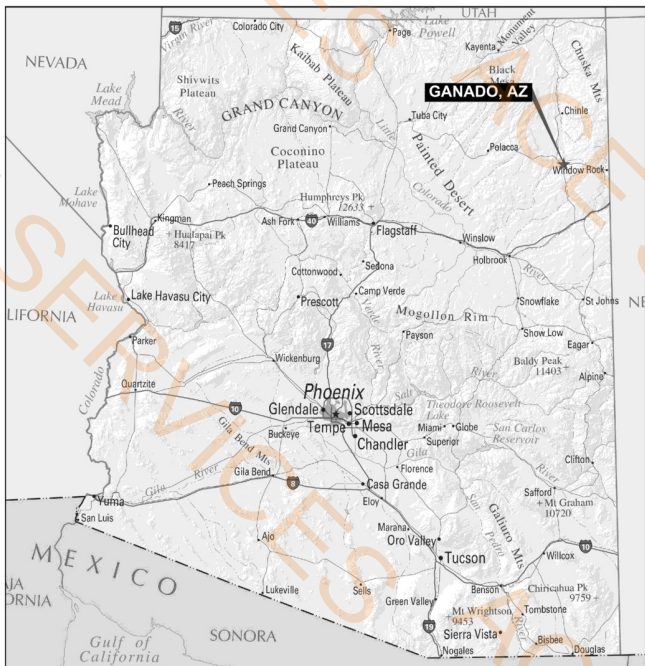


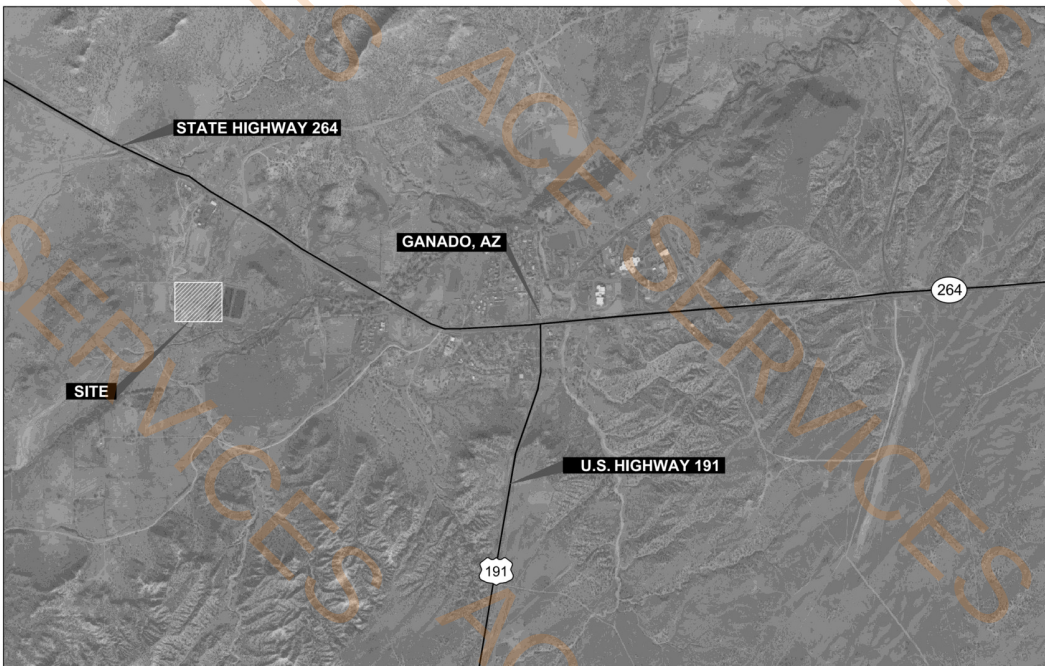
GANADO WASTEWATER LAGOON EXPANSION

NAVAJO TRIBAL UTILITY AUTHORITY

GANADO, ARIZONA



SITE LOCATION
NTS



VICINITY MAP
NTS

THIS PLAN SET IS BASED ON AERIAL PHOTOGRAPHY. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE EXISTING INFORMATION SHOWN ON THESE PLANS IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR WILL BE RESPONSIBLE FOR FIELD VERIFYING LOCATIONS AND DEPTHS OF EXISTING UTILITIES BEFORE COMMENCING CONSTRUCTION. THE CONTRACTOR MUST ALSO CALL 811 AND NAVAJO TRIBAL UTILITY AUTHORITY, P.O. BOX 170, FORT DEFIANCIE, AZ, 86504 AT 928-729-5721 AT LEAST 3 WORKING DAYS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.

