER K-13517 | INTEGRAL         | 4 <sup>n</sup>   |            | 1-1/2"     | MOUNT AT A.D.A. HEIGHT                         |
| L-1  | LAVATORY WALL MOUNT - A.D.A. | KOHLER K-2863                                    | VITREOUS CHINA  | CARRIER - WADE 510 SERIES             | KOHLER K-8998                       | K-10269-4A        | McGUIRE<br>158   | McGUIRE<br>#8902 | 2*               | 1/2"       | 1/2*       | MOUNT AT A.D.A. HEIGHT                         |
| S1   | WALL MOUNT SINK              | UNIVERSAL EHS-IRL-WH                             | STAINLESS STEEL |                                       | GRID DRAIN                          | ELKAY LKB400      | McGUIRE<br>158   | ELKAY<br>LKB8    | 2"               | 1/2*       | 1/2*       |  |
| S-2  | COUNTER MOUNT SINK           | UNIVERSAL DD-18CBT32-RL                          | STAINLESS STEEL |                                       | GRID DRAIN                          | T&S TSB1100       | McGUIRE<br>158   | McGUIRE<br>#8902 | 2"               | 1/2"       | 1/2"       |  |
| S3   | TRIPLE BASIN SINK            | UNIVERSAL DD-3N202814-2D24/<br>TSB-133-B/TSB-158 | STAINLESS STEEL |                                       | GRID DRAIN                          | CHOSEN BY OWNER   | McGUIRE<br>158   | McGUIRE<br>#8902 | 2"               | 1/2"       | 1/2*       |  |
| SS-1 | UTILITY SINK                 | CRANE MSB 2424                                   | MOLDED STONE    | · · · · · · · · · · · · · · · · · · · | CRANE 832-AA DRAIN HOSE<br>ASSEMBLY | CRANE 830-AA      | McGUIRE<br>158   | McGUIRE<br>#8902 | 3"               | 1/2*       | 1/2"       | VINYL BUMPERGUARD E-77-AA<br>MOP HANGER 889-CC |
| FD   | FLOOR DRAIN                  | WADE 1102-STD5                                   | CAST IRON       |                                       | SATIN NICKEL BRONZE STRAINER        |                   |                  | CAST IRON        | 2"               |            |            |  |
| FPHB | FREEZE PROOF HOSE BIBB       | WOOODFORD B65                                    | CHROME          |                                       | VACUUM BREAKER                      |                   | McGUIRE<br>158   | McGUIRE<br>#8902 |                  | -          | 3/4"       |  |
| WH-1 | INSTANTANEOUS WATER HEATER   | RINNAI RC98E                                     | STAINLESS STEEL |                                       |                                     |                   | MCGUIRE          |                  | ganingenityening | 3/4"       | 3/4"       | 55,000 BTU/HR.                                 |

| PIPING                           | LEGEND |
|----------------------------------|--------|
| CITY WATER<br>DOMESTIC HOT WATER | CW     |
| SANITARY SEWER                   | SS     |
| SANITARY SEWER VENT              | V      |
| GAS                              | G      |

| GAS LOAD   | SCHEDULE |
|------------|----------|
| FIXTURE    | MBTU/H   |
| WH-1       | 55,000   |
| RTU-1      | 200,000  |
| RTU-2      | 200,000  |
| TOTAL LOAD | 455,000  |

| PLUMB | ING SYMBOL LEC                                  |  |  |  |  |  |
|-------|---|--|--|--|--|--|
|       | 90° ELBOW (SHORT RADIUS                         |  |  |  |  |  |
|       | TEE   |  |  |  |  |  |
| ->-   | VALVE (BALL TYPE UNLESS<br>OTHERWISE INDICATED) |  |  |  |  |  |
| -N-   | SWING CHECK VALVE                               |  |  |  |  |  |
| 6     | WATER CLOSET                                    |  |  |  |  |  |
| A     | URINAL  |  |  |  |  |  |
|       | WALL MOUNTED LAVATORY                           |  |  |  |  |  |
|       | WALL MOUNTED SINK                               |  |  |  |  |  |
|       | COUNTER MOUNTED SINK                            |  |  |  |  |  |
|       | ELECTRIC WATER COOLER                           |  |  |  |  |  |
| FDe   | FLOOR DRAIN                                     |  |  |  |  |  |
|       | HOSE BIB  |  |  |  |  |  |

![](_page_25_Figure_0.jpeg)

# PLUMBING CONNECTION PLAN ANDELEVATION

SCALE <sup>1</sup>/<sub>2</sub>"=1'-0"

|       | E     | EQUII | PMENT SCHEDULE                    |              |                 |         | PLUMBING                         |   | ELE     |              | CAL    |
|-------|-------|-------|-----------------------------------|--------------|-----------------|---------|----------------------------------|---|---------|--------------|--------|
| ITEM  | NO    | QTY   | DESCRIPTION                       | MANUFACTURER | MODEL NO        | REMARKS | WATER WASTE<br>HW CW FCW DIR INE | - REMARKS   | VOLTS   | LOAD<br>AMPS | <br>CB |
| 96.4  |       | 2     | COFFEE ART TOUCH ESPRESSO MACHINE | SCHAERER     | 040381-00022EUS |         | 3/8" 1"                          | PROVIDE PRESSURE REDUCING VALVE & WATER<br>  SHUT-OFF VALVE w/ 3/8" COMPRESSION FITTING | 208V    | 30A          | 30A/2P |
| 98    |       | 0     | ESPRESSO MACHINE                  | SCHAERER     | 03.5500.8033    |         | 1/2" 1"                          | DED. BALL VALVE w/ FLEX CONNECTION TO MACHINE   | 208V    | 30A          | 30A/2P |
| 1     | 19    | 1     | HOT WINTER BEVERAGE MACHINE       | BUNN-O-MATIC | 38600.0057      |         | 1/4"                             | 20–90 PSI. –– 1/4" MALE FLARE FITTING   | 120/240 | 21.7         | 30A/2P |
|       |       | 0     | HOT WINTER BEVERAGE MACHINE       | _            | _               |         | 1/4"                             | 20–90 PSI. –– 1/4" MALE FLARE FITTING   | 208/240 |              |        |
| 1     | 08A-1 | 0     | HOT WINTER BEVERAGE MACHINE       | BUNN-O-MATIC | 43700.0003      |         | 1/4"                             | 20–90 PSI. –– 1/4" MALE FLARE FITTING   | 120/240 | 21.7         | 30A/2P |
| 1     | 08A-2 | 0     | HOT WINTER BEVERAGE MACHINE       | CECILWARE    | GB5M5.5-IT-U-DB |         | 1/4"                             | 20–90 PSI. –– 1/4" MALE FLARE FITTING   | 208/240 |              |        |
| 116.1 |       | 2     | MAGNABLEND BLENDER / ISLAND OASIS | TAYLOR       | SB2412-WDD      |         | 3/8" 1"                          |   | 115V    | 10           | 15A    |
| ALT   | 121F  | 0     | 2 DRAWER U/C REFRIGERATOR         | SILVER KING  | SKR27AD/C11     |         |                                  |   | 115V    | 2.7          | 15A/1P |
| 124A  | N     | 1     | TWIN SH BREWER                    | BUNN-O-MATIC | 51200.0106      |         | 3/8"                             | 20-90 PSI 3/8" MALE FLARE FITTING   | 120/208 | 38.5         | 50A/2P |
| 124B  | -1    | 2     | 1.0 GAL SH SERVER                 | BUNN-O-MATIC | 27850.0210      |         | 1/2"                             | FCW CONNECTION TO SPRAYER   |         |              |        |
| 1502  |       | 1     | DUMP SINK TABLE STATION           | FRANKE       |                 |         | 1/2"                             | FCW CONNECTION TO SPRAYER   |         |              |        |
|       |       |       |                                   |              |                 |         |                                  |   |         |              |        |

#### PLUMBING FIXTURES) WITH ENGINEERED FITTING INSERTS AND PVC COVERS. FOLL 6. <u>SERVICE</u> DOMESTIC HOT WATER (105°-140°F) DOMESTIC HOT WATER CIRCULATION DOMESTIC COLD WATER ALL

- 5. INSULATE DOMESTIC WATER PIPING ABOVE
- 4. STERILIZE DOMESTIC WATER PIPING IN ACC ASSOCIATION'S SPECIFICATIONS AND LOCA
- 3. DOMESTIC WATER PIPING AND JOINTS ABO TUBING, TYPE 'L' WITH 95-5 SILVER SOI
- 2. DOMESTIC WATER PIPING BELOW GRADE: SOFT ANNEALED SEAMLESS COPPER TUBI (ASTM B 88).
- . FURNISH AND INSTALL A COMPLETE SYST FROM EXISTING SUPPLIES TO ALL FIXTURE VERIFY LOCATION OF BEGINNING POINTS.
- DOMESTIC WATER PIPING:
- 1. FIRE STOP ALL PENETRATIONS, BY PIPING AND PARTITIONS. PROVIDE A DEVICE(S) LISTED AS COMPLYING WITH ASTM E-814 CONDITIONS OF THEIR LISTING. PROVIDE EQUAL TO THE RATING OF THE ASSEMBI

- 1. PROVIDE COMPLETE FIXTURES AND INCLU TRAPS, TAIL PIECES, ESCUTCHEONS, ETC. FIRE STOPPING:
- 5. FIELD VERIFICATION: FIELD VERIFY EXISTI AND NOTIFY THE ARCHITECT/ENGINEER
- 4. COORDINATION: VERIFY ALL ROUGH-IN L EQUIPMENT LOCATIONS WITH WORK UNDER AVOID CONFLICTS. CONTRACTOR MUST C STRUCTURES, PIPING, CONDUIT, DUCTWOR ANY CONFLICTS SHALL BE RESOLVED AT INSTALLATION OF ALL PLUMBING LINES / PLACED IN WALL DURING CMU WALL CO WALLS IN PLACE WILL NOT BE PERMITTED
- BY THE OWNER.
- WARRANTY: PROVIDE ALL MATERIALS AND SPECIFICATIONS WITH A ONE YEAR WARRAN
- 2. PERMITS: APPLY FOR AND PAY FOR ALL REQUIRED BY ANY PUBLIC AUTHORITY HA
- 1. SCOPE: PROVIDE ALL LABOR, MATERIAL AND OPERATION OF ALL SYSTEMS IN THIS APPLICABLE CODES.

|            |   |  | ×.  |
|------------|---|--|---|
|            |   |  | Ŭ   |
| <u>GE</u>  | VERAL REQUIREMENTS:   |  | te  |
| 1.         | SCOPE: PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR THE COMPLETION<br>AND OPERATION OF ALL SYSTEMS IN THIS SECTION OF WORK IN ACCORDANCE WITH ALL<br>APPLICABLE CODES.  | 7. DOMESTIC WATER PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND<br>ADHESIVES ARE REQUIRED TO MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A<br>SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM E84 (NFPA 255)  | C D D C D D C D D C D D C D D C D C D C               |
| 2.         | PERMITS: APPLY FOR AND PAY FOR ALL NECESSARY PERMITS, FEES, AND INSPECTIONS REQUIRED BY ANY PUBLIC AUTHORITY HAVING JURISDICTION.   | 8. DO NOT INSTALL DOMESTIC WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES.   | A<br>ROA<br>L 35<br>ML 35                             |
| 3.         | WARRANTY: PROVIDE ALL MATERIALS AND EQUIPMENT UNDER THIS SECTION OF THE<br>SPECIFICATIONS WITH A ONE YEAR WARRANTY FROM THE DATE OF ACCEPTANCE OF WORK<br>BY THE OWNER  | INSTALL WATER PIPING IN EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL<br>INSULATION.  | <b>С ,</b><br>VICK<br>M, A<br>M, A<br>1.785<br>aciarc |
| 4.         | COORDINATION: VERIFY ALL ROUGH-IN LOCATIONS AND COORDINATE PIPING AND EQUIPMENT LOCATIONS WITH WORK UNDER OTHER DIVISIONS OF THE SPECIFICATIONS TO  | PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS.<br>PROVIDE ACCESS DOORS IF REQUIRED.  | <b>VA</b><br>BERV<br>NGH/<br>05.54<br>ohnva           |
|            | AVOID CONFLICTS. CONTRACTOR MUST COORDINATE WITH OTHER TRADES FOR ALL<br>STRUCTURES, PIPING, CONDUIT, DUCTWORK, LIGHTING, ETC. TO PROPERLY BE INSTALLED.<br>ANY CONFLICTS SHALL BE RESOLVED AT NO CHARGE TO THE OWNER. COORDINATE<br>INSTALLATION OF ALL PLUMBING LINES AT CMU WALLS SO THAT PLUMBING LINES ARE<br>PLACED IN WALL DURING CMU WALL CONSTRUCTION. CUTTING AND PATCHING OF CMU | <ol> <li>PROTECT COPPER PIPING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGERS,<br/>SUPPORTS, ANCHORS, AND CLIPS SHALL BE COPPER OR COPPER PLATED. WHERE COPPER<br/>PIPING IS CARRIED ON IRON TRAPEZE HANGERS WITH OTHER PIPING, PROVIDE A<br/>PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH OTHER<br/>METALS.</li> <li>PROTECT COPPER PIPING AGAINST CONTACT WITH ALL MASONRY. WHERE COPPER IS</li> </ol> | <b>11 S</b><br>1138  <br>BIRMII<br>20hn@j             |
| 5.         | FIELD VERIFICATION: FIELD VERIFY EXISTING CONDITIONS BEFORE STARTING CONSTRUCTION<br>AND NOTIFY THE ARCHITECT/ENGINEER OF RECORD OF ANY DISCREPANCIES BETWEEN THE<br>CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS AND/OR ANY POTENTIAL PROBLEMS   | SLEEVED THROUGH MASONRY, PROVIDE COPPER OR RED BRASS SLEEVES. WHERE COPPER<br>MUST BE CONCEALED IN OR AGAINST MASONRY PARTITIONS, PROVIDE A HEAVY COATING<br>OF ASPHALTIC ENAMEL ON THE COPPER PIPING AND 15# ASPHALT SATURATED FELT<br>BETWEEN THE PIPING AND THE MASONRY PARTITION.  | Οſ  |
| 6.         | OBSERVED BEFORE CONTINUING WORK IN THE EFFECTED AREAS.<br>PLUMBING SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO:<br>– PLUMBING FIXTURES AND EQUIPMENT<br>– FIRE STOPPING<br>– DOMESTIC WATER SYSTEM  | SANITARY WASTE AND VENT PIPING:<br>1. FURNISH AND INSTALL COMPLETE SYSTEMS OF SOIL, WASTE, AND VENT PIPING FROM ALL<br>PLUMBING FIXTURES, AND/OR OTHER EQUIPMENT. ALL SOIL, WASTE AND VENT LINES SHALL<br>BE CONCEALED IN THE BUILDING CONSTRUCTION WHERE POSSIBLE.  | RED ARO   |
|            | - SANITARY WASTE AND VENT SYSTEM  | 2. INVERT ELEVATIONS SHALL BE ESTABLISHED AND VERIFIED BEFORE WASTE PIPING IS<br>INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED.   | JOHN S.   |
| FIX        | TURES:  |  | VACI  |
| 1.         | PROVIDE COMPLETE FIXTURES AND INCLUDE SUPPLIES, STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAIL PIECES, ESCUTCHEONS, ETC.   | BE SCHEDULE 40 PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET-TYPE PIPE FITTINGS<br>(ASTM D 3311). ONLY IF PVC IS NOT ALLOWED, THEN SANITARY WASTE AND VENT PIPING<br>AND FITTINGS SHALL BE SERVICE WEIGHT CAST IRON. HUB AND SPIGOT TYPE WITH  | U C C C   |
| <u>FIR</u> | E STOPPING:   | COMPRESSION JOINTS (ASTM A 74) OR NO-HUB PIPING WITH COUPLINGS (CISPI 301).  | S OF ARKAN  |
| 1.         | FIRE STOP ALL PENETRATIONS, BY PIPING OR CONDUITS, OF FIRE RATED WALLS, FLOORS<br>AND PARTITIONS. PROVIDE A DEVICE(S) OR SYSTEM(S) WHICH HAS BEEN TESTED AND<br>LISTED AS COMPLYING WITH ASTM E-814 AND INSTALL IN ACCORDANCE WITH THE<br>CONDITIONS OF THEIR LISTING. PROVIDE A DEVICE(S) OR SYSTEM(S) WITH AN 'F' RATING  | 4. SLOPE SANITARY WASTE PIPING 21" AND SMALLER AT r" PER FOOT MIN. SLOPE SANITARY WASTE PIPING 3" AND LARGER AT w" PER FOOT MINIMUM.   | 7/1/2024  |
| D0         | EQUAL TO THE RATING OF THE ASSEMBLY BEING PENETRATED.   | 5. WHERE WASTE PIPING IS EXPOSED IN REST ROOM AREAS, PROVIDE CHROME PLATED BRASS<br>PIPING, WITH MATCHING STOPS AND ESCUTCHEONS. PROVIDE REMOVABLE TRAPS WITH<br>INTEGRAL CLEAN-OUT PLUG FOR ALL LAVATORIES.   |   |
| 1.         | FURNISH AND INSTALL A COMPLETE SYSTEM OF HOT AND COLD WATER, AND WASTE PIPING<br>FROM EXISTING SUPPLIES TO ALL FIXTURES AND/OR EQUIPMENT REQUIRING THIS SERVICE.  | 6. INSTALL CLEAN-OUTS IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT<br>DAMAGE TO THE BUILDING OR FINISHED MATERIALS. CLEANOUT PLUGS SHALL BE INSTALLED<br>IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS AT EACH CHANGE IN DIRECTION.   |   |
| 2          | DOMESTIC WATER PIPING BELOW GRADE:  | SEISMIC REQUIREMENTS:  |   |
|            | SOFT ANNEALED SEAMLESS COPPER TUBING, TYPE 'K' WITH NO JOINTS BELOW GRADE (ASTM B 88).  | 1. PROPERLY SUPPORT AND BRACE VERTICALLY AND HORIZONTALLY ALL PIPING, APPARATUS,<br>EQUIPMENT, ETC. IN ACCORDANCE WITH APPLICABLE CODES TO PREVENT EXCESSIVE<br>MOVEMENT DURING SEISMIC CONDITIONS   | 3506<br>nold:   |
| 3.         | DOMESTIC WATER PIPING AND JOINTS ABOVE GRADE: HARD DRAWN SEAMLESS COPPER<br>TUBING TYPE 'L' WITH 95-5 SILVER SOLDERED JOINTS (ASTM B 88)  |  |   |
|            |   |  |   |
| 4.         | STERILIZE DOMESTIC WATER PIPING IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.   | BACKFLOW PREVENTION DEVICES AS REQUIRED. COORDINATE LOCATION WITH OTHER TRADES.  |   |
| 5.         | INSULATE DOMESTIC WATER PIPING ABOVE GRADE (EXCEPT EXPOSED CONNECTIONS TO PLUMBING FIXTURES) WITH ENGINEERED POLYMER FOAM INSULATION OR FIBERGLASS WITH FITTING INSERTS AND PVC COVERS. FOLLOW THIS SCHEDULE:   |  | Store 223   |
| 6.         | <u>SERVICE</u> <u>PIPE SIZE</u> <u>INS. THICKNESS</u><br>DOMESTIC HOT WATER (105°–140°F) i" – 1i" i"  |  |   |
|            | DOMESTIC HOT WATER CIRCULATION ALL i"<br>DOMESTIC COLD WATER ALL i"   |  |   |

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PLUMBING SANITARY AND WATER PLANS

DATE 00.00.19

**P-2.0** 

![](_page_26_Figure_0.jpeg)

| CODE           | DESCRIPTION   | MANUEACTURED              | BBODUCT                                   |
|----------------|---|---------------------------|---|
| CODE           |   | MANUFACTURER              |   |
| ·              | WALL-WASH FIXTURE- TO BE USED AT ARTWORK AND LROD SIGN            | CONTECH                   | RL20SA3-35K-12-D/ CTR2002CLR-P            |
| <u> </u>       |   |                           |   |
|                | TRACK LIGHT & HEAD- USED @ WALL W/ ART WORK AND WHERE             | JUNO                      | R600L-35K-BI                              |
| BU-W           | ULTRA COMPACT LED EMERGENCY UNIT (WHITE)                          | FXITRONIX                 | EBU-W-I ED-51-52                          |
| BUL-B          | ULTRA COMPACT LED EMERGENCY LINIT- USED ON W/T-02 WALL ONLY       |                           | EBII-BI-I ED-51-52                        |
| 000            | (BLACK)   |                           |   |
| MR             | EXTERIOR COMBO LED REMOTE EXIST LIGHT HEAD- USED ABOVE OR         | EXITRONIX                 | MLED-2-G-WP                               |
|                | ADJACENT TO EXIT DOORS (GRAY)                                     |                           |   |
| \M/S_1         | MALL BACK (CRAV) EXTERIOR, LISED ON DARK MALL EINSIH              | WAC .                     |   |
| 14/9-2         | MALL DACK (MULITE) EXTERIOR, LISED ON LIGHT WALL EINISH           | WAC                       |   |
| È              |   | COOPER                    | XTOR3A                                    |
| X1             | COMBO LED EXIT SIGN W/ LIGHT HEADS (WHITE)                        | EXITRONIX                 | VLED-U-WH-EL90                            |
|                |   |                           |   |
| ED 2           | EXTERIOR RECESSED LIGHT FIXTURE- USED UNDER ORANGE BEAM/          | LUMARK                    | XTOR2B-W                                  |
| ED 3           |   | РГТ                       | PLT-90095.65 WATT 120V SURFACE/           |
| ED 12          |   |                           |   |
|                | FIELD FRAMED ORANGE BEAM  | SOLUTIONS OF LIGHTING     |   |
| ED 13          | EXTERIOR LIGHT FIXTURE- USED ON TOP OF AND ON THE UNDERSIDE       |                           | TO BE PROVIDED BY PREFAB ORANGE BEAM VEND |
| ED 14          |   |                           | HB308-48"-41K-15D-AC                      |
|                | CHARCOAL TRIM AT BASE OF MONOLITH ONLY                            |                           |   |
|                | WALL MOUNTED GOOUPANOY GENOOR                                     | WATTOTOPPER               | W0 250 W                                  |
| 1              | 8' SUSPENDED LINEAR LIGHT FIXTURE- USED IN SEATING/ SALES<br>AREA | TEXAS FLUORESCENTS        | SES-FR-96L-S62W6200L-DMV-35K-BK           |
| 2              | 4' SUSPENDED LINEAR LIGHT FIXTURE- USED IN SEATING/ SALES         | TEXAS FLUORESCENTS        | SES-FR-48L-S62W3100L-DMV-35K-BK           |
| 3              | PENDANT CHANDELIER- USED ABOVE COMMUNITY TABLE                    | TECH LIGHTING             | 700TD-ALVPMC-OS-LED930                    |
|                | PARKING LOT LIGHTING  |                           | LUMARK PRV PREVAL PRV A48 UNV TO GATEZ    |
|                | PARKING LOT LIGHTING  | BOOPER LIGHTING           |   |
| 1              | RECESSED LED LIGHT FIXTURE  | CREE                      | RC6/CR6T-1600L-35K                        |
| 2              | 2X2 LAY-IN TROFFER LED LIGHT FIXTURE. USED IN FRONT OF HOUSE      | CREE                      | CR22-32L-35K-S-HD                         |
| 3              | 4" LED ADJ DOWNLIGHT, 400K, 200 LUMEN                             | NORA                      | NCH-436-L20-40-D-SF                       |
| 4              |   | PINNACLE ARCHITECTURAL    | EX3D-A-N-835VHO-8-S/AC120ST               |
| ₹5             | 2X4 LAY-IN LED LIGHT FIXTURE, USED IN BACK OF HOUSE               | LSI                       | SFP24-LED-50-UE-DIM-35-U                  |
|                | 2/2 LAT IN LED LIGHT FIXTURE, WEED OVER CERVICE AREA              | 101                       | OFF22 LED VE 00 DIM 00 V                  |
|                | REMODELS ONLY   |                           |   |
| , <b></b>      | EXAMPLE AND TRAFFER LED HOUT FIXTURE, USED IN FRONT OF HOUSE      | OREE                      | ORE 1 10L 051( O HB                       |
|                | REMODELS ONLY   |                           |   |
| <u>160 X 2</u> |   |                           | U UDMD16/18 1 110/ MD16AD16202010T 10 61  |
| . PROVIDE      | ALL FIXTURES COMPLETE WITH LAMPS. REF. NATIONAL ACCOUNT SOU       | RCE INFO FOR LAMP SPECS & | VILLA LIGHTING RE-LAMPING PROGRAM.        |
| . ALL BALL     | ASTS SHALL BE HIGH POWER FACTOR.                                  |                           |   |
|                |   |                           |   |
| . PROVIDE      | HOLD-DOWN CLIPS FOR EACH CORNER OF FLUORESCENT GRID TROF          | FERS.                     |   |

![](_page_26_Figure_2.jpeg)

INSTALL NEW MOTION

SENSOR SWITCHES

# GENERAL NOTES:

- A. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE CODES AND AUTHORITIES HAVING JURISDICTION.
- B. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE ALL REQUIRED INSPECTIONS.
- C. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS AND TRADES.
- D. THESE DRAWINGS, AS PREPARED, ARE DIAGRAMMATIC BUT SHALL BE FOLLOWED AS CLOSELY AS CONSTRUCTION OF THE PROJECT AND THE WORK OF THE TRADES WILL PERMIT. EQUIPMENT LOCATIONS INDICATED ARE APPROXIMATE. COORDINATE EXACT LOCATIONS AND REQUIRED CLEARANCES WITH EQUIPMENT SUPPLIER AND ALL TRADES PRIOR TO INSTALLATION.
- E. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE EQUIPMENT INDICATED WITHIN THESE DRAWINGS UNLESS OTHERWISE NOTED. VERIFY LOCATION AND DIMENSIONS IN THE FIELD PRIOR TO FABRICATION AND / OR INSTALLATION.
- F. ALL ROOF PENETRATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE. COORDINATE WITH OWNER'S ROOFING CONTRACTOR SO AS NOT TO VOID ANY EXISTING ROOF WARRANTIES.
- G. THE ENTIRE INSTALLATION SHALL BE GUARANTEED FREE OF DEFECTS AND CONTRACTOR SHALL REPAIR AND / OR REPLACE ANY DEFECTIVE MATERIALS OR EQUIPMENT AT NO COST TO THE OWNER FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY ARCHITECT OR ENGINEER.
- H. ALL WORK SHALL BE SUBJECT TO THE ACCEPTANCE AND APPROVAL OF THE ARCHITECT AND OWNER. THE ARCHITECT SHALL BE NOTIFIED OF ANY AND ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. FAILURE OF PROPER NOTIFICATION DOES NOT RELIEVE THE CONTRACTOR. THE CONTRACTOR SHALL CORRECT ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT WITHOUT ADDITIONAL COST TO THE OWNER.
- I. COORDINATE ALL EQUIPMENT UTILITY INFORMATION SHOWN ON THIS SHEET WITH THE DUNKIN' BRANDS EQUIPMENT SCHEDULE AND EQUIPMENT MANUFACTURER'S CUT SHEETS.
- J. ALL EXTERIOR LIGHTS TO BE TIMECLOCK CONTROLLED.
- K. ALL 15 AND 20 AMP, 120 VOLT RECEPTACLES IN KITCHEN AND PREP AREAS SHALL BE GFI TYPE.
- L. ALL JUNCTION BOXES SHOWN ON THIS PLAN ARE TO BE INSTALLED ABOVE THE FINISHED CEILING.
- M. ALL EMERGENCY AND EXIT FIXTURES SHALL BE CONNECTED TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCHING. PROVIDE ADDITIONAL FIXTURES AS NEEDED TO MEET THE CODE REQUIREMENTS PER LOCAL REQUIREMENTS.
- N. PROVIDE WOOD BLOCKING BEHIND ALL EXTERIOR LIGHTING FIXTURES COORDINATE WITH GENERAL CONTRACTOR.
- O. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE LATEST KITCHEN PLANS AND EQUIPMENT CUTS SHEETS FOR PROPER EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS PRIOR TO STARTING WORK.

![](_page_26_Figure_19.jpeg)

![](_page_26_Figure_20.jpeg)

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![](_page_26_Figure_21.jpeg)

#### NOTES:

 ALL EXIT, NIGHT LIGHT AND EMERGENCY LIGHT FIXTURES SHALL BE CIRCUITED TO AN UNSWITCHED LEG OF THE NEAREST LOCAL LIGHTING CIRCUIT.
 MINIMUM OF 50 FOOT CANDLES SHALL BE PROVIDED AT SURFACES OF ALL FOOD WASHING AND FOOD PREPARATION AREAS.
 MINIMUM OF 20 FOOT CANDLES IS BEING PROVIDED IN ALL OTHER AREAS.
 ALL LIGHT BULBS IN LIGHT FIXTURES IN KITCHEN, DINING ROOM ARE

SHIELDED USING CLEAR PRISMATIC LENS IN THE LIGHT FIXTURE OR HAVE SHATTER PROOF LED BULB. 5. LIGHT SWITCHES SHALL BE COMPATIBLE WITH AND MATCH CHARACTERISTICS

OF LIGHTS BEING SERVED. PROVIDE LOW VOLTAGE WIRING AND/OR POWER PAKS AS NECESSARY FOR LIGHT FIXTURES TO BE CONTROLLED BY 0-10V DIMMING.

LIGHT FIXTURE MOUNTING NOTE: BOTTOM OF LIGHT FIXTURES P1, P3 AND R4 SHALL BE AT 9'-6"

#### LIGHTING NOTE:

KITCHEN WORK SURFACES WHERE FOOD IS PREPARED AND UTENSILS WASHED SHALL HAVE MINIMUM 50 FOOT CANDLES OF LIGHTING AT WORK SURFACE (36" A.F.F.).

#### CARBON MONOXIDE MONITORING:

PROVIDE A MEANS OF MONITORING AND ALARMING THE OCCUPANTS UPON THE PRESENCE OF CARBON MONOXIDE (CO). THE MEANS OF DETECTION SHALL BE LOCATED NEAR EQUIPMENT THAT PRODUCES PRODUCT OF COMBUSTION. LOCATIONS SHALL INCLUDE BUT NOT BE LIMITED TO; GAS FIRED OVENS, GAS FIRED WATER HEATERS, GAS FIRED FURNACES, ETC.

![](_page_26_Figure_31.jpeg)

# **REFER TO EXISTING ELECTRICAL SHEETS AND VISIT SITE**

![](_page_27_Figure_1.jpeg)

![](_page_27_Figure_2.jpeg)

FINISHED FLOOR

**4 VIDEO HANGING BRACKET** 

E-2/SCALE: NONE

![](_page_27_Figure_3.jpeg)

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6" 6"

E-2 SCALE: 1/4"=1'-0"

3`

![](_page_27_Figure_4.jpeg)

7'-10" SANDWICH STATION ELEVATION

<u>GFI\_NOTE:</u> ALL 15 AND 20 AMP, 125 VOLT RECEPTACLES LOCATED IN THE KITCHEN, SERVING AND SALES AREA SHALL BE GFI RATED.

E-2 SCALE: 1/4"=1'-0"

![](_page_27_Picture_10.jpeg)

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34

Bry

![](_page_27_Figure_11.jpeg)

| D NOTES:  |   |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|
| OS AND COMMUNICATIONS. PLAN FOR FURTHER INFORMATION REGARDING POS AND UNDER COUNTER TRICAL SERVICE.   |   |  |  |  |  |  |  |  |  |
| RACTOR SHALL PROVIDE POWER AND NECESSARY WIRING FOR THE HOOD CONTROL PANEL. SEE THE CAPTIVE DRAWINGS FOR WIRING REQUIREMENTS.   |   |  |  |  |  |  |  |  |  |
| ROL RELAY PANEL. SEE LIGHTING PLAN FOR SCHEDULE AND CONTROL DETAIL DRAWINGS FOR ADDITIONAL  |   |  |  |  |  |  |  |  |  |
| IDE JUNCTION BOXES AT TOILETS, SINKS AND OPTIONAL URINAL IF ALTERNATE "HANDS FREE" TOILET FIXTURES<br>BEING PROVIDED  |   |  |  |  |  |  |  |  |  |
| R TO POS COMMUNICAT   | TIONS FLOOR PLAN FOR LOCATIONS ANI  | ELEVATIONS OF OFFICE RECEPTACLES.  |  |  |  |  |  |  |  |
| E POINT CONNECTION FOR WALK-IN FREEZER AND REFRIGERATOR. THE CONTRACTOR SHALL CONFIRM<br>RICAL REQUIREMENTS AND MEANS OF DISCONNECT OF THE ROOF MOUNTED CONDENSING UNITS AND<br>PRATOR UNITS LOCATED WITHIN THE BOXES. ALSO, PROVIDE ELECTRICAL CONNECTION OF DOOR HEATER,<br>ENSATE DRAIN AND HEAT TRACE TAPE. |   |  |  |  |  |  |  |  |  |
| IT RECEPTACLES FOR FRONTLINE BEVERAGE DISPENSER AND BAKERY DISPLAY CASES IN MILL WORK AS<br>IRED. PROVIDE FLEXIBLE CONDUIT WHIP FOR FINAL INSTALLATION AFTER MILL WORK IS INSTALLED.<br>DINATE AS REQUIRED.   |   |  |  |  |  |  |  |  |  |
| UIT SHALL BE CIRCUITE   | D AND CONTROLLED WITH LIGHTING IN -   | HIS AREA.  |  |  |  |  |  |  |  |
| ALL UNDER COUNTER CA  | ABLE MANAGEMENT SYSTEM, WIRE MOL<br>ITING REQUIREMENTS.   | D UTCM5 OR EQUAL. COORDINATE WITH TABLE  |  |  |  |  |  |  |  |
|   |   | COORDINATE WITH ARCHITECT TO<br>CONFIRM COLOR OF RECEPTACLES PRIOR<br>TO ORDERING. |  |  |  |  |  |  |  |
|   | RECEPTACLES TAGGED WITH "USB" IN<br>HUBBELL #USB15X2W (WHITE) / NP26W<br>TAMPER-RESISTANT RECEPTACLE. | THE SALES & SEATING AREAS SHALL BE<br>(WHITE) COMBO USB CHARGER WITH               |  |  |  |  |  |  |  |
|   | SEATING AREA RECEPTACLES SHALL E<br>ARE TO BE MOUNTED AT 18" AFF.                                     | E WHITE WITH WHITE COVER PLATE AND   |  |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |  |  |
| R DEVICE LE   | EGEND:  |  |  |  |  |  |  |  |  |
|   | EPTACLE, 20A, 120V  |  |  |  |  |  |  |  |  |
|   | PTACLE, 20A, 120V   |  |  |  |  |  |  |  |  |

SPECIAL RECEPTACLE, VOLTAGE AND AMPERAGE BASED ON CONNECTED CIRCUIT

J JUNCTION BOX

DISCONNECT SWITCH - FUSED OR UNFUSED

anchise Opera oon/Lee Millwo Lagunita Franchise Ope Tony Antoon/Lee Mill lee@lfops.com 601.940.6914

![](_page_27_Figure_17.jpeg)

![](_page_28_Figure_0.jpeg)

|           | EQL   | JIPMENT SCHEDULE                                   |               |                  |                                | PLUMBING             |                 |   | ELE     |              | CAL    |              |         |
|-----------|-------|--|---------------|------------------|--------------------------------|----------------------|-----------------|---|---------|--------------|--------|--------------|---------|
| ITEM N    | ο ατγ | DESCRIPTION  | MANUFACTURER  | MODEL NO         | REMARKS                        | WATER<br>HW CW FCW D | WASTE<br>IR IND | - REMARKS   | VOLTS   | LOAD<br>AMPS | СВ     | CORD<br>PLUG | RECEPT  |
| 96.4      | 2     | COFFEE ART TOUCH ESPRESSO MACHINE                  | SCHAERER      | 040381-00022EUS  |                                | 3/8"                 | 1"              | PROVIDE PRESSURE REDUCING VALVE & WATER<br>  SHUT-OFF VALVE w/ 3/8" COMPRESSION FITTING | 208V    | 30A          | 30A/2P | YES          | L6-30R  |
| 98        | 0     | ESPRESSO MACHINE                                   | SCHAERER      | 03.5500.8033     |                                | 1/2"                 | 1"              | DED. BALL VALVE w/ FLEX CONNECTION TO MACHINE   | 208V    | 30A          | 30A/2P | YES          | L6-30R  |
| 101C-3    | 5 1   | DAIRY DISPENSER                                    | SILVER KING   | SKECD12-V3-1-KE1 |                                |                      |                 |   | 120V    | 1.8          | 15A/1P | YES          | 5–15R   |
| 101L      | 1     | MULTI-SWEETENER DISPENSER                          | AC DISPENSING | AC2-GP-5         |                                |                      |                 |   | 120V    | .5A          | 15A/1F | YES          | 5–15R   |
| 101Q-3    | 3 1   | MULTI HOPPER COFFEE GRINDER                        | BUNN-O-MATIC  | 35600.0041       |                                |                      |                 |   | 120V    | 11.0         | 15A/1P | YES          | 5–15R   |
| 119       | 1     | HOT WINTER BEVERAGE MACHINE                        | BUNN-O-MATIC  | 38600.0057       |                                | 1/4"                 |                 | 20-90 PSI. MACHINE SUPPLIED WITH A 1/4" MALE FLARE FITTING                              | 120/240 | 21.7         | 20A/2P | YES          | L14-20R |
|           | 0     | HOT WINTER BEVERAGE MACHINE                        | _             | -                |                                | 1/4"                 |                 | 20-90 PSI. MACHINE SUPPLIED WITH A 1/4" MALE FLARE FITTING                              | 208/240 |              |        | YES          | L14-20R |
| 108       | A-1 0 | HOT WINTER BEVERAGE MACHINE                        | BUNN-O-MATIC  | 43700.0003       |                                | 1/4"                 |                 | 20-90 PSI. MACHINE SUPPLIED WITH A 1/4" MALE FLARE FITTING                              | 120/240 | 21.7         | 30A/2P | YES          | L14-30R |
| 1084      | 4-2 0 | HOT WINTER BEVERAGE MACHINE                        | CECILWARE     | GB5M5.5-IT-U-DB  |                                | 1/4"                 |                 | 20-90 PSI. MACHINE SUPPLIED WITH A 1/4" MALE FLARE FITTING                              | 208/240 | )            |        | YES          | L14-30R |
| 116.1     | 2     | MAGNABLEND BLENDER / ISLAND OASIS                  | TAYLOR        | SB2412-WDD       |                                | 3/8"                 | 1"              |   | 115V    | 10           | 15A    | YES          | 5–15R   |
| 120       | F—1 0 | 27¼"W X 27¾"D UNDERCOUNTER REFRIGERATOR W/ CASTERS | DELFIELD      | 406-CA-DHR       | RIGHT HAND HINGE               |                      |                 |   | 115V    | 7.0          | 20A/1P | YES          | 5–15R   |
| *120F*120 | -2 0  | 27¼"W X 27¾"D UNDERCOUNTER REFRIGERATOR W/ CASTERS | DELFIELD      | 406-CA-DHL       | LEFT HAND HINGE                |                      |                 |   | 115V    | 7.0          | 20A/1P | YES          | 5–15R   |
| 120       | -3 2  | 27"W X 30½"D UNDERCOUNTER REFRIGERATOR W/ CASTERS  | VICTORY       | UR-27-SST-AD     | DOOR CAN BE RE-HINGED IN FIELD |                      |                 |   | 115V    | 5.6          | 20A/1P | YES          | 5–15R   |
| ALT 12    | 1F 0  | 2 DRAWER U/C REFRIGERATOR                          | SILVER KING   | SKR27AD/C11      |                                |                      |                 |   | 115V    | 2.7          | 15A/1P | YES          | 5–15R   |
| 124A      | 1     | TWIN SH BREWER                                     | BUNN-O-MATIC  | 51200.0106       |                                | 3/8"                 |                 | 20-90 PSI. MACHINE SUPPLIED WITH A 3/8" MALE FLARE FITTING                              | 120/208 | 38.5         | 50A/2P | YES          | 14-50R  |
| 124G      | 2     | TWIN SH STAND w/ WIFI                              | BUNN-O-MATIC  | 27875.0201       |                                |                      |                 |   | 120V    | 1.8          | 15A/1P | YES          | 5-15P   |
| 124H      | 0     | SINGLE SH STAND w/ WIFI                            | BUNN-O-MATIC  | 27825.0201       |                                |                      |                 |   | 120V    | 0.7          | 20A/1P | YES          | 5–15P   |
| 261       | 0     | WATER CHILLER (FUTURE)                             | MICROMATIC    | FC-8000          |                                |                      |                 |   | 115V    | 3.5          | 20A/1P | YES          | 5–15    |
| 265       | 1     | 4 TAP BEVERAGE DISPENSING SYSTEM                   | MICROMATIC    | MMDD4TAPV1       |                                | 1/2"                 | 1"              |   | 115V    | 8.35         | 20A/1P | YES          | 5–15R   |
| 257       | 0     | 8 TAP BEVERAGE DISPENSING SYSTEM                   | MICROMATIC    | MDD-68G-E-DD     |                                | 1/2"                 | 1"              |   | 115V    | 8.35         | 20A/1P | YES          | 5–15R   |

![](_page_28_Figure_2.jpeg)

Lagunita Franchise Operations Tony Antoon/Lee Millwood lee@lfops.com 601.940.6914

![](_page_28_Figure_4.jpeg)

| €  |   | JIVIIVIUNICATION  |   |                              | - 🖵  |  |   | POS EQ   | UIP & WIRING BY OTHERS  |
|--|---|---|---|------------------------------|--|--|---|--|---|
|  | QTY   | DESCRIPTION   | LOCATION  | VOLTS                        | LOA<br>AMPS  | CB   | TRANS<br>FORMER   | LOVO<br>TERM   | REMARKS   |
|  | POS   |   |   | I                            |  |  |   |  |   |
| 1  | 4   | POINT OF SALES TERMINAL (POS  | ) (2) FRONT COUNTER (1) D/T (1) D/T OT  | 100-120V                     | 2.0  | 20A/1P   | NO  | RJ45   | SHARES CIRCUIT WITH POS ITEMS 2 & 12  |
| 2  | 3   | RECEIPT PRINTER   | (2) FRONT COUNTER (1) D/T   | 100-240V                     | 2.0  | 20A/1P   | YES   | RJ45   | SHARE CIRCUIT WITH POS ITEMS 1 & 12   |
| 3  | 5   | PREP PRINTER  | (1) COFF.STATION (1) BEVERAGE STATION<br>(2) SANDWICH (1) OTGO PRINTER  | 24/34V                       | 1.2  | 20A/1P   | YES   | RJ45   |   |
| 4  | 4   | VDU   | (1) BEVERAGE STA (1) SANDWICH   | 100-240V                     | 1.5  | 20A/1P   | NO  | N/A  | SHARES CIRCUIT  |
| 5  | 4   | VDU CONTROLLER (PC BASED)   | (1) EXPEDITER @ HAND OFF  | 100-120V                     | 1.0  | 20A/1P   | YES   | RJ45   |   |
| ;<br>,   | 1   |   | POS COFFEE FRONT CHASE  | 100-120V                     | 0.5  | 20A/1P<br>20A/1P   | YES<br>NO   | RJ45   | SHARES CIRCUIT WITH POS ITEMS 1, 2 & 12   |
| а  | 1   | PC SITE CONTROLLER EXTERNAL   | OFFICE  | 100-120V                     | 4.0  | 20A/1P   | NO  | RJ45<br>RJ45   |   |
|  | 1   | PRINTER/FAX/COPIER (BOH)  | OFFICE  | 100-120V                     | 8.2  | 20A/1P   | NO  | N/A  |   |
|  | 3   | SCANNER   | (2) FRONT COUNTER<br>(1) D/T  |                              |  |  | NO  | RJ45   | CONNECTED TO POS UNITS  |
|  | 3   | PRICE CONFIRMATION DISPLAY  | MOUNT OUTSIDE @ D/T WINDOW  |                              |  |  | NO  | RJ45   | CONNECTED TO D/T POS UNIT   |
| 1  | 0   | NOT USED  |   |                              |  |  |   |  |   |
| 2  | 3   | CASH DRAWER   | UNDER CTR @ FRONT & D/T   | N/A                          | N/A  |  | NO  | RJ45   | SHARES CIRCUIT WITH POS ITEMS 1 & 2   |
|  | 0   | NOT USED  | (2) FRONT COUNTER   | N/A                          | N/A  | 204/40   | NO<br>NO  | RJ45   | VERIFY ALL ELECT & POS REQTS w/ MANUF   |
|  | 3   | PAYMENT TERMINAL  |   | 100-240V                     | 0.5  | 20AV IP  |   | rtj45  | VERIFY ALL ELECT & POS REQTS W/ MANUF   |
| a  | 3   | VERIFONE SWITCH   | (2) FRONT COUNTER<br>(1) D/T  |                              |  |  |   |  | CONNECTED TO POS (1)  |
|  | 1   | ORDER STATUS BOARD  |   | VICES                        |  |  |   |  | VERIFY ALL ELECT & POS REQTS w/ MANUF   |
| _  | 1   | DRIVE THROUGH (DT) TIMER CONSOL   |   | 120V                         | N/A  |  | NO  | RS232  | MUST BE WITHIN 60FT OF DISPLAY  |
| _  | 1   | DT TIMER VDU DISPLAY  |   | LOW VOLT                     | N/A  |  | NO  |  |   |
|  |   | SDADE   | PHONE & DATA LINES  | 10000                        | N1/A   | r –  | N1/A  | D147   |   |
| <u> </u>   | U<br>0  | SPARE   | OFFICE  |                              | N/A<br>N/A   |  | N/A   | KJ45<br>RJ45   |   |
| —  | - 1   | FAX LINE  | OFFICE  | LOW VOLT                     | N/A  |  | N/A   | RJ45   | FAX LINE FOR OFFICE   |
| _  | 1   | PHONE LINE  | OFFICE  | LOW VOLT                     | N/A  |  | N/A   | RJ45   | PHONE LINE FOR OFFICE   |
| _  | 0   | NOT USED  |   |                              |  |  |   | D //-  |   |
|  | 1   | HIGH SPEED INTERNET LINE (MNS)  | SECURITY SYSTEM   |                              | N/A<br>N/A   |  | N/A<br>N/A  | кј45<br>Rj45   | PUK STE CONTROLLER & BOH PC   |
|  | 8   | DIGITAL MENU BOARD  | OFFICE/SERVICE AREA   | LOW VOLT                     | N/A  |  | N/A   | RJ45   | PLUGS INTO ROUTER PORT#4  |
| _  | 1   | WIFI  | OFFICE  | LOW VOLT                     | N/A  |  | N/A   | RJ45   | PLUGS INTO ROUTER PORT#5  |
| )<br>  | 0   |   | OFFICE  |                              | N/A  |  | N/A   | RJ45   |   |
|  |   |   | MUSIC SYSTEM  |                              | I IN/A   | 1  | IN/A  | 1340   |   |
|  | 1   | MUSIC PLAYER  | OFFICE  |                              |  |  |   |  |   |
|  | 0   | NOT USED  |   |                              |  |  |   |  |   |
|  |   |   | WORKSTATION   | 1                            | <b>.</b>   | <u> </u>   |   | · · · · ·  | 1   |
| —  | 1   | MANAGER'S WORKSTATION   | OFFICE  |                              |  |  |   |  |   |
| —  | Ŭ   |   | FIREWALL  |                              |  |  |   |  |   |
|  | 1   | FIREWALL  | OFFICE  | LOW VOLT                     | N/A  |  | N/A   | RJ45   |   |
|  | 1   |   | OFFICE  | LOW VOLT                     | N/A  |  | N/A   | RJ45   |   |
|  |   | BROADBAND DIAL-UP DATA  | OFFICE  |                              |  |  |   |  |   |
|  |   | NOT USED  |   |                              |  |  |   |  |   |
| _  |   | NOT USED  |   |                              |  |  |   |  |   |
|  | 1   | SWITCH  | SWITCHES  | 1                            | <del>.</del>   | r  | r   |  |   |
| —  | 1   | DD UTILITY SWITCH (OPT)   | OFFICE  |                              |  |  |   |  |   |
|  | 1   | DVR NETWORK SWITCH  | OFFICE  |                              |  |  |   |  |   |
|  | 1   | DIGITAL MENU BOARD SWITCH   | OFFICE  |                              |  |  |   |  |   |
|  | 1   | KIUSK SWITCH  |   |                              |  |  |   |  |   |
|  |   |   |   |                              |  |  |   |  |   |
|  |   |   | MENU BOARD  |                              | <br>T  | <br>I  | T   |  |   |
|  | 4   |   |   |                              | <u> </u>   |  | <u> </u>  |  |   |
|  | 2   | DRIVE PREVIEW BOARD   |   |                              | +  |  |   |  |   |
| _  | - 1   | ORDER COMFIRMATION BOARD  | EXTERIOR DRIVE THRU   |                              |  |  |   |  |   |
|  | 0   | NOT USED  |   |                              |  |  |   |  |   |
|  |   |   |   |                              |  |  |   | TFS  |   |
|  |   | MENU ROARD  | RESPONSIBILITIES  |                              | ;ONI   | )( ] T   | 1/1/  |  | 1.  |
| C  | ITAI  | L MENU BOARD  | RESPONSIBILITIES  |                              | ONE  | DUIT   | NU  | <u> </u>   |   |
| C<br>SC  | ITAI  | DATA RESPONSIBILITY   | RESPONSIBILITIES  | <u>}</u>                     |  |  |   | 5 WIRE   |   |
|  | POWER/<br>EC TO<br>ON BA  | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS   | <b>RESPONSIBILITIES</b><br>OM POWER PANEL TO JUNCTION BOZ   | S C                          | DMB: P<br>(2) QUA<br>SOFFIT  | ROVIDE   |   | 5 WIRE<br>TS IN MI<br>ATA OU   | PULLS FROM<br>ENU BOARD<br>FLETS IN   |
| с  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI  | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>CK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO (  | RESPONSIBILITIES  | 3 C                          | DMB: P<br>(2) QUA<br>SOFFIT<br>OFFICE  | ROVIDE<br>AD DATA<br>TO (2) (<br>WALL  |   | 5 WIRE<br>IS IN MI<br>ATA OU   | PULLS FROM<br>ENU BOARD<br>FLETS IN   |
| C  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI,   | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>CK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO C  | RESPONSIBILITIES  | 3 C<br>× -                   | DMB: P<br>(2) QUA<br>SOFFIT<br>OFFICE<br>2 CONI<br>OFFICE  | ROVIDE<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI   | (8) CAT<br>OUTLE<br>QUAD D/   | 5 WIRE<br>IS IN MI<br>ATA OU<br>L BE US  | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE   |
|  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI<br>VENDO<br>CUT H<br>IN STA  | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO CON<br>ROVER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA STACK IN FAS  | <b>RESPONSIBILITIES</b><br>OM POWER PANEL TO JUNCTION BOX<br>CIA AT CENTER LINE OF POS<br>OM BACK SIDE OF MENU BOARD<br>OFFICE<br>TY<br>OR POWER/DATA STACK   | 3 C<br>× -                   | DMB: P<br>(2) QUA<br>SOFFIT<br>OFFICE<br>2 CONI<br>OFFICE<br>1 CONI<br>1 CONI  | DUIT<br>ROVIDE<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI<br>DUIT FOI   | INC<br>(8) CAT<br>OUTLE<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P  | 5 WIRE<br>IS IN MI<br>ATA OU<br>L BE US<br>TS OF TH<br>VIRING C<br>OS ITEN   | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br><i>I</i> S   |
|  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT  | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO C<br>ROVER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA STACK IN FAS<br>ELECTRICAL CONDUCTOR WIRE<br>FRICAL PANEL   | <b>RESPONSIBILITIES</b><br>OM POWER PANEL TO JUNCTION BO<br>CIA AT CENTER LINE OF POS<br>OM BACK SIDE OF MENU BOARD<br>OFFICE<br>TY<br>OR POWER/DATA STACK<br>SCIA<br>FROM MENU BOARD FASCIA TO   | S C<br>                      | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONI<br>OFFICE<br>1 CONI<br>1 CONI  | DUIT<br>ROVIDE<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI<br>DUIT FOI   | INC<br>(8) CAT<br>OUTLE<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P  | 5 WIRE<br>IS IN MI<br>ATA OU<br>L BE US<br>IS OF TH<br>IRING C<br>OS ITEN  | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br><i>I</i> S   |
|  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI.<br>VENDO<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>MAKE   | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO CON<br>ROWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA STACK IN FAS<br>ELECTRICAL CONDUCTOR WIRE<br>FINAL ELECTRICAL CONNECTION<br>FINAL ELECTRICAL CONNECTION   | RESPONSIBILITIES  | 3 C<br>× -                   | DMB: P<br>(2) QUA<br>SOFFIT<br>OFFICE<br>2 CONI<br>OFFICE<br>1 CONI<br>1 CONI  | DUIT<br>ROVIDE<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI<br>DUIT FOI   | INC<br>(8) CAT<br>OUTLE<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P  | 5 WIRE<br>IS IN MI<br>ATA OU<br>L BE US<br>S OF TH<br>(IRING C<br>OS ITEN  | PULLS FROM<br>ENU BOARD<br>ILETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS   |
| G G G ME   | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI,<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>RUN C<br>POWF  | DATA RESPONSIBILITY<br>ORUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>ORUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO CON<br>OR POWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA RESPONSIBILI<br>FINAL ELECTRICAL CONNECTION<br>FINAL FINAL   | RESPONSIBILITIES  | 3 C                          | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONI<br>OFFICE<br>1 CONI<br>1 CONI  | NUIT<br>ROVIDE<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI<br>DUIT FOI   | INC<br>(8) CAT<br>OUTLE<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P  | 5 WIRE<br>IS IN MI<br>ATA OU<br>L BE US<br>S OF TH<br>VIRING C<br>OS ITEN  | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS   |
|  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI.<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>RUN C<br>POWE  | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO CON<br>ROWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA RESPONSIBILI<br>FINAL ELECTRICAL CONNECTION<br>FINAL FINAL  | RESPONSIBILITIES  | 3 C                          | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONE<br>1 CONE<br>1 CONE  | DUIT<br>ROVIDE<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI<br>DUIT FOI<br>DUIT FOI   | (8) CAT<br>OUTLE<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P   | 5 WIRE<br>TS IN MI<br>ATA OUT<br>L BE US<br>TS OF TH<br>VIRING COS ITEN  | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS   |
|  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI.<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>RUN C<br>POWE<br>OR TO E<br>HORITY                       | DATA RESPONSIBILITY<br>ORUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>ORUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO CON<br>OR POWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA STACK IN FAS<br>ELECTRICAL CONDUCTOR WIRE<br>FINAL ELECTRICAL CONNECTION<br>FINAL FINAL FIN                            | CIA AT CENTER LINE OF POS<br>OM POWER PANEL TO JUNCTION BOX<br>CIA AT CENTER LINE OF POS<br>OM BACK SIDE OF MENU BOARD<br>OFFICE<br>TY<br>OR POWER/DATA STACK<br>SCIA<br>FROM MENU BOARD FASCIA TO<br>ON AT POWER/ DATA STACK<br>ON AT POWER/ DATA STACK<br>ON AT POWER/ DATA STACK<br>ON TO CIRCUIT AT POWER PANEL<br>E ENDS AT MENU BOARD FASCIA<br>RK GC TO COORDINATE WITH<br>AHU MAY REQUIRE FULL WIRE PREP<br>STALLER IF EC MUST PERFORMALL | 3 C<br>                      | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONIE<br>1 CONIE<br>1 CONIE   | VUIT<br>ROVIDE<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI<br>DUIT FOI<br>DUIT FOI<br>DUIT FOI   | (8) CAT<br>OUTLE<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P<br>DTES   | 5 WIRE<br>IS IN MI<br>ATA OUT<br>L BE US<br>IS OF TH<br>VIRING COS ITEN  | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS   |
|  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI.<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>RUN C<br>POWE<br>OR TO E<br>HORITY<br>C. GC T<br>CTRICAL | L MENU BOARD  | RESPONSIBILITIES  | 3 C<br>-<br>-<br>-<br>-      | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONIE<br>0FFICE<br>1 CONIE<br>1 CONIE   | CONTRACTOR POLICY CONTRACTOR CONT   | (8) CAT<br>OUTLE<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P<br>DTES   | 5 WIRE<br>IS IN MI<br>ATA OUT<br>L BE US<br>S OF TH<br>VIRING C<br>OS ITEN   | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS   |
| B<br>B<br>B<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI.<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>RUN C<br>POWE<br>OR TO E<br>HORITY<br>C. GC T<br>CTRICAL | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO C<br>R POWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA RESPONSIBILI<br>FINAL ELECTRICAL CONDUCTOR WIRE<br>FINAL ELECTRICAL CONNECTION<br>FINAL FINAL FI | RESPONSIBILITIES  | 3 C<br>-<br>-<br>-<br>-      | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONI<br>OFFICE<br>1 CONI<br>1 CONI<br>1 CONI<br><b>IOSI</b>   | CIRCUIT  | (8) CAT<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P<br>DTES  | 5 WIRE<br>IS IN MI<br>ATA OUT<br>L BE US<br>TS OF TH<br>VIRING C<br>OS ITEN  | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS<br>/ POS STUB<br>TRICAL/DATA<br>JOSK.<br>FA CABLES<br>C'NS TBD IN   |
| B<br>B<br>B<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI.<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>RUN C<br>POWE<br>OR TO E<br>HORITY<br>C. GC T<br>CTRICAL | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO CON<br>R POWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA STACK IN FAS<br>ELECTRICAL CONDUCTOR WIRE<br>FINAL ELECTRICAL CONNECTION<br>FINAL FINAL FINA    | COM POWER PANEL TO JUNCTION BO<br>CIA AT CENTER LINE OF POS<br>OM BACK SIDE OF MENU BOARD<br>OFFICE<br>TY<br>OR POWER/DATA STACK<br>SCIA<br>FROM MENU BOARD FASCIA TO<br>ON AT POWER/ DATA STACK<br>ON AT POWER/ DATA STACK<br>ON TO CIRCUIT AT POWER PANEL<br>E ENDS AT MENU BOARD FASCIA<br>RK GC TO COORDINATE WITH<br>AHU MAY REQUIRE FULL WIRE PREP<br>STALLER IF EC MUST PERFORM ALL  | 3 C                          | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONIE<br>1 CONIE<br>1 CONIE<br>1 CONIE<br>1 CONIE   | CIRCUIT<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI<br>DUIT FOI<br>DUIT FOI<br>DUIT FOI<br>DUIT FOI<br>DUIT FOI<br>CIRCUIT<br>ALL WIF<br>D W/ FRA<br>UIREME  | (8) CAT<br>OUTLE<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P<br>DTES<br>DVIDE A F<br>VALL FO<br>NS AT O<br>NS AT O<br>S (3) C/<br>RING & F<br>ANCHISE<br>NTS.  | 5 WIRE<br>IS IN MI<br>ATA OUT<br>L BE US<br>TS OF TH<br>VIRING C<br>OS ITEN<br>OS ITEN   | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS<br>/ POS STUB<br>TRICAL/DATA<br>JOSK.<br>FA CABLES<br>C'Ns TBD IN<br>NUF  |
|  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI.<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>RUN C<br>POWE<br>OR TO E<br>HORITY<br>C. GC T<br>CTRICAL | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO CONTROLO<br>R POWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA STACK IN FAS<br>ELECTRICAL CONDUCTOR WIRE<br>FINAL ELECTRICAL CONNECTION<br>FINAL FINAL    | RESPONSIBILITIES  | 3 C                          | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONI<br>OFFICE<br>1 CONI<br>1 CONI<br>1 CONI<br><b>IOSI</b><br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>(IOSI<br>( | CIRCUIT<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI<br>DUIT FOI<br>DUIT FOI<br>DUIT FOI<br>DUIT FOI<br>CIRCUIT<br>ALL WIR<br>D W/ FRA<br>UIREME<br>VIDE WI   | (8) CAT<br>OUTLE<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P<br>DTES<br>OVIDE A I<br>VALL FO<br>NS AT O<br>S (3) CA<br>RING & FI<br>ANCHISE<br>NTS.<br>RING FR   | 5 WIRE<br>IS IN MI<br>ATA OU<br>L BE US<br>S OF TH<br>VIRING C<br>OS ITEN<br>OS ITEN<br>OS ITEN<br>CON ELEC<br>RDER K<br>AT-6 DA<br>NAL LO<br>E & MA   | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS<br>/ POS STUB<br>TRICAL/DATA<br>JOSK.<br>FA CABLES<br>C'Ns TBD IN<br>NUF  |
|  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI.<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>RUN C<br>POWE<br>OR TO E<br>HORITY<br>C. GC T<br>CTRICAL | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO CONTROLO<br>R POWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA RESPONSIBILI<br>FINAL ELECTRICAL CONNECTION<br>FINAL ELECTRICAL FINAL FI       | RESPONSIBILITIES  | 3 C<br>-<br>-<br>-<br>-<br>- | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONI<br>OFFICE<br>1 CONI<br>1 CONI<br>1 CONI<br><b>IOSI</b><br><b>IOSI</b><br>5 C.<br>OUT<br>CON<br>EA -<br>FIEL<br>REQ<br>PRO<br>FRO<br>ASS  | DUIT<br>ROVIDE<br>AD DATA<br>TO (2) (<br>WALL<br>DUITS M<br>& OTHI<br>DUIT FOI<br>DUIT FOI<br>DUIT FOI<br>DUIT FOI<br>DUIT FOI<br>CIRCUIT<br>ALL WIF<br>D W/ FRA<br>UIREME<br>VIDE WI<br>NT LINE<br>ISTANCE  | (8) CAT<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P<br>DTES<br>DVIDE A F<br>VALL FO<br>NS AT O<br>S AT O | 5 WIRE<br>IS IN MI<br>ATA OUT<br>L BE US<br>S OF TH<br>VIRING C<br>OS ITEN<br>OS ITEN<br>OS ITEN<br>POWER<br>R ELEC<br>RDER K<br>AT-6 DA<br>INAL LO<br>EA FOR<br>HT AT P   | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS<br>/ POS STUB<br>TRICAL/DATA<br>JOSK.<br>FA CABLES<br>C'Ns TBD IN<br>NUF<br>SK TO<br>"REMOTE<br>OS UNIT -                 |
|  | POWER/<br>EC TO<br>ON BA<br>EC TO<br>FASCI.<br>VENDC<br>CUT H<br>IN STA<br>RUN E<br>ELECT<br>MAKE<br>RUN C<br>POWE<br>OR TO E<br>HORITY<br>C. GC T<br>CTRICAL | DATA RESPONSIBILITY<br>RUN DEDICATED CONDUIT FR<br>ACK SIDE OF MENU BOARD FAS<br>RUN CONDUIT WITH J-BOX FR<br>A AT CENTERLINE OF POS TO CONTROL<br>OR POWER/DATA RESPONSIBILI<br>IOLE IN MENU BOARD FASCIA F<br>ALL POWER/DATA STACK IN FAS<br>ELECTRICAL CONDUCTOR WIRE<br>FINAL ELECTRICAL CONNECTION<br>FINAL ELECTRICAL CONNECTION<br>FINAL ELECTRICAL CONNECTION<br>FINAL ELECTRICAL CONNECTION<br>AT-5E CABLES AND TERMINAT<br>ER/DATA STACK AND IN OFFICE<br>BIDDING OR PERFORMING WOR<br>THAVING JURISDICTION (AHU).<br>TO ALERT CM, F'EE AND DMB IN<br>L INSTALL WORK.   | RESPONSIBILITIES  | 3 C                          | DMB: P<br>(2) QU/<br>SOFFIT<br>OFFICE<br>2 CONI<br>OFFICE<br>1 CONI<br>1   | A DUITS ME<br>A DUITS ME<br>A OTHIO<br>A OTHI | (8) CAT<br>QUAD D/<br>IN SHAL<br>ER PART<br>R POS W<br>R NON-P<br>DTES<br>DVIDE A I<br>WALL FO<br>NS AT O<br>S (3) C/<br>RING & FI<br>ANCHISE<br>NTS.<br>RING FR<br>POS AR<br>E" w/ LIG<br>L REQU   | 5 WIRE<br>IS IN MI<br>ATA OUT<br>L BE US<br>S OF TH<br>VIRING C<br>OS ITEN<br>OS ITEN<br>OS ITEN<br>COS ITEN<br>CO | PULLS FROM<br>ENU BOARD<br>FLETS IN<br>ED BETWEEN<br>HE STORE<br>DNLY<br>AS<br>/ POS STUB<br>TRICAL/DATA<br>JOSK.<br>FA CABLES<br>C'Ns TBD IN<br>NUF<br>SK TO<br>"REMOTE<br>OS UNIT -<br>TS W/ MANUF. |

