IOWA DEPT. OF NATURAL RESOURCES
BOX CAR ACCESS
ROADWAY RECONSTRUCTION - 2015

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PROJECT PICTURE / KEY PLAN
OR
PROJECT LOCATION

NORTH

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LICENSED PROFESSIONAL ENGINEER
GEOFFRY T. BLANDIN
15274
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA

FOR IIW, P.C.
Geoffry T. Blandin 2/10/15

GEOFFRY T. BLANDIN — DATE
PE 15274 — 12/31/2015
LICENSE # — RENEWAL DATE

PAGES OR SHEETS COVERED BY THIS CERTIFICATION:
ALL SHEETS IN INDEX

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Project Description:

GENERAL
COVER SHEET

IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

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Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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Sheet No:
G1.01
IIW Project No: 13091

GENERAL NOTES:

1. TRAFFIC CONTROL: TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE CURRENT "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, AS ADOPTED BY THE DEPARTMENT OF TRANSPORTATION PER 761 OF THE IOWA ADMINISTRATION CODE (IAC), CHAPTER 130." THE CONTRACTOR SHALL FURNISH TRAFFIC CONTROL INCLUDING BARRICADES AND SIGNS IN ACCORDANCE WITH THE CURRENT MUTCD.

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN BARRICADES, DANGER AND WARNING SIGNS, AND SUITABLE AND EFFECTIVE LIGHTS ALONG THE LINE OF THE WORK, AND HE SHALL TAKE ALL REASONABLE PRECAUTIONS FOR THE PREVENTION OF ACCIDENTS AND THE PROTECTION OF THE PUBLIC DURING THE PROGRESS OF THE WORK. BARRICADES AND WARNING SIGNS SHALL CONFORM TO IOWA DOT SPECIFICATIONS.

WARNING LIGHTS MUST BE MAINTAINED AT NIGHT ON BARRICADES PLACED AROUND THE WORK FROM SUNSET UNTIL SUNRISE AND WATCHMAN EMPLOYED AS ADDITIONAL SECURITY WHENEVER THE SAME MAY BE NEEDED.

2. TREES AND OTHER OBSTRUCTIONS: TREES, BUSHES, ROOTS, STUMPS, FENCES, WALKS, CURBSTONE, COBBLESTONE, GUTTER BLOCKS, BOULDERS, STONES AND OTHER OBSTRUCTIONS WHICH WILL INTERFERE WITH THE PROPER PERFORMANCE OF THE WORK PROVIDED FOR BY THE CONTRACT SHALL BE REMOVED BY THE CONTRACTOR AND THE EXCAVATION CAUSED BY SUCH REMOVAL SHALL BE FILLED IN WITH SUITABLE MATERIALS. PAYMENTS SHALL BE MADE TO THE CONTRACTOR ON THE BASIS OF UNIT PRICES BID FOR THIS WORK, PROVIDED UNIT PRICES ARE CALLED FOR IN THE BID PROPOSAL, OTHERWISE THE COST OF THIS WORK SHALL BE MERGED IN THE CONTRACT PRICES.

3. CLEANUP AND RESTORATION: DURING CONSTRUCTION AND PRIOR TO ACCEPTANCE OF THE PROJECT BY THE OWNER, THE ENTIRE SITE AND ALL STRUCTURES SHALL HAVE ALL CONSTRUCTION DEBRIS REMOVED AND AREAS SHALL BE LEFT IN A CLEAN CONDITION. ALL DIRT, DUST OR MUD RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE REMOVED FROM ALL AREAS.

4. NUISANCE CONTROLS: THE CONTRACTOR IS REQUIRED TO MINIMIZE NOISE, DUST, PESTS, DEBRIS, RODENTS, POLLUTION AND EROSION AT THE CONSTRUCTION SITE. EROSION SHALL BE CONTROLLED BY TEMPORARY COVER, SILT FENCING, ETC., AS APPROPRIATE. WATER SHALL BE APPLIED TO DUSTY AREAS AS NECESSARY. DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE. STORAGE AREAS SHALL BE SUCH THAT PESTS AND RODENTS CAN BE CONTROLLED.

5. STAKING: THE CONTRACTOR SHALL PROVIDE STAKING FOR GRADING AND PAVING. A BID ITEM HAS BEEN PROVIDED FOR THIS WORK.

6. IDOT STANDARD SPECIFICATIONS: ANY WORK NOT COVERED BY THESE SPECIFICATIONS SHALL BE IN ACCORDANCE WITH APPLICABLE TECHNICAL SPECIFICATION PORTIONS OF "STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION", SERIES 2012 OF THE IOWA DEPARTMENT OF TRANSPORTATION, AND ANY APPLICABLE SUPPLEMENTAL SPECIFICATIONS. MEASUREMENT, PAYMENT AND GENERAL CONTRACT PROVISIONS OF THE DOT SPECIFICATIONS ARE NOT APPLICABLE TO THIS PROJECT. COPIES OF DOT SPECIFICATIONS, INSTRUCTIONAL MEMORANDA AND STANDARD ROAD PLANS ARE AVAILABLE BY CALLING 515–239–1588.

7. WATER: THE OWNER WILL NOT CHARGE THE CONTRACTOR FOR WATER USED IN THIS PROJECT. THE CONTRACTOR SHALL CONTACT THE OWNER TO OBTAIN WATER AT THE LOCATION, DELIVERY RATE, AND TIME OF DAY, AS MAY BE AVAILABLE. CONTRACTOR SHALL COMPLY WITH IOWA DNR PERMITTING REQUIREMENTS FOR WITHDRAWAL OF WATER FROM ANY SURFACE WATER SOURCES (I.E. PUMPING FROM STREAMS, CREEKS, LAKES, ETC.).

8. PERMITS: THE CONTRACTOR IS NOT REQUIRED TO OBTAIN ANY PERMITS FROM THE OWNER.

9. "OR EQUAL" STATEMENT: WHENEVER IN ANY PART OF THE CONTRACT DOCUMENTS ANY ARTICLE, MATERIAL OR EQUIPMENT IS DEFINED BY USING THE NAME OF A MANUFACTURER OR VENDOR, THE TERM "OR EQUAL", IF NOT INSERTED SHALL BE IMPLIED. THE SPECIFIC ARTICLE, MATERIALS, OR EQUIPMENT MENTIONED SHALL BE UNDERSTOOD AS INDICATING THE TYPE, FUNCTIONS, MINIMUM, STANDARD OF DESIGN, EFFICIENCY, AND QUALITY DESIRED AND SHALL NOT BE CONSTRUED IN SUCH A MANNER AS TO EXCLUDE MANUFACTURER'S PRODUCTS OF COMPARABLE QUALITY, DESIGN, AND EFFICIENCY. SEE 5–01 "QUALITY OF EQUIPMENT AND MATERIALS" OF THE GENERAL CONDITIONS. THE ENGINEER SHALL HAVE SOLE AUTHORITY TO DETERMINE EQUIVALENCE.

10. MATERIAL STORAGE: ALL MATERIALS AND EQUIPMENT STORED AT THE SITE SHALL BE PROTECTED FROM THE ELEMENTS WHERE SUCH EXPOSURE WOULD BE DETRIMENTAL AND SHALL BE ADEQUATELY SUPPORTED TO PREVENT BENDING, WARPING, AND OTHER DEGRADATION OF MATERIAL PROPERTIES. ALL MATERIALS SHALL BE PROPERLY STORED SUCH THAT THEY DO NOT IMPACT AREAS OUTSIDE OF THE DESIGNATED CONSTRUCTION AND/OR STAGING AREAS.

11. STANDARD SPECIFICATIONS AND SPECIAL PROJECT REQUIREMENTS: THE TECHNICAL SPECIFICATIONS FOR THIS PROJECT ARE SOMEWHAT GENERAL IN NATURE. THEREFORE, FOLLOWING EACH SECTION, AS APPLICABLE, SPECIAL PROJECT REQUIREMENTS HAVE BEEN ADDED TO PROVIDE SPECIFIC PROJECT REQUIREMENTS.

12. DISPOSAL OF MATERIALS: THE CONTRACTOR SHALL DISPOSE OF EXCAVATION, EXCESS AND WASTE MATERIALS AT A LOCATION CONSISTENT WITH FEDERAL, STATE AND LOCAL REGULATIONS AND THE REQUIREMENTS SET FORTH IN THE PERMITS OBTAINED FOR THIS PROJECT..

13. SOIL BORINGS: NO SOIL BORINGS HAVE BEEN PERFORMED BY/FOR THE OWNER. CONTRACTORS SHALL BE RESPONSIBLE FOR PERFORMING ALL SOIL BORINGS THEY DEEM NECESSARY TO CHARACTERIZE SUBSURFACE CONDITIONS AND SHALL BE RESPONSIBLE FOR ANY CONSEQUENCES OF MAKING SUCH EXPLORATIONS.

14. EMERGENCY VEHICLE ACCESS: THE CONTRACTOR SHALL, TO THE GREATEST EXTENT POSSIBLE, MAINTAIN VEHICLE ACCESS ESPECIALLY FOR EMERGENCY VEHICLES ON EXISTING STREETS AND DRIVES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING FIRE, POLICE AND SHERIFF DEPARTMENTS OF STREETS THAT MUST BE CLOSED AND ANTICIPATED DURATION OF CLOSURE.

15. SUBMITTALS: SUBMITTALS ARE REQUIRED FOR STONE QUALITY AND GRADATION (EROSION STONE & STONE BASE MATERIAL), AND IDOT ENGINEERING FABRIC. ALL SUPPLIERS AND SUBCONTRACTORS ARE REQUIRED TO PROVIDE SHOP DRAWING INFORMATION DIRECTLY TO THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR IS TO REVIEW THE SHOP DRAWING INFORMATION FOR ACCURACY BEFORE SUBMITTING TO THE ENGINEER FOR REVIEW AND APPROVAL.

16. CONSTRUCTION STAGING AREAS: NO SPECIFIC CONSTRUCTION STAGING AREAS HAVE BEEN IDENTIFIED ON THE PLAN DRAWINGS. STAGING AREAS, IF LOCATED OUTSIDE OF THE CONSTRUCTION LIMITS, SHALL BE LIMITED TO 400 SQUARE FEET, AND LOCATED ADJACENT TO THE CONSTRUCTION LIMITS. NO QUANTITIES HAVE BEEN INCLUDED TO ACCOUNT FOR DAMAGE CAUSED BY ACTIVITIES WITHIN THE STAGING AREA. REPAIR OF SUCH DAMAGE SHALL BE CONSIDERED INCIDENTAL TO MOBILIZATION. EXCEPTIONS TO THIS MAY BE GRANTED BY THE SITE REPRESENTATIVE FOR THE RESPECTIVE SITE.

17. SITE REPRESENTATIVE CONTACT INFORMATION: THE CONTRACTOR SHALL SCHEDULE WORK AT THIS SITE ONLY AFTER COORDINATING WITH THE IDNR REPRESENTATIVE AT THIS SITE. AS THIS SITE IS A PARK, AND IS GENERALLY AT PEAK USE DURING THE CONSTRUCTION SEASON, THERE MAY BE SITE SPECIFIC ACCOMMODATIONS REQUESTED OF THE CONTRACTOR.

DURING THE CONSTRUCTION SEASON, IT CAN BE EXPECTED THAT PEAK PARK USE WILL OCCUR OVER THE WEEKENDS. AS SUCH, THE CONTRACTOR SHALL LIMIT CONSTRUCTION OPERATIONS TO MONDAY THROUGH FRIDAY, UNLESS SPECIFIC, WRITTEN PERMISSION IS PROVIDED BY THE IDNR SITE REPRESENTATIVE.
WORK AT THE BOX CAR ACCESS SITE SHALL BE COMPLETED PRIOR TO SEPT. 1 2015, SO NOT TO CONFLICT WITH WATERFOWL SEASON.

