Date:	**March 20, 2025**
To:	**All Proposers**
Subject:	**Addendum No. 1** **Consisting of Seventy Eight (78) Pages**
RFP No.:	**Bid 25-02-3600LE**
Project Name:	**N12(13-2)1,2&4 Road Improvement Project from Agency Line to Wheatfields Lake, AZ**
Owner:	**Navajo Division of Transportation**

Proposer shall make note of and/or incorporate all changes listed below into the requested Request for Proposal (RFP):

1. Mandatory Pre-Proposal Meeting Minutes and Sign-In Sheet from March 12, 2025 meeting that was held at the Tsaile/Wheatfields Chapter House. Meeting minutes include responses to questions asked by attendees.

2. Plans:

   - Sheet 4: TYPICAL SECTIONS have been updated to reflect 2-2.5" asphalt lifts. Replace plan sheet and refer to the question-and-answer section.

   - Sheet 10: QUANTITIES 1 has been updated to reflect changes to the Summary of Quantities, Surfacing Schedule. Please note that a bid item has been created for 61701-5100, STEEL POST GUARDRAIL (REMOVABLE) and the Surfacing Factors have been provided.

   - Sheet 11: QUANTITIES 2 has been updated to reflect the addition of a 40' wide roadway cattle guard, 10' wide gate. Please note that a bid item has been created for 61901-1000, FENCE, BARBED WIRE, 5-STRAND along with a quantity table. A table detailing the items included for the lump sum pay item, 20304-1000, REMOVAL OF STRUCTURES AND OBSTRUCTIONS has been added for contractor clarification. Earthwork numbers have been revised due to error in the original report. Replace plan sheet and refer to the question-and-answer section.

   - Sheet 12: QUANTITIES 3 has been updated to reflect the revisions to various existing and new pipes. Wire enclosed riprap numbers have been revised to properly account for protection at the end of the pipes. The revised table STRUCTURE RIPRAP FOR BRIDGE, has been updated for the revised design. Replace plan sheet and refer to the question-and-answer section.

- Sheet 13: PNP-1: has been updated to reflect the addition of 40' wide roadway cattle guard, various fencing and a gate that will need to be replaced after the bridge detour is removed. Replace plan sheet and refer to the question-and-answer section.

- Sheet 44: PNP-32: has been updated to reflect the removal of the existing 24" CMP. Replace plan sheet and refer to the question-and-answer section.

- Sheet 46: PNP-34: has been updated to reflect the update of pipe callout DS-52. This existing 36" CMP is to be removed. Replace plan sheet and refer to the question-and-answer section.

- Sheet 95: SCOUR MITIGATION AT BRIDGE: has been updated to reflect the updated placement of riprap within Whiskey Creek. Table for quantities of riprap have been added to Sheet 12, as noted above. Replace plan sheet and refer to the question-and-answer section.

- Cross Sections: Revised cross section to not show the subgrade section. Replace original cross section set and refer to the question-and-answer section.

3. Contract Book:

    a. Exhibit E, Required Contract Forms. The Solicitation, Offer and Award Form (SF 1442) has been revised. Replace with the attached pages.

    b. Replace page 148 of Exhibit F with the attached page. Section 109.01 was revised.

    c. Insert new Supplemental Specification pages, Section 202 - ADDITIONAL CLEARING AND GRUBBING into Exhibit F.

4. RFP:

    a. Replace the Bid Schedule form with the attached pages. The Excel version of this file will also be replaced on the Navajo DOT RFP website.

    b. The submittal date for the Bid Proposal has been extended to April 3, 2025. The following sections of the RFP file have been revised as shown below.

        i. Page 1, Proposal and bid package must be physically submitted to the following address by April 3, 2025, no later than 4:00 PM MDST:

        ii. Page 3, Part I, C. Schedule of Activities and Timelines:

Schedule of Activities	Timelines

Mandatory Pre-Proposal Meeting at Tsaile/Wheatfields Chapter House	Wednesday, March 12, 2025, at 10:00 a.m. MDST
Prospective respondents "Inquiry Timeline." Questions regarding this RFP must be submitted in writing, by fax or email prior to this date. No questions accepted after this date.	Tuesday, March 18, 2025, by 3:00 p.m. MDST
Written responses to written questions will be distributed in writing through an Addendum issued on this date.	Friday, March 21, 2025, by 10:00 a.m. MDST
Due date for all proposals	Thursday, April 3, 2025, by 4:00 p.m. MDST
Opening of proposals and evaluations by the Review Panel	Between April 7, 2025 to April 11, 2025
Selection of Contractor	Week of April 14, 2025

iii. Page 4, Part I, F. Proposals Submission: Proposal must be received by April 3, 2025, at 4:00 p.m. MDST. Respondents who are mailing their proposals should allow sufficient time for mail delivery to ensure receipt by the time specified. If mailed, it is recommended that proposals be sent by certified mail to the address indicated on Page 2 of this RFP.

5. The Navajo Division of Transportation has received the following question regarding this RFP and thereby issues the following response:

Question Submitted	Response Provided
Good afternoon, it appears the formula calculations for the 25-02-3600LE for N12(13-2)1,2&4 Road Project from Agency Line to Wheatfields Lake, AZ bid item spreadsheet are not formatted correctly, item Roadway Excavation and Borrow are linking to the unit price and not total unit price + quantity. The cells are frozen and we cannot change them ourselves, can you please repost a corrected item spreadsheet, thank you.	The Excel file for the Bid Schedule was corrected and an updated version was posted
The typical sections on plan sheet 4 show 5" of asphalt concrete for mainline paving. There is no note pertaining to, or detail showing the lift	Typical section and surfacing schedule updated to reflect 2-2.5" lifts.

thickness. However, based on the quantity of tack coat, it is assumed that there will be 2 lifts. Would the department clarify if 2 – 2.5" lifts are acceptable for the mainline asphalt concrete paving?	
Item 41101-1000 PRIME COAT has a quantity of 436 TN. The surfacing schedule table on plan sheet 10 has a quantity of 232,200 SY for subgrade stabilization. The contract documents give a spread rate of 0.10 – 0.30 GAL/SY for the prime coat. Based on 240 Gal/TN, that would mean there is 348,800 SY to spread prime oil. Would the department verify their quantity for item 41101-1000, or verify the spread rate desired?	Surfacing Schedule updated to reflect a spread rate of 0.30 GAL/SY.
Plan sheet 49 shows a temporary traffic control plan for a single lane, flagging operation. This project will be reduced to 1 lane for the majority of the construction.	Normal length of traffic closure is limited to 1 mile. Anything longer would need NDOT and CM approval.
Will the department allow temporary signals to be utilized instead of a 24 hour/day flagging operation?	The traffic control plan will require Navajo DOT and CM approval.
Would the department verify that the 3 items in item 20304-1000 are removal of pipe, trees, and ROW fence?	Removal of trees are covered under bid item 20102-0000 CLEARING & GRUBBING. A table for removals will be provided in the updated Summary of Quantities.
Item 20304-1000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS is a lump sum quantity. There are no summaries of quantities of items to remove. Plan sheets 13 through 47 show removal of existing pipe and trees throughout the project. There is no mention of removing the existing ROW fence or any other items, though it is assumed the ROW fence will be removed and replaced.	A table for removals will be provided in the updated Summary of Quantities. This table includes removal of existing ROW fencing. New fence is to be paid for under bid item 61901-1000, FENCE, BARBED WIRE, 5-STRAND.
Due to the remoteness of this project, asphalt suppliers are going to be limited. Will the department allow the contractor to utilize NMDOT	An approved state DOT mix design can be submitted. The bid item will be updated to

SP-III, or ADOT 416 mix designs for bid item 40201-0100 ASPHALTIC CONCRETE PAVEMENT, MARSHALL MIX, CLASS B?	40301-0100, ASPHALT CONCRETE PAVEMENT, TYPE 1.
Would the department verify that the removal of the existing roadway pavement section is included in item 20401-0000 ROADWAY EXCAVATION?	Yes it includes the removal of the existing roadway. Earthwork numbers have been updated due to a report error, please see latest table.
Plan sheets 13 through 47 show the plan view and profile of the roadway. Item 6 on each of the plan sheets represents the new ROW fence installation. Would the department provide the limits for the removal of the existing ROW fence, a bid item for the removal of the existing fence, and a bid item for the installation of the new ROW fence?	New fence is to be paid for under bid item 61901-1000, FENCE, BARBED WIRE, 5-STRAND. New table shown in the summary of quantities.
Item 21301-0000 is for 12" deep, subgrade stabilization. Section 213.03 says to scarify the subgrade to a depth of 12 inches on main roadway only. The surfacing schedule table on plan sheet 10 shows the subgrade stabilization being utilized for turnouts 1 through 34. Would the department verify that each of the turnouts listed in the schedule on plan sheet 10 receive 12" deep, subgrade stabilization?	Subgrade Stabilization was removed from the turnouts. Updated quantities are shown in the surfacing schedule.
What grade of asphalt binder (PG oil) is required for the asphalt concrete pavement?	PG 64-22 should be used. Please refer to Exhibit B in the supplied material design memo in the appendix.
Should there be a Bid Item for Asphalt Binder for the Asphalt Concrete Pavement?	No.
The summary table on plan sheet 11 gives dimensions for drop structures 1 through 5. A note on plan sheet 41 says, "SEE DRAINAGE	Please refer to sheet 93 and 94.

DETAILS FOR DROP STRUCTURE PLAN AND PROFILE." There are no details that show drop structures. Would the department provide a detail for the drop structures listed on plan sheet 11?	
Would the Department please consider a bid extension of several weeks on this project due to the nature, size, and location of the work to help the contractors secure material sources/suppliers and subcontractors?	Navajo DOT has extended the Proposal Submittal deadline to April 3, 2025.

END OF ADDENDUM NO. 1

Thank you for your interest!

Ardaniel Begay, Principal Contract Analyst
Project Contact Person

Navajo Division of Transportation
Bid No. 25-02-3600LE
N12(13-2)1,2&4 Road Impr. Project from Agency Line to Wheatfields, AZ
MANDATORY PRE-PROPOSAL MEETING
March 12, 2025, 10:00 am

The purpose of this Mandatory Pre-Proposal Meeting is to receive presentations on the Project Scope of Work and the necessary items required to be submitted as part of the Request for Proposal (RFP).

1. **Introductions & Sign-In Sheet**

   a. **Sign-In Sheet** – Please submit your contact information to Ardaniel Begay via email at abegay@navajodot.org

2. **Welcome – Darryl Bradley, Principal Civil Engineer, Navajo DOT**

3. **General Announcements**

   a. Information is available on the Navajo DOT website: https://navajodot.org/rfp%2Frfq

   b. Inquiries on this RFP must be submitted in writing via fax or email to Ardaniel Begay, Principal Contract Analyst. The contact information is on page 2 of the RFP.

   c. Contractors are encouraged to conduct a field review of the project site on their own. There is no formal field review scheduled.

4. **Schedule of Activities**

   a. The Schedule of Activities is shown on page 3 of the RFP.

   b. Pre-Proposal Meeting today.

   c. Inquiry Timeline – all inquiries must be submitted in writing by 3:00 pm on March 18, 2025. Written responses to inquiries will be distributed through an Addendum by 10:00 am on March 21, 2025.

   d. Proposal due by 4:00 pm MDST on April 3, 2025.

   e. Opening Proposals and Evaluation – between April 7 and April 11, 2025.

   f. Selection of Contractor – Week of April 14, 2025.

   g. Estimated Notice to Proceed Date – July, 2025.

5. **Project Description & Scope of Work**

   a. Project Plans, Roadway Cross-sections, Contract Book, NTUA Specs and Geotechnical Reports are available for download from the Navajo DOT website. https://navajodot.org/rfp%2Frfq. A link to the complete FP-14 Specifications is provided on Exhibit F page of contract book.

      - **Some of the N12 plan sheets were updated recently and the new file was posted to the Navajo DOT website. Please download the plans again and utilize the latest version in preparing your bids.**

   b. Funding Source is Federal Highway Administration (FHWA) Tribal Transportation Program.

   c. **Scope of Work consists of:** grading and roadway excavation; placement of aggregate base course and asphalt pavement; installation of drainage structures, precast concrete arch bridge, fencing, cattleguards, gates, signs, striping, guardrail,

and other miscellaneous work as called for in the design plans and specifications for this 7.20 mile roadway project located from Agency Line to Wheatfields Lake, AZ, Apache County, Navajo Nation.

- Pavement reconstruction and widening the shoulders.
- Replacing the drainage structures throughout project limits.
- Proposed concrete arch bridge structure at Beginning of Project (BOP) over Whiskey Creek.
- Parking lot improvements at the Wheatfields Dam recreation area.
    - CRCF requires temporary fencing and monitoring for work near the Wheatfields Lake area.
- Roadway widening and erosion control features at the dam.
    - Supplemental Specifications for Wheatfields Dam Embankment – Reference Exhibit F, Section 204 of the Contract Book. The new embankment to be placed within the Wheatfields Dam limits (STA 1198+00 to 1206+00 LT) has separate construction requirements. This relates to clearing and grubbing, preparing the subgrade, hauling in select borrow (fill material), completing the new dam embankment construction and quality control testing. Work in this area may need additional and/or specialty construction observers and the Contractor will need to coordinate this activity with the Construction Manager (CM) 2-weeks prior to commencing.

d. Completion Time – Per Article 4.3 of the Navajo DOT Contract - Agreement.

The Work will be substantially completed within 280 working days after the date when the Contract Times commence (Notice to Proceed) to run as provided in Paragraph 2.3 of the General Conditions and completed and ready for final acceptance in accordance with Paragraph 14.7 of the General Conditions within 300 working days after the date when the Contract Time commence to run.

Please note that the above durations do not take into consideration non-working days for weather conditions, shutdowns during winter suspension(s) and holidays. See Article 12.3 of Standard General Conditions, Exhibit A for requirements related to Delay claims.

e. Bid Schedule – The Bid Schedule excel file has been provided as part of the bid documents. Please note that the original posted excel file had an error in some formulas and it was updated/replaced on Monday (3/10/25). Please make sure you download the file again.

- Contractor Quality Control - the normal “Contractor Quality Control” bid item has been removed from the bid schedule. Contractor will be responsible for developing a Quality Control Plan (QCP), determining the cost to complete his own quality control and then basing his bids on this effort. No separate measurement or payment of contractor quality control will be made. See Article 6.3.B – Services, Materials, and Equipment and Article 13.3.D – Tests and Inspections from Exhibit A of the Contract Book. See Section 153 – Contractor Quality Control of Exhibit F of the Contract Book.

- The Government (Navajo DOT) will be responsible for completing Independent Quality Assurance testing. See Section 153.01 of Exhibit F of the Contract Book.

- A Contractor Furnished Field Testing Laboratory WILL NOT be required as part of this project.

f. Fuel Cost Adjustment – The contract language has been revised to include Fuel Cost Adjustment provisions. No adjustments will be made for fluctuations in the price of fuels other than diesel. See Section 109.06 of Exhibit F of the Contract Book.

g. Temporary Construction Easement (TCE) – The project ROW maps include several TCEs (19). The duration of these TCE approvals is three years.

6. Coordination with BIA Navajo Region Branch of Transportation (NRBOT)

a. Project was designed by Wilson & Company who will maintain the Engineer of Record responsibilities.

b. BIA permits will be required to complete work within the N12 construction areas.

c. All coordination with the BIA NRBOT will be conducted by Navajo DOT and/or the designated project Construction Manager (CM).

7. Utility Coordination – See Article 7.1 of the Navajo DOT Contract – Exhibit A - Standard General Conditions and Section 107.02 of the FP-14 Specifications.

a. NTUA water – There are no conflicts with NTUA waterline crossings. Locates are required, per specifications.

b. NTUA power – There are no conflicts with NTUA power. There is one crossing at approximately Sta 1106+00, that meets clearance requirements, but NTUA wants to raise it. This work will be completed by NTUA and may need to take place during construction. Locates are required, per specifications.

c. Frontier communication – There are no conflicts with Frontier Communications. Locates are required, per specifications.

8. Navajo Nation Business Regulatory Department

a. Navajo Business Opportunity Act & Source List

https://navajoeconomy.org/business-regulatory/

https://navajoeconomy.org/business-regulatory/nboa-source-listing/

https://navajoeconomy.org/wp-content/uploads/2025/02/NBOA-Source-List-2025.02.4.pdf

b. Subcontracting Plan

9. Review of Request for Proposal

a. Page 2 - proposals must be submitted to Navajo DOT at the address shown. Electronic proposals will not be accepted.

b. Page 5 - all work performed on this project is subject to the 6% Navajo Sales Tax.

c. Page 5 – evaluation procedure and criteria, including the scoring criteria.

d. Page 6 – the proposals will be opened and evaluated in accordance with the Navajo Nation Business Opportunity Act.

e. Pages 7 to 11 – Outline of Request for Proposal

f. Proposal must be submitted in a sealed envelope.

g. Bid Schedule must be submitted in a separate sealed envelope clearly marked as "Bid Schedule – RFP #25-02-3600LE Project N12(13-2)1,2&4".

   An excel spreadsheet version of the Bid Schedule is included on the website.

h. Prime Contractor requirements – Self-Perform 50% of the work. See Special Contract Requirement, Clause NN-236-1.

i. Davis Bacon Wage Rates (Exhibit H of the Contract Book) apply for this Project. Make sure that you follow the appropriate wages for the county in which the project is located.

10. Addendum(s)

a. Addendum(s) will be available for download from the Navajo DOT website. It is important that respondents check the Navajo DOT website for addendum(s).

b. Addendum Acknowledgement Form

11. Submitted Questions To Date:

a. Question regarding the formulas in the excel file for the bid schedule. The formulas were corrected and an updated excel bid schedule file was posted to the Navajo DOT website.

b. Sheets 93, 94 & 95 were updated with the PE stamp/signature. The N12(13-2) plans (Part 2) file was updated and posted to the Navajo DOT website.

c. The Select Borrow material bid item, has a borrow pit source been identified? No, the Contractor will be responsible for identifying a source for the Select Borrow bid item. Please note that the Select Borrow material needs to meet the 704.07 supplemental specification requirements in Exhibit F of the contract book.

d. Will the project be built in English or Metric units? Section 109.01 of the supplemental specification indicates Metric shall prevail. The project was designed and shall be built using English units. Wilson will issue an Addendum correcting Section 109.01 in Exhibit F of the contract book.

e. The project TCEs were discussed. They are sometimes restricted on work area and the work sometimes need a big footprint. Is the Contractor restricted to working within these lines? Yes, the Contractor is restricted to working within the approved TCE limits.

f. What is the Work Week? 4 or 5 days per week? The work schedule will be established at the pre-con meeting. It should be limited to a 40-hour work week. The Government will deduct the cost to provide construction observation on weekends or for any hours greater than a normal 40-hour work week.

N12(13-2)1,2&4 Road Project
from Agency Line to Wheatfields Lake, AZ
Pre-Proposal Mtg. for RFP #25-02-3600LE
March 12, 2025 10:00 am Sign-In Sheet

NAVAJO D.O.T.

NAME / TITLE	COMPANY NAME	PHONE NUMBER / EMAIL
Darryl Bradley, Principal Civil Engineer	Navajo Division of Transportation	505-371-8397 / dbradley@navajodot.org
Ardaniel Begay, Principal Contract Analyst	Navajo Division of Transportation	505-371-8351 / abegay@navajodot.org
Derek Meier, Sr Project Manager	Wilson & Company	505-400-4618 / derek.meier@wilsonco.com
Raymond M. Salazar, Construction Manager	Wilson & Company	505-504-4597 / raymond.salazar@wilsonco.com
Stephanie Begaye, Construction Admin	Wilson & Company	505-373-7869 / stephanie.begaye@wilsonco.com
Josh Brown, Project Manager	Wilson & Company	602-283-2708 / joshua.brown@wilsonco.com
Matthew Hadley	Arrow Indian Contractors	(928) 259-1676 m.hadley@arrowindian.ca
Jeremy Greenwald, project Engineer	Arrow Indian Contractors	(928) 291-9527 jgreenwald@arrowindian.com
Derrick Joe	DJOE Cons / Arrow Indian	928-429-1779 djoe@arrowindian.com
Malcolm Manuelito	NECA	(505)-210-7018 Malcolm@[illegible]
Jermaine Paul	NECA	(505) 574-2054
Kenny Kampton	NECA	505-556-7774
Jared Therre	Sunland Asphalt	480-932-5948 jtherre@sunlandasphalt.com

N12(13-2)1,2&4 Road Project
from Agency Line to Wheatfields Lake, AZ
Pre-Proposal Mtg. for RFP #25-02-3600LE
March 12, 2025 10:00 am Sign-In Sheet

NAVAJO D.O.T.

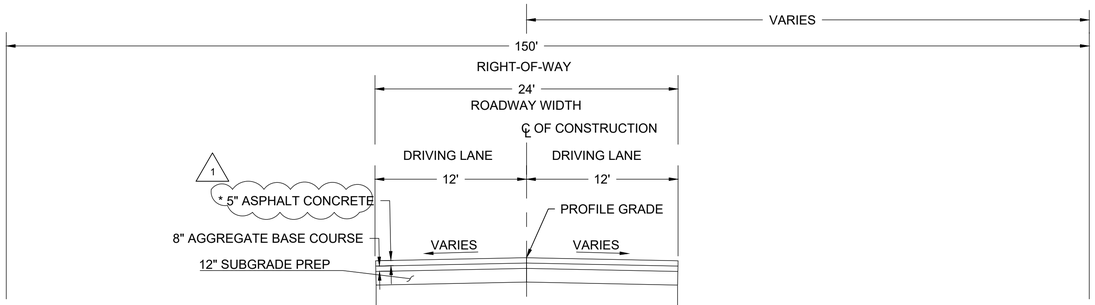
NAME / TITLE	COMPANY NAME	PHONE NUMBER / EMAIL
Michael Redhorse / Construction Manager	NECA	michael@navajo.net
Jamie Sagg/Project Engineer	NECA	jamie@navajo.net
Herbert Clark	Tsaile/Wheatfields	(928) 724-5190
Jorge Holliday	Holliday construction	Hollidayconstruction5@yahoo.com
STANLEY CHARLEY	NECA	505-210-7626 stanley.charley@navajo.net
James Redhorse	NECA	james-redhorse@navajo.net
Joseph Sedillo	Totsoh Corp.	totsohcorporation@yahoo.com
Tino Moore Project Mng	Western Technologies	505 716 7125 TMoore@RMA-Western.com
Deen Iliasu	GEOMAT ENG & TESTING	505 327 7928 deen.iliasu@geomatengineering.com
Garret Silversmith	NECA	505 210 7070 / garret@navajo.net
Ramos Benny	Hoof Print Express LLC	505 330-1047
PARKER BROWNELL	F.N.F. CONSTRUCTION	505-239-2730 PBROWNELL@FNFINC.COM
Devon Begay	Tsaile/Wheatfields	dbegay@naataanii.org 505 399 0414
Ray Smith	NECA	ray@navajo.net

N12(13-2)1,2&4 Road Project
from Agency Line to Wheatfields Lake, AZ
Pre-Proposal Mtg. for RFP #25-02-3600LE
March 12, 2025 10:00 am Sign-In Sheet

NAVAJO D.O.T.

LeVon Thomas Sr	Bear Constructi	Lakeside 140 c gmail
LeVon T Thomas	Bear Construction	levon@bearconstruction.co
Lellan K Thomas	Bear Construction	bearconstruction4@gmail.com
Paula S Begay	Ulkalulei Chapter	psbegay@naataanii.org
Tom Chee	Four Corners Pre-cast	tom@fourcornersprecast.com

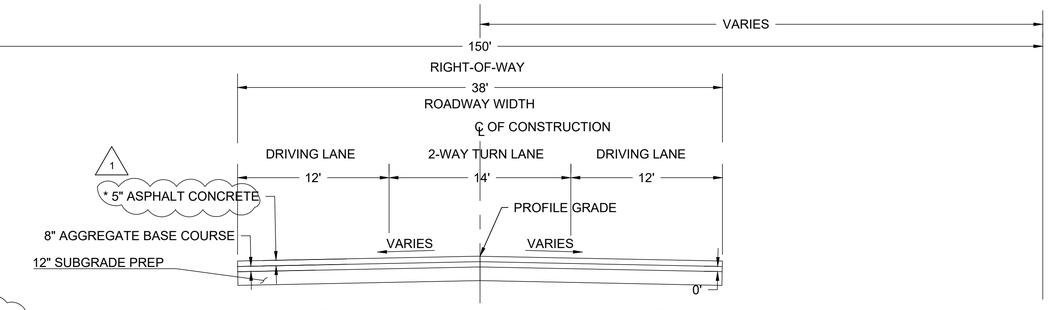
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	4	120



N12 TYPICAL SECTION C1

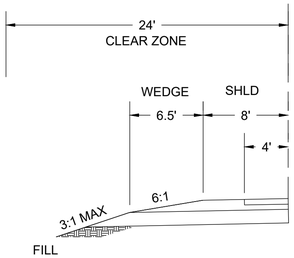
STA 889+76.38 TO STA 1214+50.00
STA 1231+00.00 TO STA 1269+68.50

1
* ASPHALT PLACED IN 2 – 2.5" LIFTS



N12 TYPICAL SECTION C2

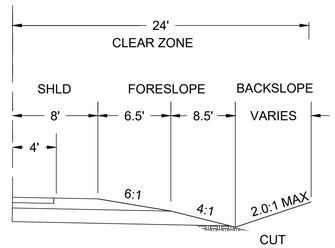
STA 1214+50.00 TO STA 1231+00.00



L1

STA 889+76.38 TO STA 891+53.00
STA 898+22.00 TO STA 905+00.00
STA 906+00.00 TO STA 924+90.00
STA 926+00.00 TO STA 932+74.00
STA 944+45.00 TO STA 945+30.00
STA 948+50.00 TO STA 1047+75.00
STA 1048+50.00 TO STA 1063+50.00
STA 1072+84.00 TO STA 1196+00.00
STA 1211+45.00 TO STA 1269+68.50

R1



STA 889+76.38 TO STA 891+53.00
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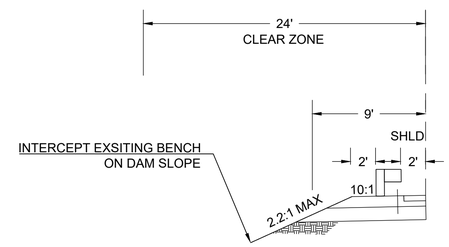
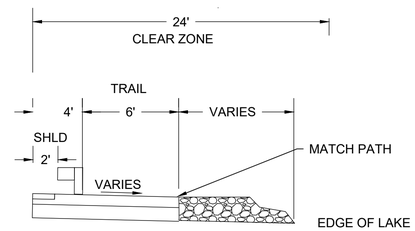
STA 940+60.00 TO STA 1189+57.00
STA 1211+60.00 TO STA 1269+68.50



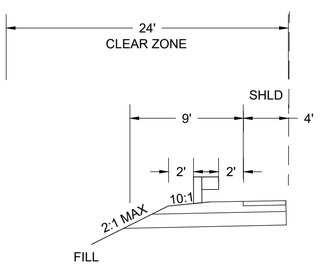
L4

STA 1199+70.00 TO STA 1205+30

R4



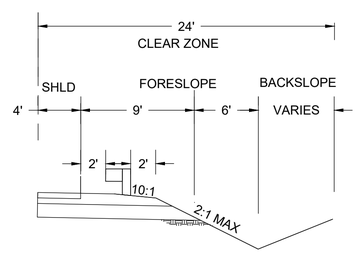
STA 1196+00.00 TO STA 1211+44.00



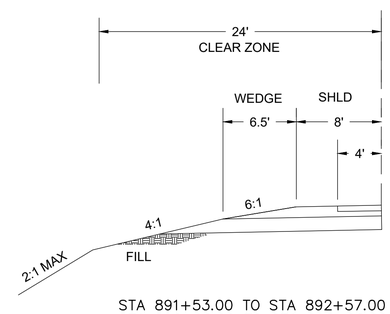
L2

STA 892+57.00 TO STA 894+28.00
STA 895+43.00 TO STA 896+22.00
STA 1196+00.00 TO STA 1199+70.00
STA 1205+30.00 TO STA 1211+45.00

R2



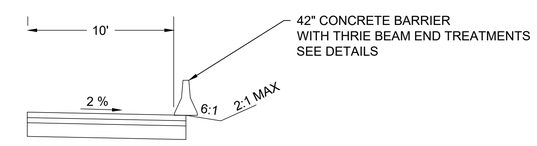
STA 891+53.00 TO STA 894+28.00
STA 895+43.00 TO STA 896+27.00
STA 1189+57.00 TO STA 1195+19.00
STA 1195+83.00 TO STA 1196+00.00



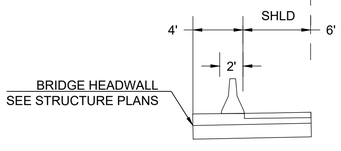
L5

STA 891+53.00 TO STA 892+57.00
STA 896+22.00 TO STA 898+22.00
STA 905+00.00 TO STA 906+00.00
STA 924+90.00 TO STA 926+00.00
STA 932+74.00 TO STA 944+45.00
STA 945+30.00 TO STA 948+50.00
STA 1047+75.00 TO STA 1048+50.00
STA 1063+50.00 TO STA 1072+84.00

R5



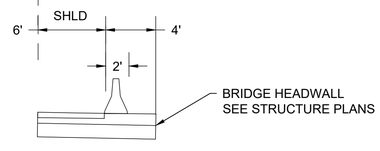
STA 938+20.00 TO 940+60.00



L3

STA 894+28.00 TO STA 895+43.00

R3



STA 894+28.00 TO STA 895+43.00

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

TYPICAL SECTIONS

Registered Professional Engineer (Civil) CERTIFICATE NO. 76131 JOSHUA BROWN Date Signed 03/19/25 ARIZONA, U.S.A.

REVISIONS NO.	DATE	REMARKS	BY
1	03/25	RVSD CALLOUT TO SHOW 2 LIFTS	JEB

DESIGN	JEB	WCEA NO. 1710009012	DATE	2025	
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 4	OF 120	
CHECK	ASF				

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\SHEET_2\TYPICAL SECTIONS.DWG3/19/2025 4:54 PM

REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	10	120

N12 Agency Line to Wheatfields Lake
AZ
SUMMARY OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANT
15101-0000	MOBILIZATION	LPSM	1
15201-0000	CONSTRUCTION SURVEY & STAKING	LPSM	1
15701-0000	SOIL EROSION CONTROL	LPSM	1
20102-0000	CLEARING AND GRUBBING	LPSM	1
20304-1000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LPSM	1
20401-0000	ROADWAY EXCAVATION	CUYD	101,650
20403-0000	UNCLASSIFIED BORROW	CUYD	0
20410-0000	SELECT BORROW	CUYD	3,800
21301-0000	SUBGRADE STABILIZATION (12")	SQYD	227,800
25101-0205	PLACED RIPRAP, METHOD A, CLASS 2, WIRE ENCLOSED	CUYD	463
25110-0100	GROUTED RIPRAP, METHOD A, CLASS 1, TYPE M RIPRAP	CUYD	12
25110-0300	GROUTED RIPRAP, METHOD A, CLASS 3	CUYD	58
25110-0700	GROUTED RIPRAP, METHOD A, CLASS 7	CUYD	20
25110-0900	GROUTED RIPRAP, METHOD A, CLASS 9	CUYD	12
25701-0100	CONTRACTOR FURNISHED GABION WALL DESIGN	LPSM	1
30101-0000	AGGREGATE BASE	TON	85,200
40301-0100	ASPHALT CONCRETE PAVEMENT, TYPE 1	TON	39,050
41101-1000	PRIME COAT MATERIAL	TON	291
41201-0000	TACK COAT	TON	48
55201-0100	STRUCTURAL CONCRETE, CLASS A	CUYD	52
55401-1000	REINFORCING STEEL, GRADE 420	LB	1,608
60201-0800	24-INCH PIPE CULVERT	LNFT	3,610
60201-0900	30-INCH PIPE CULVERT	LNFT	1,069
60201-1000	36-INCH PIPE CULVERT	LNFT	312
60201-1200	48-INCH PIPE CULVERT	LNFT	102
60201-1400	60-INCH PIPE CULVERT	LNFT	208
60202-2100	144-INCH EQUIVALENT DIAMETER ARCH OR ELLIPTICAL PIPE CULVERT	LNFT	165
60210-0800	END SECTION FOR 24-INCH PIPE CULVERT	EACH	102
60210-0900	END SECTION FOR 30-INCH PIPE CULVERT	EACH	30
60210-1000	END SECTION FOR 36-INCH PIPE CULVERT	EACH	8
60210-1200	END SECTION FOR 48-INCH PIPE CULVERT	EACH	2
60210-1400	END SECTION FOR 60-INCH PIPE CULVERT	EACH	4
61701-5000	GUARDRAIL SYSTEM SGR04b, TYPE PDE02 W/MSKT-TL3-8 TERMINAL & THRIE E	LNFT	4,043
61701-5100	GUARDRAIL SYSTEM MGS, TYPE 4, CLASS B STEEL POSTS, REMOVABLE	LNFT	55
61801-0000	CONCRETE BARRIER	LNFT	470
61901-1000	FENCE, BARBED WIRE, 5 STRAND	LF	75,910
61902-0000	PEDESTRIAN/CATTLE GUARD	EACH	2
61902-1100	GATE, METAL, TYPE 1, 10' WIDTH	EACH	1
61902-1400	GATE, METAL, TYPE 1, 16' WIDTH	EACH	1
61902-2600	GATE, BARBED WIRE, 5 STRAND, 16' WIDTH	EACH	2
61903-0300	CATTLE GUARD, 16 FEET	EACH	18
61903-0700	CATTLE GUARD, 24 FEET	EACH	10
61903-1500	CATTLE GUARD, 40 FEET	EACH	1
62510-1000	SEEDING, DRY METHOD	ACRE	79
63304-0400	SIGNS, STEEL PANELS, TYPE 9 SHEETING	SQFT	595
63305-0200	POSTS, STEEL, 2-INCH DIAMETER	LNFT	4,244
63308-2000	OBJECT MARKER, TYPE 2	EACH	110
63309-0010	DELINEATOR, TYPE 1a	EACH	86
63309-0020	DELINEATOR, TYPE 1b	EACH	339
63401-1510	PAVEMENT MARKINGS, TYPE H, SOLID YELLOW	LNFT	25,031
63401-1520	PAVEMENT MARKINGS, TYPE H, SOLID WHITE	LNFT	75,368
63401-1524	PAVEMENT MARKINGS, TYPE H, SOLID WHITE, 24"	LNFT	360
63401-1610	PAVEMENT MARKINGS, TYPE H, BROKEN YELLOW	LNFT	7,773
63405-2900	PAVEMENT MARKINGS, TYPE H, TURN ARROW	EACH	4
63501-0000	TEMPORARY TRAFFIC CONTROL	LPSM	1
	Pre-Fabricated Arch Bridge		
20301-0400	REMOVAL OF BRIDGE	LPSM	1
20801-0000	STRUCTURE EXCAVATION	CUYD	1,387
20803-0000	STRUCTURAL BACKFILL	CUYD	1,762
25101-2200	PLACED RIPRAP, CLASS 2	CUYD	423
55101-6200	CONCRETE FILLED STEEL PIPE PILE (18"), IN PLACE	LNFT	1,320
55104-1000	DYNAMIC PILE LOAD TEST	EACH	4
55115-1000	PREBORING	LNFT	1,280
55401-2000	REINFORCING STEEL, EPOXY COATED	LBS	19,395
56302-1000	PAINTING, CONCRETE STRUCTURE	SQFT	4,622
56501-0300	STRUCTURAL CONCRETE CLASS A (AE) (4000 psi)	CUYD	131
58001-0000	CONTECH PRECAST BRIDGE	LPSM	1

STATION	TO	STATION	LOCATION	PAVEMENT MARKINGS, SOLID YELLOW, TYPE "H" 63401-1510 LF	PAVEMENT MARKINGS, SOLID WHITE TYPE "H" 63401-1520 LF	24" SOLID WHITE STOP BAR (10' LENGTH) 63401-1524 LF	PAVEMENT MARKINGS, BROKEN YELLOW, TYPE "H" 63401-1610 LF	PAVEMENT MARKINGS, TYPE "H" LEFT TURN ARROW 63405-2900 EACH	NOTE
889+76.00		1269+68.50	LT		37993				
889+76.00		1269+68.50	RT		37993				
889+76.00		900+00.00	LT	1024					
889+76.00		900+00.00	RT				256		
900+00.00		910+00.00	LT	1000					
900+00.00		910+00.00	RT	1000					
910+00.00		919+00.00	LT	900					
910+00.00		919+00.00	RT				225		
919+00.00		951+50.00	CL				813		
951+50.00		953+00.00	LT				38		
951+50.00		953+00.00	RT	150					
953+00.00		960+00.00	CL				175		
960+00.00		962+00.00	LT	200					
960+00.00		962+00.00	RT				50		
962+00.00		969+50.00	CL				188		
969+50.00		975+00.00	LT				138		
969+50.00		975+00.00	RT	550					
975+00.00		978+00.00	CL				75		
978+00.00		984+00.00	LT	600					
978+00.00		984+00.00	RT				150		
984+00.00		989+00.00	CL				125		
989+00.00		992+00.00	LT				75		
989+00.00		992+00.00	RT	300					
992+00.00		998+00.00	CL				150		
998+00.00		1001+00.00	LT	300					
998+00.00		1001+00.00	RT				75		
1001+00.00		1029+50.00	CL				713		
1029+50.00		1035+00.00	LT				138		
1029+50.00		1035+00.00	RT	550					
1035+00.00		1038+00.00	CL				75		
1038+00.00		1045+00.00	LT	700					
1038+00.00		1045+00.00	RT				175		
1045+00.00		1074+00.00	CL				725		
1074+00.00		1080+50.00	LT				163		
1074+00.00		1080+50.00	RT	650					
1080+50.00		1083+00.00	CL				63		
1083+00.00		1089+00.00	LT	600					
1083+00.00		1089+00.00	RT				150		
1089+00.00		1090+50.00	LT	150					
1089+00.00		1090+50.00	RT	150					
1090+50.00		1100+00.00	LT	950					
1090+50.00		1100+00.00	RT				238		
1100+00.00		1173+50.00	CL				1838		
1173+50.00		1214+50.00	LT	4100					
1173+50.00		1214+50.00	RT	4100					
1214+50.00		1217+50.00	LT	600					TURN BAY
1214+50.00		1217+50.00	RT	600					TURN BAY
1217+50.00		1219+10.00	LT	320					TURN BAY
1217+75.00		1219+10.00	RT		405				12" WHITE
1217+75.00		1219+10.00	CL					2	TURN BAY
1219+75.00		1220+75.00	RT		300				12" WHITE
1219+75.00		1220+75.00	CL					2	TURN BAY
1219+75.00		1221+40.00	RT	330					TURN BAY
1221+40.00		1231+00.00	LT	1920					TURN BAY
1221+40.00		1231+00.00	RT	1920					TURN BAY
1231+00.00		1232+67.00	LT	167					
1231+00.00		1232+67.00	RT				42		
1232+67.00		1247+00.00	CL				358		
1247+00.00		1253+00.00	LT				150		
1247+00.00		1253+00.00	RT	600					
1253+00.00		1256+00.00	CL				75		
1256+00.00		1262+00.00	LT	600					
1256+00.00		1262+00.00	RT				150		
1262+00.00		1269+69.00	CL				192		
Turnouts		36			-2842	360			DWY GAP
				25031	73848	360	7773	4	

SURFACING SCHEDULE

STATION TO STATION		LOCATION	DESCRIPTION	21301-0000 SUBGRADE STABILIZATION LENGTH (FT)	WIDTH (FT)	AREA (SY)	30101-0000 AGGREGATE BASE WIDTH (FT)	DEPTH (IN)	(SY)	(TON)	40301-0100 ASPHALT CONCRETE PAVEMENT, TYPE 1 WIDTH (FT)	DEPTH (IN)	(SY)	(TON)	41201-0000 TACK COAT WIDTH (FT)	(TON)	41101-1000 PRIME COAT WIDTH (FT)	(TON)
N12																		
889+76.38	1269+68.50	LT & RT	2-12' DRIVING LANES, 2-8' SHOULDER/4' PAVED	37992	40	168854	40	8	168854	64840	32.00	2.50	135083	18363	32.00	45.03	32.00	211.1
889+76.38	1269+68.50	LT & RT	2-12' DRIVING LANES, 2-8' SHOULDER/4' PAVED	37992							32.00	2.50	135083	18363	0.00	0.00	0.00	0.0
889+76.38	1269+68.50	LT & RT	TAPERS	37992	13	54878	7	13	27439	17122					0.00	0.00	13.00	68.6
1189+40.00	1196+25.00	RT	WHEATFIELDS REC AREA PAVING			3996		8	3996	1534		2.50	3996	543		1.33		5.0
1189+40.00	1196+25.00	RT	WHEATFIELDS REC AREA PAVING									2.50	3996	543				
					AREA (SF)													
896+64	16' Wide	RT	TO-1					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
928+00	16' Wide	LT	TO-2					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
928+68	16' Wide	RT	TO-3					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
959+42	16' Wide	RT	TO-4					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
980+92	16' Wide	LT	TO-5					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
987+95	16' Wide	RT	TO-6					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1039+96	16' Wide	RT	TO-7					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1044+51	16' Wide	LT	TO-8					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1050+54	16' Wide	RT	TO-9					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1061+18	24' Wide	RT	TO-10					8	160	62		5.00	160	44	16.00	0.05	16.00	0.20
1063+24	16' Wide	LT	TO-11					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1093+15	16' Wide	RT	TO-12					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1101+58	16' Wide	RT	TO-13					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1105+19	16' Wide	LT	TO-14					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1110+50	16' Wide	LT	TO-15					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1113+45	16' Wide	RT	TO-16					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1126+25	16' Wide	RT	TO-17					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1140+01	24' Wide	LT	TO-18					8	160	62		5.00	160	44	16.00	0.05	16.00	0.20
1149+22	16' Wide	RT	TO-19					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1168+32	16' Wide	RT	TO-20					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1190+15	16' Wide	LT	TO-21					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1191+32	24' Wide	LT	TO-22					8	160	62		5.00	160	44	16.00	0.05	16.00	0.20
1195+55	24' Wide	LT	TO-23					8	160	62		5.00	160	44	16.00	0.05	16.00	0.20
1206+95	24' Wide	LT	TO-24					8	160	62		5.00	160	44	16.00	0.05	16.00	0.20
1211+85	24' Wide	RT	TO-25					8	160	62		5.00	160	44	16.00	0.05	16.00	0.20
1215+52	24' Wide	RT	TO-26					8	160	62		5.00	160	44	16.00	0.05	16.00	0.20
1219+48	24' Wide	RT	TO-27					8	160	62		5.00	160	44	16.00	0.05	16.00	0.20
1219+48	24' Wide	LT	TO-28					8	160	62		5.00	160	44	16.00	0.05	16.00	0.20
1227+87	16' Wide	RT	TO-29					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1235+29	16' Wide	LT	TO-30					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1240+40	24' Wide	RT	TO-31					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1246+73	16' Wide	LT	TO-32					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1249+25	16' Wide	RT	TO-33					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
1261+22	16' Wide	LT	TO-34					8	118	45		5.00	118	32	16.00	0.04	16.00	0.15
			N12 Estimate			227800				85200				39050		48		291

* FOR CONTRACTORS INFORMATION ONLY - ACTUAL WEIGHTS, PERCENTS AND APPLICATION RATES TO BE DETERMINED BY THE APPROVED PAVEMENT DESIGN AND PROJECT MANAGER

61701-5000

GUARDRAIL SYSTEM SGR04b, Type PDE02 W/MSKT-TL3-8 TERMINAL SECTION
THRIE BEAM & CONCRETE TRANSITION, TYPE A INSTALLATION

STATION	To	STATION	LT/RT	LENGTH (FT)	DESCRIPTION	REMARKS
891+53.00	To	894+28.00	RT	275.000	Std Guardrail SGR04 with End Treatment, MSKT-TL3-8, Thrie Beam Trns	MB-01
892+57.00	To	894+28.00	LT	171.000	Std Guardrail SGR04 with End Treatment, MSKT-TL3-8, Thrie Beam Trns	MB-02
895+43.00	To	896+26.00	RT	83.000	Std Guardrail SGR04 with End Treatment, MSKT-TL3-8, Thrie Beam Trns	MB-03
895+43.00	To	898+22.00	LT	279.000	Std Guardrail SGR04 with End Treatment, MSKT-TL3-8, Thrie Beam Trns	MB-04
937+55.00	To	938+25.00	RT	70.000	Std Guardrail SGR04 with End Treatment, Thrie Beam Trns	RETAINING BARRIER
940+60.00	To	941+30.00	RT	70.000	Std Guardrail SGR04 with End Treatment, Thrie Beam Trns	RETAINING BARRIER
1189+35.00	To	1192+76.00	RT	341.000	Std Guardrail SGR04 with End Treatment, MSKT-TL3-8	MB-05
1193+61.00	To	1195+13.00	RT	152.000	Std Guardrail SGR04 with End Treatment, MSKT-TL3-8	MB-06
1195+97.00	To	1211+44.00	RT	1547.000	Std Guardrail SGR04 with End Treatment, MSKT-TL3-8	MB-07
1195+96.00	To	1206+51.00	LT	1055.000	Std Guardrail SGR04 with End Treatment, MSKT-TL3-9	MB-08
			TOTAL	4043.000		

* Note: Length given are Station-To-Station Length and does not reflect actual length of the railings & beams

61701-5100

GUARDRAIL SYSTEM MGS, TYPE 4, CLASS B STEEL POSTS
THRIE BEAM & CONCRETE TRANSITION, TYPE A INSTALLATION

STATION	To	STATION	LT/RT	LENGTH (FT)	DESCRIPTION	REMARKS
1201+55.00	To	1202+10.00	RT	55.000	REMOVABLE GUARDRAIL SYSTEM FOR MAINTENANCE VEHICLES ON DAM	SEE PLANS
			TOTAL	55.000		

63309-0020 DELINEATOR, TYPE 1b

Curve #	STATION	TO	STATION	Radius	Length	Spacing	Quantity
1	889+76		919+26	5728.35	2950	90	66
2	928+24		954+08	2758.00	2584	90	57
3	1033+72		1053+99	4642.39	2027	90	45
4	1077+70		1083+35	4921.26	565	90	13
5	1129+90		1169+87	2864.17	3997	90	89
6	1173+79		1188+05	2926.51	1426	90	32
7	1189+45		1196+25	2985.56	680	90	15
8	1207+95		1215+56	1500.00	761	90	17
9	1245+56		1248+16	5757.85	260	90	6
							339

63309-0010 DELINEATOR, TYPE 1a

Tangent#	STATION	TO	STATION	Radius	Length	Spacing	Quantity
1	919+26		928+24		898	530	3
2	954+08		1033+72		7964	530	30
3	1053+99		1077+70		2371	530	9
4	1083+35		1129+90		4655	530	18
5	1169+87		1173+79		392	530	1
6	1188+05		1189+45		140	530	1
7	1196+25		1207+95		1170	530	4
8	1215+56		1245+56		3000	530	11
9	1248+16		1269+68		2152	530	8
							86

61801-0000 Concrete Barrier

LT/RT	STATION	TO	STATION	TOTAL	COMMENT
RT	938+20		940+60	240	RETAINING BARRIER
RT	894+28		895+43	115	CONCRETE BARRIER ON BRIDGE
RT	894+28		895+43	115	CONCRETE BARRIER ON BRIDGE
				470	

SURFACING FACTORS

ITEMS	41201-0000 TACK COAT (GAL/SY)	41101-1000 PRIME COAT (GAL/SY)	* UNIT WEIGHT (LBS/CY)	* UNIT VOLUME (GAL/TON)
UNTREATED BASE COURSE			3456	
HMA SP-III			3915	
TACK COAT	0.080			240
PRIME COAT		0.300		240

*** FOR CONTRACTORS INFORMATION ONLY - ACTUAL WEIGHTS, PERCENTS AND APPLICATION RATES TO BE DETERMINED BY THE APPROVED PAVEMENT DESIGN AND PROJECT MANAGER**

62510-1000 SEEDING, DRY METHOD

STATION	TO	STATION	DESCRIPTION	Length (ft)	Width (ft)	N12 QUANTITY (ACRE)	QUANTITY (ACRE)
889+76.00		1269+69.00	PROJECT LIMITS	37993	90	78	
PROJECT TOTAL						78	
PROJECT USE						79	

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

Registered Professional Engineer (Civil) CERTIFICATE NO. 76131 JOSHUA BROWN Date Signed 03/19/2025 ARIZONA, U.S.A.