SHEET INDEX		
	SHEET NO.	SHEET TITLE
1	G-0001	COVER SHEET
2	G-0002	GENERAL NOTES AND LEGEND
3	C-0100	EXISTING CONDITIONS & DEMOLITION PLAN
4	C-0200	PROPOSED SITE & GRADING PLAN KEY MAP
5	C-0201	PROPOSED SITE & GRADING PLAN (1 OF 3)
6	C-0202	PROPOSED SITE & GRADING PLAN (2 OF 3)
7	C-0203	PROPOSED SITE & GRADING PLAN (3 OF 3)
8	C-0300	HEADWORKS GRADING PLAN
9	C-0400	CIVIL DETAILS (1 OF 4)
10	C-0401	CIVIL DETAILS (2 OF 4)
11	C-0402	CIVIL DETAILS (3 OF 4)
12	C-0403	CIVIL DETAILS (4 OF 4)
13	E-0100	EQUIPMENT LAYOUT
14	E-0200	SINGLE LINE DIAGRAM
15	E-0300	ELECTRICAL DETAILS



WSP USA INC.
4221 BALLOON PARK RD NE
ALBUQUERQUE, NM 87109
TEL: (505) 821-1801



PROJECT:
GANADO WASTEWATER
LAGOON EXPANSION



NAVAJO TRIBAL
UTILITY AUTHORITY
PO BOX 170
GANADO, AZ 86504
WSP PROJECT NO:
US0050682.5847