1. BOX CAR ACCESS / LAKE RATHBURN
JASON KRUSE
515–250–3707

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iiw
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GENERAL NOTES
IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015
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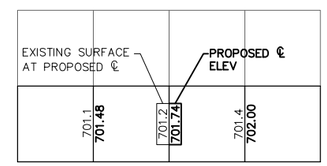
Sheet No:
G1.02
IIW Project No: 13091

ABBREVIATIONS

∠	ANGLE
Δ	CENTRAL ANGLE
AB	ANCHOR BOLT
A/C	AIR CONDITIONING(ER)
AC	ACRES
AD	ALGEBRAIC DIFFERENCE
ADD'L	ADDITIONAL
A.F.F.	ABOVE FINISHED FLOOR
AGG	AGGREGATE
ALT	ALTERNATING
ALUM	ALUMINUM
ANCH	ANCHOR
AOH	ARROW ON HYDRANT
ARCH	ARCHITECTURAL
ASPH	ASPHALT
AVG	AVERAGE
B-B	BACK OF CURB TO BACK OF CURB
B.B.	BOND BEAM
B/C	BACK OF CURB
BD	BOARD
B/DITCH	BOTTOM OF DITCH
BFP	BACKFLOW PREVENTOR
B/L	BASE LINE
B.L.	BRICK LEDGE
B/S	BOTTOM OF SLOPE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BNT	BENT
BM	BEAM
B.M.	BENCH MARK
BOP	BEGINNING OF PROJECT
BOT	BOTTOM
BRG	BEARING
BRKT	BRACKET
BSMT	BASEMENT
BTWN	BETWEEN
BV	BUTTERFLY VALVE
C&G	CURB AND GUTTER
CANT	CANTILEVER
CATV	CABLE TELEVISION
CB	CATCH BASIN
C-C	CENTER TO CENTER
CF	CUBIC FEET
CH	CHORD
CH BRG	CHORD BEARING
CIP	CAST IRON PIPE
C-I-P	CAST-IN-PLACE
CISP	CAST IRON SOIL PIPE
CJ	CONTROL JOINT
℄ OR CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
COMP	COMPACTED
CONC	CONCRETE
COND	CONDITION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
COR	CORNER
CP	CONTROL POINT
CPE	CORRUGATED POLYETHYLENE PIPE
CRST	CRUSHED STONE
CSP	CORRUGATED STEEL PIPE
CTRD	CENTERED
CTR	CENTER
CU	CUBIC
CULT	CULTIVATED
CV	CHECK VALVE
CY	CUBIC YARD
D	DEGREE OF CURVE
DEFL	DEFLECTION
DIA (ø)	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DIST	DISTANCE
DL	DEAD LOAD
DN	DOWN
DRWY	DRIVEWAY
DS	DOWNSPOUT
DWG(S)	DRAWING(S)
DWL(S)	DOWEL(S)
E	EAST
E'LY	EASTERLY
EA	EACH
E.E.	EACH END
E.F.	EACH FACE
EFF	EFFECTIVE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT
ENGR	ENGINEER
ENTR	ENTRANCE
EOP	END OF PROJECT
EOR	END OF RADIUS
E/P	EDGE OF PAVEMENT
EQ	EQUAL
E/S	EDGE OF SHOULDER
ESMT	EASEMENT
EST	ESTIMATE
EX	EXISTING
EXC	EXCAVATE/EXCAVATION
EXP	EXPANSION
EXT	EXTERIOR
EXTD	EXTEND
EW	EACH WAY
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
F.E.	FIELD ENTRANCE
FES	FLARED END SECTION
F-F	FACE TO FACE
F&I	FURNISH & INSTALL
F.F.	FAR FACE
FFE	FINISH FLOOR ELEVATION
FG	FORM GRADE
FIN GR	FINISHED GRADE
FL	FLOWLINE
FLG	FLANGE
FLR	FLOOR
FM	FORCE MAIN
FND	FOUND
FRM	FRAME
F.S.	FAR SIDE
FT	FOOT/FEET
FTG	FOOTING
FUT	FUTURE
FV	FIELD VERIFY
G	GUTTER
GA	GAGE
GC	GENERAL CONTRACTOR
GALV	GALVANIZED
GL	GLUE LAMINATED WOOD
GND	GROUND
GRAN	GRANULAR
GRD	GRADE
GV	GATE VALVE
GYP	GYPSUM
HD	HEAD
H.E.F.	HORIZONTAL EACH FACE
H.I.F.	HORIZONTAL INSIDE FACE
HK	HOOK
H.M.	HOLLOW METAL
HMA	HOT MIX ASPHALT
H.O.F.	HORIZONTAL OUTSIDE FACE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPT	HIGH POINT
H.S.A.	HEADED STUD ANCHOR
H.S.S.	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
HYD	HYDRANT
ID	INSIDE DIAMETER/INSIDE DIMENSION
IE	INVERT ELEVATION
I.F.	INSIDE FACE
I.J.	ISOLATION JOINT
IMP	IMPROVEMENTS
IN	INCHES
INFO	INFORMATION
INSP	INSPECTION
INST	INSTALLATION
INSUL	INSULATION
INT	INTERIOR
INTR	INTERSECTION
INV	INVERT
IP	IRON PIPE
JB	JUNCTION BOX
JT	JOINT/JOINT LENGTH
JST(S)	JOIST(S)
K	RATE OF VERTICAL CURVATURE
K	KIPS
K/FT	KIPS PER FOOT
KIP	1 KIP = 1,000 LBS
KSF	KIPS PER SQUARE FOOT
L	LENGTH OF CURVE
LAT	LATERAL
LB/#	POUND
LF	LINEAL FOOT
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LP	LIGHT POLE
LPT	LOW POINT
LT	LEFT
LTL	LINTEL
LW	LIGHT WEIGHT
MAS	MASONRY
MAX	MAXIMUM
MBR	MEMBER
ME	MATCH EXISTING
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
ML	MICRO LAMINATED WOOD
MO	MOISTURE RESISTANT
MOD	MODIFY
MON	MONUMENT
MTD	MOUNTED
N	NORTH
N/A	NOT APPLICABLE, NOT AVAILABLE
NE'LY	NORTHEASTERLY
N.F.	NEAR FACE
N'LY	NORTHERLY
NO/#	NUMBER
N.S.	NEAR SIDE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
NW'LY	NORTHWESTERLY
OC	ON CENTER
OD	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O.H.	OVER HEAD
OP'G	OPENING
OPP	OPPOSITE
PC	POINT OF CURVE
P.C.	PRECAST/PRESTRESSED CONCRETE
PCF	POUNDS PER CUBIC FOOT
PCC	PORTLAND CEMENT CONCRETE
PED	PEDESTAL/PEDESTRIAN
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PI	POINT OF INTERSECTION
P/L	PROPERTY LINE
ℙL	PLATE
PLF	POUNDS PER LINEAL FOOT
PLK	PLANK
PM	PRINCIPAL MERIDIAN
POB	POINT OF BEGINNING
POC	POINT OF CURVE
POT	POINT OF TANGENT
PRC	POINT OF REVERSE CURVE
PRELIM	PRELIMINARY
PROJ	PROJECTION
PROP	PROPOSED
PRV	PRESSURE REDUCING VALVE
PS	PRESTRESSED CONCRETE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	PAINTED
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY
R	RADIUS
R.D.	ROOF DRAIN
R&R	REMOVE & REPLACE
R&S	REMOVE & SALVAGE
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REBAR	REINFORCING BAR
REF	REFERENCE
REINF	REINFORCING/REINFORCED
REM	REMAINDER
REQ	REQUIRED
REV	REVISION
RIM	RIM ELEVATION
R.O.	ROUGH OPENING
ROW	RIGHT OF WAY
RP	RADIUS POINT
RR	RAILROAD
RS	RESILIENT SEAT
RT	RIGHT
S	SOUTH
S=	SUPERELEVATION
SAN	SANITARY
SANS	SANITARY SEWER
SB	SOIL BORING
SCH	SCHEDULE
SD	SUB DRAIN
SDL	SUPERIMPOSED DEAD LOAD
SEC	SECTION
SE'LY	SOUTHEASTERLY
SF	SQUARE FOOT
S.F.	SPLIT FACE
S.F.D.	STEP FOOTING DOWN
SHT	SHEET
SIG.	SIGNAL
SIM.	SIMILAR
S'LY	SOUTHERLY
SLL	SUPERIMPOSED LIVE LOAD
SOG	SLAB ON GRADE
SPC	SPACE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
ST	STREET
STA	STATION
STAG	STAGGERED
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STM	STORM
STMS	STORM SEWER
STR	STRUCTURE/STRUCTURAL
SUPP	SUPPORT
SW'LY	SOUTHWESTERLY
SY	SQUARE YARD
SYM	SYMBOL
SYMM	SYMMETRICAL
T	TANGENT LENGTH
T/B	TOP OF BANK
T/DITCH	TOP OF DITCH
T/C	TOP OF CURB
T/GRAV	TOP OF GRAVEL
T/WALL	TOP OF WALL
T/P	TOP OF PAVEMENT
T/S	TOP OF SLOPE
T/SUB	TOP OF SUBGRADE
T/W	TOP OF WALK
T & B	TOP AND BOTTOM
T.O.B.	TOP OF BEAM
T.O.B.L.	TOP OF BRICK LEDGE
T.O.C.	TOP OF CONCRETE
T.O.E.F.	TOP OF EXISTING FOOTING
T.O.F.	TOP OF FOOTING
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PIER
T.O.S.	TOP OF STEEL
TCE	TEMPORARY CONSTRUCTION EASEMENT
TEL	TELEPHONE
TEMP	TEMPORARY
TERM	TERMINATE
TGB	TOP OF GRADE BEAM
THD	THREAD
THK	THICK / THICKNESS
TPD	TEMPERED
TPG	TOPPINGS
TRANS	TRANSVERSE
TS	TUBE STEEL
TWP	TOWNSHIP
TYP	TYPICAL
U	UTILITY
UAC	USE AS CONSTRUCTED
UE	UTILITY EASEMENT
UL	UNDERWRITERS LABORATORIES, INC.
ULFM	UNDERWRITERS LABORATORIES FACTORY MUTUAL
UNO	UNLESS NOTED OTHERWISE
VAR	VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
V.E.F.	VERTICAL EACH FACE
VER	VERIFY
VERT	VERTICAL
V.I.F.	VERTICAL INSIDE FACE
V.O.F.	VERTICAL OUTSIDE FACE
VOL	VOLUME
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WEST
W/	WITH
W'LY	WESTERLY
WM	WATER MAIN
W/O	WITHOUT
W.P.	WORKING POINT
WD	WOOD
WND	WINDOW
WSO	WATER SHUT OFF
WT	WEIGHT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
X	CROSS
XSTG	EXTRA STRONG
XXSTG	DOUBLE EXTRA STRONG
YD	YARD



PROFILE LEGEND

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EASEMENT	
	CENTERLINE	
D	STORM SEWER	D
SD	SUB DRAIN	SD
S	SANITARY SEWER	S
FM	FORCE MAIN	FM
W	WATER LINE	W
G	GAS LINE	G
OHE	OVERHEAD ELECTRIC	OHE
E	UNDERGROUND ELECTRIC	E
OHT	OVERHEAD TELEPHONE	OHT
T	UNDERGROUND TELEPHONE	T
OHTV	OVERHEAD TELEVISION	OHTV
TV	UNDERGROUND TELEVISION	TV
OHU	OVERHEAD UTILITY	OHU
FIB	FIBER OPTIC	FIB
X	WIRE FENCE	X
O	CHAINLINK FENCE	O
	SILT FENCE	
000	CONTOUR LINE	000
	RAILROAD TRACKS	
	GUARD RAIL	
+ 0.00	SPOT ELEVATION	+ 0.00
	DIRECTION OF FLOW	
	TREE LINE	
	CATCH BASIN	
	AREA INTAKE	
	STORM MANHOLE	
	SANITARY MANHOLE	
	UTILITY MANHOLE	
	WATER VALVE MANHOLE	
	FIRE HYDRANT	
	WATER SHUT OFF	
	WATER VALVE	
	YARD HYDRANT	
	GAS VALVE	
	SIGN	
	UTILITY POLE	
	UTILITY POLE WITH LIGHT	
	TRAFFIC SIGNAL POLE	
	GUY ANCHOR	
	LIGHT POLE	
	UTILITY PEDESTAL	
	WELL	
	MAILBOX	
	WATER LEVEL	
	BOLLARD	
	SOIL BORING	
	POST INDICATOR VALVE	
	DECIDUOUS TREE W/ TRUNK DIA.	
	CONIFEROUS TREE W/ TRUNK DIA.	
	SHRUB OR BUSH	
	FOUND IRON ROD	
	FOUND IRON PIPE	
	SET IRON ROD	
	CONTROL POINT	

HORIZONTAL CONTROL

THE HORIZONTAL COORDINATES ON THIS PROJECT ARE BASED ON NAD 83.
IOWA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE.
SEE PLANS FOR LOCATIONS, ELEVATIONS AND DESCRIPTIONS

NOTE: ELEVATIONS OF HORIZONTAL CONTROL POINTS ARE PROVIDED FOR INFORMATION ONLY AND MAY BE SUBJECT TO VERTICAL MOVEMENT. IT SHALL BE THE RESPONSIBILITY OF ANYONE MAKING USE OF THESE ELEVATIONS TO VERIFY THEM WITH VALID BENCHMARKS AS LISTED ON THESE PLANS.

