

DRAINAGE CALCULATIONS:

DRAINAGE PLAN

THIS DRAINAGE PLAN IS FOR A NEW RESIDENCE AT 7410 CORRALES ROAD, IN TRACT B, LANDS OF SHADUR, VILLAGE OF CORRALES, SANDOVAL COUNTY, NEW MEXICO, CONTAINING THE FOLLOWING ITEMS FOR THE GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

1. DRAINAGE CALCULATIONS
2. VICINITY MAP
3. FLOOD INSURANCE RATE MAP 35043C1913D
4. GRADING PLAN

EXISTING CONDITIONS

AS SHOWN BY THE VICINITY MAP, TRACT B CONTAINS APPROXIMATELY 1.0034 ACRES AND IS CURRENTLY VACANT LAND. AS SHOWN ON THE FLOOD INSURANCE RATE MAP NUMBER 35043C1913D, THE ENTIRE TRACT IS WITHIN A 100-YEAR FLOODPLAIN WITH DESIGNATION ZONE AO (DEPTH 2). THE SITE'S EXISTING TOPOGRAPHY IS A FLAT SITE THROUGH THE ENTIRE TRACT.

PROPOSED CONDITIONS:

THE PROPOSED PLAN IS TO CONSTRUCT A NEW RESIDENCE THAT WILL CONSIST OF APPROXIMATELY 2,853SF NEAR THE WESTERN EDGE OF TRACT B. THE PLAN IS TO ELEVATE THE STRUCTURE'S PAD 2 FEET ABOVE THE HIGHEST EXISTING ADJACENT GRADE TO MEET FEMA CRITERIA.

FOR REFERENCE THE GRADE ALONG THE NORTH PROPERTY LINE WAS USED WITH AN EXISTING ELEVATION OF 5028.74 FEET (THE HIGHEST GRADE ON THE NORTH PROPERTY LINE) AND WILL MAKE THE PAD ELEVATION ADJACENT TO THE STRUCTURE AT AN ELEVATION OF 5030.90 FEET. THIS WILL RESULT IN THE PAD BEING APPROXIMATELY 2.16 FEET ABOVE THE HIGHEST ADJACENT GRADE. THE FINISH FLOOR OF THE STRUCTURE WILL BE SET AT AN ELEVATION OF 5031.20 FEET, WHICH IS 2.46 FEET ABOVE THE HIGHEST ADJACENT GRADE AND WILL MEET OR EXCEED FEMA CRITERIA FOR THIS DESIGNATED FLOOD ZONE OF 2 FEET.

AS PER THE VILLAGE OF CORRALES PLANNING AND ZONING DEPARTMENT APPLICATION FOR THE CONSTRUCTION BUILDING PERMIT THE PLAN SUBMISSION WILL FOLLOW ITEM 6D, SITE PLAN REQUIREMENTS. THE DRAINAGE AND GRADING PLAN WILL INCLUDE AN ON-SITE RETENTION POND FOR IMPERVIOUS SURFACE CONDITIONS. THE POND SIZE IS CALCULATED AT: TOTAL AREA OF IMPERVIOUS SURFACE ON THE LOT X 2.66 / 12 = CUBIC FEET IS THE VOLUME OF WATER THAT MUST BE RETAINED IN AN ON SITE POND.

DRAINAGE CALCULATIONS:

1. ANALYZE NORTH ROOF DRAINAGE POND SIZE:

IMPERVIOUS ROOF AREA = 1,776SF
 VOLUME REQUIRED = 1,776SF X 2.99 / 12 = 443CF POND VOLUME REQUIRED FOR
 POND AT NE CORNER OF HOUSE
 POND VOLUME PROVIDED = ((581SF @ 5027ELEV) + (275SF @ 5026.5 ELEV))/2 X 0.5' DEPTH + ((581SF @ 5027ELEV) + (1,127SF @ 5028ELEV))/2 X 1.0'DEPTH = 1,068CF PROVIDED > 443CF REQUIRED OK

