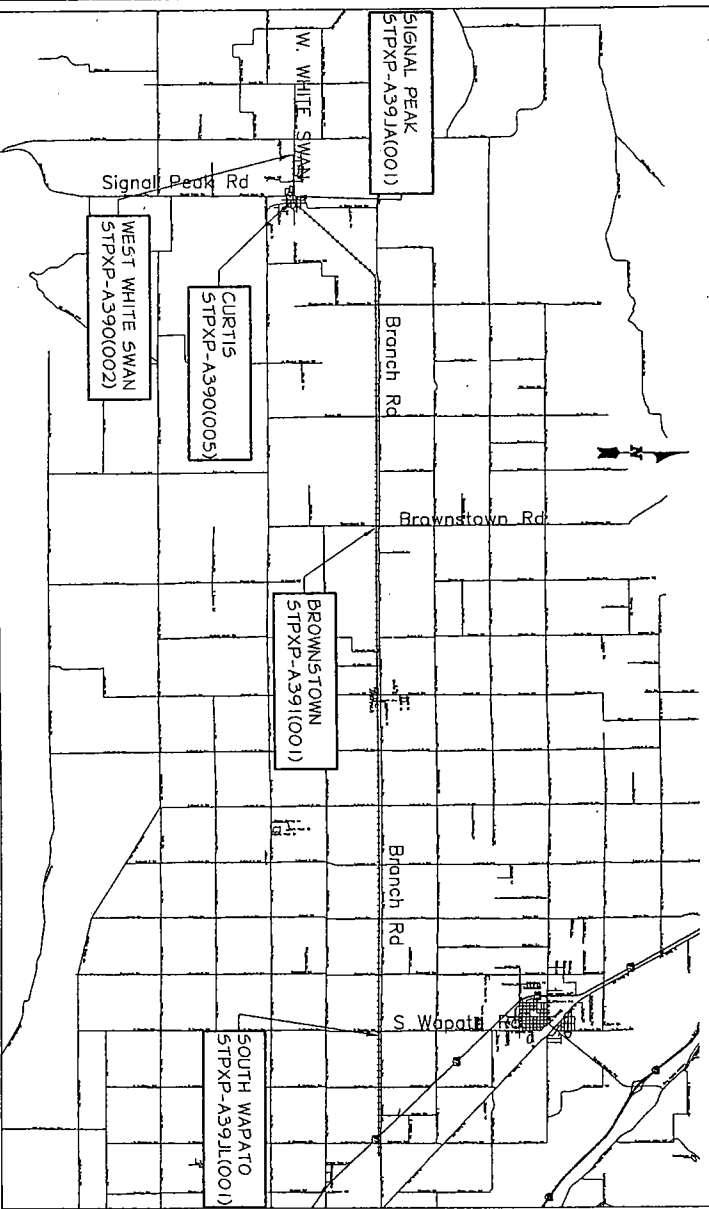


VICINITY MAP



TSWR GRADE CROSSING IMPROVEMENT PROJECT

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			EQUIP. LAYOUT FOR SAFETRAN 6'-9" ALUM. CASE: WHITE SWAN

TS 3104 - South Wapato Road
Federal Aid No.: STPXP-391L(001)

TS 3105 - Brownstown Road
Federal Aid No.: STPXP-A391(001)

TS 3106 - Curtis Street
Federal Aid No.: STPXP-A390(005)

TS 3107 - Signal Peak Road
Federal Aid No.: STPXP-391A(001)

TS 3108 - West White Swan Road
Federal Aid No.: STPXP-S390(002)

YAKIMA COUNTY PUBLIC WORKS
DEPARTMENT

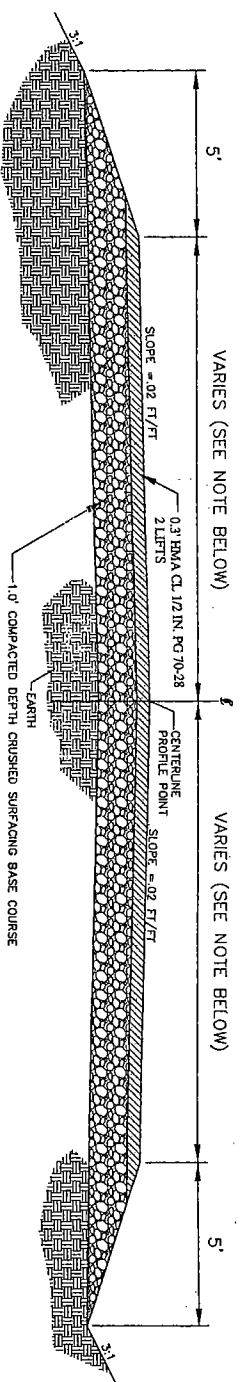
VERN M. REDIFER, P.E.
DIRECTOR/COUNTY ENGINEER

GARY EKSTEDT, P.E.
ASSISTANT DIRECTOR

APPROVED FOR CONSTRUCTION

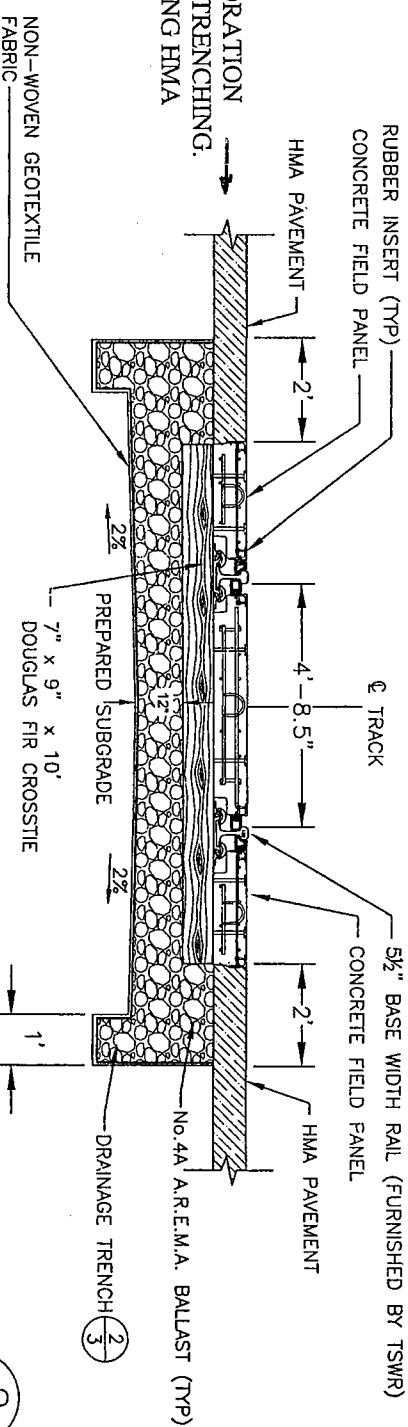
BY *[Signature]* 7-16-04
DATE

CONDUIT IN HMA PAVEMENT RESTORATION
AREA MAY BE INSTALLED BY OPEN TRENCHING.
CONDUIT INSTALLED UNDER EXISTING HMA
PAVEMENT SHALL BE PUSHED.



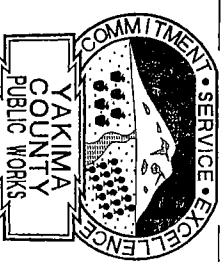
- NOTES:
1. FOR PEDESTRIAN PATH AT SIGNAL PEAK - MATCH EXISTING PAVEMENT AND TAPER TO 6' AT CROSSING AND CRUSHED SURFACING DEPTH TO BE 0.25'
 2. FOR SO. WAPATO, CURTIS AND SIGNAL PEAK - MATCH EXISTING PAVEMENT AND TAPER TO 14' AT CROSSING
 3. FOR BROWNSTOWN - MATCH EXISTING PAVEMENT AND WIDEN TO 14' AT 10' FROM MATCH, EACH END

TYPICAL PAVEMENT RESTORATION SECTION 1



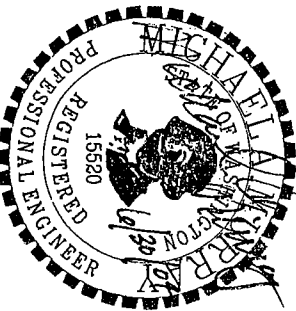
TYPICAL CONCRETE CROSSING SECTION 2

DESIGN RESERVATION- THE EXTENT OF RAIL RELATED IMPROVEMENTS HAS BEEN RESTRICTED BY PROJECT FUNDING ELIGIBILITY AND AS A RESULT THE DESIGN OF THE RAIL APPROACHING EACH NEW CONCRETE CROSSING COULD NOT BE UPGRADED TO 136RE RAIL AS RECOMMENDED BY HDR ENGINEERING.



TSWR GRADE CROSSINGS IMPROVEMENT PROJECT

PREPARED BY HDR ENGINEERING, INC.



EXPIRES: 06/21/04

RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

COVER SHEET

SHEET 1 OF 39

GENERAL NOTES

1. ALL TRACK WORK REQUIREMENTS SHOWN ON THESE DRAWINGS AND NOT OTHERWISE DETAILED SHALL BE ACCOMPLISHED AS SPECIFIED IN THE 2003 AMERICAN RAILWAY ENGINEERING & MAINTENANCE OF WAY ASSOCIATION (AREMA) PORTFOLIO OF TRACKWORK PLANS AND AREMA MANUAL FOR RAILWAY ENGINEERING. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE 2004 EDITION OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (ENGLISH EDITION).
2. CONTRACTOR SHALL MAINTAIN EXISTING SURVEY CONTROL POINTS AND BENCH MARKS. SURVEY POINTS OR BENCH MARKS DAMAGED OR REMOVED BY CONTRACTOR SHALL BE RESTORED BY A REGISTERED LAND SURVEYOR AT CONTRACTORS EXPENSE.
3. ALL EXISTING BONDED RAIL AFFECTED BY CONSTRUCTION SHALL BE PROTECTED AND RETURNED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UTILITIES OF EVERY NATURE TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR WILL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF AND LOSS OF SERVICE COSTS AND UTILITIES DAMAGED BY THEIR CONSTRUCTION OPERATIONS. CALL 1-800-424-5555 A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO COMMENCING ANY EXCAVATION ACTIVITY.
5. THE CONTRACTOR SHALL RESTORE ALL EXISTING FACILITIES AND ITEMS DISTURBED IN THE COURSE OF CONSTRUCTION TO A CONDITION EQUAL OR BETTER THAN EXISTING.
6. CONTRACTOR STORAGE, PARKING, AND SERVICE AREA(S) WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER
7. AT ALL TIE-INS TO EXISTING TRACK, THE CONTRACTOR SHALL PROVIDE A SMOOTH PROFILE WITHOUT SHARP GRADE BREAKS.
8. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES BETWEEN JOB CONDITIONS AND INFORMATION INCLUDED ON THESE DRAWINGS.
9. THE TRACK PROFILES AND ALL ELEVATIONS LISTED IN THE PROFILES REFER TO TOP OF RAIL, UNLESS OTHERWISE NOTED.
10. COORDINATES INDICATED ON THE DRAWINGS ARE ACTUAL GROUND DISTANCES.
11. WORK PERFORMED WITHIN THE CLEARANCE ENVELOPE, DEFINED AS EXTENDING 10' HORIZONTALLY FROM THE CENTERLINE OF EXISTING TRACK, SHALL BE PERFORMED UNDER FLAG PROTECTION AS PROVIDED BY THE TOPPENISH SIMCOE & WESTERN RAILROAD UNLESS OTHER SAFETY PROVISIONS ARE ESTABLISHED BY THE ENGINEER.
12. THE CONTRACTOR SHALL ADHERE TO THE THE MINIMUM SAFETY REQUIREMENTS FOR CONTRACTORS WORKING ON OR ADJACENT TO TSWR TRACK, AS PROVIDED IN "RULES GOVERNING CONTRACTORS OF OTHERS WORKING ON RAILROAD PROPERTY". THIS DOCUMENT IS INCLUDED IN THE SPECIAL PROVISIONS. IN ADDITION, THE CONTRACTOR'S EMPLOYEES WHO ARE WORKING ON OR NEAR TSWR TRACK MUST BE SAFETY QUALIFIED BY THE TSWR PRIOR TO THE START OF WORK.
13. THE CONTRACTOR SHALL BE REQUIRED UPON THE COMPLETION OF THE WORK, TO REMOVE FROM THE SITE ALL MACHINERY, EQUIPMENT, SURPLUS MATERIALS, RUBBISH OR TEMPORARY BUILDINGS OF SAID CONTRACTOR, AND TO LEAVE THE SITE IN A NEAT AND TIDY CONDITION SATISFACTORY TO THE ENGINEER.
14. THE DESIGN AND LAYOUT IS BASED UPON SURVEY INFORMATION PROVIDED BY YAKIMA COUNTY, YAKIMA COUNTY WILL PROVIDE THE CONTROL AND CONSTRUCTION STAKING REQUIRED TO PERFORM THE WORK AT NO COST TO THE CONTRACTOR.
15. ALL RAIL, JOINT BARS, TIE PLATES, COMPROMISE JOINTS AND TIE PLATES REQUIRED TO RECONSTRUCT NEW RAIL TO BE SUPPLIED BY TSWR AT NO COST TO THE CONTRACTOR. NEW TIES AND BALLAST TO BE PROVIDED BY THE CONTRACTOR.

ABBREVIATIONS

AAR	AMERICAN ASSOCIATION OF RAILROADS
A.C.	ASPHALTIC CONCRETE PAVING
AREMA	AMERICAN AND RAILWAY ENGINEERING MAINTENANCE OF WAY ASSOCIATION
A.S.T.M.	AMERICAN SOCIETY FOR TESTING AND MATERIALS
&	AND
APPROX.	APPROXIMATE
B.M.	BENCH MARK
BLDG.	BUILDING
BVC	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
¢	CENTER LINE
¢MP	CORRUGATED METAL PIPE
COMP.	COMPROMISE
CONC.	CONCRETE
CSP	CORRUGATED STEEL PIPE
CTRS.	CENTERS
DIA. OR Ø	DIAMETER
EA.	EACH
ELEV. OR EL.	ELEVATION
E.O.T.	END OF TRACK
EQ.	EQUAL
EXIST.	EXISTING
EVC	END VERTICAL CURVE ELEVATION
EVCs	END VERTICAL CURVE STATION
F.O.C.	FACE OF CURB
FT	FEET OR FOOT
F.V.	FIELD VERIFY
H.P.	HIGH POINT
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
IE	INVERT ELEVATION
INCL.	INCLUDING
INV.	INVERT
IJ	INSULATED JOINT
JT.	JOINT
LB. OR lb OR #	POUNDS
L.F.	LINEAR FEET
L.P.	LOW POINT
L.S.	LUMP SUM
LH	LEFT HAND
MAX.	MAXIMUM
MIN.	MINIMUM
ML	MANLINE
M.P.	MILE POST
(N)	NORTH
No. OR #	NUMBER
N.I.C.	NOT IN CONTRACT
NTS	NOT TO SCALE
O.C.	ON CENTER
O/S	OFFSET
O.T.M.	OTHER TRACK MATERIAL (ALL STEEL TRACK COMPONENTS OTHER THAN RAIL)
O.D.	OUTSIDE DIAMETER
P.C.	POINT OF CURVE
P.L.T.O.	POINT OF INTERSECTION OF TURNOUT
P.C.C.	POINT OF COMPOUND CURVE
P.O.T.	POINT ON TANGENT
P.O.C.	POINT ON TANGENT
P.P.	POWER POLE
PR.	PAIR
PROP.	PROPERTY
P.T.	POINT OF TANGENT
P.S. OR PT. SW.	POINT OF SWITCH
P.V.M.T.	PAVEMENT
P.V.I.	POINT OF VERTICAL INTERSECTION
QTY.	QUANTITY
R.C.P.	REINFORCED CONCRETE PIPE
RD.	ROAD
RH	RIGHT HAND
R/W	RIGHT-OF-WAY
STA.	STATION

ABBREVIATIONS CONT'D

STD.	STANDARD
T.R. or T.O.R.	TOP OF RAIL TRACK
TRK.	TRACK
TSWR	TOPPENISH SIMCOE & WESTERN RAILROAD TRACK FOOT OR TRACK FEET
T.F.	TURNOUT
T.M.	TYPICAL
T.O.	TURNOUT
TYP.	TYPICAL
V.C.	VERTICAL CURVE
W/XING	WITH RAILROAD CROSSING

- TS 3104 - South Wapato Road
Federal Aid No.: STPXP-39JL(001)
- TS 3105 - Brownstown Road
Federal Aid No.: STPXP-A391(001)
- TS 3106 - Curtis Street
Federal Aid No.: STPXP-A390(005)
- TS 3107 - Signal Peak Road
Federal Aid No.: STPXP-39JA(001)
- TS 3108 - West White Swan Road
Federal Aid No.: STPXP-S390(002)



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

PREPARED BY
HDR
ENGINEERING, INC.

FOR
YAKIMA COUNTY

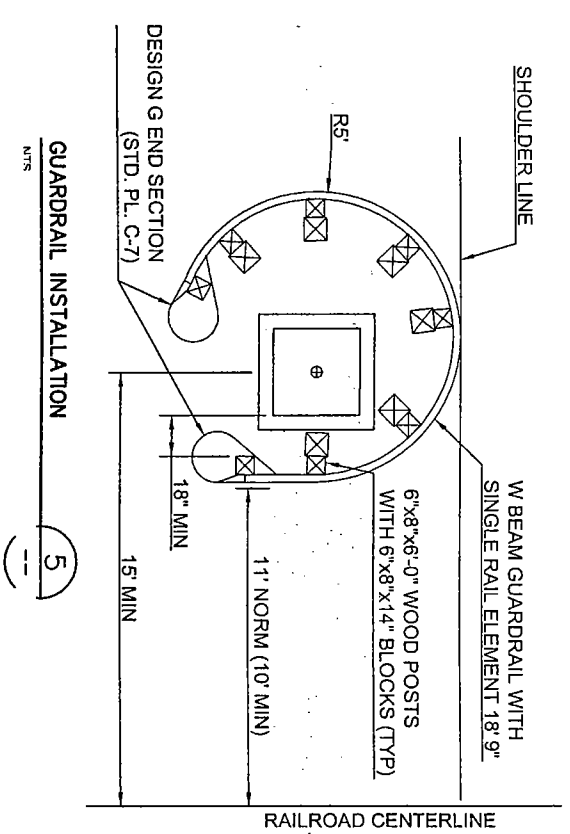
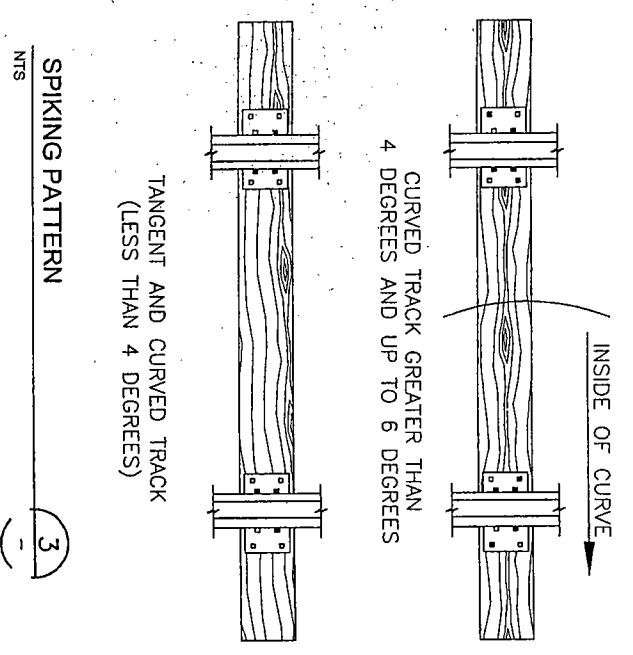
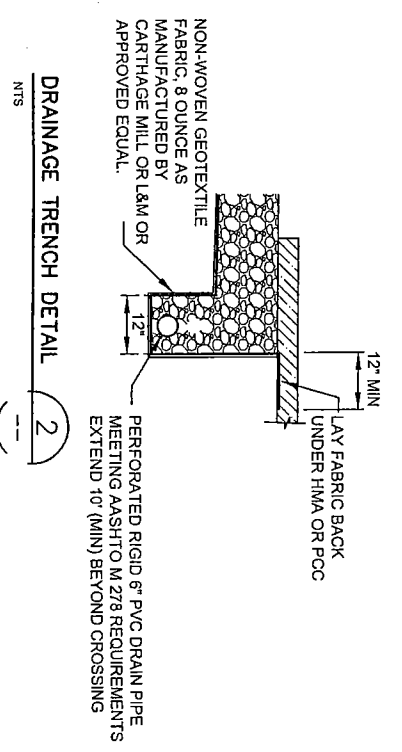
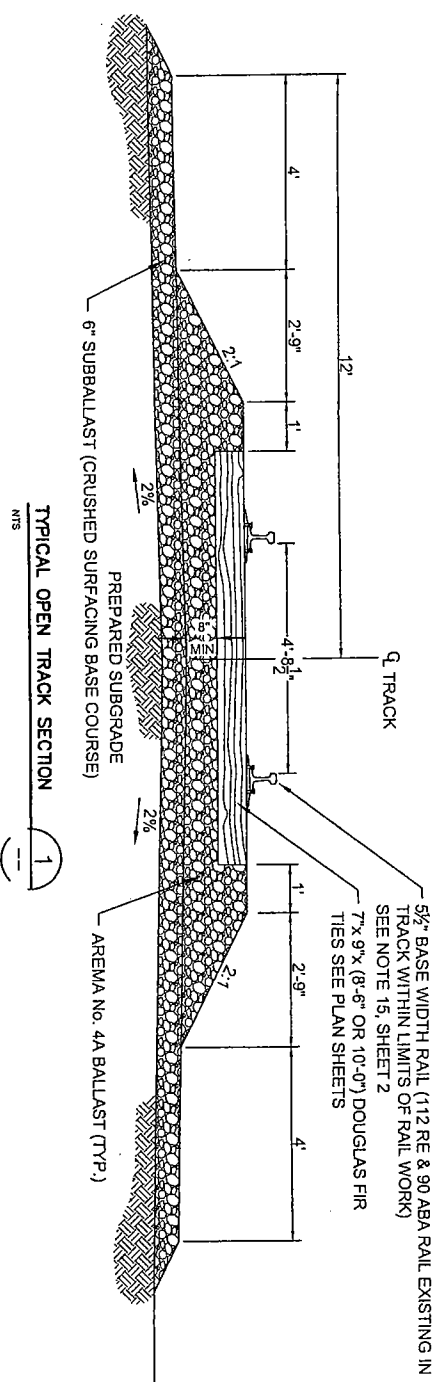


EXPIRES: 06/21/06

RECOMMENDED BY:
PROJECT ENGINEER

DRAWN: _____ CHECKED BY: _____
REVISION: _____

GENERAL NOTES



- NOTES:**
1. THE CROSSING AND CORRESPONDING RAIL SHALL FOLLOW DESIGN PROFILES SHOWN ON PLAN AND PROFILE SHEETS.
 2. THE CONTRACTOR SHALL PROTECT ALL FOUNDATIONS AND EXISTING UNDERGROUND UTILITIES FROM DAMAGE BY EXCAVATION ACTIVITIES.
 3. CONTRACTOR TO NOTIFY THE ENGINEER FOR INSPECTION OF CROSSING SUBGRADE. CONTRACTOR SHALL NOT COVER UP THE SUBGRADE UNTIL AFTER INSPECTION BY ENGINEER.
 4. IF ALL OR PART OF THE SUBGRADE CANNOT ATTAIN SUITABLE COMPACTION, CONTRACTOR SHALL OVER EXCAVATE AND PLACE AND COMPACT SUITABLE GRANULAR BACKFILL MATERIAL AS DIRECTED BY THE ENGINEER. REMOVED EXISTING BALLAST IS ACCEPTABLE UNLESS DETERMINED BY THE ENGINEER TO BE UNSUITABLE.
 5. REFER TO SPECIFICATIONS FOR LIMITS OF SUBGRADE CONSTRUCTION AND GEOTEXILES INSTALLATION.

- TS 3104 – South Wapato Road
Federal Aid No.: STXP-39JL(001)
- TS 3105 – Brownstown Road
Federal Aid No.: STXP-A391(001)
- TS 3106 – Curtis Street
Federal Aid No.: STXP-A390(005)
- TS 3107 – Signal Peak Road
Federal Aid No.: STXP-39JA(001)
- TS 3108 – West White Swan Road
Federal Aid No.: STXP-S390(002)



TWSR GRADE CROSSING IMPROVEMENTS

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EXPIRES: 06/21/04

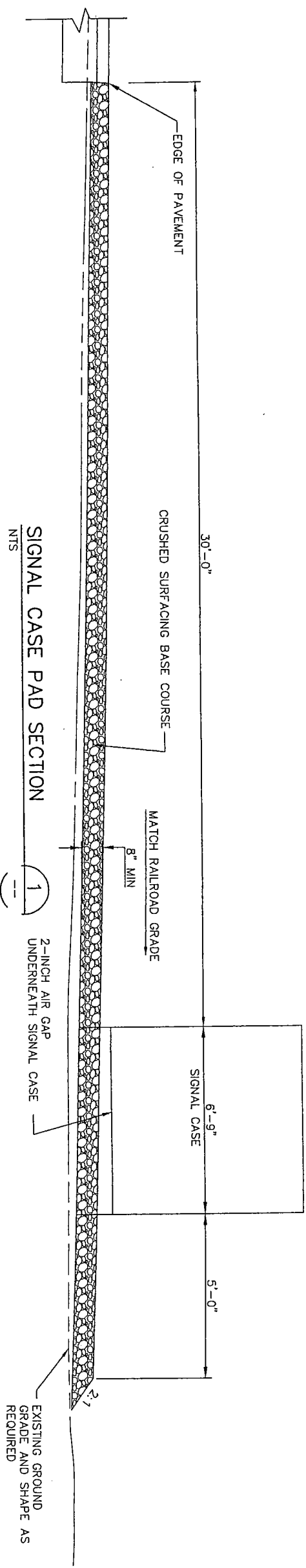
RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: CHECKED BY:

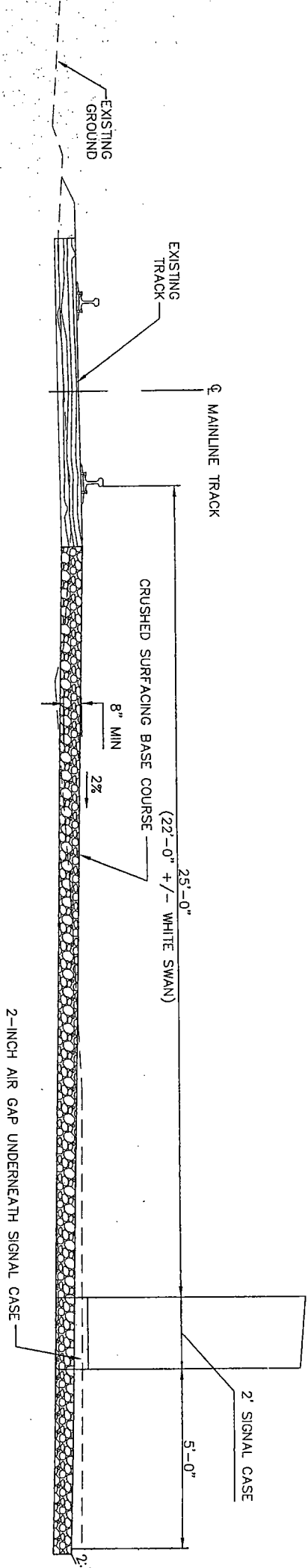
REVISIONS:

DETAILS



SIGNAL CASE PAD SECTION
NTS

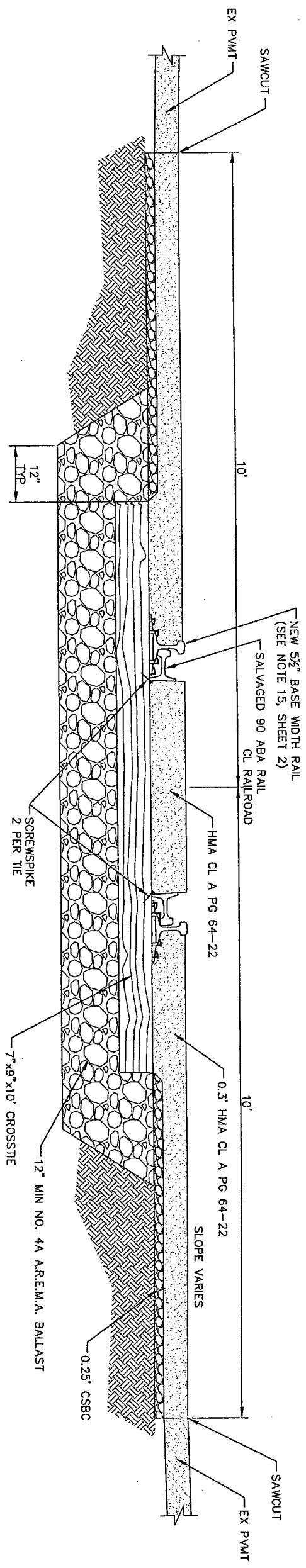
1
2-INCH AIR GAP UNDERNEATH SIGNAL CASE



SIGNAL CASE PAD TRACK SECTION
NTS

2

- TS 3104 - South Wapato Road
Federal Aid No.: STPXP-39JL(001)
- TS 3105 - Brownstown Road
Federal Aid No.: STPXP-A391(001)
- TS 3106 - Curtis Street
Federal Aid No.: STPXP-A390(005)
- TS 3107 - Signal Peak Road
Federal Aid No.: STPXP-39JA(001)
- TS 3108 - West White Swan Road
Federal Aid No.: STPXP-S390(002)



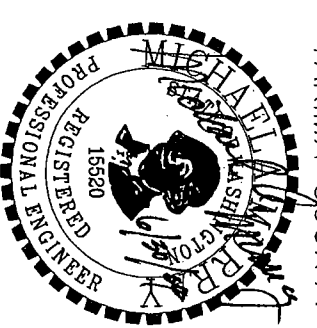
HMA CROSSING
NTS

3



TWSR GRADE CROSSING IMPROVEMENTS

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FOR
YAKIMA COUNTY



RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

SIGNAL CASE PAD & PAVED CROSSING



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

**SOUTH WAPATO ROAD
TS 3104**

STPXP-39JL(001)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY



RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

R/R PLAN & PROFILE

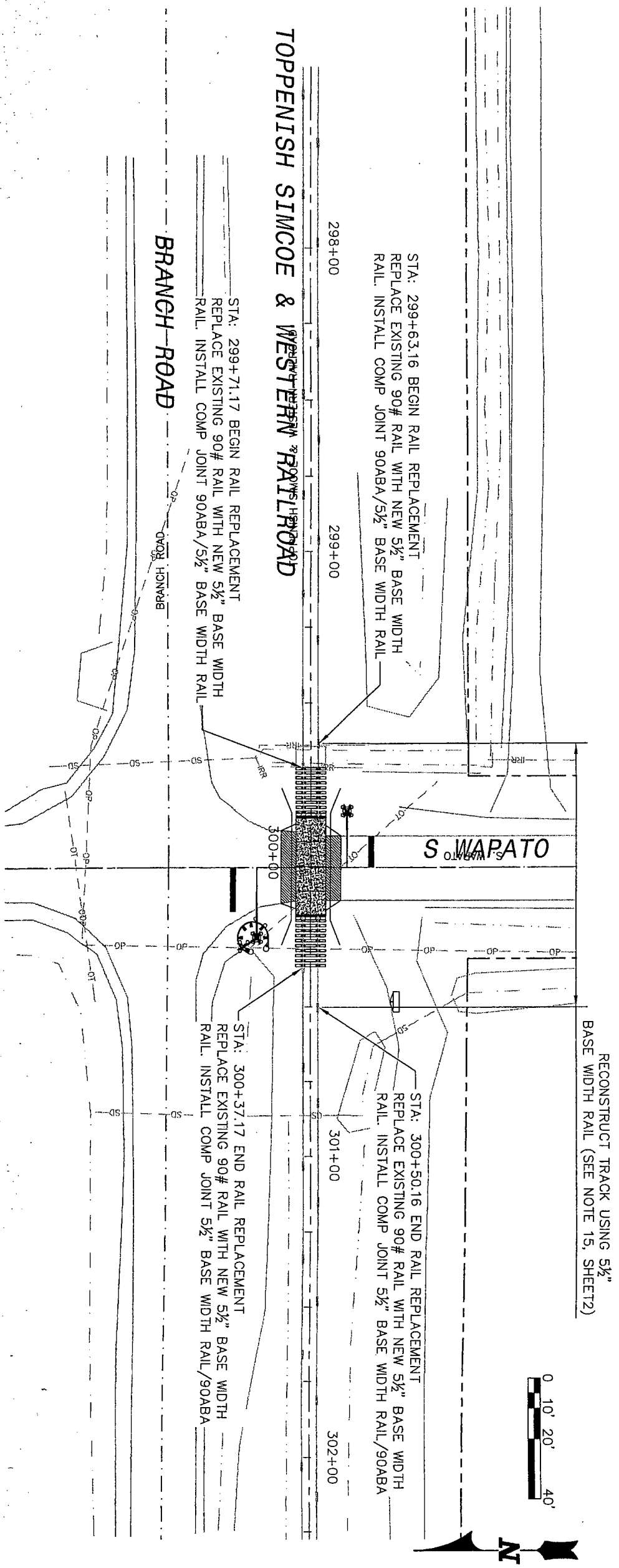
STA: 297+40
STA: 302+00

SHEET 5 OF 39

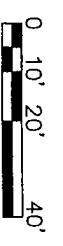
810	297+50	7+75	298+00	8+25	298+50	8+75	299+00	9+25	299+50	9+75	300+00	0+25	300+50	0+75	301+00	1+25	301+50	1+75	302+00	810
812	817.8	817.8	817.7	817.7	817.6	817.6	817.6	817.6	817.6	817.6	817.6	817.6	817.6	817.7	817.7	817.7	817.7	817.7	817.7	812
814																				814
816																				816
818																				818
820																				820
822																				822

Existing Top Of Rail Profile
Existing Canal Bridge

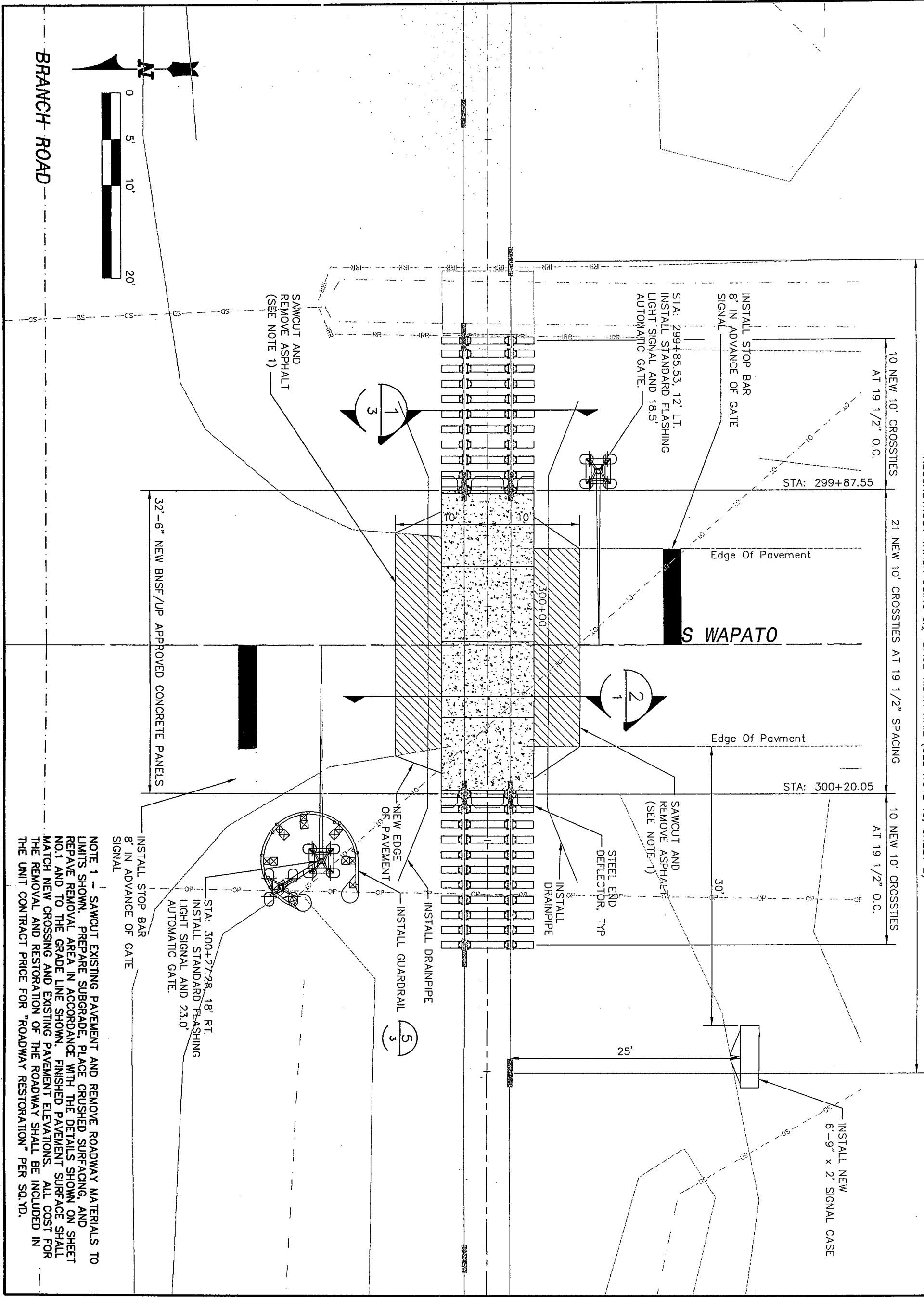
STA: 299+87.55
ELEV: 817.59
STA: 300+20.05
ELEV: 817.57



RECONSTRUCT TRACK USING 5 1/2" BASE WIDTH RAIL (SEE NOTE 15, SHEET 12)



RECONSTRUCT TRACK USING 5 1/2" BASE WIDTH RAIL (SEE NOTE 15, SHEET 2)



NOTE 1 - SAWCUT EXISTING PAVEMENT AND REMOVE ROADWAY MATERIALS TO LIMITS SHOWN. PREPARE SUBGRADE, PLACE CRUSHED SURFACING, AND REPAVE REMOVAL AREA IN ACCORDANCE WITH THE DETAILS SHOWN ON SHEET NO.1 AND TO THE GRADE LINE SHOWN. FINISHED PAVEMENT SURFACE SHALL MATCH NEW CROSSING AND EXISTING PAVEMENT ELEVATIONS. ALL COST FOR THE REMOVAL AND RESTORATION OF THE ROADWAY SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE FOR "ROADWAY RESTORATION" PER SQ.YD.



