Preliminary Sewer Design Report

"Minnezona Condominiums"
7314 E Minnezona
Scottsdale, Arizona 85250

July 27, 2022

Final basis of design report required prior to DRB approval. DSPM 7-1.201.B.

Prepared By:

g-mar engineering consultants,
18223 W. Orchid Lane
Waddell, AZ 85355
Ph: 602-524-7877
E: geoff@g-mareng.com
Job No. 21-08-010-00

Prepared for:

Kontexture
3334 N 20th Street
Phoenix, Arizona 85016
Contact: Mark Cunningham

The City of Scottsdale
Permit # 45-DR-2021

PRELIMINARY Basis of Design Report

- ☐ ACCEPTED
- ☑ ACCEPTED AS NOTED
- ☐ REVISE AND RESUBMIT

CITY OF SCOTTSDALE
SCOTTSDALE WATER
9379 E San Salvador Dr.
Scottsdale, AZ 85258

Disclaimer: If accepted; the preliminary approval is granted under the condition that a final basis of design report will also be submitted for city review and approval (typically during the DR or PP case). The final report shall incorporate further water or sewer design and analysis requirements as defined in the city design standards and policy manual and address those items noted in the preliminary review comments (both separate and included herein). The final report shall be submitted and approved prior to the plan review submission.
For questions or clarifications contact the Water Resources Planning and Engineering Department at 480-312-5685.

BY apritchard **DATE** 8/23/2022

Signature:

Registered Professional Engineer (Civil) CERTIFICATE NO. 46858 GEOFFREY A. MARKOWSKI Date Signed ARIZONA, U.S.A.

Geoffrey A. Markowski, PE

July 27, 2022
Date:

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TOPIC

APPENDICES:

Introduction:

The purpose of this Sewer Design Report is to provide an analysis of the proposed sewer line and services for the new multi-family site located at 7314 E Minnezona, Scottsdale Arizona. The water design for the site shall comply with the water and waste water requirements of the City of Scottsdale. The report and analysis calculations are based on the Arizona Administrative Code Title 18, Chapter 9-E301, the City of Scottsdale Water Services Department Design Standards Manual, dated, January, 2020, the current adopted City of Scottsdale Fire Code and the 2018 Uniform Plumbing Code (UPC).

Property Description:

The legal description of the site is the original lots 38 and 39 of the Final Plat for "Daryl Estates – Unit 2" according to Book 61 of Maps, Page 48, records of Maricopa County, Arizona. This development site is the two lots which will be combined with a Condominium Plat. Currently, each lot has an existing building structure on it with multi-family units. Both lots will be demolished, along with existing pools, hardscaping and landscaping. Refer to Appendix A for Aerial Photographs and Vicinity Map.

The site is currently zone R-5 for high density residential development.

Project Description:

The development of this lot will consist of the construction of a three (3) new buildings. The north building will have five (5) living units. The south two (2) buildings will have two (2) living units each for a total of nine (9) individual living units on the property. Each unit will have a separate domestic service and sewer service to the unit. All units will have a 4-inch service stubs that exit the buildings. The units along the north end will stub out to an existing 8-inch main in the existing alley. The four units along the Minnezona frontage will extend out to 6-inch service stubs at the right-of-way line. From there, the new 6-inch service connections will stub in to a new 8-inch sewer main that will be installed within the Minnezona right-of-way. This new main will extend west approximately 285-feet to the existing sewer main in North 73rd Street. All sewer pipe will be installed per Plumbing Code requirements and City standards on private property, and per the City Design Standards and Policies Manual for off-site public mains and manholes. Refer to Appendix B for On-site Utility Plans to see connection location and detailing.

Design Flows:

Per City of Scottsdale Design Standards and Policies Manual, Chapter 7, Section 7-1.403A, residential and multi-family design for sewer main between 6-inches and 12-inches, the design flow used would be 100-gallons per capita per day and with a peaking factor of 4. Based on the capacity requirements for the subject property that will be constructing and using the new sewer main service, the total persons at an average daily basis occupying the residences will be approximately 2.5 per dwelling unit. There are nine (9) units on the site. Using 100-gallons per capita per day would require a capacity usage of 2250-gallons per day (gpd). With the peak factor of 4, the peak discharge from the subject residence to the new sewer main will be approximately 9,000-gpd. Refer to Appendix D for Architectural Site Plan showing new building footprints with uses and fixtures.

4" on utility plan. 4" acceptable per unit per DSPM 7-1.409

Basis of Design:

As mentioned, the five units along the north end of the site will provide new sewer service taps in to the existing 8-inch main located in the existing alley. Each building will have its own service tap. The new four units along Minnezona will also have new 6-inch service taps from the right-of-way to the new 8-inch sewer main being constructed within Minnezona right-of-way. The on-site sewer service taps will be placed at 1.04% per IPC 2015 standards. The new 8-inch main for Minnezona will be constructed at a slope of 0.52% from a new 48-inch manhole located near the southeast corner of the site. It will continue at this slope, west, to a new 60-inch manhole that will be installed to straddle over the existing 8-inch main located in 73rd Street.

The new 6-inch sewer services will be analyzed for its capacity relative to the new on-site sewer demand. Using Manning's formula to determine the maximum flow rate capacity for the new 6-inch pipe, with a design slope of 0.0104 ft./ft., and a 'n' value of 0.013, the flow is equal to: 148,653-gpd, at a d/D of 50% with a velocity of 2.34 feet per second (fps). The maximum Average Daily Flow generated by the site of 9,000-gpd, is approximately 6.05-percent of the 50% flow capacity of the new 6-inch sewer service lines that will tie in to both the existing 8-inch sewer main in the alley and the new sewer main in Minnezona. Refer to Appendix C for calculations of partially full sewer service and main pipe.

Likewise, the 8-inch sewer main at a slope of 0.0052 ft/ft, and an 'n' value of 0.013, the maximum flow is equal to 219,748-gpd, at a d/D of 50% with a velocity of 1.96-fps. Per DSPM Section 7-1.404, full pipe flow velocity of the pipe is at 5.01-fps with a total flow of 1,131,055-gpd. Refer to Appendix C for calculations of partially full sewer service and main pipe. The new demand of the development has a minimal affect and impact on the existing sewer system around the site as well as minimal impact to the new sewer main extension in Minnezona. No additional analysis is needed.

Conformance with Master Plans:

N/A

Environmental Issues:

No known past or current environmental issues exist on this property or in the existing 16-foot alley where the new sewer line will tie in to the existing sewer main.

Conclusion:

The new 6-inch sewer servicecs that will tie in to the new and existing 8-inch mains located in the alley to the north as well as in Minnezona to the south can adequately handle, the new demand flows from the new residential improvements to the subject property. The demand flow for the new 8-inch sewer main is minimal at less then 10.0% of the total flow capacity of the new service demand for the overall site development.

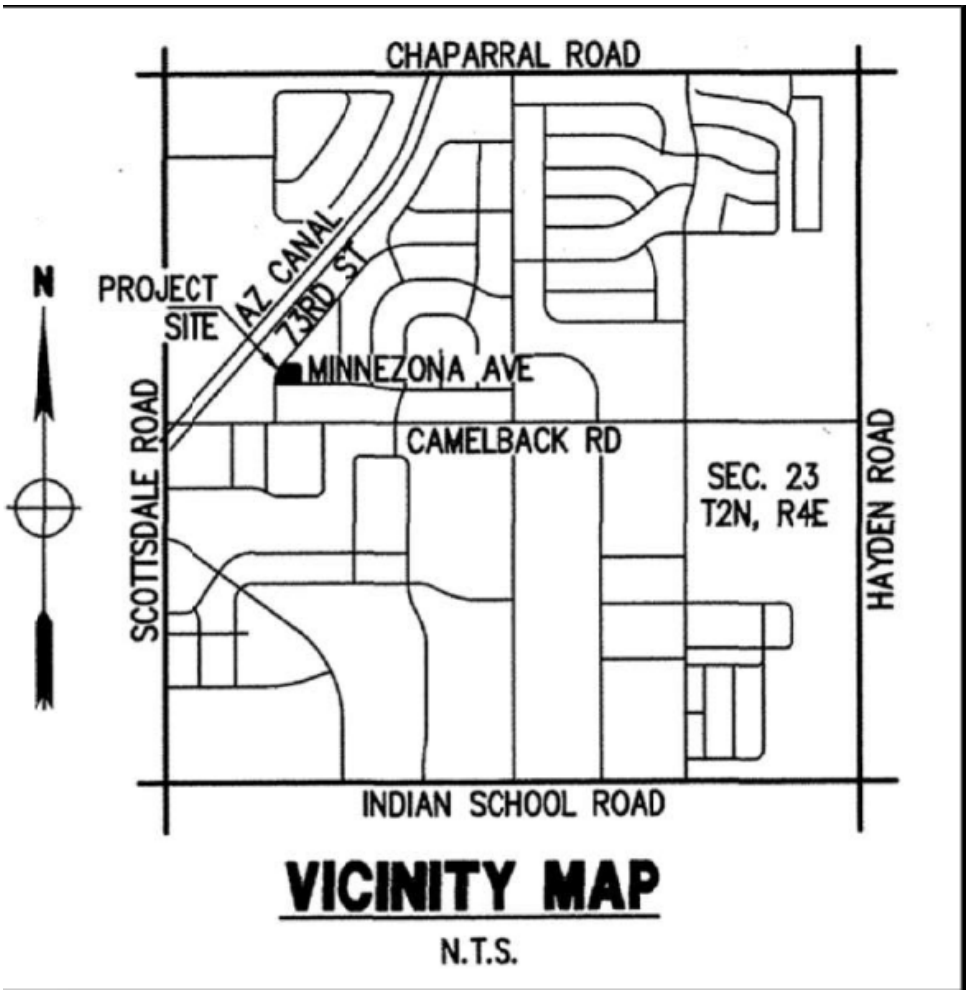
The existing and new 8-inch mains have been designed and analyzed to effectively collect and discharge sewage off-site, without negatively impacting the proposed or existing facilities. All calculations are based on the on-site conditions with the completion of the site improvements proposed for the pad including both residential structures being developed as separate entities for the subject property. No additional design or analysis is required.

References:

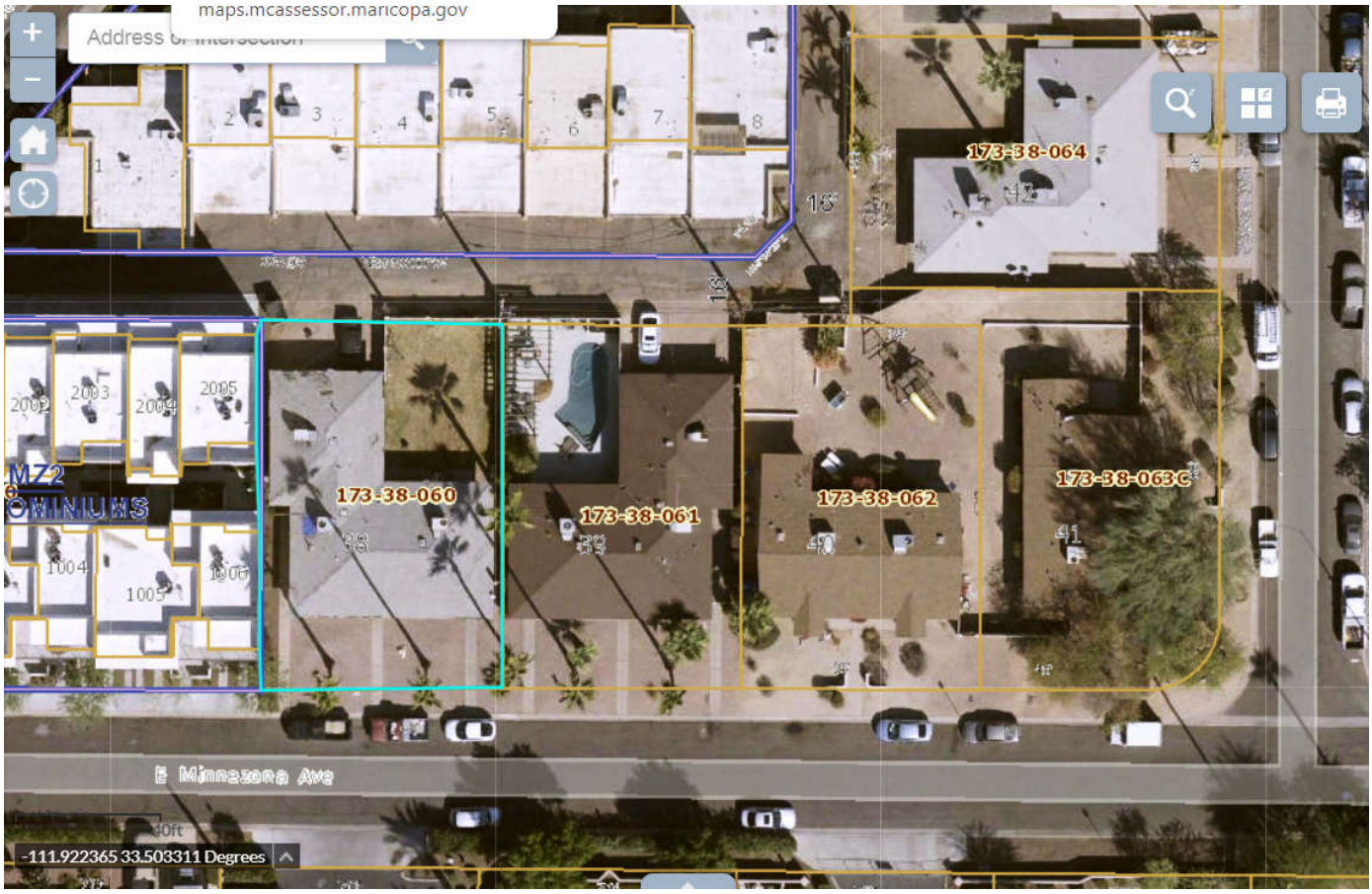
- City of Scottsdale DSPM, 2018, Chapter 7
- International Plumbing Code 2015
- Arizona Administrative Code Title 18, Chapter 9-E301
- MCESD ATC Application for Sewer Main Extension
- Mannings Equation for Partial Pipe Flow