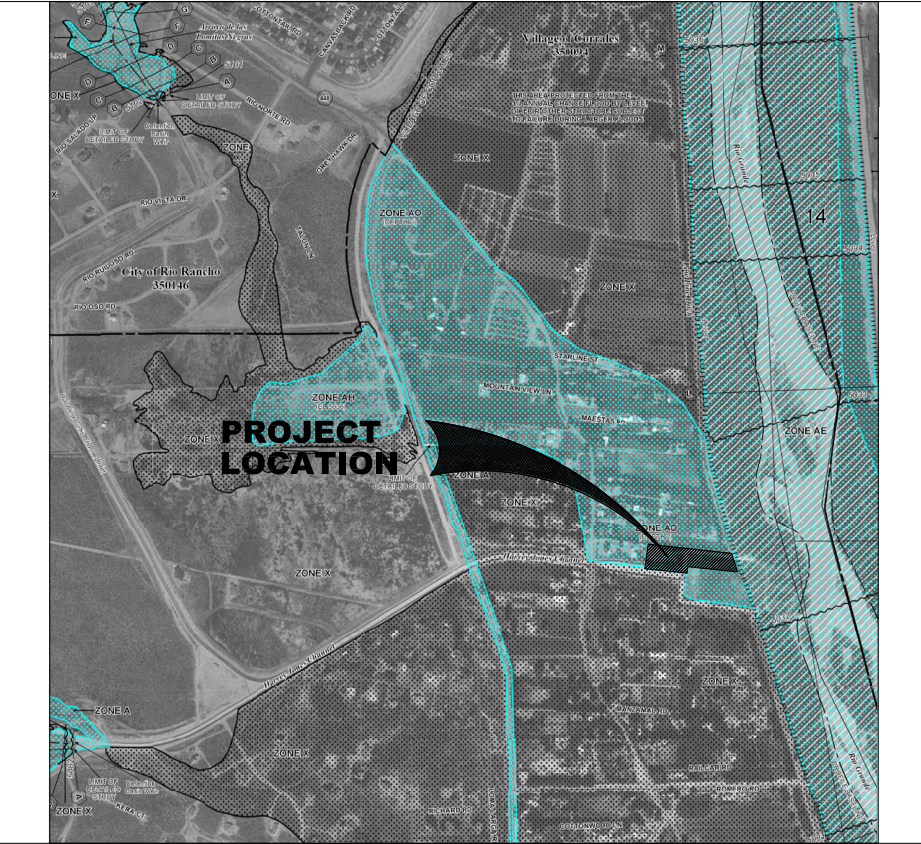
2. ANALYZE SOUTH ROOF DRAINAGE POND SIZE:

IMPERVIOUS ROOF AREA = 1,100SF
 VOLUME REQUIRED = 1,100SF X 2.99 / 12 = 274CF POND VOLUME REQUIRED FOR
 POND AT SE CORNER OF HOUSE
 POND VOLUME PROVIDED = ((200SF @ 5026.5ELEV) + (578SF @ 5027ELEV))/2 X 0.5'DEPTH + ((578SF @ 5027ELEV) + (2,746SF @ 5028ELEV))/2 X 1.0'DEPTH = 1,907CF PROVIDED > 274CF REQUIRED OK

EROSION CONTROL NOTES:

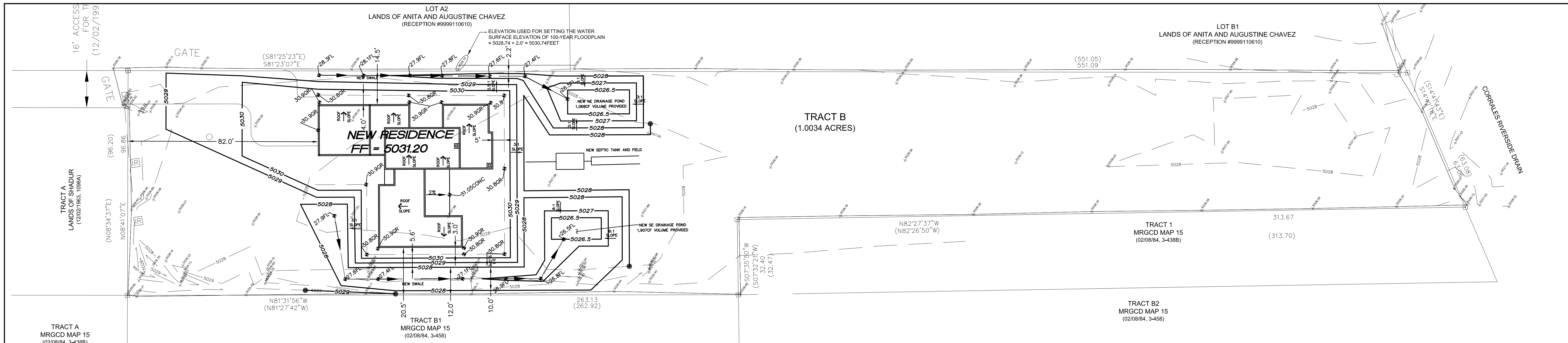
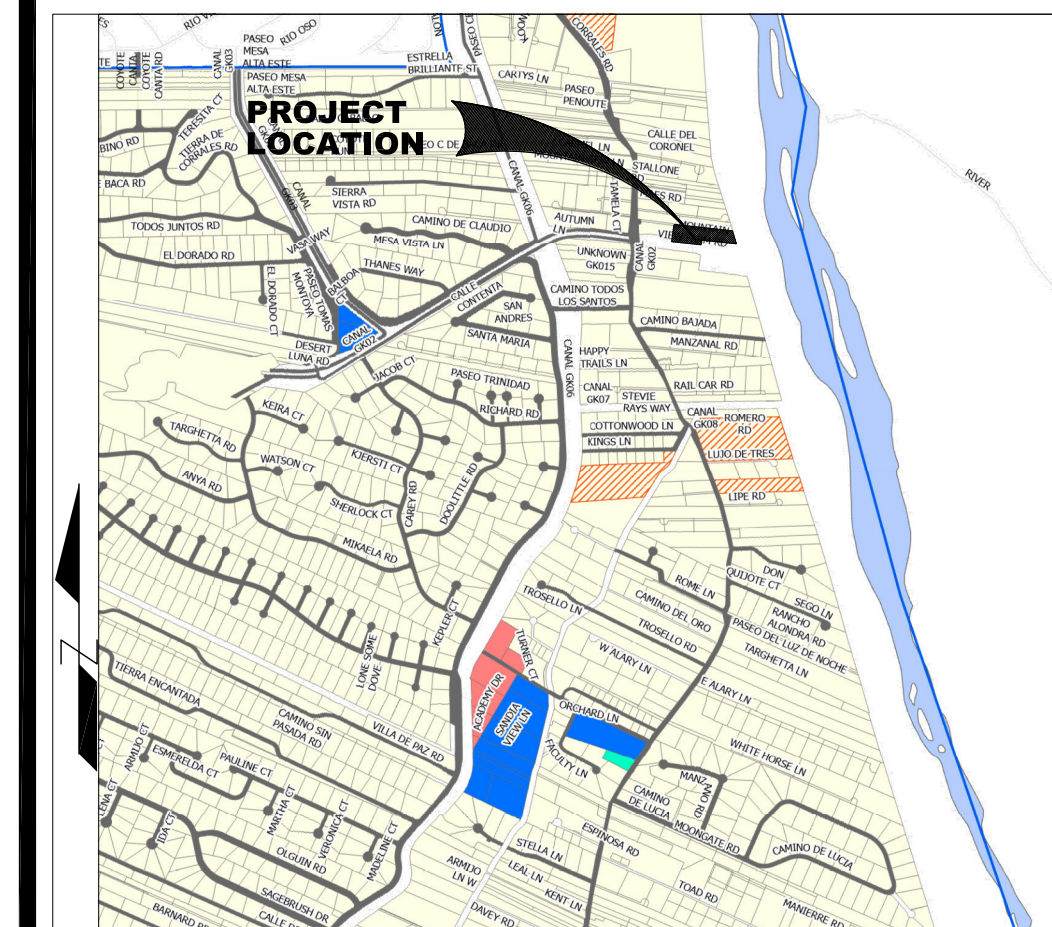
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A PLANNING AND ZONING PERMIT FROM THE VILLAGE OF CORRALES PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF THIS PROJECT.

