Project Narrative

July 29, 2015

Project Overview

Express Car Wash and MDJ Studios, Inc. has filed an application for Site Plan review and modification, Special Use Permit for the Car wash use in the LC district. Also an application has been filed for Architectural and Landscape design review. The site is located west of the southwest corner of Power Rd and McDowell Rd in the Red Mountain Promenade. The site is approximately +/- .57 acres. The APN number for the site is 141-67-618. The site and build design has been review Irwin Pasternack and found to be in compliance with the Red Mountain Promenade Center.

Site Context

The proposed use is for an Express Car Wash. The use is permitted within the existing LC zoning and is compatible with a wide range of nearby types of commercial activity within the existing development. The use will serve and complement a larger segment of the surrounding community. The site is designed to be functional, and accommodate the adjacent existing developments. The existing adjacent uses to the site are as follows:

- North - Across McDowell Rd –Sleep America - zoned LC.
- East – Diamond Shamrock convenience store and gas station - zoned LC
- West – Red Mountain Shopping Center- zoned LC.
- South – Red Mountain Shopping Center - zoned LC.

Site Design

Site access is provided with an existing driveway entering from McDowell Rd and is internally connected providing complete loop circulation within the site via driveway aisles and parking with the Red Mountain Shopping Center. The queuing lanes have been orientated to start along the south property line and wrap north along the east property line. Providing the maxim length queuing possible, to avoid traffic build up in the shopping center. The car wash building has been orientated in the center of the site facing McDowell Rd providing screen of the parking / vacuum stalls to the west of the building from the intersection of Power and McDowell. Refuse and fire truck maneuvering is provided as per ordinance. All building setbacks meet current ordinance. McDowell Rd has a 75’ R.O.W. There is also a 20’-0” Public Utility Easement along the west property line. Fire hydrants are provided along McDowell Rd.

Landscape Screening

The right of way landscaping along McDowell Rd frontage has been in place for approximately 14 years allowing it to fully mature. McDowell Rd frontage has an existing 3’-4” high screen wall to provide screening of the parking lot. The remaining site is fully landscaped to complement the existing shopping center’s landscape palette.

Building Design

The car wash has been designed such that all car washing activities are contain with in the building, all car washing and vacuum motor equipment are contained inside to mitigate visual and noise impacts. The building is constructed of masonry with a stucco finish with an EIFS tower feature facing McDowell Rd. The materials and colors palette have been designed to incorporate the existing colors in the surrounding Red

Mountain Shopping center. The vacuum area will have standard arched supports, and the pay stations have an architectural canopy to match the building design. The architectural design will reflect the existing shopping center theme with aesthetically clean lines, compatible with the surrounding businesses. We have worked with the ownership of the center to ensure the building design will be comparable to the center. All mechanical units are roof mounted and will be screened from view with parapet walls. On-site cmu walls will be painted to match the building finishes. The refuse enclosure is located at the rear of the building. Refuse and fire truck maneuvering is provided.

Building Signage
The site will have a monument sign with an electronic messaging center (EMC) along McDowell Rd. The building will have wall mounted signage on the building tower and in small wall mounted marque along the west of the build. The tower signs will be a combination of internally illuminated pan channel letters and cabinet signs. The glass marquee cases will have a variety of life style image posters displaying monthly specials to the onsite customers.

The New Building Project consists of:

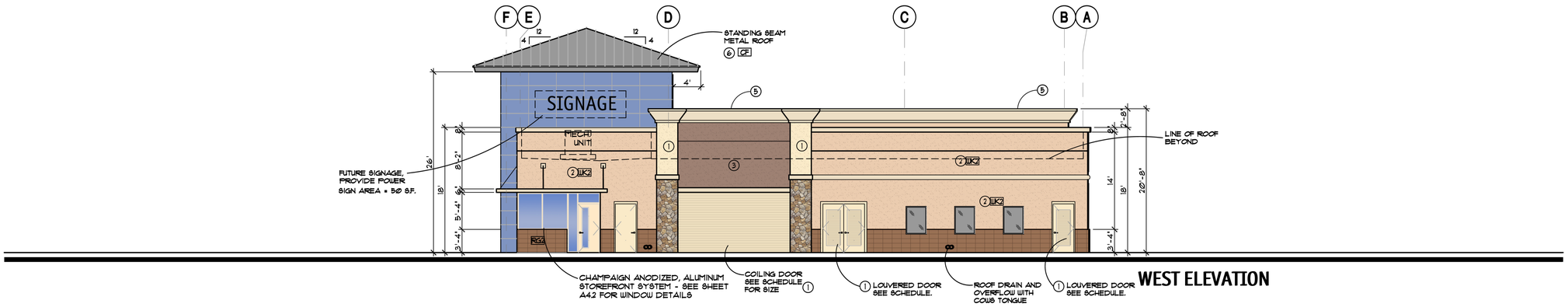
- 1 new masonry & steel framed building, single level building for a total of 2,861 s.f. Varying building height, maximum height currently proposed is 28'-8" (top of exit tower). Roof mounted mechanical units will be fully screened.
- The building is proposed to be Type V-B construction and B occupancy, w/ A.F.E.S.
- Internal and Frontage Landscaping will be provided.

Development Information:
Existing Use: Vacant Land /
Parcel Size: Approximately .57 acres (24,855 square feet)
Total Building Square Footage: 2,861 square feet
Building Heights: Single story with flat roofs limited to 28'-8" on the north side of the property
Parking Provided: 10 vacuum spaces are provided

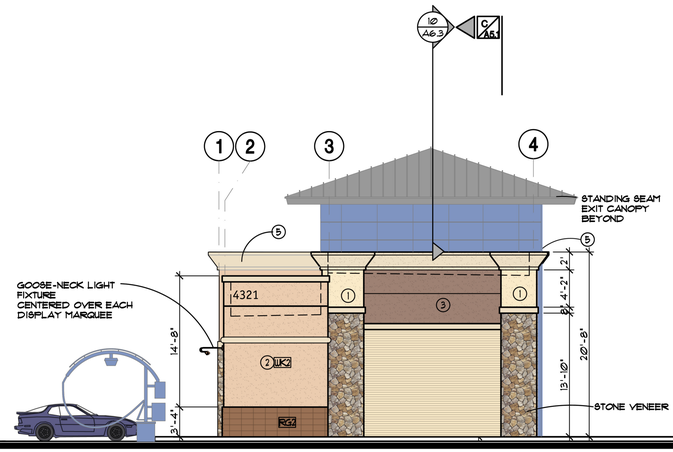
In advance, we appreciate your consideration of this project. The targeted date of construction is the fourth quarter of 2015.

Sincerely,

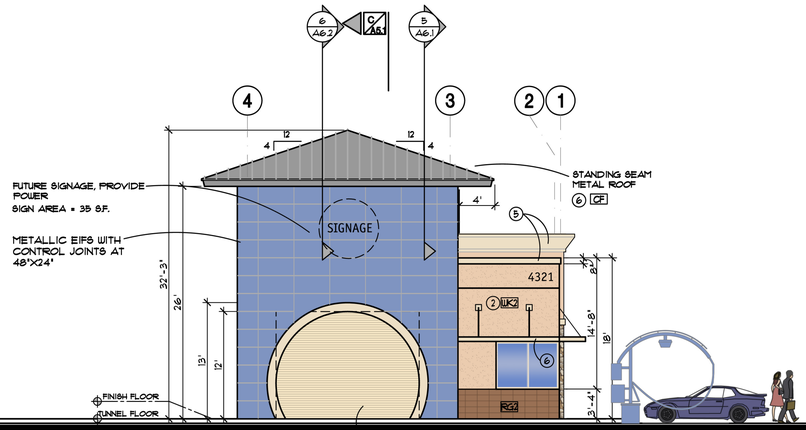
Michael Jorgensen
MDJ Studios



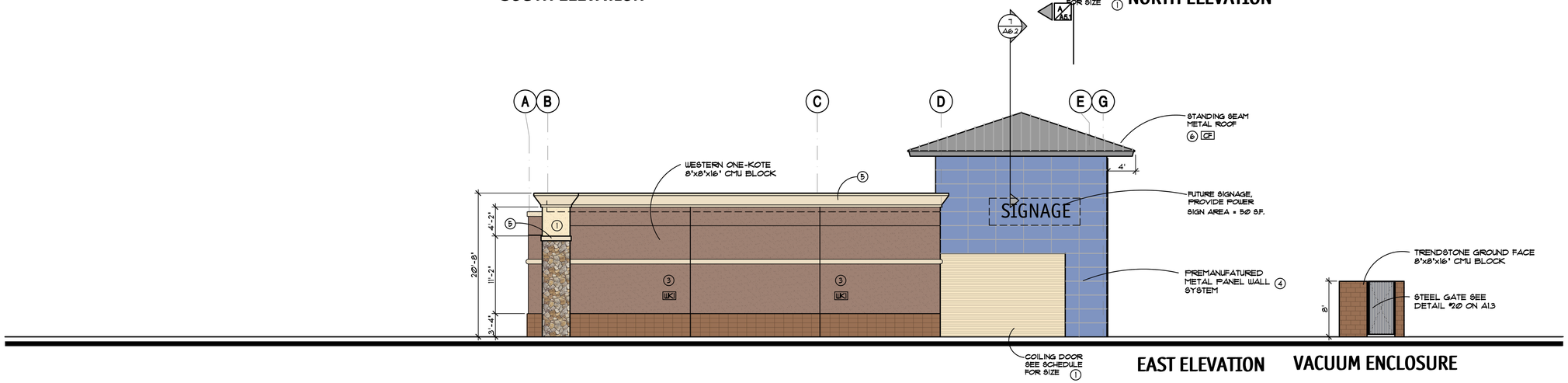
WEST ELEVATION



SOUTH ELEVATION



NORTH ELEVATION



EAST ELEVATION

VACUUM ENCLOSURE

EXTERIOR ELEVATIONS

1/8" = 1'-0"

0 4 8 16

GENERAL NOTES

1. SEE STRUCTURAL DRAWINGS FOR LINTEL INFORMATION.
2. SEE DOOR SCHEDULE FOR ROLL UP DOOR HEIGHTS
3. SEE STRUCTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS

MATERIAL SAMPLE APPROVAL

1. PRIOR TO ORDERING, G.C. TO PROVIDE INDIVIDUAL SAMPLES OF ALL BUILDING COLORS AND MATERIALS FOR REVIEW AND APPROVAL BY THE ARCHITECT AND OWNER.
2. ALL ALL INDIVIDUAL SAMPLES TO BE PRESENTED AT ONE TIME, ONSITE IN SIZES OF NO LESS THAN 12" X 12"

MATERIAL KEY

MATERIAL	DESCRIPTION
SV	STONE VENEER ELDRADO BORDEAX COUNTRY RUBBLE
WK1	WESTERN ONE-KOTE OVER 8 X 8 X 16 CMU
WK2	WESTERN ONE-KOTE OVER 6 X 8 X 16 CMU
SF	SPLIT FACED 8 X 8 X 16 CMU
MP	BASF METALLIC EFIS SYSTEM

CANOPY KEY

MATERIAL	DESCRIPTION
CF	CANOPY FRAME = 8" STL. CHANNEL PAINTED
CP	CANOPY DECK= STANDING SEAM
CT	CANOPY DECK= 2"X2" T8 TRELLIS

GLAZING KEY

MATERIAL	MATERIAL	COLOR / FINISH
FRAMES	ALUM.S.F.	DARK BRONZE ANODIZED
EXTERIOR GLASS		1" INSULATED BRONZE REFLECTIVE GLAZING

INSULATED GLAZING SYSTEM SPECIFICATION

OLDCASTLE - 1" INSULATED GLAZING SYSTEM
U-FACTOR SUMMER DAYTIME: .27
SOLAR HEAT GAIN COEFFICIENT (SHGC) : .18
OUTBOARD: 1/4" PPG SOLARCOOL BRONZE REFLECTIVE # 2
AIRSPACE: 1/2" (AIR FILL)
INBOARD: 1/4" PPG SOLARBAN 60 ON CLEAR LOW-E # 3

1. '5' AT WINDOW LOCATIONS INDICATES SPANDREL PANELS
2. SEE WINDOW TYPES FOR LOCATIONS OF TEMPERED GLASS.

COLOR KEY

COLOR KEY OR ELEMENT	COLOR NAME	MFR / COLOR NO.
1	LIT CONSTENT	DE 3051 DUNN EDWARDS
2	SUNSET COVE	DE 2480 DUNN EDWARDS
3	SATIN CURL	DE 3072 DUNN EDWARDS
4	BLUE MOON	BASF
5	ROAD RUNNER	DE 2290 DUNN EDWARDS
6	SOLID GRANITE	DE 3024 DUNN EDWARDS
7	DRY OUTPOST	DE 3072 DUNN EDWARDS
WALL PAK LIGHT	DARK BRONZE ANODIZED	
SCONCE LIGHT	DARK BRONZE ANODIZED	
BOLLARDS	ROAD RUNNER	DE 2290 DUNN EDWARDS
LIGHT POLE	DARK BRONZE ANODIZED	
GATES	ROAD RUNNER	DE 2290 DUNN EDWARDS
SES	ROAD RUNNER	DE 2290 DUNN EDWARDS
TRANSFORMER	ROAD RUNNER	DE 2290 DUNN EDWARDS

1. PAINTER TO PROVIDE A THREE COLOR SCHEME WITH ALL DECORATIVE BANDS MASKED AND PAINTED IN COLORS TO BE SELECTED BY ARCHITECT.
2. SEALANTS FOR PROJECTS TO MATCH ADJACENT MATERIAL COLORS - NO WHITE OR OFF WHITE COLORS
3. PAINTER TO PREPARE MASONRY BLOCK OR OTHER SAMPLES WITH APPROPRIATE COLOR TO BE APPROVED BY THE OWNER PRIOR TO APPLICATION ON BUILDING FACADES
4. PAINTER TO PROVIDE TWO COATS SEALER TO ALL EXPOSED NATURAL BLOCK, PRECAST CONCRETE, UNPAINTED CONCRETE AND OTHER MATERIALS AS REQUIRED TO PROVIDE A WEATHER SEALED PROJECT

SIGN AREA

ALLOWED	131 L.F. x 2 SF. = 262 SF. TOTAL
PROVIDED	35 + 50 + 50 + 72 = 207 SF

dj STUDIOS
2111 E. Fraktur Rd
Phoenix, AZ 85040
602.703.7913

REGISTERED ARCHITECT CERTIFICATE NO. 50668 MICHAEL D. JORGENSEN Date Signed ARIZONA, U.S.A.

EXPIRES 03/31/2016

EXPRESS WASH III

6735 EAST McDOWELL ROAD MESA, AZ

DATE

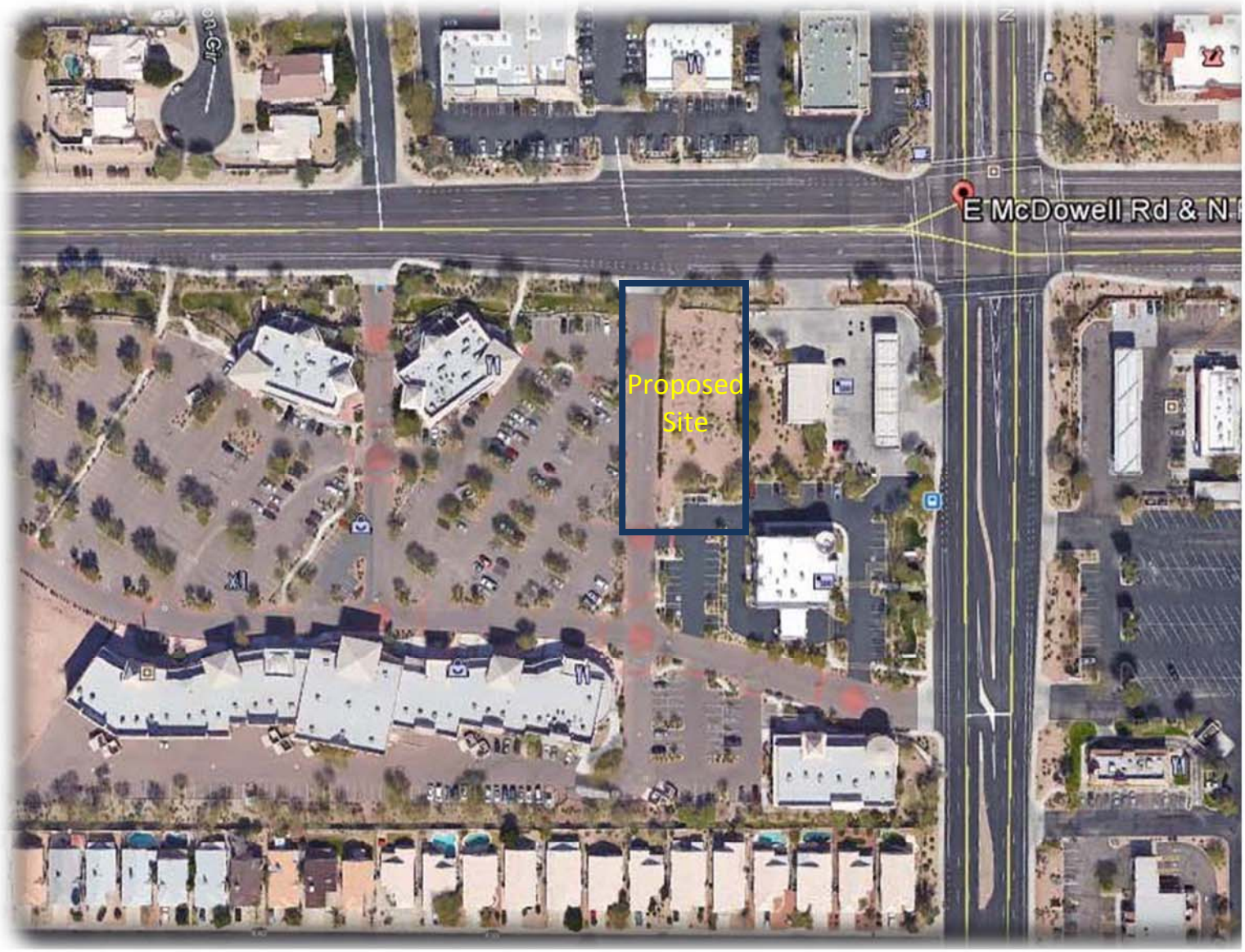
07.02.2015

NOTICE OF ALTERNATE BILLING CYCLE:

This contract allows the owner to require submission of billings or estimates in billing cycles other than thirty days. A written description of such other billing cycle applicable to this project is available from the owner or the owner's designated agent (see owner's telephone number and address on cover sheet) and the owner or its designated agent shall provide this written description upon request.

