HUNTER
ENGINEERING

CIVIL AND SURVEY

PRELIMINARY SEWER DESIGN REPORT
FOR
CENTERSCAPE MASTER PLAN
SEC of West McDowell Road &
North Bullard Avenue
Goodyear, Arizona

PREPARED FOR

SUNBELT INVESTMENT HOLDINGS, INC
8095 OTHELLO AVE
SAN DIEGO, CA 92111

PREPARED BY

HUNTER ENGINEERING, INC.
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NOVEMBER 2022

H.E. PROJECT NO. BELT043

CITY OF Goodyear

Approved by City of Goodyear

01/26/23

22-60000004 - CENTERSCAPE AT PALM VALLEY 2

INTRODUCTION

This sewer design summary has been prepared under contract with Sunbelt Investment Holdings. This is a master plan report required by the City of Goodyear to support the development. Each phase of development will be in general conformance with this master plan. Wastewater service is provided by the City of Goodyear.

The site is located at the southeast corner of West McDowell Road and North Bullard Road. More specifically, it is located within a portion of Section 4, Township 1 North, Range 1 West of the Gila and Salt River Base and Meridian. The site is bounded by McDowell Road and existing retail development to the north, Bullard Avenue to the west, Interstate 10 to the south, and 145th Avenue to the east.

The total site is approximately 35.6± acres. The project will contain 303 dwelling units and some amenity buildings on 15.9 acres of the site as well as several commercial buildings on the west half of the site which make up approximately 19.7 acres. The residential portion has a density of 19.3± dwelling units per acre. This master plan shall act as a guide for development and is conceptual in nature. The master plan may change as the project constraints are modified for the specific phases of development. It should be noted that a sewer report focusing on the townhomes portion was sent to the City of Goodyear for review and is in accordance with this master plan.

PROJECTED WASTEWATER FLOWS

Design flows are calculated according to the *City of Goodyear Engineering Design Standards and Policy Manual (Reference 1)* as shown below. Domestic sewer lines between 8-inches and 12-inches must be designed to accommodate 1000 gpdu when flowing full. This means that the 8-inch sewers must accommodate approximately 303,000 gpd which breaks out to 210 gpm for the multi-family portion. The remaining uses will be in conformance with city standards.

Calculations have also been included showing average and peak flows below. They are summarized in the table below. Detailed calculations have been included which show both 0.65 d/D calculations and full flow capacities.

Proposed Land Use	Dwelling Units Proposed	Acres	Average Daily Flow Rate (Table 6.3-2 of City of Goodyear Engineering Design Standards and Policies Manual)		Average Daily Flow (ADF) gpd	Average Daily Flow (ADF) gpm	Max Daily Flow (ADF*2.89) gpm
Residential	**303**		124	gpdu	37,572	26	75.40
Amenity Buildings		**0.29**	951	per Acre	278	0.19	0.56
Typical 24-Unit Apt*	***24***		*124*	*gpdu*	*2,976*	*2.07*	*5.97*
Regional commercial		***19.7***	*951*	*per Acre*	*18,735*	*13*	*38*
Existing commercial		***6.7***	*951*	*per Acre*	*6,334*	*4*	*13*
Total Wastewater Flow					**65,895**	**46**	**132**

EXISTING SEWER SYSTEM

There is an existing 12-inch sewer line that runs within this Centerscape master development which will need to be reconfigured to work with the proposed development. It currently runs east-west behind the existing retail buildings along McDowell and ties to an existing 12-inch north-south sewer within the overall development. That 12-inch sewer continues to the south where it ties into another existing 12-inch sewer that runs to the west and parallel with the I-10. From there it continues offsite.

The existing 12-inch sewer line runs at a slope between 0.20-0.35%. At the minimum slope of 0.20%, a manning's coefficient of 0.013, and a d/D ratio of 0.65, that sewer will have a capacity of 541 gpm. This will allow for a velocity within the City of Goodyear criteria of 2-10 fps. Calculations have been included showing the current capacity of this sewer line and this development's use of that 12-inch line.

This site is served by the Goodyear Water Reclamation Facility. This treatment facility, located at 157th Avenue and just north of the BID Canal, has a current treatment capacity of 4.0 MGD with a current expansion project to increase the capacity to 6.0 MGD. As stated in the 2016 Integrated Water Master Plan, the 2014 flows to this reclamation facility were 3.3 MGD.

SYSTEM IMPROVEMENTS

The proposed development will connect to the existing 12-inch sewer at multiple locations. The appartement building project along the east will be routed through the commercial site and connect to the existing 12-inch sewer which runs south of the existing

adjacent retail buildings. This tie-in will be an 8-inch private sewer line which will provide for 6-inch taps to each building. The remaining apartment buildings and amenity buildings will be provided with an 8-inch onsite private sewer system that will route the sewer between the buildings and continue into a new manhole added along the existing 12-inch within this overall development. At that manhole, the sewer will combine with the flows from the north two apartment buildings and existing retail buildings along McDowell Avenue.

There will be further build-out as part of this master plan which will include office buildings and retail. This master plan demonstrates how the entire property will be serviced; however, a separate submittal will be made which will include detailed plans with each phase of development. There will be CCR's or private sewer easements where portions of the sewer mains cross property lines. The future build-out and associated flows are delineated in this master planned sewer report.

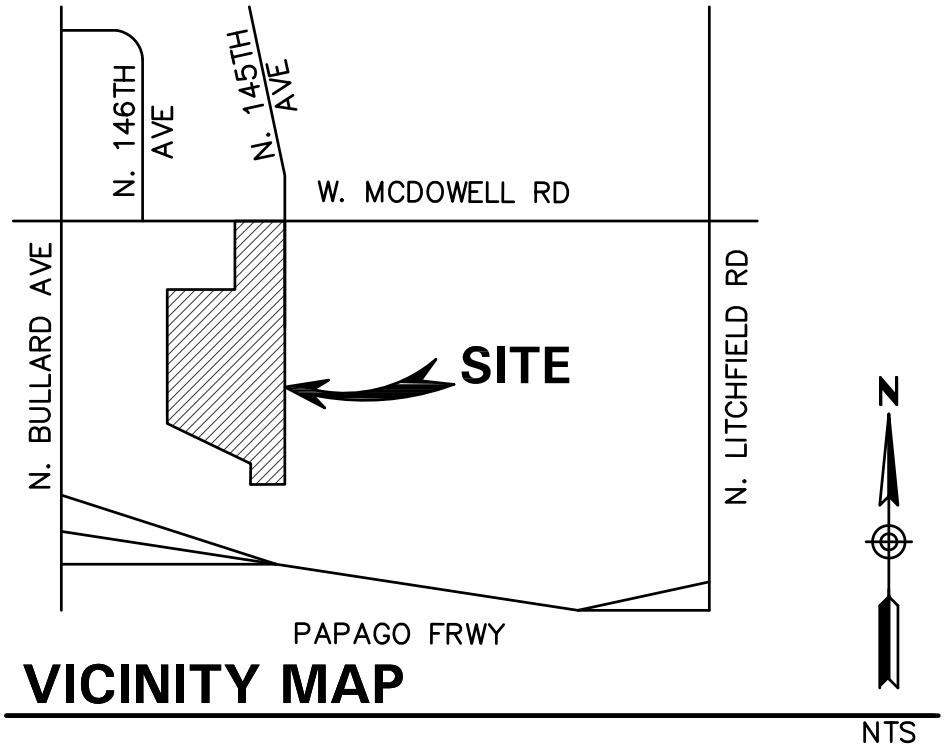
The development to the east is being serviced by a lift station to serve their project because a gravity connection can't be provided. That lift station has a force main that runs through the southern portion of the site. A sewer easement has been provided to the adjacent property for the force main and gravity connection. The sewer system also provides service to the existing commercial pads along the north and those flows have been incorporated into this report.

