

APPENDIX H

***REFINED PRELIMINARY GRADING, DRAINAGE AND FLOOD
IMPACT ANALYSIS***



**Revised Preliminary Grading, Drainage and Flood Impact Analysis
For
The Tejon Indian Trust Acquisition Casino Project**

Revised September 2020

Prepared For:



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SITE DESCRIPTION

DPSI has analyzed two sites for the Preliminary Grading, Drainage and Flood Impact Analysis for the Tejon Indian Trust Acquisition Casino Project. The Sites are titled the “Mettler Site” Alternatives A1 and A2 as well as the Maricopa Site.

Mettler Site

The Mettler site is located between Interstate 5, Hwy 99, HWY 166 and Valpredo Avenue in the Central Valley of California. According to the NRCS Web Soil Survey (see Appendix M), the site soils are 95.9% Class B Cerini Loam. The site sits at the foothills below the Los Padres National Forest and slopes northerly at an average natural slope of 1.4%. The site is located in a FEMA Flood Zone A, which is a Special Flood Hazard Area subject to the 100-year flood. A FEMA Firmette is located in the appendix as Figure 1. The site is affected by the Tecuya Creek, a 50 square mile watershed, as well as an unnamed 12.8 square mile creek west of the Tecuya Creek.

Alternative 1

This alternative includes a 52 acre Casino and corresponding parking lot, a 22 acre RV parking lot (future), and 29 acre Community Park (future). A 13 acre storm drain basin is located just northwest of the Casino.

Alternative 2

This alternative also includes a 52 acre Casino and corresponding parking lot, as well as a 13 acre storm drain basin site located just northwest of the Casino. This Alternative has no RV parking lot and a 52 acre community park (future).

Both Mettler sites could eventually include a 40 acre organic farm, 25 acre community center, a 3 acre Kern County Fire Department/Sheriff Department station, and 102 acres of residential.

Maricopa Site

The Maricopa site is located near Interstate 5, at the southeast corner of Hwy 166 (Maricopa Hwy) and Wheeler Ridge Access Road, in the Central Valley of California. According to the NRCS Web Soil Survey (see Appendix N), the site soils are 48.1% Class B Cerini Loam and 51.9% Excelsior Loam. The site sits at the foothills below the Los Padres National Forest and slopes northerly at an average natural slope of 1.4%. The site is located outside of the FEMA Flood Zones. A FEMA Firmette is located in the appendix as Figure 2.

The Maricopa Site includes a 49 acre Casino and corresponding parking lot, as well as 5 acres of RV parking, and a 2 acre storm drain basin. The future construction considerations for this site include 7 acres for a community center, health center and parking, 2.5 acre park, 16 acre residential, a 3 acre Kern County Fire Department/Sheriff Department station, and 30 acres of organic farming.

PRELIMINARY GRADING

DPSI has prepared Preliminary Grading and Drainage Plans of the Mettler Site - Alternatives 1 & 2 and the Maricopa Site. Google Earth contours, supplemented with USGS Quad Map contours, were used for the existing elevations. The base flood elevation discussed in the Hydrology and Flood Modeling section of this report were used to establish finish floor elevations. All three grading and drainage plans include the following:

- Grading impact area, finish floor elevations, and parking lot gradients;
- Estimated earthwork quantities;
- Pre-construction and Post-construction contours;
- Direction of all surface drainage flow;
- Storm drain catch basins, drain inlets, and pipe;
- Storm drain retention basin.

Additionally, a cut and fill exhibit was prepared for each of the Sites and alternatives.

See Appendix D through L for the Preliminary Grading Plans and the Preliminary Cut and Fill Exhibits.

Mettler Site – A1

Due to flood considerations, Alternative 1 needs to be raised approximately 2.5' above existing ground in order to be a minimum of 1.0' above the base flood elevation (see Appendix D). In order to maintain emergency access, the road from the fire station to the main entrance has also been raised above the flood elevation. In order to maintain ADA accessibility and general ease of access, the surrounding parking and walk ways are shown at cross slopes of less than 2% and less than 5% along potential paths of travel. Due to these constraints, the preliminary grading plan currently shows 404,235 cubic yards of import. Additionally, a storm drain system would be required to convey the onsite drainage from the site to the basin for storage and percolation.

By raising the main road, the ADA stalls should also be raised to an elevation similar to the finish floor elevations. However, a final detailed design would need to take longer ADA ramps, switchbacks and strategically placed parking into account to lower the parking lot as compared to the Casino in some limited locations. For example, keeping the ADA stalls in the parking structure and providing access directly into the building could allow the lowering of the parking area. Retaining walls around the Casino would also help to isolate the building, keeping it above the base flood elevations, while allowing the parking to stay lower.

Soil that will be generated by the excavation of foundations and any other ground structures are not taken into account in the earthwork volumes. Any import may potentially come from portions of the future development, such as the organic farm or the community park.

Mettler Site – A2

Like A1, Alternative 2 needs to be raised approximately 2.5' above existing ground in order to be a minimum of 1.0' above the base flood elevation (see Appendix G). The main access road from the fire station to the main entrance has also been raised above the base flood elevation. In order to maintain ADA accessibility and general ease of access, the surrounding parking and walk ways are shown at cross slopes of less than 2% and less than 5% along potential paths of travel. Due to these constraints, the preliminary grading plan currently shows 283,460 cubic yards of import. Additionally, a storm drain system would be required to convey the onsite drainage from the site to the basin for storage and percolation.

A final detailed design would need to take longer ADA ramps, switchbacks and strategically placed parking into account to lower the parking lot as compared to the Casino. Site A2 does not have the benefit of the parking structure, so ADA stalls would work best at the east side of the Casino taking advantage of the

raised main road. Retaining walls around the Casino would also help to isolate the building, keeping it above the base flood elevations, while allowing the parking to stay lower.

Soil that will be generated by the excavation of foundations and any other ground structures are not taken into account in the earthwork volumes. Any import may potentially come from portions of the future development, such as the organic farm or the community park. The community park in A2 is larger than in A1, possibly allowing for additional excavation of soil.

Maricopa Site

The Maricopa Site is not in a 100 year FEMA Flood zone. Due to this, the Casino is kept at an elevation much closer to the existing grade. Because of this, the preliminary grading design shows 6,375 cubic yards of import (see Appendix J). Soil that will be generated by the excavation of foundations and any other ground structure are not taken into account in the earthwork volumes, potentially bringing the site closer to balancing. With a detailed site layout, strategically placed ADA stalls and path of travel, and a detailed topographic survey, it is likely that this site can be design as a balanced earthwork site.

The storm water basin for this site is currently located at the high point of the casino development. The preliminary grading design follows the natural contours of the land, which is sloping away from the basin. A storm drain system would be required to convey the water from the low point back to the basin. The basin as shown would retain 12.85 ac ft of water above ground and an additional 1.77 ac ft would be retained below ground. The water surface elevation would be 492.5' and the bottom of the basin 471.0' for a depth of 21.5'. The issue that this creates is that the lowest drain inlet at the site is at an elevation of 467.8', which is lower than the bottom of the basin. In order for this system to work, the drainage would need to be pumped into the basin, or a backflow preventer type structure installed that would allow the parking lot to detain water but keep the water elevation below that of the Casino.

In order to fully mitigate the issue, it is recommended that the basin be moved to a lower location on the property. Potentially at the Northwest corner of the Casino parking lot, or further towards Wheeler Ridge Access Road. While this could increase the cost of a storm drain system, it would improve the overall drainage at the site.

PAD SUMMARY

WELL PAD NO.	DISTURBED AREA (ac)	CUT (CY)	FILL (CY)	IMPORT (CY)
METTLER SITE A1 (CASINO RESORT ALTERNATIVE)	3,673,705 (84.34AC)±	80,325	484,560	404,235
METTLER SITE A2 (REDUCED CASINO RESORT)	2,861,850 (65.70AC)±	79,030	362,490	283,460
CASINO RESORT ON THE MARICOPA HWY	2,353,315 (54.02AC)±	119,425	125,800	6,375

NOTE:

THE OPINION OF EARTHWORK QUANTITIES SHOWN ABOVE ARE RAW NUMBERS AND ARE FOR REFERENCE AND FEE PURPOSES ONLY. SINCE THE CIVIL ENGINEER CANNOT CONTROL THE EXACT METHOD OR MEANS USED BY THE CONTRACTOR DURING GRADING OPERATIONS, NOR CAN THE CIVIL ENGINEER GUARANTEE THE EXACT SOIL CONDITIONS OVER THE ENTIRE SITE. THE CIVIL ENGINEER ASSUMES NO RESPONSIBILITY FOR FINAL EARTHWORK. THE CONTRACTOR IS ADVISED TO PREPARE HIS OWN ESTIMATES OF EARTHWORK FOR THE PURPOSES OF BIDDING, CONTRACT AND CONSTRUCTION.

HYDROLOGY & FLOOD MODELING

Mettler Site

Early analysis of the site alternatives revealed that the Mettler Site location was located in a FEMA Flood Zone A, which is a Special Flood Hazard Area subject to the 100-year flood. Flood Zone A delineates the 100-year floodplain boundary, but contains no information in regards to base flood elevations (BFE) due to no detailed flood study being completed and approved by FEMA. A flood model was created for the site using FLO-2D for two dimensional flood flows. The construction of the Pre-construction and Post-construction models are described further in the Flood Impact Analysis in Appendix A.

Existing and proposed sites alternatives were modeled using flows of 9,300 cubic-feet per second for Tecuya Creek with the StreamStats flow from the westerly watershed of 886 cfs. No significant increase in water surface elevation overall was observed when comparing the two proposed site alternatives to existing conditions. The greatest increase in elevation was seen approximately 3000 feet north (downstream) of the Mettler Site with a rise in flood water depth of 0.41 feet for the Site Alternative A1 and 0.36 feet for the Site Alternative A2. Changes in flood water depths were observed on the south side of the casino building, which was modeled as an obstruction to calculate an approximation flood water elevation needed to determine the finished floor elevation. Raising the main road created additional ponding in the parking on the south side of the building. Flood water depths increased resulting in a flood water depth of 3.3 feet for Site Alternative A1 and A2. Neither of the alternatives for the Mettler Site layout caused an increase of 1.00 foot when compared to the existing conditions. Finish floor elevations 2.5' above the adjacent grade were used based on the computed base flood elevations.

Maricopa Site

The Maricopa Site is located in a Flood Zone X- meaning it is outside of the 100 year flood zone. No further hydrological analysis is required of this site.

RETENTION VOLUME REQUIREMENT

The storm water volume storage requirement for the site alternatives was determined using Kern County methodology described in Engineering Bulletin 11-02 (see Appendix B). The attached support documents describe the methodology and calculations to determine the volume required to be retained on site. The basins are sized to retain the five day storm event and have a minimum of 1 foot of freeboard. The final basin is required to demonstrate that the basin will completely drain the design volume within 7 days.

Mettler A1

The Mettler basin has been designed to retain the overall required volume for the full development. The basin used under 6 acres of the 13 acres designated for water retention and waste water reclamation.

- Required Volume – 31.96 ac ft
- Provided Volume – 34.17 ac ft

Mettler A2

The Mettler basin has been designed to retain the overall required volume for the full development. The basin used under 5 acres of the 13 acres designated for water retention and waste water reclamation.

- Required Volume – 31.32 ac ft
- Provided Volume – 31.50 ac ft

Maricopa

As currently shown, the Maricopa site would require a combination of above ground and below ground storage to retain the full site building. The basin would take the full 2 acres shown on the plan. The underground storage can be built in the same footprint or in the same approximate area.

- Required Volume – 14.59 ac ft
- Provided Volume – 12.82 ac ft
- Chambers Volume - 1.77 ac ft

STORM DRAIN PIPE SIZING

The storm drain pipe for the site alternatives was determined using the Rational Method and Hydraflow Express extension on AutoCAD Civil 3D, a water-control structure calculator (see Appendix C). The attached support documents describe the methodology and calculations to determine the required size of the storm drain pipe on site. The storm drain pipes are sized to convey the 10-year, 5-day storm event with freeboard. It was determined that 18 inch storm drain pipe made of reinforced concrete pipe (RCP) will adequately convey the storm water generated by the 10-year, 5-day storm to the retention basins.

WATER QUALITY

Potential impacts to water quality caused by storm water runoff after construction is completed during the operation of the facilities may include oil and grease from automobiles, cleaning solutions, fertilizers, refuse and recyclables, pesticides and herbicides, and building maintenance materials. The site is expected to drain towards the retention basin so pollutants will mostly be contained on-site. It would be recommended that the bottom of the basin be dredged every 1 to 2 years prior to the start of the rain season. The material dredged from the basin shall be disposed of properly. This will allow for proper percolation at the basin and will remove any pollutants from the site.

RECOMMENDED MITIGATION MEASURES

Mettler A1, A2

It is recommended that either Mettler Site Alternatives (A1 and A2) storm water runoff be mitigated with an above ground drainage basin sized to retain the 10-year, 5-day storm event per County of Kern standards. Both of these mitigation measures will retain the required volume of storm water runoff per County of Kern standards while also filtering out pollutants through infiltration into native soil, reducing peak flows, and increasing time of concentration.

Maricopa

It is recommended that that Maricopa Site Alternative storm water runoff be mitigated with an underground detention system sized to retain the 10-year, 5-day storm event per County of Kern standards. Both of these mitigation measures will retain the required volume of storm water runoff per County of Kern standards while also filtering out pollutants through infiltration into native soil, reducing peak flows, and increasing time of concentration. Additionally, the underground detention system will allow the basin to remain confined to the 2 acre site.

Finally, the basin is currently shown at a high point within the property. We would recommend moving the basin to the northwest side of the site to make the basin function over the full depth, reduce the amount of grading that would be required, and reduce the amount of underground detention that would be needed. This would also assist in keeping the hydraulic grade line below ground as required.

Below is a table summarizing recommended best management practices (BMPs) to minimize or eliminate potential impacts to water quality during operations of the facility. Mitigation measures such as installing hydrodynamic separators are important for minimizing runoff pollutants entering the drainage basin or detention system.

Table 1: Runoff Pollutants Source and Source Control Recommendations

Potential Source of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
On-Site storm drain inlets	Mark all inlets with the words “No Dumping!” and install hydrodynamic separators.	Maintain and periodically replace inlet marking.
Elevator shaft sump pump	Elevator shaft pumps will be plumbed to sanitary sewer.	Inspect and maintain drains to prevent blockages and overflow.
Need for future indoor & structural pest control	Building design features to discourage entry of pests.	Integrated pest management will be provided to owners.
Landscape/outdoor pesticide use/grounds maintenance	Stormwater will be retained in above ground and underground basins and infiltrated into the ground.	Maintain landscape with minimal pesticides and herbicides.
Refuse Areas	Designate trash and recyclable area to be properly maintained.	Refuse will be handled per City requirements and CASQA.
Plazas, sidewalks and parking lots	N/A	All areas will be swept and kept clean.

**Appendix A:
Revised Preliminary Flood Impact Analysis
For
The Tejon Indian Trust Acquisition Casino Project
Mettler Sites**

Revised September 2020

Prepared For:



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PURPOSE

The purpose of this analysis is to find the base flood elevation for any new construction at the “Mettler” site of the Tejon Casino Project. Additionally, the post construction effects would be analyzed to verify that the water surface would not exceed 1.00’ of depth as compared to the encroached model.

BACKGROUND

The Mettler site is located in the California Central Valley generally between Interstate 5, Hwy 166, Hwy 99, and Valpredo Ave. The site is located in a FEMA Flood Zone A, which is a Special Flood Hazard Area subject to the 100-year flood. Flood Zone A delineates the 100-year floodplain boundary, but contains no information in regards to base flood elevations (BFE) due to no detailed flood study being completed and approved by FEMA. The site is affected by the Tecuya Creek, a 50.5 square mile watershed commencing in the Los Padres National Forest. Contributing to the overall flow is a smaller, unnamed creek just west of Tecuya Creek. The unnamed creek was a watershed of 12.8 square miles. In total, the Mettler Site is affected by 63.3 square miles of watershed, which has been analyzed as described below.

Flood Insurance Rate Map over Mettler Site, Firmette of Panel 06029C3150E



HYDROLOGY

In order to properly model the water surface elevations on the Mettler Site over existing conditions and with the two proposed alternative site layouts, a two dimensional mode was created using FLO-2D. The inputs required for this software include topographic information and a hydrograph for the 100-year storm event. For the topographic information, contours from Google Earth were supplemented with U.S. Geologic Survey (USGS) Quad Map information.

Initial analysis of the peak flows for the 100-year storm event were estimated using StreamStats, a USGS web-based Geographic Information System (GIS) with water-resource analytical tools. The StreamStats peak flow estimates for the 100-year storm event were 886 cubic-feet per second for the westerly watershed and 4050 cubic-feet per second for the Tecuya Creek watershed. For the Mettler Site West Watershed StreamStats Report, see Appendix A. For the East Watershed StreamStats Report, see Appendix B.

Additionally, a flood study prepared by Meyer Civil Engineering, Inc. was revised and approved by the County of Kern in 2009 analyzing the Tecuya Creek watershed that is draining to the Mettler Site location. The purpose of the flood study prepared by Meyer was to develop a hydrograph and model a crossing on Tecuya Creek. The Kern County Unit Hydrograph Method as outlined in the County Hydrology Manual was used to determine rainfall intensities and a hydrograph was developed for the 100-year storm event at the project site just south of the Mettler Site location. It was determined that the 100-year storm event had a peak flow of 9,300 cubic-feet per second. Since the approval of this study using NOAA Atlas 2, the National Oceanic and Atmospheric Administration has published the updated NOAA Atlas 14 containing precipitation frequency estimates. Additionally, a Kern County provided watershed loss determination map was used to determine the SCS Soil Groups and therefore the CNs. This analysis utilizes the NRCS Web Soil Survey to determine the CNs. For the NRCS Web Soil Survey Data, see Appendix C. Both the Meyer study and this study use the County Manual Figures C-1 and C-2 to determine the CNs. For the County Manual Figures C-1 and C-2, see Appendix D.

Table 1: NOAA Atlas 2 versus Atlas 14 Point Precipitation

Duration of 100-year Storm Event	NOAA Atlas 2	NOAA Atlas 14
5-minute point rainfall	0.383"	0.380"
30-minute point rainfall	0.857"	0.878"
60-minute point rainfall	1.170"	1.250"
3-hour point rainfall	1.818"	2.120"
6-hour point rainfall	2.400"	3.030"
24-hour point rainfall	4.700"	5.490"

Table 2.1: Soil Group – Web Soil Survey

Soil Group	Land Use and Condition	Acres- Current	CN
A	Chaparral, Broadleaf (Poor)	4,190	53
B	Chaparral, Broadleaf (Fair)	17,015	63
B	Barren	6,075	86
C	Chaparral, Broadleaf (Poor)	3,590	80
D	Chaparral, Broadleaf (Fair)	1,560	81

Table 2.2: Soil Group – County Watershed Loss Determination Map

Soil Group	Land Use and Condition	Acres- Current	CN
A	Natural	51	49
B	Natural	2,742	69
D	Natural	29,207	84

Due to the differences in the following inputs:

1. Hydrograph from the StreamStats information versus the 2009 Meyer Study,
2. Point Precipitation Depth from NOAA Atlas 14 versus Atlas 2,
3. Soils Group from the NRCS Web Soil Survey versus the County Determination Map;

A new unit hydrograph was calculated using the updated inputs and CivilDesign Hydrology-Hydraulics Program Package.

UNIT HYDROGRAPH

The Kern County Hydrology Manual- Unit Hydrograph Method was used to create an updated hydrograph to verify the flow through the Mettler Site. The initial steps of the Unit Hydrograph Method is to take the information provided by NOAA Atlas 2 and interpolating to the 100-year, 5-min., 30-min., 1-hour, 3-hour, 6-hour, and 24-hour events. These events can now be found online using NOAA Atlas 14. In addition to the ease of use, Atlas 14 includes updated rainfall data. All inputs can be found on the Watershed Information Form (Table 3.0).

Based on the inputs listed in the flowing tables, a flow of 6,270 cfs was found for the 100-year event. The output of the Unit Hydrograph Analysis can be found in the Appendix E. The flow is in line with the 9,300 cfs in the 2009 study taking into account the larger acreage with a CN value of 63 versus the CN value of 84.

Table 3: Watershed Information Form

Watershed Information Form

Project: Mettler Site

Date: 2/6/19

Engineer: L. Alberto Lopez, RCE 67602

1. Enter the design storm return frequency (years)	<u>100.00</u>
2. Enter the catchment lag (hours)	<u>1.757</u>
3. Enter the catchment area (acres)	<u>32,430</u>
4. Enter baseflow (cfs/square mile)	<u>0.00</u>
5. Enter S-Graph proportions (decimal)	
	Valley: Developed <u> </u>
	Foothill <u> </u>
	Mountain <u>1.00</u>
	Valley: Undeveloped <u> </u>
	Desert <u> </u>
6. Enter maximum loss rate, F_m (inch/hour)	<u>0.56</u>
7. Enter low loss fraction, $\bar{Y}$ (decimal)	<u>0.61</u>
8. Enter watershed area-averaged 5-minute point rainfall (inches)*	<u>0.380</u>
9.	

Figure 1: Tecuya Creek Watershed Exhibit

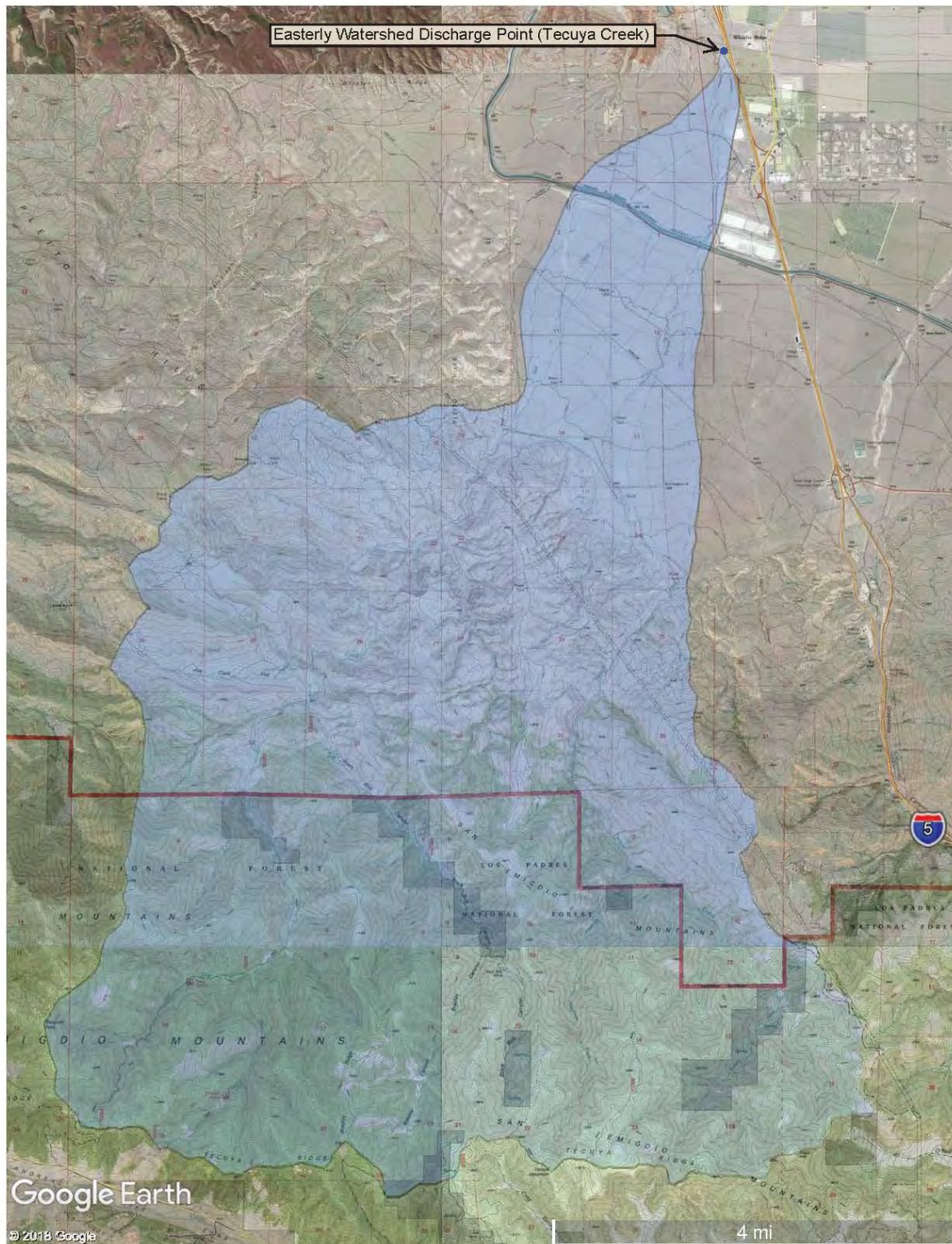


Table 4: Soil Group – County Watershed Loss Determination Map

Watershed Loss 100-year event													
Sub													
Area	Area			Soil	Pervious	S	Ia	Y		Fp	ap	Fm	Weighted
Number	Acres	Fraction	Land Use and Condition	Group	CN				Af*Y				FM
1	4,190	0.13	Chaparral, Broadleaf (Poor)	A	53	8.87	0.18	0.216	0.03	0.78	1	0.78	0.10
2	17,015	0.52	Chaparral, Broadleaf (Fair)	B	63	5.87	0.12	0.304	0.16	0.66	1	0.66	0.35
3	6,075	0.19	Barren	B	86	1.63	0.03	0.626	0.12	0.27	1	0.27	0.05
4	3,590	0.11	Chaparral, Broadleaf (Poor)	C	80	2.50	0.05	0.518	0.06	0.38	1	0.38	0.04
5	1,560	0.05	Chaparral, Broadleaf (Fair)	D	81	2.35	0.05	0.535	0.03	0.36	1	0.36	0.02
									Y=	0.39	Area Average loss rate =		0.557
									Yb=	0.61			
P24	2.84												

Table 5: Lag

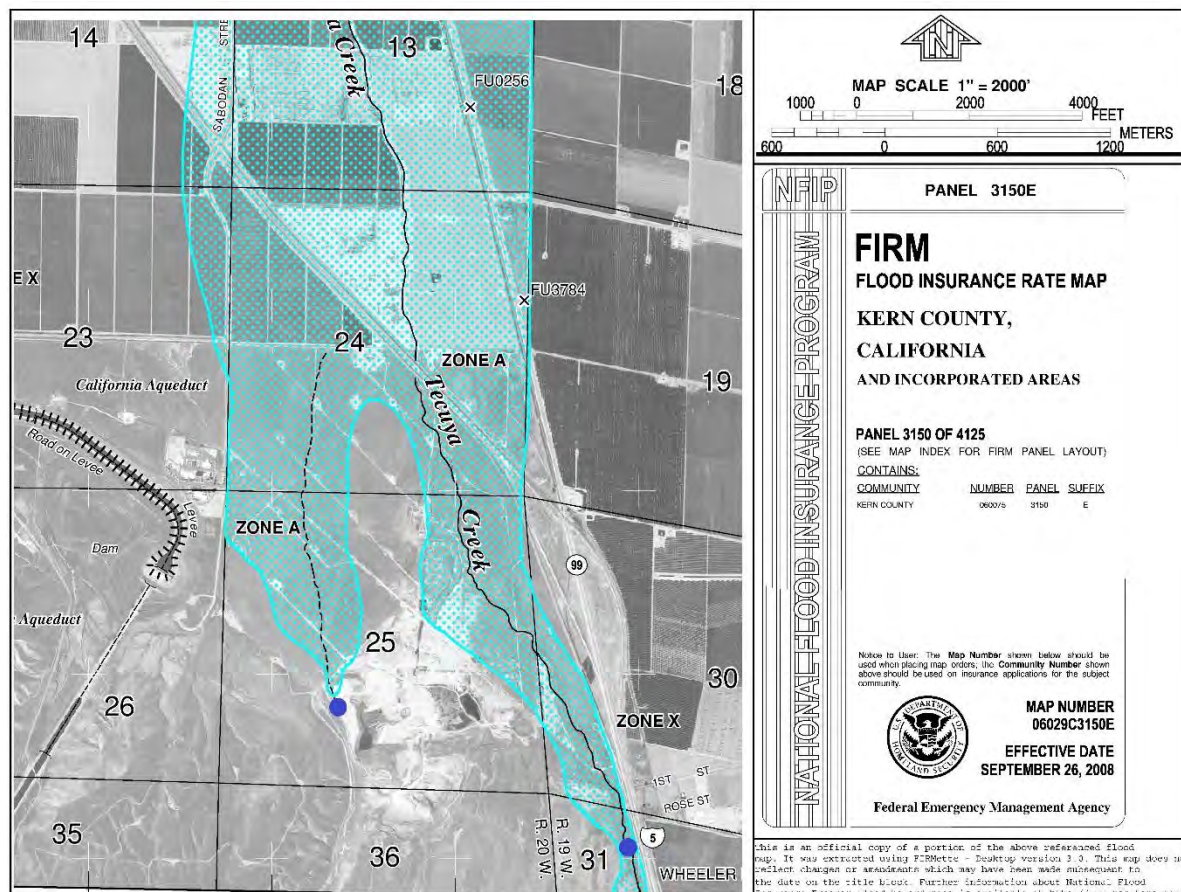
LAG EQUATION: $\text{Lag (hours)} = 24n[\{(L*Lca)/s^{0.5}\}/s^{0.5}]^m$		
n:	0.0433	Lag = 1.757
L:	15.96 miles	
Lca:	4.63 miles	
elev 1:	6,480 ft	
elev 2:	980 ft	
H:	5,500 ft	
s:	344.61 ft/miles	
m:	0.38	

FLOOD MODELING

Existing and proposed sites alternatives were modeled using FLO-2D with the Meyer study flows of 9,300 cubic-feet per second for Tecuya Creek with the StreamStats flow from the westerly watershed of 886 cfs. Based on the comparison of the StreamStats peak flows, the updated Unit Hydrograph Method, and the Meyer flood study using NOAA Atlas 2 intensities, it is conservative to use the previously approved Meyer flood study peak flow for Tecuya Creek with the StreamStats peak flow for the westerly flow.

Synthetic hydrographs were developed to represent the increase in flow up to the peak flow, which was then held for 12.5 hours. These hydrographs were inserted into the FLO-2D model south of the Mettler Site at the points where the easterly watershed drains to the reach of Tecuya Creek and the westerly watershed drains to the reach of the unnamed creek. Reviewing the FEMA Flood Insurance Rate Map just south of the Mettler Site (see below), the discharge points of the westerly and easterly watersheds are visible concentration points and as the water flows north from the points the floodplain visibly spreads out as the topography flattens. These points were chosen to be the locations of where the peak flows were calculated through analysis of the watersheds and where the synthetic hydrographs representing the peak flow were inserted in the FLO-2D model. These points have been denoted on the watershed exhibits and the FLO-2D model outputs also.

Flood Insurance Rate Map South of Mettler Site, Firmette of Panel 06029C3150E



The peak flows of these two watersheds are inserted into the FLO-2D model south of the site to allow for the FLO-2D program to model the flow, depth, and spread of the flood water over the topography of the Mettler Site as well as the surrounding area. This methodology allows for a more realistic prediction of flood water depths and velocities over the project site since there is no information available that would

allow us to accurately estimate flows over the project site alone. Additionally, the FLO-2D model outputs mimicked the FEMA Flood Zone A boundary supporting the decision to place the peak flow hydrographs at the chosen watershed discharge points. The base flood elevation (BFE) was found to be 521.2' for both of the Mettler Sites.

No significant increase in water surface elevation overall or water velocity was observed when comparing the three proposed site alternatives to existing conditions. The greatest increase in elevation was seen approximately 3,000 feet north (downstream) of the Mettler Site with a rise in flood water depth of 0.41 feet for the Site Alternative A1 and 0.36 feet for the Site Alternative A2. The calculated velocities are included as an Appendix G.. It was found that the velocities around the project boundaries did not exhibit any significant increases.

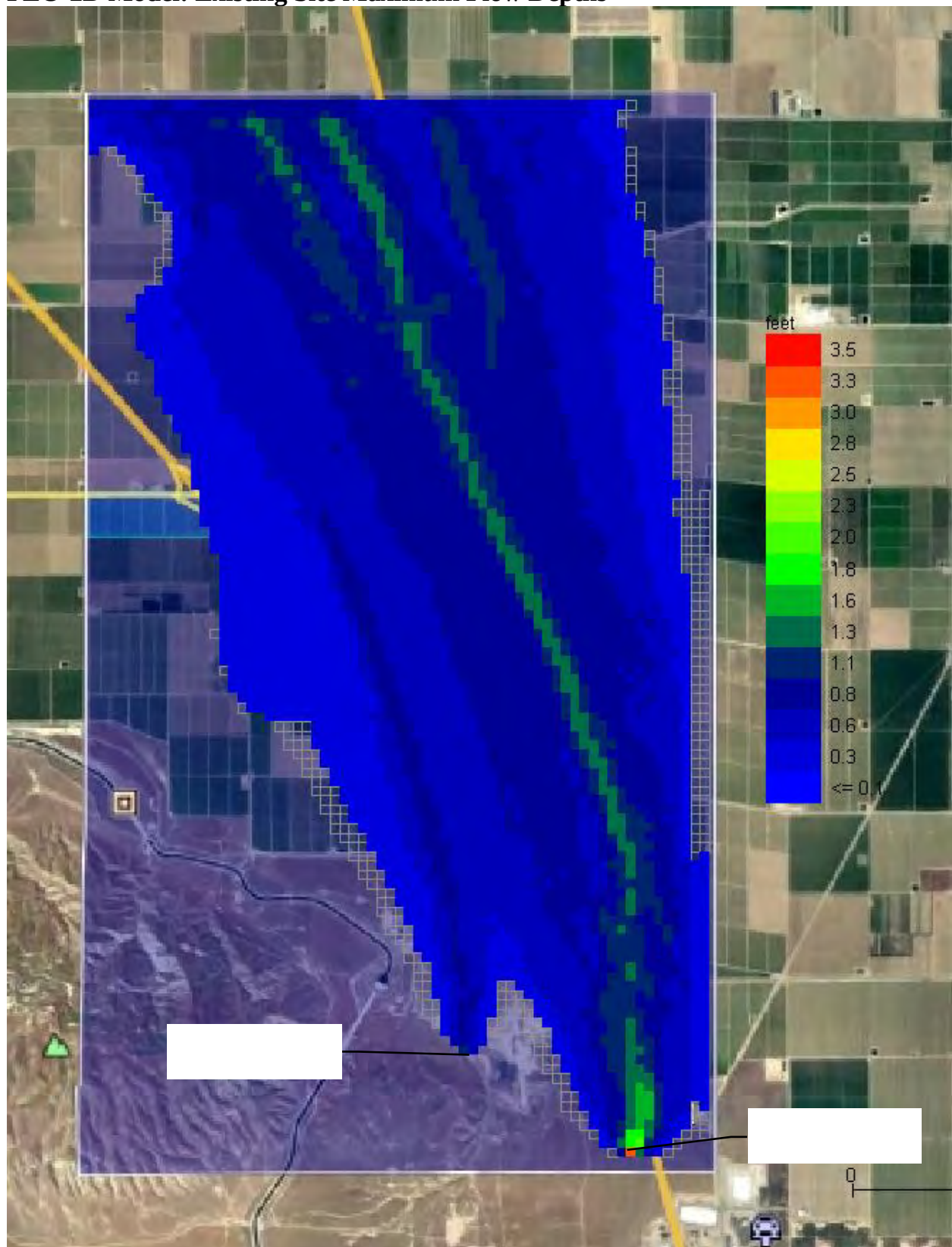
Changes in flood water depths were observed directly on the south side of the casino building, which was modeled as an obstruction to calculate an approximation flood water elevation needed to determine the finished floor elevation. Flood water depths increased 2.6 feet for the Site Alternative A1 and 2.6 feet for Site Alternative A2, resulting in a flood water depth of 3.3 feet for Site Alternative A1 and for Site Alternative A2. Neither of the alternatives for the Mettler Site layout caused an increase of 1.00 feet when compared to the existing conditions on neighboring properties.

The model reflects that access routes from the fire & sheriff's station to the resort remain above the base flood elevation for safety purposes during emergency situations. Additional safety precautions would be to route traffic away from Tecuya Creek. The Mettler sites are small as compared to the overall floodplain. Additionally, the raising of the casino and access aisles serve to slow down the flow on the south side of the structures and road. This in turn slightly increases the floodplain storage at each of the site. Site A1 shows an increase of 1.58 acre-feet, where Site A2 show an increase of 1.29 acre-feet. During final design it is recommended that the increased flows between the road and the casino be routed back into Tecuya Creek or towards the freeway to lower the flood depths and additional floodplain storage.

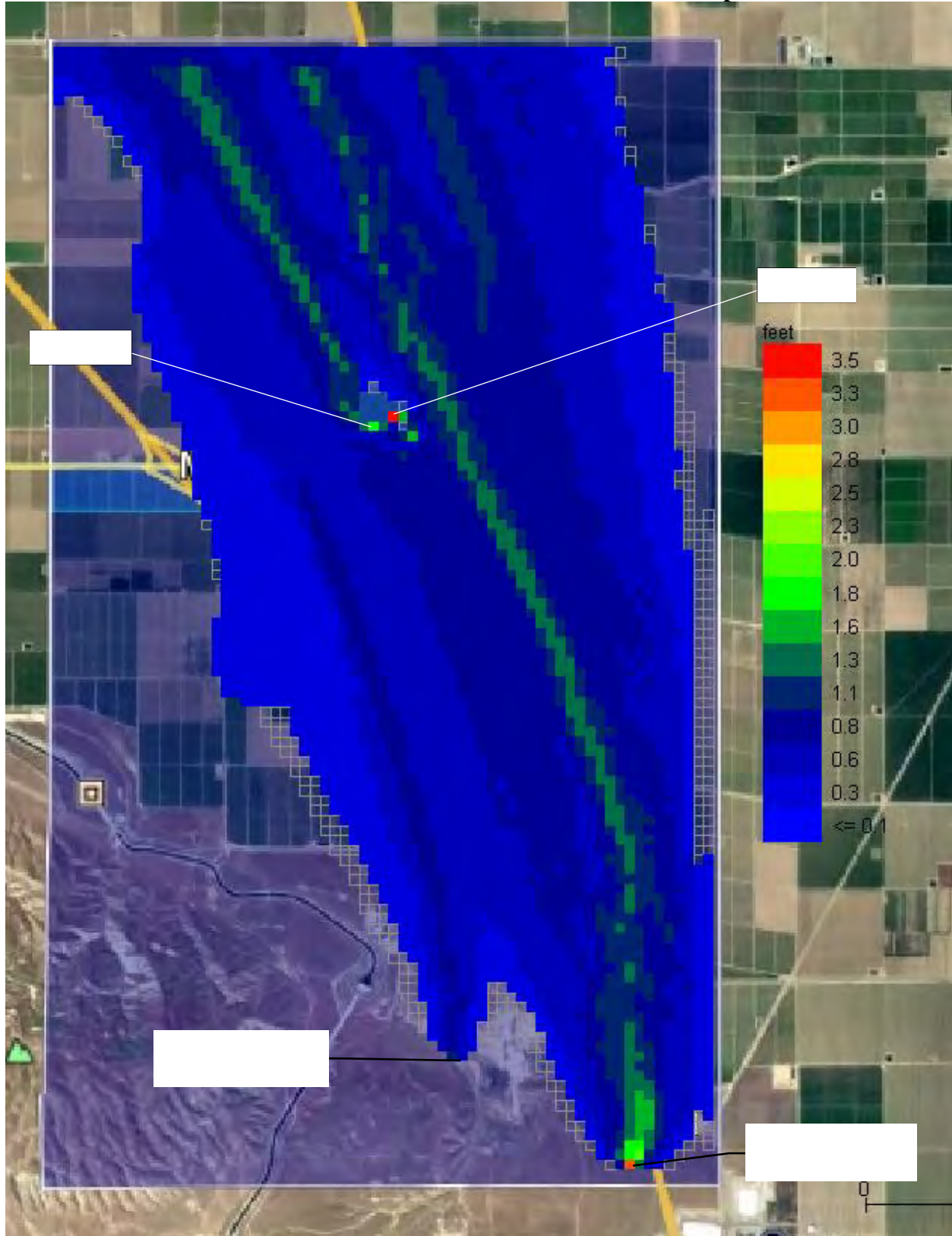
There were only two grid cells that exhibited changes in water depths greater than 1.0' from the existing to the developed conditions in both the A1 and A2 Mettler Sites. These two sites are shown below in the FLO-2D models of the A1 and A2 conditions. There is a table below that provides the depths for cells 2514 and 2579. These cells are directly adjacent to the proposed building and occur within the project's boundaries. The proposed project did not have significant effects to the floodwater depths outside of the project's boundaries.

Cell	Existing Condition Depth	Site A1 Depth	Site A2 Depth
2514	0.5898 ft	3.2951 ft	3.2955 ft
2579	0.6002 ft	1.6816 ft	1.6835 ft

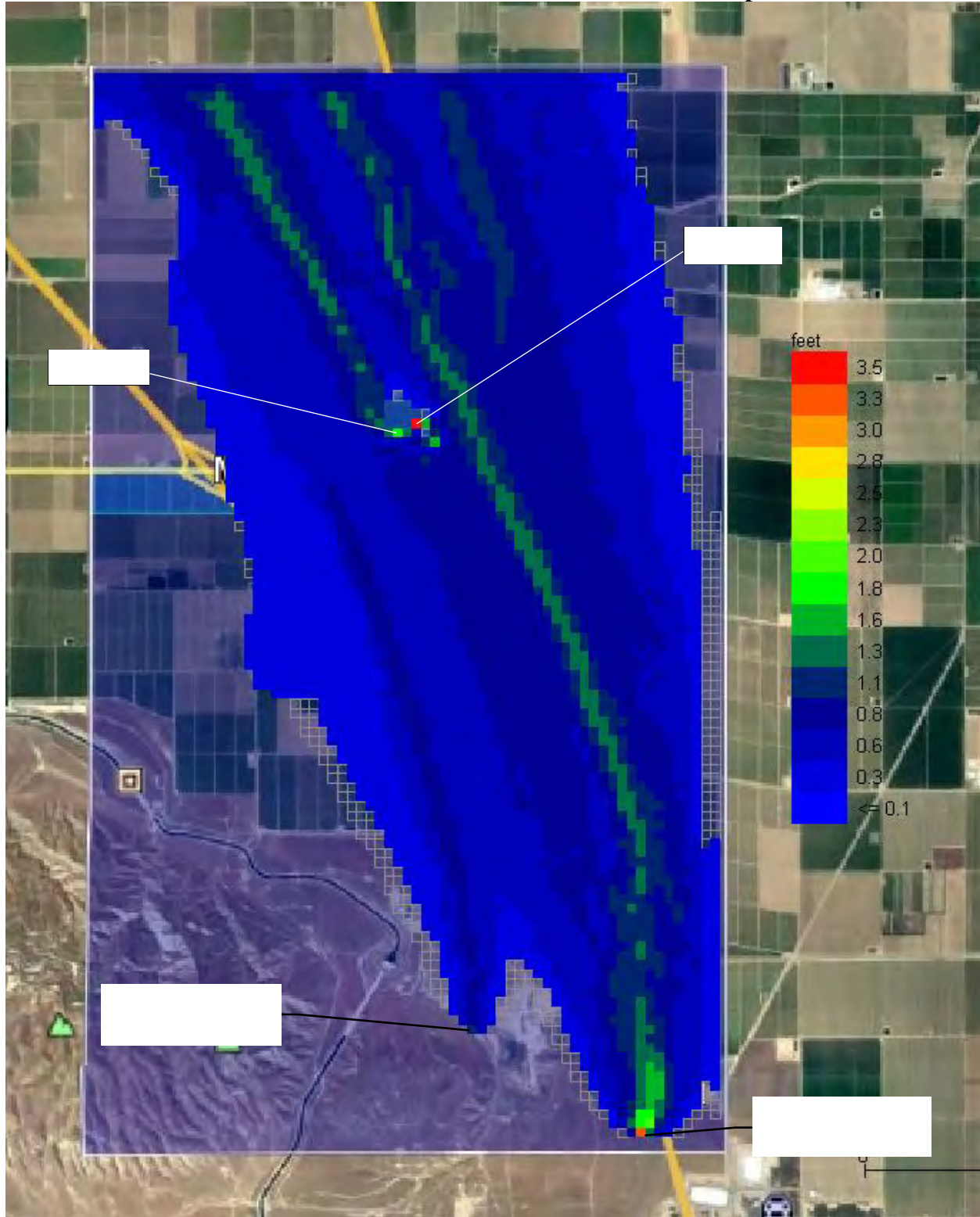
FLO-2D Model: Existing Site Maximum Flow Depths



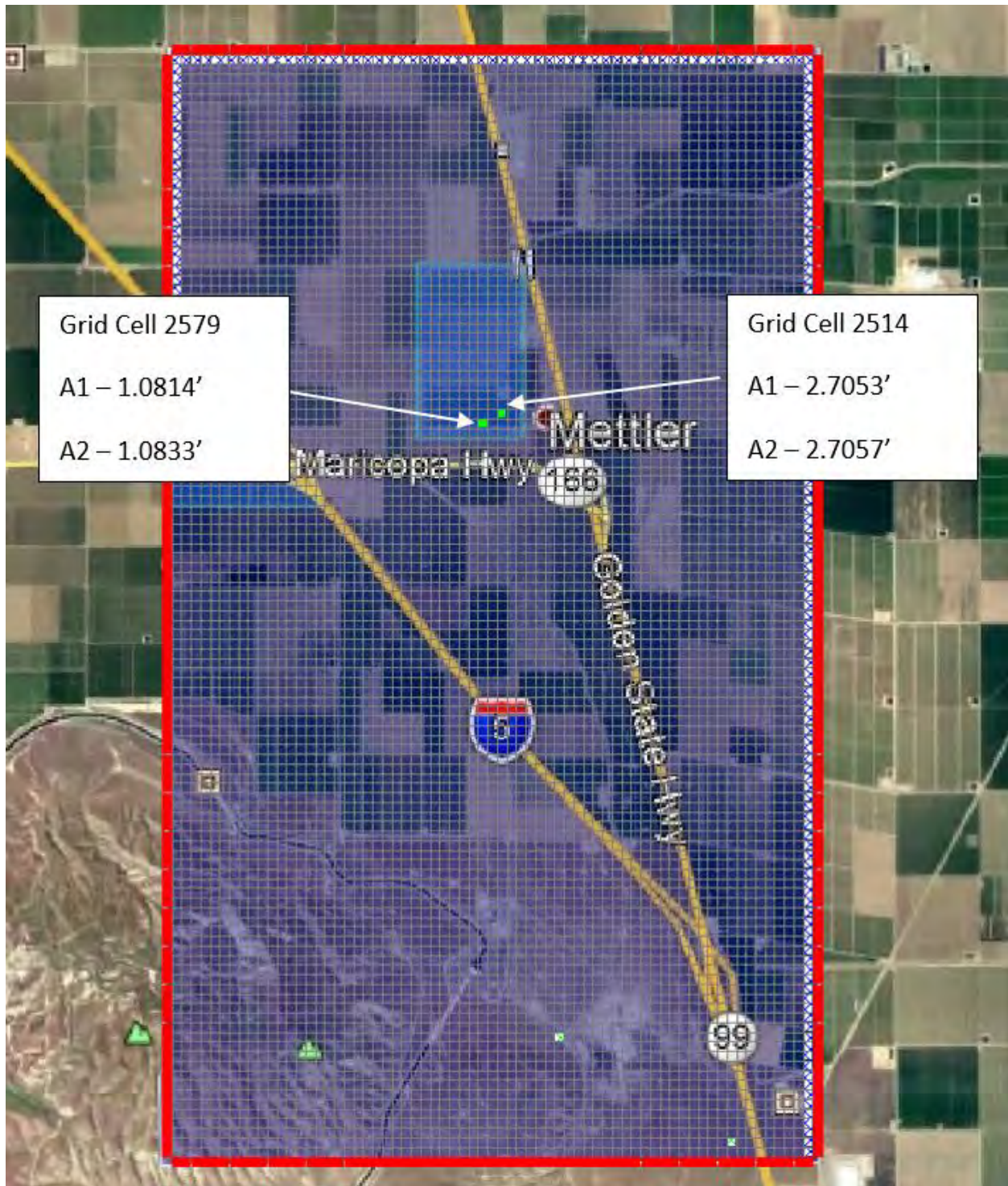
FLO-2D Model: Mettler Site Alternative A1 Maximum Flow Depths



FLO-2D Model: Mettler Site Alternative A2 Maximum Flow Depths



These two cells are shown below with the differences of depths for pre- to post- conditions for A1 and A2. The red rectangle shown in the following exhibit corresponds to the entire grid that was studied to explore the effects of the proposed project on the surrounding area.



StreamStats Report - Mettler Site West Watershed

Region ID: CA

Workspace ID: CA20181227191824539000

Clicked Point (Latitude, Longitude): 35.01060, -118.96981

Time: 2018-12-27 11:18:38 -0800



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
PRECIP	Mean Annual Precipitation	9.59	inches
RELIEF	Maximum - minimum elevation	3422	feet
LFPLENGTH	Length of longest flow path	8	miles
BASINPERIM	Perimeter of the drainage basin as defined in SIR 2004-5262	24.6	thousand feet
BSLDEM30M	Mean basin slope computed from 30 m DEM	16.3	percent
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	-2062594.8	feet

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	12.8	square miles
LAKEAREA	Percentage of Lakes and Ponds	0.35	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	5.5	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	0.3	percent

Peak-Flow Statistics Parameters [2012 5113 Region 4 Central Coast]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	12.8	square miles	0.11	4600
PRECIP	Mean Annual Precipitation	9.59	inches	7	46

Peak-Flow Statistics Flow Report [2012 5113 Region 4 Central Coast]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	Plu	SEp
2 Year Peak Flood	13.9	ft ³ /s	1.96	98.2	162
5 Year Peak Flood	74.2	ft ³ /s	17.8	309	97
10 Year Peak Flood	170	ft ³ /s	49.1	585	79.4
25 Year Peak Flood	377	ft ³ /s	121	1180	69.9
50 Year Peak Flood	610	ft ³ /s	204	1820	66.2
100 Year Peak Flood	886	ft ³ /s	293	2680	66.9
200 Year Peak Flood	1220	ft ³ /s	400	3730	67.6
500 Year Peak Flood	1730	ft ³ /s	529	5680	71.5

Peak-Flow Statistics Citations

Gotvald, A.J., Barth, N.A., Veilleux, A.G., and Parrett, Charles, 2012, Methods for determining magnitude and frequency of floods in California, based on data through water year 2006: U.S. Geological Survey Scientific Investigations Report 2012-5113, 38 p., 1 pl. (<http://pubs.usgs.gov/sir/2012/5113/>)

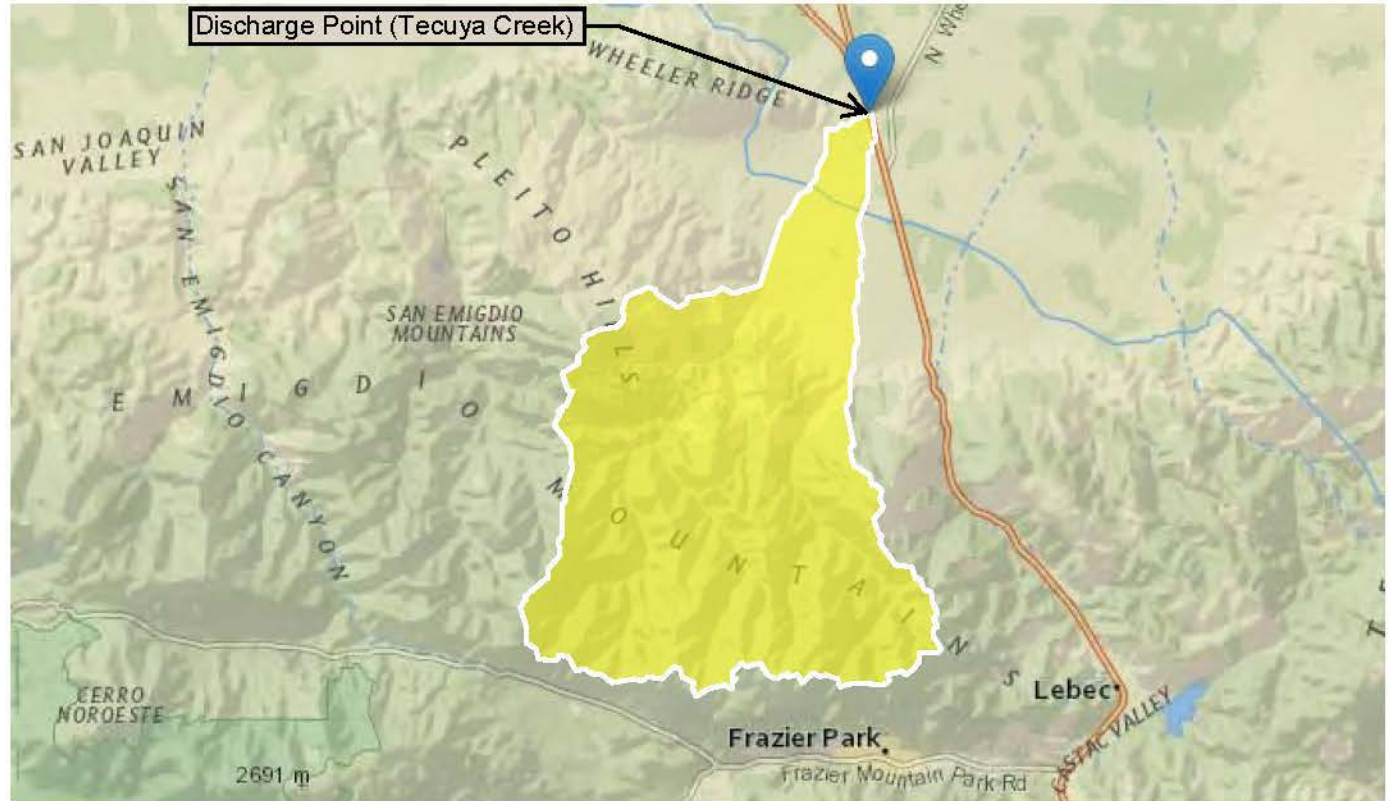
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USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.3.0

StreamStats Report - East Watershed

Region ID: CA**Workspace ID:** CA20181227193553164000**Clicked Point (Latitude, Longitude):** 35.00239, -118.95131**Time:** 2018-12-27 11:36:06 -0800

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	50.8	square miles
PRECIP	Mean Annual Precipitation	13.8	inches
RELIEF	Maximum - minimum elevation	6178	feet
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	-2064095.5	feet
CENTROIDY	Basin centroid vertical (y) location in state plane units	1566577.5	feet

Parameter Code	Parameter Description	Value	Unit
BASINPERIM	Perimeter of the drainage basin as defined in SIR 2004-5262	49	thousand feet

Peak-Flow Statistics Parameters [2012 5113 Region 4 Central Coast]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	50.8	square miles	0.11	4600
PRECIP	Mean Annual Precipitation	13.8	inches	7	46

Peak-Flow Statistics Flow Report [2012 5113 Region 4 Central Coast]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	Plu	SEp
2 Year Peak Flood	116	ft ³ /s	17.5	762	162
5 Year Peak Flood	492	ft ³ /s	126	1920	97
10 Year Peak Flood	996	ft ³ /s	309	3210	79.4
25 Year Peak Flood	1960	ft ³ /s	675	5690	69.9
50 Year Peak Flood	2950	ft ³ /s	1070	8120	66.2
100 Year Peak Flood	4050	ft ³ /s	1460	11200	66.9
200 Year Peak Flood	5330	ft ³ /s	1910	14800	67.6
500 Year Peak Flood	7220	ft ³ /s	2420	21500	71.5

Peak-Flow Statistics Citations

Gotvald, A.J., Barth, N.A., Veilleux, A.G., and Parrett, Charles, 2012, Methods for determining magnitude and frequency of floods in California, based on data through water year 2006: U.S. Geological Survey Scientific Investigations Report 2012-5113, 38 p., 1 pl. (<http://pubs.usgs.gov/sir/2012/5113/>)

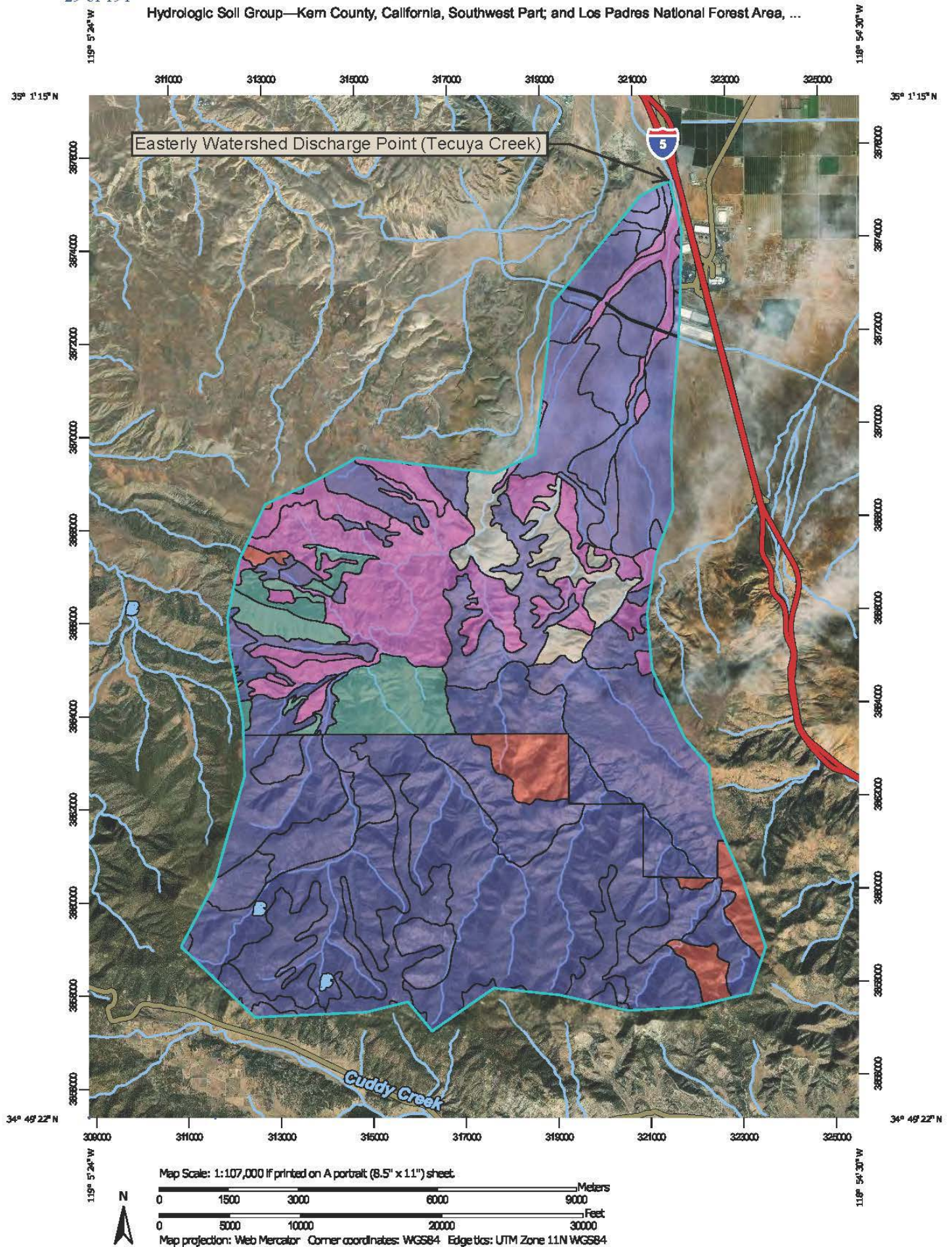
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Application Version: 4.3.0

Hydrologic Soil Group—Kern County, California, Southwest Part; and Los Padres National Forest Area, ...



MAP LEGEND

Area of Interest (AOI)		 C	C
	Area of Interest (AOI)	 C/D	C/D
Soils		 D	D
Soil Rating Polygons		 Not rated or not available	Not rated or not available
 A	A	Water Features	
 A/D	A/D	 Streams and Canals	Streams and Canals
 B	B	Transportation	
 B/D	B/D	 Rails	Rails
 C	C	 Interstate Highways	Interstate Highways
 C/D	C/D	 US Routes	US Routes
 D	D	 Major Roads	Major Roads
 Not rated or not available	Not rated or not available	 Local Roads	Local Roads
Soil Rating Lines		Background	
 A	A	 Aerial Photography	Aerial Photography
 A/D	A/D		
 B	B		
 B/D	B/D		
 C	C		
 C/D	C/D		
 D	D		
 Not rated or not available	Not rated or not available		
Soil Rating Points			
 A	A		
 A/D	A/D		
 B	B		
 B/D	B/D		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kern County, California, Southwest Part

Survey Area Data: Version 9, Sep 12, 2018

Soil Survey Area: Los Padres National Forest Area, California

Survey Area Data: Version 10, Sep 12, 2018

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Nov 2, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
190	Guajarral sandy loam, 0 to 2 percent slopes	B	782.8	2.4%
191	Guajarral sandy loam, 2 to 9 percent slopes	B	682.2	2.1%
192	Guajarral-Klipstein complex, 2 to 5 percent slopes	B	1,148.1	3.5%
197	Klipstein-Guajarral complex, 5 to 15 percent slopes	A	101.6	0.3%
280	Premier sandy loam, 0 to 2 percent slopes	A	34.1	0.1%
331	Cuyama sandy loam, 5 to 15 percent slopes	B	51.1	0.2%
360	Wheelridge gravelly loamy sand, 0 to 2 percent slopes	A	2.5	0.0%
371	Whitewolf loamy sand, 2 to 5 percent slopes	A	33.1	0.1%
389	Xerofluvents-Haploxerepts-Riverwash complex, 0 to 15 percent slopes	B	68.5	0.2%
390	Pleito sandy clay loam, 0 to 2 percent slopes	B	316.2	1.0%
391	Pleito sandy clay loam, 2 to 5 percent slopes	B	1,020.9	3.2%
392	Pleito sandy clay loam, 5 to 9 percent slopes	B	103.2	0.3%
393	Pleito sandy clay loam, 9 to 30 percent slopes	B	107.5	0.3%
395	Pleito-Emidio-Loslobos association, 15 to 75 percent slopes	B	525.2	1.6%
396	Pleito-Loslobos association, 15 to 75 percent slopes	B	1,015.7	3.1%
400	Loslobos-Xeric Torriorthents, very gravelly-Badlands association, 30 to 50 percent slopes		1,235.2	3.8%
402	Loslobos-Walong association, 5 to 30 percent slopes	A	38.1	0.1%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
403	Loslobos-Calleguas association, 30 to 100 percent slopes	A	935.4	2.9%
404	Loslobos sandy loam, moist, 40 to 85 percent slopes	A	195.7	0.6%
460	Geghus-Tecuya association, 9 to 30 percent slopes	B	286.2	0.9%
461	Geghus-Tecuya association, 30 to 75 percent slopes	B	21.3	0.1%
531	Tehachapi gravelly loam, 5 to 30 percent slopes	B	190.5	0.6%
540	Xeric Torriorthents-Badlands complex, 30 to 75 percent slopes	A	3,187.5	9.8%
560	Laval-Pleitito complex, 1 to 5 percent slopes	A	345.6	1.1%
590	Gorman-Typic Xerorthents, mesic-Xerorthents, shallow, complex, 30 to 100 percent slopes	B	2,388.8	7.4%
600	Positas-Bitcreek complex, 2 to 9 percent slopes	C	77.5	0.2%
610	Balcom-Rock outcrop complex, 50 to 75 percent slopes	C	361.6	1.1%
620	Typic Xerorthents, mesic-Haploxerepts-Xerorthents, sandy, association, 30 to 75 percent slopes	C	1,285.1	4.0%
670	Harrisranch-Rock outcrop complex, 50 to 75 percent slopes	B	199.9	0.6%
690	Dibble-Geghus complex, 50 to 75 percent slopes	D	62.0	0.2%
870	Frazier very gravelly sandy loam, 50 to 75 percent slopes	B	1,166.5	3.6%
951	Bitcreek-Balhud-Ballinger complex, 5 to 30 percent slopes	D	5.2	0.0%
W	Water		21.7	0.1%
Subtotals for Soil Survey Area			17,996.5	55.6%
Totals for Area of Interest			32,374.6	100.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
10	Kilburn-Wrentham-Supan families association, 10 to 30 percent slopes	B	1,955.2	6.0%
11	Kilburn-Wrentham-Supan families association, 30 to 60 percent slopes	B	8,186.5	25.3%
18	Lodo-Modjeska-Botella families association, 10 to 70 percent slopes	D	1,091.0	3.4%
20	Los Gatos-Kilburn-Panamint families association, 10 to 30 percent slopes	B	712.1	2.2%
21	Los Gatos-Kilburn-Panamint families association, 30 to 60 percent slopes	B	2,433.3	7.5%
Subtotals for Soil Survey Area			14,378.1	44.4%
Totals for Area of Interest			32,374.6	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Residential Landscaping (Lawn, Shrubs, etc.) - The pervious portions of commercial establishments, single and multiple family dwellings, trailer parks and schools where the predominant land cover is lawn, shrubbery and trees.