Project: CLM3

A7.1



Aerial Map

EXPRESS WASH Mesa. Arizona

This artist rendering is for conceptual design only and should not be referred to as a construction document.

mdj STUDIOS

Citizen Participation Plan
For the Express Wash III Project
Case # / PS15-050 (PLN2015-00301)

Date: Monday, August 03, 2015

Purpose:
The purpose of this Citizen Participation Plan is to inform the citizens, property owners, neighborhood associations, agencies, schools, and businesses in the vicinity of the site of an application for the Express Wash III project. This site is located at 6735 East McDowell Road, located north of the Southest corner of McDowell Rd. and Power Rd, and is an application for Design Review Board Approval and Planning and Zoning Approval for a site plan modification and special use permit. This plan will ensure that those affected by this application will have an adequate opportunity to learn about and comment on the proposed plans and actions addressed in this application.

Contact:
The person coordinating the Citizen Participation Plan activities is Michael Jorgensen. MDJ Studios, 2111 E Fraktur Rd, Phoenix, AZ 85040, phone (602) 703-7913. Email – mbjorgensen@cox.net

Preapplication Meeting:
The preapplication meeting with City of Mesa planning staff was held on July 20th, 2015.Staff reviewed the site plan and made comments about the concept of the proposed project and possible issues that may be expected. The Citizen Participation Plan will be submitted on August 3rd, 2015

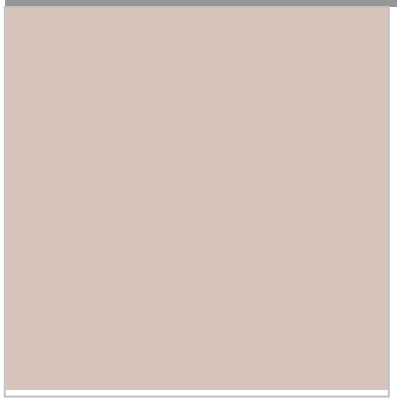
Action Plan:
In order to provide effective citizen participation in conjunction with their application, the following actions will be taken to provide opportunities to understand and address any real or perceived impacts their development that members of the community may have.

1. A contact list will be developed for citizens and agencies in this area including
   a. All registered neighborhood associations within 1,000 feet of the project. Contact has been made with Neighborhood Outreach at 480-644-5700, City of Mesa Citizen Participation Planner to identify representatives of registered neighborhoods and other similar associations in this area.
   b. Interested neighbors – focused on 750 feet from site, but may include more.
   c. Mesa Public School district in writing who may be affected by this application.
2. All persons listed on the contact list will receive a letter describing the project, project schedule, site plan, and an invitation to provide input.
3. Presentations will be made to groups of citizens or neighborhood associations upon request.

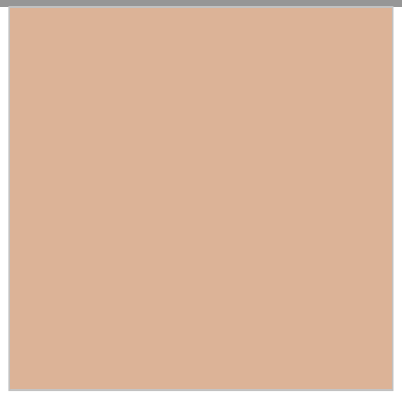
Schedule:
Pre-application meeting –July 20, 2015
Planning and Zoning Application Submittal – August 03, 2015
Design Review Board Application Submittal – August 03, 2015
Submittal of Citizen Participation Report and Notification materials – to be determined

Planning and Zoning Board Hearing Date –**Wednesday, October 21, 2015** at **4:00 p.m.**, the case will be considered at the **Planning and Zoning Hearing.** The meeting will be held in **The City Council Chambers, 57 E. First Street.**

Design Review Board Study Session Date - **Tuesday, September 08, 2015** at **4:30 p.m.** The meeting will be held in **Lower City Council Chambers, 57 E. First Street.**

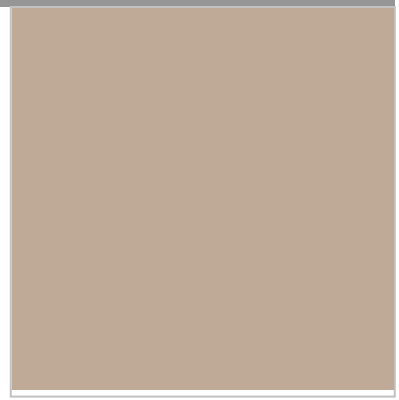


Dunn Edwards
'Lit Consent'
DE 3051



Dunn Edwards
'Sunset Cove'
DE 2480

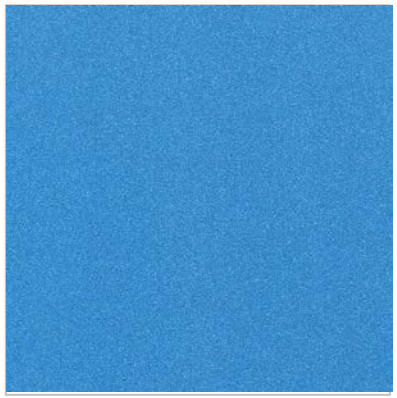
Dunn Edwards
'Satin Curl'
DE 3072



Dunn Edwards
'Road Runner'
DE 2290

Dunn Edwards
'Solid Granite'
DE 3024

Dunn Edwards
'Dry Outpost'
DE 3072

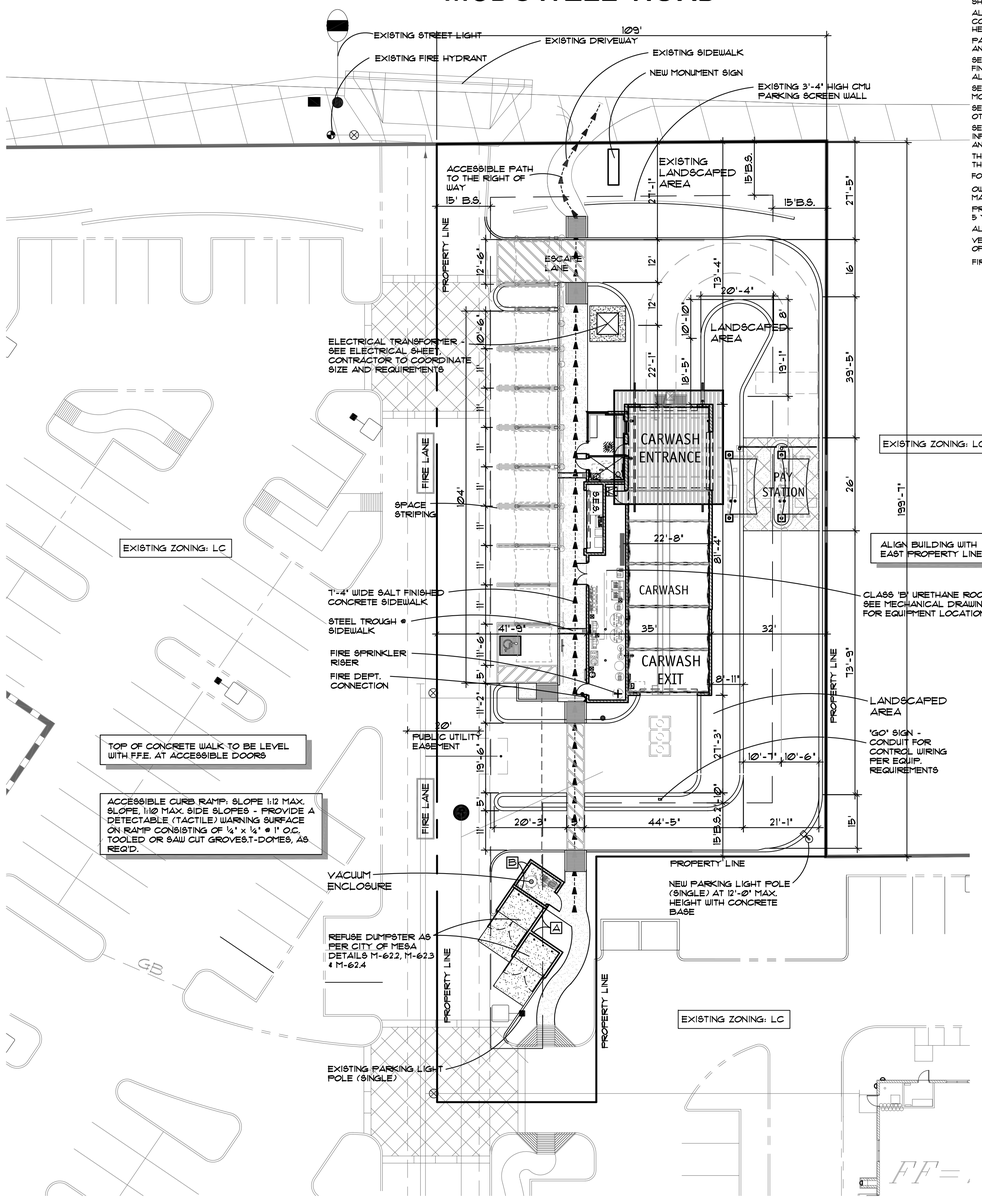


Synergy
Metallic EIFS
"Blue Moon"

Storefront System
Champagne Anodized

EXPRESS WASH III

MESA, ARIZONA



PROJECT NOTES

ALL UTILITIES SHALL BE PLACED UNDERGROUND.

ALL AREA LIGHTING ON PROPERTY SHALL BE POSITIONED TO REFLECT LIGHT AWAY FROM ADJACENT PROPERTY.

ALL EXISTING SIGNS SHALL CONFORM TO THE SIGN ORDINANCE. SIGNAGE IS NOT A PART OF THIS PROJECT. OWNER SHALL SECURE ALL NECESSARY PERMITS PRIOR TO INSTALLATION. SIGNAGE SHALL BE COMPATIBLE WITH BUILDING ARCHITECTURE.

ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE SCREENED BY THE PARAPETS. CONTRACTOR TO VERIFY THAT FINAL UNIT HEIGHTS DO NOT PROJECT ABOVE PARAPET HEIGHTS.

PAINT ALL TRANSFORMER BOXES, METER PANELS, ELECTRICAL EQUIPMENT, BACKFLOW VALVES, AND OTHER UTILITY EQUIPMENT TO MATCH THE BUILDING COLOR

SEE CIVIL PLANS FOR ALL GRADING AND DRAINAGE WORK. CONTRACTOR TO COORDINATE ALL FINISH ELEVATIONS, DIMENSIONS, PAVING REQUIREMENTS, ETC. CONTRACTOR TO COORDINATE ALL UTILITIES TO SITE, INCLUDING WATER, SEWER, ELECTRICAL AND SPRINKLERS.

SEE MECHANICAL PLANS FOR HVAC EQUIPMENT, INCLUDING LOCATIONS, CURBS, HOOKUP AND MOUNTING REQUIREMENTS.

SEE PLUMBING PLANS FOR ALL WASTE AND WATER REQUIREMENTS, INCLUDING ROOF DRAINS AND OTHER EQUIPMENT.

SEE ELECTRICAL PLANS FOR SERVICE AND TELEPHONE EQUIPMENT AND UTILITY COMPANY INFORMATION. CONTRACTOR TO COORDINATE ALL CONDUIT RUNS, EQUIPMENT LOCATIONS AND CLEARANCES AND REQUIREMENTS.

THE GRADE ON THE OUTSIDE OF EXTERIOR DOORS SHALL NOT BE MORE THAN 1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY. THE GRADE MAY NOT SLOPE MORE THAN 1/4" PER FOOT.

FOR SIDEWALK TEXTURES SEE SITE PLAN

OWNERS OR PROPERTY ADJACENT TO THE PUBLIC RIGHT-OF-WAY WILL HAVE THE RESPONSIBILITY FOR MAINTAINING ALL LANDSCAPING WITHIN THE RIGHTS-OF-WAY IN ACCORDANCE WITH THE APPROVED PLANS.

PROVIDE TERMITE TREATMENT AS PER CITY AND STATE STANDARD AND PROVIDE A 5 YEAR WARRANTY.

ALL CURBS SHALL BE EXTRUDED 6" CONCRETE CURBS

VERTICAL CONSTRUCTION WITH COMBUSTIBLE MATERIALS SHALL NOT BEGIN PRIOR TO ACCEPTANCE OF FIRE ACCESS ROADS AND FIRE HYDRANTS.

FIRE LANE CONSTRUCTION TO BE PER F.P.D. 502-1 & 502-2 (SEE CIVIL)

LEGEND

- PROPERTY LINE
- FIRE LANE — FIRE LANE
- RED CURBING EXISTS, PROVIDE MARKING THAT STATES 'FIRE LANE - NO PARKING' PER COM FIRE PREVENTION DETAIL FPD 503.3-1
- EASEMENT/SETBACK LINE
- CAR OVERHANG MEASURED FROM FACE OF CURB AS DIMENSIONED ON SITE PLAN.
- EXISTING 6" EXTRUDED CURB
- NEW 6" CAST IN PLACE CURB
- NEW SCREEN SITE WALL
- SALT FINISH CONC. SIDEWALK
- PAINT STRIPING ON PAVING
- EXISTING AREA TO REMAIN
- NEW FIRE HYDRANT
- EXISTING FIRE HYDRANT

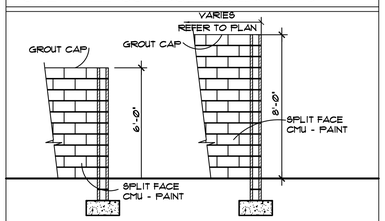
MESA ADDRESSING:

CITY OF MESA, DEVELOPMENT SERVICES OFFICE (480-644-2251 ASK FOR DEV SVCS) SUBMIT COPY OF PLAN(S) TO THEIR BUILDING SAFETY DEPARTMENT AT 55 N. CENTER, BUILDING SAFETY DEPT, FIRST FLOOR AND THEY WILL ASSIGN THE APPROPRIATE SUITE NUMBERS. NO FAXES OF SITE PLAN ACCEPTED. YOU MUST PERSONALLY SUBMIT THE PLANS TO THE DEPARTMENT. THEY DO NOT HAVE THE SUITE NUMBERING SYSTEM INFORMATION AVAILABLE.

GENERAL NOTES:

1. PARKING SCREEN WALLS TO BE 3'-0" ABOVE THE HIGHEST ADJACENT FINISHED GRADE OF THE PARKING AREA OR STREET CURB, WHICHEVER IS HIGHER.
2. PROVIDE STEPPED FOOTINGS PER THE STRUCTURAL DRAWINGS AT SCREEN AS REQUIRED BY THE CIVIL GRADING AND DRAINAGE PLANS.
3. SEE STRUCTURAL DWGS. FOR ALL FOOTING AND REINFORCING INFORMATION.
4. REFER TO SHEET A-7.1 & A-7.2 FOR MATERIAL AND COLOR FOR THE SITE WALLS.

