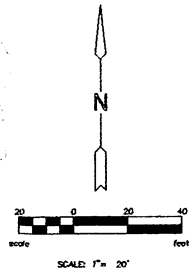
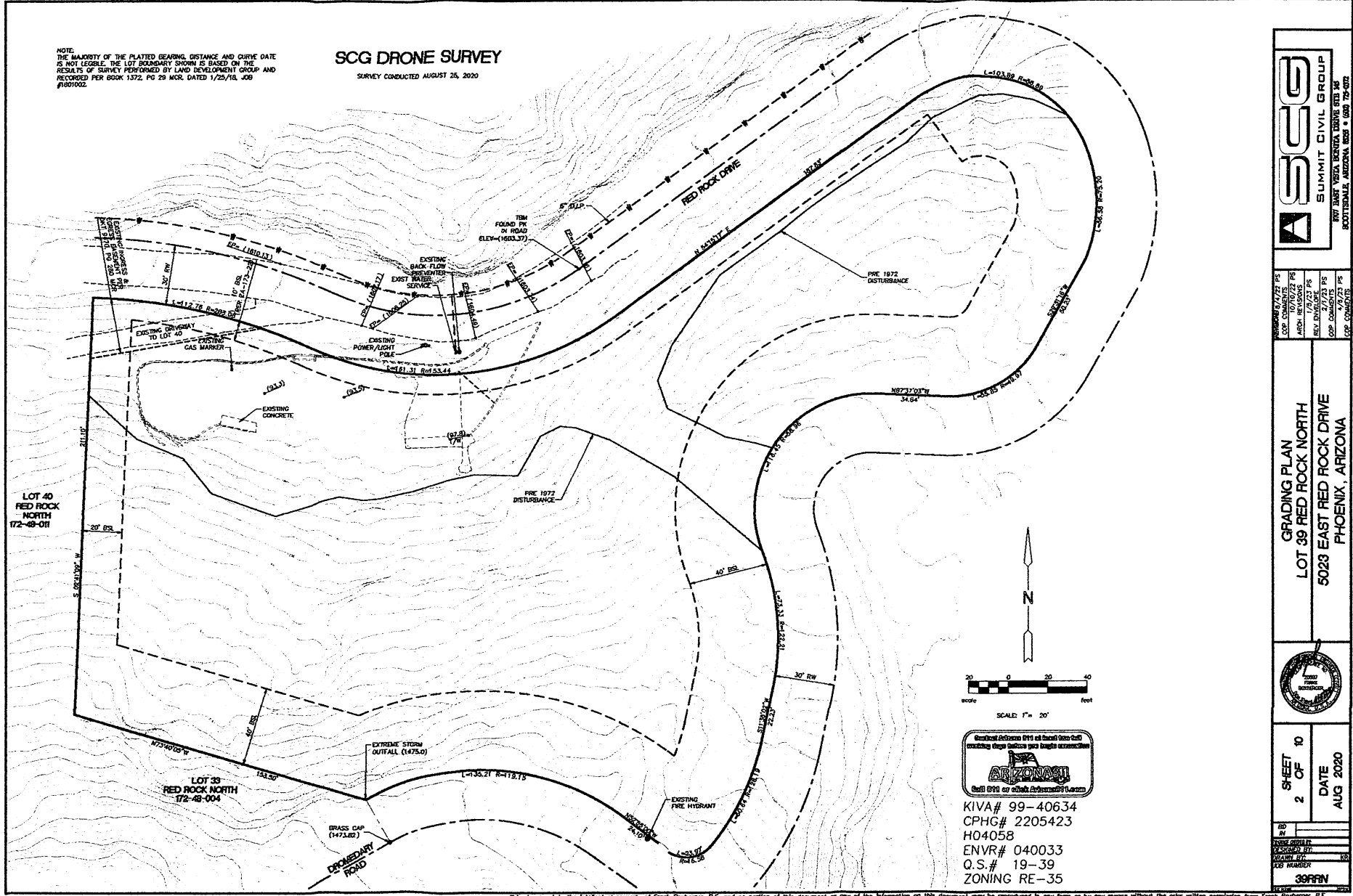




NOTE:
THE MAJORITY OF THE PLATTED BEARING, DISTANCE AND CURVE DATE IS NOT LEGIBLE. THE LOT BOUNDARY SHOWN IS BASED ON THE RESULTS OF SURVEY PERFORMED BY LAND DEVELOPMENT GROUP AND RECORDED PER BOOK 1372, PG 29 MOR, DATED 1/25/18, JOB #1801002.

SCG DRONE SURVEY

SURVEY CONDUCTED AUGUST 25, 2020



KIVA# 99-40634
CPHG# 2205423
H04058
ENVR# 040033
Q.S.# 19-39
ZONING RE-35

 <p>SCG SUMMIT CIVIL GROUP 877 EAST VISTA BOULEVARD, SUITE 303 SCOTTSDALE, ARIZONA 85263 • (480) 755-0022</p>	
<p>DATE: 8/27/20 DRAWN BY: [blank] CHECKED BY: [blank] SCALE: [blank] JOB NUMBER: [blank]</p>	<p>DATE: 8/27/20 DRAWN BY: [blank] CHECKED BY: [blank] SCALE: [blank] JOB NUMBER: [blank]</p>
<p>GRADING PLAN LOT 39 RED ROCK NORTH 5023 EAST RED ROCK DRIVE PHOENIX, ARIZONA</p>	
	