CONCLUSIONS

Based on the results of this study, it can be concluded that the existing sewer infrastructure should be sufficient for the proposed development and that the change in zoning will not adversely impact the sewer design.

APPENDIX A

FIGURES



VICINITY MAP

VICINITY MAP
FIGURE 1

APPENDIX B
CALCULATIONS

Project: **Sanctuar Masterplan**
Project No.: **BELT043**
County: **GOODYEAR, AZ**

PROJECTED WASTEWATER GENERATION

Proposed Land Use	Dwelling Units Proposed	Acres	Average Daily Flow Rate (Table 6.3-2 of City of Goodyear Engineering Design Standards and Policies Manual)		Average Daily Flow (ADF) gpd	Average Daily Flow (ADF) gpm	Max Daily Flow (ADF*2.89) gpm
Residential	**303**		124	gpdu	37,572	26	75
Amenity Buildings		**0.29**	951	per Acre	278	0	1
Typical 24-Unit Apt*	***24***		*124*	*gpdu*	*2,976*	*2*	*6*
Regional commercial		***19.7***	*951*	*per Acre*	*18,735*	*13*	*38*
Existing commercial		***6.7***	*951*	*per Acre*	*6,334*	*4*	*13*
Total Wastewater Flow					**65,895**	**46**	**132**

Used for calculation on 6-inch tap

Project Summary Report

Project Description	
Worksheet	6" @ 0.50% d/D = 0.65 Capacity
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coeffic	.01300	
Channel Slope	0.0050	ft/ft
Depth	3.90	in
Diameter	6.0	in

Results		
Discharge	135	gpm
Flow Area	0.1	ft²
Wetted Perime	0.94	ft
Top Width	0.00	ft
Critical Depth	0.28	ft
Percent Full	65.0	%
Critical Slope	0.0082	ft/ft
Velocity	2.22	ft/s
Velocity Head	0.08	ft
Specific Energy	4.82	in
Froude Numbe	0.74	
Maximum Disc	192	gpm
Discharge Full	178	gpm
Slope Full	0.0029	ft/ft
Flow Type	Subcritical	

Project Summary Report

Project Description	
Worksheet	6" @ 0.50% Full Flow Capacity
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Capacity

Input Data		
Mannings Coeffic	.01300	
Channel Slope	0.0050	ft/ft
Diameter	6.0	in

Results		
Depth	6.00	in
Discharge	178	gpm
Flow Area	0.2	ft²
Wetted Perime	1.57	ft
Top Width	0.00	ft
Critical Depth	0.32	ft
Percent Full	100.0	%
Critical Slope	).0091	ft/ft
Velocity	2.02	ft/s
Velocity Head	0.06	ft
Specific Energ	6.76	in
Froude Numbe	0.00	
Maximum Disc	192	gpm
Discharge Full	178	gpm
Slope Full	).0050	ft/ft
Flow Type	N/A	

Project Summary Report

Project Description	
Worksheet	6" @ 0.50% Max Flow - 24-Unit Apt
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coeffic	.01300	
Channel Slope	0.0050	ft/ft
Diameter	6.0	in
Discharge	6	gpm

Results		
Depth	0.75	in
Flow Area	0.0	ft²
Wetted Perime	0.36	ft
Top Width	0.00	ft
Critical Depth	0.06	ft
Percent Full	12.6	%
Critical Slope	0.0082	ft/ft
Velocity	0.94	ft/s
Velocity Head	0.01	ft
Specific Energy	0.92	in
Froude Numbe	0.79	
Maximum Disc	192	gpm
Discharge Full	178	gpm
Slope Full	0.0000	ft/ft
Flow Type	Subcritical	

Project Summary Report

Project Description	
Worksheet	8" @ 0.33% d/D = 0.65 Capacity
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coeffic	.01300	
Channel Slope	0.0033	ft/ft
Depth	5.20	in
Diameter	8.0	in

Results		
Discharge	236	gpm
Flow Area	0.2	ft²
Wetted Perime	1.25	ft
Top Width	0.00	ft
Critical Depth	0.34	ft
Percent Full	65.0	%
Critical Slope	0.0071	ft/ft
Velocity	2.19	ft/s
Velocity Head	0.07	ft
Specific Energy	6.09	in
Froude Numbe	0.63	
Maximum Disc	335	gpm
Discharge Full	312	gpm
Slope Full	0.0019	ft/ft
Flow Type	Subcritical	

Project Summary Report

Project Description	
Worksheet	8" @ 0.33% Full Flow Capacity
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Capacity

Input Data		
Mannings Coeffic	.01300	
Channel Slope	0.0033	ft/ft
Diameter	8.0	in

Results		
Depth	8.00	in
Discharge	312	gpm
Flow Area	0.3	ft²
Wetted Perime	2.09	ft
Top Width	0.00	ft
Critical Depth	0.39	ft
Percent Full	100.0	%
Critical Slope	).0077	ft/ft
Velocity	1.99	ft/s
Velocity Head	0.06	ft
Specific Energ	8.74	in
Froude Numbe	0.00	
Maximum Disc	335	gpm
Discharge Full	312	gpm
Slope Full	).0033	ft/ft
Flow Type	N/A	

Project Summary Report

Project Description	
Worksheet	Existing 12" @ 0.20% - Max Flow
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coeffic	.01300	
Channel Slope	0.0020	ft/ft
Diameter	12.0	in
Discharge	76	gpm

