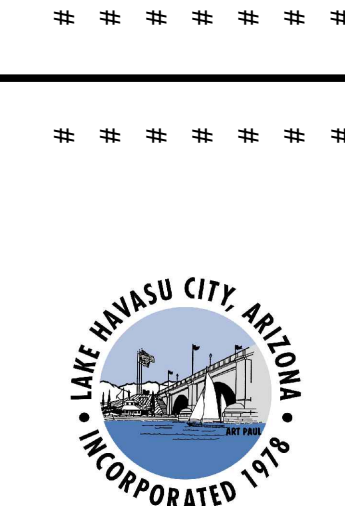


# LAKE HAVASU CITY, KIOWA DRAIN #3 WASH STABILIZATION IMPROVEMENTS CITY PROJECT: B25-PW-105009-500599



DRAWING INDEX		
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09	DT01	GRADING DETAIL
10	ST01	STRUCTURE NOTES AND DETAILS
11	ST02	STRUCTURE DETAILS



## PROJECT ENGINEER CITY COUNCIL

KIMLEY-HORN  
1661 E CAMELBACK RD #400,  
PHOENIX, AZ 85016  
PHONE: 602-944-5500

CAL SHEEHY  
MICHELE LIN  
JENI COKE  
JIM DOLAN  
CAMERON MOSES  
NANCY CAMPBELL  
DAVID DIAZ

MAYOR  
VICE MAYOR  
COUNCIL MEMBER  
COUNCIL MEMBER  
COUNCIL MEMBER  
COUNCIL MEMBER

## PROJECT MANAGER

SHAWN CLARKE, P.E.

## UTILITY CONTACTS

LAKE HAVASU CITY (WASTEWATER) (928) 855-3999  
LAKE HAVASU CITY (WATER) (928) 855-2618  
SUDDEN LINK (928) 855-9855  
FRONTIER COMMUNICATION (928) 358-1977  
UNISOURCE ENERGY SERVICES (GAS) (928) 505-7002  
UNISOURCE ENERGY SERVICES (ELECTRIC) (928) 505-7002

## BASIS OF HORIZONTAL CONTROL

BASIS OF HORIZONTAL CONTROL:  
JOB SETTINGS:  
HORIZONTAL DATUM: NAD83 (CORS96)  
PROJECTION: ARIZONA STATE PLANE WEST (SPC AZ WEST)  
LINEAR UNITS: US FOOT  
COORDINATE: GROUND  
GEOID: GEOID 2012BU ZONE 5

## LOCAL PROJECT CONTROL:

CONTROL POINT NO. 506522  
N. = 1274592.1800 E. = 518977.1800 ELEV. = 573.33  
PROJECT WAS ADJUSTED GRID TO GROUND BASED POINT 506522  
AS THE ORIGIN POINT WITH A COMBINED SCALE FACTOR OF  
1.000065913991 AND ZERO ROTATION.

CONTROL POINT NO. 506524  
N. = 1274762.7100 E. = 519355.6900 ELEV. = 590.25

CONTROL POINT NO. 506525  
N. = 1274720.7700 E. = 518532.0400 ELEV. = 564.39

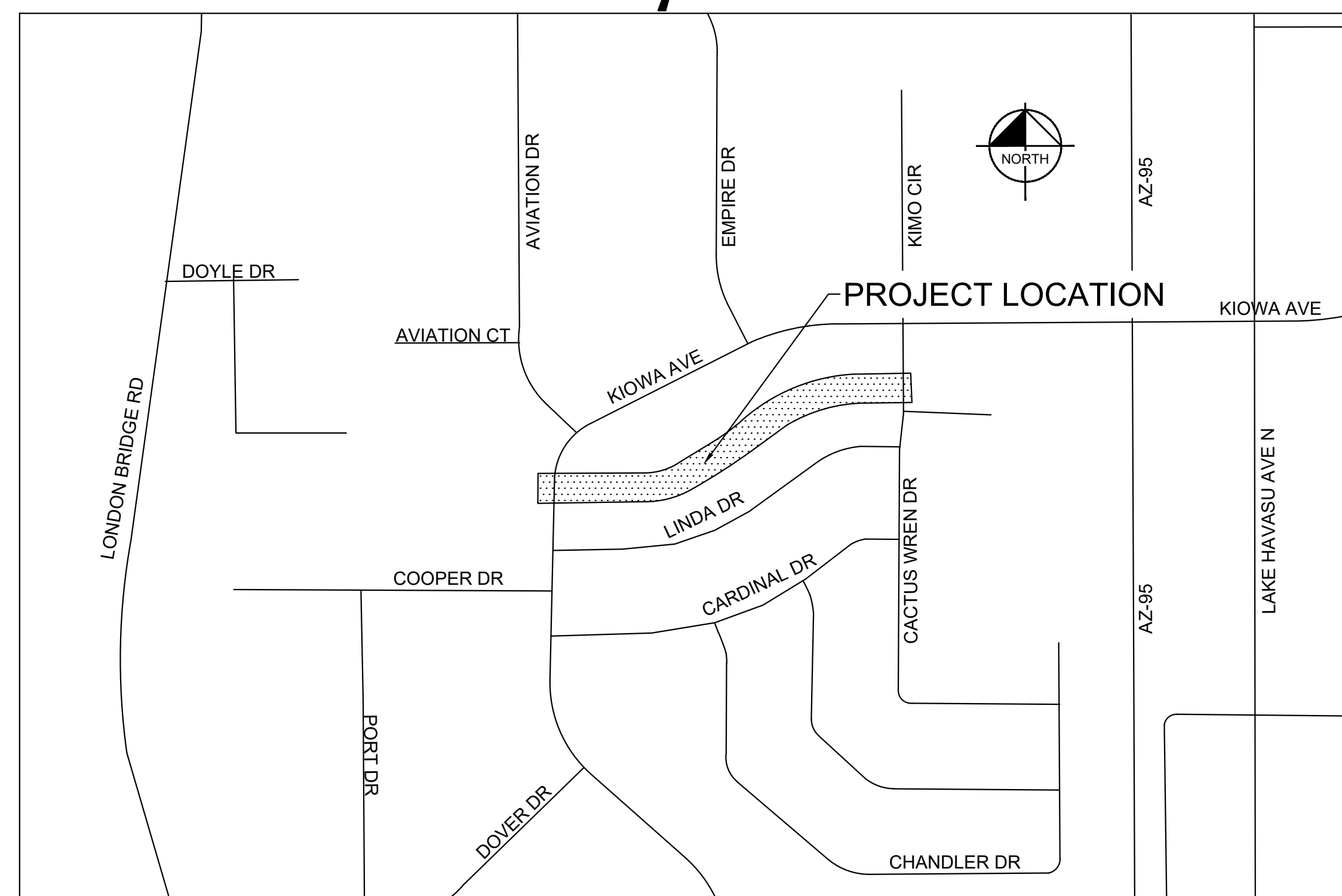
CONTROL POINT NO. 506526  
N. = 1274477.1300 E. = 517264.1500 ELEV. = 514.07

CONTROL POINT NO. 506945  
N. = 1274373.6600 E. = 517686.2200 ELEV. = 528.44

GROUND BEARING AND DISTANCE BETWEEN CONTROL POINT  
506526 AND 506524:  
N82°13'30" E 2110.95'

PREPARED BY:

**Kimley»Horn**



LOCATION MAP  
SCALE: N.T.S.

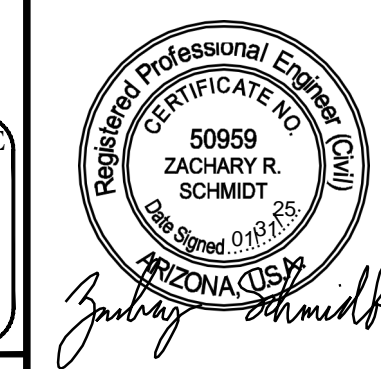
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REVISIONS / SUBMISSIONS	-	-	-	-	-

LAKE HAVASU CITY  
KIOWA DRAIN #3  
WASH STABILIZATION IMPROVEMENTS

Designed by: ZRS  
Drawn by: ZJS  
Checked by: ZRS  
Date: 01/2025  
Dwg. scale: ###/##/##

COVER SHEET

CONTRACTOR TO CALL  
BLUE STAKE AND POTHOLE  
PRIOR TO EXCAVATION  
**ARIZONA BLUE STAKE**  
CALL TWO WORKING DAYS  
BEFORE YOU DIG  
Dial 811 or  
602-263-1100  
1-800-STAKE-IT  
(OUTSIDE MARICOPA COUNTY)



**Kimley»Horn**

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Sheet Number:  
**CV01**  
Sheet 1 of 11

K:\PHX\_WaterResources\191245023 - LHC - Kiowa Drain - CADD\Sheets\C-COVR-191245023.dwg 1/31/2025 10:21 AM SCHMIDT, ZACHARY

# LAKE HAVASU GENERAL NOTES

## A. GENERAL

- ALL STRUCTURES ARE DESIGNED TO ACT AS A STRUCTURAL UNIT UPON COMPLETION. CONTRACTOR SHALL DESIGN AND PROVIDE NECESSARY BRACING, TEMPORARY SUPPORTS, AND SHORING TO RESIST FORCES ON THE STRUCTURE DURING CONSTRUCTION.
- VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO STARTING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO STARTING WORK.
- CONTRACTOR SHALL EXERCISE EXTREME CARE DURING THE EXCAVATION AND CONSTRUCTION FOR NEW STRUCTURES TO AVOID DAMAGE TO EXISTING STRUCTURES AND EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL MEANS AND METHODS REQUIRED TO FACILITATE CONSTRUCTION OF THE WORK AND ENSURING THE SAFETY, STABILITY AND INTEGRITY OF ADJACENT STRUCTURES AND FACILITIES.
- THE ENGINEER SHALL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION.
- ANY WORK PERFORMED WITHOUT THE KNOWLEDGE AND APPROVAL BY THE ENGINEER AND/OR ALL WORK MATERIAL NOT IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL CURBS, PAVEMENT AND SIDEWALKS (NEW AND EXISTING) HAVE BEEN SWEEPED CLEAN OF ALL DIRT AND DEBRIS.
- ALL QUANTITIES SHOWN ON PLANS ARE APPROXIMATE, ARE NOT VERIFIED BY THE ENGINEER, AND ARE FURNISHED SOLELY FOR THE CONTRACTOR'S CONVENIENCE. THEY DO NOT NECESSARILY CORRESPOND TO BID SCHEDULE ITEMS. PAYMENT WILL BE BASED ON BID SCHEDULE ITEMS. THE CONTRACTOR SHALL NOT BE RELIEVED OF HIS RESPONSIBILITY FOR INDEPENDENTLY ESTIMATING WORK QUANTITIES PRIOR TO BIDDING.
- BACKFILL COMPACTION SHALL BE PER MAG 301, UNLESS OTHERWISE NOTED.
- REMOVAL OF STRUCTURES AND OBSTRUCTIONS AS NECESSARY TO COMPLETE THE WORK, OTHER THAN SPECIALLY SCHEDULED IN THE BID, IS INCIDENTAL TO THE CONTRACT. NO SEPARATE MEASUREMENT OF PAYMENT FOR UNSCHEDULED REMOVAL ITEMS WILL BE MADE.
- CONSTRUCTION STAKING SHALL BE BY THE CONTRACTOR'S SURVEYOR WITH CONTROL PROVIDED BY THE DESIGN ENGINEER WHO STAMPED THE PLANS.
- THE LAKE HAVASU CITY MAY ORDER ANY OR ALL WORKMANSHIP AND MATERIALS TO BE TESTED ACCORDING TO APPLICABLE STANDARDS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL REWORK AND/OR REMOVAL AND REPLACEMENT OF ALL MATERIALS AND/OR WORKMANSHIP REPRESENTED BY A FAILING TEST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF TESTING AND QUALITY ASSURANCE/QUALITY CONTROL AS DELINEATED IN THE CITY'S PROJECT SPECIFICATIONS. THE COST OF TESTING IS INCIDENTAL TO EACH ITEM OF WORK. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE COST OF ANY CITY INSPECTION AND CITY INSPECTION TIME IF THE CONTRACTOR'S WORK IS BEING PERFORMED IN OVERTIME, AT NIGHT, OR ON WEEKENDS.
- APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE AND WORKABLE UNIT.
- THE LAKE HAVASU CITY MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN ITS JUDGEMENT, PROGRESS IS UNSATISFACTORY, WORK BEING DONE IS UNAUTHORIZED OR DEFECTIVE, WEATHER CONDITIONS ARE UNSUITABLE, OR THERE IS A DANGER TO THE PUBLIC HEALTH OR SAFETY.
- CLEARING AND GRUBBING IS CONSIDERED INCIDENTAL TO THE WORK UNLESS SEPARATELY IDENTIFIED IN THE BID SCHEDULE. NO SEPARATE MEASUREMENT OF OR PAYMENT FOR CLEARING, GRUBBING, AND TREE REMOVAL WILL BE MADE. THE SITE OF ALL EXCAVATION, EMBANKMENTS, AND FILLS SHALL FIRST BE CLEARED OF STUMPS, TRASH, WEEDS, RUBBISH, AND LOOSE BOULDERS WHICH SHALL BE REMOVED AND DISPOSED OF. THE CONTRACTOR MUST SATISFY HIMSELF REGARDING THE CHARACTER AND AMOUNT OF LOAM, CLAY, SAND, QUICKSAND, HARDPAN, GRAVEL, ROCK, WATER, AND ALL OTHER MATERIAL TO BE ENCOUNTERED AND WORK TO BE PERFORMED.
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND ARE BASED ON FIELD DATA AND MAP RECORDS. THE CONTRACTOR SHALL CONTACT 1-800-STAKE-IT PRIOR TO ANY CONSTRUCTION ACTIVITY TO VERIFY THE ACTUAL LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL DETERMINE WHICH UTILITIES DO NOT PARTICIPATE IN 1-800-STAKE-IT AND CONTACT THEM DIRECTLY TO VERIFY THE LOCATION OF THOSE UTILITIES. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY CONTRACTOR'S OPERATION SHALL BE REPORTED TO THE UTILITY OWNER IMMEDIATELY AND REPAIRED OR REPLACED AT NO COST TO THE CITY. IN CASES WHEN THE EXISTING UTILITIES ARE NOT AS DEPICED ON THE PLANS SOME MINOR DEVIATION TO THE PROPOSED ALIGNMENT MAY BE ALLOWED TO MAINTAIN MINIMUM SEPARATION DISTANCES BETWEEN UTILITIES. ANY PROPOSED TO MAINTAIN MINIMUM SEPARATION DISTANCES BETWEEN UTILITIES. ANY PROPOSED TO CHANGES TO THE ALIGNMENT MUST BE SUBMITTED TO THE CITY'S REPRESENTATIVE FOR REVIEW. NO CHANGES WILL BE ALLOWED WITHOUT PRIOR APPROVAL.
- THE CONTRACTOR SHALL LIMIT THE WORK AREA TO PUBLIC RIGHT-OF-WAY AND PERMANENT EASEMENTS AS SHOWN FOR CONSTRUCTION OF THE PROJECT. TEMPORARY CONSTRUCTION EASEMENTS EXIST AS SHOWN AND INDICATED IN THE PLANS.
- CONTRACTOR SHALL OBTAIN ANY ADDITIONAL TEMPORARY EASEMENTS OR USE AGREEMENTS THAT ARE DEEMED NECESSARY FOR CONSTRUCTION AT NO ADDITIONAL COST TO THE CITY. COPIES OF ALL CONTRACTOR OBTAINED EASEMENTS AND USE AGREEMENTS SHALL BE PROVIDED TO THE CITY'S REPRESENTATIVE PRIOR TO THE UTILIZATION OF THE SITE.
- THE CONTRACTOR SHALL GRADE AND RESURFACE ALL AREAS DISTURBED BY CONSTRUCTION, INCLUDING LANDSCAPE ROCK, IN ACCORDANCE WITH THE SPECIFICATIONS AND TO A CONDITION EQUAL TO, OR BETTER THAN, THE PRE-CONSTRUCTION CONDITION.
- THE CONTRACTOR SHALL PROTECT ALL CONCRETE STRUCTURES TO REMAIN. ALL CONCRETE REPLACEMENT SHALL BE FROM JOINT TO JOINT (WALLS, SIDEWALK) AND SHALL BE REPLACED WITH 4000 PSI CONCRETE. ALL DAMAGED CONCRETE PANELS MUST BE REPLACED AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE PROTECTION TO PREVENT UNDERMINING OR DAMAGING THE STRUCTURAL INTEGRITY OF ALL FENCES, RETAINING WALLS, STREET SIGNS, OTHER UTILITY POLES, OR OTHER PRIVATE OR PUBLIC IMPROVEMENTS WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNING UTILITY AS NECESSARY TO PROVIDE TEMPORARY SUPPORT, OR PROTECTION DURING CONSTRUCTION WORK, AND SHALL NEATLY REMOVE AND PROMPTLY REPLACE NON UTILITY IMPROVEMENTS WITHOUT UNDUE DISRUPTION. THE COST OF ALL SUCH PROTECTION, REMOVAL, AND REPLACEMENT REQUIRED TO COMPLETE THE PROJECT SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
- THE CONTRACTOR SHALL REMOVE ALL FENCING, ASPHALT AND CONCRETE ROADS AND DRIVEWAYS, CURB AND GUTTER, RIP-RAP, DRAINAGE CULVERTS AND ASSOCIATED APPURTENANCES AS REQUIRED FOR CONSTRUCTION PURPOSES. ALL ITEMS DAMAGED OR REMOVED SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATION TO A CONDITION EQUAL TO, OR BETTER THAN, THEIR CONDITION PRIOR TO THE START OF THE PROJECT. ITEMS OF WORK NOT SPECIFICALLY INCLUDED IN THE MEASUREMENTS AND PAYMENT SECTION OF THE SPECIFICATIONS SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS AND SHALL NOT BE PAID FOR SEPARATELY.
- IT IS NOT THE INTENTION OF THE SPECIFICATIONS TO SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAWS, REGULATIONS AND/OR ORDINANCES; THEY SHALL GOVERN IN ALL INSTANCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SHOW A GOOD FAITH EFFORT AND TO PROTECT ALL EXISTING UTILITY TIES AND STRUCTURES AND TO ABIDE BY ALL FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES IN THIS RESPECT.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS ON PRIVATE PROPERTY. ALL ITEMS DAMAGED OR REMOVED SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATION TO A CONDITION EQUAL TO, OR BETTER THAN, THEIR CONDITION PRIOR TO THE START OF THE PROJECT.
- PROPERTY LINES SHOWN ON DRAWINGS ARE APPROXIMATE.