Row Crops - Lettuce, tomatoes, beets, tulips or any field crop planted in rows far enough apart that most of the soil surface is exposed to rainfall impact throughout the growing season. At plowing, planting and harvest times it is equivalent to fallow.

Small Grain - Wheat, oats, barley, flax, etc. planted in rows close enough that the soil surface is not exposed except during planting and shortly thereafter.

Legumes - Alfalfa, sweetclover, timothy, etc. and combinations are either planted in close rows or broadcast.

Fallow - Fallow land is land plowed but not yet seeded or tilled.

Woodland - grass - Areas with an open cover of broadleaf or coniferous trees usually live oak and pines, with the intervening ground space occupied by annual grasses or weeds. The trees may occur singly or in small clumps. Canopy density, the amount of ground surface shaded at high noon, is from 20 to 50 percent.

Woodland - Areas on which coniferous or broadleaf trees predominate. The canopy density is at least 50 percent. Open areas may have a cover of annual or perennial grasses or of brush. Herbaceous plant cover under the trees is usually sparse because of leaf or needle litter accumulation.

Chaparral - Land on which the principal vegetation consists of evergreen shrubs with broad, hard, stiff leaves such as manzanita, ceanothus and scrub oak. The brush cover is usually dense or moderately dense. Diffusely branched evergreen shrubs with fine needle-like leaves, such as chamise and redchank, with dense high growth are also included in this soil cover.

Annual Grass - Land on which the principal vegetation consists of annual grasses and weeds such as annual bromes, wild barley, soft chess, ryegrass and filaree.

Irrigated Pasture - Irrigated land planted to perennial grasses and legumes for production of forage and which is cultivated only to establish or renew the stand of plants. Dry land pasture is considered as annual grass.

Meadow - Land areas with seasonally high water table, locally called cienegas. Principal vegetation consists of sod-forming grasses interspersed with other plants.

Orchard (Deciduous) - Land planted to such deciduous trees as apples, apricots, pears, walnuts, and almonds.

Orchard (Evergreen) - Land planted to evergreen trees which include citrus and avocados and coniferous plantings.

Turf - Golf courses, parks and similar lands where the predominant cover is irrigated mowed close-grown turf grass. Parks in which trees are dense may be classified as woodland.

KERN COUNTY
HYDROLOGY MANUAL

SCS
COVER TYPE
DESCRIPTIONS

(C) 10/1/87

Curve⁽¹⁾ Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group			
		A	B	C	D
<u>NATURAL COVERS -</u>					
Barren (Rockland, eroded and graded land)		77	86	91	94
Chaparral, Broadleaf (Manzonita, ceanothus and scrub oak)	Poor	53	70	80	85
	Fair	40	63	75	81
	Good	31	57	71	78
Chaparral, Narrowleaf (Chamise and Redskank)	Poor	71	82	88	91
	Fair	55	72	81	86
Grass, Annual or Perennial	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadows or Cienagas (Areas with seasonally high water table, principal vegetation is sod forming grass)	Poor	63	77	85	88
	Fair	51	70	80	84
	Good	30	58	71	78
Open Brush (Soft wood shrubs-buckwheat, sage, etc.)	Poor	62	76	84	88
	Fair	46	66	77	83
	Good	41	63	75	81
Woodland (4) (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent)	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30	55	70	77
Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent)	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
<u>URBAN COVERS -</u>					
Residential or Commercial Landscaping (Lawns, shrubs, etc.)	Good	39	61	74	80
Turf (Irrigated and mowed grass)	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80

KERN COUNTY
Hydrology Manual

CURVE NUMBERS
FOR
PERVIOUS AREAS

Curve⁽¹⁾ Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group			
		A	B	C	D
<u>AGRICULTURAL COVERS -</u>					
Fallow (Bare Soil)		77	86	91	94
Close Seeded (alfalfa, sweetclover, timothy, etc.)	Poor	66	77	85	89
	Good	58	72	81	85
Orchards, Evergreen (Citrus, avacodos, etc.)	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Pasture (Grassland or range, continuous forage for grazing)	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Row Crops (Straight row, non-contoured)	Poor	72	81	88	91
	Good	67	78	85	89
Small Grain (Straight row, non-contoured)	Poor	65	76	84	88
	Good	63	75	83	87

Notes:

1. Average runoff condition, $I_a = 0.2(S)$

2. Poor: Heavily grazed, regularly burned areas, or areas of high burn potential. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.

Fair: Moderate cover with 50 percent to 75 percent of the ground surface protected. In wooded areas the woods are grazed but not burned, and some forest litter covers the soil.

Good: Heavy or dense cover with more than 75 percent of the ground surface protected. In wooded areas the woods are protected from grazing, litter and brush adequately cover soil.

3. See Figure C-1 for definition of cover types.

KERN COUNTY
Hydrology Manual

CURVE NUMBERS
FOR
PERVIOUS AREAS

Appendix E: Unit Hydrograph Analysis

Copyright (c) CIVILCADD/CIVILDESIGN, 2004-2018, Version 9.0
Study date 02/06/19

Kern County Synthetic Unit Hydrograph Hydrology Method Manual date - 1992

Program License Serial Number 6442

Storm Event Year = 100
English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used
English Units used in output format

RAINFALL DATA INPUT:

Slope of Intensity-Duration Curve Slope = 0.550

Zone Designation: Coast Ranges Latitude = 35.00

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
-------------------	---------------------	-------------------

Rainfall data for year 2

32430.00	6	1.21
----------	---	------

Rainfall data for year 2

32430.00	24	2.20
----------	----	------

Rainfall data for year 100

32430.00	6	3.03
----------	---	------

Rainfall data for year 100

32430.00	24	5.49
----------	----	------

COAST RANGES area of study

Log-Log Rainfall Intensity Slope = 0.55

***** Area-averaged max loss rate, Fm *****

SCS Curve Number	Area (Ac.)	Area Fraction	Fp (In/Hr)	Ap (dec)	Fm (In/Hr)
53.0	4190.00	0.129	0.784	0.990	0.776
63.0	17015.00	0.525	0.658	0.990	0.651
86.0	6075.00	0.187	0.272	0.990	0.269
80.0	3590.00	0.111	0.380	0.990	0.376
81.0	1560.00	0.048	0.362	0.990	0.358

Area-averaged adjusted loss rate Fm (In/Hr) = 0.551

***** Area-Averaged low loss rate fraction, Yb *****

Area (Ac.)	Area Fract	SCS CN (AMC2)	S	Pervious Yield Fr
4148.10	0.128	53.0	8.87	0.200
41.90	0.001	98.0	0.20	0.957
16844.85	0.519	63.0	5.87	0.333
170.15	0.005	98.0	0.20	0.957
6014.25	0.185	86.0	1.63	0.715
60.75	0.002	98.0	0.20	0.957
3554.10	0.110	80.0	2.50	0.606
35.90	0.001	98.0	0.20	0.957
1544.40	0.048	81.0	2.35	0.623
15.60	0.000	98.0	0.20	0.957

Area-averaged catchment yield fraction, Y = 0.437

Area-averaged low loss fraction, Yb = 0.563

Direct entry of lag time by user

+++++

Watershed area = 32430.00(Ac.)

Catchment Lag time = 1.757 hours

Unit interval = 5.000 minutes

Unit interval percentage of lag time = 4.7429

Hydrograph baseflow = 0.00(CFS)

Average maximum watershed loss rate(Fm) = 0.551(In/Hr)

Average low loss rate fraction (Yb) = 0.610 (decimal)

Note: user entry of the Yb value

MOUNTAIN S-Graph Selected

Computed peak 5-minute rainfall = 0.415(In)

Computed peak 30-minute rainfall = 0.930(In)

Specified peak 1-hour rainfall = 1.271(In)

Computed peak 3-hour rainfall = 2.165(In)

Specified peak 6-hour rainfall = 3.030(In)

Specified peak 24-hour rainfall = 5.490(In)

Computed peak 3-hour rainfall = 2.120(In)

Specified peak 6-hour rainfall = 3.030(In)

Specified peak 24-hour rainfall = 5.490(In)

Rainfall depth area reduction factors:

Using a total area of 32430.00(Ac.) (Ref: fig. E-4)

5-minute factor = 0.427 Adjusted rainfall = 0.162(In)

30-minute factor = 0.466 Adjusted rainfall = 0.409(In)

1-hour factor = 0.490 Adjusted rainfall = 0.613(In)

3-hour factor = 0.838 Adjusted rainfall = 1.778(In)

6-hour factor = 0.928 Adjusted rainfall = 2.813(In)

24-hour factor = 0.957 Adjusted rainfall = 5.252(In)

Note: User specified rainfall values used.

Computed peak 5-minute rainfall = 0.380(In)

Computed peak 30-minute rainfall = 0.878(In)

Specified peak 1-hour rainfall = 1.250(In)

Unit Hydrograph

+++++

Interval 'S' Graph Unit Hydrograph
Number Mean values ((CFS))

(K = 392200.31 (CFS))

1	0.527	2066.866	45	70.633	2325.225
2	1.582	4136.444	46	71.225	2325.225
3	2.714	4442.312	47	71.816	2316.517
4	3.934	4784.400	48	72.329	2011.415
5	5.448	5936.002	49	72.803	1860.180
6	7.029	6200.599	50	73.278	1860.180
7	8.920	7416.472	51	73.752	1860.180
8	11.286	9280.626	52	74.206	1779.517
9	13.707	9496.874	53	74.637	1691.118
10	16.705	11757.417	54	75.068	1691.073
11	20.032	13047.440	55	75.499	1691.073
12	23.825	14875.144	56	75.928	1683.011
13	28.271	17440.089	57	76.331	1581.007
14	32.020	14700.798	58	76.727	1550.150
15	35.182	12401.199	59	77.122	1550.150
16	38.197	11826.882	60	77.517	1550.150
17	40.629	9538.276	61	77.910	1541.588
18	42.999	9295.153	62	78.264	1386.406
19	45.098	8230.345	63	78.602	1328.700
20	46.995	7440.719	64	78.941	1328.700
21	48.892	7440.719	65	79.280	1328.700
22	50.657	6920.454	66	79.619	1328.700
23	52.191	6017.296	67	79.956	1322.486
24	53.557	5358.575	68	80.277	1257.445
25	54.800	4876.492	69	80.593	1240.120
26	55.958	4539.538	70	80.909	1240.120
27	56.938	3842.097	71	81.225	1240.120
28	57.886	3720.360	72	81.541	1240.120
29	58.835	3720.360	73	81.857	1239.834
30	59.783	3720.360	74	82.141	1111.516
31	60.732	3720.360	75	82.397	1005.503
32	61.678	3712.106	76	82.654	1005.503
33	62.524	3317.414	77	82.910	1005.503
34	63.315	3100.300	78	83.166	1005.503
35	64.093	3052.509	79	83.423	1005.503
36	64.827	2877.869	80	83.679	1005.503
37	65.556	2861.815	81	83.934	999.993
38	66.265	2780.463	82	84.158	877.253
39	66.943	2658.588	83	84.369	826.747
40	67.621	2657.400	84	84.579	826.747
41	68.261	2510.520	85	84.790	826.747
42	68.854	2325.815	86	85.001	826.747
43	69.447	2325.225	87	85.212	826.747
44	70.040	2325.225	88	85.423	826.747

89	85.633	826.747	140	93.575	483.164
90	85.844	826.747	141	93.698	483.164
91	86.048	798.621	142	93.821	483.164
92	86.234	732.272	143	93.945	483.017
93	86.420	729.482	144	94.052	420.109
94	86.606	729.482	145	94.146	368.352
95	86.792	729.482	146	94.240	368.352
96	86.978	729.482	147	94.333	368.352
97	87.164	729.482	148	94.427	368.352
98	87.350	729.482	149	94.521	368.352
99	87.536	729.482	150	94.615	368.352
100	87.722	729.482	151	94.709	368.352
101	87.908	729.480	152	94.803	368.352
102	88.084	690.504	153	94.897	368.352
103	88.251	652.695	154	94.991	368.352
104	88.417	652.695	155	95.085	368.352
105	88.584	652.695	156	95.179	368.352
106	88.750	652.695	157	95.273	368.352
107	88.917	652.695	158	95.367	368.352
108	89.083	652.695	159	95.460	368.352
109	89.249	652.695	160	95.554	368.352
110	89.416	652.695	161	95.648	368.352
111	89.582	652.695	162	95.742	368.352
112	89.749	652.695	163	95.836	368.352
113	89.915	652.695	164	95.930	368.352
114	90.071	613.347	165	96.017	339.603
115	90.217	572.367	166	96.086	270.658
116	90.363	572.363	167	96.154	267.652
117	90.509	572.363	168	96.222	267.652
118	90.655	572.363	169	96.290	267.652
119	90.801	572.363	170	96.359	267.652
120	90.947	572.363	171	96.427	267.652
121	91.093	572.363	172	96.495	267.652
122	91.239	572.363	173	96.563	267.652
123	91.385	572.363	174	96.632	267.652
124	91.531	572.363	175	96.700	267.652
125	91.677	572.363	176	96.768	267.652
126	91.823	572.363	177	96.836	267.652
127	91.968	568.736	178	96.905	267.652
128	92.097	505.954	179	96.973	267.652
129	92.220	483.164	180	97.041	267.652
130	92.343	483.164	181	97.109	267.652
131	92.466	483.164	182	97.178	267.652
132	92.589	483.164	183	97.246	267.652
133	92.713	483.164	184	97.314	267.652
134	92.836	483.164	185	97.382	267.652
135	92.959	483.164	186	97.451	267.652
136	93.082	483.164	187	97.519	267.652
137	93.205	483.164	188	97.587	267.652
138	93.329	483.164	189	97.655	267.652
139	93.452	483.164	190	97.724	267.652

191	97.792	267.652	242	99.191	97.392
192	97.860	267.652	243	99.216	97.392
193	97.928	267.652	244	99.240	97.392
194	97.992	250.499	245	99.265	97.392
195	98.024	123.248	246	99.290	97.392
196	98.048	97.392	247	99.315	97.392
197	98.073	97.392	248	99.340	97.392
198	98.098	97.392	249	99.364	97.392
199	98.123	97.392	250	99.389	97.392
200	98.148	97.392	251	99.414	97.392
201	98.173	97.392	252	99.439	97.392
202	98.197	97.392	253	99.464	97.392
203	98.222	97.392	254	99.489	97.392
204	98.247	97.392	255	99.513	97.392
205	98.272	97.392	256	99.538	97.392
206	98.297	97.392	257	99.563	97.392
207	98.322	97.392	258	99.588	97.392
208	98.346	97.392	259	99.613	97.392
209	98.371	97.392	260	99.638	97.392
210	98.396	97.392	261	99.662	97.392
211	98.421	97.392	262	99.687	97.392
212	98.446	97.392	263	99.712	97.392
213	98.471	97.392	264	99.737	97.392
214	98.495	97.392	265	99.762	97.392
215	98.520	97.392	266	99.787	97.392
216	98.545	97.392	267	99.811	97.392
217	98.570	97.392	268	99.836	97.392
218	98.595	97.392	269	99.861	97.392
219	98.620	97.392	270	99.886	97.392
220	98.644	97.392	271	99.911	97.392
221	98.669	97.392	272	99.936	97.392
222	98.694	97.392	273	99.960	97.392
223	98.719	97.392	274	100.000	155.047
224	98.744	97.392			
225	98.769	97.392			
226	98.793	97.392			
227	98.818	97.392			
228	98.843	97.392			
229	98.868	97.392			
230	98.893	97.392			
231	98.918	97.392			
232	98.942	97.392			
233	98.967	97.392			
234	98.992	97.392			
235	99.017	97.392			
236	99.042	97.392			
237	99.067	97.392			
238	99.091	97.392			
239	99.116	97.392			
240	99.141	97.392			
241	99.166	97.392			

Rainfall values calculated at 5 minute intervals:
Peak Rainfall, Intensity, Depth, Adjusted Unit
Rainfall

Unit Number	(In)			
1	4.56	0.38	0.16	0.162
2	3.15	0.53	0.23	0.070
3	2.54	0.64	0.29	0.054
4	2.18	0.73	0.33	0.046
5	1.94	0.81	0.37	0.040
6	1.76	0.88	0.41	0.037
7	1.63	0.95	0.45	0.038
8	1.52	1.02	0.48	0.036
9	1.44	1.08	0.52	0.034
10	1.37	1.14	0.55	0.033
11	1.30	1.20	0.58	0.031
12	1.25	1.25	0.61	0.030
13	1.20	1.30	0.66	0.049
14	1.15	1.35	0.71	0.049
15	1.11	1.39	0.76	0.049
16	1.08	1.44	0.81	0.049
17	1.04	1.48	0.86	0.049
18	1.01	1.52	0.91	0.049
19	0.98	1.56	0.96	0.049
20	0.96	1.60	1.01	0.049
21	0.93	1.64	1.05	0.049
22	0.91	1.67	1.10	0.049
23	0.89	1.71	1.15	0.049
24	0.87	1.74	1.20	0.048
25	0.85	1.78	1.25	0.048
26	0.84	1.81	1.30	0.048
27	0.82	1.85	1.35	0.048
28	0.81	1.88	1.39	0.048
29	0.79	1.91	1.44	0.048
30	0.78	1.94	1.49	0.048
31	0.76	1.97	1.54	0.048
32	0.75	2.00	1.59	0.048
33	0.74	2.03	1.63	0.048
34	0.73	2.06	1.68	0.048
35	0.72	2.09	1.73	0.048
36	0.71	2.12	1.78	0.048

Time = 3.00 Hours Total unit rainfall =
1.78(In)

Unit Unit Unit Effective
Period Rainfall Soil-Loss Rainfall
(number) (In) (In) (In)

1	0.0479	0.0292	0.0187
2	0.0479	0.0292	0.0187
3	0.0480	0.0293	0.0187
4	0.0481	0.0293	0.0187
5	0.0482	0.0294	0.0188
6	0.0482	0.0294	0.0188
7	0.0483	0.0295	0.0188
8	0.0484	0.0295	0.0189
9	0.0485	0.0296	0.0189
10	0.0486	0.0296	0.0189
11	0.0487	0.0297	0.0190
12	0.0488	0.0297	0.0190
13	0.0489	0.0298	0.0191
14	0.0490	0.0299	0.0191
15	0.0492	0.0300	0.0192
16	0.0493	0.0301	0.0192
17	0.0303	0.0185	0.0118
18	0.0315	0.0192	0.0123
19	0.0344	0.0210	0.0134
20	0.0362	0.0221	0.0141
21	0.0367	0.0224	0.0143
22	0.0405	0.0247	0.0158
23	0.0540	0.0329	0.0211
24	0.0698	0.0426	0.0272
25	0.1624	0.0459*	0.1165
26	0.0457	0.0279	0.0178
27	0.0385	0.0235	0.0150
28	0.0328	0.0200	0.0128
29	0.0494	0.0302	0.0193
30	0.0491	0.0300	0.0192
31	0.0488	0.0298	0.0191
32	0.0486	0.0297	0.0190
33	0.0484	0.0295	0.0189
34	0.0483	0.0294	0.0188
35	0.0481	0.0293	0.0188
36	0.0480	0.0293	0.0187

1.7776 1.0312 0.7464

Total soil rain loss = 1.03(In)
Total effective rainfall = 0.75(In)
Peak flow rate in flood hydrograph =
6270.62(CFS)

3 – HOUR STORM Runoff Hydrograph

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m) Volume Ac.Ft Q(CFS)

0 1575.0 3150.0 4725.0 6300.0

0+ 5	0.2658	38.60	Q				
0+10	1.0638	115.87	Q				
0+15	2.4341	198.96	VQ				
0+20	4.4213	288.55	VQ				
0+25	7.1746	399.78	V Q				
0+30	10.7291	516.11	V Q				
0+35	15.2423	655.32	V Q				
0+40	20.9555	829.55	V Q				
0+45	27.8984	1008.11	V Q				
0+50	36.3637	1229.16	V Q				
0+55	46.5199	1474.68	V Q				
1+ 0	58.6049	1754.75	V Q				
1+ 5	72.9521	2083.20	V Q				
1+10	89.2131	2361.10	V Q				
1+15	107.0965	2596.67	V Q				
1+20	126.5322	2822.06	V Q				
1+25	147.1233	2989.83	V Q				
1+30	168.7415	3138.96	V Q				
1+35	191.2589	3269.52	V Q				
1+40	214.5857	3387.06	V Q				
1+45	238.6807	3498.59	V Q				
1+50	263.4963	3603.22	V Q				
1+55	288.9628	3697.73	V Q				
2+ 0	315.0784	3791.99	V Q				
2+ 5	343.1614	4077.65	V Q				
2+10	372.9787	4329.47	V Q				
2+15	403.1931	4387.12	V Q				
2+20	433.7189	4432.36	V Q				
2+25	465.0531	4549.71	V Q				
2+30	496.9446	4630.66	V Q				
2+35	530.1905	4827.29	V Q				
2+40	565.2170	5085.86	V Q				
2+45	601.1066	5211.17	V Q				
2+50	639.1593	5525.25	V Q				
2+55	678.8163	5758.19	V Q				
3+ 0	720.3422	6029.56	V Q				
3+ 5	763.5283	6270.62	V Q				
3+10	804.5847	5961.39	V Q				
3+15	843.8069	5695.07	V Q				
3+20	882.3596	5597.85	V Q				
3+25	919.2088	5350.51	V Q				
3+30	955.5504	5276.80	V Q				
3+35	990.6731	5099.82	V Q				

3+40	1024.5582	4920.12			V	Q	
3+45	1057.5670	4792.88			V	Q	
3+50	1089.0396	4569.82			V	Q	
3+55	1118.5235	4281.06			V	Q	
4+ 0	1145.8916	3973.84			V	Q	
4+ 5	1170.9546	3639.15			Q		
4+10	1194.1680	3370.59			Q	V	
4+15	1215.6033	3112.40			Q	V	
4+20	1235.7154	2920.27			Q	V	
4+25	1254.8681	2780.97			Q	V	
4+30	1273.0907	2645.93			Q	V	
4+35	1290.4811	2525.08			Q	V	
4+40	1307.1048	2413.77			Q	V	
4+45	1322.7068	2265.41			Q	V	
4+50	1337.4861	2145.95			Q	V	
4+55	1351.6751	2060.24			Q	V	
5+ 0	1365.2870	1976.46			Q	V	
5+ 5	1378.4696	1914.11			Q	V	
5+10	1391.1951	1847.74			Q	V	
5+15	1403.5206	1789.65			Q	V	
5+20	1415.5406	1745.31			Q	V	
5+25	1427.1679	1688.28			Q	V	
5+30	1438.3843	1628.62			Q	V	
5+35	1449.3092	1586.29			Q	V	
5+40	1459.9448	1544.29			Q	V	
5+45	1470.3368	1508.92			Q	V	
5+50	1480.4914	1474.45			Q	V	
5+55	1490.3901	1437.29			Q	V	
6+ 0	1499.8674	1376.10			Q	V	
6+ 5	1509.0442	1332.47			Q	V	
6+10	1518.0208	1303.40			Q	V	
6+15	1526.7990	1274.59			Q	V	
6+20	1535.3134	1236.30			Q	V	
6+25	1543.5770	1199.87			Q	V	
6+30	1551.6820	1176.84			Q	V	
6+35	1559.6296	1154.00			Q	V	
6+40	1567.4060	1129.13			Q	V	
6+45	1574.9470	1094.95			Q	V	
6+50	1582.2868	1065.75			Q	V	
6+55	1589.4419	1038.91			Q	V	
7+ 0	1596.4500	1017.57			Q	V	
7+ 5	1603.3132	996.54			Q	V	
7+10	1609.9375	961.86			Q	V	
7+15	1616.3928	937.30			Q	V	
7+20	1622.7314	920.37			Q	V	
7+25	1628.9669	905.40			Q	V	
7+30	1635.0971	890.10			Q	V	
7+35	1641.1137	873.61			Q	V	
7+40	1646.9715	850.55			Q	V	
7+45	1652.7156	834.04			Q	V	
7+50	1658.3624	819.92			Q	V	

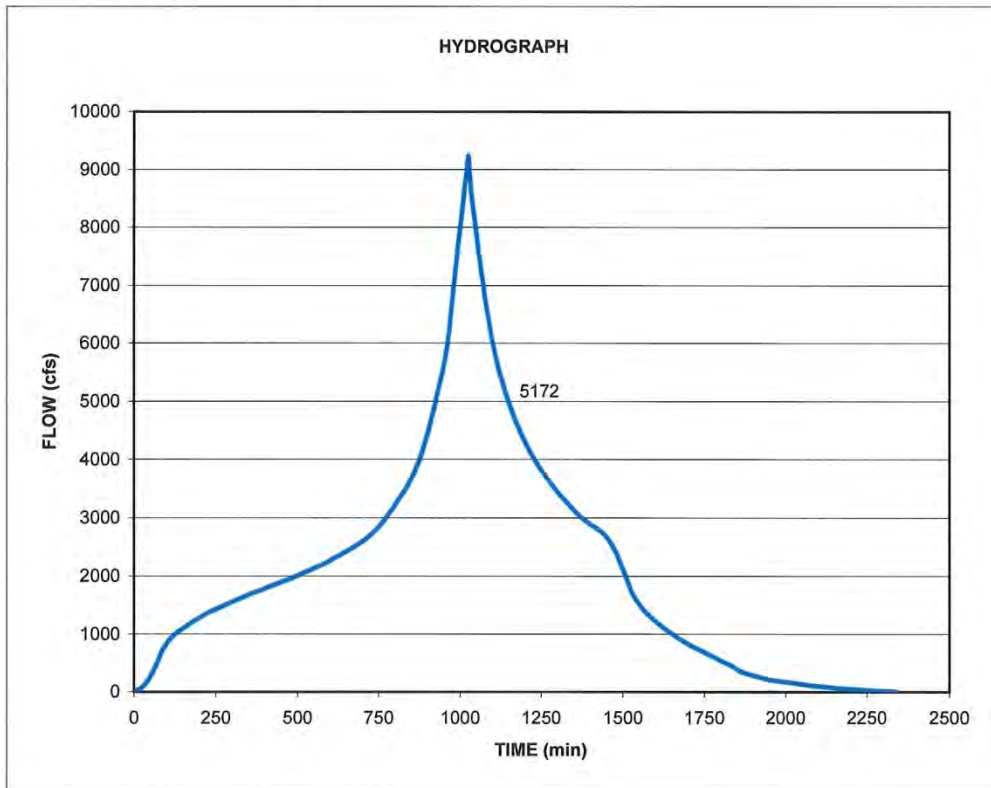
7+55	1663.9117	805.75	Q			V	
8+ 0	1669.3549	790.36	Q			V	
8+ 5	1674.6834	773.69	Q			V	
8+10	1679.8402	748.76	Q			V	
8+15	1684.8569	728.42	Q			V	
8+20	1689.8069	718.75	Q			V	
8+25	1694.6933	709.50	Q			V	
8+30	1699.5065	698.87	Q			V	
8+35	1704.2362	686.76	Q			V	
8+40	1708.8858	675.13	Q			V	
8+45	1713.4473	662.33	Q			V	
8+50	1717.8468	638.81	Q			V	
8+55	1722.1383	623.12	Q			V	
9+ 0	1726.3619	613.27	Q			V	
9+ 5	1730.5202	603.77	Q			V	
9+10	1734.6242	595.90	Q			V	
9+15	1738.6850	589.64	Q			V	
9+20	1742.7025	583.34	Q			V	
9+25	1746.6750	576.81	Q			V	
9+30	1750.5939	569.02	Q			V	
9+35	1754.4338	557.55	Q			V	
9+40	1758.1728	542.91	Q			V	
9+45	1761.8557	534.76	Q			V	
9+50	1765.5039	529.71	Q			V	
9+55	1769.1254	525.84	Q			V	

10+ 0	1772.7169	521.49	Q			V	
10+ 5	1776.2779	517.06	Q			V	
10+10	1779.8081	512.59	Q			V	
10+15	1783.3073	508.08	Q			V	
10+20	1786.7735	503.30	Q			V	
10+25	1790.2039	498.09	Q			V	
10+30	1793.5728	489.16	Q			V	
10+35	1796.8866	481.17	Q			V	
10+40	1800.1723	477.08	Q			V	
10+45	1803.4285	472.80	Q			V	
10+50	1806.6561	468.64	Q			V	
10+55	1809.8553	464.53	Q			V	
11+ 0	1813.0258	460.35	Q			V	
11+ 5	1816.1670	456.11	Q			V	
11+10	1819.2789	451.84	Q			V	
11+15	1822.3608	447.50	Q			V	
11+20	1825.4111	442.90	Q			V	
11+25	1828.4265	437.84	Q			V	
11+30	1831.3861	429.74	Q			V	
11+35	1834.2963	422.56	Q			V	
11+40	1837.1857	419.54	Q			V	
11+45	1840.0556	416.72	Q			V	
11+50	1842.9050	413.72	Q			V	
11+55	1845.7320	410.49	Q			V	

Appendix F: Meyer Study (2009) 100-year Project Hydrograph

TIME (min)	TIME (hr)	FLOW (cfs)
0	0.000	0
30	0.500	96
60	1.000	356
90	1.500	740
120	2.000	966
150	2.500	1096
180	3.000	1210
210	3.500	1310
240	4.000	1399
270	4.500	1476
300	5.000	1551
330	5.500	1621
360	6.000	1692
390	6.500	1755
420	7.000	1825
450	7.500	1893
480	8.000	1954
510	8.500	2027
540	9.000	2101
570	9.500	2179
600	10.000	2258
630	10.500	2355
660	11.000	2450
690	11.500	2552
720	12.000	2675
750	12.500	2837
780	13.000	3047
810	13.500	3303
840	14.000	3559
870	14.500	3921
900	15.000	4464
930	15.500	5148
960	16.000	5948
990	16.500	7488
1020	17.000	8978
1025	17.083	9233
1030	17.167	8832
1050	17.500	7869
1080	18.000	6689
1110	18.500	5800
1140	19.000	5172
1170	19.500	4681
1200	20.000	4305
1230	20.500	3996
1260	21.000	3743
1290	21.500	3519
1320	22.000	3322
1350	22.500	3135
1380	23.000	2974
1410	23.500	2846
1440	24.000	2725
1470	24.500	2499
1500	25.000	2116
1530	25.500	1691
1560	26.000	1439
1590	26.500	1274

TIME (min)	TIME (hr)	FLOW (cfs)
1620	27.000	1123
1650	27.500	1004
1680	28.000	887
1710	28.500	790
1740	29.000	705
1770	29.500	624
1800	30.000	532
1830	30.500	456
1860	31.000	353
1890	31.500	291
1920	32.000	244
1950	32.500	208
1980	33.000	178
2010	33.500	159
2040	34.000	136
2070	34.500	114
2100	35.000	95
2130	35.500	78
2160	36.000	61
2190	36.500	49
2220	37.000	37
2250	37.500	25
2280	38.000	15
2310	38.500	8
2340	39.000	0



Appendix G: Floodwater Velocities

Grid Number	Existing Velocity (ft/s)	A1 Velocity (ft/s)	A2 Velocity (ft/s)
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0
25	0	0	0
26	0	0	0
27	0	0	0
28	0	0	0
29	0	0	0
30	0	0	0
31	0	0	0
32	0	0	0
33	0	0	0
34	0	0	0
35	0	0	0
36	0	0	0
37	0	0	0
38	0	0	0
39	0	0	0
40	0	0	0
41	0	0	0
42	0	0	0
43	0	0	0
44	0	0	0
45	0	0	0
46	0	0	0
47	0	0	0
48	0	0	0
49	0	0	0
50	0	0	0
51	0	0	0
52	0	0	0
53	0	0	0
54	0	0	0
55	0	0	0
56	0	0	0
57	0	0	0
58	0	0	0
59	0	0	0
60	0	0	0
61	0	0	0
62	0	0	0
63	0	0	0
64	0	0	0
65	0	0	0
66	0	0	0
67	0	0	0
68	0	0	0
69	0.4587	0.5294	0.5297
70	0.7298	0.788	0.7893
71	0.5616	0.6047	0.6095
72	1.2303	1.3453	1.3486
73	1.3924	1.4924	1.4976
74	1.468	1.5642	1.5692
75	1.4609	1.5576	1.5619
76	1.6465	1.75	1.7537
77	1.6245	1.7255	1.7288
78	1.4439	1.5536	1.5561
79	1.4415	1.5008	1.5027
80	1.362	1.4139	1.4142
81	1.5907	1.6557	1.6553
82	1.532	1.568	1.5664
83	1.5271	1.5355	1.5329
84	1.6661	1.6338	1.6289
85	1.643	1.5744	1.5674
86	1.577	1.5217	1.441
87	1.6885	1.6375	1.4335
88	1.5532	1.4758	1.2339
89	1.4484	1.3231	1.154
90	1.4928	0.8192	1.3588
91	1.4415	1.4275	1.4328
92	1.2524	1.3219	1.23
93	1.4865	1.4387	1.0262

94	1.5393	1.4508	1.064
95	1.6085	1.5719	1.5791
96	1.5879	1.5665	1.5734
97	1.6308	1.6232	1.6221
98	1.3709	1.4302	1.3729
99	0.7597	0.7523	0.7535
100	0.6491	0.6452	0.6457
101	0.5929	0.5894	0.59
102	0.5924	0.59	0.5903
103	0.6532	0.6522	0.652
104	0.7434	0.7426	0.7421
105	1.3943	1.3921	1.3738
106	1.4738	1.4757	1.4686
107	1.4733	1.4687	1.4706
108	1.4512	1.447	1.4502
109	1.1277	1.1641	1.1238
110	0.5112	0.5095	0.5103
111	0.4025	0.3999	0.4014
112	0.6034	0.5977	0.6025
113	0.7755	0.7483	0.7518
114	1.4413	1.4355	1.4422
115	1.0454	1.0251	1.0436
116	0.7476	0.7409	0.7461
117	1.4146	1.4187	1.4106
118	0.7993	0.8591	0.8305
119	0.6502	0.6485	0.6439
120	0.5177	0.5082	0.5066
121	0.4203	0.4045	0.4044
122	0.3684	0.3366	0.3374
123	0.2953	0.238	0.2389
124	0.1947	0.1476	0.1488
125	0.1347	0	0
126	0	0	0
127	0	0	0
128	0	0	0
129	0	0	0
130	0	0	0
131	0	0	0
132	0	0	0
133	0	0	0
134	0	0	0
135	0	0	0
136	0.412	0.4634	0.4649
137	0.5302	1.0056	0.7359
138	1.272	1.2601	1.2636
139	1.0533	1.2894	1.2931
140	1.2659	1.3482	1.3543
141	1.4779	1.5706	1.5759
142	1.4736	1.5748	1.5792
143	1.5514	1.6577	1.662
144	1.7672	1.8746	1.8786
145	1.688	1.7894	1.793
146	1.4928	1.6062	1.6092
147	1.3016	1.3775	1.3792
148	1.5852	1.6584	1.6598
149	1.465	1.5166	1.5168
150	1.5108	1.5404	1.5401
151	1.621	1.6069	1.6048
152	1.6812	1.6244	1.6203
153	1.5709	1.4922	1.4883
154	1.5549	1.441	1.4326
155	1.52	1.4002	1.2747
156	1.4607	1.3597	1.3601
157	1.3927	0.9189	1.1408
158	1.4369	1.3755	1.3856
159	1.3558	0.9078	0.8196
160	1.4854	1.406	1.4125
161	1.4674	1.422	1.4273
162	1.5506	1.5193	1.5264
163	1.5494	1.5264	1.5344
164	1.5777	1.5621	1.5625
165	1.6185	1.6012	1.6095
166	1.3314	1.3484	1.3485
167	0.6788	0.6744	0.6752
168	0.6078	0.6037	0.6043
169	0.5659	0.5634	0.5637
170	0.6653	0.6639	0.6638
171	0.7691	0.7684	0.7677
172	0.7709	0.7701	0.7694
173	1.5629	1.569	1.5706
174	1.5451	1.5446	1.5387
175	1.5287	1.5333	1.5326
176	1.0754	1.079	1.3581
177	0.6574	0.6556	0.6567
178	0.4303	0.4283	0.4295
179	0.713	0.7087	0.7137
180	0.8223	0.8055	0.824
181	0.865	0.8327	0.8645
182	1.062	0.9485	0.955
183	0.7853	0.7684	0.7836
184	1.0406	1.507	1.5203
185	0.7921	0.7986	0.7907
186	0.8984	1.1499	0.7538
187	0.5056	0.4942	0.4931

188	0.4751	0.4568	0.4567
189	0.4043	0.3769	0.3776
190	0.3104	0.272	0.2727
191	0.2104	0.1659	0.1661
192	0.1535	0	0
193	0	0	0
194	0	0	0
195	0	0	0
196	0	0	0
197	0	0	0
198	0	0	0
199	0	0	0
200	0	0	0
201	0	0	0
202	0	0	0
203	0.2896	0.3037	0.3062
204	0.371	0.3974	0.3995
205	0.4623	0.5009	0.5022
206	0.6733	1.1512	1.1869
207	1.2109	1.2997	1.3059
208	1.4774	1.5547	1.561
209	1.5836	1.6982	1.7031
210	1.5613	1.6666	1.6709
211	1.5983	1.7138	1.7183
212	1.5509	1.6711	1.6757
213	1.554	1.6582	1.6622
214	1.3775	1.4691	1.4723
215	1.5124	1.5924	1.5951
216	1.6445	1.7172	1.7195
217	1.5971	1.6389	1.6397
218	1.6433	1.6574	1.6574
219	1.7001	1.6711	1.6698
220	1.6163	1.5494	1.5469
221	1.5736	1.4938	1.4938
222	1.5827	1.4576	1.4467
223	1.4531	0.9445	1.3542
224	1.3661	0.6988	0.6986
225	1.419	1.3871	1.3968
226	1.3547	1.2538	1.1561
227	1.4716	1.3926	1.4042
228	1.4599	1.4208	1.4282
229	1.5737	1.5363	1.5448
230	1.5901	1.5823	1.5837
231	1.6118	1.6359	1.6369
232	1.6421	1.642	1.6433
233	1.6162	1.4031	1.1137
234	0.7443	0.7387	0.7396
235	0.6321	0.6273	0.628
236	0.5695	0.5666	0.567
237	0.6723	0.671	0.6708
238	0.7053	0.7049	0.7042
239	0.7775	0.7769	0.7759
240	1.6535	1.441	1.1312
241	1.6847	1.6609	1.6864
242	1.7073	1.7124	1.7097
243	1.6398	1.6413	1.638
244	0.7907	0.7898	0.7906
245	0.5009	0.4998	0.5004
246	0.7265	0.725	0.7277
247	0.7679	0.7603	0.7695
248	0.8282	0.7994	0.8291
249	0.8661	0.8002	0.8545
250	1.2053	1.1646	1.1249
251	0.8923	0.9055	0.8888
252	0.8064	0.8108	0.804
253	1.517	1.6443	0.935
254	0.5845	0.572	0.57
255	0.4427	0.4253	0.4251
256	0.4615	0.4323	0.4334
257	0.3301	0.2878	0.2887
258	0.2392	0.1949	0.1953
259	0.1714	0	0
260	0	0	0
261	0	0	0
262	0	0	0
263	0	0	0
264	0	0	0
265	0	0	0
266	0	0	0
267	0	0	0
268	0	0	0
269	0	0	0
270	0.148	0.1345	0.1378
271	0.2143	0.2117	0.2163
272	0.3269	0.3481	0.3501
273	0.3994	0.458	0.4592
274	0.6151	0.7831	0.7855
275	1.3549	1.3635	1.363
276	1.5341	1.6856	1.6926
277	1.6903	1.8105	1.8157
278	1.6799	1.7968	1.8019
279	1.6136	1.7368	1.7428
280	1.4948	1.6103	1.6158
281	1.484	1.5906	1.5954

282	1.5615	1.6616	1.6659
283	1.6815	1.77	1.7736
284	1.6519	1.7078	1.7098
285	1.5618	1.5877	1.5891
286	1.6979	1.6894	1.6899
287	1.6524	1.6143	1.612
288	1.5357	1.4517	1.4466
289	1.6154	1.5081	1.4956
290	1.4549	1.3548	1.3481
291	1.3525	1.2439	1.2266
292	1.3855	1.3584	1.3508
293	1.3571	1.2562	0.7965
294	1.4349	1.4185	1.2022
295	1.5674	1.5085	1.5204
296	1.638	1.5876	1.5996
297	1.6467	1.6147	1.6247
298	1.6577	1.1371	1.6528
299	1.6774	1.6573	1.6609
300	1.6796	1.6664	1.6737
301	0.9748	0.8618	0.8622
302	0.6225	0.6161	0.6171
303	0.5949	0.5911	0.5916
304	0.6648	0.6637	0.6635
305	0.6695	0.6689	0.6683
306	0.7795	0.7787	0.7775
307	0.8244	0.822	0.8226
308	1.6486	1.6543	1.6578
309	1.6312	1.6294	1.6382
310	1.7055	1.7087	1.7042
311	1.3292	1.3319	1.3286
312	0.5634	0.5638	0.5627
313	0.7137	0.7151	0.7144
314	0.7602	0.7564	0.7614
315	0.7449	0.731	0.7458
316	1.2261	1.2087	1.229
317	0.8673	0.8765	0.8646
318	0.7944	0.8033	0.7915
319	0.8586	0.9973	0.8576
320	0.935	1.0465	0.93
321	0.6941	0.6822	0.6772
322	0.4849	0.4667	0.4664
323	0.412	0.3901	0.3912
324	0.3605	0.3218	0.3229
325	0.2465	0.1983	0.1989
326	0.1863	0	0
327	0	0	0
328	0	0	0
329	0	0	0
330	0	0	0
331	0	0	0
332	0	0	0
333	0	0	0
334	0	0	0
335	0	0	0
336	0	0	0
337	0	0	0
338	0.1196	0.1181	0.1221
339	0.166	0.1644	0.1653
340	0.2543	0.2624	0.2631
341	0.3686	0.3886	0.3893
342	0.5394	0.5844	0.585
343	0.8871	1.3132	1.046
344	1.4879	1.5821	1.5835
345	1.503	1.5974	1.6014
346	1.6003	1.7249	1.7313
347	1.6138	1.7458	1.7527
348	1.6386	1.7705	1.7774
349	1.6311	1.7467	1.7522
350	1.7089	1.8093	1.8138
351	1.6794	1.7593	1.7622
352	1.6948	1.7493	1.7514
353	1.6546	1.666	1.6674
354	1.603	1.5764	1.5762
355	1.6412	1.5714	1.5696
356	1.6281	1.5363	1.5275
357	1.4811	0.9613	1.3704
358	1.4413	0.824	0.95
359	1.4276	0.805	0.8441
360	1.4109	0.9563	0.803
361	1.431	1.1911	1.1235
362	1.5784	1.5494	1.5125
363	1.6558	1.6284	1.6202
364	1.7077	1.6612	1.6769
365	1.6283	1.6074	1.6158
366	1.6803	1.6749	1.6741
367	1.1338	1.6616	1.6671
368	1.4016	1.5303	1.5305
369	0.655	0.6438	0.6459
370	0.615	0.6111	0.6116
371	0.5834	0.5824	0.5824
372	0.7071	0.7061	0.7054
373	0.6695	0.668	0.6675
374	0.8001	0.7972	0.7981
375	1.7047	1.6948	1.7079

376	1.0842	0.9991	1.1343
377	1.4749	1.6973	1.6191
378	1.6726	1.6766	1.6702
379	0.6096	0.634	0.6072
380	0.7113	0.7116	0.711
381	0.7609	0.7572	0.76
382	0.7725	0.76	0.7719
383	1.5523	0.991	1.2071
384	0.8625	0.8573	0.8592
385	0.7523	0.7667	0.749
386	0.9337	0.9832	0.9297
387	0.8673	0.8949	0.8653
388	0.6977	0.6932	0.6864
389	0.6363	0.6117	0.6118
390	0.4313	0.4059	0.4072
391	0.3552	0.3286	0.3297
392	0.2705	0.2317	0.2325
393	0.1844	0.1498	0.1505
394	0.1624	0	0
395	0	0	0
396	0	0	0
397	0	0	0
398	0	0	0
399	0	0	0
400	0	0	0
401	0	0	0
402	0	0	0
403	0	0	0
404	0	0	0
405	0	0	0
406	0.1561	0.1574	0
407	0.1902	0.1871	0.1877
408	0.2892	0.2965	0.2972
409	0.4191	0.4536	0.4541
410	0.542	0.6084	0.6089
411	1.5859	1.6875	1.6758
412	1.4889	1.675	1.6799
413	1.7477	1.859	1.8658
414	1.7671	1.9255	1.9346
415	1.7731	1.9248	1.9331
416	1.6993	1.8321	1.8391
417	1.7501	1.8659	1.8714
418	1.7217	1.8102	1.8137
419	1.727	1.7903	1.7922
420	1.6782	1.7228	1.7244
421	1.6366	1.6303	1.6319
422	1.6415	1.59	1.5901
423	1.6845	1.6057	1.6014
424	1.583	1.5052	1.5012
425	1.5122	1.2003	0.8595
426	1.4994	0.8329	0.8307
427	0.9924	0.8484	0.8095
428	1.3898	0.8368	0.8412
429	1.5139	1.4856	1.5056
430	1.5553	1.5321	1.5237
431	1.6796	1.6248	1.6439
432	1.6921	1.6607	1.673
433	1.5815	1.559	1.5681
434	1.5589	1.5376	1.5457
435	1.5471	1.5301	1.5352
436	1.3614	1.3504	1.3518
437	0.7435	1.017	0.7403
438	0.5442	0.5436	0.5436
439	0.6959	0.6936	0.6933
440	0.5863	0.5838	0.5833
441	0.9596	0.8113	0.9571
442	0.8535	0.8533	0.8535
443	1.6946	1.6846	1.6937
444	1.3811	1.5549	1.6415
445	1.7519	1.7472	1.747
446	0.8041	0.8143	0.7832
447	0.5774	0.5771	0.5764
448	0.7581	0.7548	0.7553
449	0.7489	0.7415	0.7468
450	1.8413	1.0154	1.839
451	0.742	0.7457	0.7404
452	0.8738	0.8882	0.8685
453	0.7287	0.7624	0.7246
454	0.8629	0.8988	0.8612
455	0.7097	0.7181	0.7088
456	0.682	0.6607	0.6623
457	0.5009	0.4687	0.4704
458	0.3665	0.3337	0.3347
459	0.262	0.2325	0.2328
460	0.1979	0.1733	0.1701
461	0.1657	0	0
462	0	0	0
463	0	0	0
464	0	0	0
465	0	0	0
466	0	0	0
467	0	0	0
468	0	0	0
469	0	0	0

470	0	0	0
471	0	0	0
472	0	0	0
473	0	0	0
474	0	0	0.1605
475	0.2173	0.2084	0.2091
476	0.349	0.3609	0.3615
477	0.459	0.5111	0.5116
478	0.7199	1.6005	1.1044
479	1.6561	1.6255	1.6275
480	1.6755	1.8185	1.828
481	1.841	2.0018	2.0115
482	1.8271	1.9898	1.9987
483	1.7278	1.8798	1.8877
484	1.6876	1.8092	1.8153
485	1.7223	1.8207	1.8247
486	1.7261	1.8106	1.8126
487	1.6638	1.7164	1.7175
488	1.7537	1.7777	1.7781
489	1.6805	1.6631	1.665
490	1.7313	1.6519	1.6526
491	1.6668	1.5696	1.5692
492	1.581	1.3122	1.2807
493	1.4999	0.8351	0.8396
494	1.2586	0.8324	0.8229
495	1.3849	0.7986	0.7961
496	1.446	0.8241	1.4186
497	1.459	1.4513	1.0068
498	1.583	1.515	1.5323
499	1.6571	1.6278	1.6375
500	1.5486	1.5238	1.5331
501	1.5377	1.5158	1.5228
502	1.3956	1.3755	1.3803
503	1.2156	1.2003	1.2057
504	0.9426	1.0248	1.0656
505	0.5838	0.5832	0.7998
506	0.6079	0.6055	0.6059
507	0.5612	0.5587	0.5588
508	0.6578	0.6501	0.6535
509	1.3083	0.8993	0.9767
510	1.7251	1.4394	0.9962
511	1.5706	1.6595	1.6834
512	1.768	1.7969	1.7762
513	1.1124	0.9822	1.3542
514	0.6334	0.633	0.6308
515	0.6546	0.6527	0.6506
516	0.6952	0.6908	0.693
517	1.782	1.7604	1.782
518	1.0934	0.8663	0.8637
519	0.8399	0.8666	0.8319
520	0.8035	0.8484	0.7976
521	0.6062	0.641	0.6043
522	0.7567	0.7641	0.757
523	0.6864	0.6777	0.6809
524	0.5947	0.565	0.5673
525	0.4083	0.3667	0.3677
526	0.2508	0.2205	0.2208
527	0.1982	0.1713	0.1673
528	0.1676	0	0
529	0	0	0
530	0	0	0
531	0	0	0
532	0	0	0
533	0	0	0
534	0	0	0
535	0	0	0
536	0	0	0
537	0	0	0
538	0	0	0
539	0	0	0
540	0	0	0
541	0	0	0
542	0.1617	0.1539	0.157
543	0.2452	0.2328	0.2336
544	0.3763	0.3877	0.3883
545	0.556	0.5888	0.5887
546	1.5432	1.6445	1.6498
547	1.6379	1.789	1.799
548	1.8559	1.9894	1.9982
549	1.8576	2.0388	2.0478
550	1.6825	1.8369	1.8448
551	1.6483	1.783	1.7898
552	1.7228	1.8401	1.8451
553	1.7213	1.8207	1.8234
554	1.6974	1.7685	1.7684
555	1.8195	1.8625	1.8609
556	1.6986	1.7017	1.7024
557	1.7186	1.6823	1.6855
558	1.7227	1.6023	1.6036
559	1.5799	1.4764	1.4801
560	1.3206	1.1762	0.873
561	1.4409	0.804	0.7998
562	0.9641	0.7811	0.779
563	1.3676	0.707	0.7057

564	1.366	1.3549	1.34
565	1.4176	1.3337	1.3463
566	1.6497	1.618	1.6259
567	1.5521	1.5251	1.5333
568	1.5689	1.5474	1.5526
569	1.4773	1.4556	1.4595
570	1.3393	1.3206	1.3239
571	1.1978	1.221	1.0465
572	0.9645	0.7187	1.1308
573	0.6209	0.6175	0.618
574	0.5819	0.5802	0.5811
575	0.632	0.6311	0.6323
576	0.9977	0.9139	0.9886
577	1.6408	1.6367	1.3789
578	1.6036	1.6446	1.6427
579	1.7692	1.7842	1.7858
580	1.5242	1.5215	1.1144
581	1.0575	0.8288	0.7635
582	0.6241	0.6271	0.6207
583	0.6576	0.657	0.6563
584	0.7728	0.7507	0.7724
585	1.8093	1.7467	1.8096
586	0.8545	0.8583	0.8451
587	0.8493	0.9865	0.8384
588	0.5994	0.6134	0.5975
589	0.5137	0.5138	0.5153
590	0.8214	0.8137	0.819
591	0.6234	0.6075	0.6095
592	0.4808	0.4398	0.4409
593	0.3042	0.2538	0.2544
594	0.1984	0.1666	0.1593
595	0	0	0
596	0	0	0
597	0	0	0
598	0	0	0
599	0	0	0
600	0	0	0
601	0	0	0
602	0	0	0
603	0	0	0
604	0	0	0
605	0	0	0
606	0	0	0
607	0	0	0
608	0	0	0
609	0	0	0
610	0.1691	0.151	0.1613
611	0.2817	0.2697	0.2712
612	0.4459	0.4679	0.468
613	0.7539	0.9345	1.0931
614	1.6872	1.6574	1.6689
615	1.8495	2.0148	2.0243
616	1.832	2.015	2.0241
617	1.6339	1.7922	1.8001
618	1.569	1.7129	1.72
619	1.7115	1.8467	1.8531
620	1.71	1.8248	1.8288
621	1.661	1.7369	1.7362
622	1.8222	1.8877	1.8837
623	1.7845	1.8137	1.8106
624	1.6886	1.6729	1.673
625	1.7281	1.6353	1.6362
626	1.6789	1.5426	1.5411
627	1.4922	1.4285	1.1493
628	1.2146	1.1571	0.7681
629	1.0304	0.7544	0.7512
630	0.8569	0.662	0.6618
631	1.2844	0.7898	1.2696
632	1.332	1.2408	0.8125
633	1.5234	1.4747	1.4802
634	1.551	1.5264	1.5328
635	1.5828	1.5592	1.5646
636	1.5785	1.5575	1.5614
637	1.443	1.4232	1.4255
638	1.2982	1.2836	1.2844
639	0.8789	0.8697	0.8698
640	0.6625	0.6583	0.6582
641	0.5797	0.5775	0.5779
642	0.5912	0.5933	0.5926
643	0.9266	1.0054	0.9418
644	1.1141	1.0971	0.9767
645	1.6309	1.6215	1.3939
646	1.7362	1.7336	1.7481
647	1.6115	1.6179	1.6201
648	0.8571	0.9035	0.8619
649	0.6709	0.6732	0.6697
650	0.6227	0.6236	0.6209
651	0.7856	0.7785	0.7843
652	1.833	1.2962	1.8302
653	1.427	1.3662	1.4292
654	0.8626	0.8635	0.8184
655	0.582	0.5866	0.5822
656	0.5134	0.5131	0.5152
657	0.8514	0.8495	0.8548

658	0.6346	0.6225	0.6243
659	0.5048	0.4758	0.4767
660	0.3735	0.3232	0.3237
661	0.2079	0.1636	0.1637
662	0.1508	0	0
663	0	0	0
664	0	0	0
665	0	0	0
666	0	0	0
667	0	0	0
668	0	0	0
669	0	0	0
670	0	0	0
671	0	0	0
672	0	0	0
673	0	0	0
674	0	0	0
675	0	0	0
676	0	0	0
677	0.146	0	0.1473
678	0.1943	0.1765	0.176
679	0.3366	0.3175	0.3178
680	0.6193	0.6203	0.6209
681	1.1671	1.7208	1.5155
682	1.7617	1.957	1.9676
683	1.8015	1.9683	1.977
684	1.6332	1.804	1.8118
685	1.5217	1.6708	1.6781
686	1.6525	1.796	1.8035
687	1.6694	1.7915	1.7966
688	1.7886	1.8917	1.8929
689	1.8091	1.8928	1.8899
690	1.7968	1.8416	1.8352
691	1.713	1.7273	1.7213
692	1.7446	1.6978	1.6948
693	1.7147	1.6054	1.5981
694	1.6453	1.5247	1.4144
695	1.5112	0.8592	0.8495
696	0.8936	0.7068	0.6964
697	0.8645	0.686	0.6883
698	0.8425	0.6949	0.6998
699	0.8724	0.7343	0.7419
700	1.0282	1.0332	1.4881
701	1.636	1.5869	1.5942
702	1.7376	1.7152	1.7211
703	1.7516	1.7243	1.7296
704	1.864	1.8437	1.8463
705	1.6364	1.6132	1.6141
706	0.933	0.9303	1.1695
707	0.7048	0.6988	0.6986
708	0.5886	0.5852	0.5851
709	0.5769	0.5772	0.5765
710	1.0256	0.9293	0.9328
711	0.9098	0.8855	0.8877
712	1.6295	1.6424	1.6346
713	1.1545	1.6558	1.5754
714	1.7568	1.7399	1.7621
715	1.4101	1.4036	1.4153
716	0.7983	0.8009	0.7988
717	0.6356	0.6369	0.634
718	0.7285	0.7297	0.7258
719	1.0184	1.0455	1.0218
720	1.8792	1.8507	1.8958
721	0.7688	0.7716	0.7678
722	0.5736	0.5744	0.5756
723	0.6251	0.6246	0.6292
724	0.5809	0.5789	0.5816
725	0.6518	0.6469	0.6484
726	0.559	0.5372	0.5381
727	0.4288	0.3854	0.3859
728	0.2467	0.1997	0.1998
729	0.1573	0.128	0.1281
730	0	0	0
731	0	0	0
732	0	0	0
733	0	0	0
734	0	0	0
735	0	0	0
736	0	0	0
737	0	0	0
738	0	0	0
739	0	0	0
740	0	0	0
741	0	0	0
742	0	0	0
743	0	0	0
744	0	0	0
745	0.1656	0	0.1622
746	0.2405	0.2069	0.2072
747	0.43	0.4218	0.4229
748	0.9149	0.995	0.9972
749	1.6688	1.8145	1.8243
750	1.8472	2.0106	2.0192
751	1.5167	1.6852	1.6922

752	1.5173	1.6823	1.6902
753	1.5946	1.7444	1.7533
754	1.6745	1.8164	1.8232
755	1.8028	1.9211	1.9238
756	1.8219	1.9152	1.9135
757	1.8326	1.897	1.8903
758	1.8003	1.83	1.8194
759	1.9023	1.8933	1.8839
760	1.8001	1.7207	1.7218
761	1.8033	1.6682	1.6339
762	1.8229	0.9785	0.858
763	0.9235	0.7149	0.7132
764	0.8967	0.6965	0.6972
765	0.8406	0.6844	0.6879
766	0.8483	0.7254	0.7326
767	1.5077	0.8518	0.8619
768	1.7494	1.8472	1.8471
769	1.9485	1.9	1.9101
770	1.9583	1.9212	1.9263
771	2.0951	2.0795	2.0823
772	1.799	1.7742	1.7758
773	0.9794	0.9676	0.9677
774	0.7911	0.7826	0.7821
775	0.6261	0.6203	0.6199
776	0.5908	0.5888	0.5882
777	0.861	0.8591	0.8583
778	0.8642	1.1364	1.1086
779	1.3416	1.6045	1.5314
780	1.7157	1.5979	1.6766
781	1.7684	1.778	1.7682
782	1.7884	1.796	1.7955
783	0.8327	0.8361	0.8338
784	0.6864	0.6887	0.6853
785	0.7229	0.7239	0.7195
786	0.9001	0.9033	0.8922
787	1.7537	1.756	1.7424
788	1.2874	1.2885	1.2808
789	0.5827	0.583	0.587
790	0.6249	0.6249	0.6311
791	0.5583	0.5573	0.5597
792	0.5637	0.5584	0.5591
793	0.583	0.5701	0.5709
794	0.4706	0.4322	0.4328
795	0.2578	0.2123	0.2124
796	0.1784	0	0.146
797	0	0	0
798	0	0	0
799	0	0	0
800	0	0	0
801	0	0	0
802	0	0	0
803	0	0	0
804	0	0	0
805	0	0	0
806	0	0	0
807	0	0	0
808	0	0	0
809	0	0	0
810	0	0	0
811	0	0	0
812	0	0	0
813	0.1835	0.1734	0
814	0.2983	0.2487	0.2491
815	0.5629	0.5782	0.5825
816	1.6651	1.7796	1.789
817	1.702	1.8574	1.865
818	1.456	1.6282	1.6343
819	1.5101	1.6825	1.6907
820	1.6202	1.7927	1.8028
821	1.7289	1.8847	1.8949
822	1.8025	1.9334	1.9381
823	1.8142	1.9275	1.9291
824	1.8983	1.9761	1.9708
825	1.8564	1.9025	1.8912
826	1.9595	1.9605	1.943
827	1.8656	1.8264	1.8231
828	1.8788	1.7817	1.8102
829	1.7933	0.9734	1.4498
830	1.4711	0.7306	0.7283
831	0.9046	0.6966	0.6965
832	0.8252	0.6521	0.6544
833	0.8267	0.6966	0.702
834	0.8526	0.7941	0.8017
835	1.8465	1.8426	1.8498
836	1.9084	1.8245	1.8336
837	1.8625	1.8409	1.8455
838	2.2329	2.2221	2.2253
839	1.8464	1.8233	1.8253
840	1.3333	1.3294	1.3295
841	0.8265	0.8155	0.8149
842	0.6838	0.6756	0.6747
843	0.6071	0.6035	0.6029
844	0.8284	0.8277	0.8276
845	0.8742	0.8722	0.8713

846	1.5935	1.6999	1.6664
847	1.7616	1.7594	1.5322
848	1.2137	1.8142	1.5678
849	1.8482	1.8423	1.8472
850	1.4349	1.4356	1.4352
851	0.6972	0.6997	0.6972
852	0.7668	0.7668	0.7623
853	0.8833	0.883	0.8757
854	1.5271	1.332	1.3359
855	1.5485	1.5493	1.5663
856	0.6707	0.6709	0.6752
857	0.5607	0.5602	0.5623
858	0.5369	0.5365	0.5384
859	0.5235	0.5206	0.5215
860	0.5228	0.5161	0.5167
861	0.5145	0.4876	0.4881
862	0.3037	0.2444	0.2445
863	0.1898	0.1438	0.1438
864	0.1406	0	0
865	0	0	0
866	0	0	0
867	0	0	0
868	0	0	0
869	0	0	0
870	0	0	0
871	0	0	0
872	0	0	0
873	0	0	0
874	0	0	0
875	0	0	0
876	0	0	0
877	0	0	0
878	0	0	0
879	0	0	0
880	0.1561	0	0
881	0.2609	0.2031	0.2029
882	0.3426	0.3274	0.3282
883	1.6907	1.7531	1.7605
884	1.6089	1.749	1.7557
885	1.3761	1.5501	1.5547
886	1.4462	1.6834	1.689
887	1.5848	1.7652	1.7766
888	1.7105	1.8829	1.895
889	1.8379	1.9971	2.0048
890	1.8174	1.9432	1.9463
891	1.9172	2.0244	2.025
892	1.9056	1.962	1.9528
893	2.009	2.036	2.0205
894	2.0124	1.9912	1.9699
895	1.9023	1.8416	1.8163
896	1.7846	1.4635	1.7486
897	1.7398	0.7722	0.7702
898	0.9579	0.7084	0.7076
899	0.789	0.6241	0.6253
900	0.7757	0.6267	0.6303
901	0.8582	0.7675	0.7734
902	1.7991	1.6521	1.1428
903	1.8879	1.7931	1.8016
904	1.7824	1.774	1.7782
905	2.2056	2.1939	2.1959
906	1.9223	1.902	1.9039
907	1.5899	1.5894	1.5875
908	1.1726	0.8279	0.8273
909	0.7272	0.7198	0.7188
910	0.6478	0.642	0.641
911	0.8337	0.8282	0.8263
912	0.8403	0.8376	0.8364
913	0.9025	0.9017	0.9036
914	1.7771	1.7876	1.7738
915	1.269	1.1957	1.6637
916	1.7102	1.7111	1.7104
917	1.7485	1.7549	1.7537
918	0.708	0.7095	0.7094
919	0.8024	0.8021	0.7987
920	0.877	0.8759	0.8666
921	1.65	1.5287	1.0985
922	1.3399	1.5165	0.9743
923	0.8056	0.9171	0.8074
924	0.6184	0.6182	0.6217
925	0.495	0.4941	0.4952
926	0.5188	0.5163	0.517
927	0.5276	0.5213	0.5219
928	0.4864	0.4757	0.4761
929	0.318	0.2722	0.2722
930	0.226	0.1649	0.1647
931	0.1525	0	0
932	0	0	0
933	0	0	0
934	0	0	0
935	0	0	0
936	0	0	0
937	0	0	0
938	0	0	0
939	0	0	0

