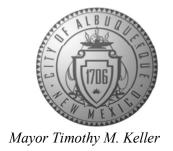
CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



February 21, 2025

Derek Metson Greenbox Architecture 502 7th Street, Suite 203 Oregon City, OR 97045

RE: Kairos Power Expansion SP 5201 Hawking Drive SE Grading and Drainage Plans Engineer's Stamp Date: 02/14/2025 Hydrology File: Q16DA5000A Case # HYDR-2025-00047

Dear Mr. Metson:

PO Box 1293

Based upon the information provided in your submittal received 02/19/2025, the Conceptual Grading & Drainage Plan is approved for action by the Development Facilitation Team (DFT) on Site Plan for Building Permit.

Albuquerque

PRIOR TO BUILDING PERMIT:

NM 87103

1. Please submit a more detailed Grading & Drainage Plan to Hydrology for review and approval.

www.cabq.gov

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 505-924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3314 or amontoya@cabq.gov.

Sincerely,

Anthony Montoya, Jr., P.E., CFM

Senior Engineer, Hydrology

anth Mars

Planning Department, Development Review Services



City of Albuquerque Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

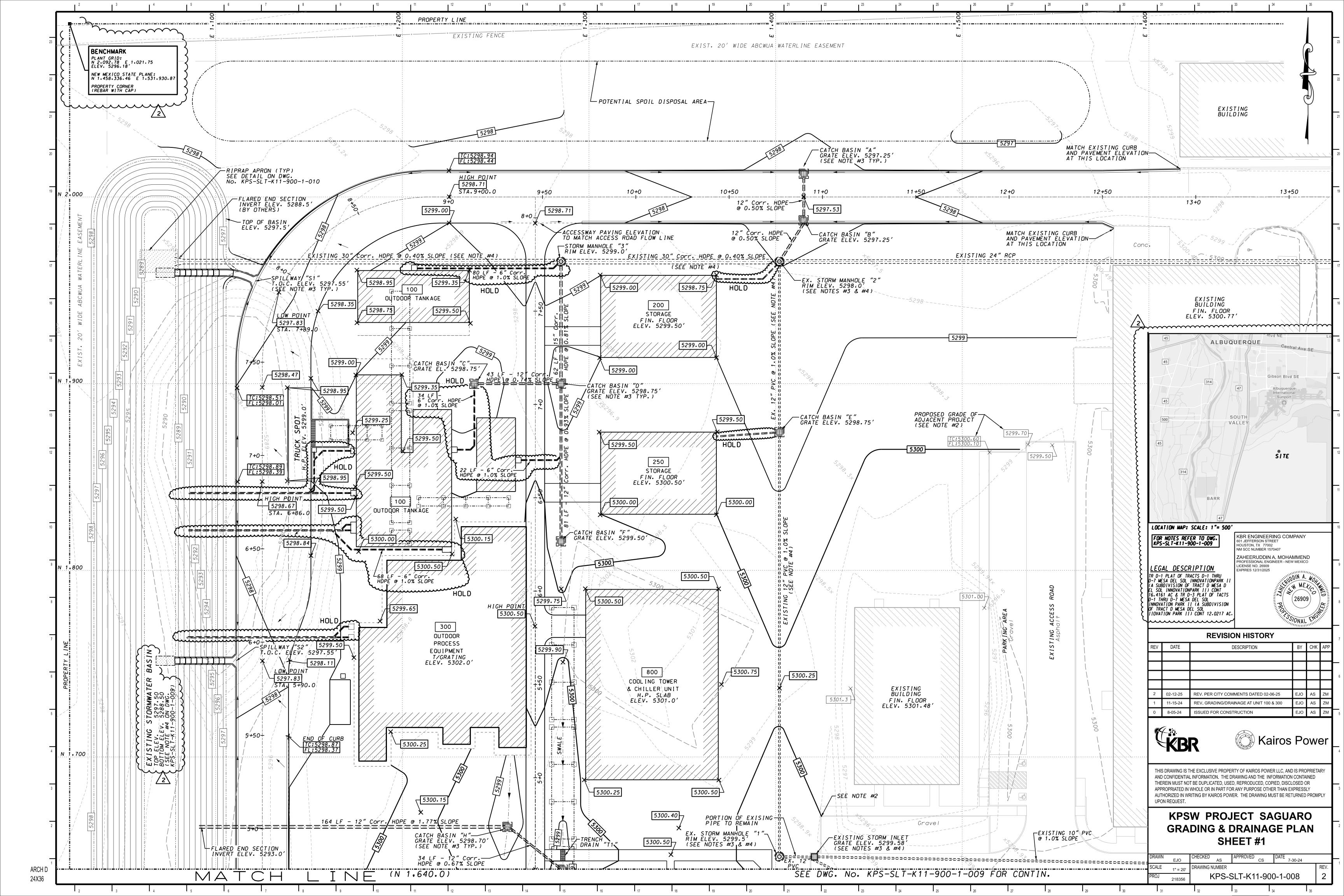
		Hydrology File #					
Legal Description:							
City Address, UPC, OR Parcel:							
