STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	1

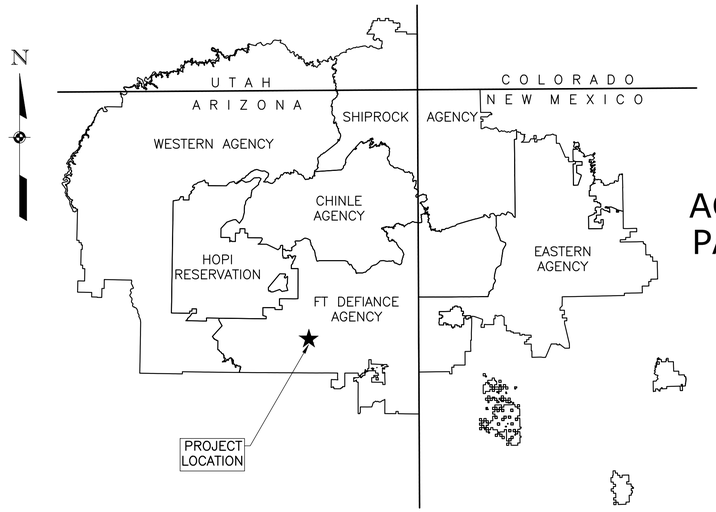
NAVAJO NATION DIVISION OF TRANSPORTATION

PLANS FOR PROPOSED

PROJECT N15(2-3) 2&4

CORNFIELDS TO BURNSIDE

RECONSTRUCT ROADWAY, GRADE, DRAIN, AGGREGATE BASE COURSE, ASPHALTIC CONCRETE PAVEMENT, AND MISCELLANEOUS CONSTRUCTION
APACHE COUNTY, ARIZONA
LENGTH 11.430 KM, 7.104 MILES



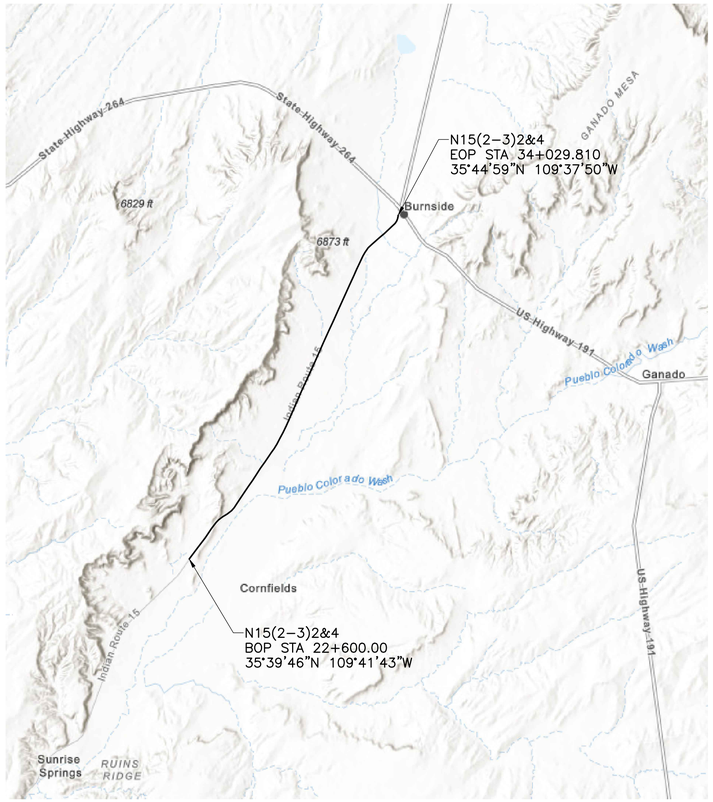
VICINITY MAP
NTS

TYPE OF CONSTRUCTION:
Road reconstruction,

DESIGN DESIGNATIONS:
ADT (2024) ..... 2,268 VPD
ADT (2045) ..... 3,325 VPD
DHV ..... 121 VPH
D 55%
T 20%
V ..... 100 KPH
e(max) 6%

METRIC DIMENSIONS:
SLOPES ARE EXPRESSED AS RISE:RUN

SPECIFICATIONS:
"STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS, FP-14"



LOCATION MAP
NTS

N

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PLANS PREPARED BY

DIBBLE

3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date Signed 6/13/25
ARIZONA U.S.A.

RECOMMENDED:

_____ DATE: _____
PRINCIPAL ENGINEER
NAVAJO DIVISION OF TRANSPORTATION

APPROVED:

_____ DATE: _____
DIRECTOR
NAVAJO DIVISION OF TRANSPORTATION

Contact Arizona 811 at least two full working days before you begin excavation.
ARIZONA811
Call 811 or click Arizona811.com

PROJECT MANAGER	LEAD DESIGNER
D. SPEAR	D. JAYME

STANDARD ABBREVIATIONS & LEGEND

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	2

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ABAND	ABANDONED
ABC	AGGREGATE BASE COURSE
AC	ACRES
AC	ASPHALT CONCRETE
ACB	ARTICULATED CONCRETE BLOCK REVETMENT
ACF	ALUMINUM CAP FLUSH
ACFC	ASPHALT CONCRETE FRICTION COURSE
ACI	AMERICAN CONCRETE INSTITUTE
ACP	ASBESTOS CEMENT PIPE
ACSC	ASPHALT CONCRETE SURFACE COURSE
ADA	AMERICANS WITH DISABILITIES ACT
ADOT	ARIZONA DEPARTMENT OF TRANSPORTATION
AHD	AHEAD
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
APS	ARIZONA PUBLIC SERVICE
ASLD	ARIZONA STATE LAND DEPARTMENT
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AVE	AVENUE
B/C	BACK OF CURB
BC	BRASS CAP
BCF	BRASS CAP FLUSH
BCHH	BRASS CAP IN HANDHOLE
BCR	BEGIN CURB RETURN
BK	BACK
BKFL	BACKFILL
BLDG	BUILDING
BLVD	BOULEVARD
BM	BENCHMARK
BOT	BOTTOM
C	CONCRETE ELEVATION
C	CONDUIT
C&G	CURB AND GUTTER
CAP	CORRUGATED ALUMINUM PIPE
CATV	CABLE TELEVISION
CB	CATCH BASIN
CIP	CAST IRON PIPE
CIP	CAST IN PLACE
CIPP	CURED IN PLACE PIPE
CK	CHECKED
℄	CENTERLINE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COMM	COMMUNICATION
CONC	CONCRETE
CON	CONSTRUCTION
COR	CORNER
COR	CORRECTION
CSP	CORRUGATED STEEL PIPE
CTB	CEMENT TREATED BASE
D/W	DRIVEWAY
DB	DUCT BANK
DES	DESIGN
DET	DETAIL
DG	DECOMPOSED GRANITE
DIP	DUCTILE IRON PIPE
DR	DRIVE
DRN	DRAWN
DRN	DRAINAGE
DWG	DRAWING
E	EAST, EASTING
E/R	EDGE OF ROAD
E/P	EDGE OF PAVEMENT
EA	EACH
EB	ELECTRIC PULLBOX
ECR	END CURB RETURN
EGL	ENERGY GRADE LINE
EL	ELEVATION
ELEC	ELECTRIC
ESMT	EASEMENT
EVAC	EAST VALLEY ASPHALT COMMITTEE
EXST	EXISTING
F	FAX NUMBER
F/C	FACE OF CURB
FCDMC	FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
FF	FINISH FLOOR ELEVATION
FG	FINISH GRADE ELEVATION
FH	FIRE HYDRANT
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FL	FIRE LINE
FL	FLOWLINE
FL	FLANGE
FND	FOUND
FO	FIBER OPTIC
FT	FOOT OR FEET
G	GUTTER ELEVATION
G	GAS
GAF	GRID ADJUSTMENT FACTOR
GB	GRADE BREAK
GM	GAS METER
GND	GROUND
GV	GAS VALVE

H	HORIZONTAL
HDPE	HIGH DENSITY POLYETHYLENE
HDW	HEADWALL
HGL	HYDRAULIC GRADE LINE
HP	HIGH PRESSURE
HW	HIGH WATER
HWY	HIGHWAY
ICA	INTERLOCKING CONCRETE ARMOR UNITS
ID	INSIDE DIAMETER
IECS	INTERNATIONAL EROSION CONTROL SYSTEMS
IHS	INDIAN HEALTH SERVICE
INV	INVERT
IRR	IRRIGATION
IV	IRRIGATION VALVE
L	LENGTH OF CURVE
LF	LINEAR FEET
LS	LUMP SUM
LT	LEFT
MAG	MARICOPA ASSOCIATION OF GOVERNMENTS
MAX	MAXIMUM
MB	MAILBOX
MCDOT	MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION
MCESD	MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT
ME	MATCH EXISTING
MH	MANHOLE
MI	MILES
MIN	MINIMUM
MJ	MECHANICAL JOINT
M	MONUMENT LINE
MOD	MODIFIED
N	NORTH, NORTHING
NC	NORMAL CROWN
NDOT	NAVAJO DIVISION OF TRANSPORTATION
NE	NORTHEAST
NNEPA	NAVAJO NATION ENVIRONMENTAL PROTECTION AGENCY
NO	NUMBER
NPDE	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
NPI	NON-PAY ITEM
NSF	NATIONAL SANITATION FOUNDATION
NTS	NOT TO SCALE
NTUA	NAVAJO TRIBAL UTILITY AUTHORITY
NW	NORTHWEST
OC	ON CENTER
OD	OUTSIDE DIAMETER
OHE	OVERHEAD ELECTRIC
OHT	OVERHEAD TELEPHONE
P	PAVEMENT ELEVATION
P	PHONE NUMBER
PB	PULLBOX
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCC	PORTLAND CEMENT CONCRETE PAVEMENT
PE	POLYETHYLENE PIPE
PED	TELEPHONE PEDESTAL
PGL	PROFILE GRADE LINE
PH#	POTHOLE NUMBER
PI	POINT OF INTERSECTION
PIP	PROTECT IN PLACE
℄	PROPERTY LINE
PLSS	PUBLIC LAND SURVEY SYSTEM
POC	POINT ON CURVE
POT	POINT ON TANGENT
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PROP	PROPOSED
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PT	POINT
PUE	PUBLIC UTILITY EASEMENT
PVC	POLY VINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVRC	POINT OF VERTICAL REVERSE CURVATURE
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
R	RANGE
R/W	RIGHT-OF-WAY
RCBC	REINFORCED CONCRETE BOX CULVERT
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
RECP	ROLLED EROSION CONTROL PRODUCT
RELOC	RELOCATE
RGRCP	RUBBER GASKET REINFORCED CONCRETE PIPE
RR	RAILROAD
RT	RIGHT
S	SLOPE
S	SOUTH
S/W	SIDEWALK
SD	STORM DRAIN

SE	SOUTHEAST
SEC	SECTION
SF	SQUARE FOOT
SG	SUBGRADE ELEVATION
SHLDR	SHOULDER
SHT	SHEET
SPEC	SPECIFICATIONS
SRP	SALT RIVER PROJECT
SS	SANITARY SEWER
SSD	STOPPING SIGHT DISTANCE
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
SW	SOUTHWEST
SWG	SOUTHWEST GAS COMPANY
SY	SQUARE YARD
T	TOWNSHIP
T	TANGENT LENGTH
T/W	TOP OF WALL
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
TCE	TEMPORARY CONSTRUCTION EASEMENT
TEL	TELEPHONE
TEMP	TEMPORARY
TN	TOP OF NUT
TOE	TOE OF EMBANKMENT
TOP	TOP
TRAN	TRANSITE PIPE
TS	TRAFFIC SIGNAL
TYP	TYPICAL
UNK	UNKNOWN
UPRR	UNION PACIFIC RAILROAD
V	VERTICAL
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VG	VALLEY GUTTER
VNAE	VEHICULAR NON ACCESS EASEMENT
W	WEST
W	WATER
W/	WITH
W/O	WITHOUT
WM	WATER METER
WSE	WATER SURFACE ELEVATION
WV	WATER VALVE
XFMR	TRANSFORMER

EXISTING

- BENCHMARK
- BRASS CAP FLUSH
- BRASS CAP IN HANDHOLE
- BACKFLOW PREVENTER
- CACTUS
- DRYWELL
- FIRE HYDRANT
- FIRE DEPT CONNECTION
- FLAG POLE
- GATE
- GRATE
- GUY WIRE
- HEADWALL
- MAILBOX
- MANHOLE (TYPE NOTED)
- METER (TYPE NOTED)
- PEDESTAL (TYPE NOTED)
- PULLBOX (TYPE NOTED)
- RIPRAP OR GABION BASKET
- ROCK
- SHRUB
- SIGN
- STREET LIGHT
- TREE
- UTILITY POLE
- VALVE (TYPE NOTED)
- BUILDING SETBACK
- DISTRICT BOUNDARY OR CITY LIMITS
- EASEMENT
- FOREST BOUNDARY LINE
- MID-SECTION
- PROPERTY LINE
- RIGHT-OF-WAY
- SECTION
- CHANNEL
- CURB & GUTTER
- EDGE OF PAVEMENT
- FENCE WOOD
- FENCE WIRE
- FENCE CHAINLINK
- FLOWLINE
- GUARDRAIL
- MASONRY WALL/RETAINING WALL
- MAJOR CONTOUR
- MINOR CONTOUR
- RAILROAD
- SINGLE CURB
- SIDEWALK

NEW

- BENCHMARK
- BRASS CAP FLUSH
- BRASS CAP IN HANDHOLE
- BACKFLOW PREVENTER
- BORING LOCATION
- CACTUS
- DRYWELL
- EXST R/W MARKER
- FIRE HYDRANT
- FIRE DEPT CONNECTION
- FLAG POLE
- GATE
- HEADWALL
- MAILBOX
- MANHOLE
- METER
- PIPE PLUG
- POTHOLE LOCATION
- PULLBOX
- RIPRAP OR GABION BASKET
- ROCK
- SHRUB
- SIGN
- STREET LIGHT
- TREE
- UTILITY POLE
- VALVE
- CENTERLINE
- EASEMENT
- LIMITS OF CONSTRUCTION
- RIGHT-OF-WAY
- BASE FLOOD ELEVATION
- CHANNEL
- CURB & GUTTER
- DAYLIGHT LINE, CUT
- DAYLIGHT LINE, FILL
- EDGE OF PAVEMENT
- FENCE WOOD
- FENCE WIRE
- FENCE CHAINLINK
- FLOWLINE
- GUARDRAIL
- MASONRY WALL/RETAINING WALL
- MAJOR CONTOUR
- MINOR CONTOUR
- SIDEWALK
- SINGLE CURB
- STORM DRAIN
- UTILITY LINE

EXISTING

- CABLE TV
- COMMUNICATION
- ELECTRIC (UNDERGROUND)
- ELECTRIC (OVERHEAD)
- FIBER OPTIC
- FIRE LINE
- GAS
- IRRIGATION LINE 18" OR SMALLER
- IRRIGATION LINE 21" OR LARGER
- RECLAIMED WATER 18" OR SMALLER
- RECLAIMED WATER 21" OR LARGER
- TELEPHONE
- SEWER LINE 18" OR SMALLER
- SEWER LINE 21" OR LARGER
- STORM DRAIN 18" OR SMALLER
- STORM DRAIN 21" OR LARGER
- WATER LINE 18" OR SMALLER
- WATER LINE 21" OR LARGER

NEW

- ARTICULATED CONCRETE BLOCK REVETMENT (ACB)
- INTERLOCKING CONCRETE ARMOR UNITS (ICA)
- ROLLED EROSION CONTROL PRODUCT (RECP)

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer Certificate No. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

STANDARD ABBREVIATIONS & LEGEND

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	G2	2 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	3

GENERAL NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP–14), AND THE SUPPLEMENTAL SPECIFICATIONS FOR THIS PROJECT. THE METRIC UNITS OF MEASURE SHALL BE USED.

2. ALL PERMANENT AND TEMPORARY ROADSIDE SIGNS, AND PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS (LATEST EDITION) AND IN ACCORDANCE WITH THE DETAILS ON THESE PLANS. PLACEMENT OF "STOP" BAR, PERMANENT TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE FIELD ADJUSTED AS DIRECTED BY THE COR/COTR, AS INCIDENTAL OBLIGATIONS OF THE CONTRACTOR.

3. THE TEMPORARY TRAFFIC CONTROL DETAILS SHOWN REFLECT GENERAL REQUIREMENTS FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING AND SUBMITTING A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THESE DETAILS, TAKING INTO ACCOUNT THE CONTRACTOR'S CONSTRUCTION SEQUENCING PLAN, MUTCD, AND THE SUPPLEMENTAL SPECIFICATIONS FOR SECTION 635–TEMPORARY TRAFFIC CONTROL.

4. THE DESIGN FEATURES INCLUDING HORIZONTAL AND VERTICAL ALIGNMENTS, TYPICAL SECTIONS, AND OTHER DESIGN DETAILS SHOWN SHALL NOT BE ALTERED OR MODIFIED IN ANY WAY DURING CONSTRUCTION WITHOUT THE EXPRESSED, WRITTEN DIRECTION AND WRITTEN APPROVAL OF THE (BIA–NRDOT) OWNER THROUGH THE COR/COTR, UNLESS OTHERWISE NOTED IN THESE PLANS OR SPECIFICATIONS. DRAINAGE STRUCTURES AND TURNOUTS SHALL BE INSTALLED AS SHOWN WITH ONLY MINOR CORRECTIONS IN LOCATION, SKEW, AND/OR INVERT ELEVATIONS AS NEEDED TO FIT FIELD CONDITIONS. TURNOUTS MAY NOT BE SHIFTED MORE THAN 5.0 METERS FROM THE LOCATIONS SHOWN ON THE PLANS WITHOUT THE WRITTEN APPROVAL OF THE BIA–NRDOT (OWNER) THROUGH THE COR/COTR.

5. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY AND EXPENSE FOR DISPOSAL OF TRASH AND/OR CONSTRUCTION DEBRIS IN ACCORDANCE WITH SECTIONS 107 AND 203 OF THE FP–14 AS WELL AS ANY AND ALL PERMIT REQUIREMENTS. THIS WORK SHALL BE AN INCIDENTAL OBLIGATION OF THE CONTRACTOR.

6. THE BIDDER SHALL READ AND MAKE CAREFUL EXAMINATION OF THE PLANS, SPECIFICATIONS, QUANTITIES, MATERIAL, SURVEYING REQUIREMENTS, AND VISIT THE SITE OF THE PROPOSED CONSTRUCTION TO BECOME FAMILIAR WITH THE SITE CONDITIONS AND LIMITATIONS BEFORE MAKING A PROPOSAL. IN ACCORDANCE WITH SPECIAL CLAUSE NN 52.236–03, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY AND ALL ERRORS RESULTING FROM THE FAILURE TO MAKE SUCH AN EXAMINATION OR ANY INFORMATION DERIVED FROM THE MAPS, PLANS, SPECIFICATIONS, PROFILES, DRAWINGS OR THE GOVERNMENT PERSONNEL, SHALL NOT RELIEVE THE CONTRACTOR FROM ANY RISK OR FROM FULFILLING THE TERMS OF THE CONTRACT. THERE ARE SEVERAL AREAS WITH LIMITED WORKING ROOM WITHIN THE PROJECT RIGHT–OF–WAY, AND/OR WITH EXISTING FEATURES WITHIN OR NEAR THE PROJECT RIGHT–OF–WAY, THAT WILL REQUIRE 'SPECIAL' CONSTRUCTION METHODS.

7. THE CONTRACTOR IS REQUIRED TO SUBMIT A REVISED DRAINAGE STRUCTURE LIST TO THE COR/COTR, BASED ON THE STRUCTURE FIELD STAKING IN ACCORDANCE WITH SECTION 152 OF THE CONTRACT SUPPLEMENTAL SPECIFICATIONS. THE APPROVAL OF ANY AND ALL REVISED DRAINAGE STRUCTURE LISTS WITH ACCOMPANYING DRAWINGS IS RENDERED AS A SERVICE ONLY AND IS NOT CONSIDERED A GUARANTEE OF MEASUREMENTS, QUANTITIES, INSTALLATION PROCEDURES, AND/OR DIMENSIONS, NOR SHALL IT BE CONSIDERED AS RELIEVING THE CONTRACTOR FROM COMPLYING WITH THE CONTRACT SPECIFICATIONS AND DESIGN PLANS. THE CONTRACTOR IS HEREBY NOTIFIED THAT UNDER NO CIRCUMSTANCE SHALL ANY DRAINAGE STRUCTURE(S) BE INSTALLED BELOW THE NATURAL FLOW LINE OF THE WASH, CHANNEL, ARROYO, OR DITCH LINE.

8. NO WORK SHALL BE PERFORMED OR GROUND DISTURBED OUTSIDE OF THE DESIGNATED CONSTRUCTION LIMITS IN ACCORDANCE WITH SECTION 107.02 OF THE FP–14 WITHOUT WRITTEN APPROVAL BY THE BIA–NRDOT (OWNER), UNLESS SPECIFICALLY NOTED/LABLED ON THE PLANS AS "CONSTRUCTION WORK AREA". UNLESS NOTED OTHERWISE, THE CONSTRUCTION LIMITS ARE THE EARTHWORK CUT / FILL LIMITS PLUS 3 METERS, NOT TO EXCEED THE R.O.W. LIMITS. WORK LIMITS AT DRAINAGE STRUCTURES, CATTLE GUARDS, FENCING, R.O.W. MARKERS, ETC, WILL BE APPROVED BY THE COR/COTR.

9. THE DETAILS SHOWN ON THE STORM WATER POLLUTION AND EROSION/SEDIMENT CONTROL DETAILS ARE GENERAL REQUIREMENTS TO BE USED BY THE CONTRACTOR IN PREPARING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ALONG WITH THE REQUIREMENTS IN SECTION 157 OF THE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL CONTRACT REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO SUBMIT COURTESY COPY OF THE APPROVED SWPPP TO THE NAVAJO NATION WATER QUALITY EPA OFFICE IF THE PROJECT IS ON TRIBAL TRUST LANDS AND POST A SET AT THE PROJECT SITE.

10. THE QUANTITIES SHOWN ARE FOR ESTIMATING PURPOSES ONLY AND TO COMPARE AND CANVAS BIDS. ACTUAL PAY QUANTITIES WILL BE DETERMINED IN THE FIELD FOR AUTHORIZED CHANGES THAT AFFECT THE QUANTITIES.

11. ALL TURNOUTS/DRIVEWAYS, AS CALLED FOR ON THESE PLANS, SHALL EITHER BE CONSTRUCTED, REBUILT, RESHAPED AND/OR REMOVED UP TO THE RIGHT–OF–WAY LIMITS. ALL TURNOUTS SHALL BE PAVED TO THE CATTLE GUARD, THEN FROM THE BACK OF CATTLE GUARD TO THE R.O.W. LINE, PLACE AGGREGATE BASE FOR ALL 4.5m WIDE TURNOUTS; PLACE AGGREGATE BASE AND HOT ASPHALTIC CONCRETE FOR TURNOUTS WIDER THAN 4.5m TO MATCH THE STRUCTURAL SECTION. REQUIRED GRADING, SHAPING, AND EARTH COMPACTION OUTSIDE OF THE RIGHT–OF–WAY TO CONNECT NEW TURNOUTS TO THE EXISTING ROADWAY/DRIVEWAY (AS SHOWN ON THE PLANS OR AS DIRECTED BY THE COR/COTR) SHALL BE INCIDENTAL TO BID ITEM 20401–0000. ANY REQUIRED AGGREGATE BASE AND/OR ASPHALT MATERIAL SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THIS WORK AS SHOWN IN THE BID SCHEDULE.

12. THE CONTRACTOR SHALL BE REQUIRED TO OBLITERATE ALL EXISTING ABANDONED TURNOUTS AND ROADWAY WITHIN THE RIGHT–OF–WAY LIMITS, AND ANY EXISTING TURNOUTS/ROADWAY OUTSIDE OF THE RIGHT–OF–WAY THAT ARE DESIGNATED ON THE PLANS FOR OBLITERATION. OBLITERATION SHALL BE AS PER FP–14, METHOD 2. SCARIFICATION SHALL BE TO A DEPTH OF 300mm. THE SCARIFIED SURFACE SHALL BE LEFT ROUGH, WITH 100mm TO 300mm HIGH RIDGES PERPENDICULAR TO THE EXISTING ROAD CENTERLINE. ROADWAY OBLITERATION INCLUDES GRADING DRAINAGE CHANNELS ACROSS THE OLD ROAD BED, TO RE–ESTABLISH NATURAL DRAINAGE CHANNELS AND/OR TO OPEN CHANNELS FOR THE NEWLY INSTALLED (IN NEW ROADWAY) DRAINAGE STRUCTURES. THIS WORK TO BE INCLUDED IN THE BID ITEM 21101–2000. PERMANENT SEEDING AND STRAW MULCHING SHALL BE APPLIED TO ALL OBLITERATED AREAS. SEEDING AND MULCHING TO BE PAID UNDER ITEMS 62510–1000 AND 15703–2500.

13. STRUCTURAL EXCAVATION AND BEDDING/BACKFILL OF ALL DRAINAGE STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF STRUCTURES. BEDDING AND BACKFILL MATERIAL SHALL MEET ALL REQUIREMENTS OF FP–14, SECTIONS 209 AND 704. APPROVED EXCESS EXCAVATION MATERIAL MAY BE USED TO REBUILD TURNOUTS, EARTHEN DITCH BLOCKS, AND/OR PLACED ALONG ROADWAY SHOULDERS AS EMBANKMENT IN AREAS ADJACENT TO THE REMOVAL AND AS DIRECTED BY THE COR/COTR.

14. ALL FURROW AND DRAINAGE DITCHES SHALL BE STAKED AND GRADED TO DRAIN TO THE RIGHT–OF–WAY LIMITS. EARTHEN DITCH BLOCKS, DIKES AND DITCHES SHALL BE CONSTRUCTED AS SHOWN ON THESE PLANS AND/OR ADDED AT LOCATIONS DESIGNATED BY THE COR/COTR. ALL DITCH BLOCKS, DIKES AND FURROW DITCHES SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THIS WORK AS SHOWN IN THE BID SCHEDULE. AT ALL DRAINAGE PIPE INSTALLATIONS AND IN–PLACE PIPE CLEANING LOCATIONS, THE CONTRACTOR SHALL CLEAN, REGRADE, AND RESHAPE THE INLET AND OUTLET CHANNELS TO THE RIGHT–OF–WAY LINE AS DIRECTED BY THE COR/COTR. THIS WORK SHALL BE INCIDENTAL TO BID ITEMS UNDER SECTIONS 602, 603, AND 607.

15. IMMEDIATELY PRIOR TO PLACING EMBANKMENT AND AGGREGATE BASE, THE TOP 152 mm OF THE ORIGINAL GROUND, OR FINISHED SUBGRADE (INCLUDING TURNOUTS) SHALL BE CHECKED FOR COMPACTION AND GRADE. IF COMPACTION DOES NOT MEET THE MINIMUM SPECIFIED COMPACTION AND TOLERANCE REQUIREMENTS, THEN THE ORIGINAL GROUND AND/OR SUBGRADE SHALL BE RE–WATERED AND/OR SCARIFIED AS NEEDED AND RE–COMPACTED TO THE REQUIRED DENSITY AND TOLERANCE, AT THE CONTRACTOR'S EXPENSE. IN NO CASE SHALL ANY EMBANKMENT OR SURFACING MATERIAL BE PLACED ON FROZEN, MUDDY OR UNSTABLE NATURAL GROUND OR SUBGRADE. AS PER FP–14 SECTION 204.09, BENCHING MAY BE REQUIRED UNDER SOME EMBANKMENTS. THIS WORK SHALL BE CONSIDERED AN INCIDENTAL OBLIGATION OF THE CONTRACTOR.

16. THE EARTHWORK TABLE SHOWN IS TO ASSIST THE CONTRACTOR IN ESTABLISHING A BID UNDER THE EARTHWORK ITEMS SHOWN IN THE BID SCHEDULE. ALL EXCAVATION, WASTE AND EMBANKMENT MATERIAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS 20401–0000 AND 20403–0000. IF MATERIAL IS APPROVED, THE WASTE MATERIAL SHOWN ON THESE PLANS SHALL BE USED AS NECESSARY TO CONSTRUCT TURNOUTS, DITCH BLOCKS, AND/OR BE PLACED AS EMBANKMENT IN AREAS AS DIRECTED BY THE COR/COTR OUTSIDE THE CONSTRUCTION STAKED LIMITS. ANY REMAINING WASTE MATERIAL NOT USED WITHIN THE PROJECT LIMITS SHALL BE DISPOSED OF AS PER FP–14, SECTION 204.14 IF A BORROW PIT IS NOT USED ON THIS PROJECT; OTHERWISE THE WASTE MATERIAL SHALL BE PLACED BACK INTO THE BORROW PIT PRIOR TO TAKING FINAL CROSS SECTION MEASUREMENTS OF THE PIT, OR SPREAD/ STOCKPILED AT A LOCATION WITHIN THE PROJECT ROW AND OUTSIDE THE ROADWAY CONSTRUCTION LIMITS WHEN WASTE IS CALLED FOR IN THE EATHWORK TABLES AS DIRECTED BY THE COR/COTR FOR MEASUREMENT AS REQUIRED.

17. AT ALL TOP EDGES OF CUT SLOPES THE CONTRACTOR SHALL REMOVE ALL LOOSE AND UNSTABLE ROCK OR ROCK THAT AS DETERMINED BY THE COR/COTR, MAY BECOME LOOSE WITHIN 5.0 METER OF THE TOP CUT SLOPE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM 20401–0000, AND NO ADDITIONAL PAYMENT WILL BE MADE.

18. THE LOCATION OF UTILITIES AS SHOWN IN THESE PLANS ARE APPROXIMATE AND ARE ONLY TO ASSIST THE CONTRACTOR IN COMPLETING THE WORK. THE CONTRACTOR SHALL CONTACT ALL UTILITY OWNERS PRIOR TO STARTING ANY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CONTACT THE NEW MEXICO ONE–CALL AT (800)–321–2537, NAVAJO TRIBAL UTILITY AUTHORITY (NTUA) AT (928)–729–5721, AND NAVAJO NATION DIVISION OF NATURAL RESOURCES AT (928)–729–6593, FRONTIER COMMUNICATIONS (928)871–3745, ARIZONA BLUE STAKE AT (811) PRIOR TO STARTING ANY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITIES AND THEIR LOCATIONS WITH THE UTILITY OWNERS PRIOR TO CONSTRUCTION. ANY UTILITIES DAMAGED DUE TO NEGLIGENCE OF THE CONTRACTOR SHALL BE RESTORED TO CODE REQUIREMENTS AT THE CONTRACTOR'S EXPENSE.

19. THE CONTRACTOR SHALL REMOVE, CLEAN, AND STOCKPILE ALL SALVAGEABLE EXISTING CULVERTS, CATTLE GUARDS, AND FENCING MATERIALS, ETC, AS CALLED FOR ON THESE PLANS AND SECTIONS 203 AND 607. ALL SALVAGEABLE MATERIALS, AS DETERMINED BY THE COR/COTR, SHALL BE TAKEN TO THE GANADO MAINTENANCE YARD AND STOCKPILED IN A DESIGNATED AREA. ANY MATERIALS DETERMINED TO BE UNUSEABLE BY THE COR/COTR SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH SECTIONS 107, 109.02 (m), AND 203. THE SALVAGE WORK SHALL BE INCLUDED IN THE APPROPRIATE UNIT PRICE BID ITEMS FOR SECTIONS 203 AND/OR 607.

20. THE ROADWAY TYPICAL SECTION SHOWN IS THE BASIC TEMPLATE TO WHICH THE PROJECT IS TO BE STAKED AND BUILT. HOWEVER, THERE WILL BE LOCATIONS WHERE, DUE TO EXISTING GROUND CONDITIONS, TURNOUTS, CULVERTS OR OTHER STRUCTURES, ETC., THE SHOWN TYPICAL SLOPES CANNOT BE CONSTRUCTED. IN THIS CASE, THE BIA–NRDOT (ENGINEER OF RECORD), THROUGH THE COR/COTR, SHALL BE CONSULTED FOR CHANGES IN THE TYPICAL SECTIONS, DESIGN SLOPES, AND/OR OTHER ADJUSTMENTS BEFORE PROCEEDING WITH THE WORK UNLESS NOTED OTHERWISE ON THE PLANS. THE FINAL CONSTRUCTED ROAD SECTION SHALL BE BASED ON THE GOVERNMENT FURNISHED COMPUTERIZED STAKING REPORT AS ADJUSTED TO FIT FIELD CONDITIONS. THE CONTRACTOR SHALL STAY WITHIN THE LIMITS OF CONSTRUCTION, UNLESS OTHERWISE APPROVED. IN NO CASE SHALL THE CUT AND FILL BACK SLOPES BE BUILT STEEPER THAN THE MAXIMUM ALLOWED IN THE ROADWAY TYPICAL SECTION SHOWN. THE CONTRACTOR IS REQUIRED TO BRING STAKING ISSUES TO THE IMMEDIATE ATTENTION OF THE COR/COTR FOR FURTHER DIRECTION. FAILURE TO DO SO WILL RESULT IN THE COST OF THE CORRETIVE WORK TO BE BORNE ENTIRELY BY THE CONTRACTOR.

21. THE CONTRACTOR SHALL SAW CUT (FULL DEPTH) THE EXISTING ASPHALT PAVEMENT WHERE NEW ASPHALT IS TO TIE INTO THE OLD ASPHALT PAVEMENT. THE CONTRACTOR SHALL MATCH THE NEW ASPHALTIC CONCRETE PAVEMENT SURFACE TO EXISTING PAVEMENT SECTION AT TIE–IN POINTS AND PROVIDE FOR A SMOOTH TRANSITION AS DIRECTED BY THE COR/COTR. ALL SAWED PAVEMENT EDGES TO RECEIVE ASPHALT TACK COAT. THIS WORK SHALL BE INCIDENTAL TO BID ITEM 40201–0500 AS SHOWN IN THE BID SCHEDULE.

22. ANY EXISTING, OR NEW ROADSIDE FEATURES OR OTHER IMPROVEMENTS NEGLIGENTLY DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED/REPLACED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S ENTIRE EXPENSE.

23. THE CONTRACTOR SHALL REMOVE EXISTING ROADSIDE SIGNS THAT INTERFERE WITH ROAD CONSTRUCTION AND/OR CONTRADICT THE CONTRACTOR'S TEMPORARY TRAFFIC CONTROL PLAN, AT THE START OF THE CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE COR/COTR AT LEAST THREE (3) WORKING DAYS IN ADVANCE OF SUCH SIGN REMOVAL. SIGNS NEEDED FOR SAFETY/INFORMATION SHALL BE TEMPORARILY RESET AS DIRECTED BY THE COR/COTR. AT THE COMPLETION OF THE PROJECT, ALL REMAINING ROADWAY SIGNS NOT SPECIFICALLY DESIGNATED ON THE PLANS TO REMAIN, SHALL BE REMOVED, UNLESS DIRECTED OTHERWISE BY THE COR/COTR. THIS WORK SHALL BE CONSIDERED AN INCIDENTAL OBLIGATION OF THE CONTRACTOR UNDER THE TRAFFIC CONTROL BID ITEMS.

24. GRADE AND SHAPE THE SHOULDER AND DITCHES (AS DIRECTED BY COR/COTR) FROM THE SUBGRADE HINGE POINTS TO AND INCLUDING THE EXISTING DITCH LINE AREAS FOR THE CONSTRUCTION OF RIPRAP DITCH LININGS, SLOPE PROTECTION AND RIPRAP RUNDOWNS. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE RIPRAP ITEMS SHOWN IN THE BID SCHEDULE.

25. ALL RIGHT–OF–WAY REFERENCE MARKERS SHALL BE LABELED IN THE METRIC UNITS OF MEASURE. ALL EXISTING AND NEW BRASS CAPS SHALL BE STAMPED WITH BOTH ALIGNMENT STATIONING AND ELEVATIONS IN METRIC, UNLESS SPECIFIED OTHERWISE BY THE COR/COTR. ANY MISSING OR DAMAGED MARKERS SHALL BE RE–SURVEYED AND REPLACED. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS 62101–0000 AND 62102–0000.

26. THE GEOTECHNICAL REPORT FOR THIS PROJECT SHALL BE PROVIDED UPON WRITTEN REQUEST FROM THE CONTRACTOR, TO THE CO.

27. THE ROADWAY AND PIPE CROSS SECTION DRAWINGS WILL BE PROVIDED IN EITHER HARD COPY OR ELECTRONIC FORMAT UPON WRITTEN REQUEST FROM THE CONTRACTOR, THROUGH THE COR/COTR TO THE CO AFTER AWARD OF CONTRACT.

28. ANY EXISTING MAIL BOXES OR HOUSE ADDRESS SIGNS LOCATED ALONG THE ROADWAY PRISM SHALL BE REMOVED AND RE–INSTALLED OUTSIDE OF THE RIGHT–OF–WAY LIMIT OR AS DIRECTED BY THE COR/COTR. THIS WORK SHALL BE INCIDENTAL TO BID ITEM 20304–1000.

29. AT THE COMPLETION OF THE CONSTRUCTION, THE CONTRACTOR SHALL INSPECT THE INTERIOR OF ALL NEWLY INSTALLED AND EXISTING DRAINAGE STRUCTURES, CATTLE GUARDS. THESE STRUCTURES SHALL BE MAINTAINED IN A CLEAN CONDITION, AND FREE OF SILT AND OTHER DEBRIS UNTIL FINAL ACCEPTANCE OF THE PROJECT. THIS WORK SHALL BE CONSIDERED AN INCIDENTAL OBLIGATIONS OF THE CONTRACTOR UNDER THE APPROPRIATE BID ITEMS, FOR SECTIONS 602, 603, AND 607.

30. AT MAJOR DRAINAGE STRUCTURES AND LIVESTOCK PASS LOCATIONS THAT SPECIFY INSTALLING WING FENCES, THE CONTRACTOR SHALL EITHER TIE WING FENCES TO THE STRUCTURES OR INSTALL FENCE OVER THE STRUCTURE IN ACCORDANCE WITH THE DETAILS ON THESE PLANS. IF NO CORNER FENCE POST/BRACE/STRAIN EXISTS AT TIE–IN TO R.O.W. FENCE, THE CONTRACTOR SHALL INSTALL A STRAIN POST ASSEMBLY. THIS WORK SHALL BE INCIDENTAL TO BID ITEMS 61921–1000 AND NO ADDITIONAL PAYMENT WILL BE MADE.

31. THERE ARE A NUMBER OF LOCATIONS WHERE RIPRAP, CHANNEL FLOWLINE GRADING, TURNOUTS, ETC., WILL REQUIRE WORK AND IMPROVEMENTS PLACED THROUGH AND BEYOND THE R.O.W. FENCING LOCATIONS. IN THESE LOCATIONS, THE R.O.W. FENCING SHALL BE ADJUSTED (POST SPACING, VERTICAL ALIGNMENT, POST INSTALLATIONS UP AND AROUND RIPRAP, R.O.W. MONUMENT/MARKER ADJUSTMENT, ETC.) AS DIRECTED BY THE COR/COTR. THIS ADJUSTMENT WORK SHALL BE INCIDENTAL TO BID ITEMS 61921–1000 AND NO ADDITIONAL PAYMENT WILL BE MADE.

32. THE CONTRACTOR SHALL NOTIFY THE NDOT ENVIRONMENTAL OFFICE AS REQUIRED IN THE SPECIAL CONTRACT REQUIREMENT'S SECTION OF THE CONTRACT, NOTES ON THESE PLANS PRIOR TO STARTING CONSTRUCTION ACTIVITIES AT LOCATIONS WHERE ARCHAEOLOGICAL SITES ARE PRESENT ON THIS PROJECT (505–481–2842). TEMPORARY STAFETY FENCING MAY BE CALLED FOR TO PROTECT ARCHAEOLOGICAL OR OTHER SITES/LOCATIONS BEFORE CONSTRUCTION. THIS FENCE SHALL BE SQUARE LINK, ORANGE, HI–DENSITY HDPE TYPE, AS PER SECTION 710.11 OF THE FP–14. TEMPORARY FENCING TO BE CONSIDERED INCIDENTAL OBLIGATIONS UNDER BID ITEM 20401–0000 IF NO SPECIFIC BID ITEM FOR SUCH WORK IS SHOWN IN THE BID SCHEDULE.

33. EXISTING CATTLE GUARD AND FENCING AT TURNOUTS SHALL BE ADJUSTED TO MEET THE NEW GRADE AND TURNOUT LOCATIONS. CATTLE GUARD ADJUSTMENT WILL BE PAID UNDER BID ITEM 61920–3000.

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Date Signed 6/19/26
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	REVISION	BY	DATE
△			

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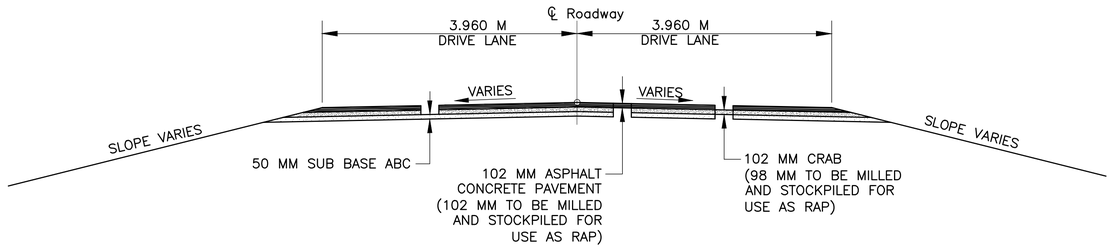
N15(2-3) CORNFIELDS TO BURNSIDE

GENERAL NOTES

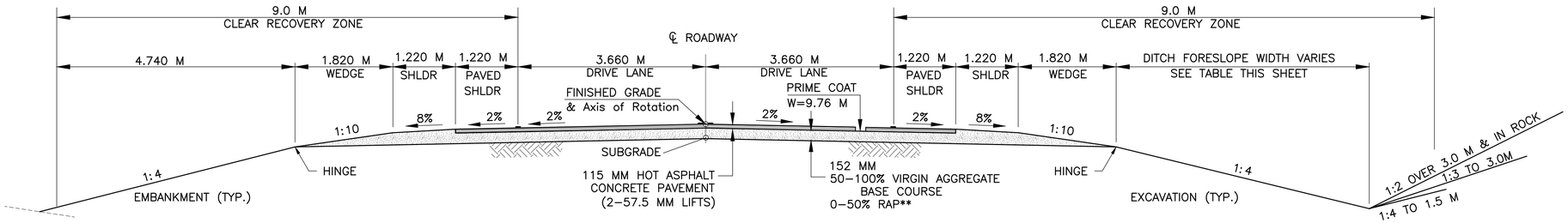
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
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SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	4



EXISTING ROADWAY SECTION



TYPICAL ROADWAY SECTION 1

STA. 22+600.000 TO STA. 22+803.683
STA. 23+880.000 TO STA. 24+140.000
STA. 24+600.000 TO STA. 24+800.000

NOTE: SEE PLAN & PROFILE SHEETS FOR SPECIAL DITCH GRADES.

SEQUENCE OF PAVEMENT RECONSTRUCTION

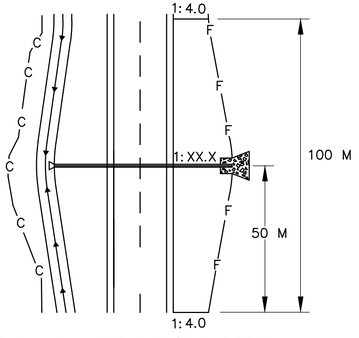
1. THE CONTRACTOR SHALL MILL EXISTING PAVEMENT, AND BASE COURSE TO THE DEPTH OF 200 MM TO MINUS 37.5 MM AND STOCKPILE IN ACCORDANCE WITH SECTION 408 AND 413 OF FP-14, INCLUDING ALL EXISTING PAVED TURNOUTS. THE CONTRACTOR HAS THE OPTION TO UTILIZE COLD MILLING MACHINE OR OTHER CONSTRUCTION METHOD TO BREAK UP THE EXISTING PAVEMENT STRUCTURE.
2. THE CONTRACTOR SHALL BUILD UP THE SUBGRADE ALONG WITH ADDITIONAL BORROW WITH MOISTURE AND DENSITY CONTROL PER SECTION 204 OF FP-14.
3. AFTER PROCESSING THE EXISTING PAVEMENT, STOCKPILE AND REUSE AS COLD RECYCLED ASPHALT BASE COURSE (CRAB) FOR THE NEW SUB-BASE COURSE FOR THE SECTIONS SHOWN HAVING MOISTURE & COMPACTION CONTROL PER SECTION 301. NO SUBGRADE TREATMENT REQUIRED UNLESS SHOWN OTHERWISE ON THESE PLANS.
4. AT ALL NEW AND RECONSTRUCTED TURNOUTS AND MAINLINE THE CONTRACTOR SHALL FURNISH AND PLACE NEW AGGERGATE BASE COURSE MATERIAL ON THE FINISHED AND APPROVED SUB-BASE.
5. THE CONTRACTOR SHALL THEN PLACE HOT ASPHALT CONCRETE PAVEMENT ON ALL MAINLINE ROUTE AND ALL TURNOUTS TO THE PLAN THICKNESS.
6. THE CONTRACTOR SHALL PROVIDE FOR A SAFE AND RELATIVE DUST FREE DRIVING SURFACE THROUGHOUT THE RECONSTRUCTION PROCESS FOR ALL SCHOOL, GENERAL TRAVELING PUBLIC, AND LOCAL TRAFFIC USE DAY AND NIGHT. THE CONTRACTOR'S TRAFFIC CONTROL AND CONSTRUCTION SEQUENCE PLAN SHALL INCLUDE THESE REQUIREMENTS AND BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO ANY GROUND DISTURBING ACTIVITIES TAKING PLACE.

**AN ESTIMATED 7,538 TONNES OF MILLINGS WILL GO UNUSED IF 50% UNTREATED AGGREGATE BASE COURSE/50%(MAX) RECYCLED ASPHALT PRODUCT COURSE (RAP) MIX IS UTILIZED THROUGHOUT THE MAINLINE. THE EXCESS MILLINGS WILL BE STOCKPILED AT THE DISCRETION OF THE COR/COTR.

RECYCLED ASPHALT PRODUCT (RAP) QUANTITIES

	Length (m)	Depth (m)	Width (m)	Volume (m^3)	Mass (t)
Recycled Asphalt Product Calculated	11,430	0.204	8	18,654	40,367
TOTAL AB w/RAP Required					64,074
50% RAP used maximum					32,037
50% Virgin AB, minimum					32,037
Potential RAP to be stockpiled or used in AC					8,330

NOTE: The Contractor is not required to use RAP on this project. The calculations above are made to understand the volumes and mass of RAP potentially available. NDOT does certify the RAP available tonnage. The express use of the table above is to estimate the availability of RAP compared to the maximum percentage of RAP used in the AB. RAP may also be used in the AC mix as allowed by the current approved State DOT mix design in accordance with FP-14 SECTION 403. Any RAP used for AB or AC shall meet the respective AB or AC requirements.



TYPICAL CULVERT CUT/FILL DETAIL

TRANSITION FILLS FROM 1:4 (TYP.) TO GRADES SHOWN ON SHEETS 45-56 OF THE CULVERT CROSS SECTION SHEETS OVER 100M, AS MEASURED ALONG THE CL OF THE ROADWAY. SHIFT DITCH TO MATCH BOTTOM OF CULVERT INLET AND/OR OUTLET. THIS DETAIL SUPERSEDES THE FORESLOPES AND DITCH OFFSETS LISTED ON THE ROADWAY CROSS SECTION SHEETS IF VARIANCES ARE ENCOUNTERED. EARTHWORK FOR SLOPE CONTOURING IS INCLUDED FOR EARTHWORK BID ITEM

N.T.S.

DITCH FORESLOPE WIDTH				
STATION TO STATION			TYPICAL SECTION NO.	FORESLOPE WIDTH (M)
22+600.000	to	22+803.683	1	4.598
22+803.683	to	22+980.000	2	5.000
22+980.000	to	23+260.000	2	5.000
23+260.000	to	23+880.000	2	5.000
23+880.000	to	24+140.000	1	3.000
24+140.000	to	24+600.000	2	5.000
24+600.000	to	24+800.000	1	3.000
24+800.000	to	25+000.000	2	5.000
25+000.000	to	25+310.000	2	5.000
25+310.000	to	25+480.000	2	5.000
25+480.000	to	25+800.000	2	5.000
25+800.000	to	26+010.000	2	5.000
26+010.000	to	26+760.000	2	5.000
26+760.000	to	27+100.000	2	5.000
27+100.000	to	27+600.000	2	5.000
27+600.000	to	28+040.000	2	4.598***
28+040.000	to	29+100.000	2	5.000
29+100.000	to	29+500.000	2	5.000
29+500.000	to	29+580.000	2	5.000
29+580.000	to	30+100.000	2	5.000
30+100.000	to	33+040.000	2	5.000***
33+040.000	to	33+942.000	3	4.680
33+942.000	to	34+029.810	4	4.680

***NOTE: SEE PLAN & PROFILE SHEETS FOR SPECIAL DITCH GRADES.

BASIS OF ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT WEIGHT	APPLICATION
30101-2000	SUBGRADE STABILIZATION WITH ROADBOND, EN-1, 305MM DEPTH	N/A	MIX RATIO 1:200; EN-1: WATER
30101-2000	UNTREATED AGGREGATE BASE-GRADE "SPECIAL"	2164 KG/M3	MAINLINE: 152MM, N15 TURNOUTS: 152MM
40301-0100	HOT ASPHALT CONCRETE PAVEMENT, CLASS "B", GRADING "B"	2324 KG/M3	SEE TYPICAL SECTIONS. TURNOUTS: 1-76MM LIFT
40504-0000	ASPHALT BINDER PG 58-28	0.9806 L/KG	6% BY WEIGHT OF TOTAL MIXTURE
	RECYCLED PRODUCT ASPHALT	2164 KG/M3	MUST TEST MIX INTO ABC AT A MAXIMUM OF 50% (BY WEIGHT) RAP
41101-5000	PRIME COAT, GRADE PEP	1.056 L/KG	APPLY ON TOP OF ABC; 1.364 L/M3
41201-1000	TACK COAT GRADE CSS-1, CSS-1H, SS-1, OR SS-1H	1.001 L/KG	BETWEEN HACP LIFTS; 0.23 L/M3

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26

	REVISION	BY	DATE

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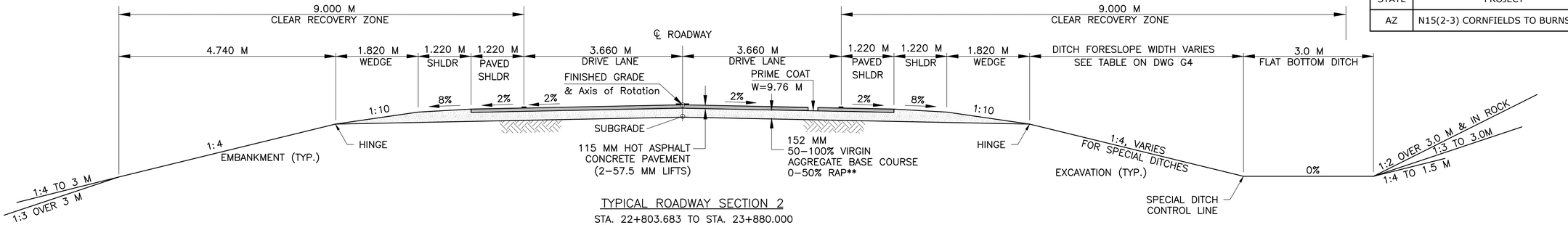
N15(2-3) CORNFIELDS TO BURNSIDE

TYPICAL SECTIONS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
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SCALE: N/A			

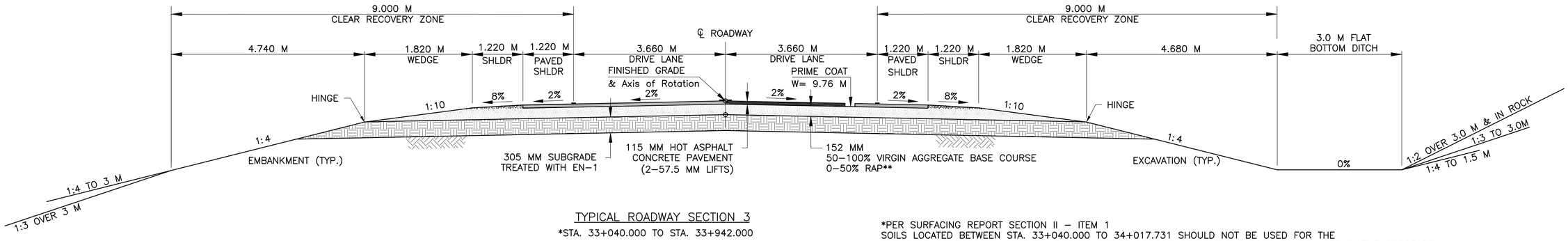
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	5



TYPICAL ROADWAY SECTION 2

STA. 22+803.683 TO STA. 23+880.000
STA. 24+140.000 TO STA. 24+600.000
STA. 24+800.000 TO STA. 33+040.000

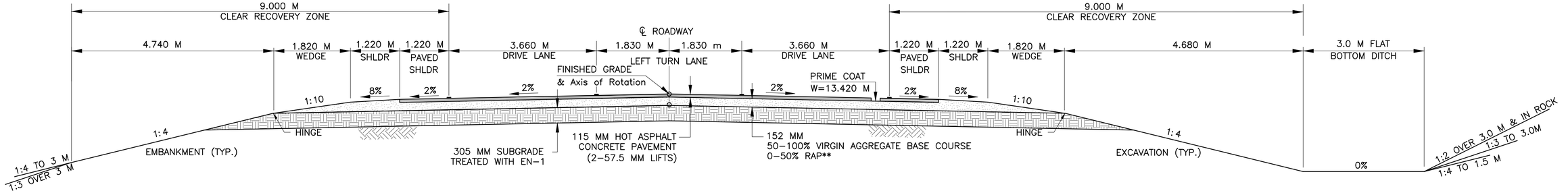


TYPICAL ROADWAY SECTION 3

*STA. 33+040.000 TO STA. 33+942.000

STA. 33+860.000 TO STA. 33+996.100
TRANSITION BETWEEN TYPICAL SECTIONS 4 AND 5

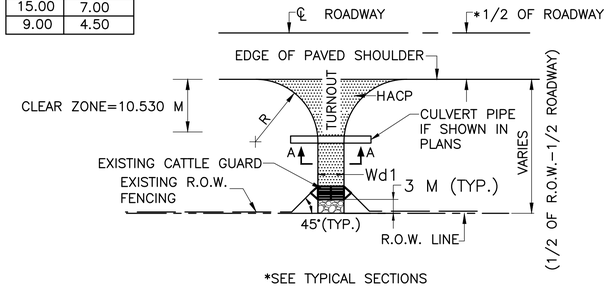
*PER SURFACING REPORT SECTION II – ITEM 1
SOILS LOCATED BETWEEN STA. 33+040.000 TO 34+017.731 SHOULD NOT BE USED FOR THE SUBGRADE OR BORROW. HOWEVER, SHOULD ONSITE BORROW REQUIRE THE SOILS TO BE USED IN THE SUBGRADE, 305 MM DEPTH OF THE SUBGRADE SHOULD BE STABILIZED DUE TO CLAY CONTENT AND EXPANSION POTENTIAL. SEE TYPICAL SECTIONS 4 AND 5.



TYPICAL ROADWAY SECTION 4

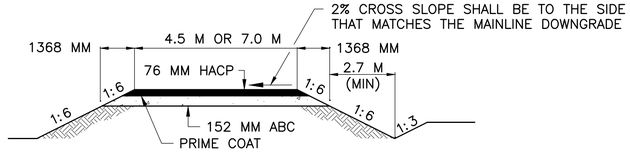
*STA. 33+942.000 TO STA. 34+029.810

DIMENSION TABLE	
RADIUS	Wd1
15.00	9.10
15.00	7.00
9.00	4.50



*SEE TYPICAL SECTIONS

TYPICAL TURNOUT



TYPICAL SECTION 6–A

NOTE: TYPICAL TURNOUT DIMENSIONS AND STRUCTURAL SECTION UNLESS NOTED OTHERWISE ON THE PLANS
N.T.S.
SEE DRAWING P21 FOR TURNOUT INFORMATION

QUANTITIES NOTE:
1. CONTRACTOR IS RESPONSIBLE FOR CALCULATING AND VERIFYING ALL QUANTITIES NECESSARY FOR THE COMPLETION OF THE WORK. ANY QUANTITIES PROVIDED WITHIN THIS PLAN SET ARE FOR REFERENCE ONLY AND SHOULD NOT BE RELIED UPON AS FINAL.

TURNOUT EXTENSION NOTE:

THE TURNOUTS LISTED WILL REQUIRE EARTHWORK AND GRADING OUTSIDE THE ROAD RIGHT–OF–WAY. THIS WORK IS NECESSARY TO OBTAIN ACCEPTABLE TURNOUT GRADES OF ±8.0% MAXIMUM OR TO CREATE SMOOTH TIE–INS TO EXISTING TURNOUTS. THE SPECIFIC LENGTH OF EXTENSIONS REQUIRED TO MEET ACCEPTABLE GRADES SHALL BE DETERMINED BY THE COR/COTR. THE WIDTH OF EXTENSIONS SHALL MATCH THE NEW DRIVEWAY WIDTH GIVEN ON THE PLANS. THE COST OF THE EXTENSIONS SHALL BE INCIDENTAL TO EARTHWORK RELATED ROAD CONSTRUCTION ITEMS. NO EARTHWORK OR OTHER MEASUREMENTS SHALL BE TAKEN. SPECIFIED AGGREGATE, ASPHALT, CONCRETE, OR OTHER PAVEMENT RELATED STRUCTURAL MATERIAL WILL BE MEASURED AND PAID UNDER THE APPROPRIATE BID ITEMS.

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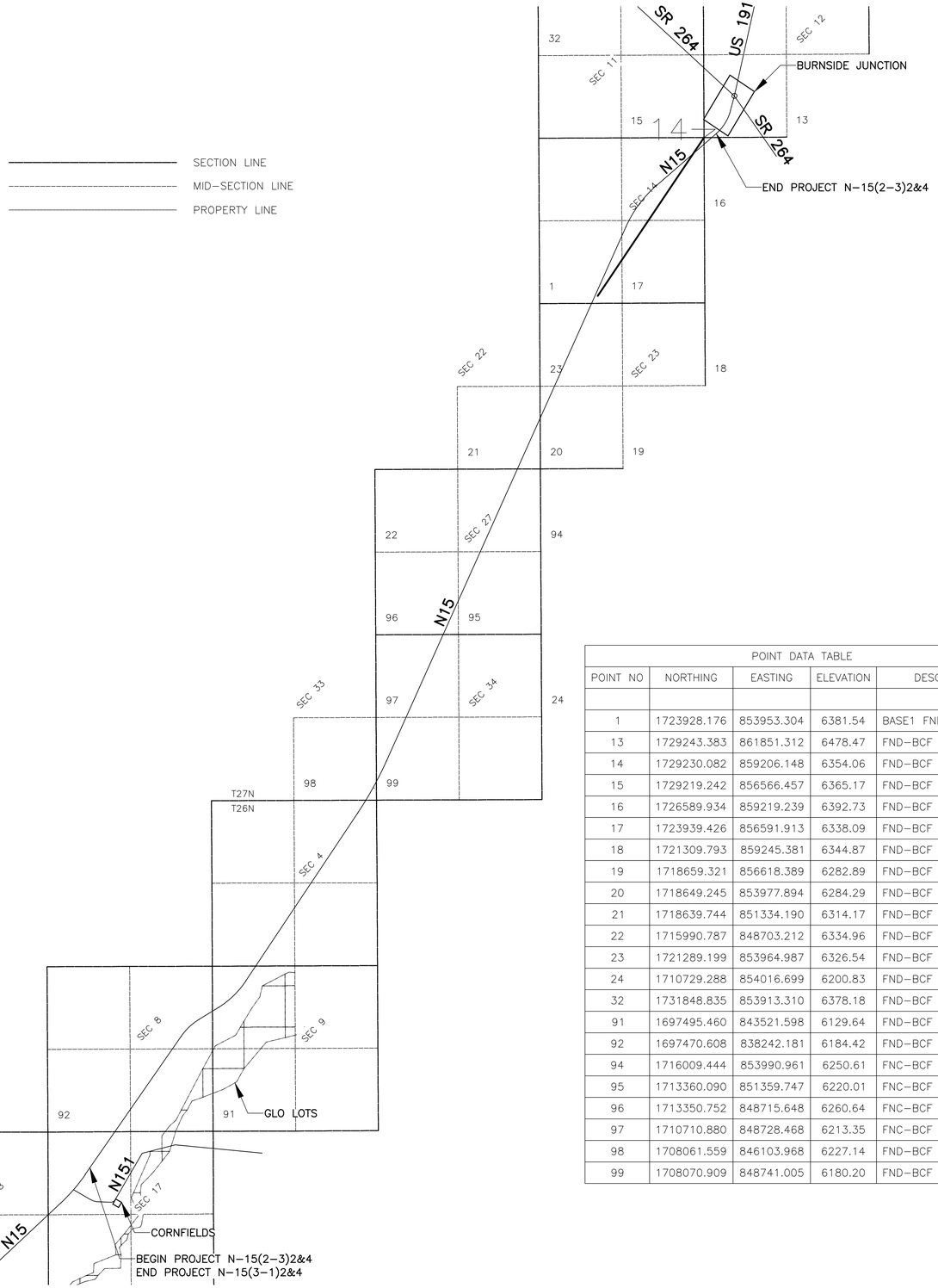
N15(2-3) CORNFIELDS TO BURNSIDE

TYPICAL SECTIONS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	G5	5 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	6



POINT DATA TABLE				
POINT NO	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1723928.176	853953.304	6381.54	BASE1 FND-ACF 25396
13	1729243.383	861851.312	6478.47	FND-BCF 15083
14	1729230.082	859206.148	6354.06	FND-BCF BLM
15	1729219.242	856566.457	6365.17	FND-BCF BLM
16	1726589.934	859219.239	6392.73	FND-BCF BLM
17	1723939.426	856591.913	6338.09	FND-BCF BLM
18	1721309.793	859245.381	6344.87	FND-BCF BLM
19	1718659.321	856618.389	6282.89	FND-BCF BLM
20	1718649.245	853977.894	6284.29	FND-BCF BLM
21	1718639.744	851334.190	6314.17	FND-BCF BLM
22	1715990.787	848703.212	6334.96	FND-BCF BLM
23	1721289.199	853964.987	6326.54	FND-BCF BLM
24	1710729.288	854016.699	6200.83	FND-BCF BLM
32	1731848.835	853913.310	6378.18	FND-BCF BLM
91	1697495.460	843521.598	6129.64	FND-BCF USGLO
92	1697470.608	838242.181	6184.42	FND-BCF USGLO
94	1716009.444	853990.961	6250.61	FNC-BCF BLM
95	1713360.090	851359.747	6220.01	FNC-BCF BLM
96	1713350.752	848715.648	6260.64	FNC-BCF BLM
97	1710710.880	848728.468	6213.35	FNC-BCF BLM
98	1708061.559	846103.968	6227.14	FND-BCF BLM
99	1708070.909	848741.005	6180.20	FND-BCF USGLO

SURVEYOR'S NOTES

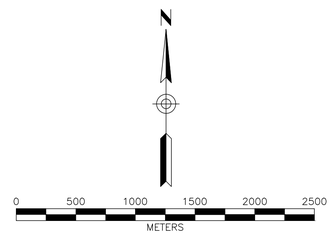
1. COORDINATES WERE VERIFIED IN THE FIELD USING REAL TIME KINEMATIC GPS OBSERVATIONS RELATIVE TO PUBLISHED CONTROL POINTS.
2. SURVEYED DURING THE MONTH OF SEPTEMBER 2024.
3. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROLS IN THE FIELD PRIOR TO CONSTRUCTION.
4. PROJECT METADATA:
   UNITS:
   COORDINATES, DISTANCES AND ELEVATIONS ARE SHOWN IN METRIC.

   HORIZONTAL DATUM (BASIS OF BEARINGS):
   NAD83 (2011 EPOCH) ARIZONA EAST ZONE, GROUND

   HORIZONTAL ADJUSTMENT:
   COMBINED SCALE FACTOR (CSF): 1.0003718184 (TO MATCH WH PACIFIC SEG. 3-1)
   GRID NORTHING (CSF) = GROUND NORTHING
   GRID EASTING (CSF) = GROUND EASTING

   VERTICAL DATUM:
   NAD83

   PROJECT BENCHMARK:
   POINT NUMBER 1
   FOUND AN ALUMINUM CAP FLUSH, STAMPED "AZTEC, RLS 25396" AND BEING THE COMMON CORNER TO SECTIONS 14, 15, 22 AND 23 OF TOWNSHIP 27 NORTH, RANGE 25 EAST. PERFORMED AN 8 HOUR STATIC SESSION ON SAID MONUMENT ON WITH INFORMATION PROVIDED TO NOAA FOR OPUS
   LOCATION OF MONUMENT:
   OBSERVED GROUND NORTHING = 525453.308
   OBSERVED GROUND EASTING = 260284.967
   OPUS ELEVATION = 1945.093
5. THE COORDINATES PRESENTED ARE SHOWN TO THREE DECIMAL PLACES FOR CALCULATION PURPOSES AND ARE NOT REPRESENTATIVE OF THE PRECISION OF THE SURVEY MEASUREMENTS
6. THIS IS NOT A PROPERTY BOUNDARY SURVEY.



DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Land Surveyor
CERTIFICATE NO.
47537
JASON P.
GRAHAM
Date signed 06/09/26
ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

SURVEY CONTROL

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	G6	6 OF 116
SCALE: 1:500 METERS			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	7

AMEND	LINE ITEM NO.	PAY ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT	SHEET AND DESCRIPTION P1-P22 ROADWAY SUMMARY	D1-D31 DRAINAGE SUMMARY	T1-M19 TRAFFIC SUMMARY	E1-E10 EROSION CONTROL SUMMARY	ALLOWANCE	ESTIMATED QUANTITIES BID SCHEDULE	REMARKS AND/OR DETERMINATION OF ESTIMATED QUANTITIES
	1	10901-0000	Extra & Miscellaneous Work - authorized under Suppl.Spec. 109.02(s) of Exhibit F	LPSM	1					1	
	2	15101-0000	Mobilization	LPSM	1					1	
	3	15201-0000	Construction Survey And Staking	LPSM	1					1	
	4	15301-0000	Contractor Quality Control	LPSM	1					1	
	5	15701-0000	Soil Erosion Control	LPSM				1		1	
	6	15703-2500	Soil Erosion Control, Mulching, Hydraulic Method	ha				30	5	35	
	7	15706-1600	Soil Erosion Control, Stabilized Construction Exit	Each				5		5	
	8	20101-0000	Clearing And Grubbing	ha	30				5	35	
	9	20301-1100	Removal Of Gate	Each	2					2	
	10	20301-2400	Removal Of Signs	Each			68		12	80	
	11	20302-0700	Removal Of Fence	m	3,292				208	3,500	
	12	20302-2600	Removal Of Pavement Markings	m			34		16	50	
	13	20304-1000	Removal Of Structures And Obstructions	LPSM	1					1	
	14	20401-0000	Roadway Excavation	m3	123,416				6,584	130,000	
	15	20403-0000	Unclassified Borrow	m3	86,191				4,809	91,000	
	16	20425-3000	Crown Ditch	m		218			42	260	
	17	20426-1000	Ditch, Excavation	m3		129			26	155	
	18	20443-0000	Berms	m	393				127	520	
	19	21101-2000	Roadway Obliteration, Method 2	m2	331				39	370	
	20	25101-2100	Placed Riprap, Method B, Class 1	m3		3,207			293	3,500	
	21	25101-2200	Placed Riprap, Method B, Class 2	m3		1,986			164	2,150	
	22	25101-2300	Placed Riprap, Method B, Class 3	m3		201			9	210	
	23	25112-2000	Wire-Enclosed Riprap	m3	1,047				103	1,150	
	24	30101-2000	Aggregate Base Grading D	metric ton	64,727				3,273	68,000	
	25	31103-1000	Stabilized Aggregate Surface Course, Imported Aggregate	metric ton	11,426				574	12,000	
	26	40301-0100	Asphalt Concrete Pavement, Type 1	t	34,906				1,594	36,500	
	27	40504-0000	Asphalt Binder	metric ton	2,097				103	2,200	
	28	41101-0000	Prime Coat	metric ton	161				9	170	
	29	41201-0000	Tack Coat	t	31				4	35	
	30	55401-1000	Reinforcing Steel	kg		1,087			91	1,178	
	31	60101-0000	Concrete	m3		32			2	34	
	32	60201-2000	2400mm pipe culvert	m		68				68	
	33	60202-0600	900mm equivalent diameter arch or elliptical pipe culvert	m		776				776	
	34	60202-0700	1050mm equivalent diameter arch or elliptical pipe culvert	m		618				618	
	35	60202-0800	1200mm equivalent diameter arch or elliptical pipe culvert	m		57				57	
	36	60202-0900	1350mm equivalent diameter arch or elliptical pipe culvert	m		461				461	
	37	60202-1000	1500mm equivalent diameter arch or elliptical pipe culvert	m		178				178	
	38	60211-1000	End section for 900mm equivalent diameter arch or elliptical pipe culvert	Each		39				39	
	39	60211-1100	End section for 1050mm equivalent diameter arch or elliptical pipe culvert	Each		20				20	
	40	60211-1200	End section for 1200mm equivalent diameter arch or elliptical pipe culvert	Each		2				2	
	41	60211-1300	End section for 1350mm equivalent diameter arch or elliptical pipe culvert	Each		16				16	
	42	60211-1400	End section for 1500mm equivalent diameter arch or elliptical pipe culvert			6				6	
	43	60701-1000	Removing, Cleaning, And Stockpiling Culvert	m		621			79	700	
	44	61901-1000	Fence, Barbed Wire, 5 Strand	m	3,783					3,783	
	45	61902-2750	Gate, Chain Link, Pedestrian	Each	1					1	
	46	61903-0310	Cattle Guard, 2-Unit, With Gate	Each	2					2	
	47	61920-3000	Remove and reset cattle guard	Each	8					8	
	48	62510-1000	Seeding, Dry Method	ha				30	3	33	
	49	62901-1100	Rolled Erosion Control Product, Type 4	m2			73		7	80	
	50	62901-1200	Rolled Erosion Control Product, Type 5.A	m2				14,718	1,522	16,240	
	51	63301-0000	Sign System	Each			57		13	70	
	52	63308-2000	Object Marker, Type 2	Each			156		4	160	
	53	63308-3000	Object Marker, Type 3	Each			70			70	
	54	63309-0100	Delineator, Type 1	Each			113		17	130	
	55	63315-0000	Rumble Strip	m2			34,287		2,142	36,429	
	56	63318-1020	Milepost Marker 51 mm x 51 mm Square Steel Tube	Each			14			14	
	57	63401-0300	Pavement Markings, Type B, Solid	m			31,032		1,668	32,700	
	58	63401-0400	Pavement Markings, Type B, Broken	m			7,930		570	8,500	
	59	63401-0900	Pavement Markings, Type E, Solid	m			31,032		1,668	32,700	
	60	63401-1000	Pavement Markings, Type E, Broken	m			7,930		570	8,500	
	61	63405-3700	Pavement Markings, Type J, Turn Arrow	Each			2			2	
	62	63405-3850	Pavement Markings, Type J, "Only" Word Message	Each			1			1	
	63	63501-0000	Temporary Traffic Control	LPSM			1			1	
	64	63502-3000	Temporary Traffic Control, Raised Pavement Marker	Each			12,000			12,000	
	65	63509-1000	Temporary Traffic Control, Flagger	Fxhr			10,000			10,000	

DIBBLE
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PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/3/26 ARIZONA U.S.A.

REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION

NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

QUANTITIES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	G8	7 OF 116
SCALE: N/A			

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N15(2-3) PAVEMENT QUANTITIES

STATION FROM	STATION TO	ITEM 30101-2000 UNTREATED AGGREGATE BASE GRADING D		ITEM 31103-1000 STABILIZED AGGREGATE SURFACE COURSE		ITEM 40301-0100, ASPHALT CONCRETE PAVEMENT, TYPE 1		ITEM 40504-0000 Asphalt Binder	ITEM 41201-1000 TACK COAT	ITEM 41101-5000 ASPHALT PRIME COAT GRADE PEP
		VOLUME (m^3)	WEIGHT (t)	VOLUME (m^3)	WEIGHT (t)	VOLUME (m^3)	WEIGHT (t)	WEIGHT (t)	WEIGHT (t)	WEIGHT (t)
ROADWAY										
22+600.000	33+040.000	27,363	62,058.3			11718	28,475	1709.00	23.5	131.61
33+040.000	33+860.000			2,149	4,874.9	921	2,238	135.00	1.9	10.34
33+040.000	33+961.000			2,670	6,055.6	1228	2,984	180.00	2.5	13.79
33+961.000	34+029.810			219	495.7	106	258	16.00	0.3	1.19
TURNOUTS										
23+499	Lt.	19.0	43.1			8	19	1.1	0.1	0.12
24+193	Lt.	18.0	40.8			7	17	1.0	0.1	0.11
24+380	Lt.	21.0	47.6			8	19	1.1	0.1	0.13
25+439	Lt.	21.0	47.6			8	19	1.1	0.1	0.13
25+780	Lt.	21.0	47.6			8	19	1.1	0.1	0.13
26+306	Lt.	21.0	47.6			8	19	1.1	0.1	0.13
26+317	Rt.	21.0	47.6			8	19	1.1	0.1	0.13
26+737	Lt.	21.0	47.6			8	19	1.1	0.1	0.13
26+966	Lt.	19.0	43.1			7	17	1.0	0.1	0.12
26+971	Rt.	19.0	43.1			7	17	1.0	0.1	0.12
27+360	Lt.	21.0	47.6			8	19	1.1	0.1	0.13
27+610	Rt.	34.0	77.1			14	34	2.0	0.1	0.24
27+618	Lt.	21.0	47.6			8	19	1.1	0.1	0.13
28+191	Lt.	21.0	47.6			8	19	1.1	0.1	0.13
28+623	Lt.	19.0	43.1			7	17	1.0	0.1	0.12
29+559	Lt.	19.0	43.1			7	17	1.0	0.1	0.12
30+132	Lt.	21.0	47.6			8	19	1.1	0.1	0.13
31+067	Lt.	19.0	43.1			7	17	1.0	0.1	0.12
31+647	Lt.	19.0	43.1			7	17	1.0	0.1	0.12
31+908	Lt.	19.0	43.1			7	17	1.0	0.1	0.12
32+455	Rt.	58.0	131.5			25	61	3.7	0.1	0.42
32+584	Lt.	20.0	45.4			7	17	1.0	0.1	0.12
32+982	Lt.	35.0	79.4			14	34	2.0	0.1	0.25
33+233	Lt.	19.0	43			7	17	1.0	0.1	0.12
33+422	Lt.	34.0	77			14	34	2.0	0.1	0.24
33+425	Rt.	21.0	48			8	19	1.1	0.1	0.13
BUS PULLOUTS			238				160	9.6	0.1	0.33
BUS STOPS			415				230	13.8	0.1	0.24
TOTAL			64,074	5,038	11,426		34,906	2,097	31.0	161

TURNOUT AND OTHER LOCATIONS W/CATTLE GUARDS AND GATES

TURNOUT No.	STATION	LOCATION	TURNOUT SIZE			GRADED	CATTLE GUARD			* TYPE I GATE	* TYPE II GATE	REMARKS
			W m	PAVEMENT LENGTH m	AB LENGTH m	LEN m	ITEM: 61903-0710 2-UNIT	ITEM: 61903-0710 3-UNIT	ITEM: 61903-1010 4-UNIT	(EA)	(EA)	
1	23+499.000	Lt.	4.5	12.5	3.0							Protect CG in Place
2	24+193.000	Lt.	4.5	11.8	3.7							Protect CG in Place
3	24+380.000	Lt.	4.5	15.2	0.4							Protect CG in Place
4	25+439.000	Lt.	4.5	15.1	0.4							Protect CG in Place
5	25+781.000	Lt.	4.5	15.1	0.4							Protect CG in Place
6	26+307.000	Lt.	4.5	15.2	0.3							Protect CG in Place
7	26+316.000	Rt.	4.5	15.3	0.2							Protect CG in Place
8	26+738.000	Lt.	4.5	15.1	0.4							Protect CG in Place
9	26+967.000	Lt.	4.5	12.5	3.0							Remove and Reset CG
10	26+972.000	Rt.	4.5	12.5	3.0	10.0						Remove and Reset CG
11	27+370.000	Lt.	4.5	14.8	0.7							Protect CG in Place
12	27+620.000	Rt.	7.0	12.5	3.0	2.82						Remove and Reset CG
13	27+628.000	Lt.	4.5	15.0	0.5							Protect CG in Place
14	28+192.000	Lt.	4.5	14.9	0.6							Protect CG in Place
15	28+624.000	Lt.	4.5	12.5	3.0	10.0						Remove and Reset CG
16	29+559.000	Lt.	4.5	12.5	3.0	7.14						Remove and Reset CG
17	30+133.000	Lt.	4.5	15.0	3.0							Protect CG in Place
18	31+067.000	Lt.	4.5	12.5	3.0		1			1		Remove Gate
19	31+667.000	Lt.	4.5	12.5	3.0	1.44						Remove and Reset CG
20	31+910.000	Lt.	4.5	12.5	3.0	5	1			1		Remove Gate
21	32+450.000	Rt.	9.0	19.2	0.0							Skew =20° Rt.
22	32+585.000	Lt.	4.5	13.4	2.1							Protect CG in Place
23	32+985.000	Lt.	7.0	13.4	2.1							Clean CG in Place, NPI
24	33+234.000	Lt.	4.5	12.5	3.0							Remove and Reset CG
25	33+423.000	Lt.	7.0	12.5	3.0							Remove and Reset CG
26	33+425.000	Rt.	4.5	15.1	0.4							Protect CG in Place
			TOTAL				**2**	**0**	**0**	**2**	**0**	

* Type I and Type II gates associated with a cattle guard are included in the cost of the cattle guard. No separate payment will be made. Gates not associated with cattle guards will be paid under appropriate items listed in the Bid Schedule.

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	8

ESTIMATED EARTHWORK QUANTITIES

LOCATIONS		ITEM 20401-0000: ROADWAY EXCAVATION	
STATION	To STATION	CUT (m^3)	FILL (m^3)
N15			
22+860.000	34+029.810	122,937	183,153
TURNOUTS			
Summary		479	2,139
Drainage Excavation		114	
Total Excavation		123,530	
Shrink (12%)		14,766	
		-	
Ground Compaction			9,664
Total Embankment Required			194,956
Waste			
Percent of Excavation			
Borrow (In-Place)			86,191

N15 SUPERELEVATION TABLULATION

Alignment: N15 — Normal Crow 2.00% — Max Super 6.00% — Design Speed 80 kph Design Speed and N15 Sta 22+600.000 to 34+029.810

General Curve Data (Design Speed = 80kph)						Station Information			"e" Information					Super Elevation Placement								
														ENTERING CURVE					EXITING CURVE				
CURVE NO.	R Curve (m)	Delta deg-min-sec	Tan (m)	Length (m)	Norm. Crown LT,RT,NC	PC (Sta)	PT (Sta)	Turn (LT or RT)	Super Table Emax=6%	e (%)	Tangent Runout Lc (m)	Super Runoff Lr (m)	Portion of Lr Prior to Curve	A (NC) (Sta)	B (0%) (Sta)	C (RC) (Sta)	D PC (Sta)	E (FS) (Sta)	E (FS) (Sta)	D PT (Sta)	C (RC) (Sta)	B (0%) (Sta)	A (NC) (Sta)
N15																							
10	582.13	23+34+26	121.474	239.511	NC	23+743.760	23+983.270	RT	GB 3.9	5.8	16.2	47.0	32.9	23+694.653	23+710.860	23+727.067	23+743.760	23+757.860	23+969.170	23+983.270	23+999.963	24+016.170	24+032.377
11	873.19	24-38-18	190.692	375.489	NC	24+204.850	24+580.330	LT	GB 3.9	4.6	16.5	38.0	26.6	24+161.728	24+178.250	24+194.772	24+204.850	24+216.250	24+568.930	24+580.330	24+590.408	24+606.930	24+623.452
12	3492.75	9-32-7	291.313	581.280	NC	26+544.910	27+126.190	LT	GB 3.9	2.0	16.0	16.0	11.2	26+517.710	26+533.710	26+549.710	26+544.910	26+549.710	27+121.390	27+126.190	27+121.390	27+137.390	27+153.390
13	1164.25	24-51-2	256.517	504.967	NC	32+824.800	33+329.770	RT	GB 3.9	4.0	16.5	33.0	23.1	32+785.200	32+801.700	32+818.200	32+824.800	32+834.700	33+319.870	33+329.770	33+336.370	33+352.870	33+369.370

DIBBLE
3020 E. CAMELBACK ROAD
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PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA U.S.A.

REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

QUANTITIES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	G9	8 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	9

ITEM 61901-1000: FENCE, BARBED WIRE, 5-STRAND

STATION TO STATION			LOCATION	61901-1000 FENCE, BARBED WIRE, 5-STRAND (m)	20302-0700 REMOVAL OF FENCE (m)
N15 RIGHT SIDE					
22+657	to	22+940	Rt.	283	283
23+290	to	23+350	Rt.	60	60
23+415	to	23+874	Rt.	459	459
24+138	to	24+162	Rt.	24	24
24+342	to	24+370	Rt.	28	28
24+370	to	24+580	Rt.	210	210
25+310	to	25+350	Rt.	64	40
25+608	to	25+740	Rt.	132	132
26+904	to	26+953	Rt.	73	49
31+284	to	31+330	Rt.	76	46
TOTAL RIGHT SIDE				1409	1331
N15 LEFT SIDE					
23+517	to	23+720	Lt.	203	203
24+130	to	24+193	Lt.	63	63
24+193	to	24+380	Lt.	187	187
24+380	to	24+500	Lt.	120	120
24+790	to	24+860	Lt.	70	70
25+285	to	25+341	Lt.	86	56
25+592	to	25+760	Lt.	168	168
25+944	to	25+970	Lt.	26	26
28+612	to	28+624	Lt.	20	12
28+624	to	28+636	Lt.	20	12
26+894	to	26+959	Lt.	95	65
27+770	to	27+790	Lt.	20	20
28+611	to	28+621	Lt.	10	10
28+627	to	28+637	Lt.	10	10
28+890	to	28+922	Lt.	32	32
29+062	to	29+100	Lt.	38	38
29+546	to	29+556	Lt.	10	10
29+589	to	29+599	Lt.	10	10
29+599	to	29+609	Lt.	10	10
30+975	to	31+064	Lt.	89	89
31+070	to	31+200	Lt.	130	130
31+657	to	31+668	Lt.	11	11
31+668	to	31+679	Lt.	11	11
31+900	to	31+910	Lt.	10	10
31+910	to	31+920	Lt.	10	10
32+254	to	32+540	Lt.	286	286
32+650	to	32+840	Lt.	190	190
33+942	to	34+014	Lt.	72	72
33+997	to	34+014	Lt.	23	30
TOTAL LEFT SIDE				2030	1961
				3439	3292
			PLUS 10% FOR ADJUSTMENTS	**3,783**	

ITEM 21101-2000: ROAD OBLITERATION, METHOD 2

STATION TO STATION	LOCATION	AREA (m^2)	REMARKS
24+140	Rt.	31.1	Existing Turnout
26+730	Lt.	11.40	Existing Turnout
26+740	Lt.	17.80	Existing Turnout
26+745	Rt.	64.40	Existing Turnout
26+770	Rt.	62.40	Existing Turnout
28+901	Lt.	21.40	Existing Turnout
29+080	Lt.	14.90	Existing Turnout
30+405	Lt.	16.50	Existing Turnout
30+650	Lt.	37.00	Existing Turnout
30+870	Lt.	8.00	Existing Turnout
30+875	Lt.	4.80	Existing Turnout
31+335	Rt.	8.88	Existing Turnout
31+635	Rt.	20.11	Existing Turnout
31+915	Lt.	15.85	Existing Turnout
33+910	Lt.	12.21	Existing Turnout
33+905	Rt.	14.94	Existing Turnout
	TOTAL	**331**	

ITEM 20443-2000: EARTHEN DIKE & BERMS (TYPE "B" DIKE)

CULVERT STATION	LOCATION	APPROX LENGTH (m)	TOP ELEV
22+879.66	Rt.	10.5	1886.60
23+880.00	Lt.	12.1	1885.26
24+220.00	Rt.	12.0	1879.10
24+490.00	Lt.	11.1	1879.10
25+295.00	Lt.	20.1	1878.46
25+844.00	Lt.	10.6	1885.84
25+957.00	Lt.	29.8	1885.84
27+780.00	Lt.	23.4	1890.25
27+998.00	Lt.	16.8	1891.62
28+890.00	Lt.	62.7	1901.87
29+071.00	Lt.	46.8	1903.92
30+283.40	Lt.	38.6	1919.23
30+670.00	Lt.	14.8	1922.37
31+175.00	Lt.	16.2	1925.85
32+005.00	Lt.	10.4	1937.10
32+740.00	Lt.	9.3	1940.33
33+300.00	Rt.	12.1	1939.36
33+722.00	Rt.	12.9	1940.34
33+820.00	Rt.	13.6	1940.57
33+912.00	Rt.	26.0	1940.10
	TOTAL	**409.8**	

ITEM 20304-1000: REMOVAL OF STRUCTURES AND OBSTRUCTIONS

STATION	LOCATION	REMARKS
29+544	Lt.	Driveway Post
30+122	Lt.	Driveway Post
30+142	Lt.	Driveway Post
33+807	Lt.	Sign Posts
34+016.533	℄	Cattle Guard
34+160	Lt.	W11-54 "Cattle Guard" Sign
Varies	Lt. & Rt.	All Delineators (Approximately 75)

N15(2-3) - EXISTING UTILITY CROSSINGS

STATION	DESCIPTION	LOCATION	ELEVATION/CLEAR (m)	SKEW NO.	OWNER	REMARKS
24+188	Overhead Power Line Crossing	Centerline	1889.02 / 8.76	141°	NTUA	Protect in Place
24+220	Waterline	Centerline	1877.6 / 2.6	89°	NTUA	Protect in Place, Grade Ditches to Meet Cover Requirement
24+262	Overhead Power Line Crossing	Centerline	1888.61 / 8.83	157°	NTUA	Protect in Place
24+266	Overhead Power Line Crossing	Centerline	1888.62 / 8.87	157°	NTUA	Protect in Place
24+966	Overhead Power Line Crossing	Centerline	1884.39 / 6.45	57°	NTUA	Protect in Place
26+289	Overhead Power Line Crossing	Centerline	1895.37 / 7.61	66°	NTUA	Protect in Place
26+320	Waterline	Centerline	1885.3 / 2.2	82°	NTUA	Protect in Place, Grade Ditches to Meet Cover Requirement
32+486	Telephone UG	Centerline	1939.50 / -0.38	94°	FRONTIER	In Conflict Rt. & Lt., Relocate by Others
32+546	Telephone OH	Centerline	Clearance > existing	94°	FRONTIER	Protect in Place
33+100	Overhead Power Line Crossing	Centerline	1948.53 / 7.34	167°	NTUA	Protect in Place
33+110	Overhead Power Line Crossing	Centerline	1948.49 / 7.31	167°	NTUA	Protect in Place
34+020	Overhead Power Line Crossing	Centerline	1947.7 / 7.0	66°	NTUA	Protect in Place
34+022	Overhead Power Line Crossing	Centerline	1947.7 / 7.0	66°	NTUA	Protect in Place

LIVESTOCK EARTHEN BERM AT PIPE INLET

CULVERT STATION	STRUCTURE	LOCATION	h1	L1	L2	L3	APPROX LENGTH (m)
26+920	2438 mm CSPS Livestock Crossing	Lt.	4.073	3.0	16.3	6.4	25
29+920	2438 mm CSPS Livestock Crossing	Rt.	1.878	3.0	7.5	7.1	26
						TOTALS	**51**

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION

NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

QUANTITIES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	G10	9 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	10

FBD CHECK DAMS

ITEM NO. 25101-2000: PLACED RIPRAP, CLASS 2, CHECK DAMS

STATION	LOC.	L1 (m)	L2 (m)	L3 (m)	BACKSLOPE 1:X	VOLUME (m^3)	REMARKS
23+000	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
23+000	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
23+065	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
23+065	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
23+125	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
23+270	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
23+330	Rt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
23+630	Lt.	3.000	3.000	2.000	2.000	7.84	FLAT BOTTOM DITCH
23+630	Rt.	3.000	3.000	2.000	2.000	7.84	FLAT BOTTOM DITCH
23+670	Lt.	3.000	3.000	2.000	2.000	7.84	FLAT BOTTOM DITCH
23+670	Rt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
23+710	Lt.	3.000	3.000	2.000	2.000	7.84	FLAT BOTTOM DITCH
23+710	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
23+995	Lt.	3.000	0.000	2.500	3.000	5.39	V-DITCH
23+995	Rt.	3.000	0.000	3.000	4.000	5.88	V-DITCH
24+035	Lt.	3.000	0.000	2.000	2.000	4.90	V-DITCH
24+035	Rt.	3.000	0.000	3.000	4.000	5.88	V-DITCH
24+075	Lt.	3.000	0.000	2.000	2.000	4.90	V-DITCH
24+115	Lt.	3.000	0.000	2.500	3.000	5.39	V-DITCH
24+920	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
24+960	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
25+490	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
25+540	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
25+590	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
25+670	Lt.	3.000	3.000	2.000	2.000	7.84	FLAT BOTTOM DITCH
25+670	Rt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
25+720	Lt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
26+580	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
26+640	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
26+700	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
26+760	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+030	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+090	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+150	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+210	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+270	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+295	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+330	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+350	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+410	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+420	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
27+480	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
28+040	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
28+040	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
28+220	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
28+280	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
28+340	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
28+690	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
28+750	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+000	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+115	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+160	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+170	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+600	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+660	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+675	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+720	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+720	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+780	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+780	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+840	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+840	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+900	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+900	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+960	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
29+960	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+020	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+360	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+420	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+480	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+520	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+540	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+720	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+740	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+780	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+800	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+840	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+860	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+900	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+920	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
30+960	Lt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
30+980	Rt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
31+020	Lt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
31+040	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
31+560	Lt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
32+250	Lt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
32+250	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
32+310	Lt.	3.000	3.000	2.000	2.000	7.84	FLAT BOTTOM DITCH
32+310	Rt.	3.000	3.000	3.000	4.000	8.82	FLAT BOTTOM DITCH
32+370	Lt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
32+370	Rt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
32+430	Lt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
32+430	Rt.	3.000	3.000	2.500	3.000	8.33	FLAT BOTTOM DITCH
SUBTOTAL						**787.92**	m^3

DITCHES — Item No. 20426-1000

Station	Offset (m)	To	Station	Offset (m)	Bottom Width (m)	Ave Depth (m)	Length (m)	Drainge Excavation (m3)
22+950.00	22.86 Lt.	To	22+958.00	13.3 Lt.	3.000	0.300	13.000	15.2
24+158.00	20.59Rt	To	24+158.00	28.69 Rt.	5.339	0.360	8.093	18.7
25+329.00	17.07Lt.	To	25+329.00	24.68 Lt.	5.400	0.455	7.610	23.4
26+812.49	20.38 Rt.	To	26+815.97	33.02 Rt.	8.366	0.300	13.111	36.4
30+310.00	21.43 Rt.	To	30+310.00	29.64 T+Rt.	21.070	0.200	8.210	35.6
							Total	129.4

ITEM 25101-2000: PLACED RIPRAP, CLASS 2
TOE OF SLOPE PROTECTION

LOCATION				Estimated Length (m)	WD1 (m)	H (m)	WD2 (m)	Slope Length (m)	THICK-NESS (mm)	TOTAL VOLUME (m^3)
23+148	to	23+240	Rt.	92.00	1.50	0.40	2.40	2.43	457	165.36
23+725	to	23+877	Lt.	152.00	1.50	0.40	2.40	2.43	457	273.21
24+983	to	25+073	Lt.	90.00	1.50	0.40	2.40	2.43	457	161.77
28+214	to	28+320	Lt.	106.00	1.50	0.40	2.40	2.43	457	190.53
28+643	to	28+745	Lt.	102.00	1.50	0.40	2.40	2.43	457	183.34
29+586	to	29+638	Lt.	52.00	1.50	0.40	2.40	2.43	457	93.47
31+314	to	31+355	Lt.	41.00	1.50	0.40	2.40	2.43	457	73.69
33+243	to	33+289	Lt.	46.00	1.50	0.40	2.40	2.43	457	82.68
									TOTAL:	**1,224.05**

H = Toe of Slope Height to Etend to the top of the road subgrade or to 400mm, whichever is less
WD2 = 6*H
Slope Length = Sqrt (H^2 + $WD2^2$)
Volume = Thickness *(WD1 +Slope Length) *Estimated Length

ITEM 25305-4000: WIRE ENCLOSED RIPRAP
BACKSLOPE PROTECTION

LOCATION				L1 (m)	SD (m)	L2 (m)	THICKNESS (mm)	TOTAL VOLUME
22+862	to	22+867	Rt.	1.75	**5.7**	0.00	450	**23.76**
22+983	to	22+988	Rt.	1.75	**2.2**	107.00	450	**17.46**
23+128	to	23+145	Rt.	1.75	**3.4**	14.90	450	**72.09**
23+388	to	23+398	Rt.	1.75	**2.5**		450	**36.00**
23+986	to	23+991	Lt.	1.75	**8.1**		450	**28.08**
24+100	to	24+105	Lt.	1.75	**3.5**		450	**19.80**
24+156	to	24+161	Lt.	1.75	**6.9**	23.16	450	**25.92**
24+241	to	24+251	Lt.	1.75	**9.2**		450	**60.12**
24+356	to	24+365	Lt.	1.75	**7.4**	158.00	450	**47.43**
24+858	to	24+864	Lt.	1.75	**2.8**	13.19	450	**22.68**
24+891	to	24+897	Lt.	1.75	**1.8**	97.61	450	**20.43**
28+008	to	28+022	Lt.	1.75	**3.7**	11.68	450	**59.78**
30+414	to	30+419	Lt.	1.75	**2.1**		450	**17.28**
30+646	to	30+660	Lt.	1.75	**2.9**	8.65	450	**55.28**
30+693	to	30+703	Lt.	1.75	**2.5**		450	**36.00**
30+877	to	30+887	Rt.	1.75	**4.8**	8.07	450	**44.28**
31+831	to	31+841	Lt.	1.75	**4.3**	9.99	450	**42.48**
31+926	to	31+936	Rt.	1.75	**4.9**	0.00	450	**44.64**
32+219	to	32+229	Lt.	1.75	**4.3**	9.64	450	**42.48**
32+422	to	32+432	Rt.	1.75	**8.9**	13.84	450	**59.04**
32+706	to	32+715	Lt.	1.75	**5.5**	25.66	450	**23.40**
32+818	to	32+828	Rt.	1.75	**3.6**	16.92	450	**39.96**
							TOTAL:	**838.39**

ITEM 25101-2200: PLACED RIPRAP, CLASS 1
CUT TO FILL TRANSITIONS

LOCATION				Wd1 (m)	Wd2 (m)	Wd3 (m)	THICKNESS (mm)	LENGTH (m)	APRON LENGTH (m)	FLARE VOLUME (m^3)	DITCH VOLUME (m^3)	TOTAL VOLUME (m^3)
22+594	to	22+605	Rt.	**6.50**	**3.50**	**6.50**	**457**	11	**5.0**	**12.14**	**32.68**	**44.82**
22+956	to	22+989	Lt.	**6.50**	**3.50**	**6.50**	**457**	35	**5.0**	**12.14**	**103.97**	**116.11**
22+988	to	22+999	Rt.	**6.50**	**3.50**	**6.50**	**457**	11	**5.0**	**12.14**	**32.68**	**44.82**
23+145	to	23+265	Rt.	**6.50**	**3.50**	**6.50**	**457**	110	**5.0**	**12.14**	**326.76**	**338.90**
23+409	to	23+433	Lt.	**6.50**	**3.50**	**6.50**	**457**	15	**5.0**	**12.14**	**44.56**	**56.70**
23+714	to	23+724	Lt.	**6.50**	**3.50**	**6.50**	**457**	5	**5.0**	**12.14**	**14.86**	**27.00**
23+715	to	23+741	Rt.	**6.50**	**3.50**	**6.50**	**457**	23	**5.0**	**12.14**	**68.33**	**80.47**
24+037	to	24+059	Lt.	**6.50**	**3.50**	**6.50**	**457**	13	**5.0**	**12.14**	**38.62**	**50.76**
24+160	to	24+175	Rt.	**6.50**	**3.50**	**6.50**	**457**	20	**5.0**	**12.14**	**59.41**	**71.55**
24+336	to	24+357	Rt.	**6.50**	**3.50**	**6.50**	**457**	19	**5.0**	**12.14**	**56.44**	**68.58**
24+834	to	24+856	Rt.	**6.50**	**3.50**	**6.50**	**457**	22	**5.0**	**12.14**	**65.36**	**77.50**
24+966	to	24+983	Rt.	**6.50**	**3.50**	**6.50**	**457**	19	**5.0**	**12.14**	**56.44**	**68.58**
25+570	to	25+592	Rt.	**6.50**	**3.50**	**6.50**	**457**	12	**5.0**	**12.14**	**35.65**	**47.79**
26+067	to	26+084	Lt.	**6.50**	**3.50**	**6.50**	**457**	9	**5.0**	**12.14**	**26.74**	**38.88**
26+079	to	26+096	Rt.	**6.50**	**3.50**	**6.50**	**457**	8	**5.0**	**12.14**	**23.77**	**35.91**
26+545	to	26+563	Rt.	**6.50**	**3.50**	**6.50**	**457**	10	**5.0**	**12.14**	**29.71**	**41.85**
26+800	to	26+810	Rt.	**6.50**	**3.50**	**6.50**	**457**	0	**5.0**	**12.14**	**0.00**	**12.14**
27+272	to	27+291	Rt.	**6.50**	**3.50**	**6.50**	**457**	10	**5.0**	**12.14**	**29.71**	**41.85**
27+868	to	27+896	Rt.	**6.50**	**3.50**	**6.50**	**457**	28	**5.0**	**12.14**	**83.18**	**95.32**
28+479	to	28+502	Rt.	**6.50**	**3.50**	**6.50**	**457**	23	**5.0**	**12.14**	**68.33**	**80.47**
28+662	to	28+685	Rt.	**6.50**	**3.50**	**6.50**	**457**	14	**5.0**	**12.14**	**41.59**	**53.73**
29+079	to	29+114	Rt.	**6.50**	**3.50**	**6.50**	**457**	26	**5.0**	**12.14**	**77.24**	**89.38**
29+573	to	29+598	Rt.	**6.50**	**3.50**	**6.50**	**457**	17	**5.0**	**12.14**	**50.50**	**62.64**
29+638	to	29+670	Lt.	**6.50**	**3.50**	**6.50**	**457**	22	**5.0**	**12.14**	**65.36**	**77.50**
30+421	to	30+451	Rt.	**6.50**	**3.50**	**6.50**	**457**	30	**5.0**	**12.14**	**89.12**	**101.26**
30+699	to	30+719	Rt.	**6.50**	**3.50**	**6.50**	**457**	20	**5.0**	**12.14**	**59.41**	**71.55**
31+522	to	31+547	Lt.	**6.50**	**3.50**	**6.50**	**457**	15	**5.0**	**12.14**	**44.56**	**56.70**
32+228	to	32+245	Rt.	**6.50**	**3.50**	**6.50**	**457**	9	**5.0**	**12.14**	**26.74**	**38.88**
TOTAL:												**1,946.82**

ITEM 60101-0000: MINOR CONCRETE CLASS A(AE)
ITEM 55401-1000 REINFORCING STEEL
ITEM 9201-1100 ROLLED EROSION CONTROL FABRIC, TYPE 4
CONCRETE SLOPE BLANKET

LOCATION	Pipe Diameter (D) (mm)	Number of Pipes	Skew No.	Slope	Thickness (m)	A (m)	B (m)	C (m)	S (m)	Concrete Volume (m^3)	Weight of Reinforcing Bars (kg)	Weight of WWF @ 2 kg/m^2 (kg)	Area of Rolled Erosion Control Product, Type IV-B (m^2)
25+329 Inlet	2438	1	90	1:3	0.152	4.88	7.31	2.13	6.75	7.84	164.50	107.15	18.16
25+329 Outlet	2438	1	90	1:3	0.152	4.88	7.31	2.13	6.75	7.84	164.50	107.15	18.16
26+930 Inlet	2438	1	90	1:3	0.152	4.88	7.31	2.13	6.75	7.84	164.50	107.15	18.16
26+930 Outlet	2438	1	90	1:3	0.152	4.88	7.31	2.13	6.75	7.84	164.50	107.15	18.16
TOTALS										31.36	658.00	428.59	72.62

CONCRETE SLOPE BLANKET
REINFORCING BAR SCHEDULE

STATION	MARK	SIZE	NO. REQ	LENGTH EACH (m)	kg/m	TOTAL WT. (kg)
25+329 Inlet and Outlet, 26+930 Inlet and Outlet	h1	#13	6	7.162	0.994	42.714
	h2	#13	4	2.920	0.994	11.610
	h3	#13	4	2.610	0.994	10.377
	h4	#13	4	2.440	0.994	9.701
	h5	#13			0.994	0.000
	vf1	#13	16	2.390	0.994	38.011
	v1	#13	4	1.460	0.994	5.805
	v2	#13	4	1.170	0.994	4.652
	v3	#13	4	0.990	0.994	3.936
	v4	#13	4	0.870	0.994	3.459
	v5	#14	4	0.800	0.994	3.181
	v6	#14	4	0.770	0.994	3.062
	vb	#13	16	1.760	0.994	27.991
					TOTAL	**164.499**

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

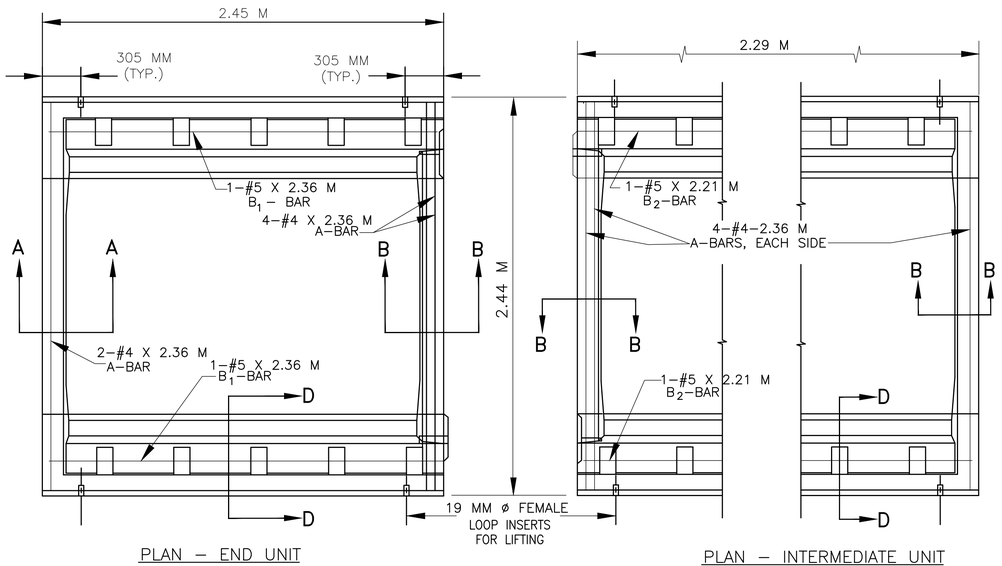
N15(2-3) CORNFIELDS TO BURNSIDE

QUANTITIES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	G11	10 OF 116
ASBUILT BY:	DATE:		
SCALE: N/A			

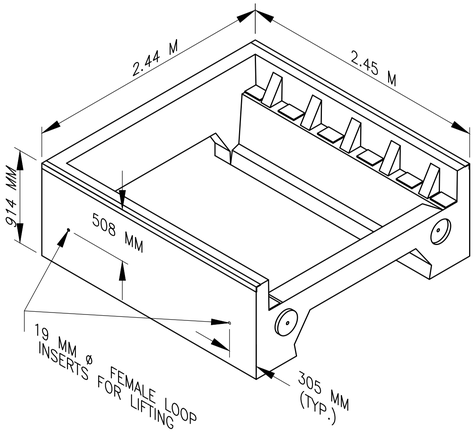
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	11



PLAN – END UNIT

PLAN – INTERMEDIATE UNIT



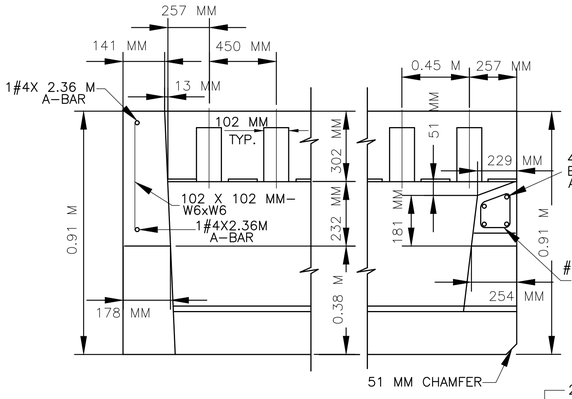
ISOMETRIC VIEW – END UNIT

GENERAL NOTES

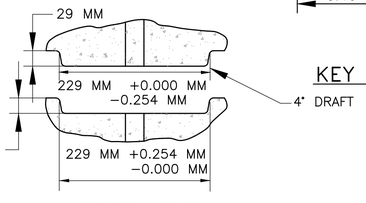
1. PRECAST CONCRETE SHALL ATTAIN 28–DAY COMPRESSIVE STRENGTH OF 27.62 MP (MINIMUM) IN ACCORDANCE WITH AASHTO T22 (ASTM C–39). THE CONCRETE SHALL BE CLASS A(AE) CONFORMING TO SECTION 552 OF FP–14.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 420. ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO M–183.
3. THE CONTRACTOR SHALL SLOPE THE BASES OF THE CATTLE GUARDS AS REQUIRED TO PROVIDE ROADWAY CROWNS OR SUPERELEVATION AS SHOWN ON THE PLANS.
4. BOLTS, WASHERS, AND NUTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF AASHTO M111 OR AASHTO M298.
5. ALL TRAFFIC GRILL UNITS, AND WING BRACE STRUCTURAL STEEL AND PIPE, INCLUDING THE STEEL ANGLES, SHALL RECEIVE ONE (1) PRIMER COAT, ONE (1) INTERMEDIATE COAT, AND ONE (1) FINISH COAT IN ACCORDANCE WITH SECTION 563, PAINT SYSTEM 2, OF FP–14.
6. WING BRACES SHALL BE CONSIDERED SUBSIDIARY ITEMS TO THE CATTLE GUARD UNIT.
7. THE CONTRACTOR HAS THE OPTION TO USE AN ALL STEEL FRAME CATTLE GUARD. IF THE CONTRACTOR ELECTS TO SUBSTITUTE FOR THE STEEL FRAME CATTLE GUARD, HE/SHE SHALL SHOW THEY ARE MORE COST EFFECTIVE WITH SUPPORTING DATA. THE CONTRACTOR IS RESPONSIBLE FOR ALL PATENT PROTECTION RIGHTS, SHOP DRAWINGS, MATERIAL CERTIFICATIONS, AND MILL TEST REPORTS. HOWEVER, NO STEEL FRAME CATTLE GUARD SHALL BE USED FOR CONCRETE DRAINAGE PAD CATTLE GUARD LOCATIONS.
8. ELASTOMERIC BEARING PADS SHALL BE SEALED WITH EPOXY ADHESIVE PRIOR TO THE INSTALLATION OF TRAFFIC GRILL UNIT.
9. DESIGN DATA: DESIGN ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, THIRD EDITION, 2017.
10. DESIGN LOADS: HS20 AND DESIGN TANDEM WITH 33% IMPACT.