SITE WALL SCHEDULE: SCALE : 1/16" = 1'-0"



A 6'-0" TALL WALL - TEXTURE BLOCK

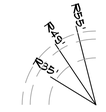
B 8'-0" TALL WALL - TEXTURE BLOCK

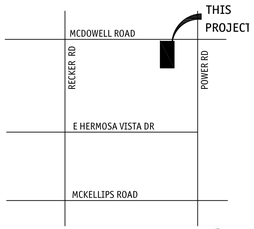
SITE PLAN

1" = 20'-0"

0 5 10 20 40

MESA TRUCK TURNING RADIUS. FIRE ACCESS LANE IS TO BE 20' IN WIDTH WITH TURNING RADII OF 35' INTERIOR AND 55' EXTERIOR





VICINITY MAP

N.T.S

A NEW BUILDING PROJECT

EXPRESS CAR WASH

PROJECT:	EXPRESS CAR WASH
ADDRESS:	6735 E MCDOWELL ROAD MESA, ARIZONA
SCOPE:	A NEW CAR WASH BUILDING
LEGAL DESCRIPTION:	LOT 3 RED MOUNTAIN PROMENADE
ASSESSOR PARCEL #:	141-67-618
ZONING:	LC (LIMITED COMMERCIAL)
NET SITE AREA:	24,855 (+/- .57ACRES)
BUILDING AREA:	2,861 S.F.
STORIES:	ONE STORY
LOT COVERAGE:	11.5%
LANDSCAPE AREA:	5,742 S.F.
LANDSCAPE COVERAGE:	23.1%
OCCUPANCY:	B
CONSTRUCTION TYPE:	V-B W/ A.F.E.S.
ALLOWABLE AREA:	36,000 S.F. (SINGLE STORY)
CLEAR HEIGHT:	18'-0"
STRUCTURAL DEPTH:	32"
SLOPE DEPTH:	1/4" PER 1'-0" MIN.
SCREENING HEIGHT:	60" MAX.
BUILDING HEIGHT:	20'-8" PARAPET / 26'-0" TOWER FEATURE

REQUIRED PARKING CALCS

OCCUPANCY	S.F.	FACTOR	TOTAL
OFFICE	227		
TUNNEL	1,939		
EQUIPMENT RM	695		
TOTAL	2,861	375	8

PARKING PROVIDED

TOTAL REGULAR SPACES	9
TOTAL ACCESSIBLE SPACES	1
TOTAL SPACES ON SITE	10

BICYCLE PARKING CALCS

RATIO	REQUIRED	PROVIDED
-	-	-

EXITS	
EXITS REQUIRED	2
EXITS PROVIDED	3

mdj STUDIOS
2111 E. Fraktur Rd
Phoenix, AZ 85040
602.703.7913

REGISTERED ARCHITECT
CERTIFICATE NO.
50668
MICHAEL D. JORGENSEN
ARIZONA U.S.A.
EXPIRES 03/31/2016

EXPRESS WASH III

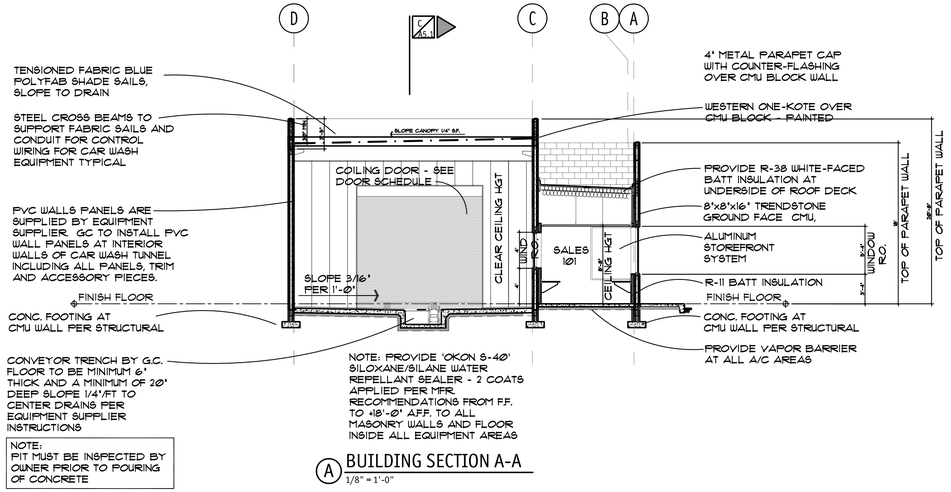
6735 EAST McDOWELL ROAD MESA, AZ

DATE

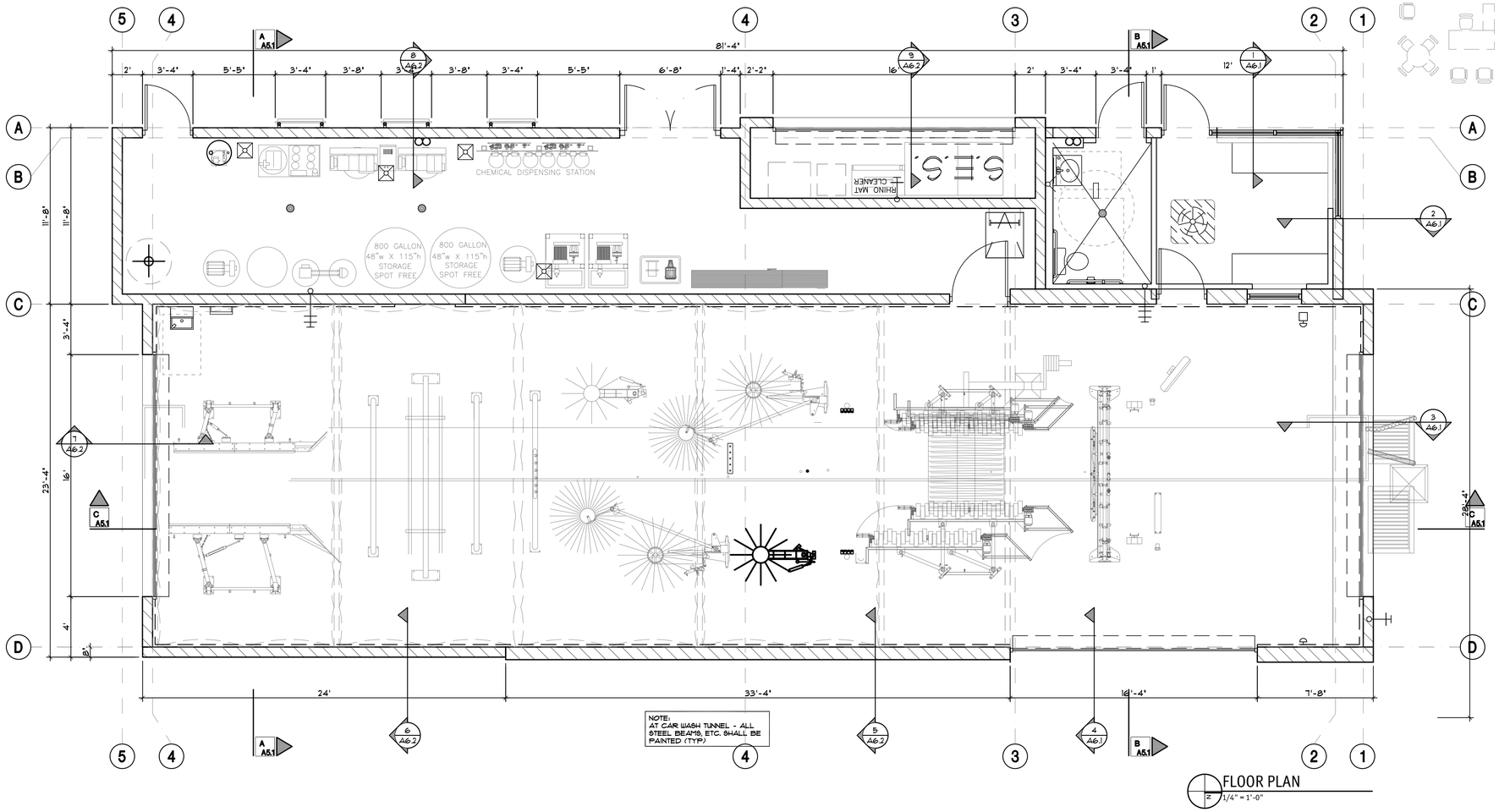
07.29.2015

Project: CLM3

A1.1



A BUILDING SECTION A-A
1/8" = 1'-0"



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

PARTITION KEY

SEE 88M1A NON-STRUCTURAL/ NON-BEARING INTERIOR STEEL STUDS & TRACKS DETAIL FOR LIMITING HEIGHTS, GAUGE, SPACING

B — INTERIOR PARTITION WALL TO 4' ABOVE HIGHEST ADJACENT CEILING WITH 5/8" GYPSUM BOARD EA. SIDE (W.R. GYP. BD @ WET WALLS, TYP.)
STUD SIZE: 3 5/8" INSUL: R-11 - (SOUNDBATT)
6" STUDS WHERE NOTED.

A — INTERIOR FURRING AT CMU WALL TO 4" ABOVE HIGHEST ADJACENT CEILING w/ 5/8" GYPSUM BOARD. (W.R. GYP. BD @ WET WALLS, TYP.)
STUD SIZE: 3 5/8" INSUL.: R-11
6" STUDS WHERE NOTED.

DRAWING LEGEND

- CMU WALL SEE ELEVATIONS
- INTERIOR DEMISING WALL
- INTERIOR PARTITION
- 101A — DOOR NUMBER
- 101A — DOOR NUMBER
- A — WINDOW TYPE
- A — PARTITION TYPE KEY
- VERIFY OWNER REQUIREMENTS FOR CASEWORK & EQUIPMENT, SEE 2/A4.2
- S.V. — 2" SLAB VENT-SEE DET. 4/A-8.1
- FE — 2A 10BC FIRE EXTINGUISHER MOUNTED ON BRACKET @ 48" AFF
- 1 / A8.1 — DETAIL NUMBER / SHEET NUMBER — DETAIL KEY
- 1 / A6.1 — SECTION NUMBER / SHEET NUMBER — WALL SECTION
- X / A5.1 — SECTION NUMBER / SHEET NUMBER — BUILDING SECTION
- A — GRID BUBBLE

ALL ITEMS DENOTED W/ HIDDENS LINES AS SHOWN ARE NOT IN CONTRACT. ALL FURNITURE/EQUIPMENT/ETC. PROVIDED BY TENANT, U.N.O.

FLOORING:

- OFFICES TO BE VINYL COMPOSITION TILE AND RUBBER BASE U.N.O.
- TOILET ROOM TO BE CERAMIC TILE AND BASE
- EQUIPMENT, ELECTRICAL AND CAR WASH TUNNEL TO BE VOLC COMP OR EQUAL SEALED CONCRETE

INTERIOR WALLS:

- OFFICES TO BE 5/8" GYP. BD. OVER STEEL FRAMING. TEXTURED FINISHED (TWO COATS LATEX PAINT)
- TOILET ROOMS TO BE FULL HEIGHT FRP OVER WRGB 'GREENBOARD' AT WET WALL AND ADJACENT WALLS
- FURRING AT EXTERIOR WALLS TO BE 3-5/8" STL. STUD w/ R-11 FIBERGLASS INSULATION FULL HEIGHT TO ROOF DECK INSULATION
- WALLS AT EQUIPMENT & ELECTRICAL AREAS TO BE PAINTED (TWO COATS LATEX PAINT) MASONRY
- WALLS AT CAR WASH TUNNEL TO BE PVC PANELIZED WALL BY NUFORM

CEILINGS:

- OFFICE CEILINGS TO BE ARMSTRONG SECOND LOOK 2' x 4' SUSP. CEILING @ 10'-0" AFF.
- CARWASH TUNNEL CEILING AT OPEN ROOF TO BE TENSIONED FABRIC POLYFAB SAILS - 12' x 28' WITH MARINE GRADE STAINLESS STEEL MOUNTING HARDWARE. SUPPLIER 'SHADESAILS' LLC
- TOILET ROOM CEILINGS TO BE 2' x 4' SUSP. VINYL COATED GRID CEILINGS @ 8'-0" AFF. AT SINGLE USER TOILETS
- EQUIPMENT AND ELECTRICAL AREAS TO BE OPEN TO STRUCTURE ABOVE (AT EVAP COOLED AREAS PROVIDE R-11 BACKED INSULATION.

DOORS / WINDOWS:

- OFFICE TO HAVE 8'-0" S.C. DOORS AT AC AREAS IN 'KNOCK DOWN' FRAME
- MAN DOORS TO BE STEEL DOORS IN HOLLOW METAL FRAME
- EXTERIOR COILING DOORS TO BE UNINSULATED 12' x 12' AND 10'X 14' 18 GA. DOORS AS SHOWN ON PLAN
- EXTERIOR OVERHEAD GLASS DOOR TO BE 16'X14' ALUMINUM FRAMES WITH TEMPERED GLASS LITES
- ALL INTERIOR GLASS TO BE CLEAR TEMPERED

MECHANICAL / PLUMBING

- ALL OFFICE AND TOILET AREAS TO BE AIR CONDITIONED
- EQUIPMENT AND ELECTRICAL AREAS TO BE EVAP COOLING
- CARWASH TUNNEL TO HAVE MINIMUM 8" FLOOR DRAIN TO MINIMUM 2000 GAL. SAND / OIL INTERCEPTOR
- EQUIPMENT AREA TO HAVE FLOOR DRAINS FOR CAR WASH EQUIPMENT
- PROVIDE ALL NECESSARY PIPING FOR OWNER FURNISHED CAR WASH EQUIPMENT

ELECTRICAL

- PROVIDE SINGLE LAMP METAL HALIDE WALL PAKS, BLDG MOUNT FOR SECURITY LIGHTING FULL PERIMETER OF EXTERIOR
- PROVIDE LED BACKLIGHTING AT WOOD FIN WALL
- PROVIDE POLE LIGHTING AT PARKING AREAS SITE
- PROVIDE (2) LAMP FLUORESCENT LIGHTING W/ EMERGENCY BATTERY BACKUP AT EXTERIOR EXIT DOORS
- ALL EXTERIOR LIGHTING TO BE CONTROLLED VIA A PHOTOCELL (DUSK TO DAWN) OR TIME CLOCK
- PROVIDE 2x4 INDIRECT LIGHT FIXTURES AT ALL OFFICES
- PROVIDE HI BAY WATER TIGHT FLUORESCENT LIGHTING AT CAR WASH TUNNEL
-
- PROVIDE ALL CONDUIT AND WIRING FOR ALL OWNER FURNISHED CAR WASH EQUIPMENT AND POS SYSTEM

MILLWORK / FURNITURE:

- ALL MILLWORK BASE AND UPPERS TO HAVE AN ALLOWANCE BY G.C. INCLUDING BUILT-IN OFFICE DESKS

STUDIOS
2111 E. Fraktur Rd
Phoenix, AZ 85040
602.703.7913

REGISTERED ARCHITECT
CERTIFICATE NO.
50668
MICHAEL D. JORGENSEN
EXPIRES 03/31/2016

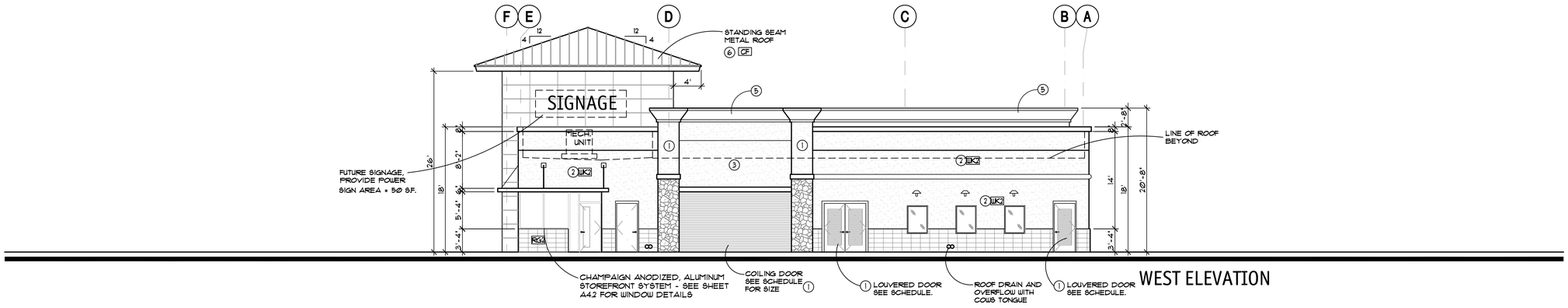
EXPRESS WASH III

6735 EAST McDOWELL ROAD MESA, AZ

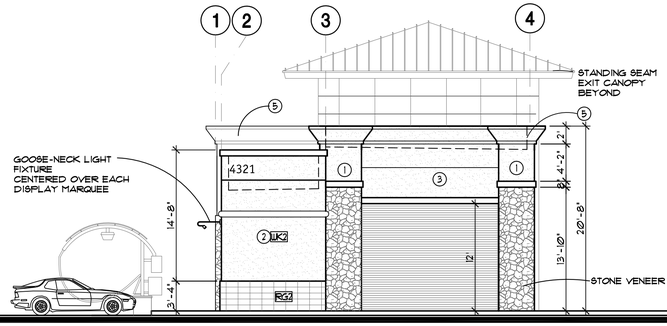
DATE
07.29.2015

Project: CLM3

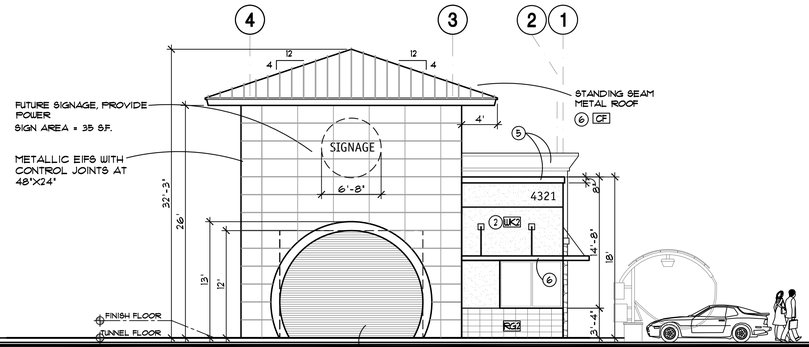
A2.1



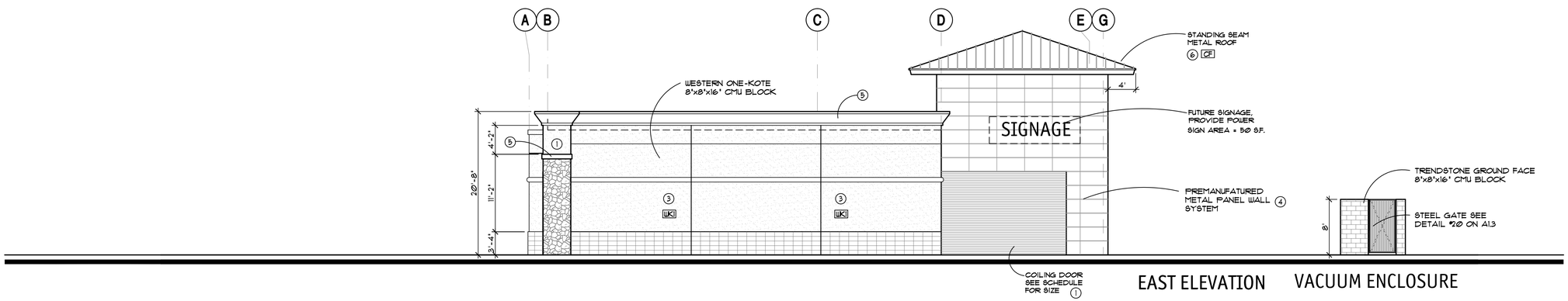
WEST ELEVATION



SOUTH ELEVATION



NORTH ELEVATION



EAST ELEVATION VACUUM ENCLOSURE

GENERAL NOTES

1. SEE STRUCTURAL DRAWINGS FOR LINTEL INFORMATION.
2. SEE DOOR SCHEDULE FOR ROLL UP DOOR HEIGHTS
3. SEE STRUCTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS

MATERIAL SAMPLE APPROVAL

1. PRIOR TO ORDERING, G.C. TO PROVIDE INDIVIDUAL SAMPLES OF ALL BUILDING COLORS AND MATERIALS FOR REVIEW AND APPROVAL BY THE ARCHITECT AND OWNER.
2. ALL ALL INDIVIDUAL SAMPLES TO BE PRESENTED AT ONE TIME, ONSITE IN SIZES OF NO LESS THAN 12" X 12"

MATERIAL KEY

MATERIAL	DESCRIPTION
SV	STONE VENEER ELDRADO BORDEAX COUNTRY RUBBLE
WK1	WESTERN ONE-KOTE OVER 8 X 8 X 16 CMU
WK2	WESTERN ONE-KOTE OVER 6 X 8 X 16 CMU
SF	SPLIT FACED 8 X 8 X 16 CMU
MP	BASF METALLIC EFIS SYSTEM

CANOPY KEY

MATERIAL	DESCRIPTION
CF	CANOPY FRAME = 8" STL. CHANNEL PAINTED
CP	CANOPY DECK= STANDING SEAM
CT	CANOPY DECK= 2"X2" T8 TRELLIS

GLAZING KEY

MATERIAL	MATERIAL	COLOR / FINISH
FRAMES	ALUM.S.F.	DARK BRONZE ANODIZED
EXTERIOR GLASS		1" INSULATED BRONZE REFLECTIVE GLAZING

INSULATED GLAZING SYSTEM SPECIFICATION

OLDCASTLE - 1" INSULATED GLAZING SYSTEM
U-FACTOR SUMMER DAYTIME: .27
SOLAR HEAT GAIN COEFFICIENT (SHGC) : .18
OUTBOARD: 1/4" PPG SOLARCOOL BRONZE REFLECTIVE # 2
AIRSPACE: 1/2" (AIR FILL)
INBOARD: 1/4" PPG SOLARBAN 60 ON CLEAR LOW-E # 3

1. '5' AT WINDOW LOCATIONS INDICATES SPANDREL PANELS
2. SEE WINDOW TYPES FOR LOCATIONS OF TEMPERED GLASS.

COLOR KEY

COLOR KEY OR ELEMENT	COLOR NAME	MFR / COLOR NO.
1	LIT CONSTENT	DE 3051 DUNN EDWARDS
2	SUNSET COVE	DE 2480 DUNN EDWARDS
3	SATIN CURL	DE 3072 DUNN EDWARDS
4	BLUE MOON	BASF
5	ROAD RUNNER	DE 2290 DUNN EDWARDS
6	SOLID GRANITE	DE 3024 DUNN EDWARDS
7	DRY OUTPOST	DE 3072 DUNN EDWARDS
WALL PAK LIGHT	DARK BRONZE ANODIZED	
SCONCE LIGHT	DARK BRONZE ANODIZED	
BOLLARDS	ROAD RUNNER	DE 2290 DUNN EDWARDS
LIGHT POLE	DARK BRONZE ANODIZED	
GATES	ROAD RUNNER	DE 2290 DUNN EDWARDS
SES	ROAD RUNNER	DE 2290 DUNN EDWARDS
TRANSFORMER	ROAD RUNNER	DE 2290 DUNN EDWARDS

1. PAINTER TO PROVIDE A THREE COLOR SCHEME WITH ALL DECORATIVE BANDS MASKED AND PAINTED IN COLORS TO BE SELECTED BY ARCHITECT.
2. SEALANTS FOR PROJECTS TO MATCH ADJACENT MATERIAL COLORS - NO WHITE OR OFF WHITE COLORS
3. PAINTER TO PREPARE MASONRY BLOCK OR OTHER SAMPLES WITH APPROPRIATE COLOR TO BE APPROVED BY THE OWNER PRIOR TO APPLICATION ON BUILDING FACADES
4. PAINTER TO PROVIDE TWO COATS SEALER TO ALL EXPOSED NATURAL BLOCK, PRECAST CONCRETE, UNPAINTED CONCRETE AND OTHER MATERIALS AS REQUIRED TO PROVIDE A WEATHER SEALED PROJECT

SIGN AREA

ALLOWED 131 L.F. x 2 SF. = 262 SF. TOTAL

PROVIDED 35 + 50 + 50 + 72 = 207 SF

EXTERIOR ELEVATIONS

1/8" = 1'-0"

0 4 8 16

dj STUDIOS
2111 E. Fraktur Rd
Phoenix, AZ 85040
602.703.7913

REGISTERED ARCHITECT
CERTIFICATE NO.
50668
MICHAEL D. JORGENSEN
I Hereby Certify
ARIZONA, U.S.A.

EXPIRES 03/31/2016

EXPRESS WASH III

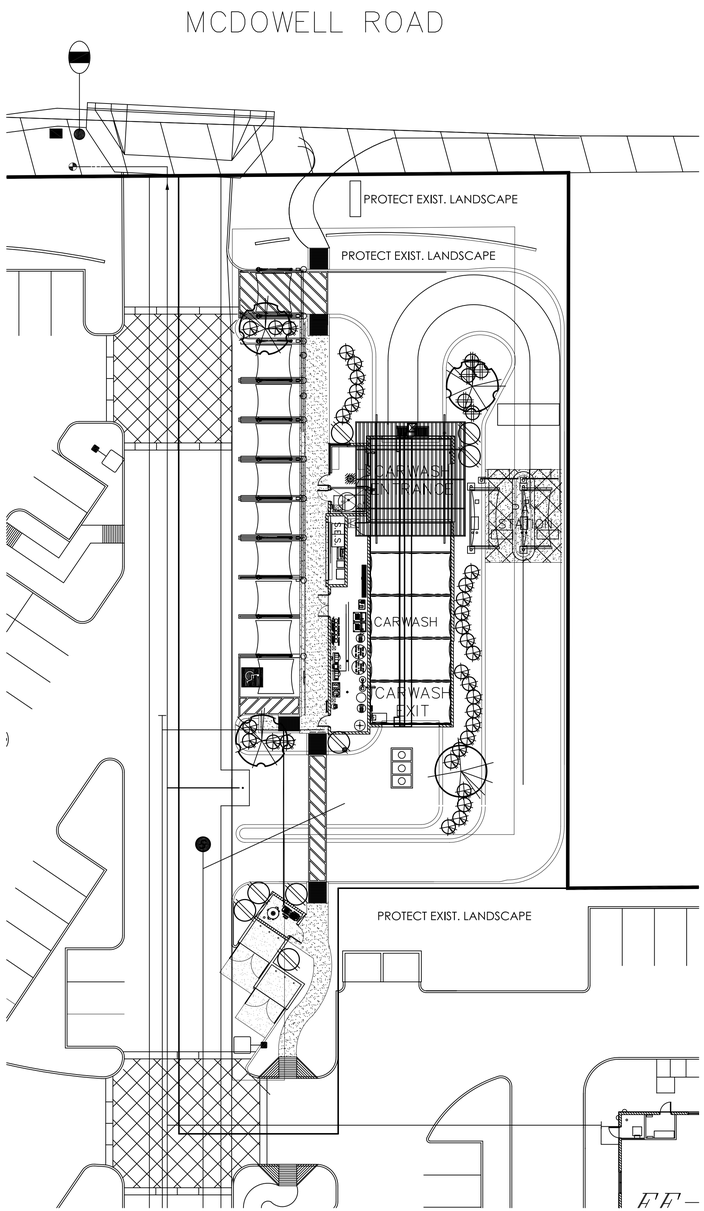
6735 EAST McDOWELL ROAD MESA, AZ

DATE

07.29.2015

Project: CLM3

A7.1



LANDSCAPE LEGEND

SOPHORA SECUNDIFLORA
TEXAS MOUNTAIN LAUREL
24" BOX (MATCHING)

CERCIDIUM PRAECOX
SONORAN PALO VERDE
24" BOX

LEUCOPHYLLUM FRUTESCENS
'GREEN CLOUD'
5 GALLON

TECOMA STANS
YELLOW BELLS
5 GALLON

DASYLIRION WHEELERII
DESERT SPOON
5 GALLON

LANTANA MONTEVIDENSIS
'GOLD MOUND'
1 GALLON

MATCH EXISTING
DECOMPOSED GRANITE
2" DEPTH IN ALL LANDSCAPE AREAS

CITY OF MESA
LANDSCAPE NOTES

1. ALL LANDSCAPE AREAS TO RECEIVE 2" LAYER DECOMPOSED GRANITE
2. ALL LANDSCAPE AREA TO BE WATERED BY UNDERGROUND AUTOMATIC IRRIGATION SYSTEM.
3. THE HEIGHTS AND CALIPERS SHALL COMPLY WITH 'ARIZONIA NURSERY ASSOCIATION SPECIFICATIONS' FOR THAT SIZE AND TYPE OF TREE.
4. REQUIRED TREES SHALL BE PROVIDED IN EQUAL NUMBERS OF 15 GALLON SIZE AND 24" BOX SIZE OR LARGER.
5. REQUIRED SHRUBS SHALL HAVE A MATURE GROWTH HEIGHT OF 18" AT LEAST 50% OF REQUIRE SHRUBS SHALL BE 5 GALLON SIZE.
6. PLANT MATERIAL SHALL BE CALCULATED BASED ON A LINEAR MODULE OF 25 FEET. TREES AND SHRUBS MAY BE CLUSTERED.

ARTERIAL STREET:
(2) TREES AND (6) SHRUBS PER 25' OF STREET FRONTAGE

MAJOR, MIDSECTION COLLECTOR STREET:
(2) TREES AND (6) SHRUBS PER 25' OF STREET FRONTAGE

COLLECTOR/INDUSTRAIL/COMMERICAL STREET:
(1) TREES AND (4) SHRUBS PER 25' OF STREET FRONTAGE

PUBLIC OR PRIVATE LOCAL STREET:
(1) TREES AND (4) SHRUBS PER 25' OF STREET FRONTAGE

7. PLANT MATERIAL SIZES REQUIRED:

TREES: (TOTAL REQUIRED TREES:)
25% SHALL BE 36" BOX OR LARGER
50% SHALL BE 24" BOX OR LARGER
NO TREES LESS THAN 15 GALLON

SHRUBS: (TOTAL REQUIRED SHRUBS:)
50% SHALL BE 5 GALLON OR LARGER.
NO SHRUBS LESS THAN 1 GALLON

8. 1 TREES AND 3 SHRUBS FOR EVERY 15' PARKING ISLAND PARKING SHALL BE INSTALLED @ EACH END OF ROW OF STALLS AND IN BETWEEN FOR MAXIMUM OF EIGHT CONTIGUOUS PARKING SPACES
9. FOUNDATION LANDSCAPING:LANDSCAPING TO A MINIMUM HEIGHT OF 18" IS REQUIRED IMMEDIATELY ADJACENT TO, OR PROVIDED IN PLANTER AREAS ADJACENT TO BUILDING, WHICH HAVE FRONTAGE ON A PUBLIC STREET. PLANTING AREAS MUST BE A MIN. OF 5' WIDE AND A MIN. OF 50% PLANT COVERAGE.
10. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE TESTED AND APPROVED BY A CERTIFIED TECHNICIAN DESIGNATED IN THE CURRENT CITY OF MESA LIST THE APPROVED INSPECTORS PRIOR TO THE REQUEST FOR FINAL INSPECTION".
11. THE REQUIRED BACKFLOW PREVENTION ASSEMBLY SHALL BE MANUFACTURER AND MODEL NUMBER DESIGNATED IN THE CURRENT CITY OF MESA LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES".
12. ALL WORK WILL BE DONE UNDER SEPARATE PERMIT FOR SIGNS".
13. ALL LANDSCAPING INSTALLED WITH THIS PROJECT TO BE MAINTAINED BY OWNERS ASSOC. OR OWNERS ASSOCIATION OF COMMERCIAL SUBDIVISION OR MANAGEMENT COMPANY IF COMMERCIAL RENTALS
14. THAT ALL TREES AND SHRUBS LOCATED IN LINE-OF-SIGHT WILL BE MAINTAINED TO A CLEAR AREA BETWEEN OF 3' TO 7'
15. RIP-RAP MUST BE ON NATURAL MATERIALS MATCHING D.G COLORS CONCRETE OR GUNITE MUST BE COLORED TO MATCH D.G. COLOR
16. TREES SHALL BE PLANTED @ LEAST 20' AWAY FROM ANY STREET LIGHT POLE OR LOCATION. SHRUBS SHALL BE PLANTED @ LEAST 7' FEET AWAY FROM ANY STREET LIGHT POLE OR LCC.
17. 10% OF TOTAL TREES IN PARKING SHALL BE 36" BOX OR LARGER.

LANDSCAPE PLAN

0' 10' 20' 40'
SCALE: 1"=20'-00"