APPENDIX A

Vicinity Map



2021 Maricopa County GIS Aerial Photograph



APPENDIX B

CIVIL IMPROVEMENT PLANS
for
"MINNEZONA CONDOMINIUMS"
7314 E. MINNEZONA AVENUE
SCOTTSDALE, ARIZONA 85251

CIVIL ENGINEERING GENERAL NOTES

1. IF THE CONTRACTOR FINDS ANY DISCREPANCY OR OMISSION, THE ENGINEER SHALL BE NOTIFIED BEFORE ANY INTERPRETATION IS MADE.
2. QUANTITIES SHOWN ARE FOR PERMIT PURPOSES ONLY AND ARE NOT FOR BIDDING OR CONTRACTING PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR BIDDING HIS OWN QUANTITY TAKE-OFF.
3. THE BUILDING MATERIALS CONTAINING ASBESTOS WILL NOT BE USED ON THIS PROJECT.
4. THE CONTRACTOR SHALL MAKE NO CLAIM FOR QUANTITY ADJUSTMENT UNLESS ALL CONSTRUCTION SURVEY STAKES ARE MAINTAINED FOR VERIFICATION.
5. NOTHING IN THE CONTRACT DOCUMENTS SHALL CREATE ANY CONTRACTURAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR THE ENGINEER AND THE SUBCONTRACTOR.
6. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION OR SAFTEY MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES UTILIZED IN CONNECTION BY THE CONTRACTOR OR SUBCONTRACTORS.
7. CHANGE ORDERS SHALL BE EXECUTED IN WRITING BY THE OWNER OR HIS REPRESENTATIVE. VERBAL CHANGES WILL NOT BE HONORED.
8. SEE ARCHITECTURAL DRAWINGS FOR ALL ON-SITE:
   A. HORIZONTAL CONTROL & BUILDING LOCATIONS.
   B. DETAILS AND HORIZONTAL LOCATION OF CURBS AND SIDEWALKS.
   C. PARKING LOT LAYOUT.
9. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UNDERGROUND UTILITY FACILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION AND TAKE ALL NECESSARY PRECAUTIONS TO AVOID ANY DAMAGE TO EXISTING UNDERGROUND FACILITIES. CALL BLUE STAKE CENTER (602) 263-1100 OR A PRIVATE UNDERGROUND UTILITY LOCATION COMPANY 48 HOURS PRIOR TO EXCAVATING. THE ENGINEER AND/OR OWNER CANNOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS.
10. UNDERGROUND INFORMATION AND UTILITIES SHOWN HAVE BEEN OBTAINED FROM INFORMATION PROVIDED ON QUARTER SECTION MAPS FROM THE UTILITY COMPANIES LOCATED WITHIN THE AREA. THUS, UNDERGROUND INFORMATION MUST BE FIELD VERIFIED BEFORE CONSTRUCTION.
11. UTILITY COMPANIES SERVING THIS AREA ARE:
    WATER: CITY OF SCOTTSDALE
    SEWER: CITY OF SCOTTSDALE
    TELEPHONE: CENTURYLINK
    ELECTRIC: ARIZONA PUBLIC SERVICE
    GAS: SOUTHWEST GAS
    CABLE TV: COX COMMUNICATIONS
12. LOCATION OF THE IRRIGATION SYSTEM IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR WILL BE RESPONSIBLE FOR ALL DAMAGES AT HIS COST.
13. THE TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM A TOPOGRAPHIC SURVEY PREPARED G-MAR, LLC, DATED, AUGUST 6, 2021 AND UPDATED, APRIL 27, 2022, PH: 602-524-7877.
14. BOUNDARY INFORMATION SHOWN ON THIS PLAN WAS OBTAINED FROM A CONDOMINIUM PLAT PREPARED BY OUTER LIMITS LAND SURVEYING, PROJECT NO. 21123, DATED, 11-15-2021. BOUNDARY INFORMATION SHOWN ON THIS DRAWING IS NOT CERTIFIED BY THE ENGINEER OF RECORD. CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD PRIOR TO LAYING OUT NEW CONSTRUCTION IF DISCREPANCIES ARE FOUND IN THE FIELD.
15. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY THE SITE SURVEY INFORMATION AND OBSERVE ANY CHANGES.

GRADING & DRAINAGE NOTES

1. SOIL REPORT PREPARED BY VANN ENGINEERING, INC., PROJECT NO. 29271, DATED, JANUARY 26, 2022.
2. SUBGRADE SOIL PREPARATION, SITE GRADING, FILL AND COMPACTION SHALL CONFORM TO MAG SECTION 301, EXCEPT AS MODIFIED BY THE SOILS REPORT.
3. FOUNDATIONS ARE DESIGNED FOR DRY CONDITIONS AND MUST REMAIN DRY DURING AND AFTER CONSTRUCTION.
4. THE CONTRACTOR SHALL COMPLETE SPECIAL COMPACTION FOR ALL OF THE SIDE SLOPES OF EACH RETENTION BASIN. THIS COMPACTION MUST NOT INCLUDE THE BOTTOM OF THE RETENTION BASIN, BUT WILL INCLUDE AN AREA EXTENDING A MINIMUM OF TEN (10) FEET AWAY FROM THE TOP OF THE RETENTION BASIN SIDE SLOPES IN ALL DIRECTIONS FROM THE RETENTION BASIN.
5. DURING LANDSCAPING ACTIVITIES, RETENTION BASIN SIDE SLOPES SHOULD BE PROTECTED BY A PERMANENT EROSION-PREVENTIVE LAYER TO MINIMIZE THE POTENTIAL FOR EROSION. IF THIS LAYER IS ANTICIPATED TO BE THICKER THAN THREE (3) INCHES, THE RETENTION BASIN SLOPES MUST BE OVER-EXCAVATED SO THAT THE SURFACE OF THE IN-PLACE EROSION-PREVENTIVE LAYER IS IN CONFORMANCE WITH THE RETENTION BASIN'S DESIGN DIMENSIONS AND FINISHED GRADE ELEVATIONS.
6. ALL DEBRIS AND EXCESS EXCAVATION SHALL BE REMOVED FROM THE SITE.
7. NO IMPORTED MATERIAL SHALL BE INCORPORATED INTO THE PROJECT WITHOUT PRIOR TESTING AND APPROVAL. ALL IMPORT MATERIAL MUST BE TESTED FOR ENVIRONMENTAL CONTAMINATION.
8. THE SITE SHALL BE GRADED TO A SURFACE WHICH IS REASONABLY SMOOTH, COMPACTED AND FREE FROM IRREGULAR SURFACE CHANGES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADJUSTMENT TO FINISH GRADE OF ALL UTILITY VALVE COVERS, CLEANOUTS AND MANHOLE CASTINGS.
10. ALL WALKWAYS AND/OR A.C. PAVING LOCATED FIVE (5) FEET FROM BUILDING THRESHOLDS WILL BE CONSTRUCTED 0.1 FEET BELOW FINISHED FLOORS UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL PLANS FOR INFO. WITHIN THE FIVE (5) FEET THRESHOLD AND THE BUILDING.
11. RELOCATE ITEMS PER MAG SPEC. 350. CONTRACTOR RESPONSIBLE FOR FEES OR RELOCATION COSTS.
12. SPOT ELEVATION SHOWN ON PLANS ARE FINISHED SURFACE ELEVATIONS.
13. ALL ELEVATIONS SHOWN ON DETAIL CUT SECTIONS ARE AT LOCATION INDICATED ON DRAWINGS. SEE SPOT ELEVATIONS ON PLANS FOR OTHER LOCATIONS.

GENERAL PAVING NOTES

1. THE FOLLOWING MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) SPECIFICATION SHALL APPLY TO THE GRADING & DRAINAGE PLANS UNLESS OTHERWISE NOTED:
   A. ASPHALTIC PAVEMENT PER MAG SPEC. 321, 710, & 711 (R19 MM OR C-3/4 MIX DESIGN).
   B. BITUMINOUS TACK COAT PER MAG SPEC. 321.4.
   C. CONCRETE PAVEMENT PER MAG SPEC. 725.
   D. BASE COURSE PER MAG SPEC. 310 & 702.2 (A25MM).
   E. SAWCUT AND REMOVAL PER MAG SPEC. 336.
   F. JOINT SEALANT PER MAG SPEC. 729.
   G. ASPHALT CONCRETE OVERLAY PER MAG SPEC. 322.
   H. BITUMINOUS PRIME COAT PER MAG SPEC, 315.
   J. FOG SEAL COAT PER MAG SPEC. 333.
2. RELOCATE ITEMS PER MAG SPEC. 350. CONTRACTOR RESPONSIBLE FOR FEES AND RELOCATION COSTS.
3. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADJUSTMENT TO FINISH GRADE OF ALL UTILITY VALVE COVERS, CLEANOUTS AND MANHOLE CASTINGS.
4. PAVEMENT SEALANT SPECIFICATIONS:
   A. SWEEP AND CLEAN SURFACE.
   B. TREAT OIL SPOTS WITH PETRO SEAL OR APPROVED EQUAL.
   C. CLEAN AND FILL CRACKS WITH BREWER FLEX OR APPROVED EQUAL.
   D. FURNISH AND APPLY TWO COATS OF HUNTSEAL OR APPROVED EQUAL.
5. PAVEMENT MARKING MATERIALS SHALL BE FED. SPEC. TT-P-115 WITHOUT GLASS SPHERES; WHITE OR YELLOW AS INDICATED ON DRAWINGS.
   APPLICATION SHALL BE AS FOLLOWS:
   APPLY PAINT WHERE INDICATED TO A 15 MIL WET THICKNESS x 4 INCHES WIDE AND TO DIMENSIONS SHOWN ON DRAWINGS. LINES TO BE STRAIGHT AND TRUE TO LINE WITH SHARP, CLEAN EDGES. INCLUDE ALL STRIPING, DIRECTIONAL ARROWS, CROSSWALKS, LETTERING, HANDICAP DESIGNATIONS AND ALL OTHER TRAFFIC CONTROL MARKINGS SHOWN OR REQUIRED.
   EQUIPMENT:
   SPECIFICALLY DESIGNED AND MANUFACTURED TO APPLY PAVEMENT PAINT.

CITY OF SCOTTSDALE: 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 RE-APPROVAL.
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 (2) 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. RIGHT-OF-WAY PERMITS ARE REQUIRED FOR ALL WORK IN PUBLIC RIGHTS-OF-WAY AND EASEMENTS GRANTED FOR PUBLIC PURPOSES. A RIGHT-OF-WAY 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 APPENDIX J, GRADING, OF THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE. A PERMIT FOR THIS GRADING MUST BE SECURED FROM THE CITY FOR A FEE ESTABLISHED BY THE CITY.

G-MAR GENERAL WATER & SEWER (ON-SITE)

MATERIALS:

1. WATER PIPE MATERIAL SHALL CONFORM TO 2012 UNIFORM PLUMBING CODE (UPC) 604.0 (CIP/DIP, GALVANIZED, COPPER, POLYETHYLENE PIPE) OR EQUAL.
2. PRIVATE SEWER LINES SHALL BE CONSTRUCTED PER THE UPC. PUBLIC SEWER LINES WHICH LAY WITHIN PUBLIC RIGHTS-OF-WAY AND EASEMENTS SHALL BE CONSTRUCTED PER M.A.G. ON-SITE SEWER PIPE MATERIAL SHALL BE PVC PIPE (SDR 35).
3. FIRELINE PIPE MATERIAL AND FITTINGS (4 IN. AND LARGER) SHALL CONFORM TO AWWA C900 CLASS 150 AND MAG SPEC. 750.2 (DUCTILE IRON PIPE) AND 750.4 (DUCTILE FITTINGS). (FOR PIPE 3 IN. AND SMALLER, SEE NOTE #1 ABOVE.)
4. IN ACCORDANCE WITH AAC R18-4-119, ALL MATERIALS WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NATIONAL SANITATION FOUNDATION STANDARDS 60 AND 61. THE WATER, SEWER AND FIRE SPRINKLER SERVICE LINE CONNECTION POINT(S).

