Earl "Gary" Keen, PE P O Box 891200 Oklahoma City, OK 73189 (405) 823-8240 garykeen47@att.net

ENGINEERING REPORT 5400 WEST FRANKLIN ROAD

This report covers a floodplain permit application covers a project to add a swimming pool at a residence located at 5400 West Franklin Road, Norman, OK. This residence and barn were permitted under a previous Floodplain Permit (No. 609, circa August 2019) and the structures were built in accordance with the permit. Later the ownership of this property changed, and the current owner desires to construct an in-the-ground swimming pool, which will be located immediately south of the existing residence.

In addition, the back yard of this property seems to have never been fine graded because there are many small, shallow depressions that trap rainwater to a depth of one or two inches. The water trapped in these depressions cause the ground to be wet and soggy and somewhat unsuitable for ordinary residential yard use. This proposal to fine grade the yard does not include adding any soil or fill in the floodplain. Part of this back yard is below the BFE by a depth of zero to one and one-half feet. If fine grading generates any surplus material of any kind then this material will be disposed of offsite in a location that is not in a floodplain, as approved by the City's staff. The fine grading will be located south of the existing pool and this area is identified on the site plan.

When the residence and barn were constructed, fill material was placed to elevate pads for both the house and the barn. The permit called for obtaining the fill material onsite. It appears that a pond was constructed near the north-east corner of the property and that the material excavated was used to construct the pads for the barn and house. This engineer did not located any available contours that were generated after this barn and house were constructed; therefore arrangements were made for a surveyor to make a topo survey of this property and generate contours for use in performing a careful analysis of the proposed project. These contours are shown on the site plan submitted with this permit application. And, these contours were utilized to determine the boundary of the 100-year floodplain on the portion of the property being utilized for this project. The existing ground in the area to be covered by the pool and accessories is located almost entirely above the BFE (elevation 1137.0'). Incidentally, the existing floors of the house and barn were verified to be slightly above the required elevation of 1139.0'.

Soil removed for construction of the pool will be transported off the site for disposal and the owner is advised to check with the City staff in regard to determining a suitable disposal site. This engineer estimates that constructing the pool will require placing approximately 16 cubic yards of material within the existing floodplain. Soil excavated for the remainder of the pool may be used for this purpose. However, it will be necessary to remove 16 cubic yards of soil from the floodplain (from below the BFE) at another place on the site. This engineer recommends removing this volume of soil from the north edge of the existing pond that was used for borrow before. Again, the volume of soil that counts is the volume removed form below the elevation of 1137.0'.

Engineer's Certification 5400 West Franklin Road

No net fill material will be placed in the floodplain as a result of the pool construction as fill soil will be removed from a borrow area located onsite. The small reduction in the floodplain area is less than 500 square feet, and this area is minuscule in comparison to the wide floodplain located offsite and nearby. Also, this property is located in the fringe area of the floodplain where the floodwater velocities will be very low.

The fine grading of the back yard (with a box blade) will result in small quantities of soil being removed from the high spots and deposited in low spots and will not result in any net fill being placed in the floodplain.

This property is not located in a regulatory floodway.