VERTICAL CONTROL

THE ELEVATIONS ON THIS PROJECT ARE BASED ON NAVD 1988.
SEE PLANS FOR LOCATIONS, ELEVATIONS AND DESCRIPTIONS

UTILITY NOTE

THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY. THE UTILITIES PRESENT MAY NOT EXIST AS SHOWN. ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN MAY BE PRESENT. IT SHALL BE THE RESPONSIBILITY OF ANYONE USING THIS DOCUMENT TO ASCERTAIN THE EXACT LOCATION, SIZE, TYPE, MATERIAL, AND ELEVATION OF ALL UTILITIES THAT MAY BE PRESENT.

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Project Description:

GENERAL
CIVIL ABBREVIATIONS & LEGEND

IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

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Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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Sheet No:

G1.03

IIW Project No: 13091

NORTH

Box Car

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BOX CAR
IOWA DNR PERMIT #14–019
US ARMY CORPS OF ENGINEERS PERMIT #CEMVR–OD–P–2014–29
SEC. 18 – T77N – R20E & SEC. 13 – T77N – R21E

NORTH

HORIZONTAL SCALE IN FEET
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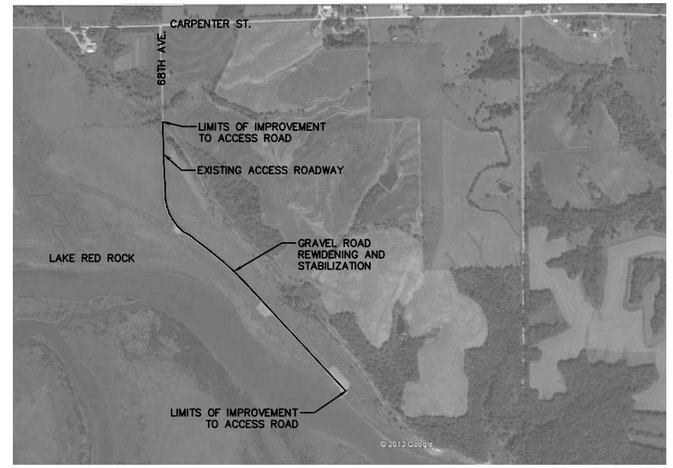

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Project Description:

GENERAL
VICINITY MAP & PROJECT AERIAL

IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

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IIW Project No: 13091

SITE DESCRIPTION

1. THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF A CRUSHED STONE ACCESS ROADWAY, INCLUDING CLEARING, EXCAVATION AND GRADING, AND PREPARATION FOR SEEDING, IN SEC. 18–T77N–R20W AND SEC 13–T77N–R21W, MARION COUNTY, IOWA.
2. THIS SWPPP COVERS AN ESTIMATED 2.7 ACRES WITH AN ESTIMATED 2.7 ACRES BEING DISTURBED.
3. RUNOFF COEFFICIENT (C) FOR THE THIS SITE AFTER COMPLETION WILL BE AS FOLLOWS
   BOX CAR ACCESS = 0.40
4. REFER TO THIS SHEET FOR SITE MAP INDICATING DRAINAGE PATTERNS, TYPICAL SLOPES, AREAS OF SOIL DISTURBANCE, MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS, ETC.
5. RUNOFF FROM THE VARIOUS SITES WILL BE DISCHARGED AS FOLLOWS:
   BOX CAR ACCESS IS TRIBUTARY TO THE DES MOINES RIVER

CONTROLS

1. PRIOR TO BEGINNING GRADING, EXCAVATION OR CLEARING AND GRUBBING OPERATIONS, SILT FENCE SHALL BE PLACED ALONG THE PERIMETER OF ALL AREAS TO BE DISTURBED AT ANY LOCATION WHERE RUNOFF CAN MOVE OFFSITE.
2. VEGETATION IN AREAS NOT INCLUDED IN THE CONSTRUCTION AREA SHALL BE PRESERVED.
3. AS AREAS REACH THEIR FINAL GRADE, THE LOCATION OF EROSION CONTROLS MAY NEED TO BE CHANGED OR ADDITIONAL CONTROLS MAY NEED TO BE PLACED.
4. OFF–SITE VEHICLE TRACKING OF SEDIMENTS SHALL BE MINIMIZED. ROADWAYS ADJACENT TO THE PROJECT SITE SHALL BE CLEANED OF SEDIMENT DAILY.
5. STABILIZATION PRACTICES, INCLUDING TEMPORARY OR PERMANENT SEEDING AND/OR MULCHING SHALL BE INITIATED ON ALL DISTURBED AREAS AS SOON AS PRACTICAL BUT IN NO CASE WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR A PERIOD OF 21 OR MORE CALENDAR DAYS LATER THAN THE 14TH DAY AFTER NO CONSTRUCTION ACTIVITY HAS OCCURRED ON SUCH AREA.
6. CONTRACTOR DISPOSAL OF UNUSED CONSTRUCTION MATERIALS AND CONSTRUCTION MATERIAL WASTES SHALL COMPLY WITH APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.
7. STOCKPILE AREAS WHICH REMAIN FOR MORE THAN 7 DAYS SHALL BE SEEDED, MULCHED AND ENCLOSED BY SILT FENCE.
8. SLOPES STEEPER THAN 10:1 AND LONGER THAN 20 FEET SHALL BE PROTECTED BY A SHORT TERM EROSION CONTROL BLANKET.
9. DUST CONTROL MEASURES SHALL BE EMPLOYED IF DUST IS CREATED AND THERE IS POTENTIAL FOR AIR AND/OR WATER POLLUTION FROM DUST TRANSPORTED BY WINDS. DUST CONTROL MEASURES SUCH AS SPRINKLING/IRRIGATION, MULCHING, OR OTHER APPROPRIATE MEASURES SHALL BE EMPLOYED AS NECESSARY.
10. THE CONTRACTOR SHALL PLACE ANY OTHER CONTROLS CONSISTENT WITH CURRENT BMP'S AS DEEMED NECESSARY TO CONTROL RUNOFF FROM EXPOSED SITES.
11. THE WORK WILL BE COMPLETED WITH THE ESTABLISHMENT OF PERMANENT PERENNIAL VEGETATION WITH A DENSITY OF 70% OR EQUIVALENT STABILIZATION MEASURES ON ALL DISTURBED AREAS.
12. CONTRACTOR MAY LOCATE A PORTABLE REST ROOM FACILITY ONSITE IN A LOCATION WHERE CONTACT WITH STORM WATER DISCHARGE IS MINIMIZED. WASTES SHALL BE COLLECTED AND DISPOSED OF IN COMPLIANCE WITH LOCAL AND STATE REGULATIONS.

MAINTENANCE

1. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL TEMPORARY EROSION CONTROL MEASURES IN PROPER WORKING ORDER, INCLUDING CLEANING, REPAIRING OR REPLACING THEM THROUGHOUT THE CONTRACT PERIOD. CLEANING OF SILT CONTROL DEVICES SHALL BEGIN WHEN THE FEATURES HAVE LOST 50% OF THEIR CAPACITY OR WHEN THE SEDIMENT LEVEL REACHES 1/3 OF THE BARRIER HEIGHT.

INSPECTIONS

1. QUALIFIED PERSONNEL (PROVIDED BY THE DISCHARGER) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN STABILIZED WITH A PERENNIAL, VEGETATIVE COVER OF SUFFICIENT DENSITY TO PRECLUDE EROSION AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS SHALL BE INSPECTED FOR EVIDENCE OF POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING PROPERLY. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR OFFSITE SEDIMENT TRACKING. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.
3. THE CONTRACTOR SHALL IMMEDIATELY BEGIN CORRECTIVE ACTION ON ALL DEFICIENCIES FOUND.
4. THIS INSPECTION MAY REQUIRE REVISIONS TO THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN. THE CONTRACTOR SHALL IMPLEMENT ALL REVISIONS TO THE PLAN DEEMED NECESSARY AND COMPLETE SUCH CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS OF THE INSPECTION.
5. A WRITTEN REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, THE NAMES AND QUALIFICATIONS OF THE INSPECTORS, THE DATE, AND THE OBSERVATIONS MADE AND ACTIONS TAKEN SHALL BE MADE AND RETAINED AS PART OF THE SWPPP. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G OF THE PERMIT.

CERTIFICATION

1. THE PLAN SHALL BE SIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NPDES GENERAL PERMIT NO. 2 AND BE RETAINED AT THE CONSTRUCTION SITE FROM THE DATE CONSTRUCTION ACTIVITIES BEGIN TO THE DATE OF FINAL STABILIZATION.
2. ALL CONTRACTORS AND SUBCONTRACTORS THAT WILL IMPLEMENT ANY MEASURE IN THE PLAN MUST SIGN THE CERTIFICATION STATEMENT.

OWNER'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PEOPLE PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED UPON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE ACCURATE AND COMPLETE. I FURTHER CERTIFY THAT THE TERMS AND CONDITIONS OF THE GENERAL PERMIT WILL BE MET. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

NAME: _____ TITLE: _____
PRINTED

SIGNATURE: _____ DATE: _____

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE AS PART OF THIS CERTIFICATION. FURTHER, BY MY SIGNATURE, I UNDERSTAND THAT I AM BECOMING A CO–PERMITEE, ALONG WITH THE OWNER(S) AND OTHER CONTRACTORS AND SUBCONTRACTORS SIGNING SUCH CERTIFICATIONS, TO THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2 FOR "STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FOR CONSTRUCTION ACTIVITIES" AT THE IDENTIFIED SITE. AS A CO–PERMITEE, I UNDERSTAND THAT I, AND MY COMPANY, ARE LEGALLY REQUIRED UNDER THE CLEAN WATER ACT AND THE CODE OF IOWA, TO ENSURE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN DEVELOPED UNDER THIS NPDES PERMIT AND THE TERMS OF THIS NPDES PERMIT.
CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF A CRUSHED STONE ACCESS ROADWAY IN THE STATE OF IOWA.

_____
NAME TITLE DATE
CONTRACTING FIRM: _____
ADDRESS: _____ TELEPHONE: _____

_____
NAME TITLE DATE
CONTRACTING FIRM: _____
ADDRESS: _____ TELEPHONE: _____

TOPSOIL PRESERVATION

TOPSOIL SHALL BE PRESERVED AT ALL CONSTRUCTION SITES UNLESS LAND USE PRECLUDES THE PRACTICE. THE REQUIREMENT TO PRESERVE TOPSOIL SHALL ONLY BE MET WHEN THE DEPTH OF TOPSOIL, AFTER FINAL STABILIZATION HAS BEEN ACHIEVED, IS EQUAL TO OR GREATER THAN 4 INCHES, OR EQUAL TO OR GREATER THAN THE DEPTH PRIOR TO THE COMMENCEMENT OF SOIL DISTURBING ACTIVITIES IF LESS THAN 4 INCHES OF TOPSOIL EXISTED PRIOR TO CONSTRUCTION, ON ALL AREAS NOT COVERED BY PAVEMENT OR BUILDINGS.

KEEPING PLANS CURRENT

THIS SWPPP WAS PREPARED PRIOR TO THE COMMENCEMENT OF SOIL DISTURBING ACTIVITIES. THE PERMITTEE SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE UNITED STATES AND WHICH HAS NOT BEEN ADDRESSED IN THE PLAN OR IF THE SWPPP PROVES TO BE INEFFECTIVE. SEE PART IV.C OF THE PERMIT FOR COMPLETE REQUIREMENTS REGARDING UPDATING OF THE SWPPP.