<p>SHEET 2 OF 10 DATE AUG 2020</p>	
<p>30FRN</p>	

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LEGEND

- 98.5
(97.95) PROPOSED ELEVATION
- EXISTING ELEVATION
- F.F. FINISHED FLOOR ELEVATION
- LOWEST FINISHED FLOOR ELEVATION
- FLOW DIRECTION
- EXISTING CONTOUR
- 1258 PROPOSED CONTOUR
- EP EDGE OF PAVEMENT
- BC BACK OF CURB
- RW RIGHT OF WAY
- PUE PUBLIC UTILITY EASEMENT
- GPE GENERAL PURPOSE EASEMENT
- T/W TOP OF SITE WALL
- T/RW TOP OF RETAINING WALL
- T/F TOP OF FOOTING
- T/M TOP OF WROUGHT IRON FENCE
- T/SW TOP OF SITE WALL
- T/C TOP OF COLUMN
- HFE HIGH WATER ELEVATION
- FM FINISHED GRADE
- FL FLOWLINE
- INW INWERT
- CENTERLINE
- PROPERTY LINE
- MASS BOUNDARY
- SUGGESTED BUILDING DEVELOPE
- REVISED BUILDING DEVELOPE
- SS SANITARY SEWER LINE
- WATER LINE
- AB ASPHALT
- BSL BUILDING SETBACK LINE
- DISTURBANCE/CONSTRUCTION FENCE
- HOUSE DELINEATION
- RP-RAP

SITE INFORMATION
 LOT AREA: 2.32 ACRES/101,037 SQUARE FEET
 DISTURBED AREA: 0.58 ACRES/25,100 SQUARE FEET
 ZONING: RE-36
 APN: 172-448-010
 QSF: 19-39

PROJECT DESCRIPTION
 GRADING AND DRAINAGE PLAN WITH ON LOT RETENTION FOR NEW RESIDENCE @ 5023 EAST RED ROCK DRIVE, PHOENIX, AZ

OWNER
 MORSTAD MATT/LAUREN
 5430 EAST PRODRIVE ROAD
 PHOENIX, AZ 85018
 (480) 338-1832
 jmorstad@aol.com

ARCHITECT/DRAWER
 PUEZLA ARCHITECTURE & DESIGN
 3070 N. 40TH ST, SUITE 130
 PHOENIX, AZ 85018
 (480) 338-1832
 jmorstad@aol.com

ENGINEER
 SUMMIT CIVIL GROUP
 FRANK BOESBERGER, P.E.
 8707 EAST VISTA BONITA DRIVE
 SCOTTSDALE, AZ 85255
 (602) 723-0372
 email: frank@ecogaz.com

LANDSCAPE ARCHITECT
 STUDIO SPRAWL
 P.O. BOX 14072
 SCOTTSDALE, AZ 85267
 (480) 361-8281

BOUNDARY
 COP BRASS CAP IN HAND HOLE AT THE INTERSECTION OF CAMELBACK ROAD AND 44TH STREET.
 ELEVATION = 1263.418' (MVD20)

EARTHWORK QUANTITIES
 CUT: 350 CY
 FILL: 25 CY
 (NOT TO BE USED FOR BIDDING PURPOSES)

DRAINAGE UTILIZATION
 SITE IS IN A SPECIAL FLOOD HAZARD AREA: I II
 RETENTION FLOWS AFFECT THIS SITE: Y N
 RETENTION PROVIDED IS FOR THE FIRST FLUSH STORM EVENT.
 EXTREME STORM OUTFALLS THE SITE AT THE ELEVATION OF 1275.0

HILLSIDE AREA CALCULATIONS

TOTAL LOT AREA	100,037 SF
ALLOWED UNDER ROOF DISTURBANCE	29,250 SF / 29%
PROPOSED UNDER ROOF DISTURBANCE	3,488 SF / 3.4%
PROPOSED BEYOND ROOF DISTURBANCE	1,513 SF / 1.5%
ALLOWED TOTAL AREA OF DISTURBANCE	32,263 SF / 32.3%
PROPOSED TOTAL AREA OF DISTURBANCE	15,009 SF / 15%
ALLOWED TOTAL REVEGETATION AREA	3,080 SF / 3%
PROPOSED TOTAL REVEGETATION AREA	9,100 SF / 9%

* ALLOWED DISTURBANCE AREA SHOWN IS BASED ON CITY OF PHOENIX PRE-1972 EXISTING DISTURBANCE

CERTIFICATE GUARANTEED

ITEM	AMOUNT	UNIT
CONCRETE DRIVEWAY	500	SF
RETAINING WALLS	143	LF
8" DRAIN PIPE	50	LF
12"x12" CATCH BASINS	3	EA

HILLSIDE APPROVAL

HILLSIDE APPROVAL CITY OF PHOENIX DATE _____

LINEAR FOOTAGE RETAINING WALLS

3" WALL:	34 LF
4" WALL:	34 LF
5" WALL:	29 LF
6" WALL:	57 LF
7" WALL:	43 LF
8" WALL:	6 LF
9" WALL:	49 LF
10" WALL:	47 LF
11" WALL:	06 LF
12" WALL:	124 LF
13" WALL:	3 LF
16" WALL:	8 LF

NOTE:
 RETAINING WALLS TO ADHERE TO COP PLANNING AND DEVELOPMENT DEPARTMENT DSAP 22203 STIPULATIONS DATED JANUARY 28, 2023.