940	0	0	0
941	0	0	0
942	0	0	0
943	0	0	0
944	0	0	0
945	0	0	0
946	0	0	0
947	0.1532	0	0
948	0.2358	0.1796	0.1794
949	0.3917	0.3609	0.3604
950	1.656	1.6903	1.6904
951	1.7121	1.8146	1.8225
952	1.2463	1.3285	1.5457
953	1.0637	1.612	1.6175
954	1.5828	1.7401	1.7525
955	1.6527	1.8359	1.85
956	1.8075	1.9916	2.0018
957	1.8446	1.9907	1.9966
958	1.8191	1.9329	1.934
959	1.9102	1.9955	1.9902
960	1.9316	1.9836	1.974
961	2.0903	2.0815	2.0594
962	1.8522	1.796	1.7757
963	1.7733	1.7256	1.7151
964	1.7282	1.3595	0.999
965	1.4352	0.7322	0.7307
966	0.7963	0.6181	0.6179
967	0.7003	0.5539	0.5561
968	0.8658	0.6962	0.7013
969	1.0183	0.9621	0.9685
970	1.8485	1.7713	1.7791
971	1.7847	1.7859	1.7917
972	2.0823	2.0732	2.0762
973	1.8435	1.8252	1.8265
974	1.6345	1.6294	1.6283
975	1.5004	1.4643	1.182
976	0.7822	0.7739	0.7734
977	0.719	0.7109	0.7099
978	0.7807	0.7735	0.7716
979	0.8379	0.8347	0.8332
980	0.8423	0.8419	0.8425
981	1.8332	1.8478	1.8431
982	1.6813	1.7199	1.7071
983	1.712	1.4819	1.7115
984	1.8457	1.8543	1.8519
985	1.273	1.3704	1.3641
986	0.7037	0.7034	0.7032
987	1.1862	1.1833	1.1886
988	1.654	1.6112	0.8853
989	0.8679	0.8674	1.3449
990	0.7751	0.7751	0.7843
991	0.7365	0.7363	0.7409
992	0.5193	0.5187	0.5199
993	0.4875	0.4862	0.4867
994	0.5457	0.5408	0.5413
995	0.4672	0.457	0.4575
996	0.3303	0.3057	0.3058
997	0.2572	0.2074	0.2071
998	0.1594	0.1257	0.1257
999	0.132	0	0
1000	0	0	0
1001	0	0	0
1002	0	0	0
1003	0	0	0
1004	0	0	0
1005	0	0	0
1006	0	0	0
1007	0	0	0
1008	0	0	0
1009	0	0	0
1010	0	0	0
1011	0	0	0
1012	0	0	0
1013	0	0	0
1014	0.1692	0	0
1015	0.2515	0.1903	0.1902
1016	0.4123	0.3627	0.3618
1017	1.7226	1.7192	1.7155
1018	1.705	1.7335	1.7359
1019	0.7862	1.5175	1.3386
1020	0.8542	1.6184	1.6234
1021	1.0666	1.6366	1.6479
1022	1.586	1.8036	1.8188
1023	1.7119	1.9002	1.9112
1024	1.7268	1.8816	1.8905
1025	1.8333	1.9722	1.9778
1026	1.9484	2.0647	2.0642
1027	1.8504	1.9173	1.9082
1028	2.2068	2.2313	2.2116
1029	1.8519	1.8049	1.784
1030	1.779	1.6824	1.6684
1031	1.6954	1.1043	1.5589
1032	1.7552	0.7912	0.7898
1033	0.9847	0.629	0.6286

1034	0.6719	0.5289	0.5302
1035	0.7574	0.5989	0.6012
1036	0.9496	0.6821	0.6878
1037	1.7901	1.7999	1.8112
1038	1.7089	1.7285	1.7393
1039	2.0008	1.9901	1.9967
1040	1.8602	1.8444	1.8467
1041	1.7119	1.6901	1.6895
1042	1.6223	1.6156	1.5764
1043	0.9965	1.1713	1.3317
1044	0.7567	0.7462	0.7454
1045	0.7472	0.7378	0.7365
1046	0.7885	0.7833	0.782
1047	0.8358	0.8366	0.8364
1048	1.6345	1.4538	1.0037
1049	1.6531	1.6645	1.6549
1050	1.6723	1.6732	1.6721
1051	1.6405	1.652	1.6449
1052	1.6049	1.0808	1.5214
1053	1.1542	0.7977	1.1085
1054	0.6814	0.6819	0.6808
1055	1.6229	1.6314	1.139
1056	0.9995	1.167	1.6121
1057	0.7739	0.7737	0.7768
1058	0.5794	0.5789	0.5808
1059	0.6511	0.6505	0.6517
1060	0.5049	0.5038	0.5043
1061	0.5319	0.5299	0.5304
1062	0.4563	0.4463	0.4467
1063	0.3472	0.3282	0.3285
1064	0.2599	0.2258	0.2258
1065	0.1953	0.1579	0.158
1066	0.1489	0	0
1067	0	0	0
1068	0	0	0
1069	0	0	0
1070	0	0	0
1071	0	0	0
1072	0	0	0
1073	0	0	0
1074	0	0	0
1075	0	0	0
1076	0	0	0
1077	0	0	0
1078	0	0	0
1079	0	0	0
1080	0	0	0
1081	0.1686	0	0
1082	0.2531	0.1862	0.1861
1083	0.4146	0.3573	0.3567
1084	1.6866	1.6746	1.6732
1085	1.653	1.6657	1.5657
1086	0.7133	0.7773	0.7767
1087	0.8258	1.5725	1.5879
1088	1.2363	1.5424	1.509
1089	1.5317	1.6686	1.6831
1090	1.6447	1.8533	1.8662
1091	1.6962	1.8826	1.8954
1092	1.8088	1.9682	1.9768
1093	1.8989	2.0364	2.0387
1094	1.9319	2.024	2.0173
1095	2.1255	2.1954	2.1806
1096	1.9221	1.911	1.8906
1097	1.8833	1.8035	1.7787
1098	1.8024	1.7083	1.7041
1099	1.7066	0.8531	1.3589
1100	1.4551	0.6848	0.6837
1101	0.6907	0.5518	0.552
1102	0.6992	0.5586	0.5597
1103	1.3755	0.7208	0.7244
1104	1.7237	1.777	1.7632
1105	1.6659	1.6629	1.6412
1106	2.0697	2.0585	2.0734
1107	1.7659	1.7526	1.7595
1108	1.6944	1.6795	1.6829
1109	1.709	1.6953	1.6957
1110	1.0011	1.1287	1.1732
1111	0.8136	0.798	0.7994
1112	0.7493	0.7373	0.7366
1113	0.7073	0.7002	0.6993
1114	0.8512	0.8537	0.8542
1115	0.9092	0.9176	0.901
1116	1.6057	1.6076	1.6054
1117	1.7153	1.7184	1.718
1118	1.6084	1.6169	1.6128
1119	1.5449	1.5521	1.5494
1120	1.6223	1.3136	1.6301
1121	0.7021	0.7026	0.7016
1122	1.5855	1.5563	1.6659
1123	1.5328	1.5294	0.9872
1124	0.8391	0.8388	0.8411
1125	0.5519	0.5512	0.5518
1126	0.6256	0.6243	0.6248
1127	0.584	0.5832	0.5837

1128	0.5046	0.5043	0.5047
1129	0.4402	0.4377	0.438
1130	0.3829	0.3635	0.3638
1131	0.2809	0.2457	0.2457
1132	0.2121	0.1666	0.1665
1133	0	0	0
1134	0	0	0
1135	0	0	0
1136	0	0	0
1137	0	0	0
1138	0	0	0
1139	0	0	0
1140	0	0	0
1141	0	0	0
1142	0	0	0
1143	0	0	0
1144	0	0	0
1145	0	0	0
1146	0	0	0
1147	0	0	0
1148	0	0	0
1149	0.2501	0.1799	0.1797
1150	0.4572	0.3833	0.3828
1151	1.6068	1.5986	1.5676
1152	1.0906	0.9594	1.5892
1153	0.6644	0.7273	0.727
1154	0.7394	0.8605	1.0451
1155	0.7827	1.4819	1.0247
1156	1.451	1.5315	1.5429
1157	1.5239	1.7327	1.7441
1158	1.6646	1.8626	1.8774
1159	1.7638	1.9387	1.9493
1160	1.8486	2.0039	2.0079
1161	2.0282	2.1673	2.167
1162	2.0829	2.1885	2.1777
1163	2.1315	2.1609	2.1395
1164	1.9806	1.9303	1.9025
1165	1.8805	1.7749	1.7659
1166	1.7936	1.4841	1.6773
1167	1.6848	0.732	0.7295
1168	0.6979	0.5482	0.5478
1169	0.6583	0.5251	0.5259
1170	1.6633	0.7458	0.7472
1171	1.6482	1.6666	1.6463
1172	1.1306	1.6169	1.6224
1173	1.9615	1.97	1.9825
1174	1.7537	1.7488	1.7451
1175	1.7019	1.6858	1.6874
1176	1.8279	1.8204	1.8161
1177	1.5177	1.4735	1.7123
1178	1.1579	0.8797	1.0947
1179	0.766	0.7427	0.7418
1180	0.6653	0.6551	0.6544
1181	0.7813	0.7908	0.7906
1182	0.9839	0.966	0.9862
1183	1.6219	1.6131	1.6239
1184	1.6884	1.6881	1.6875
1185	1.6724	1.6761	1.6753
1186	1.557	1.5624	1.5592
1187	1.5821	1.5338	1.5838
1188	1.0691	1.0922	1.1581
1189	0.7393	0.7431	0.7383
1190	1.6513	1.6461	0.9961
1191	0.8675	0.8684	0.8669
1192	0.5509	0.5499	0.5507
1193	0.668	0.6662	0.6669
1194	0.5222	0.5213	0.5217
1195	0.5636	0.5627	0.5632
1196	0.3766	0.3745	0.3748
1197	0.4121	0.4023	0.4025
1198	0.2955	0.2617	0.2616
1199	0.2259	0.1829	0.1828
1200	0.1608	0	0
1201	0	0	0
1202	0	0	0
1203	0	0	0
1204	0	0	0
1205	0	0	0
1206	0	0	0
1207	0	0	0
1208	0	0	0
1209	0	0	0
1210	0	0	0
1211	0	0	0
1212	0	0	0
1213	0	0	0
1214	0.1552	0	0
1215	0.1409	0	0
1216	0.272	0.1912	0.1909
1217	0.5206	0.447	0.4462
1218	1.0619	1.511	1.0544
1219	0.8659	0.8639	0.9829
1220	0.6312	0.6846	0.684
1221	0.6796	0.7717	0.7717

1222	0.735	1.5266	1.2927
1223	0.8154	1.5058	1.5045
1224	1.3162	1.5823	1.5974
1225	1.5556	1.7806	1.7956
1226	1.7342	1.9303	1.9436
1227	1.8328	2.0202	2.0279
1228	2.0243	2.188	2.1921
1229	2.1014	2.2375	2.2354
1230	2.2513	2.3106	2.2895
1231	2.1007	2.0954	2.0659
1232	1.8816	1.7914	1.7679
1233	1.8055	1.6768	1.138
1234	1.7553	0.8806	0.8723
1235	1.4662	0.5993	0.598
1236	0.609	0.4774	0.4775
1237	1.6303	0.7583	0.7591
1238	1.104	1.6061	1.6123
1239	1.1735	1.3569	1.1094
1240	1.8306	1.8761	1.8539
1241	1.7052	1.7259	1.7026
1242	1.7298	1.709	1.7052
1243	1.8267	1.8024	1.7962
1244	1.7544	1.6571	1.7529
1245	1.1679	1.6093	1.6336
1246	0.8255	0.7802	0.7788
1247	0.6369	0.6366	0.6358
1248	0.6984	0.7028	0.7017
1249	0.7878	0.7917	0.7779
1250	1.6202	1.6152	1.6169
1251	1.7143	1.7139	1.7142
1252	1.7145	1.7167	1.7178
1253	1.6313	1.636	1.6357
1254	1.538	1.5445	1.539
1255	1.0903	1.5943	1.0995
1256	0.7795	0.7841	0.7785
1257	1.6797	1.6872	1.6778
1258	0.7986	0.7961	0.7982
1259	0.63	0.6279	0.6292
1260	0.6469	0.6451	0.6451
1261	0.5289	0.5281	0.5282
1262	0.6011	0.6007	0.601
1263	0.4125	0.4104	0.4107
1264	0.338	0.3353	0.3356
1265	0.3163	0.2957	0.2958
1266	0.2479	0.2153	0.2151
1267	0.1649	0.1444	0.1439
1268	0.1486	0	0
1269	0	0	0
1270	0	0	0
1271	0	0	0
1272	0	0	0
1273	0	0	0
1274	0	0	0
1275	0	0	0
1276	0	0	0
1277	0	0	0
1278	0	0	0
1279	0	0	0
1280	0	0	0
1281	0	0	0
1282	0.1502	0	0
1283	0.313	0.2402	0.2395
1284	0.5564	0.5305	0.5293
1285	0.8766	1.2504	1.2227
1286	0.729	0.7483	0.7469
1287	0.6013	0.6382	0.6375
1288	0.6566	0.7275	0.7274
1289	0.7025	0.8129	0.8136
1290	0.7734	1.3749	1.5469
1291	0.7851	1.0704	1.4222
1292	1.5496	1.6715	1.6884
1293	1.6406	1.876	1.8915
1294	1.8517	2.0708	2.0844
1295	1.9949	2.1974	2.2067
1296	2.0894	2.2475	2.2499
1297	2.3149	2.4144	2.3985
1298	2.1683	2.2081	2.1827
1299	1.9504	1.8968	1.8608
1300	1.7937	1.6588	1.6312
1301	1.6407	1.3024	1.1071
1302	1.632	0.6802	0.6756
1303	0.9663	0.5432	0.5409
1304	0.8078	0.6555	0.6559
1305	1.6252	1.0708	0.9574
1306	0.9478	1.3327	1.0466
1307	1.0599	1.8301	1.8083
1308	1.07	1.6267	1.843
1309	1.6494	1.7039	1.8692
1310	1.9197	1.9017	1.8995
1311	1.8727	1.8459	1.8463
1312	1.6428	1.6627	1.662
1313	0.884	1.3046	0.9467
1314	0.6493	0.6492	0.6482
1315	0.6084	0.6088	0.6081

1316	0.7114	0.709	0.7095
1317	1.6607	1.656	1.6617
1318	1.7809	1.7855	1.7851
1319	1.6776	1.6821	1.6801
1320	1.7129	1.7128	1.7151
1321	1.6376	1.6291	1.6387
1322	1.5613	1.5664	1.56
1323	0.8892	0.8801	0.8784
1324	1.1176	1.129	1.1213
1325	0.77	0.7656	0.7696
1326	0.6584	0.6549	0.6572
1327	0.6792	0.6776	0.6767
1328	0.5115	0.5106	0.5105
1329	0.6002	0.6007	0.6008
1330	0.478	0.4772	0.4775
1331	0.2957	0.2905	0.2906
1332	0.3122	0.299	0.2992
1333	0.2793	0.2449	0.2449
1334	0.162	0.1544	0.1522
1335	0	0	0
1336	0	0	0
1337	0	0	0
1338	0	0	0
1339	0	0	0
1340	0	0	0
1341	0	0	0
1342	0	0	0
1343	0	0	0
1344	0	0	0
1345	0	0	0
1346	0	0	0
1347	0.1299	0	0
1348	0	0	0
1349	0.1782	0.1182	0.1179
1350	0.3849	0.3337	0.333
1351	0.6335	0.6201	0.6188
1352	0.6776	0.6784	0.677
1353	0.701	0.714	0.7128
1354	0.5702	0.5967	0.596
1355	0.6431	0.701	0.701
1356	0.6697	0.7625	0.7628
1357	0.7152	0.8492	0.8499
1358	0.7503	1.2452	0.9566
1359	0.8409	1.6093	1.6956
1360	1.7581	1.7968	1.8125
1361	1.7943	2.0772	2.0957
1362	2.0392	2.2788	2.2966
1363	2.0054	2.188	2.1964
1364	2.287	2.4238	2.4166
1365	2.1074	2.188	2.1657
1366	2.0549	2.0548	2.0196
1367	1.8542	1.7572	1.7205
1368	1.6856	1.0774	1.0009
1369	1.5789	0.7352	0.7209
1370	1.1762	0.5854	0.5818
1371	1.1638	0.6407	0.6423
1372	1.6079	0.9135	0.9127
1373	0.9933	0.8799	0.8821
1374	1.7085	2.069	2.0618
1375	1.1877	1.7979	1.2508
1376	1.0594	1.0512	1.0502
1377	2.059	1.3705	1.3649
1378	2.0494	1.993	1.9917
1379	1.7383	1.7308	1.728
1380	1.4721	1.3522	1.2518
1381	0.7342	0.7348	0.7334
1382	0.6276	0.6273	0.6275
1383	0.5901	0.5898	0.5907
1384	1.6694	1.5839	1.4487
1385	1.846	1.8497	1.8449
1386	1.6956	1.6994	1.6955
1387	1.8569	1.8582	1.8553
1388	1.7008	1.6097	1.48
1389	1.704	1.6716	1.7074
1390	0.9015	0.9376	0.9043
1391	0.7808	0.7761	0.7814
1392	1.1658	1.1557	1.1658
1393	0.6023	0.6007	0.6007
1394	0.7348	0.7338	0.7323
1395	0.5591	0.5579	0.5575
1396	0.5157	0.5152	0.515
1397	0.4902	0.4915	0.4917
1398	0.3171	0.3155	0.3157
1399	0.2728	0.2592	0.2592
1400	0.2919	0.2582	0.2582
1401	0.1688	0.1462	0.1462
1402	0.1495	0	0
1403	0	0	0
1404	0	0	0
1405	0	0	0
1406	0	0	0
1407	0	0	0
1408	0	0	0
1409	0	0	0

1410	0	0	0
1411	0	0	0
1412	0	0	0
1413	0.1184	0	0
1414	0.1629	0	0
1415	0.128	0	0
1416	0.2191	0.1317	0.1315
1417	0.5065	0.4587	0.4578
1418	0.4581	0.4549	0.4541
1419	0.5903	0.5909	0.5899
1420	0.6804	0.6889	0.6879
1421	0.5654	0.5848	0.5842
1422	0.6245	0.669	0.669
1423	0.6226	0.6865	0.6866
1424	0.6834	0.8041	0.8049
1425	0.6907	0.8365	0.8369
1426	0.7728	1.6057	1.1396
1427	1.1504	1.6794	1.4782
1428	1.1634	1.9295	1.9505
1429	1.976	2.2531	2.2777
1430	1.8577	2.0541	2.0689
1431	2.1571	2.3205	2.3282
1432	2.1006	2.2031	2.1891
1433	2.0897	2.1515	2.1221
1434	1.9988	1.9551	1.9219
1435	1.7922	1.6602	1.6418
1436	1.6543	0.824	0.8076
1437	1.4085	0.5798	0.5778
1438	1.5375	0.7034	0.7063
1439	0.9934	0.7361	0.7408
1440	0.9286	0.7762	0.7784
1441	1.7634	2.1277	2.1362
1442	1.9917	1.3909	2.0296
1443	1.7101	1.6292	1.4903
1444	1.8335	1.8023	1.7788
1445	2.0347	1.9942	1.9834
1446	1.8038	1.792	1.7895
1447	1.0896	1.5305	1.1049
1448	0.8038	0.8028	0.8028
1449	0.6798	0.6789	0.6794
1450	0.61	0.6076	0.6096
1451	0.8617	0.852	0.8525
1452	2.0084	2.0007	1.9994
1453	1.7487	1.7478	1.7421
1454	1.9128	1.9138	1.9096
1455	1.6335	1.6244	1.6322
1456	1.7863	1.7598	1.7885
1457	1.3167	0.9276	1.1948
1458	1.2127	1.2002	1.2116
1459	0.5746	0.5745	0.5733
1460	0.6436	0.6431	0.6419
1461	0.6265	0.6258	0.625
1462	0.7356	0.7345	0.7333
1463	0.5345	0.5335	0.5331
1464	0.4056	0.4056	0.4056
1465	0.402	0.4045	0.4047
1466	0.2755	0.2701	0.2702
1467	0.2576	0.2384	0.2384
1468	0.2001	0.1591	0.1591
1469	0.1478	0	0
1470	0	0	0
1471	0	0	0
1472	0	0	0
1473	0	0	0
1474	0	0	0
1475	0	0	0
1476	0	0	0
1477	0	0	0
1478	0	0	0
1479	0	0	0
1480	0.1543	0	0
1481	0.1599	0	0
1482	0.1444	0	0
1483	0.3062	0.1941	0.1937
1484	0.395	0.3999	0.3992
1485	0.459	0.4558	0.4551
1486	0.5297	0.5288	0.528
1487	0.5961	0.6006	0.5998
1488	0.585	0.5958	0.5953
1489	0.6208	0.652	0.652
1490	0.6015	0.6561	0.6563
1491	0.6241	0.7048	0.7053
1492	0.6315	0.7584	0.7592
1493	0.6928	0.8874	0.8878
1494	0.7883	1.1632	1.7118
1495	1.3383	1.7488	1.7592
1496	1.7361	2.0525	2.0773
1497	1.873	2.0919	2.1113
1498	1.9871	2.1775	2.1898
1499	2.152	2.2721	2.27
1500	2.0668	2.1236	2.1056
1501	2.0732	2.4793	2.4481
1502	1.9276	2.5718	2.5476
1503	1.7482	1.8907	1.9015

1504	1.627	0.629	0.6281
1505	1.9094	0.7363	0.739
1506	0.9735	0.6879	0.6904
1507	0.8931	0.6837	0.6869
1508	0.8971	0.8048	0.7922
1509	1.9289	2.7581	2.69
1510	1.707	0.8951	0.9611
1511	1.718	1.6713	1.6845
1512	1.9464	1.8939	1.8866
1513	1.8562	1.8618	1.86
1514	1.3472	1.6699	1.1849
1515	0.8482	0.8424	0.848
1516	0.716	0.7138	0.7154
1517	0.616	0.6123	0.6147
1518	1.3083	1.2952	1.3012
1519	1.8007	1.8041	1.7969
1520	1.8003	1.8034	1.7966
1521	1.9376	1.9359	1.9397
1522	1.6704	1.6614	1.67
1523	1.7679	1.7788	1.7662
1524	1.5164	1.2674	1.6136
1525	1.6601	1.6645	1.6541
1526	0.5396	0.5395	0.5381
1527	0.5647	0.5645	0.5636
1528	0.7102	0.7099	0.7087
1529	0.6213	0.621	0.6199
1530	0.6678	0.6668	0.6658
1531	0.4315	0.4307	0.4306
1532	0.3181	0.3184	0.3185
1533	0.3219	0.3244	0.3246
1534	0.2494	0.2362	0.2362
1535	0.2155	0.1809	0.1808
1536	0.1501	0	0
1537	0	0	0
1538	0	0	0
1539	0	0	0
1540	0	0	0
1541	0	0	0
1542	0	0	0
1543	0	0	0
1544	0	0	0
1545	0	0	0
1546	0.0896	0	0
1547	0.1991	0	0
1548	0.1905	0	0
1549	0.1694	0	0
1550	0.2885	0.2024	0.202
1551	0.3591	0.3614	0.361
1552	0.4148	0.4078	0.4073
1553	0.4912	0.49	0.4893
1554	0.5259	0.5271	0.5265
1555	0.5641	0.5708	0.5704
1556	0.6332	0.6525	0.6525
1557	0.6236	0.6547	0.6548
1558	0.5966	0.6616	0.6621
1559	0.5642	0.6479	0.6486
1560	0.6444	0.8133	0.8143
1561	0.68	1.4235	1.6526
1562	1.508	1.5465	1.6238
1563	1.6332	1.913	1.9425
1564	1.8388	2.0745	2.0958
1565	1.9009	2.15	2.1709
1566	2.1488	2.3117	2.3192
1567	2.0219	2.0863	2.0729
1568	2.0605	3.3694	3.3009
1569	2.1208	2.2953	2.2299
1570	1.9439	1.9929	1.8714
1571	1.7622	1.8121	1.8342
1572	1.88	0.7509	0.7526
1573	1.036	0.661	0.6631
1574	0.8464	0.6315	0.6334
1575	0.8104	0.6432	0.6444
1576	1.9167	1.2037	1.02
1577	1.6459	0.8282	1.6645
1578	1.6956	1.5701	1.5781
1579	1.7961	1.7868	1.7873
1580	1.8237	1.84	1.8401
1581	1.7749	1.7704	1.7695
1582	0.8734	0.8657	0.8738
1583	0.8365	0.8318	0.8366
1584	0.6393	0.6375	0.6394
1585	1.0652	1.4808	1.0674
1586	1.1916	1.7841	1.1954
1587	1.857	1.8559	1.8581
1588	1.8496	1.8389	1.8555
1589	1.7171	1.7162	1.7175
1590	1.7889	1.7898	1.7883
1591	1.1197	1.5575	1.4535
1592	1.7133	1.7113	1.7109
1593	0.5321	0.532	0.5312
1594	0.6078	0.6078	0.607
1595	0.6219	0.622	0.6208
1596	0.6767	0.6767	0.6753
1597	0.5693	0.5694	0.5684

1598	0.5683	0.5673	0.5668
1599	0.3154	0.3153	0.3154
1600	0.2867	0.2879	0.2881
1601	0.2818	0.2805	0.2805
1602	0.2135	0.1962	0.1961
1603	0.1605	0.136	0.1356
1604	0.1506	0	0
1605	0	0	0
1606	0	0	0
1607	0	0	0
1608	0	0	0
1609	0	0	0
1610	0	0	0
1611	0	0	0
1612	0	0	0
1613	0	0	0
1614	0.1882	0	0
1615	0.2073	0	0
1616	0.2105	0	0
1617	0.2446	0.1709	0.1706
1618	0.3601	0.3539	0.3535
1619	0.3599	0.3568	0.3564
1620	0.4516	0.4479	0.4474
1621	0.5203	0.5207	0.5203
1622	0.5416	0.5451	0.5448
1623	0.6374	0.6466	0.6467
1624	0.6107	0.6372	0.6372
1625	0.6118	0.6513	0.6515
1626	0.5395	0.599	0.5995
1627	0.6053	0.7192	0.7203
1628	0.6161	0.784	0.7843
1629	0.6321	1.6376	1.4353
1630	1.6472	1.7738	1.7965
1631	1.7308	2.0326	2.0539
1632	1.8148	2.0948	2.1205
1633	2.1318	2.3661	2.3874
1634	2.2603	2.4349	2.4322
1635	2.058	3.6292	3.5521
1636	2.0626	2.2254	2.1696
1637	2.1289	2.1832	2.0197
1638	1.9999	2.1699	2.1009
1639	1.7265	2.0778	1.1895
1640	1.5691	0.734	0.7377
1641	1.4592	0.5959	0.5991
1642	1.3619	0.5777	0.5804
1643	1.5455	0.8187	2.5916
1644	1.6879	1.6877	1.6916
1645	1.6698	1.5533	1.5599
1646	1.7171	1.698	1.7047
1647	1.7819	1.8079	1.767
1648	1.8928	1.7863	1.8898
1649	1.3854	1.5969	1.6184
1650	0.8489	0.8401	0.85
1651	0.7516	1.1738	0.7522
1652	1.0395	1.1306	1.135
1653	1.1925	1.2205	1.066
1654	1.5737	1.5024	1.2262
1655	1.7789	1.7789	1.7787
1656	1.7967	1.7937	1.799
1657	1.7919	1.7958	1.7928
1658	1.1323	1.649	1.1392
1659	1.7671	1.7607	1.7623
1660	0.6937	0.6941	0.6937
1661	0.5763	0.5767	0.5757
1662	0.6093	0.6097	0.6084
1663	0.694	0.6946	0.6927
1664	0.6549	0.6552	0.6539
1665	0.5318	0.5317	0.5312
1666	0.3626	0.3616	0.3617
1667	0.2715	0.2706	0.2708
1668	0.3353	0.3345	0.3346
1669	0.2224	0.2164	0.2163
1670	0.1879	0	0.1671
1671	0.1555	0	0
1672	0	0	0
1673	0	0	0
1674	0	0	0
1675	0	0	0
1676	0	0	0
1677	0	0	0
1678	0	0	0
1679	0	0	0
1680	0	0	0
1681	0.1821	0	0
1682	0.2272	0	0
1683	0.1991	0	0
1684	0.2445	0.1566	0.1563
1685	0.3319	0.3429	0.3426
1686	0.3513	0.3446	0.3443
1687	0.41	0.4061	0.4057
1688	0.5079	0.5081	0.5079
1689	0.5374	0.5399	0.5398
1690	0.598	0.6038	0.6038
1691	0.6273	0.6442	0.6442

1692	0.5791	0.6063	0.6064
1693	0.5329	0.5768	0.5771
1694	0.5751	0.6663	0.6672
1695	0.5678	0.6684	0.6696
1696	0.6168	1.3	1.3009
1697	1.548	1.601	1.6164
1698	1.6367	1.961	1.9789
1699	1.8146	2.1057	2.1333
1700	2.0265	2.3116	2.3457
1701	2.1318	2.3474	2.3715
1702	2.1473	4.0377	3.9696
1703	2.0847	2.9369	2.5064
1704	2.1314	2.1554	0.988
1705	2.0117	1.2145	0.9642
1706	1.7589	0.957	0.8908
1707	1.6001	1.1454	1.0459
1708	1.232	0.6741	0.6769
1709	1.432	0.59	0.5967
1710	1.4996	1.5604	4.024
1711	1.6879	1.5048	1.5159
1712	1.724	1.6777	1.692
1713	1.8451	1.8373	1.8316
1714	1.8693	1.8355	1.866
1715	1.254	1.5612	1.2663
1716	1.744	1.7727	1.7718
1717	0.909	0.9027	0.9054
1718	0.7154	0.7202	0.7152
1719	1.4163	1.6528	1.65
1720	1.1254	1.4326	1.4081
1721	1.5632	1.534	1.4262
1722	1.7035	1.7016	1.7063
1723	1.7986	1.7976	1.8066
1724	1.7696	1.776	1.771
1725	1.6827	1.6746	1.6806
1726	1.5399	1.7743	1.5436
1727	0.901	0.9018	0.9012
1728	0.65	0.6509	0.6498
1729	0.5656	0.5661	0.565
1730	0.7049	0.7057	0.7039
1731	0.7347	0.7356	0.7339
1732	0.5106	0.511	0.5104
1733	0.3929	0.3927	0.3927
1734	0.304	0.3026	0.3027
1735	0.327	0.3255	0.3256
1736	0.2373	0.2345	0.2344
1737	0.1959	0.1846	0.1846
1738	0.1751	0	0
1739	0	0	0
1740	0	0	0
1741	0	0	0
1742	0	0	0
1743	0	0	0
1744	0	0	0
1745	0	0	0
1746	0	0	0
1747	0	0	0
1748	0.1282	0	0
1749	0.2106	0	0
1750	0.2081	0	0
1751	0.2486	0.1533	0.1531
1752	0.311	0.3123	0.3121
1753	0.3366	0.3261	0.3258
1754	0.3834	0.3794	0.3792
1755	0.4752	0.4743	0.474
1756	0.5435	0.5449	0.5448
1757	0.5558	0.5588	0.5588
1758	0.6581	0.6708	0.6708
1759	0.5443	0.5627	0.5627
1760	0.5142	0.5455	0.5455
1761	0.5638	0.625	0.6252
1762	0.5344	0.6054	0.6061
1763	0.5786	0.6797	0.6838
1764	0.8287	1.6629	1.6741
1765	0.9869	1.7938	1.8086
1766	1.7653	2.1198	2.144
1767	1.955	2.2692	2.3052
1768	2.0378	2.3227	2.3675
1769	2.1264	4.1236	4.1354
1770	2.1598	3.2863	2.5574
1771	2.1042	2.1258	1.8679
1772	2.0612	1.763	1.4425
1773	1.8654	0.8839	0.8625
1774	1.6882	0.8526	0.8612
1775	1.5095	0.8334	1.8243
1776	1.4321	0.7481	1.5248
1777	1.6566	1.9713	2.0256
1778	1.7428	1.6431	1.4237
1779	1.7904	1.755	1.7443
1780	1.2301	1.8272	1.8234
1781	1.7789	1.7763	1.6262
1782	1.7647	1.7549	1.2173
1783	1.7294	1.7353	1.7298
1784	1.4127	1.5685	1.4345
1785	0.8728	1.1451	1.1339

1786	1.6986	1.6989	1.7041
1787	1.6805	1.6801	1.6842
1788	1.011	1.0192	1.0083
1789	1.2278	1.8138	1.7952
1790	1.9089	1.908	1.9182
1791	1.7838	1.735	1.7805
1792	1.6892	1.7462	1.7862
1793	1.7066	1.6247	1.6846
1794	1.0878	1.2802	1.2845
1795	0.7374	0.7385	0.7378
1796	0.6234	0.6242	0.6232
1797	0.6402	0.6411	0.6398
1798	0.7262	0.7272	0.7256
1799	0.5124	0.5128	0.512
1800	0.4073	0.4075	0.4073
1801	0.3146	0.314	0.314
1802	0.3201	0.3158	0.316
1803	0.2438	0.2412	0.2412
1804	0.2013	0.2006	0.2006
1805	0.1763	0.1373	0.137
1806	0.1592	0	0
1807	0	0	0
1808	0	0	0
1809	0	0	0
1810	0	0	0
1811	0	0	0
1812	0	0	0
1813	0	0	0
1814	0	0	0
1815	0	0	0
1816	0.1747	0	0
1817	0.1948	0	0
1818	0.2301	0	0
1819	0.284	0.2671	0.2668
1820	0.319	0.3108	0.3106
1821	0.3547	0.3487	0.3485
1822	0.4594	0.4576	0.4574
1823	0.5292	0.5295	0.5294
1824	0.5432	0.5455	0.5454
1825	0.6678	0.675	0.675
1826	0.5365	0.5504	0.5504
1827	0.4957	0.5163	0.5162
1828	0.5402	0.5831	0.5828
1829	0.5221	0.5789	0.5787
1830	0.5502	0.6451	0.645
1831	0.7544	1.6442	1.1312
1832	1.3353	1.6449	1.6572
1833	1.6461	2.043	2.0599
1834	1.8655	2.1728	2.2001
1835	1.9291	2.2184	2.2617
1836	2.0178	4.014	4.107
1837	2.1398	3.3656	3.3747
1838	2.1436	2.4707	2.1523
1839	2.1143	1.181	2.0242
1840	1.8943	0.9714	0.9684
1841	1.6847	0.7923	0.7769
1842	1.5924	0.8233	1.8275
1843	1.4988	0.8169	0.9986
1844	1.7992	1.6557	1.654
1845	1.8026	1.7742	1.776
1846	1.2368	1.7378	1.8198
1847	1.586	1.2726	1.2584
1848	1.7585	1.758	1.7592
1849	1.6821	1.6851	1.6832
1850	1.7198	1.7118	1.7162
1851	1.1543	1.1215	1.1504
1852	1.5524	0.9758	1.1181
1853	1.6742	1.5729	1.6744
1854	1.8336	1.8325	1.8396
1855	0.8115	0.8108	0.8159
1856	1.7915	1.7799	1.7937
1857	1.9699	1.9675	1.9815
1858	1.7676	1.7833	1.2161
1859	1.1949	1.7636	1.7565
1860	1.6604	1.1372	1.1365
1861	1.088	1.3988	1.4091
1862	0.787	0.7878	0.7882
1863	0.644	0.6451	0.6449
1864	0.6667	0.6678	0.6667
1865	0.6617	0.6629	0.6615
1866	0.5077	0.5081	0.5073
1867	0.4563	0.4567	0.4563
1868	0.3221	0.3222	0.3222
1869	0.3178	0.3157	0.3158
1870	0.2388	0.2321	0.2322
1871	0.203	0.201	0.2011
1872	0.1885	0.1862	0.1861
1873	0	0	0
1874	0	0	0
1875	0	0	0
1876	0	0	0
1877	0	0	0
1878	0	0	0
1879	0	0	0

1880	0	0	0
1881	0	0	0
1882	0	0	0
1883	0	0	0
1884	0.1872	0	0
1885	0.2187	0	0
1886	0.2508	0.2129	0.2127
1887	0.2925	0.2924	0.2922
1888	0.3235	0.3125	0.3124
1889	0.4547	0.4525	0.4523
1890	0.5026	0.5024	0.5024
1891	0.5159	0.5174	0.5173
1892	0.6171	0.6225	0.6224
1893	0.5766	0.5859	0.5857
1894	0.4968	0.5108	0.5106
1895	0.5164	0.5453	0.5449
1896	0.5054	0.5471	0.5468
1897	0.5191	0.5879	0.5878
1898	0.695	0.8415	0.8421
1899	0.7498	1.6721	1.6588
1900	1.6342	1.9141	1.9231
1901	1.7282	2.0642	2.0812
1902	1.9666	2.2778	2.3123
1903	2.0151	4.1592	4.283
1904	2.1418	3.6247	3.7725
1905	2.2519	3.285	3.1538
1906	2.0151	1.9352	1.153
1907	1.9731	1.4081	0.8746
1908	1.8375	0.7622	0.7249
1909	1.7163	0.8647	0.779
1910	1.6167	0.8561	1.4122
1911	1.8146	1.6254	1.6282
1912	1.7699	1.6905	1.6969
1913	1.689	1.7454	1.7753
1914	1.5906	1.1454	1.3218
1915	1.7389	1.7447	1.7399
1916	1.7717	1.7764	1.7727
1917	1.6816	1.6848	1.683
1918	1.6322	1.4066	1.108
1919	0.9644	0.9019	0.9556
1920	1.6955	1.6875	1.6931
1921	1.8866	1.887	1.8912
1922	1.4049	1.4064	1.4112
1923	1.7387	1.739	1.7454
1924	1.792	1.805	1.793
1925	1.7585	1.7426	1.7501
1926	1.0647	1.2213	1.8016
1927	1.8077	1.8063	1.8105
1928	0.9299	0.9303	0.9309
1929	0.8679	0.869	0.8703
1930	0.663	0.6642	0.6645
1931	0.7033	0.7048	0.7044
1932	0.6274	0.6286	0.6276
1933	0.5388	0.5396	0.5385
1934	0.4824	0.4829	0.4822
1935	0.3453	0.3458	0.3457
1936	0.3123	0.3116	0.3117
1937	0.2222	0.2195	0.2195
1938	0.2223	0.2127	0.2128
1939	0.1968	0.1846	0.1813
1940	0	0	0
1941	0	0	0
1942	0	0	0
1943	0	0	0
1944	0	0	0
1945	0	0	0
1946	0	0	0
1947	0	0	0
1948	0	0	0
1949	0	0	0
1950	0	0	0
1951	0.1774	0	0
1952	0.2122	0	0
1953	0.2237	0.1719	0.1718
1954	0.2649	0.258	0.2579
1955	0.3009	0.289	0.2888
1956	0.4244	0.4206	0.4205
1957	0.4961	0.4952	0.4951
1958	0.4945	0.4957	0.4956
1959	0.5805	0.5852	0.585
1960	0.5577	0.564	0.5637
1961	0.5155	0.5257	0.5253
1962	0.5107	0.5341	0.5335
1963	0.506	0.5364	0.536
1964	0.5032	0.5498	0.5495
1965	0.6555	0.7735	0.7734
1966	0.7469	1.5822	1.1417
1967	0.8452	1.7641	1.5299
1968	1.7553	2.0264	2.0349
1969	1.9079	2.2856	2.3133
1970	1.9598	4.0657	4.1673
1971	2.0151	3.4807	3.5586
1972	2.3013	3.5902	3.6239
1973	2.1033	2.2382	2.1124

1974	1.9522	1.6655	0.8139
1975	1.8366	0.6222	0.6253
1976	1.7304	0.814	0.7266
1977	1.6619	1.6045	1.5154
1978	1.7927	1.6408	1.5213
1979	1.762	1.6611	1.656
1980	1.652	1.5988	1.6324
1981	1.6045	1.586	1.5923
1982	1.6798	1.682	1.6774
1983	1.8426	1.8438	1.843
1984	1.6532	1.6528	1.655
1985	1.6177	1.7029	1.0089
1986	1.1708	1.5274	0.9944
1987	1.7606	1.777	1.6737
1988	1.7562	1.7644	1.5264
1989	1.7312	1.7321	1.7198
1990	1.8056	1.0639	1.2138
1991	1.035	1.08	1.0939
1992	1.8461	1.238	1.2411
1993	1.5491	1.1578	1.7793
1994	1.8046	1.1186	1.65
1995	1.3807	1.3888	1.3865
1996	0.8423	0.8436	0.8449
1997	0.7318	0.7333	0.7342
1998	0.7169	0.7184	0.7187
1999	0.6221	0.6233	0.6225
2000	0.5812	0.5823	0.5811
2001	0.4747	0.4754	0.4746
2002	0.3908	0.3911	0.3908
2003	0.3305	0.3309	0.3309
2004	0.2193	0.2177	0.2177
2005	0.2423	0.2342	0.2342
2006	0.1887	0.1821	0.1821
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0
2011	0	0	0
2012	0	0	0
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018	0.1724	0	0
2019	0.2199	0	0
2020	0.2089	0	0
2021	0.2306	0.2221	0.222
2022	0.2771	0.265	0.2649
2023	0.397	0.3891	0.389
2024	0.4622	0.4609	0.4608
2025	0.4958	0.4973	0.4972
2026	0.5517	0.5552	0.555
2027	0.5424	0.5478	0.5475
2028	0.5088	0.5169	0.5164
2029	0.5382	0.5527	0.5521
2030	0.5197	0.5419	0.5414
2031	0.4943	0.5267	0.5263
2032	0.6172	0.6952	0.6949
2033	0.738	0.9203	0.9202
2034	0.7336	1.1595	1.4812
2035	1.6702	1.919	1.9217
2036	1.7872	2.1761	2.1899
2037	1.9494	3.8693	3.9449
2038	1.8924	3.2424	3.3484
2039	2.1275	3.8803	3.9767
2040	1.9676	2.7222	2.4504
2041	1.9248	1.9205	1.6147
2042	1.8677	0.4741	0.5053
2043	1.8409	0.5696	0.5982
2044	1.7926	1.8208	1.4369
2045	1.7693	3.5611	1.5157
2046	1.6672	1.3585	1.57
2047	1.7244	1.6202	1.6811
2048	1.6887	1.6747	1.6703
2049	1.6818	1.6805	1.6793
2050	1.8809	1.8823	1.8842
2051	1.7272	1.7291	1.7308
2052	1.7062	1.7063	1.4106
2053	1.6476	1.7364	1.6916
2054	1.6725	1.7647	1.6449
2055	1.7658	1.766	1.6741
2056	1.7862	1.79	1.7817
2057	1.7692	1.4655	1.0433
2058	1.3079	1.0107	1.0432
2059	1.8084	1.0318	1.0708
2060	1.8417	1.8336	1.8466
2061	1.2083	1.4961	1.7884
2062	1.059	1.7575	1.8396
2063	0.8627	0.8636	0.8648
2064	0.7525	0.754	0.7554
2065	0.7306	0.7321	0.7326
2066	0.5957	0.5968	0.5963
2067	0.6517	0.653	0.6518

2068	0.4693	0.4702	0.4692
2069	0.4001	0.4005	0.4001
2070	0.3538	0.354	0.354
2071	0.2395	0.2394	0.2394
2072	0.2395	0.236	0.2361
2073	0.1859	0.1856	0.1856
2074	0.1756	0	0
2075	0	0	0
2076	0	0	0
2077	0	0	0
2078	0	0	0
2079	0	0	0
2080	0	0	0
2081	0	0	0
2082	0	0	0
2083	0	0	0
2084	0	0	0
2085	0.157	0	0
2086	0.2344	0	0
2087	0.202	0	0
2088	0.2019	0.1842	0.1841
2089	0.2346	0.2284	0.2283
2090	0.3726	0.3576	0.3575
2091	0.423	0.423	0.4229
2092	0.4931	0.494	0.4939
2093	0.5373	0.5401	0.5398
2094	0.5352	0.5402	0.5398
2095	0.5136	0.5213	0.5208
2096	0.5259	0.5365	0.5359
2097	0.5533	0.5735	0.5728
2098	0.4799	0.503	0.5025
2099	0.6023	0.6548	0.6543
2100	0.6684	0.7725	0.7721
2101	0.7073	0.9056	0.9049
2102	0.7759	1.8003	1.7972
2103	1.6608	2.0103	2.0182
2104	1.832	2.9545	2.9911
2105	1.8341	2.5758	2.6629
2106	2.0469	3.9554	4.1709
2107	2	2.4665	2.4615
2108	1.9582	3.5297	1.0991
2109	1.8599	0.403	0.4528
2110	1.8991	0.4243	0.4485
2111	1.8655	0.6293	0.6675
2112	1.8146	0.85	1.0693
2113	1.8124	0.8436	1.6476
2114	1.7244	1.6992	1.6926
2115	1.8005	1.7878	1.774
2116	1.7186	1.7157	1.7167
2117	1.987	1.9936	1.9945
2118	1.8194	1.8214	1.8214
2119	1.7309	1.7308	1.6915
2120	1.193	1.1931	1.7532
2121	1.6294	1.7219	1.7145
2122	1.7827	1.78	1.7813
2123	1.0621	1.7688	1.7682
2124	1.7514	1.7291	1.471
2125	1.1623	1.4513	0.992
2126	1.7795	1.4665	1.0178
2127	1.8649	1.8288	1.8599
2128	1.8289	1.7936	1.8269
2129	1.0483	1.2302	1.2307
2130	0.8986	0.8986	0.8998
2131	0.7941	0.7951	0.7966
2132	0.7075	0.7085	0.7091
2133	0.6228	0.6239	0.6235
2134	0.6728	0.6739	0.6726
2135	0.4593	0.4603	0.4593
2136	0.4311	0.4319	0.4313
2137	0.3514	0.3512	0.351
2138	0.2593	0.2591	0.2591
2139	0.2402	0.2387	0.2387
2140	0	0.179	0
2141	0	0	0
2142	0	0	0
2143	0	0	0
2144	0	0	0
2145	0	0	0
2146	0	0	0
2147	0	0	0
2148	0	0	0
2149	0	0	0
2150	0	0	0
2151	0	0	0
2152	0	0	0
2153	0.2367	0	0
2154	0.2513	0	0
2155	0.2279	0.1539	0.1537
2156	0.2197	0.2014	0.2013
2157	0.3218	0.3004	0.3003
2158	0.3924	0.3932	0.3931
2159	0.4648	0.4649	0.4647
2160	0.4934	0.4951	0.4948
2161	0.5314	0.5365	0.5361

2162	0.5212	0.5285	0.528
2163	0.501	0.5109	0.5104
2164	0.586	0.6042	0.6035
2165	0.4806	0.4985	0.498
2166	0.5632	0.5988	0.5983
2167	0.5979	0.6606	0.6601
2168	0.7058	0.8632	0.8638
2169	0.6876	1.5028	1.7001
2170	1.5158	1.8212	1.8274
2171	1.7772	2.906	2.914
2172	1.8715	2.9388	2.9541
2173	2.0211	3.1484	3.2831
2174	2.0294	2.8592	3.0804
2175	2.0238	1.8658	1.8977
2176	1.9668	0.3393	0.3648
2177	1.9604	0.3044	0.3107
2178	1.9875	0.5308	0.5478
2179	1.8953	0.7137	0.7536
2180	1.9089	2.9786	1.8178
2181	1.7098	1.6436	1.6406
2182	1.7714	1.7344	1.7288
2183	1.7829	1.7887	1.7915
2184	1.9508	1.9529	1.9532
2185	1.7838	1.7847	1.7849
2186	1.7535	1.1893	1.7423
2187	1.7409	1.7407	1.7411
2188	1.7452	1.5391	1.7697
2189	1.9191	1.9218	1.9192
2190	1.4784	1.7132	1.7081
2191	1.6793	1.1987	1.7318
2192	1.7292	1.0389	1.4576
2193	1.0905	1.748	1.522
2194	1.8811	1.8759	1.878
2195	1.8873	1.8776	1.2725
2196	1.3964	1.1746	1.054
2197	0.8986	0.8978	0.8981
2198	0.8747	0.8744	0.8752
2199	0.6863	0.687	0.6874
2200	0.683	0.6839	0.6839
2201	0.6759	0.6769	0.6758
2202	0.4814	0.4823	0.4813
2203	0.4332	0.4346	0.4338
2204	0.3667	0.3674	0.3671
2205	0.2681	0.2669	0.2669
2206	0.2517	0.2498	0.2498
2207	0.1833	0.1836	0.1823
2208	0.1769	0.1751	0.1747
2209	0	0	0
2210	0	0	0
2211	0	0	0
2212	0	0	0
2213	0	0	0
2214	0	0	0
2215	0	0	0
2216	0	0	0
2217	0	0	0
2218	0	0	0
2219	0	0	0
2220	0.1634	0	0
2221	0.2386	0	0
2222	0.2206	0	0
2223	0.2114	0.1797	0.1796
2224	0.2805	0.2553	0.2552
2225	0.3484	0.3489	0.3488
2226	0.4469	0.4454	0.4452
2227	0.4614	0.4623	0.4621
2228	0.513	0.5171	0.5168
2229	0.5292	0.5368	0.5364
2230	0.4919	0.5018	0.5013
2231	0.5529	0.5684	0.5679
2232	0.5372	0.5575	0.5569
2233	0.5295	0.5561	0.5555
2234	0.5426	0.5783	0.5777
2235	0.6855	0.779	0.7795
2236	0.6635	0.7848	0.7885
2237	0.8493	1.8642	1.8711
2238	1.898	2.7518	2.7542
2239	1.9629	3.0002	2.9922
2240	2.0661	3.2718	3.27
2241	2.1507	3.0561	3.2422
2242	2.0789	3.4016	4.0261
2243	2.0508	0.2877	0.2866
2244	1.9023	0.1887	0.189
2245	2.1561	0.372	0.3698
2246	1.9413	0.5717	0.5696
2247	1.8523	1.6465	2.1163
2248	1.7633	1.7513	1.3874
2249	1.738	1.7157	1.7187
2250	1.8109	1.8164	1.8174
2251	1.944	1.9427	1.9431
2252	1.9507	1.9521	1.9529
2253	1.739	1.7367	1.7385
2254	1.821	1.8209	1.8216
2255	1.78	1.7793	1.7799

2256	1.8471	1.7643	1.8485
2257	1.8166	1.8272	1.8203
2258	1.0769	1.2069	1.8099
2259	1.0274	1.0229	1.7137
2260	1.0603	1.185	1.6568
2261	1.889	1.902	1.8833
2262	1.9134	1.9058	1.9112
2263	1.2676	1.8715	1.5736
2264	0.8822	0.8779	0.8798
2265	0.9416	0.9403	0.9397
2266	0.7193	0.7196	0.72
2267	0.703	0.7036	0.7037
2268	0.6725	0.6731	0.6726
2269	0.5533	0.5538	0.5528
2270	0.4231	0.4241	0.4233
2271	0.4023	0.4046	0.4041
2272	0.2784	0.2782	0.2782
2273	0.2626	0.2596	0.2596
2274	0.186	0.1819	0.182
2275	0.1837	0	0.1818
2276	0	0	0
2277	0	0	0
2278	0	0	0
2279	0	0	0
2280	0	0	0
2281	0	0	0
2282	0	0	0
2283	0	0	0
2284	0	0	0
2285	0	0	0
2286	0	0	0
2287	0	0	0
2288	0.2131	0	0
2289	0.2333	0	0
2290	0.2099	0.1528	0.1528
2291	0.273	0.2401	0.24
2292	0.2939	0.2918	0.2918
2293	0.4033	0.4008	0.4007
2294	0.4385	0.4393	0.4391
2295	0.4875	0.491	0.4907
2296	0.5374	0.5447	0.5443
2297	0.5117	0.5214	0.521
2298	0.5066	0.5197	0.5192
2299	0.6044	0.6283	0.6275
2300	0.535	0.5597	0.5589
2301	0.5149	0.5411	0.5402
2302	0.6187	0.6661	0.6652
2303	0.672	0.7712	0.7729
2304	0.8327	1.8914	1.898
2305	1.9	2.3555	2.36
2306	1.8886	2.8586	2.847
2307	2.0305	3.266	3.2316
2308	2.0126	2.8796	2.8983
2309	2.0162	8.5709	8.5273
2310	2.082	0.2646	0.2661
2311	1.8147	0	0.1436
2312	2.1125	0.191	0.1913
2313	1.9561	0.3613	0.3618
2314	1.9292	0.7225	0.7215
2315	1.883	2.0165	2.0251
2316	1.7795	1.7537	1.7556
2317	1.7735	1.7679	1.7679
2318	1.9778	1.9838	1.9841
2319	1.9024	1.9018	1.902
2320	1.7882	1.7886	1.7889
2321	1.8108	1.8104	1.8104
2322	1.9475	1.9471	1.9471
2323	1.77	1.7714	1.7706
2324	1.8683	1.8764	1.8761
2325	1.547	1.7861	1.7799
2326	1.0167	1.0129	1.1359
2327	1.0429	1.0311	1.0329
2328	1.6537	1.9249	1.9353
2329	1.9148	1.9044	1.9111
2330	1.9166	1.9106	1.9148
2331	0.8916	0.888	0.8893
2332	0.9198	0.919	0.9182
2333	0.7629	0.7624	0.7626
2334	0.7288	0.729	0.7292
2335	0.679	0.6796	0.6794
2336	0.5833	0.5836	0.5829
2337	0.4535	0.4539	0.4531
2338	0.3756	0.3772	0.3766
2339	0.3053	0.3076	0.3074
2340	0.2519	0.2517	0.2517
2341	0.2054	0.1982	0.1982
2342	0.1812	0.1809	0
2343	0	0	0
2344	0	0	0
2345	0	0	0
2346	0	0	0
2347	0	0	0
2348	0	0	0
2349	0	0	0

2350	0	0	0
2351	0	0	0
2352	0	0	0
2353	0	0	0
2354	0	0	0
2355	0.1553	0	0
2356	0.221	0	0
2357	0.2194	0	0
2358	0.2597	0.2237	0.2236
2359	0.2729	0.2725	0.2724
2360	0.3451	0.3414	0.3413
2361	0.3951	0.3955	0.3953
2362	0.4548	0.4568	0.4566
2363	0.5349	0.541	0.5407
2364	0.5236	0.5332	0.5328
2365	0.498	0.5107	0.5102
2366	0.6467	0.6732	0.6723
2367	0.5634	0.5896	0.5885
2368	0.5119	0.5377	0.5367
2369	0.5458	0.5759	0.575
2370	0.6503	0.6903	0.6904
2371	0.8304	1.6828	1.6834
2372	1.8465	2.1225	2.1211
2373	1.6101	2.5358	2.529
2374	1.9819	3.3073	3.3122
2375	1.963	3.098	3.0776
2376	1.8933	9.2282	9.203
2377	2.0321	0	0
2378	1.921	0	0
2379	1.9982	0	0
2380	1.9488	0.1926	0.1928
2381	1.9355	0.3569	0.3563
2382	1.9638	1.7607	1.7507
2383	1.8512	1.7538	1.7542
2384	1.7438	1.7726	1.7723
2385	1.9182	1.9046	1.9043
2386	1.9511	1.9554	1.9553
2387	1.8174	1.8186	1.8184
2388	1.8957	1.8951	1.8946
2389	1.9685	1.9694	1.9689
2390	1.8334	1.8356	1.8343
2391	1.8265	1.8309	1.8323
2392	1.8121	1.843	1.2416
2393	0.992	0.9914	0.9915
2394	1.5105	1.7033	1.7881
2395	1.7745	1.2728	1.8913
2396	1.9369	1.9479	1.9445
2397	1.9478	1.9574	1.9528
2398	1.4114	1.5365	1.5402
2399	0.8975	0.8962	0.896
2400	0.8007	0.7996	0.7997
2401	0.7489	0.7483	0.7487
2402	0.7143	0.7146	0.715
2403	0.5763	0.5767	0.5764
2404	0.5053	0.5053	0.5045
2405	0.3731	0.3737	0.3732
2406	0.3335	0.336	0.3356
2407	0.2555	0.2574	0.2573
2408	0.2075	0.2036	0.2036
2409	0.18	0	0
2410	0.1842	0	0
2411	0	0	0
2412	0	0	0
2413	0	0	0
2414	0	0	0
2415	0	0	0
2416	0	0	0
2417	0	0	0
2418	0	0	0
2419	0	0	0
2420	0	0	0
2421	0	0	0
2422	0	0	0
2423	0.1888	0	0
2424	0.2161	0	0
2425	0.2407	0.2018	0.2017
2426	0.2726	0.2663	0.2662
2427	0.3085	0.3059	0.3059
2428	0.3378	0.3372	0.3371
2429	0.4213	0.4222	0.4221
2430	0.4702	0.4734	0.4732
2431	0.5474	0.5569	0.5565
2432	0.511	0.5222	0.5219
2433	0.6504	0.6762	0.6754
2434	0.5593	0.5842	0.5832
2435	0.5277	0.5569	0.5557
2436	0.4908	0.5182	0.5179
2437	0.5875	0.6167	0.6191
2438	0.8699	1.1106	1.1086
2439	1.1712	1.9566	1.9708
2440	1.1576	2.2076	2.1975
2441	1.818	2.8972	2.8857
2442	1.9394	3.4456	3.4322
2443	1.8098	9.8924	9.8514

2444	1.9763	0	0
2445	1.9525	0	0
2446	1.9788	0	0
2447	1.9672	0	0
2448	1.9372	0.2568	0
2449	2.0433	0.3151	0.315
2450	1.9131	2.0342	2.0338
2451	1.8666	1.8114	1.811
2452	1.8897	1.8942	1.8939
2453	1.9742	1.9822	1.9817
2454	1.8198	1.8195	1.8191
2455	1.8898	1.8894	1.8889
2456	1.9931	1.9937	1.9934
2457	1.9503	1.9511	1.9504
2458	1.8341	1.837	1.8368
2459	1.8288	1.8282	1.2135
2460	0.9781	1.4043	0.9767
2461	1.7002	1.5504	1.5802
2462	1.7846	1.4445	1.798
2463	1.9628	1.9613	1.9663
2464	1.9729	1.9755	1.9741
2465	1.8547	1.8966	1.2718
2466	0.9252	0.9221	0.9232
2467	0.8606	0.8585	0.859
2468	0.748	0.7469	0.7472
2469	0.7594	0.7591	0.7597
2470	0.6017	0.6022	0.6023
2471	0.5075	0.508	0.5075
2472	0.4109	0.4107	0.4101
2473	0.3344	0.3353	0.335
2474	0.2704	0.2732	0.2731
2475	0.2107	0.2119	0.2118
2476	0.1828	0	0
2477	0	0	0
2478	0	0	0
2479	0	0	0
2480	0	0	0
2481	0	0	0
2482	0	0	0
2483	0	0	0
2484	0	0	0
2485	0	0	0
2486	0	0	0
2487	0	0	0
2488	0	0	0
2489	0	0	0
2490	0.1617	0	0
2491	0.2101	0	0
2492	0.2297	0.1708	0.1708
2493	0.2602	0.2515	0.2515
2494	0.2809	0.2801	0.28
2495	0.3077	0.3056	0.3055
2496	0.3793	0.3801	0.38
2497	0.4401	0.4416	0.4415
2498	0.5085	0.5146	0.5143
2499	0.5373	0.5501	0.5498
2500	0.6091	0.6324	0.6318
2501	0.5467	0.5713	0.5707
2502	0.5604	0.5955	0.5945
2503	0.5004	0.5323	0.5325
2504	0.5487	0.5847	0.5891
2505	0.5708	0.6205	0.6299
2506	1.4895	1.7899	1.7835
2507	1.0949	1.8206	1.8163
2508	1.6966	2.3563	2.346
2509	1.8126	2.9869	2.984
2510	1.8302	10.5964	10.6083
2511	1.9246	0	0
2512	1.9526	0	0
2513	2.0271	0	0
2514	1.9811	5.1343	5.1265
2515	1.9087	4.0633	4.0659
2516	2.0529	2.1127	2.1209
2517	1.9579	1.6648	1.6672
2518	1.9178	1.8517	1.8518
2519	1.8531	1.8767	1.876
2520	1.9847	1.9812	1.9802
2521	1.8226	1.8222	1.8216
2522	1.8503	1.8503	1.8501
2523	2.0456	2.0458	2.0463
2524	1.9507	1.9512	1.9513
2525	2.0288	2.029	2.0283
2526	1.8031	1.7998	1.7992
2527	1.0876	1.08	1.0875
2528	0.9074	0.907	0.9081
2529	1.9088	1.9114	1.9132
2530	1.9384	1.9374	1.9489
2531	1.9326	1.9358	1.9359
2532	1.7032	1.9546	1.3211
2533	1.0033	1.0024	1.0008
2534	0.9025	0.9001	0.8998
2535	0.7848	0.7837	0.7834
2536	0.7632	0.7623	0.7626
2537	0.6383	0.6381	0.6384

2538	0.5103	0.5108	0.5106
2539	0.4264	0.4264	0.4259
2540	0.346	0.3462	0.3458
2541	0.2708	0.2722	0.2721
2542	0.2216	0.2249	0.2248
2543	0.1817	0.1798	0.1799
2544	0	0.1583	0
2545	0	0	0
2546	0	0	0
2547	0	0	0
2548	0	0	0
2549	0	0	0
2550	0	0	0
2551	0	0	0
2552	0	0	0
2553	0	0	0
2554	0	0	0
2555	0	0	0
2556	0	0	0
2557	0	0	0
2558	0.199	0	0
2559	0.2122	0	0
2560	0.2505	0.2354	0.2354
2561	0.262	0.2579	0.2579
2562	0.2962	0.2943	0.2943
2563	0.3403	0.3408	0.3407
2564	0.419	0.4193	0.4191
2565	0.4697	0.4742	0.474
2566	0.5293	0.5399	0.5397
2567	0.5458	0.5645	0.5642
2568	0.5147	0.5368	0.5364
2569	0.5592	0.5945	0.5939
2570	0.5118	0.545	0.5453
2571	0.5452	0.5854	0.5886
2572	0.5826	0.6277	0.6353
2573	1.0555	1.7733	1.7417
2574	1.2823	1.376	1.6409
2575	1.6258	1.9617	1.9549
2576	1.7244	2.3646	2.3378
2577	1.8322	8.1903	8.1978
2578	1.9337	11.9363	12.2868
2579	1.9851	13.9449	15.1608
2580	2.0052	12.637	12.6421
2581	2.0081	4.9146	4.8991
2582	1.9495	0	0.0972
2583	1.9463	3.0542	3.0715
2584	2.0351	1.4853	1.4411
2585	1.9757	2.0051	2.0032
2586	1.8976	1.9185	1.9172
2587	1.9332	1.9301	1.9292
2588	1.8477	1.8472	1.8466
2589	1.852	1.8521	1.852
2590	2.034	2.0342	2.0347
2591	2.0446	2.0456	2.0458
2592	2.0202	2.0212	2.0209
2593	1.926	1.9216	1.9222
2594	1.5146	1.4791	1.7516
2595	0.8506	0.8495	0.8516
2596	1.981	1.9933	2.0061
2597	1.904	1.7364	1.7365
2598	2.013	2.0172	2.0329
2599	2.0334	2.0619	2.0647
2600	1.0325	1.6208	1.0345
2601	0.9549	0.956	0.9545
2602	0.8362	0.8354	0.8343
2603	0.8281	0.8267	0.8265
2604	0.6339	0.6331	0.6335
2605	0.5392	0.5394	0.5397
2606	0.4392	0.4397	0.4395
2607	0.3674	0.3676	0.3673
2608	0.2798	0.2806	0.2805
2609	0.2143	0.2166	0.2165
2610	0.1839	0.1888	0.1897
2611	0.1822	0	0
2612	0	0	0
2613	0	0	0
2614	0	0	0
2615	0	0	0
2616	0	0	0
2617	0	0	0
2618	0	0	0
2619	0	0	0
2620	0	0	0
2621	0	0	0
2622	0	0	0
2623	0	0	0
2624	0	0	0
2625	0.1892	0	0
2626	0.2008	0	0
2627	0.2398	0.2121	0.212
2628	0.2563	0.2544	0.2544
2629	0.2799	0.2784	0.2783
2630	0.3146	0.3142	0.3141
2631	0.3891	0.3886	0.3885