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS, UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (MAG), OTHER CITY'S, AND ADOT DETAILS (AS CITED IN PROJECT PLANS AND SPECIFICATIONS). LAKE HAVASU CITY STANDARD DETAILS WILL CONTINUE TO APPLY WHERE SUCH DETAILS WERE NOT ADOPTED OR INCLUDED BY MAG. ALTERNATE DETAILS AND SPECIFICATIONS MAY BE SUBMITTED FOR REVIEW AND ACCEPTANCE BY THE ENGINEERING DIVISION. IF ACCEPTED, ALTERNATE DETAILS WILL BE SHOWN AS PART OF THE APPROVED PLANS/DETAIL SHEETS.
- THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS. HOWEVER, SUCH REVIEW SHALL NOT PREVENT THE CITY ENGINEER FROM REQUIRING CORRECTION OF ERRORS OR OMISSIONS IN PLANS FOUND TO BE IN VIOLATION OF ANY LAW OR ORDINANCE.
- APPROVAL BY THE CITY ENGINEER MEANS FOR GENERAL LAYOUT IN RIGHT-OF-WAY ONLY. CONSTRUCTION PERMITS SHALL BE OBTAINED WITHIN THIS PERIOD OR THE PLANS SHALL BE RESUBMITTED FOR APPROVAL. WORK SHALL ALSO BE CONTINUOUSLY PURSUED IN ORDER TO MAINTAIN A VALID PLAN APPROVAL AND PERMIT. APPROVAL IS ONLY FOR WORK WITHIN THE JURISDICTION OF LAKE HAVASU CITY.
- AN APPROVED SET OF PLANS MUST BE AVAILABLE ON THE JOB SITE AT ALL TIMES. THE CONTRACTOR'S REPRESENTATIVE (CAPABLE OF COMMUNICATING WITH THE CITY'S REPRESENTATIVES) SHALL BE ON THE JOB AT ALL TIMES THE WORK IS BEING PURSUED.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE EMERGENCY TELEPHONE NUMBERS TO LAKE HAVASU CITY AT TIME OF LSSUANCE OF OFF--SLTE/ON--SITE PERMITS AND HAVE PERSONNEL AVAILABLE 24--HOURS A DAY TO RESPOND TO EMERGENCIES. IF THE CITY IS REQUIRED TO RESPOND AND MAKE EMERGENCY REPAIRS ON BEHALF OF THE CONTRACTOR, THE CONTRACTOR IS RESPONSIBLE TO REIMBURSE THE CITY FOR ALL COSTS INCURRED.
- THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO PREVENT EROSION AND DEPOSITION OF SEDIMENTS INTO WATER COURSES. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN FOR APPROVAL, PRIOR TO THE START OF ANY EXCAVATION. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTION DITCHES, PIPES, PROTECTIVE BERMS, CONCRETE CHANNELS OR OTHER MEASURES DESIGNED TO PROTECT IMPROVEMENTS, WHETHER EXISTING OR PROPOSED, FROM RUNOFF OR DAMAGE FROM STORM WATER, MUST BE CONSTRUCTED PRIOR TO THE CONSTRUCTION OF ANY IMPROVEMENTS. ALL EROSION AND SEDIMENT CONTROL WORK SHALL BE INCIDENTAL TO OTHER PAY ITEMS.
- TRAFFIC CONTROL SHALL CONFORM WITH THE TRAFFIC BARRICADE MANUAL AND MUTCD GUIDELINES. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN PER THE TRAFFIC BARRICADE MANUAL. BARRICADES MUST BE CONTINUALLY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. A TRAFFIC CONTROL PLAN (TCP) SHALL BE SUBMITTED TO THE ENGINEERING DIVISION AND ACCEPTED A MINIMUM OF 24--HOURS PRIOR TO CONSTRUCTION. AN ACCEPTED TCP WILL BE STAMPED AND A COPY RETURNED TO THE CONTRACTOR. A COPY OF THE ACCEPTED PLAN MUST REMAIN ON THE JOB SITE AT ALL TIMES.
- ALL CONTRACTORS ARE RESPONSIBLE TO OBTAIN AN ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES) PERMIT IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS, INCLUDING NOTICE OF INTENT (NOI), NOTICE OF TERMINATION, AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP). A COPY OF THE NOI AND SWPPP SHALL BE AVAILABLE ON THE JOB SITE AT ALL TIMES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY AND ALL OTHER PERMITS AND MEET ANY REQUIREMENTS SET FORTH BY OTHER AGENCIES OR UTILITIES, WHICH HAVE JURISDICTION, AT THE CONTRACTORS EXPENSE, INCLUDING OSHA. CONTRACTOR SHALL MEET OSHA STANDARDS FOR TRENCH SAFETY.
- FIRE ACCESS TO BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION AS REQUIRED BY LAKE HAVASU CITY
- FIRE DEPARTMENT.
- THE CONTRACTOR SHALL KEEP SUITABLE EQUIPMENT ON HAND AT THE JOBSITE FOR MAINTENANCE DUST CONTROL, AND SHALL CONTROL DUST AS DIRECTED BY THE APPROPRIATE AGENCIES.
- ALL EXISTING FLOW LINES SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY CONTRACTOR.
- PROPERTY LINES SHOWN ON DRAWINGS ARE APPROXIMATE.
- THE CONTRACTOR SHALL GRADE AND RESURFACE ALL AREAS DISTURBED BY CONSTRUCTION, INCLUDING LANDSCAPE ROCK, IN ACCORDANCE WITH THE SPECIFICATIONS AND TO A CONDITION EQUAL TO, OR BETTER THAN, THE PRE-CONSTRUCTION CONDITION.
- ANY ROCK ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED AT NO ADDITIONAL COST TO THE CITY. ROCK EXCAVATION COST SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK.
- ANY SHORING REQUIRED SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK.
- COORDINATE SHUTDOWN AND SEQUENCING REQUIREMENTS WITH OWNER 48--HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST HAVE AN APPROVED SEQUENCING PLAN PRIOR TO ANY CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING STAGING AREAS FOR THEIR WORK.
- CONTRACTOR SHALL FIELD VERIFY AND REPLACE ALL PROPERTY DRAIN PIPES (6" OR SMALLER, IN KIND) TO BE LAID OVER THE FINISHED GRADE SLOPE & EXTENDED 12" BEYOND TOP OF BANK PROTECTION AS SPECIFIED ON THE TECHNICAL SPECIFICATIONS (ALLOWANCE).

EARTHWORK QUANTITIES				
CUT (CY)	FILL (CY)	RIPRAP EXCAVATION (CY)	MAINT. PATH BACKFILL (CY)	NET (CY)
3193	3524	3744	1218	2195

- EARTHWORK QUANTITIES ARE ESTIMATED VOLUMES USING NO CLEAR & GRUB LOSS, SHRINKAGE, COMPACTION, STRUCTURE ELEVATION, BULKING OR TOP SOIL HARVESTING FACTORS & SHALL BE FOR ESTIMATING & INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN EARTHWORK ANALYSIS FOR BIDDING PURPOSES.
- FILL QUANTITY DOES NOT ACCOUNT FOR SUITABILITY OF IN SITU MATERIAL.

## LEGEND

- PROPERTY LINE, EXISTING R/W
- EXISTING EASEMENT
- EXISTING OVERHEAD ELECTRIC
- EXISTING WALL
- EXISTING UTILITY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- CUT LINE
- FILL LINE
- PROPOSED RIPRAP
- PROPOSED CONCRETE
- PROPOSED PLACEMENT OF NATIVE SOIL
- EXISTING UTILITY POLE
- EXISTING TREE
- EXISTING PALM TREE

## ABBREVIATIONS

- |            |                                          |
|------------|------------------------------------------|
| AISC       | AMERICAN INSTITUTE OF STEEL CONSTRUCTION |
| ASLD       | ARIZONA STATE LAND DEPARTMENT            |
| ASTM       | AMERICAN SOCIETY FOR TESTING MATERIALS   |
| BF         | BACK FACE                                |
| BLDG       | BUILDING                                 |
| CLR        | CLEAR                                    |
| CONC       | CONCRETE                                 |
| CT         | CONSTRUCTION                             |
| DIA        | DIAMETER                                 |
| DWG        | DRAWING                                  |
| E          | EAST, EASTING                            |
| ELEV       | ELEVATION                                |
| ELC        | ELECTRIC                                 |
| ESMT       | EASEMENT                                 |
| EXST/EXIST | EXISTING                                 |
| FF         | FRONT FACE                               |
| FG         | FINISH GRADE ELEVATION                   |
| FT         | FOOT OR FEET                             |
| GND        | GROUND                                   |
| HW         | HIGH WATER                               |
| JT         | JOINT                                    |
| LF         | LINEAR FEET                              |
| LOL        | LAYOUT LINE                              |
| LS         | LUMP SUM                                 |
| MAG        | MARICOPA ASSOCIATION OF GOVERNMENTS      |
| MH         | MANHOLE                                  |
| N          | NORTH, NORTHING                          |
| NIC        | NOT-IN-CONTRACT                          |
| NPI        | NON-PAY ITEM                             |
| NTS        | NOT TO SCALE                             |
| OC         | ON CENTER                                |
| PIP        | PROTECT IN PLACE                         |
| PL         | PROPERTY LINE                            |
| PROP       | PROPOSED                                 |
| S/W        | SIDEWALK                                 |
| SF         | SQUARE FOOT                              |
| SPA        | SPACING                                  |
| SHT        | SHEET                                    |
| SPEC       | SPECIFICATIONS                           |
| SS         | SANITARY SEWER                           |
| STA        | STATION                                  |
| STD        | STANDARD                                 |
| TCE        | TEMPORARY CONSTRUCTION EASEMENT          |
| T/F        | TOP OF FOOTING                           |
| T/W        | TOP OF WALL                              |

CONTRACTOR TO CALL BLUE STAKE AND POTHOLE PRIOR TO EXCAVATION

**ARIZONA BLUE STAKE**  
CALL TWO WORKING DAYS BEFORE YOU DIG  
**Dial 811 or 602-263-1100**  
1-800-STAKE-IT  
(OUTSIDE MARICOPA COUNTY)



NO.	#	#	#	#
REVISIONS / SUBMISSIONS				
DATE				

**LAKE HAVASU CITY**  
**KIOWA DRAIN #3**  
**WASH STABILIZATION IMPROVEMENTS**

Designed by: ZRS  
Drawn by: ZUS  
Checked by: ZRS  
Date: 01/2025  
Dwg. scale: N.T.S.

## GENERAL NOTES

Sheet Number:

**GN01**

Sheet 2 of 11



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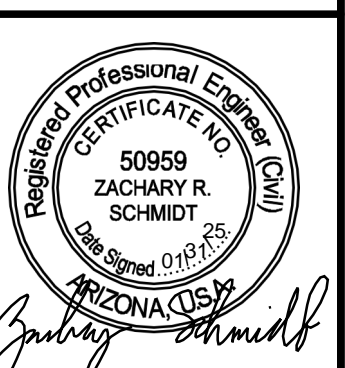


NO.	REVISIONS / SUBMISSIONS	DATE
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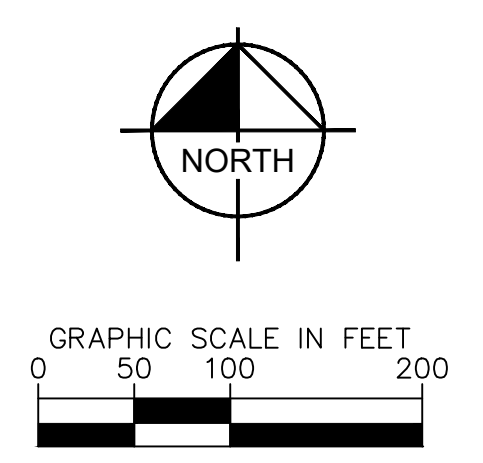
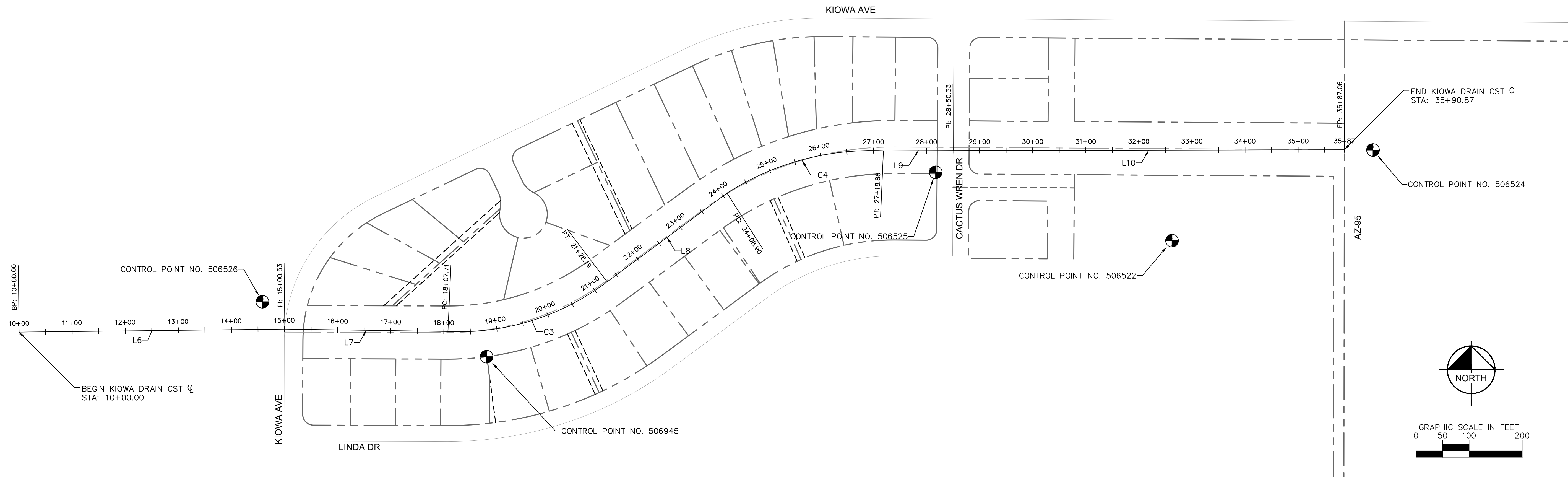
**LAKE HAVASU CITY  
KIOWA DRAIN #3  
WASH STABILIZATION IMPROVEMENTS**

Designed by: ZRS  
 Drawn by: ZJS  
 Checked by: ZRS  
 Date: 01/2025  
 Dwg. scale: N.T.S.