1. TOTAL ALLOWABLE RETAINING WALL HEIGHT (MEASURED FROM TOP OF FOOTING TO TOP OF RETAINING) TO BE NO MORE THAN 16 FEET AS SHOWN ON THE SUBMITTED HILLSIDE/GRADING AND DRAINAGE PLAN. THE PROPOSED WALLS ARE TO BE IN LINE WITH THE EXISTING PERMITTED RETAINING WALLS CURRENTLY ON SITE AT APPROXIMATE LOCATION AND HEIGHT.

2. THE MATERIAL, COLOR, TEXTURE, AND FINISH OF THE RETAINING WALL IS TO MATCH THE EXISTING SURROUNDING UNDISTURBED AREA AND BE COMPATIBLE WITH THE ARCHITECTURE OF THE EXISTING HOME AS APPROVED BY PLANNING AND DEVELOPMENT THROUGH THE HILLSIDE/GRADING AND DRAINAGE PLAN REVIEW. CAST OR POWDER-CONCRETE, CONCRETE BLOCK, MORTAR, METAL, OR OTHER TYPES OF MATERIALS WILL NOT BE PERMITTED.

3. THE EXISTING BOUNDARILINEX ALONG RED ROCK OR IS TO REMAIN IN PLACE AND PROTECTED WITH CONSTRUCTION FENCING IF THE AREA BETWEEN THE DRIVEWAY AND RED ROCK DRIVE IS TO BE DISTURBED WITH THE CONSTRUCTION OF THE RETAINING WALLS. THE PLANTING MUST BE REPLACED WITH NATIVE PLANTS MATCHING THE ADJACENT SURROUNDING UNDISTURBED AREA AND THE SONORAN DESERT PLANT LIST.

4. A REVOCABLE PERMIT FOR THE RETAINING WALL AND STORM DRAIN SYSTEM IN RIGHT-OF-WAY IS REQUIRED. PROVIDE A COPY OF THE REVOCABLE PERMIT APPROVAL WITH THE SECOND SUBMITTAL OF THE HILLSIDE/GRADING AND DRAINAGE PLAN.

5. ALL NEW AND EXISTING CUTS AND FALLS ARE TO ACHIEVE LONG TERM STABILITY AND SHALL BE REINFORCED AND STAINED TO APPEAR AS NATURAL AS POSSIBLE. TO MATCH THE EXISTING UNDISTURBED SURFACE ROCK COLOR IF REVEGETATION IS NOT POSSIBLE, AS APPROVED BY PLANNING AND DEVELOPMENT THROUGH THE HILLSIDE/GRADING AND DRAINAGE PLAN REVIEW.

6. A CHEMICALLY REACTIVE STAIN FOR NATURAL ROCK SURFACES, APPROVED BY THE PLANNING AND DEVELOPMENT DEPARTMENT, SHALL BE APPLIED TO ALL ROCK CUTS, SCARS, AND BLEMISHES THAT HAVE REMOVED THE NATURAL DESERT VARIATION FROM THE SURFACE. MATCH THE NATURAL UNDISTURBED NATURAL ROCK SURFACES. WITH CONSIDERATION TO RESTORATION, THE SURFACE FINISHES IN THE DISTURBED AREAS SOUTH OF THE HOLE TO THE INTO THE ADJACENT UNDISTURBED HILLSIDE LANDFORMS.

7. NATURALISTIC CONTOURING OF THE ADJACENT UNDISTURBED AREA SUCH AS NATIVE FOOTHILL PALO VERDE AND NATIVE MESQUITES (NOT HYDRUS) CREOSOTE AND TRIANGLE-LEAF BURSCAGE SHRUBS, AND SAGEHARD AND RED STONE PINE/CANYON CURBS IN A MANNER THAT ENHANCES THE ADJACENT UNDISTURBED SETTING (TYPES AND DENSITIES OF EXISTING PLANTS) AS APPROVED BY THE PLANNING AND DEVELOPMENT DEPARTMENT THROUGH THE HILLSIDE/GRADING AND DRAINAGE PLAN AND SEPARATE REVEGETATION PLAN REVIEW.

8. APPROVAL OF THIS HILLSIDE GRADING REVIEW SHALL BE VALID FOR A PERIOD OF 24 MONTHS AND WILL CONTINUE TO BE VALID BEYOND 24 MONTHS IF A GRADING PERMIT HAS BEEN ISSUED AND HAS NOT EXPIRED.

NOTE:
 AFTER INSPECTION, WE HAVE DETERMINED THAT NO NATIVE PLANTS REQUIRED TO BE INVENTORIED PER COP NATIVE PLANT SALVAGE ORDINANCES OCCUR OR WILL BE IMPACTED BY THE PROPOSED CONSTRUCTION. ALL DISTURBED NATIVE AREAS OUTSIDE THE BUILDING FOOTPRINT BUT WITHIN THE BUILDING ENVELOPE WILL BE RESTORED PER THE CITY OF PHOENIX'S REQUIREMENTS WITH NATIVE SHRUBS, CACTI, AND SEEDS.