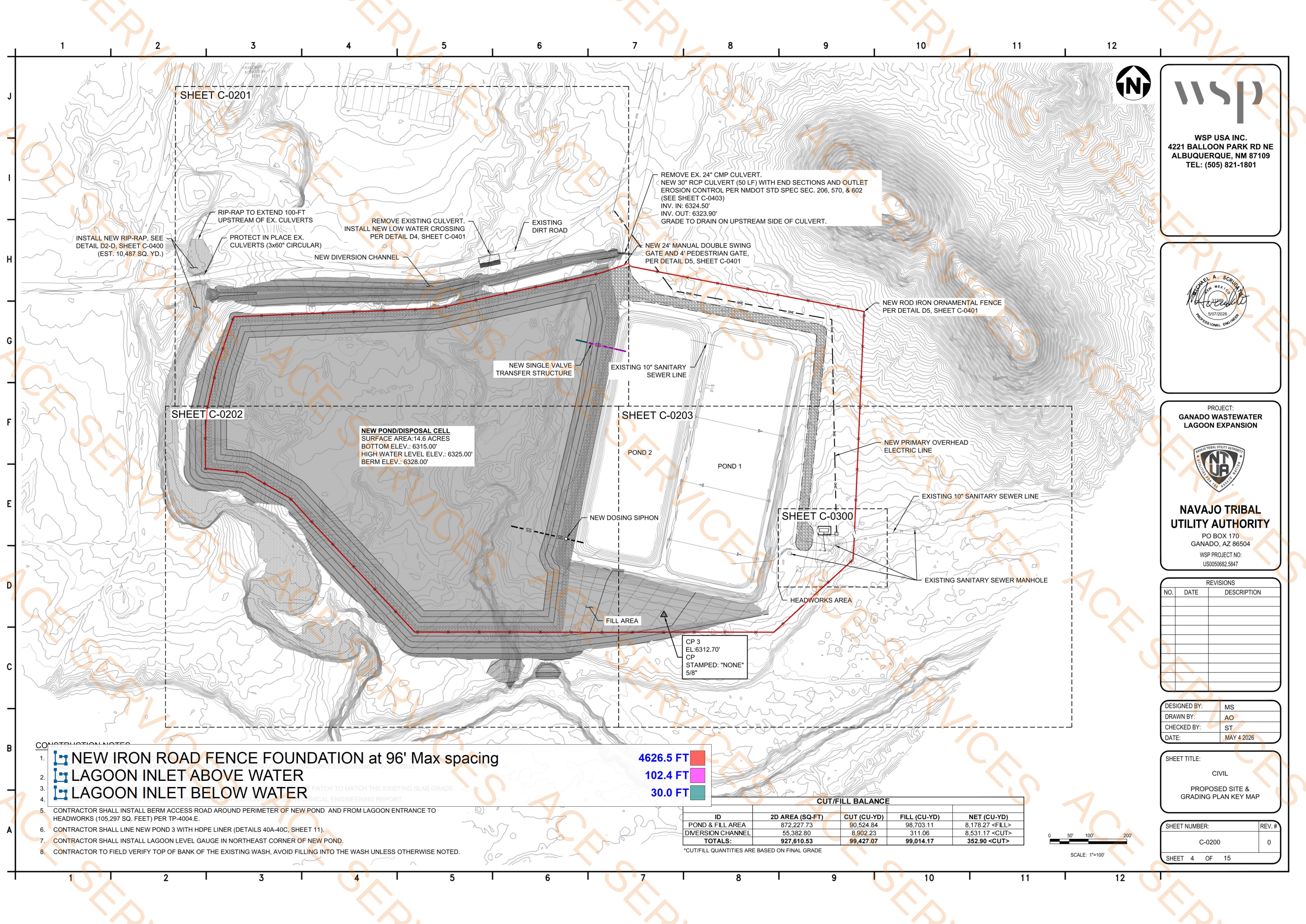
REVISIONS		
NO.	DATE	DESCRIPTION

DESIGNED BY:	MS
DRAWN BY:	AO
CHECKED BY:	ST
DATE:	MAY 1 2026

SHEET TITLE:

GENERAL
COVERSHEET

SHEET NUMBER:	REV. #
G-0001	0
SHEET 1 OF 15	





WSP USA INC.
4221 BALLOON PARK RD NE
ALBUQUERQUE, NM 87109
TEL: (505) 821-1801



MICHAEL A. SCRUFFY
NEW MEXICO
31289
5/07/2026
PROFESSIONAL ENGINEER

PROJECT:
**GANADO WASTEWATER
LAGOON EXPANSION**



**NAVAJO TRIBAL
UTILITY AUTHORITY**
PO BOX 170
GANADO, AZ 86504
WSP PROJECT NO:
US0050682.5847

REVISIONS		
NO.	DATE	DESCRIPTION

DESIGNED BY:	MS
DRAWN BY:	AO
CHECKED BY:	ST
DATE:	MAY 4 2026

SHEET TITLE:

CIVIL

PROPOSED SITE &
GRADING PLAN KEY MAP

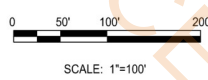
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C-0200	0
SHEET 4 OF 15	