ROUTE N12

SUMMARY OF QUANTITIES 1

REVISIONS NO.	DATE	REMARKS	BY
1	03/25	UPDATED QUANTITIES	JEB

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 10 OF 120
CHECK	ASF		

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\SHEET_4\QUANTITIES.DWG3/19/2025 5:31 PM

REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	11	120

		CATTLE GUARDS				FENCE GATES		
		61903-0300	61903-0700	61903-1500	61902-0000	61902-1100	61902-1400	61902-2600
Station	RT/LT	CATTLE GUARD, 16 FEET	CATTLE GUARD, 24 FEET	CATTLE GUARD, 40 FEET	PEDESTRIAN CATTLE GUARD	GATE, METAL, TYPE 1, 10' WIDTH	GATE, METAL, TYPE 1, 16' WIDTH	GATE, BARBED WIRE, 5 STRAND, 16' WIDTH
BOP				1	1			
895+95	LT					1	1	
896+64	RT	1						
928+00	LT						1	
928+68	RT						1	
959+42	RT							
980+92	LT						1	
987+95	RT						1	
1039+96	RT	1					1	
1044+51	LT						1	
1050+54	RT	1						
1061+18	RT		1					
1063+24	LT	1						
1093+15	RT	1						
1101+58	RT	1						1
1105+19	LT	1						1
1110+50	LT	1						
1113+45	RT	1						
1126+25	RT	1						
1140+01	LT		1					
1149+22	RT	1						
1168+32	RT	1					1 *	
1190+15	LT	1						
1191+32	LT		1					
1195+55	LT		1					
1206+95	LT		1					
1211+85	RT		1		2			
1215+52	RT		1					
1219+48	RT		1					
1219+48	LT		1					
1227+87	RT	1						
1235+29	LT	1						
1240+40	RT		1					
1246+73	LT	1						
1249+25	RT	1						
1261+22	LT	1						
		18	10	1	2	1	7	2

*Sta 1175+40RT mntce gate for access to lake

		63304-0400						63305-0200		
SIGN CODE	SIGN AREA (SF)	NO. OF SIGNS	SIGNS, STEEL PANELS, TYPE 9 SHEETING (SQFT)	POST SIZE	TOTAL INSTALLS	POST SIZE SIGN AREA	POST SIZE SIGN AREA	POST SIZE SIGN AREA	POSTS, STEEL, 2-INCH DIAMETER NO.	POSTS, STEEL, 2-INCH DIAMETER TOTAL LENGTH	NOTES
R1-1	6	35	219	1.75	35	219			35	420.00	stop
R2-1	5	8	40	1.75	8	40			8	96.00	speed limit
R4-1	3	17	51	1.75	17	51			17	187.00	do not pass
W11-4	6	1	6	1.75	1	6			1	12.00	cow
W14-2	6	1	6	1.75	1	6			1	12.00	no outlet
W14-3	8	17	142	2.25	17			142	17	374.00	no pass zone
W1-5L	6	1	6	1.75	1	6			1	12.00	curves ahead
W2-2L	6	1	6	1.75	1	6			1	12.00	turnout left
W2-2R	6	1	6	1.75	1	6			1	12.00	turnout rt
W1-2R	6	5	31	1.75	5	31			5	60.00	right bend
W1-2L	6	4	25	1.75	4	25			4	48.00	left bend
W1-4L	6	2	13	1.75	2	13			2	24.00	veer left
W3-5	6	2	13	1.75	2	13			2	24.00	reduce speed ahead
D10-2	2	12	23	1.75	12	23			12	144.00	mile markers
M1-6	3	2	5	1.75	2	5			2	22.00	C270 rd sign
D3-1	2	2	4	1.75	2	4			2	20.00	road signs
SUBTOTAL			595							1479	
N12 USE			**595**								

								63305-0200		
SIGN CODE	SIGN AREA (SF)	NO. OF SIGNS	SIGNS, STEEL PANELS, TYPE 9 SHEETING (SQFT)	POST SIZE	TOTAL INSTALLS	POST SIZE SIGN AREA	POST SIZE SIGN AREA	POST SIZE SIGN AREA	POSTS, STEEL, 2-INCH DIAMETER NO.	POSTS, STEEL, 2-INCH DIAMETER TOTAL LENGTH	NOTES
OM2		110	0		110				110	1100.00	culvert markers
SUBTOTAL									110	2765	
N12 USE			**0**				**63308-2000**		**110**	**4244**	

ITEM No. 61901-1000: FENCE, BARBED WIRE, 5-STRAND

STATION	To	STATION	LOC.	LENGTH (m)	REMARKS
889+76.38	To	889+76.38	Rt.	50.00	BOP ROW to Roadway Cattle Guard
889+76.38	To	894+43.86	Rt.	492.00	BOP to Bridge
895+33.91	To	896+50.68	Rt.	144.00	Bridge to Cattleguard
896+77.58	To	928+59.90	Rt.	3215.00	Cattleguard to Gate
928+76.35	To	959+33.29	Rt.	2992.00	Gate to Exst Gate
959+51.16	To	987+87.13	Rt.	2884.00	Exst Gate to Gate
988+03.13	To	1039+82.67	Rt.	5194.00	Gate to Cattleguard
1040+09.50	To	1040+21.19	Rt.	17.00	Cattleguard to Gate
1040+36.94	To	1050+40.23	Rt.	1024.00	Gate to Cattleguard
1050+67.05	To	1061+00.54	Rt.	1049.00	Cattleguard to Cattleguard
1061+35.73	To	1093+01.54	Rt.	3185.00	Cattleguard to Cattleguard
1093+28.73	To	1101+44.54	Rt.	826.00	Cattleguard to Cattleguard
1101+71.73	To	1113+31.72	Rt.	1170.00	Cattleguard to Cattleguard
1113+58.91	To	1126+11.54	Rt.	1263.00	Cattleguard to Cattleguard
1126+38.73	To	1149+08.42	Rt.	2230.00	Cattleguard to Cattleguard
1149+36.21	To	1168+18.15	Rt.	1843.00	Cattleguard to Cattleguard
1168+45.94	To	1175+41.69	Rt.	702.00	Cattleguard to T in fence
1175+41.69	To	1175+41.69	Rt.	50.00	ROW fence T to Mntce gate
1175+41.69	To	1189+58.61	Rt.	1470.00	ROW fence T to Rec Are Guardrail
1211+20.40	To	1211+60.08	Rt.	44.00	Lake to Ped Crossing
1211+64.55	To	1211+68.16	Rt.	5.00	Ped Crossing to Cattle Guard
1212+02.02	To	1215+35.22	Rt.	357.00	Cattleguard to Cattleguard
1215+69.55	To	1219+30.53	Rt.	368.00	Cattleguard to Cattleguard
1219+65.72	To	1227+73.53	Rt.	816.00	Cattleguard to Cattleguard
1228+00.72	To	1240+22.48	Rt.	1231.00	Cattleguard to Cattleguard
1240+57.67	To	1249+11.53	Rt.	867.00	Cattleguard to Cattleguard
1249+38.72	To	1269+68.50	Rt.	2035.00	Cattleguard to EOP
889+76.38	To	889+76.38	Lt.	50.00	BOP ROW to Roadway Cattle Guard
889+76.38	To	894+42.83	Lt.	481.00	Tie to Bridge
895+95.52	To	895+98.92	Lt.	25.00	Replace landowner fence inside detour TCE
984+17.86	To	897+11.30	Lt.	295.00	Replace landowner fence inside detour TCE
895+34.64	To	927+92.12	Lt.	3274.00	Bridge to Gate
928+08.12	To	980+84.12	Lt.	5404.00	Gate to Gate
981+00.16	To	1044+43.27	Lt.	6327.00	Gate to Gate
1044+59.53	To	1063+10.54	Lt.	1863.00	Gate to Cattleguard
1063+37.73	To	1105+05.67	Lt.	4170.00	Cattleguard to Cattleguard
1105+32.86	To	1110+36.70	Lt.	515.00	Cattleguard to Cattleguard
1110+63.89	To	1139+84.11	Lt.	2956.00	Cattleguard to Cattleguard
1140+18.55	To	1190+01.81	Lt.	5034.00	Cattleguard to Cattleguard
1190+28.44	To	1191+14.99	Lt.	98.00	Cattleguard to Cattleguard
1191+49.44	To	1195+37.91	Lt.	408.00	Cattleguard to Cattleguard
1195+72.31	To	1206+77.45	Lt.	1147.00	Cattleguard to Cattleguard, through dam
1207+12.63	To	1211+31.90	Lt.	405.00	Cattleguard to Ped Crossing
1211+38.21	To	1219+30.55	Lt.	775.00	Ped Crossing to Cattle Guard
1219+65.74	To	1235+15.53	Lt.	1558.00	Cattleguard to Cattleguard
1235+42.71	To	1246+59.40	Lt.	1125.00	Cattleguard to Cattleguard
1246+86.89	To	1261+08.52	Lt.	1429.00	Cattleguard to Cattleguard
1261+35.71	To	1269+68.50	Lt.	837.00	Cattleguard to EOP
				Sub-Total	**73699.00**
				****Total**	**75909.97**

** 3% Added to Account for Terrain

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REMOVAL OF STRUCTURES AND OBSTRUCTIONS 20304-1000

STATION	TO	STATION	LOCATION	LN FT	EACH	REMARKS
N12 (13-2) 1,2 & 4						
889+78	To	894+00	RT	422		REMOVE EXISTING FENCE
895+40	To	932+00	RT	3660		REMOVE EXISTING FENCE
950+50	To	973+00	RT	2250		REMOVE EXISTING FENCE
1039+00	To	1047+00	RT	800		REMOVE EXISTING FENCE
1092+50	To	1093+50	RT	100		REMOVE EXISTING FENCE
1100+50	To	1102+00	RT	150		REMOVE EXISTING FENCE
889+78	To	894+00	LT	422		REMOVE EXISTING FENCE
895+00	To	935+50	LT	4050		REMOVE EXISTING FENCE
1049+00	To	1062+00	LT	1300		REMOVE EXISTING FENCE
892+39	To	894+40	RT	201		REMOVE EXISTING GUARDRAIL
892+88	To	894+40	LT	152		REMOVE EXISTING GUARDRAIL
895+37	To	896+14	RT	77		REMOVE EXISTING GUARDRAIL
895+38	To	896+37	LT	99		REMOVE EXISTING GUARDRAIL
895+96	To	895+99	LT	25		REMOVE LANDOWNER FENCE INSIDE DETOUR TCE
984+18	To	897+11.30	LT	295		REMOVE LANDOWNER FENCE INSIDE DETOUR TCE
895+98	To	895+98	LT		1	REMOVE LANOWNER 10' GATE INSIDE DETOUR TCE
1195+95	To	1201+55	RT	560		REMOVE GUARDRAIL
1196+88	To	1206+75	LT	987		REMOVE GUARDRAIL
1201+55	To	1202+10	RT	55		REMOVE REMOVABLE GUARDRAIL FOR MNTCE VEHICLES
1202+10	To	1211+30	RT	920		REMOVE GUARDRAIL
1205+30	To	1206+75	LT		1	EXISTING DROP STRUCTURE AT DAM
				931		EXISTING 24" CULVERT TO BE REMOVED
				724		EXISTING 30" CULVERT TO BE REMOVED
				1176		EXISTING 36" CULVERT TO BE REMOVED
				513		EXISTING 42" CULVERT TO BE REMOVED
				75		EXISTING 54" CULVERT TO BE REMOVED
				86		EXISTING 60" CULVERT TO BE REMOVED
				76		EXISTING 78" CULVERT TO BE REMOVED
				76		EXISTING 84" CULVERT TO BE REMOVED

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EARTHWORK SUMMARY

STATION	TO	STATION	DESCRIPTION	20401-0000 ROADWAY EXCAVATION CY	EMBANKMENT CY	20403-0000 UNCLASSIFIED BORROW CY	WASTE CY	20410-0000 SELECT BORROW CY
889+76.38		1269+68.50	2-12' DRIVING LANES, 8' SHOULDERS WITH TAPER	98278	84532		13746	
10+50.00		21+00.00	BRIDGE DETOUR	3327	3908		-581	
1198+00.00		1206+00.00	DAM FILL SLOPE					3765
PROJECT TOTAL				101605		0	13165	3765
PROJECT USE				**101650**		**0**	**13200**	**3800**

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55201-0100	STRUCTURAL CONCRETE, CLASS A										55401-1000 REINFORCING
ID	W1	D1	H1	W2	D2	H2	W3	D3	H3	Volume (CY)	LBS
Drop Struct1	24.00	1.00	5.00	24.00	1.00	5.00	30.75	1.00	3.00	**12.31**	**322**
Drop Struct2	24.00	1.00	5.00	24.00	1.00	5.00	30.75	1.00	3.00	**12.31**	**322**
Drop Struct3	24.00	1.00	5.00	24.00	1.00	5.00	30.75	1.00	3.00	**12.31**	**322**
Drop Struct4	24.00	1.00	5.00	24.00	1.00	5.00	30.75	1.00	3.00	**12.31**	**322**
Drop Struct5	24.00	1.00	5.00	24.00	1.00	5.00	30.75	1.00	3.00	**12.31**	**322**
										62	**1608**

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

SUMMARY OF QUANTITIES 2

Registered Professional Engineer (Civil) CERTIFICATE NO. 76131 JOSHUA BROWN Date Signed 03/19/2025 ARIZONA, U.S.A.

REVISIONS NO.	DATE	REMARKS	BY
1	03/25	UPDATED QUANTITIES	JEB

DESIGN JEB	WCEA NO. 1710009012	DATE 2025	
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 11 OF 120	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\SHEET_4\QUANTITIES.DWG3/19/2025 5:00 PM

REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	12	120

DRAINAGE STRUCTURES

DS	STATION	Exst Size (in)	Exst Length (ft)	New Size (in)	New Length (ft)	60201-0800 24" CULVERT PIPE LENGTH (FT)	60210-0800 24" CULVERT PIPE END SECTION EACH	60201-0900 30" CULVERT PIPE LENGTH (FT)	60210-0900 30" CULVERT PIPE END SECTION EACH	60201-1000 36" CULVERT PIPE LENGTH (FT)	60210-1000 36" CULVERT PIPE END SECTION EACH	60201-1200 48" CULVERT PIPE LENGTH (FT)	60210-1200 48" CULVERT PIPE END SECTION EACH	60201-1400 60" CULVERT PIPE LENGTH (FT)	60210-1400 60" CULVERT PIPE END SECTION EACH	25101-0205 Wire Enclosed Riprap, Class 2 (CY)
N12																
ds-1	898+92.	24	54	24	75	75	2	0	0	0	0	0	0	0	0	6
ds-2	905+87.	36	83	24	112	112	2	0	0	0	0	0	0	0	0	6
ds-3	920+03.	42	56	24	71	71	2	0	0	0	0	0	0	0	0	6
ds-4	925+29.	78	76	48	102	0	0	0	0	0	0	102	2	0	0	11
ds-5	935+97	24	82	24	108	108	2	0	0	0	0	0	0	0	0	6
ds-6	942+19	24	84	24	110	110	2	0	0	0	0	0	0	0	0	6
ds-7	943+69.	30	107	24	135	135	2	0	0	0	0	0	0	0	0	6
ds-8	945+82.	36	78	24	113	113	2	0	0	0	0	0	0	0	0	6
ds-9	955+06	42	72	36	72	0	0	0	0	72	2	0	0	0	0	8
ds-10	959+66	36	58	24	71	71	2	0	0	0	0	0	0	0	0	6
ds-11	964+87	36	70	30	71	0	0	71	2	0	0	0	0	0	0	7
ds-12	968+50	54	75	36	80	0	0	0	0	80	2	0	0	0	0	8
ds-13	985+86	42	64	30	71	0	0	71	2	0	0	0	0	0	0	7
ds-14	994+35.	42	71	30	82	0	0	82	2	0	0	0	0	0	0	7
ds-15	999+06	30	66	24	71	71	2	0	0	0	0	0	0	0	0	6
ds-16	1002+25	42	51	36	69	0	0	0	0	69	2	0	0	0	0	8
ds-17	1009+36	36	69	24	87	87	2	0	0	0	0	0	0	0	0	6
ds-18	1019+91.	42	61	24	92	92	2	0	0	0	0	0	0	0	0	6
ds-19	1026+10	36	70	24	95	95	2	0	0	0	0	0	0	0	0	6
ds-20	1033+00	24	66	24	87	87	2	0	0	0	0	0	0	0	0	6
ds-21	1039+38.	60	86	24	114	114	2	0	0	0	0	0	0	0	0	6
ds-22	1048+10.	84	76	60	208	0	0	0	0	0	0	0	0	208	4	28
ds-23	1053+32.	24	57	30	308	0	8	308	8	0	0	0	0	0	0	28
ds-24	1062+05.	24	58	24	152	152	4	0	0	0	0	0	0	0	0	12
ds-25	1066+45	24	57	24	80	80	2	0	0	0	0	0	0	0	0	6
ds-26	1069+85	36	64	24	80	80	2	0	0	0	0	0	0	0	0	6
ds-27	1072+85	42	80	24	110	110	2	0	0	0	0	0	0	0	0	6
ds-28	1084+46	36	65	24	106	106	2	0	0	0	0	0	0	0	0	6
ds-29	1088+85	30	55	24	84	84	2	0	0	0	0	0	0	0	0	6
ds-30	1092+65.	36	56	24	78	78	2	0	0	0	0	0	0	0	0	6
ds-31	1100+84.	30	58	24	73	73	2	0	0	0	0	0	0	0	0	6
ds-32	1105+83.	30	54	24	77	77	2	0	0	0	0	0	0	0	0	6
ds-33	1112+83	30	56	30	73	0	0	73	2	0	0	0	0	0	0	7
ds-34	1119+93	42	58	24	86	86	2	0	0	0	0	0	0	0	0	6
ds-35	1124+53	30	53	30	72	0	0	72	2	0	0	0	0	0	0	7
ds-36	1130+28.	36	58	24	86	86	2	0	0	0	0	0	0	0	0	6
ds-37	1136+24	24	60			0	0	0	0	0	0	0	0	0	0	0
ds-38	1142+27	24	58			0	0	0	0	0	0	0	0	0	0	0
ds-39	1145+78.	24	67			0	0	0	0	0	0	0	0	0	0	0
ds-40	1162+28	30	84	30	95	0	0	95	2	0	0	0	0	0	0	7
ds-41	1170+78	30	56	24	86	86	2	0	0	0	0	0	0	0	0	6
ds-42	1174+16.	30	62	24	88	88	2	0	0	0	0	0	0	0	0	6
ds-43	1184+41	30	73	24	105	105	2	0	0	0	0	0	0	0	0	6
ds-44	1193+52.	24	101			0	0	0	0	0	0	0	0	0	0	0
ds-45	1219+70.	24	74			0	0	0	0	0	0	0	0	0	0	0
ds-46	1223+71	36	76	24	111	111	2	0	0	0	0	0	0	0	0	6
ds-47	1228+72	36	54	24	85	85	2	0	0	0	0	0	0	0	0	6
ds-48	1231+71	24	52	24	81	81	2	0	0	0	0	0	0	0	0	6
ds-49	1237+75	36	54	24	83	83	2	0	0	0	0	0	0	0	0	6
ds-50	1242+85.	36	58	24	87	87	2	0	0	0	0	0	0	0	0	6
ds-51	1248+42	36	58	30	75	0	0	75	2	0	0	0	0	0	0	7
ds-52	1261+13	36	83			0	0	0	0	0	0	0	0	0	0	0
ds-53	1266+55.	36	64	30	100	0	0	100	2	0	0	0	0	0	0	7
ds-54	1268+75	36	58	36	91	0	0	0	0	91	2	0	0	0	0	8
DSTO-01	896+64.			24	33	33	2	0	0	0	0	0	0	0	0	6
DSTO-03	928+68.			30	34	0	0	34	2	0	0	0	0	0	0	7
DSTO-06	987+95.			24	35	35	2	0	0	0	0	0	0	0	0	6
DSTO-09	1050+54.			24	48	48	2	0	0	0	0	0	0	0	0	6
DSTO-19	1149+22.			24	33	33	2	0	0	0	0	0	0	0	0	6
DSTO-21	1190+15.			24	36	36	2	0	0	0	0	0	0	0	0	6
DSTO-22	1191+32.			24	44	44	2	0	0	0	0	0	0	0	0	6
DSTO-23	1195+55.			24	44	44	2	0	0	0	0	0	0	0	0	6
DSTO-24	1206+95.			30	40	0	0	40	2	0	0	0	0	0	0	7
DSTO-25	1211+85.			24	55	55	2	0	0	0	0	0	0	0	0	6
DSTO-26	1215+52.			24	49	49	2	0	0	0	0	0	0	0	0	6
DSTO-28	1219+48.			30	48	0	0	48	2	0	0	0	0	0	0	7
DSTO-30	1235+29.			24	44	44	2	0	0	0	0	0	0	0	0	6
DSTO-32	1246+73.			24	34	34	2	0	0	0	0	0	0	0	0	6
DSTO-33	1249+25.			24	38	38	2	0	0	0	0	0	0	0	0	6
DSTO-34	1261+22.			24	38	38	2	0	0	0	0	0	0	0	0	6
N12 TOTAL						**3610**	**102**	**1069**	**30**	**312**	**8**	**102**	**2**	**208**	**4**	**463**

STRUCTURE RIPRAP FOR BRIDGE	AREA (SQFT)	LENGTH (FT)	25101-2200 Placed Riprap, Class 2 VOLUME (CY)
UNDER STRUCTURE	78	29	84
N. UPSTREAM WING	42	54	84
S. UPSTREAM WING	42	55	86
N. DOWNSTREAM WING	42	55	86
S. DOWNSTREAM WING	42	54	84
			423

FILTER FABRIC SHALL BE INSTALLED UNDER ALL RIPRAP (EXCEPT GROUTED RIPRAP AND CHECK DAMS) AND SHALL CONFORM TO SECTION 714, AND SHALL BE CONSIDERED INCIDENTAL TO RIPRAP BID ITEMS.

Drop Structure at Dam

25110-0300	GROUTED RIPRAP, METHOD A, CLASS 3					
ID	W1	L1	W2	L2	Area (SF)	Volume (CY)
Drop Struct1	22.00	5.00	22.00	9.20	312.40	11.57
Drop Struct2	22.00	5.00	22.00	9.20	312.40	11.57
Drop Struct3	22.00	5.00	22.00	9.20	312.40	11.57
Drop Struct4	22.00	5.00	22.00	9.20	312.40	11.57
Drop Struct5	22.00	5.00	22.00	9.20	312.40	11.57
						58

25110-0700	GROUTED RIPRAP, METHOD A, CLASS 7					
ID			W3	L3	Area (SF)	Volume (CY)
Drop Struct1			22.00	5.00	110.00	4.07
Drop Struct2			22.00	5.00	110.00	4.07
Drop Struct3			22.00	5.00	110.00	4.07
Drop Struct4			22.00	5.00	110.00	4.07
Drop Struct5			22.00	5.00	110.00	4.07
						20

25110-0900	GROUTED RIPRAP, METHOD A, CLASS 9					
ID			W3	L3	Area (SF)	Volume (CY)
Drop Struct1			22.00	3.00	66.00	2.44
Drop Struct2			22.00	3.00	66.00	2.44
Drop Struct3			22.00	3.00	66.00	2.44
Drop Struct4			22.00	3.00	66.00	2.44
Drop Struct5			22.00	3.00	66.00	2.44
						12

25110-0100	GROUTED RIPRAP, METHOD A, CLASS 1, TYPE M RIPRAP					
ID			W3	L3	Area (SF)	Volume (CY)
Drop Struct1			22.00	3.00	66.00	2.44
Drop Struct2			22.00	3.00	66.00	2.44
Drop Struct3			22.00	3.00	66.00	2.44
Drop Struct4			22.00	3.00	66.00	2.44
Drop Struct5			22.00	3.00	66.00	2.44
						12

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

SUMMARY OF QUANTITIES 3

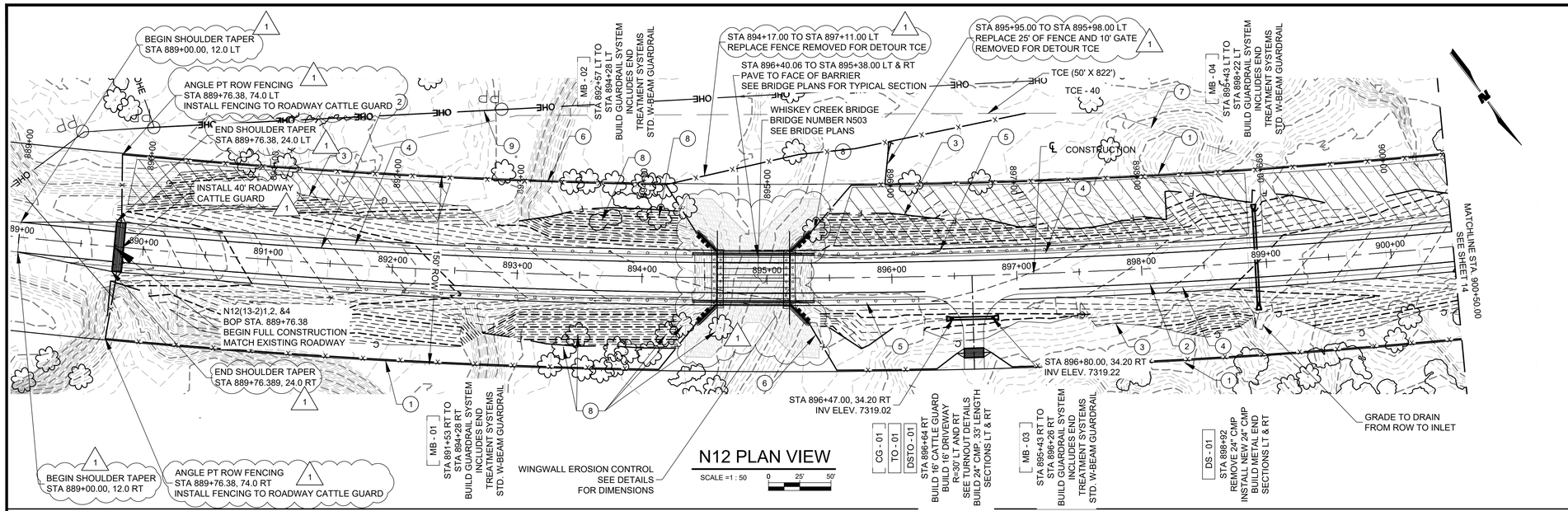
Registered Professional Engineer (Civil) CERTIFICATE NO. 76131 JOSHUA BROWN Date Signed 03-19-25 ARIZONA, U.S.A.

REVISIONS NO.	DATE	REMARKS	BY
1	03/25	UPDATED QUANTITIES	JEB

DESIGN JEB	WCEA NO. 1710009012	DATE 2025	
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 12 OF 120	
CHECK ASF			

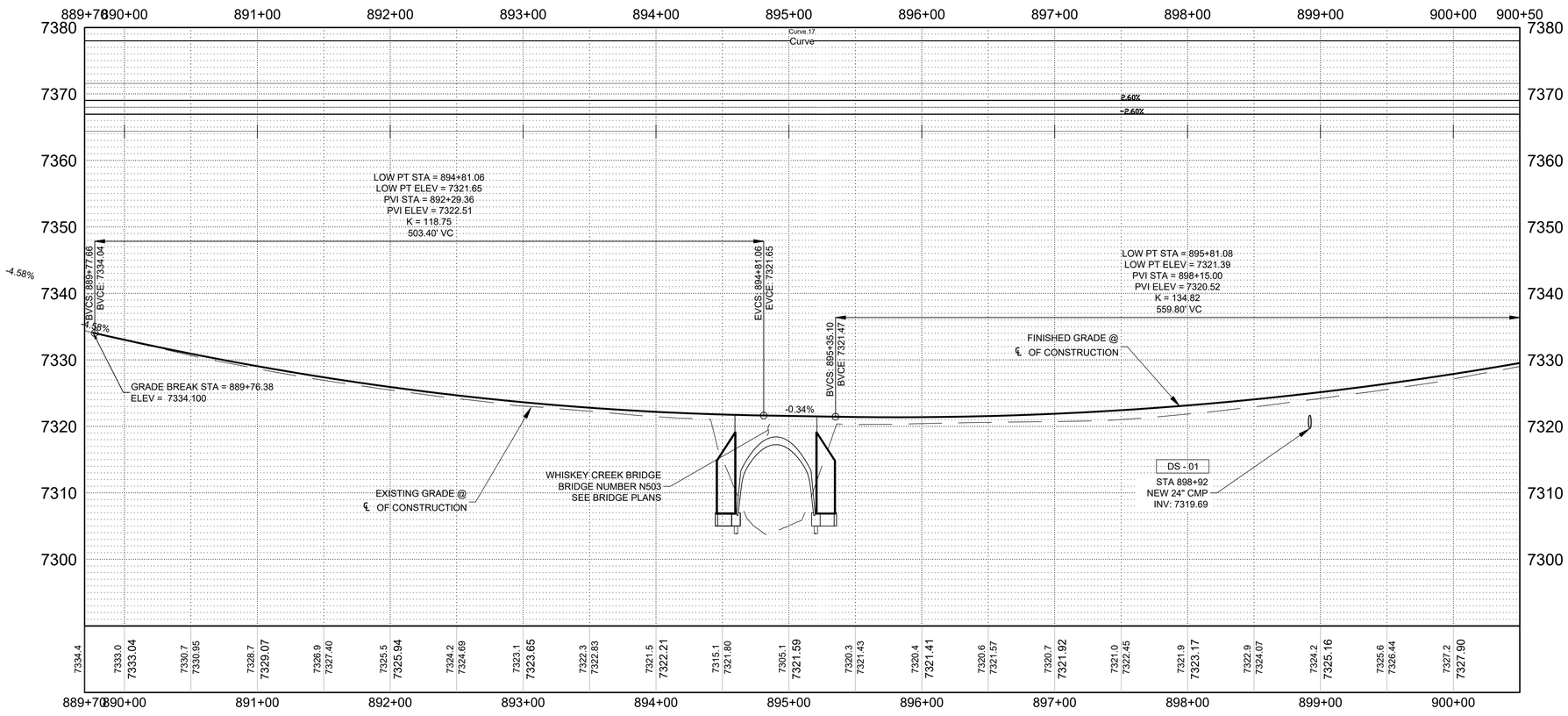
M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\SHEET_4_QUANTITIES.DWG3/19/2025 5:01 PM

REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	1710009012	13	120



N12 PLAN VIEW

SCALE =1 : 50 (0, 25', 50')



N12 PROFILE VIEW

SCALE =1 : 50 (0, 25', 50')

VERT =1 : 10 (0, 5', 10')

GENERAL NOTES

1. CONTRACTOR SHALL REVIEW LOCATIONS OF DRAINAGE STRUCTURES SHOWN HEREIN AND BUILD NEW STRUCTURES PER THE FULL BUILD NOTES SHOWN ON THE DRAINAGE STRUCTURE SHEETS OF THE PLAN SET.

2. CONTRACTOR SHALL REVIEW LOCATIONS OF DRIVEWAYS SHOWN HEREIN AND BUILD NEW DRIVEWAYS PER THE FULL BUILD NOTES ON THE TURNOUT PROFILES SHEETS ON THIS PLAN SET.

3. INSTALL DELINEATORS AS SHOWN ON BIA STD 3: OBJECT MARKERS.

KEYNOTES

1. EXISTING ROW
2. EDGE OF TRAVEL WAY
3. SLOPE LIMITS
4. EDGE OF PAVEMENT
5. INSTALL GUARDRAIL
6. NEW ROW FENCE
7. TEMPORARY CONSTRUCTION EASEMENT
8. TREE REMOVAL
9. EXISTING OVERHEAD ELECTRIC

LEGEND

CG - XX	CATTLE GUARD
TO - XX	TURNOUT/DRIVEWAY
DS - XX	DRAINAGE STRUCTURE
DSTO - XX	DRAINAGE STRUCTURE AT TURNOUT

POSSIBLE AREA FOR TIMBER CHIPPING. CONTRACTOR SHALL NOT PLACE CHIPPED MATERIAL WITHIN 3' OF PROPOSED PIPE INLETS OR OUTLETS AND THEIR CORRESPONDING FLOWLINES.

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET
SUITE 460
PHOENIX, AZ 85008
(602) 283-2701

ROUTE N12

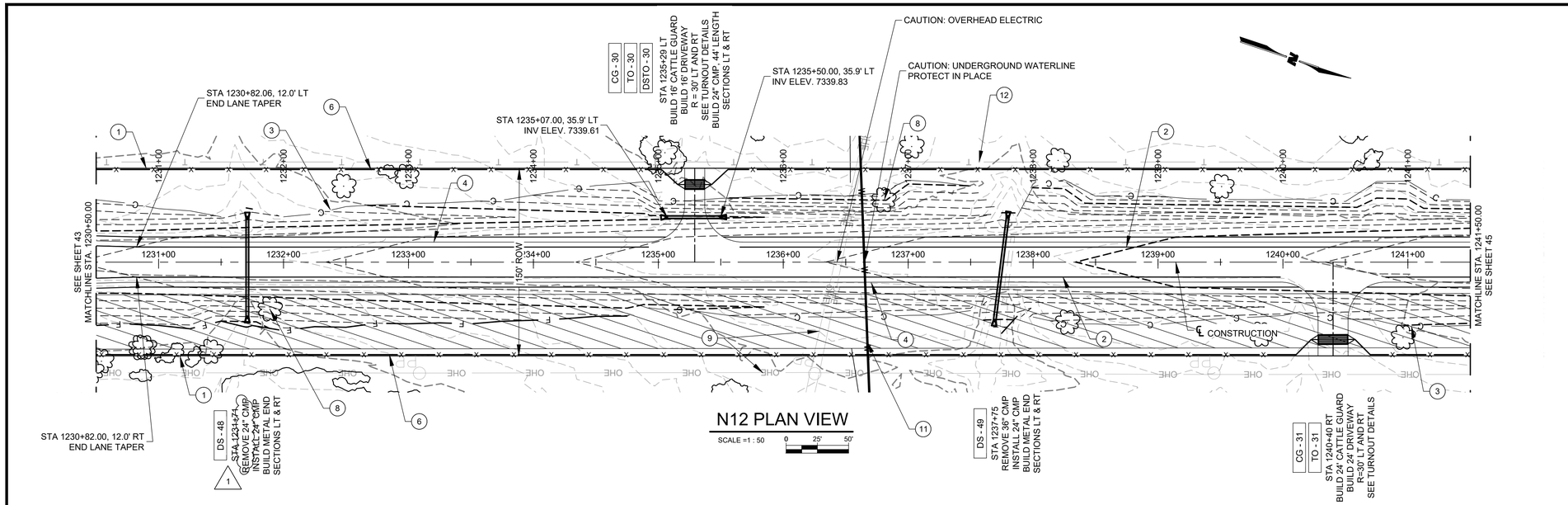
PLAN AND PROFILE

Registered Professional Engineer (Civil) CERTIFICATE NO. 76131 JOSHUA BROWN Date Signed 03/10/25 ARIZONA, U.S.A.

REVISIONS	NO.	DATE	REMARKS	BY
	1	03/25	UPDATED CALLOUTS	JEB

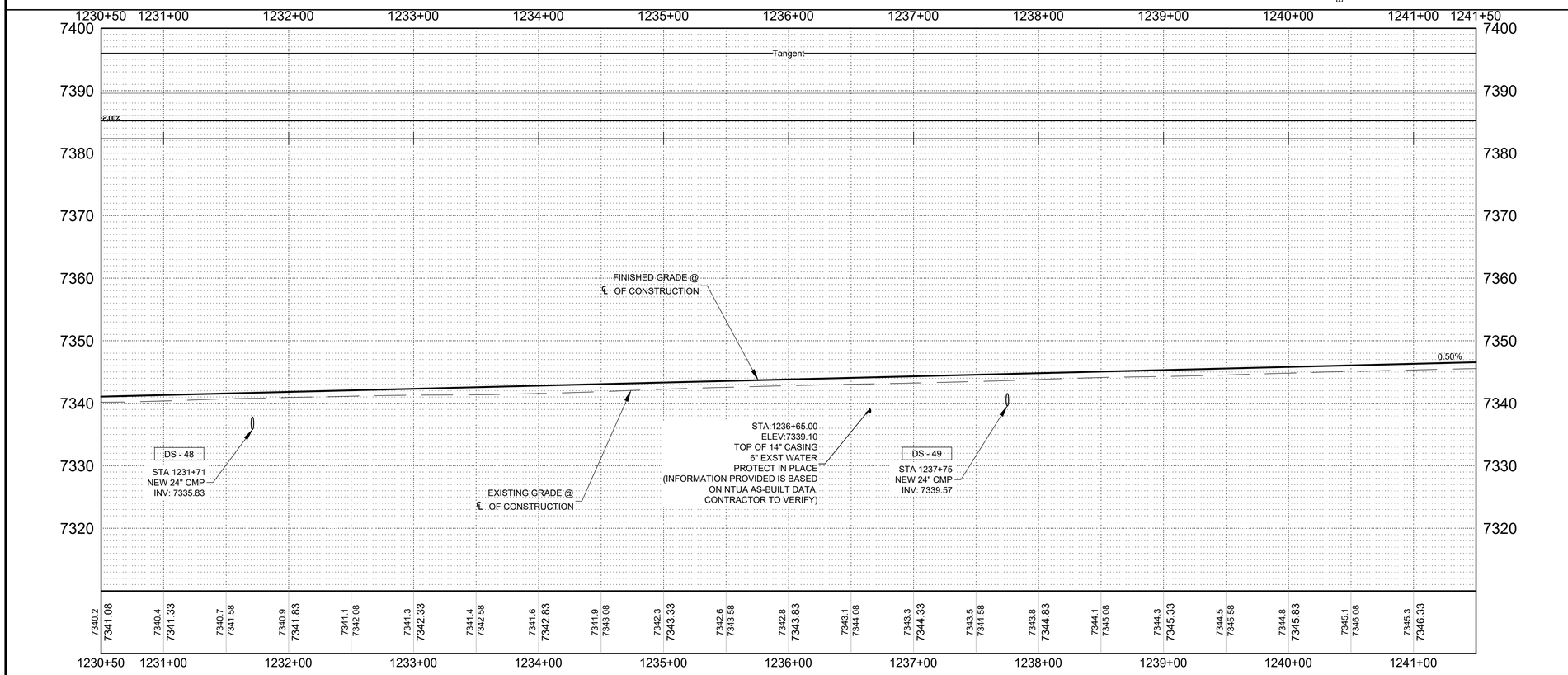
DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	N12	SHEET NO.
CHECK	ASF		13 - 120

REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	1710009012	44	120



N12 PLAN VIEW

SCALE =1 : 50 (0, 25', 50')



N12 PROFILE VIEW

SCALE =1 : 50 (0, 25', 50')

VERT =1 : 10 (0, 5', 10')

GENERAL NOTES

1. CONTRACTOR SHALL REVIEW LOCATIONS OF DRAINAGE STRUCTURES SHOWN HEREIN AND BUILD NEW STRUCTURES PER THE FULL BUILD NOTES SHOWN ON THE DRAINAGE STRUCTURE SHEETS OF THE PLAN SET.

2. CONTRACTOR SHALL REVIEW LOCATIONS OF DRIVEWAYS SHOWN HEREIN AND BUILD NEW DRIVEWAYS PER THE FULL BUILD NOTES ON THE TURNOUT PROFILES SHEETS ON THIS PLAN SET.

3. INSTALL DELINEATORS AS SHOWN ON BIA STD 3: OBJECT MARKERS.

KEYNOTES

1. EXISTING ROW
2. EDGE OF TRAVEL WAY
3. SLOPE LIMITS
4. EDGE OF PAVEMENT
5. INSTALL GUARDRAIL
6. NEW ROW FENCE
7. TEMPORARY CONSTRUCTION EASEMENT
8. TREE REMOVAL
9. EXISTING OVERHEAD ELECTRIC
11. EXISTING WATER LINE
12. EXISTING UNDERGROUND COMMUNICATION

LEGEND

CG - XX	CATTLE GUARD
TO - XX	TURNOUT/DRIVEWAY
DS - XX	DRAINAGE STRUCTURE
DSTO - XX	DRAINAGE STRUCTURE AT TURNOUT

POSSIBLE AREA FOR TIMBER CHIPPING. CONTRACTOR SHALL NOT PLACE CHIPPED MATERIAL WITHIN 3' OF PROPOSED PIPE INLETS OR OUTLETS AND THEIR CORRESPONDING FLOWLINES.

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET
SUITE 460
PHOENIX, AZ 85008
(602) 283-2701

ROUTE N12

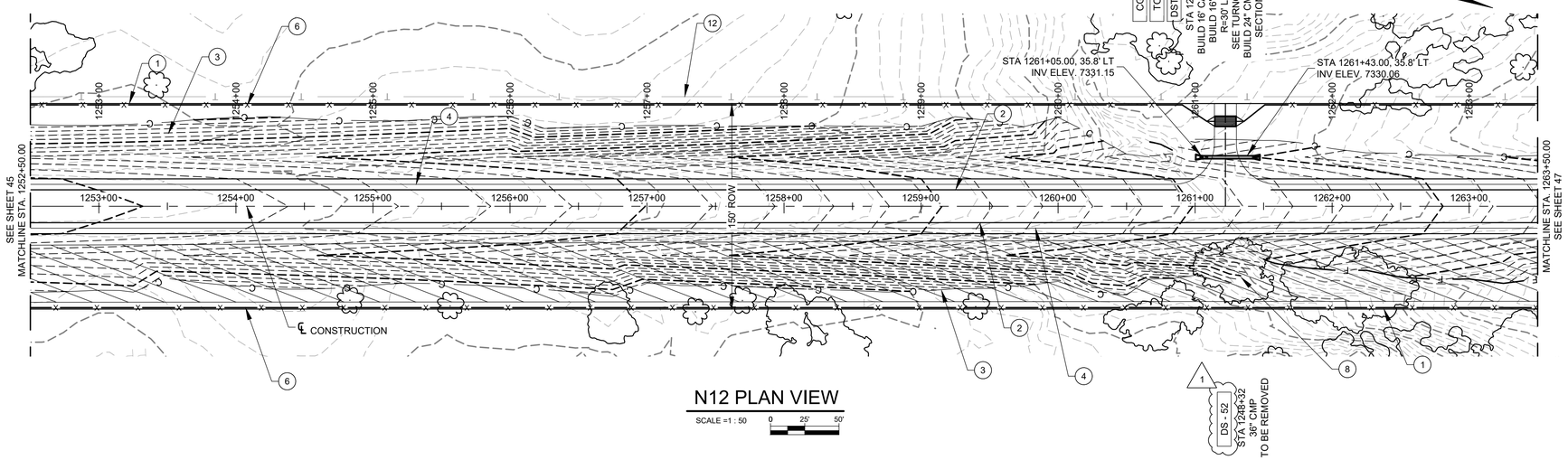
PLAN AND PROFILE

Registered Professional Engineer (Civil) CERTIFICATE NO. 76131 JOSHUA BROWN Date Signed 03/27/25 ARIZONA, U.S.A.

REVISIONS	NO.	DATE	REMARKS	BY
	1	03/25	UPDATED DS-48 EXST PIPE	JEB

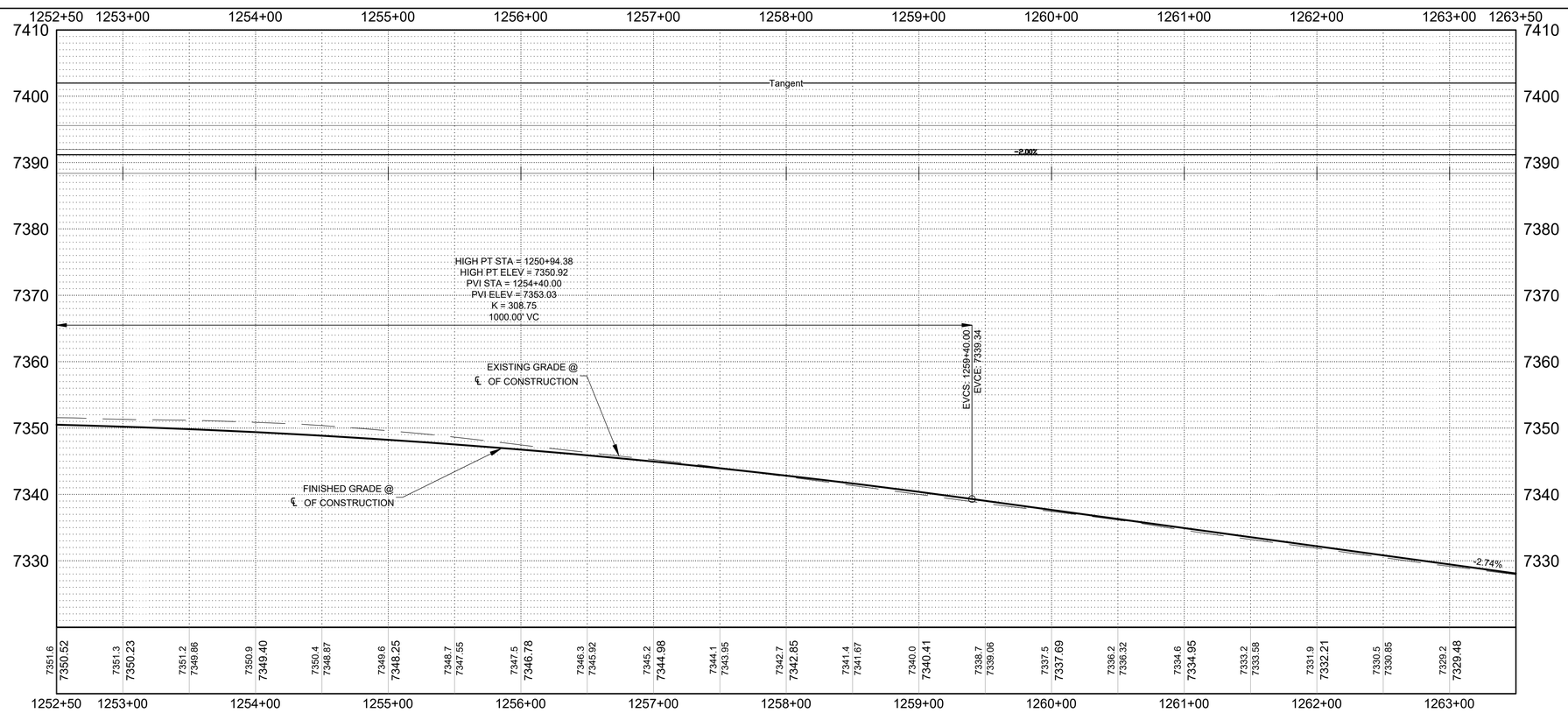
DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	N12	SHEET NO. 44 - 120
CHECK	ASF		

REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	1710009012	46	120



N12 PLAN VIEW

SCALE =1 : 50 0 25' 50'



N12 PROFILE VIEW

SCALE =1 : 50 0 25' 50'

VERT =1 : 10 0 5' 10'

GENERAL NOTES

1. CONTRACTOR SHALL REVIEW LOCATIONS OF DRAINAGE STRUCTURES SHOWN HEREIN AND BUILD NEW STRUCTURES PER THE FULL BUILD NOTES SHOWN ON THE DRAINAGE STRUCTURE SHEETS OF THE PLAN SET.

2. CONTRACTOR SHALL REVIEW LOCATIONS OF DRIVEWAYS SHOWN HEREIN AND BUILD NEW DRIVEWAYS PER THE FULL BUILD NOTES ON THE TURNOUT PROFILES SHEETS ON THIS PLAN SET.

3. INSTALL DELINEATORS AS SHOWN ON BIA STD 3: OBJECT MARKERS.

KEYNOTES

1. EXISTING ROW
2. EDGE OF TRAVEL WAY
3. SLOPE LIMITS
4. EDGE OF PAVEMENT
5. INSTALL GUARDRAIL
6. NEW ROW FENCE
7. TEMPORARY CONSTRUCTION EASEMENT
8. TREE REMOVAL
9. EXISTING OVERHEAD ELECTRIC
12. EXISTING UNDERGROUND COMMUNICATION

LEGEND

CG - XX	CATTLE GUARD
TO - XX	TURNOUT/DRIVEWAY
DS - XX	DRAINAGE STRUCTURE
DSTO - XX	DRAINAGE STRUCTURE AT TURNOUT

POSSIBLE AREA FOR TIMBER CHIPPING. CONTRACTOR SHALL NOT PLACE CHIPPED MATERIAL WITHIN 3' OF PROPOSED PIPE INLETS OR OUTLETS AND THEIR CORRESPONDING FLOWLINES.

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET
SUITE 460
PHOENIX, AZ 85008
(602) 283-2701

ROUTE N12

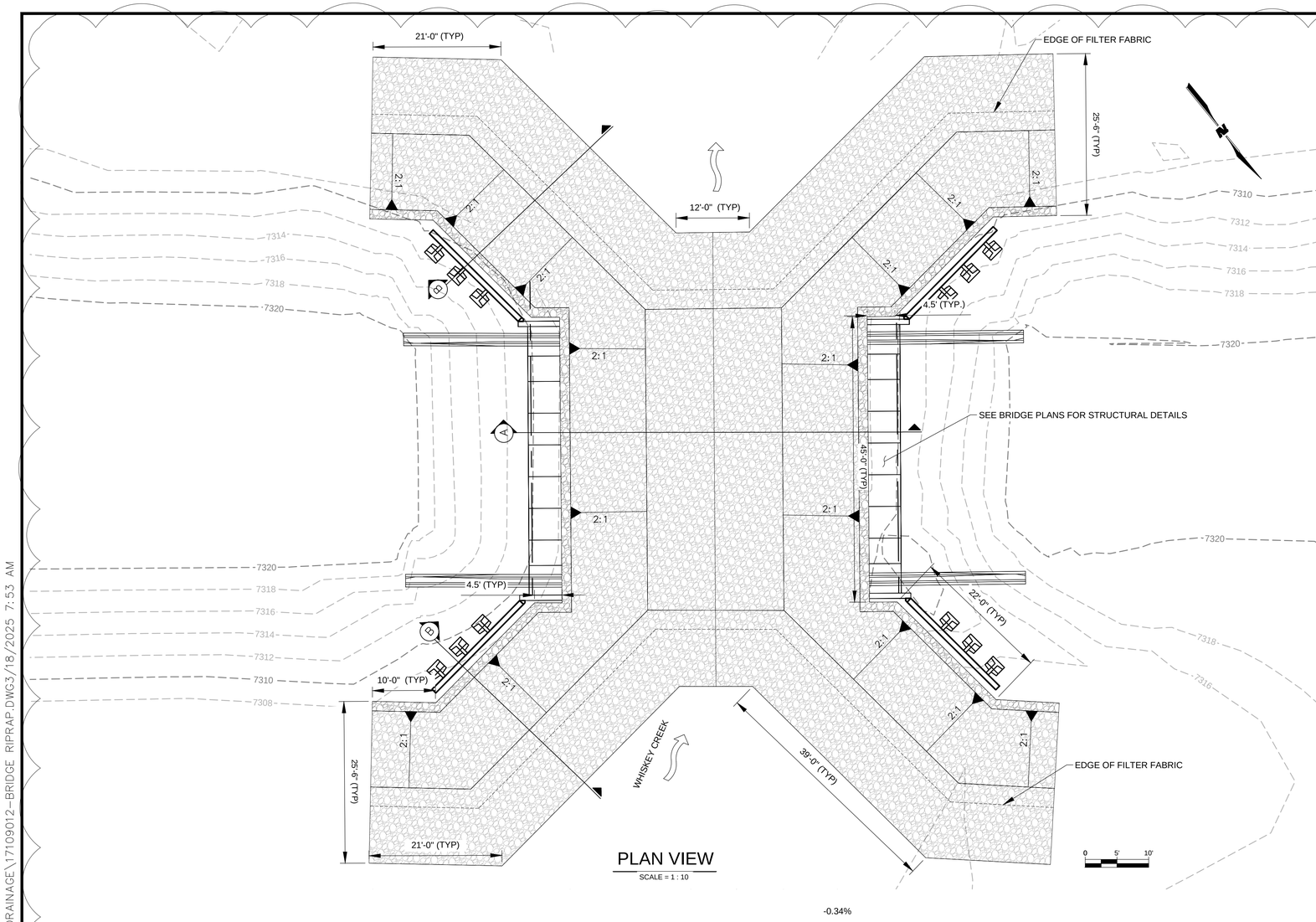
PLAN AND PROFILE

Registered Professional Engineer (Civil) CERTIFICATE NO. 76131 JOSHUA BROWN Date Signed 03-27-2025 ARIZONA, U.S.A.

REVISIONS	NO.	DATE	REMARKS	BY
	1	03/25	UPDATED DS-52 CALLOUT	JEB

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	N12	SHEET NO. 46 - 120
CHECK	ASF		

REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	95	120

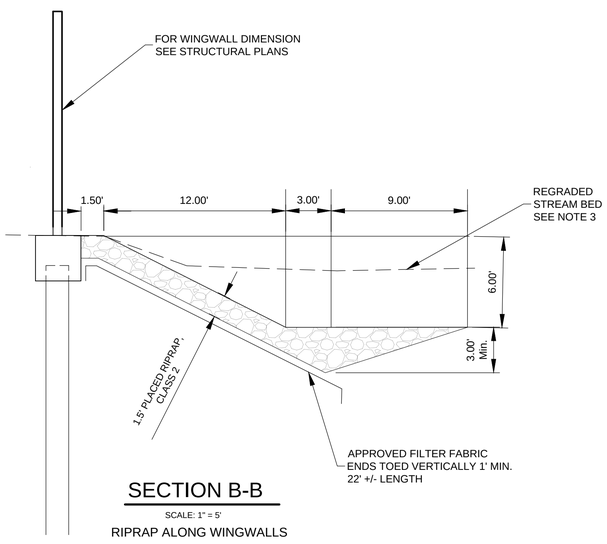


PLAN VIEW

SCALE = 1 : 10

NOTES:

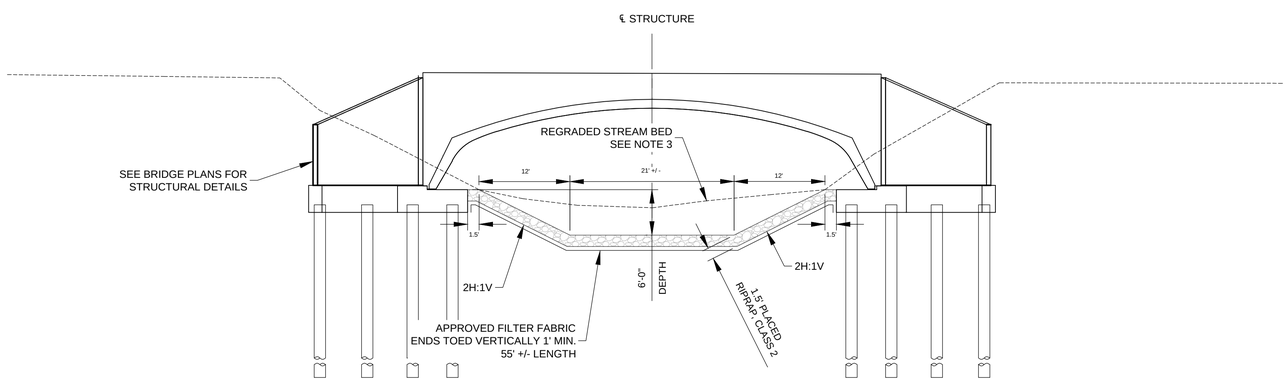
1. HORIZONTAL DIMENSIONS GIVEN ARE TYPICAL. CONTRACTOR SHALL DOUBLECHECK MEASUREMENTS AND QUANTITIES.
2. RIPRAP SHOULD BE PLACED AS SHOWN IN DETAILS. SEE SPECIFICATION FOR PLACED RIPRAP, CLASS 2. PAY ITEM #25101-2000.
3. UPON COMPLETION OF WORK ACTIVITIES, THE WORK AREA SHALL BE RESTORED TO MAINTAIN THE STABILITY OF UPSTREAM AND DOWNSTREAM SEGMENTS OF THE SURFACE WATER BODIES WITH RESPECT TO EROSION AND SEDIMENTATION.
4. SEE STRUCTURAL PLANS FOR BRIDGE DETAILS AND DIMENSIONS.
5. FILTER FABRIC SHALL BE INSTALLED UNDER ALL RIPRAP AS NOTED AND SHALL CONFORM TO SECTION 714, AND SHALL BE CONSIDERED INCIDENTAL TO RIPRAP BID ITEMS.