INSTALLATION:

5. THE CONTRACTOR SHALL VERIFY CIVIL PLANS AND PLUMBING PLANS FOR HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO CONSTRUCTION OF THE WATER, SEWER AND FIRE SPRINKLER SERVICE LINE CONNECTION POINTS(S). ALL ON-SITE WATER AND SEWER CROSSINGS SHALL CONFORM TO UPC 720.0.
6. ALL WATER AND SEWER LINES CROSSING GAS LINE MUST HAVE A MINIMUM OF 12" CLEARANCE. CONTRACTOR MUST COMPLY WITH G&A GENERAL NOTE #7.
7. AND MUST HAND DIG CAREFULLY AT MARKED CROSSING LOCATION UNTIL GAS LINE IS FOUND AND EXPOSED.
   SEWER CLEANOUTS SHALL CONFORM TO UPC 719.0.
   SEWER BACKFLOW PREVENTION DEVICES SHALL CONFORM TO UPC 710.6.
8.
9. ALL ON-SITE TRENCHES SHALL REMAIN OPEN FOR CITY INSPECTION AND UNTIL AS-BUILT INFORMATION IS COMPLETED.

BACKFILL:

10. A NO. 12 BARE COPPER WIRE WILL BE INSTALLED FOR TRACING ALONG WITH THE MARKING TAPE SUCH THAT IT CAN BE DETECTED WITH STANDARD SURVEY TYPE METAL DETECTORS OR UTILITY LOCATORS TO A DEPTH OF 6 FEET. IT WILL TERMINATE AT EACH VALVE BOX COVER, MANHOLE OR CLEANOUT. CONTINUITY MUST BE CHECKED IN THE PRESENCE OF THE INSPECTOR AND AFTER BACKFILL IS COMPLETED.
11. DURING BACKFILL OPERATIONS THE CONTRACTOR WILL INSTALL MARKING TAPE A MAXIMUM DISTANCE OF 12 INCHES ABOVE THE PIPE CROWN. THE TAPE SHALL BE 3 INCHES WIDTH, ACID ALKALI RESISTANT, REINFORCED WITH A 100 LB. TENSILE STRENGTH MATERIAL, COLORED CODED - BLUE FOR WATER AND GREEN FOR SEWER - IMPRINTED WITH THE WORDING "CAUTION" AT 2 FOOT INTERVALS (MAXIMUM) AND ALSO IDENTIFYING THE UTILITY LINE IT IS PROTECTING.

NO CONFLICT SIGNATURE BLOCK

Utility Company	Representative	Date Sent	Date Signed
ARIZONA PUBLIC SERVICE COMPANY	CCWCONTROLDESK@APSC.COM	–	
COX COMMUNICATIONS	PHX.TMC@COX.COM	–	
CENTURYLINK'	MAPS@CENTURYLINK.COM	–	
SOUTHWEST GAS CORPORATION	VALERIE GALLARDO	–	
EL PASO NATURAL GAS. CO.	JENNIFER ANGELES	–	
CITY OF SCOTTSDALE, WATER		–	
CITY OF SCOTTSDALE, SEWER		–	

Engineer's Certification

I, GEOFFREY MARKOWSKI, being the person responsible for designing the facilities necessary to serve this development, hereby certify that all of the utility companies listed above, have reviewed this project proposal. Conflict Forms have been obtained from each utility company and are not included with this submittal. I also certify that all on site transformers, cable boxes and any other public/private utility appurtenances are placed such that they do not impact the use or intended use of any dedicated easements or facilities developed with this project including but not limited to stormwater storage basins, sight distance easements and NAOS or other open space easements.

Signature — Date: 2-27-18

LEGAL DESCRIPTION

LOT 38 AND 39 OF THE FINAL PLAT OF "DARYL ESTATES - UNIT TWO" AS RECORDED IN BOOK 61 OF MAPS, PAGE 48, RECORDS OF MARICOPA COUNTY, ARIZONA.

PROJECT DESCRIPTION

DEMOLITION OF EXISTING STRUCTURES AND POOL. CONSTRUCTION OF A NEW MULIT-FAMILY BUILDING STRUCTURES ALONG WITH NEW LANDSCAPING, WALKWAYS, PATIOS, POOL AND GRADING AND DRAINAGE IMPROVEMENTS. NEW STRUCTURES WILL BE PLACED SO THAT THE FINISHED FLOOR IS FREE FROM ANY INUNDATION FROM THE 100-YEAR DESIGN STORM EVENT AND AT LEAST 12-INCHES ABOVE NEAREST ADJACENT EXISTING GRADE. ALL GRADING AROUND THE FOUNDATION OF THE NEW STRUCTURE WILL ALLOW DRAINAGE TO FLOW AWAY FROM THE FOUNDATION. NO OTHER ON-SITE GRADING IMPROVEMENTS REQUIRED.

RETENTION REQUIREMENTS - PRE. VS. POST DEVELOPMENT

PER CITY OF SCOTTSDALE DRAINAGE & DESIGN STANDARDS & POLICIES MANUAL. (MARICOPA COUNTY DRAINAGE DESIGN MANUAL, VOLUME II AND III)

Vr = A(P/12)C V = Volume of retention required (cubic feet or acre-feet)
C = Runoff factor for tributary areas
P = 100-year, 2-hour rainfall from NOAA Atlas 14(in inches)
A = Drainage area (square feet or acres)

PRE DEVELOPMENT	POST DEVELOPMENT
A = 13,000 S.F.	A = 13,000 S.F.
P = 2.26 INCHES	P = 2.26 INCHES
C = 0.85 R-5 ZONING	C = 0.91 WEIGHTED
Vr = 2,021 CUBIC FEET	**Vr = 2,227 CUBIC FEET**

Vr = 2,227 - 2,021 = 146 CUBIC FEET

RETENTION REQUIREMENTS - 1ST FLUSH STORM EVENT

SITE IS CONSIDERED "IN-FILL" DEVELOPMENT. THE GREATER OF PRE VS. POST OR 1ST FLUSH RETENTION REQUIRED ON-SITE. BASED ON ANALYSIS, 1ST FLUSH STORM EVENT IS LARGER RETENTION VOLUME REQUIREMENT.

Vr = A(P/12)C
V = Volume of retention required (cubic feet or acre-feet)
C = Runoff factor for tributary areas
P = 100-year, 2-hour rainfall from NOAA Atlas 14(in inches)
A = Drainage area (square feet or acres)

A = 13,000 S.F.
P = 0.5 INCHES
C = 1.0 R-5 ZONING
Vr = 542 CUBIC FEET

ON-SITE RETENTION PROVIDED

UST #1 VOLUME CALCULATIONS

Volume = ((D^2)*(PI/4 * L))
D = 4 FT.
L = 45 FT.
Vp = 565 CU.FT.

VOLUME PROVIDED =	565	CUBIC FEET
VOLUME REQUIRED =	542	CUBIC FEET
EXCESS VOLUME PROV. =	23	CUBIC FEET

ESTIMATED QUANTITIES

OFF-SITE QUANTITIES:

1" DOMESTIC LANDSCAPE SERVICE	45 L.F.
1" DOMESTIC SERVICE	405 L.F.
3/4" LANDSCAPE METER	1 EA.
3/4" DOMESTIC METER	9 EA.
6"x6" TAPPING SLEEVE, VALVE & COVER	2 EA.
6" PVC (C900) WATERLINE	50 L.F.
FIRE HYDRANT ASSEMBLY	1 EA.
EXISTING WATER SERVICE REMOVAL	2 EA.
STREET LIGHT & PULL BOX	1 EA.

NOTE: QUANTITIES SHOWN ARE FOR CITY PERMIT PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR HIS/HER OWN QUANTITY TAKE-OFF FOR BID PURPOSES.

OWNER/DEVELOPER

SCOTT GRADEN
8144 E. DEL BARQUERO DR.
SCOTTSDALE, ARIZONA 85258
PH: 602-875-6221
CONTACT: SCOTT GRADEN

ARCHITECT/DESIGNER

KONTEXTURE
3334 N. 20TH STREET
PHOENIX, ARIZONA 85016
PH: 602-875-6221
CONTACT: DANIEL ISTRATE

DATUM

ADD 1200 TO SPOT ELEVATIONS SHOWN ON PLAN (NAVD '88 DATUM).

BENCHMARK

GDAC UNIQUE PID: 24574-1

DESCRIPTION: FOUND 3" CITY OF SCOTTSDALE BRASS CAP IN HANDHOLE, 0.8' DOWN AT THE INTERSECTION OF CAMELBACK AND SCOTTSDALE ROAD WITH AN ELEVATION OF 1277.516' (NAVD '88)

ZONING: R-5

A.P.N.: 173-38-060 & 173-38-061
NET LOT AREA: 13,000 S.F. (0.298 AC)
Q.S. #18-45

SETBACKS: FRONT = 3'
REAR = 3'
LEFT = 3'
RIGHT = 3'

TOTAL DISTURBED AREA: ±13,000 S.F.

EARTHWORK QUANTITIES

CUT 120 C.Y.
FILL 330 C.Y.
NET FILL: 210 C.Y.

QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR SHALL MAKE HIS/HER OWN TAKE-OFF FOR CONSTRUCTION.

SITE DATA:

NET AREA: 13,000 S.F. (0.30 AC.)
GROSS AREA: 16,246 S.F. (0.37 AC.)
DISTURBED AREA: 13,000 S.F. (0.30 AC.)

SHEET INDEX:

SHEET NO.	PAGE NO.	TITLE
C1	1	COVER SHEET & CIVIL NOTES
C2	2	DETAILS & SECTIONS
C3	3	DETAILS & SECTIONS
C4	4	GRADING & DRAINAGE PLAN
C5	5	ON-SITE UTILITY PLAN

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

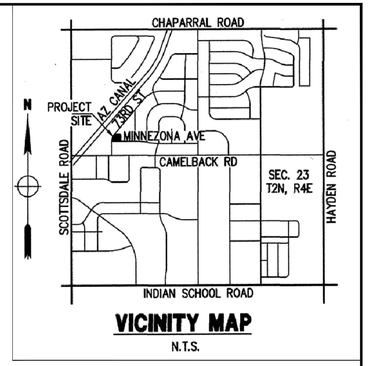
REGISTERED ENGINEER/LAND SURVEYOR — DATE

REGISTRATION NUMBER

ABBREVIATIONS

(SOME ABBREVIATIONS MAY NOT APPLY TO THESE DRAWINGS)

BOTT.	BOTTOM
B/C	BACK OF CURB
C.F.	CUBIC FEET
CLF	CHAIN LINK FENCE
CONC.	CONCRETE
C.Y.	CUBIC YARD
D.E.	DRAINAGE EASEMENT
D/W	DRIVEWAY
ESMT.	EASEMENT
EXIST.	EXISTING
F.F.	FINISHED FLOOR
FND.	FOUND
FT.	FEET
MAS.	MASONRY
M	MONUMENT LINE
N.T.S.	NOT TO SCALE
PVMT.	PAVEMENT
℄	PROPERTY LINE
PROP.	PROPOSED
P.U.E.	PUBLIC UTILITY EASEMENT
R/W	RIGHT OF WAY
S/W	SIDEWALK
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE



VICINITY MAP
N.T.S.

LEGEND

(SOME ITEMS MAY NOT APPLY TO THESE DRAWINGS)

BOUNDARY LINE
MONUMENT LINE
PROPERTY CORNER
EASEMENT LINE
PROPOSED NAOS BOUNDARY

EXISTING	PROPOSED	
		MAS. FENCE
		VERT. CURB & GUTTER
		CONCRETE CURB
		BUILDING
		CONCRETE
		BRASSCAP IN HANDHOLE
		BRASSCAP FLUSH
		SIGN
GM		GAS METER
TR		TELEPHONE RISER
TV		CABLE RISER
PP		POWER POLE
		ELECTRICAL GUY DOWN
		STREET LIGHT OR LIGHT POLE
WM	WM	WATER METER
N	N	BACK FLOW PREVENTION ASSEMBLY
		DRYWELL/CATCH BASIN
SCB		SPRINKLER CONTROL BOX
		WATER VALVE
		FIRE HYDRANT
W	W	WATER
C		UNDERGROUND CABLE TV
T		OVERHEAD TELEPHONE
UH		UNDERGROUND TELEPHONE
OH		OVERHEAD ELECTRICAL
E		UNDERGROUND ELECTRICAL
S	S	SANITARY SEWER
GAS		GAS
		STORM DRAIN
W	W	FIRE LINE
+90.3 TC90.30 +90.30 +G90.30 +FF89.30 +C89.30 +RIM89.30 +INV89.30	90.3 TC90.30 C90.30 G90.30 FF89.30 C89.30 RIM89.30 INV89.30	NATURAL GROUND ELEV. / TOP OF CURB ELEV. / PAVER ELEV. / GUTTER ELEV. / APPROX. FINISHED FLOOR ELEV. / CONCRETE ELEV. / RIM ELEV. / INVERT ELEV.
		DRAINAGE SLOPE
	90.3	EXTREME OUTFALL

FIRM DATA

COMMUNITY NUMBER	PANEL # / PANEL DATE	SUFFIX	DATE OF FIRM (INDEX DATE)	FIRM ZONE	BASE FLOOD ELEV. (IN AO ZONE, USE DEPTH)
045012	1770 / 7/20/21	M	7/20/21	X	N/A

THIS SITE IS NOT IN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN FLOOD ZONE 'X'. NO OTHER OFF-SITE FLOWS IMPACT THE SITE. FINISHED FLOOR ELEVATIONS ARE AT LEAST 14" ABOVE THE EXTREME OUTFALL TO THE SITE AND AT LEAST 1-FOOT ABOVE NEAREST FLOOD ZONE BASE WATER SURFACE ELEVATION. THIS SITE OUTFALLS TO THE SOUTHEAST TO EXISTING RIGHT-OF-WAY AT AN ELEVATION OF APPROXIMATELY 1269.35 REFERENCED TO PROJECT BENCHMARK.