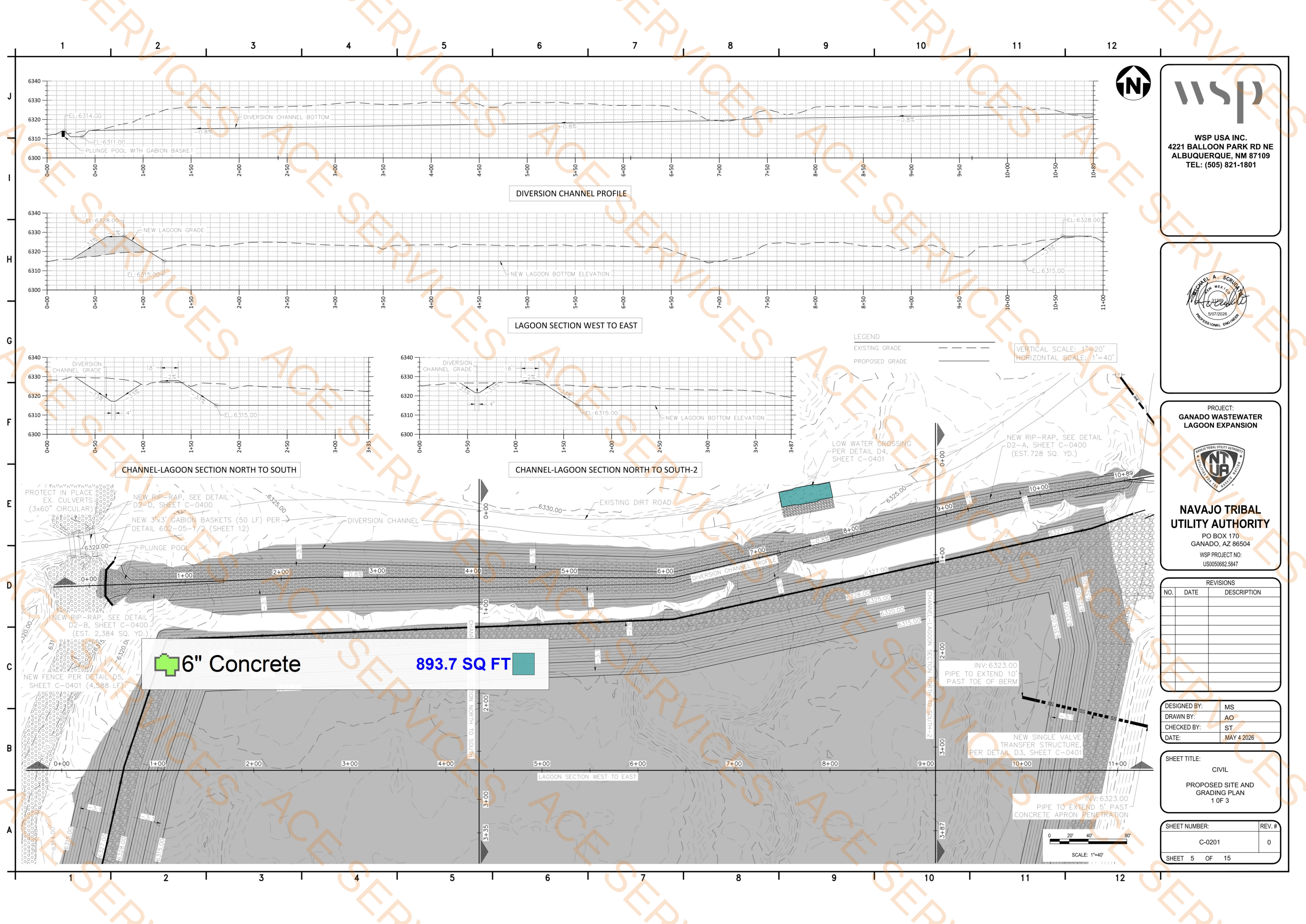
- CONSTRUCTION NOTES**
- NEW IRON ROAD FENCE FOUNDATION at 96' Max spacing
 - LAGOON INLET ABOVE WATER
 - LAGOON INLET BELOW WATER
 - CONTRACTOR SHALL PATCH TO MATCH THE EXISTING SLAB GRADE.
 - CONTRACTOR SHALL INSTALL BERM ACCESS ROAD AROUND PERIMETER OF NEW POND AND FROM LAGOON ENTRANCE TO HEADWORKS (105,297 SQ. FEET) PER TP-4004.E.
 - CONTRACTOR SHALL LINE NEW POND 3 WITH HDPE LINER (DETAILS 40A-40C, SHEET 11).
 - CONTRACTOR SHALL INSTALL LAGOON LEVEL GAUGE IN NORTHEAST CORNER OF NEW POND.
 - CONTRACTOR TO FIELD VERIFY TOP OF BANK OF THE EXISTING WASH, AVOID FILLING INTO THE WASH UNLESS OTHERWISE NOTED.