**GEOMETRIC CONTROL SHEET**



Sheet Number:  
**GC01**  
 Sheet 3 of 11



KIOWA DRAIN CONSTRUCTION C				
NO.	DELTA OR BRG	RADIUS	LENGTH	REMARKS
C3	$\Delta=39^{\circ} 50' 49''$	460.8'	320.48'	
C4	$\Delta=35^{\circ} 11' 02''$	504.8'	309.98'	
L6	N 89°22'02" E		500.53'	
L7	S 89°11'43" E		307.18'	
L8	N 53°32'22" E		280.71'	
L9	N 89°47'05" E		131.45'	
L10	N 89°52'49" E		736.73'	

**BASIS OF BEARING**

BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM ARIZONA STATE PLANE COORDINATE ZONE WEST, GEOID 2012 BU ZONE 5.

BEARING AND DISTANCE BETWEEN CONTROL POINT 506526 AND 506524: N82°13'30"E 2110.95'

CONTRACTOR TO CALL BLUE STAKE AND POTHOLE PRIOR TO EXCAVATION  
**ARIZONA BLUE STAKE**  
 CALL TWO WORKING DAYS BEFORE YOU DIG  
**Dial 811 or 602-263-1100**  
**1-800-STAKE-IT**  
 (OUTSIDE MARICOPA COUNTY)

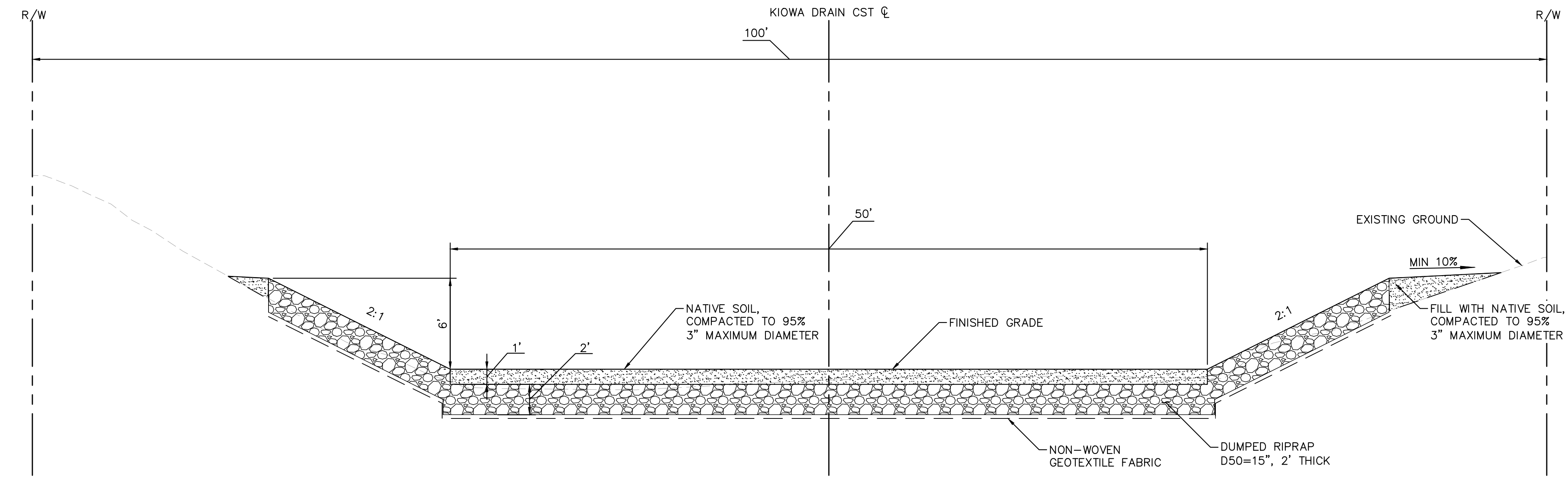


K:\PHX\_WaterResources\191245023 - LHC - Kiowa Drain\_3\CADD\Sheets\C-SITE-GC-191245023.dwg 1/31/2025 10:21 AM SCHMIDT, ZACHARY



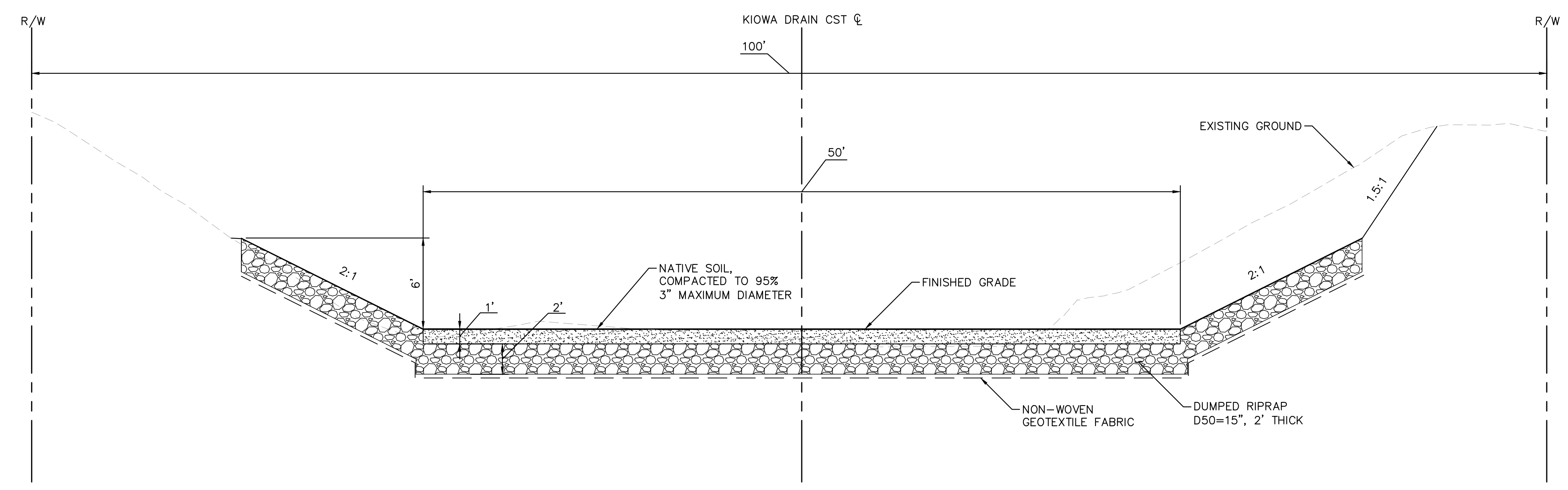
### TYPICAL SECTION 1

SCALE: 1" = 5'  
 STA 16+32 TO STA 21+50  
 (CONDITIONAL FILL)





### TYPICAL SECTION 1

SCALE: 1" = 5'  
 STA 16+32 TO STA 21+50  
 (CONDITIONAL CUT)



#### LEGEND

-  PROPOSED RIPRAP
-  PROPOSED PLACEMENT OF NATIVE SOIL

CONTRACTOR TO CALL  
 BLUE STAKE AND POTHOLE  
 PRIOR TO EXCAVATION

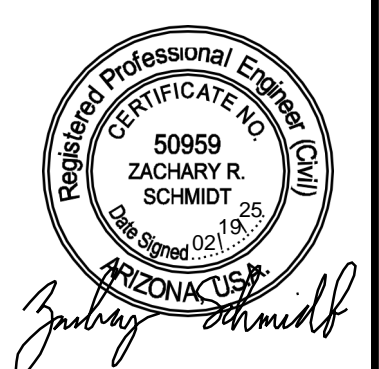
**ARIZONA BLUE STAKE**  
 CALL TWO WORKING DAYS  
 BEFORE YOU DIG:  
**Dial 811 or**  
**602-263-1100**  
**1-800-STAKE-IT**  
 (OUTSIDE MARICOPA COUNTY)

NO.	REVISIONS / SUBMISSIONS	DATE
#		
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**LAKE HAVASU CITY**  
**KIOWA DRAIN #3**  
**WASH STABILIZATION IMPROVEMENTS**

Designed by:	ZRS
Drawn by:	ZJS
Checked by:	ZRS
Date:	01/2025
Dwg. scale:	N.T.S.

#### TYPICAL SECTIONS



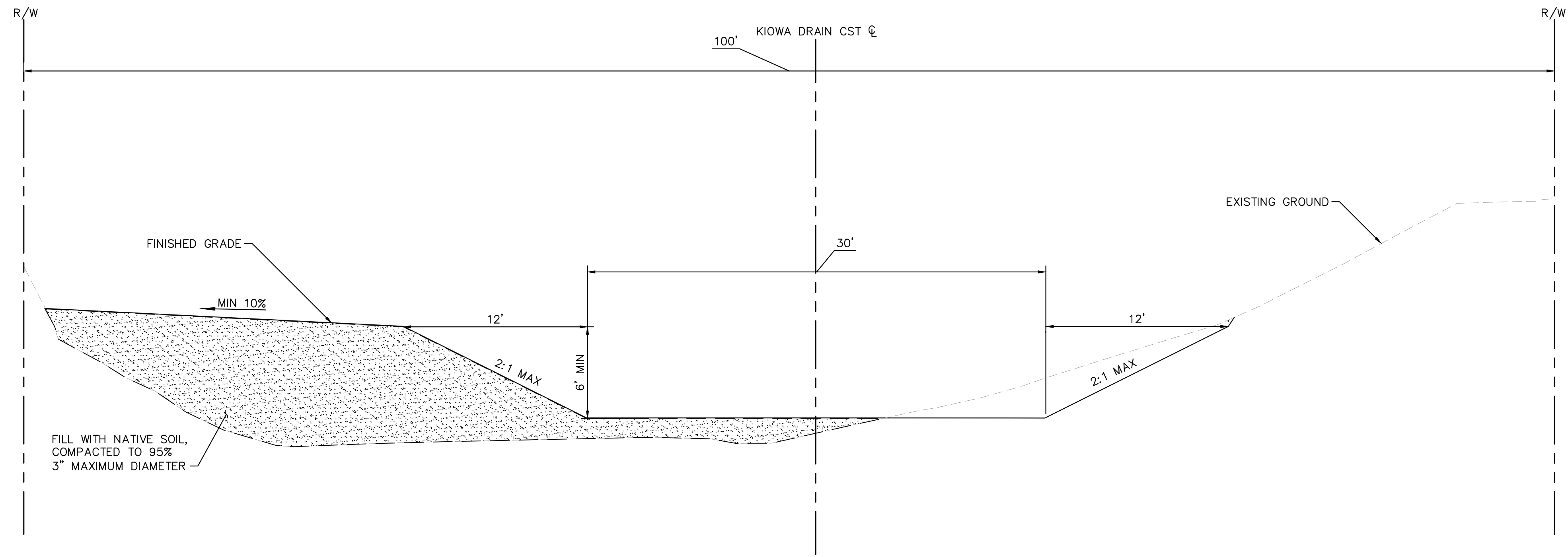
**Kimley»Horn**

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 PHONE: 602-944-5500 | WWW.KIMLEY-HORN.COM

Sheet Number:  
**TS01**  
 Sheet 4 of 11

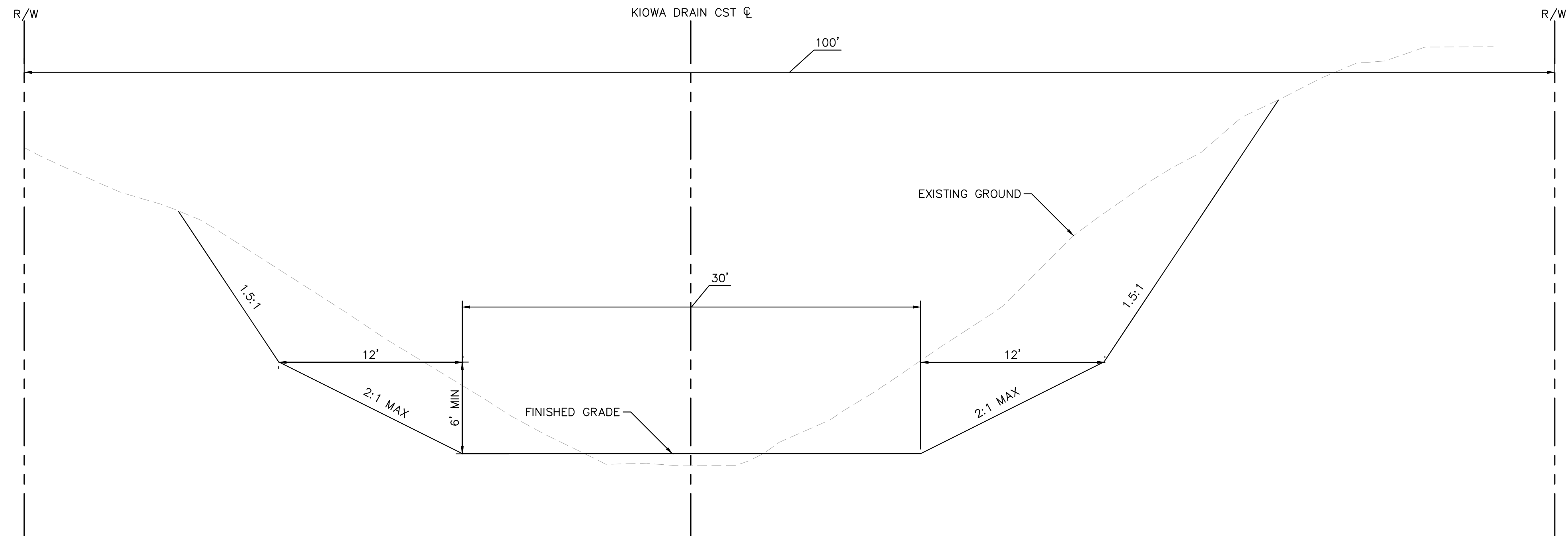
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**TYPICAL SECTION 2**


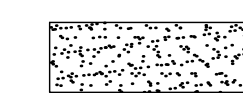
SCALE: 1" = 5'  
STA 21+80 TO STA 27+31.48  
(CONDITIONAL FILL)



**TYPICAL SECTION 2**

SCALE: 1" = 5'  
STA 21+80 TO STA 27+31.48  
(CONDITIONAL CUT)

**LEGEND**

-  PROPOSED RIPRAP
-  PROPOSED PLACEMENT OF NATIVE SOIL

CONTRACTOR TO CALL  
BLUE STAKE AND POTHOLE  
PRIOR TO EXCAVATION

**ARIZONA BLUE STAKE**  
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(OUTSIDE MARICOPA COUNTY)



NO.	REVISIONS / SUBMISSIONS	DATE
#		
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**LAKE HAVASU CITY**  
**KIOWA DRAIN #3**  
**WASH STABILIZATION IMPROVEMENTS**

Designed by:	ZRS
Drawn by:	ZJS
Checked by:	ZRS
Date:	01/2025
Dwg. scale:	N.T.S.