REINFORCING STEEL SCHEDULE

STRAIGHT BARS				BENT BARS				BENDING DIAGRAMS ALL DIMENSIONS ARE OUT TO OUT
MARK	NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH	
END UNIT								
A	6	4	2.36 M					B_2 BAR 2.21 M
B_1	2	5	2.36 M					A BAR 2.36 M
C					3	3	0.61 M	B_1 BAR 2.36 M
D_1	20	4	0.46 M					C BAR 76 MM, 126 MM, 152 MM
INTERMEDIATE UNIT								
a	8	4	2.36 M					
B_2	2	5	2.21 M					
C					6	3	0.61 M	
D_1	18	4	0.46 M					

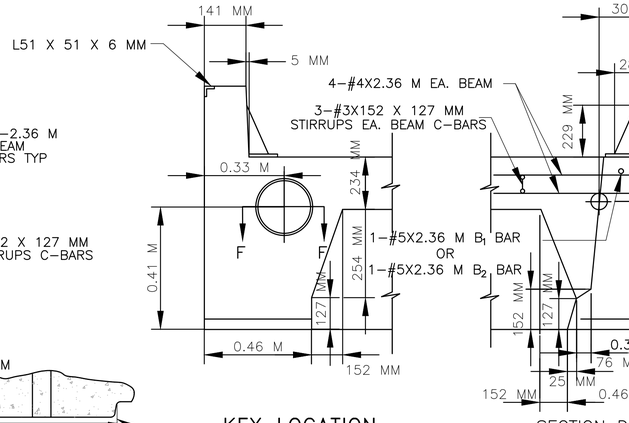


SECTION A–A

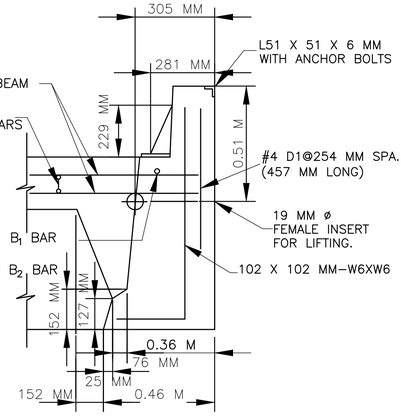


SECTION B–B

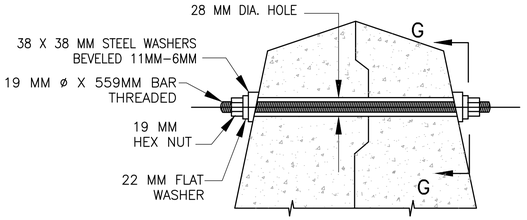
SECTION F–F



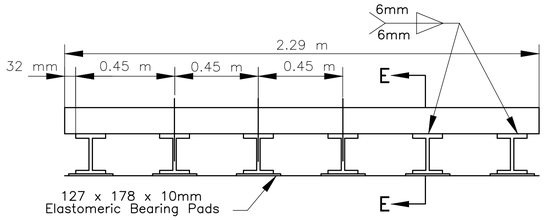
KEY LOCATION



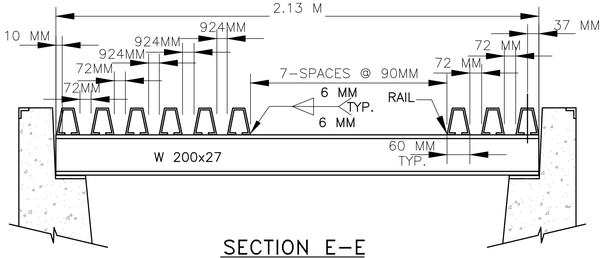
SECTION D–D



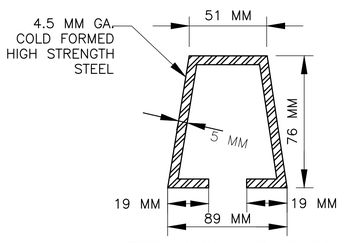
TIE BOLT DETAIL



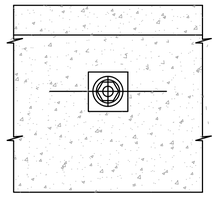
TRAFFIC GRILLE UNIT



SECTION E–E



STEEL CROSSBAR SECTION



SECTION G–G

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26

REVISION	BY	DATE

NAVAJO D.O.T.

NAVAJO NATION
DIVISION OF TRANSPORTATION

N15(2-3) CORNFIELDS TO BURNSIDE

PRE-CAST CONCRETE CATTLE GUARD DETAILS

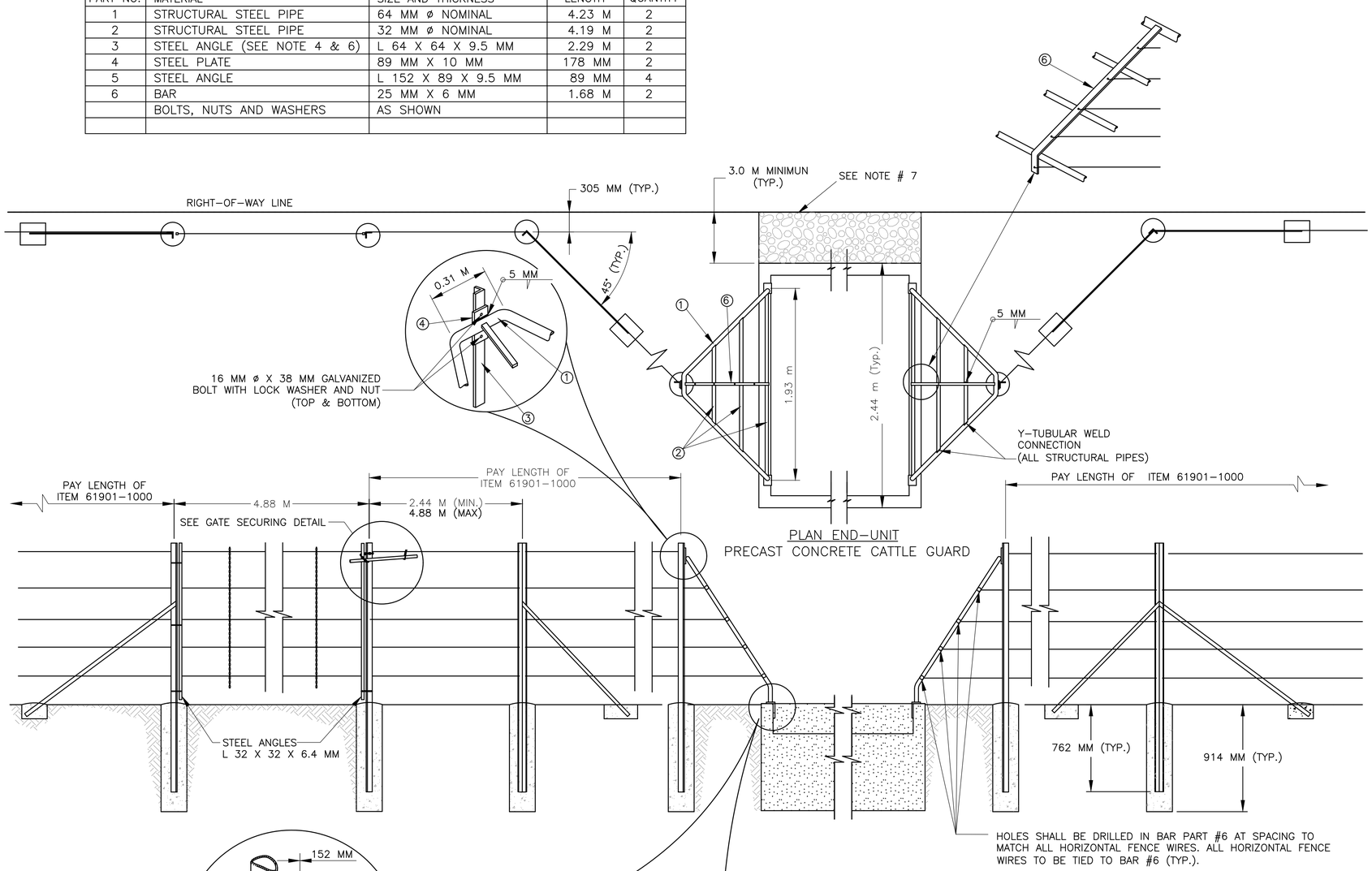
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C1	11 OF 116
SCALE: N/A			

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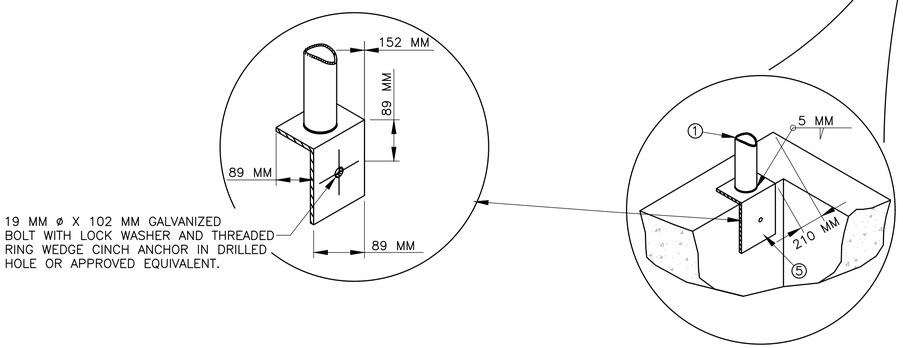
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	12

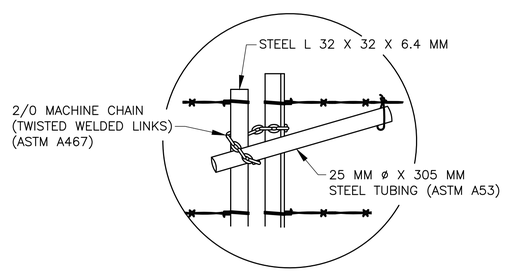
ESTIMATED MATERIAL LIST

PART NO.	MATERIAL	SIZE AND THICKNESS	LENGTH	QUANTITY
1	STRUCTURAL STEEL PIPE	64 MM ø NOMINAL	4.23 M	2
2	STRUCTURAL STEEL PIPE	32 MM ø NOMINAL	4.19 M	2
3	STEEL ANGLE (SEE NOTE 4 & 6)	L 64 X 64 X 9.5 MM	2.29 M	2
4	STEEL PLATE	89 MM X 10 MM	178 MM	2
5	STEEL ANGLE	L 152 X 89 X 9.5 MM	89 MM	4
6	BAR	25 MM X 6 MM	1.68 M	2
	BOLTS, NUTS AND WASHERS	AS SHOWN		



PLAN END-UNIT
PRECAST CONCRETE CATTLE GUARD





GATE SECURING DETAIL

GENERAL NOTES

1. STRUCTURAL PIPE SHALL CONFORM TO ASTM A53-93a, GRADE B. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM-A36.
2. ALL STRUCTURAL PIPE JOINTS SHALL BE FABRICATED IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.
3. WELDING SHALL MEET THE REQUIREMENTS OF AASHTO STANDARD SPECIFICATIONS FOR WELDING AT STRUCTURAL STEEL HIGHWAY BRIDGES, LATEST EDITION.
4. THE SUPPORTING WING BRACE POSTS (PART NO. 3) LENGTH SHALL BE SUFFICIENT TO ALLOW BRACE POSTS TO BE INSTALLED WITHIN CONCRETE FOUNDATIONS AS SHOWN ON THIS DETAIL SHEET. UNDER CERTAIN CONDITIONS (SUCH AS DRAIN THROUGH CATTLE GUARD, HIGH EMBANKMENT, ETC) THE LENGTH OF THE POST MAY VARY TO FULLY SUPPORT THE WING BRACES. THIS WORK SHALL BE INCIDENTAL TO THE CATTLE GUARD CONTRACT ITEMS. INSTALLATION OF GATE SHALL BE SUBSIDIARY ITEM TO THE CATTLE GUARD ITEM(S).
5. THE COTR/COR MAY ADJUST THE FINISHED CATTLE GUARD ELEVATION AS NEEDED TO FIT FIELD/DRAINAGE CONDITIONS. THE CONTRACTOR SHALL RE-GRADE THE ADJOINING TURNOUT APPROACHES AS REQUIRED. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CATTLE GUARD CONTRACT ITEMS OF FP-14. ANY MISTAKES MADE BY THE COTR/COR IN DIRECTING ADJUSTMENTS TO THE FINISHED GRADE FOR THE CATTLE GUARDS AND APPROACH ROADWAY WILL BE CORRECTED UNDER A NEGOTIATED MODIFICATION UNDER SUBSECTION 109.02(m).
6. AT SKEWED TURNOUT LOCATIONS, THE CATTLE GUARD SHALL BE INSTALLED PERPENDICULAR TO TURNOUT.
7. THE LENGTH OF THE TURNOUT BETWEEN THE BACK EDGE OF THE CATTLE GUARD AND THE RIGHT-OF-WAY LIMIT SHALL BE SURFACED WITH A 100mm THICKNESS OF AGGREGATE BASE COURSE.
8. AT CATTLE GUARD LOCATIONS WHERE THE DESIGN TYPICAL WIDTH IS WIDER ON ONE SIDE OF THE CATTLE GUARD THAN THE OTHER SIDE, THE NARROWER ROADWAY WIDTH SHALL BE FLARED OUT TO MATCH THE WIDER ROADWAY WIDTH USING AN 8:1 TAPER OR TO LENGTH ALLOWED BY THE RIGHT-OF-WAY WIDTH. THIS INCLUDES AT NARROW RIGHT-OF-WAY WIDTH WHERE THE TURNOUT RADIUS CANNOT BE COMPLETELY INSTALLED BETWEEN THE MAIN ROAD AND THE CATTLE GUARD. THIS WORK SHALL BE PAID UNDER THE EARTHWORK, BASE COURSE, AND PAVING ITEMS INCLUDED IN THE BID SCHEDULE.

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO NATION
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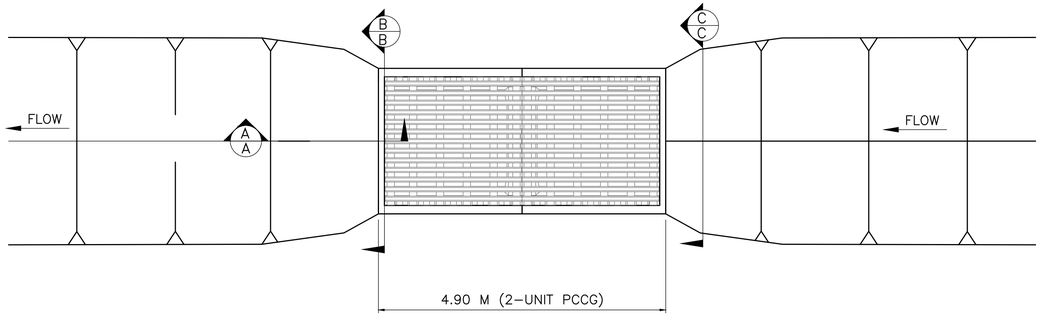
N15(2-3) CORNFIELDS TO BURNSIDE

CATTLE GUARD AND WING BRACE DETAILS

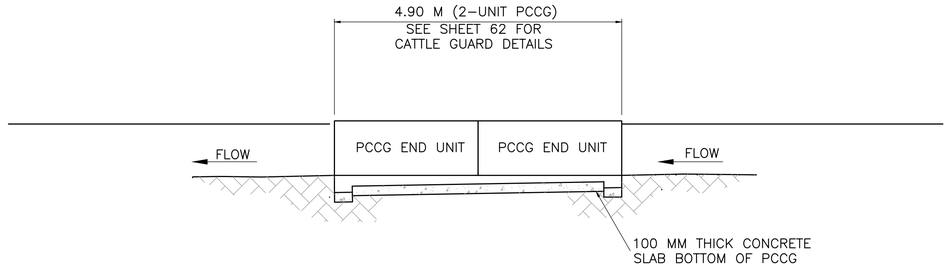
		DRAWING	SHEET
PROJECT MANAGER: AJS	DATE: 6/26		
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C2	12 OF 116
SCALE: N/A			

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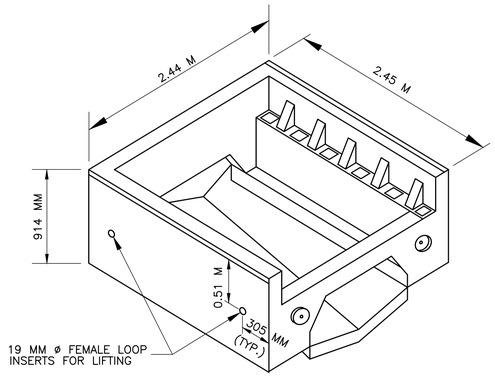
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	13



PLAN VIEW – PCCG WITH CONCRETE BOTTOM



ELEVATION – PCCG WITH CONCRETE BOTTOM



ISOMETRIC VIEW – END UNIT

GENERAL NOTES

1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP–03), ALONG WITH THE SUPPLEMENTAL SPECIFICATIONS FOR THIS PROJECT.

2. ALL CONCRETE SHALL BE CLASS A(AE) WITH CLASS 1 FINISH. CHAMFER ALL EXPOSED EDGES 19 mm. ALL CONCRETE SHALL CONFORM TO SECTION 552 & 601 OF THE FP–03. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF F'c = 20.7 MPa IN 28 DAYS.

3. REINFORCING STEEL SHALL CONFORM TO AASHTO SPECIFICATION M–31 ASTM A 615M, GRADE 40, AND SECTION 554 OF FP–03. ALL BEND DIMENSIONS FOR REINFORCING STEEL SHALL BE OUT TO OUT OF BARS. ALL REINFORCING STEEL SHALL HAVE 51 mm CLEARANCE COVER UNLESS OTHERWISE NOTED. ALL REINFORCING STEEL AND WIRE FABRIC SHALL BE CONSIDERED INCIDENTAL TO COMPLETION OF STRUCTURE.

4. IN NO CASE SHALL ANY BACKFILL BE PLACED UNTIL THE CONCRETE HAS ATTAINED A COMPRESSIVE STRENGTH OF 17.2 MPa.

5. ALL STRUCTURE EXCAVATIONS SHALL BE DONE TO NEAT LINES AND WILL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE STRUCTURE.

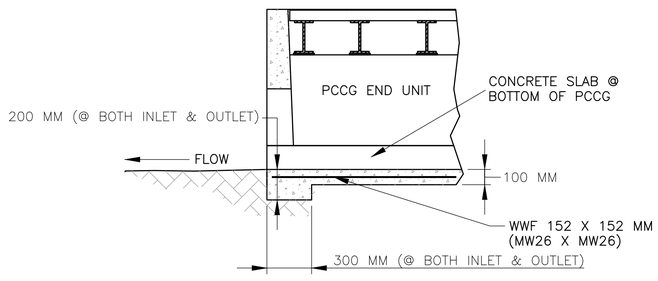
6. FOOTINGS SHALL BE PLACED TO THE ELEVATIONS SHOWN. IF UNSUITABLE MATERIAL IS FOUND AT THE FOOTING LOCATION AND ELEVATIONS, THE MATERIAL SHALL BE REMOVED AND REPLACED WITH APPROVED STRUCTURAL BACKFILL AS DETERMINED BY THE COR/AOTR. ALL STRUCTURAL BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T99 METHOD C, BEFORE AND AFTER FOOTINGS ARE PLACED. THE STRUCTURAL BACKFILL MATERIAL SHALL CONFORM TO SECTIONS 208 AND 209 OF THE FP–03.

7. THE CONTRACTOR WILL BE REQUIRED TO MAKE FIELD ADJUSTMENTS AS DIRECTED BY THE COR/AOTR TO MATCH FIELD CONDITIONS. THESE ADJUSTMENTS SHALL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE PROJECT AND NO ADDITIONAL PAYMENT SHALL BE MADE.

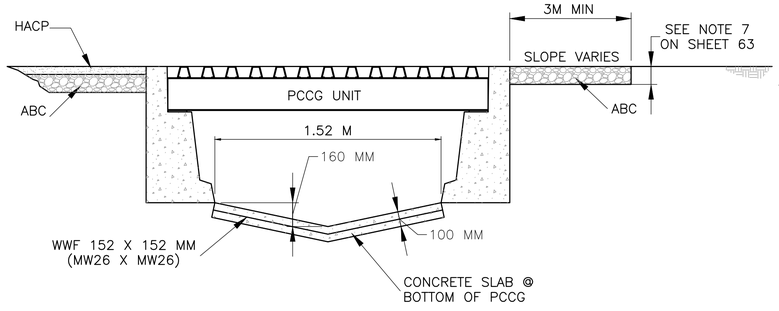
8. SLOPE RESHAPING, CLEANING, AND EXCAVATION SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND AS DETERMINED BY THE COR/AOTR. ANY WASTE MATERIAL SHALL BE USED AS BORROW WHERE NEEDED AT OTHER PROJECT LOCATIONS AS DIRECTED AND APPROVED BY THE COR/AOTR. ALL EXCAVATION, CLEANING, AND RESHAPING SHALL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE STRUCTURE.

9. SEE SHEET \L62 FOR THE CATTLE GUARD DETAILS AND DIMENSIONS.

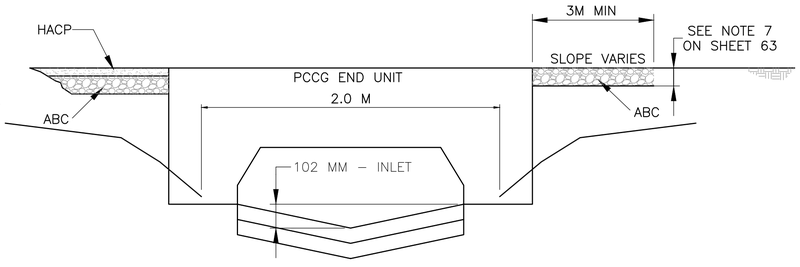
10. THE TOP ELEVATION OF DRAIN THROUGH CATTLE GUARDS SHALL BE SET A MAXIMUM OF 500mm (AS APPROVED BY THE AOTR/COR) ABOVE THE NATURAL GROUND IF REQUIRED TO ASSIST WITH DRAINAGE. THE TURNOUT GRADING, EARTHWORK, SURFACING, RIGHT OF WAY FENCING, ETC. SHALL BE ADJUSTED AS REQUIRED. THE COST OF THIS WORK SHALL BE INCLUDED IN THE RESPECTIVE BID ITEMS.



SECTION A–A

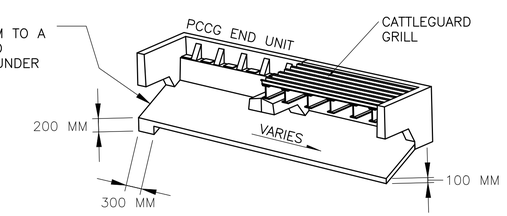


SECTION B–B



SECTION C–C

THICKEN THE FIRST 300 MM OF CONCRETE DRAINAGE PAD BOTTOM TO A TOTAL THICKNESS OF 200 MM TO PREVENT WATER FROM SEEPING UNDER DRAINAGE PAD.



DRAINAGE PAD

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26 Arizona, U.S.A.

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION

NAVAJO D.O.T.

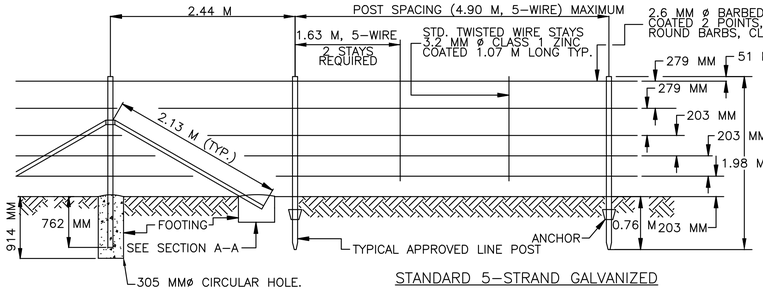
N15(2-3) CORNFIELDS TO BURNSIDE

CATTLE GUARD DRAINAGE DETAILS

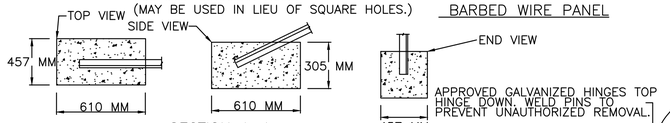
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PROJECT MANAGER: AJS	DATE: 6/26		
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C3	13 OF 116
SCALE: N/A			

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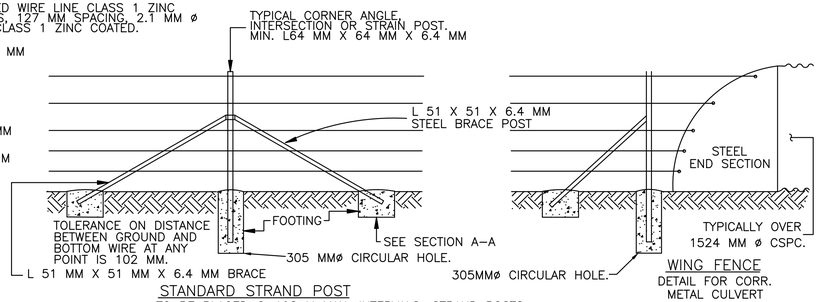
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	14



STANDARD 5-STRAND GALVANIZED BARBED WIRE PANEL



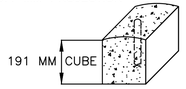
SECTION A-A
CONCRETE FOOTING FOR CORNER AND STRAIN POSTS.



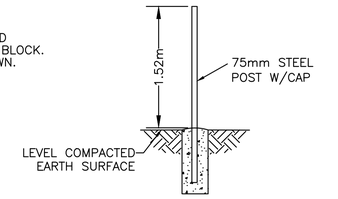
STANDARD STRAND POST
TO BE PLACED @ 198 M MAX. INTERVALS. STRAND POSTS WITH BRACES SHALL BE INSTALLED AT ALL CORNERS (R/W CORNERS ETC.) AND ANGLES EXCEEDING 15° AND FENCE INTERSECTIONS. A THIRD BRACE, IN LINE WITH CROSS FENCE, REQUIRED AT INTERSECTION.

WING FENCE
DETAIL FOR CORR. METAL CULVERT

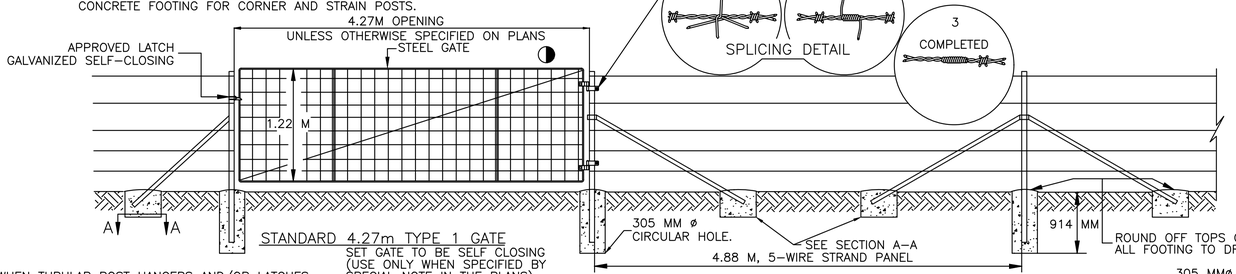
38 MM X 127 MM DOUBLED AND TWISTED 3.8 MM (DIAM.) WIRE LOOP CENTERD IN BLOCK. 25.4 MM PROJECTION TWISTED ENDS DOWN.



CONCRETE SAG WEIGHT DETAIL
MIN. WEIGHT OF CONCRETE SAG SHALL BE 16 KG.



PEDESTRIAN GATE



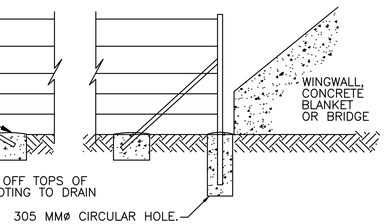
STANDARD 4.27m TYPE 1 GATE
SET GATE TO BE SELF CLOSING (USE ONLY WHEN SPECIFIED BY SPECIAL NOTE IN THE PLANS)

NOTE: WHEN TUBULAR POST HANGERS AND/OR LATCHES ARE USED, IT SHALL BE DRILLED FOR A SINGLE 2.38 MM ø MIN. DRIVE PIN TO PREVENT ROTATION OF THE HANGERS AND/OR LATCHES.

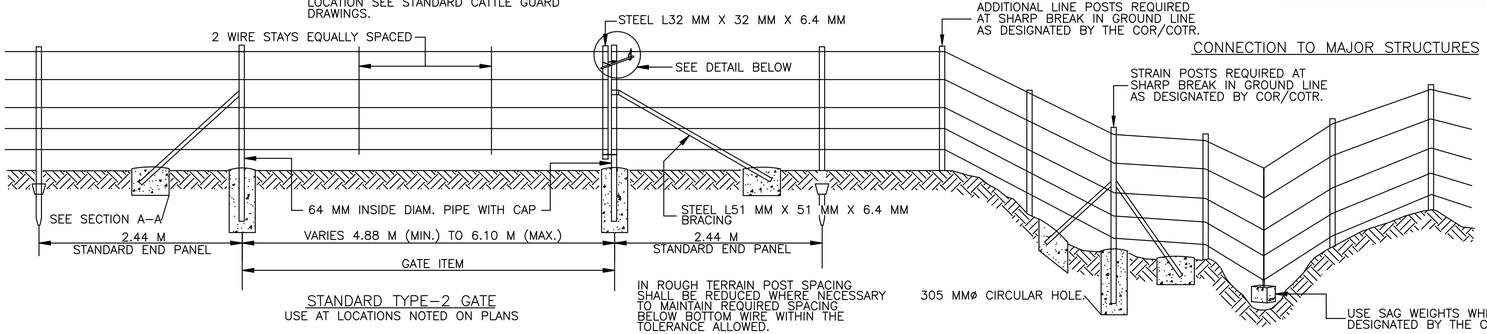
FOR GATE DETAILS AT CATTLE GUARD LOCATION SEE STANDARD CATTLE GUARD DRAWINGS.

◑ 35 MM ø TUBING 2 VERT. BRACES MESH □, △, ◇, 3.2 MM ø LINE WIRES 2.6 MM ø CROSSWIRES. 1 ADJUSTABLE DIAGONAL GUY FULLY GALVANIZED.

END POST



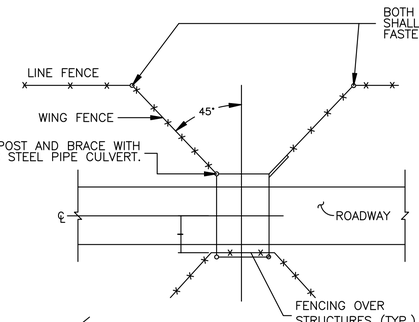
EPOXY GROUTED
FENCE TO WINGWALL CONNECTION TYPE 2



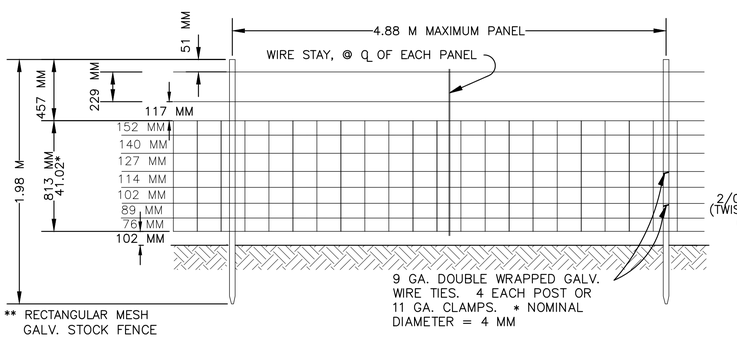
STANDARD TYPE-2 GATE
USE AT LOCATIONS NOTED ON PLANS

CONNECTION TO MAJOR STRUCTURES

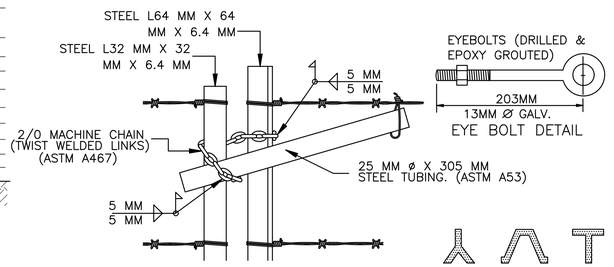
FENCE PROFILE IN ROUGH TERRAIN



WING FENCE DETAIL

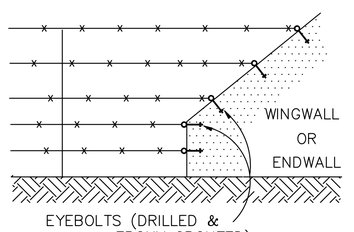


STANDARD WOVEN WIRE PANEL



GATE SECURING DETAIL

TYPICAL STEEL POST SECTION



FENCE TO WINGWALL CONNECTION TYPE 1

GENERAL NOTES

1. CORNER, GATE, INTERMEDIATE BRACE POSTS AND LINE POSTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 281-96. METAL POST AND BRACES SHALL BE FABRICATED FROM RAIL, BILLET, OR COMMERCIAL GRADE STEEL CONFORMING WITH THE REQUIREMENT OF ASTM A 702.
2. LINE POSTS SHALL HAVE A NOMINAL WEIGHT OF 1.98 kg/m EXCLUSIVE OF ANCHOR PLATES. ANCHOR PLATES SHALL BE CLAMPED, WELDED OR RIVETED TO THE SECTION IN SUCH A MANNER AS TO PREVENT DISPLACEMENT WHEN THE POSTS ARE DRIVEN.
3. WHEN LINE POST ANCHORS ARE OMITTED, DUE TO CHANGE IN SOIL CONDITIONS SUCH AS ROCK, THEN THE POSTS SHALL BE SET IN CONCRETE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 61901-1000.
4. TIE WIRE, WIRE FASTENERS OR WIRE CLIPS FOR FASTENING BARBED AND WOVEN FABRIC FENCING TO THE STEEL POSTS SHALL BE 3.0 mm DIA. STEEL WIRE, CLASS 1 (ZINC COATED), SOFT TEMPER AND MEET THE REQUIREMENTS OF ASTM A 641. FURNISHING AND PLACEMENT OF FASTENERS SHALL BE INCLUDED WITH ITEM 61901-1000.
5. CONCRETE FOR ANCHORS, POST HOLES, ETC. SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 20.7 MPa IN 28 DAYS AND SHALL CONFORM TO SECTION 601 OF THE FP-14. FURNISHING AND PLACEMENT OF CONCRETE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR BID ITEM 61901-1000.
6. TWO SPLICES ON THE SAME LINE BETWEEN THE STRAIN POST ASSEMBLIES SHALL NOT BE PERMITTED. NO SPLICES SHALL BE PLACED CLOSER THAN 30 METER OF ANY STRAIN POST ASSEMBLIES.
7. CONNECT ALL R.O.W. FENCING TO CATTLE GUARDS, CULVERTS (GREATER THAN 1524 mm DIA.), AND CONCRETE BOX STRUCTURES AS SHOWN ON THESE PLANS, AND/OR AS DIRECTED BY THE COR/COTR.
8. ANY CONFLICT IN PLACEMENT OF THE R/W FENCING AT DRAINAGE PIPE LOCATION, DUE TO NARROW R/W WIDTH OR OTHER CONSTRICTIONS, THE FENCE MAY BE PLACED OVER THE DRAINAGE STRUCTURE. THIS WORK AND ADJUSTED LENGTH INSTALLED SHALL BE PAID FOR UNDER BID ITEM 61901-1000.
9. CLEARING AND GRUBBING SHALL INCLUDE SHAPING AND/OR REMOVAL OF SMALL MOUNDS NECESSARY TO PRESENT A SMOOTH UNIFORM APPEARANCE OF BOTH GROUND AND FENCING LINE. THIS WORK SHALL BE INCIDENTAL TO THE INSTALLATION OF FENCING AND NO ADDITIONAL PAYMENT SHALL BE MADE.
10. ALL DRILLING INTO ROCK MATERIAL, ETC. SHALL BE INCIDENTAL TO THE INSTALLATION OF FENCING AND NO ADDITIONAL PAYMENT SHALL BE MADE.
11. TYPE 2 GATE CLOSURE DEVICE SHALL BE STEEL PIPE, NPS 26.7 mm ø SCHEDULE 40, CONFORMING TO THE REQUIREMENT OF ASTM A 53. THE GATE CLOSURE STEEL CHAIN SHALL BE WELDED TO THE STEEL PIPE AND ANGLE IRON FENCE POST. THIS WORK SHALL BE INCIDENTAL TO THE INSTALLATION OF FENCING AND NO ADDITIONAL PAYMENT SHALL BE MADE.
12. CONTRACTOR SHALL BE REQUIRED TO INSTALL SAG WEIGHTS WHERE VERTICAL CLEARANCE BETWEEN THE BOTTOM WIRE AND NATURAL GROUND IS 610 mm OR GREATER. THIS WORK SHALL BE INCIDENTAL TO THE INSTALLATION OF FENCING.

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/13/26

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

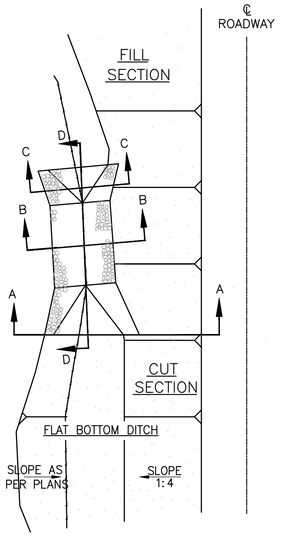
N15(2-3) CORNFIELDS TO BURNSIDE

STANDARD FENCE DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	C4	14 OF 116
ASBUILT BY:	DATE:		
SCALE: N/A			

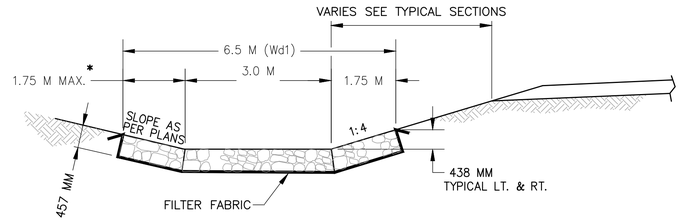
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	15



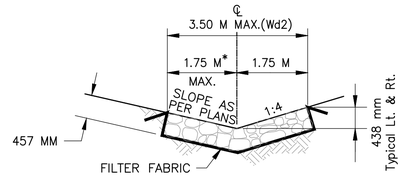
PLAN VIEW

CUT TO FILL TRANSITION AT FLAT BOTTOM DITCH



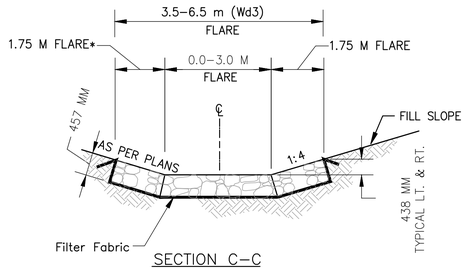
SECTION A–A

*WIDTH=DEPTH DIVIDED BY BACKSLOPE (AS PER PLANS)



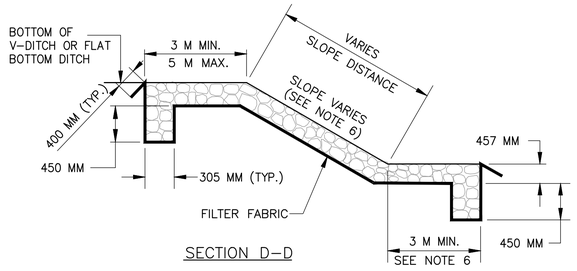
SECTION B–B

*WIDTH=DEPTH DIVIDED BY BACKSLOPE (AS PER PLANS)



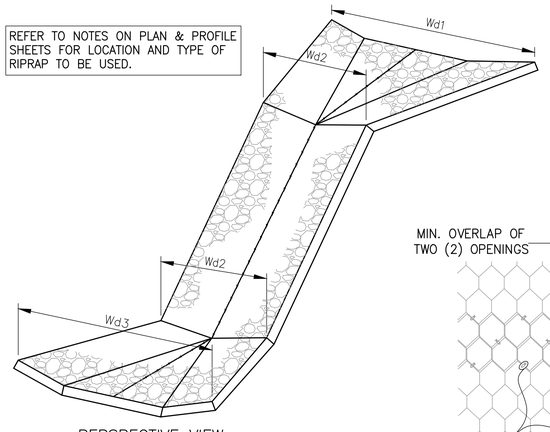
SECTION C–C

*WIDTH=DEPTH DIVIDED BY BACKSLOPE(AS PER PLANS)



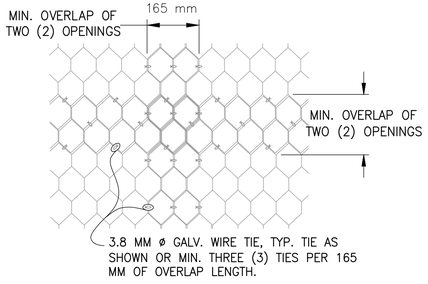
SECTION D–D

REFER TO NOTES ON PLAN & PROFILE SHEETS FOR LOCATION AND TYPE OF RIPRAP TO BE USED.



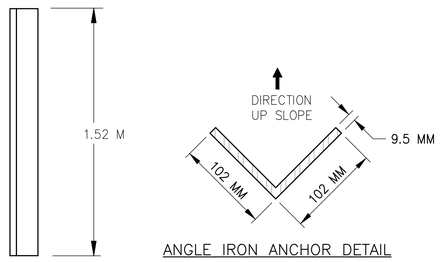
PERSPECTIVE VIEW

PLACED RIPRAP CUT TO FILL TRANSITION AT FLAT BOTTOM DITCH



FABRIC SPLICING DETAIL

N.T.S.

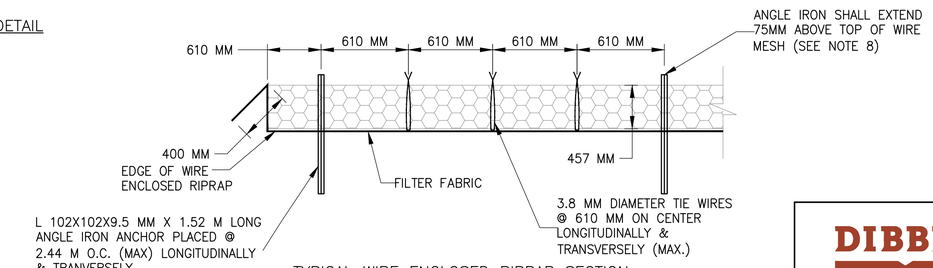


ANGLE IRON ANCHOR DETAIL

N.T.S.

GENERAL NOTES

1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP–14), ALONG WITH ALL SUPPLEMENTAL SPECIFICATIONS FOR THIS PROJECT.
2. THE QUANTITIES SHOWN ARE ONLY AN ESTIMATE. ACTUAL QUANTITIES SHALL BE DETERMINED IN THE FIELD. THE PROJECT MANAGER, COR/COTR, AND CONTRACTOR SHALL REVIEW ALL ROCK CUT AREAS AFTER THE CONSTRUCTION OF FLAT BOTTOM DITCHES HAVE BEEN "ROUGHED IN". IF IN THE OPINION OF THE COR/COTR THE ROCK CUT IS STABLE, THE COR/COTR MAY ELECT TO DELETE SECTIONS OF THE RIPRAP. THE CONTRACTOR WILL BE REQUIRED TO MAKE ADJUSTMENTS TO THE RIPRAP AS NECESSARY TO FIT ACTUAL FIELD CONDITIONS. THESE FIELD ADJUSTMENTS WILL BE INCIDENTAL OBLIGATIONS OF THE CONTRACTOR.
3. DITCH AND BACK SLOPE RESHAPING, CLEANING, AND EXCAVATION SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND AS DETERMINED BY THE COR/COTR. ALL DITCH EXCAVATION, CLEANING, AND RESHAPING SHALL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE STRUCTURE. RIPRAP SHALL CONFORM TO SECTION 251 OF FP–14, THE SUPPLEMENTAL SPECIFICATIONS, AND THE DETAILS SHOWN IN THESE CONSTRUCTION PLANS.
4. THE WIRE FABRIC SHALL BE GALVANIZED AND BE OF THE CONFIGURATION SHOWN ON THIS SHEET. AN ALTERNATE WIRE FABRIC MAY BE SUBMITTED FOR REVIEW AND APPROVAL. ANY WIRE FABRIC USED SHALL HAVE A MINIMUM WIRE DIAMETER OF 2.8 MM, A CLASS 3 ZINC COATING (GALVANIZED), SHALL HAVE A MAXIMUM OPENING DIMENSION OF 100 MM, AND SHALL NOT ALLOW A 75 MMø SPHERE TO PASS THROUGH WIRE FABRIC OPENING.
5. EMBANKMENT BELOW RIPRAP SHALL CONFORM TO SECTION 204 OF FP–14. EXCAVATION FOR RIPRAP FOUNDATIONS SHALL CONFORM TO SECTION 209 OF FP–14. ALL EMBANKMENT FOR RIPRAP ABOVE NATURAL GROUND IS INCLUDED IN THE QUANTITY FOR ITEM 20401–0000, ROADWAY EXCAVATION, AND SHALL BE PAID FOR UNDER THAT ITEM. ALL EXCAVATION FOR RIPRAP CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO RIPRAP BID ITEM.
6. ROCK SIZE SHALL CONFORM TO FP–14, SECTION 705, TABLE 705–1, CLASS 2.
7. RIPRAP DOWNDRAINS SHALL BE CARRIED DOWN SLOPE TO THE INTERSECTION OF THE FILL SLOPE AND EXTENDED UNTIL A 2% OR LOWER SLOPE IS ACHIEVED BEFORE TERMINATION OR AS DIRECTED BY THE COR/COTR.
8. WIRE ENCLOSED RIPRAP SHALL BE ANCHORED AS SHOWN WITH L 102 MM X 102 MM X 9.5 MM STEEL ANGLES SPACED AT 2.44 M EACH WAY. STEEL ANGLES SHALL EXTEND 75 MM ABOVE THE TOP OF THE MESH. IN ROCKY AREAS, DRIVE ANGLE IRON ANCHORS TO REFUSAL (MIN. EMBEDDED 500 MM), THEN CUT AT 75 MM ABOVE RIPRAP. ANCHORS SHALL BE SAW CUT TO LEAVE A SMOOTH EDGE. DO NOT USE A CUTTING TORCH. FURNISHING AND PLACEMENT OF STEEL ANGLES SHALL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE STRUCTURE.
9. THE FINISHED SURFACE OF ALL RIPRAP SHALL BE SET 30 MM BELOW THE GROUND SURFACE EXCEPT AT RIPRAP DISCHARGE ENDS, WHICH SHALL BE SET 30 MM ABOVE THE GROUND SURFACE.
10. FILTER FABRIC SHALL BE INSTALLED UNDER ALL RIPRAP (EXCEPT GROUTED RIPRAP AND CHECK DAMS) AND SHALL CONFORM TO SECTION 714, TYPE IV–B, AND SHALL BE CONSIDERED INCIDENTAL TO RIPRAP BID ITEMS. ROUND ALL SHARP CONTOURS AS REQUIRED TO FIT THE SOIL EROSION MATERIAL FLUSH WITH THE EXISTING GROUND.



TYPICAL WIRE ENCLOSED RIPRAP SECTION

N.T.S.

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA U.S.A.

	REVISION	BY	DATE
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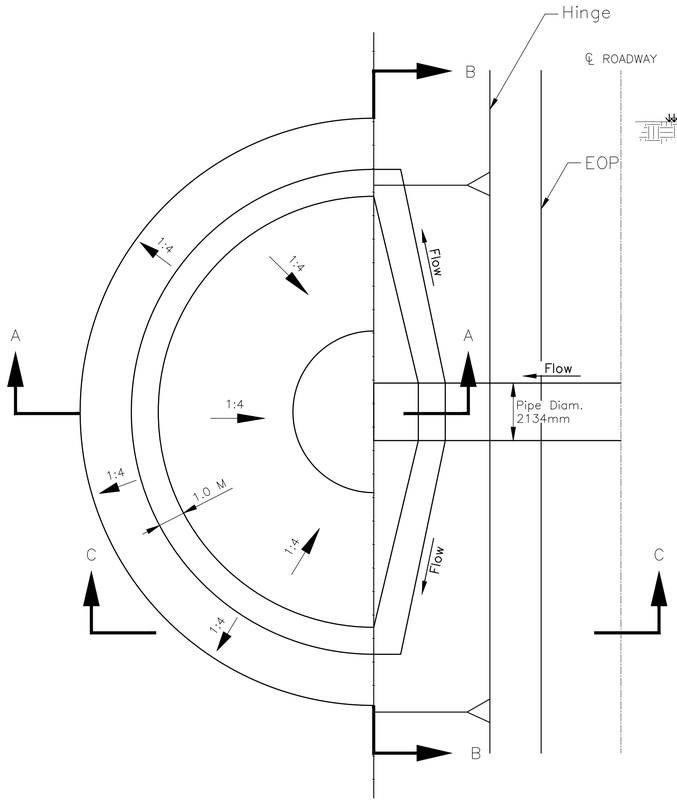
N15(2-3) CORNFIELDS TO BURNSIDE

PLACED AND WIRE ENCLOSED RIPRAP CUT TO FILL TRANSITION

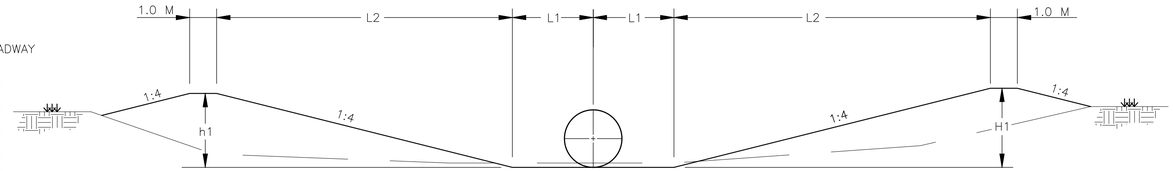
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LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C5	15 OF 116
SCALE: N/A			

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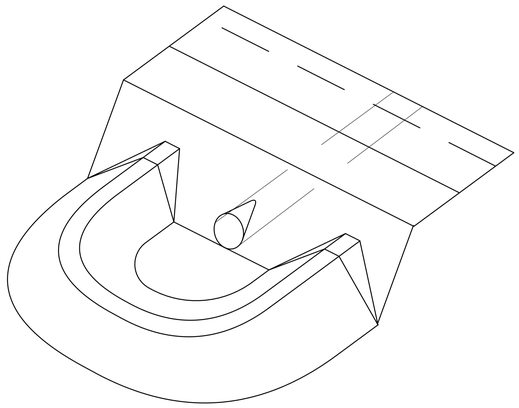
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	16



PLAN VIEW
NTS

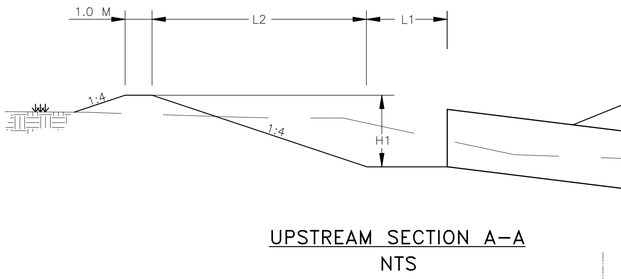


SECTION B–B
NTS

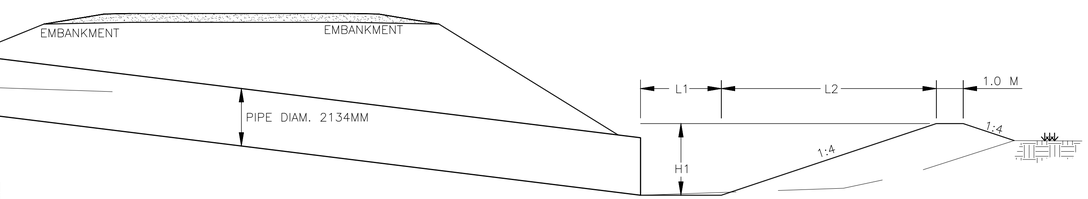


ISOMETRIC VIEW
NTS

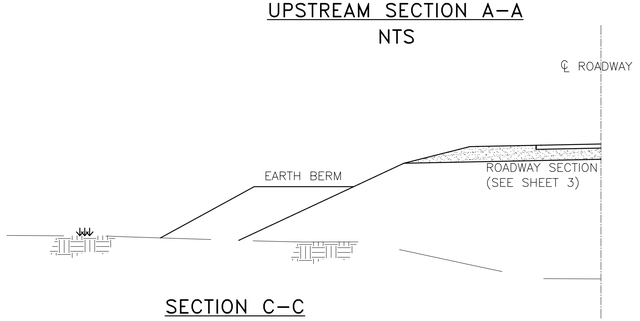
*SEE SHEET 49 FOR CULVERT CROSS SECTION.



UPSTREAM SECTION A–A
NTS



DOWNSTREAM SECTION A–A
NTS



SECTION C–C
NTS

CULVERT STATION	STRUCTURE	LOCATION	H1 (M)	L1 (M)	L2 (m)	EXCAVATION (m^3)	EMBANKMENT (m^3)
26+920.000	1–2134 MM CSPC LIVESTOCK CROSSING	LT	4.073	3.000	16.290	19.276	0.573
26+920.000		RT	1.878	3.000	7.510	0.015	5.520

GENERAL NOTES

1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP–14).
2. THE QUANTITIES SHOWN ARE ONLY AN ESTIMATE. ACTUAL QUANTITIES SHALL BE DETERMINED IN THE FIELD. THE CONTRACTOR WILL BE REQUIRED TO MAKE ANY NECESSARY ADJUSTMENTS IN THE FIELD TO MATCH EXISTING FIELD CONDITIONS. THESE FIELD ADJUSTMENTS ARE INCIDENTAL OBLIGATIONS OF THE CONTRACTOR.
3. THE COST TO CONSTRUCT EARTHEN BERMS IS INCIDENTAL IN THE COST OF ITEM 20401–0000, ROADWAY EXCAVATION, AND NO ADDITIONAL PAYMENT WILL BE MADE.

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△	REVISION	BY	DATE

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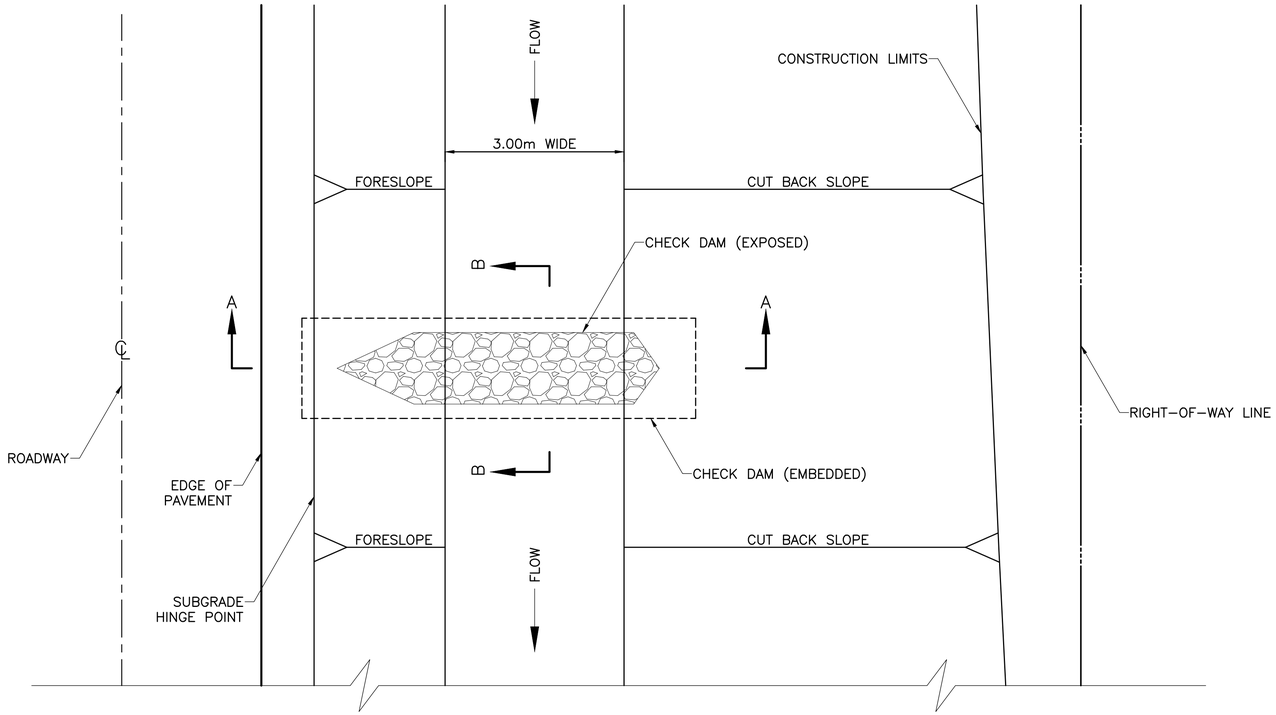
N15(2-3) CORNFIELDS TO BURNSIDE

LIVESTOCK EARTHERN BERM DETAILS

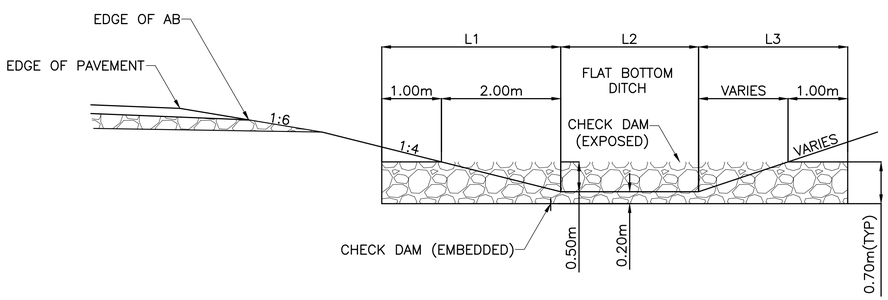
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LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C6	16 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	17

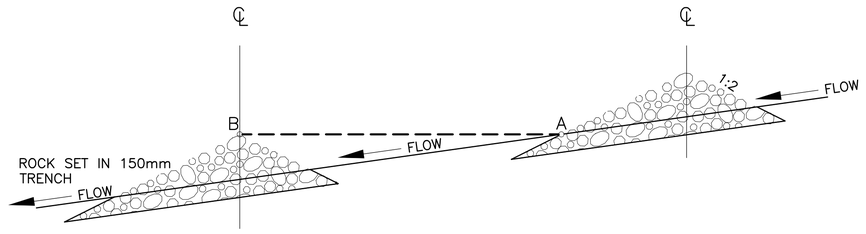


PLAN VIEW



SECTION A–A

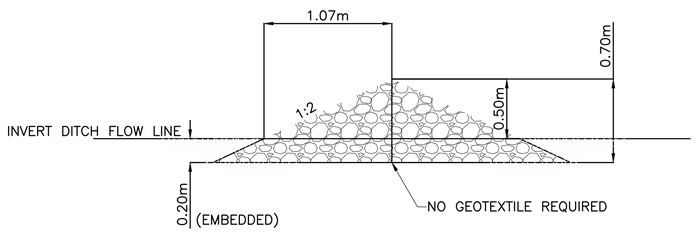
3.05 m WIDE FLAT BOTTOM DITCH
WITH CLASS 2 RIPRAP CHECK DAM
(SEE TABLE DWG G11 FOR LOCATION)



CHECK DAM SPACING

S = 60 m For 2% & Less Grade,
S = 40 m For Greater Than 2% Grade.

NOTE: PLACE DOWNSTREAM STRUCTURE SUCH THAT POINT "B" IS APPROXIMATELY LEVEL WITH THE LOWEST GROUND ELEVATION (POINT "A") OF THE UPSTREAM STRUCTURE.



SECTION B–B: RIPRAP CHECK DAM

GENERAL NOTES

1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATION FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP–14).

2. ROUND ALL SHARP CONTOURS AS REQUIRED TO FIT THE SOIL EROSION MATERIAL FLUSH WITH THE EXISTING GROUND.

3. THE CONTRACTOR SHALL BE REQUIRED TO MAKE FIELD ADJUSTMENTS TO MATCH ACTUAL FIELD CONDITIONS AS DIRECTED BY THE COR/COTR. NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH ADJUSTMENTS.

4. EMBANKMENT SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO 7–99, METHOD C AND CONFORM TO SECTION 204 OF FP–14.

5. EXCAVATION OF RIPRAP TOE TRENCH TO PLACE RIPRAP BELOW FLOW LINE AND OTHER EXCAVATION AND EMBANKMENT NECESSARY TO PLACE RIPRAP AS SOWN SHALL BE INCIDENTAL TO ITEM 25101–2000.

6. STONE SIZE SHALL CONFORM TO TABLE 701–1, SECTION 705, STONE FOR RIPRAP, CLASS 2 & 3.

7. ROCK CHECK DAM SHALL BE IINCLUDED IN BID TIME 25101–2000.

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Date Signed 6/19/26
Arizona U.S.A.

	REVISION	BY	DATE

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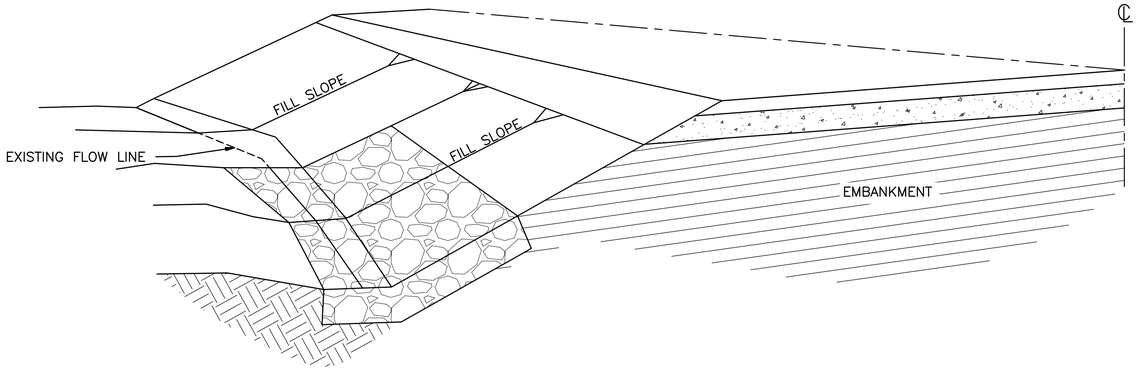
N15(2-3) CORNFIELDS TO BURNSIDE

CHECK DAM DETAIL

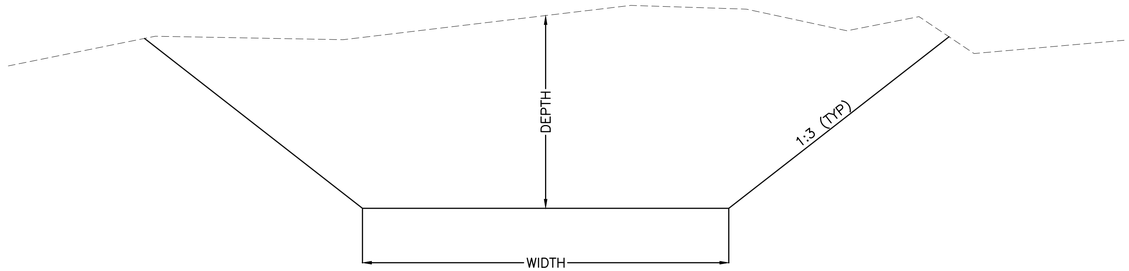
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LEAD DESIGNER: DFJ	DATE: 6/26	C7	17 OF 116
ASBUILT BY:	DATE:		
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	18



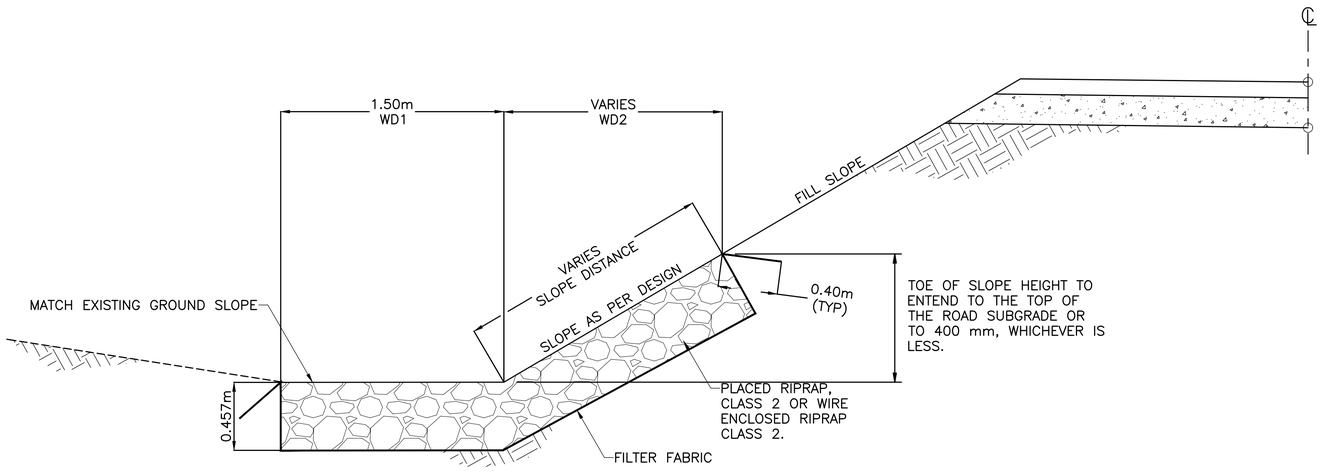
TYPICAL EMBANKMENT VIEW
TOE OF EMBANKMENT SHOWN



DITCH OR LIVESTOCK RAMP

DITCH NOTES:

1. DIMENSIONS OF DITCHES AND RAMPS SHALL BE SHOWN ON PLANS AS BOTTOM WIDTH x DEPTH x LENGTH
2. DITCHES AND CHANNELS SHALL BE CONSTRUCTED WITH MINIMUM GRADE TO PREVENT EROSION. DITCH OUTLET TREATMENT SHALL BE AS PROVIDED ON PLANS.
3. RAMPS GRADES SHALL BE 1:10 MAX.



SECTION A–A PROTECTION DETAIL

NOTE: THE TOE OF SLOPE AND DITCH LINING DETAILS SHOWN ON THIS SHEET REPRESENTS THE TWO (2) TYPES OF RIPRAP PROTECTION TO BE AT THE GENERAL STATIONS SHOWN. HOWEVER, IT IS THE COTR/COR'S RESPONSIBILITY, IN CONSULTATION WITH THE OWNER–NRDOT, TO FIELD DETERMINE THE TYPE OF RIPRAP PROTECTION FOR SPECIFIC AREAS AFTER FINAL EARTHWORK IS COMPLETED. THE COTR/COR SHALL PROVIDE THE CONTRACTOR WITH A RIPRAP LOCATION AND TYPE PLAN PRIOR TO INSTALLATION OF THE RIPRAP.

NOTE:
1. DETAILS SHOWN REPRESENT THE TWO (2) TYPE OF RIPRAP PRETECTION UTILIZED FOR TOE OF SLOPE AND DITCH LINING DETAILS.
2. LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED BY THE COTR/COR IN CONSULTATION WITH THE OWNER NRDOT PRIOR TO CONSTRACTOR INSTALLATION OF RIPRAP PROTECTION.

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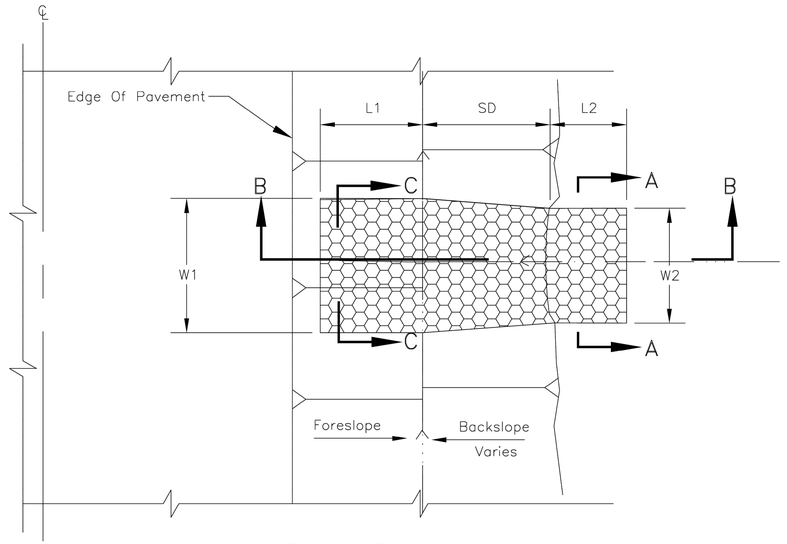
N15(2-3) CORNFIELDS TO BURNSIDE

TOE OF SLOPE PROTECTION DETAIL

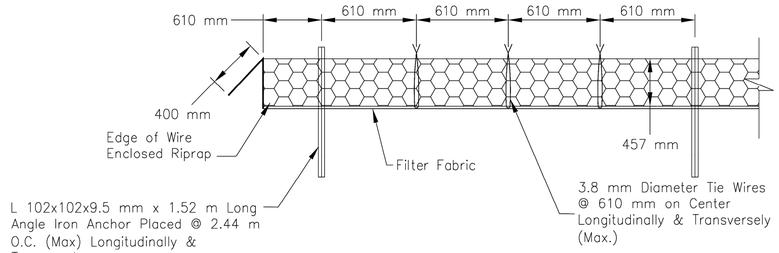
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LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C8	18 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

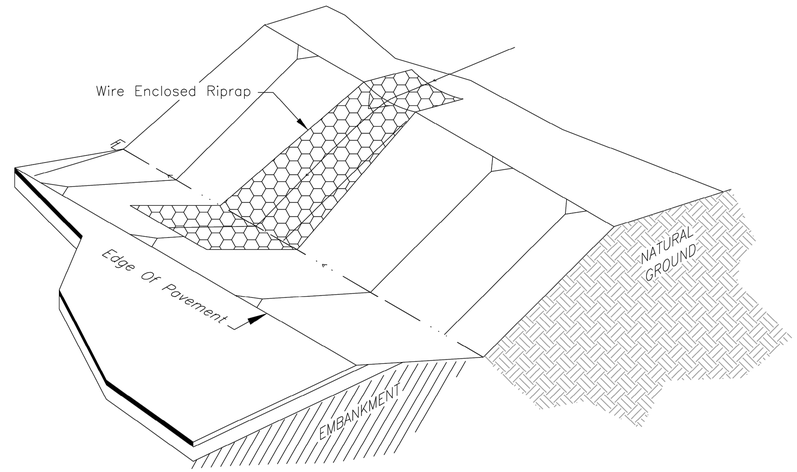


PLAN VIEW

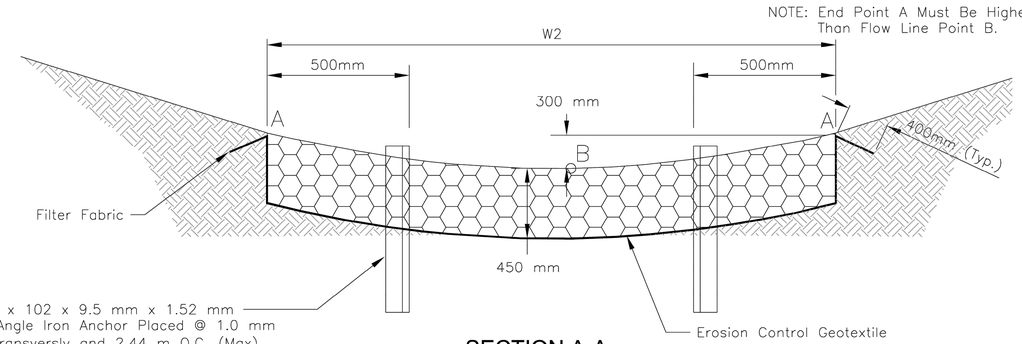


TYPICAL WIRE ENCLOSED RIPRAP SECTION

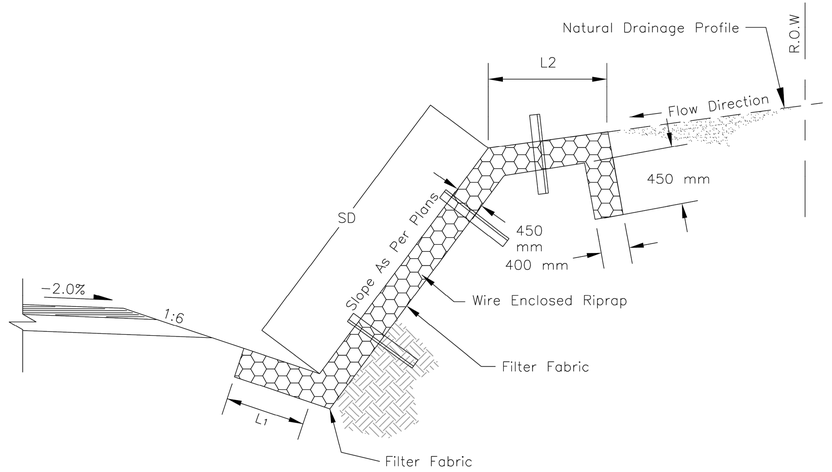
N.T.S.



ISOMETRIC VIEW



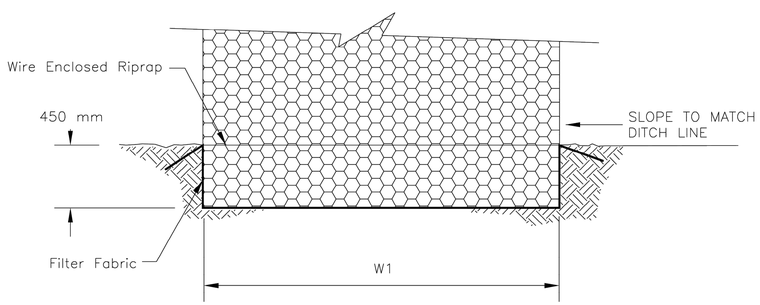
SECTION A-A



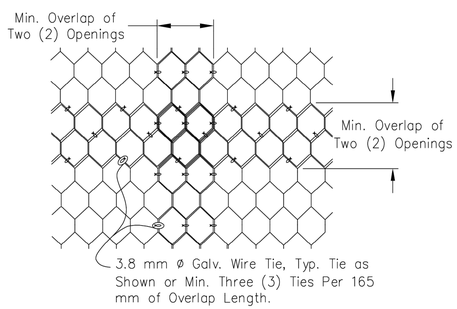
SECTION B-B

GENERAL NOTES

1. The Contractor Shall Be Required to Make Field Adjustments to Fit Field Conditions as Directed By The COTR/COR.
2. Rock Size Shall Conform to Section 750.01.

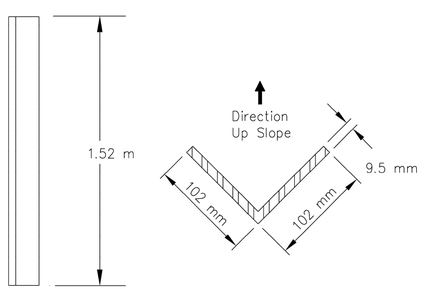


SECTION C-C



TYPICAL FABRIC SPLICING DETAIL

N.T.S.



TYPICAL ANGLE IRON ANCHOR DETAIL

N.T.S.

NOTE: IN LOCATIONS WITH A FLAT BOTTOM DITCH, L3 IS EQUAL TO THE BOTTOM WIDTH

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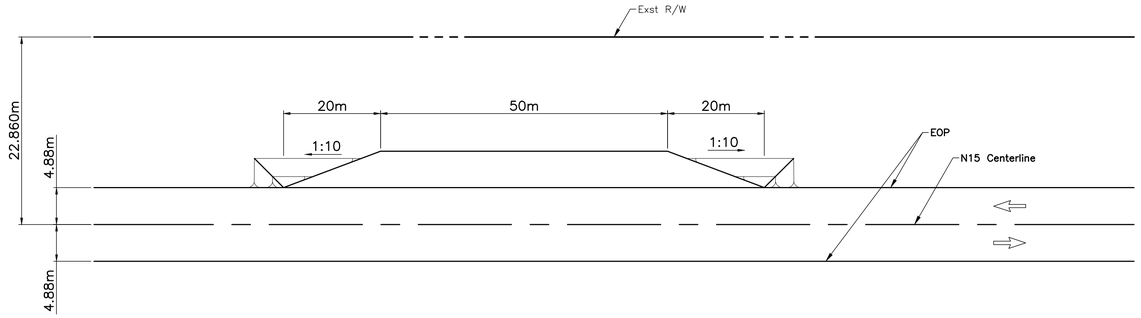
N15(2-3) CORNFIELDS TO BURNSIDE

WIRE ENCLOSED RIPRAP FOR BACKSLOPE PROTECTION DETAIL

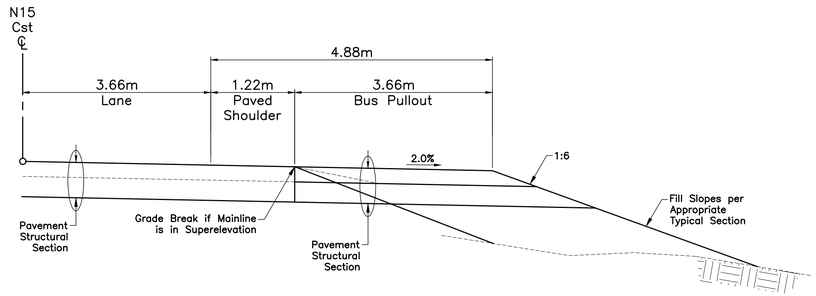
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LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C9	19 OF 116
SCALE: N/A			

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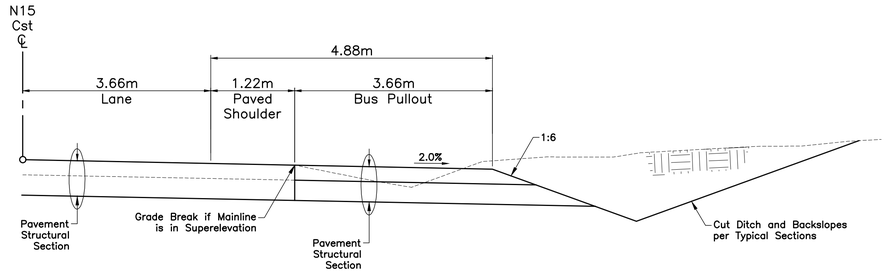
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	20



PLAN VIEW



BUS PULLOUT TYPICAL SECTION
FILL CONDITION



BUS PULLOUT TYPICAL SECTION
CUT CONDITION

BUS PULLOUTS

STA	TO	STA	AC (t)	AB (t)
25+760.00	TO	25+850.00	80	119
31+720.00	TO	31+810.00	80	119
TOTALS			160	238

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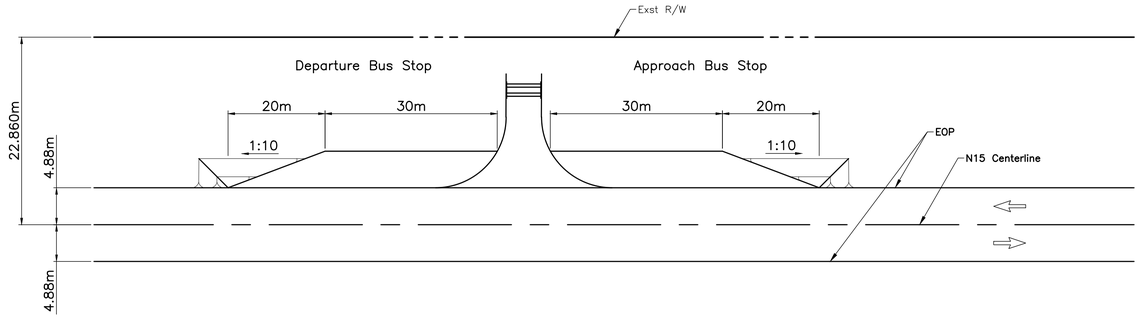
N15(2-3) CORNFIELDS TO BURNSIDE

BUS PULLOUT DETAIL

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C9A	20 OF 116
SCALE: N/A			

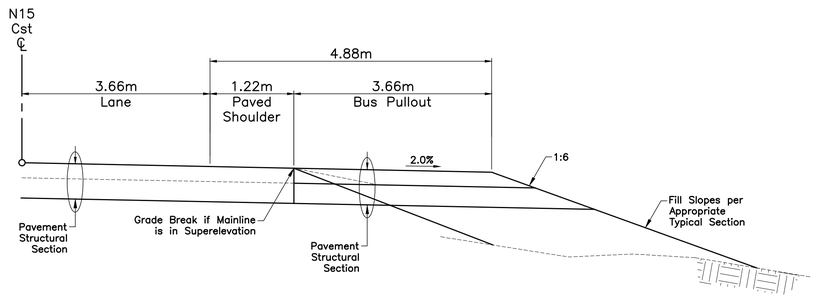
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AZ	N15(2-3) CORNFIELDS TO BURNSIDE	20

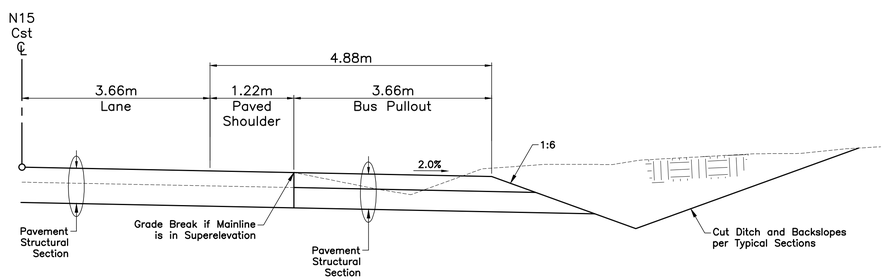


PLAN VIEW

The Bus Stop shall only be Approach or Departure type, not both, as noted in bus stop table



BUS PULLOUT TYPICAL SECTION
FILL CONDITION



BUS PULLOUT TYPICAL SECTION
CUT CONDITION

BUS STOPS

STA	TO	STA	TYPE	AC (t)	AB (t)
25+386.75	TO	25+436.75	DEPARTURE	46	83
25+778.75	TO	25+828.75	APPROACH	46	83
26+740.25	TO	26+790.25	APPROACH	46	83
30+080.75	TO	30+130.75	DEPARTURE	46	83
31+857.75	TO	31+907.75	DEPARTURE	46	83
TOTALS				230	415

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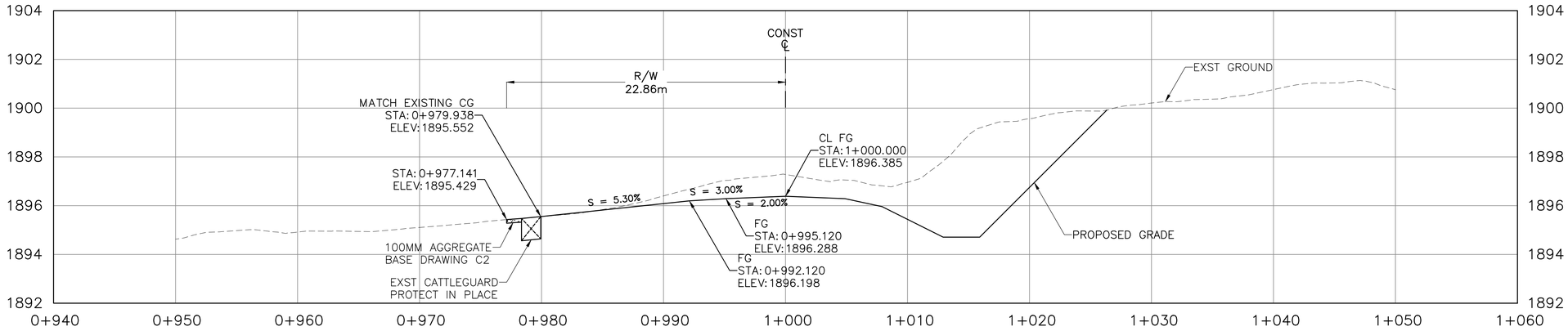
N15(2-3) CORNFIELDS TO BURNSIDE

BUS STOP DETAIL

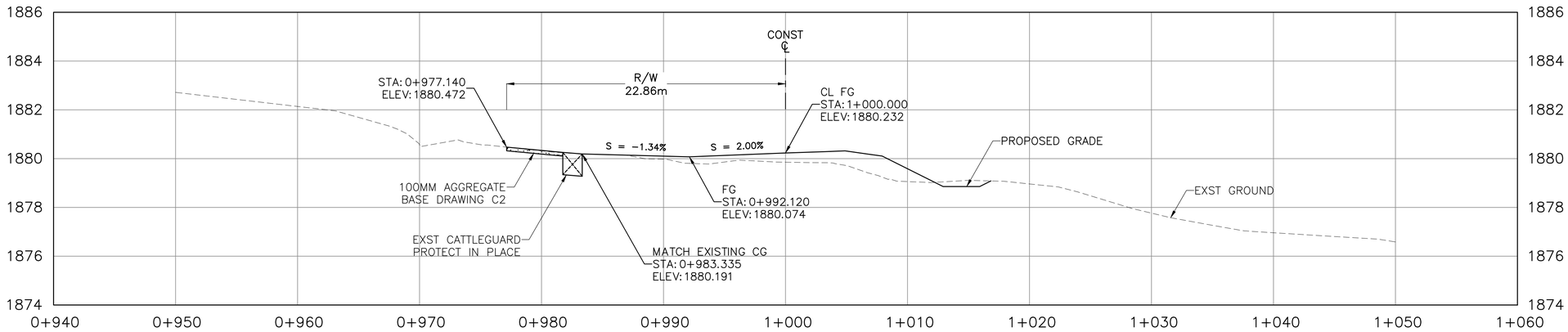
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ASBUILT BY:	DATE:		
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	20



1 STA 23+499 LT
SKEW 0°



2 STA 24+193 LT
SKEW 0°

0 20 40 60 80 100
METERS

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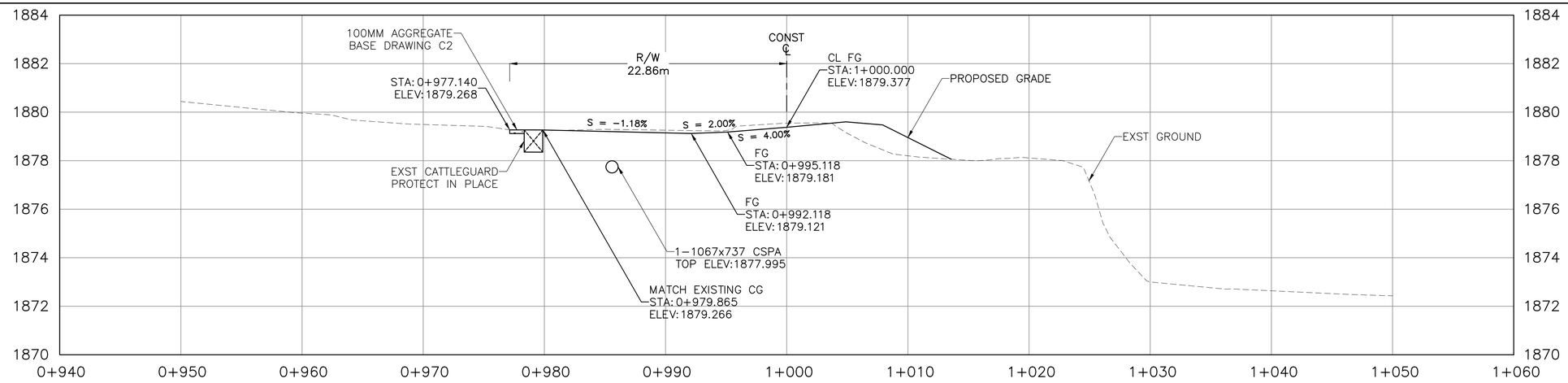
N15(2-3) CORNFIELDS TO BURNSIDE

TURNOUT PROFILES

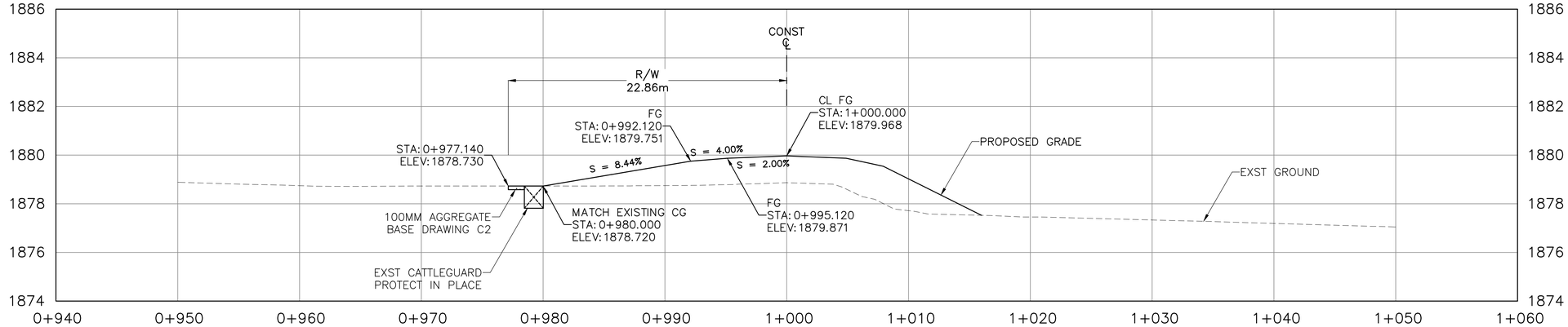
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SCALE: 1:1000 H | _ V			

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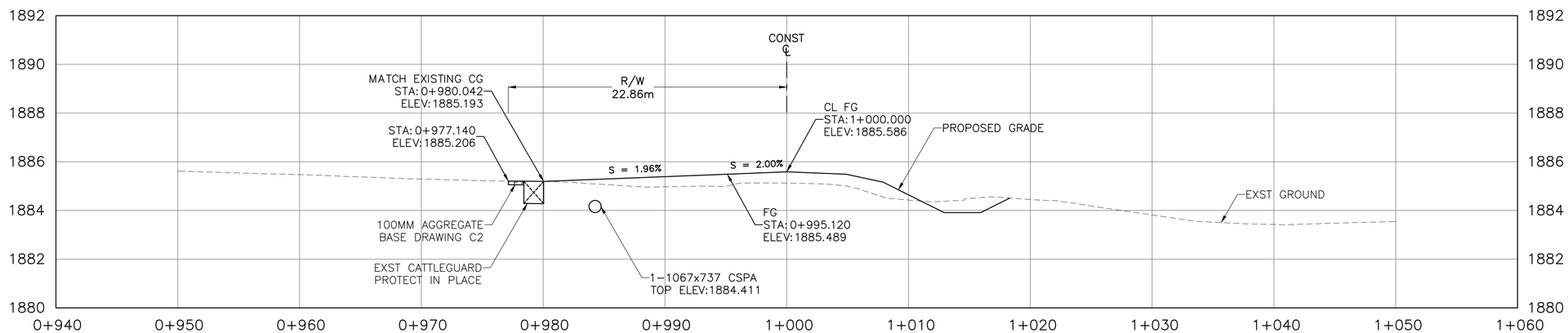
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	20



③ STA 24+380 LT
SKEW 0°



④ STA 25+439 LT
SKEW 0°



⑤ STA 25+781 LT
SKEW 0°

0 20 40 60 80 100
METERS

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DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/26/26 ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

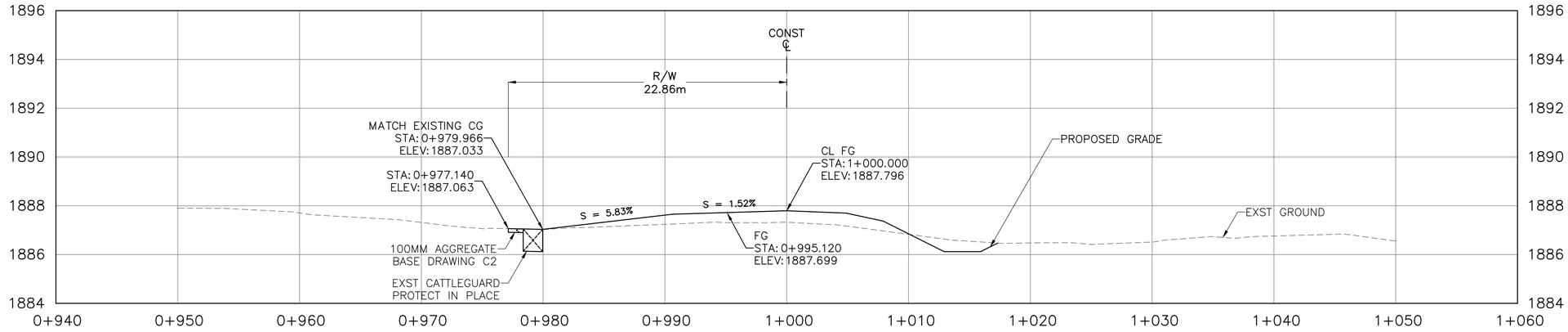
N15(2-3) CORNFIELDS TO BURNSIDE

TURNOUT PROFILES

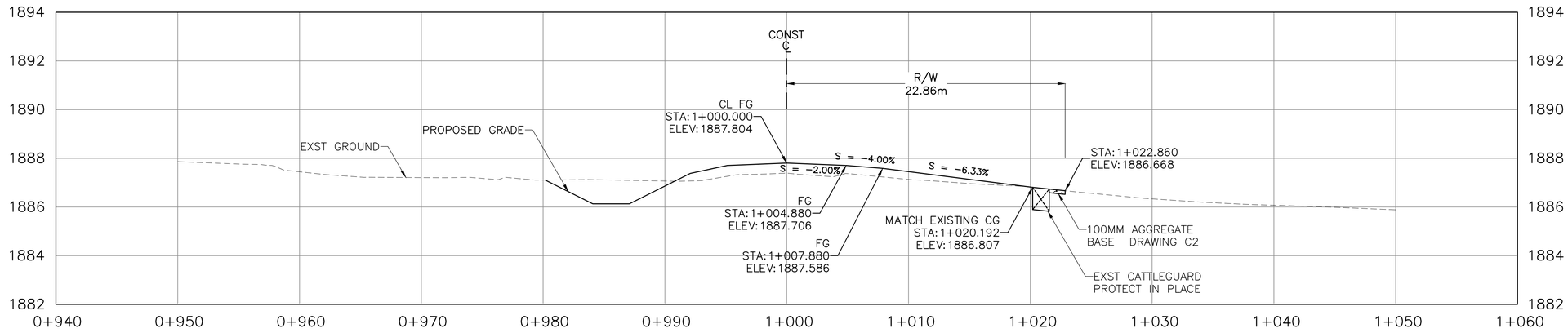
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C11	20 OF 116
SCALE: 1:1000 H | _ V			

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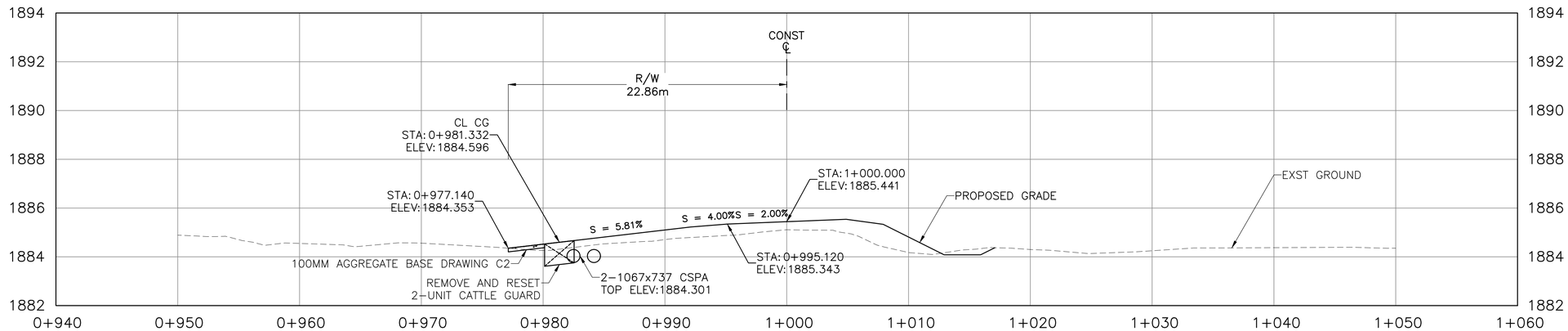
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	21



6 STA 26+307 LT
SKEW 0°



7 STA 26+316 RT
SKEW 0°



8 STA 26+738 LT
SKEW 0°

0 20 40 60 80 100
METERS

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	REVISION	BY	DATE
1			

NAVAJO NATION
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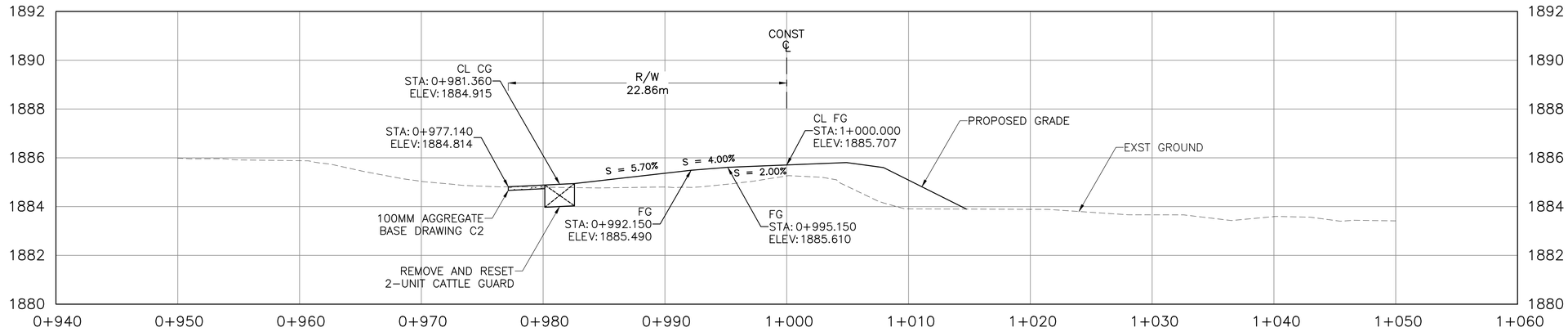
N15(2-3) CORNFIELDS TO BURNSIDE

TURNOUT PROFILES

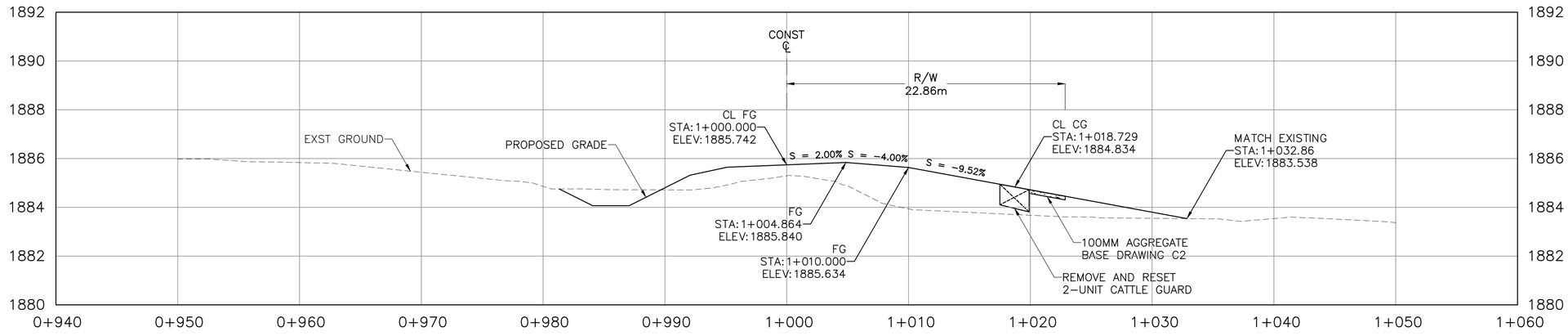
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C12	21 OF 116
SCALE: 1:1000 H | _ V			

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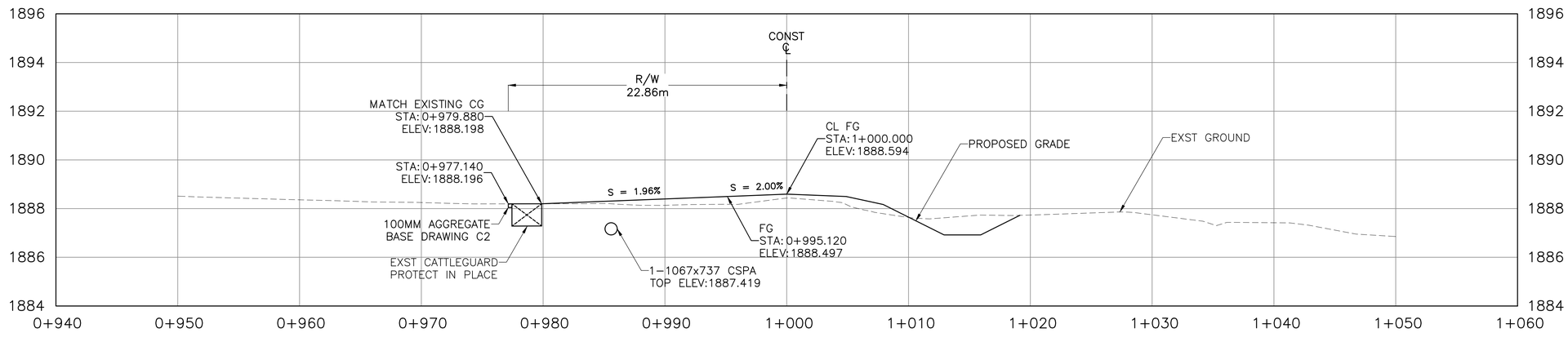
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	22