| GEND   |                  |   | G           | ENERAL NOTES:  |
|--|------------------|---|-------------|--|
| POINT OF SALES TERMINAL                      | САМ              | SECURITY SYSTEM CAMERA                    | Α.          | REFER TO HTTP://EXTRANET.DUNKI   |
| VIDEO DISPLAY UNIT                           | PCD              | PRICE CONFIRMATION DISPLAY                | В.<br>С.    | FINAL POS DRAWINGS NEED TO BE  |
| ROUTER                                       | PCD              | ORDER STATUS BOARD                        |             | POS EQUIPMENT. 60HZ, 120+/-10%. /<br>THE BACK OFFICE CONTROLLER RE                                 |
| SITE CONTROL (SELF-MOUNTING)<br>RADIANT ONLY | KIOSK<br>SW      | KIOSK SWITCH                              |             | FEDERAL, STATE, AND LOCAL WIRIN<br>INFORMATION ON ADDITIONAL EQU<br>REQUIREMENT IS NOT MET, THE PC |
| RECEIPT PRINTER                              | DMB<br>SW        | DIGITAL MENU BOARD SWITCH                 | D.          | ALL POWER INDICATED ON THIS PL   |
| PREP PRINTER                                 | DMB              | DIGITAL MENU BOARD                        |             |  |
| FAX  | EXT<br>DMB       | DRIVE THRU EXTERIOR DIGITAL<br>MENU BOARD | <sup></sup> | LABEL RECEPTACLES "POS ONLY".  |
| BACK-OF-HOUSE PC                             | TEMP<br>M        | TEMP WIRELESS DIAL UP                     | F.          | ALL LOW VOLTAGE WIRE SHALL BE  |
| UPS  | OCB              | DRIVE THRU ORDER<br>CONFIRMATION BOARD    | G.          | ALL LOW VOLTAGE CABLE TERMINA  |
| MODEM  | DPB              | DRIVE THRU DIGITAL PREVIEW BOARD          |             | ALL POS EQUIPMENT LINES TERMIN   |
| SWITCH                                       | DPB              | DRIVE THRU DIGITAL PREVIEW BOARD          | I.          | A 12" MINIMUM SEPARATION MUST<br>ELECTRICAL INTERFERENCE).   |
| ORDER TAKER TERMINAL                         | OTT<br>VOIP      | OTT VOICE OVER-IP VOIP (PHONE)            | J.          | BRAND REQUIREMENTS DICTATE TH<br>OFFICE AND OTHER PARTS OF THE<br>MENUBOARD DATA LINES, AND ANC    |
| DRIVE THROUGH CONSOLE                        |                  | BUMP BAR                                  |             | WIRING   |
| DRIVE THROUGH TIMER                          |                  | VIDEO DISPLAY UNIT                        | К.          | EXACT # OF RECEPTACLES ON OFF<br>EQUIPMENT LOCATED IN THE OFFIC                                    |
| VERIFONE SWITCH                              |                  | PRINTER                                   | L.          | ALL CEILING MOUNTED VDU'S TO BI  |
| PAYMENT TERMINAL                             |                  | POINT OF SALE TERMINAL                    |             | CONNECT UNISTRUT TO ROOF STR<br>TO SUPPORT MINIMUM 50 LB. WEIG                                     |
| CASH DRAWER                                  |                  | SCANNER                                   | М.          | VDU MOUNTING HEIGHTS (TO BOTT  |
| COIN DISPENSER                               | $\diamond$       | POS EQUIPMENT TAG                         |             | b. DRIVE THRU - 61" A.F.F.   |
| MANAGER'S WORKSTATION                        | ÷                | DUPLEX RECEPTACLE                         | N.          | a. PROVIDE BOX, PLATE AND 1" DI  |
| DVR SECURITY SYSTEM                          | $\bigtriangleup$ | DATA OUTLET, RJ45                         |             | QUAD DATA OUTLETS IN OFFIC<br>FINAL DATA CONNECTIONS BY<br>DATA PLATES/BOXES- COORD.               |
|  |                  |   |             |  |

![](_page_29_Figure_2.jpeg)

![](_page_30_Figure_0.jpeg)

![](_page_30_Figure_1.jpeg)

![](_page_30_Figure_2.jpeg)

|            |  |  |   | The Conto For Adata No   | dambo a - er vo tarre  |  |   |  | -   | DA  |  | D  |   |   |  |  |  |  |  |  | r   | D٨  |   |   |  |   |   |   |   |  |   |
|------------|--|--|---|--|--|--|---|--|---|---|--|--|---|---|--|--|--|--|--|--|---|---|---|---|--|---|---|---|---|--|---|
| AN<br>08/1 |  |  | 200 AM  | P BUSS<br>P MLO  |  |  | SURFACE N   | NOUNTED  |   | 208   | /120 V   | DLT  |   | 200 A<br>200 A  | MP BUS<br>MP MLO   | 5  |  | SUR  | FACE MOU   | NTED   |   | 208   | 120 VOLT  |   |  | AMF<br>AMF  | P BUSS  |   |   | SURFAC   | E MOUNTED   |
| PHA        | SE 4 WIRE  |  | 22,000  | VOLT A   | IC .   |  | SQUARE D  | - NQOD   |   | 3 P   | HASE   | 4 WIRE   |   | 22,000  | O VOLT /   | AIC  |  | SQU  | ARE D -  | NQOD   |   | 3 P   | HASE 4 WIRE   |   | 2  | 22,000  | VOLT AI   | C   |   | SQUARE   | . D - NQO   |
|            |  | BKR. WIRE  | CONNEC  | TED LOAD   | AMPS   |  |   |  |   | CKT   | CIRCUIT  | TION   | BKR. WIR  |   | CTED LOA   | D AMPS   |  | KR. CIR  |  | CKT  |   |   | CIRCUIT   | BKR.  | WIRE O   |   |   | AMPS  |   | R. CIRCUI  |   |
| TW         | N COFFEE   | 40 8   | 34  | <u> </u>   |  |  |   | 2  |   | 1   | TOILET   | GFI'S  | 20 12   | 4   |  | <u> </u>   | 12 2   | 20 U/  | C REFRIG.  | 2  |   | 1   | FOH   | 20  | 12 -   | - 7   |   |   |   |  | 2   |
| +-         | "  |  |   | 34   |  |  |   | 4  |   | 3   | PEPSI R  | EFRIG.   | 20 12   | +   | 7  |  | 8 4  |  | WIN COFFE  | E 4  |   | 3 F   | REEZER DOOR   | 20  | 12   |   | 10  |   | 12 2  |  | OH 4  |
|            |  | 20 12  | 4 4   |  | 11   |  |   | 6  |   | 5   | SINGLE (   | OFFEE  | 20 12   | -   | 34   | 17   |  |  | BREWER   | 6  | -   | 5   | FOH   | 20  | 12   | L   |   | 8   | 12 2  |  | OLER E  |
|            | T WINDOW   | 20 12  | 5   | l  |  |  |   | 8  |   | 7   | BREWER   | $\prec$  | » »   | 17  | 7  | <u></u>  | 12 2   |  |  | 2 8  | -   | 7   | DRIVE_THRU  | 20  | 12 -   | 2   | L   |   |   |  | 8   |
| D/         |  | 20 12  | · .   | 2  |  | 12 20  | FLAVOR  | -n 10  |   | 9   | VDU  |  | 20 12   | + 11  | 5  |  | 12 2   |  | RY/SUGAR   | 10   | -   | 9   | EF-2  | 20  | 12   |   | 6   |   | 12 2  | D FRE  | EZER 1  |
|            | P.O.S.   | 20 12  |   |  | 10   | 12 20  | P.O.S.  | <u>к</u><br>р 12   |   | 11  | POWER  | BASE   | 20 12   | 1   | Ľ <u>Ľ</u>   | 10   | 12 2   |  | FLAVOR   | 12   |   | 11  |   |   |  | L   |   | 5   | 12 2  |  | WNING 1:  |
| <u>З</u> т | HEADSET  | 20 12  | 5   | l  | 10   | 12 20  | U/C REFI  | RIG. 14  |   | 13  | GENE   | RAL  | 20 12   | 2   | 7  |  |  |  | ISPENSER   | 14   |   | 13  | 1   |   | -  | 6   | L   |   | 12 2  |  |   |
| 5 D        | RIVE-THRU  | 20 12  |   | 5  | ŀ  | 10 30  | DUNKAC  | CINO 16  |   | 15  | REGEP  | AULE   |   |   |  | ] [  | 12 2   |  | EACH-IN  | 16   |   | 15  | BLD'G SIGN  | 20  | 12   |   | 5   |   |   |  | 1/  |
| 7          | WARMER   | 20 12  | - L   | 10   | 6  |  |   | 18   |   | 17  |  |  |   | -   |  |  | 12 2   |  | NDOW SIGN  | 18   |   | 17  | BLD'G SIGN  | 20  | 12   | L   |   | 5   |   |  | 11  |
|            | VDU  | 20 12  | 5   | l  |  |  |   | 20   |   | 19  | HEAT T   | APE  | 20 12   | 10  | <b>ן</b>   |  | 12 2   |  |  | 20   |   | 19  | BLD'C SIGN  | 20  | 12 -   | 5   | L   |   |   |  | 20  |
| 1 но       | LDING UNIT   | 20 12  |   | 10   |  | 12 20  | SAND. ST  | TION 22  |   | 21  | CE MAC   | HINE   | 20 12   | <u>                                     </u>  | 14   | 7  | 12 2   |  | GENERAL  | 22   |   | 21  | BLD'G SIGN  | 20  | 12   |   | 5   |   | 12 2  | EXT.   | BLG'S 2:  |
| 3 ICE      | COFFEE /   | 30 10  | - L   |  | 20   | 10 30  | ESPRE   | sso 24   |   | 23  | 11   | $\prec$  | n n   | -   | <u> </u>   | 14   | 12 2   |  | EXTERIOR   | 24   |   | 23  | BACK DOOR   | 20  | 12   | L   |   | 3   | 12 2  |  | BLG'S 24  |
| 5          |  | n n  | 20  | l  | 24   | n n  | <b>/</b>  | 26   |   | 25  | ORDER  | TAKER  | 20 12   | 10  | 7  | L _ Z  | 12 2   |  | OFFICE   | 26   |   | 25  | EF-1  | 20  | 12 -   | 5   | L   |   | 12 2  | D D/T  | MENU 20   |
|            | EL /   | 20 12  | 24  | 16   |  | 12 20  |   | TTA 28   |   | 27  | PRIN   | TER  | 20 12   |   | 5  | 7  | 12 2   |  | OFFICE   | 28   |   | 27  | aanaa ahaanaa ahaa ahaa ahaana dagaa  |   |  |   | 5   |   | 12 2  |  | DOPS 28   |
| 9          |  | <b>n n</b>   | -   | 10   | 16   | n n  | / "   | 30   |   | 29  | P.O.S  |  | 20 12   | 1   |  | 10   | 12 2   |  |  | 30   |   | 29  | SITE LTS  | 20  | 12   | L   |   | 16  | 10 3  |  | REEZER 3  |
| 1 10/      | C REFRIG.  | 20 12  | <u> </u>  | l  | 10   | 12 20  | DONUT DIS   | PLAY 32  |   | 31  | PRIN   | TER  | 20 12   | 5   | ]  | L  | 12 2   | 20 SING  | GLE COFFE  | E 32   |   | 31  | REFRIG.   | 20  | 12 -   | 16  | L   | -20   |   | ,   \  | » 32  |
| 3 E        | BOOSTER  | 20 12  |   | 16   |  | 12 20  | DONUT DIS   | SPLAY 34   |   | 33  | HAND [   | DRYER  | 30 10   | 1 12  | 24   | 7  | 22   | . /  | »  | 34   |   | 33  | REFRIG.   | 20  | 12   |   | 16  |   | ,,  | , //   | » 34  |
| 5 FUT      | URE DIGITAL  | 20 12  | 1 '   | 3  | 5  | 12 20  | FUTURE DI   | GITAL 36   |   | 35  | HAND [   | DRYER  | 30 10   | 1   | L/   | 24   |  | - <u></u>  |  | 36   |   | 35  | REFRIG. DOOR  | 20  | 12   | L   | 20  | 16  | 12 2  | FREE   | ZER 3   |
| 7 FL       |  | 20 12  | 5   |  | 5  | 12 20  |   | PLAY 38  |   | 37  | VDL  | )  | 20 12   | 5   | 7  | L  |  |  | an ann an Anna an Anna Anna an   | 38   |   | 37  | EF-3  | 20  | 12   | 3   | L   | 10  |   |  | 31  |
| 9          | WH-1   | 20 12  |   | 2  |  | 12 20  | FUTURE DI   | GITAL 40   |   | 39  |  |  |   |   |  |  |  |  |  | 40   |   | 39  | EF-4  | 20  | 12   |   | 5   |   |   |  | 4(  |
| 1          |  |  | ۱ <sup>۱</sup>  | 5  |  |  | MB  | 42   |   | 41  |  |  |   | -   | L  |  |  |  |  | 42   |   | 41  |   |   |  | L   |   |   |   |  | 4:  |
|            | 4 (n. 1910) - 1917 - 19 | <b>I</b>   | 122   | 135  | 123  | I  |   |  |   |   |  | I  |   | 92  | 131  | 122  |  |  |  |  |   | -+  |   |   |  | 77  | 95  | 109   | I   |  |   |
|            |  | TOTALS   | 122   | 155  | 120  |  |   |  |   |   |  | ·  | IOTALS  |   | 1  |  |  |  |  |  |   |   |   | IOTA  |  | I.  |   |   |   |  |   |
|            |  |  |   |  |  |  |   |  |   |   |  |  |   |   |  |  |  |  |  |  |   |   |   |   |  |   |   |   |   |  |   |
|            | PAN       08/1:       PHA:       TWI       0       1       0   | PANEL A<br>08/120 VOLT<br>PHASE 4 WIRE<br>T CIRCUIT<br>DESCRIPTION<br>TWIN COFFEE<br>BREWER<br>DUAL GRINDER<br>DUAL GRINDER<br>D/T WINDOW<br>DAIRY/SUGAR<br>DISPENSERS<br>P.O.S.<br>PRINTER HUB<br>HEADSET<br>TRANSMITTER<br>DRIVE-THRU<br>TIMERS<br>WARMER<br>P VDU<br>1 HOLDING UNIT<br>3 ICE COFFEE<br>BREWER<br>5 "<br>7 BAGEL<br>7 BAGEL<br>7 BAGEL<br>7 BAGEL<br>7 BAGEL<br>9 "<br>1 U/C REFRIG.<br>3 BOOSTER<br>PUMP<br>5 FUTURE DIGITAL<br>MB<br>7 FUTURE PCD<br>9 WH-1<br>1 | PANEL A<br>08/120 VOLT<br>PHASE 4 WIRE         CT       CIRCUIT<br>DESCRIPTION       BKR. WIRE         TWIN COFFEE<br>BREWER       40       8         1       "       "         0       DUAL GRINDER       20       12         1       D/T WINDOW       20       12         1       DAIRY/SUGAR<br>DISPENSERS       20       12         2       D/T WINDOW       20       12         3       TRANSMITTER<br>TRANSMITTER       20       12         3       DRIVE-THRU<br>TIMERS       20       12         4       HOLDING UNIT       20       12         5       WARMER       20       12         3       ICE COFFEE       30       10         5       "       "       "         7       BAGEL       20       12         9       "       "       "         7       BAGEL       20       12         8       9 | PANEL A<br>$08/120$ VOLT<br>PHASE 4 WIRE200 AM<br>200 AM<br>200 AM<br>200 AM<br>22,000TCIRCUIT<br>DESCRIPTIONBKR. WIRE<br>SIZECONNECT<br>ATDESCRIPTION<br>DESCRIPTIONSIZESIZETWIN COFFEE<br>BREWER4083"""0DUAL GRINDER20121D/T WINDOW20122D/T WINDOW20123DAIRY/SUGAR<br>DISPENSERS20121P.O.S.<br>P.O.S.<br>TRANSMITTER20123TRANSMITTER<br>TIMERS20124HEADSET<br>TIMERS20125DRIVE-THRU<br>TIMERS20127WARMER20129VDU20123ICE COFFEE<br>BREWER30105"""4U/C REFRIG.20125TUURE DIGITAL<br>MB20127FUTURE DIGITAL<br>PUMP20125WH-120126WH-120127FUTURE PCD<br>PCD20129WH-120121II | PANEL A<br>08/120 VOLT<br>PHASE 4 WIRE200 AMP BUSS<br>22,000 VOLT ATCIRCUIT<br>DESCRIPTIONBKR. WIRE<br>SIZECONNECTED LOAD<br>ATDIVAL GRINDER40834T""34DUAL GRINDER20121D/T WINDOW20125DAIRY/SUGAR20121DAIRY/SUGAR20121DAIRY/SUGAR20125DRIVE-THRU20125TRANSMITTER20125TIMERS101216TRANSMITTER201216WARMER201216WARMER20125IHOLDING UNIT2012S""20MARMER201216MARMER201216MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER20125MARMER2012< | PANEL A       200 AMP BUSS 200 AMP ML0 22,000 VOLT AIC         PHASE 4 WIRE       2200 VOLT AIC         T       CIRCUIT       BKR. WIRE       CONNECTED LOAD AMPS ISZE SIZE         DESCRIPTION       SIZE SIZE       A       B       C       S         TWIN COFFEE       40       8       34       B       C       S         DUAL GRINDER       20       12       11       10         DUAL GRINDER       20       12       5       11       10         DAIRY/SUGAR       20       12       5       7       10         TRANSMITER       20       12       5       7       7         MARMER       20       12       5       7       7       20         POU       20       12       5       5       6       9         POUSE       30       10       20       12       5       7         POUVE       7       20       12 | PANEL A<br>OB/120 VOLT<br>PHASE 4 WIRE         200 AMP BUSS<br>200 AMP ML0<br>22,000 VOLT AIC           TT CIRCUIT<br>DESCRIPTION         BKR. WIRE<br>SIZE         CONNECTED LOAD AMPS<br>A B         WIRE BKR<br>SIZE           TWIN COFFEE<br>BREWER         40         8         34 | PANEL A<br>08/120 VOLT<br>PHASE 4 WIRE         200 AMP BUSS<br>220,000 VOLT AIC         SURFACE N<br>SQUARE D           TC CIRCUIT<br>DESCRIPTION<br>TWIN COFFEE         BKR. WIRE<br>SIZE SIZE<br>A<br>BREWER<br>40         BKR. WIRE<br>SIZE SIZE<br>A<br>BREWER<br>40         BKR. WIRE<br>SIZE SIZE<br>A<br>BREWER<br>40         BKR. WIRE<br>34<br>34<br>34<br>34<br>34<br>34<br>34<br>34<br>34<br>34<br>34<br>34<br>34 | PANEL A<br>08/120 VOLT<br>PHASE         200 AMP BUSS<br>200 AMP ML0<br>22,000 VOLT AIC         SURFACE MOUNTED<br>SQUARE D - NQOD           T         CIRCUIT<br>DESCRIPTION         BKR. WIRE<br>SIZE         MIRE CONNECTED LOAD AMPS<br>BERWER         WIRE BKR. CIRCUIT<br>DESCRIPTION         CIRCUIT<br>NO.         CIRCUIT<br>DESCRIPTION         C         ZZ           T         MIRE CONNECTED LOAD AMPS<br>DESCRIPTION         BKR. WIRE<br>SIZE         B         C         SIZE         SIZE         CIRCUIT<br>DESCRIPTION         CKT           T         WIRE CONNECTED LOAD AMPS<br>DESCRIPTION         BKR. WIRE<br>SIZE         MIRE BKR. CIRCUIT<br>DESCRIPTION         CKT         CKT           T         MIRE BKR. CIRCUIT<br>DISPENSERS         0         12         11         4           DARY/SUGAR         20         12         11         6         8           DARY/SUGAR         20         12         10         12         20         PRINTER         12           1         PRINTER         20         12         7         12         20         U/C REFRIG.         14           5         DINE_THRU         20         12         7         12         20         SAND_STATION         22           1         HOLDING UNIT         20         12         10         30         ESPRESSO | PAREL A<br>OB/120 VOLT<br>PHASE 4 WIRE200 AMP BUSS<br>200 AMP M.O<br>22,000 VOLT AICSURFACE MOUNTED<br>SQUARE D - NQODTO<br>CONTROLSIZE<br>SIZE<br>DESCRIPTIONSIZE<br>SIZE<br>SIZE<br>SIZE<br>DESCRIPTIONSIZE<br>SIZE<br>SIZE<br>SIZE<br>DESCRIPTIONSIZE<br>A<br>BC<br>C<br>ASURFACE MOUNTED<br>SQUARE D - NQODTO<br>CONTROLSIZE<br>SIZE<br>DESCRIPTIONSIZE<br>SIZE<br>DESCRIPTIONSIZE<br>A<br>BC<br>C<br>ASIZE<br>DESCRIPTIONCKT<br>No.TWIN COFFEE<br>BREWER<br>DUAL GRINDER<br>DUAL GRINDER4083444DUAL GRINDER<br>DUAL GRINDER<br>DUAL GRINDER20121166D/T WINDOW<br>DISPENSER<br>TO<br>DISPENSER<br>THEADSTER<br>TO<br>DISPENSER<br>THEADSTER<br>TO<br>THEADSTER<br>TO<br>TOURE HUB<br>DISPENSER<br>TO 1220121012201<br>PO.S.<br>THANG<br>THANG<br>TO 122012101220PINTER<br>PO.S.<br>TIC<br>TO 20121012201<br>PO.S.<br>THANG<br>THANG<br>TO 2012101220PINTER<br>PO.S.<br>TIC<br>TO 301220141<br>DISPENSER<br>TO ASTER<br>TOASTER<br>TOASTER<br>TOASTER<br>TO ASTER<br>PCD2012121030ESPRESSO24<br>TOTALS12121030ESPRESSO24303<br>BREWER<br>PCD20121212000NUT DISPLAY4<br>BREWER<br>TOTALS12213512300124<br>B<br>TOTALS <td< td=""><td>PANEL A<br/>OB/120 VOLT<br/>PHASE 4 WIRE       200 AMP BUSS<br/>22,000 VOLT AIC       SURFACE MOUNTED<br/>SQUARE D - NQOD         TC       BKR.WIRE       200 AMP BUSS<br/>22,000 VOLT AIC       SQUARE D - NQOD         TT       CIRCUIT<br/>DESCRIPTION       BKR.WIRE       CONNECTED LOAD AMPS<br/>A B       WIRE BKR. CIRCUIT<br/>SIZE SIZE       CKT         TWIN COFFEE       40       8       34       2       2         TWIN COFFEE       40       8       34       2       2         DARCYSUCAR       20       12       1       6         DARYSUCAR       20       12       1       6         DARYSUCAR       20       12       10       12       20       PLAVOR<br/>POINTER       10         PP.05.       20       12       5       12       20       U/C REFRIG.       14         3       HEADSTT<br/>TMERSHES       20       12       5       12       20       V/C REFRIG.       14         5       DRUE       20       12       5       12       20       20       21         3       THEADSHT       20       12       5       12       20       20       21         4       20       12       5</td><td>ANEL A<br/>08/120 VOLT<br/>PHASE 4 WIRE       200 AMP BUSS<br/>200 AMP MLO<br/>22,000 VOLT AIC       SURFACE MOUNTED<br/>SQUARE D = NQOD         TCIRCUIT<br/>DESCRIPTION       BKR. WIRE<br/>SIZE SIZE<br/>DESCRIPTION       BKR. WIRE<br/>SIZE SIZE<br/>DESCRIPTION       CKT<br/>CKT<br/>No.         TOTALS       A       B       C       SIZE SIZE<br/>DESCRIPTION       CKT<br/>CKT<br/>No.         TOTALS       11       6       CKT<br/>DISPENSER       CKT<br/>DISPENSER       CKT<br/>CKT<br/>DISPENSER       CKT<br/>CKT<br/>CKT<br/>DISPENSER       CKT<br/>CKT<br/>CKT<br/>CKT<br/>DISPENSER         TOTALS       12       11       6       CKT<br/>SIZE SIZE       CKT<br/>DISPENSER       CKT<br/>CKT<br/>CKT<br/>CKT<br/>CKT<br/>DISPENSER         D/T WINDOW       20       12       5       10       12       0       10       12       0       SIMPLEC         D/T WINDOW       20       12       5       12       0       U/C REFRIG       14       5       9       VOL         THANSHITER       20       12       5       10       30       DUNKACCINO 16       13       11       POWE         THANGENTER       20       12       5       10       30       DUNKACCINO 16       13       11       POWE         TOTALS       12       10       12       20       SAND_STATION       22       23       23       2</td><td>PANEL A<br/>OB/120 VOLT<br/>PHASE 4 WIRE         200 AMP BUSS<br/>200 AMP MLO<br/>22,000 VOLT AC         SURFACE MOUNTED<br/>SQUARE D - NQOD           TCIRCUIT<br/>DESCRIPTION<br/>MIN COFFEE         A         B         C         SIZE SIZE         DESCRIPTION<br/>MIN COFFEE         A         B         C         CICRUIT<br/>SUZE SIZE         CKT CIRCUIT<br/>MIN COFFEE         A         B         C         SIZE SIZE         DESCRIPTION<br/>MIN COFFEE         A         B         C         SIZE SIZE         CRCUT         A         B         C         SIZE SIZE         CRCUT         CKT CIRCUIT         No.         SINGLE COFFEE         SINGLE COFFEE         SINGLE COFFEE         B         B         VDU         SINGLE COFFEE         <td< td=""><td>PANEL A<br/>OB/120 VOLT<br/>PHASE 4 WIRE         200 AMP BUSS<br/>22,000 VOLT AIC         SURFACE MOUNTED<br/>SQUARE D - NQOD           PHASE 4 WIRE         2200 AMP MLO<br/>22,000 VOLT AIC         SQUARE D - NQOD           TC CIRCUIT<br/>DESCRIPTION<br/>BREWER         B         C         SIZE SIZE<br/>A         B         C           TO CIRCUIT<br/>DESCRIPTION<br/>BREWER         SIZE SIZE<br/>A         B         C         SIZE SIZE<br/>DESCRIPTION<br/>BREWER         CKT CIRCUIT<br/>No.         CKT CIRCUIT<br/>No.           TO CIRCUIT<br/>DISPENSERS         20         12         11         6           DAIRY SUBAR         20         12         11         6           DAIRY SUBAR         20         12         10         12         0           DAIRY SUBAR         20         12         10         12         0         PRAVER           DAIRY SUBAR         20         12         10         12         0         PRAVER         12           DAIRY SUBAR         20         12         5         12         20         U/C REFRIG.         14           TOALS         12         10         12         20         SUBAR         12         12         12         12         12         12         12         12         12         12         12</td><td>PANEL A<br/>OB/120 VOLT<br/>PHASE 4 WIRE         200 AMP BUSS<br/>220,000 VOLT AIC         SURFACE MOUNTED<br/>SQUARE D - NQOD           PHASE 4 WIRE         220,000 VOLT AIC         SQUARE D - NQOD         SQUARE D - NQOD           TCIRCUIT<br/>DESCRIPTION ISIZE ISIZE<br/>BEEVER         A B         C         SIZE ISIZE DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>BEEVER         A B         C         SIZE ISIZE DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPT</br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></td><td>PANEL A<br/>08/120 VOLT<br/>PHASE 4 WIRE         200 AMP BUSS<br/>200 AMP ML0<br/>22,000 VOLT AIC         SURFACE MOUNTED<br/>SQUARE D - NQ0D<br/>SQUARE D - NQ0D           07 CIRCUIT<br/>DESCRIPTION<br/>BREWER<br/>BREWER<br/>DUAL GRINDER 20 12         B C<br/>34         SIZE SIZE<br/>DESCRIPTION<br/>DISC SIZE SIZE<br/>DESCRIPTION<br/>DISC SIZE SIZE<br/>DESCRIPTION<br/>DISC SIZE SIZE<br/>DISC SIZE SIZE<br/>DESCRIPTION<br/>DISC SIZE SIZE<br/>DISC SIZE<br/>D</td><td>ANEL A<br/>09/120 VoLT<br/>PHASE 4 WIRE         200 AMP BUSS<br/>200 AMP MLO<br/>22,000 VOLT AIC         SURFACE MOUNTED<br/>SQUARE D - NQOD           OPHASE 4 WIRE         200 AMP BUSS<br/>22,000 VOLT AIC         SQUARE D - NQOD         3 PHASE 4 WIRE         200 AMP BUSS<br/>22,000 VOLT AIC           T CIRCUIT<br/>DESCRIPTION         BKR WIRE CONNECTED LOAD AMPS WIRE BKR CIRCUIT<br/>DESCRIPTION         A B C         SCUARE D - NQOD           T CIRCUIT<br/>DESCRIPTION         BKR WIRE CONNECTED LOAD AMPS WIRE BKR CIRCUIT<br/>DESCRIPTION         CKT CIRCUIT<br/>TO CIRCUIT<br/>DESCRIPTION         BKR WIRE CONNECTED LOAD AMPS WIRE BKR CIRCUIT<br/>DESCRIPTION         SCUARE D - NQOD           TOTALS         20         A B C         S CONSTRANCE         A B C         S CONSTRANCE           DUAL GRINDER         20 12         5         FLAVOR         10         12         TO TALS         11         TO TALS         SURFACE NOUNT DISPLY 34           DUAL GRINDER         20 12         12         10         12         10         12         10         12         11         10         12         11         10         12         11         10         12         11         10         12         11         10         12         11         11         11         11         11         11         11         11         11         11         12         11</td><td>ANEL A<br/>09/120 VoLT<br/>PHASE 4 WIRE         200 AMP BUISS<br/>2000 AVD VOLT A/C         SURFACE MOUNTED<br/>SQUARE D - NQOD           TORUETTON         BKR WIRE<br/>22,000 VOLT A/C         SQUARE D - NQOD           TORUETTON         BKR WIRE<br/>DESCRIPTION         SCUARE D - NQOD           TORUETTON         BKR WIRE<br/>DESCRIPTION         Connected Load AMPS WIRE<br/>BKR WIRE<br/>DESCRIPTION         BKR WIRE<br/>DESCRIPTION         DKR WIRE</td><td>ANEL A<br/>09/120 VOLT<br/>PHASE 4 WIRE         200 ANP BUSS<br/>200 AVP MUG<br/>22,000 VOLT AC         SURFACE MOUNTED<br/>SQUARE D - NQOD         PANEL B<br/>200 AVP MUG<br/>3 PHASE 4 WIRE         200 AVP BUSS<br/>22,000 VOLT AC         SURFACE MOUNTED<br/>200 AVP MUG<br/>3 PHASE 4 WIRE         200 AVP BUSS<br/>22,000 VOLT AC         SURFACE MOUNTED<br/>200 AVP MUG<br/>3 PHASE 4 WIRE         200 AVP BUSS<br/>22,000 VOLT AC         SURF<br/>3 PHASE 4 WIRE           TC GRCUTT<br/>Non COFFER<br/>DUAL GRINDER 20 12         A B<br/>4         C SIZE SIZE DESCRIPTION<br/>No.         SIZE</td><td>PANEL A<br/>09/120 VolT         200 ANP BUSS<br/>200 ANP MLO<br/>200 ANP MLO<br/>2200 VolT AC         SURFACE MOUNTED<br/>SQUARE D - NOOD           Tri CIRCUIT<br/>I DESCRIPTION<br/>INN COPPER<br/>• • • • • • • • • • • • • • • • • • •</td><td>AMEL A<br/>09 /120 V01T<br/>PHASE + WIRE         200 AMP BUISS<br/>200 AMP MLO         SURFACE MOUNTED<br/>200 AMP MLO           10 /120 /120 /120 /120 /120 /120 /120 /1</td><td>PAREL A<br/>BG/120 VOLT<br/>PHASE 4 WIRE       200 AMP BUSS<br/>200 AMP BUS<br/>200 AMP BUSS<br/>200 A</td><td>PAREL A<br/>09/120 V0LT       200 AMP BLISS<br/>200 AMP BLIG<br/>200 AMP BLIG<br/>200</td><td>PAREL A<br/>09/120 VOLT<br/>200 AMP MUS<br/>200 AMP MUS</td><td>PAREL A<br/>09/120 Volt         200 AMP BUSS<br/>200 AMP MIC         SURFACE MOUNTED<br/>200 AMP MIC           TORKET MIRE         200 AMP MIC         SULARE D - NOOD         SULARE D - NOOD         SULARE D - NOOD         SULARE D - NOOD           TORKET MIRE         201 2         3         B         C         SIZE SIZE DESCRIPTION         No.           DIAL GRINDER         21         -</td><td>PANEL A<br/>09/120 Volt         200 AMP PUISS<br/>200 AMP ALC         SUBFACE MOUNTED<br/>SQUARE D - NOOD         SUBFACE MOUNTED<br/>200 AMP ALC           TORCUTT<br/>INFORME         Step Step Connected<br/>a a a a a a a a a a a a a a a a a a a</td><td>PAREL A<br/>05/12         200 AUP BUSS<br/>200 AUP MUS         SURFACE MOUNTED<br/>SQUARE D - NGOD           1050/120 VOLT AC<br/>DESCRPTION<br/>BENER<br/>DESCRPTION<br/>DUC RECOMMENTED<br/>22.000 VOLT AC         SURFACE MOUNTED<br/>SQUARE D - NGOD           1050/120 VOLT AC         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           1050/120 VOLT AC         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           1050/120 VOLT AC         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           1000LGROMETED LOAD AMP MUS SQUARE D - NGOD           1000LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - NGOD           100LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - NGOD           100LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - 12         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           100LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - 12         <t< td=""><td>ANEL A<br/>DM/25 VOLT         200 AMP BUSS<br/>200 MP ML0<br/>22000 VOLT AC         SURFACE MOUNTED<br/>SULARE D - NQOD         SURFACE MOUNTED<br/>SULARE D - NQOD         SURFACE MOUNTED<br/>SULARE D - NQOD           TOPICE VIEW<br/>DMSS + WINE<br/>2000 MP ML0<br/>2000 VOLT AC         SURFACE MOUNTED<br/>SULARE D - NQOD           TOPICE VIEW<br/>DMSS + WINE<br/>SCORPTON<br/>SURFACE 2012         A M MAR MUSE<br/>SURFACE MOUNTED<br/>SURFACE MOUNTED<br/>SU</td><td>AREL A<br/>WHXE + HIME         ZOD ANF BUSS<br/>SOURCE DO LAC         SURFACE MOUNTED<br/>SOURCE D - NOOD           CT CHOLT<br/>TO MAGE HIME STREE CONSECTED LADA MEN MEESSREE DESCRIPTION COT<br/>SOURCE D - NOOD         COT<br/>SOURCE D - NOOD</td><td>PAREL A<br/>DP/120 VULT         200 AMP BUSS<br/>22.000 VULAC         SURFACE MOUNTED<br/>SQUARE D = NGOD         SURFACE MOUNTED<br/>SQUARE D = NGOD           DP/120 VULT<br/>22.000 VULAC         SQUARE D = NGOD         SQ</td><td>ARELA<br/>MOLSO       200 AMP BUSS<br/>2000 AMP BUSS<br/>2</td></t<></td></td<></td></td<> | PANEL A<br>OB/120 VOLT<br>PHASE 4 WIRE       200 AMP BUSS<br>22,000 VOLT AIC       SURFACE MOUNTED<br>SQUARE D - NQOD         TC       BKR.WIRE       200 AMP BUSS<br>22,000 VOLT AIC       SQUARE D - NQOD         TT       CIRCUIT<br>DESCRIPTION       BKR.WIRE       CONNECTED LOAD AMPS<br>A B       WIRE BKR. CIRCUIT<br>SIZE SIZE       CKT         TWIN COFFEE       40       8       34       2       2         TWIN COFFEE       40       8       34       2       2         DARCYSUCAR       20       12       1       6         DARYSUCAR       20       12       1       6         DARYSUCAR       20       12       10       12       20       PLAVOR<br>POINTER       10         PP.05.       20       12       5       12       20       U/C REFRIG.       14         3       HEADSTT<br>TMERSHES       20       12       5       12       20       V/C REFRIG.       14         5       DRUE       20       12       5       12       20       20       21         3       THEADSHT       20       12       5       12       20       20       21         4       20       12       5 | ANEL A<br>08/120 VOLT<br>PHASE 4 WIRE       200 AMP BUSS<br>200 AMP MLO<br>22,000 VOLT AIC       SURFACE MOUNTED<br>SQUARE D = NQOD         TCIRCUIT<br>DESCRIPTION       BKR. WIRE<br>SIZE SIZE<br>DESCRIPTION       BKR. WIRE<br>SIZE SIZE<br>DESCRIPTION       CKT<br>CKT<br>No.         TOTALS       A       B       C       SIZE SIZE<br>DESCRIPTION       CKT<br>CKT<br>No.         TOTALS       11       6       CKT<br>DISPENSER       CKT<br>DISPENSER       CKT<br>CKT<br>DISPENSER       CKT<br>CKT<br>CKT<br>DISPENSER       CKT<br>CKT<br>CKT<br>CKT<br>DISPENSER         TOTALS       12       11       6       CKT<br>SIZE SIZE       CKT<br>DISPENSER       CKT<br>CKT<br>CKT<br>CKT<br>CKT<br>DISPENSER         D/T WINDOW       20       12       5       10       12       0       10       12       0       SIMPLEC         D/T WINDOW       20       12       5       12       0       U/C REFRIG       14       5       9       VOL         THANSHITER       20       12       5       10       30       DUNKACCINO 16       13       11       POWE         THANGENTER       20       12       5       10       30       DUNKACCINO 16       13       11       POWE         TOTALS       12       10       12       20       SAND_STATION       22       23       23       2 | PANEL A<br>OB/120 VOLT<br>PHASE 4 WIRE         200 AMP BUSS<br>200 AMP MLO<br>22,000 VOLT AC         SURFACE MOUNTED<br>SQUARE D - NQOD           TCIRCUIT<br>DESCRIPTION<br>MIN COFFEE         A         B         C         SIZE SIZE         DESCRIPTION<br>MIN COFFEE         A         B         C         CICRUIT<br>SUZE SIZE         CKT CIRCUIT<br>MIN COFFEE         A         B         C         SIZE SIZE         DESCRIPTION<br>MIN COFFEE         A         B         C         SIZE SIZE         CRCUT         A         B         C         SIZE SIZE         CRCUT         CKT CIRCUIT         No.         SINGLE COFFEE         SINGLE COFFEE         SINGLE COFFEE         B         B         VDU         SINGLE COFFEE         SINGLE COFFEE <td< td=""><td>PANEL A<br/>OB/120 VOLT<br/>PHASE 4 WIRE         200 AMP BUSS<br/>22,000 VOLT AIC         SURFACE MOUNTED<br/>SQUARE D - NQOD           PHASE 4 WIRE         2200 AMP MLO<br/>22,000 VOLT AIC         SQUARE D - NQOD           TC CIRCUIT<br/>DESCRIPTION<br/>BREWER         B         C         SIZE SIZE<br/>A         B         C           TO CIRCUIT<br/>DESCRIPTION<br/>BREWER         SIZE SIZE<br/>A         B         C         SIZE SIZE<br/>DESCRIPTION<br/>BREWER         CKT CIRCUIT<br/>No.         CKT CIRCUIT<br/>No.           TO CIRCUIT<br/>DISPENSERS         20         12         11         6           DAIRY SUBAR         20         12         11         6           DAIRY SUBAR         20         12         10         12         0           DAIRY SUBAR         20         12         10         12         0         PRAVER           DAIRY SUBAR         20         12         10         12         0         PRAVER         12           DAIRY SUBAR         20         12         5         12         20         U/C REFRIG.         14           TOALS         12         10         12         20         SUBAR         12         12         12         12         12         12         12         12         12         12         12</td><td>PANEL A<br/>OB/120 VOLT<br/>PHASE 4 WIRE         200 AMP BUSS<br/>220,000 VOLT AIC         SURFACE MOUNTED<br/>SQUARE D - NQOD           PHASE 4 WIRE         220,000 VOLT AIC         SQUARE D - NQOD         SQUARE D - NQOD           TCIRCUIT<br/>DESCRIPTION ISIZE ISIZE<br/>BEEVER         A B         C         SIZE ISIZE DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>BEEVER         A B         C         SIZE ISIZE DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br/>No. DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPTION ISIZE ISIZE<br/>DESCRIPT</br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></td><td>PANEL A<br/>08/120 VOLT<br/>PHASE 4 WIRE         200 AMP BUSS<br/>200 AMP ML0<br/>22,000 VOLT AIC         SURFACE MOUNTED<br/>SQUARE D - NQ0D<br/>SQUARE D - NQ0D           07 CIRCUIT<br/>DESCRIPTION<br/>BREWER<br/>BREWER<br/>DUAL GRINDER 20 12         B C<br/>34         SIZE SIZE<br/>DESCRIPTION<br/>DISC SIZE SIZE<br/>DESCRIPTION<br/>DISC SIZE SIZE<br/>DESCRIPTION<br/>DISC SIZE SIZE<br/>DISC SIZE SIZE<br/>DESCRIPTION<br/>DISC SIZE SIZE<br/>DISC SIZE<br/>D</td><td>ANEL A<br/>09/120 VoLT<br/>PHASE 4 WIRE         200 AMP BUSS<br/>200 AMP MLO<br/>22,000 VOLT AIC         SURFACE MOUNTED<br/>SQUARE D - NQOD           OPHASE 4 WIRE         200 AMP BUSS<br/>22,000 VOLT AIC         SQUARE D - NQOD         3 PHASE 4 WIRE         200 AMP BUSS<br/>22,000 VOLT AIC           T CIRCUIT<br/>DESCRIPTION         BKR WIRE CONNECTED LOAD AMPS WIRE BKR CIRCUIT<br/>DESCRIPTION         A B C         SCUARE D - NQOD           T CIRCUIT<br/>DESCRIPTION         BKR WIRE CONNECTED LOAD AMPS WIRE BKR CIRCUIT<br/>DESCRIPTION         CKT CIRCUIT<br/>TO CIRCUIT<br/>DESCRIPTION         BKR WIRE CONNECTED LOAD AMPS WIRE BKR CIRCUIT<br/>DESCRIPTION         SCUARE D - NQOD           TOTALS         20         A B C         S CONSTRANCE         A B C         S CONSTRANCE           DUAL GRINDER         20 12         5         FLAVOR         10         12         TO TALS         11         TO TALS         SURFACE NOUNT DISPLY 34           DUAL GRINDER         20 12         12         10         12         10         12         10         12         11         10         12         11         10         12         11         10         12         11         10         12         11         10         12         11         11         11         11         11         11         11         11         11         11         12         11</td><td>ANEL A<br/>09/120 VoLT<br/>PHASE 4 WIRE         200 AMP BUISS<br/>2000 AVD VOLT A/C         SURFACE MOUNTED<br/>SQUARE D - NQOD           TORUETTON         BKR WIRE<br/>22,000 VOLT A/C         SQUARE D - NQOD           TORUETTON         BKR WIRE<br/>DESCRIPTION         SCUARE D - NQOD           TORUETTON         BKR WIRE<br/>DESCRIPTION         Connected Load AMPS WIRE<br/>BKR WIRE<br/>DESCRIPTION         BKR WIRE<br/>DESCRIPTION         DKR WIRE</td><td>ANEL A<br/>09/120 VOLT<br/>PHASE 4 WIRE         200 ANP BUSS<br/>200 AVP MUG<br/>22,000 VOLT AC         SURFACE MOUNTED<br/>SQUARE D - NQOD         PANEL B<br/>200 AVP MUG<br/>3 PHASE 4 WIRE         200 AVP BUSS<br/>22,000 VOLT AC         SURFACE MOUNTED<br/>200 AVP MUG<br/>3 PHASE 4 WIRE         200 AVP BUSS<br/>22,000 VOLT AC         SURFACE MOUNTED<br/>200 AVP MUG<br/>3 PHASE 4 WIRE         200 AVP BUSS<br/>22,000 VOLT AC         SURF<br/>3 PHASE 4 WIRE           TC GRCUTT<br/>Non COFFER<br/>DUAL GRINDER 20 12         A B<br/>4         C SIZE SIZE DESCRIPTION<br/>No.         SIZE</td><td>PANEL A<br/>09/120 VolT         200 ANP BUSS<br/>200 ANP MLO<br/>200 ANP MLO<br/>2200 VolT AC         SURFACE MOUNTED<br/>SQUARE D - NOOD           Tri CIRCUIT<br/>I DESCRIPTION<br/>INN COPPER<br/>• • • • • • • • • • • • • • • • • • •</td><td>AMEL A<br/>09 /120 V01T<br/>PHASE + WIRE         200 AMP BUISS<br/>200 AMP MLO         SURFACE MOUNTED<br/>200 AMP MLO           10 /120 /120 /120 /120 /120 /120 /120 /1</td><td>PAREL A<br/>BG/120 VOLT<br/>PHASE 4 WIRE       200 AMP BUSS<br/>200 AMP BUS<br/>200 AMP BUSS<br/>200 A</td><td>PAREL A<br/>09/120 V0LT       200 AMP BLISS<br/>200 AMP BLIG<br/>200 AMP BLIG<br/>200</td><td>PAREL A<br/>09/120 VOLT<br/>200 AMP MUS<br/>200 AMP MUS</td><td>PAREL A<br/>09/120 Volt         200 AMP BUSS<br/>200 AMP MIC         SURFACE MOUNTED<br/>200 AMP MIC           TORKET MIRE         200 AMP MIC         SULARE D - NOOD         SULARE D - NOOD         SULARE D - NOOD         SULARE D - NOOD           TORKET MIRE         201 2         3         B         C         SIZE SIZE DESCRIPTION         No.           DIAL GRINDER         21         -</td><td>PANEL A<br/>09/120 Volt         200 AMP PUISS<br/>200 AMP ALC         SUBFACE MOUNTED<br/>SQUARE D - NOOD         SUBFACE MOUNTED<br/>200 AMP ALC           TORCUTT<br/>INFORME         Step Step Connected<br/>a a a a a a a a a a a a a a a a a a a</td><td>PAREL A<br/>05/12         200 AUP BUSS<br/>200 AUP MUS         SURFACE MOUNTED<br/>SQUARE D - NGOD           1050/120 VOLT AC<br/>DESCRPTION<br/>BENER<br/>DESCRPTION<br/>DUC RECOMMENTED<br/>22.000 VOLT AC         SURFACE MOUNTED<br/>SQUARE D - NGOD           1050/120 VOLT AC         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           1050/120 VOLT AC         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           1050/120 VOLT AC         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           1000LGROMETED LOAD AMP MUS SQUARE D - NGOD           1000LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - NGOD           100LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - NGOD           100LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - 12         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           100LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - 12         <t< td=""><td>ANEL A<br/>DM/25 VOLT         200 AMP BUSS<br/>200 MP ML0<br/>22000 VOLT AC         SURFACE MOUNTED<br/>SULARE D - NQOD         SURFACE MOUNTED<br/>SULARE D - NQOD         SURFACE MOUNTED<br/>SULARE D - NQOD           TOPICE VIEW<br/>DMSS + WINE<br/>2000 MP ML0<br/>2000 VOLT AC         SURFACE MOUNTED<br/>SULARE D - NQOD           TOPICE VIEW<br/>DMSS + WINE<br/>SCORPTON<br/>SURFACE 2012         A M MAR MUSE<br/>SURFACE MOUNTED<br/>SURFACE MOUNTED<br/>SU</td><td>AREL A<br/>WHXE + HIME         ZOD ANF BUSS<br/>SOURCE DO LAC         SURFACE MOUNTED<br/>SOURCE D - NOOD           CT CHOLT<br/>TO MAGE HIME STREE CONSECTED LADA MEN MEESSREE DESCRIPTION COT<br/>SOURCE D - NOOD         COT<br/>SOURCE D - NOOD</td><td>PAREL A<br/>DP/120 VULT         200 AMP BUSS<br/>22.000 VULAC         SURFACE MOUNTED<br/>SQUARE D = NGOD         SURFACE MOUNTED<br/>SQUARE D = NGOD           DP/120 VULT<br/>22.000 VULAC         SQUARE D = NGOD         SQ</td><td>ARELA<br/>MOLSO       200 AMP BUSS<br/>2000 AMP BUSS<br/>2</td></t<></td></td<> | PANEL A<br>OB/120 VOLT<br>PHASE 4 WIRE         200 AMP BUSS<br>22,000 VOLT AIC         SURFACE MOUNTED<br>SQUARE D - NQOD           PHASE 4 WIRE         2200 AMP MLO<br>22,000 VOLT AIC         SQUARE D - NQOD           TC CIRCUIT<br>DESCRIPTION<br>BREWER         B         C         SIZE SIZE<br>A         B         C           TO CIRCUIT<br>DESCRIPTION<br>BREWER         SIZE SIZE<br>A         B         C         SIZE SIZE<br>DESCRIPTION<br>BREWER         CKT CIRCUIT<br>No.         CKT CIRCUIT<br>No.           TO CIRCUIT<br>DISPENSERS         20         12         11         6           DAIRY SUBAR         20         12         11         6           DAIRY SUBAR         20         12         10         12         0           DAIRY SUBAR         20         12         10         12         0         PRAVER           DAIRY SUBAR         20         12         10         12         0         PRAVER         12           DAIRY SUBAR         20         12         5         12         20         U/C REFRIG.         14           TOALS         12         10         12         20         SUBAR         12         12         12         12         12         12         12         12         12         12         12 | PANEL A<br>OB/120 VOLT<br>PHASE 4 WIRE         200 AMP BUSS<br>220,000 VOLT AIC         SURFACE MOUNTED<br>SQUARE D - NQOD           PHASE 4 WIRE         220,000 VOLT AIC         SQUARE D - NQOD         SQUARE D - NQOD           TCIRCUIT<br>DESCRIPTION ISIZE ISIZE<br>BEEVER         A B         C         SIZE ISIZE DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br>No. DESCRIPTION ISIZE ISIZE<br>BEEVER         A B         C         SIZE ISIZE DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br>No. DESCRIPTION ISIZE ISIZE<br>DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br>No. DESCRIPTION ISIZE ISIZE<br>DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br>No. DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br>No. DESCRIPTION ISIZE ISIZE<br>DESCRIPTION ISIZE ISIZE<br>DESCRIPTION         NKR. WIRE CONNECTED LOAD AMPS WIRE BKR. CIRCUIT<br>No. DESCRIPTION ISIZE ISIZE<br>DESCRIPTION ISIZE ISIZE<br> | PANEL A<br>08/120 VOLT<br>PHASE 4 WIRE         200 AMP BUSS<br>200 AMP ML0<br>22,000 VOLT AIC         SURFACE MOUNTED<br>SQUARE D - NQ0D<br>SQUARE D - NQ0D           07 CIRCUIT<br>DESCRIPTION<br>BREWER<br>BREWER<br>DUAL GRINDER 20 12         B C<br>34         SIZE SIZE<br>DESCRIPTION<br>DISC SIZE SIZE<br>DESCRIPTION<br>DISC SIZE SIZE<br>DESCRIPTION<br>DISC SIZE SIZE<br>DISC SIZE SIZE<br>DESCRIPTION<br>DISC SIZE SIZE<br>DISC SIZE<br>D | ANEL A<br>09/120 VoLT<br>PHASE 4 WIRE         200 AMP BUSS<br>200 AMP MLO<br>22,000 VOLT AIC         SURFACE MOUNTED<br>SQUARE D - NQOD           OPHASE 4 WIRE         200 AMP BUSS<br>22,000 VOLT AIC         SQUARE D - NQOD         3 PHASE 4 WIRE         200 AMP BUSS<br>22,000 VOLT AIC           T CIRCUIT<br>DESCRIPTION         BKR WIRE CONNECTED LOAD AMPS WIRE BKR CIRCUIT<br>DESCRIPTION         A B C         SCUARE D - NQOD           T CIRCUIT<br>DESCRIPTION         BKR WIRE CONNECTED LOAD AMPS WIRE BKR CIRCUIT<br>DESCRIPTION         CKT CIRCUIT<br>TO CIRCUIT<br>DESCRIPTION         BKR WIRE CONNECTED LOAD AMPS WIRE BKR CIRCUIT<br>DESCRIPTION         SCUARE D - NQOD           TOTALS         20         A B C         S CONSTRANCE         A B C         S CONSTRANCE           DUAL GRINDER         20 12         5         FLAVOR         10         12         TO TALS         11         TO TALS         SURFACE NOUNT DISPLY 34           DUAL GRINDER         20 12         12         10         12         10         12         10         12         11         10         12         11         10         12         11         10         12         11         10         12         11         10         12         11         11         11         11         11         11         11         11         11         11         12         11 | ANEL A<br>09/120 VoLT<br>PHASE 4 WIRE         200 AMP BUISS<br>2000 AVD VOLT A/C         SURFACE MOUNTED<br>SQUARE D - NQOD           TORUETTON         BKR WIRE<br>22,000 VOLT A/C         SQUARE D - NQOD           TORUETTON         BKR WIRE<br>DESCRIPTION         SCUARE D - NQOD           TORUETTON         BKR WIRE<br>DESCRIPTION         Connected Load AMPS WIRE<br>BKR WIRE<br>DESCRIPTION         BKR WIRE<br>DESCRIPTION         DKR WIRE | ANEL A<br>09/120 VOLT<br>PHASE 4 WIRE         200 ANP BUSS<br>200 AVP MUG<br>22,000 VOLT AC         SURFACE MOUNTED<br>SQUARE D - NQOD         PANEL B<br>200 AVP MUG<br>3 PHASE 4 WIRE         200 AVP BUSS<br>22,000 VOLT AC         SURFACE MOUNTED<br>200 AVP MUG<br>3 PHASE 4 WIRE         200 AVP BUSS<br>22,000 VOLT AC         SURFACE MOUNTED<br>200 AVP MUG<br>3 PHASE 4 WIRE         200 AVP BUSS<br>22,000 VOLT AC         SURF<br>3 PHASE 4 WIRE           TC GRCUTT<br>Non COFFER<br>DUAL GRINDER 20 12         A B<br>4         C SIZE SIZE DESCRIPTION<br>No.         SIZE | PANEL A<br>09/120 VolT         200 ANP BUSS<br>200 ANP MLO<br>200 ANP MLO<br>2200 VolT AC         SURFACE MOUNTED<br>SQUARE D - NOOD           Tri CIRCUIT<br>I DESCRIPTION<br>INN COPPER<br>• • • • • • • • • • • • • • • • • • • | AMEL A<br>09 /120 V01T<br>PHASE + WIRE         200 AMP BUISS<br>200 AMP MLO         SURFACE MOUNTED<br>200 AMP MLO           10 /120 /120 /120 /120 /120 /120 /120 /1 | PAREL A<br>BG/120 VOLT<br>PHASE 4 WIRE       200 AMP BUSS<br>200 AMP BUS<br>200 AMP BUSS<br>200 A | PAREL A<br>09/120 V0LT       200 AMP BLISS<br>200 AMP BLIG<br>200 | PAREL A<br>09/120 VOLT<br>200 AMP MUS<br>200 AMP MUS | PAREL A<br>09/120 Volt         200 AMP BUSS<br>200 AMP MIC         SURFACE MOUNTED<br>200 AMP MIC           TORKET MIRE         200 AMP MIC         SULARE D - NOOD         SULARE D - NOOD         SULARE D - NOOD         SULARE D - NOOD           TORKET MIRE         201 2         3         B         C         SIZE SIZE DESCRIPTION         No.           DIAL GRINDER         21         - | PANEL A<br>09/120 Volt         200 AMP PUISS<br>200 AMP ALC         SUBFACE MOUNTED<br>SQUARE D - NOOD         SUBFACE MOUNTED<br>200 AMP ALC           TORCUTT<br>INFORME         Step Step Connected<br>a a a a a a a a a a a a a a a a a a a | PAREL A<br>05/12         200 AUP BUSS<br>200 AUP MUS         SURFACE MOUNTED<br>SQUARE D - NGOD           1050/120 VOLT AC<br>DESCRPTION<br>BENER<br>DESCRPTION<br>DUC RECOMMENTED<br>22.000 VOLT AC         SURFACE MOUNTED<br>SQUARE D - NGOD           1050/120 VOLT AC         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           1050/120 VOLT AC         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           1050/120 VOLT AC         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           1000LGROMETED LOAD AMP MUS SQUARE D - NGOD           1000LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - NGOD           100LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - NGOD           100LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - 12         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD         SQUARE D - NGOD           100LGROMETED LOAD AMP MUS SQUARE D - 12         SQUARE D - 12 <t< td=""><td>ANEL A<br/>DM/25 VOLT         200 AMP BUSS<br/>200 MP ML0<br/>22000 VOLT AC         SURFACE MOUNTED<br/>SULARE D - NQOD         SURFACE MOUNTED<br/>SULARE D - NQOD         SURFACE MOUNTED<br/>SULARE D - NQOD           TOPICE VIEW<br/>DMSS + WINE<br/>2000 MP ML0<br/>2000 VOLT AC         SURFACE MOUNTED<br/>SULARE D - NQOD           TOPICE VIEW<br/>DMSS + WINE<br/>SCORPTON<br/>SURFACE 2012         A M MAR MUSE<br/>SURFACE MOUNTED<br/>SURFACE MOUNTED<br/>SU</td><td>AREL A<br/>WHXE + HIME         ZOD ANF BUSS<br/>SOURCE DO LAC         SURFACE MOUNTED<br/>SOURCE D - NOOD           CT CHOLT<br/>TO MAGE HIME STREE CONSECTED LADA MEN MEESSREE DESCRIPTION COT<br/>SOURCE D - NOOD         COT<br/>SOURCE D - NOOD</td><td>PAREL A<br/>DP/120 VULT         200 AMP BUSS<br/>22.000 VULAC         SURFACE MOUNTED<br/>SQUARE D = NGOD         SURFACE MOUNTED<br/>SQUARE D = NGOD           DP/120 VULT<br/>22.000 VULAC         SQUARE D = NGOD         SQ</td><td>ARELA<br/>MOLSO       200 AMP BUSS<br/>2000 AMP BUSS<br/>2</td></t<> | ANEL A<br>DM/25 VOLT         200 AMP BUSS<br>200 MP ML0<br>22000 VOLT AC         SURFACE MOUNTED<br>SULARE D - NQOD         SURFACE MOUNTED<br>SULARE D - NQOD         SURFACE MOUNTED<br>SULARE D - NQOD           TOPICE VIEW<br>DMSS + WINE<br>2000 MP ML0<br>2000 VOLT AC         SURFACE MOUNTED<br>SULARE D - NQOD           TOPICE VIEW<br>DMSS + WINE<br>SCORPTON<br>SURFACE 2012         A M MAR MUSE<br>SURFACE MOUNTED<br>SURFACE MOUNTED<br>SU | AREL A<br>WHXE + HIME         ZOD ANF BUSS<br>SOURCE DO LAC         SURFACE MOUNTED<br>SOURCE D - NOOD           CT CHOLT<br>TO MAGE HIME STREE CONSECTED LADA MEN MEESSREE DESCRIPTION COT<br>SOURCE D - NOOD         COT<br>SOURCE D - NOOD | PAREL A<br>DP/120 VULT         200 AMP BUSS<br>22.000 VULAC         SURFACE MOUNTED<br>SQUARE D = NGOD         SURFACE MOUNTED<br>SQUARE D = NGOD           DP/120 VULT<br>22.000 VULAC         SQUARE D = NGOD         SQ | ARELA<br>MOLSO       200 AMP BUSS<br>2000 AMP BUSS<br>2 |