REGISTERED LANDSCAPE ARCHITECT
27166
TIMOTHY J. McQUEEN
State Arizona USA
EXPIRES 06/30/2017

T.J. McQUEEN & ASSOCIATES, INC.
LANDSCAPE ARCHITECTURE
URBAN DESIGN
SITE PLANNING

8433 East Cholla St., Suite 101
Scottsdale, Arizona 85260
P. (602) 265-0320 F. (602) 266-6619

EMAIL: timmcqueen@tjmla.net

rdj STUDIOS
2111 E. Fraktur Rd
Phoenix, AZ 85040
602.703.7913

EXPRESS
WASH III

6735 EAST
McDOWELL
ROAD
MESA, AZ

DATE
07.29.2015

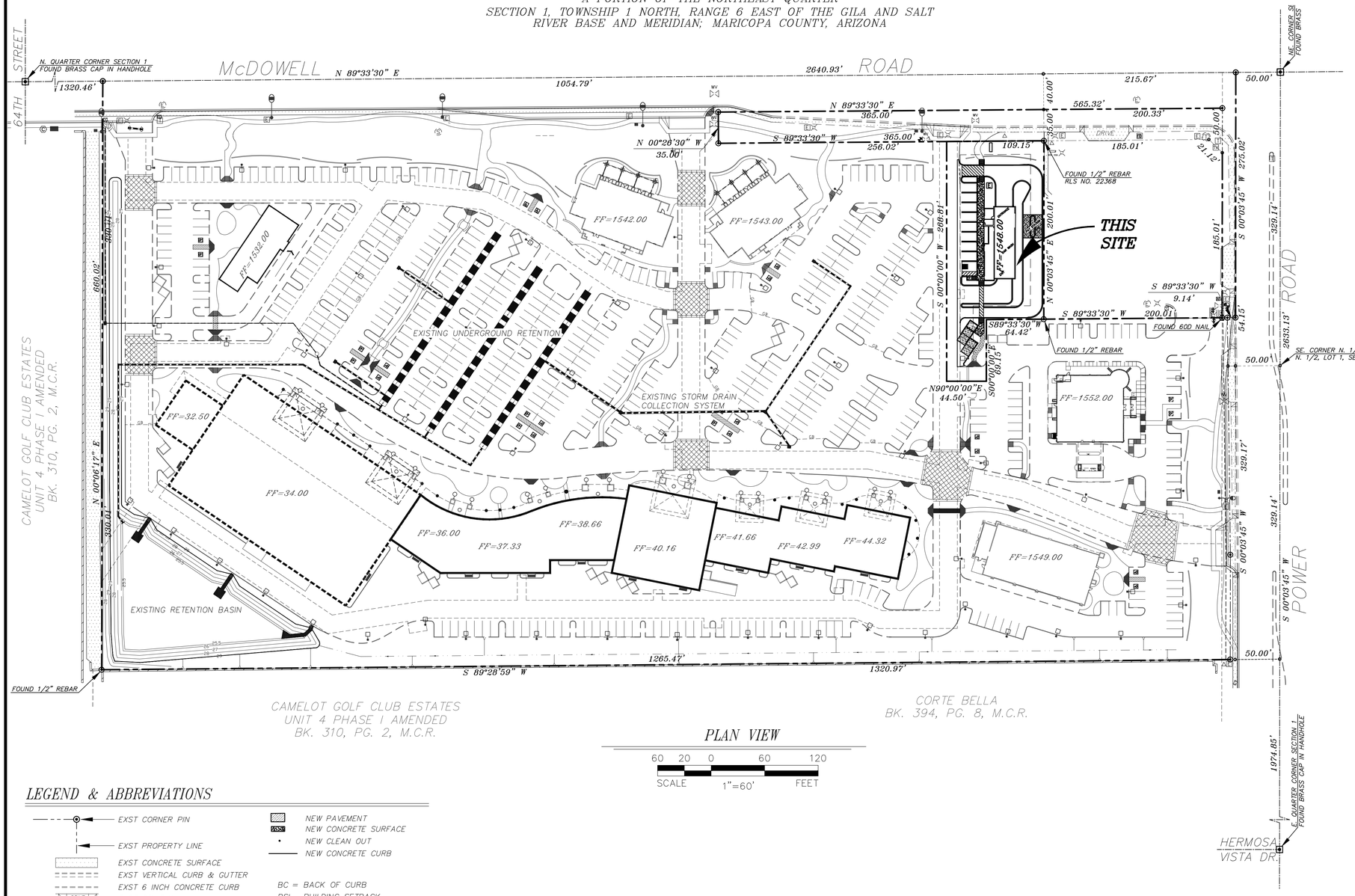
Project: CLM3

CONCEPTUAL GRADING & DRAINAGE PLAN
LOT 3 OF RED MOUNTAIN PROMENADE

6735 EAST McDOWELL ROAD

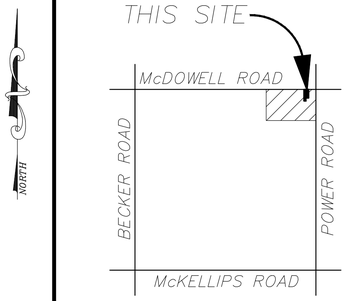
W OF POWER ROAD AND S OF MCDOWELL ROAD

A PORTION OF THE NORTHEAST QUARTER
SECTION 1, TOWNSHIP 1 NORTH, RANGE 6 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN; MARICOPA COUNTY, ARIZONA



PLAN VIEW

60 20 0 60 120
SCALE 1"=60' FEET



LOCATION MAP
N.T.S.

LEGAL DESCRIPTION

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 1 NORTH, RANGE 6 EAST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE DESCRIBED AS FOLLOWS:
LOT 3 OF RED MOUNTAIN PROMENADE, AS RECORDED IN BOOK 819 PAGE 46 OF MARICOPA COUNTY RECORDS.

SITE INFORMATION

LOT 3 = 24855 SQ. FT. OR 0.57 ACRES
ASSESSOR'S PARCEL NUMBER 141-67-618
ZONING LC (LIMITED COMMERCIAL)

FLOOD ZONE STATEMENT

THIS SITE IS LOCATED IN FEMA FLOOD ZONE X AS SHOWN ON FEMA MAP 0413C2885L, DATED OCTOBER 16, 2013

FINISHED FLOOR STATEMENT

ALL FINISHED FLOORS SHOWN ON THIS PLAN ARE FREE FROM INUNDATION DURING THE 100-YEAR PEAK RUNOFF EVENT.

ESTIMATED GRADING QUANTITIES

ESTIMATES ONLY-THE ENGINEER MAKES NO GUARANTEE OF ACCURACY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING QUANTITIES OF ALL ITEMS TO BE BID ON.

APPROXIMATE EARTHWORK QUANTITIES

RAW CUT = 10 CY
RAW FILL = 10 CY

NET RAW CUT = 0 CY

FILL MATERIAL WILL BE COMPACTED TO AT LEAST 95% AND PROTECTED FROM EROSION.

BASIS OF BEARING

THE EAST LINE OF THE SOUTHWEST QUARTER OF SECTION 31, T5N, R2E, BEING N01°37'59"W, AND BEING PARALLEL WITH THE CENTERLINE OF 63RD AVENUE.

BENCHMARK

CITY OF MESA BENCHMARK BEING A BRASS CAP IN HANDHOLE AT THE INTERSECTION OF McDOWELL ROAD & POWER ROAD
ELEV.= 1553.84
VERTICAL DATUM IS NGVD29, CITY OF MESA DATUM

UTILITY DATA

ELECTRIC POWER: SRP
GAS: CITY OF MESA
WATER, SEWER, STORM DRAIN: CITY OF MESA

LEGEND & ABBREVIATIONS

- EXST CORNER PIN
- EXST PROPERTY LINE
- EXST CONCRETE SURFACE
- EXST VERTICAL CURB & GUTTER
- EXST 6 INCH CONCRETE CURB
- EXST DRIVEWAY
- EXST WALL
- EXST BACK FLOW PREVENTER
- EXST ELECTRIC BOX
- EXST ELECTRIC MANHOLE
- EXST ELECTRIC TRANSFORMER
- EXST FIRE HYDRANT
- EXST GAS VALVE
- EXST LIGHT POLE
- EXST STORM DRAIN MANHOLE
- EXST SEWER MANHOLE
- EXST STREET LIGHT
- EXST TELEPHONE RISER
- EXST TRAFFIC SIGNAL
- EXST TRAFFIC SIGNAL BOX
- EXST CABLE TELEVISION RISER
- EXST WATER METER
- EXST WATER VALVE

- NEW PAVEMENT
- NEW CONCRETE SURFACE
- NEW CLEAN OUT
- NEW CONCRETE CURB

BC = BACK OF CURB
BSL= BUILDING SETBACK LINE
D.E. = DRAINAGE EASEMENT
EP= EDGE OF PAVEMENT
EXST = EXISTING
FC= FACE OF CURB
FF = FINISHED FLOOR
FG= FINISHED GRADE
HDPE= HIGH DENSITY POLYETHYLENE
INV= INVERT
LC = LIP OF CURB
P = PAVEMENT ELEVATION
PT= POINT OF TANGENCY
PUE= PUBLIC UTILITY EASEMENT
SD = STORM DRAIN
SS = SANITARY SEWER
TC = TOP OF CURB
W = WATER

SHEET INDEX

PROJECT DESCRIPTION

NEW CAR WASH BUILDING GRADING AND DRAINAGE PLANS WITH UTILITY EXTENSIONS FROM EXISTING STUBS.

RETENTION STATEMENT

PER DRAINAGE REPORT FOR THE "RED MOUNTAIN PROMENADE" BY J.M. GRIFFIN ENGINEERING, INC. DATED JUNE 15, 2005 THE RETENTION PROVIDED UNDERGROUND AND WITHIN THE BASIN MEETS THE REQUIREMENTS FOR THE ENTIRE DEVELOPMENT. ONSITE RETENTION FOR THIS LOT IS, THEREFORE, NOT REQUIRED.

OWNER

SUPERSTITION PROMENADE, LLC
IRWIN G. PASTERNACK, MANAGER
745 E. MARYLAND AVE.
SUITE 100
PHOENIX, AZ 85014

DEVELOPER

EXPRESS CAR WASH
2111 E. FRAKTUR ROAD
PHOENIX, ARIZONA 85040

ENGINEER

RED HAWK ENGINEERING, LLC
4160 SPRING MEADOW CIRCLE
FLAGSTAFF, ARIZONA 86004
PHONE: (480) 991-9339
MBL (602) 538-0204
CONTACT: MS. SANDRA PHILLIPS

RED HAWK ENGINEERING
4160 Spring Meadow Circle
Flagstaff, Arizona 86004
Phone:(480) 991-9339
Mbl: (602) 538-0204
hawk@redhawkllc.com

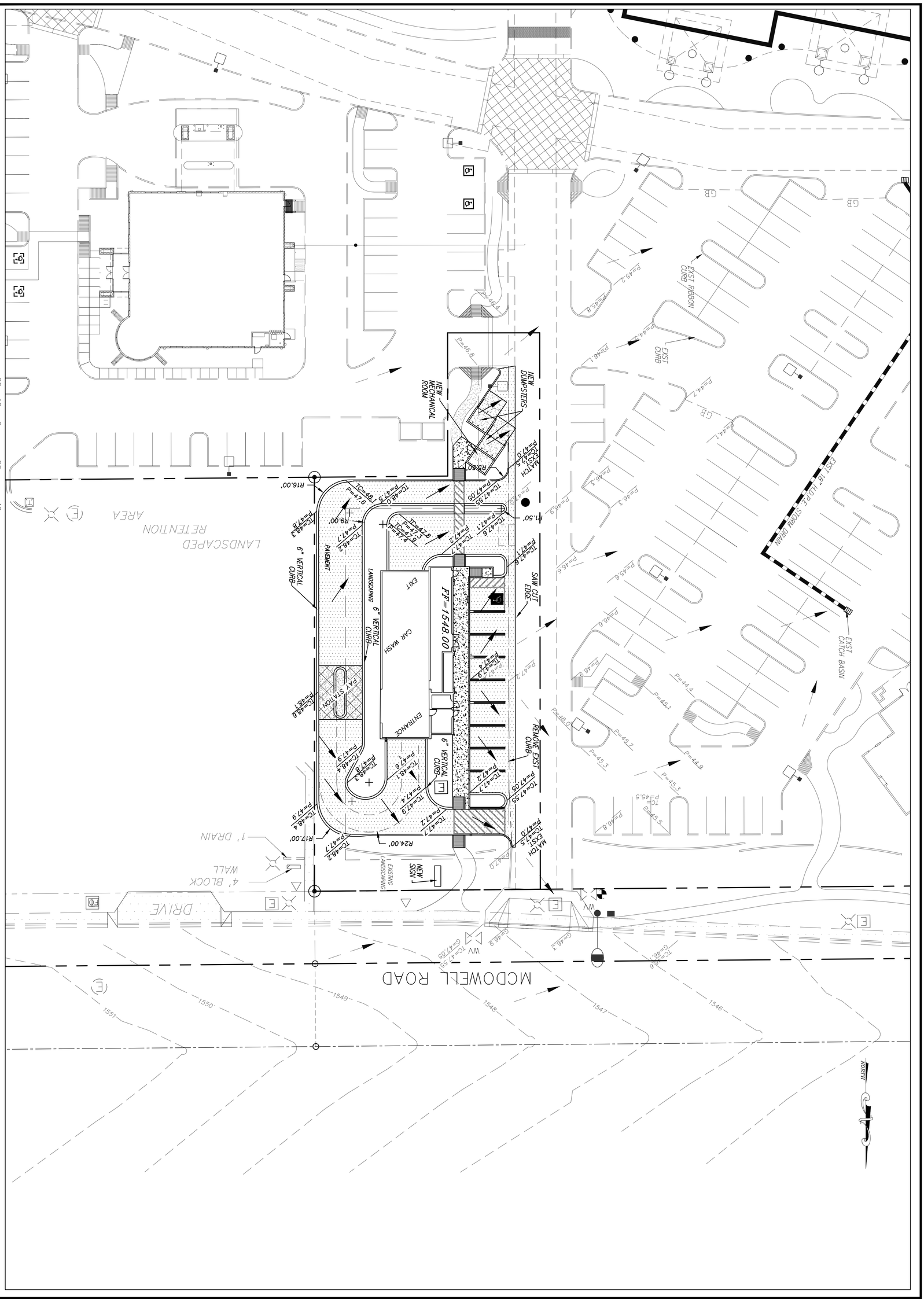
CONCEPTUAL GRADING & DRAINAGE PLANS
FOR
EXPRESS WASH III
6735 EAST McDOWELL ROAD
MESA, ARIZONA

Two working days before you dig, CALL FOR THE BLUE STAKES
811 or 263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE NO.
26962
SANDRA D. PHILLIPS
Date Signed
6-5
ARIZONA, U.S.A.
EXP 03/31/17

JOB NO.	15-03
DATE	08-03-15
DESIGNED	SDP
DRAWN	rsm
CHECKED	SDP
SCALE:	1"=20'

SHEET 1 OF 3 SHEETS



CONCEPTUAL GRADING & DRAINAGE PLANS
FOR
EXPRESS WASH III

6735 EAST MCDOWELL ROAD
MESA, ARIZONA

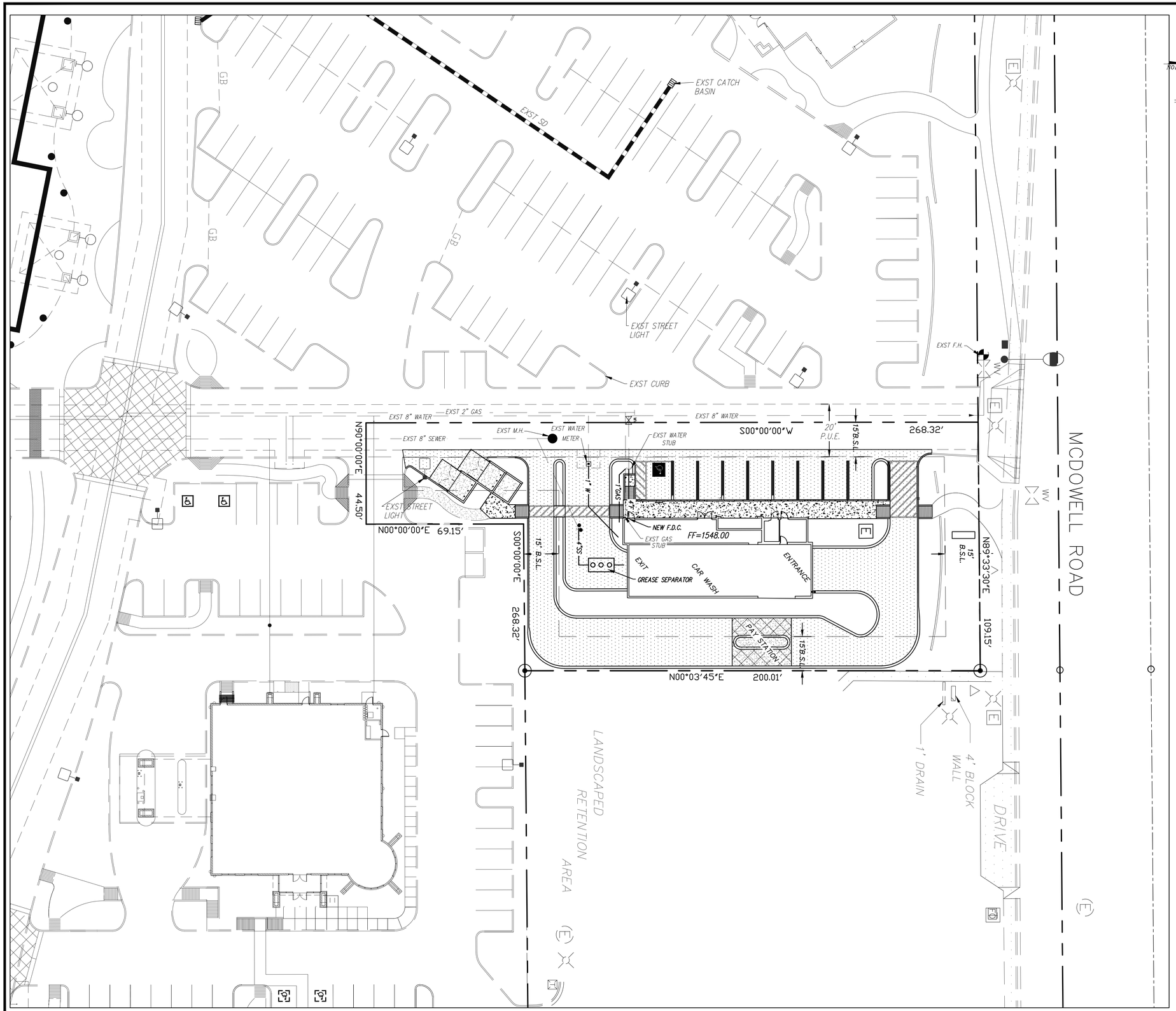
RED HAWK ENGINEERING
4160 Spring Meadow Circle
Flagstaff, Arizona 86004
Phone:(480) 991-9339
Mbl: (602) 538-0204
hawk@redhawkllc.com

REGISTERED PROFESSIONAL ENGINEER
SANDRA D. PHILLIPS
36582
ARIZONA U.S.A.