TSWR GRADE CROSSINGS IMPROVEMENTS

**SOUTH WAPATO ROAD
TS 3104**

STPXP-39JL(001)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY



EXPIRES: 06/21/06

RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

CROSSING DETAIL

SHEET 6 OF 39



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

**BROWNSTOWN ROAD
TS 3105**

STPXP-A391(001)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY



EXPIRES: 06/21/24

RECOMMENDED BY:

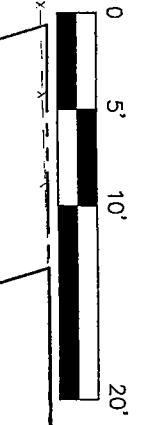
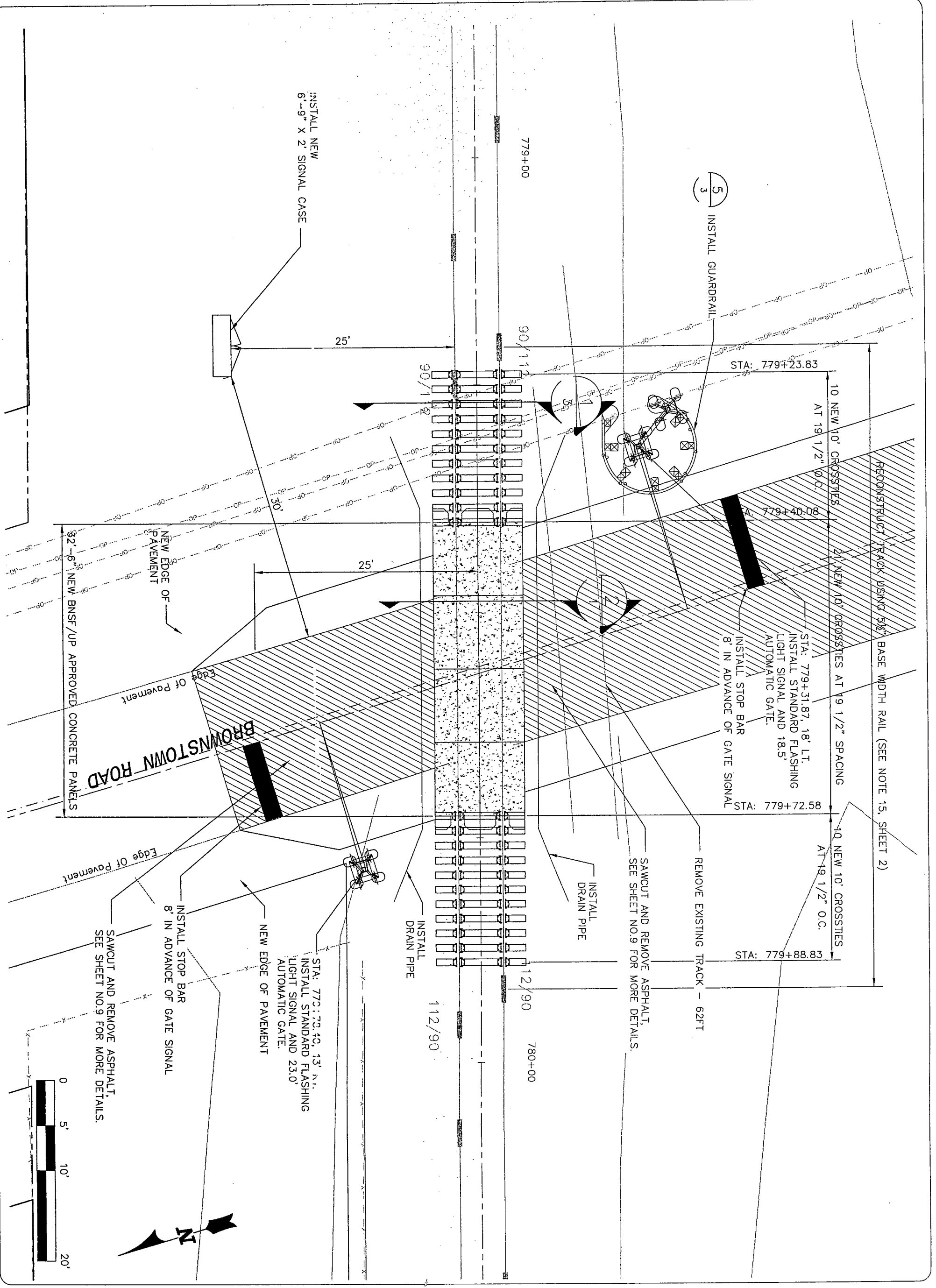
PROJECT ENGINEER

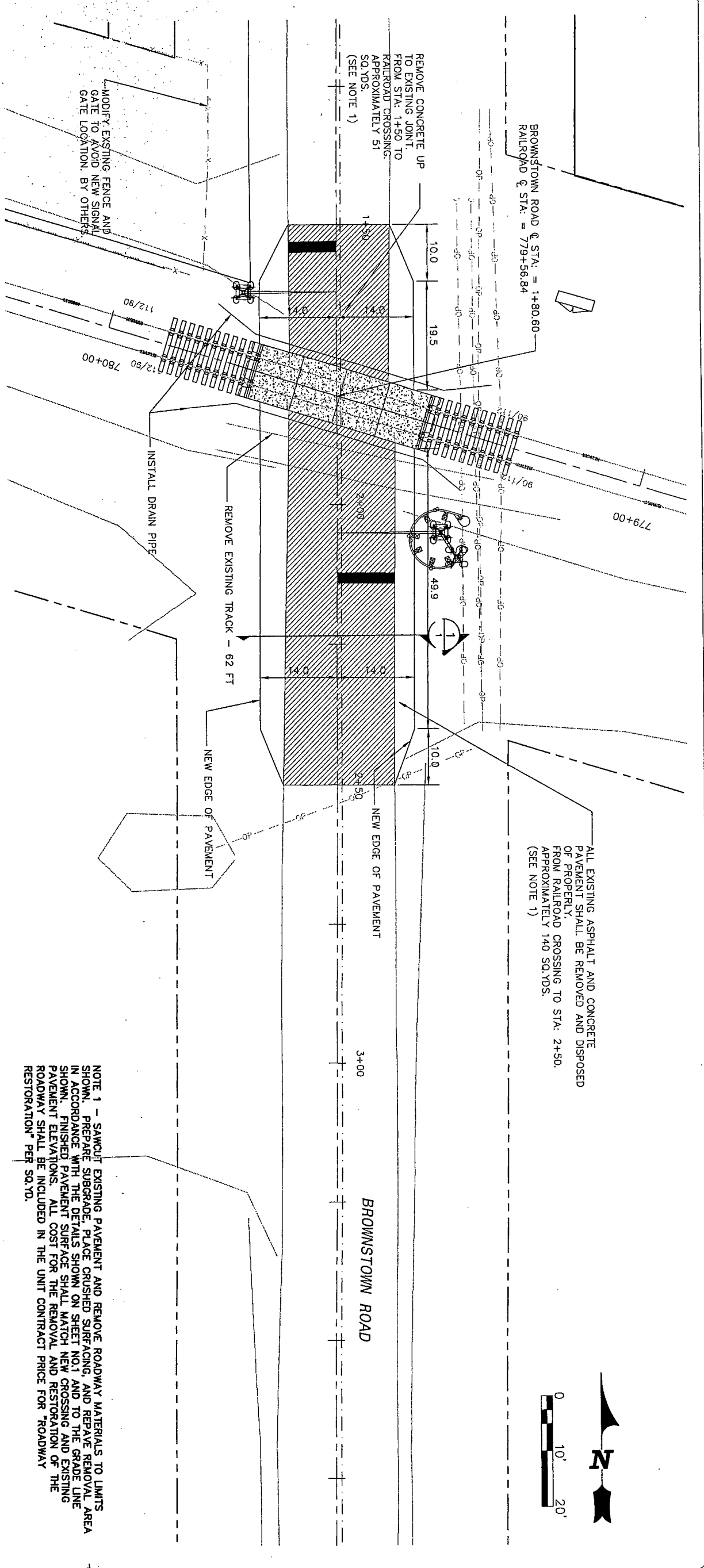
DRAWN: CHECKED BY:

REVISION:

CROSSING DETAIL

SHEET 8 OF 39





850		847.2	847.20	1+50
848		847.0	847.00	1+75
846		846.7	846.88	2+00
844		846.5	846.58	2+25
842		846.3	846.29	2+50
840		846.0		2+75
		845.8		3+00
		845.6		3+25
		845.3		
		845.1		

PVI STA = 1+75.60
 PVI ELEV = 846.99
 PVI STA = 1+89.91
 PVI ELEV = 846.99

-0.80%
 0.00%
 -1.17%

CENTERLINE PROFILE

Existing Centerline Profile

RECOMMENDED BY:
PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

TSWR GRADE CROSSINGS IMPROVEMENTS

BROWNSTOWN ROAD

TS 3105

STPXP-A391(001)

PREPARED BY HDR ENGINEERING, INC. FOR YAKIMA COUNTY

EXPIRES: 06/21/06

PLAN & PROFILE

STA: 0+00

STA: 4+00

SHEET 9 OF 39

YAKIMA COUNTY PUBLIC WORKS

COMMITMENT TO EXCELLENCE



TSWR GRADE CROSSINGS IMPROVEMENTS

CURTIS ROAD
TS 3106

STPXP-A390(005)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY



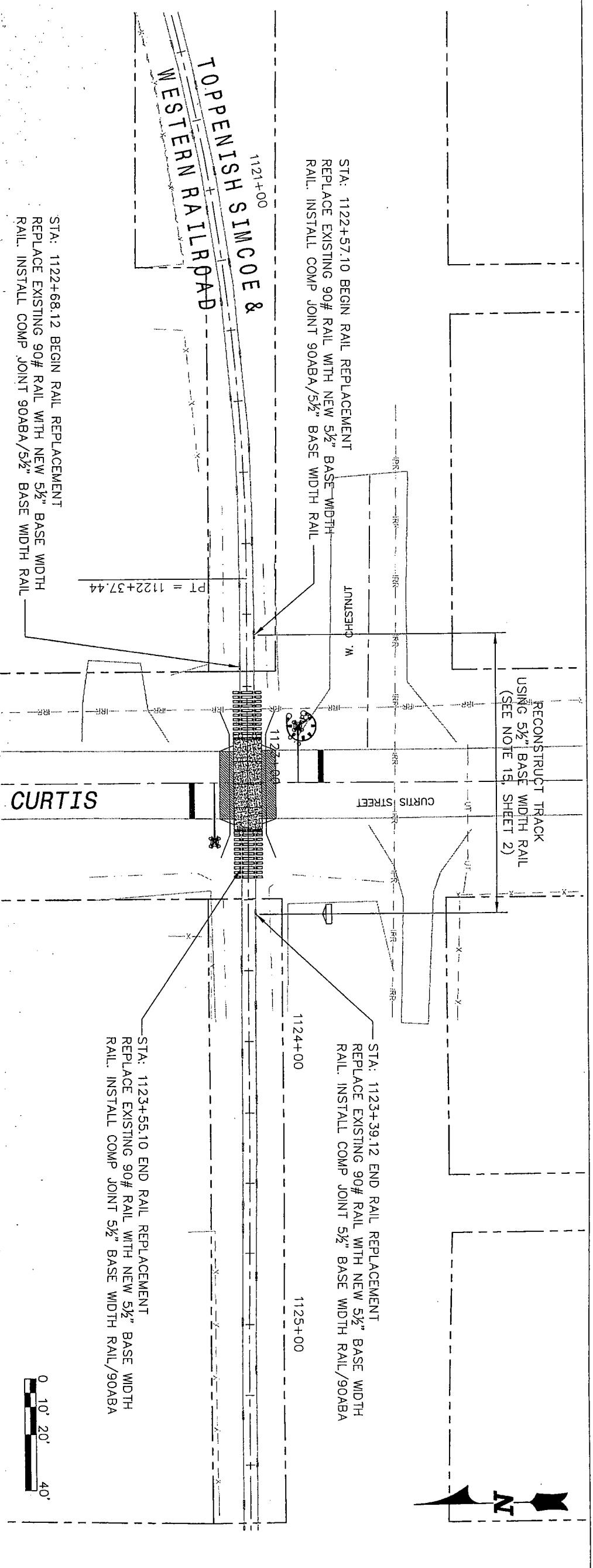
EXPIRES: 06/21/06

RECOMMENDED BY:
PROJECT ENGINEER

DRAWN:	CHECKED BY:
REVISION:	

PLAN & PROFILE
STA: 1021+50
STA: 1125+00

SHEET 10 OF 39



972																			972
970									STA: 1122+94.72 ELEV: 696.71										970
968																			968
966																			966
964																			964
962																			962
960																			960
	1121+50	21+75	1122+00	22+25	1122+50	22+75	1123+00	23+25	1123+50	23+75	1124+00	24+25	1124+50	24+75	1125+00				
		969.1	969.2	969.3	969.3	969.6	969.7	969.7	969.7	969.7	969.6	969.6	969.6	969.6	969.7				

Existing Top of Rail



TSWR GRADE CROSSINGS IMPROVEMENTS

**CURTIS STREET
TS 3106**

STPXP-A390(005)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY



EXPIRES: 06/21/06

RECOMMENDED BY:

PROJECT ENGINEER

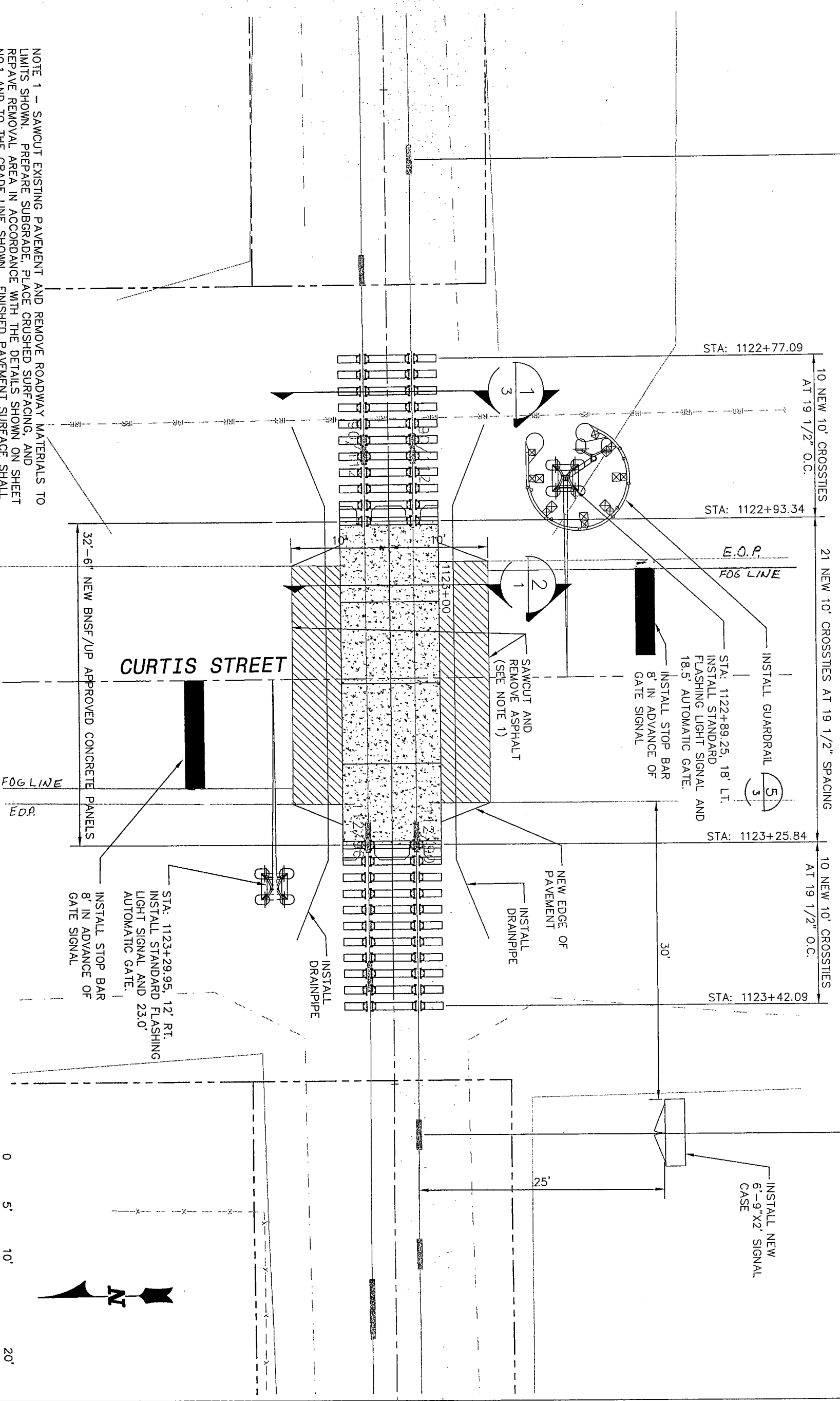
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REVISION:

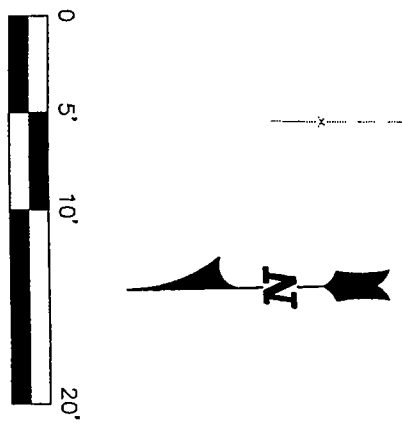
CROSSING DETAIL

SHEET 11 OF 39

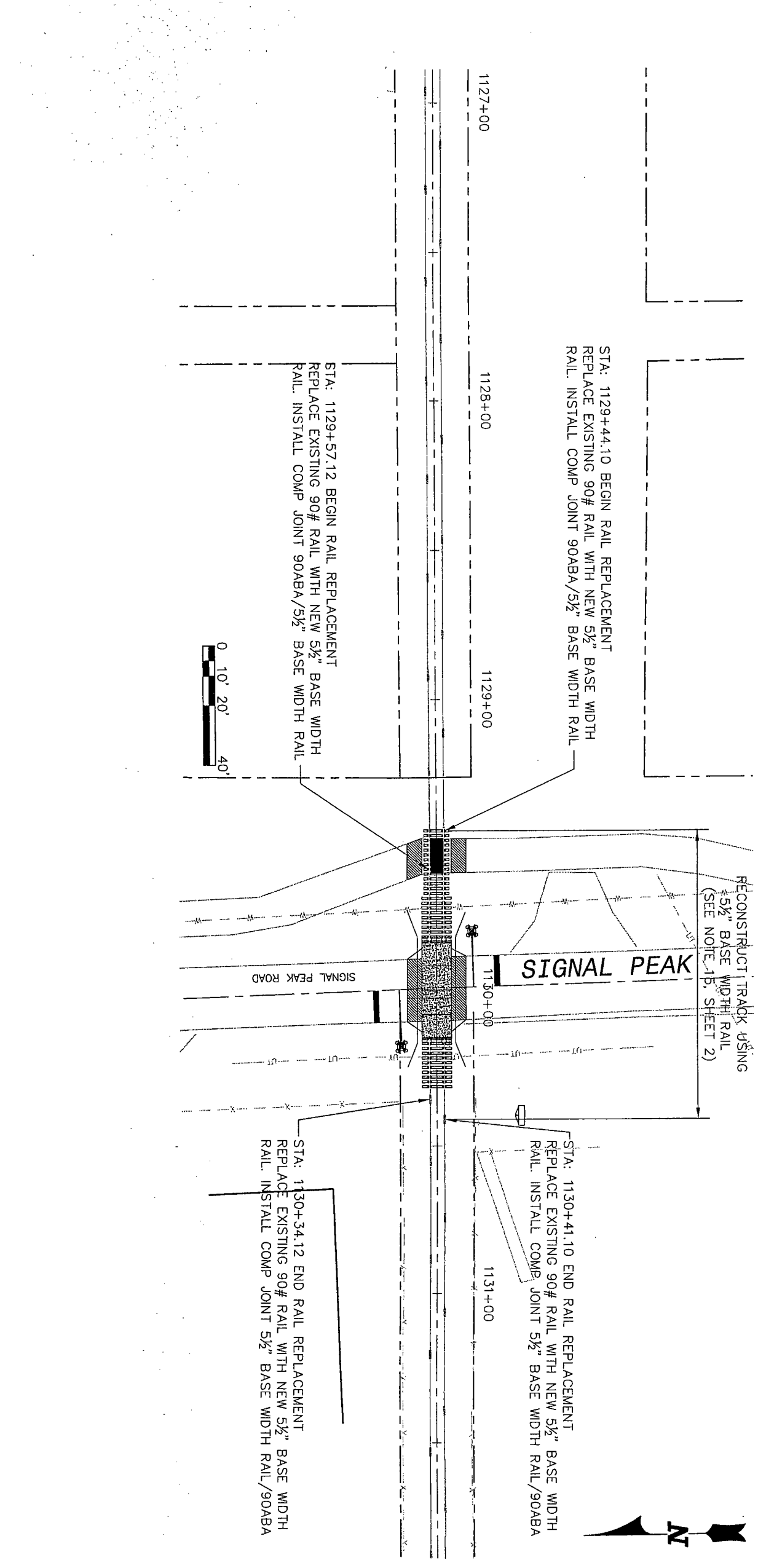
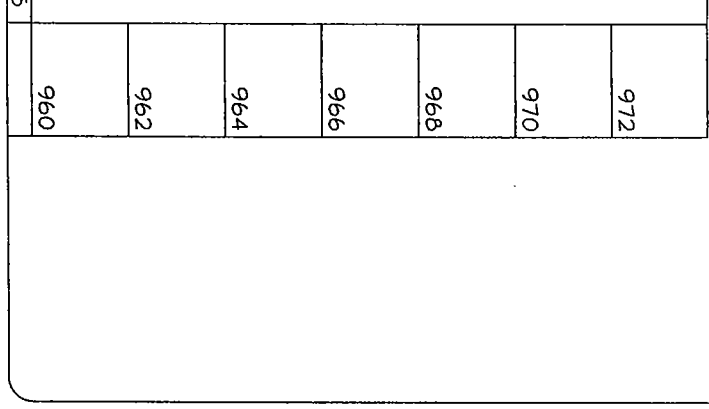
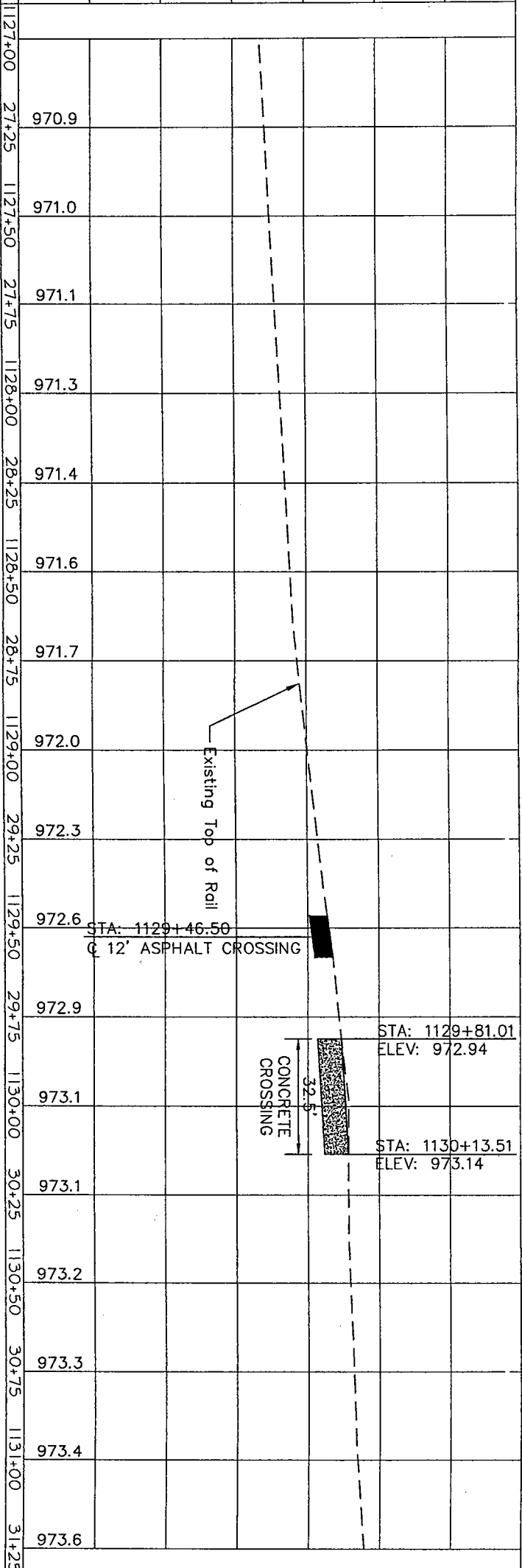
RECONSTRUCT TRACK USING 5 1/2" BASE WIDTH RAIL (SEE NOTE 15, SHEET 2)



NOTE 1 - SAWCUT EXISTING PAVEMENT AND REMOVE ROADWAY MATERIALS TO LIMITS SHOWN. PREPARE SUBGRADE, PLACE CRUSHED SURFACING, AND SHEET REPAVE REMOVAL AREA IN ACCORDANCE WITH THE DETAILS SHOWN ON SHEET NO.1 AND TO THE GRADE LINE SHOWN. FINISHED PAVEMENT SURFACE SHALL MATCH NEW CROSSING AND EXISTING PAVEMENT ELEVATIONS. ALL COST FOR THE REMOVAL AND RESTORATION OF THE ROADWAY SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE FOR "ROADWAY RESTORATION" PER SQ.YD.



976																		972
974																		970
972																		968
970																		966
966																		964
966																		962
964																		960



PREPARED BY
 HDR
 ENGINEERING, INC.
 FOR
 YAKIMA COUNTY

STPXP-39JA(001)
 SIGNAL PEAK ROAD
 TS 3107
 TSWR GRADE
 CROSSINGS
 IMPROVEMENTS



RECOMMENDED BY:
PROJECT ENGINEER
 DRAWN: _____ CHECKED BY: _____
 REVISION: _____
PLAN & PROFILE
 STA: 1127+00
 STA: 1131+85
 SHEET 12 OF 39

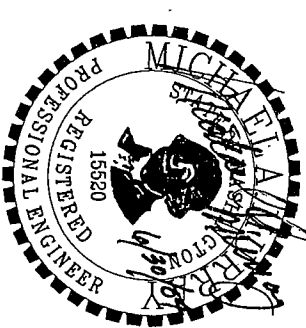


TSMR GRADE CROSSINGS IMPROVEMENTS

**SIGNAL PEAK ROAD
TS 3107**

STPXP-39JA(001)

PREPARED BY
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ENGINEERING, INC.
FOR
YAKIMA COUNTY



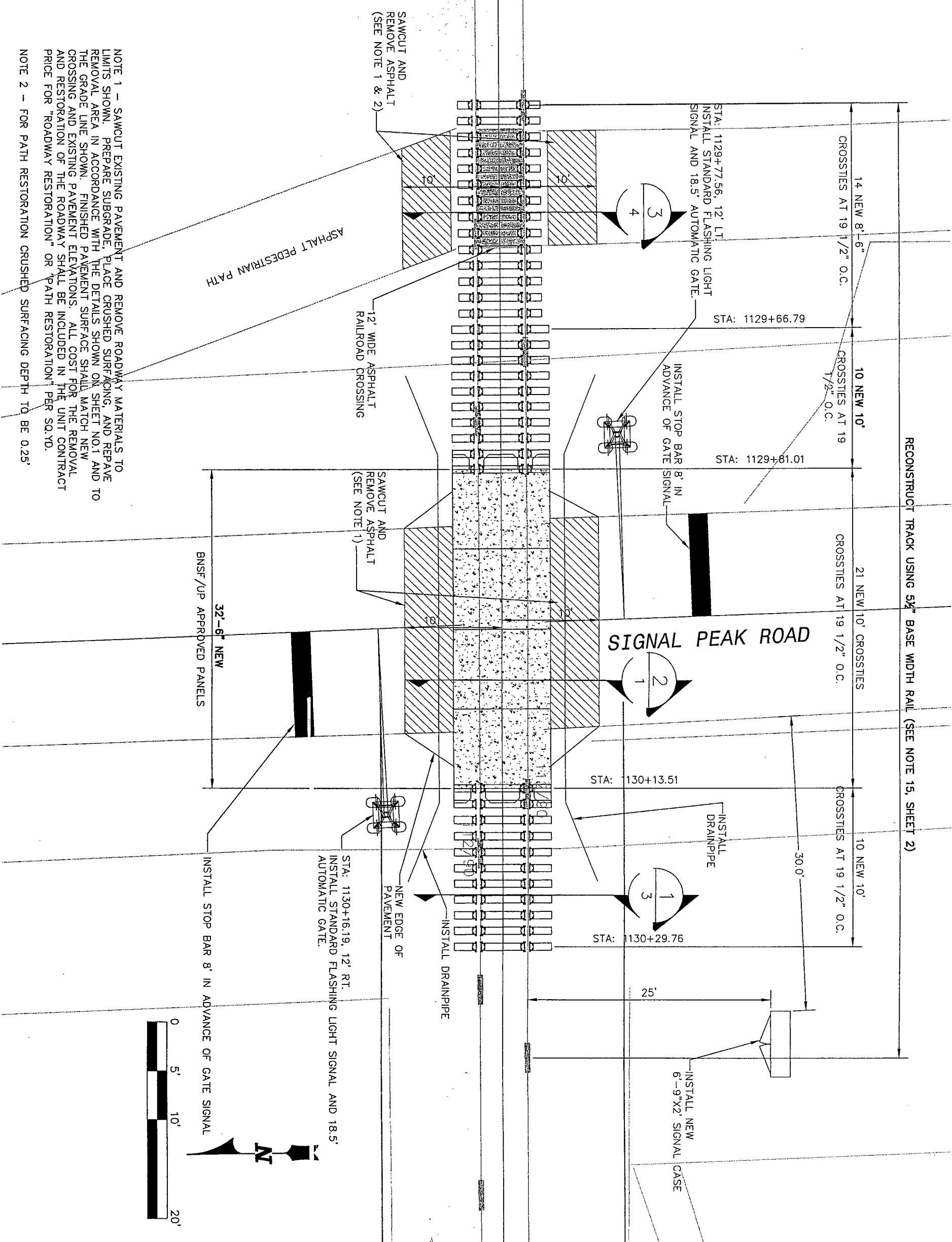
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PROJECT ENGINEER

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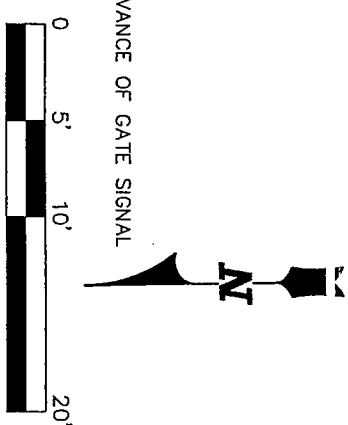
REVISION:

CROSSING DETAIL



NOTE 1 - SAWCUT AND REMOVE ROADWAY MATERIALS TO LIMITS SHOWN. PREPARE EXISTING PAVEMENT AND REMOVE ROADWAY MATERIALS TO LIMITS SHOWN. PREPARE SUBGRADE, PLACE CRUSHED SURFACING, AND REPAVE REMOVAL AREA IN ACCORDANCE WITH THE DETAILS SHOWN ON SHEET NO.1 AND TO THE GRADE LINE SHOWN. FINISHED PAVEMENT SURFACE SHALL MATCH NEW CROSSING AND EXISTING PAVEMENT ELEVATIONS. ALL COST FOR THE REMOVAL AND RESTORATION OF THE ROADWAY SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE FOR "ROADWAY RESTORATION" OR "PATH RESTORATION" PER SQ. YD.

NOTE 2 - FOR PATH RESTORATION CRUSHED SURFACING DEPTH TO BE 0.25'





TSWR GRADE CROSSINGS IMPROVEMENTS

WHITE SWAN ROAD
TS 3108

STPXP-S390(002)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY



EXPIRES: 06/21/06

RECOMMENDED BY:

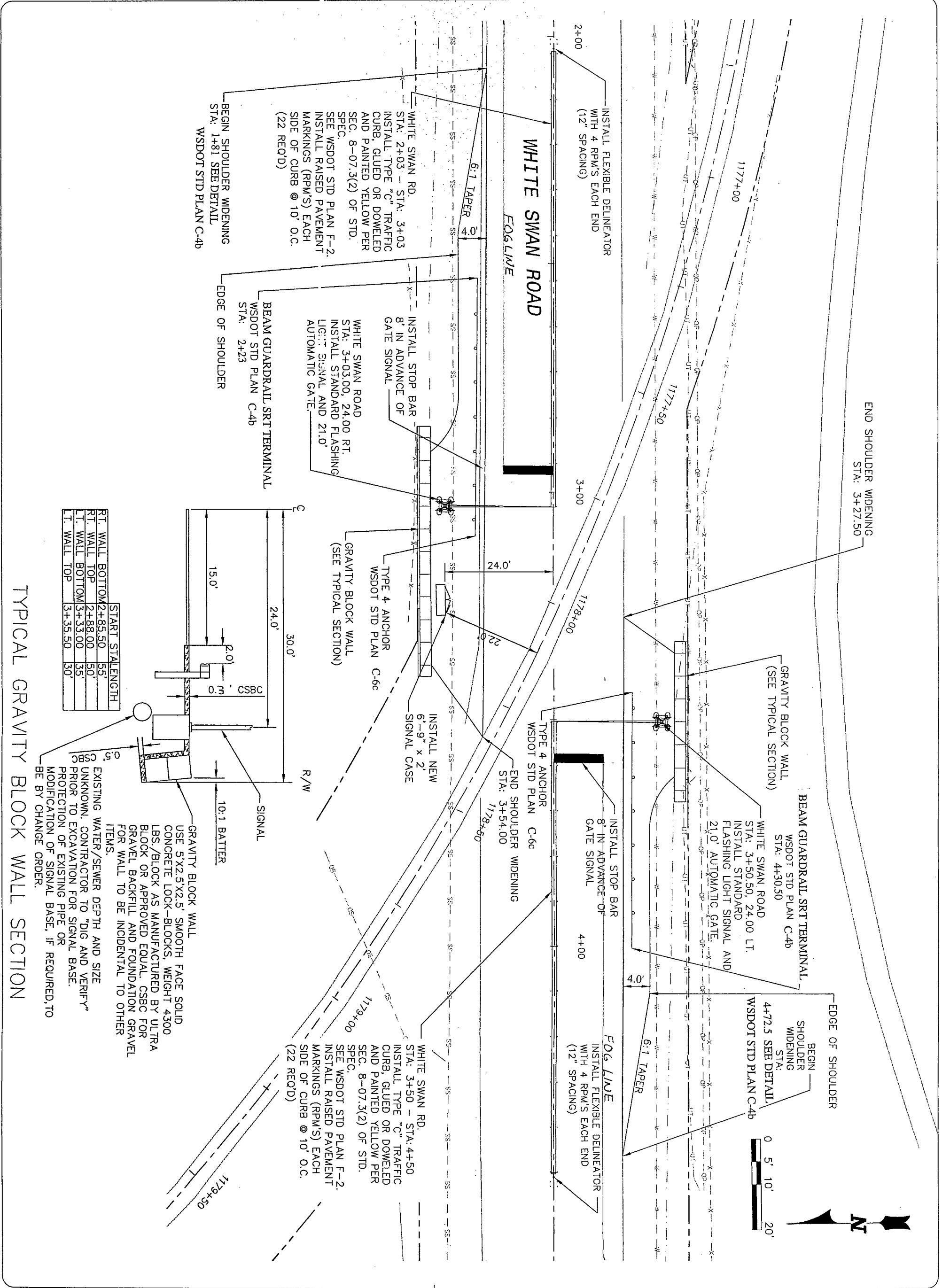
PROJECT ENGINEER

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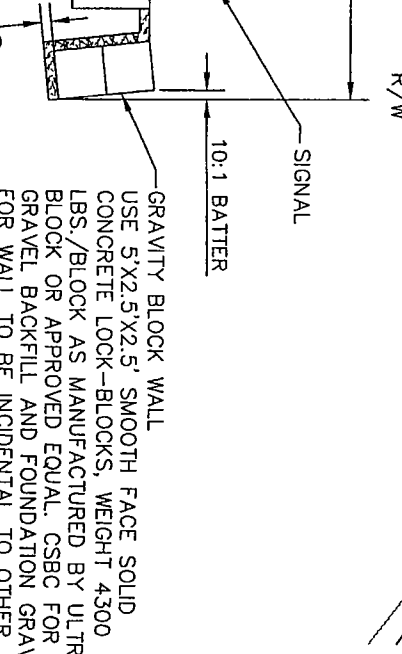
REVISION: 7-16-04 Rev'd See [unclear] [unclear]

CROSSING DETAIL

SHEET 14 OF 39

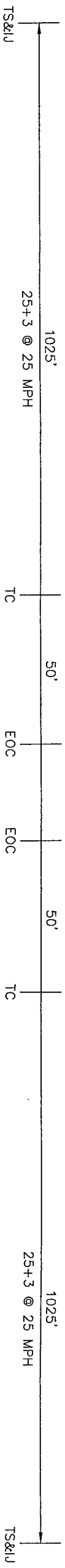


START STATION LENGTH	
RT. WALL BOTTOM	2+85.50 55'
RT. WALL TOP	2+88.00 50'
LT. WALL BOTTOM	3+33.00 35'
LT. WALL TOP	3+35.50 30'

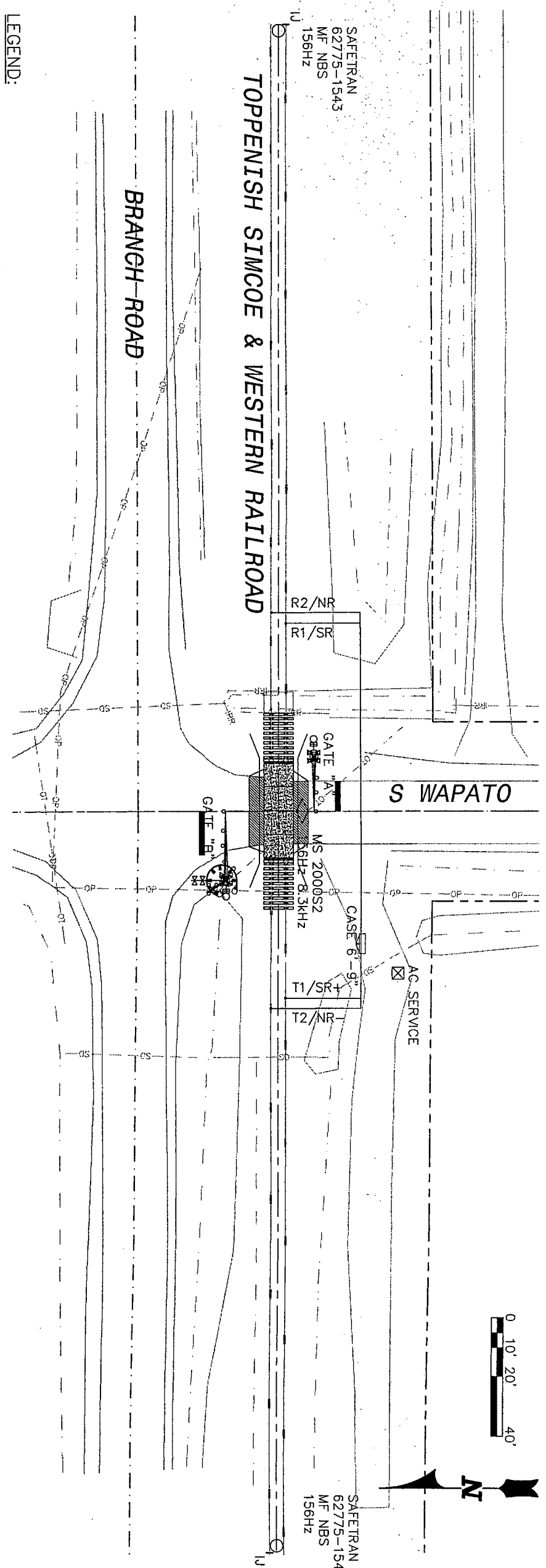


GRAVITY BLOCK WALL
USE 5'X2.5'X2.5' SMOOTH FACE SOLID CONCRETE LOCK-BLOCKS, WEIGHT 4300 LBS./BLOCK AS MANUFACTURED BY ULTRA BLOCK OR APPROVED EQUAL. CSBC FOR GRAVEL BACKFILL AND FOUNDATION GRAVEL FOR WALL TO BE INCIDENTAL TO OTHER ITEMS.
EXISTING WATER/SEWER DEPTH AND SIZE UNKNOWN. CONTRACTOR TO "DIG AND VERIFY" PRIOR TO EXCAVATION FOR SIGNAL BASE. PROTECTION OF EXISTING PIPE OR MODIFICATION OF SIGNAL BASE, IF REQUIRED, TO BE BY CHANGE ORDER.

TYPICAL GRAVITY BLOCK WALL SECTION



- LEGEND:**
- ◇ SAFETRAN 2000S2 MOTION SENSOR FREQ. 156HZ, ISL. FREQ. 8.3KHZ
 - MULTIFREQUENCY NARROW BAND SHUNT
 - ⊗ AC SERVICE
 - ⌈⌋ INSULATED JOINT
 - Ⓚ BELL
 - EOC EDGE OF CROSSING
 - TC TRACK CONNECTION
 - TS TERMINATION SHUNT



- CABLE "A1" - 5 COND. #6 FROM CASE TO GATE "A"
- CABLE "A2" - 7 COND. #10 FROM CASE TO GATE "A"
- CABLE "B1" - 5 COND. #6 FROM CASE TO GATE "B"
- CABLE "B2" - 7 COND. #10 FROM CASE TO GATE "B"



TSWR GRADE
CROSSINGS
IMPROVEMENTS

SOUTH WAPATO ROAD
TS 3104

STPXP-39JL(001)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY

RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: _____ CHECKED BY: _____

REVISION: _____

SIGNAL LOCATION
PLAN

SHEET 15 OF 39



TSWR GRADE CROSSINGS IMPROVEMENTS

SOUTH WAPATO ROAD
TS 3104

STPXP-39JL(001)

PREPARED BY
HDR
ENGINEERING, INC.

