WOOD PATEL

CONCEPT DRAINAGE REPORT
FOR
FAIRMONT SCOTTSDALE PRINCESS
CONFERENCE CENTER & EVENT LAWN

August 7, 2023
WP# 215319.30

5-ZN-2015#2

EXPIRES 06-30-25

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1.0 INTRODUCTION

1.1 General Background

The Fairmont Scottsdale Princess Conference Center & Event Lawn (Site) is a proposed commercial building and lawn event space on an approximate area of 44.4 acres of the Fairmont Scottsdale Princess in the City of Scottsdale (APN#215-08-693, 215-08-695). The proposed development will consist of one (1) commercial building and a large outdoor lawn. The project will include parking, hardscape, landscape, parking, and utility improvements to support the development. The Site is located approximately 1,300-feet to the east of Scottsdale Road and 50-feet north of East Hacienda Way within Section 35, Township 4 North, Range 4 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. Refer to Exhibit 1 – *Vicinity Map* for the project location. The existing property, currently zoned C-2, is primarily developed with buildings, parking lots, pools, sidewalks, and a variety of landscaping (desert and grass).

This concept Drainage Report has been prepared in accordance with Wood, Patel & Associates, Inc.'s (WOODPATEL's) understanding of the City of Scottsdale technical drainage requirements (Ref. 1) and the *Drainage Design Manuals for Maricopa County Hydrology and Hydraulics (2018),* as applicable to the Site.

1.2 FEMA Regulated Flood Zones

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Map (FIRM) information for communities that adhere to FEMA regulations. The FEMA FIRM panel for this Site is 04013C1320L, effective date October 16, 2013, and indicates the Site falls within "Zone AO" shaded (Refer to Exhibit 2 – *FEMA FIRM*).

"Zone AO" shaded is defined by FEMA as follows:

> *"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".*

It is the understanding of WOODPATEL, based on past experience and interpretations of the City of Scottsdale floodplain ordinance that development of land within FEMA Zone "AO" is acceptable as long as, in general, the lowest finish floor elevation is above or properly protected from the anticipated 100-year water surface elevations. This Site will be designed in accordance with the City floodplain ordinance to meet Federal and State regulations.

2.0 HYDROLOGY ANALYSIS

2.1 Offsite Hydrology

The proposed Site does not receive offsite flows. An existing regional drainage ditch along the north side of Princess Boulevard in conjunction with an existing flood wall along the south side of Princess Boulevard routes stormwater flows west to an existing regional drainage channel parallel to Scottsdale Road. Stormwater is routed south by the existing regional channel to the TPC Golf Course. Refer to Appendix F - *Drainage Report for Fairmont Scottsdale Privado Welcome Building and Parking*

Modifications by Wood, Patel & Associates, Inc., dated October 14, 2022, which provides a history of the offsite drainage and retention.

2.2 Onsite Hydrology

Per the existing stormwater waiver approved for the Site, no stormwater retention is provided. Refer to Appendix E - *Storm Water Storage Waiver / Proposed Drainage Improvements Exhibit*. Although retention is not required, the City of Scottsdale does require the First Flush (FF) volume to be treated to meet Federal and State regulations. This will be accomplished with the Contech CDS 2020-5C treatment system. See Appendix D – *Contech CDS 2020-5C Treatment System* for the manufacture's detail. Runoff from the proposed building is designed to direct stormwater away from the proposed building and drain overland to existing catch basins connected to the existing storm drain system. Flows into the existing system are calculated to be 33.2 cfs and 78.0 cfs for the 10-year and 100-year conditions, respectively. See Appendix C - *Hydrologic and Hydraulic Calculations* for the existing and proposed drainage calculations.

Onsite peak flow estimates for the proposed development were generated using the Rational Method, as outlined in the *Drainage Design Manual for Maricopa County, Arizona: Volume I – Hydrology (*Ref 2). NOAA Atlas 14 precipitation data was obtained and utilized to develop Intensity-Duration-Frequency (I-D-F) curves for the Site. Rational Method peak flows were computed at concentration points within the Site at key design locations. Runoff coefficients were estimated to reflect post-development land use conditions for the 2-year, 10-year, and 100-year events (Refer to Appendix C – *Hydrologic and Hydraulic Calculations*).

Ref. 5 - *Drainage Report Fairmont Scottsdale Privado Welcome Building and Parking Modifications by Wood, Patel & Associates, Inc., dated October 14, 2022*, provides a history of the current onsite drainage and retention. Based on the information above, the proposed site improvements mimic current drainage patterns and areas of retention for onsite with very minimal alteration.

2.3 Establishing Lowest Finish Floor (LF88 Elevations)

The Grading and Drainage Plan has been designed to comply with the City of Scottsdale floodplain ordinance for a Zone "AO" floodplain. It is our understanding, unless other floodproof measures are presented and approved, the proposed Lowest habitable Finished Floor (LFF) elevation must be designed a minimum of 1 foot above the anticipated 100-year flood elevation. Scottsdale currently requires the lowest finished floor elevation of 1 foot above the flood depth, which results in a finished floor elevation of 2 feet above the Highest Adjacent natural Grade (HAG) to the proposed building which would be the regulatory flood elevation. Due to the Site being disturbed after the Zone "AO" Special Flood Hazard was established, the current condition of the Site cannot determine the HAG. Due to this change the HAG must be established using topographical information showing the pre-disturbed condition of the Site.

According to Curry's Corner 7.5-minute Topographic Survey Map by USGS from 1964 with a contour interval of 10 feet, the approximate highest natural grade of this Site prior to development must be changed from the NAVD29 datum to the NAVD88 datum. This change consists of an elevation increase of 1.749 feet determined using surveyed elevations of a nearby monument on both vertical datums.

Using Auto CAD Civil 3D, the quad map was aligned to the Site using common monument lines (section lines) contained within the quad map and previously surveyed by WOODPATEL. The 10-foot interval contours were digitized, adjusting to NAVD88 and applied to a TIN surface model. The surface model was supplemented with break lines at estimated ridge and flowline locations. The surface was used to display interpolated 1-foot contours for the pre-disturbed condition, the proposed building limits were overlaid on the contour map and the HAG was determined for the proposed building. The proposed building lowest finished floor elevation is a minimum of 2 feet above the HAG. Refer to Appendix A - *Regional Contour Map / Opinion of Existing Highest Natural Grade Elevation* and Appendix B - *Curry's Corner Quadrangle Map.* Overlaying the building over the adjusted digitized lowest finish floor elevation map was determined to be 1561.26 making it 1.99-feet above the regulatory flood elevation of 1559.27 calculated by adding 2-feet to the HAG of 1557.27.

In addition, using the same Curry's Corner 7.5-minute Topographic Survey Map, the Lowest Adjacent Grade (LAG) at the building was determined to be 1551.13, 8.14-feet below the lowest finished floor.

2.4 Review of Pinnacle Peak West Area Master Drainage Study

The Site is located within the study limits of the Pinnacle Peak West Drainage Master Study (PPW-ADMS), as prepared by T.Y. Lin International dated July 26, 2013, which utilized FLO-2D to analyze the 100-year, 24-hour storm event for the regional study area. Refer to Appendix G – *121 Pinnacle Peak West Flo-2D Study.*

WOODPATEL reviewed the findings of the PPW-ADMS specific to the proposed Site area and, in our professional opinion, the regional model does not accurately reflect site-specific drainage improvements designed and constructed to protect the Fairmont Scottsdale Princess property. Site-specific improvements included raising a section of Princess Boulevard at the northeast corner of the Site and constructing an east-west flood wall along the north edge of the Site to direct stormwater runoff away from the Fairmont Scottsdale Princess property. Refer to Appendix F - *Fairmont Scottsdale - Ballroom Addition by Wood, Patel & Associates, Inc., dated September 2, 2011,* and Appendix E - *Storm Water Storage Waiver / Proposed Drainage Improvements.*

Based on the above, we believe offsite flows are incorrectly reported in the PPW-ADMS and do not truly impact the proposed Site.

3.0 HYDRAULIC ANALYSIS

The proposed site is designed to convey stormwater by overland flow to existing and proposed catch basins. At the time of this Report, the roof drain locations are not known. However, they will be connected to the existing storm drain system. The contribution of the proposed Site removes 5.24 cfs and 8.79 cfs for the 10- and 100-year conditions, respectively. Refer to Appendix C- *Hydrologic and Hydraulic Calculations.* The proposed drainage values for the Site are 33.2 cfs and 78.01 cfs for the 10- and 100-year conditions, respectively. These flows will be collected in the existing stormwater infrastructure and will be treated as outlined in Section 2.1.

4.0 MAINTENANCE

Ongoing maintenance of the designed or recommended drainage systems is required to preserve the design integrity and purpose of the drainage system. Failure to provide maintenance can prevent the drainage system from performing to its intended design purpose and can result in reduced performance. Maintenance within the public right-of-way is the responsibility of the governing municipality. However, it is the responsibility of landowners (such as private developers or property owners' associations) for facilities on private property. Prior to ultimate condition build-out upstream of drainage structures, additional maintenance may be required due to an increase in sedimentation build-up. A regular maintenance program is required to have drainage systems perform to the level of protection or service, as presented in this report and the projects' plans and specifications.

5.0 CONCLUSIONS

Based on our analysis of the Site, the following conclusions can be made:

1. This concept Drainage Report has been prepared in accordance with WOODPATEL's understanding of the City of Scottsdale technical drainage requirements and the *Drainage Design Manuals for Maricopa County Hydrology and Hydraulics (2018)*, as applicable to the Site.

2. The Site is within a FEMA designated 100-year floodplain (Zone "AO-Depth 1 foot") in both pre- and post-development conditions.

3. The Site is protected from offsite flows from the north by improvements previously designed and constructed specifically to protect this property, as outlined in the approved stormwater storage waiver.

4. No stormwater retention has been provided for this project, per the approved stormwater storage waiver.

5. The onsite 100-year storm event is to be conveyed south, by existing storm drain and overland flow, to the existing TPC Golf Course.

6. The 100-year high water elevation is 1557.27 in the adjacent TPC golf course. This is 3.99 feet below the proposed Conference Center lowest finish floor elevation of 1561.26. It is our understanding this is in compliance with the City of Scottsdale floodplain ordinance, which requires the lowest finished floor to be a minimum of 2 feet above (1 foot for AO and 1 foot of freeboard) the natural highest grade.

7. The estimated low natural ground elevation is 1551.13 which is 10.13 feet below the proposed Conference Center lowest finished floor elevation of 1561.26. It is our understanding this is in compliance with the City of Scottsdale floodplain ordinance.

8. Ongoing maintenance is required for the existing drainage systems to maintain design performance. Maintenance is the responsibility of the private parties involved.

6.0 REFERENCES

1. *Design Standards & Policies Manual*, City of Scottsdale, 2018

2. *Drainage Report for Fairmont Scottsdale Hotel Expansion* by Wood, Patel & Associates, Inc., dated May 1, 2015

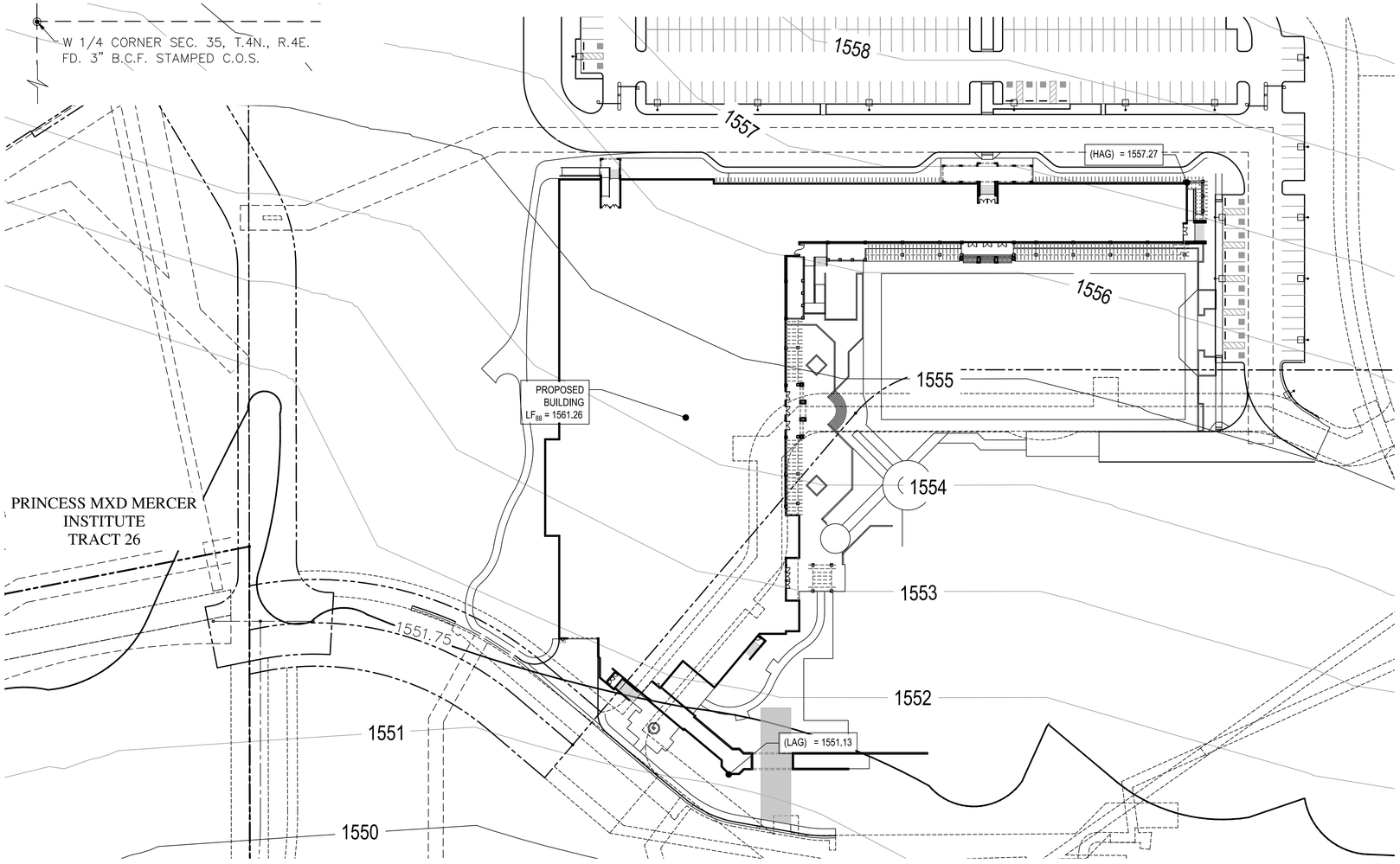
3. *Drainage Report for Fairmont Scottsdale Western Theme Town* by Wood, Patel & Associates, Inc., dated May 15, 2015

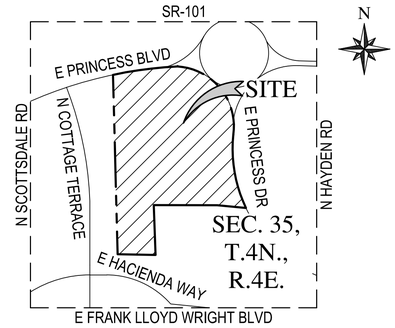
4. *Drainage Memo for Fairmont Scottsdale Sunset Beach Pool* by Wood, Patel & Associated, Inc., dated September 11, 2015

5. *Drainage Report for Fairmont Scottsdale Princess Privado Welcome Building and Parking Modifications* by Wood, Patel & Associates, Inc., dated February 21, 2023

6. *Curry's Corner Quadrangle,* 7.5 Minute Series Topographic Map, USGS, 1964.

APPENDIX A – REGIONAL CONTOUR MAP / HIGHEST NATURAL GRADE ELEVATION CALCULATION





VICINITY MAP

N.T.S.

LEGEND

———	PROPOSED BUILDING OUTLINE
—·—·—	BOUNDARY LINE
- - - -	SECTION LINE
—1550—	ESTIMATED 5' CONTOUR NAVD88 DATUM
—1541—	ESTIMATED 1' CONTOUR NAVD88 DATUM
1551.75	ORIGINAL 1964 CURRYS CORNER CONTOURS ON NAVD88 DATUM
HAG	HIGHEST ADJACENT NATURAL GRADE
LAG	LOWEST ADJACENT NATURAL GRADE
RFD	REGULATORY FLOOD DEPTH = HAG +2' (ZONE AO DEPTH (1') = 1' FREEBOARD)
LGF	LOWEST GARAGE FLOOR

ELEVATION STATEMENT

THE WORK PRODUCT PRESENTED IS THE RESULT OF OBTAINING BEST AVAILABLE HISTORICAL ELEVATION INFORMATION, AND EMPLOYING PROFESSIONAL JUDGMENT TO BEST PRESENT IN SITE GROUND ELEVATIONS. ELEVATIONS ARE BASED ON 1964 CURRYS CORNER NGVD29 DATUM CONVERTED TO NAVD88 USING MARICOPA LAND SURVEY CONVERSION OF 1.749 FT.

BENCHMARK

THE VERTICAL DATUM FOR THIS EXHIBIT IS BASED ON GDACS POINT 43017-1, 3 INCH CITY OF SCOTTSDALE BRASS CAP FLUSH LOCATED ON SCOTTSDALE ROAD SOUTH OF PRINCESS DRIVE HAVING AN ELEVATION OF 1552.985, CITY OF SCOTTSDALE NAVD88 DATUM.

N

0 50 100

Horz. 1 in. = 50 ft.

FEMA SUMMARY TABLE								
NAME	ADDRESS	LOWEST FINISHED FLOOR ELEVATION (LF88)	HIGHEST ADJACENT NATURAL GRADE	LOWEST ADJACENT NATURAL GRADE	REGULATORY FLOOD ELEVATION	FEMA REQUIREMENTS		
BUILDINGS						FLOOD VENTING	WET FLOODPROOFING	OTHER
Conference Center	7575	1,561.26	1,557.27	1,551.13	1,559.27	NO VENT	NOT REQUIRED	N/A

1) WHEN REQUIRED AS INDICATED ABOVE, FLOOD VENTS SHALL BE PROVIDED ON AT LEAST 2 SEPARATE WALLS. THE FLOOD VENTS SHALL HAVE ONE SQUARE INCH OF OPENING SPACE FOR EVERY SQUARE FOOT OF ENCLOSED SPACE BELOW THE REGULATORY FLOOD ELEVATION, OR AS NOTED ABOVE. SEE ARCHITECTURAL PLANS FOR VENTS OPENINGS. PROPOSED GRADE ADJACENT TO BUILDING MAY EFFECT VENT LOCATIONS, CONSULT ENGINEER PRIOR TO CONSTRUCTION WITH ANY QUESTIONS.
2) WHEN REQUIRED AS INDICATED ABOVE, WET FLOODPROOFING SHALL BE PROVIDED UP TO THE REGULATORY FLOOD DEPTH. WET FLOODPROOFING CONSIST OF CONSTRUCTION WITH FLOOD RESISTANT MATERIALS.
3) WHEN REQUIRED AS NOTED ABOVE, ELECTRICAL AND MECHANICAL EQUIPMENT SHALL BE ELEVATED ABOVE THE REGULATORY FLOOD DEPTH.
4) PROPOSED BUILDING M1 WILL BE A STRUCTURALLY INDEPENDENT NON-RESIDENTIAL STRUCTURE.
5) FEMA DEFINES DRY FLOODPROOFING AS A COMBINATION OF MEASURES THAT RESULT IN A STRUCTURE, INCLUDING THE ATTENDANT UTILITIES AND EQUIPMENT, BEING WATERTIGHT WITH ALL ELEMENTS SUBSTANTIALLY IMPERMEABLE TO THE ENTRANCE OF FLOODWATER AND WITH STRUCTURAL COMPONENTS HAVING THE CAPACITY TO RESIST FLOOD LOADS.

NOT FOR CONSTRUCTION OR RECORDING

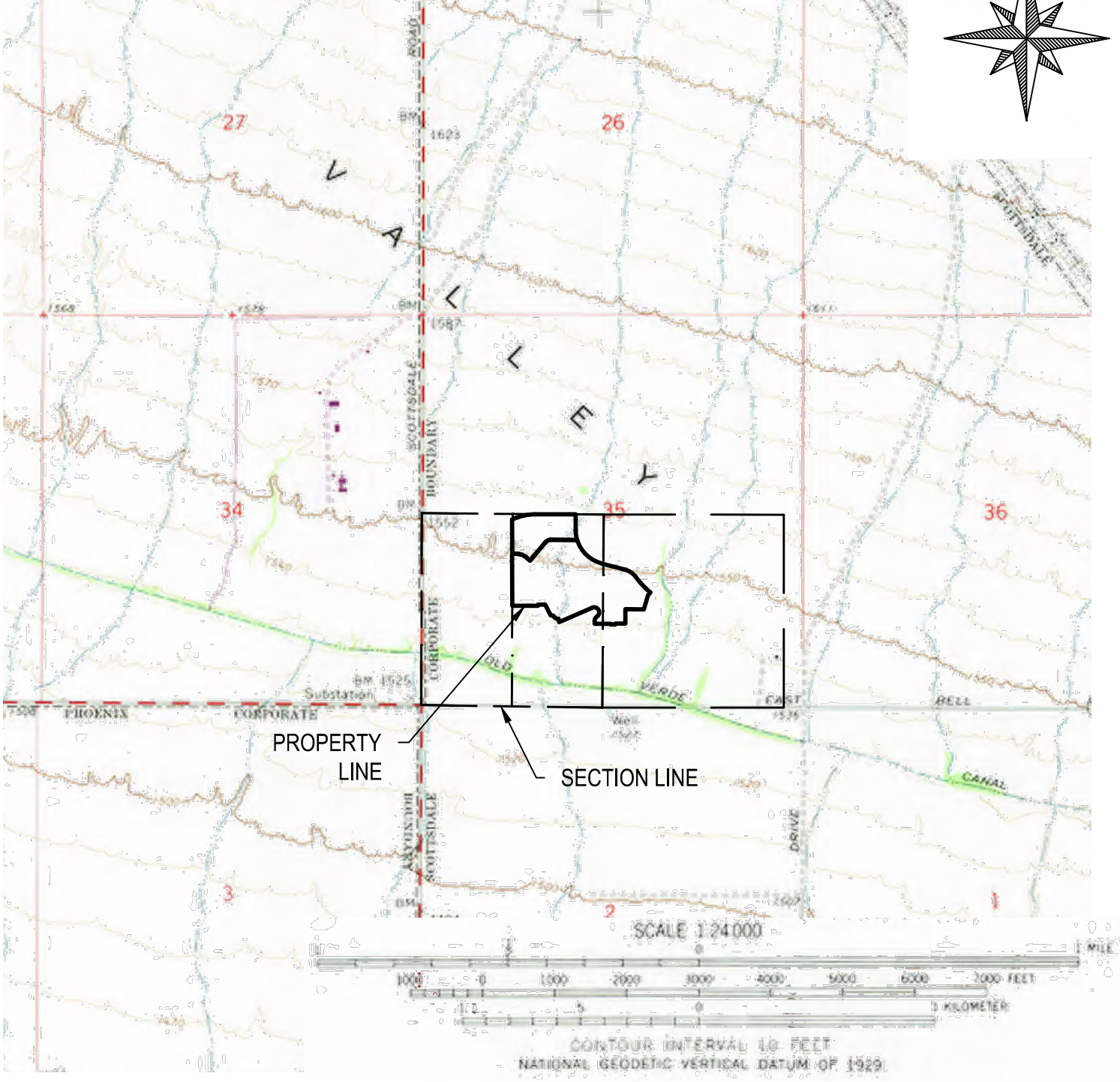
WOOD PATEL

FAIRMONT SCOTTSDALE PRINCESS

CONFERENCE CENTER & EVENT LAWN LOWEST FINISHED FLOOR

DATE	08/04/2023	SCALE	1" = 50'	SHEET	01 OF 02
JOB NO	215319	DESIGN	AJS	DRAWN	AJS

Z:\2021\215319\Project Support\Reports\Rezoning\Conference Center & Event Lawn\Drainage\Exhibits\5319.30-Lowest Floor Elevation Exhibit.dwg



NOT
FOR CONSTRUCTION OR RECORDING

WOOD PATEL

FAIRMONT PRINCESS SCOTTSDALE
CONFERENCE CENTER & EVENT LAWN

REGIONAL CONTOUR MAP/OPINION OF EXISTING HIGHEST NATURAL GRADE ELEVATION

DATE	08/04/2023	SCALE	1" = 1'	SHEET	2 OF 2
JOB NO.	215319	DESIGN	AJS	CHECK	RS
		DRAWN	AJS	RFI #	N/A

Z:\2021\215319\Project Support\Reports\Rezoning\Conference Center & Event Lawn\Drainage\Exhibits\5319.30 - Regional Contour Map.dwg

Registered Professional Engineer (C)
CERTIFICATE NO.
36382

APPENDIX B – CURRY'S CORNER QUADRANGLE MAP

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

CURRYS CORNER QUADRANGLE
ARIZONA—MARICOPA CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

(NEW RIVER SE) 3351 I SE

(WILDCAT HILL) 3651 IV SE

112°00' — 33°45' — 111°52'30" — 33°42'30" — 33°37'30"

R. 3 E. R. 4 E. R. 5 E.

CAVE CREEK 8.1 MI. — CAVE CREEK 6 MI. — 3651 IV SW (CAVE CREEK)

480 000 FEET — 510 000 FEET — 960 000 FEET — 990 000 FEET

T. 5 N. — T. 4 N. — T. 3 N.

CAVE CREEK ROAD — JEEP TR — PINNACLE PEAK ROAD — SCOTTSDALE ROAD — PIMA ROAD — JOMAX ROAD — FORT MC DOWELL 11 MI. — 66 MI. TO INTERSTATE 17

Ironwood Golf Course — PINNACLE PEAK SUBSTATION — Currys Corner — Thunder BM 1838 — BMX1891 — BM 1787 — Well — BM 1630 — Water Tank — Park — Paradise Valley Hi — Trailer Park — Water Tanks — Substation — BM 1525

P A R A D I S E V A L L E Y

SCOTTSDALE CORPORATE BOUNDARY — PHOENIX CORPORATE BOUNDARY — EAST BELL ROAD — OLD VERDE CANAL — UNION HILLS DRIVE — GREENWAY ROAD — 40TH STREET — 32ND STREET — TATUM BLVD — ARIZONA CANAL — WALDORF — SCOTTSDALE ROAD

(SUNNYSLOPE) 3351 II SE — (SAWIK MTN.) 3651 III SE — (MC DOWELL PEAK) 3651 III NE — (UNION HILLS) 3351 I NE

(PARADISE VALLEY) SCOTTSDALE P.O. 9.5 MI.
3651 III SW PHOENIX (CIVIC CENTER) 21 MI.

SCALE 1:24 000

1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1962. Field checked 1964

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks, zone 12, shown in blue

Revisions shown in purple compiled from aerial photographs taken 1973. This information not field checked

GN MN 0°31' 9 MILS 13½° 240 MILS
UTM GRID AND 1973 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

ARIZONA
QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

CURRYS CORNER, ARIZ.
N3337.5—W11152.5/7.5

1964
PHOTOREVISED 1973
AMS 3651 III NW—SERIES V898

2560

APPENDIX C – HYDROLOGIC AND HYDRAULIC CALCULATIONS

IDF DATA FROM FCDMC NOAA – ATLAS 14 PRECIPITATION DATA

WOOD PATEL

SITE I-D-F CURVE

Project Fairmont Scottsdale Princess - Conference Center & Event Lawn
Location Scottsdale AZ
Project Number 215319
Project Engineer Darin Moore, PE

RAINFALL DEPTHS, INCHES

Duration	Average Reccurence Interval (years)					
	2	5	10	25	50	100
5-min	0.253	0.341	0.409	0.501	0.571	0.643
10-min	0.385	0.520	0.623	0.762	0.869	0.978
15-min	0.478	0.644	0.772	0.945	1.080	1.210
30-min	0.643	0.867	1.040	1.270	1.450	1.630
60-min	0.796	1.070	1.290	1.580	1.800	2.020
2-hr	0.921	1.230	1.460	1.780	2.020	2.270
3-hr	1.010	1.320	1.560	1.910	2.180	2.460
6-hr	1.200	1.530	1.800	2.150	2.440	2.730
12-hr	1.350	1.700	1.970	2.350	2.630	2.930
24-hr	1.580	2.040	2.410	2.920	3.320	3.740

RAINFALL INTENSITY, INCHES/HOUR

Duration minutes	Frequency, years					
	2	5	10	25	50	100
5	3.04	4.09	4.91	6.01	6.85	7.72
10	2.31	3.12	3.74	4.57	5.21	5.87
15	1.91	2.58	3.09	3.78	4.32	4.84
30	1.29	1.73	2.08	2.54	2.90	3.26
60	0.80	1.07	1.29	1.58	1.80	2.02
120	0.46	0.62	0.73	0.89	1.01	1.14
180	0.34	0.44	0.52	0.64	0.73	0.82
360	0.20	0.26	0.30	0.36	0.41	0.46
720	0.11	0.14	0.16	0.20	0.22	0.24
1440	0.07	0.09	0.10	0.12	0.14	0.16

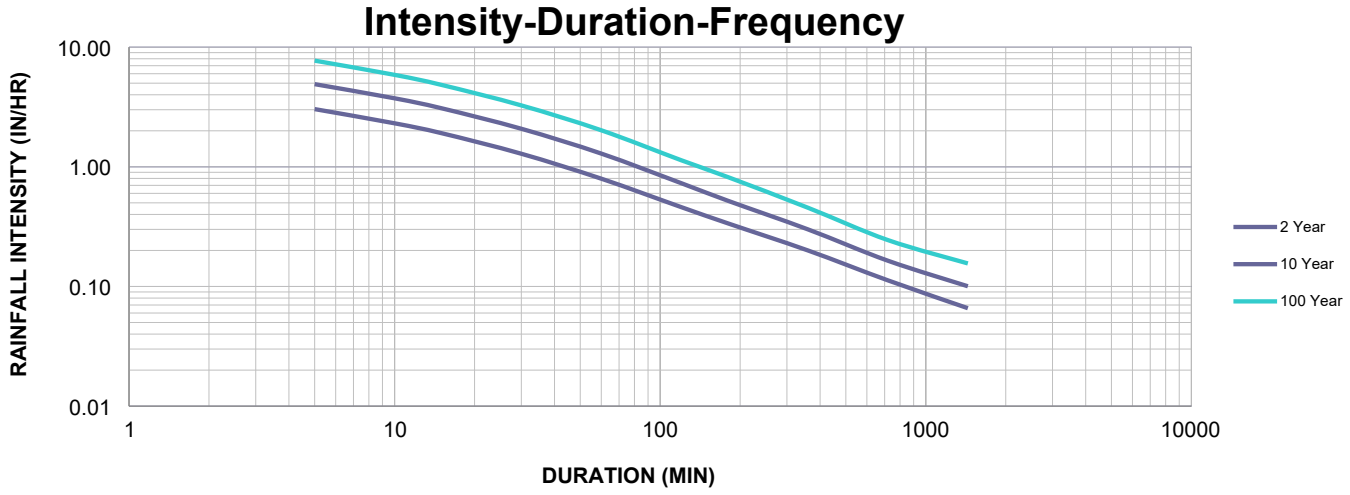


TABLE 1 – EXISTING WEIGHTED C VALUES

WOOD PATEL

COMPOSITE WEIGHTED "C" FACTOR CALCULATIONS
100 YEAR

Project	Fairmont Scottsdale Princess - Conference Center & Event Lawn
Location	Scottsdale AZ
Project Number	215319
Project Engineer	Darin Moore, PE

Existing C Factor

Drainage Subbasin ID	**Area**	**Desert**		**Paved**		**Roof**		**Grass**		**Commercial**		**100 YR Runoff Coefficient**
(Description/ID)	**(Acres)**	**%**	**"C"**	**%**	**"C"**	**%**	**"C"**	**%**	**"C"**	**%**	**"C"**	**"C"**
B1	2.26	93	0.45	7	0.95		0.95		0.30		0.86	**0.49**
B2	0.88		0.45	100	0.95		0.95		0.30		0.86	**0.95**
B3	0.93		0.45	100	0.95		0.95		0.30		0.86	**0.95**
B4	0.94		0.45	100	0.95		0.95		0.30		0.86	**0.95**
B5	0.91		0.45	100	0.95		0.95		0.30		0.86	**0.95**
B6	1.99	29	0.45	71	0.95		0.95		0.30		0.86	**0.81**
B7	0.79		0.45		0.95		0.95		0.30	100	0.86	**0.86**
N1	0.54	0	0.45	100	0.95		0.95		0.30		0.86	**0.95**
N2	0.40	0	0.45	100	0.95		0.95		0.30		0.86	**0.95**

TABLE 2 – PROPOSED WEIGHTED C VALUES

WOOD PATEL

COMPOSITE WEIGHTED "C" FACTOR CALCULATIONS

100 YEAR

Project	Fairmont Scottsdale Princess - Conference Center & Event Lawn
Location	Scottsdale AZ
Project Number	215319
Project Engineer	Darin Moore, PE

Proposed C Factor

Drainage Subbasin ID	**Area**	**Desert**		**Paved**		**Roof**		**Grass**		**100 YR Runoff Coefficient**
(Description/ID)	**(Acres)**	**%**	**"C"**	**%**	**"C"**	**%**	**"C"**	**%**	**"C"**	**"C"**
B1	2.16	77.6	0.45	4.4	0.95	18	0.95		0.30	**0.56**
B2	1.53		0.45	100	0.95		0.95		0.30	**0.95**
B3	1.17	3	0.45	97	0.95		0.95		0.30	**0.94**
B4	1.03		0.45	65.7	0.95		0.95	34.3	0.30	**0.73**
B5	1.44	28.4	0.45	50	0.95		0.95	21.6	0.30	**0.67**
B6	0.41	20	0.45	80	0.95		0.95		0.30	**0.85**
R1	2.10		0.45		0.95	100	0.95		0.30	**0.95**

TABLE 3 – EXISTING RATIONAL METHOD

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RATIONAL METHOD SUMMARY

100 YEAR, 10 YEAR

Project Fairmont Scottsdale Princess - Conference Center & Event Lawn
Location Scottsdale AZ
Project Number 215319
Project Engineer Darin Moore, PE

EXISTING ON-SITE WATERSHEDS

Drainage Subbasin ID	Longest Watercourse 'L' (ft)	Longest Watercourse 'L' (mi)	Drainage Area 'A' (sf)	Drainage Area 'A' (Acres)	'K_b' Type[1]	Watershed Resistance Coefficient '$K_{b'}$	Top Elevation	Bottom Elevation	Basin Slope 'S' (ft/mi)	100 YEAR				10 YEAR			
										Calculated Q100 'Tc' (See Note 2) (min)	100 YEAR Intensity 'i' (in/hr)	100 YR Runoff Coefficient 'C'	Q100 Flow (cfs)	Calculated Q10 'Tc' (See Note 2) (min)	10 YEAR Intensity 'i' (in/hr)	10 YR Runoff Coefficient 'C'	Q10 Flow (cfs)
B1	571	0.108	98439	2.26	A	0.0378	58.5	54.0	41.6	5.5	9.31	0.49	**10.2**	6.6	5.88	0.49	**6.4**
B2	209	0.040	38479	0.88	B	0.0807	59.5	56.3	80.8	5.0	8.03	0.95	**6.7**	5.1	4.91	0.95	**4.1**
B3	209	0.040	40583	0.93	A	0.0402	60.0	57.2	70.7	5.0	8.45	0.95	**7.5**	5.0	5.22	0.95	**4.6**
B4	218	0.041	41039	0.94	A	0.0402	58.0	54.7	79.9	5.0	9.45	0.95	**8.5**	5.0	5.22	0.95	**4.7**
B5	204	0.039	39679	0.91	A	0.0403	59.0	55.5	90.6	5.0	10.45	0.95	**9.0**	5.0	5.22	0.95	**4.5**
B6	397	0.075	86513	1.99	A	0.0381	57.4	53.0	58.5	5.0	11.45	0.95	**21.6**	5.2	5.22	0.95	**9.8**
B7	227	0.043	34517	0.79	A	0.0406	59.0	54.9	95.4	5.0	12.45	0.81	**7.9**	5.0	5.22	0.81	**3.3**
N1	214	0.041	23664	0.54	A	0.0417	59.0	55.0	98.7	5.0	13.45	0.86	**6.3**	5.0	5.22	0.86	**2.4**
N2	177	0.034	17431	0.40	A	0.0425	56.9	54.0	86.5	5.0	14.45	0.95	**5.5**	5.0	5.22	0.95	**2.0**
Total			**420344**	**9.65**									**83.2**				**42.0**

Notes

1. Per Drainage Design Manual for Maricopa County, Vol. I, Hydrology (2013), Table 3.1: Equation for Estimating Kb in the Tc Equation
2. Minimum Tc is 5 minutes.