![](_page_31_Figure_1.jpeg)

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| 208<br>3 F | ANEL DF<br>3/120 VOLT<br>PHASE 4 WIR   |
|------------|--|
| CKT<br>No. | CIRCUIT<br>DESCRIPTION                 |
| 1          | PANEL A                                |
| 3          |  |
| 5          |  |
| 7          | PANEL C                                |
| 9          | " <                                    |
| 11         | a a                                    |
| 13         | RTU-1                                  |
| 15         |  |
| 17         | u și                                   |
| 19         | TURBO CHEF                             |
| 21         | "                                      |
| 23         | TURBO CHEF/                            |
| 25         | a (                                    |
| 27         | FUTURE<br>BEVERAGE                     |
| 29         | u (                                    |
| 31         |  |
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| 37         |  |
| 39         |  |
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|            |  |
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# **EXISTING PANELS/RISER FOR REFERENCE ONLY**

![](_page_31_Figure_10.jpeg)

![](_page_31_Picture_12.jpeg)

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Lagunita Franchise Operations Tony Antoon/Lee Millwood lee@lfops.com 601.940.6914 S

![](_page_31_Figure_14.jpeg)

![](_page_32_Picture_1.jpeg)

**City of Bryant, Arkansas** Community Development 210 SW 3<sup>rd</sup> Street Bryant, AR 72022 501-943-0943

## Conditional Use Permit Application

Applicants are advised to read the Conditional Use Permit section of Bryant Zoning Code prior to completing and signing this form. The Zoning Code is available at <u>www.cityofbryant.com</u> under the Planning and Community Development tab.

Date: 7/11/24

| Applicant or Designee:                            | Project Location:                  |
|---|------------------------------------|
| Name Donald Whitfield                             | Property Address 19 Tanglewood Dr  |
| Address 19 Tanglewood Dr                          | Bryant, AR 72022                   |
| Phone <u>501-993-6869</u>                         | Parcel Number <u>840-09527-000</u> |
| Email Address: dwcpa@att.net                      | Zoning Classification <u>R-E</u>   |
| Property Owner (If different from Applicant)      | :                                  |
| Name Same   |                                    |
| Phone   |                                    |
| Address   |                                    |
| Email Address                                     |                                    |
| Additional Information:                           |                                    |
| Legal Description (Attach description if necessar | y)                                 |
| Pt. lot 19 Tanglewood Ac                          | cres Sub.                          |

Description of Conditional Use Request (Attach any necessary drawings or images)

| Allow  | Construction | ofa    | 26'X24  | ( Building | and    | allow | existina | Storage | building | lef |
|--------|--------------|--------|---------|------------|--------|-------|----------|---------|----------|-----|
| 12'x 1 | 6' + 12'X12' | to Rem | ain. Se | · Attached | letter |       | J        | ,-      | 1        |     |

Proposed/Current Use of Property\_<u>Residential</u>

#### **Application Checklist**

#### **Requirements for Submission**

- Letter stating request of Conditional Use and reasoning for request
- Completed Conditional Use Permit Application

Submit Conditional Use Permit Application Fee (\$125)

- Submit Copy of completed Public Notice
- Publication: Public Notice shall be published at least one (1) time fifteen (15) days prior to the public hearing at which the variance will be heard. Once published please provide a proof of publication to the Community Development office.
- Posting of Property: The city shall provide a sign to post on the property involved for the fifteen (15) consecutive days leading up to Public hearing. One (1) sign is required for every two hundred (200) feet of street frontage.

Submit eight (8) Copies of the Development Plan (Site Plan) showing:

- Location, size, and use of buildings/signs/land or improvements
- Location, size, and arrangement of driveways and parking. Ingress/Egress
- Existing topography and proposed grading
- Proposed and existing lighting
- Proposed landscaping and screening
- Use of adjacent properties
- Scale, North Arrow, Vicinity Map
- Additional information that may be requested by the administrative official due to unique conditions of the site.

Once the application is received, the material will be reviewed to make sure all the required information is provided. The applicant will be notified if additional information is required. The application will then go before the Development and Review Committee (DRC) for a recommendation to the Planning Commission. A public hearing will be held at this meeting for comments on the Conditional Use. After the public hearing, the Planning Commission will make a decision on the use.

Note: that this is not an exhaustive guideline regarding the Conditional Use Permit Process. Additional information is available in the Bryant Zoning Ordinance.

#### **READ CAREFULLY BEFORE SIGNING**

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true and correct. I further certify that the owner of the property authorizes this proposed application. I understand that I must comply with all City Codes and that it is my responsibility to obtain all necessary permits required.

#### NOTICE OF PUBLIC HEARING

A public hearing will be held on Monday, <u>August 12th, 2024</u> at 6:00 P.M. at the Bryant City Office Complex, 210 Southwest 3<sup>rd</sup> Street, City of Bryant, Saline

County, for the purpose of public comment on a conditional use request at the site of

19 Tanglewood Drive, Bryant, AR 72022 (address).

A legal description of this property can be obtained by contacting the Bryant Department of Community Development.

> Lance Penfield Chairman of Planning Commission City of Bryant

This notice is to be run in the legal notices section of the Saline Courier no less than 15 days prior to the public hearing. Donald Whitfield 19 Tanglewood Drive Bryant, AR 72022

July 11, 2024

City of Bryant, Arkansas Community Development 210 SW 3<sup>rd</sup> Street Bryant, AR 72022

Re: Variance

The purpose of this letter is to ask for a variance to construct a 26' x 24' storage building at 19 Tanglewood Drive in Bryant, Arkansas and to allow the existing storage buildings of 12' x 16' and 12' x 12' to remain.

Based on the total square footage of my home which is 2,542, the maximum building of 25% of the total square footage would be 635. The new building would be 624 square feet. The square footage currently in the two existing buildings combined is 336 square feet. The total square footage after construction would be 960 square feet. The variance I am requesting would be to allow for an additional 325 square feet on my property which is .82 acres.

Le me know if you have any questions or need additional information.

Thank you,

Sincerely,

Donald Whitfield


**City of Bryant, Arkansas** Community Development 210 SW 3<sup>rd</sup> Street Bryant, AR 72022 501-943-0488, Comdev@cityofbryant.com

### **General – Permit Application**

| Please complete both pages of this application and submit to the City of B<br>Completed applications can also be scanned and emai | <pre>sryant Permitting office, located at the address above.</pre> iled to Comdev@cityofbryant.com. |
|---|---|
| Date: 7-10-24   |   |
| Permit Type:  |   |
| Electrical Permit Remodel Permit  | Burn Permit   |
| Plumbing Permit Demolition Permit   | Site Clearance Permit   |
| Mechanical Permit Accessory Building F  | Permit Mobile Home Permit   |
| Other if not listed above   |   |
| Contractor Information:   |   |
| contractor/Owner Donald Whitfi  | lell  |
| Physical Address of Business 19 Tangle Wo   | od pr.  |
| City, State, Zip code Bryant, AR  |   |
| Mailing Address (If different from Above)   |   |
| City, State, Zip code   |   |
| Email Address dwcpu e att. Not  |   |
| Business Phone Cell Phone 99  | 3- 6869 Fax   |
| Project Information:  |   |
| Project Address/Location > & h_h_h_   |   |
| Project Cost Commercial or Re   | sidential? <u>residential</u>   |
| Square footage (If Applicable)  |   |
| If new addition, will foam insulation be used? No 🖌 Yes If "  | Yes", provide technical evaluation report on foam   |
| insulation type, and a copy of installer's certification. (Attach to applic   | ation when submitted)   |
| Additional Project Information $\underline{\partial} \mathcal{L} \ \mathcal{L} \ \mathcal{L} \ \mathcal{J}$                       | H doep  |
| accessory Building  |   |

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**City of Bryant, Arkansas** Community Development 210 SW 3<sup>rd</sup> Street Bryant, AR 72022 501-943-0943

### Variance Application

Applicants are advised to read the Board of Adjustment and Variances section of Bryant Zoning Code prior to completing and signing this form. The Zoning Code is available at <u>www.cityofbryant.com</u> under the Planning and Community Development tab.

Date: July 8, 2024

| Applicant or Designee:   | Project Location:                                       |  |  |  |  |  |
|--|---|--|--|--|--|--|
| Scott Smith, Smith Associates Architects                             | Property Address 611 Providence Drive, Bryant, Arkansas |  |  |  |  |  |
| Address 2701 Kavanaugh Blvd, Suite 208 Little Ro                     | ock, AR 72205   |  |  |  |  |  |
| Phone501-614-8822  | Parcel Number   |  |  |  |  |  |
| Email Address: scott@smithassociatespa.com Zoning Classification R-2 |   |  |  |  |  |  |
| Property Owner (If different from Applicant)                         | ):  |  |  |  |  |  |
| Name Robert and Laurine Burdett                                      |   |  |  |  |  |  |
| Phone 501-519-3177   |   |  |  |  |  |  |
| Address 611 Providence Drive, Bryant, AR 72202                       |   |  |  |  |  |  |
| Email Addressmidarkroofing@comcast.net                               |   |  |  |  |  |  |
| Additional Information:  |   |  |  |  |  |  |
| Legal Description (Attach description if necessar                    | y)  |  |  |  |  |  |
| Lot 20, Westpointe Addition to the City of Brya                      | ant, Saline County, Arkansas                            |  |  |  |  |  |
|  |   |  |  |  |  |  |
|  |   |  |  |  |  |  |
| Description of Variance Request (Attach any nec                      | cessary drawings or images)                             |  |  |  |  |  |
| Increase lot coverage from 25% to 30.1%                              |   |  |  |  |  |  |
|  |   |  |  |  |  |  |
|  |   |  |  |  |  |  |

Proposed Use of Property Owner-occupied single family residence

#### **Application Checklist**

#### **Requirements for Submission**

- Letter Stating Request and outlining the variance that is requested
- □ Completed Variance Application
- □ Submit Variance Application Fee (\$40.00 for Lot and Block Description, \$125.00 for Metes and Bounds descriptions)
- □ Submit Copy of completed Public Notice
- Devication: Public Notice shall be published at least one (1) time fifteen (15) days prior to the public hearing at which the variance will be heard. Once published please provide a proof of publication to the Community Development office.
- □ Posting of Property: The city shall provide a sign to post on the property involved for the fifteen (15) consecutive days leading up to Public hearing. One (1) sign is required for every two hundred (200) feet of street frontage.
- □ Submit eight (8) Copies of the Site Plan showing:
  - Specific area(s) on site requesting Variance ٠
  - Location, Size of buildings and use of land or improvements ٠
  - Location and arrangement of driveways and parking. Ingress/Egress
  - Existing topography and proposed grading
  - Proposed and existing landscaping
  - Scale, North Arrow, Vicinity Map

Once the application has been filed, the material will be reviewed to make sure all the required information is provided. The applicant will be notified if additional information is required. The application will be placed on the agenda for application acceptance.

Note: that this is not an exhaustive guideline regarding the Board of Adjustment. Additional information is available in the Bryant Zoning Ordinance.

#### **READ CAREFULLY BEFORE SIGNING**

, do hereby certify that all information contained within this application is true and correct. I further certify that the owner of the property authorizes this proposed application. I understand that I must comply with all Building and Electrical Codes and that it is my responsibility to obtain all necessary permits.

#### NOTICE OF PUBLIC HEARING

| A public hearing will be held on Monday,   | August 12, 2024                         | at 6:00 P.M.   |
|--|---|----------------|
| at the Bryant City Office Complex, 210 Sou | uthwest 3 <sup>rd</sup> Street, City of | Bryant, Saline |
| County, for the purpose of public comment  | on a variance request a                 | it the site of |
| 611 Providence Drive, Bryant, Arkansa      | IS                                      | (address).     |

A legal description of this property can be obtained by contacting the Bryant Department

of Community Development.

Rick Johnson Chairman Board of Zoning Adjustment City of Bryant

This notice is to be run in the legal notices section of the Saline Courier <u>no less than 15 days</u> prior to the public hearing.

#### **Smith Associates**

Architects, P.A.

2701 Kavanaugh Blvd, Suite 208 Little Rock, AR 72205 (501) 614-8822 FAX (501) 614-8826 www.smithassociatespa.com

July 8, 2024

Rick Johnson Chairman Board of Zoning Adjustment City of Bryant 210 SW 3<sup>rd</sup> St Bryant, AR 72022

Re: 611 Providence Drive Bryant, Arkansas

Mr. Johnson,

Enclosed please find a Variance Application and several drawings for a proposed addition to the above referenced address. The requested variance is for an increase in lot coverage from 25% to 30.1%. No other variances are requested.

The lot is not as deep (121.0') as a typical lot, and is the basis for the requested variance. As an example, if this lot had a more typical depth of 140.0', the lot would contain 21,520 SF and the proposed lot coverage would only be 25.5%.

Let me know if you need any additional information at this time.

#### Cordially, Smith Associates Architects, PA

Scott Smith, AIA

enclosure

Cc: Robert and Laurine Burdett



Date of Survey: Scale: Property Address: For Use & Benefit of: May 17, 2024 1" = 20' 611 Providence Drive Robert A. Burdett, Laurine Burdett



This is to certify that the above described land has been surveyed. The corners are marked as shown and are in accordance with existing monuments in the area. Survey makes no statement concerning flood status of property unless otherwise stated. THIS SURVEY IS CERTIFIED TO AND LIMITED TO THE PARTIES SHOWN HEREON.



| EXISTING PRINCIPAL STRUCTURE | 3465         | EX  |
|------------------------------|--------------|-----|
| ACCESSORY STRUCTURES         | 1320         | AC  |
| EXISTING LOT COVERAGE        | 4785 (26.2%) | PRO |

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| EXISTING PRINCIPAL STRUCTURE | 3465         |
|------------------------------|--------------|
| ACCESSORY STRUCTURES         | 1320         |
| PROPOSED ADDITION            | 710          |
| PROPOSED LOT COVERAGE        | 5495 (30.1%) |

July 8, 2024

611 Providence Drive Bryant, Arkansas

### Smith Associates

Architects, P.A.

2701 Kavanaugh Blvd, Suite 208 Little Rock, AR 72205





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July 8, 2024

611 Providence Drive Bryant, Arkansas

### Smith Associates Architects, P.A.

2701 Kavanaugh Blvd, Suite 208 Little Rock, AR 72205



32

8

0

16

July 8, 2024

611 Providence Drive Bryant, Arkansas

### Smith Associates Architects, P.A.

2701 Kavanaugh Blvd, Suite 208 Little Rock, AR 72205



32

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16

July 8, 2024

611 Providence Drive Bryant, Arkansas

#### Smith Associates Architects, P.A.

2701 Kavanaugh Blvd, Suite 208 Little Rock, AR 72205

UTILITY AND GOVERNING AGENCIES **CONTACT LIST** 

WATER COMPANY CITY OF BRYANT PUBLIC WORKS TIM FOURNIER 210 SW 3RD STREET BRYANT, AR 72022 (501) 943-0469

SANITARY SEWER COMPANY CITY OF BRYANT PUBLIC WORKS TIM FOURNIER 210 SW 3RD STREET BRYANT, AR 72022 (501) 943-0469

**FIRE MARSHAL** CITY OF BRYANT FIRE DEPARTMENT THOMAS HAMMOND 312 ROYA LANE BRYANT, AR 72022 (501) 943-0397

**EROSION CONTROL** CITY OF BRYANT ENGINEERING/CONSTRUCTION SCOTT CHANDLER 210 SW 3RD STREET BRYANT, AR 501 943-0469

**POWER COMPANY** ENTERGY (501) 368-3749

**CABLE COMPANY** XFINITY (800) 934-6489

(501) 569-2000

**DEPARTMENT OF TRANSPORTATION** 

ARKANSAS DEPARTMENT OF TRANSPORTATION

PLANNING DEPARTMENT CITY OF BRYANT COMMUNITY DEVELOPMENT COLTON LEONARD 210 SW 3RD STREET BRYANT, AR 72022 (501) 943-0469

ZONING DEPARTMENT CITY OF BRYANT COMMUNITY DEVELOPMENT COLTON LEONARD 210 SW 3RD STREET BRYANT, AR 72022 (501) 943-0469

PHONE COMPANY AT & T (800) 288-2020

GAS COMPANY CENTERPOINT ENERGY (800)992-7552

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# **CONSTRUCTION PLANS FOR** LITTLE CAESARS **REYNOLDS ROAD** BRYANT, ARKANSAS





## **A DEVELOPMENT OF OBWAT HOLDINGS, LLC**

GENERAL SITE CONSTRUCTION NOTES

- . THE CONTRACTOR SHALL CONTROL EROSION ON THE SITE. ALL SLOPES SHALL BE FERTILIZED, SEEDED AND MULCHED (OR LANDSCAPED) AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. THE SITE SHALL BE GRADED TO MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION. THE WATER SHALL NOT BE ALLOWED TO POND.
- 2. THE CONTRACTOR SHALL COORDINATE WITH EACH UTILITY COMPANY PRIOR TO ANY EXCAVATION. ANY DAMAGE TO UTILITY LINES CAUSED BY THE CONTRACTOR OPERATIONS SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE. THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING AND PROPOSED STORM SEWER, SANITARY SEWER AND WATER LINES TO ENSURE THAT THEY ARE INSTALLED WITH ADEQUATE COVER AND CLEARANCE.
- 3. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, CODES AND ORDINANCES GOVERNING WORK AT THIS TYPE.
- 4. THE CONTRACTORS ATTENTION IS SPECIFICALLY CALLED TO THE LOCATION OF THE EXISTING IMPROVEMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DAMAGING ANY EXISTING IMPROVEMENTS WHICH ARE TO REMAIN PRIOR TO SUBMITTING HIS BID. THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS. HE SHALL VISIT THE SITE AND INSPECT THE CONDITION OF THE SITE AND THE ADJACENT IMPROVEMENTS.
- THE CONTRACTOR SHALL CALL "ONE-CALL" FOR LOCATION OF ALL UTILITIES PRIOR TO COMMENCEMENT OF ANY EXCAVATION. 6. ANY EXCESS EXCAVATED MATERIAL SHALL BE STOCKPILED OR PLACED IN AREAS AS
- DIRECTED. ALL FILLS ON SITE IN AREAS OF FUTURE BUILDING CONSTRUCTION SHALL BE MADE IN 8" LIFTS AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.

#### INDEX OF SHEETS

| TITLE SHEET                  | C1 |
|------------------------------|----|
| TOPOGRAPHIC SURVEY           | V1 |
| SITE PLAN                    | C2 |
| GRADING PLAN                 | C3 |
| UTILITY PLAN                 | C4 |
| EROSION CONTROL PLAN         | C5 |
| SITE DETAILS                 | C6 |
| WATER AND SEWER LINE DETAILS | C7 |

**OWNER & DEVELOPER:** OBWAT HOLDINGS, LLC 7500 LANDERS ROAD SHERWOOD, AR. 72117







### **THIS SITE**





### **VICINITY MAP**

ISSUING AGENT: FIRST NATIONAL TITLE COMPANY ISSUING OFFICE: 216 W. SEVIER STREET, BENTON, AR 72015 ISSUING OFFICE'S ALTA® REGISTRY ID: 1010363 COMMITMENT NO.: 102-230785-MH-1 ISSUING OFFICE FILE NO .: 102-230785-MH PROPERTY ADDRESS: REYNOLDS ROAD, BRYANT, AR 72022

COMMITMENT DATE: AUGUST 14, 2023 AT 07:00 AM

SCHEDULE B, PART II EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN. THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY

- 1. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT. NOT SURVEY RELATED.
- 2. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE SURVEY OF THE LAND. SURVEY SHOWS BOUNDARY LINES AND IMPROVEMENTS.
- 3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.
- NOT SURVEY RELATED. 4. EASEMENTS, OR CLAIMS OF EASEMENTS, NOT SHOWN BY THE PUBLIC RECORDS.
- NONE TO SURVEYOR'S KNOWLEDGE. 5. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS. NOT SURVEY RELATED.
- 6. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY PUBLIC RECORDS.
- NOT SURVEY RELATED. 7. ANY PRIOR RESERVATION OR CONVEYANCE, TOGETHER WITH RELEASE OF DAMAGES OF MINERALS, OF EVERY KIND AND CHARACTER, INCLUDING, BUT NOT LIMITED TO, OIL, GAS, SAND AND GRAVEL IN, ON AND UNDER SUBJECT PROPERTY.
- NOT SURVEY RELATED. 8. GENERAL TAXES FOR THE YEAR 2023, WHICH ARE NOT YET DUE AND PAYABLE, AND SUBSEQUENT YEARS, AND FUTURE INSTALMENTS OF THE FOLLOWING SPECIAL IMPROVEMENT DISTRICTS: SALINE WATERSHED REGIONAL WATER DISTRIBUTION DISTRICT;
- SALEM FIRE PROTECTION DISTRICT; BRYANT WATER & SEWER IMPROVEMENT DISTRICTS;
- NOT SURVEY RELATED. 9. SUBJECT TO THE RIGHT OF CONTROLLED ACCESS TO AND FROM HIGHWAY 183.
- NOT SURVEY RELATED.
- 10. UTILITY EASEMENTS AND BUILDING SET BACK LINES OVER AND ACROSS THE SUBJECT PROPERTY. EASEMENTS AND SETBACK LINES SHOWN ON THE SURVEY.
- 11. RIGHT OF WAY EASEMENT IN FAVOR OF THE CITY OF BRYANT ARKANSAS FILED MAY 25, 1999 AS SALINE COUNTY DOCUMENT NO. 1999 28587.
- SHOWN ON THE SURVEY. 12. RIGHT OF WAY EASEMENT IN FAVOR OF RELIANT ENERGY ARKANSAS FILED OCTOBER 4, 1999 AS SALINE COUNTY DOCUMENT NO. 1999 52869. SHOWN ON THE SURVEY.
- 13. RIGHT OF WAY EASEMENT IN FAVOR OF BRYANT SEWER IMPROVEMENT DISTRICT NO. 1, FILED JULY 7, 1979 IN SALINE COUNTY MISCELLANEOUS BOOK 53 AT PAGE 754. SHOWN ON THE SURVEY.
- 14. RIGHTS OF THE PUBLIC AND OTHERS ENTITLED THERETO IN AND TO USE OF THAT PORTION OF SUBJECT PROPERTY COMPRISING ANY ROAD, STREET, ALLEY, HIGHWAY, OR OTHER PUBLIC RIGHT OF WAY. NOT SURVEY RELATED.
- 15. ANY INACCURACY IN THE AREA, SQUARE FOOTAGE, OR ACREAGE OF LAND DESCRIBED IN SCHEDULE A OR ATTACHED PLAT, IF ANY. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND. NOT SURVEY RELATED.
- 16. PLANNING AND/OR ZONING RULES, REGULATIONS AND/OR ORDINANCES ADOPTED BY THE SALINE COUNTY PLANNING BOARD, THE BRYANT PLANNING COMMISSION AND/OR THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS AND/OR VIOLATIONS THEREOF. NOT SURVEY RELATED.
- 17. MODIFIED EASEMENT BY AND BETWEEN ALCOA INC. TO BENTON PROPERTY INVESTMENTS, LLC DATED NOVEMBER 22, 2005 AND FILED NOVEMBER 23, 2005 AS SALINE COUNTY DOCUMENT NO. 2005 131400 AND SUBSEQUENT CONVEYANCES THEREOF. DOES NOT AFFECT PROPERTY.
- 18. EASEMENT BY AND BETWEEN BRYANT SCHOOL DISTRICT NO. 25, ALCOA INC. AND REYNOLDS METALS COMPANY DATED NOVEMBER 2, 2004 AND FILED APRIL 15, 2005 AS SALINE COUNTY DOCUMENT NO. 2005 037378 AND SUBSEQUENT CONVEYANCES THEREOF. DOES NOT AFFECT PROPERTY.
- 19. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS, AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE LAND. EASEMENTS, RIGHT OF WAY LINE AND SETBACK LINES SHOWN ON SURVEY.
- 20. LOSS ARISING FROM SECURITY INTEREST EVIDENCED BY FINANCING STATEMENTS FILED OF RECORD UNDER THE ARKANSAS UNIFORM COMMERCIAL CODE, JUDGMENT LIENS OR OTHER LIENS OF RECORD IN ANY UNITED STATES DISTRICT COURT OR BANKRUPTCY COURT, IN THE STATE OF ARKANSAS, AS OF THE EFFECTIVE DATE HEREOF. NOT SURVEY RELATED.

TO CHICAGO TITLE INSURANCE COMPANY, OBWAT HOLDINGS, LLC, FIRST NATIONAL TITLE COMPANY AN ARKANSAS CORPORATION, AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS: THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS. THE FIELDWORK WAS COMPLETED ON SEPTEMBER 12, 2023. DATE OF PLAT OR MAP: OCTOBER 3, 2023

JOHN R. POWNALL ARKANSAS REGISTERED LAND SURVEYOR 1215 SURVEY LEGAL DESCRIPTION:

PART OF THE SE1/4 NW1/4 OF SECTION 27, TOWNSHIP 1 SOUTH, RANGE 14 WEST, IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SE1/4 NW1/4;

THENCE N 89° 25' 16" W FOR 201.43 FEET TO THE POINT OF BEGINNING;

THENCE ALONG THE WEST LINE OF THE SAID SE1/4 NW1/4 S 00° 00' 00" E FOR 1143.40 FEET; THENCE N 87° 59' 54" E FOR 530.36 FEET LEAVING THE WEST LINE OF SAID SE1/4 NW/4 TO A TO 5/8" REBAR AND THE

POINT OF BEGINNING;

THENCE N 13° 04' 16" W FOR 193.28 FEET TO A 5/8" REBAR AND THE SOUTHERLY RIGHT OF WAY LINE OF BROWN LANE; THENCE ALONG SAID RIGHT OF WAY LINE S 89° 20' 38" E FOR 195.38 FEET TO A 1/2" REBAR AND THE WESTERLY RIGHT

OF WAY LINE OF NORTH REYNOLDS ROAD; THENCE ALONG SAID RIGHT OF WAY LINE S 14° 49' 14" E FOR 194.54 FEET TO A 1/2" REBAR;









PROPERTY LINE EASEMENT SANITARY SEWER LINE OVERHEAD ELECTRIC LINE STORM DRAIN LINE EDGE OF ASPHALT CURB & GUTTER UTILITY POLE & GUY GAS METER TELEPHONE PEDESTAL SIGN

CALCULATED POINT



GENERAL NOTES: 1. ALL DIMENSIONS SHOWN ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED. RADII ARE 5 FEET UNLESS OTHERWISE INDICATED.

2. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF PORCHES, RAMPS, SLOPED PAVING, TRUCK DOCKS, BUILDING UTILITY ENTRANCE LOCATIONS AND PRECISE BUILDING DIMENSIONS.

3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

4. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH O.S.H.A. AND ANY OTHER APPLICABLE LOCAL, STATE OR FEDERAL SAFETY REGULATIONS, INCLUDING THE USE OF TRENCH SHORING, ETC.

5. REPAIR. REPLACE OR EXTEND EXISTING DAMAGED OR MISSING CURB AND GUTTER. SIDEWALK, RAMPS OR CONCRETE APRONS ON SITE & WITHIN THE PUBLIC RIGHT-OF-WAY ADJACENT TO THE SITE. REMOVE ABANDONED DRIVEWAYS. ALL WORK WITHIN PUBLIC RIGHT-OF-WAY SHALL CONFORM TO CITY STANDARDS AND ADA GUIDELINES.

6. CONTACT BRYANT STREET DEPARTMENT FOR INSPECTIONS OF ANY WORK IN PUBLIC RIGHT-OF-WAY PRIOR TO PLACEMENT OF CONCRETE OR ASPHALT OR FOR CLARIFICATION OF REQUIREMENTS PRIOR TO TO COMMENCING WORK. FAILURE TO DO SO CAN RESULT IN REMOVAL OF ANY IMPROPERLY PLACED CONCRETE OR ASPHALT AT THE EXPENSE OF THE CONTRACTOR.

7. CONTACT BRYANT FIRE DEPARTMENT FOR LOCATION AND REQUIREMENTS FOR FIRE LANE STRIPING ON SITE BEFORE APPLICATION. FIRE LANES WILL BE 4" WHITE LETTERS ON 6" RED TRAFFIC PAINT AT 15' INTERVALS.

SITE PLAN NOTES

- 1. SITE CONTAINS A PROPOSED DRIVE THRU RESTAURANT.
- 2. BASIS OF BEARINGS: GPS GRID NORTH. 3. THE PROPERTY IS NOT SHOWN IN THE 100 YEAR FLOOD PLAIN ON THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 050308 0380E,
- DATED 6/05/20. 4. THIS PRÓPERTY IS ZONED C-2.
- 5. ALL ABUTTING PROPERTIES ARE ZONED C-2.
- 6. THIS TRACT CONTAINS 37,231 S.F. OR 0.855 ACRES, MORE OR LESS. 7. SETBACKS FOR C-2 ZONING ON HWY 183 ARE: 50' FRONT
  - O' SIDE OR 25' ALONG STREET OR RESIDENTIAL
- 15' REAR OR 55' ABUTTING RESIDENTIAL
- 8. BUILDING TO LOT COVERAGE 5.0% (35% MAX.) IMPERVIOUS SURFACE AREA TO LOT COVERAGE 65%.





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GRADING PLAN GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

2. WARRANTY/DISCLAIMER. THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED AT THIS TIME. HOWEVER, NEITHER THOMAS ENGINEERING COMPANY, INC., NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THOMAS ENGINEERING COMPANY PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

3. SAFETY NOTICE TO CONTRACTOR. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR OWNER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

4. ENGINEER'S NOTICE TO CONTRACTOR. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

5. SEE ARCHITECTURAL PLANS FOR DETAILS ON CONCRETE RAMPS AND SIDEWALKS ATTACHED TO BUILDINGS.

6. FINISHED GRADE CONTOURS ARE INDICATED ALONG TOP OF COMPLETED STRUCTURES, TOP OF PAVEMENT AND GUTTER LINE OF CURB, UNLESS OTHERWISE SHOWN. FOR ROUGH GRADING, CONTRACTOR SHALL ALLOW FOR DEPTHS OF TOPSOIL AND CONCRETE STRUCTURES. FOR FINISH GRADING, CONTRACTOR SHALL INSTALL TOPSOIL AND CONCRETE STRUCTURES TO FINISHED GRADE AS INDICATED ON THIS SHEET.

7. THE GENERAL CONTRACTOR SHALL FURNISH "AS-BUILT" DRAWINGS AT END OF PROJECT.

8. ALL STORM DRAIN LINES AND UTILITY LINES UNDER THE PAVEMENT SHALL BE BACK FILLED WITH CRUSHED STONE.

9. PLACE A 4" MINIMUM DEPTH OF TOPSOIL OVER ALL LAWN AND LANDSCAPE AREAS.

10. REFER TO LANDSCAPE PLAN FOR PERMANENT TURF SOD AND SEEDING AREAS. 11. PROVIDE TEMPORARY SEEDING AND EROSION CONTROL PER STATE AND LOCAL CODES.

#### LEGEND - — — -100 — — — — EXISTING CONTOURS - — — — — 101 — — — — PROPOSED CONTOURS 400.0 O PROPOSED SPOT ELEVATION GUTTER 400.0 T O PROPOSED SPOT ELEVATION TOP OF CURB EXISTING SPOT ELEVATION 400.00 X DRAINAGE ARROW $\implies$

NOTE: SPOT ELEVATIONS FINISHED GRADE UNLESS OTHERWISE SHOWN.













CALCULATED POINT

UTILITY NOTES:

1. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN ACCORDANCE WITH THE ARKANSAS UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. THIS LAW REQUIRES THAT THE CONTRACTOR MAKE A TELEPHONE CALL TO THE ARKANSAS ONE-CALL SYSTEM AT 1-800-482-8998 AT LEAST TWO (2) WORKING DAYS PRIOR TO EXCAVATING TO ENSURE THAT ANY EXISTING UTILITIES CAN BE LOCATED.

2. CONTRACTOR TO UNCOVER AND MARK UTILITY LINES BEFORE CONSTRUCTION.

3. CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COST OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES DAMAGED OR INTERRUPTED AS A RESULT OF THIS CONSTRUCTION.

4. CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE OWNER OF ANY DAMAGED OR INTERRUPTED UTILITIES IMMEDIATELY.

5. ALL SEWER MAINS, SERVICES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE TO THE BRYANT WATER WORKS SPECIFICATIONS, THE ARKANSAS DEPARTMENT OF HEALTH AND THE ARKANSAS STATE PLUMBING CODE.

6. ALL WATER LINES SERVICES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE TO THE BRYANT WATER WORKS REQUIREMENTS AND THE ARKANSAS STATE PLUMBING CODE.

7. SEE PLUMBING PLANS FOR EXACT LOCATION OF UTILITY ENTRANCES TO THE BUILDING.

8. IN AREAS WHERE UTILITIES ARE INSTALLED UNDER NEW ASPHALT PAVEMENT, REFER TO DETAIL "PIPE TRENCH & BACKFILL SECTION DETAIL UNDER NEW PAVEMENT."

ELECTRIC UTILITY NOTES:

- 1. CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF TRANSFORMER PAD AND PROVIDE THE MINIMUM SIZED PAD REQUIRED BY ENTERGY. 2. THE CONTRACTOR SHALL PAY ENTERGY FOR ALL SWITCHGEAR,
- CONNECTIONS, UNDERGROUND 3 PHASE PRIMARY WIRE, 3 PHASE PAD MOUNTED TRANSFORMER AND SECONDARY UNDERGROUND SERVICE WIRE.

#### SANITARY SEWER GENERAL NOTES

- 1. 4" SERVICE LINES AND STUBS SHALL BE LAID ON MINIMUM 1% SLOPE. 2. MAINTAIN 10' MINIMUM CLEARANCE BETWEEN WATER AND SEWER LINES.
- 3. PVC PIPE SHALL HAVE ASTM C33 #7 STONE BEDDING 6" ON ALL SIDES. 4. SEWER SERVICE PIPE MATERIAL SHALL CONFORM TO ONE OF THE FOLLOWING STANDARDS: ASTM D 2665, SCHEDULE 40 DWV OR ASTM D3034, PVC SEWER PIPE, SDR-26

WATER NOTES:

- 1. ALL PIPES TO HAVE A MINIMUM OF 3' OF COVER. 2. ALL NON-METALLIC MAINS SHALL HAVE A 12 GA. COPPER TRACING WIRE.
- 3. ALL P.V.C. PIPE SHALL BE CLASS 250. 4. MAINTAIN 18" VERTICAL SERRATION BETWEEN WATER/SEWER CROSSINGS.
- 5. MAINTAIN 5' HORIZONTAL SEPARATION BETWEEN PARALLEL UTILITIES.
- 6. CONTRACTOR TO PAY FOR INSTALLATION OF DOMESTIC AND IRRIGATION METERS.

WATER LINE PIPE MATERIALS:

1. DUCTILE IRON PIPE SHALL CONFORM TO ANSI A21.51 (AWWA C151) AND SHALL HAVE A CEMENT MORTAR LINING AND SEAL COAT CONFORMING TO ANSI A21.4 (AWWA C104) AND NSF 61. JOINTS SHALL CONFORM TO ANSI A21.11 (AWWA C111) AND MAY BE MECHANICAL JOINT OR PUSH-ON JOINT UNLESS OTHERWISE SPECIFIED. GASKETS SHALL BE MANUFACTURED IN THE UNITED STATES AND/OR COSTA RICA. THE MINIMUM CLASS OF D.I. PIPE SHALL BE THICKNESS CLASS 50 UNLESS OTHERWISE SPECIFIED. ALL DUCTILE IRON SHALL BE ENCASED IN POLYETHYLENE (POLYWRAPPED) UPON INSTALLATION (SEE SECTION 21 OF THE CAW CONSTRUCTION SPECIFICATIONS FOR SPECIFICS). ALL DUCTILE IRON MAINS SHALL END WITH A FULL JOINT OF MECHANICAL JOINT PIPE WITH A MECHANICAL JOINT PLUG AND ANCHOR COLLAR.

2. PVC WATER MAIN PIPE SHALL CONFORM TO AWWA C900, DR18, PVC PRESSURE PIPE AND FABRICATED FITTINGS 4" THROUGH 12". PVC WATER PIPE SHALL HAVE INTEGRAL BELL JOINTS WITH ELASTOMETRIC GASKETS THAT CONFORM TO ASTM 3212 AND ASTM F477.

3. WATER SERVICE PIPE SHALL CONFORM TO AWWA C904, DR9, CROSS-LINKED POLYETHYLENE (PEX), SDR9, MINIMUM PRESSURE CLASS 160, PRESSURE PIPE AND TUBING,  $\frac{1}{2}$  IN. THROUGH 3 IN, FOR WATER SERVICE.













CALCULATED POINT

#### SEQUENCE OF CONSTRUCTION

#### 1. INSTALL CONSTRUCTION ENTRANCE AND PERIMETER SILT FENCE. CONTRACTOR SHALL INSTALL WHATEVER DIVERSIONS/SWALES ARE NECESSARY TO ROUTE ALL SEDIMENT LADEN WATER TO THE PROPOSED SILT FENCE LOCATIONS.

2. CLEAR SITE AND REMOVE ALL DEMOLITION DEBRIS. 3. BEGIN GRADING OPERATION FOR SITE.

#### 4. BEGIN UTILITY CONSTRUCTION. MAINTAIN ANY DIVERSIONS TO ROUTE ALL UPSTREAM WATER AWAY FROM THE EXISTING STREETS THROUGHOUT

CONSTRUCTION. 5. INSTALL CURB AND GUTTER AND SIDEWALKS.

- 6. FINE GRADE ENTIRE SITE, AND COMPLETE PAVING OPERATIONS.
- 7. INSTALL SEEDNG, VEGETATION, AND PROCEED WITH FINAL SITE STABILIZATION. WATER ALL GRASSED AREAS.
- 8. INSPECT AND RESOD ALL DISTURBED AREAS AS NECESSARY. UPON FINAL SITE STABILIZATION, CLEAN SILT FROM BEHIND ALL SEDIMENT FENCES AND REMOVE ALL TEMPORARY EROSION CONTROL DEVICES.

EROSION CONTROL NOTES:

1. SEDIMENT CONTROL MEASURES MUST BE INSPECTED AND MAINTAINED REGULARLY IN ORDER TO INSURE THAT THE INTENDED PURPOSES ARE ACCOMPLISHED.

2. ALL DISTURBED AREAS NOT INTENDED FOR PAVING SHALL BE SEEDED OR SODDED AS PER SPECIFICATIONS.

3. STABILIZATION REQUIREMENTS: (NOT NECESSARILY VEGETATION) ALL PERIMETER CONTROLS ARE TO BE STABILIZED WITHIN 7

DAYS OF INSTALLATION. ALL OTHER DISTURBED AREAS ARE TO BE STABILIZED WITHIN 14 DAYS. 4. TEMPORARY SEDIMENT CONTROL MEASURES

SHALL BE MAINTAINED UNTIL ALL CONTRIBUTING AREAS ARE GRADED AND STABILIZED.

5. EXCAVATED EARTH SHALL BE PILED ON THE HIGH SIDE OF EXCAVATIONS.

6. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL

IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

7. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.



CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.

2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.

3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL. 4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.

KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.







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SUBGRADE











CALCULATED POINT







NOTES:





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No. 4685

✓ ENGINEERING CO

No. 94

ARKANSA



## LITTLE CAESARS DRAINAGE REPORT

DATE 7/10/24 REVISED 7/11/24

PREPARED FOR: CITY OF BRYANT, AR

PREPARED BY:

THOMAS ENGINEERING COMPANY JOHN R POWNALL, P.E. 3810 LOOKOUT ROAD NORTH LITTLE ROCK, AR 72116

#### CERTIFICATION

I hereby state that this Final Drainage has been prepared by me or under my supervision and meets the standard of care and expertise which is usual and customary in this community of professional engineers. The analysis has been prepared utilizing procedures and practices by the City of Bryant and within the standard accepted practices.

& formall

John R. Pownall, P.E. President

4682 C DOR

Date: 07/10/24 REVISED: 07/11/24

### **PROJECT DESCRIPTION**

The proposed project is for the construction of a Little Caesars Restaurant located at Reynolds Road and Brown Lane. The proposed development is for a 1,873 square foot building.

This drainage analysis is to evaluate the predevelopment & post development drainage for the 2YR, 5YR, 10YR, 25YR and 100YR storms. The existing site is grass covered. The developed condition will be covered in approximately 70% impermeable surfaces.

### PROPOSED DRAINAGE SYSTEM

The developed site will drain by overland flow to a detention basin on the west side of the site. The detention basin will have a 8" diameter outlet pipe and a 5 foot wide overflow wier. The pre-development and post-development flows are summarized below:

| STORM | PRE-DEVELOPMENT | POST-DEVELOPMENT |  |  |
|-------|-----------------|------------------|--|--|
| 2     | 1.10            | 1.97             |  |  |
| 5     | 1.35            | 2.11             |  |  |
| 10    | 1.49            | 2.22             |  |  |
| 25    | 1.71            | 2.77             |  |  |
| 100   | 2.13            | 3.65             |  |  |

Due to the 8" minimum size of the outlet pipe, the post-development flows are more than the pre-development.