Results		
Depth	2.64	in
Flow Area	0.1	ft²
Wetted Perime	0.98	ft
Top Width	0.00	ft
Critical Depth	0.17	ft
Percent Full	22.0	%
Critical Slope	0.0059	ft/ft
Velocity	1.32	ft/s
Velocity Head	0.03	ft
Specific Energy	2.97	in
Froude Numbe	0.59	
Maximum Disc	769	gpm
Discharge Full	715	gpm
Slope Full	0.0000	ft/ft
Flow Type	Subcritical	

Project Summary Report

Project Description	
Worksheet	Existing 12" @ 0.20% d/D = 0.65 Capacity
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coeffic	.01300	
Channel Slope	0.0020	ft/ft
Depth	7.80	in
Diameter	12.0	in

Results		
Discharge	541	gpm
Flow Area	0.5	ft²
Wetted Perime	1.88	ft
Top Width	0.00	ft
Critical Depth	0.46	ft
Percent Full	65.0	%
Critical Slope	0.0060	ft/ft
Velocity	2.23	ft/s
Velocity Head	0.08	ft
Specific Energy	8.73	in
Froude Numbe	0.52	
Maximum Disc	769	gpm
Discharge Full	715	gpm
Slope Full	0.0011	ft/ft
Flow Type	Subcritical	

Project Summary Report

Project Description	
Worksheet	Existing 12" @ 0.20% Full Flow Capacity
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Capacity

Input Data		
Mannings Coeffic	.01300	
Channel Slope	0.0020	ft/ft
Diameter	12.0	in

Results		
Depth	12.00	in
Discharge	715	gpm
Flow Area	0.8	ft²
Wetted Perime	3.14	ft
Top Width	0.00	ft
Critical Depth	0.54	ft
Percent Full	100.0	%
Critical Slope	).0063	ft/ft
Velocity	2.03	ft/s
Velocity Head	0.06	ft
Specific Energ	12.77	in
Froude Numbe	0.00	
Maximum Disc	769	gpm
Discharge Full	715	gpm
Slope Full	).0020	ft/ft
Flow Type	N/A	

APPENDIX C
REFERENCE INFORMATION

5. All manholes where the incoming line is 60 degrees to 90 degrees from the projection of the downstream sewer, 0.20 feet of drop is required.

6. For manholes with a line intersecting the through-line, the intersection line invert shall be a minimum of 0.10 feet above the flow line of the through-line. The sewer lines shall intersect at no greater than a 90-degree angle.

H. Curved Sewers

Horizontal curvilinear sewers will not be accepted.

I. Tie-in to Existing System

Construction plans shall call for the Contractor to tie-in new work to the existing, active system only after completion of the new work, and with specific approval of the Engineering Inspector to make the tie-in.

J. Design Flows

Domestic sewage systems shall be designed in accordance with the following:

1. Sewer lines 8 to 12 inches in diameter:

   a. Shall be designed with peak capacities of not less than 1000 gpdu when flowing full. Note that the d/D used in this calculation shall be based on full flow.

2. Sewer mains larger than 12 inches in diameter:

   a. Shall be designed using the criteria identified in the City's Wastewater Master Plan. The current master plan can be downloaded from the City's Engineering website.

   b. The Maximum Day wastewater generation rate used to determine line size capacities shall equal 2.89 times the Average Day generation rate.

   c. Table 6.3-2 below lists the wastewater generation rates identified in the current Master Plan. Refer to the Master Plan for additional information regarding the implementation and use of these generation rates.

TABLE 6.3-2 – Average Day Wastewater Generation Rates

Land Use	WW Generation (gpdu)	WW Generation (gpad)
Agricultural Preservation - 1 DU per acre	176	
Residential < 2 DU per acre	160	
Residential - 2 to 4 DU per acre	144	
Residential - 4 to 6 DU per acre	129	
Residential - 6 to 10 DU per acre	128	
Residential - 10 to 20 DU per acre	124	
Residential - 20+ DU per acre	110	
Community Commercial		951
Regional Commercial		1,087
Luke-Compatible Land Use		1,087
City Center		5,776
Ball Park Village		3,851
Light Industrial		815
General Industrial		1,087
Public / Quasi Public		1,019
Prison		1,699
Airport		170

Generation Rates per City's Wastewater Master Plan, Black & Veatch, June 2008

6.3.2 MANHOLES

A. Materials and Details

All manholes shall be 5 feet in diameter and per MAG Standard Details and Specifications. Manhole frames and covers shall be Class 35, and their weights and dimensions shall be in accordance with details shown in MAG Standard Detail 424. Manholes used in the City wastewater system will not contain built-in steps. See the City Approved Materials List for Wastewater.

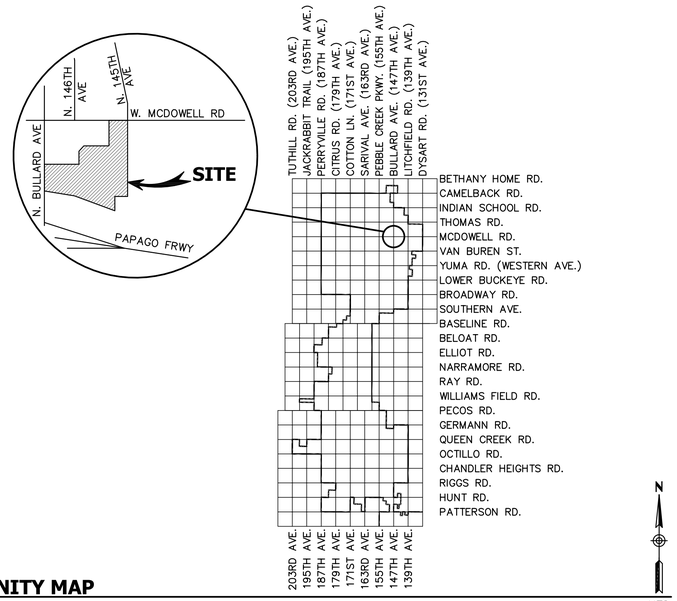
1. City approved corrosion resistant coating of sewer manholes shall be required under one or more of the following conditions:

BACK POCKET

UTILITY PLANS

PRELIMINARY GRADING, DRAINAGE AND UTILITY PLANS
AT
CENTERSCAPE MASTER PLAN
W MCDOWELL ROAD AND N 145TH AVENUE
GOODYEAR, ARIZONA

A PORTION OF THE NW QUARTER OF SECTION 4, TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA



VICINITY MAP

SHEET INDEX

EXISTING LEGEND

CENTERLINE	
RIGHT OF WAY	
PROPERTY LINE	
EASEMENT	
MAJOR CONTOUR	1035
MINOR CONTOUR	1032
SANITARY SEWERLINE	SS
UNDERGROUND GAS	UGG
UNDERGROUND FIBER OPTIC	UGFO
WATERLINE	W
CHAIN LINK FENCE	X
DOWN GUY/ANCHOR	
POWER POLE	
STREET LIGHT	
SANITARY SEWER MANHOLE	
WATER VALVE	
FIRE HYDRANT	

PROPOSED LEGEND

EASEMENT	
CONTOUR	43
STORM PIPE	
GRADE BREAK	
FLOW LINE	
DIRECTION OF SLOPE	
SPOT ELEVATION	23.45G
SECTION CALLOUT	1 / C1
BACKFLOW DEVICE	
WATER METER	
FIRE HYDRANT	
SEWER LINE	S
FIRE LINE	F
WATER LINE	W
CATCH BASIN	
HEADWALL	

ABBREVIATIONS

APN	ASSESSOR PARCEL NUMBER	GR	GRATE	RCW	RECLAIMED WATER
BC	BACK OF CURB	HP	HIGH POINT	R/W	RIGHT OF WAY
BOT	BOTTOM	HW	HIGH WATER	SD	STORM DRAIN
C	CONCRETE	IE	INVERT ELEVATION	SF	SQUARE FEET
℄	CENTERLINE	IRR	IRRIGATION	SS	SANITARY SEWER
CF	CUBIC FEET	LF	LINEAR FEET	SW	SIDEWALK
CFS	CUBIC FEET PER SECOND	LP	LOW POINT	STA	STATION
CY	CUBIC YARD	MCR	MARICOPA COUNTY RECORDER	SY	SQUARE YARDS
DE	DRAINAGE EASEMENT	ML	MATCH LINE	TC	TOP OF CURB
DW	DRYWELL	M	MONUMENT LINE	TEL	TELEPHONE
EA	EACH	MUTE	MULTI USE TRAIL EASEMENT	TF	TOP OF FOOTING
EL	ELEVATION	NTS	NOT TO SCALE	THR	TOP OF HANDRAIL
EP	EDGE OF PAVEMENT	OHE	OVERHEAD ELECTRIC	TS	TRAFFIC SIGNAL
ESMT	EASEMENT	P	PAVEMENT	UGFO	UNDERGROUND FIBER OPTIC
EG	EXISTING GRADE	PAE	PUBLIC ACCESS EASEMENT	UGE	UNDERGROUND ELECTRIC
EX	EXISTING	PDE	PUBLIC DRAINAGE EASEMENT	UGT	UNDERGROUND TELEPHONE
FC	FACE OF CURB	P℄	PROPERTY LINE	UTS	UNDERGROUND TRAFFIC SIGNAL
FF	FINISH FLOOR	POB	POINT OF BEGINNING	VG	VALLEY GUTTER
FG	FINISH GRADE	POC	POINT OF COMMENCEMENT	VNAE	VEHICULAR NON–ACCESS EASEMENT
FL	FLOWLINE	PUE	PUBLIC UTILITY EASEMENT	VOL	VOLUME
FT/FT	FOOT PER FOOT	PUFE	PUBLIC UTILITY FACILITIES EASEMENT	VP	VOLUME PROVIDED
FM	FORCE MAIN	PVI	POINT OF VERTICAL INTERSECTION	VR	VOLUME REQUIRED
G	GUTTER	PVMT	PAVEMENT	W	WATER
GB	GRADE BREAK	PC	PAVEMENT/CONCRETE	WLE	WATER LINE EASEMENT

LEGAL DESCRIPTION

EXHIBIT 'A' PER FILE NO. NCS–935668–PHX–1, FIRST AMERICAN TITLE INSURANCE COMPANY. PROVIDED BY CLIENT.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF MARICOPA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

PARCEL NO. 1

PARCEL 1, MINOR LAND DIVISION MAP OF CENTERSCAPE AT PALM VALLEY ACCORDING TO THE PLAT OF RECORD IN BOOK 1044 OF MAPS, PAGE 20, RECORDS OF MARICOPA COUNTY, ARIZONA AND BEING SITUATED IN A PORTION OF G.L.O. LOT 3 AND G.L.O. LOT 4, SECTION 4, TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT THEREFROM THE FOLLOWING DESCRIBED PARCEL:

WELL SITE

A PORTION OF PARCEL 1, MINOR LAND DIVISION MAP OF CENTERSCAPE AT PALM VALLEY ACCORDING TO THE PLAT OF RECORD IN BOOK 1044 OF MAPS, PAGE 20, RECORDS OF MARICOPA COUNTY, ARIZONA AND BEING SITUATED IN A PORTION OF G.L.O. LOT 3, SECTION 4, TOWNSHIP 1 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 4;

THENCE SOUTH 89°23'22" EAST ALONG THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 4, A DISTANCE OF 1563.82 FEET; THENCE SOUTH 0°40'48" WEST, A DISTANCE OF 1394.00 FEET; THENCE NORTH 89°01'40" WEST, A DISTANCE OF 35.00 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL;
THENCE CONTINUING NORTH 89°01'40" WEST, A DISTANCE OF 8.00 FEET;
THENCE NORTH 0°40'48" EAST, A DISTANCE OF 16.00 FEET;
THENCE SOUTH 89°01'40" EAST, A DISTANCE OF 8.00 FEET;
THENCE SOUTH 0°40'48" WEST, A DISTANCE OF 16.00 FEET TO THE POINT OF BEGINNING.

PARCEL NO. 2

NON–EXCLUSIVE EASEMENTS AS SET FORTH IN AMENDED AND RESTATED DECLARATION OF EASEMENTS, COVENANTS, CONDITIONS AND RESTRICTIONS RECORDED OCTOBER 15, 2009 AS 2009–0957068 OF OFFICIAL RECORDS AND SUPPLEMENT TO AMENDED RECORDED AS 2011–0078902 OF OFFICIAL RECORDS.

PARCEL NO. 3

NON–EXCLUSIVE EASEMENTS AS SET FORTH IN SHARED PARKING, ACCESS AND DEVELOPMENT AGREEMENT RECORDED JANUARY 8, 2010 AS 2010–0018870 OF OFFICIAL RECORDS AND THEREAFTER ASSIGNMENT AND ASSUMPTION RECORDED JULY 16, 2010 AS 2010–0607128 OF OFFICIAL RECORDS.

PARCEL NO. 4

NON–EXCLUSIVE EASEMENT FOR DRAINAGE, AND DRAINAGE RIGHTS, AS SET FORTH IN THAT CERTAIN AGREEMENT BETWEEN MARICOPA COUNTY AND SUNCOR DEVELOPMENT COMPANY FOR CONTRIBUTION, DRAINAGE RIGHTS, AND EASEMENTS RECORDED AUGUST 25, 2003 AS 2003–1177794 OF OFFICIAL RECORDS.