TABLE 4 – PROPOSED RATIONAL METHOD

WOOD PATEL

STORMCEPTOR RATIONAL METHOD SUMMARY

100 YEAR, 10 YEAR

Project Fairmont Scottsdale Princess - Conference Center & Event Lawn
Location Scottsdale AZ
Project Number 215319
Project Engineer Darin Moore, PE

PROPOSED ON-SITE WATERSHEDS

										100 YEAR				10 YEAR			
Drainage Subbasin ID	**Longest Watercourse 'L' (ft)**	**Longest Watercourse 'L' (mi)**	**Drainage Area 'A' (sf)**	**Drainage Area 'A' (Acres)**	**'K_b' Type[1]**	**Watershed Resistance Coefficient 'K_b'**	**Top Elevation**	**Bottom Elevation**	**Basin Slope 'S' (ft/mi)**	**Calculated Q100 'Tc' (See Note 2) (min)**	**100 YEAR Intensity 'i' (in/hr)**	**100 YR Runoff Coefficient 'C'**	**Q100 Flow (cfs)**	**Calculated Q10 'Tc' (See Note 2) (min)**	**10 YEAR Intensity 'i' (in/hr)**	**10 YR Runoff Coefficient 'C'**	**Q10 Flow (cfs)**
B1	317	0.060	94,266	2.16	A	0.0379	61.3	52.0	154.2	5.0	9.31	0.56	**11.3**	5.0	5.60	0.56	**6.8**
B2	269	0.051	66,759	1.53	A	0.0388	61.3	56.4	96.1	5.0	8.03	0.95	**11.7**	5.0	4.91	0.95	**7.1**
B3	184	0.035	50,869	1.17	A	0.0396	61.3	57.1	118.5	5.0	8.45	0.95	**9.4**	5.0	4.91	0.95	**5.4**
B4	226	0.043	44,858	1.03	A	0.0399	61.3	58.0	76.7	5.0	8.78	0.73	**6.6**	5.0	4.91	0.73	**3.7**
B5	247	0.047	62,597	1.44	A	0.0390	61.3	56.0	112.3	5.0	9.78	0.67	**9.4**	5.0	4.91	0.67	**4.7**
B6	159	0.030	17,955	0.41	A	0.0424	61.3	56.4	160.8	5.0	11.78	0.85	**4.1**	5.0	4.91	0.85	**1.7**
R1	289	0.055	91,613	2.10	A	0.0380	0.0	0.0	0.2	18.8	12.78	0.95	**25.5**	39.2	1.84	0.95	**3.7**
Total			428,918	9.85									78.01				33.19

Notes

1. Per Drainage Design Manual for Maricopa County, Vol. I, Hydrology (2013), Table 3.1: Equation for Estimating Kb in the Tc Equation
2. Minimum Tc is 5 minutes.

APPENDIX D – CONTECH DSBB-10-20-108

CONTECH ENGINEERED SOLUTIONS

DEBRIS SEPARATING BAFFLE BOX SCREEN FLOW RATE CALCULATOR

Project ID:	742047
Project Name:	Fairmont Scottsdale Princess – Sunset V
Project Location:	Scottsdale, AZ
Unit ID:	
Date:	6/12/2023

EOR/ Contractor:	Robert Saunders
Designed By:	David Hopkins
CONTECH Rep:	Zach Hubard

Pipe Diameter, D	36	**in.**
	3.00	**ft.**
Safety Factor, SF	1	**unitless**
Treatment Flow Rate	1.70	**cfs**
	763	**gpm**
Water Depth in Pipe, d	5	**in.**
	0.42	**ft.**
Radius, r	18	**in.**
	1.50	**ft.**
% full	13.89%	
Total Area, A	1017.88	**in^2**
	7.07	**ft^2**
Total Perimeter, C	113.10	**in.**
	9.42	**ft**
Wetted Area, Aw	85.62	**in^2**
	0.59	**ft^2**
Wetted Perimeter, P	27.50	**in.**
	2.29	**ft**
Hydraulic Radius, R	3.11	**in.**
	0.259	**ft**
Elevation	Below	
ϕ	1.53	**radians**
s	27.50	**in.**

Step 1:
Input Project Information above in Blue
Step 2:
Input Design Variables into the Green cells to the left. Input the Pipe Diameter and Safety Factor first followed by the required Treatment Flow Rate last. The Cell for the Treatment Flow Rate initiates a looped calculation once the cell value is changed. This variable should always be the last input.

Constants		
Gravity, g	32.174	**ft/s^2**
Discharge Coefficient, C_d	0.66	**unitless**
Screen Open Area, OA	0.37	**%**

HGL_O, HGL at Entrance of Outlet Pipe	0.42	**ft**
ϕ, Central Angle (Theta)	43.76	**deg**
T, Top Water Surface Width	2.07	**ft**
A, Area of Section Flow	0.59	**ft^2**
h_m, Mean Depth of Flow	0.29	**ft**
V_o, Velocity at Entrance of Outlet Pipe	3.04	**ft/s**
Q_o, Volumetric Flow Rate of Outlet Pipe	1.81	**ft^3/s**
Froude Number	1	**unitless**

	RESULTS											
Model	**2.5-4-66**	**2.5-4-66**	**2.5-4-66**	**2.5-4-66**	**2.5-4-66**	**4-8-84**	**5-10-84**	**6-12-84**	**8-16-96**	**10-20-108**	**11-24-132**	**11-34-136**
HGL (ft)	N/A	N/A	N/A	N/A	N/A	0.46	0.45	0.44	0.43	0.42	0.42	0.42
Rate (ft3/s)	N/A	N/A	N/A	N/A	N/A	1.81	1.81	1.81	1.81	1.81	1.81	1.81

This spreadsheet performs iterative calculations to determine the screened treatment flow rate and the associated maximum HGL inside of the DSBB at this treatment flow rate. The user only needs to input the required pipe size, safety factor and desired volumetric treatment flow rate. The spreadsheet is designed to incrementally increase the water elevation of the outlet pipe until the desired treatment flow rate is achieved. A simultaneous set of calculations is performed during this incremental step to determine the headloss through the DSBB as a result of the water passing through the box and the screen. The basis for these calculations is the Bernoulli Energy Equation combined with an empirically determined equation for the losses associated with the screen. Flow rate, velocity, flow area, and constants are direct factors to the outcome of these calculations.

Limitations and Restrictions on Use (Assumptions required for calculations to be valid)

1. Inlet and outlet pipe sizes are the same diameter.
2. Inlet-pipe flow is subcritical.
3. Flow in outlet-pipe at the exit is critical (no further restrictions down stream).
4. Tops of sediment partitions, inlet-pipe inverts, and outlet-pipe inverts are at the same elevation.
5. The DSBBB ceiling height is always above the water level.
6. Sediment in final chamber does not significantly restrict flow under skimmer panel (if present).
7. The DSBB screen channel is not significantly wider than outlet pipe diameter.
8. Top of basket is above water height. (This requirement does not affect these head loss calculations, but affects retention of floatable debris.)

Revision: DSBB Screen Flow Calculator Full Capture round pipe.xlsm

Calculation of Head Loss in DSBB Unit

In bypass, if screens are completely clogged.

Project Name	Fairmont Scottsdale Princess – Sunset Villas & Bung
Project #	742047
Location	Scottsdale, AZ
Completed By	DAH

Inputs:

DSBB Size	DSBB-10-20	(Dropdown)

Inlet

Flow (cfs)	66.8

Outlet

Pipe Material	HDPE	(Dropdown)
Pipe Shape	Round	(Dropdown)
Pipe Diameter (in)	36	
Box Width (in)	24	
Box Height (in)	42	

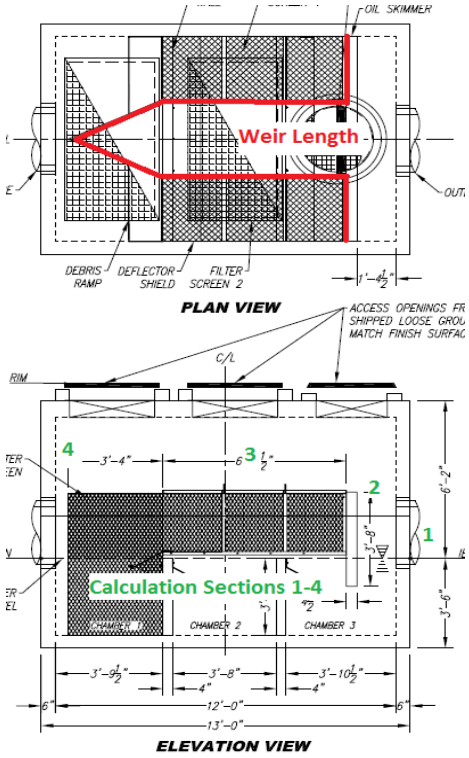
Step 1:
Input design information on left in blue
Step 2:
Change light green cell in Sections 1, 2 and 3 until "OK"

Section 1: Outlet Pipe		Within 5%?	% Error
Depth in Pipe (ft)	2.18	OK	2.98%
Velocity in Pipe (fps)	12.14		
EGL in Pipe (ft)	4.47		

Section 2: Exit Chamber		Within 5%?	% Error
HGL in Exit Chamber (ft)	5.52	OK	1.12%
Velocity in Exit Chmbr (fps)	1.21		
Entrance Loss	1.13		
EGL in Exit Chamber (ft)	5.60		

Section 3: Head Over Weir		Within 5%?	% Error
Length of Weir (ft)	41.80	*Note: Must be larger than	
Weir Submerged?	Submerged	Section 2 HGL	
HGL Before Weir (ft)*	5.523	OK	4.40%

Section 4: Inlet Chamber	
HGL at Entrance Chamber (ft)	5.52
Inside Ceiling to Invert (ft)	6.00
Velocity at Entrance (fps)	1.21
EGL Start of Box	5.55
Total Head Loss (ft) (EGL Weir-EGL Pipe)*1.3	**1.40**



Limitations and Restrictions on Use
(Assumptions required for calculations to be valid)

1. Inlet and outlet pipe sizes are the same diameter.
2. Inlet-pipe flow is subcritical.
3. Flow in outlet-pipe at the exit is critical (no further restrictions down stream).
4. Tops of sediment partitions, inlet-pipe inverts, and outlet-pipe inverts are at the same elevation.
5. Baffle-box ceiling height is always above the water level.
6. Sediment in final chamber does not significantly restrict flow under skimmer panel (if present).
7. Baffle Box is significantly wider than outlet pipe diameter.
8. Top of basket is above water height. (This requirement does not affect these head loss calcuations, but affects retention of flatable debris).

If you have any questions, please contact:
Scott Sertich
scott.sertich@conteches.com

CONTECH® ENGINEERED SOLUTIONS

v8.0
5/23/2023
STS

SITE SPECIFIC DATA*

PROJECT NUMBER	742047
PROJECT NAME	FAIRMONT SCOTTSDALE PRINCESS
PROJECT LOCATION	SCOTTSDALE, AZ
STRUCTURE ID	025
WATER QUALITY FLOW RATE (CFS)	1.70
PROVIDED TREATMENT FLOW RATE (CFS)	25.79
PEAK FLOW RATE (CFS)	66.80
PEAK STORM DURATION (YEARS)	10.00

PIPE DATA	I.E.	MATERIAL	DIAMETER
INFLOW PIPE 1	1546.5	HDPE	36
OUTFLOW PIPE 1	1546.5	HDPE	36
RIM ELEVATION	1537.9		
SURFACE LOADING REQUIREMENT			HS20
FRAME AND COVER		(2) 36"x72" (1) 36"ø	
CORROSIVE SOIL CONDITIONS			NA
KNOWN GROUNDWATER ELEVATION			NA

NOTES:

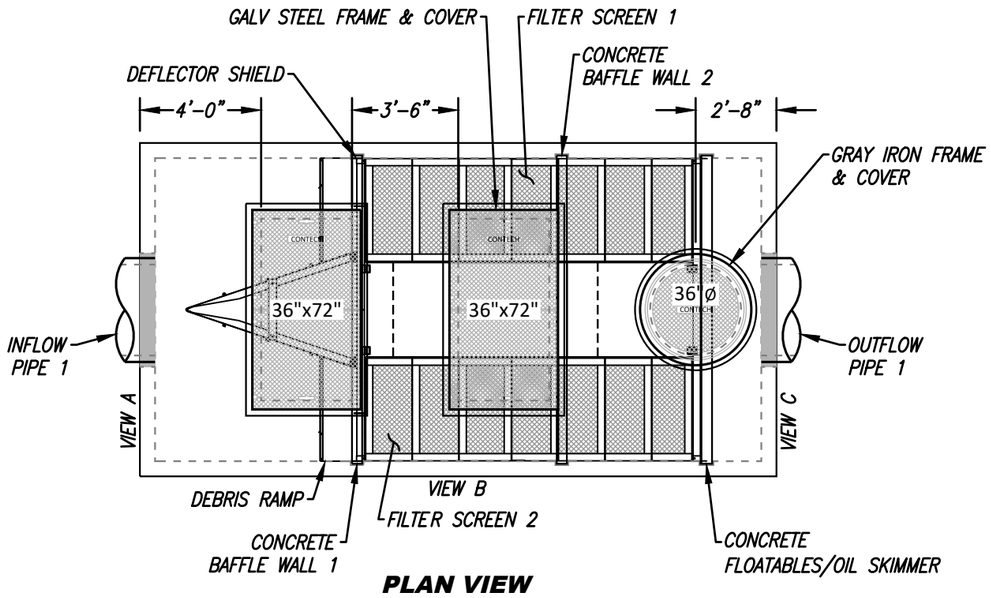
*PER ENGINEER OF RECORD

DSBB PERFORMANCE DATA

TREATMENT FLOW RATE (CFS)	1.70
FULL CAPTURE TRASH FLOW RATE (CFS)	0.00
SETTLING AREA (SF)	200.00
LOADING RATE (GPM/SF)	3.81
SCREEN SYSTEM STORAGE CAPACITY (CF)	163.88
SEDIMENT STORAGE CAPACITY (CF)	580.00
80% TSS REMOVAL @ 231 MICRON	

DSBB STORAGE CAPACITIES

CAGE SCREEN CAPACITY				
	LENGTH (FT)	WIDTH (FT)	HEIGHT (FT)	TOTAL (CF)
SCREEN 1	11.50	3.17	2.25	81.94
SCREEN 2	11.50	3.17	2.25	81.94
SEDIMENT CHAMBER CAPACITY				
CHAMBER 1	6.50	10.00	3.00	195.00
CHAMBER 2	6.42	10.00	3.00	192.50
CHAMBER 3	6.42	10.00	3.00	192.50



PLAN VIEW

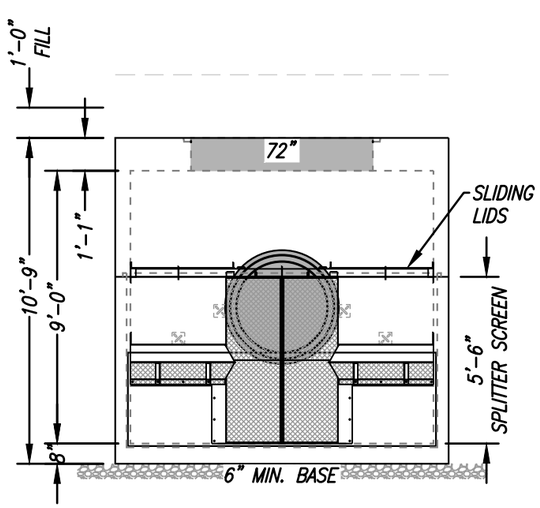
GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS, AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS, AND ACCESSORIES PLEASE CONTACT CONTECH.

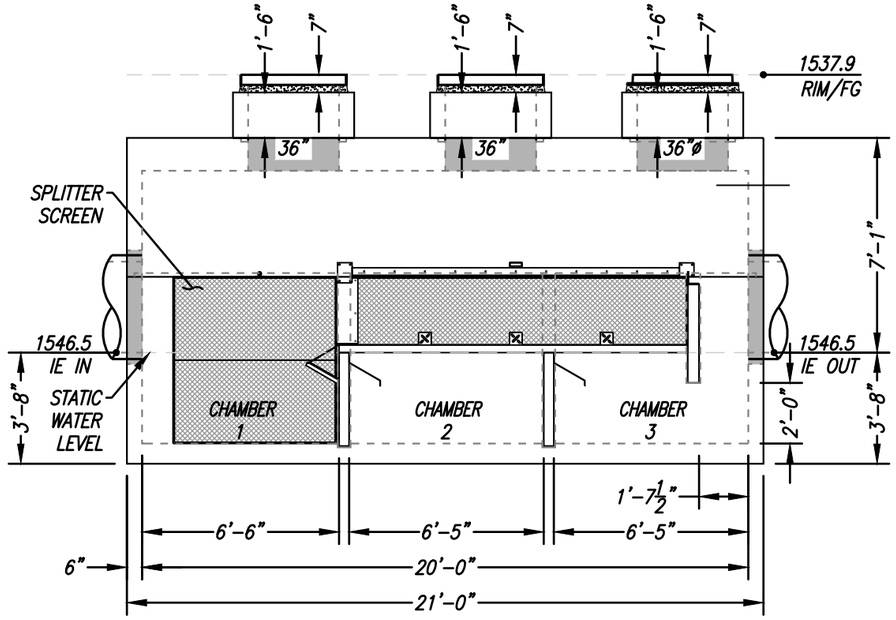
INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE DEBRIS SEPARATING BAFFLE BOX AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
2. MANUFACTURER RECOMMENDS A 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
3. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH).
4. ALL GAPS AROUND PIPES SHALL BE SEALED WATERTIGHT WITH A NON-SHRINK GROUT PER MANUFACTURER'S STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS AND COVERS. ALL COVERS SHALL BE SHIPPED LOOSE. CONTRACTOR TO USE GROUT AND/OR BRICKS TO MATCH COVERS WITH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.

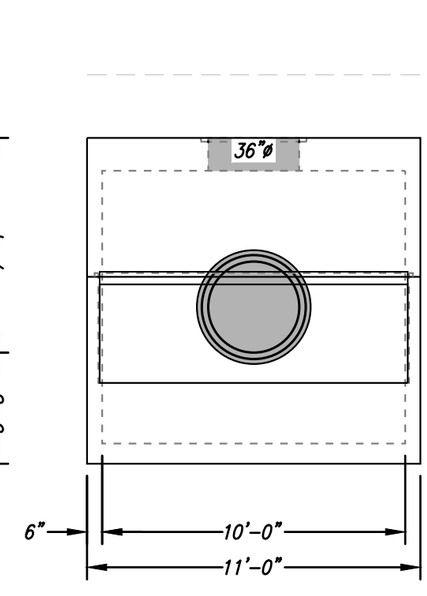
1:60 SCALE



INLET ELEVATION VIEW A



ELEVATION VIEW B



OUTLET ELEVATION VIEW C

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com

DSBB-10-20-108
DUAL STAGE HYDRODYNAMIC SEPARATOR
STANDARD DETAIL

6/12/23DAVID.HOPKINS

APPENDIX E – STORM STORAGE WAIVER / PROPOSED DRAINAGE IMPROVMENTS EXHIBIT

~~PRINCESS~~

10/22

Request for Stormwater Storage Waiver

292-SA-2007

City of Scottsdale Case Numbers:

___ - PA - ___ ___ - ZN - ___ ___ - UP - ___ ___ - DR - ___ ___ - PP - ___ PC# 6332-07-7

The applicant/developer must complete and submit this form to the city for processing and obtain approval of waiver request ***before submitting Improvement plans.*** Denial of the waiver may require the developer to submit a revised site plan to the Development Review Board.

Date 7/14/08 **Project Name** Fairmont Scottsdale Princess Resort

Project Location 7575 East Princess Drive Scottsdale, AZ 85255

Applicant Contact John Bulka **Company Name** Wood Patel & Associates

Phone 480-834-3300 Fax 480-834-3320 E-mail jbulka@woodpatel.com

Address 1855 N. Stapley Mesa, AZ 85203

Waiver Criteria

A waiver is an intentional relinquishment of a claim or right. A project must meet at least one of six criteria listed below for the city to consider waiving some or all required stormwater storage. Check the applicable box and provide a signed engineering report and supporting engineering analyses that demonstrate the project meets the criteria *and* that the effect of a waiver will not increase the potential for flooding on any property.

☐ 1. The runoff for the project has been included in a storage facility at another location. The applicant must demonstrate that the stormwater storage facility was specifically designed to accommodate runoff from the subject property and that the runoff will be conveyed to this location through an adequately designed conveyance facility.

☒ 2. The development is adjacent to a watercourse or channel that an engineering analysis shows is designed and constructed to handle the additional runoff without increasing the potential for flood damage to the subject property or to any other property.

☐ 3. The development is on a parcel less than one-half acre in size in an area where the engineering analysis demonstrates there is no significant increase in potential for flood damage due to its development.

☐ 4. Stormwater storage requirements conflict with requirements of the Environmentally Sensitive Lands Ordinance (ESLO). The applicant must demonstrate there is no increased potential for flood damage to the subject property or to any other property. Such conflicts with ESLO may include:

- Total land requirements for storage basin, easements, setbacks, and NAOS prevent building allowable footprint per zoning.
- Topography prevents building storage basin.
- Creating a storage facility requires wash modification.
- Instances where the Zoning Administrator cannot allow a modification to ESL requirements.

☐ 5. The project is located within the Downtown Fee Reduction Area as described and approved by City Council Resolution #6238 (see map). The applicant must demonstrate there is no increased potential for flood damage to any property. Even if the project is located in the Downtown area, if the project creates additional potential for increased flood damage, the developer must provide alternative mitigation methods to prevent the damage.

☐ 6. The project is located within a watershed that drains directly to the Salt River Pima-Maricopa Indian Community (SRPMIC) (see map). The project must provide the pre-development peak discharge flow to the SRPMIC, and attenuate flows over and above pre-development.

By signing below, I certify that the stated project meets the waiver criteria selected above as demonstrated by the attached documentation.

John Bulka

Developer or Engineer (circle one)

7-16-08

Date

Planning & Development Services Department

7447 E Indian School Road, Suite 105, Scottsdale, AZ 85251 • Phone: 480-312-7000 • Fax: 480-312-7088

SWW

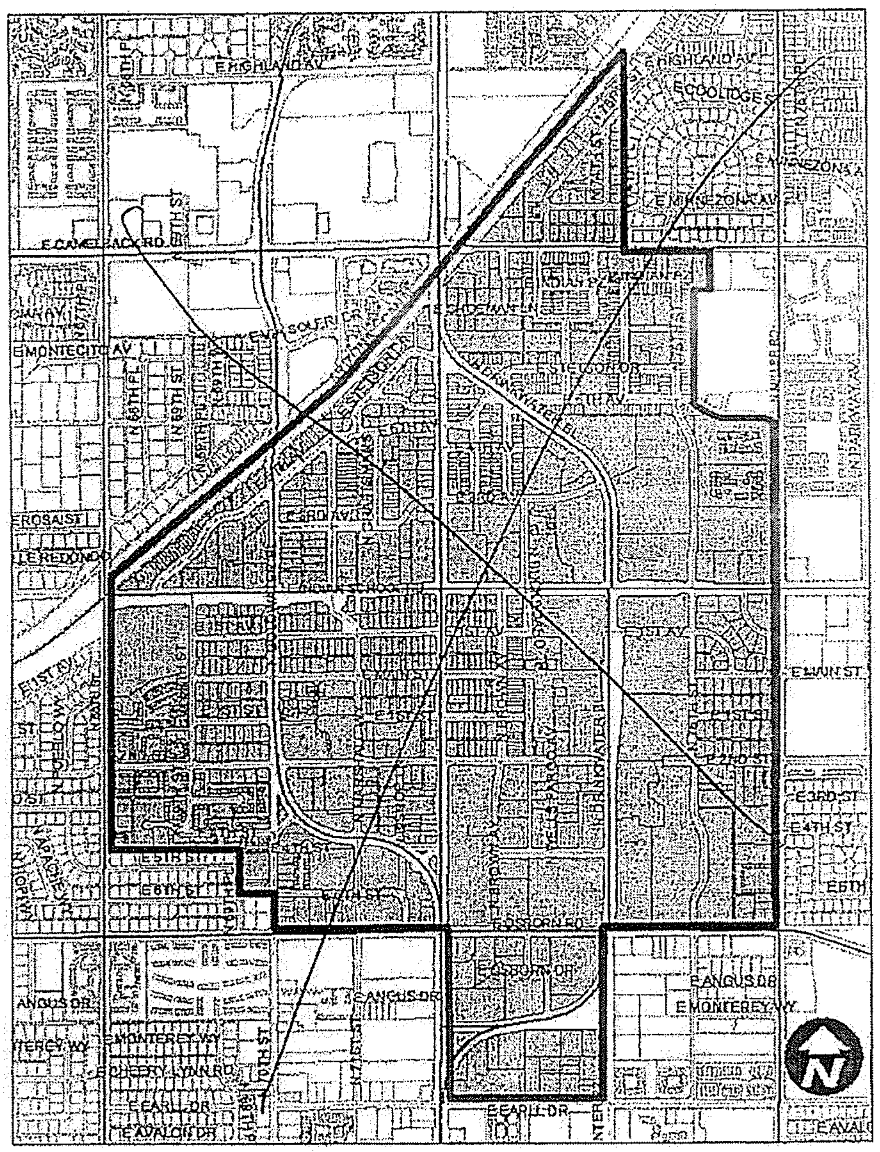
6332-07-7

Request for Stormwater Storage Waiver

292-SA-2007

City of Scottsdale Case Numbers:

___ - PA - ____ ____ - ZN - ____ ____ - UP - ____ ____ - DR - ___ ____ - PP - ____ PC#________



NOT APPLICABLE

Figure 1. Designated Area for Downtown Stormwater Storage Waivers

Planning & Development Services Department

7447 E Indian School Road, Suite 105, Scottsdale, AZ 85251 • Phone: 480-312-7000 • Fax: 480-312-7088

Request for Stormwater Storage Waiver

City of Scottsdale Case Numbers:

___ - PA - ____ ____ - ZN - ____ ____ - UP - ____ ____ - DR - ____ ____ - PP - ____ PC#_____

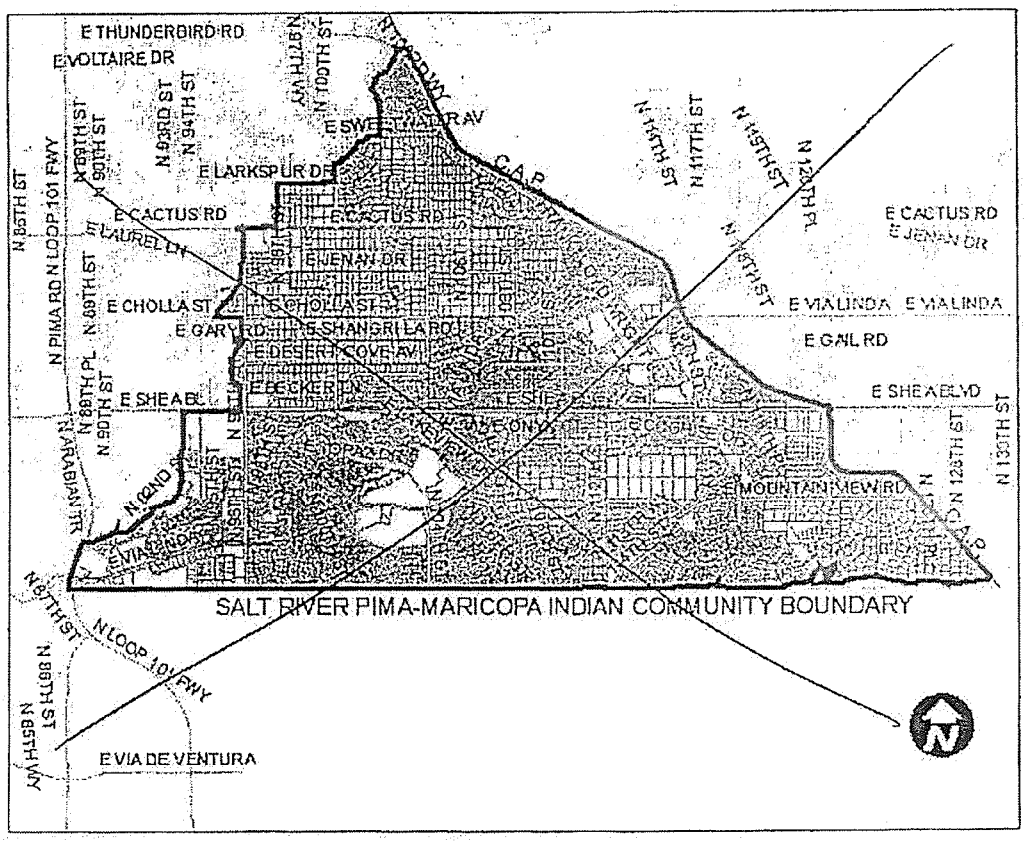


Figure 2. Watersheds Draining to Salt River Pima-Maricopa Indian Community

NOT APPLICABLE

Planning & Development Services Department

7447 E Indian School Road, Suite 105, Scottsdale, AZ 85251 • Phone: 480-312-7000 • Fax: 480-312-7088

Request for Stormwater Storage Waiver

292-SA-2007

City of Scottsdale Case Numbers:

___-PA-___ ___-ZN-___ ___-UP-___ ___-DR-___ ___-PP-___ PC#_____

CITY STAFF TO COMPLETE THIS PAGE

Project Name FAIRMONT SCOTTSDALE PRINCESS RESORT

Check Appropriate Boxes:

☐ Meets waiver criteria (specify): ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

☑ Recommend approve waiver.

☐ Recommend deny waiver:
- ☐ None of waiver criteria met.
- ☐ Downstream conditions prohibit waiver of any storage.
- ☐ Other:

Explain: _____

☐ Return waiver request:
- ☐ Insufficient data provided.
- ☐ Other: _____

Explain: _____

Recommended Conditions of Waiver:
- ☒ All storage requirements waived.
- ☐ Pre development conditions must be maintained.
- ☑ Other:

Explain: In land improvements exceed cost of in-lieu fee.

☒ **Waiver approved per above conditions.**

☐ **Waiver denied.**

C. Ashley Couch — 10/23/08

Floodplain Administrator or Designee — Date

Planning & Development Services Department
7447 E Indian School Road, Suite 105, Scottsdale, AZ 85251 • Phone: 480-312-7000 • Fax: 480-312-7088

Request for Stormwater Storage Waiver

292-SA-2007 City of Scottsdale Case Numbers:

___ - PA - ___ ___ - ZN - ___ ___ - UP - ___ ___ - DR - ___ ___ - PP - ___ PC#_____

In-Lieu Fee and In-Kind Contributions

If the city grants a waiver, the developer is required to calculate and contribute an In-Lieu Fee based on what it would cost the city to provide the waived storage volume, including costs such as land acquisition, construction, landscaping, design, construction management, and maintenance over a 75-year design life. For FY 2007/2008, this cost is $3.22 per cubic foot of stormwater stored. This unit cost will be updated annually, but the city reserves the right to revise the unit cost at any time at its sole discretion.

The Floodplain Administrator considers in-kind contributions on a case-by-case basis. An in-kind contribution can serve as part of or instead of the calculated in-lieu fee. The Floodplain Administrator or designee must approve in-lieu fees and in-kind contributions.

Project Name Fairmont Scottsdale Princess Resort

The waived stormwater storage volume is calculated as follows:

V = CRA; where
V = stormwater storage volume required, in cubic feet,
C = weighted average runoff coefficient over disturbed area,
R = 100-year/2-hour precipitation depth, in feet (2.82 inches, or 0.235 feet, for all regions of Scottsdale), and
A = area of disturbed ground, in square feet

Furthermore,

$V_w = V - V_p$; where
V_w = volume waived,
V = volume required, and
V_p = volume provided

C = 0.9
A = 424,753
V = 89,826
V_p = 0
V_w = 89,826

☐ An In-Lieu Fee will be paid, based on the following calculations and supporting documentation:
In-lieu fee ($) = V_w (cu. ft.) x $3.22 per cubic foot = 289,240

☒ An In-Kind Contribution will be made, as follows:
See attachment. Princess Drive Bridge Reconstruction, in accordance with approved plans.

☐ No In-Lieu Fee is required. Reason:

Approved by: C. Ashley Conklin 10/23/08

Floodplain Administrator or Designee — Date

Planning & Development Services Department
7447 E Indian School Road, Suite 105, Scottsdale, AZ 85251 • Phone: 480-312-7000 • Fax: 480-312-7088

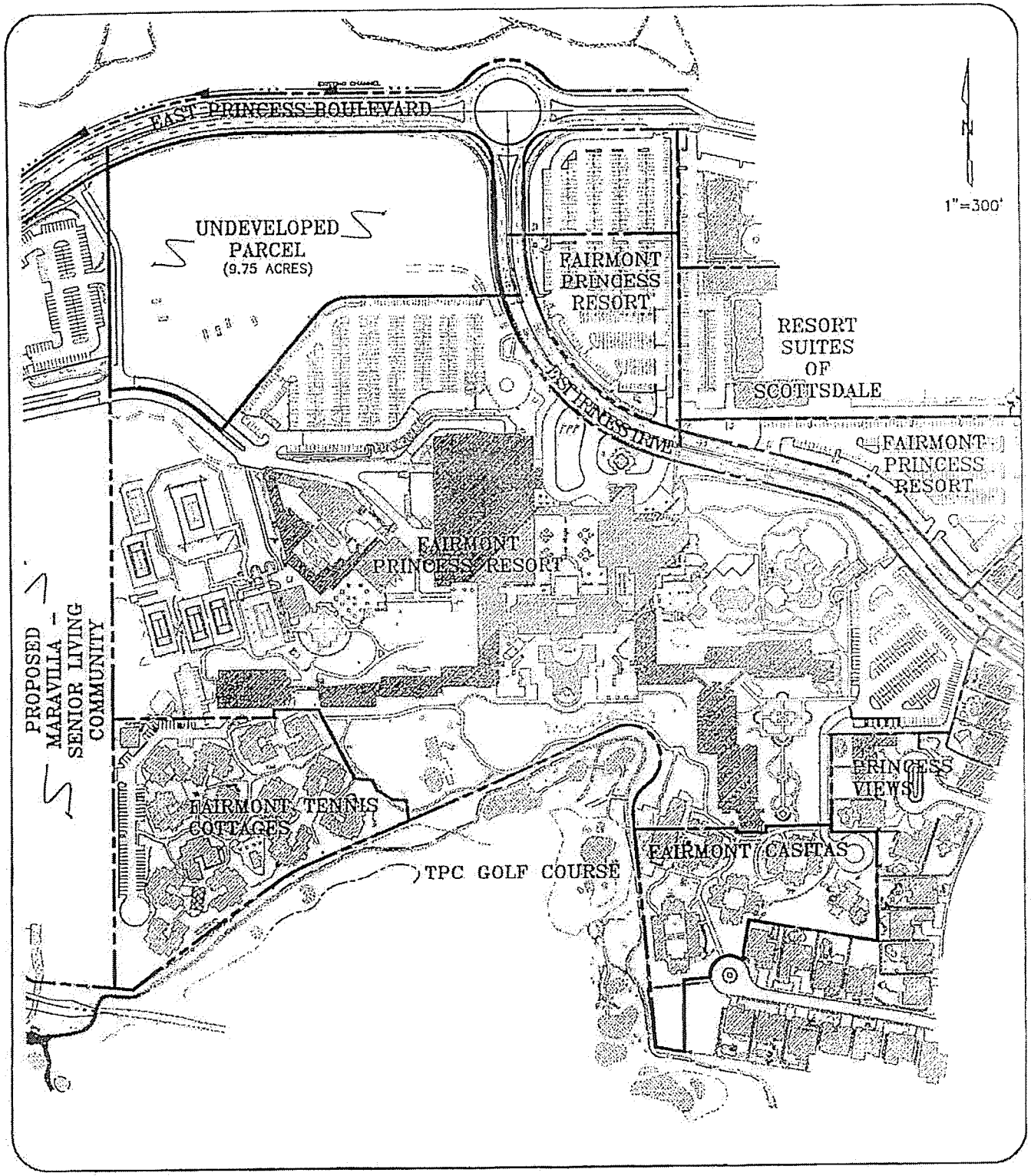


EXHIBIT 1

FAIRMONT SCOTTSDALE PRINCESS RESORT

ENGINEER	J. Bulka
DESIGNER	J. Haywood
CAD TECHNICIAN	J. Sanchez
SCALE	1"=300'
DATE	07/14/08
JOB NUMBER	07910
REF. SHEET	1 OF 1

WOOD/PATEL & ASSOCIATES INC.
Civil Engineers, Hydrologists and Land Surveyors
1855 North Stapley Drive
Mesa, Arizona 85203
(480) 834-3300
(480) 834-3320 FAX

Attachment to Stormwater Storage Waiver Request
for Fairmont Scottsdale Princess Resort & Regional Flood Control

The Fairmont Scottsdale Princess Resort (Site) is a 60 acre resort located near the southwest corner of Princess Boulevard and Princess Drive. The Site is bounded by the Princess Blvd. to the north, the Maravilla Scottsdale Senior Living Community to the east, the TPC Golf Course to the south and existing residential developments to the west (see Exhibit 1, attached). The existing Fairmont Scottsdale Princess Resort consists of multiple hotel buildings, a ballroom, spa, tennis cottages, tennis courts, and parking. A majority of the site is developed and portions are being updated and renovated. At the north end of the site there is a 9.75 acre portion of the property that has yet to be developed, and other portions are scheduled for upgrades.

It is Wood/Patel's understanding that the ownership of the Fairmont Scottsdale Princess Resort, Strategic Hotels and Resorts, has agreed to fund regional flood control improvements to the public road/channel crossing at Princess Blvd and Scottsdale Road, in return for the City approving this waiver and it being applicable to the entire site. The improvements consist of removing the existing concrete box culvert crossing and replacing it with a bridge structure. The cost of a new bridge structure is estimated at $1,053,000.

City of Scottsdale In-Lieu Fees:

V(req) Volume required = CRA = (0.90) x (0.235 feet) x (9.75 acres) = 89,826 cu-ft.

C (Runoff Coefficient) = 0.90

R (100-year/2-hour precipitation depth) = 0.235 feet

Site area = 9.75 acres

City of Scottsdale In-Lieu Fees = V(req) x $3.22 = (89,826 cu-ft) x $3.22 = $289,240

Summary:

Public Drainage Improvements = $1,053,000 (*)

City of Scottsdale in Lieu Fee = $289,240

(*) See Sheet 2 of 2 Engineering Preliminary Opinion of Probable Cost

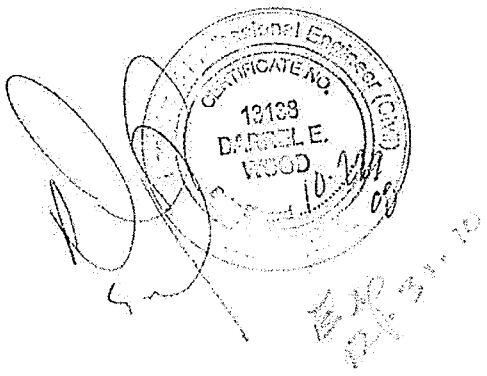
Attachment to Stormwater Storage Waiver Request
for Fairmont Scottsdale Princess Resort & Regional Flood Control

Engineering Preliminary Opinion of Probable Cost (*)

Prepared Bridge Structure at Princess Drive, just east of Scottsdale Road serving unnamed wash.