FOR
YAKIMA COUNTY

RECOMMENDED BY:

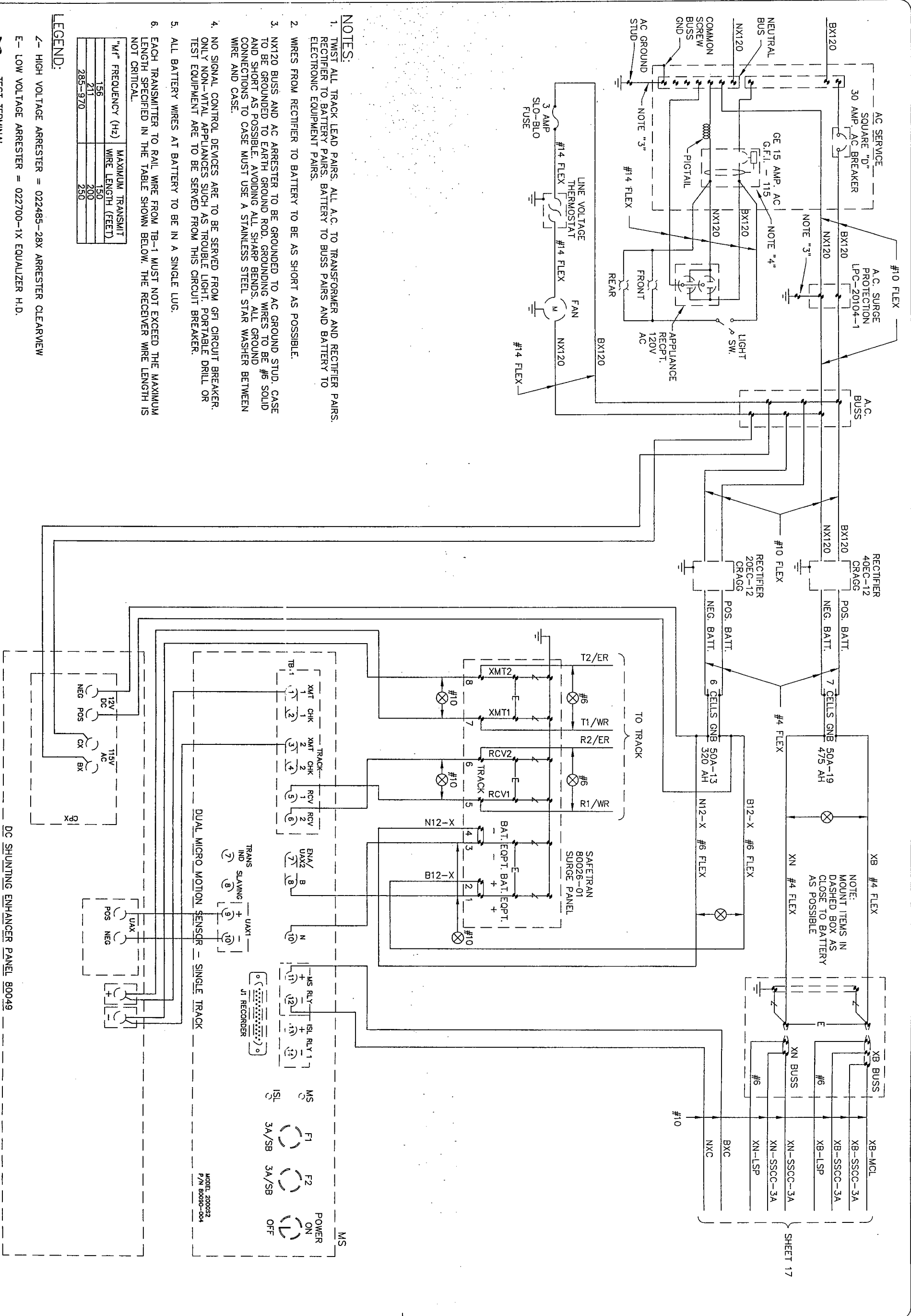
PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

POWER DISTRIBUTION & MOTION DETECTION PLAN

SHEET 16 OF 39



WIRE FREQUENCY (Hz)	MAXIMUM TRANSMIT WIRE LENGTH (FEET)
156	150
211	200
285-970	250

LEGEND:

- 1- HIGH VOLTAGE ARRESTER = 022485-28X ARRESTER CLEARVIEW
- 2- LOW VOLTAGE ARRESTER = 022700-1X EQUALIZER H.D.
- ⊗ - TEST TERMINAL
- ⊗ - TWISTED WIRES

NOTES:

1. TWIST ALL TRACK LEAD PAIRS. ALL A.C. TO TRANSFORMER AND RECTIFIER PAIRS. RECTIFIER TO BATTERY PAIRS. BATTERY TO BUSS PAIRS AND BATTERY TO ELECTRONIC EQUIPMENT PAIRS.
2. WIRES FROM RECTIFIER TO BATTERY TO BE AS SHORT AS POSSIBLE.
3. NX120 BUSS AND AC ARRESTER TO BE GROUNDED TO AC GROUND STUD. CASE TO BE GROUNDED TO EARTH GROUND ROD. GROUNDING WIRES TO BE #6 SOLID AND SHORT AS POSSIBLE. AVOIDING ALL SHARP BENDS. ALL GROUND CONNECTIONS TO CASE MUST USE A STAINLESS STEEL STAR WASHER BETWEEN WIRE AND CASE.
4. NO SIGNAL CONTROL DEVICES ARE TO BE SERVED FROM GFI CIRCUIT BREAKER. ONLY NON-VITAL APPLIANCES SUCH AS TROUBLE LIGHT, PORTABLE DRILL OR TEST EQUIPMENT ARE TO BE SERVED FROM THIS CIRCUIT BREAKER.
5. ALL BATTERY WIRES AT BATTERY TO BE IN A SINGLE LUG.
6. EACH TRANSMITTER TO RAIL WIRE FROM TB-1 MUST NOT EXCEED THE MAXIMUM LENGTH SPECIFIED IN THE TABLE SHOWN BELOW. THE RECEIVER WIRE LENGTH IS NOT CRITICAL.

MODEL 200052
P/N 8090-004

SHEET 17



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

**SOUTH WAPATO ROAD
TS 3104**

STPXP-39JL(001)

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PROJECT ENGINEER

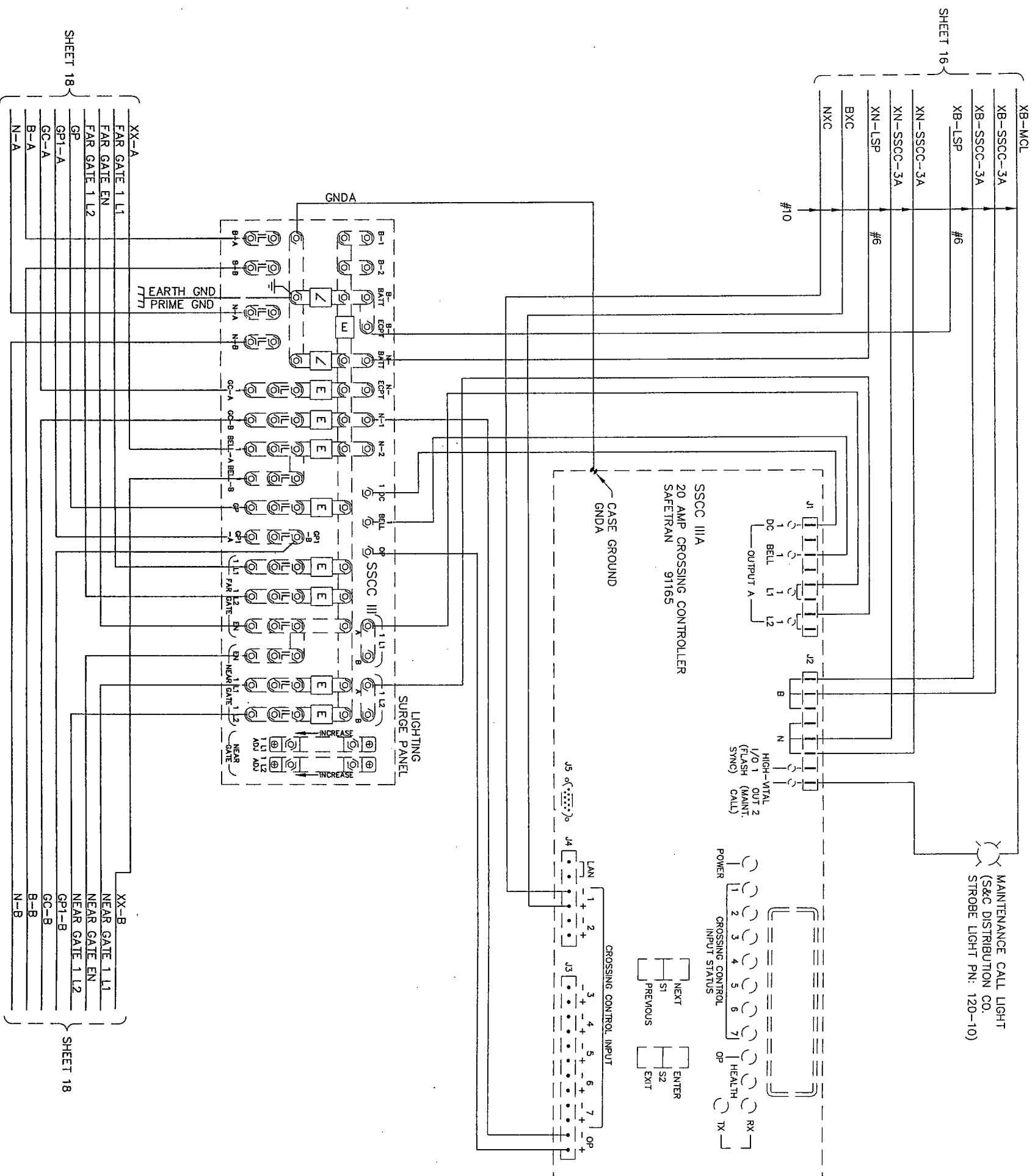
DRAWN: CHECKED BY:

REVISION:

CROSSING CONTROL

PLAN

SHEET 17 OF 39



NOTES:

1. ALL WIRING #10 AWG MINIMUM UNLESS OTHERWISE NOTED. WIRE SIZES SHOWN ARE MINIMUM GAUGE.
2. THE "FAR GATE" IS THE FLASHER LOCATION WITH THE LONGEST WIRE RUNS FROM THE SAME SURGE PANEL TO THE LIGHTS AND THEREFORE THE HIGHEST CABLE RESISTANCE.
3. THE FOLLOWING SURGE PANEL SYMBOLS ARE USED:
 Z - HIGH VOLTAGE ARRESTER = 022485-28X ARRESTER CLEARVIEW
 E - LOW VOLTAGE ARRESTER = 022700-1X EQUALIZER H.D.
 IL - INSULATED TESTING LINK



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

**SOUTH WAPATO ROAD
TS 3104**

STPXP-39JL(001)

**PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY**

RECOMMENDED BY:

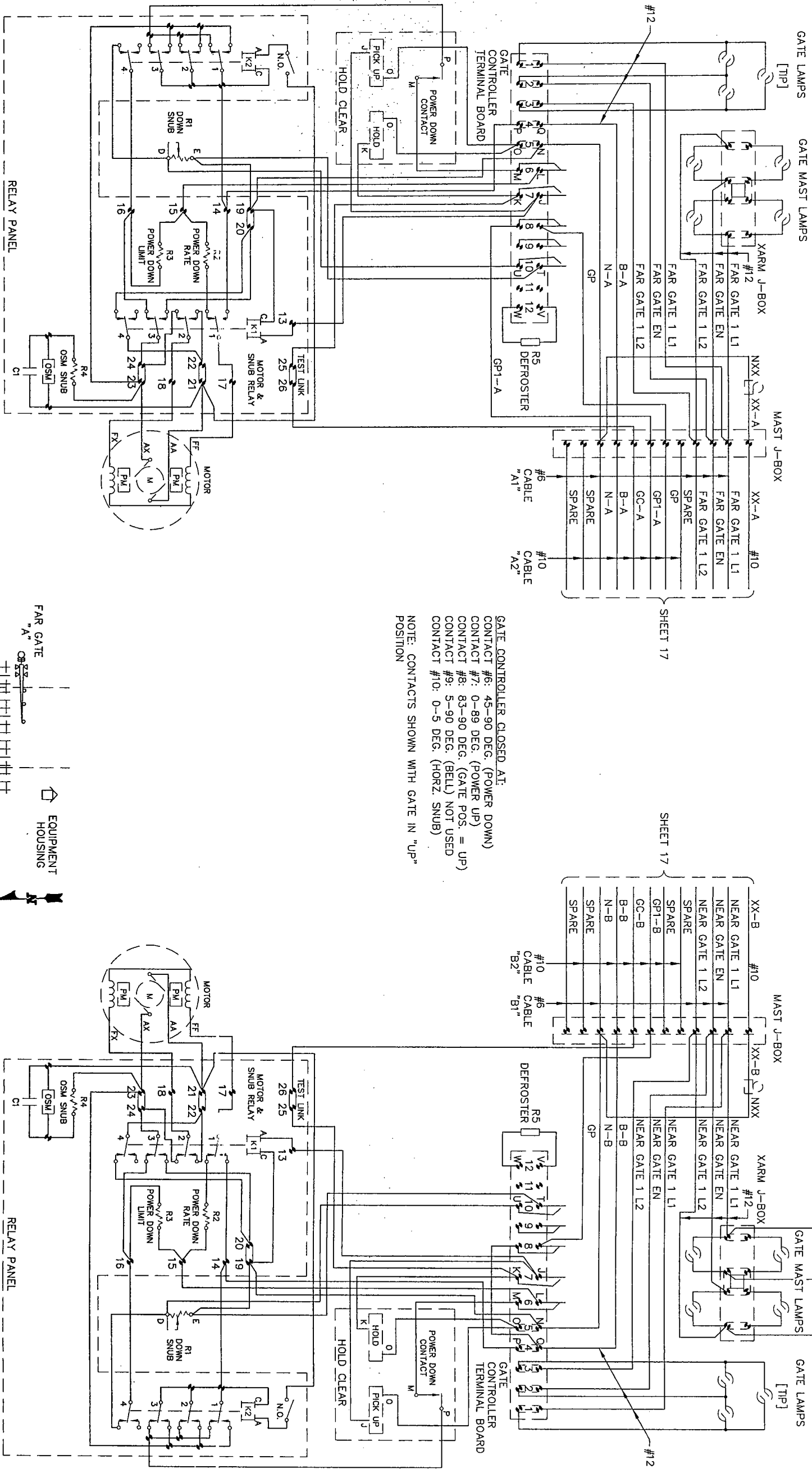
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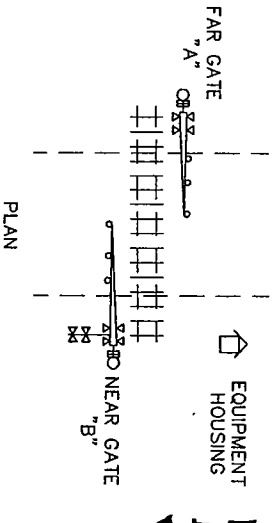
REVISION:

**GATE CIRCUIT
PLAN**

SHEET 18 OF 39



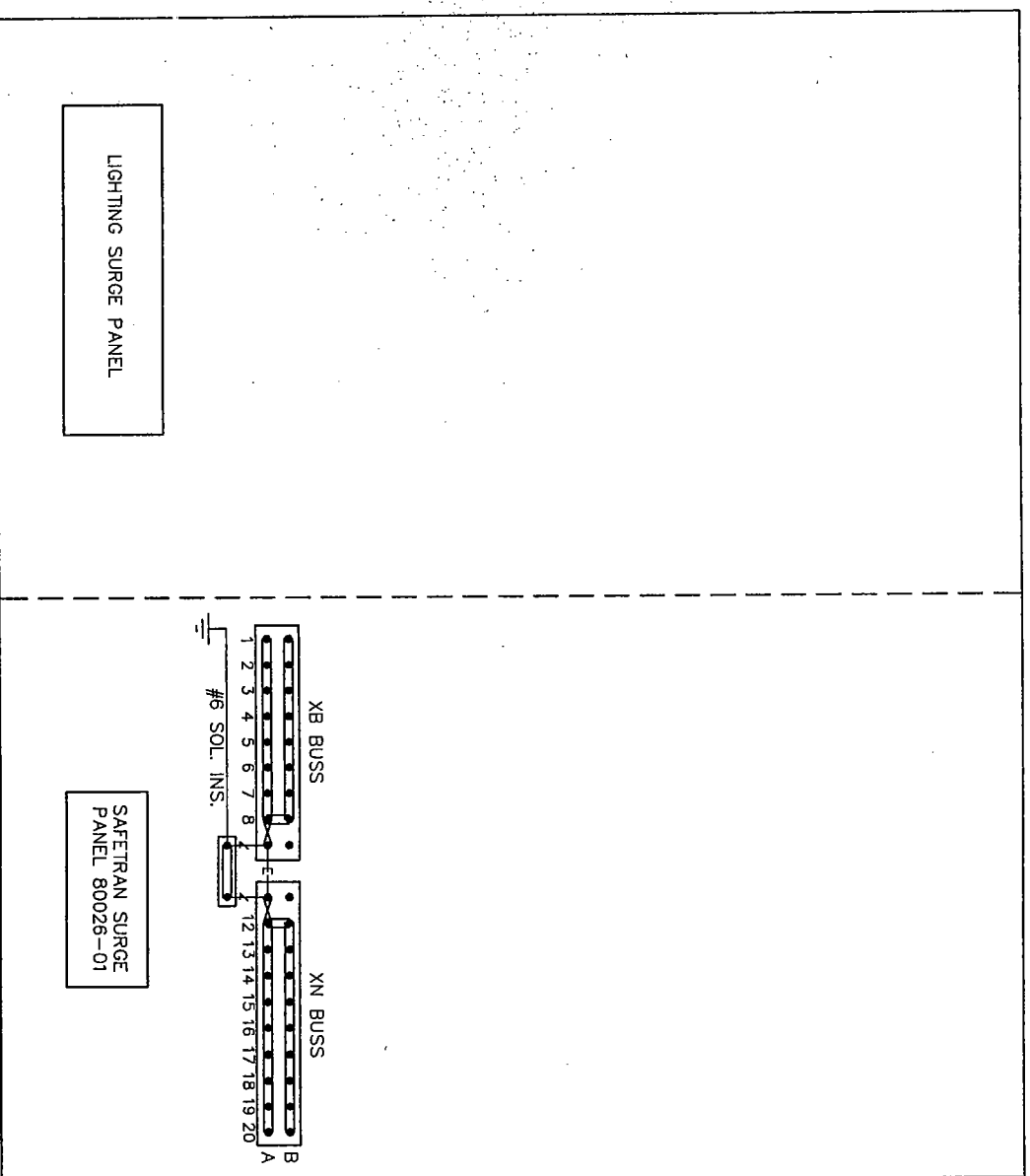
GATE CONTROLLER CLOSED AT:
 CONTACT #6: 45-90 DEG. (POWER DOWN)
 CONTACT #7: 0-89 DEG. (POWER UP)
 CONTACT #8: 83-90 DEG. (GATE POS. = UP)
 CONTACT #9: 5-90 DEG. (BELL) NOT USED
 CONTACT #10: 0-5 DEG. (HORZ. SNUB)
 NOTE: CONTACTS SHOWN WITH GATE IN "Up" POSITION



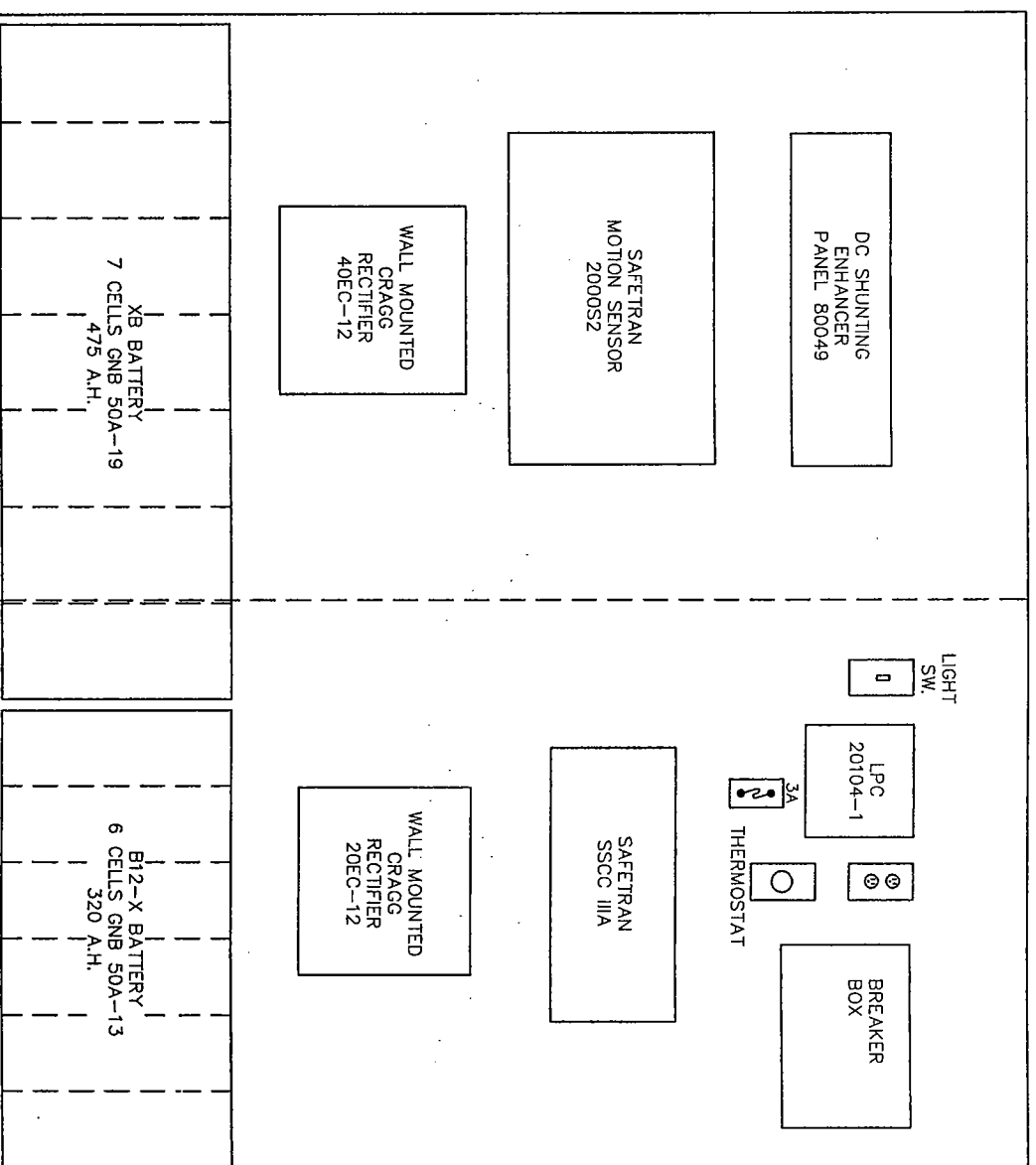
- NOTES:**
1. ALL WIRING #10 AWG MINIMUM UNLESS OTHERWISE NOTED. WIRE SIZES SHOWN ARE MINIMUM GAUGE.
 2. THE "FAR GATE" IS THE FLASHER LOCATION WITH THE LONGEST WIRE RUNS FROM THE SAME SURGE PANEL TO THE LIGHTS AND THEREFORE THE HIGHEST CABLE RESISTANCE.

SAFETRAN
 6'-9"W x 2'-0"D x 6'-0"H
 ALUMINUM CASE

BACK



FRONT



TSWR GRADE
 CROSSINGS
 IMPROVEMENTS

SOUTH WAPATO ROAD
 TS 3104

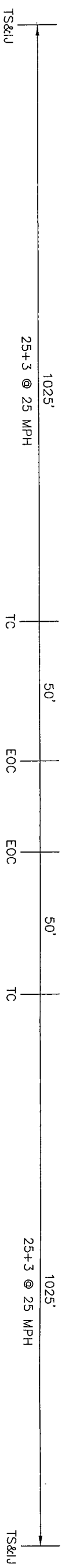
STPXP-39JL(001)

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RECOMMENDED BY:
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DRAWN:	CHECKED BY:
REVISION:	

EQUIPMENT LAYOUT
 PLAN FOR SAFETRAN
 6'-9" ALUM. CASE



TSWR GRADE
CROSSINGS
IMPROVEMENTS

BROWNSTOWN ROAD
TS 3105

STPXP-A391(001)

PREPARED BY
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FOR
YAKIMA COUNTY

RECOMMENDED BY:

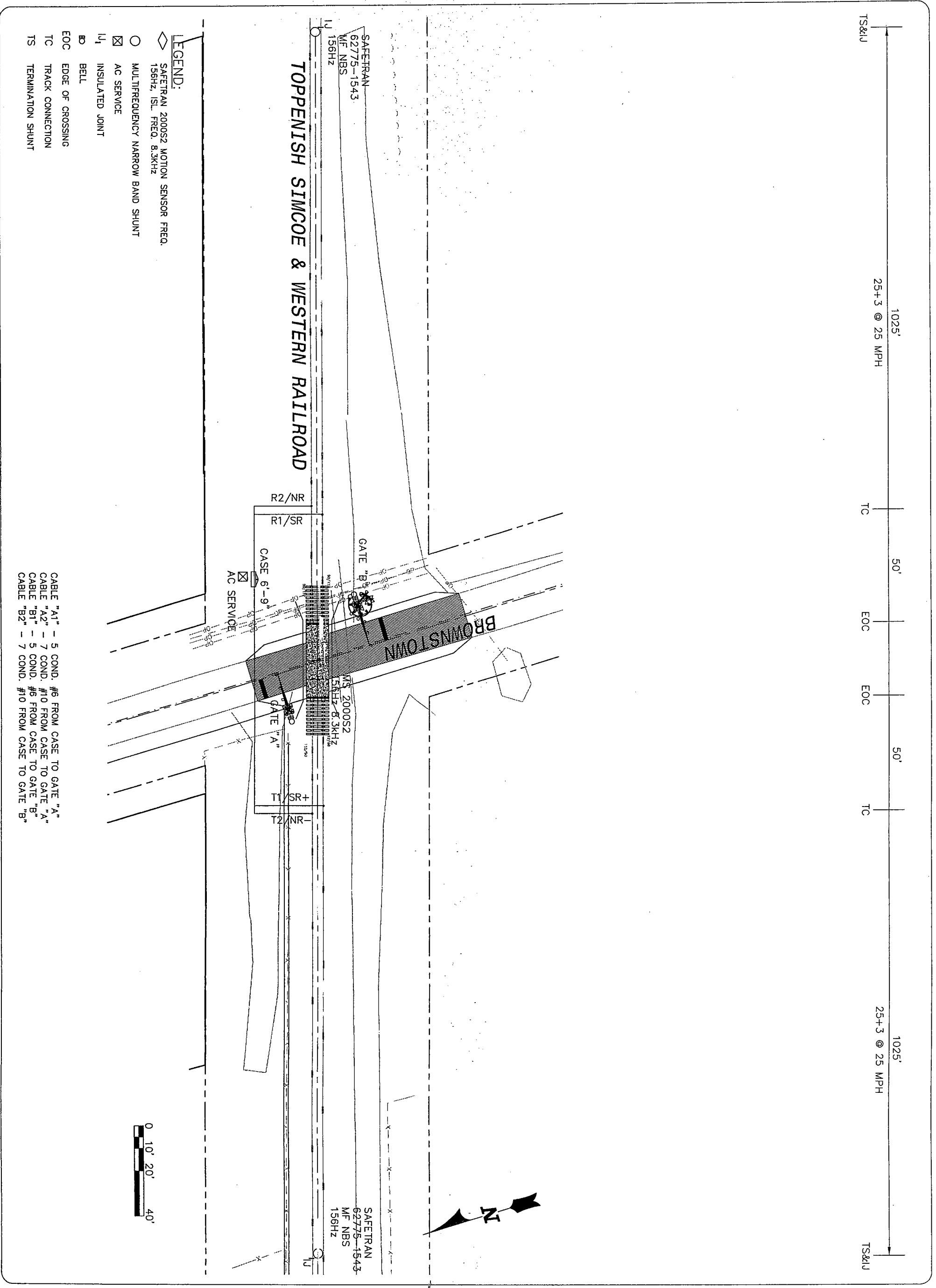
PROJECT ENGINEER

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REVISION:

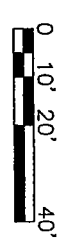
SIGNAL LOCATION
PLAN

SHEET 20 OF 39



- LEGEND:**
- ◇ SAFETRAN 2000S2 MOTION SENSOR FREQ. 156HZ, ISL. FREQ. 8.3KHZ
 - MULTIFREQUENCY NARROW BAND SHUNT
 - ☒ AC SERVICE
 - ⌌ INSULATED JOINT
 - Ⓚ BELL
 - EOC EDGE OF CROSSING
 - TC TRACK CONNECTION
 - TS TERMINATION SHUNT

CABLE "A1" - 5 COND. #6 FROM CASE TO GATE "A"
 CABLE "A2" - 7 COND. #10 FROM CASE TO GATE "A"
 CABLE "B1" - 5 COND. #6 FROM CASE TO GATE "B"
 CABLE "B2" - 7 COND. #10 FROM CASE TO GATE "B"





TSWR GRADE CROSSINGS IMPROVEMENTS
BROWNSTOWN ROAD
TS 3105

STPXP-A391(001)

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 FOR
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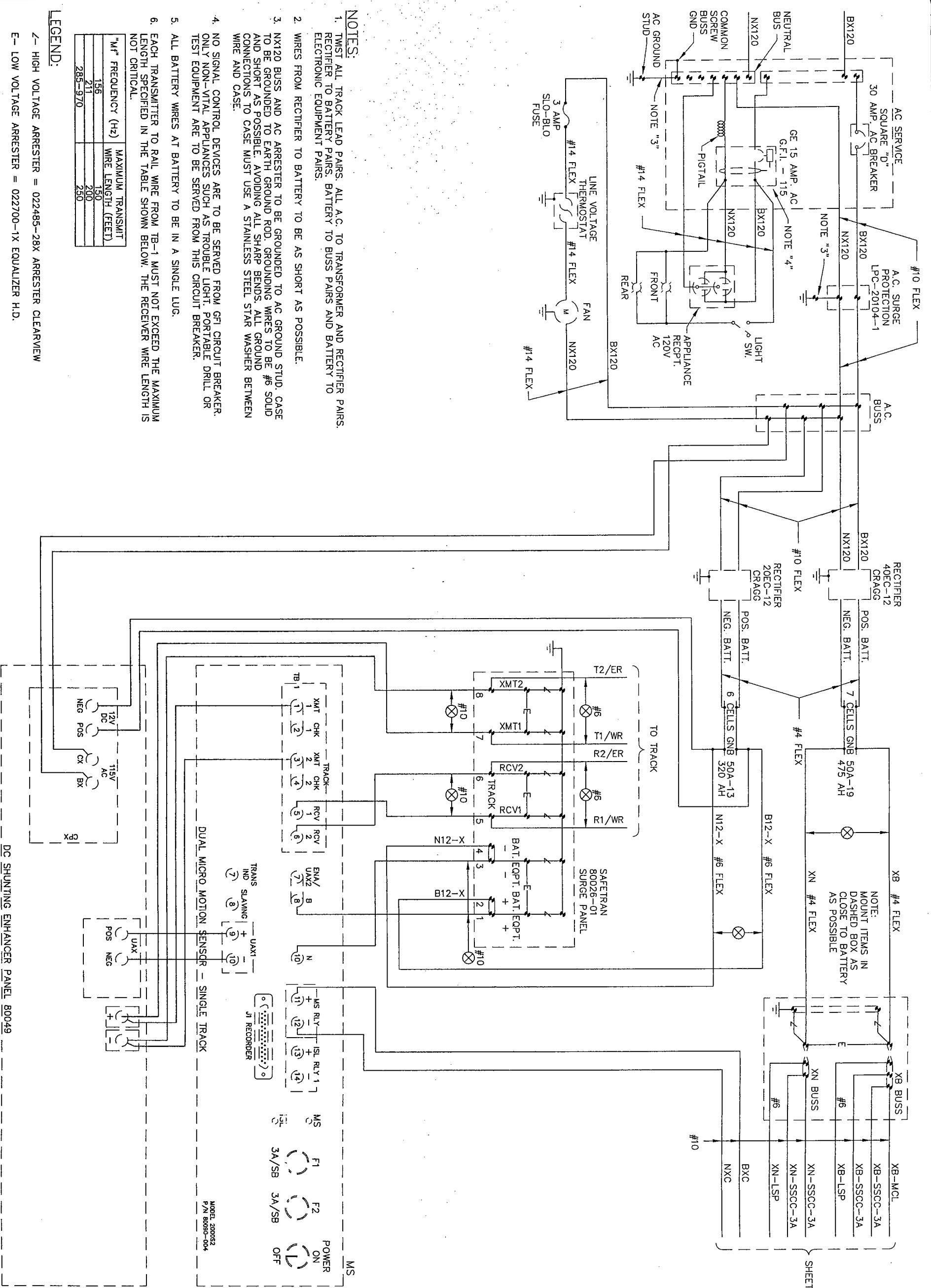
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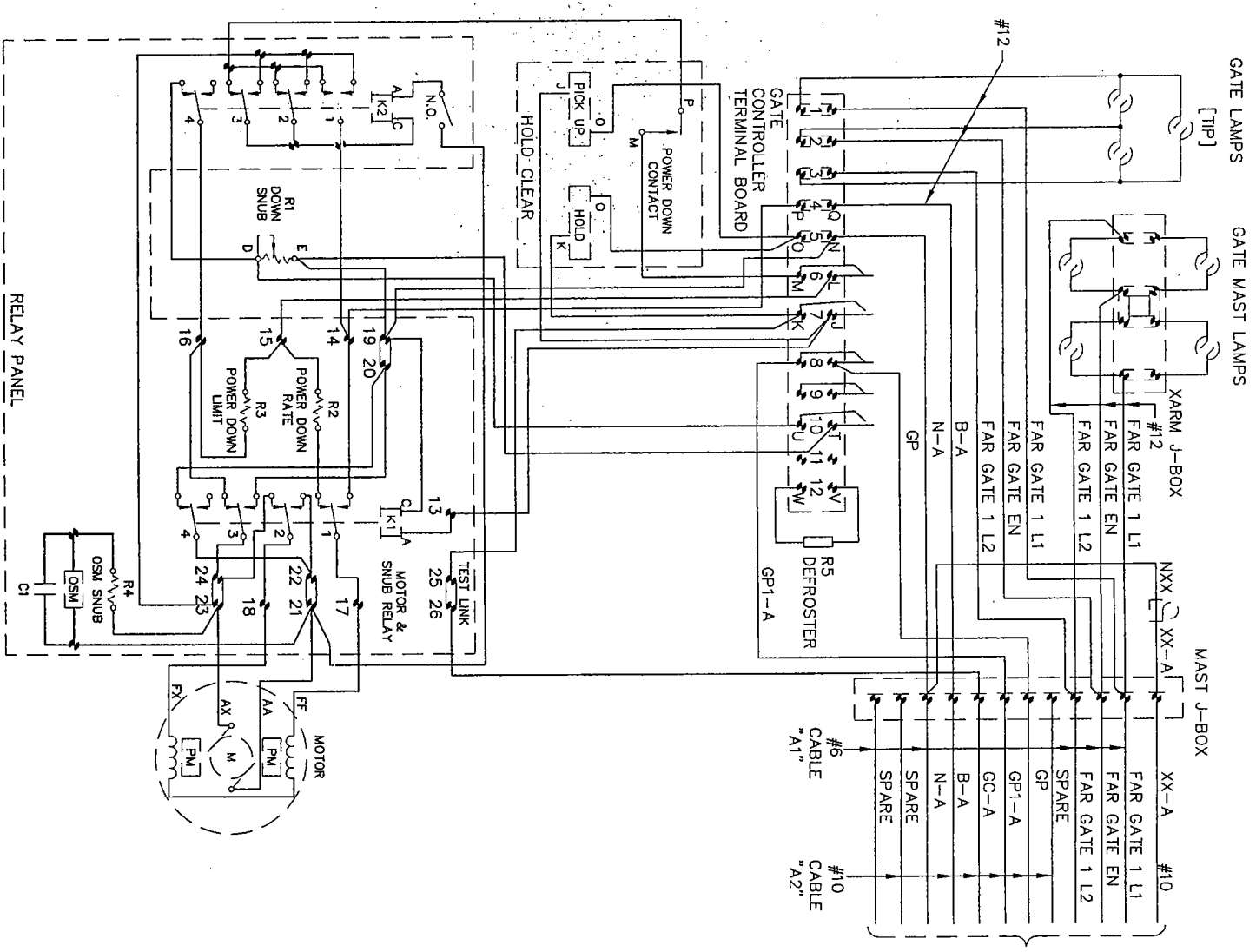
REVISION:

POWER DISTRIBUTION & MOTION DETECTION PLAN

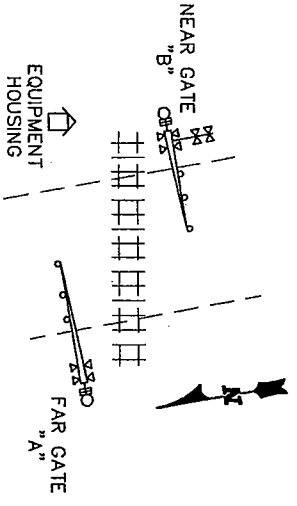
SHEET 21 OF 39

SHEET 22

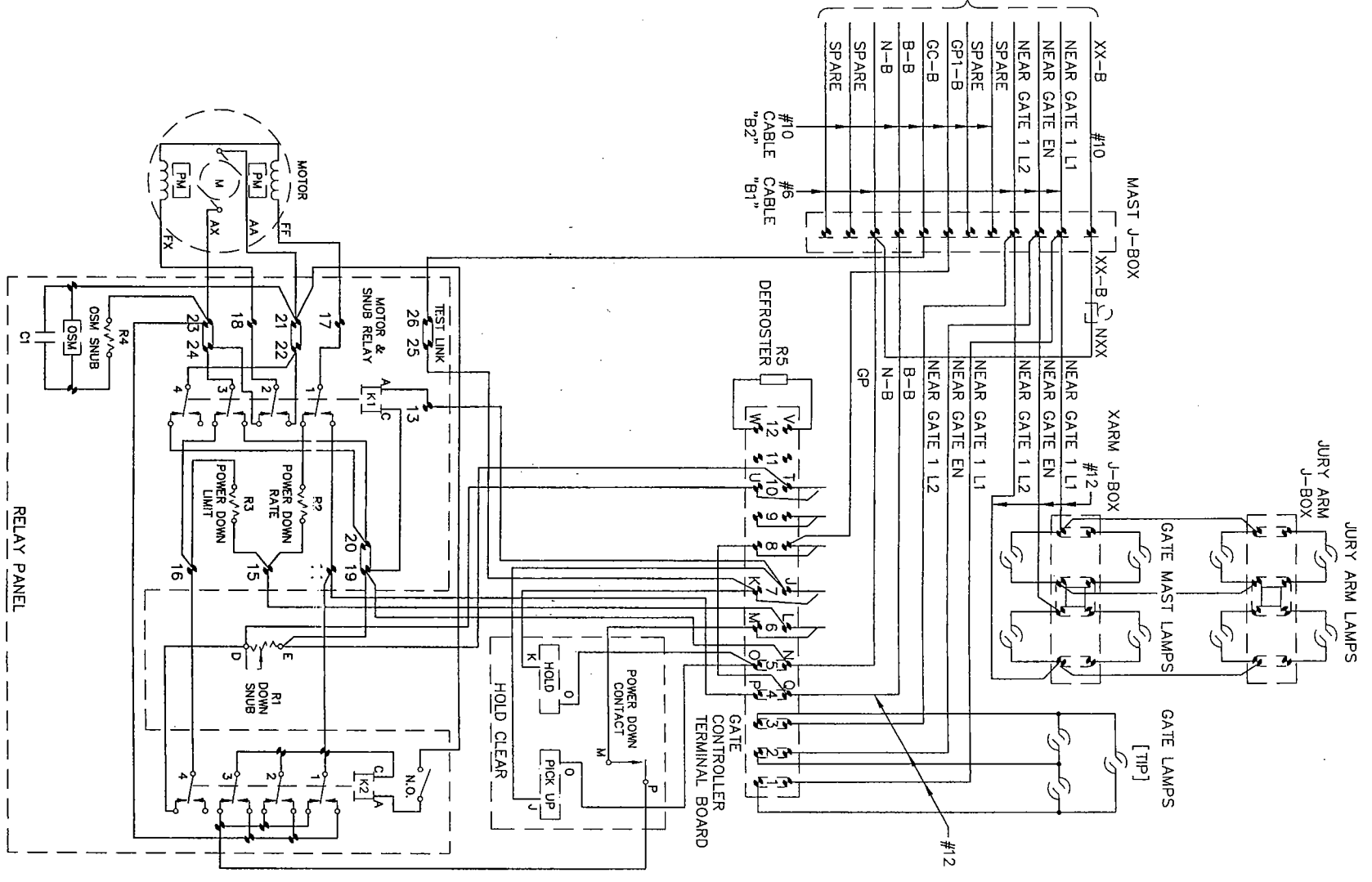




FAR GATE "A"

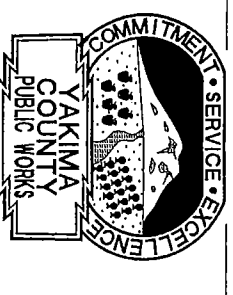


GATE CONTROLLER CLOSED AT:
 CONTACT #6: 45-90 DEG. (POWER DOWN)
 CONTACT #7: 0-89 DEG. (POWER UP)
 CONTACT #8: 83-90 DEG. (GATE POS. = UP)
 CONTACT #9: 5-90 DEG. (BELL) NOT USED
 CONTACT #10: 0-5 DEG. (HORZ. SNUB)
 NOTE: CONTACTS SHOWN WITH GATE IN "UP" POSITION



NEAR GATE "B"

- NOTES:
1. ALL WIRING #10 AWG MINIMUM UNLESS OTHERWISE NOTED. WIRE SIZES SHOWN ARE MINIMUM GAUGE.
 2. THE "FAR GATE" IS THE FLASHER LOCATION WITH THE LONGEST WIRE RUNS FROM THE SAME SURGE PANEL TO THE LIGHTS AND THEREFORE THE HIGHEST CABLE RESISTANCE.