- 4626.5 FT
- 102.4 FT
- 30.0 FT

CUT/FILL BALANCE				
ID	2D AREA (SQ-FT)	CUT (CU-YD)	FILL (CU-YD)	NET (CU-YD)
POND & FILL AREA	872,227.73	90,524.84	98,703.11	8,178.27 <FILL>
DIVERSION CHANNEL	55,382.80	8,902.23	311.06	8,531.17 <CUT>
TOTALS:	927,610.53	99,427.07	99,014.17	352.90 <CUT>

*CUT/FILL QUANTITIES ARE BASED ON FINAL GRADE





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CHECKED BY:	ST
DATE:	MAY 4 2026

SHEET TITLE:
CIVIL
PROPOSED SITE AND
GRADING PLAN
1 OF 3

SHEET NUMBER:	REV. #
C-0201	0
SHEET 5 OF 15	

DIVERSION CHANNEL PROFILE

LAGOON SECTION WEST TO EAST

LEGEND

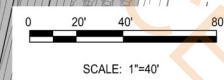
EXISTING GRADE
PROPOSED GRADE

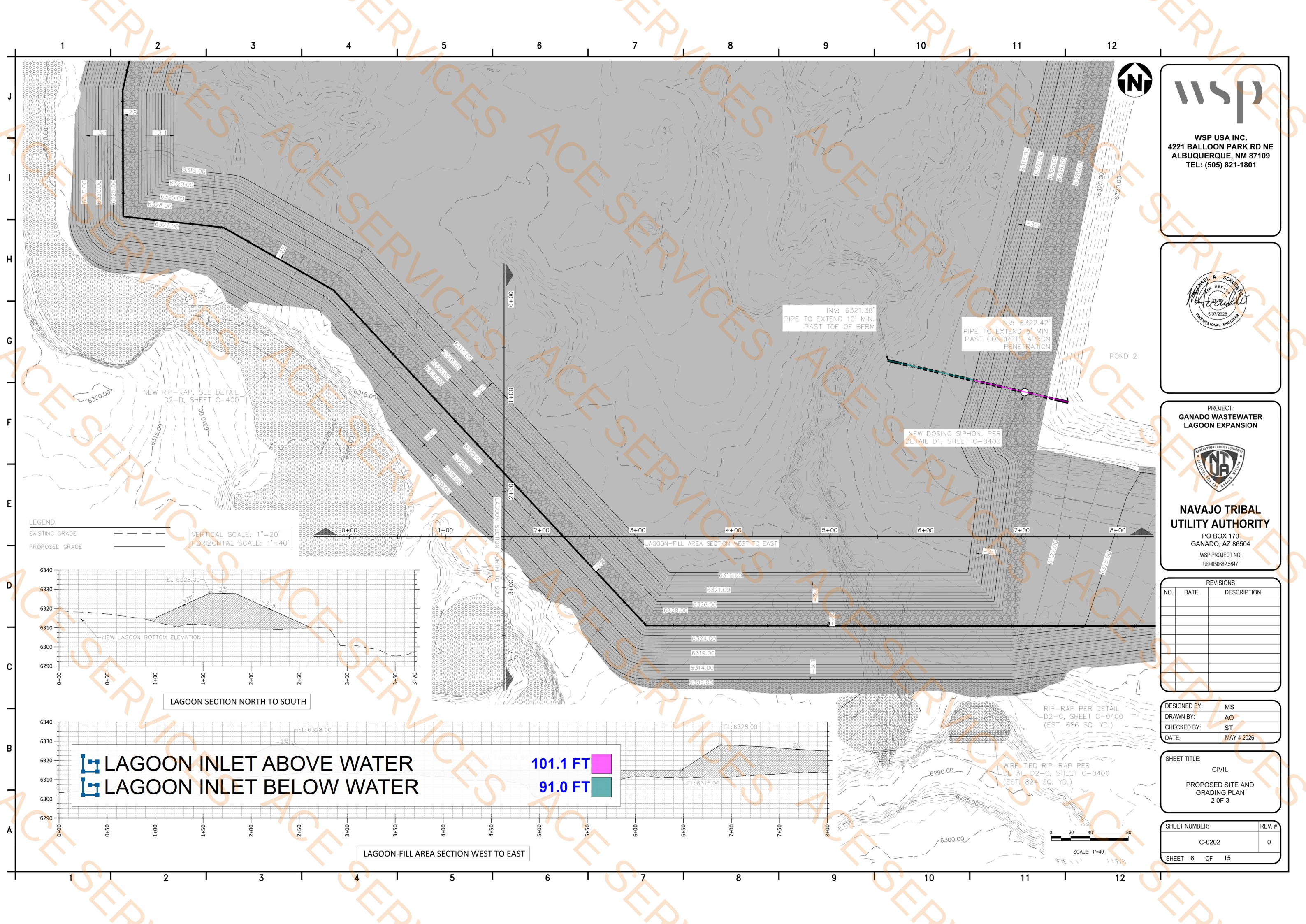
VERTICAL SCALE: 1"=20'
HORIZONTAL SCALE: 1"=40'