Estimated Bridge Surface = 8,100 square feet x $130/s.f. $1,053,000

(*) Offered without the benefit of construction documents and specifications.



APPENDIX F – FAIRMONT SCOTTSDALE - BALLROOM ADDITION
BY WOOD, PATEL & ASSOCIATES, INC., DATED SEPTEMBER 2, 2011

FAIRMONT SCOTTSDALE
BALLROOM ADDITION
LOCATED IN
A PORTION OF SECTION 35, T.4.N., R.4.E.,
OF THE G. & S.R.M., MARICOPA COUNTY, ARIZONA
7501 EAST PRINCESS BOULEVARD, SCOTTSDALE, AZ. 85255

CITY OF SCOTTSDALE GENERAL NOTES:
GENERAL CONSTRUCTION NOTES FOR PUBLIC WORKS CONSTRUCTION

1. ALL CONSTRUCTION IN THE PUBLIC RIGHTS-OF-WAY OR IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION AS AMENDED BY THE LATEST VERSION OF THE CITY OF SCOTTSDALE SUPPLEMENTAL STANDARD SPECIFICATIONS AND SUPPLEMENTAL STANDARD DETAILS. IF THERE IS A CONFLICT, THE CITY'S SUPPLEMENTAL STANDARD DETAILS WILL GOVERN.
2. THE CITY ONLY APPROVES THE SCOPE, NOT THE DETAIL, OF ENGINEERING DESIGNS; THEREFORE, IF CONSTRUCTION QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE NOT VERIFIED BY THE CITY.
3. THE APPROVAL OF PLANS IS VALID FOR SIX (6) MONTHS. IF AN ENCROACHMENT PERMIT FOR THE CONSTRUCTION HAS NOT BEEN ISSUED WITHIN SIX MONTHS, THE PLANS MUST BE RESUBMITTED TO THE CITY FOR REAPPROVAL.
4. A PUBLIC WORKS INSPECTOR WILL INSPECT ALL WORKS WITHIN THE CITY OF SCOTTSDALE RIGHTS-OF-WAY AND IN EASEMENTS. NOTIFY INSPECTION SERVICES 24 HOURS PRIOR TO BEGINNING CONSTRUCTION BY CALLING 480-312-5750.
5. WHENEVER EXCAVATION IS NECESSARY, CALL THE BLUE STAKE CENTER, 602-263-1100, TWO WORKING DAYS BEFORE EXCAVATION BEGINS. THE CENTER WILL SEE THAT THE LOCATION OF THE UNDERGROUND UTILITY LINES IS IDENTIFIED FOR THE PROJECT. CALL "COLLECT" IF NECESSARY.
6. ENCROACHMENT PERMITS ARE REQUIRED FOR ALL WORK IN PUBLIC RIGHTS-OF-WAY AND EASEMENTS GRANTED FOR PUBLIC PURPOSES. AN ENCROACHMENT PERMIT WILL BE ISSUED BY THE CITY ONLY AFTER THE REGISTRANT HAS PAID A BASE FEE PLUS A FEE FOR INSPECTION SERVICES. COPIES OF ALL PERMITS MUST BE RETAINED ON-SITE AND BE AVAILABLE FOR INSPECTION AT ALL TIMES. FAILURE TO PRODUCE THE REQUIRED PERMITS WILL RESULT IN IMMEDIATE SUSPENSION OF ALL WORK UNTIL THE PROPER PERMIT DOCUMENTATION IS OBTAINED.
7. ALL EXCAVATION AND GRADING THAT IS NOT IN THE PUBLIC RIGHTS-OF-WAY OR NOT IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO CHAPTER 70, EXCAVATION AND GRADING, OF THE LATEST EDITION OF THE UNIFORM BUILDING CODE PREPARED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS. A PERMIT FOR THIS GRADING MUST BE SECURED FROM THE CITY FOR A FEE ESTABLISHED BY THE UNIFORM BUILDING CODE.
8. SIGNS REQUIRE SEPARATE APPROVALS AND PERMITS.

FIRE NOTE:
ALL PRIVATE STREETS AND DRIVES SHALL CONFORM TO THE FIRE DEPARTMENT GUIDELINES FOR EMERGENCY VEHICLE ACCESS.

SEWER NOTE:
1. THE SEWER SYSTEM CONSTRUCTED BY THIS PLAN SET IS A PRIVATE SYSTEM AND WILL NOT BE MAINTAINED BY THE CITY OF SCOTTSDALE.
2. MAINTENANCE IS THE RESPONSIBILITY OF THE OWNER.

WATER NOTE:
1. THE WATER SYSTEM SHOWN HEREIN HAS BEEN DESIGNED TO ADEQUATELY SUPPLY WATER IN SUFFICIENT QUANTITY AND PRESSURE TO MEET LOCAL FIRE REQUIREMENTS.

UTILITY NOTES:
1. THESE PLANS HAVE BEEN SUBMITTED TO THE FOLLOWING UTILITY COMPANIES AND THE WORK CONTAINED IN THESE PLANS HAS BEEN APPROVED BY THESE COMPANIES WITHIN THEIR AREA OF INTEREST. THE SIZE AND LOCATIONS, AS SHOWN, OF THE GAS, TELEPHONE AND POWER LINES, AND CONNECTIONS AGREE WITH THE INFORMATION CONTAINED IN THE UTILITY COMPANY'S RECORDS. WHERE THE WORK TO BE DONE CONFLICTS WITH ANY OF THESE UTILITIES, THE CONFLICTS SHALL BE RESOLVED AS SPECIFIED IN THE SPECIAL PROVISIONS AND/OR AS OTHERWISE NOTED ON THESE PLANS. CONFLICTS ARISING DURING THE COURSE OF CONSTRUCTION FROM UNFORESEEN CIRCUMSTANCES SHALL BE REPORTED TO THE INTERESTED UTILITY COMPANY AND BE RESOLVED BY THEM AND THE DESIGN ENGINEER.
2. THE CITY WILL NOT PARTICIPATE IN THE COST OF CONSTRUCTION OR UTILITY RELOCATION.

ACCESSIBILITY NOTES:
1. ACCESSIBLE ENTRANCES TO THE BUILDING SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
2. EXTERIOR EXITS WHICH ARE LOCATED ADJACENT TO ACCESSIBLE AREAS AND WITHIN 6 FT. OF ADJACENT GROUND LEVEL SHALL BE ACCESSIBLE.
3. ACCESSIBLE RAMPS REQUIRED BY ANSI SHALL NOT HAVE SLOPES THAT EXCEED 1FT. IN 12 FT.
4. THE SURFACE OF RAMPS AND GROUND SURFACES SHALL BE ROUGHENED OR SHALL BE OF SLIP RESISTANT MATERIALS.
5. AN ACCESSIBLE ROUTE OF TRAVEL 3 FT. WIDE MIN. MUST BE PROVIDED TO ALL PORTIONS OF THE BUILDING, BETWEEN THE BUILDING AND THE PUBLIC WAY. ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM SLOPE OF 1:20 AND A MAXIMUM CROSS SLOPE OF 1:50.
6. THRESHOLD MUST BE 6 INCHES IN HEIGHT OR LESS.
7. THE PRIMARY ENTRANCE TO THE BUILDING MUST BE ACCESSIBLE. ALL OTHER REQUIRED ENTRANCES MUST BE ACCESSIBLE.
8. ALL ACCESSIBLE PARKING SPACES SHALL HAVE A SLOPE NOT EXCEEDING 1:50.
9. ALL ACCESSIBLE PARKING SPACES SHALL BE OUTLINED ON ALL FOUR SIDES, HAVE A CONTRASTING COLOR AND THE INTERNATIONAL WHEELCHAIR SYMBOL ON THE GROUND WITHIN THE SPACE.
10. ALL ACCESSIBLE PARKING SPACES SHALL HAVE A SIGN (MINIMUM 5 FT. ABOVE FINISH GRADE IN FRONT OF THE SPACEO WHICH INCLUDED THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
11. SIGNS DESIGNATING PERMANENT ROOMS AND SPACES SHALL MEET ACCESSIBILITY REQUIREMENTS.
12. ALL ELECTRICAL RECEPTACLES AND CONTROLS SHALL BE 18 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE FINISHED FLOOR.
13. ALL ALARMS SHALL BE AUDIBLE AND VISUAL, MEETING ACCESSIBILITY REQUIREMENTS.
14. ACCESSIBLE ROUTE SHALL BE WITHOUT STEPS OF CHANGES IN LEVEL GREATER THAN 6 INCHES WITHOUT AN APPROVED RAMP.
15. ACCESSIBLE ROUTES SHALL SERVE AS EXITS OR CONNECT TO AREAS OF RESCUE ASSISTANCE.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	LEASE BOUNDARY LINE	
	SURVEY MARKER	
	TRACT/LOT LINE	
	CURB & GUTTER	
1240	CONTOURS INDEX	1240
1244	CONTOURS INTER.	1244
	LOWEST FINISH FLOOR	LF=XXXX.XX
	PAD ELEVATION	PAD=XXXX.XX
	GARAGE ELEVATION	GF=XXXX.XX
S	SANITARY SEWER	
W	WATER LINE	
G	GAS LINE	
E	ELECTRIC LINE	
T	TELCO LINE	
FO	COMMUNICATION TRENCH	
OHE	OVERHEAD ELECTRIC LINE	
IRR	IRRIGATION LINE	
	STORM DRAIN	
	SCREEN/SITE WALL	
	RETAINING WALL	
	RETAINING WALL W/ CMU ABOVE	
	RETAINING WALL W/ FENCE/HANDRAIL ABOVE	
	RAISED STEMWALL	
	DROP FOOTING	
	UNDERGROUND GARAGE LIMITS	
	PARKING / AREA LIGHTS	
	FLOW ARROW	
	SEWER CLEANOUT	
	WATER METER	
	WATER VALVE	
	BACK FLOW PREVENTOR	
S	SEWER MANHOLE	
	FIRE HYDRANT	
	FIRE DEPT. CONNECTION	
D	STORM DRAIN MANHOLE	
	CATCH BASIN	
	AREA DRAIN	
	HEAD WALL	
	ROOF DRAIN BUBBLE UP	
E	ELECTRIC MANHOLE	
	SIGN	
	S.E.S.	S.E.S.
	GAS METER	G.M.
	ELECTRIC CABINET	EC/PAD=XX.XX
	TRANSFORMER	T/PAD=XX.XX
	TOP OF CURB	TC 81.00
	PAVEMENT ELEVATION	P 81.00
	GUTTER ELEVATION	G 81.00
	FINISH GRADE	FG 81.00
	CURB OPENING	CO 81.00
	WALL OPENING	WO 81.00
	CONCRETE ELEVATION	C 81.00
	TOP OF RETAINING WALL	TRW 81.00
	TOP OF WALL	TW 81.00
	TOP OF FENCE	TF 81.00
NG 81.00	NATURAL GRADE	
TC 81.00	EXISTING ELEVATION	
	SHADE STRUCTURE	

A.L. AREA LIGHT
B.C. BRASS CAP
B.C.F. BRASS CAP FOUND
BK. BOOK
C.B. CATCH BASIN
C.J.B. CABLE TV J-BOX
C.L.F. CHAIN LINK FENCE
C.P.S. COTTON PICKER SPINDLE
C.T.R. CABLE TV RISER
D.E. DRAINAGE EASEMENT
D.W. DRYWELL
E.C. ELECTRIC CABINET
E.J.B. ELECTRIC JUCTION BOX
E.M. ELECTRIC METER
E.P. EDGE OF PAVEMENT
F.D.C. FIRE DEPT. CONNECTION
F.H. FIRE HYDRANT
FND. FOUND
F.O.C. FACE OF CURB
F.P. FINAL PLAT
G.B.P. GAS BACKFLOW PREVENTOR
G.F. GARAGE FLOOR
G.L.M. GAS LINE MARKER
G.M. GAS METER
G.R. GAS REGULATOR
G.V. GAS VALVE
I.V. IRRIGATION VALVE
I.V.B. IRRIGATION VALVE BOX
E.S.V.A.E. EMERGENCY SERVICE VEHICLE ACCESS EASEMENT
C.A.E. CROSS ACCESS EASEMENT
R.W.E. ROADWAY EASEMENT
L.F. LOWEST FINISH FLOOR
(M) MEASURED DATA
M.C.R. MARICOPA COUNTY RECORDS
PG. PAGE
P.O.B. POINT OF BEGINNING
P.O.C. POINT OF COMMENCEMENT
P.L. PARKING LIGHT
P. PROPERTY LINE
P.P. POWER POLE
PU&FE PUBLIC UTILITY AND FACILITIES EASEMENT
(R) RECORD DATA
R/W RIGHT-OF-WAY
S.C. SINGLE CURB
S.C.O. SEWER CLEANOUT
S.E.S. ELECTRIC SERVICE
S.L. STREET LIGHT
T.L.M. TELCO LINE MARKER
T.R. TELEPHONE RISER
T.S. TRAFFIC SIGNAL
V.C.C. VERTICAL CURB & GUTTER
W.B.O. WATER BLOW OFF
W.B.P. WATER BACKFLOW PREVENTOR
W.M. WATER METER
W.V. WATER VALVE
W.V.T. WATER VAULT
W.E. WATERLINE EASEMENT (PUBLIC)

INDEMNITY
1. CITY OF SCOTTSDALE WILL NOT BE RESPONSIBLE FOR REMOVAL, REPAIR, OR REPLACEMENT OF SIDEWALKS, LANDSCAPING OR ANY OTHER IMPROVEMENTS LOCATED WITHIN CITY EASEMENT(S) AS A RESULT OF ACCESS TO MAINTENANCE OF, OR REPAIRS TO THE WATERLINE SHOWN ON THESE PLANS.
2. CITY OF SCOTTSDALE WILL NOT BE RESPONSIBLE FOR REMOVAL, REPAIR, OR REPLACEMENT OF THE RETAINING WALLS OR OTHER IMPROVEMENTS WITHIN CITY EASEMENT(S) AS A RESULT OF ACCESS TO, MAINTENANCE OF, OR REPAIRS TO THE RETAINING WALLS SURROUNDING THE DETENTION BASINS SHOWN ON THESE PLANS.

AS-BUILT CERTIFICATION
I HEREBY CERTIFY THAT THE "AS-BUILT" MEASUREMENTS AS SHOWN OR NOTED HEREON WERE MADE BY MYSELF OF UNDER MY SUPERVISION AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SIGNATURE _____ DATE _____

SEAL

ENGINEER'S CERTIFICATION:
ENGINEER'S CERTIFICATION: THE LOWEST FLOOR ELEVATION(S) AND/OR FLOOD PROOFING ELEVATION(S) ON THIS PLAN ARE SUFFICIENTLY HIGH TO PROVIDE PROTECTION FROM FLOODING CAUSED BY ONE-HUNDRED YEAR STORM, AND ARE IN ACCORDANCE WITH CITY OF SCOTTSDALE REVISED CODE, CHAPTER 37-FLOODWAYS & FLOOD PLAINS ORDINANCE.

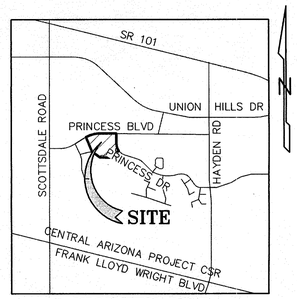
"THE ENGINEER OF RECORD ON THESE PLANS HAS RECEIVED A COPY OF THE APPROVED STIPULATIONS FOR THIS PROJECT AND HAS DESIGNED THESE PLANS IN CONFORMANCE WITH THE APPROVED STIPULATIONS."

ENGINEER: SCOTT AUDSLEY, P.E.

M.C.E.S.D. APPROVAL:
ALL POTABLE WATERLINES AND FITTINGS SHALL HAVE A NSF-PW SEAL. ALL MATERIALS AND PRODUCTS USED IN THE POTABLE WATER SYSTEM SHALL CONFORM TO NSF STANDARDS 60 AND 61 IN ACCORDANCE WITH AAC R18-4-213, ALL MATERIALS SHALL BE LEAD FREE AS DEFINED IN AAC R18-5-504 AND R18-4-101.

DWR-11-00193
BY: Susan Hazlett # DWR-11-00115
MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT
DATE: 10/5/11

SHEET INDEX



VICINITY MAP
N.T.S.

DEVELOPER:
STRATEGIC HOTELS AND RESORTS
200 W. MADISON, SUITE 1700
CHICAGO, ILLINOIS 60606
CONTACT: MR. MICHAEL DALTON
PH: (312) 658-6016

ARCHITECT:
KOLLIN ALTOMARE ARCHITECTS
1350 CORONADO AVENUE
LONG BEACH, CALIFORNIA 90804
CONTACT: MR. PAUL ALTOMARE, AIA
PH: (562) 597-8760

ENGINEER:
WOOD/PATEL AND ASSOCIATES
2051 WEST NORTHERN AVENUE
PHOENIX, ARIZONA 85021
CONTACT: DARIN L. MOORE, P.E.
PH: (602) 335-8500
FAX: (602) 335-8580

PROJECT DATA
ADDRESS - 7501 E. PRINCESS BLVD
SCOTTSDALE, AZ 85255

APN # - 215-08-001 Y, 215-08-001 X
215-08-133, 215-08-001 M

ZONING - C-2 PCD

GROSS LOT (PARCEL) AREA - 34.87 ACRES

NET PROJECT AREA - 14± ACRES

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 10-7-11 ARIZONA, U.S.A.
EXPIRES 9/30/2013

4 REVISED F.F. ELEVATION, SERVICE AREA, PRIVATE SANITARY SEWER & PRIVATE STORM DRAIN. 10-07-2011

BENCHMARK
THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON CITY OF SCOTTSDALE BRASS CAP FLUSH, LOCATED APPROXIMATELY 450-FEET NORTH OF THE INTERSECTION OF PRINCESS DRIVE AND SCOTTSDALE ROAD HAVING AN ELEVATION OF 1553.217, CITY OF SCOTTSDALE DATUM.

BENCHMARK CERTIFICATION STATEMENT
I HEREBY CERTIFY THAT ALL ELEVATIONS REPRESENTED ON THIS PLAN ARE BASED ON THE ELEVATION DATUM FOR THE CITY OF SCOTTSDALE BENCHMARK PROVIDED ABOVE.

NO CONFLICT SIGNATURE BLOCK

UTILITY	UTILITY COMPANY	NAME OF COMPANY REPRESENTATIVE	TELEPHONE NUMBER	DATE SIGNED
ELECTRIC	ARIZONA PUBLIC SERVICE	SCOTT TIMAR	602-493-4421	8-1-11
TELEPHONE	QWEST COMMUNICATIONS	JOHN NEVLIS	602-630-6891	8-3-11
NATURAL GAS	SOUTHWEST GAS	ZACH STEVENSON	602-861-1899	7-28-11
CABLE TV	COX COMMUNICATIONS	TRAFFIC MANAGEMENT	623-322-7086	7-28-11
-	SALT RIVER PROJECT	MATT STREEPER	-	7-28-11
-	-	-	-	-

ENGINEER'S CERTIFICATION
I, SCOTT AUDSLEY, P.E. BEING THE ENGINEER OF RECORD FOR THIS DEVELOPMENT, HEREBY CERTIFY THAT ALL UTILITY COMPANIES LISTED ABOVE HAVE BEEN PROVIDED FINAL IMPROVEMENT PLANS FOR REVIEW, AND THAT ALL CONFLICTS IDENTIFIED BY THE UTILITIES HAVE BEEN RESOLVED. IN ADDITION, "NO CONFLICT" FORMS HAVE BEEN OBTAINED FROM EACH UTILITY COMPANY AND ARE INCLUDED IN THIS SUBMITTAL.

SIGNATURE _____ 9.2.11 DATE

CIVIL APPROVAL
REVIEW & RECOMMENDED APPROVAL BY:

PAVING	Joseph D Morris 9/2/11	TRAFFIC	NA
G & D	Scott Shelton 9/2/11	PLANNING	K. Nielsen 9/2/11
W & S	Joseph D Morris 9/2/11	FIRE	DD for JA 9/2/11
Flood Retn. WALLS	Joseph D Morris 9/2/11		

Joseph D Morris 9/2/11
ENGINEERING COORDINATOR MGR. (OR DESIGNEE) DATE

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM	FIRM ZONE	BASE FLOOD ELEVATION (IN AO ZONE, USE DEPTH)
04013C	1245	H	09/30/2005	AO	1

FLOOD NOTES
ACCORDING TO FEMA FLOOD INSURANCE RATE MAP NO. 04013C1245H DATED SEPTEMBER 30, 2005, THE SUBJECT PROPERTY IS LOCATED IN ZONE AO. ZONE AO IS DESCRIBED AS: "FLOOD DEPTHS OF 1 TO 3 FEET (USUALLY SHEET FLOW ON SLOPING TERRAIN); AVERAGE DEPTHS TO BE DETERMINED. FOR AREAS OF ALLUVIAL FAN FLOODING VELOCITIES ALSO DETERMINED."

CALL TWO WORKING DAYS BEFORE YOU DIG
(602) 263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

kollin altomare architects
1350 coronado avenue, long beach, ca 90804
tel 562.597.8760
fax 562.597.8022
www.kollinaltomare.com

STRATEGIC

Fairmont SCOTTSDALE
BALLROOM ADDITION
COVER SHEET

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 10-7-11 ARIZONA, U.S.A.
EXPIRES 09-30-13

WOOD/PATEL
CIVIL ENGINEERS
HYDROLOGISTS
LAND SURVEYORS
CONSTRUCTION MANAGERS
(602) 335-8500
PHOENIX • MESA • TUCSON

ENGINEER S. AUDSLEY
DESIGNER S. AUDSLEY
CAD TECHNICIAN P. JIROUT
SCALE (HORIZONTAL) N.T.S.
SCALE (VERTICAL) N/A
DATE 09-02-11
JOB NUMBER 103555
SHEET 1 OF 26

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, CHECK# 387-11-2, 387-11-9

R:\JOBS\103555\Engineering\103555COVER.dwg

ENGINEERS NOTES

1. MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION INCLUDING LATEST REVISION AND CURRENT SUPPLEMENTALS THEREOF PER THE LOCAL TOWN OR CITY) ARE INCORPORATED INTO THIS PLAN IN THEIR ENTIRETY.
2. ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE M.A.G. STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL CITY OR TOWN UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL REQUIRED STANDARD SPECIFICATIONS, DETAILS AND SUPPLEMENTS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE IN THE CONTRACT.
4. THE CONTRACTOR IS TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION COVERED BY THIS PLAN.
5. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
6. THE QUANTITIES AND SITE CONDITIONS DEPICTED IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE SUBJECT TO ERROR AND OMISSION. CONTRACTORS SHALL SATISFY THEMSELVES AS TO ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
7. A REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THEIR CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL CALL 48 HOURS IN ADVANCE FOR BLUE STAKE (1-800-STAKE-IT) PRIOR TO ANY EXCAVATION.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK.
9. ALL PAVING, GRADING, EXCAVATION, TRENCHING, PIPE BEDDING, CUT FILL AND BACKFILL SHALL COMPLY WITH THE RECOMMENDATIONS SET FORTH IN THE SOILS (GEOTECHNICAL) REPORT FOR THIS PROJECT IN ADDITION TO THE REFERENCED REQUIRED SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL BE AWARE THAT CERTAIN UTILITIES REQUIRE PROPER ATTENTION AND CAREFUL PLANNING DURING SITE CONSTRUCTION. PLEASE NOTE THAT UTILITIES ON THESE PLANS MAY NOT EXHIBIT THE FULL PROTECTIVE COVER REQUIRED DURING THE SUBGRADE PREPARATION PHASE OF THE CONSTRUCTION. IN SUCH INSTANCES, THE CONTRACTOR SHALL PROVIDE ADDITIONAL PROTECTION (SUCH AS RAMPING) OR INCREASED PIPE STRENGTH TO PROVIDE THE NECESSARY PROTECTION REQUIRED TO PREVENT DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL HOLD THE ENGINEER HARMLESS IN ALL CASES FOR DAMAGES TO UTILITIES WHERE INADEQUATE PROTECTIVE MEASURES OCCUR.
10. THE CONTRACTOR IS TO VERIFY THE LOCATION AND THE ELEVATIONS OF ALL EXISTING UTILITIES AT POINTS OF TIE-IN PRIOR TO COMMENCING ANY NEW CONSTRUCTION. SHOULD ANY LOCATION OR ELEVATION DIFFER FROM THAT SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE OWNER'S AGENT.
11. CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND SITE LAYOUT WITH ARCHITECT'S FINAL SITE PLAN AND FINAL BUILDING DIMENSIONS BEFORE STARTING WORK. REPORT DISCREPANCIES TO OWNER'S AGENT.
12. COORDINATION BETWEEN ALL PARTIES IS ESSENTIAL PART OF CONTRACT.
13. CONTRACTOR IS RESPONSIBLE FOR PROJECT AND SITE CONDITIONS, AND TO WORK WITH WEATHER CONDITIONS AS THE PROJECT SITE MAY BE LOCATED IN A FLOOD PRONE AREA AND SUBJECT TO FLOODING AND ITS HAZARDS.
14. THE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION, CONDITION, AND PAVEMENT CROSS-SLOPE OF ALL EXISTING SURFACES AT POINTS OF TIE-IN AND MATCHING, PRIOR TO COMMENCEMENT OF GRADING, PAVING, CURB AND GUTTER, OR OTHER SURFACE CONSTRUCTION. SHOULD EXISTING LOCATIONS, ELEVATIONS, CONDITION, OR PAVEMENT CROSS-SLOPE DIFFER FROM THAT SHOWN ON THESE PLANS, RESULTING IN THE DESIGN INTENT REFLECTED ON THESE PLANS NOT ABLE TO BE CONSTRUCTED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S AGENT IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL COSTS ASSOCIATED WITH CORRECTIVE ACTION IF THESE PROCEDURES ARE NOT FOLLOWED.
15. CONTRACTOR IS RESPONSIBLE TO COORDINATE UTILITY CROSSINGS AT CULVERT CROSSINGS BEFORE STARTING WORK ON CULVERT. COORDINATE WITH OWNER REPRESENTATIVE. VERIFY UTILITY LINES AND/OR CONDUITS ARE IN PLACE BEFORE STARTING CULVERT WORK.
16. CONSTRUCT RETENTION BASIN AS SHOWN. CONTRACTOR TO SCARIFY BOTTOM OF BASIN TWO FEET DEEP AND NOT ALLOW COMPACTION OVER 80%.
17. THIS PROJECT REQUIRES A REGULAR ONGOING MAINTENANCE PROGRAM FOR THE DESIGNED DRAINAGE SYSTEM(S) TO PRESERVE THE DESIGN INTEGRITY AND THE ABILITY TO PERFORM ITS OPERATIONAL INTENT. FAILURE TO PROVIDE MAINTENANCE WILL JEOPARDIZE THE DRAINAGE SYSTEM(S)' PERFORMANCE AND MAY LEAD TO IT'S INABILITY TO PERFORM PROPERLY AND/OR CAUSE DAMAGE ELSEWHERE IN THE PROJECT.
18. SEWER LINES DESIGNED IN PROFILE AND PUBLIC WATER LINES ARE REQUIRED TO BE ASBUILT AND THE INSTALLATION AND TESTING WITNESSED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODES R18-9-E301 "4.01 GENERAL PERMIT: SEWAGE COLLECTIONS SYSTEMS" AND R18-5-507 AND 508 "APPROVAL OF CONSTRUCTION" AND "RECORD DRAWINGS", RESPECTIVELY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY OWNER 72 HOURS IN ADVANCE WHEN THOSE SYSTEMS ARE READY TO BE WITNESSED.
19. THE WORK PRODUCT PRESENTED IS BELIEVED TO BE COMPLIANT WITH THE INTENT OF THE CURRENT AMERICANS DISABILITIES ACT (ADA) REQUIREMENTS AS INTERPRETED BY THE REVIEWING AGENCY(S). IF CONSTRUCTION OF THE PROJECT IS DELAYED, THIS WORK PRODUCT SHOULD BE UPDATED TO ACCOUNT FOR ANY RELEVANT ADA UPDATES BEFORE CONSTRUCTION BEGINS.
20. LOWEST FLOOR (LF) REFERS TO EITHER FLOOR/SLAB ELEVATION OR TOP OF BASEMENT SLAB. LF ELEVATIONS ON THE GRADING AND DRAINAGE PLANS FOR RESIDENTIAL UNITS REFLECT SLAB ON GRADE CONDITIONS AND CANNOT BE LOWERED WITHOUT AGENCY APPROVAL IN LOCATIONS WHERE 'SPECIAL FLOOD HAZARD AREAS' EXIST. IN NON-FLOOD HAZARD LOCATIONS, TO ENSURE THAT ADEQUATE RESIDENTIAL LOT DRAINAGE CAN BE ACHIEVED, A PROFESSIONAL ENGINEER SHOULD BE CONSULTED IF THE LF FOR THE SLAB IS PROPOSED TO BE LOWERED, OR IF A BASEMENT IS TO BE CONSTRUCTED.

SOILS REPORT NOTE

1. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT PREPARED BY ALPHA GEOTECHNICAL & MATERIALS, INC. DATED FEBRUARY 4, 2011 & ALL SUBSEQUENT ADDENDUMS FOR ALL PAVING, GRADING, EXCAVATION, TRENCHING, PIPE BEDDING, CUT, FILL AND BACKFILL.

SIGNS & MARKING NOTES

1. ALL PAVEMENT MARKINGS, SIGNING AND WORK ZONE TRAFFIC CONTROL TYPE AND LAYOUT NEED TO CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, HTTP://MUTCD.FHWA.DOT.GOV/INDEX.HTM.
2. WORK ZONE TRAFFIC CONTROL NEEDS TO CONFORM TO THE CITY OF PHOENIX TRAFFIC BARRICADE MANUAL AND/OR AS DIRECTED BY THE CITY PUBLIC WORKS INSPECTOR OR TRAFFIC ENGINEERING DIVISION.
3. SIGNS ARE TO BE INSTALLED ON TELESPAR PREPUNCHED SQUARE STEEL TUBING POSTS PER COS STANDARD DETAIL NO. 2131, WWW.SCOTTSDALEAZ.GOV/DESIGN/COSMAGSUPP.
4. DIMENSIONS TO SIGNS NEED TO INCLUDE THE SIGN POST, OR IN THE CASE OF MULTIPLE POSTS, THE PLAN VIEW CENTER OF THE SIGN.
5. 'NO PARKING'SIGNS SHALL ONLY BE USED WHEN THE FOLLOWING SITE CONDITIONS EXIST.

A. WHEN ANY RIGHT HAND LANE (CURB LANE) IS 16 FEET OR WIDER, OR IF A PAVED SHOULDER AREA IS PRESENT.

B. WHERE ON-STREET PARKING COULD BE EXPECTED TO OCCUR, SUCH AS COMMERCIAL AREAS WHERE BUSINESSES HAVE DIRECT FRONTAGE ON THE STREET. WHEN THE ABOVE CRITERIA EXISTS 'NO PARKING'SIGNS (R8-3A 12 INCH X 18 INCH) WITH AN ARROW (SINGLE DIRECTION OR BI-DIRECTIONAL) BELOW THE 'P'SYMBOL ON THE SIGN TO DESIGNATE THE DIRECTION OF THE RESTRICTION SHALL BE INSTALLED APPROXIMATELY EVERY 350-400 FEET ALONG THE LENGTH OF THE PROJECT. NO PARKING SIGNS SHALL BE INSTALLED APPROXIMATELY 5 FEET FROM THE BACK OF CURB AT A 45 DEGREE ANGLE TO THE CURB. STREET LIGHT POLES SHOULD BE USED FOR SIGN MOUNTING WHEN A LIGHT POLE IS WITHIN 50 FEET OF THE PROPOSED SIGN LOCATION.

6. ALL LONGITUDINAL STRIPING (EDGE LINE, LANE LINE AND CENTERLINE) SHALL BE .090'(90 MIL) EXTRUDED THERMOPLASTIC, UNLESS OTHERWISE NOTED ON THE PLANS.
7. ALL TRANSVERSE STRIPING (STOP LINES, CROSSWALK LINES) SHALL BE A MINIMUM OF .090'(90 MIL) EXTRUDED THERMOPLASTIC, UNLESS NOTED OTHERWISE ON THE PLANS.
8. ALL PLAN VIEW STRIPING DIMENSIONS ARE MEASURED TO THE CENTER OF THE LINE OR CENTER OF THE DOUBLE LINE.
9. ALL PAVEMENT SYMBOLS, ARROWS AND LEGENDS SHALL BE TYPE 1 PERMANENT, HIGH PERFORMANCE PREFORMED PAVEMENT TAPE. (TAPE MUST PERFORM AS 3M 380I-ES SERIES OR EQUIVALENT.)
10. RAISED PAVEMENT MARKERS (RPMS) SHALL BE USED ON ALL STRIPED STREETS. RPMS SHALL BE INSTALLED PER COS STANDARD DETAIL NO. 2132, WWW.SCOTTSDALEAZ.GOV/DESIGN/COSMAGSUPP, AND ADOT STANDARD DRAWING M-19, WITH A CITY APPROVED BITUMINOUS ADHESIVE.
11. BLUE TYPE F (2-WAY REFLECTIVE) RPMS SHALL BE USED TO INDICATE THE LOCATION OF ALL FIRE HYDRANTS AND REMOTE FIRE DEPARTMENT CONNECTIONS, PER COS STANDARD DETAIL NO. 2363, WWW.SCOTTSDALEAZ.GOV/DESIGN/COSMAGSUPP.
12. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED MARKINGS SHALL BE REMOVED BY SANDBLASTING, HYDROBLASTING OR GRINDING PRIOR TO THE INSTALLATION OF NEW PAVEMENT MARKINGS. REMOVALS SHALL BE TO THE SATISFACTION OF THE CITY INSPECTOR.
13. ASTM TYPE IV SHEETING (MINIMUM) SHALL BE USED FOR ALL WARNING AND REGULATORY AND STREET NAME SIGNS. ALL ADVANCE STREET NAME SIGNS SHALL BE PROPOSED TYPE XI SHEETING. SCHOOL WARNING SIGNS AND ACCOMPANYING PLACARDS MUST BE ASTM PROPOSED TYPE XI FLUORESCENT YELLOW GREEN SHEETING. ALL METRO SIGNS SHALL COMPLY WITH THE COS STANDARD DETAIL NO. 2134-4.
14. THE CONTRACTOR IS RESPONSIBLE FOR LAYOUT OF ALL PAVEMENT MARKINGS USING CONTROL POINTS SPACED NO MORE THAN 50 FEET APART. PAVEMENT MARKING LAYOUT SHALL BE APPROVED BY TRAFFIC ENGINEERING PRIOR TO THE APPLICATION OF THE FINAL PRODUCT. ALL PAVEMENT MARKING DRAWINGS ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL FOLLOW ALL DIMENSIONS, DETAILS AND STANDARDS WHEN INSTALLING PAVEMENT STRIPING, MARKING AND MARKERS.

CIVIL REAPPROVAL

REAPPROVAL #	REVISED SHEET NO.(S)	DESCRIPTION OF REVISION(S)	
1	1-3, 8-19	REVISED F.F. ELEVATION, SERVICE AREA, PRIVATE SANITARY SEWER & PRIVATE STORM DRAIN.	
PAVING		TRAFFIC	
G & D		PLANNING	
W & S		FIRE	
RET. WALLS			

ENGINEERING COORDINATOR MGR. (OR DESIGNEE) _____ DATE _____

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 10-7-11 ARIZONA, U.S.A.

EXPIRES 09-30-13

1 REVISED F.F. ELEVATION, SERVICE AREA, PRIVATE SANITARY SEWER & PRIVATE STORM DRAIN. 10-07-2011

ESTIMATED QUANTITIES

DESCRIPTION	UNITS	QNTY.
EXCAVATION:		
CUT	CY	20,635
1 FILL	CY	38,978
SITE WALLS		
SCREEN WALL/FLOODWALL	LF	985
PUBLIC WATER:		
2" DOMESTIC WATER SERVICE LINE	LF	56
2" WATER METER	EA	2
2" BACKFLOW PREVENTOR	EA	2
3"x2" REDUCER	EA.	2
3" DOMESTIC WATER SERVICE LINE	LF	62
4" D.I.P. CLASS 350 WATERLINE	LF	138
8" D.I.P. CLASS 350 WATERLINE	LF	1651
12"x8" T.S. & V.	EA	2
W.V.,B. & C.	EA.	8
8"x6" REDUCER	EA.	1
FIRE HYDRANT COMPLETE	EA.	4
FIRE DEPT. CONNECTION (F.D.C.)	EA.	1
SAWCUT, REMOVE & REPLACE EX PAVEMENT	SY	98
PRIVATE SEWER:		
6" P.V.C. SEWERLINE	LF	164
1 8" P.V.C. SEWERLINE	LF	189
SEWER CLEANOUT	EA.	1
SEWER MANHOLE	EA.	2
SAWCUT, REMOVE & REPLACE EX PAVEMENT	SY	8
PRIVATE STORM DRAIN:		
6" HDPE STORM DRAIN PIPE	LF	260
8" HDPE STORM DRAIN PIPE	LF	158
18" HDPE STORM DRAIN PIPE	LF	904
1 24" HDPE STORM DRAIN PIPE	LF	224
30" HDPE STORM DRAIN PIPE	LF	313
1 36" HDPE STORM DRAIN PIPE	LF	697
CATCH BASINS (MAG 535)	EA.	6
CATCH BASINS (CURB INLET TYPE 'M')	EA.	1
STORM DRAIN CLEANOUT	EA.	3
1 STORM DRAIN MANHOLE	EA.	8
ADS JUNCTION	EA.	1
12" ADS CATCH BASIN AND GRATE	EA.	4
RIPRAP	CY	116
1 SAWCUT, REMOVE & REPLACE EX PAVEMENT	SY	24
OFFSITE PAVING:		
RIBBON CURB (MODIFIED TO 1' WIDTH)	LF	212
4" ROLL CURB	LF	189
6" VERTICAL CURB	LF	242
6" VERTICAL CURB & GUTTER	LF	441
SIDEWALK	SF	7638
SAWCUT & REMOVE AC PAVEMENT	SY	1461
3" ON 6" AC PAVEMENT	SY	1500
6' VALLEY GUTTER	SF	774

NOTES:

1. QUANTITIES SHOWN HEREON ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES PRIOR TO BIDDING.
2. EARTHWORK QUANTITIES ARE IN PLACE ESTIMATES, NO SHRINK OR SWELL ASSUMED.