Arizona Blue Stake, Inc.
1-800-STAKE-IT (782-5348)

JOB NO.	06-13
DATE	08-03-15
DESIGNED	SDP
DRAWN	rsm
CHECKED	SDP
SCALE	1"=20'
EXP 03/31/17	

SHEET 2 OF 3 SHEETS



PLAN VIEW

NORTH

LEGEND & ABBREVIATIONS

- EXST CORNER PIN
- EXST PROPERTY LINE
- EXST CONCRETE SURFACE
- EXST VERTICAL CURB & GUTTER
- EXST 6 INCH CONCRETE CURB
- EXST DRIVEWAY
- EXST WALL
- EXST BACK FLOW PREVENTER
- EXST ELECTRIC BOX
- EXST ELECTRIC MANHOLE
- EXST ELECTRIC TRANSFORMER
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hawk@redhawkllc.com

CONCEPTUAL UTILITY PLANS
FOR
EXPRESS WASH III
6735 EAST MCDOWELL
MESA ARIZONA

Two working days before you dig, CALL FOR THE BLUE STAKES
8-1-1 or 263-1100
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OUTSIDE MARICOPA COUNTY

REGISTERED PROFESSIONAL ENGINEER
26962
SANDRA D. PHILLIPS
State Zone 6
ARIZONA, U.S.A.
EXP 03/31/17

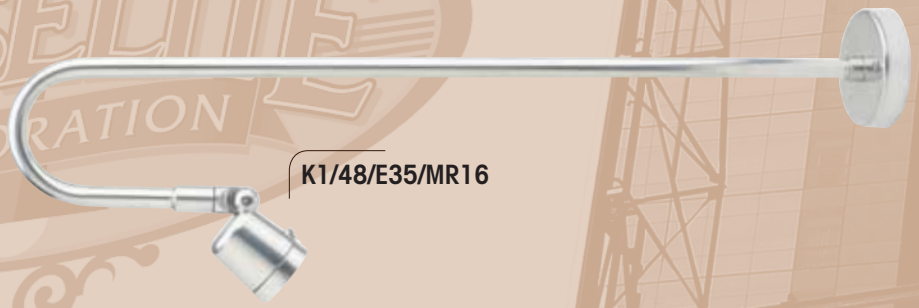
JOB NO.	06-13
DATE	08-03-15
DESIGNED	SDP
DRAWN	rsm
CHECKED	SDP
SCALE:	1"=20'

SHEET 3 OF 3 SHEETS

K4/42/E39

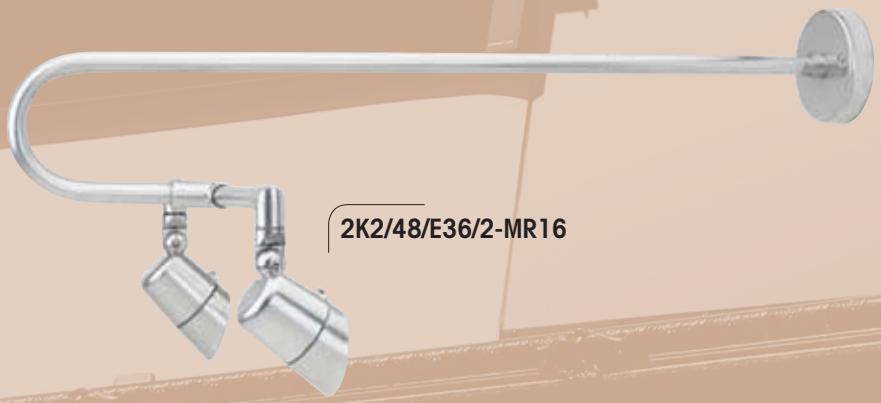
K3/63/E39

K1/61/E34/MR16



K1/48/E35/MR16

2K2/41/E37/2-MR16



2K2/48/E36/2-MR16

K2/61/E32/MR16

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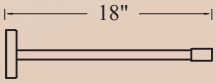
K1/41/E31/MR16

2K1/74/E38/2-MR16

E31



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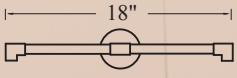
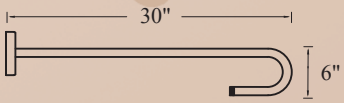
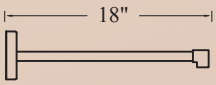


Projection 18"

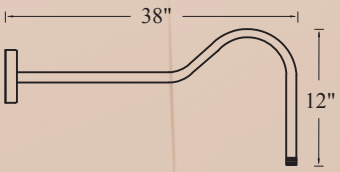
E35



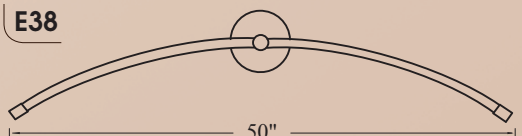
E32



E34



E38



Projection 26"
O. A. Projection 38"

Model #	Color	Mounting Source	Light Source
K1	40,41,42,43,44,45,46,48,	E31,E32,E33,34,	MR16-50W
K2	49,50,51,52,53,54,55,57,	E35,E36,E37,E38	
	58,59,60,61,62,63		
K3			26, 32 or 42WCF
K4			26, 32 or 42WCF
			70, 100 or 175WMH

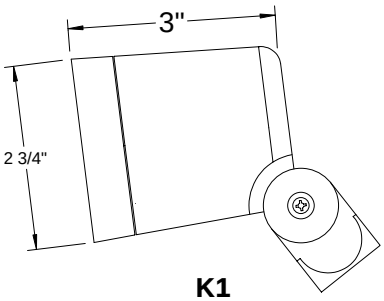
PREPARED BY: _____

TYPE: _____

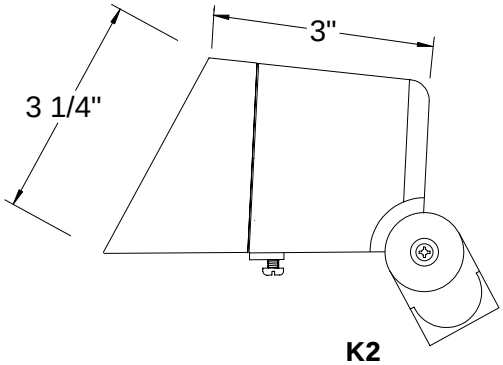
JOB NAME: _____

DATE: _____

CERTIFICATION: UL LISTED



K1



K2

FINISH-Five stage pretreatment process, coated with a lead free TGI C polyester powder coat finish. White is standard inside reflectors, Except #49-Galvanized, #62-Anodized Bronze and #63-Iron Rust, Unless specified. Custom colors and Marine are available upon request.

MOUNTING- 1/2" or 3/4" tapped hub is supplied. Top or side mount available. Fixtures are pre-wired with 48" or 96" leads. Available with cord or stem sets.

MATERIAL- heavy gauge 1100-0 aluminum, ranging in thickness from .050 to .125. Galvanized is from 20 gauge sheets. Copper is spun from .040 gauge and 110 soft alloy.

LAMP HOLDERS- Accommodates Halogen **MR16** (base GU5.3) **LED**. A minimum of 60,000 hours to 100,000 expected life depending on installation location and ambient temperature.

MODEL#	FINISH		LIGHT SOURCE		MOUNTING OPT.
			MR16	LED	
K1	**40-**copper w/ coat **41-**black **42-**dr. green **43-**red **44-**white **45-**med. blue **46-**yellow **48-**polish alum. **49-**galvanized **50-**navy blue **51-**arch. Bronze	**52-**patina **53-**rust **54-**stucco **55-**sage **58-**satin alum. clear coat **59-**coppertone **60-**canal green **61-**anod. charcoal **62-**anod. bronze **63-**iron rust	50W	3W, 10W	-Arm extension
K1					

PHONE: 877-999-1990
FAX: 877-999-1955

12260 EAST END AVE. CHINO, CA 91710

MADE IN U. S. A.

c UL LISTED

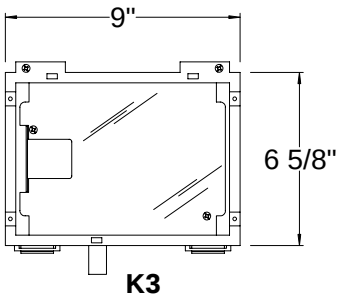
PREPARED BY: _____

TYPE: _____

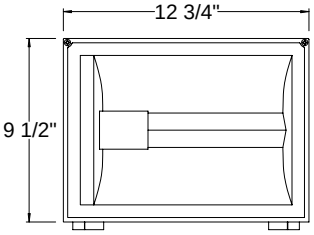
JOB NAME: _____

DATE: _____

CERTIFICATION: UL LISTED



K3



K4

FINISH-Five stage pretreatment process, coated with a lead free TGI C polyester powder coat finish. White is standard inside reflectors, Except #49-Galvanized, #62-Anodized Bronze and #63-Iron Rust, Unless specified. Custom colors and Marine are available upon request.

MOUNTING- 1/2" or 3/4" tapped hub is supplied. Top or side mount available. Fixtures are pre-wired with 48" or 96" leads. Available with cord or stem sets.

MATERIAL- heavy gauge 1100-0 aluminum, ranging in thickness from .050 to .125. Galvanized is from 20 gauge sheets. Copper is spun from .040 gauge and 110 soft alloy.

LAMP HOLDERS- Accommodates **Fluorescent** 4 pin heat resistant thermoplastic socket accommodates 26/32W (Gx24q-3 base) and 42W (Gx24q-4 base). Twist lock design provides for vibration and earthquake resistance, rated 75W, 600V. **High Intensity Discharge (H.I.D.)** medium base, 4KV pulse start socket, rated 660W/600V. **LED**10W. A minimum of 60,000 hours to 100,000 expected life depending on installation location and ambient temperature.

MODEL#	FINISH		LIGHT SOURCE					MOUNTING OPT.
			CF[1]	MH[1]	LED			
					W	K	V	
K3	**40-**copper w/ coat **41-**black **42-**dr. green **43-**red **44-**white **45-**med. blue **46-**yellow **48-**polish alum. **49-**galvanized **50-**navy blue **51-**arch. Bronze	**52-**patina **53-**rust **54-**stucco **55-**sage **58-**satin alum. clear coat **59-**coppertone **60-**canal green **61-**anod. charcoal **62-**anod. bronze **63-**iron rust	26W, 32W, 42W	70W, 100W 175W	10W	3500 4000 5000	120	-Arm extension E31, E32, E33, E34, E35, E36, E37, E38
K4								

[1] Remote ballast

PHONE: 877-999-1990
FAX: 877-999-1955

BASELITE CORPORATION

12260 EAST END AVE. CHINO, CA 91710

MADE IN U. S. A.

c UL LISTED

D-Series Size 1
LED Area Luminaire

Catalog Number

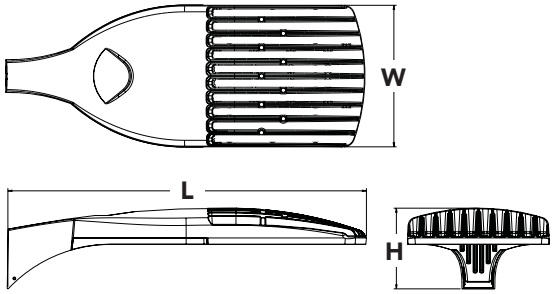
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.2 ft² (0.11 m²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height:	7-1/2" (19.0 cm)
Weight (max):	27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing 100 – 400W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED 60C 1000 40K T3M MVOLT SPA DDBXD

DSX1LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
DSX1 LED	**Forward optics** 30C 30 LEDs (one engine) 40C 40 LEDs (two engines) 60C 60 LEDs (two engines) **Rotated optics** [1] 60C 60 LEDs (two engines)	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted [2]	T1S Type I Short T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium T5VS Type V Very Short T5S Type V Short T5M Type V Medium T5W Type V Wide	MVOLT [3] 120 [3] 208 [3] 240 [3] 277 [3] 347 [4] 480 [4]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor [5] RPUMBA Round pole universal mounting adaptor [5] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [6]

Control options

Shipped installed

PER	NEMA twist-lock receptacle only (no controls) [7]
PER5	Five-wire receptacle only (no controls) [7,8]
PER7	Seven-wire receptacle only (no controls) [7,8]
DMG	0-10V dimming driver (no controls) [9]
DCR	Dimmable and controllable via ROAM® (no controls) [10]
DS	Dual switching [11,12]
PIR	Motion sensor, 8-15' mounting height [13]
PIRH	Motion sensor, 15-30' mounting height [13]
BL30	Bi-level switched dimming, 30% [12,14]
BL50	Bi-level switched dimming, 50% [12,14]
PNMTDD3	Part night, dim till dawn [15]
PNMT5D3	Part night, dim 5 hrs [15]
PNMT6D3	Part night, dim 6 hrs [15]
PNMT7D3	Part night, dim 7 hrs [15]

Other options

Shipped installed

HS	House-side shield [16]
WTB	Utility terminal block [17]
SF	Single fuse (120, 277, 347V) [18]
DF	Double fuse (208, 240, 480V) [18]
L90	Left rotated optics [19]
R90	Right rotated optics [19]

Finish *(required)*

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

Accessories

Ordered and shipped separately.

Controls & Shields

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [20]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [20]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [20]
SC U	Shorting cap [20]
DSX1HS 30C U	House-side shield for 30 LED unit
DSX1HS 40C U	House-side shield for 40 LED unit
DSX1HS 60C U	House-side shield for 60 LED unit
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish)
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [6]

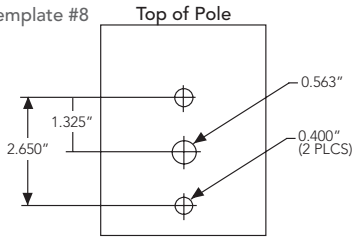
For more control options, visit DTL and ROAM online.

NOTES

1. Rotated optics available with 60C only.
2. AMBPC only available with 530mA or 700mA.
3. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120V, 208V, 240V or 277V options only when ordering with fusing (SF, DF options).
4. Not available with single board, 530mA product (30C 530 or 60C 530 DS). Not available with BL30, BL50 or PNMT options.
5. Available as a separate combination accessory: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
6. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
7. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option.
8. If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR.
9. DMG option for 347V or 480V requires 1000mA.
10. Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. N/A with DS, PIR, PIRH, PER5, PER7, BL30, BL50 or PNMT options.
11. Requires 40C or 60C. Provides 50/50 luminaire operation via two independent drivers on two separate circuits. N/A with PER, DCR, WTB, PIR or PIRH.
12. Requires an additional switched circuit.
13. PIR specifies the SensorSwitch SBGR-10-ODP control; PIRH specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with DS, PER5 or PER7.
14. Dimming driver standard. MVOLT only. Not available with 347V, 480V, DCR, DS, PER5, PER7 or PNMT options.
15. Dimming driver standard. MVOLT only. Not available with 347V, 480V, DCR, DS, PER5, PER7, BL30 or BL50.
16. Also available as a separate accessory; see Accessories information.
17. WTB not available with DS.
18. Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
19. Available with 60 LEDs (60C option) only.
20. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.

Drilling

Template #8



DSX1 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	**DM29AS**	2 at 90° *
DM28AS	2 at 180°	**DM39AS**	3 at 90° *
DM49AS	4 at 90° *	**DM32AS**	3 at 120° **

Example: SSA 20 4C **DM19AS** DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.
**Round pole top must be 3.25" O.D. minimum.*
***For round pole mounting (RPA) only.*

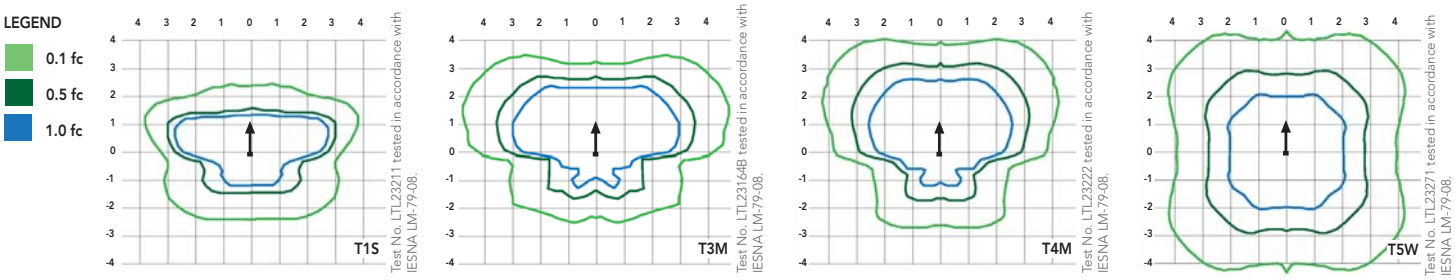
Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (20').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Electrical Load

			Current (A)					
Number of LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
30	530	52	0.52	0.30	0.26	0.23	--	--
	700	68	0.68	0.39	0.34	0.30	0.24	0.17
	1000	105	1.03	0.59	0.51	0.45	0.36	0.26
40	530	68	0.67	0.39	0.34	0.29	0.23	0.17
	700	89	0.89	0.51	0.44	0.38	0.31	0.22
	1000	138	1.35	0.78	0.67	0.58	0.47	0.34
60	530	99	0.97	0.56	0.48	0.42	0.34	0.24
	700	131	1.29	0.74	0.65	0.56	0.45	0.32
	1000	209	1.98	1.14	0.99	0.86	0.69	0.50

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	DSX1 LED 60C 1000			
	1.0	0.95	0.93	0.88
	DSX1 LED 60C 700			
	1.0	0.99	0.98	0.96