GENERAL NOTES

1. ALL CONTRACTORS/SUBCONTRACTORS SHALL CONDUCT THEIR OPERATIONS IN A MANNER THAT MINIMIZES EROSION AND PREVENTS SEDIMENT FROM LEAVING THE PROJECT SITE. THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE AND IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THEIR ENTIRE CONTRACT. THIS RESPONSIBILITY SHALL BE FURTHER SHARED WITH SUBCONTRACTORS WHOSE WORK IS A SOURCE OF POTENTIAL POLLUTION AS DEFINED IN THIS SWPPP.
2. NON–STORM WATER DISCHARGES
   NON–STORM DISCHARGES MAY OCCUR FROM SUBSURFACE DRAINS INCORPORATED INTO THE PROJECT. THESE DISCHARGES WILL BE CONTROLLED BY STABILIZED OUTLETS.

EROSION CONTROL LEGEND

TEMPORARY		PERMANENT	
TD	DIVERSION		SURFACE ROUGHENING
	CONSTRUCTION ENTRANCE	CD / CD	CHECK DAM
TS	SEEDING	SC / SC	STONE CHECK
TM	MULCHING		LEVEL SPREADER
CRS	CONSTRUCTION ROAD STABILIZATION	V	VEG STREAMBANK STABILIZATION
	STREAM CROSSING	S	STRUCT STREAMBANK STABILIZATION
RD	ROCK DAM		SOD DROP INLET PROTECTION
ST	SEDIMENT TRAP	SD	SLOPE DRAINS
	INLET PROTECTION	RR	RIPRAP LINED CHANNELS
	LEVEL SPREADER	GL	GRASS LINED CHANNELS (___ MATERIAL REQ'D)
DC	DUST CONTROL	SB	SEDIMENT BASIN
	SILT FENCE	PD	DIVERSION
			TOPSOILING
		PS	SEEDING
		S	SODDING
		OP	OUTLET PROTECTION
		SFM	SEED, FERTILIZE AND MULCH
		RS	REVETMENT SLOPE PROTECTION

NOTE:
PERMANENT MAY BE USED AS TEMPORARY, TEMPORARY SHALL NOT BE USED AS PERMANENT.

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Project Description:
EROSION CONTROL
NOTES AND DETAIL
IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTON - 2015
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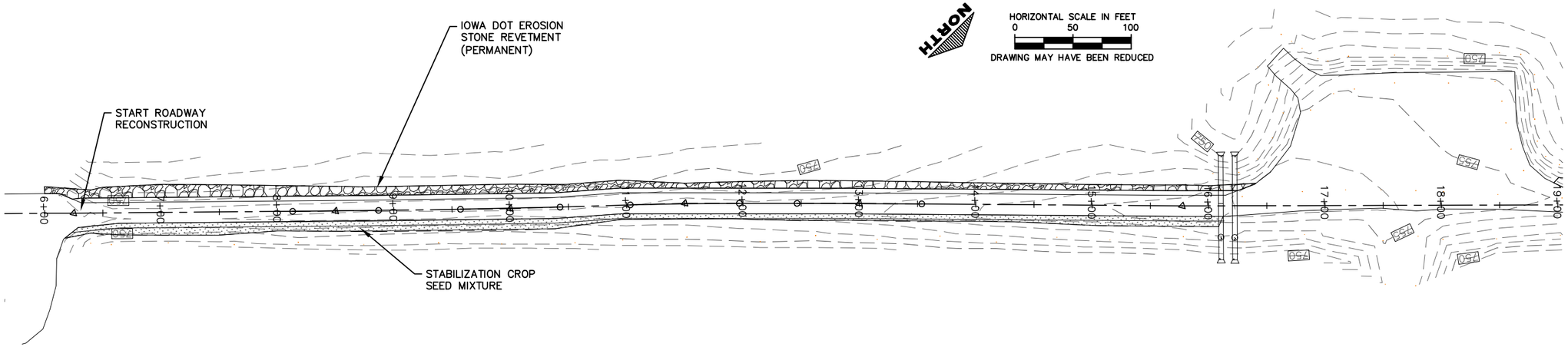
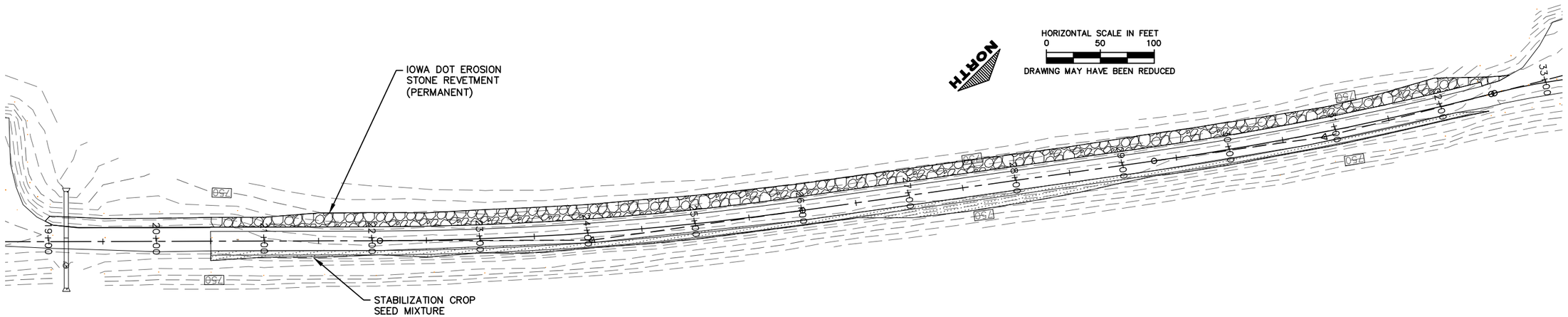
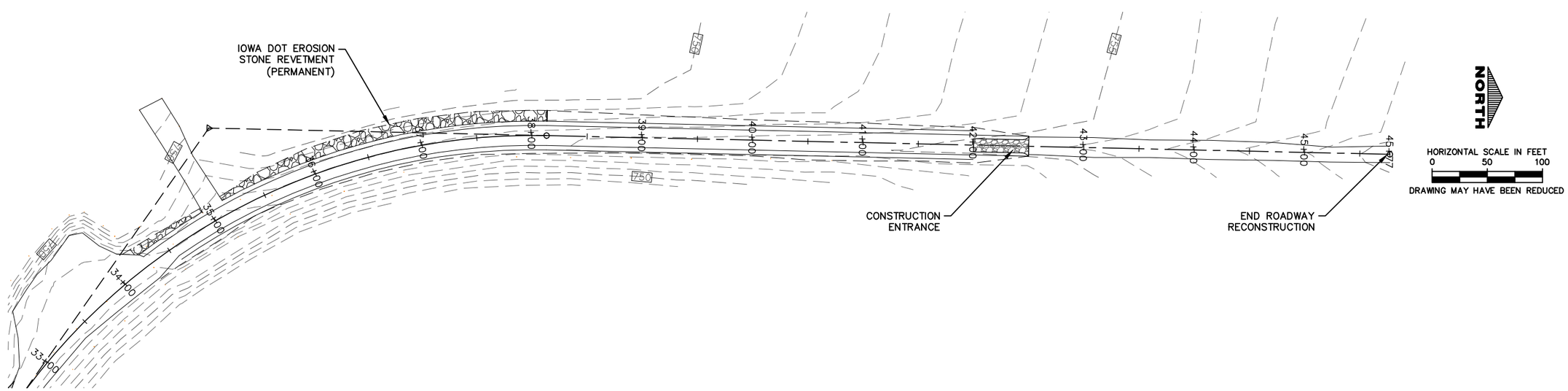
Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By

Sheet No:
C2.01
IIW Project No: 13091







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Project Description:

EROSION CONTROL PLAN

IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

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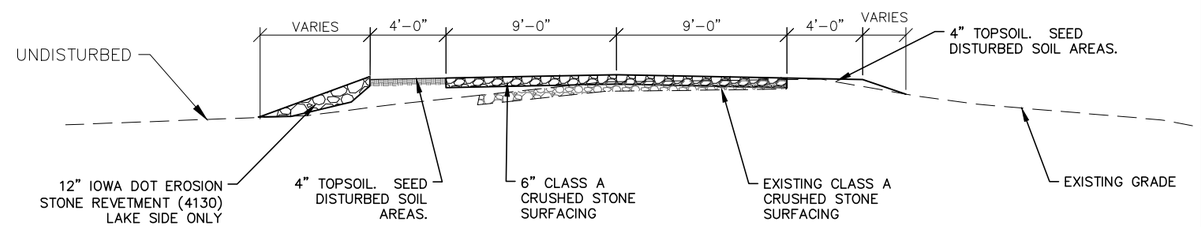
BOX CAR EXCAVATION

FILL VOLUME (WITH 30%) = 2999 CY
CUT VOLUME = 757 CY



9 / C3.01 TYPICAL SECTION
PROPOSED ACCESS ROADWAY – BOX CAR
NOT TO SCALE

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Project Description:

GRADING NOTES AND DETAIL

IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

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C3.01
IIW Project No: 13091

EARTHWORK SUMMARY

CUT

FILL

NORTH

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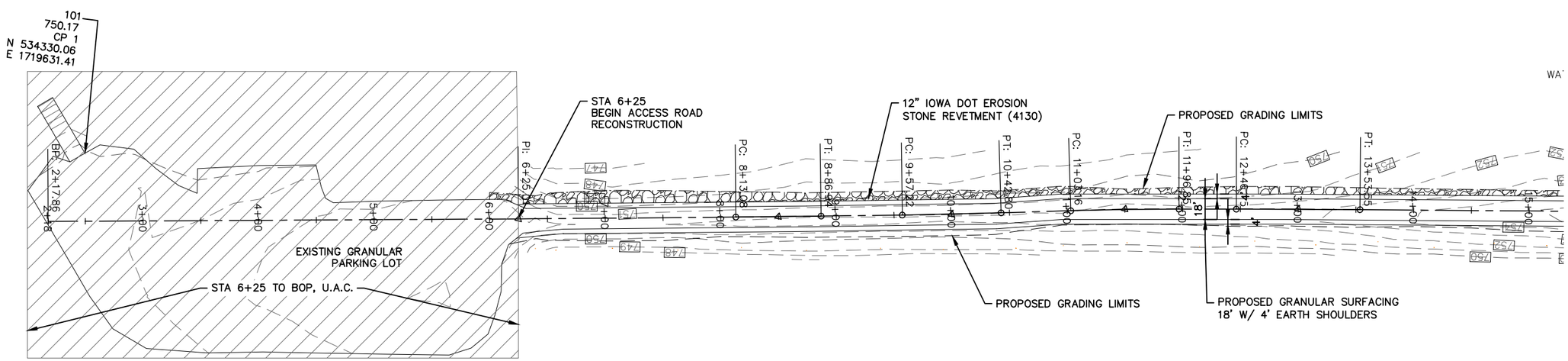

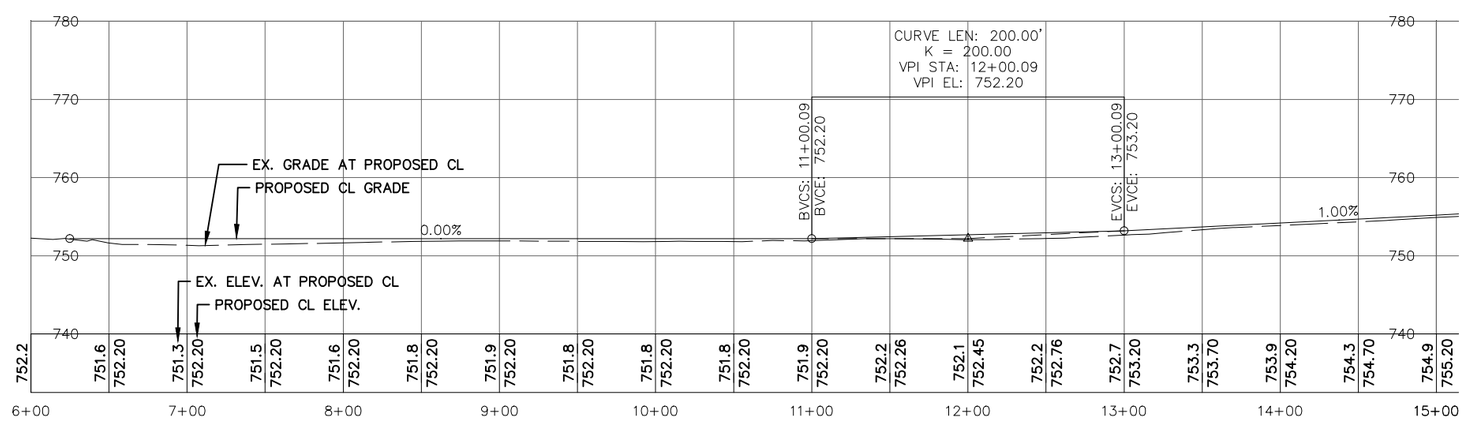

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Project Description:

GRADING PLAN AND PROFILE

IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

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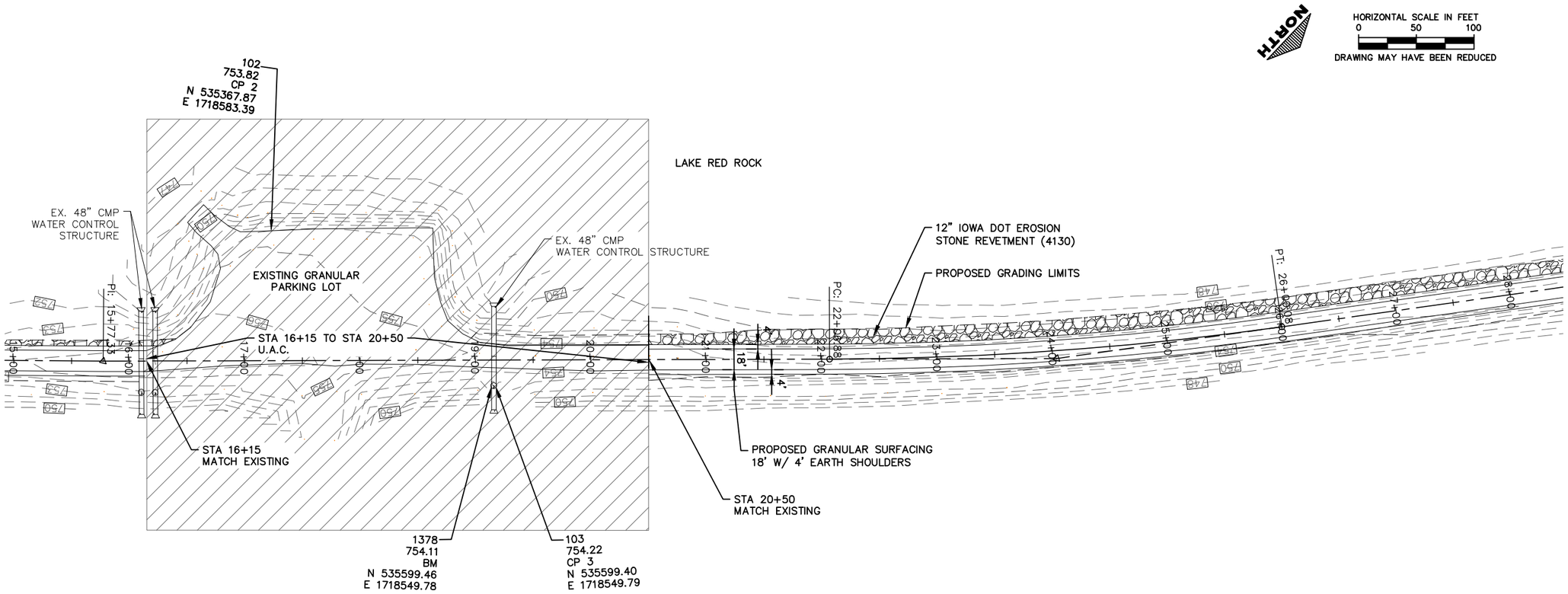

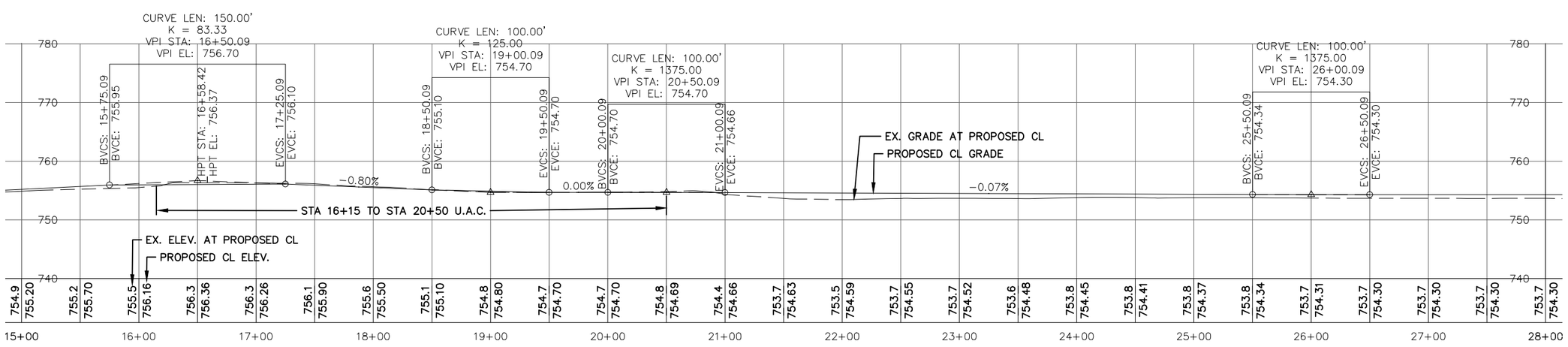

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GRADING PLAN AND PROFILE

IOWA DEPT. OF NATURAL RESOURCES
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Sheet No:

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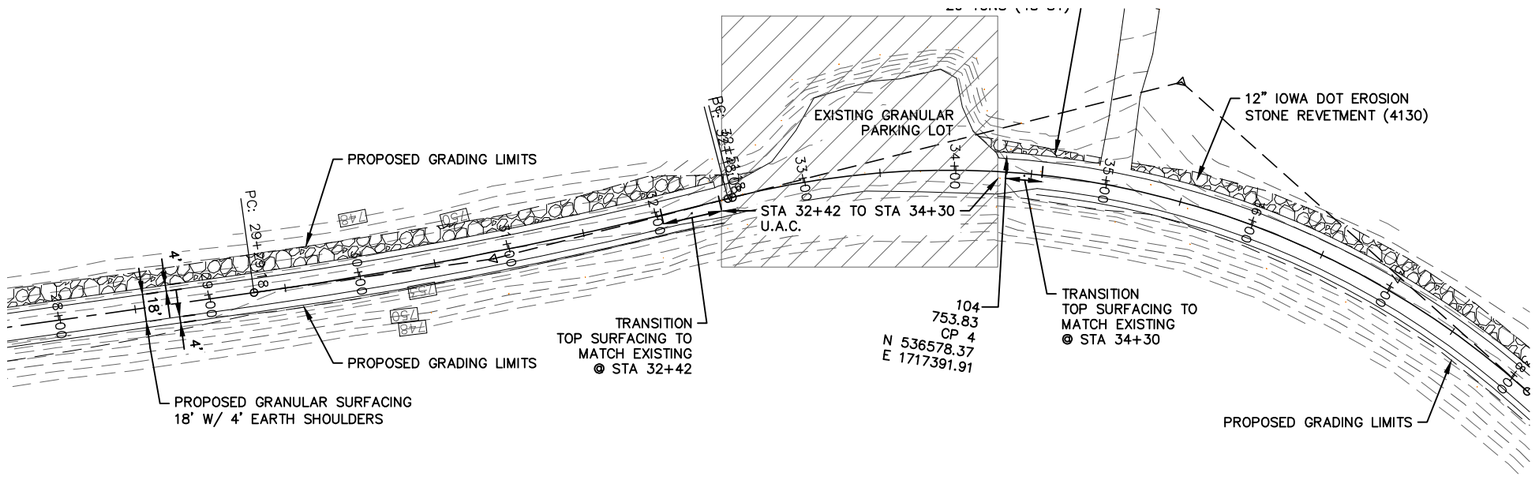

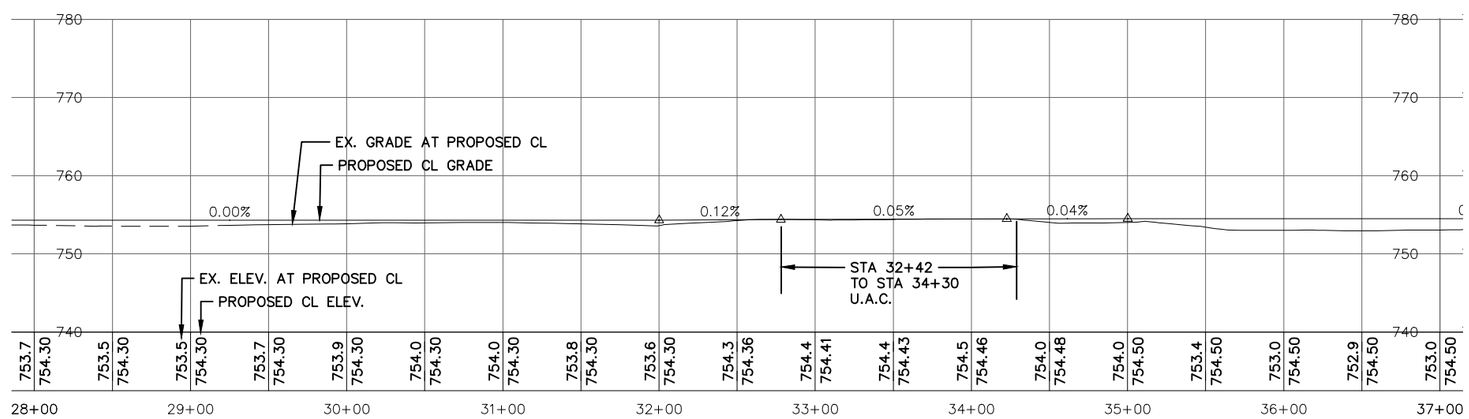

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Project Description:

GRADING PLAN AND PROFILE

IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

P:\13\091\130910\DRAWINGS\CIVIL\13091 ZZ-03 PP BOXCAR.DWG 2/9/2015 1:12 PM JERI M. VONDERA

Drawing Issue Information

Project Mgr: GTB
Issued For Bidding: .

Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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Sheet No.