**TYPICAL SECTIONS**



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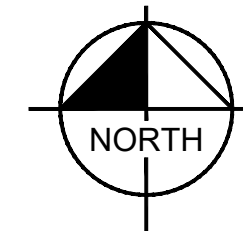
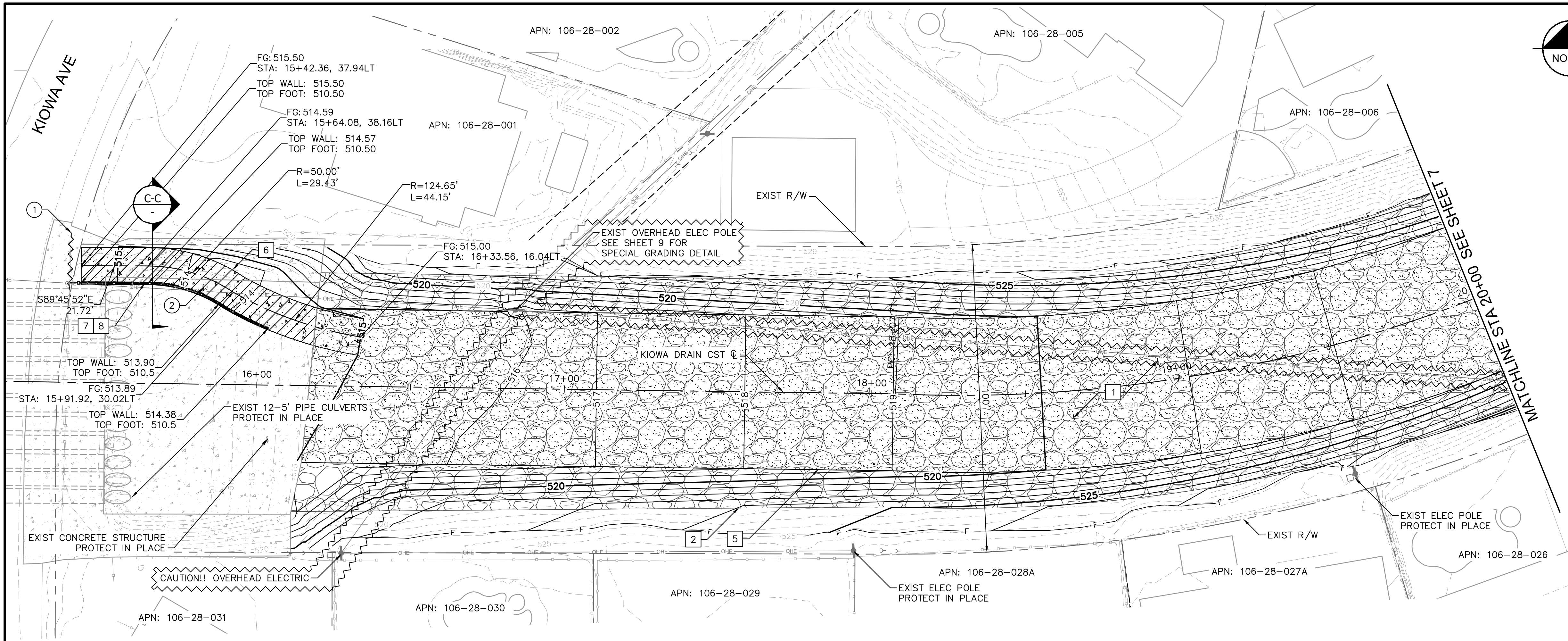
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Sheet Number:

**TS02**

Sheet 5 of 11

K:\PHX\_WaterResources\191245023 - LHC - Kiowa Drain 3\CADD\Sheets\C-PLAN-PROF-191245023.dwg 1/31/2025 10:22 AM SCHMIDT, ZACHARY



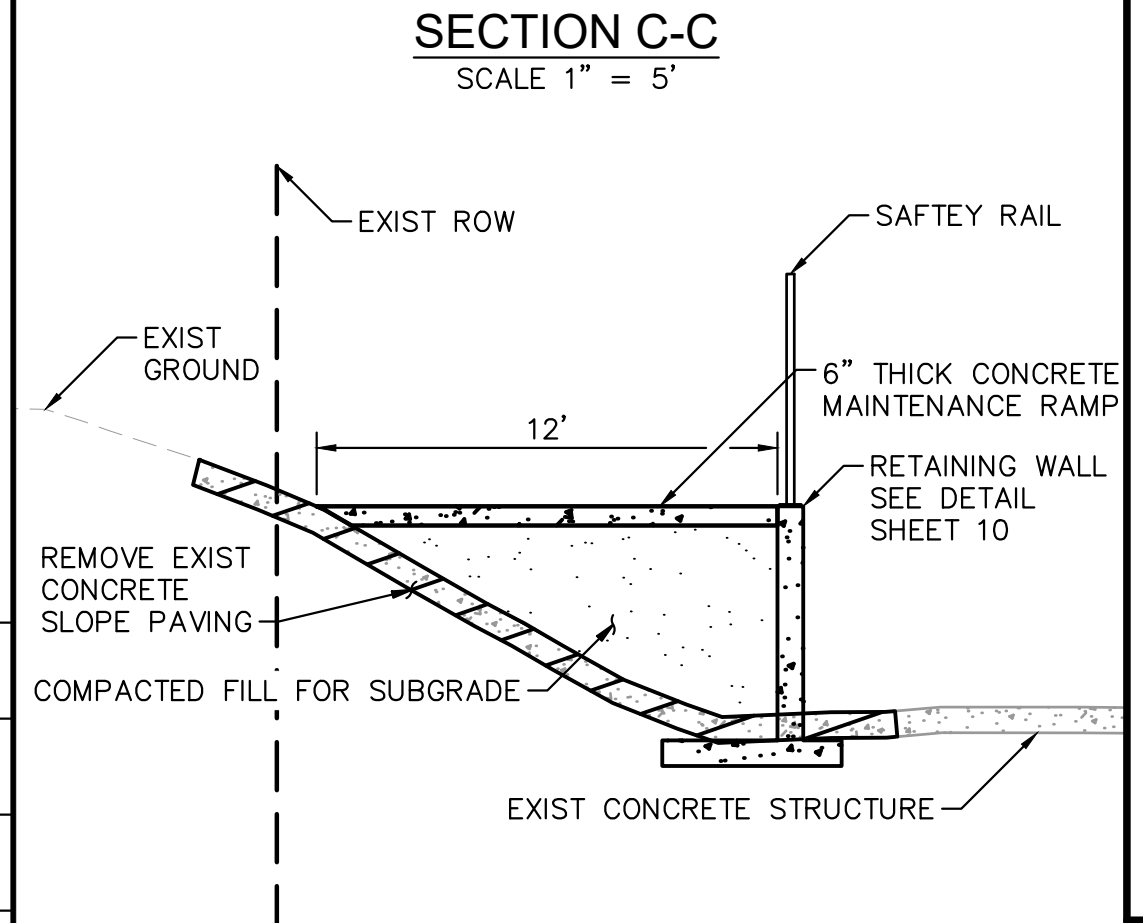
CONSTRUCTION NOTES			
NO	DESCRIPTION	QTY	UNIT
1	CHANNEL EXCAVATION PER TYPICAL SECTION 1, SEE SHEET 4	125	CY
2	DUMPED RIPRAP, D50=15", 2' THICK WITH NONWOVEN GEOTEXTILE FABRIC	2191	CY
5	COMPACTED NATIVE SOIL, 1' THICK	709	CY
6	CONCRETE MAINTENANCE RAMP, SEE SECTION C-C THIS SHEET AND SHEET 10	1144	SF
7	SAFETY RAIL PER MAG STD DTL 145	68	LF
8	CONCRETE RETAINING WALL, SEE DETAIL SHEET 10	65	LF

REMOVAL NOTES			
NO	DESCRIPTION	QTY	UNIT
1	REMOVE EXISTING SAFETY RAIL	19	LF
2	REMOVE EXISTING CONCRETE SLOPED PAVING	965	SF

NO.	REVISIONS / SUBMISSIONS			
	#	#	#	#
DATE				

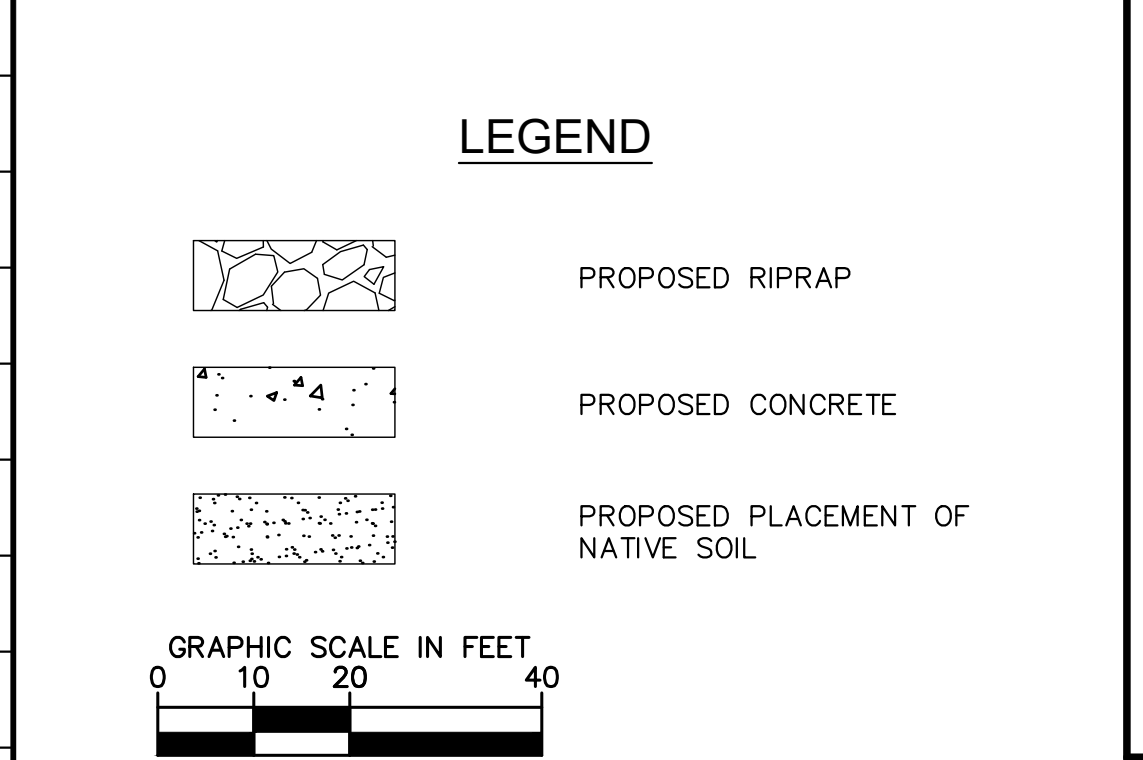


**LAKE HAVASU CITY  
KIOWA DRAIN #3  
WASH STABILIZATION IMPROVEMENTS**



**SHEET NOTES**

- USE OF VIBRATORY EQUIPMENT NEAR EXISTING PRIVATE WALLS TO BE LIMITED.



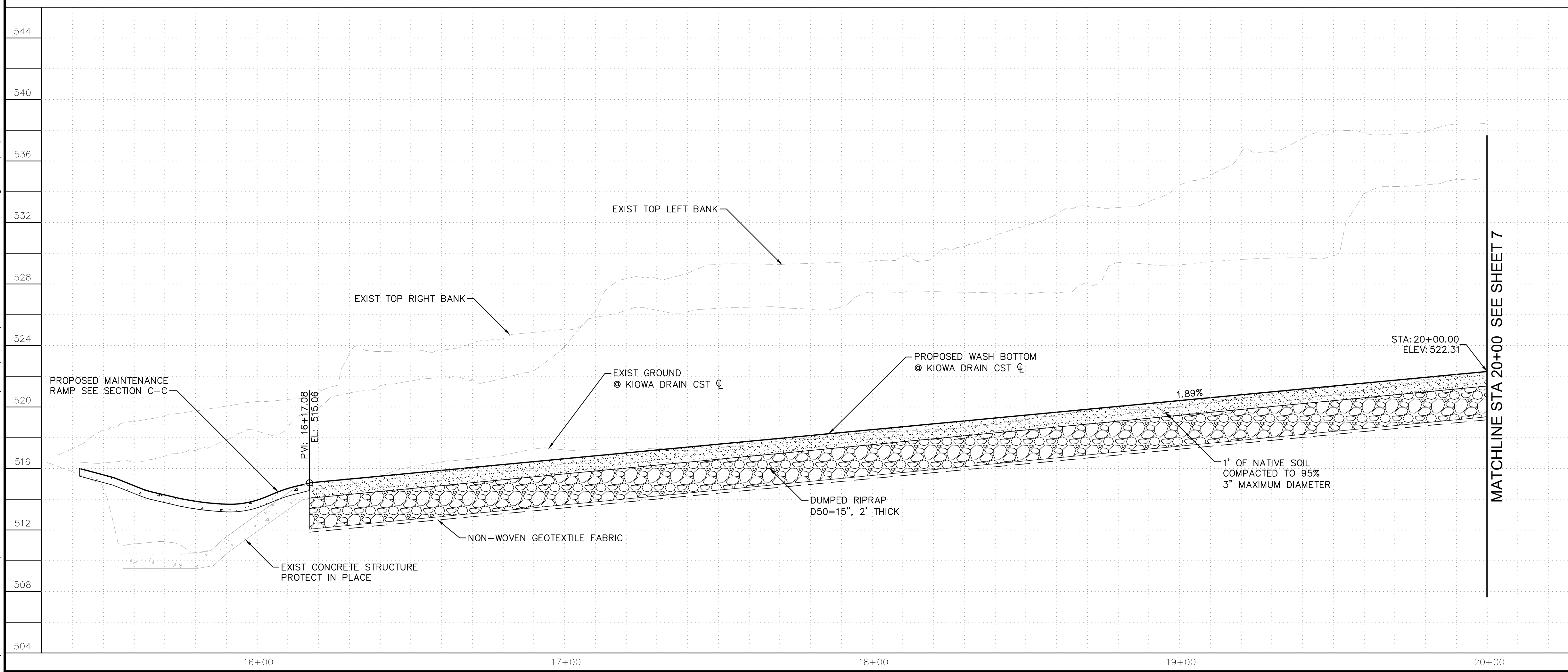
CONTRACTOR TO CALL BLUE STAKE AND POTHOLE PRIOR TO EXCAVATION

**ARIZONA BLUE STAKE**  
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Dial 811 or 602-263-1100  
1-800-STAKE-IT (OUTSIDE MARICOPA COUNTY)

Professional Engineer  
ZACHARY R. SCHMIDT  
50959  
ARIZONA  
1/31/2025

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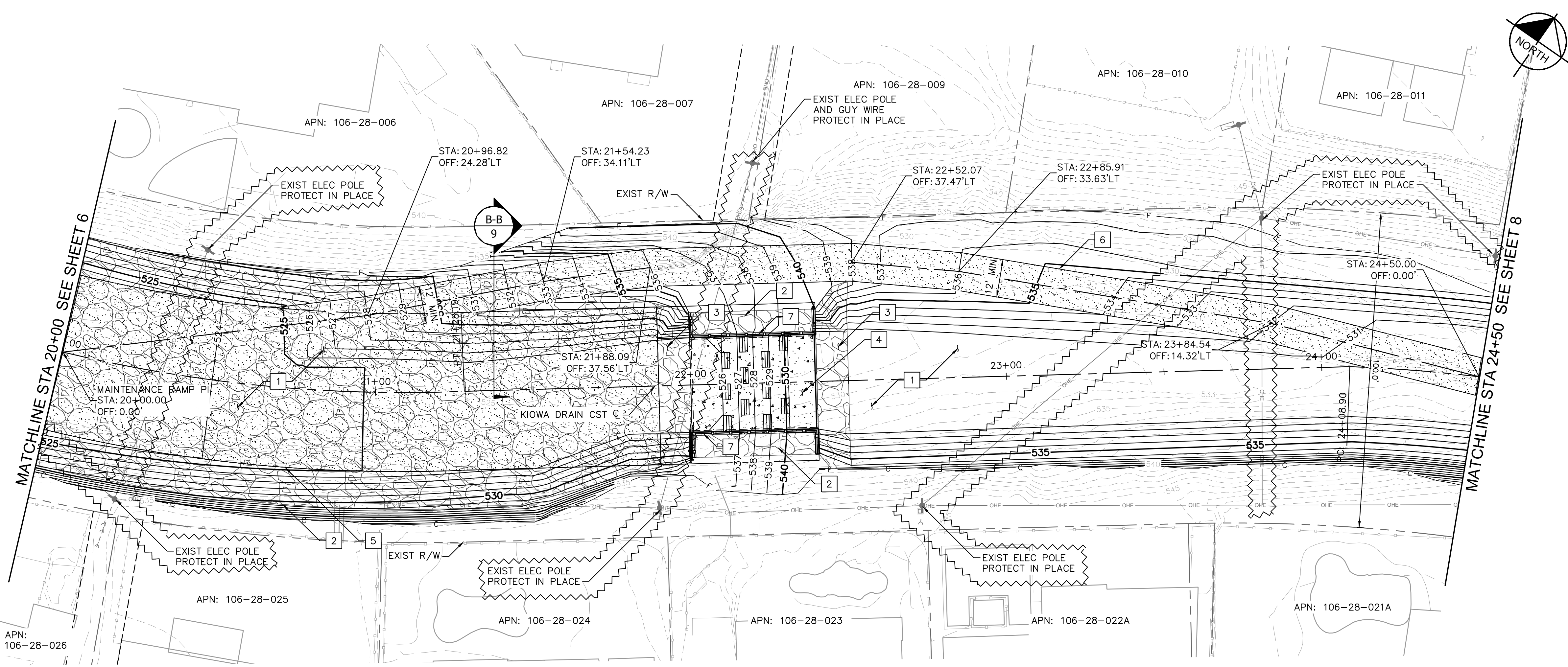