CHANNEL-LAGOON SECTION NORTH TO SOUTH

CHANNEL-LAGOON SECTION NORTH TO SOUTH-2

6" Concrete 893.7 SQ FT





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NAVAJO TRIBAL
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US0050682.5847

REVISIONS

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DRAWN BY:	AO
CHECKED BY:	ST
DATE:	MAY 4 2026

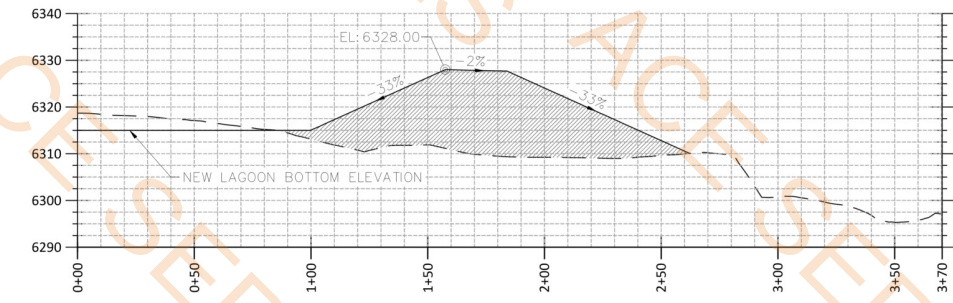
SHEET TITLE:
CIVIL
PROPOSED SITE AND
GRADING PLAN
2 OF 3

SHEET NUMBER:	REV. #
C-0202	0
SHEET 6 OF 15	

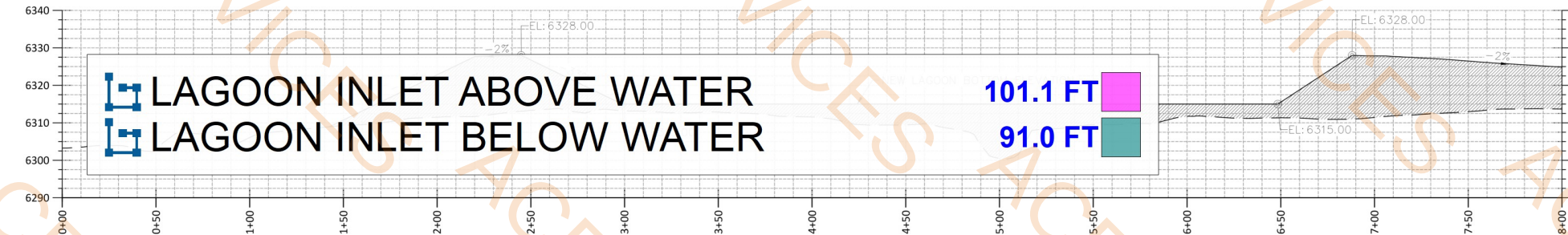
LEGEND

EXISTING GRADE
PROPOSED GRADE

VERTICAL SCALE: 1"=20'
HORIZONTAL SCALE: 1"=40'