MORSTAD RESIDENCE
GRADING AND DRAINAGE PLAN WITH HILLSIDE
FOR NEW RESIDENCE

@ 5023 EAST RED ROCK DRIVE
LOT 39 RED ROCK NORTH, LOCATED IN THE SOUTHWEST 1/4 OF
SECTION 17, T2N, R4E OF THE GILA & SALT RIVER BASE & MERIDIAN

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 CIVIL ENGINEER/LAND SURVEYOR DATE _____

REGISTRATION NUMBER _____

GRADING AND DRAINAGE NOTES

- A GRADING PERMIT IS REQUIRED UNDER CHAPTER 32A OF THE PHOENIX CITY CODE.
- INCH HALL PERMITS ARE REQUIRED. THEY MUST BE OBTAINED PRIOR TO CONCURRENTLY WITH THE GRADING AND DRAINAGE PERMIT.
- EXCAVATING CONTRACTOR MUST GIVE LOCATION FOR WASTING EXCESS EXCAVATION AND A LETTER FROM OWNER GIVING PERMISSION FOR DUMPING FROM TO SHORING OR WITH CONSTRUCTION OF EXCESS EXCAVATION EXCEEDS 100 CUBIC YARDS. THE DISPOSAL SITE WILL ALSO REQUIRE A GRADING AND DRAINAGE PERMIT.
- PLANNING & DEVELOPMENT DEPARTMENT FIELD INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY ON-SITE AND/OR OFF-SITE CONSTRUCTION BEGINS. TELEPHONE (602) 262-7811.
- STAGING FINISH FLOOR ELEVATIONS IS THE RESPONSIBILITY OF THE OWNER AND HIS ENGINEER. THE OWNER'S ENGINEER SHALL SUBMIT THREE SEALED COPIES OF THE GRADING AND DRAINAGE PLAN DESIGNATED AS "RECORD DRAWING" (BEARING AN ORIGINAL SIGNATURE) PRIOR TO THE REQUEST FOR FINAL INSPECTION.
- A FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) "ELEVATION CERTIFICATE" MUST BE COMPLETED FOR ANY STRUCTURE CONSTRUCTED IN A SPECIAL FLOOD HAZARD AREA (SFHA) PRIOR TO AN ELECTRICAL CLEARANCE FOR THAT STRUCTURE. ONE COPY OF THE "ELEVATION CERTIFICATE" IS TO BE SUBMITTED TO THE GENERAL BUILDING SAFETY INSPECTOR ON SITE AND ONE COPY IS TO BE SUBMITTED TO THE CITY OF PHOENIX FLOOD PLAN MANAGER.
- A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
- ALL TRUCK DEPARTMENTS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- GRADING AND DRAINAGE PLAN APPROVAL INCLUDES THE CONSTRUCTION OF ALL SURFACE IMPROVEMENTS SHOWN ON THE APPROVED PLAN, INCLUDING, BUT NOT LIMITED TO, RETENTION AREAS, SEDIMENTATION BASINS, AND/OR OTHER DRAINAGE FACILITIES, DRAINAGE PATTERNS, WALLS, CURBS, ASPHALT PAVEMENT, AND BUILDING FLOOR ELEVATIONS.
- GRADES SHOWN IN RETENTION BASINS ARE DESIGN FINISHED GRADES. NOTIFY THE CONTRACTOR OR ANY SUBCONTRACTOR PLAN TO PLACE SPOTS DUE TO FOOTINGS, UTILITY TRENCHES, LANDSCAPING, SWAGING POOLS, ETC. IN THE BASINS SHOULD BE IDENTIFIED. THE CONTRACTOR SHALL OVER-EXCAVATE USING THE RIGID GRADING OPERATION TO ALLOW FOR THE PLACEMENT OF THE FILL OR LANDSCAPING MATERIALS.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING AND CONFORMING NOTINGS OF ALL THE EXISTING UTILITY LINES WITHIN PROPOSED RETENTION BASIN AREAS. IF THE BASIN CANNOT BE CONSTRUCTED PER PLAN BECAUSE OF CONFLICTS, THE CONTRACTOR SHALL DISCUSS MODIFICATION OF BASIN CONFIGURATION WITH THE CITY INSPECTOR TO DETERMINE IF A PLAN REVISION OR A FIELD CHANGE IS REQUIRED.
- ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SHAWLS, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERRANS, BARRIERS WALLS, CONCRETE CHANNELS, OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION.
- PER SECTION 6.8.7 OF THE STORM WATER POLICES AND STANDARDS, SLOPES OF STORM WATER STORAGE FACILITIES SHALL BE NO STEEPER THAN 5:1 FOR PROTECTED GRASS AREAS AND 3:1 FOR LANDSCAPE AREAS. SLOPE STABILIZATION MEASURES ARE REQUIRED FOR ALL SLOPES GREATER THAN 5:1. THE SLOPE STABILIZATION MEASURES SHALL BE READILY MAINTAINABLE USING COMMON MAINTENANCE EQUIPMENT AND BE DESIGNED WITH CONSIDERATION TO RESTORATION. THE SLOPE STABILIZATION MEASURES SHALL BE CONSISTENT WITH COMMONLY USED ENGINEERING PRACTICES. UNSTABILIZED DECOMPOSED GRANITE IS NOT ALLOWED ON SLOPES GREATER THAN 5:1.