Applicant/Agent:		_ Contact:					
Address:		Phone:					
Email:							
Applicant/Owner:		Contact	:				
Address:							
Email:							
TYPE OF DEVELOPMENT:			Single Family Home				
			All other Developments				
	RE-SUBMITTAL:	YES	NO				
DEPARTMENT: TRANS	PORTATION	HYDROLO	OGY/DRAINAGE				
Check all that apply under Both	the Type of Submittal a	nd the Type	of Approval Sought:				
TYPE OF SUBMITTAL:		TYPE OF	APPROVAL SOUGHT:				
Engineering / Architect Certifica	tion	Pad Certification					
Conceptual Grading & Drainage	e Plan	Building Permit					
Grading & Drainage Plan, and/o	or Drainage	Grading Permit					
Report		Paving P	Permit				
Drainage Report (Work Order)		SO-19 Permit					
Drainage Master Plan		Foundati	ion Permit				
Conditional Letter of Map Revis	ion (CLOMR)	Certificate of Occupancy - Temp Pern					
Letter of Map Revision (LOMR)	Prelimin	ary / Final Plat				
Floodplain Development Permit			for Building Permit - DFT				
Traffic Circulation Layout (TCI Administrative	L) —	Work Order (DRC)					
Traffic Circulation Layout (TCI Approval	L) – DFT	Release of Financial Guarantee (ROFG) CLOMR / LOMR					
Traffic Impact Study (TIS)		Conceptual TCL - DFT					
Street Light Layout		OTHER (SPECIFY)					
		OTTLK	(51 2011 1)				