SECTION B-B

SCALE: 1" = 5'

RIPRAP ALONG WINGWALLS



SECTION A-A

SCALE: 1" = 10'

RIPRAP ALONG ABUTMENTS

1

AGENCY LINE TO WHEATFIELDS LAKE

ROUTE N12

SCOUR MITIGATION AT BRIDGE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

Registered Professional Engineer (Civil) CERTIFICATE NO. 39600 DANIEL S. AGUIRRE DATE SIGNED 03/25/25 ARIZONA U.S.A.

REVISIONS NO.	DATE	REMARKS	BY
1	03/25	REVISED RIPRAP LAYOUT	JEB

DESIGN	DSA	WCEA NO. 1710009012	DATE 2025
DRAWN	JEB	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 95 OF 120
CHECK	DSA		

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\9_SHEETS - DRAINAGE\17109012-BRIDGE RIPRAP.DWG3/18/2025 7:53 AM

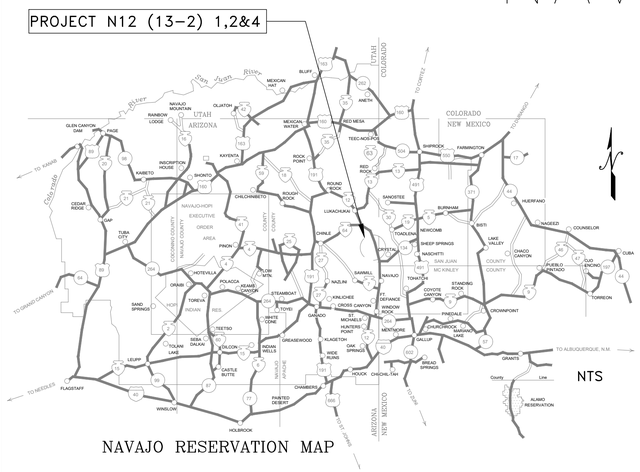
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	0	48

NAVAJO DIVISION OF TRANSPORTATION

N12

PROJECT: N12 (13-2) 1, 2 & 4
AGENCY LINE TO WHEATFIELDS LAKE
GRADE, DRAIN, NEW BRIDGE, AND ASPHALT PAVING

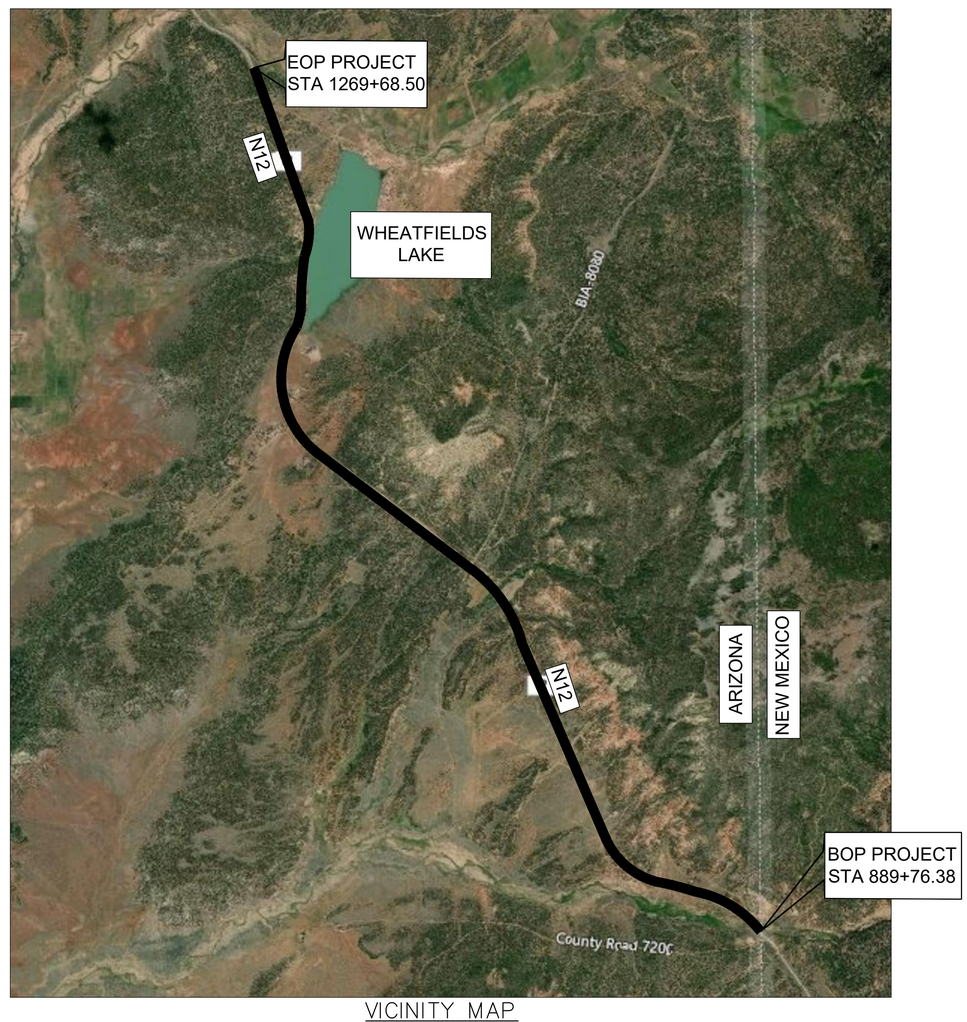
CROSS SECTIONS FOR INFORMATION ONLY



NAVAJO RESERVATION MAP

PROJECT LENGTH N12			
ROADWAY	STATION TO STATION	FEET	MILES
N12	B.O.P. - STA 889+76.38 TO E.O.P. STA 1269+68.50	37,992.12	7.20
	TOTAL:	37,992.12	7.20

RIGHT-OF-WAY TABLE			
ROADWAY	STATION TO STATION	WIDTH (FEET)	
		LEFT	RIGHT
N12	B.O.P. - STA 889+76.38 TO E.O.P. STA 1269+68.50	75	75



VICINITY MAP

N

NTS

INDIAN SERVICE | STATE | COUNTY | FEDERAL

UNIMPROVED | GRADED | GRAVELED | PAVED

ADDENDUM 1

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTIONS

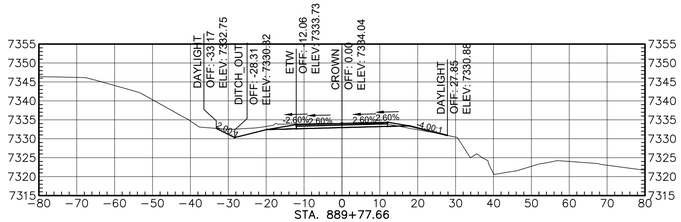
Registered Professional Engineer (Civil) CERTIFICATE NO. 76131 JOSHUA BROWN Date Signed 06/19/2025 ARIZONA, U.S.A.

REVISIONS	NO.	DATE	REMARKS	BY

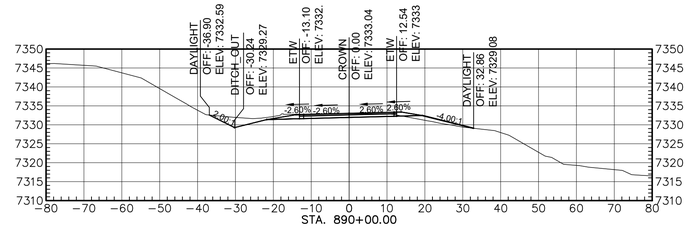
DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO.	1 OF 48
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\SHEET_1\XSEC COVER.DWG3/19/2025 2:20 PM

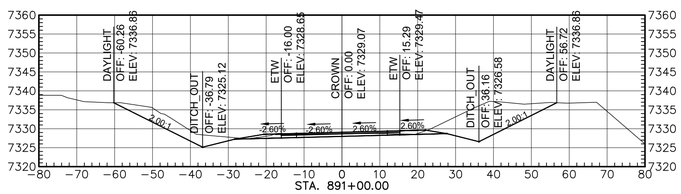
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	1	48



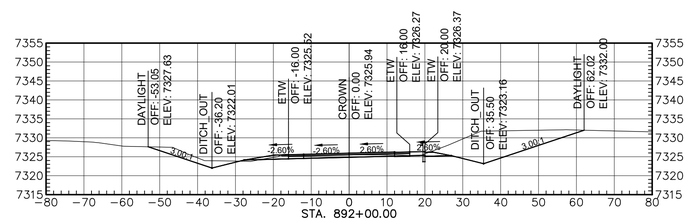
Total Volume at Station 889+77.66	
Cut Area	53.45
Fill Area	3.72
Cut Vol	0.00
Fill Vol	0.00
Cum Cut Vol	0.00
Cum Fill Vol	0.00
Net Vol	0.00



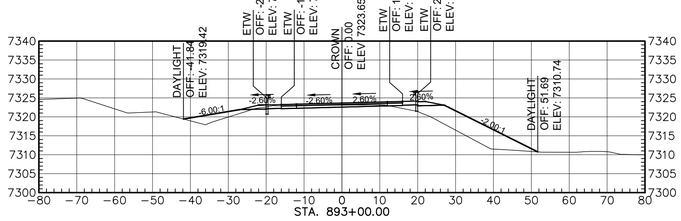
Total Volume at Station 890+00.00	
Cut Area	55.58
Fill Area	12.02
Cut Vol	45.10
Fill Vol	6.51
Cum Cut Vol	45.10
Cum Fill Vol	6.51
Net Vol	38.59



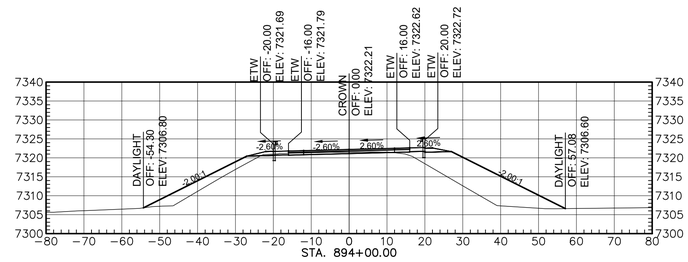
Total Volume at Station 891+00.00	
Cut Area	277.39
Fill Area	0.00
Cut Vol	617.29
Fill Vol	22.35
Cum Cut Vol	662.39
Cum Fill Vol	28.86
Net Vol	633.53



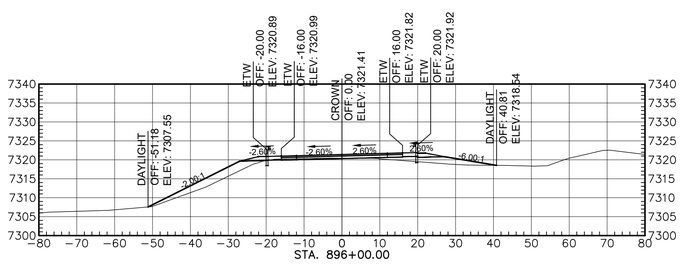
Total Volume at Station 892+00.00	
Cut Area	232.97
Fill Area	1.50
Cut Vol	947.01
Fill Vol	2.76
Cum Cut Vol	1610.30
Cum Fill Vol	31.62
Net Vol	1578.68



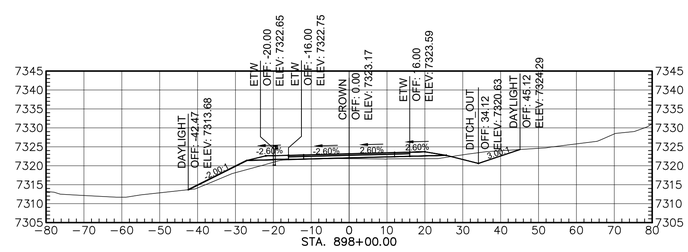
Total Volume at Station 893+00.00	
Cut Area	18.64
Fill Area	150.12
Cut Vol	467.77
Fill Vol	281.87
Cum Cut Vol	2078.07
Cum Fill Vol	313.49
Net Vol	1764.58



Total Volume at Station 894+00.00	
Cut Area	12.32
Fill Area	281.49
Cut Vol	57.27
Fill Vol	802.03
Cum Cut Vol	2135.34
Cum Fill Vol	1115.51
Net Vol	1019.82



Total Volume at Station 896+00.00	
Cut Area	4.54
Fill Area	83.39
Cut Vol	62.34
Fill Vol	1354.12
Cum Cut Vol	2197.68
Cum Fill Vol	2469.64
Net Vol	-271.96



Total Volume at Station 898+00.00	
Cut Area	26.36
Fill Area	47.70
Cut Vol	115.00
Fill Vol	484.52
Cum Cut Vol	2312.68
Cum Fill Vol	2954.16
Net Vol	-641.48

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

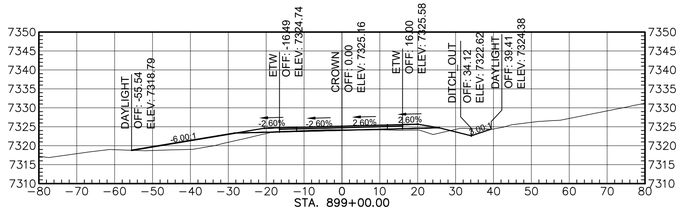
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

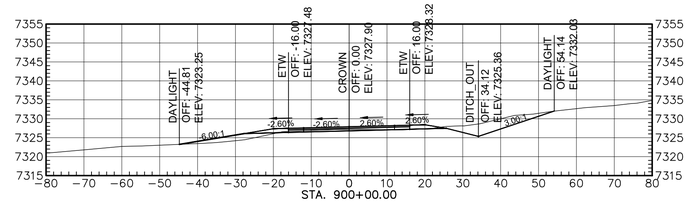
DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 1 OF 48	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 2:03 PM

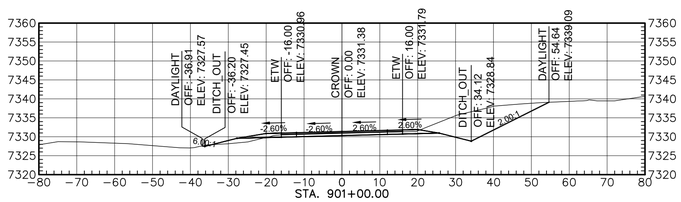
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	2	48



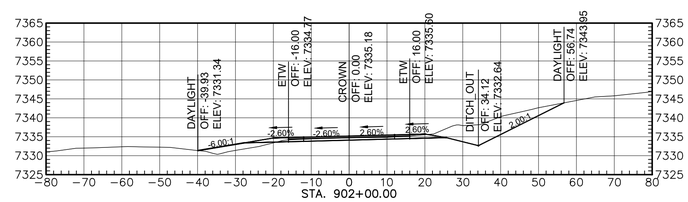
Total Volume at Station 899+00.00	
Cut Area	14.98
Fill Area	69.83
Cut Vol	76.98
Fill Vol	216.84
Cum Cut Vol	2389.66
Cum Fill Vol	2439.40
Net Vol	-46.74



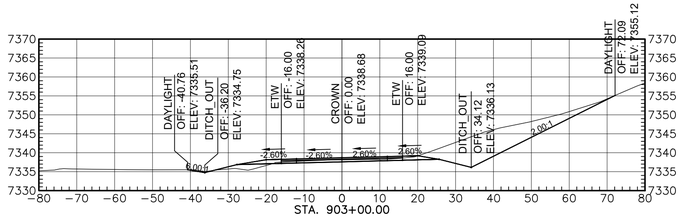
Total Volume at Station 900+00.00	
Cut Area	62.64
Fill Area	24.16
Cut Vol	144.51
Fill Vol	173.23
Cum Cut Vol	2534.16
Cum Fill Vol	2612.63
Net Vol	-78.47



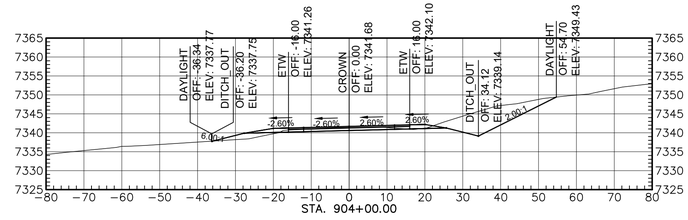
Total Volume at Station 901+00.00	
Cut Area	170.92
Fill Area	9.78
Cut Vol	454.85
Fill Vol	62.51
Cum Cut Vol	2969.02
Cum Fill Vol	2675.16
Net Vol	293.86



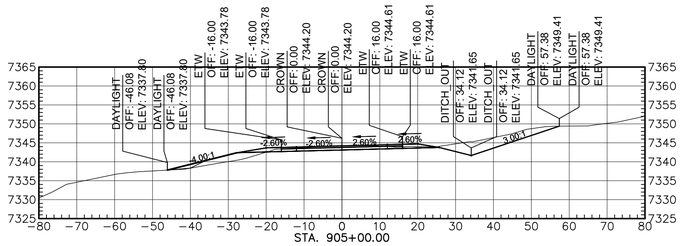
Total Volume at Station 902+00.00	
Cut Area	137.04
Fill Area	23.79
Cut Vol	573.37
Fill Vol	61.85
Cum Cut Vol	3542.39
Cum Fill Vol	2737.01
Net Vol	805.38



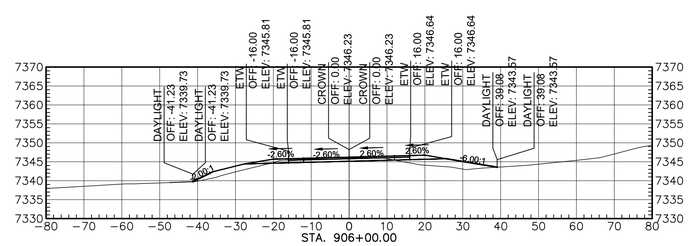
Total Volume at Station 903+00.00	
Cut Area	216.66
Fill Area	11.96
Cut Vol	658.97
Fill Vol	65.87
Cum Cut Vol	4201.36
Cum Fill Vol	2802.88
Net Vol	1398.49



Total Volume at Station 904+00.00	
Cut Area	132.86
Fill Area	14.95
Cut Vol	651.17
Fill Vol	49.60
Cum Cut Vol	4852.54
Cum Fill Vol	2852.48
Net Vol	2000.06



Total Volume at Station 905+00.00	
Cut Area	98.08
Fill Area	24.96
Cut Vol	429.80
Fill Vol	73.52
Cum Cut Vol	5282.34
Cum Fill Vol	2926.00
Net Vol	2356.34



Total Volume at Station 906+00.00	
Cut Area	25.22
Fill Area	58.68
Cut Vol	229.12
Fill Vol	154.70
Cum Cut Vol	5511.45
Cum Fill Vol	3080.70
Net Vol	2430.75

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

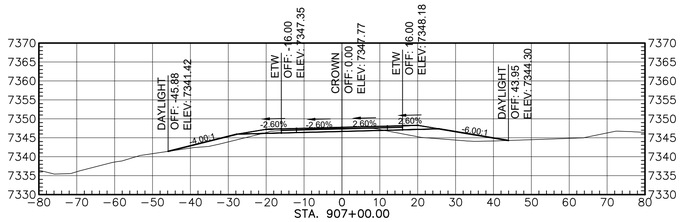
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

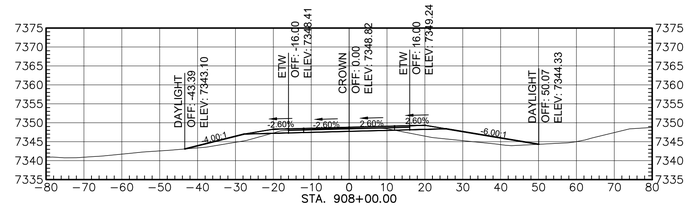
DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO.	2 OF 48
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:32 PM

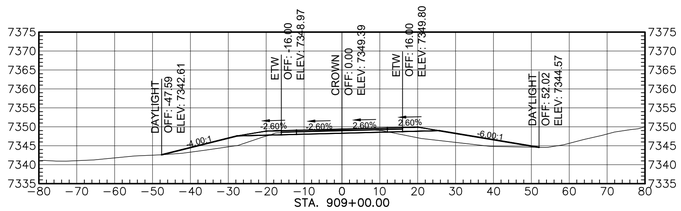
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	3	48



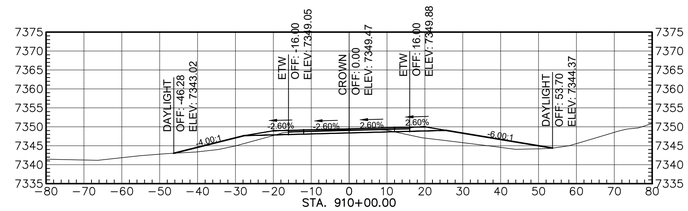
Total Volume at Station 907+00.00	
Cut Area	31.90
Fill Area	72.22
Cut Vol	87.20
Fill Vol	242.67
Cum Cut Vol	5598.65
Cum Fill Vol	3323.37
Net Vol	2275.28



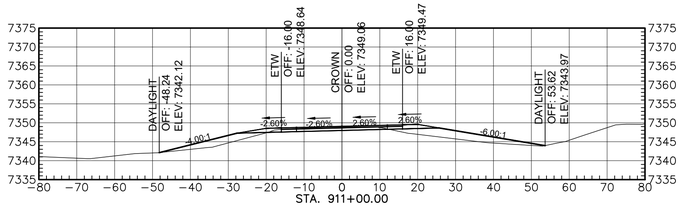
Total Volume at Station 908+00.00	
Cut Area	22.44
Fill Area	85.43
Cut Vol	82.05
Fill Vol	292.54
Cum Cut Vol	5680.70
Cum Fill Vol	3615.91
Net Vol	2064.79



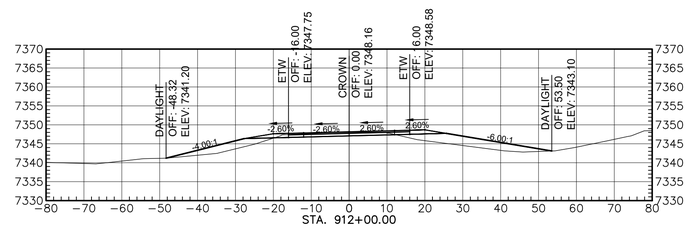
Total Volume at Station 909+00.00	
Cut Area	21.08
Fill Area	100.60
Cut Vol	80.53
Fill Vol	345.10
Cum Cut Vol	5761.23
Cum Fill Vol	3961.02
Net Vol	1800.22



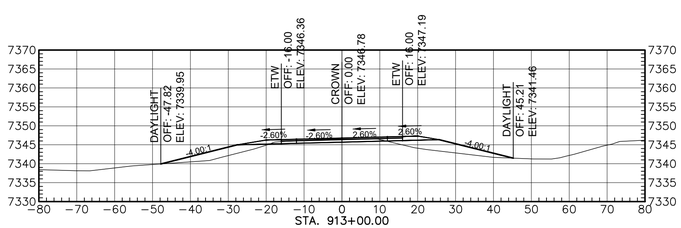
Total Volume at Station 910+00.00	
Cut Area	20.54
Fill Area	108.54
Cut Vol	77.01
Fill Vol	387.91
Cum Cut Vol	5838.24
Cum Fill Vol	4348.93
Net Vol	1489.32



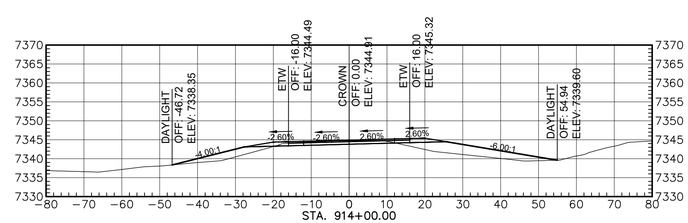
Total Volume at Station 911+00.00	
Cut Area	23.77
Fill Area	94.39
Cut Vol	82.00
Fill Vol	376.42
Cum Cut Vol	5920.24
Cum Fill Vol	4725.35
Net Vol	1194.90



Total Volume at Station 912+00.00	
Cut Area	25.75
Fill Area	109.01
Cut Vol	91.66
Fill Vol	377.21
Cum Cut Vol	6011.90
Cum Fill Vol	5102.56
Net Vol	909.34



Total Volume at Station 913+00.00	
Cut Area	20.85
Fill Area	97.70
Cut Vol	86.25
Fill Vol	383.19
Cum Cut Vol	6098.16
Cum Fill Vol	5485.75
Net Vol	612.41



Total Volume at Station 914+00.00	
Cut Area	24.55
Fill Area	100.54
Cut Vol	84.02
Fill Vol	364.28
Cum Cut Vol	6182.18
Cum Fill Vol	5870.03
Net Vol	312.15

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

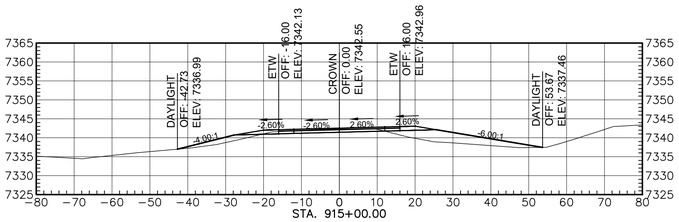
CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

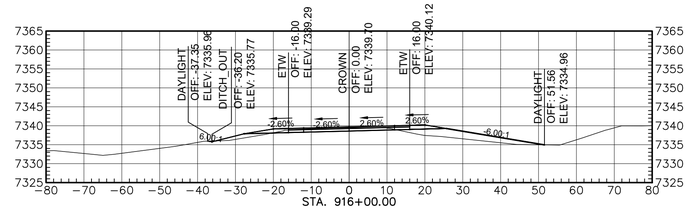
DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 3 OF 48
CHECK	ASF		

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:32 PM

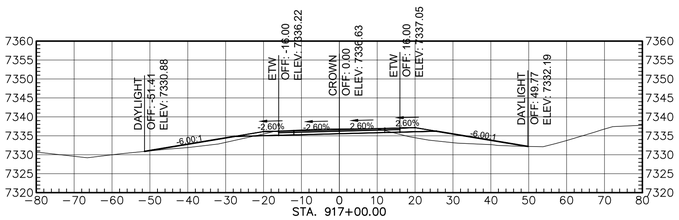
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	4	48



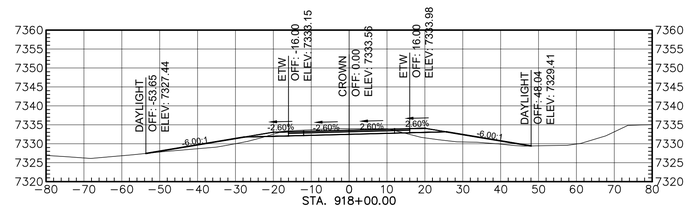
Total Volume at Station 915+00.00	
Cut Area	21.93
Fill Area	83.72
Cut Vol	86.02
Fill Vol	377.38
Cum Cut Vol	6268.19
Cum Fill Vol	6247.41
Net Vol	20.78



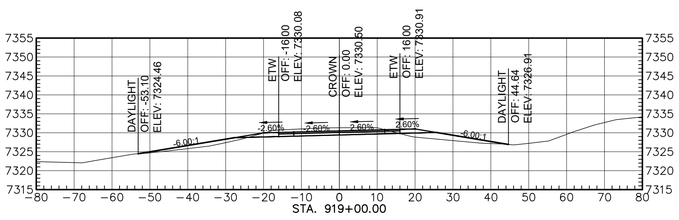
Total Volume at Station 916+00.00	
Cut Area	23.81
Fill Area	62.45
Cut Vol	84.64
Fill Vol	290.17
Cum Cut Vol	6352.83
Cum Fill Vol	6537.58
Net Vol	-184.75



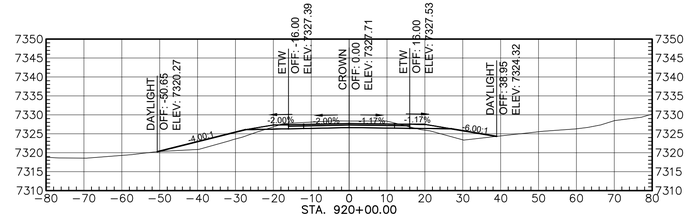
Total Volume at Station 917+00.00	
Cut Area	38.46
Fill Area	73.21
Cut Vol	115.22
Fill Vol	251.91
Cum Cut Vol	6468.06
Cum Fill Vol	6789.49
Net Vol	-321.44



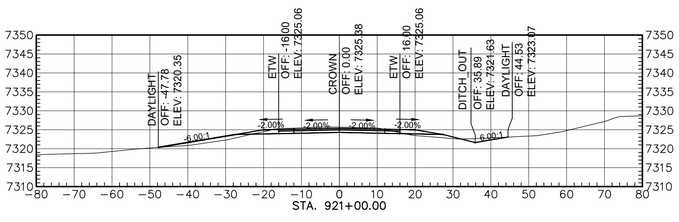
Total Volume at Station 918+00.00	
Cut Area	44.96
Fill Area	69.01
Cut Vol	154.36
Fill Vol	263.73
Cum Cut Vol	6622.42
Cum Fill Vol	7053.22
Net Vol	-430.80



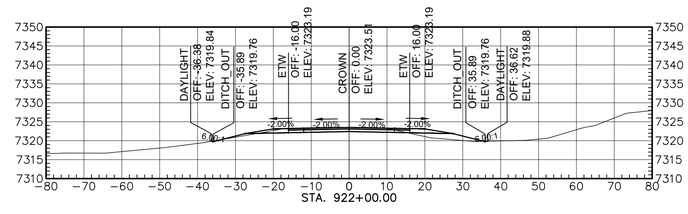
Total Volume at Station 919+00.00	
Cut Area	60.76
Fill Area	48.06
Cut Vol	195.64
Fill Vol	216.92
Cum Cut Vol	6818.06
Cum Fill Vol	7270.14
Net Vol	-452.08



Total Volume at Station 920+00.00	
Cut Area	57.11
Fill Area	66.67
Cut Vol	218.28
Fill Vol	212.45
Cum Cut Vol	7036.33
Cum Fill Vol	7482.59
Net Vol	-446.25



Total Volume at Station 921+00.00	
Cut Area	53.31
Fill Area	24.61
Cut Vol	204.48
Fill Vol	169.03
Cum Cut Vol	7240.52
Cum Fill Vol	7651.62
Net Vol	-410.80



Total Volume at Station 922+00.00	
Cut Area	37.91
Fill Area	21.92
Cut Vol	168.92
Fill Vol	86.16
Cum Cut Vol	7409.74
Cum Fill Vol	7737.78
Net Vol	-328.04

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 4 OF 48	
CHECK ASF			

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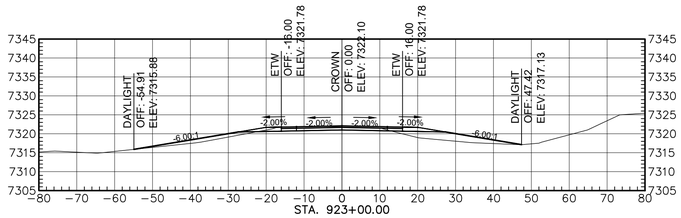
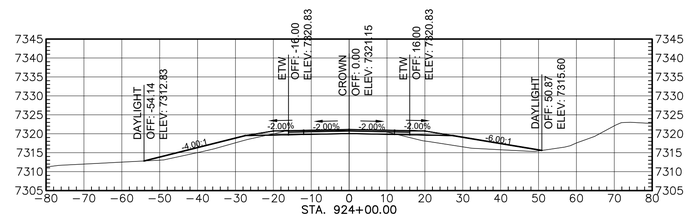
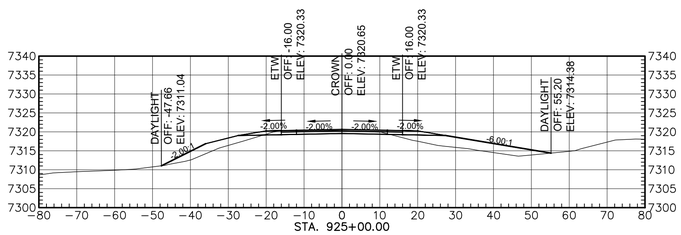
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	5	48



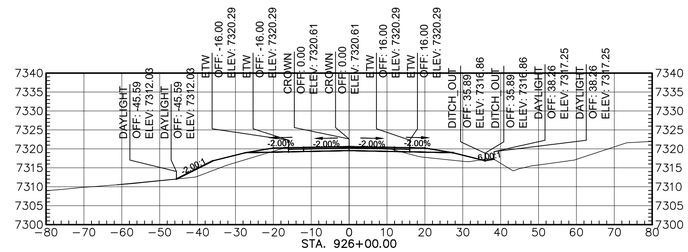
Total Volume at Station 923+00.00	
Cut Area	28.14
Fill Area	65.31
Cut Vol	122.32
Fill Vol	181.54
Cum Cut Vol	7532.06
Cum Fill Vol	7899.32
Net Vol	-367.28



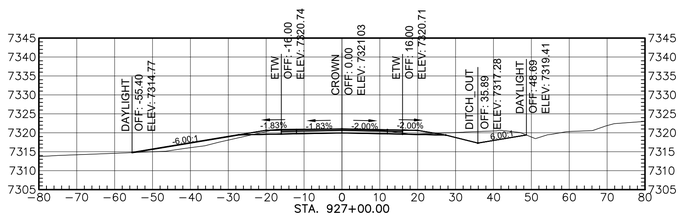
Total Volume at Station 924+00.00	
Cut Area	26.15
Fill Area	93.41
Cut Vol	100.54
Fill Vol	293.93
Cum Cut Vol	7632.59
Cum Fill Vol	8193.24
Net Vol	-560.65



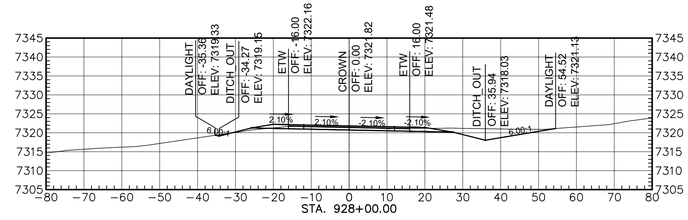
Total Volume at Station 925+00.00	
Cut Area	25.26
Fill Area	124.44
Cut Vol	95.19
Fill Vol	403.43
Cum Cut Vol	7727.78
Cum Fill Vol	8596.67
Net Vol	-868.89



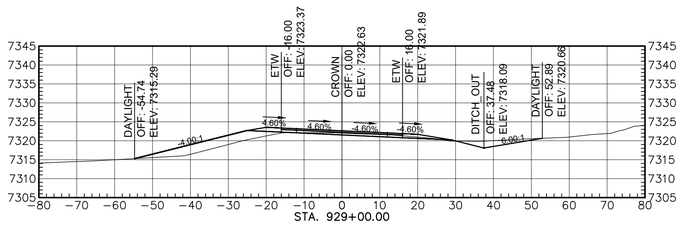
Total Volume at Station 926+00.00	
Cut Area	29.81
Fill Area	67.17
Cut Vol	101.98
Fill Vol	354.83
Cum Cut Vol	7829.76
Cum Fill Vol	8951.50
Net Vol	-1121.74



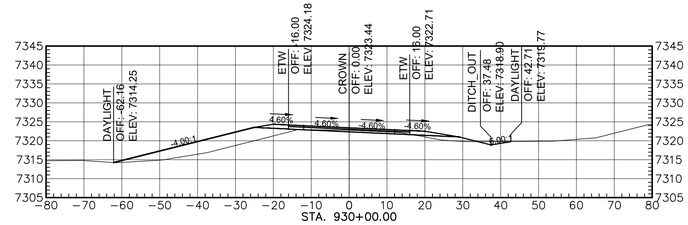
Total Volume at Station 927+00.00	
Cut Area	81.80
Fill Area	28.66
Cut Vol	206.70
Fill Vol	177.46
Cum Cut Vol	8036.46
Cum Fill Vol	9128.96
Net Vol	-1092.50



Total Volume at Station 928+00.00	
Cut Area	78.02
Fill Area	2.77
Cut Vol	295.98
Fill Vol	58.20
Cum Cut Vol	8332.44
Cum Fill Vol	9187.16
Net Vol	-854.72



Total Volume at Station 929+00.00	
Cut Area	35.84
Fill Area	70.96
Cut Vol	209.46
Fill Vol	137.78
Cum Cut Vol	8541.90
Cum Fill Vol	9324.94
Net Vol	-783.05



Total Volume at Station 930+00.00	
Cut Area	12.81
Fill Area	129.17
Cut Vol	89.32
Fill Vol	374.87
Cum Cut Vol	8631.22
Cum Fill Vol	9699.81
Net Vol	-1068.59

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 5 OF 48
CHECK	ASF		

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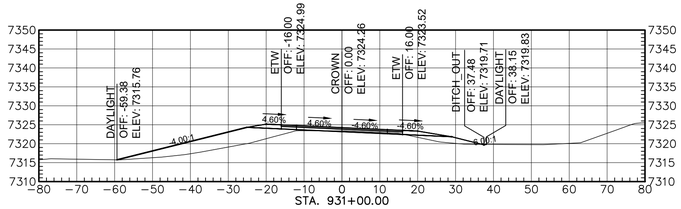
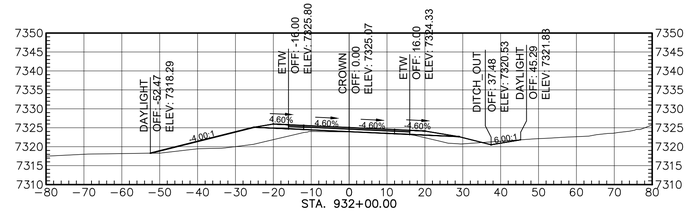
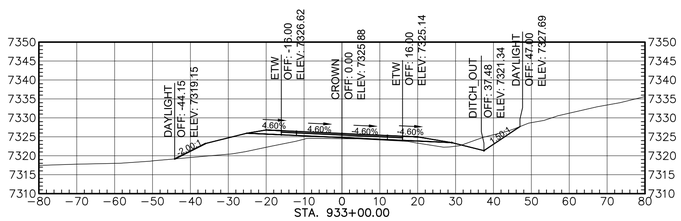
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	6	48



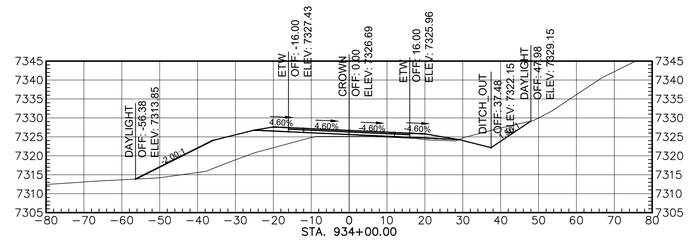
Total Volume at Station 931+00.00	
Cut Area	5.03
Fill Area	141.72
Cut Vol	32.88
Fill Vol	506.67
Cum Cut Vol	8664.10
Cum Fill Vol	10206.48
Net Vol	-1542.38



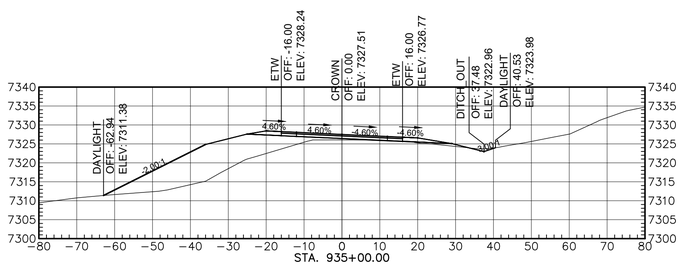
Total Volume at Station 932+00.00	
Cut Area	4.83
Fill Area	122.84
Cut Vol	18.12
Fill Vol	493.91
Cum Cut Vol	8682.22
Cum Fill Vol	10700.39
Net Vol	-2018.17



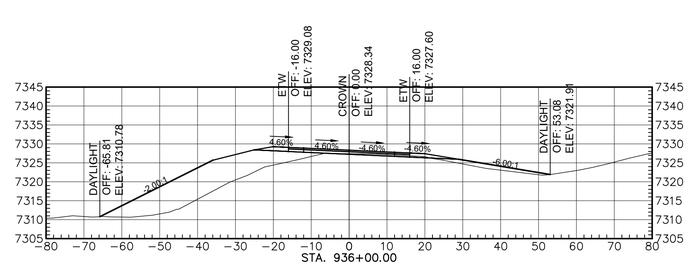
Total Volume at Station 933+00.00	
Cut Area	26.20
Fill Area	122.17
Cut Vol	56.68
Fill Vol	456.98
Cum Cut Vol	8738.90
Cum Fill Vol	11157.38
Net Vol	-2418.48



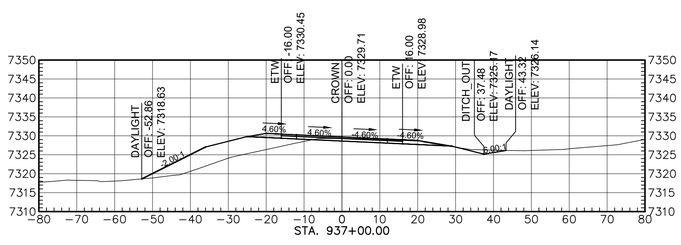
Total Volume at Station 934+00.00	
Cut Area	44.11
Fill Area	228.41
Cut Vol	128.40
Fill Vol	655.44
Cum Cut Vol	8867.30
Cum Fill Vol	11812.82
Net Vol	-2945.52



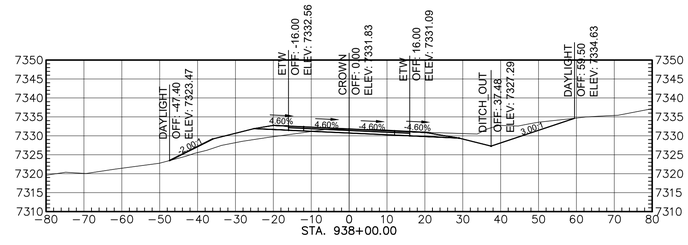
Total Volume at Station 935+00.00	
Cut Area	2.40
Fill Area	307.67
Cut Vol	84.94
Fill Vol	1004.20
Cum Cut Vol	8952.24
Cum Fill Vol	12817.02
Net Vol	-3864.79



Total Volume at Station 936+00.00	
Cut Area	6.99
Fill Area	325.45
Cut Vol	17.28
Fill Vol	1186.45
Cum Cut Vol	8969.51
Cum Fill Vol	14003.47
Net Vol	-5033.96



Total Volume at Station 937+00.00	
Cut Area	30.56
Fill Area	139.92
Cut Vol	69.15
Fill Vol	871.86
Cum Cut Vol	9038.67
Cum Fill Vol	14875.35
Net Vol	-5836.68



Total Volume at Station 938+00.00	
Cut Area	116.02
Fill Area	63.53
Cut Vol	268.69
Fill Vol	380.96
Cum Cut Vol	9307.36
Cum Fill Vol	15256.31
Net Vol	-5948.95

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

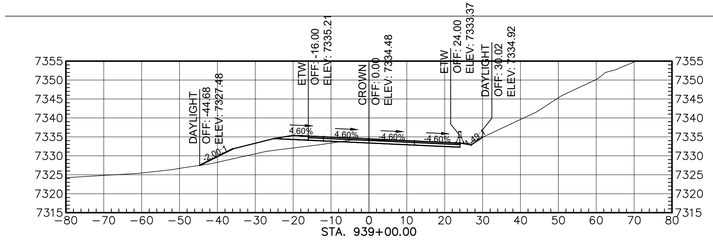
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

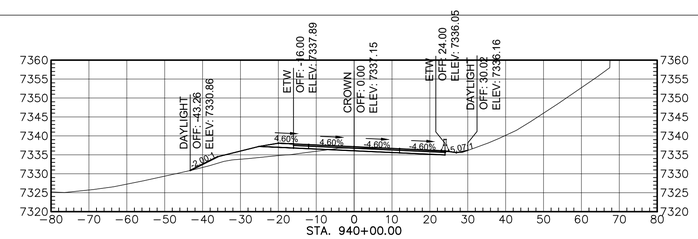
DESIGN	JEB	WCEA NO. 1710009012	DATE	2025	
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 6 OF 48		
CHECK	ASF				

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:33 PM

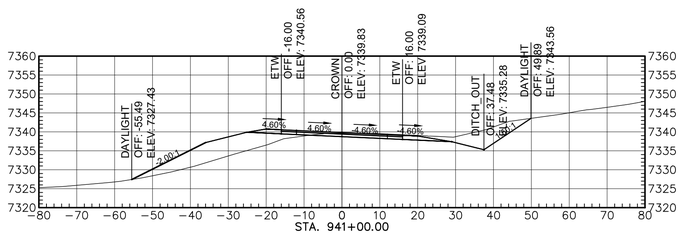
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	7	48



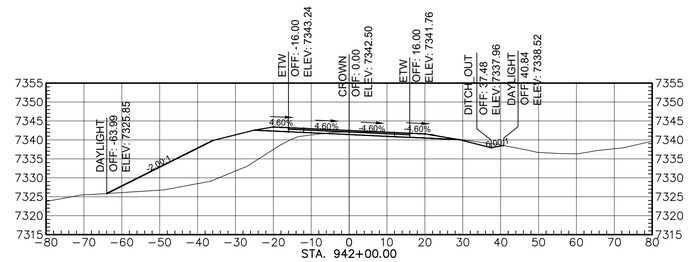
Total Volume at Station 939+00.00	
Cut Area	29.71
Fill Area	70.65
Cut Vol	267.22
Fill Vol	251.01
Cum Cut Vol	9574.58
Cum Fill Vol	15507.32
Net Vol	-5932.74



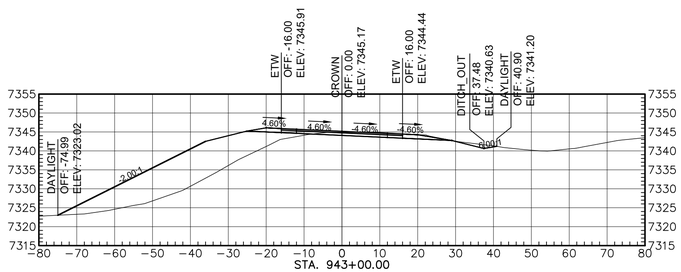
Total Volume at Station 940+00.00	
Cut Area	26.35
Fill Area	56.75
Cut Vol	103.41
Fill Vol	241.91
Cum Cut Vol	9677.98
Cum Fill Vol	15749.23
Net Vol	-6071.25



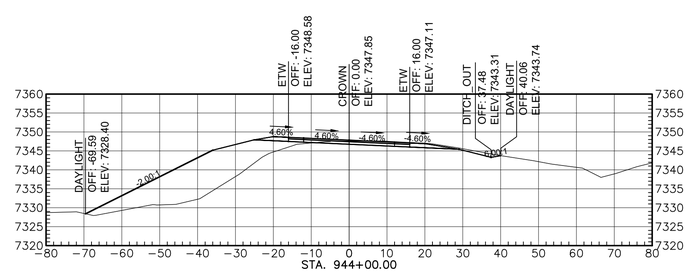
Total Volume at Station 941+00.00	
Cut Area	101.72
Fill Area	146.85
Cut Vol	235.02
Fill Vol	384.96
Cum Cut Vol	9913.00
Cum Fill Vol	16134.19
Net Vol	-6221.19



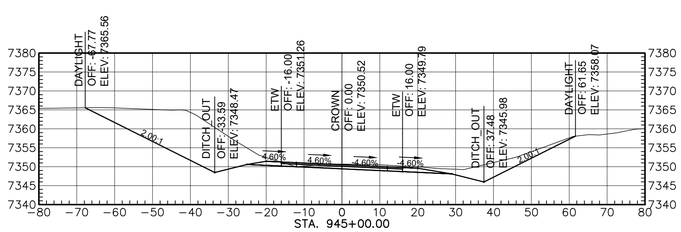
Total Volume at Station 942+00.00	
Cut Area	35.01
Fill Area	321.78
Cut Vol	250.86
Fill Vol	878.91
Cum Cut Vol	10163.87
Cum Fill Vol	17013.11
Net Vol	-6849.24



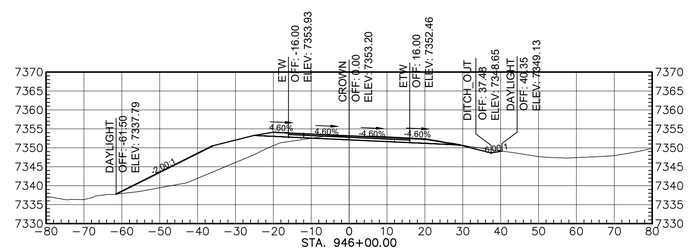
Total Volume at Station 943+00.00	
Cut Area	38.47
Fill Area	387.16
Cut Vol	135.31
Fill Vol	1331.77
Cum Cut Vol	10299.17
Cum Fill Vol	18344.87
Net Vol	-8045.70



Total Volume at Station 944+00.00	
Cut Area	41.21
Fill Area	343.72
Cut Vol	146.75
Fill Vol	1373.89
Cum Cut Vol	10445.93
Cum Fill Vol	19718.77
Net Vol	-9272.84



Total Volume at Station 945+00.00	
Cut Area	212.99
Fill Area	0.00
Cut Vol	469.71
Fill Vol	645.86
Cum Cut Vol	10915.64
Cum Fill Vol	20364.63
Net Vol	-9448.99



Total Volume at Station 946+00.00	
Cut Area	42.84
Fill Area	202.43
Cut Vol	470.77
Fill Vol	379.89
Cum Cut Vol	11388.41
Cum Fill Vol	20744.51
Net Vol	-9356.10

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 7 OF 48
CHECK	ASF		

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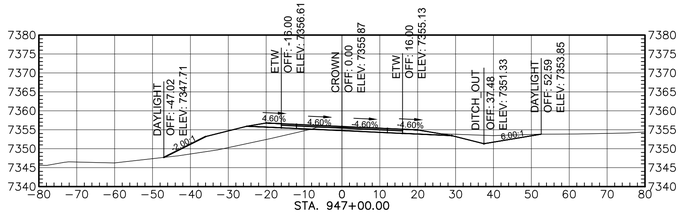
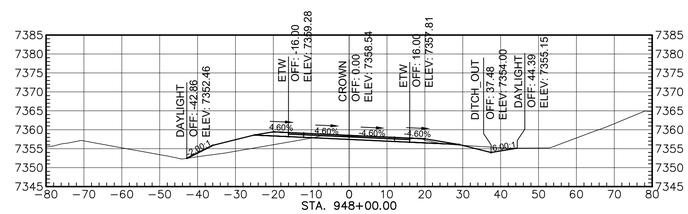
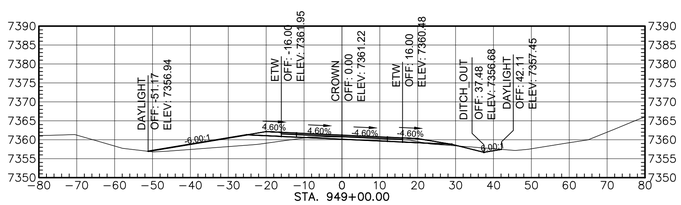
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	8	48



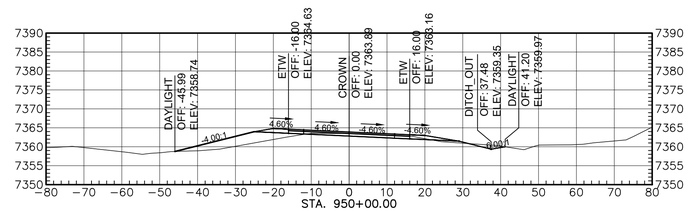
Total Volume at Station 947+00.00	
Cut Area	59.03
Fill Area	109.69
Cut Vol	187.34
Fill Vol	585.11
Cum Cut Vol	11575.76
Cum Fill Vol	21329.62
Net Vol	-9753.87