2632	0.4193	0.4222	0.4221
2633	0.492	0.5001	0.4999
2634	0.5159	0.5314	0.5312
2635	0.4937	0.5134	0.5131
2636	0.5177	0.5467	0.5464
2637	0.5281	0.5637	0.564
2638	0.5046	0.5417	0.5434
2639	0.648	0.7109	0.7181
2640	0.7978	0.8919	0.8801
2641	0.9485	1.6996	1.8063
2642	1.6321	1.8753	1.8709
2643	1.7294	1.8852	1.7323
2644	1.7872	2.2478	3.9724
2645	1.926	0.5232	0.5223
2646	2.0798	1.6413	1.9858
2647	1.9841	5.1968	4.8158
2648	1.9502	4.4578	4.4492
2649	2.0485	4.5486	4.5333
2650	1.8314	2.7223	2.7299
2651	2.0777	2.3967	2.3091
2652	1.987	2.0958	2.0932
2653	1.9697	1.9593	1.958
2654	1.905	1.9022	1.9013
2655	1.8825	1.883	1.8825
2656	1.8786	1.8787	1.8788
2657	1.9531	1.9531	1.9532
2658	1.9618	1.9635	1.9628
2659	2.02	2.0242	2.0217
2660	2.0214	2.0267	2.0231
2661	1.8001	1.795	1.7996
2662	0.9459	1.0681	1.31
2663	0.9325	0.9297	0.9345
2664	2.0194	2.0178	2.0279
2665	1.8213	2.0698	1.3826
2666	1.998	2.0037	2.0021
2667	1.5799	1.8322	1.5837
2668	0.9938	0.9959	0.9945
2669	0.8553	0.8545	0.8536
2670	0.8927	0.8908	0.8903
2671	0.6567	0.6556	0.6558
2672	0.5711	0.5706	0.571
2673	0.4437	0.4439	0.444
2674	0.3736	0.3739	0.3737
2675	0.3016	0.302	0.3019
2676	0.2143	0.216	0.216
2677	0.1853	0	0.1889
2678	0	0.1813	0.1812
2679	0	0	0
2680	0	0	0
2681	0	0	0
2682	0	0	0
2683	0	0	0
2684	0	0	0
2685	0	0	0
2686	0	0	0
2687	0	0	0
2688	0	0	0
2689	0	0	0
2690	0	0	0
2691	0	0	0
2692	0.1848	0	0
2693	0.2024	0	0
2694	0.2189	0.1846	0.1847
2695	0.2497	0.2517	0.2517
2696	0.2628	0.2616	0.2616
2697	0.3003	0.2983	0.2982
2698	0.3621	0.3613	0.3612
2699	0.3788	0.3806	0.3805
2700	0.4506	0.456	0.4558
2701	0.471	0.4811	0.481
2702	0.4876	0.5065	0.5063
2703	0.4973	0.5237	0.5235
2704	0.5469	0.5861	0.5863
2705	0.5192	0.5594	0.5603
2706	0.6159	0.6709	0.6755
2707	0.7143	0.7922	0.7931
2708	0.7924	0.9408	0.8688
2709	1.6597	1.7623	1.794
2710	1.7445	1.8871	1.8921
2711	1.8	2.6061	2.61
2712	1.8696	2.9952	3.0171
2713	2.0591	2.2726	2.2783
2714	2.0112	2.6522	2.6394
2715	1.8663	2.4536	1.6427
2716	2.0818	2.5718	2.5215
2717	1.8118	2.5466	2.5484
2718	1.9959	2.452	2.4488
2719	1.9713	2.0338	2.0324
2720	2.1364	2.1164	2.1154
2721	1.9418	1.9415	1.9407
2722	1.8675	1.8691	1.8687
2723	1.9385	1.9379	1.9379
2724	1.8904	1.8905	1.8902
2725	1.9339	1.9357	1.9343

2726	2.0245	2.0297	2.026
2727	2.0401	2.0475	2.0431
2728	1.8104	1.8101	1.8114
2729	1.7135	1.7033	1.7155
2730	1.288	0.9435	1.4603
2731	1.9941	1.9896	1.9867
2732	1.8906	1.9699	1.3532
2733	2.0006	2.0337	1.2915
2734	1.92	1.3604	1.3524
2735	1.0232	1.0234	1.0224
2736	0.95	0.9488	0.9483
2737	0.8488	0.8469	0.8463
2738	0.7442	0.7424	0.7422
2739	0.577	0.5761	0.5764
2740	0.4526	0.4524	0.4527
2741	0.3881	0.3884	0.3884
2742	0.3025	0.3029	0.3028
2743	0.2274	0.2284	0.2283
2744	0.1895	0.1912	0.1925
2745	0.1822	0.182	0.182
2746	0	0	0
2747	0	0	0
2748	0	0	0
2749	0	0	0
2750	0	0	0
2751	0	0	0
2752	0	0	0
2753	0	0	0
2754	0	0	0
2755	0	0	0
2756	0	0	0
2757	0	0	0
2758	0	0	0
2759	0.1768	0	0
2760	0.2034	0	0
2761	0.206	0	0
2762	0.2283	0.2386	0.2386
2763	0.2514	0.2504	0.2504
2764	0.2934	0.2897	0.2897
2765	0.3509	0.3499	0.3498
2766	0.3631	0.3641	0.364
2767	0.4384	0.4432	0.4431
2768	0.4394	0.4465	0.4464
2769	0.4699	0.4837	0.4836
2770	0.498	0.5225	0.5224
2771	0.5282	0.5642	0.5642
2772	0.5598	0.6053	0.6057
2773	0.5973	0.6527	0.6545
2774	0.674	0.7451	0.7453
2775	0.7355	0.8006	0.7958
2776	0.9955	1.7459	1.7633
2777	1.017	1.7337	1.7299
2778	1.7201	1.8349	1.84
2779	1.821	1.8824	1.881
2780	1.9508	2.0548	2.0506
2781	2.0037	2.0362	2.0325
2782	1.8084	1.8749	1.8724
2783	1.9964	1.9688	1.9663
2784	1.8422	1.8445	1.8427
2785	1.9259	1.9556	1.9538
2786	1.9759	1.9732	1.9721
2787	2.0887	2.0781	2.0772
2788	2.0024	2.009	2.0085
2789	1.9434	1.9445	1.9442
2790	1.9339	1.9341	1.9339
2791	1.9489	1.9492	1.9488
2792	2.0217	2.0224	2.0211
2793	2.0838	2.0882	2.0838
2794	2.1182	2.1274	2.1184
2795	1.8643	1.8768	1.8611
2796	1.7938	1.7932	1.7984
2797	1.4886	1.5177	1.6895
2798	1.8541	1.8531	1.8508
2799	2.015	1.9983	2.0021
2800	1.9948	1.994	1.6684
2801	2.0173	1.4838	1.6907
2802	1.0655	1.0702	1.07
2803	0.9678	0.9661	0.9656
2804	0.8745	0.8723	0.8714
2805	0.7964	0.7942	0.7934
2806	0.6052	0.6038	0.6038
2807	0.4617	0.461	0.4614
2808	0.4038	0.4038	0.404
2809	0.3064	0.3067	0.3067
2810	0.2294	0.2302	0.2302
2811	0.1872	0.1903	0.1907
2812	0	0.1836	0
2813	0	0	0
2814	0	0	0
2815	0	0	0
2816	0	0	0
2817	0	0	0
2818	0	0	0
2819	0	0	0

2820	0	0	0
2821	0	0	0
2822	0	0	0
2823	0	0	0
2824	0	0	0
2825	0	0	0
2826	0	0	0
2827	0.2007	0	0
2828	0.2045	0	0
2829	0.2069	0.2202	0.2202
2830	0.2361	0.235	0.235
2831	0.2916	0.2859	0.2859
2832	0.3333	0.332	0.3319
2833	0.3585	0.3595	0.3594
2834	0.4196	0.423	0.4229
2835	0.4334	0.4405	0.4404
2836	0.4326	0.4435	0.4434
2837	0.4922	0.5162	0.5162
2838	0.5219	0.5586	0.5586
2839	0.564	0.6142	0.6146
2840	0.5587	0.6121	0.6127
2841	0.6407	0.7105	0.7105
2842	0.6794	0.7502	0.7461
2843	0.7925	0.8757	0.8648
2844	0.981	1.7875	1.7931
2845	1.7494	1.7869	1.7902
2846	1.7369	1.8465	1.8445
2847	1.8273	1.8962	1.8923
2848	1.9049	1.918	1.9147
2849	1.8053	1.8344	1.8316
2850	1.8998	1.8903	1.8879
2851	1.8284	1.8605	1.8587
2852	1.8747	1.8776	1.8761
2853	1.947	1.9498	1.9486
2854	2.0432	2.0422	2.0413
2855	2.0325	2.033	2.0323
2856	2.1203	2.1206	2.1202
2857	1.9989	1.9998	1.9995
2858	2.0131	2.0138	2.0134
2859	2.0831	2.084	2.0825
2860	2.1822	2.1861	2.1805
2861	2.213	2.2189	2.2087
2862	1.7491	2.003	1.9878
2863	2.0223	2.0264	2.0312
2864	1.8864	1.9855	2.0056
2865	2.0423	1.9149	2.0055
2866	2.0445	2.0655	2.0441
2867	2.0577	1.3706	1.9678
2868	2.0563	2.0167	2.021
2869	1.7076	1.144	1.9273
2870	0.971	0.9694	0.968
2871	0.9591	0.9568	0.9546
2872	0.8134	0.811	0.8098
2873	0.6827	0.6807	0.6802
2874	0.46	0.4592	0.4594
2875	0.4175	0.4172	0.4175
2876	0.3006	0.3007	0.3008
2877	0.2363	0.2368	0.2368
2878	0.1875	0.1804	0.1855
2879	0.1834	0	0
2880	0	0	0
2881	0	0	0
2882	0	0	0
2883	0	0	0
2884	0	0	0
2885	0	0	0
2886	0	0	0
2887	0	0	0
2888	0	0	0
2889	0	0	0
2890	0	0	0
2891	0	0	0
2892	0	0	0
2893	0	0	0
2894	0.2078	0	0
2895	0.1992	0	0
2896	0.197	0.201	0.2011
2897	0.2113	0.2167	0.2167
2898	0.2756	0.267	0.267
2899	0.3252	0.3244	0.3243
2900	0.3433	0.3446	0.3445
2901	0.388	0.3904	0.3903
2902	0.4379	0.4448	0.4447
2903	0.4074	0.4171	0.4171
2904	0.4628	0.4833	0.4833
2905	0.5023	0.5373	0.5373
2906	0.5517	0.6016	0.6017
2907	0.5456	0.6013	0.6017
2908	0.5929	0.661	0.661
2909	0.6508	0.7209	0.7203
2910	0.6998	0.7594	0.7609
2911	0.9771	1.768	1.7743
2912	1.6899	1.7075	1.7057
2913	1.6206	1.7672	1.7651

2914	1.7977	1.8602	1.8577
2915	1.8052	1.8497	1.8464
2916	1.8251	1.8583	1.8548
2917	1.8098	1.8247	1.8219
2918	1.9064	1.9201	1.9178
2919	1.8594	1.8664	1.8647
2920	1.9226	1.9263	1.9251
2921	2.0645	2.0677	2.0666
2922	2.0253	2.0275	2.0268
2923	2.203	2.2052	2.2047
2924	2.1385	2.1401	2.1398
2925	2.053	2.0543	2.054
2926	2.0746	2.0758	2.0749
2927	2.1953	2.1968	2.1932
2928	2.1767	2.1769	2.1722
2929	1.9957	1.9833	1.9911
2930	2.0468	2.0463	2.059
2931	2.0387	1.3588	2.0375
2932	1.9891	1.3165	1.9812
2933	2.0676	2.0952	2.0705
2934	2.038	1.7755	2.0293
2935	2.0216	2.0204	2.0204
2936	1.3407	1.5716	2.0254
2937	1.0295	1.0286	1.0241
2938	0.9703	0.9682	0.9647
2939	0.8541	0.8515	0.8491
2940	0.7318	0.7294	0.7281
2941	0.4906	0.4893	0.4892
2942	0.4257	0.425	0.4252
2943	0.2832	0.2833	0.2835
2944	0.2632	0.2635	0.2635
2945	0.1878	0.1857	0.1816
2946	0	0.1747	0
2947	0	0	0
2948	0	0	0
2949	0	0	0
2950	0	0	0
2951	0	0	0
2952	0	0	0
2953	0	0	0
2954	0	0	0
2955	0	0	0
2956	0	0	0
2957	0	0	0
2958	0	0	0
2959	0	0	0
2960	0	0	0
2961	0.1945	0	0
2962	0.19	0	0
2963	0.1911	0.1818	0.1818
2964	0.1933	0.206	0.2059
2965	0.2644	0.2501	0.2501
2966	0.3074	0.3092	0.3091
2967	0.3349	0.3361	0.336
2968	0.353	0.3544	0.3544
2969	0.4346	0.4405	0.4404
2970	0.3853	0.3941	0.3941
2971	0.4343	0.4541	0.4541
2972	0.4595	0.4862	0.4863
2973	0.5082	0.5527	0.5529
2974	0.5498	0.6134	0.6136
2975	0.5596	0.6266	0.6268
2976	0.6064	0.6794	0.6793
2977	0.6603	0.735	0.7351
2978	0.8516	0.9179	0.9211
2979	1.6109	1.6551	1.6572
2980	1.5522	1.7116	1.713
2981	1.7258	1.7929	1.7922
2982	1.7758	1.8367	1.8336
2983	1.7661	1.7966	1.7928
2984	1.8964	1.9166	1.913
2985	1.9357	1.9497	1.9468
2986	1.9022	1.9109	1.9089
2987	1.9617	1.9665	1.9652
2988	2.0759	2.0798	2.0786
2989	2.1049	2.1078	2.1068
2990	2.188	2.1901	2.1894
2991	2.1985	2.2005	2.2
2992	2.1829	2.1846	2.1846
2993	2.0338	2.0351	2.0349
2994	2.1252	2.1259	2.1245
2995	2.1479	2.1422	2.1443
2996	1.808	1.8	2.0703
2997	2.0444	1.1918	1.3627
2998	1.3311	1.6657	1.9979
2999	1.7409	1.8752	1.7435
3000	1.3632	2.036	2.0447
3001	2.0414	2.0376	2.0465
3002	2.0833	2.0805	1.3888
3003	2.0717	2.0673	2.0707
3004	1.0517	1.0535	1.0458
3005	1.0097	1.0092	1.0013
3006	0.8815	0.8791	0.8751
3007	0.7376	0.7352	0.7318

3008	0.5777	0.5758	0.575
3009	0.4212	0.4203	0.4202
3010	0.296	0.296	0.2962
3011	0.2586	0.2587	0.2588
3012	0.1806	0.1845	0.1804
3013	0.1741	0.1739	0.1739
3014	0	0	0
3015	0	0	0
3016	0	0	0
3017	0	0	0
3018	0	0	0
3019	0	0	0
3020	0	0	0
3021	0	0	0
3022	0	0	0
3023	0	0	0
3024	0	0	0
3025	0	0	0
3026	0	0	0
3027	0	0	0
3028	0.1637	0	0
3029	0.1795	0	0
3030	0.1861	0.1607	0.1607
3031	0.1857	0.197	0.197
3032	0.2581	0.2409	0.2409
3033	0.2934	0.2968	0.2968
3034	0.307	0.307	0.307
3035	0.344	0.3455	0.3454
3036	0.3817	0.3859	0.3858
3037	0.3866	0.3951	0.395
3038	0.4359	0.4542	0.4543
3039	0.4301	0.4547	0.4547
3040	0.4772	0.52	0.5202
3041	0.5495	0.6128	0.6131
3042	0.553	0.6239	0.6241
3043	0.5805	0.6597	0.6595
3044	0.6379	0.7228	0.7222
3045	0.7323	0.8075	0.8082
3046	1.6176	1.6853	1.6913
3047	1.7403	1.7327	1.7322
3048	1.7759	1.8839	1.8857
3049	1.7936	1.8582	1.8547
3050	1.8685	1.9151	1.9105
3051	1.9589	1.9856	1.9816
3052	1.9781	1.9943	1.9911
3053	1.9839	1.9931	1.9911
3054	1.9984	2.0054	2.0037
3055	2.1129	2.1175	2.116
3056	2.1073	2.1104	2.1092
3057	2.1399	2.1422	2.1413
3058	2.1838	2.1858	2.1852
3059	2.2974	2.2993	2.299
3060	2.1775	2.179	2.1792
3061	2.1203	2.1206	2.1212
3062	2.1406	2.1376	2.1399
3063	2.0233	2.023	2.0244
3064	2.0031	1.7033	1.9999
3065	1.9625	1.8753	1.8991
3066	1.1736	1.9611	1.9742
3067	1.9856	1.9841	1.9805
3068	2.0998	2.0981	2.1106
3069	2.0061	2.0064	2.0098
3070	2.0411	2.0452	2.0469
3071	1.5932	1.5986	1.5955
3072	1.0219	1.0223	1.0162
3073	0.9325	0.9311	0.9234
3074	0.7223	0.7204	0.7149
3075	0.6451	0.643	0.6405
3076	0.4345	0.4335	0.4332
3077	0.3086	0.3084	0.3085
3078	0.2651	0.2651	0.2652
3079	0.1848	0.1826	0.179
3080	0	0	0
3081	0	0	0
3082	0	0	0
3083	0	0	0
3084	0	0	0
3085	0	0	0
3086	0	0	0
3087	0	0	0
3088	0	0	0
3089	0	0	0
3090	0	0	0
3091	0	0	0
3092	0	0	0
3093	0	0	0
3094	0	0	0
3095	0	0	0
3096	0.174	0	0
3097	0.1919	0	0
3098	0.186	0.189	0.189
3099	0.2466	0.2279	0.2279
3100	0.2834	0.287	0.287
3101	0.2846	0.2835	0.2835

3102	0.3452	0.3467	0.3466
3103	0.3565	0.3599	0.3599
3104	0.3913	0.4007	0.4007
3105	0.4185	0.4339	0.4339
3106	0.4293	0.4511	0.4511
3107	0.48	0.5198	0.52
3108	0.5139	0.5674	0.5677
3109	0.5573	0.6326	0.633
3110	0.5796	0.667	0.6671
3111	0.6049	0.6957	0.695
3112	0.712	0.8102	0.8092
3113	0.8996	0.9814	0.9806
3114	1.2094	1.8233	1.8194
3115	1.2611	1.8849	1.8848
3116	1.9045	1.9922	1.9888
3117	1.849	1.8846	1.8803
3118	1.9415	1.9788	1.9751
3119	2.0016	2.018	2.0155
3120	2.0388	2.0485	2.0468
3121	1.994	2.0014	1.9997
3122	2.0328	2.0377	2.0363
3123	2.075	2.0785	2.0772
3124	2.1507	2.153	2.1519
3125	2.1977	2.2	2.1991
3126	2.3367	2.3388	2.3382
3127	2.2143	2.2161	2.2157
3128	2.2179	2.2186	2.219
3129	2.0748	2.074	2.0748
3130	1.9647	1.9673	1.9634
3131	1.9177	1.9079	1.9166
3132	1.9545	1.9333	1.9528
3133	1.6274	1.6895	1.9336
3134	2.0115	2.0091	2.0091
3135	2.0245	2.0224	2.0298
3136	2.0015	1.9984	2.0084
3137	1.9284	1.9301	1.9384
3138	1.7096	1.9559	1.9512
3139	1.0857	1.0843	1.2646
3140	0.8992	0.901	0.8897
3141	0.782	0.7809	0.7723
3142	0.6533	0.6515	0.6474
3143	0.4809	0.4795	0.4785
3144	0.3262	0.3258	0.3259
3145	0.264	0.2641	0.2642
3146	0.2001	0.1939	0.1969
3147	0	0.2026	0
3148	0	0	0
3149	0	0	0
3150	0	0	0
3151	0	0	0
3152	0	0	0
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3155	0	0	0
3156	0	0	0
3157	0	0	0
3158	0	0	0
3159	0	0	0
3160	0	0	0
3161	0	0	0
3162	0	0	0
3163	0.1638	0	0
3164	0.1882	0	0
3165	0.1886	0.1786	0.1786
3166	0.231	0.2133	0.2133
3167	0.2684	0.2693	0.2693
3168	0.2859	0.2846	0.2846
3169	0.3207	0.3222	0.3222
3170	0.34	0.3429	0.3429
3171	0.3856	0.3933	0.3933
3172	0.4124	0.427	0.4271
3173	0.4169	0.438	0.4381
3174	0.477	0.5189	0.519
3175	0.4803	0.5299	0.5302
3176	0.5576	0.6392	0.6396
3177	0.5586	0.6429	0.6431
3178	0.5903	0.6899	0.6894
3179	0.7161	0.8358	0.8342
3180	0.8139	0.9098	0.909
3181	1.0696	1.9052	1.9175
3182	1.6906	1.8051	1.8067
3183	1.8691	1.9463	1.9481
3184	1.7993	1.8395	1.837
3185	1.8642	1.8989	1.8963
3186	2.0235	2.0391	2.0376
3187	2.066	2.0783	2.0771
3188	2.0378	2.0463	2.0451
3189	2.0619	2.0678	2.0665
3190	2.0803	2.0841	2.0829
3191	2.1635	2.1657	2.1647
3192	2.1648	2.1671	2.1662
3193	2.4127	2.4149	2.4141
3194	2.2434	2.2453	2.2448
3195	2.3414	2.3426	2.3424

3196	2.1539	2.1534	2.1543
3197	2.0653	2.0663	2.0651
3198	1.91	1.907	1.9119
3199	1.9059	1.9138	1.8267
3200	1.8785	1.8836	1.8872
3201	2.05	2.0485	2.0471
3202	2.0592	2.058	2.0585
3203	1.9919	1.9887	1.9951
3204	2.0026	1.9974	2.0092
3205	1.9315	1.9281	1.9326
3206	1.1634	1.7247	1.3018
3207	0.8882	0.8915	0.8796
3208	0.8534	0.8557	0.8448
3209	0.6985	0.6968	0.692
3210	0.4968	0.4955	0.4944
3211	0.3519	0.3513	0.3512
3212	0.265	0.2651	0.265
3213	0.2152	0.2114	0.2136
3214	0	0.2115	0
3215	0	0	0
3216	0	0	0
3217	0	0	0
3218	0	0	0
3219	0	0	0
3220	0	0	0
3221	0	0	0
3222	0	0	0
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3224	0	0	0
3225	0	0	0
3226	0	0	0
3227	0	0	0
3228	0	0	0
3229	0	0	0
3230	0.1676	0	0
3231	0.182	0	0
3232	0.1784	0.1761	0.1762
3233	0.218	0.2011	0.2011
3234	0.2556	0.254	0.254
3235	0.2688	0.2683	0.2683
3236	0.3159	0.3172	0.3172
3237	0.3233	0.3251	0.3251
3238	0.3761	0.3832	0.3832
3239	0.3972	0.4084	0.4084
3240	0.4154	0.4375	0.4375
3241	0.4656	0.5052	0.5053
3242	0.4625	0.5101	0.5103
3243	0.5427	0.6241	0.6245
3244	0.5281	0.6124	0.6126
3245	0.5808	0.687	0.6871
3246	0.6618	0.7826	0.7819
3247	0.8109	1.0964	0.9394
3248	0.9536	1.7957	1.0766
3249	1.736	1.7494	1.5404
3250	1.8438	1.8567	1.864
3251	1.8203	1.8445	1.8482
3252	1.8461	1.8637	1.8633
3253	1.9709	1.9888	1.9891
3254	2.0244	2.0388	2.0387
3255	2.0124	2.023	2.0226
3256	2.0327	2.0398	2.0391
3257	2.0303	2.0338	2.0328
3258	2.1441	2.1469	2.1461
3259	2.1845	2.1867	2.1859
3260	2.306	2.308	2.3073
3261	2.344	2.3463	2.3455
3262	2.2954	2.2974	2.2967
3263	2.1809	2.1813	2.1814
3264	2.0748	2.074	2.0745
3265	1.9688	1.9699	1.967
3266	1.9237	1.3126	1.9227
3267	1.8986	1.9028	1.9
3268	2.0236	2.0227	2.0172
3269	2.1373	2.1368	2.1357
3270	2.0572	2.0556	2.056
3271	2.0082	2.0047	2.0055
3272	2.0513	2.0409	2.0456
3273	1.6293	1.9367	1.9324
3274	0.9333	0.9433	0.9315
3275	0.8368	0.8431	0.8348
3276	0.7548	0.7534	0.7492
3277	0.5171	0.5158	0.5149
3278	0.36	0.3594	0.3593
3279	0.2634	0.2635	0.2634
3280	0.2126	0.2092	0.2142
3281	0	0.2057	0.2057
3282	0	0	0
3283	0	0	0
3284	0	0	0
3285	0	0	0
3286	0	0	0
3287	0	0	0
3288	0	0	0
3289	0	0	0

3290	0	0	0
3291	0	0	0
3292	0	0	0
3293	0	0	0
3294	0	0	0
3295	0	0	0
3296	0	0	0
3297	0	0	0
3298	0.1845	0	0
3299	0.1782	0	0
3300	0.2091	0.196	0.1961
3301	0.2417	0.2368	0.2368
3302	0.2602	0.2606	0.2606
3303	0.2921	0.2927	0.2927
3304	0.3255	0.3276	0.3276
3305	0.3644	0.369	0.369
3306	0.3743	0.3842	0.3842
3307	0.4184	0.4419	0.442
3308	0.4372	0.4709	0.4711
3309	0.4676	0.5183	0.5186
3310	0.5148	0.5901	0.5904
3311	0.5188	0.6047	0.6049
3312	0.5287	0.626	0.626
3313	0.676	0.813	0.8127
3314	0.7371	0.8723	0.8726
3315	0.9287	1.2318	1.0431
3316	1.1416	1.7682	1.4895
3317	1.8016	1.8587	1.7301
3318	1.2932	1.9358	1.9403
3319	1.2682	1.8885	1.8958
3320	1.9467	1.964	1.9674
3321	2.0279	2.0403	2.0441
3322	2.0332	2.0448	2.0466
3323	1.9909	1.9999	2.0006
3324	2.0471	2.0521	2.0521
3325	2.1048	2.1081	2.1076
3326	2.1952	2.1974	2.1968
3327	2.2458	2.2478	2.2472
3328	2.3234	2.3254	2.3248
3329	2.3047	2.3069	2.3061
3330	2.4077	2.4104	2.4095
3331	2.1065	2.1069	2.1065
3332	1.9915	1.9916	1.9876
3333	1.8945	1.9024	1.8783
3334	1.3227	1.9608	1.9773
3335	2.0054	2.0061	2.0024
3336	2.2344	2.2342	2.2326
3337	2.0697	2.0685	2.068
3338	2.0132	2.0106	2.0097
3339	1.9927	1.9973	1.9874
3340	1.91	1.9233	1.9135
3341	1.5579	1.5716	1.5636
3342	0.8309	0.8345	0.8306
3343	0.796	0.7956	0.794
3344	0.561	0.5601	0.5601
3345	0.3826	0.3822	0.3821
3346	0.2571	0.2571	0.2571
3347	0.2144	0.2106	0.2161
3348	0.2097	0.2096	0
3349	0	0	0
3350	0	0	0
3351	0	0	0
3352	0	0	0
3353	0	0	0
3354	0	0	0
3355	0	0	0
3356	0	0	0
3357	0	0	0
3358	0	0	0
3359	0	0	0
3360	0	0	0
3361	0	0	0
3362	0	0	0
3363	0	0	0
3364	0	0	0
3365	0.2012	0	0
3366	0.18	0	0
3367	0.2047	0.1921	0.1921
3368	0.2264	0.2201	0.2201
3369	0.2528	0.2543	0.2543
3370	0.2817	0.2821	0.2821
3371	0.3329	0.3345	0.3345
3372	0.3538	0.3578	0.3579
3373	0.3558	0.3636	0.3636
3374	0.4011	0.4197	0.4197
3375	0.4308	0.4644	0.4645
3376	0.4677	0.5224	0.5226
3377	0.4879	0.5548	0.555
3378	0.4984	0.5836	0.5836
3379	0.5233	0.63	0.6298
3380	0.6702	0.8233	0.8231
3381	0.7116	0.8607	0.8611
3382	0.9178	1.1062	1.1933
3383	1.0097	1.1043	1.8153

3384	1.0886	1.9447	1.9159
3385	1.1469	1.7087	1.9618
3386	1.2911	1.9259	1.9295
3387	1.9189	2.0278	2.025
3388	2.0413	2.0509	2.0633
3389	2.0514	2.0618	2.0699
3390	2.048	2.058	2.06
3391	2.0617	2.0683	2.0691
3392	2.133	2.1363	2.1364
3393	2.1718	2.1744	2.1741
3394	2.2836	2.2861	2.2855
3395	2.2819	2.2837	2.2831
3396	2.3895	2.3909	2.3905
3397	2.4125	2.4144	2.4141
3398	2.2357	2.2383	2.2379
3399	2.1067	2.1093	2.107
3400	1.9276	1.9215	1.9307
3401	1.655	1.2855	1.6493
3402	2.0279	2.0287	2.0265
3403	2.1755	2.1743	2.1747
3404	2.0777	2.0766	2.0762
3405	2.1302	2.1271	2.1267
3406	1.327	1.7246	1.3255
3407	1.9638	1.1579	1.8802
3408	1.9729	1.8719	1.3247
3409	1.5394	0.9276	0.9263
3410	0.8185	0.8193	0.8203
3411	0.5754	0.575	0.5748
3412	0.4233	0.4232	0.4229
3413	0.2571	0.2573	0.2572
3414	0.2047	0.2048	0.2047
3415	0.1803	0.1816	0.18
3416	0	0	0
3417	0	0	0
3418	0	0	0
3419	0	0	0
3420	0	0	0
3421	0	0	0
3422	0	0	0
3423	0	0	0
3424	0	0	0
3425	0	0	0
3426	0	0	0
3427	0	0	0
3428	0	0	0
3429	0	0	0
3430	0	0	0
3431	0	0	0
3432	0.1971	0	0
3433	0.1789	0	0
3434	0.2031	0.1843	0.1842
3435	0.2219	0.2142	0.2142
3436	0.2357	0.237	0.237
3437	0.2804	0.2811	0.2811
3438	0.3018	0.3028	0.3028
3439	0.3534	0.357	0.357
3440	0.3469	0.3549	0.355
3441	0.3689	0.3843	0.3844
3442	0.4173	0.4466	0.4468
3443	0.4799	0.5321	0.5323
3444	0.476	0.5425	0.5427
3445	0.4785	0.5662	0.5661
3446	0.5179	0.6263	0.626
3447	0.6401	0.7959	0.7953
3448	0.7282	0.8966	0.8969
3449	0.8091	0.9753	0.9767
3450	0.9852	1.125	1.1229
3451	1.0667	1.7207	1.2059
3452	1.031	1.7331	1.3668
3453	2.072	2.052	2.0546
3454	1.1562	2.0718	2.0724
3455	2.093	2.1269	2.1277
3456	2.1269	2.1325	2.1433
3457	2.096	2.0985	2.1042
3458	2.0539	2.0581	2.0597
3459	2.1605	2.1641	2.1645
3460	2.1582	2.162	2.1617
3461	2.311	2.3137	2.3133
3462	2.3552	2.357	2.3565
3463	2.422	2.423	2.4227
3464	2.4125	2.4128	2.4129
3465	2.4358	2.4371	2.4376
3466	2.194	2.1967	2.1972
3467	1.9599	1.9579	1.9595
3468	1.8134	1.1303	1.6027
3469	2.0209	2.0191	2.0191
3470	2.0722	2.0694	2.0713
3471	2.076	2.073	2.0743
3472	2.2603	2.2556	2.2568
3473	1.9392	1.933	1.9364
3474	1.7215	1.6442	1.7084
3475	1.9939	1.9586	1.8986
3476	1.2846	1.5039	1.1394
3477	0.8842	0.8844	0.8849

3478	0.6383	0.6385	0.638
3479	0.4422	0.4425	0.4422
3480	0.2715	0.2717	0.2717
3481	0	0.1936	0.1984
3482	0.1733	0.1733	0.1733
3483	0.1663	0	0
3484	0	0	0
3485	0	0	0
3486	0	0	0
3487	0	0	0
3488	0	0	0
3489	0	0	0
3490	0	0	0
3491	0	0	0
3492	0	0	0
3493	0	0	0
3494	0	0	0
3495	0	0	0
3496	0	0	0
3497	0	0	0
3498	0	0	0
3499	0.1961	0	0
3500	0.1802	0	0
3501	0.1934	0.1777	0.1777
3502	0.215	0.2052	0.2052
3503	0.2212	0.2256	0.2256
3504	0.2694	0.2702	0.2702
3505	0.2828	0.283	0.283
3506	0.3459	0.3496	0.3497
3507	0.344	0.3504	0.3504
3508	0.3697	0.385	0.3851
3509	0.3884	0.4131	0.4131
3510	0.4588	0.5082	0.5083
3511	0.4785	0.5484	0.5485
3512	0.4751	0.5626	0.5625
3513	0.489	0.5942	0.5938
3514	0.6314	0.7959	0.7949
3515	0.7291	0.9233	0.9227
3516	0.7389	0.9078	0.9084
3517	0.9468	1.1148	1.1177
3518	1.0133	1.1362	1.1403
3519	1.0405	1.7195	1.2011
3520	1.3968	2.1243	2.1257
3521	1.7226	2.0821	2.0866
3522	2.0662	2.0743	2.0743
3523	2.1293	2.1367	2.1287
3524	2.1004	2.0897	2.097
3525	2.0602	2.0643	2.0663
3526	2.1437	2.1489	2.1494
3527	2.1367	2.1407	2.1407
3528	2.2354	2.2382	2.2379
3529	2.3377	2.3395	2.3391
3530	2.3487	2.3494	2.3494
3531	2.4355	2.4354	2.4358
3532	2.4951	2.4946	2.4951
3533	2.2885	2.2885	2.2904
3534	2.0711	2.0707	2.0723
3535	1.6694	1.8195	1.8068
3536	1.9899	1.9886	1.9914
3537	1.9347	1.9341	1.9308
3538	2.1037	2.0983	2.1011
3539	2.2521	2.2497	2.2497
3540	2.0168	2.0102	2.0135
3541	1.8762	1.7764	1.877
3542	1.1663	1.9737	1.8857
3543	1.3777	1.9152	1.8035
3544	0.9547	0.9534	0.9533
3545	0.7018	0.7018	0.7016
3546	0.4861	0.4865	0.4862
3547	0.2935	0.2938	0.2937
3548	0.1916	0.1925	0.1944
3549	0	0.1894	0.1904
3550	0	0.1615	0
3551	0	0	0
3552	0	0	0
3553	0	0	0
3554	0	0	0
3555	0	0	0
3556	0	0	0
3557	0	0	0
3558	0	0	0
3559	0	0	0
3560	0	0	0
3561	0	0	0
3562	0	0	0
3563	0	0	0
3564	0	0	0
3565	0	0	0
3566	0.1973	0	0
3567	0.1917	0	0
3568	0.187	0.1702	0.1702
3569	0.2024	0.2011	0.2011
3570	0.2184	0.2226	0.2226
3571	0.2486	0.2497	0.2497

3572	0.2662	0.2657	0.2657
3573	0.3259	0.3283	0.3283
3574	0.3288	0.3355	0.3356
3575	0.3724	0.3879	0.3879
3576	0.3678	0.388	0.3881
3577	0.4448	0.4896	0.4898
3578	0.454	0.514	0.5141
3579	0.4938	0.5905	0.5904
3580	0.4774	0.5799	0.5796
3581	0.5994	0.7594	0.7583
3582	0.7248	0.9399	0.9383
3583	0.6992	0.8767	0.8764
3584	0.8482	1.0303	1.0317
3585	0.984	1.1002	1.1021
3586	0.9902	1.0742	1.0802
3587	1.1733	2.1063	2.1028
3588	2.0054	1.4018	1.4135
3589	2.1427	1.4078	1.871
3590	2.0691	2.0601	2.0682
3591	1.8618	2.1273	2.1238
3592	2.0975	2.1017	2.1032
3593	2.127	2.1303	2.1318
3594	2.1813	2.1851	2.1852
3595	2.1355	2.1386	2.1382
3596	2.382	2.3839	2.3838
3597	2.2878	2.2887	2.289
3598	2.5203	2.5198	2.5209
3599	2.4602	2.4595	2.4602
3600	2.5179	2.5175	2.5184
3601	2.2107	2.2115	2.2133
3602	1.9131	1.9154	1.8825
3603	1.9641	1.9681	1.9655
3604	1.9048	1.2773	1.9074
3605	2.0452	2.0361	2.0463
3606	2.2532	2.2499	2.2507
3607	2.1561	2.1541	2.1524
3608	1.9598	1.9539	1.9549
3609	1.1157	1.8828	1.8819
3610	1.119	1.355	2.0052
3611	1.6186	1.5766	1.5836
3612	0.8042	0.8033	0.8036
3613	0.5146	0.5148	0.5145
3614	0.3166	0.3172	0.3169
3615	0.2014	0.2016	0.2014
3616	0.1907	0.1884	0.1914
3617	0.1881	0	0.1879
3618	0	0	0
3619	0	0	0
3620	0	0	0
3621	0	0	0
3622	0	0	0
3623	0	0	0
3624	0	0	0
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3627	0	0	0
3628	0	0	0
3629	0	0	0
3630	0	0	0
3631	0	0	0
3632	0	0	0
3633	0.2064	0	0
3634	0.1848	0	0
3635	0.1793	0	0
3636	0.188	0.1931	0.1931
3637	0.2054	0.2101	0.2101
3638	0.2282	0.2296	0.2296
3639	0.2521	0.2512	0.2512
3640	0.2945	0.2957	0.2957
3641	0.3288	0.3358	0.3359
3642	0.3427	0.3537	0.3538
3643	0.3705	0.3945	0.3946
3644	0.4091	0.4451	0.4453
3645	0.4311	0.4873	0.4874
3646	0.4953	0.5911	0.5911
3647	0.4664	0.571	0.5707
3648	0.5785	0.7423	0.7412
3649	0.6377	0.8218	0.8206
3650	0.7021	0.896	0.8952
3651	0.7497	0.9321	0.9321
3652	0.9447	1.1253	1.1273
3653	0.9427	1.0482	1.052
3654	1.171	2.1163	2.0967
3655	1.1527	1.203	1.6419
3656	2.0417	1.1952	2.0359
3657	2.1373	2.1374	2.1308
3658	2.0455	2.0456	2.0474
3659	2.0828	2.0741	2.0813
3660	2.0766	2.0784	2.0816
3661	2.159	2.1619	2.1629
3662	2.0879	2.0909	2.0909
3663	2.2987	2.3005	2.3007
3664	2.2164	2.2173	2.2181
3665	2.4559	2.4555	2.4572

3666	2.4953	2.4942	2.4956
3667	2.5053	2.5044	2.505
3668	2.312	2.3144	2.3124
3669	1.9673	1.9697	1.9635
3670	2.026	2.029	2.0268
3671	2.0127	1.7545	1.3346
3672	1.9795	1.9315	1.9733
3673	2.0974	2.0794	2.0802
3674	2.3143	2.3133	2.3103
3675	2.0305	2.0273	2.0257
3676	1.8231	1.8114	1.8123
3677	1.7821	1.2361	1.0788
3678	1.8828	1.6277	1.8681
3679	0.9536	1.4065	1.0474
3680	0.563	0.5635	0.563
3681	0.3454	0.3459	0.3456
3682	0.2035	0.2039	0.2038
3683	0.1854	0.1856	0.1855
3684	0	0	0.1822
3685	0	0	0
3686	0	0	0
3687	0	0	0
3688	0	0	0
3689	0	0	0
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3695	0	0	0
3696	0	0	0
3697	0	0	0
3698	0	0	0
3699	0	0	0
3700	0.211	0	0
3701	0.1846	0	0
3702	0.1717	0	0
3703	0.1823	0.2021	0.2021
3704	0.1962	0.2019	0.2019
3705	0.2171	0.2194	0.2194
3706	0.2376	0.2364	0.2364
3707	0.2772	0.2777	0.2777
3708	0.3188	0.3242	0.3242
3709	0.3235	0.3341	0.3342
3710	0.3906	0.4155	0.4156
3711	0.3974	0.433	0.4331
3712	0.4233	0.481	0.4812
3713	0.4591	0.5432	0.5433
3714	0.4709	0.5775	0.5772
3715	0.5613	0.7278	0.7268
3716	0.6137	0.8014	0.8002
3717	0.663	0.8656	0.8642
3718	0.7416	0.942	0.9412
3719	0.8405	1.021	1.0205
3720	0.8755	1.0071	1.0072
3721	1.1471	1.1998	1.1582
3722	1.1223	1.6492	1.6476
3723	1.8087	2.0475	2.0765
3724	1.7998	2.0582	2.0626
3725	2.0567	2.0547	2.047
3726	2.0517	2.0387	2.049
3727	2.0527	2.0539	2.0643
3728	2.1117	2.1132	2.1162
3729	2.1168	2.1194	2.1201
3730	2.2402	2.2421	2.243
3731	2.1678	2.1688	2.17
3732	2.3426	2.3423	2.3441
3733	2.543	2.5419	2.5437
3734	2.3682	2.3668	2.3684
3735	2.4798	2.4797	2.4793
3736	2.2149	2.2165	2.2115
3737	1.8447	2.1024	2.1082
3738	2.0678	2.058	1.8017
3739	1.2213	1.9919	1.8282
3740	1.8045	1.3823	1.7578
3741	2.3943	2.3936	2.3934
3742	2.0514	2.0505	2.0484
3743	1.824	1.8206	1.8199
3744	1.0347	1.1795	1.4522
3745	1.0057	1.1613	1.6985
3746	1.3254	1.5385	1.5374
3747	0.7162	0.7183	0.715
3748	0.3693	0.3698	0.3695
3749	0.2132	0.2135	0.2134
3750	0.1882	0.1886	0.1885
3751	0.1776	0	0.1773
3752	0	0	0
3753	0	0	0
3754	0	0	0
3755	0	0	0
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3758	0	0	0
3759	0	0	0

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3762	0	0	0
3763	0	0	0
3764	0	0	0
3765	0	0	0
3766	0	0	0
3767	0.2016	0	0
3768	0.1824	0	0
3769	0.1748	0	0
3770	0.1822	0.2045	0.2045
3771	0.1912	0.1958	0.1959
3772	0.2071	0.2087	0.2087
3773	0.2272	0.2248	0.2248
3774	0.2617	0.2624	0.2624
3775	0.2968	0.3	0.3001
3776	0.328	0.3392	0.3392
3777	0.3567	0.3794	0.3795
3778	0.4025	0.4408	0.441
3779	0.4101	0.465	0.4651
3780	0.4329	0.5082	0.5083
3781	0.4561	0.5638	0.5637
3782	0.5526	0.7183	0.7175
3783	0.5854	0.7689	0.7678
3784	0.6534	0.8696	0.8681
3785	0.725	0.9453	0.9438
3786	0.7557	0.9531	0.952
3787	0.8239	0.976	0.9761
3788	1.0363	1.1566	1.1591
3789	1.1206	1.912	1.1381
3790	1.9742	1.3932	2.1021
3791	2.0578	1.3914	2.0797
3792	2.0573	2.0418	2.0539
3793	2.0661	2.0667	2.0637
3794	2.0098	2.0106	2.0196
3795	2.0641	2.0669	2.0701
3796	2.1428	2.1452	2.1462
3797	2.2169	2.2189	2.2214
3798	2.1072	2.1076	2.1091
3799	2.1974	2.1973	2.1986
3800	2.4746	2.4738	2.4752
3801	2.5006	2.499	2.501
3802	2.5158	2.5133	2.5161
3803	2.4502	2.4488	2.4491
3804	2.0783	2.0798	2.0805
3805	2.0951	2.0925	2.0859
3806	1.5358	2.1156	2.0903
3807	1.1187	1.1178	1.1183
3808	2.1569	2.1539	2.1516
3809	2.3727	2.3693	2.3689
3810	1.9856	1.9821	1.9808
3811	1.4377	1.1614	1.6689
3812	1.4277	1.4869	1.7133
3813	1.6737	1.6759	1.6721
3814	0.7357	0.738	0.7357
3815	0.4285	0.4292	0.4289
3816	0.2583	0.2586	0.2586
3817	0.1811	0.1814	0.1814
3818	0	0	0.1691
3819	0	0	0
3820	0	0	0
3821	0	0	0
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3823	0	0	0
3824	0	0	0
3825	0	0	0
3826	0	0	0
3827	0	0	0
3828	0	0	0
3829	0	0	0
3830	0	0	0
3831	0	0	0
3832	0	0	0
3833	0.179	0	0
3834	0.1936	0	0
3835	0.1849	0	0
3836	0.1839	0	0
3837	0.1863	0.2142	0.2142
3838	0.1901	0.1919	0.1918
3839	0.2024	0.1948	0.1948
3840	0.2194	0.218	0.218
3841	0.2414	0.242	0.242
3842	0.2783	0.281	0.281
3843	0.3117	0.3221	0.3221
3844	0.338	0.3581	0.3582
3845	0.4031	0.443	0.4431
3846	0.4064	0.4605	0.4606
3847	0.4107	0.4763	0.4765
3848	0.4379	0.5409	0.5408
3849	0.5339	0.6972	0.6965
3850	0.5617	0.7496	0.7484
3851	0.6078	0.8187	0.8172
3852	0.7084	0.9546	0.9525
3853	0.717	0.9209	0.9193

3854	0.791	0.9577	0.9569
3855	0.9157	1.0585	1.0594
3856	1.0662	1.1703	1.1775
3857	1.137	1.8097	2.0721
3858	2.0712	1.9751	1.9747
3859	2.0423	2.0679	2.0899
3860	1.3216	2.0115	2.0184
3861	2.0695	2.0803	2.0798
3862	1.3525	2.0712	2.0698
3863	2.1845	2.1869	2.189
3864	2.1356	2.1368	2.1386
3865	2.2428	2.2429	2.2439
3866	2.1496	2.1497	2.1506
3867	2.3248	2.3242	2.3252
3868	2.5033	2.5024	2.5037
3869	2.5034	2.5018	2.5037
3870	2.4999	2.4969	2.4999
3871	2.3511	2.3498	2.3518
3872	2.0137	2.0121	2.0155
3873	1.9802	2.0778	2.0687
3874	1.3994	1.5359	1.1529
3875	2.0636	2.0341	2.1141
3876	2.3395	2.3355	2.3377
3877	2.2357	2.2331	2.2328
3878	1.7563	1.7549	1.7545
3879	1.549	1.652	1.1321
3880	1.7652	1.7649	1.7623
3881	1.3254	1.3257	1.3255
3882	0.4939	0.494	0.4942
3883	0.3132	0.3133	0.3135
3884	0.1922	0.1924	0.1924
3885	0.1535	0	0.1533
3886	0	0	0
3887	0	0	0
3888	0	0	0
3889	0	0	0
3890	0	0	0
3891	0	0	0
3892	0	0	0
3893	0	0	0
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3895	0	0	0
3896	0	0	0
3897	0	0	0
3898	0	0	0
3899	0	0	0
3900	0	0	0
3901	0.1821	0	0
3902	0.1878	0	0
3903	0.1922	0.1585	0.1585
3904	0.1959	0.2287	0.2287
3905	0.1914	0.1904	0.1919
3906	0	0.1831	0.1847
3907	0.199	0.1987	0.1986
3908	0.2193	0.2196	0.2196
3909	0.2617	0.2641	0.2642
3910	0.291	0.2979	0.298
3911	0.3312	0.3507	0.3508
3912	0.3929	0.4299	0.43
3913	0.3999	0.4512	0.4514
3914	0.3981	0.4681	0.4683
3915	0.4058	0.4952	0.4953
3916	0.5052	0.6604	0.66
3917	0.5388	0.7255	0.7245
3918	0.5787	0.7929	0.7914
3919	0.6617	0.9091	0.9069
3920	0.7173	0.9495	0.9473
3921	0.7076	0.8822	0.8807
3922	0.8271	0.9768	0.976
3923	1.0218	1.1398	1.6856
3924	1.8804	1.9707	2.006
3925	1.9732	2.0062	1.9204
3926	2.0274	2.0548	2.0743
3927	1.2153	2.0488	2.0866
3928	1.7886	2.0692	2.0662
3929	1.7746	2.0406	2.0407
3930	2.1693	2.1695	2.173
3931	2.0776	2.0786	2.0787
3932	2.265	2.2652	2.2652
3933	2.1486	2.149	2.1493
3934	2.2251	2.2248	2.2253
3935	2.408	2.4077	2.4084
3936	2.4995	2.4992	2.4998
3937	2.5205	2.5195	2.5207
3938	2.4813	2.4793	2.4813
3939	2.1826	2.1801	2.1832
3940	1.9395	1.9402	1.9405
3941	1.3229	1.3157	1.3427
3942	2.0395	2.0006	2.0249
3943	2.18	2.1733	2.1797
3944	2.1698	2.1686	2.17
3945	1.981	1.9819	1.9801
3946	1.6984	1.6979	1.6962
3947	1.726	1.1733	1.6423

3948	1.6552	1.1301	1.624
3949	0.6026	0.6018	0.6027
3950	0.3558	0.3556	0.356
3951	0.2293	0.2294	0.2296
3952	0	0.1396	0
3953	0	0	0
3954	0	0	0
3955	0	0	0
3956	0	0	0
3957	0	0	0
3958	0	0	0
3959	0	0	0
3960	0	0	0
3961	0	0	0
3962	0	0	0
3963	0	0	0
3964	0	0	0
3965	0	0	0
3966	0	0	0
3967	0	0	0
3968	0	0	0
3969	0	0	0
3970	0.1998	0.2257	0.2257
3971	0.1921	0.2198	0.2198
3972	0.1817	0.1844	0.183
3973	0.1755	0.1746	0.1765
3974	0.1873	0.1862	0.1872
3975	0.1986	0.1988	0.1988
3976	0.2391	0.241	0.241
3977	0.272	0.2778	0.2778
3978	0.3231	0.3424	0.3425
3979	0.3615	0.3955	0.3957
3980	0.3988	0.4525	0.4527
3981	0.3916	0.4548	0.455
3982	0.3911	0.4754	0.4756
3983	0.4799	0.6275	0.6272
3984	0.5089	0.6847	0.6839
3985	0.5506	0.7652	0.7638
3986	0.6409	0.8994	0.8973
3987	0.7214	0.9958	0.9931
3988	0.6788	0.866	0.8642
3989	0.7517	0.9021	0.9001
3990	0.9478	1.0759	1.0736
3991	1.0093	1.6981	1.3062
3992	1.9759	1.9889	1.9944
3993	2.0132	2.0521	2.0644
3994	1.1548	2.0167	1.7635
3995	1.6667	2.0073	1.3405
3996	1.948	1.9497	1.9579
3997	2.0737	2.0768	2.0758
3998	2.045	2.046	2.0447
3999	2.2307	2.2321	2.2299
4000	2.1467	2.1474	2.1471
4001	2.162	2.1622	2.1622
4002	2.2795	2.2796	2.28
4003	2.4509	2.4509	2.4512
4004	2.4486	2.4485	2.4488
4005	2.5659	2.566	2.5662
4006	2.2818	2.2805	2.282
4007	2.0174	2.0144	2.0153
4008	1.8489	1.2488	1.7638
4009	2.0056	1.9987	2.0074
4010	2.0666	2.0605	2.0693
4011	2.03	2.0288	2.0315
4012	1.954	1.9589	1.9565
4013	1.8747	1.8783	1.8739
4014	1.0722	1.1993	1.216
4015	1.2102	1.4886	1.7657
4016	0.6453	0.6446	0.6452
4017	0.4462	0.4456	0.4464
4018	0.2425	0.2424	0.2426
4019	0	0.1644	0
4020	0	0	0
4021	0	0	0
4022	0	0	0
4023	0	0	0
4024	0	0	0
4025	0	0	0
4026	0	0	0
4027	0	0	0
4028	0	0	0
4029	0	0	0
4030	0	0	0
4031	0	0	0
4032	0	0	0
4033	0	0	0
4034	0	0	0
4035	0.1793	0	0
4036	0.1853	0	0
4037	0.1984	0.2314	0.2314
4038	0.2118	0.2169	0.2169
4039	0.1758	0.1771	0.1757
4040	0.1872	0.1894	0.1882
4041	0.1792	0.178	0.178

4042	0.1837	0.1812	0.1821
4043	0.2098	0.2111	0.2112
4044	0.2516	0.2568	0.2568
4045	0.3064	0.3237	0.3238
4046	0.3501	0.3826	0.3827
4047	0.4065	0.4632	0.4635
4048	0.3776	0.4402	0.4405
4049	0.3717	0.4507	0.4509
4050	0.4532	0.5913	0.5912
4051	0.4644	0.6247	0.6241
4052	0.5382	0.7609	0.7595
4053	0.5796	0.8245	0.8227
4054	0.6957	0.9868	0.9841
4055	0.665	0.8831	0.8809
4056	0.6983	0.8721	0.8704
4057	0.8525	0.9823	0.982
4058	0.9992	1.0646	1.069
4059	1.203	2.0851	2.0877
4060	1.896	2.0438	2.0534
4061	1.6097	1.9818	1.9845
4062	1.643	1.9724	1.9822
4063	2.0094	2.0116	1.9137
4064	2.0406	2.0442	2.0486
4065	2.0294	2.0316	2.0295
4066	2.1295	2.1308	2.1294
4067	2.2224	2.224	2.2226
4068	2.2421	2.2431	2.2425
4069	2.1835	2.1841	2.1842
4070	2.4266	2.4271	2.427
4071	2.372	2.3725	2.3723
4072	2.6	2.6014	2.6003
4073	2.5137	2.514	2.5148
4074	2.1958	2.1943	2.1967
4075	1.8389	1.8366	1.8415
4076	2.0826	2.0778	2.0895
4077	1.9198	1.9168	1.9244
4078	2.0344	2.0328	2.0371
4079	1.8601	1.8637	1.8614
4080	1.9012	1.2732	1.8973
4081	1.8017	1.8001	1.798
4082	1.5852	1.7948	1.2753
4083	0.6993	0.6992	0.6992
4084	0.5324	0.5321	0.5324
4085	0.2562	0.2562	0.2563
4086	0.1764	0	0
4087	0	0	0
4088	0	0	0
4089	0	0	0
4090	0	0	0
4091	0	0	0
4092	0	0	0
4093	0	0	0
4094	0	0	0
4095	0	0	0
4096	0	0	0
4097	0	0	0
4098	0	0	0
4099	0	0	0
4100	0	0	0
4101	0	0	0
4102	0	0	0
4103	0.1854	0	0
4104	0.1827	0.2144	0.2144
4105	0.2221	0.2122	0.2122
4106	0.1886	0.1862	0.1862
4107	0.1772	0.1792	0.1791
4108	0.1811	0	0.1828
4109	0	0.1819	0.1818
4110	0	0.1902	0.1902
4111	0.2233	0.2276	0.2276
4112	0.2818	0.2939	0.294
4113	0.3566	0.3893	0.3895
4114	0.3817	0.4331	0.4333
4115	0.3832	0.4503	0.4505
4116	0.362	0.4388	0.439
4117	0.4176	0.5432	0.5432
4118	0.4391	0.5955	0.595
4119	0.5028	0.7144	0.7133
4120	0.5669	0.8217	0.8199
4121	0.6309	0.9138	0.9113
4122	0.6739	0.9382	0.9356
4123	0.6747	0.8733	0.8714
4124	0.7789	0.9344	0.9337
4125	0.9284	1.0084	1.0101
4126	1.0901	2.0458	2.0538
4127	1.9698	2.062	1.3712
4128	1.9669	1.9863	1.9907
4129	1.985	1.9893	1.9999
4130	1.744	2.0063	1.9795
4131	1.9766	2.0108	2.0166
4132	2.0508	2.0528	2.0549
4133	2.0855	2.0868	2.0859
4134	2.2113	2.2136	2.2117
4135	2.2912	2.2927	2.2924

4136	2.1747	2.1755	2.1755
4137	2.3075	2.3083	2.3081
4138	2.3585	2.3593	2.3589
4139	2.4928	2.4938	2.4931
4140	2.6098	2.6113	2.6097
4141	2.3187	2.3194	2.3203
4142	1.9515	1.9504	1.9552
4143	2.1114	2.1099	2.1187
4144	1.9808	1.9783	1.9869
4145	1.9074	1.9024	1.899
4146	1.9378	1.9386	1.9348
4147	1.856	1.7579	1.8497
4148	1.9079	1.9047	1.9008
4149	1.7371	1.8474	1.2162
4150	0.8244	0.8247	0.8236
4151	0.5415	0.5414	0.5412
4152	0.2613	0.2613	0.2613
4153	0.1755	0	0.1753
4154	0	0	0
4155	0	0	0
4156	0	0	0
4157	0	0	0
4158	0	0	0
4159	0	0	0
4160	0	0	0
4161	0	0	0
4162	0	0	0
4163	0	0	0
4164	0	0	0
4165	0	0	0
4166	0	0	0
4167	0	0	0
4168	0	0	0
4169	0	0	0
4170	0.1649	0	0
4171	0.1701	0.1792	0.1792
4172	0.2107	0.2014	0.2014
4173	0.199	0.1931	0.1931
4174	0.1618	0.16	0.16
4175	0.1602	0.1625	0.1625
4176	0.1655	0.1664	0.1664
4177	0.1647	0.1697	0.1697
4178	0.182	0.1854	0.1854
4179	0.2499	0.2594	0.2594
4180	0.349	0.3808	0.381
4181	0.3695	0.4207	0.4209
4182	0.3728	0.4404	0.4407
4183	0.362	0.441	0.4413
4184	0.3882	0.5069	0.5071
4185	0.4248	0.5774	0.5771
4186	0.4628	0.6585	0.6577
4187	0.5512	0.8122	0.8106
4188	0.5925	0.8786	0.8764
4189	0.6531	0.9446	0.9417
4190	0.6684	0.8843	0.8821
4191	0.7042	0.8849	0.8834
4192	0.8529	0.9657	0.9667
4193	1.1878	2.0276	1.1948
4194	1.1036	1.3564	1.2007
4195	2.0685	2.0766	1.3793
4196	1.9775	1.9855	1.9981
4197	1.8872	1.9807	1.9793
4198	1.897	1.9399	1.9552
4199	1.9772	1.9824	1.9923
4200	2.0488	2.0521	2.0497
4201	2.2121	2.2131	2.2143
4202	2.3113	2.3121	2.3132
4203	2.2039	2.205	2.2051
4204	2.2821	2.2831	2.283
4205	2.3294	2.3304	2.3302
4206	2.4346	2.4354	2.4352
4207	2.6106	2.6112	2.6103
4208	2.5501	2.5509	2.5489
4209	2.1814	2.1825	2.1828
4210	2.157	2.1571	2.1615
4211	2.0823	2.0813	2.0867
4212	1.8784	1.8765	1.8768
4213	1.8895	1.8855	1.8921
4214	1.8552	1.8496	1.8495
4215	1.9067	1.8899	1.9199
4216	1.8257	1.8251	1.8244
4217	1.0883	0.9966	0.9795
4218	0.5379	0.5379	0.5378
4219	0.2828	0.2828	0.2828
4220	0	0	0
4221	0	0	0
4222	0	0	0
4223	0	0	0
4224	0	0	0
4225	0	0	0
4226	0	0	0
4227	0	0	0
4228	0	0	0
4229	0	0	0

4230	0	0	0
4231	0	0	0
4232	0	0	0
4233	0	0	0
4234	0	0	0
4235	0	0	0
4236	0	0	0
4237	0.1408	0	0
4238	0.1485	0.1415	0.1415
4239	0.1806	0.1804	0.1804
4240	0.203	0.195	0.195
4241	0.1605	0.1592	0.1591
4242	0.17	0.1688	0.1688
4243	0.2124	0.2118	0.2118
4244	0.2277	0.2284	0.2284
4245	0.2466	0.251	0.2511
4246	0.2377	0.2458	0.2458
4247	0.3415	0.373	0.3731
4248	0.3585	0.4041	0.4043
4249	0.3625	0.4258	0.4261
4250	0.3673	0.4551	0.4554
4251	0.3735	0.4862	0.4863
4252	0.4074	0.5547	0.5545
4253	0.4391	0.6273	0.6267
4254	0.4977	0.7345	0.7333
4255	0.5825	0.8861	0.8839
4256	0.6117	0.9092	0.9067
4257	0.6765	0.9499	0.9472
4258	0.6646	0.8674	0.8654
4259	0.8045	0.9577	0.9569
4260	1.003	1.1023	1.1039
4261	1.1281	1.9604	1.1056
4262	2.0372	1.9448	1.9986
4263	2.0048	2.0136	2.0131
4264	1.922	1.9404	1.944
4265	2.0079	1.1989	1.937
4266	2.004	1.7374	1.9962
4267	2.0016	2.0072	2.0096
4268	2.1422	2.1403	2.1453
4269	2.3345	2.3359	2.3371
4270	2.1543	2.1556	2.1558
4271	2.3111	2.3123	2.3129
4272	2.3124	2.3132	2.3136
4273	2.3899	2.3902	2.3909
4274	2.6124	2.612	2.6124
4275	2.643	2.6425	2.6416
4276	2.4429	2.4435	2.4414
4277	2.3828	2.3834	2.3824
4278	2.2447	2.245	2.2449
4279	2.0714	2.0675	2.0663
4280	1.3216	1.3209	1.8789
4281	1.9866	1.3441	1.981
4282	1.9325	1.9326	1.9324
4283	1.9911	1.996	2.0078
4284	0.9618	0.9583	0.9593
4285	0.5879	0.5873	0.5875
4286	0.3036	0.3036	0.3036
4287	0	0	0.1767
4288	0	0	0
4289	0	0	0
4290	0	0	0
4291	0	0	0
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4293	0	0	0
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4295	0	0	0
4296	0	0	0
4297	0	0	0
4298	0	0	0
4299	0	0	0
4300	0	0	0
4301	0	0	0
4302	0	0	0
4303	0	0	0
4304	0	0	0
4305	0.1368	0	0
4306	0.1371	0.1398	0.1398
4307	0.1623	0.1585	0.1585
4308	0.1907	0.1844	0.1844
4309	0.202	0.2007	0.2007
4310	0.2241	0.2235	0.2235
4311	0.2414	0.2422	0.2422
4312	0.2606	0.2639	0.264
4313	0.2394	0.2462	0.2462
4314	0.3377	0.3648	0.3649
4315	0.3412	0.3816	0.3818
4316	0.3475	0.4111	0.4114
4317	0.3634	0.4572	0.4575
4318	0.3702	0.4863	0.4865
4319	0.3825	0.5211	0.521
4320	0.4296	0.6201	0.6196
4321	0.447	0.6573	0.6564
4322	0.5575	0.8608	0.859
4323	0.5848	0.8934	0.8914