## **APPENDIX**

#### **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT POST DEV.SPF |
|--------------------------|------------------------------------|
|                          | LITTLE CAESARS BRYANT              |

#### **Project Options**

| Flow Units                              | CFS            |
|---|----------------|
| Elevation Type                          | Elevation      |
| Hydrology Method                        | Rational       |
| Time of Concentration (TOC) Method      | SCS TR-55      |
| Link Routing Method                     | Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES            |
| Skip Steady State Analysis Time Periods | NO             |

### Analysis Options

| Start Analysis On              | Jun 28, 2024   | 00:00:00      |
|--------------------------------|----------------|---------------|
| End Analysis On                | Jun 28, 2024   | 03:00:00      |
| Start Reporting On             | . Jun 28, 2024 | 00:00:00      |
| Antecedent Dry Days            | . 0            | days          |
| Runoff (Dry Weather) Time Step | . 0 01:00:00   | days hh:mm:ss |
| Runoff (Wet Weather) Time Step | 0 00:05:00     | days hh:mm:ss |
| Reporting Time Step            | 0 00:05:00     | days hh:mm:ss |
| Routing Time Step              | . 30           | seconds       |

#### **Number of Elements**

|                 | Qty |
|-----------------|-----|
| Rain Gages      | 0   |
| Subbasins       | 1   |
| Nodes           | 2   |
| Junctions       | 0   |
| Outfalls        | 1   |
| Flow Diversions | 0   |
| Inlets          | 0   |
| Storage Nodes   | 1   |
| Links           | 2   |
| Channels        | 0   |
| Pipes           | 0   |
| Pumps           | 0   |
| Orifices        | 1   |
| Weirs           | 1   |
| Outlets         | 0   |
| Pollutants      | 0   |
| Land Uses       | 0   |

#### **Rainfall Details**

Return Period..... 2 year(s)

#### Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 0.48     | 0.16   | 0.13    | 1.62   | 0 00:05:00      |

#### Node Summary

| S | V Element | Element      | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |
|---|-----------|--------------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|
|   | ID        | Туре         | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge |
|   |           |              |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     |
|   |           |              |           |            |           |           |                    |        |           | Attained  |
|   |           |              | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      |
|   | 1 Out-01  | Outfall      | 430.30    |            |           |           |                    | 1.21   | 430.30    |           |
|   | 2 Stor-01 | Storage Node | 430.50    | 433.00     | 430.50    |           | 0.00               | 1.62   | 431.32    |           |
|   |           |              |           |            |           |           |                    |        |           |           |
|   |           |              |           |            |           |           |                    |        |           |           |
|   |           |              |           |            |           |           |                    |        |           |           |

#### Link Summary

| SN Element         | Element | From    | To (Outlet) | Length | Inlet     | Outlet    | Average | Diameter or | Manning's                               | Peak  | Design Flow | Peak Flow/  | Peak Flow |
|--------------------|---------|---------|-------------|--------|-----------|-----------|---------|-------------|---|-------|-------------|-------------|-----------|
| ID                 | Type    | (Inlet) | Node        |        | Invert    | Invert    | Slope   | Height      | Roughness                               | Flow  | Capacity    | Design Flow | Velocity  |
|                    |         | Node    |             |        | Elevation | Elevation | •       |             | , i i i i i i i i i i i i i i i i i i i |       |             | Ratio       |           |
|                    |         |         |             | (ft)   | (ft)      | (ft)      | (%)     | (in)        |   | (cfs) | (cfs)       |             | (ft/sec)  |
| 1 DETENTION-OUTLET | Orifice | Stor-01 | Out-01      |        | 430.50    | 430.30    |         | 8.000       |   | 1.21  |             |             |           |
| 2 DETENTION-SPILLW | AY Weir | Stor-01 | Out-01      |        | 430.50    | 430.30    |         |             |   | 0.00  |             |             |           |

#### Subbasin Hydrology

#### Subbasin : Sub-01

#### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

#### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft) V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2/3})) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)

#### Runoff Hydrograph



#### **Storage Nodes**

#### Storage Node : Stor-01

#### Input Data

| Invert Elevation (ft)          | 430.50 |
|--------------------------------|--------|
| Max (Rim) Elevation (ft)       | 433.00 |
| Max (Rim) Offset (ft)          | 2.50   |
| Initial Water Elevation (ft)   | 430.50 |
| Initial Water Depth (ft)       | 0.00   |
| Ponded Area (ft <sup>2</sup> ) | 0.00   |
| Evaporation Loss               | 0.00   |

### Storage Area Volume Curves Storage Curve : Storage-01

| Stage | Storage<br>Area | Storage<br>Volume  |
|-------|-----------------|--------------------|
| (ft)  | (ft²)           | (ft <sup>3</sup> ) |
| 0     | 1               | 0.000              |
| .5    | 608             | 152.25             |
| 1.5   | 1689            | 1300.75            |
| 2.5   | 5204            | 4747.25            |

#### Storage Area Volume Curves



#### Storage Node : Stor-01 (continued)

**Outflow Weirs** 

| SN Element<br>ID | Weir<br>Type          | Flap<br>Gate | Crest<br>Elevation | Crest<br>Offset | Length |
|------------------|-----------------------|--------------|--------------------|-----------------|--------|
|                  |                       |              | (ft)               | (ft)            | (ft)   |
| 1 DETENTION      | -SPILLWAY Rectangular | No           | 432.50             | 2.00            | 5.00   |

#### **Outflow Orifices**

| SN Element<br>ID   | Orifice<br>Type | Orifice I<br>Shape ( | Flap<br>Gate | Circular<br>Orifice<br>Diameter<br>(in) | Rectangular<br>Orifice<br>Height<br>(in) |
|--------------------|-----------------|----------------------|--------------|---|--|
| 1 DETENTION-OUTLET | Side            | CIRCULAR I           | No           | 8.00                                    |  |

#### **Output Summary Results**

| Peak Inflow (cfs)         Peak Lateral Inflow (cfs)         Peak Outflow (cfs)         Peak Exfiltration Flow Rate (cfm)         Max HGL Elevation Attained (ft)         Max HGL Depth Attained (ft)         Average HGL Elevation Attained (ft)         Average HGL Depth Attained (ft)         Time of Max HGL Occurrence (days hh:mm)         Total Exfiltration Volume (1000-ft <sup>a</sup> )         Total Flooded Volume (ac-in) | 1.62<br>1.62<br>1.21<br>0.00<br>431.32<br>0.82<br>430.68<br>0.18<br>0 00:17<br>0.000<br>0 |
|---|---|
| Total Exfiltration Volume (1000-ft <sup>3</sup> )   | 0.000   |
| Total Flooded Volume (ac-in)  | 0   |
| Total Time Flooded (min)  | 0   |
| Total Retention Time (sec)  | 0.00  |
|   |   |

#### **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT POST DEV.SPF |
|--------------------------|------------------------------------|
|                          | LITTLE CAESARS BRYANT              |

#### **Project Options**

| Flow Units                              | CFS              |
|---|------------------|
| Elevation Type                          | Elevation        |
| Hydrology Method                        | Rational         |
| Time of Concentration (TOC) Method      | SCS TR-55        |
| Link Routing Method                     | . Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES              |
| Skip Steady State Analysis Time Periods | NO               |

#### **Analysis Options**

| Start Analysis On              | Jun 28, 2024 | 00:00:00      |
|--------------------------------|--------------|---------------|
| End Analysis On                | Jun 28, 2024 | 03:00:00      |
| Start Reporting On             | Jun 28, 2024 | 00:00:00      |
| Antecedent Dry Days            | 0            | days          |
| Runoff (Dry Weather) Time Step | 0 01:00:00   | days hh:mm:ss |
| Runoff (Wet Weather) Time Step | 0 00:05:00   | days hh:mm:ss |
| Reporting Time Step            | 0 00:05:00   | days hh:mm:ss |
| Routing Time Step              | 30           | seconds       |

#### **Number of Elements**

|                 | Qty |
|-----------------|-----|
| Rain Gages      | 0   |
| Subbasins       | 1   |
| Nodes           | 2   |
| Junctions       | 0   |
| Outfalls        | 1   |
| Flow Diversions | 0   |
| Inlets          | 0   |
| Storage Nodes   | 1   |
| Links           | 2   |
| Channels        | 0   |
| Pipes           | 0   |
| Pumps           | 0   |
| Orifices        | 1   |
| Weirs           | 1   |
| Outlets         | 0   |
| Pollutants      | 0   |
| Land Uses       | 0   |

#### **Rainfall Details**

Return Period...... 5 year(s)

#### Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 0.56     | 0.19   | 0.16    | 1.87   | 0 00:05:00      |

#### Node Summary

|   | SN Element | Element      | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |   |
|---|------------|--------------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|---|
|   | ID         | Туре         | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge | F |
|   |            |              |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     |   |
|   |            |              |           |            |           |           |                    |        |           | Attained  |   |
| _ |            |              | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      |   |
|   | 1 Out-01   | Outfall      | 430.30    |            |           |           |                    | 1.34   | 430.30    |           |   |
|   | 2 Stor-01  | Storage Node | 430.50    | 433.00     | 430.50    |           | 0.00               | 1.87   | 431.44    |           |   |

#### Link Summary

| SN Element         | Element   | From    | To (Outlet) | Length | Inlet     | Outlet    | Average | Diameter or | Manning's                               | Peak  | Design Flow | Peak Flow/  | Peak Flow |
|--------------------|-----------|---------|-------------|--------|-----------|-----------|---------|-------------|---|-------|-------------|-------------|-----------|
| ID                 | Type      | (Inlet) | Node        |        | Invert    | Invert    | Slope   | Height      | Roughness                               | Flow  | Capacity    | Design Flow | Velocity  |
|                    |           | Node    |             |        | Elevation | Elevation | •       |             | , i i i i i i i i i i i i i i i i i i i |       |             | Ratio       |           |
|                    |           |         |             | (ft)   | (ft)      | (ft)      | (%)     | (in)        |   | (cfs) | (cfs)       |             | (ft/sec)  |
| 1 DETENTION-OUTLE  | C Orifice | Stor-01 | Out-01      |        | 430.50    | 430.30    |         | 8.000       |   | 1.34  |             |             |           |
| 2 DETENTION-SPILLW | AY Weir   | Stor-01 | Out-01      |        | 430.50    | 430.30    |         |             |   | 0.00  |             |             |           |

#### Subbasin Hydrology

#### Subbasin : Sub-01

#### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

#### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft) V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2/3})) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)
### Runoff Hydrograph



# **Storage Nodes**

### Storage Node : Stor-01

### Input Data

| Invert Elevation (ft)          | 430.50 |
|--------------------------------|--------|
| Max (Rim) Elevation (ft)       | 433.00 |
| Max (Rim) Offset (ft)          | 2.50   |
| Initial Water Elevation (ft)   | 430.50 |
| Initial Water Depth (ft)       | 0.00   |
| Ponded Area (ft <sup>2</sup> ) | 0.00   |
| Evaporation Loss               | 0.00   |

# Storage Area Volume Curves Storage Curve : Storage-01

| Stage | Storage<br>Area | Storage<br>Volume  |
|-------|-----------------|--------------------|
| (ft)  | (ft²)           | (ft <sup>3</sup> ) |
| 0     | 1               | 0.000              |
| .5    | 608             | 152.25             |
| 1.5   | 1689            | 1300.75            |
| 2.5   | 5204            | 4747.25            |

### Storage Area Volume Curves



### Storage Node : Stor-01 (continued)

**Outflow Weirs** 

| SN Element<br>ID | Weir<br>Type          | Flap<br>Gate | Crest<br>Elevation | Crest<br>Offset | Length |
|------------------|-----------------------|--------------|--------------------|-----------------|--------|
|                  |                       |              | (ft)               | (ft)            | (ft)   |
| 1 DETENTION      | -SPILLWAY Rectangular | No           | 432.50             | 2.00            | 5.00   |

### **Outflow Orifices**

|   | SN Element<br>ID   | Orifice<br>Type | Orifice Flap<br>Shape Gate | Circular<br>Orifice<br>Diameter<br>(in) | Rectangular<br>Orifice<br>Height<br>(in) |
|---|--------------------|-----------------|----------------------------|---|--|
| - | 1 DETENTION-OUTLET | Side            | CIRCULAR No                | 8.00                                    |  |

### **Output Summary Results**

| Peak Inflow (cfs)   Peak Lateral Inflow (cfs)   Peak Cutflow (cfs)   Peak Exfiltration Flow Rate (cfm)   Max HGL Elevation Attained (ft)   Max HGL Depth Attained (ft)   Average HGL Elevation Attained (ft)   Average HGL Depth Attained (ft)   Time of Max HGL Occurrence (days hh:mm)   Total Exfiltration Volume (1000-ft³)   Total Flooded Volume (ac-in) | 1.87<br>1.87<br>1.34<br>0.00<br>431.44<br>0.94<br>430.71<br>0.21<br>0.00:19<br>0.000<br>0 |
|--|---|
| Total Flooded Volume (ac-in)   | 0   |
| Total Time Flooded (min)   | 0   |
| I otal Retention Time (sec)  | 0.00  |

# **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT POST DEV.SPF |
|--------------------------|------------------------------------|
|                          | LITTLE CAESARS BRYANT              |

# **Project Options**

| Flow Units                              | CFS            |
|---|----------------|
| Elevation Type                          | Elevation      |
| Hydrology Method                        | Rational       |
| Time of Concentration (TOC) Method      | SCS TR-55      |
| Link Routing Method                     | Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES            |
| Skip Steady State Analysis Time Periods | NO             |

# Analysis Options

| Start Analysis On<br>End Analysis On | Jun 28, 2024<br>Jun 28, 2024 | 00:00:00<br>03:00:00 |
|--------------------------------------|------------------------------|----------------------|
| Start Reporting On                   | . Jun 28, 2024               | 00:00:00             |
| Antecedent Dry Days                  | . 0                          | days                 |
| Runoff (Dry Weather) Time Step       | . 0 01:00:00                 | days hh:mm:ss        |
| Runoff (Wet Weather) Time Step       | 0 00:05:00                   | days hh:mm:ss        |
| Reporting Time Step                  | 0 00:05:00                   | days hh:mm:ss        |
| Routing Time Step                    | . 30                         | seconds              |

## **Number of Elements**

|                 | Qty |
|-----------------|-----|
| Rain Gages      | 0   |
| Subbasins       | 1   |
| Nodes           | 2   |
| Junctions       | 0   |
| Outfalls        | 1   |
| Flow Diversions | 0   |
| Inlets          | 0   |
| Storage Nodes   | 1   |
| Links           | 2   |
| Channels        | 0   |
| Pipes           | 0   |
| Pumps           | 0   |
| Orifices        | 1   |
| Weirs           | 1   |
| Outlets         | 0   |
| Pollutants      | 0   |
| Land Uses       | 0   |

## **Rainfall Details**

Return Period..... 10 year(s)

# Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 0.63     | 0.22   | 0.18    | 2.12   | 0 00:05:00      |

# Node Summary

|   | SN Element | Element      | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |   |
|---|------------|--------------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|---|
|   | ID         | Туре         | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge | F |
|   |            |              |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     |   |
|   |            |              |           |            |           |           |                    |        |           | Attained  |   |
| _ |            |              | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      | _ |
|   | 1 Out-01   | Outfall      | 430.30    |            |           |           |                    | 1.46   | 430.30    |           | _ |
|   | 2 Stor-01  | Storage Node | 430.50    | 433.00     | 430.50    |           | 0.00               | 2.12   | 431.55    |           |   |

# Link Summary

| SN Element           | Element | From    | To (Outlet) | Length | Inlet     | Outlet    | Average | Diameter or | Manning's | Peak  | Design Flow | Peak Flow/  | Peak Flow |
|----------------------|---------|---------|-------------|--------|-----------|-----------|---------|-------------|-----------|-------|-------------|-------------|-----------|
| ID                   | Туре    | (Inlet) | Node        |        | Invert    | Invert    | Slope   | Height      | Roughness | Flow  | Capacity    | Design Flow | Velocity  |
|                      |         | Node    |             |        | Elevation | Elevation |         |             | Ū.        |       |             | Ratio       |           |
|                      |         |         |             | (ft)   | (ft)      | (ft)      | (%)     | (in)        |           | (cfs) | (cfs)       |             | (ft/sec)  |
| 1 DETENTION-OUTLET   | Orifice | Stor-01 | Out-01      |        | 430.50    | 430.30    |         | 8.000       |           | 1.46  |             |             |           |
| 2 DETENTION-SPILLWAY | / Weir  | Stor-01 | Out-01      |        | 430.50    | 430.30    |         |             |           | 0.00  |             |             |           |

### Subbasin Hydrology

### Subbasin : Sub-01

### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft) V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2}(3)) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)

### Runoff Hydrograph



# **Storage Nodes**

### Storage Node : Stor-01

### Input Data

| Invert Elevation (ft)          | 430.50 |
|--------------------------------|--------|
| Max (Rim) Elevation (ft)       | 433.00 |
| Max (Rim) Offset (ft)          | 2.50   |
| Initial Water Elevation (ft)   | 430.50 |
| Initial Water Depth (ft)       | 0.00   |
| Ponded Area (ft <sup>2</sup> ) | 0.00   |
| Evaporation Loss               | 0.00   |

# Storage Area Volume Curves Storage Curve : Storage-01

| Stage | Storage<br>Area | Storage<br>Volume  |
|-------|-----------------|--------------------|
| (ft)  | (ft²)           | (ft <sup>3</sup> ) |
| 0     | 1               | 0.000              |
| .5    | 608             | 152.25             |
| 1.5   | 1689            | 1300.75            |
| 2.5   | 5204            | 4747.25            |

### Storage Area Volume Curves



### Storage Node : Stor-01 (continued)

**Outflow Weirs** 

| SN Element<br>ID | Weir<br>Type          | Flap<br>Gate | Crest<br>Elevation | Crest<br>Offset | Length |
|------------------|-----------------------|--------------|--------------------|-----------------|--------|
|                  |                       |              | (ft)               | (ft)            | (ft)   |
| 1 DETENTION      | -SPILLWAY Rectangular | No           | 432.50             | 2.00            | 5.00   |

### **Outflow Orifices**

|   | SN Element<br>ID   | Orifice<br>Type | Orifice Flap<br>Shape Gate | Circular<br>Orifice<br>Diameter<br>(in) | Rectangular<br>Orifice<br>Height<br>(in) |
|---|--------------------|-----------------|----------------------------|---|--|
| - | 1 DETENTION-OUTLET | Side            | CIRCULAR No                | 8.00                                    |  |

### **Output Summary Results**

| Peak Inflow (cfs)   Peak Lateral Inflow (cfs)   Peak Outflow (cfs)   Peak Exfiltration Flow Rate (cfm)   Max HGL Elevation Attained (ft)   Max HGL Depth Attained (ft)   Average HGL Elevation Attained (ft)   Average HGL Depth Attained (ft) | 2.12<br>2.12<br>1.46<br>0.00<br>431.55<br>1.05<br>430.74<br>0.24 |
|--|--|
| Max HGL Elevation Attained (ft)  | 431.55   |
| Max HGL Depth Attained (ft)  | 1.05   |
| Average HGL Elevation Attained (ft)  | 430.74   |
| Average HGL Depth Attained (ft)  | 0.24   |
| Time of Max HGL Occurrence (days hh:mm)  | 0 00:20  |
| Total Exfiltration Volume (1000-ft <sup>3</sup> )  | 0.000  |
| Total Flooded Volume (ac-in)   | 0  |
| Total Time Flooded (min)   | 0  |
| Total Retention Time (sec)   | 0.00   |
|  |  |

# **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT POST DEV.SPF |
|--------------------------|------------------------------------|
|                          | LITTLE CAESARS BRYANT              |

# **Project Options**

| Flow Units                              | CFS            |
|---|----------------|
| Elevation Type                          | Elevation      |
| Hydrology Method                        | Rational       |
| Time of Concentration (TOC) Method      | SCS TR-55      |
| Link Routing Method                     | Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES            |
| Skip Steady State Analysis Time Periods | NO             |

# Analysis Options

| Start Analysis On<br>End Analysis On | Jun 28, 2024<br>Jun 28, 2024 | 00:00:00<br>03:00:00 |
|--------------------------------------|------------------------------|----------------------|
| Start Reporting On                   | . Jun 28, 2024               | 00:00:00             |
| Antecedent Dry Days                  | . 0                          | days                 |
| Runoff (Dry Weather) Time Step       | . 0 01:00:00                 | days hh:mm:ss        |
| Runoff (Wet Weather) Time Step       | 0 00:05:00                   | days hh:mm:ss        |
| Reporting Time Step                  | 0 00:05:00                   | days hh:mm:ss        |
| Routing Time Step                    | . 30                         | seconds              |

## **Number of Elements**

|                 | Qty |
|-----------------|-----|
| Rain Gages      | 0   |
| Subbasins       | 1   |
| Nodes           | 2   |
| Junctions       | 0   |
| Outfalls        | 1   |
| Flow Diversions | 0   |
| Inlets          | 0   |
| Storage Nodes   | 1   |
| Links           | 2   |
| Channels        | 0   |
| Pipes           | 0   |
| Pumps           | 0   |
| Orifices        | 1   |
| Weirs           | 1   |
| Outlets         | 0   |
| Pollutants      | 0   |
| Land Uses       | 0   |

## **Rainfall Details**

Return Period...... 25 year(s)

# Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 0.71     | 0.24   | 0.20    | 2.37   | 0 00:05:00      |

# Node Summary

| S | Element   | Element      | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |
|---|-----------|--------------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|
|   | ID        | Туре         | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge |
|   |           |              |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     |
|   |           |              |           |            |           |           |                    |        |           | Attained  |
|   |           |              | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      |
|   | Out-01    | Outfall      | 430.30    |            |           |           |                    | 1.57   | 430.30    |           |
|   | 2 Stor-01 | Storage Node | 430.50    | 433.00     | 430.50    |           | 0.00               | 2.37   | 431.67    |           |
|   |           |              |           |            |           |           |                    |        |           |           |
|   |           |              |           |            |           |           |                    |        |           |           |

# Link Summary

| SN Element          | Element | From    | To (Outlet) | Length | Inlet     | Outlet    | Average | Diameter or | Manning's | Peak  | Design Flow | Peak Flow/  | Peak Flow |
|---------------------|---------|---------|-------------|--------|-----------|-----------|---------|-------------|-----------|-------|-------------|-------------|-----------|
| ID                  | Type    | (Inlet) | Node        |        | Invert    | Invert    | Slope   | Height      | Roughness | Flow  | Capacity    | Design Flow | Velocity  |
|                     |         | Node    |             |        | Elevation | Elevation | •       |             | Ū.        |       |             | Ratio       |           |
|                     |         |         |             | (ft)   | (ft)      | (ft)      | (%)     | (in)        |           | (cfs) | (cfs)       |             | (ft/sec)  |
| 1 DETENTION-OUTLET  | Orifice | Stor-01 | Out-01      |        | 430.50    | 430.30    |         | 8.000       |           | 1.57  |             |             |           |
| 2 DETENTION-SPILLWA | Y Weir  | Stor-01 | Out-01      |        | 430.50    | 430.30    |         |             |           | 0.00  |             |             |           |

### Subbasin Hydrology

### Subbasin : Sub-01

### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft) V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2}(3)) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)

### Runoff Hydrograph



# **Storage Nodes**

### Storage Node : Stor-01

### Input Data

| Invert Elevation (ft)          | 430.50 |
|--------------------------------|--------|
| Max (Rim) Elevation (ft)       | 433.00 |
| Max (Rim) Offset (ft)          | 2.50   |
| Initial Water Elevation (ft)   | 430.50 |
| Initial Water Depth (ft)       | 0.00   |
| Ponded Area (ft <sup>2</sup> ) | 0.00   |
| Evaporation Loss               | 0.00   |

# Storage Area Volume Curves Storage Curve : Storage-01

| Stage | Storage<br>Area | Storage<br>Volume  |
|-------|-----------------|--------------------|
| (ft)  | (ft²)           | (ft <sup>3</sup> ) |
| 0     | 1               | 0.000              |
| .5    | 608             | 152.25             |
| 1.5   | 1689            | 1300.75            |
| 2.5   | 5204            | 4747.25            |

### Storage Area Volume Curves



### Storage Node : Stor-01 (continued)

**Outflow Weirs** 

| SN Element<br>ID | Weir<br>Type          | Flap<br>Gate | Crest<br>Elevation | Crest<br>Offset | Length |
|------------------|-----------------------|--------------|--------------------|-----------------|--------|
|                  |                       |              | (ft)               | (ft)            | (ft)   |
| 1 DETENTION      | -SPILLWAY Rectangular | No           | 432.50             | 2.00            | 5.00   |

### **Outflow Orifices**

| SN Element<br>ID   | Orifice<br>Type | Orifice<br>Shape | Flap<br>Gate | Circular<br>Orifice<br>Diameter<br>(in) | Rectangular<br>Orifice<br>Height<br>(in) |  |
|--------------------|-----------------|------------------|--------------|---|--|--|
| 1 DETENTION-OUTLET | Side            | CIRCULAR         | No           | 8.00                                    |  |  |

### **Output Summary Results**

| Peak Inflow (cfs)                                 | 2.37    |
|---|---------|
| Peak Lateral Inflow (cfs)                         | 2.37    |
| Peak Outflow (cfs)                                | 1.57    |
| Peak Exfiltration Flow Rate (cfm)                 | 0.00    |
| Max HGL Elevation Attained (ft)                   | 431.67  |
| Max HGL Depth Attained (ft)                       | 1.17    |
| Average HGL Elevation Attained (ft)               | 430.77  |
| Average HGL Depth Attained (ft)                   | 0.27    |
| Time of Max HGL Occurrence (days hh:mm)           | 0 00:22 |
| Total Exfiltration Volume (1000-ft <sup>3</sup> ) | 0.000   |
| Total Flooded Volume (ac-in)                      | 0       |
| Total Time Flooded (min)                          | 0       |
| Total Retention Time (sec)                        | 0.00    |

# **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT POST DEV.SPF |
|--------------------------|------------------------------------|
|                          | LITTLE CAESARS BRYANT              |

# **Project Options**

| Flow Units                              | CFS            |
|---|----------------|
| Elevation Type                          | Elevation      |
| Hydrology Method                        | Rational       |
| Time of Concentration (TOC) Method      | SCS TR-55      |
| Link Routing Method                     | Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES            |
| Skip Steady State Analysis Time Periods | NO             |

# Analysis Options

| Start Analysis On<br>End Analysis On | Jun 28, 2024<br>Jun 28, 2024 | 00:00:00<br>03:00:00 |
|--------------------------------------|------------------------------|----------------------|
| Start Reporting On                   | . Jun 28, 2024               | 00:00:00             |
| Antecedent Dry Days                  | . 0                          | days                 |
| Runoff (Dry Weather) Time Step       | . 0 01:00:00                 | days hh:mm:ss        |
| Runoff (Wet Weather) Time Step       | 0 00:05:00                   | days hh:mm:ss        |
| Reporting Time Step                  | 0 00:05:00                   | days hh:mm:ss        |
| Routing Time Step                    | . 30                         | seconds              |

## **Number of Elements**

|                 | Qty |
|-----------------|-----|
| Rain Gages      | 0   |
| Subbasins       | 1   |
| Nodes           | 2   |
| Junctions       | 0   |
| Outfalls        | 1   |
| Flow Diversions | 0   |
| Inlets          | 0   |
| Storage Nodes   | 1   |
| Links           | 2   |
| Channels        | 0   |
| Pipes           | 0   |
| Pumps           | 0   |
| Orifices        | 1   |
| Weirs           | 1   |
| Outlets         | 0   |
| Pollutants      | 0   |
| Land Uses       | 0   |

## **Rainfall Details**

Return Period..... 100 year(s)

# Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 0.83     | 0.28   | 0.23    | 2.79   | 0 00:05:00      |

# Node Summary

|   | SN Element | Element      | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |   |
|---|------------|--------------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|---|
|   | ID         | Туре         | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge | F |
|   |            |              |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     |   |
|   |            |              |           |            |           |           |                    |        |           | Attained  |   |
| _ |            |              | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      | _ |
|   | 1 Out-01   | Outfall      | 430.30    |            |           |           |                    | 1.74   | 430.30    |           | _ |
|   | 2 Stor-01  | Storage Node | 430.50    | 433.00     | 430.50    |           | 0.00               | 2.79   | 431.86    |           |   |

# Link Summary

| SN Element         | Element   | From    | To (Outlet) | Length | Inlet     | Outlet    | Average | Diameter or | Manning's                               | Peak  | Design Flow | Peak Flow/  | Peak Flow |
|--------------------|-----------|---------|-------------|--------|-----------|-----------|---------|-------------|---|-------|-------------|-------------|-----------|
| ID                 | Type      | (Inlet) | Node        |        | Invert    | Invert    | Slope   | Height      | Roughness                               | Flow  | Capacity    | Design Flow | Velocity  |
|                    |           | Node    |             |        | Elevation | Elevation | •       |             | , i i i i i i i i i i i i i i i i i i i |       |             | Ratio       |           |
|                    |           |         |             | (ft)   | (ft)      | (ft)      | (%)     | (in)        |   | (cfs) | (cfs)       |             | (ft/sec)  |
| 1 DETENTION-OUTLE  | C Orifice | Stor-01 | Out-01      |        | 430.50    | 430.30    |         | 8.000       |   | 1.74  |             |             |           |
| 2 DETENTION-SPILLW | AY Weir   | Stor-01 | Out-01      |        | 430.50    | 430.30    |         |             |   | 0.00  |             |             |           |

### Subbasin Hydrology

### Subbasin : Sub-01

### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft) V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2}(3)) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)

### Runoff Hydrograph



# **Storage Nodes**

### Storage Node : Stor-01

### Input Data

| Invert Elevation (ft)          | 430.50 |
|--------------------------------|--------|
| Max (Rim) Elevation (ft)       | 433.00 |
| Max (Rim) Offset (ft)          | 2.50   |
| Initial Water Elevation (ft)   | 430.50 |
| Initial Water Depth (ft)       | 0.00   |
| Ponded Area (ft <sup>2</sup> ) | 0.00   |
| Evaporation Loss               | 0.00   |

# Storage Area Volume Curves Storage Curve : Storage-01

| Stage | Storage<br>Area | Storage<br>Volume  |
|-------|-----------------|--------------------|
| (ft)  | (ft²)           | (ft <sup>3</sup> ) |
| 0     | 1               | 0.000              |
| .5    | 608             | 152.25             |
| 1.5   | 1689            | 1300.75            |
| 2.5   | 5204            | 4747.25            |

### Storage Area Volume Curves



### Storage Node : Stor-01 (continued)

**Outflow Weirs** 

| SN Element<br>ID | Weir<br>Type          | Flap<br>Gate | Crest<br>Elevation | Crest<br>Offset | Length |
|------------------|-----------------------|--------------|--------------------|-----------------|--------|
|                  |                       |              | (ft)               | (ft)            | (ft)   |
| 1 DETENTION      | -SPILLWAY Rectangular | No           | 432.50             | 2.00            | 5.00   |

### **Outflow Orifices**

| SN Element<br>ID   | Orifice<br>Type | Orifice I<br>Shape ( | Flap<br>Gate | Circular<br>Orifice<br>Diameter<br>(in) | Rectangular<br>Orifice<br>Height<br>(in) |
|--------------------|-----------------|----------------------|--------------|---|--|
| 1 DETENTION-OUTLET | Side            | CIRCULAR I           | No           | 8.00                                    |  |

### **Output Summary Results**

| Peak Inflow (cfs)                                 | 2.79    |
|---|---------|
| Peak Lateral IIIIIOW (CIS)                        | 174     |
| Peak Outliow (cis)                                | 1.74    |
| Peak Exfiltration Flow Rate (cfm)                 | 0.00    |
| Max HGL Elevation Attained (ft)                   | 431.86  |
| Max HGL Depth Attained (ft)                       | 1.36    |
| Average HGL Elevation Attained (ft)               | 430.82  |
| Average HGL Depth Attained (ft)                   | 0.32    |
| Time of Max HGL Occurrence (days hh:mm)           | 0 00:23 |
| Total Exfiltration Volume (1000-ft <sup>3</sup> ) | 0.000   |
| Total Flooded Volume (ac-in)                      | 0       |
| Total Time Flooded (min)                          | 0       |
| Total Retention Time (sec)                        | 0.00    |
|   |         |

# **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT PREDEV.SPF |
|--------------------------|----------------------------------|
|                          | LITTLE CAESARS BRYANT            |

# **Project Options**

| Flow Units                              | CFS              |
|---|------------------|
| Elevation Type                          | Elevation        |
| Hydrology Method                        | Rational         |
| Time of Concentration (TOC) Method      | SCS TR-55        |
| Link Routing Method                     | . Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES              |
| Skip Steady State Analysis Time Periods | NO               |

# **Analysis Options**

| Start Analysis On              | Jun 28, 2024 | 00:00:00      |
|--------------------------------|--------------|---------------|
| End Analysis On                | Jun 28, 2024 | 03:00:00      |
| Start Reporting On             | Jun 28, 2024 | 00:00:00      |
| Antecedent Dry Days            | 0            | days          |
| Runoff (Dry Weather) Time Step | 0 01:00:00   | days hh:mm:ss |
| Runoff (Wet Weather) Time Step | 0 00:05:00   | days hh:mm:ss |
| Reporting Time Step            | 0 00:05:00   | days hh:mm:ss |
| Routing Time Step              | 30           | seconds       |

## **Number of Elements**

|                 | Qty |
|-----------------|-----|
| Rain Gages      | 0   |
| Subbasins       | 1   |
| Nodes           | 1   |
| Junctions       | 0   |
| Outfalls        | 1   |
| Flow Diversions | 0   |
| Inlets          | 0   |
| Storage Nodes   | 0   |
| Links           | 0   |
| Channels        | 0   |
| Pipes           | 0   |
| Pumps           | 0   |
| Orifices        | 0   |
| Weirs           | 0   |
| Outlets         | 0   |
| Pollutants      | 0   |
| Land Uses       | 0   |

## **Rainfall Details**

Return Period..... 2 year(s)

# Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 1.01     | 0.34   | 0.28    | 1.10   | 0 00:15:17      |

# Node Summary

| SN Element | Element | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |        |
|------------|---------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|--------|
| ID         | Туре    | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge | Freebo |
|            |         |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     | Attai  |
|            |         |           |            |           |           |                    |        |           | Attained  |        |
|            |         | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      |        |
| 1 Out-01   | Outfall | 430.20    |            |           |           |                    | 0.00   | 0.00      |           |        |

### Subbasin Hydrology

### Subbasin : Sub-01

### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2}(3)) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)

|  | Subarea   | Subarea   | Subarea   |
|--|---|---|---|
| Sheet Flow Computations  | A   | В   | С   |
| Manning's Roughness :  | .3  | 0.00  | 0.00  |
| Flow Length (ft) :   | 100   | 0.00  | 0.00  |
| Slope (%) :  | 2.2   | 0.00  | 0.00  |
| 2 yr, 24 hr Rainfall (in) :  | 4.13  | 0.00  | 0.00  |
| Velocity (ft/sec) :  | 0.12  | 0.00  | 0.00  |
| Computed Flow Time (min) :   | 14.45   | 0.00  | 0.00  |
|  |   |   |   |
|  |   |   |   |
|  | Subarea   | Subarea   | Subarea   |
| Shallow Concentrated Flow Computations   | Subarea<br>A  | Subarea<br>B  | Subarea<br>C  |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :   | Subarea<br>A<br>120                                   | Subarea<br>B<br>0.00                                    | Subarea<br>C<br>0.00                                    |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :  | Subarea<br>A<br>120<br>2.2                            | Subarea<br>B<br>0.00<br>0.00                            | Subarea<br>C<br>0.00<br>0.00                            |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :  | Subarea<br>A<br>120<br>2.2<br>Unpaved                 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved                 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved                 |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :                               | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39         | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00         | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00         |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :<br>Computed Flow Time (min) : | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39<br>0.84 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 |

### Subbasin Runoff Results

| Total Rainfall (in)                   | 1.01       |
|---------------------------------------|------------|
| Total Runoff (in)                     | 0.34       |
| Peak Runoff (cfs)                     | 1.10       |
| Rainfall Intensity                    | 3.961      |
| Weighted Runoff Coefficient           | 0.3400     |
| Time of Concentration (days hh:mm:ss) | 0 00:15:17 |
Subbasin : Sub-01

#### Runoff Hydrograph



## **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT PREDEV.SPF |
|--------------------------|----------------------------------|
|                          | LITTLE CAESARS BRYANT            |

## **Project Options**

| Flow Units                              | CFS              |
|---|------------------|
| Elevation Type                          | Elevation        |
| Hydrology Method                        | Rational         |
| Time of Concentration (TOC) Method      | SCS TR-55        |
| Link Routing Method                     | . Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES              |
| Skip Steady State Analysis Time Periods | NO               |

## **Analysis Options**

| Start Analysis On              | Jun 28, 2024 | 00:00:00      |
|--------------------------------|--------------|---------------|
| End Analysis On                | Jun 28, 2024 | 03:00:00      |
| Start Reporting On             | Jun 28, 2024 | 00:00:00      |
| Antecedent Dry Days            | 0            | days          |
| Runoff (Dry Weather) Time Step | 0 01:00:00   | days hh:mm:ss |
| Runoff (Wet Weather) Time Step | 0 00:05:00   | days hh:mm:ss |
| Reporting Time Step            | 0 00:05:00   | days hh:mm:ss |
| Routing Time Step              | 30           | seconds       |

#### **Number of Elements**

| Qt               | y |
|------------------|---|
| Rain Gages 0     |   |
| Subbasins 1      |   |
| Nodes 1          |   |
| Junctions0       |   |
| Outfalls 1       |   |
| Flow Diversions0 |   |
| Inlets0          |   |
| Storage Nodes0   |   |
| Links0           |   |
| Channels0        |   |
| Pipes0           |   |
|                  |   |
| Orifices         |   |
| Weirs            |   |
| Outlets 0        |   |
| Pollutants 0     |   |
| Land Uses 0      |   |

#### **Rainfall Details**

Return Period...... 5 year(s)

## Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 1.24     | 0.42   | 0.35    | 1.35   | 0 00:15:17      |

## Node Summary

| SN Element | Element | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |        |
|------------|---------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|--------|
| ID         | Туре    | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge | Freebo |
|            |         |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     | Attai  |
|            |         |           |            |           |           |                    |        |           | Attained  |        |
|            |         | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      |        |
| 1 Out-01   | Outfall | 430.20    |            |           |           |                    | 0.00   | 0.00      |           |        |

#### Subbasin Hydrology

#### Subbasin : Sub-01

#### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

#### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2}(3)) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)

|  | Subarea   | Subarea   | Subarea   |
|--|---|---|---|
| Sheet Flow Computations  | А   | В   | С   |
| Manning's Roughness :  | .3  | 0.00  | 0.00  |
| Flow Length (ft) :   | 100   | 0.00  | 0.00  |
| Slope (%) :  | 2.2   | 0.00  | 0.00  |
| 2 yr, 24 hr Rainfall (in) :  | 4.13  | 0.00  | 0.00  |
| Velocity (ft/sec) :  | 0.12  | 0.00  | 0.00  |
| Computed Flow Time (min) :   | 14.45   | 0.00  | 0.00  |
|  |   |   |   |
|  | Subarea   | Subarea   | Subarea   |
| Shallow Concentrated Flow Computations   | Subarea<br>A  | Subarea<br>B  | Subarea<br>C  |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :   | Subarea<br>A<br>120                                   | Subarea<br>B<br>0.00                                    | Subarea<br>C<br>0.00                                    |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :  | Subarea<br>A<br>120<br>2.2                            | Subarea<br>B<br>0.00<br>0.00                            | Subarea<br>C<br>0.00<br>0.00                            |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :  | Subarea<br>A<br>120<br>2.2<br>Unpaved                 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved                 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved                 |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :                               | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39         | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00         | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00         |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :<br>Computed Flow Time (min) : | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39<br>0.84 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 |

#### Subbasin Runoff Results

| Total Rainfall (in)                   | 1.24       |
|---------------------------------------|------------|
| Total Runoff (in)                     | 0.42       |
| Peak Runoff (cfs)                     | 1.35       |
| Rainfall Intensity                    | 4.855      |
| Weighted Runoff Coefficient           | 0.3400     |
| Time of Concentration (days hh:mm:ss) | 0 00:15:17 |

Subbasin : Sub-01

#### Runoff Hydrograph



## **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT PREDEV.SPF |
|--------------------------|----------------------------------|
|                          | LITTLE CAESARS BRYANT            |

## **Project Options**

| Flow Units                              | CFS            |
|---|----------------|
| Elevation Type                          | Elevation      |
| Hydrology Method                        | Rational       |
| Time of Concentration (TOC) Method      | SCS TR-55      |
| Link Routing Method                     | Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES            |
| Skip Steady State Analysis Time Periods | NO             |

# Analysis Options

| Start Analysis On<br>End Analysis On | Jun 28, 2024<br>Jun 28, 2024 | 00:00:00<br>03:00:00 |
|--------------------------------------|------------------------------|----------------------|
| Start Reporting On                   | . Jun 28, 2024               | 00:00:00             |
| Antecedent Dry Days                  | . 0                          | days                 |
| Runoff (Dry Weather) Time Step       | . 0 01:00:00                 | days hh:mm:ss        |
| Runoff (Wet Weather) Time Step       | 0 00:05:00                   | days hh:mm:ss        |
| Reporting Time Step                  | 0 00:05:00                   | days hh:mm:ss        |
| Routing Time Step                    | . 30                         | seconds              |

#### **Number of Elements**

|                 | Qty |
|-----------------|-----|
| Rain Gages      | 0   |
| Subbasins       | 1   |
| Nodes           | 1   |
| Junctions       | 0   |
| Outfalls        | 1   |
| Flow Diversions | 0   |
| Inlets          | 0   |
| Storage Nodes   | 0   |
| Links           | 0   |
| Channels        | 0   |
| Pipes           | 0   |
| Pumps           | 0   |
| Orifices        | 0   |
| Weirs           | 0   |
| Outlets         | 0   |
| Pollutants      | 0   |
| Land Uses       | 0   |

#### **Rainfall Details**

Return Period..... 10 year(s)

## Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 1.37     | 0.47   | 0.38    | 1.49   | 0 00:15:17      |

## Node Summary

| SN Element | Element | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |        |
|------------|---------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|--------|
| ID         | Туре    | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge | Freebo |
|            |         |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     | Attai  |
|            |         |           |            |           |           |                    |        |           | Attained  |        |
|            |         | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      |        |
| 1 Out-01   | Outfall | 430.20    |            |           |           |                    | 0.00   | 0.00      |           |        |

#### Subbasin Hydrology

#### Subbasin : Sub-01

#### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

#### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2}(3)) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)

|  | Subarea   | Subarea   | Subarea   |
|--|---|---|---|
| Sheet Flow Computations  | А   | В   | С   |
| Manning's Roughness :  | .3  | 0.00  | 0.00  |
| Flow Length (ft) :   | 100   | 0.00  | 0.00  |
| Slope (%) :  | 2.2   | 0.00  | 0.00  |
| 2 yr, 24 hr Rainfall (in) :  | 4.13  | 0.00  | 0.00  |
| Velocity (ft/sec) :  | 0.12  | 0.00  | 0.00  |
| Computed Flow Time (min) :   | 14.45   | 0.00  | 0.00  |
|  |   |   |   |
|  | Subarea   | Subarea   | Subarea   |
| Shallow Concentrated Flow Computations   | Subarea<br>A  | Subarea<br>B  | Subarea<br>C  |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :   | Subarea<br>A<br>120                                   | Subarea<br>B<br>0.00                                    | Subarea<br>C<br>0.00                                    |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :  | Subarea<br>A<br>120<br>2.2                            | Subarea<br>B<br>0.00<br>0.00                            | Subarea<br>C<br>0.00<br>0.00                            |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :  | Subarea<br>A<br>120<br>2.2<br>Unpaved                 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved                 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved                 |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :                               | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39         | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00         | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00         |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :<br>Computed Flow Time (min) : | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39<br>0.84 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 |

#### Subbasin Runoff Results

| Total Rainfall (in)                   | 1.37       |
|---------------------------------------|------------|
| Total Runoff (in)                     | 0.47       |
| Peak Runoff (cfs)                     | 1.49       |
| Rainfall Intensity                    | 5.352      |
| Weighted Runoff Coefficient           | 0.3400     |
| Time of Concentration (days hh:mm:ss) | 0 00:15:17 |

Subbasin : Sub-01

#### Runoff Hydrograph



## **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT PREDEV.SPF |
|--------------------------|----------------------------------|
|                          | LITTLE CAESARS BRYANT            |

## **Project Options**

| Flow Units                              | CFS              |
|---|------------------|
| Elevation Type                          | Elevation        |
| Hydrology Method                        | Rational         |
| Time of Concentration (TOC) Method      | SCS TR-55        |
| Link Routing Method                     | . Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES              |
| Skip Steady State Analysis Time Periods | NO               |

## Analysis Options

| Start Analysis On              | Jun 28, 2024   | 00:00:00      |
|--------------------------------|----------------|---------------|
| End Analysis On                | Jun 28, 2024   | 03:00:00      |
| Start Reporting On             | . Jun 28, 2024 | 00:00:00      |
| Antecedent Dry Days            | . 0            | days          |
| Runoff (Dry Weather) Time Step | . 0 01:00:00   | days hh:mm:ss |
| Runoff (Wet Weather) Time Step | 0 00:05:00     | days hh:mm:ss |
| Reporting Time Step            | 0 00:05:00     | days hh:mm:ss |
| Routing Time Step              | . 30           | seconds       |

#### **Number of Elements**

|                 | Qty |
|-----------------|-----|
| Rain Gages      | 0   |
| Subbasins       | 1   |
| Nodes           | 1   |
| Junctions       | 0   |
| Outfalls        | 1   |
| Flow Diversions | 0   |
| Inlets          | 0   |
| Storage Nodes   | 0   |
| Links           | 0   |
| Channels        | 0   |
| Pipes           | 0   |
| Pumps           | 0   |
| Orifices        | 0   |
| Weirs           | 0   |
| Outlets         | 0   |
| Pollutants      | 0   |
| Land Uses       | 0   |

#### **Rainfall Details**

Return Period...... 25 year(s)

## Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 1.57     | 0.53   | 0.44    | 1.71   | 0 00:15:17      |

## Node Summary

| SN Element | Element | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |        |
|------------|---------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|--------|
| ID         | Туре    | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge | Freebo |
|            |         |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     | Attai  |
|            |         |           |            |           |           |                    |        |           | Attained  |        |
|            |         | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      |        |
| 1 Out-01   | Outfall | 430.20    |            |           |           |                    | 0.00   | 0.00      |           |        |

#### Subbasin Hydrology

#### Subbasin : Sub-01

#### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

#### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2}(3)) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)

|  | Subarea   | Subarea   | Subarea   |
|--|---|---|---|
| Sheet Flow Computations  | А   | В   | С   |
| Manning's Roughness :  | .3  | 0.00  | 0.00  |
| Flow Length (ft) :   | 100   | 0.00  | 0.00  |
| Slope (%) :  | 2.2   | 0.00  | 0.00  |
| 2 yr, 24 hr Rainfall (in) :  | 4.13  | 0.00  | 0.00  |
| Velocity (ft/sec) :  | 0.12  | 0.00  | 0.00  |
| Computed Flow Time (min) :   | 14.45   | 0.00  | 0.00  |
|  |   |   |   |
|  | Subarea   | Subarea   | Subarea   |
| Shallow Concentrated Flow Computations   | Subarea<br>A  | Subarea<br>B  | Subarea<br>C  |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :   | Subarea<br>A<br>120                                   | Subarea<br>B<br>0.00                                    | Subarea<br>C<br>0.00                                    |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :  | Subarea<br>A<br>120<br>2.2                            | Subarea<br>B<br>0.00<br>0.00                            | Subarea<br>C<br>0.00<br>0.00                            |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :  | Subarea<br>A<br>120<br>2.2<br>Unpaved                 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved                 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved                 |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :                               | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39         | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00         | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00         |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :<br>Computed Flow Time (min) : | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39<br>0.84 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 |

#### Subbasin Runoff Results

| Total Rainfall (in)                   | 1.57       |
|---------------------------------------|------------|
| Total Runoff (in)                     | 0.53       |
| Peak Runoff (cfs)                     | 1.71       |
| Rainfall Intensity                    | 6.145      |
| Weighted Runoff Coefficient           | 0.3400     |
| Time of Concentration (days hh:mm:ss) | 0 00:15:17 |

Subbasin : Sub-01

#### Runoff Hydrograph



## **Project Description**

| File Name<br>Description | LITTLE CAESARS BRYANT PREDEV.SPF |
|--------------------------|----------------------------------|
|                          | LITTLE CAESARS BRYANT            |

## **Project Options**

| Flow Units                              | CFS            |
|---|----------------|
| Elevation Type                          | Elevation      |
| Hydrology Method                        | Rational       |
| Time of Concentration (TOC) Method      | SCS TR-55      |
| Link Routing Method                     | Kinematic Wave |
| Enable Overflow Ponding at Nodes        | YES            |
| Skip Steady State Analysis Time Periods | NO             |

# Analysis Options

| Start Analysis On              | Jun 28, 2024   | 00:00:00      |
|--------------------------------|----------------|---------------|
| End Analysis On                | Jun 28, 2024   | 03:00:00      |
| Start Reporting On             | . Jun 28, 2024 | 00:00:00      |
| Antecedent Dry Days            | . 0            | days          |
| Runoff (Dry Weather) Time Step | . 0 01:00:00   | days hh:mm:ss |
| Runoff (Wet Weather) Time Step | 0 00:05:00     | days hh:mm:ss |
| Reporting Time Step            | 0 00:05:00     | days hh:mm:ss |
| Routing Time Step              | . 30           | seconds       |

#### **Number of Elements**

|                 | Qty |
|-----------------|-----|
| Rain Gages      | 0   |
| Subbasins       | 1   |
| Nodes           | 1   |
| Junctions       | 0   |
| Outfalls        | 1   |
| Flow Diversions | 0   |
| Inlets          | 0   |
| Storage Nodes   | 0   |
| Links           | 0   |
| Channels        | 0   |
| Pipes           | 0   |
| Pumps           | 0   |
| Orifices        | 0   |
| Weirs           | 0   |
| Outlets         | 0   |
| Pollutants      | 0   |
| Land Uses       | 0   |

#### **Rainfall Details**

Return Period..... 100 year(s)

## Subbasin Summary

| SN Subbasin | Area | Weighted    | Total    | Total  | Total   | Peak   | Time of         |
|-------------|------|-------------|----------|--------|---------|--------|-----------------|
| ID          |      | Runoff      | Rainfall | Runoff | Runoff  | Runoff | Concentration   |
|             |      | Coefficient |          |        | Volume  |        |                 |
|             | (ac) |             | (in)     | (in)   | (ac-in) | (cfs)  | (days hh:mm:ss) |
| 1 Sub-01    | 0.82 | 0.3400      | 1.95     | 0.66   | 0.54    | 2.13   | 0 00:15:17      |

## Node Summary

| SN Element | Element | Invert    | Ground/Rim | Initial   | Surcharge | Ponded             | Peak   | Max HGL   | Max       |        |
|------------|---------|-----------|------------|-----------|-----------|--------------------|--------|-----------|-----------|--------|
| ID         | Туре    | Elevation | (Max)      | Water     | Elevation | Area               | Inflow | Elevation | Surcharge | Freebo |
|            |         |           | Elevation  | Elevation |           |                    |        | Attained  | Depth     | Attai  |
|            |         |           |            |           |           |                    |        |           | Attained  |        |
|            |         | (ft)      | (ft)       | (ft)      | (ft)      | (ft <sup>2</sup> ) | (cfs)  | (ft)      | (ft)      |        |
| 1 Out-01   | Outfall | 430.20    |            |           |           |                    | 0.00   | 0.00      |           |        |

#### Subbasin Hydrology

#### Subbasin : Sub-01

#### Input Data

| Area (ac)                   | 0.82   |
|-----------------------------|--------|
| Weighted Runoff Coefficient | 0.3400 |

#### **Runoff Coefficient**

|   | Area    | Soil     | Runoff |
|---|---------|----------|--------|
| Soil/Surface Description                | (acres) | Group    | Coeff. |
| Pasture, less than 25 years             | 0.82    | C (2-6%) | 0.34   |
| Composite Area & Weighted Runoff Coeff. | 0.82    |          | 0.34   |

#### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^{0.8})) / ((P^{0.5}) * (Sf^{0.4}))$ 

Where :

Tc = Time of Concentration (hr)

- $\begin{array}{l} n = Manning's roughness \\ Lf = Flow Length (ft) \\ P = 2 yr, 24 hr Rainfall (inches) \\ Sf = Slope (ft/ft) \end{array}$

Shallow Concentrated Flow Equation :

- $\begin{array}{l} V = 16.1345 * (Sf^{0}.5) \mbox{ (unpaved surface)} \\ V = 20.3282 * (Sf^{0}.5) \mbox{ (paved surface)} \\ V = 15.0 * (Sf^{0}.5) \mbox{ (grassed waterway surface)} \\ V = 10.0 * (Sf^{0}.5) \mbox{ (nearly bare & untilled surface)} \\ V = 9.0 * (Sf^{0}.5) \mbox{ (cultivated straight rows surface)} \\ V = 7.0 * (Sf^{0}.5) \mbox{ (short grass pasture surface)} \\ V = 5.0 * (Sf^{0}.5) \mbox{ (woodland surface)} \\ V = 2.5 * (Sf^{0}.5) \mbox{ (forest w/heavy litter surface)} \\ Tc = (Lf / V) / (3600 \mbox{ sec/hr}) \\ \end{array}$

Where:

- Tc = Time of Concentration (hr) Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

 $V = (1.49 * (R^{2}(3)) * (Sf^{0.5})) / n$ R = Aq / WpTc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr) Lf = Flow Length (ft)

|  | Subarea   | Subarea   | Subarea   |
|--|---|---|---|
| Sheet Flow Computations  | А   | В   | С   |
| Manning's Roughness :  | .3  | 0.00  | 0.00  |
| Flow Length (ft) :   | 100   | 0.00  | 0.00  |
| Slope (%) :  | 2.2   | 0.00  | 0.00  |
| 2 yr, 24 hr Rainfall (in) :  | 4.13  | 0.00  | 0.00  |
| Velocity (ft/sec) :  | 0.12  | 0.00  | 0.00  |
| Computed Flow Time (min) :   | 14.45   | 0.00  | 0.00  |
|  |   |   |   |
|  | Subarea   | Subarea   | Subarea   |
| Shallow Concentrated Flow Computations   | Subarea<br>A  | Subarea<br>B  | Subarea<br>C  |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :   | Subarea<br>A<br>120                                   | Subarea<br>B<br>0.00                                    | Subarea<br>C<br>0.00                                    |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :  | Subarea<br>A<br>120<br>2.2                            | Subarea<br>B<br>0.00<br>0.00                            | Subarea<br>C<br>0.00<br>0.00                            |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :  | Subarea<br>A<br>120<br>2.2<br>Unpaved                 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved                 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved                 |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :                               | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39         | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00         | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00         |
| Shallow Concentrated Flow Computations<br>Flow Length (ft) :<br>Slope (%) :<br>Surface Type :<br>Velocity (ft/sec) :<br>Computed Flow Time (min) : | Subarea<br>A<br>120<br>2.2<br>Unpaved<br>2.39<br>0.84 | Subarea<br>B<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 | Subarea<br>C<br>0.00<br>0.00<br>Unpaved<br>0.00<br>0.00 |

#### Subbasin Runoff Results

| Total Rainfall (in)                   | 1.95       |
|---------------------------------------|------------|
| Total Runoff (in)                     | 0.66       |
| Peak Runoff (cfs)                     | 2.13       |
| Rainfall Intensity                    | 7.636      |
| Weighted Runoff Coefficient           | 0.3400     |
| Time of Concentration (days hh:mm:ss) | 0 00:15:17 |

Subbasin : Sub-01

## Runoff Hydrograph



# SITE WITH AUTOMATIC COVERAGE (LESS THAN 5 ACRES) CONSTRUCTION SITE NOTICE

#### FOR THE

Division of Environmental Quality (DEQ)

Stormwater Program

## NPDES GENERAL PERMIT NO. ARR150000

The following information is posted in compliance with **Part I.B.8.a** of the DEQ General Permit Number **ARR150000** for discharges of stormwater runoff from sites with automatic coverage. Additional information regarding the DEQ stormwater program may be found on the internet at:

www.adeq.state.ar.us/water/branch\_npdes/stormwater

| Permit Number                                     | ARR150000   |
|---|---|
| Contact Name:                                     | Lance Massey, Developer/Construction Manager  |
| Phone Number:                                     | 501-428-3866  |
| Project Description (Name, Location, etc.):       | Hillcrest Addition - Springhill Rd. near intersection of Springhill Rd. and Hurricane Gardens R |
| Start Date:                                       | July 31 2024  |
| End Date:   | on or before August 31, 2025  |
| Total Acres:                                      | 4.89  |
| Location of Stormwater Pollution Prevention Plan: | Mailbox at Construction Site  |

Does this construction activity take place, and does the stormwater discharge occur within the drainage area addressed by a TMDL?

 $\__{YES}$   $\checkmark_{NO}$ 

For Construction Sites Authorized under **Part I.B.6.a** (Automatic Coverage) the following certification must be completed:

I <u>Lance Massey, Developer/Construction Manager</u> (Typed or Printed Name of Person Completing this Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part I.B.2. of the DEQ General Permit Number ARR150000. A stormwater pollution prevention plan has been developed and implemented according to the requirements contained in Part I.A.2.B & D of the permit. I am aware there are significant penalties for providing false information or for conducted unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

7-9-2024

# STORMWATER POLLUTION PREVENTION PLAN

National Pollution Discharge Elimination System

Prepared for: Hillcrest Addition

July 2024

Volume No. 1 Copy 1 of 4



Prepared by: LEMONS ENGINEERING CONSULTANTS, INC. 204 CHERRY STREET CABOT, AR 72023 (501) 843-5081 (501) 941-0959 Fax

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- Inspectors Certification
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#### **Supplemental Stormwater Pollution Prevention Plan Details**

#### **Notice of Intent**

# General

## Nature of Activity

Hillcrest Addition is a residential development located off Springhill Road, in Bryant,

Saline County, Arkansas. The developer and permitee of this project is:

Springhill Hwy 5 Developments LLC 816 East Oak Street Conway, Arkansas 72032

The target timeline for this project is to have construction completed by August 2025.

Of course, the main purpose of activity to be covered under this Storm Water Pollution Prevention Plan is found in the construction necessary for the development of this project. Erosion control and sedimentation protection will be the main target of this Plan.

# Site Evaluation & Design Development

## **Collection of Site Description**

#### **Site Location**

A legal description of Hillcrest Addition and the pre-construction contours of this project are provided on Attachment 'A'. This is a residential planned unit development site w/this construction.

#### **Intended Sequence of Major Construction Activities**

- 1.) Provide clearing and grubbing of the construction area
- 2.) Provide erosion and sediment control (silt fencing) in areas where required
- 3.) Install utilities and permanent storm drainage items (more specifically storm water, sanitary sewer and water)
- 4.) Rough cut streets to near sub grade elevation
- 5.) Install sedimentation barriers at all curb inlets
- 6.) Provide undercutting of streets where applicable
- 7.) Upon completion of utilities, install concrete curb and gutter on streets
- 8.) Install gravel sub-base (complete set-up)
- 9.) Complete construction of utilities
- 10.) Begin seeding/sodding of disturbed areas
- 11.) Remove silt fencing as needed
- 12.) Complete street construction
- 13.) Once stabilization is complete, remove remaining erosion and sediment control measures

#### Site Plan Development-Acreage

The goal of this Storm Water Pollution Prevention Plan is to minimize the amount of vegetation to be disturbed; to minimize the amount of cut and fill to be moved; and to limit the impact construction may have on steep slopes, erodible soils, and existing drainage facilities. The nature of the construction activity for this project shall be related to the clearing and grubbing of the project area. Utilities to be placed in this development include: water, sewer and storm water. These utilities will be placed on grades as specified by the engineered plans (where applicable). The plans pertaining to the construction of utilities are available for review in the office of Lemons Engineering Consultants, Inc. The disturbance of soils within the project area will be from construction as pertaining to clearing and grubbing, excavation, stockpiling, rough grading, final grading, preparation for seeding and sod (where applicable), and excavation for trenches as pertaining to utilities, drainage structures and swales.

Total Acres: 4.89 ac

Total Disturbed Acres: <u>4.89 ac</u>

#### **Computed Runoff Coefficient**

For the 'lotted' areas, the following assumptions were made:

For paved areas (drives, roofs, etc.) For unpaved areas (grass, landscaping, etc.)

C = 0.90 (Existing & Proposed) C = 0.35 (Existing) C = 0.22 (Proposed)

Existing Site Conditions: Area Runoff Coefficient = 0.35Proposed Site Conditions: Area Runoff Coefficient = 0.40

#### Soils Data

According to the "Soil Survey of Saline County, Arkansas", prepared by the United States Department of Agriculture, Soil Conservation Service in cooperation with the Arkansas Agricultural Experiment Station (issued April 1979), soil in Hillcrest Addition is 100 percentage of Carnasaw-Townley Association (9), undulating slopes (see Attachment 'B' on the next page). Under <u>Table 8 – Woodland Management and Productivity</u>, Carnasaw-Townley Association provides only a slight risk as pertaining to "erosion hazard"; <u>Table 12 – Water Management</u>, "Grassed Waterways" percs slowly, slope in Carnasaw soil classifications and droughty, rooting depth, slope in Townley soil classifications. Under <u>Table 14 – Wildlife Habitat Potentials</u>, Carnasaw-Townley Association is good for grasses and legumes, wild herbaceous plants, hardwood trees, coniferous plants, and both openland wildlife and woodland wildlife.

#### **Responsible Parties**

| General Contractor: | Lance Massey<br>816 East Oak Street<br>Conway, Arkansas 72032 |
|---------------------|---|
| Inspector:          | Lance Massey<br>816 East Oak Street<br>Conway, Arkansas 72032 |

## Name of Stream Which Will Receive Runoff

According to the Congo Quadrangle Map, as published by the U.S. Geological Survey, and the City of Bryant FIRM (Community Panel No 05125C0225E, June 5, 2020); Unnamed tributary of Hurricane Lake is the receiving water; thence into Hurricane Lake; thence into Hurricane Creek; thence into the Saline River; the Saline River eventually empties into the Ouachita River. Attention is called to Attachment 'C' on the following page, which shows the project as depicted on said Quadrangle Map.