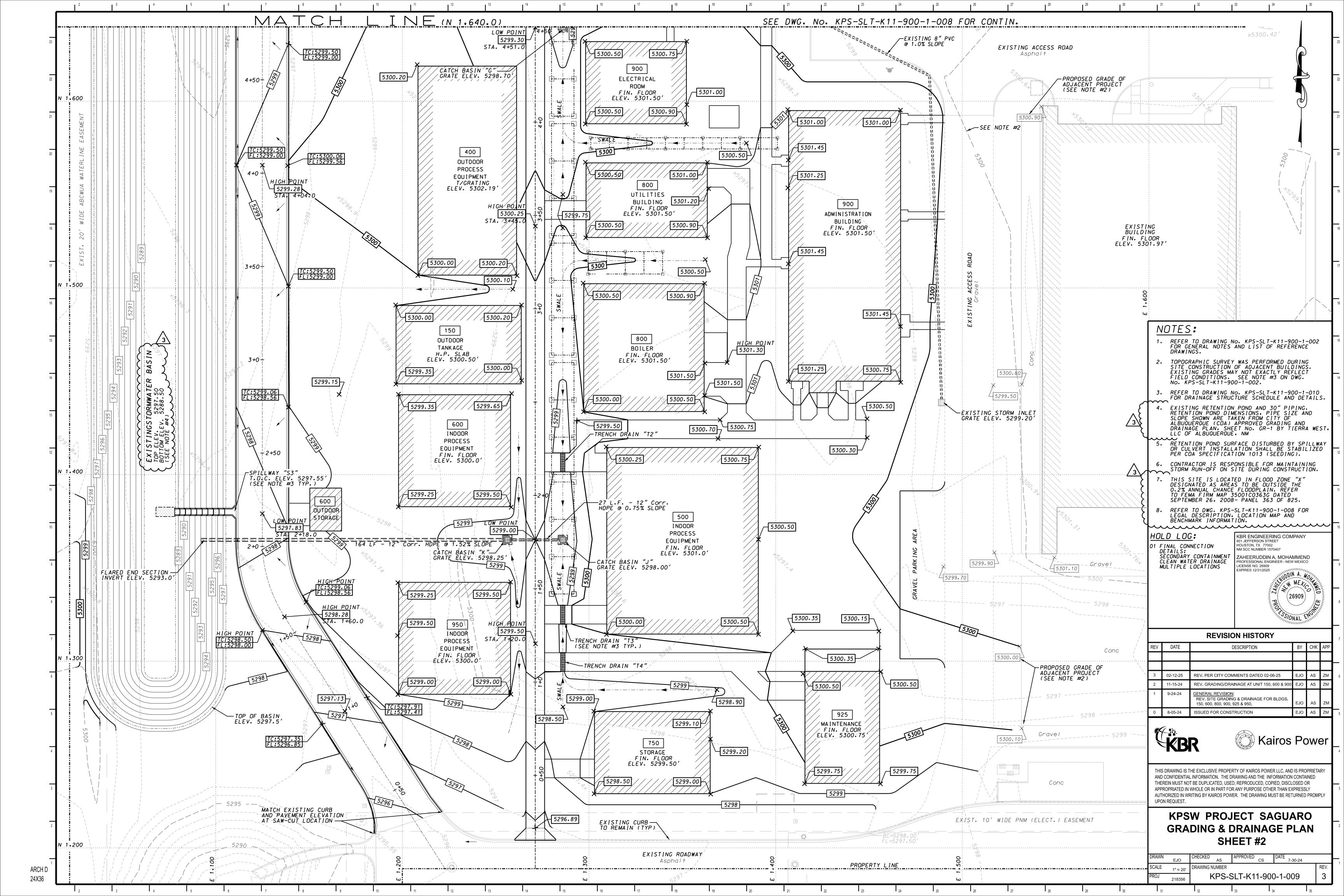
REV. 04/03/24

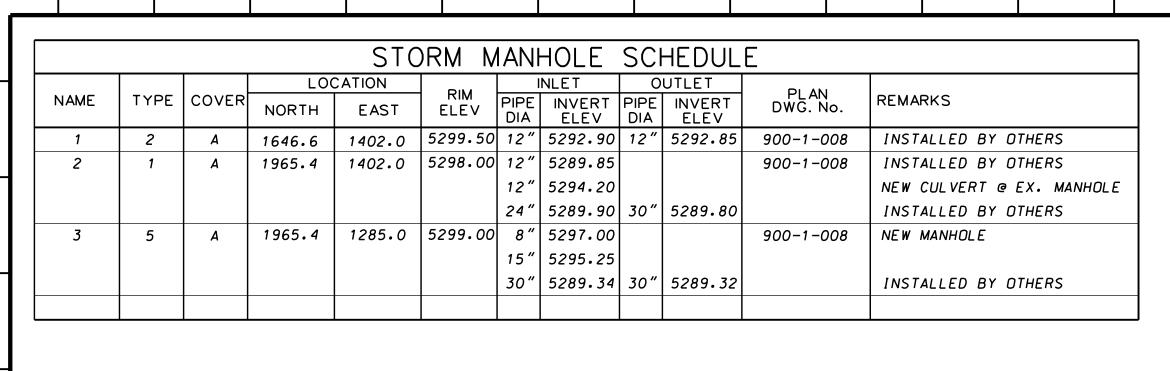
DATE SUBMITTED:

Legal Description:

A certain tract of land located within Section 15, Township 9 North, Range 3 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico. Being and Comprised of Tract D-1 and Tract D-3 of the Bulk Land Plat for Mesa Del Sol Innovation Park II, as the same is shown and designated on the plat thereof recorded in the real property records of Bernalillo County, New Mexico on December 29, 2017, as Document Number 2017124120, in Book: 2017C, Page: 159.