C3.12

IIW Project No: 13091

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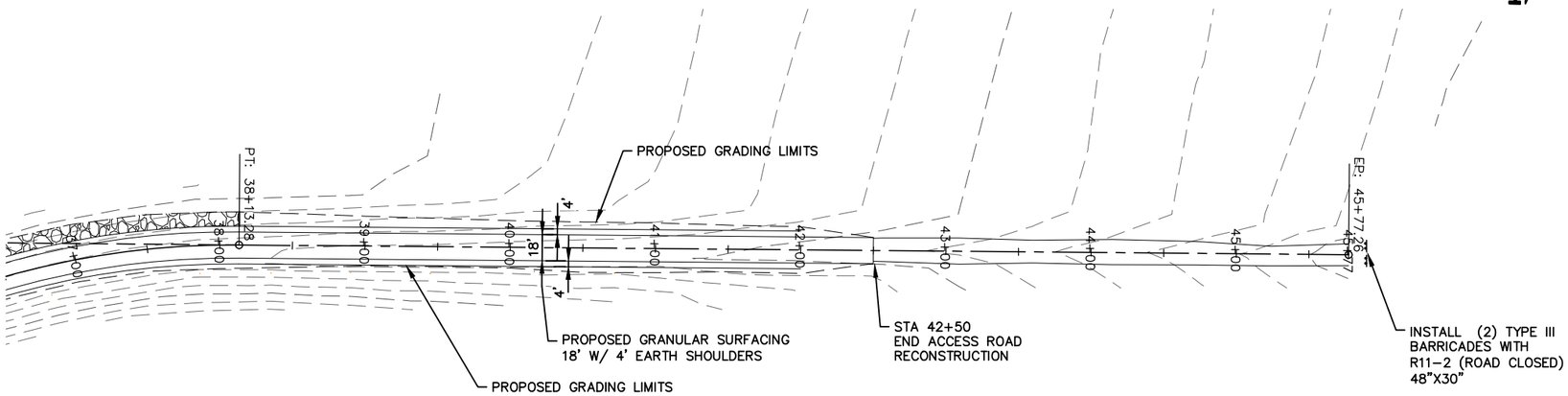

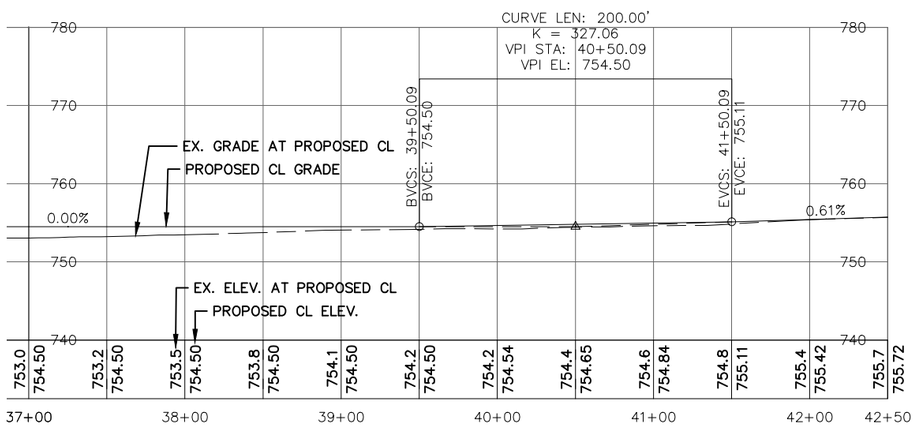

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Project Description:

GRADING PLAN AND PROFILE

IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

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Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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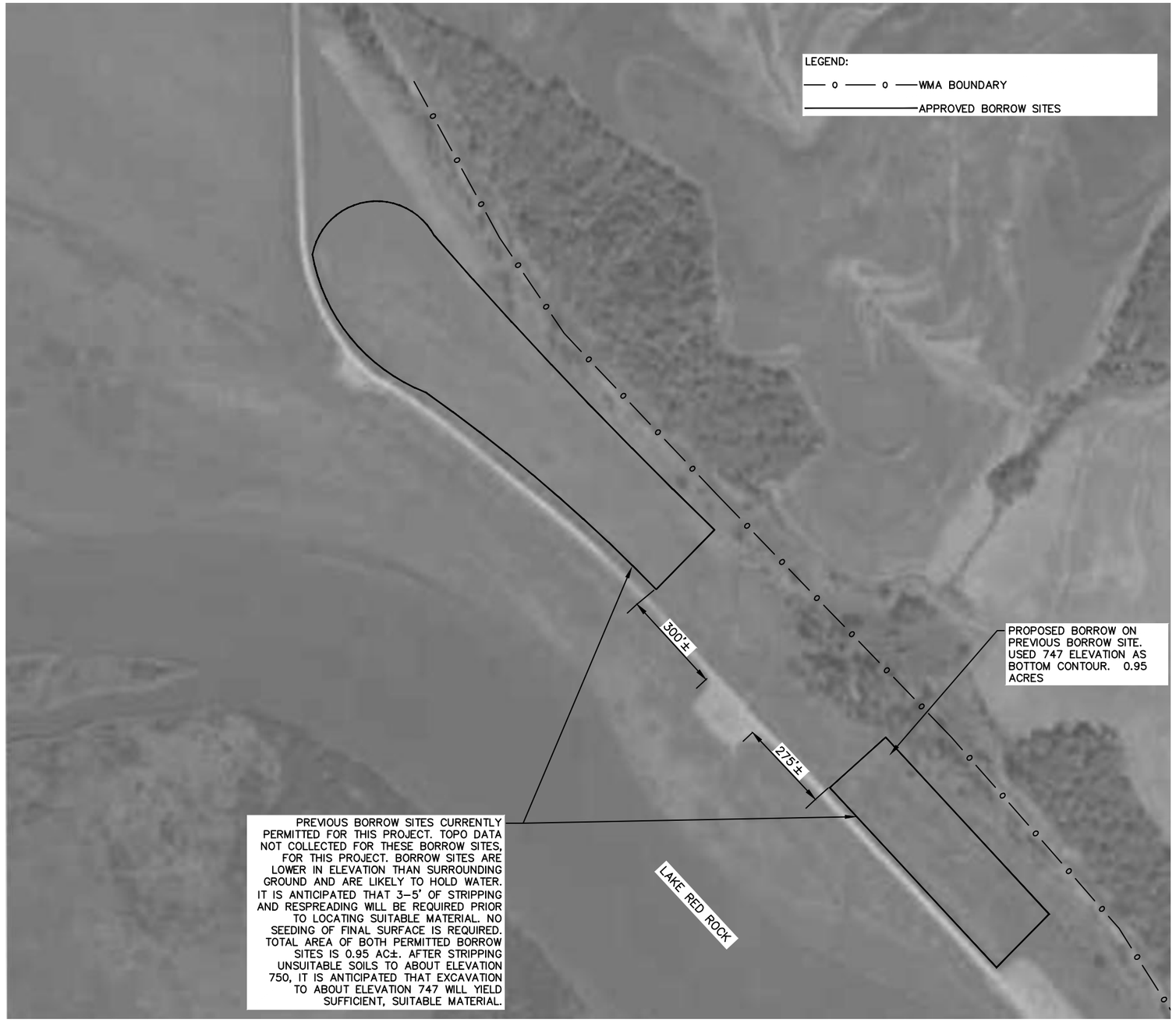
Sheet No.
C3.13

IIW Project No: 13091



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Project Description:

BORROW SITES PLAN

IOWA DEPT. OF NATURAL RESOURCES
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ACCESS ROADWAY RECONSTRUCTION - 2015

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Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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Sheet No:
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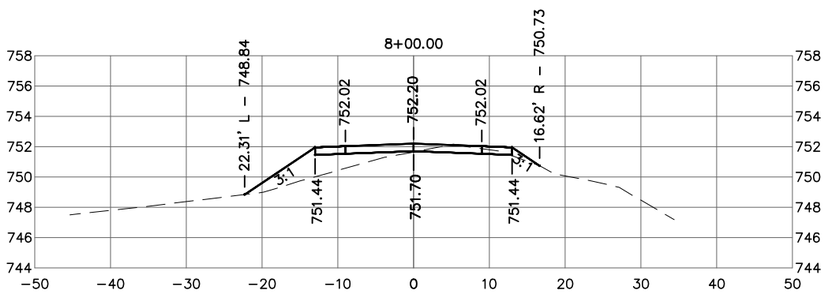
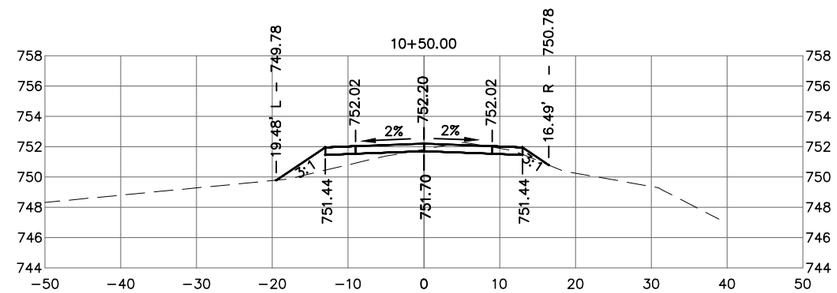
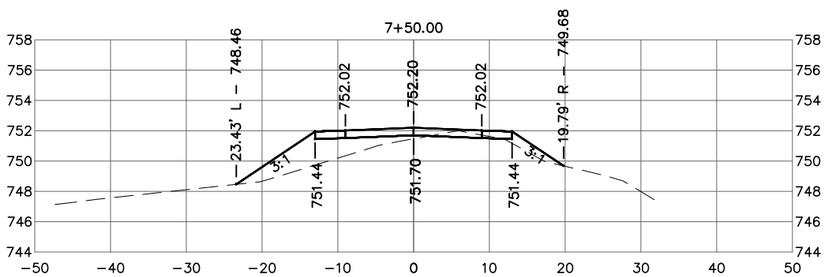
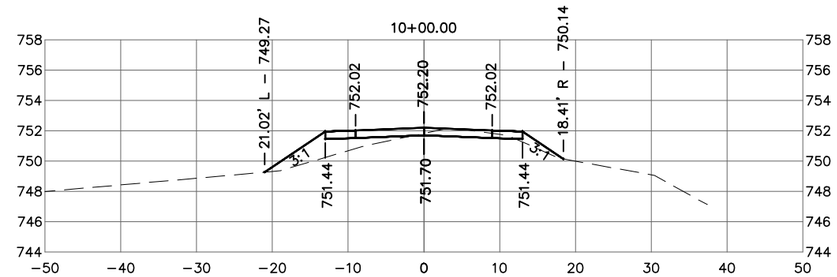
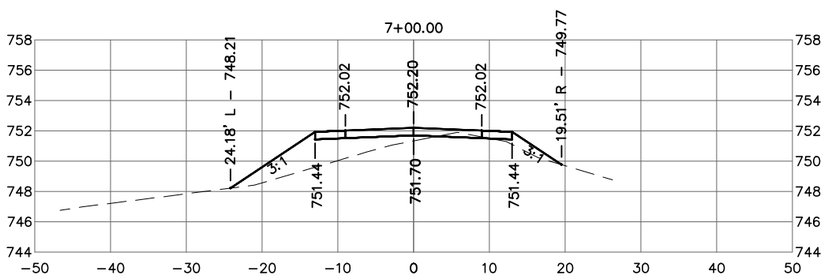
IIW Project No: 13091

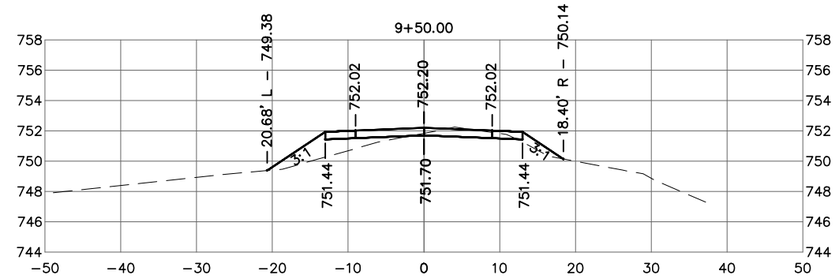


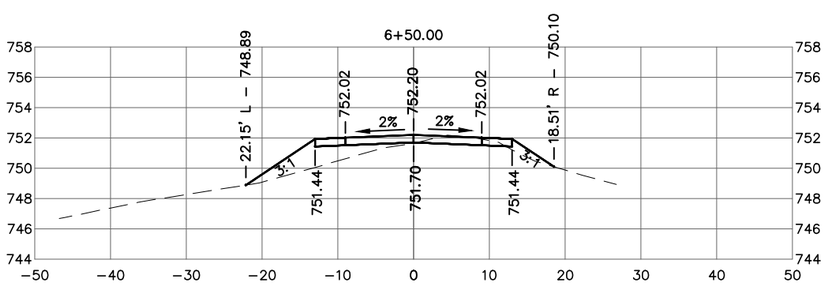


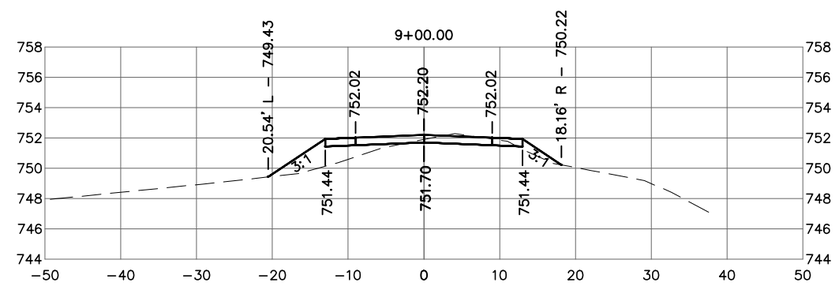


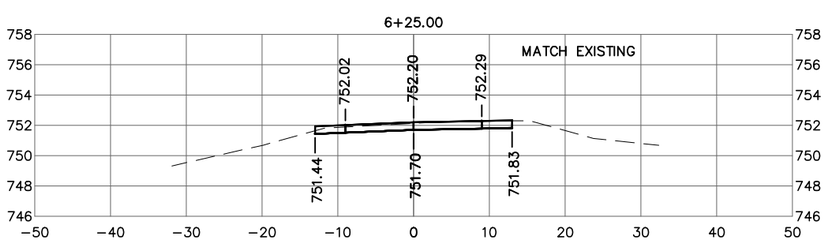


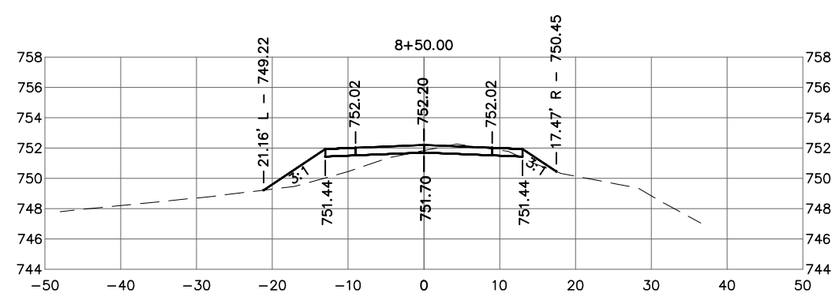












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VERTICAL SCALE IN FEET
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DRAWING MAY HAVE BEEN REDUCED