UTILITY SERVICE PROVIDERS

SEWER:	LIBERTY UTILITIES (FORMERLY LITCHFIELD PARK SERVICE COMPANY)
WATER:	LIBERTY UTILITIES (FORMERLY LITCHFIELD PARK SERVICE COMPANY)
GAS:	SOUTHWEST GAS CORPORATION
ELECTRIC:	ARIZONA PUBLIC SERVICE (APS)
TELEPHONE:	CENTURY LINK
CATV	COX COMMUNICATIONS
IRRIGATION	MARICOPA WATER DISTRICT

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CONTACT: DENISE ANDREAS
PHONE: 602–952–8280
EMAIL: DANDREAS@TODDASSOC.COM

OWNER/DEVELOPER
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1437 N. FIRST STREET, SUITE 201
PHOENIX, ARIZONA 85004
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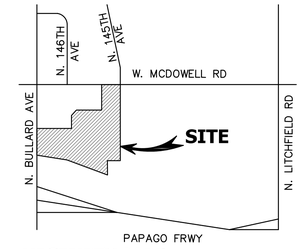
PHONE: 480–772–7185
EMAIL: TSMITH@SUNBELTINV.COM



VICINITY MAP

SITE AREA:
NET AREA: 15.94± AC
GROSS AREA: 15.94± AC

FEMA CLASSIFICATION
THE CURRENT FEMA FLOOD INSURANCE RATE MAP (FIRM) FOR THIS AREA, MAP NUMBER 04013C 2155L (EFFECTIVE REVISED DATE OCTOBER 16, 2013), DESIGNATES THE PROPERTY WITHIN FLOOD HAZARD ZONE X

ZONE: X IS DEFINED AS AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT, OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

ZONE: AH: IS DEFINED AS AREAS SUBJECT TO INUNDATION BY 1–PERCENT–ANNUAL–CHANCE SHALLOW FLOODING (USUALLY AREAS OF PONDING) WHERE AVERAGE DEPTHS ARE BETWEEN AND THREE FEET. BASE FLOOD ELEVATIONS (BFES) DERIVED FROM DETILED HYDRAULIC ALALYSES ARE SHOWN IN THIS ZONE. MANDATORY FLOOD INSURANCE PURCHASE REQUIREMENTS AND FLOODPLAIN MANAGEMENT STANDARDS APPLY.

UNDERGROUND UTILITY NOTE
THE UTILITIES DEPICTED HEREON ARE BASED UPON AS–BUILT AND SURVEY INFORMATION. CONTRACTOR TO CONTACT BLUE STAKE 48 HOURS PRIOR TO ANY ON–SITE CONSTRUCTION AND FIELD VERIFY EXACT LOCATIONS OF ALL UTILITIES. IF DISCREPANCIES EXIST CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.

BENCHMARK
BRASS CAP IN HANDHOLE AT THE INTERSECTION OF BULLARD AVENUE AND MCDOWELL ROAD.
ELEVATION=997.53 (CITY OF GOODYEAR DATUM) NAVD 29

BRASS CAP IN HANDHOLE AT THE INTERSECTION OF LITCHFIELD ROAD AND MCDOWELL ROAD.
ELEVATION=990.73 (CITY OF GOODYEAR DATUM) NAVD 29

BASIS OF BEARING
S89°23'22"E (ASSUMED) ALONG THE NORTH LINE OF THE NW1/4 SECTION 4, T1N, R1W, G&SRB&M, MARICOPA COUNTY ARIZONA.

NO.	DATE	REVISION	BY

PURPOSE: 2ND SUBMITTAL MASTER PLAN

DESIGN BY: JH
DRAWN BY: RC
CHECKED BY: JH

HUNTER ENGINEERING
CIVIL AND SURVEY
10450 NORTH 74TH STREET, SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986

Professional Engineer
CERTIFICATE NO.
35249
JEFF M. HUNTER
11/14/24
ARIZONA U.S.A.

PRELIMINARY COVER SHEET
FOR
CENTERSCAPE MASTER PLAN
W MCDOWELL RD & N BULLARD AVE
GOODYEAR, ARIZONA

CONTACT ARIZONA 811 AT LEAST 2 FULL WORKING DAYS BEFORE YOU BEGIN EXCAVATION
AR ZONA811
ARIZONA BLUE STAKE, INC.
CALL 811 OR CLICK ARIZONA811.COM

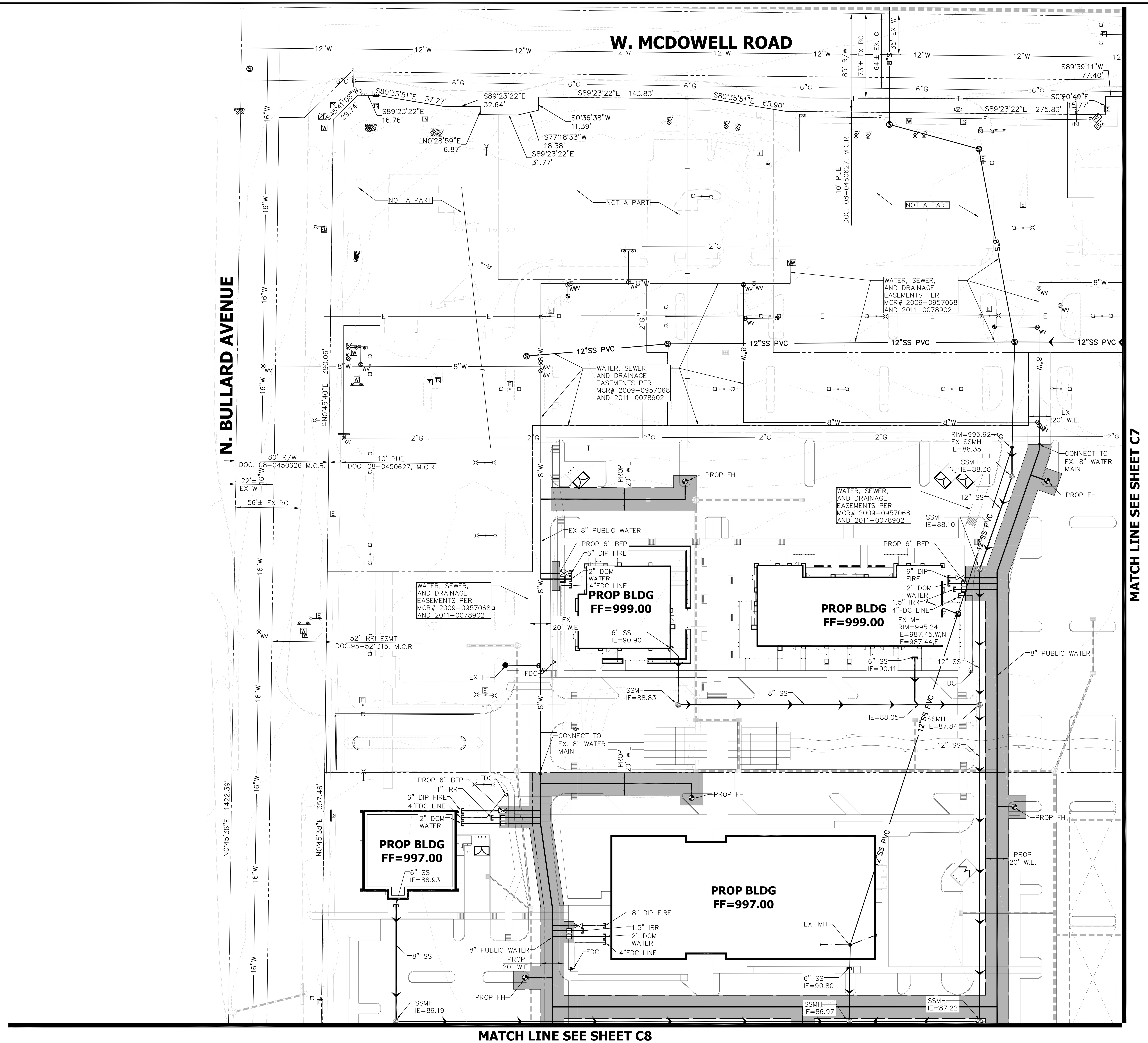
THESE PLANS ARE NOT APPROVED FOR CONSTRUCTION WITHOUT AN APPROVED SIGNATURE FROM THE GOVERNING MUNICIPALITY.