ENGINEER'S CERTIFICATION
THE LOWEST FLOOR ELEVATIONS AND/OR FLOOD PROOFING ELEVATIONS FOR THE ADDITION ON THIS PLAN ARE SUFFICIENTLY HIGH TO PROVIDED PROTECTION FROM FLOODING CAUSED BY A 100-YEAR STORM, AND ARE IN ACCORDANCE WITH SCOTTSDALE REVISED CODE, CHAPTER 37 - FLOODPLAIN AND STORMWATER REGULATIONS.

CALL BEFORE YOU DIG
Avoid cutting underground utility lines. It's costly.
CALL 811
OR 1-800-263-1100
OR 1-800-STAKE IT (OUTSIDE MARICOPA COUNTY)

g-mar
consulting engineers, llc
18223 west orchid lane
waddell, arizona 85355
fax: 623.242.6221 • ph: 623.242.6220

REGISTERED PROFESSIONAL ENGINEER (Civil) GEOFFREY MARKOWSKI 16688 CERTIFICATE EXPIRES 09/30/2023 ARIZONA U.S.A.

PROJECT: MINNEZONA CONDOMINIUMS
7314 E. MINNEZONA AVENUE
SCOTTSDALE, ARIZONA

CLIENT: KONTEXTURE
3334 N. 20TH STREET, PHOENIX, ARIZONA 85016

PR	8-18-2021	1ST PRELIM SUBMITTAL
PR	4-18-2022	2ND PRELIM SUBMITTAL
PR	7-27-22	3RD PRELIM SUBMITTAL

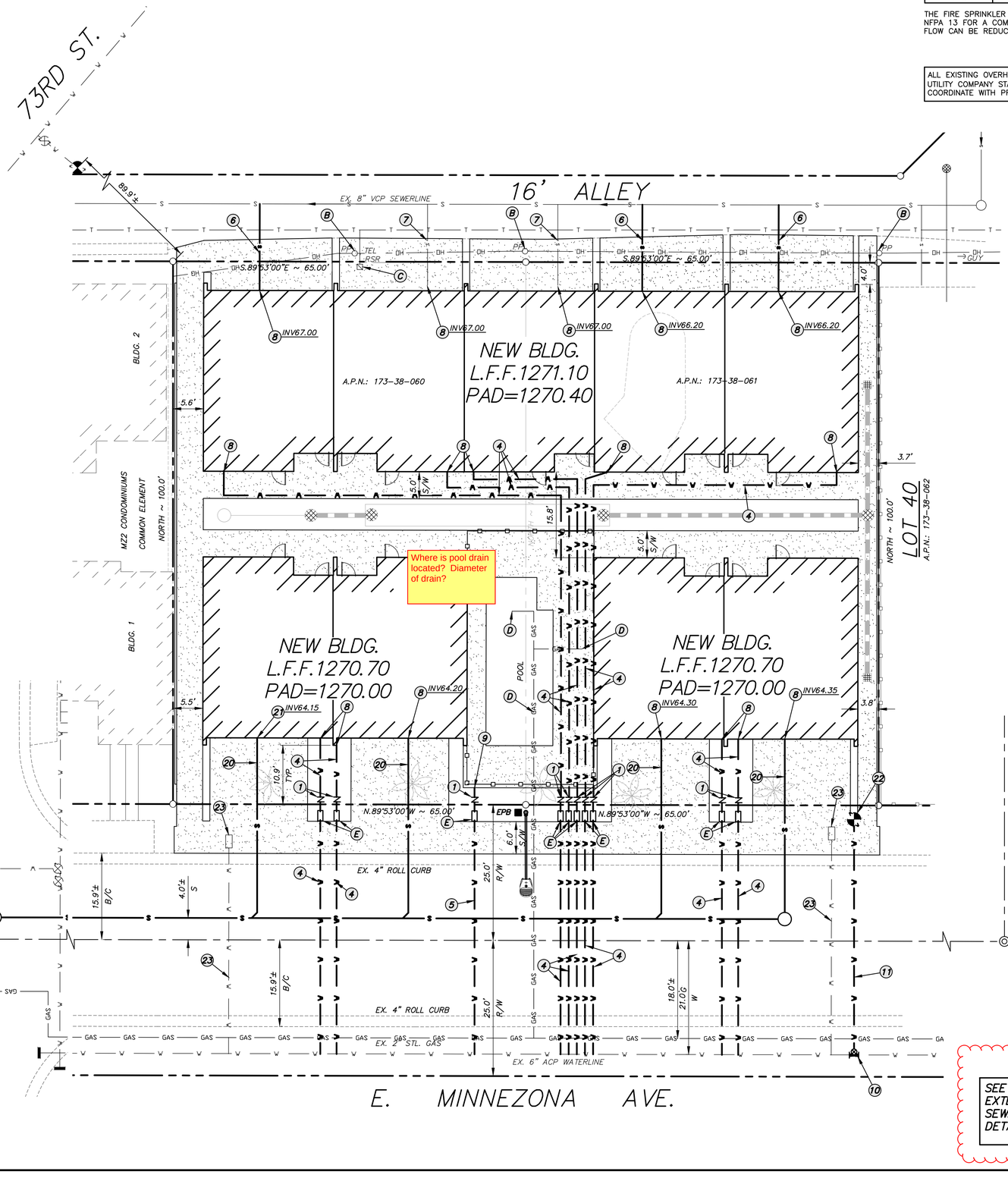
DATE ISSUED: 2 AUG 2021
DRAWN BY: GM
CHECKED BY: GM

SHEET DESCRIPTION:
COVER SHEET & CIVIL NOTES

SHEET C1 OF

C.O.S. #45-DR-2021

JOB NO. 21-08-010-00



BACKFLOW PREVENTION REQUIREMENTS

BUILDING TYPE	BLDG. SQ. FOOTAGE	FLOW DURATION	FIRE FLOW REQ'D.
V-B	3,130 S.F.	2 HOURS	1,500 GPM
V-B	3,905 S.F.	2 HOURS	1,750 GPM

THE FIRE SPRINKLER SYSTEM BEING INSTALLED IS A "WET PIPE SYSTEM" PER NFPA 13 FOR A COMMERCIAL FIRE SUPPRESSION SYSTEM. REQUIRED DEMAND FLOW CAN BE REDUCED BY 50% PER FIRE CODE.

ALL EXISTING OVERHEAD UTILITIES SHALL BE UNDERGROUNDED PER PRIVATE UTILITY COMPANY STANDARDS AND REQUIREMENTS. OWNER/DEVELOPER SHALL COORDINATE WITH PRIVATE UTILITY COMPANIES.

ON-SITE WATER & SEWER CONST. NOTES

1. INSTALL NEW 1" FEBCO LF-856 DOMESTIC REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY.
2. INSTALL 1" FEBCO LF-856 LANDSCASPE REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY.
3. NOT USED.
4. INSTALL NEW 1" DOMESTIC COPPER WATERLINE AND TRENCHING PER IPC STANDARDS. REFER TO PLUMBING PLANS TYPE AND MATERIAL.
5. 1" LANDSCAPE COPPER WATERLINE AND TRENCHING PER IPC STANDARDS. REFER TO LANDSCAPE PLANS.
6. 6" PVC SEWERLINE AT 1.04% PER IPC STANDARDS. MAINTAIN 3-FEET OF COVER OVER SEWER LINE UNDER RETENTION BASIN.
7. CONNECT TO EXISTING SEWER SERVICE TAP. CONTRACTOR TO FIELD VERIFY VERTICAL AND HORIZONTAL LOCATION OF EXISTING SERVICE PRIOR TO TRENCHING AND CONNECTION.
8. REFER TO BUILDING & PLUMBING PLANS FOR CONTINUATION OF UTILITIES INTO BUILDING.
9. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
10. INSTALL 6"x 6" TEE, VALVE & COVER PER M.A.G. STD. DETAIL 340 & 391-1, TYPE 'A'. EXISTING ACP MAIN SHALL BE REMOVED AND REPLACED WITH D.I.P. PER DSPM SEC. 6-1.408.
11. CONSTRCUT 6" D.I.P. (PRESSURE CLASS 350 MIN. OR APPROVED EQUAL) FIRELINE.
12. CONSTRCUT 4" D.I.P. (PRESSURE CLASS 350 MIN. OR APPROVED EQUAL) FIRELINE.
13. WATER/SEWER CROSSING AND ENCASEMENT PER M.A.G. STD. DET. 404-3.
14. INSTALL 6" PVC CLEANOUT WITH QYE FITTING PER I.P.C. STANDARDS. ADJUST RIM TO FINISHED GRADE.
15. REFER TO FIRE SPRINKLER PLANS FOR CONTINUATION.
16. INSTALL 6" VALVE, BOX AND COVER PER M.A.G. STD. DET. 391-1.
17. INSTALL 4" VALVE, BOX AND COVER PER M.A.G. STD. DET. 391-1.
18. INSTALL 6" 90° BEND WITH THRUST BLOCKING PER M.A.G. SPECS.
19. INSTALL 6"x 4" TEE WITH THRUST BLOCKING PER M.A.G. SPECS.
20. 4" PVC SEWERLINE AT 2.08% PER IPC STANDARDS.
21. INSTALL 4" DIA. PVC 45° BEND WITH SEWER CLEANOUT PER I.P.C. STANDARDS. ADJUST RIM TO FINISHED GRADE.
22. INSTALL FIRE HYDRANT ASSEMBLY COMPLETE PER M.A.G. STD. DET. 360-1 & C.O.B. STD. DET. 31412, 31414 & 31420.
23. EXISTING WATER SERVICE TAP AND METER TO BE ABANDONED PER CITY STANDARDS AND SPECS.

OFF-SITE STREET LIGHTING NOTES:

A. INSTALL NEW STREET LIGHT POLE. PROVIDE 25-FOOT TALL GALVANIZED STREETLIGHT POLE WITH 6-FT LUMINAIRE ARM PER C.O.S. STD. DETS. 2171-1 & 2171-2 WITH SIGNIFY LUMEC RFS-35W16LED3K-G2-R2M LUMINAIRE WITH CITYTOUCH CONNECTOR NODE, MODEL 127-277-CTCN.

ON-SITE / OFF-SITE UTILITY CONSTRUCTION NOTES:

B. REMOVE EXISTING POWER POLE. UNDERGROUND EXISTING UTILITIES PER PRIVATE UTILITY COMPANY STANDARDS.
C. REMOVE AND RELOCATE EXISTING COMMUNICATION RISER PER PRIVATE UTILITY COMPANY STANDARDS.
D. EXISTING GAS LINE AND METER TO BE ABANDONED AND REMOVED PER PRIVATE UTILITY COMPANY STANDARDS.
E. INSTALL NEW 3/4" WATER METER, BOX & COVER PER C.O.M. STANDARDS AND SPECS BY CITY FORCES.