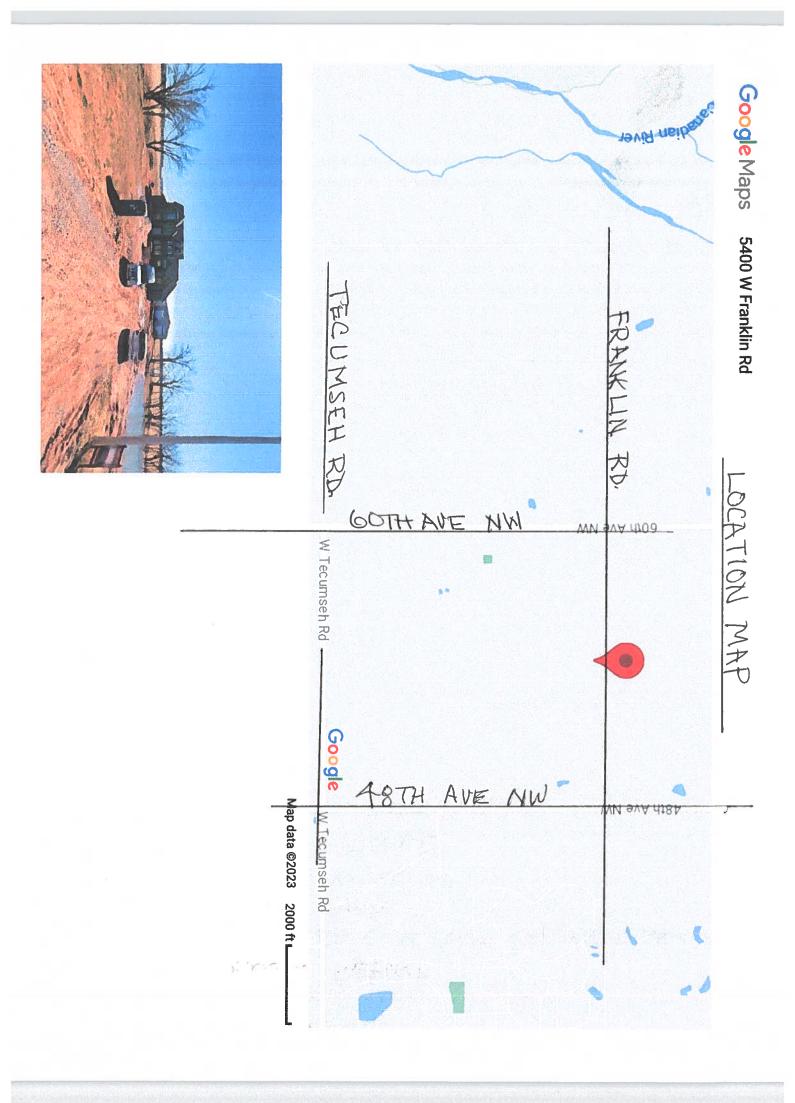
If constructed according to the proposed plans, the increase in the BFE at this property or any other properties will minuscule and certainly will be less than 0.05 feet.