9 STA 26+967 LT
SKEW 0°



10 STA 26+972 RT
SKEW 0°



11 STA 27+370 LT
SKEW 0°

0 20 40 60 80 100
METERS

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ARIZONA

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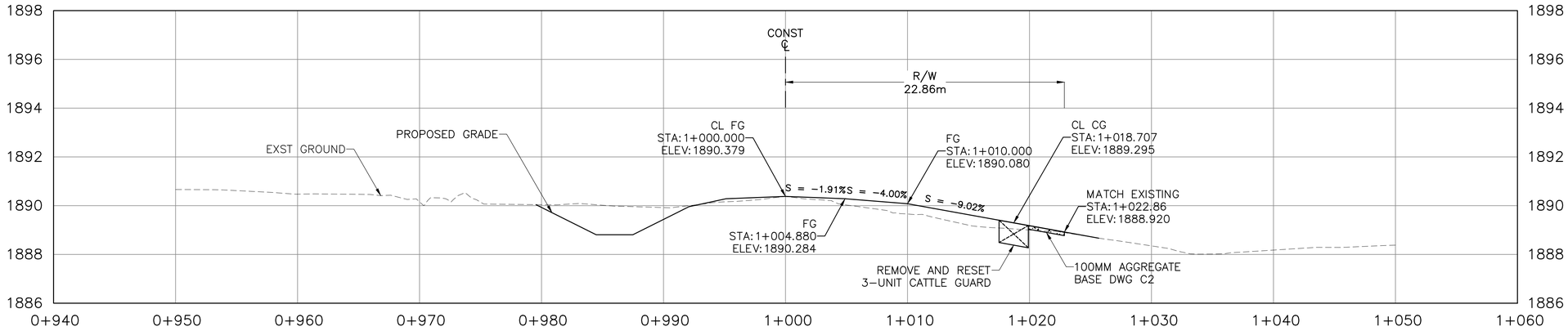
N15(2-3) CORNFIELDS TO BURNSIDE

TURNOUT PROFILES

		DRAWING	SHEET
PROJECT MANAGER: AJS	DATE: 6/26		
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C13	22 OF 116
SCALE: 1:1000 H | _ V			

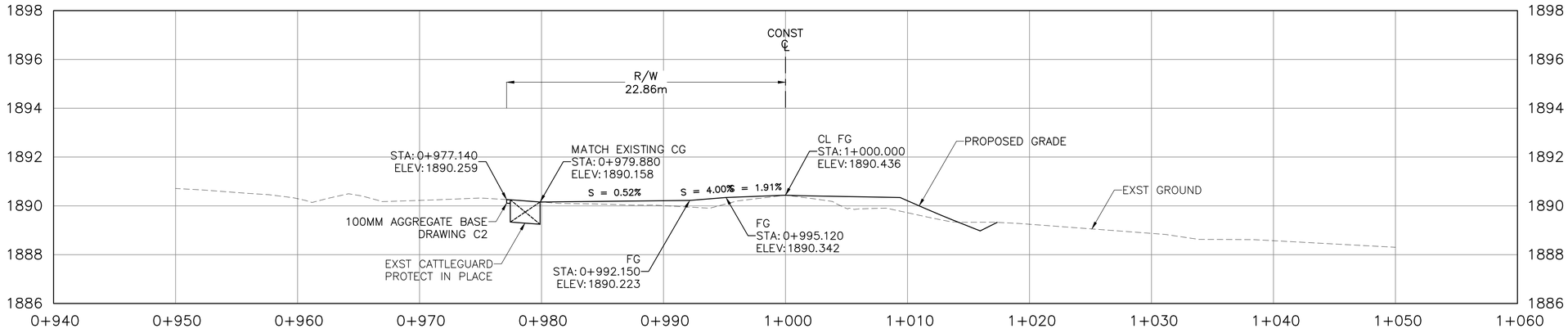
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	23



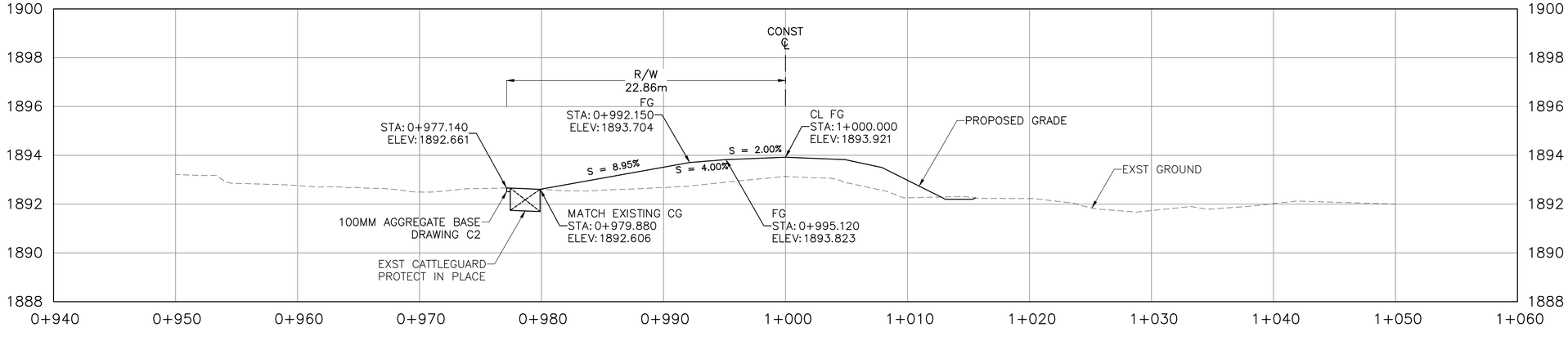
(12) STA 27+620 RT

SKEW 0°



(13) STA 27+628 LT

SKEW 0°



(14) STA 28+192 LT

SKEW 0°

0 20 40 60 80 100
METERS

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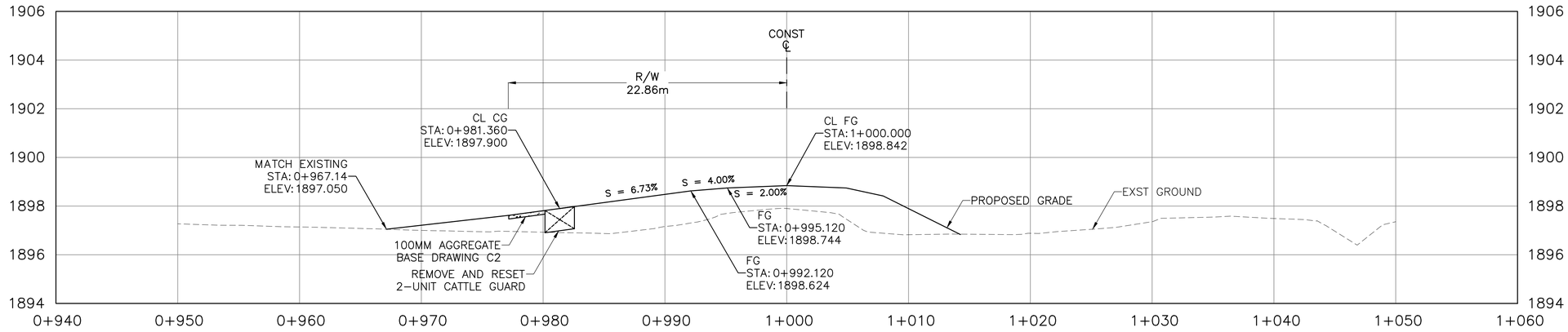
N15(2-3) CORNFIELDS TO BURNSIDE

TURNOUT PROFILES

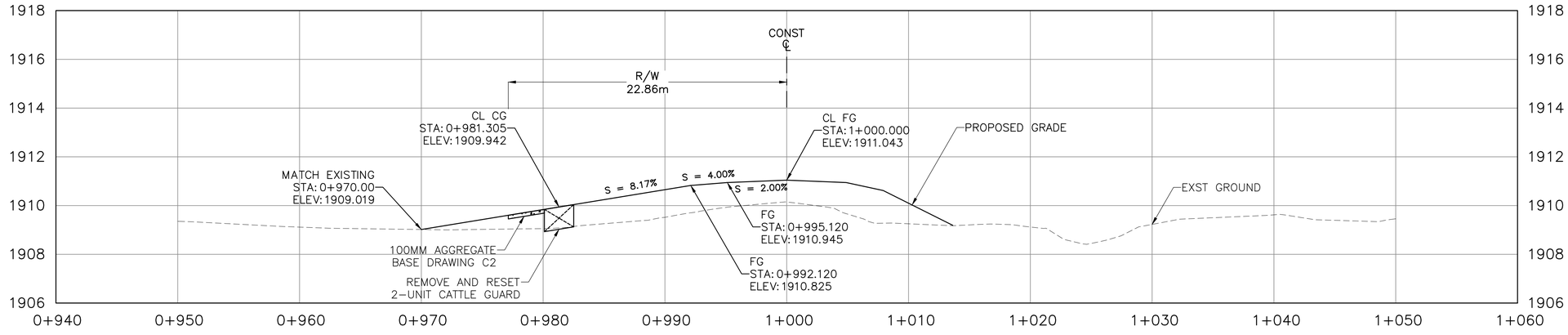
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C14	23 OF 116
SCALE: 1:1000 H | _ V			

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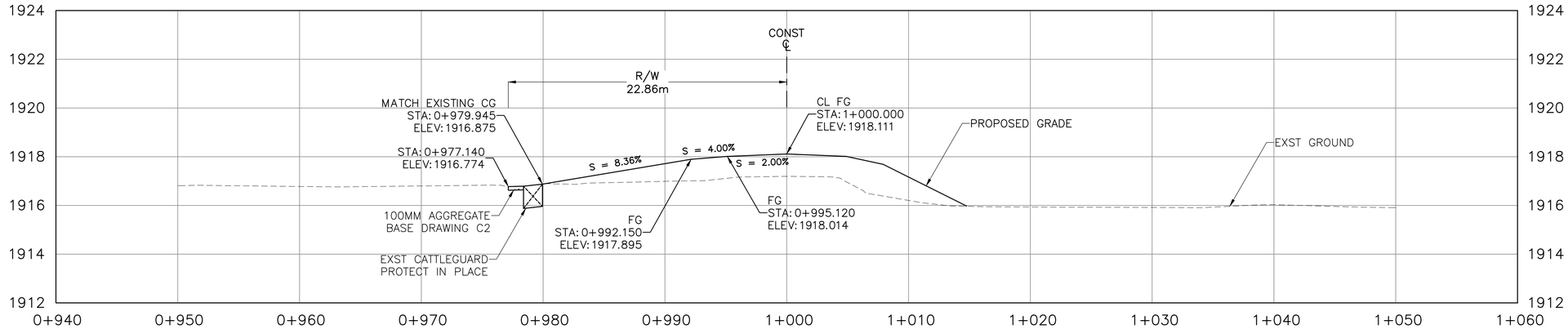
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	24



15 STA 28+624 LT
SKEW 0°



16 STA 29+559 LT
SKEW 0°



17 STA 30+133 LT
SKEW 0°

0 20 40 60 80 100
METERS

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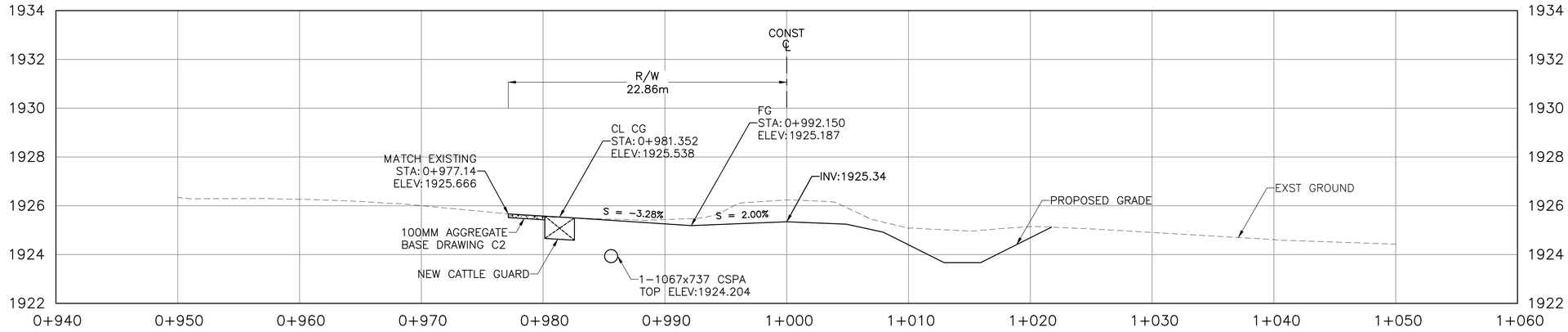
N15(2-3) CORNFIELDS TO BURNSIDE

TURNOUT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C15	24 OF 116
SCALE: 1:1000 H | _ V			

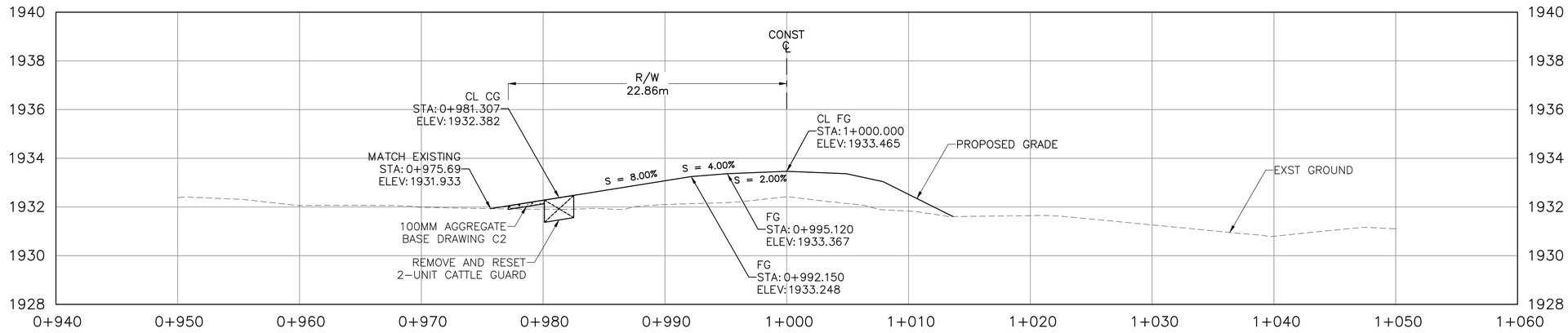
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	25



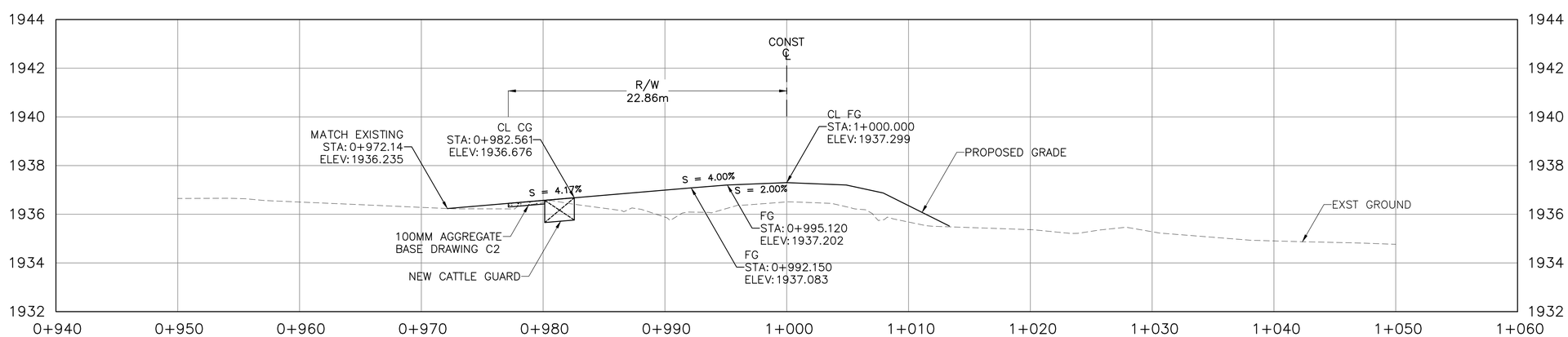
(18) STA 31+070 LT

SKEW 0°



(19) STA 31+668 LT

SKEW 0°



(20) STA 31+910 LT

SKEW 0°

0 20 40 60 80 100
METERS

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ARIZONA U.S.A.

	REVISION	BY	DATE

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DIVISION OF TRANSPORTATION
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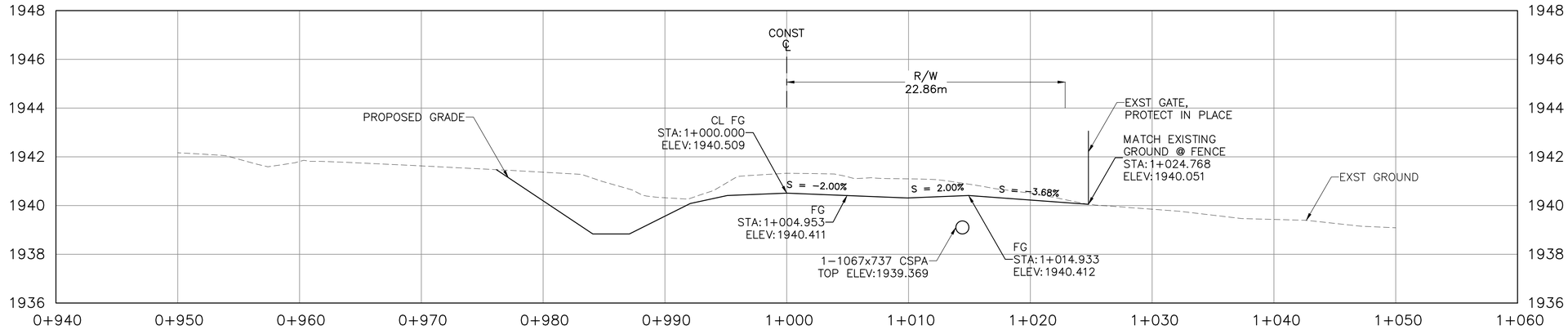
N15(2-3) CORNFIELDS TO BURNSIDE

TURNOUT PROFILES

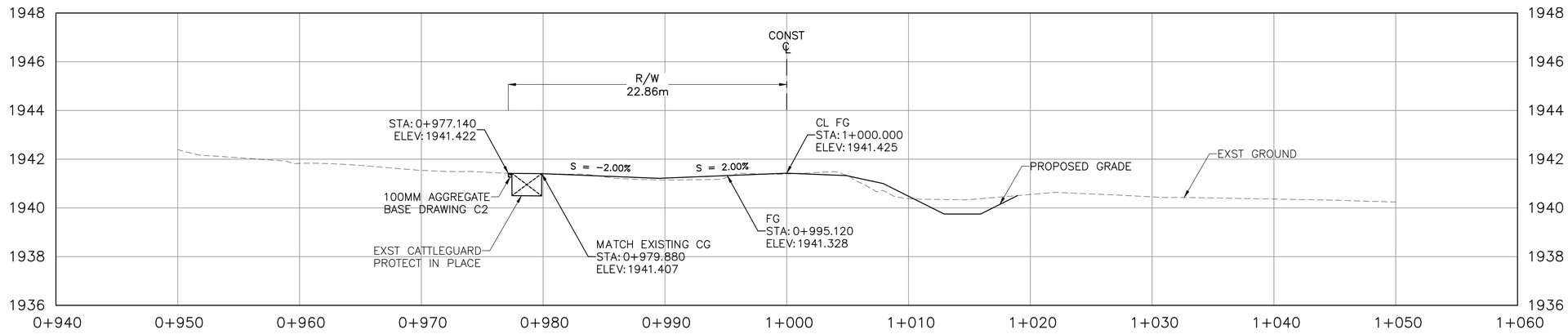
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C16	25 OF 116
SCALE: 1:1000 H | _ V			

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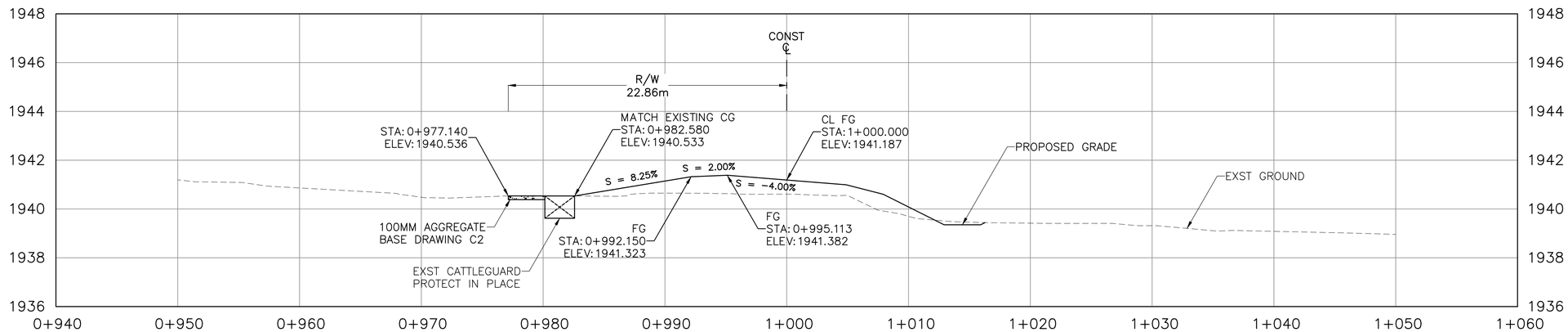
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	26



21 STA 32+450 RT
SKEW 81°



22 STA 32+585 LT
SKEW 0°



23 STA 32+985 LT
SKEW 0°

0 20 40 60 80 100
METERS

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Registered Professional Engineer Certificate No. 25015 ANDREW JOHN SPEAR Date Signed 6/12/26

REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
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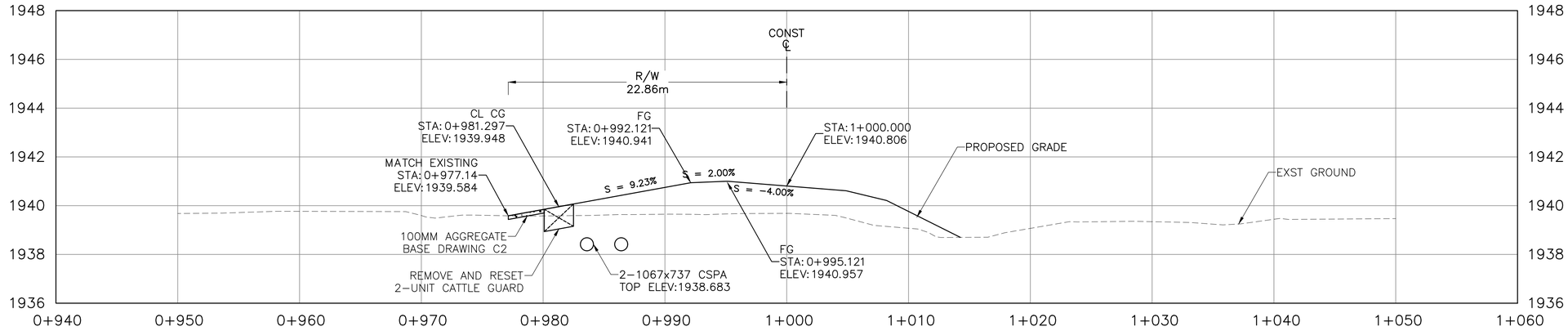
N15(2-3) CORNFIELDS TO BURNSIDE

TURNOUT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	C17	26 OF 116
SCALE: 1:1000 H | _ V			

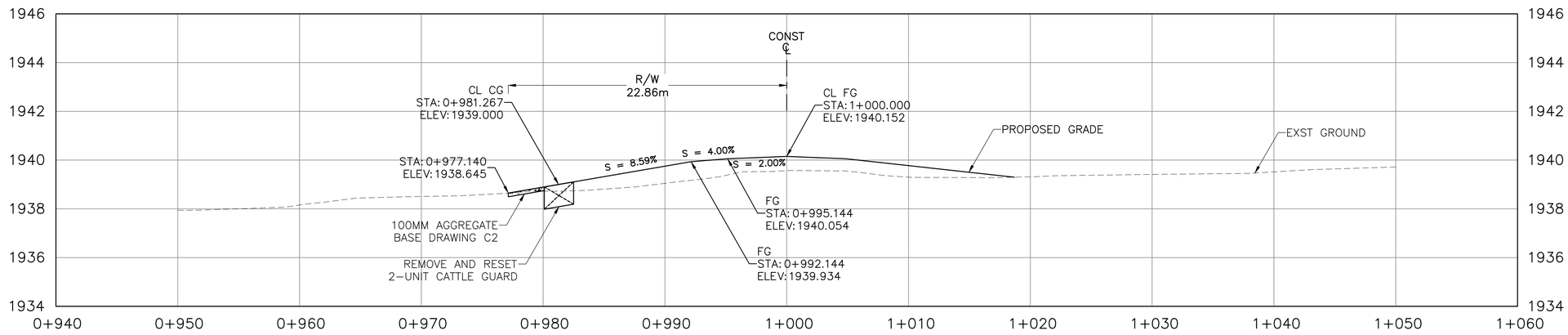
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	27



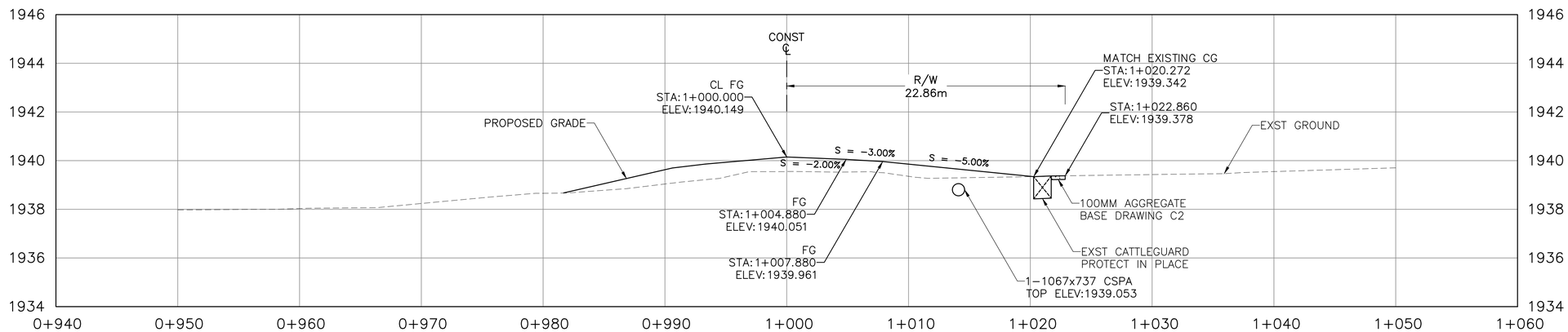
24 STA 33+234 LT

SKEW 0°



25 STA 33+423 LT

SKEW 0°



26 STA 33+426 RT

SKEW 0°

0 20 40 60 80 100

METERS

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DIVISION OF TRANSPORTATION

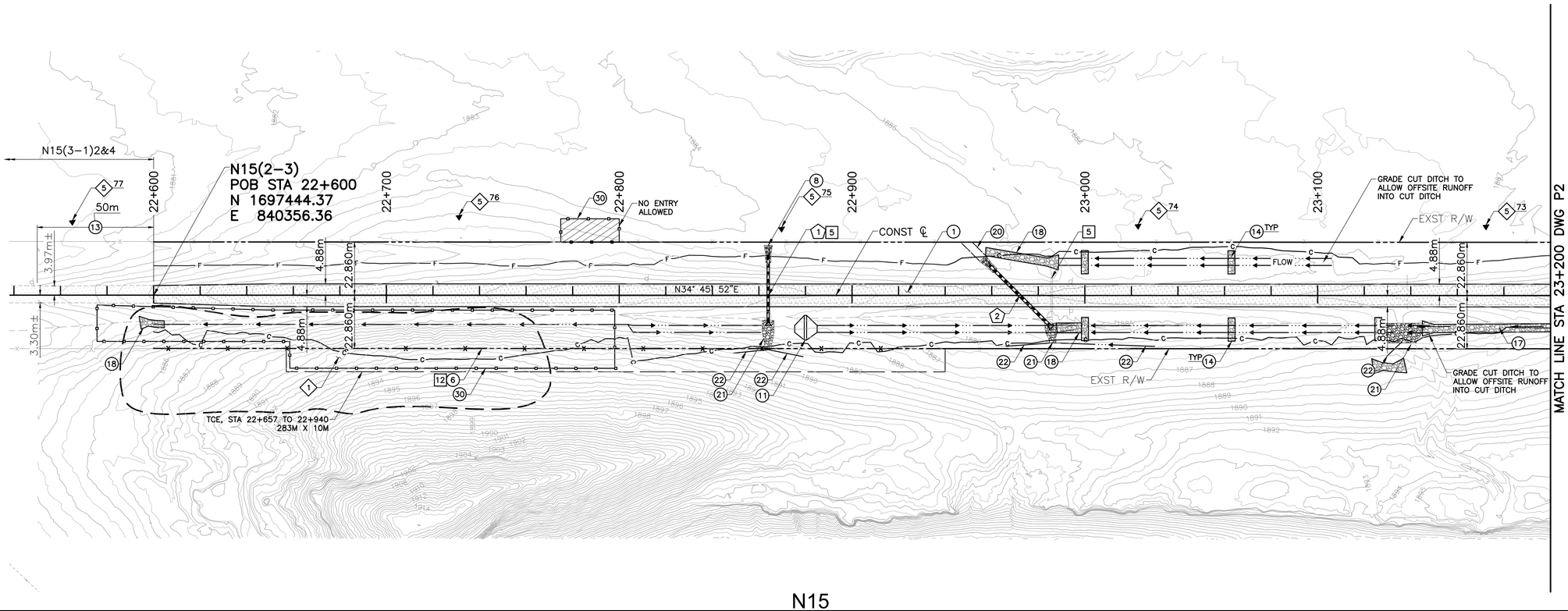
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N15(2-3) CORNFIELDS TO BURNSIDE

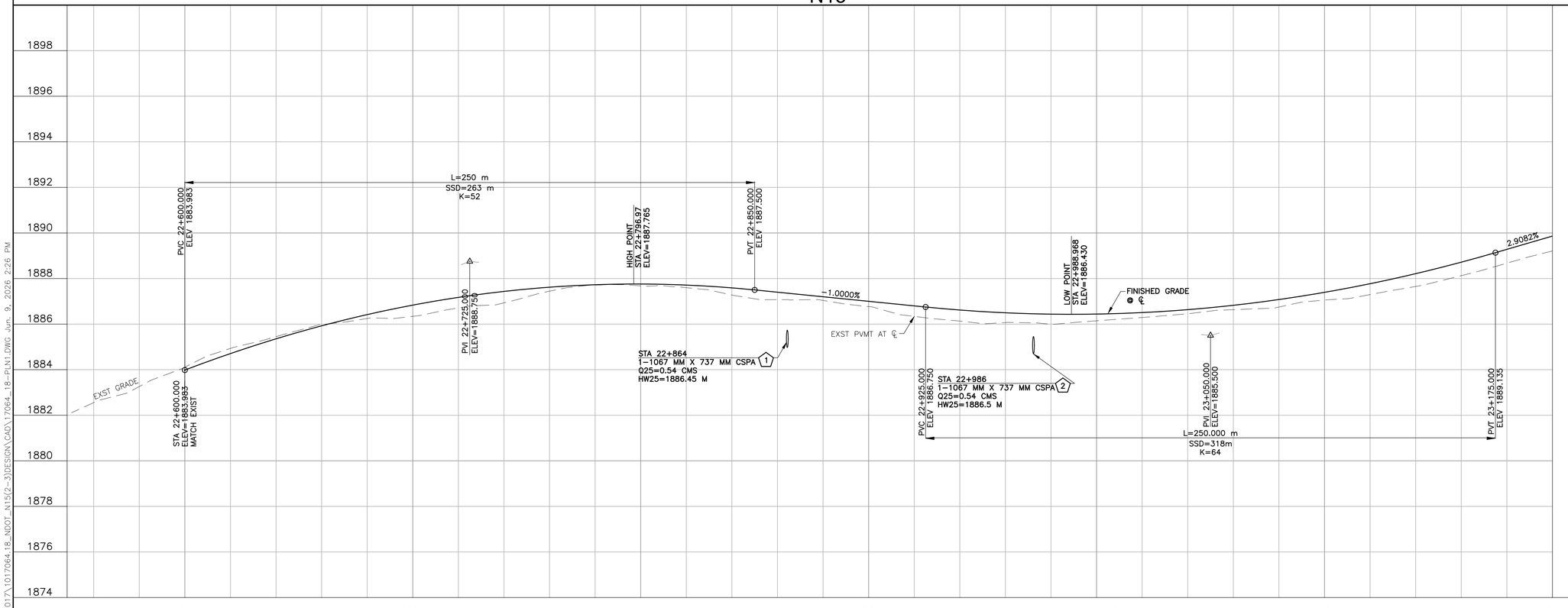
TURNOUT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	C18	27 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | _ V			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

5 REMOVE, CLEAN & STOCKPILE CULVERT

12 REMOVE BW FENCE

CONSTRUCTION NOTES

1 PAVEMENT SECTION NO 1
76.2MM AC, 101.6MM ABC

6 BW FENCE, 5-STRAND
DET C4, DWG C4

8 RIPRAP APRON, CLASS 1
DWG D6

11 EARTHEN BERM
DWG D3

13 TAPER EXST ROADWAY SHOULDERS INTO NEW ROADWAY SHOULDERS
TRANSITION EXST DITCH INTO NEW DITCH

14 CHECK DAMS
DWG C7

17 TOE OF SLOPE PROTECTION, DWG C8

18 CUT-TO-FILL TRANSITION, DWG C5

20 CONSTRUCT DITCH,
DWGS G11 & C8

21 BACKSLOPE PROTECTION, DWG C9

22 CROWN DITCH, DWG D3

30 TEMPORARY ORANGE PLASTIC FENCE, STEEL T-POSTS, NPI

NOTES

1 SENSITIVE SITE TO BE MONITORED BY NDOT NO GROUND DISTURBING ACTIVITIES ARE ALLOWED WITHIN SITE WITHOUT MONITOR

5 TEMPORARY BENCHMARK, SEE DWG G6 & G7

CULVERTS

REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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ARIZONA U.S.A.

REVISION	BY	DATE

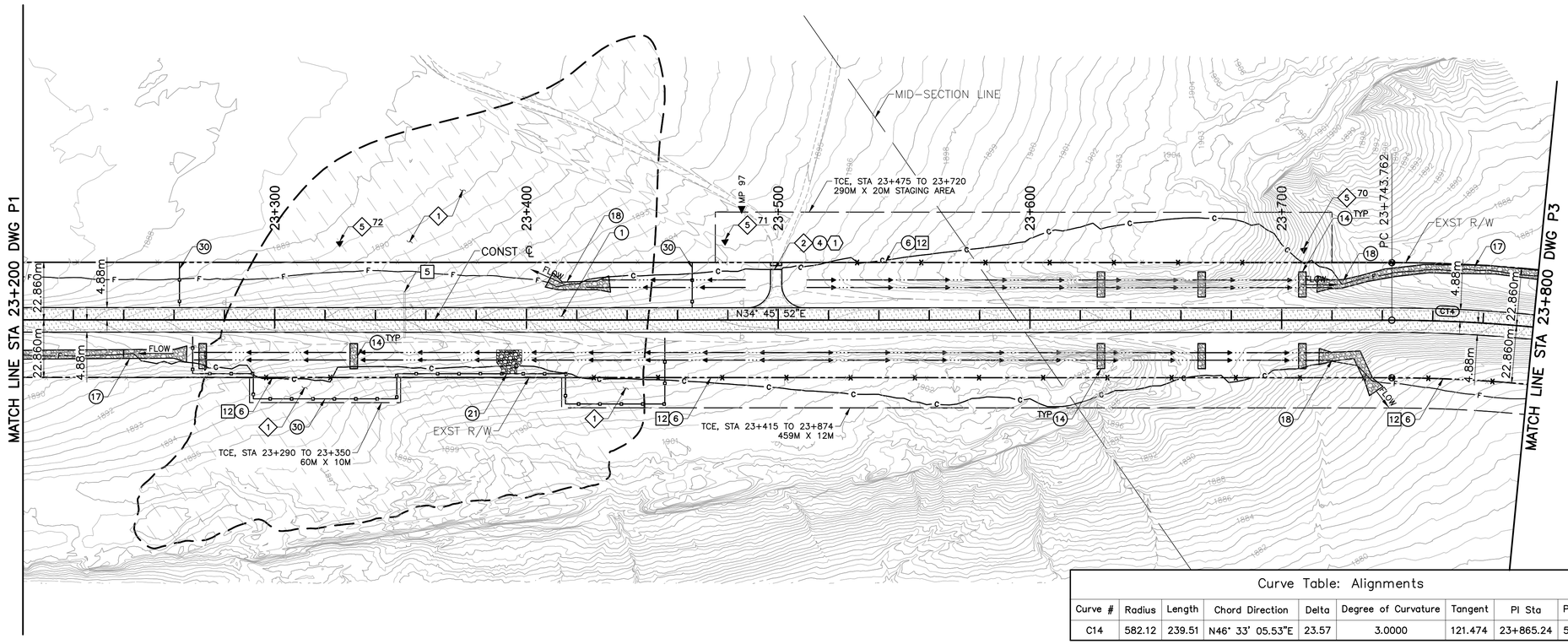
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DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

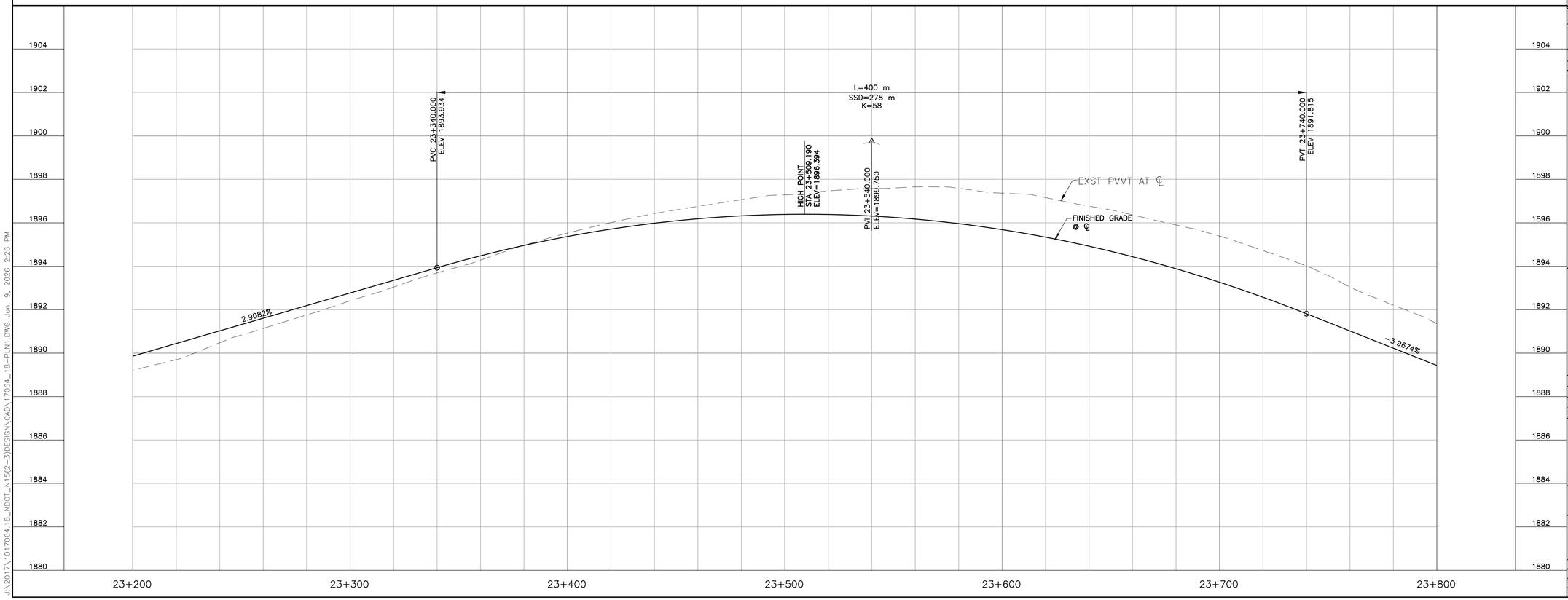
ROADWAY PLAN & PROFILE
STA 22+600 TO STA 23+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	P1	29 OF 116
SCALE: 1:1000 H | 1:100 V			

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N15



Curve Table: Alignments

Curve #	Radius	Length	Chord Direction	Delta	Degree of Curvature	Tangent	PI Sta	PI Northing	PI Easting
C14	582.12	239.51	N46° 33' 05.53"E	23.57	3.0000	121.474	23+865.24	518420.44	256862.06

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

5 REMOVE, CLEAN & STOCKPILE CULVERT

12 REMOVE BW FENCE

CONSTRUCTION NOTES

1 PAVEMENT SECTION NO 1
76.2MM AC, 101.6MM ABC

4 RECONSTRUCT TURNOUT
DWG G9

6 BW FENCE, 5-STRAND
DET C4, DWG C4

14 CHECK DAMS
DWG C7

17 TOE OF SLOPE PROTECTION, DWG C8

18 CUT-TO-FILL TRANSITION, DWG C5

21 BACKSLOPE PROTECTION, DWG C9

30 TEMPORARY ORANGE PLASTIC FENCE, STEEL T-POSTS, NPI

NOTES

1 SENSITIVE SITE TO BE MONITORED BY NDOT NO GROUND DISTURBING ACTIVITIES ARE ALLOWED WITHIN SITE WITHOUT MONITOR

2 EXST CATTLEGUARD, PROTECT IN PLACE

5 TEMPORARY BENCHMARK, SEE DWG G6 & G7

REFER TO DWG C9-C17 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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ARIZONA

REVISION	BY	DATE

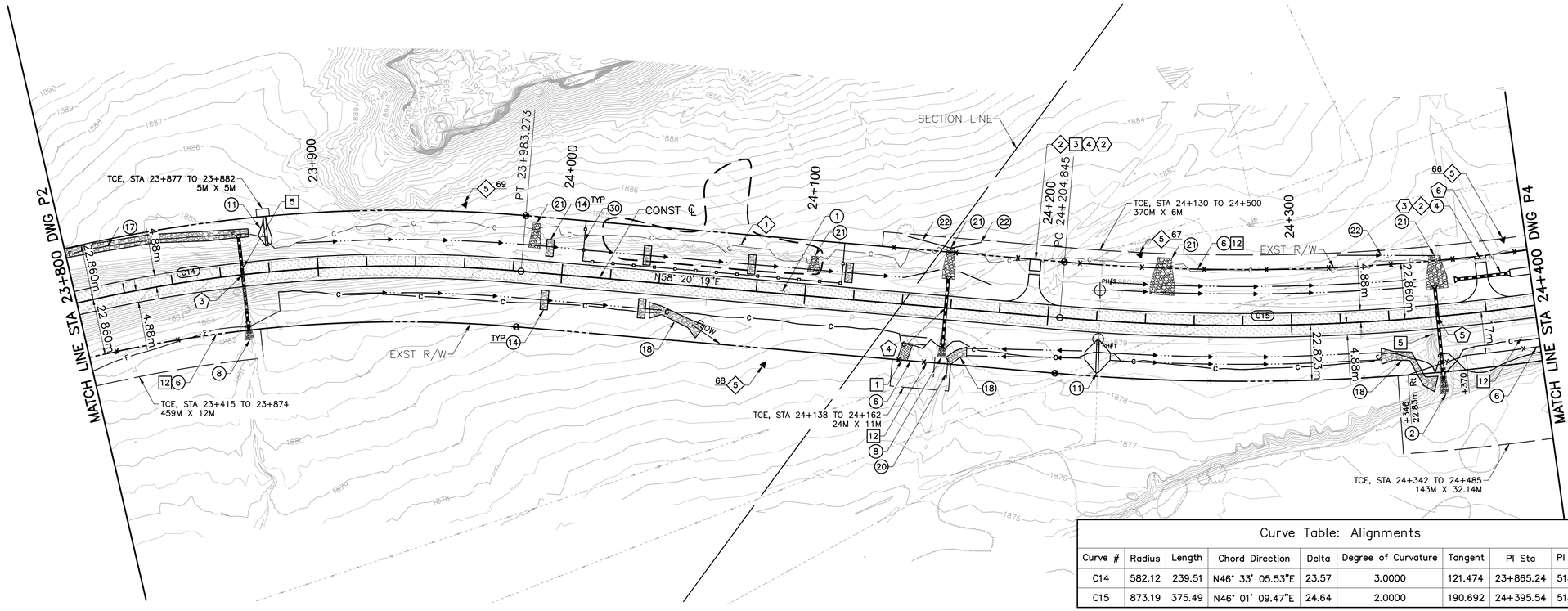
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NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

ROADWAY PLAN & PROFILE
STA 23+200 TO STA 23+800

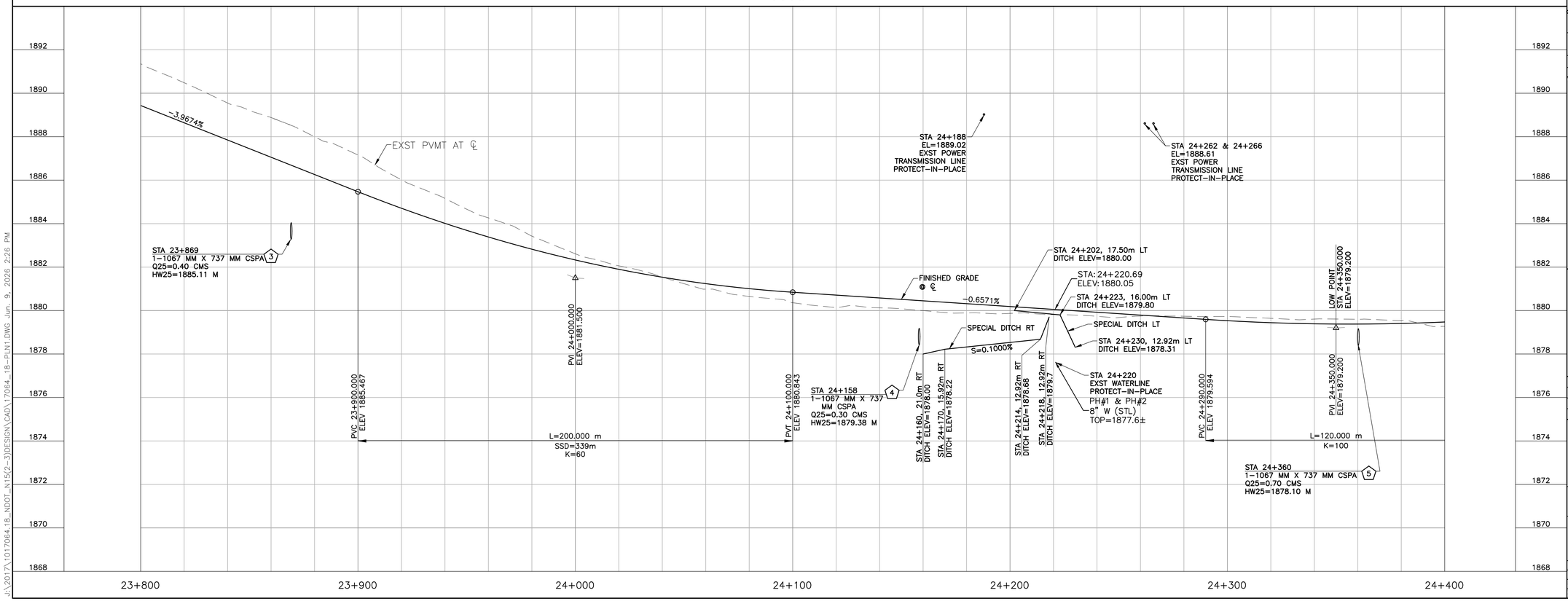
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	P2	30 OF 116
SCALE: 1:1000 H | 1:100 V			

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N15

Curve Table: Alignments									
Curve #	Radius	Length	Chord Direction	Delta	Degree of Curvature	Tangent	PI Sta	PI Northing	PI Easting
C14	582.12	239.51	N46° 33' 05.53"E	23.57	3.0000	121.474	23+865.24	518420.44	256862.06
C15	873.19	375.49	N46° 01' 09.47"E	24.64	2.0000	190.692	24+395.54	518700.60	257316.36



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

1. OBLITERATE ROADWAY, SEE DWG G4
5. REMOVE, CLEAN & STOCKPILE CULVERT
12. REMOVE BW FENCE

CONSTRUCTION NOTES

1. PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
2. RIPRAP APRON, CLASS 3 DWG D6
4. RECONSTRUCT TURNOUT DWG G9
6. BW FENCE, 5-STRAND DET C4, DWG C4
8. RIPRAP APRON, CLASS 2 DWG D6
11. EARTHEN BERM DWG D3
14. CHECK DAMS DWG C7
17. TOE OF SLOPE PROTECTION, DWG C8
18. CUT-TO-FILL TRANSITION, DWG C5
20. CONSTRUCT DITCH, DWGS G11 & C8
21. BACKSLOPE PROTECTION, DWG C9
22. CROWN DITCH, DWG D3
30. TEMPORARY ORANGE PLASTIC FENCE, STEEL T-POSTS, NPI

NOTES

1. SENSITIVE SITE TO BE MONITORED BY NDOT NO GROUND DISTURBING ACTIVITIES ARE ALLOWED WITHIN SITE WITHOUT MONITOR
2. EXST CATTLEGUARD, PROTECT IN PLACE
5. TEMPORARY BENCHMARK, SEE DWG G6 & G7
#. REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

#. REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26

	REVISION	BY	DATE

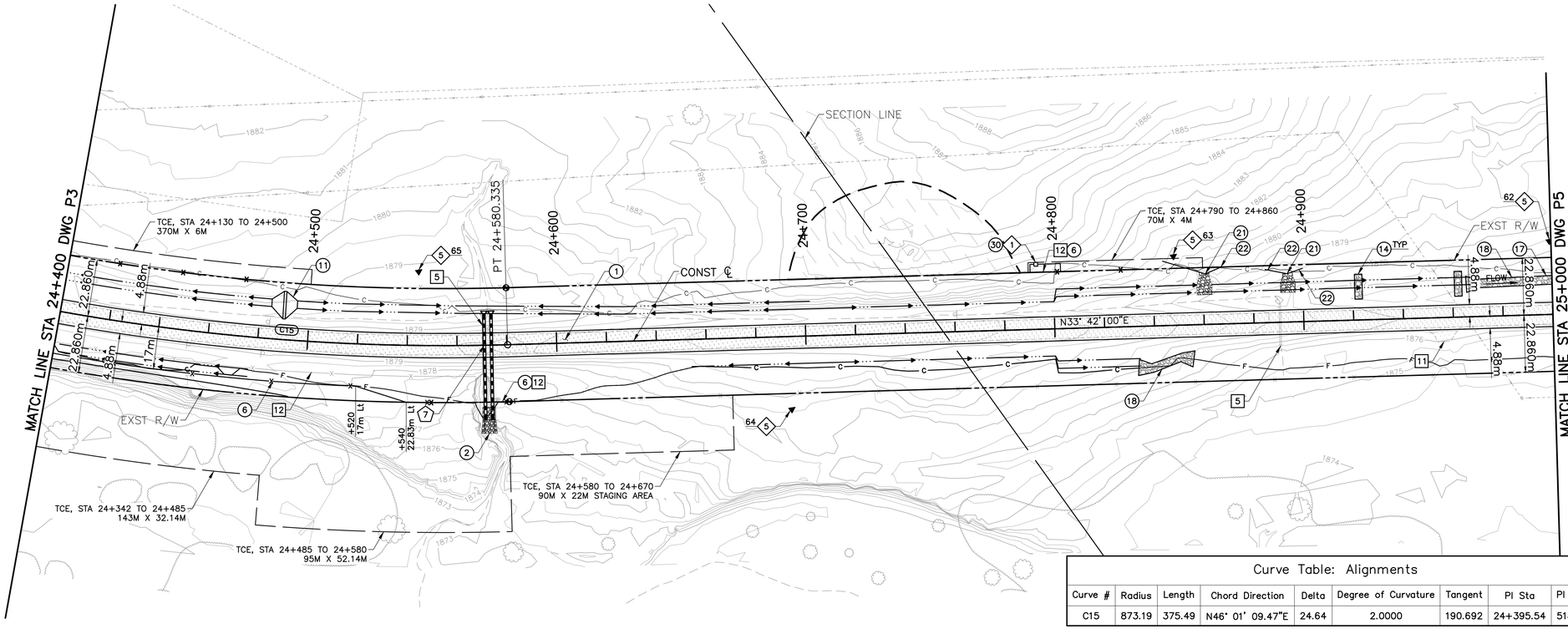
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

ROADWAY PLAN & PROFILE
STA 23+800 TO STA 24+400

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	P3	31 OF 116
SCALE: 1:1000 H | 1:100 V			

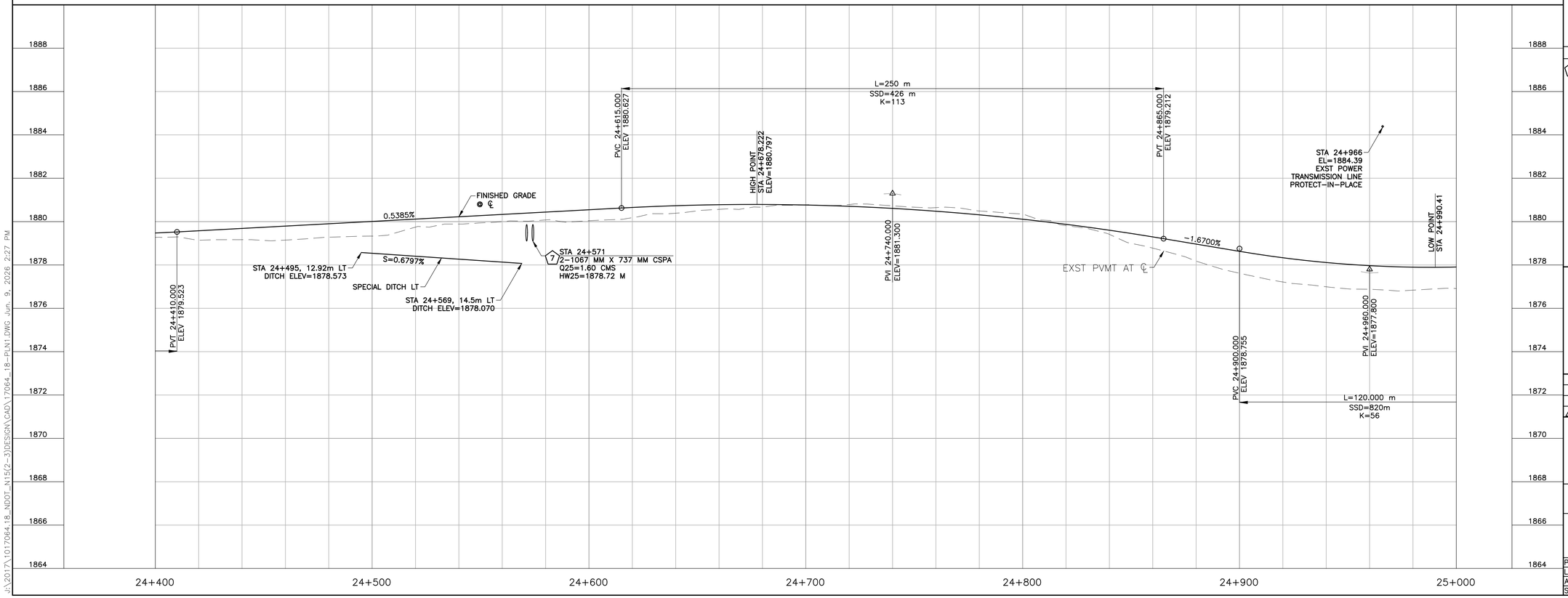
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Curve Table: Alignments

Curve #	Radius	Length	Chord Direction	Delta	Degree of Curvature	Tangent	PI Sta	PI Northing	PI Easting
C15	873.19	375.49	N46° 01' 09.47"E	24.64	2.0000	190.692	24+395.54	518700.60	257316.36

N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

5 REMOVE, CLEAN & STOCKPILE CULVERT

11 OBLITERATE EXST TURNOUT

12 REMOVE BW FENCE

CONSTRUCTION NOTES

1 PAVEMENT SECTION NO 1
76.2MM AC, 101.6MM ABC

2 RIPRAP APRON, CLASS 3
DWG D6

6 BW FENCE, 5-STRAND
DET C4, DWG C4

11 EARTHEN BERM
DWG D3

14 CHECK DAMS
DWG C7

17 TOE OF SLOPE PROTECTION, DWG C8

18 CUT-TO-FILL TRANSITION, DWG C5

21 BACKSLOPE PROTECTION, DWG C9

22 CROWN DITCH, DWG D3

30 TEMPORARY ORANGE PLASTIC FENCE, STEEL T-POSTS, NPI

NOTES

1 SENSITIVE SITE TO BE MONITORED BY NDOT NO GROUND DISTURBING ACTIVITIES ARE ALLOWED WITHIN SITE WITHOUT MONITOR

5 TEMPORARY BENCHMARK, SEE DWG G6 & G7

CULVERTS

REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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Date signed 6/13/26

REVISION	BY	DATE

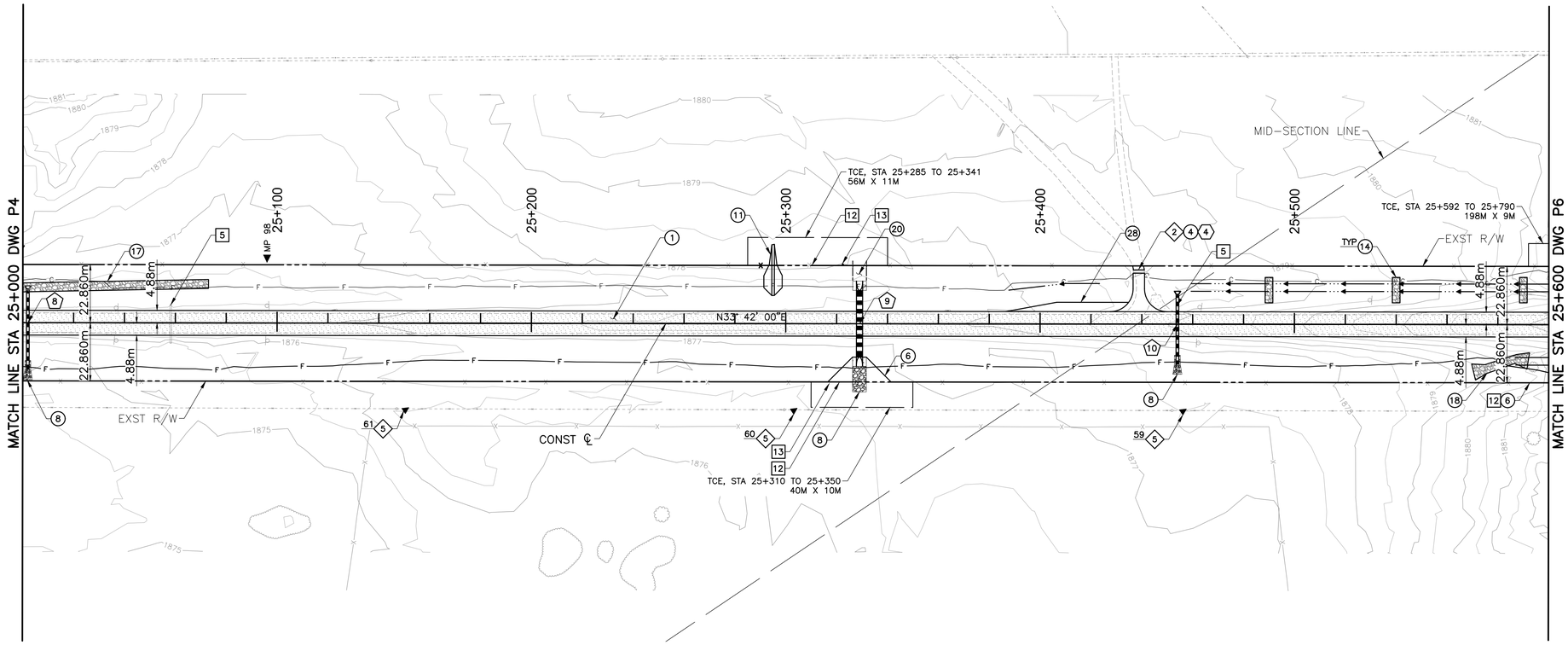
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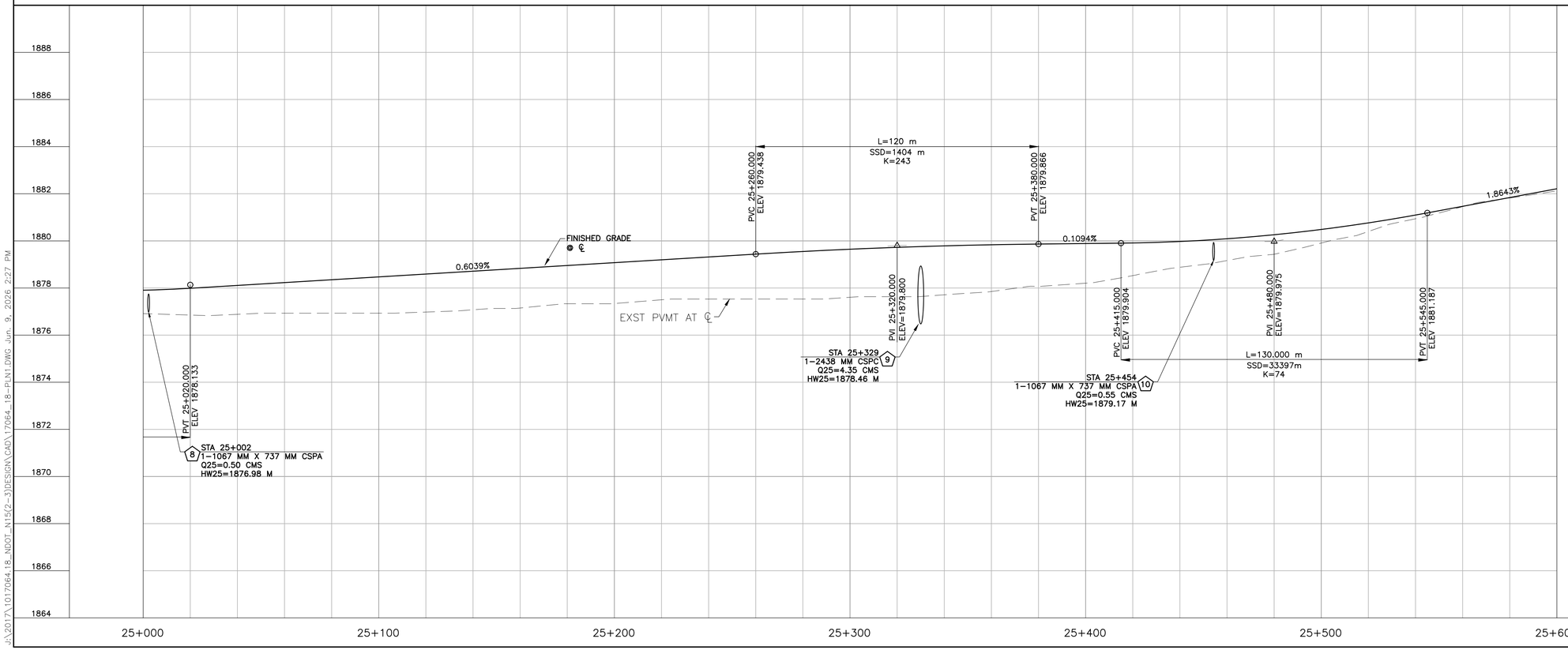
N15(2-3) CORNFIELDS TO BURNSIDE

ROADWAY PLAN & PROFILE
STA 24+400 TO STA 25+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P4	32 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

- [5] REMOVE, CLEAN & STOCKPILE CULVERT
- [12] REMOVE BW FENCE
- [13] REMOVE AND SALVAGE EXST GATE

CONSTRUCTION NOTES

- (1) PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
- (4) RECONSTRUCT TURNOUT DWG G9
- (6) BW FENCE, 5-STRAND DET C4, DWG C4
- (8) RIPRAP APRON, CLASS 1 DWG D6
- (11) EARTHEN BERM DWG D3
- (14) CHECK DAMS DWG C7
- (17) TOE OF SLOPE PROTECTION, DWG C8
- (18) CUT-TO-FILL TRANSITION, DWG C5
- (20) CONSTRUCT DITCH, DWGS G11 & C8
- (28) BUS STOP DWG C9B

NOTES

- ◇2 EXST CATTLEGUARD, PROTECT IN PLACE
- ◇5 TEMPORARY BENCHMARK, SEE DWG G6 & G7
- ◇# REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

◇# REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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REVISION	BY	DATE

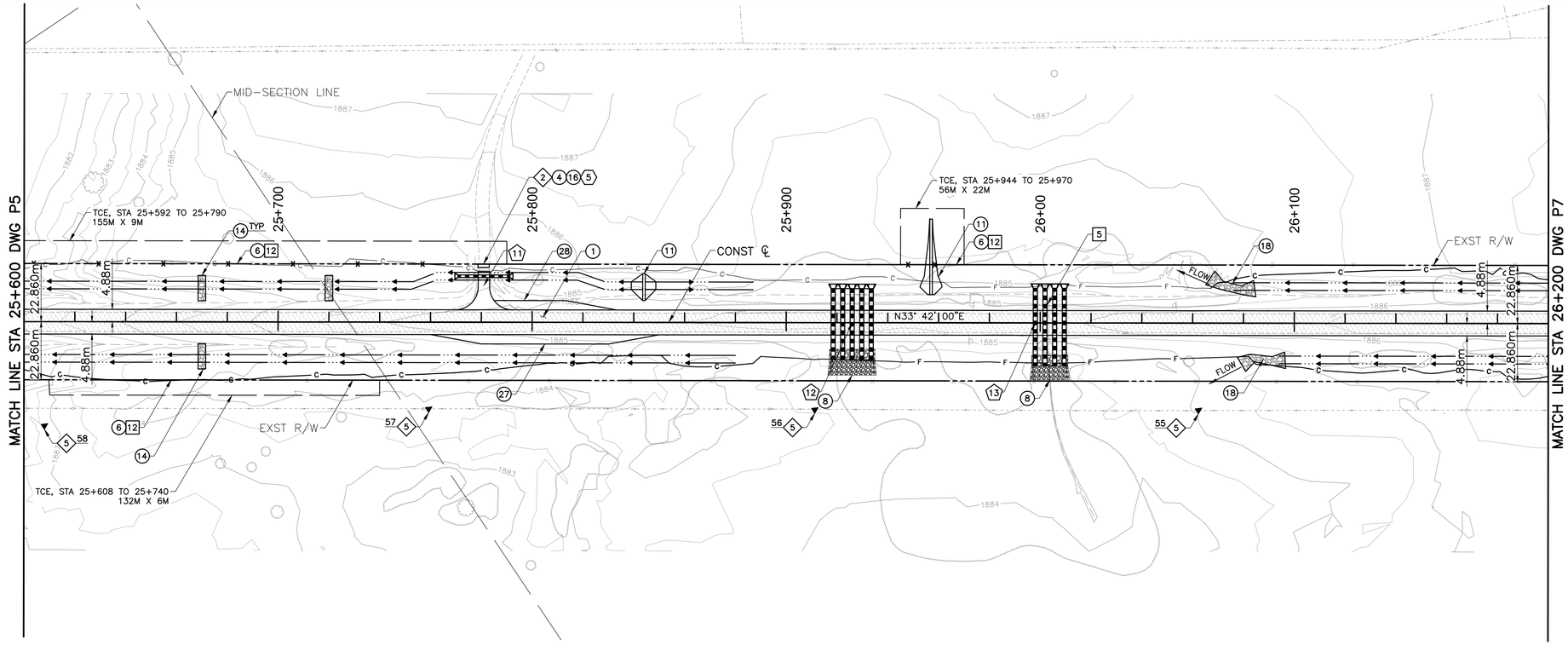
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NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

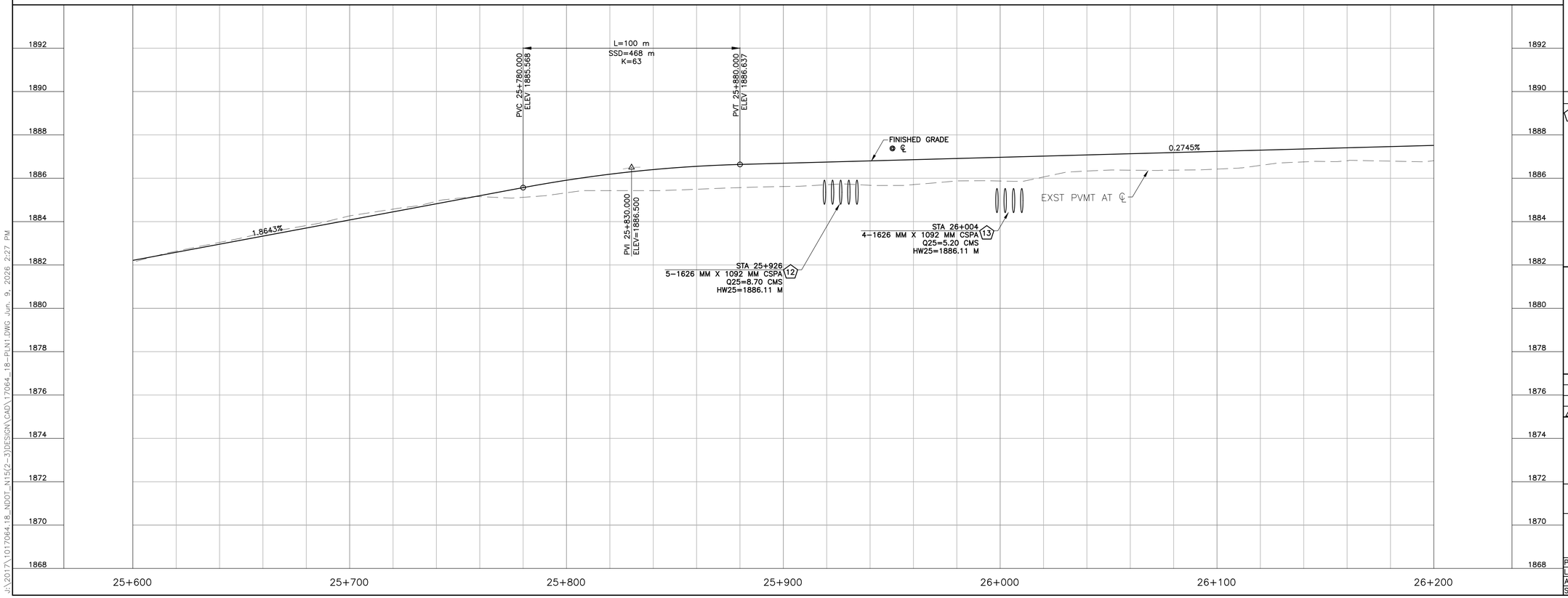
ROADWAY PLAN & PROFILE
STA 25+000 TO STA 25+600

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	P5	33 OF 116
SCALE: 1:1000 H | 1:100 V			

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N15



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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

- 5 REMOVE, CLEAN & STOCKPILE CULVERT
- 12 REMOVE BW FENCE

CONSTRUCTION NOTES

- (1) PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
- (4) RECONSTRUCT TURNOUT DWG G9
- (6) BW FENCE, 5-STRAND DET C4, DWG C4
- (8) RIPRAP APRON, CLASS 1 DWG D6
- (11) EARTHEN BERM DWG D3
- (14) CHECK DAMS DWG C7
- (16) CSPA, 711MM X 508MM R X 14.63M W/ END SECTION AT BOTH ENDS
- (18) CUT-TO-FILL TRANSITION, DWG C5
- (27) BUS PULLOUT DWG C9A
- (28) BUS STOP DWG C9B

NOTES

- ◇2 EXST CATTLEGUARD, PROTECT IN PLACE
- ◇5 TEMPORARY BENCHMARK, SEE DWG G6 & G7
- ◇# REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

- ◇# REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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ANDREW JOHN SPEAR
Date signed 6/13/26
ARIZONA U.S.A.

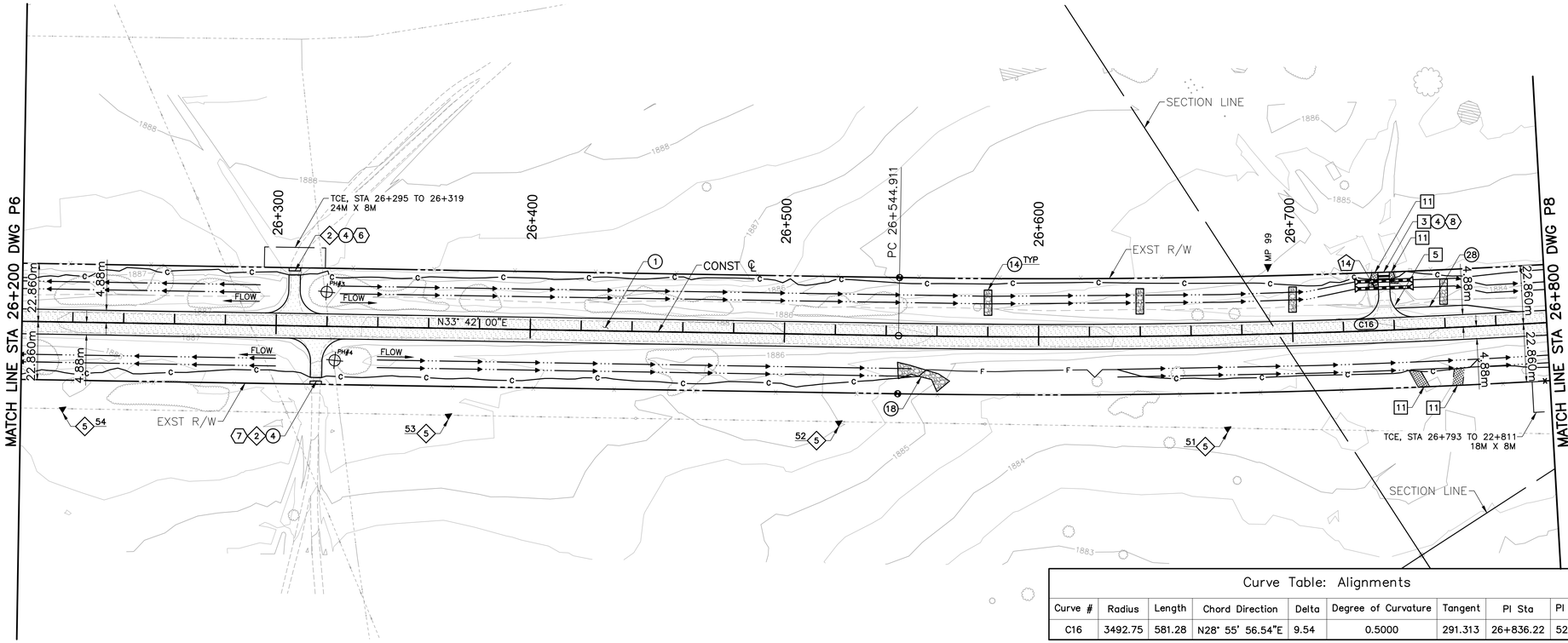
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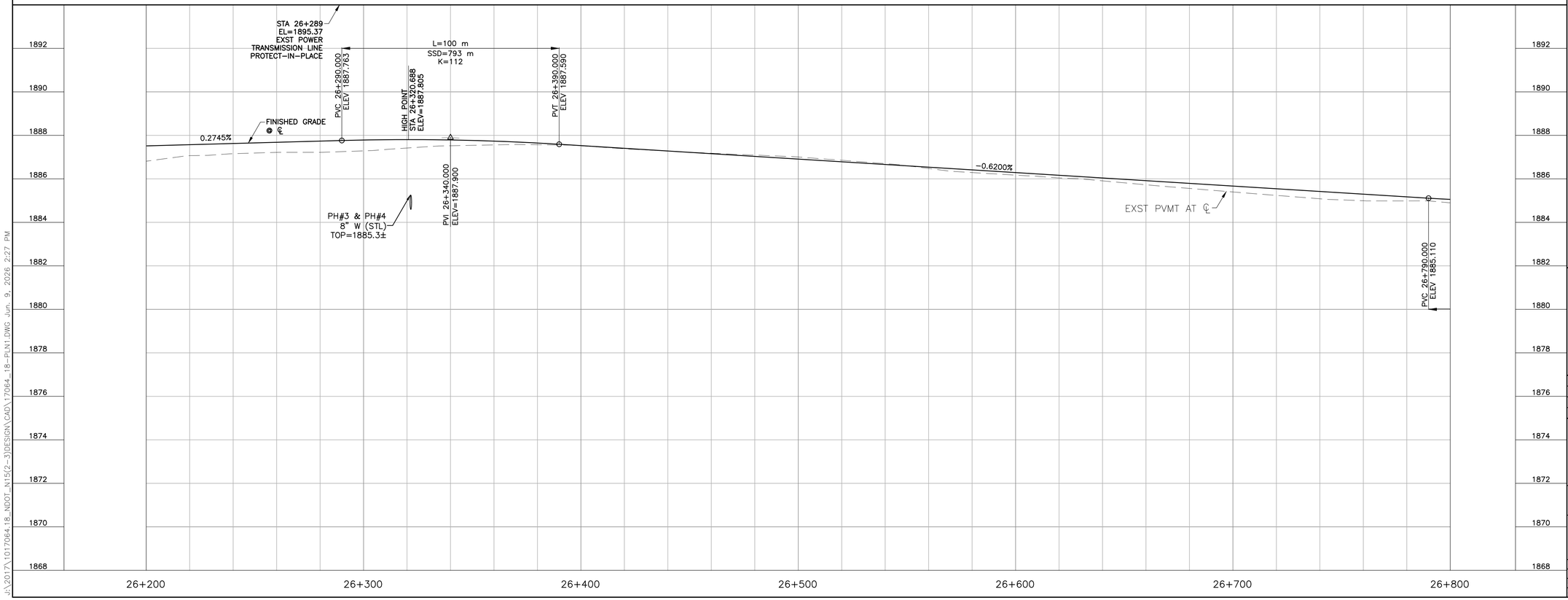
N15(2-3) CORNFIELDS TO BURNSIDE

ROADWAY PLAN & PROFILE
STA 25+600 TO STA 26+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	P6	34 OF 116
SCALE: 1:1000 H | 1:100 V			



N15



Curve Table: Alignments

Curve #	Radius	Length	Chord Direction	Delta	Degree of Curvature	Tangent	PI Sta	PI Northing	PI Easting
C16	3492.75	581.28	N28° 55' 56.54"E	9.54	0.5000	291.313	26+836.22	520736.04	258673.84

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

- [3] REMOVE & RESET CATTLE GUARD BACKFILL & COMPACT VOID
- [5] REMOVE, CLEAN & STOCKPILE CULVERT
- [11] OBLITERATE EXST TURNOUT

CONSTRUCTION NOTES

- (1) PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
- (4) RECONSTRUCT TURNOUT DWG G9
- (14) CHECK DAMS DWG C7
- (18) CUT-TO-FILL TRANSITION, DWG C5
- (28) BUS STOP DWG C9B

NOTES

- ⟨2⟩ EXST CATTLEGUARD, PROTECT IN PLACE
- ⟨5⟩ TEMPORARY BENCHMARK, SEE DWG G6 & G7
- ⟨#⟩ REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date signed 6/13/26
ARIZONA U.S.A.

REVISION	BY	DATE

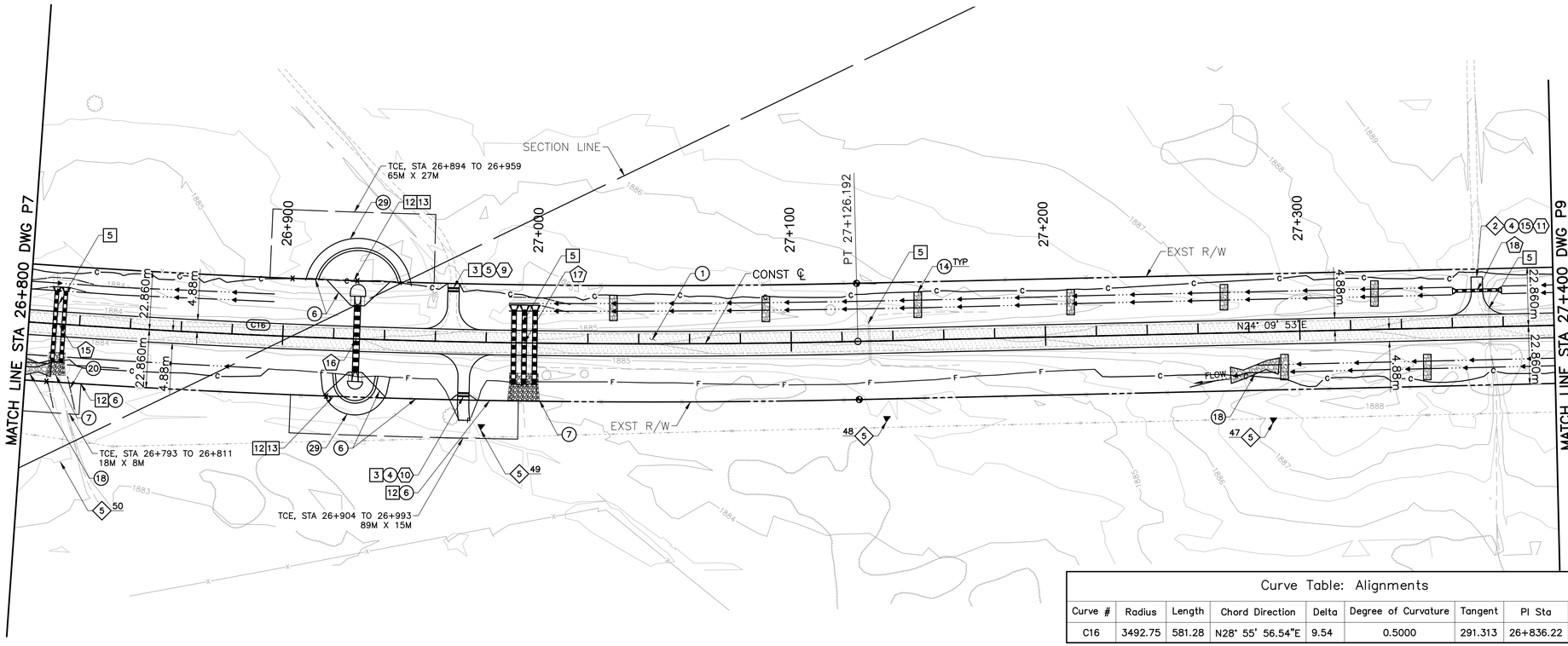
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

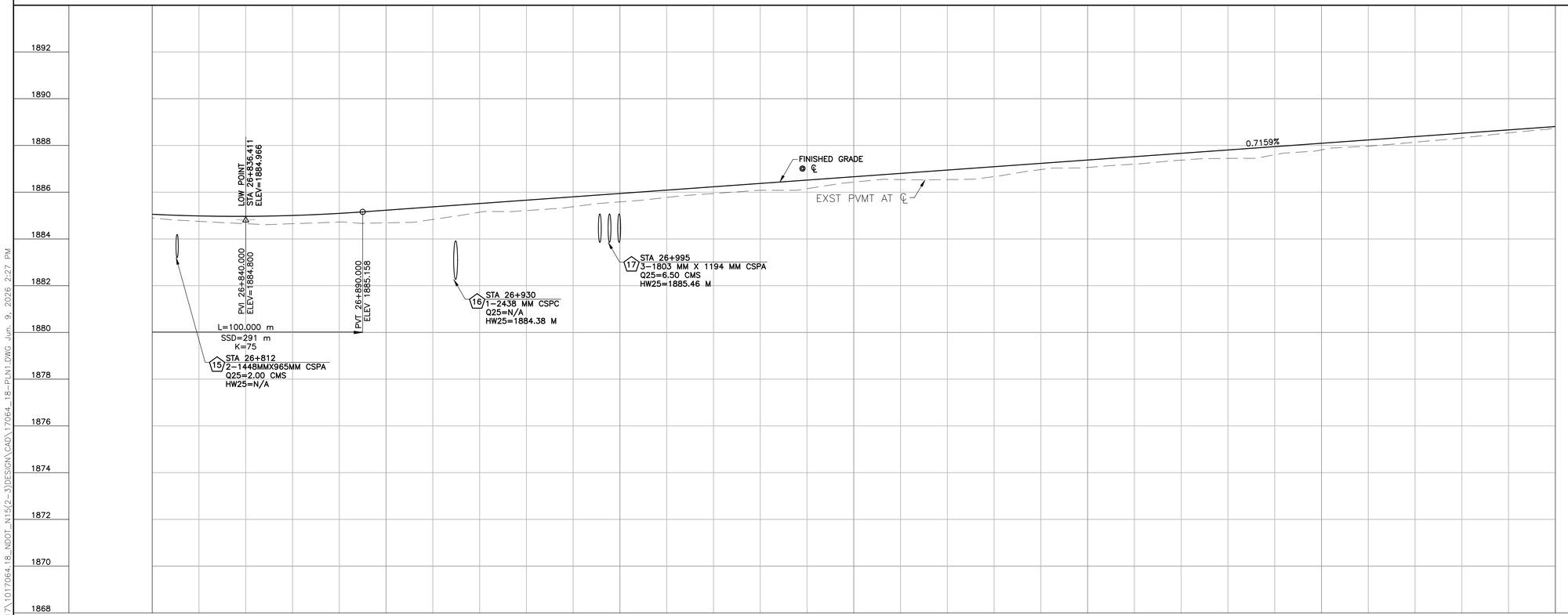
ROADWAY PLAN & PROFILE
STA 26+200 TO STA 26+800

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P7	35 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			

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N15



Curve Table: Alignments

Curve #	Radius	Length	Chord Direction	Delta	Degree of Curvature	Tangent	PI Sta	PI Northing	PI Easting
C16	3492.75	581.28	N28° 55' 56.54"E	9.54	0.5000	291.313	26+836.22	520736.04	258673.84

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

- 3 REMOVE & RESET CATTLE GUARD BACKFILL & COMPACT VOID
- 5 REMOVE, CLEAN & STOCKPILE CULVERT
- 12 REMOVE BW FENCE
- 13 REMOVE AND SALVAGE EXST GATE

CONSTRUCTION NOTES

- (1) PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
- (4) RECONSTRUCT TURNOUT DWG G9
- (5) CATTLE GUARD, 16' DET A, DWG C1 & C2 FLH STD DET 619-1
- (6) BW FENCE, 5-STRAND DET C4, DWG C4
- (7) RIPRAP APRON, CLASS 1 DWG D6
- (14) CHECK DAMS DWG C7
- (15) CSPC, 610MM W/ END SECTION AT BOTH ENDS
- (18) CUT-TO-FILL TRANSITION, DWG C5
- (20) CONSTRUCT DITCH, DWGS G11 & C8
- (29) LIVESTOCK EARTHEN BERM DWG C6

NOTES

- ◇2 EXST CATTLEGUARD, PROTECT IN PLACE
- ◇5 TEMPORARY BENCHMARK, SEE DWG G6 & G7
- ◇# REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

- ◇# REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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REVISION	BY	DATE

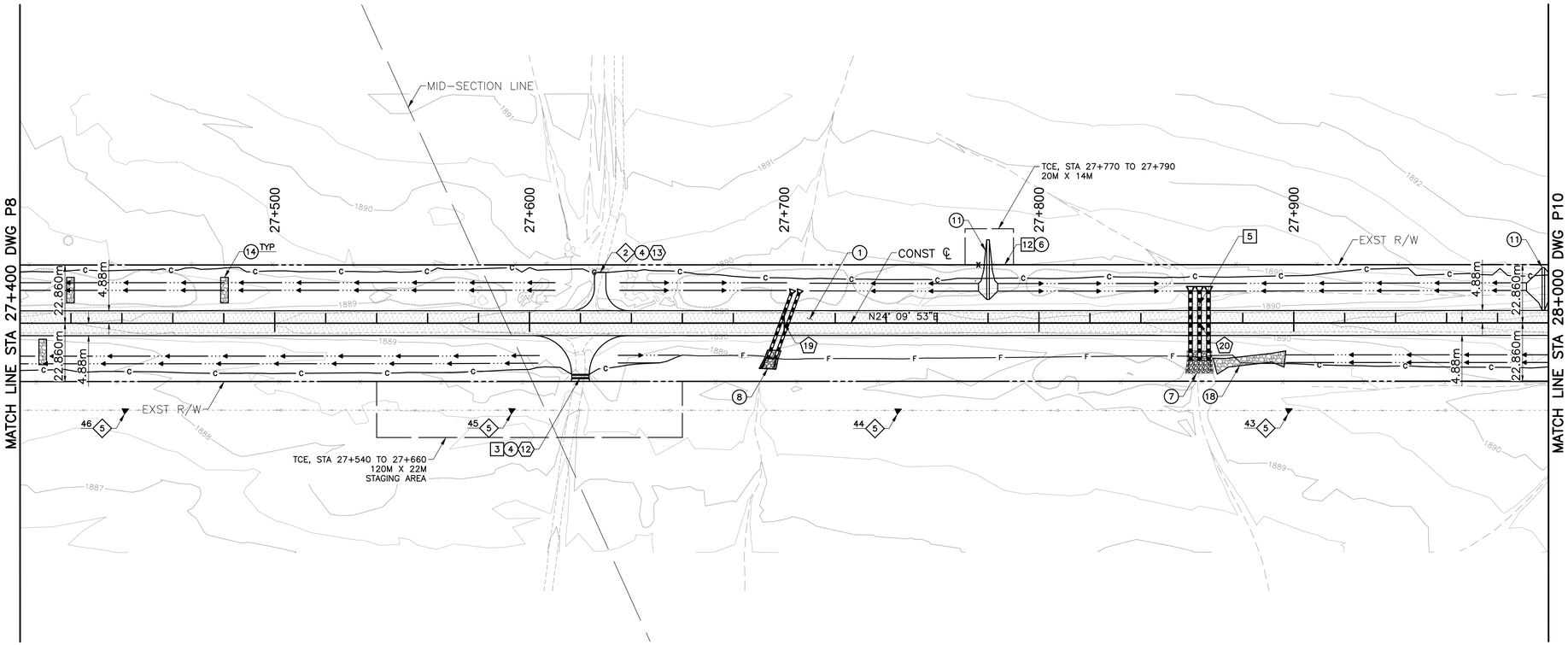
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N15(2-3) CORNFIELDS TO BURNSIDE

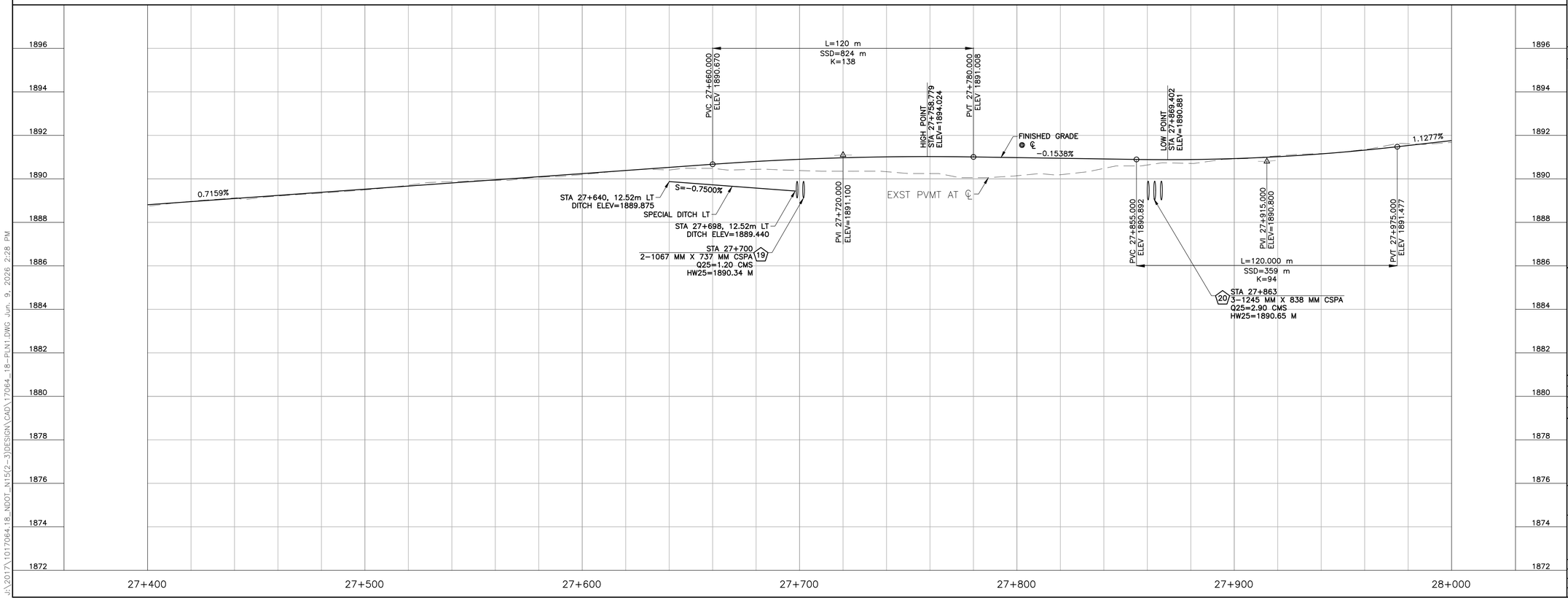
ROADWAY PLAN & PROFILE
STA 26+800 TO STA 27+400

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P8	36 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

- 3 REMOVE & RESET CATTLE GUARD BACKFILL & COMPACT VOID
- 5 REMOVE, CLEAN & STOCKPILE CULVERT
- 12 REMOVE BW FENCE

CONSTRUCTION NOTES

- 1 PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
- 4 RECONSTRUCT TURNOUT DWG G9
- 6 BW FENCE, 5-STRAND DET C4, DWG C4
- 7 RIPRAP APRON, CLASS 1 DWG D6
- 11 EARTHEN BERM DWG D3
- 14 CHECK DAMS DWG C7
- 18 CUT-TO-FILL TRANSITION, DWG C5

NOTES

- ◇2 EXST CATTLEGUARD, PROTECT IN PLACE
- ◇5 TEMPORARY BENCHMARK, SEE DWG G6 & G7
- ◇# REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

- ◇# REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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REVISION	BY	DATE

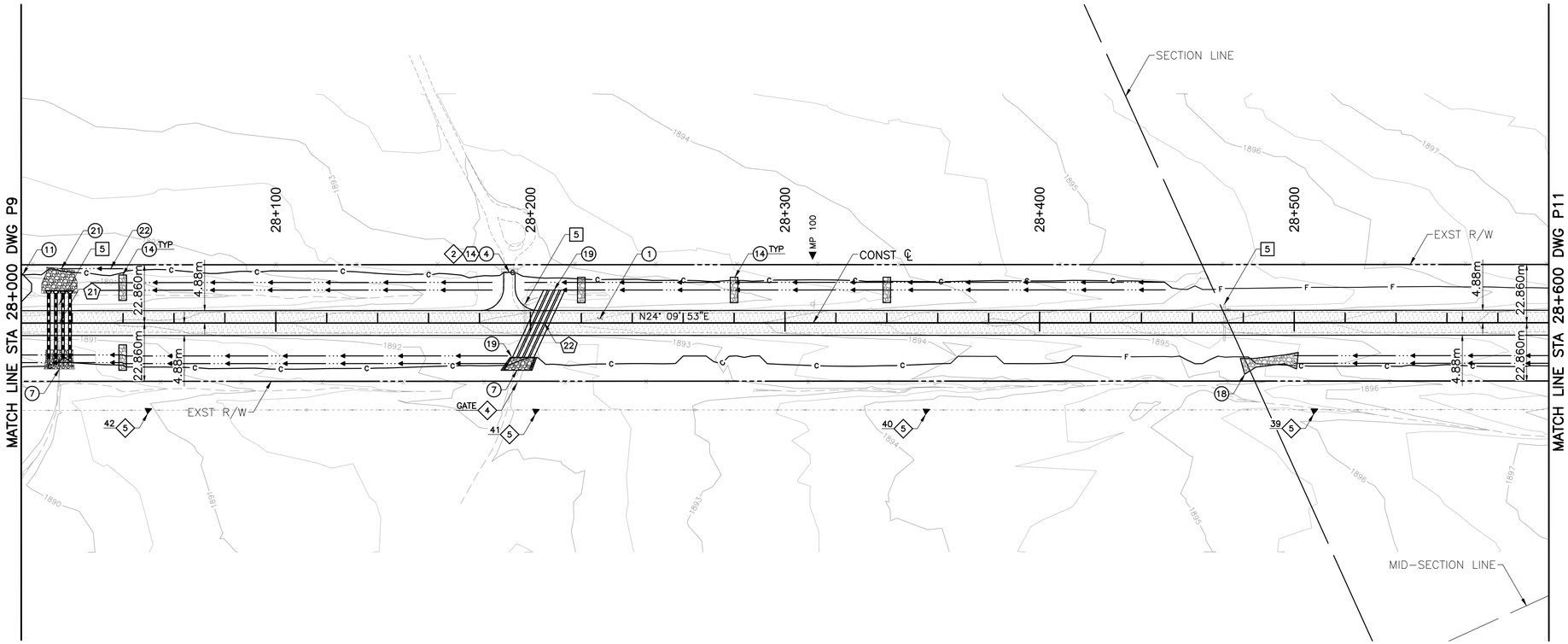
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N15(2-3) CORNFIELDS TO BURNSIDE

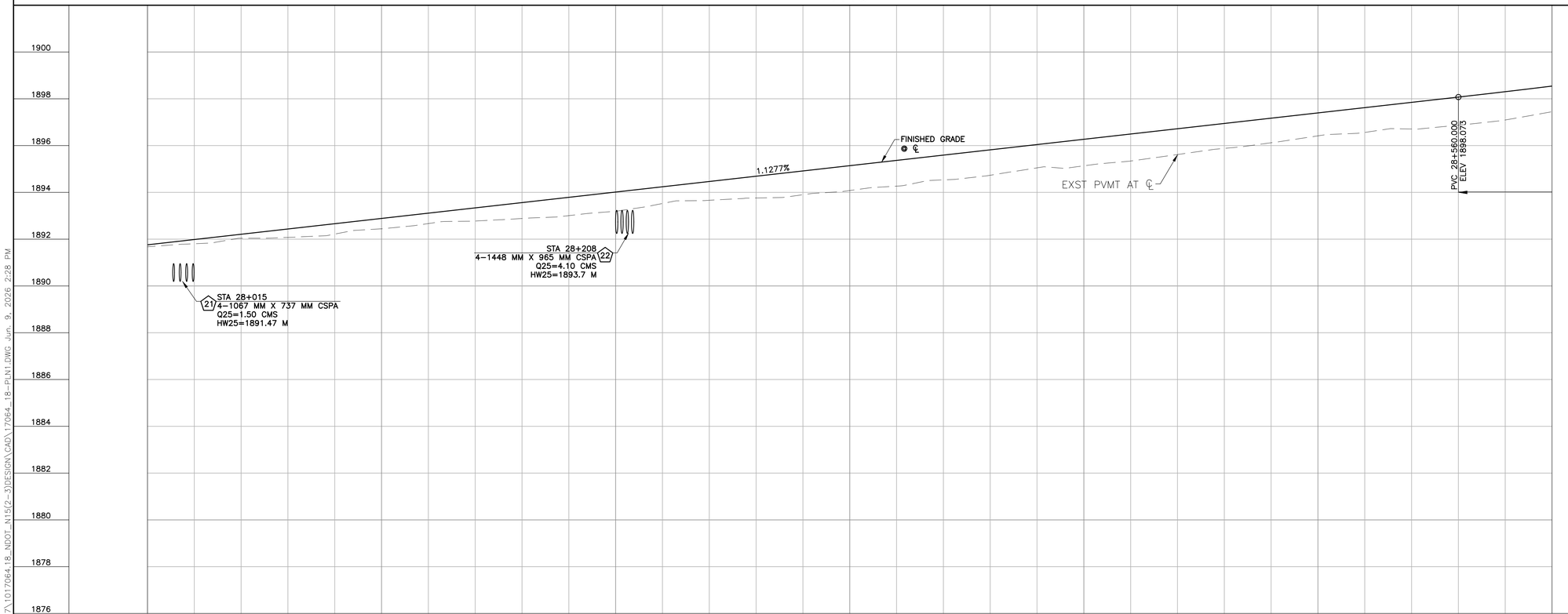
ROADWAY PLAN & PROFILE
STA 27+400 TO STA 28+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P9	37 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			

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N15



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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

5 REMOVE, CLEAN & STOCKPILE CULVERT

CONSTRUCTION NOTES

1. PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
4. RECONSTRUCT TURNOUT DWG G9
7. RIPRAP APRON, CLASS 2 DWG D6
11. EARTHEN BERM DWG D3
14. CHECK DAMS DWG C7
19. SKEWED CULVERT HEADWALL, DWG D9
21. BACKSLOPE PROTECTION, DWG C9
22. CROWN DITCH, DWG D3

NOTES

2 EXST CATTLEGUARD, PROTECT IN PLACE
4 PROTECT IN PLACE
5 TEMPORARY BENCHMARK, SEE DWG G6 & G7
REFER TO DWG C8–C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

REFER TO DWG DC1–DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
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SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date Signed 6/9/26

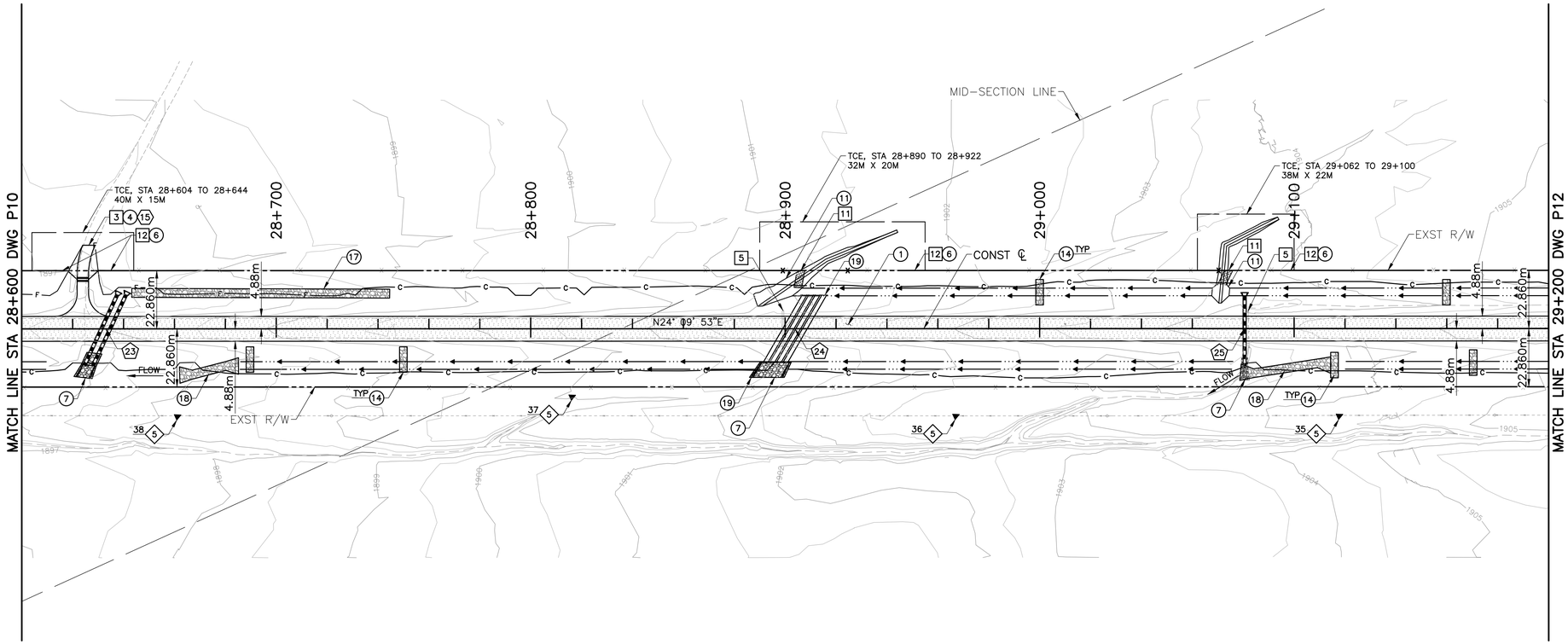
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DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