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www.kollinaltomare.com

STRATEGIC
Michael W. Reynolds

Fairmont SCOTTSDALE
BALLROOM ADDITION
NOTES SHEET

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 1 387-11-9

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 10-7-11 ARIZONA, U.S.A.

EXPIRES 09-30-13

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LAND SURVEYORS
CONSTRUCTION MANAGERS
(602) 335-8500
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ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	N.T.S.
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	2 OF 26

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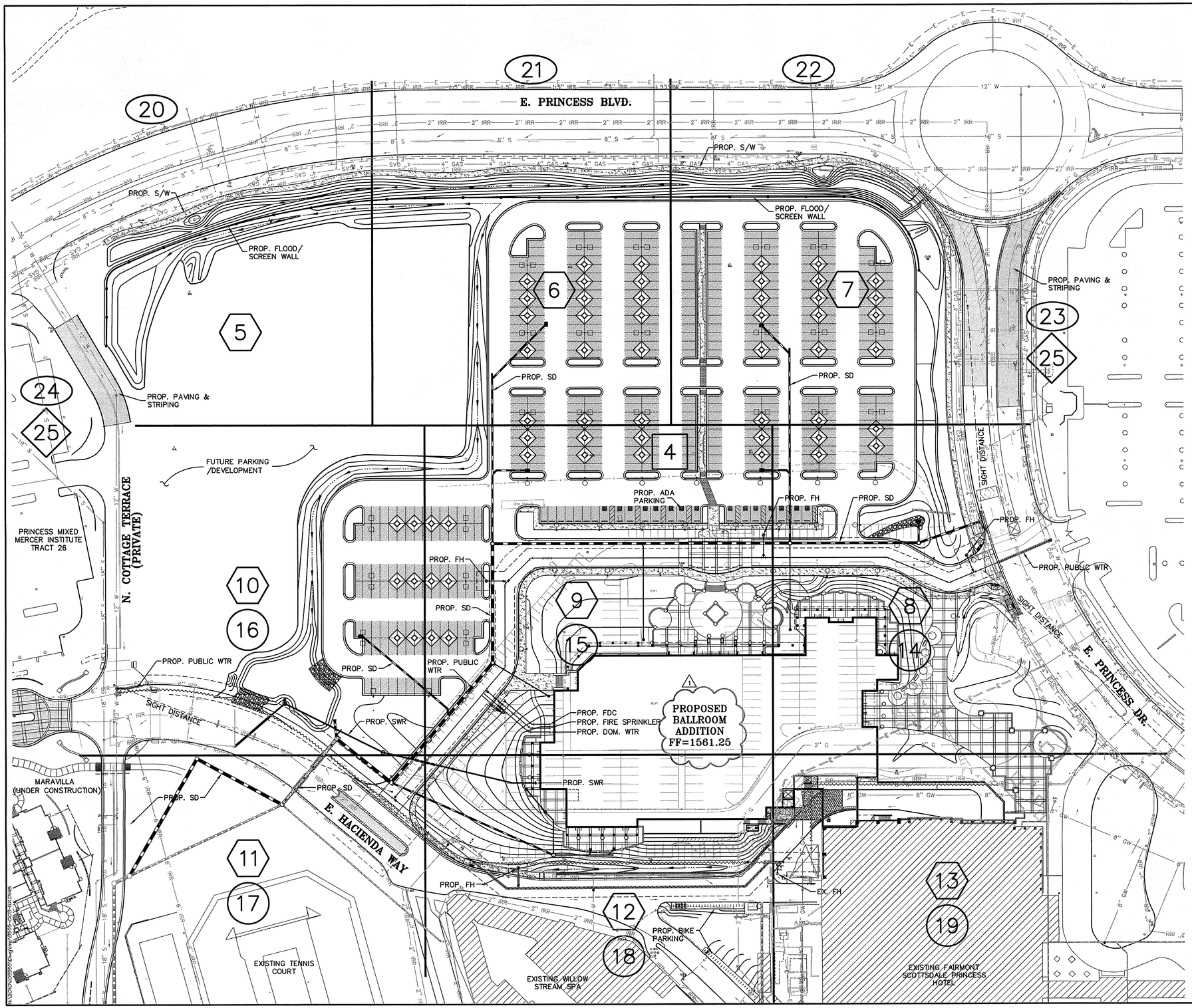

50 0 25 50

Horz. 1 in. = 50 ft.

LEGEND

- SH. – DEMOLITION PLAN
- SH – GRADING AND DRAINAGE PLAN
- SH – WATER AND SEWER PLAN
- SH – OFFSITE IMPROVEMENT PLAN
- SH – STRIPING PLAN

1 REVISED F.F. ELEVATION, SERVICE AREA, PRIVATE SANITARY SEWER & PRIVATE STORM DRAIN. 10-07-2011

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STRATEGIC

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 9-2-11 ARIZONA, U.S.A.

EXPIRES 09-30-13

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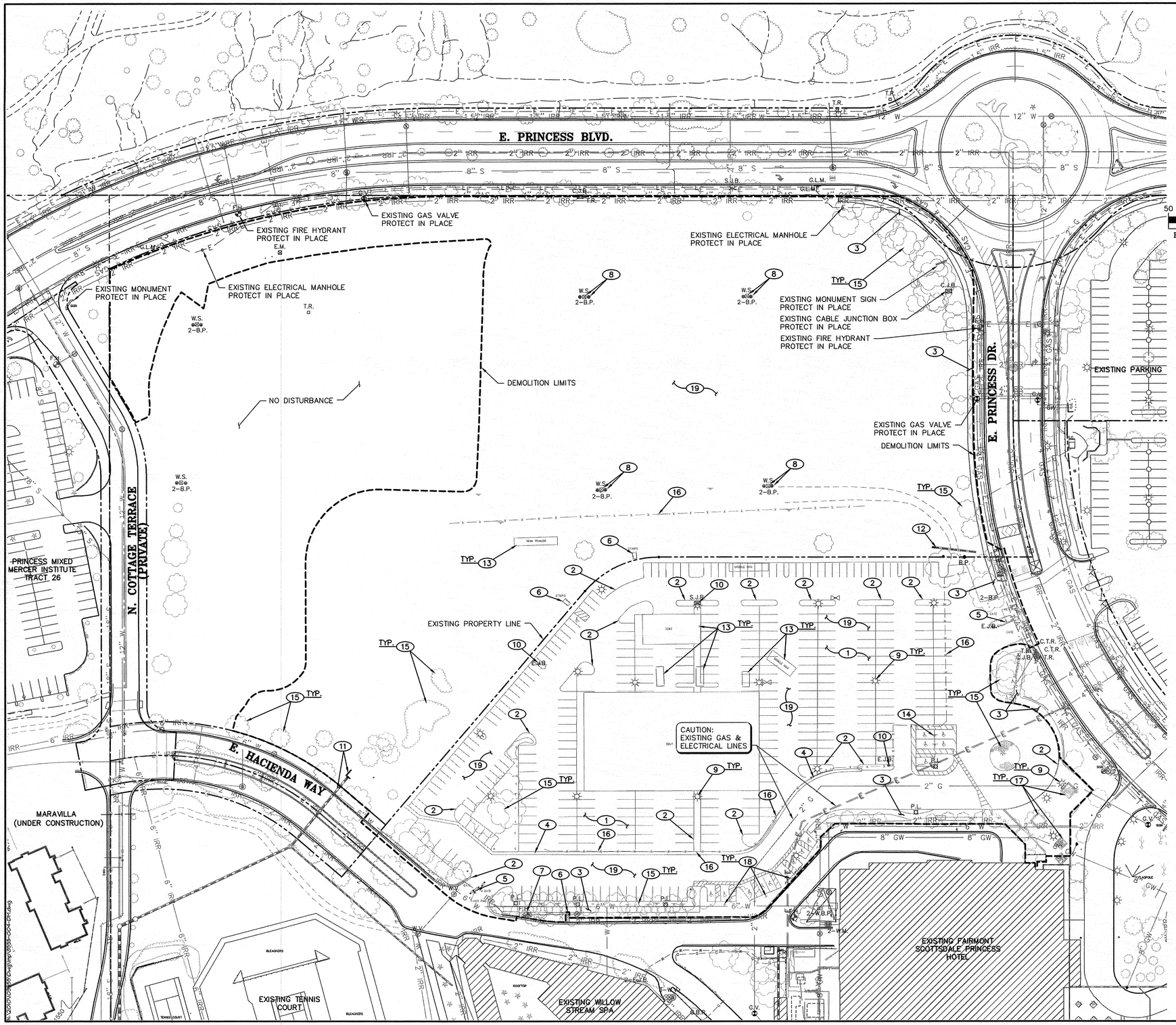
ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 50'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	3 OF 26

Fairmont SCOTTSDALE
BALLROOM ADDITION
INDEX SHEET

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 1 387-11-9



LEGEND

W.V.	WATER VALVE
F.H.	FIRE HYDRANT
F.H.R.	FIRE HYDRANT RISER
W.B.P.	WATER BACKFLOW PREVENTOR
M.H.	MANHOLE
H.W.	HEADWALL
C.B.	CATCH BASIN
D.W.	DRYWELL
Ⓓ	STORM DRAIN MANHOLE
P.L.	PARKING LIGHT
T.R.	TELEPHONE RISER
Ⓣ	TELEPHONE MANHOLE
S.C.O.	SEWER CLEAN OUT
Ⓢ	SEWER MANHOLE
G.L.M.	GAS LINE MARKER
G.V.	GAS VALVE
C.T.R.	CABLE T.V. RISER
B.P.	BARRIER POST
	HANDICAPPED PARKING SPACE
	SIGN
E.J.B.	ELECTRIC JUNCTION BOX
C.J.B.	CABLE JUNCTION BOX
ID.	INDENTIFICATION
W.F.	WATER FAUCET
W.S.	WATER SERVICE
A.R.V.	AIR RELEASE VALVE
G.R.	GAS RISER
G.B.P.	GAS BLOW-OFF PREVENTER
IRR	UNDERGROUND IRRIGATION LINE
SD	UNDERGROUND STORM DRAIN LINE
E	UNDERGROUND ELECTRIC LINE
W	UNDERGROUND WATER LINE
S	UNDERGROUND SEWER LINE
T	UNDERGROUND TELEPHONE LINE
GAS	UNDERGROUND GAS LINE
GW	UNDERGROUND GRAY WATER PIPE
	PARKING/AREA LIGHT
	SAGUARO
	TREE OR BUSH
	PALM TREE

DEMOLITION NOTES

1. REMOVE EXISTING PAVEMENT.
2. REMOVE EXISTING CURB & GUTTER.
3. REMOVE EXISTING SIDEWALK. SEE GRADING & DRAINAGE PLAN FOR REPLACEMENT.
4. REMOVE EXISTING VALLEY GUTTER.
5. REMOVE EXISTING GATE, BOLLARDS AND KEY PAD. COORDINATE SALVAGE OR DISPOSAL WITH OWNER.
6. REMOVE EXISTING STAIRS & HANDRAIL.
7. RELOCATE EXISTING FIRE HYDRANT. SEE WATER & SEWER PLAN FOR RELOCATION.
8. REMOVE WOODEN POSTS & NON-POTABLE WATER SERVICE.
9. REMOVE AND SALVAGE EXISTING PARKING LOT LIGHT.
10. REMOVE AND SALVAGE EXISTING ELECTRICAL JUNCTION BOX.
11. REMOVE EXISTING STORM DRAIN AND HEADWALL. SEE GRADING & DRAINAGE PLAN FOR REPLACEMENT.
12. REMOVE EXISTING STORM DRAIN.
13. REMOVE EXISTING TENT/ TRAILER.
14. REMOVE AND SALVAGE EXISTING SIGNAGE.
15. REFER TO NATIVE PLANT PRESERVATION PLAN FOR TREE & PLANT REMOVAL.
16. REMOVE EXISTING FENCE.
17. REMOVE EXISTING PLANTER.
18. REMOVE EXISTING SIGN.
19. REMOVE EXISTING WATER SERVICES.

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STRATEGIC

Fairmont SCOTTSDALE
BALLROOM ADDITION
DEMOLITION PLAN

Registered Professional Engineer (Civil)
CERTIFICATE NO.
46844
SCOTT A. AUDSLEY
Date Signed 9-7-11
ARIZONA, U.S.A.
EXPIRES 09-30-13

WOOD/PATEL
CIVIL ENGINEERS
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CONSTRUCTION MANAGERS
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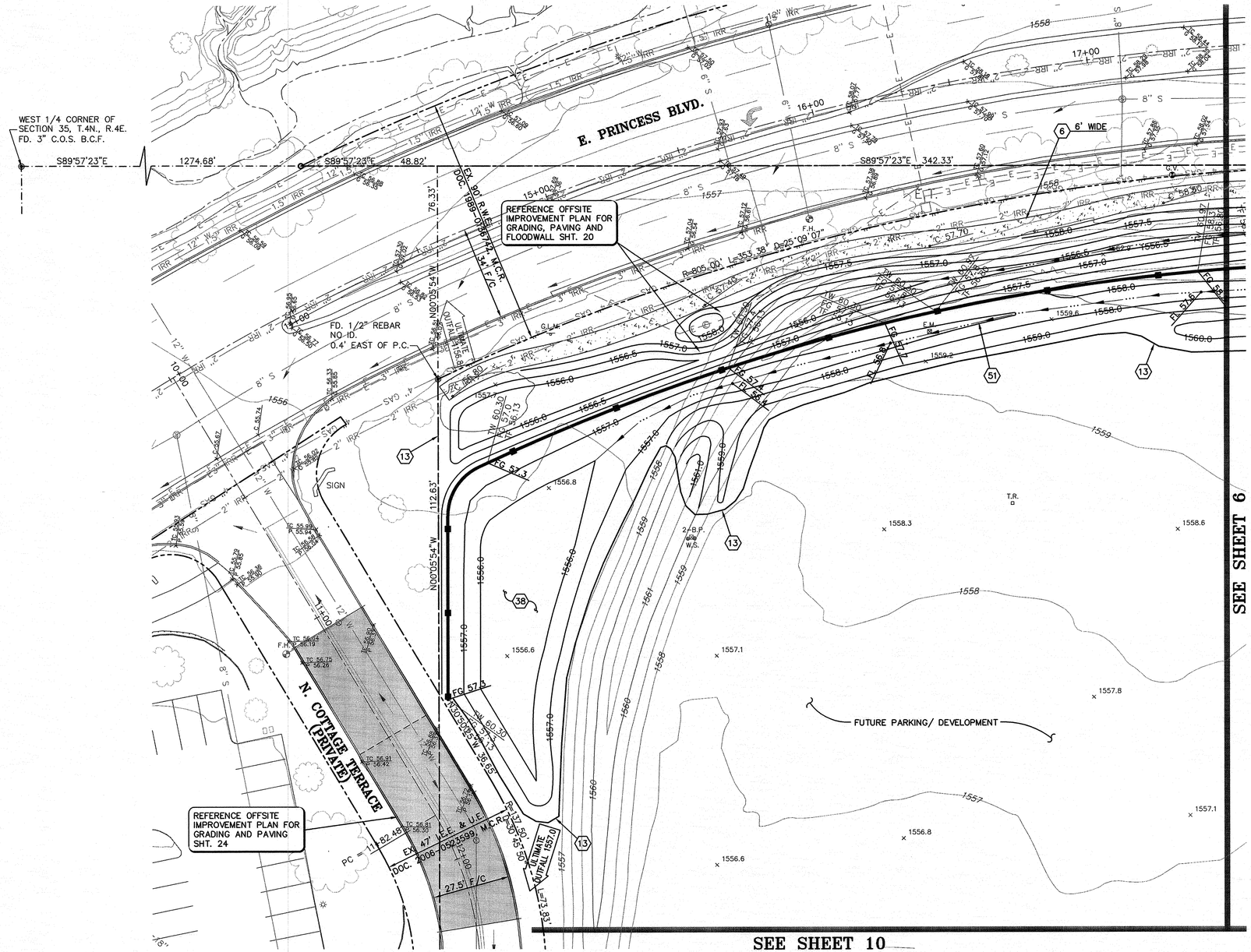
ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 50'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	4 OF 26

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2△387-11-9



20 0 10 20

Horz. 1 in. = 20 ft.

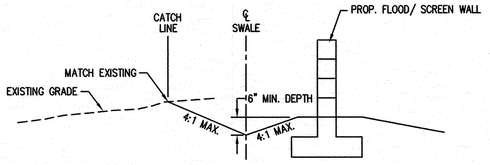
CONSTRUCTION NOTES

6 CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.

13 MATCH EXISTING ELEVATIONS.

38 CONSTRUCT 1' DEEP TEMPORARY RETENTION/ SEDIMENTATION BASIN. CONTRACTOR TO SCARIFY BOTTOM OF BASIN 2' DEEP TO MAXIMUM 80% COMPACTION.

51 CONSTRUCT TEMPORARY SWALE (EAST-WEST) PER PLAN AND TYPICAL SECTION ON SHEET 5. MAXIMUM 4:1 SIDE SLOPES.



TEMPORARY SWALE (EAST-WEST) TYPICAL SECTION

(N.T.S.)

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STRATEGIC

Fairmont SCOTTSDALE
BALLROOM ADDITION
GRADING AND DRAINAGE PLAN

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 7-27-11 ARIZONA, U.S.A.

EXPIRES 09-30-13

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CIVIL ENGINEERS
HYDROLOGISTS
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CONSTRUCTION MANAGERS
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ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	5 OF 26

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 387-11-9

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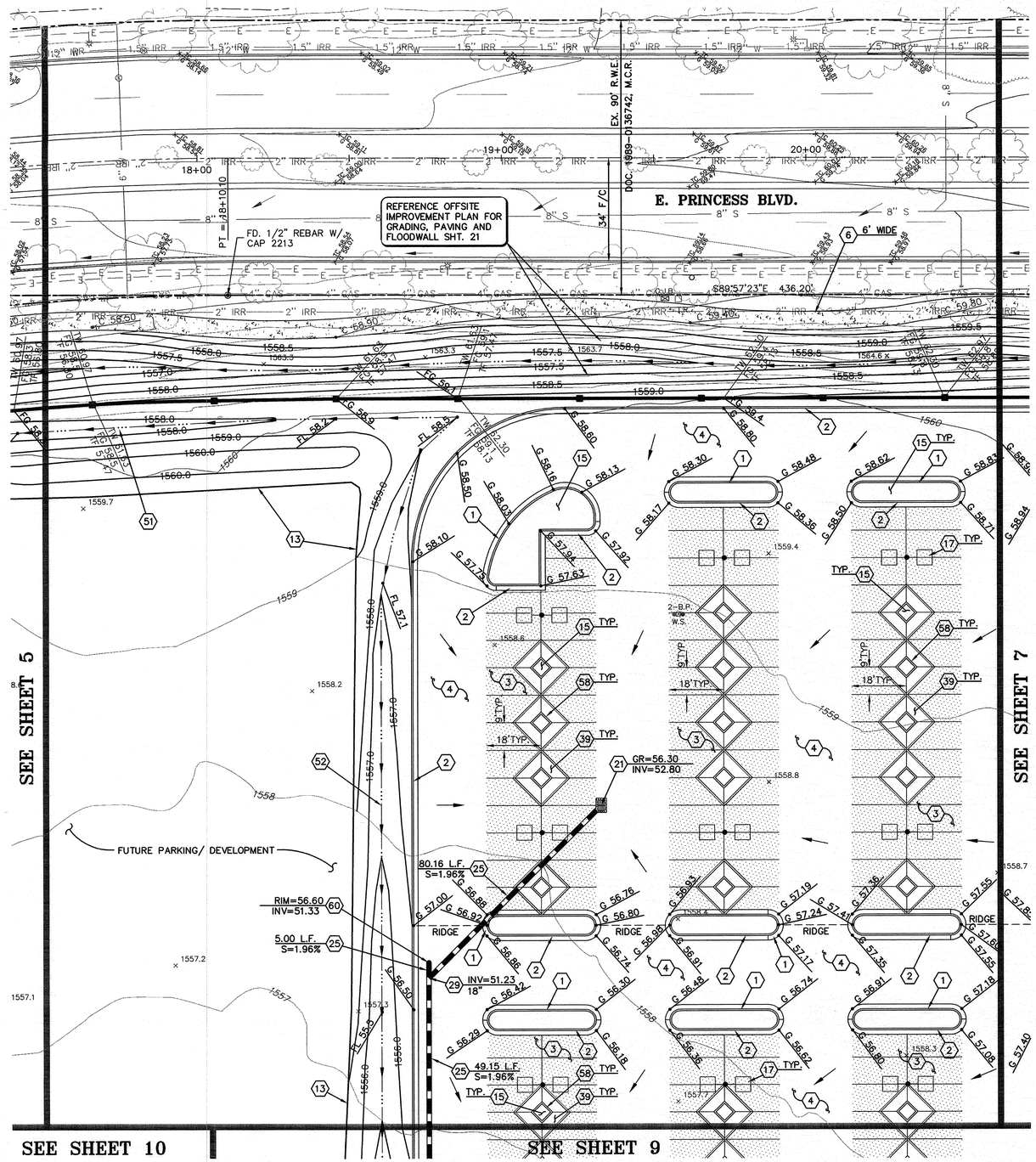
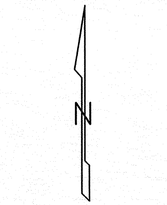
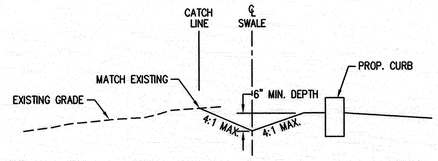




20 0 10 20
Horz. 1 in. = 20 ft.

CONSTRUCTION NOTES

1. CONSTRUCT 6" VERTICAL CURB & GUTTER PER M.A.G. STD. DETAIL 220-1, TYPE 'A'.
2. CONSTRUCT 6" VERTICAL CURB AND GUTTER PER C.O.S. STD. DET. 2220 TYPE 'A'.
3. CONSTRUCT 2" OF A.C. OVER 6" A.B.C. PER M.A.G. STD. SPEC. 702 & 710 AND GEOTECH REPORT. PARKING STALLS ONLY. SEE ARCHITECTURAL SITE PLAN FOR PARKING STALL LAYOUT.
4. CONSTRUCT 3" OF A.C. OVER 4" A.B.C. PER M.A.G. STD. SPEC. 702 & 710 AND GEOTECH REPORT. DRIVE LANES ONLY.
6. CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.
13. MATCH EXISTING ELEVATIONS.
15. LANDSCAPE AREA PER LANDSCAPE PLANS.
17. PARKING/ AREA LIGHTS PER ARCHITECTURAL SITE PLAN.
21. INSTALL 24" ADVANCED DRAINAGE SYSTEMS (ADS) CATCH BASIN WITH M.A.G. STD. DETAIL 535 GRATE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING.
25. INSTALL 18" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
29. INSTALL HDPE STORM DRAIN WYE, SIZE PER PLAN.
39. INSTALL PERMEABLE PARKING PAVERS PER DETAIL ON SHEET 26.
51. CONSTRUCT TEMPORARY SWALE (EAST-WEST) PER PLAN AND TYPICAL SECTION ON SHEET 5. MAXIMUM 4:1 SIDE SLOPES.
52. CONSTRUCT TEMPORARY SWALE (NORTH-SOUTH) PER PLAN AND TYPICAL SECTION ON SHEET 6. MAXIMUM 4:1 SIDE SLOPES.
58. CONSTRUCT 6" VERTICAL CURB PER M.A.G. STD. DETAIL 222, TYPE 'A'.
60. CONSTRUCT CLEANOUT PER M.A.G. STD. DET. 441.



TEMPORARY SWALE (NORTH-SOUTH) TYPICAL SECTION

(N.T.S.)

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STRATEGIC

Regulated Professional Engineer (Civil)
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Fairmont
SCOTTSDALE
BALLROOM ADDITION
GRADING AND DRAINAGE PLAN

ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	6 OF 26

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, △387-11-9

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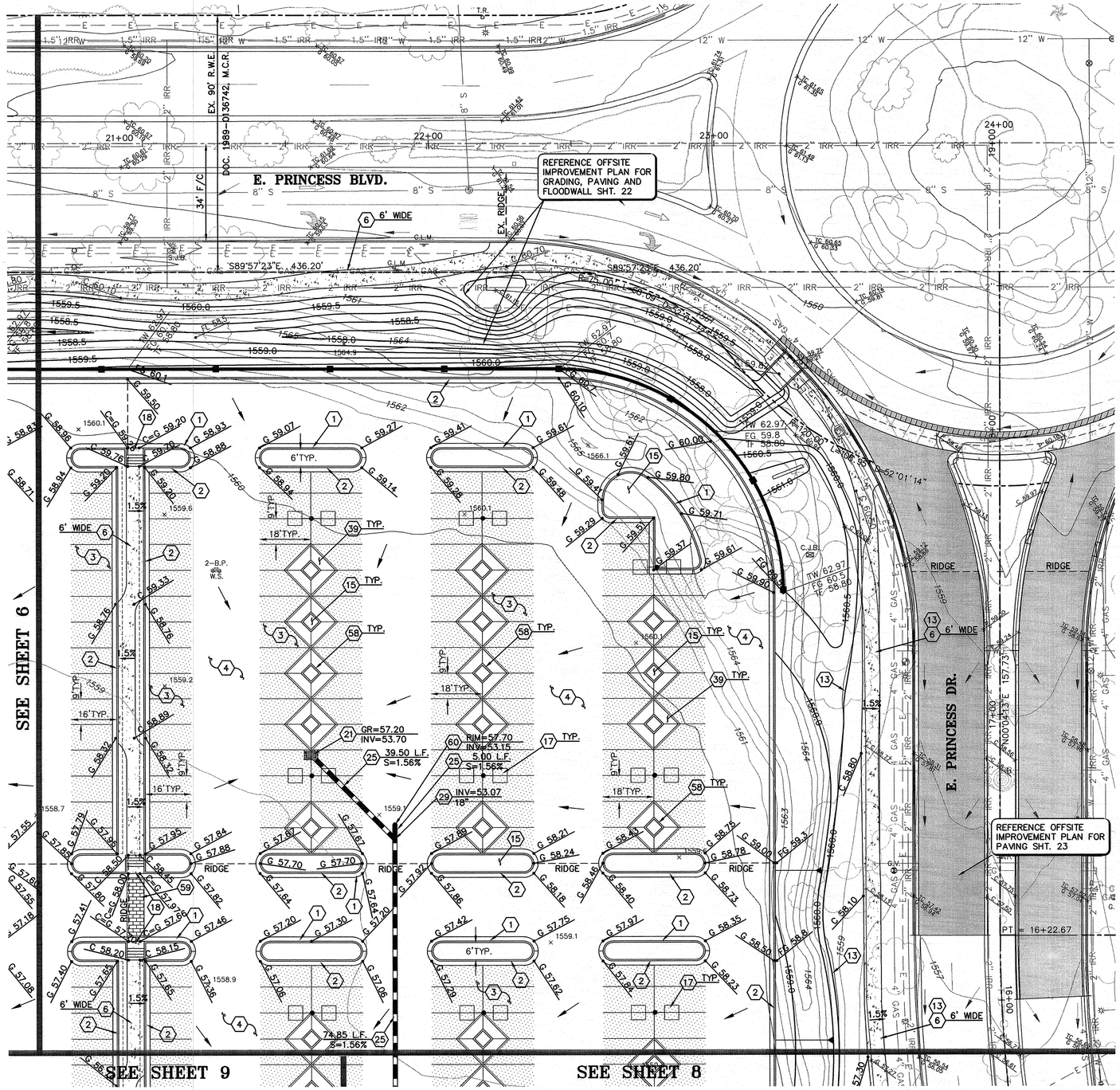

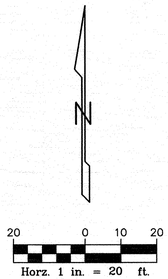

CONSTRUCTION NOTES

1. CONSTRUCT 6" VERTICAL CURB & GUTTER PER M.A.G. STD. DETAIL 220-1, TYPE 'A'.
2. CONSTRUCT 6" VERTICAL CURB AND GUTTER PER C.O.S. STD. DET. 2220 TYPE 'A'.
3. CONSTRUCT 2" OF A.C. OVER 6" A.B.C. PER M.A.G. STD. SPEC. 702 & 710 AND GEOTECH REPORT. PARKING STALLS ONLY. SEE ARCHITECTURAL SITE PLAN FOR PARKING STALL LAYOUT.
4. CONSTRUCT 3" OF A.C. OVER 4" A.B.C. PER M.A.G. STD. SPEC. 702 & 710 AND GEOTECH REPORT. DRIVE LANES ONLY.
6. CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.
13. MATCH EXISTING ELEVATIONS.
15. LANDSCAPE AREA PER LANDSCAPE PLANS.
17. PARKING/ AREA LIGHTS PER ARCHITECTURAL SITE PLAN.
18. CONSTRUCT A.D.A. APPROVED SIDEWALK RAMP. ALL RAMPS MUST MEET A.D.A. ACCESSIBILITY GUIDELINES (ADAAG) STANDARDS; 2% MAX CROSS SLOPES AND 12:1 LONGITUDINAL SLOPES. SEE ARCHITECTURAL PLAN FOR DETAILS.
21. INSTALL 24" ADVANCED DRAINAGE SYSTEMS (ADS) CATCH BASIN WITH M.A.G. STD. DETAIL 535 GRATE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING.
25. INSTALL 18" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
29. INSTALL HDPE STORM DRAIN WYE, SIZE PER PLAN.
39. INSTALL PERMEABLE PARKING PAVERS PER DETAIL ON SHEET 26.
58. CONSTRUCT 6" VERTICAL CURB PER M.A.G. STD. DETAIL 222, TYPE 'A'.
59. CONSTRUCT TRAFFIC RATED DECORATIVE CONCRETE PAVERS PER C.O.S. STD. DETAIL 2239, TYPE 'B'. SEE ARCHITECTURAL PLAN FOR PAVER TYPE AND COLOR..
60. CONSTRUCT CLEANOUT PER M.A.G. STD. DET. 441.

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STRATEGIC

Registered Professional Engineer (Civil)
CERTIFICATE NO.
46844
SCOTT A. AUDSLEY
Date Signed Revised
ARIZONA, U.S.A.
EXPIRES 09-30-13

WOOD/PATEL
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Fairmont SCOTTSDALE
BALLROOM ADDITION
GRADING AND DRAINAGE PLAN

ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	7 OF 26

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, △387-11-9

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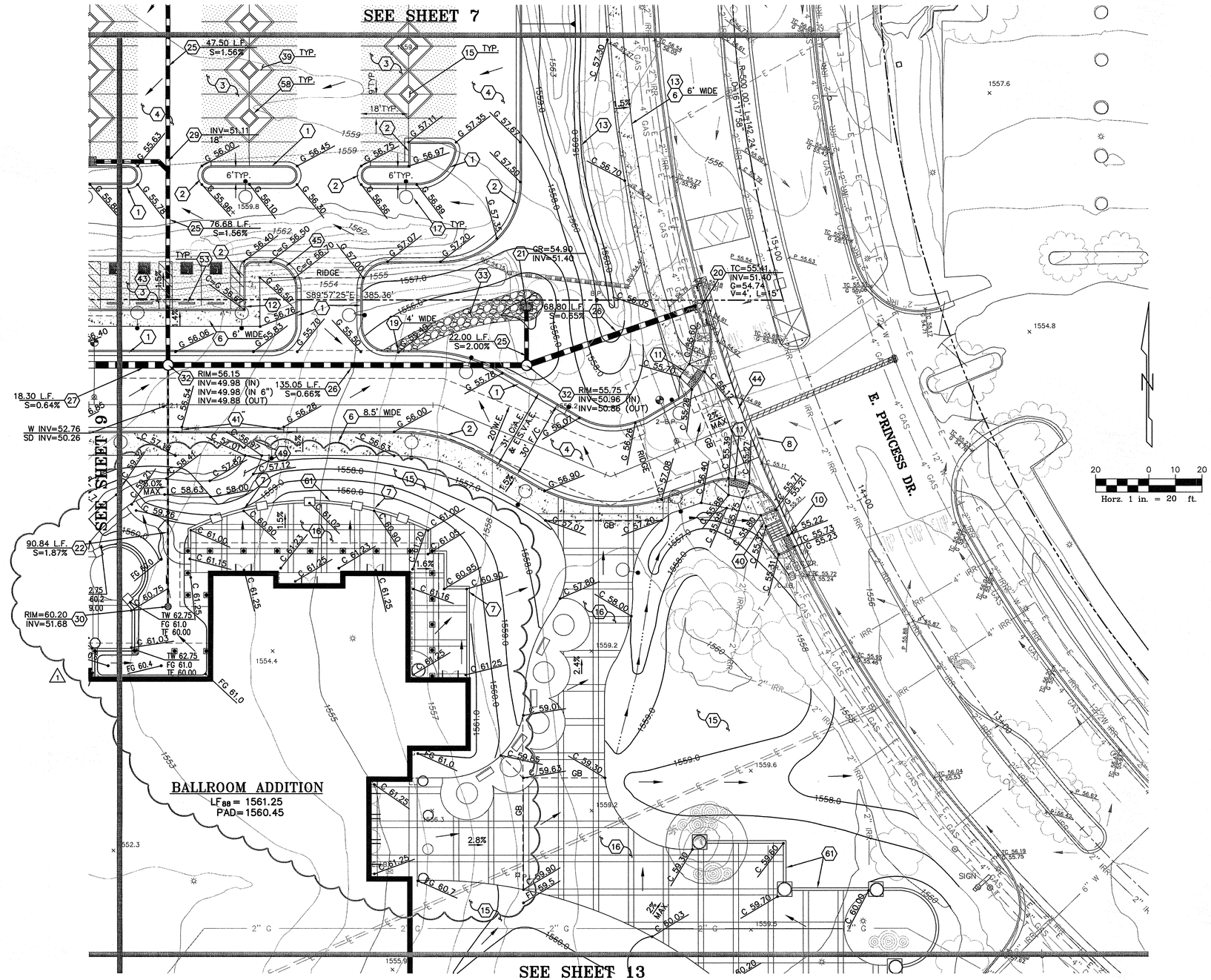

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4. CONSTRUCT 3" OF A.C. OVER 4" A.B.C. PER M.A.G. STD. SPEC. 702 & 710 AND GEOTECH REPORT. DRIVE LANES ONLY.
6. CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.
7. WALL OPENING FOR DRAINAGE, SEE STRUCTURAL PLAN FOR DETAIL.
8. SAWCUT, REMOVE & REPLACE EXISTING PAVEMENT 2' MIN. PER C.O.S. STD. DETAIL 2200.
10. CONSTRUCT MID–BLOCK SIDEWALK RAMP PER C.O.S. STD. DETAIL 2235–2.
11. CONSTRUCT SHARED CURB SIDEWALK RAMP PER C.O.S. STD. DETAIL 2234.
12. PROVIDE 2' CURB TRANSITION FROM 6" TO 0".
13. MATCH EXISTING ELEVATIONS.
15. LANDSCAPE AREA PER LANDSCAPE PLANS.
16. SEE ARCHITECTURAL PLANS FOR HARDSCAPE.
17. PARKING/ AREA LIGHTS PER ARCHITECTURAL SITE PLAN.
19. CONSTRUCT CURB OPENING PER DETAIL ON SHEET 26. WIDTH PER PLAN.
20. CONSTRUCT TYPE 'M' CATCH BASIN PER C.O.P. STD. DETAIL P1569–1 M–2, L=6'.
21. INSTALL 24" ADVANCED DRAINAGE SYSTEMS (ADS) CATCH BASIN WITH M.A.G. STD. DETAIL 535 GRATE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING.
22. INSTALL 6" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
25. INSTALL 18" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
26. INSTALL 24" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
27. INSTALL 30" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
29. INSTALL HDPE STORM DRAIN WYE, SIZE PER PLAN.
30. INSTALL STORM DRAIN AIR BREAK PER DETAIL ON SHEET 26. SEE PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
32. CONSTRUCT 4' DIA. STORM DRAIN MANHOLE PER M.A.G. STD. DETAIL 520 & 522. COVER SHALL BE NON–ROCKING EAST JORDAN IRON WORKS #00222459, OR APPROVED EQUAL.
33. INSTALL 2' THICK LOOSE ROCK RIP–RAP, D50=8" PER GRADATION TABLE ON SHEET 26. ALL RIP–RAP TO BE NATIVE INDIGENOUS STONE.
39. INSTALL PERMEABLE PARKING PAVERS PER DETAIL ON SHEET 26.
40. CONSTRUCT 4' CONCRETE SCUPPER PER M.A.G. STD. DETAIL 206–1, MODIFIED TO OUTLET ONTO PAVEMENT.
41. CONSTRUCT MOUNTABLE MEDIAN CURB & GUTTER, TYPE 'M' PER C.O.S. STD. DETAIL 2221.
43. ACCESSIBLE PARKING, PER DETAIL ON SHEET 26. MAXIMUM SLOPE OF 2% IN ALL DIRECTIONS.
44. CONSTRUCT DRIVEWAY PER C.O.S. STD. DETAIL 2257 TYPE 'CH–1' (MODIFIED FOR 30' WIDTH).
45. CONSTRUCT FLUSH A.D.A. APPROVED SIDEWALK CROSSING, 2' CURB TRANSITION ON EACH SIDE OF CROSSING. A.D.A. SIDEWALK CROSSING MUST MEET A.D.A. ACCESSIBILITY GUIDELINES (ADAAG). 2% MAX. CROSS SLOPES.
49. CONSTRUCT A.D.A. APPROVED SIDEWALK/ VEHICULAR RAMP, 6" PCC OVER 4" ABC PER M.A.G. STD. SPEC 702 & 725 AND GEOTECH REPORT.
53. INSTALL WHEEL STOP PER M.A.G. STD. DETAIL 150.
58. CONSTRUCT 6" VERTICAL CURB PER M.A.G. STD. DETAIL 222, TYPE 'A'.
61. CONSTRUCT 2' GARDEN WALL PER ARCHITECTURAL PLAN.