ADDITIONAL NOTES FOR HILLSIDE:

- BEFORE GRADING IN AREAS CONTAINING NATIVE DESERT VEGETATION, THE CONTRACTOR MUST OBTAIN A PERMIT FROM ARIZONA DEPARTMENT OF AGRICULTURE, FOR INFORMATION, PHONE (602) 364-5025.
- IF PROPERTY IS ADJACENT TO THE PUEBLO MOUNTAIN PRESERVE, NO DISTURBANCE OF PRESERVE PROPERTY FOR ACCESS, GRADING, OR OTHER CONSTRUCTION PURPOSES SHALL BE ALLOWED. THE CONTRACTOR IS REQUIRED TO DELINEATE THE MOUNTAIN PRESERVE BOUNDARY WITH A TEMPORARY FENCE OR ACCEPTABLE METHODOLOGY. PRESERVE ISSUES, THE GRADING PLAN MUST SHOW ALL LANDSCAPE PRESERVATION EASEMENTS, CONSERVATION EASEMENTS, AND APPROPRIATE AREAS LABELED PRIOR TO ANY CLEARING, GRUBBING, OR GRADING OPERATIONS. CONSTRUCTION FENCING SHALL BE SHOWN ON APPROVED PLANS PERMITTED AND INSPECTED AND SALVAGE OPERATIONS PERMITTED, DISPECTED, AND COMPLETED.



LEGAL DESCRIPTION

LOT 39 RED ROCK NORTH, AS RECORDED IN BOOK 75 OF MAPS, PAGE 12, RECORDS OF MARICOPA COUNTY, ARIZONA.

GRADING AND DRAINAGE PLAN NOTES (CITY OF PHOENIX)(CONT.)

- ALL RETAINING WALLS ARE TO BE REVIEWED AND PERMITTED BY THE RESIDENTIAL PLAN REVIEW AND INSPECTION BRANCH OF THE PLANNING & DEVELOPMENT DEPARTMENT. ALL RETAINING WALLS ARE TO BE IN ACCORDANCE WITH SECTION 703 OF THE ZONING ORDINANCE AND SECTION 32-32 OF THE SUBMISSION ORDINANCE FOR SPECIFIC WALL HEIGHT REQUIREMENTS. USE PERMIT IS REQUIRED FOR ALL OVER HEIGHT RETAINING WALLS.
- ALL RAMPS MUST MEET 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND CITY OF PHOENIX SUPPLEMENT TO M.U.G. UNIFORM STANDARD SPECIFICATIONS AND DETAILS: 22 MAX CROSS SLOPES AND 1% MAX LONGITUDINAL SLOPES.
- CERTIFICATE OF OCCUPANCY (C.O.) AND/OR FINAL ELECTRICAL CLEARANCE FOR ANY BUILDING IS NEEDED UNTIL ALL GRADING AND DRAINAGE IMPROVEMENTS ARE COMPLETED.
- EXISTING OR NEWLY DAMAGED AND/OR DISPLACED CONCRETE CURB, OUTLET, SIDEWALK, OR DRIVEWAY SLAB THAT IS WITHIN THE RIGHT-OF-WAY SHALL BE REPAIRED OR REPLACED, AS NOTED BY CITY INSPECTORS, BEFORE FINAL ACCEPTANCE OF THE WORK.
- THE ENGINEERING DESIGN ON THESE PLANS IS ONLY APPROVED BY THE CITY IN SCOPE AND NOT IN DETAIL. CONSTRUCTION QUANTITIES ON THESE PLANS ARE NOT VERIFIED BY THE CITY. APPROVAL OF THESE PLANS ARE FOR PERMIT PURPOSES ONLY AND SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE DEEMED TO BE IN VIOLATION OF ANY LAW, ORDINANCE, HEALTH, SAFETY, OR OTHER DESIGN ISSUES.
- THE CITY OF PHOENIX POLICE DEPARTMENT ENFORCES LAWS REGARDING THE OPERATION OF COMMERCIAL VEHICLES. THIS INCLUDES EXCESSIVE SPEEDING, EXCESSIVE WEIGHT, AND EXCESSIVE HEIGHT. VIOLATIONS REGARDING COMMERCIAL VEHICLE ENFORCEMENT MAY BE DIRECTED TO THE COMMERCIAL VEHICLE ENFORCEMENT SUPERVISOR AT (602) 965-7813 (TRAFFIC BUREAU SOUTH) OR (602) 465-6784 (TRAFFIC BUREAU NORTH).
- PLAN APPROVAL IS VALID FOR 12 MONTHS. PRIOR TO PLAN APPROVAL, ALL ASSOCIATED PERMITS SHALL BE PURCHASED OR THE PLANS SHALL BE RESUBMITTED FOR EXTENSION OF PLAN APPROVAL. THE EXTENSION, EXTENSION, AND REINSTATEMENT OF CIVIL ENGINEERING PLANS AND PERMITS SHALL FOLLOW THE SAME GUIDELINES AS THOSE OUTLINED IN THE PHOENIX BUILDING CONSTRUCTION CODE ADMINISTRATIVE PROVISIONS SECTION 105.3 FOR BUILDING PERMITS.

GRADING AND DRAINAGE PLAN OFFSITE IMPROVEMENT NOTES

- Construction within the right-of-way shall conform to the latest applicable Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details and the latest City of Phoenix Supplement to the MAG Uniform Standard Specifications and Details.
- Construction shall comply with M.A.G. Section 601.
- Obstructions to proposed improvements in the right-of-way shall be removed or relocated before beginning construction of the proposed improvements.
- The actual point of pavement matching and/or termination shall be determined in the field by the City of Phoenix, Planning & Development Department Field Inspector.
- Permit requirement. Enclosures and logs are to be per M.A.G. Section 336 and C.O.P. Detail P1200 - Type B. Curb and gutter replacement shall be a minimum of one (1) full section per M.A.G. Standard Detail 220. Sidewalk replacement shall be a minimum of one (1) full panel per C.O.P. Detail P1230.
- Trees and shrubbery in the right-of-way that conflict with proposed improvements shall not be removed without approval of the City Landscape Architect or his assignee. The permittee shall be responsible for obtaining authorization to remove and/or relocate trees and shrubbery by calling the Parks and Recreation Department at (602) 262-5501 or the Transportation Department at (602) 534-8888.
- Per the City of Phoenix Ordinance G-8306, all street pavement cuts will require asphalt resurfacing treatments based on the age of the pavement. For streets less than two years old, the permittee must apply an asphalt mix and overlay pavement treatment. For streets greater than two years old, the permittee must apply a slurry seal and/or microseal treatment.