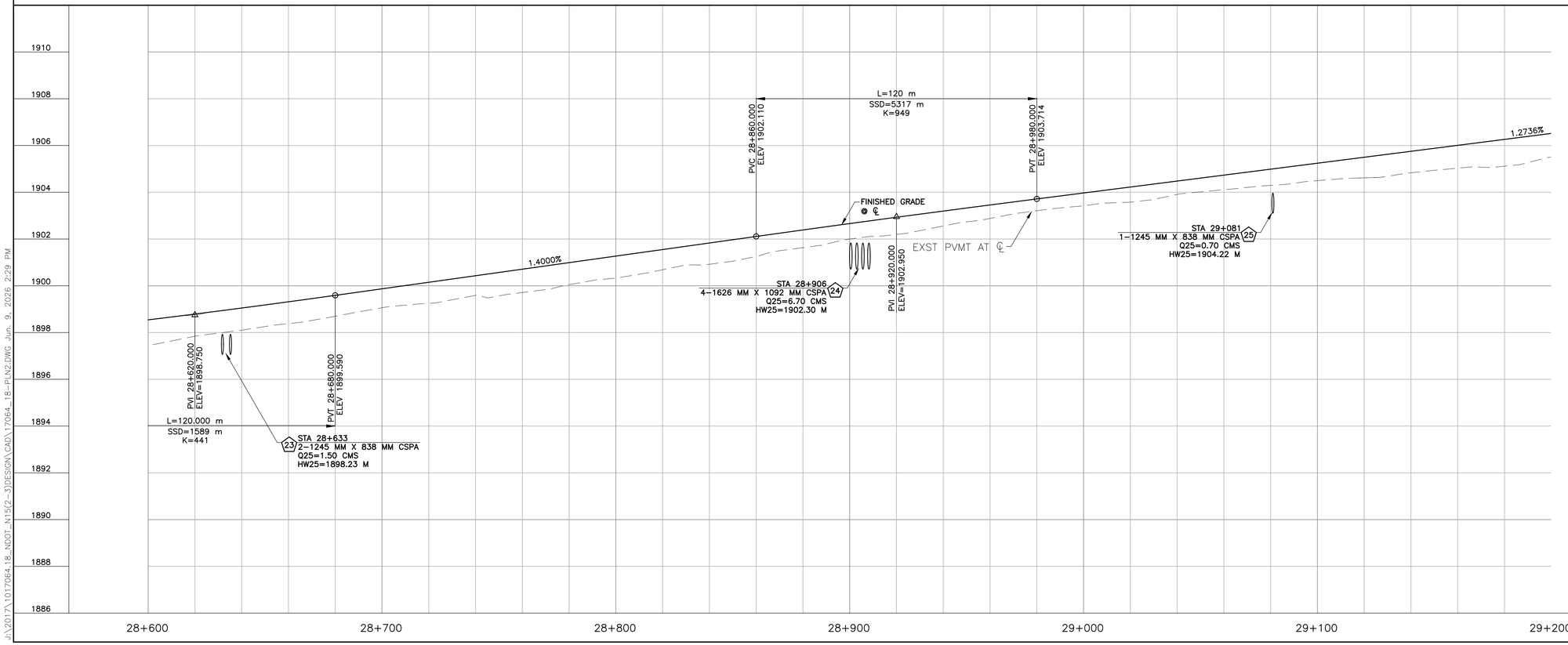
N15(2-3) CORNFIELDS TO BURNSIDE

ROADWAY PLAN & PROFILE
STA 28+000 TO STA 28+600

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P10	38 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			



N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

- 5 REMOVE, CLEAN & STOCKPILE CULVERT
- 11 OBLITERATE EXST TURNOUT

CONSTRUCTION NOTES

- (1) PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
- (4) RECONSTRUCT TURNOUT DWG G9
- (7) RIPRAP APRON, CLASS 1 DWG D6
- (11) EARTHEN BERM DWG D3
- (14) CHECK DAMS DWG C7
- (17) TOE OF SLOPE PROTECTION, DWG C8
- (18) CUT-TO-FILL TRANSITION, DWG C5
- (19) SKEWED CULVERT HEADWALL, DWG D9

NOTES

- ⟨5⟩ TEMPORARY BENCHMARK, SEE DWG G6 & G7
- ⟨#⟩ REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

- ⟨#⟩ REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date signed 6/13/26

REVISION	BY	DATE

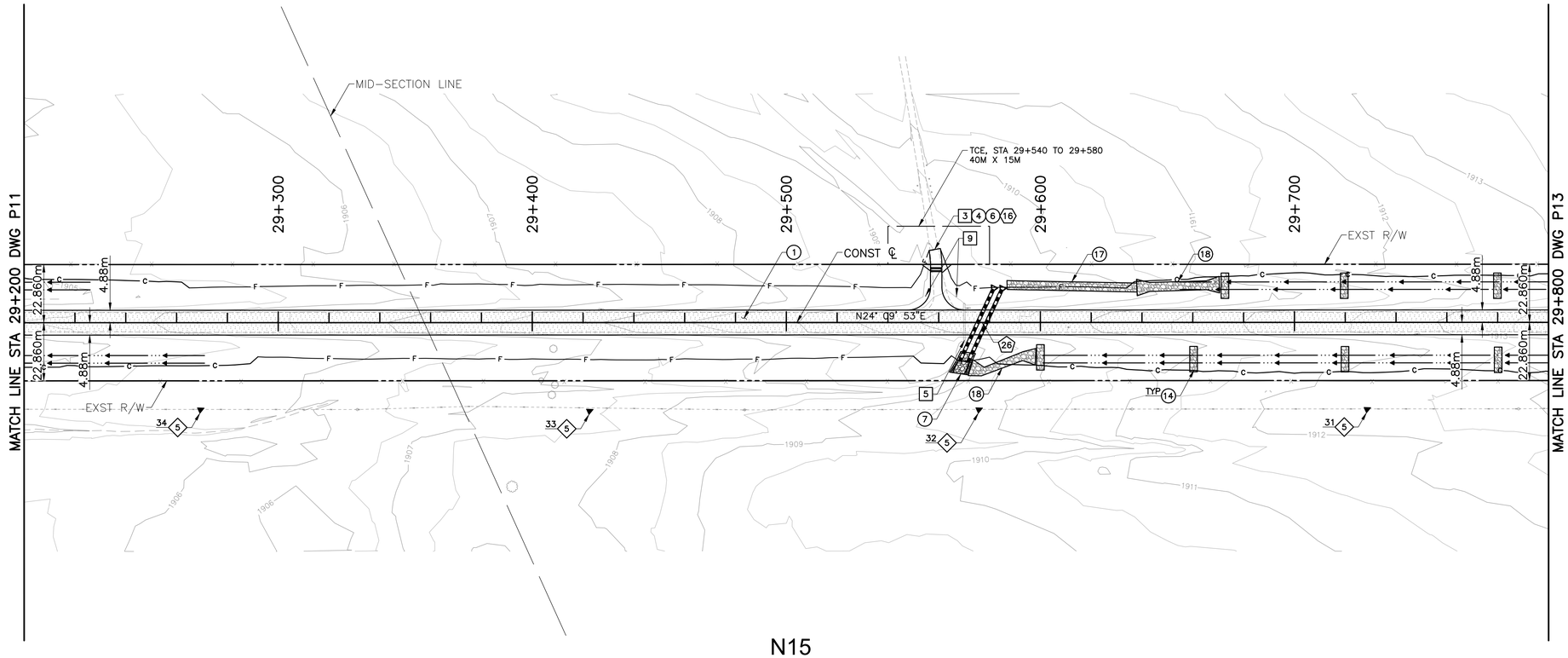
NAVAJO NATION
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NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

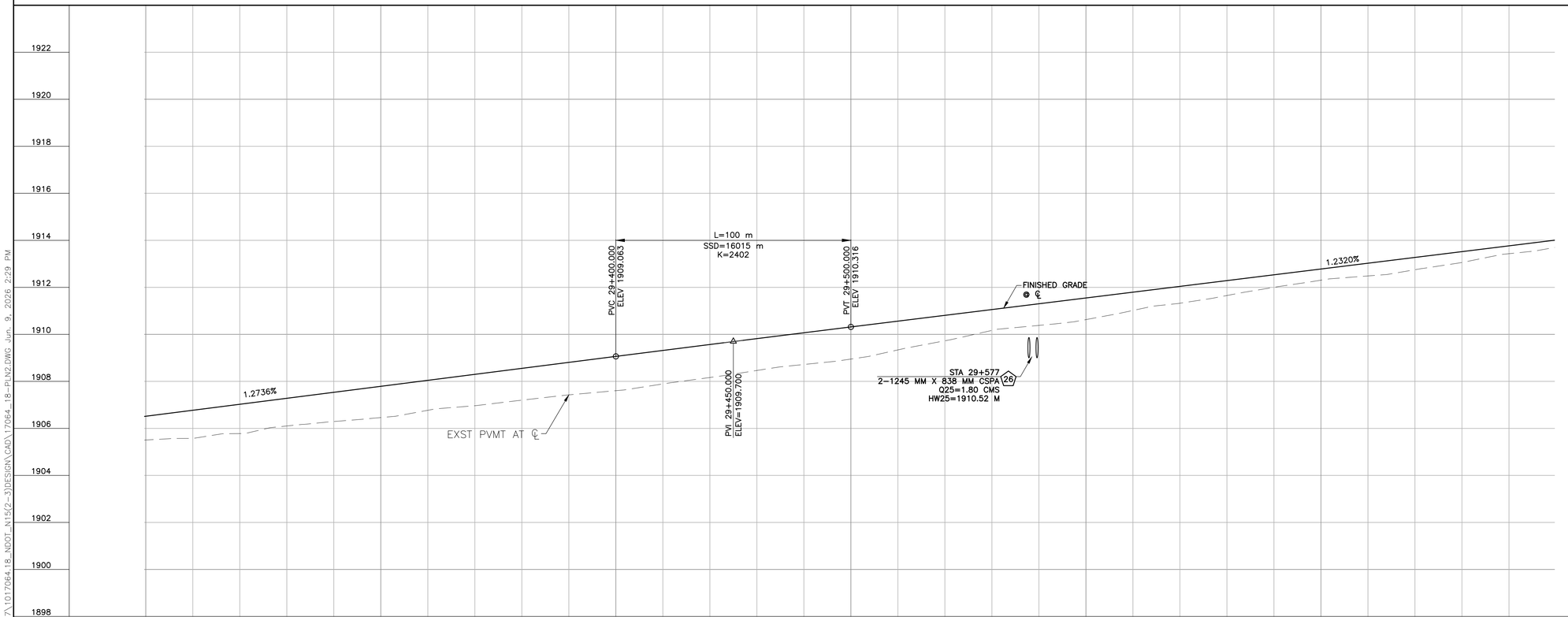
ROADWAY PLAN & PROFILE
STA 28+600 TO STA 29+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P11	39 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

3 REMOVE & RESET CATTLE GUARD BACKFILL & COMPACT VOID

5 REMOVE, CLEAN & STOCKPILE CULVERT

9 REMOVE POST

CONSTRUCTION NOTES

1 PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC

4 RECONSTRUCT TURNOUT DWG G9

6 BW FENCE, 5-STRAND DET C4, DWG C4

7 RIPRAP APRON, CLASS 1 DWG D6

14 CHECK DAMS DWG C7

17 TOE OF SLOPE PROTECTION, DWG C8

18 CUT-TO-FILL TRANSITION, DWG C5

NOTES

1 SENSITIVE SITE TO BE MONITORED BY NDOT NO GROUND DISTURBING ACTIVITIES ARE ALLOWED WITHIN SITE WITHOUT MONITOR

5 TEMPORARY BENCHMARK, SEE DWG G6 & G7

REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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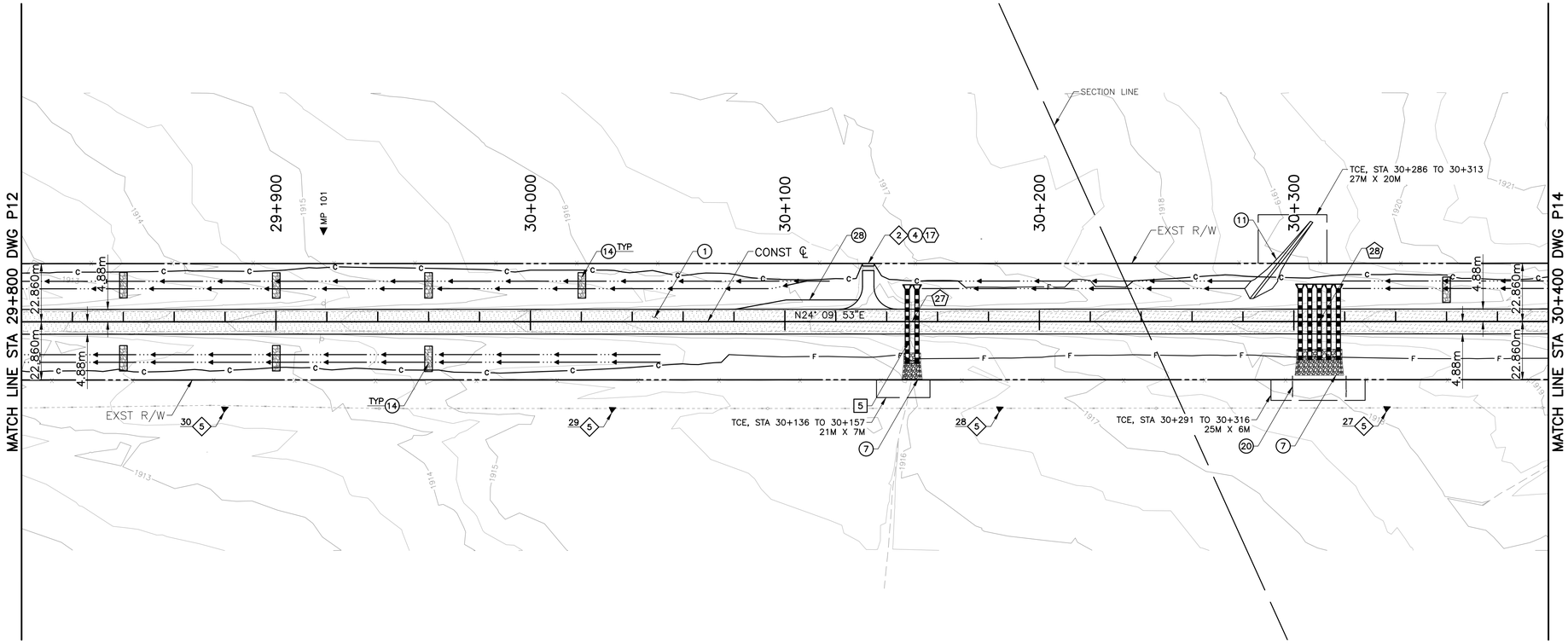
NAVAJO NATION
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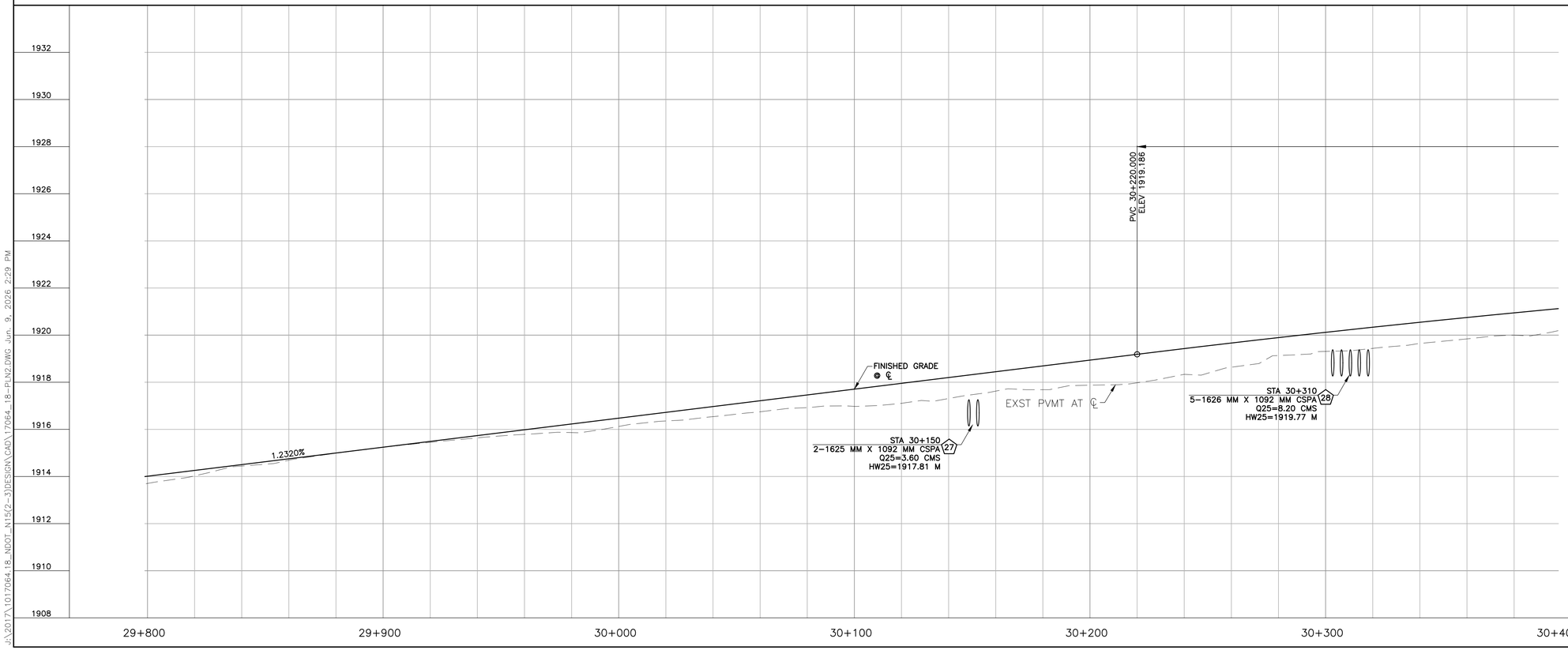
N15(2-3) CORNFIELDS TO BURNSIDE

ROADWAY PLAN & PROFILE
STA 29+200 TO STA 29+800

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P12	40 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

5 REMOVE, CLEAN & STOCKPILE CULVERT

CONSTRUCTION NOTES

1. PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
4. RECONSTRUCT TURNOUT DWG G9
7. RIPRAP APRON, CLASS 1 DWG D6
11. EARTHEN BERM DWG D3
14. CHECK DAMS DWG C7
20. CONSTRUCT DITCH, DWGS G11 & C8
28. BUS STOP DWG C9B

NOTES

2 EXST CATTLEGUARD, PROTECT IN PLACE

5 TEMPORARY BENCHMARK, SEE DWG G6 & G7

REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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REVISION	BY	DATE

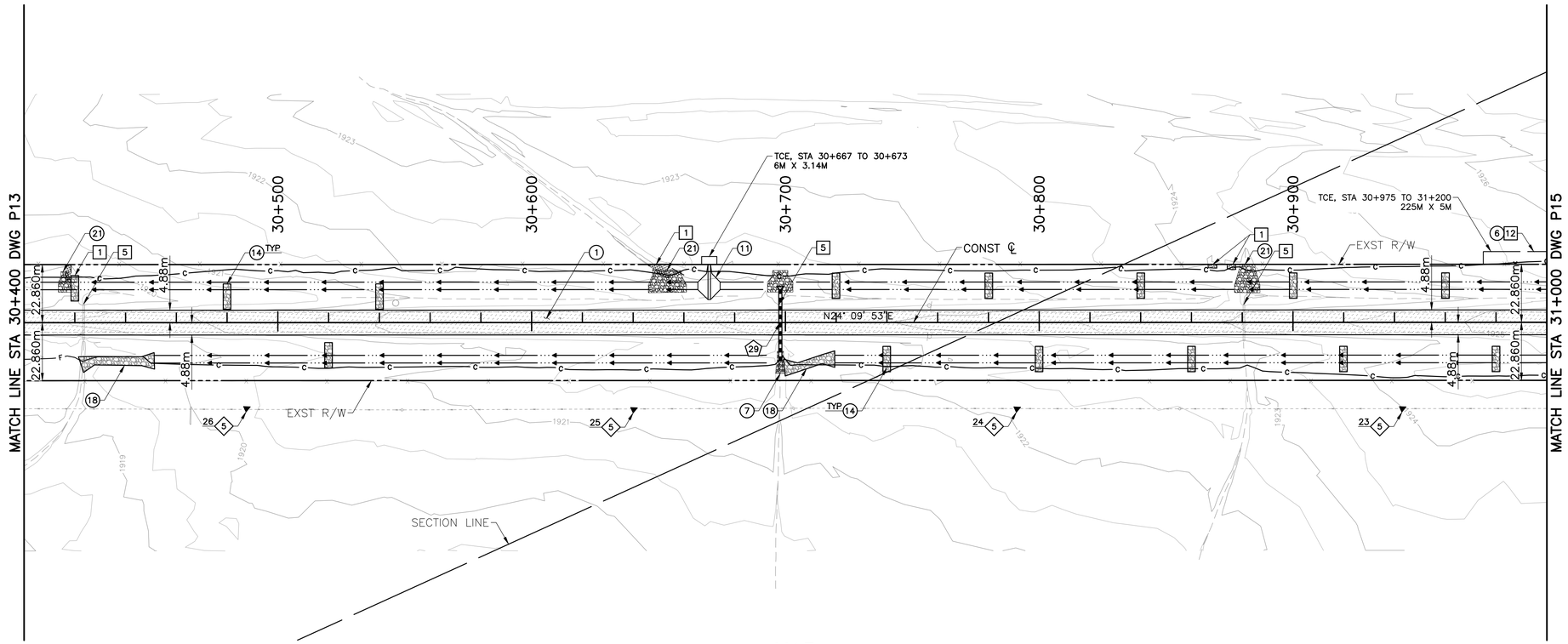
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N15(2-3) CORNFIELDS TO BURNSIDE

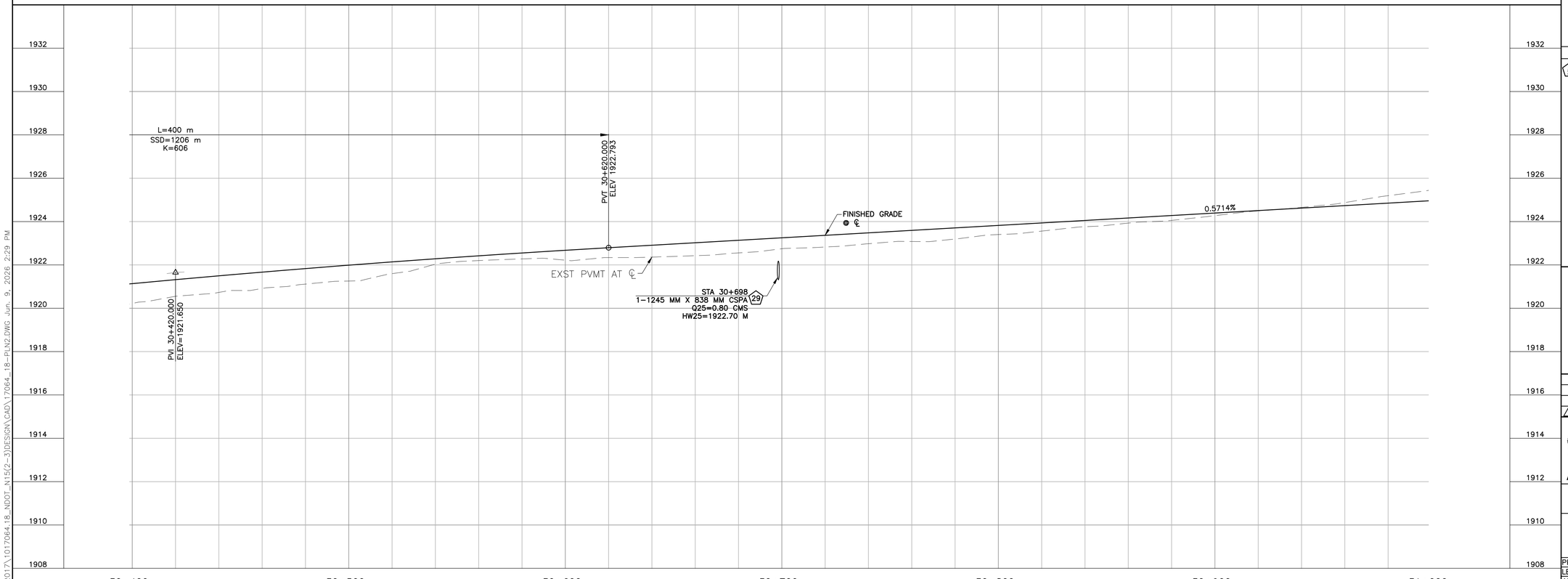
ROADWAY PLAN & PROFILE
STA 29+800 TO STA 30+400

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P13	41 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

1. OBLITERATE ROADWAY, SEE DWG G4
5. REMOVE, CLEAN & STOCKPILE CULVERT
12. REMOVE BW FENCE

CONSTRUCTION NOTES

1. PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
6. BW FENCE, 5-STRAND DET C4, DWG C4
7. RIPRAP APRON, CLASS 1 DWG D6
11. EARTHEN BERM DWG D3
14. CHECK DAMS DWG C7
18. CUT-TO-FILL TRANSITION, DWG C5
21. BACKSLOPE PROTECTION, DWG C9

NOTES

5. TEMPORARY BENCHMARK, SEE DWG G6 & G7

CULVERTS

#. REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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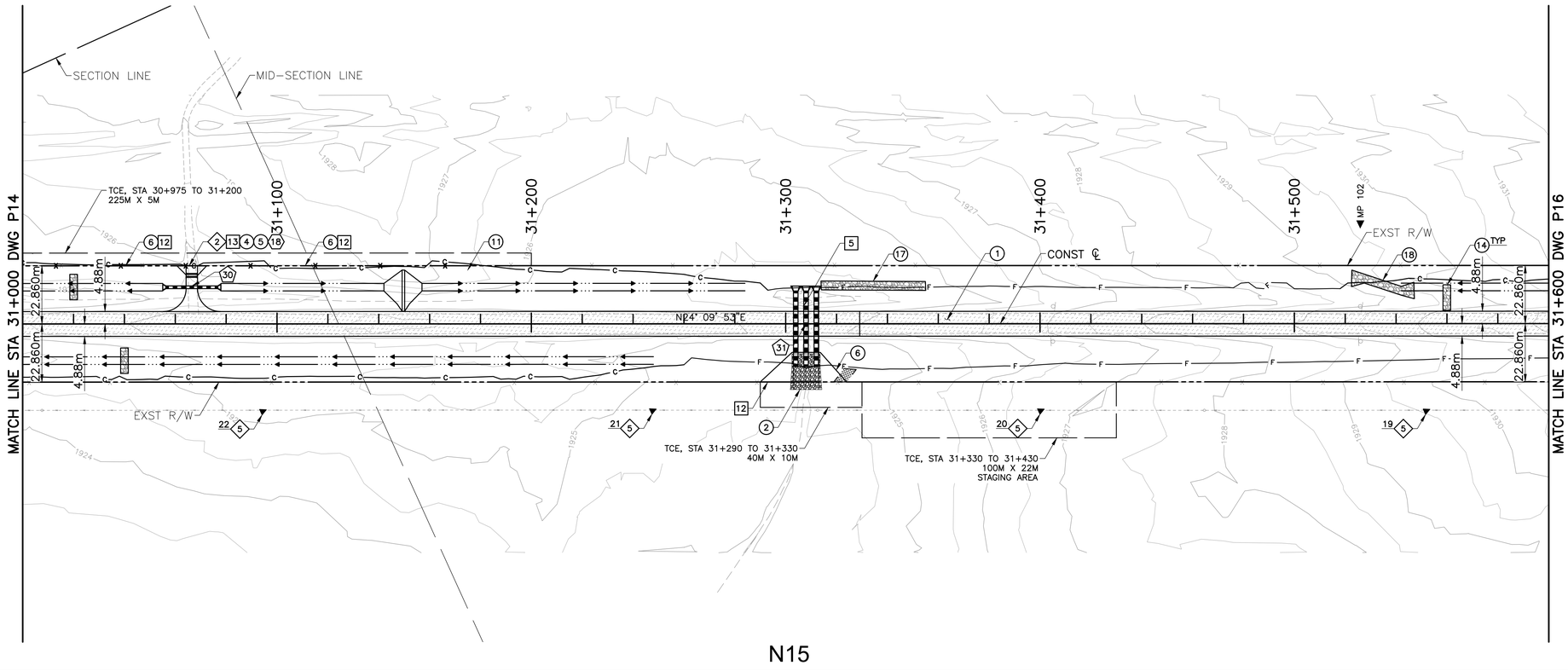
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N15(2-3) CORNFIELDS TO BURNSIDE

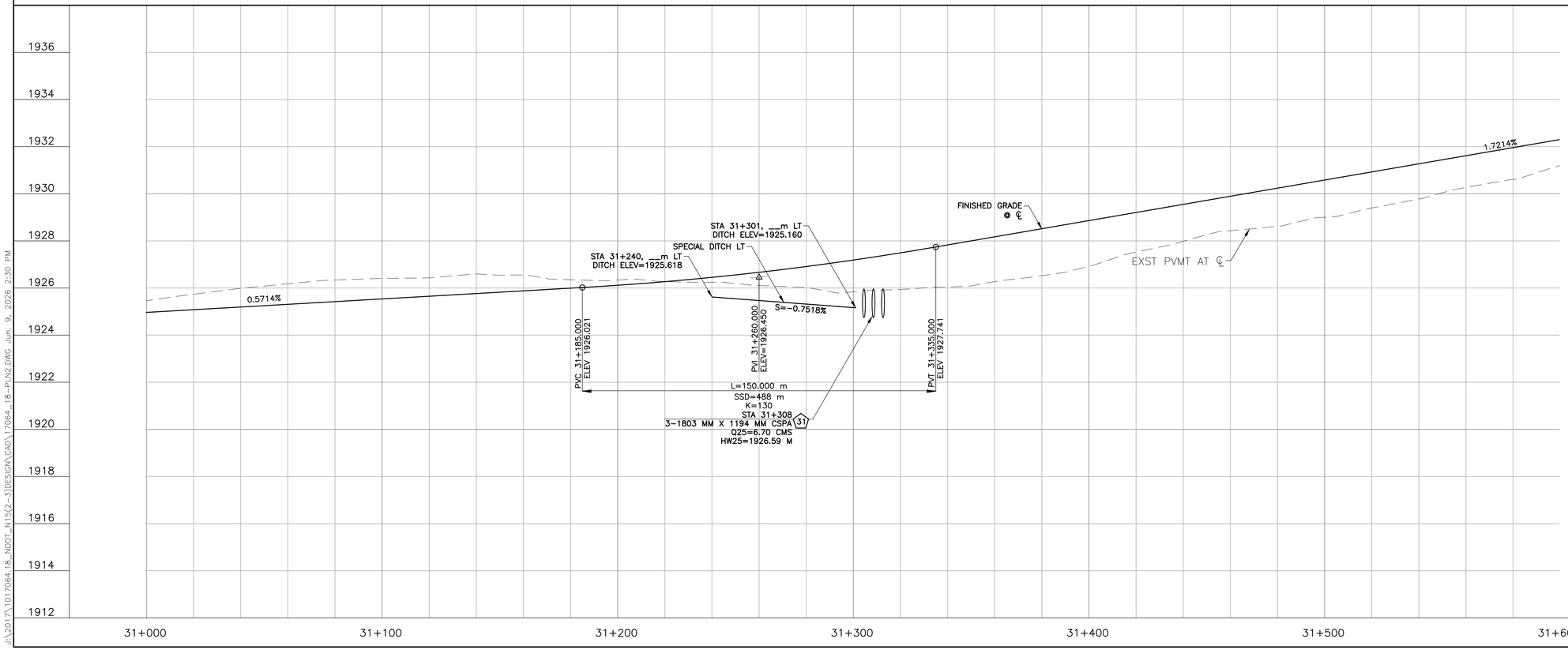
ROADWAY PLAN & PROFILE
STA 30+400 TO STA 31+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	P14	42 OF 116
SCALE: 1:1000 H | 1:100 V			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

- 5 REMOVE, CLEAN & STOCKPILE CULVERT
- 12 REMOVE BW FENCE
- 13 REMOVE AND SALVAGE EXST GATE

CONSTRUCTION NOTES

- (1) PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
- (2) RIPRAP APRON, CLASS 3 DWG D6
- (4) RECONSTRUCT TURNOUT DWG G9
- (5) CATTLE GUARD, 16' DET A, DWG C1 & C2 FLH STD DET 619-1
- (6) BW FENCE, 5-STRAND DET C4, DWG C4
- (11) EARTHEN BERM DWG D3
- (14) CHECK DAMS DWG C7
- (17) TOE OF SLOPE PROTECTION, DWG C8
- (18) CUT-TO-FILL TRANSITION, DWG C5

NOTES

- ◇2 EXST CATTLEGUARD, PROTECT IN PLACE
- ◇5 TEMPORARY BENCHMARK, SEE DWG G6 & G7
- ◇# REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

- ◇# REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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Date signed 6/13/26

REVISION	BY	DATE

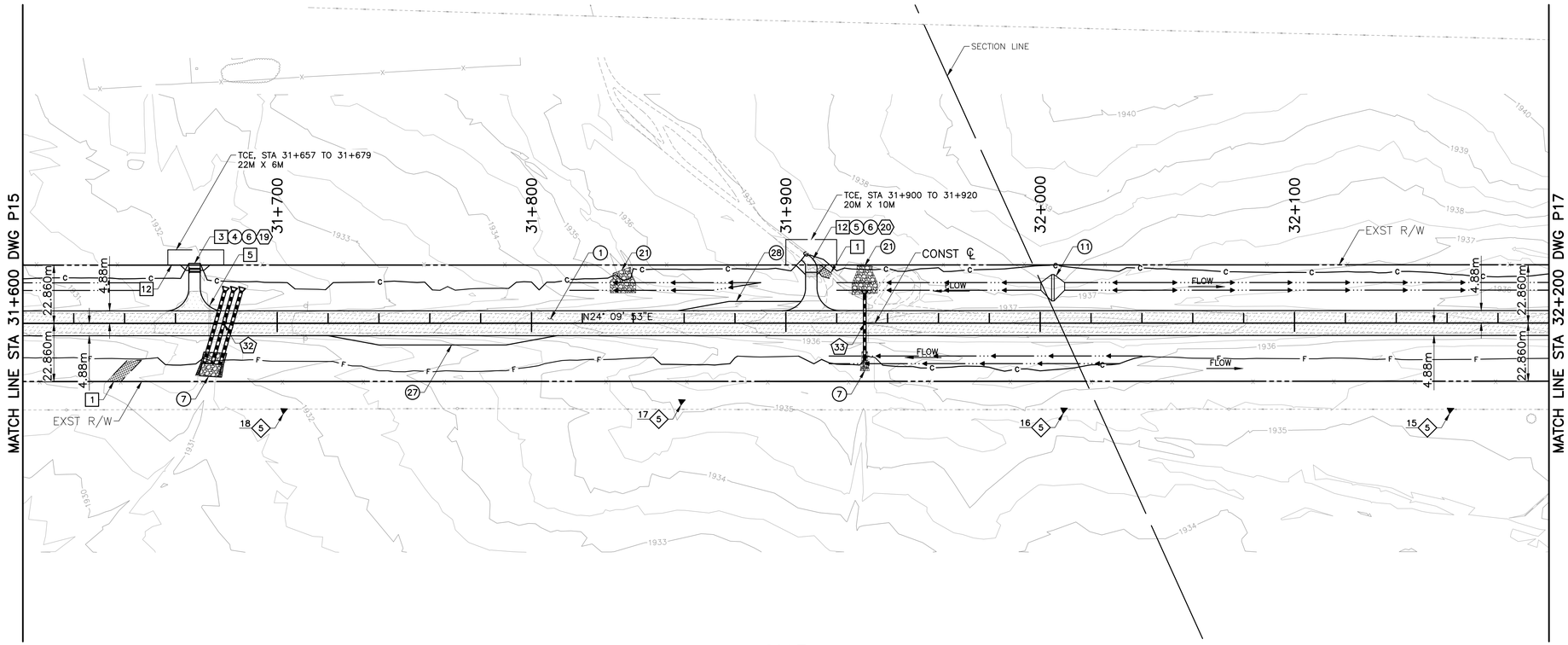
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N15(2-3) CORNFIELDS TO BURNSIDE

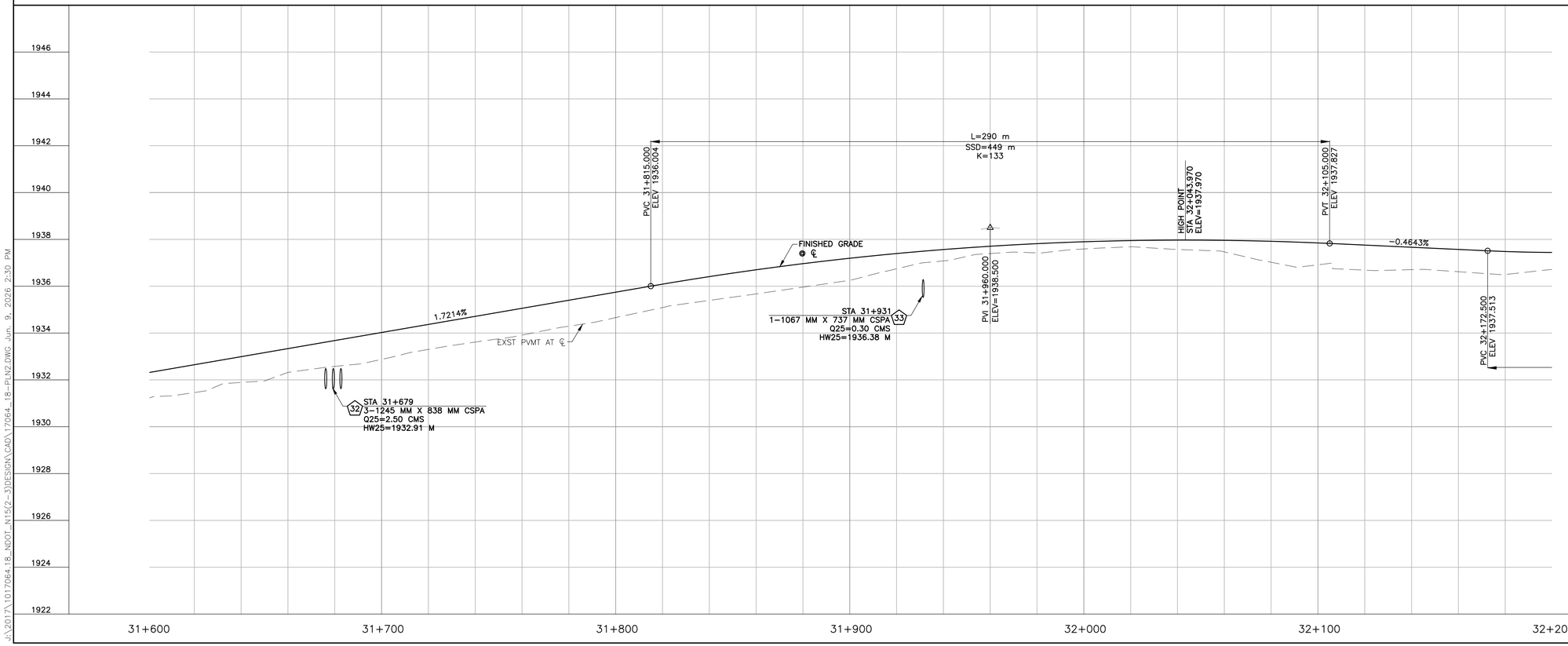
ROADWAY PLAN & PROFILE
STA 31+000 TO STA 31+600

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P15	43 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

- [1] OBLITERATE EXST TURNOUT
- [5] REMOVE, CLEAN & STOCKPILE CULVERT
- [12] REMOVE BW FENCE

CONSTRUCTION NOTES

- (1) PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
- (4) RECONSTRUCT TURNOUT DWG G9
- (5) CATTLE GUARD, 16' DET A, DWG C1 & C2 FLH STD DET 619-1
- (6) BW FENCE, 5-STRAND DET C4, DWG C4
- (7) RIPRAP APRON, CLASS 1 DWG D6
- (11) EARTHEN BERM DWG D3
- (21) BACKSLOPE PROTECTION, DWG C9
- (27) BUS PULLOUT DWG C9A
- (28) BUS STOP DWG C9B

NOTES

- ◇5 TEMPORARY BENCHMARK, SEE DWG G6 & G7
- ◇# REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

- ◇# REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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REVISION	BY	DATE

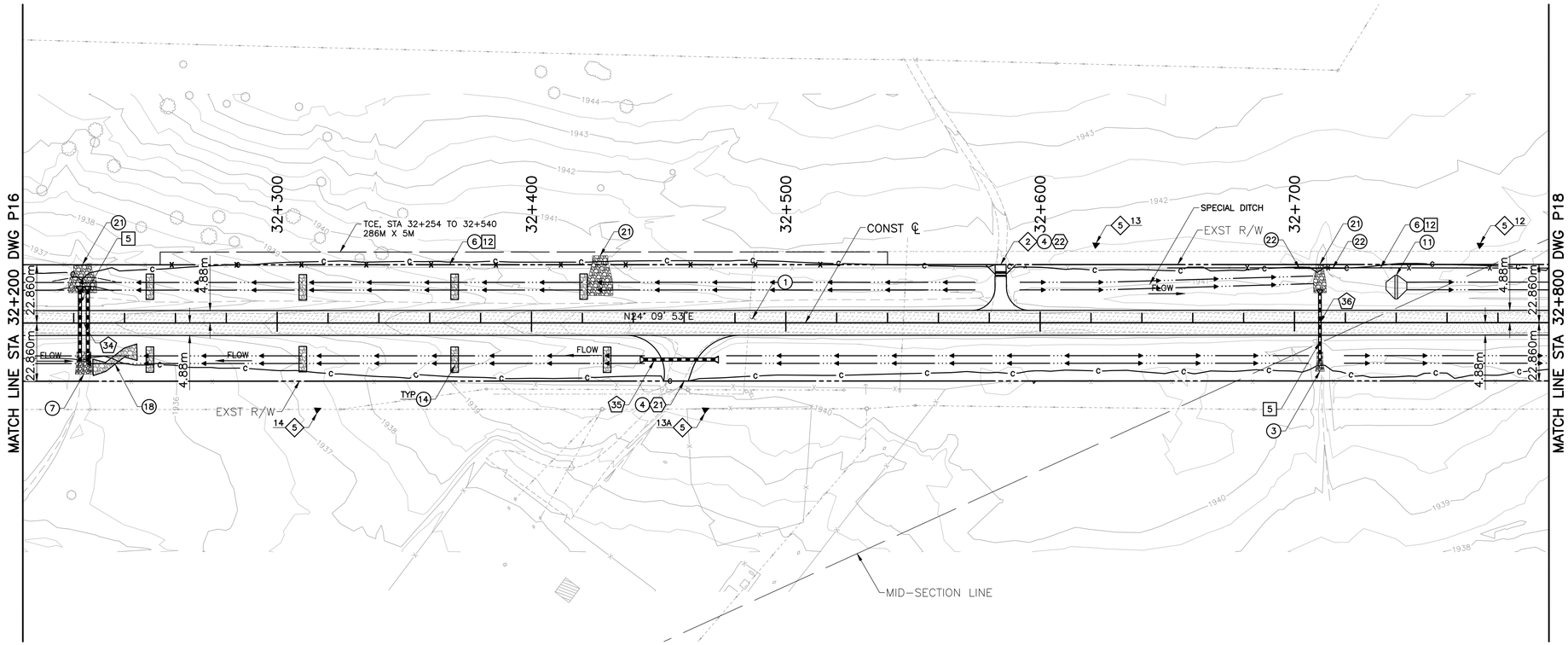
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NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

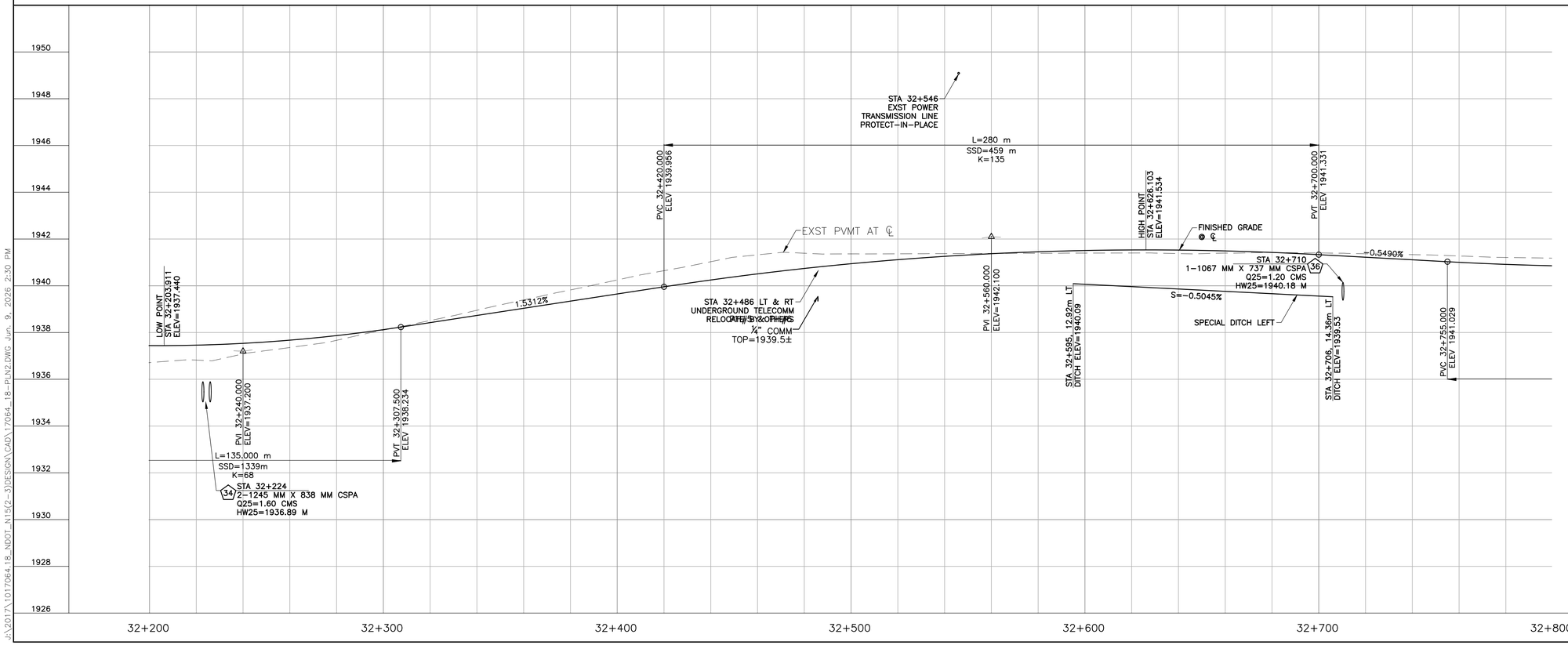
ROADWAY PLAN & PROFILE
STA 31+600 TO STA 32+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
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SCALE: 1:1000 H | 1:100 V			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

5 REMOVE, CLEAN & STOCKPILE CULVERT

12 REMOVE BW FENCE

CONSTRUCTION NOTES

1 PAVEMENT SECTION NO 1
76.2MM AC, 101.6MM ABC

4 RECONSTRUCT TURNOUT
DWG G9

6 BW FENCE, 5-STRAND
DET C4, DWG C4

7 RIPRAP APRON, CLASS 1
DWG D6

11 EARTHEN BERM
DWG D3

14 CHECK DAMS
DWG C7

18 CUT-TO-FILL TRANSITION, DWG C5

21 BACKSLOPE PROTECTION, DWG C9

22 CROWN DITCH, DWG D3

NOTES

◇2 EXST CATTLEGUARD, PROTECT IN PLACE

◇5 TEMPORARY BENCHMARK, SEE DWG G6 & G7

◇# REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

◇# REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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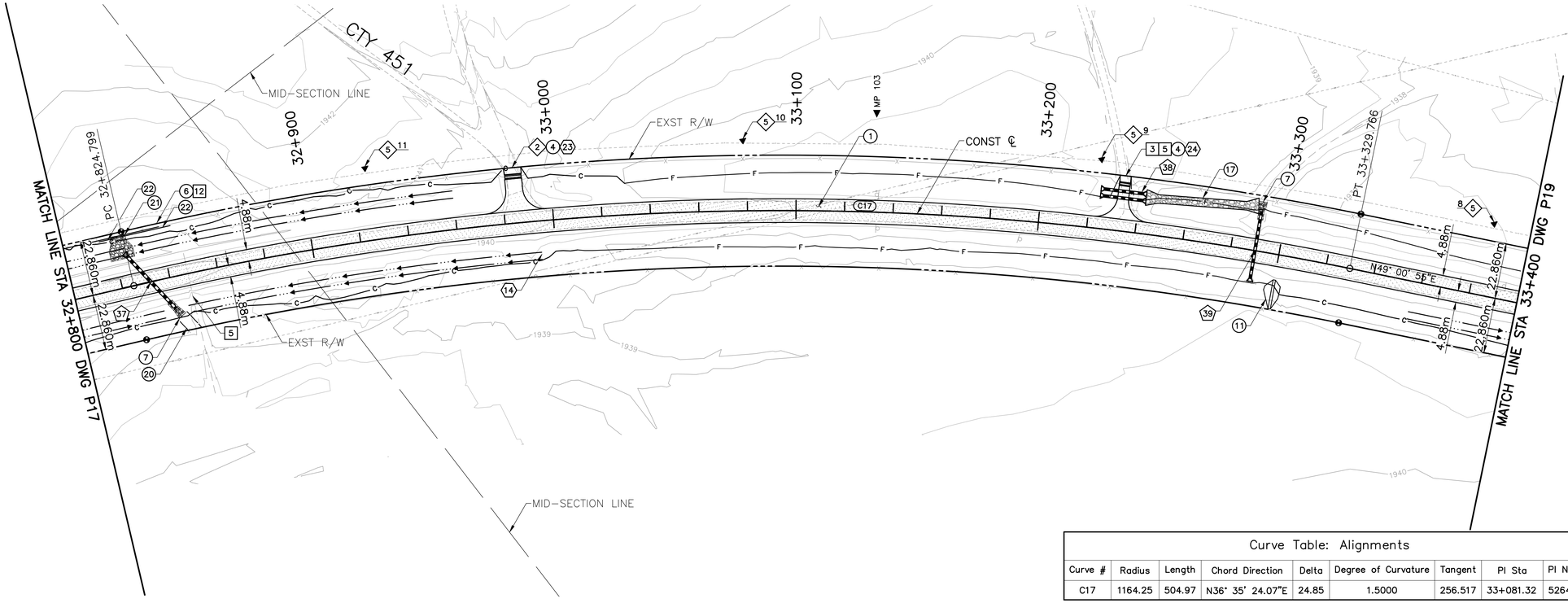
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NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

ROADWAY PLAN & PROFILE
STA 32+200 TO STA 32+800

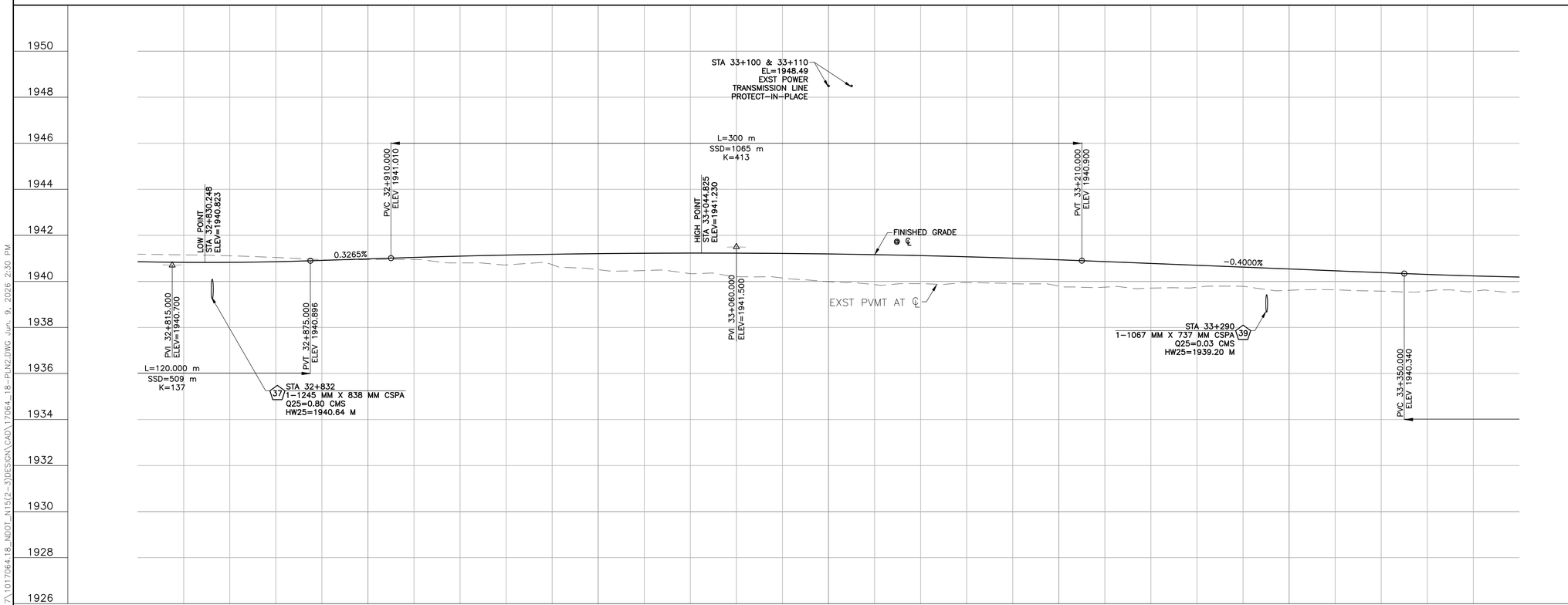
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LEAD DESIGNER: DFJ	DATE: 6/26	P17	45 OF 116
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N15

Curve Table: Alignments									
Curve #	Radius	Length	Chord Direction	Delta	Degree of Curvature	Tangent	PI Sta	PI Northing	PI Easting
C17	1164.25	504.97	N36° 35' 24.07"E	24.85	1.5000	256.517	33+081.32	526435.12	261230.88



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

3 REMOVE & RESET CATTLE GUARD BACKFILL & COMPACT VOID

5 REMOVE, CLEAN & STOCKPILE CULVERT

CONSTRUCTION NOTES

1 PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC

4 RECONSTRUCT TURNOUT DWG G9

7 RIPRAP APRON, CLASS 1 DWG D6

11 EARTHEN BERM DWG D3

17 TOE OF SLOPE PROTECTION, DWG C8

21 BACKSLOPE PROTECTION, DWG C9

22 CROWN DITCH, DWG D3

NOTES

2 EXST CATTLEGUARD, PROTECT IN PLACE

3 REFER TO DWG C9-C17 FOR TURNOUT DETAILS AND PROFILES

5 TEMPORARY BENCHMARK, SEE DWG G6 & G7

CULVERTS

REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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REVISION	BY	DATE

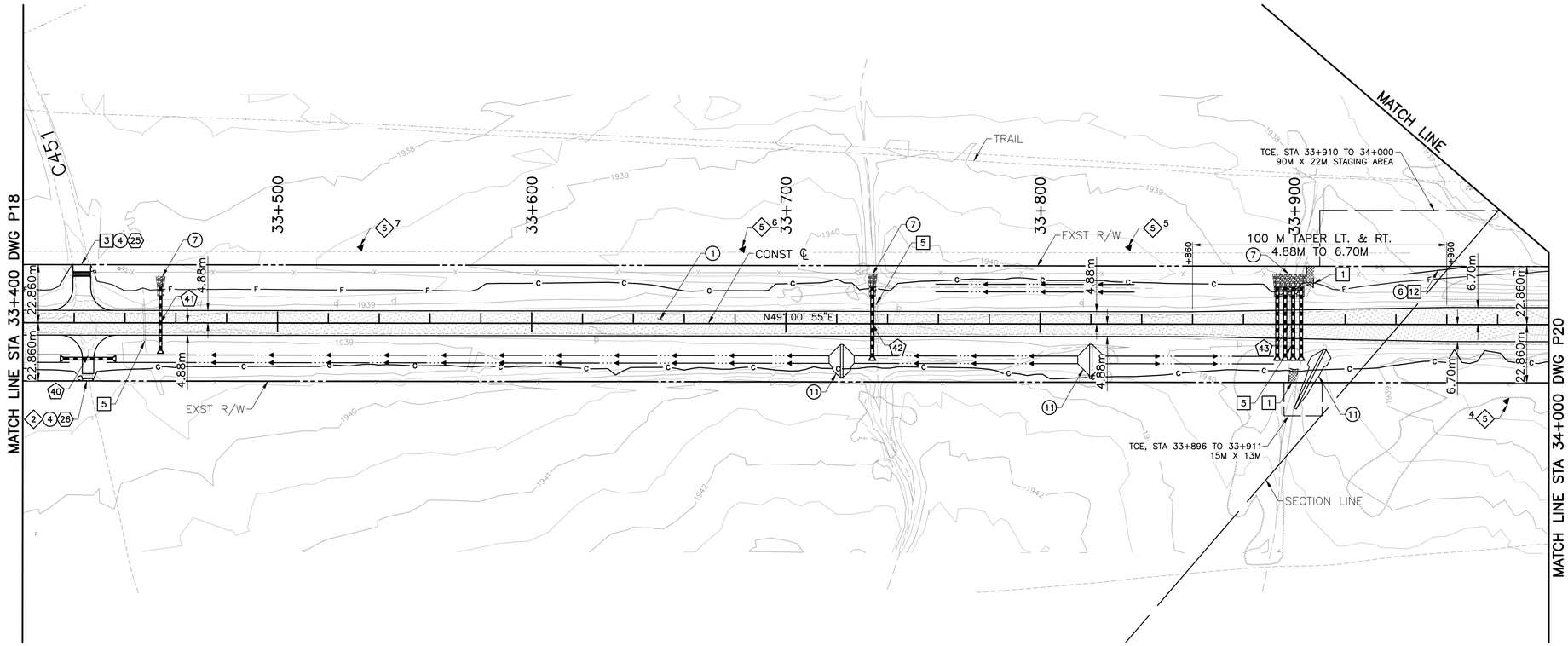
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DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

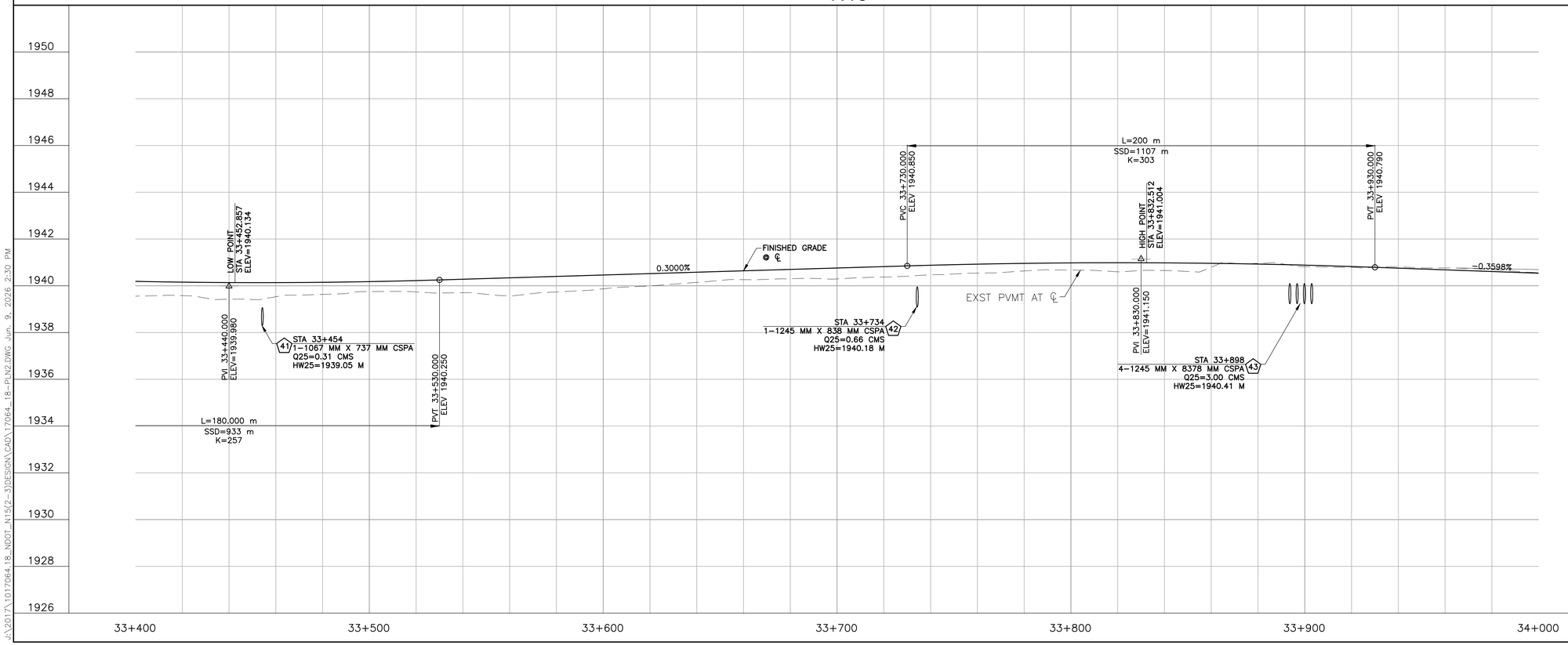
ROADWAY PLAN & PROFILE
STA 32+800 TO STA 33+400

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	P18	46 OF 116
SCALE: 1:1000 H | 1:100 V			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

1. OBLITERATE ROADWAY, SEE DWG G4
3. REMOVE & RESET CATTLE GUARD BACKFILL & COMPACT VOID
5. REMOVE, CLEAN & STOCKPILE CULVERT
12. REMOVE BW FENCE

CONSTRUCTION NOTES

1. PAVEMENT SECTION NO 1 76.2MM AC, 101.6MM ABC
4. RECONSTRUCT TURNOUT DWG G9
6. BW FENCE, 5-STRAND DET C4, DWG C4
7. RIPRAP APRON, CLASS 1 DWG D6
11. EARTHEN BERM DWG D3

NOTES

5. TEMPORARY BENCHMARK, SEE DWG G6 & G7
#. REFER TO DWG C8-C16 FOR TURNOUT DETAILS AND PROFILES

CULVERTS

#. REFER TO DWG DC1-DC12 FOR CULVERT PROFILES

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

Contact Arizona 811 at least two full working days before you begin excavation.
ARIZONA811
Call 811 or click Arizona811.com

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3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date signed 6/13/26

REVISION	BY	DATE

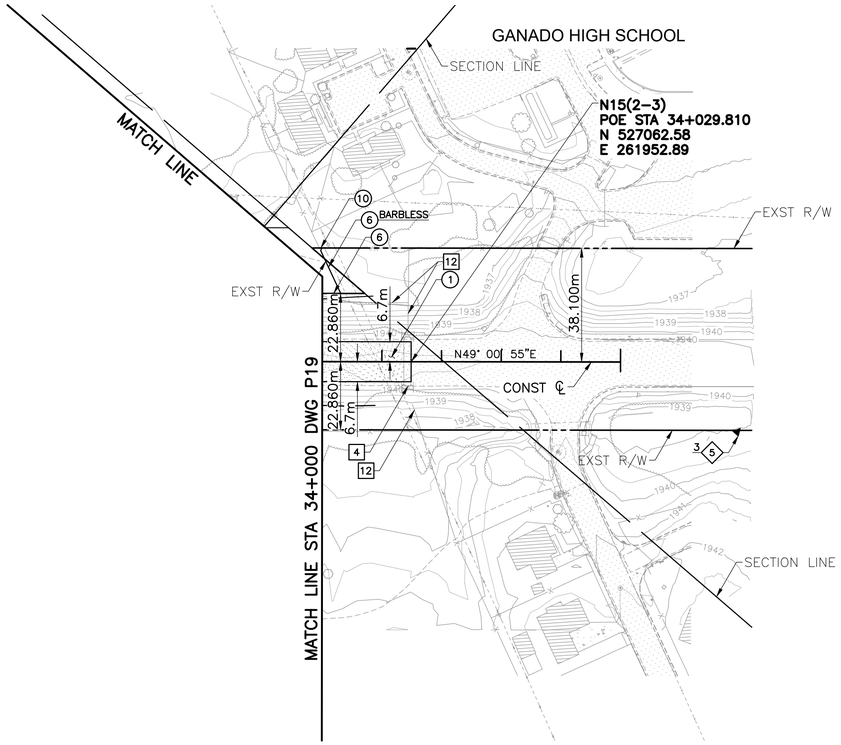
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DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

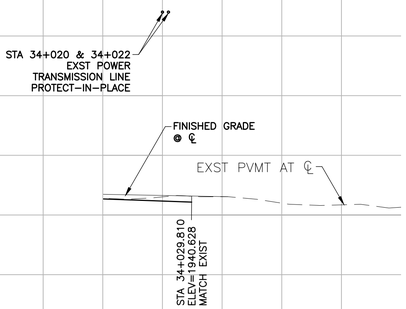
ROADWAY PLAN & PROFILE
STA 33+400 TO STA 34+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	P19	47 OF 116
SCALE: 1:1000 H | 1:100 V			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

REMOVAL NOTES

4 REMOVE CATTLE GUARD, FILL AND COMPACT VOID

12 REMOVE BW FENCE

CONSTRUCTION NOTES

1 PAVEMENT SECTION NO 1
76.2MM AC, 101.6MM ABC

6 BW FENCE, 5-STRAND
DET C4, DWG C4

10 PEDESTRIAN GATE
DWG C4

NOTES

5 TEMPORARY BENCHMARK, SEE DWG G6 & G7

0 20 40 60 80 100
METERS
SCALE: 1MM=1M (H)
SCALE: 1MM=100MM (V)

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REVISION	BY	DATE

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N15(2-3) CORNFIELDS TO BURNSIDE

ROADWAY PLAN & PROFILE
STA 34+000 TO STA 34+100

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	P20	48 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000 H | 1:100 V			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	49

ESTIMATED DRAINAGE STRUCTURE QUANTITIES

ITEM NO:					60201-2000	60202-0600	60202-0700	60202-0800	60202-0900	60202-1000	60211-1000	60211-1100	60211-1200	60211-1300	60211-1400				
					2438 mm CSPC-3.50 mm Thickness 127 mm x 25 mm Corrugation	1067 mm Span x 737 mm Rise CSPA-2.77 mm Thickness 68 mm x 13 mm Corrugation	1245 mm Span x 838 Rise CSPA-2.77 mm Thickness 68 mm x 13 mm Corrugation	1448 mm Span x 965 Rise CSPA-2.77 mm Thickness 68 mm x 13 mm Corrugation	1626 mm Span x 1092 Rise CSPA-2.77 mm Thickness 68 mm x 13 mm Corrugation	1803 mm Span x 1194 Rise CSPA-2.77 mm Thickness 68 mm x 13 mm Corrugation	End Section for 1067 mm S x 737 mm CSPA*, Type 2, 1.6 mm Thickness	End Section for 1245 mm S x 838 mm CSPA*, Type 2, 1.6 mm Thickness	End Section for 1448 mm S x 965 mm CSPA*, Type 1, 1.6 mm Thickness	End Section for 1626 mm S x 1092 mm CSPA*, Type 2, 1.6 mm Thickness	End Section for 1803 mm S x 1194 mm CSPA*, Type 2, 1.6 mm Thickness	Concrete Headwall, 4-1448 mm X 965 mm CMPA, Detail DWG D9A	Concrete Headwall, 4-1626 mm X 1092 mm CMPA, Detail DWG D9A	Concrete Slope Blanket, 2438 mm CMP, Detail DWG D8	X1 Length (meters)
PIPE ID	STATION	LOC	STRUCTURE DESCRIPTION	SKEW NO	m	m	m	m	m	m	EA	EA	EA	EA	EA	EA	EA	EA	
1	22+864		1-1067 mm S x 737 mm R x 29.28 m CSPA	90°		29.28					1								1829
2	22+986		1-1245 mm S × 838 mm R × 36.58 m CSPA	45°			36.58					1							1880
3	23+869		1-1067 mm S x 737 mm R x 38.05 m CSPA	90°		38.05					1								
4	24+158		1-1067 mm S x 737 mm R x 28.06 m CSPA	90°		28.06					1								
5	24+360		1-1067 mm S × 737 mm R × 38.26 m CSPA	90°		38.26					1								2083
6	24+380	Lt.	1-1067 mm S × 737 mm R × 20.50 m CSPA	N/A		41.00					2								
7	24+571		2-1067 mm S × 737 mm R × 42.82 m CSPA	90°		85.64					2								
8	25+002		1-1067 mm S × 737 mm R × 31.70 m CSPA	90°		31.70					1								1829
9	25+329		1-2438 mm × 33.53 m CSPC	90°	33.53														
10	25+454		1-1067 mm S × 737 mm R × 27.44 m CSPA	90°		27.44					1								
11	25+781	Lt.	1-1067 mm S × 737 mm R × 20.50 m CSPA	N/A		20.50					2								
12	25+926		5-1626 mm S × 1092 mm R × 28.04 m CSPA	90°					140.19					5					2642
13	26+004		4-1626 mm S × 1092 mm R × 30.49 m CSPA	90°					121.96					4					2642
14	26+737	Lt.	2-1067 mm S ×737 mm R × 20.50 m CSPA	N/A		41.00					4								
15	26+812		2-1448 mm S × 965 mm R × 28.06 m CSPA	90°				56.12					2						2642
16	26+930		1-2438 mm × 33.54 m CSPC	90°	33.54														
17	26+995		3-1803 mm S × 1194 mm R × 29.27 m CSPA	90°						87.81					3				2769
18	27+370	Lt.	1-1070 mm S × 737 mm R × 16.90 m CSPA	N/A		16.90					2								
19	27+700		2-1067 mm S × 737 mm R × 27.43 m CSPA	110°		54.86					2								1677
20	27+863		3-1448 mm S × 965 mm R × 27.44 m CSPA	90°				82.32					3						2337
21	28+015		4-1067 mm S × 737 mm R × 25.61 m CSPA	90°		102.42					4								1880
22	28+208		4-1448 mm S × 965 mm R × 29.26 m CSPA	115°				117.04					4					3	2515
23	28+633		2-1245 mm S x 838 mm R x 30.49 m CSPA	115°			60.98					2							
24	28+906		4-1626 mm S × 1092 mm R × 30.49 m CSPA	120°					121.92					4					2642
25	29+081		1-1245 mm S x 838 mm R x 28.05 m CSPA	90°			28.05					1							1829
26	29+577		2-1245 mm S x 838 mm R x 31.10 m CSPA	115°			62.20					2							2185
27	30+150		2-1625 mm S × 1092 mm R × 29.26 m CSPA	90°					58.52					2					2515
28	30+310		5-1626 mm S × 1092 mm R × 28.04 m CSPA	90°					140.21					5					2642
29	30+698		1-1245 mm S × 838 mm R × 28.05 m CSPA	90°			28.05					1							2083
30	31+067	Lt.	1-1067 mm S × 737 mm R × 20.50 m CSPA	N/A		20.50					2								
31	31+308		3-1803 mm S × 1194 mm R × 29.74 m CSPA	90°						89.21					3				2769
32	31+679		3-1245 mm S x 838 mm R x 29.88 m CSPA	106°			89.64					3							2185
33	31+931		1-1067 mm S x 737 mm R x 26.28 m CSPA	90°		26.28					1								1829
34	32+224		2-1245 mm S × 838 mm R × 28.03 m CSPA	90°			56.06					2							1880
35	32+455	Rt.	1-1245 mm S × 839 mm R × 28.042 m CSPA	N/A		28.04						2							
36	32+710		1-1067 mm S × 737 mm R × 26.82 m CSPA	90°		26.82					1								
37	32+832		1-1245 mm S × 838 mm R × 29.88 m CSPA	60°			29.88					1							1880
38	33+234	Lt.	2-1067 mm S × 737 mm R × 16.50 m CSPA	N/A		33.00					4								1677
39	33+290		1-1067 mm S × 737 mm R × 28.04 m CSPA	90°		28.04					1								
40	33+425	Rt.	1-1067 mm S × 737 mm R × 19.507 m CSPA	N/A		19.51					2								
41	33+454		1-1067 mm S x 737 mm R x 25.00 m CSPA	90°		25.00					1								
42	33+734		1-1245 mm S × 838 mm R × 27.43 m CSPA	90°			27.43					1							1880
43	33+898		4-1245 mm S × 838 mm R × 27.44 m CSPA	90°			109.75					4							
				TOTAL	67.07	762.30	528.60	255.48	582.80	177.02	36	20	9	20	6	0	0	3	

* Install End Section on Inlet Side Only Except at Turnout Locations, Where End Sections Will Be Installed at Both Ends. See Sheet 55 for End Section Details, See Sheets 62-73 for Culvert Cross Sections

TURNOUT CULVERT LOCATION

TURNOUT CLVT NO.	STATION	OFFSET	INVERT ELEVATION
6	24+390.45	14.363 Lt.	1877.520
	24+369.61	14.364 Lt.	1877.480
11	25+791.25	14.42 Lt.	1884.090
	25+770.75	14.42 Lt.	1883.720
14	26+726.32	13.004 Lt.	1883.830
	26+746.9	12.989 Lt.	1883.700
	26+726.32	15.819 Lt.	1883.830
	26+746.91	15.808 Lt.	1883.700
18	27+378.45	14.42 Lt.	1886.980
	27+361.55	14.42 Lt.	1886.860
30	31+076.75	14.42 Lt.	1923.730
	31+056.25	14.42 Lt.	1923.610
35	32+472.15	14.42 Rt.	1938.960
	32+444.11	14.42 Rt.	1938.700
38	33+225.35	13.625 Lt.	1939.600
	33+241.66	13.618 Lt.	1939.390
	33+225.37	16.44 Lt.	1939.600
	33+241.64	16.433 Lt.	1939.380
40	33+415.75	14.10 Rt.	1938.560
	33+435.25	14.10 Rt.	1938.550

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA U.S.A.

REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION

NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT SUMMARY TABLES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	D1	49 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	50

ITEM 25101-2100 PLACE RIPRAP
CULVERT APRON TABLE

STA	STRUCTURE	LOCATION	Individual Barrel Width Ws [m]	APRON WIDTH Wd1 [m]	APRON WIDTH Wd2 [m]	APRON LENGTH L [m]	LENGTH Ls [m]	APRON DEPTH t [m]	RIPRAP CLASS	D50 [mm]	QUANTITY [m^3]	TYPE
22+864	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
22+986	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
23+869	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
24+158	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
24+360	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	5.5	4.7	0.8	3	350	21.4	PLACED
24+571	2-1067 mm S × 737 mm R CSPA	Outlet	1.07	5.1	6.3	5.5	4.7	0.8	3	350	44.4	PLACED
25+002	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
25+329	1-2438 mm CSPC	Outlet	2.44	5.4	5.4	10.0	7.1	0.5	1	150	46.1	BURIED
25+454	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
25+926	5-1626 mm S × 1092 mm R CSPA	Outlet	1.63	17.9	19.1	6.0	4.3	0.5	1	150	92.8	PLACED
26+004	4-1626 mm S × 1092 mm R CSPA	Outlet	1.63	14.3	15.5	5.5	4.3	0.5	1	150	70.8	PLACED
26+812	2-1448 mm S × 965 mm R CSPA	Outlet	1.45	6.2	7.4	5.0	4.0	0.5	1	150	29.2	PLACED
26+995	3-1803 mm S × 1194 mm R CSPA	Outlet	1.80	11.3	12.5	6.2	4.5	0.5	1	150	61.7	PLACED
27+700	2-1067 mm S × 737 mm R CSPA	Outlet	1.07	5.1	6.3	4.0	3.6	0.5	1	150	20.2	PLACED
27+863	3-1245 mm S × 838 mm R CSPA	Outlet	1.25	8.6	9.8	5.0	3.8	0.5	1	150	38.9	PLACED
28+015	4-1067 mm S × 737 mm R CSPA	Outlet	1.07	10.6	11.9	4.0	3.6	0.5	1	150	41.0	PLACED
28+208	4-1448 mm S × 965 mm R CSPA	Outlet	1.45	15.8	17.0	5.0	0.0	0.5	1	150	40.6	PLACED
28+633	2-1245 mm S × 838 mm R CSPA	Outlet	1.25	5.9	7.1	5.0	3.8	0.5	1	150	27.1	PLACED
28+906	4-1626 mm S × 1092 mm R CSPA	Outlet	1.63	16.3	17.5	6.0	0.0	0.5	1	150	50.2	PLACED
29+081	1-1245 mm S × 838 mm R CSPA	Outlet	1.25	2.5	3.7	5.0	3.8	0.5	1	150	12.2	PLACED
29+577	2-1245 mm S × 838 mm R CSPA	Outlet	1.25	5.8	7.0	5.0	3.8	0.5	1	150	26.8	PLACED
30+150	2-1625 mm S × 1092 mm R CSPA	Outlet	1.63	6.7	7.9	6.0	4.3	0.5	1	150	35.7	PLACED
30+310	5-1626 mm S × 1092 mm R CSPA	Outlet	1.63	17.9	19.1	6.0	4.3	0.5	1	150	92.8	PLACED
30+698	1-1245 mm S × 838 mm R CSPA	Outlet	1.25	2.5	3.7	5.0	3.8	0.5	1	150	12.2	PLACED
31+308	3-1803 mm S × 1194 mm R CSPA	Outlet	1.80	11.1	12.3	9.1	5.6	0.8	3	350	135.5	PLACED
31+679	3-1245 mm S × 838 mm R CSPA	Outlet	1.25	8.9	10.1	5.0	3.8	0.5	1	150	40.2	PLACED
31+931	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
32+224	2-1245 mm S × 838 mm R CSPA	Outlet	1.25	5.6	6.8	5.0	3.8	0.5	1	150	25.8	PLACED
32+710	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
32+832	1-1245 mm S × 838 mm R CSPA	Outlet	1.25	2.5	3.7	4.0	3.8	0.5	1	150	10.7	PLACED
33+290	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
33+454	1-1067 mm S × 737 mm R CSPA	Outlet	1.07	2.3	3.5	4.0	3.6	0.5	1	150	9.8	PLACED
33+734	1-1245 mm S × 838 mm R CSPA	Outlet	1.25	2.5	3.7	5.0	3.8	0.5	1	150	12.2	PLACED
33+898	4-1245 mm S × 838 mm R CSPA	Outlet	1.25	11.8	13.0	5.0	3.8	0.5	1	150	52.8	PLACED
										TOTAL	1138.8	

25101-2100	Placed Riprap, Method B, Class 1	938
25101-2200	Placed Riprap, Method B, Class 2	0
25101-2300	Placed Riprap, Method B, Class 3	201
25101-2400	Placed Riprap, Method B, Class 4	0
25101-2500	Placed Riprap, Method B, Class 5	0
25110-2200	Grouted Riprap, Method B, Class 2	0
25305-4000	Wire-Enclosed Riprap	0

NOTE: WHEN BURIED RIPRAP APRON IS REQUIRED, CONTRACTOR SHALL LOWER THE RIPRAP FINISHED GRADE 150mm AND PLACE 150mm OF COMPACTED NATIVE SOIL OVER RIPRAP. NO ADDITIONAL MEASUREMENT OR PAYMENT FOR THIS WORK.

ITEM 20425-2000: CROWN DITCH

STATION	OFFSET		STATION	OFFSET	LOCATION	APPOX LENGTH (m)
22+849	24.84	to	22+864	23.34	RT	15.1
22+864	23.34	to	22+879	26.34	RT	15.3
22+966	21.86	to	22+986	20.36	RT	20.1
22+986	20.36	to	23+030	21.86	RT	44.0
23+130	25.85	to	23+136	19.92	RT	8.6
24+140	27.86	to	24+158	24.61	LT	18.3
24+158	24.61	to	24+170	27.86	LT	12.5
24+320	27.9	to	24+361	25.0	LT	39.9
24+844	25.86	to	24+861	20.29	LT	17.9
24+861	20.29	to	24+868	22.86	LT	7.0
24+885	21.36	to	24+894	19.4	LT	9.0
24+894	19.4	to	24+900	21.36	LT	6.5
28+015	21.36	to	28+040	21.36	LT	24.7
32+700	21.36	to	32+710	21.36	LT	10
32+710	21.36	to	32+720	21.36	LT	10
32+815	20.86	to	32+823	20.86	LT	7.5
32+823	20.86	to	32+845	20.86	LT	22.5
					TOTAL	**288.9**

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

DRAINAGE QUANTITIES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	D2	50 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	51

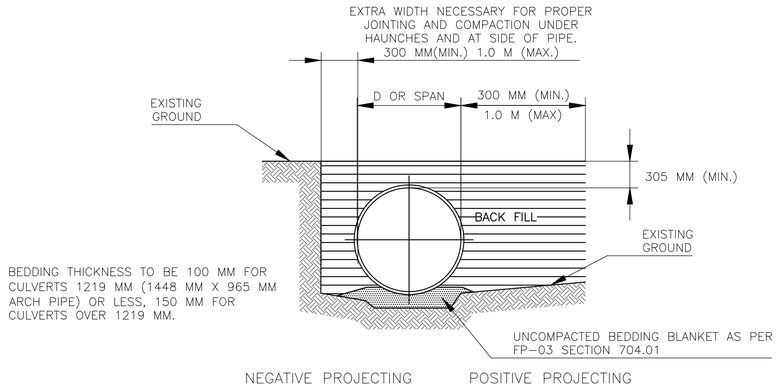


FIGURE A: BEDDING

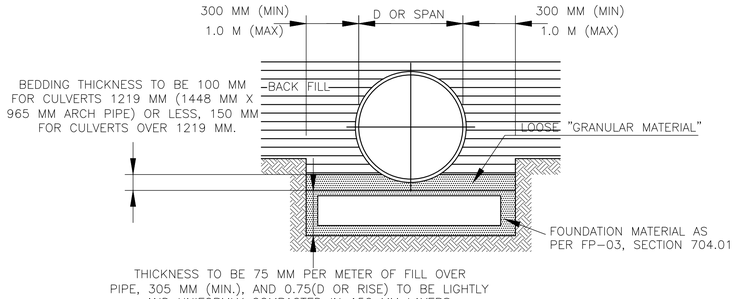


FIGURE B: ROCK BEDDING

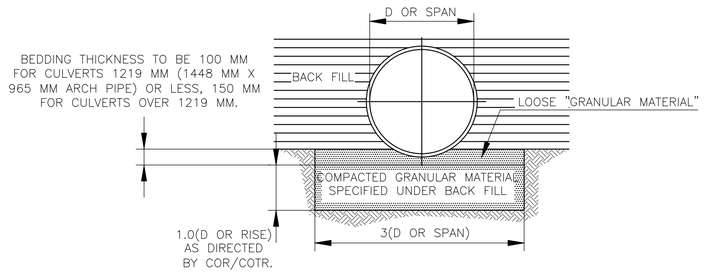
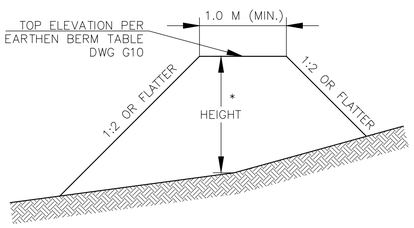
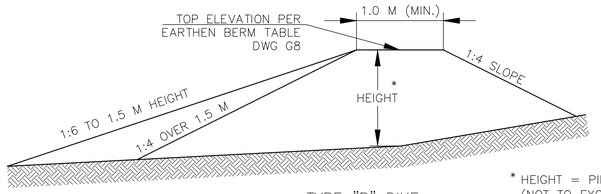


FIGURE C: FOUNDATION STABILIZATION BEDDING

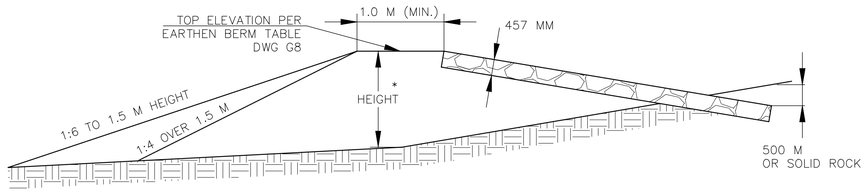


TYPE "A" DIKE



TYPE "B" DIKE

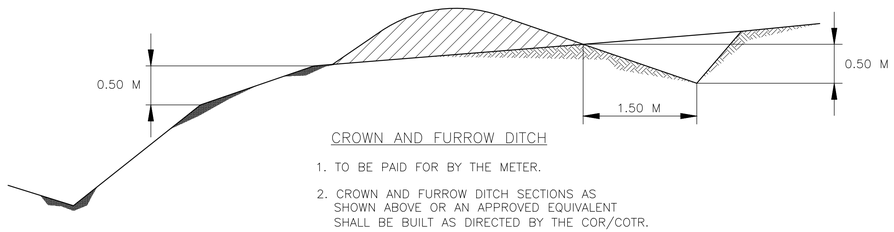
* HEIGHT = PIPE DIAMETER + 305 MM (NOT TO EXCEED PAVED SHOULDER ELEVATION.)



TYPE "B" DIKE
WITH PLACED RIPRAP

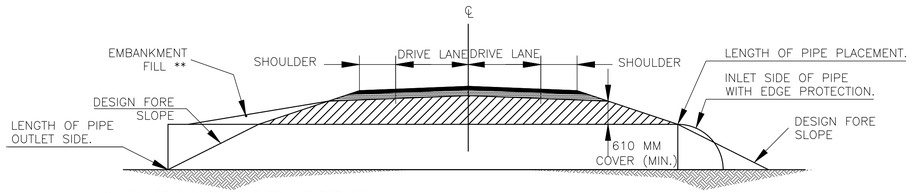
NOTE:
SANDSTONE EXCAVATED FROM WITHIN THE PROJECT LIMITS WILL BE USED TO LINE DITCH BLOCKS WHERE DIRECTED BY THE COR/COTR. PLACING OF SANDSTONE ON DITCH BLOCKS WILL NOT BE PAID FOR SEPARATELY BUT IS CONSIDERED SUBSIDIARY TO DITCH BLOCK CONSTRUCTION.

EARTHEN DIKE/BERM DETAILS



CROWN AND FURROW DITCH

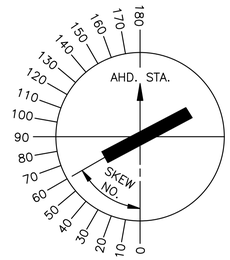
1. TO BE PAID FOR BY THE METER.
2. CROWN AND FURROW DITCH SECTIONS AS SHOWN ABOVE OR AN APPROVED EQUIVALENT SHALL BE BUILT AS DIRECTED BY THE COR/COTR.



** ADJUST SLOPES TO CATCH AT TOP OF PIPE AT EACH OPENING

TYPICAL PIPE INSTALLATION— MAINLINE SHOWN
TURNOUT/DRIVEWAY, USE 2-END SECTIONS

NOTE:
PIPE BEDDING AND BACKFILL MATERIAL SHALL BE TESTED FOR RESISTIVITY AT EACH PIPE LOCATION. THE MINIMUM ACCEPTABLE RESISTIVITY TO BE 2000 OHM-CM.



STRUCTURE SKEW DIAGRAM

GENERAL NOTES

1. PLACE LOOSE BEDDING ROUGHLY SHAPED TO BOTTOM OF PIPE, THEN COMPACTED UNDER HAUNCHES AFTER PIPE PLACEMENT.
2. SEE SECTIONS 204, 209, 602, AND 704 OF FP-14, INCLUDING THE SUPPLEMENTAL SPECIFICATIONS, FOR ADDITIONAL NOTES.
3. ALL DRAINAGE STRUCTURE MATERIAL SHALL BE UNLOADED AND HANDLED WITH REASONABLE CARE. NO STRUCTURE SHALL BE DRAGGED OR ALLOWED TO STRIKE ANY HARD SURFACE DURING PLACEMENT. ANY DAMAGED STRUCTURE SHALL BE REPAIRED OR REPLACED, BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE GOVERNMENT.
4. ALL STRUCTURAL PLATE PIPE STRUCTURES SHALL BE ASSEMBLED AND INSTALLED IN ACCORDANCE WITH THE FABRICATOR'S RECOMMENDATION.
5. BACKFILL MATERIAL SHALL BE PLACED 300 mm (MIN) TO 1.0 m (MAX) PIPE DIAMETER WIDTH ON THE SIDES AND 305 mm OVER THE PIPE. BACKFILL MATERIAL BEYOND THESE LIMITS SHALL BE REGULAR EARTHWORK EMBANKMENT MATERIAL. THE BACKFILL MATERIAL SHALL BE APPROVED BY THE COR/COTR PRIOR TO IT'S USE AND SHALL BE PLACED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
6. PONDING OR JETTING PIPE BACKFILL SHALL NOT BE PERMITTED.
7. ALL PIPE EXCAVATION, BACKFILLING, DE-WATERING, PUMPING OR COFFERDAMS REQUIRED TO PROPERLY INSTALL THE DRAINAGE PIPE SHALL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE PROJECT AND NO ADDITIONAL PAYMENT SHALL BE MADE.
8. ALL PIPES SHALL BE PROTECTED BY A COVER OF NOT LESS THAN 914 mm OF EMBANKMENT ABOVE PIPE BEFORE ANY HEAVY EQUIPMENT IS ALLOWED TO PASS OVER THE STRUCTURE(S) DURING CONSTRUCTION.
9. ALL CULVERTS SHALL BE INSTALLED AT THE ORIGINAL GROUND LINE OR AS SHOWN IN PIPE CROSS SECTIONS AND SLOPED TO ASSURE POSITIVE DRAINAGE UP TO THE R.O.W. LIMITS. IN NO CASE SHALL ANY PIPE BE INSTALLED BELOW THE NATURAL FLOW LINE.
10. ALL CULVERTS UNDER TURNOUTS AND DRIVEWAYS SHALL BE PLACED AT THE PROPOSED DITCH FLOWLINE. THE CONTRACTOR SHALL BE REQUIRED TO FIELD ADJUST THE PROFILE GRADES OVER THE PIPE AS DIRECTED BY COR/COTR TO PROVIDE FOR THE MINIMUM COVER.
11. TYPE "B" DIKE SHALL BE USED ON THIS PROJECT UNLESS OTHERWISE NOTED ON THE PLANS. EMBANKMENT MATERIAL NEEDED TO BUILD EARTHEN DIKES SHALL BE CONSIDERED INCIDENTAL TO ITEM 20443-2000.
12. 12. SOIL AROUND THE INLET AND OUTLET OF ALL CULVERTS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY. THIS WORK IS INCIDENTAL TO THE INSTALLATION OF THE CULVERT.

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO D.O.T.

NAVAJO NATION
DIVISION OF TRANSPORTATION

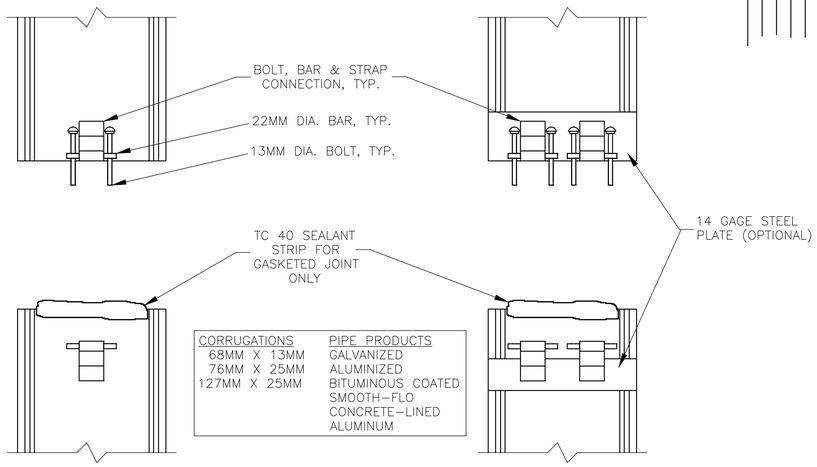
N15(2-3) CORNFIELDS TO BURNSIDE

STANDARD PIPE INSTALLATION AND DITCH DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	D3	51 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	52

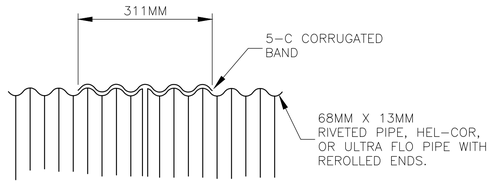


CORRUGATIONS	PIPE PRODUCTS
68MM X 13MM	GALVANIZED
76MM X 25MM	ALUMINIZED
127MM X 25MM	BITUMINOUS COATED
	SMOOTH-FLO
	CONCRETE-LINED
	ALUMINUM

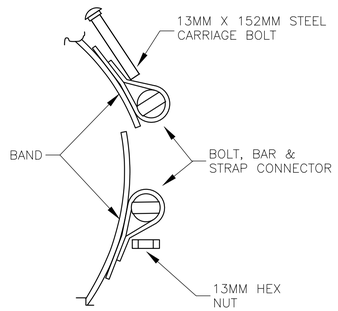
CONNECTION DETAIL
SINGLE
BOLT, BAR & STRAP

CONNECTION DETAIL
DOUBLE
BOLT, BAR & STRAP

H-10 HUGGER BAND



SECTION

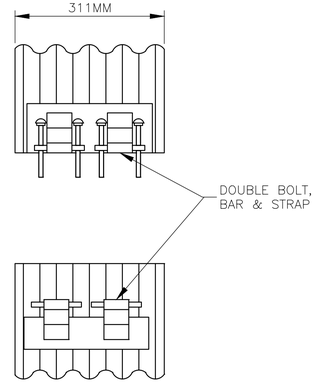


BOLT, BAR & STRAP
CONNECTION DETAIL

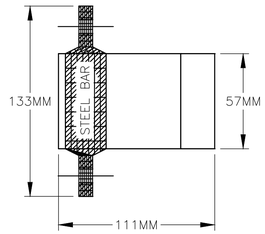
CORRUGATIONS	PIPE PRODUCTS
68MM X 13MM	GALVANIZED
ULTRA FLO	ALUMINIZED
	BITUMINOUS COATED
	FIBER-BONDED



STRAP DETAIL



CONNECTION DETAIL



TOP VIEW

GENERAL NOTES

1. CARE SHALL BE TAKEN THAT NO FOREIGN MATERIAL IS ALLOWED TO ENTER BETWEEN THE OUTER PIPE SURFACE AND THE INSIDE OF THE BAND.

2. TIGHTENING OF THE BOLTS MAY BE ACCOMPLISHED WITH THE USE OF SPANNER OR SOCKETHEAD DEEPWELL WRENCHES, EITHER MANUAL OR POWER. FASTENERS SHOULD BE TIGHTENED UNIFORMLY TO PREVENT UNEVEN COMPRESSION AGAINST THE PIPE WALL. FELTON BAND PULLER SHALL BE USED TO TIGHTEN BAND ON LARGER DIAMETER STRUCTURES, WHICH QUICKLY DRAWS THE BAND CONNECTORS TOGETHER TO FACILITATE BOLT AND NUT TIGHTENING. BOLTS SHOULD BE TIGHENED TO THE RECOMMENDED TORQUE OF 25-30 FT/LBS.

3. BANDS FOR PIPE-ARCH ARE THE SAME AS FOR EQUIVALENT DIAMETER ROUND PIPE.

4. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:

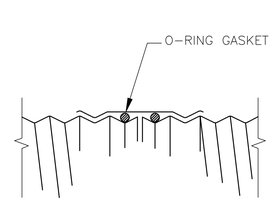
   305MM THRU 1219MM; 1-PIECE
   1372MM THRU 2438MM; 2-PIECE
   2591MM THRU 3658MM; 3-PIECE

5. BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS. ALL ALUMINUM BANDS ARE FURNISHED WITH A 14-GAGE ALUMINUM BACK-UP PLATE WELDED TO THE BAND AND THE STRAP.

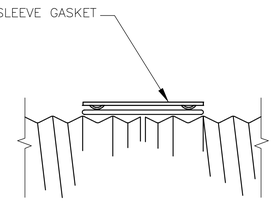
6. THE GASKET AND BAND INSTALLATION SHALL BE ASSEMBLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. A REPRESENTATIVE OF THE MANUFACTURER MAY BE PRESENT AT THE SITE DURING INSTALLATION.

7. THE COST OF SUPPLYING ALL MATERIALS AND INSTALLATION OF THE GASKET AND BAND ASSEMBLY SHALL BE INCLUDED IN THE BID ITEMS FOR SECTIONS 602, 603, AND 607.

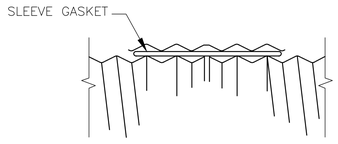
8. ANY RELATED PATENT RIGHTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AS PER SECTION 107.01 OF THE FP-14.



HUGGER TYPE

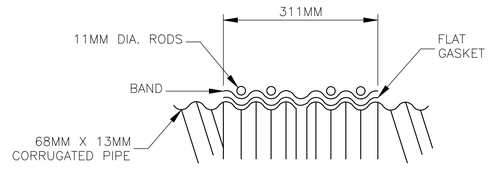


UNIVERSAL TYPE

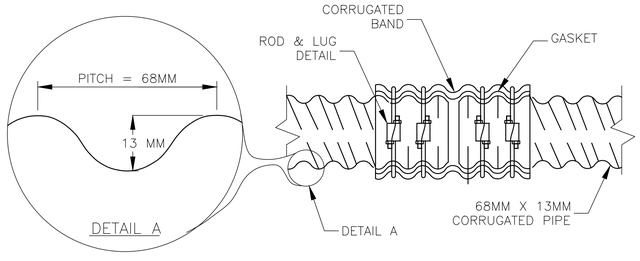


CORRUGATED

TYPICAL GASKET/BAND COUPLERS



SECTION



5-C CORRUGATED BAND
SIDE VIEW

5-C CORRUGATED BAND

FLAT GASKET INSTALLATION GUIDELINES

1. CLEAN THE PIPE EDGES.
2. LIBERALLY APPLY LUBRICANT TO THE FIRST TWO ANNULAR CORRUGATIONS ON THE OUTSIDE OF THE PIPE.
3. SNAP THE FLAT GASKET INTO POSITION SUCH THAT THE GASKET COVERS THE FIRST ANNULAR CORRUGATION OR THE RECORRUGATED END. HALF OF THE GASKET WILL BE HANGING OVER THE END OF THE PIPE.
4. FOLD THE REMAINING HALF OF THE GASKET THAT IS EXTENDED OVER THE PIPE END BACK OVER THE SECTION OF THE GASKET POSITIONED ON THE END OF THE PIPE.
5. APPLY A LIBERAL AMOUNT OF LUBRICANT TO THE ENTIRE INNER SURFACE OF THE BAND.
6. PLACE THE BAND INTO POSITION ON THE INSTALLED LENGTH OF PIPE SO THAT THE NEXT LENGTH OF PIPE CAN BE INDEXED CORRECTLY AND THE FLAT GASKET ROLLED OVER THE SECOND PIPE END.
7. APPLY A LIBERAL AMOUNT OF LUBRICANT TO THE END OF THE SECOND LENGTH OF PIPE.
8. PLACE THE SECOND LENGTH OF PIPE INTO POSITION. THE TWO PIPE LENGTHS MUST BE POSITIONED PROPERLY FOR THE GASKET TO FIT OVER, AND THE BAND TO INDEX, ONTO THE SECOND PIPE END.
9. UNFOLD THE GASKET INTO POSITION OVER THE SECOND LENGTH OF PIPE. TAKE CARE TO INSURE THAT THE GASKET FITS OVER THE END OF THE SECOND PIPE SECTION. ALSO, THE BAND MUST BE INDEXED INTO THE PROPER ANNULAR CORRUGATION ON EACH LENGTH OF PIPE.
10. CHECK THE COMPLETE PERIPHERY OF THE PIPE TO INSURE THAT THE GASKET IS CENTERED EVENLY ON THE TWO LENGTHS OF PIPE.
11. SLIDE THE BAND INTO POSITION AND TIGHTEN THE BOLTS. FOR MAXIMUM COMPRESSION OF THE GASKET, THE BAND CORRUGATIONS MUST BE FULL SEATED INTO THE PROPER CORRUGATION ON EACH PIPE END. THIS WILL INSURE THAT THE PIPE LENGTHS ARE POSITIONED PROPERLY FOR THE GASKET.