EXPIRES 09–30–13

1 REVISED F.F. ELEVATION, SERVICE AREA, PRIVATE SANITARY SEWER & PRIVATE STORM DRAIN. 10–07–2011

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PRE–APP# 765–PA–10, D.R. CASE# 8–DR–2011, 237–SA–2011, 14–PP–2011, NP# 23–NP–2011, PLAN CHECK# 387–11–2, 1 387-11-9

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 9-27-11 ARIZONA, U.S.A.

EXPIRES 09–30–13

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ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09–02–11
JOB NUMBER	103555
SHEET	8 OF 26

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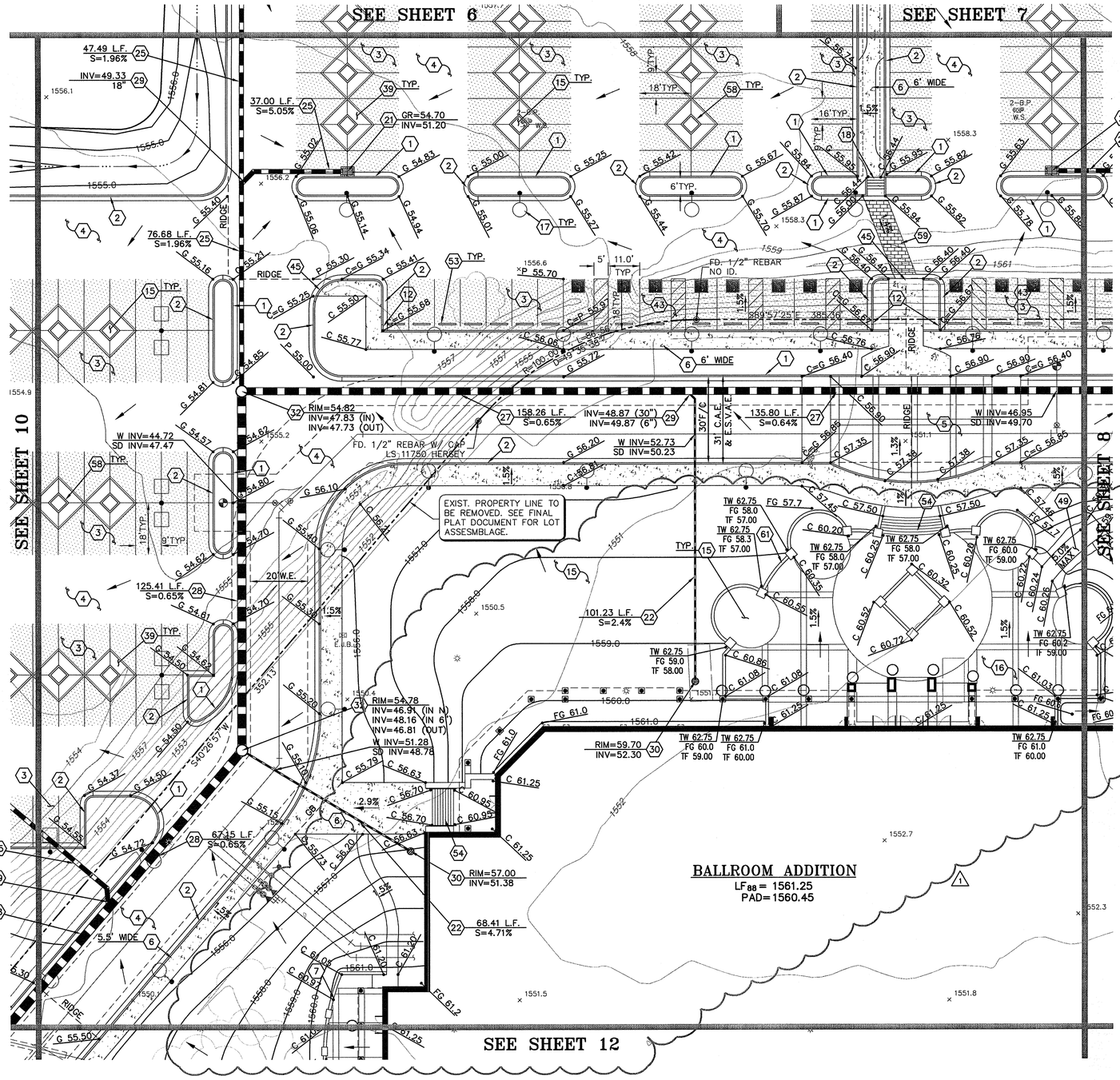

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2. CONSTRUCT 6" VERTICAL CURB AND GUTTER PER C.O.S. STD. DET. 2220 TYPE 'A'.
3. CONSTRUCT 2" OF A.C. OVER 6" A.B.C. PER M.A.G. STD. SPEC. 702 & 710 AND GEOTECH REPORT. PARKING STALLS ONLY. SEE ARCHITECTURAL SITE PLAN FOR PARKING STALL LAYOUT.
4. CONSTRUCT 3" OF A.C. OVER 4" A.B.C. PER M.A.G. STD. SPEC. 702 & 710 AND GEOTECH REPORT. DRIVE LANES ONLY.
5. CONSTRUCT 6" PCC OVER 4" ABC PER M.A.G. STD. SPEC 702 & 725 AND GEOTECH REPORT.
6. CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.
7. WALL OPENING FOR DRAINAGE, SEE STRUCTURAL PLAN FOR DETAIL.
12. PROVIDE 2' CURB TRANSITION FROM 6" TO 0".
15. LANDSCAPE AREA PER LANDSCAPE PLANS.
16. SEE ARCHITECTURAL PLANS FOR HARDSCAPE.
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18. CONSTRUCT A.D.A. APPROVED SIDEWALK RAMP. ALL RAMPS MUST MEET A.D.A. ACCESSIBILITY GUIDELINES (ADAAG) STANDARDS; 2% MAX CROSS SLOPES AND 12:1 LONGITUDINAL SLOPES. SEE ARCHITECTURAL PLAN FOR DETAILS.
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28. INSTALL 36" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
29. INSTALL HDPE STORM DRAIN WYE, SIZE PER PLAN.
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32. CONSTRUCT 4' DIA. STORM DRAIN MANHOLE PER M.A.G. STD. DETAIL 520 & 522. COVER SHALL BE NON-ROCKING EAST JORDAN IRON WORKS #00222459, OR APPROVED EQUAL.
39. INSTALL PERMEABLE PARKING PAVERS PER DETAIL ON SHEET 26.
43. ACCESSIBLE PARKING, PER DETAIL ON SHEET 26. MAXIMUM SLOPE OF 2% IN ALL DIRECTIONS.
45. CONSTRUCT FLUSH A.D.A. APPROVED SIDEWALK CROSSING, 2' CURB TRANSITION ON EACH SIDE OF CROSSING. A.D.A. SIDEWALK CROSSING MUST MEET A.D.A. ACCESSIBILITY GUIDELINES (ADAAG). 2% MAX. CROSS SLOPES.
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53. INSTALL WHEEL STOP PER M.A.G. STD. DETAIL 150.
54. STAIRS, REFERENCE ARCHITECTURAL PLAN FOR DETAILS.
58. CONSTRUCT 6" VERTICAL CURB PER M.A.G. STD. DETAIL 222, TYPE 'A'.
59. CONSTRUCT TRAFFIC RATED DECORATIVE CONCRETE PAVERS PER C.O.S. STD. DETAIL 2239, TYPE 'B'. SEE ARCHITECTURAL PLAN FOR PAVER TYPE AND COLOR..
1 61. CONSTRUCT 2' GARDEN WALL PER ARCHITECTURAL PLAN.

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 9-7-11 ARIZONA, U.S.A.

EXPIRES 09-30-13

1 REVISED F.F. ELEVATION, SERVICE AREA, PRIVATE SANITARY SEWER & PRIVATE STORM DRAIN. 10-07-2011

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STRATEGIC

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BALLROOM ADDITION
GRADING AND DRAINAGE PLAN

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 1 387-11-9

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CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
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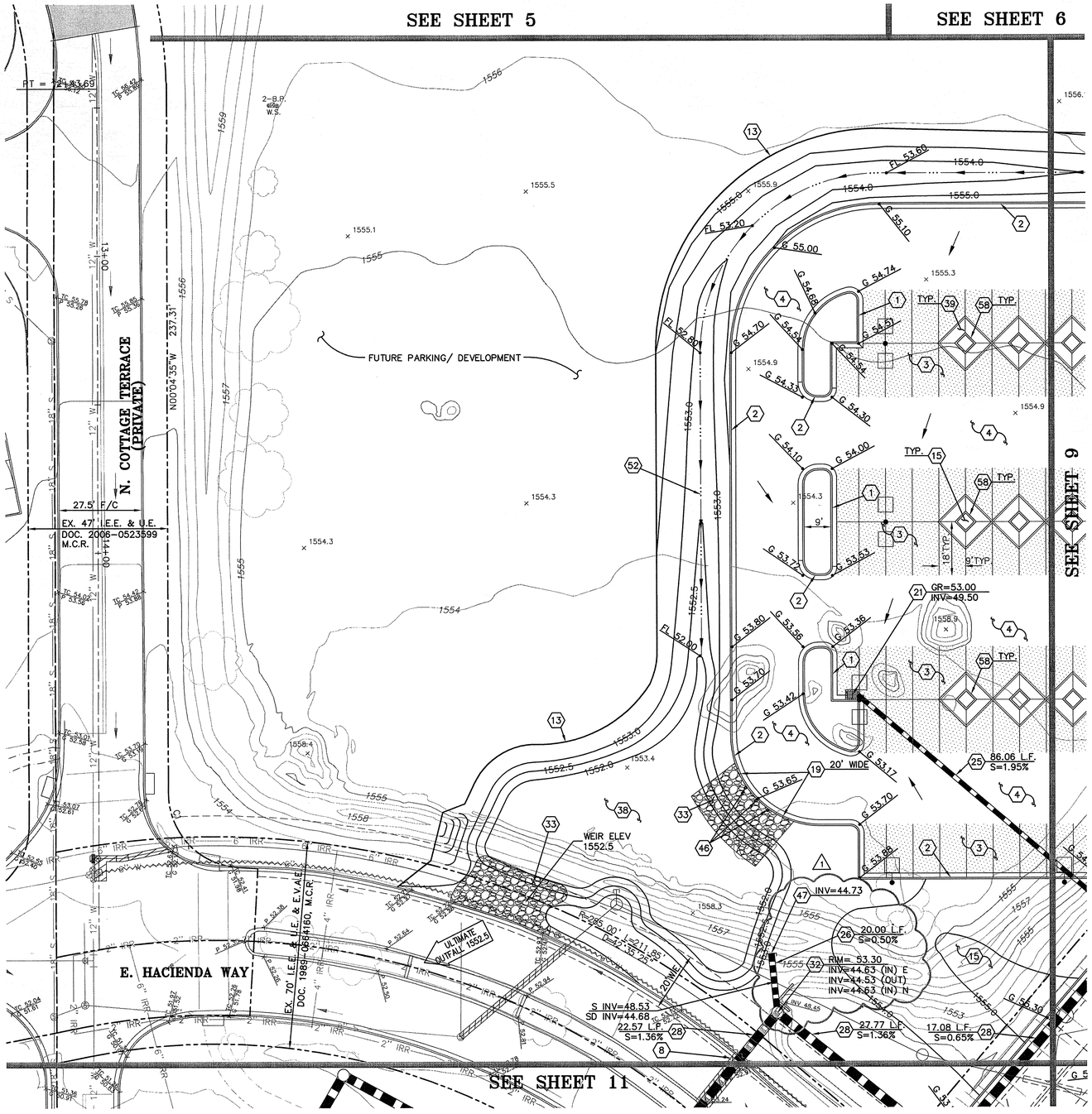

CURVE TABLE				
CURVE	DELTA	RADIUS	ARC	TANGENT
C1	36°18'39"	25.00'	15.84'	8.20'

20 0 10 20
Horz. 1 in. = 20 ft.

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13. MATCH EXISTING ELEVATIONS.
15. LANDSCAPE AREA PER LANDSCAPE PLANS.
19. CONSTRUCT CURB OPENING PER DETAIL ON SHEET 26. WIDTH PER PLAN.
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33. INSTALL 2' THICK LOOSE ROCK RIP-RAP, D50=8" PER GRADATION TABLE ON SHEET 26. ALL RIP-RAP TO BE NATIVE INDIGENOUS STONE.
38. CONSTRUCT 1' DEEP TEMPORARY RETENTION/ SEDIMENTATION BASIN. CONTRACTOR TO SCARIFY BOTTOM OF BASIN 2' DEEP TO MAXIMUM 80% COMPACTION.
39. INSTALL PERMEABLE PARKING PAVERS PER DETAIL ON SHEET 26.
46. INSTALL STEEL BOLLARD PER M.A.G. STD. DETAIL 140, TYPE '1'.
47. INSTALL HDPE STORM DRAIN PLUG, SIZE PER PLAN.
52. CONSTRUCT TEMPORARY SWALE (NORTH-SOUTH) PER PLAN AND TYPICAL SECTION ON SHEET 6. MAXIMUM 4:1 SIDE SLOPES.
58. CONSTRUCT 6" VERTICAL CURB PER M.A.G. STD. DETAIL 222, TYPE 'A'.

EXPIRES 09-30-13

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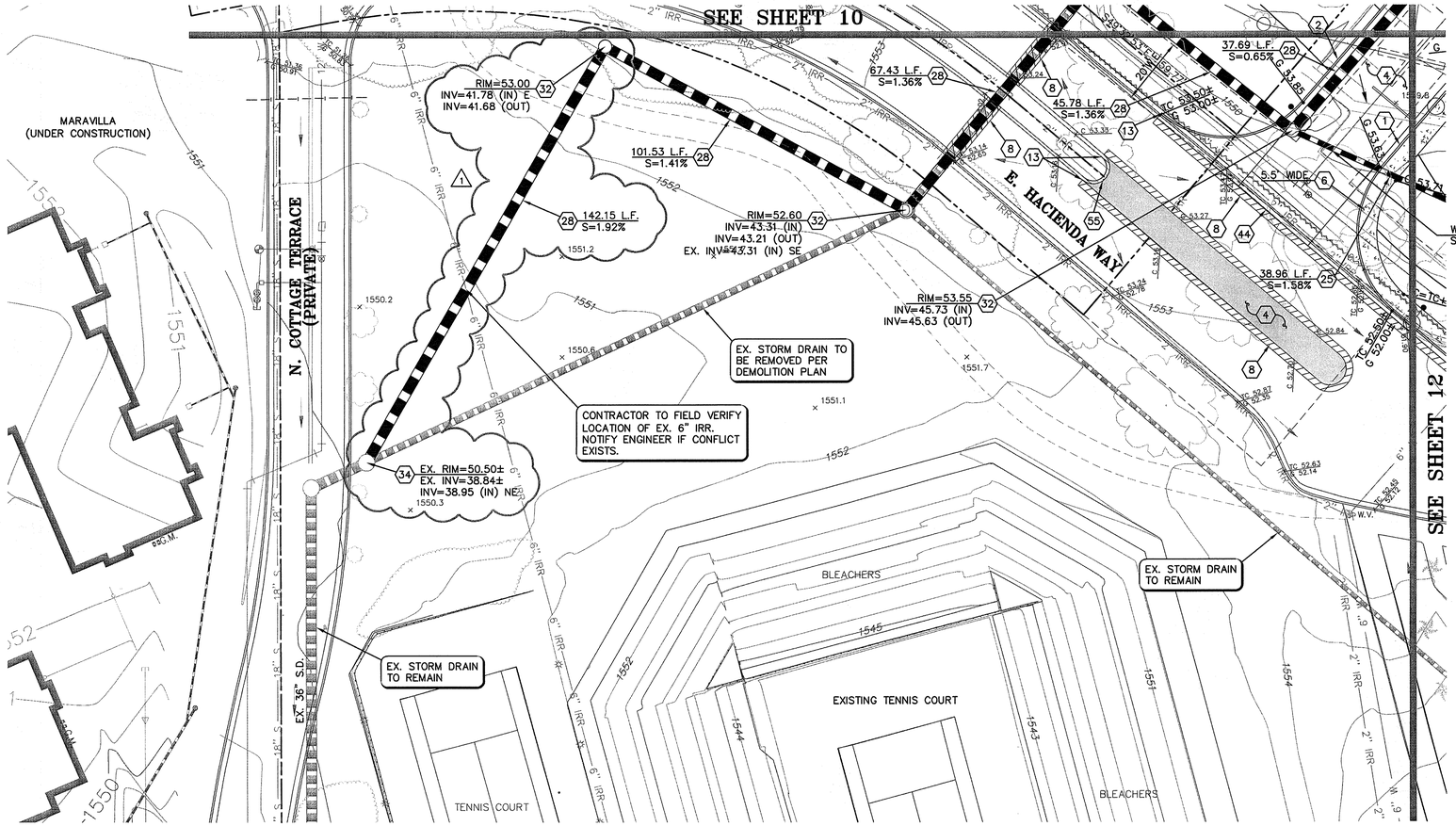

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6. CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.
8. SAWCUT, REMOVE & REPLACE EXISTING PAVEMENT 2' MIN. PER C.O.S. STD. DETAIL 2200.
13. MATCH EXISTING ELEVATIONS.
25. INSTALL 18" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
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32. CONSTRUCT 4' DIA. STORM DRAIN MANHOLE PER M.A.G. STD. DETAIL 520 & 522. COVER SHALL BE NON-ROCKING EAST JORDAN IRON WORKS #00222459, OR APPROVED EQUAL.
34. CONNECT TO EXISTING STORM DRAIN MANHOLE. CONTRACTOR TO FIELD VERIFY EXACT LOCATION/INVERT PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
44. CONSTRUCT DRIVEWAY PER C.O.S. STD. DETAIL 2257 TYPE 'CH-1' (MODIFIED FOR 30' WIDTH).
55. INSTALL RIBBON CURB PER M.A.C. STD. DETAIL 220-1, TYPE 'B'. MODIFIED WIDTH TO MATCH EXISTING.

Registered Professional Engineer (Civil)
CERTIFICATE NO.
46844
SCOTT A. AUDSLEY
Date Signed 9-22-11
ARIZONA, U.S.A.

EXPIRES 09-30-13

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CERTIFICATE NO.
46844
SCOTT A. AUDSLEY
Date Signed 10-7-11
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EXPIRES 09-30-13

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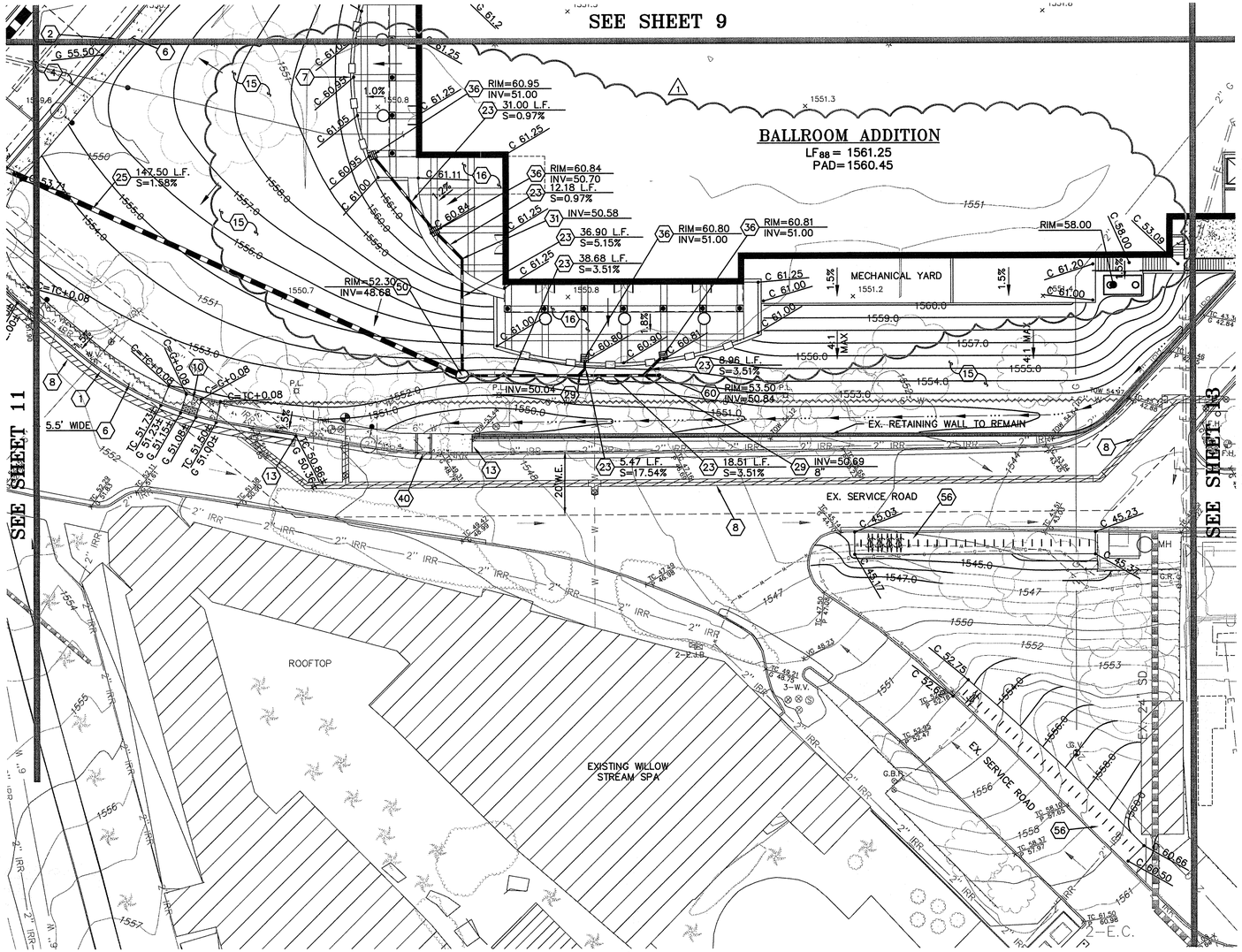
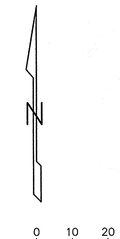
JOB NUMBER	103555
SHEET	11 OF 26





CONSTRUCTION NOTES

1. CONSTRUCT 6" VERTICAL CURB & GUTTER PER M.A.G. STD. DETAIL 220–1, TYPE 'A'.
2. CONSTRUCT 6" VERTICAL CURB AND GUTTER PER C.O.S. STD. DET. 2220 TYPE 'A'.
4. CONSTRUCT 3" OF A.C. OVER 4" A.B.C. PER M.A.G. STD. SPEC. 702 & 710 AND GEOTECH REPORT. DRIVE LANES ONLY.
6. CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.
7. WALL OPENING FOR DRAINAGE, SEE STRUCTURAL PLAN FOR DETAIL.
8. SAWCUT, REMOVE & REPLACE EXISTING PAVEMENT 2' MIN. PER C.O.S. STD. DETAIL 2200.
10. CONSTRUCT MID–BLOCK SIDEWALK RAMP PER C.O.S. STD. DETAIL 2235–2.
13. MATCH EXISTING ELEVATIONS.
15. LANDSCAPE AREA PER LANDSCAPE PLANS.
16. SEE ARCHITECTURAL PLANS FOR HARDSCAPE.
23. INSTALL 8" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
25. INSTALL 18" ADS H.D.P.E. (OR EQUAL) STORM DRAIN PIPE PER MANUFACTURER'S SPECIFICATIONS FOR H20 LOADING AND WATERTIGHT JOINTS.
29. INSTALL HDPE STORM DRAIN WYE, SIZE PER PLAN.
31. INSTALL HDPE 45° BEND, SIZE PER PLAN.
36. INSTALL 12" ADVANCED DRAINAGE SYSTEMS (ADS) CATCH BASIN WITH PEDESTRIAN RATED GRATE PER MANUFACTURER SPECIFICATIONS.
40. CONSTRUCT 4' CONCRETE SCUPPER PER M.A.G. STD. DETAIL 206–1, MODIFIED TO OUTLET ONTO PAVEMENT.
50. INSTALL 24" NYLOPLAST DRAIN BASIN BY ADVANCED DRAINAGE SYSTEMS (A.D.S) WITH SOLID, BOLTED, WATER–TIGHT COVER AT GRADE. ADAPTER ANGLE PER PLAN.
56. BICYCLE PARKING, SEE ARCHITECTURAL PLAN FOR DETAILS.
60. CONSTRUCT CLEANOUT PER M.A.G. STD. DET. 441.

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 9-21-11 ARIZONA, U.S.A.

EXPIRES 09–30–13

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 10-7-11 ARIZONA, U.S.A.

EXPIRES 09–30–13

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Fairmont SCOTTSDALE
BALLROOM ADDITION
GRADING AND DRAINAGE PLAN

ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09–02–11
JOB NUMBER	103555
SHEET	12 OF 26

PRE–APP# 765–PA–10, D.R. CASE# 8–DR–2011, 237–SA–2011, 14–PP–2011, NP# 23–NP–2011, PLAN CHECK# 387–11–2, 1 387-11-9

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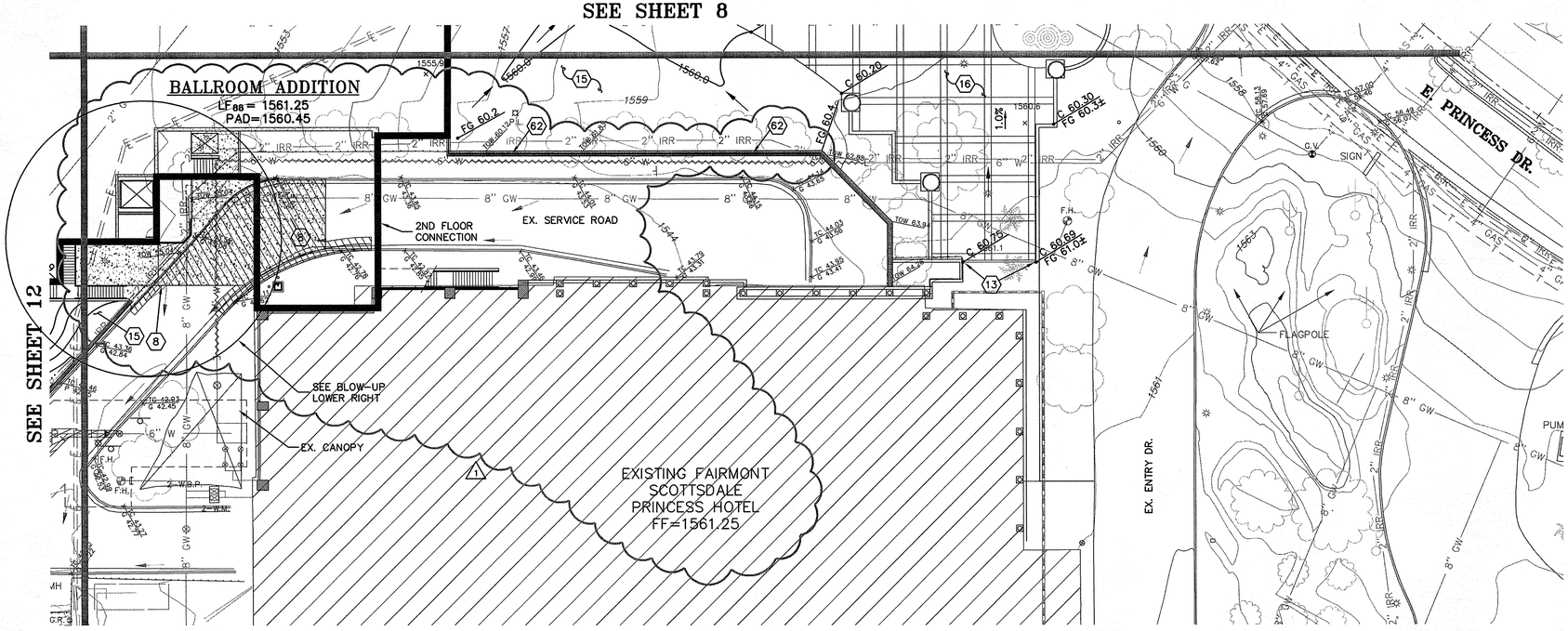

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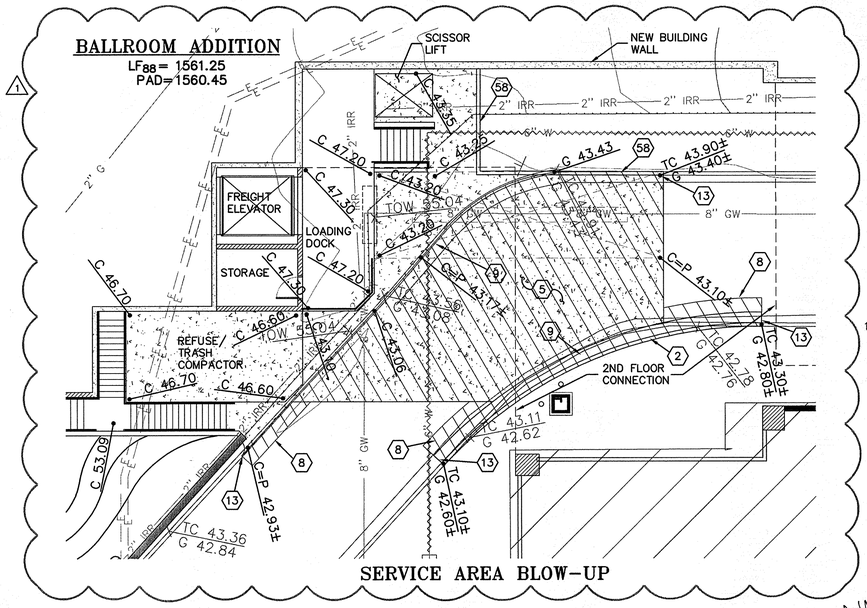
Horz. 1 in. = 20 ft.

CONSTRUCTION NOTES

- (2) CONSTRUCT 6" VERTICAL CURB AND GUTTER PER C.O.S. STD. DET. 2220 TYPE 'A'.
- (5) CONSTRUCT 6" PCC OVER 4" ABC PER M.A.G. STD. SPEC 702 & 725 AND GEOTECH REPORT.
- (8) SAWCUT, REMOVE & REPLACE EXISTING PAVEMENT 2' MIN. PER C.O.S. STD. DETAIL 2200.
- (9) REMOVE EXISTING CURB & GUTTER.
- (13) MATCH EXISTING ELEVATIONS.
- (15) LANDSCAPE AREA PER LANDSCAPE PLANS.
- (16) SEE ARCHITECTURAL PLANS FOR HARDSCAPE.
- (58) CONSTRUCT 6" VERTICAL CURB PER M.A.G. STD. DETAIL 222, TYPE 'A'.
- (62) CONSTRUCT HANDRAIL PER DETAIL 28 ON SHEET A-14.1.



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Horz. 1 in. = 10 ft.

SERVICE AREA BLOW-UP

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Registered Professional Engineer Certificate No. 46844 SCOTT A. AUDSLEY Date Signed 9-2-11 ARIZONA, U.S.A.

EXPIRES 09-30-13

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GRADING AND DRAINAGE PLAN

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 29-NP-2011, FIRST SUBMITTAL 6-2011, PLAN CHECK# 387-11-2, 1 387-11-9

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ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
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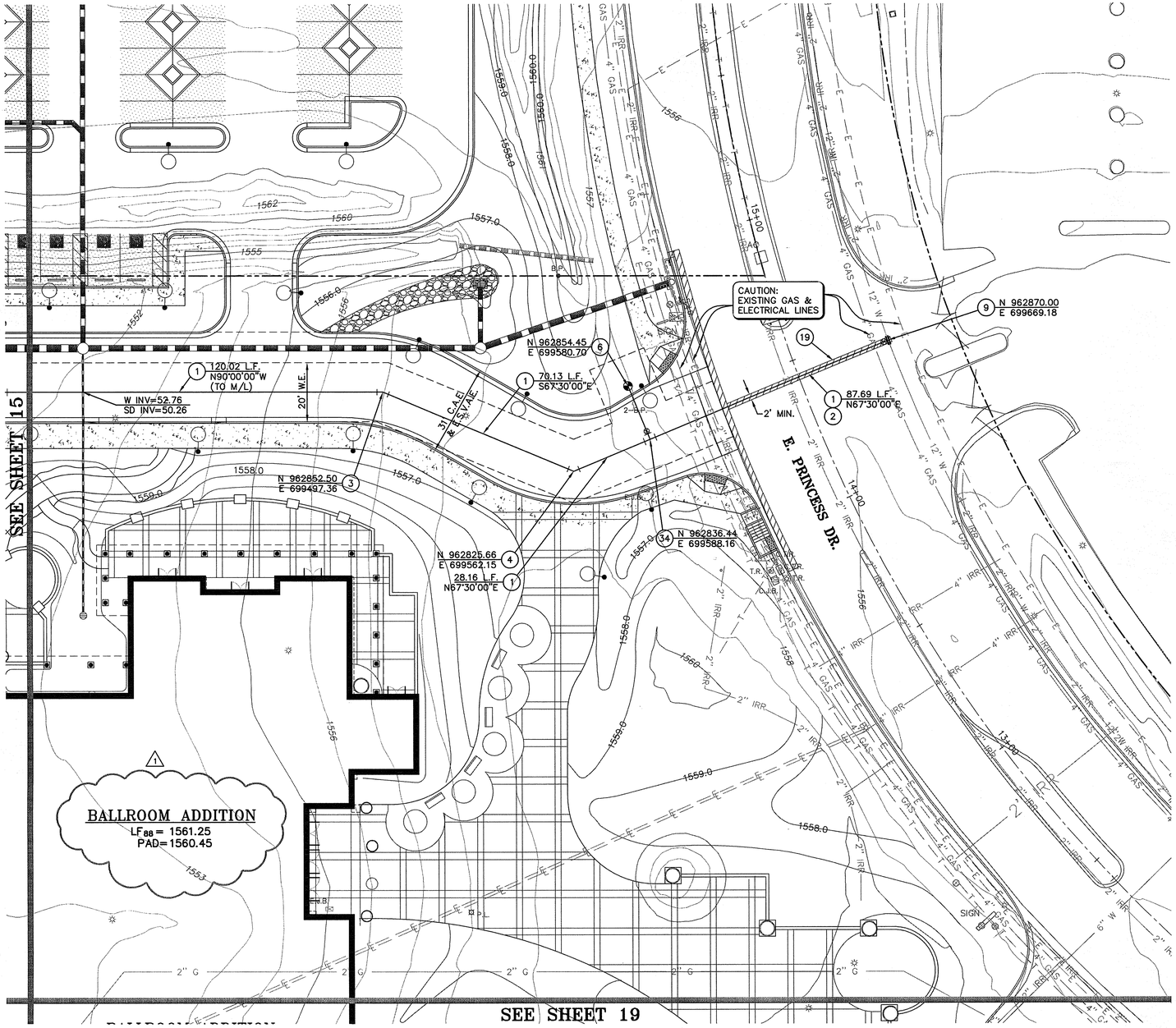
SHEET	13 OF 26



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Horz. 1 in. = 20 ft.

WATER CONSTRUCTION NOTES

1. INSTALL 8" D.I.P. PRESSURE CLASS 350 FIRELINE WITH RESTRAINED JOINTS (3' MIN. COVER).
2. MAINTAIN 4' OF COVER ON PROPOSED 8" WATERLINE ACROSS PRINCESS DRIVE TO AVOID VERTICAL CONFLICTS WITH EXISTING DRY UTILITIES. ONCE ONSITE, TRANSITION COVER BACK TO 3' MIN.
3. INSTALL 22.5° BEND WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 AND 303-2.
4. INSTALL 45° BEND WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 AND 303-2, SIZE PER PLAN.
6. INSTALL FIRE HYDRANT COMPLETE PER M.A.G. STD. DETAIL 360, WITH PAVEMENT MARKER PER C.O.S. DETAIL 2363.
9. INSTALL 12"x 8" TAPPING SLEEVE AND VALVE ON EXISTING 12" WATERLINE PER M.A.G. STD. DETAIL 340 & 391-1, TYPE 'C' WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 & 303-2. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION AND NOTIFY OWNERS AGENT OF ANY DISCREPANCIES.
19. SAWCUT, REMOVE & REPLACE EXISTING PAVEMENT PER C.O.S. STD. DET. 2200 & 2201.
34. INSTALL 8" x 6" TEE WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 & 303-2.