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30C (30 LEDs)	700 mA	68 W	T1S	5,697	1	0	1	84	7,127	2	0	2	105	7,180	2	0	2	106	4,561	1	0	1	67
			T2S	5,967	2	0	2	88	7,465	2	0	2	110	7,521	2	0	2	111	4,777	1	0	1	70
			T2M	5,773	1	0	2	85	7,222	2	0	2	106	7,276	2	0	2	107	4,622	1	0	2	68
			T3S	5,901	1	0	2	87	7,382	2	0	2	109	7,437	2	0	2	109	4,724	1	0	1	69
			T3M	5,872	1	0	2	86	7,346	2	0	2	108	7,401	2	0	2	109	4,701	1	0	2	69
			T4M	5,882	1	0	2	87	7,359	2	0	2	108	7,414	2	0	2	109	4,709	1	0	2	69
			TFTM	5,793	1	0	2	85	7,247	1	0	2	107	7,301	1	0	2	107	4,638	1	0	2	68
			T5VS	6,148	2	0	0	90	7,691	3	0	1	113	7,749	3	0	1	114	4,922	2	0	0	72
			T5S	6,074	2	0	0	89	7,598	3	0	0	112	7,655	3	0	0	113	4,863	2	0	0	72
			T5M	6,150	3	0	1	90	7,694	3	0	2	113	7,752	3	0	2	114	4,924	3	0	1	72
			T5W	5,979	3	0	1	88	7,479	3	0	2	110	7,536	3	0	2	111	4,787	3	0	1	70
	1000 mA	105 W	T1S	7,913	2	0	2	75	9,899	2	0	2	94	9,973	2	0	2	95					
			T2S	8,288	2	0	2	79	10,368	2	0	2	99	10,446	2	0	2	99					
			T2M	8,019	2	0	2	76	10,031	2	0	3	96	10,106	2	0	3	96					
			T3S	8,196	2	0	2	78	10,253	2	0	2	98	10,330	2	0	2	98					
			T3M	8,156	2	0	2	78	10,202	2	0	2	97	10,279	2	0	2	98					
			T4M	8,170	2	0	2	78	10,220	2	0	2	97	10,297	2	0	2	98					
			TFTM	8,046	2	0	2	77	10,065	2	0	3	96	10,141	2	0	3	97					
			T5VS	8,539	3	0	1	81	10,682	3	0	1	102	10,762	3	0	1	102					
			T5S	8,436	3	0	1	80	10,553	3	0	1	101	10,632	3	0	1	101					
			T5M	8,542	3	0	2	81	10,686	4	0	2	102	10,766	4	0	2	103					
			T5W	8,304	3	0	2	79	10,388	4	0	2	99	10,466	4	0	2	100					
40C (40 LEDs)	700 mA	89 W	T1S	7,511	2	0	2	84	9,396	2	0	2	106	9,467	2	0	2	90	6,014	1	0	1	68
			T2S	7,868	2	0	2	88	9,842	2	0	2	111	9,916	2	0	2	94	6,299	2	0	2	71
			T2M	7,612	2	0	2	86	9,522	2	0	3	107	9,594	2	0	3	91	6,094	2	0	2	68
			T3S	7,780	2	0	2	87	9,733	2	0	2	109	9,806	2	0	2	93	6,229	1	0	2	70
			T3M	7,742	2	0	2	87	9,685	2	0	2	109	9,758	2	0	2	93	6,198	2	0	2	70
			T4M	7,756	2	0	2	87	9,702	2	0	2	109	9,775	2	0	2	93	6,209	1	0	2	70
			TFTM	7,638	2	0	2	86	9,555	2	0	2	107	9,627	2	0	2	92	6,115	1	0	2	69
			T5VS	8,106	3	0	1	91	10,140	3	0	1	114	10,216	3	0	1	97	6,490	2	0	0	73
			T5S	8,008	3	0	1	90	10,017	3	0	1	113	10,093	3	0	1	96	6,411	2	0	0	72
			T5M	8,109	3	0	2	91	10,144	4	0	2	114	10,220	4	0	2	97	6,492	3	0	1	73
			T5W	7,883	3	0	2	89	9,861	4	0	2	111	9,936	4	0	2	95	6,311	3	0	2	71
	1000 mA	138 W	T1S	10,384	2	0	2	75	12,990	3	0	3	94	13,088	3	0	3	95					
			T2S	10,876	2	0	2	79	13,606	3	0	3	99	13,708	3	0	3	99					
			T2M	10,523	2	0	3	76	13,164	3	0	3	95	13,263	3	0	3	96					
			T3S	10,756	2	0	2	78	13,455	2	0	2	97	13,556	3	0	3	98					
			T3M	10,703	2	0	2	78	13,389	3	0	3	97	13,490	3	0	3	98					
			T4M	10,722	2	0	2	78	13,412	3	0	3	97	13,513	3	0	3	98					
			TFTM	10,559	2	0	3	77	13,209	2	0	3	96	13,308	2	0	3	96					
			T5VS	11,206	3	0	1	81	14,018	4	0	1	102	14,124	4	0	1	102					
			T5S	11,070	3	0	1	80	13,848	3	0	1	100	13,953	3	0	1	101					
			T5M	11,210	4	0	2	81	14,023	4	0	2	102	14,129	4	0	2	102					
			T5W	10,898	4	0	2	79	13,633	4	0	2	99	13,735	4	0	2	100					
60C (60 LEDs)	700 mA	131 W	T1S	11,182	2	0	2	81	13,988	3	0	3	101	14,093	3	0	3	102	8,952	2	0	2	68
			T2S	11,712	3	0	3	85	14,651	3	0	3	106	14,761	3	0	3	107	9,377	2	0	2	72
			T2M	11,332	2	0	3	82	14,175	3	0	3	103	14,282	3	0	3	103	9,072	2	0	2	69
			T3S	11,582	2	0	2	84	14,489	3	0	3	105	14,598	3	0	3	106	9,273	2	0	2	71
			T3M	11,525	2	0	2	84	14,418	3	0	3	104	14,526	3	0	3	105	9,227	2	0	2	70
			T4M	11,546	2	0	2	84	14,443	3	0	3	105	14,552	3	0	3	105	9,243	2	0	2	71
			TFTM	11,370	2	0	3	82	14,224	2	0	3	103	14,331	2	0	3	104	9,103	2	0	2	69
			T5VS	12,067	3	0	1	87	15,095	4	0	1	109	15,209	4	0	1	110	9,661	3	0	1	74
			T5S	11,921	3	0	1	86	14,913	4	0	1	108	15,025	4	0	1	109	9,544	3	0	1	73
			T5M	12,071	4	0	2	87	15,101	4	0	2	109	15,214	4	0	2	110	9,665	3	0	2	74
			T5W	11,735	4	0	2	85	14,680	4	0	2	106	14,791	4	0	2	107	9,395	4	0	2	72
	1000 mA	209 W	T1S	15,307	3	0	3	73	19,148	3	0	3	92	19,292	3	0	3	92					
			T2S	16,033	3	0	3	77	20,056	3	0	3	96	20,207	3	0	3	97					
			T2M	15,512	3	0	3	74	19,405	3	0	3	93	19,551	3	0	3	94					
			T3S	15,855	3	0	3	76	19,834	3	0	3	95	19,983	3	0	3	96					
			T3M	15,777	3	0	3	75	19,736	3	0	4	94	19,885	3	0	4	95					
			T4M	15,805	3	0	3	76	19,771	3	0	4	95	19,920	3	0	4	95					
			TFTM	15,565	3	0	3	74	19,471	3	0	4	93	19,617	3	0	4	94					
			T5VS	16,519	4	0	1	79	20,664	4	0	1	99	20,820	4	0	1	100					
			T5S	16,319	4	0	1	78	20,414	4	0	1	98	20,567	4	0	1	98					
			T5M	16,525	4	0	2	79	20,672	5	0	3	99	20,827	5	0	3	100					
			T5W	16,065	4	0	3	77	20,096	5	0	3	96	20,247	5	0	3	97					

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.2 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 4000 K (70 minimum CRI) or optional 3000 K (80 minimum CRI) or 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine configurations consist of 30, 40 or 60 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L96/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV or 6kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern. Optional terminal block, tool-less entry, and NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY
Five-year limited warranty. Full warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

J. M. GRIFFIN
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jmg@jmgriffinengr.com

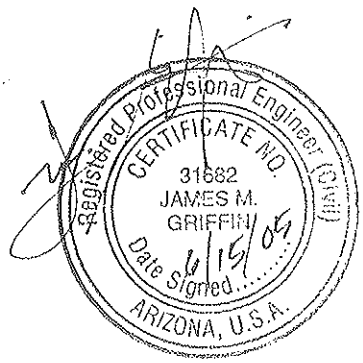
James M. Griffin, P.E.

DRAINAGE REPORT

FOR

RED MOUNTAIN PROMENADE
S.W.C. McDOWELL ROAD AND POWER ROAD; MESA, AZ

April 14, 2005



PREPARED BY:

GRIFFIN-JACOBS ENGINEERING, INC.
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Phoenix, AZ 85014
PH: 602-212-1279
FAX: 602-212-1553

TABLE OF CONTENTS

INTRODUCTION

This report has been prepared to provide drainage analysis for the development at the southwest corner of McDowell Road and Power Road known as *Red Mountain Promenade.* The site is located in the City of Mesa and is subject to stipulations imposed by the city.

The site lies within Section 1 Township 1 North, Range 6 East of the Gila and Salt River Base & Meridian, Maricopa County Arizona. The site is bordered to the north by McDowell Road, to the east by Power Road, and to the west and south by single family residential subdivisions. A vicinity map is provided in Appendix "A".

The site encompasses approximately 16.5-acres net and 17.8-acres gross. Onsite improvements within this development will consist of 5 lots consisting of 1 new strip retail building, 4 future pad parcels, 2 restaurant pads, various paved parking lots, driveway entrances, a large landscaped retention basins and underground storage pipe. There will be two deceleration lanes constructed at the western two entrances along McDowell Road and one deceleration lane constructed at the entrance off of Power Road. All other offsite improvements were completed through a capital improvements project by the City of Mesa.

FLOOD ZONE

According to the National Flood Insurance Program, Flood Insurance Rate Map Number 04013 C 2210 F, dated July 19, 2001, this site is in Shaded Zone "X", defined as areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

EXISTING SITE DRAINAGE

Currently the site is vacant land with some natural desert landscaping. Across portions of the site exists small piles of construction debris and piles of dirt. An existing 6-foot wall aligns the south property line. An existing concrete ditch aligns the western property line. The site slopes from east to west with about a 2.0% change in grade. The site currently drains directly into the adjacent concrete ditch and flows southerly to an inlet that is tied into a City of Mesa Storm Drain System. The site has minimal retention capabilities beyond soil infiltration.

The site currently accepts no offsite runoff from either Power Rd. or McDowell Rd. The half street runoff from these streets flows past our site and enters catch basins located just south and west of our property. Therefore the half street runoff will be excluded from the retention calculations. The street capacities have been determined to be adequate to contain the offsite runoff within the rights of way of both Power Rd. and McDowell Rd. (see attached calculations) (assuming adjacent parcels retain their own runoff)

PROPOSED SITE DRAINAGE

In accordance with the City of Mesa Development Guidelines the proposed site shall provide onsite retention facilities to accommodate the 100-year, 2-hour storm. Runoff shall be collected on paved surfaces and directed toward landscaped retention facilities located within the property limits. The site will provide one large landscaped retention basin. 96" CMP underground storage tanks will also be used to assist in reaching the required storage volume. The project will be built as one phase. All finished floor are set a minimum of 1.0' above the high-water for the 100 year-2 hour storm. Calculations for retention required and provided are provided in the attached Appendix "B".

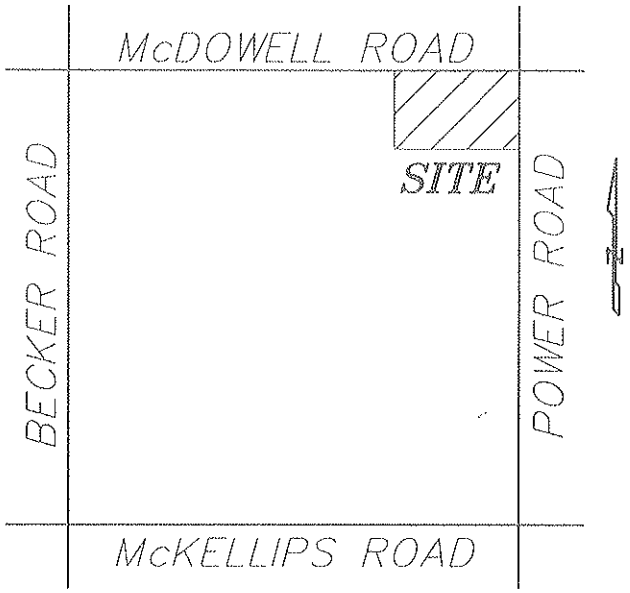
Onsite basins shall not exceed 3.5' feet in depth. Side slopes shall not exceed a maximum of 6:1 in areas adjacent to pedestrian access and a maximum of 4:1 in other

of storm water shall be accomplished via the concrete ditch located along the west property line. This will require a pump system to allow for the bleed-off to occur. In accordance with the City of Mesa standards, bleed-off shall be metered via an 8" pipe connected to the existing public storm drain line. In accordance with the City of Mesa standards, the site shall drain within a 36-hour time period. The proposed bleed-off pipe and gate valve shall remain in the closed position until after the peak of the 100 year, 2 hour storm event has passed. Bleed-off calculations are provided within the attached Appendix "B".

This site is broken up into 2 major drainage areas. One will be tributary to the connected 96" CMP storage tanks, and will get there via overland flow and pipe flow. The second area will be tributary to the large landscaped basin located at the southwest corner of the project. This will occur through overland flow to curb openings at the basin. Refer to Appendix "B" for retention calculations.

The basin will drain via headwalls and an 8" bleed off pipe monitored by a gate valve that will outlet into the concrete ditch making its way to the city storm system. The tanks will drain via a pump system that will also discharge into the concrete ditch making its way to the city storm system. Bleed-off calculations are provided within the attached Appendix "B".

APPENDIX "A"



VICINITY MAP

N.T.S.

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

MARICOPA COUNTY, ARIZONA AND INCORPORATED AREAS

PANEL 2210 OF 4350
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARICOPA COUNTY, UNINCORPORATED AREAS	040037	2210	E
MESA, CITY OF	040049	2210	E

MAP NUMBER
04013C2210 E

MAP REVISED:
JULY 19, 2001

Federal Emergency Management Agency

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A No base flood elevations determined.

ZONE AE Base flood elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE A99 To be protected from 100-year flood by Federal flood protection system under construction ; no base flood elevations determined.

ZONE V Coastal flood with velocity hazard (wave action); no base flood elevations determined.

ZONE VE Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X Areas determined to be outside 500-year floodplain.

ZONE D Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS

tified
83

Identified
1990

Otherwise
Protected Areas

l barrier areas are normally located within or adjacent to Special Hazard Areas.

Floodplain Boundary

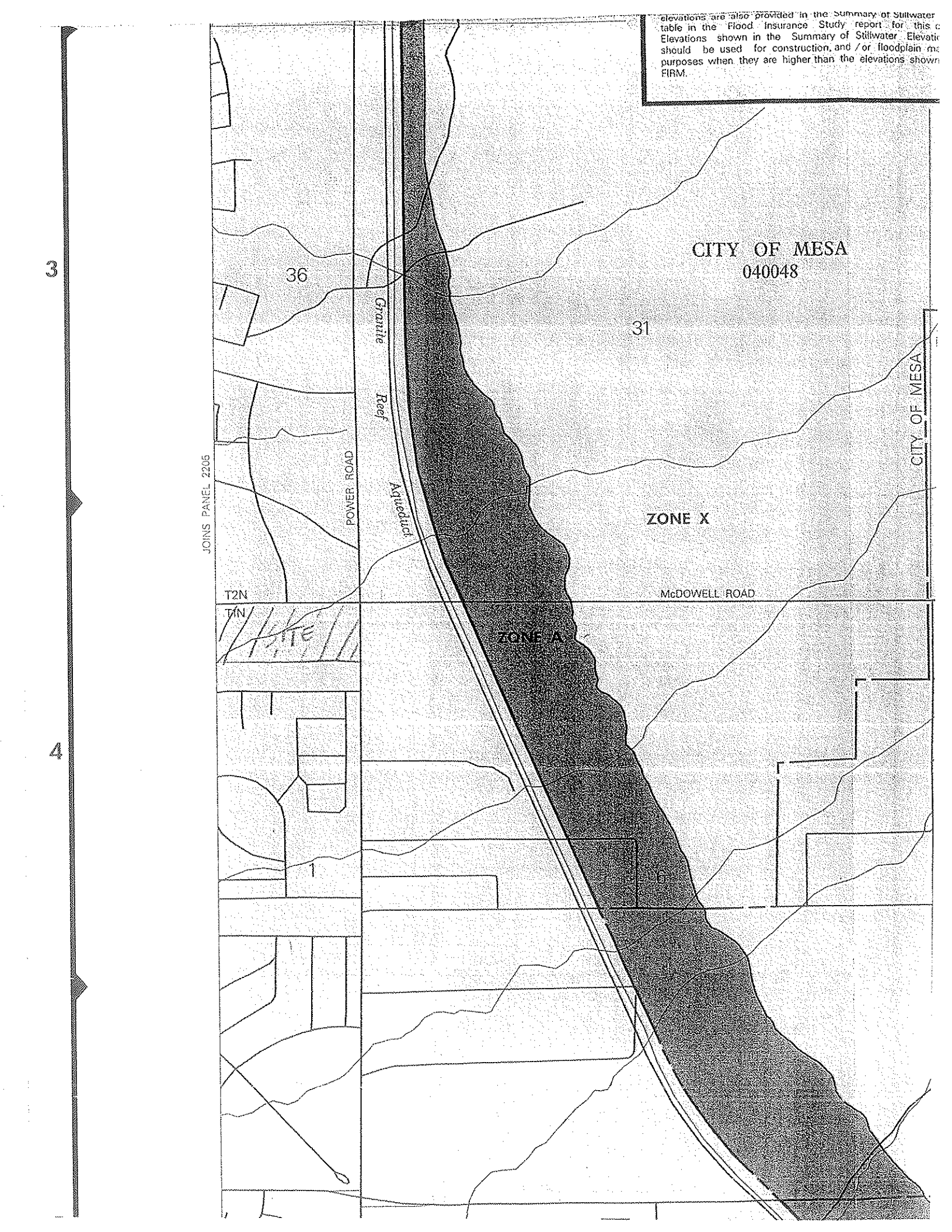
Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 Base Flood Elevation Line; Elevation in Feet. See Map Index for Elevation Datum.