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fax: 623.242.6221 • ph: 623.242.6220

Registered Professional Engineer (Civil)
GREGORY MARTIN
20668
CERTIFICATE NO.
ARIZONA U.S.A.
Date Signed 8/3/21
EXPIRES: 09/30/22

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DATE ISSUED: 2 AUG 2021
DRAWN BY: GM
CHECKED BY: GM

SHEET DESCRIPTION:
ON-SITE UTILITY PLAN

SHEET C5 OF

C.O.S. #45-DR-2021

JOB NO. 21-08-010-00

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PUBLIC SEWER MAIN EXTENSION PLAN FOR
7314 E. MINNEZONA
SCOTTSDALE, ARIZONA 85251

CITY OF SCOTTSDALE: GENERAL CONSTRUCTION NOTES FOR PUBLIC WORKS CONSTRUCTION

1. ALL IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THE LATEST MARICOPA COUNTY ASSOCIATION OF GOVERNMENTS STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION AS AMENDED BY THE LATEST VERSION OF THE CITY OF SCOTTSDALE SUPPLEMENTAL STANDARD SPECIFICATIONS AND DETAILS AND THE DS&PM. IF THERE IS A CONFLICT, THE LATTER SHALL APPLY. ALL FACILITIES CONSTRUCTION SHALL COMPLY WITH THE 2003 IBC, 1994 UPC, 2003 IMC, 2003 IFC AND THE 1999 NEC.
2. THE ENGINEERING DESIGNS ON THESE PLANS ARE APPROVED BY THE CITY IN SCOPE AND NOT IN DETAIL. IF CONSTRUCTION QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE NOT VERIFIED BY THE CITY.
3. APPROVAL OF THE PLANS BY THE CITY IS VALID FOR 6 MONTHS. IF A PERMIT FOR THE CONSTRUCTION HAS NOT BEEN ISSUED WITHIN SIX MONTHS OF REVIEW, THE PLANS SHALL BE RESUBMITTED TO THE CITY FOR REAPPROVAL.
4. A CITY CAPITAL PROJECTS INSPECTOR WILL INSPECT ALL WORK WITHIN THE CITY RIGHTS-OF-WAY, EASEMENTS AND FACILITIES.
5. WHEREVER EXCAVATION IS DONE CONTACT THE BLUE STAKE CENTER AT 602-263-1100, 2 WORKING DAYS BEFORE EXCAVATION IS TO BEGIN. THE CENTER WILL SEE THAT THE LOCATION OF THE UNDERGROUND UTILITY LINES IS IDENTIFIED FOR THE PROJECT. CALL COLLECT IF NECESSARY.
6. CITY ENCROACHMENT AND BUILDING PERMITS ARE REQUIRED FOR WORK IN PUBLIC RIGHTS-OF-WAY, EASEMENTS GRANTED FOR PUBLIC PURPOSES AND FACILITIES. PERMITS WILL BE ISSUED BY THE CITY'S ONE STOP SHOP. COPIES OF ALL PERMITS SHALL BE RETAINED ON-SITE AND SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. FAILURE TO PRODUCE THE REQUIRED PERMITS WILL RESULT IN IMMEDIATE WORK STOPPAGE UNTIL THE PROPER PERMIT DOCUMENTATION IS OBTAINED.
7. ALL EXCAVATION AND GRADING WHICH IS NOT IN PUBLIC RIGHTS-OF-WAY OR IN EASEMENTS GRANTED FOR PUBLIC PURPOSES MUST CONFORM TO CHAPTER 70, EXCAVATION AND GRADING, OF THE 2003 EDITION OF THE INTERNATIONAL BUILDING CODE PREPARED BY THE INTERNATIONAL CODE COUNCIL. A PERMIT FOR THIS GRADING MUST BE SECURED FROM THE CITY.
8. THRUST RESTRAINT, WHERE REQUIRED, ON ALL CITY WATER LINES SHALL BE PROVIDED USING MEGALUG MECHANICAL JOINT RESTRAINTS OR CITY APPROVED EQUAL.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR SALVAGING PROTECTED NATIVE PLANTS PRIOR TO THE START OF CONSTRUCTION.
10. ANY ASPHALT MIX DESIGN USED ON ALL CITY OF SCOTTSDALE PROJECTS SHALL HAVE BEEN APPROVED FOR THAT USE AND APPEAR ON THE "APPROVED LIST OF ASPHALT MIXES" AS DISTRIBUTED BY THE EAST VALLEY ASPHALT COMMITTEE (EVAC).
11. SITE LINES SHALL BE SHOWN AT ALL INTERSECTION, ALLEY AND DRIVEWAY LOCATIONS.
12. ANY DEVIATION FROM THE APPROVED PLANS SHALL BE REVIEWED AND APPROVED BY THE CITY OF SCOTTSDALE PRIOR TO THAT CHANGE BEING INCORPORATED INTO THE PROJECT.
13. ANY SPECIAL INSPECTION REQUIRED SHALL BE IN ADDITION TO ANY ROUTINE INSPECTION BY THE CITY OF SCOTTSDALE.
14. BASED ON THE INFORMATION SUBMITTED ON THE PLANS AND ASSOCIATED DOCUMENTS, THE CITY OF SCOTTSDALE HAS REVIEWED AND FOUND THEM TO BE IN ACCORDANCE WITH THE CITY OF SCOTTSDALE MUNICIPAL CODE AND ARE ACCEPTABLE FOR PERMIT ISSUANCE. THIS ACCEPTANCE BY THE CITY OF SCOTTSDALE DOES NOT AUTHORIZE VIOLATIONS OF ANY APPLICABLE CODE, ORDINANCE OR STANDARD AS ADOPTED BY THE MUNICIPAL CODE.
15. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND REPLACE, AT THEIR COST, ANY AND ALL DAMAGED PAVEMENT, SIDEWALK, CURB AND GUTTER OUTSIDE THE PAY LIMIT, DAMAGED DUE TO THEIR ACTIVITIES ON THE PROJECT. THIS INCLUDES, BUT IS NOT LIMITED TO THE REMOVAL AND REPLACEMENT OF NEWLY CRACKED, THE REMOVAL AND REPLACEMENT OF EXISTING CRACKS WHERE THE CRACKS HAVE BEEN ENLARGED DUE TO THE CONTRACTORS OPERATIONS, THE REMOVAL AND REPLACEMENT OF DEFORMED PAVEMENT, CURB AND GUTTER, SIDEWALK, ETC.. ALL SAW CUTS USED FOR THE REMOVAL OF THESE ITEMS SHALL BE PERPENDICULAR AND PARALLEL TO THE CENTERLINE CONTROLLING THAT ITEM, OR AT THE DISCRETION OF THE COS INSPECTOR.

WATER & SEWER GENERAL NOTES (ON-SITE)

MATERIALS:

1. WATER PIPE MATERIAL SHALL CONFORM TO 2003 INTERNATIONAL PLUMBING CODE (IPC) 605 (CIP/DIP, GALVANIZED, COPPER, POLYETHYLENE PIPE) OR EQUAL.
2. PRIVATE SEWER LINES SHALL BE CONSTRUCTED PER THE IPC. PUBLIC SEWER LINES WHICH LAY WITHIN PUBLIC RIGHTS-OF-WAY AND EASEMENTS SHALL BE CONSTRUCTED PER M.A.G. ON-SITE SEWER PIPE MATERIAL SHALL BE PVC PIPE (SDR 35).
3. FIRELINE PIPE MATERIAL AND FITTINGS (4 IN. AND LARGER) SHALL CONFORM TO AWWA C900 CLASS 150 AND MAG SPEC. 750.2 (DUCTILE IRON PIPE) AND 750.4 (DUCTILE FITTINGS). (FOR PIPE 3 IN. AND SMALLER, SEE NOTE #1 ABOVE.)
4. IN ACCORDANCE WITH AAC R18-4-213, ALL MATERIALS WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NATIONAL SANITATION FOUNDATION STANDARDS 60 AND 61. THE WATER, SEWER AND FIRE SPRINKLER SERVICE LINE CONNECTION POINT(S).

INSTALLATION:

5. THE CONTRACTOR SHALL VERIFY CIVIL PLANS AND PLUMBING PLANS FOR HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO CONSTRUCTION OF THE WATER, SEWER AND FIRE SPRINKLER SERVICE LINE CONNECTION POINTS(S).
6. ALL ON-SITE WATER AND SEWER CROSSINGS SHALL CONFORM TO UPC 720.0.
7. ALL WATER AND SEWER LINES CROSSING GAS LINE MUST HAVE A MINIMUM OF 12" CLEARANCE. CONTRACTOR MUST COMPLY WITH G&A GENERAL NOTE #7 AND MUST HAND DIG CAREFULLY AT MARKED CROSSING LOCATION UNTIL GAS LINE IS FOUND AND EXPOSED.
8. SEWER CLEANOUTS SHALL CONFORM TO IPC 708.
9. SEWER BACKFLOW PREVENTION DEVICES SHALL CONFORM TO IPC 715.

BACKFILL:

10. ALL ON-SITE TRENCHES SHALL REMAIN OPEN FOR CITY INSPECTION AND UNTIL AS-BUILT INFORMATION IS COMPLETED.
11. A NO. 12 BARE COPPER WIRE WILL BE INSTALLED FOR TRACING ALONG WITH THE MARKING TAPE SUCH THAT IT CAN BE DETECTED WITH STANDARD SURVEY TYPE METAL DETECTORS OR UTILITY LOCATORS TO A DEPTH OF 6 FEET. IT WILL TERMINATE AT EACH VALVE BOX COVER, MANHOLE OR CLEANOUT. CONTINUITY MUST BE CHECKED IN THE PRESENCE OF THE INSPECTOR AND AFTER BACKFILL IS COMPLETED.
12. DURING BACKFILL OPERATIONS THE CONTRACTOR WILL INSTALL MARKING TAPE A MAXIMUM DISTANCE OF 12 INCHES ABOVE THE PIPE CROWN. THE TAPE SHALL BE 3 INCHES WIDTH, ACID ALKALI RESISTANT, REINFORCED WITH A 100 LB. TENSILE STRENGTH MATERIAL, COLORED CODED - BLUE FOR WATER AND GREEN FOR SEWER - IMPRINTED WITH THE WORDING "CAUTION" AT 2 FOOT INTERVALS (MAXIMUM) AND ALSO IDENTIFYING THE UTILITY LINE IT IS PROTECTING.

CIVIL ENGINEERING GENERAL NOTES

1. IF THE CONTRACTOR FINDS ANY DISCREPANCY OR OMISSION, THE ENGINEER SHALL BE NOTIFIED BEFORE ANY INTERPRETATION IS MADE.
2. QUANTITIES SHOWN ARE FOR PERMIT PURPOSES ONLY AND ARE NOT FOR BIDDING OR CONTRACTING PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR BIDDING HIS OWN QUANTITY TAKE-OFF.
3. THE BUILDING MATERIALS CONTAINING ASBESTOS WILL NOT BE USED ON THIS PROJECT.
4. THE CONTRACTOR SHALL MAKE NO CLAIM FOR QUANTITY ADJUSTMENT UNLESS ALL CONSTRUCTION SURVEY STAKES ARE MAINTAINED FOR VERIFICATION.
5. NOTHING IN THE CONTRACT DOCUMENTS SHALL CREATE ANY CONTRACTURAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR THE ENGINEER AND THE SUBCONTRACTOR.
6. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION OR SAFTEY MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES UTILIZED IN CONNECTION BY THE CONTRACTOR OR SUBCONTRACTORS.
7. CHANGE ORDERS SHALL BE EXECUTED IN WRITING BY THE OWNER OR HIS REPRESENTATIVE. VERBAL CHANGES WILL NOT BE HONORED.
8. SEE ARCHITECTURAL DRAWINGS FOR ALL ON-SITE:
   A. HORIZONTAL CONTROL & BUILDING LOCATIONS.
   B. DETAILS AND HORIZONTAL LOCATION OF CURBS AND SIDEWALKS.
   C. PARKING LOT LAYOUT.
9. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UNDERGROUND UTILITY FACILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION AND TAKE ALL NECESSARY PRECAUTIONS TO AVOID ANY DAMAGE TO EXISTING UNDERGROUND FACILITIES. CALL BLUE STAKE CENTER (602) 263-1100 OR A PRIVATE UNDERGROUND UTILITY LOCATION COMPANY 48 HOURS PRIOR TO EXCAVATING. THE ENGINEER AND/OR OWNER CANNOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS.
10. UNDERGROUND INFORMATION AND UTILITIES SHOWN HAVE BEEN OBTAINED FROM INFORMATION PROVIDED ON QUARTER SECTION MAPS FROM THE UTILITY COMPANIES LOCATED WITHIN THE AREA. THUS, UNDERGROUND INFORMATION MUST BE FIELD VERIFIED BEFORE CONSTRUCTION.
11. UTILITY COMPANIES SERVING THIS AREA ARE:
    WATER: CITY OF SCOTTSDALE
    SEWER: CITY OF SCOTTSDALE
    TELEPHONE: CENTURYLINK
    ELECTRIC: ARIZONA PUBLIC SERVICE
    GAS: SOUTHWEST GAS
    CABLE TV: COX COMMUNICATIONS
12. LOCATION OF THE IRRIGATION SYSTEM IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR WILL BE RESPONSIBLE FOR ALL DAMAGES AT HIS COST.
13. THE TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM A TOPOGRAPHIC SURVEY PREPARED G-MAR, LLC, DATED, AUGUST 6, 2021 AND UPDATED, APRIL 27, 2022, PH: 602-524-7877.
14. BOUNDARY INFORMATION SHOWN ON THIS PLAN WAS OBTAINED FROM A CONDOMINIUM PLAT PREPARED BY OUTER LIMITS LAND SURVEYING, PROJECT NO. 21123, DATED, 11-15-2021. BOUNDARY INFORMATION SHOWN ON THIS DRAWING IS NOT CERTIFIED BY THE ENGINEER OF RECORD. CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD PRIOR TO LAYING OUT NEW CONSTRUCTION IF DISCREPANCIES ARE FOUND IN THE FIELD.
15. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY THE SITE SURVEY INFORMATION AND OBSERVE ANY CHANGES.