4324	0.6637	0.9754	0.9728
4325	0.647	0.8737	0.8716
4326	0.7306	0.908	0.9061
4327	0.9378	1.0715	1.071
4328	1.1032	2.0206	1.1476
4329	1.1743	1.2955	1.6872
4330	2.0008	2.0136	2.0227
4331	2.0377	1.3446	2.0396
4332	1.3288	1.1595	1.8926
4333	1.3361	1.7177	1.9244
4334	2.0004	1.9911	1.9979
4335	2.0651	2.0679	2.0708
4336	2.2354	2.2379	2.2378
4337	2.3369	2.3375	2.3391
4338	2.2545	2.2552	2.2565
4339	2.3977	2.3974	2.3993
4340	2.3527	2.3522	2.3536
4341	2.6064	2.605	2.6066
4342	2.6758	2.6747	2.6751
4343	2.7951	2.7941	2.7929
4344	2.5365	2.5367	2.535
4345	2.4742	2.4744	2.4743
4346	2.2602	1.4805	2.2557
4347	1.4586	1.3385	1.3411
4348	1.0742	1.0602	1.06
4349	2.2337	2.2371	2.2412
4350	1.8494	2.1112	1.7822
4351	1.5405	1.434	1.5373
4352	0.6464	0.6462	0.646
4353	0.3232	0.3232	0.3232
4354	0.1931	0	0
4355	0	0	0
4356	0	0	0
4357	0	0	0
4358	0	0	0
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4360	0	0	0
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4362	0	0	0
4363	0	0	0
4364	0	0	0
4365	0	0	0
4366	0	0	0
4367	0	0	0
4368	0	0	0
4369	0	0	0
4370	0	0	0
4371	0	0	0
4372	0	0	0
4373	0.113	0.0879	0.0879
4374	0.1198	0.1109	0.1109
4375	0.147	0.1403	0.1403
4376	0.1756	0.1734	0.1734
4377	0.2309	0.2303	0.2303
4378	0.2598	0.2594	0.2594
4379	0.2638	0.2657	0.2657
4380	0.2449	0.2494	0.2495
4381	0.3103	0.3321	0.3322
4382	0.3269	0.3625	0.3627
4383	0.3371	0.4004	0.4007
4384	0.3544	0.4447	0.445
4385	0.376	0.5003	0.5005
4386	0.3642	0.4956	0.4956
4387	0.4204	0.615	0.6145
4388	0.4156	0.6156	0.615
4389	0.5028	0.7854	0.784
4390	0.5565	0.8713	0.8698
4391	0.6465	0.9866	0.985
4392	0.6308	0.8999	0.8985
4393	0.684	0.8873	0.886
4394	0.8793	1.0516	1.0512
4395	1.0013	1.095	1.0956
4396	1.1288	1.343	1.9894
4397	1.1622	2.0498	2.0671
4398	1.1617	1.1501	2.0406
4399	1.144	1.1623	2.0572
4400	1.1324	1.8895	1.6723
4401	1.7923	1.9785	2.0801
4402	2.031	2.0365	2.0444
4403	2.1738	2.1756	2.1759
4404	2.2666	2.2659	2.2699
4405	2.3077	2.3069	2.3099
4406	2.4498	2.4472	2.4509
4407	2.3207	2.3193	2.3213
4408	2.5022	2.5002	2.502
4409	2.6689	2.6675	2.6683
4410	2.8545	2.8532	2.8539
4411	2.6259	2.6253	2.6244
4412	2.5049	2.5049	2.5042
4413	2.3185	2.3082	2.3102
4414	1.4766	1.9226	1.9657
4415	1.1685	1.1573	1.1566
4416	2.3377	2.3243	2.3328
4417	1.777	2.0851	1.7678

4418	2.1144	2.1089	2.1129
4419	0.664	0.6637	0.6633
4420	0.3389	0.3389	0.3389
4421	0	0.1924	0.1925
4422	0	0	0
4423	0	0	0
4424	0	0	0
4425	0	0	0
4426	0	0	0
4427	0	0	0
4428	0	0	0
4429	0	0	0
4430	0	0	0
4431	0	0	0
4432	0	0	0
4433	0	0	0
4434	0	0	0
4435	0	0	0
4436	0	0	0
4437	0	0	0
4438	0	0	0
4439	0	0	0
4440	0	0	0
4441	0	0	0
4442	0.1141	0.1021	0.1021
4443	0.1806	0.1698	0.1698
4444	0.2359	0.2381	0.2381
4445	0.246	0.246	0.246
4446	0.2444	0.2452	0.2452
4447	0.2434	0.2489	0.2489
4448	0.2974	0.3096	0.3096
4449	0.3141	0.3443	0.3445
4450	0.3366	0.399	0.3992
4451	0.3379	0.4158	0.4161
4452	0.3751	0.5031	0.5033
4453	0.3521	0.4904	0.4904
4454	0.3886	0.5641	0.5639
4455	0.4054	0.6116	0.611
4456	0.4548	0.7183	0.7173
4457	0.5419	0.8702	0.8693
4458	0.5938	0.9324	0.9319
4459	0.6307	0.9241	0.9233
4460	0.6443	0.8788	0.8782
4461	0.8195	1.0205	1.0211
4462	0.9045	1.027	1.028
4463	1.1303	1.3277	2.0144
4464	1.6962	1.1924	1.7871
4465	1.3617	1.1409	2.0256
4466	1.1489	1.1343	2.0495
4467	1.6502	1.8618	1.9951
4468	1.9205	1.7771	2.0404
4469	2.0216	2.0272	2.0305
4470	2.1092	2.1082	2.1132
4471	2.1687	2.1677	2.1723
4472	2.3724	2.3692	2.374
4473	2.3424	2.3387	2.3428
4474	2.415	2.4119	2.4147
4475	2.4415	2.4395	2.4407
4476	2.7317	2.7309	2.7307
4477	2.7148	2.7144	2.7145
4478	2.8614	2.8603	2.8611
4479	2.5734	2.5728	2.5721
4480	2.3654	2.3579	2.3574
4481	2.2045	2.2282	2.2262
4482	1.918	2.141	1.9122
4483	1.0717	1.0701	1.07
4484	2.1516	2.1622	2.1507
4485	2.1304	2.1285	2.1356
4486	0.6901	0.6887	0.6885
4487	0.3563	0.3564	0.3561
4488	0.19	0	0
4489	0	0	0
4490	0	0	0
4491	0	0	0
4492	0	0	0
4493	0	0	0
4494	0	0	0
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4496	0	0	0
4497	0	0	0
4498	0	0	0
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4501	0	0	0
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4503	0	0	0
4504	0	0	0
4505	0	0	0
4506	0	0	0
4507	0	0	0
4508	0	0	0
4509	0	0	0
4510	0.2359	0	0
4511	0	0	0

4512	0.2406	0	0
4513	0.2255	0.2223	0.2255
4514	0.2405	0.2455	0.2455
4515	0.2798	0.292	0.292
4516	0.2917	0.3143	0.3144
4517	0.3261	0.3829	0.3832
4518	0.3193	0.3962	0.3965
4519	0.3494	0.4673	0.4676
4520	0.367	0.5132	0.5133
4521	0.3657	0.5348	0.5346
4522	0.3894	0.6018	0.6013
4523	0.4248	0.6782	0.6774
4524	0.5062	0.8343	0.8339
4525	0.5499	0.8882	0.8883
4526	0.5978	0.9192	0.9202
4527	0.6542	0.9082	0.9087
4528	0.7188	0.933	0.9338
4529	0.8448	0.9971	0.9988
4530	1.0601	1.1765	1.9099
4531	1.9225	1.3576	1.9504
4532	2.0142	1.9271	2.0511
4533	1.9172	1.6061	1.9602
4534	1.1293	1.8894	1.3503
4535	1.9422	1.9439	1.9394
4536	2.0398	1.952	2.0407
4537	2.069	2.0706	2.0774
4538	2.0657	2.0628	2.0686
4539	2.3056	2.2995	2.3063
4540	2.3147	2.3102	2.3142
4541	2.3911	2.3877	2.3902
4542	2.4217	2.4198	2.42
4543	2.6348	2.6348	2.6334
4544	2.6141	2.6144	2.6135
4545	2.8977	2.8982	2.898
4546	2.6653	2.6653	2.6653
4547	2.436	2.4353	2.4345
4548	2.2068	2.2055	2.2061
4549	2.2643	2.265	2.2649
4550	1.1367	1.1369	1.1341
4551	1.9446	2.2067	1.4577
4552	2.155	2.1505	2.1447
4553	0.727	0.7258	0.7249
4554	0.3702	0.3702	0.3697
4555	0.1915	0.1913	0.1914
4556	0	0	0
4557	0	0	0
4558	0	0	0
4559	0	0	0
4560	0	0	0
4561	0	0	0
4562	0	0	0
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4565	0	0	0
4566	0	0	0
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4568	0	0	0
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4570	0	0	0
4571	0	0	0
4572	0	0	0
4573	0	0	0
4574	0	0	0
4575	0	0	0
4576	0	0	0
4577	0	0	0
4578	0	0	0
4579	0.2394	0	0
4580	0	0.2062	0.2063
4581	0.2232	0.229	0.2291
4582	0.2707	0.2818	0.2819
4583	0.2804	0.299	0.2991
4584	0.3123	0.3584	0.3586
4585	0.3216	0.3926	0.393
4586	0.3424	0.4582	0.4585
4587	0.3511	0.4911	0.4912
4588	0.3613	0.5409	0.5407
4589	0.3658	0.5656	0.5652
4590	0.4123	0.6733	0.6728
4591	0.4576	0.768	0.7679
4592	0.5313	0.886	0.8868
4593	0.5519	0.8816	0.8832
4594	0.6546	0.9726	0.975
4595	0.6745	0.9132	0.9146
4596	0.7911	0.9547	0.9569
4597	0.9652	1.0644	1.0668
4598	2.0217	1.9584	1.3652
4599	1.9939	2.0053	1.9986
4600	2.0396	1.9905	1.7612
4601	1.8485	1.9363	1.3132
4602	2.0715	2.0656	1.3495
4603	1.9462	1.9496	1.9634
4604	2.0043	1.9984	2.0109
4605	2.0756	2.0703	2.0777

4606	2.1553	2.1493	2.1564
4607	2.3398	2.3345	2.339
4608	2.3088	2.3055	2.3071
4609	2.4575	2.4571	2.4553
4610	2.6448	2.6459	2.643
4611	2.5216	2.5221	2.5208
4612	2.8451	2.8464	2.8455
4613	2.6739	2.675	2.6751
4614	2.5708	2.5727	2.5731
4615	2.1968	2.1998	2.1995
4616	2.1283	2.141	2.1373
4617	1.4886	1.3641	1.7961
4618	1.0411	1.2155	1.1515
4619	2.1848	2.1864	2.1834
4620	0.7746	0.7797	0.7772
4621	0.367	0.3669	0.3667
4622	0.1979	0.1977	0
4623	0	0	0
4624	0	0	0
4625	0	0	0
4626	0	0	0
4627	0	0	0
4628	0	0	0
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4640	0	0	0
4641	0	0	0
4642	0	0	0
4643	0	0	0
4644	0	0	0
4645	0	0	0
4646	0	0.2059	0.2061
4647	0	0.1853	0.1867
4648	0.194	0.2024	0.1953
4649	0.2553	0.2673	0.2674
4650	0.2687	0.2888	0.2889
4651	0.2964	0.3362	0.3365
4652	0.3092	0.3745	0.3749
4653	0.3386	0.45	0.4503
4654	0.3342	0.4675	0.4677
4655	0.3588	0.5507	0.5506
4656	0.3488	0.5433	0.5431
4657	0.3942	0.6603	0.6598
4658	0.4225	0.7232	0.7232
4659	0.5126	0.8899	0.8915
4660	0.5165	0.8603	0.8621
4661	0.6151	0.9477	0.9508
4662	0.661	0.9253	0.9278
4663	0.7374	0.9266	0.9291
4664	0.8683	0.984	0.9865
4665	1.0391	2.0302	1.208
4666	2.0934	2.0909	1.1736
4667	2.0428	2.04	1.1714
4668	2.0389	2.0433	1.1386
4669	1.9976	2.0019	1.1123
4670	2.0394	2.0404	1.1789
4671	2.0014	2.0027	2.0075
4672	2.0871	2.0816	2.0912
4673	2.0426	2.0379	2.0443
4674	2.2059	2.2008	2.2042
4675	2.2646	2.2626	2.2623
4676	2.3876	2.3879	2.385
4677	2.5815	2.5826	2.5798
4678	2.5687	2.5696	2.5681
4679	2.8335	2.8343	2.8342
4680	2.6271	2.6276	2.6278
4681	2.5926	2.5914	2.5927
4682	2.4066	2.4076	2.4092
4683	2.1869	2.1961	2.1962
4684	2.0658	2.0593	2.0732
4685	1.0218	1.0524	1.0514
4686	2.2236	2.2093	2.2162
4687	0.8098	0.8191	0.8181
4688	0.355	0.3544	0.3544
4689	0	0	0.1926
4690	0	0	0
4691	0	0	0
4692	0	0	0
4693	0	0	0
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4695	0	0	0
4696	0	0	0
4697	0	0	0
4698	0	0	0
4699	0	0	0

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4702	0	0	0
4703	0	0	0
4704	0	0	0
4705	0	0	0
4706	0	0	0
4707	0	0	0
4708	0	0	0
4709	0	0	0
4710	0	0	0
4711	0	0	0
4712	0	0	0
4713	0.1934	0	0
4714	0	0.1906	0
4715	0.1844	0.1857	0.1856
4716	0.2259	0.2406	0.2407
4717	0.2561	0.2761	0.2762
4718	0.2866	0.3201	0.3204
4719	0.2972	0.3551	0.3554
4720	0.3233	0.4265	0.4268
4721	0.3223	0.4542	0.4544
4722	0.3455	0.5307	0.5306
4723	0.3442	0.5473	0.5471
4724	0.3675	0.6224	0.6221
4725	0.4112	0.7215	0.7218
4726	0.4711	0.8372	0.8387
4727	0.4956	0.8555	0.8577
4728	0.5927	0.9487	0.9521
4729	0.61	0.9117	0.9145
4730	0.6996	0.9162	0.9189
4731	0.8355	0.9636	0.9659
4732	0.9113	0.9893	0.9925
4733	2.1014	2.0639	1.7249
4734	1.3706	2.0986	1.3605
4735	2.0576	2.0649	1.1415
4736	1.9785	1.9755	1.1021
4737	1.9835	1.9793	1.1127
4738	1.99	1.9918	1.9499
4739	2.0226	2.0254	2.0275
4740	2.0515	2.047	2.0525
4741	2.0669	2.0628	2.0666
4742	2.2091	2.2076	2.2065
4743	2.425	2.4264	2.4216
4744	2.5441	2.5456	2.5426
4745	2.6195	2.6212	2.6199
4746	2.7938	2.7949	2.7951
4747	2.7823	2.7829	2.7827
4748	2.6229	2.6225	2.6222
4749	2.5116	2.509	2.5102
4750	2.3666	2.3626	2.3646
4751	2.1199	2.1099	2.1194
4752	1.0559	1.0592	1.3101
4753	2.1452	2.1469	2.1414
4754	0.7563	0.7563	0.7563
4755	0.3512	0.3506	0.3507
4756	0.1967	0	0
4757	0	0	0
4758	0	0	0
4759	0	0	0
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4774	0	0	0
4775	0	0	0
4776	0	0	0
4777	0	0	0
4778	0	0	0
4779	0	0	0
4780	0	0	0
4781	0	0.1918	0
4782	0.1846	0	0.1844
4783	0.1947	0.2109	0.2109
4784	0.2402	0.2606	0.2607
4785	0.2714	0.3022	0.3023
4786	0.2902	0.3487	0.349
4787	0.3061	0.3915	0.3918
4788	0.3176	0.4477	0.4479
4789	0.3321	0.5085	0.5085
4790	0.3384	0.5484	0.5482
4791	0.3587	0.6205	0.6203
4792	0.387	0.6863	0.6868
4793	0.4385	0.7994	0.8008

4794	0.4798	0.8655	0.8678
4795	0.5642	0.9552	0.9582
4796	0.5787	0.8994	0.9021
4797	0.6668	0.9097	0.9122
4798	0.8018	0.9704	0.9722
4799	0.8525	0.9553	0.9576
4800	2.0774	2.102	2.1023
4801	1.1413	2.027	1.8937
4802	1.3522	2.04	1.6762
4803	1.7568	1.3671	1.1297
4804	2.0309	2.032	1.8902
4805	1.7386	1.3366	1.9535
4806	1.9863	1.993	1.9894
4807	2.0907	2.0957	2.0943
4808	2.0025	2.0012	2.0017
4809	2.0829	2.0838	2.0792
4810	2.3622	2.3652	2.3591
4811	2.507	2.5097	2.5067
4812	2.6263	2.6287	2.6289
4813	2.8669	2.8683	2.8687
4814	2.8243	2.8254	2.8254
4815	2.67	2.6705	2.6704
4816	2.54	2.54	2.5398
4817	2.4887	2.4871	2.4872
4818	2.307	2.304	2.3046
4819	1.8893	1.8891	1.8892
4820	1.1351	1.1351	1.1355
4821	0.727	0.727	0.7271
4822	0.3539	0.3539	0.3539
4823	0	0	0
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4845	0	0	0
4846	0	0	0
4847	0	0	0
4848	0.1892	0	0
4849	0	0	0
4850	0	0.1952	0.1953
4851	0.2138	0.2387	0.2388
4852	0.2526	0.2838	0.284
4853	0.2853	0.3372	0.3375
4854	0.2962	0.3737	0.374
4855	0.3135	0.4369	0.4371
4856	0.3242	0.4892	0.4892
4857	0.3338	0.5526	0.5524
4858	0.3572	0.6294	0.6294
4859	0.3619	0.6469	0.6473
4860	0.4347	0.8192	0.8207
4861	0.4437	0.8163	0.8179
4862	0.5293	0.9427	0.9449
4863	0.5719	0.9259	0.9281
4864	0.6311	0.8987	0.9007
4865	0.7487	0.9501	0.9509
4866	0.8142	0.9386	0.9383
4867	2.0654	2.0633	1.3967
4868	1.9813	2.0078	2.0581
4869	2.0691	2.0691	2.0587
4870	1.6788	1.9295	1.9011
4871	2.0552	2.0725	2.0515
4872	1.9742	1.977	1.9646
4873	1.9363	1.9305	1.7563
4874	2.0394	2.0522	2.023
4875	1.9985	2.005	1.9887
4876	1.9948	2.0004	1.9894
4877	2.2451	2.2506	2.2454
4878	2.5091	2.5135	2.5123
4879	2.6854	2.6878	2.6888
4880	2.9599	2.9609	2.9616
4881	2.8485	2.8491	2.8494
4882	2.7988	2.7997	2.7996
4883	2.6233	2.6241	2.6241
4884	2.6144	2.6161	2.616
4885	2.4479	2.4488	2.4491
4886	2.1469	2.1466	2.1467
4887	1.4848	1.5256	1.5217

4888	0.6957	0.6956	0.6957
4889	0.3624	0.3624	0.3624
4890	0	0.1945	0.1945
4891	0	0	0
4892	0	0	0
4893	0	0	0
4894	0	0	0
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4896	0	0	0
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4911	0	0	0
4912	0	0	0
4913	0	0	0
4914	0	0	0
4915	0	0	0
4916	0.1958	0.1956	0
4917	0	0.1943	0.1942
4918	0.1916	0.2061	0.2061
4919	0.2326	0.2684	0.2685
4920	0.2654	0.3132	0.3134
4921	0.2866	0.3674	0.3677
4922	0.3007	0.4136	0.4138
4923	0.3125	0.4694	0.4694
4924	0.3284	0.5523	0.5522
4925	0.3379	0.5987	0.5988
4926	0.3569	0.6613	0.6618
4927	0.4122	0.8009	0.8021
4928	0.4212	0.7961	0.7973
4929	0.4986	0.9209	0.9222
4930	0.5549	0.966	0.9663
4931	0.6199	0.9089	0.9101
4932	0.7034	0.93	0.9297
4933	0.7529	0.9002	0.8985
4934	1.082	1.1589	1.1524
4935	2.045	1.3695	2.0504
4936	2.0433	2.0557	2.0513
4937	2.002	1.1831	1.3536
4938	2.0294	2.0417	2.0296
4939	2.0473	2.0649	2.0545
4940	2.0223	1.9853	1.6944
4941	2.0571	2.0592	1.9395
4942	1.9614	2.052	1.3578
4943	1.988	1.3932	1.8325
4944	2.154	2.1621	2.155
4945	2.4371	2.4412	2.4428
4946	2.7499	2.7521	2.7538
4947	2.945	2.9448	2.946
4948	2.9961	2.9961	2.9966
4949	2.909	2.9095	2.9097
4950	2.6962	2.6971	2.6971
4951	2.7152	2.7168	2.7165
4952	2.567	2.5682	2.5684
4953	2.2804	2.2806	2.2811
4954	1.331	1.9102	1.911
4955	0.7245	0.7243	0.7246
4956	0.4008	0.4008	0.4008
4957	0.1905	0.1902	0.1902
4958	0	0	0
4959	0	0	0
4960	0	0	0
4961	0	0	0
4962	0	0	0
4963	0	0	0
4964	0	0	0
4965	0	0	0
4966	0	0	0
4967	0	0	0
4968	0	0	0
4969	0	0	0
4970	0	0	0
4971	0	0	0
4972	0	0	0
4973	0	0	0
4974	0	0	0
4975	0	0	0
4976	0	0	0
4977	0	0	0
4978	0	0	0
4979	0	0	0
4980	0	0	0
4981	0	0	0

4982	0	0	0
4983	0	0	0
4984	0	0.1932	0.1948
4985	0.1914	0.1964	0.1942
4986	0.1954	0.2366	0.2368
4987	0.2437	0.29	0.2902
4988	0.2698	0.3462	0.3465
4989	0.2846	0.398	0.3983
4990	0.2936	0.4336	0.4336
4991	0.3216	0.5425	0.5424
4992	0.3229	0.5664	0.5665
4993	0.3563	0.695	0.6956
4994	0.3722	0.7353	0.736
4995	0.4046	0.793	0.794
4996	0.4753	0.9204	0.9208
4997	0.5018	0.8984	0.8983
4998	0.6311	0.9946	0.9939
4999	0.6382	0.8954	0.8949
5000	0.7424	0.8938	0.8919
5001	1.0154	1.1159	1.1142
5002	2.0306	1.8529	2.0949
5003	2.0403	2.036	2.0348
5004	1.3525	1.7094	1.433
5005	1.3709	1.9645	1.8025
5006	2.0369	1.3633	2.0457
5007	2.0053	1.677	1.8862
5008	2.0087	2.0123	1.873
5009	2.0065	1.7685	1.7666
5010	1.9769	1.327	1.9807
5011	2.0422	2.0391	2.0356
5012	2.3193	2.3219	2.3255
5013	2.7421	2.7422	2.7448
5014	2.9373	2.9368	2.9379
5015	3.1078	3.1074	3.1079
5016	2.9774	2.9775	2.9778
5017	2.7209	2.7214	2.7216
5018	2.8074	2.8088	2.8086
5019	2.5725	2.5737	2.5737
5020	2.3997	2.4005	2.4009
5021	1.9563	1.9569	1.9572
5022	0.8073	0.8072	0.8077
5023	0.4331	0.433	0.4331
5024	0	0	0
5025	0	0	0
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5048	0	0	0
5049	0	0	0
5050	0	0	0
5051	0	0	0
5052	0	0	0.1919
5053	0	0.2005	0.2006
5054	0.2075	0.2631	0.2633
5055	0.2505	0.3177	0.318
5056	0.2811	0.3899	0.3901
5057	0.2857	0.4249	0.425
5058	0.3057	0.5053	0.5053
5059	0.3214	0.582	0.5821
5060	0.3381	0.6538	0.6542
5061	0.3521	0.7177	0.7181
5062	0.3932	0.8112	0.8114
5063	0.4244	0.8472	0.8467
5064	0.497	0.9317	0.9307
5065	0.5818	0.9917	0.9901
5066	0.6197	0.8948	0.8937
5067	0.7137	0.8718	0.87
5068	1.0032	1.1164	1.1169
5069	1.0558	1.1084	1.1793
5070	2.2416	2.2364	2.2112
5071	1.216	2.0804	1.9935
5072	1.9774	2.0466	2.048
5073	1.8036	2.0286	2.0326
5074	1.3598	1.9256	2.0441
5075	1.3871	1.9994	2.0521

5076	2.0182	1.989	2.0289
5077	1.1649	1.1208	1.866
5078	1.362	1.7819	2.0524
5079	2.1427	2.1442	2.1374
5080	2.6983	2.7001	2.6973
5081	2.9576	2.9572	2.9562
5082	3.1943	3.1942	3.1937
5083	3.0638	3.0635	3.0638
5084	2.795	2.7949	2.7954
5085	2.8165	2.8166	2.8171
5086	2.6598	2.6608	2.6608
5087	2.454	2.4544	2.4545
5088	2.0877	2.0881	2.0886
5089	0.949	0.949	0.949
5090	0.4519	0.4519	0.452
5091	0	0.1824	0.1824
5092	0	0	0
5093	0	0	0
5094	0	0	0
5095	0	0	0
5096	0	0	0
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5116	0	0	0
5117	0	0	0
5118	0	0	0
5119	0	0	0
5120	0	0.2007	0
5121	0.1911	0.2288	0.2289
5122	0.22	0.2901	0.2903
5123	0.2593	0.3631	0.3633
5124	0.2789	0.4216	0.4217
5125	0.291	0.4867	0.4867
5126	0.3199	0.5782	0.5783
5127	0.3244	0.6401	0.6404
5128	0.3393	0.7164	0.7165
5129	0.3458	0.7293	0.7291
5130	0.4111	0.8681	0.8671
5131	0.464	0.9392	0.938
5132	0.5369	0.9591	0.9577
5133	0.5956	0.8924	0.8908
5134	0.6999	0.8814	0.8787
5135	0.8803	1.0015	0.998
5136	1.0977	1.4119	1.2605
5137	2.1546	2.1678	2.1698
5138	2.0668	2.0737	2.0792
5139	1.7719	1.239	1.4061
5140	2.1103	2.0535	1.2595
5141	1.9229	2.1675	2.1891
5142	1.4003	2.1325	2.1422
5143	1.7836	2.0912	2.121
5144	1.1696	1.6778	1.3073
5145	1.3182	1.9526	1.3556
5146	1.7823	2.039	2.0406
5147	2.5352	2.5389	2.5289
5148	2.9353	2.9352	2.9335
5149	3.229	3.2294	3.2287
5150	3.0404	3.0401	3.0401
5151	2.9721	2.9714	2.9719
5152	2.8085	2.8084	2.8088
5153	2.83	2.8305	2.831
5154	2.4149	2.4165	2.4168
5155	2.1252	2.124	2.1248
5156	1.0735	1.0746	1.0747
5157	0.4641	0.4642	0.4642
5158	0.1878	0.1861	0.1861
5159	0	0	0
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5184	0	0	0
5185	0	0	0
5186	0	0.1876	0
5187	0	0.196	0.196
5188	0.1941	0.1998	0.202
5189	0	0.26	0.2602
5190	0.232	0.3268	0.327
5191	0.2633	0.3966	0.3968
5192	0.2843	0.4792	0.4792
5193	0.3053	0.565	0.565
5194	0.3147	0.626	0.626
5195	0.3323	0.7319	0.7314
5196	0.3249	0.7024	0.7019
5197	0.3834	0.8744	0.8732
5198	0.441	0.9446	0.9436
5199	0.5083	0.9616	0.9612
5200	0.5543	0.8885	0.8873
5201	0.6827	0.9073	0.9038
5202	0.8452	0.9798	0.9751
5203	0.9789	1.0403	1.0357
5204	1.8724	2.1477	2.1502
5205	2.1715	2.1907	2.1744
5206	2.1247	1.8889	2.1546
5207	1.1559	1.1537	1.1548
5208	2.2877	2.2936	2.2842
5209	1.5056	2.3063	1.4979
5210	1.9231	1.4766	1.2639
5211	1.249	1.3835	1.2479
5212	1.2221	1.3431	1.2125
5213	2.056	1.2684	2.1418
5214	2.3469	2.3461	2.348
5215	2.9633	2.9637	2.9631
5216	3.2392	3.2397	3.2394
5217	3.1714	3.171	3.1709
5218	3.0583	3.0578	3.0579
5219	2.9465	2.9462	2.9463
5220	2.8186	2.8191	2.8192
5221	2.5203	2.5219	2.5228
5222	2.1821	2.1881	2.1893
5223	1.1165	1.2907	1.5457
5224	0.4681	0.4682	0.4683
5225	0	0.1949	0.195
5226	0	0	0
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5250	0	0	0
5251	0	0	0
5252	0	0	0
5253	0	0	0
5254	0	0.1892	0
5255	0	0.1942	0.194
5256	0	0.2245	0.2247
5257	0	0.2937	0.2939
5258	0.2309	0.3621	0.3623
5259	0.264	0.4446	0.4446
5260	0.2973	0.5633	0.5632
5261	0.3037	0.6192	0.6191
5262	0.3157	0.6988	0.6983
5263	0.318	0.7174	0.7167

5264	0.3408	0.8031	0.8023
5265	0.4263	0.9947	0.9942
5266	0.4668	0.9553	0.9551
5267	0.5268	0.891	0.89
5268	0.6428	0.9022	0.8992
5269	0.8044	0.9732	0.9674
5270	0.9631	1.0331	1.0276
5271	2.061	2.1845	1.4191
5272	2.1685	2.1751	2.1651
5273	2.1782	2.1681	2.1689
5274	1.7887	1.7806	1.779
5275	2.3037	2.2909	2.2956
5276	2.2875	2.2934	2.1937
5277	2.2594	1.5369	1.2875
5278	1.1718	1.1743	1.1737
5279	1.166	1.1687	1.1666
5280	1.2097	1.2238	1.4009
5281	2.1897	2.1894	2.1943
5282	2.8269	2.8258	2.8269
5283	3.2897	3.2896	3.2892
5284	3.2652	3.2645	3.2645
5285	3.0507	3.0499	3.0499
5286	3.1685	3.1676	3.1676
5287	2.8699	2.8698	2.8694
5288	2.5624	2.5632	2.5627
5289	2.2131	2.2141	2.215
5290	1.2422	1.9294	1.1843
5291	0.4679	0.4679	0.468
5292	0.1995	0	0
5293	0	0	0
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5317	0	0	0
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5319	0	0	0
5320	0	0	0
5321	0	0	0
5322	0	0	0
5323	0	0.1932	0.1947
5324	0	0.2589	0.2591
5325	0	0.3151	0.3153
5326	0.2369	0.4054	0.4053
5327	0.2834	0.548	0.5479
5328	0.2916	0.6119	0.6117
5329	0.304	0.6925	0.692
5330	0.3059	0.7076	0.7071
5331	0.3346	0.8466	0.846
5332	0.3883	0.9457	0.9453
5333	0.4224	0.9295	0.9289
5334	0.5165	0.92	0.9193
5335	0.592	0.8824	0.8807
5336	0.7527	0.9409	0.9353
5337	0.9371	1.0432	1.0338
5338	2.0528	2.1124	1.1829
5339	2.1727	2.1593	1.2088
5340	2.1842	1.9157	1.2717
5341	2.1561	2.1173	2.036
5342	2.1946	2.2125	2.2064
5343	2.2575	2.2588	2.2627
5344	1.4941	2.2565	2.2515
5345	1.1993	1.7483	1.1989
5346	1.0487	1.0573	1.046
5347	1.0282	1.0266	1.0241
5348	2.1857	2.179	2.1838
5349	2.6664	2.6679	2.6661
5350	3.2371	3.2365	3.2365
5351	3.4268	3.4263	3.4265
5352	3.1027	3.1019	3.1019
5353	3.1936	3.1918	3.192
5354	2.9877	2.9852	2.9852
5355	2.6068	2.6073	2.6059
5356	2.3405	2.341	2.34
5357	1.9656	1.373	1.2851

5358	0.4871	0.4871	0.4869
5359	0.1945	0.1957	0.1927
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5389	0	0.2043	0.2045
5390	0	0	0.1998
5391	0	0.2229	0.2231
5392	0	0.2825	0.2827
5393	0	0.3612	0.3613
5394	0.2552	0.511	0.5108
5395	0.2735	0.588	0.5879
5396	0.288	0.6682	0.668
5397	0.2945	0.7362	0.7358
5398	0.3166	0.8356	0.8349
5399	0.3651	0.9644	0.9631
5400	0.3835	0.9014	0.9003
5401	0.4689	0.918	0.9172
5402	0.5744	0.8914	0.8899
5403	0.6912	0.8964	0.8931
5404	0.8989	1.0134	0.9986
5405	1.1266	1.24	1.2282
5406	2.2262	1.4378	1.8417
5407	1.2886	1.2718	1.2564
5408	2.0197	1.4548	2.0116
5409	2.3024	2.023	1.5039
5410	2.3176	2.3148	2.3294
5411	2.2535	1.3506	2.3466
5412	1.3172	1.3745	1.2336
5413	1.0405	1.035	1.0337
5414	0.9097	0.9099	0.9078
5415	1.3085	1.943	1.4593
5416	2.6291	2.6294	2.6291
5417	3.1747	3.1741	3.1746
5418	3.4759	3.4757	3.476
5419	3.3186	3.3181	3.318
5420	3.2663	3.2651	3.265
5421	3.0414	3.0383	3.0388
5422	2.8347	2.8319	2.8316
5423	2.4012	2.403	2.4028
5424	1.3944	1.2396	1.998
5425	0.5199	0.5199	0.5197
5426	0	0.1944	0.1932
5427	0	0	0
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5458	0	0.2054	0.2066
5459	0	0.2549	0.2551
5460	0	0.3204	0.3205
5461	0.2023	0.476	0.4759
5462	0.2438	0.5547	0.5546
5463	0.2626	0.6416	0.6415
5464	0.2889	0.7897	0.7891
5465	0.3023	0.8469	0.8457
5466	0.3383	0.9818	0.9786
5467	0.3666	0.9325	0.9306
5468	0.4116	0.8701	0.8689
5469	0.5504	0.9241	0.923
5470	0.6399	0.8762	0.8752
5471	0.8387	0.941	0.936
5472	1.1625	1.2718	1.2268
5473	2.3681	1.303	2.2179
5474	1.3189	1.2961	1.3245
5475	2.0496	1.2389	1.2303
5476	2.3368	2.3471	2.3397
5477	1.5847	2.3622	2.4743
5478	2.4932	1.3877	2.5134
5479	1.997	1.409	2.0188
5480	1.1121	1.1163	1.1114
5481	0.86	0.8618	0.8593
5482	0.796	0.796	0.7959
5483	2.7699	2.7699	2.7697
5484	3.1238	3.1232	3.1237
5485	3.5516	3.5512	3.5515
5486	3.5216	3.5219	3.5216
5487	3.4296	3.4296	3.4289
5488	3.2142	3.2131	3.2127
5489	3.0035	2.9977	2.9985
5490	2.5242	2.5225	2.525
5491	1.5365	1.8678	2.0965
5492	0.5792	0.5794	0.5791
5493	0.207	0.2079	0.2094
5494	0	0	0
5495	0	0	0
5496	0	0	0
5497	0	0	0
5498	0	0	0
5499	0	0	0
5500	0	0	0
5501	0	0	0
5502	0	0	0
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5518	0	0	0
5519	0	0	0
5520	0	0	0
5521	0	0	0
5522	0	0	0
5523	0	0	0
5524	0	0	0.2128
5525	0	0	0
5526	0	0.2184	0.2186
5527	0	0.2887	0.2888
5528	0	0.4282	0.4281
5529	0	0.5129	0.5128
5530	0.228	0.6281	0.6279
5531	0.2623	0.7539	0.753
5532	0.2914	0.8954	0.8932
5533	0.3163	0.9931	0.9893
5534	0.3369	0.9653	0.9626
5535	0.3699	0.8663	0.8648
5536	0.497	0.9102	0.9092
5537	0.5802	0.8437	0.8432
5538	0.7945	0.9047	0.9046
5539	1.1117	1.1554	1.159
5540	2.2841	1.8911	1.4586
5541	1.859	1.5562	1.3083
5542	1.2177	1.4547	1.2486
5543	2.4362	1.5639	2.4479
5544	1.3823	2.2763	1.5585
5545	2.1421	2.0746	2.1321

5546	2.5234	2.4081	2.4348
5547	1.9644	1.6437	1.968
5548	0.8804	0.881	0.8813
5549	0.7894	0.7896	0.7892
5550	2.5476	2.547	2.5471
5551	3.2967	3.2956	3.2965
5552	3.3986	3.3981	3.3982
5553	3.6286	3.6293	3.6288
5554	3.5388	3.5402	3.5393
5555	3.2741	3.2748	3.2737
5556	3.0738	3.0706	3.0704
5557	2.6764	2.6711	2.6724
5558	2.2448	2.2492	2.2678
5559	0.6303	0.6307	0.6305
5560	0.2136	0.2137	0.2123
5561	0	0	0
5562	0	0	0
5563	0	0	0
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5589	0	0	0
5590	0	0	0
5591	0	0	0
5592	0	0	0
5593	0	0.2127	0.2148
5594	0	0.2577	0.2578
5595	0	0.3603	0.3603
5596	0	0.4776	0.4775
5597	0	0.5911	0.5909
5598	0.2224	0.7247	0.7237
5599	0.2614	0.9082	0.9054
5600	0.29	1.0261	1.0229
5601	0.3103	0.9869	0.9842
5602	0.3345	0.8923	0.8907
5603	0.4243	0.8733	0.8723
5604	0.5292	0.8221	0.8215
5605	0.7332	0.8665	0.8664
5606	1.0473	1.1055	1.1064
5607	1.344	2.2842	1.3109
5608	1.314	1.4248	1.2776
5609	1.2751	1.2504	1.8536
5610	1.3459	1.3566	2.3482
5611	1.3652	2.0515	2.2738
5612	2.3414	2.4257	2.4026
5613	2.4498	2.435	2.4315
5614	2.456	2.5127	1.6355
5615	0.9517	0.9522	0.9523
5616	0.8247	0.8244	0.8242
5617	2.616	2.5958	1.6919
5618	3.1381	3.1359	3.1364
5619	3.4954	3.4952	3.4949
5620	3.6358	3.6363	3.6359
5621	3.5773	3.5779	3.5781
5622	3.411	3.4131	3.4123
5623	3.112	3.1134	3.1123
5624	2.759	2.7557	2.7542
5625	2.2045	2.2106	2.2105
5626	0.729	0.7282	0.7288
5627	0.2359	0.2358	0.2361
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5658	0	0	0
5659	0	0.2199	0
5660	0	0	0
5661	0	0.2228	0.2229
5662	0	0.3191	0.3191
5663	0	0.4516	0.4515
5664	0	0.5129	0.5129
5665	0	0.7248	0.7237
5666	0.2146	0.921	0.9186
5667	0.2431	0.979	0.9765
5668	0.2775	1.0657	1.0634
5669	0.3028	0.9268	0.9251
5670	0.3446	0.8223	0.8214
5671	0.482	0.8092	0.8088
5672	0.6545	0.8201	0.8202
5673	0.9659	1.0289	1.0299
5674	1.1739	1.181	1.1818
5675	1.2489	1.294	1.8537
5676	1.2613	1.2642	2.1739
5677	1.9211	2.1608	2.2808
5678	1.352	1.336	2.3668
5679	2.3992	2.3911	2.3865
5680	2.3608	2.3553	2.3481
5681	2.3773	2.3768	2.3713
5682	1.9323	1.9276	1.1733
5683	0.8768	0.8763	0.8763
5684	2.6262	2.6249	2.6235
5685	3.036	3.035	3.0347
5686	3.6091	3.6097	3.6088
5687	3.3748	3.3749	3.3748
5688	3.7795	3.7794	3.7799
5689	3.4504	3.4504	3.4515
5690	3.1156	3.118	3.1186
5691	2.7925	2.7942	2.7932
5692	2.3066	2.3111	2.3054
5693	0.8009	0.8005	0.8009
5694	0.2612	0.2611	0.2611
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5728	0	0.2315	0.2312
5729	0	0.2886	0.2886
5730	0	0.4143	0.4142
5731	0	0.4913	0.4912
5732	0	0.6529	0.6521
5733	0	0.9439	0.9416

5734	0.2073	1.0016	0.9994
5735	0.2265	1.1128	1.1112
5736	0.2591	1.0086	1.0075
5737	0.2907	0.7967	0.7961
5738	0.4133	0.7957	0.7955
5739	0.563	0.763	0.763
5740	0.8629	0.9337	0.9344
5741	1.1097	1.1171	1.1167
5742	1.1206	1.1245	1.1195
5743	1.5501	1.2197	2.1986
5744	2.0742	1.4453	2.209
5745	1.2493	1.6157	1.2763
5746	2.1943	2.1814	2.1806
5747	2.1824	2.1793	2.1765
5748	2.1877	2.1901	2.1879
5749	2.1492	2.157	1.8756
5750	1.5176	1.1808	1.7205
5751	2.5799	2.5795	2.5788
5752	2.9175	2.9176	2.9169
5753	3.1482	3.1488	3.1478
5754	3.4478	3.4477	3.4477
5755	3.388	3.3874	3.3882
5756	3.5517	3.5511	3.5523
5757	2.9891	2.9887	2.9906
5758	2.807	2.8098	2.8106
5759	2.3244	2.3247	2.328
5760	0.976	0.9807	0.977
5761	0.2482	0.2482	0.2482
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5795	0	0	0.2356
5796	0	0.2428	0.2428
5797	0	0.3645	0.3644
5798	0	0.4847	0.4846
5799	0	0.5954	0.5945
5800	0	0.9221	0.9198
5801	0	0.9832	0.9815
5802	0	1.2127	1.2119
5803	0.2084	1.0023	1.002
5804	0.2467	0.8216	0.8212
5805	0.3165	0.7315	0.7317
5806	0.4991	0.7434	0.7436
5807	0.7471	0.8244	0.8249
5808	1.0526	1.063	1.0617
5809	1.041	1.0443	1.0392
5810	2.1812	1.2211	2.1881
5811	1.8417	1.2438	1.2156
5812	1.793	1.1821	1.8295
5813	2.1229	2.1014	2.1147
5814	2.121	2.1074	2.1211
5815	2.0949	2.0908	2.102
5816	2.0249	2.0241	2.0266
5817	2.1101	2.1088	2.1099
5818	2.4001	2.3998	2.3995
5819	2.8622	2.863	2.8619
5820	3.0268	3.027	3.0265
5821	3.3994	3.3989	3.3995
5822	3.307	3.3063	3.3071
5823	3.6187	3.6097	3.6112
5824	2.9641	2.9629	2.9646
5825	2.8268	2.8243	2.8271
5826	2.1713	2.1645	2.1682
5827	1.4386	1.2518	1.2678

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5861	0	0	0
5862	0	0	0
5863	0	0.237	0.2359
5864	0	0.3059	0.3059
5865	0	0.4664	0.4662
5866	0	0.5809	0.5798
5867	0	0.8262	0.8242
5868	0	1.0166	1.0147
5869	0	1.9197	1.2903
5870	0	0.9991	0.9993
5871	0.2077	0.8969	0.8974
5872	0.2563	0.6994	0.7
5873	0.3928	0.6782	0.6787
5874	0.668	0.7691	0.7696
5875	0.9005	0.9148	0.9146
5876	1.0032	1.0017	0.9993
5877	2.141	1.1983	1.2401
5878	2.0468	1.2052	1.7066
5879	2.135	1.7324	1.7901
5880	1.41	2.1495	2.1491
5881	1.3378	2.119	2.1169
5882	1.9903	1.9886	1.3274
5883	2.0587	2.0563	2.0587
5884	2.3085	2.3072	2.3066
5885	2.6841	2.6848	2.6838
5886	2.8108	2.8111	2.8108
5887	3.0274	3.0271	3.0276
5888	3.2468	3.2463	3.2468
5889	3.2766	3.2761	3.2763
5890	3.1277	3.127	3.1272
5891	3.3303	3.3292	3.3299
5892	2.7165	2.7144	2.7173
5893	2.266	2.2591	2.2628
5894	1.2992	1.307	1.9617
5895	0.2541	0.254	0.254
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5931	0	0.2446	0.2443
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5934	0	0.7608	0.7587
5935	0	1.0997	1.0979
5936	0	1.187	1.188
5937	0	1.0819	1.0855
5938	0	0.903	0.9057
5939	0.2191	0.731	0.7325
5940	0.2957	0.5974	0.5982
5941	0.5712	0.7114	0.7121
5942	0.7697	0.7748	0.7748
5943	0.9273	0.9252	0.9245
5944	2.1104	1.2089	1.2054
5945	2.0898	1.2378	1.8547
5946	1.9461	2.189	2.1861
5947	1.8537	2.1347	2.1289
5948	1.7945	2.0595	1.2566
5949	1.1781	1.8296	1.8155
5950	2.0473	1.3661	1.9468
5951	2.3154	2.3187	2.3134
5952	3.0329	3.033	3.0327
5953	2.9497	2.9494	2.9497
5954	2.939	2.9386	2.939
5955	3.2438	3.2433	3.2435
5956	3.0962	3.0959	3.0959
5957	3.0922	3.092	3.0917
5958	3.4825	3.4901	3.4894
5959	2.741	2.7398	2.7405
5960	2.437	2.4302	2.438
5961	1.2276	1.2282	1.3821
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5997	0	0	0.2268
5998	0	0.2257	0.2273
5999	0	0.3296	0.3295
6000	0	0.5685	0.5672
6001	0	0.7464	0.7443
6002	0	1.102	1.1003
6003	0	1.1092	1.1101
6004	0	1.3204	2.3188
6005	0	0.8674	0.8703
6006	0	0.7517	0.7549
6007	0.2595	0.6127	0.6143
6008	0.4317	0.5726	0.5732
6009	0.677	0.6847	0.6847
6010	0.8242	0.8237	0.8234
6011	1.1433	1.1452	1.145
6012	2.142	2.0604	2.1522
6013	1.4296	2.1841	2.189
6014	2.2635	2.2902	1.4946
6015	2.2141	2.2961	1.289

6016	1.9441	1.2571	1.267
6017	2.2312	1.8881	1.9436
6018	2.3402	2.3363	2.3362
6019	3.138	3.1367	3.1378
6020	3.2295	3.2292	3.23
6021	3.3356	3.335	3.3352
6022	3.0893	3.0888	3.0888
6023	3.0695	3.0692	3.069
6024	3.1781	3.1785	3.1777
6025	2.9706	2.9715	2.9704
6026	3.0791	3.0794	3.0777
6027	2.426	2.4159	2.4241
6028	1.4889	1.2235	1.2258
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6066	0	0.2755	0.2754
6067	0	0.4641	0.4633
6068	0	0.7746	0.7726
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6070	0	1.6603	1.6679
6071	0	1.1055	1.1103
6072	0	0.764	0.7672
6073	0.2114	0.8436	0.8496
6074	0.217	0.6027	0.6057
6075	0.3299	0.4822	0.4831
6076	0.5997	0.6025	0.6024
6077	0.6879	0.6897	0.6893
6078	1.038	1.0376	1.0371
6079	2.2295	2.26	2.2661
6080	1.3376	1.5125	1.3192
6081	2.379	2.3795	2.0862
6082	2.4274	2.4028	2.0553
6083	1.534	1.8611	2.0156
6084	1.1172	1.1101	1.1041
6085	2.3561	2.36	2.3558
6086	3.24	3.2409	3.2438
6087	3.3974	3.3971	3.3979
6088	3.7466	3.746	3.7462
6089	3.2975	3.2969	3.2969
6090	3.1112	3.1108	3.1105
6091	3.1084	3.1092	3.1082
6092	2.8501	2.8524	2.8507
6093	3.3637	3.3719	3.3669
6094	2.3881	2.4127	2.3979
6095	1.2852	1.8787	1.2661
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6139	0	0.8586	0.8644
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6141	0.2134	0.6102	0.6142
6142	0.266	0.4159	0.4169
6143	0.4917	0.497	0.497
6144	0.5947	0.5972	0.5967
6145	0.8839	0.881	0.8804
6146	1.1916	1.1926	1.1922
6147	2.0169	2.3068	1.8405
6148	2.2178	2.3105	2.2793
6149	1.5268	2.3461	1.5319
6150	2.4054	2.4035	2.3992
6151	1.195	1.2091	1.1811
6152	2.4465	2.4587	2.4515
6153	3.0831	3.0844	3.0858
6154	3.559	3.5587	3.5593
6155	3.645	3.6446	3.6445
6156	3.5725	3.5719	3.5718
6157	3.3091	3.3083	3.3081
6158	2.7988	2.7984	2.7981
6159	2.8917	2.8937	2.8921
6160	3.3783	3.3905	3.3855
6161	2.3802	2.3911	2.3658
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6211	0.5177	0.5151	0.5146
6212	0.7451	0.7436	0.7427
6213	1.0942	1.0948	1.0934
6214	2.3117	2.3195	2.3041
6215	2.1805	1.9935	1.9954
6216	2.2454	2.2516	2.2471
6217	2.3756	2.3656	2.3809
6218	1.8986	1.3301	1.8956
6219	2.3953	2.3987	2.3997
6220	2.8607	2.8602	2.8613
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6222	3.7666	3.7664	3.7662
6223	3.6372	3.6369	3.6367
6224	3.6406	3.6396	3.6396
6225	2.7941	2.7931	2.7931
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6284	2.3229	2.3118	2.3184
6285	2.3112	2.3036	2.3111
6286	2.4133	2.414	2.4157
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6355	3.6209	3.6213	3.6202
6356	3.5142	3.5145	3.514
6357	3.7734	3.773	3.773
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6360	2.7696	2.768	2.7682
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6684	0.6038	0.6029	0.6039
6685	1.0247	1.0234	1.0254
6686	2.2752	2.2937	2.2975
6687	2.4733	2.4749	2.4739
6688	2.8482	2.8489	2.85
6689	3.4006	3.4005	3.4006
6690	3.7041	3.7042	3.7032
6691	4.0685	4.0687	4.0679
6692	4.3447	4.3441	4.3443
6693	3.833	3.8334	3.833
6694	2.9691	2.9722	2.9712
6695	3.1268	3.1356	3.1344
6696	2.5981	2.5991	2.6063
6697	2.4957	2.4401	2.4769
6698	2.4584	2.4132	2.4598
6699	0.4299	0.4296	0.4301
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6742	0	2.3279	2.3279
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6749	0	0	0.2372
6750	0	0	0
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6753	2.2945	2.2938	2.2929
6754	2.3562	2.3576	2.3569
6755	2.9927	2.9924	2.9928
6756	3.2434	3.2428	3.2421
6757	3.7186	3.7189	3.7175
6758	4.0756	4.0755	4.0757
6759	4.4029	4.4017	4.4027
6760	4.0258	4.0247	4.0252
6761	3.0292	3.0318	3.0312
6762	3.3149	3.3296	3.3302
6763	1.6345	2.2304	1.6437
6764	2.212	2.2116	1.5812
6765	2.3924	2.1836	1.4408
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6817	0.2436	0	0.2434
6818	0.3034	0.3032	0.3033
6819	0.6002	0.5991	0.5999
6820	1.1819	1.1908	1.1777
6821	2.3922	2.3929	2.3926
6822	2.8653	2.8638	2.864
6823	3.2184	3.2183	3.2168
6824	3.6979	3.6979	3.6976
6825	3.9442	3.9439	3.9447
6826	4.4953	4.4951	4.4957
6827	4.2048	4.2033	4.204
6828	3.4288	3.4278	3.4281
6829	3.1553	3.1677	3.1674
6830	2.1843	2.1808	2.1825
6831	1.4644	2.4315	1.6321
6832	1.589	2.3808	2.1091
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6886	0.4726	0.4719	0.4719
6887	0.7568	0.7568	0.7565
6888	2.5661	2.5615	2.5701
6889	2.6826	2.6836	2.6821
6890	3.3278	3.3292	3.3273
6891	3.6761	3.6764	3.6766
6892	4.0154	4.0151	4.0159
6893	4.4579	4.4584	4.4582
6894	4.3675	4.3675	4.3675
6895	3.8058	3.8032	3.8038
6896	3.1882	3.191	3.1921
6897	2.4287	2.4327	2.4378
6898	2.2173	2.507	2.5086
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6952	0.2338	0.235	0.2337
6953	0.3731	0.3727	0.3727
6954	0.6512	0.6509	0.651
6955	2.4423	1.6283	2.5037

6956	2.5931	2.5976	2.5953
6957	3.3052	3.3086	3.3072
6958	3.8375	3.8375	3.8384
6959	3.9655	3.9656	3.9659
6960	4.6983	4.6985	4.6983
6961	4.5067	4.5066	4.5067
6962	4.177	4.1768	4.1767
6963	3.2833	3.281	3.2818
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7023	2.5576	2.5473	2.557
7024	3.1952	3.1962	3.1966
7025	3.7607	3.7608	3.7615
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7089	1.1466	1.1465	1.1469
7090	2.4323	2.2098	2.4994
7091	3.0767	3.0779	3.0781
7092	3.497	3.4981	3.4971
7093	4.0183	4.0181	4.0179
7094	4.5955	4.5955	4.5954
7095	5.1188	5.1189	5.1188
7096	4.4941	4.4937	4.4937
7097	3.4782	3.4773	3.4766
7098	1.6296	2.5181	2.5223
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7158	2.968	2.9731	2.9696
7159	3.3025	3.3022	3.3022
7160	3.8356	3.8401	3.8423
7161	4.7102	4.7101	4.7102
7162	5.2513	5.2518	5.2518
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7164	3.6202	3.6193	3.6193
7165	2.428	2.4281	2.4299
7166	2.4079	2.4094	2.4098
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7225	2.8302	2.8306	2.8306
7226	3.3841	3.3837	3.3839
7227	3.3165	3.3164	3.3165
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7229	5.2796	5.2797	5.2798
7230	4.7432	4.7406	4.7407
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7292	2.7665	2.7671	2.7672
7293	3.5929	3.5929	3.5931
7294	3.3587	3.3585	3.3586
7295	4.685	4.6847	4.6847
7296	5.3651	5.3651	5.3651
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7299	2.3409	2.3403	2.3405
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7357	0.2451	0.2461	0.2461
7358	0.6922	0.6924	0.6924
7359	2.7095	2.7077	2.7045
7360	3.5596	3.5607	3.5605
7361	3.5962	3.5958	3.5958
7362	4.9976	4.9972	4.9971
7363	5.4513	5.4475	5.4442
7364	5.2218	5.2228	5.2227
7365	3.8308	3.8299	3.8299
7366	2.3067	2.3062	2.3063
7367	0.7129	0.7129	0.713
7368	0.3671	0.3675	0.3675
7369	0.1938	0	0
7370	0	0	0
7371	0	0	0
7372	0	0	0
7373	0	0	0
7374	0	0	0
7375	0	0	0
7376	0	0	0
7377	0	0	0
7378	0	0	0
7379	0	0	0
7380	0	0	0
7381	0	0	0
7382	0	0	0
7383	0	0	0
7384	0	0	0
7385	0	0	0
7386	0	0	0
7387	0	0	0
7388	0	0	0
7389	0	0	0
7390	0	0	0
7391	0	0	0
7392	0	0	0
7393	0	0	0
7394	0	0	0
7395	0	0	0
7396	0	0	0
7397	0	0	0
7398	0	0	0
7399	0	0	0
7400	0	0	0
7401	0	0	0
7402	0	0	0
7403	0	0	0
7404	0	0	0
7405	0	0	0
7406	0	0	0
7407	0	0	0
7408	0	0	0
7409	0	0	0
7410	0	0	0
7411	0	0	0
7412	0	0	0
7413	0	0	0
7414	0	0	0
7415	0	0	0
7416	0	0	0
7417	0	0	0
7418	0	0	0
7419	0	0	0
7420	0	0	0
7421	0	0	0
7422	0	0	0
7423	0	0	0
7424	0	0	0
7425	0.3772	0.3773	0.3773

7426	2.2906	1.6328	1.6337
7427	3.3045	3.3054	3.3054
7428	4.1366	4.1361	4.1361
7429	5.2776	5.2746	5.2713
7430	5.7875	5.7905	5.7845
7431	5.0899	5.0873	5.0873
7432	3.5292	3.5254	3.5254
7433	1.9894	1.4806	1.4806
7434	0.4842	0.4842	0.4842
7435	0.2156	0.2162	0.2162
7436	0.1984	0	0
7437	0	0	0
7438	0	0	0
7439	0	0	0
7440	0	0	0
7441	0	0	0
7442	0	0	0
7443	0	0	0
7444	0	0	0
7445	0	0	0
7446	0	0	0
7447	0	0	0
7448	0	0	0
7449	0	0	0
7450	0	0	0
7451	0	0	0
7452	0	0	0
7453	0	0	0
7454	0	0	0
7455	0	0	0
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7457	0	0	0
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7460	0	0	0
7461	0	0	0
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7463	0	0	0
7464	0	0	0
7465	0	0	0
7466	0	0	0
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7484	0	0	0
7485	0	0	0
7486	0	0	0
7487	0	0	0
7488	0	0	0
7489	0	0	0
7490	0	0	0
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7492	0	0	0
7493	0.6112	0.6115	0.6115
7494	3.2278	3.2205	3.2258
7495	4.3872	4.3864	4.3864
7496	5.7541	5.7505	5.7505
7497	6.2283	6.2323	6.2324
7498	4.7246	4.7253	4.7253
7499	2.7704	2.774	2.774
7500	0.7249	0.7249	0.7249
7501	0.2539	0.2541	0.2541
7502	0.2155	0	0
7503	0	0	0
7504	0	0	0
7505	0	0	0
7506	0	0	0
7507	0	0	0
7508	0	0	0
7509	0	0	0
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7511	0	0	0
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7513	0	0	0
7514	0	0	0
7515	0	0	0
7516	0	0	0
7517	0	0	0
7518	0	0	0
7519	0	0	0

7520	0	0	0
7521	0	0	0
7522	0	0	0
7523	0	0	0
7524	0	0	0
7525	0	0	0
7526	0	0	0
7527	0	0	0
7528	0	0	0
7529	0	0	0
7530	0	0	0
7531	0	0	0
7532	0	0	0
7533	0	0	0
7534	0	0	0
7535	0	0	0
7536	0	0	0
7537	0	0	0
7538	0	0	0
7539	0	0	0
7540	0	0	0
7541	0	0	0
7542	0	0	0
7543	0	0	0
7544	0	0	0
7545	0	0	0
7546	0	0	0
7547	0	0	0
7548	0	0	0
7549	0	0	0
7550	0	0	0
7551	0	0	0
7552	0	0	0
7553	0	0	0
7554	0	0	0
7555	0	0	0
7556	0	0	0
7557	0	0	0
7558	0	0	0
7559	0	0	0
7560	0.259	0.259	0.259
7561	2.4271	2.423	2.423
7562	4.7701	4.7688	4.7686
7563	6.5491	6.5488	6.5488
7564	6.6343	6.6345	6.6345
7565	3.5312	3.5315	3.5315
7566	1.2199	1.2197	1.2197
7567	0.2937	0.2937	0.2937
7568	0.2229	0	0
7569	0	0	0
7570	0	0	0
7571	0	0	0
7572	0	0	0
7573	0	0	0
7574	0	0	0
7575	0	0	0
7576	0	0	0
7577	0	0	0
7578	0	0	0
7579	0	0	0
7580	0	0	0
7581	0	0	0
7582	0	0	0
7583	0	0	0
7584	0	0	0
7585	0	0	0
7586	0	0	0
7587	0	0	0
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7589	0	0	0
7590	0	0	0
7591	0	0	0
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7593	0	0	0
7594	0	0	0
7595	0	0	0
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7597	0	0	0
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7609	0	0	0
7610	0	0	0
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7612	0	0	0
7613	0	0	0

7614	0	0	0
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7617	0	0	0
7618	0	0	0
7619	0	0	0
7620	0	0	0
7621	0	0	0
7622	0	0	0
7623	0	0	0
7624	0	0	0
7625	0	0	0
7626	0	0	0
7627	0	0	0
7628	0.2306	0.2306	0.2306
7629	2.7548	2.7549	2.755
7630	10.1605	10.1606	10.1606
7631	4.245	4.245	4.245
7632	1.1698	1.1699	1.1699
7633	0.2361	0.2361	0.2361
7634	0	0	0
7635	0	0	0
7636	0	0	0
7637	0	0	0
7638	0	0	0
7639	0	0	0
7640	0	0	0
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7643	0	0	0
7644	0	0	0
7645	0	0	0
7646	0	0	0
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7686	0	0	0
7687	0	0	0
7688	0	0	0
7689	0	0	0
7690	0	0	0
7691	0	0	0
7692	0	0	0
7693	0	0	0
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7698	0	0	0
7699	0	0	0
7700	0	0	0
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7703	0	0	0
7704	0	0	0
7705	0	0	0



**Appendix B:
Preliminary Basin Sizing
For
The Tejon Indian Trust Acquisition Casino Project**

Prepared For:



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PURPOSE

The purpose of this analysis is to find the required volume for the Stormwater basins of the Tejon Casino Project. The basins are sized to retain the five day storm event and have a minimum of 1 foot of freeboard. The final basin is required to demonstrate that the basin will completely drain the design volume within 7 days.

RETENTION VOLUME REQUIREMENT

The storm water volume storage requirement for the site alternatives was determined using Kern County methodology described in Engineering Bulletin 11-02 (see Appendix A). The attached support documents describe the methodology and calculations to determine the volume required to be retained on site. The Mettler Site Alternative A1 was determined to require 1,392,340 cubic feet (31.96 acre feet) of storage and Alternative A2 was determined to require 1,364,494 cubic feet (31.32 acre feet) of storage. The increase in required storage is expected for Mettler Site Alternative A1 due to the addition of the RV Parking increasing the impervious area for the site. The Maricopa Site Alternative was determined to require 635,423 cubic feet (14.59 acre-feet) of storage.

The following equation is described in Engineering Bulletin 11-02.

$$\text{Runoff Volume (cu. ft.)} = [(D_{10\text{yr-5day}})/12](a_i)(\text{Area})$$

Where:

$D_{10\text{yr-5day}}$ = 10-yr, 5-day depth of rainfall (in.) obtained from NOAA Atlas 14, Vol. 6, Ver. 2.0

A_i = Average percentage of impervious area

Area = Drainage area of total development (sq. ft.)

For all three basins, the volume provided was calculated using the Civil3D Volume Calculator on AutoCAD.

METTLER SITE ALTERNATIVE VOLUME STORAGE REQUIREMENT

Drainage Area Designation

The two site plans for the Mettler Site have been broken down by drainage area and assigned a percentage of impervious area. The impervious area percentage assigned to each area was determined using the User's Guide for the California Impervious Surface Coefficients (ISC) published by the Office of Environmental Health Hazard Assessment of the California Environmental Protection Agency and the exhibits of the site layout alternatives A1 and A2. A weighted average was calculated for each alternative by dividing the total impervious area over the total area to determine a total percent impervious area.

Table 1: Mettler Site Plan Alternative A1

Drainage Area	Area (acres)	Area (sq. ft.)	Percent Impervious	Impervious Area (acres)	Impervious Area (sq. ft.)
Residential	102	4,443,120	0.46 (4 du/acre)	46.92	2,043,835
Waste Water Reclamation	13	566,280	0.81 (Light Industry)	10.53	458,687
Organic Farm	40	1,742,400	0.04 (Agriculture)	1.60	69,696
Casino	52	2,265,120	0.86 (Retail)	44.72	1,948,003
RV Parking	22	958,320	0.86 (Mixed Use)	17.60	766,656
Community Park	29	1,263,240	0.25 (Open Space)	0.58	25,265
Heath Center/Tribal Admin./Comm. Center	20	871,200	0.86 (Mixed Use)	16.00	696,960
Fire/Sheriff Station	3	130,680	0.86 (Mixed Use)	2.58	112,385
Total	281	12,240,360	0.50	140.07	6,121,487

Table 2: Mettler Site Plan Alternative A2

Drainage Area	Area (acres)	Area (sq. ft.)	Percent Impervious	Impervious Area (acres)	Impervious Area (sq. ft.)
Residential	102	4,443,120	0.46 (4 du/acre)	46.92	2,043,835
Waste Water Reclamation	13	566,280	0.81 (Light Industry)	10.53	458,687
Organic Farm	40	1,742,400	0.04 (Agriculture)	1.60	69,696
Casino	52	2,265,120	0.86 (Retail)	44.72	1,948,003
Community Park	51	2,221,560	0.25 (Open Space)	12.75	555,390
Heath Center/Tribal Admin./Comm. Center	20	871,200	0.86 (Mixed Use)	17.20	749,232
Fire/Sheriff Station	3	130,680	0.86 (Mixed Use)	2.58	112,385
Total	281	12,240,360	0.49	136.30	5,937,228

Retention Basin Calculations

Runoff Volume Required Equation

$$V_{req} = \left(\frac{D_{10yr-5day}}{12 \frac{in.}{ft.}} \right) (a_i)(A)$$

$D_{10yr-5day}$ = depth of rainfall = 2.73 in.