PROJECT NAME:
SANCTUAIR
AT
CENTERSCAPE

HE NO.: BELT043
SCALE: NTS

SHEET:
C1

HTE



NO. | DATE | REVISION | BY

PURPOSE: 2ND SUBMITTAL MASTER PLAN

DESIGN BY: JH
DRAWN BY: RJ
CHECKED BY: JH

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Registered Professional Engineer — CERTIFICATE NO. 35249 JEFF M. HUNTER

CONCEPTUAL UTILITY PLAN FOR CENTERSCAPE MASTER PLAN W MCDOWELL RD & N BULLARD AVE GOODYEAR, ARIZONA

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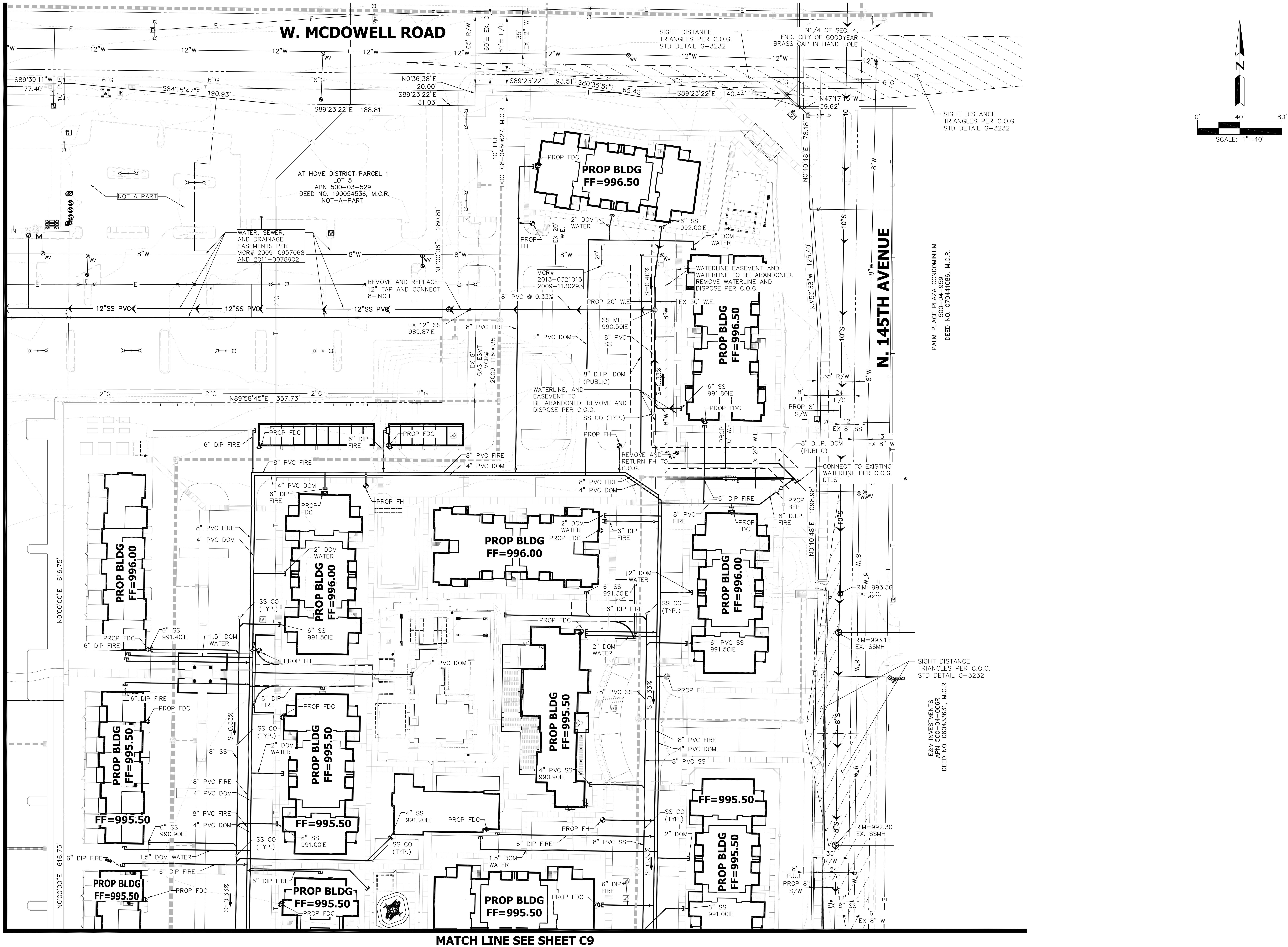
PROJECT NAME: SANCTUAIR AT CENTERSCAPE