#### Water Quality Standard

There are no specific requirements for Water quality standards, however the contractor will assure any necessary measures to ensure that any discharges do not cause or contribute to an excursion above any applicable water quality standards. Saline River is listed on the Arkansas water quality limited Waterbodies (streams) - 2020 303(d) list for Lead, Temperature, Turbidity, and Dissolved Oxygen and the 2020 303(d) list 4a (streams) for Mercury. In the event that specific water quality standards or TMDL's are specified by ADEQ, City of Bryant, or any other governing authority, the contractor shall adjust the erosion controls as needed to meet the applicable standard and provide documentation discharges where required.

### **Endangered Species**

According to the US Fish & Wildlife, this property has nine endangered species in proximity of the storm water discharge and BMP's will be constructed to control storm water runoff. The project does not effect any proposed or established critical habitats for any of these nine species.



# United States Department of the Interior

FISH AND WILDLIFE SERVICE Arkansas Ecological Services Field Office 110 South Amity Suite 300 Conway, AR 72032-8975 Phone: (501) 513-4470 Fax: (501) 513-4480



In Reply Refer To: Project Code: 2024-0113660 Project Name: Hillcrest Addition 07/09/2024 21:12:42 UTC

# Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/program/migratory-bird-permit/whatwe-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. Attachment(s):

Official Species List

# **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

## Arkansas Ecological Services Field Office

110 South Amity Suite 300 Conway, AR 72032-8975 (501) 513-4470

## **PROJECT SUMMARY**

Project Code:2024-0113660Project Name:Hillcrest AdditionProject Type:Residential ConstructionProject Description:Residential Subdivision in Bryant, Saline County, ARProject Location:Formation (Construction (Construction

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@34.631429100000005,-92.51751319346704,14z</u>



Counties: Saline County, Arkansas
# **ENDANGERED SPECIES ACT SPECIES**

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

# MAMMALS

| NAME  | STATUS                 |
|---|------------------------|
| <ul> <li>Northern Long-eared Bat <i>Myotis septentrionalis</i></li> <li>No critical habitat has been designated for this species.</li> <li>This species only needs to be considered under the following conditions: <ul> <li>This species only needs to be considered if the project includes wind turbine operations.</li> </ul> </li> <li>Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a></li> </ul> | Endangered             |
| BIRDS<br>NAME   | STATUS                 |
| Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i><br>No critical habitat has been designated for this species.<br>Species profile: <u>https://ecos.fws.gov/ecp/species/10477</u>  | Threatened             |
| <ul> <li>Piping Plover Charadrius melodus</li> <li>Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.</li> <li>There is final critical habitat for this species. Your location does not overlap the critical habitat.</li> <li>Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a></li> </ul>                             | Threatened             |
| Rufa Red Knot <i>Calidris canutus rufa</i><br>There is <b>proposed</b> critical habitat for this species.<br>Species profile: <u>https://ecos.fws.gov/ecp/species/1864</u>  | Threatened             |
| REPTILES<br>NAME  | STATUS                 |
| Alligator Snapping Turtle <i>Macrochelys temminckii</i><br>No critical habitat has been designated for this species.<br>Species profile: <u>https://ecos.fws.gov/ecp/species/4658</u>   | Proposed<br>Threatened |
| CLAMS<br>NAME   | STATUS                 |
| Ouachita Fanshell <i>Cyprogenia sp. cf. aberti</i><br>There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: <u>https://ecos.fws.gov/ecp/species/10889</u>   | Threatened             |
| Pink Mucket (pearlymussel) Lampsilis abrupta<br>No critical habitat has been designated for this species.<br>Species profile: <u>https://ecos.fws.gov/ecp/species/7829</u>  | Endangered             |
| Winged Mapleleaf <i>Quadrula fragosa</i><br>Population: Wherever found, except where listed as an experimental population<br>No critical habitat has been designated for this species.<br>Species profile: <u>https://ecos.fws.gov/ecp/species/4127</u>   | Endangered             |

# INSECTS

## NAME

STATUS Candidate

Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9743</u>

## **CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

# **IPAC USER CONTACT INFORMATION**

- Agency: Lemons Engineering Consultants
- Name: Erica Burke
- Address: 204 West Cherry Street
- City: Cabot
- State: AR
- Zip: 72023
- Email eburke@lemonsengineering.com
- Phone: 5016057665







-92.5000° <sup>32</sup>

## **Control Selection & Plan Design**

### **Erosion & Sediment Controls**

Erosion and sediment controls include stabilization measures for disturbed areas and structural controls to divert runoff and remove sediment. Erosion and sediment controls are implemented during the construction period to prevent and/or control the loss of soil from the construction site into the receiving waters. Any and all inadequate controls shall be replaced, and all off-site accumulations shall be removed at a frequency sufficient to minimize off-site impacts. Erosions and sediment controls include temporary or permanent measures, including, but not limited to:

- Areas of permanent seeding
- Areas of sod stabilization
- Silt fence
- Rock barriers
- Earth dikes
- Drainage swales
- Storm drain inlet protection
- Temporary & permanent sediment barriers
- Slope Drains

Attention is called to the following pages which provide specifications and typical section for each of these measures. These pages shall further illustrate the when and why specific control measures are used. These specifications accompany the Erosion Control and Stormwater Management Plan as shown on the attached Attachments.

Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily of permanently ceased, except where the initiation of stabilization measures by the 14<sup>th</sup> day after construction activity temporarily of permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable or where construction activity will resume on a portion of the site within 14 days from when activities ceased, then stabilization measure do not have to be initiated on that portion of the site by the 14<sup>th</sup> day after construction activity temporarily ceased.

### **Other Controls**

If erosion & sediment controls indicate that they have been used inappropriately or incorrectly, they are to be replaced or modified to control the site appropriately or correctly. Any off-site sediment shall be removed immediately to minimize any off-site impacts. The contractor shall obtain permission from property owner prior to clean-up of the off-site sediment. When sediment ponds or traps have reached 50% capacity, the sediment shall be removed.

Solid waste which can be burned on-site such as trees, shrubs, brush, and wooden material shall be burned in accordance with local City or County Code. The contractor shall obtain the necessary permit to perform such activity. Additional solid waste that is not suitable for on-site burning such as plastics, foam packaging, PVC pipe scraps, shall be collected in a central location designated by the contractor and placed in appropriated containers (dumpsters or garbage cans) for disposal. No solid materials, including building materials, shall be discharged to waters of the State. Contractor shall coordinate with the local municipality or waste disposal service to arrange for pickup and disposal of this waste at an approved off-site location. There will not be any off-site storage with this project.

| Date when m   | ajor grading activities occurred: |                |
|---------------|-----------------------------------|----------------|
| Date when co  | onstruction activities ceased:    |                |
| Date          | Area                              | temporarily or |
| permanently   |                                   |                |
| Date          | Area                              | temporarily or |
| permanently   |                                   |                |
| Date when an  | area is stabilized:               |                |
| Date          | Area                              | temporarily or |
| permanently   |                                   |                |
| Stabilization | practice used                     |                |
| Date          | Area                              | temporarily or |
| permanently   |                                   |                |
| Stabilization | practice used                     |                |

Structural practices for this project site that shall control the runoff from this site shall be silt fence with haybales. This project site will not have a dedicated detention area. Rock Check Dams and Curb Inlet Sediment Barriers shall be used for Erosion Control Measures. A sod swale shall control the velocity dissipation for this project.

At any point where construction vehicles are entering or leaving the site a temporary gravel construction entrance shall be constructed and maintained throughout the course of construction. The entrance shall be wide enough to accommodate all vehicles that will use this entrance and long enough to adequately remove sediment from construction vehicles tires so that it will not be tracked onto public roads. Any off-site tracking from construction vehicles is to be removed and disposed of properly. The entrance shall be constructed with filter fabric over the sub grade followed by 12 inches of B-stone. C-Ballast can be used over the top of the B-stone to level the driving surface, but the larger stone is preferred due to its sediment removal ability.

If any portable sanitary facilities are used on this project, contractor shall ensure and demonstrate compliance with applicable State or local waste disposal, temporary and permanent sanitary sewer or septic system regulations.

No liquid concrete waste shall be discharged to waters of the State. Appropriated controls to prevent the discharge of concrete washout waters must be implemented if concrete washout will occur on-site. A concrete washout area is in approximate area as shown on Erosion Control Plan.

No contaminants from fuel storage areas, hazardous waste storage and truck wash areas shall be discharged to waters of the State. Methods for protecting these areas shall be identified and implemented. These areas should not be located near a water body, if there is a water body on or near the project.

### Allowable Non-Storm Water Discharges

The following is a list of some allowable non-storm water discharges that are common to construction sites:

- Irrigation water used for seeding and planting
- Pavement wash waters or waters used for dust control (No detergents or chemicals are permitted)
- Uncontaminated ground water from dewatering of excavated areas
- New construction exterior building wash down discharges
- Fire-fighting activities
- Fire Hydrant flushing

As with storm water discharges the contractor shall take the necessary precautions to prevent the above activities from discharging sediment into receiving waters. Where practical the contractor shall attempt to route non-storm water discharges to the natural drainage paths planned for storm water so that no additional erosion and sediment controls will be necessary. In the event that the non-storm water discharge can not be routed to the storm water drainage paths, the contractor shall implement the additional controls necessary to prevent excessive erosion.

## Post-Construction Storm Water Management Controls

Storm water management controls are constructed to prevent or control pollution of storm water after the construction is complete. Post construction controls for this site will be seed or sod on the lots.

## State & Local Standards

Contractor must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding any discharges of stormwater to storm drain systems or other water sources under their jurisdiction, including applicable requirements in municipal stormwater management programs developed to comply with the ADEQ permits, *Authorization to Discharge under the National Pollutant Discharge Elimination System and the Arkansas Water and Air Pollution Control Act*. Contractor

must comply with local, County, City of Bryant, stormwater management requirements, policies, or guidelines including erosion and sediment control. It is also the contractors' responsibility to determine if any other Federal requirements apply and address them accordingly (such as a 404 Permit). Contractor shall comply with State or local waste disposal, sanitary sewer (including portable toilets), or septic system regulations. Sanitary sewer shall be serviced by the city of Bryant for this project.

## Assessment

### Measurement of Site Area

Hillcrest Addition is 4.89 acres which is part of the SE <sup>1</sup>/<sub>4</sub> of Section 17, T-1-S, R-14-W, to the City of Bryant, Saline County, Arkansas. The area included in this Storm Water Pollution Prevention Plan is all 4.89 acres, and the amount of soil to be disturbed is also all 4.89 acres.

### **Measurement of Drainage Areas**

It should be noted that individual watersheds were evaluated for the design of the drainage improvements, as shown on Attachment 'D'. Copies of the detailed drainage design calculations are available in the office of the Engineer.

### **Computed Runoff Coefficient**

For the 'lotted' areas, the following assumptions were made:

| For paved areas (drives, roofs, etc.)        | C = 0.90 |
|--|----------|
| For unpaved areas (grass, landscaping, etc.) | C = 0.28 |

For most lots, half will be improved (C=0.9), while the remainder should fit into the unpaved category (C=0.28). Using the 'weighted average', we will have a runoff coefficient of 0.5. This conservative figure does take into account the streets to exist in front of said lots. For the purpose of these analyses, a pre-construction runoff coefficient of 0.4 is used.







LEGEND:



# **Inspection & Maintenance Plan**

This section provides an overview of the inspection and maintenance plan and controls as pertaining to the Stormwater Pollution Prevention Plan. This inspection procedure should be conducted by qualified personnel, (which the permitee provides along with any necessary training, see next sheet) and is necessary in the prevention and control of pollution of storm water on the construction site. Items included in this Plan include the inspection and maintenance of vegetation, erosion and sediment control, and related measures, which are part of this plan. Attention is called to Pages B-1 through B-25 (of the previous section) for information pertaining to maintenance of each anticipated control component. This information, in part, is derived from the "Storm Water Management for Construction Activities" as developed by EPA.

The following list includes the practices that will be used to maintain erosion and sediment controls for this Plan:

- All control measures will be inspected every week and within 24 hours following any storm event of 0.25 inches rainfall or greater rainfall event as measured in the rain gauge located on-site;
- All measures will be inspected to ensure that they meet the proper specs. Repairs to control measures shall be initiated within 72 hours of the report where possible. Additional time may be needed depending on the location of the repair and field conditions. On-site inspector shall determine if extra time is required;
- Inspections are not required when snow cover exists over the entire sire for an extended period and melting conditions do not exist. However, if any runoff occurs at any time during snow cover, regular inspections are required as specified in this permit. If conditions prevent compliance, documentation must be made of when the beginning and ending of winter conditions occurred.
- When adverse weather conditions; such as flooding, high winds or electrical storms, make inspections impractical, an inspection is to be made as soon as conditions are safe and feasible. If conditions prevent compliance, documentation must be made of when the beginning and ending of adverse weather conditions occurred.
- Built up sediment will be removed from silt fencing when sediment has reached a height of 1/3 of fence;
- Silt fence shall be inspected for sediment depth, tears, and proper anchoring;
- Sod swales shall be inspected for sediment build-up. Sediment shall be removed as needed;
- Control measures in and around culverts, inlets, and other permanent structures shall be kept clean of debris and sediment;
- Seeding and planting shall be inspected for bare spots, washouts, and adequate growth;
- A maintenance inspection report will be made after each inspection. Blank inspection report form(s) are included in this Plan;
- Sediment barriers and sediment traps will be cleaned out when they reach 50% of the original capacity. (where applicable)

- Construction entrance/exit hall be inspected to ensure no off-site tracking is occurring.
- Inspection Reports are to be kept for a minimum of 3 years after NOT is issued.
- Any off-site sediment is to be removed ASAP. Consent from adjoining owners is to be obtained prior to removal.

### **Responsible Parties**

The owner of this project shall be responsible for the inspection and maintenance of all erosion control measures. As structures are constructed on lots, the lot owner/home builder shall be responsible for the lot they are constructing a home on.

### **Employee Training**

The permitee shall also be responsible for the proper training of all personnel who will be responsible for implementing the activities identified in this SWPPP, the goals and requirements of the general permit. This shall include all contractors and subcontractors. Training must be given by a knowledgeable and qualified trainer. Records of training must be maintained below. Records that are kept electronically, are not required to be maintained with the SWPPP, but must be accessible upon request. Training class given by a third-party is recommended, but not required. The permitee is responsible for the content of the training being adequate for personnel to implement the requirements of this permit.

| Training classes: | Date:     |
|-------------------|-----------|
|                   | Location: |
|                   | Time:     |
|                   | Date      |
|                   | Location: |
|                   | Time:     |
|                   | Date:     |
|                   | Location: |
|                   | Time:     |

| ARR150000 Inspection Form                                  |                                 | Appendix B |    |
|--|---------------------------------|------------|----|
| nspector Name:   | Date of Inspection:             |            |    |
| nspector Title:  |                                 |            |    |
| Date of Rainfall:  | Duration of Rainfall:           |            |    |
| Days Since Last Rain Event: days                           | Rainfall Since Last Rain Event: | inches     |    |
| Description of any Discharges During Inspection:           |                                 |            | 12 |
| ocation of Discharges of Sediment/Other Pollutant (specify | y pollutant & location):        |            |    |

Locations in Need of Additional BMPs:

### Information on Location of Construction Activities

| Location | Activity   | Activity   | Activity | Stabilization  | Stabilization |
|----------|------------|------------|----------|----------------|---------------|
|          | Begin Date | Occuring   | Ceased   | Initiated Date | Complete      |
|          |            | Now (y/n)? | Date     | 1              | Date          |
|          |            |            | _        |                |               |
|          | 5          |            |          |                |               |
|          |            |            |          |                | -             |
|          |            |            |          | 1              |               |

### Information on BMPs in Need of Maintenance

| Location | In Working<br>Order? | Maintenance Scheduled<br>Date | Maintenance Completed<br>Date | Maintenance to be<br>Performed By |
|----------|----------------------|-------------------------------|-------------------------------|-----------------------------------|
|          |                      |                               |                               |                                   |
|          | 2                    |                               |                               |                                   |

Changes required to the SWPPP:

Reasons for changes:

SWPPP changes completed (date):

"I certify under penalty of law that this document and all attachments such as Inspection Form were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Responsible or Cognizant Official:

Date:

Title:

# **SEE VOLUME #3**

# FOR

# **INSPECTION**

# **REPORTS**

## **INSPECTORS CERTIFICATION**

I certify under penalty of law that I understand the terms and conditions set forth by the permittee (operator) under the Stormwater Pollution Prevention Plan associated with the construction site identified as part of this certification. I shall make major observations relating to the implementation of the stormwater pollution prevention plan and take actions in accordance with the requirements of this permit and retain as part of this plan for at least three (3) years from the date that this site is finally stabilized. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

7-9-2024

Signature

Date

Lance Massey, Developer/Construction Manager

Printed Name & Title

501-428-3866

Phone Number

\*Inspectors certification must be signed by inspector prior to any construction of work beginning.

## **CONTRACTORS CERTIFICATION**

I certify under penalty of law that I understand the terms and conditions set forth by the permittee (operator) under the Stormwater Pollution Prevention Plan associated with the construction site identified as part of this certification. Furthermore, I understand that the ADEQ and/or the operator may require me to obtain my own permit coverage for the construction site and that there would be penalties for failure to comply with my permit.

7-9-2024

Signature

Date

Lance Massey, Developer/Construction Manager Printed Name & Title

Springhill Hwy 5 Developments LLC Name of Contracting Firm 816 East Oak Street, Conway, AR 72032

Address 501-428-3866

Phone Number

\*Contractors certification must be signed by contractor prior to any construction of work beginning.

## PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

7-9-2024

Signature

Lance Massey, Developer/Construction Manager Printed Name & Title

Ten De

Signature

Tim Lemons - Engineer Printed Name & Title

<u>Lemons Engineering Consultants, Inc.</u> Name of Contracting Firm

204 Cherry Street, Cabot, AR 72023 Address

501-605-7565 Phone Number 7-9-2024

Date

Date



DURATION IN MINUTES

# INTENSITY - DURATION - FREQUENCY

# LITTLE ROCK

SOURCE : HYDRO 35 & T.P. No. 40

# TABLE 2.1 RUNOFF COEFFICIENTS FOR RATIONAL METHOD

RUNOFF COEFFICIENTS

| FR   | EQUENCY  |  |
|--|--|--|
| 10   | 25   | 100  |
|  |  |  |
| .90<br>.85(.7095)*<br>.70(.5075)                                   | .93<br>.90<br>.75  | .95<br>.95<br>.80  |
|  |  |  |
| .50(.3060)<br>.60(.4065)<br>.70(.6075)<br>.40(.2550)<br>.70(.5080) | .60<br>.65<br>.75<br>.45<br>.75  | .70<br>.75<br>.80<br>.65<br>.80  |
|  |  |  |
| .80(.5085)<br>.85(.6090)   | .82<br>.87   | .85<br>.90   |
| .30(.1040)   | .40  | .60  |
| .35(.2040)   | .50  | .70  |
| .60(.5075)   | .65  | .75  |
| .50(.3060)   | .60  | .70  |
| .55(.4565)   | .67  | .70  |
|  | FR<br><u>10</u><br>.90<br>.85(.7095)*<br>.70(.5075)*<br>.50(.3060)<br>.60(.4065)<br>.70(.6075)<br>.40(.2550)<br>.70(.5080)<br>.85(.6090)<br>.30(.1040)<br>.35(.2040)<br>.60(.5075)<br>.50(.3060)<br>.55(.4565) | FREQUENCY         10       25 $.90$ $.93$ $.85(.7095)*$ $.90$ $.70(.5075)$ $.75$ $.50(.3060)$ $.60$ $.60(.4065)$ $.65$ $.70(.6075)$ $.75$ $.40(.2550)$ $.45$ $.70(.5080)$ $.75$ $.80(.5085)$ $.82$ $.85(.6090)$ $.87$ $.30(.1040)$ $.40$ $.35(.2040)$ $.50$ $.60(.5075)$ $.65$ $.50(.3060)$ $.60$ $.55(.4565)$ $.67$ |

\*NOTE: The range of runoff coefficients based on soil type: The low value is for sandy soils, while the high value is for clay soils. The given runoff coefficient outside the parenthesis is to be used for design, unless the Engineer of Record receives approval from the City Engineer for another value located within the given coefficient range. TABLE 2.2 RUNOFF COEFFICIENTS FOR RATIONAL METHOD COMPOSITE ANALYSIS

|  | RUNOFF COEFFICIENTS |                   |                   |
|--|---------------------|-------------------|-------------------|
|  |                     | FREQUENCY         |                   |
| CHARACTER OF SURFACE   | 10                  | 25                | 100               |
| Undeveloped Areas:   |                     |                   |                   |
| Historic Flow Analysis,<br>Greenbelts, Agricultural,<br>Natural Vegetation |                     |                   |                   |
| Clay Soil<br>Flat, 2%<br>Average, 2-7%<br>Steep 7%                         | .30<br>.40<br>.50   | .33<br>.44<br>.55 | .37<br>.50<br>.62 |
| Sandy Soil<br>Flat, 2%<br>Average, 2-7%<br>Steep 7%                        | .12<br>.20<br>.30   | .13<br>.22<br>.33 | .15<br>.25<br>.37 |
| <u>Streets</u> :   |                     |                   |                   |
| Paved<br>Gravel  | .90<br>.35          | .92<br>.50        | .95<br>.65        |
| Drives and Walks:  | .90                 | .91               | .92               |
| Roofs:   | .90                 | .92               | .95               |
| Lawns:   |                     |                   |                   |
| Clay Soil<br>Flat, 2%<br>Average, 2-7%<br>Steep, 7%                        | .18<br>.22<br>.35   | .20<br>.28<br>.45 | .25<br>.35<br>.60 |
| Sandy Soil<br>Flat, 2%<br>Average, 2-7%<br>Steep, 7%                       | .10<br>.15<br>.20   | .25<br>.30<br>.35 | .40<br>.45<br>.50 |



# Onsite Temporary Concrete Washout Facility

- Temporary concrete washout facilities should be located a minimum of 50 ft from storm drain inlets, open drainage facilities, and watercourses. Each facility should be located away from construction traffic of access areas to prevent disturbance or tracking.
- A sign should be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
- Temporary concrete washout facilities should be constructed above grade. Facility should be constructed and maintained in sufficient quantity and size to contain all liquids generated during washout procedures.
- Temporary washout facilities should have a temporary pit or bermed areas of sufficient volume to completely contain all liquid and waste concrete materials generated during washout procedures.
- Washout of concrete trucks should be performed in designated areas only.
- Only concrete from mixer truck chutes should be washed into concrete washout.
- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designed washout areas or properly disposed of offsite.
- Once concrete wastes are washed into the designated areas and slowed to harden, the concrete should be broken up, removed and disposed of. Dispose of hardened concrete on a regular basis.
- Temporary concrete washout facility should be constructed according to the detail, with a recommended minimum length and minimum width of 10 ft, but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
- Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.



SECTION A - A

NOTES:

1.) DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL NEARLY LEVEL DRAINAGE AREAS.

2.) USE 2 x 4 WOOD OR EQUIVALENT METAL STAKES, (3 FT. MIN. LENGTH).

3.) INSTALL 2 x 4 WOOD TOP FRAME TO INSURE STABILITY.

4.) THE TOP OF THE FRAME (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARYON THE DOWNSLOPE SIDE OF THE STRUCTURE. SILT FENCE DROP INLET SEDIMENT BARRIER



PLAN

NOTES:

- THE STRAW BALES SHALL BE PLACED ON THE SLOPE CONTOUR.
   BALES TO BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING. USE STRAW, ROCKS, OR FILTER FABRIC TO FILL THE GAPS BETWEEN THE BALES AND TAMP THE BACKFILL MATERIAL TO PREVENT EROSION OR BACK FLOOW AROUND BALES.

STRAW BALE DIKE



- 1.) EMBED BALES 4" INTO THE SOIL AND 'KEY' BALES INTO THE CHANNEL BANKS.
- POINT 'A' MUST BE HIGHER THAN POINT 'B' (SPILLWAY HEIGHT)
   PLACE BALES PERPENDICULAR TO THE FLOW WITH ENDS TIGHTLY ABUTTING. USE STRAW, ROCKS OR FILTER FABRIC TO FILL ANY GAPS AND TAMP BACKFILL WATERIAL TO PREVENT EROSION OR FLOW AROUND THE BALES.
   SHILWAY HEIGHT SHALL NOT EVEN 19"
- 4.) SPILLWAY HEIGHT SHALL NOT EXEED 18".
- 5.) INSPECT AFTER EACH SIGNIFICANT STORM, MAINTAIN AND REPAIR PROMPTLY.
- 6.) SPACING OF CHECK DAMS ARE AS SHOWN.

STRAW BALE CHECK DAM





NOTES:

1.) PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.

2.) SANDBAGS OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC ARE FILLED WITH GRAVEL, LAYERED, AND PACKED TIGHTLY.

3.) LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.

4.) INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

# CURB INLET SEDIMENT BARRIER





SECTION A-A

NOTES:

- NOTES:
  1.) DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL NEARLY LEVEL DRAINAGE AREAS.
  2.) EMBED THE BALES 4<sup>#</sup> INTO THE SOIL AND OFFSET THE CORNERS OR PLACE BALES WITH ENDS TIGHTLY ABUTING, GRAVEL BACKFILL WILL PREVENT EROSION OR FLOW AROUND THE BALES.
  3.) THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROP INLET OR A TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.

STRAW BALE/GRAVEL DROP INLET SEDIMENT BARRIER



#### NOTES:

1.) USE BLOCK AND GRAVEL TYPE SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET SEGMENT, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.

2.) BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.

3.) INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

# CURB INLET SEDIMENT BARRIER



### NOTE:

1.) INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

2.) REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

3.) SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE NTS

00

|  |  | SILT FENCE              |                             |  |  |
|--|--|-------------------------|-----------------------------|--|--|
|  | September 1992   |                         |                             |  |  |
| Design Cri   | teria  |                         |                             |  |  |
| ▲ Silt   | fences are appropriate at th   | ne following general lo | cations:                    |  |  |
|  | <ul> <li>Immediately upstream of the point(s) of runoff discharge from a site before flow becomes concentrated (maximum design flow rate should not exceed 0.5 cubic feet per second).</li> <li>Below disturbed areas where runoff may occur in the form of overland flow.</li> </ul>  |                         |                             |  |  |
| <ul> <li>▲ Pondesi</li> <li>▲ The</li> <li>▲ Foris 10</li> <li>▲ The</li> <li>▲ Syntperior</li> </ul>  | <ul> <li>Ponding should not be allowed behind silt fences since they will collapse under high pressure; the design should provide sufficient outlets to prevent overtopping.</li> <li>The drainage area should not exceed 0.25 acre per 100 feet of fence length.</li> <li>For slopes between 50:1 and 5:1, the maximum allowable upstream flow path length to the fence is 100 feet; for slopes of 2:1 and steeper, the maximum is 20 feet.</li> <li>The maximum upslope grade perpendicular to the fence line should not exceed 1:1.</li> <li>Synthetic silt fences should be designed for 6 months of service; burlap is only acceptable for periods of up to 60 days.</li> </ul> |                         |                             |  |  |
| Materials  |  |                         |                             |  |  |
| Synthetic filter fabric should be a pervious sheet of polypropylene, nylon, polyester, or polyethylene yarn conforming to the requirements in Table 1 below. |  |                         |                             |  |  |
| TABLE 1. SYNTHETIC FILTER FABRIC REQUIREMENTS  |  |                         |                             |  |  |
|  | Physical Property Requirements   |                         |                             |  |  |
|  | Filtering Efficiency   | 75% - 85% (minimu       | m)                          |  |  |
|  | Tensile Strength at 20%  | Standard Strength -     | 30 lb/linear inch (minimum) |  |  |
|  | (maximum) Elongation   |                         | b/linear inch (minimum)     |  |  |

Synthetic filter fabric should contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 to 120°F.

0.3 gal/ft<sup>2</sup>/min (minimum)

- ▲ Burlap of 10 ounces per square yard of fabric can also be used.
- ▲ The filter fabric should be purchased in a continuous roll to avoid joints.
- ▲ While not required, wire fencing may be used as a backing to reinforce standard strength filter fabric. The wire fence (14 gauge minimum) should be at 22-48 inches wide and should have a maximum mesh spacing of 6 inches.
- ▲ Posts should be 2-4 feet long and should be composed of either 2" x 2-4" pine (or equivalent) or 1.00 to 1.33 lb/linear ft steel. Steel posts should have projections for fastening wire and fabric to them.

#### **Construction Specifications**

Slurry Flow Rate

▲ The maximum height of the filter fence should range between 18 and 36 inches above the ground surface (depending on the amount of upslope ponding expected).

#### SILT FENCE

- Posts should be spaced 8 to 10 feet apart when a wire mesh support fence is used and no more than 6 feet apart when extra strength filter fabric (without a wire fence) is used. The posts should extend 12 to 30 inches into the ground.
- A trench should be excavated 4 to 8 inches wide and 4 to 12 inches deep along the upslope side of the line of posts.
- ▲ If standard strength filter fabric is to be used, the optional wire mesh support fence may be fastened to the upslope side of the posts using 1 inch heavy duty wire staples, tie wires, or hog rings. Extend the wire mesh support to the bottom of the trench. The filter fabric should then be stapled or wired to the fence, and 8 to 20 inches of the fabric should extend into the trench (Figure 1).
- ▲ Extra strength filter fabric does not require a wire mesh support fence. Staple or wire the filter fabric directly to the posts and extend 8 to 20 inches of the fabric into the trench (Figure 1).
- ▲ Where joints in the fabric are required, the filter cloth should be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.
- Do not attach filter fabric to trees.
- Backfill the trench with compacted soil or 0.75 inch minimum diameter gravel placed over the filter fabric.

#### Maintenance

- Inspect filter fences daily during periods of prolonged rainfall, immediately after each rainfall event, and weekly during periods of no rainfall. Make any required repairs immediately.
- Sediment must be removed when it reaches one-third to one-half the height of the filter fence. Take care to avoid damaging the fence during cleanout.
- ▲ Filter fences should not be removed until the upslope area has been permanently stabilized. Any sediment deposits remaining in place after the filter fence has been removed should be dressed to conform with the existing grade, prepared, and seeded.

#### Cost

Silt fence installation costs approximately \$6.00 per linear foot.

#### Sources

- Commonwealth of Virginia County of Fairfax, 1987. 1987 Check List For Erosion And Sediment Control - Fairfax County, Virginia.
- ▲ State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community Development.
- Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.



| Maximum Drainage Area<br>(Acres) | Pipe Diameter (D)<br>(Inches) |
|----------------------------------|-------------------------------|
| 0.5                              | 12                            |
| 0.75                             | 15                            |
| 1.0                              | 18                            |

### TABLE 2. RELATIONSHIP BETWEEN AREA AND PIPE DIAMETER

#### Materials

- ▲ Pipe may be heavy duty flexible tubing designed for this purpose, e.g., nonperforated, corrugated plastic pipe, corrugated metal pipe, bituminous fiber pipe, or specially designed flexible tubing.
- A standard flared end section secured with a watertight fitting should be use for the inlet. A standard T-section fitting may also be used.
- ▲ Extension collars should be 12-inch long sections of corrugated pipe. All fittings must be watertight.

#### **Construction Specifications**

- Place the pipe slope drain on undisturbed or well-compacted soil.
- Soil around and under the entrance section must be hand-tamped in 4-inch to 8-inch lifts to the top of the dike to prevent piping failure around the inlet.
- ▲ Place filter cloth under the inlet and extend 5 feet in front of the inlet and be keyed in 6-inches on all sides to prevent erosion. A 6-inch metal toe plate may also be used for this purpose.
- ▲ Ensure firm contact between the pipe and the soil at all points by backfilling around and under the pipe with stable soil material hand compacted in lifts of 4-inches to 8-inches.
- Securely stake the PSD to the slope using grommets provided for this purpose at intervals of 10 feet or less.
- A Ensure that all slope drain sections are securely fastened together and have watertight fittings.
PIPE SLOPE DRAIN

- Extend the pipe beyond the toe of the slope and discharge at a nonerosive velocity into a stabilized area (e.g., rock outlet protection may be used) or to a sedimentation trap or pond.
- The PSD should have a minimum slope of 3 percent or steeper.
- The height at the centerline of the earth dike should range from a minimum of 1.0 foot over the pipe to twice the diameter of the pipe measured from the invert of the pipe. It should also be at least 6 inches higher than the adjoining ridge on either side.
- At no point along the dike will the elevation of the top of the dike be less than 6 inches higher than the top of the pipe.
- Immediately stabilize all areas disturbed by installation or removal of the PSD.

#### Maintenance

- ▲ Inspect regularly and after every storm. Make any necessary repairs.
- Check to see that water is not bypassing the inlet and undercutting the inlet or pipe. If necessary, install headwall or sandbags.
- Check for erosion at the outlet point and check the pipe for breaks or clogs. Install additional outlet protection if needed and immediately repair the breaks and clean any clogs.
- A Do not allow construction traffic to cross the PSD and do not place any material on it.
- ▲ If a sediment trap has been provided, clean it out when the sediment level reaches 1/3 to 1/2 the design volume.
- ▲ The PSD should remain in place until the slope has been completely stabilized or up to 30 days after permanent slope stabilization.

#### Cost

Pipe slope drain costs are generally based upon the pipe type and size (generally, flexible PVC at \$5.00 per linear foot). Also adding to this cost are any expenses associated with inlet and outlet structures.

#### Sources

- ▲ Commonwealth of Virginia County of Fairfax, 1987. 1987 Check List For Erosion And Sediment Control - Fairfax County, Virginia.
- ▲ State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community Development.
- Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.
- ▲ Storm Water Management Manual for the Puget Sound Basin. State of Washington, Department of Ecology, 1991.
- Cost Data:
  - ▲ Draft Sediment and Erosion Control, An Inventory of Current Practices, April 20, 1990. Prepared by Kamber Engineering for the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, Washington, D.C. 20460.

#### STABILIZED CONSTRUCTION ENTRANCE

September 1992

Design Criteria

- A Stabilized Construction Entrance (SCE) is appropriate in the following locations:
  - Wherever vehicles are leaving a construction site and enter onto a public road
  - At any unpaved entrance/exit location where there is risk of transporting mud or sediment onto paved roads.
- ▲ The width should be at least 10 feet to 12 feet or the as wide as the entire width of the access. At sites where traffic volume is high the entrance should be wide enough for two vehicles to pass safely.
- The length should be between 50 to 75 feet in length.
- Flare the entrance where it meets the existing road to provide a turning radius.
- A Runoff from a stabilized construction entrance should drain to a sediment trap or sediment basin.
- ▲ Pipe placed under the entrance to handle runoff should be protected with a mountable berm.
- Dust control should be provided in accordance with Section 3.2.1.

#### Materials

- Crushed stone 2-inches-4-inches in diameter
- ▲ Geotextile (filter fabric) with the properties listed in Table 3 below.

| Physical Property     | Requirements                               |
|-----------------------|--|
| Grab Tensile Strength | 220 lbs.<br>(ASTM D1682)                   |
| Elongation Failure    | 60 %<br>(ASTM D1682)                       |
| Mullen Burst Strength | 430 lbs.<br>(ASTM D3768)                   |
| Puncture Strength     | 125 lbs.<br>(ASTM D751)<br>(modified)      |
| Equivalent Opening    | Size 40-80<br>(US std Sieve)<br>(CW-02215) |

#### TABLE 3. GEOTEXTILE REQUIREMENTS

#### Construction Specifications

- ▲ Clear all vegetation, roots and all other obstructions in preparation for grading.
- Prior to placing geotextile (filter fabric) make sure that the entrance is properly graded and compacted.

#### STABILIZED CONSTRUCTION ENTRANCE

- To reduce maintenance and loss of aggregate place geotextile fabric (filter cloth) over the existing ground before placing the stone for the entrance.
- ▲ Stone should be placed to a depth of 6-inches or greater for the entire width and length of the SCE.

#### Maintenance

- Inspect the measure on a regular basis and after there has been a high volume of traffic or storm event.
- Apply additional stone periodically and when repair is required.
- Immediately remove sediments or any other materials tracked onto the public roadway.
- Ensure that associated sediment control measures are in good working condition.

#### Cost

Stabilized construction entrances cost ranges from \$1,500 to \$5,000 to install.

#### Sources

- Commonwealth of Virginia County of Fairfax, 1987. 1987 Check List For Erosion And Sediment Control - Fairfax County, Virginia.
- State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community Development.
- Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.
- Storm Water Management Manual for the Puget Sound Basin. State of Washington, Department of Ecology, 1991.
- Cost Data:
  - ▲ Draft Sediment and Erosion Control, An Inventory of Current Practices, April 20, 1990. Prepared by Kamber Engineering for the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, Washington, D.C. 20460.

FILTER FABRIC INLET PROTECTION

September 1992

Design Criteria

- Inlet protection is appropriate in the following locations:
  - ▲ In small drainage areas (less than 1 acre) where the storm drain inlet is functional before the drainage area has been permanently stabilized.
  - ▲ Where there is danger of sediment silting in an inlet which is in place prior to permanent stabilization.
- Filter fabric inlet protection is appropriate for most types of inlets where the drainage area is one acre or less.
- ▲ The drainage area should be fairly flat with slopes of 5% or less and the area immediately surrounding the inlet should not exceed a slope of 1%.
- Overland flow to the inlet should be no greater than 0.5 cfs.
- This type of inlet protection is not appropriate for use in paved areas because the filter fabric requires staking.
- ▲ To avoid failure caused by pressure against the fabric when overtopping occurs, it is recommended that the height of the filter fabric be limited to 1.5 feet above the crest of the drop inlet.
- ▲ It is recommended that a sediment trapping sump of 1 to 2 feet in depth with side slopes of 2:1 be provided.

#### Materials

- Filter fabric (see the fabric specifications for silt fence).
- ▲ Wooden stakes 2" x 2" or 2"x 4" with a minimum length of 3 feet.
- ▲ Heavy-duty wire staples at least ½ inch in length.
- Washed gravel ¾ inches in diameter.

#### **Construction Specifications**

- ▲ Place a stake at each corner of the inlet and around the edges at no more than 3 feet apart. Stakes should be driven into the ground 18 inches or at a minimum 8 inches.
- ▲ For stability a framework of wood strips should be installed around the stakes at the crest of the overflow area 1.5 feet above the crest of the drop inlet.
- ▲ Excavate a trench of 8 inches to 12 inches in depth around the outside perimeter of the stakes. If a sediment trapping sump is being provided then the excavation may be as deep as 2 feet.
- ▲ Staple the filter fabric to the wooden stakes with heavy-duty staples, overlapping the joints to the next stake. Ensure that between 12 inches to 32 inches of filter fabric extends at the bottom so it can be formed into the trench.
- ▲ Place the bottom of the fabric in the trench and backfill the trench all the way around using washed gravel to a minimum depth of 4 inches.

#### FILTER FABRIC INLET PROTECTION

#### Maintenance

- Inspect regularly and after every storm. Make any repairs necessary to ensure the measure is in good working order.
- ▲ Sediment should be removed and the trap restored to its original dimensions when sediment has accumulated to ½ the design depth of the trap.
- ▲ If the filter fabric becomes clogged it should be replaced immediately.
- ▲ Make sure that the stakes are firmly in the ground and that the filter fabric continues to be securely anchored.
- All sediments removed should be properly disposed.
- ▲ Inlet protection should remain in place and operational until the drainage area is completely stabilized or up to 30 days after the permanent site stabilization is achieved.

#### Cost

▲ The cost of storm drain inlet protection varies dependent upon the size and type of inlet to be protected but generally is about \$300.00 per inlet.

#### Sources

- ▲ Commonwealth of Virginia County of Fairfax, 1987. 1987 Check List For Erosion And Sediment Control - Fairfax County, Virginia.
- ▲ State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community Development.
- Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.
- ▲ Storm Water Management Manual for the Puget Sound Basin. State of Washington, Department of Ecology, 1991.
- Cost Data:
  - ▲ Draft Sediment and Erosion Control, An Inventory of Current Practices, April 20, 1990. Prepared by Kamber Engineering for the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, Washington, D.C. 20460.

#### EXCAVATED GRAVEL INLET PROTECTION

September 1992

Design Criteria

- Inlet protection is appropriate in the following locations:
  - ▲ In small drainage areas (less than 1 acre) where the storm drain inlet is functional before the drainage area has been permanently stabilized.
  - Where there is danger of sediment silting in an inlet which is in place prior to permanent stabilization.
  - ▲ Where ponding around the inlet structure could be a problem to traffic on site.
- Excavated gravel and mesh inlet protection may be used with most inlets where overflow capability is needed and in areas of heavy flows, 0.5 cfs or greater.
- ▲ The drainage area should not exceed 1 acre.
- ▲ The drainage area should be fairly flat with slopes of 5% or less.
- The trap should have a sediment trapping sump of 1 to 2 feet measured from the crest of the inlet. Side slopes should be 2:1. The recommended volume of excavation is 35 yd<sup>3</sup>/acre disturbed.
- ▲ To achieve maximum trapping efficiency the longest dimension of the basin should be oriented toward the longest inflow area.

#### Materials

- ▲ Hardware cloth or wire mesh with ½ inch openings.
- Filter fabric (see the fabric specifications for silt fence).
- Washed gravel ¾ inches to 4 inches in diameter.

**Construction Specifications** 

- Remove any obstructions to excavating and grading. Excavate sump area, grade slopes and properly dispose of soil.
- ▲ The inlet grate should be secured to prevent seepage of sediment laden water.
- ▲ Place wire mesh over the drop inlet so that the wire extends a minimum of 1 foot beyond each side of the inlet structure. Overlap the strips of mesh if more than one is necessary.
- ▲ Place filter fabric over the mesh extending it at least 18 inches beyond the inlet opening on all sides. Ensure that weep holes in the inlet structure are protected by filter fabric and gravel.
- Place stone/gravel over the fabric/wire mesh to a depth of at least 1 foot.

#### EXCAVATED GRAVEL INLET PROTECTION

#### Maintenance

- Inspect regularly and after every storm. Make any repairs necessary to ensure the measure is in good working order.
- ▲ Sediment should be removed and the trap restored to its original dimensions when sediment has accumulated to ½ the design depth of the trap.
- Clean or remove and replace the stone filter or filter fabric if they become clogged.
- ▲ Inlet protection should remain in place and operational until the drainage area is completely stabilized or up to 30 days after the permanent site stabilization is achieved.

#### Cost

▲ The cost of storm drain inlet protection varies dependent upon the size and type of inlet to be protected but generally is about \$300.00 per inlet.

#### Sources

- ▲ Commonwealth of Virginia County of Fairfax, 1987. 1987 Check List For Erosion And Sediment Control Fairfax County, Virginia.
- ▲ State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community Development.
- Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.
- Storm Water Management Manual for the Puget Sound Basin. State of Washington, Department of Ecology, 1991.
- ▲ Cost Data:
  - ▲ Draft Sediment and Erosion Control, An Inventory of Current Practices, April 20, 1990. Prepared by Kamber Engineering for the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, Washington, D.C. 20460.

#### BLOCK AND GRAVEL INLET PROTECTION

September 1992

Design Criteria

- Inlet protection is appropriate in the following locations:
  - ▲ In drainage areas (less than 1 acre) where the storm drain inlet is functional before the drainage area has been permanently stabilized.
  - ▲ Where there is danger of sediment silting in an inlet which is in place prior to permanent stabilization.
- Block and gravel inlet protection may be used with most types of inlets where overflow capability is needed and in areas of heavy flows 0.5 cfs or greater.
- The drainage area should not exceed 1 acre.
- ▲ The drainage area should be fairly flat with slopes of 5% or less.
- To achieve maximum trapping efficiency the longest dimension of the basin should be oriented toward the longest inflow area.
- ▲ Where possible the trap should have sediment trapping sump of 1 to 2 feet in depth with side slopes of 2:1.
- There are several other types of inlet protection also used to prevent siltation of storm drainage systems and structures during construction, they are:
  - Filter Fabric Inlet Protection
  - Excavated Gravel Inlet Protection

Materials

- Hardware cloth or wire mesh with ½ inch openings
- Filter fabric (see the fabric specifications for silt fence)
- Concrete block 4 inches to 12 inches wide.
- ▲ Washed gravel ¾ inches to 4 inches in diameter

#### **Construction Specifications**

- The inlet grate should be secured to prevent seepage of sediment laden water.
- ▲ Place wire mesh over the drop inlet so that the wire extends a minimum of 12 inches to 18 inches beyond each side of the inlet structure. Overlap the strips of mesh if more than one is necessary.
- ▲ Place filter fabric (optional) over the mesh and extend it at least 18 inches beyond the inlet structure.
- Place concrete blocks over the filter fabric in a single row lengthwise on their sides along the sides of the inlet. The foundation should be excavated a minimum of 2 inches below the crest of the inlet and the bottom row of blocks should be against the edge of the structure for lateral support.
- The open ends of the block should face outward not upward and the ends of adjacent blocks should abut. Lay one block on each side of the structure on its side to allow for dewatering of the pool.
- ▲ The block barrier should be at least 12 inches high and may be up to a maximum of 24 inches high and may be from 4 inches to 12 inches in depth depending on the size of block used.
- Prior to backfilling, place wire mesh over the outside vertical end of the blocks so that stone does not wash down the inlet.
- Place gravel against the wire mesh to the top of the blocks.

### BLOCK AND GRAVEL INLET PROTECTION

#### Maintenance

- Inspect regularly and after every storm. Make any repairs necessary to ensure the measure is in good working order.
- ▲ Sediment should be removed and the trap restored to its original dimensions when sediment has accumulated to ½ the design depth of the trap.
- All sediments removed should be properly disposed of.
- Inlet protection should remain in place and operational until the drainage area is completely stabilized or up to 30 days after the permanent site stabilization is achieved.

#### Cost

▲ The cost of storm drain inlet protection varies dependent upon the size and type of inlet to be protected but generally is about \$300.00 per inlet.

#### Sources

- Commonwealth of Virginia County of Fairfax, 1987. 1987 Check List For Erosion And Sediment Control - Fairfax County, Virginia.
- ▲ State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community Development.
- Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.
- Storm Water Management Manual for the Puget Sound Basin. State of Washington, Department of Ecology, 1991.
- Cost Data:
  - Draft Sediment and Erosion Control, An Inventory of Current Practices, April 20, 1990. Prepared by Kamber Engineering for the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, Washington, D.C. 20460.

#### CHECK DAMS

#### September 1992

#### Design Criteria

- Check dams are appropriate for use in the following locations:
  - A Across swales or drainage ditches to reduce the velocity of flow.
  - ▲ Where velocity must be reduced because a vegetated channel lining has not yet been established.
- Check dams may never be used in a live stream unless approved by the appropriate government agency.
- . The drainage area above the check dam should be between 2 acres and 10 acres.
- The dams must be spaced so that the toe of the upstream dam is never any higher than the top of the downstream dam.
- The center of the dam must be 6 inches to 9 inches lower than either edge, and the maximum height of the dam should be 24 inches.
- ▲ The check dam should be as much as 18 inches wider than the banks of the channel to prevent undercutting as overflow water re-enters the channel.
- Excavating a sump immediately upstream from the check dam improves its effectiveness.
- Provide outlet stabilization below the lowest check dam where the risk of erosion is greatest.
- Consider the use of channel linings or protection such as plastic sheeting or riprap where there may be significant erosion or prolonged submergence.

#### Materials

- A Stone 2 inches to 15 inches in diameter
- Logs 6 inches to 8 inches in diameter
- Sandbags filled with pea gravel
- Filter fabric (see the fabric specifications for silt fence)

#### **Construction Specifications**

- Rock Check Dams
  - Place the stones on the filter fabric either by hand or using appropriate machinery; do not simply dump them in place.
  - ▲ Extend the stone 18 inches beyond the banks and keep the side slopes 2:1 or flatter.
  - ▲ Lining the upstream side of the dam with ¾ inch to 1¼ inch gravel 1 foot in depth is a suggested option.
- ▲ Log Check Dams
  - ▲ Logs must be firmly embedded in the ground; 18 inches is the recommended minimum depth.
- Sand Bag Check Dams
  - A Be sure that bags are all securely sealed.
  - Place bags by hand or use appropriate machinery.

#### Maintenance

- ▲ Inspect regularly and after every storm. Make any repairs necessary to ensure the measure is in good working order.
- Accumulated sediment and leaves should be removed from behind the dams and erosive damage to the channel restored after each storm or when ½ the original height of the dam is reached.
- All accumulated material removed from the dam shall be properly disposed.
- A Replace stone as necessary for the dams to maintain their correct height.
- ▲ If sand bags are used, the fabric of the bags should be inspected for signs of deterioration.
- Remove stone or riprap if grass lined channel requires mowing.
- ▲ Check dams should remain in place and operational until the drainage area and channel are completely stabilized or up to 30 days after the permanent site stabilization is achieved.
- A Restore the channel lining or establish vegetation when each check dam is removed.

#### Cost

▲ The costs for the construction of check dams varies with the material used. Rock costs about \$100 per dam. Log check dams are usually slightly less expensive than rock check dams. All costs vary depending on the width of channel to be checked.

#### Sources

- ▲ Commonwealth of Virginia County of Fairfax, 1987. 1987 Check List For Erosion And Sediment Control Fairfax County, Virginia.
- ▲ State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community Development.
- Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.
- Storm Water Management Manual for the Puget Sound Basin. State of Washington, Department of Ecology, 1991.
- Cost Data:
  - ▲ Draft Sediment and Erosion Control, An Inventory of Current Practices, April 20, 1990. Prepared by Kamber Engineering for the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, Washington, D.C. 20460.

#### EARTH DIKE

September 1992

#### Design Criteria

- Earth dikes are appropriate in the following situations:
  - To divert upslope flows away from disturbed areas such as cut or fill slopes and to divert runoff to a stabilized outlet
  - To reduce the length of the slope runoff will cross
  - At the perimeter of the construction site to prevent sediment-laden runoff from leaving the site
  - To direct sediment-laden runoff to a sediment trapping device.
- When the drainage area to the earth dike is greater than 10 acres, the United States Department of Agriculture - Soil Conservation Service (USDA - SCS) standards and specification for diversions should be consulted.
- Table 4 contains suggested dike design criteria.

| Drainage Area | Under 5 Acres | Between 5-10 Acres |
|---------------|---------------|--------------------|
| Dike Height   | 18 inches     | 30 inches          |
| Dike Width    | 24 inches     | 36 inches          |
| Flow Width    | 4 feet        | 6 feet             |
| Flow Depth    | 12 inches     | 24 inches          |
| Side Slopes   | 2:1 or less   | 2:1 or less        |
| Grade         | 0.5% - 10%    | 0.5% - 10%         |

#### TABLE 4. SUGGESTED DIKE DESIGN CRITERIA

- ▲ The base for a dike 18 inches high and 24 wide at the top should be between 6 feet 8 feet. The height of the dike is measured on the upslope side.
- ▲ If the dike is constructed using coarse aggregate the side slopes should be 3:1 or flatter.
- ▲ The channel formed behind the dike should have a positive grade to a stabilized outlet. The channel should be stabilized with vegetative or other stabilization measures.
- Grades over 10% may require an engineering design.
- Construct the dike where it will not interfere with major areas of construction traffic so that vehicle damage to the dike will be kept to the minimum.
- ▲ Diversion dikes should be installed prior to the majority of soil disturbing activity, and may be removed when stabilization of the drainage area and outlet are complete.

#### Materials

- ▲ Compacted Soil
- Coarse Aggregate

#### **Construction Specifications**

- Clear the area of all trees, brush, stumps or other obstructions.
- ▲ Construct the dike to the designed cross-section, line and grade making sure that there are no irregularities or bank projections to impede the flow.

EARTH DIKE

- A The dike should be compacted using earth moving equipment to prevent failure of the dike.
- The dike must be stabilized as soon as possible after installation.

#### Maintenance

- Inspect regularly and after every storm, make any repairs necessary to ensure the measure is in good working order.
- Inspect the dike, flow channel and outlet for deficiencies or signs of erosion.
- If material must be added to the dike be sure it is properly compacted.
- Reseed or stabilize the dike as needed to maintain its stability regardless if there has been a storm event or not.

#### Cost

▲ The cost associated with earth dike construction is roughly \$4.50 per linear foot which covers the earthwork involved in preparing the dike. Also added to this cost is approximately \$1.00 per linear foot for stabilization practices. It should be noted that for most construction projects, the cost of earth dike construction is insignificant compared to the overall earthwork project costs.

#### Sources

- ▲ Commonwealth of Virginia County of Fairfax, 1987. 1987 Check List For Erosion And Sediment Control Fairfax County, Virginia.
- ▲ State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community Development.
- Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.
- ▲ Storm Water Management Manual for the Puget Sound Basin. State of Washington, Department of Ecology, 1991.
- Cost Data:
  - ▲ Draft Sediment and Erosion Control, An Inventory of Current Practices, April 20, 1990. Prepared by Kamber Engineering for the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, Washington, D.C. 20460.

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DRAINAGE SWALE

September 1992

#### Design Criteria

- Temporary drainage swales are appropriate in the following situations:
  - ▲ To divert upslope flows away from disturbed areas such as cut or fill slopes and to divert runoff to a stabilized outlet
  - ▲ To reduce the length of the slope runoff will cross
  - At the perimeter of the construction site to prevent sediment-laden runoff from leaving the site
  - To direct sediment-laden runoff to a sediment trapping device.
- ▲ When the drainage area is greater than 10 acres the United States Department of Agriculture Soil Conservation Service (USDA SCS) standards and specifications for diversions should be consulted.
- ▲ Swales may have side slopes ranging from 3:1 to 2:1.
- ▲ The minimum channel depth should be between 12 inches and 18 inches.
- ▲ The minimum width at the bottom of the channel should be 24 inches and the bottom should be level.
- ▲ The channel should have a uniform positive grade between 2% and 5%, with no sudden decreases where sediments may accumulate and cause overtopping.
- ▲ The channel should be stabilized with temporary or permanent stabilization measures.
- ▲ Grades over 10% may require an engineering design.
- Construct the swale away from areas of major construction traffic.
- Runoff must discharge to a stabilized outlet.

#### Materials

- Grass seed for temporary or permanent stabilization
- Sod
- Coarse aggregate or riprap

#### **Construction Specifications**

- Clear the area of all trees, brush, stumps or other obstructions.
- Construct the swale to the designed cross-section, line and grade making sure that there are no irregularities or bank projections to impede the flow.
- ▲ The lining should be well compacted using earth moving equipment and stabilization initiated as soon as possible.
- Stabilize lining with grass seed, sod, or riprap.
- Surplus material should be properly distributed or disposed of so that it does not interfere with the functioning of the swale.
- ▲ Outlet dissipation measures should be used to avoid the risk of erosion.

#### Maintenance

- ▲ Inspect regularly and after every storm, make any repairs necessary to ensure the measure is in good working order.
- A Inspect the flow channel and outlet for deficiencies or signs of erosion.
- ▲ If surface of the channel requires material to be added be sure it is properly compacted.
- A Reseed or stabilize the channel as needed to prevent erosion during a storm event.

DRAINAGE SWALE Cost ▲ Drainage swale can vary widely depending on the geometry of the swale and the type of lining ▲ Grass \$3.00/square yard A Sod \$4.00/square year ▲ Riprap \$45.00/square year ▲ No matter which liner type is used, the entire swale must be stabilized (i.e., seeded and mulched Sources Commonwealth of Virginia - County of Fairfax, 1987. 1987 Check List For Erosion And Sediment

- ▲ State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community
- ▲ Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.
- ▲ Storm Water Management Manual for the Puget Sound Basin. State of Washington, Department
- ▲ Cost Data:
  - Draft Sediment and Erosion Control, An Inventory of Current Practices, April 20, 1990. Prepared by Kamber Engineering for the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, Washington, D.C. 20460.