GENERAL PAVING NOTES

1. THE FOLLOWING MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) SPECIFICATION SHALL APPLY TO THE GRADING & DRAINAGE PLANS UNLESS OTHERWISE NOTED:
   A. ASPHALTIC PAVEMENT PER MAG SPEC. 321, 710, & 711 (R19 MM OR C-3/4 MIX DESIGN).
   B. BITUMINOUS TACK COAT PER MAG SPEC. 321.4.
   C. CONCRETE PAVEMENT PER MAG SPEC. 725.
   D. BASE COURSE PER MAG SPEC. 310 & 702.2 (A25MM).
   E. SAWCUT AND REMOVAL PER MAG SPEC. 336.
   F. JOINT SEALANT PER MAG SPEC. 729.
   G. ASPHALT CONCRETE OVERLAY PER MAG SPEC. 322.
   H. BITUMINOUS PRIME COAT PER MAG SPEC, 315.
   J. FOG SEAL COAT PER MAG SPEC. 333.
2. RELOCATE ITEMS PER MAG SPEC. 350. CONTRACTOR RESPONSIBLE FOR FEES AND RELOCATION COSTS.
3. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADJUSTMENT TO FINISH GRADE OF ALL UTILITY VALVE COVERS, CLEANOUTS AND MANHOLE CASTINGS.
4. PAVEMENT SEALANT SPECIFICATIONS:
   A. SWEEP AND CLEAN SURFACE.
   B. TREAT OIL SPOTS WITH PETRO SEAL OR APPROVED EQUAL.
   C. CLEAN AND FILL CRACKS WITH BREWER FLEX OR APPROVED EQUAL.
   D. FURNISH AND APPLY TWO COATS OF HUNTSEAL OR APPROVED EQUAL.
5. PAVEMENT MARKING MATERIALS SHALL BE FED. SPEC. TT-P-115 WITHOUT GLASS SPHERES; WHITE OR YELLOW AS INDICATED ON DRAWINGS.
   APPLICATION SHALL BE AS FOLLOWS:
   APPLY PAINT WHERE INDICATED TO A 15 MIL WET THICKNESS x 4 INCHES WIDE AND TO DIMENSIONS SHOWN ON DRAWINGS. LINES TO BE STRAIGHT AND TRUE TO LINE WITH SHARP, CLEAN EDGES. INCLUDE ALL STRIPING, DIRECTIONAL ARROWS, CROSSWALKS, LETTERING, HANDICAP DESIGNATIONS AND ALL OTHER TRAFFIC CONTROL MARKINGS SHOWN OR REQUIRED.
   EQUIPMENT:
   SPECIFICALLY DESIGNED AND MANUFACTURED TO APPLY PAVEMENT PAINT.

LEGAL DESCRIPTION

LOT 38 AND 39 OF THE FINAL PLAT OF "DARYL ESTATES - UNIT TWO" AS RECORDED IN BOOK 61 OF MAPS, PAGE 48, RECORDS OF MARICOPA COUNTY, ARIZONA.

PROJECT DESCRIPTION

DEMOLITION OF EXISTING STRUCTURES AND POOL. CONSTRUCTION OF A NEW MULIT-FAMILY BUILDING STRUCTURES ALONG WITH NEW LANDSCAPING, WALKWAYS, PATIOS, POOL AND GRADING AND DRAINAGE IMPROVEMENTS. NEW STRUCTURES WILL BE PLACED SO THAT THE FINISHED FLOOR IS FREE FROM ANY INUNDATION FROM THE 100-YEAR DESIGN STORM EVENT AND AT LEAST 12-INCHES ABOVE NEAREST ADJACENT EXISTING GRADE. ALL GRADING AROUND THE FOUNDATION OF THE NEW STRUCTURE WILL ALLOW DRAINAGE TO FLOW AWAY FROM THE FOUNDATION. NO OTHER ON-SITE GRADING IMPROVEMENTS REQUIRED.

SHEET INDEX:

OFF-SITE QUANTITIES FOR SEWER TAP:

6" SEWER TAP:	3 EA.
6" PVC SEWER LINE:	84 L.F.
A.C. SAWCUT, REMOVAL, REPLACEMENT:	133 S.Y.
4" VERT. CURB & GUTTER SAWCUT, REMOVAL, REPLACEMENT:	4 L.F.
6" SEWER CLEANOUT:	4 EA.
8" PVC SRD 35 SEWER MAIN:	286 L.F.
48" DIA. SEWER MANHOLE:	2 EA.

NOTE: QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR SHALL MAKE THEIR OWN TAKE-OFFS FOR CONSTRUCTION AND BIDDING.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER/LAND SURVEYOR — DATE

REGISTRATION NUMBER

NO CONFLICT SIGNATURE BLOCK

Utility Company	Representative	Date Sent	Date Signed
ARIZONA PUBLIC SERVICE COMPANY	CCWCONTROLDESK@APSC.COM	-	3-21-2021
COX COMMUNICATIONS	PHX.TMC@COX.COM	-	N/A
CENTURYLINK'	MAPS@CENTURYLINK.COM	-	N/A
SOUTHWEST GAS CORPORATION	VALERIE GALLARDO	-	N/A
EL PASO NATURAL GAS. CO.	JENNIFER ANGELES	-	N/A
CITY OF SCOTTSDALE, WATER		-	
CITY OF SCOTTSDALE, SEWER		-	

Engineer's Certification

I, GEOFFREY MARKOWSKI, being the person responsible for designing the facilities necessary to serve this development, hereby certify that all of the utility companies listed above, have reviewed this project proposal. Conflict Forms have been obtained from each utility company and are not included with this submittal. I also certify that all on site transformers, cable boxes and any other public/private utility appurtenances are placed such that they do not impact the use or intended use of any dedicated easements or facilities developed with this project including but not limited to stormwater storage basins, sight distance easements and NAOS or other open space easements.

Signature — 2-25-2021 Date

OWNER/DEVELOPER

SCOTT GRADEN
8144 E. DEL BARQUERO DR.
SCOTTSDALE, ARIZONA 85258
PH: 602-875-6221
CONTACT: SCOTT GRADEN

ARCHITECT/DESIGNER

KONTEXTURE
3334 N. 20TH STREET
PHOENIX, ARIZONA 85016
PH: 602-875-6221
CONTACT: DANIEL ISTRATE

DATUM

ADD 1200 TO SPOT ELEVATIONS SHOWN ON PLAN (NAVD '88 DATUM).

BENCHMARK

GDAC UNIQUE PID: 24574-1

DESCRIPTION: FOUND 3" CITY OF SCOTTSDALE BRASS CAP IN HANDHOLE, 0.8' DOWN AT THE INTERSECTION OF CAMELBACK AND SCOTTSDALE ROAD WITH AN ELEVATION OF 1277.516' (NAVD '88)

ZONING: R-5

A.P.N.: 173-38-060 & 173-38-061
NET LOT AREA: 13,000 S.F. (0.298 AC)
Q.S. #18-45

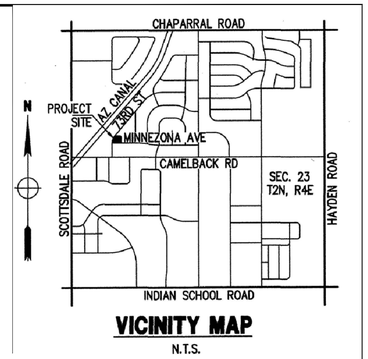
SETBACKS: FRONT = 3'
REAR = 3'
LEFT = 3'
RIGHT = 3'

TOTAL DISTURBED AREA: ±13,000 S.F.

ABBREVIATIONS

(SOME ABBREVIATIONS MAY NOT APPLY TO THESE DRAWINGS)

BOTT.	BOTTOM
B/C	BACK OF CURB
C.F.	CUBIC FEET
CLF	CHAIN LINK FENCE
CONC.	CONCRETE
C.Y.	CUBIC YARD
D.E.	DRAINAGE EASEMENT
D/W	DRIVEWAY
ESMT.	EASEMENT
EXIST.	EXISTING
F.F.	FINISHED FLOOR
FND.	FOUND
FT.	FEET
MAS.	MASONRY
M	MONUMENT LINE
N.T.S.	NOT TO SCALE
PVMT.	PAVEMENT
℄	PROPERTY LINE
PROP.	PROPOSED
P.U.E.	PUBLIC UTILITY EASEMENT
R/W	RIGHT OF WAY
S/W	SIDEWALK
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE



VICINITY MAP
N.T.S.

LEGEND

(SOME ITEMS MAY NOT APPLY TO THESE DRAWINGS)

EXISTING	PROPOSED	
		BOUNDARY LINE
		MONUMENT LINE
		PROPERTY CORNER
		EASEMENT LINE
		PROPOSED NAOS BOUNDARY
		MAS. FENCE
		VERT. CURB & GUTTER
		CONCRETE CURB
		BUILDING
		CONCRETE
		BRASSCAP IN HANDHOLE
		BRASSCAP FLUSH
		SIGN
GM		GAS METER
TR		TELEPHONE RISER
TV		CABLE RISER
PP		POWER POLE
		ELECTRICAL GUY DOWN
		STREET LIGHT OR LIGHT POLE
WM	WM	WATER METER
N	N	BACK FLOW PREVENTION ASSEMBLY
		DRYWELL/CATCH BASIN
SCB		SPRINKLER CONTROL BOX
		WATER VALVE
		FIRE HYDRANT
W	W	WATER
C		UNDERGROUND CABLE TV
T		OVERHEAD TELEPHONE
UH		UNDERGROUND TELEPHONE
OH		OVERHEAD ELECTRICAL
E		UNDERGROUND ELECTRICAL
S	S	SANITARY SEWER
GAS		GAS
		STORM DRAIN
W	W	FIRE LINE
+90.3	90.3	NATURAL GROUND ELEV.
TC90.30	TC90.30	TOP OF CURB ELEV.
P90.30	P90.30	PAVER ELEV.
G90.30	G90.30	GUTTER ELEV.
FF99.30	FF99.30	APPROX. FINISHED FLOOR ELEV.
G99.30	G99.30	CONCRETE ELEV.
RIM99.30	RIM99.30	RIM ELEV.
INV99.30	INV99.30	INVERT ELEV.

APPROVED FOR: WWR-22-000--
MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPT.

COUNTY HEALTH DELEGATE — DATE

CALL BEFORE YOU DIG
Avoid cutting underground utility lines. It's costly.
CALL 811
OR
1-800-263-1100
OR
1-800-STAKE IT
(OUTSIDE MARICOPA COUNTY)

g-mar
consulting engineers, llc
18223 west orchid lane
waddell, arizona 85355
fax: 623.242.6221 • ph: 623.242.6220

Registered Engineer (Civil)
GEOFFREY MARKOWSKI
16858
Date Signed 4-27-22
EXPIRES: 09/30/23
ARIZONA U.S.A.