TSWR GRADE CROSSINGS IMPROVEMENTS

BROWNSTOWN ROAD
 TS 3105

STPXP-A391(001)

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 FOR
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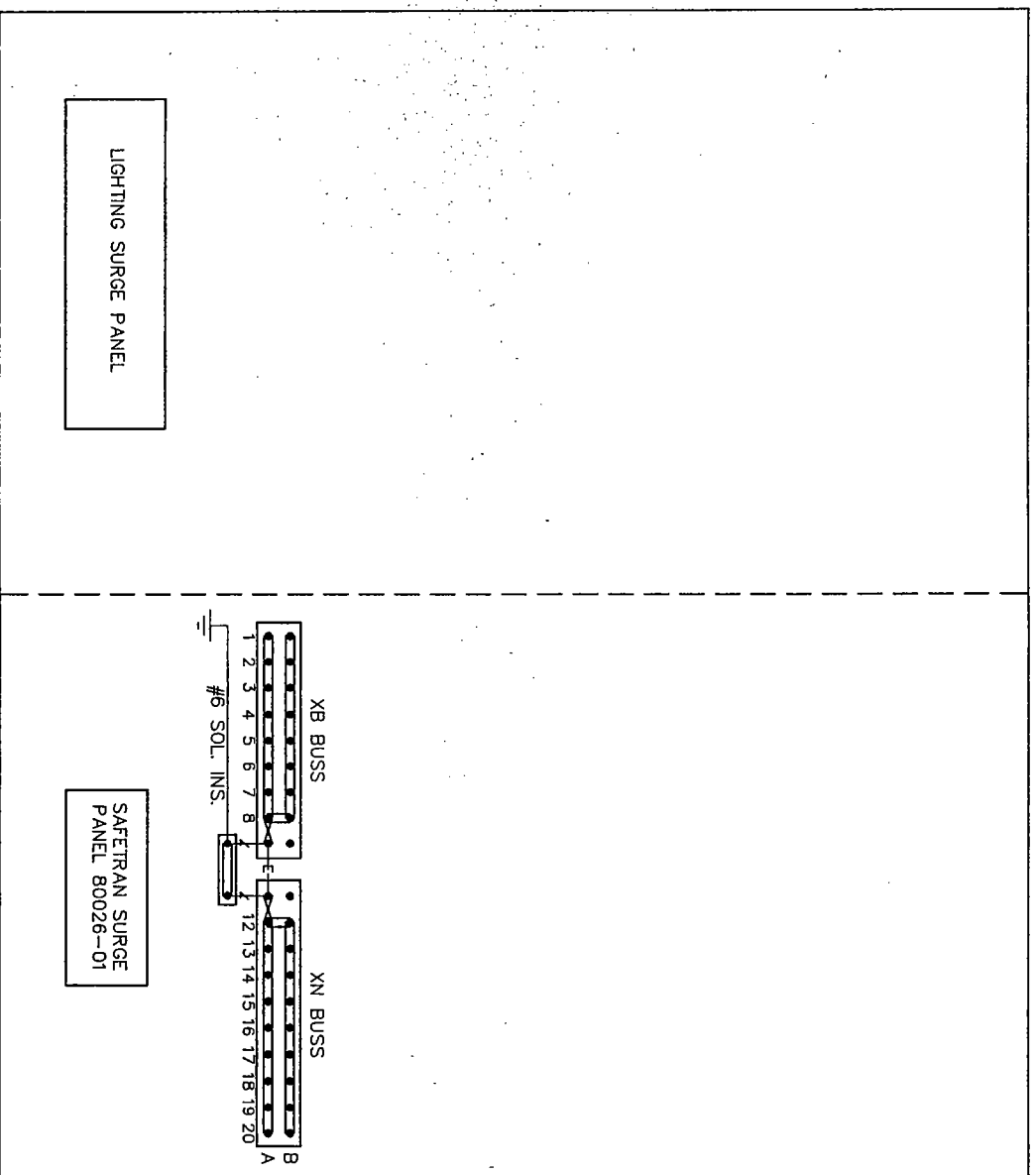
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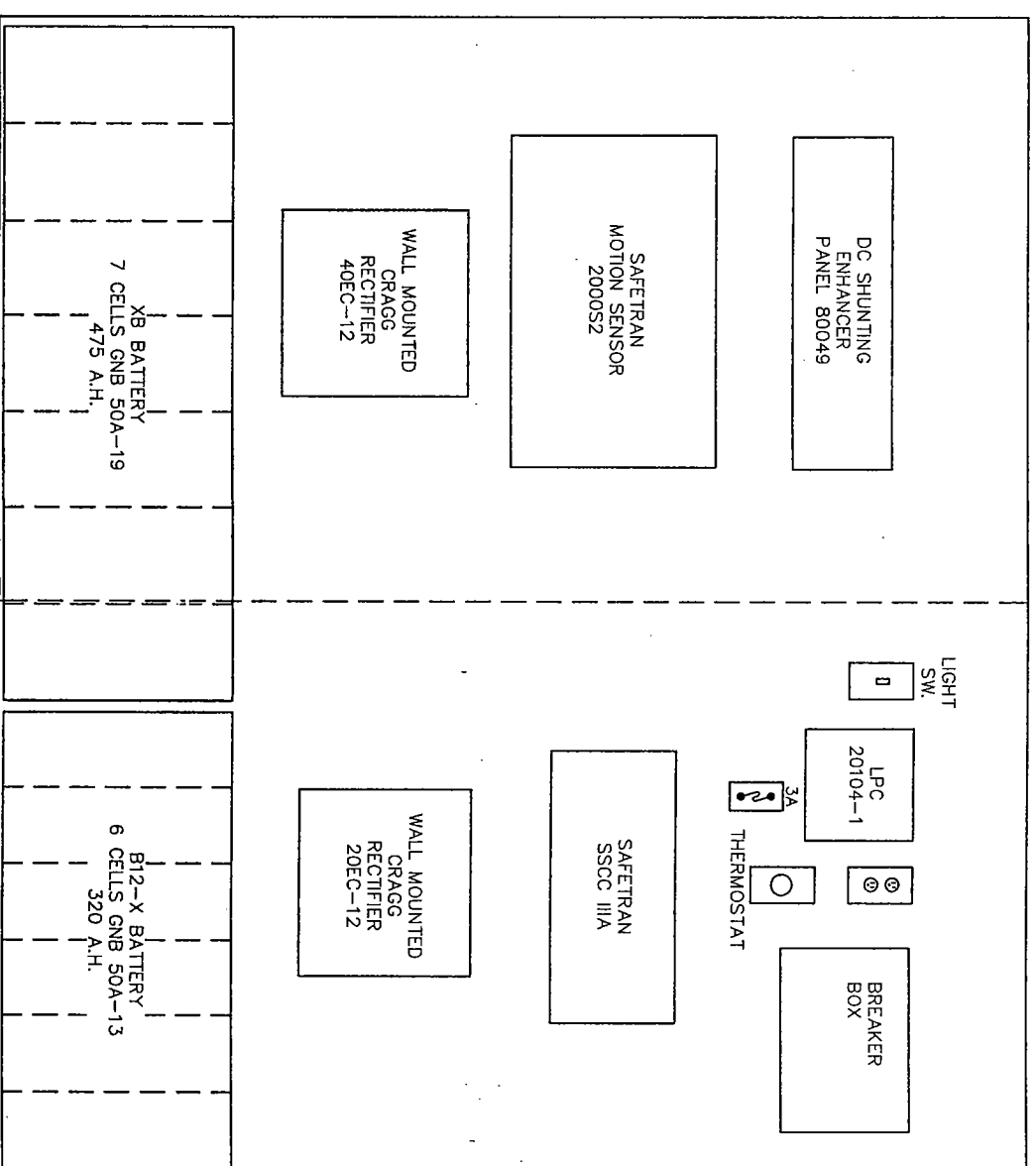
GATE CIRCUIT
 PLAN

SAFETRAN
 6'-9"W x 2'-0"D x 6'-0"H
 ALUMINUM CASE

BACK



FRONT



TSWR GRADE
 CROSSINGS
 IMPROVEMENTS

BROWNSTOWN ROAD
 TS 3105

STPXP-A391(001)

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 FOR
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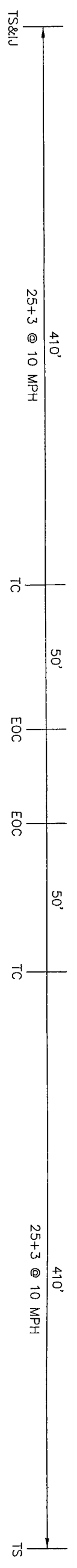
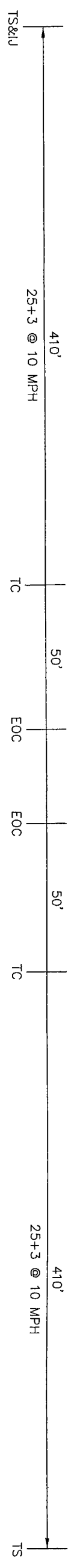
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REVISION:

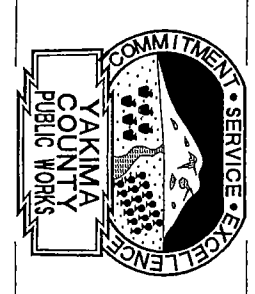
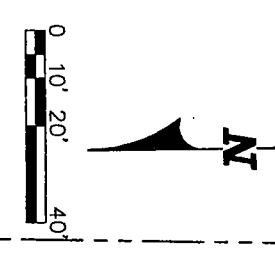
EQUIPMENT LAYOUT
 PLAN FOR SAFETRAN
 6'-9" ALUM. CASE

SHEET 24 OF 39



- LEGEND:**
- ◇ SAFETRAN 2000S2 MOTION SENSOR FREQ. 285HZ, ISL. FREQ. 8.3KHZ
 - MULTIFREQUENCY NARROW BAND SHUNT
 - ⊗ AC SERVICE
 - ⌌ INSULATED JOINT
 - Ⓚ BELL
 - EOC EDGE OF CROSSING
 - TC TRACK CONNECTION
 - TS TERMINATION SHUNT

- CABLE "A1" - 5 COND. #6 FROM CASE TO GATE "A"
- CABLE "A2" - 7 COND. #10 FROM CASE TO GATE "A"
- CABLE "B1" - 5 COND. #6 FROM CASE TO GATE "B"
- CABLE "B2" - 7 COND. #10 FROM CASE TO GATE "B"



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

**CURTIS STREET
TS 3106**

STXP-A390(005)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY

RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

SIGNAL LOCATION
PLAN

SHEET 25 OF 39



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

CURTIS STREET
TS 3106

STPXP-A390(005)

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FOR
YAKIMA COUNTY

RECOMMENDED BY:

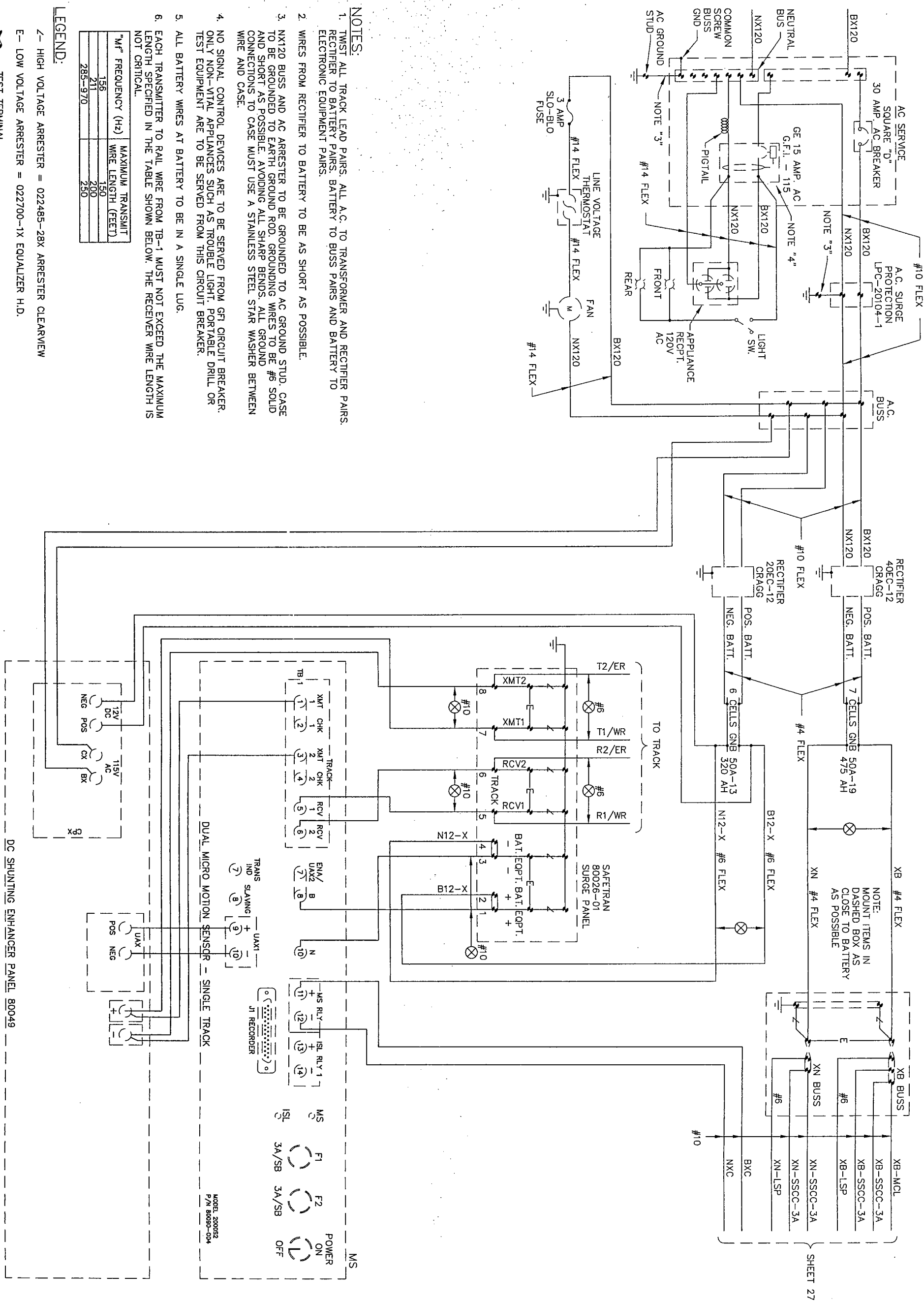
PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

**POWER DISTRIBUTION
& MOTION DETECTION
PLAN**

SHEET 26 OF 39



- NOTES:**
1. TWIST ALL TRACK LEAD PAIRS. ALL A.C. TO TRANSFORMER AND RECTIFIER PAIRS. RECTIFIER TO BATTERY PAIRS. BATTERY TO BUSS PAIRS AND BATTERY TO ELECTRONIC EQUIPMENT PAIRS.
 2. WIRES FROM RECTIFIER TO BATTERY TO BE AS SHORT AS POSSIBLE.
 3. NX120 BUSS AND AC ARRESTER TO BE GROUNDED TO AC GROUND STUD. CASE TO BE GROUNDED TO EARTH GROUND ROD. GROUNDING WIRES TO BE #6 SOLID AND SHORT AS POSSIBLE. AVOIDING ALL SHARP BENDS. ALL GROUND CONNECTIONS TO CASE MUST USE A STAINLESS STEEL STAR WASHER BETWEEN WIRE AND CASE.
 4. NO SIGNAL CONTROL DEVICES ARE TO BE SERVED FROM GFI CIRCUIT BREAKER. ONLY NON-VITAL APPLIANCES SUCH AS TROUBLE LIGHT, PORTABLE DRILL OR TEST EQUIPMENT ARE TO BE SERVED FROM THIS CIRCUIT BREAKER.
 5. ALL BATTERY WIRES AT BATTERY TO BE IN A SINGLE LUG.
 6. EACH TRANSMITTER TO RAIL WIRE FROM TB-1 MUST NOT EXCEED THE MAXIMUM LENGTH SPECIFIED IN THE TABLE SHOWN BELOW. THE RECEIVER WIRE LENGTH IS NOT CRITICAL.

WIRE FREQUENCY (Hz)	MAXIMUM TRANSMIT WIRE LENGTH (FEET)
156	150
211	200
285-970	250

- LEGEND:**
- HIGH VOLTAGE ARRESTER = 022485-28X ARRESTER CLEARVIEW
 - LOW VOLTAGE ARRESTER = 022700-1X EQUALIZER H.D.
 - TEST TERMINAL
 - TWISTED WIRES



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

CURTIS STREET
TS 3106

STPXP-A390(005)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY

RECOMMENDED BY:

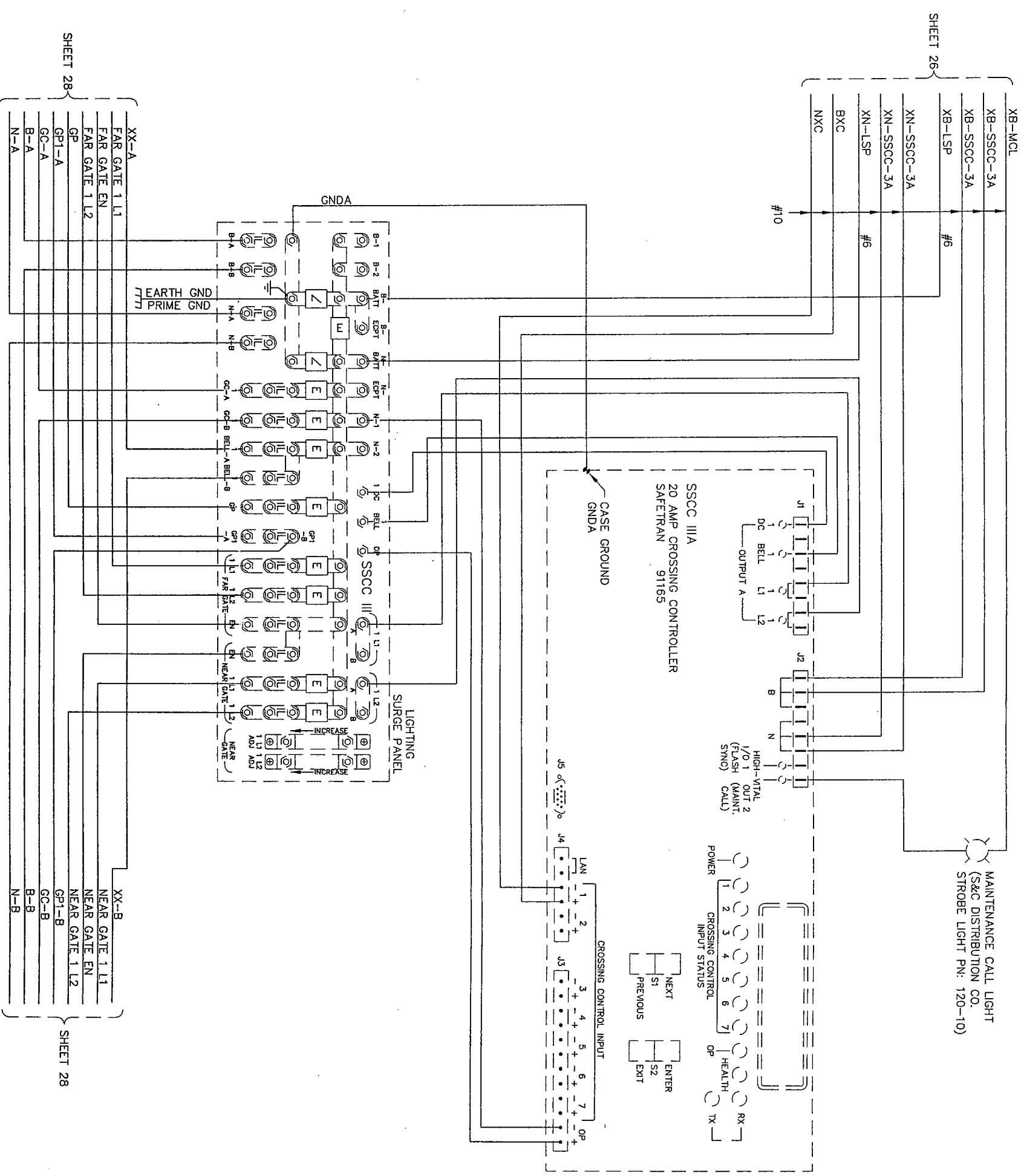
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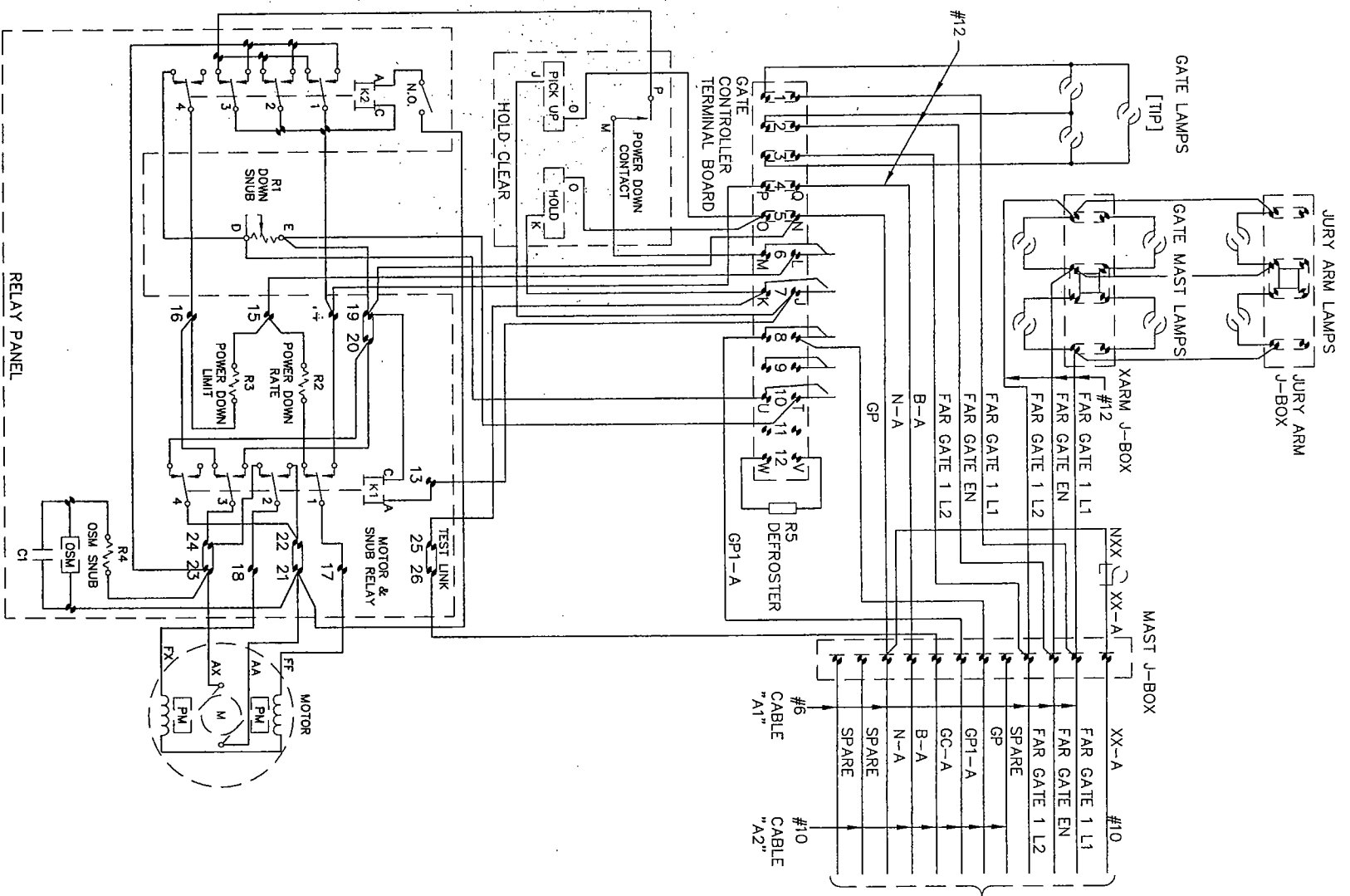
REVISION:

CROSSING CONTROL
PLAN

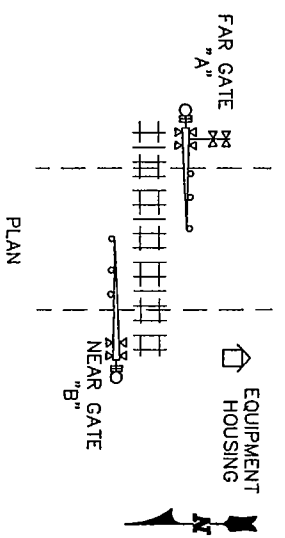
SHEET 27 OF 39



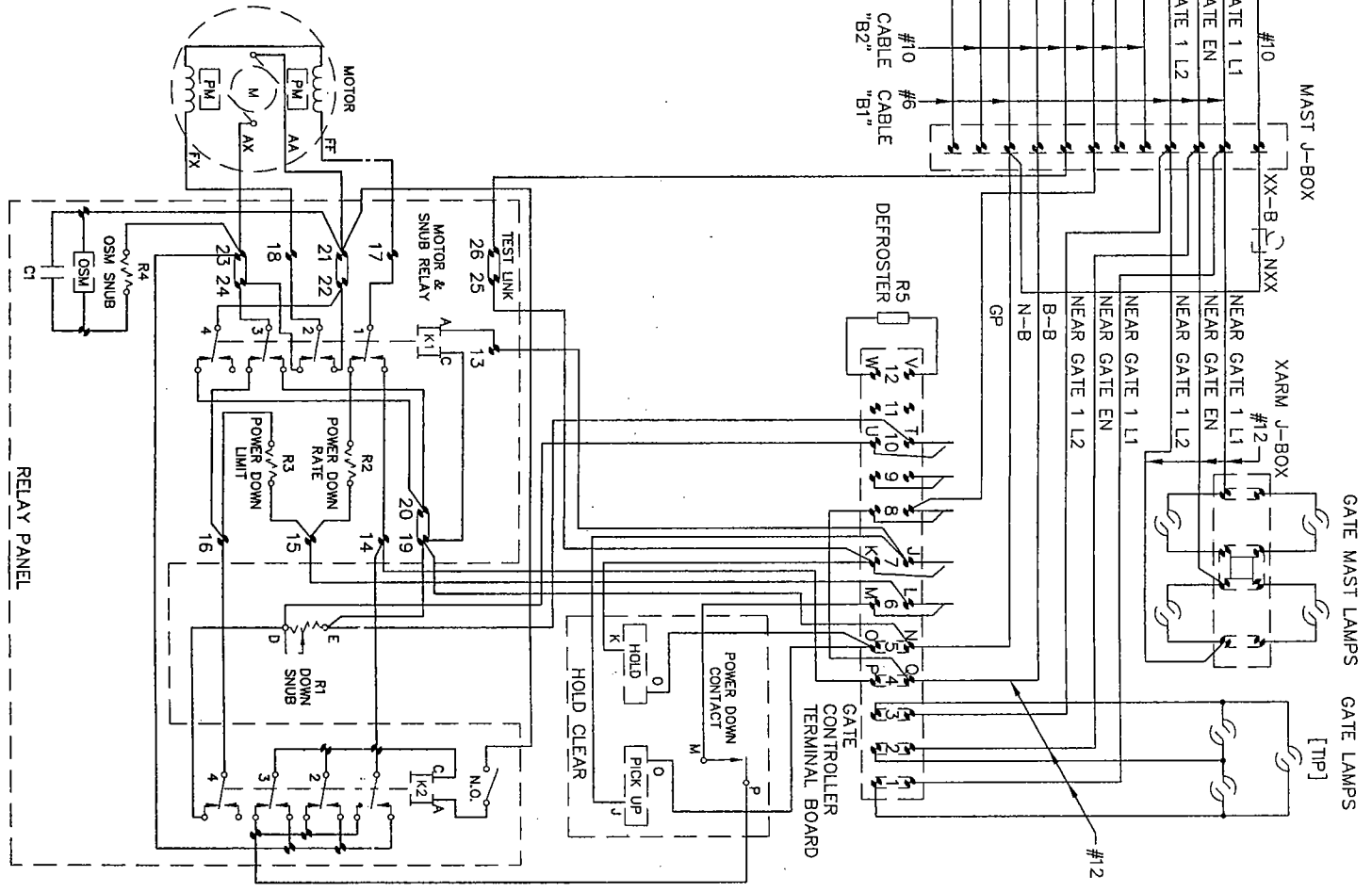
- NOTES:**
1. ALL WIRING #10 AWG MINIMUM UNLESS OTHERWISE NOTED. WIRE SIZES SHOWN ARE MINIMUM GAUGE.
 2. THE "FAR GATE" IS THE FLASHER LOCATION WITH THE LONGEST WIRE RUNS FROM THE SAME SURGE PANEL TO THE LIGHTS AND THEREFORE THE HIGHEST CABLE RESISTANCE.
 3. THE FOLLOWING SURGE PANEL SYMBOLS ARE USED:
 L - HIGH VOLTAGE ARRESTER = 022485-28X ARRESTER CLEARVIEW
 E - LOW VOLTAGE ARRESTER = 022700-1X EQUALIZER H.D.
 IL - INSULATED TESTING LINK



FAR GATE "A"



NEAR GATE "B"



GATE CONTROLLER CLOSED AT:
 CONTACT #6: 45-90 DEG. (POWER DOWN)
 CONTACT #7: 0-89 DEG. (POWER UP)
 CONTACT #8: 83-90 DEG. (GATE POS. = UP)
 CONTACT #9: 5-90 DEG. (BELL) NOT USED
 CONTACT #10: 0-5 DEG. (HORZ. SNUB)
 NOTE: CONTACTS SHOWN WITH GATE IN "UP" POSITION



TSWR GRADE CROSSINGS IMPROVEMENTS

CURTIS STREET
 TS 3106

STXP-A390(005)

PREPARED BY
 HDR
 ENGINEERING, INC.
 FOR
 YAKIMA COUNTY

RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

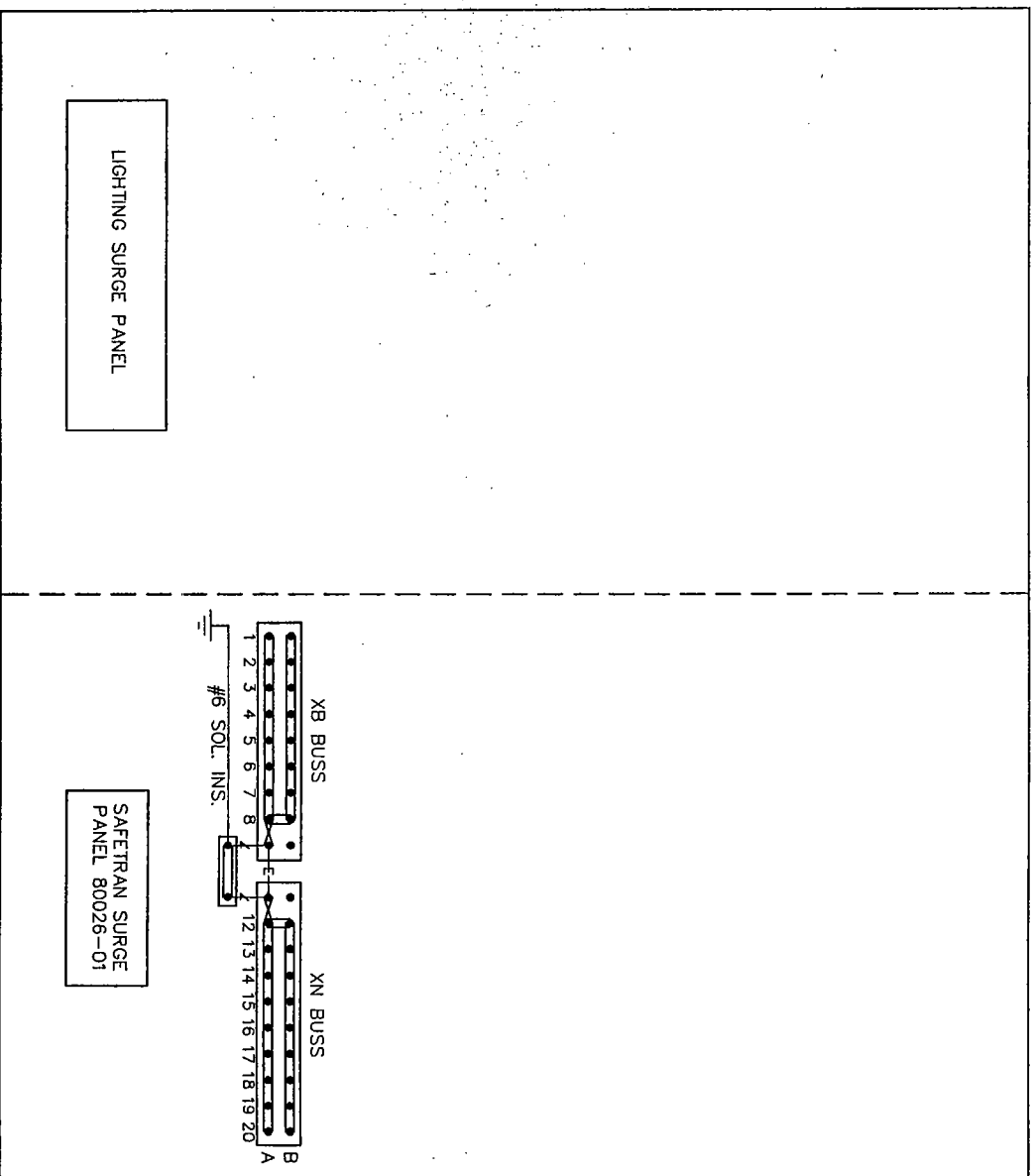
GATE CIRCUIT
 PLAN

SHEET 28 OF 39

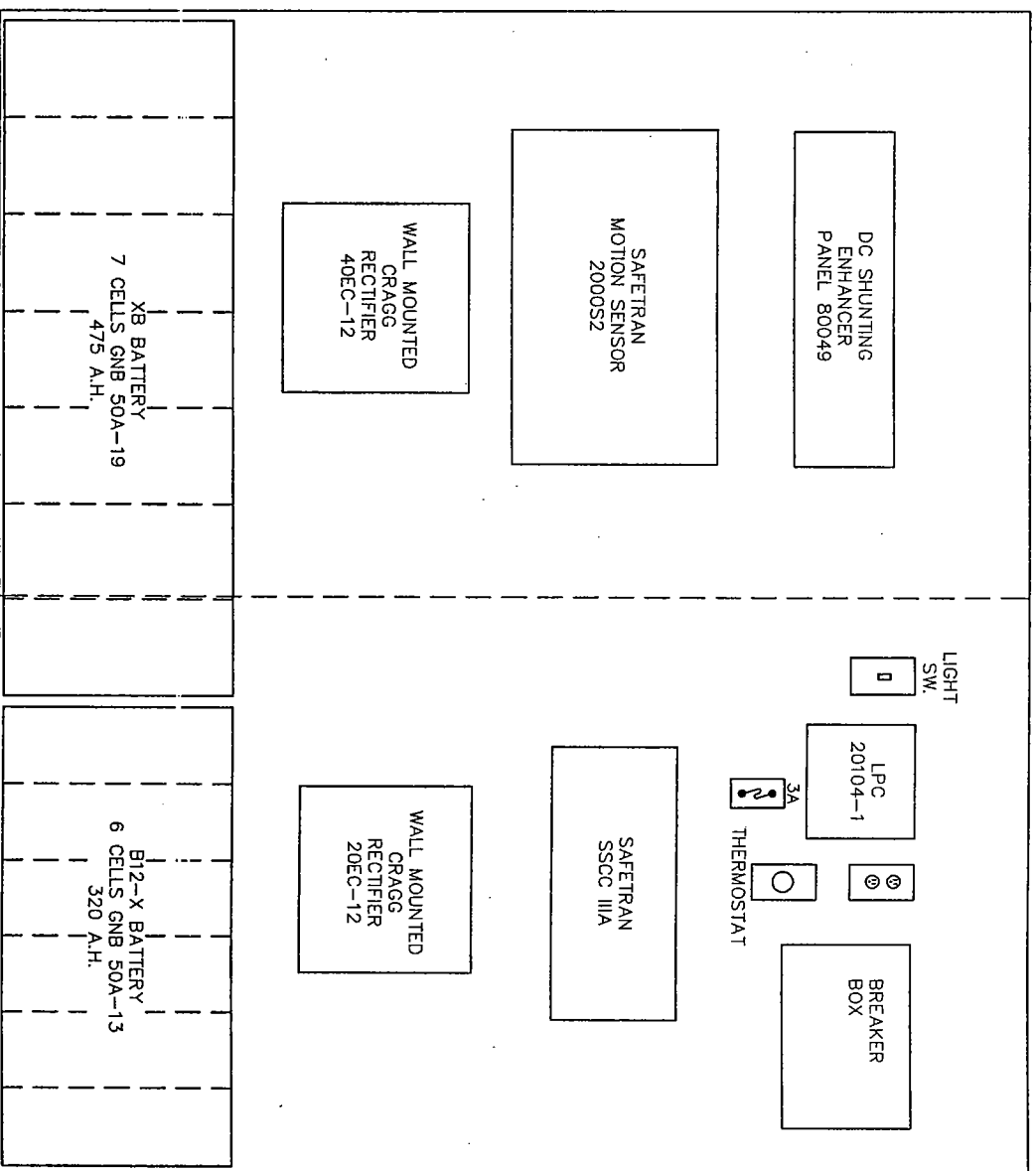
- NOTES:
1. ALL WIRING #10 AWG MINIMUM UNLESS OTHERWISE NOTED. WIRE SIZES SHOWN ARE MINIMUM GAUGE.
 2. THE "FAR GATE" IS THE FLASHER LOCATION WITH THE LONGEST WIRE RUNS FROM THE SAME SURGE PANEL TO THE LIGHTS AND THEREFORE THE HIGHEST CABLE RESISTANCE.