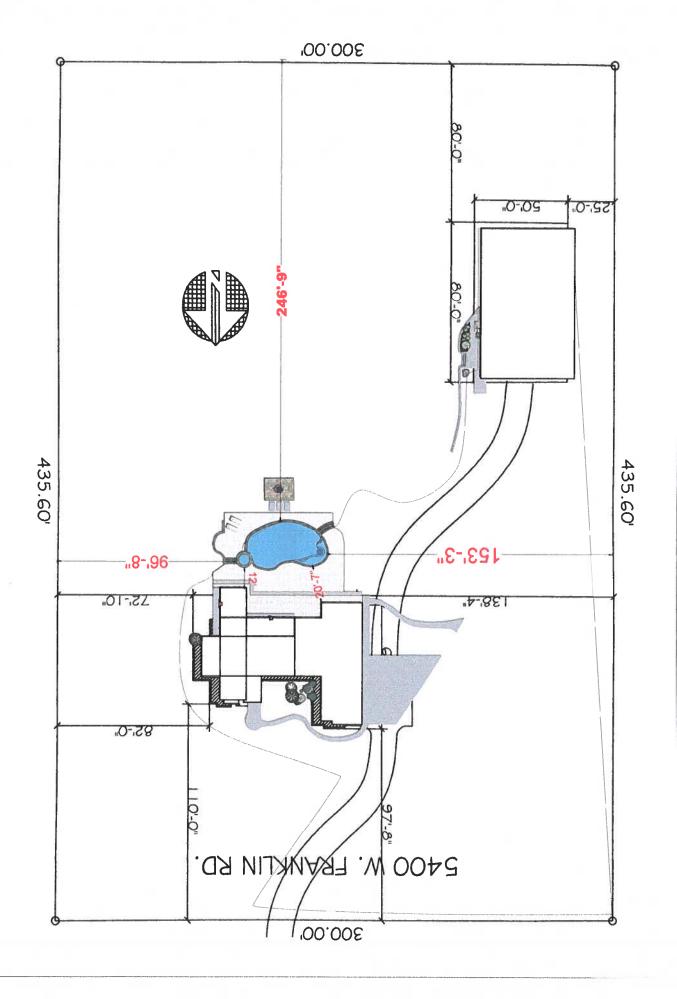
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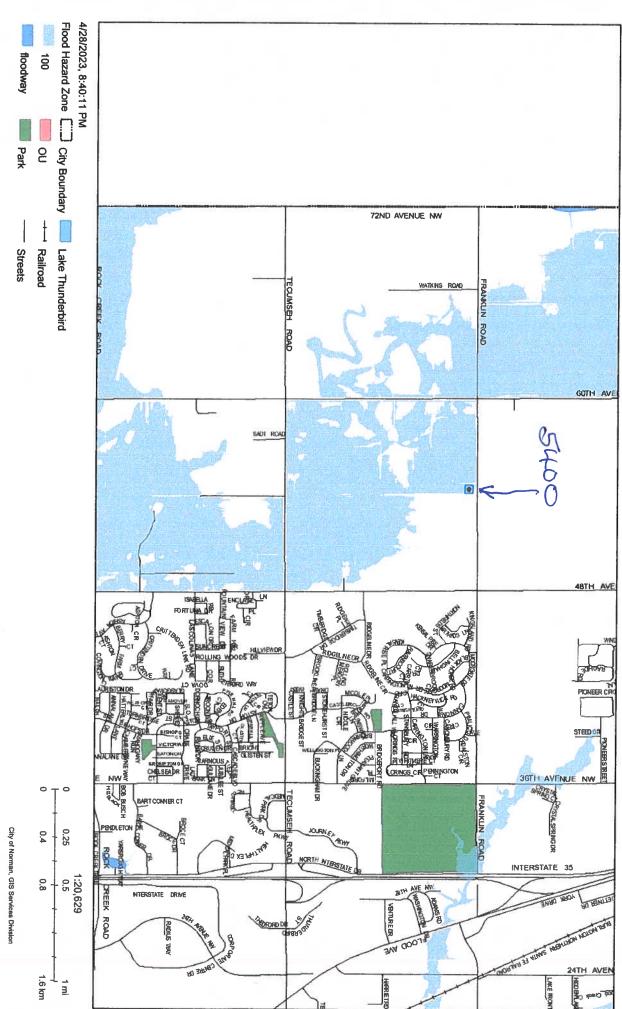
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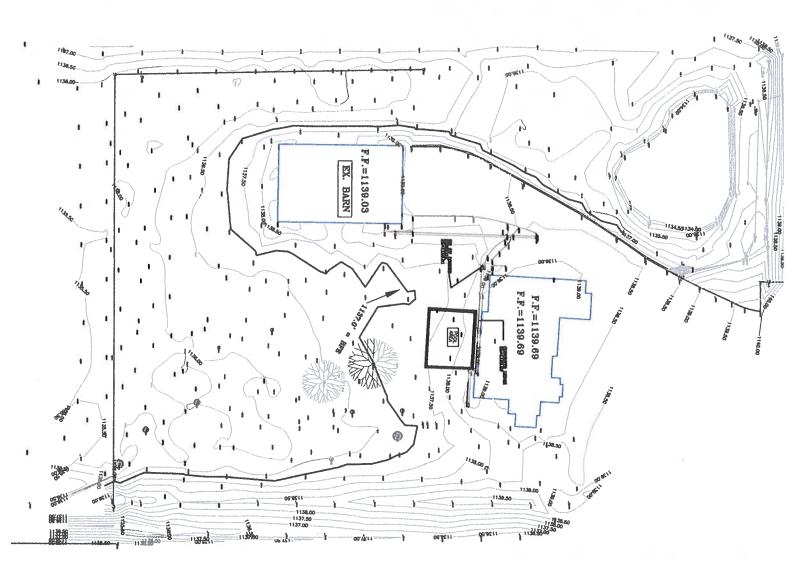
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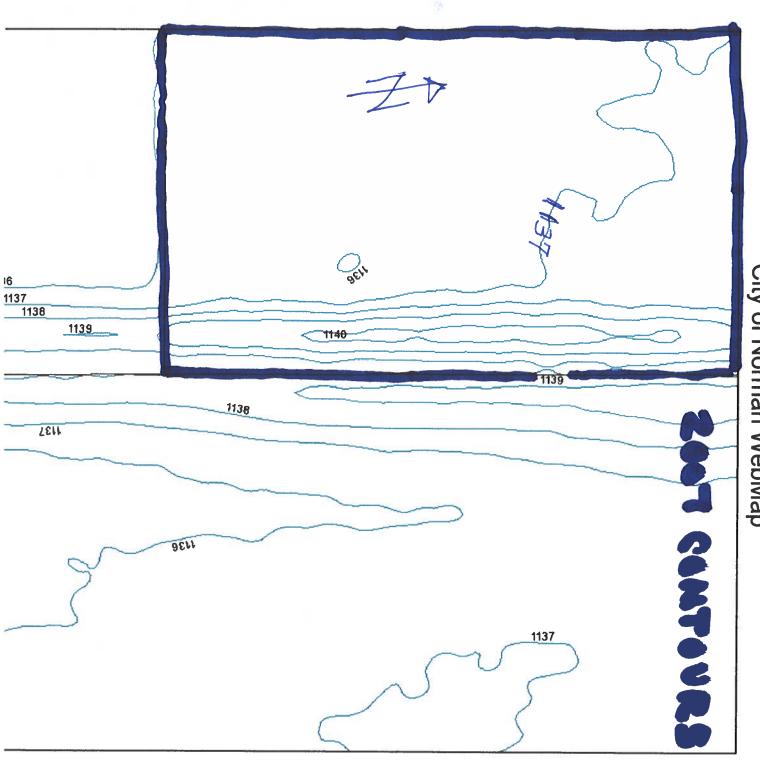