EXPIRES 09-30-13

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ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	14 OF 26

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-ND-2011, PLAN CHECK# 387-11-2, 1 387-11-9

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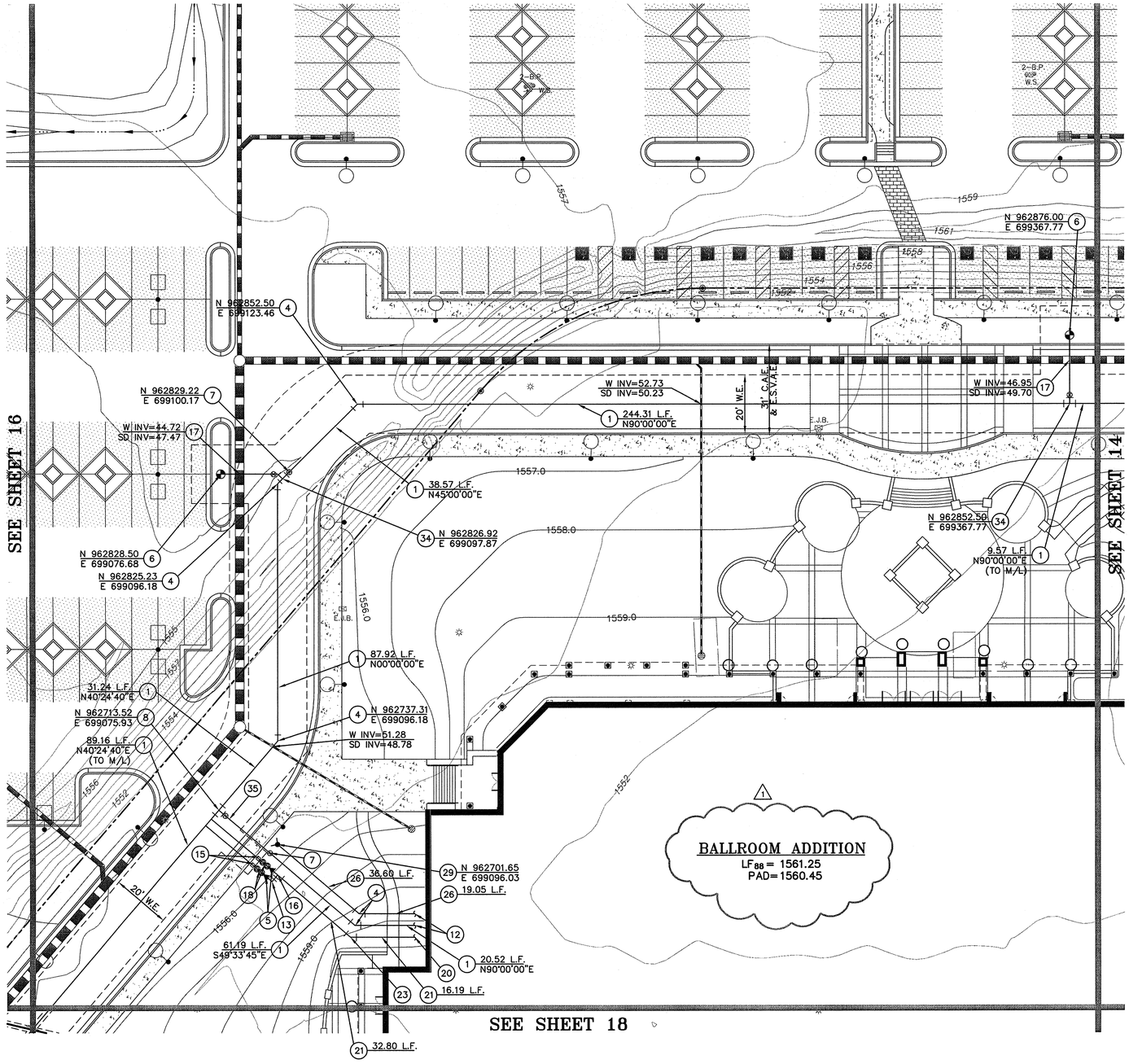

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Horz. 1 in. = 20 ft.

WATER CONSTRUCTION NOTES

(1) INSTALL 8" D.I.P. PRESSURE CLASS 350 FIRELINE WITH RESTRAINED JOINTS (3' MIN. COVER).

(4) INSTALL 45° BEND WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 AND 303-2, SIZE PER PLAN.

(5) INSTALL 3" x 2" PVC SCH. 40 REDUCER.

(6) INSTALL FIRE HYDRANT COMPLETE PER M.A.G. STD. DETAIL 360, WITH PAVEMENT MARKER PER C.O.S. DETAIL 2363.

(7) INSTALL 8" VALVE, BOX & COVER PER M.A.G. STD. DETAIL 391-1, TYPE 'C' WITH JOINT RESTRAINT PER M.A.G STD. DETAIL 303-1 & 303-2.

(8) INSTALL 8" x 8" TEE WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 & 303-2.

(12) SEE FIRE PROTECTION PLANS FOR CONTINUATION. CONTRACTOR TO COORDINATE LOCATION AND ELEVATION.

(13) INSTALL 3" x 3" PVC SCH. 40 TEE.

(15) INSTALL 2" DOMESTIC WATER METER AND SERVICE PER C.O.S. STD. DETAIL 2330. SEE ARCHITECTURAL PLANS TO VERIFY. CONTACT ENGINEER WITH ANY DISCREPANCIES.

(16) INSTALL 3" PVC SCH. 40 90° BEND.

(17) PROVIDE VERTICAL REALIGNMENT OF WATER MAIN PER C.O.S. STD. DETAIL 2370.

(18) INSTALL 2" BACKFLOW PREVENTION DEVICE PER C.O.S. STD. DETAIL 2354 IMMEDIATELY AFTER WATER METER BOX.

(20) SEE PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO COORDINATE EXACT LOCATION & ELEVATION WITH PLUMBING PLANS.

(21) INSTALL 3" PVC SCH. 40 WATER PIPE (3' MIN. COVER). BEDDING AND BACKFILL PER MANUFACTURES SPECIFICATION.

(23) INSTALL 3" PVC SCH. 40 45° BEND.

(26) INSTALL 4" D.I.P. PRESSURE CLASS 350 FIRELINE WITH RESTRAINED JOINTS (3' MIN. COVER).

(29) INSTALL REMOTE FIRE DEPARTMENT CONNECTION PER C.O.S. STD. DETAIL 2367.

(34) INSTALL 8" x 6" TEE WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 & 303-2.

(35) INSTALL 8" FIRE LINE CONNECTION PER C.O.S. STD. DETAIL 2362-2.

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 9-29-11 ARIZONA, U.S.A.

EXPIRES 09-30-13

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PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 1 387-11-9

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EXPIRES 09-30-13

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ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	15 OF 26

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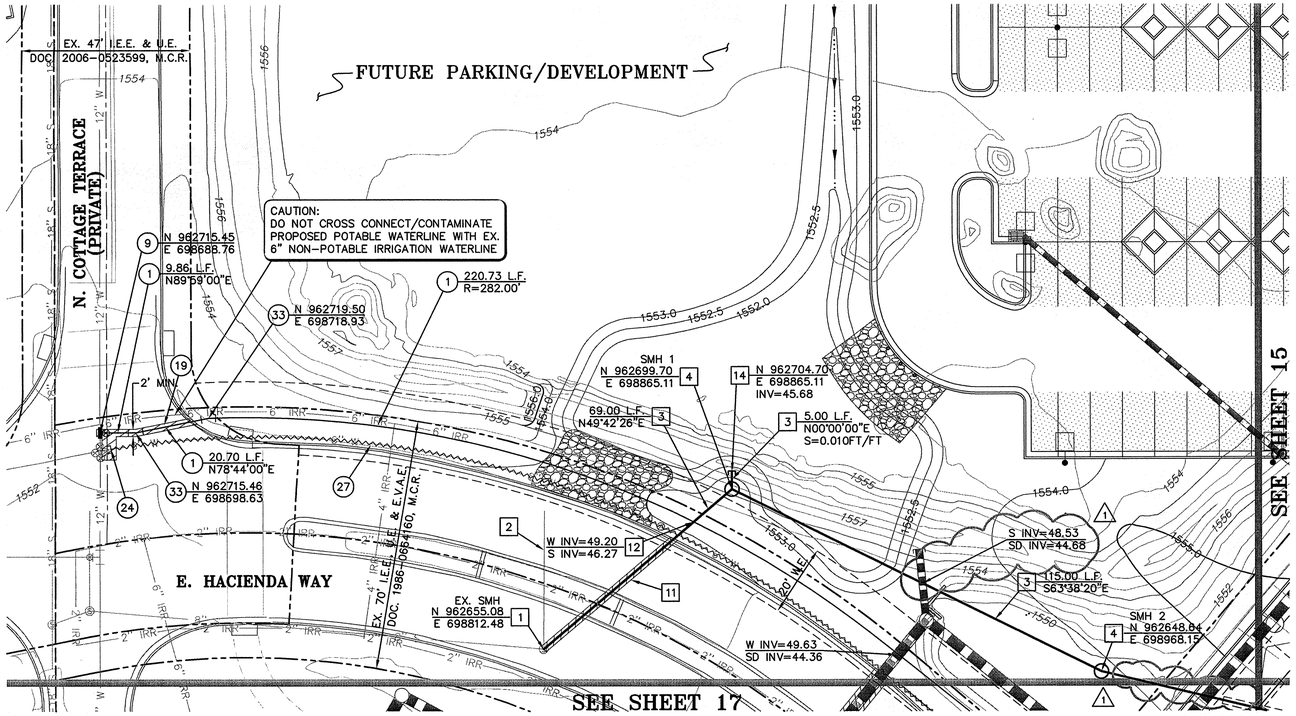

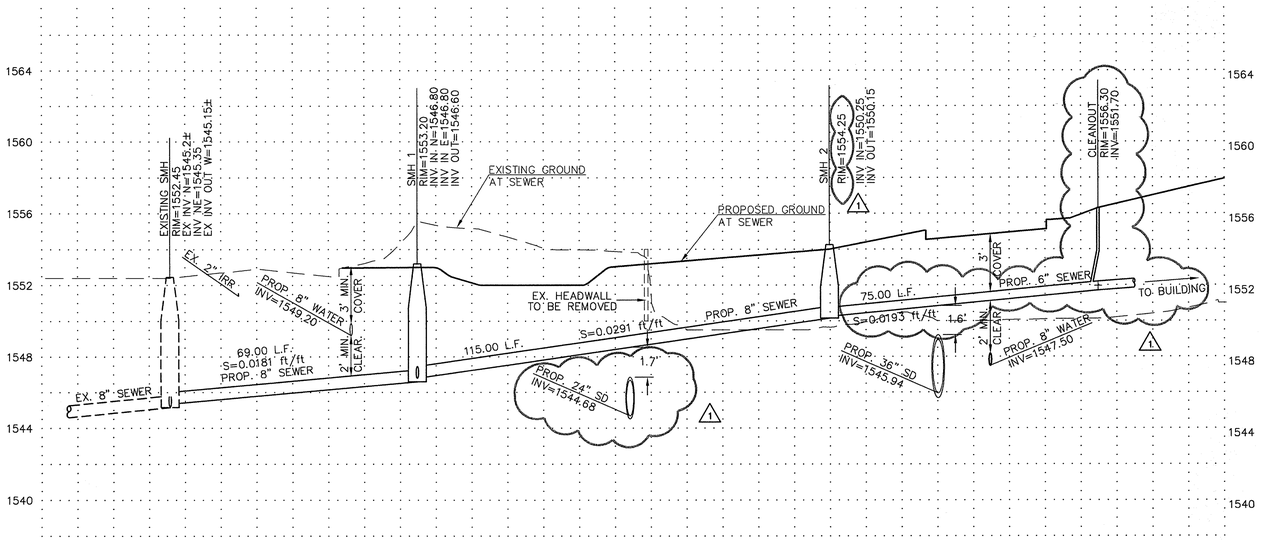

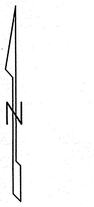

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Horz. 1 in. = 20 ft.

PRIVATE SANITARY SEWER NOTES

1. CONNECT TO EXISTING SANITARY SEWER MANHOLE WITH ADEKA ULTRA SEAL MC-2005T GASKET. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION AND NOTIFY OWNERS AGENT OF ANY DISCREPANCIES.
2. REMOVE EXISTING 8" SEWER STUB AND PATCH EXISTING MANHOLE SIDEWALL. CONNECT NEW 8" SEWER STUB FOR FUTURE DEVELOPMENT TO EXISTING MANHOLE WITH ADEKA ULTRA SEAL MC-2005T GASKET. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION AND NOTIFY OWNERS AGENT OF ANY DISCREPANCIES.
3. INSTALL 8" PVC SDR35 SANITARY SEWER PIPE. LENGTH PER PLAN. SEE PROFILE ON SHT. 18 FOR SLOPE.
4. CONSTRUCT 4' DIA. MANHOLE PER M.A.G. STD. DETAIL 420 & 424 WITH SEWERSHIELD 100 EPOXY LINING BY ENVIRONMENTAL COATINGS OR APPROVED EQUAL.
11. SAWCUT, REMOVE 2' MIN. OF PAVEMENT, CURB & GUTTER, AND REPLACE PER C.O.S. STD. DET. 2200 & 2201.
12. PROVIDE WATER & SEWER SEPARATION & PROTECTION PER M.A.G. STD. DETAIL 404-1.
14. STUB OUT AND PLUG SEWER PER M.A.G. STD. DET. 427.

WATER CONSTRUCTION NOTES

1. INSTALL 8" D.I.P. PRESSURE CLASS 350 FIRELINE WITH RESTRAINED JOINTS (3' MIN. COVER).
9. INSTALL 12"x 8" TAPPING SLEEVE AND VALVE ON EXISTING 12" WATERLINE PER M.A.G. STD. DETAIL 340 & 391-1, TYPE 'C' WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 & 303-2. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION AND NOTIFY OWNERS AGENT OF ANY DISCREPANCIES.
19. SAWCUT, REMOVE & REPLACE EXISTING PAVEMENT PER C.O.S. STD. DET. 2200 & 2201.
24. CUT EXISTING 6" WATERLINE AND INSTALL 6" CAP.
27. REMOVE EXISTING 6" WATERLINE.
33. INSTALL 11.25° BEND WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 AND 303-2.

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PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 387-11-9

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CAD TECHNICIAN	P. JIROUT
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SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	16 OF 26

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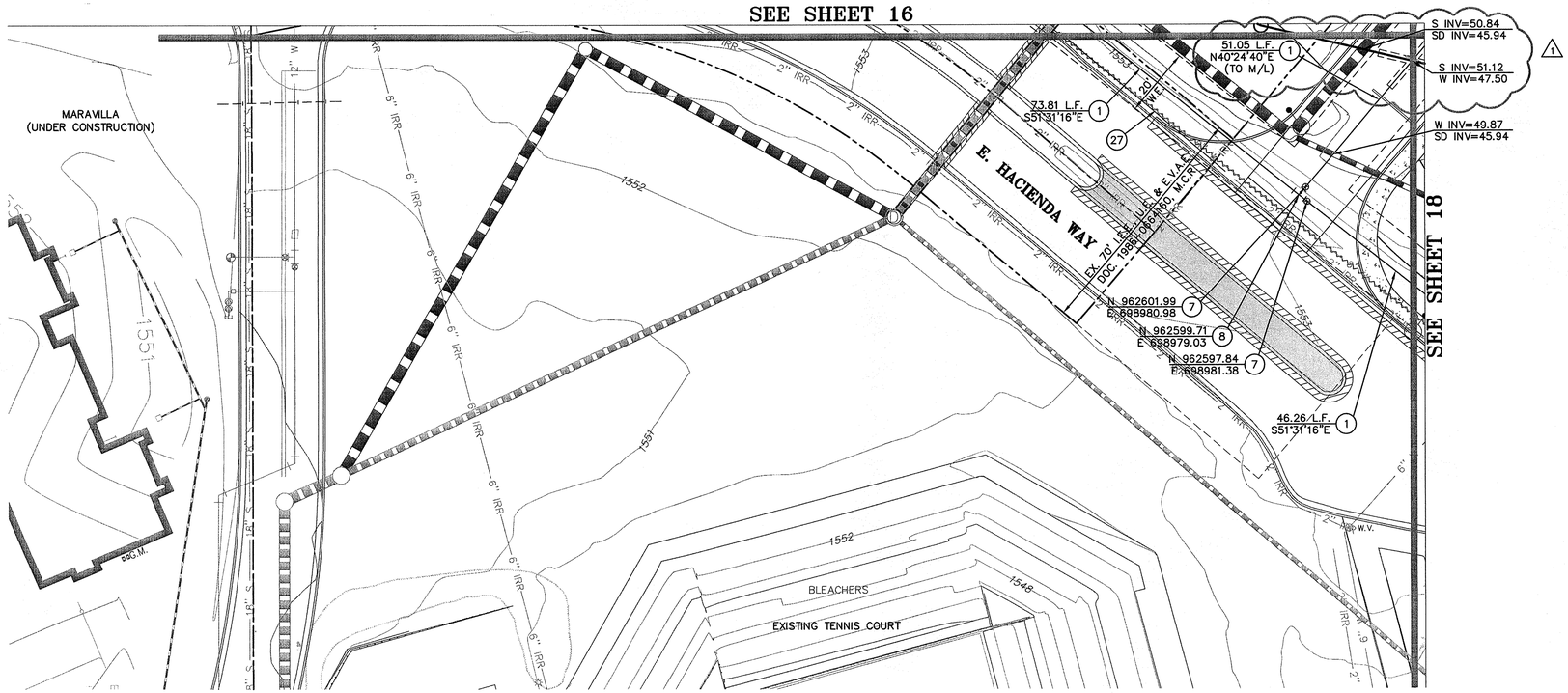

20 0 10 20
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WATER CONSTRUCTION NOTES

(1) INSTALL 8" D.I.P. PRESSURE CLASS 350 FIRELINE WITH RESTRAINED JOINTS (3' MIN. COVER).

(7) INSTALL 8" VALVE, BOX & COVER PER M.A.G. STD. DETAIL 391-1, TYPE 'C' WITH JOINT RESTRAINT PER M.A.G STD. DETAIL 303-1 & 303-2.

(8) INSTALL 8" x 8" TEE WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 & 303-2.

(17) PROVIDE VERTICAL REALIGNMENT OF WATER MAIN PER C.O.S. STD. DETAIL 2370.

(27) REMOVE EXISTING 6" WATERLINE.

Registered Professional Engineer (Civil)
CERTIFICATE NO.
46844
SCOTT A. AUDSLEY
Date Signed 10-7-11
ARIZONA, U.S.A.

EXPIRES 09-30-13

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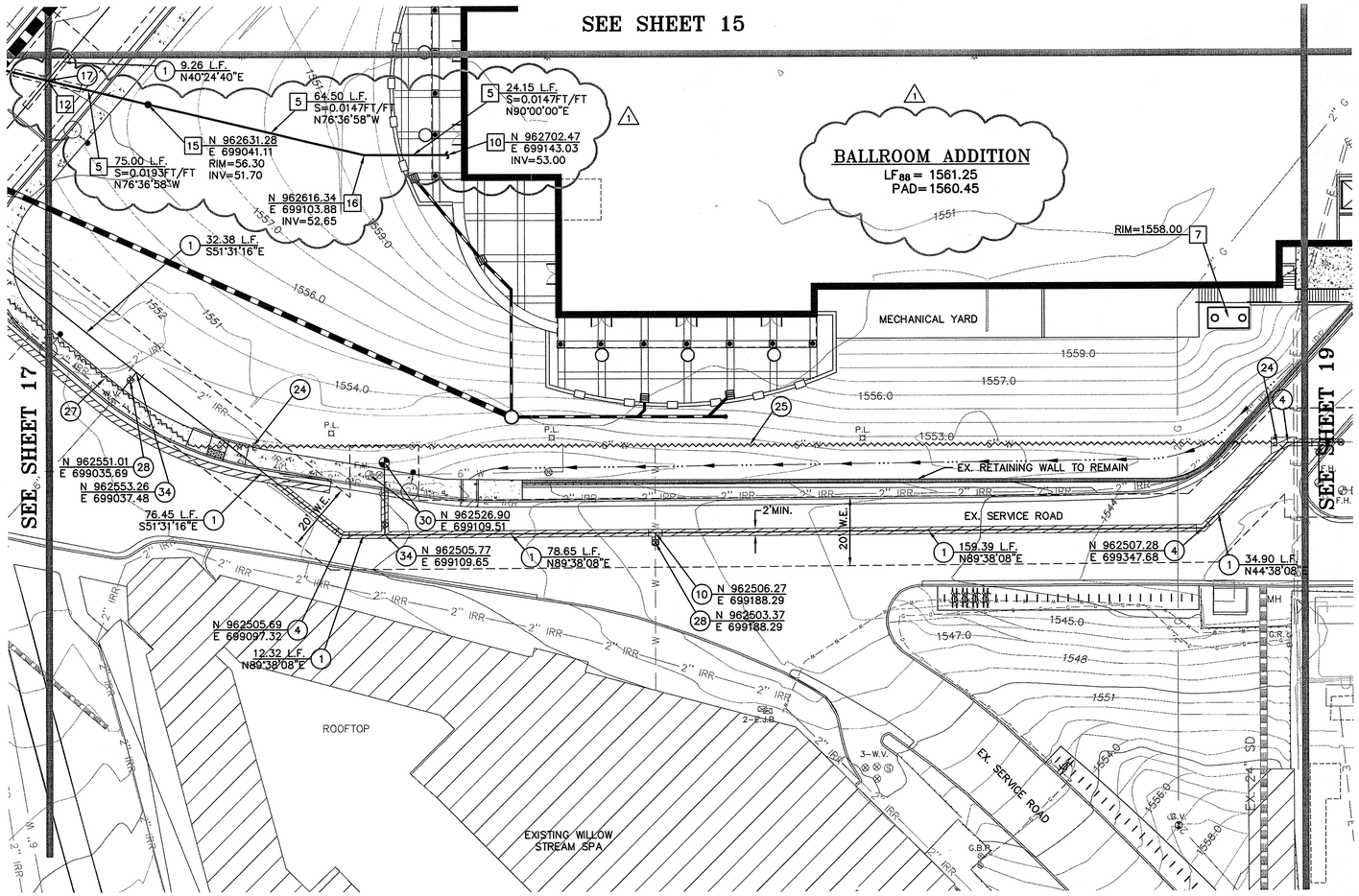

PRIVATE SANITARY SEWER NOTES

1 — 5 INSTALL 6" PVC SDR35 SANITARY SEWER PIPE. LENGTH AND SLOPE PER PLAN.

7 GREASE INTERCEPTOR, SEE PLUMBING PLAN FOR DETAILS.

10 SEE PLUMBING PLANS FOR CONTINUATION. CONTRACTOR TO COORDINATE EXACT LOCATION & ELEVATION WITH PLUMBING PLANS.

1 — 12 PROVIDE WATER & SEWER SEPARATION & PROTECTION PER M.A.G. STD. DETAIL 404-1.

15 CONSTRUCT CLEANOUT PER M.A.G. STD. DETAIL 441.

16 INSTALL 11.25° BEND.

WATER CONSTRUCTION NOTES

1 INSTALL 8" D.I.P. PRESSURE CLASS 350 FIRELINE WITH RESTRAINED JOINTS (3' MIN. COVER).

4 INSTALL 45° BEND WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 AND 303-2, SIZE PER PLAN.

10 INSTALL 8"x 6" TEE AND CONNECT EXISTING 6" WATERLINE. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION.

1 — 17 PROVIDE VERTICAL REALIGNMENT OF WATER MAIN PER C.O.S. STD. DETAIL 2370.

24 CUT EXISTING 6" WATERLINE AND INSTALL 6" CAP.

25 CONTRACTOR SHALL IDENTIFY EXISTING PIPE MATERIAL. IF PVC, ABANDON EXISTING WATERLINE IN PLACE AS SPECIFIED BY C.O.S. WATER OPERATIONS INSPECTOR. IF ACP, REMOVE AND DISPOSE OF AS SPECIFIED BY C.O.S. WATER OPERATIONS INSPECTOR.

27 REMOVE EXISTING 6" WATERLINE.

28 INSTALL 6" VALVE, BOX & COVER PER M.A.G. STD. DETAIL 391-1, TYPE 'C'.

30 RELOCATE EXISTING FIRE HYDRANT COMPLETE PER M.A.G. STD. DETAIL 360, WITH PAVEMENT MARKER PER C.O.S. DETAIL 2363.

34 INSTALL 8" x 6" TEE WITH JOINT RESTRAINT PER M.A.G. STD. DETAIL 303-1 & 303-2.

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 10-7-11 ARIZONA, U.S.A.

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fax 562.597.8022
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STRATEGIC

Fairmont SCOTTSDALE
BALLROOM ADDITION
WATER AND SEWER PLAN

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 1 387-11-9

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 9-2-11 ARIZONA, U.S.A.

EXPIRES 09-30-13

WOOD/PATEL
CIVIL ENGINEERS
HYDROLOGISTS
LAND SURVEYORS
CONSTRUCTION MANAGERS
(602) 335-8500
PHOENIX • MESA • TUCSON

ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	18 OF 26

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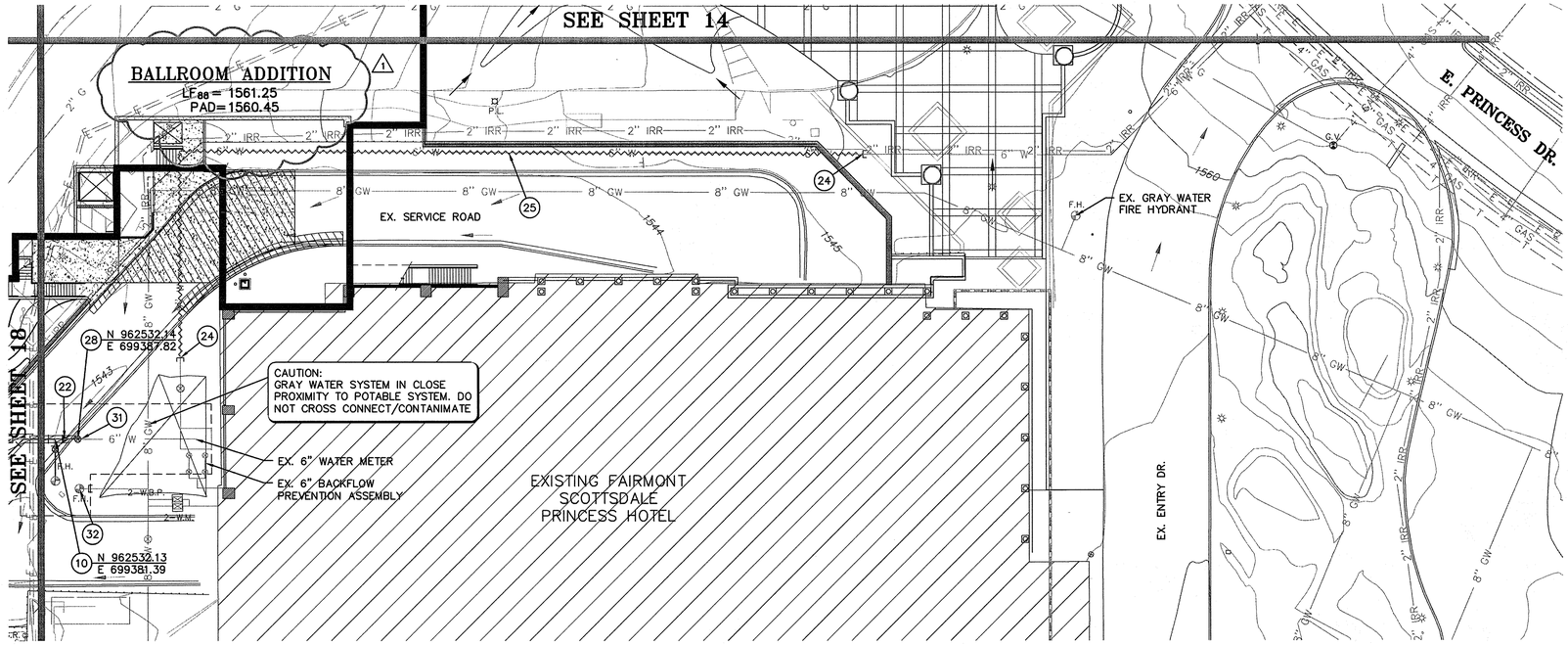

20 0 10 20

Horz. 1 in. = 20 ft.

WATER CONSTRUCTION NOTES

(10) INSTALL 8"x 6" TEE AND CONNECT EXISTING 6" WATERLINE. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION.

(22) INSTALL 8" x 6" REDUCER.

(24) CUT EXISTING 6" WATERLINE AND INSTALL 6" CAP.

(25) CONTRACTOR SHALL IDENTIFY EXISTING PIPE MATERIAL. IF PVC, ABANDON EXISTING WATERLINE IN PLACE AS SPECIFIED BY C.O.S. WATER OPERATIONS INSPECTOR. IF ACP, REMOVE AND DISPOSE OF AS SPECIFIED BY C.O.S. WATER OPERATIONS INSPECTOR.

(28) INSTALL 6" VALVE, BOX & COVER PER M.A.G. STD. DETAIL 391-1, TYPE 'C'.

(31) CONNECT EXISTING 6" WATER SERVICE LINE TO NEW WATERLINE. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION.

(32) REMOVE EXISTING GRAY WATER FIRE HYDRANT.

Registered Professional Engineer (Civil) CERTIFICATE NO. 46844 SCOTT A. AUDSLEY Date Signed 9-21-11 ARIZONA, U.S.A.

EXPIRES 09-30-13

1 REVISED F.F. ELEVATION, SERVICE AREA, PRIVATE SANITARY SEWER & PRIVATE STORM DRAIN. 10-07-2011

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STRATEGIC

Fairmont SCOTTSDALE
BALLROOM ADDITION
WATER AND SEWER PLAN

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 1 387-11-9

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EXPIRES 09-30-13

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ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	19 OF 26

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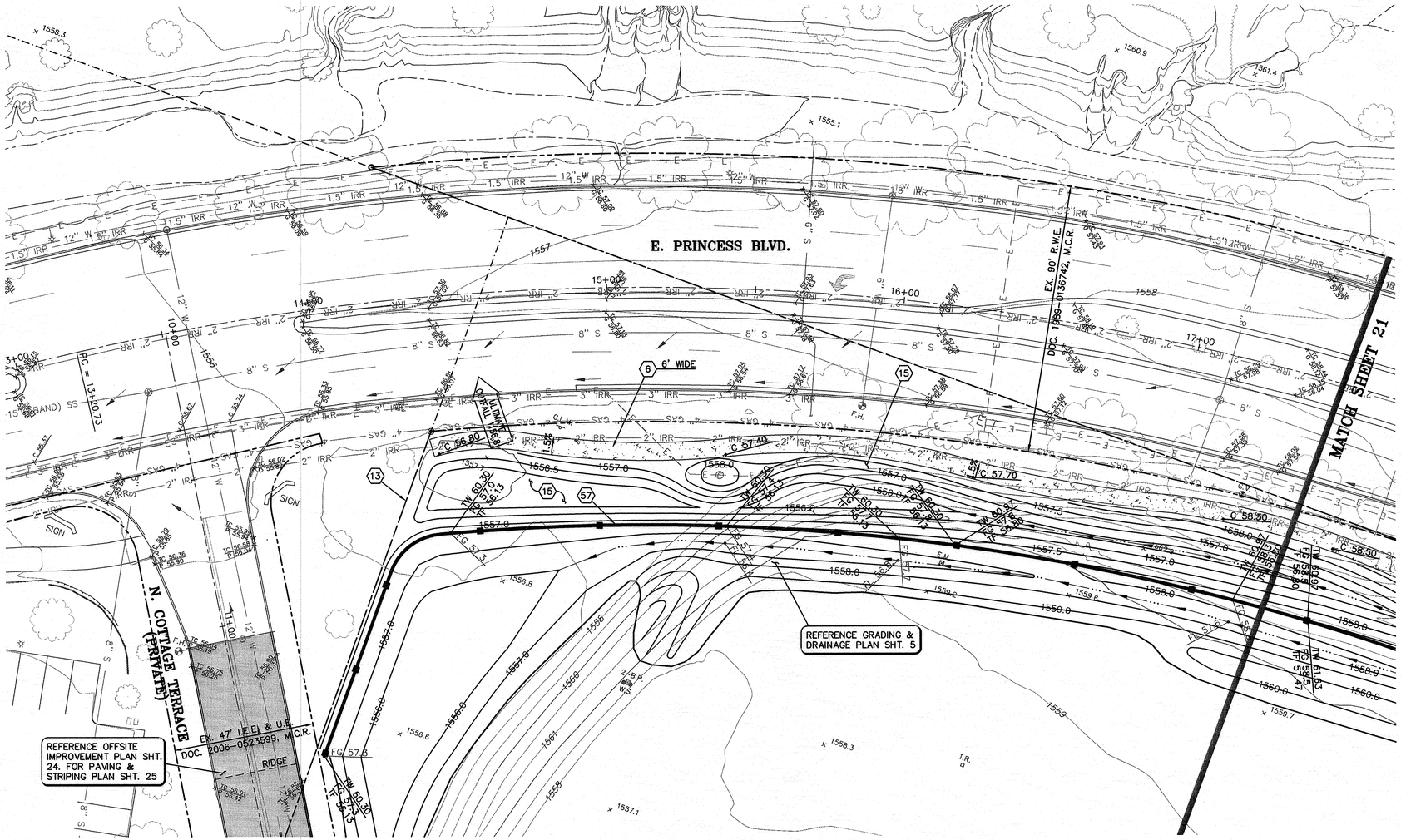

20 0 10 20

Horz. 1 in. = 20 ft.

CONSTRUCTION NOTES

(6) CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.

(13) MATCH EXISTING ELEVATIONS.

(15) LANDSCAPE AREA PER LANDSCAPE PLANS.

(57) CONSTRUCT 3' FLOOD/ SCREEN WALL PER DETAIL ON SHEET 26. SEE ARCHITECTURAL PLAN FOR COLOR AND FINISH.

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STRATEGIC

Fairmont SCOTTSDALE
BALLROOM ADDITION
OFFSITE IMPROVEMENT PLAN

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, △387-11-9

Registered Professional Engineer (Civil)
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Date Signed
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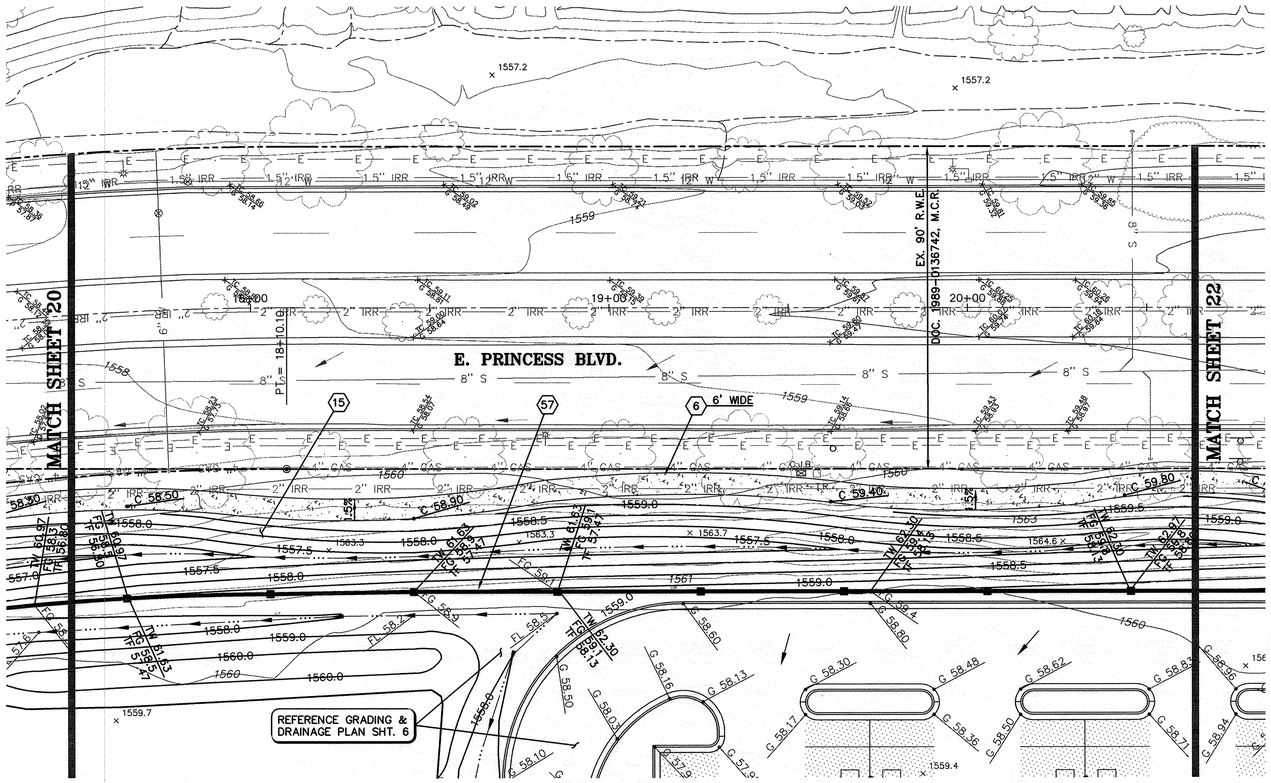
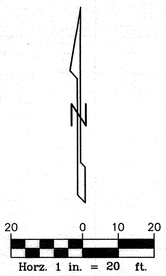
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	20 OF 26





CONSTRUCTION NOTES

(6) CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.

(15) LANDSCAPE AREA PER LANDSCAPE PLANS.

(57) CONSTRUCT 3' FLOOD/ SCREEN WALL PER DETAIL ON SHEET 26. SEE ARCHITECTURAL PLAN FOR COLOR AND FINISH.

