

Stormwater Review By:
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Review Cycle #1 Date 11/30/21

PRELIMINARY GRADING, DRAINAGE & UTILITY PLAN

GAWLEY CENTER

N 91st STREET & E BELL ROAD

SCOTTSDALE, ARIZONA

A PORTION OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 3 NORTH, RANGE 5 EAST OF THE
GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PAVING, GRADING AND DRAINAGE NOTES

- CONCRETE CURB CHASE.
- 3" CONCRETE DRAINAGE V-PAN.
- 6" VERTICAL CURB & GUTTER.
- DOUBLE REFUSE ENCLOSURE PER C.O.S. DTL. 2147-1.
- INSTALL CL-1 DRIVEWAY PER C.O.S. STD. DTL. 2256.
- MIN. 2" SAWCUT AND REMOVE EX. A.C.C.P. ROADWAY. PROTECT EXISTING ASPHALT CONCRETE TO REMAIN.
- PROPOSED STORMTECH SC-740 STORAGE SYSTEM.
- PROPOSED 6" BLEED-OFF PIPE AND TYPE 'L' HEADWALL PER M.A.G. STD. DTL. 501-1 & 501-2. PIPE INVERT=1549.00; WASH INVERT=1548.0
- PROPOSED CATCH BASIN TYPE G PER M.A.G. STD DTL. 537 AND COS DTL. 2535.
- CULVERT WING WALL EXTENSION/RETAINING WALL. HEIGHT VARIES. PER PLAN WALL FOOTING SHALL EXTEND BELOW TOP OF BANK TURN DOWN WHERE APPLICABLE ALONG EX. WASH.
- PROPOSED 3' X 8' BOX CULVERTS WITH RAILS. INVERTS PER PLAN TO MATCH EXISTING GRADE.
- SIDEWALK CURB RAMP.

How is first flush treatment addressed within this system?

Please demonstrate how associated volume reaches basin

Add flow direction arrow.

Depict and call out DE

Call out Q100

Call out location and elevation of emergency surface overflow.

BENCHMARK

Add call out for box culvert

NAVD 88 ELEV = 1565.73

BASIS OF BEARING

SOUTH 89°59'29" WEST - BEING THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 3 NORTH, RANGE 5 EAST, GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

FLOOD ZONE

FLOOD ZONE DESIGNATION "AO" PER F.E.M.A. FLOOD INSURANCE RATE MAP, MAP NUMBER 04013C1320L, PANEL 1320 OF 4425, DATED OCTOBER 16, 2013.

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.

(THE ABOVE STATEMENT IS FOR INFORMATION ONLY AND THE SURVEYOR ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THE CITED MAP OR THE LOCATION OF THE FLOOD ZONE BOUNDARY. IN ADDITION, THE ABOVE STATEMENT DOES NOT REPRESENT THE SURVEYOR'S OPINION OF THE PROBABILITY OF FLOODING.)

VICINITY MAP

OWNER/ DEVELOPER

DR. BRIAN GAWLEY
8913 E. BELL ROAD
SCOTTSDALE, ARIZONA 85260

CONTACT: DR. BRIAN GAWLEY
PHONE: (480) 696-6361

ARCHITECT

triARC ARCHITECTS
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CIVIL ENGINEER

TERRASCAPE CONSULTING, LLC
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PHOENIX, ARIZONA 85012

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EMAIL: SLUCAS@TERRASCAPE.US

STORAGE VOLUME & DRAIN TIME CALCULATIONS							
$V_R = \text{VOLUME REQUIRED}$ $V_R = C \times (P / 12) \times A$ $C = \text{WEIGHTED RUNOFF COEFFICIENT}$ $R = \text{RAINFALL DEPTH (NOAA ATLAS 14)}$ $R = 2.32 \text{ IN.}$ $A = \text{DRAINAGE AREA}$							
RETENTION BASIN	DRAINAGE AREA (AC)	WEIGHTED RUNOFF COEFFICIENT 'C'	BASIN VOLUME REQUIRED (CF)	CHAMBER VOLUME PROVIDED (CF)	BLEED OFF PIPE SIZE (IN)	BLEED OFF FLOWRATE (GFS)	ESTIMATED RETENTION BASIN DRAIN TIME (HR)
West	1.80	0.87	13,197	13,257	6	0.52	7.0
East	0.76	0.54	3,453	3,520	6	0.52	1.8
COMBINED TOTAL	2.56	0.77	16,650	16,778			

Does this rate account for 1st flush?