INDEX

SHEET 1	COVER SHEET
SHEET 2	20 SCALE TOPOGRAPHIC SURVEY
SHEET 3	10 SCALE GRADING PLAN
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SHEET 5	RETAINING WALL DETAILS
SHEET 6	
SHEET 7	L1.1 - NATIVE PLANT INVENTORY PLAN SHEET
SHEET 8	L1.2 - IRREGULAR PLAN SHEET
SHEET 9	L1.3 - LANDSCAPE & IRRIGATION DETAILS PLAN SHEET
SHEET 10	PRE-1972 SITE DISTURBANCE/REVEGETATION DETAILS

KIVA# 99-40634
 CPHG# 2205423
 H04058
 ENVR# 040033
 Q.S.# 19-39
 ZONING RE-35



REGISTERED CIVIL ENGINEER
 FRANK BOESBERGER, P.E.
 LICENSE NO. 10000
 STATE OF ARIZONA

GRADING PLAN
LOT 39 RED ROCK NORTH
5023 EAST RED ROCK DRIVE
PHOENIX, ARIZONA



SHEET 1 OF 10
DATE AUG 2020

39FFN

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

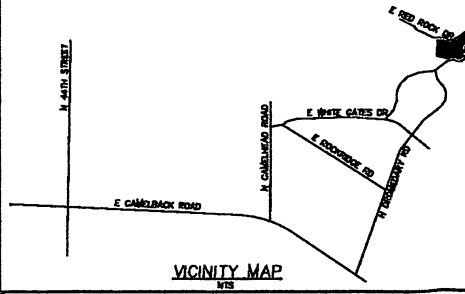
COMPLIANT NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRST EFFECTIVE DATE	FIRM ZONE	BASE FLOOD ELEVATION (OF ADJACENT USE ZONE)
040051	1765	L	10/16/13	X	N/A

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 A ONE-HUNDRED YEAR STORM, AND ARE IN ACCORDANCE WITH THE CITY OF PHOENIX BUILDING REGULATIONS.

ADDITIONAL HOPE NOTES

- ALL HOPE STORM DRAIN PIPE SHALL BE MANUFACTURED, DESIGNED AND INSTALLED IN ACCORDANCE WITH ASHTO M252, ASHTO M254, MAG AND CITY OF PHOENIX SUPPLEMENTS TO MAG AND THESE SPECIAL PROVISIONS.
- ALL HOPE STORM DRAIN PIPE SHALL BE TYPE "S" CORRUGATED, WITH WATERHOUS JOINTS. HOPE PIPE SHALL NOT BE ALLOWED WITHIN A BOUNDARY OF TWENTY-FOUR (24) LINEAR FEET OF AN OPEN OUTFALL OR PUBLIC RIGHT-OF-WAY, THE OUTLET SECTION OF STORM DRAIN PIPE SHALL BE CONCRETE OR CONCRETE-LINED AS SHOWN ON THE PLANS.
- AT A MINIMUM, ALL HOPE STORM DRAIN PIPE JOINTS SHALL MEET THE ASTM D-3212 WATERHOUS REQUIREMENT OF 10.8 P.S.I. (25 COLUMN FEET OF WATER HEAD).
- THE CONTRACTOR SHALL PROVIDE A COPY OF AN ACCEPTED INDEPENDENT 3RD PARTY LAB CERTIFICATION THAT ALL THE PIPE AND JOINTS TO BE USED ON THE PROJECT MEET THE ASTM D-3212 WATERHOUS STANDARD.
- ALL HOPE PIPE CONNECTIONS TO MANHOLES SHALL MEET ASTM C-823 REQUIREMENTS.

REVEGETATION NOTE:
 All Disturbed Areas not covered by structures or paving must be revegetated with plant species from the Sonoran Desert Plant List that exists in the adjacent undisturbed area such as—native knobhol palo verde and native mesquites (not hybrids), creosote and triangle-leaf burcage shrubs, and sagehard and red stone pine/canyon curbs in a manner that mimics the adjacent undisturbed desert (types and densities of existing plants), as approved by the Planning and Development Department through the Hillside/Grading and Drainage Plan and Separate Revegetation Plan reviews.

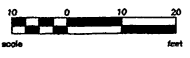
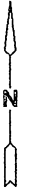


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- CONSTRUCTION NOTES**
- Construct wall openings 10' o.c. (4' x 4') (inverts to be level with adjacent grade)
 - Grade to drain
 - Waterproof walls with emulsified asphaltic coating to a minimum of one foot above outside grade and place 1/4" butter board from foundation to backfill grade level to protect waterproofing while backfilling.
 - Install 12" HDPE
 - Install 18" diameter catch basin
 - Construct extended stemwall w/ top of footing 2 min. to 3' below lowest adjacent grade.
 - Install 12"x12" catch basin w/ 6" PVC w/ 4ft filter
 - Install 12" side deck drain
 - Install 8" man diameter native stone rip-rap 24" min thickness with filter fabric
 - Install 2" deck drain w/ 4" PVC outlet
 - Install new driveway in right of way 533 sq. ft. 6" thickness MAG A concrete
 - Install 6" thick MAG A concrete power driveway @ 83,000 PSI CPM minimum
 - Install 4" thick MAG A concrete parking/court yard strips to match driveway color, texture
 - Install 12"x12" catch basin w/ 6" HDPE w/ silt filter
 - septic system to be constructed per CO permit no.