HE NO.: BELT043
SCALE: 1"=40'

SHEET: C6

HTE



CONCEPTUAL UTILITY PLAN FOR CENTERSCAPE MASTER PLAN
W MCDOWELL RD & N BULLARD AVE GOODYEAR, ARIZONA

NO.	DATE	REVISION	BY

PURPOSE: 2ND SUBMITTAL MASTER PLAN

DESIGN BY: JH
DRAWN BY: RJ
CHECKED BY: JH

HUNTER ENGINEERING CIVIL AND SURVEY
10450 NORTH 74TH STREET, SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986

Registered Professional Engineer, Certificate No. 35249, JEFF M. HUNTER

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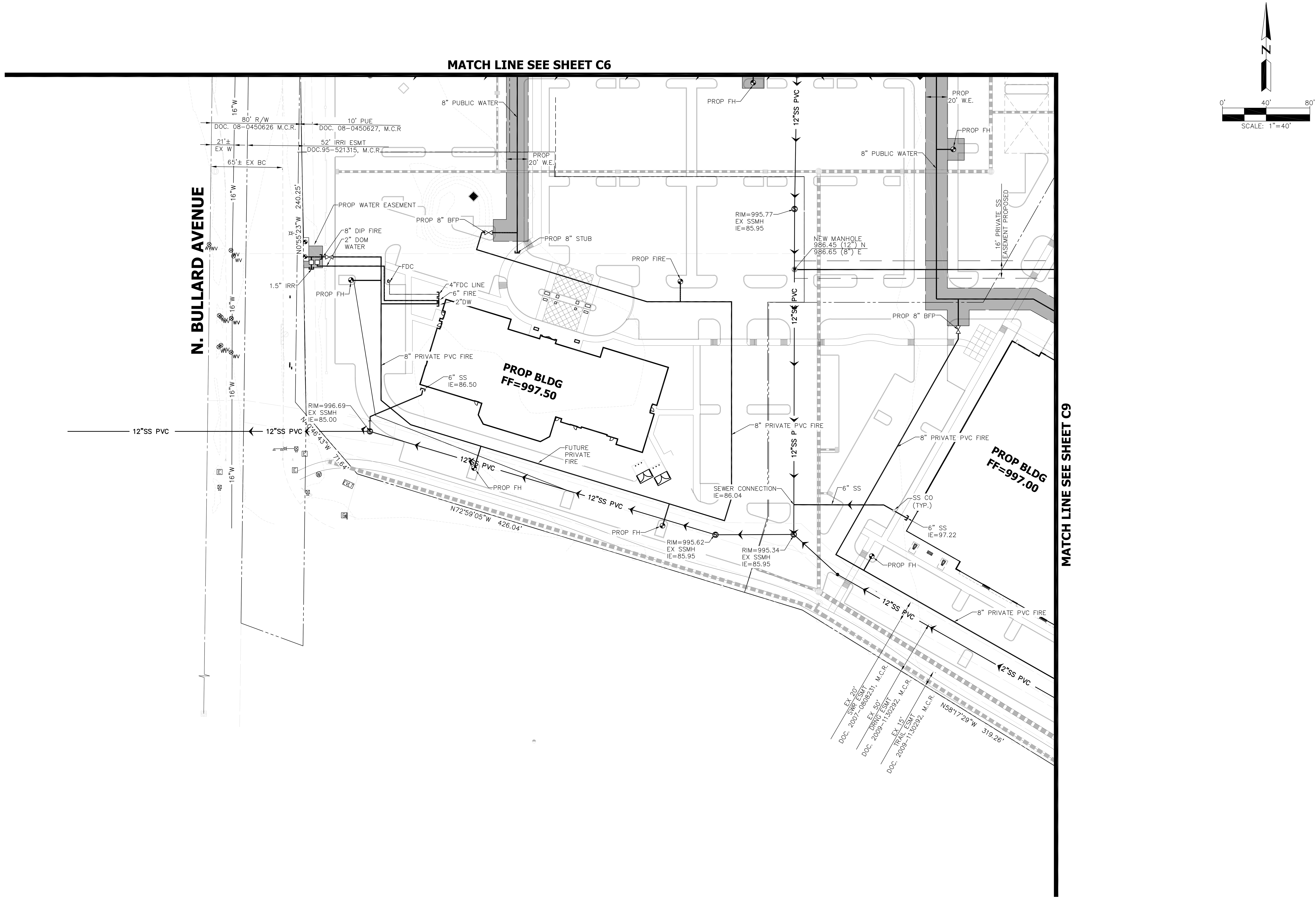
PROJECT NAME: SANCTUAIR AT CENTERSCAPE

HE NO.: BELT043
SCALE: 1"=40'

SHEET: C7

HTE


MATCH LINE SEE SHEET C6
MATCH LINE SEE SHEET C9
N. BULLARD AVENUE
80' R/W
DOC. 08-0450626 M.C.R.
10' PUE
DOC. 08-0450627, M.C.R
52' IRRI ESMT
DOC.95-521315, M.C.R.
21'±
EX W
65'± EX BC
16"W
N0°55'23"W 240.25'
PROP WATER EASEMENT
PROP 8" BFP
8" DIP FIRE
2" DOM WATER
1.5" IRR
PROP FH
FDC
4"FDC LINE
6" FIRE
2"DW
8" PUBLIC WATER
PROP 20' W.E.
PROP 8" STUB
PROP FIRE
8" PRIVATE PVC FIRE
6" SS
IE=86.50
PROP BLDG
FF=997.50
RIM=996.69
EX SSMH
IE=85.00
12"SS PVC
N1°46'43"W 71.64'
FUTURE PRIVATE FIRE
N72°59'05"W 426.04'
RIM=995.62
EX SSMH
IE=85.95
RIM=995.34
EX SSMH
IE=85.95
SEWER CONNECTION
IE=86.04
RIM=995.77
EX SSMH
IE=85.95
NEW MANHOLE
986.45 (12") N
986.65 (8") E
16' PRIVATE SS EASEMENT PROPOSED
PROP 8" BFP
PROP BLDG
FF=997.00
SS CO (TYP.)
6" SS
IE=97.22
EX 20' SWR ESMT
DOC. 2007-0808231, M.C.R.
EX 50' DRNG ESMT
DOC. 2009-1130292, M.C.R.
EX 15' TRAIL ESMT
DOC. 2009-1130292, M.C.R.
N58°17'29"W 319.26'
N
0' 40' 80'
SCALE: 1"=40'

NO.	DATE	REVISION	BY

PURPOSE:
2ND SUBMITTAL MASTER PLAN

DESIGN BY: JH
DRAWN BY: RJ
CHECKED BY: JH

HUNTER
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Registered Professional Engineer
CERTIFICATE NO. 35249
JEFF M. HUNTER
(CIVIL)
ARIZONA, U.S.A.