#### TEMPORARY SEDIMENT TRAP

September 1992

Design Criteria

- Temporary sediment traps are appropriate in the following locations:
  - A At the outlet of the perimeter controls installed during the first stage of construction.
  - At the outlet of any structure which concentrates sediment-laden runoff, e.g. at the discharge point of diversions, channels, slope drains, or other runoff conveyances.
  - Above a storm water inlet that is in line to receive sediment-laden runoff.
- Temporary sediment traps may be constructed by excavation alone or by excavation in combination with an embankment.
- Temporary sediment traps are often used in conjunction with a diversion dike or swale.
- ▲ The drainage area for the sediment trap should not exceed 5 disturbed acres.
- A The trap must be accessible for ease of regular maintenance which is critical to its functioning
- Sediment traps are temporary measures and should not be planned to remain in place longer than between 18 and 24 months.
- ▲ The capacity of the sedimentation pool should provide storage volume for 3,600 cubic feet/acre
- The outlet should be designed to provide a 2 foot settling depth and an additional sediment storage area 11/2 feet deep at the bottom of the trap.
- The embankment may not exceed 5 feet in height.
- ▲ The recommended minimum width at the top of the embankment is between 2 feet and 5 feet.
- ▲ The minimum recommended length of the weir is between 3 feet and 4 feet, and the maximum is 12 feet in length.
- ▲ Table 5 illustrates the typical relationship between the embankment height, the height of the outlet (H\_,), and the width (W) at the top of the embankment.

| · · · · · · · · · · · · · · · · · · | H.  | W   |
|-------------------------------------|-----|-----|
| 1.5                                 | 0.5 | 2.0 |
| 2.0                                 | 1.0 | 2.0 |
| 2.5                                 | 1.5 | 2.5 |
| 3.0                                 | 2.0 | 2.5 |
| 3.5                                 | 2.5 | 3.0 |
| 4.0                                 | 3.0 | 3.0 |
| 4.5                                 | 3.5 | 4.0 |
| 5.0                                 | 4.0 | 4.5 |

### TABLE 5. EMBANKMENT HEIGHT vs. OUTLET HEIGHT AND WIDTH

#### Materials

- Filter fabric (see fabric requirement for silt fence)
- Coarse aggregate or riprap 2 inches to 14 inches in diameter .
- Washed gravel ¾ to 1½ inches in diameter
- Seed and mulch for stabilization

#### **Construction Specifications**

- Clear the area of all trees, brush, stumps or other obstructions.
- · Construct the embankment in 8 inch lifts compacting each lift with the appropriate earth moving equipment. Fill material must be free of woody vegetation, roots, or large stones.
- ▲ Keep cut and fill slopes between 3:1 and 2:1 or flatter.
- ▲ Line the outlet area with filter fabric prior to placing stone or gravel.
- Construct the gravel outlet using heavy stones between 6 inches and 14 inches in diameter and face the upstream side with a 12 inch layer of 34 inch to 11/2 inch washed gravel on the upstream side.
- Seed and mulch the embankment as soon as possible to ensure stabilization.

#### Maintenance

- Inspect regularly and after every storm. Make any repairs necessary to ensure the measure is in \* good working order.
- ▲ Frequent removal of sediment is critical to the functioning of this measure. At a minimum sediment should be removed and the trap restored to its original volume when sediment reaches 1/4 of the original volume.
- Sedimenteremoved from the trap must be properly disposed.
- Check the embankment regularly to make sure it is structurally sound.

#### Cost

Costs for a sediment trap vary widely based upon their size and the amount of excavation and stone required, they usually can be installed for \$500 to \$7,000.

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- ▲ Commonwealth of Virginia County of Fairfax, 1987. 1987 Check List For Erosion And Sediment Control - Fairfax County, Virginia.
- ▲ State of North Carolina, 1988. Erosion and Sediment Control Planning and Design Manual. North Carolina Sedimentation Control Commission, Department of Natural Resources and Community Development.
- ▲ Maryland Department of the Environment, 1991. 1991 Maryland Standards And Specifications For Soil Erosion And Sediment Control - Draft.
- ▲ Storm Water Management Manual for the Puget Sound Basin. State of Washington, Department of Ecology, 1991.
- Cost Data:
  - ▲ Draft Sediment and Erosion Control, An Inventory of Current Practices, April 20, 1990. Prepared by Kamber Engineering for the U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, Washington, D.C. 20460.

### TECHNICAL SPECIFICATIONS SEEDING

Description. This item shall consist of furnishing and applying lime, fertilizer, seed, mulch cover, asphalt, and water according to these specifications at locations shown on the plans or as directed.

The work under this item shall be accomplished as soon as practicable after the grading in an area has been completed in order to deter erosion of the roadway and siltation of streams.

Materials. (a) Lime shall be agricultural grade ground limestone or equivalent as approved by the Engineer.

(b) Fertilizer shall be a commercial grade, uniform in composition, free flowing, and suitable for application with mechanical equipment. It shall be delivered to the site in labeled containers conforming to current Arkansas fertilizer laws and bearing the name, trademark, and warranty of the producer.

(c) Except as modified herein, the seed shall comply with the current rules and regulations of the Arkansas State Plant Board and the germination test shall be valid on the date the seed is used. It shall have a minimum of 98% pure seed and 85% germination by weight, and shall contain no more than 1% weed seeds. A combined total of 110 noxious weed seeds shall be the maximum amount allowed per kg (50 per pound) of seed with the following exceptions: Johnson grass seed, wild onion seed, wild garlic seed, field bindweed seed, nut grass seed, sickle pod seed, sesbania seed, indigo seed, morning-glory seed, and cocklebur seed will not be allowed in any amount. Seed shall be furnished in sealed, standard containers. Seed that has become wet, moldy, or otherwise damaged in transit or in storage will not be acceptable.

Legumes shall be inoculated with an approved culture as recommended by the manufacturer, just prior to seeding.

Seed shall be composed of the varieties and amounts by weight as shown below.

Seed planted between June 16 and August 31 may require more water than that specified in subsection (f) in order to survive. Therefore, watering shall continue after germination until growth is established.

The seeding mixture may be altered by the Engineer in selected areas with no adjustment in contract price. The alteration shall be on an equivalent cost basis.

B-21

| Seed Variety:                    |               | kg/ha  | lbs./acre |
|----------------------------------|---------------|--------|-----------|
|                                  | Group         | Ι      |           |
| Distr                            | icts 1, 2, 5, | 6, and | 10        |
| March 1 - June 15                |               |        |           |
| Bermuda Grass (Common) unhul     | led           | 10     | 10        |
| Bermuda Grass (Common) hulled    | 1             | 5      | 5         |
| Lespedeza (Kobe)                 |               | 40     | 35        |
| June 16 - August 31              |               |        |           |
| Bermuda Grass (Common) unhul     | led           | 10     | 10        |
| Bermuda Grass (Common) hulled    |               | 5      | 5         |
| Weeping Love Grass (Eragrostis ( | Curvula)      | 10     | 10        |
| September 1 - February 28/29     | ,             |        |           |
| Wheat                            |               | 35     | 30        |
| Crimson Clover (Dixie)           |               | 20     | 20        |
| Bermuda Grass (Common) unhull    | ed            | 20     | 20        |
| Lespedeza (Kobe)                 |               | 40     | 35        |

#### Group II

|                             | Districts 3, 4, | 7, 8, a | nd 9 |
|-----------------------------|-----------------|---------|------|
| March 15 - June 15          | 01047           |         |      |
| Bermuda Grass (Common)      | inhulled        | 10      | 10   |
| Bermuda Grass (Common) I    | nulled          | 5       | 5    |
| Lespedeza (Korean)          |                 | 35      | 30   |
| June 16 - August 31         |                 |         |      |
| Bermuda Grass (Common) u    | inhulled        | 10      | 10   |
| Bermuda Grass (Common) h    | nulled          | 5       | 5    |
| Weeping Love Grass (Eragro  | ostis Curvula)  | 10      | 10   |
| September 1 - March 14      | ,               |         |      |
| Annual Rye Grass or other C | Cereal Grasses  | 35      | 30   |
| Crimson Clover (Dixie)      |                 | 20      | 20   |
| Bermuda Grass (Common) u    | nhulled         | 20      | 20   |
| Lespedeza (Korean)          |                 | 35      | 30   |
| 40 02 S                     |                 |         |      |

(d) Mulch cover shall consist of straw from threshed rice, oats, wheat, barley, or rye; of wood excelsior; or of hay obtained from various legumes or grasses, such as lespedeza, clover, vetch, soybeans, bermuda, carpet sedge, bahia, fescue, or other legumes or grasses; or a combination thereof. Mulch shall be dry and reasonably free from Johnson grass or other noxious weeds, and shall not be excessively brittle or in an advanced state of decomposition. All material will be inspected and approved prior to use.

(e) Tackifiers. Tackifiers used in mulch anchoring shall be of such quality that the mulch cover will be bound together to form a cover mat that will stay

intact under normal climatic conditions.

All tackifiers used shall have prior approval or be listed on the Owner's Qualified Products List (QPL).

(f) Water shall be of irrigation quality and free of impurities that would be detrimental to plant growth.

Construction Requirements. (a) Seedbed Preparation. Areas to be seeded shall be dressed to the shape and section shown on the plans. If the plans call for replacing topsoil, this shall be done before any preparations for seeding. Before beginning the seedbed preparation, soil samples shall be obtained from each major soil area (such as cut backslope or fill foreslope) by the Engineer for lime requirement analysis.

Lime, at the rate determined by the lime requirement test, shall be uniformly spread on areas to be seeded prior to their being roughened or scarified. The seedbed shall be thoroughly pulverized by means of disk harrows or other approved methods, thoroughly mixing lime and soil to a depth of not less than 100 mm (4") (50 mm [2"] for slopes 4:1 or steeper) below finish slope elevation. Regardless of the pulverizing method used, the soil shall be broken with the contour of the slope. Objectionable foreign matter shall be removed and the soil left in a suitable horticultural condition to receive the fertilizer and seed. Water may be applied before, during, and after seedbed preparation, as directed by the Engineer, in order to maintain the desired moisture content in the soil.

When no lime is required, seedbed preparation shall be accomplished as specified above regardless of the method used in the distribution of fertilizer, seed, and mulch cover.

(b) Fertilization. Fertilizer shall be applied at the rate of 900 kg/ha (800 pounds per acre) of 10-20-10, or the equivalent amount of plant food. Fertilizer shall be uniformly incorporated into the soil alone or in conjunction with the required lime. If the Contractor so elects, the fertilizer may be drilled into the soil or combined with the seed in the hydro-seeding operation.

(c) Seeding. (1) Broadcasting. Broadcast sowing may be accomplished by hand seeders or by approved power equipment. Either method shall result in uniform distribution and no work shall be performed during high winds. The area seeded shall be lightly firmed with a cultipacker immediately after broadcasting.

(2) Drilled in Rows. When seed is drilled in rows, the rows shall be horizontal (parallel to contour lines). Fertilizer and seed shall not be drilled together and shall not be mixed.

(3) Hydro-seeding. If a hydro-seeder is used for seeding, fertilizer and seed may be incorporated into one operation but a maximum of 95 kg of fertilizer shall be permitted for each 1500 L (maximum of 800 pounds for each 1500 gallons) of water. If the Contractor so elects, the fertilizer may be applied during preparation of the seedbed. The area shall be lightly firmed with a cultipacker immediately before hydro-seeding.

(d) Mulch Cover. Mulch cover shall be applied at the rate of 4500 kg/ha (4000 pounds per acre) immediately after seeding and shall be spread uniformly over the entire area by approved power mulching equipment. When approved by the Engineer, the Contractor may use hand methods to apply mulch cover to small or inaccessible areas. If the Contractor so elects, an approved mulching machine may be used whereby the application of mulch cover and tackifier may be combined into one operation. If this method is used, no change in application rates will be allowed. In its final position, the anchored mulch shall be loose enough to allow air to circulate, but compact enough to partially shade the ground and reduce the impact of rainfall on the surface of the soil. Care shall be taken to prevent tackifier materials from discoloring or marking structures, pavements, utilities, or other plant growth. Removal of any objectionable discoloration shall be at no cost to the Owner.

(e) Mulch Anchoring. Immediately following or during the application of the mulch cover on seeded areas, the mulch shall be anchored by one of the following methods:

신 문제 한 문제

Tracking or Roller Method. The mulch shall be effectively pressed into the soil using steel cleated track or cleated roller equipment. The anchoring shall be performed so that the grooves formed are perpendicular to the flow of water down backslopes and foreslopes. The equipment and method used shall produce acceptable results.

Asphalt Tackifier. Asphalt shall be applied at the rate of approximately 0.2 L/sq m (0.05 gallon per square yard). Application shall be made using a pressure distributor to ensure constant and uniform distribution. The use of asphalt may be reduced or eliminated by the Engineer at selected locations.

Other Tackifiers. Tackifiers listed on the QPL shall be applied according to the rates recommended in the QPL.

The method used shall be at the Contractor's option unless otherwise specified or directed. In lieu of separate application of tackifiers, the Contractor may use equipment that combines the application of mulch and tackifier into one operation. Application shall be at the specified rates.

(f) Water. After application of the mulch cover, water shall be applied in sufficient quantity, as directed by the Engineer, to thoroughly moisten the soil to the depth of pulverization and then as necessary to germinate the seed.

When directed by the Engineer, the Contractor shall apply water in an amount such that, in conjunction with any rainfall, the seeded and mulched areas will receive an amount equivalent to a minimum of 25 mm (1") of water each week beginning the week after seeding and continuing for a minimum of three (3) weeks. (25 mm [1"] of water is equivalent to 250 cu m or 250 kL per ha [27 M Gallons per acre].)

Failure to meet this requirement will result in a partial withholding and/or recovery of payments for the seeding and mulch cover. Additional work and materials required due to the Contractor's negligence in maintaining completed work or failure to water grass as directed shall be accomplished at no cost to the

Department. If payments are withheld and subsequently a stand of grass satisfactory to the Engineer develops, payments will be released.

The Contractor shall have on the project before seeding is started such equipment of adequate capacity and a suitable water supply to achieve the desired moisture level in the soil. The time required for application of water will not be included in the computations of contract time for completion of the project provided all other work under the Contract has been completed.

(g) For areas seeded in the September 1-February 28/29 or September 1-March 14 season, final acceptance will be delayed until an acceptable stand of grass of uniform color and density is established to the satisfaction of the Engineer. The soil condition shall be suitable for preparation of the seedbed according to the above requirements in the areas to be seeded during the September 1-February 28/29 or September 1-March 14 season.

(h) Before final acceptance, the Contractor shall repair or replace any seeding or mulching that is defective or damaged. If the defect or damage is due to the Contractor's negligence, the work shall be done at no additional cost to the Owner. If the damage or defect is not the Contractor's fault, the work will be measured and paid for according to these specifications.



#### NOTICE OF INTENT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH LARGE CONSTRUCTION ACTIVITY AUTHORIZED UNDER NPDES GENERAL PERMIT ARR150000

The enclosed form may be used to obtain coverage under NPDES general permit ARR150000 for discharges of stormwater associated with large construction activity at any site or common plan of development or sale that will result in the disturbance of five (5) or more acres of total land area.

Return the completed form to:

Arkansas Department of Environmental Quality Permit Branch, Office of Water Quality 5301 Northshore Drive North Little Rock, AR 72118

Unless notified by the Director to the contrary, dischargers who submit a complete Notice of Intent in accordance with the requirements of this permit are authorized to discharge stormwater from construction sites under the terms and conditions of this permit two weeks after the date the NOI is postmarked.

As required by ADEQ Regulation No. 9, an initial permit fee of \$200.00 must be submitted with this NOI. Subsequent annual fees of \$200.00 per year will be billed by the Department. Failure to remit the required permit fee may be grounds for the Director to deny coverage under this general permit, and to require the owner or operator to apply for an individual NPDES permit.

## **NOTE:** A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED PRIOR TO SUBMITTAL OF THIS NOI PER PART II.A OF THE GENERAL PERMIT. THE SWPPP MUST BE SUBMITTED FOR REVIEW ALONG WITH THIS NOI FOR LARGE CONSTRUCTION SITES PER PART I.B.6.B OF THE GENERAL PERMIT.

For additional information please contact:

Stormwater Runoff Engineer Ph.: (501) 682-0623 Fax: (501) 682-0880 website: www.adeq.state.ar.us

#### **INSTRUCTIONS**

- I. <u>How to Determine Latitude and Longitude:</u>
  - 1. If a physical address is known go to <u>www.terraserver-usa.com</u>.
  - 2. Select Advanced Find
  - 3. Select Address
  - 4. Input address
  - 5. Click on Aerial Photo
  - 6. Click on the Info link at the top of the page
  - 7. Note the Latitude and Longitude are in Decimal Coordinates.
  - 8. Go to <u>www.geology.enr.state.nc.us/gis/latlon.html</u> to convert coordinates to Degrees, Minutes, and Seconds.

NOTE: If a physical address does not exist you may find the coordinates in the Legal Description of the property.



#### II. How to Determine your Ultimate Receiving Waters:

- 1. Locate the county of your project.
- 2. Find the numbered segment overlaying the county. For example 2C overlays most of Saline County.
- 3. Match the number from the segment to the one of the numbered Ultimate Receiving Waters. For example: A project located in Western Saline County is in segment 2C. The "2" determines that the Ultimate Receiving Water for the project is the Ouachita River.



III. How to determine if the receiving stream is on the approved Arkansas 303(d) List:

- 1. Go to www.epa.gov/owow/tmdl
- 2. Using the map of the United States, click on Arkansas.
- 3. Using the "Waters Listed by Waterbody Type" links search for your receiving stream.
- 4. If your receiving stream is not listed, than your receiving stream is not on the approved Arkansas 303(d) List.
- 5. If your receiving stream is listed, then click on the links for that receiving stream to determine the pollutants causing the impairment. If the receiving stream is listed as an impaired for any pollutant, you must incorporate into the SWPPP any additional BMPs needed to sufficiently protect water quality. The Department may require additional BMPs.
- 6. Once a determination is made that your receiving stream is on the approved Arkansas 303(d) List, than you must determine if the receiving stream has an approved TMDL by using the "Approved TMDLs by Pollutant since January 1, 1996" links toward the bottom of the webpage.
  - i. If the approved TMDL has established a specific numeric allocation that would apply to a project's discharges, you will be required to incorporate the allocation into your SWPPP and implement steps to meet the allocation.
  - ii. If the approved TMDL has assigned to the facility, quarterly monitoring must be submitted to the Department demonstrating compliance with the assigned Waste Load Allocation.
- IV. How to obtain information in regard to Endangered Species:

Contact the U.S. Fish and Wildlife Service at (501) 513-4470 or www.fws.gov/arkansas-es.

OFFICE OF WATER QUALITY 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623 / FAX 501-682-0910 www.adeq.state.ar.us Large Construction NOI / Revision date 09/2014

| Arkansas Departmen<br>Permits Branch, (<br>5301 Nor<br>North Little<br>(501  | t of Environmental Quality<br>Office of Water Quality<br>rthshore Drive<br>2 Rock, AR 72118<br>) 682-0623                            |
|--|--|
| FOR DISCHARGERS O<br>ASSOCIATED WITH LARC<br>AUTHORIZED UNDER NPDF   | DF STORMWATER RUNOFF<br>GE CONSTRUCTION ACTIVITY<br>ES GENERAL PERMIT ARR150000  |
| Application Type:NewRenewal(PerI.PERMITTEE/OPERATOR INFORMATION  | mit Tracking Number ARR()  |
| Permittee (Legal Name): Springhill Hwy 5 Deve  | lopments LLC Operator Type:  |
| Permittee Mailing Address: 816 East Oak Street   | STATE PARTNERSHIP  |
| Permittee City: Conway   | FEDERAL CORPORATION*   |
| Permittee State: AR Z  | Zip:   72032   SOLE PROPRIETORSHIP   |
| Permittee Telephone Number:501-428-3866  | PUBLIC OTHER   |
| Permittee Fax Number   |  |
| Permittee E-mail Address <u>masseydevelopmentgro</u><br>* The legal name of the Permittee must be identical to the name listed with the A      | <u>vup@hotmail.com</u> *State of Incorporation: <u>AR</u>  |
|  | -  |
| Invoice Mailing Address: <u>816 East Oak Street</u><br>III. FACILITY/PROJECT CONSTRUCTION SITE INFO<br>Project Name: <u>Hillcrest Addition</u> | Telephone:         501-428-3866           RMATION         1 acre = 43,560 square feet           Contact Person:         Lance Massey |
| Project County: Saline   | Project Physical Address: Springhill Road, 0.4 miles North of the intersection<br>of Springhill Rd. and Hurricane Gardens Dr.        |
| Directions to the Project: <u>123. Continue 1.9 miles, then turn</u>   | Project City: Bryant Zip: 72022  |
| Right onto Springhill Road. Construction entrance to the Project is on the left<br>in approximately 1.4 miles                                  | Telephone Number: 501-428-3866   |
| Project Estimated  | Total amount of soil to be disturbed   |
| Project Estimated  | Total Project Acreage  |
| End Date: September 2025   | (Estimate to nearest ½ acre): 4.89 ac  |
| Project Latitude: 34 degrees   | <u>37</u> minutes <u>53.93</u> seconds N   |
| Project Longitude: degrees   | <u>30</u> minutes <u>55.57</u> seconds W   |
| Type of Project: Subdivision $\square$ School $\square$  | Other:   |
| Facility SIC Code(s): 1521   | NAICS Code (s): 236115   |
| Is the Project part of a larger common plan of development   | or sale? Yes 🛛 No 🗌  |
| Linear Project Starting Coordinates (if applicable):   | Linear Project Ending Coordinates (if applicable):   |
| Latitude: Longitude:   | Latitude: Longitude:   |
| OFFICE OF<br>5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, A<br>www.a<br>Large Construction N   | WATER QUALITY<br>ARKANSAS 72118 / PHONE 501-682-0623 / FAX 501-682-0910<br>deq.state.ar.us<br>JOI / Revision date 09/2014            |

#### **IV. DISCHARGE INFORMATION**

| ce into Mill Creek; thence into Arkansas River):<br>e into Hurricane Creek; thence into the Saline River; the |
|---|
| a River 🛛 Arkansas River 🔲  |
| ancis River 🔲 Mississippi River 🗌   |
| ty of Bryant  |
| ng, trenching, stabilizing, sloping, etc.) ?Yes <u>x</u> No   |
| ion (STAA) from the Department?YesNo  |
| es <u>x</u> No  |
| eers?Yes No   |
| blease contact the U.S. Army Corps of Engineers,<br>low is the contact information for the three U.S. Army    |
| e.army.mil<br><u>il</u><br>y.mil  |
|   |
| AR00  |
| ARG   |
|   |

NPDES General Industrial Stormwater Permit Number (If Applicable): ARR00

NPDES General Construction Stormwater Permit Number (If Applicable): ARR15

#### VI. **OTHER INFORMATION:**

V.

| Location of SWPPP on the  |                        |                           |                |                   |
|---------------------------|------------------------|---------------------------|----------------|-------------------|
| Construction Site:        | At Construction Entran | ce                        |                |                   |
| Consultant Company:       | Lemons Engineering Co  | onsultants, Inc.          |                |                   |
| Consultant Contact Name:  | Tim Lemons             |                           |                |                   |
| Consultant Email Address: | eburke@lemonsenginee   | ering.com                 |                |                   |
| Consultant Address:       | 204 Cherry Street      | City: Cabot               | State: AR      | Zip: <u>72023</u> |
| Consultant Phone Number:  | 1-501-605-7565         | Consultant Fax<br>Number: | 1-501-941-0959 |                   |

OFFICE OF WATER QUALITY

5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623 / FAX 501-682-0910 www.adeq.state.ar.us

Large Construction NOI / Revision date 09/2014

#### **VII. CERTIFICATION OF OPERATOR**

"I certify that, if this facility is a corporation, it is registered with the Secretary of State of Arkansas. Please provide the full name of corporation if different than that listed in Section I above."

"I certify that as a whole the stormwater discharge(s), and the construction and implementation of Best Management Practices (BMP's) to control stormwater runoff, are not likely to adversely affect species of critical habitat for a listed species."

"I certify that a stormwater pollution prevention plan has been prepared for this facility in accordance with Part II.A of this permit, which provides for, or will provide for, compliance with local sediment and erosion plans, local stormwater permits or stormwater management plans, in accordance with Part II.A.4.c of this permit."

"I certify that the cognizant official designated in Part VIII of this Notice of Intent is qualified to act as a duly authorized representative under the provisions of 40 CFR 122.22(b). If no cognizant official has been designated, I understand that the Department will accept reports signed by the applicant"

"I certify under penalty of law that this document and all attachments such as Inspection Form were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

| Lance Massey  | 1 itie                        | Developer/Construction Manager 7-9-2024 |                                |
|---|-------------------------------|---|--------------------------------|
| Responsible Official Signature:   | Date                          |   |                                |
| /III. COGNIZANT OFFICIAL  |                               |   |                                |
| Cognizant Official Printed Name: <u>Lance Massey</u>  |                               | Title:                                  | Developer/Construction Manager |
| Cognizant Official Signature:   | Те                            | lephone:                                | 501-428-3866                   |
| X PERMIT REQUIREMENT VERIFICATION   |                               |   |                                |
| X. PERMIT REQUIREMENT VERIFICATION<br>Please check the following to verify completion of perr   | nit requirements.             |   |                                |
| X. PERMIT REQUIREMENT VERIFICATION<br>Please check the following to verify completion of perr<br>Submittal of Complete NOI?   | nit requirements.<br>Yes      | No*                                     |                                |
| X. PERMIT REQUIREMENT VERIFICATION<br>Please check the following to verify completion of perr<br>Submittal of Complete NOI?<br>Submittal of Required Permit Fee?                  | nit requirements.<br>Yes<br>⊠ | No*                                     |                                |
| X. PERMIT REQUIREMENT VERIFICATION<br>Please check the following to verify completion of perr<br>Submittal of Complete NOI?<br>Submittal of Required Permit Fee?<br>Check Number: | nit requirements.<br>Yes<br>⊠ | No*                                     |                                |

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# **Drainage Report**

For

# **Hillcrest Addition**

# Springhill Road Bryant, Arkansas

July 8, 2024

### Prepared By:



Lemons Engineering Consultants, Inc. 204 West Cherry Street Cabot, Arkansas 72023 (501) 605-7565 arstrep43@gmail.com

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## **Project Information**

| Project Title:       | Hillcrest Addition   |
|----------------------|--|
| Project Description: | 13 lot single family development located on the West side of<br>Springhill Road, North of and adjacent to Hurricane Gardens,<br>Bryant, Arkansas (address: 3927 Springhill Road) |
| Owner/Developer:     | Springhill – Hwy 5 Development, LLC<br>816 East Oak Street<br>Conway, Arkansas 72032   |
| Engineer of Record:  | Lemons Engineering Consultants, Inc.<br>Tim Lemons, PE<br>204 Cherry Street<br>Cabot, Arkansas 72023<br>(501) 605-7565   |

## **General Information**

This proposed development shall include 13 single family lots. This property is essentially the Northern Most tract of land within the city limits of Bryant as they presently exist. The property to the North of the subject site is developed with duplex style residential structures. The property to the South is an established subdivision (Hurricane Gardens). The property drains North to South. There have been several reports of drainage issues by the residents of Hurricane Gardens. At present, the drainage from the subject property, and that to the north of the subject property, flows onto Hurricane Gardens. No detention exists on the property located north of the subject property. In this report, we will design a detention facility to accommodate the possible increase in flow for the subject property (Hillcrest Addition). Also, our goal is to divert a large majority of the drainage falling onto Hurricane Gardens. This diversion will force the runoff to the proposed detention facility on Hillcrest Addition as shown in the civil plans.

### **Project Vicinity Map**



### **Hydrological Computations**

For this analysis, we will use the Rational Method in determining culvert sizes, culvert capacity computations, and other related issues on site. The total watershed size for this development is estimated at 10.57 acres. Attention is called to the Watershed Map included in this report. As per the Rational Method, the following equation is used:

Q = C x I x A, where: Q = Flowrate (cfs) C = Runoff Coefficient I = Intensity (from tables) A = area (acres)

The selection of the appropriate intensity is based on the estimated time of concentration (tc).

### **Determination of Runoff Coefficients "C"**

In determining the Pre Construction C, we must consider the property to the North that is developed, and discharging onto the subject property. We will use an undeveloped C of 0.30, and a developed C of 0.60. The Pre Construction C is based on the following equation:

CwPRE = (on site area)(0.30) + (off site area)(0.60) Total Area

$$CwPRE = (4.89)(0.30) + (9.38)(0.60) = 0.50$$
  
14.27

This value of 0.50 shall be used for the Pre Construction C in the Detention Design. The Post Construction C shall be 0.60. This Post Construction C shall also be used for the culvert design.

### **Determination of Intensity Values "I"**

For this analysis, we will use the Intensity – Duration - Frequency Chart from the Little Rock Drainage Manual. Whereas the calculated value of I shall be used for Detention, we will use a tc (time of concentration) of 5 min for the culverts to also provide a conservative value.



SOURCE : HYDRO 35 & T.P. No. 40

# **Determination of Flowrates for Culverts & Spreadflow**

Attention is called to the following chart which provides C, Intensity, Area, and Flowrate (Q) of each Tract. Again, the Rational Method is being used for all basins. Attention is called to the Maps on the next two pages for a detailed drawings showing the various watershed tracts. The 25 year storm event will be used for culvert design.

| Tract | С   | I       | Α    | Q     |
|-------|-----|---------|------|-------|
|       |     | (in/hr) | (ac) | (cfs) |
|       |     |         |      |       |
| Ao    | 0.6 | 8.5     | 2.67 | 13.62 |
| Во    | 0.6 | 8.5     | 1.46 | 7.45  |
| Со    | 0.6 | 8.5     | 1.68 | 8.57  |
| Do1   | 0.6 | 8.5     | 3.13 | 15.96 |
| Do2   | 0.6 | 8.5     | 0.43 | 2.19  |
| A1    | 0.6 | 8.5     | 0.54 | 2.75  |
| A2    | 0.6 | 8.5     | 0.29 | 1.48  |
| A3    | 0.6 | 8.5     | 0.25 | 1.28  |
| B1    | 0.6 | 8.5     | 0.47 | 2.40  |
| B2    | 0.6 | 8.5     | 0.33 | 1.68  |
| C1    | 0.6 | 8.5     | 0.49 | 2.50  |
| C2    | 0.6 | 8.5     | 0.36 | 1.84  |
| D1    | 0.6 | 8.5     | 0.44 | 2.24  |
| D2    | 0.6 | 8.5     | 0.32 | 1.63  |
| D3    | 0.6 | 8.5     | 1.15 | 5.87  |



### Drainage Watershed Map (Off Site)



### Drainage Watershed Map (On Site)
# **Culvert Sizing**

All culverts are sized to meet a 25 year storm, and the Rational Method is used. We will use a Manning's Coefficient of 0.012 shall be for all culverts (concrete and HDPE).

## FES 1a

Q = Qao (2/3) = 13.62 (2/3) = 9.08 cfs Use 18" @ 3.5% Q capacity = 9.23 cfs V actual = 11.61 fps (d/D = 0.46)

# Inlet 1

Q = Qao (2/3) + Qa1 = 13.62 (2/3) + 2.75 = 11.83 cfs Use 18" @ 1.1% Q capacity = 12.30 cfs V actual = 7.70 fps (d/D = 0.81)

#### Inlet 2

Q = Inlet 1 + Qa2 = 11.83 + 1.48 = 13.31 cfs Use 18" @ 1.4% Q capacity = 13.32 cfs V actual = 8.69 fps (d/D = 0.85)

## Junction Box 3 (verify capacity)

Q = Qao + Qa1 + Qa2 + Exist 18" in Hurricane Gardens (Culvert in Hurricane Gardens is an 18" ADS at 0.46%, Capacity = 7.95 cfs at d/D=0.85) Q = 13.62 + 2.75 + 1.48 + 7.95 = 25.8 cfs Existing 24" Discharging from Junc Box is 24" ADS @ 5.20% Q capacity = 57.58 cfs *Capacity appears to exist* V actual = 17.47 fps (d/D = 0.48)

# Inlet 4

Q = Qb1 = 2.40 cfs Use 18" @ 0.5% Q capacity = 8.29 cfs V actual = 4.00 fps (d/D = 0.38)

#### Inlet 5

Q = Inlet 4 + Qbo = 2.40 + 7.45 = 9.85 cfs Use 18" @ 1.0% Q capacity = 11.73 cfs V actual = 7.25 fps (d/D = 0.72)

#### Inlet 6

Q = Inlet 5 + Qco = 9.85 + 8.57 = 18.42 cfs Use 18" @ 4.60% Q capacity = 25.15 cfs V actual = 15.18 fps (d/D = 0.65)

#### Inlet 7

Q = Inlet 6 + Qdo1 = 18.42 + 15.96 = 34.38 cfs Use 24" @ 2.0% Q capacity = 35.71 cfs V actual = 12.58 fps (d/D = 0.81)

#### Inlet 8

Q = Inlet 7 + Qd1 = 34.38 + 2.24 = 36.62 cfs Use 18" @ 2.25% Q capacity = 37.76 cfs V actual = 13.30 fps (d/D = 0.79)

# **Street Spreadflow Analysis (Gutter Capacity)**

In this Section of the Report, we will examine how the stormwater in the street gutters may impact in proposed inlets. We will use our 27' street width (back of curb to back of curb), while giving allowances for the vertical portion of the curb on each side. The crown on the street shall be 3.0%. The available street width, to handle the stormwater, has a width of 26'. Our goal is to provide a minimum "non submerged" street width ("clear space") of 8 feet. A Manning's Coefficient of 0.12 is used for the pavement surface. Attention is called to the Appendix for the spreadsheets used to evaluate these areas.

# Check Inlet 1 & 2 – Hillcrest Drive

Inlet 1 Q = QaO(1/2) + Qa1/2 = 13.62 (0.5) + 2.75 (0.5) = 8.19 cfsGutter Slope = 1.50% Height of water (from gutter) = 0.32' Width of water (from gutter) = 10.5' Clear space (half street) = 13.0 - 10.5' = 2.5' Inlet 2 Q = Qa2 = 1.48 cfsGutter Slope = 1.50% Height of water (from gutter) = 0.17' Width of water (from gutter) = 5.5' Clear space (half street) = 13.0 - 5.5' = 7.5' Total Clear Space = 2.5 + 7.5 = 10.0'

# Check Inlet 4 & 5 – Hillcrest Drive

Inlet 4 Q = Qb1 = 2.40 cfsGutter Slope = 0.5%Height of water (from gutter) = 0.26' Width of water (from gutter) = 8.5' Clear space (half street) = 13.0 - 8.5' = 4.5'Inlet 5  $Q = Qbo = 7.45 \, \text{fps}$ Gutter Slope = 0.5% Height of water (from gutter) = 0.39' Width of water (from gutter) = 13.0'Clear space (half street) = 13.0 - 13.0' = 0.0'Total Clear Space = 4.5 + 0.0 = 4.5' **TRY 10 YEAR STORM** Inlet 4 Q = Qb1 = 2.10 cfsGutter Slope = 0.5% Height of water (from gutter) = 0.23' Width of water (from gutter) = 7.5' Clear space (half street) = 13.0 - 7.5' = 5.5'Inlet 5  $Q = Qbo = 6.50 \, \text{fps}$ Gutter Slope = 0.5%Height of water (from gutter) = 0.36' Width of water (from gutter) = 12.0' Clear space (half street) = 13.0 - 12.0' = 1.0'Total Clear Space = 5.5 + 1.0 = 6.5'

# Check Inlet 6 & Across Street – Hillcrest Drive

Inlet 6 Q = Qco = 8.50 cfs Gutter Slope = 2.67% Height of water (from gutter) = 0.30'Width of water (from gutter) = 10.0'Clear space (half street) = 13.0 - 10.0' = 3.0'Across from Inlet 6 Q = Qc1 = 2.50 cfs Gutter Slope = 2.67%Height of water (from gutter) = 0.18'Width of water (from gutter) = 2.5'Clear space (half street) = 13.0 - 2.5' = 10.5'Total Clear Space = 3.0 + 10.5 = 13.5'

# Check Inlet 7 & 8 – Hillcrest

Inlet 7

Q = Qdo1(1/2) = 15.96 (0.5) = 7.98 cfs Gutter Slope = 4.88% Height of water (from gutter) = 0.26' Width of water (from gutter) = 8.5' Clear space (half street) = 13.0 - 8.5' = 4.5'Inlet 8 Q = Qc1 + Qd1 = 2.50 + 2.24 = 4.74 cfs Gutter Slope = 4.88% Height of water (from gutter) = 0.21' Width of water (from gutter) = 7.0' Clear space (half street) = 13.0 - 7.0' = 6.0'Total Clear Space = 4.5 + 6.0 = 10.5'

# **Detention Facility Computations**

In this section, we will size the detention facility located in the Common Area (West side of the project). At the completion of this section, a summary of pre and post flows will be provided. Whereas the time of concentration will be used to determine the intensity (I), the runoff coefficient (C) for each detention area shall be 0.3 for pre construction, and 0.6 for post construction.

# Time of Concentration (tc)

In determining the time of concentration, we must first determine the velocity of the runoff based on the type of ground cover and type of flow. The total tc is a sum of the tc for overland flow, the tc for shallow concentrated flow, and the tc for channelized flow. For this analysis, we will use the US Soil Conservation Service Technical Release #55, "Watercourse Slope vs Velocity" graph. A Pre Construction and Post Construction graph for each watershed is provided on the following pages.

Pre Construction Time of Concentration (tc)



Pre-Construction tc =  $\Sigma(L/(60)(V))$  = 6 min

**Post Construction Time of Concentration (tc)** 



Pre-Construction tc =  $\Sigma(L/(60)(V))$  = 9 min

# Flow Comparisons (Pre and Post Flow)

| HILLTOP (BRYANT)                  |         |             |             |           |          |  |  |
|-----------------------------------|---------|-------------|-------------|-----------|----------|--|--|
| STORMWATER DETENTION CALCULATIONS |         |             |             |           |          |  |  |
|                                   |         |             | Со          | ndition   |          |  |  |
|                                   |         |             | Undeveloped | Developed |          |  |  |
|                                   |         |             |             |           |          |  |  |
| Drainage Area                     | acre    | es)         | 4.97        | 10.57     |          |  |  |
| Runoff Coeffic                    | ient, ( | 0           | 0.50        | 0.60      |          |  |  |
| Time of Conce                     | entrati | on (min)    | 6           | 9         | Kirpich  |  |  |
|                                   |         |             |             |           |          |  |  |
| Intensity (in/hr                  | )       |             |             |           | Increase |  |  |
| I <sub>2</sub>                    |         | =           | 5.70        | 4.90      | -0.80    |  |  |
| I <sub>5</sub>                    |         | =           | 6.50        | 5.80      | -0.70    |  |  |
| I <sub>10</sub>                   |         | =           | 7.20        | 6.50      | -0.70    |  |  |
| I <sub>25</sub>                   |         | =           | 8.20        | 7.40      | -0.80    |  |  |
| I <sub>50</sub>                   |         | =           | 9.20        | 8.20      | -1.00    |  |  |
| I <sub>100</sub>                  |         | =           | 9.70        | 8.80      | -0.90    |  |  |
|                                   |         |             |             |           |          |  |  |
| Maximum Rel                       | easel   | Rates (cfs) |             |           | Increase |  |  |
| <b>Q</b> <sub>2</sub>             |         | =           | 14.16       | 31.08     | 16.91    |  |  |
| $Q_5$                             |         | =           | 16.15       | 36.78     | 20.63    |  |  |
| <b>Q</b> <sub>10</sub>            |         | =           | 17.89       | 41.22     | 23.33    |  |  |
| <b>Q</b> <sub>25</sub>            |         | =           | 20.38       | 46.93     | 26.55    |  |  |
| <b>Q</b> <sub>50</sub>            |         | =           | 22.86       | 52.00     | 29.14    |  |  |
| <b>Q</b> <sub>100</sub>           |         | =           | 24.10       | 55.81     | 31.71    |  |  |
|                                   |         |             |             |           |          |  |  |

# Stage – Storage Table

The following Stage Storage Table is provided, based on the grading plan contained in the Civil Plans. The accumulative storage is provided in the right most column. A concrete trickle channel is recommended.

| TYPE 3         |                 |                 |          |
|----------------|-----------------|-----------------|----------|
| Stage - Storag | ge for Irregula | r Detention Ba  | sin      |
| Top Elev       | Bottom Elev     | Increment       |          |
| 352.5          | 345.5           | 0.5             |          |
|                |                 |                 |          |
|                |                 |                 |          |
| Stage          | Area            | $\Delta$ Volume | Volume   |
| msl            | sf              | cf              | cf       |
| 345.50         | 1               | 0               | 0        |
| 346.00         | 1369.09         | 342.52          | 342.52   |
| 346.50         | 1853.30         | 805.60          | 1148.12  |
| 347.00         | 2337.51         | 1047.70         | 2195.82  |
| 347.50         | 2951.40         | 1322.23         | 3518.05  |
| 348.00         | 3565.28         | 1629.17         | 5147.22  |
| 348.50         | 4240.13         | 1951.35         | 7098.57  |
| 349.00         | 4914.98         | 2288.78         | 9387.35  |
| 349.50         | 5637.46         | 2638.11         | 12025.46 |
| 350.00         | 6359.93         | 2999.35         | 15024.81 |
| 350.50         | 7118.75         | 3369.67         | 18394.48 |
| 351.00         | 7877.57         | 3749.08         | 22143.56 |
| 351.50         | 8673.71         | 4137.82         | 26281.38 |
| 352.00         | 9469.85         | 4535.89         | 30817.27 |
| 352.50         | 10265.99        | 4933.96         | 35751.23 |
|                |                 |                 |          |

# Stage – Discharge Table

The following Stage Discharge Table is provided, based on the grading plan contained in the Civil Plans. The discharge structure planned for this facility is shown later in this report.

# TYPE 2

| Stage - Discharge for Rectangular Weir |  |  |  |  |  |
|--|--|--|--|--|--|
| Beginning Elevation                    |  |  |  |  |  |
| Elevation                              | Increment  | Top of Basin   |  |  |  |
| 345.50                                 | 0.50   | 352.50   |  |  |  |
|  | rge for Rectar<br>Beginning<br>Elevation<br>345.50 | rge for Rectangular WeirBeginningElevationElevationIncrement345.500.50 |  |  |  |

|        |          | Weir Length |          | Orifice<br>Coefficient |          |               |
|--------|----------|-------------|----------|------------------------|----------|---------------|
| Stage  | Head (H) | (L)         | Area (A) | (C)                    | Velocity | Discharge (Q) |
| msl    | ft       | ft          | sf       |                        | ft/s     | cfs           |
| 345.50 | 0.00     | 0.42        | 0.00     | 3.33                   | 0.00     | 0.00          |
| 346.00 | 0.50     | 0.42        | 0.21     | 3.33                   | 2.35     | 0.49          |
| 346.50 | 1.00     | 0.42        | 0.42     | 3.33                   | 3.33     | 1.40          |
| 347.00 | 1.50     | 0.42        | 0.63     | 3.33                   | 4.08     | 2.57          |
| 347.50 | 2.00     | 0.42        | 0.84     | 3.33                   | 4.71     | 3.96          |
| 348.00 | 2.50     | 0.42        | 1.05     | 3.33                   | 5.27     | 5.53          |
| 348.50 | 3.00     | 0.42        | 1.26     | 3.33                   | 5.77     | 7.27          |
| 349.00 | 3.50     | 0.42        | 1.47     | 3.33                   | 6.23     | 9.16          |
| 349.50 | 4.00     | 0.42        | 1.68     | 3.33                   | 6.66     | 11.19         |
| 350.00 | 4.50     | 0.42        | 1.89     | 3.33                   | 7.06     | 13.35         |
| 350.50 | 5.00     | 0.42        | 2.10     | 3.33                   | 7.45     | 15.64         |
| 351.00 | 5.50     | 0.42        | 2.31     | 3.33                   | 7.81     | 18.04         |
| 351.50 | 6.00     | 0.42        | 2.52     | 3.33                   | 8.16     | 20.56         |
| 352.00 | 6.50     | 0.42        | 2.73     | 3.33                   | 8.49     | 23.18         |
| 352.50 | 7.00     | 0.42        | 2.94     | 3.33                   | 8.81     | 25.90         |

# **Storage Indication Curve**



# **Alternate Routing Time**

The following spreadsheets represent the Hydrograph Routing for the various storm events. In each case, the Routing Storm Duration time was adjusted to provide the maximum storage required. A time of 40 minute time storm duration is used.

| Coefficients    | for Storage In  | dication Curve  | e from Chart |
|-----------------|-----------------|-----------------|--------------|
| Ax <sup>4</sup> | Bx <sup>3</sup> | Cx <sup>2</sup> | Dx           |
| 0.0000          | -0.0021         | 0.2009          | 6.1616       |

#### HYDROGRAPH ROUTING FOR 2 YEAR DESIGN STORM

Routing Storm Duration 40 minutes

| 40   | minutes        |               |                                   |              |                |                |           |           |
|------|----------------|---------------|-----------------------------------|--------------|----------------|----------------|-----------|-----------|
|      | 1              | 2             | 3                                 | 4            | 5              | 6              | 7         | 8         |
| Time | l <sub>1</sub> | $ _{1}+ _{2}$ | 2S <sub>1</sub> /t-Q <sub>1</sub> | $2S_2/t+Q_2$ | Q <sub>2</sub> | S <sub>2</sub> | 2S/t-Q    | Col 4 - 7 |
| min  | cfs            | cfs           | cfs                               | cfs          | cfs            | cf             | from eqn. |           |
| 0    | 0.00           | 15.22         | 0                                 | 15.221       | 0              | 0              | 15.222    | -0.001    |
| 5    | 8.46           | 23.68         | 10.617                            | 34.294       | 2.302          | 1937.8         | 34.294    | -0.001    |
| 10   | 15.22          | 30.44         | 24.614                            | 55.056       | 4.840          | 4418.1         | 55.055    | 0.001     |
| 15   | 15.22          | 30.44         | 40.422                            | 70.863       | 7.317          | 7160.8         | 70.862    | 0.001     |
| 20   | 15.22          | 30.44         | 52.738                            | 83.180       | 9.062          | 9270.1         | 83.181    | -0.001    |
| 25   | 15.22          | 30.44         | 62.466                            | 92.908       | 10.357         | 10923.4        | 92.908    | 0.000     |
| 30   | 15.22          | 30.44         | 70.219                            | 100.660      | 11.345         | 12234.5        | 100.661   | -0.001    |
| 35   | 15.22          | 30.44         | 76.435                            | 106.877      | 12.113         | 13282.2        | 106.876   | 0.001     |
| 40   | 15.22          | 21.99         | 81.443                            | 103.429      | 12.717         | 14124.0        | 103.428   | 0.001     |
| 45   | 6.76           | 6.76          | 78.663                            | 85.428       | 12.383         | 13656.9        | 17.722    | 67.707    |
| 50   | 0.00           | 0.00          | 80.122                            | 80.122       | 2.753          | 12401.3        | 0.000     | 80.122    |
| 55   | 0.00           | 0.00          | 80.322                            | 80.322       | 0.000          | 12018.4        | 0.000     | 80.322    |
| 60   | 0.00           | 0.00          | 80.522                            | 80.522       | 0.000          | 12048.4        | 0.000     | 80.522    |

Actual Maximum Storage needed is 14124 cubic feet Maximum Storage required is achieved at an elev. = 349.87 Maximum Allowable (undeveloped) Discharge is 14.16 cfs Maximum Discharge for the above storm is 12.72 cfs



| Coefficients for Storage Indication Curve from Chart |                 |                 |        |  |  |
|--|-----------------|-----------------|--------|--|--|
| Ax <sup>4</sup>                                      | Bx <sup>3</sup> | Cx <sup>2</sup> | Dx     |  |  |
| 0.0000   | -0.0021         | 0.2009          | 6.1616 |  |  |

#### **HYDROGRAPH ROUTING FOR 5 YEAR DESIGN STORM**

Routing Storm Duration 40 minutes

|      | 1              | 2           | 3                                 | 4            | 5              | 6              | 7         | 8         |
|------|----------------|-------------|-----------------------------------|--------------|----------------|----------------|-----------|-----------|
| Time | I <sub>1</sub> | $I_1 + I_2$ | 2S <sub>1</sub> /t-Q <sub>1</sub> | $2S_2/t+Q_2$ | Q <sub>2</sub> | S <sub>2</sub> | 2S/t-Q    | Col 4 - 7 |
| min  | cfs            | cfs         | cfs                               | cfs          | cfs            | cf             | from eqn. |           |
| 0    | 0.00           | 18.07       | 0                                 | 18.075       | 0              | 0              | 18.074    | 0.001     |
| 5    | 10.04          | 28.12       | 12.671                            | 40.787       | 2.702          | 2305.9         | 40.788    | -0.001    |
| 10   | 18.07          | 36.15       | 29.504                            | 65.654       | 5.641          | 5271.9         | 65.655    | -0.001    |
| 15   | 18.07          | 36.15       | 48.656                            | 84.805       | 8.499          | 8573.2         | 84.805    | 0.000     |
| 20   | 18.07          | 36.15       | 63.758                            | 99.907       | 10.524         | 11142.2        | 99.908    | -0.001    |
| 25   | 18.07          | 36.15       | 75.830                            | 111.979      | 12.039         | 13180.3        | 111.979   | 0.000     |
| 30   | 18.07          | 36.15       | 85.567                            | 121.717      | 13.206         | 14816.0        | 121.718   | -0.001    |
| 35   | 18.07          | 36.15       | 93.470                            | 129.619      | 14.123         | 16139.0        | 129.619   | 0.000     |
| 40   | 18.07          | 26.11       | 99.913                            | 126.021      | 14.853         | 17214.9        | 126.022   | -0.001    |
| 45   | 8.03           | 8.03        | 96.976                            | 105.009      | 14.522         | 16724.8        | 37.239    | 67.770    |
| 50   | 0.00           | 0.00        | 94.596                            | 94.596       | 5.307          | 14955.4        | 0.000     | 94.596    |
| 55   | 0.00           | 0.00        | 94.796                            | 94.796       | 0.000          | 14189.4        | 0.000     | 94.796    |
| 60   | 0.00           | 0.00        | 94.996                            | 94.996       | 0.000          | 14219.4        | 0.000     | 94.996    |

Actual Maximum Storage needed is 17214.9 cubic feet Maximum Storage required is achieved at an elev. = 350.29 Maximum Allowable (undeveloped) Discharge is 16.15 cfs Maximum Discharge for the above storm is 14.85 cfs



| Coefficients for Storage Indication Curve from Chart |                 |                 |        |  |  |
|--|-----------------|-----------------|--------|--|--|
| Ax <sup>4</sup>                                      | Bx <sup>3</sup> | Cx <sup>2</sup> | Dx     |  |  |
| 0.0000   | -0.0021         | 0.2009          | 6.1616 |  |  |

#### HYDROGRAPH ROUTING FOR 10 YEAR DESIGN STORM

Routing Storm Duration 40 minutes

| 40   | minutes        |               |                                   |              |                |                |           |           |
|------|----------------|---------------|-----------------------------------|--------------|----------------|----------------|-----------|-----------|
|      | 1              | 2             | 3                                 | 4            | 5              | 6              | 7         | 8         |
| Time | l <sub>1</sub> | $ _{1}+ _{2}$ | 2S <sub>1</sub> /t-Q <sub>1</sub> | $2S_2/t+Q_2$ | Q <sub>2</sub> | S <sub>2</sub> | 2S/t-Q    | Col 4 - 7 |
| min  | cfs            | cfs           | cfs                               | cfs          | cfs            | cf             | from eqn. |           |
| 0    | 0.00           | 21.25         | 0                                 | 21.246       | 0              | 0              | 21.245    | 0.001     |
| 5    | 11.80          | 33.05         | 14.971                            | 48.020       | 3.137          | 2716.2         | 48.021    | -0.001    |
| 10   | 21.25          | 42.49         | 35.011                            | 77.502       | 6.504          | 6227.3         | 77.501    | 0.001     |
| 15   | 21.25          | 42.49         | 57.969                            | 100.461      | 9.767          | 10160.4        | 100.462   | -0.001    |
| 20   | 21.25          | 42.49         | 76.275                            | 118.766      | 12.093         | 13255.2        | 118.766   | 0.000     |
| 25   | 21.25          | 42.49         | 91.071                            | 133.563      | 13.848         | 15737.8        | 133.563   | -0.001    |
| 30   | 21.25          | 42.49         | 103.137                           | 145.629      | 15.213         | 17752.5        | 145.628   | 0.001     |
| 35   | 21.25          | 42.49         | 113.038                           | 155.530      | 16.295         | 19400.0        | 155.530   | -0.001    |
| 40   | 21.25          | 30.69         | 121.199                           | 151.887      | 17.165         | 20754.6        | 151.888   | 0.000     |
| 45   | 9.44           | 9.44          | 118.193                           | 127.636      | 16.847         | 20256.0        | 24.602    | 103.033   |
| 50   | 0.00           | 0.00          | 120.459                           | 120.459      | 3.689          | 18592.1        | 0.000     | 120.459   |
| 55   | 0.00           | 0.00          | 120.659                           | 120.659      | 0.000          | 18068.8        | 0.000     | 120.659   |
| 60   | 0.00           | 0.00          | 120.859                           | 120.859      | 0.000          | 18098.8        | 0.000     | 120.859   |

Actual Maximum Storage needed is 20754.6 cubic feet Maximum Storage required is achieved at an elev. = 350.75 Maximum Allowable (undeveloped) Discharge is 17.89 cfs Maximum Discharge for the above storm is 17.17 cfs



| Coefficients for Storage Indication Curve from Chart |                 |                 |        |  |  |
|--|-----------------|-----------------|--------|--|--|
| Ax <sup>4</sup>                                      | Bx <sup>3</sup> | Cx <sup>2</sup> | Dx     |  |  |
| 0.0000   | -0.0021         | 0.2009          | 6.1616 |  |  |

#### HYDROGRAPH ROUTING FOR 25 YEAR DESIGN STORM

| Routing | Storm | Duration |
|---------|-------|----------|
| 40      | r     | ninutes  |

| 40   | minutes        |               |                                   |              |                |                |           |           |
|------|----------------|---------------|-----------------------------------|--------------|----------------|----------------|-----------|-----------|
|      | 1              | 2             | 3                                 | 4            | 5              | 6              | 7         | 8         |
| Time | l <sub>1</sub> | $ _{1}+ _{2}$ | 2S <sub>1</sub> /t-Q <sub>1</sub> | $2S_2/t+Q_2$ | Q <sub>2</sub> | S <sub>2</sub> | 2S/t-Q    | Col 4 - 7 |
| min  | cfs            | cfs           | cfs                               | cfs          | cfs            | cf             | from eqn. |           |
| 0    | 0.00           | 24.42         | 0                                 | 24.417       | 0              | 0              | 24.416    | 0.001     |
| 5    | 13.56          | 37.98         | 17.289                            | 55.271       | 3.564          | 3128.0         | 55.272    | -0.001    |
| 10   | 24.42          | 48.83         | 40.587                            | 89.420       | 7.342          | 7189.3         | 89.421    | -0.001    |
| 15   | 24.42          | 48.83         | 67.433                            | 116.266      | 10.994         | 11764.0        | 116.267   | 0.000     |
| 20   | 24.42          | 48.83         | 89.041                            | 137.875      | 13.612         | 15398.1        | 137.874   | 0.001     |
| 25   | 24.42          | 48.83         | 106.670                           | 155.503      | 15.602         | 18340.9        | 155.503   | 0.001     |
| 30   | 24.42          | 48.83         | 121.178                           | 170.011      | 17.163         | 20751.1        | 170.010   | 0.001     |
| 35   | 24.42          | 48.83         | 133.190                           | 182.024      | 18.410         | 22740.1        | 182.023   | 0.001     |
| 40   | 24.42          | 35.27         | 143.182                           | 178.451      | 19.421         | 24390.5        | 178.452   | -0.001    |
| 45   | 10.85          | 10.85         | 140.206                           | 151.058      | 19.122         | 23899.3        | 27.502    | 123.556   |
| 50   | 0.00           | 0.00          | 143.117                           | 143.117      | 4.070          | 22048.1        | 0.000     | 143.117   |
| 55   | 0.00           | 0.00          | 143.317                           | 143.317      | 0.000          | 21467.6        | 0.000     | 143.317   |
| 60   | 0.00           | 0.00          | 143.517                           | 143.517      | 0.000          | 21497.6        | 0.000     | 143.517   |

Actual Maximum Storage needed is 24390.5 cubic feet Maximum Storage required is achieved at an elev. = 351.24 Maximum Allowable (undeveloped) Discharge is 20.38 cfs Maximum Discharge for the above storm is 19.42 cfs



| Coefficients for Storage Indication Curve from Chart |                 |                 |        |  |  |  |
|--|-----------------|-----------------|--------|--|--|--|
| Ax <sup>4</sup>                                      | Bx <sup>3</sup> | Cx <sup>2</sup> | Dx     |  |  |  |
| 0.0000   | -0.0021         | 0.2009          | 6.1616 |  |  |  |

#### HYDROGRAPH ROUTING FOR 50 YEAR DESIGN STORM

**Routing Storm Duration** 

| 40   | minutes        |             |                                   |              |                |                |           |           |
|------|----------------|-------------|-----------------------------------|--------------|----------------|----------------|-----------|-----------|
|      | 1              | 2           | 3                                 | 4            | 5              | 6              | 7         | 8         |
| Time | l <sub>1</sub> | $I_1 + I_2$ | 2S <sub>1</sub> /t-Q <sub>1</sub> | $2S_2/t+Q_2$ | Q <sub>2</sub> | S <sub>2</sub> | 2S/t-Q    | Col 4 - 7 |
| min  | cfs            | cfs         | cfs                               | cfs          | cfs            | cf             | from eqn. |           |
| 0    | 0.00           | 27.59       | 0                                 | 27.588       | 0              | 0              | 27.587    | 0.001     |
| 5    | 15.33          | 42.91       | 19.625                            | 62.539       | 3.981          | 3540.9         | 62.540    | -0.001    |
| 10   | 27.59          | 55.18       | 46.226                            | 101.401      | 8.157          | 8157.4         | 101.402   | -0.001    |
| 15   | 27.59          | 55.18       | 77.031                            | 132.206      | 12.185         | 13382.4        | 132.205   | 0.001     |
| 20   | 27.59          | 55.18       | 102.028                           | 157.203      | 15.089         | 17567.6        | 157.204   | -0.001    |
| 25   | 27.59          | 55.18       | 122.582                           | 177.757      | 17.311         | 20983.9        | 177.758   | -0.001    |
| 30   | 27.59          | 55.18       | 139.629                           | 194.804      | 19.064         | 23803.9        | 194.804   | 0.001     |
| 35   | 27.59          | 55.18       | 153.853                           | 209.028      | 20.476         | 26149.3        | 209.028   | 0.000     |
| 40   | 27.59          | 39.85       | 165.774                           | 205.623      | 21.627         | 28110.2        | 205.623   | 0.001     |
| 45   | 12.26          | 12.26       | 162.917                           | 175.178      | 21.353         | 27640.5        | 34.394    | 140.784   |
| 50   | 0.00           | 0.00        | 165.473                           | 165.473      | 4.952          | 25533.8        | 0.000     | 165.473   |
| 55   | 0.00           | 0.00        | 165.673                           | 165.673      | 0.000          | 24821.0        | 0.000     | 165.673   |
| 60   | 0.00           | 0.00        | 165.873                           | 165.873      | 0.000          | 24851.0        | 0.000     | 165.873   |

Actual Maximum Storage needed is 28110.2 cubic feet Maximum Storage required is achieved at an elev. = 351.75 Maximum Allowable (undeveloped) Discharge is 22.86 cfs Maximum Discharge for the above storm is 21.63 cfs



| Coefficients    | s for Storage In | dication Curve  | e from Chart |
|-----------------|------------------|-----------------|--------------|
| Ax <sup>4</sup> | Bx <sup>3</sup>  | Cx <sup>2</sup> | Dx           |
| 0.0000          | -0.0021          | 0.2009          | 6.1616       |

#### HYDROGRAPH ROUTING FOR 100 YEAR DESIGN STORM

Routing Storm Duration 40 minutes

| 40   | minutes        |               |                                   |              |                |                |           |           |
|------|----------------|---------------|-----------------------------------|--------------|----------------|----------------|-----------|-----------|
|      | 1              | 2             | 3                                 | 4            | 5              | 6              | 7         | 8         |
| Time | l <sub>1</sub> | $ _{1}+ _{2}$ | 2S <sub>1</sub> /t-Q <sub>1</sub> | $2S_2/t+Q_2$ | Q <sub>2</sub> | S <sub>2</sub> | 2S/t-Q    | Col 4 - 7 |
| min  | cfs            | cfs           | cfs                               | cfs          | cfs            | cf             | from eqn. |           |
| 0    | 0.00           | 30.12         | 0                                 | 30.125       | 0              | 0              | 30.124    | 0.001     |
| 5    | 16.74          | 46.86         | 21.505                            | 68.365       | 4.310          | 3872.2         | 68.366    | -0.001    |
| 10   | 30.12          | 60.25         | 50.778                            | 111.027      | 8.794          | 8935.7         | 111.027   | 0.000     |
| 15   | 30.12          | 60.25         | 84.796                            | 145.045      | 13.115         | 14686.7        | 145.044   | 0.001     |
| 20   | 30.12          | 60.25         | 112.558                           | 172.807      | 16.243         | 19320.3        | 172.807   | 0.000     |
| 25   | 30.12          | 60.25         | 135.513                           | 195.762      | 18.647         | 23124.0        | 195.761   | 0.000     |
| 30   | 30.12          | 60.25         | 154.654                           | 214.903      | 20.554         | 26281.2        | 214.902   | 0.001     |
| 35   | 30.12          | 60.25         | 170.711                           | 230.960      | 22.096         | 28921.1        | 230.959   | 0.001     |
| 40   | 30.12          | 43.51         | 184.240                           | 227.754      | 23.360         | 31140.0        | 227.753   | 0.001     |
| 45   | 13.39          | 13.39         | 181.535                           | 194.923      | 23.110         | 30696.6        | 25.275    | 169.648   |
| 50   | 0.00           | 0.00          | 187.568                           | 187.568      | 3.778          | 28671.8        | 0.000     | 187.568   |
| 55   | 0.00           | 0.00          | 187.768                           | 187.768      | 0.000          | 28135.2        | 0.000     | 187.768   |
| 60   | 0.00           | 0.00          | 187.968                           | 187.968      | 0.000          | 28165.2        | 0.000     | 187.968   |

Actual Maximum Storage needed is 31140 cubic feet Maximum Storage required is achieved at an elev. = 352.12 Maximum Allowable (undeveloped) Discharge is 24.1 cfs Maximum Discharge for the above storm is 23.36 cfs





| Summary – Detention |         |        |           |           |  |  |
|---------------------|---------|--------|-----------|-----------|--|--|
| Storm               | Volume  | WSE    | Max       | Max       |  |  |
| Event               | Needed  |        | Discharge | Discharge |  |  |
|                     | (cf)    |        | Allowed   | Model     |  |  |
|                     |         |        | (cfs)     | (cfs)     |  |  |
| 2                   | 14124.0 | 349.87 | 14.16     | 12.72     |  |  |
| 5                   | 17214.9 | 350.29 | 16.15     | 14.85     |  |  |
| 10                  | 20754.6 | 350.75 | 17.89     | 17.17     |  |  |
| 25                  | 24390.5 | 351.24 | 20.38     | 19.42     |  |  |
| 50                  | 28110.2 | 351.75 | 22.86     | 21.63     |  |  |
| 100                 | 31140.0 | 352.12 | 24.10     | 23.36     |  |  |
|                     |         |        |           |           |  |  |

# Discharge Structure Detail





# Study Point Summary (25 yr Storm)

| Study Point | Pre Construction | Post Construction | Change     |
|-------------|------------------|-------------------|------------|
| А           | 16.38 cfs        | 19.13 cfs         | 2.75 cfs*  |
| В           | 12.13 cfs        | 2.35 cfs          | -9.78 cfs  |
| С           | 13.57 cfs        | 2.50 cfs          | -11.07 cfs |
| D           | 20.38 cfs        | 19.42 cfs         | -0.96 cfs  |
| Total:      |                  |                   | -19.06 cfs |

\* Existing culvert originating at the Junction Box near the NE corner of Hurricane Gardens has adequate capacity to accept this slight increase in flow.