Designed by: ZRS  
Drawn by: ZJS  
Checked by: ZRS  
Date: 01/2025  
Dwg scale: 1" = 20'

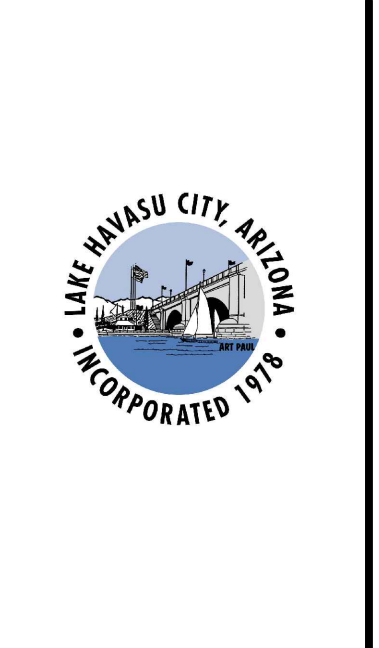
**WASH PLAN & PROFILE  
16+17 TO 20+00**

Sheet Number:  
**PL01**  
Sheet 6 of 11

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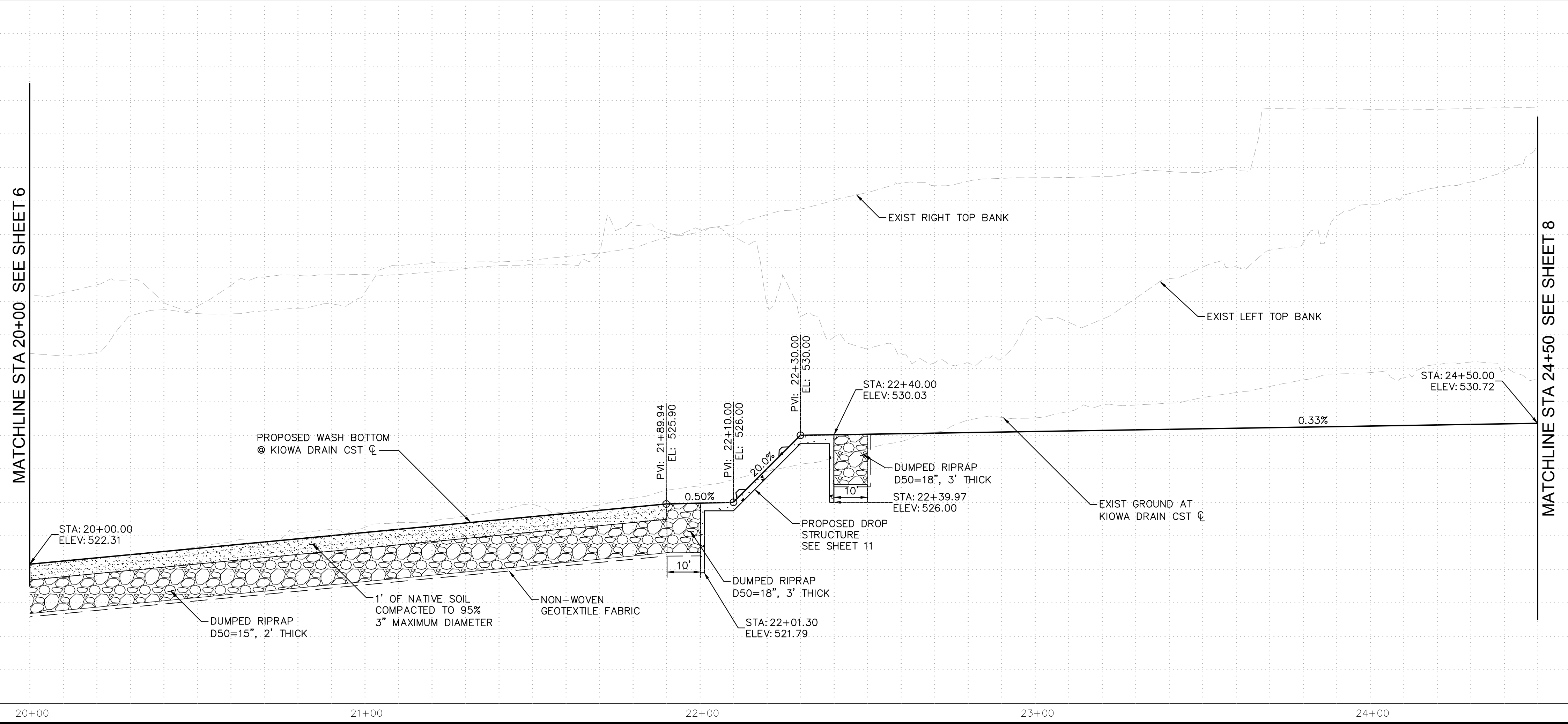


CONSTRUCTION NOTES			
NO	DESCRIPTION	QTY	UNIT
1	CHANNEL EXCAVATION PER TYPICAL SECTIONS 1 & 2, SEE SHEETS 4 & 5	1561	CY
2	DUMPED RIPRAP, D50=15", 2' THICK WITH NONWOVEN GEOTEXTILE FABRIC	1125	CY
3	DUMPED RIPRAP, D50=18", 3' THICK WITH NONWOVEN GEOTEXTILE FABRIC	116	CY
4	CONCRETE DROP STRUCTURE PER DETAIL, SEE SHEET 11	1	EA
5	COMPACTED NATIVE SOIL, 1' THICK	509	CY
6	MAINTENANCE RAMP, SEE SECTION B-B SHEET 9	1	NPI
7	SAFETY RAIL PER MAG STD DTL 145	108	LF



NO.	REVISIONS / SUBMISSIONS	DATE
1		
2		
3		
4		

LAKE HAVASU CITY  
KIOWA DRAIN #3  
WASH STABILIZATION IMPROVEMENTS

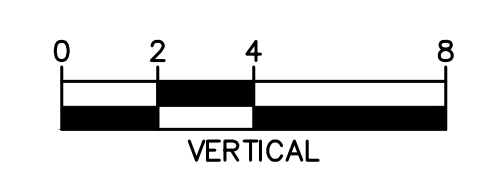
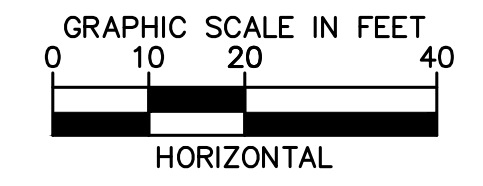


**SHEET NOTES**

- USE OF VIBRATORY EQUIPMENT NEAR EXISTING PRIVATE WALLS TO BE LIMITED.

**LEGEND**

- PROPOSED RIPRAP
- PROPOSED CONCRETE
- PROPOSED PLACEMENT OF NATIVE SOIL



CONTRACTOR TO CALL BLUE STAKE AND POTHOLE PRIOR TO EXCAVATION

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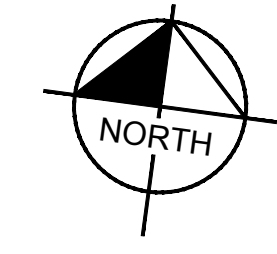
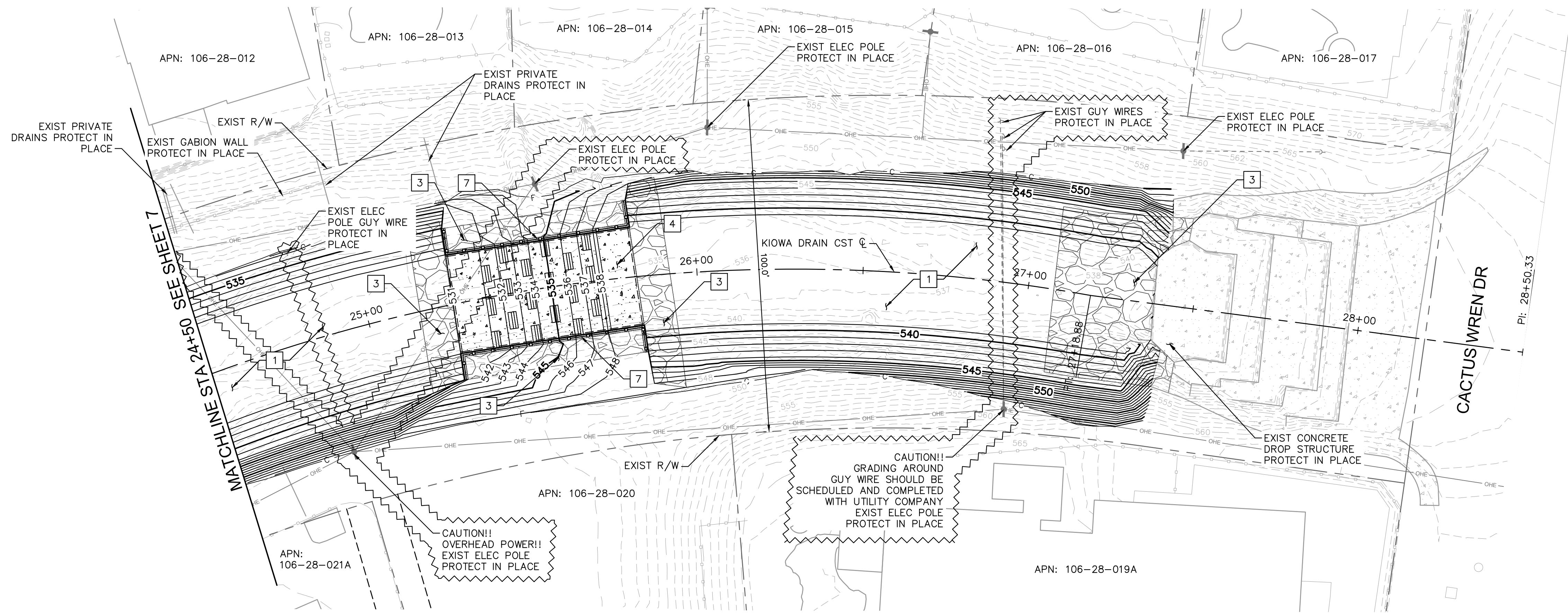
Designed by: ZRS  
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Checked by: ZRS  
Date: 01/2025  
Dwg scale: 1" = 20'

**WASH PLAN & PROFILE  
20+00 TO 24+50**

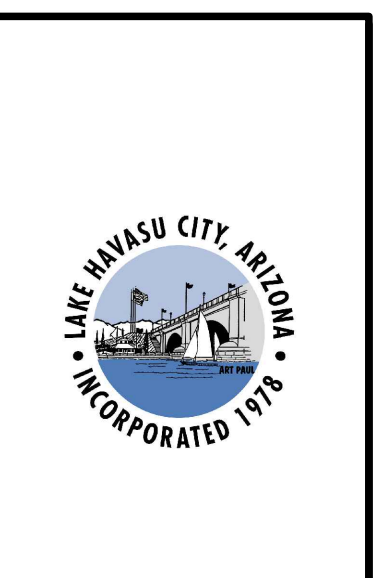


Sheet Number:  
**PL02**  
Sheet 7 of 11

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CONSTRUCTION NOTES			
NO	DESCRIPTION	QTY	UNIT
1	CHANNEL EXCAVATION PER TYPICAL SECTION 2, SEE SHEET 5	1507	CY
3	DUMPED RIPRAP, D50=18", 3' THICK WITH NONWOVEN GEOTEXTILE FILTER FABRIC	368	CY
4	CONCRETE DROP STRUCTURE PER DETAIL, SEE SHEET 11	1	EA
7	SAFETY RAIL PER MAG STD DTL 145	140	LF

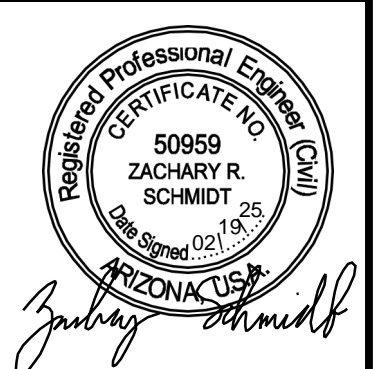


NO.	#	#	#	#
REVISIONS / SUBMISSIONS				
DATE				

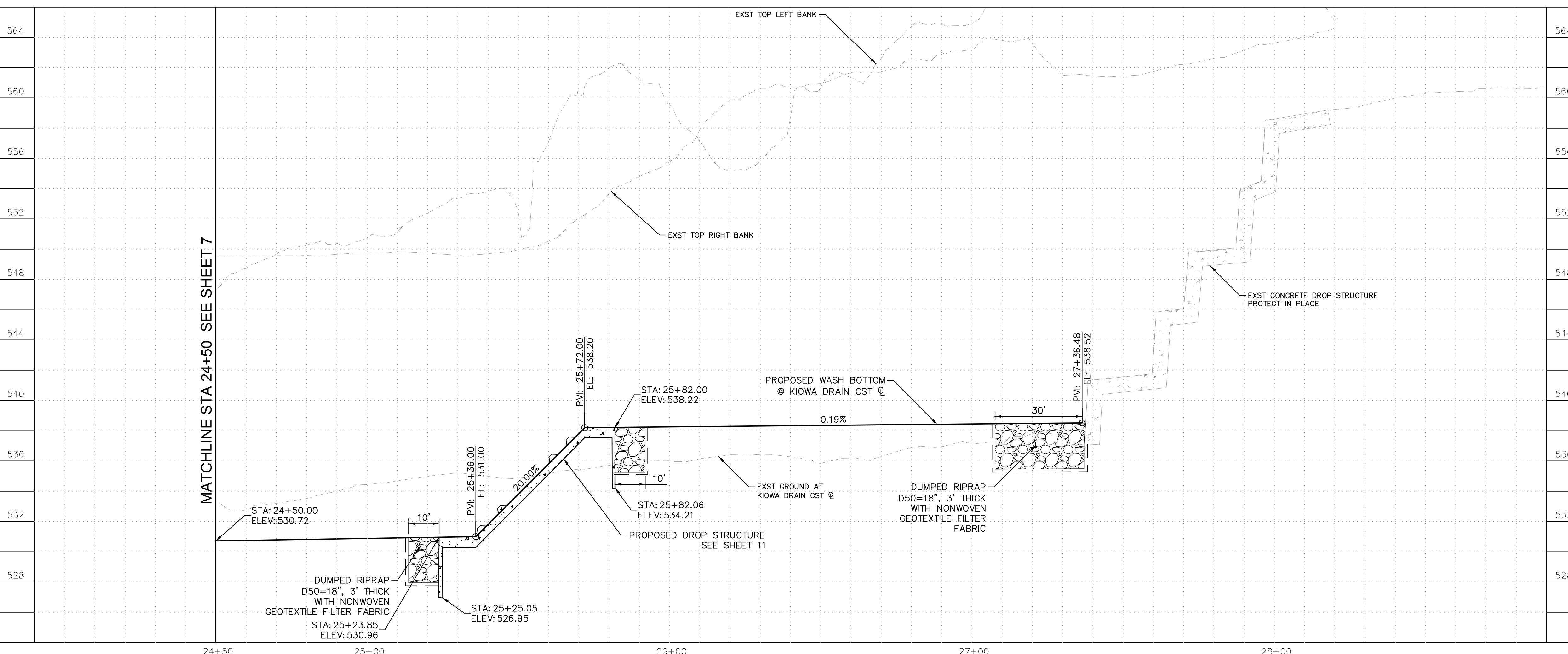
LAKE HAVASU CITY  
KIOWA DRAIN #3  
WASH STABILIZATION IMPROVEMENTS

Designed by: ZRS  
Drawn by: ZJS  
Checked by: ZRS  
Date: 01/2025  
Dwg scale: 1" = 20'

WASH PLAN & PROFILE  
24+50 TO 27+40



Sheet Number:  
**PL03**  
Sheet 8 of 11

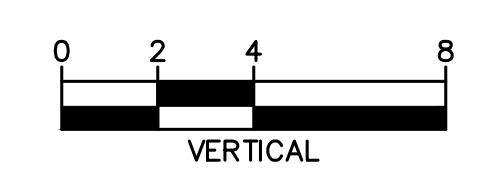
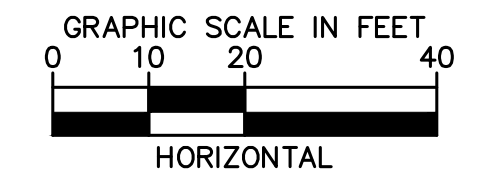


**SHEET NOTES**

- USE OF VIBRATORY EQUIPMENT NEAR EXISTING PRIVATE WALLS TO BE LIMITED.