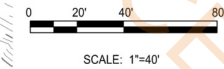
LAGOON SECTION NORTH TO SOUTH



LAGOON-FILL AREA SECTION WEST TO EAST

LAGOON INLET ABOVE WATER
LAGOON INLET BELOW WATER

101.1 FT
91.0 FT



SCALE: 1"=40'

NEW DOSING SIPHON, PER
DETAIL D1, SHEET C-0400

INV: 6321.38'
PIPE TO EXTEND 10' MIN.
PAST TOE OF BERM

INV: 6322.42'
PIPE TO EXTEND 5' MIN.
PAST CONCRETE APRON
PENETRATION

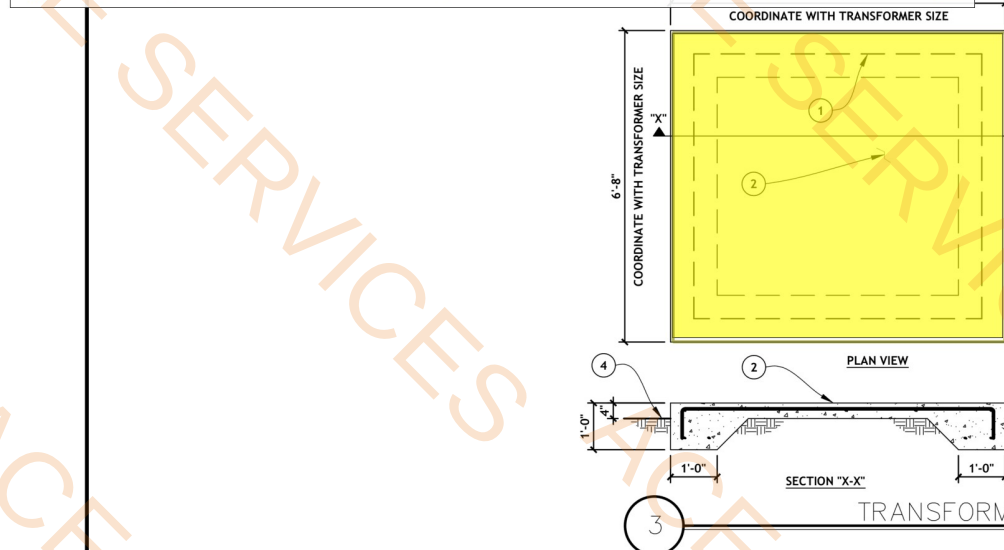
POND 2

RIP-RAP PER DETAIL
D2-C, SHEET C-0400
(EST. 686 SQ. YD.)

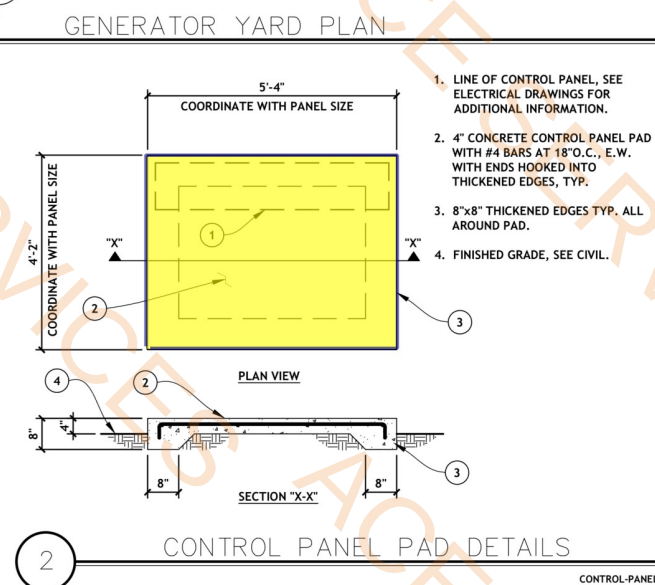
WIRE-TIED RIP-RAP PER
DETAIL D2-C, SHEET C-0400
(EST. 824 SQ. YD.)