NOTE:
POOL SHALL BE BUILT PRIOR TO OR IN CONJUNCTION WITH THE HOUSE & NO ACCESS IS PROVIDED FOR FUTURE CONSTRUCTION.

NOTE:
THE DECOMPOSED GRANITE MATERIALS WILL BE OF MATCHING SIZE AND COLOR TO THE EXISTING SURROUNDING AREAS. SEE LANDSCAPE PLANS FOR APPLICABLE AREAS.



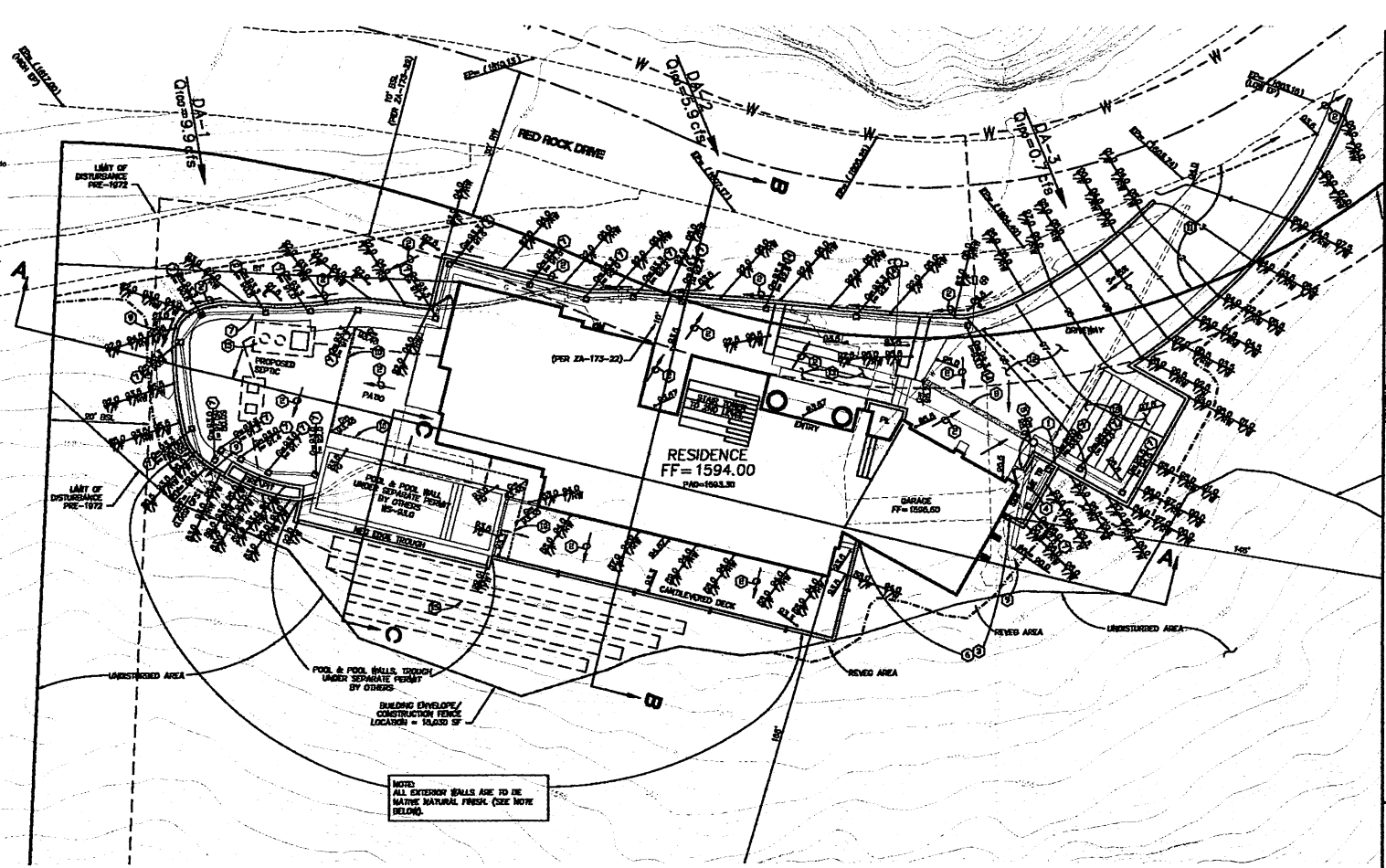
SCALE: 1" = 10'

RETENTION NOTE:
IN LIEU OF ON SITE RETENTION ALL STORM WATER WILL BE CAPTURED IN CATCH BASINS USING SILT FILTERS AND THEN SLED OFF INTO THE HISTORICAL RELEASE POINTS. SEE INFO ON SHEET 4 FOR SILT FILTER INFO.