SAFETRAN
 6'-9"W x 2'-0"D x 6'-0"H
 ALUMINUM CASE

BACK



FRONT



TSMR GRADE
 CROSSINGS
 IMPROVEMENTS

CURTIS STREET
 TS 3106

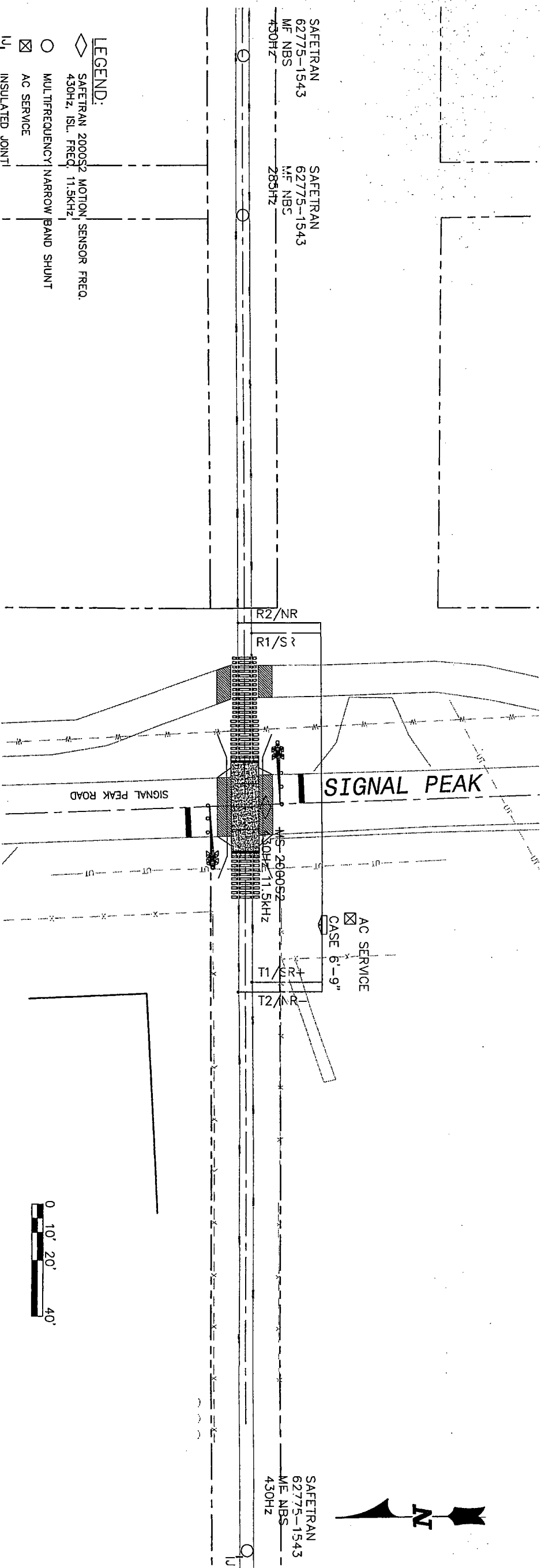
STPXP-A390(005)

PREPARED BY
 HDR
 ENGINEERING, INC.
 FOR
 YAKIMA COUNTY

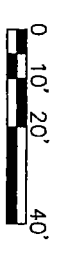
RECOMMENDED BY:
 PROJECT ENGINEER

DRAWN: _____ CHECKED BY: _____
 REVISION: _____

EQUIPMENT LAYOUT
 PLAN FOR SAFETRAN
 6'-9" ALUM. CASE



- LEGEND:**
- ◇ SAFETRAN 2000S2 MOTION SENSOR FREQ. 430HZ, ISL. FREQ. 11.5KHZ
 - MULTIFREQUENCY NARROW BAND SHUNT
 - ⊗ AC SERVICE
 - ⌌ INSULATED JOINT
 - Ⓚ BELL
 - EOC EDGE OF CROSSING
 - TC TRACK CONNECTION
 - TS TERMINATION SHUNT



TSMR GRADE
CROSSINGS
IMPROVEMENTS

SIGNAL PEAK ROAD
TS 3107

STPXP-39JA(001)

PREPARED BY
HDR
ENGINEERING, INC.

FOR
YAKIMA COUNTY

RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: _____ CHECKED BY: _____

REVISION: _____

SIGNAL LOCATION
PLAN

SHEET 30 OF 39



TSMR GRADE CROSSINGS IMPROVEMENTS

SIGNAL PEAK ROAD
TS 3107

STPXP-39JA(001)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY

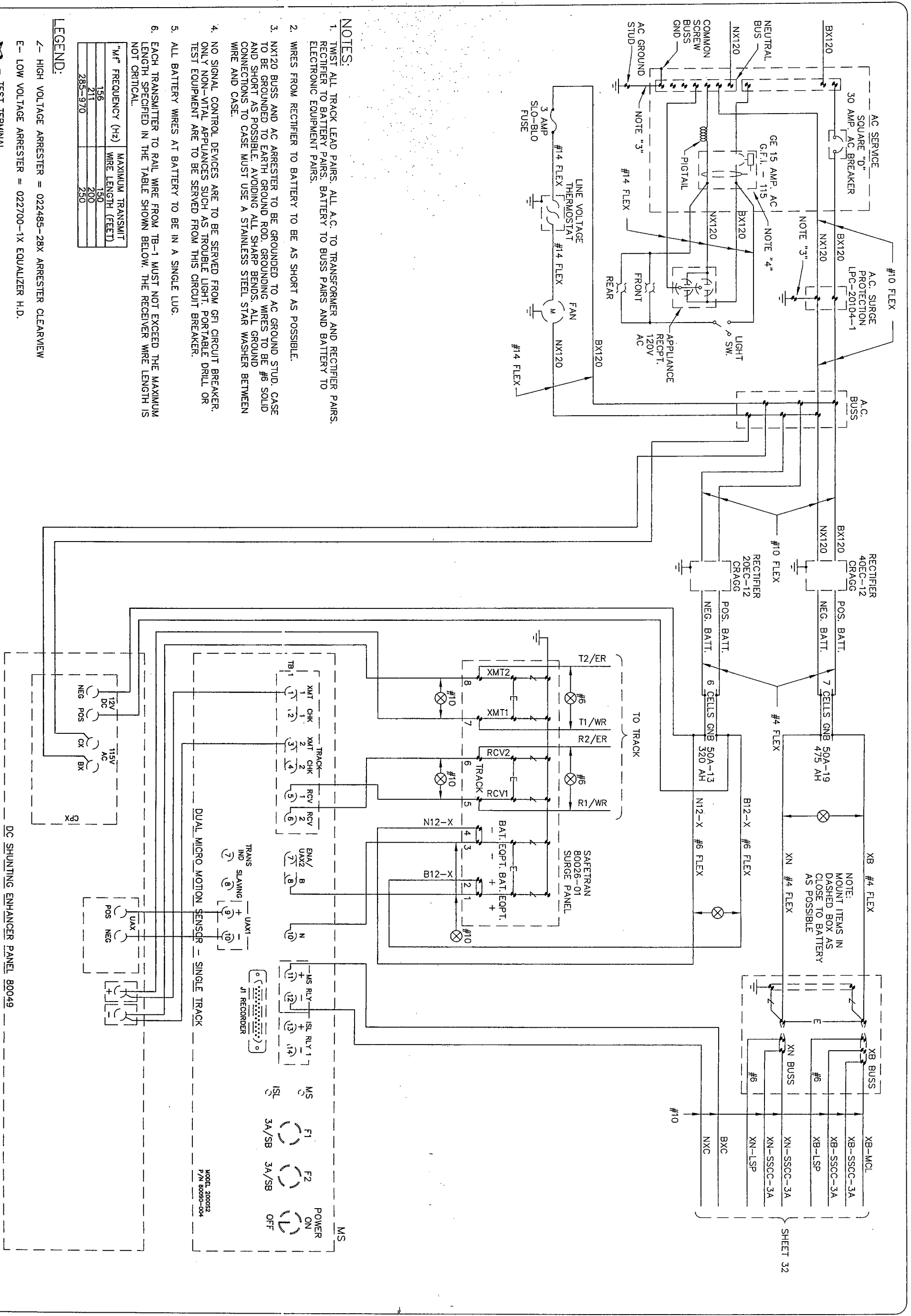
RECOMMENDED BY:

PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

POWER DISTRIBUTION & MOTION DETECTION PLAN



"M" FREQUENCY (Hz)	MAXIMUM TRANSMIT WIRE LENGTH (FEET)
156	150
211	200
285-970	250

LEGEND:

- HIGH VOLTAGE ARRESTER = 022485-28X ARRESTER CLEARVIEW
- LOW VOLTAGE ARRESTER = 022700-1X EQUALIZER H.D.
- TEST TERMINAL
- TWISTED WIRES

NOTES:

- TWIST ALL TRACK LEAD PAIRS. ALL A.C. TO TRANSFORMER AND RECTIFIER PAIRS. RECTIFIER TO BATTERY PAIRS. BATTERY TO BUSS PAIRS AND BATTERY TO ELECTRONIC EQUIPMENT PAIRS.
- WIRES FROM RECTIFIER TO BATTERY TO BE AS SHORT AS POSSIBLE.
- NX120 BUSS AND AC ARRESTER TO BE GROUNDED TO AC GROUND STUD. CASE TO BE GROUNDED TO EARTH GROUND ROD. GROUNDING WIRES TO BE #6 SOLID AND SHORT AS POSSIBLE. AVOIDING ALL SHARP BENDS. ALL GROUND CONNECTIONS TO CASE MUST USE A STAINLESS STEEL STAR WASHER BETWEEN WIRE AND CASE.
- NO SIGNAL CONTROL DEVICES ARE TO BE SERVED FROM GFI CIRCUIT BREAKER. ONLY NON-VITAL APPLIANCES SUCH AS TROUBLE LIGHT, PORTABLE DRILL OR TEST EQUIPMENT ARE TO BE SERVED FROM THIS CIRCUIT BREAKER.
- ALL BATTERY WIRES AT BATTERY TO BE IN A SINGLE LUG.
- EACH TRANSMITTER TO RAIL WIRE FROM TB-1 MUST NOT EXCEED THE MAXIMUM LENGTH SPECIFIED IN THE TABLE SHOWN BELOW. THE RECEIVER WIRE LENGTH IS NOT CRITICAL.



TSWR GRADE CROSSINGS IMPROVEMENTS

SIGNAL PEAK ROAD
TS 3107

STPXP-39JA(001)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY

RECOMMENDED BY:

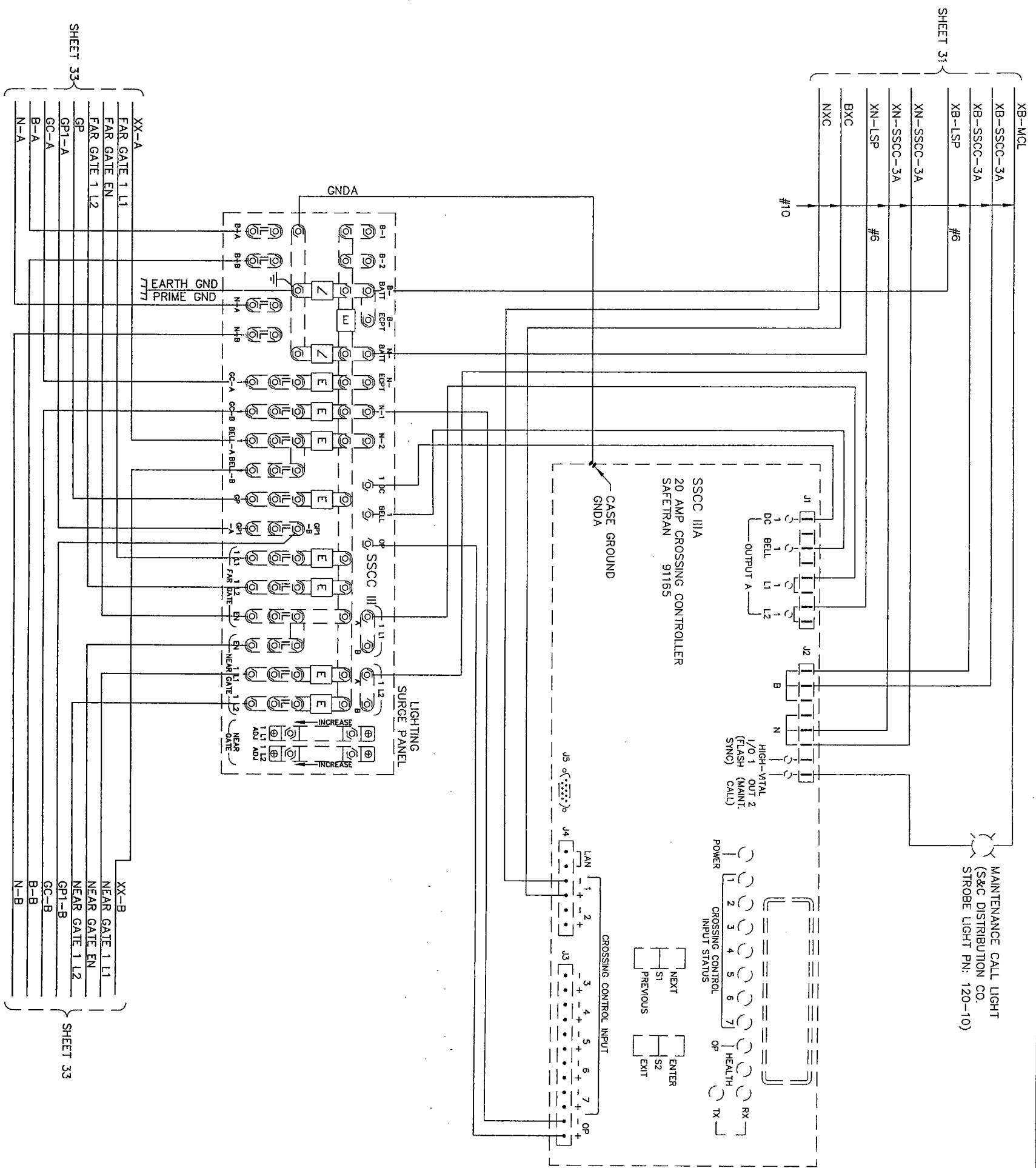
PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

CROSSING CONTROL PLAN

SHEET 32 OF 39



- NOTES:**
1. ALL WIRING #10 AWG MINIMUM UNLESS OTHERWISE NOTED. WIRE SIZES SHOWN ARE MINIMUM GAUGE.
 2. THE "FAR GATE" IS THE FLASHER LOCATION WITH THE LONGEST WIRE RUNS FROM THE SAME SURGE PANEL TO THE LIGHTS AND THEREFORE THE HIGHEST CABLE RESISTANCE.
 3. THE FOLLOWING SURGE PANEL SYMBOLS ARE USED:
 L - HIGH VOLTAGE ARRESTER = 022485-28X ARRESTER CLEARVIEW
 E - LOW VOLTAGE ARRESTER = 022700-1X EQUALIZER H.D.
 IL - INSULATED TESTING LINK



TSWR GRADE CROSSINGS IMPROVEMENTS

SIGNAL PEAK ROAD TS 3107

STPXP-39JA(001)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY

RECOMMENDED BY:

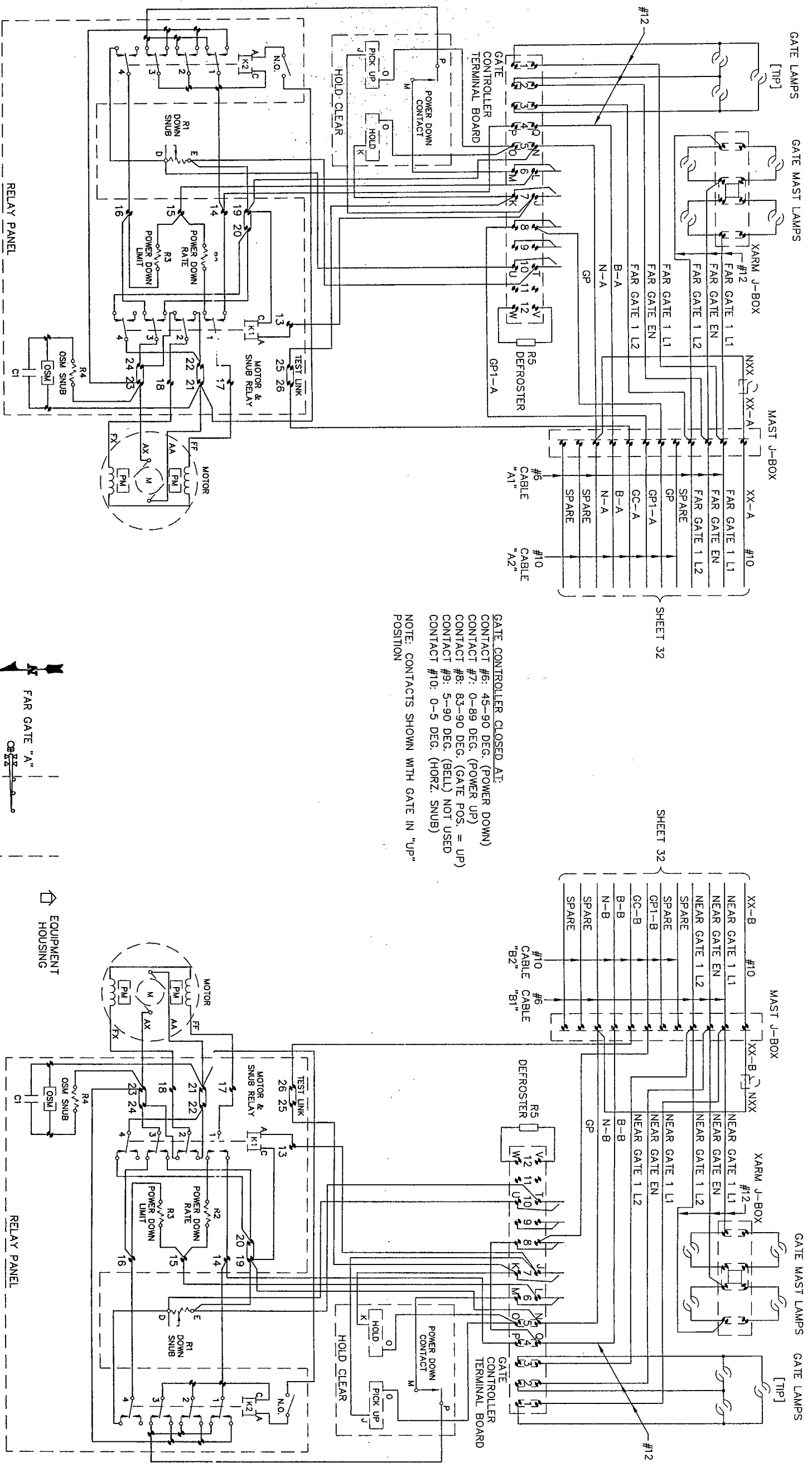
PROJECT ENGINEER

DRAWN: CHECKED BY:

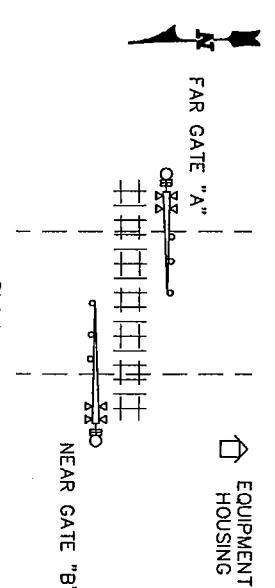
REVISION:

GATE CIRCUIT PLAN

SHEET 33 OF 39



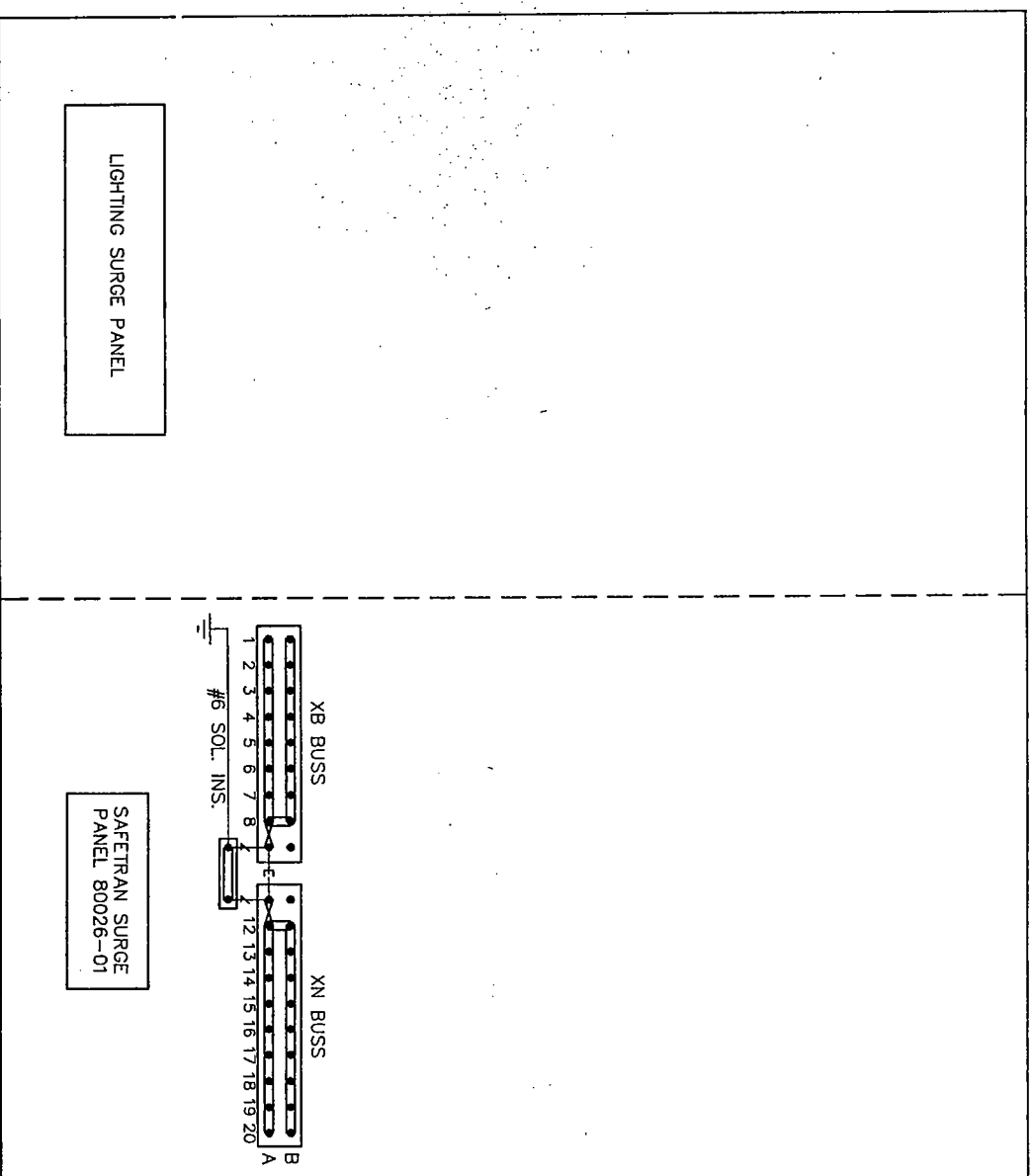
GATE CONTROLLER CLOSED AT:
 CONTACT #6: 45-90 DEG. (POWER DOWN)
 CONTACT #7: 0-89 DEG. (POWER UP)
 CONTACT #8: 83-90 DEG. (GATE POS. = UP)
 CONTACT #9: 5-90 DEG. (BELL) NOT USED
 CONTACT #10: 0-5 DEG. (HORIZ. SNUB)
 NOTE: CONTACTS SHOWN WITH GATE IN "UP" POSITION



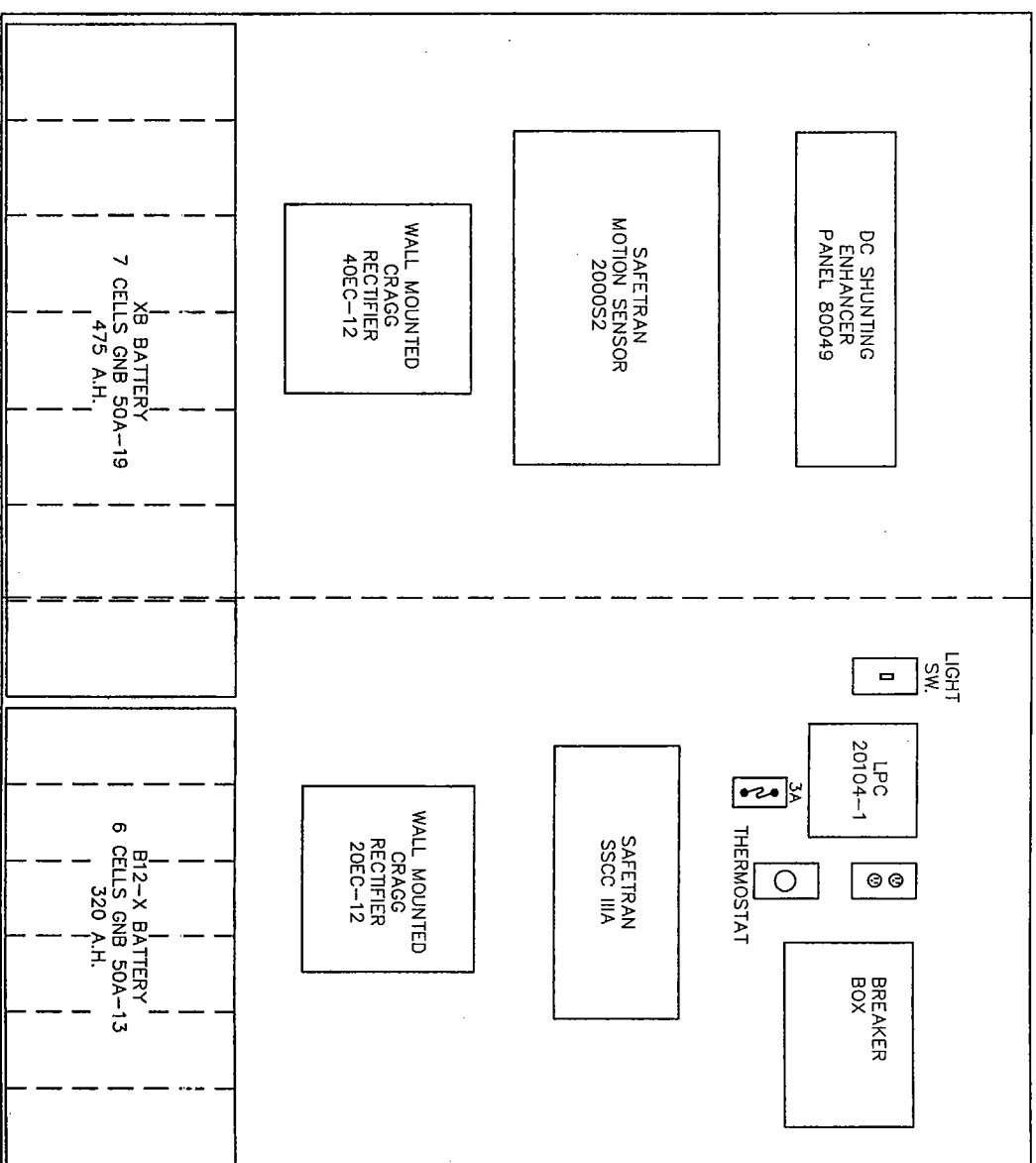
- NOTES:**
1. ALL WIRING #10 AWG MINIMUM UNLESS OTHERWISE NOTED. WIRE SIZES SHOWN ARE MINIMUM GAUGE.
 2. THE "FAR GATE" IS THE FLASHER LOCATION WITH THE LONGEST WIRE RUNS FROM THE SAME SURGE PANEL TO THE LIGHTS AND THEREFORE THE HIGHEST CABLE RESISTANCE.

SAFETRAN
 6'-9"W x 2'-0"D x 6'-0"H
 ALUMINUM CASE

BACK



FRONT



TSWR GRADE
 CROSSINGS
 IMPROVEMENTS

SIGNAL PEAK ROAD
 TS 3107

STPXP-39JA(001)

PREPARED BY
 HDR
 ENGINEERING, INC.
 FOR
 YAKIMA COUNTY

RECOMMENDED BY:
 PROJECT ENGINEER

DRAWN: _____ CHECKED BY: _____
 REVISION: _____

EQUIPMENT LAYOUT
 PLAN FOR SAFETRAN
 6'-9" ALUM. CASE



TSWR GRADE CROSSINGS IMPROVEMENTS

WHITE SWAN ROAD
TS 3108

STPXP-S390(002)

PREPARED BY
HDR
ENGINEERING, INC.

FOR
YAKIMA COUNTY

RECOMMENDED BY:

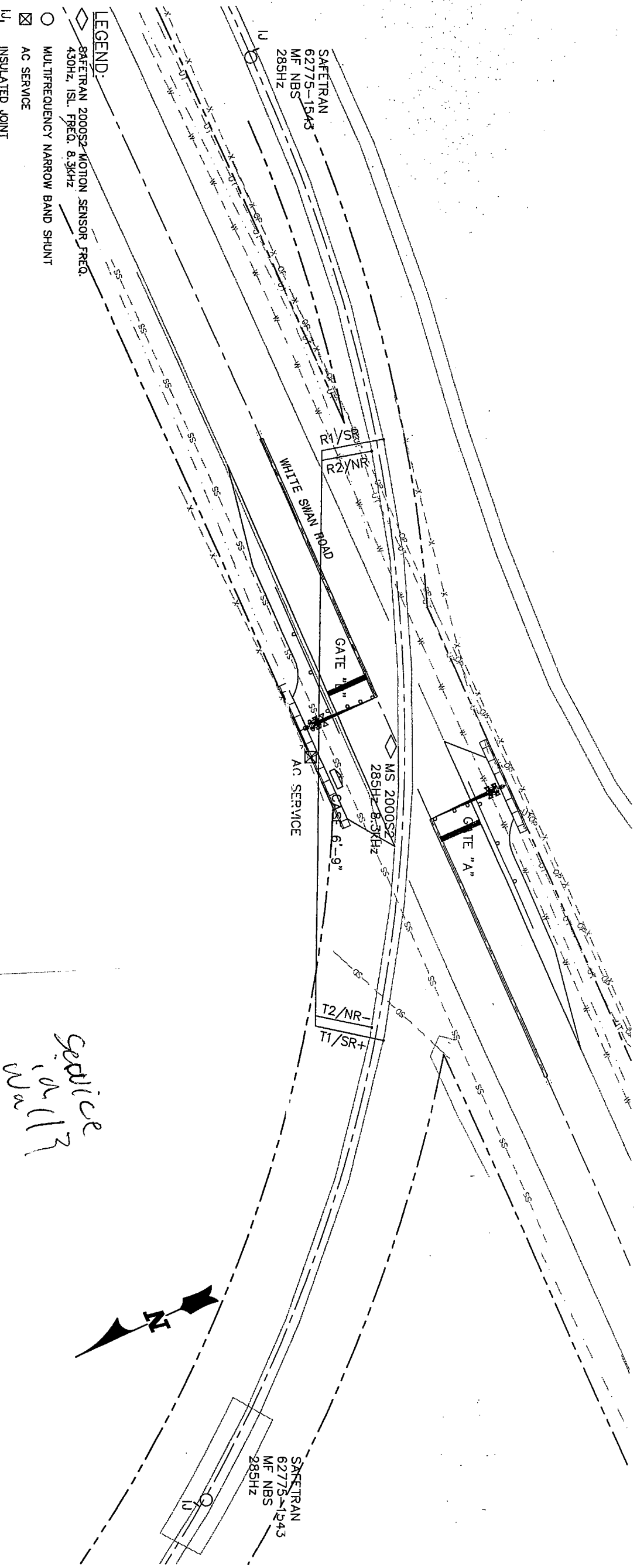
PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

SIGNAL LOCATION
PLAN

SHEET 35 OF 39



LEGEND:

- ◇ SAFETRAN 2000S2-MOTION SENSOR FREQ. 430HZ, ISL. FREQ. 8.3KHZ
- MULTIFREQUENCY NARROW BAND SHUNT
- ⊗ AC SERVICE
- U₁ INSULATED JOINT
- Ⓚ BELL
- EOC EDGE OF CROSSING
- TC TRACK CONNECTION
- TS TERMINATION SHUNT

CABLE "A1" - 5 COND. #6 FROM CASE TO GATE "A"
 CABLE "A2" - 7 COND. #10 FROM CASE TO GATE "A"
 CABLE "B1" - 5 COND. #6 FROM CASE TO GATE "B"
 CABLE "B2" - 7 COND. #10 FROM CASE TO GATE "B"

Service in 113





TSWR GRADE CROSSINGS IMPROVEMENTS

WHITE SWAN ROAD
TS 3108

STPXP-S390(002)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY

RECOMMENDED BY:

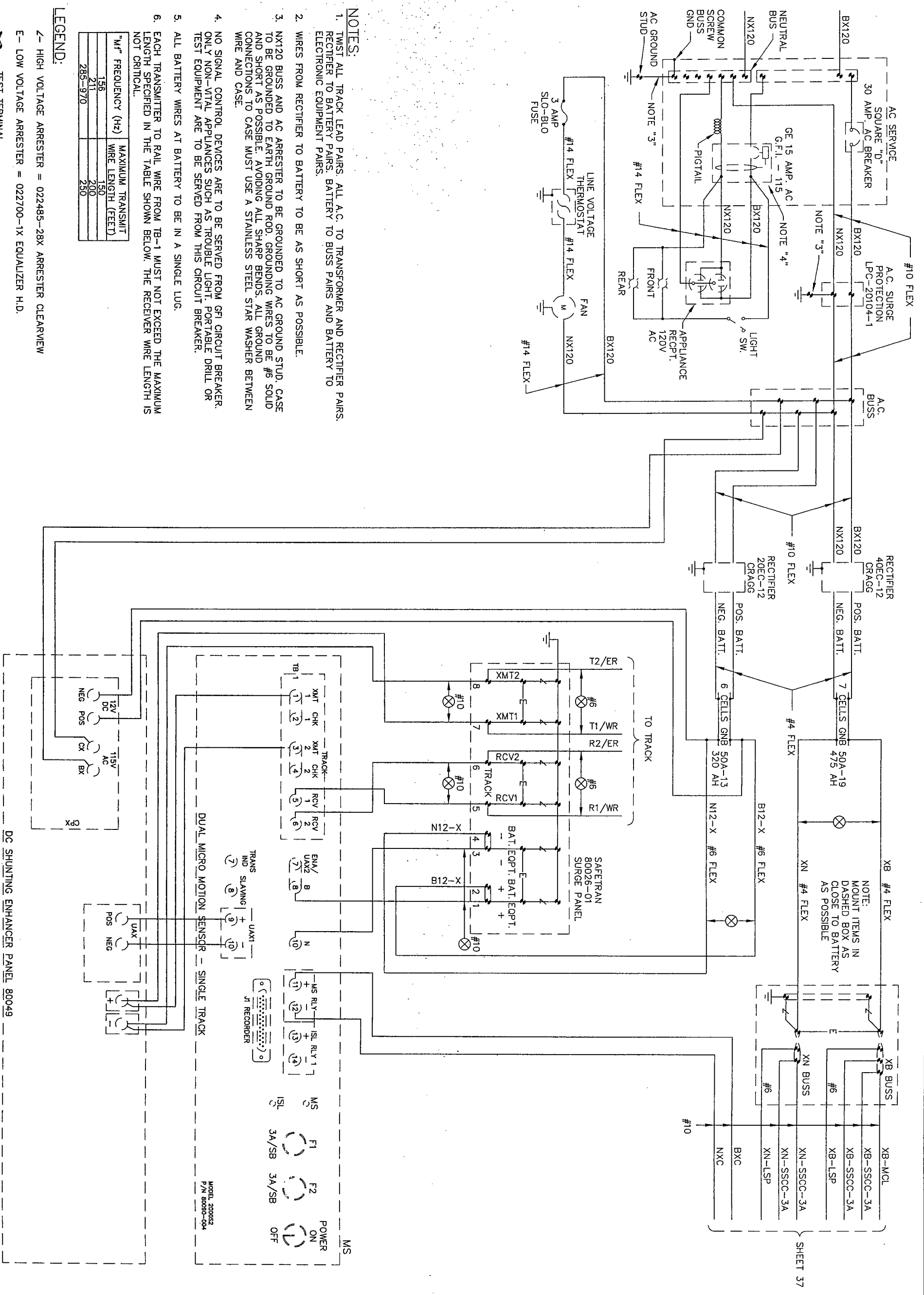
PROJECT ENGINEER

DRAWN: CHECKED BY:

REVISION:

POWER DISTRIBUTION & MOTION DETECTION PLAN

SHEET 36 OF 39



"M" FREQUENCY (Hz)	MAXIMUM TRANSMIT WIRE LENGTH (FEET)
156	150
211	200
285-970	250

LEGEND:

- ⚡ - HIGH VOLTAGE ARRESTER = 022485-28X ARRESTER CLEARVIEW
- ⚡ - LOW VOLTAGE ARRESTER = 022700-1X EQUALIZER H.D.
- ⊗ - TEST TERMINAL
- ⊗ - TWISTED WIRES

NOTES:

1. TWIST ALL TRACK LEAD PAIRS. ALL A.C. TO TRANSFORMER AND RECTIFIER PAIRS. RECTIFIER TO BATTERY PAIRS. BATTERY TO BUSS PAIRS AND BATTERY TO ELECTRONIC EQUIPMENT PAIRS.
2. WIRES FROM RECTIFIER TO BATTERY TO BE AS SHORT AS POSSIBLE.
3. NX120 BUSS AND AC ARRESTER TO BE GROUNDED TO AC GROUND STUD. CASE TO BE GROUNDED TO EARTH GROUND ROD. GROUNDING WIRES TO BE #6 SOLID AND SHORT AS POSSIBLE. AVOIDING ALL SHARP BENDS. ALL GROUND CONNECTIONS TO CASE MUST USE A STAINLESS STEEL STAR WASHER BETWEEN WIRE AND CASE.
4. NO SIGNAL CONTROL DEVICES ARE TO BE SERVED FROM GFI CIRCUIT BREAKER. ONLY NON-VITAL APPLIANCES SUCH AS TROUBLE LIGHT, PORTABLE DRILL OR TEST EQUIPMENT ARE TO BE SERVED FROM THIS CIRCUIT BREAKER.
5. ALL BATTERY WIRES AT BATTERY TO BE IN A SINGLE LUG.
6. EACH TRANSMITTER TO RAIL WIRE FROM TB-1 MUST NOT EXCEED THE MAXIMUM LENGTH SPECIFIED IN THE TABLE SHOWN BELOW. THE RECEIVER WIRE LENGTH IS NOT CRITICAL.