CONCEPTUAL UTILITY PLAN FOR CENTERSCAPE MASTER PLAN
W MCDOWELL RD & N BULLARD AVE
GOODYEAR, ARIZONA

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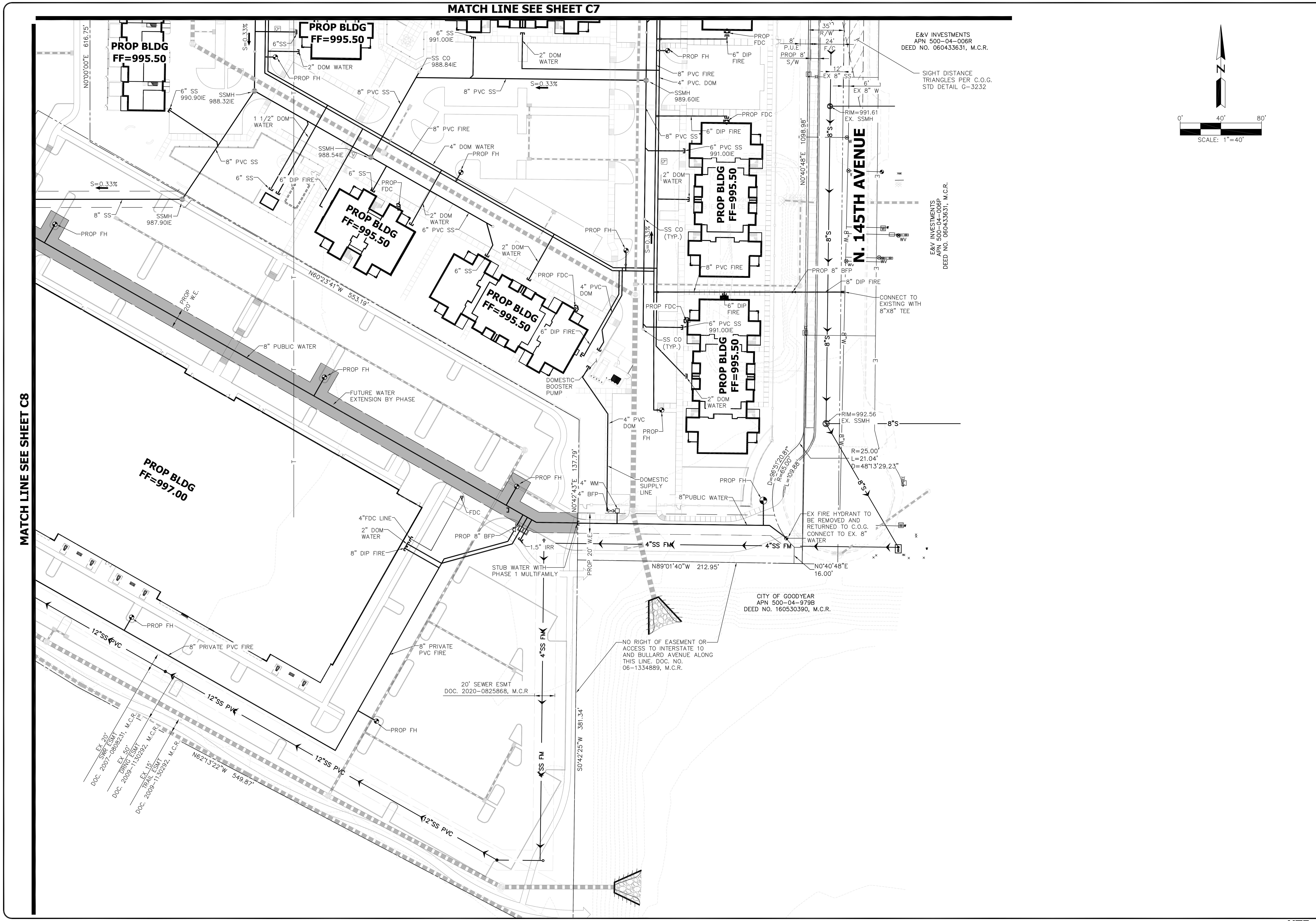
PROJECT NAME:
SANCTUAIR AT CENTERSCAPE

HE NO.: BELT043
SCALE: 1"=40'

SHEET:
C8

HTE


MATCH LINE SEE SHEET C7
MATCH LINE SEE SHEET C8
PROP BLDG FF=995.50
PROP BLDG FF=997.00
N. 145TH AVENUE
E&V INVESTMENTS APN 500-04-006R DEED NO. 060433631, M.C.R.
E&V INVESTMENTS APN 500-04-006P DEED NO. 060433631, M.C.R.
SIGHT DISTANCE TRIANGLES PER C.O.G. STD DETAIL G-3232
RIM=991.61 EX. SSMH
RIM=992.56 EX. SSMH
CONNECT TO EXISTING WITH 8"X8" TEE
DOMESTIC BOOSTER PUMP
DOMESTIC SUPPLY LINE
FUTURE WATER EXTENSION BY PHASE
8" PUBLIC WATER
PROP 20' W.E.
EX FIRE HYDRANT TO BE REMOVED AND RETURNED TO C.O.G. CONNECT TO EX. 8" WATER
STUB WATER WITH PHASE 1 MULTIFAMILY
CITY OF GOODYEAR APN 500-04-979B DEED NO. 160530390, M.C.R.
NO RIGHT OF EASEMENT OR ACCESS TO INTERSTATE 10 AND BULLARD AVENUE ALONG THIS LINE. DOC. NO. 06-1334889, M.C.R.
20' SEWER ESMT DOC. 2020-0825868, M.C.R
EX 20' SWR ESMT DOC. 2007-0808231, M.C.R.
EX 50' DRNG ESMT DOC. 2009-1130292, M.C.R.
EX 15' TRAIL ESMT DOC. 2009-1130292, M.C.R.
N60°23'41"W 553.19'
N62°13'22"W 549.87'
N89°01'40"W 212.95'
S0°42'25"W 381.34'
N0°42'43"E 137.79'
N0°40'48"E 1098.98'
N0°40'48"E 16.00'
R=25.00' L=21.04' D=48°13'29.23"
12"SS PVC
4"SS FM
SCALE: 1"=40'

PURPOSE: 2ND SUBMITTAL MASTER PLAN

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CHECKED BY: JH

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PROJECT NAME: SANCTUAIR AT CENTERSCAPE

HE NO.: BELT043
SCALE: 1"=40'

SHEET: **C9**

HTE