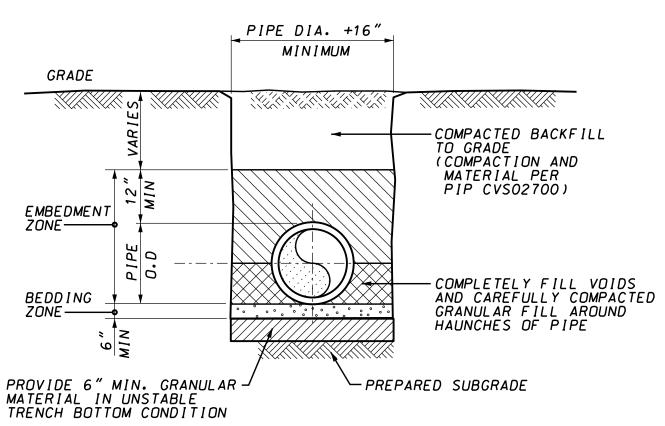


	CATCH BASIN SCHEDULE										
		LOCATION		GRATE	INLET		OUTLET		DI AN		
NAME	TYPE	COVER	NORTH	EAST	ELEV	PIPE DIA	INVERT ELEV	PIPE DIA	INVERT ELEV	PLAN DWG. No.	REMARKS
Α	3	D	2012.5	1415.0	5297.25			12"	5294.75	900-1-008	
В	3	D	1987.5	1415.0	5297.25	12"	5294.55	12"	5294.50	900-1-008	
С	4	С	1900.0	1238.5	5298.75	6"	5296.75	12"	5296.25	900-1-008	
D	4	С	1900.0	1285.0	5298.75	12"	5296.00			900-1-008	
						12"	5296.00	15"	5295.75		
Ε	4	С	1874.0	1402.0	5298.75	12"	5290.75	12"	5290.70	900-1-008	NEW STRUCTURE @ EX. CULVERT
F	4	С	1815.5	1285.0	5299.50			12"	5297.00	900-1-008	
G	4	С	1637.5	1256.3	5298.70			12"	5296.20	900-1-009	
Н	4	С	1622.0	1286.0	5298.70	12"	5296.00	12"	5295.90	900-1-009	
J	4	С	1385.0	1256.3	5298.70			12"	5295.75	900-1-009	
K	4	С	1385.0	1286.0	5298.70	12"	5296.00	12"	5295.50	900-1-009	

TRENCH DRAIN SCHEDULE										
NAME	LOC	CATION	TRENCH	TRENCH	TRENCH	GRATE	INLET INVERT	OUTLET INVERT	PLAN DWG. No.	REMARKS
IVAIVIL	NORTH	EAST	WIDTH	LENGTH	ELEV	ELEV	ËLEV	DWG. No.	INCIMIANNO	
T 1	1642.3	1286.0	12"	4'	5299.35	5 <i>298</i> .92	5298.88	900-1-008	ADJUST LOCATION WITH	
T2	1965.4	1286.0	12"	10'	5298.00	5298.50	5298.37	900-1-009	CONCRETE WALK OR DRIVE	
Т3	1325.0	1286.0	12"	10'	5299.80	5298.60	5298.50	900-1-009		