City of Norman WebMap

City of Norman WebMap







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HEITZ, PAMELA LOUISE-UND 1/3 INT	dcor
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AMY NICOLE HOBSON, MICHAEL JAMES &	αM
JEHNINGS, BRANDON & MELISSA	WD
FRANTZ, ROBERT R JR-REV TRT- TRTEE	MD
GRANTEE	DEED TYPE
THREE, JENNINGS, BRAI HOBSON, MICHA AMY NICOLE HEITZ, PHILIP M. HEITZ, PHILIP M. INT	USE VALUE & MELISSA VALUE & MUNICELUD 1/3 "YMH-UND 2/3

SALES

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erite8 NeH	l.	Three Quarter Baths	3
syte8 liu7	1	rite8 llu3 fenolitibbA	z
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RESIDENTIAL BUILDING (1)

RESIDENTIAL

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Market Value	086,0168

ASSESSMENT DETAILS

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aserbbA gnilisM	FRANTZ, ROBERT R JR-REV TRT-TRTEE, S-	73072-1208 73072-1308
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Sasb	Rural Reside	NOISWYN CILA SO
9212 bnsJ	3'0000	VC
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KEY INFORMATION





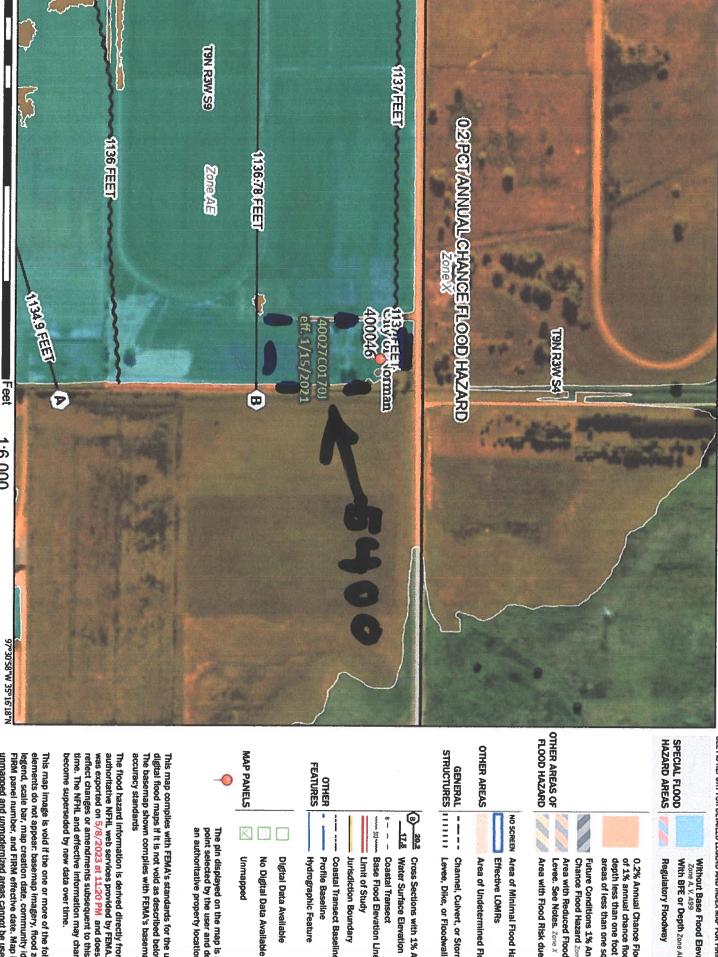
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Norman OK 73072-1208