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CERTIFICATE NO.
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ANDREW JOHN SPEAR
Date Signed 6/9/26

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

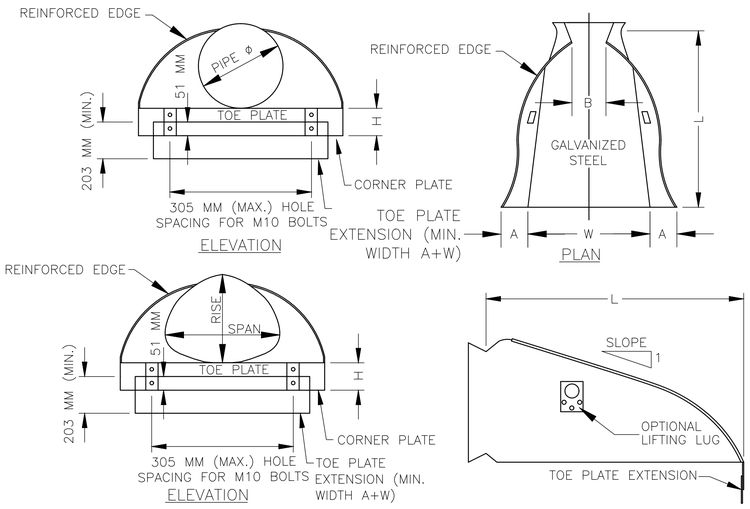
N15(2-3) CORNFIELDS TO BURNSIDE

GASKET AND HUGGER BAND DETAILS

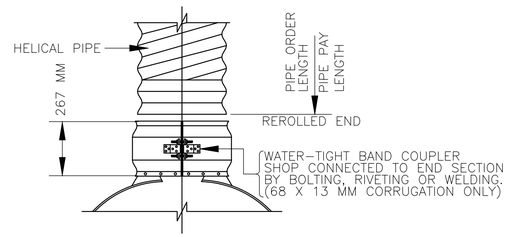
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	D4	52 OF 116
ASBUILT BY:	DATE:		
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	53



TYPICAL CROSS SECTION



TYPE NO. 5
(SEE NOTE NO.9)

ARCH PIPE END SECTION

SPAN* *68 MM X 13 MM	RISE *76 MM X 25 MM	THICK NESS (MM)	DIMENSIONS A (25 MM±)	B (MAX.)	H (25 MM±)	F (MM)	L (38 MM±)	W (51 MM±)	APPROX. SLOPE	BODY
711 x 508		1.6	203	406	152	711	813	1219	2 1/2	1 PC
889 x 610		2.0	254	406	152	863	991	1524	2 1/2	1 PC
1067 x 737		2.0	305	305	191	1016	168	1905	2 1/2	2 PC
1245 x 838		2.8	343	508	229	1168	1346	2134	2 1/2	2 PC
1448 x 965		2.8	470	660	305	1473	1575	2286	2 1/4	3 PC
1626 x 1092		2.8	457	737	305	1854	1753	2591	2 1/4	3 PC
1803 x 1194		2.8 / 3.5	470	914	305	2540	1956	2896	2 1/4	3 PC
	1854 x 1397	2.8	457	914	305	3149	1956	3200	2.0	3 PC
	2057 x 1499	2.8	457	991	305	3454	1956	3505	2.0	3 PC
	2210 x 1600	2.8	457	991	305	3454	1956	3505	2.00	3 PC

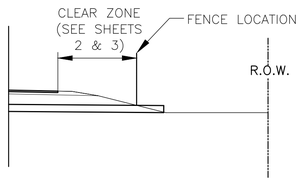
* CORRUGATION DIMENSION

ROUND PIPE END SECTION

PIPE DIAM (MM)	THICK NESS (MM)	DIMENSIONS A (25 MM=)	B (MAX.)	H (25 MM±)	F (MM)	L (38 MM±)	W (51 MM±)	APPROX. SLOPE	BODY
610	1.6	254	330	152	1168	1041	1219	2 1/2	1 PC
762	2	311	318	203	1397	1229	1448	2 1/2	2 PC
914	2	368	305	229	1778	1524	1829	2 1/2	2 PC
1067	2.8	432	279	267	2082	1753	2134	2 1/2	2 PC
1219	2.8	470	737	305	2235	2007	2286	2 1/4	3 PC
1372	2.8	470	762	305	2540	2134	2591	2	3 PC
1524	2.8 / 3.5	457	914	305	2845	2235	2896	1 3/4	3 PC
1676	2.8 / 3.5	457	914	305	2997	2210	3048	1 1/2	3 PC
1829	2.8 / 3.5	457	1118	305	3048	2248	3048	1 1/3	3 PC
1981	2.8 / 3.5	457	168	305	3302	2223	3505	1 1/4	4 PC
2134	2.8 / 3.5	457	1219	305	3454	2223	3658	1 1/6	4 PC

END SECTION NOTES

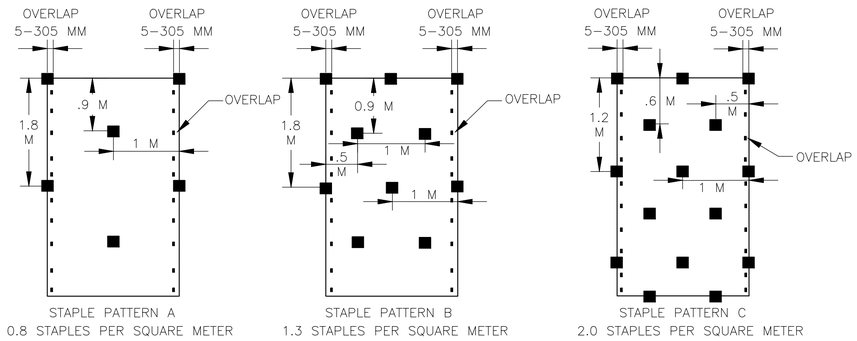
1. FOR MULTIPLE PIPE INSTALLATIONS OF ALL TYPES, A MINIMUM OF A 610 MM SPACING MEASURED ALONG THE HORIZONTAL BETWEEN FLARED END SECTIONS AT THEIR WIDEST CROSS SECTION SHALL BE USED.
2. ALL THREE (3) PIECE BODIES TO HAVE 2.77 MM THICK SIDES AND 3.5 MM THICK CENTER PANELS. WIDTH OF CENTER PANELS TO BE GREATER THAN 20% OF THE PIPE PERIPHERY. MULTIPLE PANEL BODIES TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY 9.53 MMϕ GALVANIZED RIVETS OR BOLTS.
3. END SECTIONS FOR STEEL PIPE-ARCHES: FOR THE 1956 MM X 1321 MM AND 2108 MM X 1448 MM SIZES, REINFORCED EDGE TO BE SUPPLEMENTED BY 51 MM X 51 MM X 6.35 MM GALVANIZED ANGLES. THE ANGLES TO BE ATTACHED BY 9.53 MM DIA. GALVANIZED NUTS AND BOLTS. ANGLE REINFORCEMENT WILL BE PLACED UNDER THE CENTER PANEL SEAMS.
4. END SECTIONS FOR STEEL CIRCULAR PIPES: FOR 1524 MM THRU 2134 MM SIZES, REINFORCED EDGE TO BE SUPPLEMENTED WITH GALVANIZED STIFFENER ANGLES. THE ANGLES WILL BE 51 MM X 51 MM X 6.35 MM FOR 1524 MM THRU 1829 MM, AND 64 MM X 64 MM X 6.35 MM FOR 1981 MM AND 2134 MM. THE ANGLES TO BE ATTACHED BY 9.53 MM GALVANIZED NUTS AND BOLTS.
5. WELDING SHALL NOT BE PERMITTED IN CONNECTING END SECTIONS TO CONNECTOR SECTIONS OR CONNECTOR SECTIONS TO PIPE.
6. TYPE NO. 1 STEEL END SECTION: CONNECT END SECTION WITH THREADED ROD WITH CONNECTOR LUG, FOR 610 MM PIPE ONLY.
7. TYPE NO. 2 STEEL END SECTION: CONNECT END SECTION WITH THREADED ROD WITH ROD HOLDER, FOR 762 MM AND 914 MM ROUND PIPE; AND 432 MM X 330 MM THRU 1448 MM X 965 MM CSPA.
8. TYPE NO. 3 STEEL END SECTION: THE CONNECTION INCLUDES 305 MM OF THE PIPE LENGTH AS A CONNECTOR SECTION FOR PIPE ARCH SIZES 1626 MM X 1092 MM THRU 2108 MM X 1448 MM AND ROUND PIPE SIZES 1067 MM THRU 2134 MM. GAGES OF CONNECTOR SECTION SHALL BE THE SAME AS THE END SECTIONS AS MENTIONED ABOVE. THE CONNECTOR SECTION WILL BE ATTACHED TO THE END SECTION BY 9.5 MM GALVANIZED RIVETS OR BOLTS ON APPROXIMATELY 152 MM CENTERS.
9. HELICALLY CORRUGATED PIPE: FOR TYPE NO. 5 AND TYPE NO. 3 THE DIMPLE BAND OR CORRUGATED PIPE CONNECTOR SECTION SHALL BE ATTACHED TO THE END SECTION BY 9.5 MM GALVANIZED STEEL RIVETS OR BOLTS SPACED AT APPROXIMATELY 152 MM CENTERS.
10. TYPE NO. 1, TYPE NO. 2, AND TYPE NO. 3 CONNECTIONS MAY BE USED WITH WELDED SEAMS HELICALLY CORRUGATED PIPE WITH RE-ROLLED ENDS. RE-ROLLED ENDS SHALL INCLUDE A MINIMUM OF TWO (2) ANNULAR CORRUGATIONS OF THE SAME SIZE AS THE PIPE CORRUGATIONS.



SECTION A-A

FENCE RESET NOTES

1. ANY ADDITIONAL FENCING NEEDED WILL BE CONSIDERED AS INCIDENTAL TO ITEM 61921-1000, "REMOVE AND RESET FENCE".
2. SEE SHEET 33 FOR ADDITIONAL FENCING DETAILS.



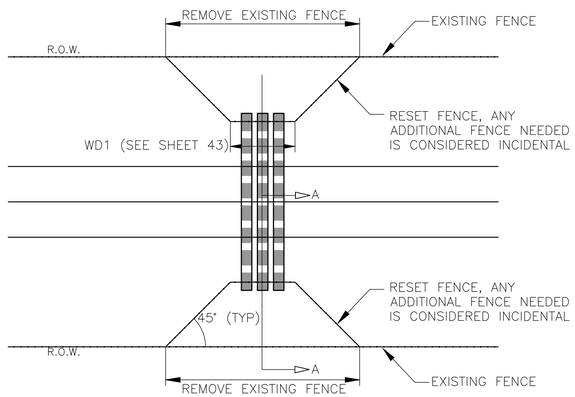
RECP STAPLE TABLE

SLOPE HT. (M)	Staple Pattern 1:3	1:2	1:1
91 84 76 69 61 53 46 38 30 23 15 8	C	C	C
	B		
	A	B	
			B

GRADE

RECP STAPLE DETAILS

STAPLE NOTES:
1. TO DETERMINE THE STAPLE PATTERN TO USE FOR EROSION BLANKETS/MATS REFER TO THE RECP STAPLE TABLE. CHOOSE STAPLE PATTERN A, B, OR C BASED ON THE GRADE AND SLOPE HEIGHT.
2. BEGIN STAPLING AT TOP OF SLOPE.
3. STAPLE OVERLAP AREAS WITH STAGGERED PATTERN WITH STAPLES.
4. STAPLE PATTERNS SHOWN ARE FOR 2.44M WIDE BLANKETS.
5. FOLLOW ALL THE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLING BLANKETS AND STAPLES.
6. SEE SHEET 36 FOR RECP LAYOUT.



FENCE REMOVE AND RESET DETAIL

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3020 E. CAMELBACK ROAD
SUITE 201
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602.957.1155

Registered Professional Engineer Certificate No. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26 ARIZONA U.S.A.

REVISION	BY	DATE

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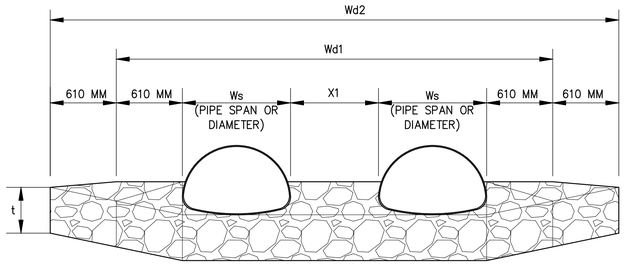
N15(2-3) CORNFIELDS TO BURNSIDE

END SECTION AND RECP STAPLE PLACEMENT DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	D5	53 OF 116
SCALE: N/A			

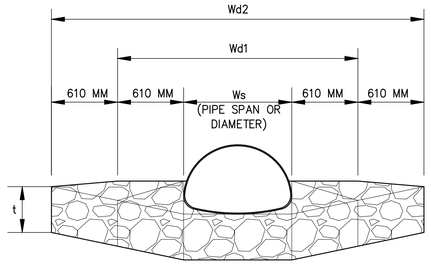
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	54



ELEVATION – MULTIPLE BARREL

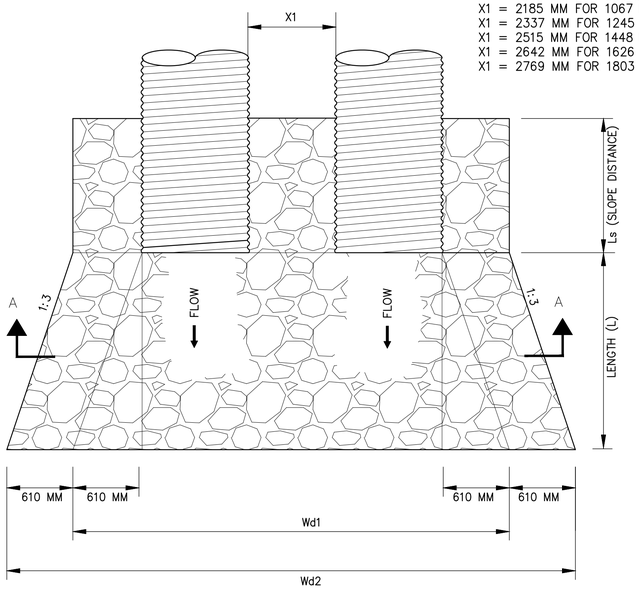
SECTION A–A



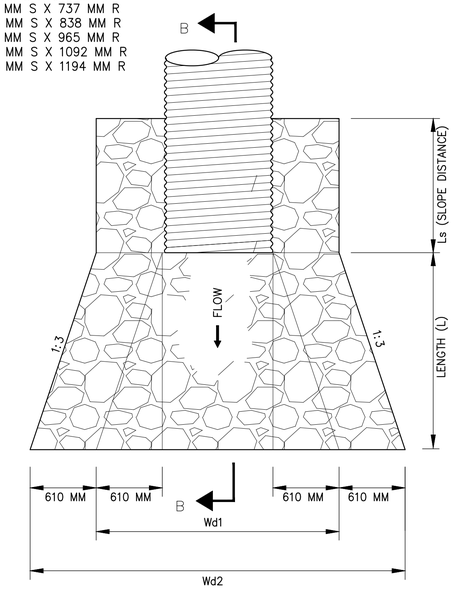
ELEVATION – SINGLE BARREL

SECTION A–A

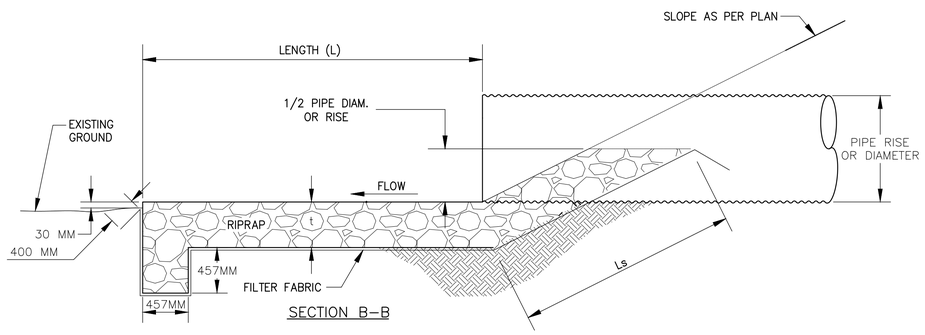
X1 = 1829 MM FOR 610 MM
X1 = 2083 MM FOR 762 MM
X1 = 2642 MM FOR 1067 MM
X1 = 2719 MM FOR 1219 MM
X1 = 2870 MM FOR 1372 MM
X1 = 1677 MM FOR 711 MM S X 508 MM R
X1 = 1880 MM FOR 889 MM S X 610 MM R
X1 = 2185 MM FOR 1067 MM S X 737 MM R
X1 = 2337 MM FOR 1245 MM S X 838 MM R
X1 = 2515 MM FOR 1448 MM S X 965 MM R
X1 = 2642 MM FOR 1626 MM S X 1092 MM R
X1 = 2769 MM FOR 1803 MM S X 1194 MM R



PLAN – MULTIPLE BARREL



PLAN – SINGLE BARREL



SECTION B–B

GENERAL NOTES

1. ALL STONE FOR RIPRAP SHALL BE CLASS 2 MEETING THE GRADING REQUIREMENTS OF TABLE 705–1 OF THE FP–14. SEE SUPPLEMENTAL SPECIFICATION SECTION 705 FOR MODIFICATION (NO MINUS 76 MM ROCK) TO ROCK SPECIFICATIONS FOR ROCK USED WITH GROUTED RIPRAP.
2. ALL EXCAVATIONS AND BACKFILL OPERATIONS SHALL BE DONE TO NEAT LINES IN ACCORDANCE WITH SECTION 209 OF THE FP–14 AND WILL BE INCIDENTAL TO INSTALLATION OF RIPRAP. SEE SUPPLEMENTAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. ANY BORROW MATERIAL NEEDED TO BRING EXISTING CHANNELS UP TO GRADE SHALL BE INCIDENTAL TO RIPRAP PAY ITEMS.
4. THE CONTRACTOR HAS THE OPTION TO USE ARTICULATED CONCRETE BLOCK REVETMENT.

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602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26 ARIZONA U.S.A.

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DIVISION OF TRANSPORTATION

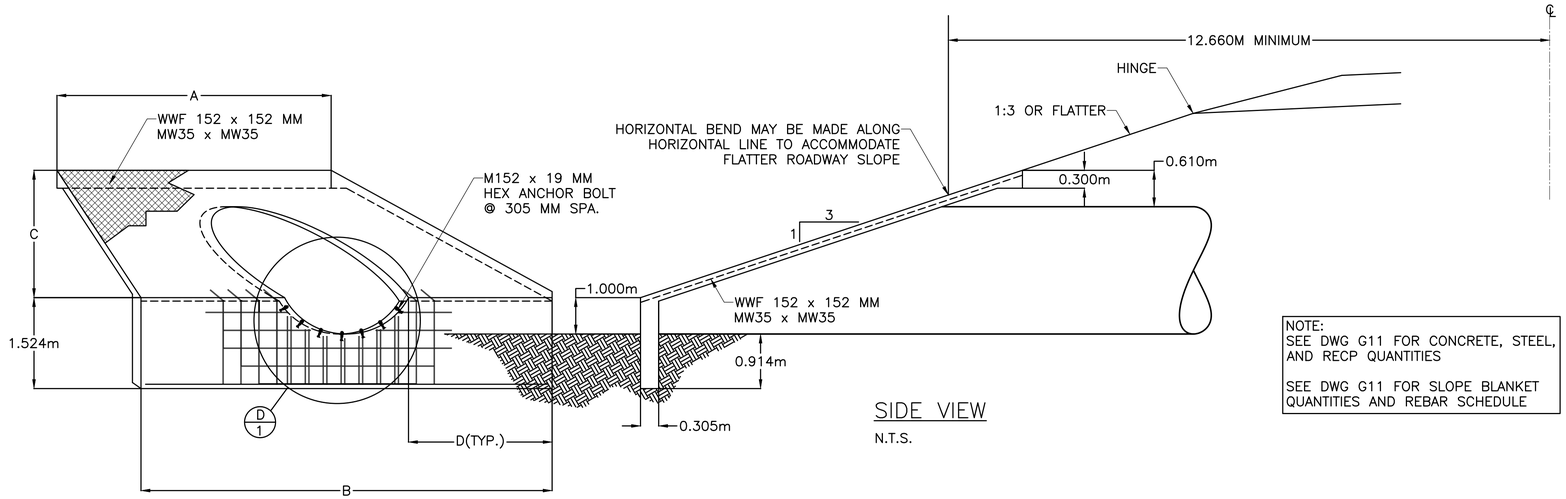
N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT RIPRAP DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	D6	54 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	56



FRONT ELEVATION VIEW

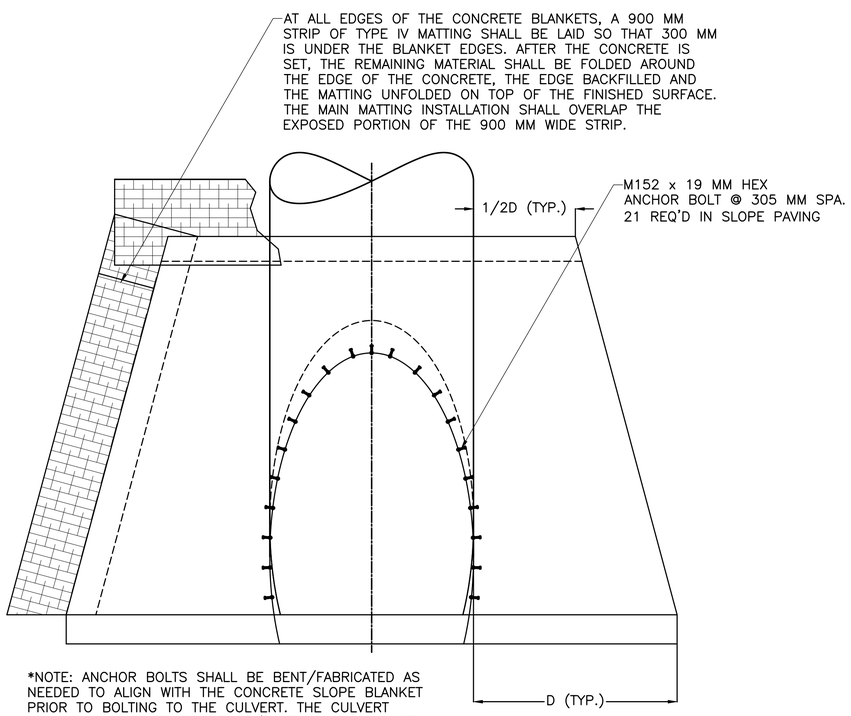
N.T.S.

SIDE VIEW

N.T.S.

NOTE:
SEE DWG G11 FOR CONCRETE, STEEL, AND RECP QUANTITIES

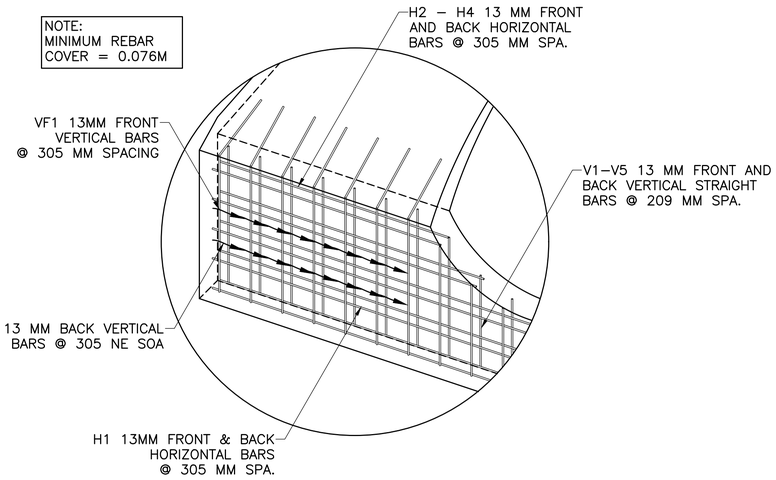
SEE DWG G11 FOR SLOPE BLANKET QUANTITIES AND REBAR SCHEDULE



PLAN VIEW

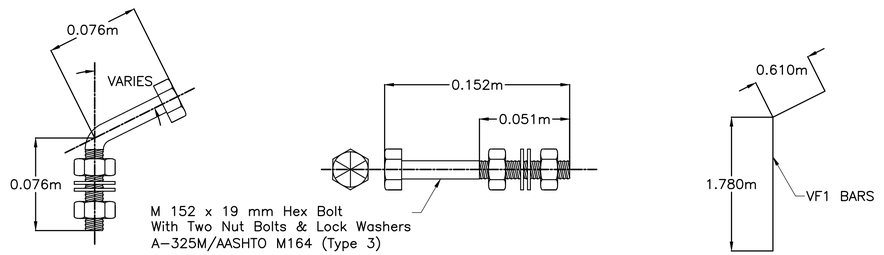
N.T.S.

NOTE:
MINIMUM REBAR
COVER = 0.076M



DETAIL D/1

N.T.S.



BENT AND STRAIGHT ANCHOR BOLT DETAIL

N.T.S.

VF1 BENT BAR DETAIL

N.T.S.

GENERAL NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP–14).
2. ALL CONCRETE SHALL BE CLASS A(AE) WITH CLASS 1 FINISH. CHAMFER ALL EXPOSED EDGES 19 mm. THE CONCRETE SHALL CONFORM TO SECTION 552 "STRUCTURAL CONCRETE" OF FP–14. F'c = 20.68 MPa.
3. REINFORCING STEEL SHALL CONFORM TO AASHTO SPECIFICATION M–31 (ASTM A 615M), GRADE 420, AND SECTION 554 OF FP–14. FURNISHING AND PLACEMENT OF REBARS, ANCHOR BOLT, AND WELDED WIRE FABRIC SHALL BE CONSIDERED INCIDENTAL TO CONTRACT BID ITEM 60101–0000.
4. ALL STRUCTURE EXCAVATION AND EMBANKMENT AROUND THE CONCRETE BLANKET SHALL BE DONE TO NEAT LINES AND WILL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE STRUCTURE.
5. THE CONTRACTOR SHALL BE REQUIRED TO MAKE ANY NECESSARY FIELD ADJUSTMENTS TO FIT EXISTING FIELD CONDITIONS, AS DIRECTED BY THE COR/COTR. NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH ADJUSTMENTS.
6. IF UNSUITABLE MATERIAL IS FOUND AT THE FOOTING LOCATION AND ELEVATIONS, THE MATERIAL SHALL BE REMOVED AND REPLACED WITH APPROVED UNCLASSIFIED BACKFILL AS DETERMINED BY THE COR/COTR. ALL UNCLASSIFIED BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T99 METHOD C, BEFORE AND AFTER FOOTINGS ARE PLACED. THE UNCLASSIFIED BACKFILL MATERIAL SHALL CONFORM TO SECTION 208 AND 209 OF FP–14. FURNISHING AND PLACEMENT OF UNCLASSIFIED BACKFILL SHALL BE ACCORDANCE WITH SECTION 109.02(s).
7. ALL FOOTING EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE COR/COTR PRIOR TO PLACEMENT OF FORMS, REINFORCING STEEL AND SUBSEQUENT CONCRETE.
8. CHANNEL RESHAPING, CLEANING, AND EXCAVATION SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND AS DETERMINED BY THE COR/COTR. ANY WASTE MATERIAL SHALL BE USED AS BORROW WHERE NEEDED IN OTHER PROJECT LOCATIONS AS DESIGNATED AND APPROVED BY THE COR/COTR. ALL CHANNEL EXCAVATION, CLEANING AND RESHAPING SHALL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE STRUCTURE.
9. IN NO CASE SHALL ANY BACKFILL BE PLACED UNTIL THE CONCRETE HAS ATTAINED A COMPRESSIVE STRENGTH OF 17.24 MPa.
10. TABULATED CONCRETE, WELDED WIRE FABRIC, AND REINFORCING STEEL ESTIMATED QUANTITIES ARE FOR ONE (1) SIDED BLANKET AT A GIVEN STATION AND SIZE OF STRUCTURE(S).
11. WHERE THE CONCRETE BLANKET CANNOT BE INSTALLED DUE TO SHALLOW DEPTH OF COVER OVER THE PIPE(S), AND/OR THE PARAPET HEIGHT IS ABOVE THE AGGREGATE BASE HINGE POINT, THE CONTRACTOR SHALL BE REQUIRED TO ADJUST THE PARAPET WALL HEIGHT TO 305 mm, AND INSTALL ADDITIONAL TWO (2) – #13M REBAR ON THE TOP WALL ACROSS THE ENTIRE LENGTH OF STRUCTURE. THIS WORK WILL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE STRUCTURE.
12. EROSION CONTROL MATTING SHALL CONFORM TO SECTION 629 AND 713.17(k) OF THE FP–14 FOR TYPE IV–B MATERIAL, AND SHALL BE MEASURED AND PAID FOR UNDER ITEM 62901–1100. MATS SHALL BE TUCKED OR EMBEDDED INTO EMBANKMENT ALONG ALL EDGES AS SHOWN. SEE DWG E3 FOR EROSION CONTROL MAT INSTALLATION DETAILS.

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26 ARIZONA U.S.A.

REVISION	BY	DATE

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DIVISION OF TRANSPORTATION

N15(2-3) CORNFIELDS TO BURNSIDE

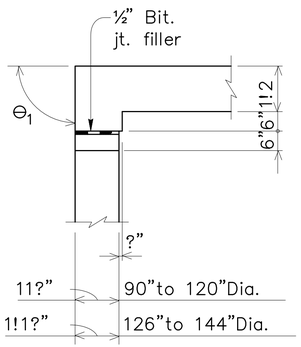
PIPE CONCRETE
SLOPE BLANKET DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	D8	56 OF 116
ASBUILT BY:	DATE:		
SCALE: N/A			

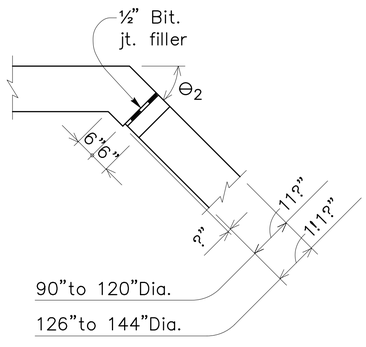
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	57

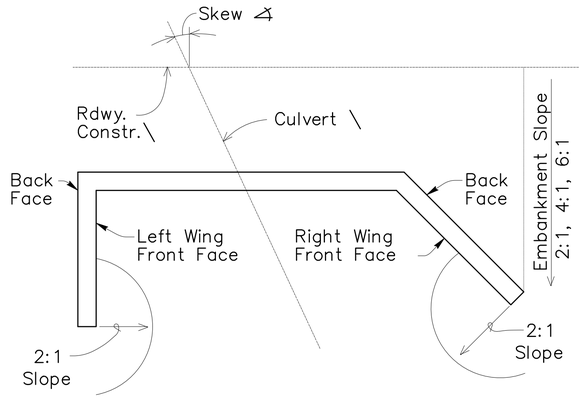
	Inlet End			Outlet End			
Skew ∢	15°	30°	45°	15°	30°	45°	
Θ_1	75°	90°	90°	85°	90°	90°	
Θ_2	45°	40°	25°	55°	40°	25°	



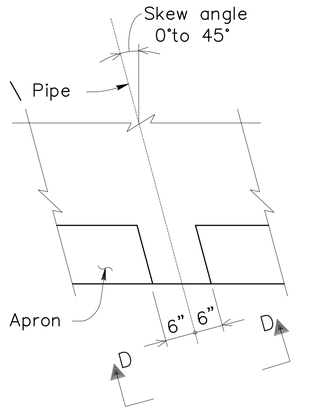
DETAIL B



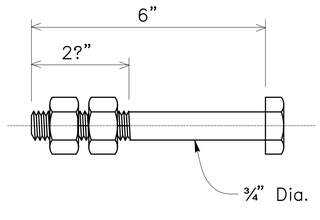
DETAIL C



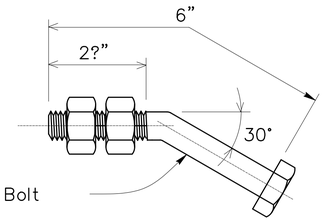
FILL PLACEMENT DETAIL



PLAN AT APRON DRAIN

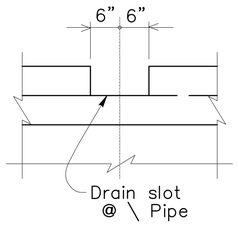


ANCHOR BOLT DETAIL



ALTERNATE ANCHOR BOLT DETAIL

NOTE:
When straight anchor bolt will not fit in headwall use alternate anchor bolt.



ELEVATION D–D

GENERAL NOTES:

Construction Specification – FP–14 and Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest Edition.

Design Specifications – AASHTO LRFD Bridge Design Specifications, 6th Edition 2012.

Loading Class – HL–93.

Design Soil weight = 120 p.c.f.

All Concrete shall be FP–14 Section 601 (f'c = 3000 psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out–to–out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 2 inch clear cover unless noted otherwise.

Chamfer all exposed corners ¾"unless noted otherwise.

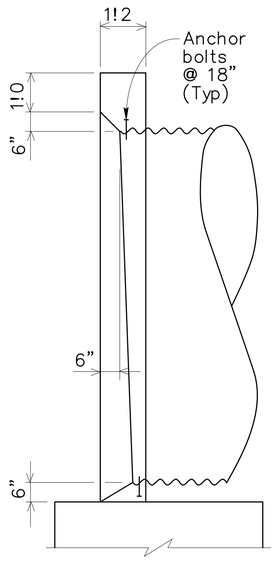
Bolt material shall conform to ASTM A307. Bolts shall be galvanized to conform to ASTM A153.

Disturbed area of pipe shall be treated in accordance with Standard Specifications requirements when end of pipe is cut to fit skew or slope.

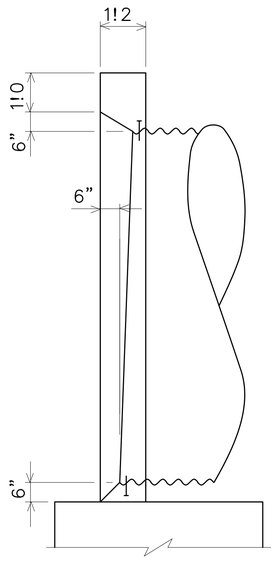
Compact backfill for footing and wing base minimum 95 percent of ASTM D698 maximum dry density.

See Project Plans for culvert layout, invert elevations, finished grade elevations, headwall, apron, and other site specific details. Headwall Quantity Tables are approximate and for information purpose only.

Dimensions shall not be scaled from drawings.

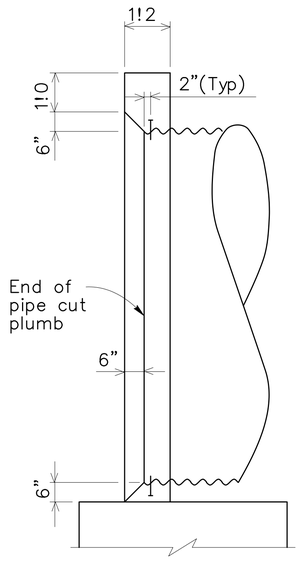


Outlet End



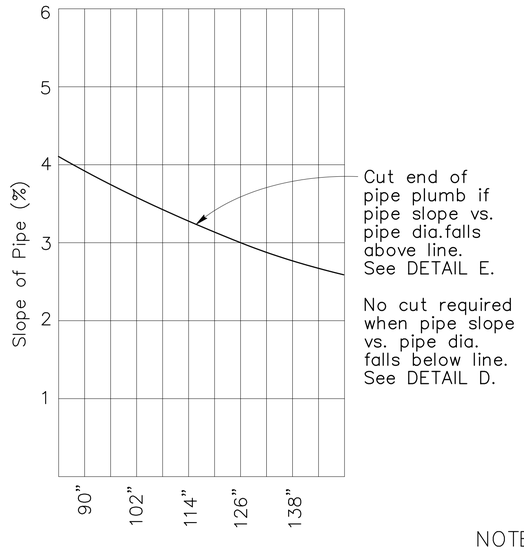
Inlet End

DETAIL D



Outlet or Inlet End

DETAIL E



PIPE DIAMETER CHART

(Use to determine pipe end treatment)

NOTE:
For Dimensions, Quantities and additional Details, see SD 6.30 (2 to 5).

NOTE:
Headwall details shown on this sheet are for pipes 90" in diameter or greater.

DIBBLE
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602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26 ARIZONA U.S.A.

REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

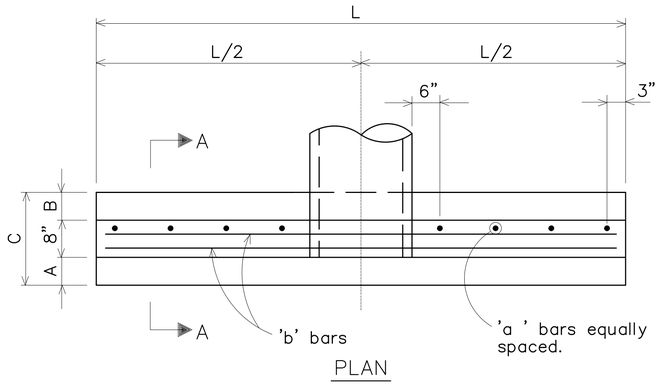
N15(2-3) CORNFIELDS TO BURNSIDE

SKEWED CULVERT HEADWALL DETAIL

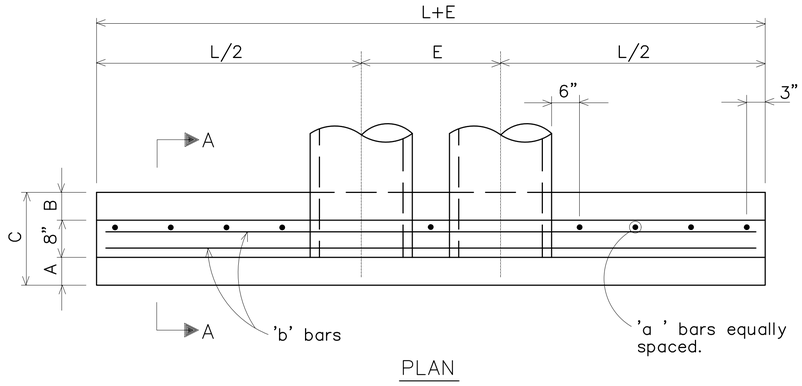
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	D9	57 OF 116
SCALE: N/A			

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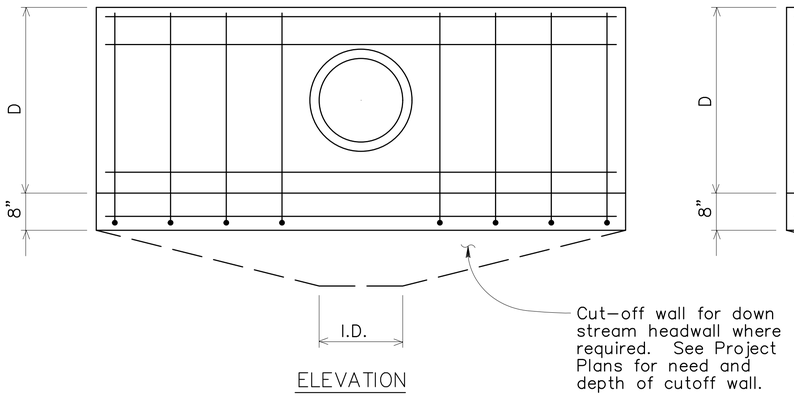
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	58



PLAN

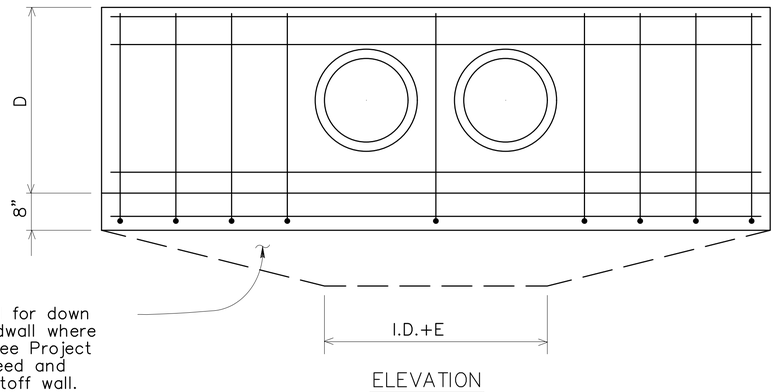


PLAN



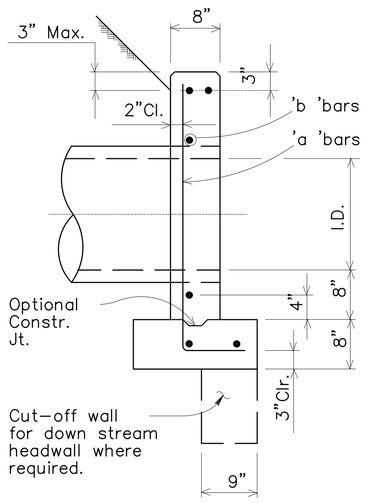
ELEVATION

SINGLE PIPE HEADWALL

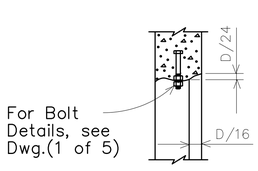


ELEVATION

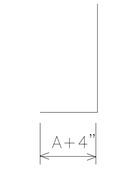
DOUBLE PIPE HEADWALL



SECTION A–A



BEVEL DETAIL FOR CMP



'a ' bars

NOTE:

Concrete pipe shown. Corrugated metal pipe similar.

All reinforcing bars are #4.

Dimension E equals pipe spacing.

High point of headwall shall not project more than 3" above slope.

For 3 or more pipes, add quantities shown for each additional pipe to Double Pipe Headwall quantity. Add one 'a' bar to double pipe headwall total and increase 'b' bar length by Dimension E for each additional pipe.

NOTE:

For General Notes, Dimensions, Quantities and additional Details, see SD 6.30 (1 & 3 to 5).

ITEM NO. 60101-0000: CONCRETE
ADOT SD 6.30, STRAIGHT HEADWALL

STATION	CULVERT SIZE (mm)	No. OF CULVERTS	LENGTH (m)	HEIGHT D (m)	THICKNESS (m)	CULVERT AREA (m^2)	WALL VOLUME (m^3)	FOOTING VOL (m^3)	CUT-OFF VOL (m^3)	TOTAL CONC VOL (m^3)	
28+208 LT	1448X965	4	11.860	1.470	0.200	4.98	2.50	2.13		4.63	INLET
28+208 RT	1448X966	4	11.860	1.470	0.200	4.98	2.50	2.13	2.99	7.62	OUTLET
28+906 LT	1626X1092	4	13.070	1.600	0.200	6.31	2.93	2.48		5.41	INLET
28+906 RT	1626X1092	4	13.070	1.600	0.200	6.31	2.93	2.48	3.28	8.69	OUTLET
										26.35	

ADOT SD 6.30, STRAIGHT HEADWALL
DIMENSIONS

ALL Dim mm CULVERT SIZE	SKEW (DEG)	A	B	C	D	E	CUT-OFF WALL DEPTH	I.D.+3E	L	L+3E
4-1448x965 CSPA	30	300	400	900	1470	2380	900	8590	4720	11860
4-1626x1092 CSPA	30	350	450	950	1600	2580	900	9370	5330	13070

ITEM 55410-1000: REINFORCING STEEL
ADOT SD 6.30, STRAIGHT HEADWALL

CULVERT SIZE	'a' BARS NO.	LENGTH (mm)	'b' BARS NO.	LENGTH (mm)	MASS/m kg/m	MASS kg
4-1448x965 CSPA	15	1920	6	11710	0.994	98.47
4-1626x1092 CSPA	17	2100	6	12920	0.994	112.55
TOTAL (2 EA)						422.04

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	REVISION	BY	DATE

NAVAJO D.O.T.

NAVAJO NATION
DIVISION OF TRANSPORTATION

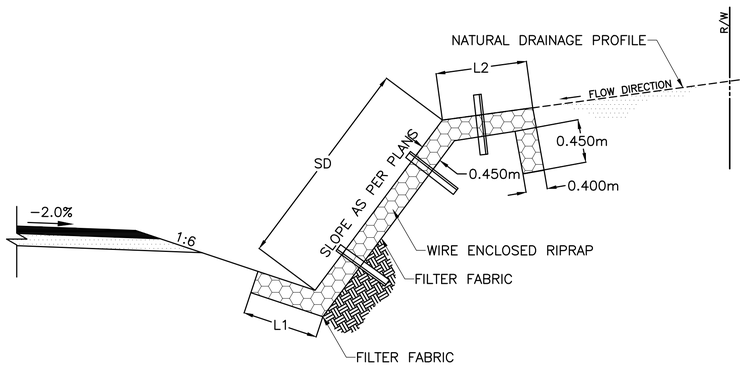
N15(2-3) CORNFIELDS TO BURNSIDE

SKEWED CULVERT HEADWALL DETAIL

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	D9A	58 OF 116
ASBUILT BY:	DATE:		
SCALE: N/A			

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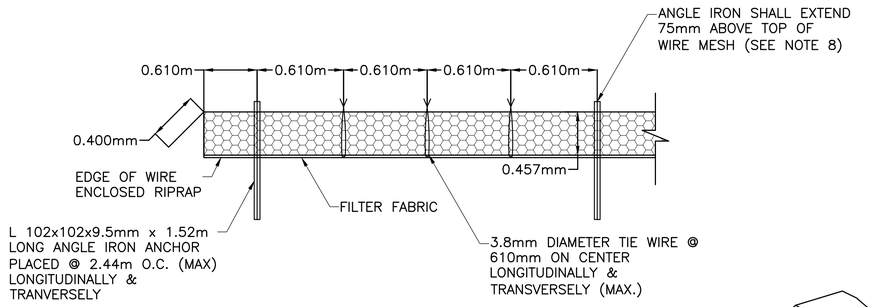
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	59



SECTION B–B

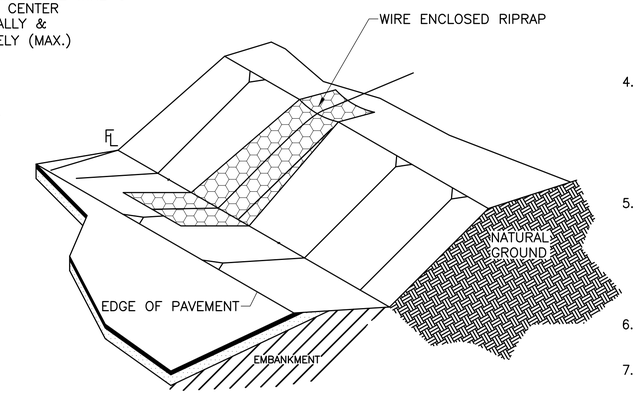
N.T.S.

NOTE: IN LOCATIONS CONTAINING A FLAT BOTTOM DITCH, THE DETAIL SHALL BE MODIFIED TO CONSIDER DIMENSION L3 (NOT SHOWN). L3 IS EQUAL TO THE BOTTOM WIDTH OF THE CHANNEL SECTION.



TYPICAL WIRE ENCLOSED RIPRAP SECTION

N.T.S.

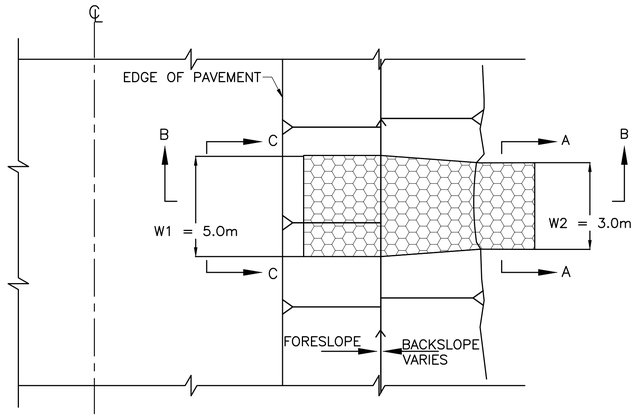


ISOMETRIC VIEW

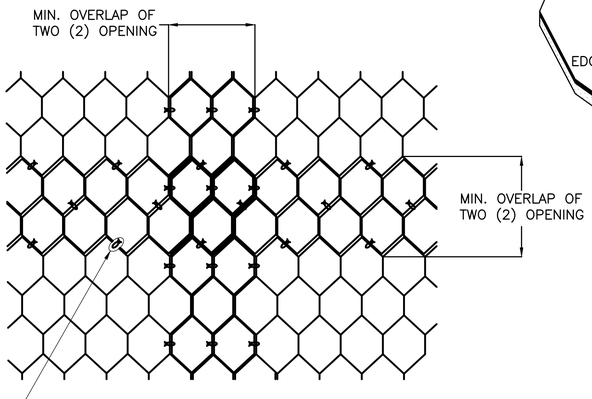
N.T.S.

GENERAL NOTES:

1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP–14), ALONG WITH ALL SUPPLEMENTAL SPECIFICATIONS FOR THIS PROJECT.
2. THE QUANTITIES SHOWN ARE ONLY AN ESTIMATE. ACTUAL QUANTITIES SHALL BE DETERMINED IN THE FIELD. THE PROJECT MANAGER, COTR/COR, AND CONTRACTOR SHALL REVIEW ALL ROCK CUT AREAS AFTER THE CONSTRUCTION OF FLAT BOTTOM DITCHES HAVE BEEN "ROUGHED IN". IF IN THE OPINION OF THE COTR/COR THE ROCK CUT IS STABLE, THE COTR/COR MAY ELECT TO DELETE SECTIONS OF THE RIPRAP. THE CONTRACTOR WILL BE REQUIRED TO MAKE ADJUSTMENTS TO THE RIPRAP AS NECESSARY TO FIT ACTUAL FIELD CONDITIONS. THESE FIELD ADJUSTMENTS WILL BE INCIDENTAL OBLIGATIONS OF THE CONTRACTOR.
3. DITCH AND BACK SLOPE RESHAPING, CLEANING, AND EXCAVATION SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND AS DETERMINED BY THE COTR/COR. ALL DITCH EXCAVATION, CLEANING, AND RESHAPING SHALL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE STRUCTURE. RIPRAP SHALL CONFORM TO SECTION 251 OF FP–14, THE SUPPLEMENTAL SPECIFICATIONS, AND THE DETAILS SHOWN IN THESE CONSTRUCTION PLANS.
4. THE WIRE FABRIC SHALL BE GALVANIZED AND BE OF THE CONFIGURATION SHOWN ON THIS SHEET. AN ALTERNATE WIRE FABRIC MAY BE SUBMITTED FOR REVIEW AND APPROVAL. ANY WIRE FABRIC USED SHALL HAVE A MINIMUM WIRE DIAMETER OF 2.8 MM, A CLASS 3 ZINC COATING (GALVANIZED), SHALL HAVE A MAXIMUM OPENING DIMENSION OF 100 MM, AND SHALL NOT ALLOW A 75 MMø SPHERE TO PASS THROUGH WIRE FABRIC OPENING.
5. EMBANKMENT BELOW RIPRAP SHALL CONFORM TO SECTION 204 OF FP–14. EXCAVATION FOR RIPRAP FOUNDATIONS SHALL CONFORM TO SECTION 209 OF FP–14. ALL EMBANKMENT FOR RIPRAP ABOVE NATURAL GROUND IS INCLUDED IN THE QUANTITY FOR ITEM 20401–0000, ROADWAY EXCAVATION, AND SHALL BE PAID FOR UNDER THAT ITEM. ALL EXCAVATION FOR RIPRAP CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO RIPRAP BID ITEM.
6. ROCK SIZE SHALL CONFORM TO FP–14, SECTION 705, TABLE 705–1, CLASS 2.
7. RIPRAP DOWNDRAINS SHALL BE CARRIED DOWN SLOPE TO THE INTERSECTION OF THE FILL SLOPE AND EXTENDED UNTIL A 2% OR LOWER SLOPE IS ACHIEVED BEFORE TERMINATION OR AS DIRECTED BY THE COTR/COR.
8. WIRE ENCLOSED RIPRAP SHALL BE ANCHORED AS SHOWN WITH L 102 MM X 102 MM X 9.5 MM STEEL ANGLES SPACED AT 2.44 M EACH WAY. STEEL ANGLES SHALL EXTEND 75 MM ABOVE THE TOP OF THE MESH. IN ROCKY AREAS, DRIVE ANGLE IRON ANCHORS TO REFUSAL (MIN. EMBEDDED 500 MM), THEN CUT AT 75 MM ABOVE RIPRAP. ANCHORS SHALL BE SAW CUT TO LEAVE A SMOOTH EDGE. DO NOT USE A CUTTING TORCH. FURNISHING AND PLACEMENT OF STEEL ANGLES SHALL BE CONSIDERED INCIDENTAL TO COMPLETION OF THE STRUCTURE.
9. THE FINISHED SURFACE OF ALL RIPRAP SHALL BE SET 30 MM BELOW THE GROUND SURFACE EXCEPT AT RIPRAP DISCHARGE ENDS, WHICH SHALL BE SET 30 MM ABOVE THE GROUND SURFACE.
10. FILTER FABRIC SHALL BE INSTALLED UNDER ALL RIPRAP (EXCEPT GROUTED RIPRAP AND CHECK DAMS) AND SHALL CONFORM TO SECTION 714, TYPE IV–B, AND SHALL BE CONSIDERED INCIDENTAL TO RIPRAP BID ITEMS. ROUND ALL SHARP CONTOURS AS REQUIRED TO FIT THE SOIL EROSION MATERIAL FLUSH WITH THE EXISTING GROUND.

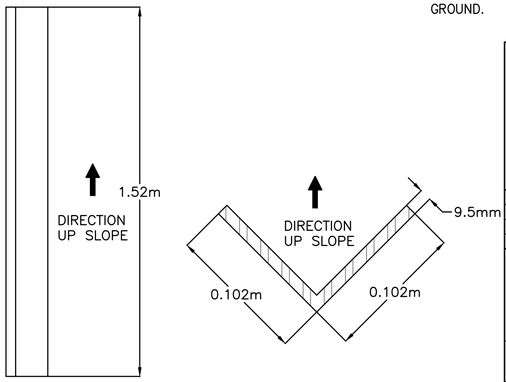


PLAN VIEW



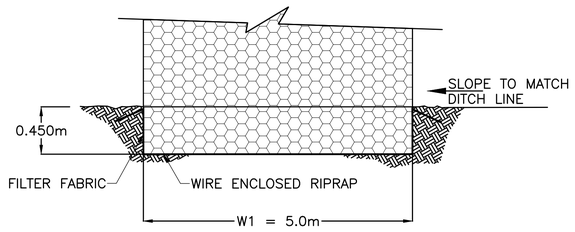
TYPICAL FABRIC SPLICING DETAIL

N.T.S.



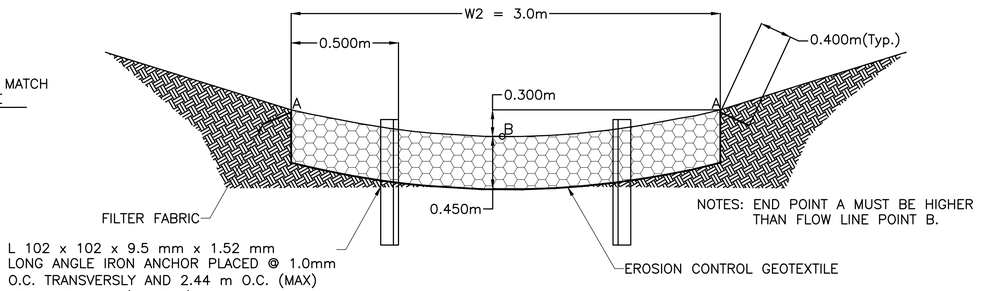
TYPICAL ANGLE IRON ANCHOR DETAIL

N.T.S.



SECTION CC

N.T.S.



SECTION AA

N.T.S.

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REVISION	BY	DATE

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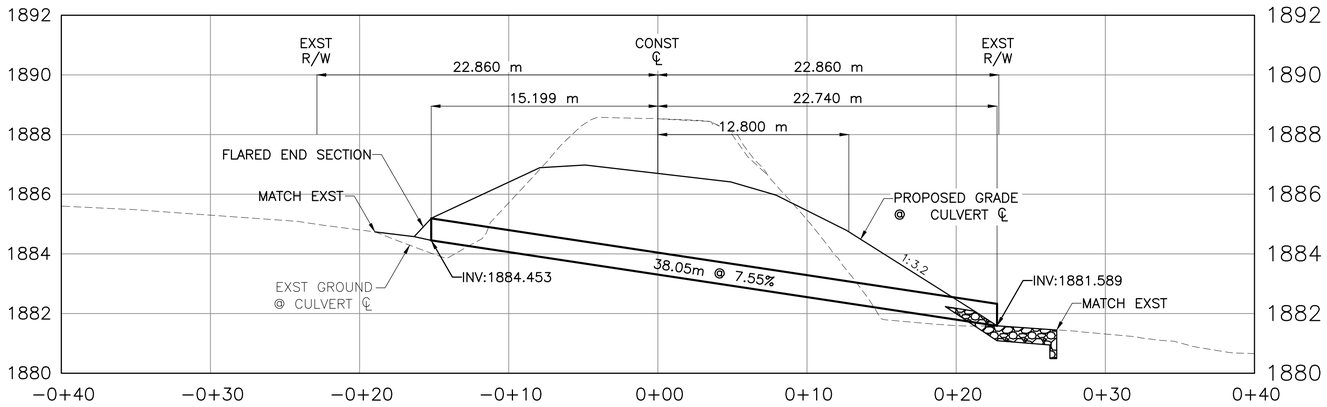
NAVAJO NATION
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N15(2-3) CORNFIELDS TO BURNSIDE

WIRE ENCLOSED RIPRAP DETAIL FOR BACKSLOPE PROTECTION

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	D10	59 OF 116
SCALE: N/A			

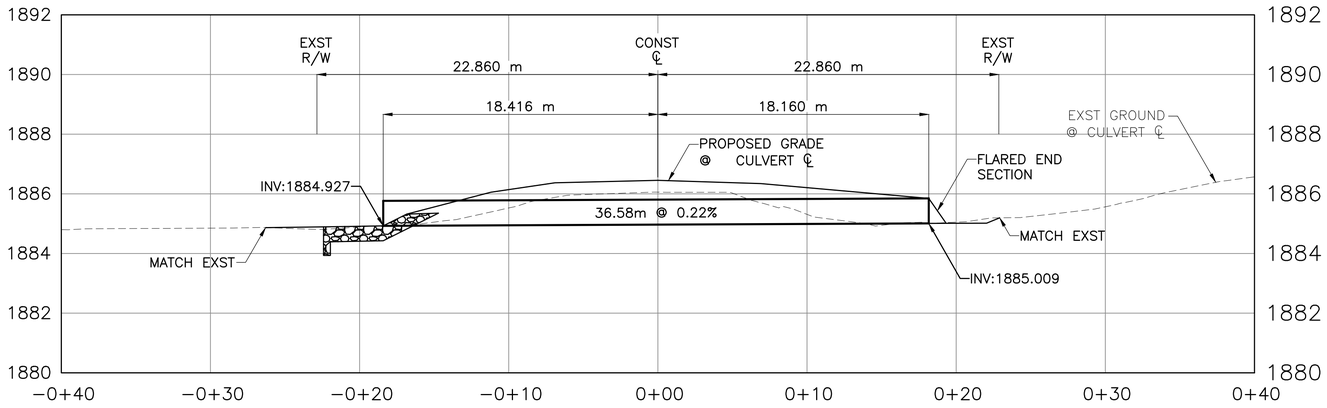
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3

STA 23+869

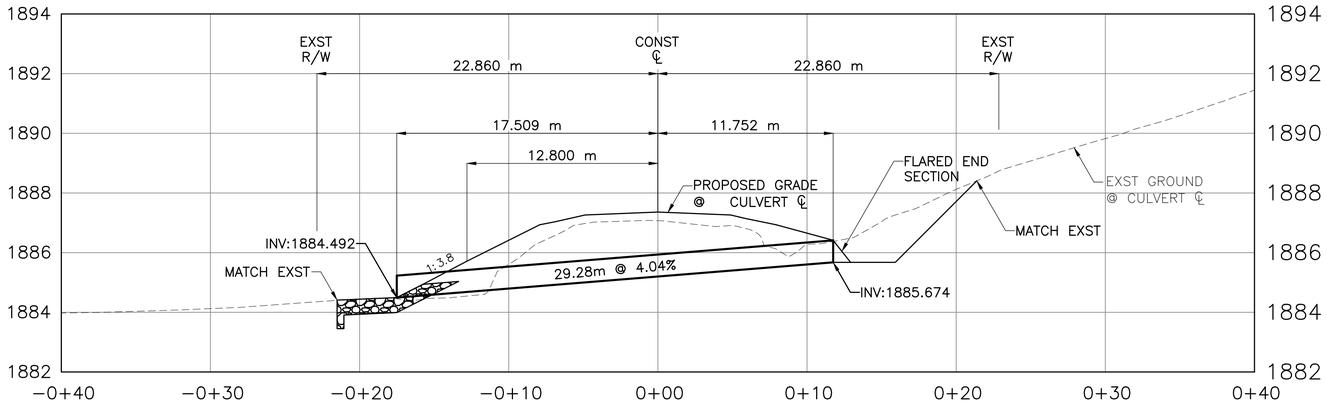
SKEW 90°
1−1067 mm S x 737 mm R x 38.05 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



2

STA 22+986

SKEW 45°
1−1245 mm S x 838 mm R x 36.58 m CSPA
FLARED END SECTION RT
RIPRAP APRON LT



1

STA 22+864

SKEW 90°
1−1067 mm S x 737 mm R x 29.28 m CSPA
FLARED END SECTION RT
RIPRAP APRON LT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	61

0 10 20
METERS

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CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date Signed 6/9/26
ARIZONA U.S.A.

	REVISION	BY	DATE
△			

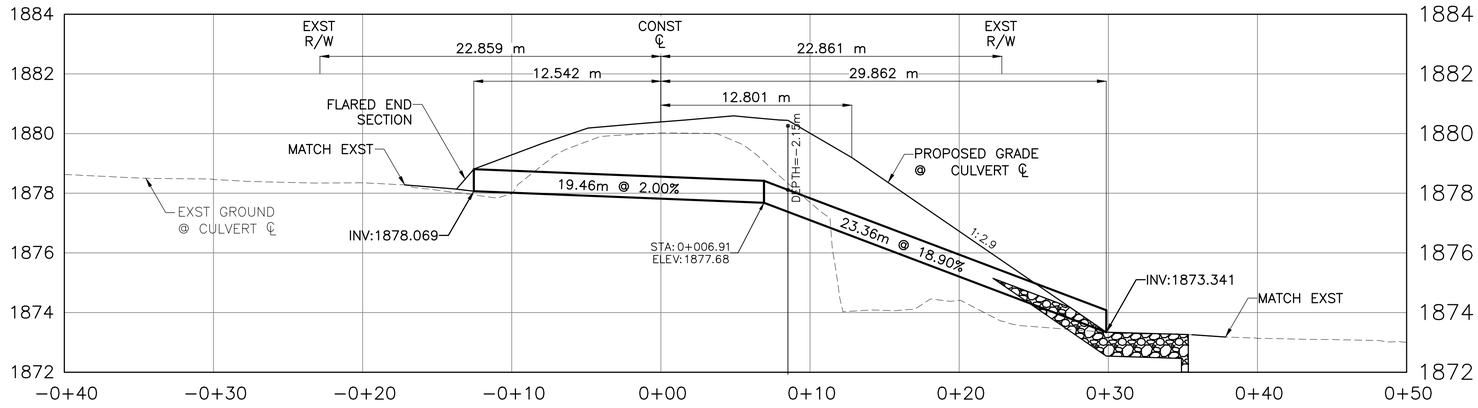
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC1	61 OF 116
SCALE: 1:200 H | 1:4 V			

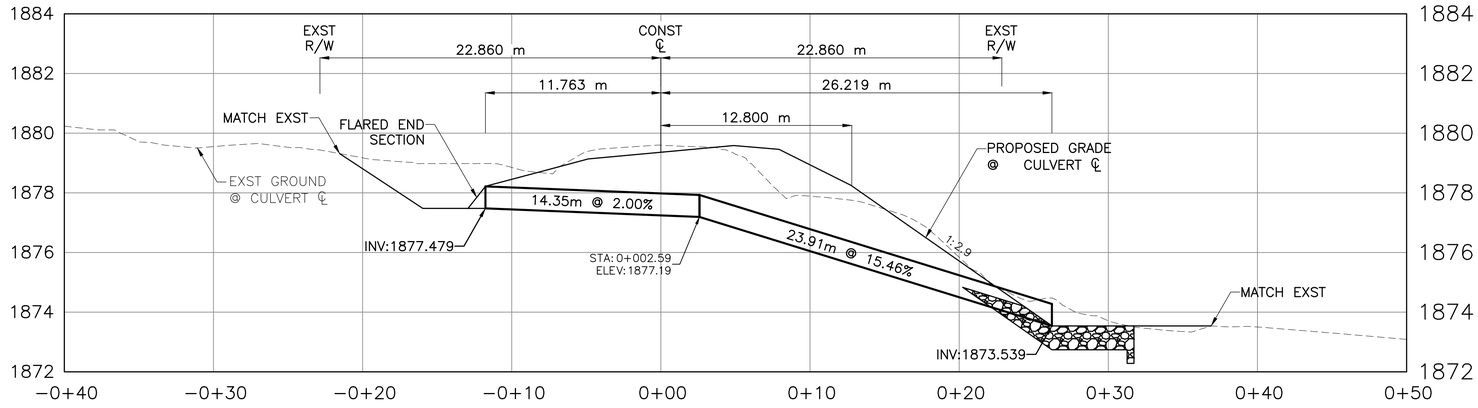
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7

STA 24+571

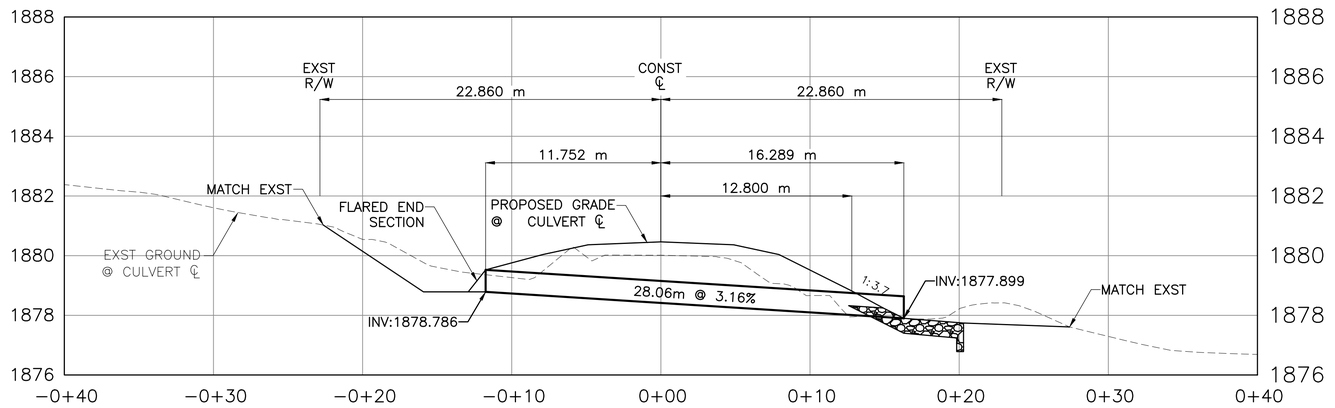
SKEW 90°
2−1067 mm S x 737 mm R x 42.82 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



5

STA 24+360

SKEW 90°
1−1067 mm S x 737 mm R x 38.26 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



4

STA 24+158

SKEW 90°
1−1067 mm S x 737 mm R x 28.06 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	62

0 10 20
METERS

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CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date Signed 6/19/26
ARIZONA

	REVISION	BY	DATE
△			

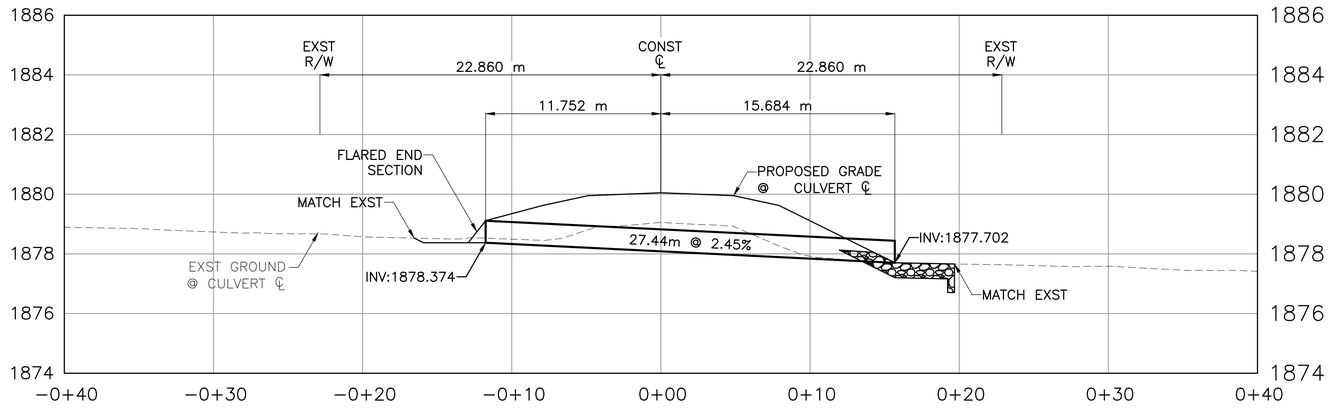
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC2	62 OF 116
SCALE: 1:200 H | 1:4 V			

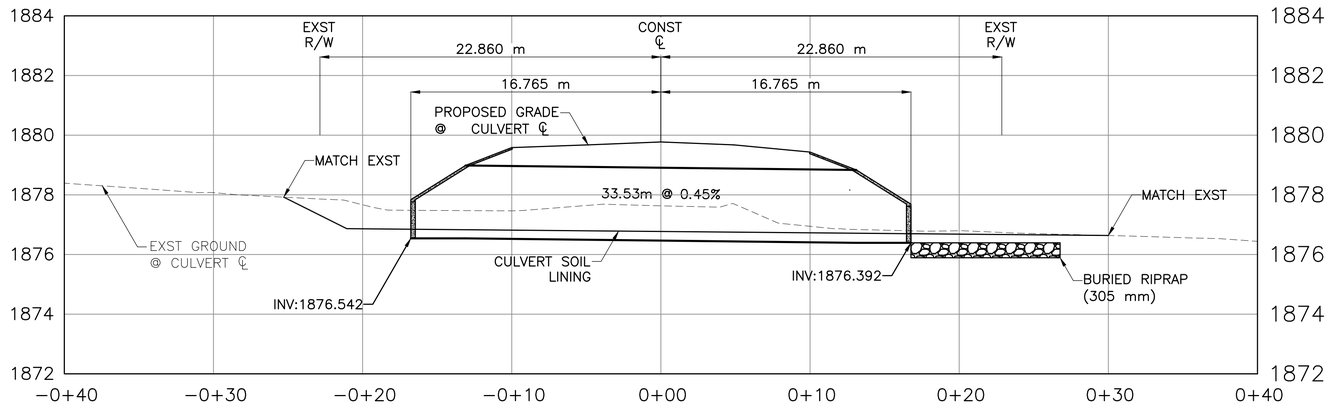
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10

STA 25+454

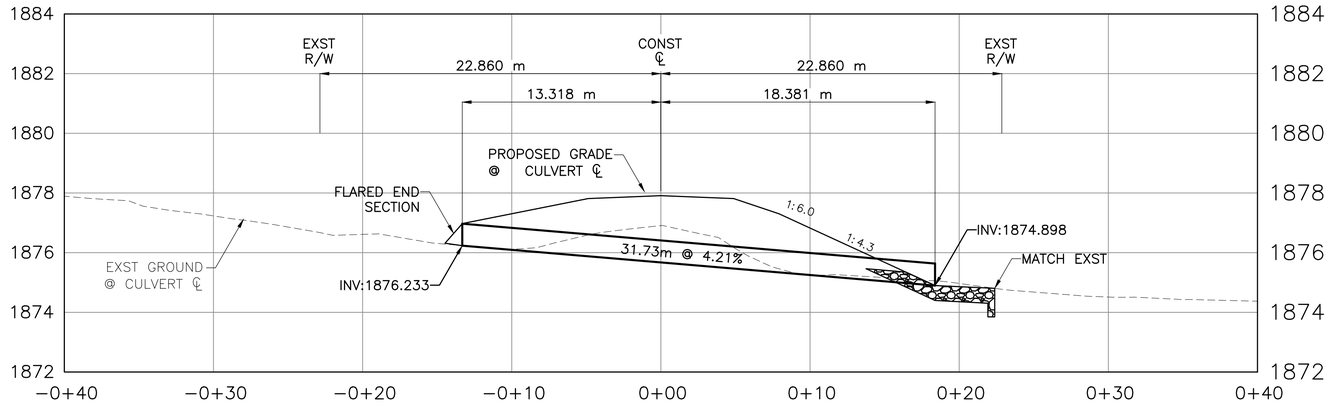
SKEW 90°
1−1067 mm S x 737 mm R x 27.44 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



9

STA 25+329

SKEW 90°
1−2438 mm x 33.53 m CSPC
SLOPE PAVING LT & RT
BURIED RIPRAP APRON RT

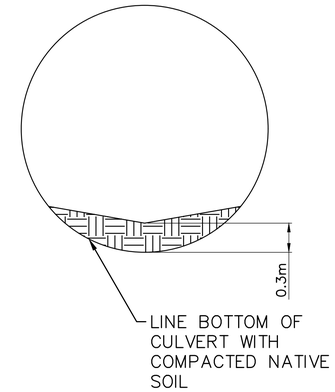


8

STA 25+002

SKEW 90°
1−1067 mm S x 737 mm R x 31.73 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	63



SOIL LINING

0 10 20
METERS

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CERTIFICATE NO.
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ANDREW JOHN SPEAR
Date Signed 6/9/26
ARIZONA

	REVISION	BY	DATE
1			

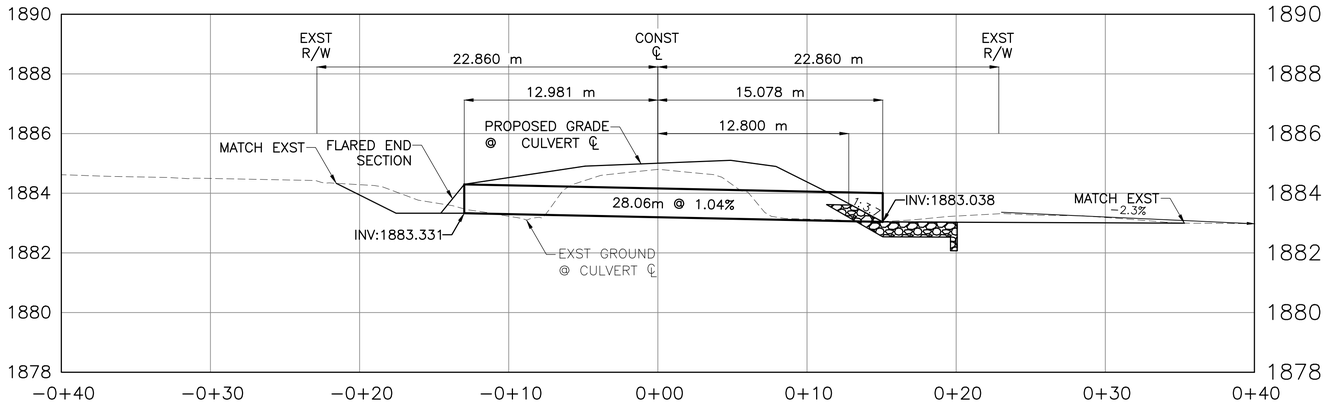
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC3	63 OF 116
SCALE: 1:200 H | 1:4 V			

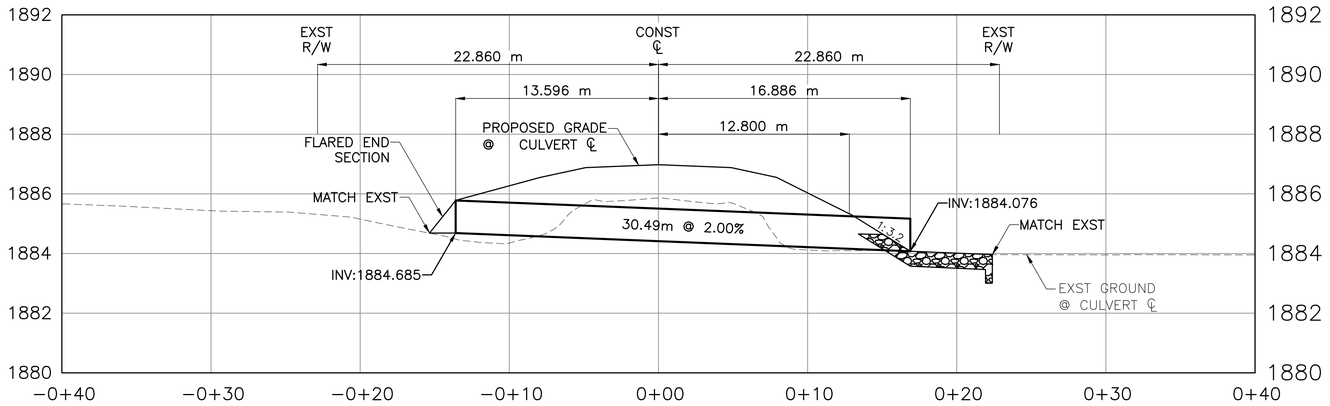
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15

STA 26+812

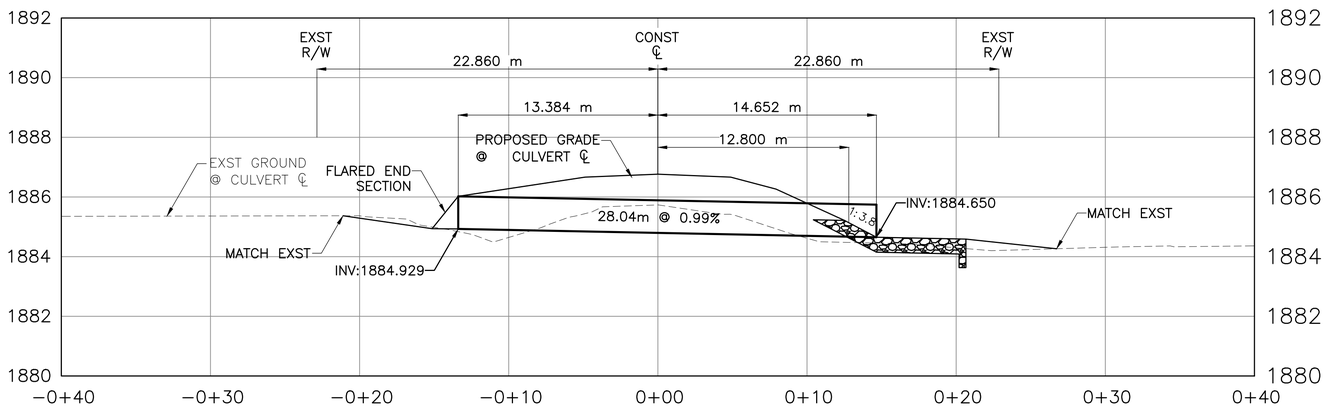
SKEW 90°
2−1448 mm S x 965 mm R x 28.06 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



13

STA 26+004

SKEW 90°
4−1626 mm S x 1092 mm R x 30.49 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



12

STA 25+926

SKEW 90°
5−1626 mm S x 1092 mm R x 28.04 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	64

0 10 20
METERS

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SUITE 201
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CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date Signed 6/19/26
ARIZONA U.S.A.

	REVISION	BY	DATE

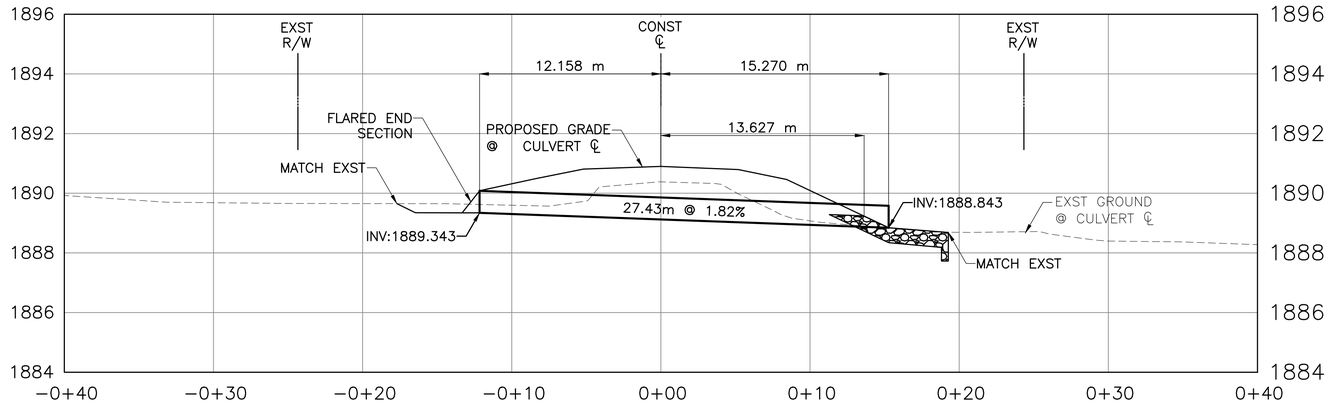
NAVAJO D.O.T.
NAVAJO NATION
DIVISION OF TRANSPORTATION

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC4	64 OF 116
SCALE: 1:200 H | 1:4 V			

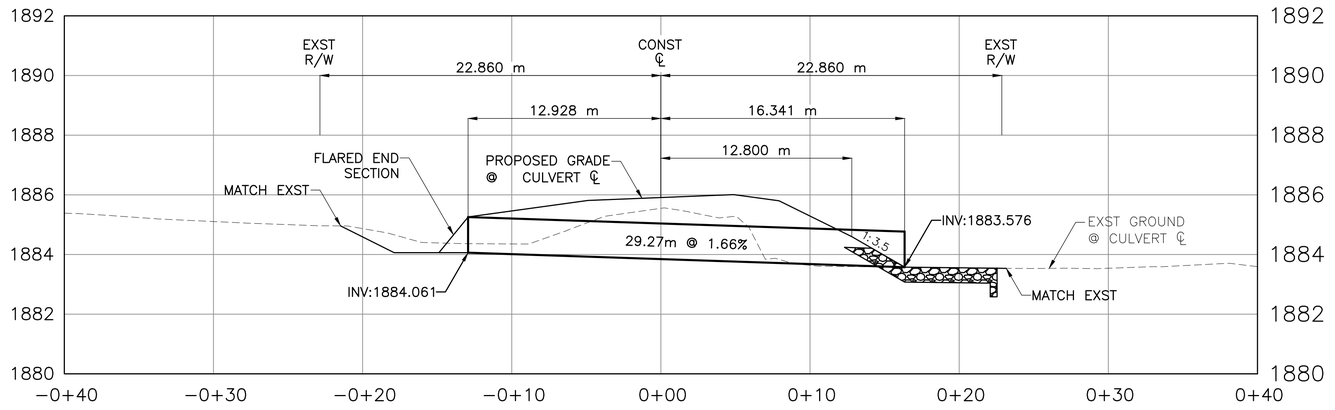
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19

STA 27+700

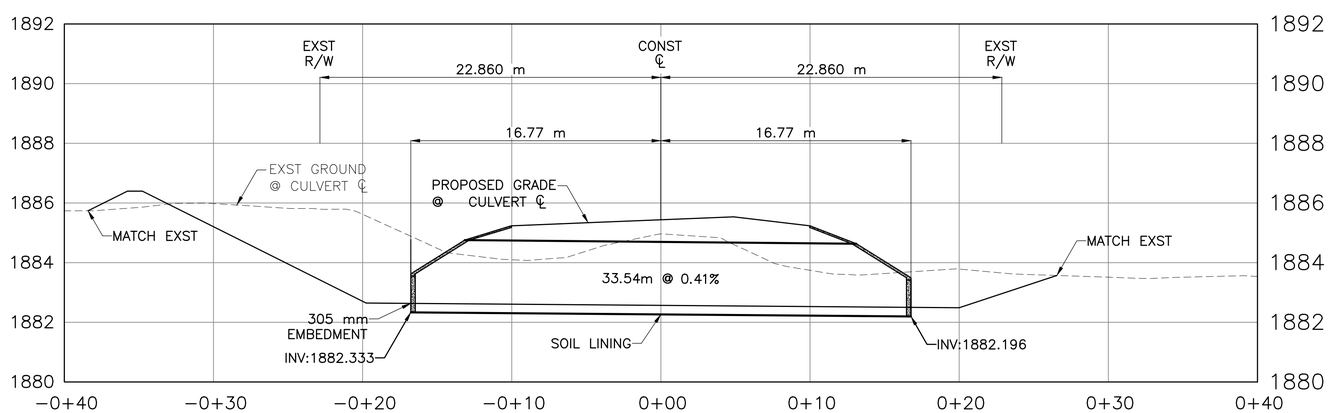
SKEW 110°
2−1067 mm S x 737 mm R x 27.43 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



17

STA 26+995

SKEW 90°
3−1803 mm S x 1194 mm R x 29.27 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

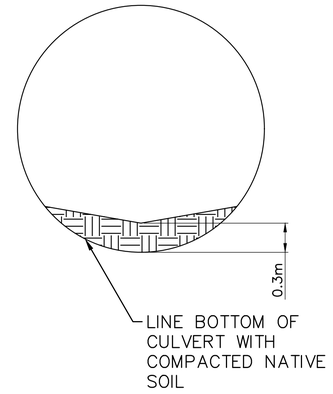


16

STA 26+930

SKEW 90°
1−2438 mm x 33.54 m CSPC
SLOPE PAVING LT & RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	65



SOIL LINING

0 10 20
METERS

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CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date Signed 6/12/26
ARIZONA U.S.A.

	REVISION	BY	DATE

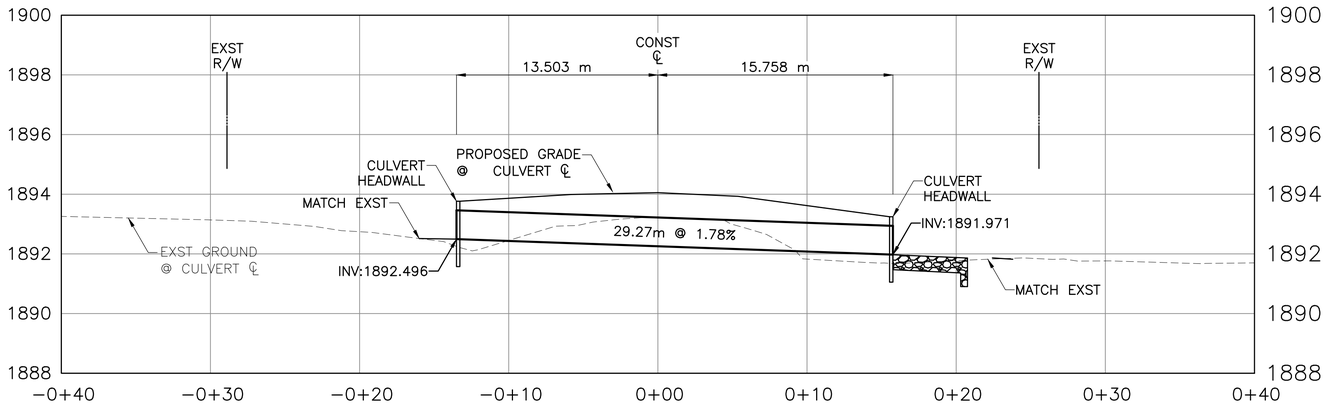
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC5	65 OF 116
SCALE: 1:200 H | 1:4 V			

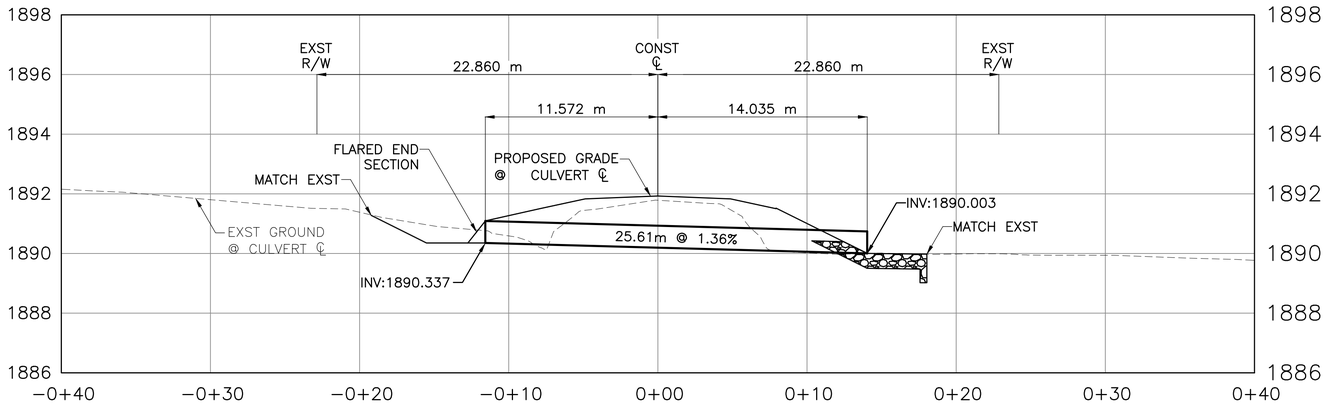
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22

STA 28+208

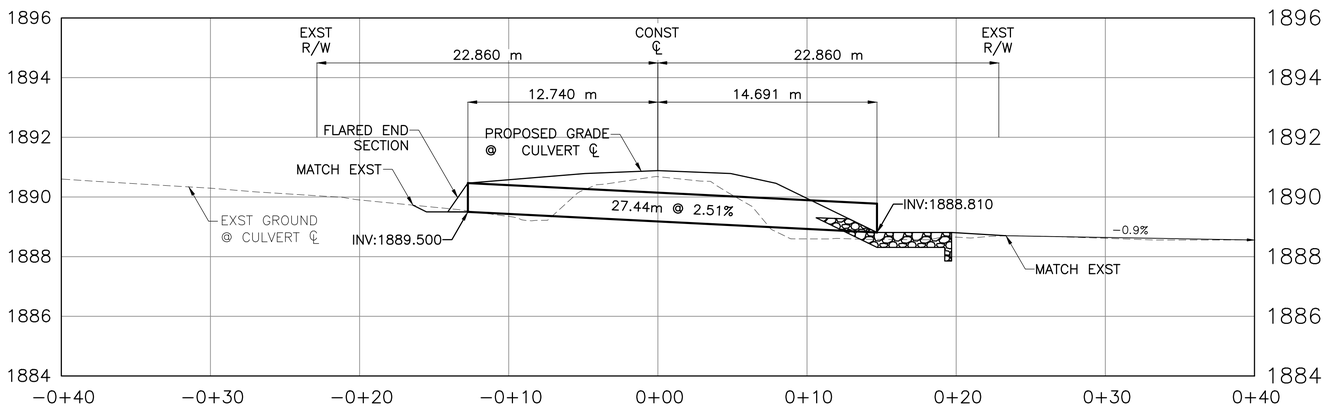
SKEW 115°
4−1448 mm S x 965 mm R x 29.27 m CSPA
HEADWALL LT & RT
RIPRAP APRON RT



21

STA 28+015

SKEW 90°
4−1067 mm S x 737 mm R x 25.61 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



20

STA 27+863

SKEW 90°
3−1448 mm S x 965 mm R x 27.44 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	66

0 10 20
METERS

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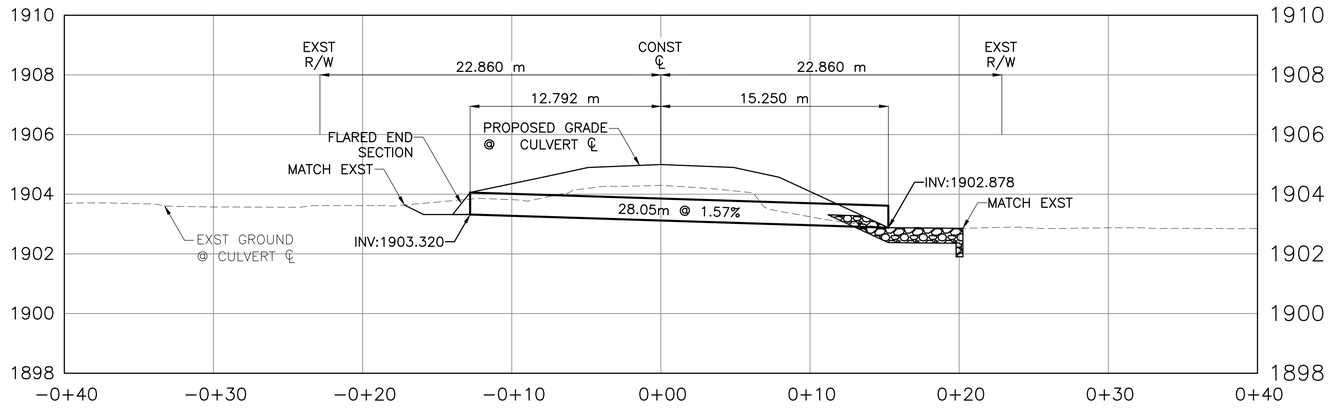
NAVAJO NATION
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NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC6	66 OF 116
SCALE: 1:200 H | 1:4 V			

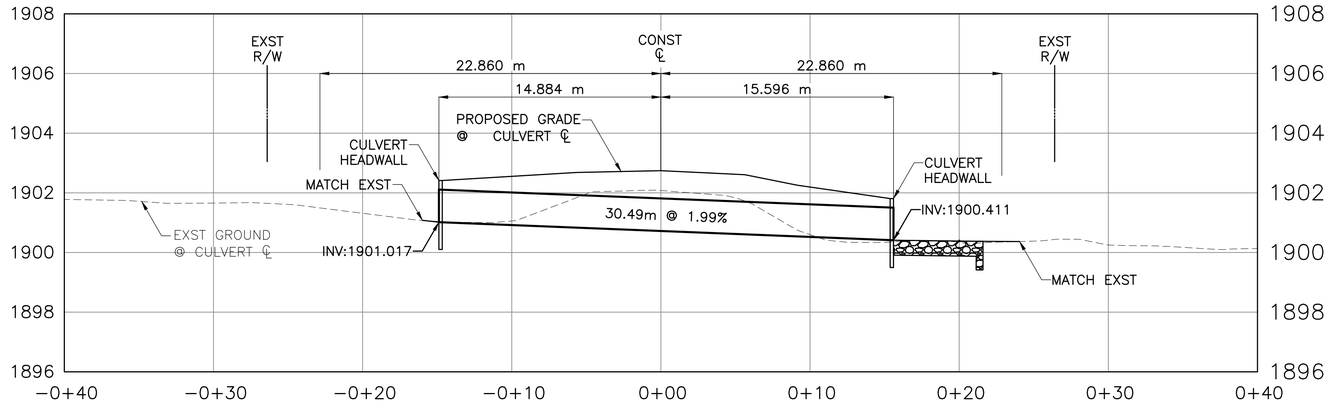
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25

STA 29+081

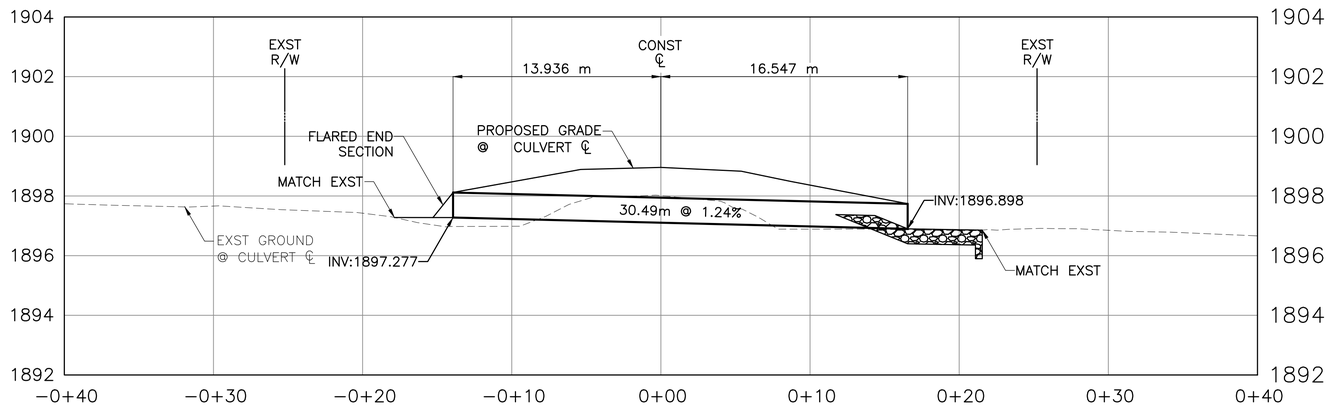
SKEW 90°
1−1245 mm S x 838 mm R x 28.05 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



24

STA 28+906

SKEW 120°
4−1626 mm S x 1092 mm R x 30.49 m CSPA
HEADWALL LT & RT
RIPRAP APRON RT



23

STA 28+633

SKEW 115°
2−1245 mm S x 838 mm R x 30.49 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	67

0 10 20
METERS

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ARIZONA

	REVISION	BY	DATE

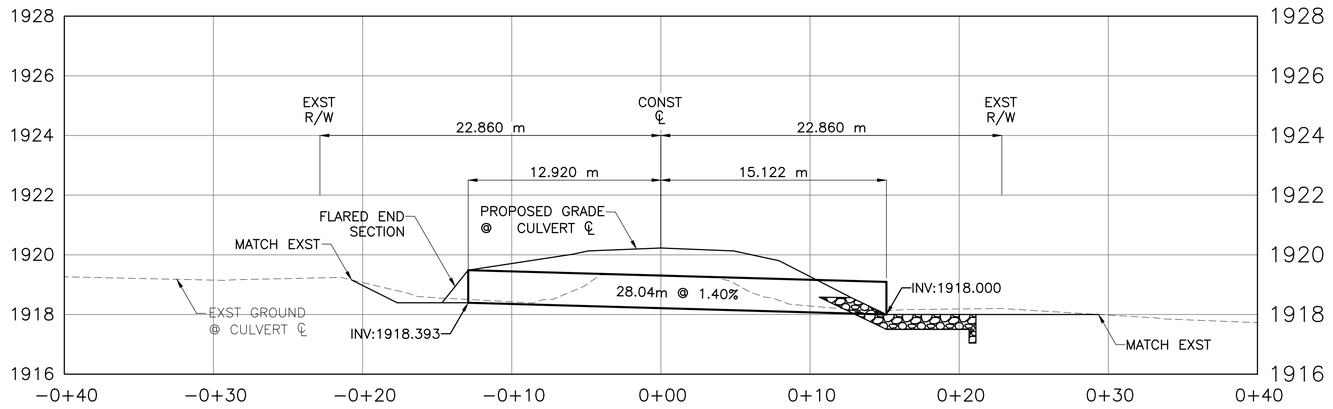
NAVAJO NATION
DIVISION OF TRANSPORTATION
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N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC7	67 OF 116
SCALE: 1:200 H | 1:4 V			

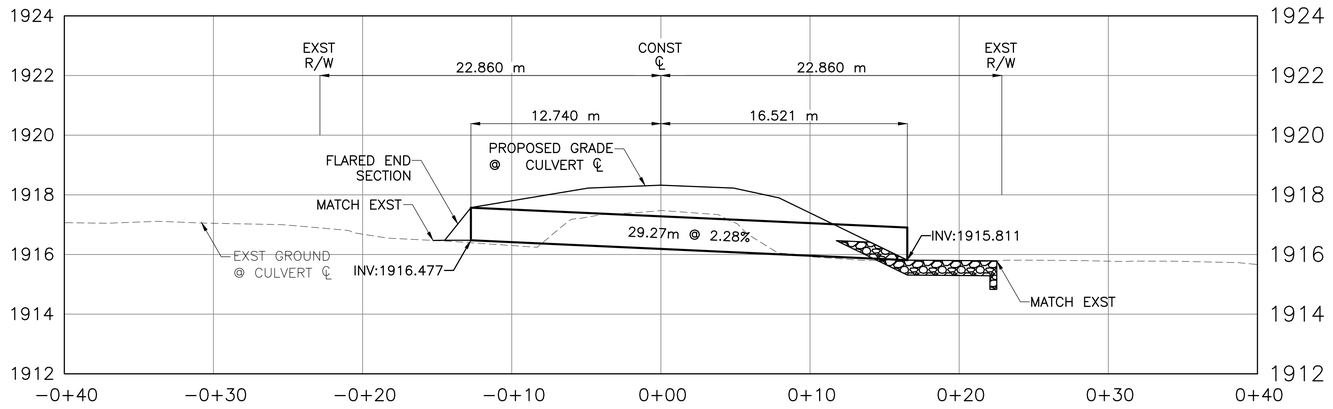
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28

STA 30+310

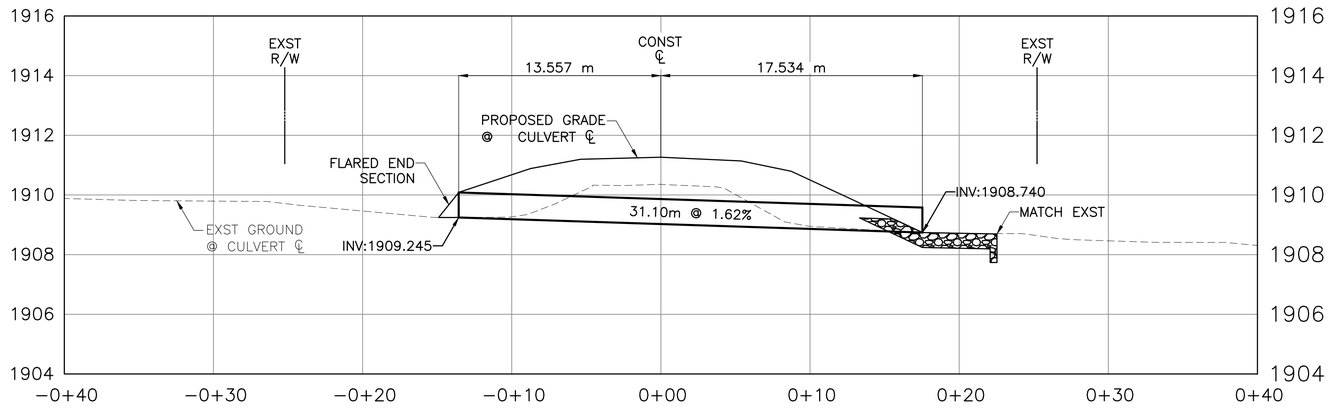
SKEW 90°
5−1626 mm S x 1092 mm R x 28.04 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



27

STA 30+150

SKEW 90°
2−1625 mm S x 1092 mm R x 29.27 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



26

STA 29+577

SKEW 115°
2−1245 mm S x 838 mm R x 31.10 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	68

0 10 20
METERS

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Registered Professional Engineer Certificate No. 25015 ANDREW JOHN SPEAR Date Signed 6/26/26 ARIZONA U.S.A.