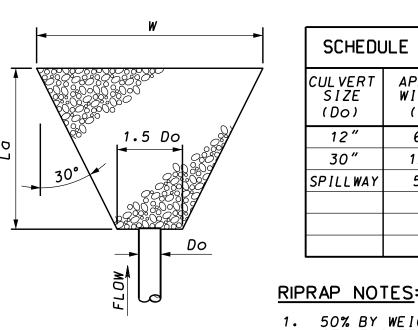
NOTES

- 1. REFER TO DRAWING NO. KPS-SLT-K11-900-1-002 FOR GENERAL NOTES AND LIST OF REFERENCE DRAWINGS.
- 2. PRECAST CONCRETE MANHOLE SHALL BE ROUND CONFORMING TO THE REQUIREMENTS SPECIFIED IN THE LATEST EDITION OF ASTM C478. MINIMUM INSIDE CLEAR DIMENSION SHALL BE 48 INCHES. IN ADDITION TO LATERAL LOADS DUE TO EARTH PRESSURE, MANHOLES SHALL BE DESIGNED FOR AASHTO HS20-44 TRUCK LOADING, INCLUDING IMPACT.
- PRECAST CONCRETE CATCH BASINS SHALL BE EITHER ROUND OR SOUARE, CONFORMING TO THE REQUIREMENTS SPECIFIED IN THE LATEST EDITION OF ASTM C478 OR C913, RESPECTIVELY MINIMUM INSIDE CLEAR DIMENSION SHALL BE 48 INCHES, UNLESS OTHERWISE NOTED. IN ADDITION TO LATERAL LOADS DUE TO EARTH PRESSURE, CATCH BASINS SHALL BE DESIGNED FOR AASHTO HS20-44 TRUCK LOADING, INCLUDING IMPACT.
- 4. HEAVY-DUTY FRAME AND GRATE/COVER SHALL BE AS MANUFACTURED BY EAST JORDON IRON WORKS OF SMYRNA, GEORGIA OR ENGINEER APPROVED EQUAL. MANHOLE COVER AND CATCH BASIN GRATE TYPES SHALL BE AS FOLLOWS:
 - TYPE A: MODEL NO. 1020 TYPE 'A' MANHOLE SOLID COVER & FRAME FURNISHED WITH CAST-IN LETTERING READING "STORM"
 - TYPE B: MODEL NO. 1720 CATCH BASIN INLET FRAME & TYPE 'P' CONCAVE GRATE
 TYPE C: MODEL NO. 5370 SQUARE CATCH BASIN INLET FRAME & GRATE
 TYPE D: MODEL NO. 7075 CURB INLET FRAME, TYPE 'M1' GRATE & ADJUSTABLE CURB BOX
- 5. FACE OF PIPE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.
- 6. HEIGHT OF INTERMEDIATE RISER SECTION VARY FROM 1' TO 4'
- 7. PIPES TO CATCH BASIN JOINTS SHALL BE COMPLETELY SEALED AS TO NOT ALLOW ANY GROUNDWATER INTRUSION.
- 8. MANHOLE STEPS SHALL BE ORIENTED SO AS NOT TO INTERFERE WITH PIPE OPENINGS AND EXTEND TO 12" FROM BOTTOM OF THE STRUCTURE. STEPS MAY BE ELIMINATED FOR STRUCTURE WITH A DEPTH LESS THAN 32" OR LESS THAN
- PIPE BEDDING MATERIAL SHALL BE WELL GRADED SOIL WITH NO MORE THAN 15% PASSING A NO. 200 SIEVE. MAXIMUM PARTICLE SIZE SHALL NOT EXCEED ONE INCH. EMBEDMENT AND BEDDING ZONE MATERIAL SHALL BE TYPE "SC". "SM". "SW". "SP". "GW" OR "GP" PER THE UNIFIED SOIL CLASSIFICATION SYSTEM COMPACTED TO 95% DRY DENSITY PER ASTM D1557. SOILS CLASSIFIED AS "ML". "CL". "MH". "CH" OR "OH" ARE NOT ACCEPTABLE FOR COMPACTION.
- 10. GEOTECHNICAL FABRIC BELOW RIPRAP LINING SHALL BE MIRAFI NON-WOVEN TYPE 140N OR ENGINEER APPROVED EQUAL.



- 1. EMBEDMENT AND BEDDING ZONE MATERIAL SHALL BE TYPE "SC", "SM", "SW", "SP", "GW" OR "GP" PER THE UNIFIED SOIL CLASSIFICATION SYSTEM COMPACTED TO 95% DRY DENSITY PER ASTM D1557.
- 2. SOILS CLASSIFIED "ML", "CL", "MH", "CH" OR "OH" ARE NOT ACCEPTABLE FOR COMPACTION.
- 3. CITY OF ALBUQUERQUE SECTION 2200, DWG. 2240 MAY BE USED AS AN APPROVED AL TERNATIVE.