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SPECIAL FLOOD HAZARD AREAS Chance Flood Hazard Zone X Future Conditions 1% Annual of 1% annual chance flood with average Regulatory Floodway Without Base Flood Elevation (BFE)
Zone A. V. A99 areas of less than one square mile Zane X depth less than one foot or with drainage 0.2% Annual Chance Flood Hazard, Areas With BFE or Depth Zone AE, AO, AH, VE, AR

Area with Flood Risk due to Levee zone p Area with Reduced Flood Risk due to Levee. See Notes. Zone X

NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs Channel, Culvert, or Storm Sewer Area of Undetermined Flood Hazard Zone I

FEATURES STER Base Flood Elevation Line (BFE) Limit of Study Profile Baseline Water Surface Elevation Unmapped Digital Data Available Hydrographic Feature Coastal Transect Baseline Jurisdiction Boundary Cross Sections with 1% Annual Chance No Digital Data Available Coastal Transect



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

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

unmapped and unmodernized areas cannot be used for FIRM panel number, and FIRM effective date. Map images for elements do not appear: basemap imagery, flood zone labels, authoritative NFHL web services provided by FEMA. This map was exported on 5/8/2023 at 11:20 PM and does not egend, scale bar, map creation date, community identifiers, This map image is void if the one or more of the following map become superseded by new data over time. time. The NFHL and effective information may change or reflect changes or amendments subsequent to this date and The flood hazard information is derived directly from the

250

500

1,000

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regulatory purposes



LOOK SE FROM DRIVEWAY



LOOK SOUTH ALONG DRIVE WAY



LOOK NOTH AT BACK PORCH



NE CORNER OF YARD



LOOK ELSTALONG FRANKLIN



POND AT HE CORNER



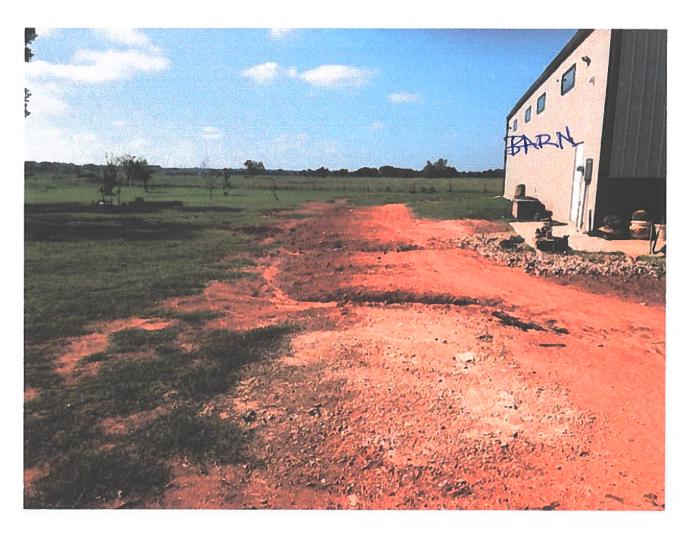
AREA NOT DRAINING WELL



APPROX AREA OF POOL



LOOK NW FROM CELIFER OF BACK YARD



LOCKING SOUTH



LOOKING MW



LOOKING MOTELAY