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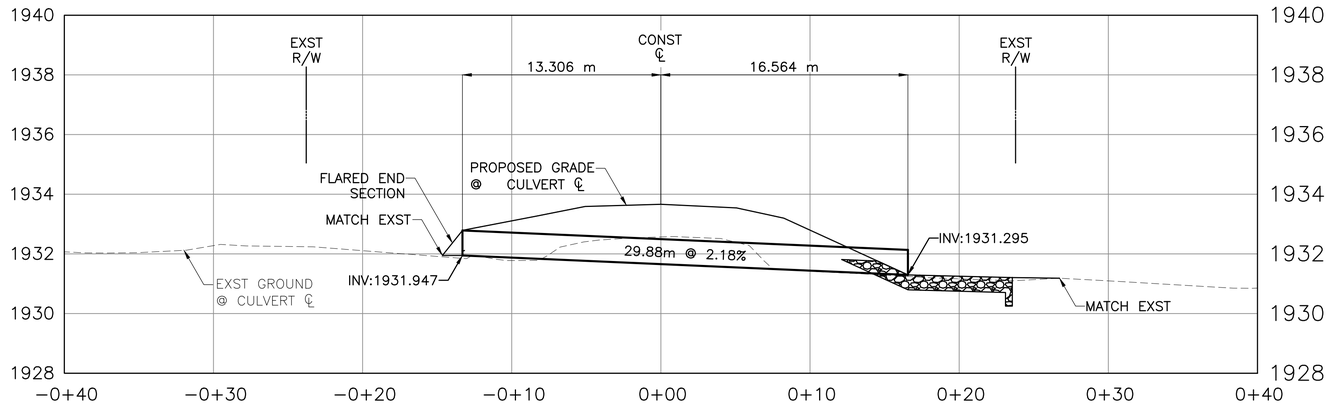
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC8	68 OF 116
SCALE: 1:200 H | 1:4 V			

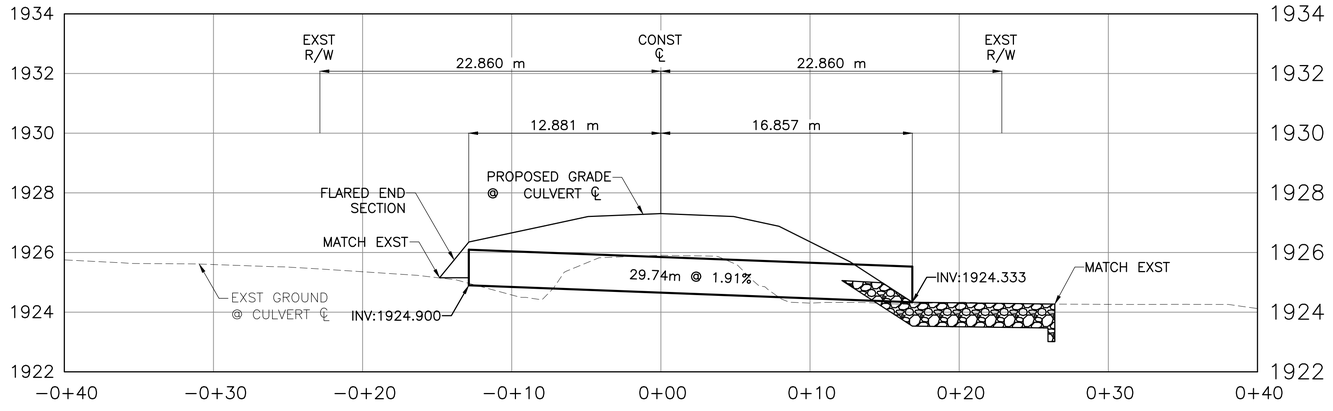
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32

STA 31+679

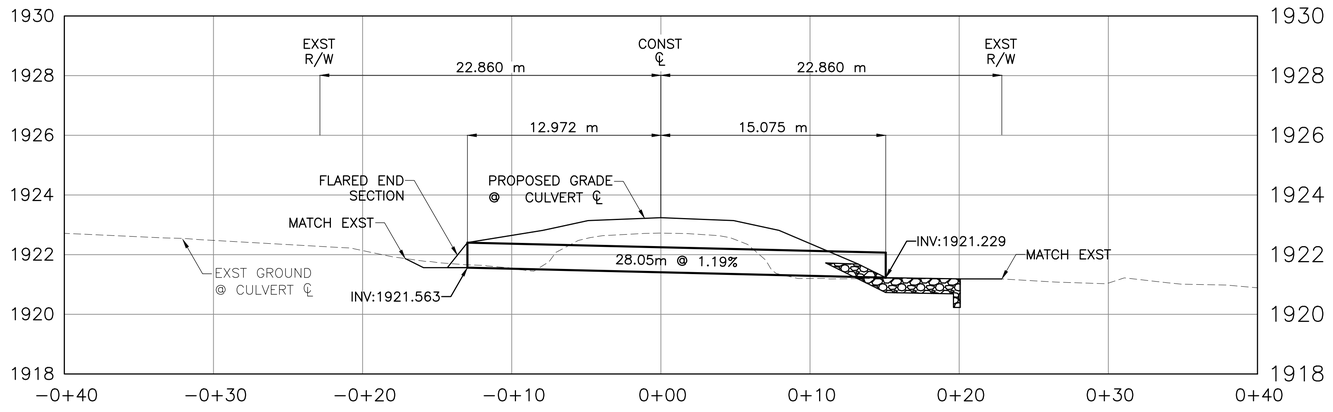
SKEW 106°
3–1245 mm S x 838 mm R x 29.88 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



31

STA 31+308

SKEW 90°
3–1803 mm S x 1194 mm R x 29.74 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



29

STA 30+698

SKEW 90°
1–1245 mm S x 838 mm R x 28.05 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	69

0 10 20
METERS

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25015
ANDREW JOHN SPEAR
Date signed 6/19/26
ARIZONA

	REVISION	BY	DATE
1			

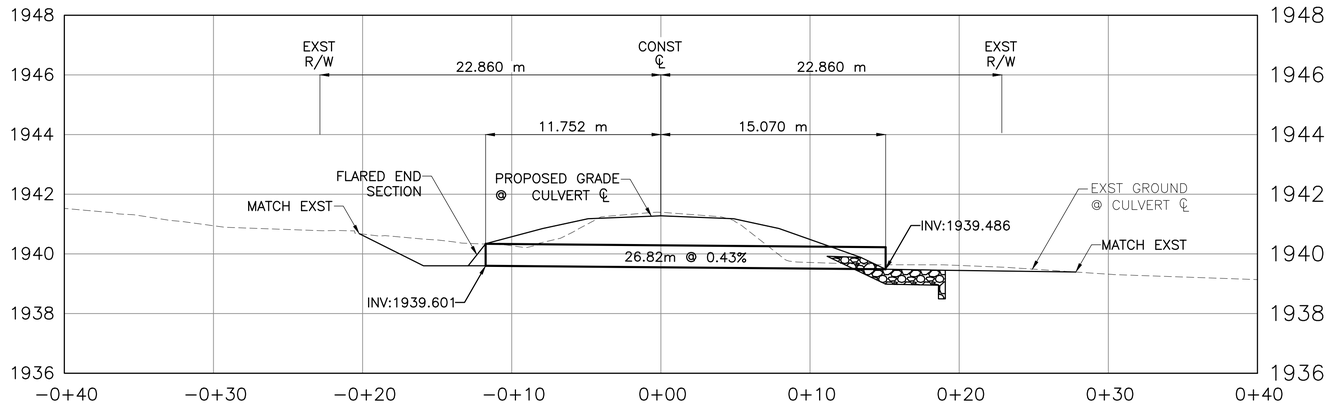
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DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC9	69 OF 116
SCALE: 1:200 H | 1:4 V			

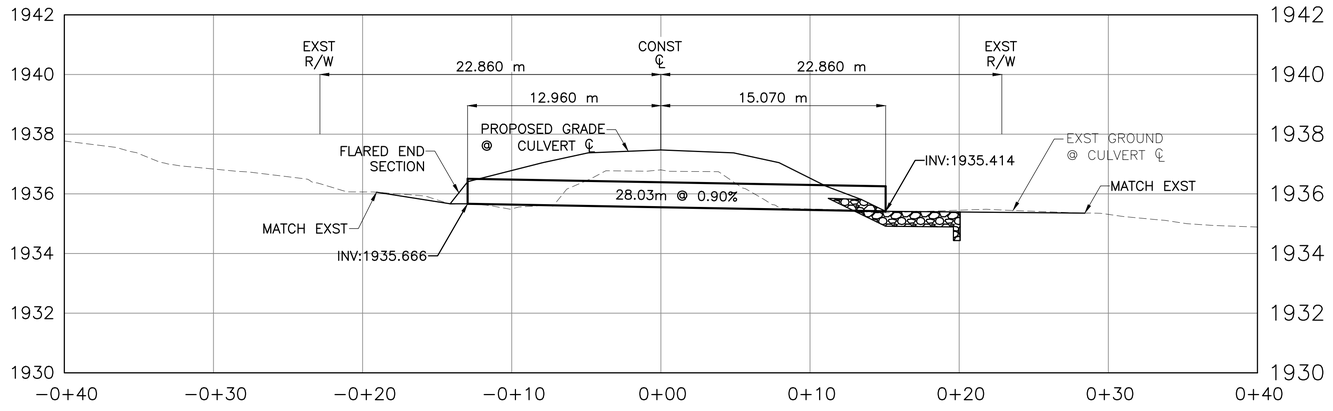
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36

STA 32+710

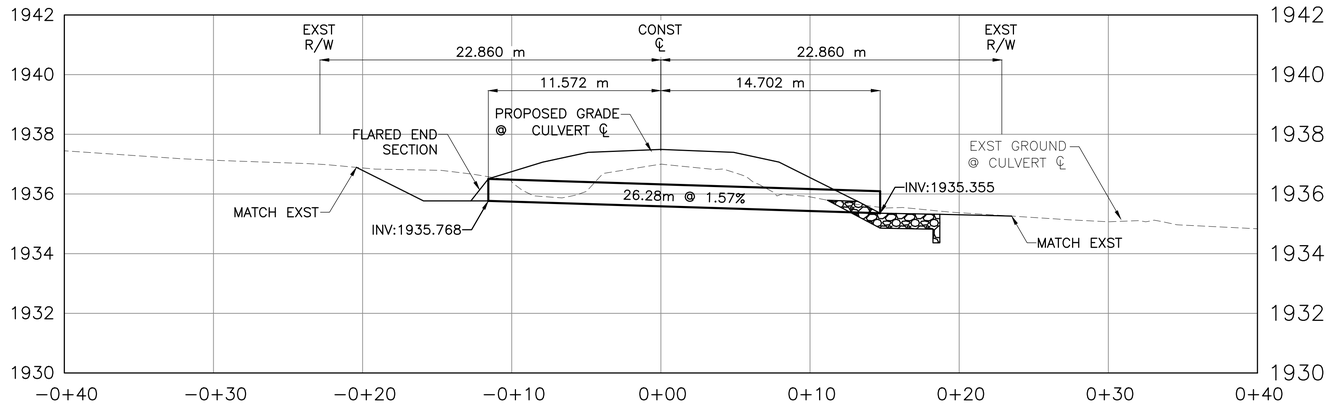
SKEW 90°
1−1067 mm S x 737 mm R x 26.82 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



34

STA 32+224

SKEW 90°
2−1245 mm S x 838 mm R x 28.03 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT



33

STA 31+931

SKEW 90°
1−1067 mm S x 737 mm R x 26.28 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	70

0 10 20
METERS

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Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/15/26

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△			

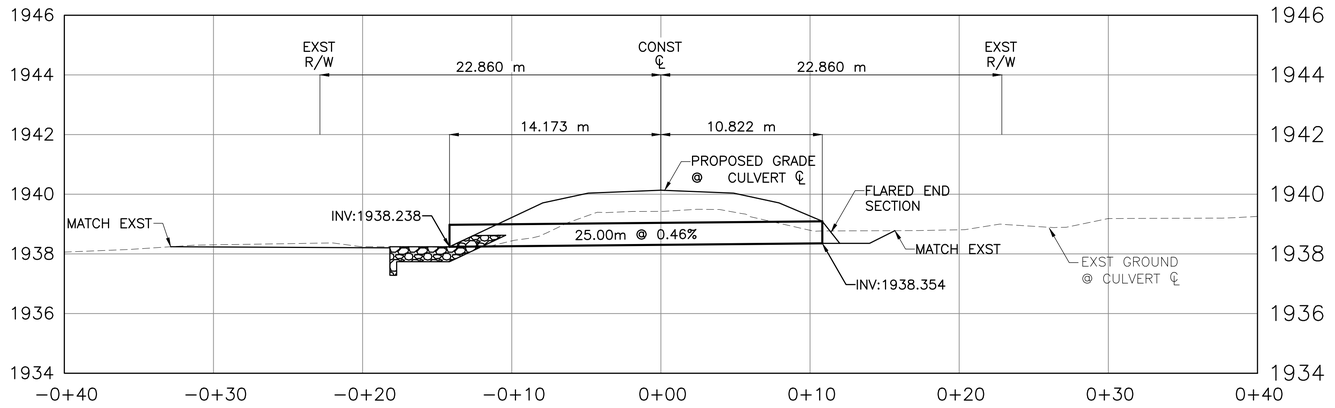
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DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC10	70 OF 116
SCALE: 1:200 H | 1:4 V			

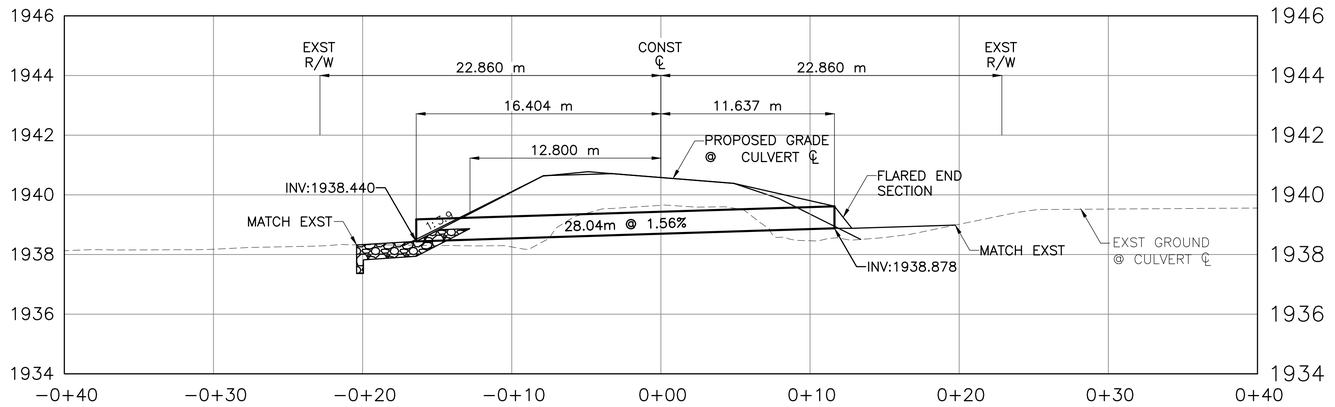
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41

STA 33+454

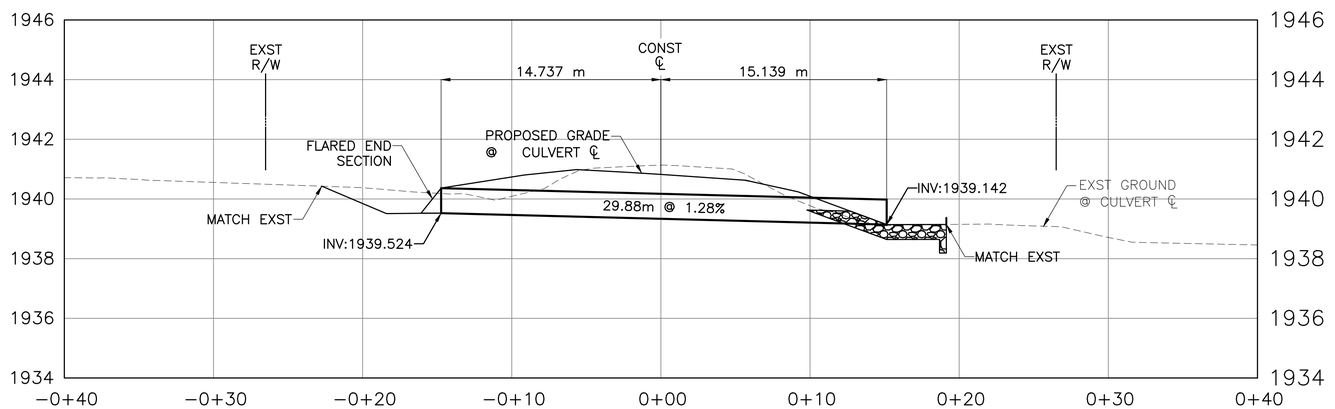
SKEW 90°
1−1067 mm S x 737 mm R x 25.00 m CSPA
FLARED END SECTION RT
RIPRAP APRON LT



39

STA 33+290

SKEW 90°
1−1067 mm S x 737 mm R x 28.04 m CSPA
FLARED END SECTION RT
RIPRAP APRON LT



37

STA 32+832

SKEW 60°
1−1245 mm S x 838 mm R x 29.88 m CSPA
FLARED END SECTION LT
RIPRAP APRON RT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	71

0 10 20
METERS

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Date signed 6/13/26
ARIZONA U.S.A.

	REVISION	BY	DATE

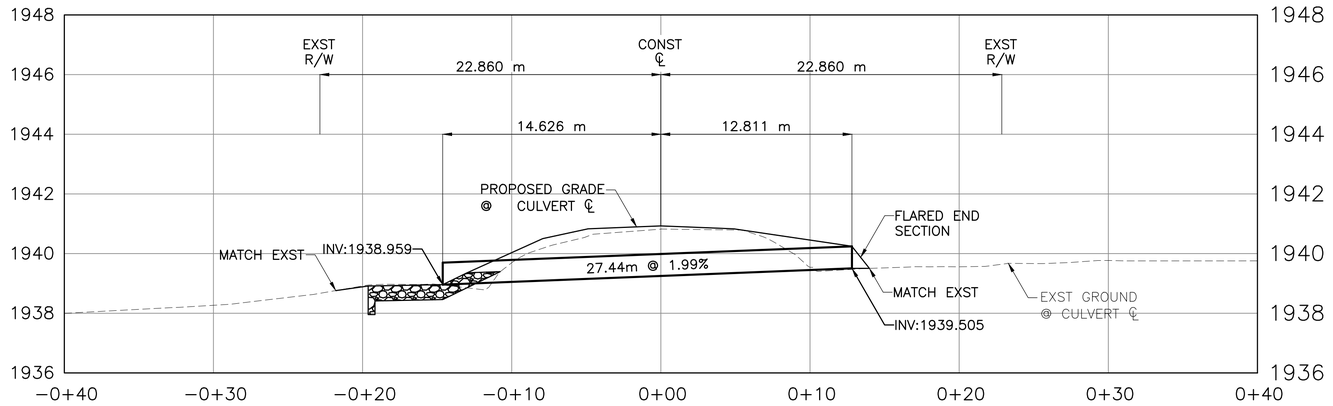
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DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC11	71 OF 116
SCALE: 1:200 H | 1:4 V			

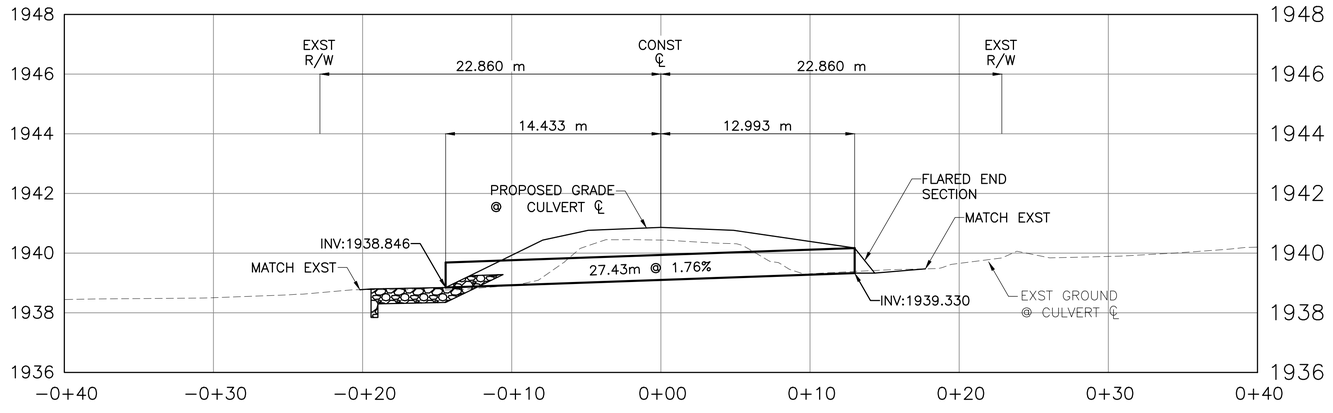
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43

STA 33+898

SKEW 90°
4−1245 mm S x 838 mm R x 27.44 m CSPA
FLARED END SECTION RT
RIPRAP APRON LT



42

STA 33+734

SKEW 90°
1−1245 mm S x 838 mm R x 27.43 m CSPA
FLARED END SECTION RT
RIPRAP APRON LT

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	72

0 10 20
METERS

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N15(2-3) CORNFIELDS TO BURNSIDE

CULVERT PROFILES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	DC12	72 OF 116
SCALE: 1:200 H | 1:4 V			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	73

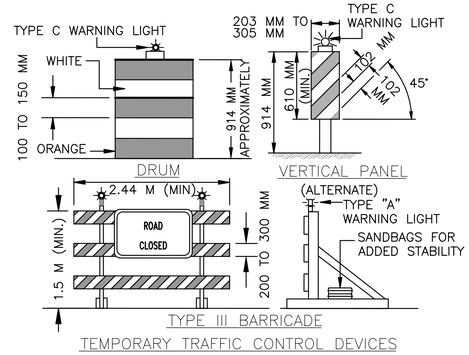
GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MUTCD (LATEST EDITION AND AMENDMENTS) AND THE SUPPLEMENTAL SPECIFICATIONS FOR THIS PROJECT.
2. THE TRAFFIC CONTROL DETAILS SHOWN ARE ONLY A GUIDE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PREPARING AND IMPLEMENTING A TRAFFIC CONTROL PLAN (TCP) IN ACCORDANCE WITH THESE DETAILS, SECTION 635 OF FP-14, AND THE MUTCD UNDER CONTRACT ITEM 63501-0000. ANY ADDITIONAL TRAFFIC CONTROL DEVICES CALLED FOR ON THE CONTRACTOR'S TCP WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEMS FOR TRAFFIC CONTROL SHOWN IN THE BID SCHEDULE. SEE THE SUPPLEMENTAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. THE MAXIMUM ALLOWABLE TRAFFIC SPEED THROUGH THE CONSTRUCTION AREA WILL BE 25 MPH.
3. SIGNS W20-1, W20-1A, G20-1 AND G20-2A SHALL BE PLACED AT THE PROJECT LIMITS AND REMAIN IN PLACE THROUGH THE DURATION OF THE PROJECT.
4. FLAGGERS SHALL BE STATIONED LEFT & RIGHT WHEN EQUIPMENT IS CROSSING OR WORKING WITHIN THE EXISTING ROADWAY PRISM.
5. IN AREAS OF EXISTING ROADWAY WIDENING AND/OR CROSSED BY THE GENERAL PUBLIC, THE CONTRACTOR SHALL ENSURE THAT NO PAVEMENT DROP-OFFS ARE LEFT EXPOSED DURING NON-WORKING HOURS. THE CONTRACTOR SHALL INITIATE CORRECTIVE MEANS TO ACHIEVE A 1:6 OR FLATTER SLOPE AS SHOWN IN THE FILLET DETAIL.
6. AT THE END OF EACH WORKING DAY, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A TWO WAY DRIVING SURFACE FREE OF OBSTRUCTIONS. ACCESS TO ALL ADJOINING PROPERTIES AND BIA/COUNTY SYSTEM ROUTES SHALL BE MAINTAINED AT ALL TIMES (DAY AND NIGHT).
7. ALL TRAFFIC CONTROL DEVICES (EXCEPT AT DETOUR ROAD LOCATIONS AND AS NOTED IN ABOVE NOTE #3) SUCH AS CONSTRUCTION SIGNS, DRUMS, BARRICADES, ETC., SHALL BE REMOVED TO A LOCATION AT LEAST NINE (9) METERS FROM THE EDGE OF THE SHOULDER WHEN CONSTRUCTION IS NOT IN PROGRESS.
8. DURING CONSTRUCTION OPERATIONS, TRAFFIC SHALL BE MOVED THROUGH THE WORK AREA USING PILOT CARS (AS REQUIRED). APPLICABLE SIGNS AND OTHER ITEMS (TWO-WAY RADIO CONTACT) RELATED TO THE PILOT CARS AND TRAFFIC CONTROL SHALL BE CONSIDERED INCIDENTAL TO BID ITEM 63501-0000.
9. THE CONTRACTOR HAS THE OPTION TO EITHER USE DRUMS OR VERTICAL PANELS, BUT SHALL NOT USE A COMBINATION OF BOTH. NO TRAFFIC CONES ARE ALLOWED.
10. THE CONTRACTOR HAS THE OPTION TO UTILIZE DETOUR ROADS IN ACCORDANCE WITH THE MUTCD IN CONJUNCTION WITH OR IN LIEU OF USING THE "TRAFFIC THRU CONSTRUCTION AREAS" DETAILS SHOWN ON THIS PLAN AND IN ACCORDANCE WITH SECTION 107 AND 204. THE COST OF ANY DETOUR ROADS (INCLUDING ALL DETOUR RELATED EARTHWORK AND MAINTENANCE) SHALL BE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC CONTROL BID ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY PERMITS AND CLEARANCES FOR ANY DETOUR ROADS.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE EXISTING ROADWAY AND/OR DETOUR IN A DRIVABLE CONDITION DURING CONSTRUCTION. THIS WORK IS CONSIDERED INCIDENTAL TO BID ITEM 63501-0000.
12. AT LOCATIONS WHERE NEW ROAD CONSTRUCTION INTERSECTS EXISTING ROADWAYS AND AT TIE-INS WITH EXISTING ROADS AT THE END OF THE NEW CONSTRUCTION, SPECIAL TRAFFIC CONTROL PROCEDURES SHALL BE INCLUDED AS NEEDED IN THE CONTRACTOR'S TCP. THESE INCLUDE BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING: TYPE III BARRICADES WITH "ROAD CLOSED"/DETOUR SIGNS; FLAGGERS; DRUMS, ETC.
13. THE TRAFFIC CONTROL ON THIS PROJECT SHALL BE COORDINATED WITH THE PROJECT CONSTRUCTION SCHEDULE. THE CONTRACTOR'S TCP SHALL REFLECT THIS COORDINATION.

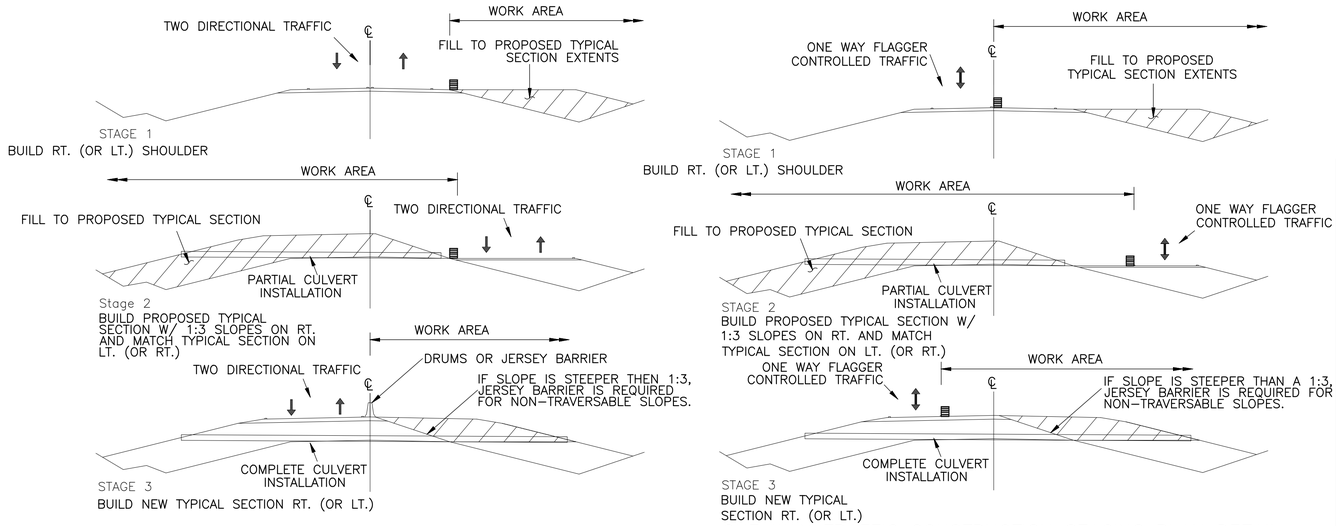
TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

DESIGNATION	DETAIL	MINIMUM SIZE (MM)	DESIGNATION	DETAIL	MINIMUM SIZE (MM)
W20-1	ROAD WORK 1500 FT	1219 X 1219	W1-4R W1-4L		762 X 762 762 X 762
W20-1a	ROAD WORK AHEAD	1219 X 1219	W16-2P	500 FEET	610 X 457
W20-4	ONE LANE ROAD 1000 FT	1219 X 1219	G20-2a	END ROAD WORK	1219 X 610
W20-7		1219 X 1219	TYPE III BARCODE		AS SHOWN
W13-1P	25 MPH	610 X 762	R11-2	ROAD CLOSED	1219 X 762
R2-1	SPEED LIMIT 45	914 X 1219	W8-12	NO CENTER STRIPE	W8-12
W21-5a	SHOULDER WORK	1219 X 1219	G20-1	ROAD WORK NEXT 8.2 MILES	G20-1
W7-3aP	NEXT XX MILES	1219 X 762	W3-4	BE PREPARED TO STOP	W3-4
G20-5aP	WORK ZONE	914 X 610	W8-3	PAVEMENT ENDS	W8-3
DRUMS OR VERTICAL PANELS		AS SHOWN	R11-2	ROAD CLOSED	R11-2
TYPE A WARNING LIGHTS		N/A			
TYPE B WARNING LIGHTS		N/A			
TYPE C WARNING LIGHTS		N/A			

	ESTIMATED DRUMS REQUIRED (MAX.)
TWO WAY TRAFFIC CONTROL PLAN	312
ONE WAY FLAGGER CONTROLLED TRAFFIC CONTROL PLAN	116
MAX DRUMS REQUIRED	312



TEMPORARY TRAFFIC CONTROL DEVICES



TWO WAY TRAFFIC CONSTRUCTION STAGING PLAN DETAIL

TRAFFIC CONTROL THROUGH CONSTRUCTION ZONE FOR TWO LANES; SHOULDER OPPERATIONS AND NONWORKING HOURS

ONE WAY TRAFFIC CONSTRUCTION STAGING PLAN DETAIL

TRAFFIC CONTROL, THROUGH CONSTRUCTION ZONE FOR ONE LANE FOR FLAGGER OPPERATIONS

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO NATION DIVISION OF TRANSPORTATION

NAVAJO D.O.T.

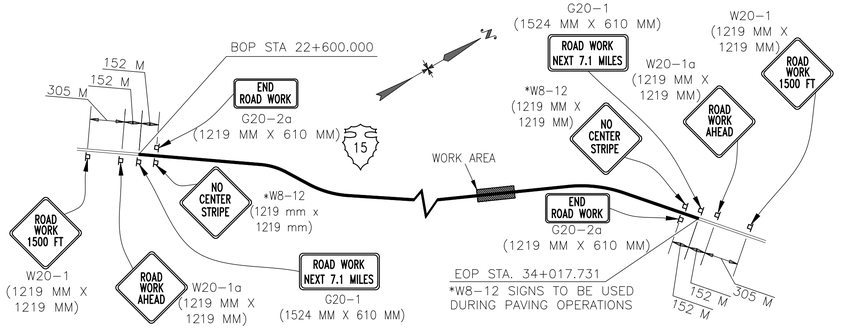
N15(2-3) CORNFIELDS TO BURNSIDE

TRAFFIC CONTROL GENERAL NOTES AND DETAILS

		DRAWING	SHEET
PROJECT MANAGER: AJS	DATE: 6/26		
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM1	73 OF 116
SCALE: N/A			

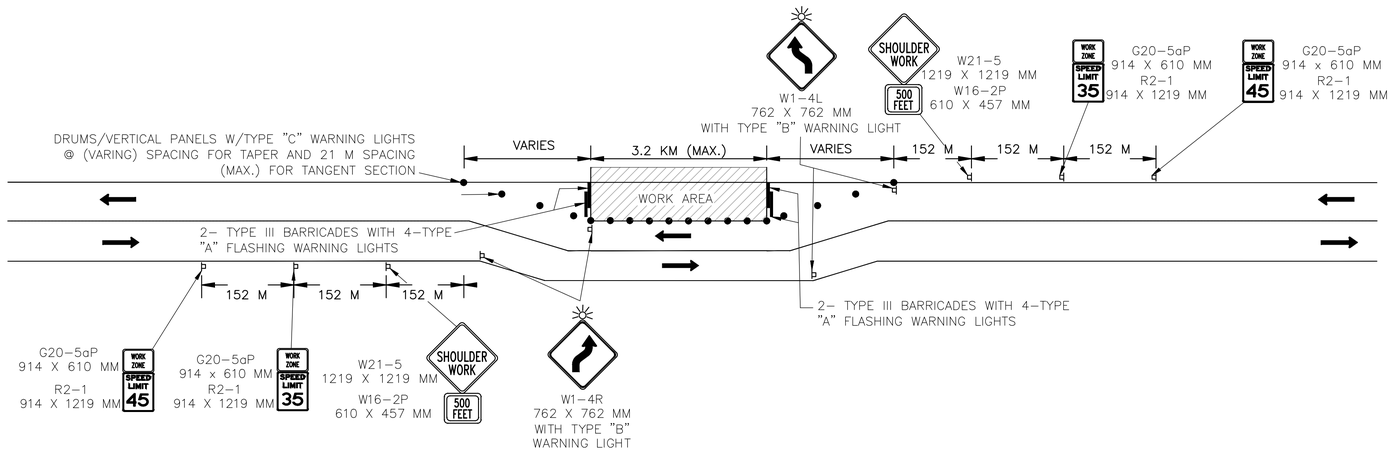
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	74

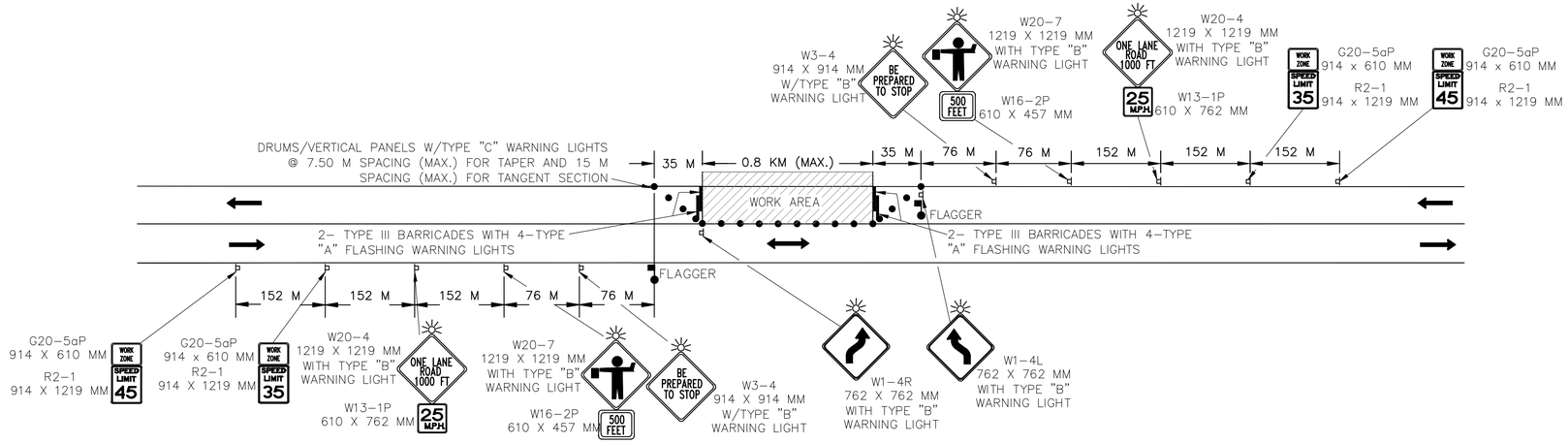


STAGED CONSTRUCTION NOTES

1. THE CONTRACTOR MAY CONSTRUCT HALF THE NEW ROADWAY (UNDER THE STAGED CONSTRUCTION SECTIONS SHOWN) WHILE DETOURING TWO-WAY TRAFFIC ON THE OTHER (EXISTING) HALF. ONCE THE FIRST HALF OF THE ROADWAY IS BUILT UP TO THE NEW GRADES, THEN TRAFFIC SHALL BE DIRECTED TO THE NEW HALF OF ROADWAY WHILE THE OTHER (EXISTING) HALF IS CONSTRUCTED.
2. ALL (NEW) DRAINAGE PIPE INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STAGED CONSTRUCTION SECTIONS, AS WELL AS REMOVAL OF EXISTING PIPES. ALL THE PIPE INSTALLATION AND REMOVAL SHALL BE CONSIDERED INCIDENTAL TO PIPE ITEMS SHOWN ON SHEET 7 AND NO ADDITIONAL PAYMENT WILL BE MADE.
3. THIS STAGED CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO BID ITEM 63501-0000 AND NO ADDITIONAL PAYMENT SHALL BE MADE.
4. THE CONTRACTOR'S PROPOSED CONSTRUCTION SEQUENCE PLAN AND STORM WATER POLLUTION PREVENTION PLAN SHALL REFLECT THIS STAGED CONSTRUCTION.



TWO WAY TRAFFIC THRU CONSTRUCTION AREAS DETAIL



ONE WAY FLAGGER CONTROLLED TRAFFIC THRU CONSTRUCTION AREAS DETAIL

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602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26

REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION

N15(2-3) CORNFIELDS TO BURNSIDE

TRAFFIC CONTROL PLANS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM2	74 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	75

63401-1500 PAVEMENT MARKINGS: SOLID YELLOW - 102 mm EQUIVALENT

STATION TO STATION			LOCATION	DESCRIPTION	LENGTH (m)	QUANTITY (m)
22+600.00	To	22+650.00	C. Rt.	No Passing Rt.	50.00	50.00
22+640.00	To	23+488.90	C. Lt. & Rt.	No Passing Lt. & Rt.	848.90	1,697.80
23+509.50	To	24+470.00	C. Lt. & Rt.	No Passing Lt. & Rt.	960.50	1,921.00
24+470.00	To	24+790.00	C. Lt.	No Passing Lt.	320.00	320.00
26+225.00	To	26+545.00	C. Rt.	No Passing Rt.	320.00	320.00
26+545.00	To	27+020.00	C. Lt.	No Passing Lt.	475.00	475.00
27+020.00	To	27+350.00	C. Lt.	No Passing Lt.	330.00	330.00
32+505.00	To	32+825.00	C. Rt.	No Passing Rt.	320.00	320.00
32+825.00	To	32+973.60	C. Lt. & Rt.	No Passing Lt. & Rt.	148.60	297.20
32+996.40	To	33+411.40	C. Lt. & Rt.	No Passing Lt. & Rt.	415.00	830.00
33+434.60	To	33+903.00	C. Lt. & Rt.	No Passing Lt. & Rt.	468.40	936.80
33+903.00	To	33+942.00	Taper 0m -1.83m Lt. & Rt.	No Passing Lt. & Rt.	39.00	156.00
33+942.00	To	34+050.00	1.83 m Lt.	No Passing Lt. & Rt.	108.00	216.00
				TOTAL:	**4,803.40**	**7,869.80**

63401-1600 PAVEMENT MARKINGS: BROKEN YELLOW - 102 mm EQUIVALENT

STATION TO STATION			LOCATION	DESCRIPTION	LENGTH (m)	QUANTITY (m)
22+600.00	To	22+650.00	C. Lt.	Passing Allowed Lt.	50.00	50.00
24+470.00	To	24+790.00	C. Rt.	Passing Allowed Rt.	320.00	320.00
24+790.00	To	26+225.00	C.	Passing Allowed Lt. & Rt.	1,435.00	1,435.00
26+225.00	To	26+545.00	C. Lt.	Passing Allowed Lt.	320.00	320.00
27+020.00	To	27+350.00	C. Rt.	Passing Allowed Rt.	330.00	330.00
27+350.00	To	32+505.00	C. Lt. & Rt.	Passing Allowed Lt. & Rt.	5,155.00	5,155.00
32+505.00	To	32+825.00	C. Lt.	Passing Allowed Lt.	320.00	320.00
				TOTAL:	**7,930.00**	**7,930.00**

63401-1500 PAVEMENT MARKINGS: SOLID WHITE- N8031(2) - 102 mm EQUIVALENT

STATION TO STATION			LOCATION	DESCRIPTION	LENGTH(m)	QUANTITY (m)
22+600.00	To	23+488.90	Left Edge Line	Solid White, 152mm	888.90	888.90
23+509.50	To	32+973.60	Left Edge Line	Solid White, 152mm	9,464.10	9,464.10
32+996.40	To	33+411.40	Left Edge Line	Solid White, 152mm	415.00	415.00
33+434.60	To	34+050.00	Left Edge Line	Solid White, 152mm	615.40	615.40
22+600.00	To	27+602.40	Right Edge Line	Solid White, 152mm	5,002.40	5,002.40
27+637.60	To	34+063.00	Right Edge Line	Solid White, 152mm	6,425.40	6,425.40
33+961.00	To	34+050.00	1.83 m Rt Channelization Line	Solid White, 305mm	89.00	267.00
STOP BARS						
23+499.00		Lt.	White Stop Bar	Solid White, 305mm	3.70	11.10
27+620.00		Rt.	White Stop Bar	Solid White, 305mm	8.10	24.30
32+985.00		Lt.	White Stop Bar	Solid White, 305mm	8.10	24.30
33+423.00		Lt.	White Stop Bar	Solid White, 305mm	8.10	24.30
				TOTAL:	**22,928.20**	**23,162.20**

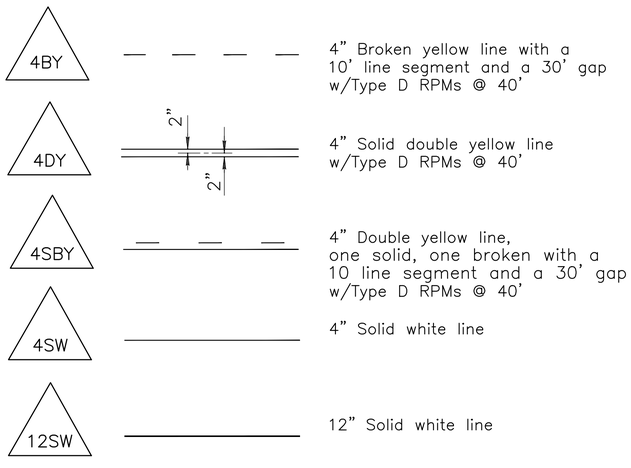
PAVEMENT MARKING NOTES:

1. THE PAVEMENT MARKING DRAWINGS ARE SCHEMATIC ONLY AND NOT TO SCALE. THE CONTRACTOR SHALL FOLLOW ALL DIMENSIONS AND DETAILS WHEN INSTALLING PAVEMENT MARKINGS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE FINAL SURFACE COURSE IS PLACED SO THAT THE STRIPING IS OFFSET ONE FOOT CLEAR OF THE CONSTRUCTION JOINT, UNLESS OTHERWISE DIRECTED BY THE AWARDING OFFICAL REPRESENTATIVE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF PERMANENT PAVEMENT MARKINGS ON THE FINAL SURFACE COURSE FOLLOWING CONTROL POINTS THAT HAVE BEEN SET NO MORE THAN 50 FEET APART ALONG THE LINES TO BE STRIPED.
4. AT THE COMPLETION OF THE FINAL PAVEMENT SURFACE EACH DAY, CENTER LINES, LANE LINES, AND STOP BARS SHALL BE STRIPED WITH ONE APPLICATION OF STANDARD WATERBORNE (TYPE B) TRAFFIC PAINT AT THE LOCATIONS OF THE PERMANENT STRIPING. THE PAINT SHALL HAVE A MAXIMUM THICKNESS OF 15 MILS WET.
5. THE FINAL STRIPING SHALL BE A TWO PART EPOXY PAVEMENT MARKING MATERIAL (TYPE E), PLACED 30 DAYS AFTER THE COMPLETION OF THE PAVEMENT SURFACE, OR AS DIRECTED BY THE AWARDING OFFICIAL REPRESENTATIVE. ALL OTHER MARKINGS SHALL BE APPLIED AT THE SAME TIME.
6. THE CONTRACTOR SHALL CLEAN THE ROADWAY SURFACE TO THE SATISFACTION OF THE AOR, BY SWEEPING AND AIR–JET BLOWING, IMMEDIATELY PRIOR TO THE PLACEMENT OF ALL PAVEMENT MARKINGS. THE ROADWAY SURFACE SHALL BE DRY.
7. WHEN STRIPE OBLITERATION IS NECESSARY, IT SHALL BE ACCOMPLISHED BY APPROVED METHODS, AS INDICATED IN THE SPECIAL PROVISIONS. PAINTING OVER STRIPING, REMOVAL OF PAVEMENT, AND OVERLAYING PAVEMENT DO NOT CONSTITUTE STRIPE OBLITERATION.
8. THE CONTRACTOR SHALL BREAK THE CENTER LINES AND EDGE LINES ADJACENT TO TURNOUTS ACROSS ANY INTERSECTIONS WITH DEDICATED ROADWAYS, OR AS OTHERWISE DIRECTED BY THE AWARDING OFFICIAL REPRESENTATIVE. IN ADDITION, THE CONTRACTOR SHALL NOT PLACE ANY CENTER LINES WITHIN 10 FEET OF THE NEAREST EDGE OF PAVEMENT OF THE INTERSECTING ROADWAY.
9. WHERE RAISED PAVEMENT MARKERS ARE PLACED ALONG SOLID STRIPING, THE NEAREST EDGE OF EACH MARKER SHALL BE OFFSET ONE INCH FROM THE NEAREST EDGE OF THE STRIPING. ALL RAISED PAVEMENT MARKERS SHALL BE INSTALLED SO THAT THE REFLECTIVE FACE OF EACH MARKER IS FACING THE DIRECTION OF TRAFFIC AND IS PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW. ALL RAISED PAVEMENT MARKERS SHALL HAVE AN ABRASION–RESISTANT COATING ON THE FACE OF THE PRISMATIC REFLECTORS AND SHALL BE INSTALLED WITH A BITUMINOUS ADHESIVE THAT IS ON THE APPROVED PRODUCTS LIST.

SIGNING NOTES:

1. ALL SIGNS SHALL BE IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE PROJECT SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL INVENTORY ALL SIGNS TO BE REMOVED OR COVERED, AND NOTE DAMAGED SIGNS TO THE ENGINEER AT TIME OF COVERING OR REMOVAL. ALL SIGNS DAMAGED BY COVERING OR REMOVAL SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO AWARDING OFFICIAL REPRESENTATIVE.
3. SIGN LOCATIONS AND POST LENGTHS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE SIGN LOCATIONS AND ACTUAL POST LENGTHS WITH THE ENGINEER PRIOR TO CONSTRUCTING THE FOUNDATIONS FOR THE SIGN SUPPORTS.
4. THE BOTTOM OF EACH SIGN SHALL BE AT LEAST 7 FEET ABOVE THE NEAREST EDGE OF PAVEMENT AND AT LEAST 7 FEET ABOVE THE GROUND UNDER THE SIGN.
5. OFFSETS FOR ALL SIGNS SHALL BE MEASURED FROM THE CENTERLINE OF THE ROADWAY TO CENTER OF THE SIGN.
6. ALL NEW SIGNS SHALL BE FABRICATED OF FLAT SHEET ALUMINUM WITH DIRECT APPLIED COPY OR SCREEN PRINTED LEGEND AS INDICATED IN THE SPECIAL PROVISIONS.
7. THE AWARDING OFFICIAL REPRESENTATIVE MAY MODIFY THE SIGNING PLANS.
8. THE CONTRACTOR SHALL REMOVE EXISTING SIGNING WHERE INDICATED IN THE SIGN SUMMARY.
9. RETRO–REFLECTIVE SHEETING MATERIAL SHALL CONFORM TO ASTM 4956 TYPE IX OR XI AND THE SPECIAL PROVISIONS. GRAFFITI RESISTANT OVERLAY FILM SHALL BE APPLIED TO RETROREFLECTIVE SHEETING MATERIAL.
10. ALL SIGNS SHALL HAVE A MINIMUM OF TWO …–INCH SIZE ANTI–THEFT BOLTS.
11. POSTS SHALL BE MADE OF STEEL AND CONFORM TO FP–03, SECTION 718.08. STEEL POSTS SHALL NOT EXTEND ABOVE THE TOP OF SIGN. STEEL POSTS SHALL BE INSTALLED TO A MINIMUM DEPTH OF 3 FEET. FIELD SPLICES ARE NOT PERMITTED ON TELESCOPING POSTS.
12. THE CONTRACTOR SHALL DELINEATE ALL NEW GUARD RAIL END TREATMENTS IN ACCORDANCE WITH ADOT STD DWGS AND ADOT STANDARD SPECIFICATIONS. THERE SHALL BE NO MEASUREMENT OR PAYMENT FOR THE GUARD RAIL END TREATMENT DELINEATION.

MARKING LEGEND



DIBBLE
3020 E. CAMELBACK ROAD
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PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION

NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

SIGNING & MARKING NOTES, LEGEND & QUANTITY TABLES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM3	75 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	76

ITEM 20301-2400: REMOVAL OF SIGNS

STATION	LOC.	OFFSET (m)	SIGN DETAIL NO.	DESCRIPTION
22+812	Lt.	7.11	W11-4	
25+530	Lt.	9.52		
33+816	Lt.	8.28		
22+994	Lt.	5.96	R4-1	
23+280	Rt.	7.09		
24+059	Lt.	5.91		
24+482	Lt.	6.63		
25+037	Lt.	5.87		
25+463	Lt.	6.71		
25+973	Lt.	7.11		
30+757	Rt.	5.56		
31+405	Lt.	6.86		
31+711	Rt.	5.96		
33+744	Rt.	5.71		
22+994	Rt.	6.69	W14-3	
23+280	Lt.	6.81		
24+059	Rt.	5.84		
24+483	Rt.	5.99		
25+037	Rt.	6.92		
25+463	Rt.	7.38		
25+973	Rt.	7.11		
26+053	Lt.	7.11		
30+757	Lt.	6.67		
31+405	Rt.	6.96		
31+711	Lt.	6.83		
32+708	Rt.	7.28		
33+744	Lt.	5.71		
23+486	Rt.	6.70	D10-2	
23+486	Lt.	6.98		
25+096	Rt.	6.95		
25+096	Lt.	6.77		
26+690	Lt.	6.92		
23+486	Rt.	6.70	D10-3A	
23+486	Lt.	6.98		
25+096	Rt.	6.95		
25+096	Lt.	6.77		
26+690	Lt.	6.92		
29+919	Rt.	6.81		
29+919	Lt.	7.15		
31+526	Rt.	6.94		
31+526	Lt.	6.78		
33+133	Rt.	6.70		
33+133	Lt.	7.19		
29+919	Rt.	6.81	D10-3	
29+919	Lt.	7.15		
31+526	Rt.	6.94		
31+526	Lt.	6.78		
33+133	Rt.	6.70		
33+133	Lt.	7.19		
23+586	Rt.	6.73	W1-2 (R)	
24+120	Rt.	6.95	W1-2 (R)	
24+760	Rt.	6.92	W1-2 (L)	
33+469	Lt.	7.62	W1-2 (L)	
23+927	Lt.	12.79	Custom (Drive in Beauty)	
30+234	Lt.	13.74	Custom (Drive in Beauty)	
33+193	Rt.	7.57	R2-5A	
33+393	Lt.	5.56	W8-8	

ITEM 20301-2400: REMOVAL OF SIGNS

33+523	Lt.	7.56	M1-6	
33+523	Lt.	7.56	M6-1(R)	
33+546	Lt.	8.59	M1-101 BIA	
33+626	Rt.	6.45	R2-1(35)	
33+912	Rt.	8.80	R2-1(25)	
33+878	Rt.	8.05	W8-108	
34+250	Lt.	8.05	W8-108	
TOTAL		64		

ITEM 20301-2400: OBJECT MARKER, TYPE 3
51 mm x 51 mm Square Steel Tube

STATION	LOCATION	EACH
34+027.000	Rt.	1
34+027.000	Lt.	1
34+030.000	Lt.	1
34+030.000	Rt.	1
	TOTAL	**4**

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	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

SIGN REMOVAL SUMMARY & OBJECT MARKER REMOVAL TABLE

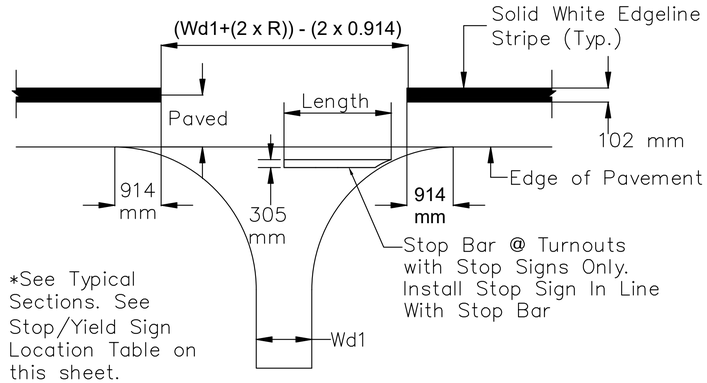
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM4	76 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	77

ITEM 63301-0000: NEW SIGN SYSTEM

STATION	LOC.	OFFSET (m)	SIGN DETAIL NO.	DESCRIPTION	SIGN PANEL SIZE (MM)	AREA OF SIGN (m2)	NO. of POSTS	POST SIZE	TOTAL NO. SIGN PANELS
24+790	Lt.	8.5	R4-1	DO NOT PASS	610 x 762	0.46	1	2.13 (m)	4
26+225	Rt.	8.5					1		
27+350	Lt.	8.5					1		
32+505	Rt.	8.5					1		
24+790	Rt.	8.5	W14-3	NO PASSING ZONE	914 x 1219 x 1219	0.52	2	2.13 (m)	4
26+225	Lt.	8.5					2		
27+350	Rt.	8.5					2		
32+505	Lt.	8.5					2		
29+200	Lt.	8.5	R2-1 (55)	SPEED LIMIT 25	610 x 762	0.46	1	2.13 (m)	5
29+200	Rt.	8.5	R2-1 (55)				1		
33+626	Rt.	8.5	R2-1(35)				1		
33+912	Rt.	8.5	R2-1(25)				1		
33+912	Lt.	8.5	R2-1(55)				1		
23+493	Lt.	9.0	R1-1	STOP	762 x 762	0.58	1	2.13 (m)	4
27+629	Rt.	9.4					1		
32+978	Lt.	9.0					1		
33+415	Lt.	9.0					1		
33+193	Rt.	8.5	W3-5 (35)	SPEED LIMIT 35	914 x 914	0.84	1	2.13(m)	1
23+586	Rt.	8.5	W1-2 (R)		762 x 762	0.58	1	2.13(m)	6
24+110	Rt.	8.5	W1-2 (R)				1		
24+760	Lt.	8.5	W1-2 (L)				1		
24+120	Rt.	8.5	W1-2 (L)				1		
33+469	Lt.	8.5	W1-2 (L)				1		
33+961	Rt.	8.5	W1-2 (L)				1		
23+486	Rt.	8.5	D10-2	MILE X X	305 x 914	0.28	1	2.13(m)	6
23+486	Lt.	8.5					1		
25+096	Rt.	8.5					1		
25+096	Lt.	8.5					1		
26+690	Rt.	8.5					1		
26+690	Lt.	8.5					1		
23+486	Rt.	8.5	D10-3A	km X X X XX	305 x 1524	0.46	-	2.13(m)	14
23+486	Lt.	8.5					-		
25+096	Rt.	8.5					-		
25+096	Lt.	8.5					-		
26+690	Rt.	8.5					-		
26+690	Lt.	8.5					-		
28+311	Rt.	8.5					-		
28+311	Lt.	8.5					-		
29+919	Rt.	8.5					-		
29+919	Lt.	8.5					-		
31+526	Rt.	8.5					-		
31+526	Lt.	8.5					-		
33+133	Rt.	8.5					-		
33+133	Lt.	8.5					-		
28+311	Rt.	8.5	D10-3	MILE X X X	305 x 1219	0.37	1	2.13(m)	8
28+311	Lt.	8.5					1		
29+919	Rt.	8.5					1		
29+919	Lt.	8.5					1		
31+526	Rt.	8.5					1		
31+526	Lt.	8.5					1		
33+133	Rt.	8.5					1		
33+133	Lt.	8.5					1		
33+546	Lt.	8.5	M1-101 BIA	15	610 x 610	0.37	1	2.13(m)	1
33+339	Rt.	8.5	M1-6	APACHE 451 COUNTY	610 x 610	0.37	1	2.13(m)	2
33+523	Lt.	8.5					1		
33+339	Rt.	8.5	M6-1(L)		228 x 305	0.07	-	2.13(m)	2
33+523	Lt.	8.5	M6-1(R)				-		



TYPICAL PAVEMENT MARKING @ TURNOUT

SIGN	DIMENSION (mm)					F NUMERALS				
	A	B	C	D	E	DIGITS IN ROUTE	1	2	3	4
MIN.	610	457	13	495	343	SIZE & SERIES (mm)	370	296	237	198

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/12/26 ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

SIGN SUMMARY & TURNOUT PAVEMENT MARKING DETAIL

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM5	77 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	78

ITEM 63309-0100: N-15 (2-3) Design Delineator Summary

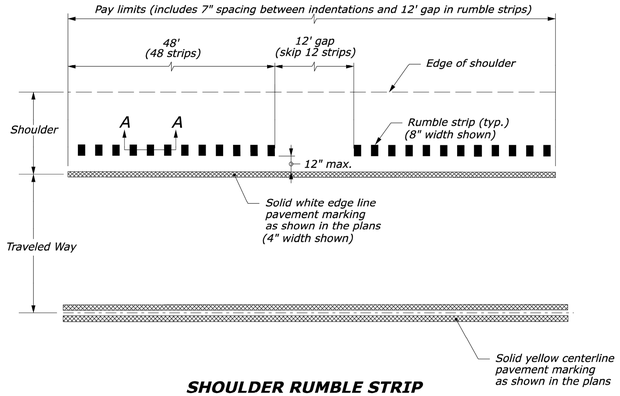
	STATION	SIDE	TYPE 1A	TYPE1B
POB	22+600.000	Both	2	
	22+747.132	Both	2	
	22+894.264	Both	2	
	23+041.397	Both	2	
	23+188.529	Both	2	
	23+335.661	Both	2	
C1	23+482.793	Lt.		1
B1	23+572.793	Lt.		1
A1	23+662.793	Lt.		1
PC	23+743.762	Lt.		1
	23+783.681	Lt.		1
	23+823.599	Lt.		1
	23+863.518	Lt.		1
	23+903.436	Lt.		1
	23+943.355	Lt.		1
PT	23+983.273	Lt.		1
A2	24+038.666	Lt.		1
B2	24+094.059	Lt.		1
B1	24+094.059	Rt.		1
A1	24+149.452	Rt.		1
PC	24+204.845	Rt.		1
	24+251.781	Rt.		1
	24+298.718	Rt.		1
	24+345.654	Rt.		1
	24+392.590	Rt.		1
	24+439.526	Rt.		1
	24+486.463	Rt.		1
	24+533.399	Rt.		1
PT	24+580.335	Rt.		1
A2	24+670.335	Rt.		1
B2	24+760.335	Rt.		1
C2	24+850.335	Rt.		1
	25+008.621	Both	2	
	25+166.907	Both	2	
	25+325.194	Both	2	
	25+483.480	Both	2	
	25+641.766	Both	2	
	25+800.052	Both	2	
	25+958.339	Both	2	
	26+116.625	Both	2	
C1	26+274.911	Rt.		1
B1	26+364.911	Rt.		1
A1	26+454.911	Rt.		1
PC	26+544.911	Rt.		1
	26+641.791	Rt.		1
	26+738.671	Rt.		1
	26+835.552	Rt.		1
	26+932.432	Rt.		1
	27+029.312	Rt.		1
PT	27+126.192	Rt.		1
A2	27+216.192	Rt.		1
B2	27+306.192	Rt.		1
C2	27+396.192	Rt.		1
	27+552.513	Both	2	
	27+708.835	Both	2	
	27+865.156	Both	2	
	28+021.478	Both	2	
	28+177.799	Both	2	
	28+334.121	Both	2	
	28+490.442	Both	2	
	28+646.763	Both	2	
	28+803.085	Both	2	
	28+959.406	Both	2	
	29+115.728	Both	2	
	29+272.049	Both	2	
	32+398.478	Both	2	
C1	32+554.799	Lt.		1
B1	32+644.799	Lt.		1
A1	32+734.799	Lt.		1
PC	32+824.799	Lt.		1
	32+880.906	Lt.		1
	32+937.014	Lt.		1
	32+993.121	Lt.		1
	33+049.229	Lt.		1
	33+105.336	Lt.		1
	33+161.444	Lt.		1
	33+217.551	Lt.		1
	33+273.659	Lt.		1
PT	33+329.766	Lt.		1
A2	33+408.000	Lt.		1
B2	33+509.766	Lt.		1
C2	33+599.766	Lt.		1
	33+710.389	Both	2	
	33+821.011	Both	2	

ITEM 63308-3000: OBJECT MARKER, TYPE 3 51 mm x 51 mm Square Steel Tube

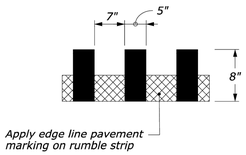
STATION	LOCATION	EACH
22+862.000	Rt.	1
22+866.000	Lt.	1
22+965.000	Lt.	1
22+980.000	Rt.	1
23+867.000	Rt.	1
23+871.000	Lt.	1
24+156.000	Rt.	1
24+160.000	Lt.	1
24+358.000	Rt.	1
24+362.000	Lt.	1
24+569.000	Rt.	1
24+576.000	Lt.	1
25+000.000	Rt.	1
25+004.000	Lt.	1
25+326.000	Rt.	1
25+332.000	Lt.	1
25+452.000	Rt.	1
25+456.000	Lt.	1
25+889.000	Rt.	1
25+909.000	Lt.	1
25+996.000	Rt.	1
26+012.000	Lt.	1
26+808.000	Rt.	1
26+816.000	Lt.	1
26+926.000	Rt.	1
26+932.000	Lt.	1
26+989.000	Rt.	1
27+002.000	Lt.	1
27+693.000	Rt.	1
27+707.000	Lt.	1
27+858.000	Rt.	1
27+868.000	Lt.	1
28+009.000	Rt.	1
28+021.000	Lt.	1
28+191.000	Rt.	1
28+220.000	Lt.	1
28+625.000	Rt.	1
28+641.000	Lt.	1
28+890.000	Rt.	1
28+918.000	Lt.	1
29+079.000	Rt.	1
29+083.000	Lt.	1
29+569.000	Rt.	1
29+586.000	Lt.	1
30+146.000	Rt.	1
30+154.000	Lt.	1
30+300.000	Rt.	1
30+320.000	Lt.	1
30+696.000	Rt.	1
30+700.000	Lt.	1
31+302.000	Rt.	1
31+314.000	Lt.	1
31+671.000	Rt.	1
31+687.000	Lt.	1
31+929.000	Rt.	1
31+933.000	Lt.	1
32+220.000	Rt.	1
32+228.000	Lt.	1
32+708.000	Rt.	1
32+712.000	Lt.	1
32+829.000	Lt.	1
32+835.000	Rt.	1
33+288.000	Rt.	1
33+292.000	Lt.	1
33+452.000	Rt.	1
33+456.000	Lt.	1
33+732.000	Rt.	1
33+736.000	Lt.	1
33+891.000	Rt.	1
33+905.000	Lt.	1
	TOTAL	**70**

ITEM 63318-1020: MILE POST, 51 mm x 51 mm Square Steel Tube

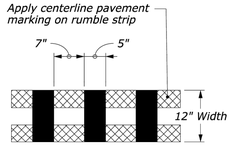
STATION	LOC.	DESCRIPTION		QUANTITY (Ea.)
		MILES	KILOMETERS	
23+486	Lt. & Rt.	MILE 97	156.11	2
25+096	Lt. & Rt.	MILE 98	157.72	2
26+690	Lt. & Rt.	MILE 99	159.33	2
28+311	Lt. & Rt.	MILE 100	160.93	2
29+919	Lt. & Rt.	MILE 101	162.54	2
31+526	Lt. & Rt.	MILE 102	164.15	2
33+134	Lt. & Rt.	MILE 103	165.76	2
			TOTAL	**14**



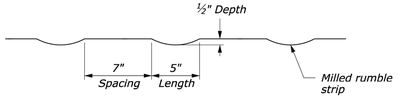
SHOULDER RUMBLE STRIP



DETAIL A



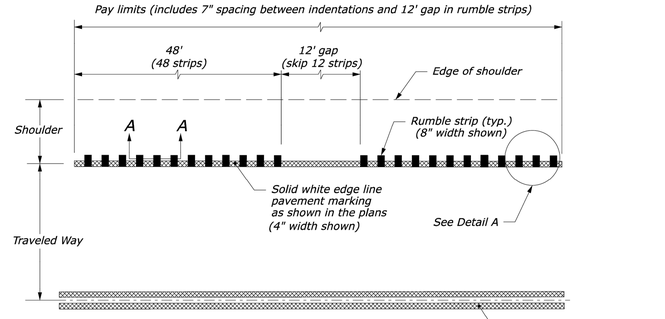
DETAIL B



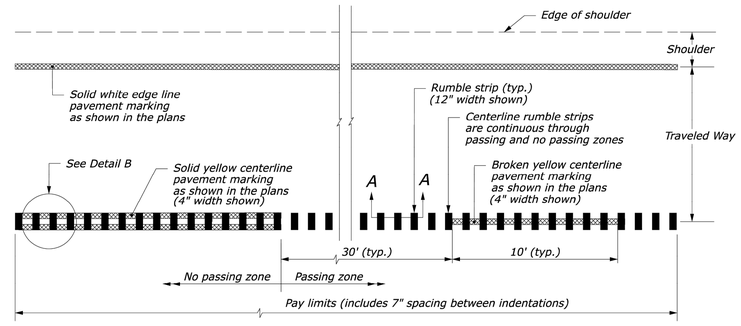
SECTION A-A

NOTE:

1. See plans for location of shoulder rumble strip gaps at turn lanes, auxiliary lanes, and approach roads.
2. Do not construct rumble strips on structures or approach slabs.



EDGE LINE RUMBLE STRIP



CENTERLINE RUMBLE STRIP

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	CFL STANDARD C633-50
RUMBLE STRIPS	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 06/2024

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 Navajo Nation

	REVISION	BY	DATE

NAVAJO D.O.T.
NAVAJO NATION
DIVISION OF TRANSPORTATION

N15(2-3) CORNFIELDS TO BURNSIDE

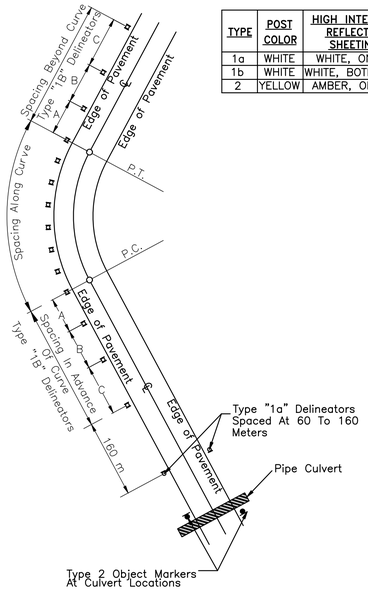
DELINEATOR, MILE POST & OBJECT MARKER TABLES

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM6	78 OF 116
SCALE: N/A			

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K:\CADD Coordination\GND Drawings\Details\C633-50.dgn [Set C633-50] 1 April 2026 8:53 AM

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	79



TYPE	POST COLOR	HIGH INTENSITY REFLECTIVE SHEETING
1a	WHITE	WHITE, ONE SIDE
1b	WHITE	WHITE, BOTH SIDES
2	YELLOW	AMBER, ONE SIDE

RADIUS OF CURVE (m)	APPROXIMATE SPACING (S) ON CURVE (m)	SPACING ON ADVANCE OF OR BEYOND A CURVE (m)		
		A (2S)	B (3S)	C (6S)
15	6	12	18	36
35	8	16	24	48
55	11	22	33	66
75	13	26	39	78
95	15	30	45	90
125	18	36	54	108
155	20	40	60	120
185	22	44	66	132
215	24	48	72	144
245	26	52	78	156
275	27	54	81	162
305	29	58	87	174
400	33	67	100	200
500	37	75	112	225
600	41	82	123	247
700	44	89	133	267
800	48	95	143	286
900	51	101	152	303
1000	53	107	160	320
1500	66	131	197	393
2000	76	151	227	454
2500	85	169	254	508
3000	93	186	279	557
3500	100	201	301	602
4000	107	215	322	644
4500	114	228	342	683
5000	120	240	360	720
5500	126	252	378	755
6000	132	263	395	789

$S = 1.7 * \sqrt{(R-15)}$.
Spacing For Specific Radii May Be Interpolated From Table. The Spacing On Curves Should Not Exceed 90 Meters. Shaded Areas Denote To Use 90 Meter Spacings. Delineators Should Be Spaced 60 To 160 Meters Apart On Mainline Tangent Sections.

NOTE: When Uniform Spacing Is Interrupted By Such Features As Culverts, Signs, Driveways, Intersections, Delineators Which Would Ordinarily Be Located Within The Features May Be Relocated In Either Direction For A Distance Not Exceeding One Quarter Of The Uniform Spacing. Delineators Still Falling Within Such Features May Be Eliminated.

ITEM 62101-0000: RIGHT OF WAY MONUMENT
ITEM 62102-0000:REFERENCE MARKER

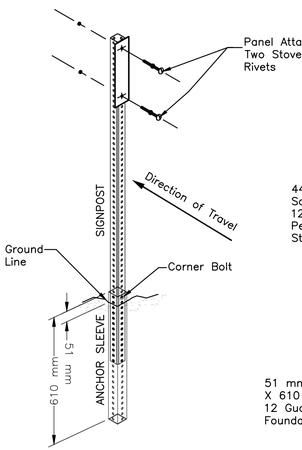
Station	Description	Location	Monument	Marker
23+735.527	PC C14	23m Rt. & Lt.	2	2
23+974.987	PT C14	23m Rt. & Lt.	2	2
24+196.428	PC C15	23m Rt. & Lt.	2	2
24+571.836	PT C15	23m Rt. & Lt.	2	2
26+535.774	PC C16	23m Rt. & Lt.	2	2
27+116.597	PT C16	23m Rt. & Lt.	2	2
32+813.387	PC C17	23m Rt. & Lt.	2	2
33+317.812	PT C17	23m Rt. & Lt.	2	2
TOTAL			**16**	**16**

GENERAL NOTES

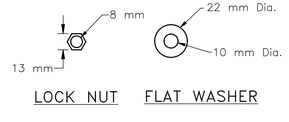
1. Survey Monument And Reference Markers Shall Be Placed As Shown On The Plans Or As Directed By The COR/COTR. The Cost Of Supplying All Materials And Installation Of Right-of-Way Monument And Markers Shall Be Included In The Unit Price Bid Under Item 62101-0000 & 62102-0000.
2. If Rock Is Encountered When Installing The Right-of-Way Monuments And Reference Markers, Drill A 152mmø Hole For R/W Monument And 305mmø For Reference Marker In The Rock To The Depth Required To Install The Monument And Marker To Full Depth. All Hole Drilling Into Rock Material, Shall Be Considered Incidental To The Completion Of The Work And No Additional Payment Shall Be Made Therefor.
3. Brass Caps For The Survey Monuments Shall Be Supplied And Installed By The Contractor Conforming To The ASTM B-584 Specification And Shall Be Considered Incidental To Item 62101-0000.
4. All Concrete For Delineator Foundations Shall Be Class A(AE) And Shall Conform To Section 601 Of The FP-14. Furnishing And Placing Of Concrete And Rebar Shall Be Considered Incidental To Items 63309-0030 And 63309-0040.
5. Roadway Stationings And Elevations Shall Be Stamped On All Brass Caps By The Contractor After Installation, Unless Otherwise Directed In Writing By The COR/COTR.
6. The Contractor Shall Be Required To Paint The Reference Markers Per Section 709.07 And Subsection 719.07(b) of FP-14:
   A. The Primer Coat Shall Conform To Subsection 719.07(b) of FP-14.
   B. The White Finish Coat Of Paint Shall Conform To Subsection 719.07(b), of FP-14.
   C. All Letters, Numerals, Symbols, Etc. Shall Be Painted On The Reference Markers Using The Dimensions Shown Using Black Lamp Paint Conforming To ASTM D 209. The Required Information To Place On The Reference Markers Shall Be Furnished To The Contractor By The COTR/COR.
7. The Contractor Has The Option To Use An Approved State Paint Specification In Lieu Of That Stated In Note (6) Above. The Contractor Shall Submit (In Writing) The Paint Specifications And Request For Use On The Project At Least 14 Days In Advance Of The Paint Use For Review And Approval. The Contractor Shall Not Be Allowed To Use Any Paint Until The Proper Approval Has Been Given By The COR/COTR. Any Painting Performed By The Contractor Without The Proper Approval Shall Cause The Work To Be Rejected.

DELINEATOR GENERAL NOTES

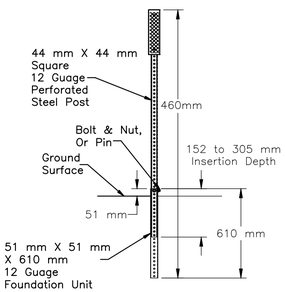
1. The Contractor Shall Use 51mm x 51mm All Steel Square Tube Delineators.
2. Set Right-of-Way Monument At Station And Offset To Match The Right-of-Way Plat. These Locations May Vary From The Stations And Offsets Shown On The Construction Plan And Profile Sheets.



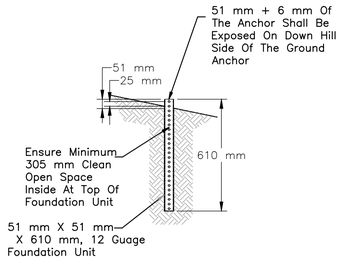
ISOMETRIC VIEW

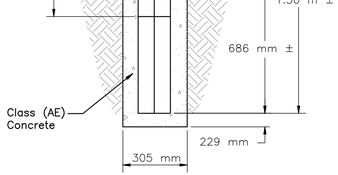


LOCK NUT FLAT WASHER

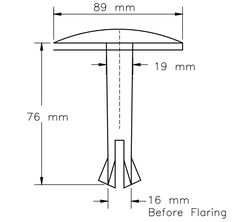


IN-GROUND DRIVEN



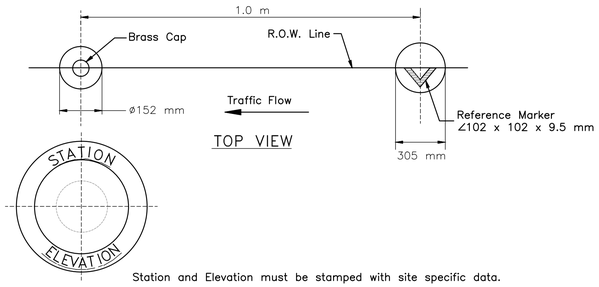


REFERENCE MARKER



Similar to Berntsen Model C-1

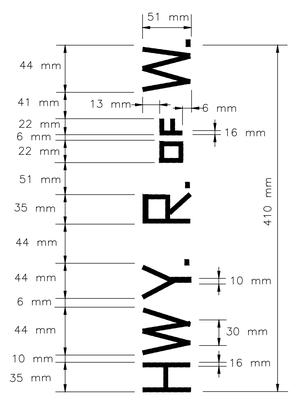
BRASS CAP DETAIL



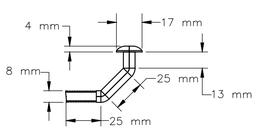
TOP VIEW

Station and Elevation must be stamped with site specific data.

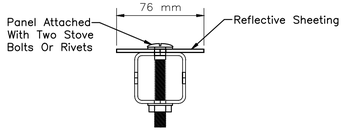
R/W MONUMENT SYMBOL



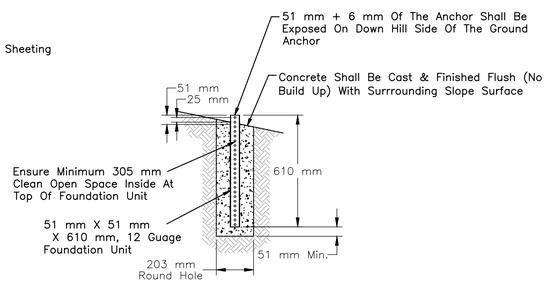
DETAIL OF LETTERS



BOLT

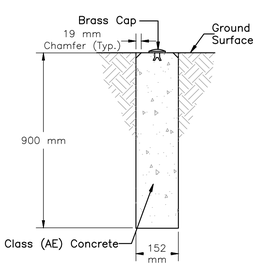


ALTERNATES



IN-GROUND CONCRETE

Use Chair Device To Ensure Minimum 51 mm Clearance Above Bottom Of Hole



R/W MONUMENT

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/26/26 ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO NATION DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

DELINEATOR, OBJECT MARKER AND R.O.W. MARKER DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM7	79 OF 116
SCALE:			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	80

Galvanized Square Tube Selection; Single post - 2.80 mm thickness (12gage)

Post Size	H = C+(D/2) (meter)					
	1.52	1.83	2.13	2.44	2.74	<--- H (m)
38 mm x 38 mm	0.51	0.43	0.37	0.31	n/a	<=Maximum Sign Area (m_2)
44 mm x 44 mm	0.81	0.68	0.58	0.47	0.41	
50 mm x 50 mm	1.14	0.95	0.84	0.70	0.58	
57 mm x 57 mm	1.49	1.27	1.07	0.95	0.84	
64 mm x 64 mm	1.88	1.68	1.41	1.25	1.07	
	5.00	6.00	7.00	8.00	9.00	<--- H (ft)

Galvanized Square Tube Selection; Double post - 2.80 mm thickness (12 gage)

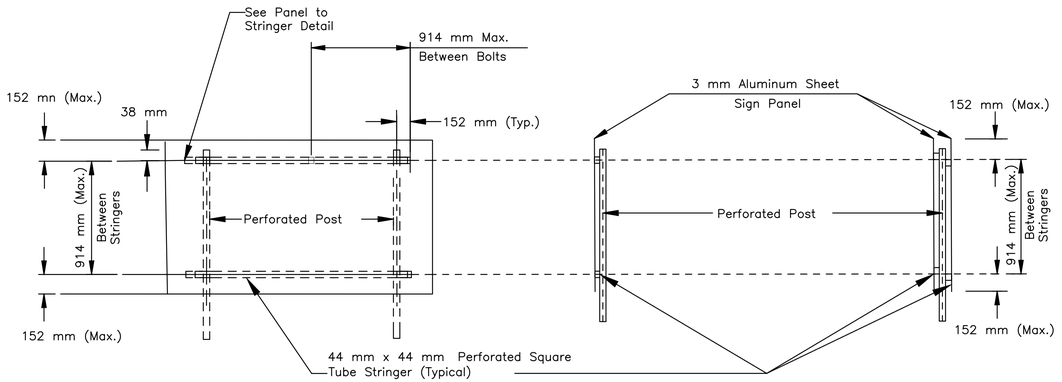
Post Size	H = C+(D/2) (meter)					
	1.52	1.83	2.13	2.44	2.74	<--- H (m)
57 mm x 57 mm	n/a	2.97	2.23	2.04	1.95	<=Maximum Sign Area (m_2)
64 mm x 64 mm	n/a	4.09	3.53	3.16	2.60	
	5.00	6.00	7.00	8.00	9.00	<--- H (ft)

Galvanized Square Tube Selection; Triple post - 2.80 mm thickness (12 gage)

Post Size	H = C+(D/2) (meter)					
	1.52	1.83	2.13	2.44	2.74	<--- H (m)
57 mm x 57 mm	4.74	4.74	3.85	2.83	2.61	<=Maximum Sign Area (m_2)
64 mm x 64 mm	6.13	6.13	5.30	4.46	3.90	
	5.00	6.00	7.00	8.00	9.00	<--- H (ft)

Guide Sign Post Dimensions
(Not for use with Warning, Regulatory or Marker Panels)

Panel Width	914 mm	1.22 m	1.52 m	1.83 m	2.13 m	2.44 m	2.74 m	3.05 m
two posts spacing (A)	559 mm	711 mm	914 mm	1.12 m	1.27 m	1.47 m	1.63 m	1.83 m
bolts to panel (per stringer)	-	-	3	3	3	3	4	4
length of each stringer	-	-	1.22 m	1.42 m	1.57 m	1.78 m	1.93 m	2.13 m
three posts spacing (B)	-	-	533 mm	635 mm	737 mm	864 mm	965 mm	1.07 m
bolts to panel (per stringer)	-	-	3	3	3	4	4	4
length of each stringer	-	-	1.37 m	1.57 m	1.78 m	2.03 m	2.24 m	2.44 m



SINGLE PANEL INSTALLATION

BACK TO BACK SIGN INSTALLATION

STRINGER DETAILS (FOR GUIDE SIGNS UP TO AND INCLUDING 3.05 mm WIDE)

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE REQUIRED TO ADJUST THE LENGTH OF SIGN SUPPORT POST(S) TO MEET ACTUAL FIELD CONDITIONS. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR THE APPROPRIATE BID ITEMS SHOWN IN THE BID SCHEDULE.
2. SIGNS GREATER THAN 762 mm IN WIDTH SHALL BE MOUNTED ON TWO OR MORE POSTS.
3. CONCRETE FOUNDATION SHOULD NOT BE USED IN LOCATIONS PROTECTED BY GUARDRAIL,BARRIER, OR OUTSIDE THE CLEAR ZONE.
4. STEEL POSTS SHALL BE UNIFORM DESIGN. THE POST SHALL BE PUNCHED WITH CONTINOUS 9mm HOLES ON 25mm INTERVAL ON CENTERS FOR THE ENTIRE LENGTH OF POST.
5. STEEL POSTS SHALL BE MACHINE STRAIGHTENED TO HAVE A SMOOTH UNIFORM FINISH, FREE FROM DEFECTS AFFECTING STRENGTH, DURABILITY, AND APPEARANCE. ALL HOLES AND EDGES SHALL BE FREE OF BURRS. THE PERMISSABLE TOLERANCE FOR STRAIGHTNESS SHALL BE WITHIN 6.35mm IN 1.52 METER.
6. STEEL POSTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM 123. BOLTS, NUTS, AND WASHERS SHALL BE CADMIUM PLATED IN ACCORDANCE WITH ASTM A-165 OR ZINC PLATED IN ACCORDANCE WITH ASTM B-633.
7. SPLICE HARDWARE SHALL CONSIST OF TWO FULLY THREADED, 8mm X 38mm GRADE-9 PLATED HEX HEAD BOLTS, FLAT WASHERS, AND SELF LOCKING HEX NUTS PER POST. IN ADDITION, ONE 19mm X 127mm PLATED SPACER BAR PER POST, TO STIFFEN THE SPLICE CONNECTION. EACH SPACER SHALL BE DRILLED AND TAPPED WITH 8mm-18 UNC THREADS. THE SPACER SHALL BE FABRICATED FROM HOT ROLLED CARBON STEEL BAR CONFORMING TO ASTM A-36 OR M-1020.
8. BOLTS AND LOCK NUT HARDWARE FOR SIGN ATTACHMENT SHALL BE CARRIAGE HEAD TYPE, 8mm-18 UNC, AND SHALL BE CADMIUM PLATED CONFORMING TO ASTM B-766.
9. AN APPROVED ALTERNATE BREAKAWAY SYSTEM AND SIGN SUPPORT POST ASSEMBLY MAY BE SUBMITTED TO THE COR/COTR FOR REVIEW AND APPROVAL PRIOR TO IT'S USE.
10. THE CONTRACTOR HAS THE OPTION TO USE "ANTI-THIEF" NUTS IN LIEU OF JAMMING THE BOLT THREADS. NO ADDITIONAL PAYMENT WILL BE MADE IN RELATION TO USING ANTI-THIEF BOLTS.

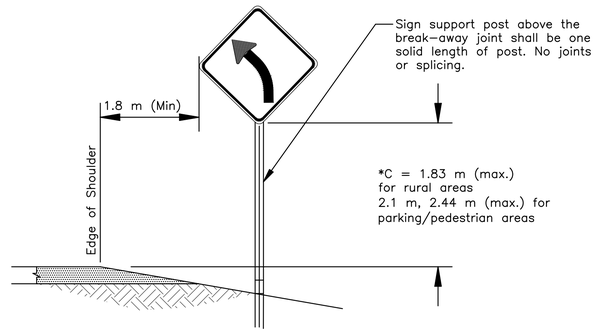
PANEL TO STRINGER OR POST

STRINGER TO POST

SINGLE POST SIZE (typ.)

DOUBLE POST SIZE (typ.)

THREE POST SIZE (typ.)



TYPICAL ROADSIDE SIGN LOCATION

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

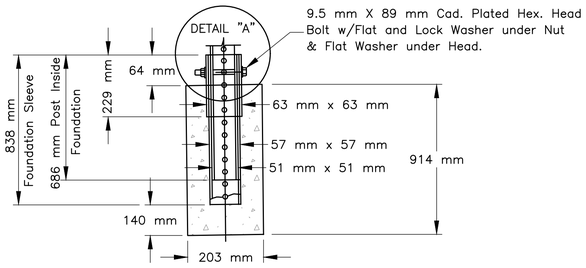
N15(2-3) CORNFIELDS TO BURNSIDE

SQUARE TUBE POST SELECTION AND SIGN MOUNTING DETAILS

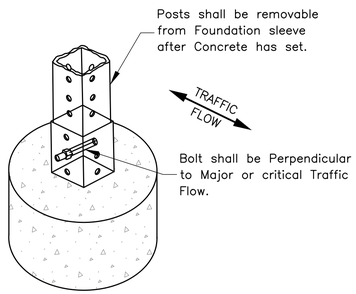
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM8	80 OF 116
SCALE:			

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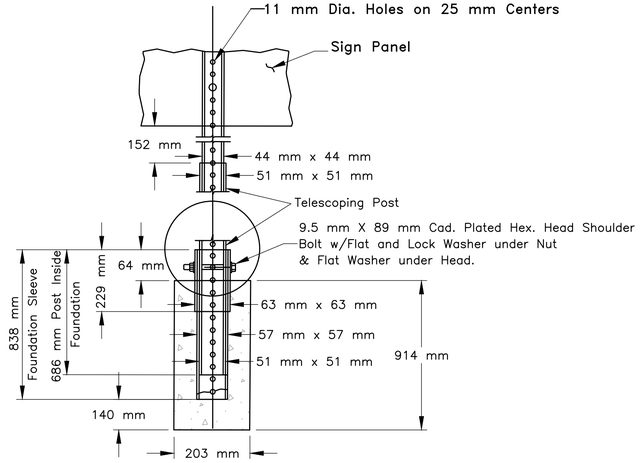
STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	81



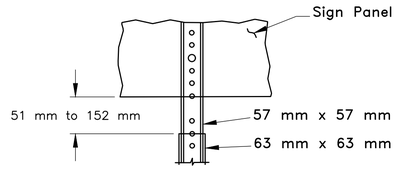
SINGLE POST FOUNDATION DETAIL



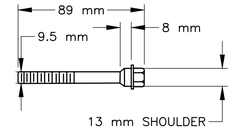
DETAIL "A"



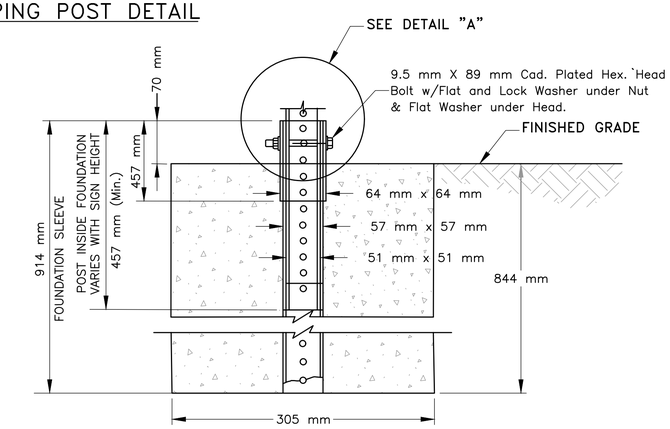
TELESCOPING POST DETAIL



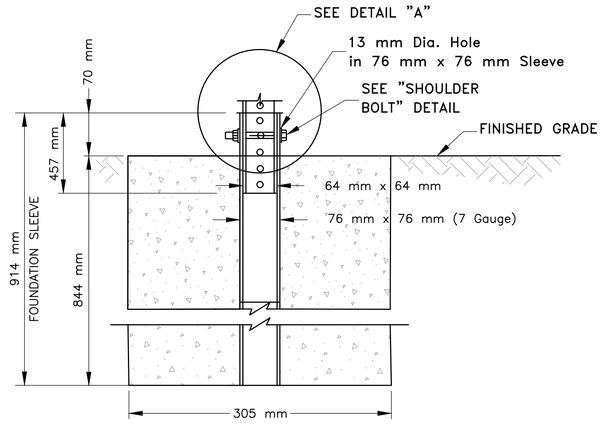
TELESCOPING POST INSTALLATION



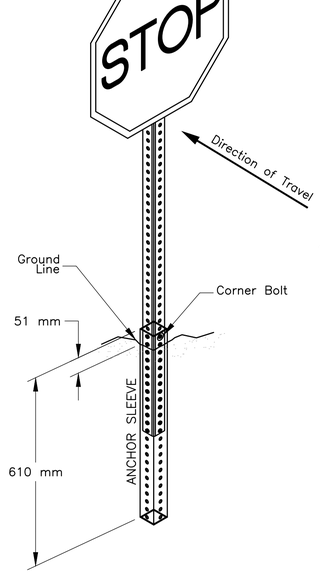
SHOULDER BOLT (HEAD)



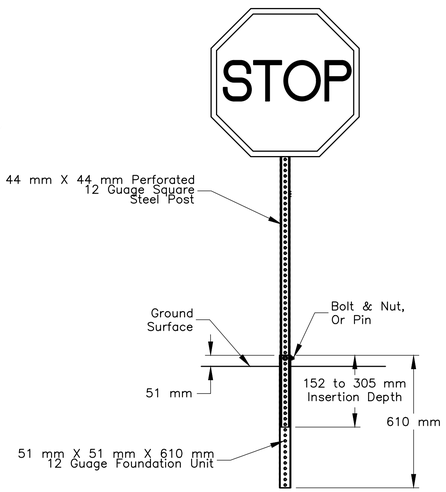
51 mm SINGLE POST CONCRETE FOUNDATION DETAIL (IN WEAK SOILS)



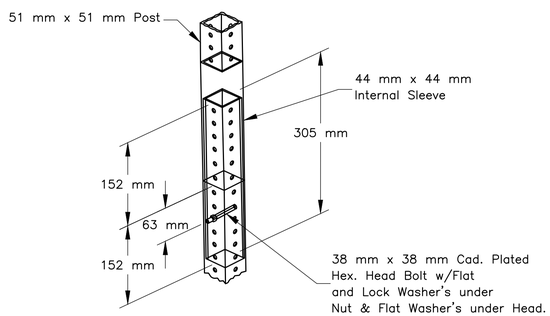
64 mm SINGLE POST CONCRETE FOUNDATION DETAIL (IN WEAK SOILS)



ISOMETRIC VIEW



TELESCOPING BREAKAWAY
(Single Post)



SINGLE POST PERMISSIBLE FIELD SPLICE
(Not allowed on Telescoping Post)

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26 Not Valid Without Signature

REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

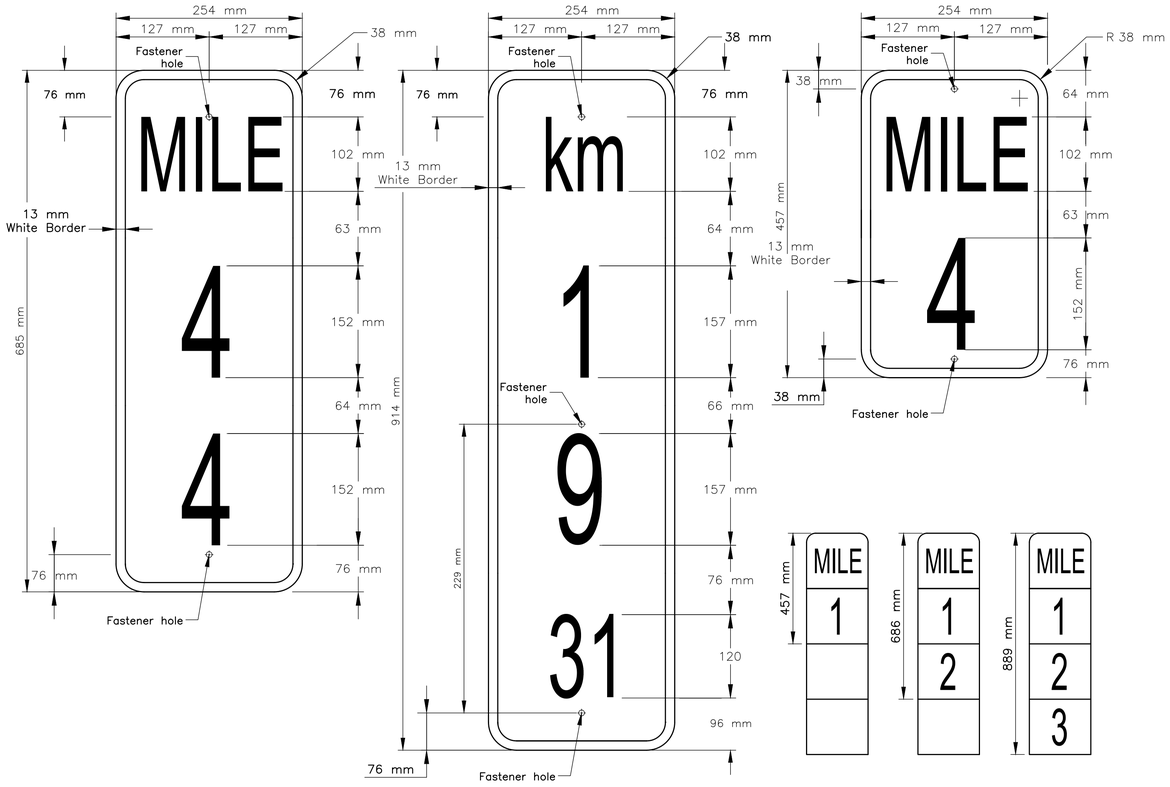
N15(2-3) CORNFIELDS TO BURNSIDE

SQUARE TUBE BREAK-A-WAY & INSTALLATION DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM9	81 OF 116
SCALE:			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	82



TYPICAL MILEPOST DETAIL

STANDARD NUMERAL POSITION

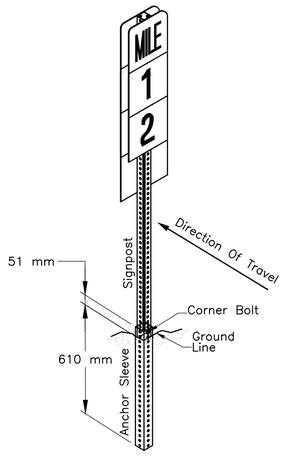
GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS A(AE) AND SHALL CONFORM TO SECTION 601 OF THE FP-14. FURNISHING AND PLACING OF CONCRETE, WHEN REQUIRED, SHALL BE CONSIDERED INCIDENTAL TO ITEM 63309-0020.
2. THE CONTRACTOR SHALL USE 51mm X 51mm ALL STEEL SQUARE TUBE DELINEATORS. SEE SHEET 31 FOR POST SPACING.
3. THE MILE POSTS SHALL BE PLACED ON BOTH SIDE OF THE ROADWAY WITH ENGLISH UNITS PANEL ON APPROACHING TRAFFIC AND METRIC UNITS PANEL ON OPPOSING TRAFFIC.
4. MILE POST PLATES SHALL BE FABRICATED FROM 16 GAGE MINIMUM THICKNESS 5052-H38 OR 6061-T6 ALUMINUM ALLOY.
5. ALL SURFACE TO BE COVERED WITH REFLECTIVE SHEETING, AND SHALL BE PREPARED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION SECTION 718.11, TABLE 718-3.
6. THE BORDER AND LEGEND SHALL BE STANDARD REFLECTIVITY SILVER-WHITE. THE BACKGROUND SHALL BE STANDARD REFLECTIVITY GREEN AND MAY BE REVERSE SILK-SCREENED.
7. THE BACK SIDE OF THE ALUMINUM SHEETS SHALL BE ETCHED BY APPROVED METHODS TO REDUCE GLARE FROM REFLECTED SUNLIGHT.
8. STEEL POSTS SHALL CONFORM TO FP-14 718.04(2)- YIELD POINT AND TENSILE STRENGTH OF STEEL SHALL BE 550 & 689 MPa (MINIMUM) RESPECTFULLY AND SHALL NOT WEIGHT LESS THAN 2.98 kg/m. AN APPROVED ALTERNATE BREAKAWAY ASSEMBLY MAY BE SUBMITTED TO THE COR/COTR FOR REVIEW AND APPROVAL PRIOR TO IT'S USE. THE POSTS SHALL BE GALVANIZED AFTER FABICATION IN ACCORDANCE WITH ASTM A-123.
9. INSTALL MILE POST MARKER 1.80 METER (MAXIMUM) FROM ROADWAY SHOULDER. AT GUARDRAIL LOCATIONS, THE MILE POST MARKER SHALL LINE UP WITH THE GUARDRAIL POSTS.
10. THE POSTS LENGTH SHALL BE DETERMINED IN THE FIELD BASED ON FINISH GROUND ELEVATION WITH RESPECT TO EDGE OF PAVEMENT ELEVATION.
11. THE UNIT PRICE BID FOR FURNISHING AND INSTALLING MILE POSTS SHALL INCLUDE ALL MATERIALS INCLUDING TWO SIGNS PER POST.

ITEM 63318-1020: MILE POST, 51 mm x 51 mm SQUARE STEEL TUBE

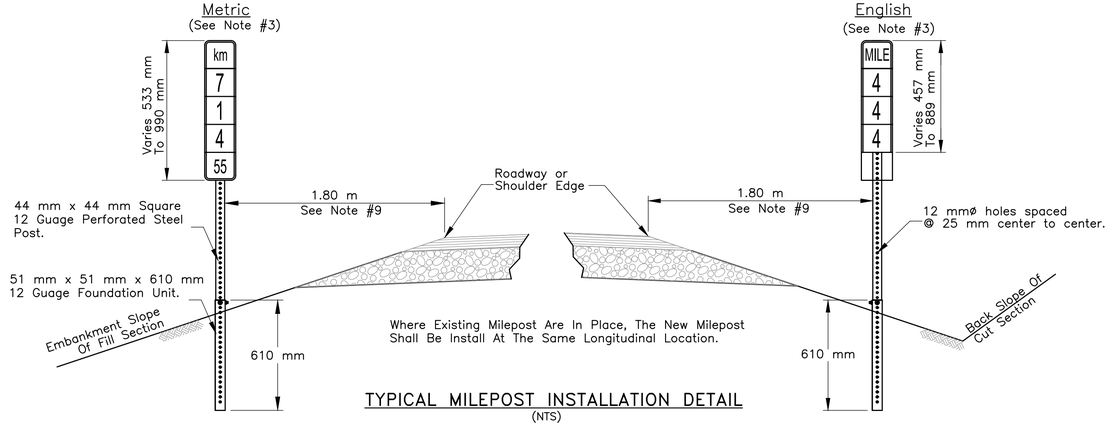
STATION	LOC.	DESCRIPTION		QUANTITY (Ea.)
		MILES	KILOMETERS	
23+478	Lt. & Rt.	97	156.11	2
25+088	Lt. & Rt.	98	157.72	2
26+681	Lt. & Rt.	99	159.33	2
28+301	Lt. & Rt.	100	160.93	2
29+907	Lt. & Rt.	101	162.54	2
31+515	Lt. & Rt.	102	164.15	2
33+122	Lt. & Rt.	103	165.76	2
			TOTAL	**14**

Note: Stations are Calculated in Miles & Converted to Kilometers.



ISOMETRIC VIEW

NOTE: Square Tube Splice Connection Detail on Sheet 30



TYPICAL MILEPOST INSTALLATION DETAIL
(NTS)

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/19/26 ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

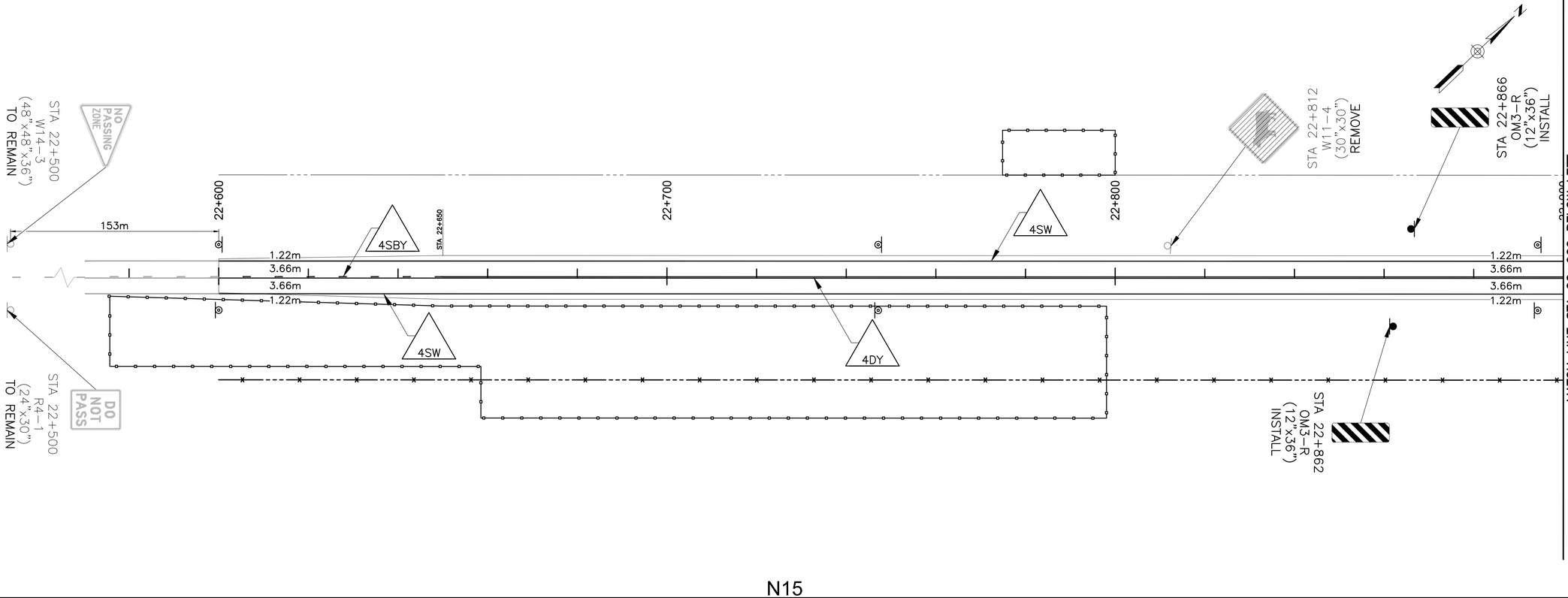
N15(2-3) CORNFIELDS TO BURNSIDE

STANDARD MILEPOST DETAILS

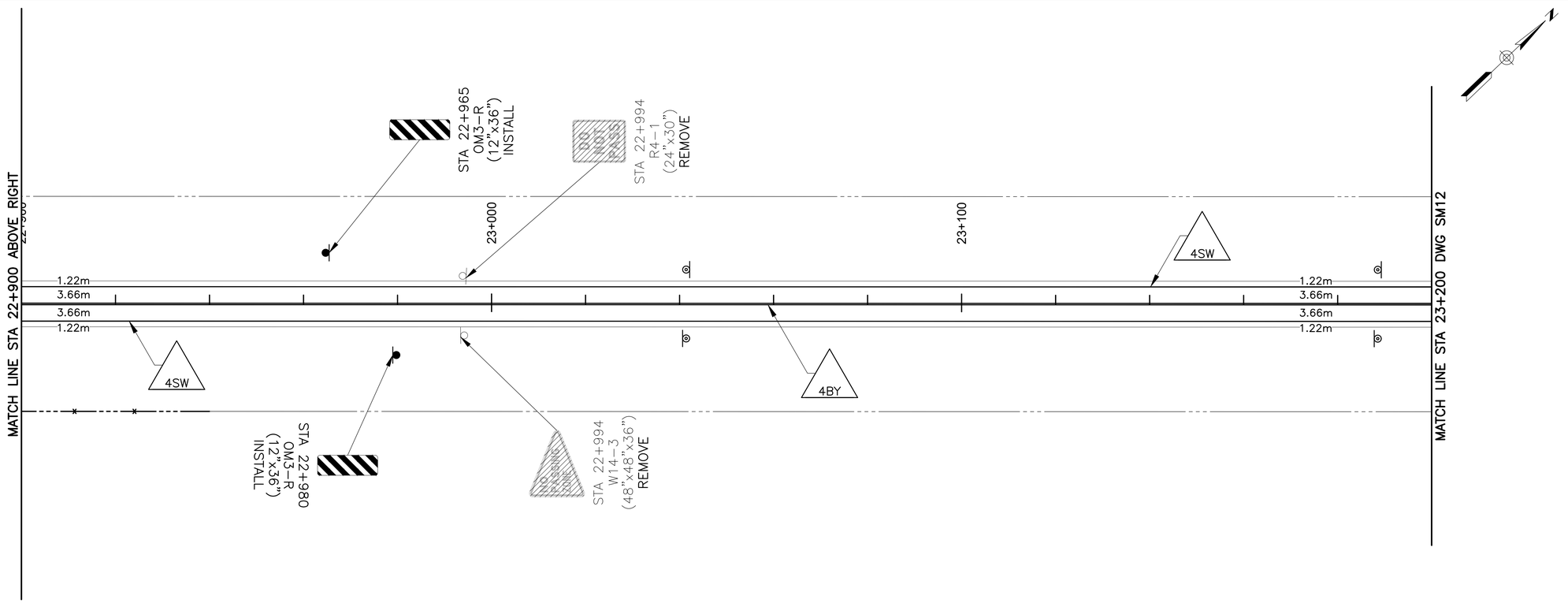
PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM10	82 OF 116
SCALE:			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	83



N15



0 20 40
METERS

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SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date signed 6/13/26
ARIZONA U.S.A.