(See Appendix B: Precipitation Frequency)

a_i = percent impervious area

A = drainage area

Mettler Site Plan Alternative A1

$$V_{req} = \left(\frac{2.73 \text{ in.}}{12 \frac{in.}{ft.}} \right) (0.50)(12,240,360 \text{ ft}^2)$$

$$V_{req} = 1,392,340 \text{ ft}^3 = 31.96 \text{ ac ft}$$

Volume provided at a water surface elevation of 502.0 ft = 34.17 ac ft. (See Appendix D)

Mettler Site Plan Alternative A2

$$V_{req} = \left(\frac{2.73 \text{ in.}}{12 \frac{in.}{ft.}} \right) (0.49)(12,240,360 \text{ ft}^2)$$

$$V_{req} = 1,364,494 \text{ ft}^3 = 31.32 \text{ ac ft}$$

Volume provided at a water surface elevation of 502.0 ft = 31.50 ac ft. (See Appendix G)

MARICOPA SITE ALTERNATIVE VOLUME STORAGE REQUIREMENT

Drainage Area Designation

The site plan for the Maricopa Site has been broken down by drainage area and assigned a percentage of impervious area. The impervious area percentage assigned to each area was determined using the User's Guide for the California Impervious Surface Coefficients (ISC) published by the Office of Environmental Health Hazard Assessment of the California Environmental Protection Agency and the exhibit of the site layout. A weighted average was calculated by dividing the total impervious area over the total area to determine a total percent impervious area.

Table 1: Maricopa Site Plan Alternative

Drainage Area	Area (acres)	Area (sq. ft.)	Percent Impervious	Impervious Area (acres)	Impervious Area (sq. ft.)
Residential	16	696,960	0.46 (4 du/acre)	7.36	320,602
Stormwater Retention	2	87,120	0.02 (Open Space)	0.04	1,742
Organic Farm	30	1,306,800	0.04 (Agriculture)	1.20	52,272
Casino	49	2,134,440	0.86 (Retail)	42.14	1,835,618
RV Parking	5	217,800	0.86 (Mixed Use)	4.30	187,308
Community Park	2.5	108,900	0.25 (Open Space)	0.63	27,225
Heath Center/Tribal Admin./Comm. Center	7	304,920	0.86 (Mixed Use)	6.02	262,231
Fire/Sheriff Station	3	130,680	0.86 (Mixed Use)	2.58	112,385
Total	114.5	4,987,620	0.56	64.27	2,799,383

Retention Basin Calculations

Runoff Volume Required Equation

$$V_{req} = \left(\frac{D_{10yr-5day}}{12 \frac{in.}{ft.}} \right) (a_i)(A)$$

$D_{10yr-5day}$ = depth of rainfall = 2.73 in.

(See Appendix B: Precipitation Frequency)

a_i = percent impervious area

A = drainage area

Maricopa Site Plan Alternative

$$V_{req} = \left(\frac{2.73 \text{ in.}}{12 \frac{in.}{ft.}} \right) (0.56)(4,987,620 \text{ ft}^2)$$

$$V_{req} = 635,423 \text{ ft}^3 = 14.59 \text{ ac ft}$$

Due to elevation and site constraints the volume provided above ground at this site is less than the volume required. The difference will need to be detained in underground detention chambers.

Volume provided at a water surface elevation of 492.5ft = 12.82.17 ac ft. (See Appendix J)

Volume provided in underground chambers = 1.77 ac ft.

Appendix A:

**ENGINEERING, SURVEYING &
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DEVELOPMENT SERVICES AGENCY
Engineering, Surveying and Permit Services Department
Planning and Community Development Department
Roads Department

Engineering Bulletin 11-02

Subject: Sump Volume Requirements
Application: Kern County Development Standards

Date: December 21, 2011

Background: In 1995, Kern County revised the standard by which retention basin sizing is based, and published it in the latest edition of the Kern County Development Standards dated August 5, 2010. Division 4 of the Development Standards defined the design volume for basins as runoff from the Intermediate Storm Design Discharge (ISDD) 5-day rainfall event from the impervious area. The equation is;

Runoff Volume = $0.12 (D_{10}) (a_i) (\text{Area})$ where:

D_{10} = 10 yr 24-hr. depth of rainfall (in.)

a_i = average percentage of impervious area

Area = Drainage area of total development

$0.12 = 1.44 \times 1/12$

1.44 = 5 day mass ratio (KC Hydrology Manual, Table B-1)

$1/12$ = Conversion of rainfall depth in inches to feet

The revision to the standard was chosen for consistency with the newly created multi-day detention basin sizing standard and to approximate the sump sizing criteria used by the City of Bakersfield in their application of 100yr 24hr rainfall event. The new Development Standards also linked ISDD calculations to the application of rainfall/runoff methodology found in the Kern County Hydrology Manual. Since the Hydrology Manual had adopted rainfall data found in NOAA Atlas 2, Volume XI, retention basin sizing was also tied to that data base.

Data Update: In May of 2011 the National Weather Service published NOAA Atlas 14, Volume 6, Version 2.0 for California. As stated in the introduction of the publication, this document supersedes precipitation-frequency estimates found in NOAA Atlas 2, Volume 11 and NOAA Atlas 14 Volume 1, which covered Kern County's desert region. Gage data used in the precipitation-frequency analysis for NOAA Atlas 14, Volume 6 incorporates the latest, quality-verified rainfall information available up through June, 2010. The precipitation-frequency data is now available to the public, via a graphic interface, at the Hydrometeorological Design Studies Center's web site. (<http://hdsc.nws.noaa.gov/hdsc/pfds/>). It contains both short and long duration, including multi-day rainfall data in tabular and graphic formats.

Policy: Retention basin sizing shall continue to be based upon runoff from the ISDD 5 day storm event from impervious area. The equation is now;

Runoff Volume (cu.ft.) = $[(D_{10\text{yr-5day}})/12] (a_i) (\text{Area})$ where;

$D_{10\text{yr-5day}}$ = 10yr 5 day depth of rainfall (in.) obtained from NOAA Atlas 14, Vol 6, Ver. 2.0

a_i = average percentage of impervious area

Area = Drainage area of total development (sq.ft.)

NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES

DATA DESCRIPTION

Data type: Units: Time series type:

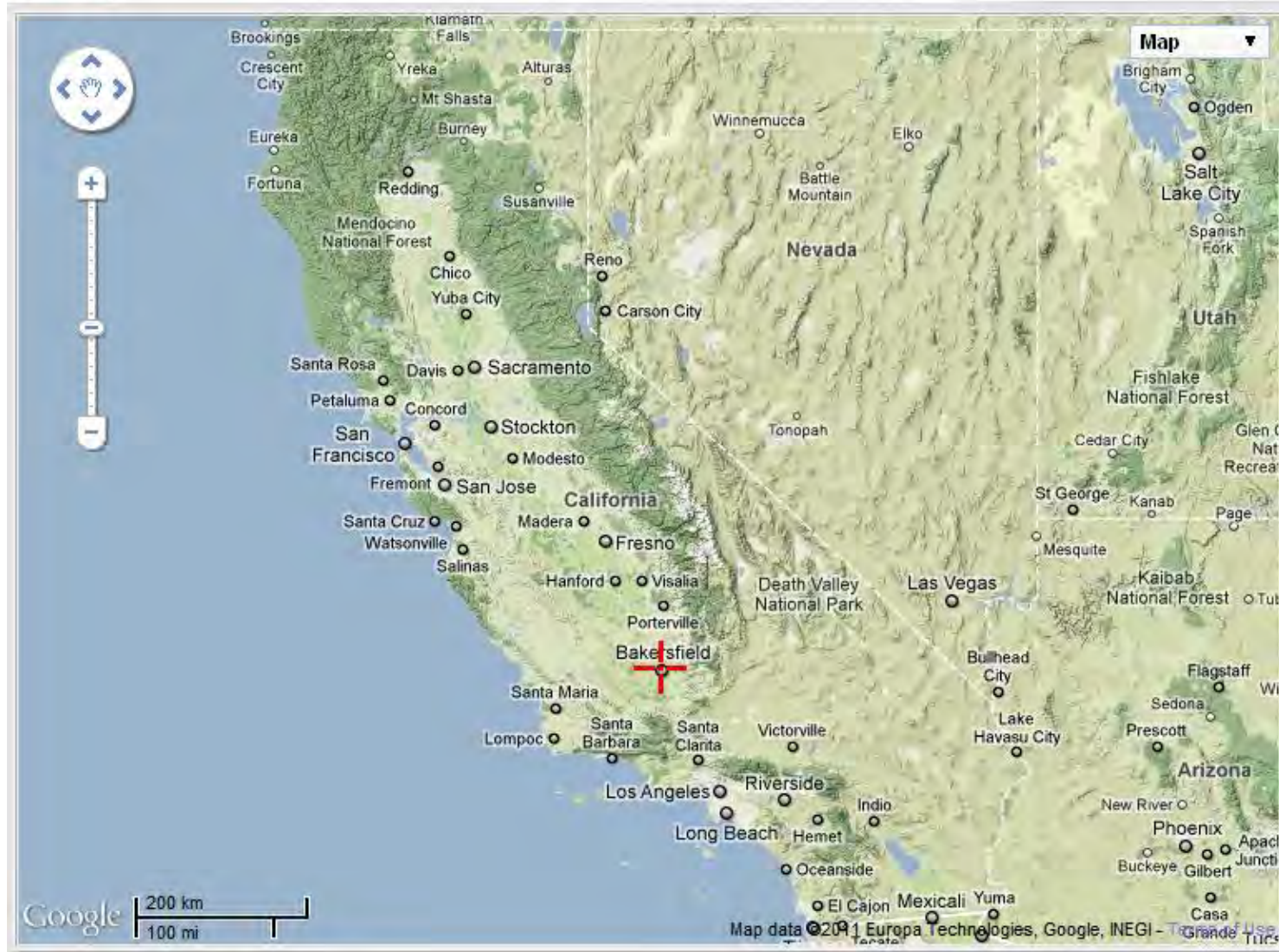
SELECT LOCATION

1. Manually:

a) Enter location (decimal degrees, use "-" for S and W): latitude: longitude:

b) Select station:

2. Use map:





NOAA Atlas 14, Volume 6, Version 2
Location name: Bakersfield, California, US*
Coordinates: 35.3940, -119.0505
Elevation: 404ft*
* source: Google Maps



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Diez, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aeriels](#)

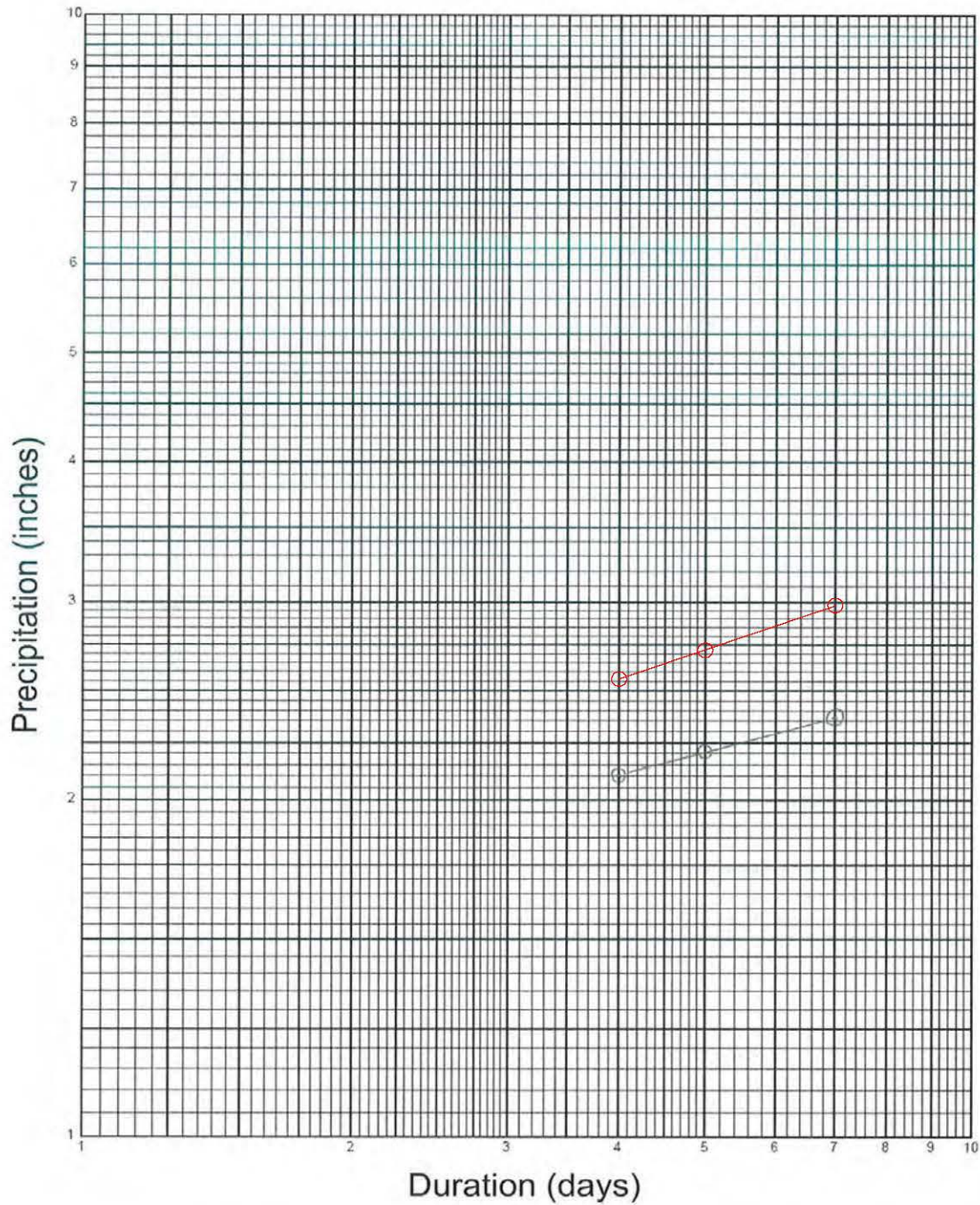
PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval(years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.077 (0.063-0.095)	0.097 (0.080-0.120)	0.127 (0.104-0.158)	0.154 (0.125-0.193)	0.195 (0.153-0.252)	0.230 (0.177-0.303)	0.269 (0.202-0.362)	0.313 (0.229-0.433)	0.421 (0.296-0.607)	0.580 (0.393-0.863)
10-min	0.110 (0.090-0.136)	0.140 (0.114-0.172)	0.183 (0.149-0.226)	0.221 (0.179-0.276)	0.280 (0.220-0.361)	0.330 (0.254-0.434)	0.386 (0.290-0.519)	0.449 (0.328-0.621)	0.604 (0.424-0.870)	0.831 (0.564-1.24)
15-min	0.133 (0.109-0.164)	0.169 (0.138-0.208)	0.221 (0.180-0.273)	0.268 (0.217-0.334)	0.339 (0.266-0.436)	0.399 (0.307-0.525)	0.467 (0.350-0.628)	0.543 (0.397-0.751)	0.731 (0.513-1.05)	1.01 (0.682-1.50)
30-min	0.182 (0.149-0.224)	0.231 (0.169-0.285)	0.302 (0.247-0.374)	0.366 (0.295-0.456)	0.463 (0.363-0.596)	0.546 (0.420-0.717)	0.638 (0.479-0.859)	0.743 (0.542-1.03)	0.999 (0.701-1.44)	1.37 (0.932-2.05)
60-min	0.256 (0.210-0.315)	0.325 (0.266-0.401)	0.425 (0.347-0.526)	0.515 (0.417-0.642)	0.651 (0.511-0.839)	0.768 (0.590-1.01)	0.898 (0.674-1.21)	1.05 (0.763-1.45)	1.41 (0.986-2.02)	1.93 (1.31-2.88)
2-hr	0.354 (0.290-0.437)	0.446 (0.365-0.550)	0.574 (0.468-0.709)	0.684 (0.554-0.853)	0.846 (0.663-1.09)	0.978 (0.752-1.29)	1.12 (0.842-1.51)	1.28 (0.933-1.77)	1.50 (1.05-2.16)	1.95 (1.33-2.91)
3-hr	0.417 (0.342-0.513)	0.524 (0.429-0.647)	0.673 (0.550-0.833)	0.801 (0.649-0.999)	0.985 (0.773-1.27)	1.14 (0.872-1.49)	1.29 (0.971-1.74)	1.47 (1.07-2.03)	1.71 (1.20-2.46)	1.97 (1.34-2.94)
6-hr	0.520 (0.426-0.641)	0.659 (0.540-0.813)	0.850 (0.694-1.05)	1.01 (0.820-1.26)	1.24 (0.976-1.60)	1.43 (1.10-1.88)	1.63 (1.22-2.19)	1.84 (1.34-2.54)	2.14 (1.50-3.08)	2.38 (1.61-3.54)
12-hr	0.606 (0.497-0.747)	0.780 (0.638-0.962)	1.02 (0.836-1.27)	1.24 (1.00-1.54)	1.54 (1.21-1.99)	1.80 (1.38-2.36)	2.07 (1.55-2.78)	2.37 (1.73-3.27)	2.79 (1.96-4.02)	3.15 (2.14-4.89)
24-hr	0.742 (0.676-0.832)	0.966 (0.878-1.08)	1.29 (1.17-1.45)	1.58 (1.42-1.79)	2.01 (1.74-2.37)	2.38 (2.02-2.86)	2.78 (2.30-3.44)	3.24 (2.80-4.12)	3.92 (3.01-5.21)	4.50 (3.33-6.20)
2-day	0.865 (0.787-0.969)	1.12 (1.02-1.26)	1.50 (1.36-1.69)	1.84 (1.65-2.09)	2.36 (2.05-2.78)	2.81 (2.39-3.38)	3.32 (2.74-4.10)	3.90 (3.13-4.96)	4.78 (3.67-6.35)	5.54 (4.10-7.64)
3-day	0.931 (0.847-1.04)	1.20 (1.09-1.35)	1.61 (1.46-1.81)	1.97 (1.77-2.24)	2.53 (2.19-2.99)	3.01 (2.56-3.63)	3.56 (2.94-4.39)	4.18 (3.35-5.31)	5.13 (3.94-6.82)	5.96 (4.41-8.22)
4-day	0.992 (0.903-1.11)	1.28 (1.17-1.44)	1.71 (1.55-1.93)	2.10 (1.88-2.38)	2.68 (2.32-3.15)	3.18 (2.69-3.82)	3.73 (3.08-4.61)	4.36 (3.50-5.54)	5.31 (4.07-7.05)	6.13 (4.54-8.45)
7-day	1.12 (1.02-1.26)	1.46 (1.33-1.64)	1.94 (1.76-2.18)	2.36 (2.12-2.68)	2.97 (2.58-3.50)	3.48 (2.95-4.18)	4.02 (3.32-4.97)	4.62 (3.70-5.87)	5.49 (4.21-7.29)	6.21 (4.59-8.56)
10-day	1.22 (1.11-1.37)	1.59 (1.45-1.78)	2.11 (1.91-2.38)	2.56 (2.30-2.90)	3.19 (2.77-3.76)	3.71 (3.15-4.46)	4.25 (3.52-5.25)	4.84 (3.88-6.15)	5.67 (4.35-7.53)	6.34 (4.69-8.74)
20-day	1.53 (1.39-1.71)	2.01 (1.83-2.26)	2.67 (2.42-3.01)	3.23 (2.90-3.67)	4.01 (3.48-4.72)	4.63 (3.92-5.57)	5.27 (4.35-6.50)	5.93 (4.76-7.55)	6.85 (5.26-9.10)	7.57 (5.60-10.4)
30-day	1.79 (1.63-2.01)	2.37 (2.15-2.66)	3.15 (2.86-3.55)	3.81 (3.42-4.33)	4.73 (4.11-5.57)	5.46 (4.63-6.57)	6.21 (5.13-7.67)	6.99 (5.60-8.89)	8.05 (6.18-10.7)	8.87 (6.57-12.2)
45-day	2.20 (2.00-2.47)	2.90 (2.64-3.26)	3.86 (3.50-4.35)	4.67 (4.19-5.30)	5.80 (5.03-6.83)	6.70 (5.68-8.06)	7.62 (6.29-9.40)	8.57 (6.87-10.9)	9.87 (7.58-13.1)	10.9 (8.05-15.0)
60-day	2.52 (2.30-2.83)	3.32 (3.02-3.72)	4.41 (3.99-4.96)	5.33 (4.78-6.05)	6.62 (5.74-7.79)	7.64 (6.48-9.19)	8.70 (7.19-10.7)	9.78 (7.85-12.4)	11.3 (8.65-15.0)	12.4 (9.19-17.1)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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- 6) Select 10yr 4day rainfall depth – **2.56** and 10yr 7 day rainfall depth – **2.97**
7) Plot points on log-log graph paper.



- 8) Read the solution for the 10 yr 5 day depth of rainfall – **2.73 inches**

9) Sump volume calculation:

$$\begin{aligned}\text{Runoff Volume (cu.ft.)} &= [(D_{10\text{yr-5day}})/12] (a_i) (\text{Area}) \\ &= [(2.20)/12](0.95)(1.00 \text{ ac.} \times 43560 \text{ sq.ft./ac}) \\ &= 7,586.7 \text{ cu.ft or } 7,590 \text{ cu.ft.}\end{aligned}$$

Appendix B:



NOAA Atlas Volume 6 Series 2
 Location name: Bakersfield California USA *
 Latitude: 35.0697° Longitude: - 8.98°
 Elevation: 50.8 ft
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey *
 Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & arials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.062 (0.050-0.077)	0.08 (0.065-0.102)	0.10 (0.088-0.138)	0.15 (0.108-0.171)	0.23 (0.134-0.226)	0.35 (0.156-0.273)	0.50 (0.178-0.326)	0.73 (0.202-0.388)	1.05 (0.234-0.485)	1.45 (0.258-0.571)
10-min	0.088 (0.071-0.111)	0.12 (0.094-0.146)	0.18 (0.127-0.198)	0.25 (0.155-0.246)	0.38 (0.192-0.324)	0.55 (0.223-0.391)	0.80 (0.255-0.468)	1.15 (0.289-0.556)	1.65 (0.335-0.695)	2.30 (0.370-0.819)
15-min	0.107 (0.086-0.134)	0.15 (0.113-0.177)	0.22 (0.153-0.240)	0.30 (0.187-0.297)	0.45 (0.232-0.392)	0.65 (0.270-0.472)	0.95 (0.309-0.566)	1.35 (0.349-0.673)	1.95 (0.405-0.841)	2.75 (0.448-0.990)
30-min	0.15 (0.122-0.189)	0.20 (0.161-0.250)	0.27 (0.217-0.340)	0.35 (0.265-0.421)	0.50 (0.329-0.555)	0.70 (0.382-0.669)	1.00 (0.437-0.801)	1.40 (0.495-0.953)	1.95 (0.573-1.19)	2.65 (0.634-1.40)
60-min	0.23 (0.172-0.267)	0.28 (0.226-0.353)	0.38 (0.306-0.479)	0.50 (0.373-0.592)	0.70 (0.463-0.781)	1.00 (0.538-0.942)	1.40 (0.616-1.13)	1.95 (0.697-1.34)	2.65 (0.808-1.68)	3.60 (0.894-1.98)
2-hr	0.38 (0.257-0.399)	0.50 (0.332-0.517)	0.70 (0.438-0.686)	1.00 (0.526-0.836)	1.40 (0.640-1.08)	2.00 (0.734-1.29)	2.80 (0.828-1.52)	3.80 (0.922-1.78)	5.20 (1.05-2.17)	7.10 (1.14-2.52)
3-hr*	0.390 * (0.314-0.489)	0.502 * (0.404-0.630)	0.659 * (0.529-0.828)	0.793 * (0.632-1.00)	0.987 * (0.764-1.29)	1.35 * (0.871-1.53)	1.90 * (0.976-1.79)	2.60 * (1.08-2.08)	3.50 * (1.22-2.53)	4.80 * (1.32-2.91)
6-hr	0.56 (0.416-0.647)	0.663 (0.534-0.832)	0.86 (0.694-1.09)	1.00 (0.824-1.31)	1.40 (0.987-1.67)	2.00 (1.11-1.95)	2.80 (1.24-2.27)	3.80 (1.36-2.62)	5.20 (1.51-3.14)	7.10 (1.62-3.58)
2-hr	0.633 (0.510-0.794)	0.83 (0.671-1.05)	1.00 (0.888-1.39)	1.30 (1.06-1.68)	1.80 (1.27-2.14)	2.60 (1.43-2.50)	3.60 (1.58-2.90)	5.00 (1.73-3.33)	6.80 (1.90-3.95)	9.30 (2.02-4.46)
2 -hr	0.795 (0.718-0.899)	1.00 (0.975-1.23)	1.30 (1.31-1.66)	1.70 (1.58-2.03)	2.40 (1.88-2.61)	3.40 (2.10-3.07)	4.80 (2.31-3.56)	6.50 (2.51-4.11)	8.80 (2.73-4.92)	12.00 (2.88-5.59)
2-day	0.909 (0.820-1.03)	1.20 (1.14-1.43)	1.60 (1.56-1.98)	2.10 (1.89-2.44)	2.90 (2.26-3.15)	4.00 (2.54-3.70)	5.50 (2.80-4.31)	7.50 (3.03-4.97)	10.00 (3.30-5.94)	13.50 (3.46-6.73)
3-day	0.98 (0.886-1.11)	1.30 (1.24-1.56)	1.70 (1.73-2.19)	2.30 (2.11-2.71)	3.10 (2.54-3.52)	4.20 (2.86-4.16)	5.80 (3.15-4.85)	7.80 (3.42-5.61)	10.50 (3.74-6.73)	14.00 (3.94-7.66)
4-day	1.03 (0.934-1.17)	1.40 (1.32-1.66)	1.80 (1.86-2.35)	2.50 (2.28-2.93)	3.40 (2.76-3.83)	4.60 (3.11-4.53)	6.20 (3.44-5.30)	8.50 (3.75-6.15)	11.50 (4.11-7.39)	15.50 (4.33-8.43)
7-day	1.05 (1.04-1.30)	1.60 (1.50-1.88)	2.10 (2.14-2.70)	2.90 (2.64-3.41)	3.90 (3.24-4.50)	5.20 (3.69-5.37)	7.00 (4.09-6.30)	9.50 (4.47-7.33)	12.50 (4.90-8.82)	17.00 (5.17-10.0)
10-day	1.22 (1.10-1.38)	1.70 (1.60-2.02)	2.20 (2.32-2.93)	3.00 (2.89-3.72)	4.00 (3.57-4.97)	5.30 (4.09-5.96)	7.20 (4.56-7.03)	9.80 (5.00-8.20)	13.00 (5.52-9.94)	17.50 (5.84-11.4)
20-day	1.30 (1.30-1.63)	1.90 (1.95-2.45)	2.50 (2.89-3.65)	3.40 (3.66-4.71)	4.50 (4.63-6.44)	5.80 (5.39-7.85)	7.80 (6.10-9.40)	10.50 (6.78-11.1)	14.00 (7.57-13.6)	18.50 (8.09-15.7)
30-day	1.40 (1.50-1.88)	2.00 (2.26-2.84)	2.60 (3.38-4.27)	3.50 (4.33-5.58)	4.60 (5.56-7.73)	5.90 (6.52-9.50)	8.00 (7.44-11.5)	10.50 (8.31-13.6)	14.00 (9.36-16.8)	18.50 (10.0-19.5)*
5-day	2.00 (1.81-2.26)	2.80 (2.71-3.40)	3.60 (4.06-5.13)	4.80 (5.23-6.74)	6.20 (6.78-9.43)	7.90 (8.03-11.7)	10.50 (9.23-14.2)	14.00 (10.4-17.0)	18.50 (11.8-21.2)	24.00 (12.7-24.7)
60-day	2.27 (2.05-2.57)	3.00 (3.06-3.84)	3.80 (4.61-5.83)	5.00 (5.96-7.68)	6.50 (7.76-10.8)	8.30 (9.22-13.4)	10.50 (10.7-16.4)	14.00 (12.0-19.7)	18.50 (13.7-24.7)	24.00 (14.9-28.9)

* Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

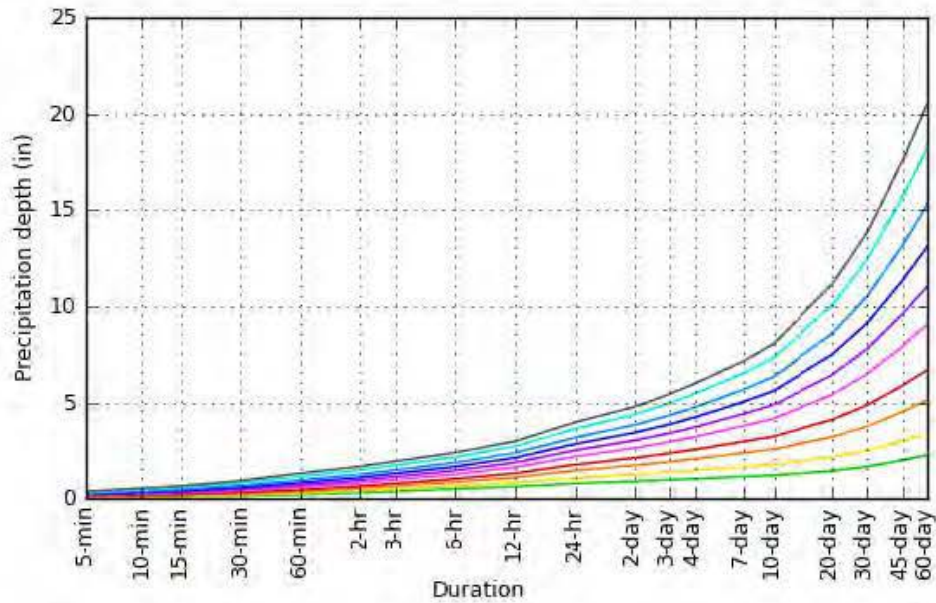
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

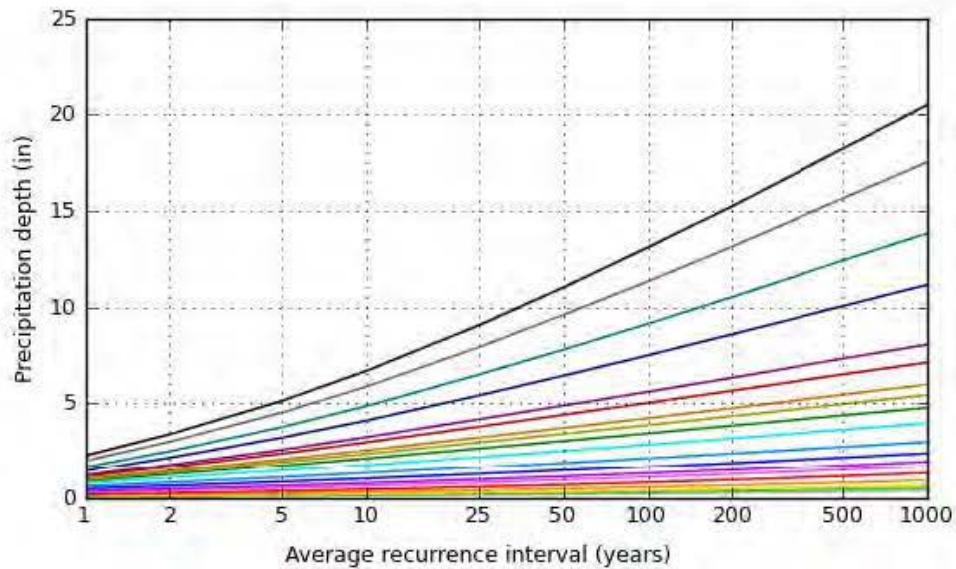
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PF graph a

PDS-based depth-duration-frequency (DDF) curves
Latitude: 35.0697°, Longitude: -118.9800°



Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000

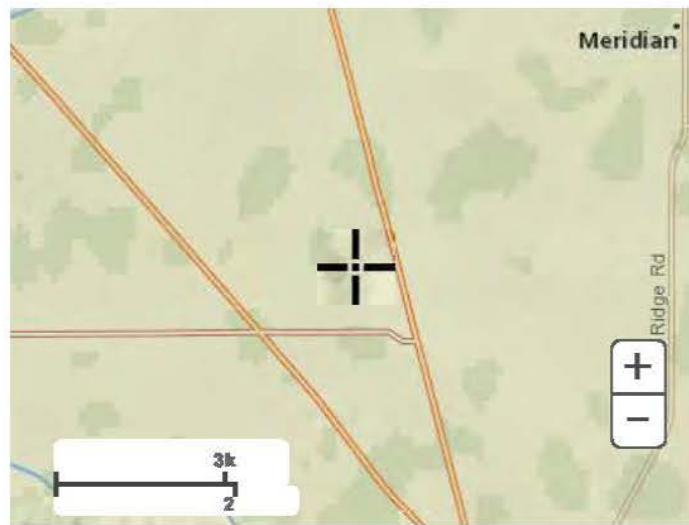


Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	

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Maps & aer a s

8ma s a e terrain



Large scale topographic



Large scale political



Large scale aerial



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5

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**Appendix C:
Preliminary Storm Drain Pipe Sizing
For
The Tejon Indian Trust Acquisition Casino Project**

Prepared For:



**Analytical Environmental Services
1801 7th Street, Suite 100
Sacramento, CA 95811
Phone: (916) 447-3479
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PURPOSE

The purpose of this analysis is to size the storm drain pipe of the Tejon Casino Project. The pipes are sized to convey the 10-year, 5-day storm event with freeboard

STORM DRAIN PIPE SIZING

The storm drain pipe for the site alternatives was determined using the Rational Method and Hydraflow Express extension on AutoCAD Civil 3D, a water-control structure calculator (see Appendix C). The attached support documents describe the methodology and calculations to determine the required size of the storm drain pipe on site. The Mettler Site Alternative A1 and Alternative A2 were determined to require 18 inch storm drain pipe made of reinforced concrete pipe (RCP). The Maricopa Site Alternative was also determined to require 18 inch storm drain pipe made of reinforced concrete pipe (RCP).

The Rational Equation was used to calculate the peak flow (cubic-feet per second) of the five day storm.

Peak Flow (cfs) = ciA

Where:

c = Rational method runoff coefficient

i = Rainfall intensity (inches/hour)

Area = Drainage area of total development (sq. ft.)

For all three site layouts and storm drain systems, the sizing of the pipes was modeled using the Hydraflow Express extension on AutoCAD Civil 3D with a slope of 0.5%. The reports showing the depth of storm water in the pipes along with the velocity of the storm water.

METTLER SITE ALTERNATIVE PEAK FLOW CALCULATION

Drainage Area Designation

The two site plans for the Mettler Site have been broken down by area draining to the specified pipe (see Appendix A) and assumed to have a runoff coefficient of 0.86, which was determined to be representative of a retail area per the User's Guide for the California Impervious Surface Coefficients (ISC) published by the Office of Environmental Health Hazard Assessment of the California Environmental Protection Agency.

Peak Flow Calculations

Rational Equation

$$Q = ciA$$

$$c = \text{runoff coefficient} = 0.86$$

$$i = \text{intensity of rainfall} = 0.0215 \text{ in/hr} = 4.98 \times 10^{-7} \text{ ft/s}$$

$$A = \text{drainage area}$$

(See Appendix A for drainage areas and Appendix B for intensity)

Mettler Site Plan Alternative A1

East Storm Drain Pipe

$$Q = (0.86) \left(4.98 \times \frac{10^{-7} ft}{s} \right) (660,680 ft^2)$$

$$Q = 0.28 cfs$$

North Storm Drain Pipe

$$Q = (0.86) \left(4.98 \times \frac{10^{-7} ft}{s} \right) (107,245 ft^2)$$

$$Q = 0.05 cfs$$

West Storm Drain Pipe

$$Q = (0.86) \left(4.98 \times \frac{10^{-7} ft}{s} \right) (1,652,940 ft^2)$$

$$Q = 0.71 cfs$$

RV Park Storm Drain Pipe

$$Q = (0.86) \left(4.98 \times \frac{10^{-7} ft}{s} \right) (1,106,960 ft^2)$$

$$Q = 0.47 cfs$$

Collect Storm Drain Pipe

$$Q = (0.86) \left(4.98 \times \frac{10^{-7} ft}{s} \right) (3,557,825 ft^2)$$

$$Q = 1.52 cf$$

Mettler Site Plan Alternative A2

East Storm Drain Pipe

$$Q = (0.86) \left(4.98 \times \frac{10^{-7} ft}{s} \right) (759,290 ft^2)$$

$$Q = 0.32 cfs$$

West Storm Drain Pipe

$$Q = (0.86) \left(4.98 \times \frac{10^{-7} ft}{s} \right) (1,587,125 ft^2)$$

$$Q = 0.68 cfs$$

Collect Storm Drain Pipe

$$Q = (0.86) \left(4.98 \times \frac{10^{-7} ft}{s} \right) (2,346,415 ft^2)$$

$$Q = 1.05 cfs$$

MARICOPA SITE ALTERNATIVE VOLUME STORAGE REQUIREMENT

Drainage Area Designation

The site plan for the Maricopa Site has been broken down by area draining to the specified pipe (see Appendix A) and assumed to have a runoff coefficient of 0.86, which was determined to be representative of a retail area per the User's Guide for the California Impervious Surface Coefficients (ISC) published by the Office of Environmental Health Hazard Assessment of the California Environmental Protection Agency.

Peak Flow Calculations

Rational Equation

$$Q = ciA$$

$$c = \text{runoff coefficient} = 0.86$$

$$i = \text{intensity of rainfall} = 0.0215 \text{ in/hr} = 4.98 \times 10^{-7} \text{ ft/s}$$

$$A = \text{drainage area}$$

(See Appendix A for drainage areas and Appendix B for intensity)

Maricopa Site Plan Alternative

North Storm Drain Pipe

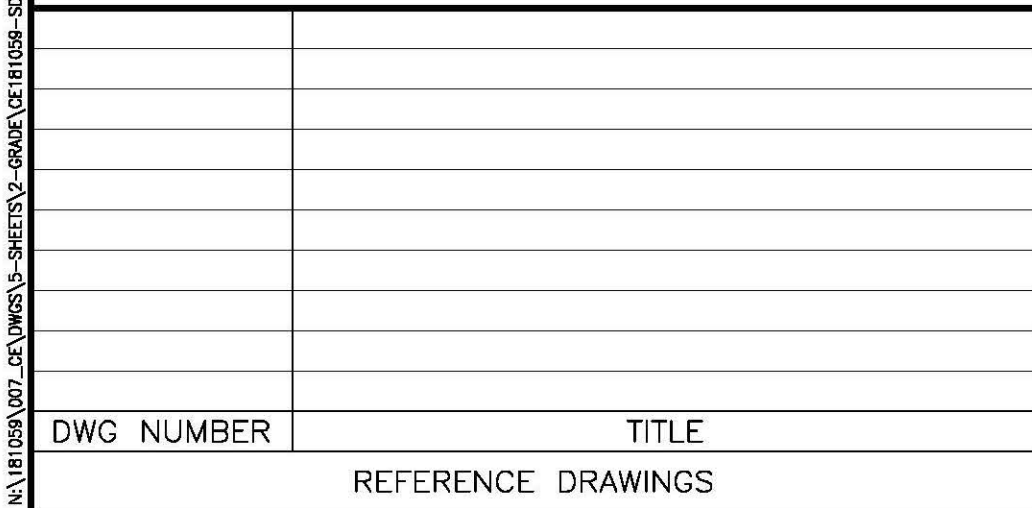
$$Q = (0.86) \left(4.98 \times \frac{10^{-7} \text{ ft}}{\text{s}} \right) (1,522,950 \text{ ft}^2)$$

$$Q = 0.65 \text{ cfs}$$

West Storm Drain Pipe

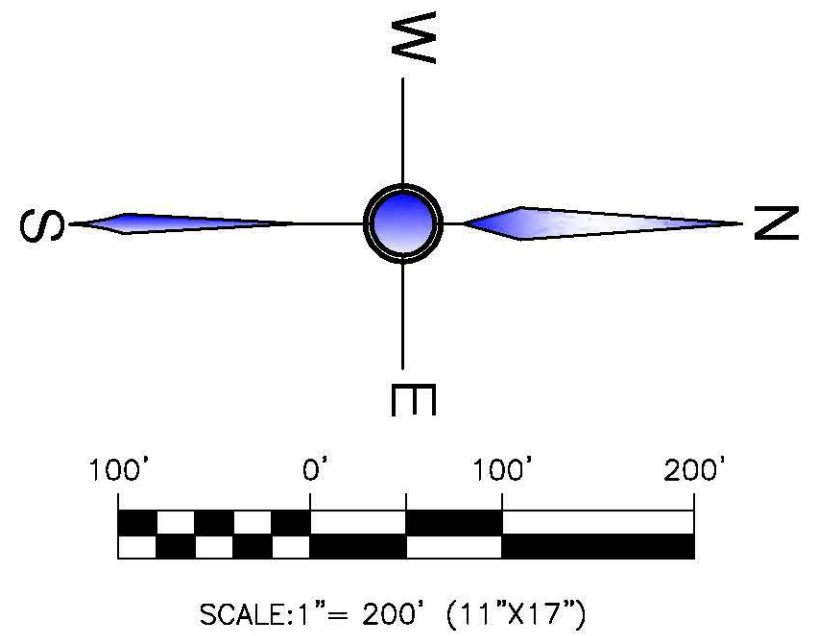
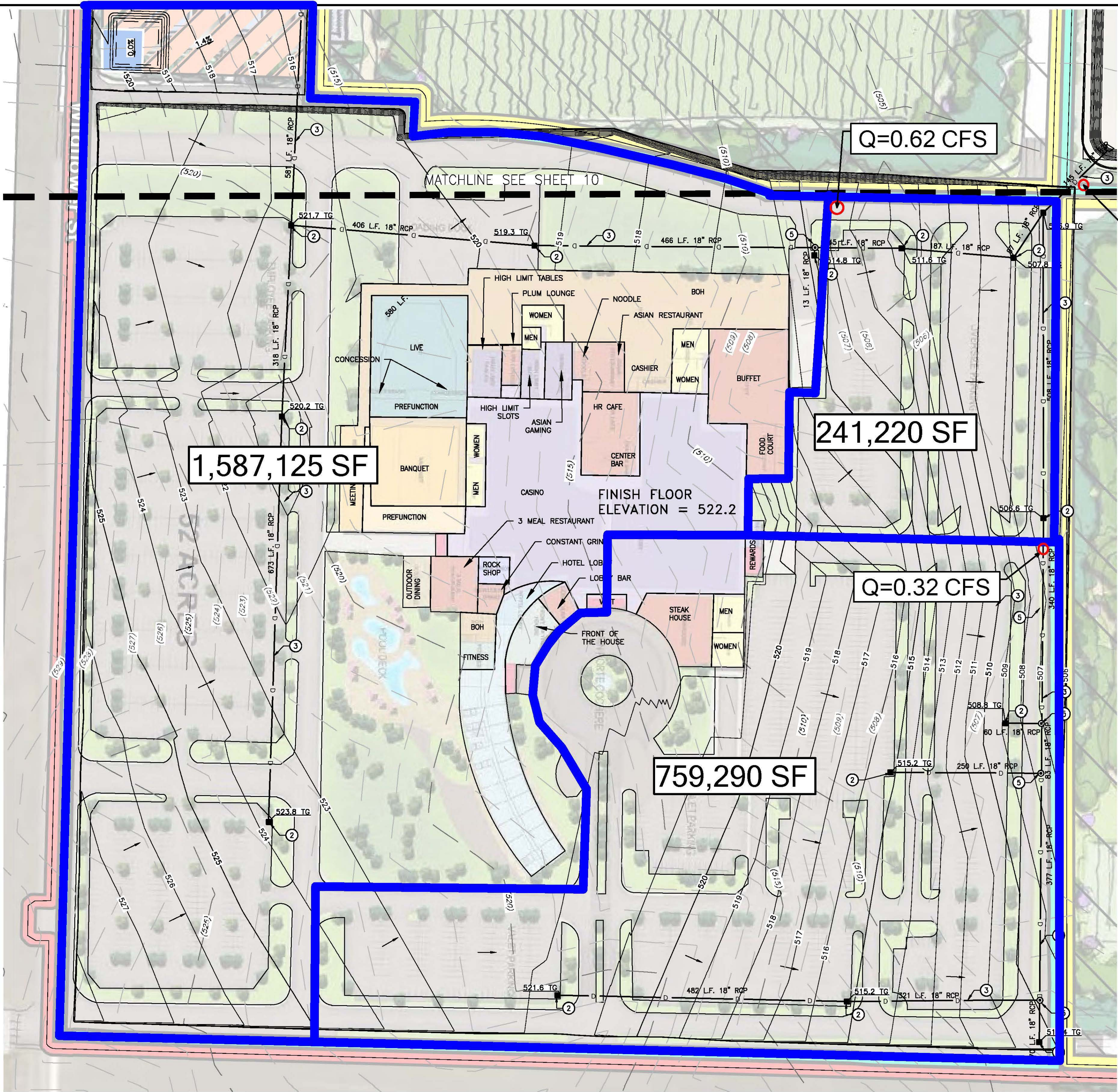
$$Q = (0.86) \left(4.98 \times \frac{10^{-7} \text{ ft}}{\text{s}} \right) (835,515 \text{ ft}^2)$$

$$Q = 0.36 \text{ cfs}$$



- ① STORM DRAIN SUMP PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-1
- ② CATCH BASINS - PER KERN COUNTY DEVELOPMENT STANDARDS - TYPE "A" MINOR STRUCTURE - PLATE NO. R-71
- ③ STORM DRAIN PIPE TO BE CLASS III RCP WITH RUBBER GASKET JOINTS. SIZE AS NOTED TRENCH DETAIL PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. S-1
- ④ OUTLET STRUCTURE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-2
- ⑤ STORM DRAIN MANHOLE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-5

 DIVERSIFIED PROJECT SERVICES INTERNATIONAL San Luis Obispo Bakersfield, CA Long Beach (805) 250-2891 (661) 371-2800 (562) 424-6400 THE DELIVERY OF THIS DRAWING SHOULD NOT BE CONSTRUED TO PROVIDE AN EXPRESS WARRANTY OR GUARANTEE TO ANYONE THAT ALL DIMENSIONS AND DETAILS ARE EXACT OR TO INDICATE THAT THE USE OF THIS DRAWING IMPLIES THE REVIEW AND APPROVAL OF DPSI OF ANY FUTURE USE. ANY USE OF THIS INFORMATION IS AT THE SOLE RISK OF THE USER. PROJECT: 181059 www.dpsinc.com	DATE	DESCRIPTION	BY	CKD.	APPR	METTLER SITE A1- DRAINAGE PLAN			
	03/22/19	ISSUED FOR REVIEW	EP	RJ	LAL	THE TEJON INDIAN TRUST ACQUISITION CASINO PROJECT METTLER SITE A1&A2 MARICOPA SITE COUNTY OF KERN, STATE OF CALIFORNIA			
	05/22/19	ISSUED FOR REVIEW	EP	RJ	LAL				
						ENGINEER:	LAL	DATE: 05.22.2019	SCALE: AS SHOWN
						CO. SURVEYOR:	DPSI, INC.	ORIGINAL DWG NO.	
						PROJ. MGR:	LAL	NO. 4	REV. A
						COMPILED BY:	RJ		
						DOCUMENT TYPE:	EXHIBIT	CAD FILE NO. CE181059-SD-003A.dwg	



- LEGEND**
- ① STORM DRAIN SUMP PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-1
 - ② CATCH BASINS - PER KERN COUNTY DEVELOPMENT STANDARDS - TYPE "A" MINOR STRUCTURE - PLATE NO. R-71
 - ③ STORM DRAIN PIPE TO BE CLASS III RCP WITH RUBBER GASKET JOINTS. SIZE AS NOTED TRENCH DETAIL PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. S-1
 - ④ OUTLET STRUCTURE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-2
 - ⑤ STORM DRAIN MANHOLE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-5

DWG NUMBER	TITLE
	REFERENCE DRAWINGS

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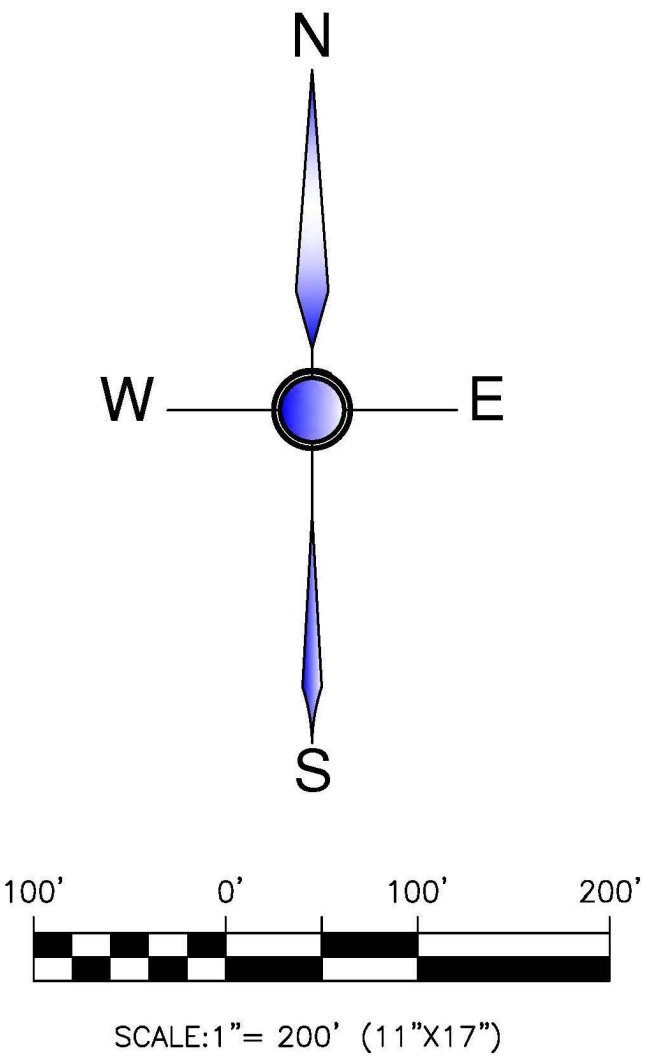
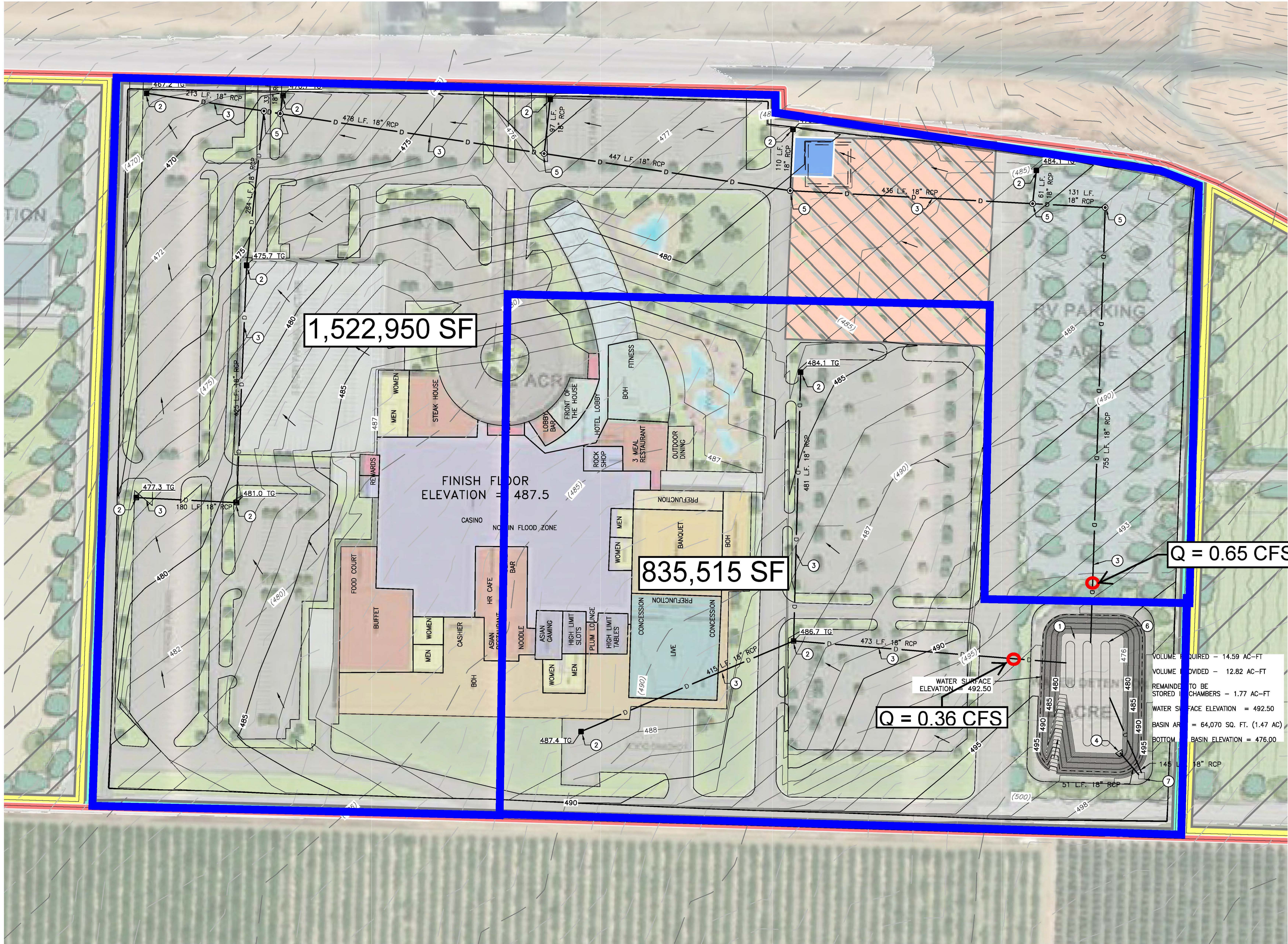
PROJECT: 181059
www.dpsinc.com

DATE	DESCRIPTION	BY	CKD.	APPR
03/22/19	ISSUED FOR REVIEW	EP	RJ	LAL
05/22/19	ISSUED FOR REVIEW	EP	RJ	LAL

METTLER SITE A2- DRAINAGE PLAN			
THE TEJON INDIAN TRUST ACQUISITION CASINO PROJECT METTLER SITE A1&A2 MARIPOSA SITE COUNTY OF KERN, STATE OF CALIFORNIA			
ENGINEER:	LAL	DATE:	05.22.2019
CO. SURVEYOR:	DPSI, INC.	ORIGINAL DWG NO.	
PROJ. MGR:	LAL	NO.	9
COMPILED BY:	RJ		
DOCUMENT TYPE:	EXHIBIT	CAD FILE NO.	CE181059-SD-003B.dwg

SCALE:	AS SHOWN
REV.	A

N:\181059\DWG\181059-SD-SHEETS\2-GRADE\CE181059-SD-003B.DWG



LEGEND

- 1 STORM DRAIN SUMP PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-1
- 2 CATCH BASINS - PER KERN COUNTY DEVELOPMENT STANDARDS - TYPE "A" MINOR STRUCTURE - PLATE NO. R-71
- 3 STORM DRAIN PIPE TO BE CLASS III RCP WITH RUBBER GASKET JOINTS. SIZE AS NOTED TRENCH DETAIL PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. S-1
- 4 OUTLET STRUCTURE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-2
- 5 STORM DRAIN MANHOLE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-5
- 6 1.77 AC-FT UNDERGROUND DETENTION CHAMBERS
- 7 DUPLEX PUMPS PER KERN COUNTY HYDROLOGY MANUAL REQUIREMENTS

Q = 0.65 CFS

Q = 0.36 CFS

VOLUME REQUIRED - 14.59 AC-FT
VOLUME PROVIDED - 12.82 AC-FT
REMAINDER TO BE STORED IN CHAMBERS - 1.77 AC-FT
WATER SURFACE ELEVATION = 492.50
BASIN AREA = 64,070 SQ. FT. (1.47 AC)
BOTTOM BASIN ELEVATION = 476.00

\\NA181059\007_CEDWGS\5-SHEETS\2-DRAWING\181059-SD-001A.dwg

DWG NUMBER	TITLE
	REFERENCE DRAWINGS



DIVERSIFIED PROJECT SERVICES
INTERNATIONAL

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(805) 250-2891 (661) 371-2800 (562) 424-6400

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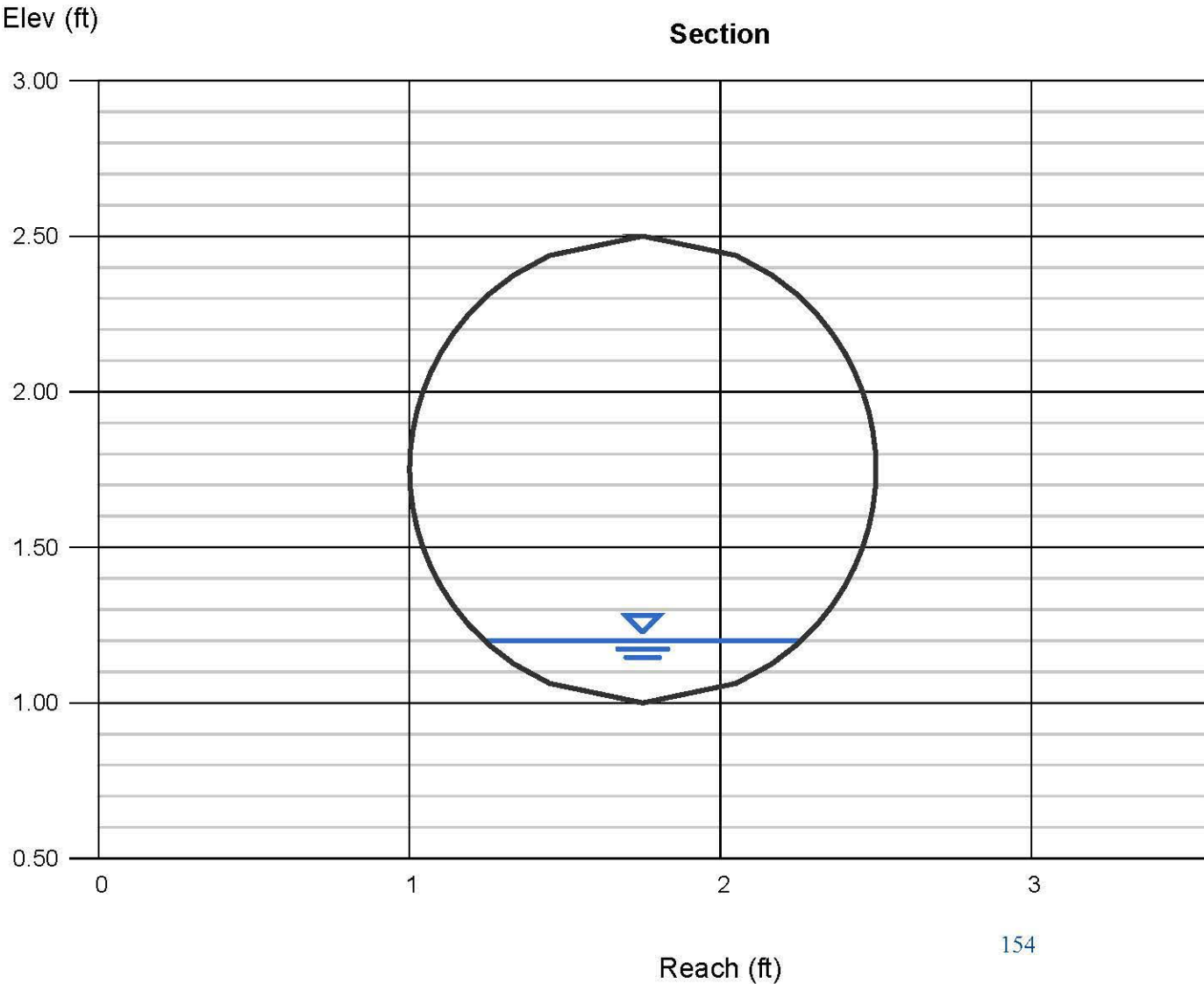
PROJECT: 181059
www.dpsinc.com

DATE	DESCRIPTION	BY	CKD.	APPR
03/22/19	ISSUED FOR REVIEW	EP	RJ	LAL
05/22/19	ISSUED FOR PERMIT	EP	RJ	LAL

MARICOPA- DRAINAGE PLAN			
THE TEJON INDIAN TRUST ACQUISITION CASINO PROJECT METTLER SITE A1&A2 MARICOPA SITE COUNTY OF KERN, STATE OF CALIFORNIA			
ENGINEER:	LAL	DATE:	05.22.2019
CO. SURVEYOR:	DPSI, INC.	SCALE:	AS SHOWN
PROJ. MGR:	LAL	ORIGINAL DWG NO.	
COMPILED BY:	RJ	NO.	13
DOCUMENT TYPE:	EXHIBIT	CAD FILE NO.	CE181059-SD-001A.dwg
		REV.	A

Mettler Alternative A1 East

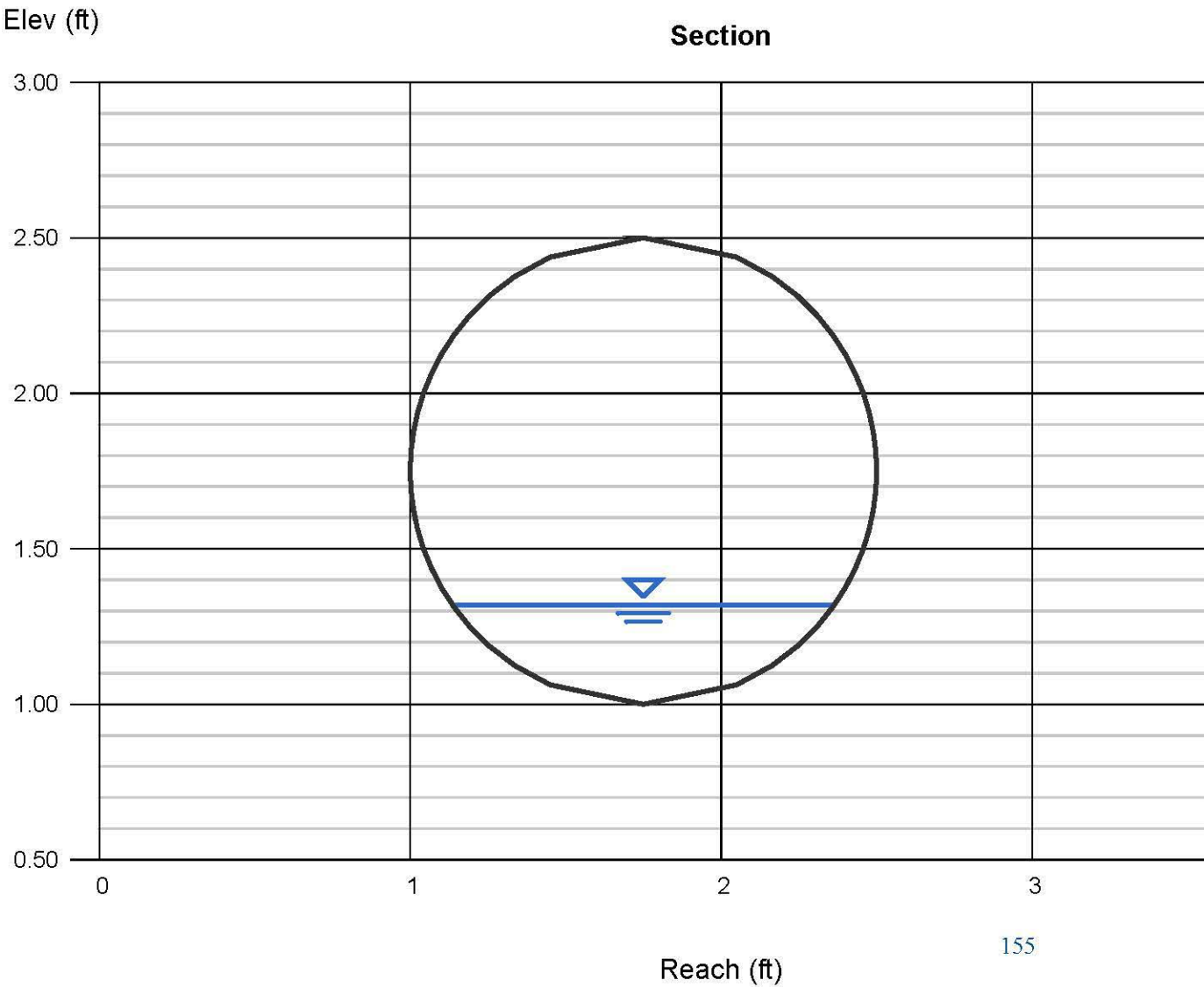
Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.20
		Q (cfs)	= 0.280
		Area (sqft)	= 0.14
Invert Elev (ft)	= 1.00	Velocity (ft/s)	= 1.98
Slope (%)	= 0.50	Wetted Perim (ft)	= 1.12
N-Value	= 0.013	Crit Depth, Yc (ft)	= 0.20
		Top Width (ft)	= 1.02
		EGL (ft)	= 0.26
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 0.28		