PROJECT: MINNEZONA CONDOMINIUMS
7314 E. MINNEZONA AVENUE
SCOTTSDALE, ARIZONA
CLIENT: KONTEXTURE
3334 N. 20TH STREET, PHOENIX, ARIZONA 85016

EB	8-28-2021	1ST ENGINEERING SUBMITTAL
EB	6-16-22	2ND ENGINEERING SUBMITTAL
PR	7-27-22	3RD PRELIM SUBMITTAL

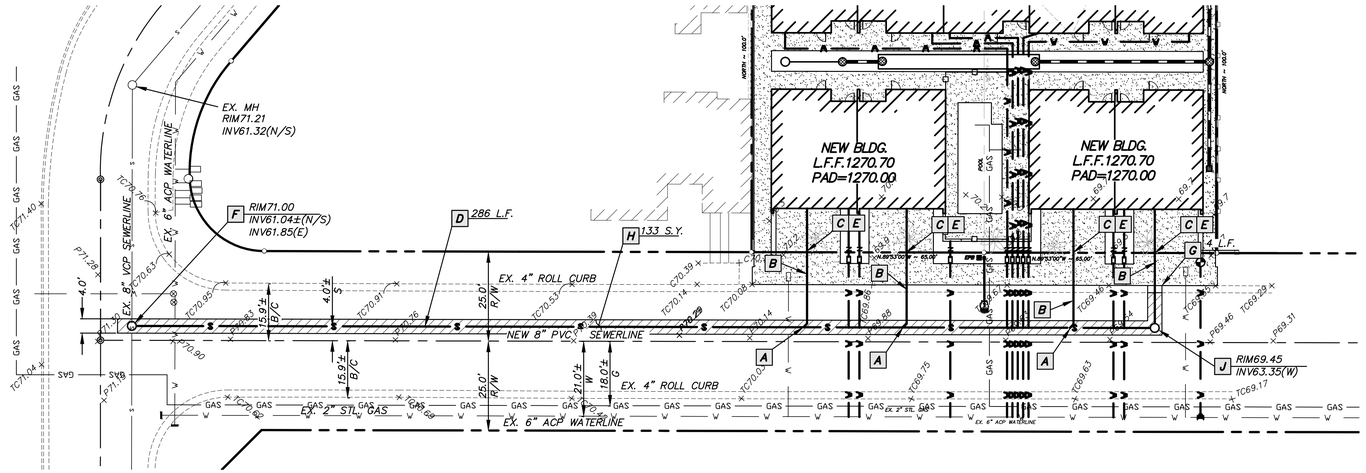
DATE ISSUED: 2 AUG 2021
DRAWN BY: GM
CHECKED BY: GM

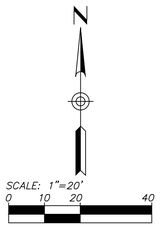
SHEET DESCRIPTION:
PUBLIC SEWER MAIN EXTENSION PLAN

SHEET WR1 OF

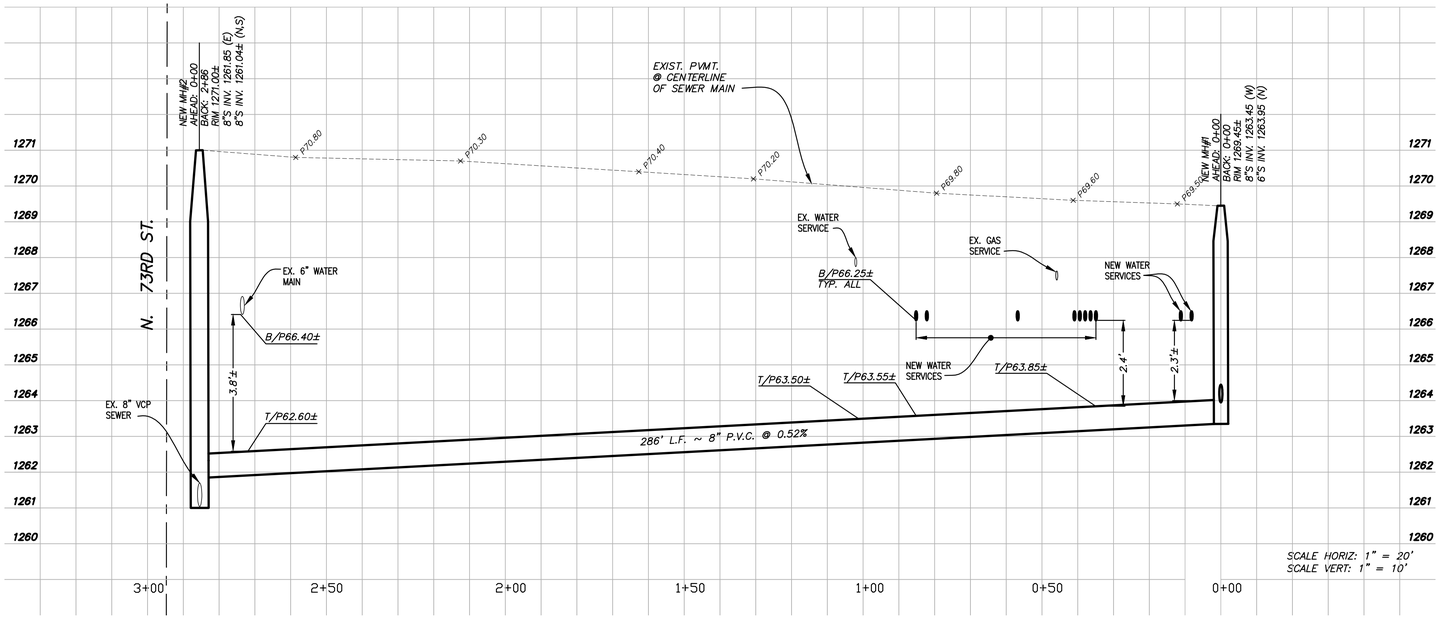
C.O.S. #45-DR-2021

JOB NO. 21-08-010-00





E. MINNEZONA



OFF-SITE SEWER CONSTRUCTION NOTES:

A. INSTALL NEW SEWER CONNECTION PER M.A.G. STD. DET. 440-3 TYPE 'C'. CONTRACTOR TO FIELD VERIFY HORIZONAL AND VERTICAL LOCATION OF EXISTING SEWER STUB PRIOR TO TRENCHING.

B. 6" PVC (SDR 35) SEWERLINE @ 2.08%. TRENCH & CONST. PER IPC STANDARDS. OFF-SITE TRENCHING IN RIGHT-OF-WAY PER C.O.S. STD. DET. 2201.

C. INSTALL 6" SEWER CLEANOUT AND CAP AT RIGHT-OF-WAY LINE PER M.A.G. STD. DET. 441. INSTALL 6" BACKWATER VALVE AT RIGHT-OF-WAY PER I.R.C. SECTION 3008.1.

D. 8" PVC (SDR 35) SEWERLINE @ 0.52%. OFF-SITE TRENCHING IN RIGHT-OF-WAY PER C.O.S. STD. DET. 2201.

E. REFER TO GRADING AND DRAINAGE PLANS FOR CONTINUATION ON-SITE.

F. INSTALL 48" DIA. SANITARY SEWER MANHOLE PER M.A.G. STD. DETAILS 420-1 AND 420-2 WITH FRAME AND LID PER M.A.G. STD. DET. 423-3. SAWCUT AND TAP EXISTING SEWER MAIN AT INVERT PER PLAN. CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING MANHOLE AND MAIN PRIOR TO TRENCHING AND TAPPING. SEE PLAN FOR RIM AND INVERT ELEVATIONS. ADJUST RIM TO FINISHED GRADE.

G. SAWCUT, REMOVE & REPLACE EXIST. 4" VERT. CURB AND GUTTER PER M.A.G. STD. DET. 220-1 TYPE 'C'. REMOVE AND REPLACE TO NEAREST CONTROL JOINTS.

H. SAWCUT, REMOVE AND REPLACE EXISTING ASPHALT PAVEMENT PER C.O.S. STD. DET. 2200. MATCH INTO EXISTING PAVEMENT.

J. INSTALL 48" DIA. SANITARY SEWER MANHOLE PER M.A.G. STD. DETAILS 420-1 AND 420-2 WITH FRAME AND LID PER M.A.G. STD. DET. 423-3. SEE PLAN FOR RIM AND INVERT ELEVATIONS. ADJUST RIM TO FINISHED GRADE. ADJUST RIM TO FINISHED GRADE.

C.O.S. INSPECTOR SHALL DETERMINE THE LIMITS OF SAWCUT FOR NEW SEWER MAIN AND TAP.

TWO (2) BEDROOM, ONE OFFICE, ONE GARAGE UNITS: **9 UNITS TOTAL**

BUILDING AREA:
- 1ST FLOOR GFA: 7034 S.F.
- 2ND FLOOR GFA: 7894 S.F.
- 3RD FLOOR GFA: 7426 S.F.

CORNER UNIT AREA (TO CENTERLINE OF SHARED WALL):
- 1ST FLOOR GFA: 788 S.F.
- 2ND FLOOR GFA: 889 S.F.
- 3RD FLOOR GFA: 893 S.F.

INTERIOR UNIT AREA (TO CENTERLINE OF SHARED WALL):
- 1ST FLOOR GFA: 788 S.F.
- 2ND FLOOR GFA: 866 S.F.
- 3RD FLOOR GFA: 770 S.F.

REQUIRED OPEN SPACE:
- FRONTAGE OPEN SPACE: 2600 S.F. (20 S.F. PER LINEAR FOOT OF FRONTAGE)
- REMAINDER: 260 S.F. (22% TOTAL OPEN SPACE MINUS FRONTAGE OPEN SPACE)
- TOTAL: 2860 S.F. MINIMUM

REQUIRED PRIVATE OUTDOOR LIVING SPACE:
- 1ST FLOOR UNITS: 704 S.F. (.1 X S.F. OF GFA)
- 2ND I 3RD FLOOR UNITS: 766 S.F. (.05 X S.F. OF GFA)
- TOTAL: 1470 S.F. MINIMUM

LOT AREA:
- PROPERTY AREA: 12,789 S.F.
- POOL AREA: 365 S.F.
- TRASH ENCLOSURE: 160 S.F.
- PAVING/HARDSCAPE AREA: 4112 S.F. (NOT INCLUDING BUILDING FOOTPRINT OR POOL AREA)
- PERVIOUS/SOFTSCAPE AREA: 2085 S.F. (GROUND LEVEL ONLY)

SITE INFORMATION:

APN:	173-38-060,173-38-061 (REPLAT IN PROGRESS)
ZONING:	R-5 (R-2 ALLOWED ON SITE)
LOT SIZE:	12,789 SQ. FT.=0.29 AC.
SECTION TOWN RANGE:	23 2N 4E
PUC:	0335
SUBDIVISION:	DARYL ESTATES 2

g-mar
consulting engineers, llc
18223 west orchid lane
waddell, arizona 85355
fax: 623.242.6221 • ph: 623.242.6220

PROJECT: MINNEZONA CONDOMINIUMS
7314 E. MINNEZONA AVENUE
SCOTTSDALE, ARIZONA

CLIENT: KONTEXTURE
3334 N. 20TH STREET, PHOENIX, ARIZONA 85016

PR	8-18-2021	1ST PRELIM SUBMITTAL	PR	4-18-2022	2ND PRELIM SUBMITTAL	
PR	7-27-22	3RD PRELIM SUBMITTAL				

DATE ISSUED: 2 AUG 2021
DRAWN BY: GM
CHECKED BY: GM

SHEET DESCRIPTION:
SEWER MAIN EXTENSION PLAN

SHEET WR2 OF

C.O.S. #45-DR-2021

CALL BEFORE YOU DIG
Avoid cutting underground utility lines. It's costly.
CALL 811
OR 1-800-263-1100
OR 1-800-STAKE IT
(OUTSIDE MARICOPA COUNTY)

JOB NO. 21-08-010-00

C:\Users\Owner\CloudStation\Gmatrix Projects\2021\21-08-010-00-7314 E Minnezona\Civil\21-08-010-00-C1.dwg Plotted 7/27/22 by Owner

APPENDIX C

6-inch Sewer Line
Flow Rate Calculations
7314 E Minnezona
Scottsdale, Arizona 85250

Partially Full Pipe Flow Calculations - U.S. Units

II. Calculation of Discharge, Q, and average velocity, V
for pipes more than half full

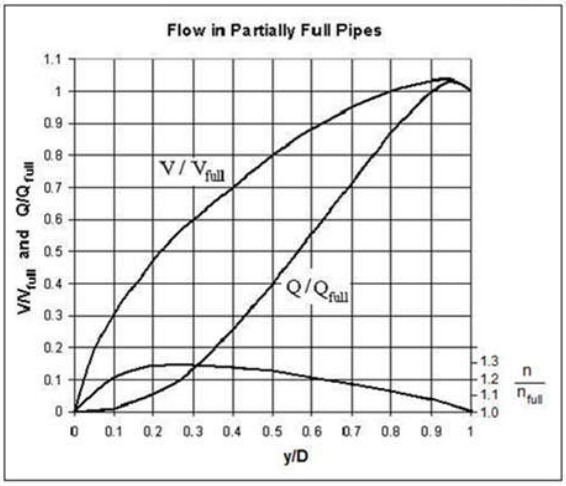
Instructions: *Enter values in blue boxes. Calculations in yellow*

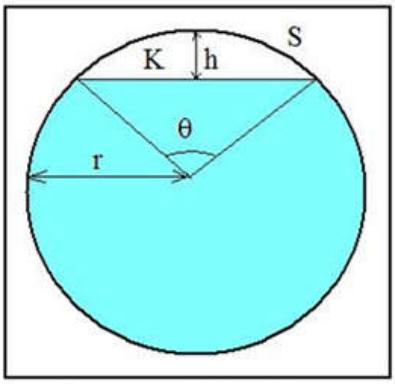
Inputs

Pipe Diameter, **D** =	6	in
Depth of flow, **y** =	3	in
(must have y ≥ D/2)		
Full Pipe Manning roughness, $\mathbf{n_{full}}$ =	0.013	
Channel bottom slope, **S** =	0.01043	ft/ft

Calculations

$\mathbf{n/n_{full}}$ =	1.2500	
Partially Full Manning roughness, **n** =	0.016	
Pipe Diameter, **D** =	0.5	ft
Pipe Radius, **r** =	0.25	ft
Circ. Segment Height, **h** =	0.250	ft
Central Angle, **q** =	3.14	radians
Cross-Sect. Area, **A** =	0.10	ft^2
Wetted Perimeter, **P** =	0.8	ft
Hydraulic Radius, **R** =	0.13	ft
Discharge, **Q** =	0.23	cfs 148,653 gpd
Ave. Velocity, **V** =	2.34	ft/sec
pipe % full [$(A/A_{full})*100\%$] =	50.0%	