	REVISION	BY	DATE

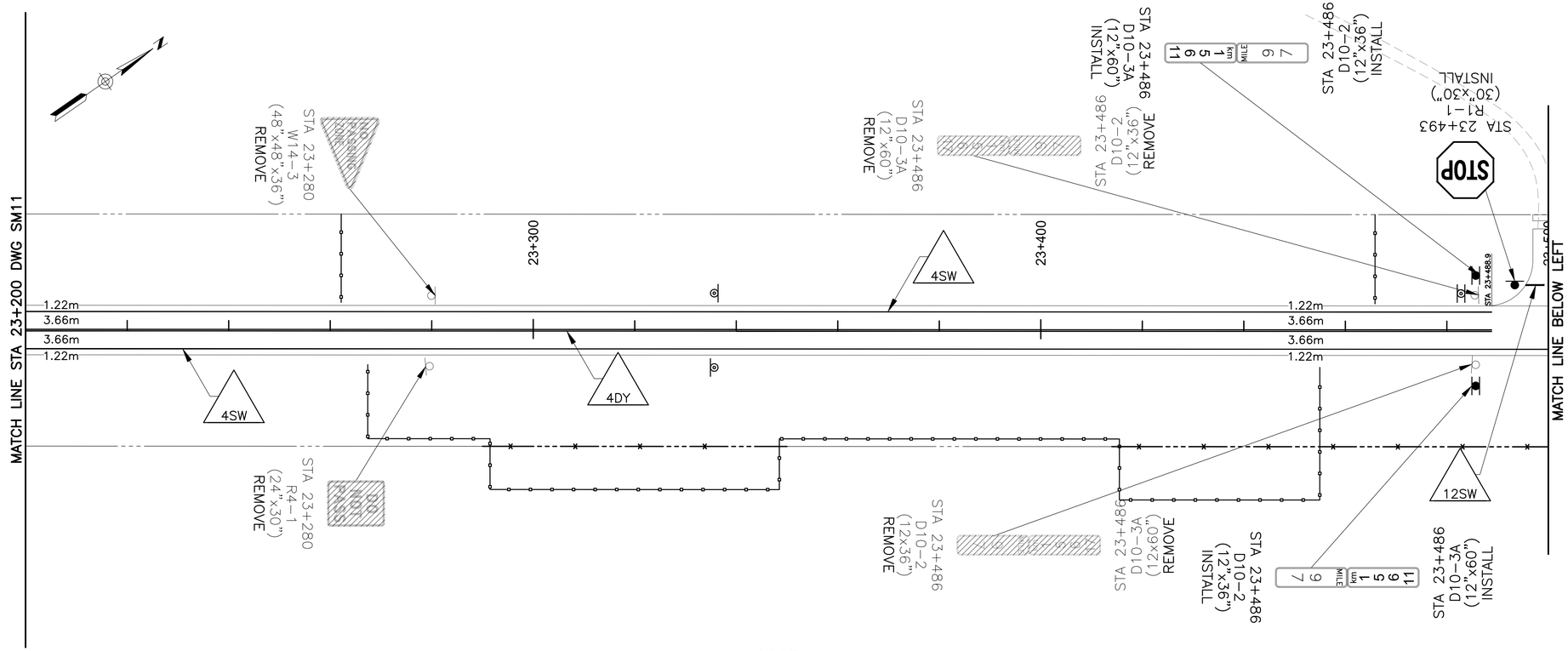
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

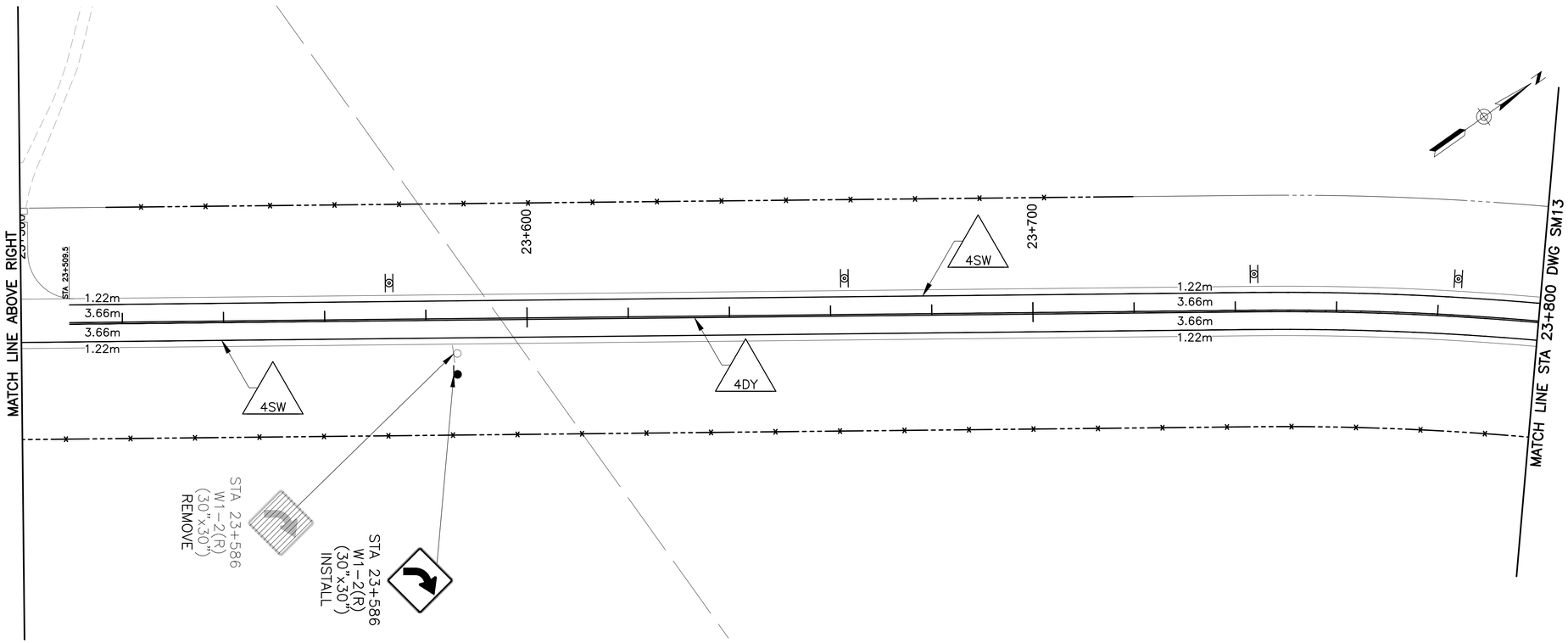
N15(2-3) CORNFIELDS TO BURNSIDE

TRAFFIC SIGNING & MARKING PLAN
STA 22+600 TO STA 23+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM11	83 OF 116
SCALE: 1:500			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	84

0 20 40 60 80 100
METERS

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DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date signed 6/13/26
ARIZONA U.S.A.

	REVISION	BY	DATE

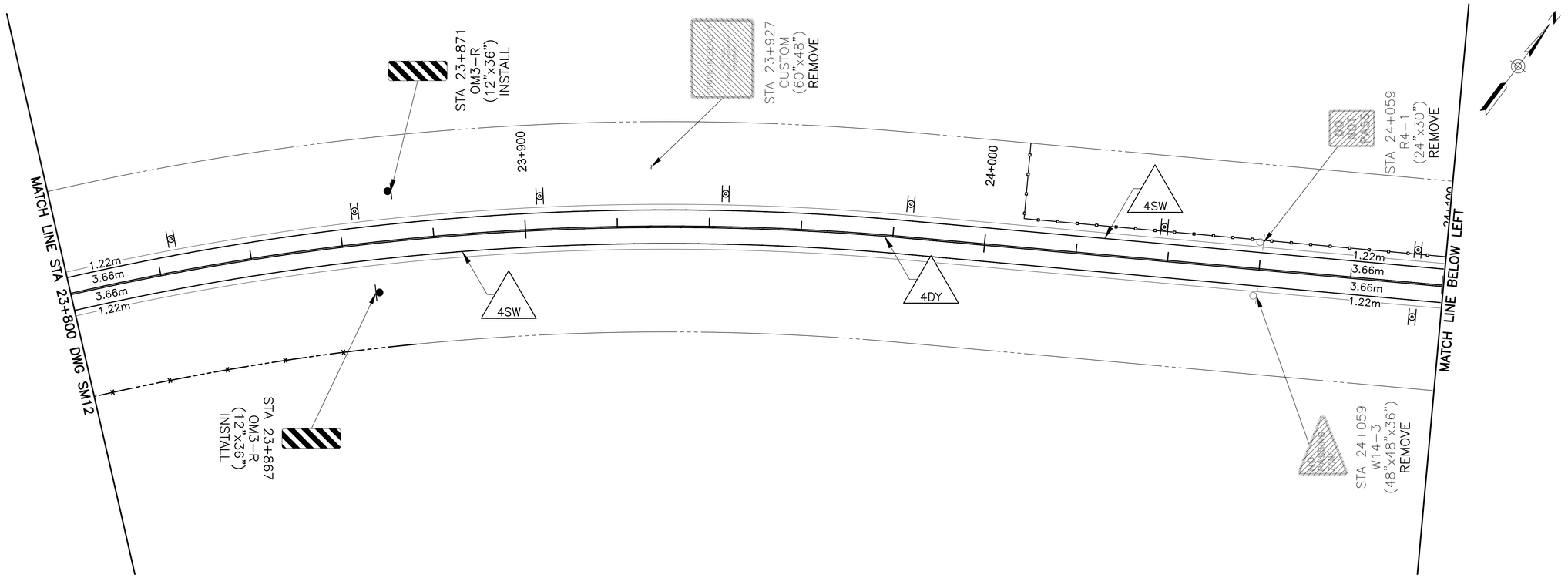
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

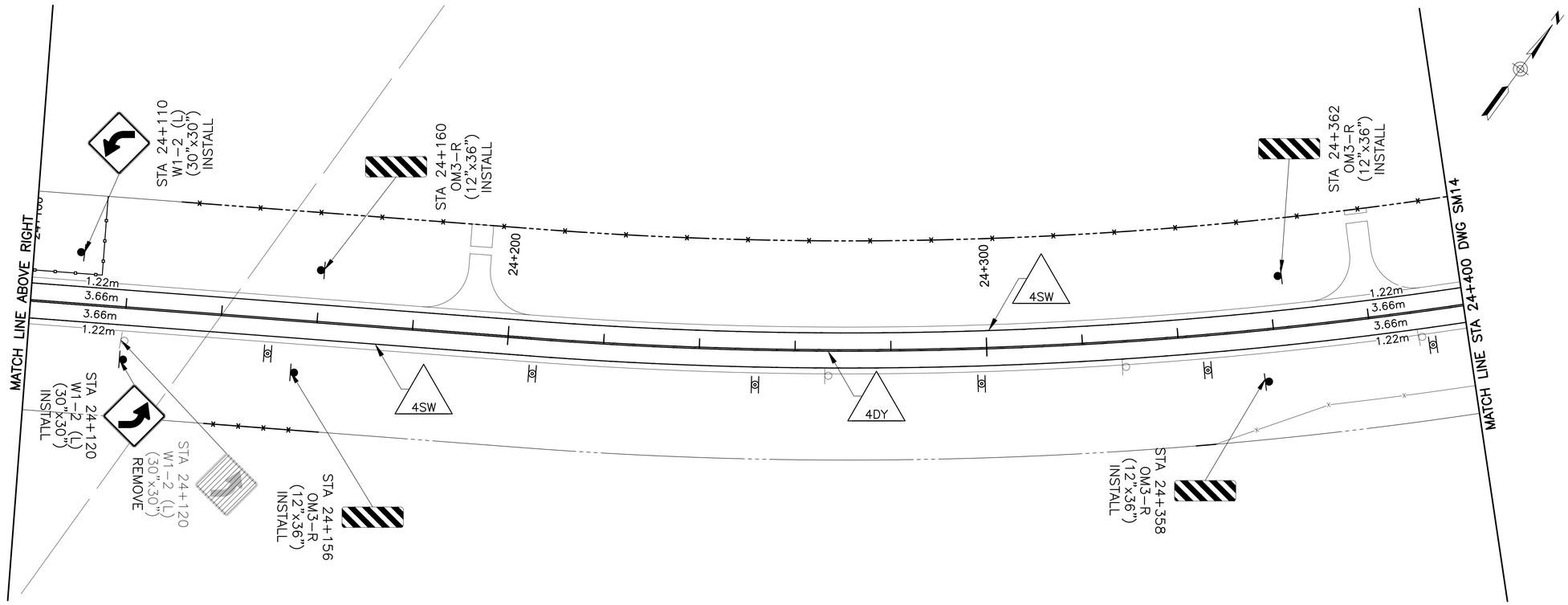
TRAFFIC SIGNING & MARKING PLAN
STA 23+200 TO STA 23+800

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	SM12	84 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	85

0 20 40 60 80 100
METERS

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DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN
SPEAR
Date Signed 6/13/26

	REVISION	BY	DATE

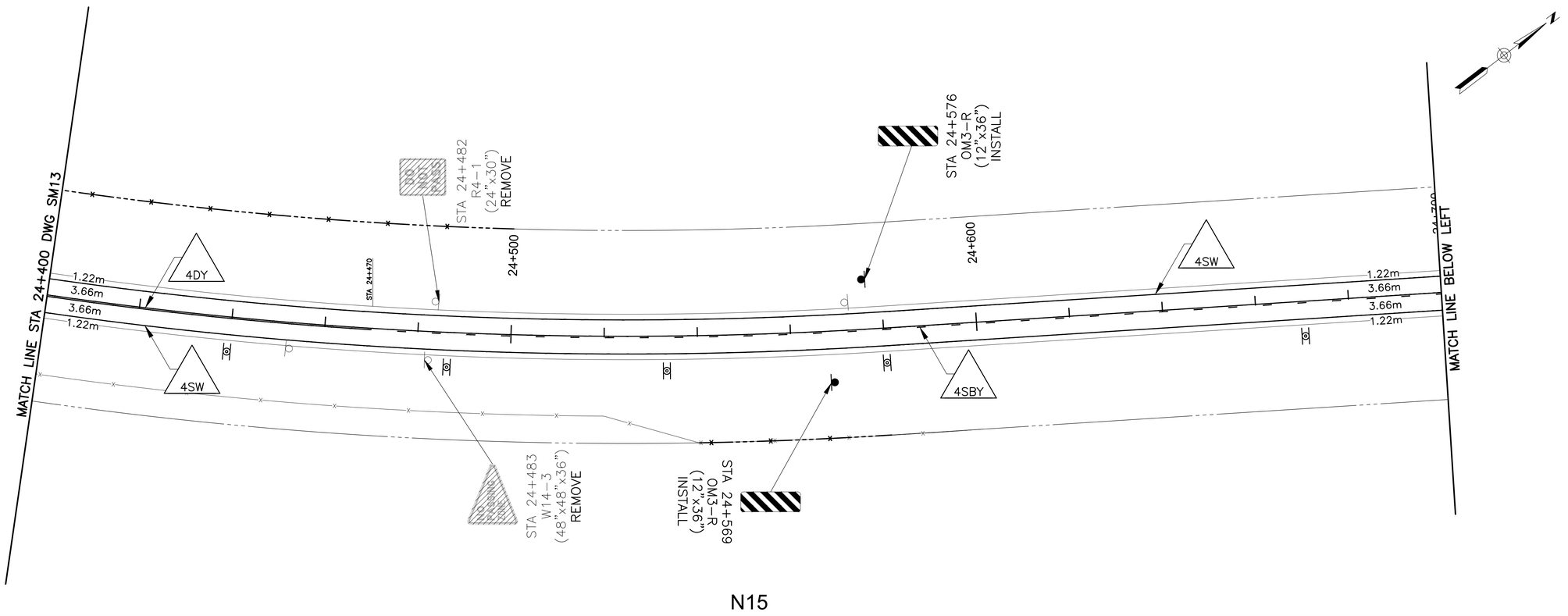
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

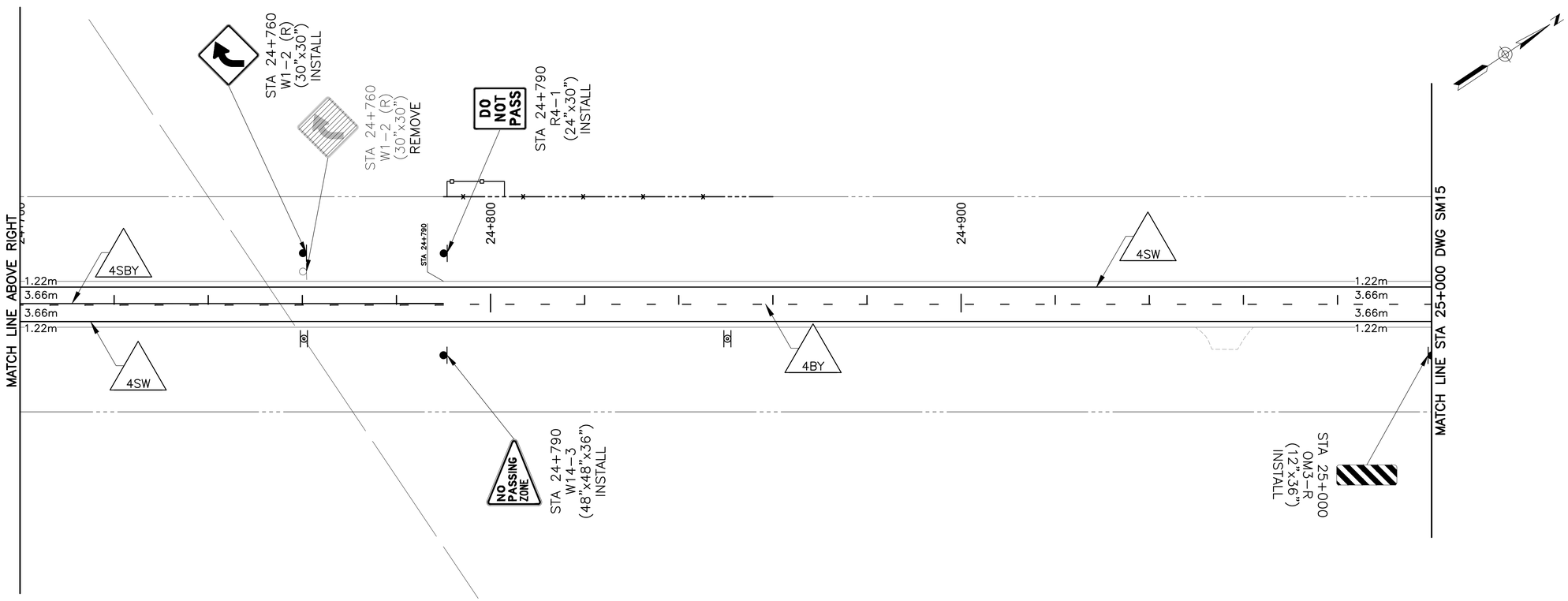
TRAFFIC SIGNING & MARKING PLAN
STA 23+800 TO STA 24+400

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM13	85 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	86

0 20 40 60 80 100
METERS

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3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date Signed 6/12/26
ARIZONA U.S.A.

	REVISION	BY	DATE

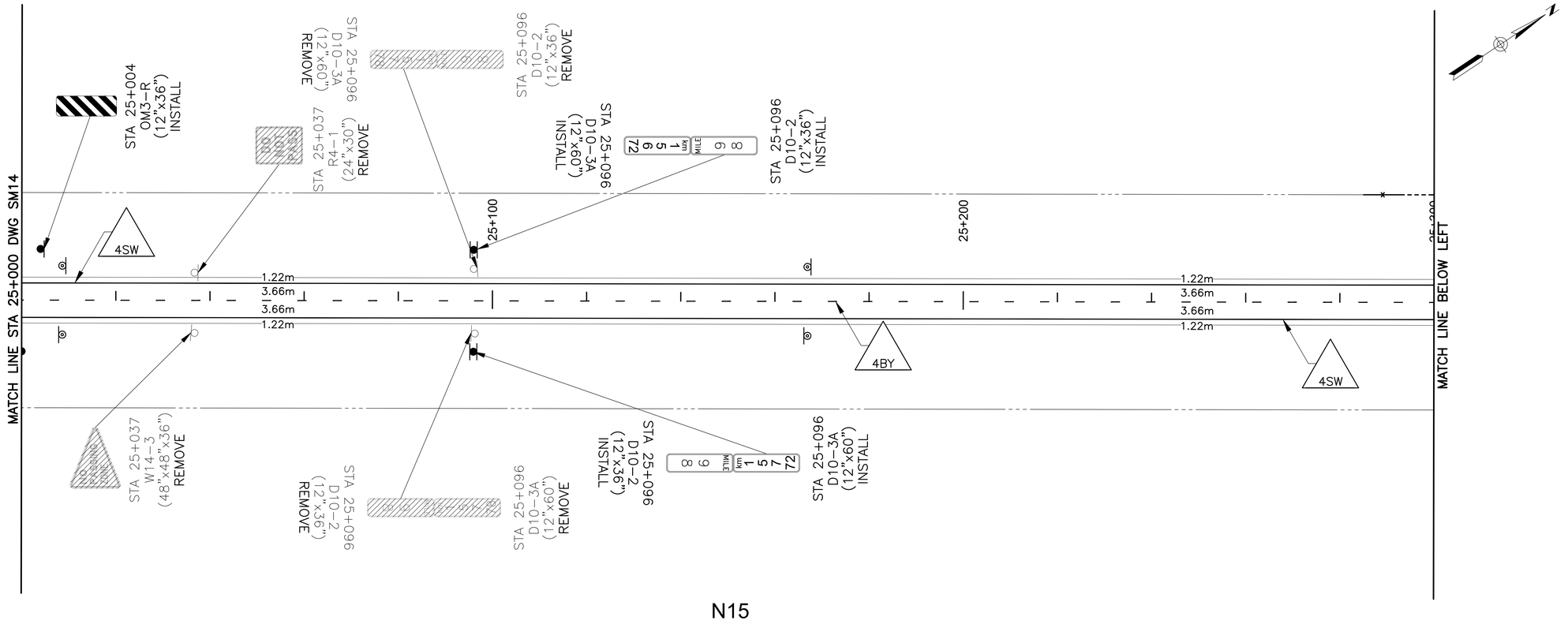
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

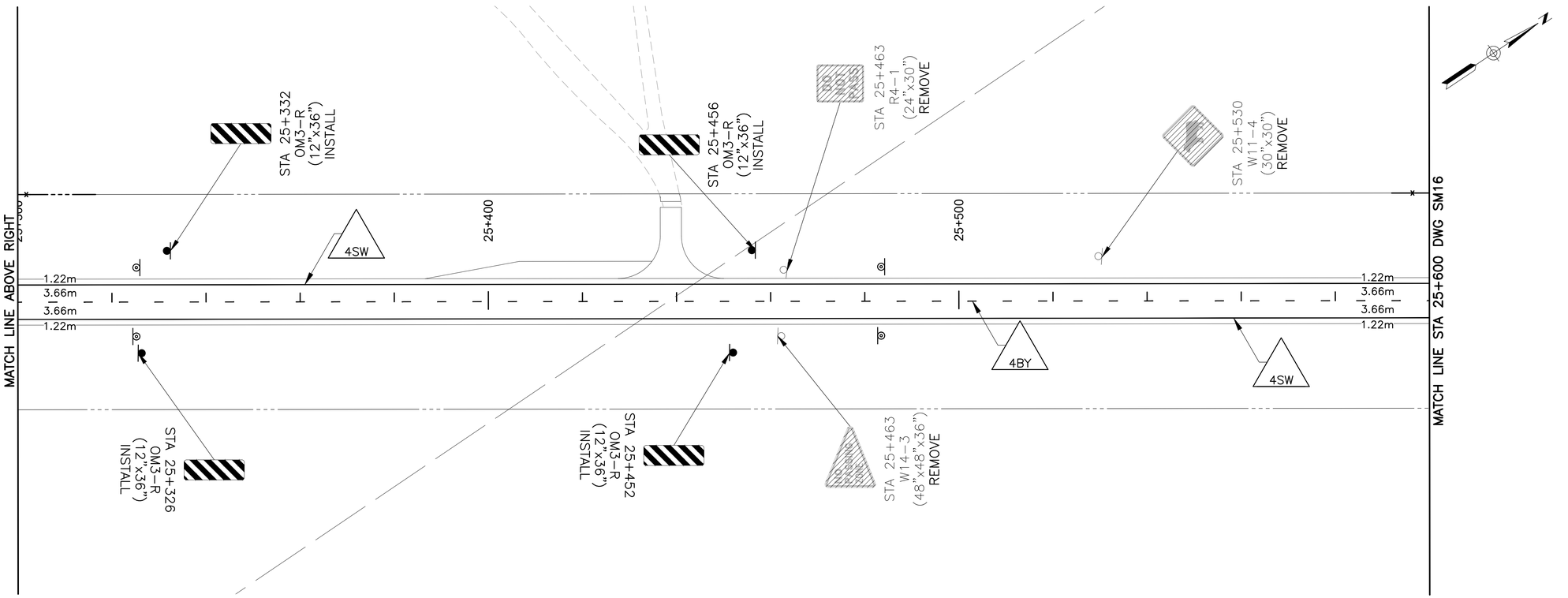
TRAFFIC SIGNING & MARKING PLAN
STA 24+400 TO STA 25+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM14	86 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	87

0 20 40 60 80 100
METERS

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SUITE 201
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Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date signed 6/13/26

	REVISION	BY	DATE

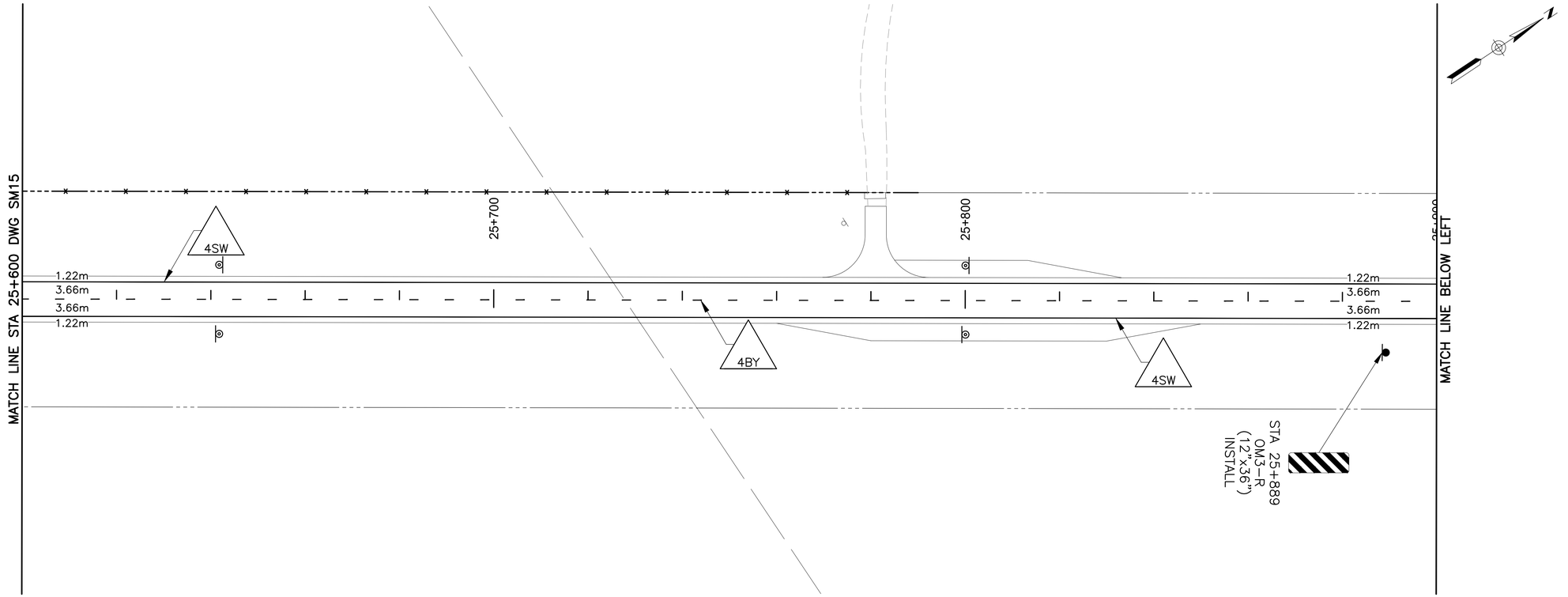
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

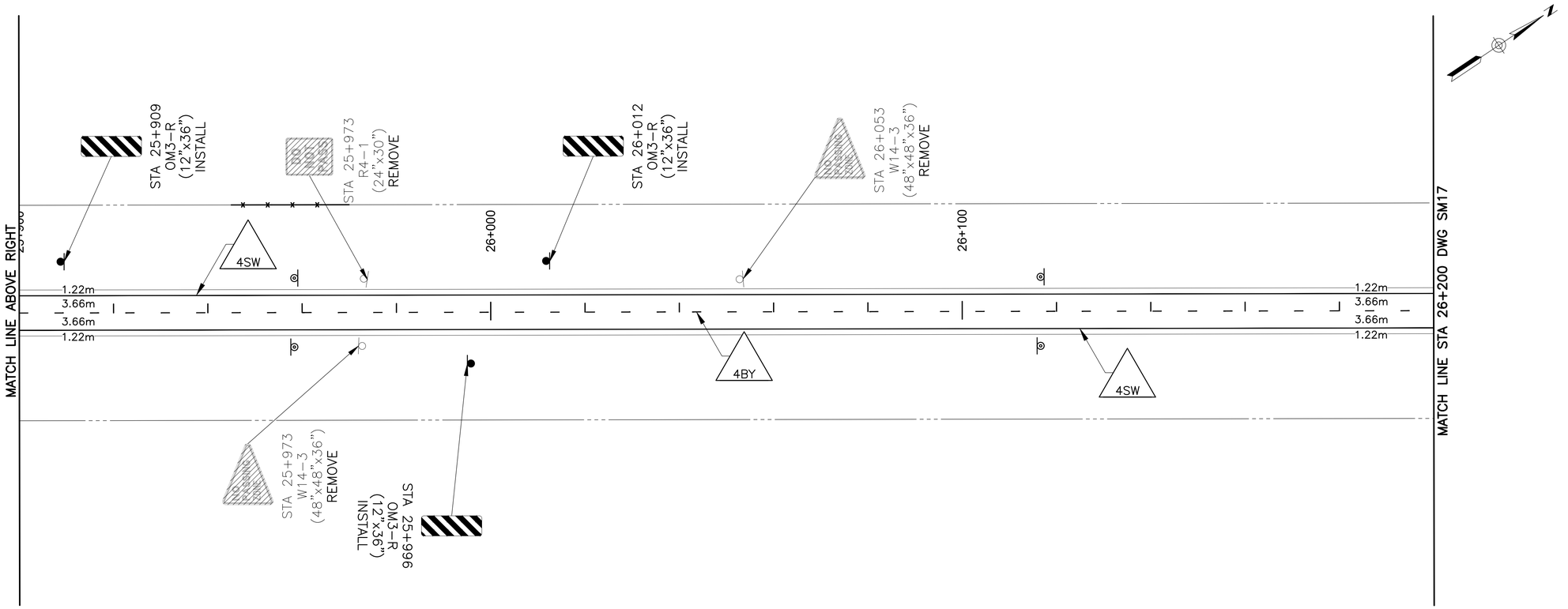
TRAFFIC SIGNING & MARKING PLAN
STA 25+000 TO STA 25+600

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM15	87 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	88

0 20 40 60 80 100
METERS

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CERTIFICATE NO.
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ANDREW JOHN SPEAR
Date Signed 6/12/26
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	REVISION	BY	DATE

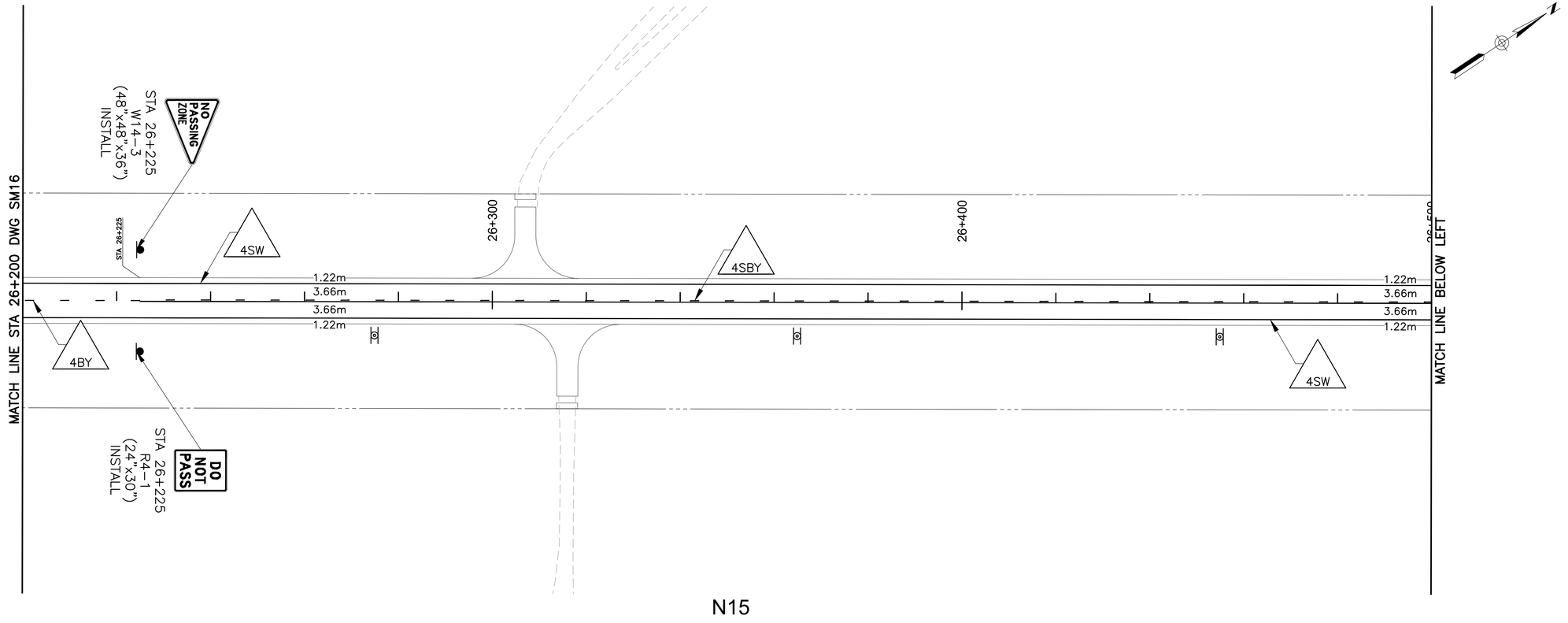
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

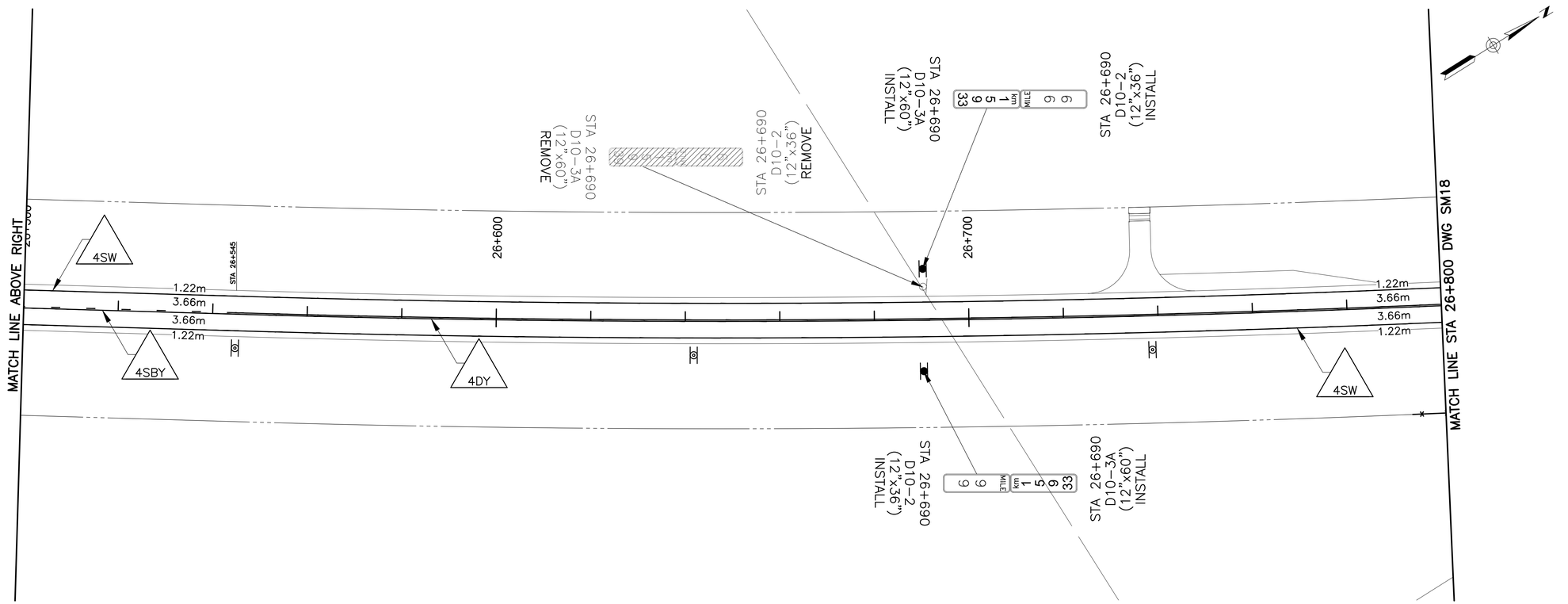
TRAFFIC SIGNING & MARKING PLAN
STA 25+600 TO STA 26+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM16	88 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	89

0 20 40 60 80 100
METERS

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ANDREW JOHN SPEAR
Date signed 6/12/26
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	REVISION	BY	DATE

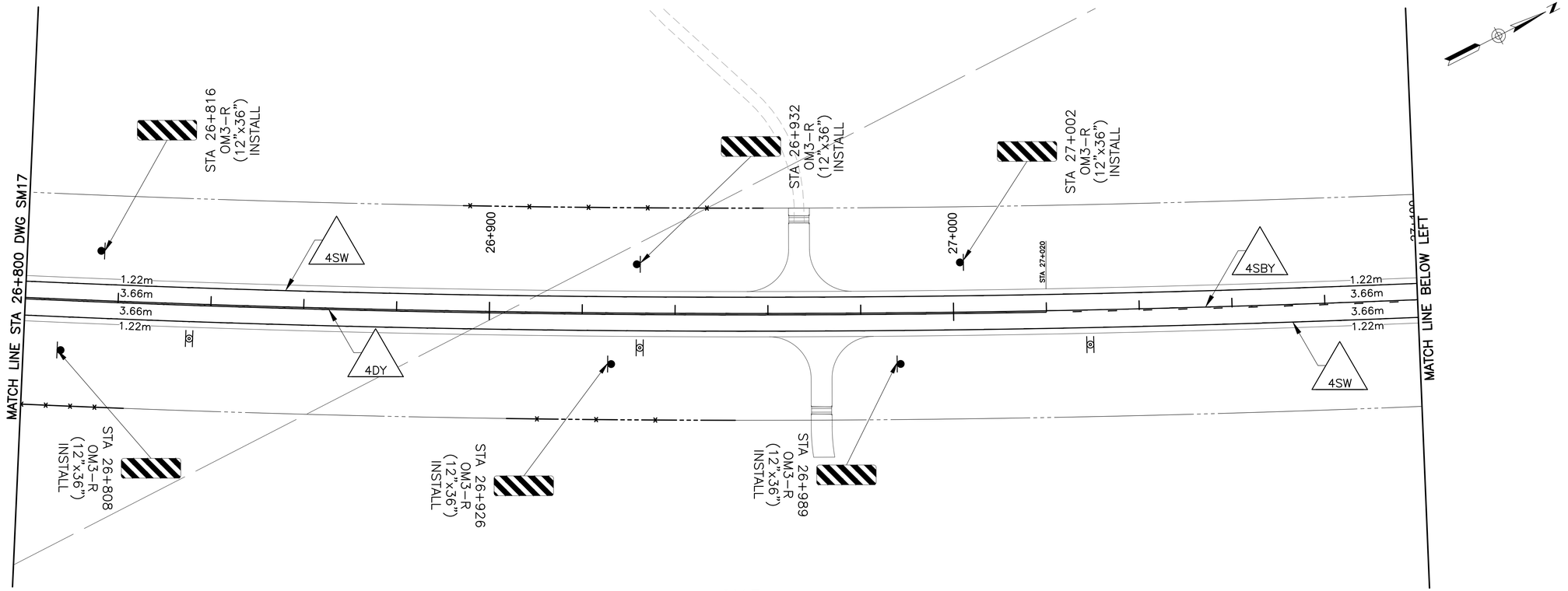
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

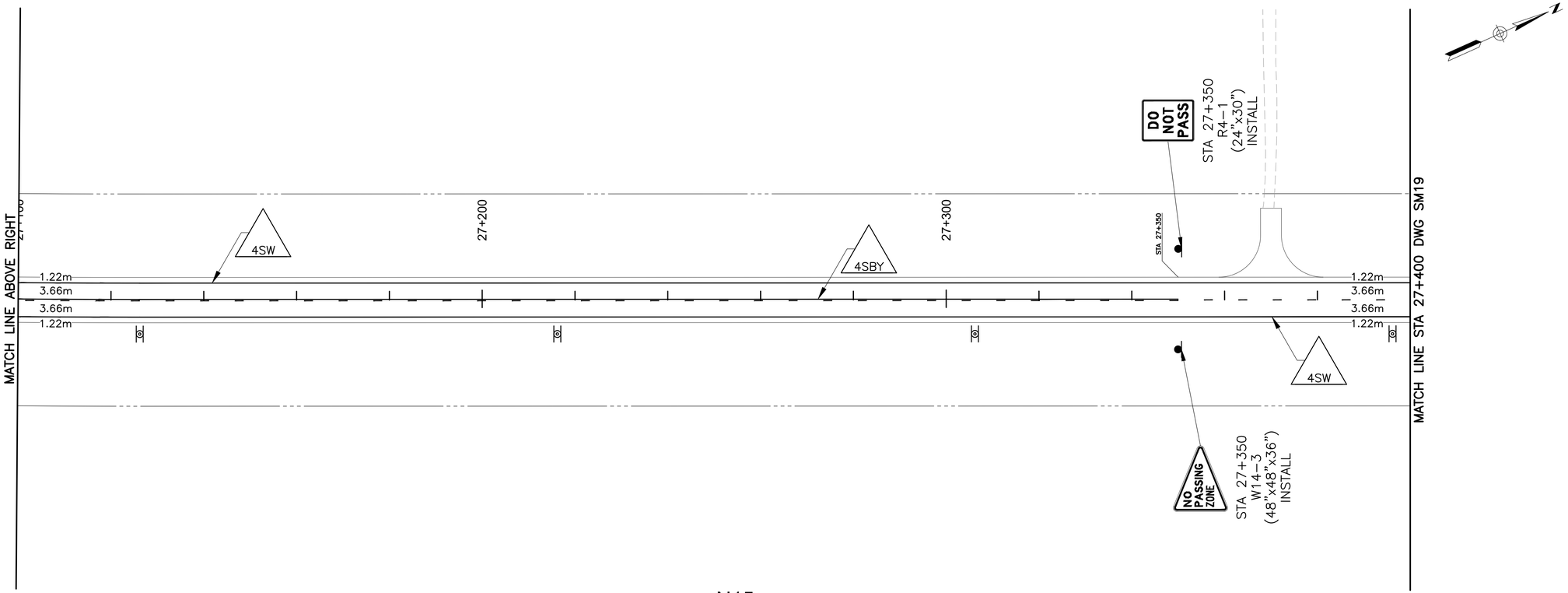
TRAFFIC SIGNING & MARKING PLAN
STA 26+200 TO STA 26+800

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM17	89 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	90

0 20 40 60 80 100
METERS

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ANDREW JOHN SPEAR
Date Signed 6/13/26
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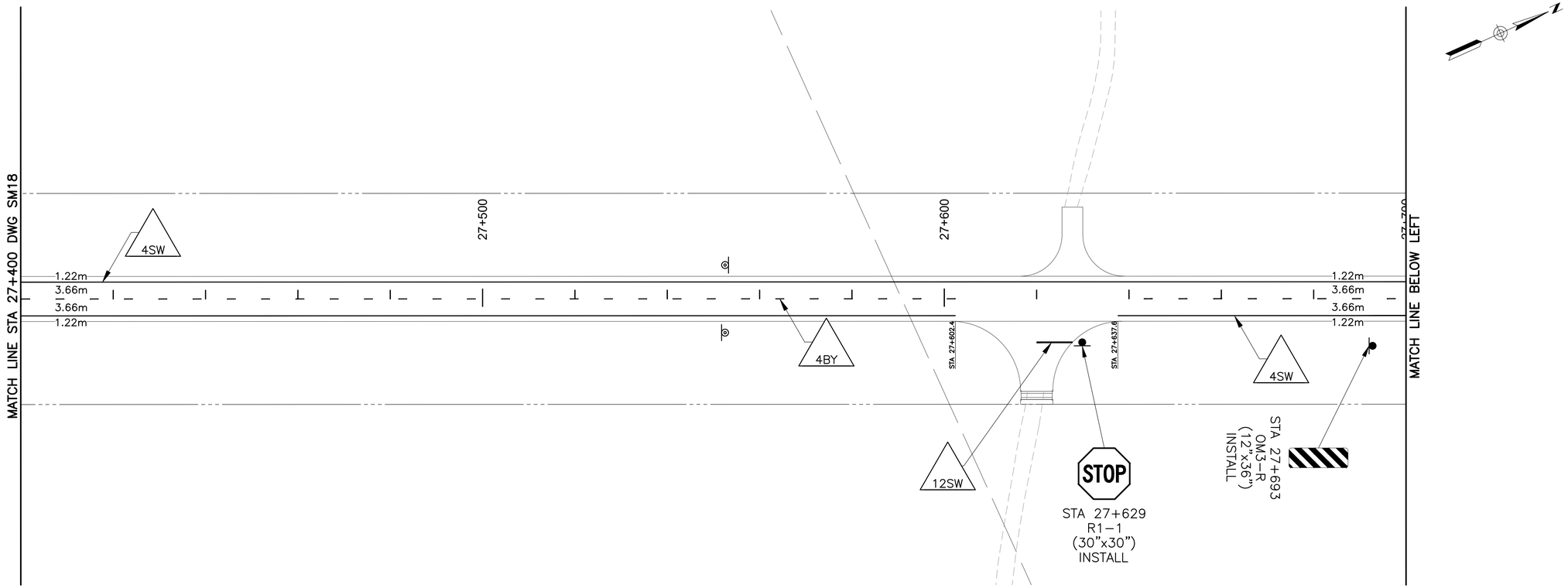
NAVAJO NATION
DIVISION OF TRANSPORTATION

N15(2-3) CORNFIELDS TO BURNSIDE

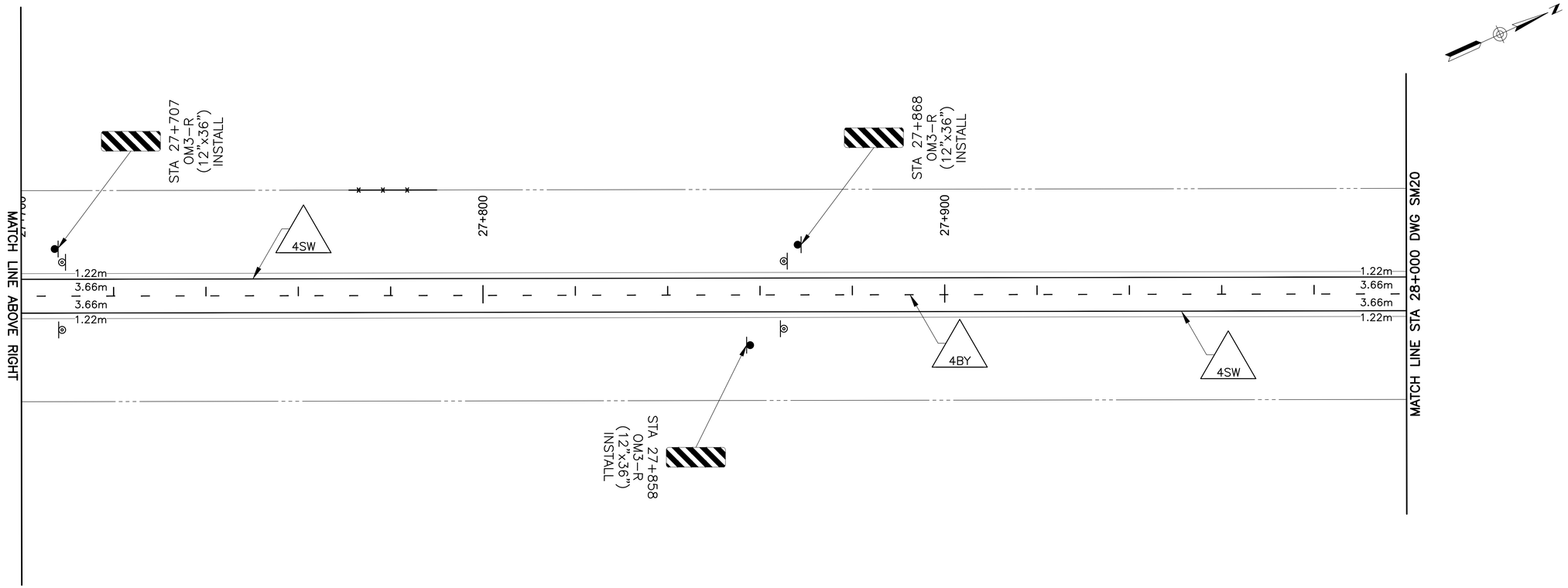
TRAFFIC SIGNING & MARKING PLAN
STA 26+800 TO STA 27+400

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM18	90 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	91

0 20 40 60 80 100
METERS

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Date signed 6/13/26
ARIZONA U.S.A.

	REVISION	BY	DATE

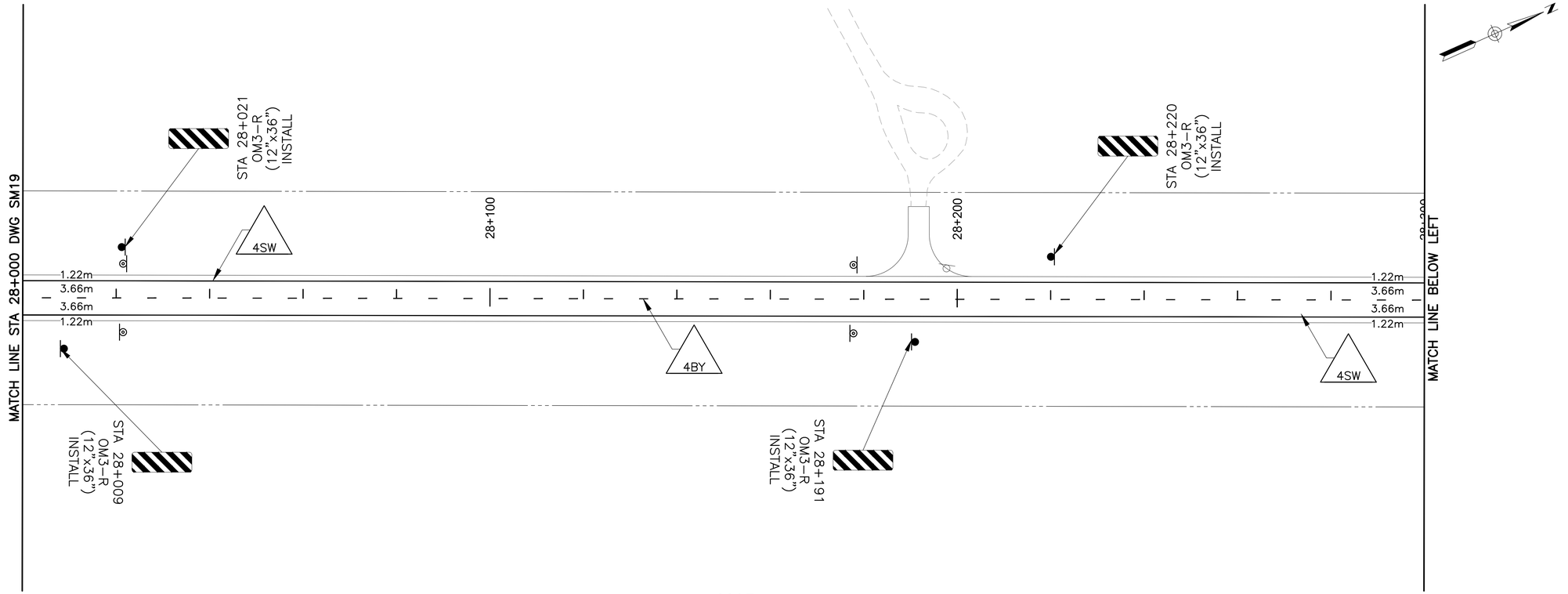
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

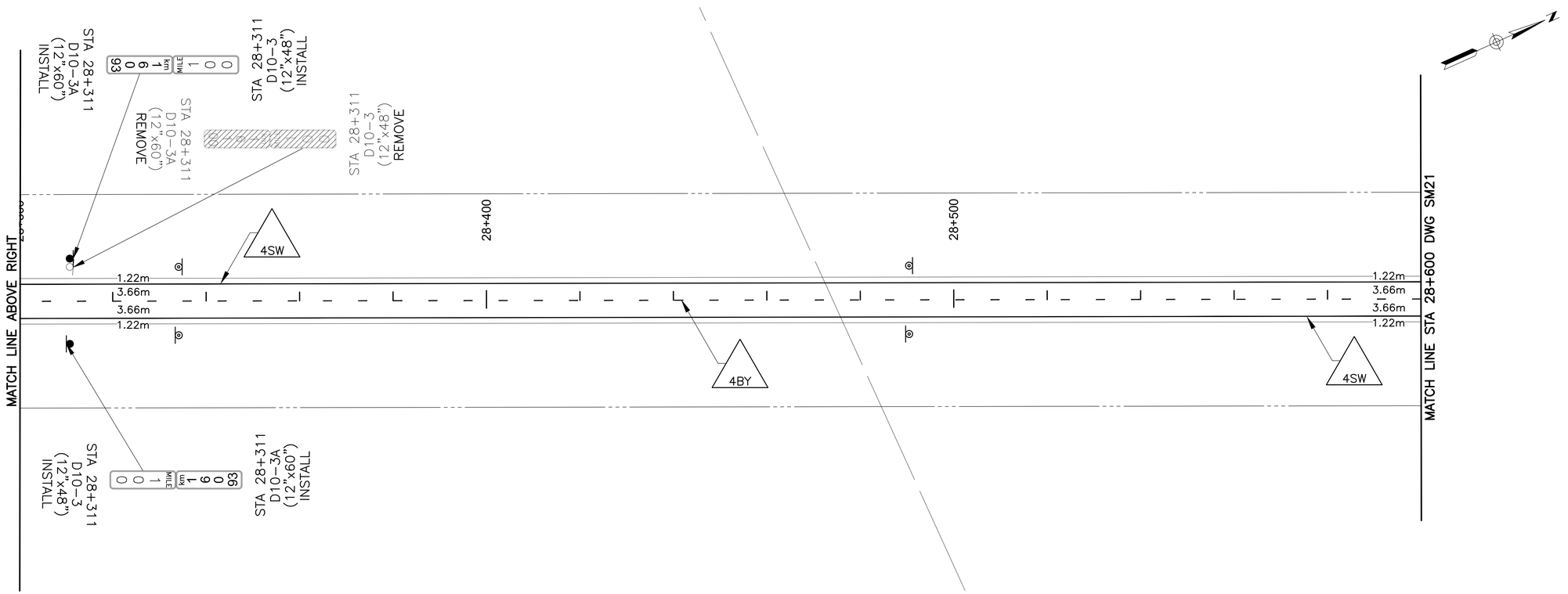
TRAFFIC SIGNING & MARKING PLAN
STA 27+400 TO STA 28+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM19	91 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	92

0 20 40 60 80 100
METERS

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ANDREW JOHN SPEAR
Date signed 6/12/26
ARIZONA U.S.A.

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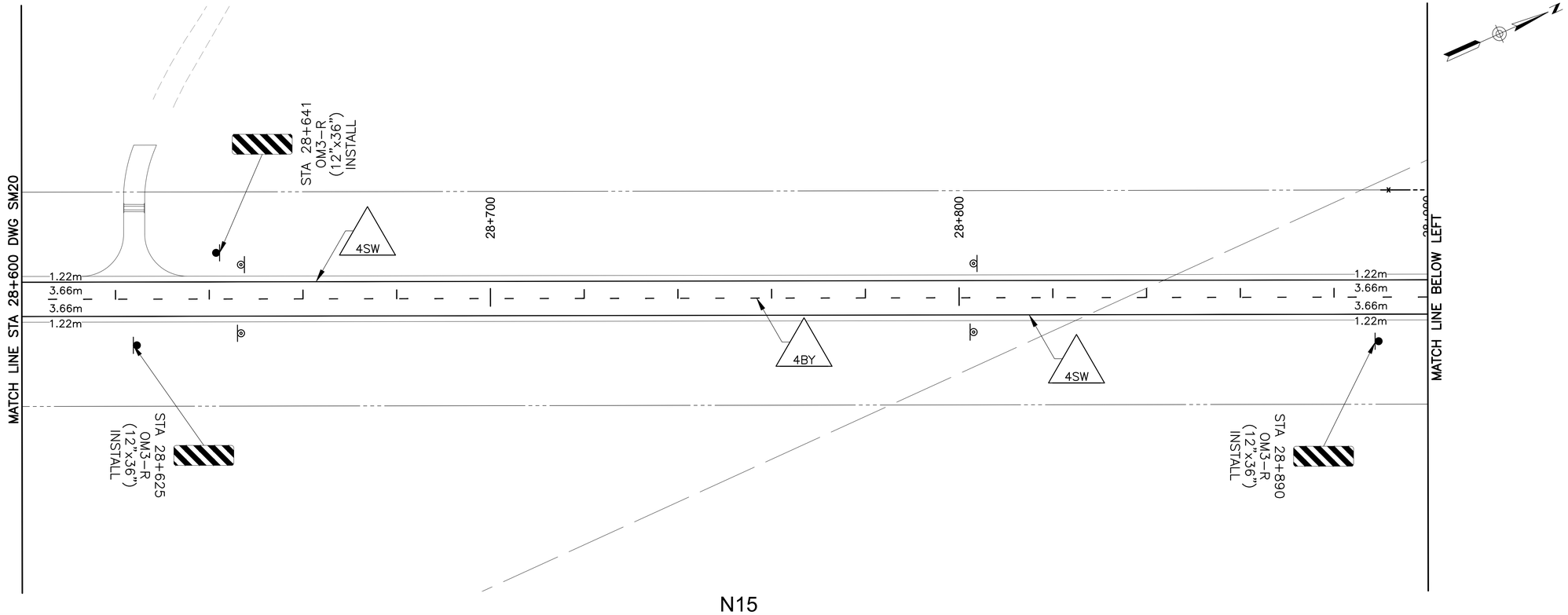
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

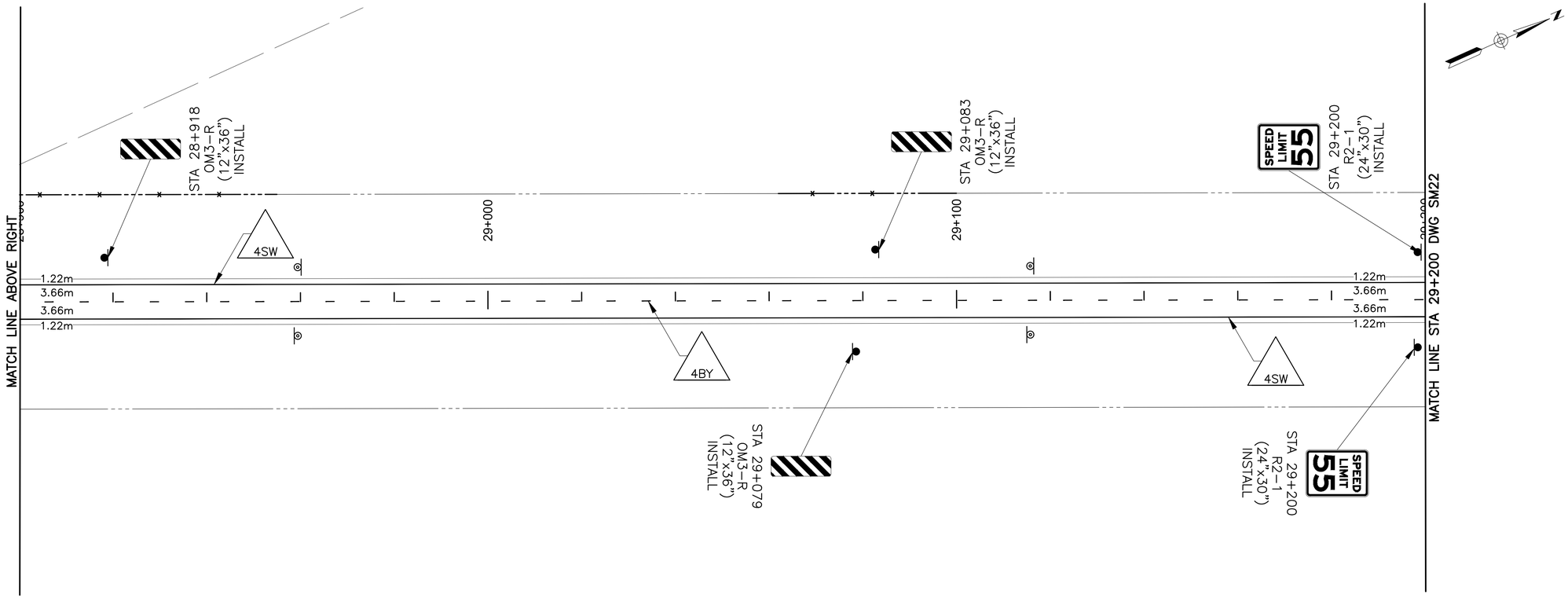
TRAFFIC SIGNING & MARKING PLAN
STA 28+000 TO STA 28+600

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM20	92 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	93

0 20 40
METERS

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Date signed 6/12/26
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	REVISION	BY	DATE

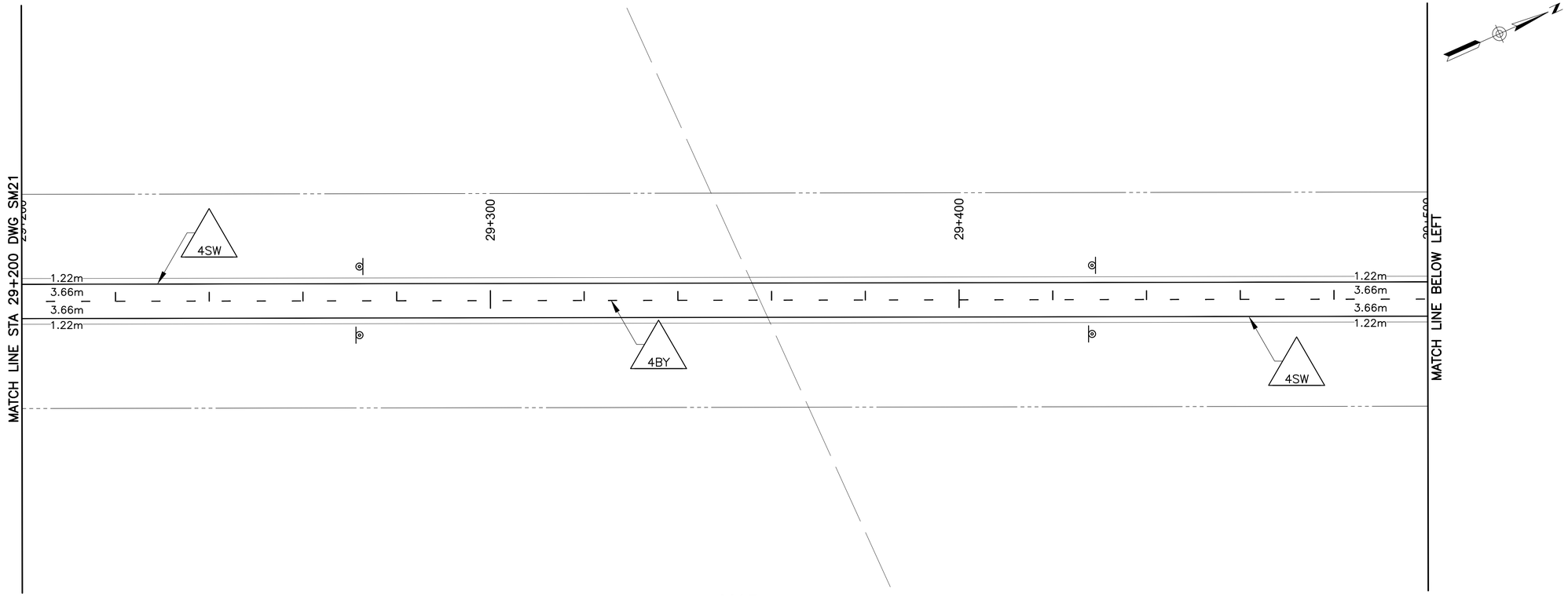
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

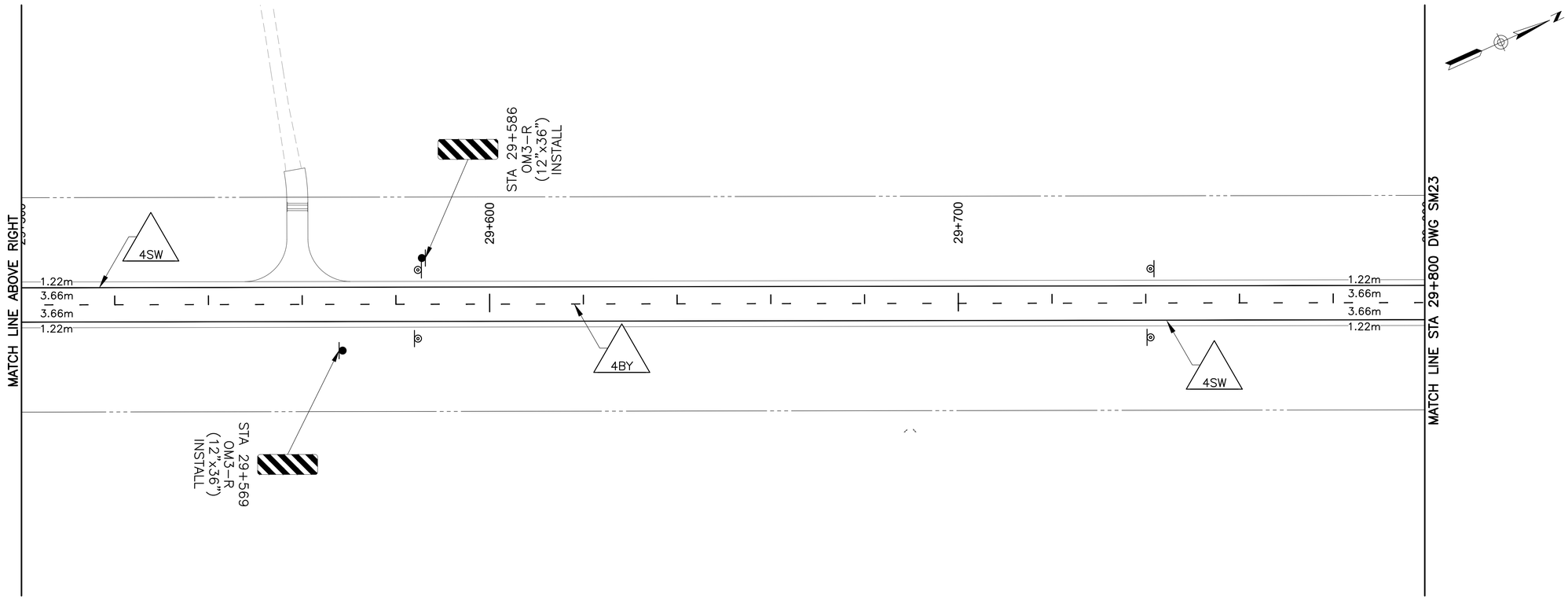
TRAFFIC SIGNING & MARKING PLAN
STA 28+600 TO STA 29+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM21	93 OF 116
SCALE: 1:500			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	94

0 20 40
METERS

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ANDREW JOHN SPEAR
Date signed 6/13/26
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	REVISION	BY	DATE

NAVAJO D.O.T.

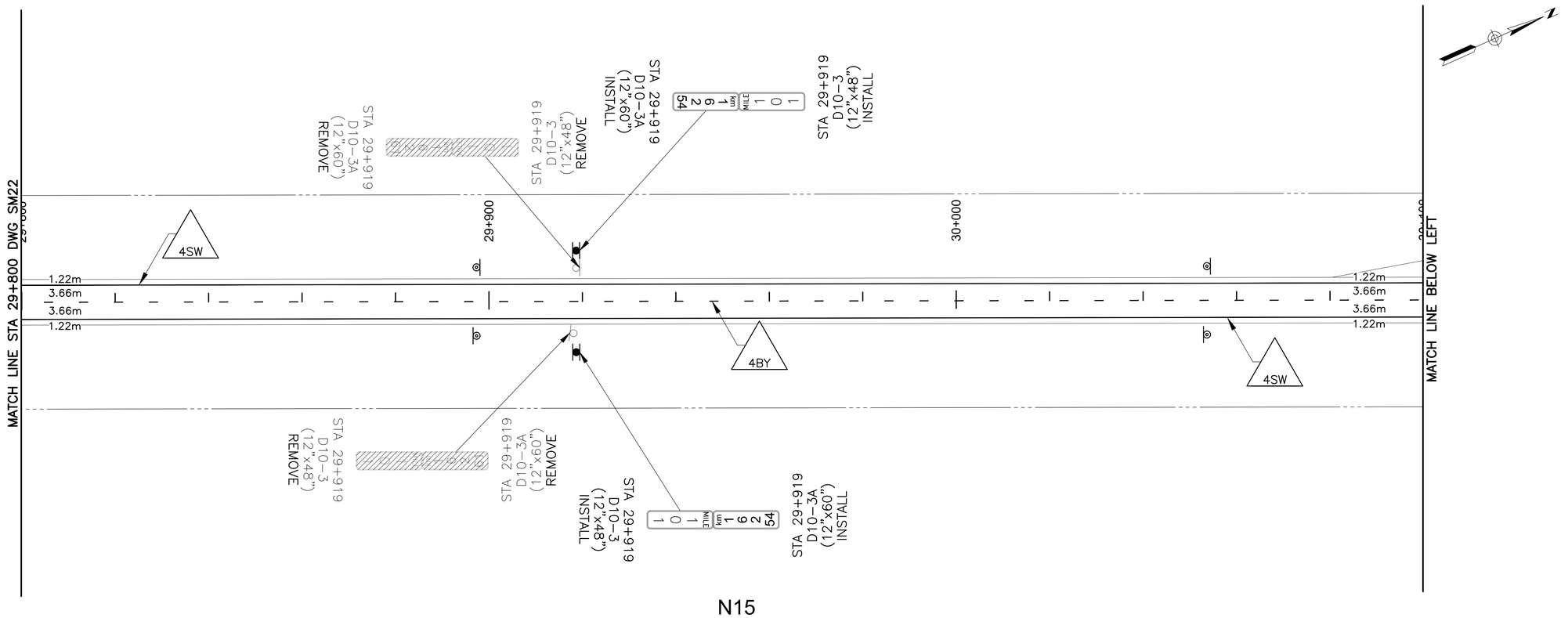
NAVAJO NATION
DIVISION OF TRANSPORTATION

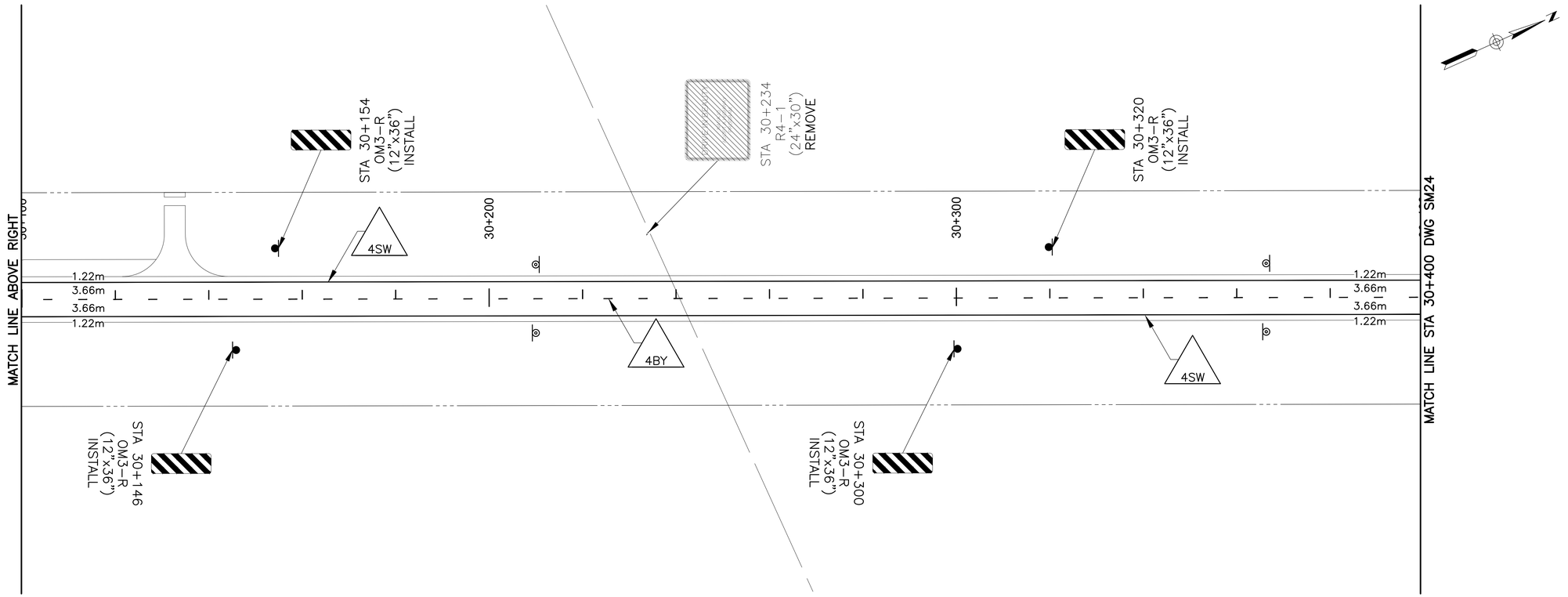
N15(2-3) CORNFIELDS TO BURNSIDE

TRAFFIC SIGNING & MARKING PLAN
STA 29+200 TO STA 29+800

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM22	94 OF 116
SCALE: 1:500			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	95

0 20 40
METERS

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Date Signed 6/13/26
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REVISION	BY	DATE

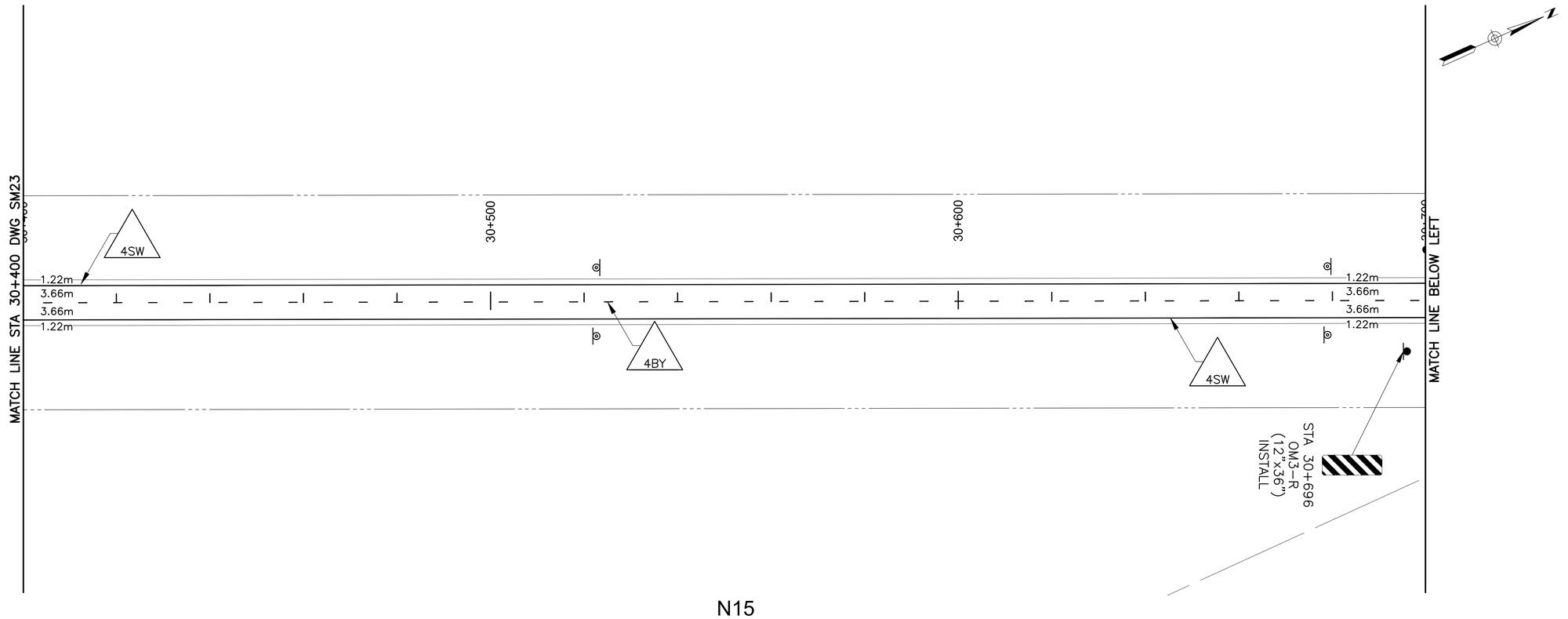
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

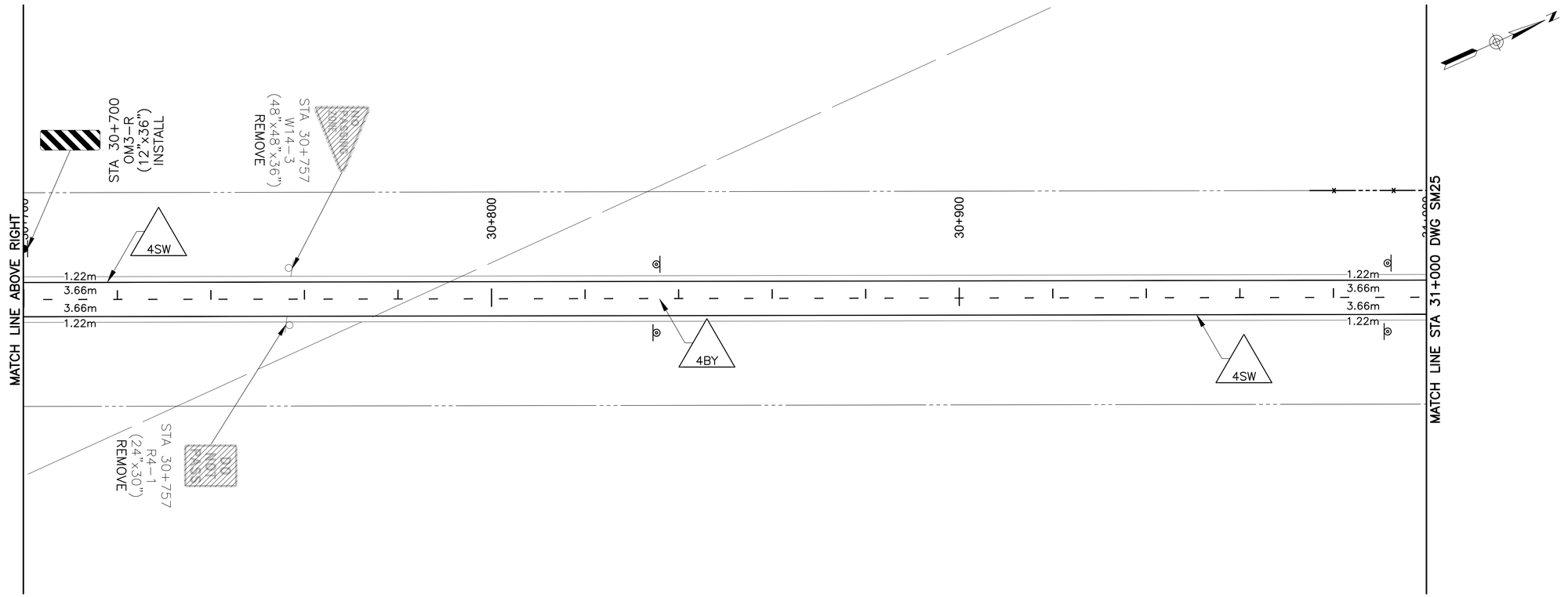
TRAFFIC SIGNING & MARKING PLAN
STA 29+800 TO STA 30+400

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM23	95 OF 116
SCALE: 1:500			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	96

0 20 40
METERS

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ANDREW JOHN SPEAR
Date signed 6/13/26

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

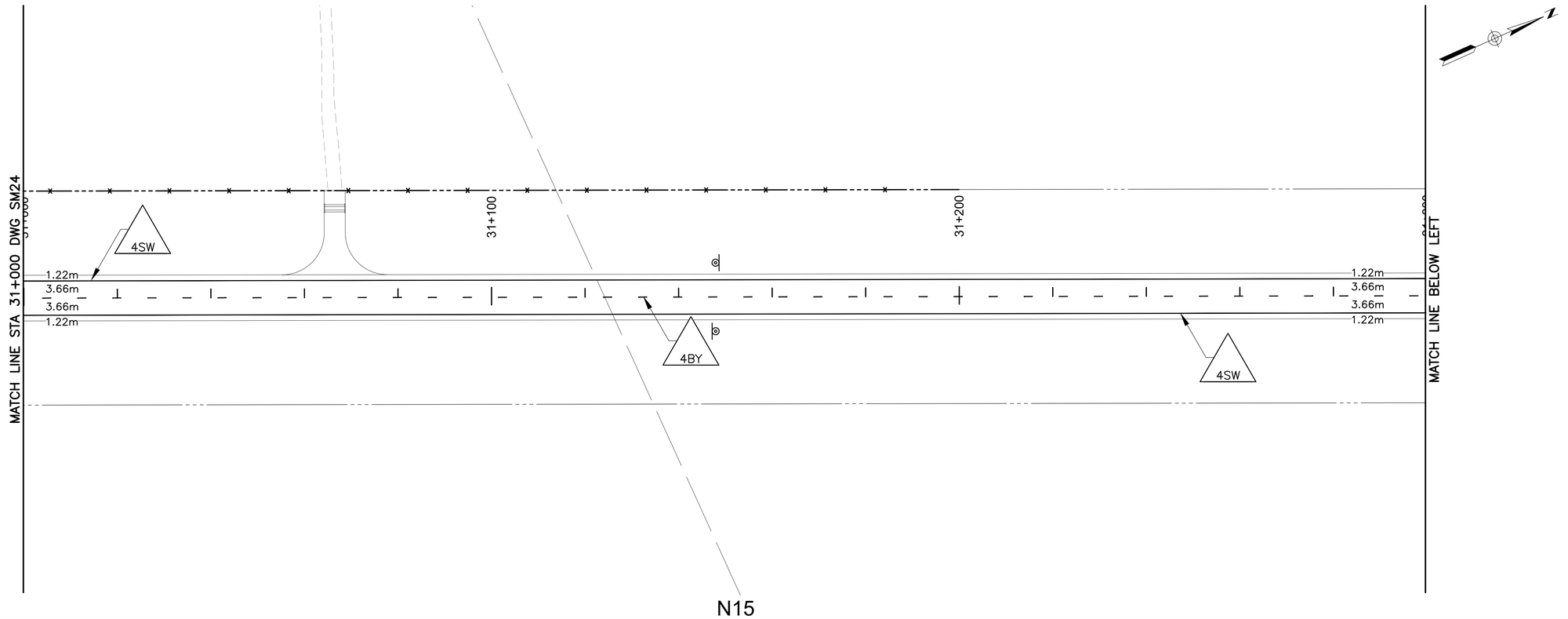
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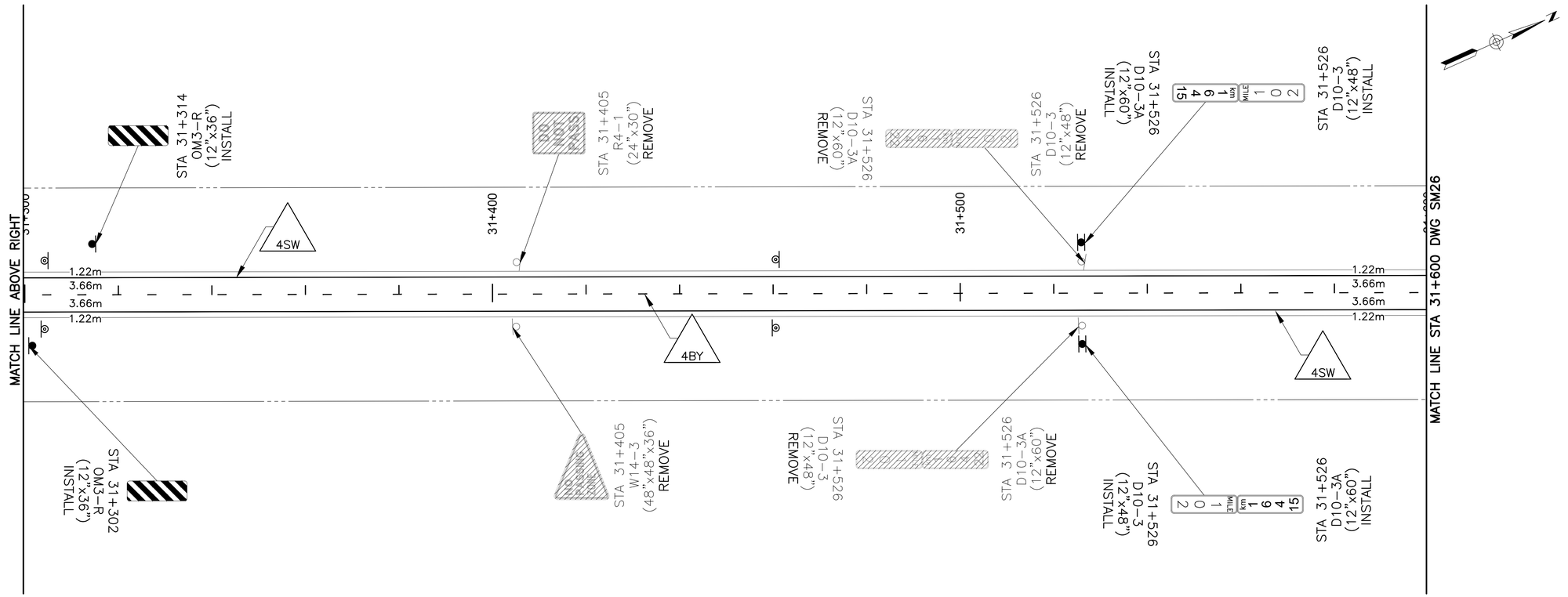
TRAFFIC SIGNING & MARKING PLAN
STA 30+400 TO STA 31+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM24	96 OF 116
SCALE: 1:500			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	97





0 20 40
METERS

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ARIZONA U.S.A.

	REVISION	BY	DATE

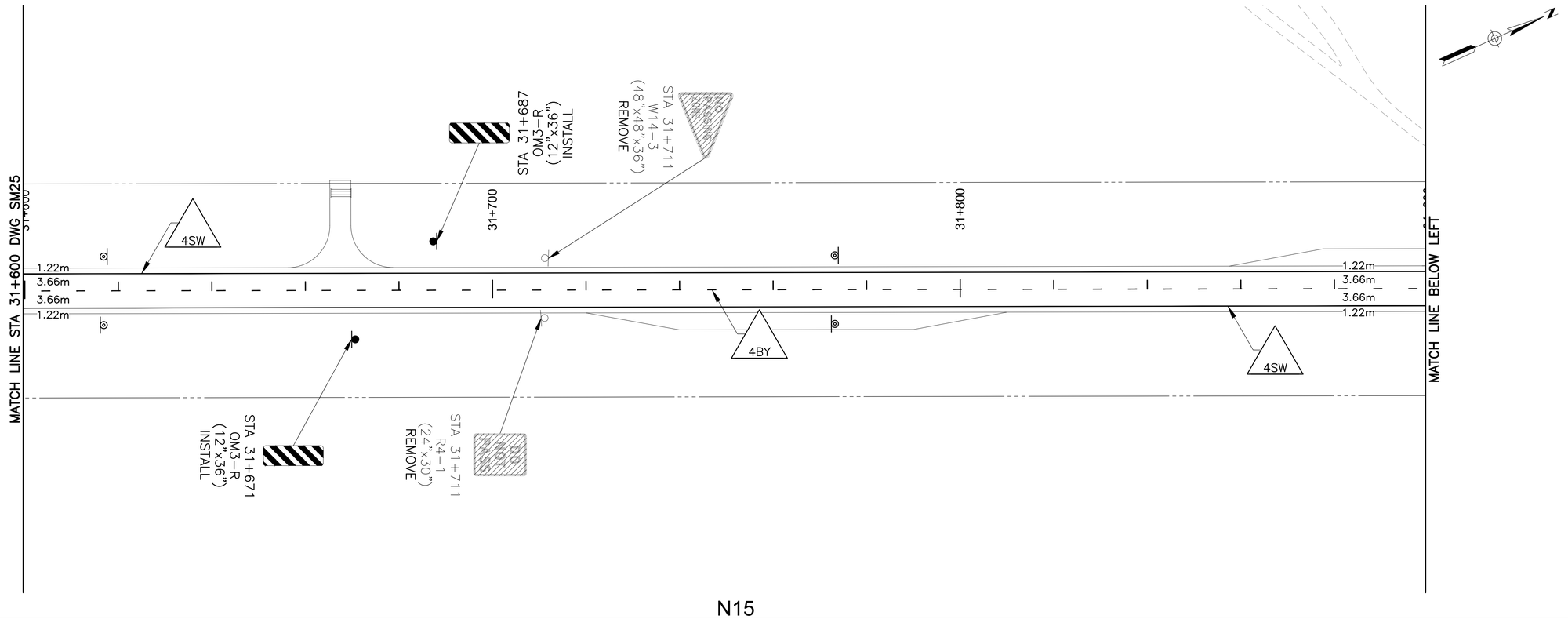
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

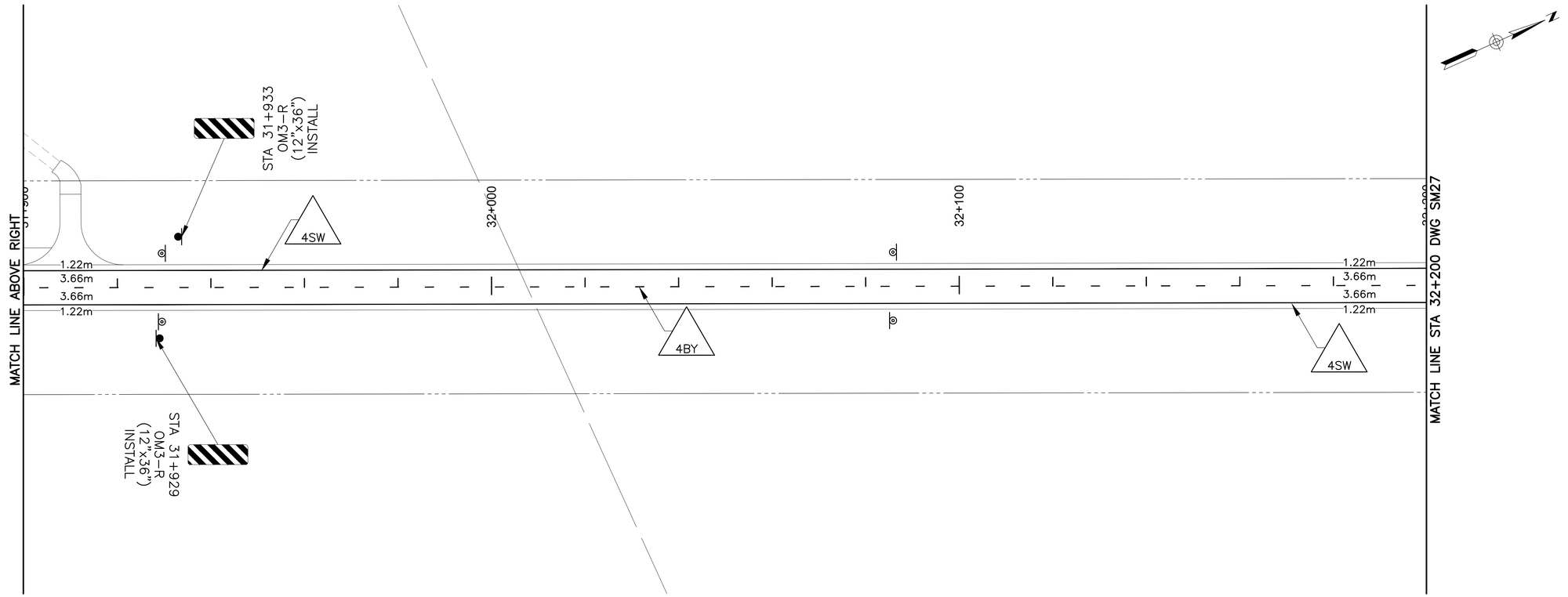
TRAFFIC SIGNING & MARKING PLAN
STA 31+000 TO STA 31+600

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM25	97 OF 116
SCALE: 1:500			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	98

0 20 40
METERS

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Date Signed 6/13/26
ARIZONA U.S.A.

	REVISION	BY	DATE

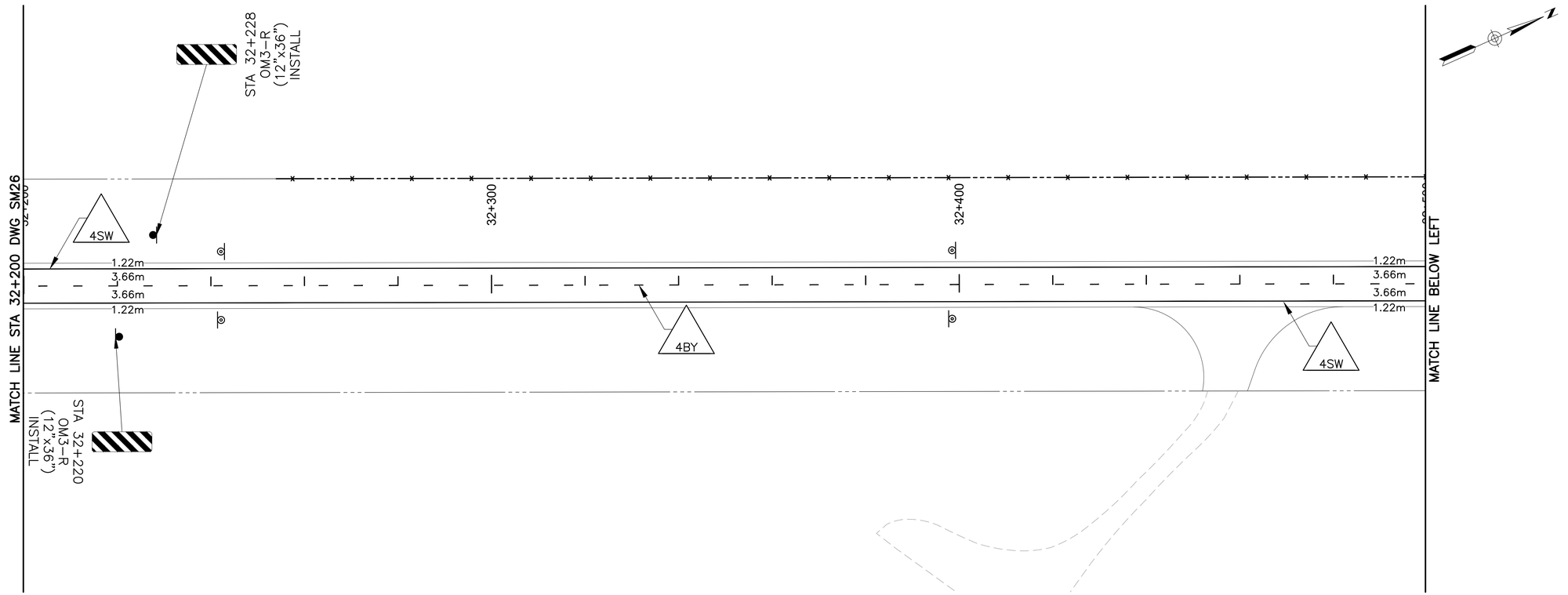
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

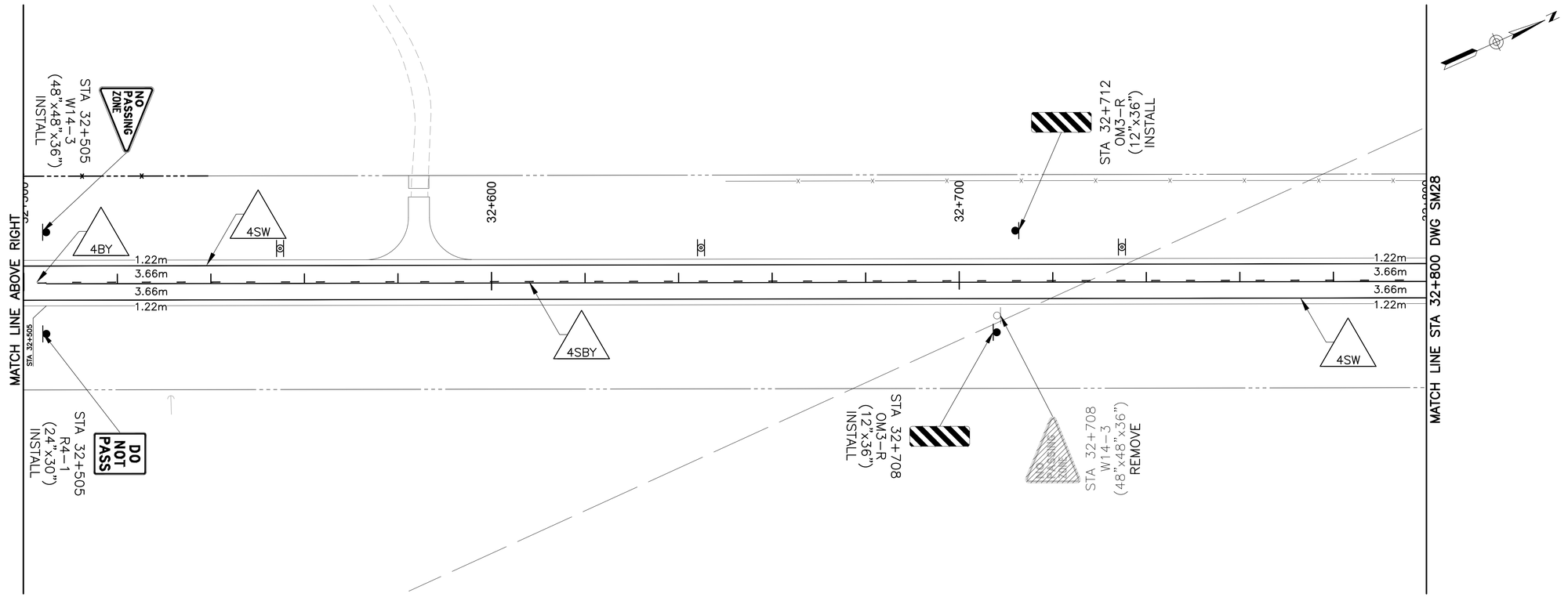
TRAFFIC SIGNING & MARKING PLAN
STA 31+600 TO STA 32+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM26	98 OF 116
SCALE: 1:500			

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N15



N15

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	99

0 20 40
METERS

Contact Arizona 811 at least two full working days before you begin excavation.
ARIZONA811
Call 811 or click Arizona811.com

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date Signed 6/12/26
ARIZONA U.S.A.

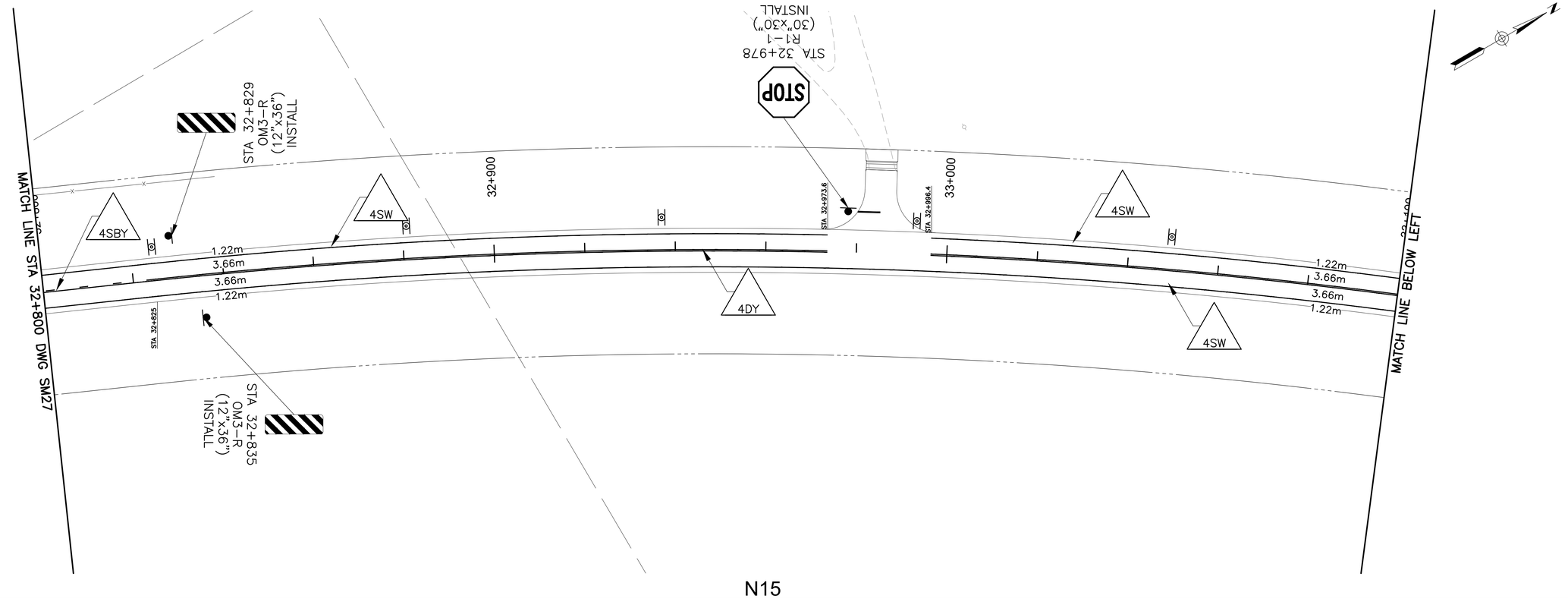
	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

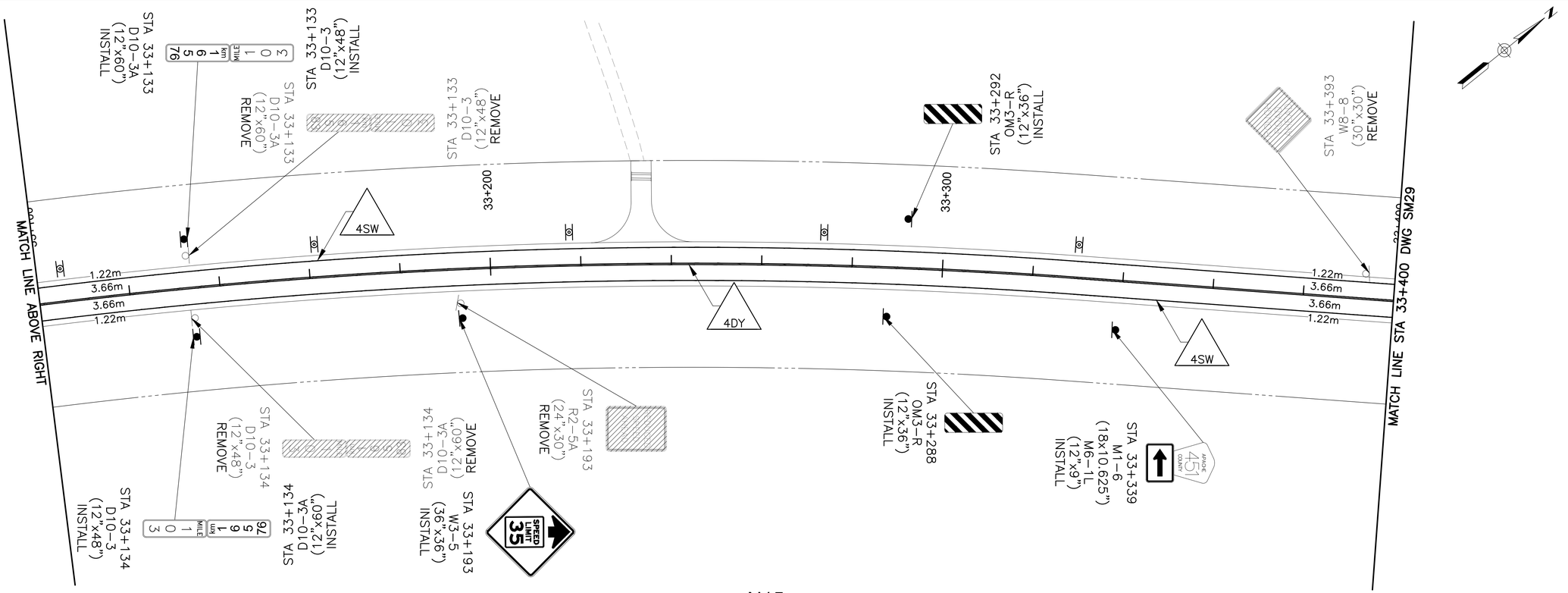
N15(2-3) CORNFIELDS TO BURNSIDE

TRAFFIC SIGNING & MARKING PLAN
STA 32+200 TO STA 32+800

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM27	99 OF 116
SCALE: 1:500			



N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	100

0 20 40 METERS

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SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/13/26 ARIZONA U.S.A.

REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION

NAVAJO D.O.T.