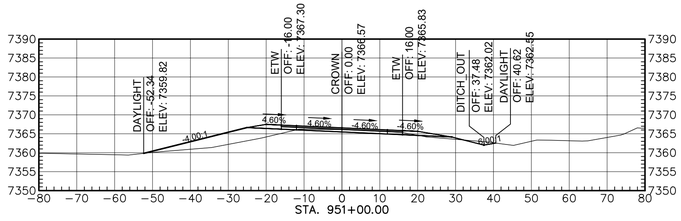
Total Volume at Station 948+00.00	
Cut Area	38.63
Fill Area	88.09
Cut Vol	179.53
Fill Vol	332.54
Cum Cut Vol	11755.29
Cum Fill Vol	21662.16
Net Vol	-9906.88



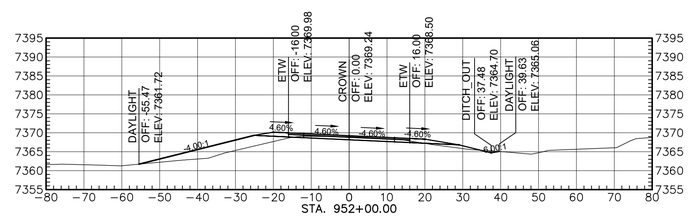
Total Volume at Station 949+00.00	
Cut Area	23.53
Fill Area	64.41
Cut Vol	114.47
Fill Vol	247.79
Cum Cut Vol	11869.76
Cum Fill Vol	21909.95
Net Vol	-10040.20



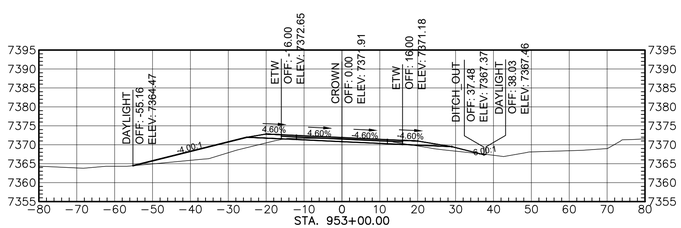
Total Volume at Station 950+00.00	
Cut Area	24.18
Fill Area	61.22
Cut Vol	87.90
Fill Vol	334.91
Cum Cut Vol	11957.66
Cum Fill Vol	22144.86
Net Vol	-10187.21



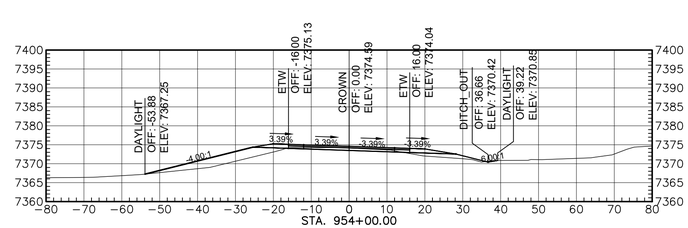
Total Volume at Station 951+00.00	
Cut Area	20.22
Fill Area	83.19
Cut Vol	81.87
Fill Vol	270.05
Cum Cut Vol	12039.52
Cum Fill Vol	22414.91
Net Vol	-10375.39



Total Volume at Station 952+00.00	
Cut Area	20.97
Fill Area	81.83
Cut Vol	76.07
Fill Vol	308.71
Cum Cut Vol	12115.59
Cum Fill Vol	22723.62
Net Vol	-10608.02



Total Volume at Station 953+00.00	
Cut Area	18.96
Fill Area	83.81
Cut Vol	73.86
Fill Vol	309.75
Cum Cut Vol	12189.46
Cum Fill Vol	23033.37
Net Vol	-10843.92



Total Volume at Station 954+00.00	
Cut Area	14.67
Fill Area	76.90
Cut Vol	62.25
Fill Vol	300.20
Cum Cut Vol	12251.71
Cum Fill Vol	23333.57
Net Vol	-11081.87

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 8 OF 48	
CHECK ASF			

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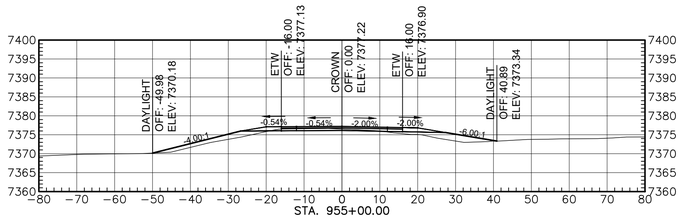
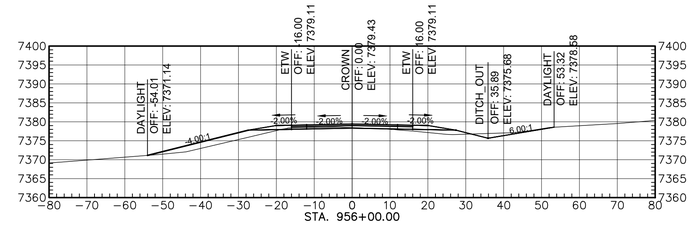
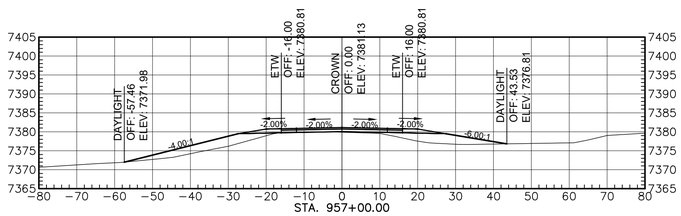
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	9	48



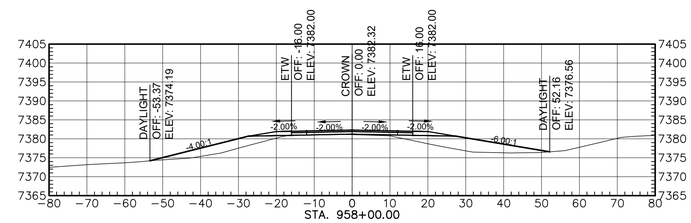
Total Volume at Station 955+00.00	
Cut Area	11.36
Fill Area	59.34
Cut Vol	48.21
Fill Vol	252.29
Cum Cut Vol	12299.91
Cum Fill Vol	23585.86
Net Vol	-11285.95



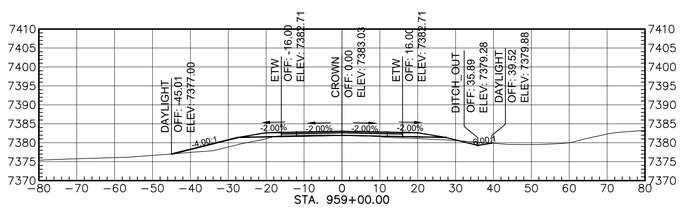
Total Volume at Station 956+00.00	
Cut Area	16.33
Fill Area	59.39
Cut Vol	51.28
Fill Vol	219.87
Cum Cut Vol	12351.19
Cum Fill Vol	23805.73
Net Vol	-11454.54



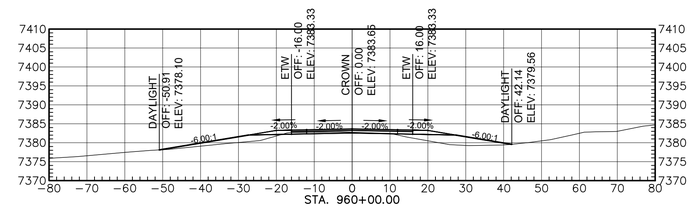
Total Volume at Station 957+00.00	
Cut Area	0.52
Fill Area	121.78
Cut Vol	31.19
Fill Vol	335.50
Cum Cut Vol	12382.39
Cum Fill Vol	24141.23
Net Vol	-11758.85



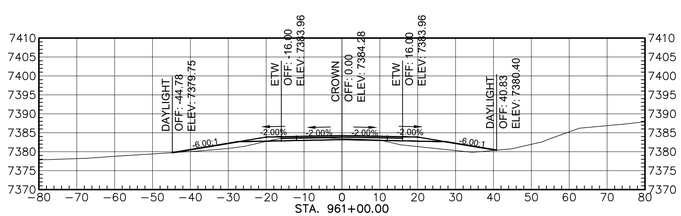
Total Volume at Station 958+00.00	
Cut Area	0.61
Fill Area	148.05
Cut Vol	2.09
Fill Vol	499.69
Cum Cut Vol	12384.48
Cum Fill Vol	24640.93
Net Vol	-12256.45



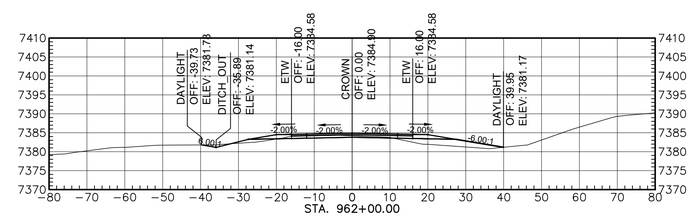
Total Volume at Station 959+00.00	
Cut Area	6.64
Fill Area	40.80
Cut Vol	13.42
Fill Vol	349.73
Cum Cut Vol	12397.90
Cum Fill Vol	24990.65
Net Vol	-12592.75



Total Volume at Station 960+00.00	
Cut Area	7.98
Fill Area	76.33
Cut Vol	27.07
Fill Vol	216.91
Cum Cut Vol	12424.98
Cum Fill Vol	25207.56
Net Vol	-12782.59



Total Volume at Station 961+00.00	
Cut Area	11.26
Fill Area	59.64
Cut Vol	35.64
Fill Vol	251.80
Cum Cut Vol	12460.62
Cum Fill Vol	25459.37
Net Vol	-12998.75



Total Volume at Station 962+00.00	
Cut Area	15.25
Fill Area	40.28
Cut Vol	49.10
Fill Vol	185.04
Cum Cut Vol	12509.72
Cum Fill Vol	25644.41
Net Vol	-13134.68

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 9 OF 48
CHECK	ASF		

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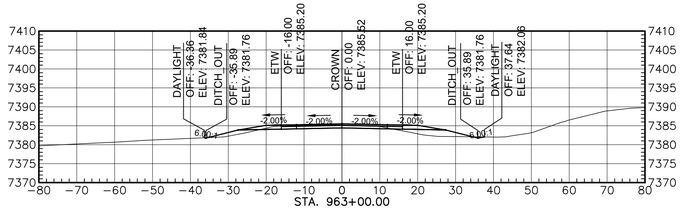
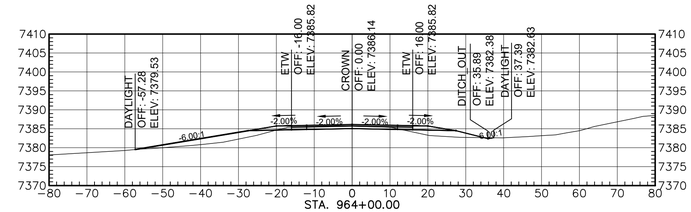
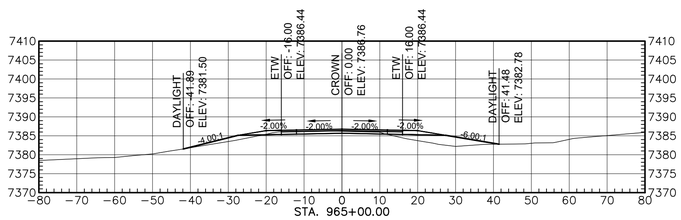
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	10	48



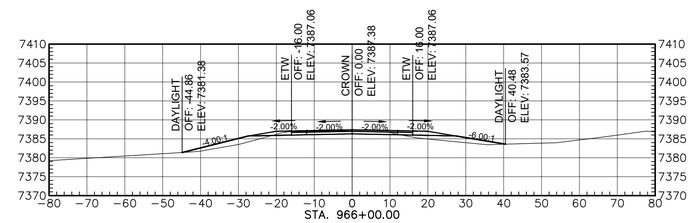
Total Volume at Station 963+00.00	
Cut Area	24.38
Fill Area	30.63
Cut Vol	73.39
Fill Vol	131.31
Cum Cut Vol	12583.11
Cum Fill Vol	25775.71
Net Vol	-13192.60



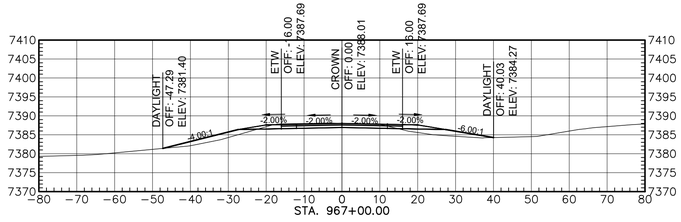
Total Volume at Station 964+00.00	
Cut Area	21.03
Fill Area	66.32
Cut Vol	84.08
Fill Vol	179.53
Cum Cut Vol	12667.19
Cum Fill Vol	25955.24
Net Vol	-13288.05



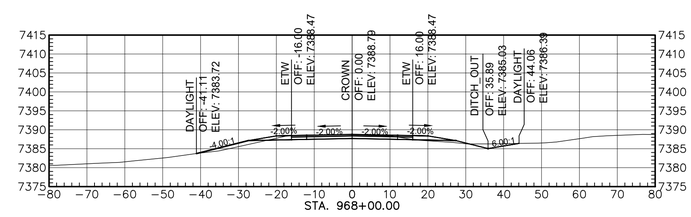
Total Volume at Station 965+00.00	
Cut Area	17.81
Fill Area	55.45
Cut Vol	71.92
Fill Vol	225.50
Cum Cut Vol	12739.11
Cum Fill Vol	26180.74
Net Vol	-13441.64



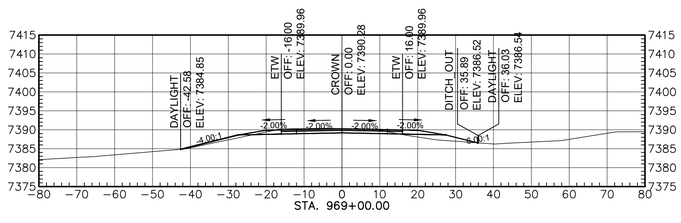
Total Volume at Station 966+00.00	
Cut Area	24.22
Fill Area	49.26
Cut Vol	77.83
Fill Vol	193.62
Cum Cut Vol	12816.94
Cum Fill Vol	26374.66
Net Vol	-13557.73



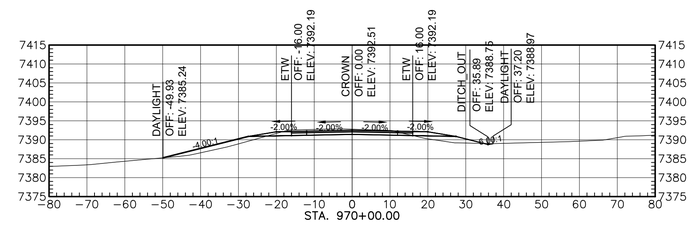
Total Volume at Station 967+00.00	
Cut Area	37.72
Fill Area	48.98
Cut Vol	114.70
Fill Vol	181.93
Cum Cut Vol	12931.64
Cum Fill Vol	26556.59
Net Vol	-13624.95



Total Volume at Station 968+00.00	
Cut Area	42.47
Fill Area	16.59
Cut Vol	148.50
Fill Vol	121.42
Cum Cut Vol	13080.14
Cum Fill Vol	26678.01
Net Vol	-13597.87



Total Volume at Station 969+00.00	
Cut Area	38.55
Fill Area	24.76
Cut Vol	150.05
Fill Vol	76.56
Cum Cut Vol	13230.19
Cum Fill Vol	26754.57
Net Vol	-13524.38



Total Volume at Station 970+00.00	
Cut Area	46.42
Fill Area	43.58
Cut Vol	157.36
Fill Vol	126.55
Cum Cut Vol	13387.55
Cum Fill Vol	26881.12
Net Vol	-13493.57

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

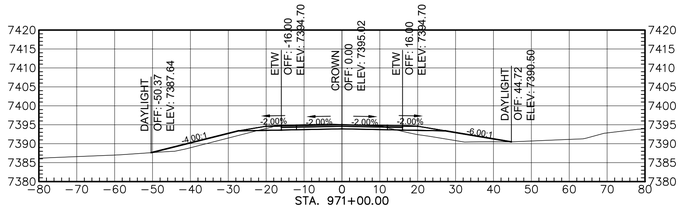
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

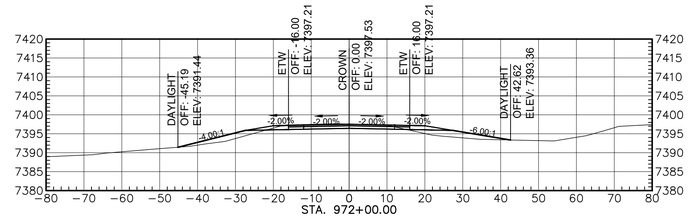
DESIGN JEB	WCEA NO. 1710009012	DATE 2025	
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 10 OF 48	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:34 PM

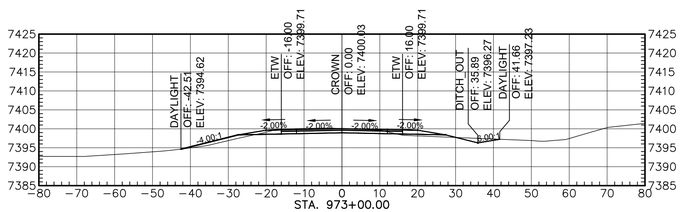
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	11	48



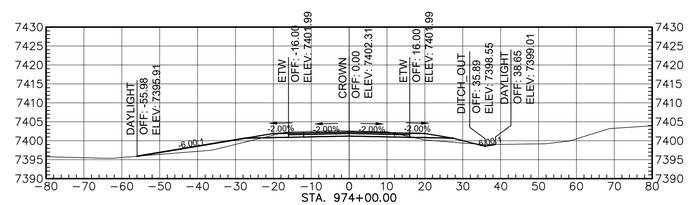
Total Volume at Station 971+00.00	
Cut Area	38.13
Fill Area	66.22
Cut Vol	158.57
Fill Vol	203.34
Cum Cut Vol	13544.12
Cum Fill Vol	27084.46
Net Vol	-13540.34



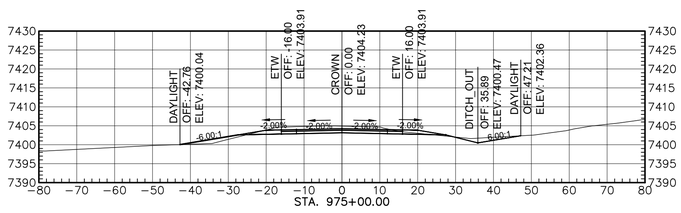
Total Volume at Station 972+00.00	
Cut Area	37.23
Fill Area	50.65
Cut Vol	139.56
Fill Vol	216.44
Cum Cut Vol	13683.68
Cum Fill Vol	27300.90
Net Vol	-13617.22



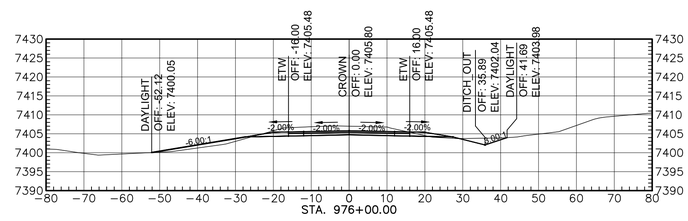
Total Volume at Station 973+00.00	
Cut Area	44.78
Fill Area	18.18
Cut Vol	151.88
Fill Vol	127.47
Cum Cut Vol	13835.56
Cum Fill Vol	27428.36
Net Vol	-13592.81



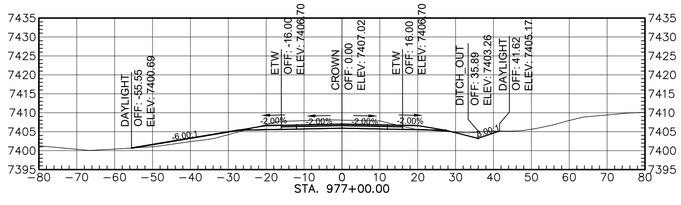
Total Volume at Station 974+00.00	
Cut Area	47.59
Fill Area	41.77
Cut Vol	171.04
Fill Vol	111.02
Cum Cut Vol	14006.60
Cum Fill Vol	27539.38
Net Vol	-13532.78



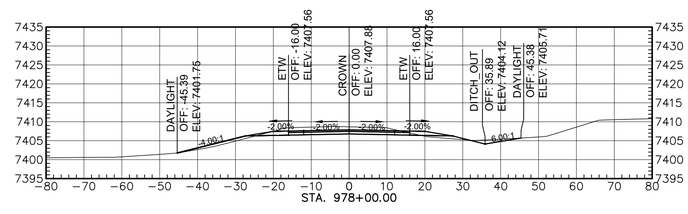
Total Volume at Station 975+00.00	
Cut Area	75.71
Fill Area	12.05
Cut Vol	228.32
Fill Vol	99.67
Cum Cut Vol	14234.92
Cum Fill Vol	27639.05
Net Vol	-13404.14



Total Volume at Station 976+00.00	
Cut Area	95.46
Fill Area	19.66
Cut Vol	316.97
Fill Vol	58.72
Cum Cut Vol	14551.88
Cum Fill Vol	27697.78
Net Vol	-13145.89



Total Volume at Station 977+00.00	
Cut Area	87.75
Fill Area	22.04
Cut Vol	339.27
Fill Vol	77.21
Cum Cut Vol	14891.15
Cum Fill Vol	27774.98
Net Vol	-12883.83



Total Volume at Station 978+00.00	
Cut Area	73.97
Fill Area	15.90
Cut Vol	299.48
Fill Vol	70.25
Cum Cut Vol	15190.63
Cum Fill Vol	27845.23
Net Vol	-12654.59

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

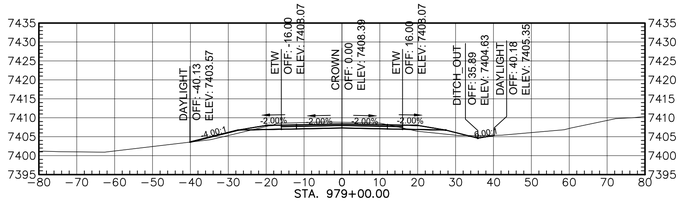
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

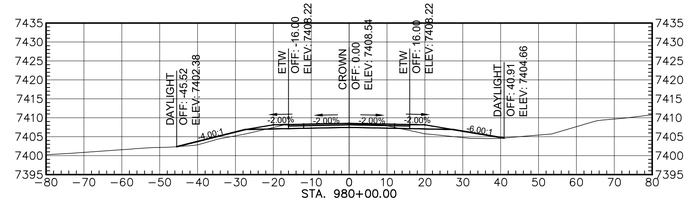
DESIGN JEB	WCEA NO. 1710009012	DATE 2025	
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 11 OF 48	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:34 PM

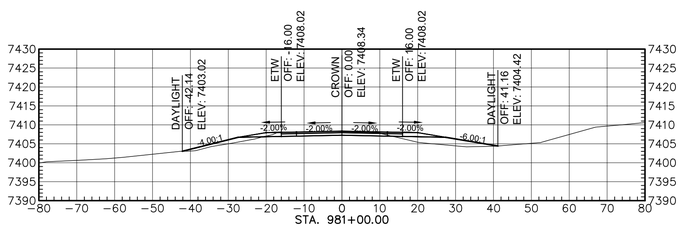
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	12	48



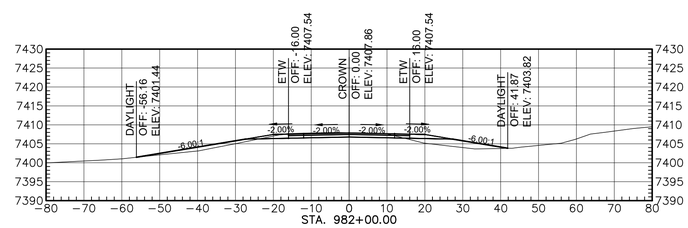
Total Volume at Station 979+00.00	
Cut Area	55.55
Fill Area	18.89
Cut Vol	239.86
Fill Vol	64.43
Cum Cut Vol	15430.49
Cum Fill Vol	27909.65
Net Vol	-12479.16



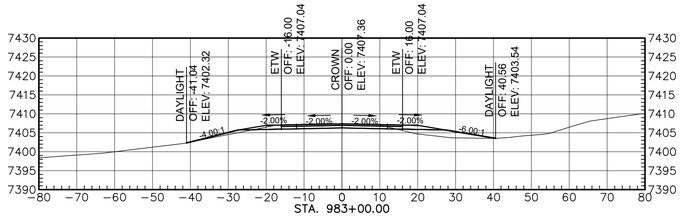
Total Volume at Station 980+00.00	
Cut Area	31.26
Fill Area	48.57
Cut Vol	160.77
Fill Vol	124.93
Cum Cut Vol	15591.26
Cum Fill Vol	28034.58
Net Vol	-12443.32



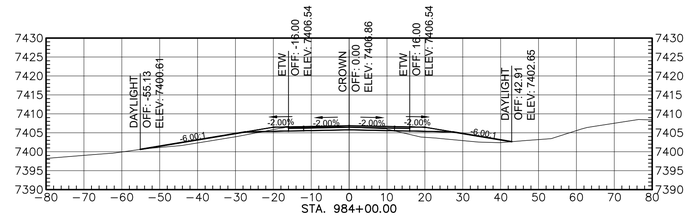
Total Volume at Station 981+00.00	
Cut Area	30.50
Fill Area	50.36
Cut Vol	114.37
Fill Vol	183.20
Cum Cut Vol	15705.63
Cum Fill Vol	28217.78
Net Vol	-12512.15



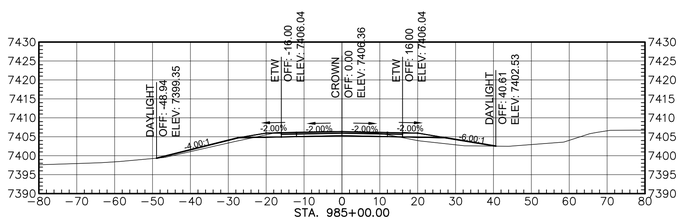
Total Volume at Station 982+00.00	
Cut Area	38.66
Fill Area	53.17
Cut Vol	128.06
Fill Vol	191.72
Cum Cut Vol	15833.71
Cum Fill Vol	28409.51
Net Vol	-12575.80



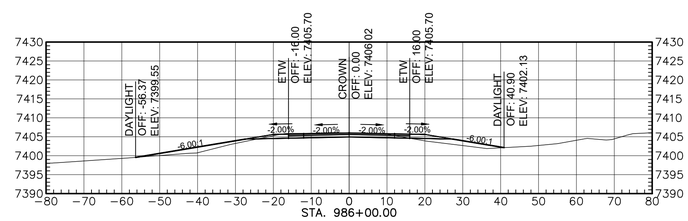
Total Volume at Station 983+00.00	
Cut Area	36.22
Fill Area	34.42
Cut Vol	138.67
Fill Vol	162.19
Cum Cut Vol	15972.38
Cum Fill Vol	28571.70
Net Vol	-12599.32



Total Volume at Station 984+00.00	
Cut Area	23.47
Fill Area	60.26
Cut Vol	110.54
Fill Vol	175.32
Cum Cut Vol	16082.92
Cum Fill Vol	28747.02
Net Vol	-12664.11



Total Volume at Station 985+00.00	
Cut Area	35.89
Fill Area	36.85
Cut Vol	109.93
Fill Vol	179.84
Cum Cut Vol	16192.84
Cum Fill Vol	28926.86
Net Vol	-12734.01



Total Volume at Station 986+00.00	
Cut Area	38.26
Fill Area	47.39
Cut Vol	137.32
Fill Vol	156.01
Cum Cut Vol	16330.16
Cum Fill Vol	29082.87
Net Vol	-12752.71

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

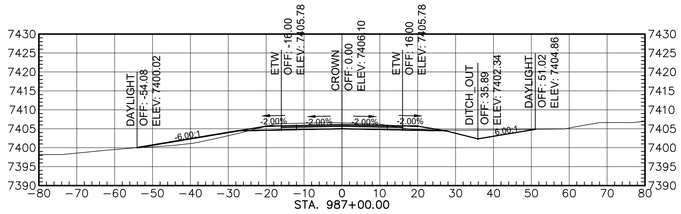
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

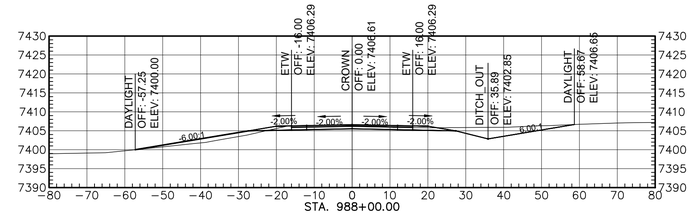
DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 12 OF 48	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:34 PM

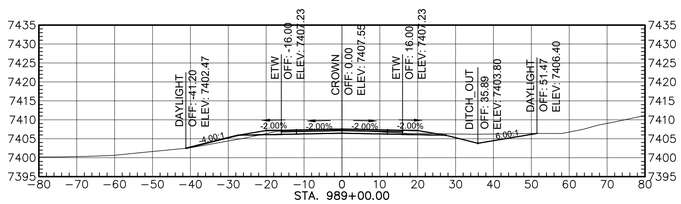
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	13	48



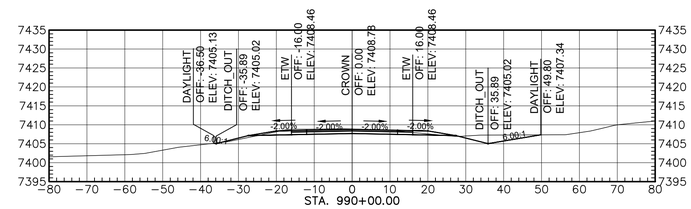
Total Volume at Station 987+00.00	
Cut Area	86.43
Fill Area	24.33
Cut Vol	230.92
Fill Vol	132.82
Cum Cut Vol	16561.09
Cum Fill Vol	29215.70
Net Vol	-12654.61



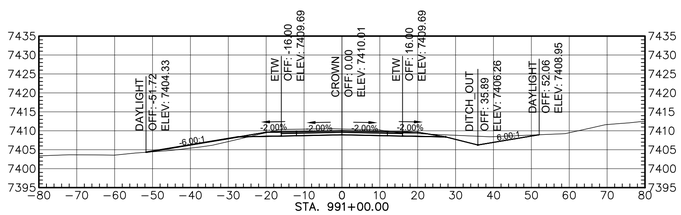
Total Volume at Station 988+00.00	
Cut Area	90.71
Fill Area	25.70
Cut Vol	328.04
Fill Vol	92.66
Cum Cut Vol	16889.13
Cum Fill Vol	29308.35
Net Vol	-12419.22



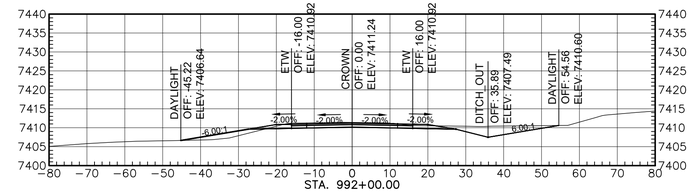
Total Volume at Station 989+00.00	
Cut Area	61.77
Fill Area	11.01
Cut Vol	282.38
Fill Vol	67.98
Cum Cut Vol	17171.50
Cum Fill Vol	29376.33
Net Vol	-12204.83



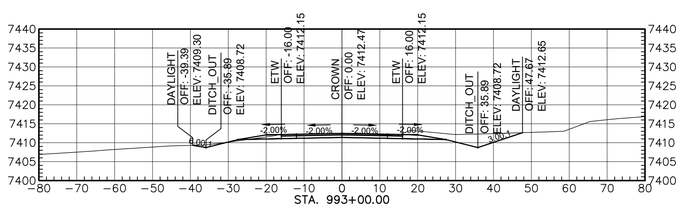
Total Volume at Station 990+00.00	
Cut Area	72.65
Fill Area	3.33
Cut Vol	248.94
Fill Vol	26.54
Cum Cut Vol	17420.44
Cum Fill Vol	29402.88
Net Vol	-11982.43



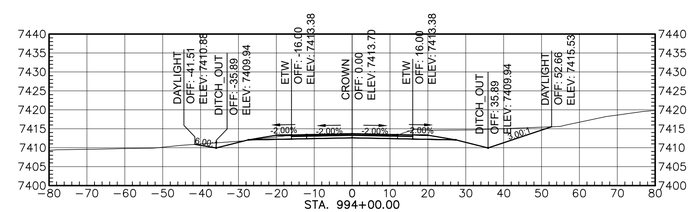
Total Volume at Station 991+00.00	
Cut Area	93.16
Fill Area	18.04
Cut Vol	307.05
Fill Vol	39.57
Cum Cut Vol	17727.49
Cum Fill Vol	29442.44
Net Vol	-11714.95



Total Volume at Station 992+00.00	
Cut Area	96.55
Fill Area	19.81
Cut Vol	351.31
Fill Vol	70.10
Cum Cut Vol	18078.80
Cum Fill Vol	29512.54
Net Vol	-11433.74



Total Volume at Station 993+00.00	
Cut Area	103.01
Fill Area	1.04
Cut Vol	369.56
Fill Vol	38.62
Cum Cut Vol	18448.36
Cum Fill Vol	29551.16
Net Vol	-11102.80



Total Volume at Station 994+00.00	
Cut Area	146.49
Fill Area	0.05
Cut Vol	462.03
Fill Vol	2.01
Cum Cut Vol	18910.39
Cum Fill Vol	29553.17
Net Vol	-10642.78

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

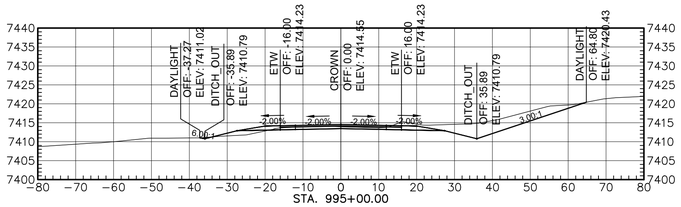
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

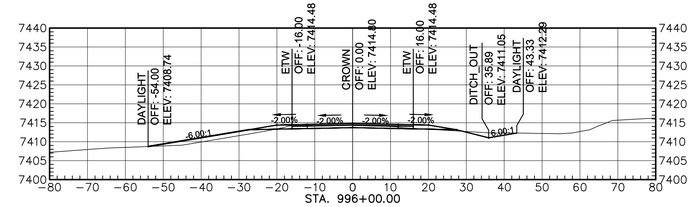
DESIGN JEB	WCEA NO. 1710009012	DATE 2025	
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 13 OF 48	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:34 PM

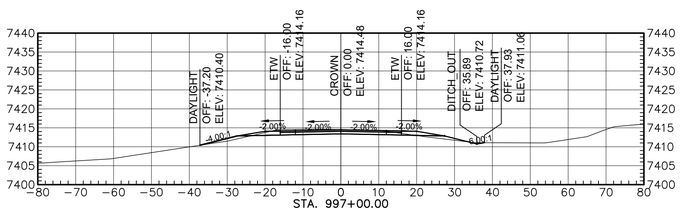
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	14	48



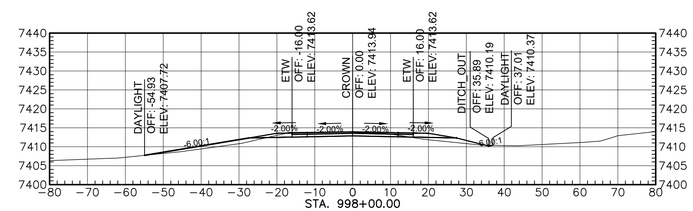
Total Volume at Station 995+00.00	
Cut Area	130.40
Fill Area	10.37
Cut Vol	512.76
Fill Vol	19.28
Cum Cut Vol	19423.15
Cum Fill Vol	29572.46
Net Vol	-10149.30



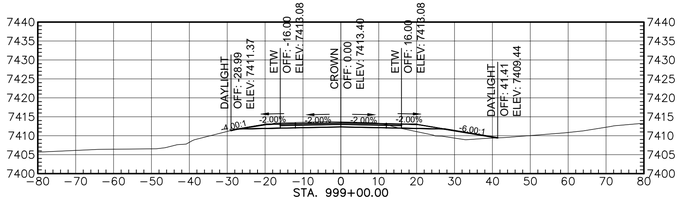
Total Volume at Station 996+00.00	
Cut Area	30.16
Fill Area	30.77
Cut Vol	297.33
Fill Vol	76.17
Cum Cut Vol	19720.48
Cum Fill Vol	29648.63
Net Vol	-9928.15



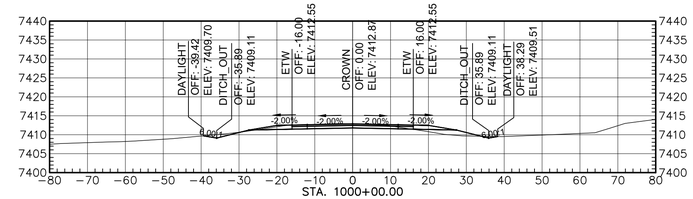
Total Volume at Station 997+00.00	
Cut Area	45.08
Fill Area	11.88
Cut Vol	139.32
Fill Vol	75.98
Cum Cut Vol	19859.80
Cum Fill Vol	29727.61
Net Vol	-9867.81



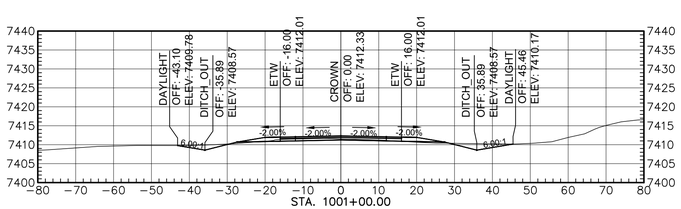
Total Volume at Station 998+00.00	
Cut Area	33.49
Fill Area	34.64
Cut Vol	145.49
Fill Vol	86.16
Cum Cut Vol	20005.29
Cum Fill Vol	29813.77
Net Vol	-9808.48



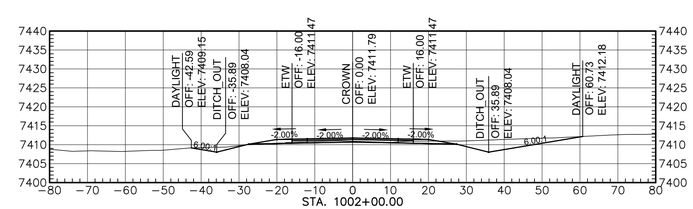
Total Volume at Station 999+00.00	
Cut Area	46.60
Fill Area	32.09
Cut Vol	148.31
Fill Vol	123.57
Cum Cut Vol	20153.60
Cum Fill Vol	29937.34
Net Vol	-9783.74



Total Volume at Station 1000+00.00	
Cut Area	41.66
Fill Area	14.62
Cut Vol	163.45
Fill Vol	86.49
Cum Cut Vol	20317.06
Cum Fill Vol	30023.83
Net Vol	-9706.78



Total Volume at Station 1001+00.00	
Cut Area	34.79
Fill Area	4.11
Cut Vol	141.58
Fill Vol	34.68
Cum Cut Vol	20458.64
Cum Fill Vol	30058.51
Net Vol	-9599.88



Total Volume at Station 1002+00.00	
Cut Area	81.74
Fill Area	0.84
Cut Vol	215.80
Fill Vol	9.17
Cum Cut Vol	20674.44
Cum Fill Vol	30067.68
Net Vol	-9393.25

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 14 OF 48
CHECK	ASF		

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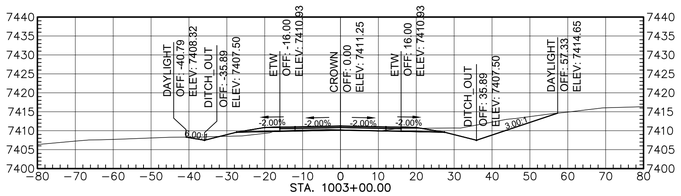
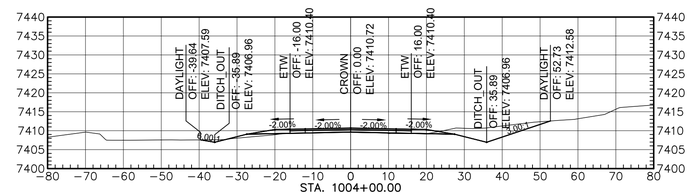
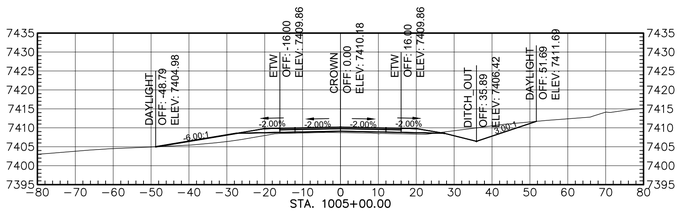
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	15	48



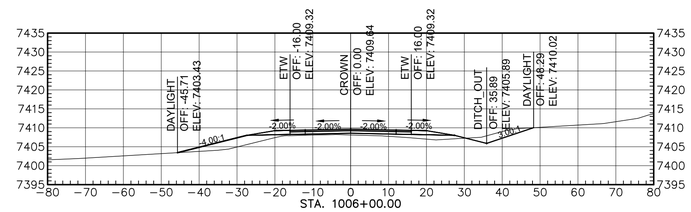
Total Volume at Station 1003+00.00	
Cut Area	86.35
Fill Area	9.06
Cut Vol	311.29
Fill Vol	18.34
Cum Cut Vol	20985.73
Cum Fill Vol	30086.02
Net Vol	-9100.30



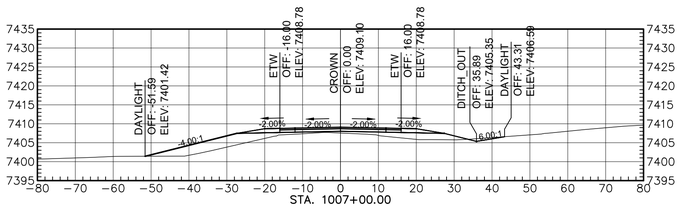
Total Volume at Station 1004+00.00	
Cut Area	63.99
Fill Area	8.42
Cut Vol	278.42
Fill Vol	32.38
Cum Cut Vol	21264.15
Cum Fill Vol	30118.40
Net Vol	-8854.26



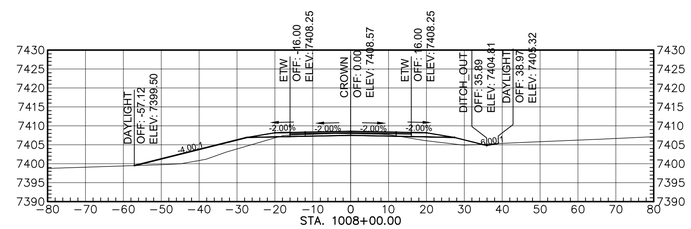
Total Volume at Station 1005+00.00	
Cut Area	46.10
Fill Area	47.94
Cut Vol	203.87
Fill Vol	104.38
Cum Cut Vol	21468.02
Cum Fill Vol	30222.78
Net Vol	-8754.76



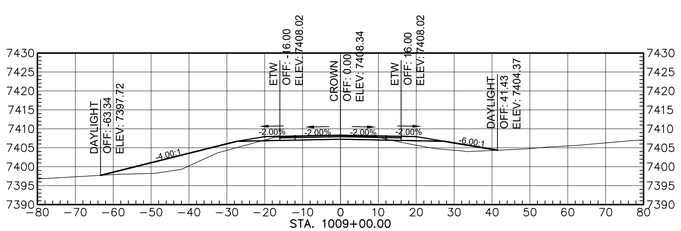
Total Volume at Station 1006+00.00	
Cut Area	21.12
Fill Area	71.11
Cut Vol	124.48
Fill Vol	220.46
Cum Cut Vol	21592.49
Cum Fill Vol	30443.24
Net Vol	-8850.75



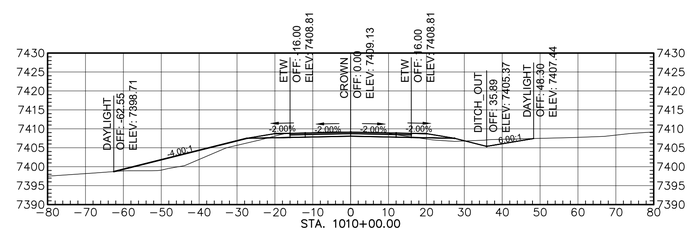
Total Volume at Station 1007+00.00	
Cut Area	3.38
Fill Area	118.18
Cut Vol	45.37
Fill Vol	350.52
Cum Cut Vol	21637.87
Cum Fill Vol	30793.76
Net Vol	-9155.90



Total Volume at Station 1008+00.00	
Cut Area	14.49
Fill Area	93.61
Cut Vol	33.10
Fill Vol	392.20
Cum Cut Vol	21670.97
Cum Fill Vol	31185.96
Net Vol	-9514.99



Total Volume at Station 1009+00.00	
Cut Area	28.82
Fill Area	120.76
Cut Vol	80.20
Fill Vol	396.99
Cum Cut Vol	21751.17
Cum Fill Vol	31582.95
Net Vol	-9831.78



Total Volume at Station 1010+00.00	
Cut Area	51.77
Fill Area	74.63
Cut Vol	149.24
Fill Vol	361.85
Cum Cut Vol	21900.41
Cum Fill Vol	31944.79
Net Vol	-10044.39

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

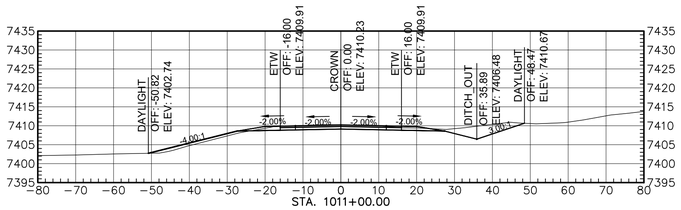
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

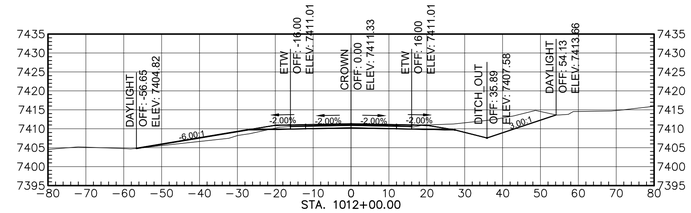
DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 15 OF 48
CHECK	ASF		

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:34 PM

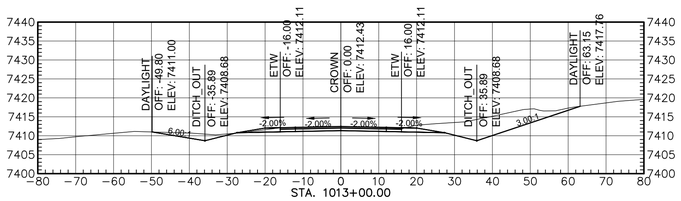
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	16	48



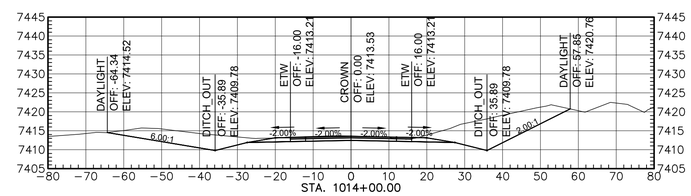
Total Volume at Station 1011+00.00	
Cut Area	87.37
Fill Area	16.26
Cut Vol	257.66
Fill Vol	168.33
Cum Cut Vol	22158.07
Cum Fill Vol	32113.12
Net Vol	-9955.05



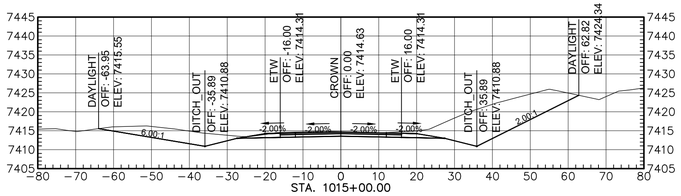
Total Volume at Station 1012+00.00	
Cut Area	124.39
Fill Area	25.83
Cut Vol	392.14
Fill Vol	77.96
Cum Cut Vol	22550.21
Cum Fill Vol	32191.06
Net Vol	-9640.87



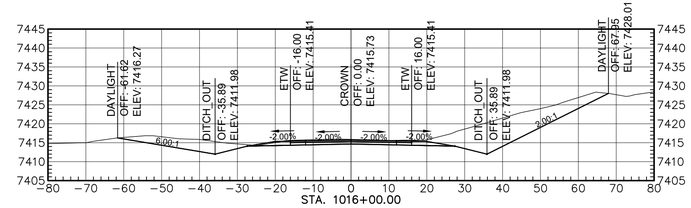
Total Volume at Station 1013+00.00	
Cut Area	198.26
Fill Area	0.09
Cut Vol	597.51
Fill Vol	48.00
Cum Cut Vol	23147.72
Cum Fill Vol	32239.09
Net Vol	-9091.37



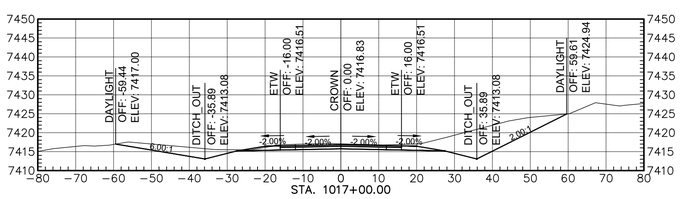
Total Volume at Station 1014+00.00	
Cut Area	342.31
Fill Area	0.00
Cut Vol	1001.06
Fill Vol	0.16
Cum Cut Vol	24148.78
Cum Fill Vol	32239.25
Net Vol	-8090.47



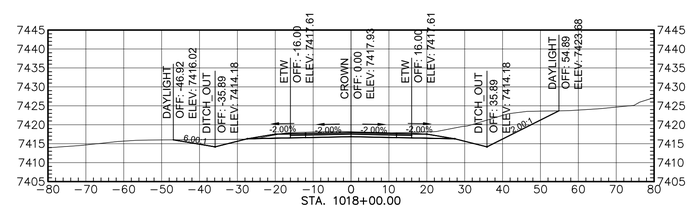
Total Volume at Station 1015+00.00	
Cut Area	391.56
Fill Area	0.00
Cut Vol	1359.01
Fill Vol	0.00
Cum Cut Vol	25507.79
Cum Fill Vol	32239.25
Net Vol	-6731.46



Total Volume at Station 1016+00.00	
Cut Area	342.68
Fill Area	0.00
Cut Vol	1359.70
Fill Vol	0.00
Cum Cut Vol	26867.49
Cum Fill Vol	32239.25
Net Vol	-5371.76



Total Volume at Station 1017+00.00	
Cut Area	279.80
Fill Area	0.00
Cut Vol	1152.75
Fill Vol	0.00
Cum Cut Vol	28020.23
Cum Fill Vol	32239.25
Net Vol	-4219.02



Total Volume at Station 1018+00.00	
Cut Area	210.42
Fill Area	0.27
Cut Vol	907.82
Fill Vol	0.51
Cum Cut Vol	28928.06
Cum Fill Vol	32239.76
Net Vol	-3311.70

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE 2025	
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 16 OF 48	
CHECK ASF			

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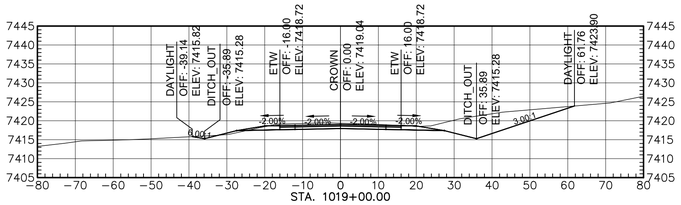
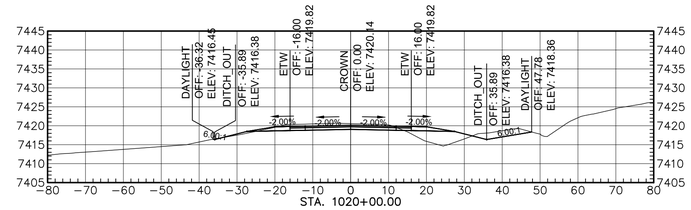
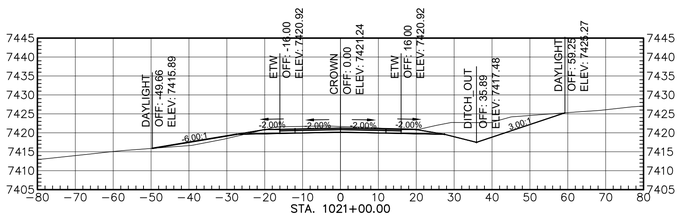
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	17	48