(D) Cross Section Line


elevations are also provided in the Summary of Stillwater
table in the Flood Insurance Study report for this c
Elevations shown in the Summary of Stillwater Elevatio
should be used for construction, and / or floodplain ma
purposes when they are higher than the elevations shown
FIRM.
CITY OF MESA
040048
36
31
Granite Reef Aqueduct
POWER ROAD
JOINS PANEL 2205
CITY OF MESA
ZONE X
T2N
McDOWELL ROAD
T1N
SITE
ZONE A
1
6
3
4

APPENDIX "B"

RETENTION CALCULATIONS

				Pipe Storage					Retention Basin Storage						
Drainage Area I.D.	Area "A" (SF)	Runoff Coef. "C"	Required Volume "V" (ft^3)	Retention Pipe	Pipe Dia (ft)	Pipe Area (ft^2)	Pipe Length (ft)	Pipe Volume (ft^3)	Basin #	Elevation Bottom (ft)	H.W.E. Top (ft)	Depth (ft)	Area Bottom (ft^2)	Area Top (ft^2)	Provided Volume (ft^3)
B	700,462	0.80	126,083	P#1	8	50.3	667	33,550	b#1	27.5	31.0	3.5	14,543	38,335 Tot.=	92,537 126,087
	700,462		*126,083*												*126,087*

Formulas:

1. Vol. Req. = Cw x D x A (Drainage Design Manual for City of Mesa, AZ)
   where D = Depth Rainfall = 2.7" (Figure 3.3 Maricopa Co. Drainage Design Manual)(100-year, 2-hour), A=area in square feet
3. Pipe Vol = (cross-sectional area) x (length)
4. Basin Vol = 0.5(ATOP + ABOT) x Depth

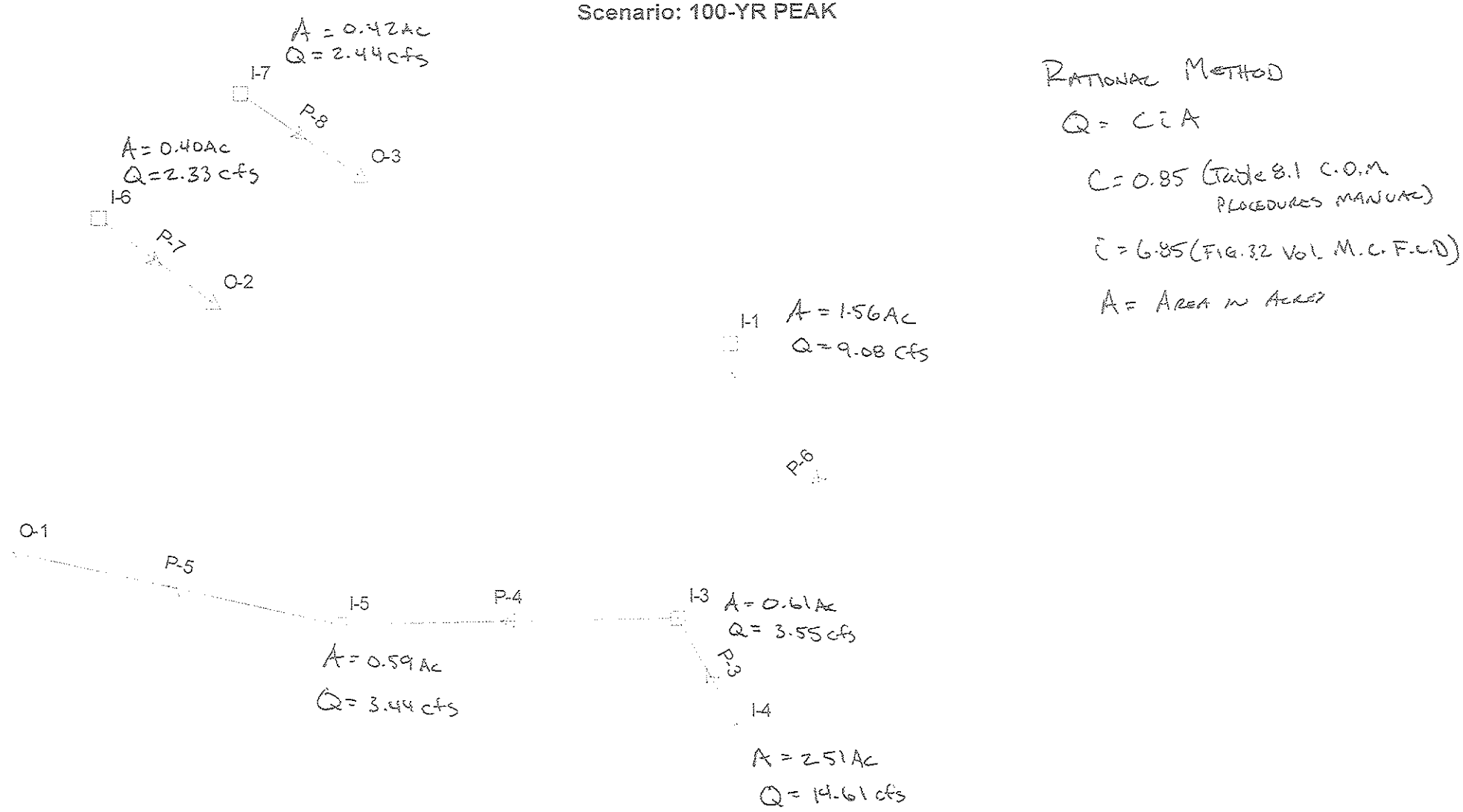
Areas And C factor:

Net Area = 11.03 AC (excluding drainage easement along east property line)

Cw = ((landscape area)(0.45) + (hardscape area)(0.85))/total area (Drainage Design Manual for City of Mesa, AZ)

Cw = ((110,000)(0.45) + (370,409)(0.85))/480,409 = 0.76

Scenario: 100-YR PEAK



RATIONAL METHOD

$Q = CiA$

C = 0.85 (Table 8.1 C.O.M PLOEDURES MANUAL)

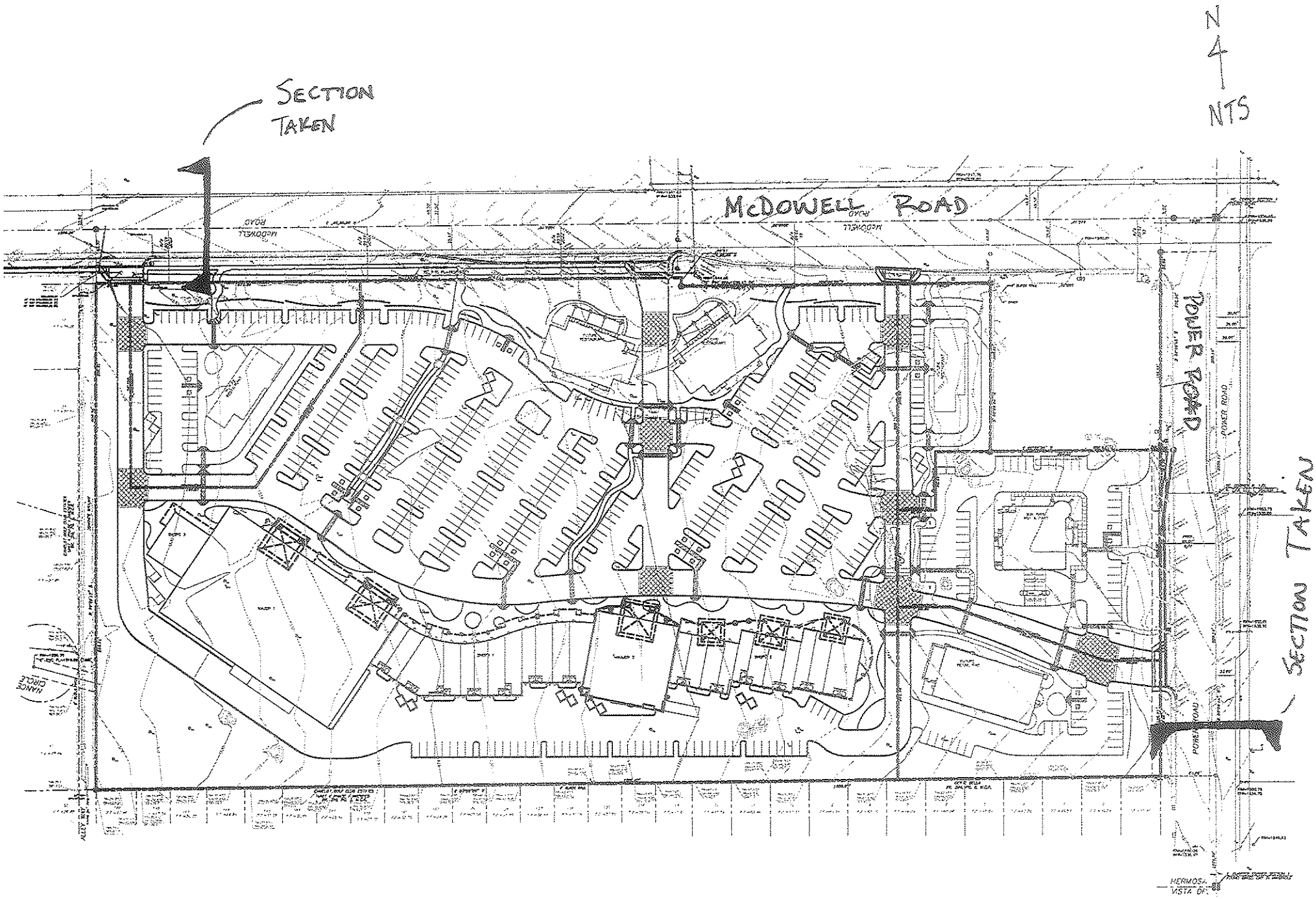
i = 6.85 (FIG. 3.2 VOL M.C. F.C.D)

A = AREA IN ACRES

Scenario: 100-YR PEAK

Pipe Report

Label	Section Size	Upstream Node	Downstream Node	Total System Flow (cfs)	Length (ft)	Constructed Slope (ft/ft)	Mannings n	Full Capacity (cfs)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Upstream Ground Elevation (ft)	Downstream Ground Elevation (ft)	Upstream Cover (ft)	Downstream Cover (ft)	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)
P-3	18 inch	I-4	I-3	14.61	46.00	0.023913	0.010	21.12	36.70	35.60	40.70	39.60	2.50	2.50	38.10	37.56
P-4	24 inch	I-3	I-5	41.85	159.00	0.031447	0.010	52.15	35.60	30.60	39.60	38.60	2.00	6.00	37.56	33.38
P-5	24 inch	I-5	O-1	45.29	101.00	0.028713	0.010	49.83	30.60	27.70	38.60	33.70	6.00	4.00	32.57	29.33
P-6	18 inch	I-1	I-3	9.08	219.00	0.009132	0.010	13.05	37.60	35.60	41.60	39.60	2.50	2.50	38.77	37.56
P-7	12 inch	I-6	O-2	2.33	39.00	0.074359	0.010	12.63	29.60	26.70	32.40	32.70	1.80	5.00	30.25	27.01
P-8	12 inch	I-7	O-3	2.44	41.00	0.036585	0.010	8.86	31.30	29.80	34.10	35.80	1.80	5.00	31.97	30.18


SECTION TAKEN
N
NTS
McDOWELL ROAD
POWER ROAD
SECTION TAKEN
HERMOSA VISTA DR.

Worksheet
Worksheet for Irregular Channel

Project Description	
Worksheet	POWER RD
Flow Element	Irregular Chani
Method	Manning's For
Solve For	Discharge

Input Data		
Channel Slope	005000	ft/ft
Water Surface Elev	51.15	ft

TOP OF CURB ELEVATION

Options	
Current Roughness Metho	ved Lotter's Method
Open Channel Weighting	ved Lotter's Method
Closed Channel Weightin	Horton's Method

Results		
Mannings Coeffic	0.015	
Elevation Range	1.65 to 52.50	
* Discharge	20.22	cfs
Flow Area	7.4	ft²
Wetted Perimeter	30.61	ft
Top Width	29.69	ft
Actual Depth	0.50	ft
Critical Elevation	50.65	ft
Critical Slope	0.000000	ft/ft
Velocity	2.72	ft/s
Velocity Head	0.12	ft
Specific Energy	51.27	ft
Froude Number	0.96	
Flow Type	Subcritical	

* STREET SECTION CARRIES THIS FLOW WITHIN CURBS.

Calculation Messages:
Flow is divided.

PEAK (T_c = 10min)

$Q_{10} = CiA$

$C = 0.95$

$i = 4.5$

$A = 2.0$ Ac

$Q_{10} = 8.55$ cfs

$Q_{100} = CiA$

$C = 0.95$

$i = 6.85$

$A = 2.0$ Ac

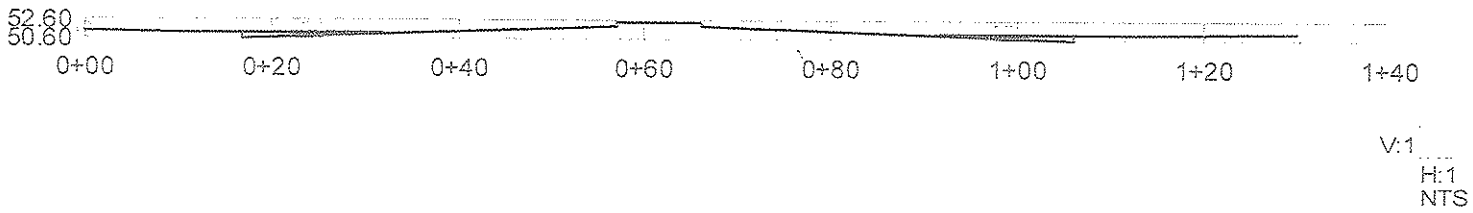
$Q_{100} = 13.01$ cfs

* AREA USED IS AREA OF R/W ALONG FRONTAGE OF PROJECT. (ASSUMING THAT IS THE ONLY TRIBUTARY AREA)

Cross Section
Cross Section for Irregular Channel

Project Description	
Worksheet	POWER RD
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Discharge

Section Data		
Mannings Coefficie	0.015	
Channel Slope	0.005000	ft/ft
Water Surface Elev	51.15	ft
Elevation Range	.65 to 52.50	
Discharge	20.22	cfs



J. M. Griffin Engineering Inc
37 Brookside Road Waterbury, CT 06708 USA +1-203-755-1666

Worksheet
Worksheet for Irregular Channel

Project Description	
Worksheet	McDOWELL R
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Discharge

Input Data		
Channel Slope	017500	ft/ft
Water Surface Elev	31.50	ft

Options	
Current Roughness Metho	ved Lotter's Method
Open Channel Weighting	ved Lotter's Method
Closed Channel Weightin	Horton's Method

Results		
Mannings Coeffic	0.015	
Elevation Range	.00 to 32.00	
Discharge	62.45	cfs
Flow Area	12.2	ft²
Wetted Perimeter	49.55	ft
Top Width	48.64	ft
Actual Depth	0.50	ft
Critical Elevation	31.64	ft
Critical Slope	0.005175	ft/ft
Velocity	5.14	ft/s
Velocity Head	0.41	ft
Specific Energy	31.91	ft
Froude Number	1.81	
Flow Type	Supercritical	

Calculation Messages:
Flow is divided.

PEAK (T_c = 10 min)

$Q_{10} = C i A$

$C = 0.95$

$i = 4.5$

$A = 4$ Ac

$Q_{10} = 17.10$ cfs

$Q_{100} = C i A$

$C = 0.95$

$i = 6.85$

$Q_{100} = 26.03$ cfs

* — STREET SECTION CARRIES THIS FLOW WITHIN CURBS.

* AREA USED IS AREA OF R/W ALONG FRONTAGE OF PROJECT. (ASSUMING THAT IS THE ONLY TRIBUTARY AREA)

Cross Section
Cross Section for Irregular Channel

Project Description	
Worksheet	McDOWELL R
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Discharge

Section Data		
Mannings Coefficie	0.015	
Channel Slope	0.017500	ft/ft
Water Surface Elev	31.50	ft
Elevation Range	.00 to 32.00	
Discharge	62.45	cfs