NOTE:
ALL SITE/RETAINING WALLS/FENCES AND OTHER SITE ELEMENTS SHALL BE DESIGNED TO BLEND IN WITH THE NATURAL TERRAIN USING COMPATIBLE MATERIALS AND COLOR. FLUSH (UNFINISHED, UNPAINTED OR PAINTED ONLY) CAST ON FORMED CONCRETE, CONCRETE BLOCK, UNFINISH METAL OR OTHER TYPES OF MATERIALS WILL NOT BE PERMITTED. WHEN CONTRASTS IN COLOR TO THE SURROUNDING TERRAIN WILL NOT BE APPROVED.

FIRST FLUSH TREATMENT DISCHARGE FLOW RATE
 $Q_{ff} = CIA$
 where
 Q_{ff} = minimum first flush discharge (cfs)
 C = Runoff coefficient (set at 1.00)
 I = rainfall intensity (0.25"/hr)
 A = Area of project site (acres)
 $Q_{ff} = (1.0)(.25)(.276) = 0.069$ cfs

NOTE:
ALL EXTERIOR WALLS ARE TO BE NATIVE NATURAL FINISH (SEE NOTE BELOW).



10 SCALE GRADING PLAN

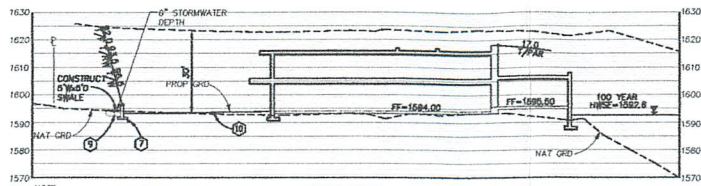
KIVA# 99-40634
 CPHG# 2205423
 H04058
 ENV# 040033
 Q.S.# 19-39
 ZONING RE-35



GRADING PLAN
 LOT 39 RED ROCK NORTH
 5023 EAST RED ROCK DRIVE
 PHOENIX, ARIZONA

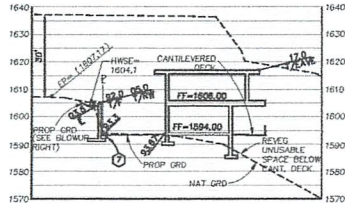


SHEET 3 OF 10
 DATE AUG 2020
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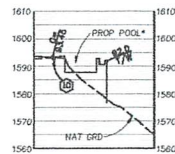
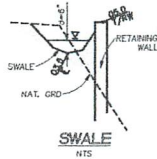


SECTION A-A
SCALE: 1"=20'

NOTE:
ALL RIP-RAP AND BOULDERS TO MATCH ADJACENT UNDISTURBED SURFACE ROCK IN COLOR AND SIZES AND ARE NOT TO BE GROUTED. ALL CUT SLOPES SHALL BE CHEMICALLY COLOR TREATED TO BLEND WITH THE ADJACENT NATIVE ROCK OR DESERT.

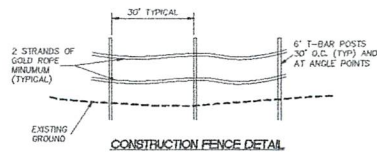


SECTION B-B
SCALE: 1"=20'



SECTION C-C
SCALE: 1"=20'

NOTE:
POOL SHALL BE BUILT PRIOR TO OR IN CONJUNCTION WITH HOUSE IF NO ACCESS IS PROVIDED FOR FUTURE CONSTRUCTION



- CONSTRUCTION NOTES**
- ⑦ Install 12"x12" catch basin w/ 6" PVC w/ silt filter
 - ⑧ Install 8" min diameter native stone rip-rap 24" min thickness with filter fabric
 - ⑨ Install 2" deck drain w/ 4" PVC outlet

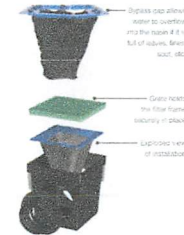
NDS We put water in its place. **Catch Basin Filter**

Filter is designed for superior durability, filtration & strength

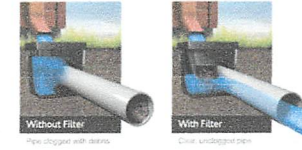
- Made from non-toxic polypropylene geotextile fabric
- Inert to biological degradation and resistant to naturally-occurring chemicals, alkalis and acids

Meets international testing standards:

- ASTM D 4333: Durable up to 40 lbs. of weight
 - ASTM D 4335: UV-resistant 70% at 500 hours
 - ASTM D 4491: Filtration rates of water flow rate of 95 gpm
- Meets comply with stormwater regulations.
Easy maintenance - inspect every 6 months & clean/replace as needed.



Clogged pipes reduce the effectiveness of drainage systems resulting in standing water and damage to property. Adding a filter is a simple solution to keep water flowing through a drainage system and a cost-effective alternative to expensive repair or replacement.



Model No.	Description	Compatible With These Basins
900FF	9" Catch Basin Filter	900, 900-4 and 916 NDS catch basins and kits
1200FF	12" Catch Basin Filter	1200, 1200GIB, 1220, 1204, 1216, 1217, 1225 NDS catch basins & kits



REVISIONS 8/7/23 PS	10/10/23 PS
ANCH. REVISIONS	8/21/23 PS
REV. COMMENTS	2/1/23 PS
COPIES	COPIES

GRADING PLAN
LOT 39 RED ROCK NORTH
5023 EAST RED ROCK DRIVE
PHOENIX, ARIZONA



SHEET 4 OF 10
DATE AUG 2020

NO. 3998N
DESIGNED BY:
CHECKED BY:
JOB NUMBER



KIVA# 99-40634
CPHG# 2205423
H04058
ENVR# 040033
Q.S.# 19-39
ZONING RE-35