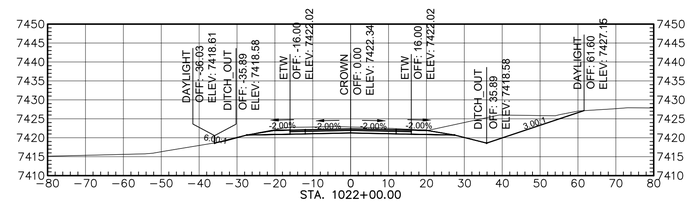
Total Volume at Station 1019+00.00	
Cut Area	185.66
Fill Area	2.00
Cut Vol	733.48
Fill Vol	5.14
Cum Cut Vol	29661.54
Cum Fill Vol	32244.90
Net Vol	-2583.36



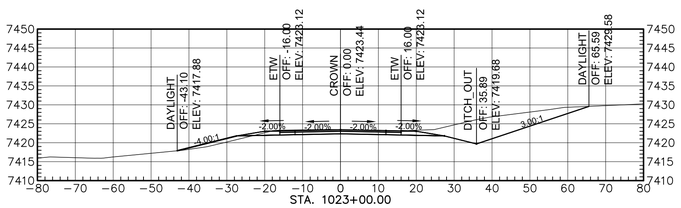
Total Volume at Station 1020+00.00	
Cut Area	71.80
Fill Area	42.25
Cut Vol	476.78
Fill Vol	82.87
Cum Cut Vol	30138.32
Cum Fill Vol	32327.76
Net Vol	-2189.45



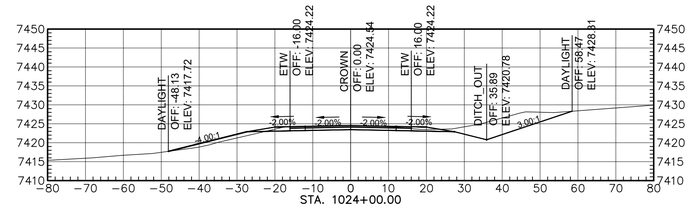
Total Volume at Station 1021+00.00	
Cut Area	176.04
Fill Area	14.73
Cut Vol	458.98
Fill Vol	105.52
Cum Cut Vol	30597.29
Cum Fill Vol	32433.28
Net Vol	-1835.99



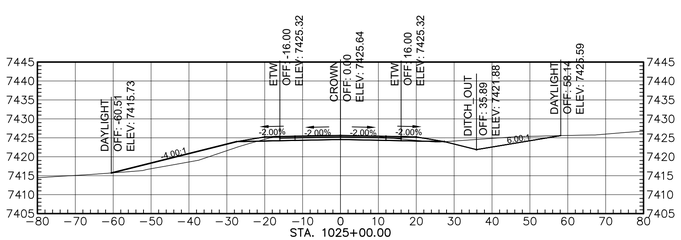
Total Volume at Station 1022+00.00	
Cut Area	203.63
Fill Area	0.85
Cut Vol	703.10
Fill Vol	28.86
Cum Cut Vol	31300.40
Cum Fill Vol	32462.14
Net Vol	-1161.74



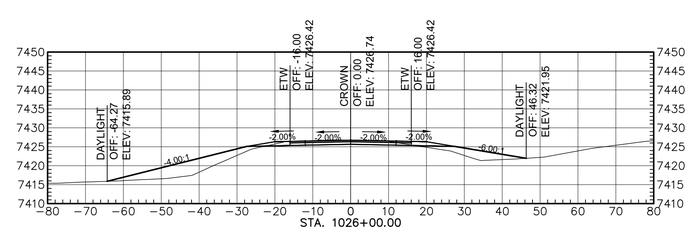
Total Volume at Station 1023+00.00	
Cut Area	199.64
Fill Area	13.31
Cut Vol	746.80
Fill Vol	26.21
Cum Cut Vol	32047.20
Cum Fill Vol	32488.35
Net Vol	-441.16



Total Volume at Station 1024+00.00	
Cut Area	133.96
Fill Area	18.42
Cut Vol	617.77
Fill Vol	58.76
Cum Cut Vol	32664.97
Cum Fill Vol	32547.11
Net Vol	117.86



Total Volume at Station 1025+00.00	
Cut Area	83.40
Fill Area	58.05
Cut Vol	402.52
Fill Vol	141.63
Cum Cut Vol	33087.49
Cum Fill Vol	32888.74
Net Vol	378.75



Total Volume at Station 1026+00.00	
Cut Area	37.36
Fill Area	127.36
Cut Vol	223.63
Fill Vol	343.36
Cum Cut Vol	33291.13
Cum Fill Vol	33032.10
Net Vol	259.03

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 17 OF 48
CHECK	ASF		

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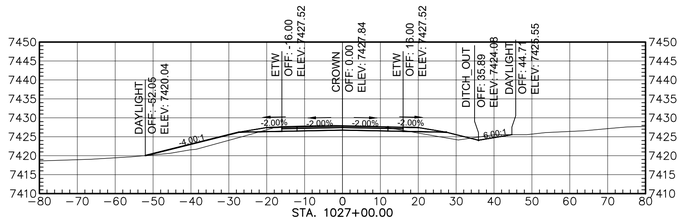
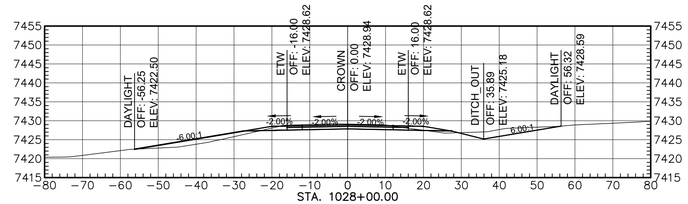
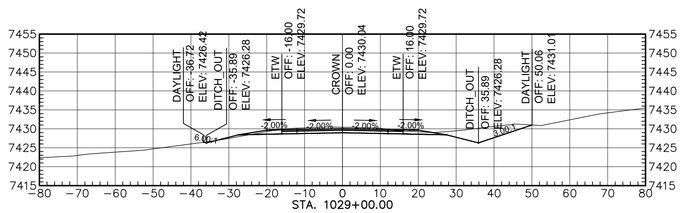
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	18	48



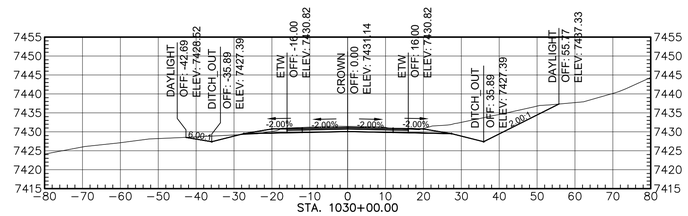
Total Volume at Station 1027+00.00	
Cut Area	48.21
Fill Area	47.72
Cut Vol	158.45
Fill Vol	324.23
Cum Cut Vol	33449.57
Cum Fill Vol	33356.32
Net Vol	93.25



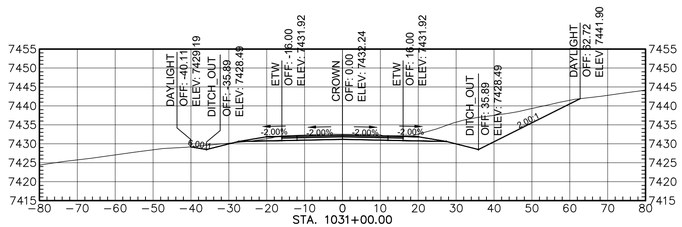
Total Volume at Station 1028+00.00	
Cut Area	76.03
Fill Area	34.87
Cut Vol	230.07
Fill Vol	152.95
Cum Cut Vol	33679.64
Cum Fill Vol	33509.28
Net Vol	170.37



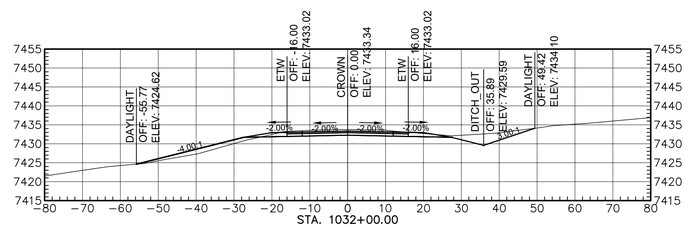
Total Volume at Station 1029+00.00	
Cut Area	109.02
Fill Area	2.32
Cut Vol	342.70
Fill Vol	68.87
Cum Cut Vol	34022.34
Cum Fill Vol	33578.15
Net Vol	444.19



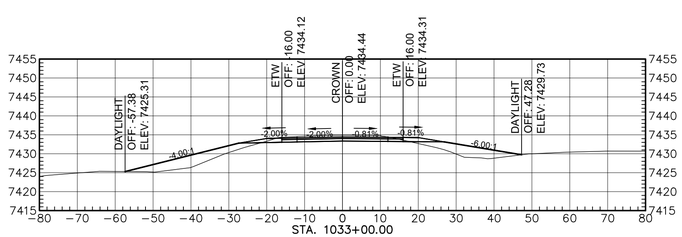
Total Volume at Station 1030+00.00	
Cut Area	180.18
Fill Area	0.77
Cut Vol	535.56
Fill Vol	5.72
Cum Cut Vol	34557.90
Cum Fill Vol	33583.87
Net Vol	974.03



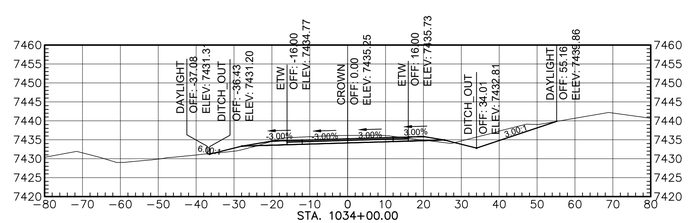
Total Volume at Station 1031+00.00	
Cut Area	247.25
Fill Area	0.49
Cut Vol	791.53
Fill Vol	2.33
Cum Cut Vol	35349.43
Cum Fill Vol	33586.20
Net Vol	1763.23



Total Volume at Station 1032+00.00	
Cut Area	94.31
Fill Area	27.16
Cut Vol	632.51
Fill Vol	51.20
Cum Cut Vol	35981.94
Cum Fill Vol	33637.40
Net Vol	2344.54



Total Volume at Station 1033+00.00	
Cut Area	49.59
Fill Area	120.11
Cut Vol	286.49
Fill Vol	272.71
Cum Cut Vol	36248.43
Cum Fill Vol	33910.11
Net Vol	2338.32



Total Volume at Station 1034+00.00	
Cut Area	113.57
Fill Area	9.11
Cut Vol	302.16
Fill Vol	239.28
Cum Cut Vol	36550.59
Cum Fill Vol	34149.39
Net Vol	2401.20

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 18 OF 48
CHECK	ASF		

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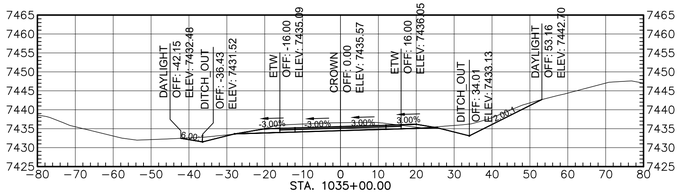
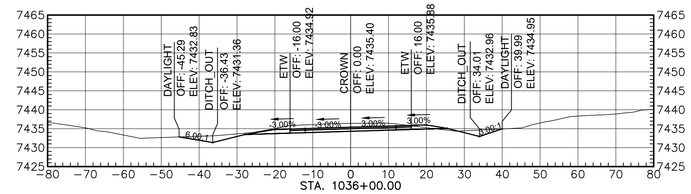
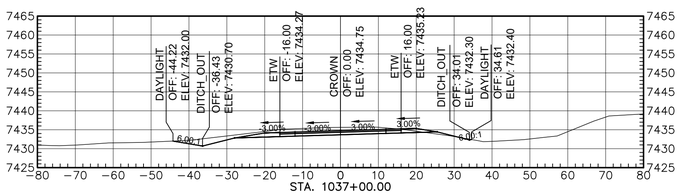
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	19	48



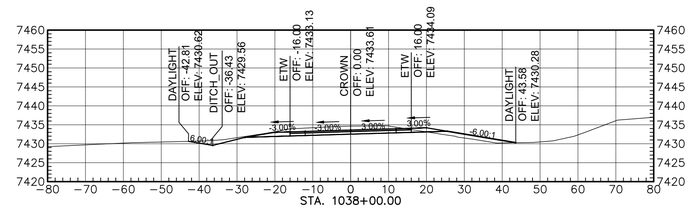
Total Volume at Station 1035+00.00	
Cut Area	127.25
Fill Area	0.00
Cut Vol	447.09
Fill Vol	16.82
Cum Cut Vol	36997.68
Cum Fill Vol	34166.21
Net Vol	2831.47



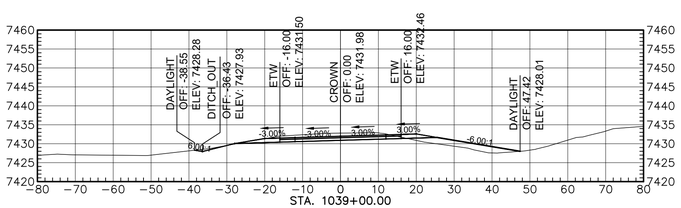
Total Volume at Station 1036+00.00	
Cut Area	104.40
Fill Area	1.53
Cut Vol	429.22
Fill Vol	2.85
Cum Cut Vol	37426.90
Cum Fill Vol	34169.06
Net Vol	3257.83



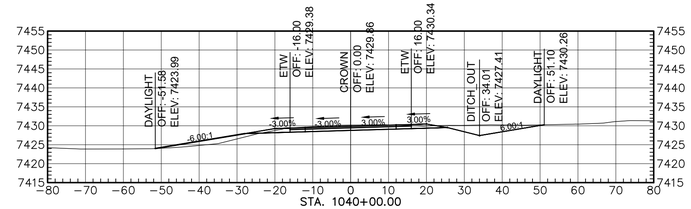
Total Volume at Station 1037+00.00	
Cut Area	95.38
Fill Area	2.53
Cut Vol	369.37
Fill Vol	7.57
Cum Cut Vol	37796.26
Cum Fill Vol	34176.63
Net Vol	3619.63



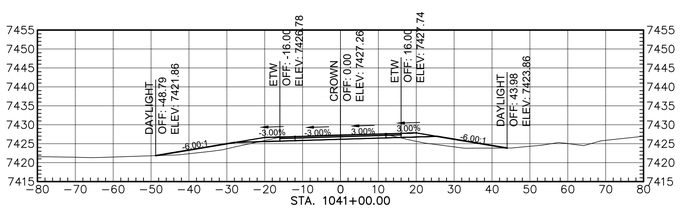
Total Volume at Station 1038+00.00	
Cut Area	83.97
Fill Area	18.04
Cut Vol	331.50
Fill Vol	36.36
Cum Cut Vol	38127.76
Cum Fill Vol	34214.99
Net Vol	3912.77



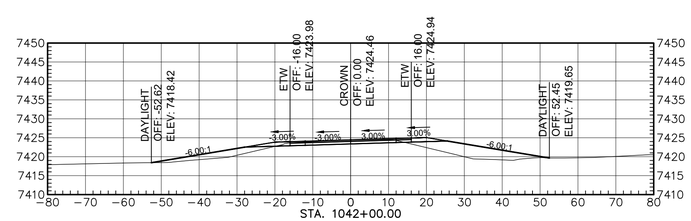
Total Volume at Station 1039+00.00	
Cut Area	65.20
Fill Area	37.79
Cut Vol	275.86
Fill Vol	104.10
Cum Cut Vol	38403.63
Cum Fill Vol	34319.10
Net Vol	4084.53



Total Volume at Station 1040+00.00	
Cut Area	88.21
Fill Area	23.91
Cut Vol	284.52
Fill Vol	114.40
Cum Cut Vol	38688.14
Cum Fill Vol	34433.49
Net Vol	4254.65



Total Volume at Station 1041+00.00	
Cut Area	35.76
Fill Area	61.42
Cut Vol	230.09
Fill Vol	157.79
Cum Cut Vol	38918.23
Cum Fill Vol	34591.28
Net Vol	4326.95



Total Volume at Station 1042+00.00	
Cut Area	29.04
Fill Area	115.77
Cut Vol	119.93
Fill Vol	328.75
Cum Cut Vol	39038.17
Cum Fill Vol	34920.03
Net Vol	4118.13

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 19 OF 48
CHECK	ASF		

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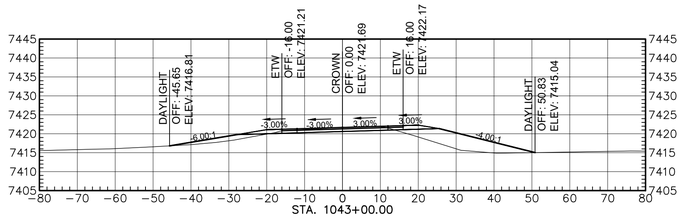
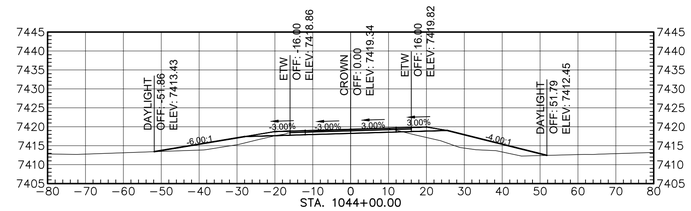
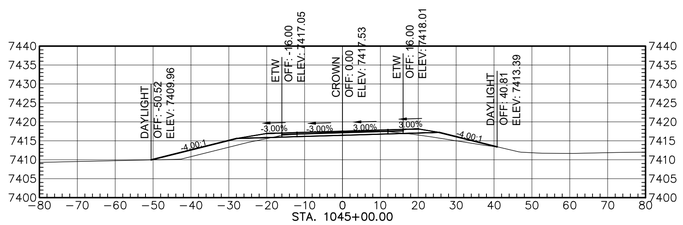
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	20	48



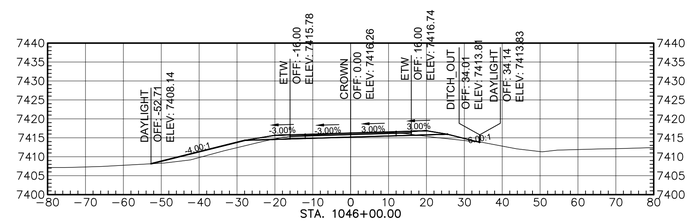
Total Volume at Station 1043+00.00	
Cut Area	26.98
Fill Area	112.81
Cut Vol	103.69
Fill Vol	424.73
Cum Cut Vol	39141.86
Cum Fill Vol	35344.76
Net Vol	3797.09



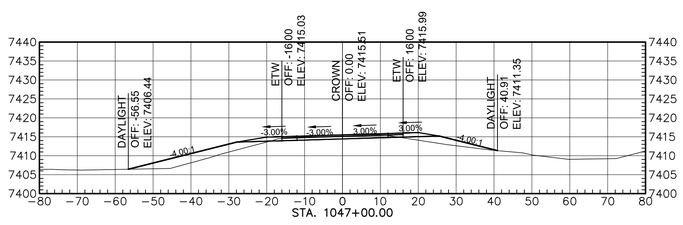
Total Volume at Station 1044+00.00	
Cut Area	26.61
Fill Area	115.68
Cut Vol	99.21
Fill Vol	424.54
Cum Cut Vol	39241.07
Cum Fill Vol	35769.30
Net Vol	3471.77



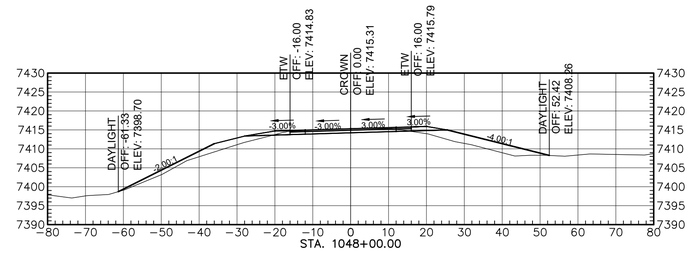
Total Volume at Station 1045+00.00	
Cut Area	23.55
Fill Area	59.86
Cut Vol	92.87
Fill Vol	325.20
Cum Cut Vol	39333.94
Cum Fill Vol	36094.50
Net Vol	3239.44



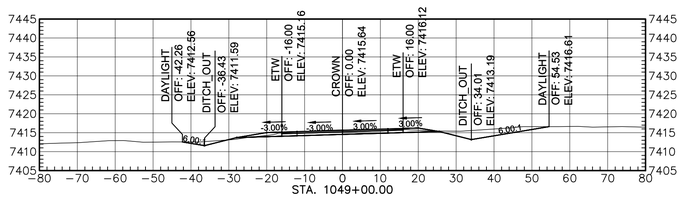
Total Volume at Station 1046+00.00	
Cut Area	29.93
Fill Area	44.65
Cut Vol	99.02
Fill Vol	182.77
Cum Cut Vol	39432.96
Cum Fill Vol	36287.28
Net Vol	3145.68



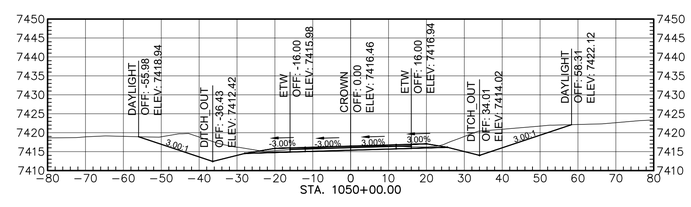
Total Volume at Station 1047+00.00	
Cut Area	28.04
Fill Area	90.25
Cut Vol	107.31
Fill Vol	248.72
Cum Cut Vol	39540.27
Cum Fill Vol	36536.00
Net Vol	3004.27



Total Volume at Station 1048+00.00	
Cut Area	31.95
Fill Area	111.78
Cut Vol	111.04
Fill Vol	373.59
Cum Cut Vol	39651.31
Cum Fill Vol	36909.59
Net Vol	2741.72



Total Volume at Station 1049+00.00	
Cut Area	85.60
Fill Area	1.23
Cut Vol	218.15
Fill Vol	209.42
Cum Cut Vol	39869.46
Cum Fill Vol	37119.01
Net Vol	2750.45



Total Volume at Station 1050+00.00	
Cut Area	244.96
Fill Area	0.00
Cut Vol	612.87
Fill Vol	2.27
Cum Cut Vol	40482.33
Cum Fill Vol	37121.28
Net Vol	3361.05

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 20 OF 48
CHECK	ASF		

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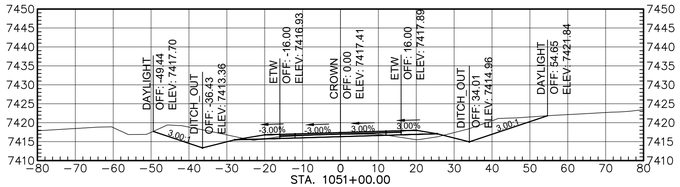
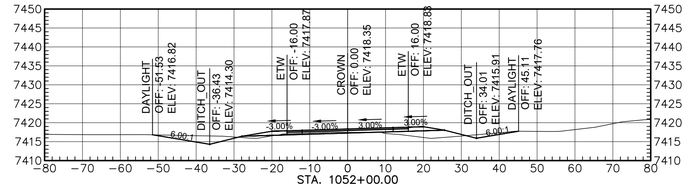
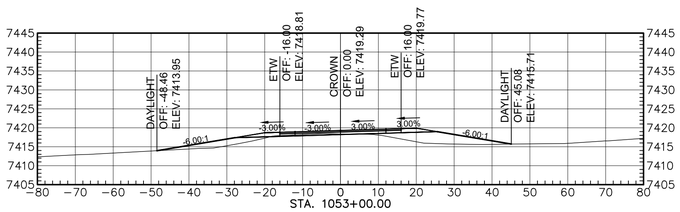
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	21	48



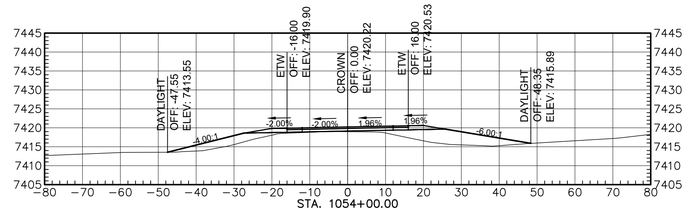
Total Volume at Station 1051+00.00	
Cut Area	145.63
Fill Area	12.96
Cut Vol	723.45
Fill Vol	24.11
Cum Cut Vol	41205.78
Cum Fill Vol	37145.39
Net Vol	4060.39



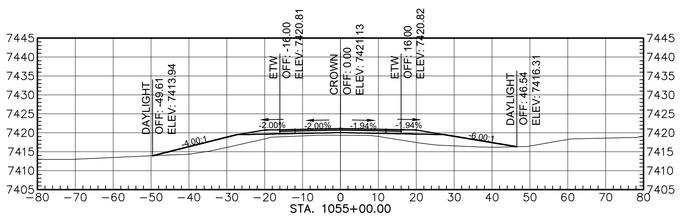
Total Volume at Station 1052+00.00	
Cut Area	37.68
Fill Area	30.96
Cut Vol	339.07
Fill Vol	81.63
Cum Cut Vol	41544.85
Cum Fill Vol	37227.02
Net Vol	4317.83



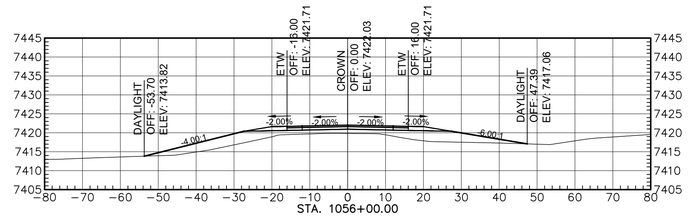
Total Volume at Station 1053+00.00	
Cut Area	5.16
Fill Area	95.67
Cut Vol	79.01
Fill Vol	234.95
Cum Cut Vol	41623.86
Cum Fill Vol	37461.97
Net Vol	4161.89



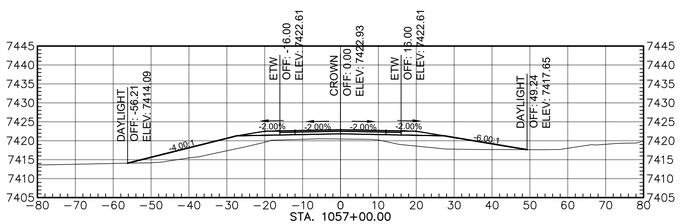
Total Volume at Station 1054+00.00	
Cut Area	0.00
Fill Area	141.86
Cut Vol	9.53
Fill Vol	440.54
Cum Cut Vol	41633.39
Cum Fill Vol	37902.51
Net Vol	3730.88



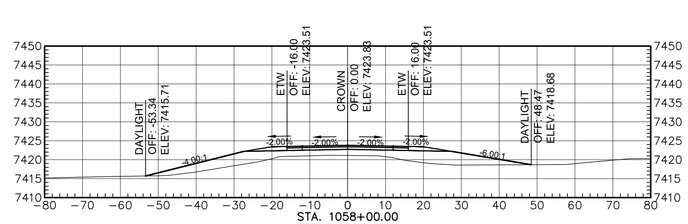
Total Volume at Station 1055+00.00	
Cut Area	0.00
Fill Area	141.65
Cut Vol	0.00
Fill Vol	525.01
Cum Cut Vol	41633.39
Cum Fill Vol	38427.52
Net Vol	3205.87



Total Volume at Station 1056+00.00	
Cut Area	0.00
Fill Area	171.97
Cut Vol	0.00
Fill Vol	580.78
Cum Cut Vol	41633.39
Cum Fill Vol	39008.30
Net Vol	2625.09



Total Volume at Station 1057+00.00	
Cut Area	0.00
Fill Area	209.11
Cut Vol	0.00
Fill Vol	705.70
Cum Cut Vol	41633.39
Cum Fill Vol	39714.00
Net Vol	1919.40



Total Volume at Station 1058+00.00	
Cut Area	0.00
Fill Area	208.89
Cut Vol	0.00
Fill Vol	774.07
Cum Cut Vol	41633.39
Cum Fill Vol	40488.07
Net Vol	1145.33

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE	2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO.	21 OF 48
CHECK	ASF			

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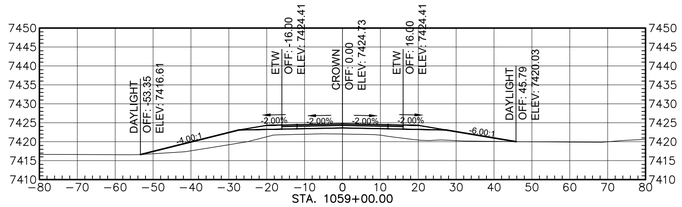
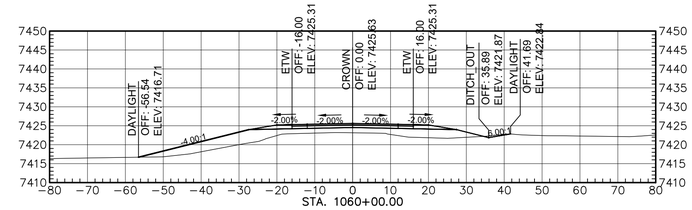
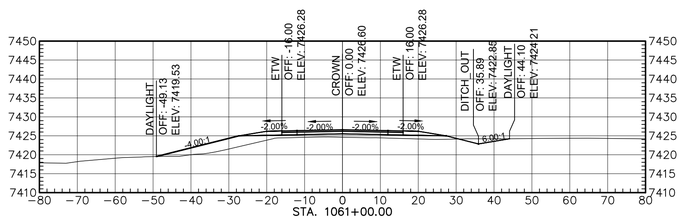
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	22	48



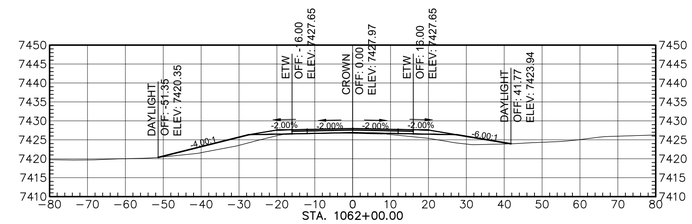
Total Volume at Station 1059+00.00	
Cut Area	0.00
Fill Area	189.42
Cut Vol	0.00
Fill Vol	737.61
Cum Cut Vol	41633.39
Cum Fill Vol	41225.68
Net Vol	407.72



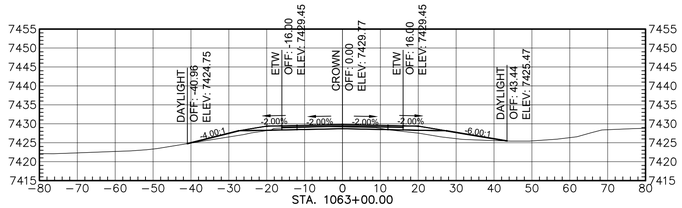
Total Volume at Station 1060+00.00	
Cut Area	1.74
Fill Area	172.45
Cut Vol	3.23
Fill Vol	670.13
Cum Cut Vol	41636.62
Cum Fill Vol	41895.81
Net Vol	-259.19



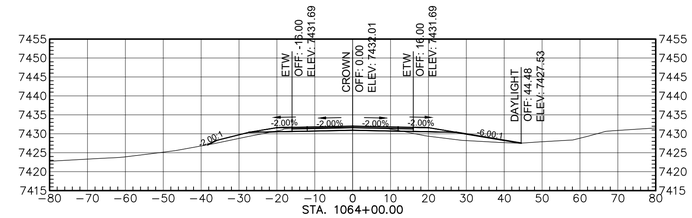
Total Volume at Station 1061+00.00	
Cut Area	9.12
Fill Area	99.27
Cut Vol	20.12
Fill Vol	503.20
Cum Cut Vol	41656.75
Cum Fill Vol	42399.01
Net Vol	-742.26



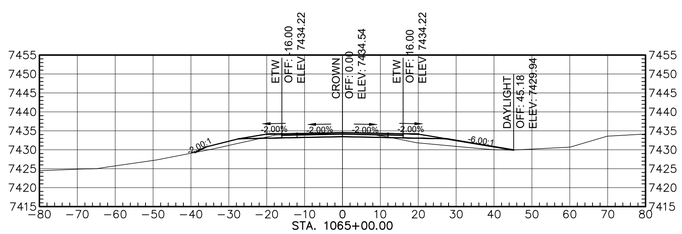
Total Volume at Station 1062+00.00	
Cut Area	0.01
Fill Area	83.94
Cut Vol	16.91
Fill Vol	339.28
Cum Cut Vol	41673.66
Cum Fill Vol	42738.29
Net Vol	-1064.63



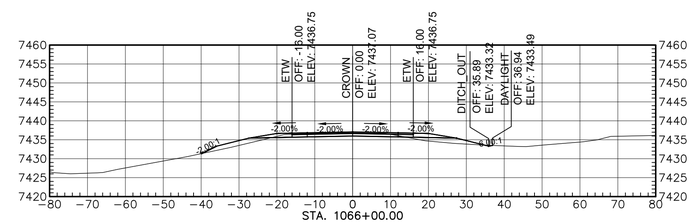
Total Volume at Station 1063+00.00	
Cut Area	14.65
Fill Area	41.73
Cut Vol	27.16
Fill Vol	232.72
Cum Cut Vol	41700.82
Cum Fill Vol	42971.01
Net Vol	-1270.19



Total Volume at Station 1064+00.00	
Cut Area	22.24
Fill Area	45.65
Cut Vol	68.32
Fill Vol	161.82
Cum Cut Vol	41769.14
Cum Fill Vol	43132.84
Net Vol	-1363.69



Total Volume at Station 1065+00.00	
Cut Area	22.86
Fill Area	48.01
Cut Vol	83.52
Fill Vol	173.45
Cum Cut Vol	41852.66
Cum Fill Vol	43306.28
Net Vol	-1453.62



Total Volume at Station 1066+00.00	
Cut Area	26.12
Fill Area	34.15
Cut Vol	90.71
Fill Vol	152.14
Cum Cut Vol	41943.37
Cum Fill Vol	43458.42
Net Vol	-1515.06

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

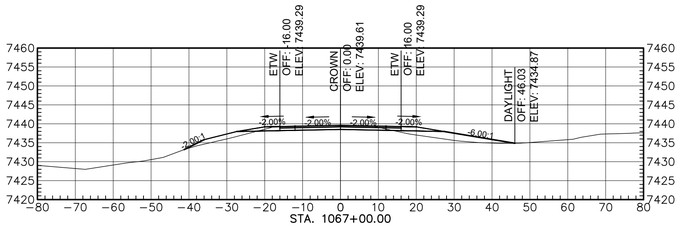
REVISIONS

NO.	DATE	REMARKS	BY

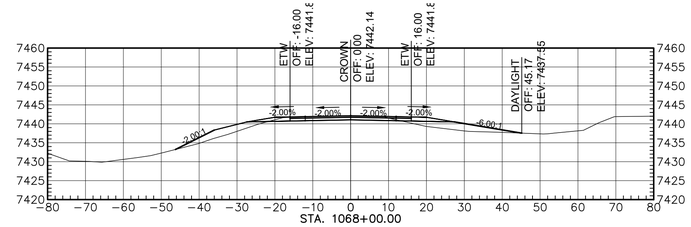
DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 22 OF 48
CHECK	ASF		

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:36 PM

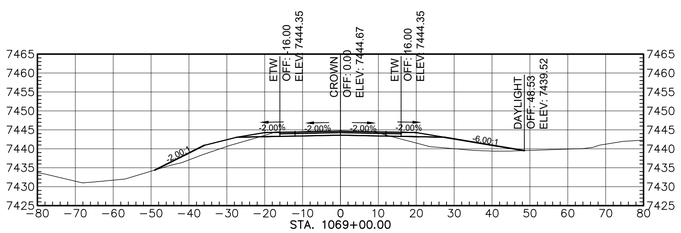
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	23	48



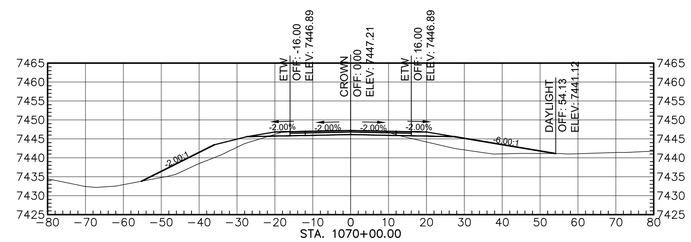
Total Volume at Station 1067+00.00	
Cut Area	31.48
Fill Area	55.46
Cut Vol	106.66
Fill Vol	165.94
Cum Cut Vol	42050.03
Cum Fill Vol	43624.36
Net Vol	-1574.34



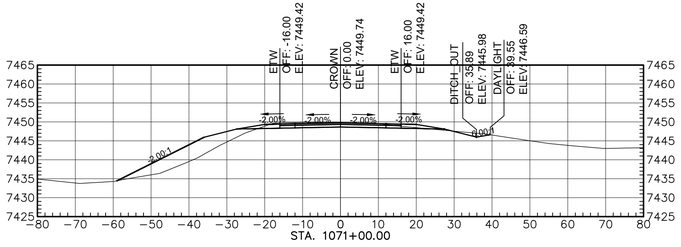
Total Volume at Station 1068+00.00	
Cut Area	31.06
Fill Area	70.60
Cut Vol	115.80
Fill Vol	233.45
Cum Cut Vol	42165.83
Cum Fill Vol	43857.81
Net Vol	-1691.98



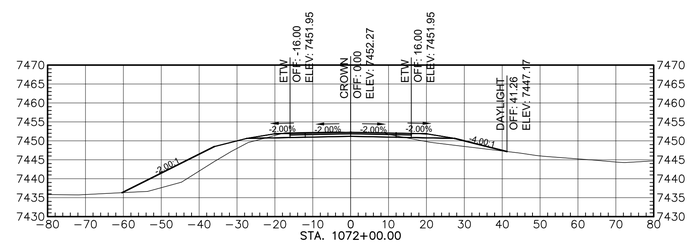
Total Volume at Station 1069+00.00	
Cut Area	33.13
Fill Area	97.55
Cut Vol	118.87
Fill Vol	311.40
Cum Cut Vol	42284.70
Cum Fill Vol	44169.22
Net Vol	-1884.51



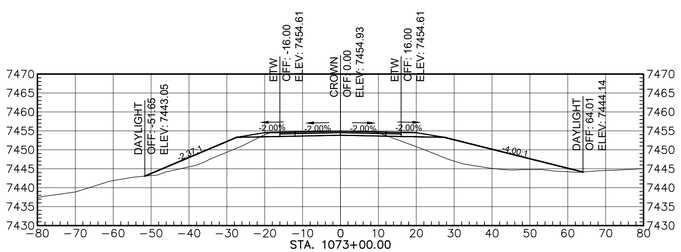
Total Volume at Station 1070+00.00	
Cut Area	34.29
Fill Area	145.66
Cut Vol	124.86
Fill Vol	450.39
Cum Cut Vol	42409.57
Cum Fill Vol	44619.61
Net Vol	-2210.04



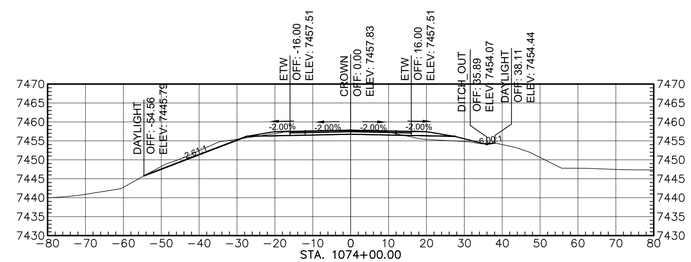
Total Volume at Station 1071+00.00	
Cut Area	50.25
Fill Area	104.15
Cut Vol	156.56
Fill Vol	462.61
Cum Cut Vol	42566.13
Cum Fill Vol	45082.22
Net Vol	-2516.09



Total Volume at Station 1072+00.00	
Cut Area	37.17
Fill Area	136.37
Cut Vol	161.90
Fill Vol	445.40
Cum Cut Vol	42728.03
Cum Fill Vol	45527.62
Net Vol	-2799.60



Total Volume at Station 1073+00.00	
Cut Area	35.82
Fill Area	230.39
Cut Vol	135.18
Fill Vol	679.18
Cum Cut Vol	42863.21
Cum Fill Vol	46206.81
Net Vol	-3343.60



Total Volume at Station 1074+00.00	
Cut Area	51.59
Fill Area	16.63
Cut Vol	162.44
Fill Vol	457.45
Cum Cut Vol	43025.64
Cum Fill Vol	46664.25
Net Vol	-3638.61

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 23 OF 48	
CHECK ASF			

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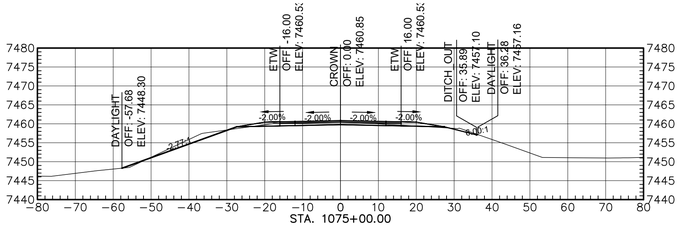
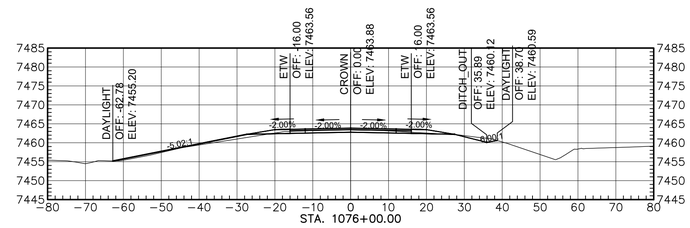
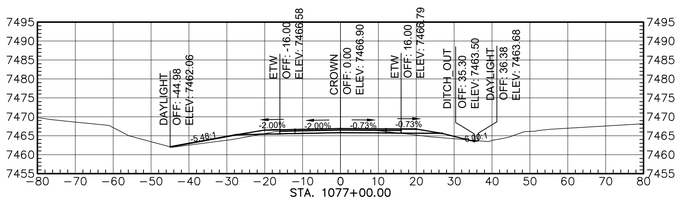
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	24	48



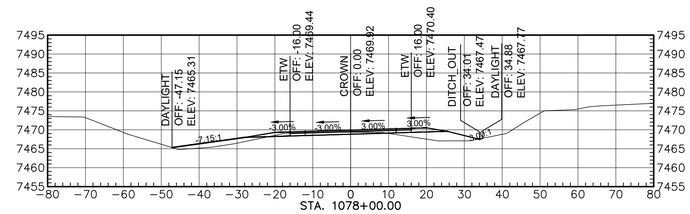
Total Volume at Station 1075+00.00	
Cut Area	42.55
Fill Area	4.23
Cut Vol	174.88
Fill Vol	38.63
Cum Cut Vol	43200.53
Cum Fill Vol	46702.89
Net Vol	-3502.36



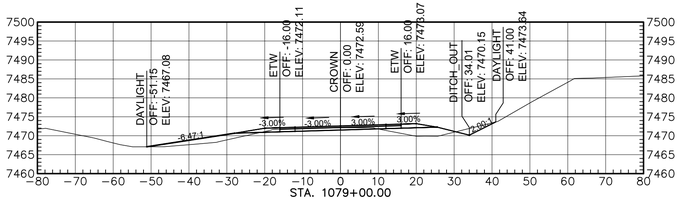
Total Volume at Station 1076+00.00	
Cut Area	27.59
Fill Area	16.56
Cut Vol	129.89
Fill Vol	38.51
Cum Cut Vol	43330.42
Cum Fill Vol	46741.40
Net Vol	-3410.98



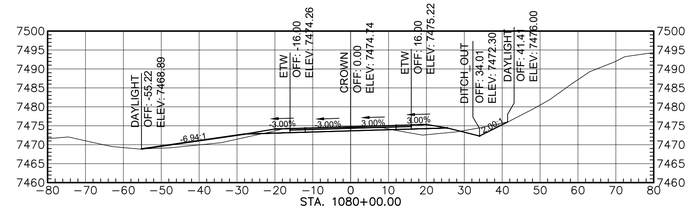
Total Volume at Station 1077+00.00	
Cut Area	22.01
Fill Area	25.75
Cut Vol	91.87
Fill Vol	78.35
Cum Cut Vol	43422.29
Cum Fill Vol	46819.75
Net Vol	-3397.47



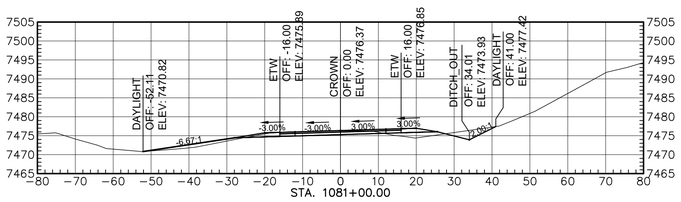
Total Volume at Station 1078+00.00	
Cut Area	17.21
Fill Area	59.37
Cut Vol	72.64
Fill Vol	157.63
Cum Cut Vol	43494.93
Cum Fill Vol	46977.38
Net Vol	-3482.45



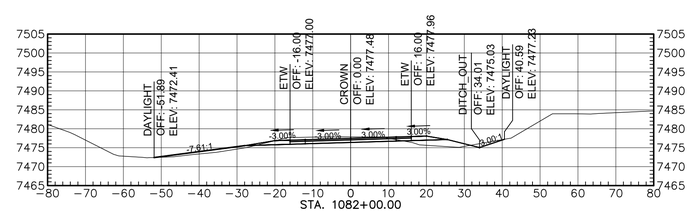
Total Volume at Station 1079+00.00	
Cut Area	26.99
Fill Area	60.01
Cut Vol	81.88
Fill Vol	220.89
Cum Cut Vol	43576.81
Cum Fill Vol	47198.27
Net Vol	-3621.46



Total Volume at Station 1080+00.00	
Cut Area	41.57
Fill Area	45.76
Cut Vol	127.13
Fill Vol	195.46
Cum Cut Vol	43703.94
Cum Fill Vol	47393.73
Net Vol	-3689.79



Total Volume at Station 1081+00.00	
Cut Area	48.53
Fill Area	28.99
Cut Vol	167.08
Fill Vol	138.08
Cum Cut Vol	43871.03
Cum Fill Vol	47531.80
Net Vol	-3660.78



Total Volume at Station 1082+00.00	
Cut Area	53.86
Fill Area	34.43
Cut Vol	189.69
Fill Vol	117.32
Cum Cut Vol	44060.72
Cum Fill Vol	47649.12
Net Vol	-3588.40

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 24 OF 48
CHECK	ASF		

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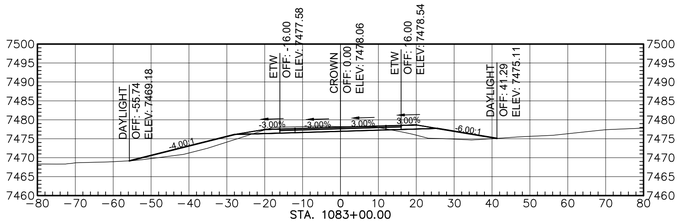
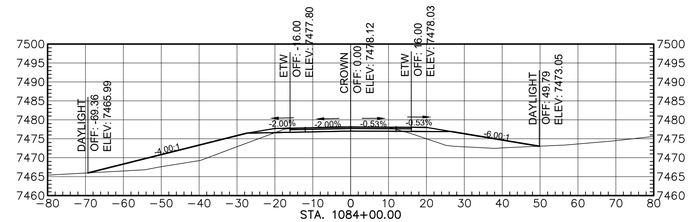
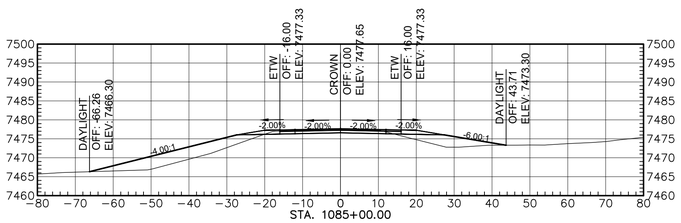
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	25	48



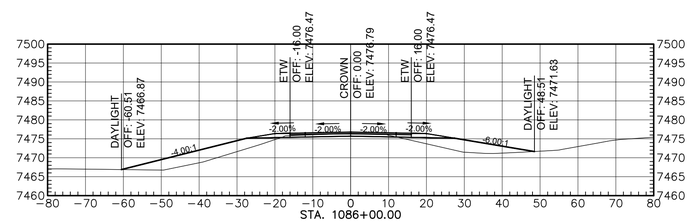
Total Volume at Station 1083+00.00	
Cut Area	42.66
Fill Area	82.64
Cut Vol	178.58
Fill Vol	216.61
Cum Cut Vol	44239.30
Cum Fill Vol	47865.74
Net Vol	-3626.44



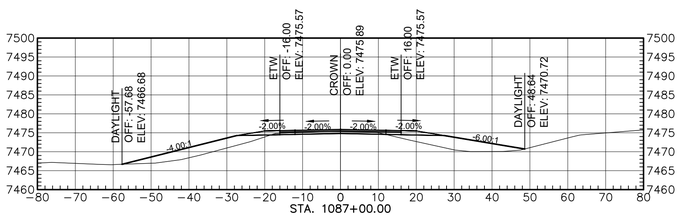
Total Volume at Station 1084+00.00	
Cut Area	33.61
Fill Area	200.82
Cut Vol	141.24
Fill Vol	524.91
Cum Cut Vol	44380.53
Cum Fill Vol	48390.65
Net Vol	-4010.12



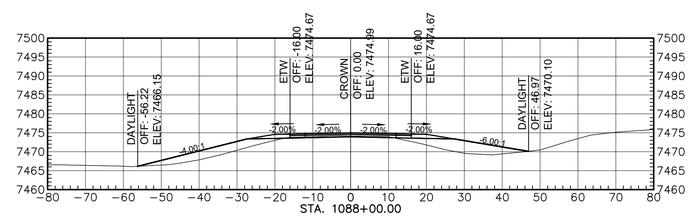
Total Volume at Station 1085+00.00	
Cut Area	26.72
Fill Area	155.83
Cut Vol	111.73
Fill Vol	660.46
Cum Cut Vol	44492.27
Cum Fill Vol	49051.11
Net Vol	-4558.84



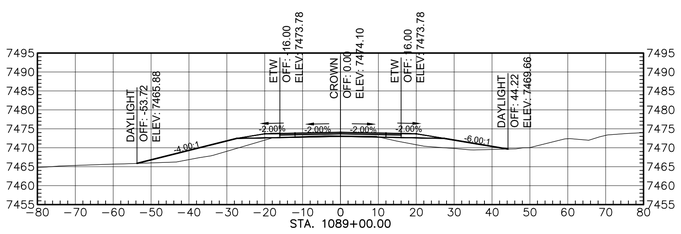
Total Volume at Station 1086+00.00	
Cut Area	15.60
Fill Area	164.44
Cut Vol	78.38
Fill Vol	583.09
Cum Cut Vol	44570.65
Cum Fill Vol	49644.19
Net Vol	-5073.54



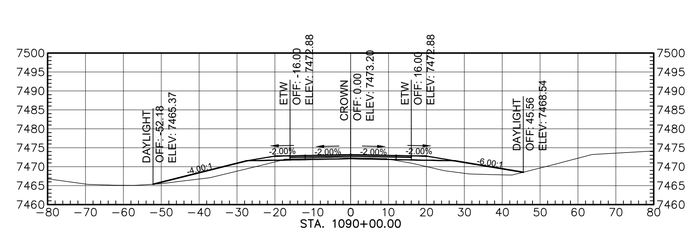
Total Volume at Station 1087+00.00	
Cut Area	13.86
Fill Area	148.00
Cut Vol	54.56
Fill Vol	578.59
Cum Cut Vol	44625.21
Cum Fill Vol	50222.78
Net Vol	-5597.57