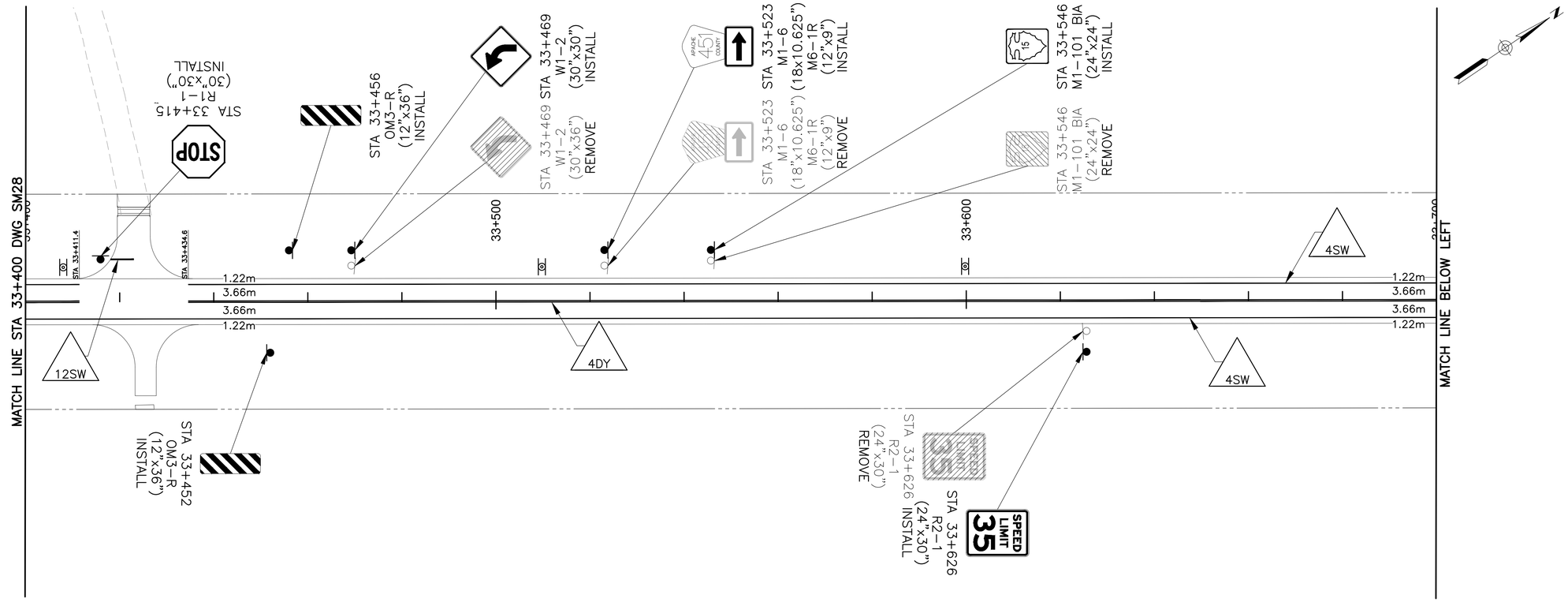
N15(2-3) CORNFIELDS TO BURNSIDE

TRAFFIC SIGNING & MARKING PLAN
STA 32+800 TO STA 33+400

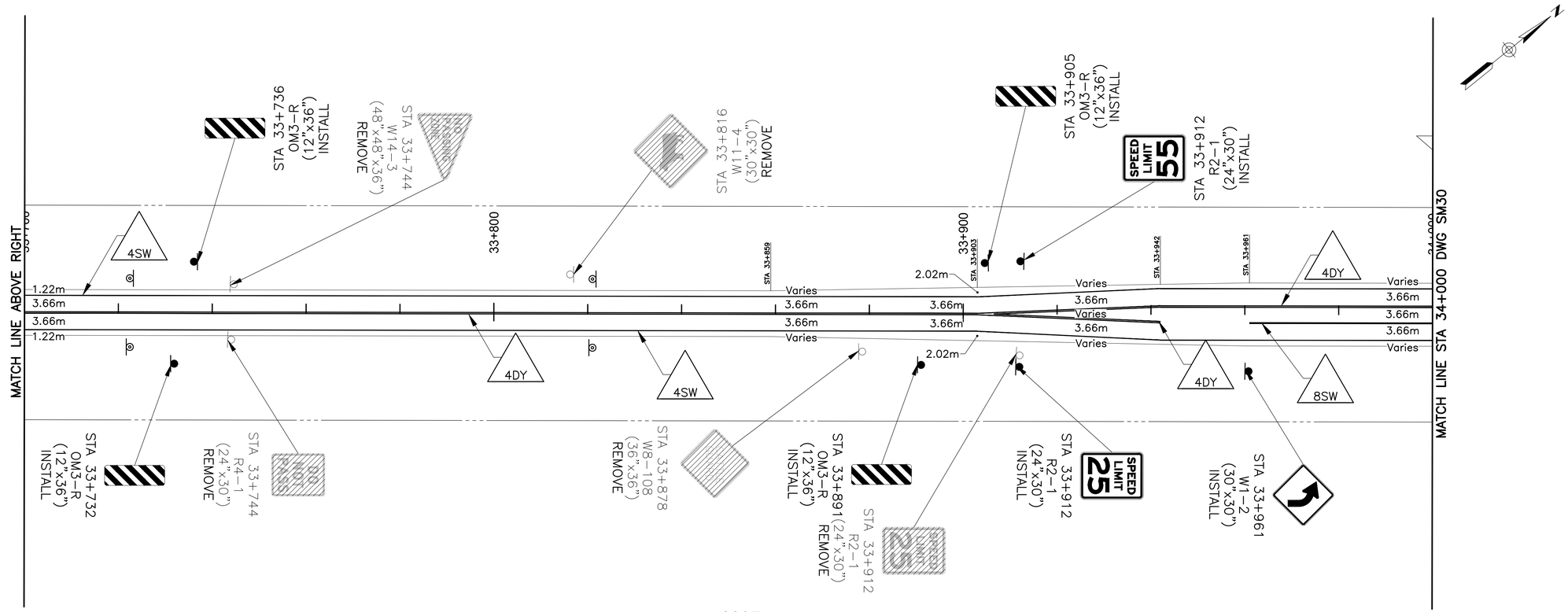
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LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM28	100 OF 116
SCALE: 1:500			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	101



N15



N15

0 20 40
METERS

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	REVISION	BY	DATE

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DIVISION OF TRANSPORTATION

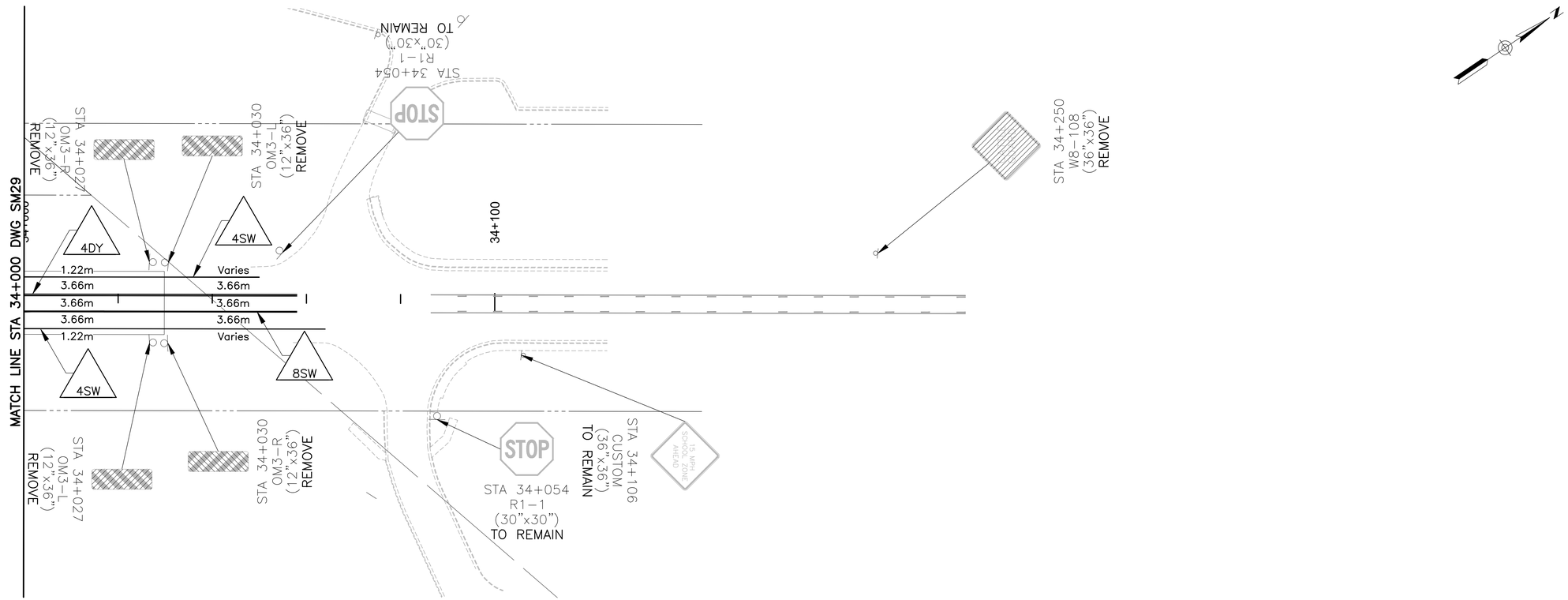
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

TRAFFIC SIGNING & MARKING PLAN
STA 33+400 TO STA 34+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM29	101 OF 116
SCALE: 1:500			

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N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	102

0 20 40
METERS

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Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date signed 6/13/26
ARIZONA

	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION

NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

TRAFFIC SIGNING & MARKING PLAN
STA 34+000 TO STA 34+100

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	SM30	102 OF 116
SCALE: 1:500			

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ITEM 62901-1100: ROLLED EROSION CONTROL PRODUCT, TYPE 5.A

STATION TO STATION	LOCATION	QUANTITY (m^2)
22+600 to 22+872	Rt.	2,562
23+334 to 23+667	Rt.	3,282
23+532 to 23+724	Lt.	498
23+997 to 24+096	Lt.	913
24+261 to 24+333	Lt.	2,006
24+660 to 24+843	Lt.	1,180
25+626 to 25+710	Lt.	4,277
	TOTAL	**14,718**

*At cut slopes specified in plans to be covered with erosion matting protection, the COR/COTR shall inspect the slopes for existing and stable rock material. If in the opion of the COR/COTR, the cut slopes are sufficiently stable due to the natural rock, the COR/COTR may delete the matting these areas.

ITEM 62510-1000: SEEDING, DRY METHOD

STATION TO STATION	QUANTITY (ha)
22+600 to 34+100	30.4

ITEM 15708-1000: TEMPORARY STRAW MULCHING

STATION TO STATION	QUANTITY (ha)
22+600 to 34+100	28.9

ITEM 15705-1400: SOIL EROSION CONTROL, FIBER ROLL

STATION TO STATION	LOCATION	QUANTITY (m)
22+821 to 22+883	Lt.	61
22+872 to 22+935	Rt.	103
23+289 to 23+334	Rt.	94
23+464 to 23+532	Lt.	104
23+667 to 23+695	Rt.	58
23+724 to 23+880	Lt.	332
23+730 to 23+883	Rt.	620
23+916 to 23+997	Lt.	189
24+096 to 24+261	Lt.	399
24+333 to 24+501	Lt.	416
24+636 to 24+660	Lt.	49
24+843 to 24+873	Lt.	56
25+585 to 25+626	Lt.	77
25+596 to 25+786	Rt.	340
25+710 to 25+848	Lt.	258
26+420 to 26+499	Lt.	95
26+880 to 26+962	Lt.	159
30+906 to 31+203	Lt.	518
31+134 to 31+242	Rt.	190
31+968 to 32+034	Lt.	86
32+229 to 32+646	Lt.	732
32+680 to 32+805	Lt.	186
	TOTAL	**5,122**

ITEM 15706-1600 SOIL EROSION CONTROL, STABILIZED CONSTRUCTION EXIT

STATION	OFFSET	EXIT SIZE		
		WIDTH	LENGTH	QNTY
		M	M	EACH
23+499.000	Lt.	4.0	15.0	1.0
24+654.000	Rt.	4.8	15.0	1.0
27+620.000	Rt.	6.0	15.0	1.0
31+409.000	Rt.	4.8	15.0	1.0
33+931.000	Lt.	4.8	15.0	1.0
	TOTAL			**5.0**

ITEM 20101-0000 CLEARING AND GRUBBING

ROUTE	STA TO STA			Clear & Grub Area (sm)	Clear & Grub Area (ac)
N15	22+600	to	26+200	159,633.67	39.40
N15	26+200	to	29+200	126,567.87	31.30
N15	29+200	to	32+200	124,580.44	30.80
N15	32+200	to	34+017	77,568.57	19.20
				488,350.55	121.00

Areas from CAD based on limits of disurbance including TCE's and Staging areas.

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NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

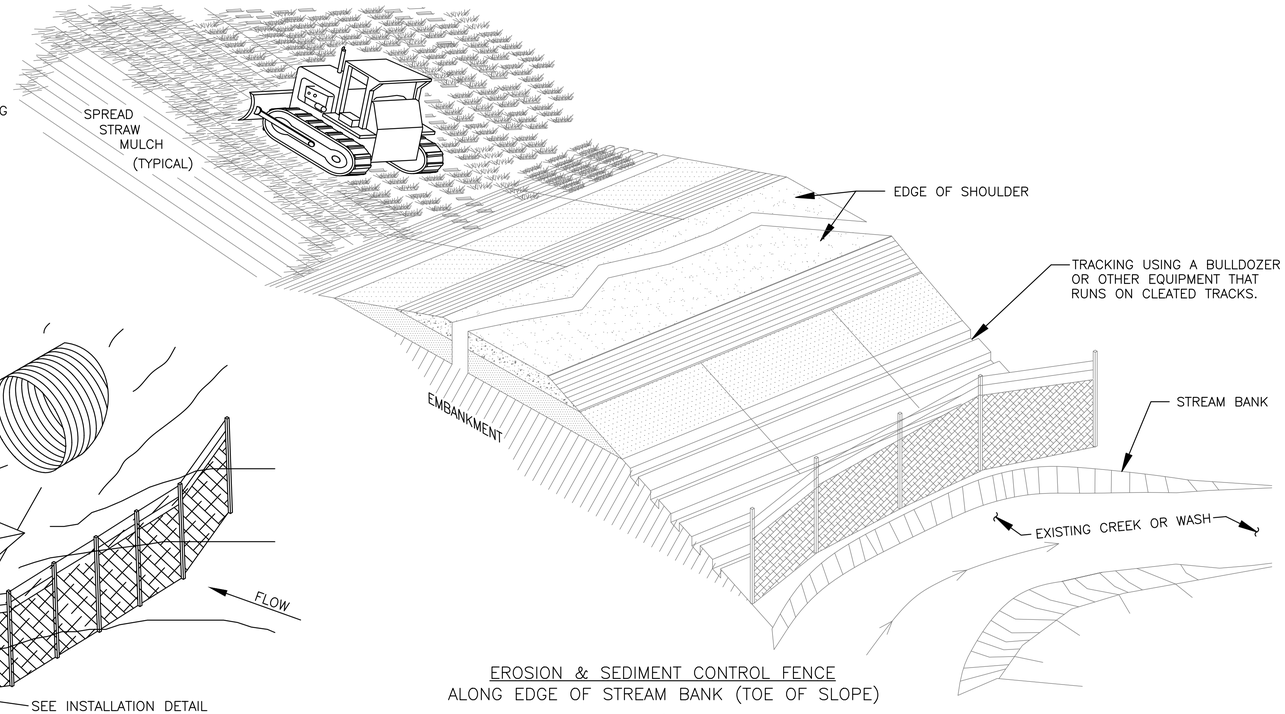
EROSION CONTROL SUMMARY

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	E1	103 OF 116
ASBUILT BY:	DATE:		
SCALE: N/A			

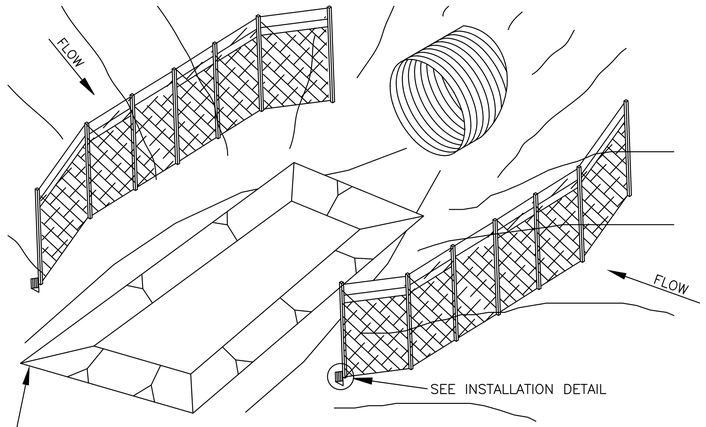
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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	104

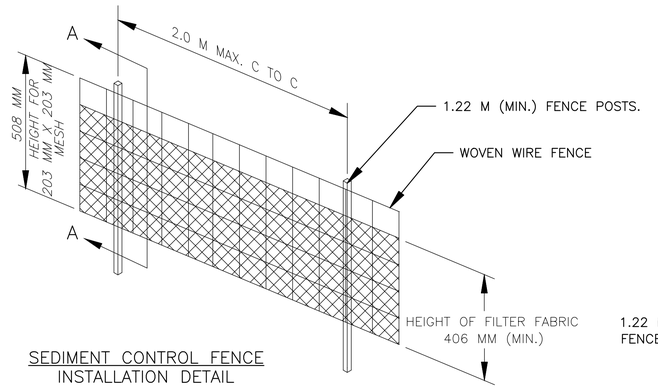
'TRACKING' WITH MACHINERY ON SANDY SOIL PROVIDES ROUGHENING WITHOUT UNDUE COMPACTION.



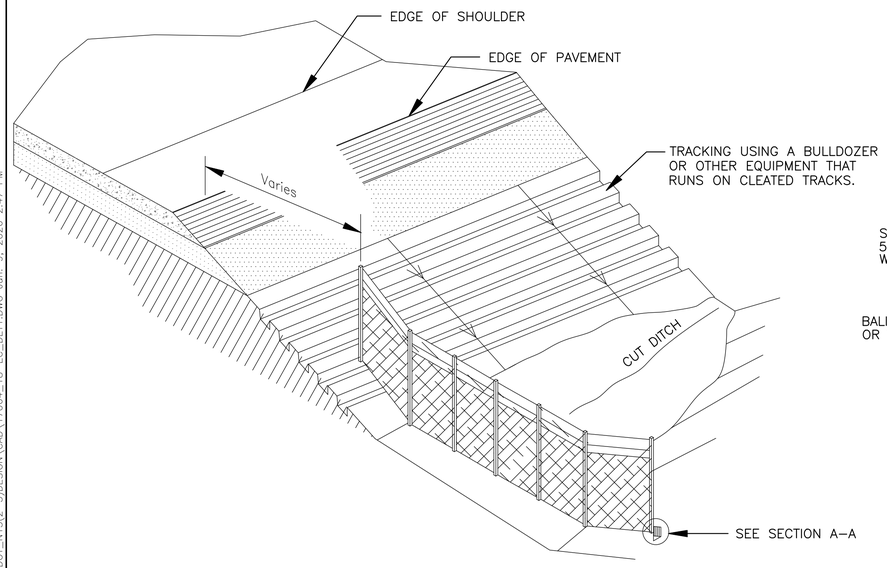
EROSION & SEDIMENT CONTROL FENCE
ALONG EDGE OF STREAM BANK (TOE OF SLOPE)



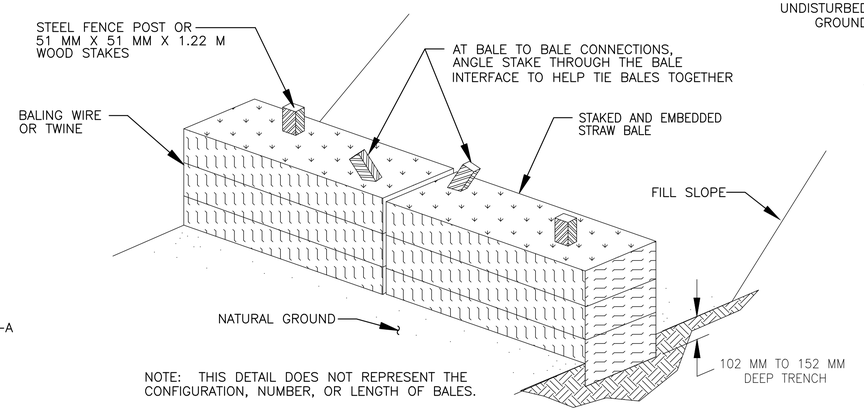
EROSION & SEDIMENT CONTROL FENCE
AT DRAINAGE STRUCTURE



SEDIMENT CONTROL FENCE
INSTALLATION DETAIL

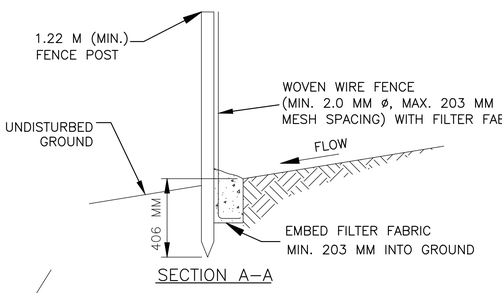


EROSION & SEDIMENT CONTROL FENCE
IN MINOR SWALES OR CUT DITCHES
(APPROX 60 m SPACING FOR FABRIC)



NOTE: THIS DETAIL DOES NOT REPRESENT THE CONFIGURATION, NUMBER, OR LENGTH OF BALES.

TYPICAL STRAW BALE STAKING
AND TRENCHING DETAIL



SECTION A–A

GENERAL NOTES

1. THE CONTRACTOR SHALL PREPARE AND SUBMIT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN FULL DETAIL FOR ALL PHASES OF THE WORK FOR REVIEW AND APPROVAL AT LEAST 14 CALENDAR DAYS BEFORE IMPLEMENTATION. THE PLAN SHALL MEET THE REQUIREMENTS HEREIN AND IN SECTION 157 OF THE FP–14 AS MODIFIED IN THE SUPPLEMENTAL SPECIFICATION. SEE SPECIAL CONTRACT REQUIREMENTS FOR NPDES PERMIT REQUIREMENTS.
2. THE SILT FENCING CONSISTS OF 914 mm SEDIMENT CONTROL FABRIC CLOTH WITH BURIED–TOE, AND STEEL POSTS (TEE OR U TYPE) SPACED AT 2.00 m WITH 2mm SIZE WELDED WIRE BACK–UP FENCE.
3. WOVEN WIRE FABRIC TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 610 mm AT THE TOP AND MID–SECTION. GEOTEXTILE MATERIAL FOR SILT FENCING SHALL BE GEOTEXTILE UNDER SUB–SECTION 713.16(a) AASHTO M–288 OF FP–14.
4. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 152 mm AND FOLDED. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. SILT FENCE SHALL BE INSTALLED PARALLEL TO THE TOE OF ALL ROADWAY EMBANKMENT FILLS IN LOCATIONS WHERE THE TOE OF THE FILLS ARE WITHIN 2.0 m OF EXISTING STREAMS, CREEKS OR WASHES; IN AREAS WITH HIGHLY EROSIVE SOILS AND/OR WHERE EMBANKMENTS ARE AT A 1:3 OR STEEPER SLOPE. THE SILT FENCE SHALL BE PLACED 1 m TO 2 m DOWNHILL FROM THE TOE OF THE FILL AND IN ACCORDANCE WITH SECTION 157 OF THE FP–14 AND THE SUPPLEMENTAL SPECIFICATIONS.
6. STRAW BALES MAY BE USED AT THE TOP OF CUT BACKSLOPES AND FOR DIKES PROVIDED THEY ARE PROPERLY ANCHORED WITH STEEL FENCE POSTS OR 51 mm x 51 mm x 1.22 m WOOD STAKES (TWO PER BALE) ANCHORED 508 mm INTO THE NATURAL GROUND. STRAW BALES SHALL BE CERTIFIED 0.5% WEED FREE. DO NOT USE STRAW BALES IN AREAS OF CONCENTRATED FLOW AND CUT DITCHES.
7. FURNISHING AND PLACEMENT OF SILT FENCE MATERIAL AND OTHER EROSION CONTROL MEASURES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 15701–0000.
8. SEDIMENT/SILT FENCING SHALL BE PLACED AT ALL LOCATIONS WHERE EMBANKMENTS HAVE SLOPE DISTANCES OF 30.0 m OR GREATER. THE SEDIMENT FENCING WILL BE PLACED AT THE TOE OF SLOPES OFFSET 1–2 METERS.
9. THE CONTRACTOR SHALL INSPECT AND MAINTAIN ALL SWPPP MEASURES WEEKLY AND AFTER EACH SIGNIFICANT STORM EVENT (I.E. 25 mm OF MOISTURE IN 24 HOURS).
10. PRIOR TO FINAL ACCEPTANCE, ALL PROJECT AREAS (AS DETERMINED BY COR/COTR) SHOWING EROSION DAMAGE CAUSED BY THE CONTRACTOR'S FAILURE TO PROPERLY MAINTAIN THE EROSION CONTROL STRUCTURES SHALL BE REPAIRED TO ADDRESS SAID DAMAGE. ANY SPECIFIED EROSION CONTROL MATERIALS, STRUCTURES, OR DEVICES DAMAGED OR LOST DUE TO IMPROPER INSTALLATION, THE CONTRACTOR'S NEGLIGENCE OR IMPROPER MAINTENANCE, SHALL ALSO BE REPAIRED AND/OR REPLACED TO PROJECT REQUIREMENTS PRIOR TO FINAL ACCEPTANCE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM 15701–0000, NO ADDITIONAL PAYMENT WILL BE MADE.

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	REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

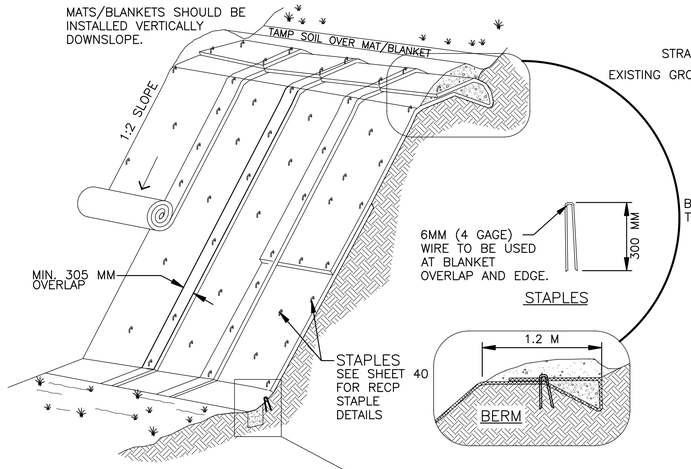
N15(2-3) CORNFIELDS TO BURNSIDE

EROSION CONTROL DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	E2	104 OF 116
ASBUILT BY:	DATE:		
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	105



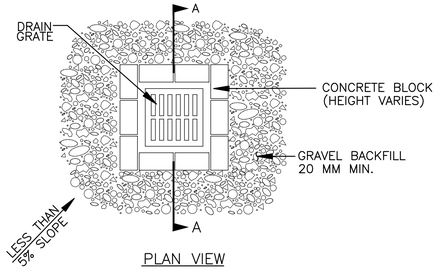
ISOMETRIC VIEW

EROSION BLANKETS & TURF REINFORCEMENT MATS SLOPE INSTALLATION

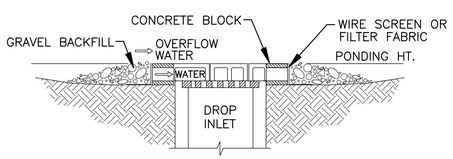
NOTES:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.

2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.

3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.



PLAN VIEW



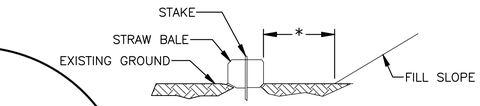
SECTION A–A

BLOCK AND GRAVEL DROP INLET SEDIMENT BARRIER

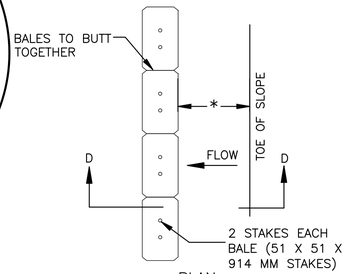
NOTES:
1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%)

2. EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.

3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

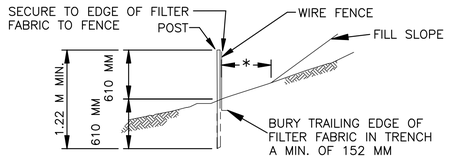


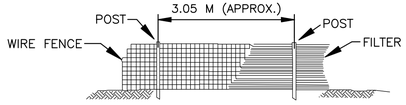
SECTION D–D
*SEE GENERAL NOTES.



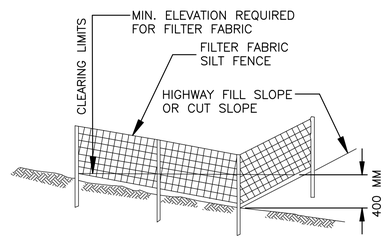
PLAN

STRAW BALE SILT BARRIER
*SEE GENERAL NOTES

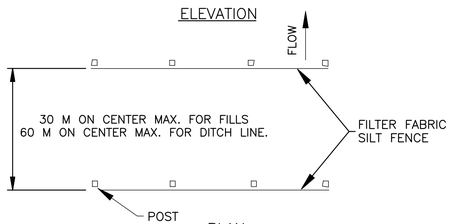




FILTER FABRIC SILT FENCE
* SEE GENERAL NOTES

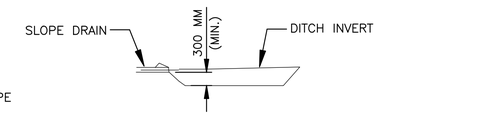


ELEVATION

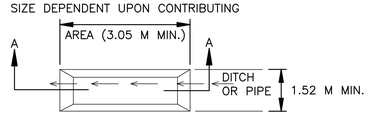


PLAN

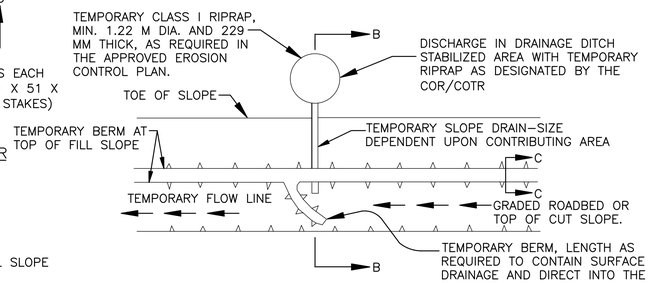
SILT FENCE EROSION CHECK



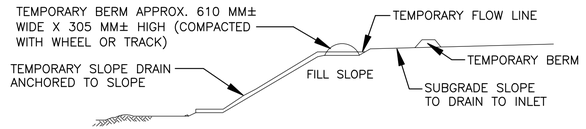
SECTION A–A
SIZE DEPENDENT UPON CONTRIBUTING



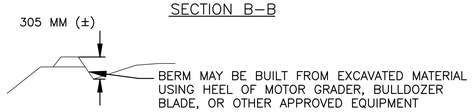
SEDIMENT TRAP
(TRAPS SHALL NOT FILL TO BEYOND ONE–HALF CAPACITY PRIOR TO CLEANING)



PLAN VIEW

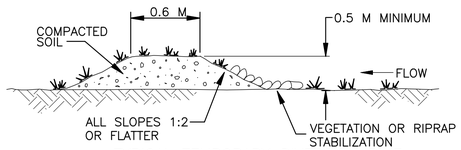


SECTION B–B

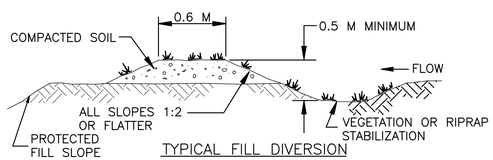


SECTION C–C

TEMPORARY SLOPE DRAIN, BERM. (FOR FILL AND CUT SLOPES)
[NOTES: TEMPORARY BERMS MAY ALSO BE CONSTRUCTED OF STRAW BALES SET 104–152 MM INTO GROUND.]



TYPICAL TEMPORARY DIVERSION DIKE
(FOR TOP OF CUT BACK SLOPES.)



TYPICAL FILL DIVERSION
TEMPORARY DIVERSION DIKE

NOTES:
1. THE CHANNEL BEHIND THE DIKE SHALL HAVE POSITIVE GRADE TO A STABILIZED OUTLET.

2. THE DIKE SHALL BE ADEQATELY COMPACTED TO PREVENT FAILURE.

3. THE DIKE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT SEEDING OR RIPRAP.

4. THE DIVERSION DIKE SHALL EXTEND TO THE BOTTOM OF CUT BACK SLOPE AND INTERCEPT THE CUT DITCH.

GENERAL NOTES

1. SEE SHEET 35 FOR ADDITIONAL NOTES AND DETAILS.

2. THE CONTRACTOR SHALL INSTALL GEOTEXTILE FABRIC, TYPE IV, AROUND CONCRETE STRUCTURE, AS FOLLOWS:

   A. CONSTRUCT FINISH GRADING AROUND STRUCTURE TO BE PLACED.
   B. CUT TRENCHES FOR FOOTING OF SLAB.
   C. INSTALL 1.22m OF GEOTEXTILE FABRIC ANCHORED ON FLOOR AND TOP ALONG THE CUT FACE OF TRENCH AS SHOWN
   D. PLACE CONCRETE FORMS, REINFORCEMENTS, AND SUBSEQUENT CONCRETE.

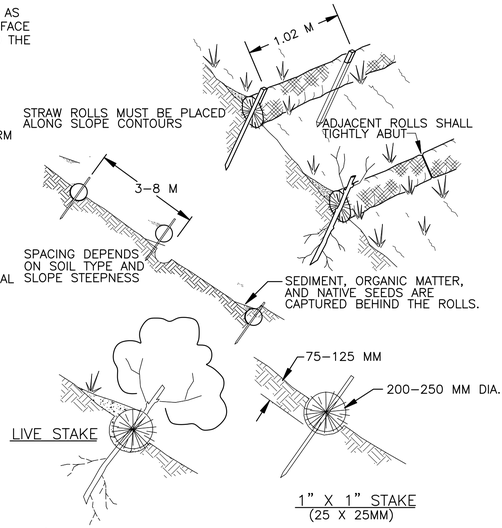
3. CONSTRUCT SEDIMENT BASINS AND TRAPS, EROSION CHECKS AND/OR FILTERS IN STRATEGIC LOCATIONS ON THE PROJECT TO FILTER STORM RUNOFF BEFORE IT LEAVES THE PROJECT CONSTRUCTION LIMITS OR ENTERS A STREAM AS SHOWN IN THE APPROVED SWPPP.

4. CLEAN ALL SEDIMENT BASINS AND TRAPS OF ACCUMULATED SEDIMENT WHEN HALF FULL OF SEDIMENT.

5. USE DRAIN PIPE, RIPRAP, GEOTEXTILE FABRIC, OR GRASS–LINED WATERWAY FOR TEMPORARY SLOPE DRAINS IT CHANNEL RUNOFF DOWN SLOPES, CHANNEL WATER INTO SLOPE DRAINS WITH STRAW BALES, WATTLES OR EARTH BERMS CONSTRUCTED AT THE TOP OF A CUT SLOPE. ANCHOR SLOPE DRAINS TO THE SLOPE.

6. THE CONTRACTOR SHALL ADJUST THE DIMENSIONS AND/OR LOCATIONS OF TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES TO FIT ACTUAL FIELD CONDITIONS.

7. REMOVE AND DISPOSE OF EROSION CONTROL MEASURES WHEN THE PERMANENT EROSION CONTROL MEASURES ARE SATISFACTORILY ESTABLISHED AND DRAINAGE DITCHES AND CHANNELS ARE LINED AND STABILIZED, AS CALLED FOR IN THERE PLANS AND IN ACCORDANCE WITH SECTION 157 OF FP–14.



1" X 1" STAKE
(25 X 25MM)

NOTES:
1.STRAW ROLL INSTALLATION REQUIRED THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 75–125 mm DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

STRAW ROLLS

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/9/26

REVISION	BY	DATE

NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

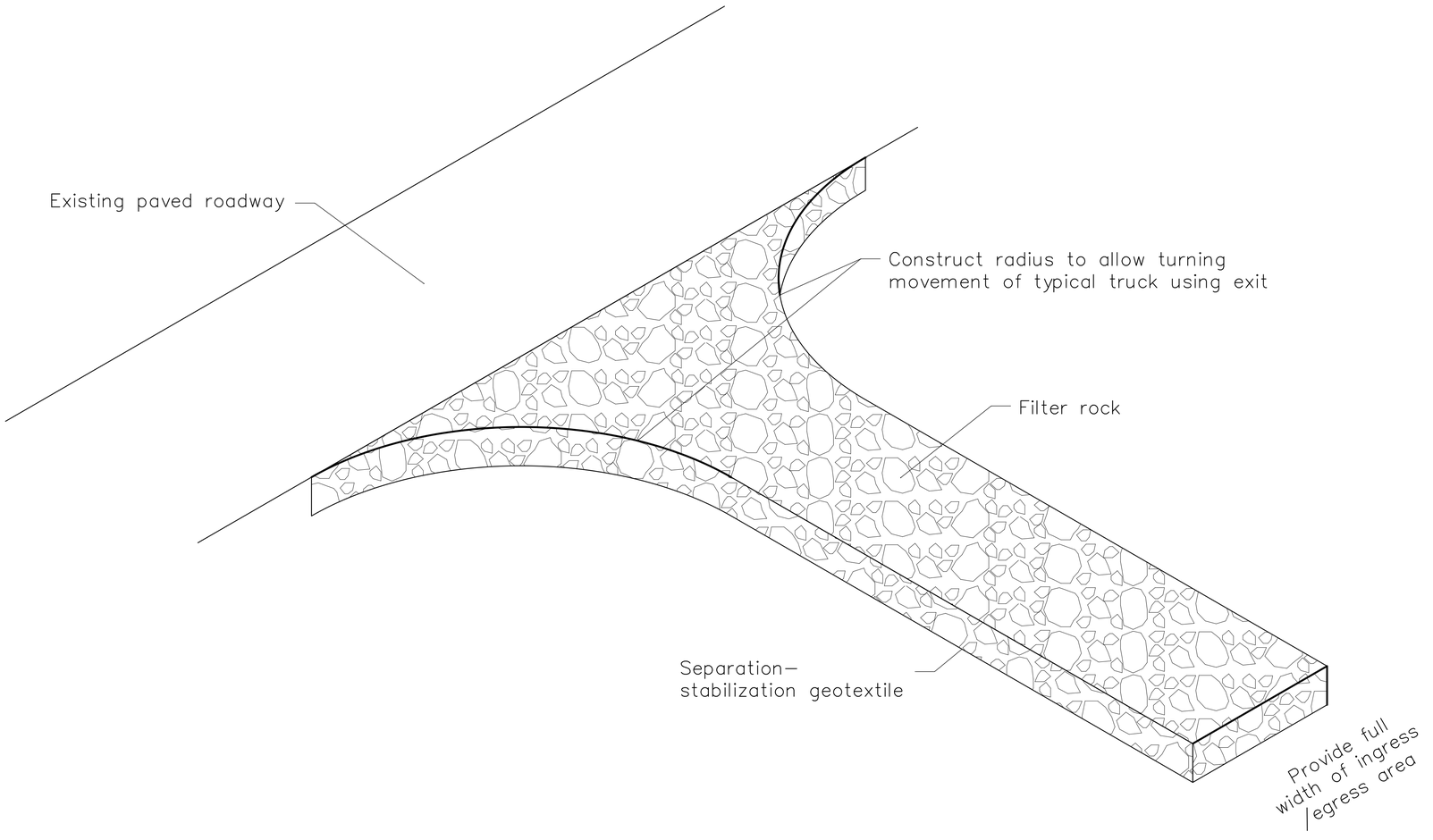
N15(2-3) CORNFIELDS TO BURNSIDE

EROSION CONTROL DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	E3	105 OF 116
SCALE: N/A			

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STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	107



NO SCALE

STABILIZED CONSTRUCTION EXIT

NOTE:

1. Use this entrance for construction vehicles only.
2. Construct drainage ditches along entrance as directed.
   Provide temporary drainage culvert where entrance crosses existing drainage ditches.
3. Minimize tracking onto paved roadway by removing built up sediment.
4. Adjust length to fit field conditions as approved.

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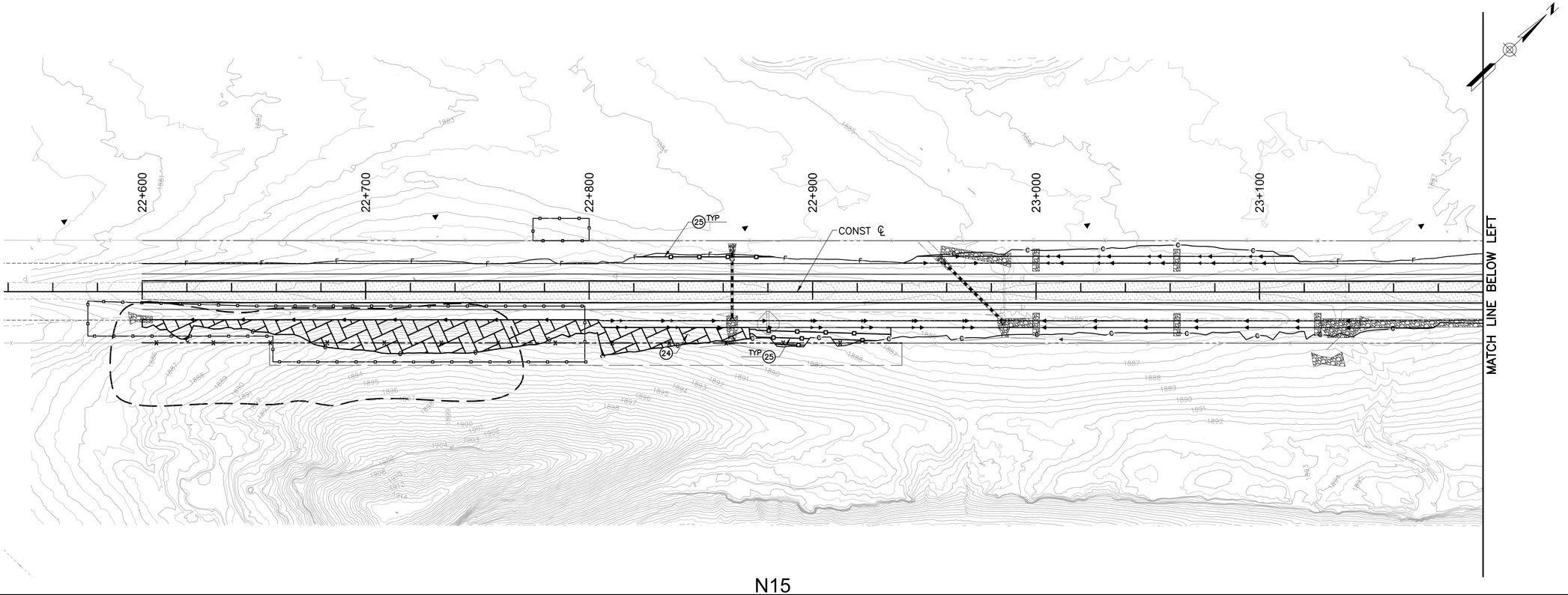
NAVAJO NATION
DIVISION OF TRANSPORTATION

N15(2-3) CORNFIELDS TO BURNSIDE

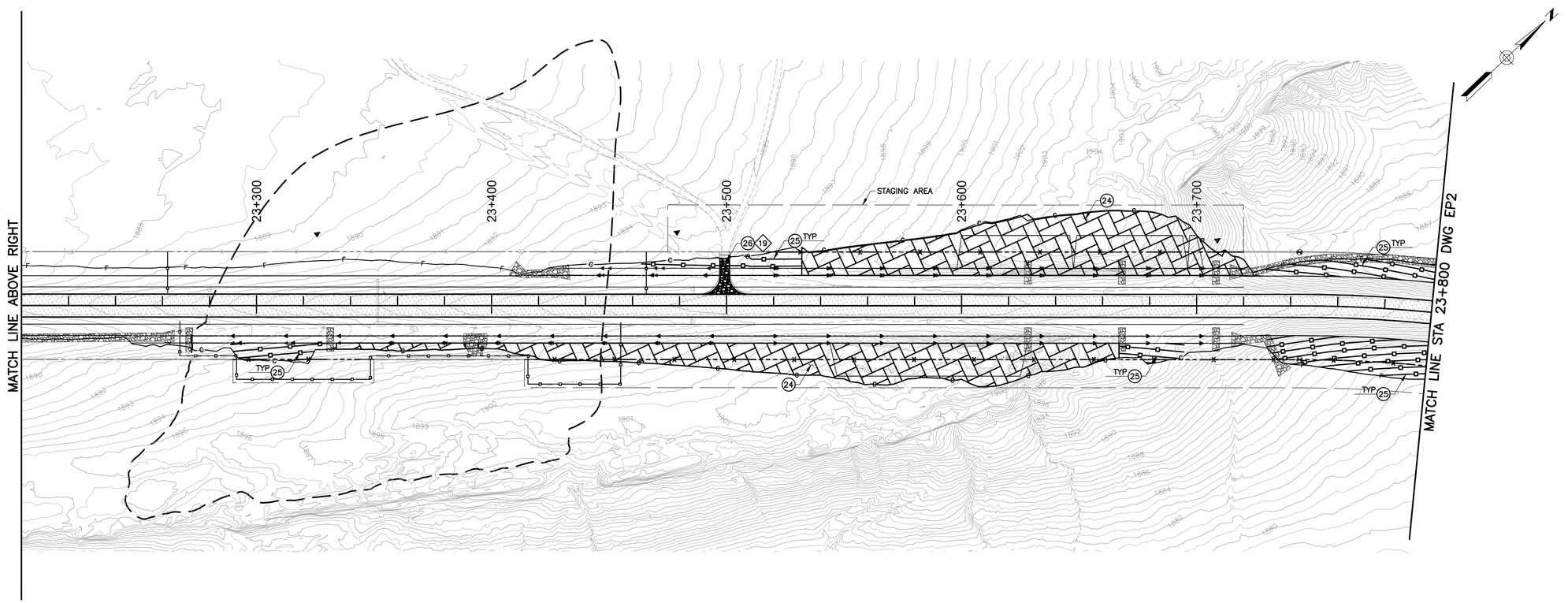
EROSION CONTROL DETAILS

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	E5	107 OF 116
SCALE: N/A			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

CONSTRUCTION NOTES

24 ROLLED EROSION CONTROL PRODUCT, TYPE 5.A

25 SOIL EROSION CONTROL, FIBER ROLL

26 SOIL EROSION CONTROL, STABILIZED CONSTRUCTION EXIT

NOTES

19 REFER TO DWG E1 FOR EXIT DIMENSIONS

0 20 40 60 80 100
METERS

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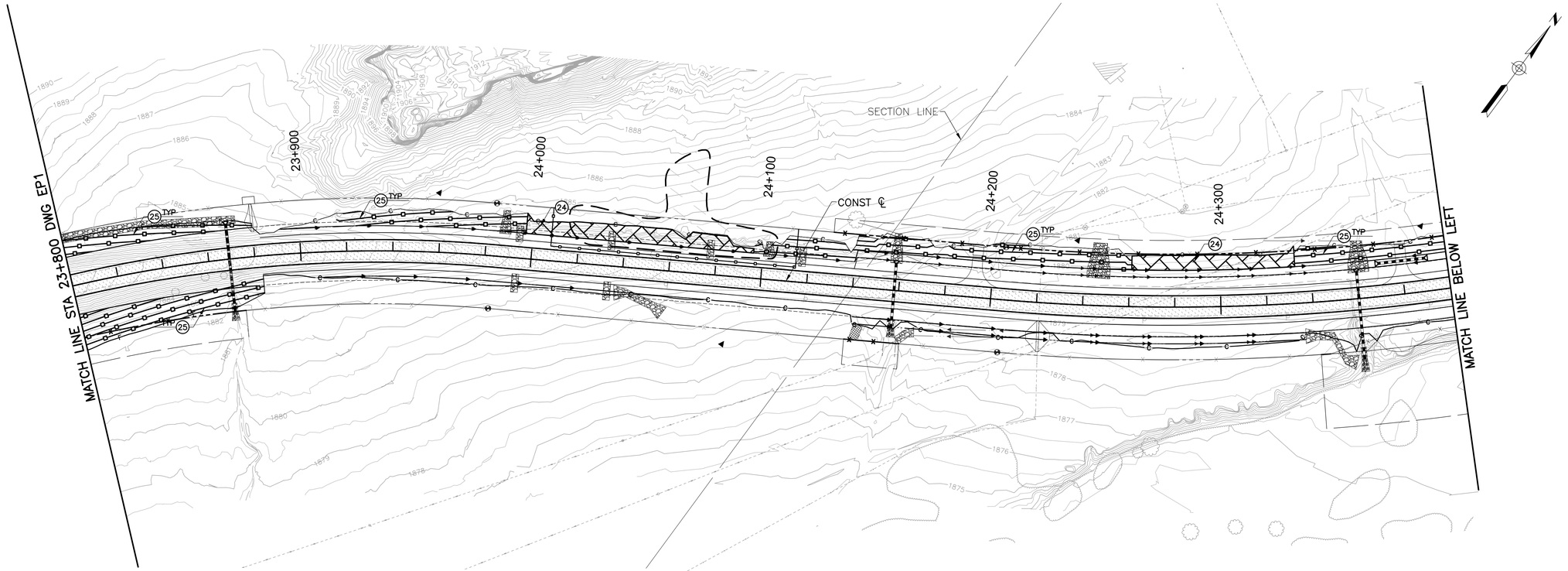
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N15(2-3) CORNFIELDS TO BURNSIDE

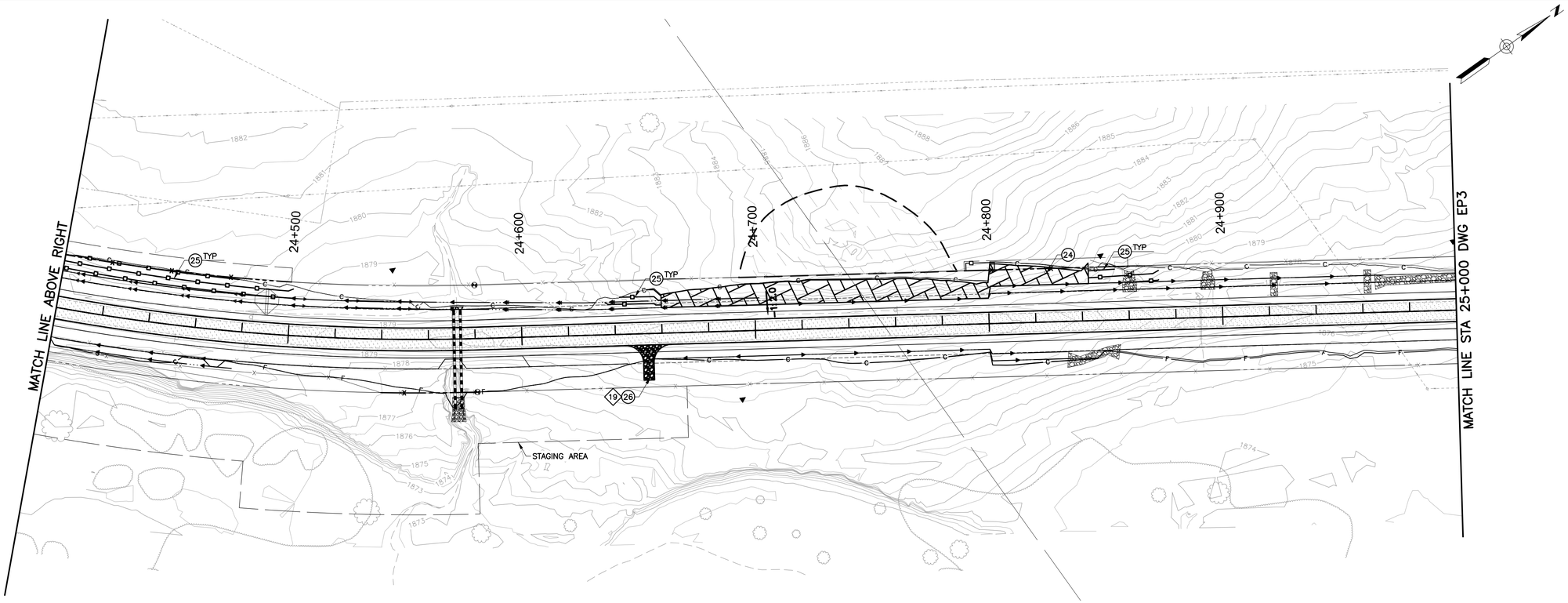
EROSION CONTROL EROSION CONTROL PLAN
STA 22+600 TO STA 23+800

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	EP1	108 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

CONSTRUCTION NOTES

(24) ROLLED EROSION CONTROL PRODUCT, TYPE 5.A

(25) SOIL EROSION CONTROL, FIBER ROLL

(26) SOIL EROSION CONTROL, STABILIZED CONSTRUCTION EXIT

NOTES

(19) REFER TO DWG E1 FOR EXIT DIMENSIONS

0 20 40 60 80 100
METERS

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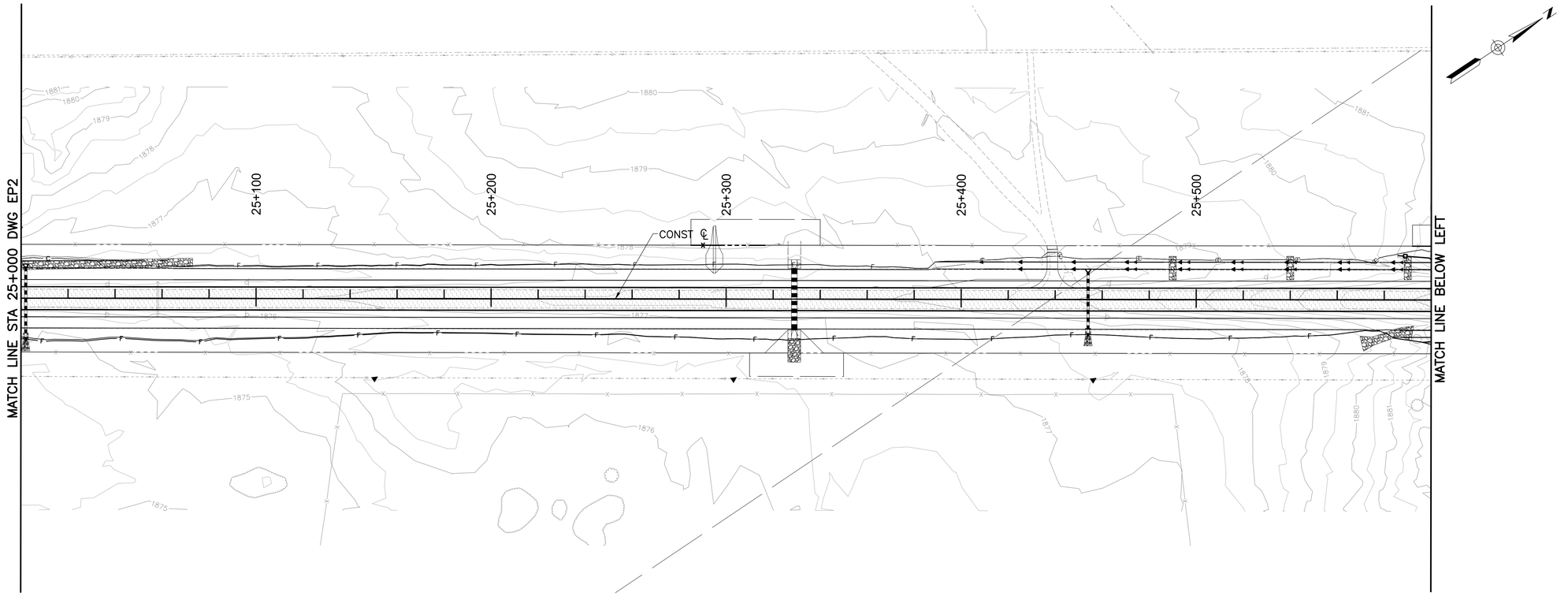
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N15(2-3) CORNFIELDS TO BURNSIDE

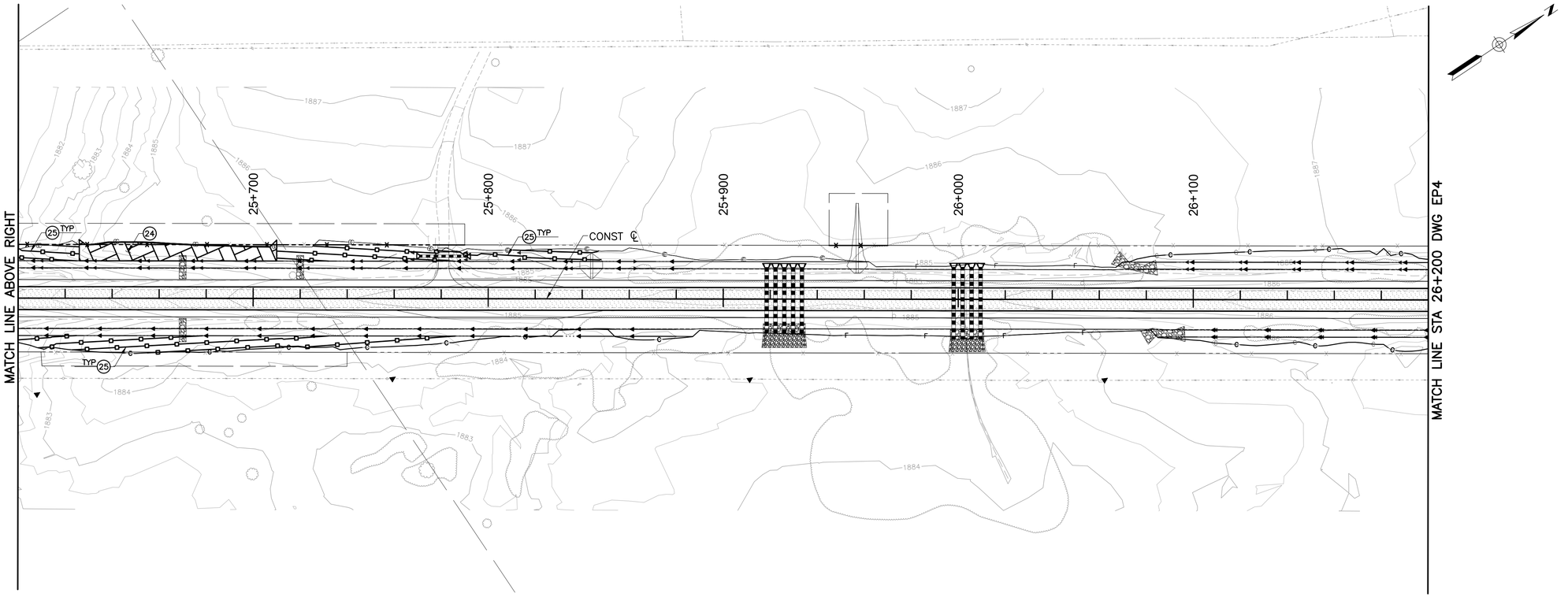
EROSION CONTROL EROSION CONTROL PLAN
STA 23+800 TO STA 25+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	EP2	109 OF 116
SCALE: 1:1000			

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N15



STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

CONSTRUCTION NOTES

(24) ROLLED EROSION CONTROL PRODUCT, TYPE 5.A

(25) SOIL EROSION CONTROL, FIBER ROLL

0 20 40 60 80 100
METERS

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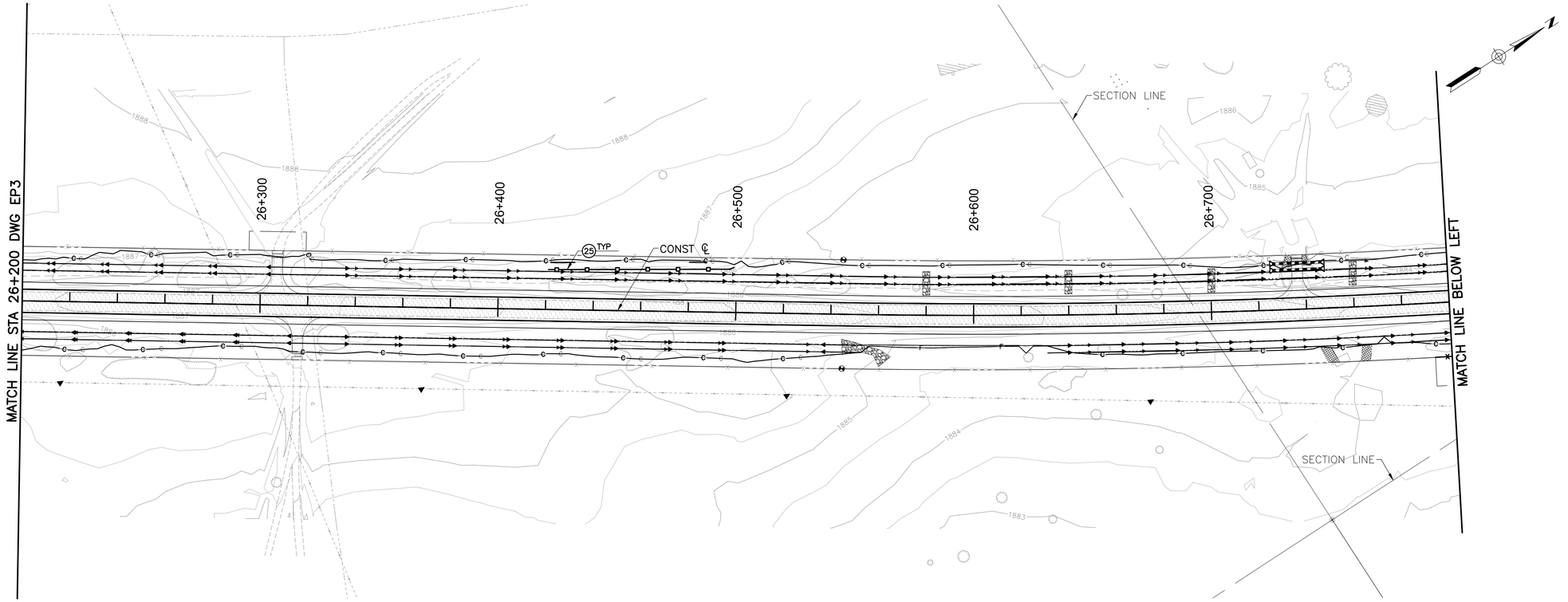
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N15(2-3) CORNFIELDS TO BURNSIDE

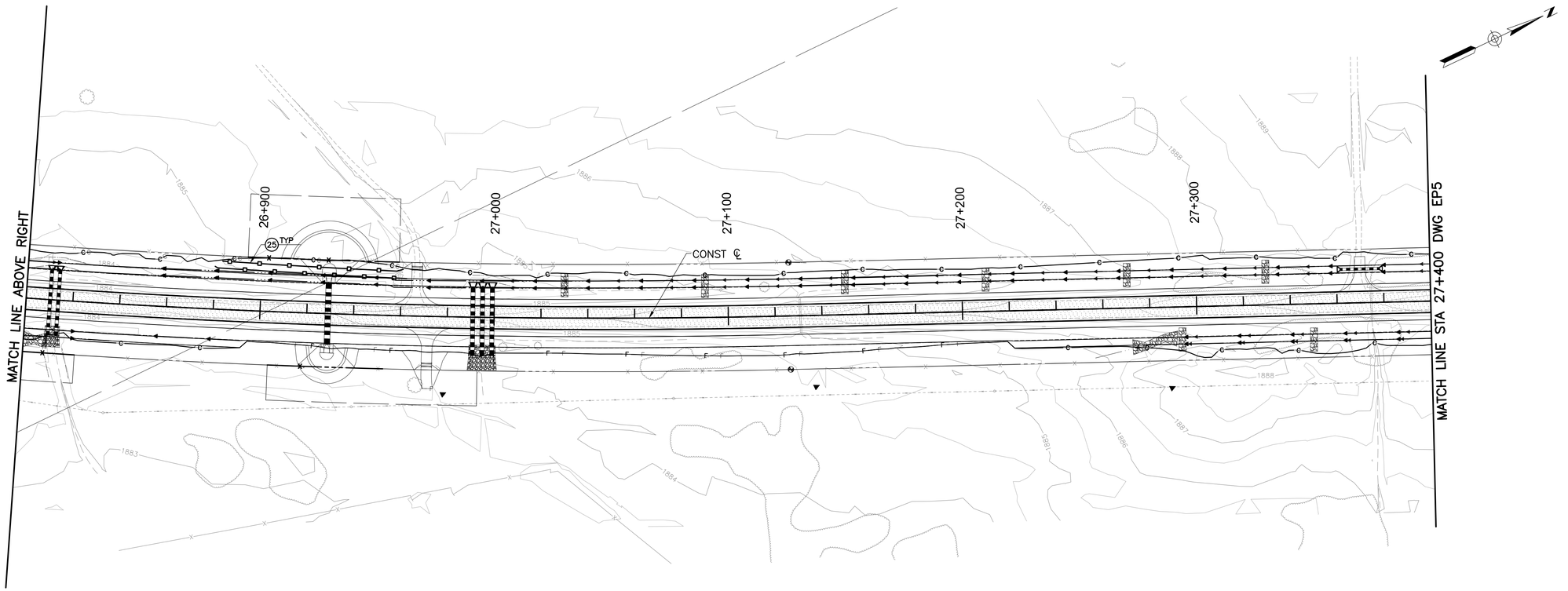
EROSION CONTROL EROSION CONTROL PLAN
STA 25+000 TO STA 26+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	EP3	110 OF 116
SCALE: 1:1000			

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N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

CONSTRUCTION NOTES

(25) SOIL EROSION CONTROL, FIBER ROLL

0 20 40 60 80 100
METERS

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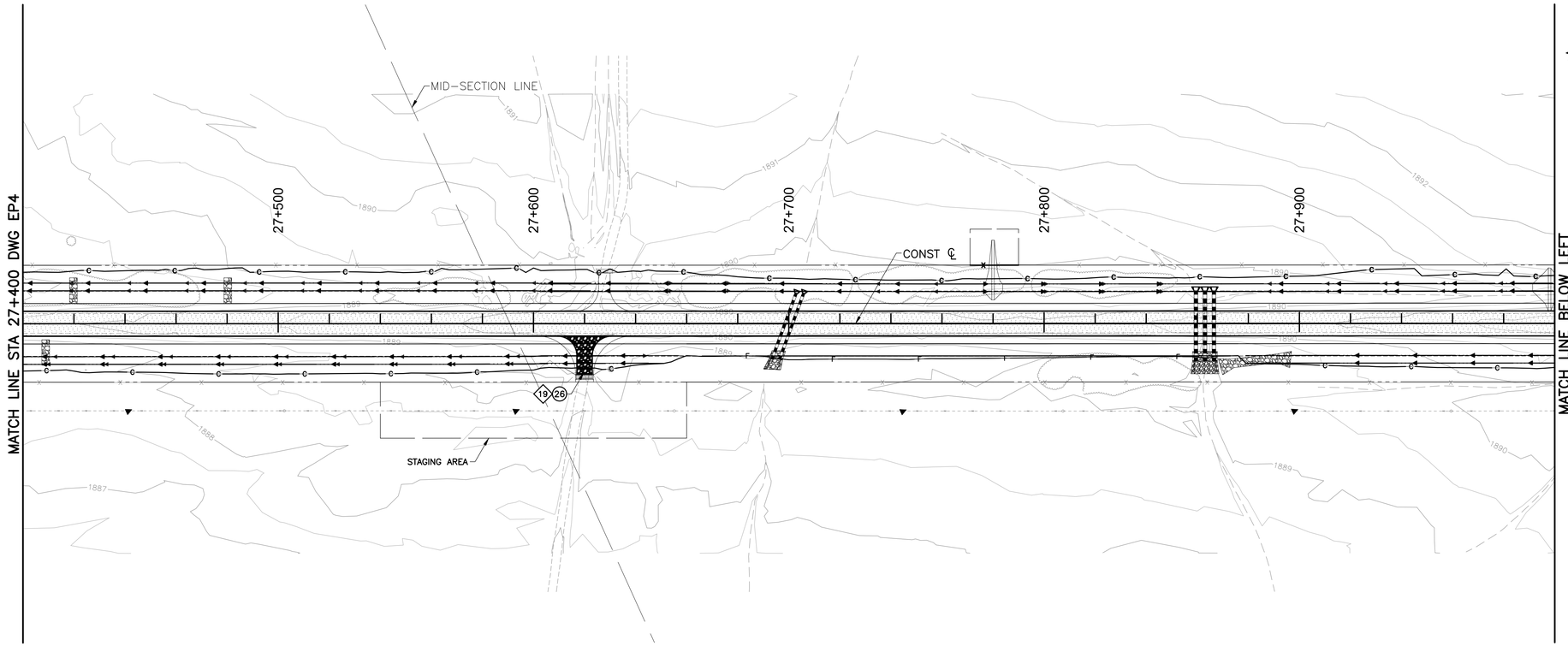
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N15(2-3) CORNFIELDS TO BURNSIDE

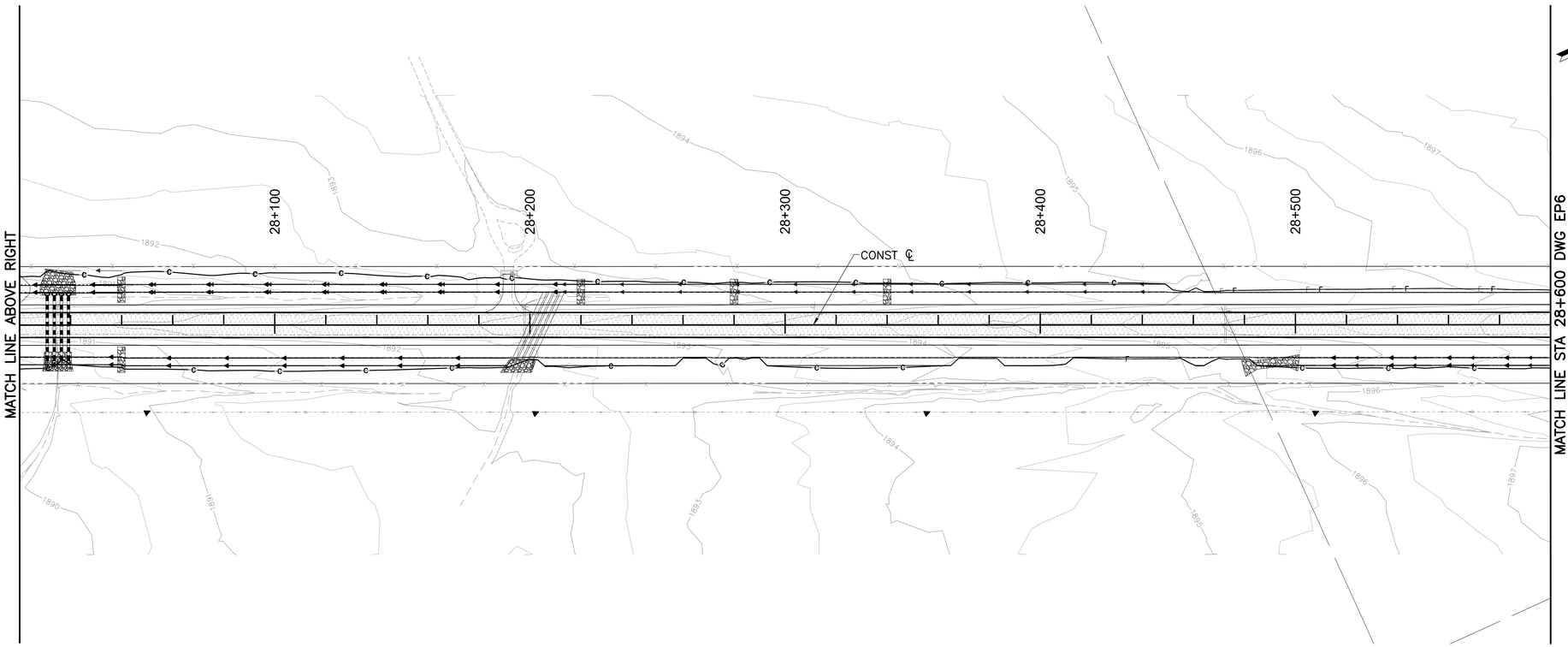
EROSION CONTROL EROSION CONTROL PLAN
STA 26+200 TO STA 27+400

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	EP4	111 OF 116
SCALE: 1:1000			

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N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

CONSTRUCTION NOTES

(26) SOIL EROSION CONTROL, STABILIZED CONSTRUCTION EXIT

NOTES

(19) REFER TO DWG E1 FOR EXIT DIMENSIONS

0 20 40 60 80 100
METERS

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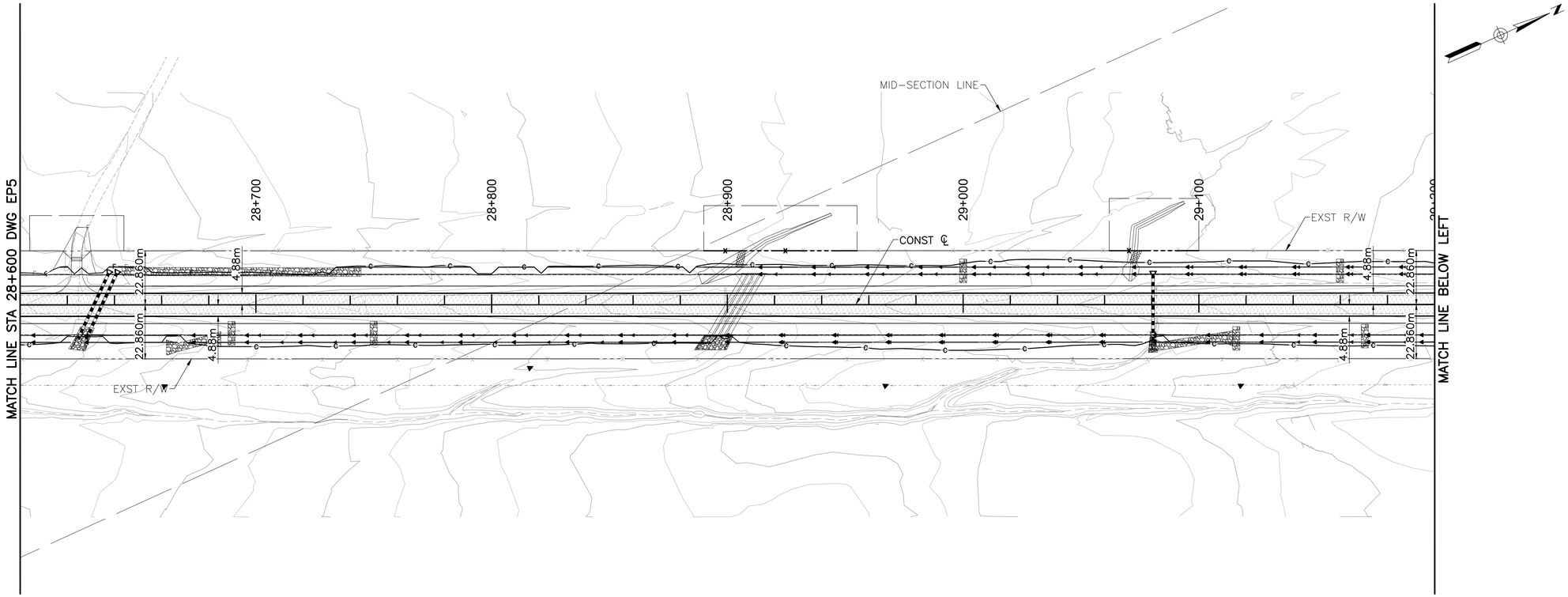
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N15(2-3) CORNFIELDS TO BURNSIDE

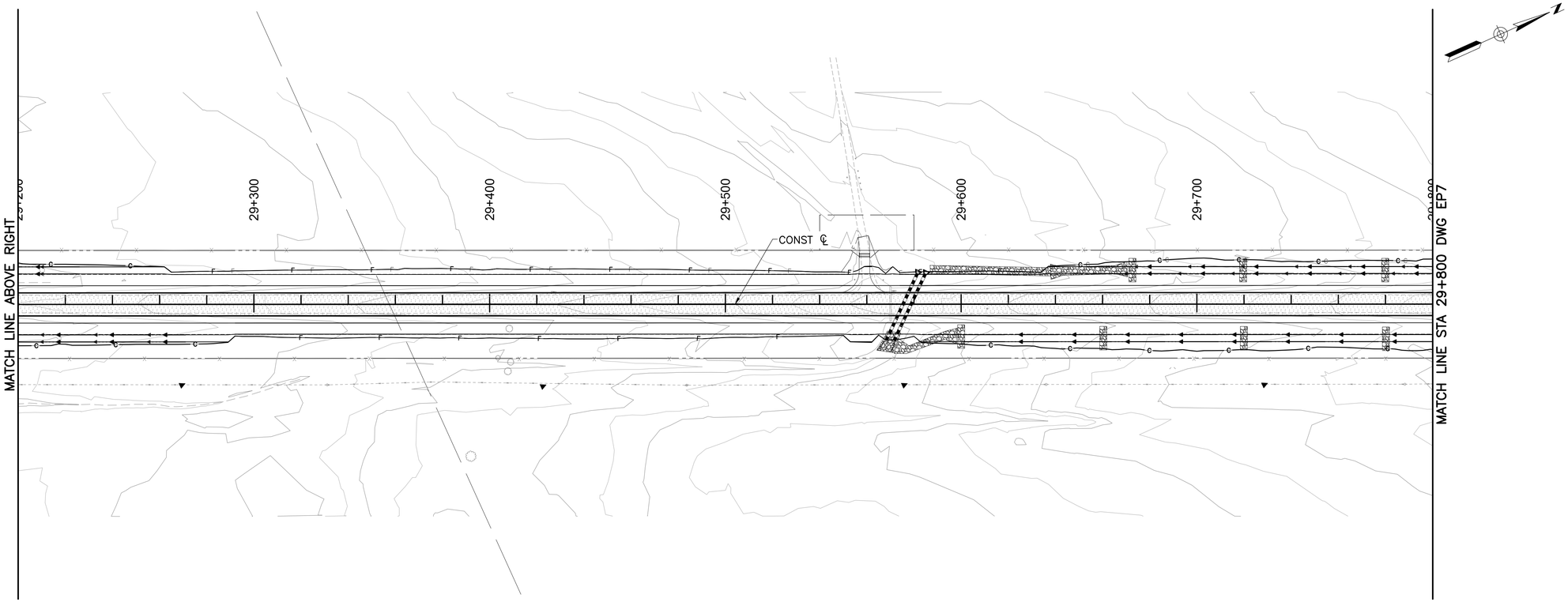
EROSION CONTROL EROSION CONTROL PLAN
STA 27+400 TO STA 28+600

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	EP5	112 OF 116
SCALE: 1:1000			

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N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

0 20 40 60 80 100
METERS

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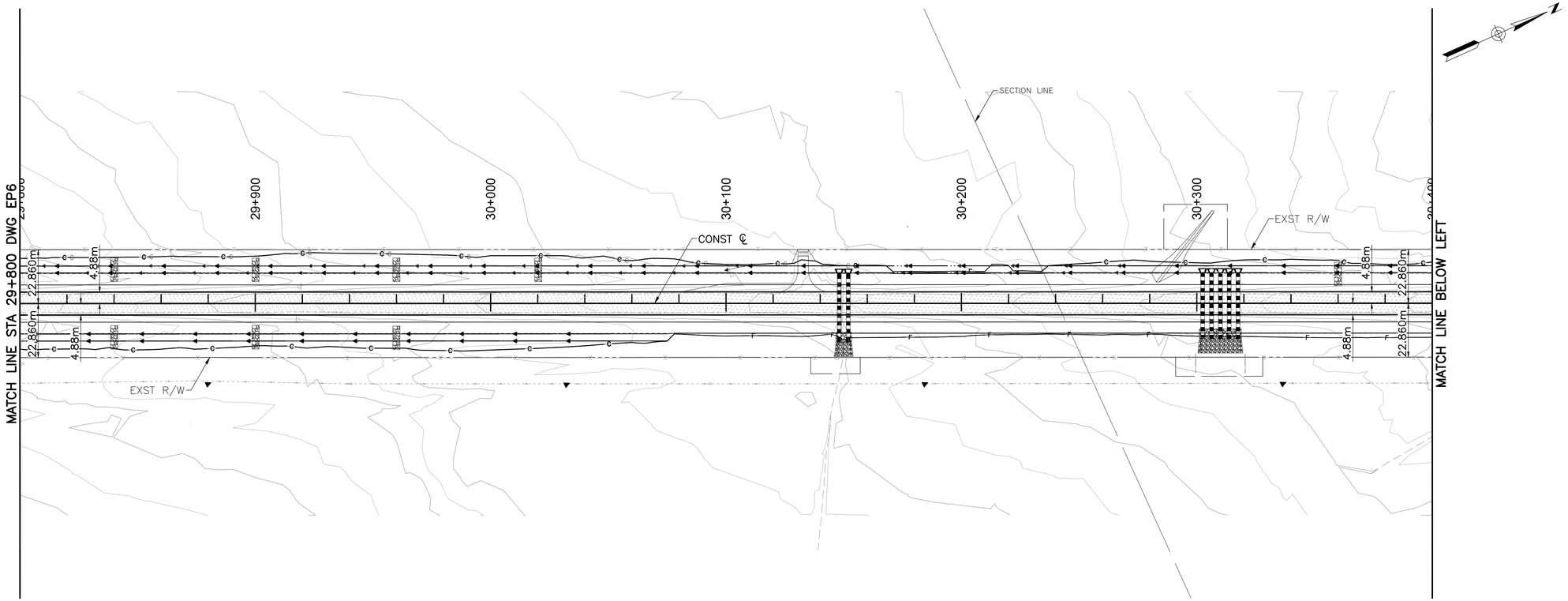
NAVAJO NATION
DIVISION OF TRANSPORTATION

N15(2-3) CORNFIELDS TO BURNSIDE

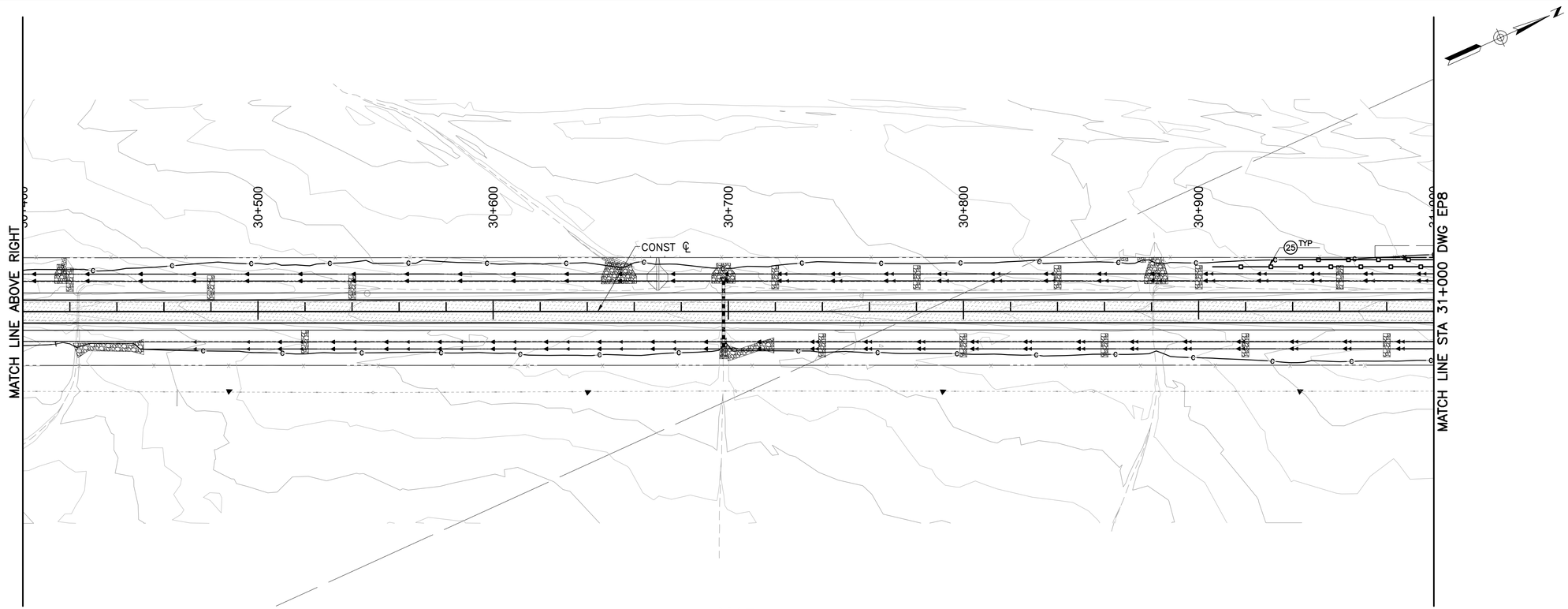
EROSION CONTROL EROSION CONTROL PLAN
STA 28+600 TO STA 29+800

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	EP6	113 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

CONSTRUCTION NOTES

(25) SOIL EROSION CONTROL, FIBER ROLL

0 20 40 60 80 100
METERS

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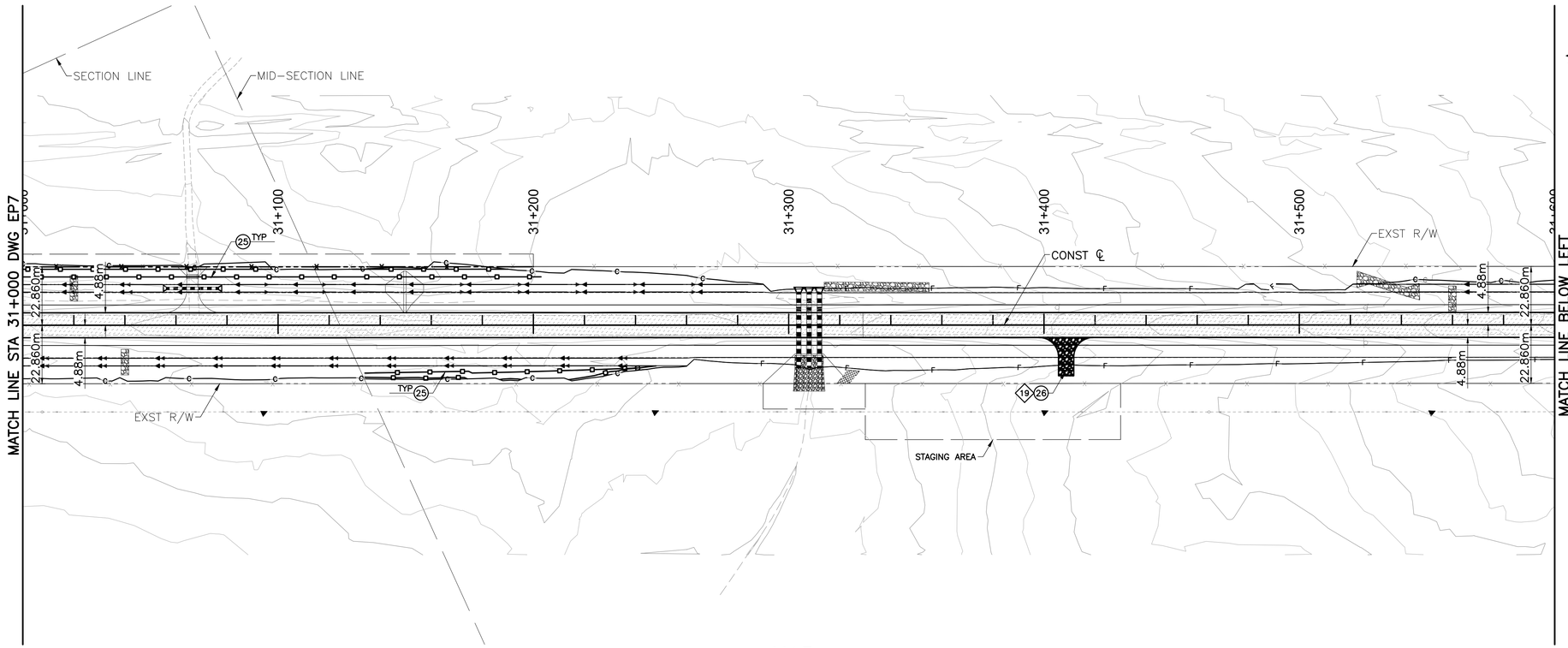
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N15(2-3) CORNFIELDS TO BURNSIDE

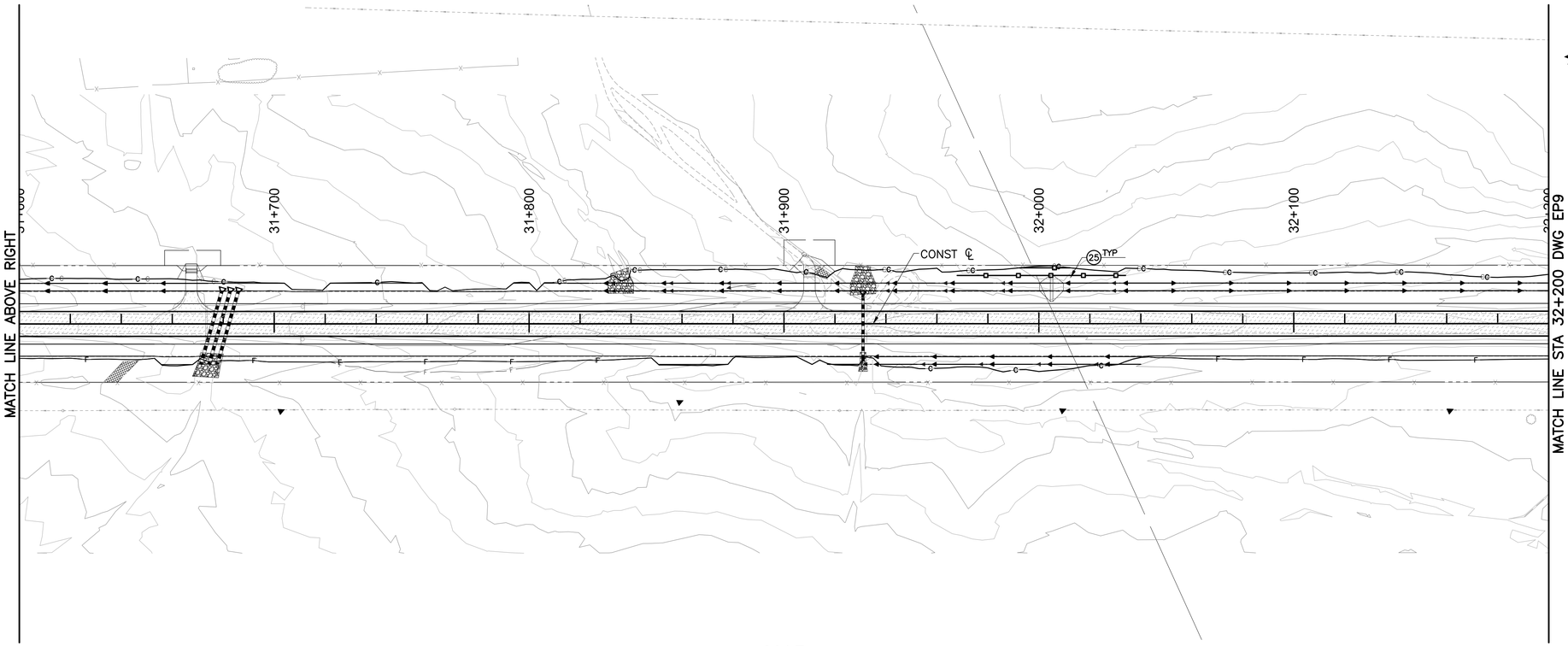
EROSION CONTROL EROSION CONTROL PLAN
STA 29+800 TO STA 31+000

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	EP7	114 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

CONSTRUCTION NOTES

25 SOIL EROSION CONTROL, FIBER ROLL

26 SOIL EROSION CONTROL, STABILIZED CONSTRUCTION EXIT

NOTES

19 REFER TO DWG E1 FOR EXIT DIMENSIONS

0 20 40 60 80 100
METERS

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	REVISION	BY	DATE

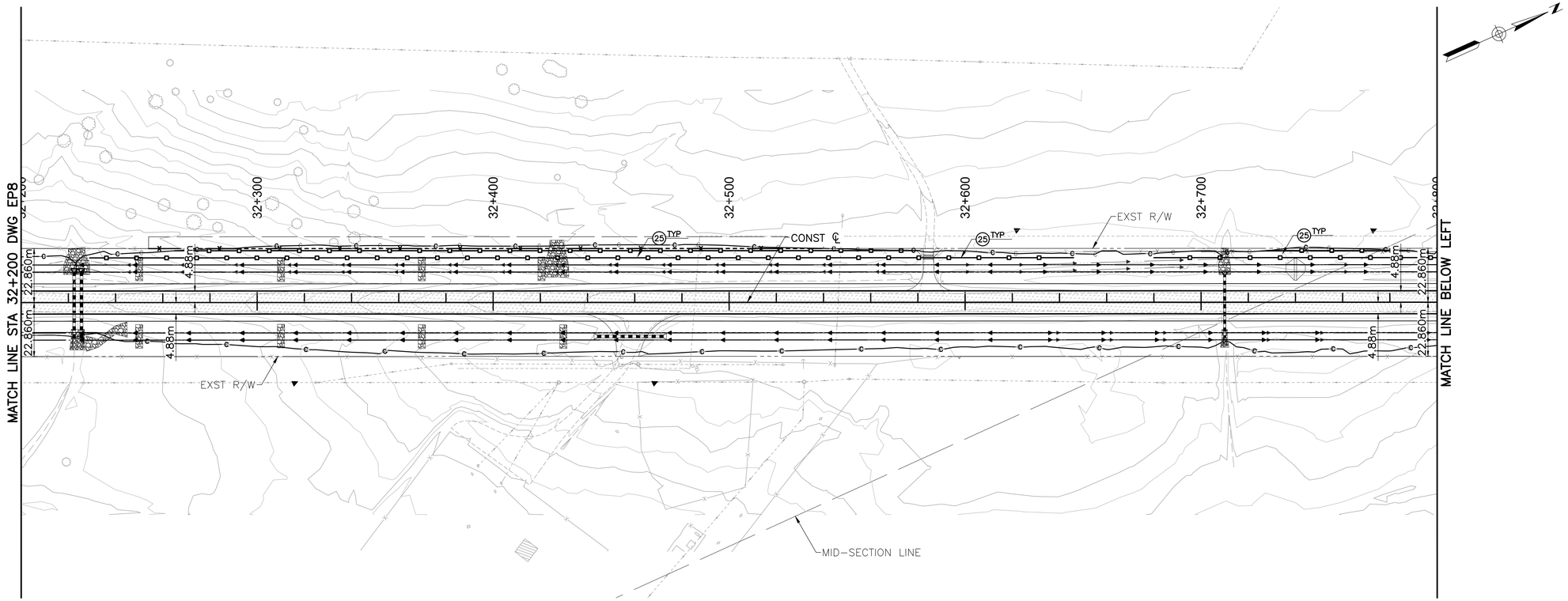
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NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

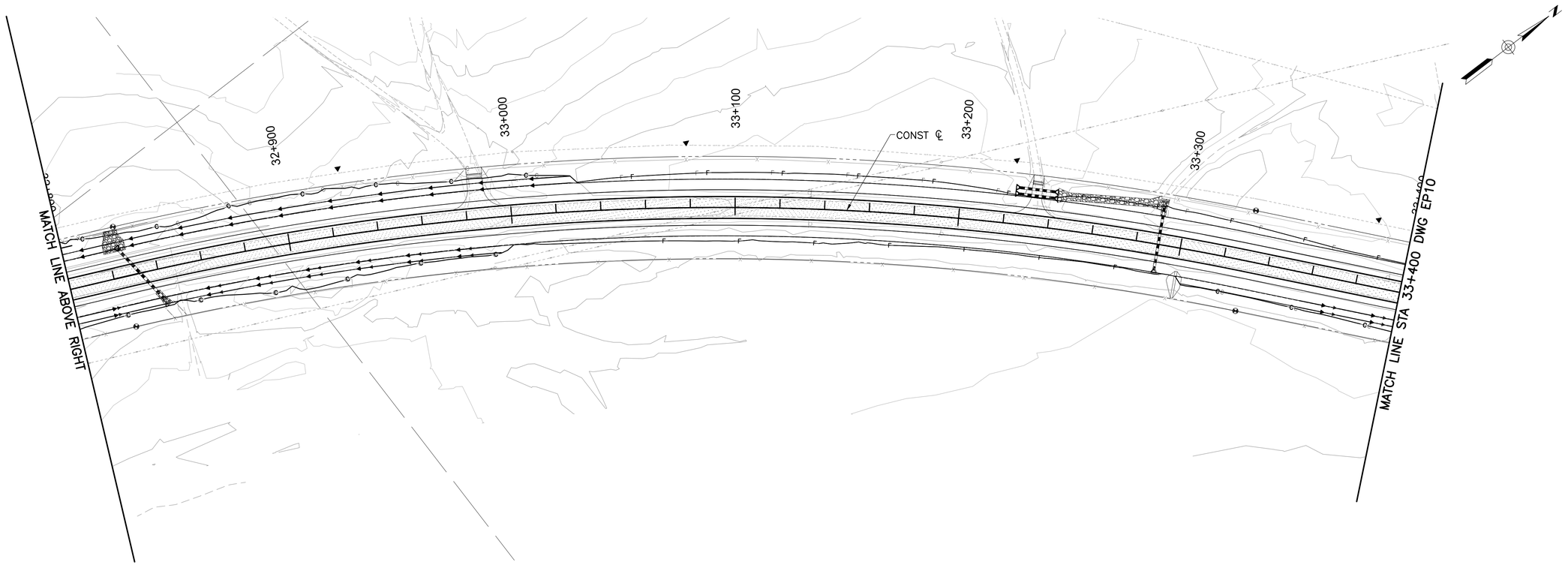
EROSION CONTROL EROSION CONTROL PLAN
STA 31+000 TO STA 32+200

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	EP8	115 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

CONSTRUCTION NOTES

(25) SOIL EROSION CONTROL, FIBER ROLL

0 20 40 60 80 100
METERS

Contact Arizona 811 at least two full working days before you begin excavation.
Arizona811
Call 811 or click Arizona811.com

DIBBLE
3020 E. CAMELBACK ROAD
SUITE 201
PHOENIX, AZ 85016
602.957.1155

Registered Professional Engineer (Civil) CERTIFICATE NO. 25015 ANDREW JOHN SPEAR Date Signed 6/13/26

	REVISION	BY	DATE

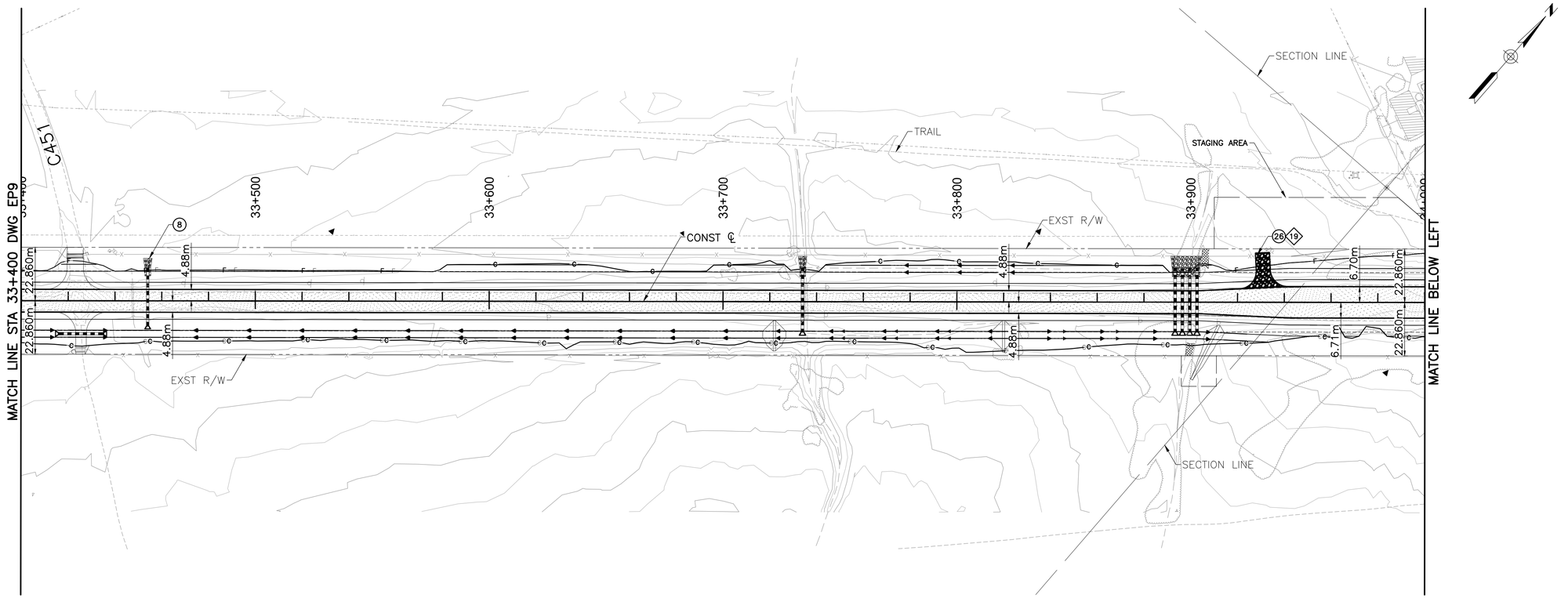
NAVAJO NATION
DIVISION OF TRANSPORTATION
NAVAJO D.O.T.

N15(2-3) CORNFIELDS TO BURNSIDE

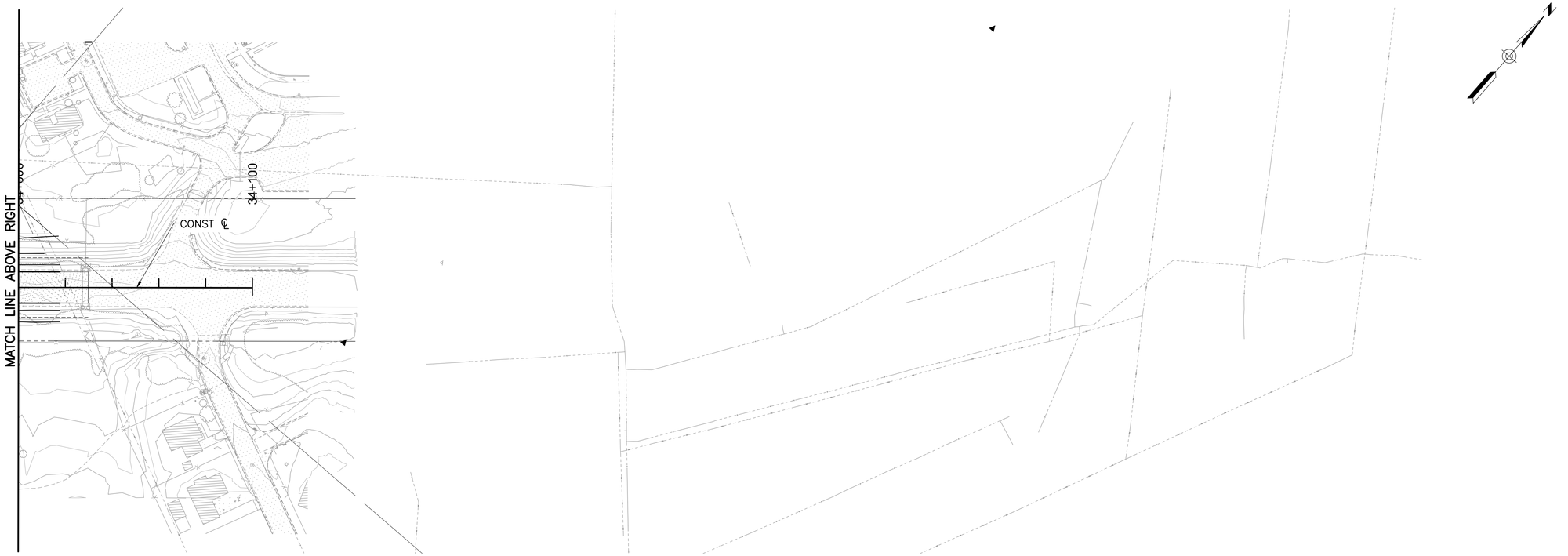
EROSION CONTROL EROSION CONTROL PLAN
STA 32+200 TO STA 33+400

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26		
ASBUILT BY:	DATE:	EP9	116 OF 116
SCALE: 1:1000			

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N15



N15

STATE	PROJECT	SHEET NUMBER
AZ	N15(2-3) CORNFIELDS TO BURNSIDE	·

CONSTRUCTION NOTES

26 SOIL EROSION CONTROL, STABILIZED CONSTRUCTION EXIT

NOTES

19 REFER TO DWG E1 FOR EXIT DIMENSIONS

0 20 40 60 80 100
METERS

Contact Arizona 811 at least two full working days before you begin excavation.
ARIZONA811
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Registered Professional Engineer (Civil)
CERTIFICATE NO.
25015
ANDREW JOHN SPEAR
Date signed 6/13/26
ARIZONA U.S.A.

	REVISION	BY	DATE

NAVAJO D.O.T.
NAVAJO NATION
DIVISION OF TRANSPORTATION

N15(2-3) CORNFIELDS TO BURNSIDE

EROSION CONTROL EROSION CONTROL PLAN
STA 33+400 TO STA 34+100

PROJECT MANAGER: AJS	DATE: 6/26	DRAWING	SHEET
LEAD DESIGNER: DFJ	DATE: 6/26	EP10	117 OF 116
ASBUILT BY:	DATE:		
SCALE: 1:1000			

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