Partially Full Pipe Flow Parameters
(More Than Half Full)

r = D/2

h = 2r - y y/D

Hydraulic Rad us
R = A/P

Manning Equation

$Q = (1.49/n)(A)(R^{2/3})(S^{1/2})$

$V = Q/A$

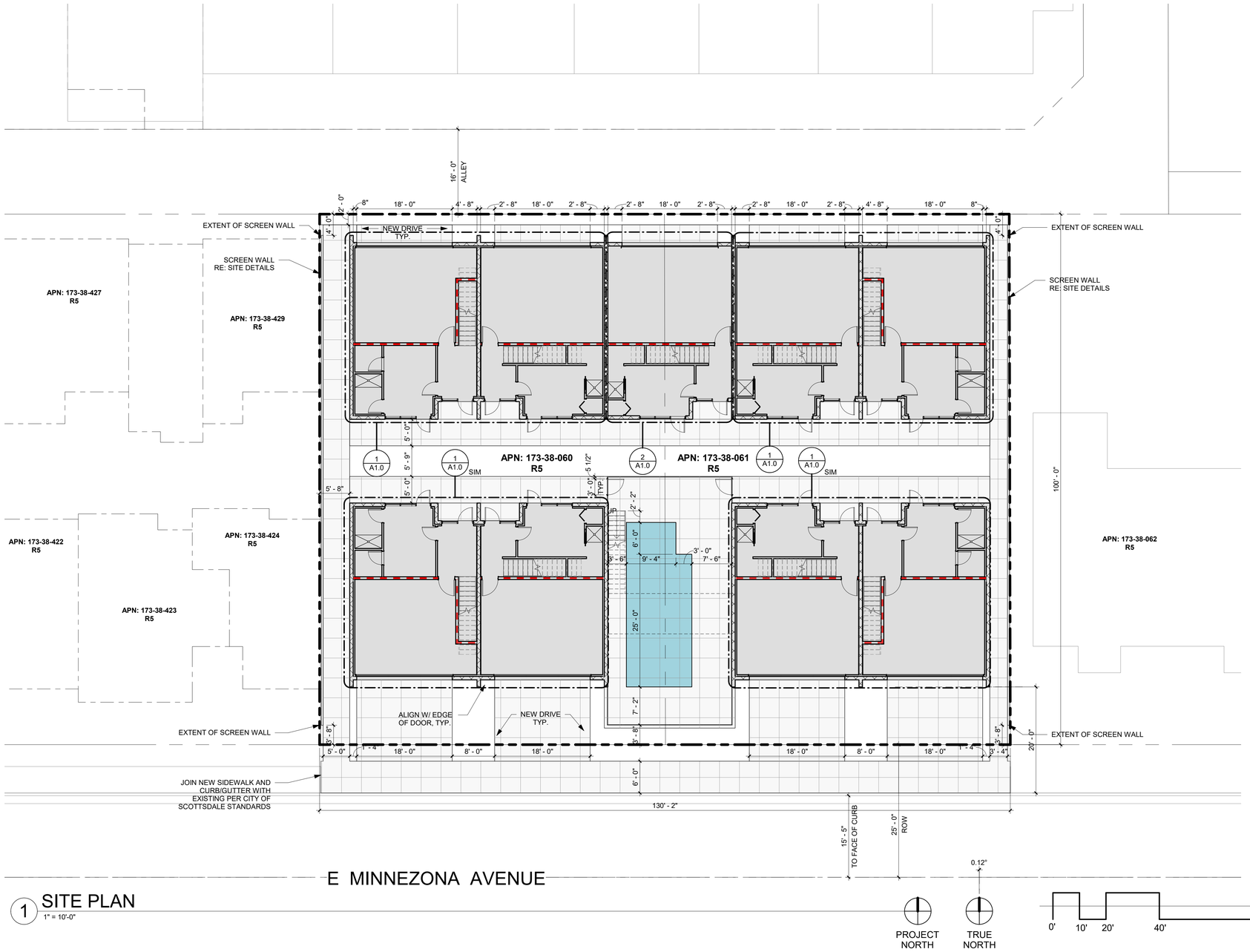
$$\theta = 2\arccos\left(\frac{r-h}{r}\right)$$

$$A = \pi r^2 - \frac{r^2(\theta - \sin\theta)}{2}$$

$$P = 2\pi r - r*\theta$$

Equat on used for $n/n_{full} = 1.25 - (y/D - 0.5) * 0.5$ (for $0.5 \le y/D \le 1$)

APPENDIX D

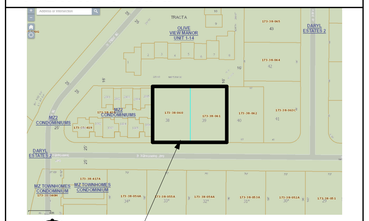


1 SITE PLAN
1" = 10'-0"

GENERAL NOTES

A. ALL FINISHES/FIXTURES/APPLIANCES TO BE SELECTED BY OWNER.
B. PROVIDE A SOLID, SELF-CLOSING, SELF-LATCHING DOOR BETWEEN RESIDENCE AND GARAGE.
C. PROVIDE LANDING ON OUTSIDE OF EXTERIOR DOORS.
D. ALL GAS FIREPLACES TO INCLUDE A PERMANENTLY INSTALLED APPROVED GAS LOG SET.
E. SHOWER DOORS SHALL HAVE SAFTEYGLAZING AND SWING OUTWARD (R308.4)
F. PROVIDE MECHANICAL EXAUST VENTILATION FOR BATHROOMS, WATER CLOSETS, LAUNDRY ROOM, AND KITCHEN, DUCT DIRECTLY TO OUTSIDE. (R303.2 AMENDED, M1506, TABLE 1506.3).
H. PROVIDE STAIRWAY ILLUMINATION PER (R303.6).
I. PROVIDE WEATHER FLASHING/PROOFING AT EXTERIOR WALL PENETRATIONS, INCLUDING WINDOWS, DOORS AND VENTS... PER R703.8.
J. ALL INTERIOR WALLS, CLGS AND SOFFITS TO HAVE SQUARE CORNER BEAD.
K. ALL DRYWALL TO BE FINISHED LEVEL TO MATCH EXISTING.
L. ALL HEIGHTS SHOWN ARE BASED FROM A REFERENCE POINT 0'-0" F.F.
M. PROVIDE STUCCO CONTROL JOINTS PER MANUFACTURER'S RECOMANDATIONS. VERIFY LOCATIONS WITH OWNER.
N. ALL OUTSIDE STUCCO CORNERS TO MATCH EXISTING WITHREINFORCEMENTS.
O. COLORS, STAINS, STC. TO BE SECTED BY OWNER.
P. PROVIDE WEATHER FLASHING/PROOFING AT EXTERIOR WALL PENETRATIONS, INCLUDING WINDOWS, DOORS, AND VENTS... PER R703.8.
Q. FOR DOOR SCHEDULE SEE SHEET A7.0 .
R. FOR SMOKE DETECTORS SEE RCP SHEETS .
S. EACH WATER CLOSET SHOULD HAVE A MIN. OF 15" FROM CENTERLINE TO EACH SIDE TO FINISH SURFACE.
T. SITE LIGHTING TO MEET CITY OF SCOTTSDALE ZONING ORDINANCE SECTION 7.6 REQUIREMENTS.

VICINITY MAP



PROJECT INFO

BUILDING INFORMATION:

PROPOSED OCCUPANCY:	R-2 OCCUPANCY
EXISTING ZONING:	R-5 (R-2 ALLOWED ON SITE)
CONSTRUCTION TYPE:	V-B (SPRINKLERED)
BUILDING HEIGHT:	THREE STORY

PROJECT DESCRIPTION:

TWO (2) THREE LEVEL MULTI-FAMILY BUILDINGS

TWO (2) BEDROOM, ONE OFFICE, ONE GARAGE UNITS: **9 UNITS TOTAL**

BUILDING AREA:
- 1ST FLOOR GFA: 7034 S.F.
- 2ND FLOOR GFA: 7894 S.F.
- 3RD FLOOR GFA: 7426 S.F.

CORNER UNIT AREA (TO CENTERLINE OF SHARED WALL):
- 1ST FLOOR GFA: 788 S.F.
- 2ND FLOOR GFA: 889 S.F.
- 3RD FLOOR GFA: 893 S.F.

INTERIOR UNIT AREA (TO CENTERLINE OF SHARED WALL):
- 1ST FLOOR GFA: 788 S.F.
- 2ND FLOOR GFA: 866 S.F.
- 3RD FLOOR GFA: 770 S.F.

REQUIRED OPEN SPACE:
- FRONTAGE OPEN SPACE: 2600 S.F. (20 S.F. PER LINEAR FOOT OF FRONTAGE)
- REMAINDER: 260 S.F. (22% TOTAL OPEN SPACE MINUS FRONTAGE OPEN SPACE)
- TOTAL: 2860 S.F. MINIMUM

REQUIRED PRIVATE OUTDOOR LIVING SPACE:
- 1ST FLOOR UNITS: 704 S.F. (1 X S.F. OF GFA)
- 2ND – 3RD FLOOR UNITS: 766 S.F. (.05 X S.F. OF GFA)
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LOT AREA:
- PROPERTY AREA: 12,789 S.F.
- POOL AREA: 365 S.F.
- TRASH ENCLOSURE: 160 S.F.
- PAVING/HARDSCAPE AREA: 4112 S.F. (NOT INCLUDING BUILDING FOOTPRINT OR POOL AREA)
- PERVIOUS/SOFTSCAPE AREA: 2085 S.F. (GROUND LEVEL ONLY)

SITE INFORMATION:

APN:	173-38-060,173-38-061 (REPLAT IN PROGRESS)
ZONING:	R-5 (R-2 ALLOWED ON SITE)
LOT SIZE:	12,789 SQ. FT.=0.29 AC.
SECTION TOWN RANGE:	23 2N 4E
PUC:	0335
SUBDIVISION:	DARYL ESTATES 2

APPLICANT/DESIGN PROFESSIONAL:
KONTEXTURE
DANIEL ISTRATE
3334 N. 20TH. STREET
PHOENIX, AZ 85016
T. 623.533.7652
F. 623.218.6288
DANIEL.ISTRATE@KONTEXTURE.COM

OWNER / DEVELOPER :
SCOTT GRADEN
15757 N 78TH ST, STE B
SCOTTSDALE, AZ 85260

PARKING CALCULATIONS

1.7 SPACES PER UNIT (2 BEDROOMS): 9 UNITS X 1.7 = 16 SPACES REQUIRED
18 SPACES PROVIDED

BUILDING CODES

International Building Code with Amendments	2015 IBC
International Mechanical Code with Amendments	2015 IMC
National Electrical Code/NFPA-70 with Amendments	2014 NEC
International Plumbing Code with Amendments	2015 IPC
International Energy Code with Amendments	2015 IECC
International Existing Building Code with Amendments	2015 IEBC
International Residential Code	2015 IRC
International Fire Code with Amendments	2015 IFC
Americans w/ Disability Act Standards for Accessible Design	2010 ADASAD
International Fuel Gas Code	2015 IFGC

Including all 2015 Engineering standards and City of Scottsdale Amendments

PROJECT NARRATIVE

THE MINNEZONA CONDOMINIUMS PROJECT WILL CONSIST OF TWO (2) NEW BUILDINGS PLACED ON OF THE PROPERTY AT 7314 AND 7318 EAST MINNEZONA AVENUE IN SCOTTSDALE ARIZONA 85251. THE NEW BUILDINGS WILL BE THREE (3) LEVEL MULTI UNIT BUILDINGS. THERE WILL BE ONE 5-PLEX BUILDING AND ONE 4-PLEX BUILDING. THE NEW STRUCTURES WILL CONTAIN NINE (9) TWO (2) BEDROOM UNITS. EACH UNIT WILL ALSO HAVE AN ENCLOSED TWO (2) CAR GARAGE AND WORK-SPACE ON THE GROUND FLOOR.

LEGAL DESCRIPTION

SEE CIVIL SHEET C1 OF 2 FOR LEGAL DESCRIPTION

DEFERRED SUBMITTALS

- FIRE SPRINKLERS
- ACCESS CONTROL
- SITE LIGHTING / UTILITY PLAN
- SITE PHOTOMETRIC PLAN

MINNEZONA CONDOMENIUMS

7314 E. MINNEZONA AVE
SCOTTSDALE ARIZONA 85251

KONTEXTURE
architecture | interiors | urban planning

KONTEXTURE, LLC
ARCHITECT
3334 N. 20TH STREET
PHOENIX, AZ. 85016
T: 602.875.6221
F: 602.875.6239

ISSUED FOR	REV	DATE
DEVELOPMENT REVIEW BOARD		10/20/21

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEYPLAN

DRAWING TITLE

SITE PLAN

1" = 10'-0"

SCALE 20-074

PROJECT NUMBER

A0.2

DRAWING NUMBER