SHEET 37



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

WHITE SWAN ROAD
TS 3108

STPXP-S390(002)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY

RECOMMENDED BY:

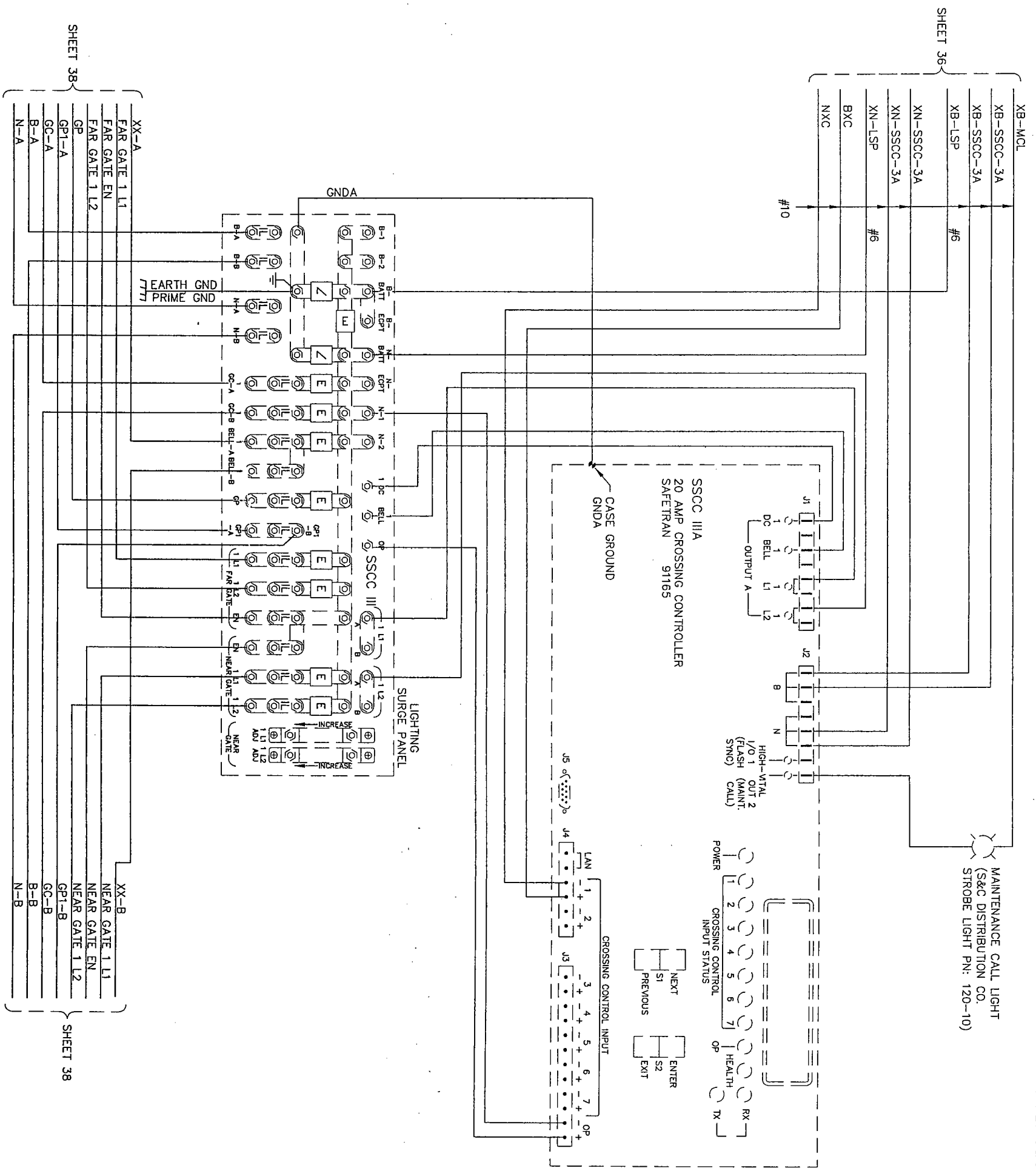
PROJECT ENGINEER

DRAWN: _____ CHECKED BY: _____

REVISION: _____

CROSSING CONTROL
PLAN

SHEET 37 OF 39



- NOTES:**
1. ALL WIRING #10 AWG MINIMUM UNLESS OTHERWISE NOTED. WIRE SIZES SHOWN ARE MINIMUM GAUGE.
 2. THE "FAR GATE" IS THE FLASHER LOCATION WITH THE LONGEST WIRE RUNS FROM THE SAME SURGE PANEL TO THE LIGHTS AND THEREFORE THE HIGHEST CABLE RESISTANCE.
 3. THE FOLLOWING SURGE PANEL SYMBOLS ARE USED:
 7 - HIGH VOLTAGE ARRESTER = 022485-28X ARRESTER CLEARVIEW
 E - LOW VOLTAGE ARRESTER = 022700-1X EQUALIZER H.D.
 IL - INSULATED TESTING LINK



**TSWR GRADE
CROSSINGS
IMPROVEMENTS**

WHITE SWAN ROAD
TS 3108

STPXP-S390(002)

PREPARED BY
HDR
ENGINEERING, INC.
FOR
YAKIMA COUNTY

RECOMMENDED BY:

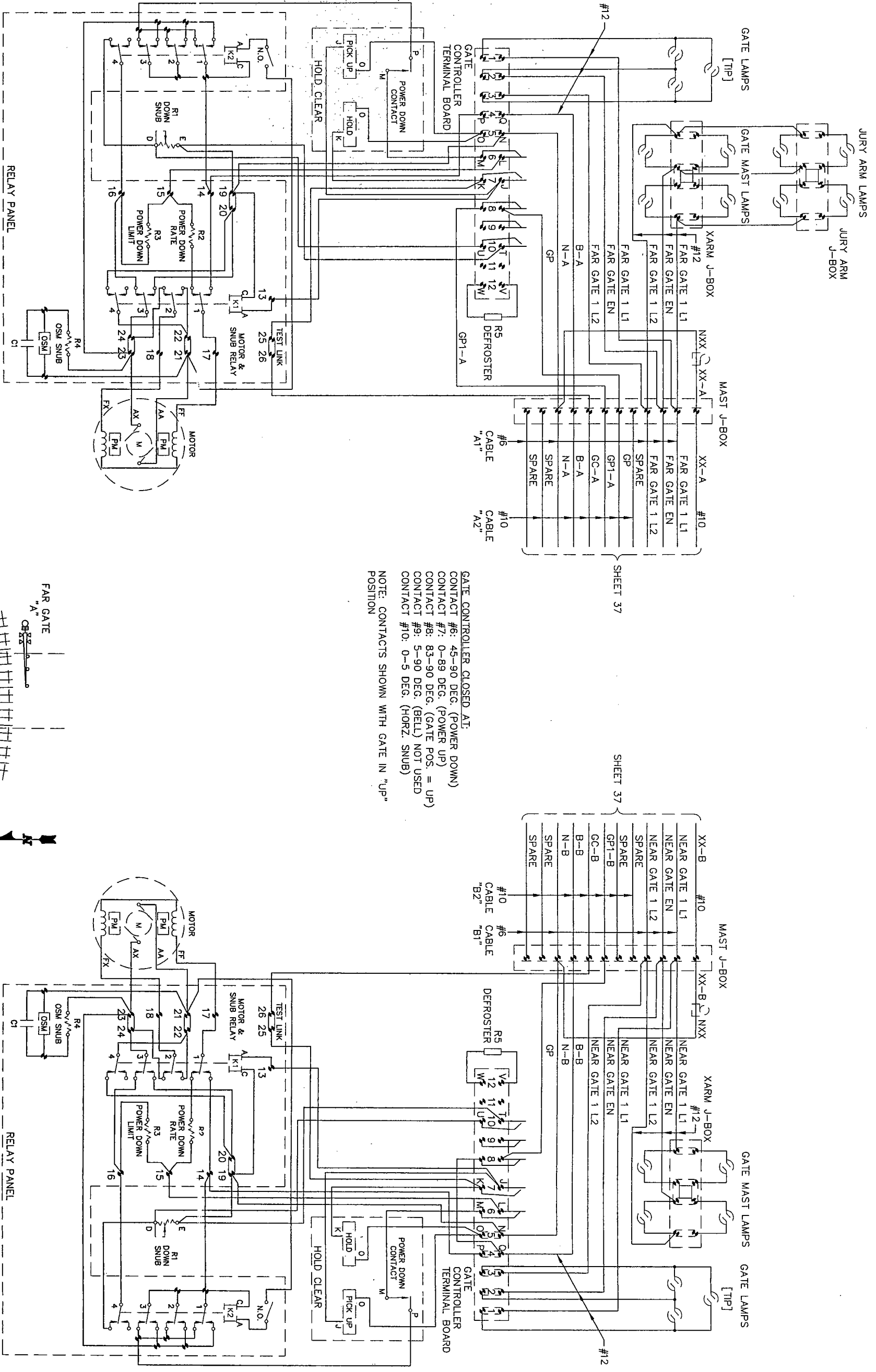
PROJECT ENGINEER

DRAWN: CHECKED BY:

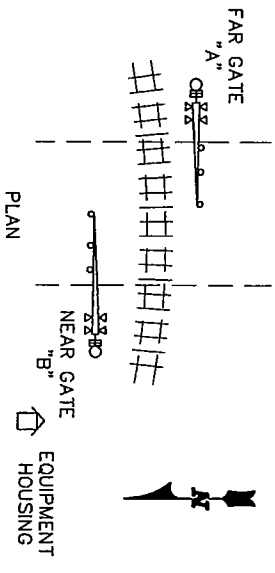
REVISION:

**GATE CIRCUIT
PLAN**

SHEET 38 OF 39



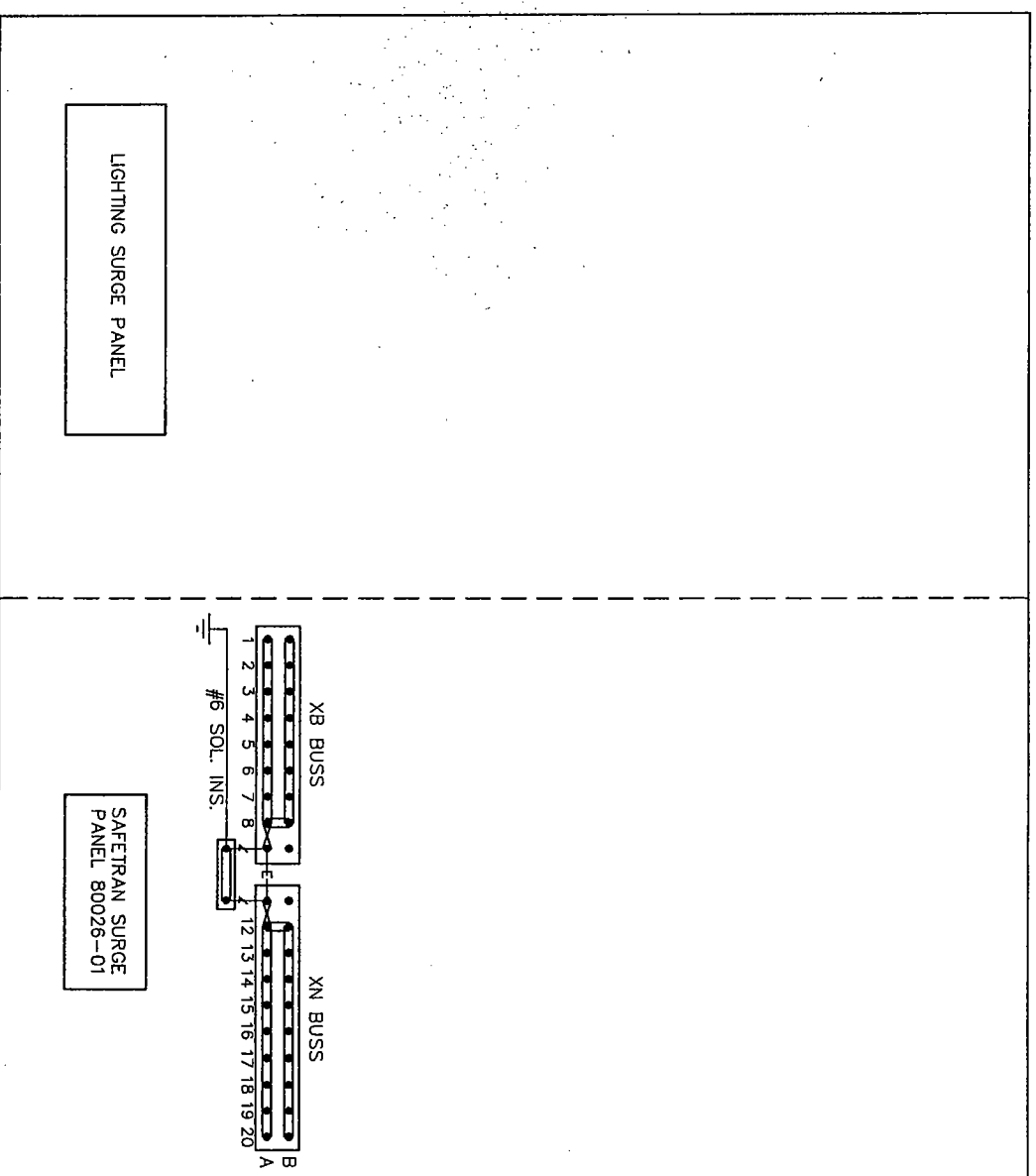
GATE CONTROLLER CLOSED AT:
 CONTACT #6: 45-90 DEG. (POWER DOWN)
 CONTACT #7: 0-89 DEG. (POWER UP)
 CONTACT #8: 83-90 DEG. (GATE POS. = UP)
 CONTACT #9: 5-90 DEG. (BELL) NOT USED
 CONTACT #10: 0-5 DEG. (HORZ. SNUB)
 NOTE: CONTACTS SHOWN WITH GATE IN "UP" POSITION



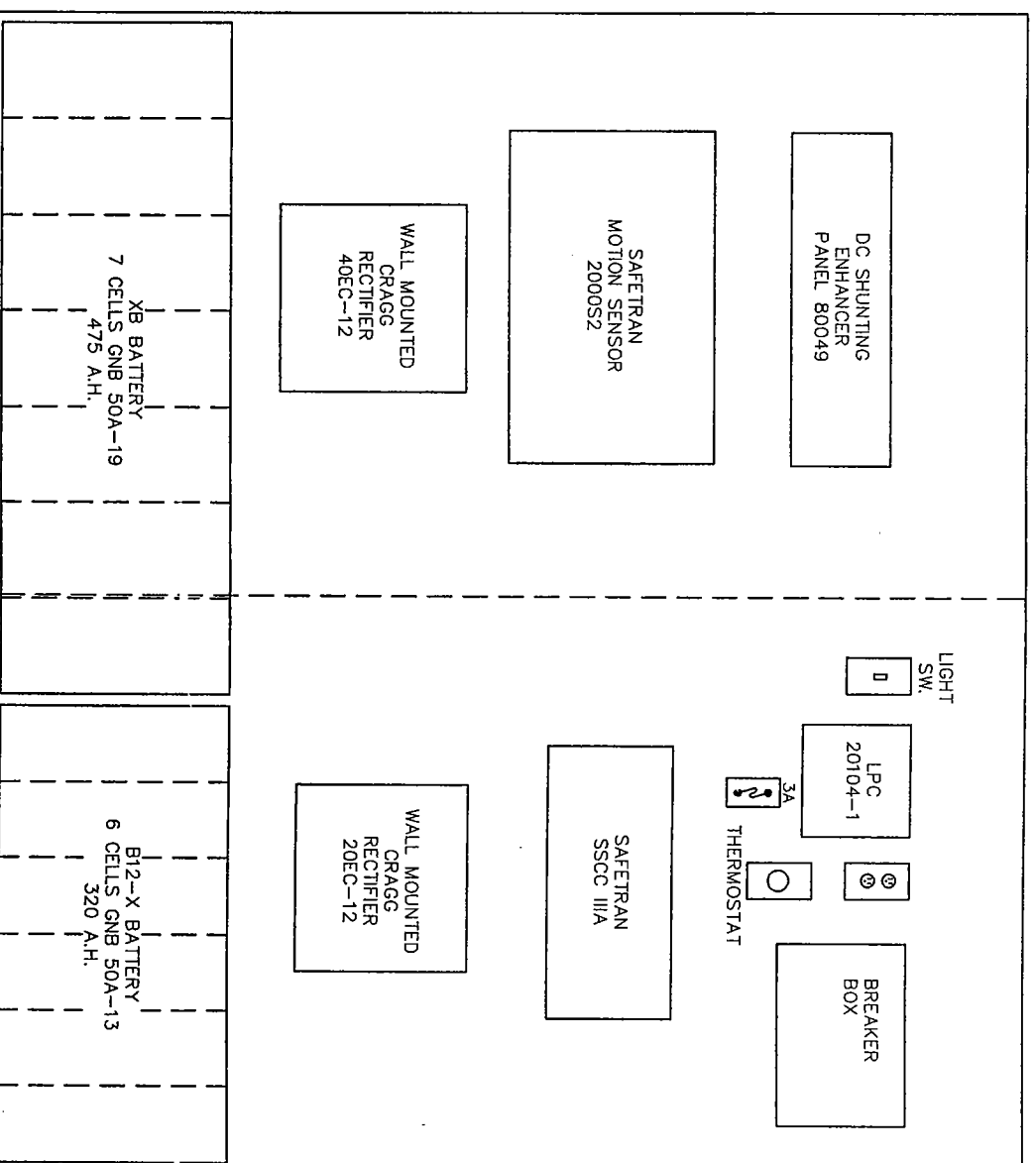
- NOTES:**
1. ALL WIRING #10 AWG MINIMUM UNLESS OTHERWISE NOTED. WIRE SIZES SHOWN ARE MINIMUM GAUGE.
 2. THE "FAR GATE" IS THE FLASHER LOCATION WITH THE LONGEST WIRE RUNS FROM THE SAME SURGE PANEL TO THE LIGHTS AND THEREFORE THE HIGHEST CABLE RESISTANCE.

SAFETRAN
 6'-9" W x 2'-0" D x 6'-0" H
 ALUMINUM CASE

BACK



FRONT



**TSWR GRADE
 CROSSINGS
 IMPROVEMENTS**

WHITE SWAN ROAD
 TS 3108

STPXP-S390(002)

PREPARED BY
 HDR
 ENGINEERING, INC.
 FOR
 YAKIMA COUNTY

RECOMMENDED BY:
 PROJECT ENGINEER

DRAWN: _____ CHECKED BY: _____
 REVISION: _____

EQUIPMENT LAYOUT
 PLAN FOR SAFETRAN
 6'-9" ALUM. CASE

SHEET 39 OF 39



5. WAPATO RD.
RAILROAD
CROSSING
PROJECT
TS 3104
STPXP-39JL(001)

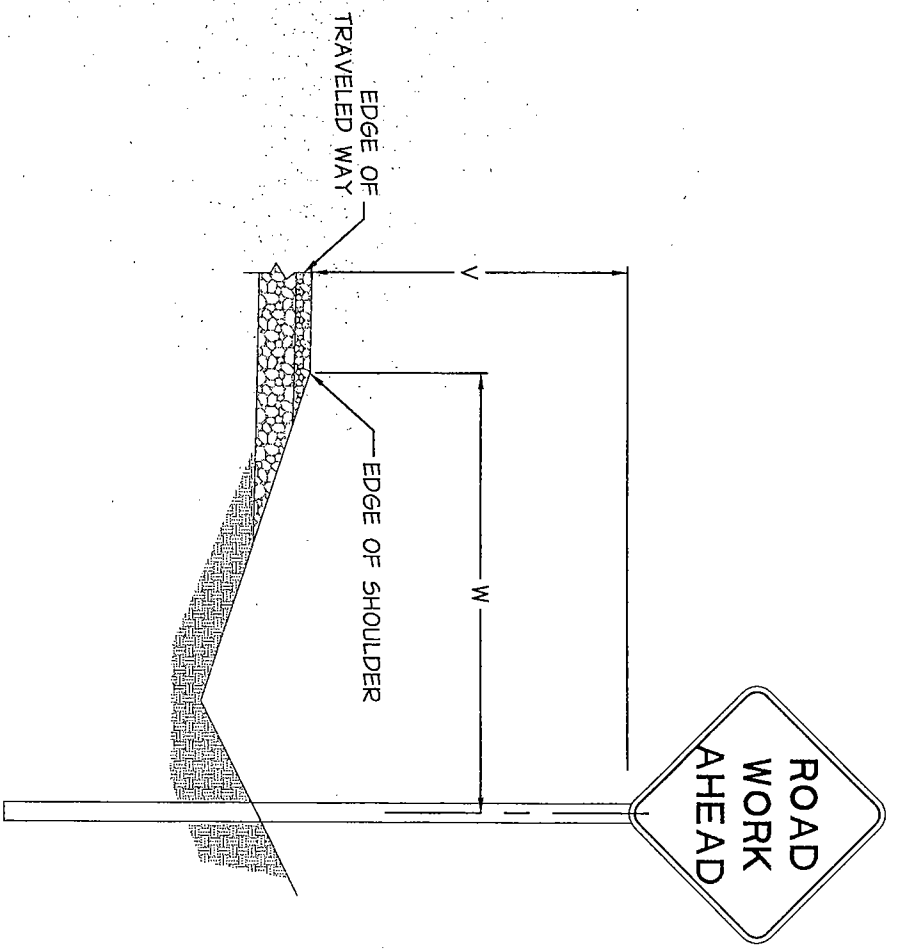
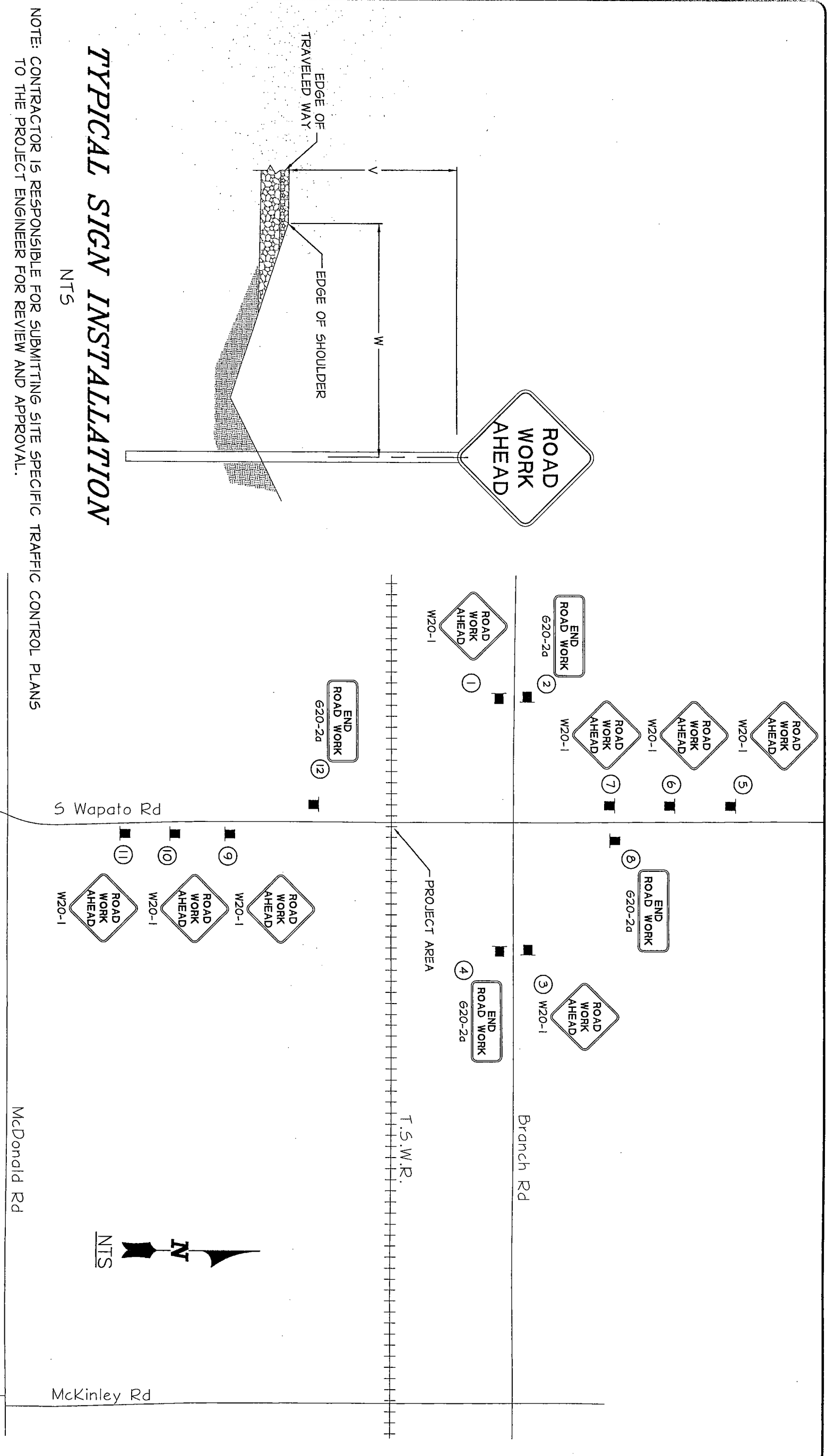
PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY
DRAWN BY:
D. KINCAID
CHECKED BY:
K. FRENZEL
REVISION:

GENERAL
TRAFFIC
CONTROL
PLAN

SHEET 1 OF 4



TYPICAL SIGN INSTALLATION

NTS

NOTE: CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SITE SPECIFIC TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.

GENERAL TRAFFIC CONTROL SIGN SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH		CLEARANCE		NOTES
			X	Y			H1	V	W		
1	W20-1	BRANCH ROAD, 550' WEST OF SOUTH WAPATO ROAD	48"	48"	WOOD	4"X4"	14'	7'	7'	10'	
2	G20-2d	BRANCH ROAD, 550' WEST OF SOUTH WAPATO ROAD	36"	18"	WOOD	4"X4"	12'	7'	7'	10'	
3	W20-1	BRANCH ROAD, 550' EAST OF SOUTH WAPATO ROAD	48"	48"	WOOD	4"X4"	17'	7'	7'	10'	
4	G20-2d	BRANCH ROAD, 550' EAST OF SOUTH WAPATO ROAD	36"	18"	WOOD	4"X4"	14'	7'	7'	10'	
5	W20-1	SOUTH WAPATO ROAD, 1600' NORTH OF BRANCH ROAD	48"	48"	WOOD	4"X4"	19'	7'	7'	10'	
6	W20-1	SOUTH WAPATO ROAD, 1050' NORTH OF BRANCH ROAD	48"	48"	WOOD	4"X4"	18'	7'	7'	10'	
7	W20-1	SOUTH WAPATO ROAD, 500' NORTH OF BRANCH ROAD	48"	48"	WOOD	4"X4"	18'	7'	7'	10'	
8	G20-2d	SOUTH WAPATO ROAD, 500' NORTH OF BRANCH ROAD	36"	18"	WOOD	4"X4"	14'	7'	7'	8'	
9	W20-1	SOUTH WAPATO ROAD, 720' SOUTH OF RR TRACKS	48"	48"	WOOD	4"X4"	20'	7'	7'	10'	
10	W20-1	SOUTH WAPATO ROAD, 1270' SOUTH OF RR TRACKS	48"	48"	WOOD	4"X4"	18'	7'	7'	10'	
11	W20-1	SOUTH WAPATO ROAD, 1820' SOUTH OF RR TRACKS	48"	48"	WOOD	4"X4"	20'	7'	7'	10'	
12	G20-2d	SOUTH WAPATO ROAD, 500' SOUTH OF RR TRACKS	36"	18"	WOOD	4"X4"	15'	7'	7'	10'	

NOTES:

1. MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
2. FOR STRUCTURE AND MOUNTING DETAILS, SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, SERIES G.
3. FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS, SEE STANDARD HIGHWAY SIGN BOOK.
4. POST LENGTHS SHOWN ARE APPROXIMATE. FINAL VALUES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
5. W-DISTANCE FROM THE EXISTING SHOULDER, OR FACE OF CURB, TO THE SIGN POST.
6. ALL SIGNS, POSTS AND ANY OTHER TRAFFIC CONTROL DEVICES SHALL BE SUPPLIED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
7. THE POSTS SHALL NOT PROTRUDE ABOVE THE SIGNS.



5. WAPATO RD.
RAILROAD
CROSSING
PROJECT
TS 3104
STPXP-39JL(001)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY

DRAWN BY: D. KINCAID	CHECKED BY: K. RENZEL
REVISIONS:	

GENERAL
TRAFFIC
CONTROL
PLAN



5. WAPATO RD.
RAILROAD
CROSSING
PROJECT

TS 3104

STPXP-39JL(001)

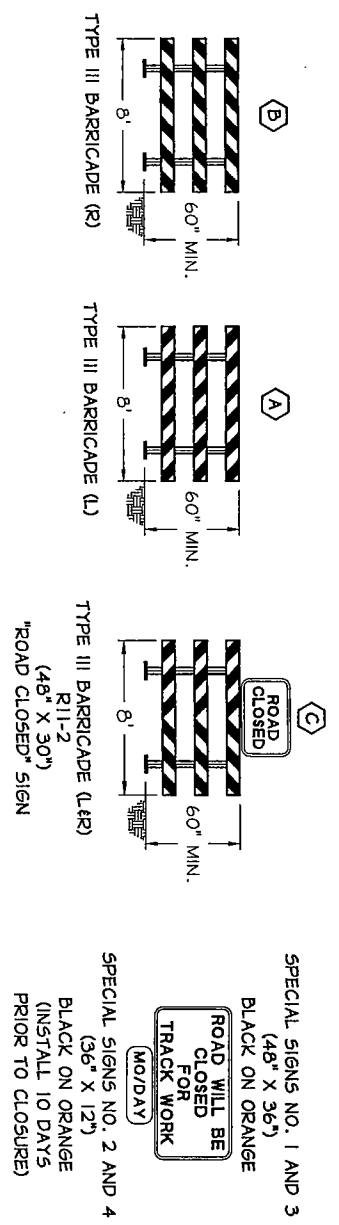
PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY
DRAWN:
D. KINCAID
CHECKED BY:
K. RENZEL
REVISION:

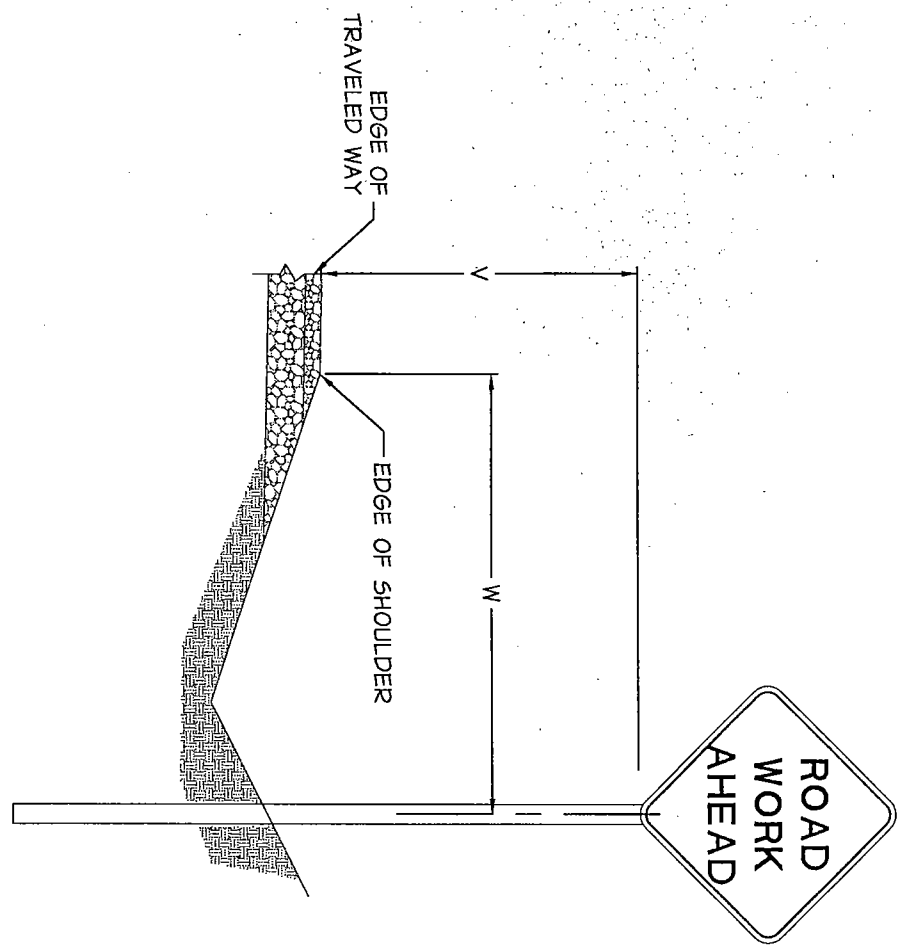
ROAD
CLOSURE
PLAN

SHEET 3 OF 4



NOTE: THIS ROAD CLOSURE PLAN IS APPROVED FOR ONE DAY ONLY AND DURING DAYLIGHT HOURS ONLY. TRAFFIC CONTROL DEVICES MAY BE INSTALLED USING PORTABLE SIGN STANDS UNLESS OTHERWISE NOTED AS BEING POST MOUNTED.

* INTERCHANGEABLE WITH GENERAL TRAFFIC CONTROL PLAN DEVICES LOCATION.

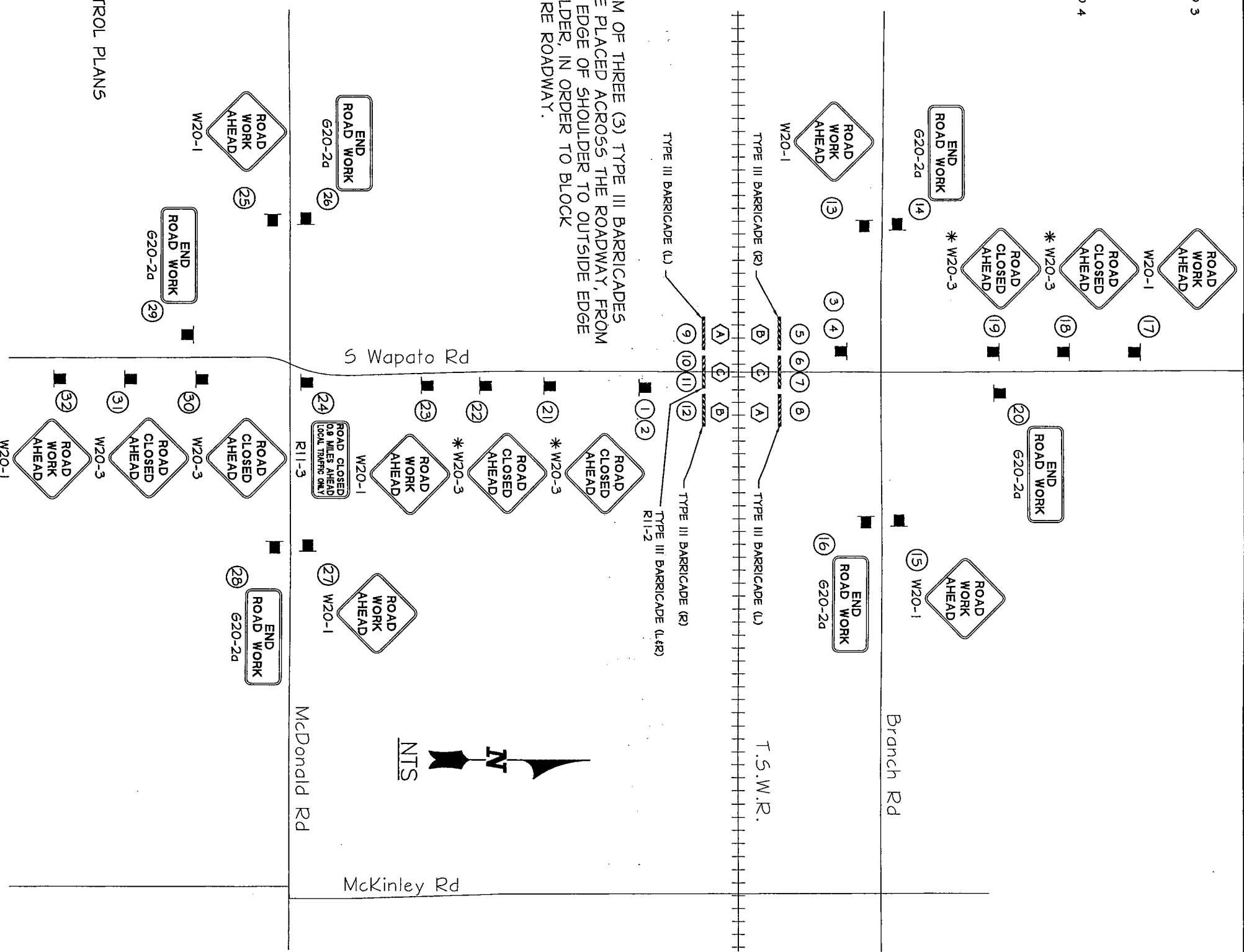


NOTE: A MINIMUM OF THREE (3) TYPE III BARRICADES SHALL BE PLACED ACROSS THE ROADWAY, FROM OUTSIDE EDGE OF SHOULDER TO OUTSIDE EDGE OF SHOULDER, IN ORDER TO BLOCK THE ENTIRE ROADWAY.

TYPICAL SIGN INSTALLATION

NTS

NOTE: CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SITE SPECIFIC TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.



ROAD CLOSURE SIGN SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH		CLEARANCE		NOTES
			X	Y			H1	V	W		
1	SPECIAL	SOUTH WAPATO ROAD, 200' SOUTH OF TRACKS	48"	36"	WOOD	4'x4"	18'	7'	10'		SPECIAL SIGN NO. 1
2	SPECIAL	SAME	36"	12"	SAME	SAME	SAME	6'	SAME		SPECIAL SIGN NO. 2, BELOW SIGN NO. 1
3	SPECIAL	SOUTH WAPATO ROAD, 25' NORTH OF BRANCH ROAD	48"	36"	WOOD	4'x4"	18'	7'	10'		SPECIAL SIGN NO. 3
4	SPECIAL	SAME	36"	12"	SAME	SAME	SAME	6'	SAME		SPECIAL SIGN NO. 4, BELOW SIGN NO. 3
5	TYPE III BARRICADE (R)	SOUTH WAPATO ROAD, 25' NORTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL B
6	TYPE III BARRICADE (L&R)	SOUTH WAPATO ROAD, 25' NORTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL C
7	R11-2	SAME	48"	30"	---	---	---	---	---		MOUNTED ON TOP OF SIGN NO. 6
8	TYPE III BARRICADE (L)	SOUTH WAPATO ROAD, 25' NORTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL A
9	TYPE III BARRICADE (L)	SOUTH WAPATO ROAD, 20' SOUTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL A
10	TYPE III BARRICADE (L&R)	SOUTH WAPATO ROAD, 20' SOUTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL C
11	R11-2	SAME	48"	30"	---	---	---	---	---		MOUNTED ON TOP OF SIGN NO. 10
12	TYPE III BARRICADE (R)	SOUTH WAPATO ROAD, 20' SOUTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL B
13	W20-1	BRANCH ROAD, 550' WEST OF SOUTH WAPATO ROAD	48"	48"	---	---	---	---	---		
14	G20-2d	BRANCH ROAD, 550' WEST OF SOUTH WAPATO ROAD	36"	18"	---	---	---	---	---		
15	W20-1	BRANCH ROAD, 550' EAST OF SOUTH WAPATO ROAD	48"	48"	---	---	---	---	---		
16	G20-2d	BRANCH ROAD, 550' EAST OF SOUTH WAPATO ROAD	36"	18"	---	---	---	---	---		
17	W20-1	SOUTH WAPATO ROAD, 1600' NORTH OF BRANCH ROAD	48"	48"	---	---	---	---	---		
18	W20-3 *	SOUTH WAPATO ROAD, 1050' NORTH OF BRANCH ROAD	48"	48"	---	---	---	---	---		
19	W20-3 *	SOUTH WAPATO ROAD, 500' NORTH OF BRANCH ROAD	48"	48"	---	---	---	---	---		
20	G20-2d	SOUTH WAPATO ROAD, 500' NORTH OF BRANCH ROAD	36"	18"	---	---	---	---	---		
21	W20-3 *	SOUTH WAPATO ROAD, 700' SOUTH OF ROAD CLOSURE	48"	48"	---	---	---	---	---		
22	W20-3 *	SOUTH WAPATO ROAD, 1200' SOUTH OF ROAD CLOSURE	48"	48"	---	---	---	---	---		
23	W20-1	SOUTH WAPATO ROAD, 1750' SOUTH OF ROAD CLOSURE	48"	48"	---	---	---	---	---		
24	R11-3	SOUTH WAPATO ROAD, 30' NORTH OF MCDONALD ROAD	60"	30"	---	---	---	---	---		"0.9 MILES AHEAD"
25	W20-1	MCDONALD ROAD, 550' WEST OF SOUTH WAPATO ROAD	48"	48"	---	---	---	---	---		
26	G20-2d	MCDONALD ROAD, 550' WEST OF SOUTH WAPATO ROAD	36"	18"	---	---	---	---	---		
27	W20-1	MCDONALD ROAD, 550' EAST OF SOUTH WAPATO ROAD	48"	48"	---	---	---	---	---		
28	G20-2d	MCDONALD ROAD, 550' EAST OF SOUTH WAPATO ROAD	36"	18"	---	---	---	---	---		
29	G20-2d	SOUTH WAPATO ROAD, 550' SOUTH OF MCDONALD ROAD	36"	18"	---	---	---	---	---		
30	W20-3	SOUTH WAPATO ROAD, 700' SOUTH OF MCDONALD ROAD	48"	48"	---	---	---	---	---		
31	W20-3	SOUTH WAPATO ROAD, 1250' SOUTH OF MCDONALD ROAD	48"	48"	---	---	---	---	---		
32	W20-1	SOUTH WAPATO ROAD, 1800' SOUTH OF MCDONALD ROAD	48"	48"	---	---	---	---	---		

* INTERCHANGEABLE WITH GENERAL TRAFFIC CONTROL PLAN DEVICES LOCATION.

- NOTES:
1. MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
 2. FOR STRUCTURE AND MOUNTING DETAILS, SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, SERIES G.
 3. FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS, SEE STANDARD HIGHWAY SIGN BOOK.
 4. POST LENGTHS SHOWN ARE APPROXIMATE. FINAL VALUES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
 5. W=DISTANCE FROM THE EXISTING SHOULDER, OR FACE OF CURB, TO THE SIGN POST.
 6. ALL SIGNS, POSTS AND ANY OTHER TRAFFIC CONTROL DEVICES SHALL BE SUPPLIED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
 7. THE POSTS SHALL NOT PROTRUDE ABOVE THE SIGNS.