# **Engineering Certification**

I, Tim Lemons, Arkansas Registered Professional Engineer No. 7373, hereby certify that the drainage reports, and calculations contained in this report, have been prepared in accordance with sound engineering practice and principles, and based on best known available data. Improvements as outlined in this report and depicted on the preliminary plat and design drawings should not increase the risk of endangerment to life or have negative impacts on adjacent or downstream property or watersheds.



Timothy B. Lemons, PE Arkansas Professional Engineer, #7373

Appendix

| GUTTE | R | САРАС   | ITY OF ST | REETS - | 2 | 7' BC | to BC |         |        |       |
|-------|---|---------|-----------|---------|---|-------|-------|---------|--------|-------|
| Slope | = | 0.5%, ı | n = 0.012 |         |   |       |       |         |        |       |
| -     |   | -       |           |         |   |       |       |         |        |       |
| Width |   | Slope   | Height    | Area    |   | R     | R^2/3 | S       | S^1/2  | Q     |
| (ft)  |   | -       | (ft)      | (sf)    |   |       |       |         |        | (cfs) |
|       |   |         |           |         |   |       |       |         |        |       |
| 0.5   |   | 0.030   | 0.02      | 0.00    |   | 0.01  | 0.04  | 0.00500 | 0.0707 | 0.00  |
| 1     |   | 0.030   | 0.03      | 0.02    |   | 0.01  | 0.06  | 0.00500 | 0.0707 | 0.01  |
| 1.5   |   | 0.030   | 0.05      | 0.03    |   | 0.02  | 0.08  | 0.00500 | 0.0707 | 0.02  |
| 2     |   | 0.030   | 0.06      | 0.06    |   | 0.03  | 0.10  | 0.00500 | 0.0707 | 0.05  |
| 2.5   |   | 0.030   | 0.08      | 0.09    |   | 0.04  | 0.11  | 0.00500 | 0.0707 | 0.09  |
| 3     |   | 0.030   | 0.09      | 0.14    |   | 0.04  | 0.13  | 0.00500 | 0.0707 | 0.15  |
| 3.5   |   | 0.030   | 0.11      | 0.18    |   | 0.05  | 0.14  | 0.00500 | 0.0707 | 0.22  |
| 4     |   | 0.030   | 0.12      | 0.24    |   | 0.06  | 0.15  | 0.00500 | 0.0707 | 0.32  |
| 4.5   |   | 0.030   | 0.14      | 0.30    |   | 0.07  | 0.16  | 0.00500 | 0.0707 | 0.44  |
| 5     |   | 0.030   | 0.15      | 0.38    |   | 0.07  | 0.18  | 0.00500 | 0.0707 | 0.58  |
| 5.5   |   | 0.030   | 0.17      | 0.45    |   | 0.08  | 0.19  | 0.00500 | 0.0707 | 0.75  |
| 6     |   | 0.030   | 0.18      | 0.54    |   | 0.09  | 0.20  | 0.00500 | 0.0707 | 0.94  |
| 6.5   |   | 0.030   | 0.20      | 0.63    |   | 0.10  | 0.21  | 0.00500 | 0.0707 | 1.17  |
| 7     |   | 0.030   | 0.21      | 0.74    |   | 0.10  | 0.22  | 0.00500 | 0.0707 | 1.43  |
| 7.5   |   | 0.030   | 0.23      | 0.84    |   | 0.11  | 0.23  | 0.00500 | 0.0707 | 1.71  |
| 8.5   |   | 0.030   | 0.26      | 1.08    |   | 0.13  | 0.25  | 0.00500 | 0.0707 | 2.39  |
| 9     |   | 0.030   | 0.27      | 1.22    |   | 0.13  | 0.26  | 0.00500 | 0.0707 | 2.79  |
| 9.5   |   | 0.030   | 0.29      | 1.35    |   | 0.14  | 0.27  | 0.00500 | 0.0707 | 3.22  |
| 10    |   | 0.030   | 0.30      | 1.50    |   | 0.15  | 0.28  | 0.00500 | 0.0707 | 3.69  |
| 10.5  |   | 0.030   | 0.32      | 1.65    |   | 0.16  | 0.29  | 0.00500 | 0.0707 | 4.21  |
| 11    |   | 0.030   | 0.33      | 1.82    |   | 0.16  | 0.30  | 0.00500 | 0.0707 | 4.76  |
| 11.5  |   | 0.030   | 0.35      | 1.98    |   | 0.17  | 0.31  | 0.00500 | 0.0707 | 5.36  |
| 12    |   | 0.030   | 0.36      | 2.16    |   | 0.18  | 0.32  | 0.00500 | 0.0707 | 6.01  |
| 12.5  |   | 0.030   | 0.38      | 2.34    |   | 0.19  | 0.33  | 0.00500 | 0.0707 | 6.70  |
| 13    |   | 0.030   | 0.39      | 2.54    |   | 0.19  | 0.33  | 0.00500 | 0.0707 | 7.44  |

| GUTTE | R CAPAC  | ITY OF ST | REETS - | 27' BC t | o BC  |         |        |       |
|-------|----------|-----------|---------|----------|-------|---------|--------|-------|
| Slope | = 1.50%, | n = 0.012 | 2       |          |       |         |        |       |
|       |          |           |         |          |       |         |        |       |
| Width | Slope    | Height    | Area    | R        | R^2/3 | S       | S^1/2  | Q     |
| (ft)  |          | (ft)      | (sf)    |          |       |         |        | (cfs) |
|       |          |           |         |          |       |         |        |       |
| 0.5   | 0.030    | 0.02      | 0.00    | 0.01     | 0.04  | 0.01500 | 0.1225 | 0.00  |
| 1     | 0.030    | 0.03      | 0.02    | 0.01     | 0.06  | 0.01500 | 0.1225 | 0.01  |
| 1.5   | 0.030    | 0.05      | 0.03    | 0.02     | 0.08  | 0.01500 | 0.1225 | 0.04  |
| 2     | 0.030    | 0.06      | 0.06    | 0.03     | 0.10  | 0.01500 | 0.1225 | 0.09  |
| 2.5   | 0.030    | 0.08      | 0.09    | 0.04     | 0.11  | 0.01500 | 0.1225 | 0.16  |
| 3     | 0.030    | 0.09      | 0.14    | 0.04     | 0.13  | 0.01500 | 0.1225 | 0.26  |
| 3.5   | 0.030    | 0.11      | 0.18    | 0.05     | 0.14  | 0.01500 | 0.1225 | 0.39  |
| 4     | 0.030    | 0.12      | 0.24    | 0.06     | 0.15  | 0.01500 | 0.1225 | 0.55  |
| 4.5   | 0.030    | 0.14      | 0.30    | 0.07     | 0.16  | 0.01500 | 0.1225 | 0.76  |
| 5     | 0.030    | 0.15      | 0.38    | 0.07     | 0.18  | 0.01500 | 0.1225 | 1.01  |
| 5.5   | 0.030    | 0.17      | 0.45    | 0.08     | 0.19  | 0.01500 | 0.1225 | 1.30  |
| 6     | 0.030    | 0.18      | 0.54    | 0.09     | 0.20  | 0.01500 | 0.1225 | 1.64  |
| 6.5   | 0.030    | 0.20      | 0.63    | 0.10     | 0.21  | 0.01500 | 0.1225 | 2.03  |
| 7     | 0.030    | 0.21      | 0.74    | 0.10     | 0.22  | 0.01500 | 0.1225 | 2.47  |
| 7.5   | 0.030    | 0.23      | 0.84    | 0.11     | 0.23  | 0.01500 | 0.1225 | 2.97  |
| 8.5   | 0.030    | 0.26      | 1.08    | 0.13     | 0.25  | 0.01500 | 0.1225 | 4.15  |
| 9     | 0.030    | 0.27      | 1.22    | 0.13     | 0.26  | 0.01500 | 0.1225 | 4.83  |
| 9.5   | 0.030    | 0.29      | 1.35    | 0.14     | 0.27  | 0.01500 | 0.1225 | 5.58  |
| 10    | 0.030    | 0.30      | 1.50    | 0.15     | 0.28  | 0.01500 | 0.1225 | 6.40  |
| 10.5  | 0.030    | 0.32      | 1.65    | 0.16     | 0.29  | 0.01500 | 0.1225 | 7.29  |
| 11    | 0.030    | 0.33      | 1.82    | 0.16     | 0.30  | 0.01500 | 0.1225 | 8.25  |
| 11.5  | 0.030    | 0.35      | 1.98    | 0.17     | 0.31  | 0.01500 | 0.1225 | 9.29  |
| 12    | 0.030    | 0.36      | 2.16    | 0.18     | 0.32  | 0.01500 | 0.1225 | 10.41 |
| 12.5  | 0.030    | 0.38      | 2.34    | 0.19     | 0.33  | 0.01500 | 0.1225 | 11.61 |
| 13    | 0.030    | 0.39      | 2.54    | 0.19     | 0.33  | 0.01500 | 0.1225 | 12.89 |

| GUTTE | R CAPAC | CITY OF ST | REETS - | 27' BC 1 | to BC |         |        |       |
|-------|---------|------------|---------|----------|-------|---------|--------|-------|
| Slope | = 2.67% | , n = 0.01 | 2       |          |       |         |        |       |
| -     |         |            |         |          |       |         |        |       |
| Width | Slope   | Height     | Area    | R        | R^2/3 | S       | S^1/2  | Q     |
| (ft)  |         | (ft)       | (sf)    |          |       |         |        | (cfs) |
|       |         |            |         |          |       |         |        |       |
| 0.5   | 0.030   | 0.02       | 0.00    | 0.01     | 0.04  | 0.02670 | 0.1634 | 0.00  |
| 1     | 0.030   | 0.03       | 0.02    | 0.01     | 0.06  | 0.02670 | 0.1634 | 0.02  |
| 1.5   | 0.030   | 0.05       | 0.03    | 0.02     | 0.08  | 0.02670 | 0.1634 | 0.05  |
| 2     | 0.030   | 0.06       | 0.06    | 0.03     | 0.10  | 0.02670 | 0.1634 | 0.12  |
| 2.5   | 0.030   | 0.08       | 0.09    | 0.04     | 0.11  | 0.02670 | 0.1634 | 0.21  |
| 3     | 0.030   | 0.09       | 0.14    | 0.04     | 0.13  | 0.02670 | 0.1634 | 0.34  |
| 3.5   | 0.030   | 0.11       | 0.18    | 0.05     | 0.14  | 0.02670 | 0.1634 | 0.52  |
| 4     | 0.030   | 0.12       | 0.24    | 0.06     | 0.15  | 0.02670 | 0.1634 | 0.74  |
| 4.5   | 0.030   | 0.14       | 0.30    | 0.07     | 0.16  | 0.02670 | 0.1634 | 1.01  |
| 5     | 0.030   | 0.15       | 0.38    | 0.07     | 0.18  | 0.02670 | 0.1634 | 1.34  |
| 5.5   | 0.030   | 0.17       | 0.45    | 0.08     | 0.19  | 0.02670 | 0.1634 | 1.73  |
| 6     | 0.030   | 0.18       | 0.54    | 0.09     | 0.20  | 0.02670 | 0.1634 | 2.18  |
| 6.5   | 0.030   | 0.20       | 0.63    | 0.10     | 0.21  | 0.02670 | 0.1634 | 2.70  |
| 7     | 0.030   | 0.21       | 0.74    | 0.10     | 0.22  | 0.02670 | 0.1634 | 3.29  |
| 7.5   | 0.030   | 0.23       | 0.84    | 0.11     | 0.23  | 0.02670 | 0.1634 | 3.96  |
| 8.5   | 0.030   | 0.26       | 1.08    | 0.13     | 0.25  | 0.02670 | 0.1634 | 5.53  |
| 9     | 0.030   | 0.27       | 1.22    | 0.13     | 0.26  | 0.02670 | 0.1634 | 6.44  |
| 9.5   | 0.030   | 0.29       | 1.35    | 0.14     | 0.27  | 0.02670 | 0.1634 | 7.44  |
| 10    | 0.030   | 0.30       | 1.50    | 0.15     | 0.28  | 0.02670 | 0.1634 | 8.53  |
| 10.5  | 0.030   | 0.32       | 1.65    | 0.16     | 0.29  | 0.02670 | 0.1634 | 9.72  |
| 11    | 0.030   | 0.33       | 1.82    | 0.16     | 0.30  | 0.02670 | 0.1634 | 11.01 |
| 11.5  | 0.030   | 0.35       | 1.98    | 0.17     | 0.31  | 0.02670 | 0.1634 | 12.40 |
| 12    | 0.030   | 0.36       | 2.16    | 0.18     | 0.32  | 0.02670 | 0.1634 | 13.89 |
| 12.5  | 0.030   | 0.38       | 2.34    | 0.19     | 0.33  | 0.02670 | 0.1634 | 15.49 |
| 13    | 0.030   | 0.39       | 2.54    | 0.19     | 0.33  | 0.02670 | 0.1634 | 17.20 |

| GUTTE | R CAPAC  | ITY OF ST | REETS - | 27' BC t | o BC  |         |        |       |
|-------|----------|-----------|---------|----------|-------|---------|--------|-------|
| Slope | = 4.88%, | n = 0.012 | 2       |          |       |         |        |       |
|       |          |           |         |          |       |         |        |       |
| Width | Slope    | Height    | Area    | R        | R^2/3 | S       | S^1/2  | Q     |
| (ft)  |          | (ft)      | (sf)    |          |       |         |        | (cfs) |
|       |          |           |         |          |       |         |        |       |
| 0.5   | 0.030    | 0.02      | 0.00    | 0.01     | 0.04  | 0.04880 | 0.2209 | 0.00  |
| 1     | 0.030    | 0.03      | 0.02    | 0.01     | 0.06  | 0.04880 | 0.2209 | 0.02  |
| 1.5   | 0.030    | 0.05      | 0.03    | 0.02     | 0.08  | 0.04880 | 0.2209 | 0.07  |
| 2     | 0.030    | 0.06      | 0.06    | 0.03     | 0.10  | 0.04880 | 0.2209 | 0.16  |
| 2.5   | 0.030    | 0.08      | 0.09    | 0.04     | 0.11  | 0.04880 | 0.2209 | 0.28  |
| 3     | 0.030    | 0.09      | 0.14    | 0.04     | 0.13  | 0.04880 | 0.2209 | 0.46  |
| 3.5   | 0.030    | 0.11      | 0.18    | 0.05     | 0.14  | 0.04880 | 0.2209 | 0.70  |
| 4     | 0.030    | 0.12      | 0.24    | 0.06     | 0.15  | 0.04880 | 0.2209 | 1.00  |
| 4.5   | 0.030    | 0.14      | 0.30    | 0.07     | 0.16  | 0.04880 | 0.2209 | 1.37  |
| 5     | 0.030    | 0.15      | 0.38    | 0.07     | 0.18  | 0.04880 | 0.2209 | 1.81  |
| 5.5   | 0.030    | 0.17      | 0.45    | 0.08     | 0.19  | 0.04880 | 0.2209 | 2.34  |
| 6     | 0.030    | 0.18      | 0.54    | 0.09     | 0.20  | 0.04880 | 0.2209 | 2.95  |
| 6.5   | 0.030    | 0.20      | 0.63    | 0.10     | 0.21  | 0.04880 | 0.2209 | 3.65  |
| 7     | 0.030    | 0.21      | 0.74    | 0.10     | 0.22  | 0.04880 | 0.2209 | 4.45  |
| 7.5   | 0.030    | 0.23      | 0.84    | 0.11     | 0.23  | 0.04880 | 0.2209 | 5.35  |
| 8.5   | 0.030    | 0.26      | 1.08    | 0.13     | 0.25  | 0.04880 | 0.2209 | 7.48  |
| 9     | 0.030    | 0.27      | 1.22    | 0.13     | 0.26  | 0.04880 | 0.2209 | 8.71  |
| 9.5   | 0.030    | 0.29      | 1.35    | 0.14     | 0.27  | 0.04880 | 0.2209 | 10.06 |
| 10    | 0.030    | 0.30      | 1.50    | 0.15     | 0.28  | 0.04880 | 0.2209 | 11.54 |
| 10.5  | 0.030    | 0.32      | 1.65    | 0.16     | 0.29  | 0.04880 | 0.2209 | 13.14 |
| 11    | 0.030    | 0.33      | 1.82    | 0.16     | 0.30  | 0.04880 | 0.2209 | 14.88 |
| 11.5  | 0.030    | 0.35      | 1.98    | 0.17     | 0.31  | 0.04880 | 0.2209 | 16.76 |
| 12    | 0.030    | 0.36      | 2.16    | 0.18     | 0.32  | 0.04880 | 0.2209 | 18.77 |
| 12.5  | 0.030    | 0.38      | 2.34    | 0.19     | 0.33  | 0.04880 | 0.2209 | 20.94 |
| 13    | 0.030    | 0.39      | 2.54    | 0.19     | 0.33  | 0.04880 | 0.2209 | 23.25 |

# BILL OF ASSURANCE HILLCREST ADDITION BRYANT, SALINE COUNTY, AR

## KNOW ALL MEN BY THESE PRESENTS:

That, \_\_\_\_\_\_, being the Owner & Developer of the following described lands lying in the State of Arkansas, County of Saline, City of Bryant, to wit:

# Hillcrest Addition, Lots 1 – 13, located in Section 17, T-1-S, R-14-W, Bryant, Saline County, Arkansas

**AND, WHEREAS**, it is desirable that all the above property be platted into lots, tracts and streets.

#### **NOW THEREFORE WITNESSETH:**

**THAT**, the said owner & Developer, hereinafter termed Grantor, has caused said tract of land to be preliminary plated by Lemons Engineering Consultants, Inc., Registered Professional Engineers, No. 7373, and a preliminary plat thereof made which is identified by the title "Final Plat – Hillcrest Addition" and approved by the Bryant Planning Commission, and is of record in the Saline County Courthouse.

**AND.** the Grantor does make this Bill of Assurance.

**AND**, Grantor does hereby certify that he had laid off, platted and subdivided and does hereby lay off, plat, and subdivide said real estate in accordance with said plat. The lands embraced in said plat shall be forever known as:

# HILLCREST ADDITION BRYANT, SALINE COUNTY, ARKANSAS

There are strips of ground shown and dimensioned on said plat marked "easement" reserved for the use of public utilities, sanitary sewer and/or drainage purposes subject at all times to the proper authorities and the easement herein reserved. The owners of lots in this subdivision shall take their title subject to the right of public utilities and the public.

The filing of the Final Bill of Assurance and Plat for the record in the office of Circuit Clerk and Ex-Officio Recorder of Saline County, Arkansas shall be a valid and complete delivery and dedication of the easements and streets as shown on said plat.

Hereinafter, conveyance and description of any of said lands by lot number as shown on said plat shall be a proper and sufficient description thereof.

Lots in said subdivision shall be sold by the Grantor and shall be purchased by the buyers thereof subject to the following covenants, to-wit:

# **BUILDING REQUIREMENTS:**

- 1. Lots within the subdivision shall be used as single family residential dwellings. Dwellings constructed shall have not less than three (3) bedrooms, and two (2) baths as a minimum. A minimum of ninety percent (70%) of the exterior finish of all structures on lots must be either brick, stone, and/or cement board with foundation blocks covered. Roof Pitch will be a minimum of 8/12 pitch. All lots are required to have solid sodded yards, no seed, mulch or sprigs will be allowed. Driveways shall be of concrete and run from garage to street. Architectural shingles are required on dwellings.
- 2. Any property owner or builder/contractor performing services for the property owner shall comply with the provisions of this Bill of Assurance and shall be responsible for actions of Contractors to the contrary. No person shall damage in any way, the utility or streets in any manner and damage so inflicted shall become the responsibility of the person who creates the damage. Contractor is responsible for clearing all construction debris from construction site when complete. No trash shall be left behind. If trash is left behind, clean up will be hired and charged back to property owner.
- 3. Minimum heated and cooled square footage of dwelling must be 1400 square feet, which excludes porches, breezeways, terraces, garages, porte-cocheres and outbuildings.
- 4. Dwellings constructed on lots within the subdivision shall be placed according to the building setback line shown on the plat. Setback requirement for lots shall be as shown on the Final Plat, referenced above. No dwelling shall be constructed more than two (2) stories in height.
- 5. No building, fence, incinerator or any other permanent structure or improvement of any kind whether herein specifically enumerated or not, shall be built or maintained, within the area of any of the easements shown on the plat; and in the event any such obstruction is placed thereon in violation of this restriction and reservation, no utility will be liable for destruction of same in maintaining or repairing its lines located within the area of said easement.
- 6. Privacy fences shall begin at the back corner of the dwelling unless approved by the Developers. Side load dwellings have a 25' set back from property line at driveway side. All fences

constructed shall be of wood type privacy fence with a height of 6 feet. No chain link fence shall be allowed.

- 7. Residential lots shall have no sign of any kind displayed to the public view on any lot except one sign of not more than five square feet (5') advertising the property for sale or signs used by a builder to advertise the property during the construction or sale period. No motor homes or recreational vehicles, boats or trailers of any kind shall be allowed to be kept on any lot except behind a privacy fence or in garage without written consent from developer. No vehicles shall be parked in yard or in streets except for special occasions, holidays, family events.
- 8. Storage buildings must be same brick matching house and have same architectural shingled roof to match house. Building must be approved by developer. Storage buildings not to exceed 400 sq. ft. unless approved by developer. Storage buildings must be behind 6' wood privacy fence no exceptions. No above ground pools shall be allowed on any lot unless behind a 6' wood privacy fence. No storage building, trailer, tent, shack, garage, barn, or other outbuilding shall be used on any lot at any time as a residence either temporarily or permanently. No hunting or offensive conduct shall be permitted. No storage building to be constructed over easements.
- 9. No vehicles can be placed on any vacant lot. Vacant lots cannot be used for storage or garden or disposal of grass clippings or trash. It is the responsibility of the buyer to keep vacant lots clean and mowed until the residence is built.
- 10. No animals of any kind shall be raised, bred or kept on any lot, except household pets provided that they are not kept, bred or maintained for any commercial purpose. All animals are required to be contained in the home or behind a privacy fence and shall not become a nuisance with noise or running loose.
- 11. No fence, wall, hedge or shrub planting which obstructs sight lines at elevations of more than 30 inches above which roadways shall be placed or permitted to remain on connecting them at points 50 feet from the intersection of the street lines or in the case of a rounded property corner within the triangle formed by tangents to the curve at its beginning and end and a line connecting them at points 50 feet from their intersection. No tree shall be permitted to remain within such distances of such intersection unless the foliage line is maintained by owner.
- 12. No fences, buildings or obstructions of any kind shall be constructed to project into or across the drainage easement at the side or rear of the lots where these easements contain open ditch drainage. Satellite dishes may be erected on the roof at the side or rear of dwellings.
- 13. Maintenance of the common areas and entrance signs/landscaping, shall be the responsibility of the Property Owners Association.

14. Monthly cost for street lights shall be the responsibility of the Property Owners Association (POA).

These covenants and restrictions shall not be amended, canceled or supplemented unless an instrument signed by at least seventy (70) percent of the owners of the aforesaid lots agreeing to change the covenants and restrictions in whole or in part. Multiple lot owners have a vote for each lot. This requirement shall remain in force until all lots are completely built on with residential structures. Once all lots have been built on, these covenants and restrictions shall not be amended, canceled or supplemented unless an instrument signed by a majority of lot owners (a minimum of 51%) of the aforesaid lots agreeing to change the covenants and restrictions in whole or in part. Multiple lot owners have a vote for each lot.

In the event of any attempt or violation of any of these covenants restrictions herein before the expiration date thereof, it shall be lawful for any proceedings at law or in equity against the person or persons violating or attempting to violate any such covenants or restrictions either to prevent him or them from so doing to recover damages or other dues for such violations.

Invalidation of any one of these covenants or restrictions by judgment or court order shall in no way affect any of the other provisions which shall remain in full force and effect.

**IN TESTIMONY WHEREOF**, the name of the Grantor is hereunto affixed this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_\_.

# ACKNOWLEDGEMENT

STATE OF ARKANSAS

COUNTY OF \_\_\_\_\_

BE IT REMEMBERED that on this day came before me, a Notary Public, within and for the County and State aforesaid duly qualified, commissioned and acting, the within named \_\_\_\_\_\_\_ to me well known and stated and acknowledged that he had executed the same and delivered the foregoing instrument for the consideration, uses and purposes therein mentioned and set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal this \_\_\_\_\_

day of \_\_\_\_\_, 2024.

Notary Public

My Commission Expires:



Lemons Engineering Consultants, Inc. 204 West Cherry Street Cabot, Arkansas 72023 (501) 605-7565 arstrep43@gmail.com

July 10, 2024

Mr. Colton Leonard, City Planner City of Bryant, Arkansas Community Development 210 SW 3<sup>rd</sup> Street Bryant, Arkansas 72022

Re: Preliminary Plat 3927 Springhill Road, Bryant, AR Parcel # 840-11855-000

Dear Mr. Leonard:

Enclosed you will find the Civil Plans, Drainage Report, Draft Bill of Assurance, and related information as pertaining to the referenced project. Please begin the review on this project, and include on the agenda of the August 12, 2024, City of Bryant Planning Commission Meeting.

Please accept this letter as the Project Narrative. The following information should assist you in the review:

| Name of Development:    | Hillcrest Addition   |
|-------------------------|--|
| Property Address:       | 3927 Springhill Road, Bryant, Arkansas 70222                             |
| Tax Parcel ID:          | 840-11855-000  |
| Source of Title:        | 2021-030121 (Corp Warranty Deed)   |
| Owner/Developer:        | Springhill – HWY 5 Development, LLC, 816 E. Oak Street, Conway, AR 72032 |
| Zoning:                 | R-2 (Single Family Detached Homes)                                       |
| Total Area:             | 4.89 acres   |
| Total # of Lots:        | 13   |
| Density:                | 2.65 lots per acre   |
| Minimum Lot Size:       | 9000.91 sf (Minimum 9000 sf)   |
| Minimum Lot Width:      | 79.10 feet   |
| Neighboring Properties: | Residential (Single Family Detached) on the South & West                 |
|                         | Residential (Multi Family) on the North                                  |
|                         | Undeveloped on the East (across from Springhill Road)                    |
| Water:                  | Salem Water  |
| Sewer:                  | City of Bryant   |

Restrictive Covenants: Property in SFHA: Existing Structures: Drainage: See attached (Draft) No Yes, one house. This house will be removed as part of the development. This plan will reduce the flow of runoff onto the properties to the South. Attention is called to the enclosed Drainage Design Report.

Please contact me if you have any questions or concerns.

Sincerely,

200

Tim Lemons, PE



# **DETAILED PLANS:**

# HILLCREST ADDITION

PART OF SECTION 12, T-4-N, R-10-WCITY OF BRYANT, SALINE COUNTY, ARKANSAS

JULY 9, 2024

**PREPARED FOR:** 

SPRINGHILL HWY 5 DEVELOPMENT, LLC 816 E. OAK STREET CONWAY, ARKANSAS 72032



Pre Stre Gra Dete Wat Con Sew Con

| INDEX OF SHEETS            |   |
|----------------------------|---|
| eliminary Plat             | 1 |
| eet Plan/Profile           | 2 |
| ading Plan                 | 3 |
| ention Pond Plan           | 4 |
| ter Layout                 | 5 |
| nstruction Details — Water | 6 |
| wer Plan/Profile           | 7 |
| nstruction Details — Sewer | 8 |
| osion Control Plan         | 9 |
|                            |   |



CERTIFICATE OF PRELIMINARY PLAT APPROVAL:

ALL REQUIREMENTS OF THE BRYANT SUBDIVISION RULES AND REGULATIONS RELATIVE TO THE PREPARATION AND SUBMITTAL OF A PRELIMINARY PLAT HAVING BEEN FULFILLED, APPROVAL OF THIS DOCUMENT IS HEREBY GRANTED, SUBJECT TO FURTHER PROVISIONS OF SAID RULES AND REGULATIONS, THIS 

DATE OF EXECUTION

SIGNED: CHAIRMAN, BRYANT PLANNING COMMISSION

CERTIFICATE OF OWNERS:

WE, THE UNDERSIGNED, OWNERS OF THE REAL ESTATE SHOWN AND DESCRIBED HEREIN, DO HEREBY CERTIFY THAT WE HAVE LAID OFF, PLATTED, AND SUBDIVIDED, AND DO HEREBY LAY OFF, PLAT AND SUBDIVIDE SAID REAL ESTATE IN ACCORDANCE WITH THIS PLAT.

DATE

106

105

81.60'

9

\_\_\_\_2<u>5'\_S</u>ET<u>BAC</u>K\_\_\_\_

81.61'

29

9

28

9002.58 SF

584.47

.80.75

25' SETBACK

10

9003.57 SF

\_\_2<u>5' S</u>ET<u>BAC</u>K \_\_\_

\_ \_\_ \_ \_ \_ \_ \_ \_

SPRINGHILL HWY 5 DEVELOPMENT, LLC 816 E. OAK STREET CONWAY, ARKANSAS 72032

PART OF THE SE  $\frac{1}{4}$ , OF THE SE  $\frac{1}{4}$ , SECTION 17, T-1-S, R-14-W, SALINE COUNTY, ARKANSAS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF THE SE ¼, OF THE SE  $\frac{1}{4}$ , SECTION 17, T-1-S, R-14-W, SALINE COUNTY, ARKANSAS; THENCE N 02°17'33" E, 1167.19 FEET TO THE POINT OF BEGINNING: THENCE N 88°34'40" W. 1344.97 FEET: THENCE N 01°36'19"E, 167.98 FEET; THENCE S 87°44'58"E, 1346.85 FEET; THENCE S 02°18'02"W, 148.52 FEET; TO THE POINT OF BEGINNING, CONTAINING 4.89 ACRES, MORE OR LESS. SOURCE OF TITLE: 2021-030121

FLOOD CERTIFICATION:

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LP 🔴

HILLCREST DRIVE (50' R/W)

85.65

<u>20' EASEMENT</u>

25' SETBACK

5

20 EASEMENT

<u> 85.66′</u>

13

24

23

9020.92 SF

BASED UPON REVIEW OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FIRM COMMUNITY PANEL NO. 05125C0225E, EFFECTIVE DATE: JUNE 5, 2020 THE PROPERTY DEPICTED ON THIS PLAT IS LOCATED WITHIN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

> <u>LEGEND:</u> FOUND CONC. MONUMENT FOUND IRON PIN (FIP) light pole STOP/STREET NAME SIGN ---- PROPERTY BOUNDARY \_\_\_\_\_ LOT LINE ------ CENTERLINE OF ROAD ----- BUILDING SETBACK — — — — — — EASEMENT EXISTING CONTOUR CURB & GUTTER

OWNER: ST REGIS @ HURRICANE LAKE, LLC (DOC. 2012-33184)

380

25' SETBACK

9002.81 SF

<u>``----``---``---</u>`.

.86.51

2<u>5' SETBACK</u>

66°45' 65°55'55" 54.93' N 54°47'01" W 92.1

<u>S 87°44'58" E 1346.85'</u> 964.49'

7

\_\_\_\_\_ 2<u>5' SETBACK</u>\_\_\_\_

- 11

26

HURRICANE GARDENS PH 2

<u>N.87°44'58" W 964.49"</u>

82.50

<u>20'EASEMENT</u>

8

9004.01 SF

\_\_\_\_2<u>5'\_S</u>ET<u>BAC</u>K \_

82.51'

10

27

20 EASEMENT

ZETBACK

LP 🔶

0 25' SETBACK

6

9001.91 SF

2<u>5' SETBAC</u>K

- — — — — —

90.51

25



22






## <u>LEGEND:</u> —350— – PROPOSED CONTOUR



### <u>GENERAL NOTES:</u>

- 1.) ALL CONSTRUCTION AND MATERIALS TO BE VERIFIED BY A GEOTECHNICAL CONSULTANT PRIOR TO CONSTRUCTION.
- 2.) CONTRACTOR SHALL NOTIFY ENGINEER IF SIGNIFICANT CHANGES ARE MADE TO GRADING PLAN.
- 3.) ALL MATERIAL TO BE COMPACTED TO 95% STANDARD PROCTOR, INSTALLED IN 6" – 8" LIFTS, OR AS DIRECTED BY GEOTECHNICAL CONSULTANT.
- 4.) CONTRACTOR SHALL PROVIDE TEMPORARY EROSION CONTROL MEASURES UNTIL CONSTRUCTION IS COMPLETE.
- 5.) ALL UTILITIES TO BE LOCATED PRIOR TO CONSTRUCTION (ONE CALL, CITY, ETC.).
- 6.) CONTRACTOR SHALL NOT DISTURB ANY MORE GROUND THAN IS NECESSARY FOR THE INSTALLATION OF IMPROVEMENTS & GRADING WORK.
- 7.) CONTRACTOR SHALL GRADE YARDS TO ENSURE THAT GROUND SLOPES AWAY FROM ALL BUILDINGS IN ALL DIRECTIONS.









### <u>GENERAL NOTES:</u>

- 1.) ALL CONSTRUCTION AND MATERIALS TO MEET OR EXCEED SALEM WATER SPECIFICATIONS.
- 2.) INSTALL 12ga BLUE POLYETHELENE COATED SOLID COPPER WIRE IN A CONTINUOUS CIRCUIT UNDER ALL WATER MAINS AND SERVICE LINES. DIRECT BURY, WATERPROOF WIRE SPLICE CONNECTORS SHALL BE USED. TRACER WIRE SHALL BE TURNED UP AT ALL VALVES, HYDRANTS, METERS, AND BLOW-OFFS.
- 3.) ALL FITTINGS SHALL BE DUCTILE IRON M.J. (WHERE AVAILABLE).
- 4.) ATTENTION IS CALLED TO DETAILS FOR ADDITIONAL INFORMATION. 5.) CONSTRUCTION SHALL COMPLY WITH SECTION XIV.A - ADH RULES PERTAINING TO PUBLIC WATER SYSTEMS THAT STATES: "THE OPERATING ROUTINE SHALL INCLUDE NECESSARY PROTECTIVE MEASURES TO DETECT AND REMOVE OR DESTROY ANY CONTAMINANT OF CONCERN OR REGULATION THAT MIGHT ENTER THE DISTRIBUTION SYSTEM. EVERY PRECAUTION MUST BE TAKEN AGAINST THE POSSIBILITY OF SEWAGE CONTAMINATION OF THE WATER IN THE DISTRIBUTION SYSTEM. WATER MAINS AND SANITARY SEWERS SHALL BE CONSTRUCTED AS FAR APART AS PRACTICABLE, AND SHALL BE SEPARATED BY UNDISTURBED AND COMPACTED EARTH. A MINIMUM HORIZONTAL DISTANCE OF TEN FEET SHOULD BE MAINTAINED BETWEEN WATER LINES AND SEWER LINES OR OTHER SOURCES OF CONTAMINATION. WATER LINES AND SEWERS SHALL NOT BE LAID IN THE SAME TRENCH EXCEPT ON THE WRITTEN APPROVAL OF THE ARKANSAS DEPARTMENT OF HEALTH. WATER MAINS NECESSARILY IN CLOSE PROXIMITY TO SEWERS MUST BE PLACED SO THAT THE BOTTOM OF THE WATER LINE WILL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE AT ITS HIGHEST POINT. IF THIS DISTANCE MUST UNAVOIDABLY BE REDUCED, THE WATER LINE OR THE SEWER LINE MUST BE ENCASED IN WATERTIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST TEN FEET EITHER SIDE OF THE CROSSING. ANY JOINT IN THE ENCASEMENT PIPE IS TO BE MECHANICALLY RESTRAINED. THE ENCASEMENT PIPE MAY BE VENTED TO THE SURFACE IF CARRYING WATER OR SEWER UNDER PRESSURE. WHERE A WATER LINE MUST UNAVOIDABLY PASS BENEATH THE SEWER LINE, AT LEAST 18 INCHES OF SEPARATION MUST BE MAINTAINED BETWEEN THE OUTSIDE OF THE TWO PIPES IN ADDITION TO THE PRECEDING ENCASEMENT REQUIREMENT. EXCEPTIONS TO THIS MUST BE APPROVED IN WRITING BY THE ARKANSAS DEPARTMENT OF HEALTH. A MINIMUM HORIZONTAL DISTANCE OF THREE FEET SHALL BE MAINTAINED BETWEEN WATER LINES AND OTHER UNDERGROUND UTILITIES OF A NONSANITARY NATURE (GAS, ELECTRIC, ETC.). EXCEPTIONS TO THIS MUST BE APPROVED IN WRITING BY THE ARKANSAS DEPARTMENT OF HEALTH.
- 6.) CONTRACTOR SHALL ADHERE TO CURRENT OSHA REGULATIONS FOR EXCAVATION & TRENCH SAFETY.
- 7.) CONTRACTOR TO ADHERE TO AWWA SPECS FOR BLOCKING.
- 8.) CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED PRIOR TO CONSTRUCTION.

9.) CONTRACTOR SHALL CONTACT WATER & WASTEWATER UTILITIES FOR ALL APPLICABLE INSPECTION & TESTING. 10.) CONTRACTOR SHALL CONTACT WATER & WASTEWATER UTILITIES AT LEAST 24 HOURS PRIOR TO DISRUPTION OF ANY SERVICE.

11.) ALL MATERIALS AND COMPONENTS INSTALLED IN DRINKING WATER SYSTEMS ARE REQUIRED TO COMPLY WITH THE FEDERAL DEFINITION OF "LEAD FREE" CONTAINED IN PUBLIC LAW 111-380.







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ENGINEER

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No. 7373













Arkansas

Know what's **below. Call** before you dig.

<u>GENERAL\_NOTES:</u>

- 1.) A SILT FENCE AND STRAW BALE DIKE SHALL BE PLACED
- AT POTENTIAL LOCATIONS OF HEAVY EROSION. 2.) TEMPORARY STRAW BALE DIKES ARE TO BE CONSTRUCTED NOT TO POND WATER ON ADJACENT PROPERTY.
- 3.) ALL TEMPORARY EROSION CONTROLS SHALL BE MAINTAINED UNTIL ALL CONSTRUCTION IS COMPLETE & PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
- 4.) ONE OF THE FOLLOWING GROUND COVER METHODS SHALL BE USED AT AREAS OF CLEARING OTHER THAN FUTURE PAVEMENT SURFACES:
- STRAW OR HAY-LOOSE 2.0 TONS/ACRE STRAW OR HAY-TIED, ANCHORED, OR TACKED 1.5 TONS/ACRE 5.) SOIL EXPOSED FOR MORE THAN 14 DAYS WITH NO
- CONSTRUCTION ACTIVITY SHALL BE SEEDED OR REVEGITATED. 6.) CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING ON FLOW OF MUD INTO PUBLIC RIGHT-OF-WAY.
- 7.) ADDITIONAL EROSION CONTROL MEASURES WILL BE EMPLOYED WHERE NECESSARY BY SITE CONDITIONS.
- 8.) CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES & PROVIDE RAIN FALL MONITORING & BI-WEEKLY INSPECTION REPORTS IN ACCORDANCE WITH THE NPDES PERMIT REQUIREMENTS.
- 9.) CONTRACTOR SHALL USE "BEST MANAGEMENT PRACTICES" (BMP'S) WHEN IMPLEMENTING & MAINTAINING SEDIMENT & RUN-OFF CONTROLS.
- 10.) THE USE OF "BIO-DEGRADABLE SOCK" IS ALLOWED AS OPPOSED TO SILT FENCE.





3.) SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.





### SKY BLUE DUPLEXES PROPOSED MULTI-FAMILY UNITS

# DRAINAGE REPORT

FOR

City of Bryant, AR

DATE

Hurricane Lake Road, Saline County, AR

By:



#### <u>APPENDIX</u>

- Project Description/Summary
- Detention Discharge Summary, Composite C Values, & time of concentration

Street Drainage Calculation

East Ditch Calculations

Time of Concentration Calculation

Pond Report

Hydrographs

East Ditch Exhibit

#### <u>Summary</u>

The following calculations pertain to the detention design for the proposed multi family development Located off Hurricane Lake Road in Bryant, AR.

| Proposed Development area $= 0$ | .92 Acres |          |
|---------------------------------|-----------|----------|
|                                 | C         | tc (min) |
| Pre-development:                | 0.49      | 23       |
| Post-development:               | 0.69      | 23       |

#### Detention Pre & Post Development Comparisons

#### Prior to detention routing:

| Event (vrs)  | Pre-developed Flow $O(cfs)$ | Post-developed Flow (no pond) $O(cfs)$ |
|--------------|-----------------------------|--|
| <u>(y15)</u> | $\langle (013)$             |  |
| 2            | 1.40                        | 1.98                                   |
| 10           | 1.95                        | 2.75                                   |
| 25           | 2.26                        | 3.18                                   |
| 50           | 2.57                        | 3.61                                   |
| 100          | 2.75                        | 3.87                                   |

#### After routing to detention:

| Event (vrs)  | Pre-developed<br>O (cfs) | Post-developed (with pond)<br>O (cfs) | Water El. |
|--------------|--------------------------|---------------------------------------|-----------|
| <u>(j10)</u> | <u> </u>                 |                                       | (10)      |
| 2            | 1.40                     | 1.39                                  | 402.25    |
| 10           | 1.95                     | 1.72                                  | 402.62    |
| 25           | 2.26                     | 1.89                                  | 402.85    |
| 50           | 2.57                     | 2.03                                  | 403.05    |
| 100          | 2.75                     | 2.16                                  | 403.13    |
| 100          | 2.75                     | 2.16                                  | 403.13    |

Therefore the development will not create any additional flow in the downstream area.

#### East Channel

The following calculations pertain to the existing east ditch, and are based on proposed re-design and excavation of the existing channel in order to have the needed vertical room necessary for detention and 2.0 feet of freeboard for the finished floor elevations of proposed structures.

| time of concentration, tc (min) | REGION 3 IDF      |                |        |   |       |
|---------------------------------|-------------------|----------------|--------|---|-------|
| Pre                             |                   |                |        |   |       |
| Channel Dimension               | s and Time of Con | centration, to | 5      |   |       |
| Area (ft2)                      | 1998592.29        |                |        |   |       |
| Area (Acre)                     | 46                |                |        |   |       |
| Length, L (ft)                  | 2217.0            |                |        |   |       |
| Change in Elevation (ft)        | 60.27             |                |        |   |       |
| Slope, S (ft/ft)                | 0.027             |                |        |   |       |
| N (asphalt,grass,etc)           | 0.400             |                | h (ft) | S |       |
| L( overland, ft)                | 200               |                | 4      |   | 0.020 |
| L( channel 1, ft)               | 2017              |                | 56.27  |   | 0.028 |
| L( channel 2, ft)               | 0.0               |                | 0      |   | 0.000 |
| t <sub>i</sub>                  | 45.4              | v              |        |   |       |
| t <sub>t1</sub>                 | 5.6               | 6.007023       |        |   |       |
| t <sub>t2</sub>                 | 0.0               | 0              |        |   |       |
| time of concentration, tc (min) | 51.0              | use 50 mi      | in     |   |       |

|     | Design Peak Runoff Rates, Qp (cfs) |            |        |  |  |  |  |  |  |  |
|-----|------------------------------------|------------|--------|--|--|--|--|--|--|--|
|     | <u>Intensity, I (in/hr)</u>        | Flow (cfs) |        |  |  |  |  |  |  |  |
|     | I                                  | С          | Q      |  |  |  |  |  |  |  |
| ear | 4.19                               | 0.53       | 101.89 |  |  |  |  |  |  |  |
|     | Qp,max (max flow) cfs              |            | 102    |  |  |  |  |  |  |  |

100ye

#### V-Bottom Ditch (Analysis)

| Side<br>Slope | Q          | n         | Slope, m     | Depth    | Depth     | Area            | Velocity | Width |
|---------------|------------|-----------|--------------|----------|-----------|-----------------|----------|-------|
|               | cfs        |           | ft/ft        | ft       | in        | ft <sup>2</sup> | ft/sec   | ft    |
| 1: 3          | 103.0      | 0.023     | 0.005        | 2.53     | 30.4      | 19.26           | 5.35     | 15.20 |
| STATION '     | 1+68       |           |              |          |           |                 |          |       |
| Elev. + 2.0'  | Y + depth  | Dist to   | outlet El. @ | 0 Outlet | Low Point |                 |          |       |
| freeboard     |            | х         | y=           | mx+b     | b         |                 |          |       |
| 403.31        | 400.7      | 8 168     | .4 39        | 8.242    | 397.4     |                 |          |       |
| V-Bottom      | Ditch (Ana | alysis)   |              |          |           |                 |          |       |
| Side<br>Slope | Q          | n         | Slope, m     | Depth    | Depth     | Area            | Velocity | Width |
|               | cfs        |           | ft/ft        | ft       | in        | ft <sup>2</sup> | ft/sec   | ft    |
| 1: 2          | 103.0      | 0.023     | 0.005        | 2.95     | 35.4      | 17.40           | 5.92     | 11.80 |
| STATION       | 1+00       |           |              |          |           |                 |          |       |
| El. + 2.0     | Y + dep    | th Re-gra | ade Dist     | El. @ x  | Low Point |                 |          |       |
| freeboard     |            |           | x y          | /=mx+b   | b         |                 |          |       |
| 403.80        | 400.85     | i 1       | 00           | 397.9    | 397.4     |                 |          |       |

#### PRE DEVELOPMENT TOC:

| Time of Concentration, tc (min)      | Bryant IDF     |             |        |       |       |
|--------------------------------------|----------------|-------------|--------|-------|-------|
|                                      |                |             |        |       |       |
| Channel Dimensions                   | and Time of Co | ncentration | n to   |       |       |
| Area (ft2)                           | 40262.9        |             | i, ce  |       |       |
| Area (Acre)                          | 0.92           |             |        |       |       |
| Length, L (ft)                       | 837.0          |             |        |       |       |
| Change in Elevation (ft)             | 32             |             |        |       |       |
| Slope, S (ft/ft)                     | 0.038          |             |        |       |       |
| N (Coeff. Of roughness, Table 400-3) | 0.100          |             | h (ft) | S     |       |
| L( overland/sheet flow, ft)          | 75             |             | 1      |       | 0.013 |
| L( channel 1, ft)                    | 601            |             | 25.00  |       | 0.04  |
| L( channel 2, ft)                    | 161.0          |             | 1      |       | 0.006 |
| t <sub>i</sub>                       | 18.4           | v           |        |       |       |
| t <sub>t1</sub>                      | 3.3            | 3.0241      |        |       |       |
| t <sub>t2</sub>                      | 0.9            | 2.909438    |        |       |       |
| time of concentration, tc (min)      | 22.7           |             |        | use 2 | 3     |

#### POST DEVELOPMENT TOC:

| time of concentration, tc (min)      | Bryant IDF     |              |        |     |       |
|--------------------------------------|----------------|--------------|--------|-----|-------|
|                                      |                |              |        |     |       |
| Channel Dimensions                   | and Time of Co | oncentratior | n, tc  |     |       |
| Area (ft2)                           | 40262.9        |              |        |     |       |
| Area (Acre)                          | 0.92           |              |        |     |       |
| Length, L (ft)                       | 888.0          |              |        |     |       |
| Change in Elevation (ft)             | 32             |              |        |     |       |
| Slope, S (ft/ft)                     | 0.036          |              |        |     |       |
| N (Coeff. Of roughness, Table 400-3) | 0.100          |              | h (ft) | S   |       |
| L( overland/sheet flow, ft)          | 75             |              | 1      |     | 0.013 |
| L( channel 1, ft)                    | 659            |              | 25.00  |     | 0.04  |
| L( channel 2, ft)                    | 154.0          |              | 3      |     | 0.017 |
| t <sub>i</sub>                       | 18.4           | v            |        |     |       |
| t <sub>t1</sub>                      | 3.8            | 2.887956     |        |     |       |
| t <sub>t2</sub>                      | 0.5            | 4.77828      |        |     |       |
| time of concentration, tc (min)      | 22.8           |              |        | use | 23    |

### <sup>a</sup> Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

#### <u>Legend</u>

| <u>Hyd.</u> | <u>Origin</u> | Description              |
|-------------|---------------|--------------------------|
| 1           | Rational      | PRE DEV FLOW             |
| 2           | Rational      | DEVELOPMENT CREATED FLOW |
| 3           | Reservoir     | POST DEV. FLOW           |

Project: 19-0066 Bessent Duplexes \_06-26-2024.gpw

# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Hyd.<br>No. | Hydrograph<br>type<br>(origin)  | Peak<br>flow<br>(cfs) | Time<br>interval<br>(min) | Time to<br>Peak<br>(min) | Hyd.<br>volume<br>(cuft) | Inflow<br>hyd(s) | Maximum<br>elevation<br>(ft) | Total<br>strge used<br>(cuft) | Hydrograph<br>Description |
|-------------|---|-----------------------|---------------------------|--------------------------|--------------------------|------------------|------------------------------|-------------------------------|---------------------------|
| 1           | Rational  | 1.404                 | 1                         | 23                       | 1,938                    |                  |                              |                               | PRE DEV FLOW              |
| 2           | Rational  | 1.977                 | 1                         | 23                       | 2,729                    |                  |                              |                               | DEVELOPMENT CREATED FLOW  |
| 3           | Reservoir   | 1.391                 | 1                         | 30                       | 2,728                    | 2                | 402.25                       | 649                           | POST DEV. FLOW            |
| 3           | Reservoir   | 1.391                 | 1                         | 30                       | 2,728                    | 2                | 402.25                       | 649                           | POST DEV. FLOW            |
| 19-0        | 19-0066 Bessent Duplexes 06-26-2024 gpw Return Period: 2 Year Wiednesday 06 / 26 / 2024 |                       |                           |                          |                          |                  |                              |                               |                           |

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Wednesday, 06 / 26 / 2024

### Hyd. No. 1

PRE DEV FLOW

| Hydrograph type | = Rational      | Peak discharge    | = 1.404 cfs  |
|-----------------|-----------------|-------------------|--------------|
| Storm frequency | = 2 yrs         | Time to peak      | = 23 min     |
| Time interval   | = 1 min         | Hyd. volume       | = 1,938 cuft |
| Drainage area   | = 0.920 ac      | Runoff coeff.     | = 0.49       |
| Intensity       | = 3.115 in/hr   | Tc by User        | = 23.00 min  |
| IDF Curve       | = Bryant 50.IDF | Asc/Rec limb fact | = 1/1        |
|                 |                 |                   |              |



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Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

### Hyd. No. 2

#### DEVELOPMENT CREATED FLOW

| Hydrograph type | = Rational      | Peak discharge    | = 1.977 cfs  |
|-----------------|-----------------|-------------------|--------------|
| Storm frequency | = 2 yrs         | Time to peak      | = 23 min     |
| Time interval   | = 1 min         | Hyd. volume       | = 2,729 cuft |
| Drainage area   | = 0.920 ac      | Runoff coeff.     | = 0.69       |
| Intensity       | = 3.115 in/hr   | Tc by User        | = 23.00 min  |
| IDF Curve       | = Bryant 50.IDF | Asc/Rec limb fact | = 1/1        |



Wednesday, 06 / 26 / 2024

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Wednesday, 06 / 26 / 2024

### Hyd. No. 3

POST DEV. FLOW

| Hydrograph type | = Reservoir              | Peak discharge  | = 1.391 cfs  |
|-----------------|--------------------------|-----------------|--------------|
| Storm frequency | = 2 yrs                  | Time to peak    | = 30 min     |
| Time interval   | = 1 min                  | Hyd. volume     | = 2,728 cuft |
| Inflow hyd. No. | = 2 - DEVELOPMENT CREATE | DMak CEnevation | = 402.25 ft  |
| Reservoir name  | = DETENTION              | Max. Storage    | = 649 cuft   |

Storage Indication method used.