HDPE PIPE BEDDING DETAIL



PLAN VIEW

50% BY WEIGHT OF THE RIPRAP SHALL BE SMALLER THAN THE MEDIAN STONE SIZE, AS DESIGNATED BY d50, AND 50% BY WEIGHT SHALL BE LARGER. RIPRAP SHALL BE WELL GRADED AND THE LARGEST STONE SHALL NOT EXCEED 1.5 TIMES THE d50 SIZE.

 (d_{50})

1 "

APRON

LENGTH

(La)

20'

10'

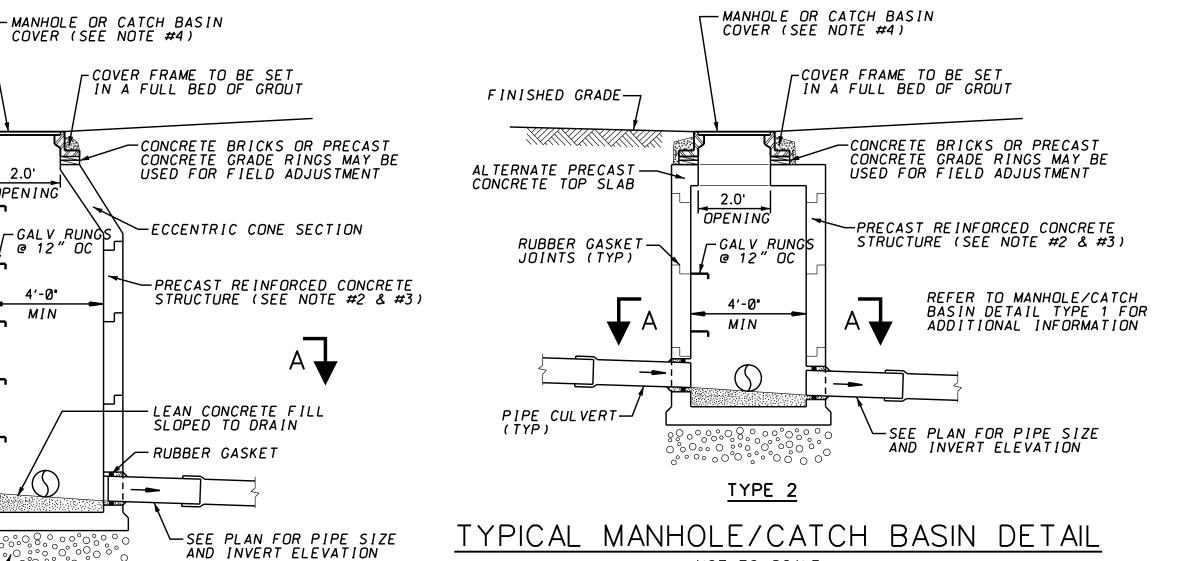
WIDTH

2. RIPRAP APRON THICKNESS SHALL EQUAL 3 TIMES THE d₅₀ STONE SIZE.

REMARKS

BY OTHERS

RIPRAP APRON DETAIL NOT TO SCALE



NOT TO SCALE

TYPE 1 TYPICAL MANHOLE/CATCH BASIN DETAIL

NOT TO SCALE

-PROVIDE 12" MIN. COMPACTED CRUSHED STONE IN ROCK OR WET TRENCH CONDITIONS

FINISHED GRADE-

SHORTEST PRECAST RISER SEGEMENT TO BE PLACED

RUBBER GASKE JOINTS (TYP)

PIPE CULVERT -(TYP)