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Project Description:

GRADING
CROSS SECTIONS
BOX CAR ACCESS
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BOX CAR
ACCESS ROADWAY RECONSTRUCTON - 2015

P:\13\091\130910\DRAWINGS\CIVIL\13091 ZZ-11 XS BOXCAR.DWG 2/9/2015 1:13 PM JERI M. VONDERA

Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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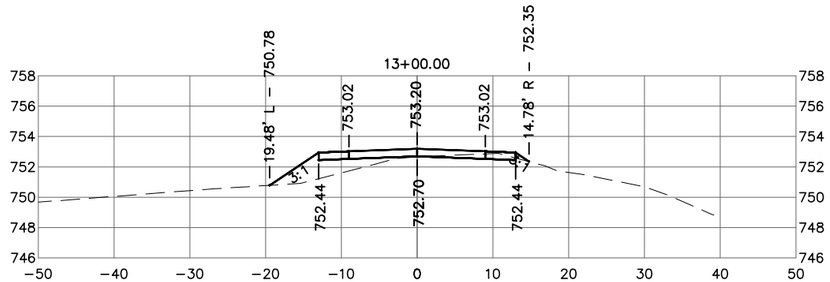
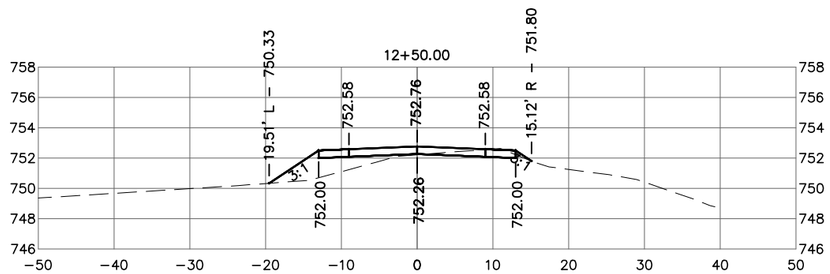
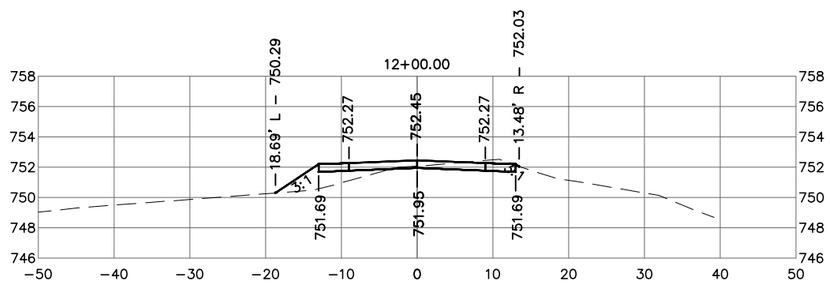
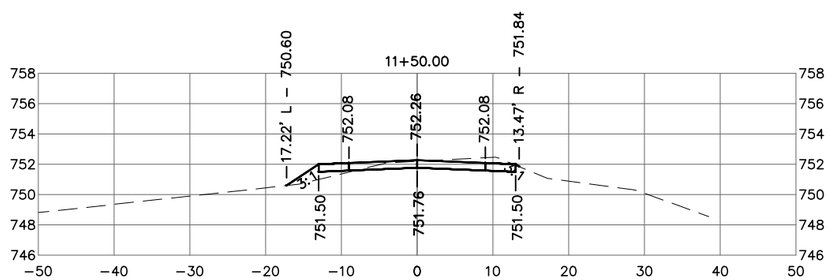
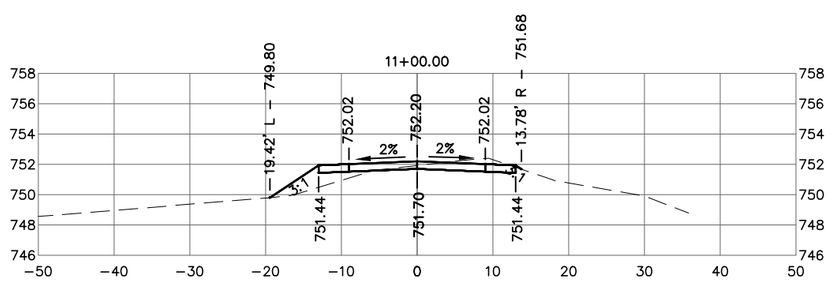
Sheet No.
C11.01
IIW Project No: 13091

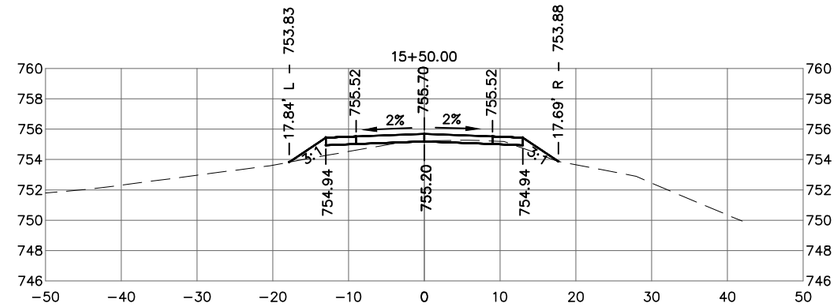


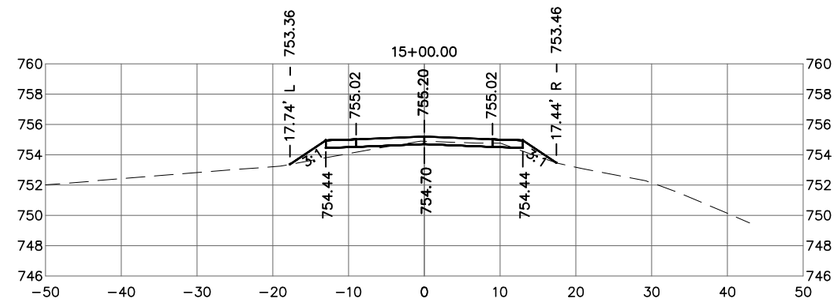


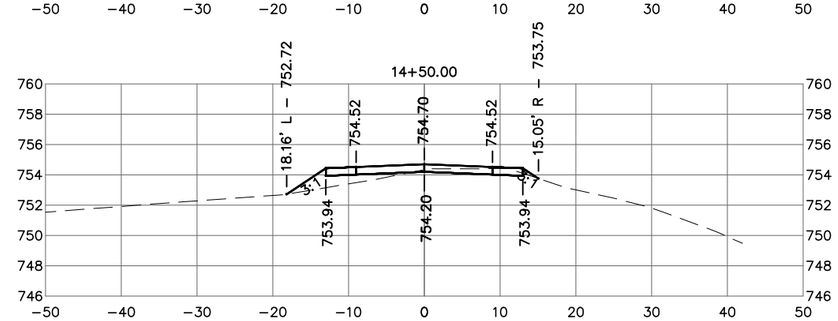


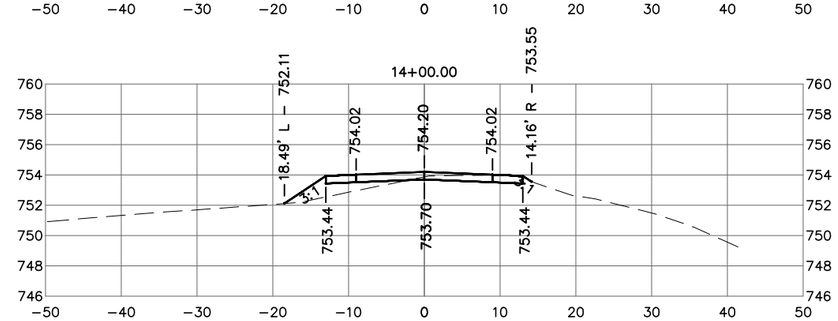


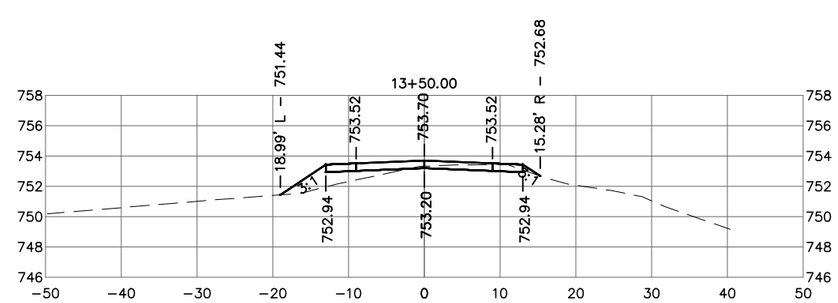












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VERTICAL SCALE IN FEET
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Project Description:

GRADING
CROSS SECTIONS
BOX CAR ACCESS
IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTON - 2015

P:\13\091\130910\DRAWINGS\CIVIL\13091 Z2-11 XS BOXCAR.DWG 2/9/2015 1:13 PM JERI M. VONDERA

Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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Sheet No:
C11.02
IIW Project No: 13091

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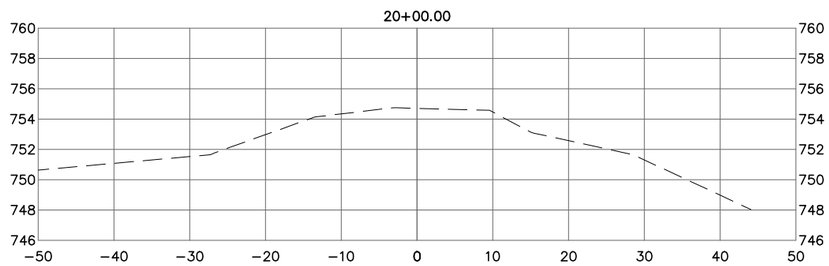