Channel Report

Mettler Alternative A1 West

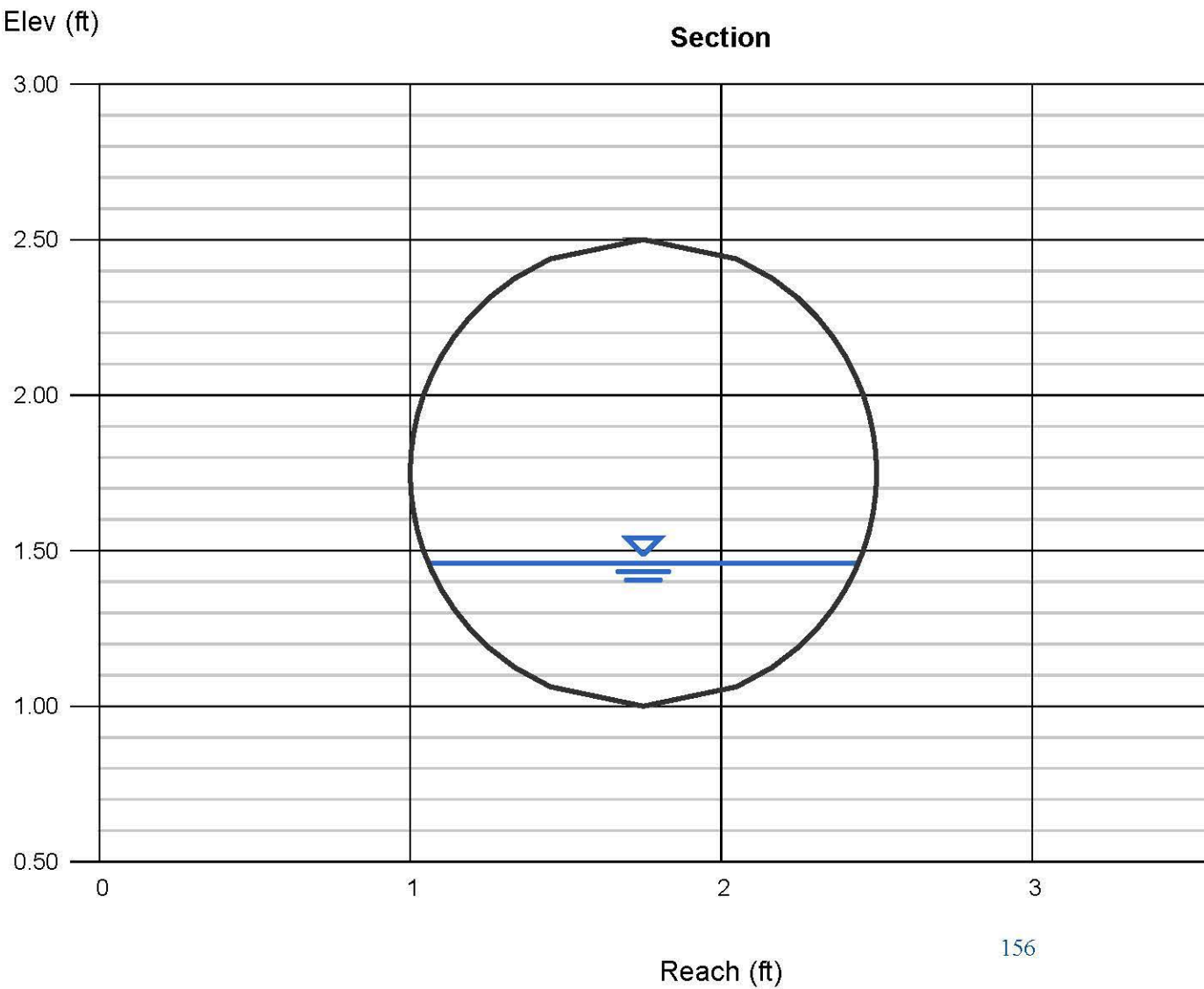
Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.32
		Q (cfs)	= 0.710
		Area (sqft)	= 0.28
Invert Elev (ft)	= 1.00	Velocity (ft/s)	= 2.54
Slope (%)	= 0.50	Wetted Perim (ft)	= 1.45
N-Value	= 0.013	Crit Depth, Yc (ft)	= 0.32
		Top Width (ft)	= 1.23
		EGL (ft)	= 0.42
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 0.71		



Channel Report

Mettler Alternative A1 Casino Collect

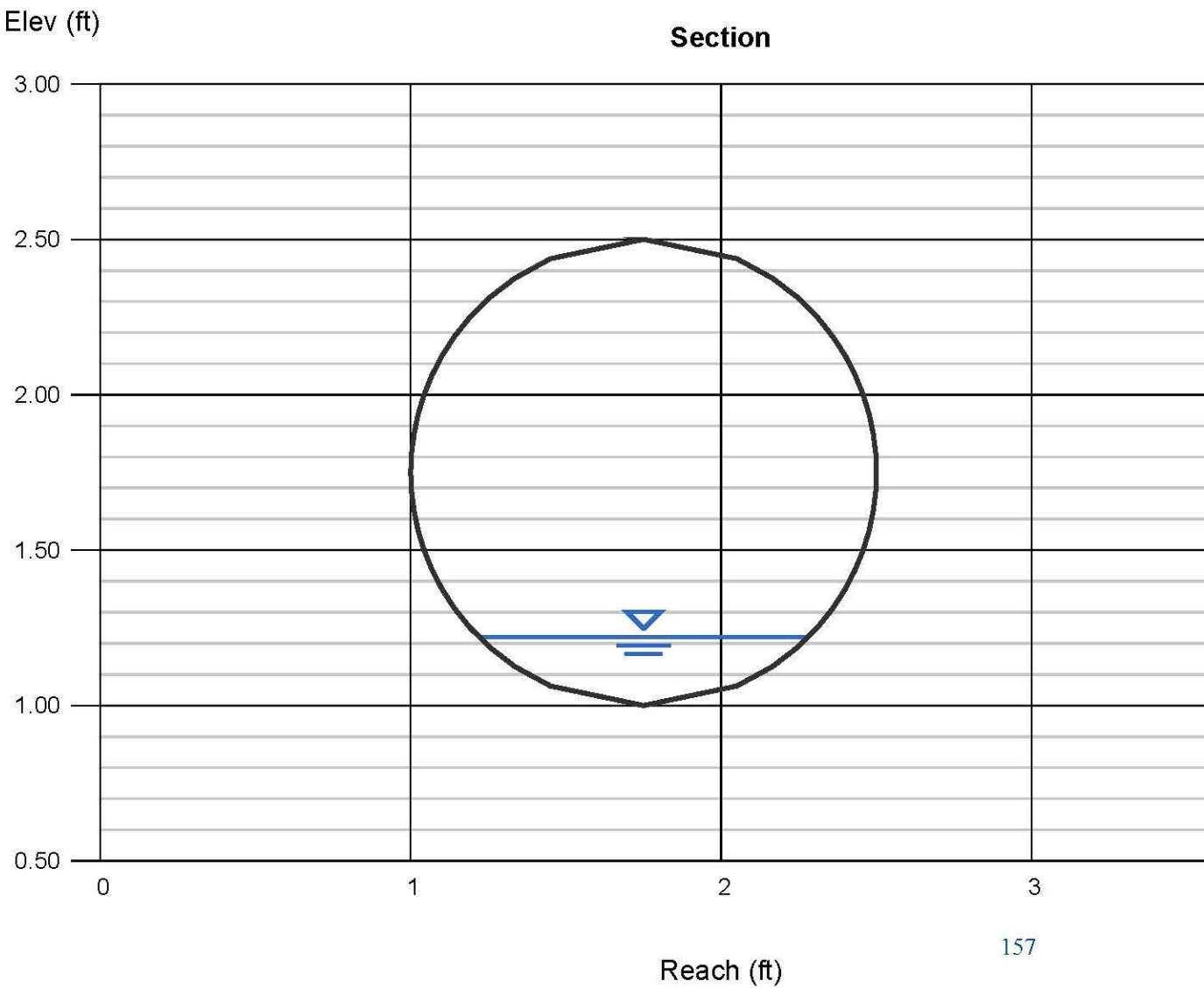
Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.46
		Q (cfs)	= 1.520
		Area (sqft)	= 0.46
Invert Elev (ft)	= 1.00	Velocity (ft/s)	= 3.30
Slope (%)	= 0.50	Wetted Perim (ft)	= 1.76
N-Value	= 0.013	Crit Depth, Yc (ft)	= 0.47
		Top Width (ft)	= 1.38
		EGL (ft)	= 0.63
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 1.52		



Channel Report

Mettler Alternative A2 Storm Drain East

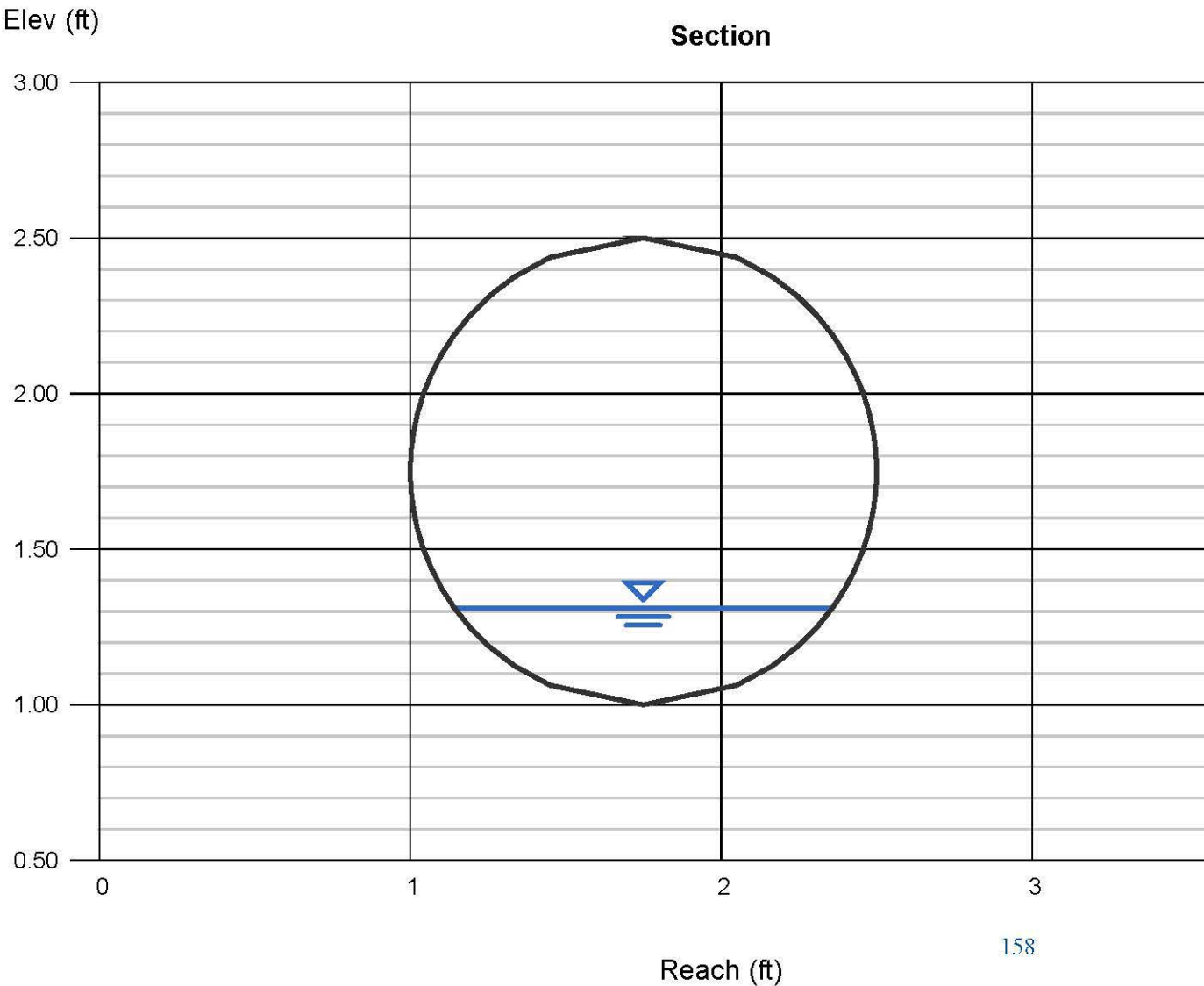
Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.22
		Q (cfs)	= 0.320
		Area (sqft)	= 0.16
Invert Elev (ft)	= 1.00	Velocity (ft/s)	= 1.96
Slope (%)	= 0.50	Wetted Perim (ft)	= 1.18
N-Value	= 0.013	Crit Depth, Yc (ft)	= 0.21
		Top Width (ft)	= 1.07
		EGL (ft)	= 0.28
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 0.32		



Channel Report

Mettler Alternative A2 Storm Drain West

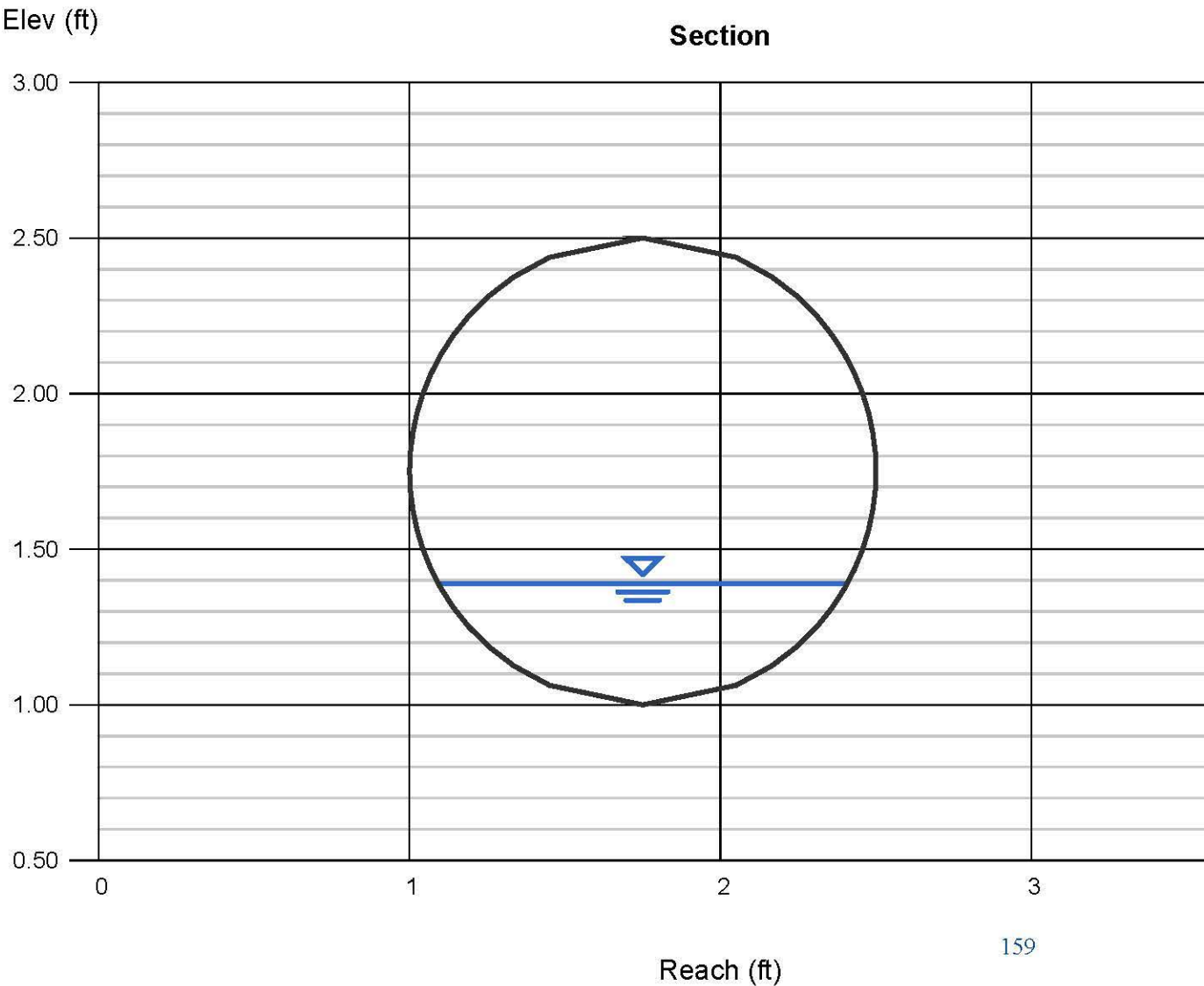
Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.31
		Q (cfs)	= 0.680
		Area (sqft)	= 0.26
Invert Elev (ft)	= 1.00	Velocity (ft/s)	= 2.57
Slope (%)	= 0.50	Wetted Perim (ft)	= 1.42
N-Value	= 0.013	Crit Depth, Yc (ft)	= 0.31
		Top Width (ft)	= 1.22
		EGL (ft)	= 0.41
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 0.68		



Channel Report

Mettler Alternative A2 Casino Collect

Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.39
		Q (cfs)	= 1.050
		Area (sqft)	= 0.37
Invert Elev (ft)	= 1.00	Velocity (ft/s)	= 2.84
Slope (%)	= 0.50	Wetted Perim (ft)	= 1.61
N-Value	= 0.013	Crit Depth, Yc (ft)	= 0.39
		Top Width (ft)	= 1.32
		EGL (ft)	= 0.52
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 1.05		



Channel Report

Maricopa Storm Drain Pipe North

Circular

Diameter (ft) = 1.50

Invert Elev (ft) = 1.00

Slope (%) = 0.50

N-Value = 0.013

Calculations

Compute by: Known Q

Known Q (cfs) = 0.65

Highlighted

Depth (ft) = 0.30

Q (cfs) = 0.650

Area (sqft) = 0.25

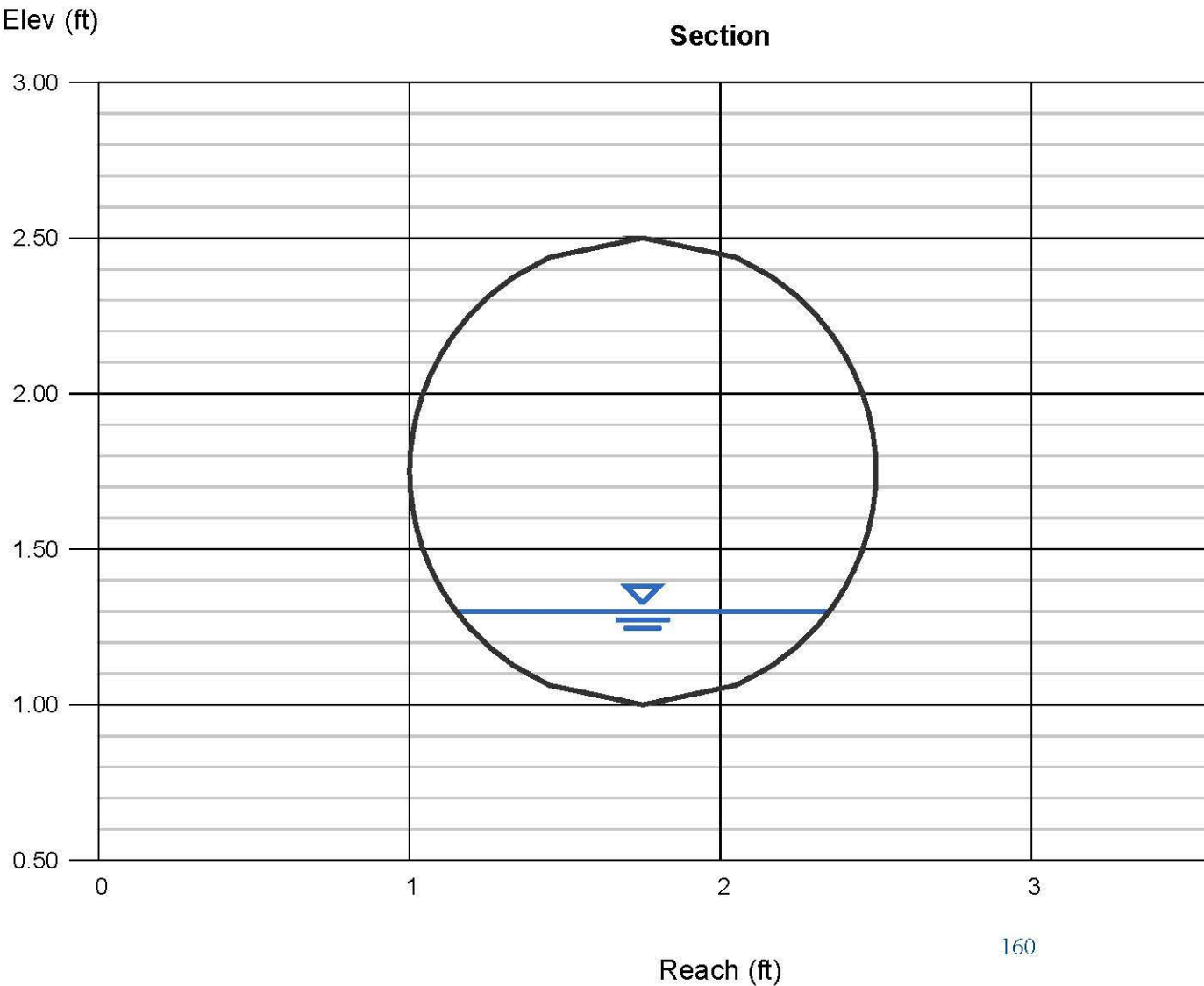
Velocity (ft/s) = 2.56

Wetted Perim (ft) = 1.39

Crit Depth, Yc (ft) = 0.30

Top Width (ft) = 1.20

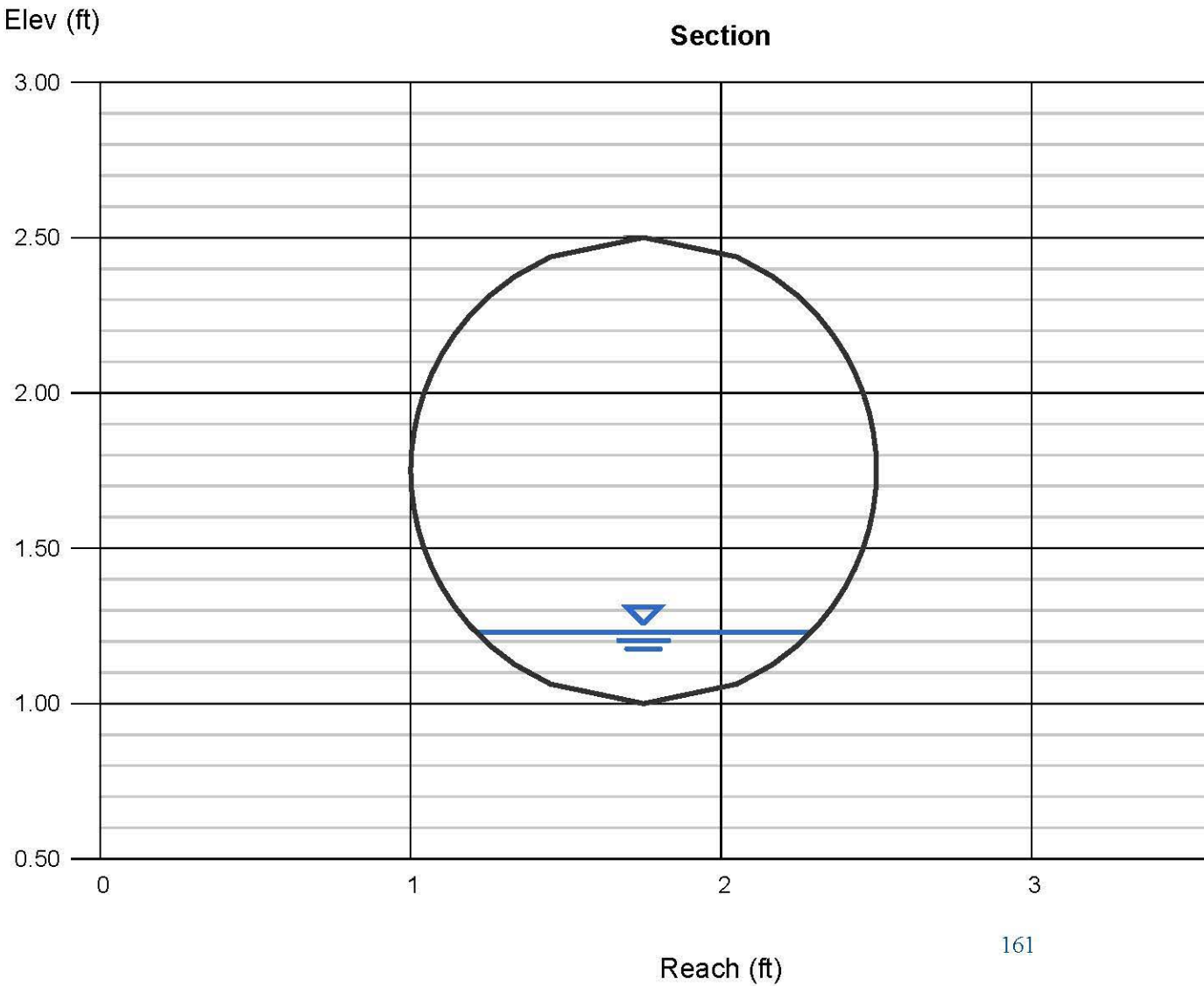
EGL (ft) = 0.40



Channel Report

Maricopa Storm Drain Pipe South

Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.23
		Q (cfs)	= 0.360
		Area (sqft)	= 0.17
Invert Elev (ft)	= 1.00	Velocity (ft/s)	= 2.10
Slope (%)	= 0.50	Wetted Perim (ft)	= 1.21
N-Value	= 0.013	Crit Depth, Yc (ft)	= 0.22
		Top Width (ft)	= 1.08
		EGL (ft)	= 0.30
Calculations			
Compute by:	Known Q		
Known Q (cfs)	= 0.36		



Appendix C: Precipitation Frequency (Intensity)



NOAA Atlas 14, Volume 6, Version 2
Location name: Bakersfield, California, USA*
Latitude: 35.0697°, Longitude: -118.98°
Elevation: 504.8 ft**
* source: ESRI Maps
** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerals](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.744 (0.600-0.924)	0.972 (0.780-1.22)	1.32 (1.06-1.66)	1.62 (1.30-2.05)	2.08 (1.61-2.71)	2.46 (1.87-3.28)	2.88 (2.14-3.91)	3.34 (2.42-4.66)	4.02 (2.81-5.82)	4.58 (3.10-6.85)
10-min	0.528 (0.426-0.666)	0.702 (0.564-0.876)	0.948 (0.762-1.19)	1.16 (0.930-1.48)	1.49 (1.15-1.94)	1.76 (1.34-2.35)	2.06 (1.53-2.81)	2.39 (1.73-3.34)	2.88 (2.01-4.17)	3.29 (2.22-4.91)
15-min	0.428 (0.344-0.536)	0.564 (0.452-0.708)	0.764 (0.612-0.960)	0.936 (0.748-1.19)	1.20 (0.928-1.57)	1.42 (1.08-1.89)	1.66 (1.24-2.26)	1.93 (1.40-2.69)	2.32 (1.62-3.36)	2.65 (1.79-3.96)
30-min	0.302 (0.244-0.378)	0.400 (0.322-0.500)	0.540 (0.434-0.680)	0.664 (0.530-0.842)	0.850 (0.658-1.11)	1.01 (0.764-1.34)	1.18 (0.874-1.60)	1.37 (0.990-1.91)	1.64 (1.15-2.38)	1.88 (1.27-2.80)
60-min	0.213 (0.172-0.267)	0.281 (0.226-0.353)	0.381 (0.306-0.479)	0.467 (0.373-0.592)	0.599 (0.463-0.781)	0.708 (0.538-0.942)	0.829 (0.616-1.13)	0.962 (0.697-1.34)	1.16 (0.808-1.68)	1.32 (0.894-1.98)
2-hr	0.159 (0.128-0.200)	0.206 (0.166-0.258)	0.272 (0.219-0.343)	0.330 (0.263-0.418)	0.414 (0.320-0.540)	0.483 (0.367-0.642)	0.557 (0.414-0.758)	0.636 (0.461-0.888)	0.750 (0.524-1.09)	0.842 (0.570-1.26)
3-hr	0.130 (0.105-0.163)	0.167 (0.135-0.210)	0.219 (0.176-0.276)	0.264 (0.210-0.335)	0.329 (0.254-0.429)	0.382 (0.290-0.508)	0.438 (0.325-0.595)	0.498 (0.360-0.694)	0.581 (0.406-0.842)	0.648 (0.438-0.968)
6-hr	0.086 (0.069-0.108)	0.111 (0.089-0.139)	0.144 (0.116-0.181)	0.173 (0.138-0.219)	0.213 (0.165-0.278)	0.245 (0.186-0.326)	0.278 (0.207-0.379)	0.313 (0.227-0.437)	0.362 (0.253-0.525)	0.400 (0.270-0.597)
12-hr	0.053 (0.042-0.066)	0.069 (0.056-0.087)	0.092 (0.074-0.115)	0.110 (0.088-0.140)	0.136 (0.105-0.178)	0.156 (0.119-0.208)	0.177 (0.131-0.240)	0.198 (0.143-0.276)	0.226 (0.158-0.328)	0.248 (0.167-0.370)
24-hr	0.033 (0.030-0.037)	0.045 (0.041-0.051)	0.061 (0.055-0.069)	0.074 (0.066-0.085)	0.091 (0.078-0.109)	0.105 (0.088-0.128)	0.118 (0.096-0.148)	0.132 (0.104-0.171)	0.151 (0.114-0.205)	0.165 (0.120-0.233)
2-day	0.019 (0.017-0.021)	0.026 (0.024-0.030)	0.036 (0.033-0.041)	0.044 (0.039-0.051)	0.055 (0.047-0.066)	0.063 (0.053-0.077)	0.072 (0.058-0.090)	0.080 (0.063-0.104)	0.091 (0.069-0.124)	0.100 (0.072-0.140)
3-day	0.014 (0.012-0.015)	0.019 (0.017-0.022)	0.027 (0.024-0.030)	0.033 (0.029-0.038)	0.041 (0.035-0.049)	0.047 (0.040-0.058)	0.054 (0.044-0.067)	0.060 (0.048-0.078)	0.069 (0.052-0.093)	0.076 (0.055-0.106)
4-day	0.011 (0.010-0.012)	0.015 (0.014-0.017)	0.022 (0.019-0.025)	0.027 (0.024-0.031)	0.034 (0.029-0.040)	0.039 (0.032-0.047)	0.044 (0.036-0.055)	0.050 (0.039-0.064)	0.057 (0.043-0.077)	0.062 (0.045-0.088)
7-day	0.007 (0.006-0.008)	0.010 (0.009-0.011)	0.014 (0.013-0.016)	0.018 (0.016-0.020)	0.023 (0.019-0.027)	0.026 (0.022-0.032)	0.030 (0.024-0.038)	0.034 (0.027-0.044)	0.039 (0.029-0.053)	0.042 (0.031-0.060)
10-day	0.005 (0.005-0.006)	0.007 (0.007-0.008)	0.011 (0.010-0.012)	0.014 (0.012-0.015)	0.017 (0.015-0.021)	0.020 (0.017-0.025)	0.023 (0.019-0.029)	0.026 (0.021-0.034)	0.031 (0.023-0.041)	0.034 (0.024-0.047)
20-day	0.003 (0.003-0.003)	0.005 (0.004-0.005)	0.007 (0.006-0.008)	0.009 (0.008-0.010)	0.011 (0.010-0.013)	0.013 (0.011-0.016)	0.016 (0.013-0.020)	0.018 (0.014-0.023)	0.021 (0.016-0.028)	0.023 (0.017-0.033)
30-day	0.002 (0.002-0.003)	0.003 (0.003-0.004)	0.005 (0.005-0.006)	0.007 (0.006-0.008)	0.009 (0.008-0.011)	0.011 (0.009-0.013)	0.013 (0.010-0.016)	0.015 (0.012-0.019)	0.017 (0.013-0.023)	0.019 (0.014-0.027)
45-day	0.002 (0.002-0.002)	0.003 (0.003-0.003)	0.004 (0.004-0.005)	0.005 (0.005-0.006)	0.007 (0.006-0.009)	0.009 (0.007-0.011)	0.010 (0.009-0.013)	0.012 (0.010-0.016)	0.014 (0.011-0.020)	0.016 (0.012-0.023)
60-day	0.002 (0.001-0.002)	0.002 (0.002-0.003)	0.004 (0.003-0.004)	0.005 (0.004-0.005)	0.006 (0.005-0.007)	0.008 (0.006-0.009)	0.009 (0.007-0.011)	0.011 (0.008-0.014)	0.013 (0.010-0.017)	0.014 (0.010-0.020)

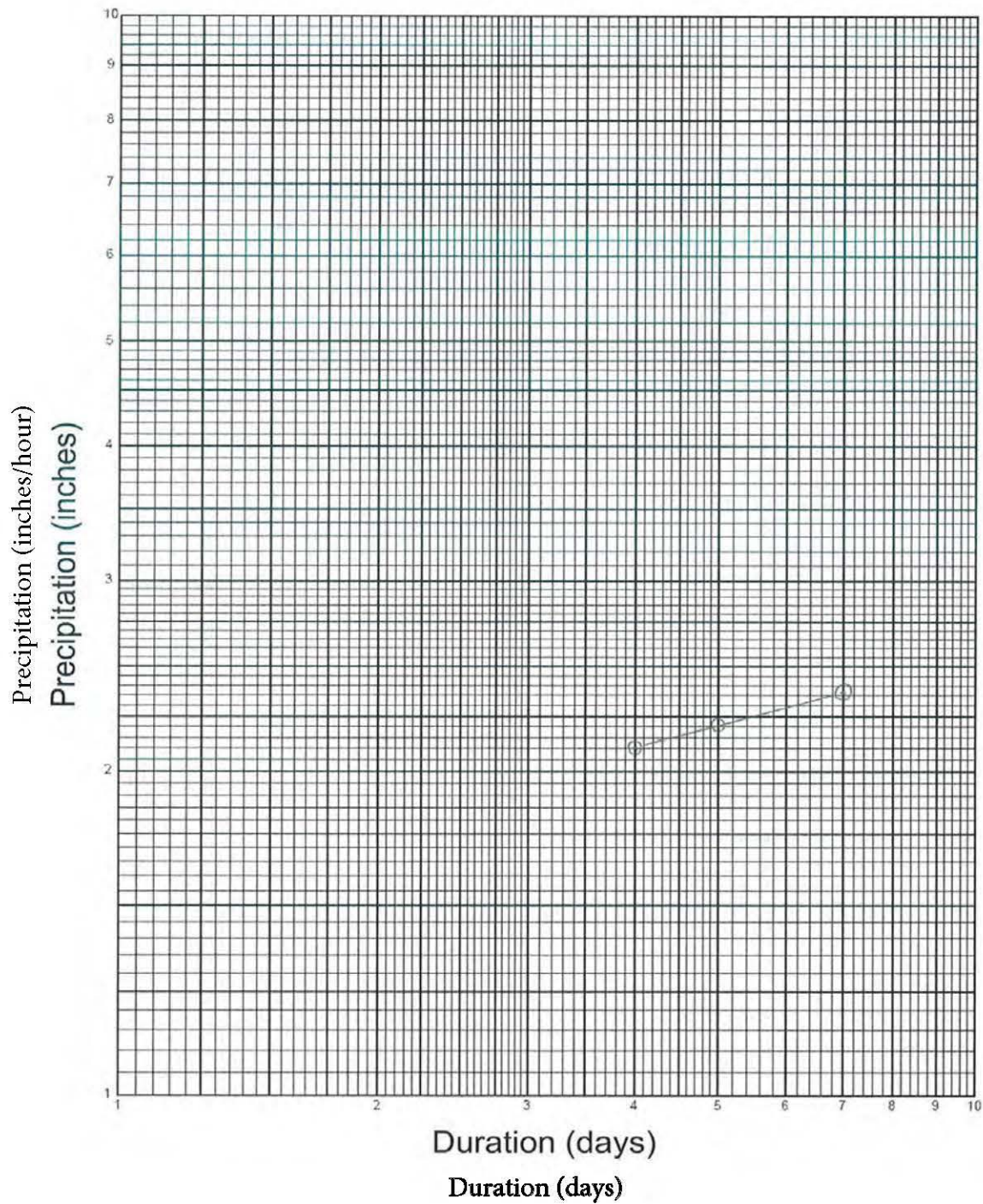
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

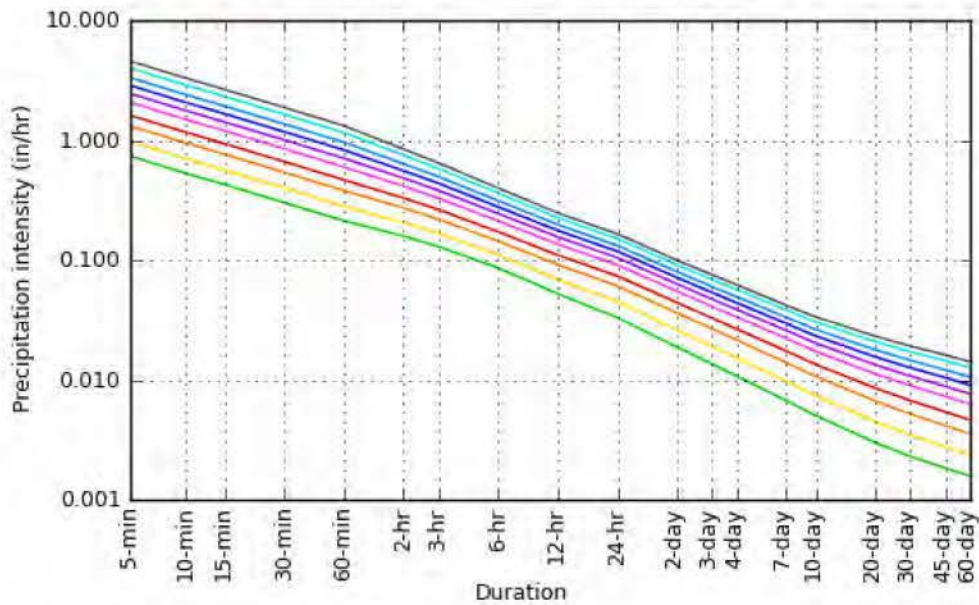
- 6) Select 10yr 4day rainfall depth – **2.10** and 10yr 7 day rainfall depth – **2.36**
7) Plot points on log-log graph paper.



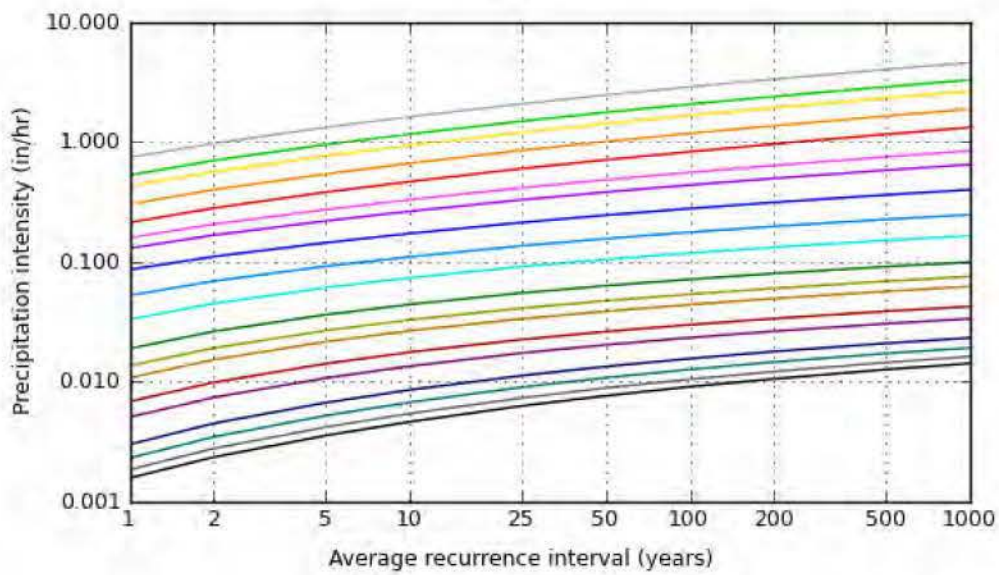
- 8) Read the solution for the 10 yr 5 day depth of rainfall– **2.20 inches**

PF graphical

PDS-based intensity-duration-frequency (IDF) curves
Latitude: 35.0697°, Longitude: -118.9800°



Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000

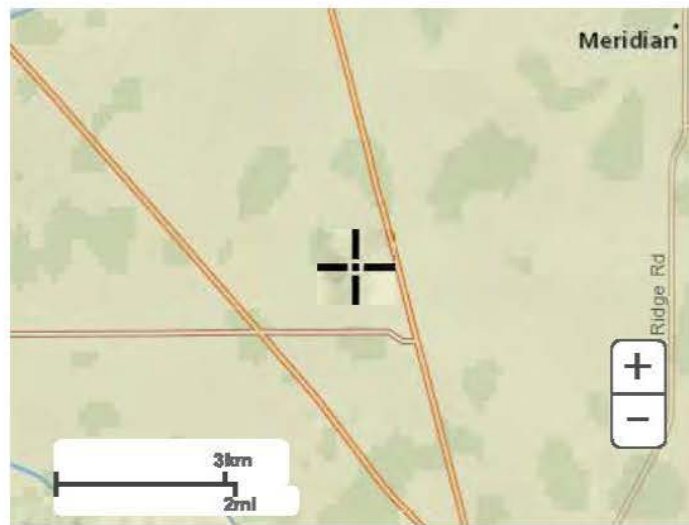


Duration
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10-min
15-min
30-min
60-min
2-hr
3-hr
6-hr
12-hr
24-hr
2-day
3-day
4-day
7-day
10-day
20-day
30-day
45-day
60-day

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Maps & aeriels

Small scale terrain



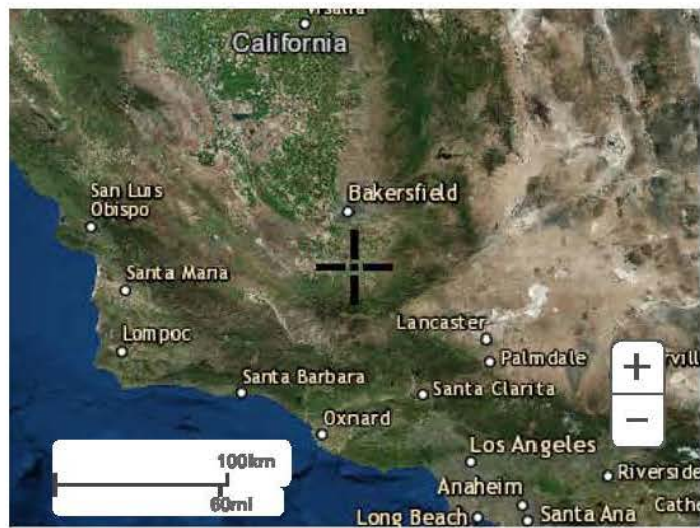
Large scale terrain



Large scale map



Large scale aerial



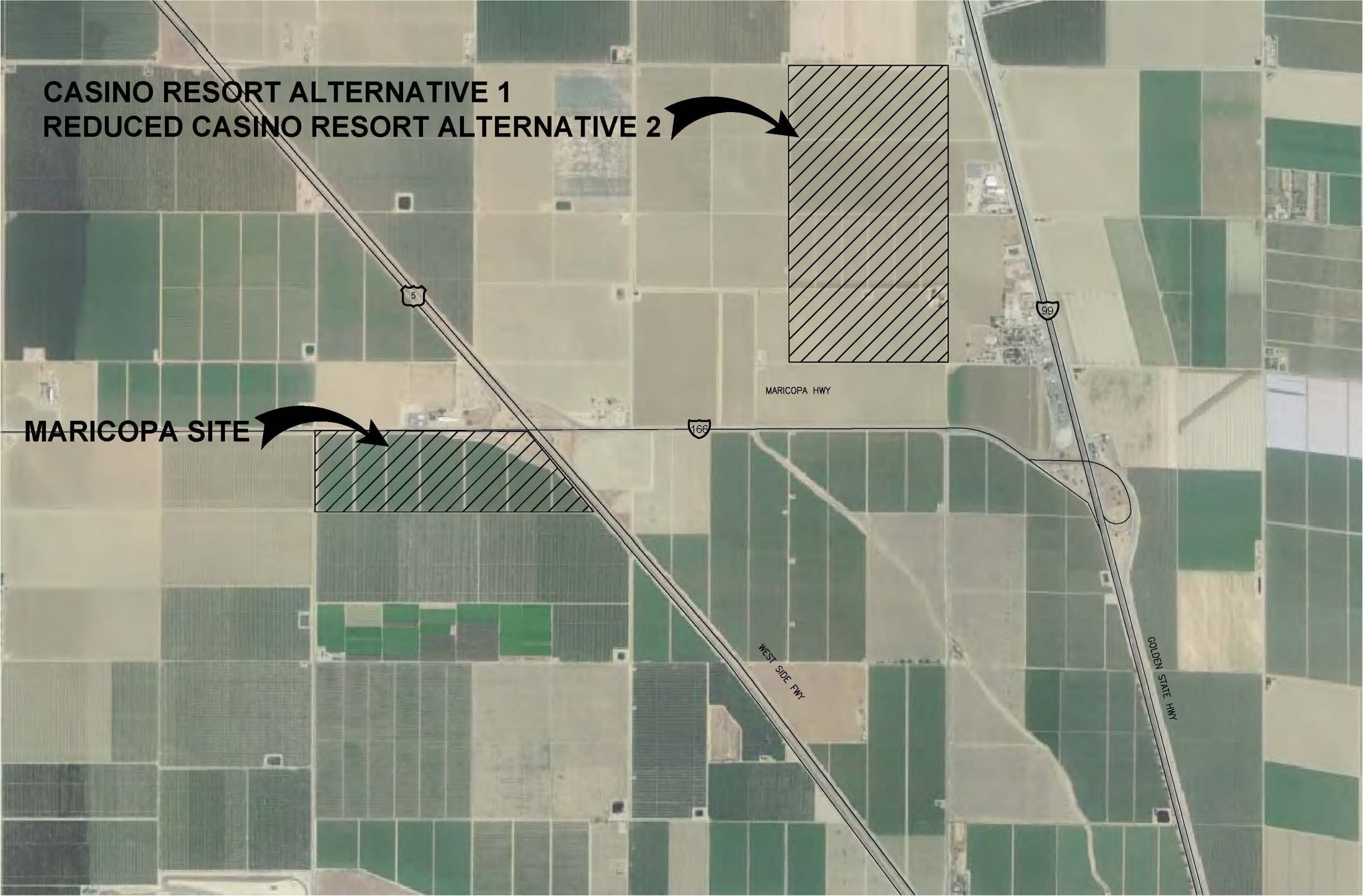
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[US Department of Commerce](#)
[National Oceanic and Atmospheric Administration](#)
[National Weather Service](#)
[National Water Center](#)
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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COUNTY OF KERN, STATE OF CALIFORNIA
CONCEPTUAL GRADING AND DRAINAGE PLANS
FOR
THE TEJON INDIAN TRUST ACQUISITION CASINO PROJECT
METTLER SITE A1&A2
MARICOPA SITE

SHEET LIST TABLE		
SHEET NO.	REV.	DESCRIPTION
1	A	TITLE SHEET
2	A	METTLER SITE A1- GRADING
3	A	METTLER SITE A1- GRADING PLAN CONT.
4	A	METTLER SITE A1- DRAINAGE PLAN
5	A	METTLER SITE A1- DRAINAGE PLAN CONT.
6	A	METTLER SITE A1- CUT FILL EXHIBIT
7	A	METTLER SITE A2- GRADING PLAN
8	A	METTLER SITE A2- GRADING PLAN CONT.
9	A	METTLER SITE A2- DRAINAGE PLAN
10	A	METTLER SITE A2- DRAINAGE PLAN CONT.
11	A	METTLER SITE A2- CUT FILL EXHIBIT
12	A	MARICOPA- GRADING PLAN
13	A	MARICOPA- DRAINAGE PLAN
14	A	MARICOPA- CUT FILL EXHIBIT
15	A	DETAIL SHEET



LEGEND

	EXISTING PVC RISER
	EXISTING BOLLARD
	EXISTING FIRE HYDRANT
	EXISTING HOSE BIB
	EXISTING ELECTRICAL VAULT
	EXISTING WATER VALVE
	PROPOSED SPOT ELEVATION
	EXISTING SPOT ELEVATION
	RIGHT OF WAY
	PROPERTY LINE
	GRADE BREAK
	FLOW LINE
	EXISTING EDGE OF PAVEMENT
	EXISTING STREET CENTERLINE
	EXISTING EDGE OF PAVEMENT
	EXISTING UNDERGROUND ELECTRIC
	EXISTING BUILDING
	EXISTING CHAIN LINKED FENCE

CIVIL ENGINEER

DIVERSIFIED PROJECT SERVICES INTERNATIONAL, INC.
CONTACT: L. ALBERTO LOPEZ
1998 SANTA BARBARA AVENUE, SUITE 120
SAN LUIS OBISPO, CA 93401
PHONE: (805) 250-2891

ABBREVIATIONS

AVE	AVENUE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
DIM	DIMENSION
EA	EACH
EG	EXISTING GRADE
ELEC	ELECTRICAL
(E)	EXISTING
FF	FINISHED FLOOR
FG	FINISHED GRADE
FS	FINISHED SURFACE
HWY	HIGHWAY
IRR	IRRIGATION
MIN	MINIMUM
NTS	NOT TO SCALE
TELCO	TELECOMMUNICATIONS
TYP	TYPICAL
UND	UNDERGROUND
UTIL	UTILITY

PAD SUMMARY

WELL PAD NO.	DISTURBED AREA (ac)	CUT (CY)	FILL (CY)	IMPORT (CY)
METTLER SITE A1 (CASINO RESORT ALTERNATIVE)	3,673,705 (84.34AC)±	80,325	484,560	404,235
METTLER SITE A2 (REDUCED CASINO RESORT)	2,861,850 (65.70AC)±	79,030	362,490	283,460
CASINO RESORT ON THE MARICOPA HWY	2,353,315 (54.02AC)±	119,425	125,800	6,375

NOTE:
THE OPINION OF EARTHWORK QUANTITIES SHOWN ABOVE ARE RAW NUMBERS AND ARE FOR REFERENCE AND FEE PURPOSES ONLY. SINCE THE CIVIL ENGINEER CANNOT CONTROL THE EXACT METHOD OR MEANS USED BY THE CONTRACTOR DURING GRADING OPERATIONS, NOR CAN THE CIVIL ENGINEER GUARANTEE THE EXACT SOIL CONDITIONS OVER THE ENTIRE SITE, THE CIVIL ENGINEER ASSUMES NO RESPONSIBILITY FOR FINAL EARTHWORK. THE CONTRACTOR IS ADVISED TO PREPARE HIS OWN ESTIMATES OF EARTHWORK FOR THE PURPOSES OF BIDDING, CONTRACT AND CONSTRUCTION.

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF RECORD FOR THIS PROJECT AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE. THESE PLANS AND SPECIFICATIONS, TO THE BEST OF MY KNOWLEDGE, COMPLY WITH CURRENT STANDARDS.

ANY ERRORS, OMISSIONS, OR OTHER VIOLATIONS OF THOSE ORDINANCES, STANDARDS OR DESIGN CRITERIA ENCOUNTERED DURING CONSTRUCTION SHALL BE CORRECTED AND SUCH CORRECTIONS REFLECTED ON CORRECTED PLANS.

L. ALBERTO LOPEZ R.C.E. 67602

DPSI
DIVERSIFIED PROJECT SERVICES
INTERNATIONAL

San Luis Obispo (805) 250-2891 Bakersfield, CA (805) 371-2800 Long Beach (562) 424-6400

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PROJECT: 181059
www.dpsinc.com

DATE	DESCRIPTION	BY	CKD.	APPR
03/22/19	ISSUED FOR REVIEW	EP	RJ	LAL
05/22/19	ISSUED FOR REVIEW	EP	RJ	LAL
10/28/19	ISSUED FOR REVIEW	EP	RJ	LAL

TITLE SHEET

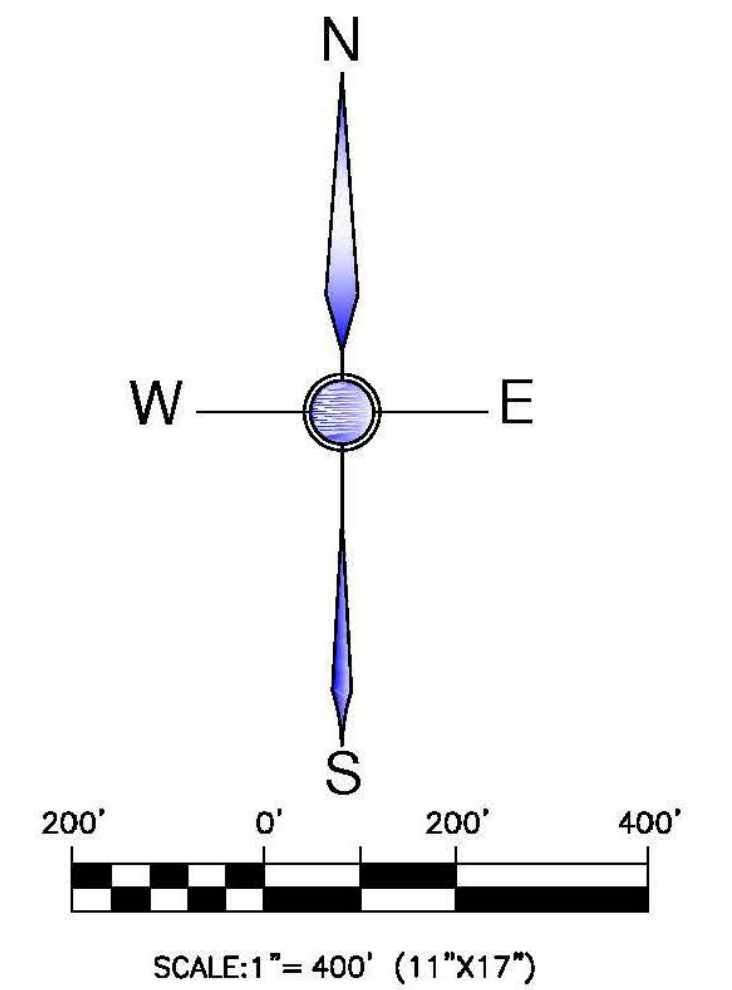
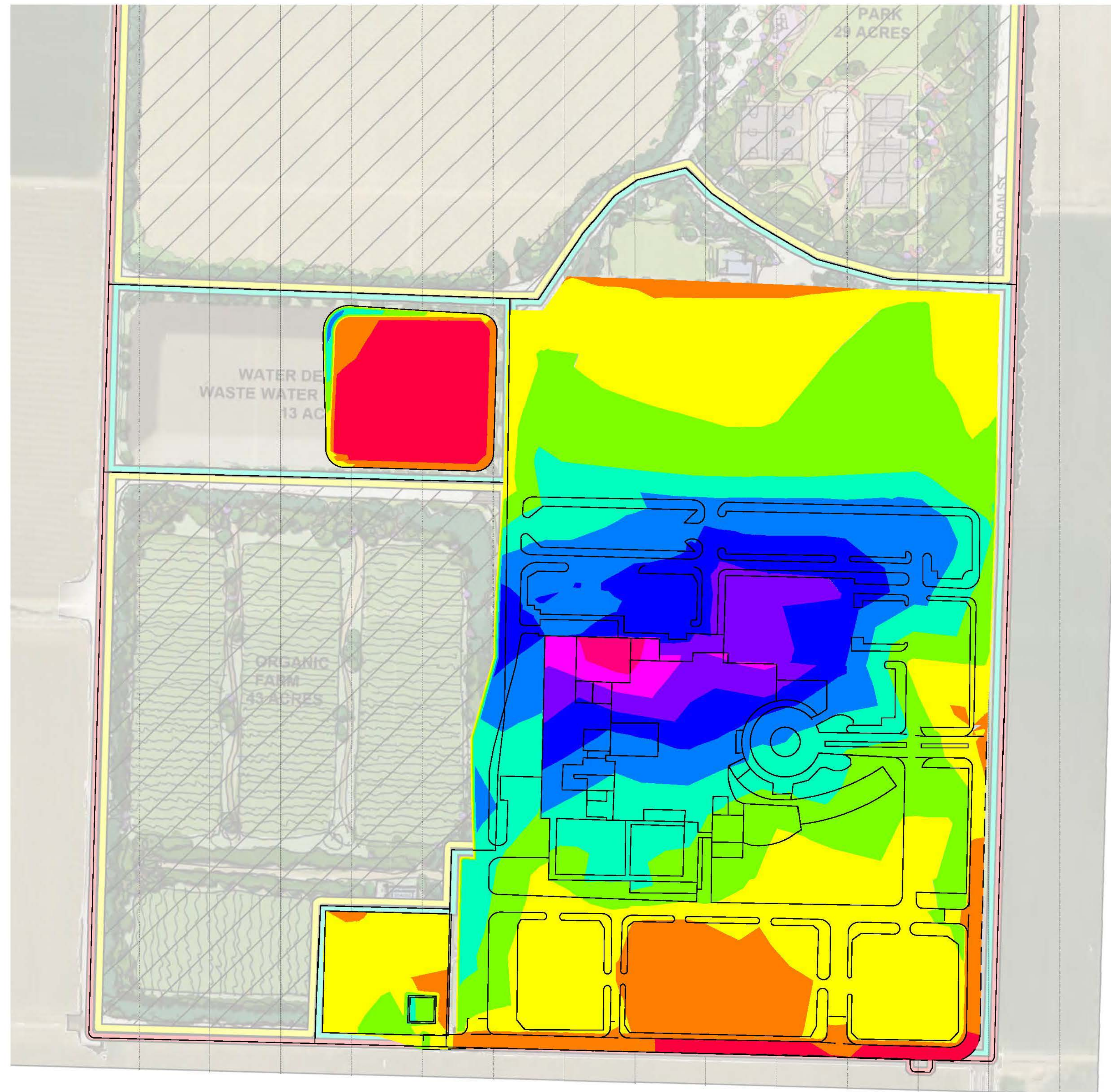
THE TEJON INDIAN TRUST ACQUISITION CASINO PROJECT
METTLER SITE A1&A2
MARICOPA SITE
COUNTY OF KERN, STATE OF CALIFORNIA

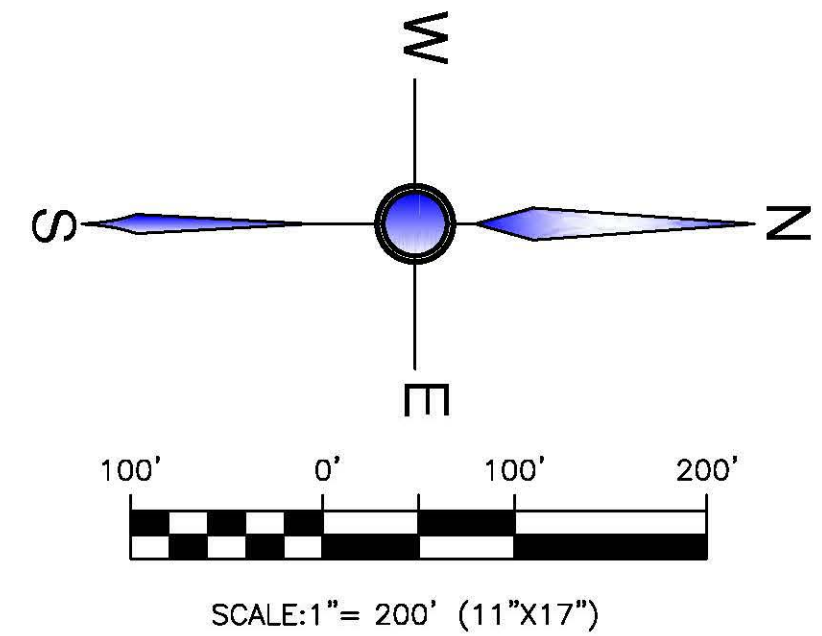
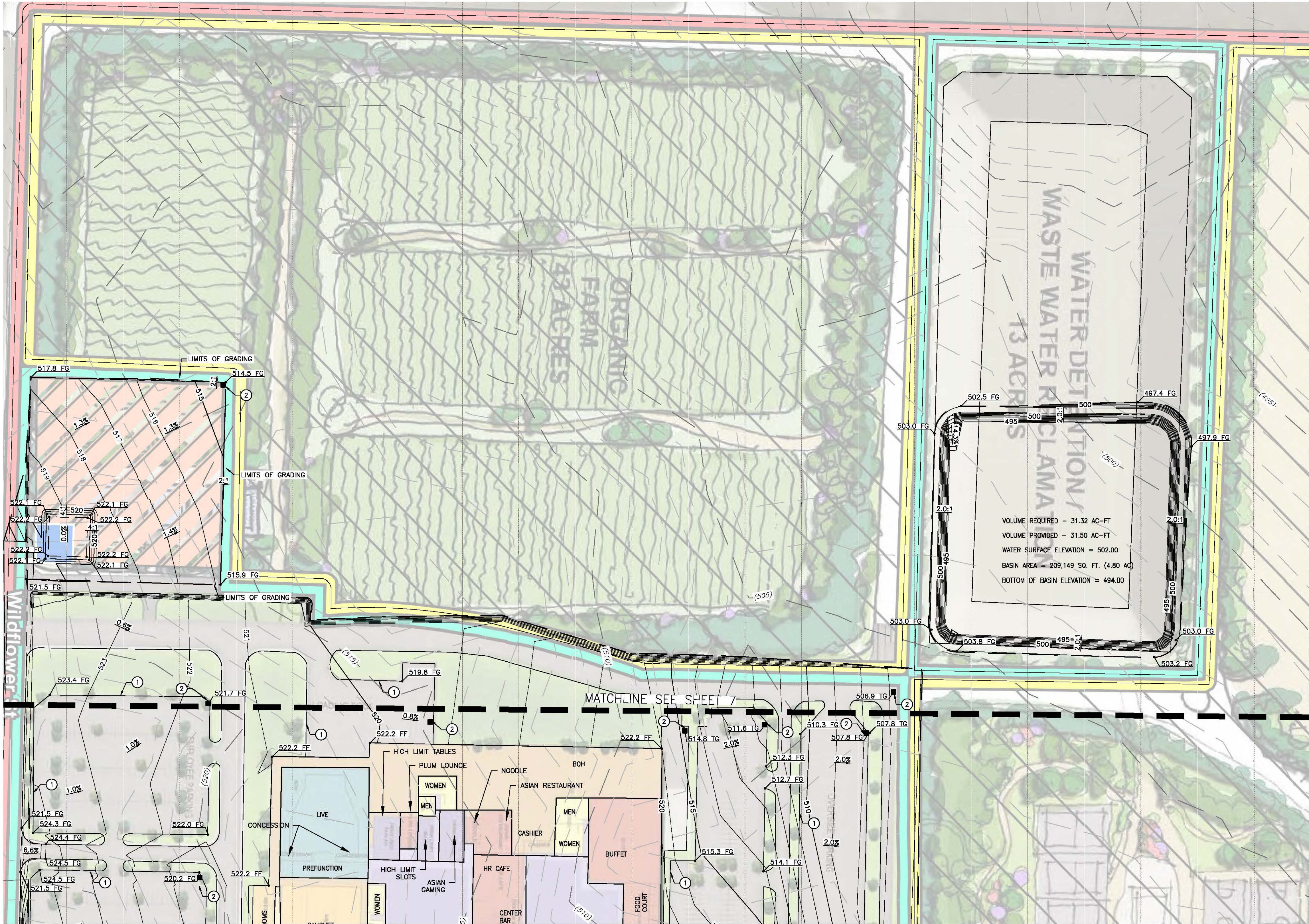
ENGINEER:	LAL	DATE:	05.22.2019	SCALE:	AS SHOWN
CO. SURVEYOR:	DPSI, INC.	ORIGINAL DWG NO.			
PROJ. MGR:	LAL	NO.	1		REV.
COMPILED BY:	RJ				A
DOCUMENT TYPE:	EXHIBIT	CAD FILE NO.	CE181059-TS001.dwg		