_

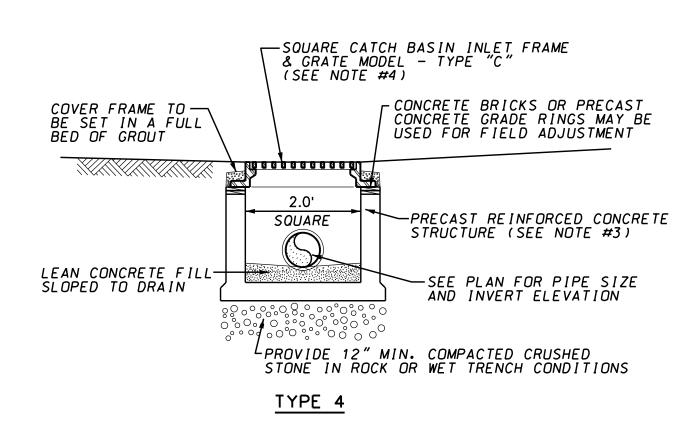
UNDER CONE—

2.0'

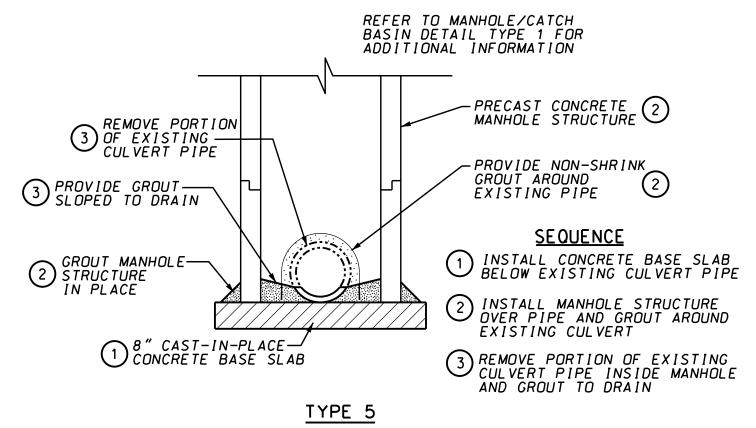
OPENING

_GALV RUNGS` [@ 12" OC |-

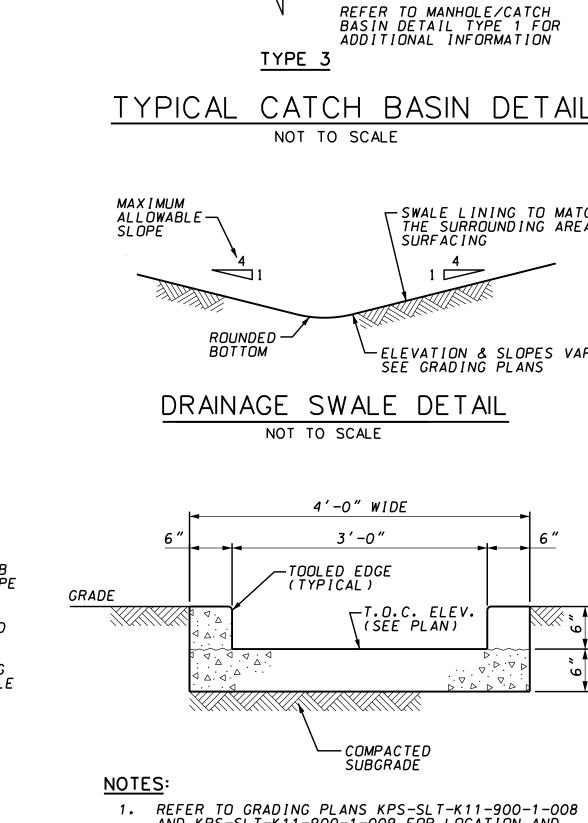
MIN



TYPICAL CATCH BASIN DETAIL NOT TO SCALE



TYPICAL MANHOLE DETAIL NOT TO SCALE



CURB LINE —

PRECAST— CONCRETE TOP SLAB

REFER TO GRADING PLANS KPS-SLT-K11-900-1-008 AND KPS-SLT-K11-900-1-009 FOR LOCATION AND ELEVATIONS.