Add the following elevations:
HAG =
LAG =
RFD Elevation =
Lowest Mech. Equipment =

Depict and call out DE

WEST RETENTION
 $V_R = 13,197 \text{ CF}$
 $V_P = 13,257 \text{ CF}$
INV = 1750.0
OVERFLOW ELEV = 1554.30

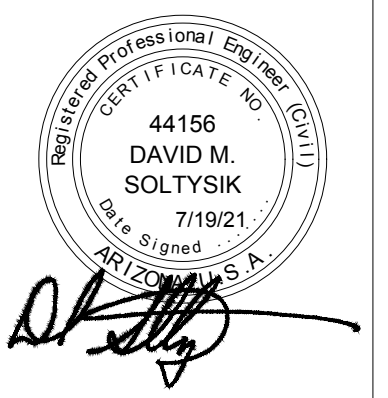
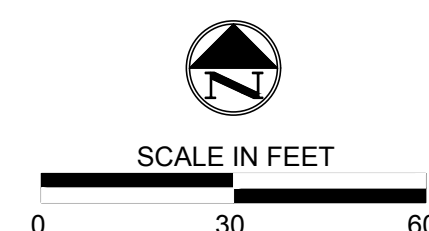
Add FEMA information block and Finished Floor Certification per DS&PM

LEGEND

--- BOUNDARY	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION
--- EX PROPERTY LINE	CLEAN OUT WITH COLLAR
--- EASEMENT	CLEAN OUT
--- STORM DRAIN	VALVE
--- SANITARY SEWER LINE	4" MANHOLE
--- DOMESTIC WATERLINE	CATCH BASIN
--- FIRELINE	YARD DRAIN
--- STORMTECH STORAGE SYSTEM	BACKFLOW PREVENTER
--- GB GRADE BREAK LINE	WATER METER
--- FIRE HYDRANT	FINISHED GRADE

ABBREVIATIONS

BFP	BACKFLOW PREVENTION	P	PAVEMENT
BLDG	BUILDING	PROP	PROPOSED
BOT	BOTTOM	PUE	PUBLIC UTILITY EASEMENT
C	CONCRETE	RW	RIGHT OF WAY
C&G	CURB AND GUTTER	RPPBP	REDUCED PRESSURE PRINCIPLE BFP
CO	CLEAN OUT	SB	SETBACK
EL/ELEV	ELEVATION	SS	SANITARY SEWER
ESMT	EASEMENT	SSMH	SANITARY SEWER MANHOLE
EX	EXISTING	S/W	SIDEWALK
LFF ₈₈	FINISHED FLOOR ELEVATION	TC	TOP OF CURB
FGFW	FINISHED GRADE AT FOOT OF WALL	TYP	TYPICAL
FL	FLOWLINE	TW	TOP OF WALL
G	GUTTER	V _P	VOLUME PROVIDED
GR	GRATE	V _R	VOLUME REQUIRED
HP	HIGH POINT	WSE	WATER SURFACE ELEVATION
HW	HIGH QUATER	WM	WATER METER
INV	INVERT		
MH	MANHOLE		



GAWLEY CENTER
DESIGN REVIEW BOARD SUBMITTAL
W BELL AND 91ST ST.
SCOTTSDALE, AZ

REV | DATE | DESCRIPTION

PROJECT NUMBER
21-016

ISSUE DATE
7/19/2021

SHEET TITLE
PRELIMINARY GRADING, DRAINAGE & UTILITY PLAN

SHEET NUMBER
GDP-1