DIALERT
DIAL TOLL FREE
811 OR
(1-800-227-2600)
AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF CALIFORNIA

N:\181059\007_CES\DWG\181059-1-GRADING-CE181059-TS001.dwg





LEGEND

- ① TYPE A2-6 CURB AND GUTTER PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. R-52.
② CATCH BASINS - PER KERN COUNTY DEVELOPMENT STANDARDS - TYPE "A" MINOR STRUCTURE - PLATE NO. R-71

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DWG NUMBER	TITLE
	REFERENCE DRAWINGS



DIVERSIFIED PROJECT SERVICES INTERNATIONAL

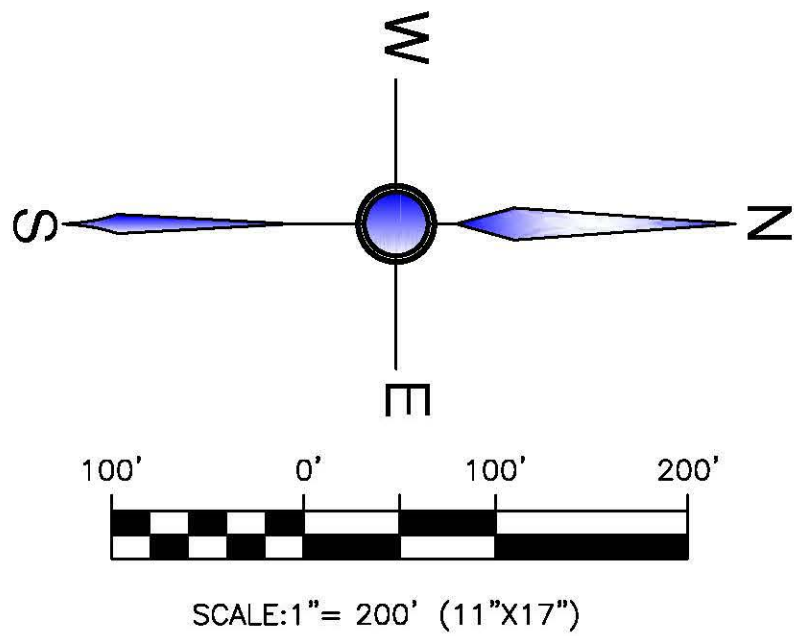
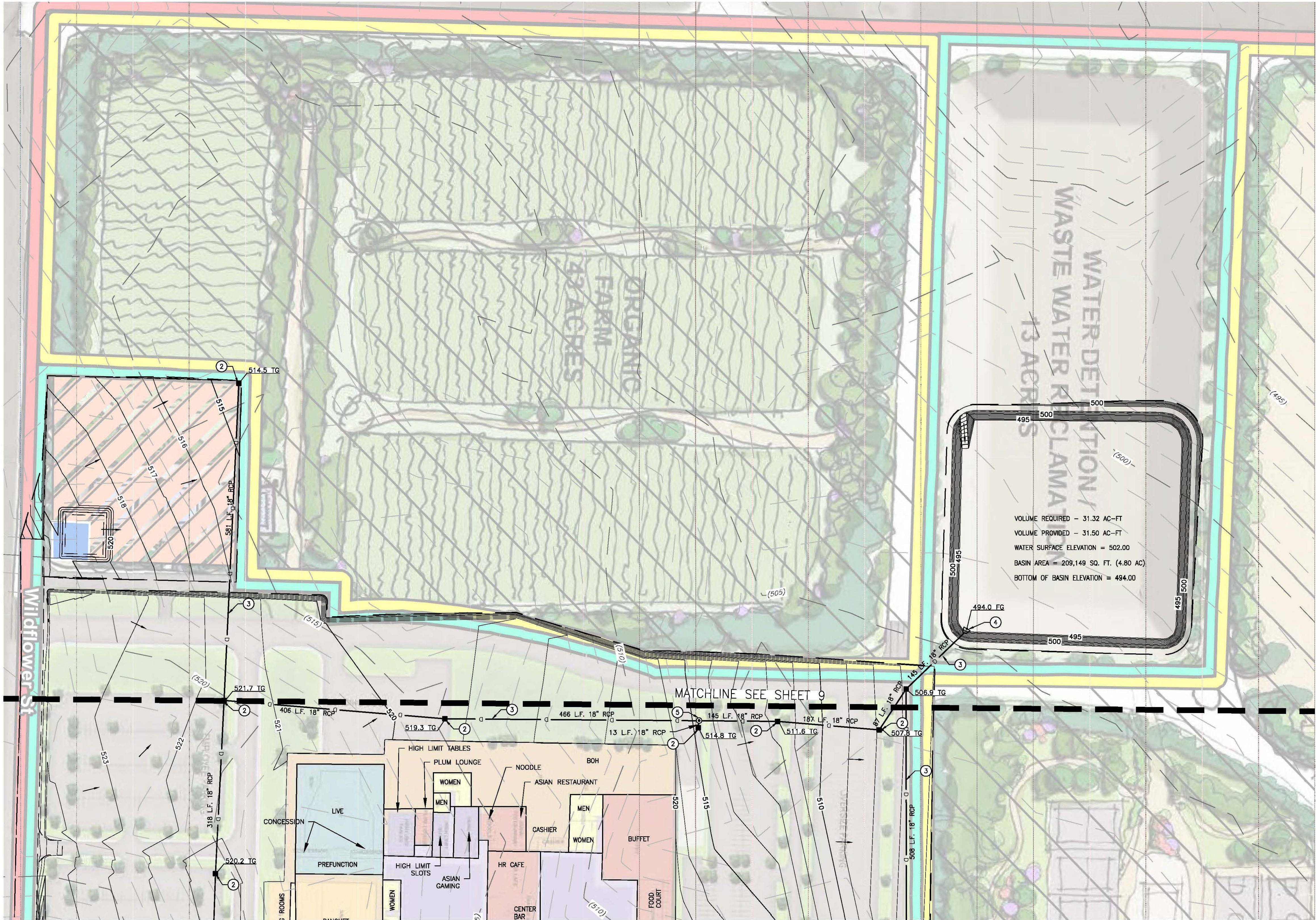
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05/22/19	ISSUED FOR REVIEW	EP	RJ	LAL
10/28/19	ISSUED FOR REVIEW	EP	RJ	LAL

METTLER SITE A2- GRADING PLAN CONT.			
THE TEJON INDIAN TRUST ACQUISITION CASINO PROJECT METTLER SITE A1&A2 MARICOPA SITE COUNTY OF KERN, STATE OF CALIFORNIA			
ENGINEER:	LAL	DATE:	05.22.2019
CO. SURVEYOR:	DPSI, INC.	SCALE:	AS SHOWN
PROJ. MGR:	LAL	ORIGINAL DWG NO.	
COMPILED BY:	RJ	NO.	8
DOCUMENT TYPE:	EXHIBIT	CAD FILE NO.	CE181059-GP-004B.dwg
		REV.	A



LEGEND

- ① STORM DRAIN SUMP PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-1
- ② CATCH BASINS - PER KERN COUNTY DEVELOPMENT STANDARDS - TYPE "A" MINOR STRUCTURE - PLATE NO. R-71
- ③ STORM DRAIN PIPE TO BE CLASS III RCP WITH RUBBER GASKET JOINTS. SIZE AS NOTED TRENCH DETAIL PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. S-1
- ④ OUTLET STRUCTURE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-2
- ⑤ STORM DRAIN MANHOLE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-5

N:\181059\SD-004B.dwg - SHEETS 2 - GRADES (CE 181059-SD-004B.dwg)

DWG NUMBER	TITLE
	REFERENCE DRAWINGS



DIVERSIFIED PROJECT SERVICES INTERNATIONAL

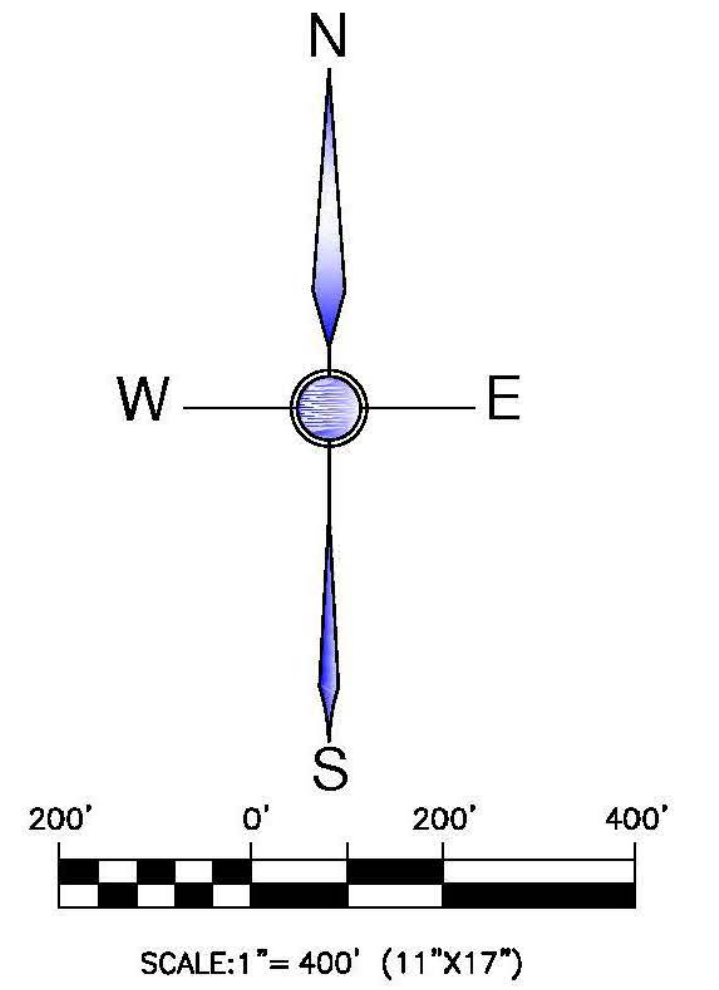
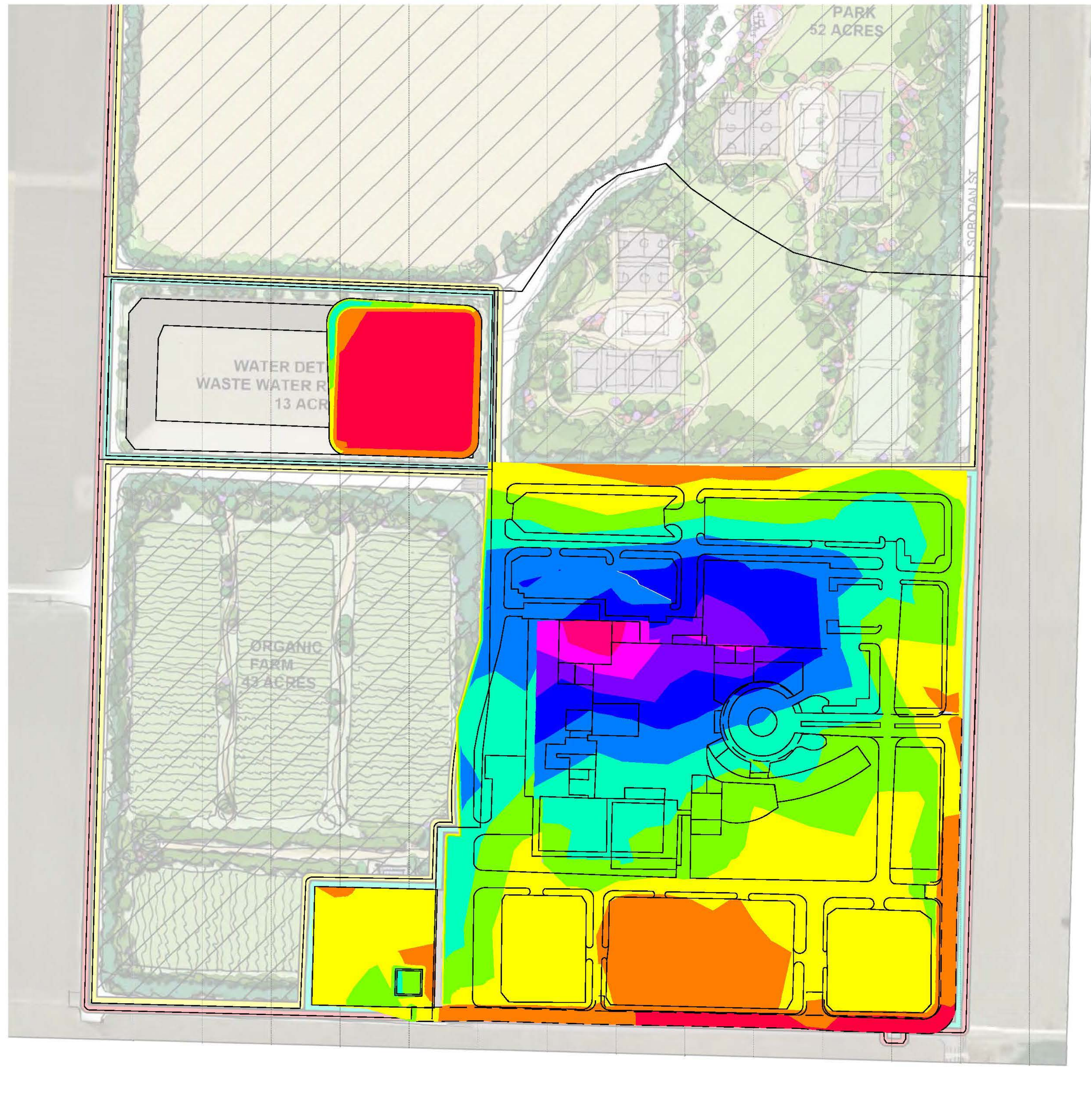
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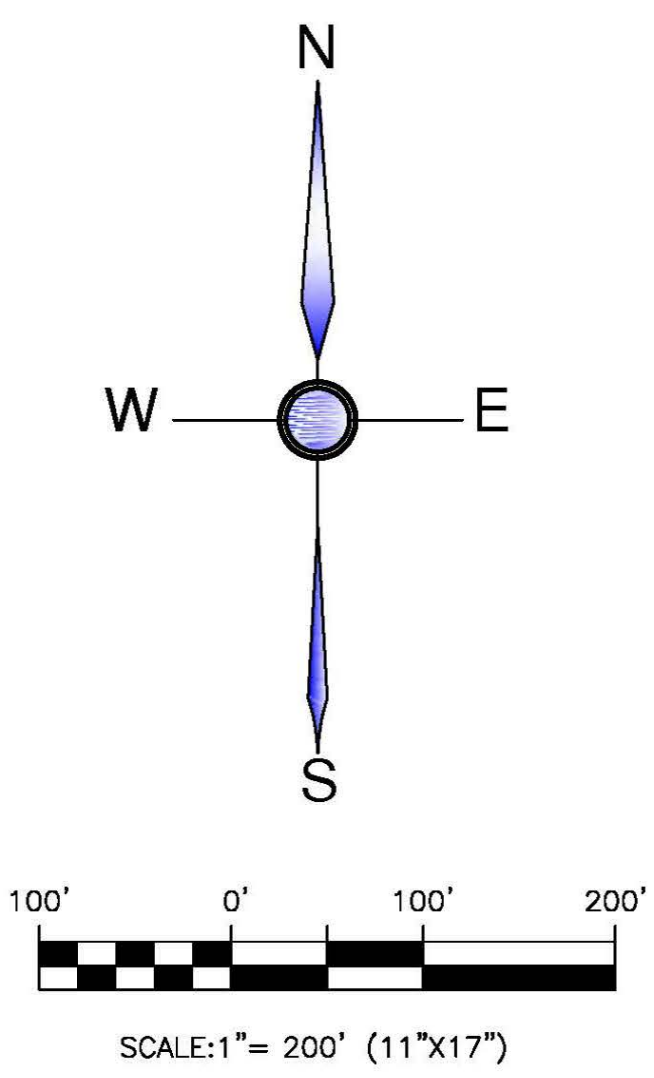
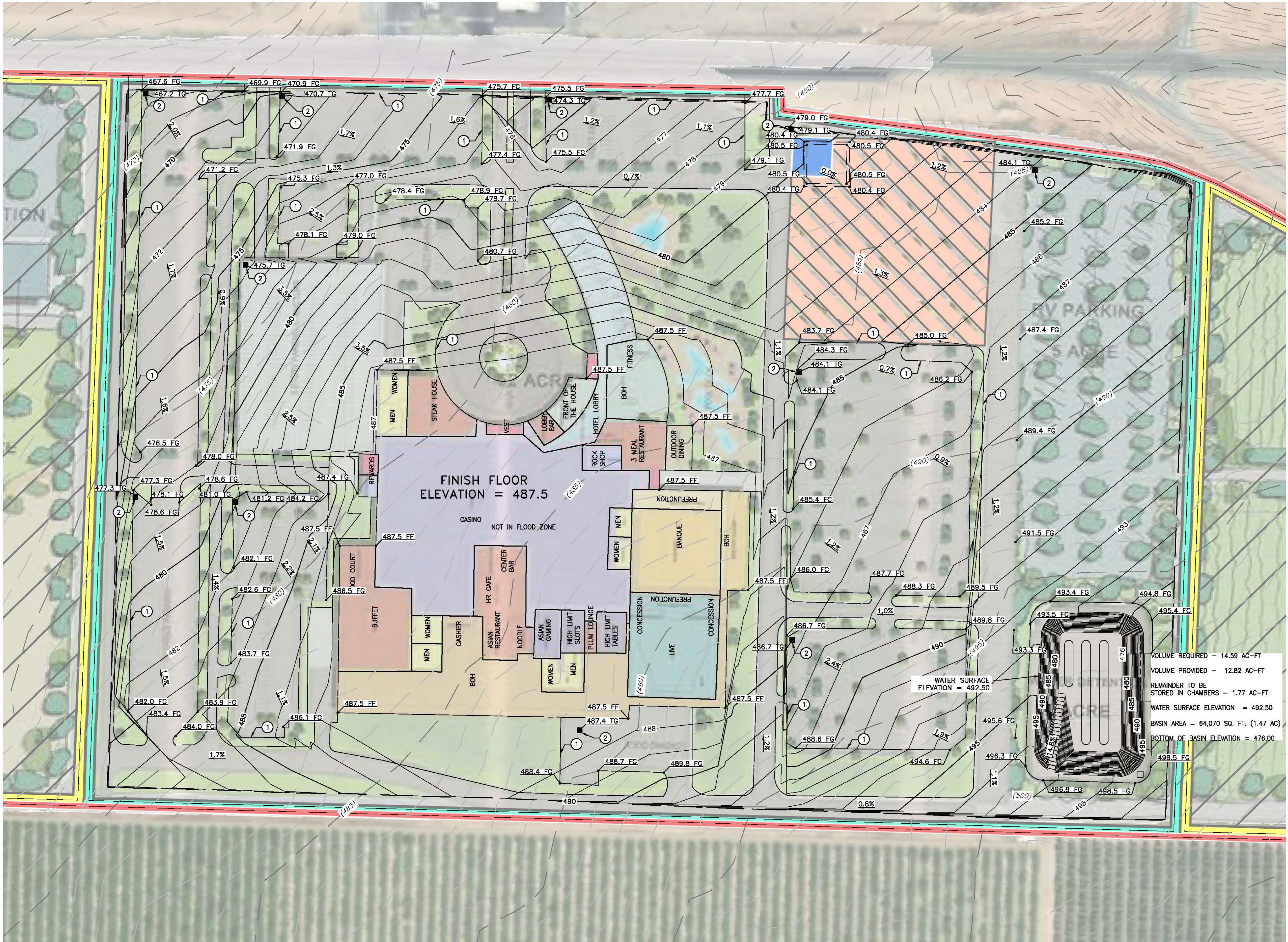
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03/22/19	ISSUED FOR REVIEW	EP	RJ	LAL
05/22/19	ISSUED FOR REVIEW	EP	RJ	LAL
10/28/19	ISSUED FOR REVIEW	EP	RJ	LAL

METTLER SITE A2- DRAINAGE PLAN CONT.			
THE TEJON INDIAN TRUST ACQUISITION CASINO PROJECT METTLER SITE A1&A2 MARICOPA SITE COUNTY OF KERN, STATE OF CALIFORNIA			
ENGINEER:	LAL	DATE:	05.22.2019
CO. SURVEYOR:	DPSI, INC.	SCALE:	AS SHOWN
PROJ. MGR:	LAL	ORIGINAL DWG NO.	
COMPILED BY:	RJ	NO.	10
DOCUMENT TYPE:	EXHIBIT	CAD FILE NO.	CE181059-SD-004B.dwg
			REV. A





EARTHWORK QUANTITIES

- 119,425 CUT CUBIC YARDS
- 125,800 FILL CUBIC YARDS
- 6,375 IMPORT CUBIC YARDS
- 2,353,315 SQ. FT. (DISTURBED AREA 54.02 AC)

NOTE:
EARTHWORK NUMBERS DO NOT INCLUDE SHRINKAGE

LEGEND

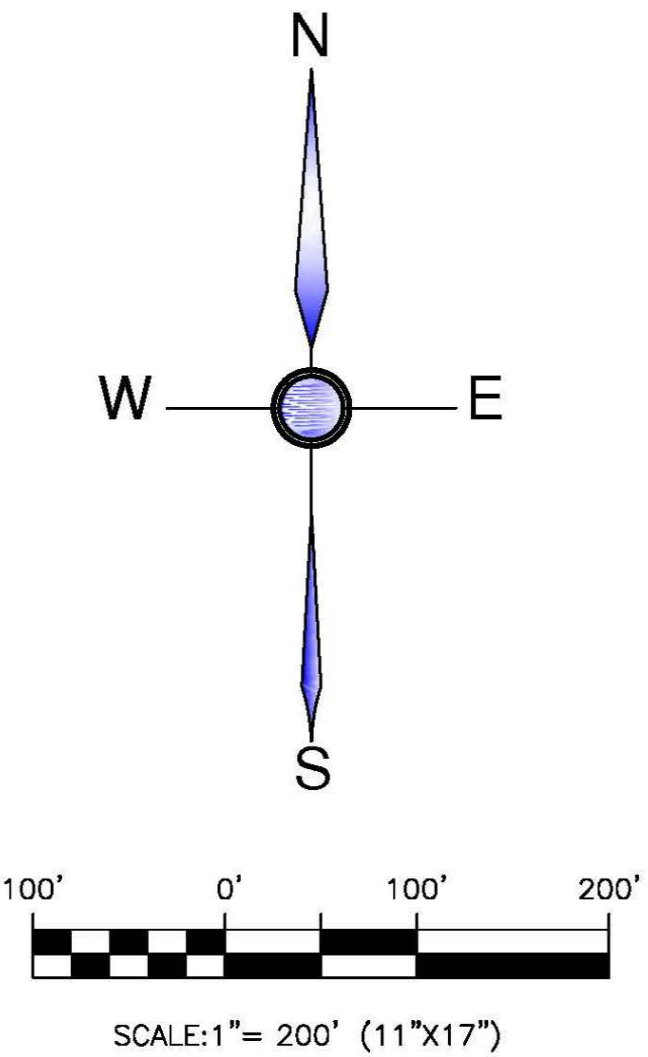
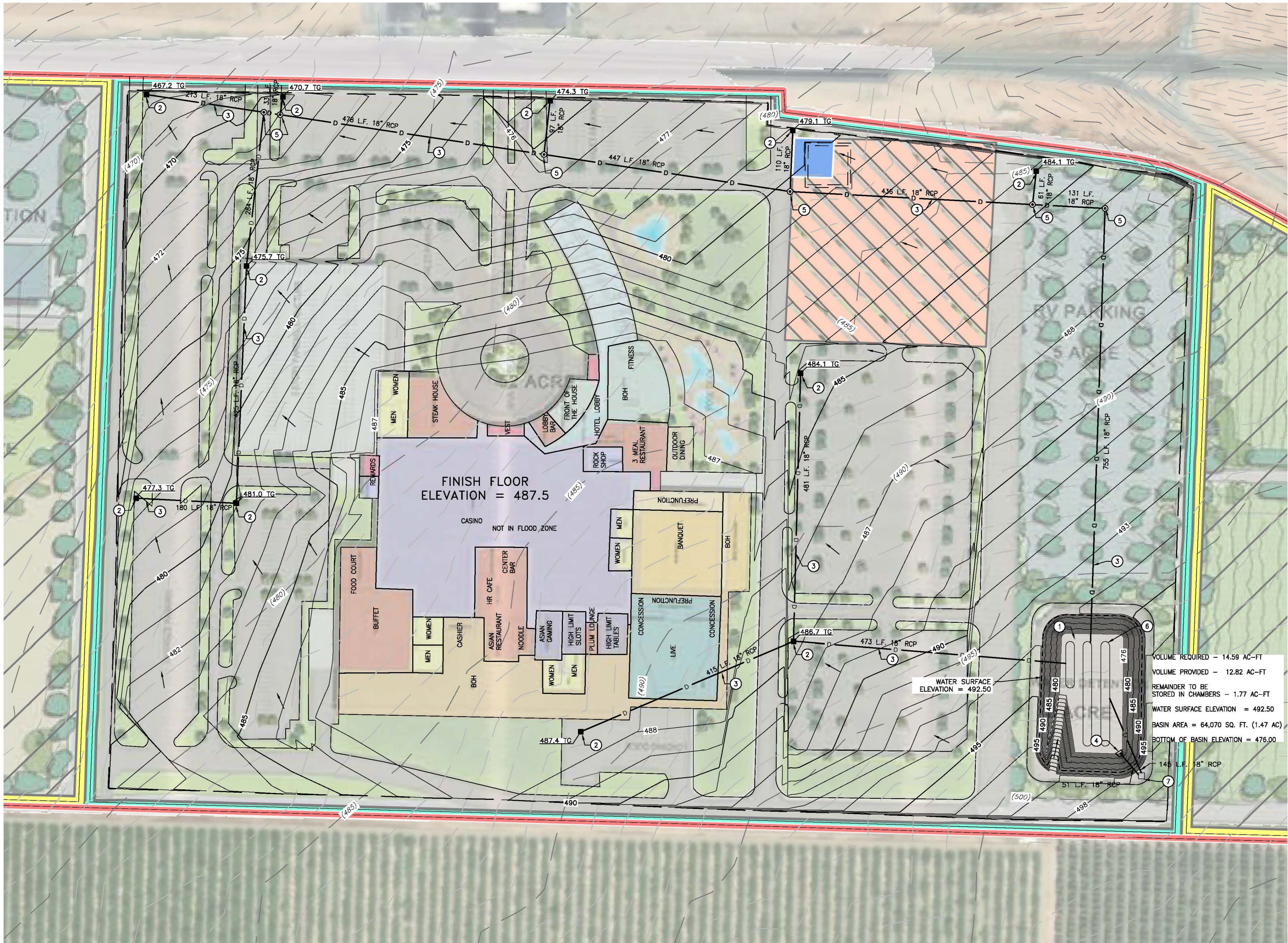
- ① TYPE A2-6 CURB AND GUTTER PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. R-52.
- ② CATCH BASINS - PER KERN COUNTY DEVELOPMENT STANDARDS - TYPE "A" MINOR STRUCTURE - PLATE NO. R-71

VOLUME REQUIRED - 14.59 AC-FT
VOLUME PROVIDED - 12.82 AC-FT
REMAINDER TO BE STORED IN CHAMBERS - 1.77 AC-FT
WATER SURFACE ELEVATION = 492.50
BASIN AREA = 64,070 SQ. FT. (1.47 AC)
BOTTOM OF BASIN ELEVATION = 476.00

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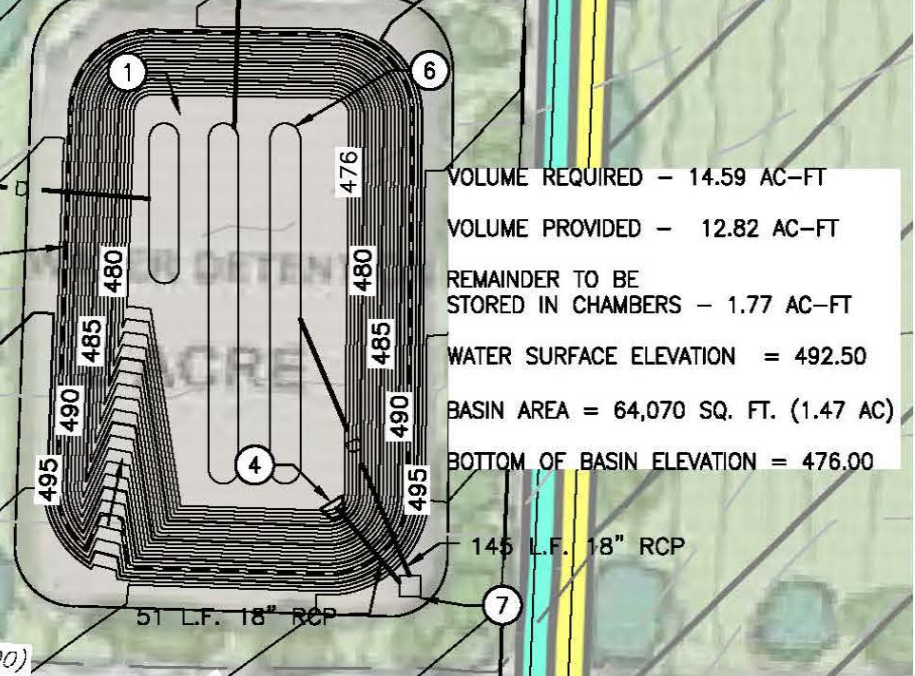
DWG NUMBER	TITLE
	REFERENCE DRAWINGS

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LEGEND

- 1 STORM DRAIN SUMP PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-1
- 2 CATCH BASINS - PER KERN COUNTY DEVELOPMENT STANDARDS - TYPE "A" MINOR STRUCTURE - PLATE NO. R-71
- 3 STORM DRAIN PIPE TO BE CLASS III RCP WITH RUBBER GASKET JOINTS. SIZE AS NOTED TRENCH DETAIL PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. S-1
- 4 OUTLET STRUCTURE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-2
- 5 STORM DRAIN MANHOLE PER KERN COUNTY DEVELOPMENT STANDARDS - PLATE NO. D-5
- 6 1.77 AC-FT UNDERGROUND DETENTION CHAMBERS
- 7 DUPLEX PUMPS PER KERN COUNTY HYDROLOGY MANUAL REQUIREMENTS



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DWG NUMBER	TITLE
	REFERENCE DRAWINGS



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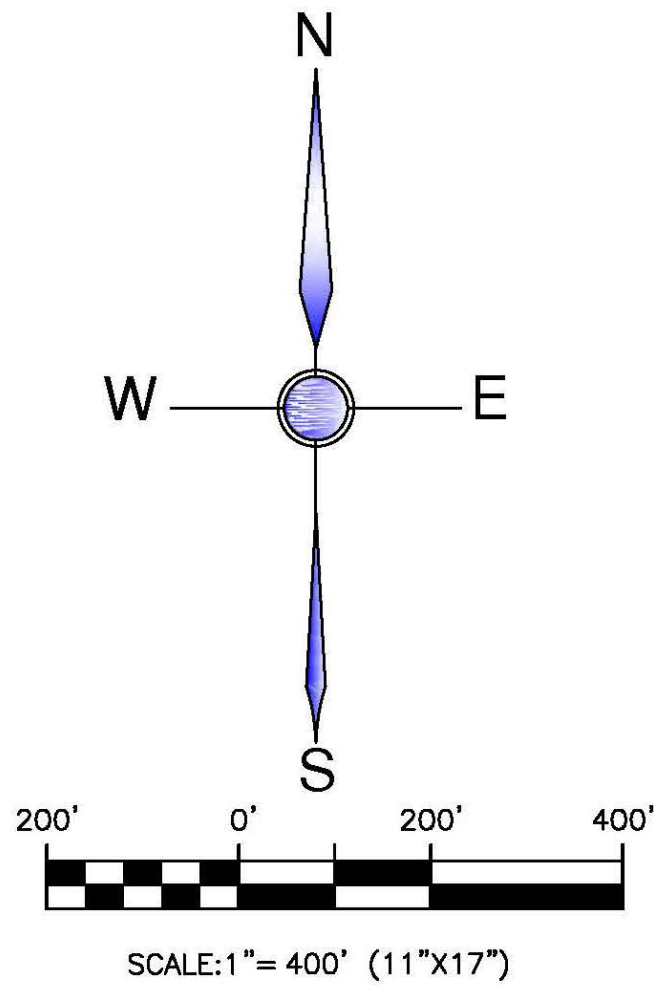
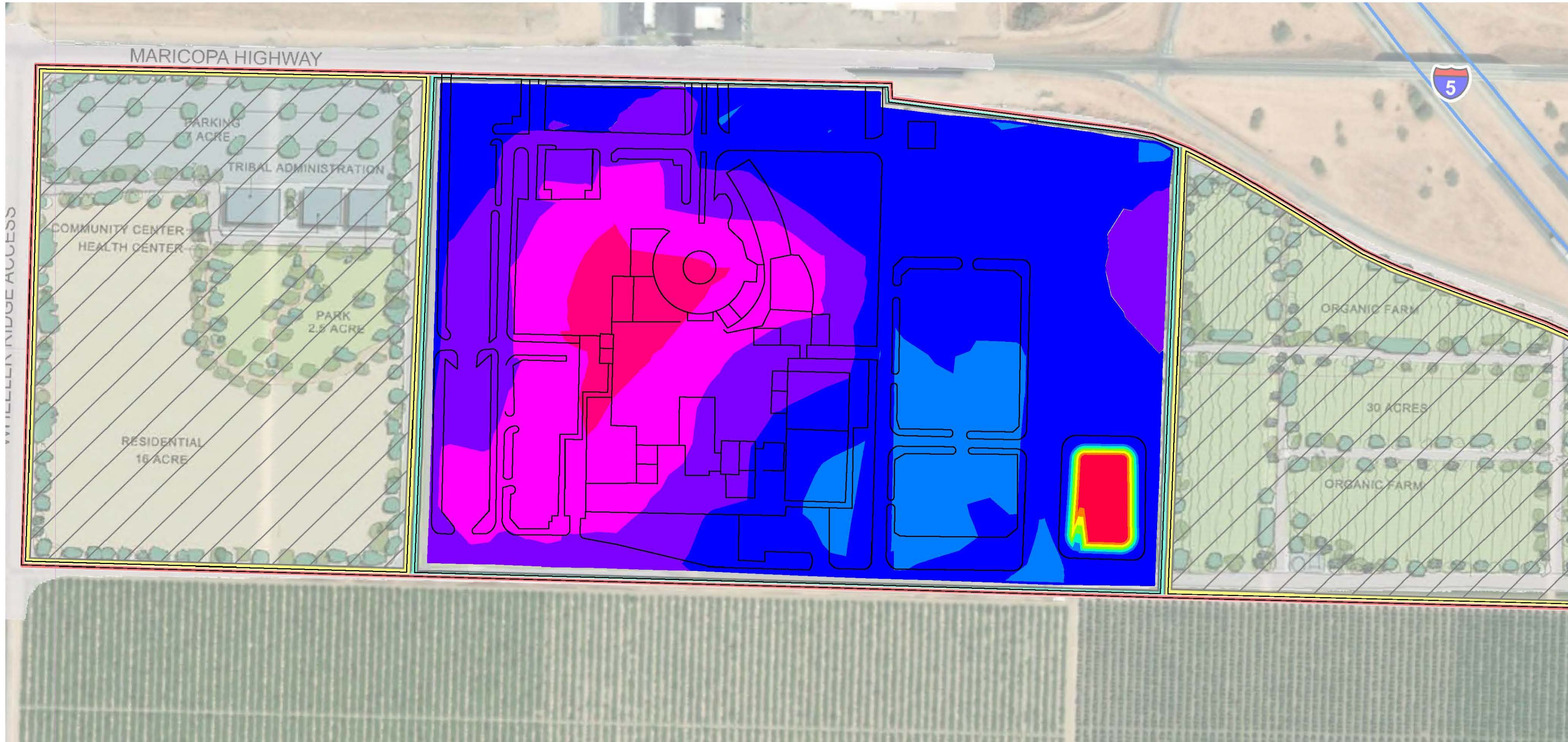
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MARICOPA- DRAINAGE PLAN			
THE TEJON INDIAN TRUST ACQUISITION CASINO PROJECT METTLER SITE A1&A2 MARICOPA SITE COUNTY OF KERN, STATE OF CALIFORNIA			
ENGINEER:	LAL	DATE:	05.22.2019
CO. SURVEYOR:	DPSI, INC.	SCALE:	AS SHOWN
PROJ. MGR:	LAL	ORIGINAL DWG NO.	
COMPILED BY:	RJ	NO.	13
DOCUMENT TYPE:	EXHIBIT	CAD FILE NO.	CE181059-SD-001A.dwg
		REV.	A



EARTHWORK QUANTITIES

- 119,425 CUT CUBIC YARDS
- 125,800 FILL CUBIC YARDS
- 6,375 IMPORT CUBIC YARDS
- 2,353,315 SQ. FT. (DISTURBED AREA 54.02 AC)

NOTE:
EARTHWORK NUMBERS DO NOT INCLUDE SHRINKAGE

Elevations Table					
Number	Minimum Elevation	Maximum Elevation	VOLUME	AREA	Color
1	-23.0	-18.0	3,145.17	26,976.53	
2	-18.0	-15.0	3,249.75	4,608.67	
3	-15.0	-12.0	3,783.31	4,984.59	
4	-12.0	-9.0	4,350.80	5,198.19	
5	-9.0	-6.0	4,935.45	5,320.00	
6	-6.0	-3.0	12,765.16	235,766.55	
7	-3.0	0.0	80,363.89	964,589.93	
8	0.0	3.0	88,103.20	553,868.62	
9	3.0	6.0	31,893.32	447,203.13	
10	6.0	10.0	4,699.95	100,696.23	

DWG NUMBER	TITLE
	REFERENCE DRAWINGS



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INTERNATIONAL

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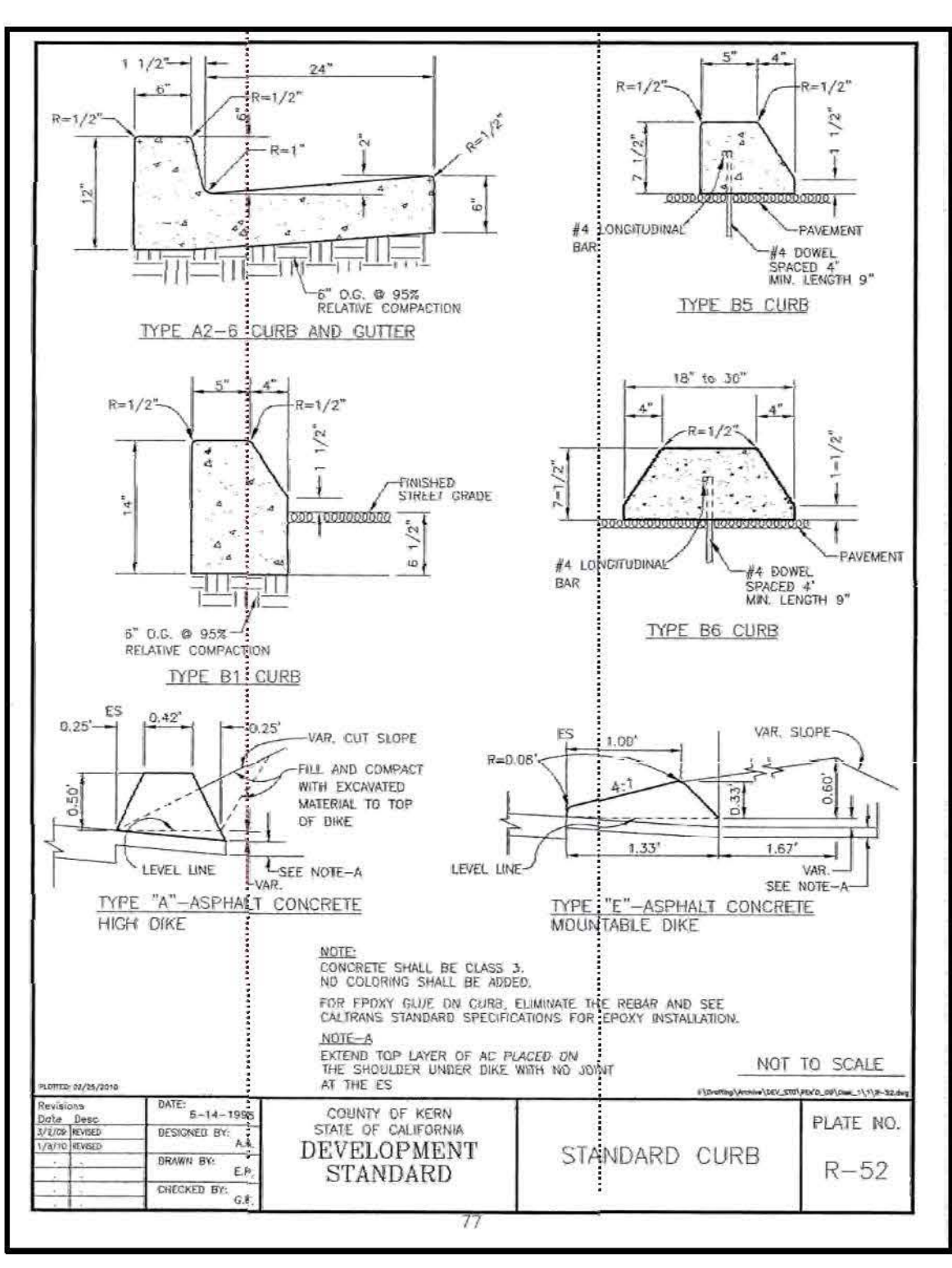
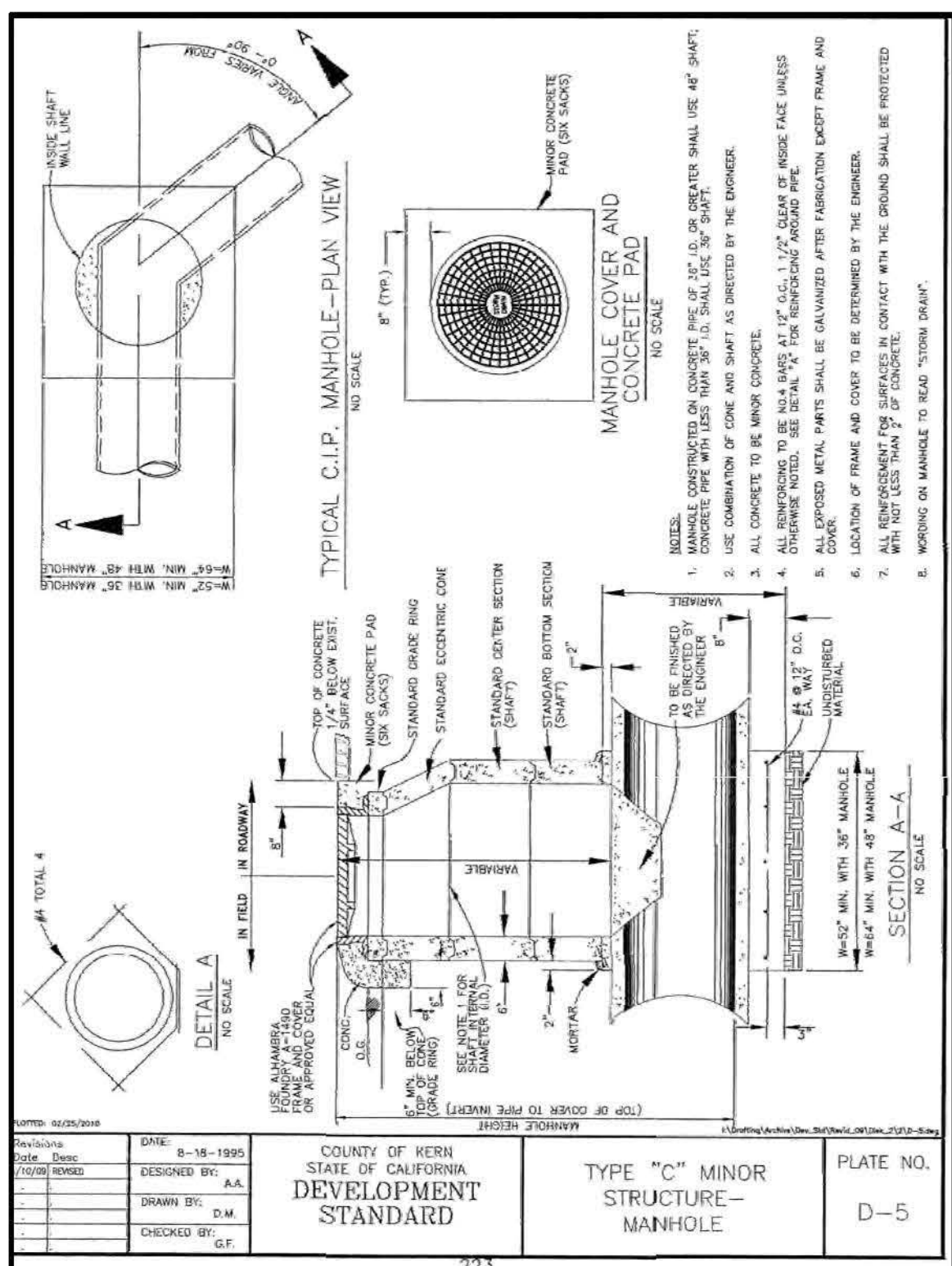
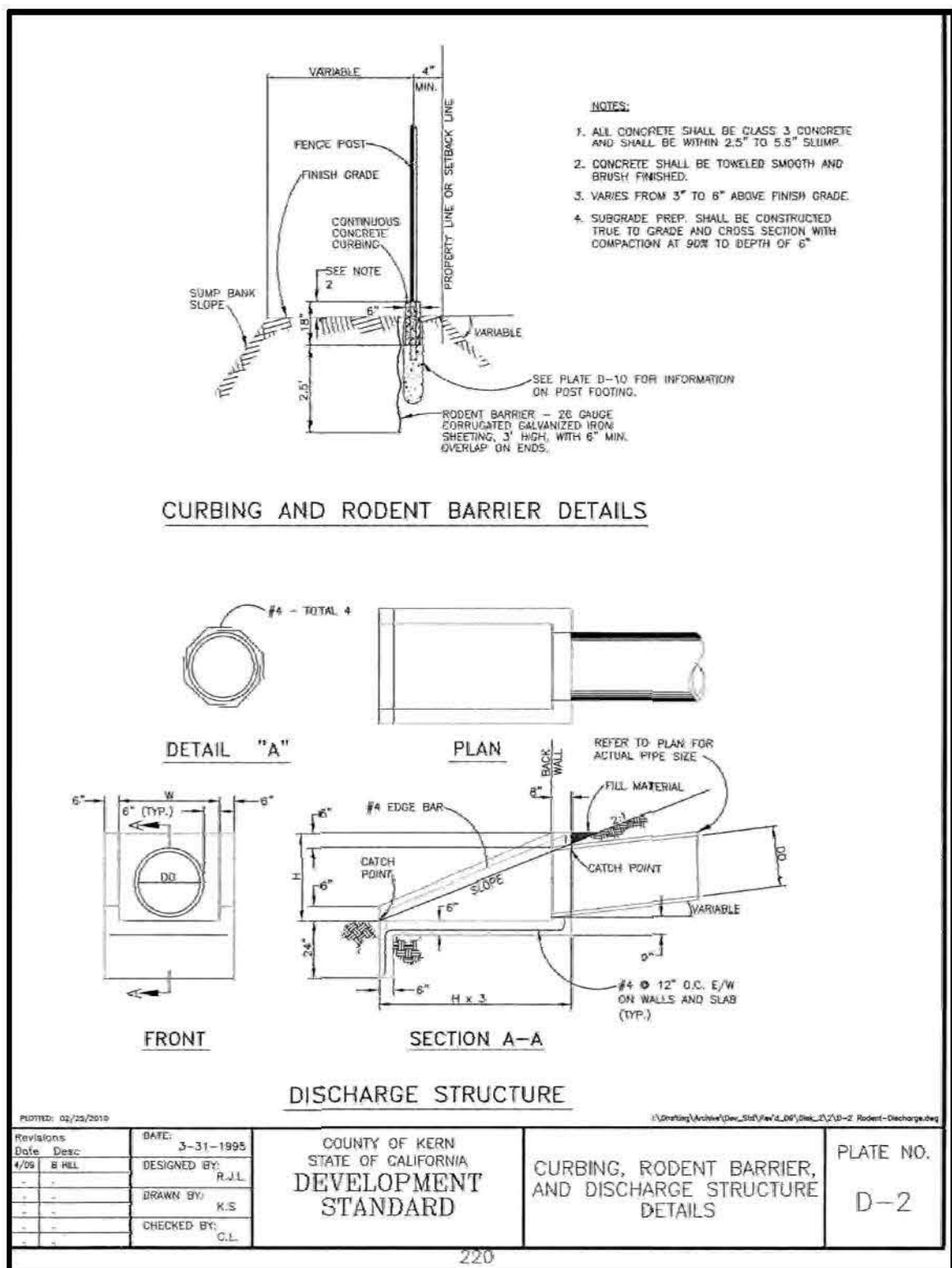
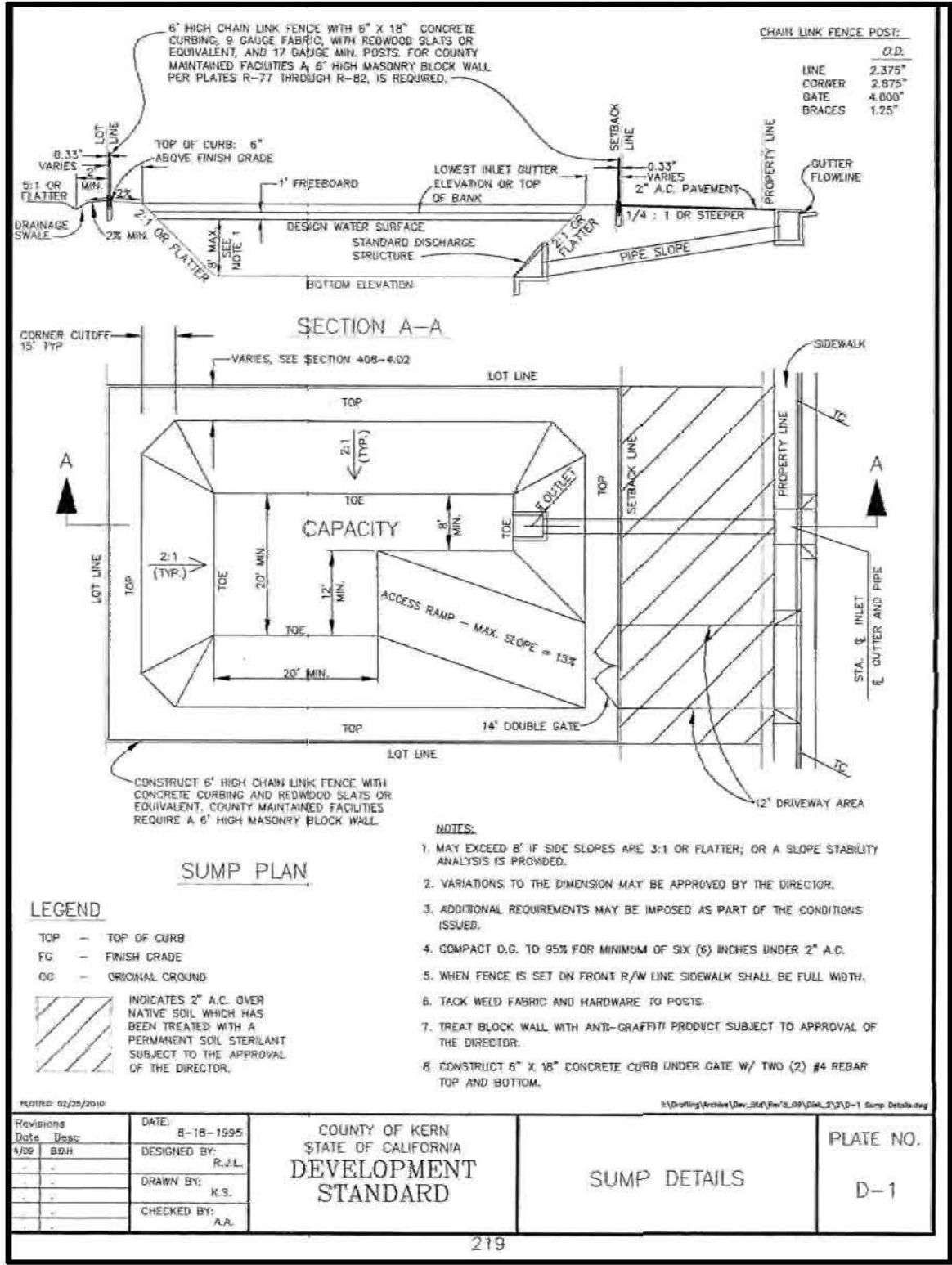
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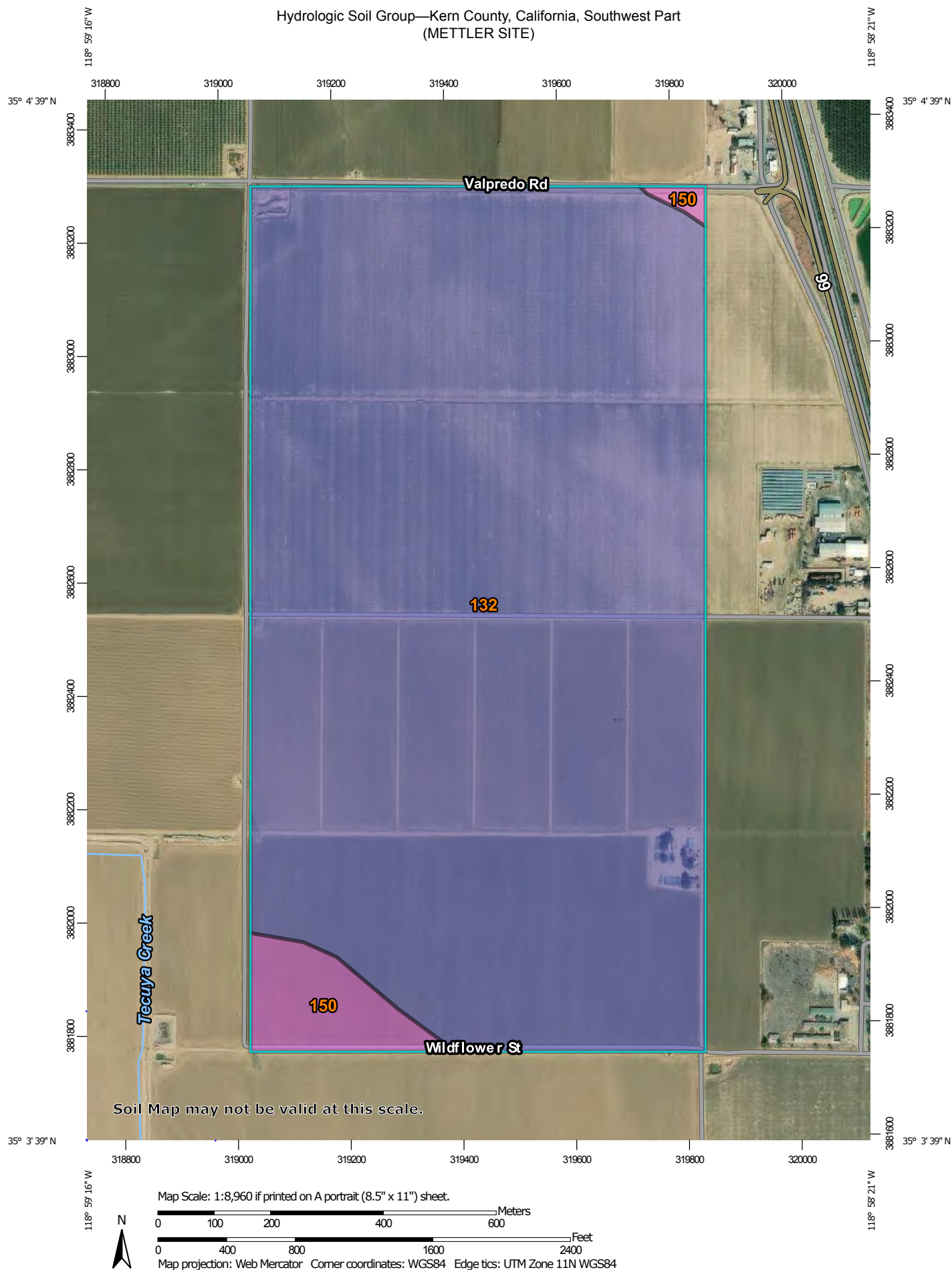
MARICOPA- CUT FILL EXHIBIT			
THE TEJON INDIAN TRUST ACQUISITION CASINO PROJECT METTLER SITE A1&A2 MARICOPA SITE COUNTY OF KERN, STATE OF CALIFORNIA			
ENGINEER:	LAL	DATE:	05.22.2019
CO. SURVEYOR:	DPSI, INC.	ORIGINAL DWG NO.	
PROJ. MGR:	LAL	NO.	14
COMPILED BY:	RJ	CAD FILE	NO.CE181059-EXHIBIT B.dwg
DOCUMENT TYPE:	EXHIBIT	REV.	A

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Appendix M: NRCS Mettler Site

Hydrologic Soil Group—Kern County, California, Southwest Part
(METTLER SITE)



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

2/7/2019
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kern County, California, Southwest Part
 Survey Area Data: Version 9, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 30, 2016—Nov 2, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
132	Cerini loam, 0 to 2 percent slopes	B	293.2	95.9%
150	Excelsior sandy loam, 0 to 2 percent slopes, MLRA 17	A	12.6	4.1%
Totals for Area of Interest			305.8	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Figure 1: FEMA FIRMette Mettler Site National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **12/19/2018 at 1:02:38 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

35°4'15.44"N

118°59'6.94"W

KERN COUNTY
060075

T11N R20W S2

Zone A

06029C3150E
eff. 9/26/2008

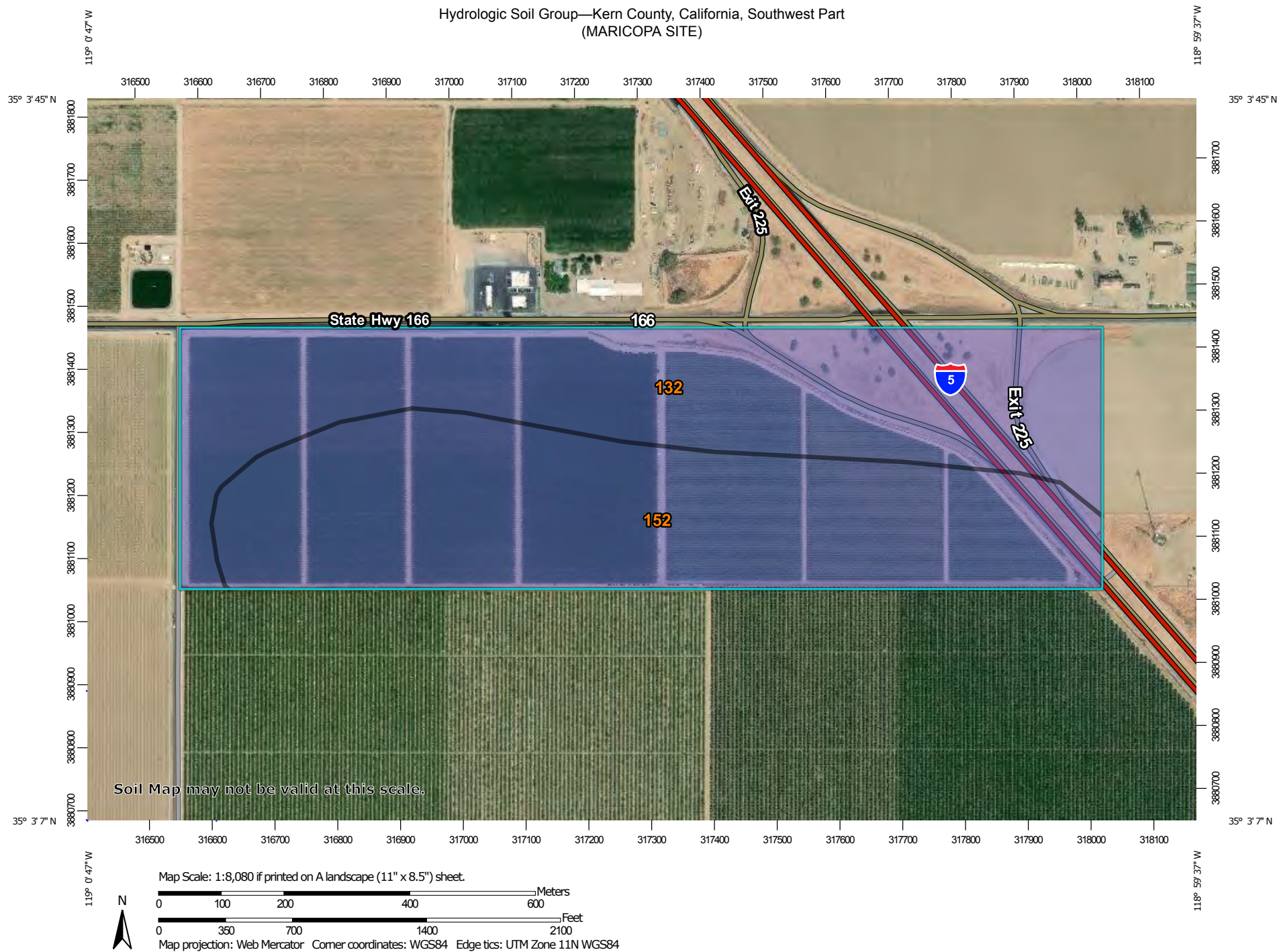
USGS The National Map: Orthoimagery. Data refreshed October, 2017.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

35°3'45.99"N

118°58'29.48"W

Hydrologic Soil Group—Kern County, California, Southwest Part
(MARICOPA SITE)



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kern County, California, Southwest Part
 Survey Area Data: Version 9, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 30, 2016—Nov 2, 2017

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Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
132	Cerini loam, 0 to 2 percent slopes	B	72.7	48.1%
152	Excelsior loam, 0 to 2 percent slopes	B	78.4	51.9%
Totals for Area of Interest			151.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

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Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Figure 2: FEMA FIRMetter Maricopa Site

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/7/2019 at 5:28:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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35°3'43.15"N

119°0'40.89"W

USGS The National Map: Orthoimagery. Data refreshed October, 2017.

0 250 500 1,000 1,500 2,000 Feet

1:6,000

35°3'13.70"N

119°0'3.43"W