3'-0"

-T.O.C. ELEV. (SEE PLAN)

-COMPACTED

SUBGRADE

FRAME AND CURB BOX - TYPE "D" (SEE NOTE #4)

2.0'

OPENING

4′-0"

SQUARE

-COVER FRAME TO BE SET IN A FULL BED OF GROUT

REFER TO MANHOLE/CATCH BASIN DETAIL TYPE 1 FOR ADDITIONAL INFORMATION

1 ____

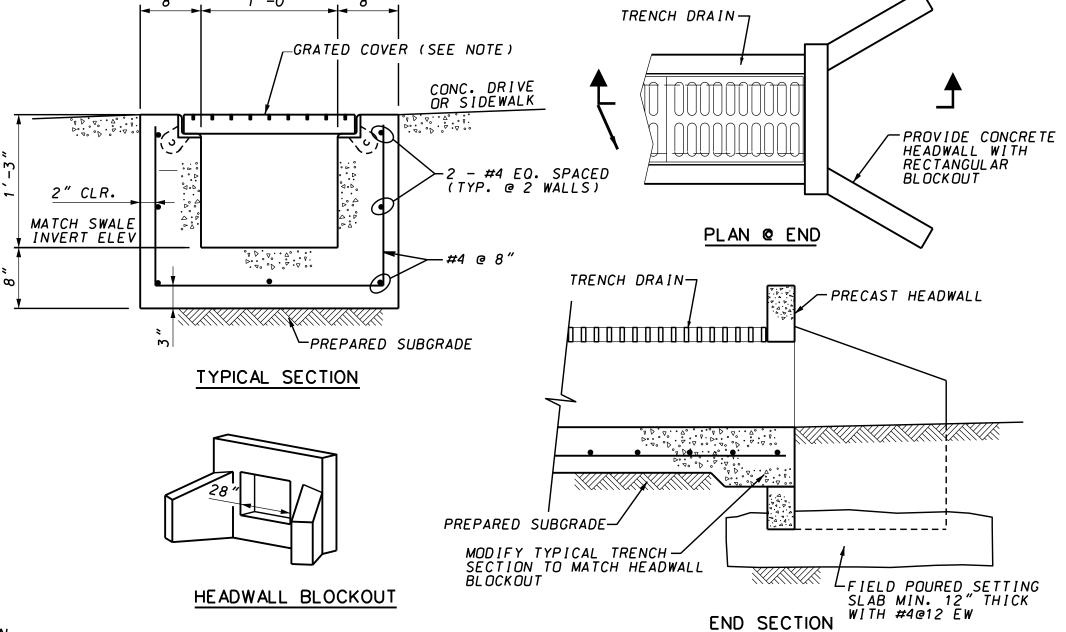
-PRECAST REINFORCED CONCRETE STRUCTURE (SEE NOTE #3)

SWALE LINING TO MATCH THE SURROUNDING AREA SURFACING

ELEVATION & SLOPES VARY SEE GRADING PLANS

- 2. CONCRETE SHALL BE MINIMUM 3,000 psi STRENGTH AT 28 DAYS.
- 3. SPLAY UPSTREAM END 7'-0" WIDE AND MERGE INTO ROADWAY CURBING.

TYPICAL SPILLWAY DETAIL NOT TO SCALE



GRATED COVER TO BE HEAVY-DUTY TRENCH FRAME & GRATE MODEL NO V-7312 AS MANUFACTURED BY EAST JORDON IRON WORKS OF SMYRNA, GEORGIA OR ENGINEER APPROVED EQUAL.

2. REINFORCED CONCRETE SHALL MEET ALL APPLICABLE REQUIREMENTS OF ACI 318. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 4.000 psi (MINIMUM) AT 28 DAYS. REINFORCING STEEL SHALL CONFORM TO ASTM A615. GRADE 60.

3. A PREFORMED, MANUFACTURED TRENCH SYSTEM IS AN ACCEPTABLE ALTERNATIVE WITH ENGINEER'S

TRENCH DRAIN DETAIL NOT TO SCALE

REVISION HISTORY 8-05-24 ISSUED FOR CONSTRUCTION Kairos Power THIS DRAWING IS THE EXCLUSIVE PROPERTY OF KAIROS POWER LLC, AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THE DRAWING AND THE INFORMATION CONTAINED

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TYPICAL DRAINAGE DETAILS

DATE 7-30-24 EJO AS NOTED KPS-SLT-K11-900-1-010

218356

NOT TO SCALE

24X36