Total Volume at Station 1088+00.00	
Cut Area	7.52
Fill Area	132.24
Cut Vol	38.58
Fill Vol	518.98
Cum Cut Vol	44664.80
Cum Fill Vol	50741.76
Net Vol	-6076.96



Total Volume at Station 1089+00.00	
Cut Area	4.66
Fill Area	116.12
Cut Vol	22.54
Fill Vol	459.93
Cum Cut Vol	44687.34
Cum Fill Vol	51201.69
Net Vol	-6514.35



Total Volume at Station 1090+00.00	
Cut Area	8.25
Fill Area	107.51
Cut Vol	23.91
Fill Vol	414.13
Cum Cut Vol	44711.25
Cum Fill Vol	51615.82
Net Vol	-6904.57

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO.	SHEET NO.	
CHECK ASF	N12(13-2) 1,2,&4	25 OF	48

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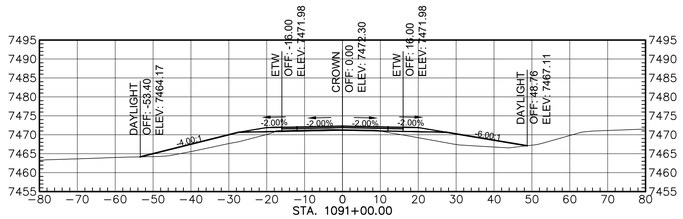
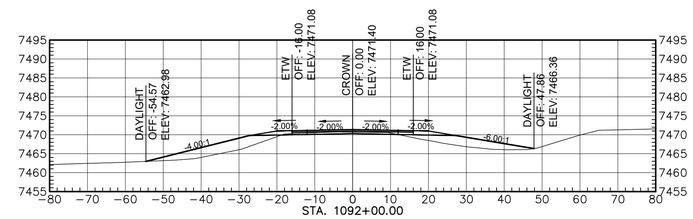
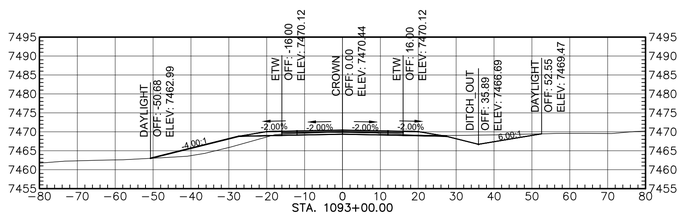
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	26	48



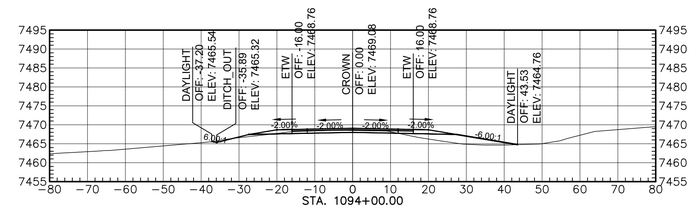
Total Volume at Station 1091+00.00	
Cut Area	5.95
Fill Area	122.16
Cut Vol	26.31
Fill Vol	425.33
Cum Cut Vol	44737.56
Cum Fill Vol	52041.15
Net Vol	-7303.59



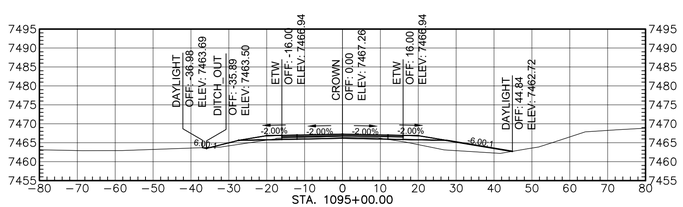
Total Volume at Station 1092+00.00	
Cut Area	11.78
Fill Area	125.52
Cut Vol	32.83
Fill Vol	458.67
Cum Cut Vol	44770.39
Cum Fill Vol	52499.81
Net Vol	-7729.42



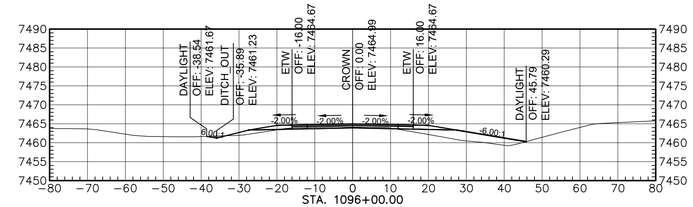
Total Volume at Station 1093+00.00	
Cut Area	47.92
Fill Area	48.92
Cut Vol	110.54
Fill Vol	323.03
Cum Cut Vol	44880.94
Cum Fill Vol	52822.84
Net Vol	-7941.91



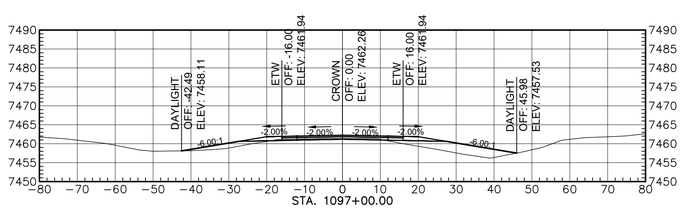
Total Volume at Station 1094+00.00	
Cut Area	17.29
Fill Area	44.33
Cut Vol	120.75
Fill Vol	172.68
Cum Cut Vol	45001.69
Cum Fill Vol	52995.52
Net Vol	-7993.84



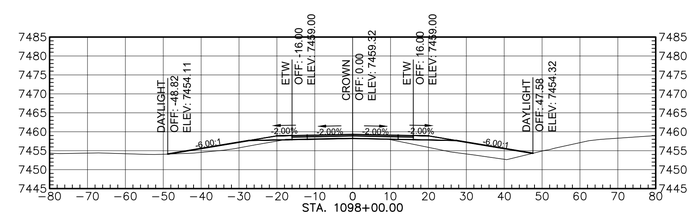
Total Volume at Station 1095+00.00	
Cut Area	10.70
Fill Area	56.07
Cut Vol	51.83
Fill Vol	185.92
Cum Cut Vol	45053.52
Cum Fill Vol	53181.44
Net Vol	-8127.92



Total Volume at Station 1096+00.00	
Cut Area	10.26
Fill Area	62.96
Cut Vol	38.83
Fill Vol	220.42
Cum Cut Vol	45092.35
Cum Fill Vol	53401.86
Net Vol	-8309.52



Total Volume at Station 1097+00.00	
Cut Area	7.40
Fill Area	78.99
Cut Vol	32.71
Fill Vol	262.87
Cum Cut Vol	45125.06
Cum Fill Vol	53664.74
Net Vol	-8539.68



Total Volume at Station 1098+00.00	
Cut Area	2.56
Fill Area	108.29
Cut Vol	18.46
Fill Vol	346.81
Cum Cut Vol	45143.52
Cum Fill Vol	54011.55
Net Vol	-8868.04

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

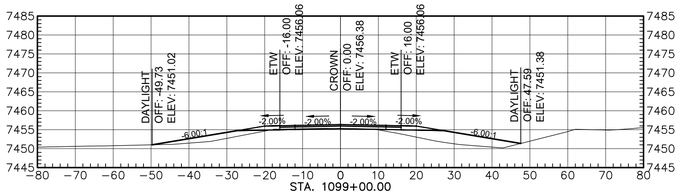
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

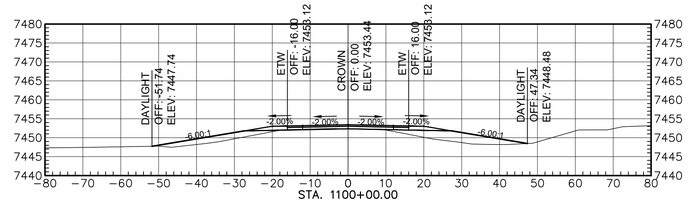
DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 26 OF 48	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:36 PM

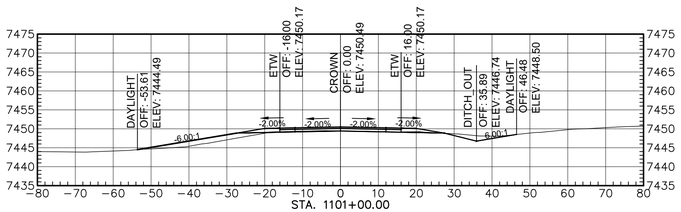
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	27	48



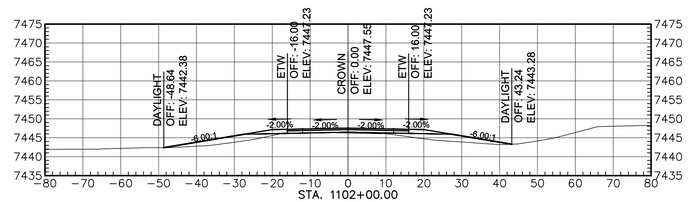
Total Volume at Station 1099+00.00	
Cut Area	2.81
Fill Area	105.84
Cut Vol	9.96
Fill Vol	396.54
Cum Cut Vol	45153.46
Cum Fill Vol	54408.09
Net Vol	-9254.62



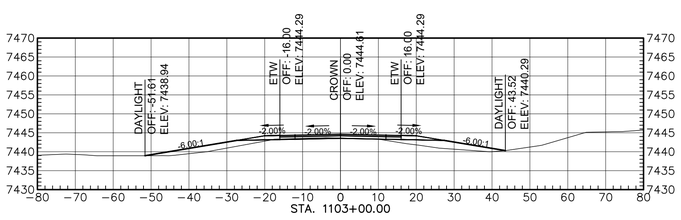
Total Volume at Station 1100+00.00	
Cut Area	2.39
Fill Area	101.81
Cut Vol	9.64
Fill Vol	384.55
Cum Cut Vol	45163.11
Cum Fill Vol	54792.64
Net Vol	-9629.53



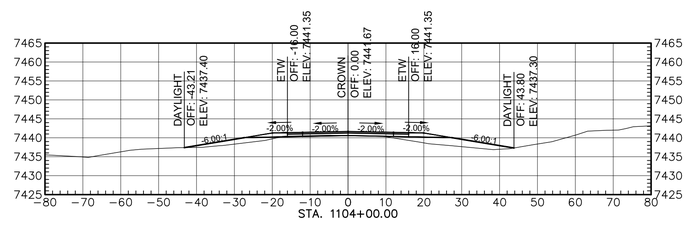
Total Volume at Station 1101+00.00	
Cut Area	16.30
Fill Area	33.23
Cut Vol	34.61
Fill Vol	250.08
Cum Cut Vol	45197.73
Cum Fill Vol	55042.72
Net Vol	-9844.99



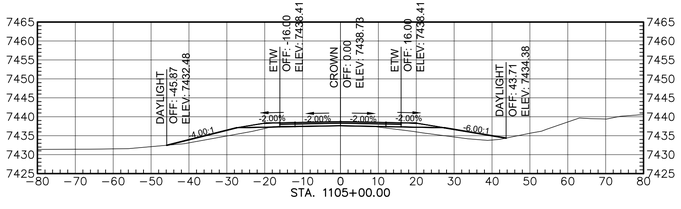
Total Volume at Station 1102+00.00	
Cut Area	0.00
Fill Area	73.92
Cut Vol	30.19
Fill Vol	198.42
Cum Cut Vol	45227.92
Cum Fill Vol	55241.14
Net Vol	-10013.22



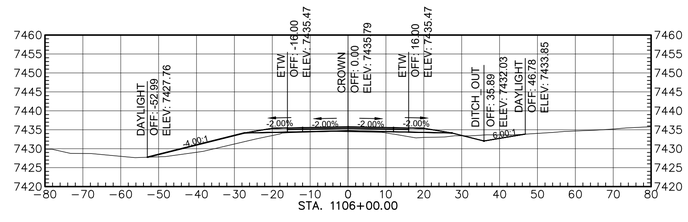
Total Volume at Station 1103+00.00	
Cut Area	3.63
Fill Area	77.79
Cut Vol	6.73
Fill Vol	280.94
Cum Cut Vol	45234.64
Cum Fill Vol	55522.08
Net Vol	-10287.44



Total Volume at Station 1104+00.00	
Cut Area	2.48
Fill Area	67.19
Cut Vol	11.32
Fill Vol	268.48
Cum Cut Vol	45245.97
Cum Fill Vol	55790.56
Net Vol	-10544.59



Total Volume at Station 1105+00.00	
Cut Area	1.68
Fill Area	71.85
Cut Vol	7.71
Fill Vol	257.49
Cum Cut Vol	45253.68
Cum Fill Vol	56048.05
Net Vol	-10794.37



Total Volume at Station 1106+00.00	
Cut Area	12.09
Fill Area	79.15
Cut Vol	25.50
Fill Vol	279.63
Cum Cut Vol	45279.18
Cum Fill Vol	56327.68
Net Vol	-11048.49

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

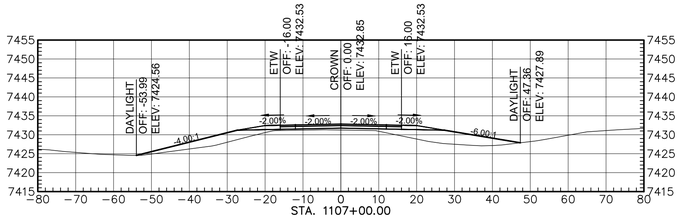
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

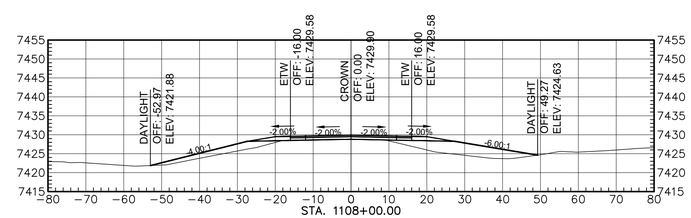
DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 27 OF 48	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:36 PM

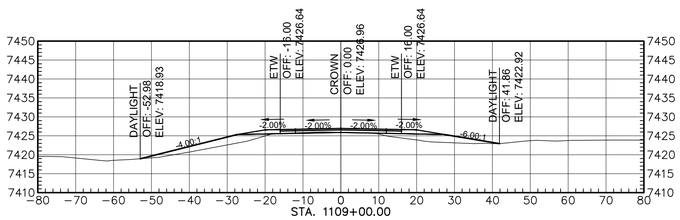
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	28	48



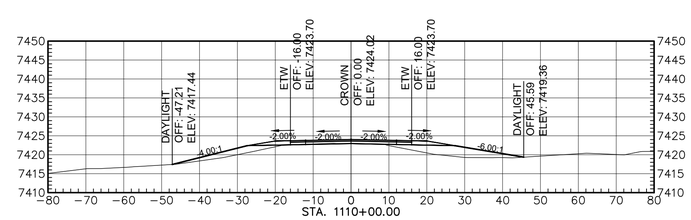
Total Volume at Station 1107+00.00	
Cut Area	0.00
Fill Area	150.19
Cut Vol	22.39
Fill Vol	424.71
Cum Cut Vol	45301.57
Cum Fill Vol	56752.39
Net Vol	-11450.82



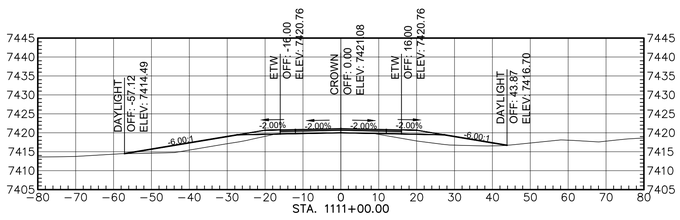
Total Volume at Station 1108+00.00	
Cut Area	1.58
Fill Area	129.86
Cut Vol	2.93
Fill Vol	518.63
Cum Cut Vol	45304.50
Cum Fill Vol	57271.01
Net Vol	-11966.51



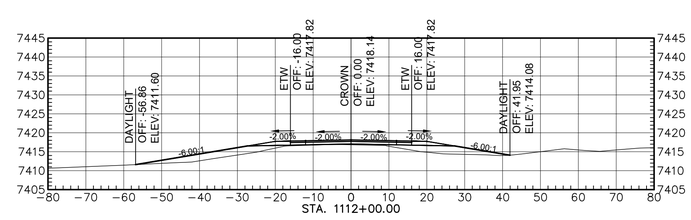
Total Volume at Station 1109+00.00	
Cut Area	2.67
Fill Area	86.81
Cut Vol	7.87
Fill Vol	401.25
Cum Cut Vol	45312.37
Cum Fill Vol	57672.27
Net Vol	-12359.90



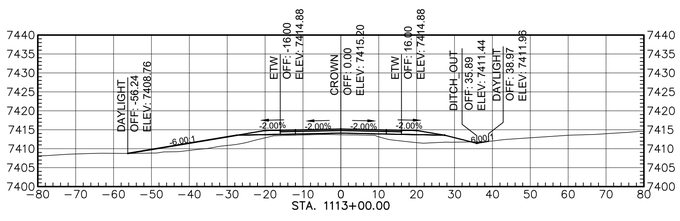
Total Volume at Station 1110+00.00	
Cut Area	1.31
Fill Area	91.73
Cut Vol	7.36
Fill Vol	330.64
Cum Cut Vol	45319.74
Cum Fill Vol	58002.91
Net Vol	-12683.17



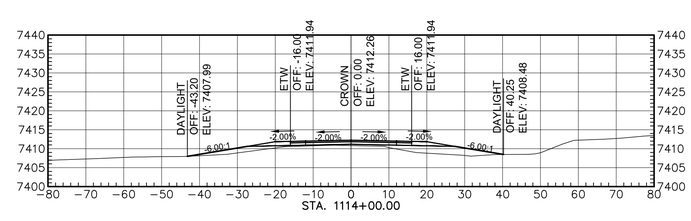
Total Volume at Station 1111+00.00	
Cut Area	1.15
Fill Area	104.98
Cut Vol	4.55
Fill Vol	364.28
Cum Cut Vol	45324.28
Cum Fill Vol	58367.19
Net Vol	-13042.91



Total Volume at Station 1112+00.00	
Cut Area	0.00
Fill Area	99.74
Cut Vol	2.13
Fill Vol	379.12
Cum Cut Vol	45328.41
Cum Fill Vol	58746.31
Net Vol	-13419.90



Total Volume at Station 1113+00.00	
Cut Area	0.71
Fill Area	106.61
Cut Vol	1.31
Fill Vol	382.14
Cum Cut Vol	45327.73
Cum Fill Vol	59128.46
Net Vol	-13800.73



Total Volume at Station 1114+00.00	
Cut Area	0.00
Fill Area	75.39
Cut Vol	1.31
Fill Vol	337.04
Cum Cut Vol	45328.04
Cum Fill Vol	59465.49
Net Vol	-14136.45

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

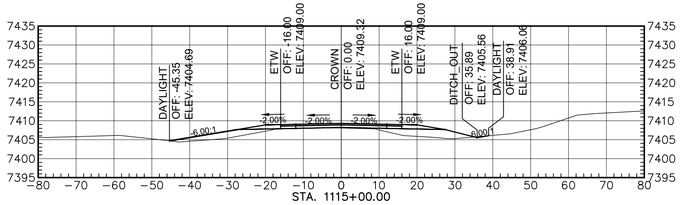
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

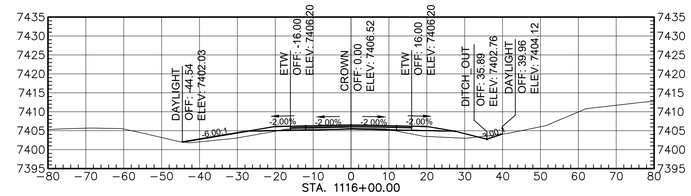
DESIGN JEB	WCEA NO. 1710009012	DATE 2025	
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 28 OF 48	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:37 PM

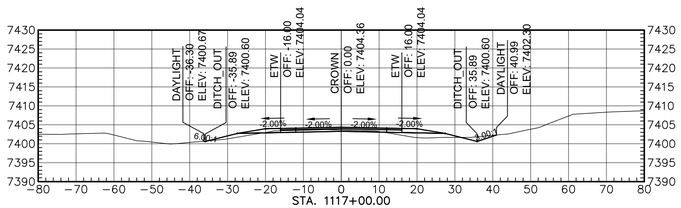
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	29	48



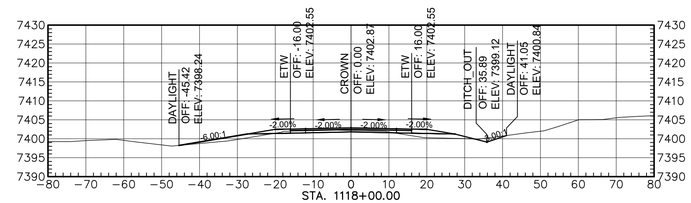
Total Volume at Station 1115+00.00	
Cut Area	0.56
Fill Area	73.78
Cut Vol	1.04
Fill Vol	276.24
Cum Cut Vol	45330.09
Cum Fill Vol	59741.73
Net Vol	-14411.64



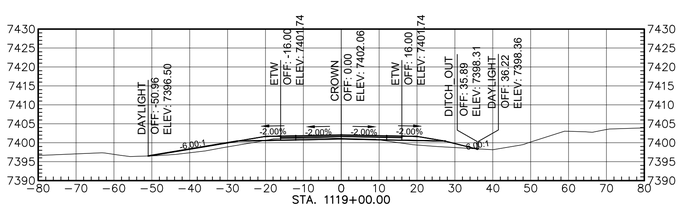
Total Volume at Station 1116+00.00	
Cut Area	12.70
Fill Area	47.87
Cut Vol	24.56
Fill Vol	225.46
Cum Cut Vol	45354.64
Cum Fill Vol	59967.19
Net Vol	-14612.54



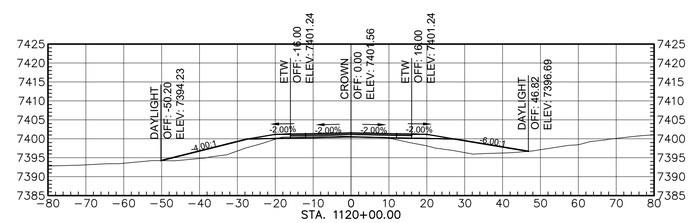
Total Volume at Station 1117+00.00	
Cut Area	17.69
Fill Area	24.92
Cut Vol	56.26
Fill Vol	134.97
Cum Cut Vol	45410.91
Cum Fill Vol	60102.16
Net Vol	-14691.25



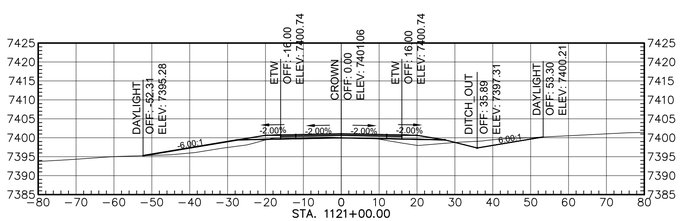
Total Volume at Station 1118+00.00	
Cut Area	18.03
Fill Area	31.49
Cut Vol	66.13
Fill Vol	104.46
Cum Cut Vol	45477.04
Cum Fill Vol	60206.62
Net Vol	-14729.58



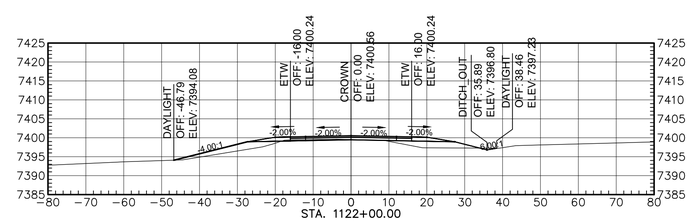
Total Volume at Station 1119+00.00	
Cut Area	8.10
Fill Area	47.36
Cut Vol	48.37
Fill Vol	146.01
Cum Cut Vol	45525.41
Cum Fill Vol	60352.63
Net Vol	-14827.21



Total Volume at Station 1120+00.00	
Cut Area	6.70
Fill Area	120.82
Cut Vol	27.39
Fill Vol	311.44
Cum Cut Vol	45552.81
Cum Fill Vol	60664.07
Net Vol	-15111.26



Total Volume at Station 1121+00.00	
Cut Area	27.77
Fill Area	55.77
Cut Vol	63.82
Fill Vol	327.01
Cum Cut Vol	45616.63
Cum Fill Vol	60991.08
Net Vol	-15374.45



Total Volume at Station 1122+00.00	
Cut Area	4.98
Fill Area	60.92
Cut Vol	60.64
Fill Vol	216.08
Cum Cut Vol	45677.28
Cum Fill Vol	61207.16
Net Vol	-15529.89

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

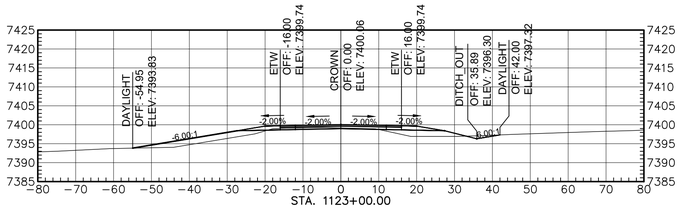
CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

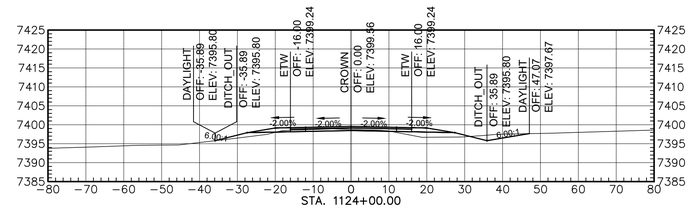
DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 29 OF 48	
CHECK ASF			

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:37 PM

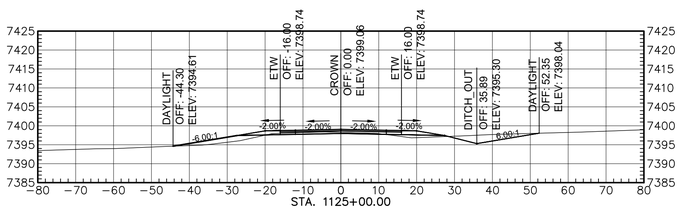
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	30	48



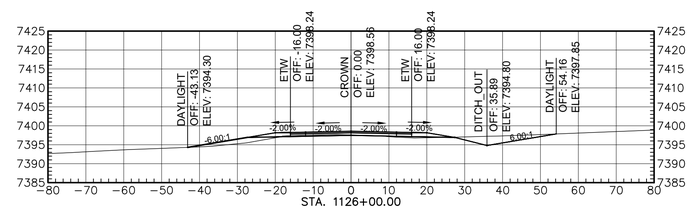
Total Volume at Station 1123+00.00	
Cut Area	11.86
Fill Area	68.25
Cut Vol	31.20
Fill Vol	239.21
Cum Cut Vol	45708.47
Cum Fill Vol	61446.37
Net Vol	-15737.90



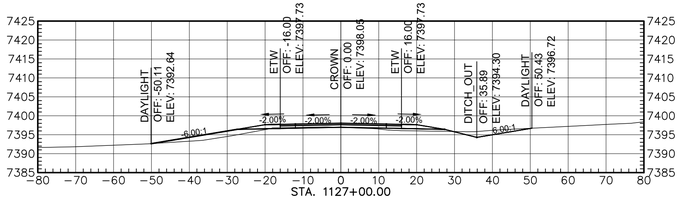
Total Volume at Station 1124+00.00	
Cut Area	22.81
Fill Area	28.44
Cut Vol	84.21
Fill Vol	180.92
Cum Cut Vol	45772.68
Cum Fill Vol	61627.29
Net Vol	-15854.61



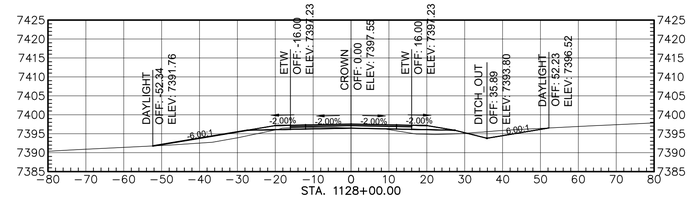
Total Volume at Station 1125+00.00	
Cut Area	37.22
Fill Area	28.65
Cut Vol	111.16
Fill Vol	107.58
Cum Cut Vol	45883.84
Cum Fill Vol	61734.87
Net Vol	-15851.03



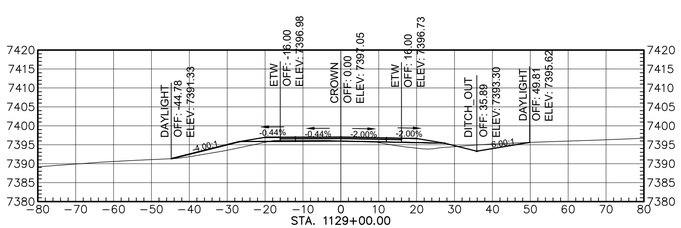
Total Volume at Station 1126+00.00	
Cut Area	37.38
Fill Area	22.62
Cut Vol	138.15
Fill Vol	94.95
Cum Cut Vol	46022.00
Cum Fill Vol	61829.62
Net Vol	-15807.63



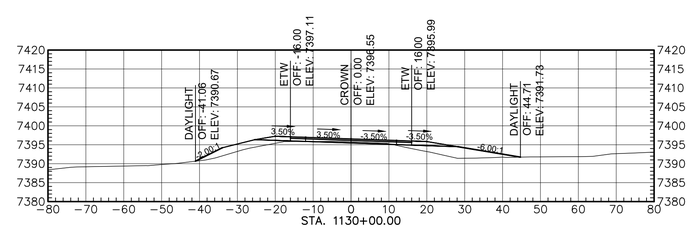
Total Volume at Station 1127+00.00	
Cut Area	19.24
Fill Area	40.02
Cut Vol	104.85
Fill Vol	116.00
Cum Cut Vol	46126.85
Cum Fill Vol	61945.63
Net Vol	-15818.98



Total Volume at Station 1128+00.00	
Cut Area	25.71
Fill Area	52.37
Cut Vol	83.24
Fill Vol	171.10
Cum Cut Vol	46210.08
Cum Fill Vol	62116.93
Net Vol	-15906.84



Total Volume at Station 1129+00.00	
Cut Area	20.11
Fill Area	46.23
Cut Vol	84.86
Fill Vol	182.60
Cum Cut Vol	46294.95
Cum Fill Vol	62299.53
Net Vol	-16004.58



Total Volume at Station 1130+00.00	
Cut Area	4.93
Fill Area	86.38
Cut Vol	46.38
Fill Vol	245.58
Cum Cut Vol	46341.33
Cum Fill Vol	62545.11
Net Vol	-16203.78

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 30 OF 48
CHECK	ASF		

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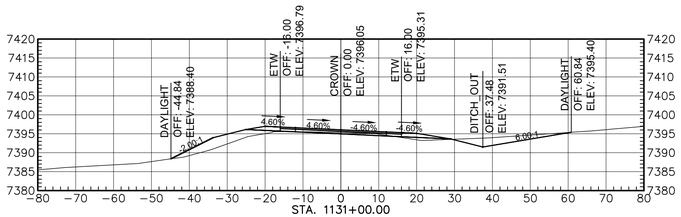
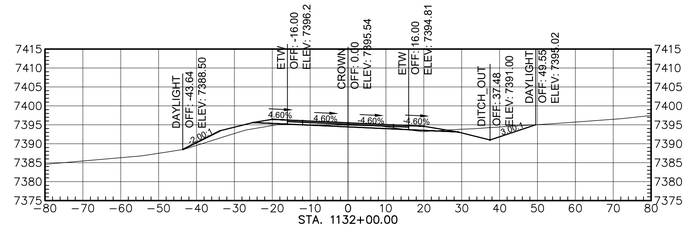
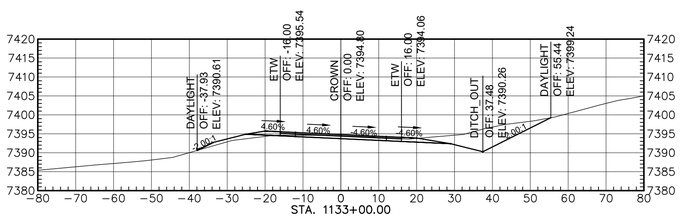
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	31	48



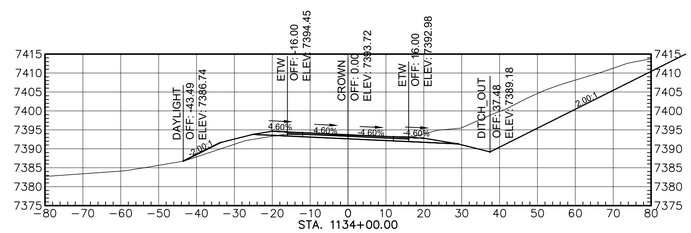
Total Volume at Station 1131+00.00	
Cut Area	43.88
Fill Area	55.47
Cut Vol	89.37
Fill Vol	263.32
Cum Cut Vol	46430.70
Cum Fill Vol	62808.43
Net Vol	-16377.73



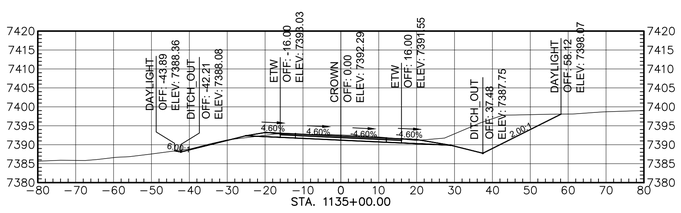
Total Volume at Station 1132+00.00	
Cut Area	48.13
Fill Area	32.37
Cut Vol	168.42
Fill Vol	164.16
Cum Cut Vol	46599.13
Cum Fill Vol	62972.59
Net Vol	-16373.47



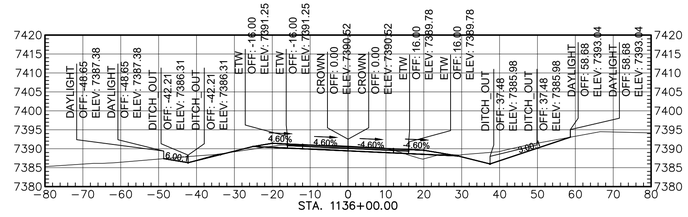
Total Volume at Station 1133+00.00	
Cut Area	124.89
Fill Area	13.75
Cut Vol	316.91
Fill Vol	86.24
Cum Cut Vol	46916.04
Cum Fill Vol	63058.83
Net Vol	-16142.79



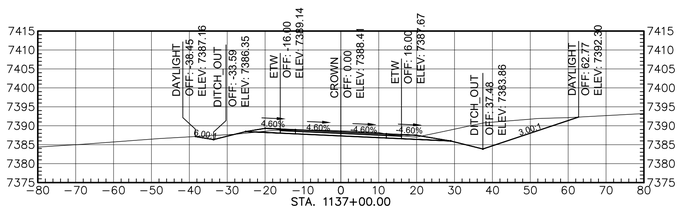
Total Volume at Station 1134+00.00	
Cut Area	439.17
Fill Area	24.36
Cut Vol	1028.73
Fill Vol	71.31
Cum Cut Vol	47944.76
Cum Fill Vol	63130.14
Net Vol	-15185.38



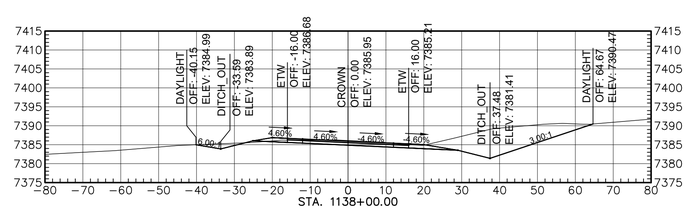
Total Volume at Station 1135+00.00	
Cut Area	207.27
Fill Area	1.73
Cut Vol	1179.82
Fill Vol	48.85
Cum Cut Vol	49124.59
Cum Fill Vol	63178.99
Net Vol	-14054.41



Total Volume at Station 1136+00.00	
Cut Area	93.81
Fill Area	9.50
Cut Vol	552.66
Fill Vol	20.81
Cum Cut Vol	49677.24
Cum Fill Vol	63199.80
Net Vol	-13522.56



Total Volume at Station 1137+00.00	
Cut Area	196.14
Fill Area	1.32
Cut Vol	532.32
Fill Vol	20.03
Cum Cut Vol	50209.56
Cum Fill Vol	63219.83
Net Vol	-13010.26



Total Volume at Station 1138+00.00	
Cut Area	228.70
Fill Area	1.10
Cut Vol	778.37
Fill Vol	4.52
Cum Cut Vol	50987.93
Cum Fill Vol	63224.35
Net Vol	-12236.41

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE	2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 31 OF 48	
CHECK	ASF			

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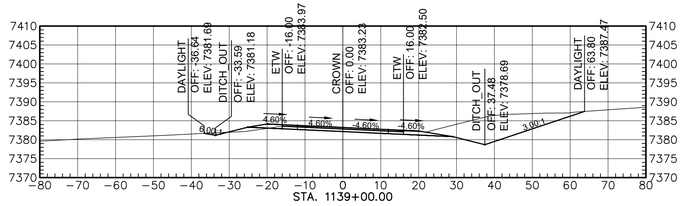
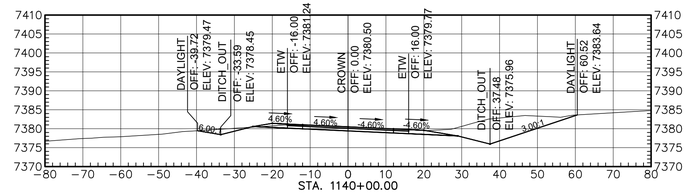
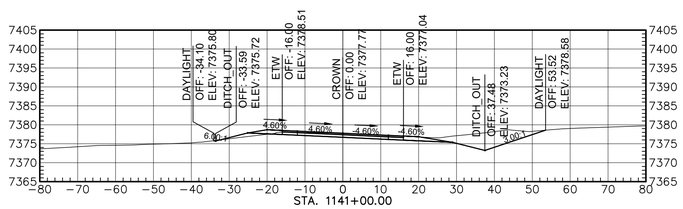
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	32	48



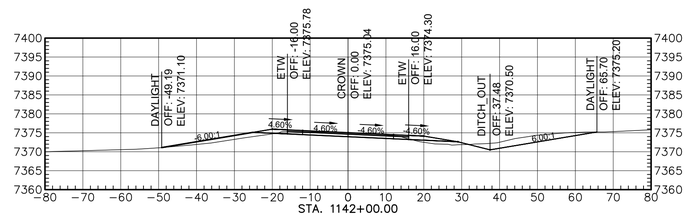
Total Volume at Station 1139+00.00	
Cut Area	197.74
Fill Area	5.85
Cut Vol	780.88
Fill Vol	12.98
Cum Cut Vol	51788.81
Cum Fill Vol	63237.32
Net Vol	-11448.51



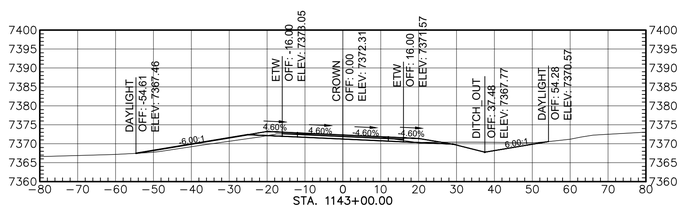
Total Volume at Station 1140+00.00	
Cut Area	181.94
Fill Area	0.15
Cut Vol	695.79
Fill Vol	11.19
Cum Cut Vol	52484.60
Cum Fill Vol	63248.52
Net Vol	-10763.92



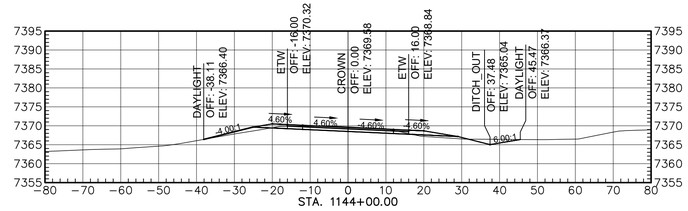
Total Volume at Station 1141+00.00	
Cut Area	111.64
Fill Area	6.21
Cut Vol	538.63
Fill Vol	11.88
Cum Cut Vol	53003.23
Cum Fill Vol	63260.39
Net Vol	-10257.17



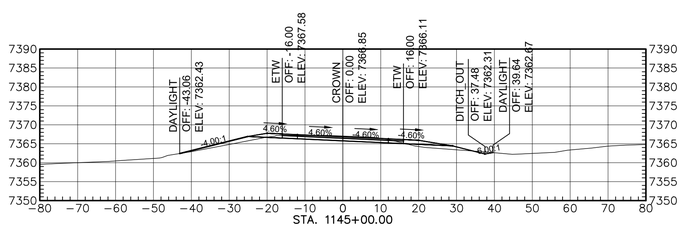
Total Volume at Station 1142+00.00	
Cut Area	71.42
Fill Area	30.58
Cut Vol	335.80
Fill Vol	68.53
Cum Cut Vol	53339.02
Cum Fill Vol	63328.93
Net Vol	-9989.90



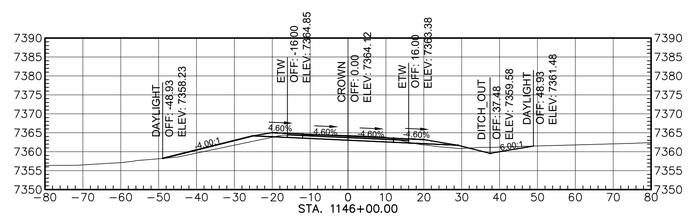
Total Volume at Station 1143+00.00	
Cut Area	68.04
Fill Area	22.84
Cut Vol	256.08
Fill Vol	99.75
Cum Cut Vol	53595.10
Cum Fill Vol	63428.67
Net Vol	-9833.57



Total Volume at Station 1144+00.00	
Cut Area	43.80
Fill Area	14.64
Cut Vol	206.01
Fill Vol	69.99
Cum Cut Vol	53801.12
Cum Fill Vol	63498.66
Net Vol	-9697.54



Total Volume at Station 1145+00.00	
Cut Area	37.01
Fill Area	24.79
Cut Vol	149.42
Fill Vol	73.17
Cum Cut Vol	53950.53
Cum Fill Vol	63571.83
Net Vol	-9621.29



Total Volume at Station 1146+00.00	
Cut Area	48.06
Fill Area	32.96
Cut Vol	157.19
Fill Vol	107.47
Cum Cut Vol	54107.73
Cum Fill Vol	63679.30
Net Vol	-9571.57

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS

NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 32 OF 48
CHECK	ASF		

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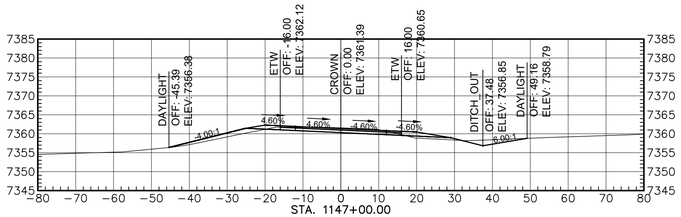
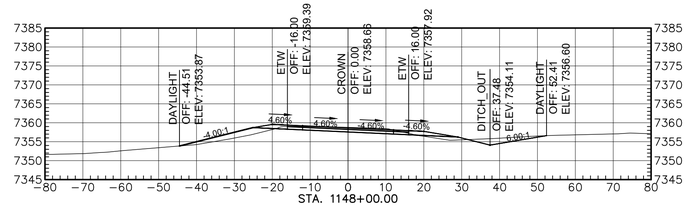
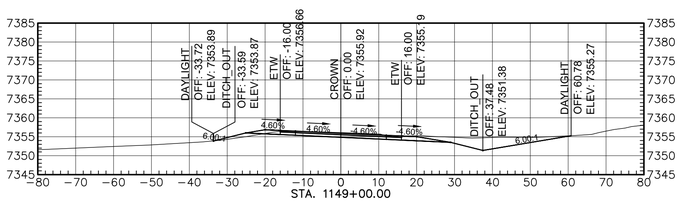
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	33	48



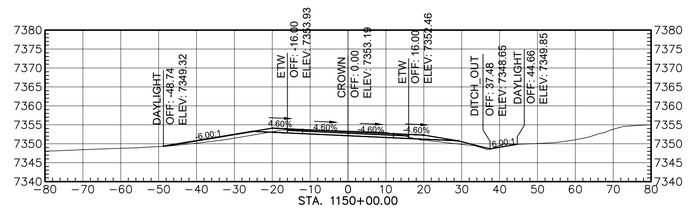
Total Volume at Station 1147+00.00	
Cut Area	48.20
Fill Area	25.69
Cut Vol	177.62
Fill Vol	109.34
Cum Cut Vol	54285.35
Cum Fill Vol	63788.63
Net Vol	-9503.28



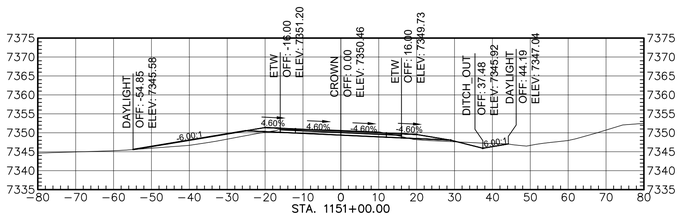
Total Volume at Station 1148+00.00	
Cut Area	54.10
Fill Area	33.85
Cut Vol	188.67
Fill Vol	110.96
Cum Cut Vol	54474.02
Cum Fill Vol	63899.59
Net Vol	-9425.57



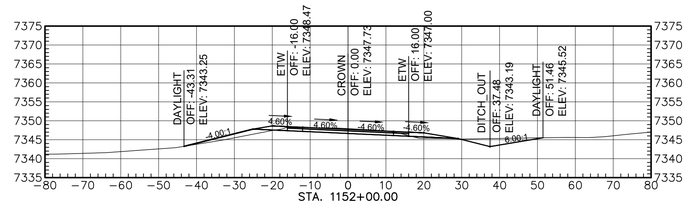
Total Volume at Station 1149+00.00	
Cut Area	111.55
Fill Area	6.68
Cut Vol	304.56
Fill Vol	75.58
Cum Cut Vol	54778.58
Cum Fill Vol	63975.17
Net Vol	-9196.59



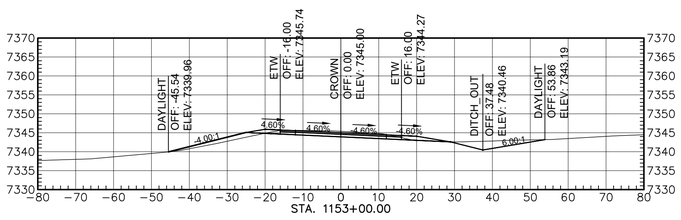
Total Volume at Station 1150+00.00	
Cut Area	39.98
Fill Area	27.12
Cut Vol	278.82
Fill Vol	62.96
Cum Cut Vol	55057.40
Cum Fill Vol	64038.14
Net Vol	-8980.73



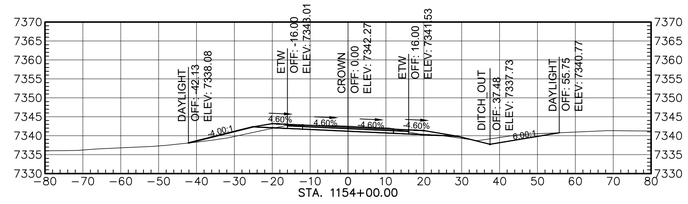
Total Volume at Station 1151+00.00	
Cut Area	45.80
Fill Area	38.56
Cut Vol	158.58
Fill Vol	122.61
Cum Cut Vol	55215.99
Cum Fill Vol	64160.74
Net Vol	-8944.76



Total Volume at Station 1152+00.00	
Cut Area	58.81
Fill Area	20.32
Cut Vol	192.95
Fill Vol	110.06
Cum Cut Vol	55408.94
Cum Fill Vol	64270.80
Net Vol	-8861.87



Total Volume at Station 1153+00.00	
Cut Area	72.69
Fill Area	19.25
Cut Vol	242.23
Fill Vol	73.96
Cum Cut Vol	55651.17
Cum Fill Vol	64344.76
Net Vol	-8693.60



Total Volume at Station 1154+00.00	
Cut Area	59.92
Fill Area	22.05
Cut Vol	244.29
Fill Vol	77.23
Cum Cut Vol	55895.46
Cum Fill Vol	64421.99
Net Vol	-8526.53

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO.	SHEET NO.	
CHECK ASF	N12(13-2) 1,2,&4	33 OF	48

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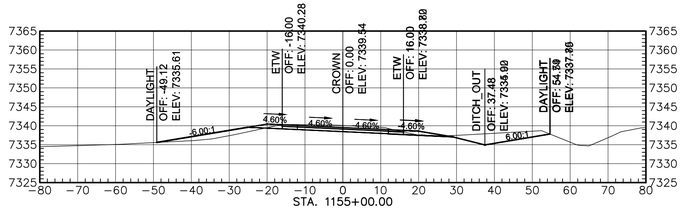
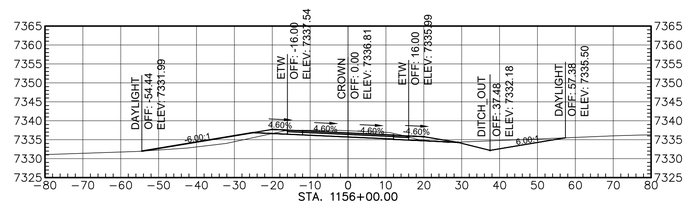
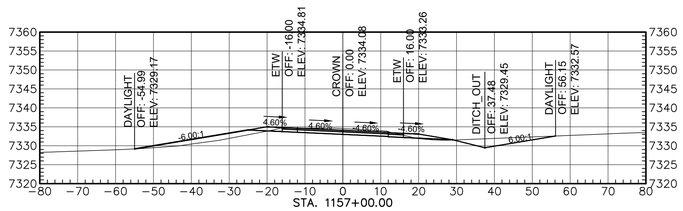
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	34	48



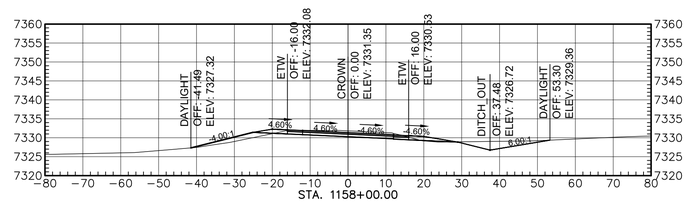
Total Volume at Station 1155+00.00	
Cut Area	100.20
Fill Area	27.82
Cut Vol	294.68
Fill Vol	93.31
Cum Cut Vol	56190.14
Cum Fill Vol	64515.30
Net Vol	-8325.16



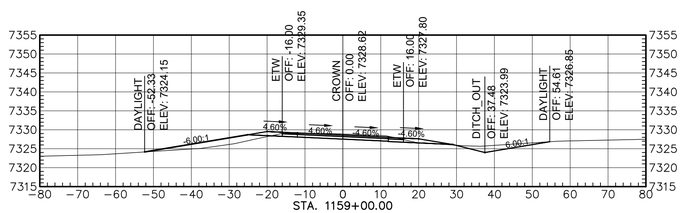
Total Volume at Station 1156+00.00	
Cut Area	86.68
Fill Area	36.33
Cut Vol	343.82
Fill Vol	120.21
Cum Cut Vol	56533.96
Cum Fill Vol	64635.51
Net Vol	-8101.55



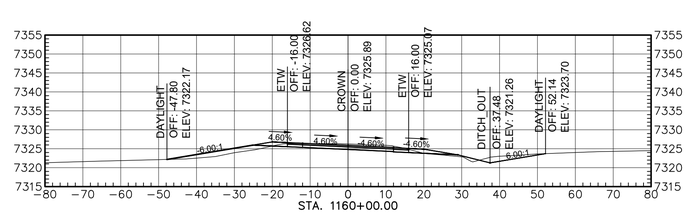
Total Volume at Station 1157+00.00	
Cut Area	76.25
Fill Area	36.48
Cut Vol	299.91
Fill Vol	136.42
Cum Cut Vol	56833.87
Cum Fill Vol	64771.93
Net Vol	-7938.06