**LEGEND**

- PROPOSED RIPRAP
- PROPOSED CONCRETE
- PROPOSED PLACEMENT OF NATIVE SOIL



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NO.	REVISIONS / SUBMISSIONS	DATE
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#		
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LAKE HAVASU CITY  
KIOWA DRAIN #3  
WASH STABILIZATION IMPROVEMENTS

Designed by: ZRS  
Drawn by: ZJS  
Checked by: ZRS  
Date: 01/2025  
Dwg scale: 1" = 20'

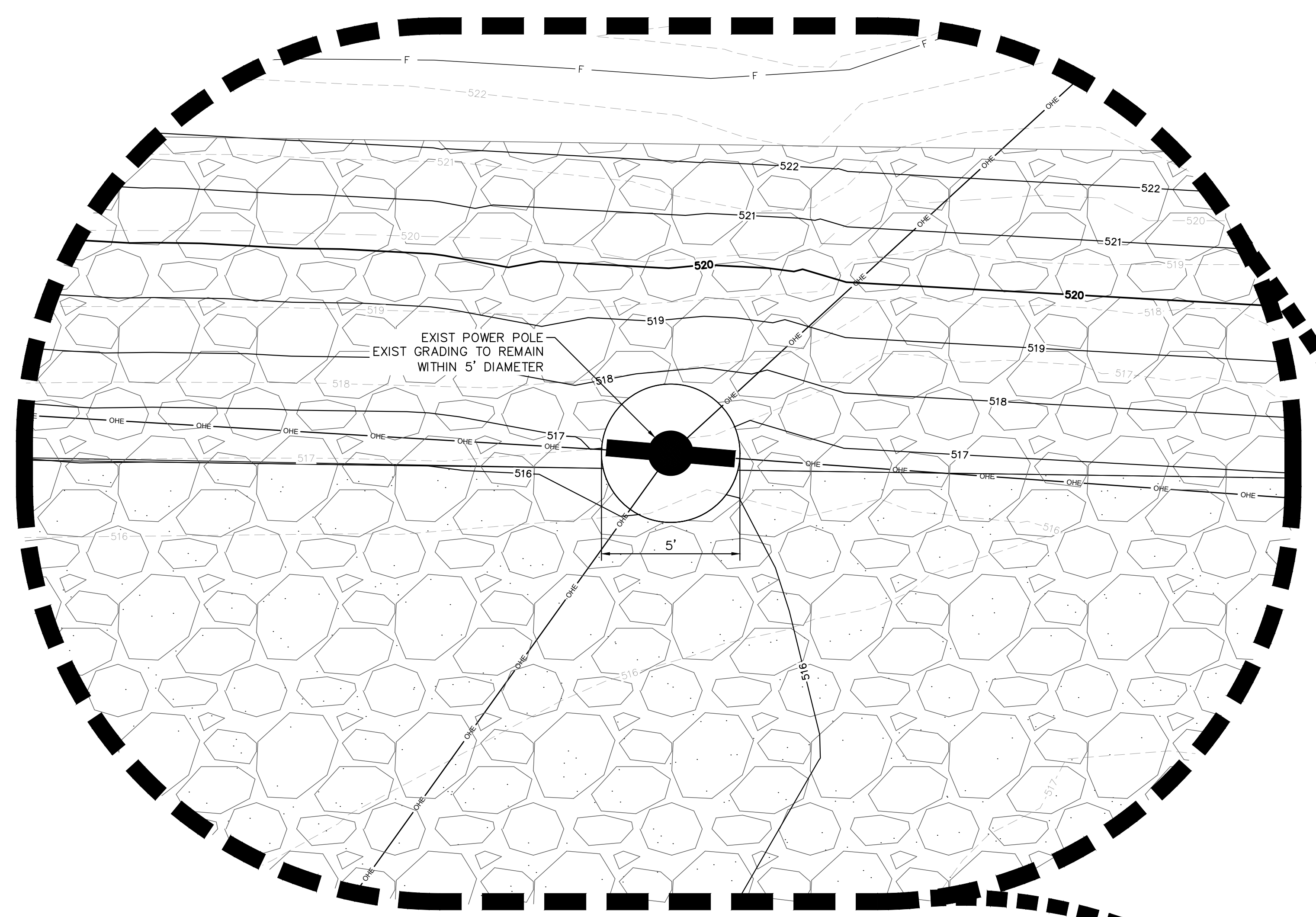
GRADING DETAIL



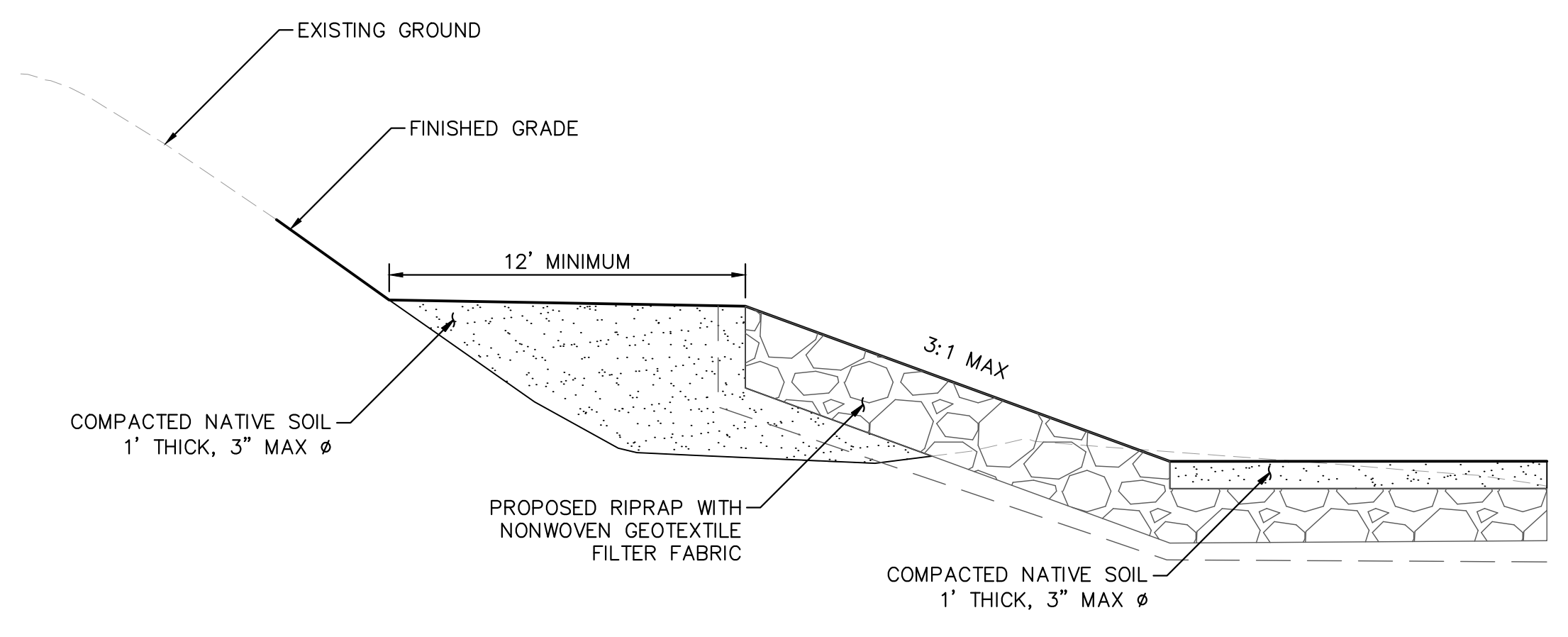
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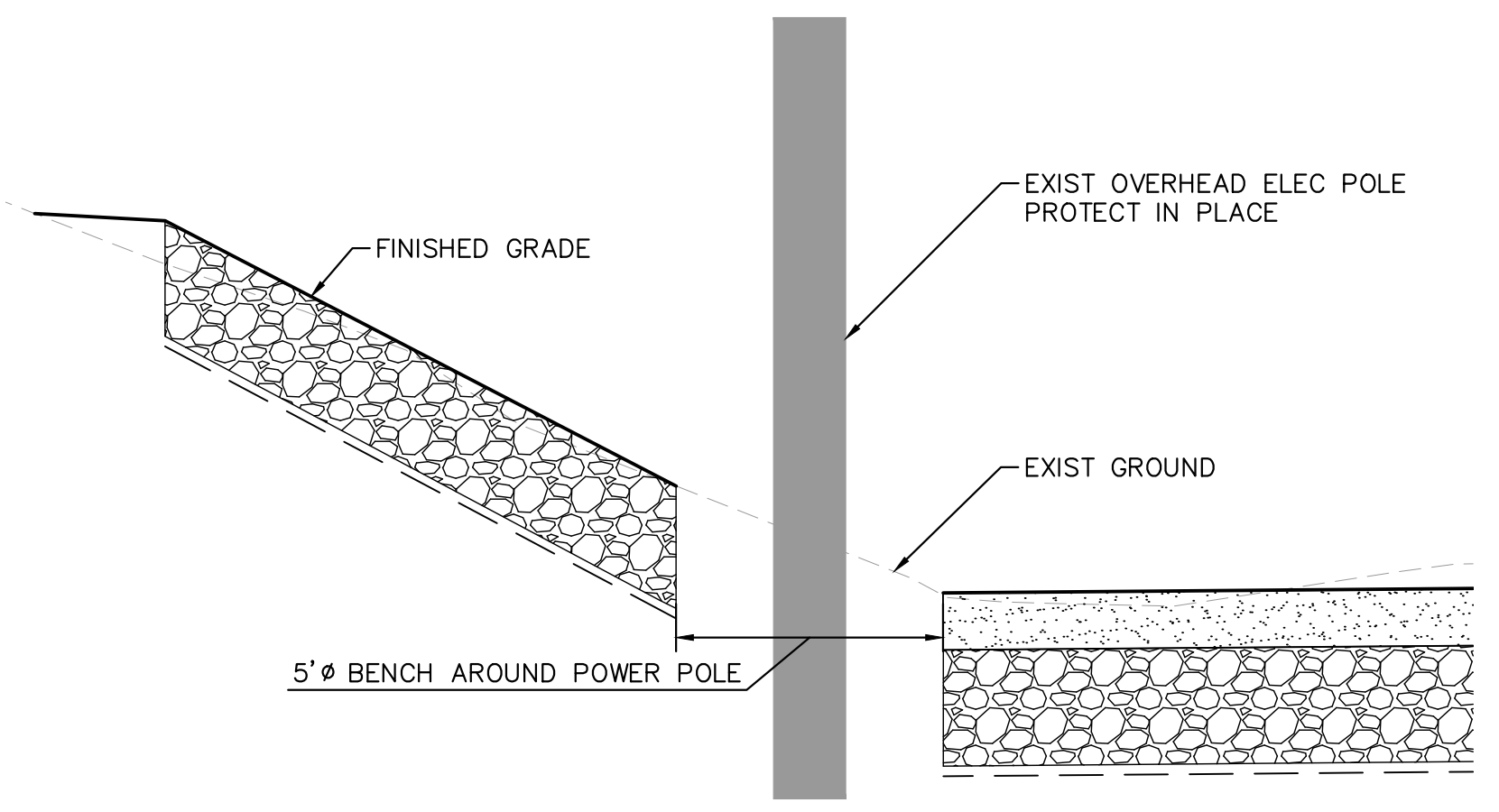
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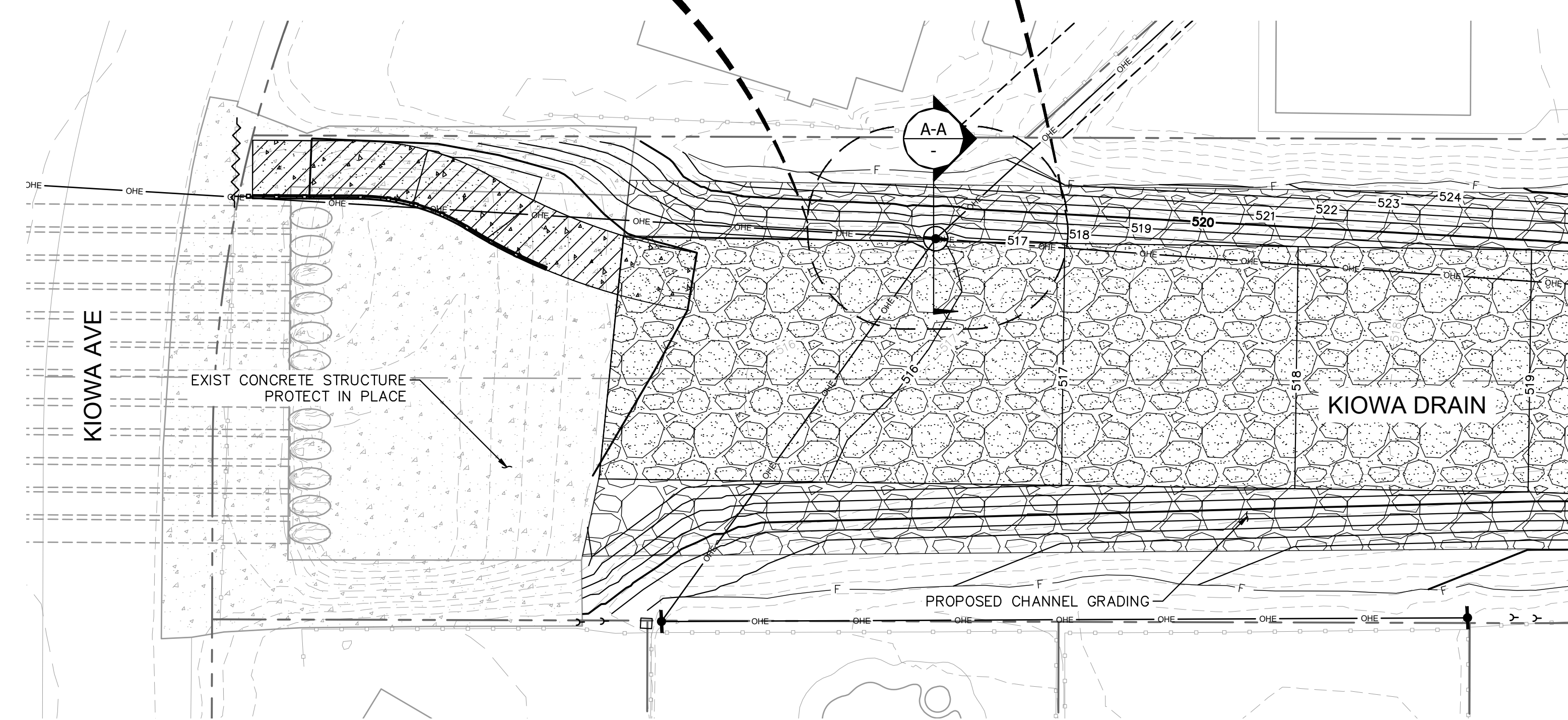
**POWER POLE GRADING**  
SCALE: 1" = 3'



**SECTION B-B**  
SEE SHEET 7  
SCALE: 1" = 5'



**SECTION A-A**  
SCALE: 1" = 3'

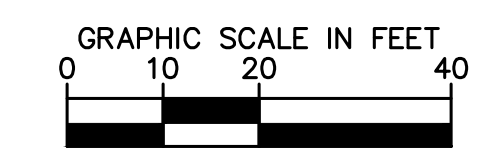


**SHEET NOTES**

- SEE SHEETS 6, 7 & 8 FOR WASH PLAN AND PROFILE

**LEGEND**

- PROPOSED RIPRAP
- PROPOSED CONCRETE
- PROPOSED PLACEMENT OF NATIVE SOIL



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GENERAL STRUCTURAL NOTES:

DESIGN SPECIFICATIONS

2018 INTERNATIONAL BUILDING CODE WITH LAKE HAVASU CITY AMENDMENTS.

CONSTRUCTION SPECIFICATIONS

2020 MAG UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2025 REVISIONS.

DESIGN LOADS

EARTH LOADS:

SOIL INFORMATION IS BASED ON THE 2018 INTERNATIONAL BUILDING CODE (IBC) AND GEOTECHNICAL EVALUATION FOR KIOWA DRAIN 3 WASH STABILIZATION IMPROVEMENTS, KIOWA AVENUE TO CACTUS WREN DRIVE, PREPARED BY NINYO & MOORE, PROJECT NO. 608258001, DATED JANUARY 14, 2025.