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STRATEGIC

Fairmont SCOTTSDALE
BALLROOM ADDITION
OFFSITE IMPROVEMENT PLAN

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 387-11-9

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CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	21 OF 26

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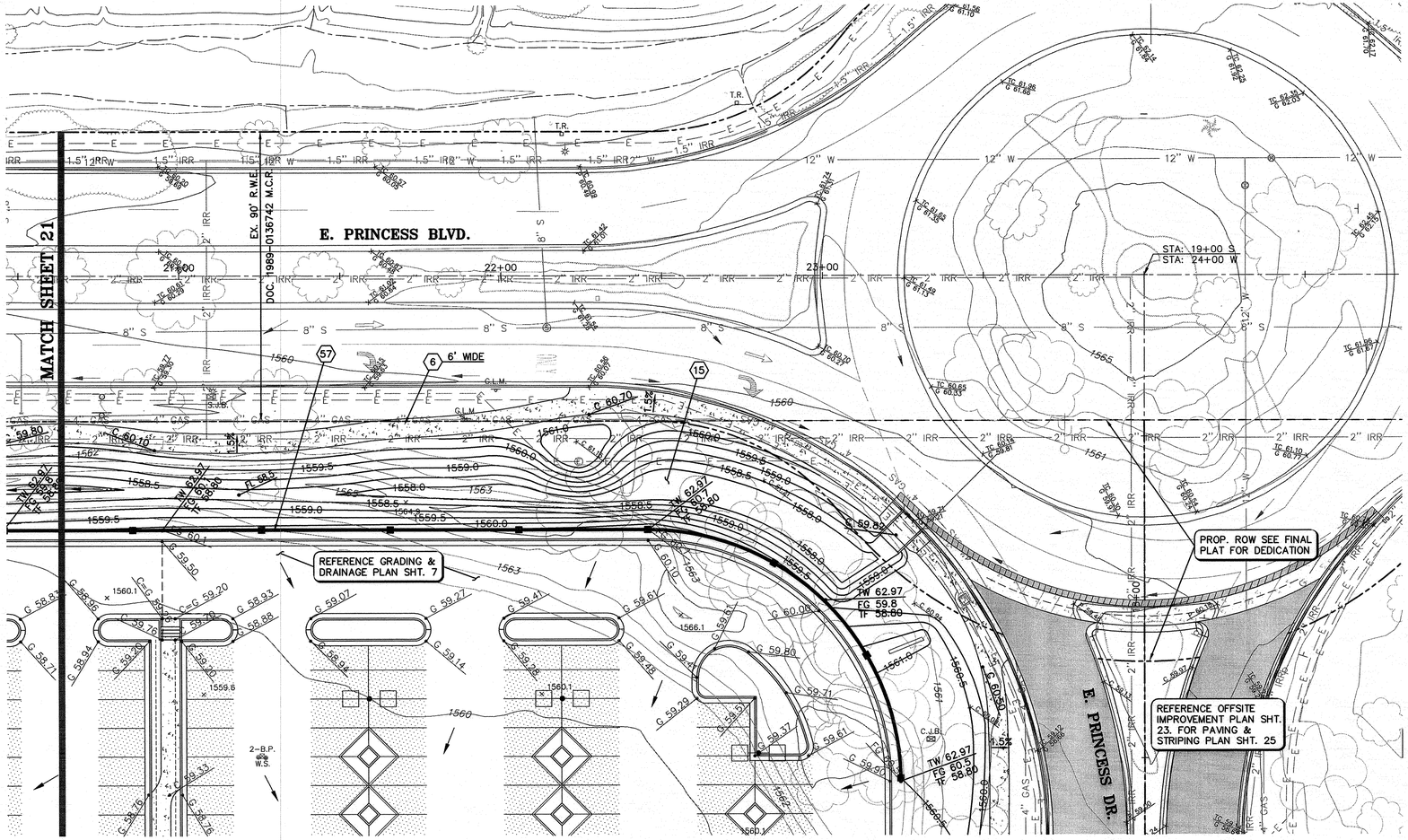

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Horz. 1 in. = 20 ft.

CONSTRUCTION NOTES

6 CONSTRUCT SIDEWALK PER M.A.G. STD. DETAIL 230. MATCH EXISTING SIDEWALK MATERIAL, COLOR AND TEXTURE, SEE ARCHITECTURAL PLANS. WIDTH PER PLAN.

15 LANDSCAPE AREA PER LANDSCAPE PLANS.

57 CONSTRUCT 3' FLOOD/ SCREEN WALL PER DETAIL ON SHEET 26. SEE ARCHITECTURAL PLAN FOR COLOR AND FINISH.

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STRATEGIC

Fairmont
SCOTTSDALE
BALLROOM ADDITION
OFFSITE IMPROVEMENT PLAN

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, P-2011, PLAN CHECK# 387-11-2, 387-11-9

Registered Professional Engineer (Civil)
46844
SCOTT A. AUDSLEY
Date Signed 9-2-11
ARIZONA, U.S.A.

EXPIRES 09-30-13

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ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	22 OF 26

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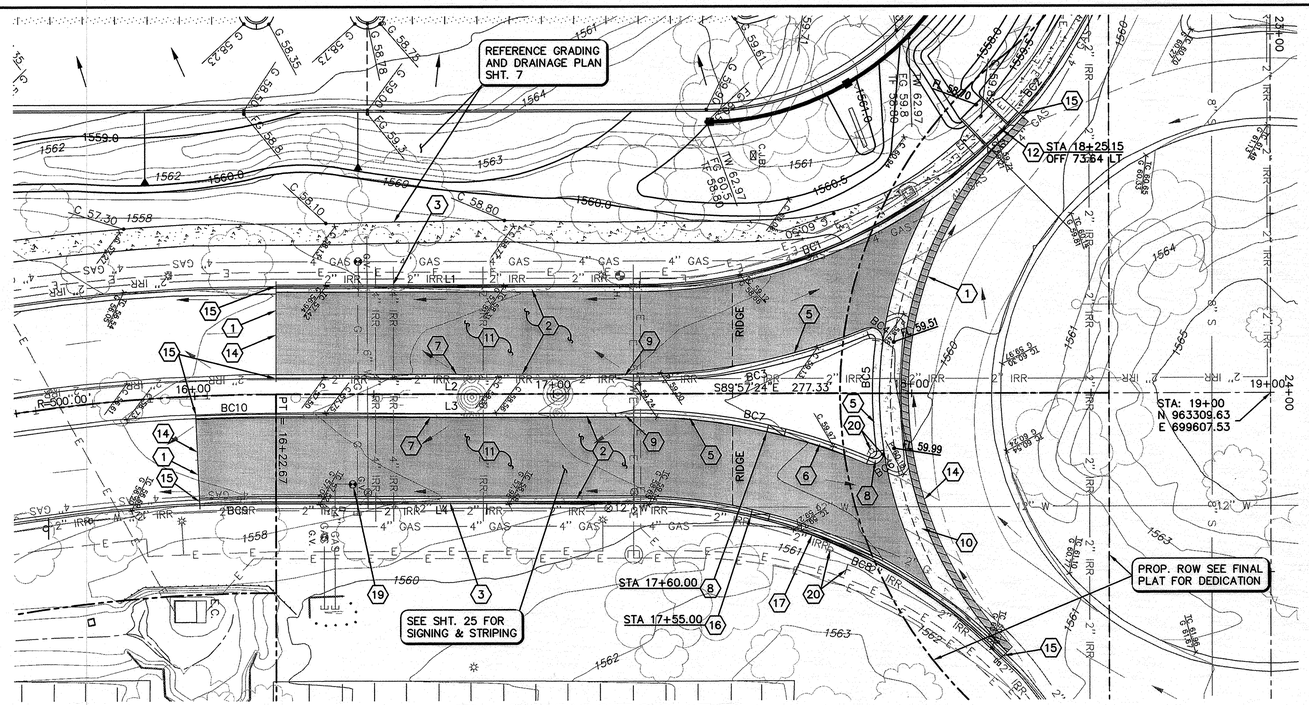
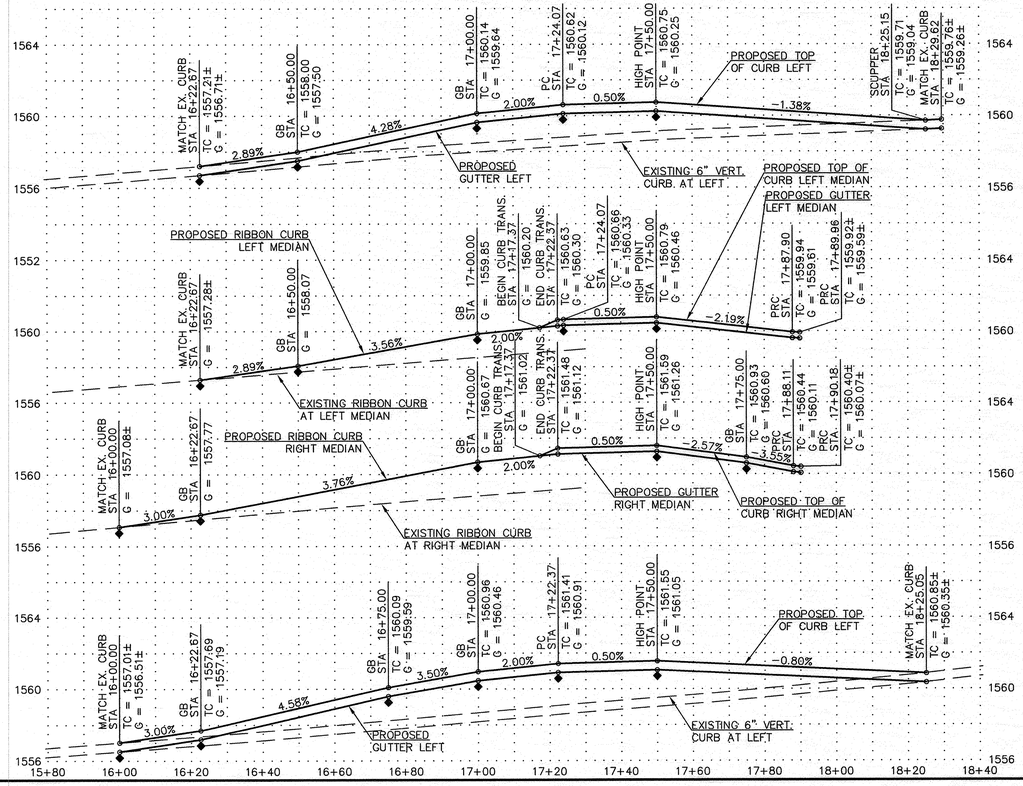


E. PRINCESS DR.



CURVE TABLE					
CURVE	DELTA	RADIUS	ARC	TANGENT	CHORD
BC1	46°13'22"	140.00'	112.94'	59.75'	109.91'
BC2	02°40'24"	140.00'	6.53'	3.27'	6.53'
BC3	22°28'24"	167.00'	65.50'	33.18'	65.08'
BC4	120°01'51"	1.50'	3.14'	2.60'	2.60'
BC5	15°54'35"	111.00'	30.82'	15.51'	30.72'
BC6	121°06'05"	1.50'	3.17'	2.66'	2.61'
BC7	22°44'57"	170.00'	67.50'	34.20'	67.06'
BC8	45°28'50"	144.00'	114.31'	60.36'	111.33'
BC9	02°35'54"	469.50'	21.29'	10.65'	21.29'
BC10	02°35'54"	494.50'	22.43'	11.21'	22.42'

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N00°02'36"E	101.39'
L2	N00°02'36"E	101.39'
L3	N00°02'36"E	99.70'
L4	N00°02'36"E	99.70'

20 0 10 20
Horz. 1 in. = 20 ft.
Vert. 1 in. = 4 ft.

PAVING NOTES

1. SAWCUT EXISTING PAVEMENT, CURB & GUTTER.
2. REMOVE EXISTING PAVEMENT, CURB & GUTTER.
3. CONSTRUCT 6" VERTICAL CURB AND GUTTER PER M.A.G. STD. DET. 220-1 TYPE 'A'.
5. CONSTRUCT 4" ROLL CURB AND GUTTER PER M.A.G. STD. DET. 220-1 TYPE 'D'.
6. CONSTRUCT 4" ROLL CURB AND GUTTER PER M.A.G. STD. DET. 220-1 TYPE 'C'.
7. CONSTRUCT RIBBON CURB PER C.O.S. STD. DET. 2220 TYPE 'B', MODIFIED TO 1' WIDTH.
8. TRANSITION ROLL CURB FROM TYPE 'C' TO TYPE 'D' WITHIN 5'.
9. TRANSITION CURB FROM RIBBON TO ROLL CURB AND GUTTER WITHIN 5'.
10. CONSTRUCT 6' VALLEY GUTTER AND APRON PER C.O.S. STD. DET. 2240.
11. CONSTRUCT 3" A.C. PAVEMENT OVER 4" A.B.C. BASE MATERIAL PER M.A.G. SPEC. 702 & 710, MATCH EXISTING SECTION OR WHICH EVER IS GRATER.
12. CONSTRUCT 8' WIDE SCUPPER PER M.A.G. STD. DET. 206-1 WITH STORM DRAIN MARKER PER C.O.S. STD. DET. 2560-3.
14. MATCH EXISTING PAVEMENT LOCATION AND ELEVATION.
15. MATCH EXISTING CURB LOCATION AND ELEVATION.
16. TRANSITION VERTICAL CURB AND GUTTER FROM M.A.G. STD DET. 220-1 TYPE 'A' TO C.O.S. STD. DET. 2220 TYPE 'A' WITHIN 5'.
17. CONSTRUCT 6" VERTICAL CURB AND GUTTER PER C.O.S. STD. DET. 2220 TYPE 'A'.
19. ADJUST VALVE BOX PER C.O.S. STD. DET. 2270.
20. RELOCATE EXISTING SIGN TO NEW LOCATION.

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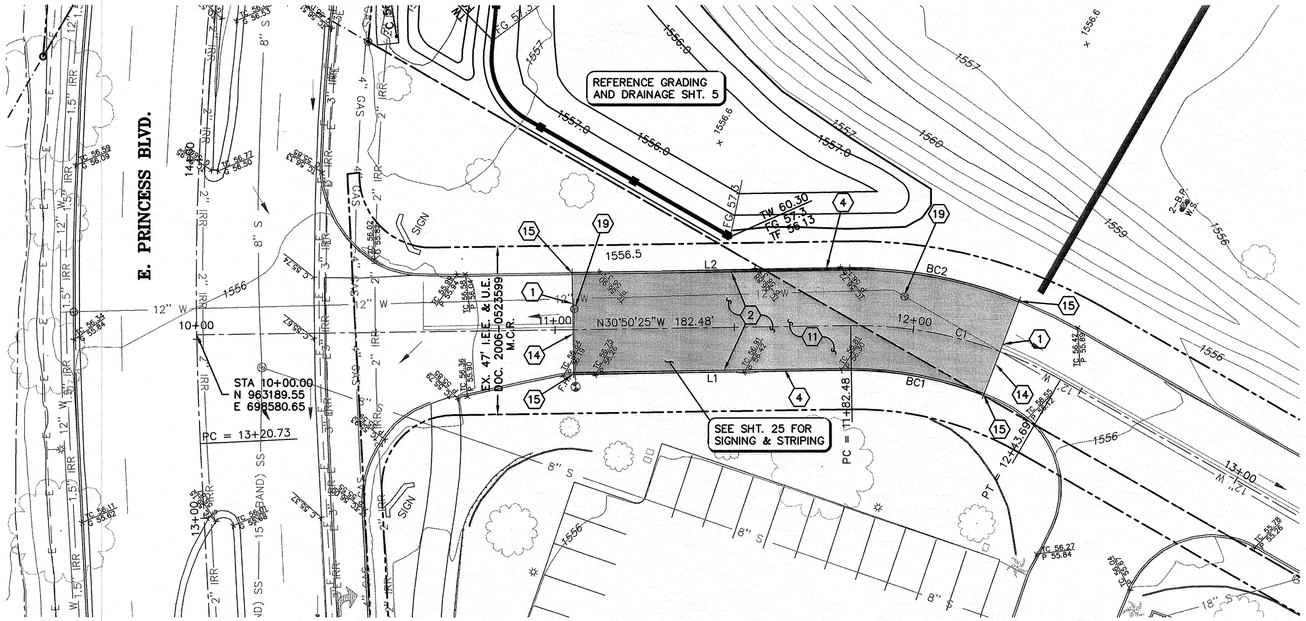
STRATEGIC
Media & Research

Fairmont
SCOTTSDALE
BALLROOM ADDITION
OFFSITE IMPROVEMENT PLAN AND PROFILE SHEET
PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PP-2011, PLAN CHECK# 387-11-2, △ 387-11-9

Registered Professional Engineer (Civil)
CERTIFICATE NO.
46844
SCOTT A. AUDSLEY
As Signed
ARIZONA, U.S.A.
EXPIRES 09-30-13

WOOD/PATEL
CIVIL ENGINEERS
HYDROLOGISTS
LAND SURVEYORS
CONSTRUCTION MANAGERS
(602) 335-8500
PHOENIX • MESA • TUCSON

ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	1" = 20'
SCALE (VERTICAL)	1" = 4'
DATE	09-02-11
JOB NUMBER	103555
SHEET	23 OF 26



CURVE TABLE					
CURVE	DELTA	RADIUS	ARC	TANGENT	CHORD
C1	30°45'50"	114.00'	61.21'	31.36'	60.48'
BC1	20°47'18"	104.00'	37.73'	19.08'	37.53'
BC2	23°01'20"	120.50'	48.42'	24.54'	48.09'

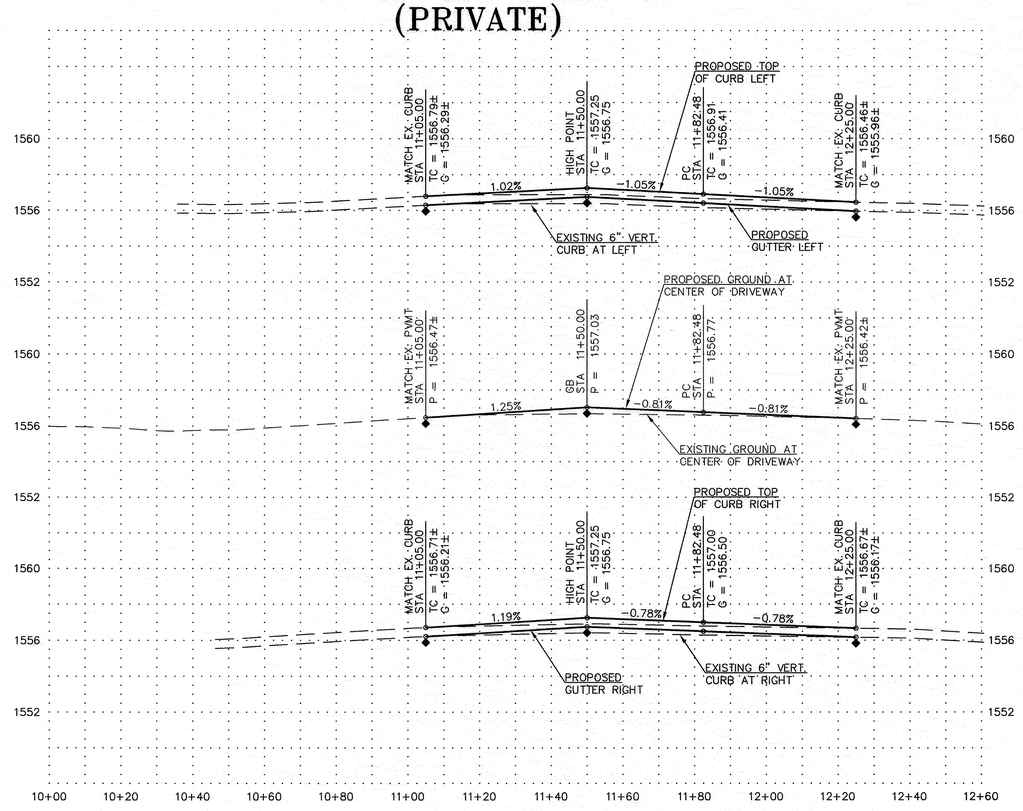
LINE TABLE		
LINE	BEARING	DISTANCE
L1	N30°50'25"W	77.48'
L2	N30°50'25"W	77.48'

20 0 10 20
Horz. 1 in. = 20 ft.
Vert. 1 in. = 4 ft.

PAVING NOTES

1. SAWCUT EXISTING PAVEMENT, CURB & GUTTER.
2. REMOVE EXISTING PAVEMENT, CURB & GUTTER.
4. CONSTRUCT 6" VERTICAL CURB PER M.A.G. STD. DET. 222 TYPE 'A'.
11. CONSTRUCT 3" A.C. PAVEMENT OVER 4" A.B.C. BASE MATERIAL PER M.A.G. SPEC. 702 & 710, MATCH EXISTING SECTION OR WHICH EVER IS GRATER.
14. MATCH EXISTING PAVEMENT LOCATION AND ELEVATION.
15. MATCH EXISTING CURB LOCATION AND ELEVATION.
19. ADJUST VALVE BOX PER C.O.S. STD. DET. 2270.

N. COTTAGE TERRACE (PRIVATE)



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fax 562.597.8022
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STRATEGIC
Michele M. Kennedy

Registered Professional Engineer (Civil)
CERTIFICATE NO.
46844
SCOTT A. AUDSLEY
04-30-13
ARIZONA, U.S.A.
EXPIRES 09-30-13

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ENGINEER S. AUDSLEY
DESIGNER S. AUDSLEY
CAD TECHNICIAN P. JIROUT
SCALE (HORIZONTAL) 1" = 20'
SCALE (VERTICAL) 1" = 4'
DATE 09-02-11
JOB NUMBER 103555
SHEET 24 OF 26

Fairmont SCOTTSDALE
BALLROOM ADDITION
OFFSITE IMPROVEMENT PLAN AND PROFILE SHEET

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 387-11-9

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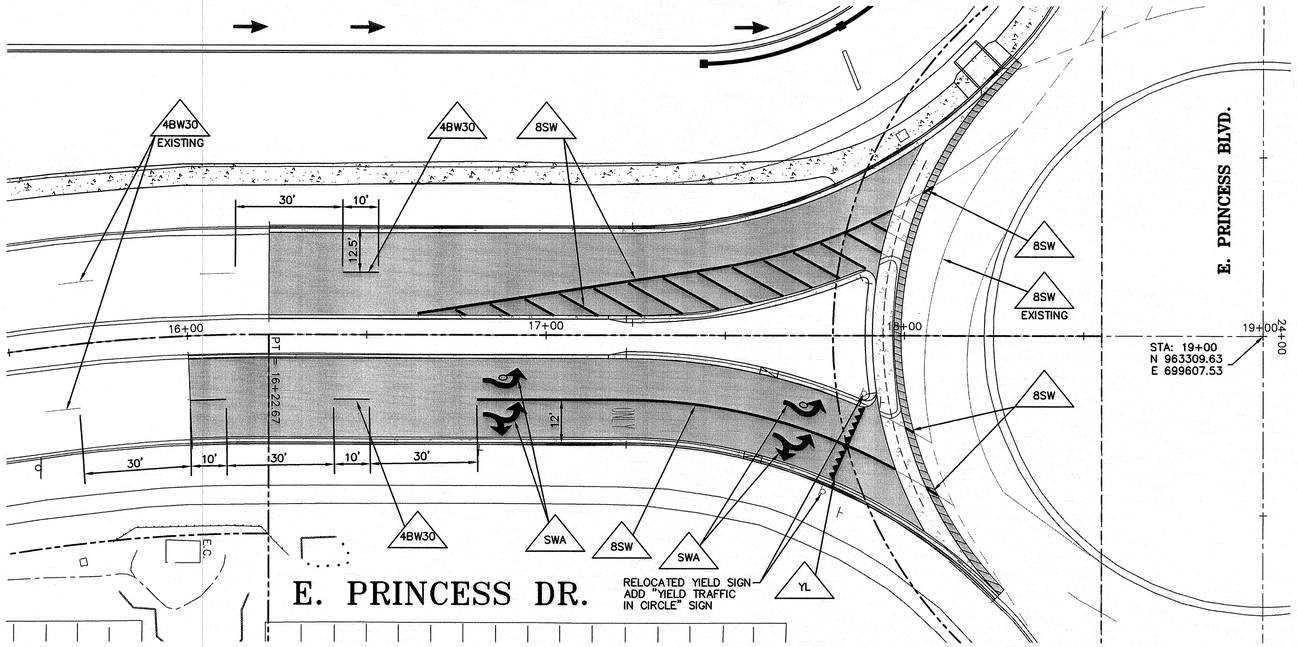

20 0 10 20
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LINE TABLE		
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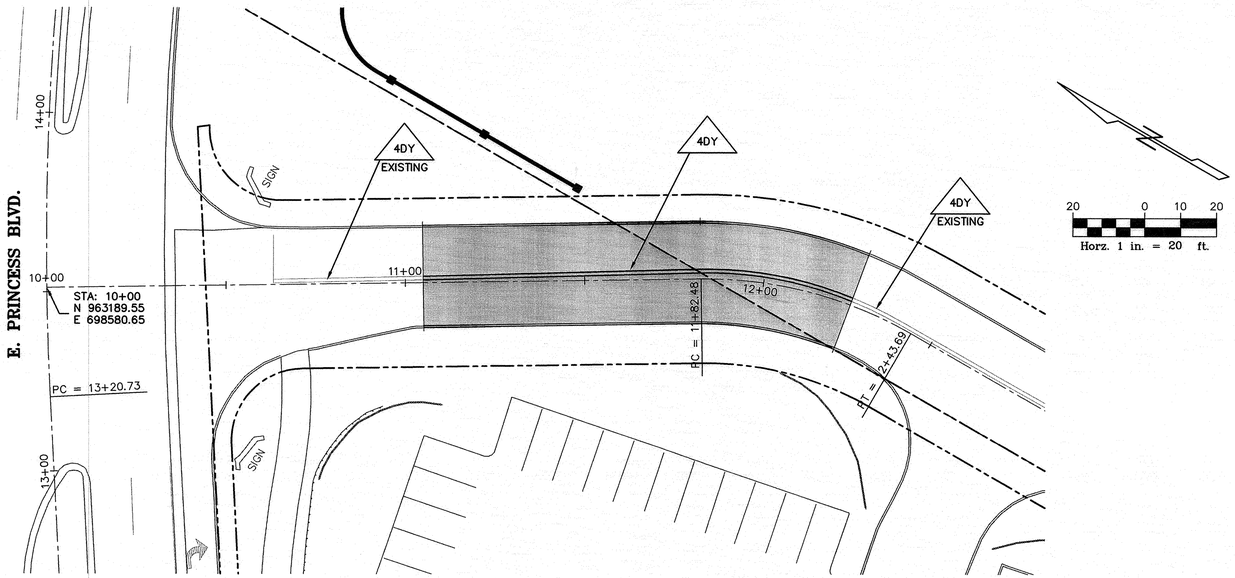
L3	N00°02'36"E	99.70'
L4	N00°02'36"E	99.70'

LEGEND

SWA	SOLID WHITE FISH-HOOK ARROW
8SW	8" SOLID WHITE LINE
YL	YIELD LINE
4DY	4" SOLID DOUBLE YELLOW LINE
4BW30	4" BROKEN WHITE LINE WITH A 10' LINE SEGMENT AND A 30' GAP



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STRATEGIC

Fairmont SCOTTSDALE
BALLROOM ADDITION
OFFSITE IMPROVEMENT STRIPING AND SIGNAGE PLAN

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, △ 387-11-9

Registered Professional Engineer
16844
SCOTT A. AUDSLEY
ARIZONA, U.S.A.
EXPIRES 09-30-13

WOOD/PATEL
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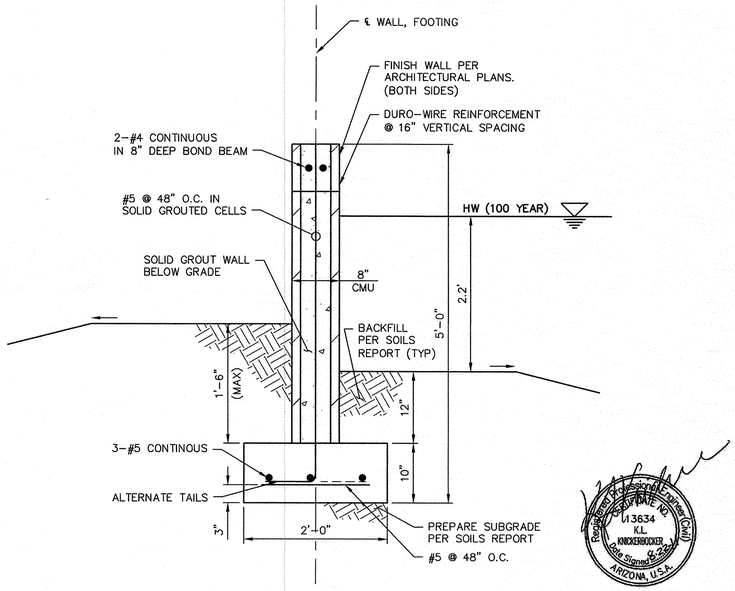
SCALE (VERTICAL)	1" = 4'
DATE	09-02-11
JOB NUMBER	103555
SHEET	25 OF 26

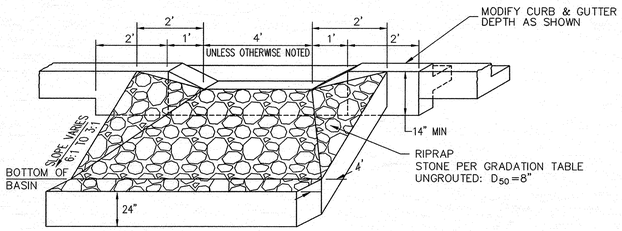


NOTES:

1. SPECIAL INSPECTION REQUIRED.
2. CONCRETE SHALL BE CLASS A AS SPECIFIED BY MAG.
3. REINFORCING SHALL BE ASTM A615, GD60.
4. MASONRY SHALL BE MEDIUM WEIGHT, F'_M=1,500 PSI.

FLOOD/ SCREEN WALL

N.T.S.



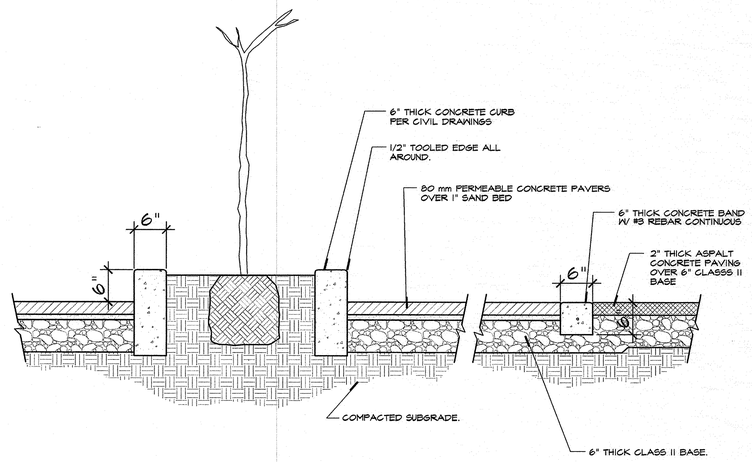
CURB OPENING AND SPILLWAY DETAIL

(N.T.S.)

* PERCENT PASSING	D_{50}=6" (LAYER THICKNESS=12") ROCK SIZE (IN.)	D_{50}=8" (LAYER THICKNESS=16") ROCK SIZE (IN.)	D_{50}=12" (LAYER THICKNESS=24") ROCK SIZE (IN.)
100 TO 90	12	16	24
85 TO 70	9	12	18
50 TO 30	6	8	12
15 TO 5	4	5	8
5 TO 0	2	3	4

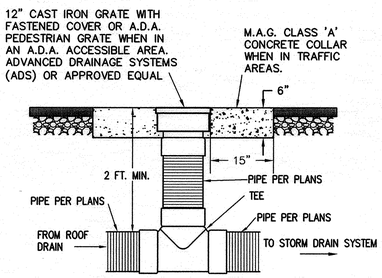
GRADATION TABLE

*NATIVE INDIGENOUS STONE



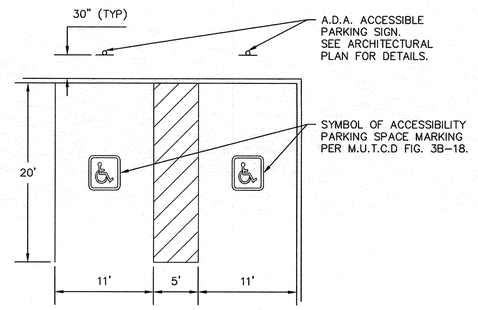
PARKING LOT PERMEABLE PAVERS

N.T.S.



STORM DRAIN AIR BREAK/ DRAIN

(N.T.S.)



A.D.A. ACCESSIBLE PARKING SPACE

N.T.S.

CALL TWO WORKING DAYS BEFORE YOU DIG
(602) 263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

kollin altomare architects
1350 coronado avenue,
long beach, ca 90804
tel 562.597.8760
fax 562.597.8022
www.kollinaltomare.com
STRATEGIC
Master of Records

Fairmont SCOTTSDALE
BALLROOM ADDITION
DETAIL SHEET

NP# 23-NP-2011, PLAN CHECK# 387-11-2, 387-11-9

Registered Professional Engineer (Civil)
CERTIFICATE NO.
13634
K.L.
KNICKERBOCKER
Date Signed 6-30-12
ARIZONA, U.S.A.

EXPIRES 06-30-12

Registered Professional Engineer (Civil)
CERTIFICATE NO.
45844
SCOTT A.
AUDSLEY
Date Signed 6-21-12
ARIZONA, U.S.A.