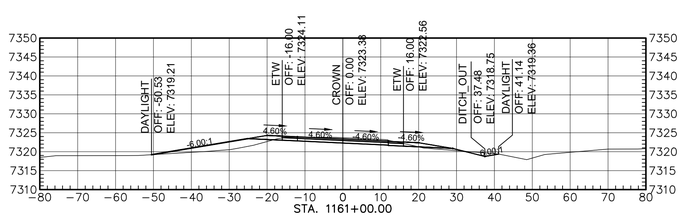
Total Volume at Station 1158+00.00	
Cut Area	74.06
Fill Area	18.95
Cut Vol	278.79
Fill Vol	103.74
Cum Cut Vol	57110.66
Cum Fill Vol	64875.67
Net Vol	-7765.01



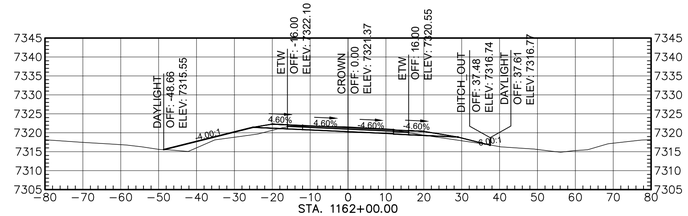
Total Volume at Station 1159+00.00	
Cut Area	61.99
Fill Area	37.40
Cut Vol	250.66
Fill Vol	105.46
Cum Cut Vol	57361.32
Cum Fill Vol	64981.14
Net Vol	-7619.82



Total Volume at Station 1160+00.00	
Cut Area	58.04
Fill Area	30.63
Cut Vol	223.17
Fill Vol	127.22
Cum Cut Vol	57584.48
Cum Fill Vol	65108.36
Net Vol	-7523.88



Total Volume at Station 1161+00.00	
Cut Area	45.84
Fill Area	43.68
Cut Vol	193.69
Fill Vol	138.81
Cum Cut Vol	57778.18
Cum Fill Vol	65247.17
Net Vol	-7469.00



Total Volume at Station 1162+00.00	
Cut Area	36.98
Fill Area	44.60
Cut Vol	153.32
Fill Vol	164.91
Cum Cut Vol	57931.39
Cum Fill Vol	65412.09
Net Vol	-7480.69

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

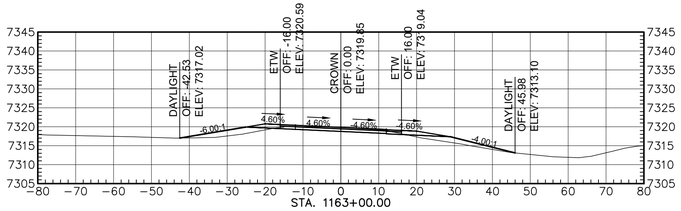
CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

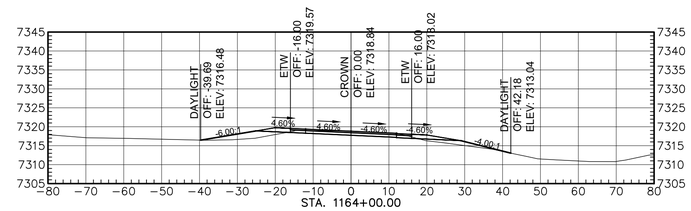
DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 34 OF 48
CHECK	ASF		

M:\TRN\17-100-090-12\2_DISCIPLINES_SHEETS\3_SHEETS - ROADWAY\X-SECTIONS\17109012-ROADWAY X-SECTIONS.DWG3/19/2025 1:38 PM

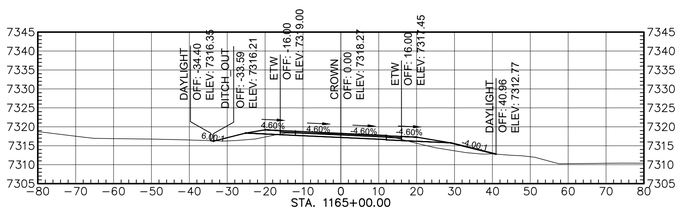
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	35	48



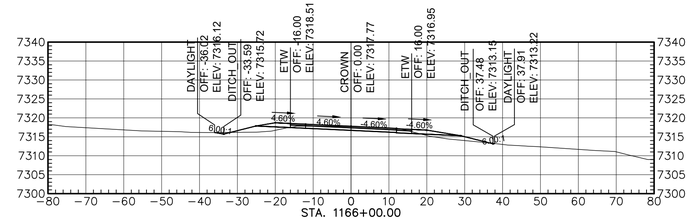
Total Volume at Station 1163+00.00	
Cut Area	28.23
Fill Area	47.96
Cut Vol	120.74
Fill Vol	172.13
Cum Cut Vol	58052.13
Cum Fill Vol	65584.21
Net Vol	-7532.09



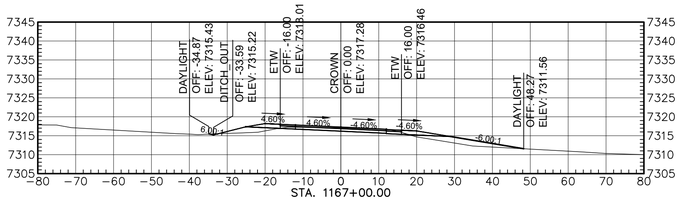
Total Volume at Station 1164+00.00	
Cut Area	29.40
Fill Area	36.98
Cut Vol	106.70
Fill Vol	157.50
Cum Cut Vol	58158.83
Cum Fill Vol	65741.72
Net Vol	-7582.89



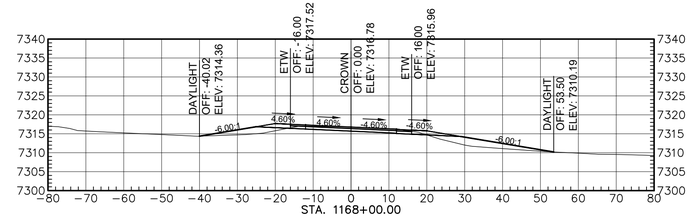
Total Volume at Station 1165+00.00	
Cut Area	25.77
Fill Area	42.65
Cut Vol	102.13
Fill Vol	147.40
Cum Cut Vol	58260.96
Cum Fill Vol	65889.12
Net Vol	-7628.16



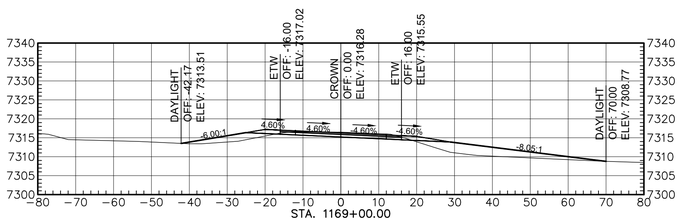
Total Volume at Station 1166+00.00	
Cut Area	28.58
Fill Area	28.16
Cut Vol	100.60
Fill Vol	127.18
Cum Cut Vol	58361.56
Cum Fill Vol	66016.30
Net Vol	-7654.74



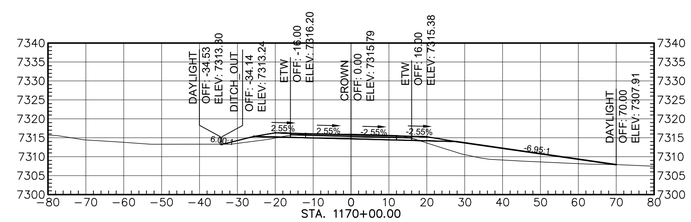
Total Volume at Station 1167+00.00	
Cut Area	25.73
Fill Area	42.47
Cut Vol	100.51
Fill Vol	126.70
Cum Cut Vol	58462.07
Cum Fill Vol	66143.00
Net Vol	-7680.93



Total Volume at Station 1168+00.00	
Cut Area	32.80
Fill Area	61.92
Cut Vol	108.30
Fill Vol	192.47
Cum Cut Vol	58570.37
Cum Fill Vol	66335.47
Net Vol	-7765.09



Total Volume at Station 1169+00.00	
Cut Area	36.58
Fill Area	106.59
Cut Vol	128.38
Fill Vol	310.11
Cum Cut Vol	58698.76
Cum Fill Vol	66645.57
Net Vol	-7946.82



Total Volume at Station 1170+00.00	
Cut Area	36.85
Fill Area	113.64
Cut Vol	135.93
Fill Vol	404.36
Cum Cut Vol	58834.69
Cum Fill Vol	67049.93
Net Vol	-8215.24

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE	2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO.	35 OF 48
CHECK	ASF			

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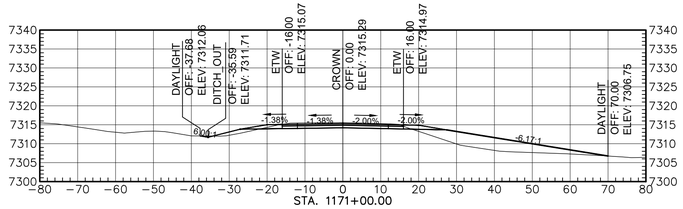
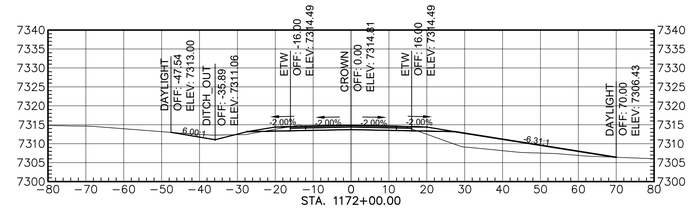
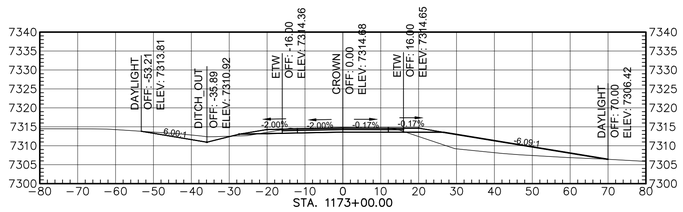
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	36	48



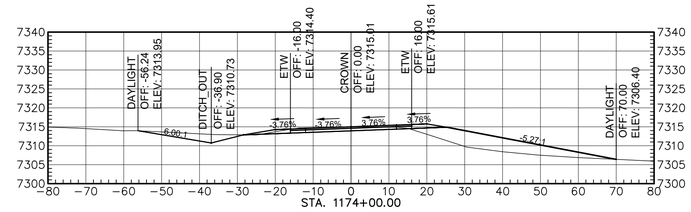
Total Volume at Station 1171+00.00	
Cut Area	47.50
Fill Area	114.75
Cut Vol	156.21
Fill Vol	422.93
Cum Cut Vol	58990.90
Cum Fill Vol	67472.86
Net Vol	-8481.96



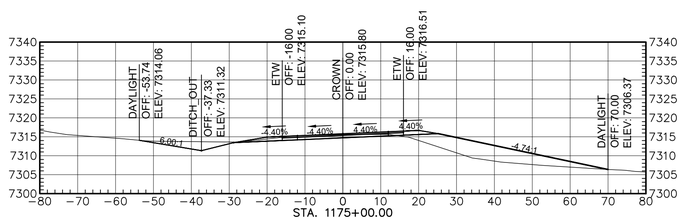
Total Volume at Station 1172+00.00	
Cut Area	52.67
Fill Area	108.81
Cut Vol	185.51
Fill Vol	413.99
Cum Cut Vol	59176.40
Cum Fill Vol	67886.85
Net Vol	-8710.44



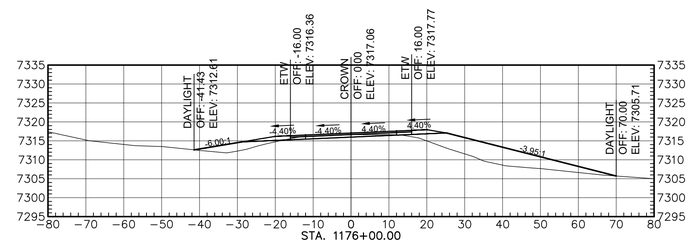
Total Volume at Station 1173+00.00	
Cut Area	57.55
Fill Area	117.21
Cut Vol	204.11
Fill Vol	418.55
Cum Cut Vol	59380.52
Cum Fill Vol	68305.40
Net Vol	-8924.88



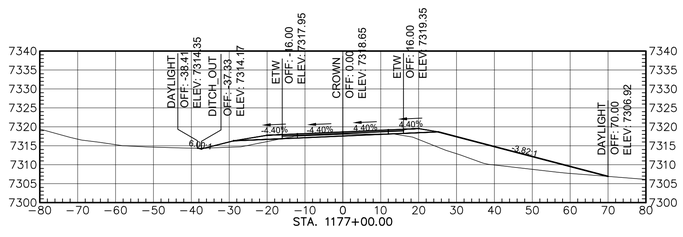
Total Volume at Station 1174+00.00	
Cut Area	64.80
Fill Area	135.54
Cut Vol	228.56
Fill Vol	465.08
Cum Cut Vol	59607.08
Cum Fill Vol	68773.45
Net Vol	-9166.38



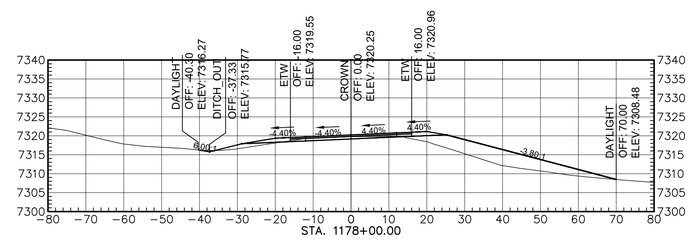
Total Volume at Station 1175+00.00	
Cut Area	58.28
Fill Area	143.28
Cut Vol	228.16
Fill Vol	523.21
Cum Cut Vol	59835.24
Cum Fill Vol	69296.67
Net Vol	-9463.42



Total Volume at Station 1176+00.00	
Cut Area	14.50
Fill Area	189.44
Cut Vol	133.88
Fill Vol	623.07
Cum Cut Vol	59967.13
Cum Fill Vol	69919.74
Net Vol	-9952.61



Total Volume at Station 1177+00.00	
Cut Area	9.94
Fill Area	184.99
Cut Vol	45.19
Fill Vol	700.62
Cum Cut Vol	60012.31
Cum Fill Vol	70620.36
Net Vol	-10608.04



Total Volume at Station 1178+00.00	
Cut Area	14.91
Fill Area	155.83
Cut Vol	45.94
Fill Vol	638.47
Cum Cut Vol	60058.26
Cum Fill Vol	71258.83
Net Vol	-11200.57

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 36 OF 48	
CHECK ASF			

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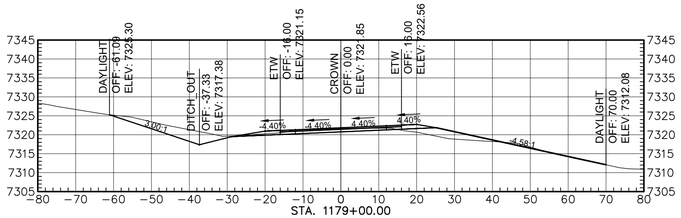
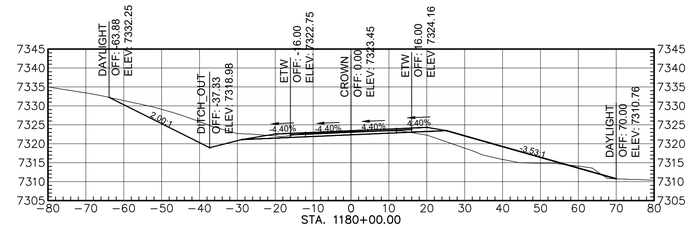
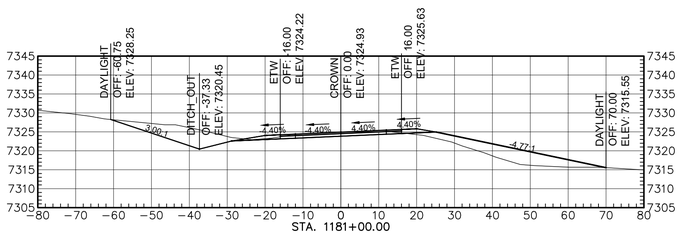
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	37	48



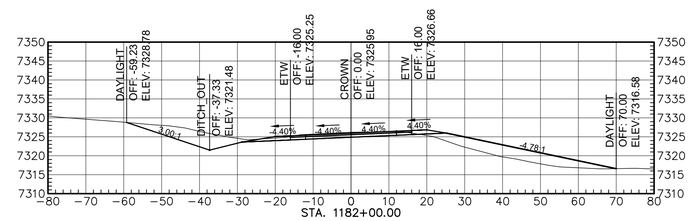
Total Volume at Station 1179+00.00	
Cut Area	89.12
Fill Area	35.21
Cut Vol	191.01
Fill Vol	357.91
Cum Cut Vol	60249.26
Cum Fill Vol	71616.74
Net Vol	-11367.47



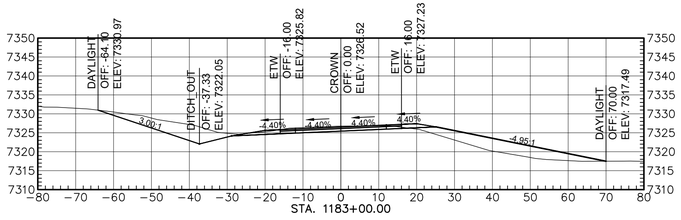
Total Volume at Station 1180+00.00	
Cut Area	159.22
Fill Area	94.78
Cut Vol	454.98
Fill Vol	243.55
Cum Cut Vol	60704.24
Cum Fill Vol	71860.29
Net Vol	-11156.05



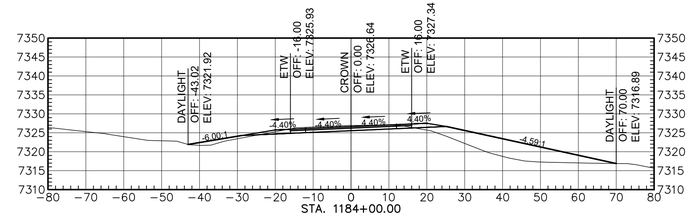
Total Volume at Station 1181+00.00	
Cut Area	122.97
Fill Area	113.03
Cut Vol	516.77
Fill Vol	390.17
Cum Cut Vol	61221.01
Cum Fill Vol	72250.46
Net Vol	-11029.45



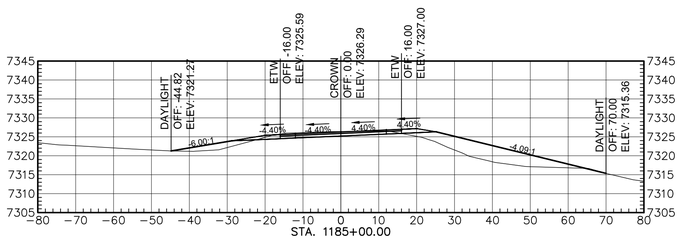
Total Volume at Station 1182+00.00	
Cut Area	122.95
Fill Area	113.40
Cut Vol	450.73
Fill Vol	425.59
Cum Cut Vol	61671.74
Cum Fill Vol	72676.05
Net Vol	-11004.31



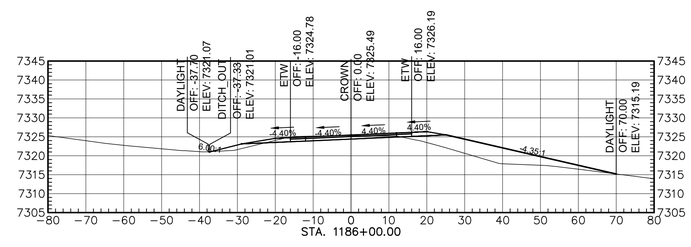
Total Volume at Station 1183+00.00	
Cut Area	131.64
Fill Area	114.53
Cut Vol	466.76
Fill Vol	428.34
Cum Cut Vol	62138.50
Cum Fill Vol	73104.39
Net Vol	-10965.89



Total Volume at Station 1184+00.00	
Cut Area	43.61
Fill Area	163.01
Cut Vol	321.92
Fill Vol	520.88
Cum Cut Vol	62460.42
Cum Fill Vol	73625.27
Net Vol	-11164.85



Total Volume at Station 1185+00.00	
Cut Area	39.62
Fill Area	151.76
Cut Vol	153.95
Fill Vol	589.39
Cum Cut Vol	62614.37
Cum Fill Vol	74214.66
Net Vol	-11600.28



Total Volume at Station 1186+00.00	
Cut Area	30.45
Fill Area	141.03
Cut Vol	129.56
Fill Vol	547.88
Cum Cut Vol	62743.93
Cum Fill Vol	74762.54
Net Vol	-12018.61

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 37 OF 48	
CHECK ASF			

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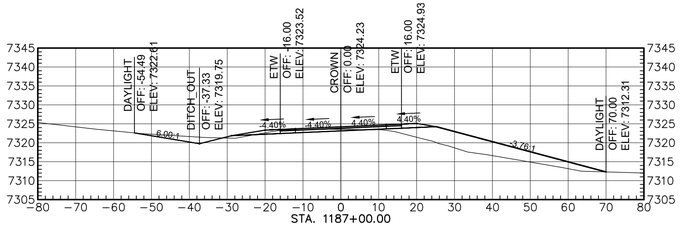
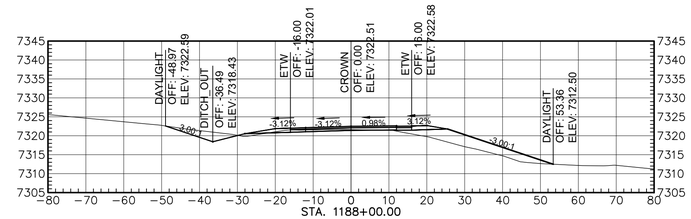
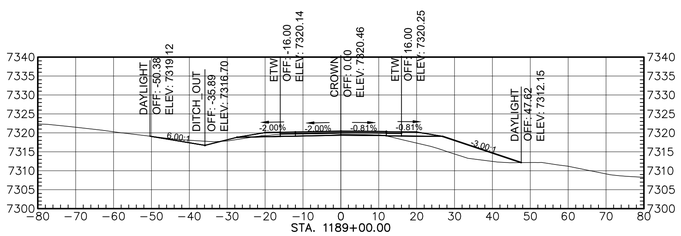
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	38	48



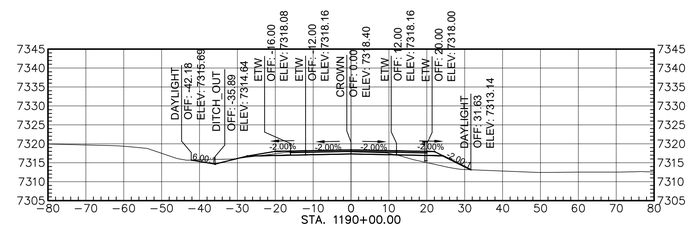
Total Volume at Station 1187+00.00	
Cut Area	34.88
Fill Area	159.86
Cut Vol	120.28
Fill Vol	563.93
Cum Cut Vol	62864.19
Cum Fill Vol	75326.47
Net Vol	-12462.28



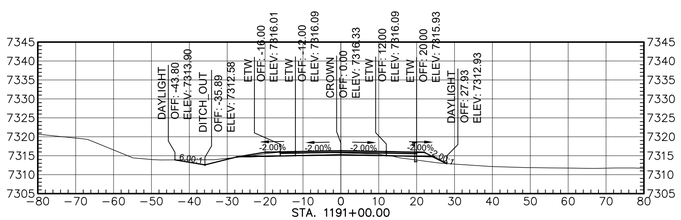
Total Volume at Station 1188+00.00	
Cut Area	33.69
Fill Area	88.11
Cut Vol	125.75
Fill Vol	464.65
Cum Cut Vol	62989.94
Cum Fill Vol	75791.12
Net Vol	-12801.18



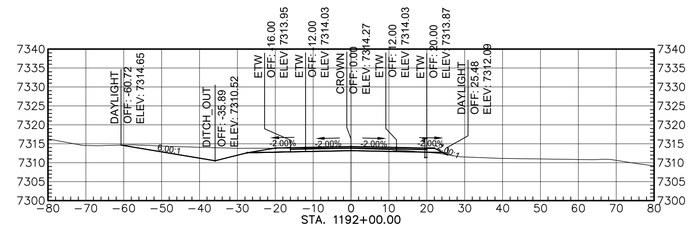
Total Volume at Station 1189+00.00	
Cut Area	21.02
Fill Area	80.29
Cut Vol	101.33
Fill Vol	311.85
Cum Cut Vol	63091.27
Cum Fill Vol	76102.96
Net Vol	-13011.70



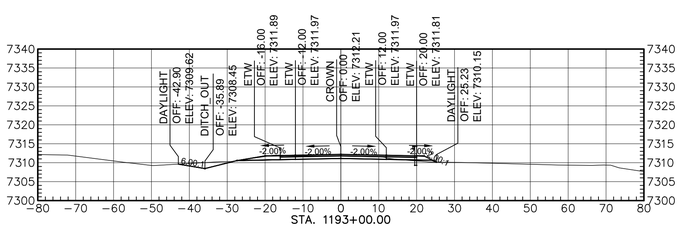
Total Volume at Station 1190+00.00	
Cut Area	27.40
Fill Area	29.84
Cut Vol	89.95
Fill Vol	202.94
Cum Cut Vol	63181.21
Cum Fill Vol	76305.90
Net Vol	-13124.69



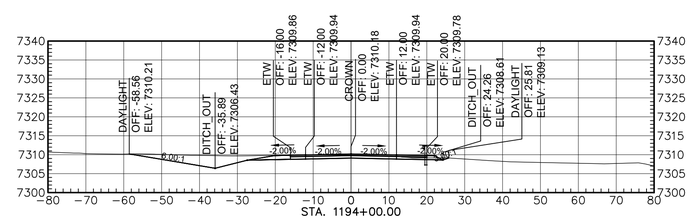
Total Volume at Station 1191+00.00	
Cut Area	31.07
Fill Area	12.03
Cut Vol	108.85
Fill Vol	77.00
Cum Cut Vol	63290.07
Cum Fill Vol	76382.90
Net Vol	-13092.83



Total Volume at Station 1192+00.00	
Cut Area	96.05
Fill Area	1.16
Cut Vol	237.55
Fill Vol	24.27
Cum Cut Vol	63527.61
Cum Fill Vol	76407.17
Net Vol	-12879.55



Total Volume at Station 1193+00.00	
Cut Area	39.55
Fill Area	2.45
Cut Vol	253.30
Fill Vol	6.65
Cum Cut Vol	63780.92
Cum Fill Vol	76413.82
Net Vol	-12632.90



Total Volume at Station 1194+00.00	
Cut Area	102.27
Fill Area	0.00
Cut Vol	284.59
Fill Vol	4.51
Cum Cut Vol	64045.51
Cum Fill Vol	76418.33
Net Vol	-12372.82

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 38 OF 48
CHECK	ASF		

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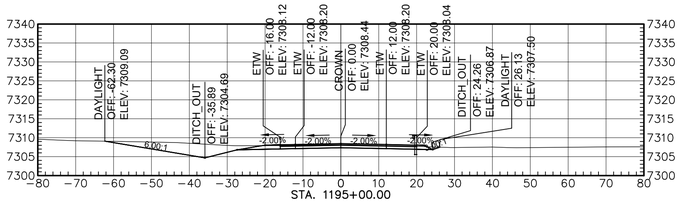
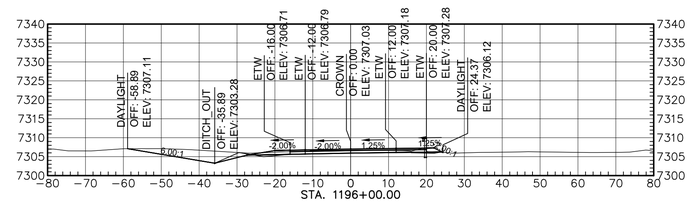
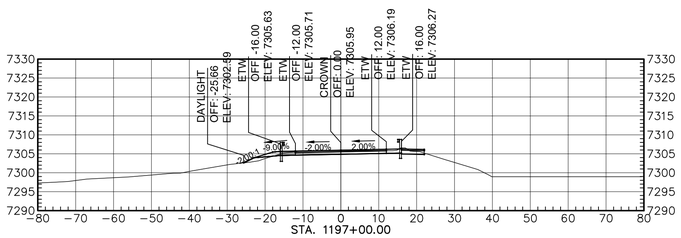
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	39	48



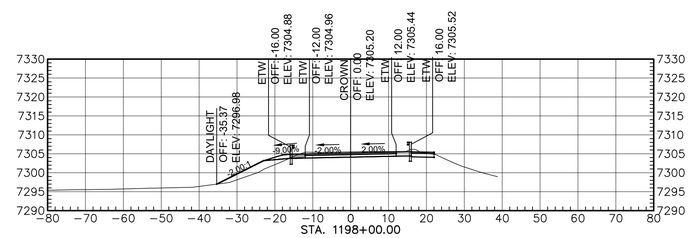
Total Volume at Station 1195+00.00	
Cut Area	113.59
Fill Area	0.00
Cut Vol	403.19
Fill Vol	0.00
Cum Cut Vol	64448.70
Cum Fill Vol	76418.33
Net Vol	-11969.63



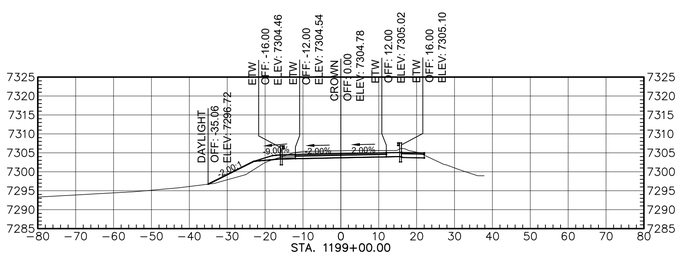
Total Volume at Station 1196+00.00	
Cut Area	85.28
Fill Area	0.04
Cut Vol	371.56
Fill Vol	0.08
Cum Cut Vol	64820.26
Cum Fill Vol	76418.41
Net Vol	-11598.15



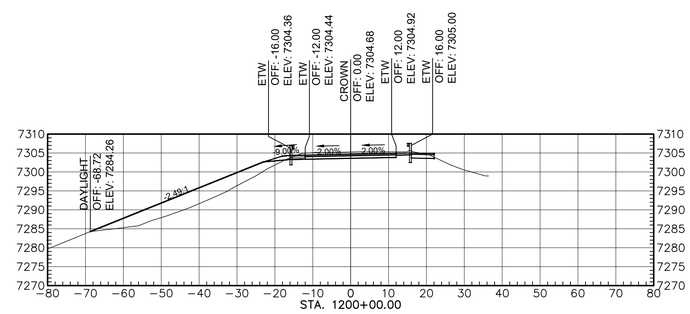
Total Volume at Station 1197+00.00	
Cut Area	34.77
Fill Area	4.21
Cut Vol	222.30
Fill Vol	7.87
Cum Cut Vol	65042.56
Cum Fill Vol	76426.28
Net Vol	-11383.72



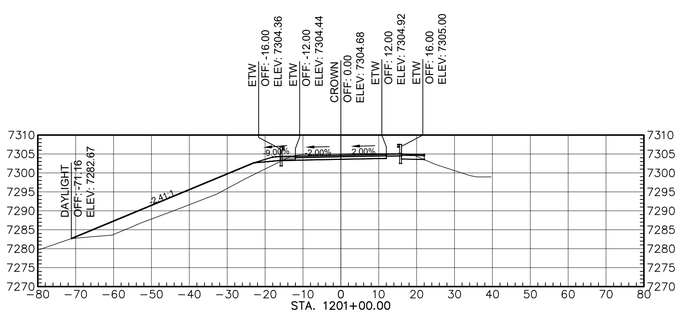
Total Volume at Station 1198+00.00	
Cut Area	50.01
Fill Area	27.05
Cut Vol	157.00
Fill Vol	57.88
Cum Cut Vol	65199.56
Cum Fill Vol	76484.16
Net Vol	-11284.61



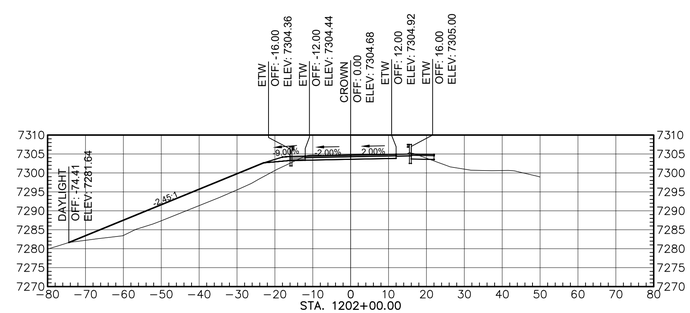
Total Volume at Station 1199+00.00	
Cut Area	65.43
Fill Area	22.84
Cut Vol	213.78
Fill Vol	92.38
Cum Cut Vol	65413.34
Cum Fill Vol	76576.55
Net Vol	-11163.20



Total Volume at Station 1200+00.00	
Cut Area	54.56
Fill Area	153.28
Cut Vol	222.21
Fill Vol	326.11
Cum Cut Vol	65635.55
Cum Fill Vol	76902.65
Net Vol	-11267.10



Total Volume at Station 1201+00.00	
Cut Area	44.26
Fill Area	170.33
Cut Vol	183.01
Fill Vol	599.24
Cum Cut Vol	65818.56
Cum Fill Vol	77501.89
Net Vol	-11683.33



Total Volume at Station 1202+00.00	
Cut Area	37.20
Fill Area	198.99
Cut Vol	150.86
Fill Vol	683.93
Cum Cut Vol	65969.42
Cum Fill Vol	78185.82
Net Vol	-12216.40

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO.	SHEET NO.	
CHECK ASF	N12(13-2) 1,2,&4	39 OF	48

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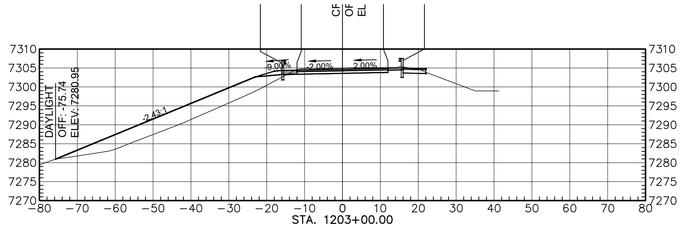
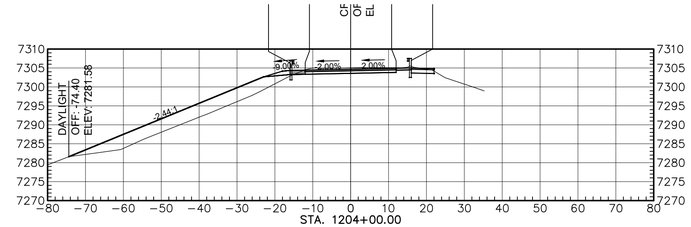
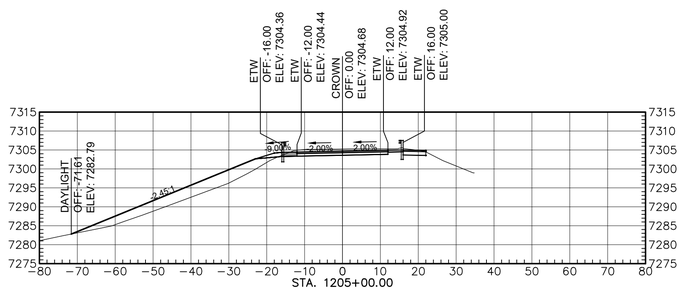
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	40	48



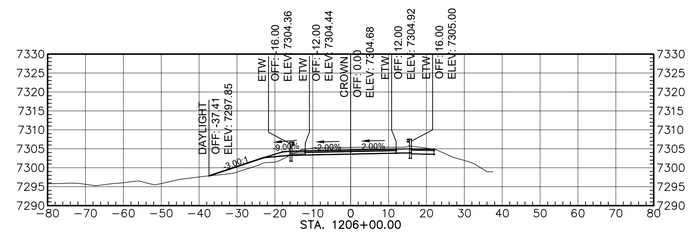
Total Volume at Station 1203+00.00	
Cut Area	44.18
Fill Area	195.97
Cut Vol	150.71
Fill Vol	736.97
Cum Cut Vol	66120.12
Cum Fill Vol	78922.79
Net Vol	-12802.66



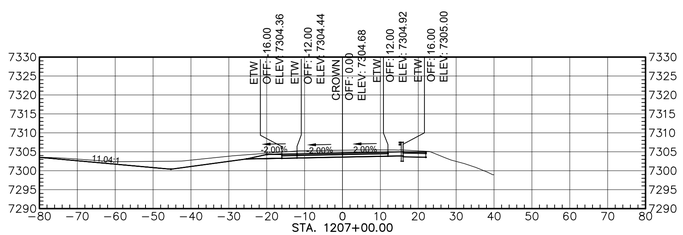
Total Volume at Station 1204+00.00	
Cut Area	46.57
Fill Area	174.83
Cut Vol	165.05
Fill Vol	692.21
Cum Cut Vol	66288.19
Cum Fill Vol	79615.00
Net Vol	-13326.81



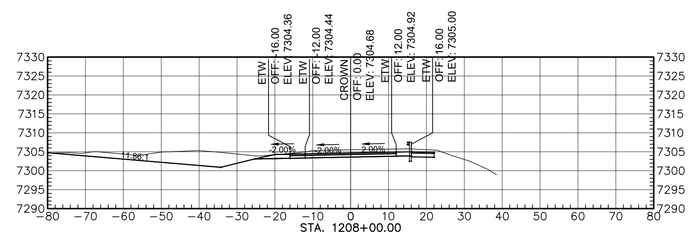
Total Volume at Station 1205+00.00	
Cut Area	55.35
Fill Area	132.65
Cut Vol	188.74
Fill Vol	569.39
Cum Cut Vol	66476.93
Cum Fill Vol	80184.39
Net Vol	-13707.46



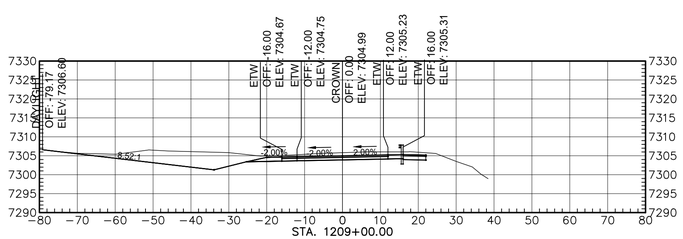
Total Volume at Station 1206+00.00	
Cut Area	61.62
Fill Area	24.07
Cut Vol	216.61
Fill Vol	290.21
Cum Cut Vol	66693.54
Cum Fill Vol	80474.61
Net Vol	-13781.07



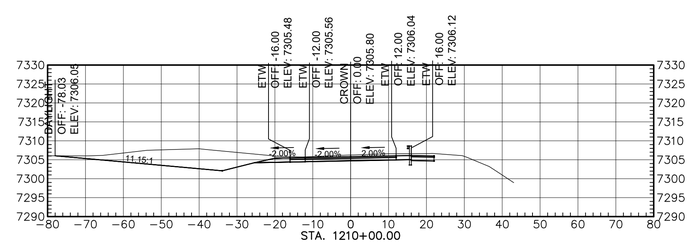
Total Volume at Station 1207+00.00	
Cut Area	138.98
Fill Area	0.00
Cut Vol	371.49
Fill Vol	44.57
Cum Cut Vol	67065.02
Cum Fill Vol	80519.18
Net Vol	-13454.16



Total Volume at Station 1208+00.00	
Cut Area	190.67
Fill Area	0.02
Cut Vol	610.47
Fill Vol	0.03
Cum Cut Vol	67675.49
Cum Fill Vol	80519.21
Net Vol	-12843.72



Total Volume at Station 1209+00.00	
Cut Area	205.99
Fill Area	0.00
Cut Vol	722.09
Fill Vol	0.03
Cum Cut Vol	68397.58
Cum Fill Vol	80519.24
Net Vol	-12121.65



Total Volume at Station 1210+00.00	
Cut Area	237.10
Fill Area	0.00
Cut Vol	805.18
Fill Vol	0.00
Cum Cut Vol	69202.77
Cum Fill Vol	80519.24
Net Vol	-11316.47

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 40 OF 48
CHECK	ASF		

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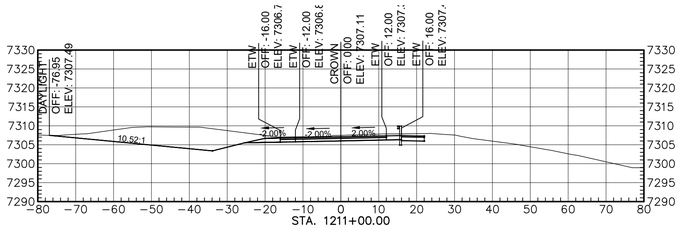
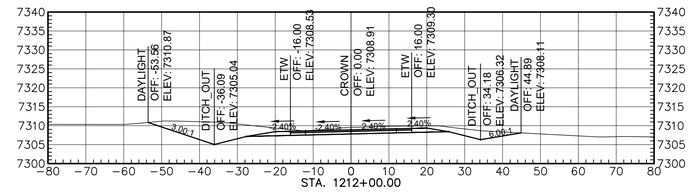
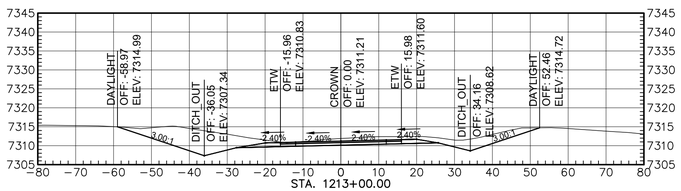
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	41	48



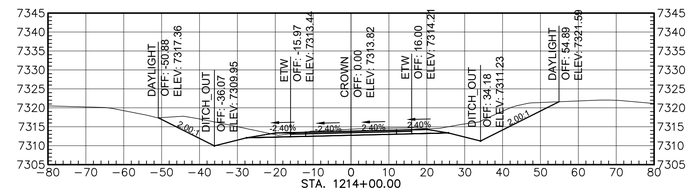
Total Volume at Station 1211+00.00	
Cut Area	261.90
Fill Area	0.00
Cut Vol	904.59
Fill Vol	0.00
Cum Cut Vol	70107.35
Cum Fill Vol	80519.24
Net Vol	-10411.88



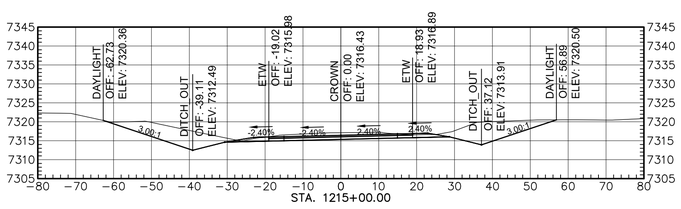
Total Volume at Station 1212+00.00	
Cut Area	213.68
Fill Area	0.00
Cut Vol	866.67
Fill Vol	0.00
Cum Cut Vol	70974.03
Cum Fill Vol	80519.24
Net Vol	-9545.21



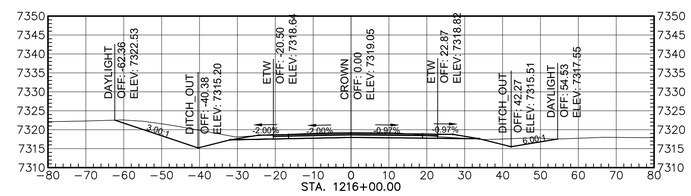
Total Volume at Station 1213+00.00	
Cut Area	268.39
Fill Area	0.00
Cut Vol	885.41
Fill Vol	0.00
Cum Cut Vol	71859.43
Cum Fill Vol	80519.24
Net Vol	-8659.80



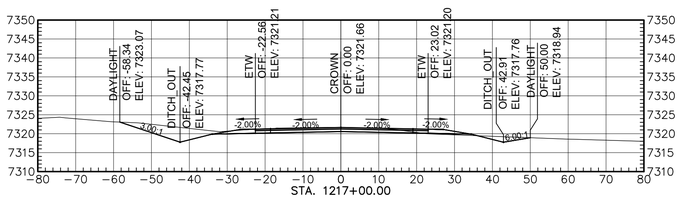
Total Volume at Station 1214+00.00	
Cut Area	270.25
Fill Area	0.00
Cut Vol	994.47
Fill Vol	0.00
Cum Cut Vol	72853.90
Cum Fill Vol	80519.24
Net Vol	-7665.34



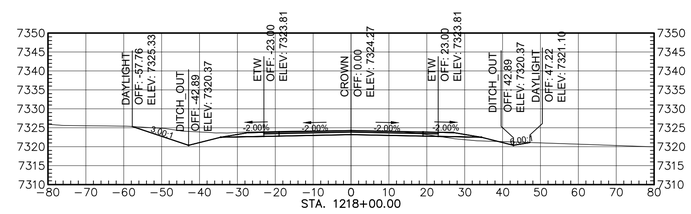
Total Volume at Station 1215+00.00	
Cut Area	263.39
Fill Area	0.00
Cut Vol	988.25
Fill Vol	0.00
Cum Cut Vol	73842.15
Cum Fill Vol	80519.24
Net Vol	-6677.09



Total Volume at Station 1216+00.00	
Cut Area	171.77
Fill Area	0.22
Cut Vol	803.34
Fill Vol	0.40
Cum Cut Vol	74645.49
Cum Fill Vol	80519.64
Net Vol	-5874.15



Total Volume at Station 1217+00.00	
Cut Area	116.92
Fill Area	3.19
Cut Vol	534.62
Fill Vol	6.30
Cum Cut Vol	75180.11
Cum Fill Vol	80525.95
Net Vol	-5345.84



Total Volume at Station 1218+00.00	
Cut Area	113.17
Fill Area	8.87
Cut Vol	426.08
Fill Vol	22.32
Cum Cut Vol	75606.19
Cum Fill Vol	80548.27
Net Vol	-4942.08

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 41 OF 48
CHECK	ASF		

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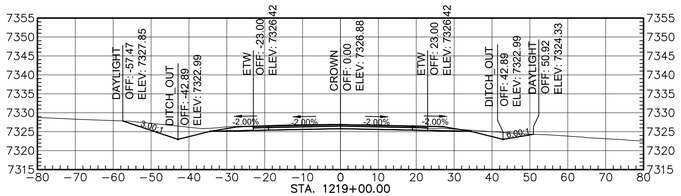
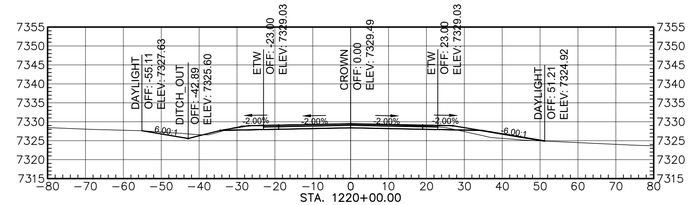
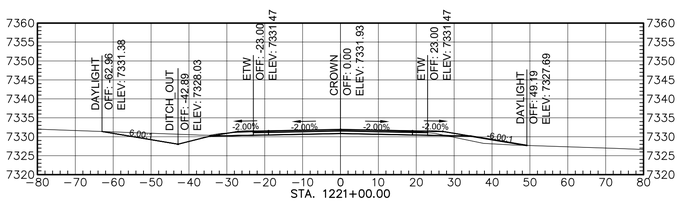
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	42	48



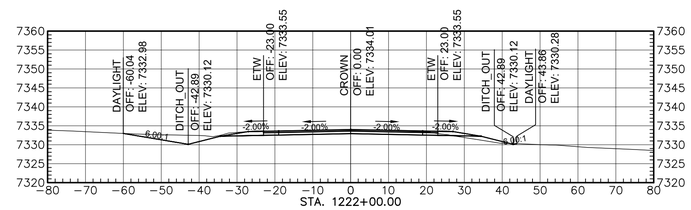
Total Volume at Station 1219+00.00	
Cut Area	130.47
Fill Area	0.00
Cut Vol	451.18
Fill Vol	16.42
Cum Cut Vol	76057.36
Cum Fill Vol	80564.69
Net Vol	-4507.32



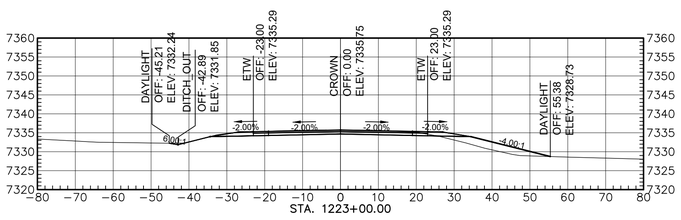
Total Volume at Station 1220+00.00	
Cut Area	67.06
Fill Area	20.34
Cut Vol	365.80
Fill Vol	37.67
Cum Cut Vol	76423.16
Cum Fill Vol	80602.36
Net Vol	-4179.20



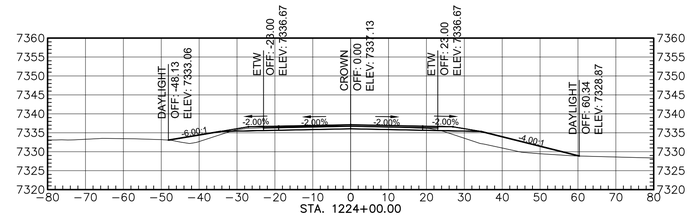
Total Volume at Station 1221+00.00	
Cut Area	93.06
Fill Area	16.45
Cut Vol	296.52
Fill Vol	65.14
Cum Cut Vol	76719.69
Cum Fill Vol	80670.50
Net Vol	-3950.81



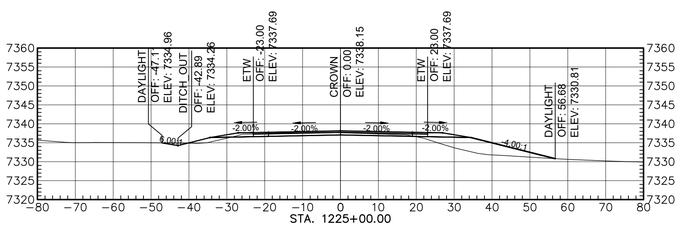
Total Volume at Station 1222+00.00	
Cut Area	87.55
Fill Area	8.69
Cut Vol	334.46
Fill Vol	46.56
Cum Cut Vol	77054.15
Cum Fill Vol	80717.06
Net Vol	-3662.91



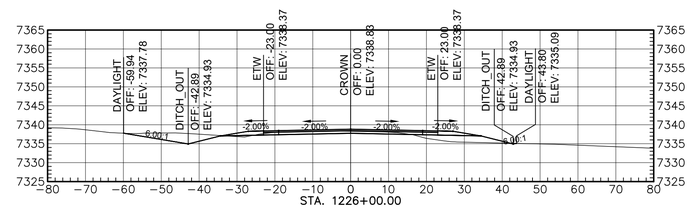
Total Volume at Station 1223+00.00	
Cut Area	59.53
Fill Area	41.94
Cut Vol	272.36
Fill Vol	93.76
Cum Cut Vol	77326.51
Cum Fill Vol	80810.82
Net Vol	-3484.31



Total Volume at Station 1224+00.00	
Cut Area	37.90
Fill Area	89.40
Cut Vol	180.43
Fill Vol	243.23
Cum Cut Vol	77506.93
Cum Fill Vol	81054.04
Net Vol	-3547.11



Total Volume at Station 1225+00.00	
Cut Area	31.22
Fill Area	82.12
Cut Vol	128.01
Fill Vol	317.63
Cum Cut Vol	77634.94
Cum Fill Vol	81371.66
Net Vol	-3736.73



Total Volume at Station 1226+00.00	
Cut Area	59.58
Fill Area	32.48
Cut Vol	168.16
Fill Vol	212.22
Cum Cut Vol	77803.11
Cum Fill Vol	81583.90
Net Vol	-3780.79

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE	2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 42 OF 48	
CHECK	ASF			