5. WAPATO RD.
RAILROAD
CROSSING
PROJECT

TS 3104

STPXP-39JL(001)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY

DRAWN BY: D. KINCAID CHECKED BY: K. FRENZEL

REVISION:

ROAD
CLOSURE
PLAN



BROWNSTOWN RD
RAILROAD
CROSSING
PROJECT

TS 3105

STPXP-A391(001)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

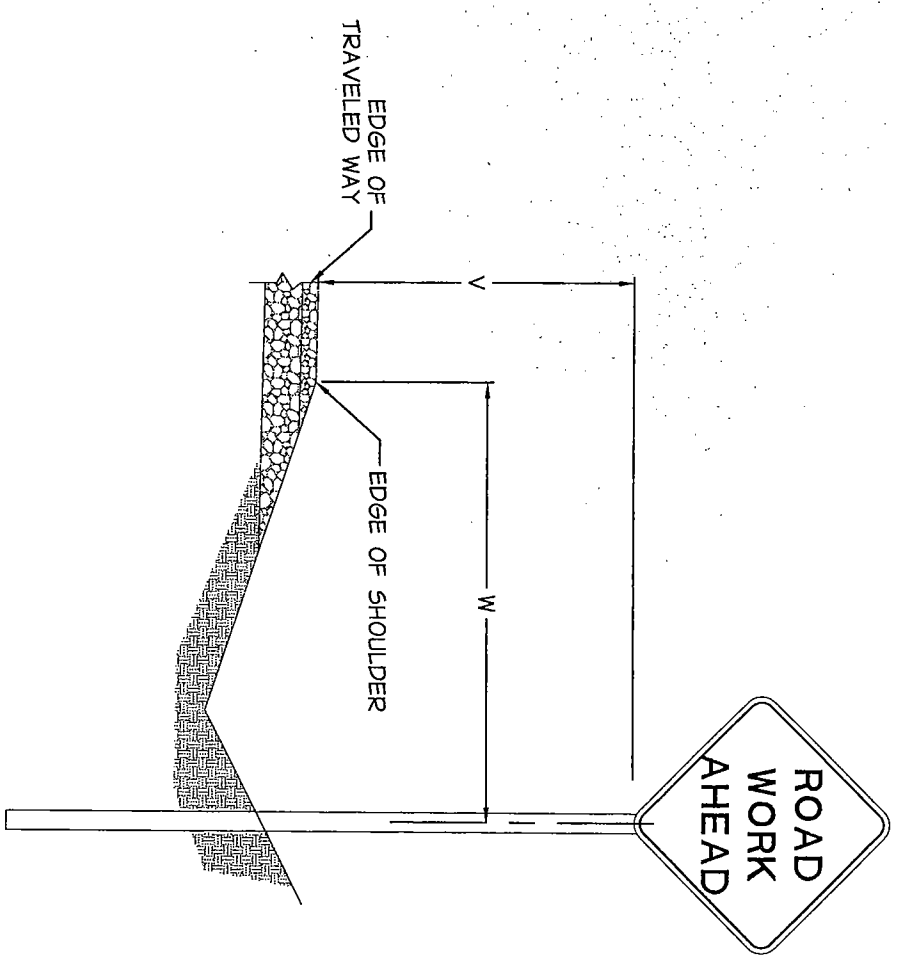
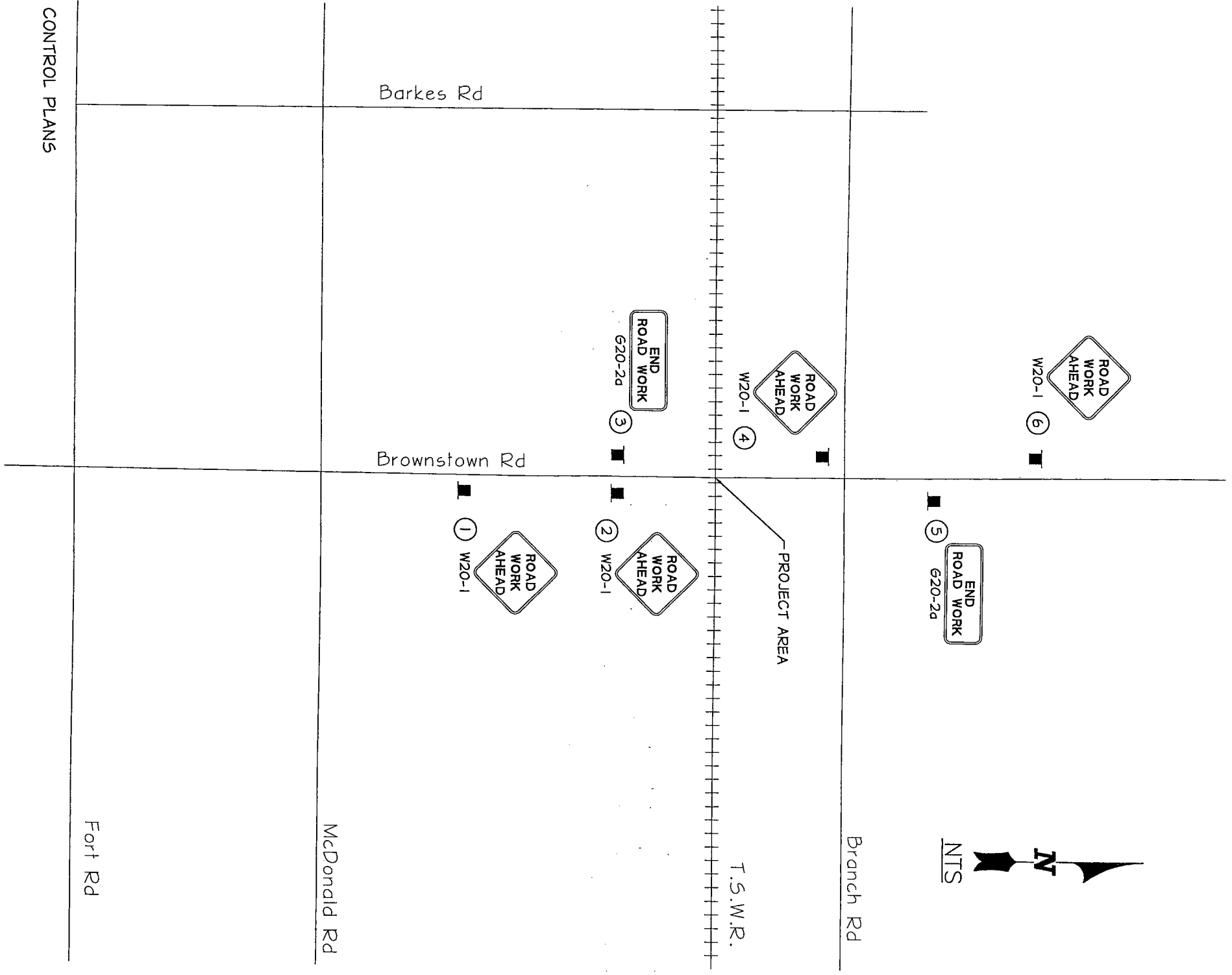
PROJECT ENGINEER:
K. MCHENRY

DRAWN:
D. KINCAID

CHECKED BY:
K. FRENZEL

REVISION:

GENERAL
TRAFFIC
CONTROL
PLAN



TYPICAL SIGN INSTALLATION

NTS

NOTE: CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SITE SPECIFIC TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.

GENERAL TRAFFIC CONTROL SIGN SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH		CLEARANCE		NOTES
			X	Y			H1	V	W		
1	W20-1	BROWNSTOWN ROAD, 1100' SOUTH OF TRACKS	48"	48"	WOOD	4"x4"	18'	7'	10'		
2	W20-1	BROWNSTOWN ROAD, 550' SOUTH OF TRACKS	48"	48"	WOOD	4"x4"	16'	7'	10'		
3	620-2d	BROWNSTOWN ROAD, 550' SOUTH OF TRACKS	36"	18"	WOOD	4"x4"	12'	7'	10'		
4	W20-1	BROWNSTOWN ROAD, 450' NORTH OF TRACKS	48"	48"	WOOD	4"x4"	16'	7'	10'		
5	620-2d	BROWNSTOWN ROAD, 550' NORTH OF TRACKS	36"	18"	WOOD	4"x4"	12'	7'	8'		
6	W20-1	BROWNSTOWN ROAD, 1000' NORTH OF TRACKS	48"	48"	WOOD	4"x4"	17'	7'	10'		

- NOTES:
1. MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
 2. FOR STRUCTURE AND MOUNTING DETAILS, SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, SERIES G.
 3. FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS, SEE STANDARD HIGHWAY SIGN BOOK.
 4. POST LENGTHS SHOWN ARE APPROXIMATE. FINAL VALUES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
 5. W-DISTANCE FROM THE EXISTING SHOULDER, OR FACE OF CURB, TO THE SIGN POST.
 6. ALL SIGNS, POSTS AND ANY OTHER TRAFFIC CONTROL DEVICES SHALL BE SUPPLIED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
 7. THE POSTS SHALL NOT PROTRUDE ABOVE THE SIGNS.



BROWNSTOWN RD
RAILROAD
CROSSING
PROJECT

TS 3105

STPXP-A391(001)

PREPARED UNDER
THE DIRECTION OF:

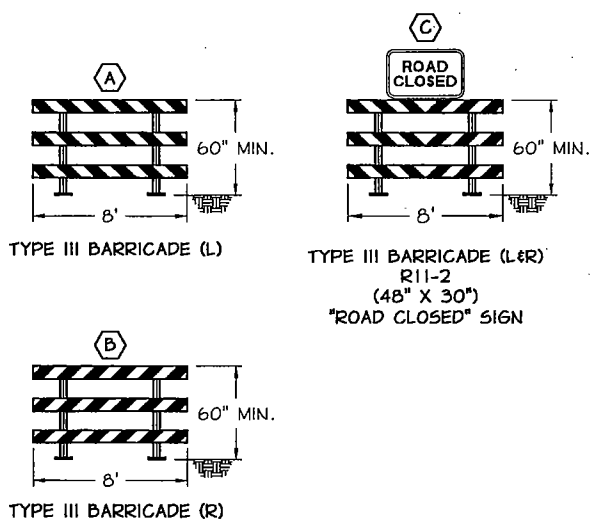
COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY

DRAWN BY: D. KINCAID
CHECKED BY: K. FRENZEL

REVISION:

GENERAL
TRAFFIC
CONTROL
PLAN



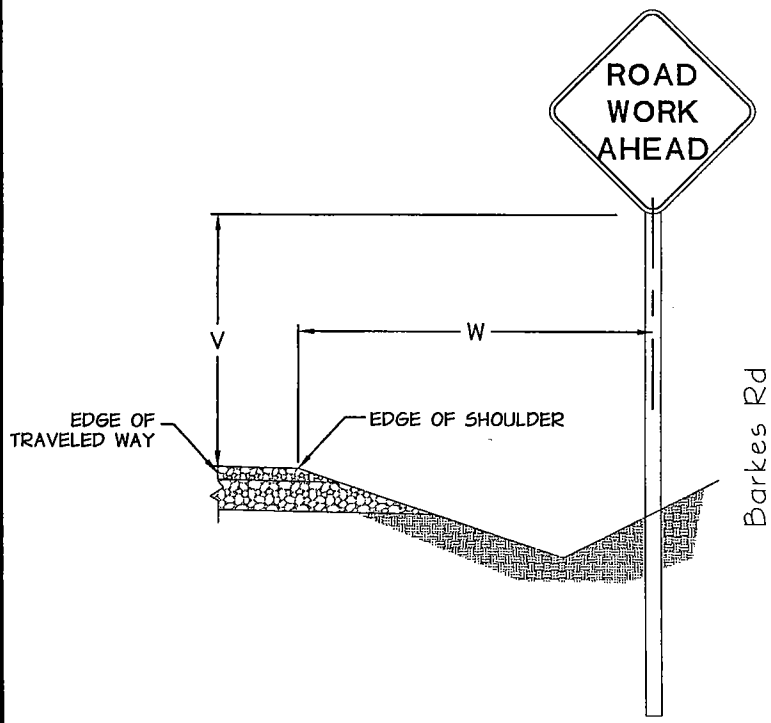
SPECIAL SIGNS NO. 1 AND 3
(48" X 36")
BLACK ON ORANGE

ROAD WILL BE CLOSED FOR TRACK WORK
(MO/DAY)

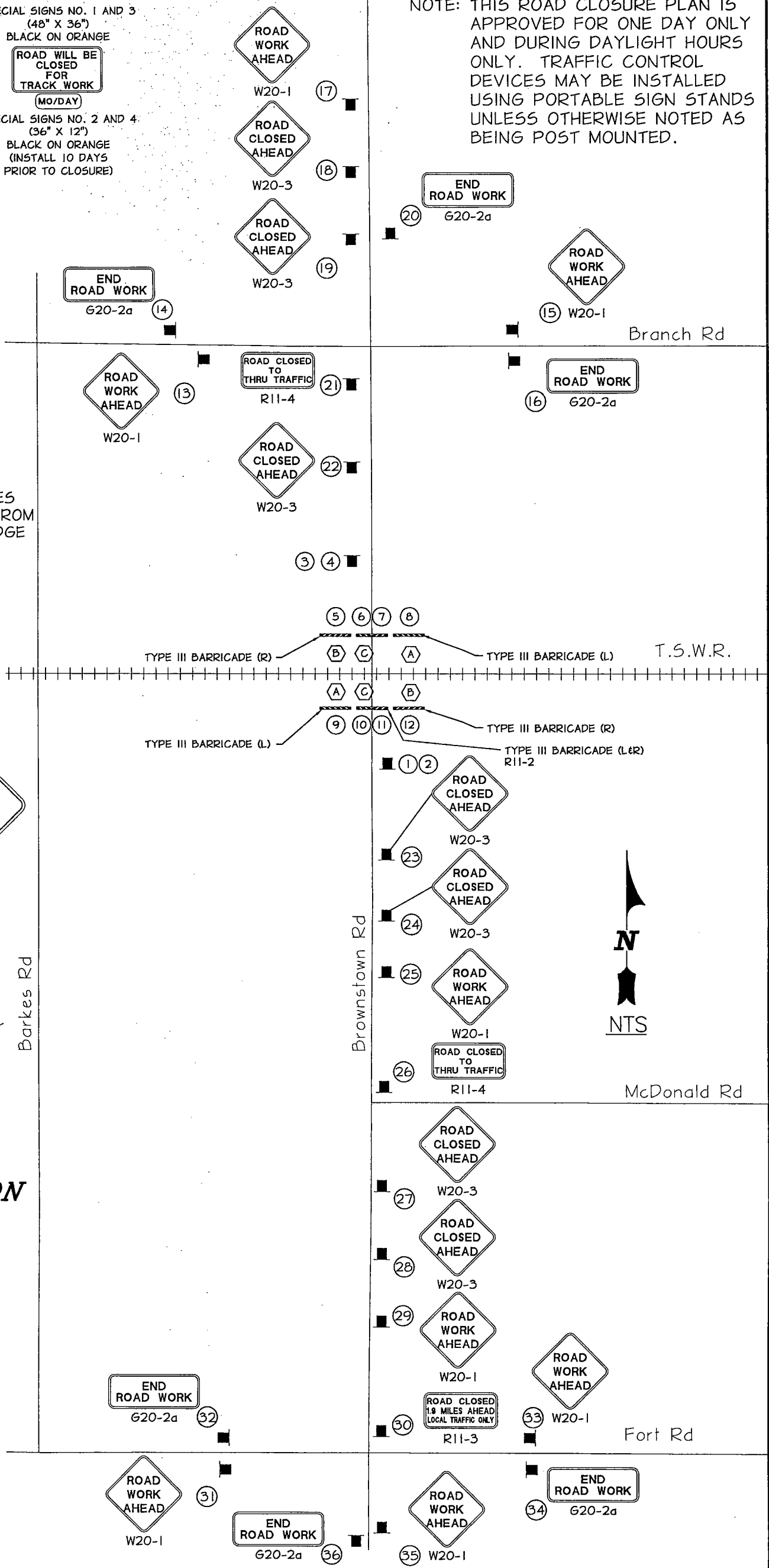
SPECIAL SIGNS NO. 2 AND 4
(36" X 12")
BLACK ON ORANGE
(INSTALL 10 DAYS PRIOR TO CLOSURE)

NOTE: THIS ROAD CLOSURE PLAN IS APPROVED FOR ONE DAY ONLY AND DURING DAYLIGHT HOURS ONLY. TRAFFIC CONTROL DEVICES MAY BE INSTALLED USING PORTABLE SIGN STANDS UNLESS OTHERWISE NOTED AS BEING POST MOUNTED.

NOTE: A MINIMUM OF THREE (3) TYPE III BARRICADES SHALL BE PLACED ACROSS THE ROADWAY, FROM OUTSIDE EDGE OF SHOULDER TO OUTSIDE EDGE OF SHOULDER, IN ORDER TO BLOCK THE ENTIRE ROADWAY.



TYPICAL SIGN INSTALLATION
NTS



SHEET 3 OF 5	ROAD CLOSURE PLAN	REVISIONS:	PROJECT ENGINEER: K. MCHENRY	COUNTY ENGINEER DATE:	PREPARED UNDER THE DIRECTION OF:	BROWNSTOWN RD RAILROAD CROSSING PROJECT TS 3105 STPXP-A391(001)	
		DRAWN BY: D. KINCAID	CHECKED BY: K. FRENZEL				

ROAD CLOSURE SIGN SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH		CLEARANCE		NOTES
			X	Y			H1	V	W		
1	SPECIAL	BROWNSTOWN ROAD, 135' SOUTH OF TRACKS	48"	36"	WOOD	4"x4"	15'	7'	10'		SPECIAL SIGN NO. 1
2	SPECIAL	SAME	36"	12"	SAME	SAME	SAME	6'	SAME		SPECIAL SIGN NO. 2, BELOW SIGN NO. 1
3	SPECIAL	BROWNSTOWN ROAD, 125' NORTH OF TRACKS	48"	36"	WOOD	4"x4"	18'	7'	10'		SPECIAL SIGN NO. 3
4	SPECIAL	SAME	36"	12"	SAME	SAME	SAME	6'	SAME		SPECIAL SIGN NO. 4, BELOW SIGN NO. 3
5	TYPE III BARRICADE (R)	BROWNSTOWN ROAD, 15' NORTH OF TRACKS	8'	5'							SEE BARRICADE DETAIL B
6	TYPE III BARRICADE (L&R)	BROWNSTOWN ROAD, 15' NORTH OF TRACKS	8'	5'							SEE BARRICADE DETAIL C
7	R11-2	SAME	48"	30"							MOUNTED ON TOP OF SIGN NO. 6
8	TYPE III BARRICADE (L)	BROWNSTOWN ROAD, 15' NORTH OF TRACKS	8'	5'							SEE BARRICADE DETAIL A
9	TYPE III BARRICADE (L)	BROWNSTOWN ROAD, 15' SOUTH OF TRACKS	8'	5'							SEE BARRICADE DETAIL A
10	TYPE III BARRICADE (L&R)	BROWNSTOWN ROAD, 15' SOUTH OF TRACKS	8'	5'							SEE BARRICADE DETAIL C
11	R11-2	SAME	48"	30"							MOUNTED ON TOP OF SIGN NO. 10
12	TYPE III BARRICADE (R)	BROWNSTOWN ROAD, 20' SOUTH OF TRACKS	8'	5'							SEE BARRICADE DETAIL B
13	W20-1	BRANCH ROAD, 350' WEST OF BROWNSTOWN ROAD	48"	48"							
14	620-2d	BRANCH ROAD, 550' WEST OF BROWNSTOWN ROAD	36"	18"							
15	W20-1	BRANCH ROAD, 550' EAST OF BROWNSTOWN ROAD	48"	48"							
16	620-2d	BRANCH ROAD, 550' EAST OF BROWNSTOWN ROAD	36"	18"							
17	W20-1	BROWNSTOWN ROAD, 2000' NORTH OF BRANCH ROAD	48"	48"							
18	W20-3	BROWNSTOWN ROAD, 1350' NORTH OF BRANCH ROAD	48"	48"							
19	W20-3	BROWNSTOWN ROAD, 700' NORTH OF BRANCH ROAD	48"	48"							
20	620-2d	BROWNSTOWN ROAD, 500' NORTH OF BRANCH ROAD	36"	18"							
21	R11-4	BROWNSTOWN ROAD, 40' SOUTH OF BRANCH ROAD	60"	30"							
22	W20-3	BROWNSTOWN ROAD, 150' NORTH OF TRACKS	48"	48"							
23	W20-3	BROWNSTOWN ROAD, 500' SOUTH OF ROAD CLOSURE	48"	48"							
24	W20-3	BROWNSTOWN ROAD, 1000' SOUTH OF ROAD CLOSURE	48"	48"							
25	W20-1	BROWNSTOWN ROAD, 1500' SOUTH OF ROAD CLOSURE	48"	48"							
26	R11-4	BROWNSTOWN ROAD, 30' NORTH OF McDONALD ROAD	60"	30"							
27	W20-3	BROWNSTOWN ROAD, 700' SOUTH OF McDONALD ROAD	48"	48"							
28	W20-3	BROWNSTOWN ROAD, 1250' SOUTH OF McDONALD ROAD	48"	48"							
29	W20-1	BROWNSTOWN ROAD, 1800' SOUTH OF McDONALD ROAD	48"	48"							
30	R11-3	BROWNSTOWN ROAD, 30' NORTH OF FORT ROAD	60"	30"							
31	W20-1	FORT ROAD, 550' WEST OF BROWNSTOWN ROAD	48"	48"							
32	620-2d	FORT ROAD, 550' WEST OF BROWNSTOWN ROAD	36"	18"							
33	W20-1	FORT ROAD, 550' EAST OF BROWNSTOWN ROAD	48"	48"							
34	620-2d	FORT ROAD, 550' EAST OF BROWNSTOWN ROAD	36"	18"							
35	W20-1	BROWNSTOWN ROAD, 550' SOUTH OF FORT ROAD	48"	48"							
36	620-2d	BROWNSTOWN ROAD, 550' SOUTH OF FORT ROAD	36"	18"							

NOTES:

1. MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
2. FOR STRUCTURE AND MOUNTING DETAILS, SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, SERIES G.
3. FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS, SEE STANDARD HIGHWAY SIGN BOOK.
4. POST LENGTHS SHOWN ARE APPROXIMATE. FINAL VALUES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
5. W-DISTANCE FROM THE EXISTING SHOULDER, OR FACE OF CURB, TO THE SIGN POST.
6. ALL SIGNS, POSTS AND ANY OTHER TRAFFIC CONTROL DEVICES SHALL BE SUPPLIED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
7. THE POSTS SHALL NOT PROTRUDE ABOVE THE SIGNS.



**BROWNSTOWN RD
RAILROAD
CROSSING
PROJECT**
 TS 3105
 STPXP-A391(001)

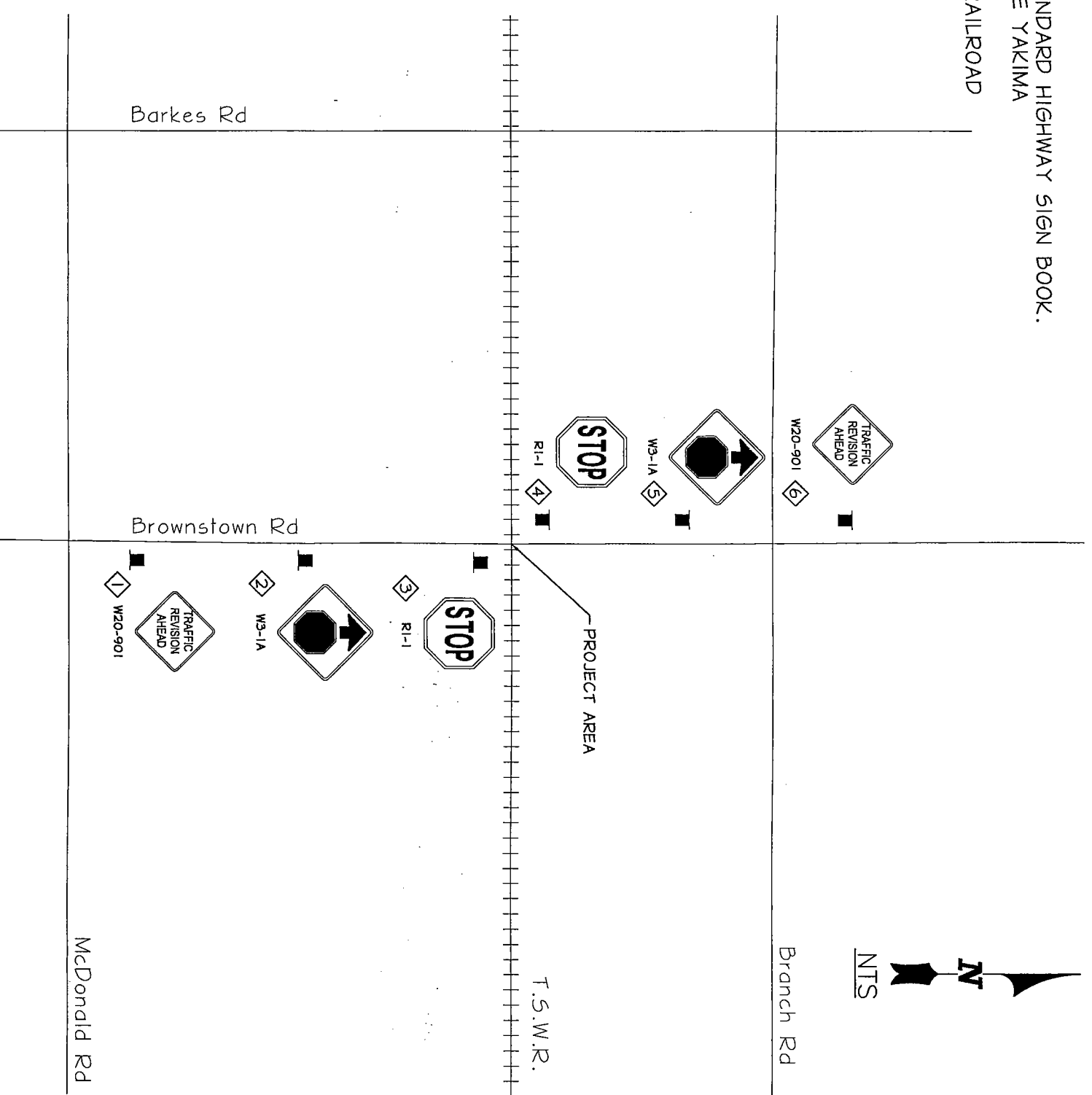
PREPARED UNDER
THE DIRECTION OF:
 COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY
 DRAWN BY:
D. KINCAID
 CHECKED BY:
K. FRENZEL
 REVISION:

ROAD
CLOSURE
PLAN

SHEET 4 OF 5

- NOTES:
1. MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
 2. FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS, SEE STANDARD HIGHWAY SIGN BOOK.
 3. THE SIGNS AND POSTS SHALL BE DISASSEMBLED AND DELIVERED TO THE YAKIMA COUNTY PUBLIC WORKS DEPARTMENT MAINTENANCE SHOP AT
 4. SIGNS TO BE REMOVED BY THE CONTRACTOR IMMEDIATELY AFTER THE RAILROAD SIGNAL IS OPERATIONAL.



SIGN REMOVAL SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	REMARKS
			X	Y			
1	W20-901	BROWNSTOWN ROAD, 775' SOUTH OF TRACKS	36"	36"	WOOD	4"x4"	
2	W3-1A	BROWNSTOWN ROAD, 335' SOUTH OF TRACKS	36"	36"	WOOD	4"x4"	
3	R1-1	BROWNSTOWN ROAD, 15' SOUTH OF TRACKS	36"	36"	WOOD	4"x4"	
4	R1-1	BROWNSTOWN ROAD, 15' NORTH OF TRACKS	36"	36"	WOOD	4"x4"	
5	W3-1A	BROWNSTOWN ROAD, 250' NORTH OF TRACKS	36"	36"	WOOD	4"x4"	
6	W20-901	BROWNSTOWN ROAD, 630' NORTH OF TRACKS	36"	36"	WOOD	4"x4"	



BROWNSTOWN RD
RAILROAD
CROSSING
PROJECT

TS 3105

STPXP-A391(001)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY

DRAWN: D. KINCAID
CHECKED BY: K. FRENZEL

REVISIONS:

SIGN
REMOVAL
SPECIFICATIONS



CURTIS STREET
RAILROAD
CROSSING
PROJECT

TS 3106

5TPXP-A390(005)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

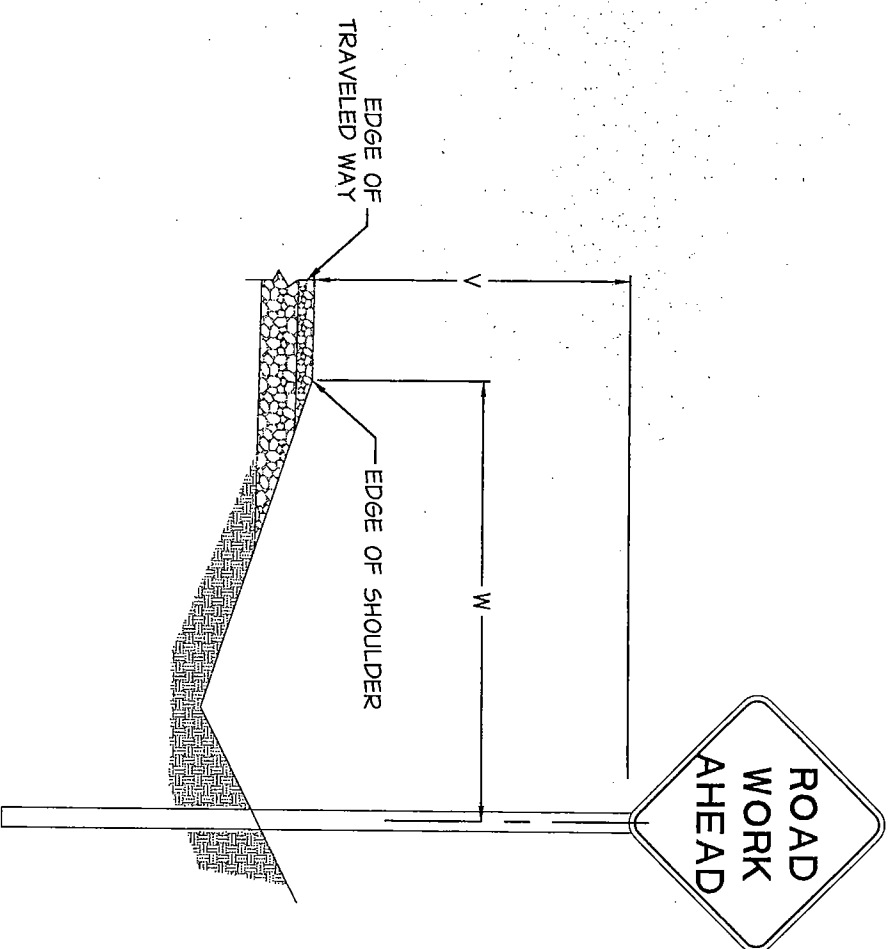
PROJECT ENGINEER:
K. MCHENRY

DRAWN: D. KINCAID
CHECKED BY: K. FRENZEL

REVISION:

GENERAL
TRAFFIC
CONTROL
PLAN

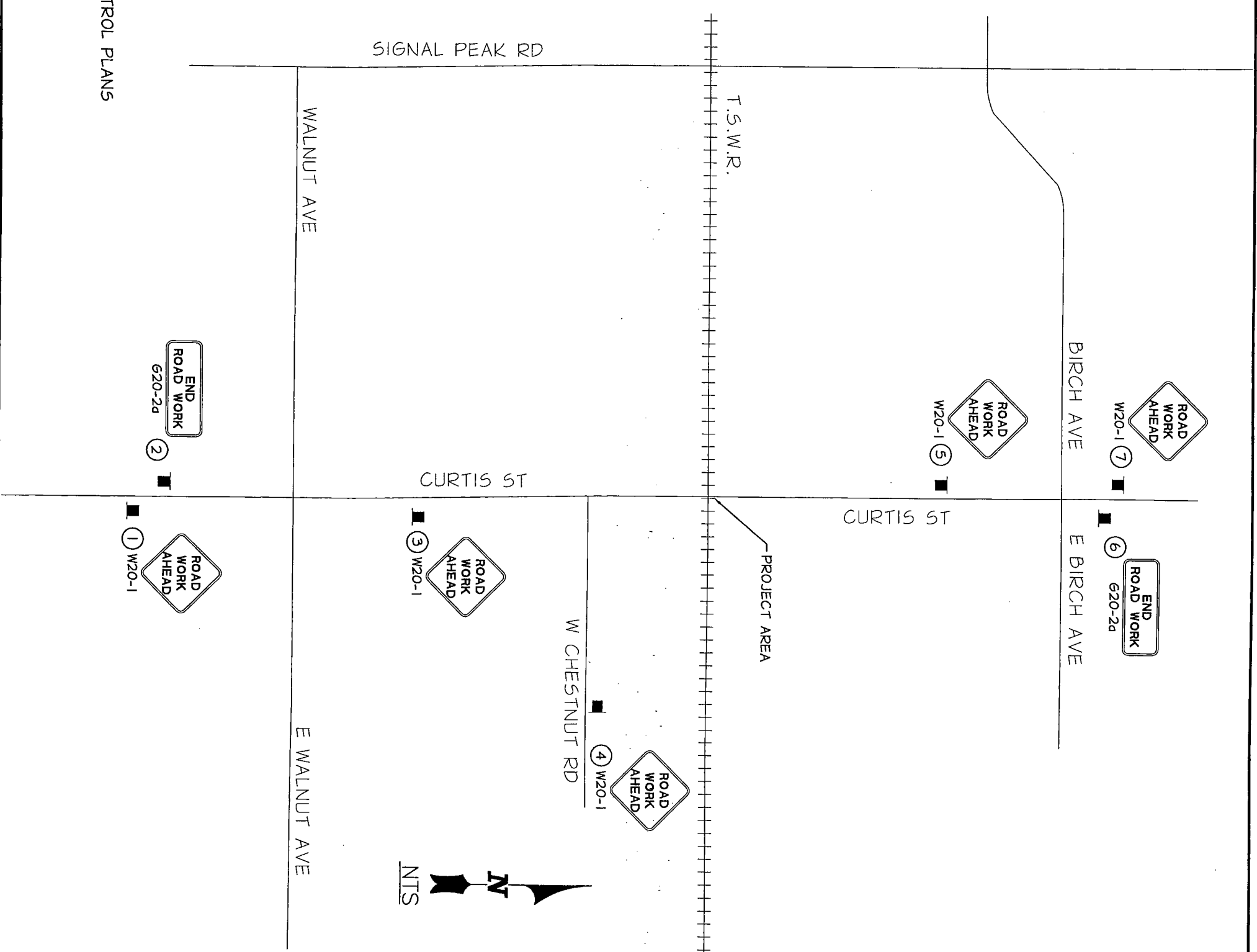
SHEET 1 OF 4



TYPICAL SIGN INSTALLATION

NTS

NOTE: CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SITE SPECIFIC TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.



GENERAL TRAFFIC CONTROL SIGN SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH		CLEARANCE		NOTES
			X	Y			H1	V	W		
1	W20-1	CURTIS STREET, 750' SOUTH OF TRACKS	48"	48"	WOOD	4"x4"	16'	7'	8'		
2	G20-2d	CURTIS STREET, 550' SOUTH OF TRACKS	36"	18"	WOOD	4"x4"	12'	7'	10'		
3	W20-1	CURTIS STREET, 420' SOUTH OF TRACKS	48"	48"	WOOD	4"x4"	16'	7'	10'		
4	W20-1	WEST CHESTNUT ROAD, 150' EAST OF CURTIS STREET	48"	48"	WOOD	4"x4"	16'	7'	8'		
5	W20-1	CURTIS STREET, 350' NORTH OF TRACKS	48"	48"	WOOD	4"x4"	17'	7'	8'		
6	G20-2d	CURTIS STREET, 650' NORTH OF TRACKS	36"	18"	WOOD	4"x4"	12'	7'	10'		
7	W20-1	CURTIS STREET, 750' NORTH OF TRACKS	48"	48"	WOOD	4"x4"	16'	7'	10'		

- NOTES:
- MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
 - FOR STRUCTURE AND MOUNTING DETAILS, SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, SERIES G.
 - FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS, SEE STANDARD HIGHWAY SIGN BOOK.
 - POST LENGTHS SHOWN ARE APPROXIMATE. FINAL VALUES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
 - W-DISTANCE FROM THE EXISTING SHOULDER, OR FACE OF CURB, TO THE SIGN POST.
 - ALL SIGNS, POSTS AND ANY OTHER TRAFFIC CONTROL DEVICES SHALL BE SUPPLIED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
 - THE POSTS SHALL NOT PROTRUDE ABOVE THE SIGNS.



**CURTIS STREET
RAILROAD
CROSSING
PROJECT**

TS 3106

STPXP-A390(005)

PREPARED UNDER
THE DIRECTION OF:

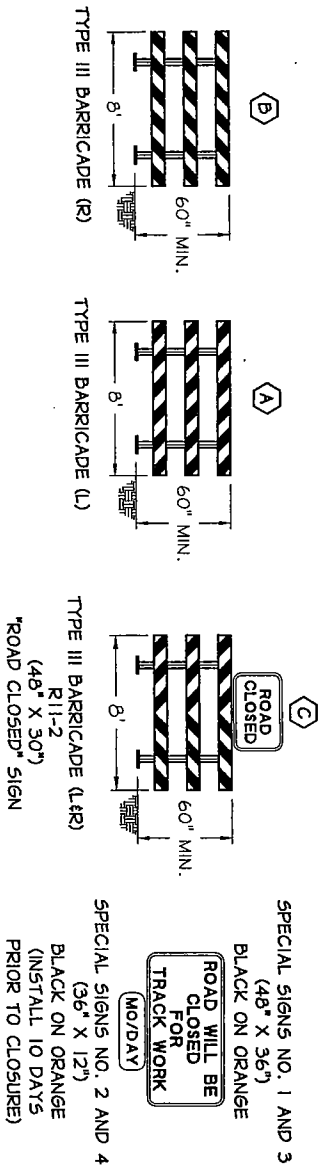
COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY

DRAWN BY: D. KINGAID
CHECKED BY: K. FRENZEL

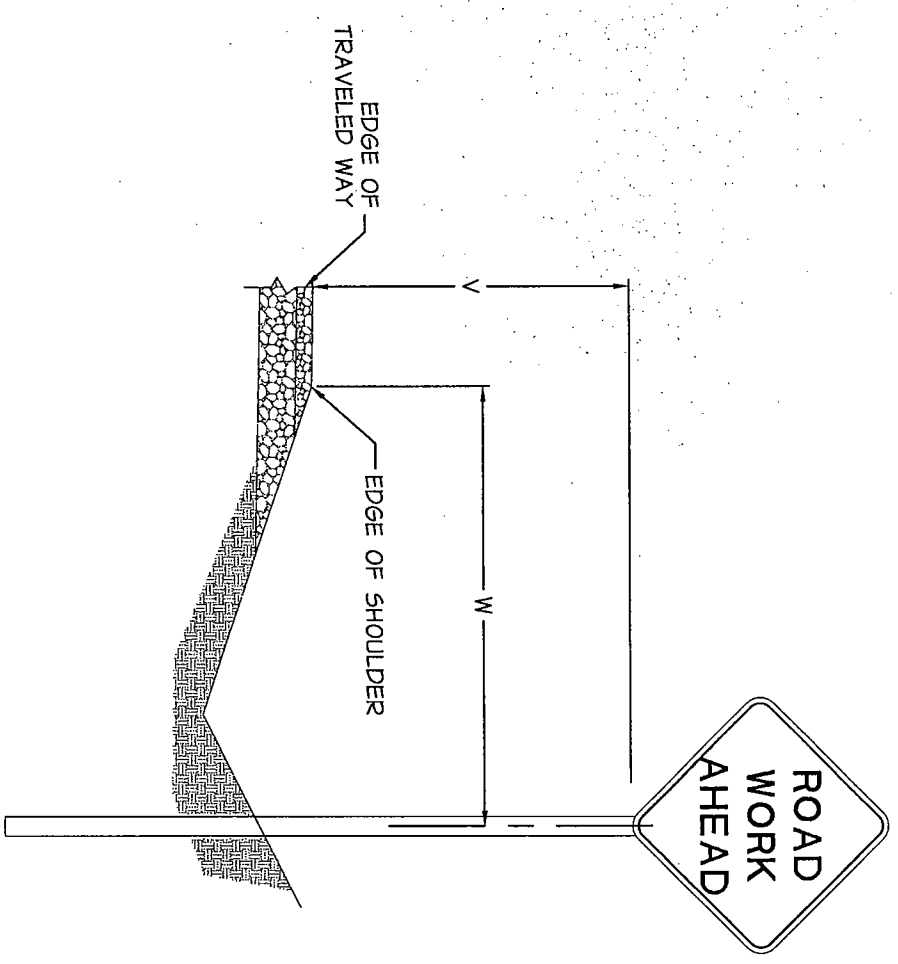
REVISION:

GENERAL
TRAFFIC
CONTROL
PLAN



NOTE: THIS ROAD CLOSURE PLAN IS APPROVED FOR ONE DAY ONLY AND DURING DAYLIGHT HOURS ONLY. TRAFFIC CONTROL DEVICES MAY BE INSTALLED USING PORTABLE SIGN STANDS UNLESS OTHERWISE NOTED AS BEING POST MOUNTED.