EXPIRES 09-30-13

WOOD/PATEL
CIVIL ENGINEERS
HYDROLOGISTS
LAND SURVEYORS
CONSTRUCTION MANAGERS
(602) 335-8500
PHOENIX · MESA · TUCSON

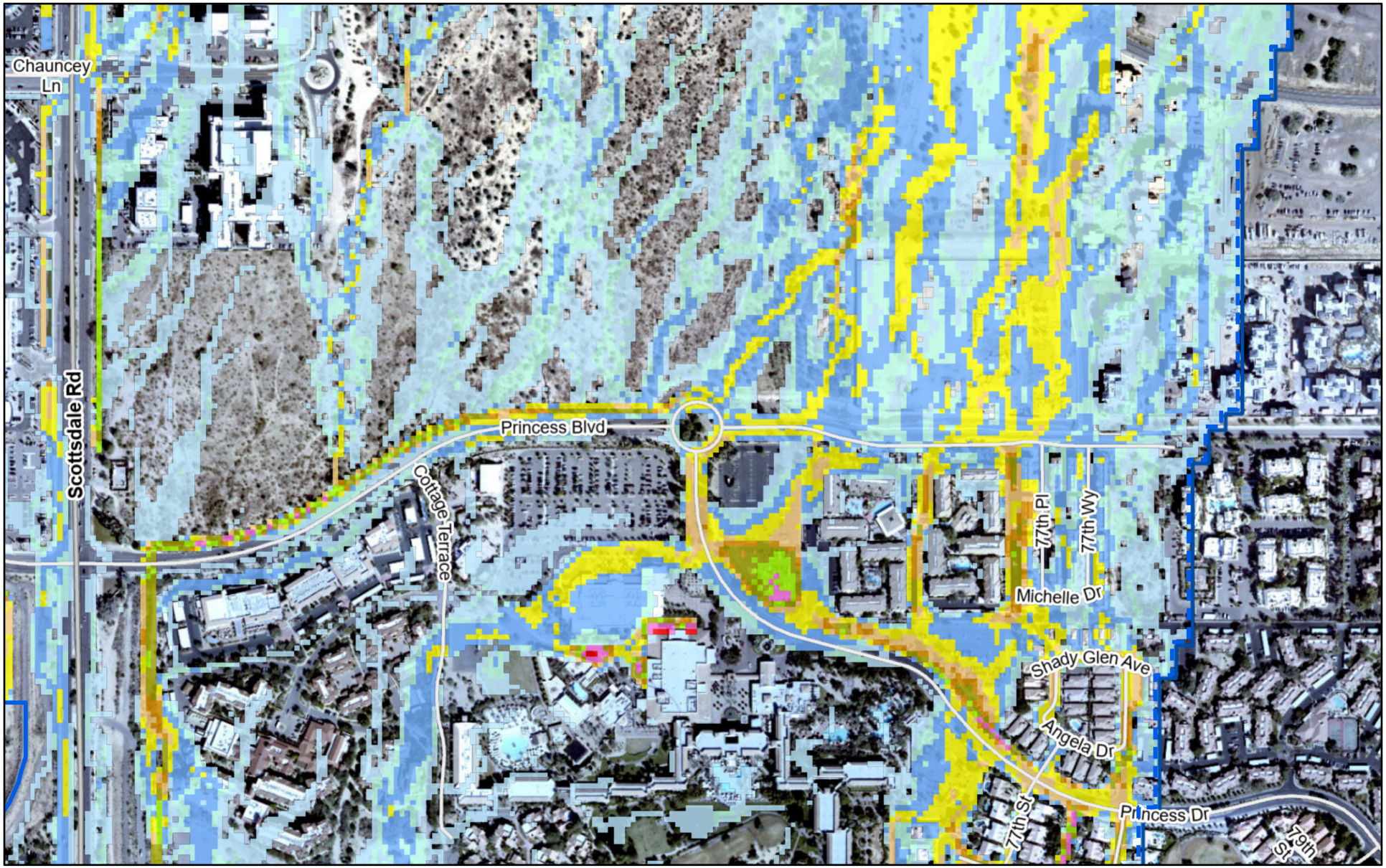
ENGINEER	S. AUDSLEY
DESIGNER	S. AUDSLEY
CAD TECHNICIAN	P. JIROUT
SCALE (HORIZONTAL)	N.T.S.
SCALE (VERTICAL)	N/A
DATE	09-02-11
JOB NUMBER	103555
SHEET	26 OF 26

PRE-APP# 765-PA-10, D.R. CASE# 8-DR-2011, 237-SA-2011, 14-PP-2011, NP# 23-NP-2011, PLAN CHECK# 387-11-2, 387-11-9

N:\2010\103555\dwg\103555-SHT-DTL.dwg

APPENDIX G – 121 Pinnacle Peak West FLO-2D STUDY

121_PinnaclePeakWest - Lower Rawhide 100YR24HR Without Walls



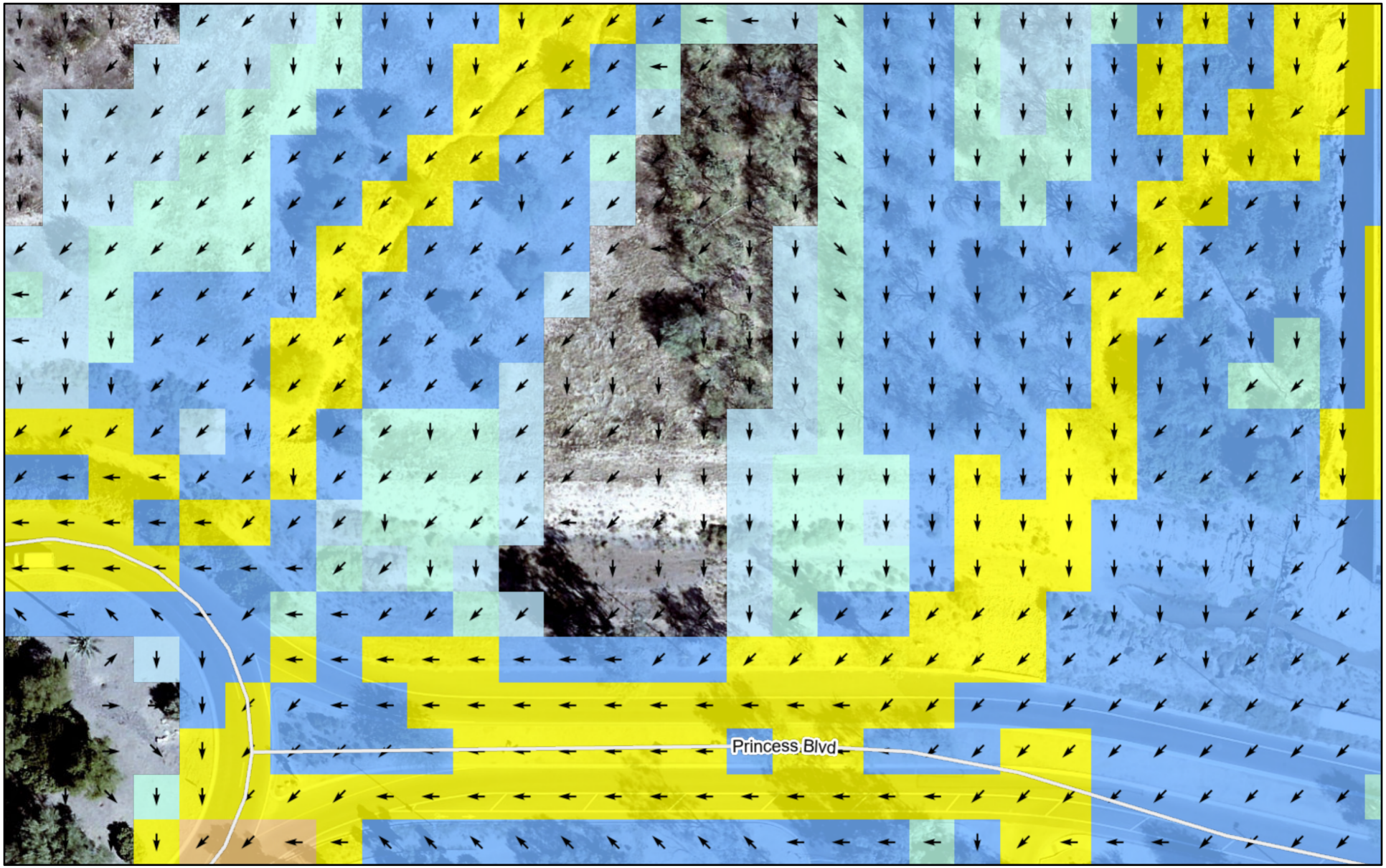
August 4, 2023

1:6,000

0 275 550 1,100 ft

0 80 160 320 m

121_PinnaclePeakWest - Lower Rawhide 100YR24HR Without Walls



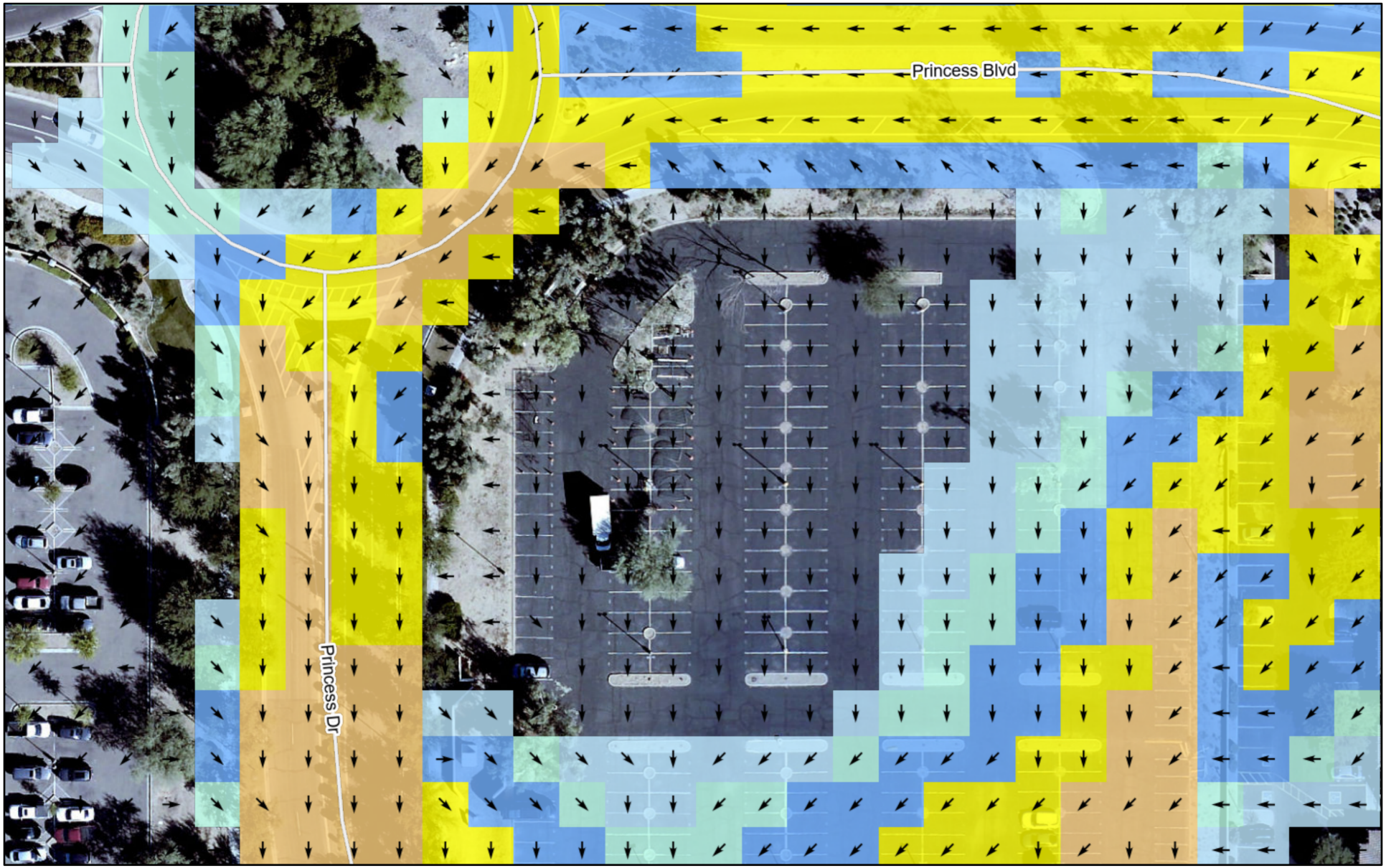
August 4, 2023

1:725

0 30 60 120 ft

0 10 20 40 m

121_PinnaclePeakWest - Lower Rawhide 100YR24HR Without Walls



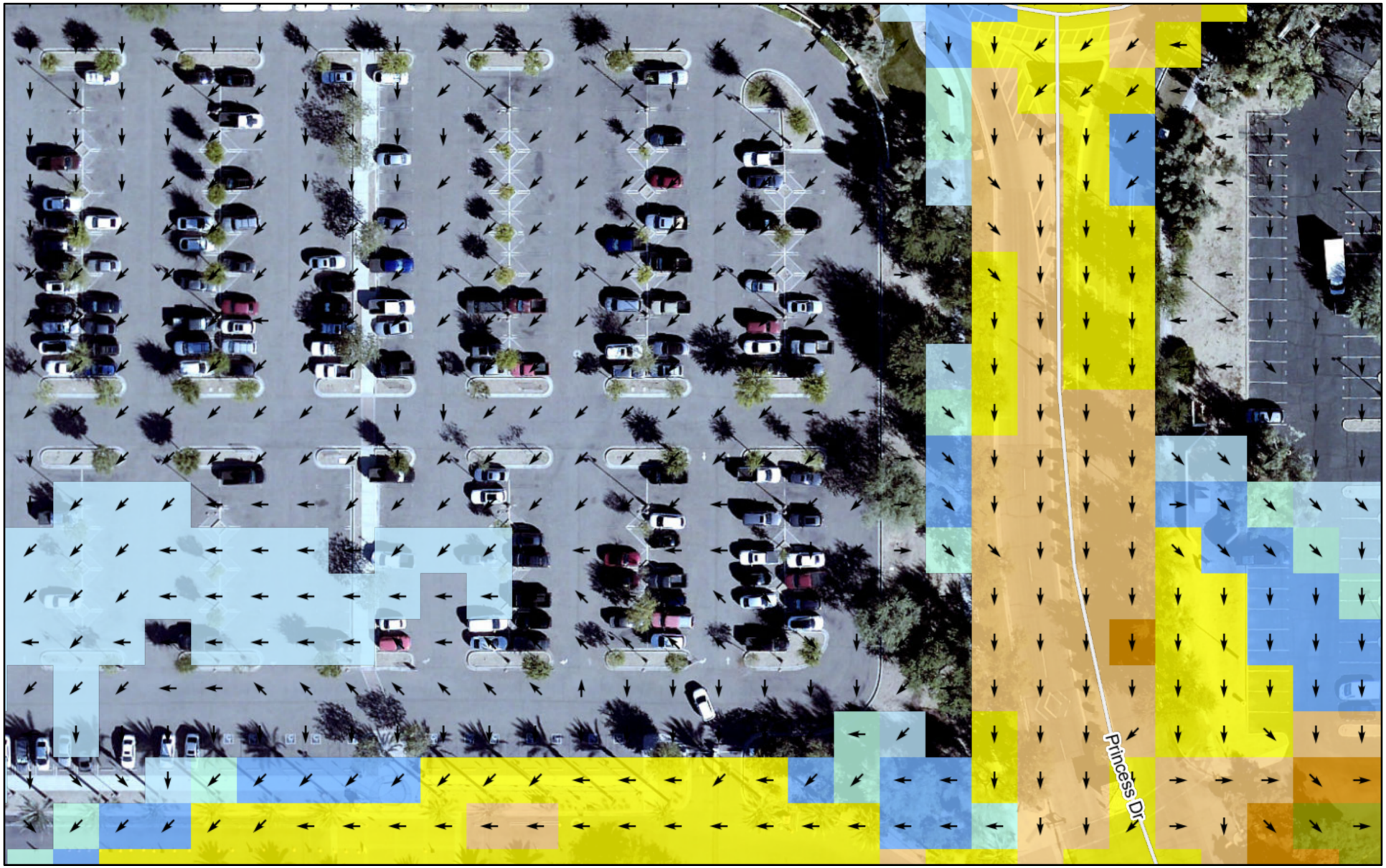
August 4, 2023

1:725

0 30 60 120 ft

0 10 20 40 m

121_PinnaclePeakWest - Lower Rawhide 100YR24HR Without Walls



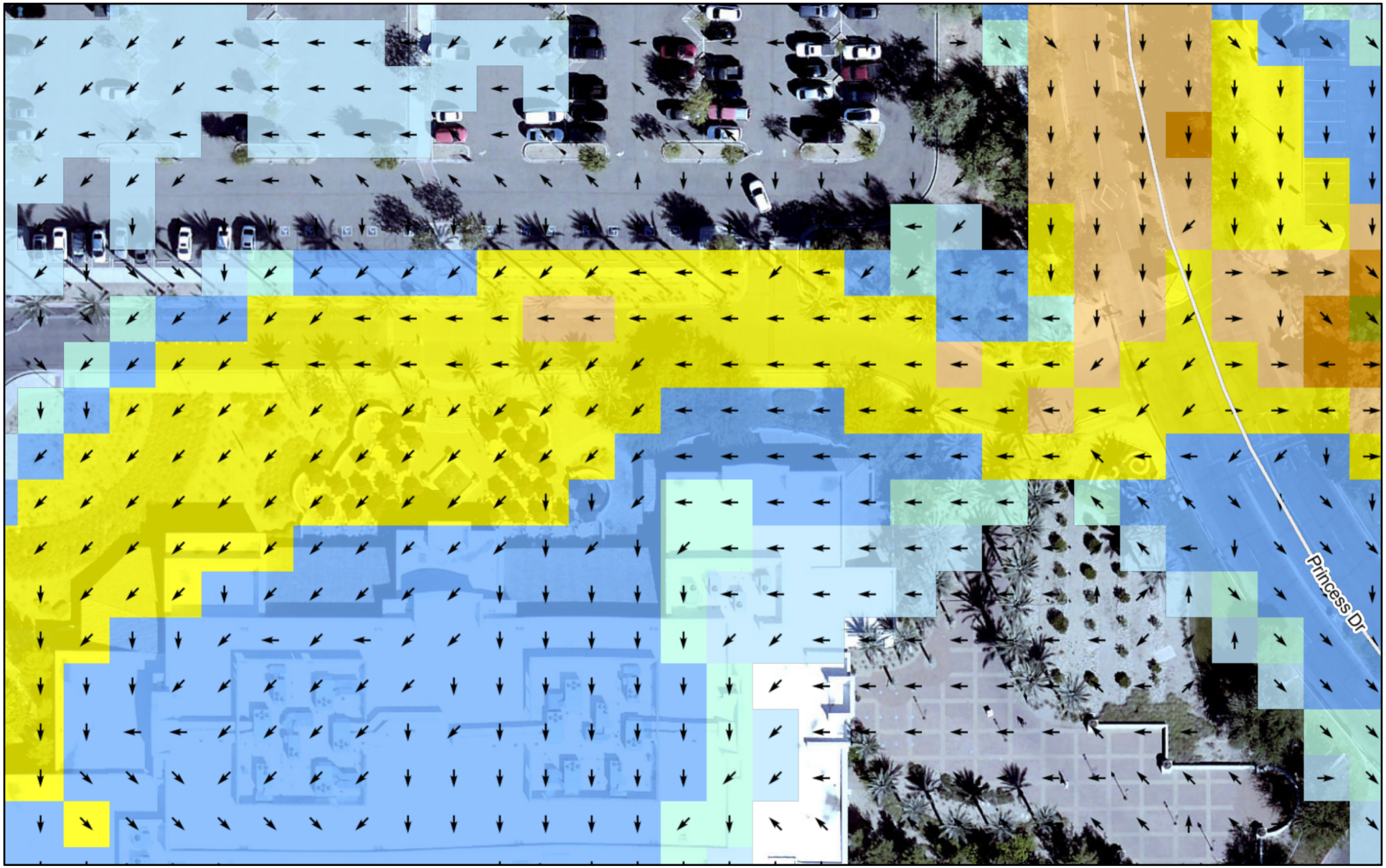
August 4, 2023

1:720

0 30 60 120 ft

0 10 20 40 m

121_PinnaclePeakWest - Lower Rawhide 100YR24HR Without Walls



August 4, 2023

1:720

0 30 60 120 ft

0 10 20 40 m

Flood Control District of Maricopa County Web Access Tool Data Legend

Model Boundary

Grid Boundaries

Flow Direction @ Peak Discharge

North

West

South

East

Northeast

Southeast

Southwest

Northwest

Labels

Pre-Defined Flow Direction

1

2

3

4

5

6

7

8

Floodplain X-Section

Peak Discharge (cfs)

<1

>1 - 5

>5 - 10

>10 - 25

>25 - 50

>50 - 75

>75 - 100

>100 - 150

>150 - 200

>200 - 500

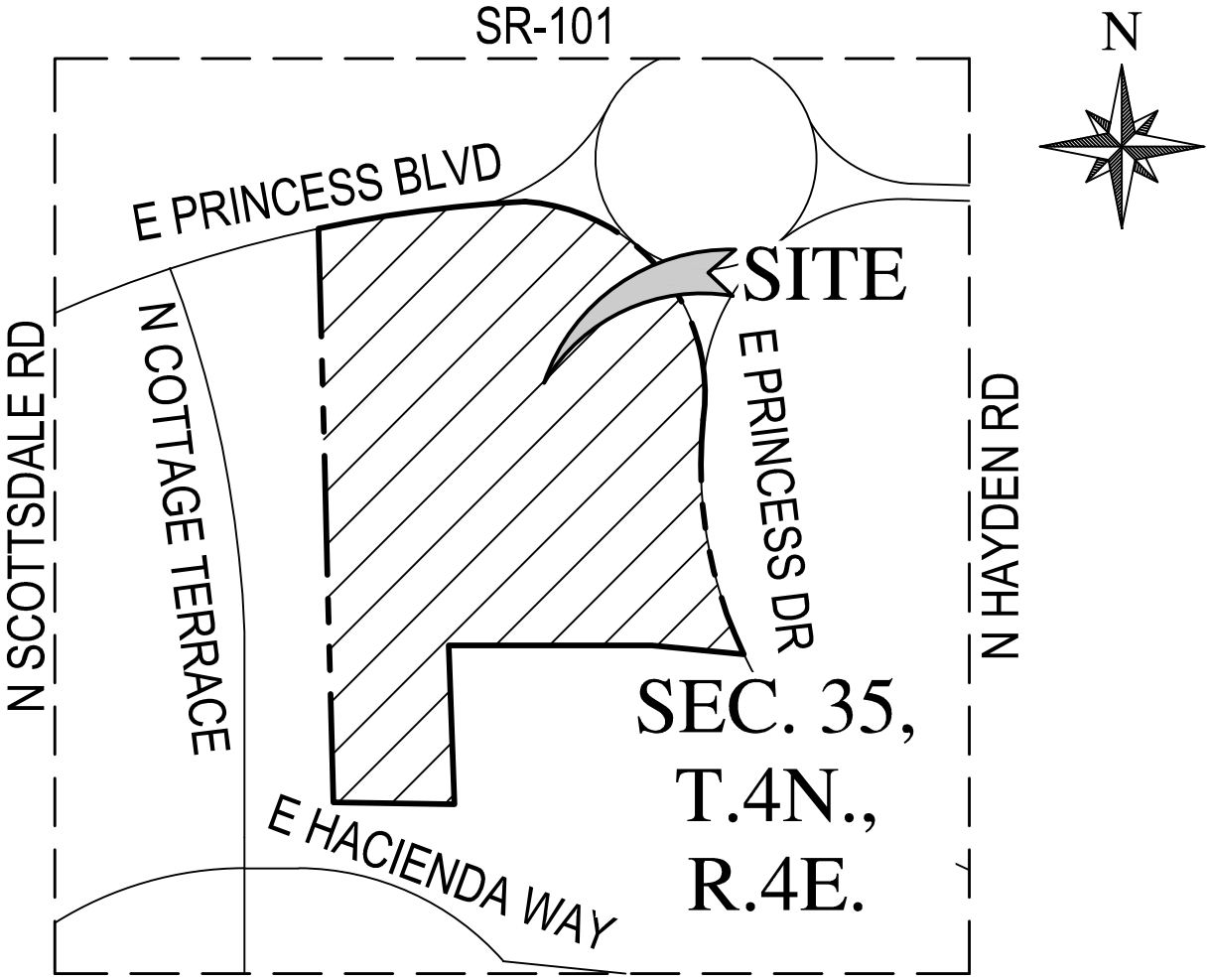
>500

Maximum Water Surface Elevation (ft)

Max Elev (Varies per model)

Min Elev (Varies per model)

EXHIBIT 1 – VICINITY MAP



VICINITY MAP

N.T.S.

NOT
FOR
CONSTRUCTION
OR RECORDING

WOOD PATEL

FAIRMONT SCOTTSDALE PRINCESS

CONFERENCE CENTER & EVENT LAWN VICINITY MAP EXHIBIT

DATE	08/04/2023	SCALE	N.T.S	SHEET	1 OF 1
JOB NO.	215319	DESIGN	AJS	CHECK	AJS
		DRAWN	DLH	RFI #	

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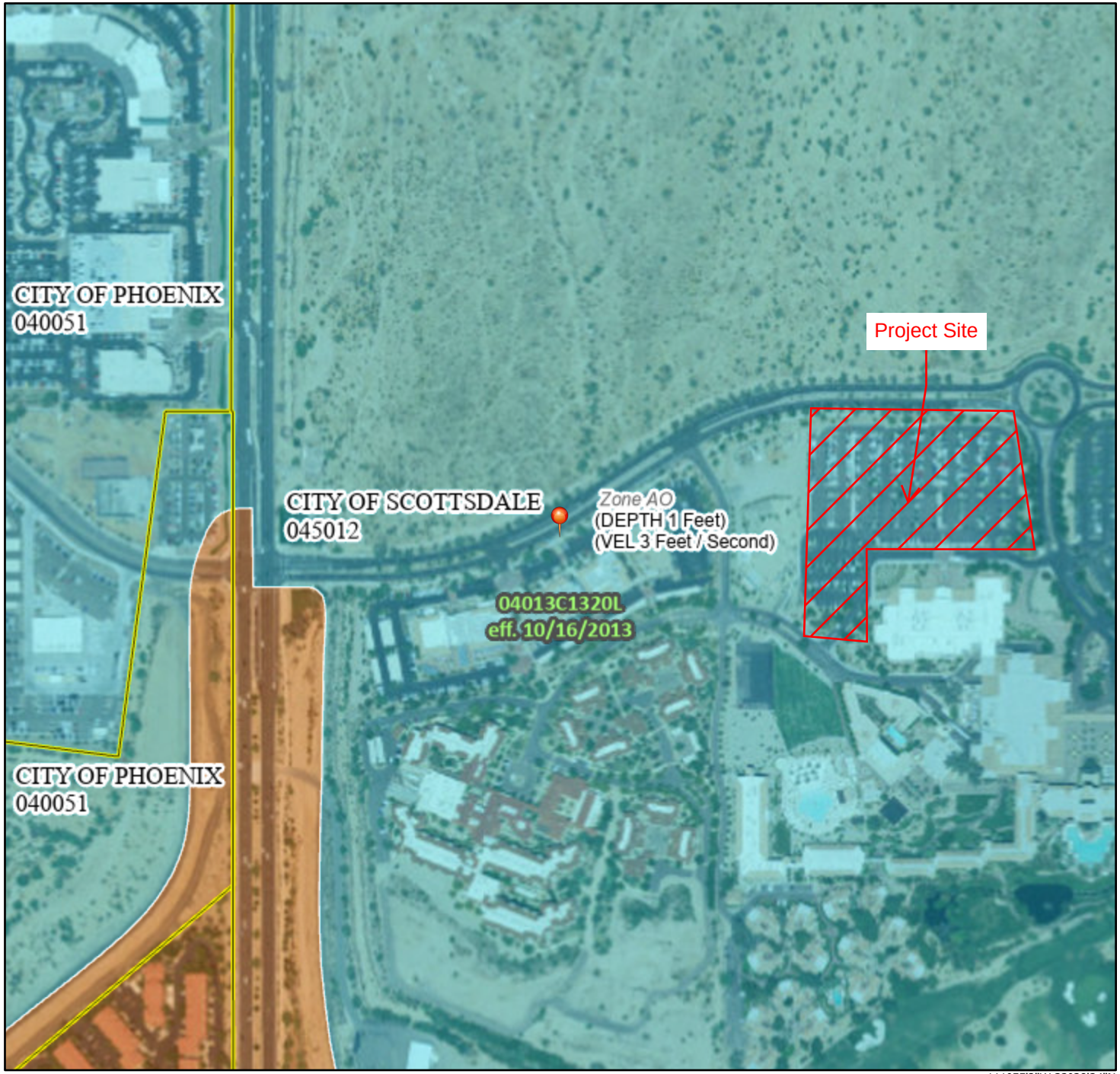
EXHIBIT 2 – FEMA FIRM

National Flood Hazard Layer FIRMette

FEMA

111°55'40"W 33°39'4"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

111°55'2"W 33°38'34"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

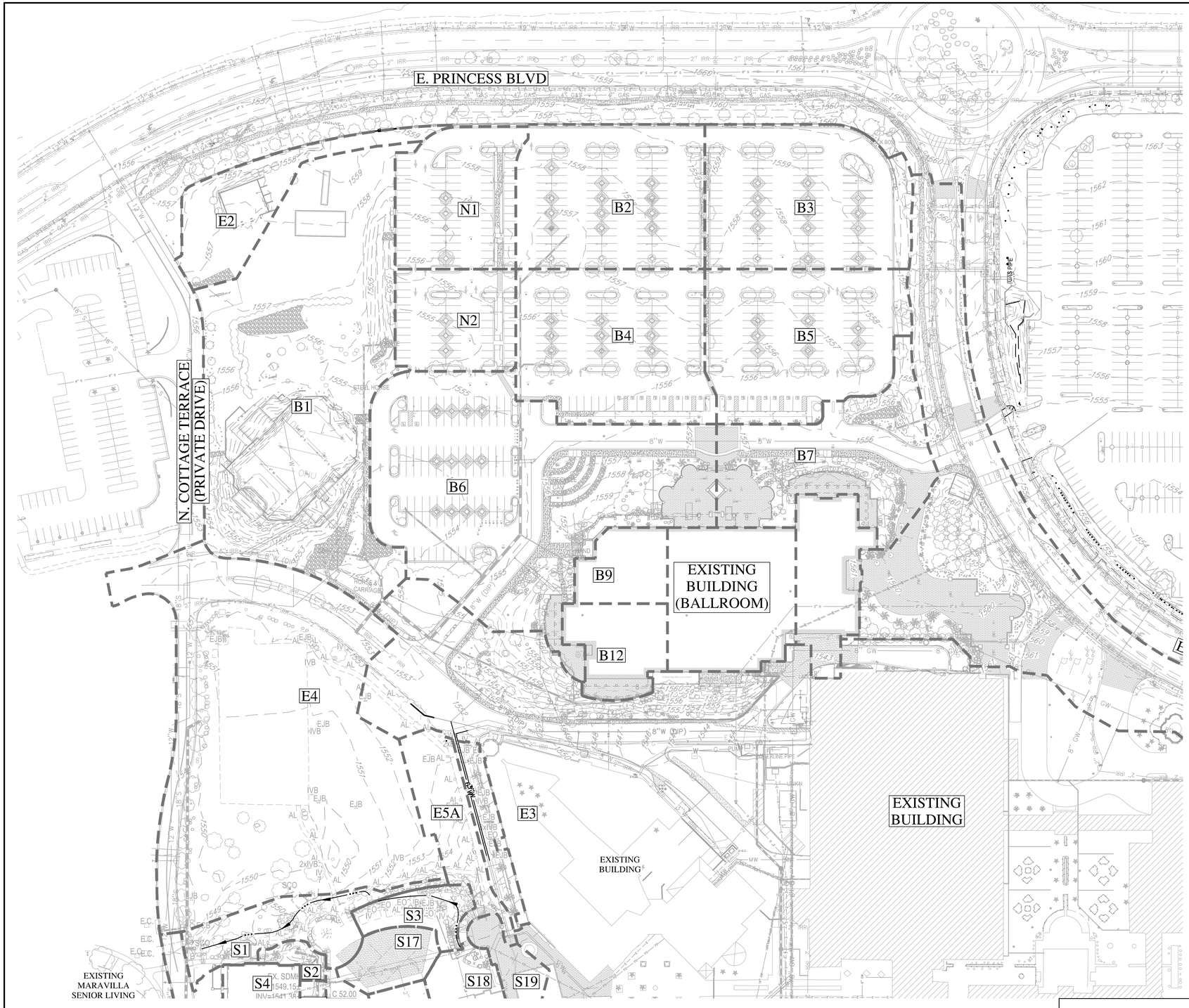
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/31/2021 at 1:10 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

EXHIBIT 3 – EXISTING DRAINAGE MAP



LEGEND

EXISTING DRAINAGE AREA

1 EXISTING DRAINAGE AREA

N

0 60 120

Horz. 1 in. = 60 ft.

NOT FOR CONSTRUCTION OR RECORDING

WOOD PATEL

FAIRMONT SCOTTSDALE PRINCESS

CONFERENCE CENTER & EVENT LAWN
EXISTING DRAINAGE MAP

DATE	08/04/2023	SCALE	1" = 60'	SHEET	1 OF 1
JOB NO.	215319	DESIGN	AJS	DRAWN	AJS

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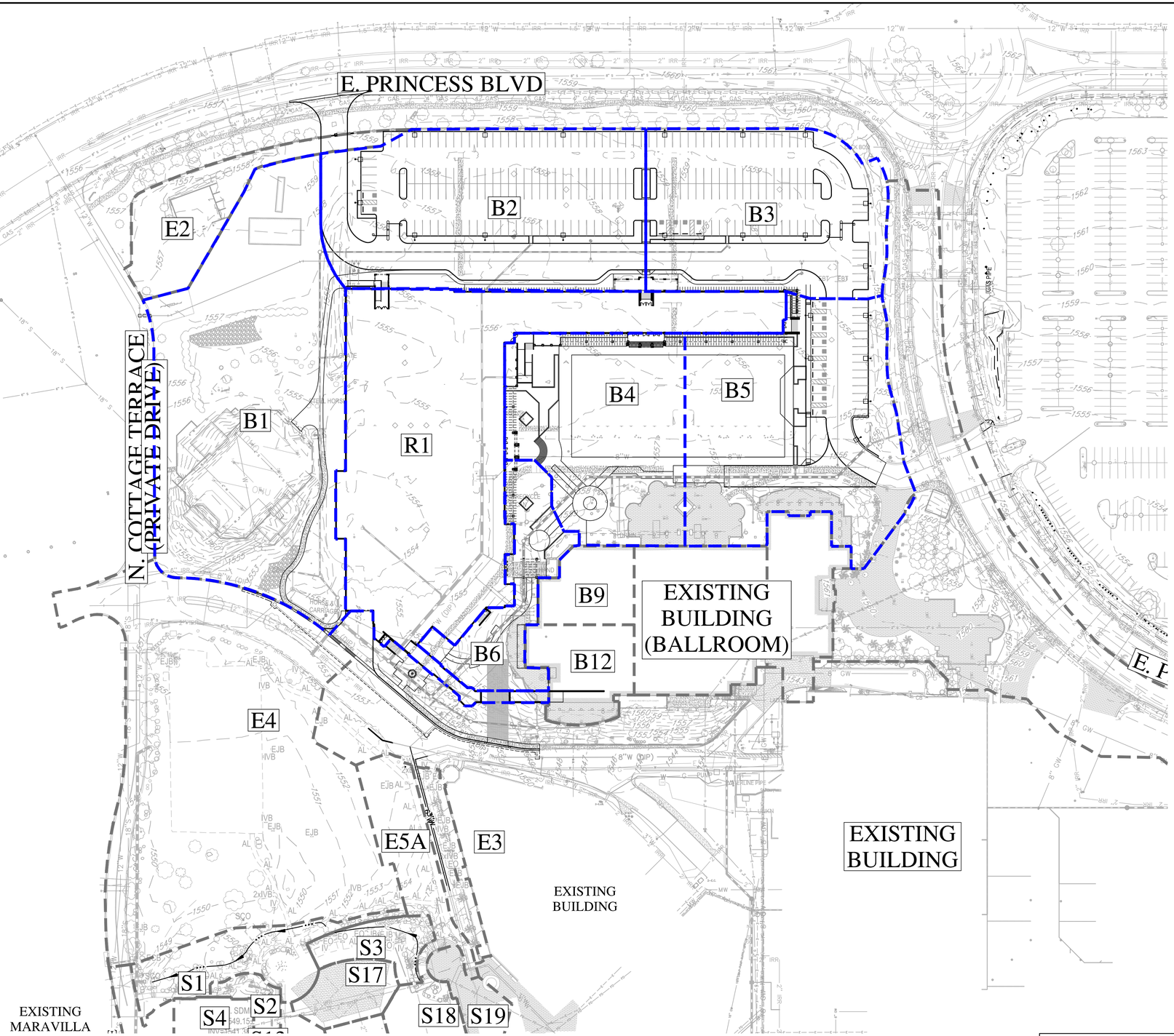
EXHIBIT 4 – PROPOSED DRAINAGE MAP



LEGEND

EXISTING DRAINAGE AREA

1 EXISTING DRAINAGE AREA

N

0 60 120

Horz. 1 in. = 60 ft.

NOT FOR CONSTRUCTION OR RECORDING

WOOD PATEL

FAIRMONT SCOTTSDALE PRINCESS

CONFERENCE CENTER & EVENT LAWN
PROPOSED DRAINAGE MAP

DATE	08/04/2023	SCALE	1" = 60'	SHEET	1 OF 1
JOB NO.	215319	DESIGN	AJS	DRAWN	AJS

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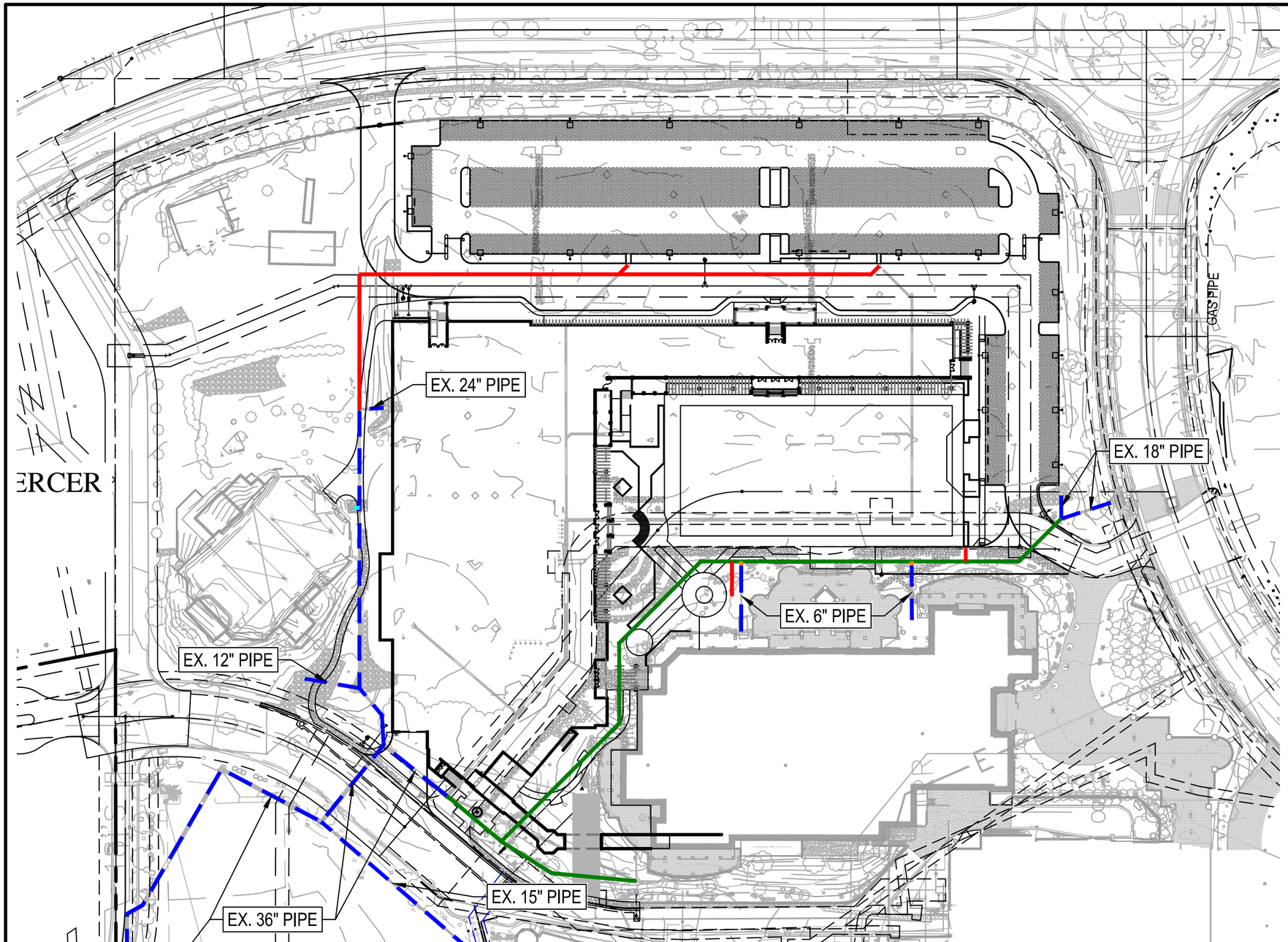
EXHIBIT 5 – STORM PIPE LAYOUT



N

0 50 100

Horz. 1 in. = 100 ft.

LEGEND

- EXISTING STORM DRAIN PIPE
- PROPOSED 6" STORM DRAIN PIPE
- PROPOSED 15" STORM DRAIN PIPE
- PROPOSED 18" STORM DRAIN PIPE
- PROPOSED 36" STORM DRAIN PIPE

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CONSTRUCTION
OR RECORDING

WOOD PATEL

FAIRMONT SCOTTSDALE PRINCESS

CONFERENCE CENTER & EVENT LAWN STORM PIPE LAYOUT - EXHIBIT 5

DATE	08/04/2023	SCALE	1" = 100'	SHEET	1 OF 1
JOB NO.	215319	DESIGN	AJS	DRAWN	AJS

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EXHIBIT 6 – AERIAL MAP

N

0 80 160

Horz. 1 in. = 80 ft.

NOT
FOR
CONSTRUCTION
OR RECORDING

WOOD PATEL

PRINCESS CONFERENCE CENTER

EXHIBIT 6
AERIAL MAP

DATE	08/04/2023	SCALE	1" = 80'	SHEET	01 OF 01
JOB NO	215319	DESIGN	AJS	DRAWN	AJS

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