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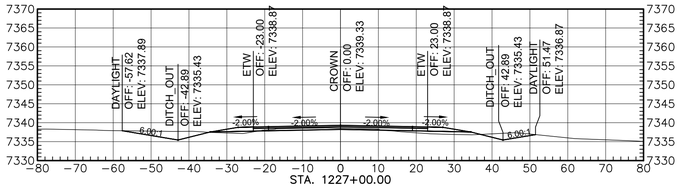
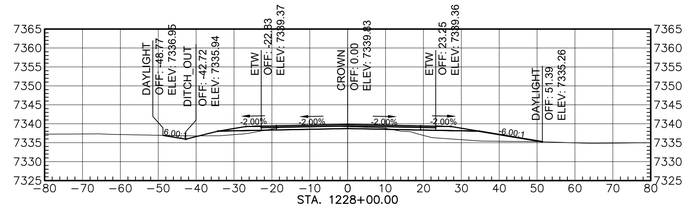
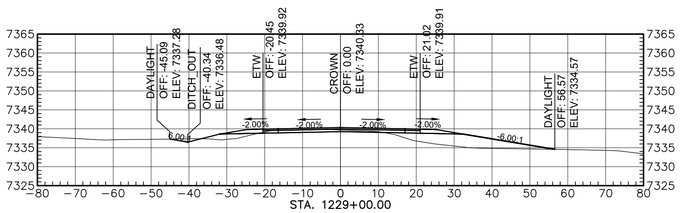
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	43	48



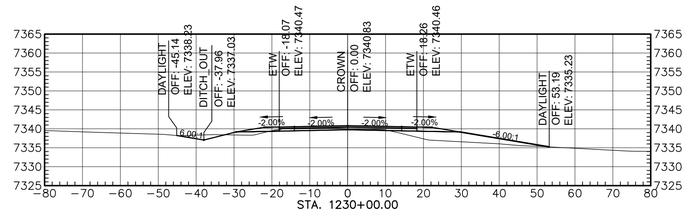
Total Volume at Station 1227+00.00	
Cut Area	52.61
Fill Area	17.57
Cut Vol	207.78
Fill Vol	92.68
Cum Cut Vol	78010.88
Cum Fill Vol	81676.58
Net Vol	-3665.69



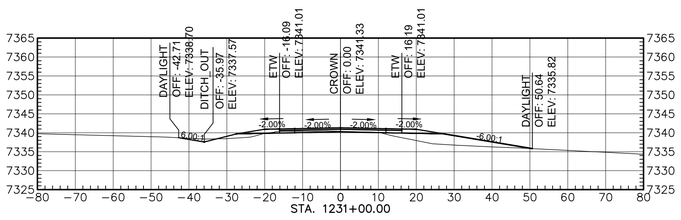
Total Volume at Station 1228+00.00	
Cut Area	21.78
Fill Area	71.50
Cut Vol	137.77
Fill Vol	164.93
Cum Cut Vol	78148.66
Cum Fill Vol	81841.51
Net Vol	-3692.85



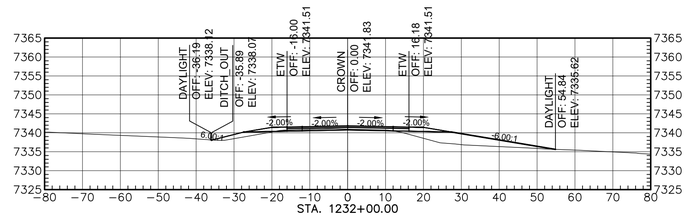
Total Volume at Station 1229+00.00	
Cut Area	19.22
Fill Area	100.56
Cut Vol	75.92
Fill Vol	318.62
Cum Cut Vol	78224.58
Cum Fill Vol	82160.13
Net Vol	-3935.54



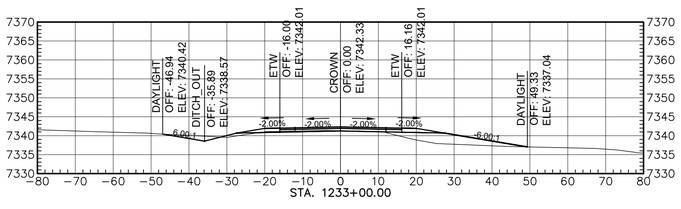
Total Volume at Station 1230+00.00	
Cut Area	20.33
Fill Area	69.83
Cut Vol	73.24
Fill Vol	315.54
Cum Cut Vol	78297.83
Cum Fill Vol	82475.66
Net Vol	-4177.84



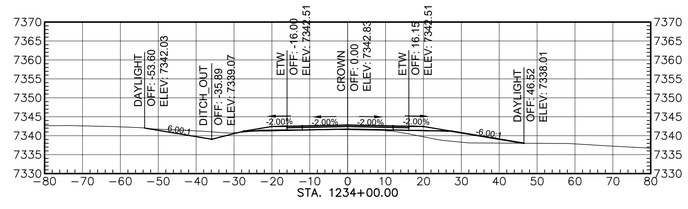
Total Volume at Station 1231+00.00	
Cut Area	11.04
Fill Area	69.56
Cut Vol	58.10
Fill Vol	258.14
Cum Cut Vol	78355.92
Cum Fill Vol	82733.80
Net Vol	-4377.88



Total Volume at Station 1232+00.00	
Cut Area	7.69
Fill Area	82.65
Cut Vol	34.68
Fill Vol	281.89
Cum Cut Vol	78390.60
Cum Fill Vol	83015.69
Net Vol	-4625.09



Total Volume at Station 1233+00.00	
Cut Area	14.59
Fill Area	63.71
Cut Vol	41.27
Fill Vol	271.05
Cum Cut Vol	78431.87
Cum Fill Vol	83286.74
Net Vol	-4854.87



Total Volume at Station 1234+00.00	
Cut Area	25.20
Fill Area	55.61
Cut Vol	73.70
Fill Vol	220.97
Cum Cut Vol	78505.57
Cum Fill Vol	83507.71
Net Vol	-5002.14

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE	2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO.	43 OF 48
CHECK	ASF			

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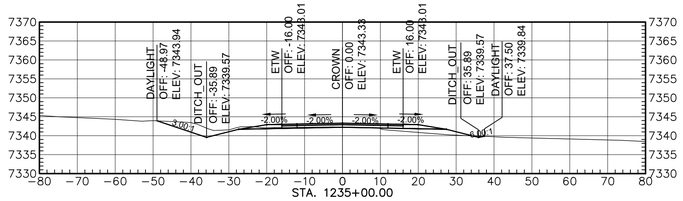
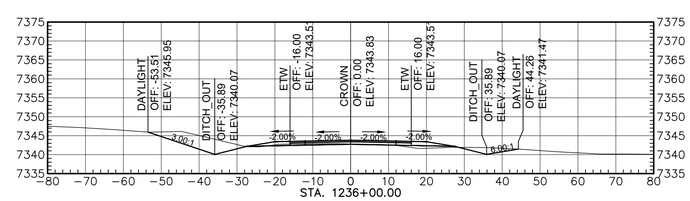
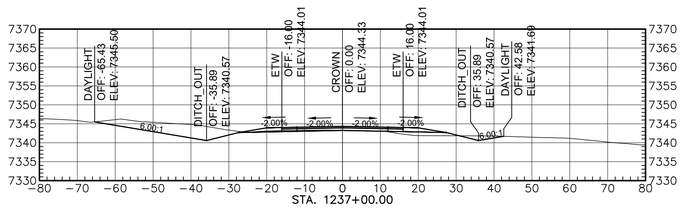
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	44	48



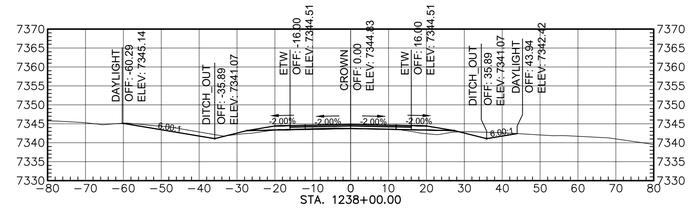
Total Volume at Station 1235+00.00	
Cut Area	38.26
Fill Area	20.51
Cut Vol	117.52
Fill Vol	140.97
Cum Cut Vol	78623.09
Cum Fill Vol	83648.68
Net Vol	-5025.59



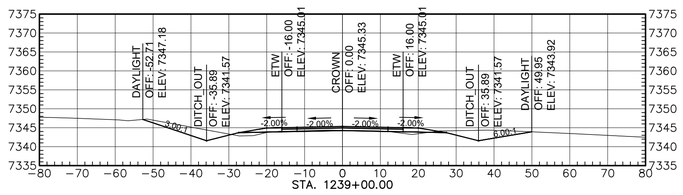
Total Volume at Station 1236+00.00	
Cut Area	82.44
Fill Area	8.06
Cut Vol	223.52
Fill Vol	52.90
Cum Cut Vol	78846.61
Cum Fill Vol	83701.58
Net Vol	-4854.97



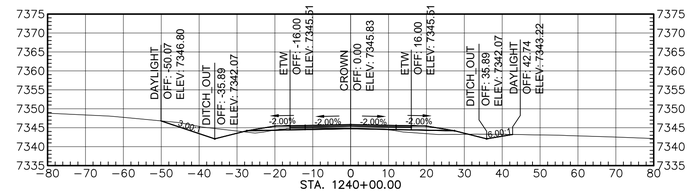
Total Volume at Station 1237+00.00	
Cut Area	98.92
Fill Area	13.48
Cut Vol	335.86
Fill Vol	30.86
Cum Cut Vol	79182.46
Cum Fill Vol	83741.46
Net Vol	-4558.98



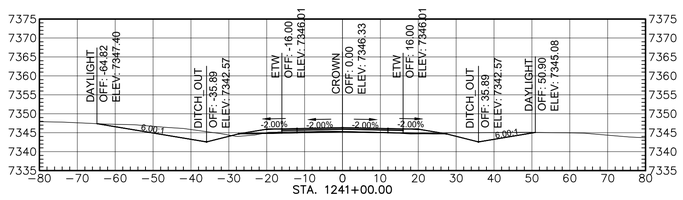
Total Volume at Station 1238+00.00	
Cut Area	39.70
Fill Area	15.55
Cut Vol	256.71
Fill Vol	53.75
Cum Cut Vol	79439.19
Cum Fill Vol	83795.21
Net Vol	-4356.02



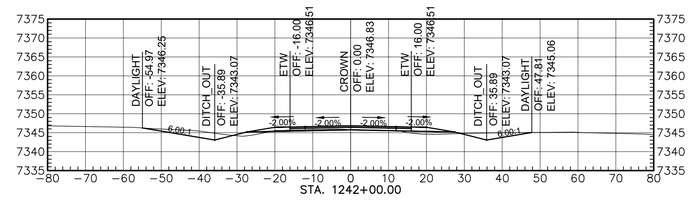
Total Volume at Station 1239+00.00	
Cut Area	74.20
Fill Area	9.55
Cut Vol	210.92
Fill Vol	46.47
Cum Cut Vol	79650.11
Cum Fill Vol	83841.68
Net Vol	-4191.57



Total Volume at Station 1240+00.00	
Cut Area	43.51
Fill Area	18.31
Cut Vol	217.97
Fill Vol	51.58
Cum Cut Vol	79868.08
Cum Fill Vol	83893.26
Net Vol	-4025.18



Total Volume at Station 1241+00.00	
Cut Area	93.07
Fill Area	4.86
Cut Vol	252.91
Fill Vol	42.90
Cum Cut Vol	80120.99
Cum Fill Vol	83936.16
Net Vol	-3815.17



Total Volume at Station 1242+00.00	
Cut Area	47.63
Fill Area	14.37
Cut Vol	260.55
Fill Vol	35.61
Cum Cut Vol	80381.53
Cum Fill Vol	83971.77
Net Vol	-3590.23

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE 2025	
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 44 OF 48	
CHECK ASF			

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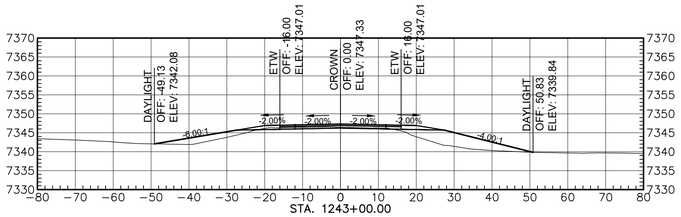
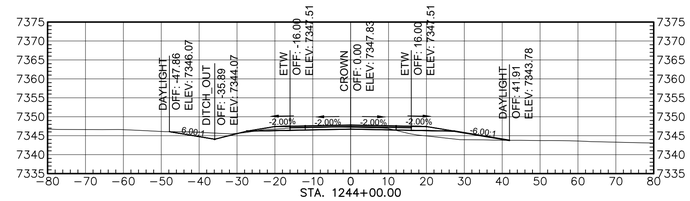
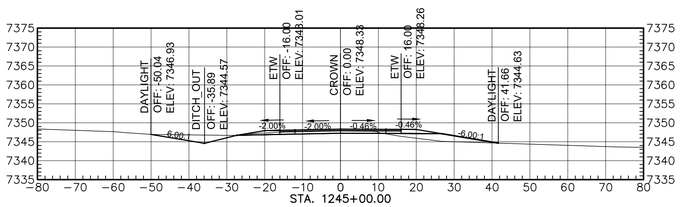
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	45	48



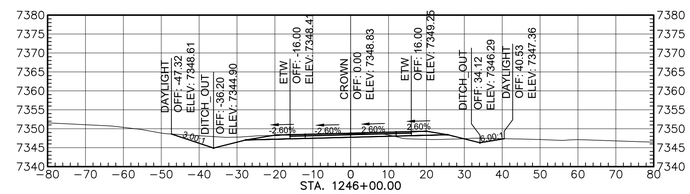
Total Volume at Station 1243+00.00	
Cut Area	10.54
Fill Area	110.91
Cut Vol	107.72
Fill Vol	232.00
Cum Cut Vol	80489.25
Cum Fill Vol	84203.77
Net Vol	-3714.52



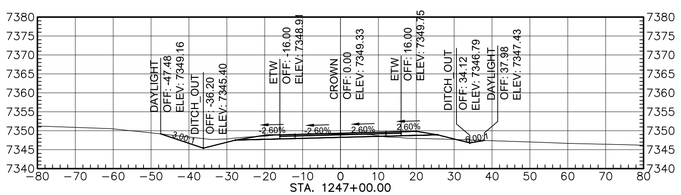
Total Volume at Station 1244+00.00	
Cut Area	32.65
Fill Area	36.46
Cut Vol	79.99
Fill Vol	272.91
Cum Cut Vol	80569.24
Cum Fill Vol	84476.68
Net Vol	-3907.44



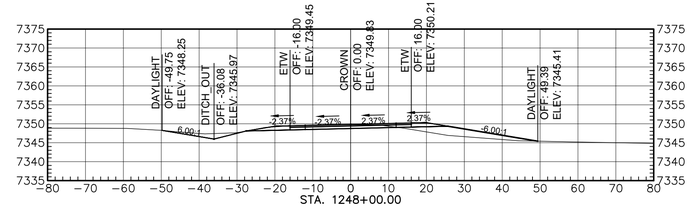
Total Volume at Station 1245+00.00	
Cut Area	45.10
Fill Area	31.76
Cut Vol	143.99
Fill Vol	126.33
Cum Cut Vol	80713.24
Cum Fill Vol	84603.01
Net Vol	-3889.77



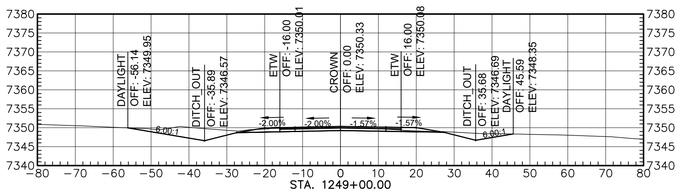
Total Volume at Station 1246+00.00	
Cut Area	76.03
Fill Area	15.44
Cut Vol	224.32
Fill Vol	87.41
Cum Cut Vol	80937.56
Cum Fill Vol	84690.42
Net Vol	-3752.86



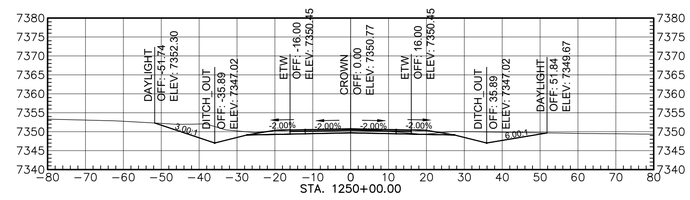
Total Volume at Station 1247+00.00	
Cut Area	61.40
Fill Area	12.22
Cut Vol	254.50
Fill Vol	51.24
Cum Cut Vol	81192.06
Cum Fill Vol	84741.66
Net Vol	-3549.60



Total Volume at Station 1248+00.00	
Cut Area	48.24
Fill Area	47.28
Cut Vol	203.04
Fill Vol	110.19
Cum Cut Vol	81395.10
Cum Fill Vol	84851.84
Net Vol	-3456.74



Total Volume at Station 1249+00.00	
Cut Area	101.47
Fill Area	0.00
Cut Vol	277.24
Fill Vol	87.55
Cum Cut Vol	81672.35
Cum Fill Vol	84939.39
Net Vol	-3267.05



Total Volume at Station 1250+00.00	
Cut Area	139.36
Fill Area	0.00
Cut Vol	445.96
Fill Vol	0.00
Cum Cut Vol	82118.32
Cum Fill Vol	84939.39
Net Vol	-2821.07

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 45 OF 48	
CHECK ASF			

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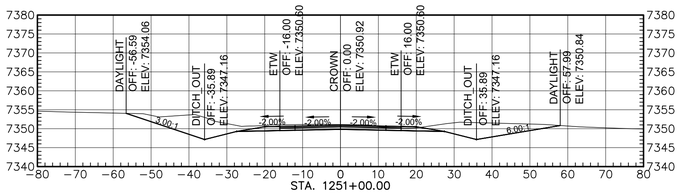
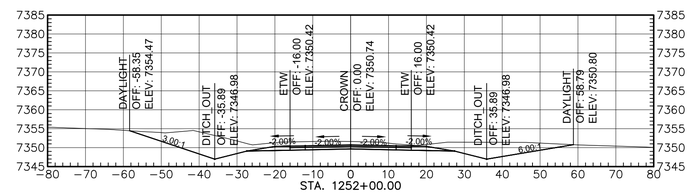
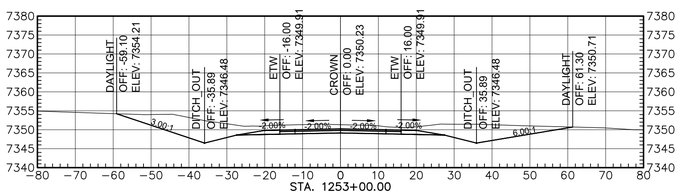
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	46	48



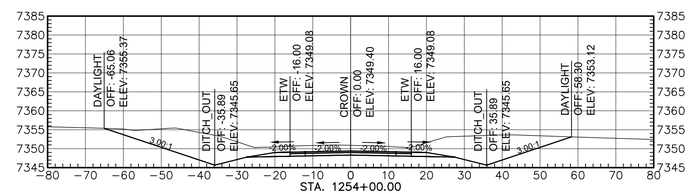
Total Volume at Station 1251+00.00	
Cut Area	239.90
Fill Area	0.00
Cut Vol	702.34
Fill Vol	0.00
Cum Cut Vol	82820.66
Cum Fill Vol	84039.39
Net Vol	-2118.73



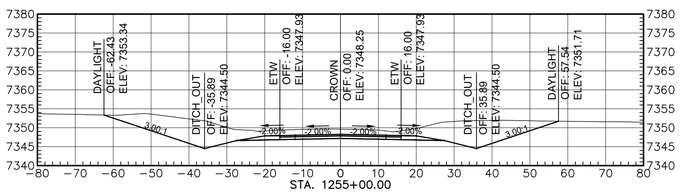
Total Volume at Station 1252+00.00	
Cut Area	290.65
Fill Area	0.00
Cut Vol	999.18
Fill Vol	0.00
Cum Cut Vol	83819.84
Cum Fill Vol	84039.39
Net Vol	-1119.55



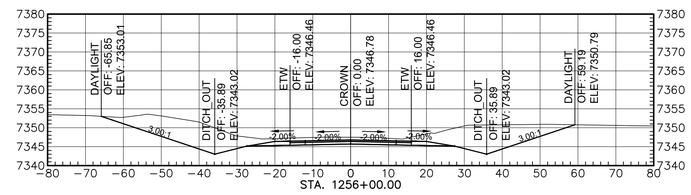
Total Volume at Station 1253+00.00	
Cut Area	334.63
Fill Area	0.00
Cut Vol	1174.60
Fill Vol	0.00
Cum Cut Vol	84994.45
Cum Fill Vol	84039.39
Net Vol	55.06



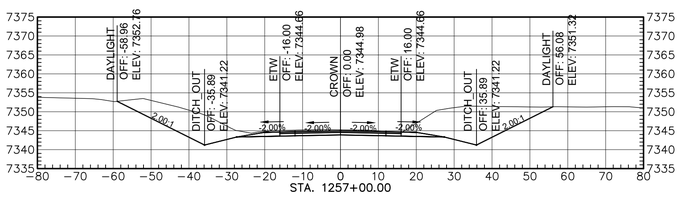
Total Volume at Station 1254+00.00	
Cut Area	483.43
Fill Area	0.00
Cut Vol	1514.83
Fill Vol	0.00
Cum Cut Vol	86509.38
Cum Fill Vol	84039.39
Net Vol	1569.98



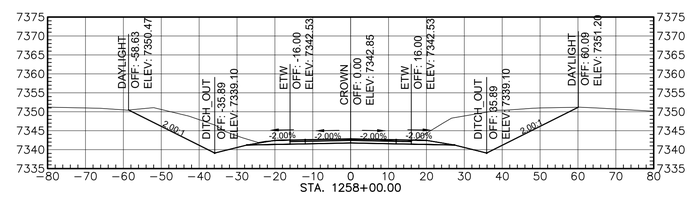
Total Volume at Station 1255+00.00	
Cut Area	435.13
Fill Area	0.00
Cut Vol	1701.04
Fill Vol	0.00
Cum Cut Vol	88210.42
Cum Fill Vol	84039.39
Net Vol	3271.02



Total Volume at Station 1256+00.00	
Cut Area	437.82
Fill Area	0.00
Cut Vol	1616.58
Fill Vol	0.00
Cum Cut Vol	89826.99
Cum Fill Vol	84039.39
Net Vol	4887.60



Total Volume at Station 1257+00.00	
Cut Area	444.16
Fill Area	0.00
Cut Vol	1633.29
Fill Vol	0.00
Cum Cut Vol	91460.29
Cum Fill Vol	84039.39
Net Vol	6520.89



Total Volume at Station 1258+00.00	
Cut Area	445.07
Fill Area	0.00
Cut Vol	1646.71
Fill Vol	0.00
Cum Cut Vol	93107.00
Cum Fill Vol	84039.39
Net Vol	8167.60

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET, SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	JEB	WCEA NO. 1710009012	DATE 2025
DRAWN	ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 46 OF 48
CHECK	ASF		

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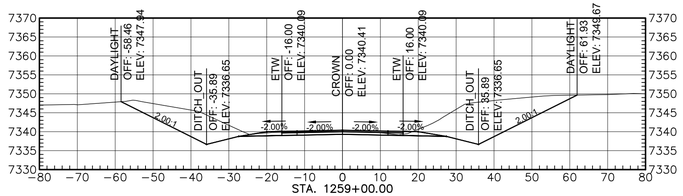
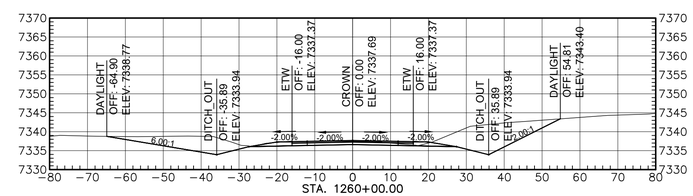
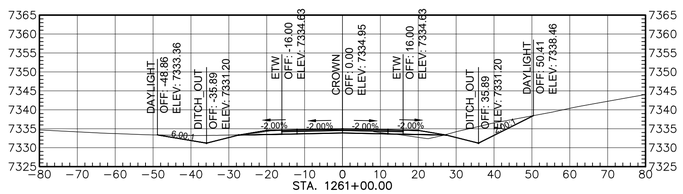
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	47	48



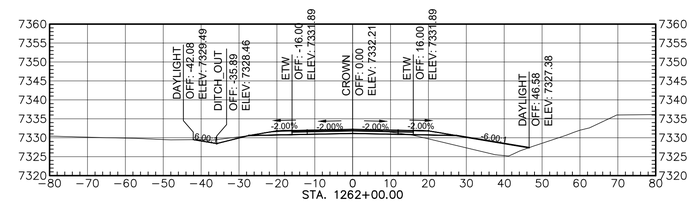
Total Volume at Station 1259+00.00	
Cut Area	430.80
Fill Area	0.00
Cut Vol	1621.98
Fill Vol	0.00
Cum Cut Vol	94728.98
Cum Fill Vol	84439.39
Net Vol	9789.58



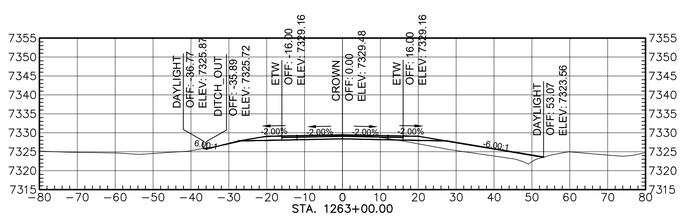
Total Volume at Station 1260+00.00	
Cut Area	271.74
Fill Area	0.00
Cut Vol	1301.01
Fill Vol	0.00
Cum Cut Vol	96029.98
Cum Fill Vol	84439.39
Net Vol	11090.59



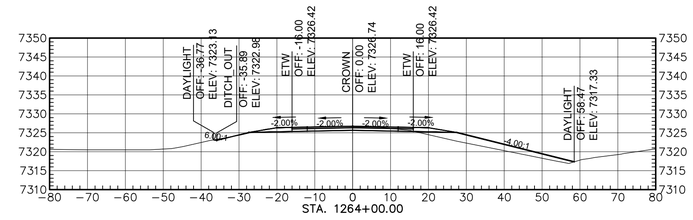
Total Volume at Station 1261+00.00	
Cut Area	103.40
Fill Area	7.02
Cut Vol	694.70
Fill Vol	13.00
Cum Cut Vol	96724.68
Cum Fill Vol	84952.40
Net Vol	11772.29



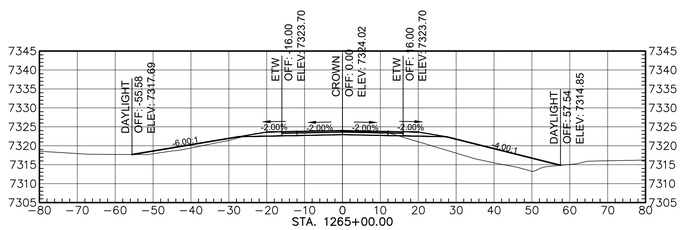
Total Volume at Station 1262+00.00	
Cut Area	38.51
Fill Area	66.22
Cut Vol	262.79
Fill Vol	135.63
Cum Cut Vol	96987.47
Cum Fill Vol	85088.03
Net Vol	11899.44



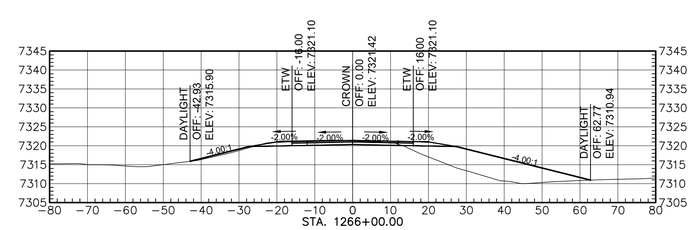
Total Volume at Station 1263+00.00	
Cut Area	32.79
Fill Area	61.69
Cut Vol	132.04
Fill Vol	236.87
Cum Cut Vol	97119.51
Cum Fill Vol	85324.90
Net Vol	11794.61



Total Volume at Station 1264+00.00	
Cut Area	38.94
Fill Area	60.24
Cut Vol	132.84
Fill Vol	225.79
Cum Cut Vol	97252.35
Cum Fill Vol	85550.69
Net Vol	11701.67



Total Volume at Station 1265+00.00	
Cut Area	38.02
Fill Area	135.86
Cut Vol	142.52
Fill Vol	363.14
Cum Cut Vol	97394.88
Cum Fill Vol	85913.83
Net Vol	11481.05



Total Volume at Station 1266+00.00	
Cut Area	38.76
Fill Area	196.28
Cut Vol	142.19
Fill Vol	615.08
Cum Cut Vol	97537.07
Cum Fill Vol	86528.91
Net Vol	11008.16

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE	2025
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO.	47 OF 48
CHECK ASF			

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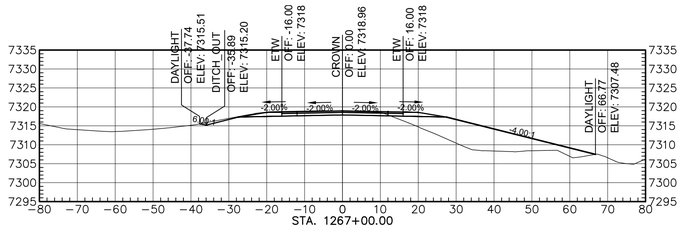
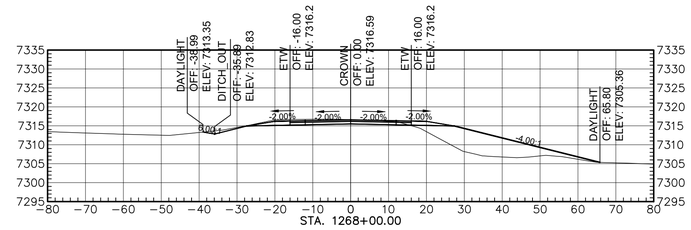
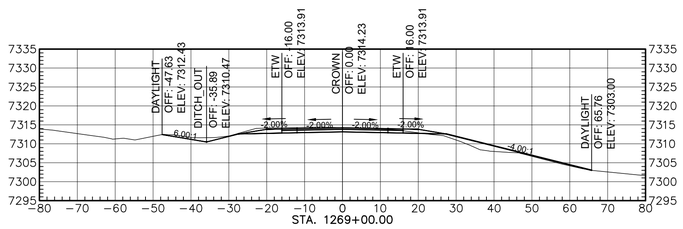
REGION	STATE	RESERVATION	ROUTE NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
NAVAJO	AZ	NAVAJO	N12	N12(13-2) 1,2&4	48	48



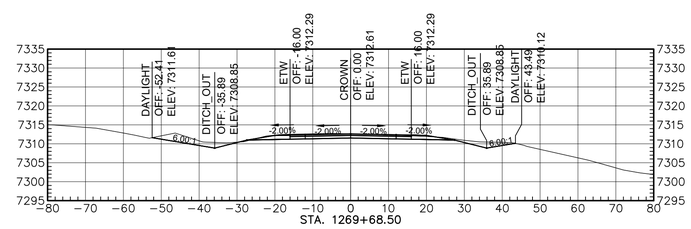
Total Volume at Station 1267+00.00	
Cut Area	44.22
Fill Area	199.23
Cut Vol	153.68
Fill Vol	732.44
Cum Cut Vol	97690.75
Cum Fill Vol	87261.35
Net Vol	10429.40



Total Volume at Station 1268+00.00	
Cut Area	51.98
Fill Area	155.00
Cut Vol	178.16
Fill Vol	655.98
Cum Cut Vol	97868.90
Cum Fill Vol	87917.33
Net Vol	9951.58



Total Volume at Station 1269+00.00	
Cut Area	61.60
Fill Area	29.36
Cut Vol	210.34
Fill Vol	341.41
Cum Cut Vol	98079.24
Cum Fill Vol	88258.74
Net Vol	9820.50



Total Volume at Station 1269+68.50	
Cut Area	95.40
Fill Area	0.45
Cut Vol	199.16
Fill Vol	37.82
Cum Cut Vol	98278.40
Cum Fill Vol	88296.56
Net Vol	9981.84

0 10' 20'

AGENCY LINE TO WHEATFIELDS LAKE

WILSON & COMPANY
410 NORTH 44TH STREET,
SUITE 460
PHOENIX, ARIZONA 85008
(602) 283-2701

ROUTE N12

CROSS SECTION

REVISIONS NO.	DATE	REMARKS	BY

DESIGN JEB	WCEA NO. 1710009012	DATE 2025	
DRAWN ERG	PROJECT NO. N12(13-2) 1,2,&4	SHEET NO. 48 OF 48	
CHECK ASF			

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SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)*	1. SOLICITATION NUMBER	2. TYPE OF SOLICITATION	3. DATE ISSUED	PAGE OF PAGES
	25-02-3600LE	☐ SEALED BID (IFB) INVITATION FOR BID ☒ NEGOTIATED (RFP) REQUEST FOR PROPOSAL	02/27/2025	1 2

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NUMBER	5. REQUISITION/PURCHASE REQUEST NUMBER	6. PROJECT NUMBER
		N12(12-3)1,2&4

7. ISSUED BY CODE	8. ADDRESS OFFER TO
Navajo Nation Division of Transportation Tom Platero - Division Director	Navajo Division of Transportation Attention: Ardaniel Begay Navajo Transportation Complex #16 Old Coal Mine Road Mentmore, NM 87319

9. FOR INFORMATION CALL:	a. NAME	b. TELEPHONE NUMBER *(Include area code) (NO COLLECT CALLS)*
	Ardaniel Begay	(505) 371-8351

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying number, date)*

The work consists of grading and roadway excavation; placement of aggregate base course and asphalt pavement; installation of drainage structures, precast concrete arch bridge, fencing, cattleguards, gates, signs, striping, guardrail, and other miscellaneous work as called for in the design plans and specifications for this project.

Agreement between Government and Contractor for construction contract (Fixed Price), as modified;
Exhibit A - Standard General Conditions
Exhibit B - Project Specific Supplemental General Conditions
Exhibit C - Special Contract Requirements
Exhibit D - Bid Instructions and Schedule
Exhibit E - Required Contract Forms
Exhibit F - Standard Specification for Construction of Roads & Bridges - FP-14 & Supplemental Specifications
Exhibit G - Project Design Plans
Exhibit H - Davis Bacon Wage Determination
Exhibit I - Environmental Requirements & Permits

11. The contractor shall begin performance within 15 calendar days and complete it within 300 working days after receiving ☐ award, ☒ notice to proceed. This performance period is ☒ mandatory ☐ negotiable. *(See* Agreement - Article 4.3 *).*

12a. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES", indicate within how many calendar days after award in Item 12b.)*	12b. CALENDAR DAYS
☒ YES ☐ NO	5

13. ADDITIONAL SOLICITATION REQUIREMENTS:

a. Sealed offers in original and 5 copies to perform the work required are due at the place specified in Item 8 by 4:00 pm *(hour)* local time 4/3/2025 (date). If this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

b. An offer guarantee ☒ is, ☐ is not required.

c. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

d. Offers providing less than 60 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER *(Must be fully completed by offeror)*

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*

CODE FACILITY CODE

15. TELEPHONE NUMBER *(Include area code)*

16. REMITTANCE ADDRESS *(Include only if different than Item 14.)*

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within 60 calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirement stated in Item 13d. Failure to insert any number means the offeror accepts the minimum in Item 13d.)*

AMOUNTS ▶ See the Bid Schedule for Offeror's proposed bid amount.

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)

AMENDMENT NUMBER										
DATE										

20a. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

20b. SIGNATURE

20c. OFFER DATE

AWARD *(To be completed by Government)*

21. ITEMS ACCEPTED:

22. AMOUNT
See the Bid Schedule for Contract Award Amount

23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)* ▶ ITEM

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO THE UNITED STATES CODE AT
☐ 10 U.S.C. 3204(a) ( ) ☐ 41 U.S.C. 3304(a) ( )

26. ADMINISTERED BY

Navajo Division of Transportation
#16 Old Coal Mine Road
Mentmore, NM 87319

27. PAYMENT WILL BE MADE BY

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return* two *copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.

☐ 29. AWARD *(Contractor is not required to sign this document.)* Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30a. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*

31a. NAME OF CONTRACTING OFFICER *(Type or print)*

30b. SIGNATURE

30c. DATE

31b. UNITED STATES OF AMERICA

BY

31c. DATE

109. 01 **Measurement of Work.** This section 109 supplements Article 14 of Exhibit A.

Add the following:

The U.S. Customary (English) unit of measure shall prevail in both measurement and payment of items as shown in the bid schedule. However, this does not preclude the contractor from furnishing the Metric units equivalent for materials incorporated into the work from suppliers. The contractor shall be responsible for any misalignment and any other problems arising out of such conversions.

109.02 **Measurement Terms and Definitions.**

Subparagraph (b) is superseded with the following:

(b) Contract quantity. The quantity to be paid is the quantity shown in the bid schedule (designated as "CQ") and is the final quantity to be paid. The contract quantity will be adjusted for authorized changes that affect the quantity or for errors made in computing this quantity. If there is evidence that a quantity specified as a "*contract quantity*" is incorrect, submit calculations, drawings, or other evidence indicating why the quantity is in error and request, in writing, that the quantity be adjusted.

Subparagraph (c)(1)(a) is superseded with the following:

(a) Take cross sections of original ground for the Construction Manager comparison to the design models. Do not collect data outside the designated slope stake limits.

Add the following subjection:

(s) Contingent sum. Perform the work only when authorized by written work change directive. The work will be measured and paid for at agreed unit prices, lump sum prices, or force account as established in the order authorizing the work. When the unit bid price is designated "contingent sum", the quantity is designated as "All".

109. 03 **Weighing Procedures and Devices.**

Add the following:

All scales shall be re-certified annually or after each time they are moved, or as directed in writing by the Construction Manager. Provide current scale certification documents to the Construction Manager.

The first sentence of subparagraph **(c)** is superseded with the following:

SECTION 202 – ADDITIONAL CLEARING AND GRUBBING

This section is replaced with the following:

This section 202 supplements Article 6.3 of Exhibit A.

Description

202.01 This work consists of clearing and grubbing outside the clearing limits specified in Section 201. This work also includes scalloping clearing lines, clearing vistas, thinning vegetation, special clearing and grubbing, and the removal of individual trees and stumps.

202.02 Definitions.

(a) Selective clearing. Clearing where some trees and vegetation is designated to remain or removed and stockpiled in designated locations.

(b) Selective clearing and grubbing. Clearing and grubbing where some trees and vegetation is designated to remain.

(c) Special clearing and grubbing. Clearing and grubbing where all trees and vegetation are removed.

(d) Removal of individual trees or stumps. Removing individual trees or stumps outside the clearing limits designated in Section 201 or outside areas designated in Subsection 202.02 (a) through (c).

Construction Requirements

202.03 General. Clear and grub according to Section 201, except as modified herein. Do not push, pull, or fall trees into trees designated to remain. Remove designated debris by methods that prevent damage to vegetation not designated to be removed. Dispose of clearing and grubbing debris according to the Special Provisions listed in the Timber Permit (PERMIT NO: FY20240027) included in Exhibit I of the Contract Book. A simplistic logging plan will be required. See following Table 1 for estimated amount of trees to be removed.

202.04 Selective Clearing. Clear and dispose of trees, snags, brush, downed timber, and other vegetation designated to be removed and stockpiled in designated locations in accordance with the BIA & Navajo Nation Forestry requirements attached herein.

202.05 Selective Clearing and Grubbing. Clear, grub, and dispose of trees, snags, brush, downed timber, stumps, roots, buried logs, moss, turf, grass, and other vegetation designated to be removed.

202.06 Special Clearing and Grubbing. Clear, grub, and dispose of trees, snags, brush, downed timber, stumps, roots, buried logs, moss, turf, grass, and other vegetation.

202.07 Removal of Individual Trees or Stumps. Remove and dispose of designated trees or stumps. Cut trees to within 6 inches (150 millimeters) of the ground.

202.08 Acceptance. Additional clearing and grubbing work will be evaluated under Subsection 106.02.

Measurement

202.09 Measure the work under section 201 bid items in the bid schedule for Section 202 removal work.

Payment

202.10 The accepted quantities will be paid at the contract price per unit of measurement for the Section 202 pay items listed under section 201 bid items in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Permit No. FY20240027

Table 1. Legal Description for Forest Products in N12 Agency to Wheatfields Fence Line & ROW designated for Harvest by Species, Volume, Unit, Rate per Unit, Value & Acres

Woodland species ≥5.0" drc. Ponderosa pine(PIPO) ≥5.0" - ≤11.49"dbh. 11.5"-11.9"dbh. 12.0"-17.9"dbh. 18.0+"dbh.

Project Number	Name	County	State	Township	Range	Section	Meridian	Spp. and Product	Vol.	Unit	Rate per Unit	Total Value	Acres
N12	Agency to Wheatfields	Apache	AZ	T32N	R31E	32	GSRM	Juniper	23	Piece	$1.00	$23.00	
		Apache	AZ	T32N	R31E	32	GSRM	Pinyon	1	Piece	$1.00	$1.00	1.0
		Apache	AZ	T32N	R31E	29	GSRM	Juniper	12	Piece	$1.00	$12.00	1.4
		Apache	AZ	T32N	R31E	30	GSRM	Ponderosa Pine	3	Piece	$1.00	$3.00	
		Apache	AZ	T32N	R31E	30	GSRM	Juniper	11	Piece	$1.00	$11.00	
		Apache	AZ	T32N	R31E	30	GSRM	Pinyon	20	Piece	$1.00	$20.00	17.7
		Apache	AZ	T32N	R30E	24	GSRM	Juniper	8	Piece	$1.00	$8.00	
		Apache	AZ	T32N	R30E	24	GSRM	Pinyon	13	Piece	$1.00	$13.00	
		Apache	AZ	T32N	R30E	24	GSRM	Oak	3	Piece	$1.00	$3.00	13.4
		Apache	AZ	T32N	R30E	13	GSRM	Ponderosa Pine	7	Piece	$1.00	$7.00	
		Apache	AZ	T32N	R30E	13	GSRM	Juniper	8	Piece	$1.00	$8.00	
		Apache	AZ	T32N	R30E	13	GSRM	Pinyon	15	Piece	$1.00	$15.00	
		Apache	AZ	T32N	R30E	13	GSRM	Oak	5	Piece	$1.00	$5.00	10.4
		Apache	AZ	T32N	R30E	14	GSRM	Ponderosa Pine	8	Piece	$1.00	$8.00	
		Apache	AZ	T32N	R30E	14	GSRM	Juniper	8	Piece	$1.00	$8.00	
		Apache	AZ	T32N	R30E	14	GSRM	Pinyon	13	Piece	$1.00	$13.00	
		Apache	AZ	T32N	R30E	14	GRSM	Oak	31	Piece	$1.00	$31.00	
		Apache	AZ	T32N	R30E	14	GSRM	PIPO12.0"-17.9"	0.09	MBF	$4.17	$0.38	7.9
		Apache	AZ	T32N	R30E	11	GSRM	Juniper	14	Piece	$1.00	$14.00	
		Apache	AZ	T32N	R30E	11	GSRM	Pinyon	20	Piece	$1.00	$20.00	14.7
		Apache	AZ	T32N	R30E	2	GSRM	Ponderosa Pine	120	Piece	$1.00	$120.00	
		Apache	AZ	T32N	R30E	2	GSRM	Juniper	24	Piece	$1.00	$24.00	
		Apache	AZ	T32N	R30E	2	GSRM	Pinyon	32	Piece	$1.00	$32.00	
		Apache	AZ	T32N	R30E	2	GSRM	PIPO11.5"-11.9"	0.05	MBF	$2.50	$0.13	
		Apache	AZ	T32N	R30E	2	GSRM	PIPO12.0"-17.9"	1.14	MBF	$4.17	$4.75	
		Apache	AZ	T32N	R30E	2	GSRM	PIPO 18.0+"	16.58	MBF	$12.50	$207.25	10.6
		Apache	AZ	T33N	R30E	34	GSRM	Juniper	3	Piece	$1.00	$3.00	
		Apache	AZ	T33N	R30E	34	GSRM	Pinyon	1	Piece	$1.00	$1.00	
		Apache	AZ	T33N	R30E	34	GSRM	PIPO12.0"-17.9"	0.12	MBF	$4.17	$0.50	
		Apache	AZ	T33N	R30E	34	GSRM	PIPO 18.0+"	14.67	MBF	$ 12.50	$183.38	6.4
		TOTAL										**$799.39**	**83.5**

BID SCHEDULE
NAVAJO NATION DIVISION OF TRANSPORTATION

PROJECT: N12(13-2)1,2&4 **Date:** March 20, 2025

LENGTH: 7.20 miles

ITEM	DESCRIPTION	Quantity	Units	Unit Bid Price	Total Price
10901-0000	Extra & Miscellaneous Work - Authorized under Suppl. Spec. 109.02(s) of Exhibit F	All Required	Lump Sum	$ 300,000.00	$ 300,000.00
15101-0000	MOBILIZATION	1	LPSM	$	$
15201-0000	CONSTRUCTION SURVEY & STAKING	1	LPSM	$	$
15701-0000	SOIL EROSION CONTROL	1	LPSM	$	$
20102-0000	CLEARING AND GRUBBING	1	LPSM	$	$
20304-1000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1	LPSM	$	$
20401-0000	ROADWAY EXCAVATION	101,650	CUYD	$	$
20403-0000	UNCLASSIFIED BORROW	0	CUYD	$	$
20410-0000	SELECT BORROW	3,800	CUYD	$	$
21301-0000	SUBGRADE STABILIZATION (12")	227,800	SQYD	$	$
25101-0205	PLACED RIPRAP, METHOD A, CLASS 2, WIRE ENCLOSED	463	CUYD	$	$
25110-0100	GROUTED RIPRAP, METHOD A, CLASS 1, TYPE M RIPRAP	12	CUYD	$	$
25110-0300	GROUTED RIPRAP, METHOD A, CLASS 3	58	CUYD	$	$
25110-0700	GROUTED RIPRAP, METHOD A, CLASS 7	20	CUYD	$	$
25110-0900	GROUTED RIPRAP, METHOD A, CLASS 9	12	CUYD	$	$
25701-0100	CONTRACTOR FURNISHED GABION WALL DESIGN	1	LPSM	$	$
30101-0000	AGGREGATE BASE	85,200	TON	$	$
40301-0100	ASPHALT CONCRETE PAVEMENT, TYPE 1	39,050	TON	$	$
41101-1000	PRIME COAT MATERIAL	291	TON	$	$
41201-0000	TACK COAT	48	TON	$	$
55201-0100	STRUCTURAL CONCRETE, CLASS A	62	CUYD	$	$
55401-1000	REINFORCING STEEL, GRADE 420	1,608	LB	$	$
60201-0800	24-INCH PIPE CULVERT	3,534	LNFT	$	$
60201-0900	30-INCH PIPE CULVERT	1,069	LNFT	$	$
60201-1000	36-INCH PIPE CULVERT	312	LNFT	$	$
60201-1200	48-INCH PIPE CULVERT	102	LNFT	$	$
60201-1400	60-INCH PIPE CULVERT	208	LNFT	$	$
60202-2100	144-INCH EQUIVALENT DIAMETER ARCH OR ELLIPTICAL PIPE CULVERT	165	LNFT	$	$
60210-0800	END SECTION FOR 24-INCH PIPE CULVERT	100	EACH	$	$
60210-0900	END SECTION FOR 30-INCH PIPE CULVERT	30	EACH	$	$
60210-1000	END SECTION FOR 36-INCH PIPE CULVERT	8	EACH	$	$
60210-1200	END SECTION FOR 48-INCH PIPE CULVERT	2	EACH	$	$
60210-1400	END SECTION FOR 60-INCH PIPE CULVERT	4	EACH	$	$
61701-5000	GUARDRAIL SYSTEM SGR04b, TYPE PDE02 W/MSKT-TL3-8 TERMINAL & TH	4,043	LNFT	$	$
61903-1500	GUARDRAIL SYSTEM MGS, TYPE 4, CLS B STL POSTS, REMOVABLE	55	LNFT	$	$
61801-0000	CONCRETE BARRIER	470	LNFT	$	$

BID SCHEDULE
NAVAJO NATION DIVISION OF TRANSPORTATION

PROJECT: N12(13-2)1,2&4 **Date:** March 20, 2025

LENGTH: 7.20 miles

ITEM	DESCRIPTION	Quantity	Units	Unit Bid Price	Total Price
61901-1000	FENCE, BARBED WIRE, 5 STRAND	75,910	LNFT	$	$
61902-0000	PEDESTRIAN CATTLE GUARD	2	EACH	$	$
61902-1100	GATE, METAL, TYPE 1, 10' WIDTH	1	EACH	$	$
61902-1400	GATE, METAL, TYPE 1, 16' WIDTH	7	EACH	$	$
61902-2600	GATE, BARBED WIRE, 5 STRAND, 16' WIDTH	2	EACH	$	$
61903-0300	CATTLE GUARD, 16 FEET	18	EACH	$	$
61903-0700	CATTLE GUARD, 24 FEET	10	EACH	$	$
61903-1500	CATTLE GUARD, 40 FEET	1	EACH	$	$
62510-1000	SEEDING, DRY METHOD	79	ACRE	$	$
63304-0400	SIGNS, STEEL PANELS, TYPE 9 SHEETING	595	SQFT	$	$
63305-0200	POSTS, STEEL, 2-INCH DIAMETER	4,244	LNFT	$	$
63308-2000	OBJECT MARKER, TYPE 2	110	EACH	$	$
63309-0010	DELINEATOR, TYPE 1a	86	EACH	$	$
63309-0020	DELINEATOR, TYPE 1b	339	EACH	$	$
63401-1510	PAVEMENT MARKINGS, TYPE H, SOLID YELLOW	25,031	LNFT	$	$
63401-1520	PAVEMENT MARKINGS, TYPE H, SOLID WHITE	75,368	LNFT	$	$
63401-1524	PAVEMENT MARKINGS, TYPE H, SOLID WHITE, 24"	360	LNFT	$	$
63401-1610	PAVEMENT MARKINGS, TYPE H, BROKEN YELLOW	7,773	LNFT	$	$
63405-2900	PAVEMENT MARKINGS, TYPE H, TURN ARROW	4	EACH	$	$
63501-0000	TEMPORARY TRAFFIC CONTROL	1	LPSM	$	$
	Pre-Fabricated Arch Bridge				
20301-0400	REMOVAL OF BRIDGE	1	LPSM	$	$
20801-0000	STRUCTURE EXCAVATION	1,387	CUYD	$	$
20803-0000	STRUCTURAL BACKFILL	1,762	CUYD	$	$
25101-2200	PLACED RIPRAP, CLASS 2	423	CUYD	$	$
55101-0200	CONCRETE FILLED STEEL PIPE PILE (18"), IN PLACE	1,320	LNFT	$	$
55104-1000	DYNAMIC PILE LOAD TEST	4	EACH	$	$
55115-1000	PREBORING	1,280	LNFT	$	$
55401-2000	REINFORCING STEEL, EPOXY COATED	19,395	LBS	$	$
56302-1000	PAINTING, CONCRETE STRUCTURE	4,622	SQFT	$	$
56501-0300	STRUCTURAL CONCRETE CLASS A (AE) (4000 psi)	131	CUYD	$	$
58001-0000	CONTECH PRECAST BRIDGE	1	LPSM	$	$
			Subtotal:	$	
			Navajo Nation Tax (6%):	$	
	Contractor Name		**Total Bid Price:**	$	

SCOPE-OF-WORK

The proposed work consists of furnishing all labor, material, equipment and incidentals necessary for construction of 7.20 miles of grading and roadway excavation; placement of aggregate base course and asphalt pavement; installation of drainage structures, precast concrete arch bridge, fencing, cattleguards, gates, signs, striping, guardrail, and other miscellaneous construction in accordance with the specification and design drawings for this Project. The quantities listed for each item is estimated and the Unit Price is applicable to each as given in the Bid Schedule above. The final pay quantity measurements shall be rounded to the significant figures given in this bid schedule for the final pay estimate. Payment for work performed on Items furnished will be made in accordance with Sub-Section 109.05, Scope of Payment of FP-14. **The Unit Bid Price must include all overhead, profit, and bonding.**