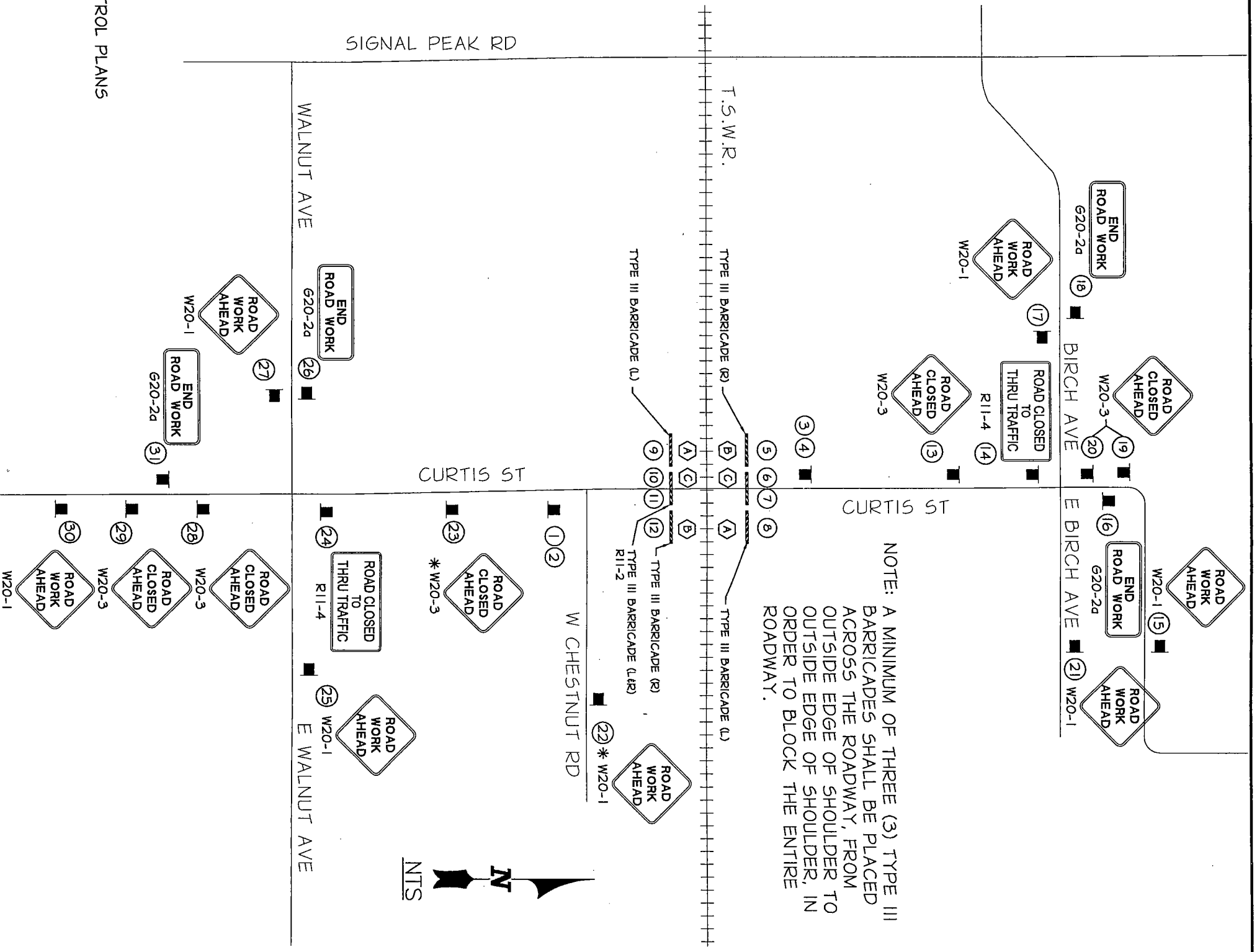
* INTERCHANGEABLE WITH GENERAL TRAFFIC CONTROL PLAN DEVICES LOCATION.



TYPICAL SIGN INSTALLATION

NTS

NOTE: CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SITE SPECIFIC TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.



NOTE: A MINIMUM OF THREE (3) TYPE III BARRICADES SHALL BE PLACED ACROSS THE ROADWAY, FROM OUTSIDE EDGE OF SHOULDER TO OUTSIDE EDGE OF SHOULDER, IN ORDER TO BLOCK THE ENTIRE ROADWAY.



CURTIS STREET
RAILROAD
CROSSING
PROJECT
TS 3106
STPXP-A390(005)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY
DRAWN BY:
D. KINCAID
CHECKED BY:
K. FRENZEL
REVISION:

ROAD
CLOSURE
PLAN

SHEET 3 OF 4

ROAD CLOSURE SIGN SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH		CLEARANCE		NOTES
			X	Y			H1	V	W		
1	SPECIAL	CURTIS STREET, 150' SOUTH OF TRACKS	48"	36"	WOOD	4"x4"	14'	7'	10'		SPECIAL SIGN NO. 1
2	SPECIAL	SAME	36"	12"	SAME	SAME	SAME	6'	5AME		SPECIAL SIGN NO. 2, BELOW SIGN NO. 1
3	SPECIAL	CURTIS STREET, 100' NORTH OF TRACKS	48"	36"	WOOD	4"x4"	14'	7'	10'		SPECIAL SIGN NO. 3
4	SPECIAL	SAME	36"	12"	SAME	SAME	SAME	6'	5AME		SPECIAL SIGN NO. 4, BELOW SIGN NO. 3
5	TYPE III BARRICADE (R)	CURTIS STREET, 25' NORTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL B
6	TYPE III BARRICADE (L&R)	CURTIS STREET, 25' NORTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL C
7	R11-2	SAME	48"	30"	---	---	---	---	---		MOUNTED ON TOP OF SIGN NO. 6
8	TYPE III BARRICADE (L)	CURTIS STREET, 25' NORTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL A
9	TYPE III BARRICADE (L)	CURTIS STREET, 20' SOUTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL A
10	TYPE III BARRICADE (L&R)	CURTIS STREET, 20' SOUTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL C
11	R11-2	SAME	48"	30"	---	---	---	---	---		MOUNTED ON TOP OF SIGN NO. 10
12	TYPE III BARRICADE (R)	CURTIS STREET, 20' SOUTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL B
13	W20-3 *	CURTIS STREET, 250' NORTH OF ROAD CLOSURE	48"	48"	---	---	---	---	---		
14	R11-4 *	CURTIS STREET, 30' SOUTH OF BIRCH AVENUE	60"	30"	---	---	---	---	---		
15	W20-1	CURTIS STREET, 1150' NORTH OF BIRCH AVENUE	48"	48"	---	---	---	---	---		
16	G20-2d	CURTIS STREET, 500' NORTH OF BIRCH AVENUE	36"	18"	---	---	---	---	---		
17	W20-1	BIRCH AVENUE, 350' WEST OF CURTIS STREET	48"	48"	---	---	---	---	---		
18	G20-2d	BIRCH AVENUE, 500' WEST OF CURTIS STREET	36"	18"	---	---	---	---	---		
19	W20-3	CURTIS STREET, 700' NORTH OF BIRCH AVENUE	48"	48"	---	---	---	---	---		
20	W20-3	CURTIS STREET, 350' NORTH OF BIRCH AVENUE	48"	48"	---	---	---	---	---		
21	W20-1	EAST BIRCH AVENUE, 250' EAST OF CURTIS STREET	48"	48"	---	---	---	---	---		
22	W20-1	WEST CHESTNUT ROAD, 150' EAST OF CURTIS STREET	48"	48"	---	---	---	---	---		
23	W20-3	CURTIS STREET, 400' SOUTH OF ROAD CLOSURE	48"	48"	---	---	---	---	---		
24	R11-4	CURTIS STREET, 30' NORTH OF EAST WALNUT AVENUE	60"	30"	---	---	---	---	---		
25	W20-1	EAST WALNUT AVENUE, 200' EAST OF CURTIS STREET	48"	48"	---	---	---	---	---		
26	G20-2d	WALNUT AVENUE, 200' WEST OF CURTIS STREET	36"	18"	---	---	---	---	---		
27	W20-1	WALNUT AVENUE, 200' WEST OF CURTIS STREET	48"	48"	---	---	---	---	---		
28	W20-3	CURTIS STREET, 350' SOUTH OF EAST WALNUT AVENUE	48"	48"	---	---	---	---	---		
29	W20-3	CURTIS STREET, 850' SOUTH OF EAST WALNUT AVENUE	48"	48"	---	---	---	---	---		
30	W20-1	CURTIS STREET, 1250' SOUTH OF EAST WALNUT AVENUE	48"	48"	---	---	---	---	---		
31	G20-2d	CURTIS STREET, 500' SOUTH OF EAST WALNUT AVENUE	36"	18"	---	---	---	---	---		

* INTERCHANGEABLE WITH GENERAL TRAFFIC CONTROL PLAN DEVICES LOCATION.

- NOTES:
1. MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
 2. FOR STRUCTURE AND MOUNTING DETAILS, SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, SERIES G.
 3. FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS, SEE STANDARD HIGHWAY SIGN BOOK.
 4. POST LENGTHS SHOWN ARE APPROXIMATE. FINAL VALUES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
 5. W-DISTANCE FROM THE EXISTING SHOULDER, OR FACE OF CURB, TO THE SIGN POST.
 6. ALL SIGNS, POSTS AND ANY OTHER TRAFFIC CONTROL DEVICES SHALL BE SUPPLIED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
 7. THE POSTS SHALL NOT PROTRUDE ABOVE THE SIGNS.



**CURTIS STREET
RAILROAD
CROSSING
PROJECT**
 TS 3106
 STPXP-A390(005)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY

DRAWN BY:
D. KINCAID

CHECKED BY:
K. FRENZEL

REVISION:

ROAD
CLOSURE
PLAN



SIGNAL PEAK RD
RAILROAD
CROSSING
PROJECT

TS 3107

STPXP-39JA(001)

PREPARED UNDER
THE DIRECTION OF:

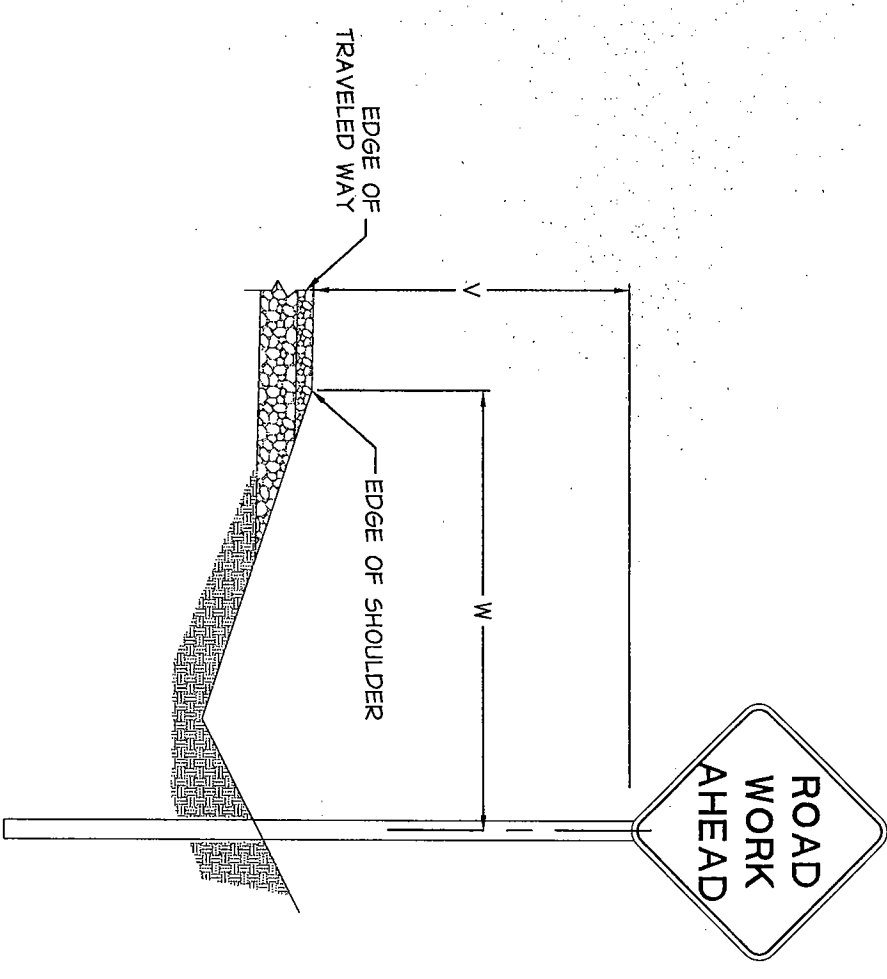
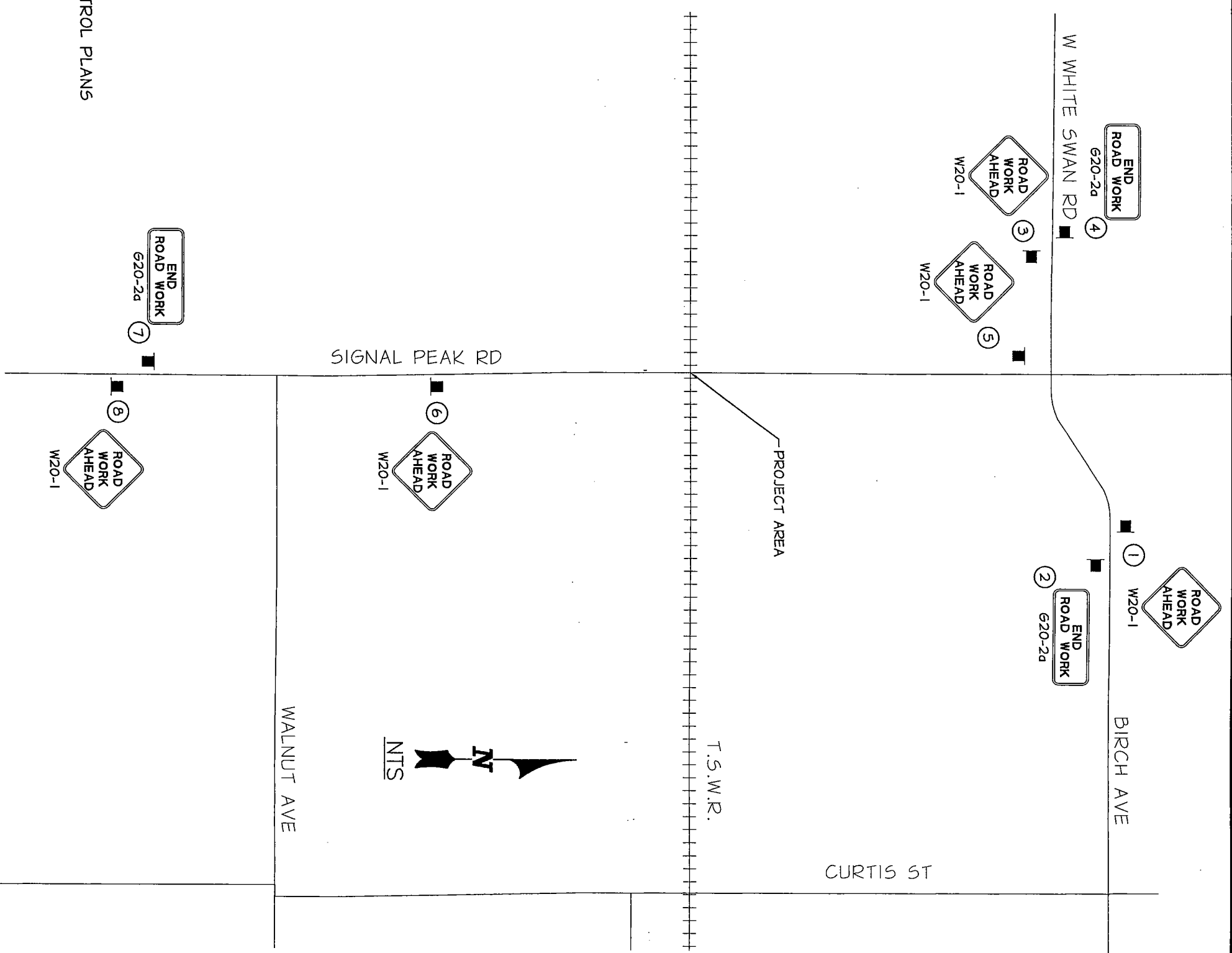
COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY

DRAWN: D. KINCAID	CHECKED BY: K. FRENZEL
REVISION:	

GENERAL
TRAFFIC
CONTROL
PLAN

SHEET 1 OF 4



TYPICAL SIGN INSTALLATION

NTS

NOTE: CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SITE SPECIFIC TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.

GENERAL TRAFFIC CONTROL SIGN SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH		CLEARANCE		NOTES
			X	Y			H1	V	W		
1	W20-1	BIRCH AVENUE, 350' EAST OF SIGNAL PEAK ROAD	48"	48"	WOOD	4"X4"	16'	7'	10'		
2	620-2a	BIRCH AVENUE, 550' EAST OF SIGNAL PEAK ROAD	36"	18"	WOOD	4"X4"	12'	7'	10'		
3	W20-1	WEST WHITE SWAN ROAD, 450' WEST OF SIGNAL PEAK ROAD	48"	48"	WOOD	4"X4"	13'	7'	8'		
4	620-2a	WEST WHITE SWAN ROAD, 500' WEST OF SIGNAL PEAK ROAD	36"	18"	WOOD	4"X4"	15'	7'	8'		
5	W20-1	SIGNAL PEAK ROAD, 225' NORTH OF TRACKS	48"	48"	WOOD	4"X4"	16'	7'	10'		
6	W20-1	SIGNAL PEAK ROAD, 400' SOUTH OF TRACKS	48"	48"	WOOD	4"X4"	16'	7'	10'		
7	620-2a	SIGNAL PEAK ROAD, 550' SOUTH OF TRACKS	36"	18"	WOOD	4"X4"	12'	7'	10'		
8	W20-1	SIGNAL PEAK ROAD, 790' SOUTH OF TRACKS	48"	48"	WOOD	4"X4"	16'	7'	8'		

- NOTES:
1. MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
 2. FOR STRUCTURE AND MOUNTING DETAILS, SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, SERIES G.
 3. FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS, SEE STANDARD HIGHWAY SIGN BOOK.
 4. POST LENGTHS SHOWN ARE APPROXIMATE. FINAL VALUES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
 5. W=DISTANCE FROM THE EXISTING SHOULDER, OR FACE OF CURB, TO THE SIGN POST.
 6. ALL SIGNS, POSTS AND ANY OTHER TRAFFIC CONTROL DEVICES SHALL BE SUPPLIED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
 7. THE POSTS SHALL NOT PROTRUDE ABOVE THE SIGNS.



SIGNAL PEAK RD
RAILROAD
CROSSING
PROJECT

TS 3107

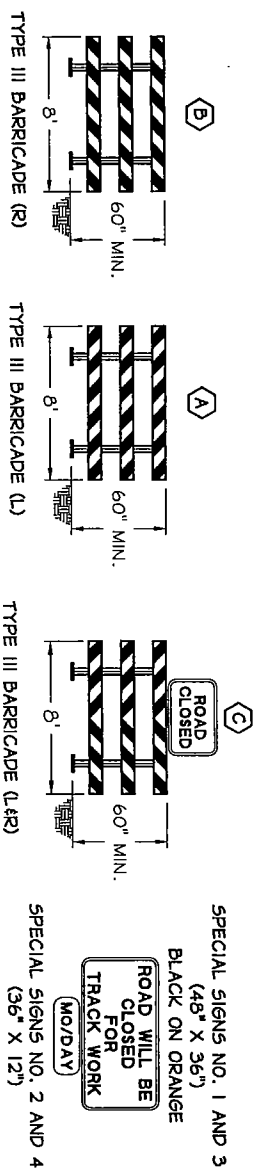
STPXP-39JA(001)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

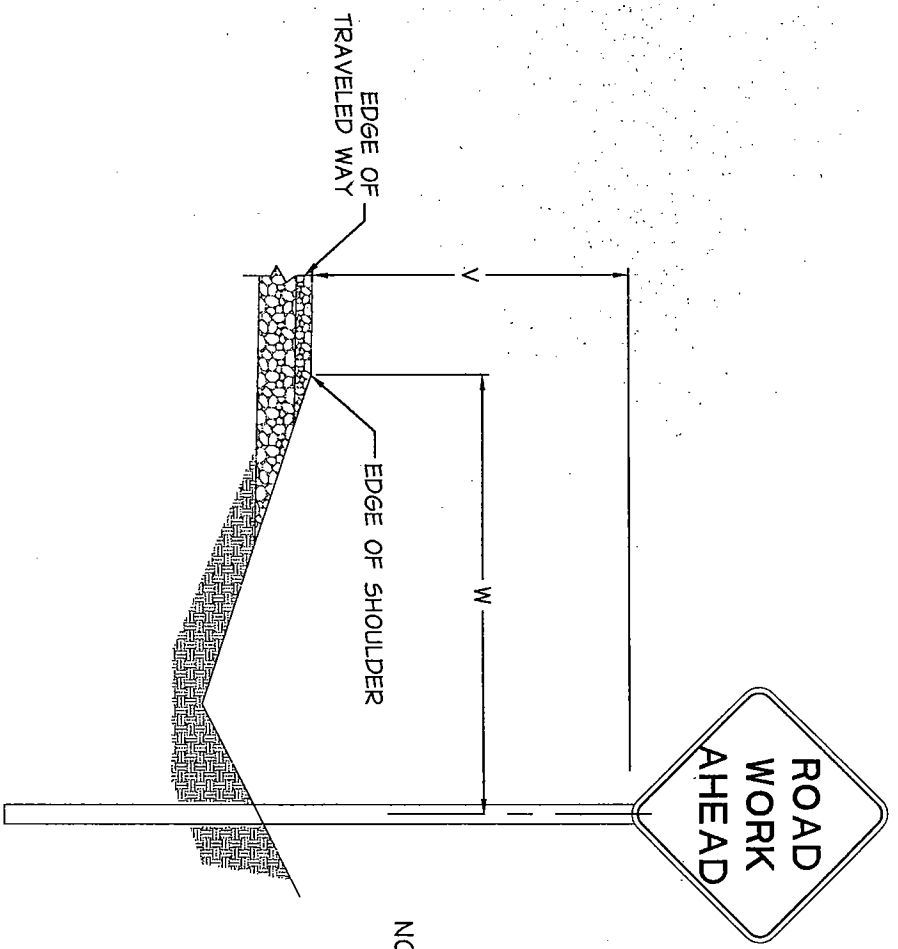
PROJECT ENGINEER: K. MCHENRY	
DRAWN BY: D. KINCAID	CHECKED BY: K. FRENZEL
REVISIONS:	

GENERAL
TRAFFIC
CONTROL
PLAN



NOTE: THIS ROAD CLOSURE PLAN IS APPROVED FOR ONE DAY ONLY AND DURING DAYLIGHT HOURS ONLY. TRAFFIC CONTROL DEVICES MAY BE INSTALLED USING PORTABLE SIGN STANDS UNLESS OTHERWISE NOTED AS BEING POST MOUNTED.

* INTERCHANGEABLE WITH GENERAL TRAFFIC CONTROL PLAN DEVICES LOCATION.

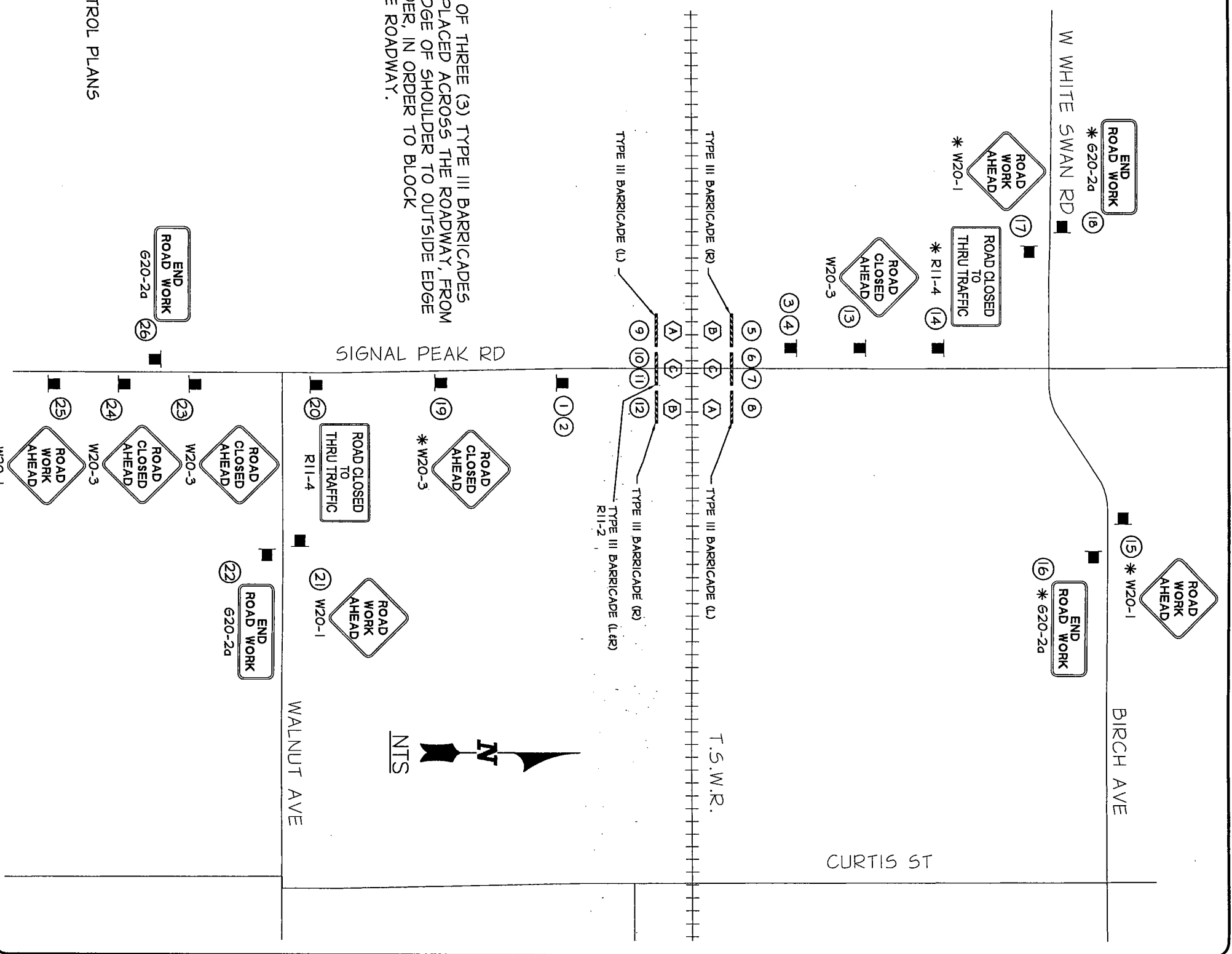


NOTE: A MINIMUM OF THREE (3) TYPE III BARRICADES SHALL BE PLACED ACROSS THE ROADWAY, FROM OUTSIDE EDGE OF SHOULDER TO OUTSIDE EDGE OF SHOULDER, IN ORDER TO BLOCK THE ENTIRE ROADWAY.

TYPICAL SIGN INSTALLATION

NTS

NOTE: CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SITE SPECIFIC TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.



SIGNAL PEAK RD
 RAILROAD
 CROSSING
 PROJECT
 TS 3107
 STPXP-39JA(001)

PREPARED UNDER
 THE DIRECTION OF:
 COUNTY ENGINEER
 DATE:

PROJECT ENGINEER:
 K. MCHENRY
 DRAWN:
 D. KINCAID
 CHECKED BY:
 K. FRENZEL

ROAD
 CLOSURE
 PLAN

SHEET 3 OF 4

ROAD CLOSURE SIGN SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH		CLEARANCE		NOTES
			X	Y			H1	V	W		
1	SPECIAL	SIGNAL PEAK ROAD, 175' SOUTH OF TRACKS	48"	36"	WOOD	4"x4"	14'	7'	10'		SPECIAL SIGN NO. 1
2	SPECIAL	SAME	36"	12"	SAME	SAME	5AME	6'	5AME		SPECIAL SIGN NO. 2, BELOW SIGN NO. 1
3	SPECIAL	SIGNAL PEAK ROAD, 40' NORTH OF TRACKS	48"	36"	WOOD	4"x4"	14'	7'	10'		SPECIAL SIGN NO. 3
4	SPECIAL	SAME	36"	12"	SAME	SAME	SAME	6'	5AME		SPECIAL SIGN NO. 4, BELOW SIGN NO. 3
5	TYPE III BARRICADE (R)	SIGNAL PEAK ROAD, 15' NORTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL B
6	TYPE III BARRICADE (L#R)	SIGNAL PEAK ROAD, 15' NORTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL C
7	R11-2	SAME	48"	30"	---	---	---	---	---		MOUNTED ON TOP OF SIGN NO. 6
8	TYPE III BARRICADE (L)	SIGNAL PEAK ROAD, 15' NORTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL A
9	TYPE III BARRICADE (L)	SIGNAL PEAK ROAD, 25' SOUTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL A
10	TYPE III BARRICADE (L#R)	SIGNAL PEAK ROAD, 25' SOUTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL C
11	R11-2	SAME	48"	30"	---	---	---	---	---		MOUNTED ON TOP OF SIGN NO. 10
12	TYPE III BARRICADE (R)	SIGNAL PEAK ROAD, 25' SOUTH OF TRACKS	8'	5'	---	---	---	---	---		SEE BARRICADE DETAIL B
13	W20-3	SIGNAL PEAK ROAD, 125' NORTH OF TRACKS	48"	48"	---	---	---	---	---		
14	R11-4 *	SIGNAL PEAK ROAD, 225' NORTH OF TRACKS	60"	30"	---	---	---	---	---		
15	W20-1 *	BIRCH AVENUE, 350' EAST OF SIGNAL PEAK ROAD	48"	48"	---	---	---	---	---		
16	620-2d *	BIRCH AVENUE, 550' EAST OF SIGNAL PEAK ROAD	36"	18"	---	---	---	---	---		
17	W20-1 *	WEST WHITE SWAN ROAD, 450' WEST OF SIGNAL PEAK ROAD	48"	48"	---	---	---	---	---		
18	620-2d *	WEST WHITE SWAN ROAD, 500' WEST OF SIGNAL PEAK ROAD	36"	18"	---	---	---	---	---		
19	W20-3	SIGNAL PEAK ROAD, 275' SOUTH OF ROAD CLOSURE	48"	48"	---	---	---	---	---		
20	R11-4	SIGNAL PEAK ROAD, 40' NORTH OF WALNUT AVENUE	60"	30"	---	---	---	---	---		
21	W20-1	WALNUT AVENUE, 250' EAST OF SIGNAL PEAK ROAD	48"	48"	---	---	---	---	---		
22	620-2d	WALNUT AVENUE, 300' EAST OF SIGNAL PEAK ROAD	36"	18"	---	---	---	---	---		
23	W20-3	SIGNAL PEAK ROAD, 350' SOUTH OF WALNUT AVENUE	48"	48"	---	---	---	---	---		
24	W20-3	SIGNAL PEAK ROAD, 700' SOUTH OF WALNUT AVENUE	48"	48"	---	---	---	---	---		
25	W20-1	SIGNAL PEAK ROAD, 1050' SOUTH OF WALNUT AVENUE	48"	48"	---	---	---	---	---		
26	620-2d	SIGNAL PEAK ROAD, 650' SOUTH OF WALNUT AVENUE	36"	18"	---	---	---	---	---		

* INTERCHANGEABLE WITH GENERAL TRAFFIC CONTROL PLAN DEVICES LOCATION.

- NOTES:
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 7. THE POSTS SHALL NOT PROTRUDE ABOVE THE SIGNS.



SIGNAL PEAK RD
RAILROAD
CROSSING
PROJECT

TS 3107

STPXP-39JA(001)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY
DRAWN BY:
D. KINCAID
CHECKED BY:
K. FRENZEL

REVISIONS:

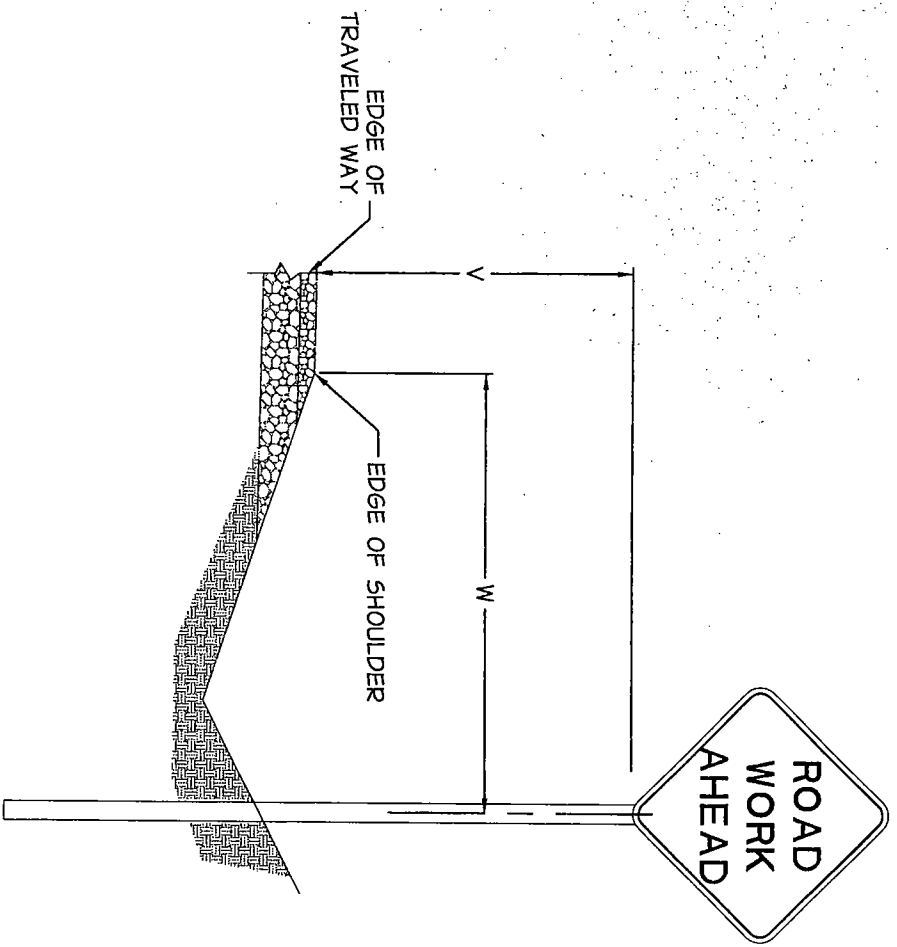
ROAD
CLOSURE
PLAN

GENERAL TRAFFIC CONTROL SIGN SPECIFICATIONS

SIGN NO.	MUTCD SIGN #	LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH		CLEARANCE		NOTES
			X	Y			HI	LI	V	W	
1	W20-1	WEST WHITE SWAN ROAD, 1650' EAST OF TRACKS	48"	48"	WOOD	4"x4"	18'		7'	10'	
2	W20-1	WEST WHITE SWAN ROAD, 1100' EAST OF TRACKS	48"	48"	WOOD	4"x4"	18'		7'	10'	
3	W20-1	WEST WHITE SWAN ROAD, 550' EAST OF TRACKS	48"	48"	WOOD	4"x4"	17'		7'	10'	
4	620-2a	WEST WHITE SWAN ROAD, 550' EAST OF TRACKS	36"	18"	WOOD	4"x4"	14'		7'	10'	
5	620-2a	WEST WHITE SWAN ROAD, 550' WEST OF TRACKS	36"	18"	WOOD	4"x4"	12'		7'	10'	
6	W20-1	WEST WHITE SWAN ROAD, 550' WEST OF TRACKS	48"	48"	WOOD	4"x4"	16'		7'	10'	
7	W20-1	WEST WHITE SWAN ROAD, 1300' WEST OF TRACKS	48"	48"	WOOD	4"x4"	18'		7'	10'	
8	W20-1	WEST WHITE SWAN ROAD, 1850' WEST OF TRACKS	48"	48"	WOOD	4"x4"	18'		7'	10'	

NOTES:

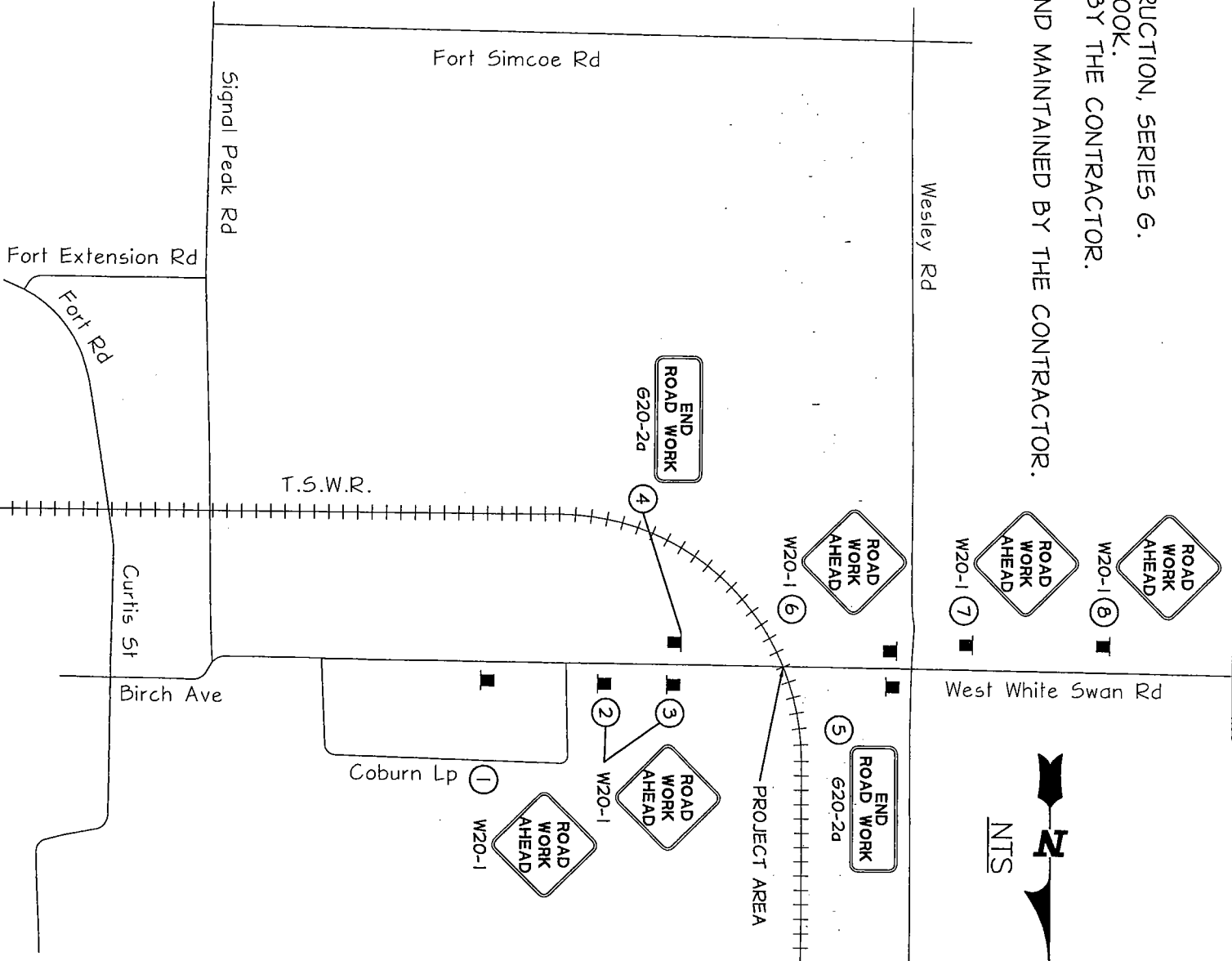
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TYPICAL SIGN INSTALLATION

NTS

NOTE: CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SITE SPECIFIC TRAFFIC CONTROL PLANS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.



W. WHITE SWAN
ROAD
R.R. CROSSING
PROJECT

TS 3108

STPXP-5390(002)

PREPARED UNDER
THE DIRECTION OF:

COUNTY ENGINEER
DATE:

PROJECT ENGINEER:
K. MCHENRY

DRAWN: D. KINCAID
CHECKED BY: K. FRENZEL

REVISIONS:

GENERAL
TRAFFIC
CONTROL
PLAN