FLOOD INSURANCE RATE MAP



35043C1913D 3/18/2008

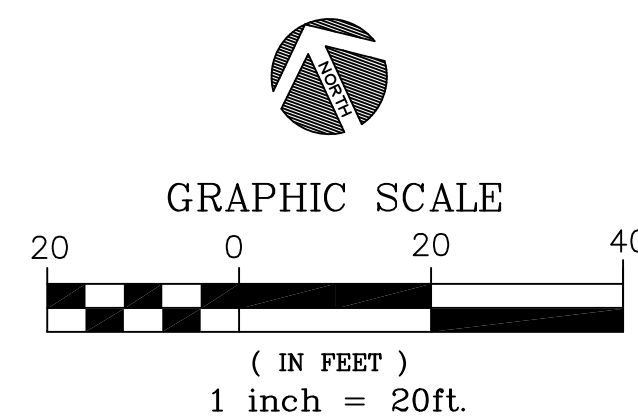
VICINITY MAP



LEGEND	
6798	NEW FINAL SURFACE GRADE
6514	EXISTING CONTOUR GRADE
6510	DRAINAGE FLOW DIRECTION
6510L	NEW TOP OF CURB ELEVATION
6510FL	NEW FLOWLINE OF CURB ELEVATION
6510FA	NEW TOP OF ASPHALT ELEVATION
6510FW	NEW TOP OF SIDEWALK ELEVATION
6510S	DRAINAGE SWALE
6510C	EXISTING TOP OF CURB ELEVATION
6510F	EXISTING FLOWLINE ELEVATION
6510S	NEW SURFACE GRADE ELEVATION
6510SW	FLOWLINE SWALE ELEVATION
6510W	NEW TOP OF WALL ELEVATION
6510WA	NEW BOTTOM OF WALL ELEVATION AT ADJACENT GRADE

GRADING PLAN

SCALE 1" = 20'



EXCAVATION/UTILITY NOTES:

IF THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE OR TYPE OF EXISTING ABOVE AND UNDERGROUND UTILITIES, OR EXISTING PIPELINES, THE ENGINEER MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM HIMSELF OF THE LOCATION OF ANY EXISTING ABOVE AND UNDERGROUND UTILITIES, AND EXISTING PIPELINES, IN AND NEAR THE AREA OF THE WORK, IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY HIS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING ABOVE AND UNDERGROUND UTILITIES, AND EXISTING PIPELINES. THE CONTRACT SHALL COMPLY WITH STATE STATUTES PERTAINING TO THE LOCATION OF THESE LINES IN PLANNING AND CONDUCTING EXCAVATION WORK.

FILE: 230101

11-08-2023

GRADING AND DRAINAGE PLAN
 7410 CORRALES ROAD
 ED CHURCH & LAURA SCOTT

APPLIED Engineering & Surveying, Inc.
 1605 BLAIR DRIVE NE, ALBUQUERQUE
 NEW MEXICO 87112, goldaz47@yahoo.com, (505)480-8125

DATE/REVISIONS:

SHEET NUMBER: 1