### **Pond Report**

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

#### Pond No. 1 - DETENTION

#### **Pond Data**

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 401.00 ft

#### Stage / Storage Table

| Stage (ft) | Elevation (ft) | Contour area (sqft) | Incr. Storage (cuft) | Total storage (cuft) |  |
|------------|----------------|---------------------|----------------------|----------------------|--|
| 0.00       | 401.00         | 80                  | 0                    | 0                    |  |
| 1.00       | 402.00         | 680                 | 331                  | 331                  |  |
| 2.00       | 403.00         | 1,994               | 1,279                | 1,610                |  |
| 3.00       | 404.00         | 3,353               | 2,644                | 4,254                |  |

#### **Culvert / Orifice Structures**

|                 | [A]      | [B]      | [C]      | [PrfRsr] |                | [A]         | [B]       | [C]  | [D]  |
|-----------------|----------|----------|----------|----------|----------------|-------------|-----------|------|------|
| Rise (in)       | = 8.00   | Inactive | Inactive | 0.00     | Crest Len (ft) | = 10.50     | 0.00      | 0.00 | 0.00 |
| Span (in)       | = 8.00   | 0.00     | 0.00     | 0.00     | Crest El. (ft) | = 403.15    | 0.00      | 0.00 | 0.00 |
| No. Barrels     | = 1      | 0        | 0        | 0        | Weir Coeff.    | = 2.60      | 3.33      | 3.33 | 3.33 |
| Invert El. (ft) | = 401.00 | 0.00     | 0.00     | 0.00     | Weir Type      | = Broad     |           |      |      |
| Length (ft)     | = 26.00  | 0.00     | 0.00     | 0.00     | Multi-Stage    | = No        | No        | No   | No   |
| Slope (%)       | = 0.50   | 0.00     | 0.00     | n/a      |                |             |           |      |      |
| N-Value         | = .013   | .013     | .013     | n/a      |                |             |           |      |      |
| Orifice Coeff.  | = 0.60   | 0.60     | 0.60     | 0.60     | Exfil.(in/hr)  | = 0.000 (by | Wet area) |      |      |
| Multi-Stage     | = n/a    | No       | No       | No       | TW Elev. (ft)  | = 0.00      |           |      |      |

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

**Weir Structures** 



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Stage (ft)

# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Hyd.<br>No. | Hydrograph<br>type<br>(origin)  | Peak<br>flow<br>(cfs) | Time<br>interval<br>(min) | Time to<br>Peak<br>(min) | Hyd.<br>volume<br>(cuft) | Inflow<br>hyd(s) | Maximum<br>elevation<br>(ft) | Total<br>strge used<br>(cuft) | Hydrograph<br>Description |
|-------------|---|-----------------------|---------------------------|--------------------------|--------------------------|------------------|------------------------------|-------------------------------|---------------------------|
| 1           | Rational  | 1.952                 | 1                         | 23                       | 2,693                    |                  |                              |                               | PRE DEV FLOW              |
| 2           | Rational  | 2.748                 | 1                         | 23                       | 3,793                    |                  |                              |                               | DEVELOPMENT CREATED FLOW  |
| 3           | Reservoir   | 1.719                 | 1                         | 32                       | 3,792                    | 2                | 402.62                       | 1,127                         | POST DEV. FLOW            |
| 3           | Reservoir   | 1.719                 | 1                         | 32                       | 3,792                    | 2                | 402.62                       | 1,127                         | POST DEV. FLOW            |
| 19-         | 19-0066 Bessent Duplexes 06-26-2024 gpw Return Period: 10 Year Wednesday 06 / 26 / 2024 |                       |                           |                          |                          |                  |                              | Wednesday                     | /, 06 / 26 / 2024         |

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Wednesday, 06 / 26 / 2024

### Hyd. No. 1

PRE DEV FLOW

| Hydrograph type | = Rational      | Peak discharge    | = 1.952 cfs  |
|-----------------|-----------------|-------------------|--------------|
| Storm frequency | = 10 yrs        | Time to peak      | = 23 min     |
| Time interval   | = 1 min         | Hyd. volume       | = 2,693 cuft |
| Drainage area   | = 0.920 ac      | Runoff coeff.     | = 0.49       |
| Intensity       | = 4.330 in/hr   | Tc by User        | = 23.00 min  |
| IDF Curve       | = Bryant 50.IDF | Asc/Rec limb fact | = 1/1        |
|                 |                 |                   |              |



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

### Hyd. No. 2

#### DEVELOPMENT CREATED FLOW

| Hydrograph type | = Rational      | Peak discharge    | = 2.748 cfs  |
|-----------------|-----------------|-------------------|--------------|
| Storm frequency | = 10 yrs        | Time to peak      | = 23 min     |
| Time interval   | = 1 min         | Hyd. volume       | = 3,793 cuft |
| Drainage area   | = 0.920 ac      | Runoff coeff.     | = 0.69       |
| Intensity       | = 4.330 in/hr   | Tc by User        | = 23.00 min  |
| IDF Curve       | = Bryant 50.IDF | Asc/Rec limb fact | = 1/1        |



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Wednesday, 06 / 26 / 2024

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Wednesday, 06 / 26 / 2024

### Hyd. No. 3

POST DEV. FLOW

| Hydrograph type | = Reservoir              | Peak discharge | = 1.719 cfs  |
|-----------------|--------------------------|----------------|--------------|
| Storm frequency | = 10 yrs                 | Time to peak   | = 32 min     |
| Time interval   | = 1 min                  | Hyd. volume    | = 3,792 cuft |
| Inflow hyd. No. | = 2 - DEVELOPMENT CREATE | DMELCEMevation | = 402.62 ft  |
| Reservoir name  | = DETENTION              | Max. Storage   | = 1,127 cuft |

Storage Indication method used.



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Hyd.<br>No. | Hydrograph<br>type<br>(origin) | Peak<br>flow<br>(cfs) | Time<br>interval<br>(min) | Time to<br>Peak<br>(min) | Hyd.<br>volume<br>(cuft) | Inflow<br>hyd(s) | Maximum<br>elevation<br>(ft) | Total<br>strge used<br>(cuft) | Hydrograph<br>Description |
|-------------|--------------------------------|-----------------------|---------------------------|--------------------------|--------------------------|------------------|------------------------------|-------------------------------|---------------------------|
| 1           | Rational                       | 2.258                 | 1                         | 23                       | 3,116                    |                  |                              |                               | PRE DEV FLOW              |
| 2           | Rational                       | 3.180                 | 1                         | 23                       | 4,389                    |                  |                              |                               | DEVELOPMENT CREATED FLOW  |
| 3           | Reservoir                      | 1.894                 | 1                         | 32                       | 4,388                    | 2                | 402.85                       | 1,424                         | POST DEV. FLOW            |
| 3           | Reservoir                      | 1.894                 | 1                         | 32                       | 4,388                    | 2                | 402.85                       | 1,424                         | POST DEV. FLOW            |
| 19-0        | 0066 Bessent                   | Duplexe               | s 06-26                   | -2024.gpv                | v Return P               | eriod: 25 Y      | ear                          | Wednesday                     | /, 06 / 26 / 2024         |

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Wednesday, 06 / 26 / 2024

### Hyd. No. 1

PRE DEV FLOW

| Hydrograph type | = Rational      | Peak discharge    | = 2.258 cfs  |
|-----------------|-----------------|-------------------|--------------|
| Storm frequency | = 25 yrs        | Time to peak      | = 23 min     |
| Time interval   | = 1 min         | Hyd. volume       | = 3,116 cuft |
| Drainage area   | = 0.920 ac      | Runoff coeff.     | = 0.49       |
| Intensity       | = 5.010 in/hr   | Tc by User        | = 23.00 min  |
| IDF Curve       | = Bryant 50.IDF | Asc/Rec limb fact | = 1/1        |
|                 |                 |                   |              |



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

### Hyd. No. 2

### DEVELOPMENT CREATED FLOW

| = Rational      | Peak discharge  | = 3.180 cfs  |
|-----------------|---|--|
| = 25 yrs        | Time to peak  | = 23 min   |
| = 1 min         | Hyd. volume   | = 4,389 cuft   |
| = 0.920 ac      | Runoff coeff.   | = 0.69   |
| = 5.010 in/hr   | Tc by User  | = 23.00 min  |
| = Bryant 50.IDF | Asc/Rec limb fact   | = 1/1  |
|                 | <ul> <li>Rational</li> <li>25 yrs</li> <li>1 min</li> <li>0.920 ac</li> <li>5.010 in/hr</li> <li>Bryant 50.IDF</li> </ul> | = RationalPeak discharge= 25 yrsTime to peak= 1 minHyd. volume= 0.920 acRunoff coeff.= 5.010 in/hrTc by User= Bryant 50.IDFAsc/Rec limb fact |



Wednesday, 06 / 26 / 2024

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Wednesday, 06 / 26 / 2024

### Hyd. No. 3

POST DEV. FLOW

| Hydrograph type | = Reservoir              | Peak discharge | = 1.894 cfs  |
|-----------------|--------------------------|----------------|--------------|
| Storm frequency | = 25 yrs                 | Time to peak   | = 32 min     |
| Time interval   | = 1 min                  | Hyd. volume    | = 4,388 cuft |
| Inflow hyd. No. | = 2 - DEVELOPMENT CREATE | Mak CENevation | = 402.85 ft  |
| Reservoir name  | = DETENTION              | Max. Storage   | = 1,424 cuft |

Storage Indication method used.



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Hyd.<br>No. | Hydrograph<br>type<br>(origin) | Peak<br>flow<br>(cfs) | Time<br>interval<br>(min) | Time to<br>Peak<br>(min) | Hyd.<br>volume<br>(cuft) | Inflow<br>hyd(s) | Maximum<br>elevation<br>(ft) | Total<br>strge used<br>(cuft) | Hydrograph<br>Description |
|-------------|--------------------------------|-----------------------|---------------------------|--------------------------|--------------------------|------------------|------------------------------|-------------------------------|---------------------------|
| 1           | Rational                       | 2.565                 | 1                         | 23                       | 3,539                    |                  |                              |                               | PRE DEV FLOW              |
| 2           | Rational                       | 3.612                 | 1                         | 23                       | 4,984                    |                  |                              |                               | DEVELOPMENT CREATED FLOW  |
| 3           | Reservoir                      | 2.030                 | 1                         | 33                       | 4,983                    | 2                | 403.05                       | 1,743                         | POST DEV. FLOW            |
| 3           | Reservoir                      | 2.030                 | 1                         | 33                       | 4,983                    | 2                | 403.05                       | 1,743                         | POST DEV. FLOW            |
| 19-0        | 0066 Bessent                   | Duplexe               | s 06-26                   | -2024.gpv                | v Return P               | eriod: 50 Y      | l<br>′ear                    | Wednesday                     | /, 06 / 26 / 2024         |

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

### Hyd. No. 1

PRE DEV FLOW

| Hydrograph type | = Rational      | Peak discharge    | = 2.565 cfs  |
|-----------------|-----------------|-------------------|--------------|
| Storm frequency | = 50 yrs        | Time to peak      | = 23 min     |
| Time interval   | = 1 min         | Hyd. volume       | = 3,539 cuft |
| Drainage area   | = 0.920 ac      | Runoff coeff.     | = 0.49       |
| Intensity       | = 5.690 in/hr   | Tc by User        | = 23.00 min  |
| IDF Curve       | = Bryant 50.IDF | Asc/Rec limb fact | = 1/1        |
|                 |                 |                   |              |



Wednesday, 06 / 26 / 2024

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

### Hyd. No. 2

### DEVELOPMENT CREATED FLOW

| Hydrograph type | = Rational      | Peak discharge    | = 3.612 cfs  |
|-----------------|-----------------|-------------------|--------------|
| Storm frequency | = 50 yrs        | Time to peak      | = 23 min     |
| Time interval   | = 1 min         | Hyd. volume       | = 4,984 cuft |
| Drainage area   | = 0.920 ac      | Runoff coeff.     | = 0.69       |
| Intensity       | = 5.690 in/hr   | Tc by User        | = 23.00 min  |
| IDF Curve       | = Bryant 50.IDF | Asc/Rec limb fact | = 1/1        |
|                 |                 |                   |              |



Wednesday, 06 / 26 / 2024

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Wednesday, 06 / 26 / 2024

### Hyd. No. 3

POST DEV. FLOW

| Hydrograph type | = Reservoir              | Peak discharge   | = 2.030 cfs  |
|-----------------|--------------------------|------------------|--------------|
| Storm frequency | = 50 yrs                 | Time to peak     | = 33 min     |
| Time interval   | = 1 min                  | Hyd. volume      | = 4,983 cuft |
| Inflow hyd. No. | = 2 - DEVELOPMENT CREATE | DME k CEMevation | = 403.05 ft  |
| Reservoir name  | = DETENTION              | Max. Storage     | = 1,743 cuft |

Storage Indication method used.



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Hyd.<br>No. | Hydrograph<br>type<br>(origin) | Peak<br>flow<br>(cfs) | Time<br>interval<br>(min) | Time to<br>Peak<br>(min) | Hyd.<br>volume<br>(cuft) | Inflow<br>hyd(s) | Maximum<br>elevation<br>(ft) | Total<br>strge used<br>(cuft) | Hydrograph<br>Description |
|-------------|--------------------------------|-----------------------|---------------------------|--------------------------|--------------------------|------------------|------------------------------|-------------------------------|---------------------------|
| 1           | Rational                       | 2.747                 | 1                         | 23                       | 3,791                    |                  |                              |                               | PRE DEV FLOW              |
| 2           | Rational                       | 3.868                 | 1                         | 23                       | 5,338                    |                  |                              |                               | DEVELOPMENT CREATED FLOW  |
| 3           | Reservoir                      | 2.156                 | 1                         | 33                       | 5,337                    | 2                | 403.13                       | 1,941                         | POST DEV. FLOW            |
| 3           | Reservoir                      | 2.156                 | 1                         | 33                       | 5,337                    | 2                | 403.13                       | 1,941                         | POST DEV. FLOW            |
| 19-0        | 0066 Bessent                   | Duplexe               | s_06-26                   | -2024.gpv                | / Return P               | eriod: 100       | Year                         | Wednesday                     | /, 06 / 26 / 2024         |

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Wednesday, 06 / 26 / 2024

### Hyd. No. 1

PRE DEV FLOW

| Hydrograph type | = Rational      | Peak discharge    | = 2.747 cfs  |
|-----------------|-----------------|-------------------|--------------|
| Storm frequency | = 100 yrs       | Time to peak      | = 23 min     |
| Time interval   | = 1 min         | Hyd. volume       | = 3,791 cuft |
| Drainage area   | = 0.920 ac      | Runoff coeff.     | = 0.49       |
| Intensity       | = 6.093 in/hr   | Tc by User        | = 23.00 min  |
| IDF Curve       | = Bryant 50.IDF | Asc/Rec limb fact | = 1/1        |
|                 |                 |                   |              |



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

### Hyd. No. 2

### DEVELOPMENT CREATED FLOW

| = Rational      | Peak discharge   | = 3.868 cfs   |
|-----------------|--|---|
| = 100 yrs       | Time to peak   | = 23 min  |
| = 1 min         | Hyd. volume  | = 5,338 cuft  |
| = 0.920 ac      | Runoff coeff.  | = 0.69  |
| = 6.093 in/hr   | Tc by User   | = 23.00 min   |
| = Bryant 50.IDF | Asc/Rec limb fact  | = 1/1   |
|                 | <ul> <li>Rational</li> <li>100 yrs</li> <li>1 min</li> <li>0.920 ac</li> <li>6.093 in/hr</li> <li>Bryant 50.IDF</li> </ul> | = RationalPeak discharge= 100 yrsTime to peak= 1 minHyd. volume= 0.920 acRunoff coeff.= 6.093 in/hrTc by User= Bryant 50.IDFAsc/Rec limb fact |



Wednesday, 06 / 26 / 2024

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Wednesday, 06 / 26 / 2024

### Hyd. No. 3

POST DEV. FLOW

| Hydrograph type | = Reservoir              | Peak discharge  | = 2.156 cfs  |
|-----------------|--------------------------|-----------------|--------------|
| Storm frequency | = 100 yrs                | Time to peak    | = 33 min     |
| Time interval   | = 1 min                  | Hyd. volume     | = 5,337 cuft |
| Inflow hyd. No. | = 2 - DEVELOPMENT CREATE | DMak CEMevation | = 403.13 ft  |
| Reservoir name  | = DETENTION              | Max. Storage    | = 1,941 cuft |

Storage Indication method used.



## **Hydraflow Rainfall Report**

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Return | Intensity-Duration-Frequency Equation Coefficients (FHA) |         |        |       |  |  |  |  |  |
|--------|--|---------|--------|-------|--|--|--|--|--|
| (Yrs)  | В  | D       | E      | (N/A) |  |  |  |  |  |
| 1      | 0.0000   | 0.0000  | 0.0000 |       |  |  |  |  |  |
| 2      | 32.2253  | 7.2000  | 0.6856 |       |  |  |  |  |  |
| 3      | 0.0000   | 0.0000  | 0.0000 |       |  |  |  |  |  |
| 5      | 0.0000   | 0.0000  | 0.0000 |       |  |  |  |  |  |
| 10     | 46.3641  | 10.0000 | 0.6781 |       |  |  |  |  |  |
| 25     | 61.8249  | 11.8000 | 0.7079 |       |  |  |  |  |  |
| 50     | 79.0516  | 13.3000 | 0.7326 |       |  |  |  |  |  |
| 100    | 54.7483  | 10.0000 | 0.6279 |       |  |  |  |  |  |

File name: Bryant 50.IDF

#### Intensity = B / (Tc + D)^E

|       |   |   |  | Intens   | ity Values   | (in/hr)   |  |   |   | <b>55</b><br>0.00<br>1.90<br>0.00<br>2.73<br>3.16<br>3.58<br>2.00  |  |
|-------|---|---|--|--|--|---|--|---|---|--|--|
| 5 min | 10  | 15  | 20   | 25   | 30   | 35  | 40   | 45  | 50  | 55   | 60   |
| 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   |
| 5.80  | 4.58  | 3.85  | 3.35   | 2.98   | 2.70   | 2.48  | 2.29   | 2.14  | 2.01  | 1.90   | 1.80   |
| 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   |
| 0.00  | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00  | 0.00   | 0.00  | 0.00  | 0.00   | 0.00   |
| 7.39  | 6.08  | 5.23  | 4.62   | 4.16   | 3.80   | 3.51  | 3.27   | 3.06  | 2.89  | 2.73   | 2.60   |
| 8.39  | 6.98  | 6.03  | 5.34   | 4.82   | 4.40   | 4.06  | 3.78   | 3.54  | 3.34  | 3.16   | 3.00   |
| 9.40  | 7.87  | 6.83  | 6.06   | 5.47   | 5.00   | 4.62  | 4.29   | 4.02  | 3.79  | 3.58   | 3.40   |
| 10.00 | 8.34  | 7.25  | 6.47   | 5.87   | 5.40   | 5.02  | 4.69   | 4.42  | 4.19  | 3.98   | 3.80   |
| 5     | min       0.00       5.80       0.00       7.39       8.39       9.40       10.00 | min     10       0.00     0.00       5.80     4.58       0.00     0.00       0.00     0.00       7.39     6.08       8.39     6.98       9.40     7.87       10.00     8.34 | min10150.000.000.005.804.583.850.000.000.000.000.000.007.396.085.238.396.986.039.407.876.8310.008.347.25 | min1015200.000.000.000.005.804.583.853.350.000.000.000.000.000.000.000.007.396.085.234.628.396.986.035.349.407.876.836.0610.008.347.256.47 | Intens           imin         10         15         20         25           0.00         0.00         0.00         0.00         0.00           5.80         4.58         3.85         3.35         2.98           0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00           0.00         0.00         0.00         0.00         0.00           7.39         6.08         5.23         4.62         4.16           8.39         6.98         6.03         5.34         4.82           9.40         7.87         6.83         6.06         5.47           10.00         8.34         7.25         6.47         5.87 | Intensity ValuesImin10152025300.000.000.000.000.000.005.804.583.853.352.982.700.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.000.007.396.085.234.624.163.808.396.986.035.344.824.409.407.876.836.065.475.0010.008.347.256.475.875.40 | Intensity Values (in/hr)min1015202530350.000.000.000.000.000.000.005.804.583.853.352.982.702.480.007.396.085.234.624.163.803.518.396.986.035.344.824.404.069.407.876.836.065.475.004.6210.008.347.256.475.875.405.02 | Intensity Values (in/hr)imin101520253035400.000.000.000.000.000.000.005.804.583.853.352.982.702.482.290.007.396.085.234.624.163.803.513.278.396.986.035.344.824.404.063.789.407.876.836.065.475.004.624.2910.008.347.256.475.875.405.024.69 | Intensity Values (in/hr)imin10152025303540450.000.000.000.000.000.000.000.000.005.804.583.853.352.982.702.482.292.140.007.396.085.234.624.163.803.513.273.068.396.986.035.344.824.404.063.783.549.407.876.836.065.475.004.624.294.0210.008.347.256.475.875.405.024.694.42 | Intensity Values (in/hr)min1015202530354045500.000.000.000.000.000.000.000.000.000.005.804.583.853.352.982.702.482.292.142.010.007.396.085.234.624.163.803.513.273.062.898.396.986.035.344.824.404.063.783.543.349.407.876.836.065.475.004.624.294.023.7910.008.347.256.475.875.405.024.694.424.19 | Intensity Values (in/hr)imin101520253035404550550.000.000.000.000.000.000.000.000.000.000.005.804.583.853.352.982.702.482.292.142.011.900.007.396.085.234.624.163.803.513.273.062.892.738.396.986.035.344.824.404.063.783.543.343.169.407.876.836.065.475.004.624.294.023.793.5810.008.347.256.475.875.405.024.694.42 </td |

Tc = time in minutes. Values may exceed 60.

|                       |      | Rainfall Precipitation Table (in) |      |      |       |       |       |        |  |  |  |
|-----------------------|------|-----------------------------------|------|------|-------|-------|-------|--------|--|--|--|
| Storm<br>Distribution | 1-yr | 2-yr                              | 3-yr | 5-yr | 10-yr | 25-yr | 50-yr | 100-yr |  |  |  |
| SCS 24-hour           | 0.00 | 0.00                              | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   |  |  |  |
| SCS 6-Hr              | 0.00 | 0.00                              | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   |  |  |  |
| Huff-1st              | 0.00 | 0.00                              | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   |  |  |  |
| Huff-2nd              | 0.00 | 0.00                              | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   |  |  |  |
| Huff-3rd              | 0.00 | 0.00                              | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   |  |  |  |
| Huff-4th              | 0.00 | 0.00                              | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   |  |  |  |
| Huff-Indy             | 0.00 | 0.00                              | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   |  |  |  |
| Custom                | 0.00 | 0.00                              | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00   |  |  |  |

Precip. file name: C:\Documents and Settings\Will\Desktop\Fleming\fleming.pcp
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Hyd. No. 1   |   | Hyd. No. 3   |   |  |
|--|---|--|---|--|
| PRE DEV FLOW   |   | POST DEV. FLOW   |   |  |
| Hydrograph type<br>Peak discharge<br>Time to peak<br>Hyd. Volume | = Rational<br>= 1.404 cfs<br>= 23 min<br>= 1,938 cuft | Hydrograph type<br>Peak discharge<br>Time to peak<br>Hyd. Volume | <ul> <li>Reservoir</li> <li>1.39 cfs</li> <li>30 min</li> <li>2,728 cuft</li> </ul> |  |



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Hyd. No. 1   |   | Hyd. No. 3   |   |  |
|--|---|--|---|--|
| PRE DEV FLOW   |   | POST DEV. FLOW   |   |  |
| Hydrograph type<br>Peak discharge<br>Time to peak<br>Hyd. Volume | = Rational<br>= 1.952 cfs<br>= 23 min<br>= 2,693 cuft | Hydrograph type<br>Peak discharge<br>Time to peak<br>Hyd. Volume | <ul> <li>Reservoir</li> <li>1.72 cfs</li> <li>32 min</li> <li>3,792 cuft</li> </ul> |  |



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Hyd. No. 1   |   | Hyd. No. 3   |   |  |
|--|---|--|---|--|
| PRE DEV FLOW   |   | POST DEV. FLOW   |   |  |
| Hydrograph type<br>Peak discharge<br>Time to peak<br>Hyd. Volume | = Rational<br>= 2.258 cfs<br>= 23 min<br>= 3,116 cuft | Hydrograph type<br>Peak discharge<br>Time to peak<br>Hyd. Volume | <ul> <li>Reservoir</li> <li>1.89 cfs</li> <li>32 min</li> <li>4,388 cuft</li> </ul> |  |



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

| Hyd. No. 1 |  |
|------------|--|
|------------|--|

### PRE DEV FLOW

| Hydrograph type | = Rational   |
|-----------------|--------------|
| Peak discharge  | = 2.565 cfs  |
| Time to peak    | = 23 min     |
| Hyd. Volume     | = 3,539 cuft |

## Hyd. No. 3

POST DEV. FLOW

| = Reservoir  |
|--------------|
| = 2.03 cfs   |
| = 33 min     |
| = 4,983 cuft |
|              |



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

# Hyd. No. 1

## PRE DEV FLOW

| Hydrograph type | = Rational   |
|-----------------|--------------|
| Peak discharge  | = 2.747 cfs  |
| Time to peak    | = 23 min     |
| Hyd. Volume     | = 3,791 cuft |
|                 |              |

## Hyd. No. 3

POST DEV. FLOW

| = Reservoir  |
|--------------|
| = 2.16 cfs   |
| = 33 min     |
| = 5,337 cuft |
|              |







## DETENTION POND MAINTENANCE PLAN

## Background

The detention pond is located just beyond the northeast corner of the property. The modifications are designed to temporarily detain stormwater to meet the City of Bryant's water quantity criteria before discharging from the pond.

### **Routine Maintenance**

Routine maintenance will include but not be limited to:

- -The primary discharge (v-notch weir) from the pond and other areas will be inspected monthly for debris which could inhibit the proper flow of discharge. Any debris will be removed immediately and disposed of or placed in a location to prevent future maintenance and to not cause impact up or downstream of the structure.
- -Trash will be removed from around the pond to prevent entering the pond. Generally, the site should be kept free of loose trash which could be carried off site by wind or rain.
- -Inspect the pond and discharge weir for non-routine maintenance need.

### Periodic or Non-Routine Maintenance

The routine inspection of the pond area and discharge weir will identify needed repairs and non-routine maintenance. These items may include but not be limited to:

- -Bottom of pond will be sodded (except where trickle channel is located).
- -Embankments sloped 2:1 will be rip rapped, 3:1 slopes shall be sodded -Re-growth of trees on or around the pond bank. These should be cut and removed from the pond area.
- -Stabilization of slopes may be required periodically or after excessive rain events. Any disturbance of slopes should be reseeded or may require installation of erosion control materials until seeding can reestablish adequate grasses to prevent future erosion. -Any other maintenance or repairs which would minimize other maintenance to the pond or outfall structures.

For questions or concerns about the pond, contact \_\_\_\_\_ at 501-315-2626.





 500
 01S
 14W
 0
 19
 440
 62
 1802



|  |  | DEVELOPER:   |   |
|--|--|--|---|
| OWNER:   | Ī  | DEVELOTER.   |   |
| Name: SKY BLUE, LLC  | N  | lame: <u>SKY BLUE, LLC</u>   |   |
| Address: 3621 INDEPE<br>BRYANT, AR   | DENCE DRIVE A  | .ddress: <u>3621 INDEPE</u><br>BRYANT, AR  | DENCE DRIVE   |
|  |  |  |   |
| CERTIFICATE OF OV  | WNER:  |  |   |
| We, the undersigned, owner<br>caused to be laid off, platted<br>accordance with the plat.  | s of the real estate shown<br>and subdivided, and to he  | and described herein do he<br>reby lay off, plat and subdi   | reby certify that we vide said real estate  |
|  |  |  |   |
| Date of Execution  | Name:  |  |   |
| Source of Tile:  | D.R. BOOK  | 2015 PAGE 7766   |   |
|  |  |  |   |
| CERTIFICATE OF PR  | OPERTY OWNERS  | <u>HIP:</u><br>in the office of Circuit Cler   | k and Ex-Officio  |
| recorder of Saline County, A<br>property more particularly de  | rkansas, reflect that<br>escribed herein on plat.  | is the record  | title owner of real   |
| D  |  |  |   |
| Dated:   | Certified Title  | Insurance Agent or Abstrac   | ctor  |
| CERTIFICATE OF PR  | ELIMINARY SURVI  | EYING ACCURACY:  |   |
| I, William Corbitt R. Shoffner<br>survey completed by me or un   | , hereby certify that this p<br>nder my supervision on   | roposed prelminary plat composed prelminary pl   | rrectly represents a; that the  |
| boundary lines show hereon o<br>Title; and that all<br>monuments which were foun   | orrespond with the descri  | ption in the deeds cited in t<br>y are correctly described an  | the above Source of<br>ad located.  |
|  |  |  |   |
| Date of Execution  | W  | lliam Corbitt R. Shoffner  |   |
|  | Re<br>La   | gistered Professional<br>nd Surveyor No. 1664 Arka   | ansas   |
|  |  |  |   |
|  |  |  |   |
| CERTIFICATE OF PRI<br>I, Kazi Islam. hereby certify t  | ELIMINARY ENGIN  | NEERING ACCURA   | CY:<br>and that the   |
| engineering requirements of t with.  | he City of Bryant Subdivis   | ion Rules and Regulations  | have been complied  |
|  |  |  |   |
| Date of Execution  | _  | Kazi Islam<br>Registered Professional  |   |
| I  |  | Engineer, No. 20876 Arka   | insas   |
|  |  |  |   |
|  |  |  |   |
| CERTIFICATE OF PR  | ELIMINARY PLAT   | APPROVAL:  |   |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this c  | ELIMINARY PLAT .<br>t Subdivision Rules and R<br>locument is hereby accept   | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby   | nditions of approva<br>y executed under th  |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this c<br>authority of said rules and reg   | ELIMINARY PLAT<br>t Subdivision Rules and R<br>locument is hereby accept<br>gulations.   | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby   | nditions of approva<br>y executed under th  |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this c<br>authority of said rules and reg   | ELIMINARY PLAT .<br>t Subdivision Rules and R<br>locument is hereby accept<br>ulations.  | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby   | nditions of approv.<br>y executed under th  |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this c<br>authority of said rules and reg<br>Date of Execution  | ELIMINARY PLAT .<br>t Subdivision Rules and R<br>locument is hereby accept<br>gulations.   | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN  | nditions of approva<br>y executed under th<br>MMISSION  |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this c<br>authority of said rules and reg<br>Date of Execution  | ELIMINARY PLAT .<br>t Subdivision Rules and R<br>locument is hereby accept<br>ulations.  | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>YANT PLANNING CON   | nditions of approva<br>y executed under th<br>MMISSION  |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this of<br>authority of said rules and reg<br>Date of Execution   | ELIMINARY PLAT .<br>t Subdivision Rules and R<br>locument is hereby accept<br>gulations.   | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>YANT PLANNING COM   | MMISSION  |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this of<br>authority of said rules and reg<br>Date of Execution   | ELIMINARY PLAT .<br>t Subdivision Rules and R<br>locument is hereby accept<br>ulations.<br>N<br>BF   | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>EYANT PLANNING CON  | MMISSION  |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this c<br>authority of said rules and reg<br>Date of Execution  | ELIMINARY PLAT .<br>t Subdivision Rules and R<br>locument is hereby accept<br>ulations.<br>N<br>BF<br>TER<br>SAS<br>664  | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>AYANT PLANNING CON<br>STA<br>ARKA   | MMISSION  |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this of<br>authority of said rules and reg<br>Date of Execution   | ELIMINARY PLAT<br>t Subdivision Rules and R<br>locument is hereby accept<br>ulations.  | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>EYANT PLANNING COM<br>EYANT PLANNING COM  | MMISSION  |
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| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this of<br>authority of said rules and reg<br>Date of Execution<br>Date of Execution<br>By affixing my seal and signatu<br>survey compiled under my sup<br>NOTE: This survey was based<br>search.<br>No portion of the property de<br>Rate Map, panel #05125C0366<br>OWNER: SKY BLUE, LLC<br>3261 INDEPEDD<br>BRYANT, AR 72<br>DEVELOPER/: SKY BLUE, LLC<br>SUBDIVIDER HOPE CONSUL<br>117 S. MARKET<br>BENTON, AR 72<br>NAME OF SUBDIVISION: SKY B  | ELIMINARY PLAT .<br>t Subdivision Rules and R<br>locument is hereby accept<br>ulations.<br>N<br>BF<br>EOF<br>NSAS<br>1664<br>TURE<br>TURE<br>TRE<br>TRE<br>N<br>N<br>BF<br>COF<br>NSAS<br>1664<br>TURE<br>TURE<br>TORE<br>TORE<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N  | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>YANT PLANNING CON<br>ARKA<br>LICE<br>PROFES<br>ENGI<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()   | MMISSION<br>MMISSION<br>INSED<br>SSIONAL<br>INEER<br>20876<br>IDU<br>ing correctly depicts a<br>does not represent a t<br>to the Federal Insurar<br>CRES (38,437 SQ. FT.)<br>SQ. FT)<br>R USERS<br>OF BRYANT<br>FERGY   |
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This certificate is hereby<br>AME, CHAIRMAN<br>EYANT PLANNING CON<br>ANT PLANNING CON<br>ARKA<br>LICE<br>PROFES<br>ENGI<br>NO.<br>NO.<br>NO.<br>CIFICATIONS:<br>AVERAGE LOT SIZE: 0.19 AC<br>MINIMUM LOT SIZE: (7,2008<br>NUMBER OF LOT'S: 4<br>SOURCE OF SEWER: CITY OF<br>SOURCE OF AS SHOWN<br>REAR-20' OR AS SHOWN<br>SIDE-8' OR AS SHOWN<br>SIDE - 5' OR AS SHOWN   | MMISSION<br>MMISSION<br>TE 00<br>NSAS<br>NSED<br>SSIONAL<br>INEER<br>20876<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>10  |
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This certificate is hereby<br>AME, CHAIRMAN<br>YAN'T PLANNING CON<br>YAN'T PLANNING CON<br>ARKA<br>LICE<br>PROFES<br>ENGI<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()  | AMISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSION<br>MISSI   |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this cauthority of said rules and reg<br>Date of Execution<br>Date of Execution<br>By affixing my seal and signatt<br>survey compiled under my sup<br>NOTE: This survey was based<br>search.<br>No portion of the property de<br>Rate Map, panel #05125C0360<br>OWNER: SKY BLUE, LLC<br>3261 INDEPED<br>BRYANT, AR 72<br>DEVELOPER/: SKY BLUE, LLC<br>3261 INDEPED<br>326 INDEPED<br>326 INDEPED<br>326 INDEPED<br>327 I | ELIMINARY PLAT .<br>t Subdivision Rules and R<br>locument is hereby accept<br>plations.<br>N<br>B<br>F<br>C<br>F<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C  | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>YANT PLANNING CON<br>ARKA<br>YANT PLANNING CON  | AMISSION<br>MMISSION<br>MMISSION<br>INSED<br>SSIONAL<br>INEER<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20877<br>20876<br>20876<br>20876<br>20876<br>20876<br>20877<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20976<br>20976<br>20976<br>20976<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>2 |
| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this cauthority of said rules and reg<br>Date of Execution<br>Date of Execution   | ELIMINARY PLAT<br>t Subdivision Rules and R<br>locument is hereby accept<br>ulations.<br>N<br>BF<br>FOF<br>NSAS<br>1664<br>TURE<br>TURE<br>TREE<br>TORE<br>TREE<br>NOT<br>SUPPOPERTY SPE<br>SURVEYOR<br>SURVEYOR   | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>YANT PLANNING CON<br>ARKA<br>LICE<br>PROFES<br>ENGI-<br>(), hereby certify that this draw<br>e work furnished by others and<br>100 year floodplain, according<br>CIFICATIONS:<br>AVERAGE LOT SIZE: 0.19 AC<br>MINIMUM LOT SIZE: (7,2008<br>NUMBER OF LOTS: 4<br>SOURCE OF WATER: WATEL<br>SOURCE OF SEWER: CITY C<br>SOURCE OF SEWER: CITY C<br>S   | AMISSION<br>MMISSION<br>MMISSION<br>INSED<br>SSIONAL<br>INEER<br>20876<br>IDU<br>ing correctly depicts a<br>does not represent a t<br>to the Federal Insurar<br>CRES (38,437 SQ. FT.)<br>GQ. FT)<br>R USERS<br>OF BRYANT<br>FERGY<br>EMENTS:  |
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| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this of<br>authority of said rules and reg<br>Date of Execution   | ELIMINARY PLAT<br>t Subdivision Rules and R<br>locument is hereby accept<br>plations.<br>N<br>BF<br>FOR<br>SURVEYOR<br>FOR USE AND I<br>SKY BLUE   | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>YANT PLANNING CON<br>ARKA<br>LICE<br>PROFES<br>ENGI<br>6, hereby certify that this draw<br>e work furnished by others and<br>100 year floodplain, according<br>CIFICATIONS:<br>AVERAGE LOT SIZE: 0.19 AC<br>MINIMUM LOT SIZE: 0.19 AC<br>AMUMANAN<br>DITILITY & DRAINAGE EASI<br>FRONT-20' OR AS SHOWN<br>SIDE - 5' OR AS SHOWN<br>ACC AN AND ACC AND   | AMISSION<br>MMISSION<br>INSED<br>SSIONAL<br>INEER<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20876<br>20976<br>20976<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>20076<br>2000 |
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| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this c<br>authority of said rules and reg<br>Date of Execution  | ELIMINARY PLAT<br>t Subdivision Rules and R<br>locument is hereby accept<br>alations.<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>S<br>S<br>C<br>C<br>N<br>N<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S  | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>YANT PLANNING CON<br>ARKA<br>YANT PLANNING CON<br>ILICE<br>PROFES<br>ENGI-<br>NO.<br>ARKA<br>LICE<br>PROFES<br>ENGI-<br>NO.<br>NO.<br>AVERAGE LOT SIZE 0.19 AC<br>MINIMUM LOT SIZE: (7,200<br>NUMBER OF LOTS: 4<br>SOURCE OF WATER: WATEJ<br>SOURCE OF SEWER: CITY C<br>SOURCE OF SEWER: CITY C<br>SOUR   | AMISSION<br>AMISSION<br>AMISSION<br>AMISSION<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSION<br>AL<br>AMISSI    |
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| CERTIFICATE OF PR<br>Pursuant to the City of Bryan<br>having been completed, this c<br>authority of said rules and reg<br>Date of Execution<br>Date of Execution<br>By affixing my seal and signatt<br>survey compiled under my sup<br>NOTE: This survey was based<br>search.<br>No portion of the property de<br>Rate Map, panel #05125C0360<br>OWNER: SKY BLUE, LLC<br>3261 INDEPED<br>BRYANT, AR 72<br>DEVELOPER/: SKY BLUE, LLC<br>SUBDIVIDER: SKY BLUE, SKY B<br>ENGINEERS: HOPE CONSUL<br>INSTRUMENT # 2015-7766<br>ZONING: R-X<br>A SUBDIVISION: SKY B<br>INSTRUMENT # 2015-7766<br>ZONING: R-X  | ELIMINARY PLAT<br>t Subdivision Rules and R<br>locument is hereby accept<br>ulations.<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>N<br>B<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C   | APPROVAL:<br>egulations, and all of the co<br>ed. This certificate is hereby<br>AME, CHAIRMAN<br>YANT PLANNING CON<br>ARKA<br>YANT PLANNING CON  | AMISSION<br>AMISSION<br>AMISSION<br>AMISSION<br>AMISSION<br>AMISSION<br>AMISSION<br>AL<br>ANSAS<br>ANSED<br>SSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>INEER<br>20876<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>AMISSIONAL<br>A  |
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| FOR USE AND BENEFIT OF:<br>SKY BLUE, LLC.  |                              |  |     |       |      |      |
|--|------------------------------|--|-----|-------|------|------|
| UTILITY PLAN<br>SKY BLUE DUPLEXES  |                              |  |     |       |      |      |
| CITY OF BRYANT, SALINE COUNTY, ARKANSAS  |                              |  |     |       |      |      |
| ATE: 01/06/2020 C.A.D. BY: DRAWING NUMBER:   |                              |  |     |       |      |      |
| EVISED:  | ISED: 06/26/2024 CHECKED BY: |  |     |       | 10   | 0066 |
| IEET: C-3.0 SCALE:   |                              |  | 19- | -0000 |      |      |
| 500         01S         14W         0         27         430         62         1807 |                              |  |     |       | 1807 |      |



A PART OF THE NORTHWEST OUARTER OF THE SOUTHEAST OUARTER OF SECTION 28. TOWNSHIP 1 SOUTH, RANGE 14 WEST, CITY OF BRYANT, SALINE COUNTY, ARKANSAS, MORE

BEGINNING AT A 1/2" REBAR (PS 1664) AND THE NE CORNER OF SAID NW1/4, SE1/4 OF SECTION 28;

THENCE ALONG THE EASTERLY LINE OF SAID NW1/4, SE1/4 SOUTH 02°21'15" WEST A DISTANCE OF 238.81

THENCE LEAVING SAID EASTERLY LINE NORTH 89°14'39" WEST A DISTANCE OF 287.91 FEET TO A SET 1/2"

THENCE NORTH 02°18'23" EAST A DISTANCE OF 237.47 FEET TO A SET 1/2" REBAR & CAP (PS 1664) AND

THENCE ALONG SAID NORTHERLY LINE SOUTH 89°30'32" EAST A DISTANCE OF 288.15 FEET TO THE POINT OF BEGINNING: CONTAINING 68.561.33 SOUARE FEET, OR 1.57 ACRES, MORE OR LESS.

TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS EXTENDING 10 FEET ON EITHER SIDE OF THE FOLLOWING DESCRIBED CENTERLINE: PART OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER AND PART OF THE SOUTHWEST QUARTER OF THE NORTHEAST OUARTER. ALL IN SECTION 28. TOWNSHIP 1 SOUTH. RANGE 14 WEST. SALINE COUNTY. ARKANSAS DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE NW 1/4 OF THE SE 1/4 OF SAID SECTION 28 AND RUN THENCE SOUTH 00 DEG. 00 MIN. 00 SEC. EAST 742.40 FEET: THENCE NORTH 90 DEG, 00 MIN, 00 SEC. EAST 924.50 FEET: THENCE NORTH 00 DEG, 13 MIN, 06 SEC WEST 30.70 FEET TO THE CENTERLINE OF A GRAVEL DRIVE AND THE POINT OF BEGINNING OF THE CENTERLINE OF EASEMENT: THENCE ALONG THE SAID CENTERLINE OF EASEMENT THE FOLLOWING BEARINGS AND DISTANCES: SOUTH 57 DEG, 49 MIN. 12 SEC. WEST 4.69 FEET; SOUTH 82 DEG. 34 MIN. 23 SEC. WEST 90.32 FEET; SOUTH 87 DEG. 15 MIN. 21 SEC. WEST 77.76 FEET; SOUTH 8 DEG. 55 MIN. 18 SEC. WEST 30.33 FEET; NORTH 73 DEG. 40 MIN. 27 SEC. WEST 43.46 FEET; NORTH 40 DEG. 11 MIN. 36 SEC. WEST 33.53 FEET: NORTH 09 DEG. 14 MIN. 57 SEC. WEST 34.94 FEET: NORTH 08 DEG. 42 MIN. 20 SEC. EAST 578.01 FEET; NORTH 05 DEG. 43 MIN. 52 SEC. EAST 78.68 FEET; NORTH 20 DEG. 29 MIN. 22 SEC. EAST 86.75 FEET: NORTH 14 DEG. 26 MIN. 28 SEC. EAST 72.25 FEET; NORTH 04 DEG. 00 MIN. 15 SEC. WEST 222.94 FEET; NORTH 01 DEG. 33 MIN. 33 SEC. EAST 87.44 FEET; THENCE NORTH 18 DEG. 29 MIN. 28 SEC. EAST 109.19 FEET TO THE CENTERLINE OF SHOAL ROAD AND

\_ \_ \_ \_ \_ \_ \_ \_

MC N

E

FND. 5/8" REBAR -



### CERTIFICATE OF OWNER:

We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have caused to be laid off, platted and subdivided, and to hereby lay off, plat and subdivide said real estate in accordance with the plat.

Date of Execution \_\_\_\_\_ \_\_\_\_ Name: \_\_\_

Source of Title: DEED 2024-007188

### CERTIFICATE OF FINAL SURVEYING ACCURACY:

I, William Corbitt R. Shoffner, hereby certify that this plat correctly represents a survey and a plan made by me or under my supervision; that all monuments shown hereon actually exist and their location, size, type and material are correctly shown; and that all interior lot lines have been adjusted to "as built conditions" and are accurately described on the plat and identified on the ground in terms of length and direction of the property sides.

Date of Execution

HOPE

CONSULTING INC.





### CERTIFICATE OF FINAL PLAT APPROVAL:

Pursuant to the City of Bryant Subdivision Rules and Regulations, this document was given approval by the Bryant Planning Commission at a meeting held , 20 All Documents are hereby accepted, and this certificate is hereby executed under the authority of said rules and regulations.

Date of Execution

Name Bryant Planning Commission Chairman



LINE DEFINITIONS LINE (L#) BEARING DISTANCI S89°30'32"E 22.60' Lı N28°14'31"E 38.22' L2 N07°29'01"E L3 77.11 N10°27'29"E 127.60' L4 L5 N07°29'01"E 75.05' N28°14'31"E 31.36'

L6

- FND. 1/2" REBAR (PS 1664)

SECTION 28, T-1-S, R-14-W

POINT OF BEGINNING (PARENT TRACT)

POINT OF COMMENCEMENT (TRACT A1)

POINT OF BEGINNING (TRACT A2)

NE CORNER

NW 1/4 , SE 1/4







CO

| <form><form><form><form><form><form><form></form></form></form></form></form></form></form>   |  | VICIN   | TTY MAP:  |
|---|--|---|---|
| <form><form><form></form></form></form>   | OR DRAINAGE AND UTILITIES PURPOSES AND WILL<br>ASSOCIATION (POA) OR IMPROVEMENT DISTRICT.  | PROJECT<br>LOCATION   |   |
| <form><form><form><form><form><form><form><form><form><form><form><form><form><form><form><form><form><form><form><form><form></form></form></form></form></form></form></form></form></form></form></form></form></form></form></form></form></form></form></form></form></form>   |  | OWNER:  | DEVELOPER:  |
|   |  | Name:         Address:  | Name:Address:   |
| <form></form>   |  | with the within plat.   |   |
|   |  | Date of Execution Name:   |   |
|   | 120.02<br>TVIXVV<br>986-902  | Source of Tile: <u>2021-009870</u>  |   |
|   | DETENTION<br>AREA<br>IRACT C<br>14723 Sq. Fr.<br>International Action of the state | CERTIFICATE OF PRELIMINARY SU<br>I, Jonathan L. Hope, hereby certify that this propo<br>completed by me, or under my supervision on<br>hereon correspond with the description in the deed<br>monuments which were found or placed on the pr   | RVEYING ACCURACY:<br>sed preliminary plat correctly represents a survey<br>, 2022; that the boundary lines shown<br>ls cited in the above Source Title; and that all<br>operty are correctly described and located    |
|   |  | Date of Execution   | d:<br>Jonathan L. Hope<br>Registered Professional<br>Land Surveyor No. 1762<br>Arkansas   |
|   | N88°19'21'W 119.82'  | CERTIFICATE OF PRELIMINARY EN<br>I, William W. McFadden, hereby certify that this p<br>or under my supervision; that all monuments show<br>and material are correctly shown; and that all requi<br>Regulations have been fully complied with.   | IGINEERING ACCURACY:<br>lat correctly represents a survey and a plan made by me<br>rn hereon actually exist and their location, size, type<br>rements of the City of Bryant Subdivision Rules and                     |
|   | 167.02 <sup>1</sup> 273  | Date of Execution   | William W. McFadden<br>Registered Professional<br>Engineer, No. 14048 Arkansas  |
|   |  | CERTIFICATE OF PRELIMINARY PL<br>All requirements of the City of Bryant Subdivision<br>submittal of a Preliminary Plat having been fulfiller<br>further provisions of said Rules and Regulations.   | <u>AT APPROVAL:</u><br>Rules and Regulations relative to the preparation and<br>d, approval of this plat is hereby granted, subject of  |
| OUT OF LANSING       Provide Human (Communication)         OUT OF LANSING       Provide Hu  |  | Signe   | d:<br>Bick Johnson, Chairman  |
| Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.       Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.       Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.         Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.       Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.         Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.       Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.         Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.       Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.         Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.       Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.         Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.       Image: Section of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map.         Image: Section Rate Rate Map.       <   |  | Date of Execution   | Bryant Planning Commission  |
| OWNE       MARKAGE ALL CALLS         WEAK ALL CALLS       WEAK ALL CALLS </td <td></td> <td>PROPERTY SE</td> <td>PECIFICATIONS:</td>  |  | PROPERTY SE   | PECIFICATIONS:  |
| Image: Construction of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rate Map, panel # 05125C0225E  | D ERIK G &<br>GAN R<br>840-11631-945<br>ING R2   | OWNER:       SUNSHINE HOLDINGS, LLC         2052 KAYSEN LANE         BRYANT, AR 72022         DEVELOPER/:       SUNSHINE HOLDINGS, LLC         SUBDIVIDER       2052 KAYSEN LANE         BRYANT, AR 72022   | EXISTING ZONING:<br>SOURCE OF WATER: CITY OF BRYANT<br>SOURCE OF SEWER: CITY OF BRYANT<br>SOURCE OF ELECTRIC: ENTERGY<br>SOURCE OF GAS: SUMMIT  |
| OF AU       Diversion of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rare Map. panel # .05125C0225E, Dated: 06/05/2020         OF AU       Diversion of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rare Map. panel # .05125C0225E, Dated: 06/05/2020         OF AU       Diversion of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rare Map. panel # .05125C0225E, Dated: 06/05/2020         OF AU       Diversion of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rare Map. panel # .05125C0225E, Dated: 06/05/2020         OF AU       Diversion of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rare Map. panel # .05125C0225E, Dated: 06/05/2020         OF AU       Diversion of the property described hereon lies within the 100 year floodplain, according to the Flood Insurance Rare Map. panel # .05125C0225E, Dated: 06/05/2020         NOTE: This survey was based on legal descriptions and title work furnish by the survey as based on legal descriptions and the work furnish by the survey was based on legal descriptions and the lood year floodplain, according to the Flood Insurance Rare Map. panel # .05125C0225E, Dated: 06/05/2020         NOTE: This survey was based on legal descriptions and title work furnish by the survey complete to the flood Insurance Rare Map. panel # .05125C0225E, Dated: 06/05/2020         Note: Survey Based on legal descriptions and title work furnish by thy thy the flood to the flood Insurance Rare Ma  |  | ENGINEERS: HOPE CONSULTING INC.<br>117 S. MARKET STREET<br>BENTON, AR 72015<br>NAME OF SUBDIVISION: HILLTOP MANOR   | BUILDING SETBACKS:<br>FRONT-25' OR AS SHOWN<br>REAR-25' OR AS SHOWN<br>SIDE-5' OR AS SHOWN  |
| By affixing my seal and signature, I Jonathan L. Hope, Arkansas PLS No,<br>1762, hereby certify that this drawing correctly depicts a survey compiled by<br>me or under my direct supervision.<br>NOTE: This survey was based on legal descriptions and title work furnish<br>by others and does not represent a title search.<br>No portion of the property described hereon lies within the 100 year floodplain,<br>according to the Flood Insurance Rate Map,<br>panel # <u>05125C0225E</u> , Dated: <u>06/05/2020</u> .<br>ITT S. Market Street,<br>Benton, Arkansas 72015<br>PH. (501)315-2626<br>PH. (501 |  |   | UTILITY & DRAINAGE EASEMENTS:<br>FRONT-10' OR AS SHOWN<br>REAR - 5' OR AS SHOWN<br>SIDE - 5' OR AS SHOWN  |
| Image: Computed point (M). Measured (M).  | KVM  | By affixing my seal and signature, I Jon<br>1762, hereby certify that this drawing of<br>me or under my direct supervision.<br>NOTE: This survey was based of<br>by others and does not represen<br>No portion of the property described a<br>according to the Flood Insurance Rate<br>panel # 05125C0225E, Dated: 00 | nathan L. Hope, Arkansas PLS No,<br>correctly depicts a survey compiled by<br>on legal descriptions and title work furnished<br>t a title search.<br>hereon lies within the 100 year floodplain,<br>Map,<br>5/05/2020 |
| OI AU/// AU   | OF AUTONORTH ALCONDINATE COORDINATE COORDINA             | <b>1-10PE</b><br><b>CONSULTING</b><br>ENGINEERS - SURVEYORS<br>FOR USE ANI  | 117 S. Market Street,<br>Benton, Arkansas 72015<br>PH. (501)315-2626<br>FAX (501) 315-0024<br>www.hopeconsulting.com  |
| No. 1931       LEGEND       A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS.         No. 1931 <ul> <li>- Aliquot Corner</li> <li>- Found monument</li> <li>- Set ½" Rebar</li> <li>- Computed point</li> <li>(M)- Measured</li> <li>(P) - Plat/Deed</li> </ul> <ul> <li>- Asubdivision in the City of BRYANT, SALINE COUNTY, ARKANSAS.</li> </ul> <ul> <li>- Asubdivision in the City of BRYANT, SALINE COUNTY, ARKANSAS.</li> <li>- Found monument</li> <li>- Set ½" Rebar</li> <li>- Computed point</li> <li>- Measured</li> <li>- Plat/Deed</li> </ul> <ul> <li>- Set ½</li> <li>- Found monument</li> <li>- Set ½</li> <li>- Set ½</li> <li>- Computed point</li> <li>- M- Measured</li> <li>- Plat/Deed</li> </ul> <ul> <li>- Set ½</li> <li>- Set ½</li> <li>- Computed point</li> <li>- Set ½</li> <li>- Set ½</li> <li>- Set ½</li> <li>- Computed point</li> <li>- Set ½</li> <li>- Computed point</li> <li>- Set ½</li>             &lt;</ul>  | HOPE   | SUNSHINE HO   | OLDINGS, LLC  |
| Image: And the second monument       Image: And the second monument       Image: DATE:       06/28/2024       C.A.D. BY: B.JOHNSON       DRAWING NUMBER:         Image: And the second monument       Image: And the second monument       Image: DATE:       06/28/2024       C.A.D. BY: B.JOHNSON       DRAWING NUMBER:         Image: And the second monument       Image: And the second monument       Image: DATE:       06/28/2024       C.A.D. BY: B.JOHNSON       DRAWING NUMBER:         Image: And the second monument   | No. 1931   | A SUBDIVISION IN THE CITY OF BR   | YANT, SALINE COUNTY, ARKANSAS.  |
|   | <ul> <li>Found monument</li> <li>Found monument</li> <li>Set ½" Rebar</li> <li>▲ - Computed point</li> <li>(M)- Measured</li> <li>(P) - Plat/Deed</li> </ul>   | DATE:         06/28/2024         C.A.D. BY:           REVISED:         CHECKED BY:           SHEET:         SCALE:         1"=  | B.JOHNSON DRAWING NUMBER:<br>100' 20-1341   |
| <u>x</u> - Fence 500 01S 14W 0 09 200 62 1762   | - <del>x x</del> - Fence   | 500 01S 14W 0   | 09 200 62 1762  |