Table with 2 columns: Load Type and Value. Includes WEIGHT OF BACKFILL, ACTIVE LATERAL EARTH PRESSURE, PASSIVE LATERAL EARTH PRESSURE, COEFFICIENT OF FRICTION, ALLOWABLE SOIL BEARING PRESSURE.

EARTHQUAKE DESIGN DATA:

Table with 2 columns: Parameter and Value. Includes Ie, SITE CLASS, Ss, S1, Sps, SEISMIC DESIGN CATEGORY.

CONCRETE AND REINFORCEMENT

CAST-IN-PLACE CONCRETE SHALL BE MAG CLASS A, fc = 3,000 PSI MIN UNLESS NOTED OTHERWISE.

REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60, fy = 60,000 PSI.

HOOKS AND BENDS FOR REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-14.

ALL BEND DIMENSIONS FOR REINFORCING STEEL SHALL BE OUT-TO-OUT OF BARS. ALL PLACEMENT DIMENSIONS FOR REINFORCING STEEL SHALL BE TO CENTER OF BARS UNLESS NOTED OTHERWISE.

ALL REINFORCING SHALL HAVE 2" CLEAR COVER UNLESS NOTED OTHERWISE.

ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4".

JOINTS

WALL FOOTINGS MAY BE CONTINUOUS WITHOUT JOINTS.

CONSTRUCTION JOINTS SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 30'-0".

EXPANSION JOINTS SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 90'-0".

COORDINATION

CONTRACTOR SHALL COORDINATE ALL EXISTING CONDITIONS DURING CONSTRUCTION OF PROJECT. UTILITY INFORMATION SHOWN ON THE PLANS MAY NOT BE COMPLETE OR ACCURATELY DEPICT THE LOCATION OF THE FACILITIES SHOWN. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL EXISTING, NEW, RELOCATED AND ABANDONED UTILITIES WITH THE PROJECT PLANS AND NOTIFY RESPECTIVE OWNERS BEFORE COMMENCING THE WORK OF EXCAVATION, INCLUDING ANY DRILLING OR PILING REQUIRED FOR TEMPORARY SHORING. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED PRIOR TO PROCEEDING WITH THE WORK. SEE CIVIL AND UTILITY DRAWINGS FOR ADDITIONAL INFORMATION.

VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO STARTING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY SHORING AS REQUIRED TO MAINTAIN TRAFFIC, TO PROTECT UTILITIES, FOR PROTECTION OF WORKERS, OR AS OTHERWISE NEEDED TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL SUBMIT A PLAN OUTLINING CONSTRUCTION PROCEDURES, SHORING REQUIREMENTS (COST IS INCLUDED IN OTHER ITEMS), AND DESIGN TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH THE WORK.

SEE CIVIL PLANS FOR STRUCTURE LOCATION AND LAYOUT INFORMATION.

DIMENSIONS

DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.

CONSTRUCTION SPECIFICATIONS

Table with 2 columns: Abbreviation and Full Name. Includes ACI, ASTM, CLR, IBC, MAX, MIN, PCF, PSF, PSI, TYP, VAR.

FOUNDATIONS

FOUNDATION DATA BASED ON GEOTECHNICAL EVALUATION FOR KIOWA DRAIN 3 WASH STABILIZATION IMPROVEMENTS, KIOWA AVENUE TO CACTUS WREN DRIVE, PREPARED BY NINYO & MOORE, PROJECT NO. 608258001, DATED JANUARY 14, 2025.

SPECIAL INSPECTIONS

SPECIAL INSPECTION IS REQUIRED DURING THE FOLLOWING OPERATIONS PER IBC SECTION 1704:

STRUCTURAL CONCRETE. . . . .AS REQUIRED BY THE PROJECT SPECIFICATION AND SPECIAL INSPECTION TABLES.

SOILS. . . . .AS REQUIRED BY THE PROJECT SPECIFICATION AND SPECIAL INSPECTION TABLES.

MASONRY. . . . .AS REQUIRED BY THE PROJECT SPECIFICATION AND SPECIAL INSPECTION TABLES.

DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:

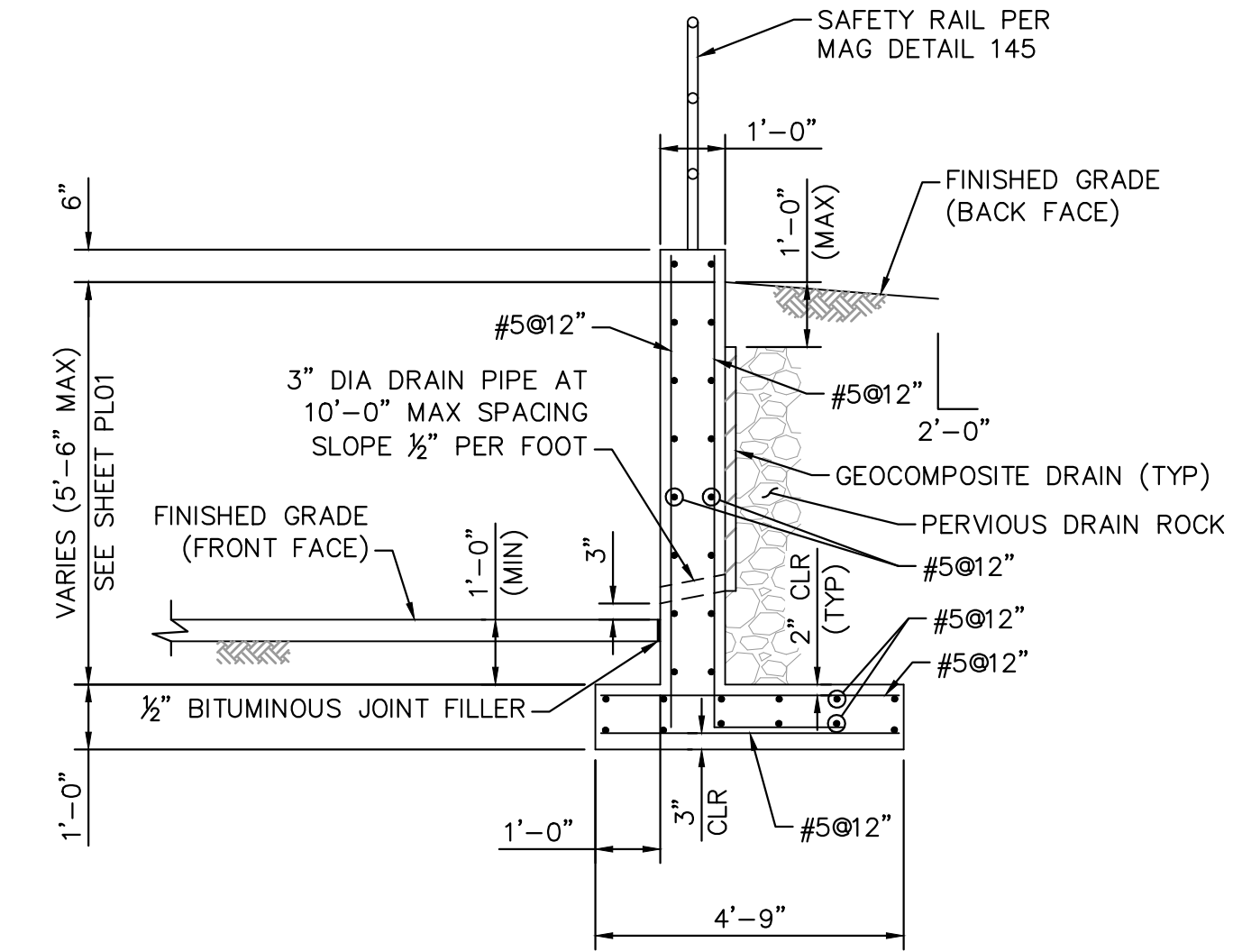
- 1. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORKER ASSIGNED TO BE CERTAIN IT CONFORMS WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
2. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OWNER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
3. UPON COMPLETION OF THE ASSIGNED WORK, THE ENGINEER SHALL COMPLETE AND SIGN A FINAL REPORT CERTIFYING THAT TO THE BEST OF HIS KNOWLEDGE, THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
4. INSPECTIONS SHALL BE PERFORMED BY AN ICC CERTIFIED INSPECTOR EMPLOYED BY THE OWNER/DEVELOPER.
5. SPECIAL INSPECTION OF FILL AROUND THE STRUCTURE SHALL BE PROVIDED AT THE FREQUENCY AS NECESSARY TO ENSURE THAT PROPER FILL AND COMPACTION IS ACHIEVED. COMPACTION TEST FOR EACH LIFT SHALL BE TAKEN PER SPECIFICATION ITEM D-571. THE SPECIAL INSPECTOR SHALL SUBMIT A COMPLIANCE REPORT TO THE OWNER/DEVELOPER AND STRUCTURAL ENGINEER DOCUMENTING FILL TYPE AND PLACEMENT PROCEDURE.

DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:

- 1. FOR INSPECTION OF CONCRETE, BOLTS IN CONCRETE, REINFORCING STEEL, EXPANSION BOLTS, ADHESIVE ANCHORS, AND STRUCTURAL MASONRY, NOTIFY THE SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST ONE WORKING DAY (24 HOURS MINIMUM) BEFORE SUCH INSPECTION IS REQUIRED.
2. ALL WORK REQUIRING SPECIAL STRUCTURAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT IS OBSERVED BY THE SPECIAL STRUCTURAL INSPECTOR.

Table: REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION (IBC TABLE 1705.3). Columns: TYPE, CONTINUOUS SPECIAL INSPECTION, PERIODIC SPECIAL INSPECTION, REFERENCED STANDARD, IBC REFERENCE.

Table: REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS (IBC TABLE 1705.6). Columns: TYPE, CONTINUOUS SPECIAL INSPECTION, PERIODIC SPECIAL INSPECTION.



RETAINING WALL TYPICAL SECTION
SCALE 3/8" = 1'-0"

Table with 2 columns: NO. and REVISIONS / SUBMISSIONS. Includes DATE, NO., and REVISIONS / SUBMISSIONS.

LAKE HAVASU CITY
KIOWA DRAIN #3
WASH STABILIZATION IMPROVEMENTS

Table with 2 columns: Designated by, Drawn by, Checked by, Date. Includes ATL, MSK, NLM, 01/2025, AS, SHOWN.

STRUCTURE NOTES AND DETAILS

ARIZONA BLUE STAKE logo and contact information: 60164 NATHAN MERRILLIS, 602-263-1100, 1-800-STAKE-IT.



Kimley Horn logo

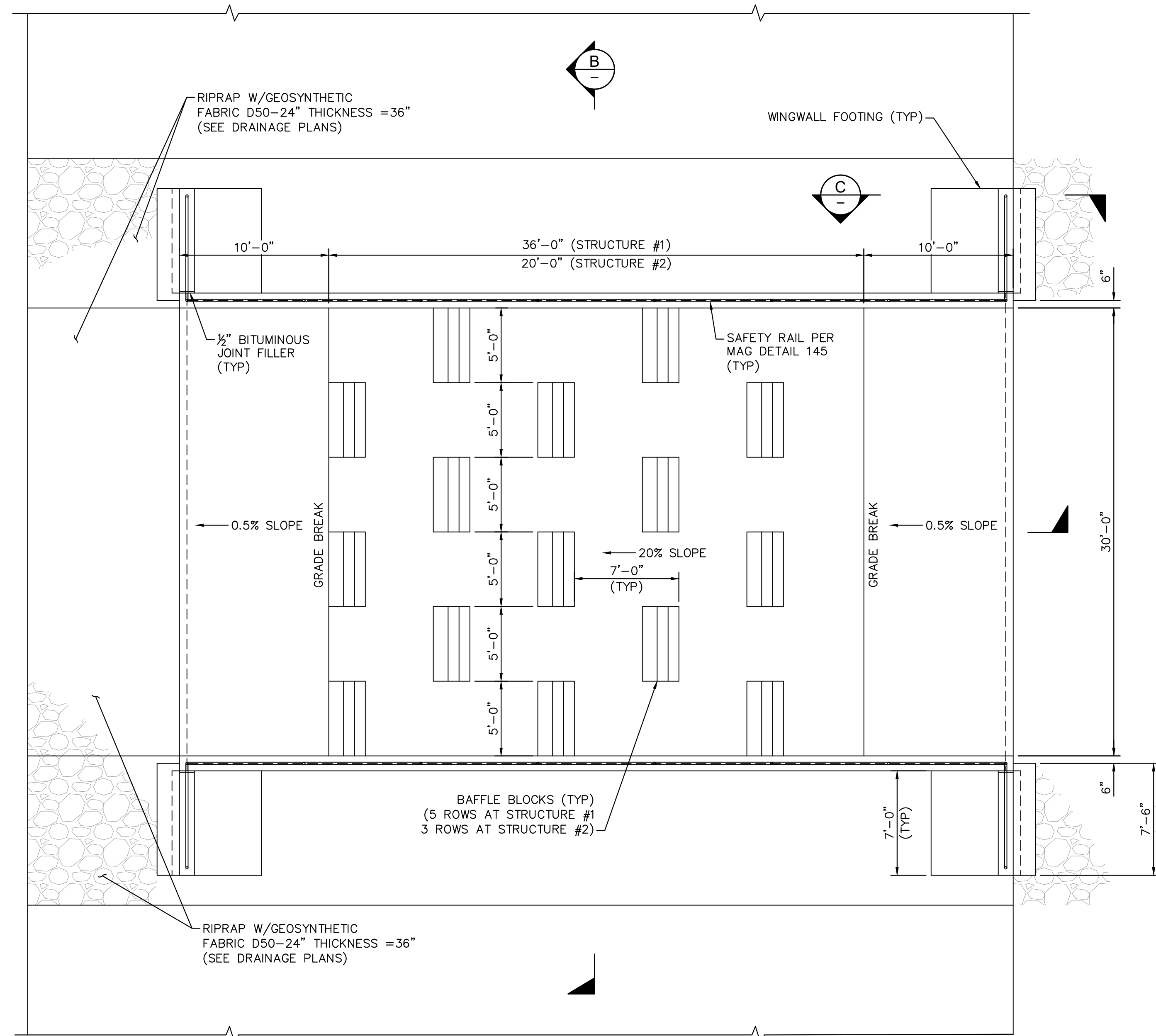
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Sheet Number:

ST01

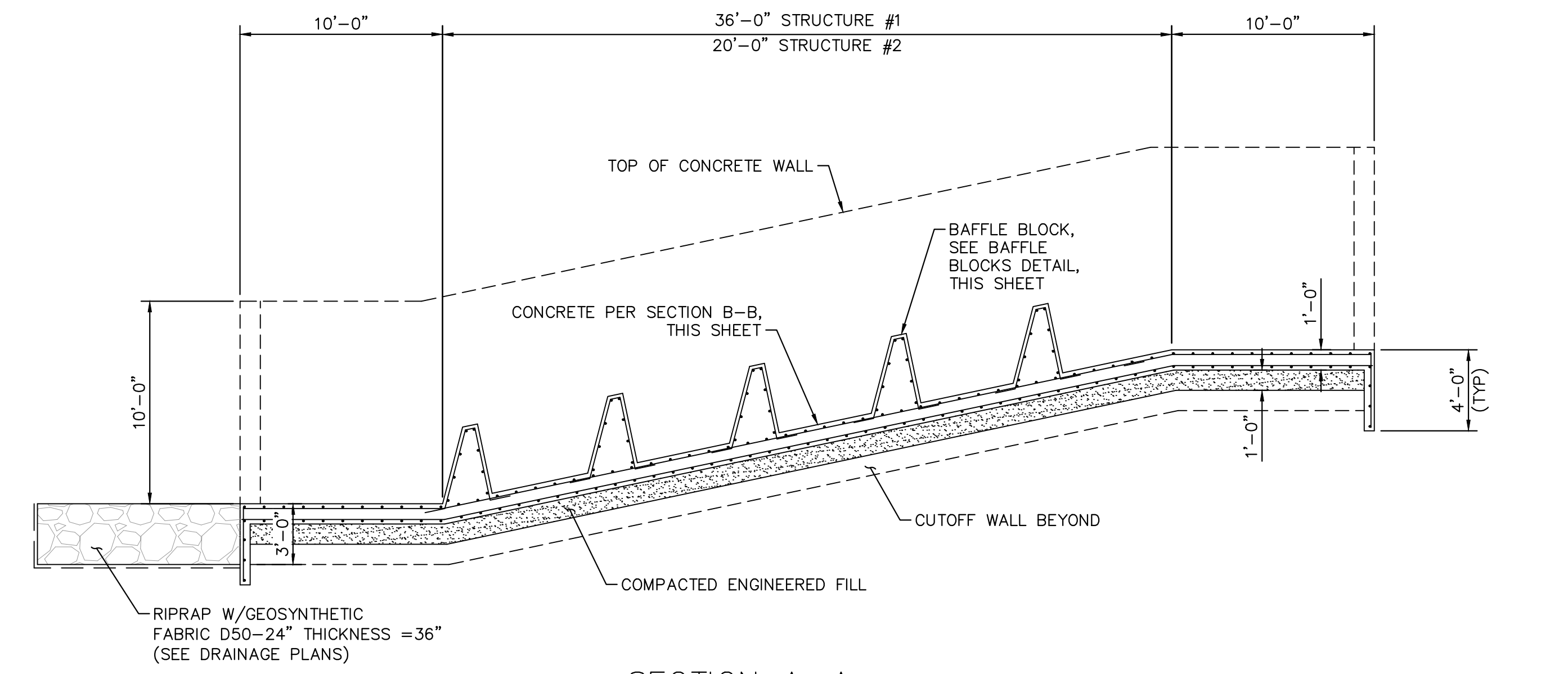
Sheet 10 of 11

K:\PHX\_WaterResources\191245023 - LHC - Kiowa Drain 3\CADD\Sheets\C-NOTE-STRC-191245023.dwg 1/31/2025 10:23 AM SCHMIDT, ZACHARY

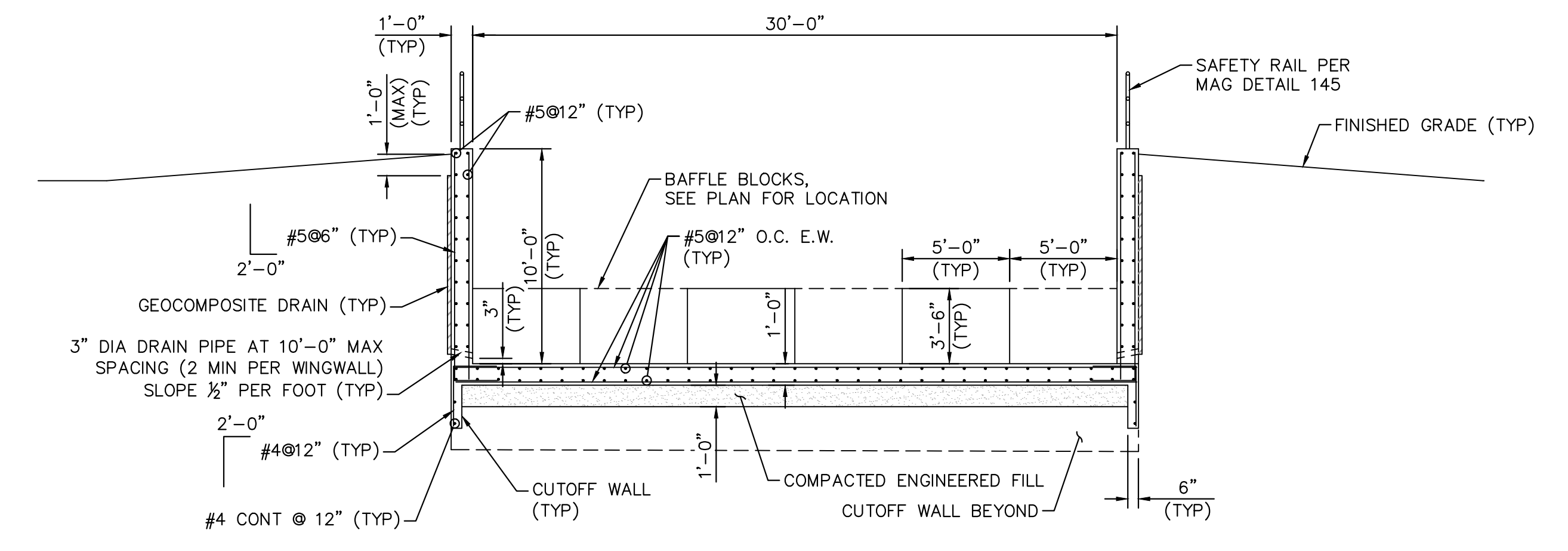


**DROP STRUCTURE #1 & #2 PLAN**  
SCALE 3/8" = 1'-0"  
(STRUCTURE #1 SHOWN, STRUCTURE #2 SIMILAR)

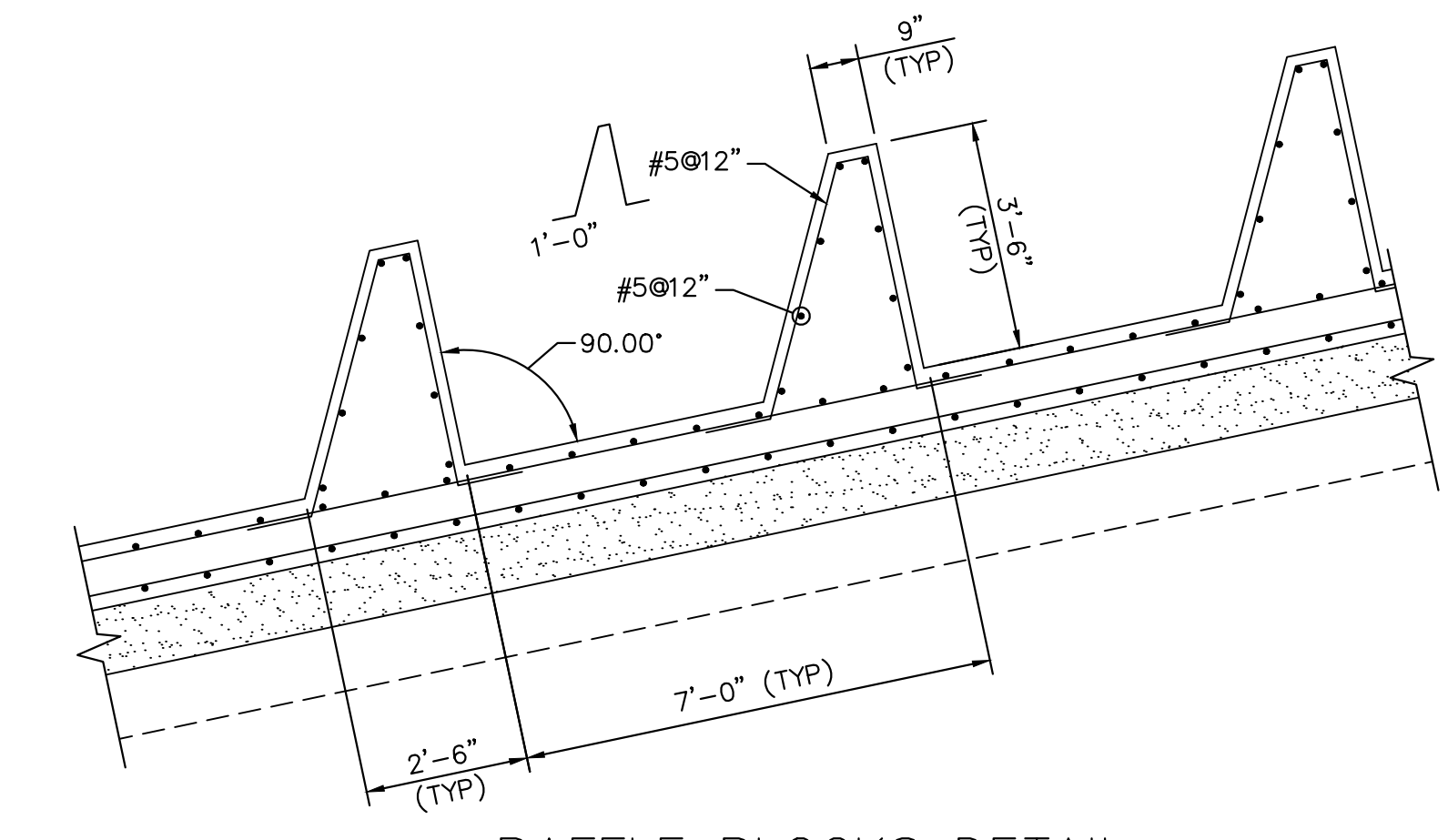
**WINGWALL NOTE:**  
WINGWALL FOOTING SHALL BE CONTINUOUS WITH U-CHANNEL FOOTING WITHOUT JOINT.



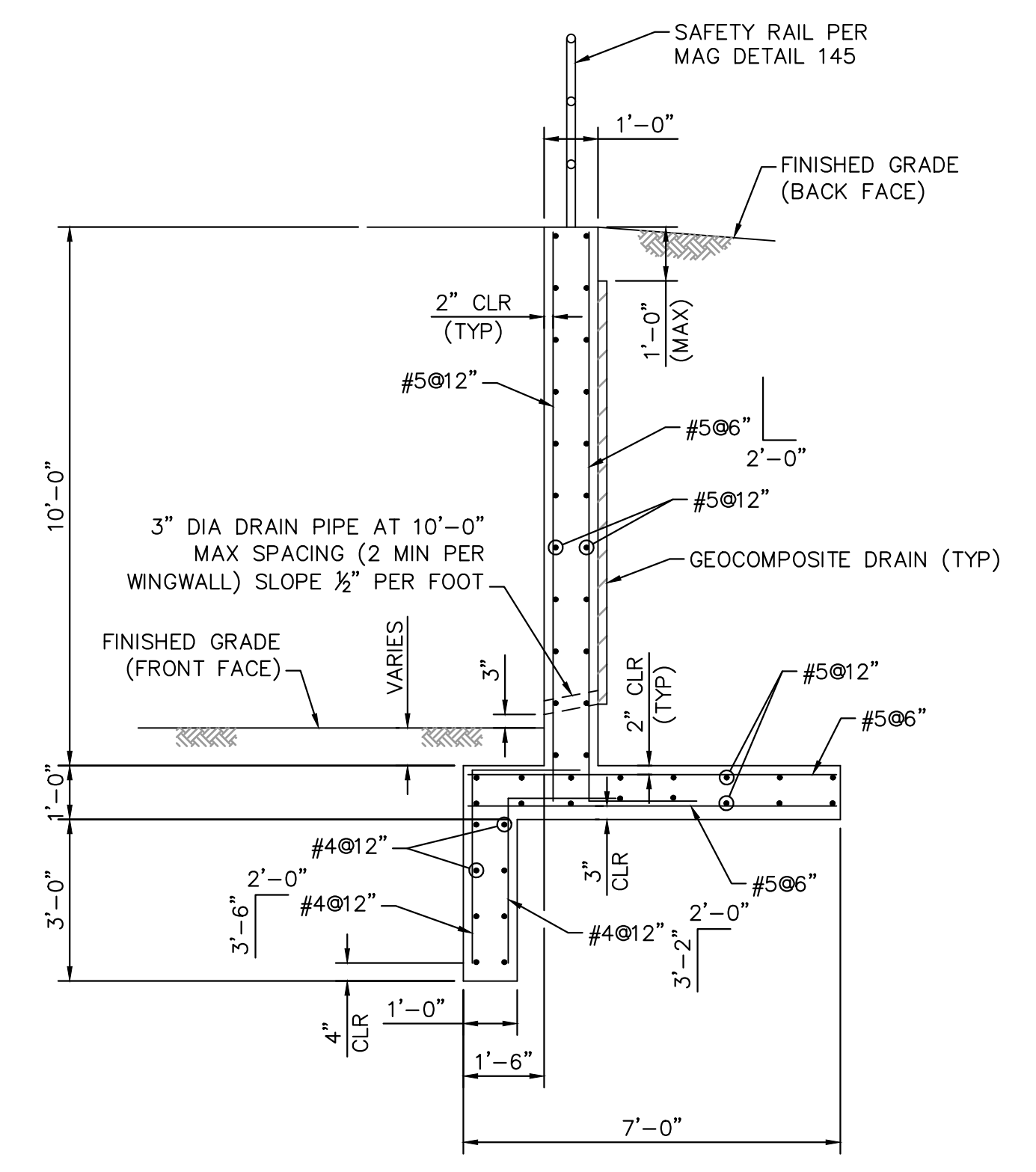
**SECTION A-A**  
SCALE 3/8" = 1'-0"  
(STRUCTURE #1 SHOWN, STRUCTURE #2 SIMILAR)



**SECTION B-B**  
SCALE 3/8" = 1'-0"



**BAFFLE BLOCKS DETAIL**  
SCALE 3/8" = 1'-0"



**SECTION C-C**  
SCALE 3/8" = 1'-0"

CONTRACTOR TO CALL BLUE STAKE AND POTHOLE PRIOR TO EXCAVATION  
**ARIZONA BLUE STAKE**  
CALL TWO WORKING DAYS BEFORE YOU DIG  
Dial 811 or 602-263-1100  
1-800-STAKE-IT (OUTSIDE MARICOPA COUNTY)

**Kimley Horn**

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NO.	REVISIONS / SUBMISSIONS	DATE

**LAKE HAVASU CITY**  
**KIOWA DRAIN #3**  
**WASH STABILIZATION IMPROVEMENTS**

Designed by: ATL  
Drawn by: MSK  
Checked by: NLM  
Date: 01/2025  
Dwg. scale: AS SHOWN

**STRUCTURE DETAILS**



Sheet Number:

**ST02**

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