NEW RIP-RAP, SEE DETAIL
D2-D, SHEET C-400

- 4" CONCRETE SLAB 3000 PSI WITH #4 BARS 619.7 SQ FT
- 3' W x 1' Depth Con Footing 96.6 FT
- GATE POST FOOTING 2.0 EA
- CONSTRUCTION JOINT IN SLAB 47.8 FT
- 12"x12"x CONT. THICKENED EDGES WT (2) # 4 27.4 FT
- 8"x8"x CONT. THICKENED EDGES 18.9 FT
- SECTION 8/11 11.4 FT
- SECTION 6 -11 50.1 FT
- 4" CONCRETE SLAB 3000 PSI WITH #5 BARS AT 18"O... 146.4 SQ FT



1. LINE OF TRANSFORMER, SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
2. 4" CONCRETE TRANSFORMER PAD WITH #4 BARS AT 18"O.C., E.W. WITH ENDS HOOKED INTO THICKENED EDGES, TYP.
3. 12"x12"x CONT. THICKENED EDGES TYP. ALL AROUND PAD WITH (2) #4 BARS CONT. IN BOTTOM.
4. FINISHED GRADE, SEE CIVIL.



1. LINE OF CONTROL PANEL, SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
2. 4" CONCRETE CONTROL PANEL PAD WITH #4 BARS AT 18"O.C., E.W. WITH ENDS HOOKED INTO THICKENED EDGES, TYP.
3. 8"x8" THICKENED EDGES TYP. ALL AROUND PAD.
4. FINISHED GRADE, SEE CIVIL.

RECORD DRAWING

THIS RECORD DRAWING HAS BEEN PREPARED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THE INFORMATION IS BELIEVED TO BE RELIABLE, THE ENGINEER CANNOT ASSURE IT'S ACCURACY, & IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS RECORD DRAWING OR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF IT'S ACCURACY BEFORE APPLYING IT FOR ANY PURPOSE.

SCALE: 1/2"=1'-0"

2' 0 2' 4' 8' Feet

1. CONCRETE GENERATOR PAD, SEE DETAIL 6/11.
2. 4" CONCRETE SLAB WITH #4 BARS AT 18"O.C., E.W.
3. 8" CMU WALL, 8'-0" HIGH, SEE DETAIL 7/11.
4. GATE, SEE DETAIL 9/11 FOR ADDITIONAL INFORMATION.
5. C.J. INDICATES LOCATION OF CONSTRUCTION JOINT IN SLAB, SEE DETAIL 3/11.
6. 8" WIDE TURN DOWN SLAB EDGE ALONG GATE OPENING, SEE 8/11.
7. WIDEN TURN DOWN SLAB EDGE AT GATE POSTS TO 18" SQUARE, SEE DETAIL 9/11.

NOTES:

1. SEE DETAILS 4/11 AND 5/11 FOR LOCATIONS WHERE PIPES OR CONDUITS PASS UNDER THE FOOTINGS.

6056
DOUGLAS B. REEVES
REGISTERED PROFESSIONAL ENGINEER
EXPIRES 12-31-18

NAVAJO TRIBAL UTILITY AUTHORITY
GANADO, ARIZONA

NO. 5
DATE
BY

REVISION DESCRIPTION

GANADO WASTEWATER TREATMENT PLANT
LAGOON UPGRADE

STRUCTURAL
PLAN

SOLUTIONS FOR TODAY...
VISION FOR TOMORROW

2201 San Pedro Dr. NE
Building 4, Suite 200
Albuquerque, NM 87110
Phone: (505) 884-0700
Fax: (505) 884-2376
TEXAS

**SMITH
ENGINEERING
COMPANY**
NEW MEXICO

JOB NO:
115111

DATE:
APR 2016

SHEET NO:
10