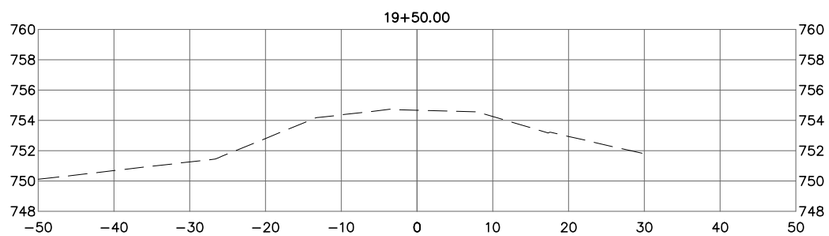

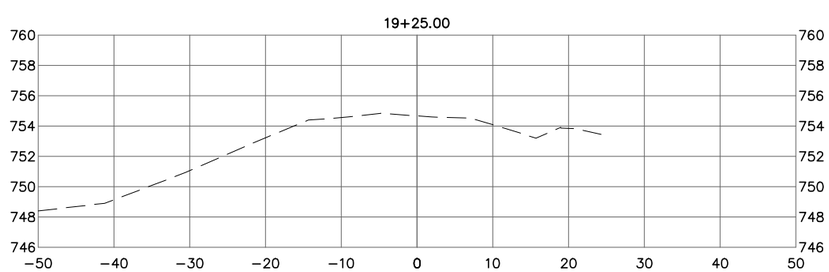

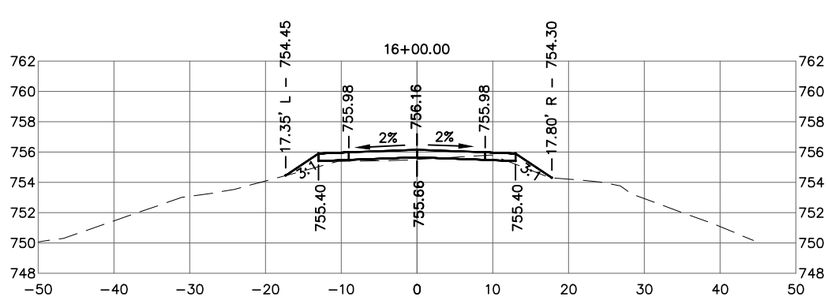

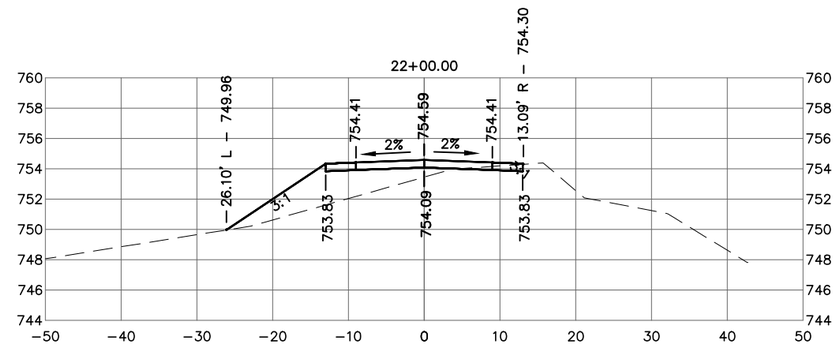

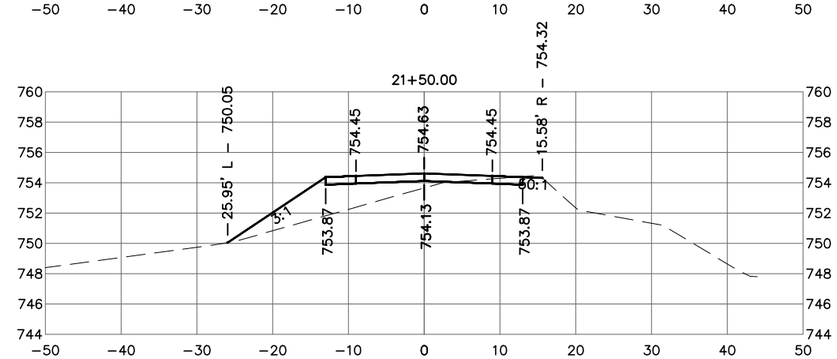

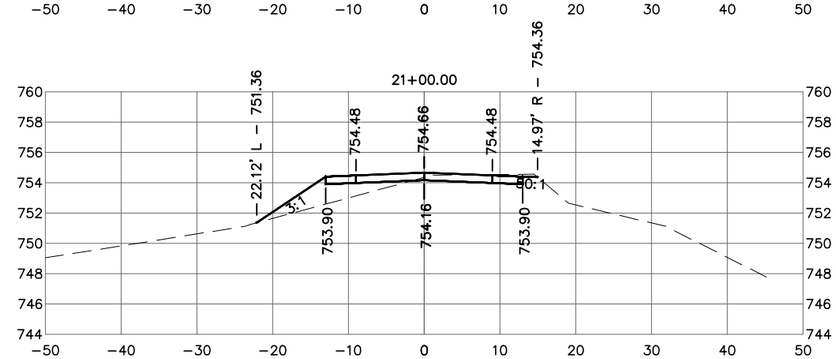

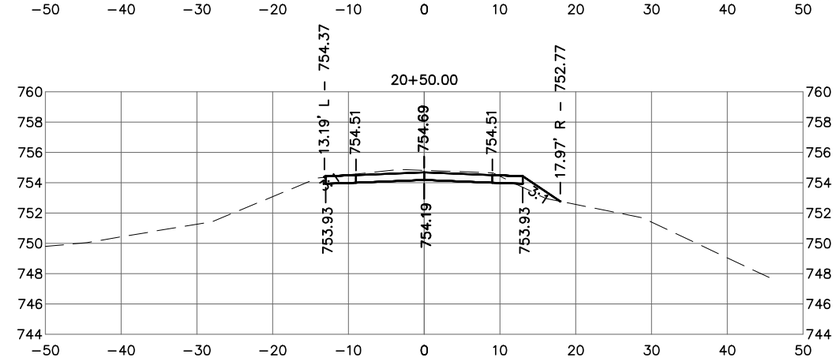

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Project Description:

GRADING
CROSS SECTIONS
BOX CAR ACCESS
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BOX CAR
ACCESS ROADWAY RECONSTRUCTON - 2015

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Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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Sheet No:
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IIW Project No: 13091

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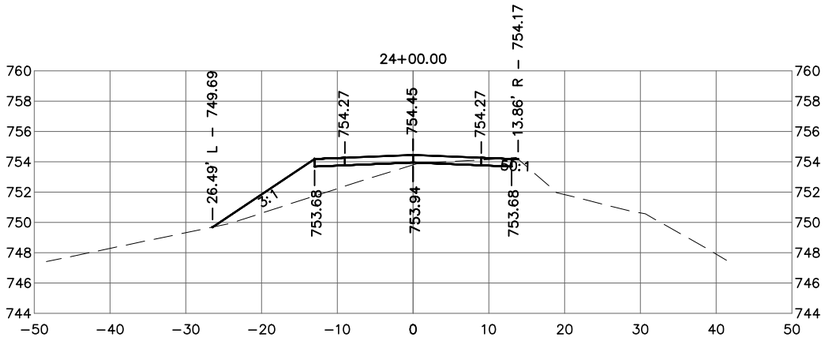

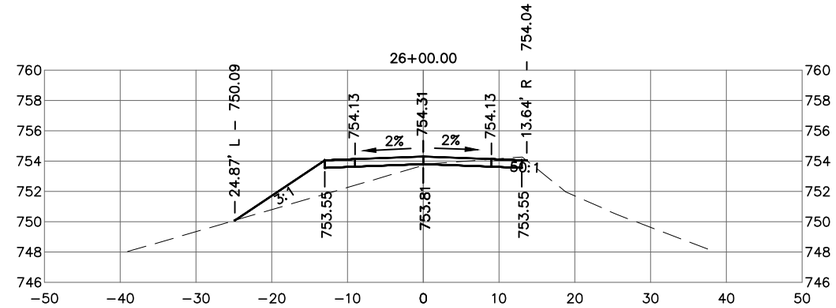

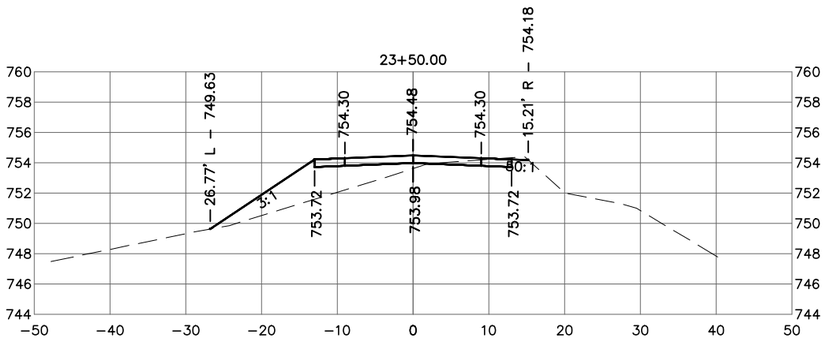

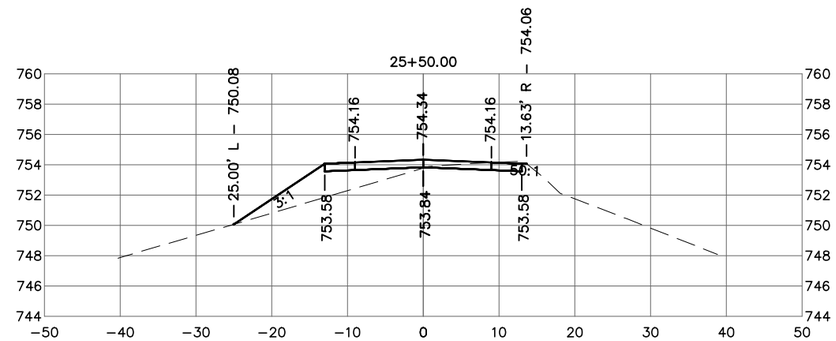

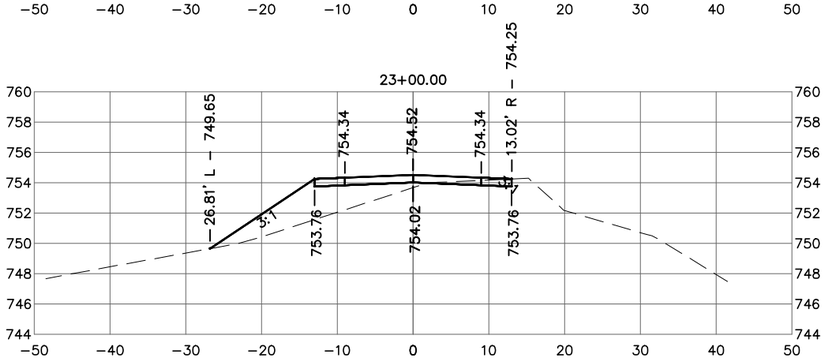

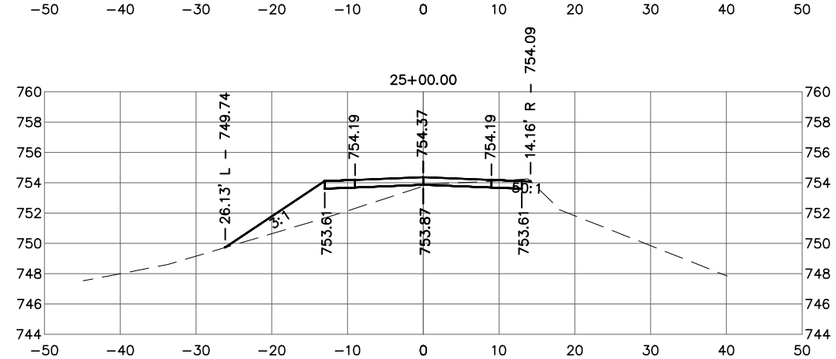

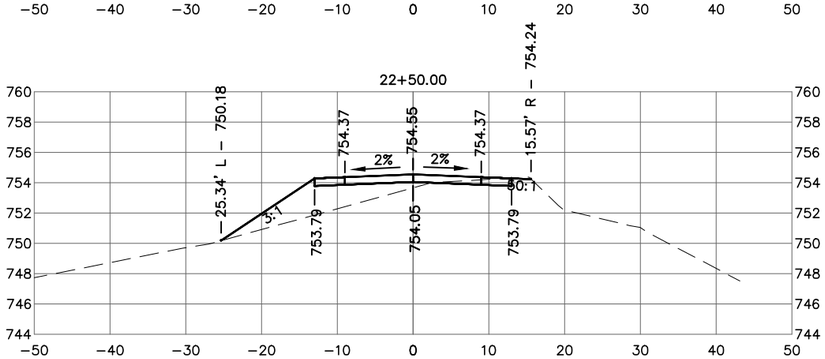

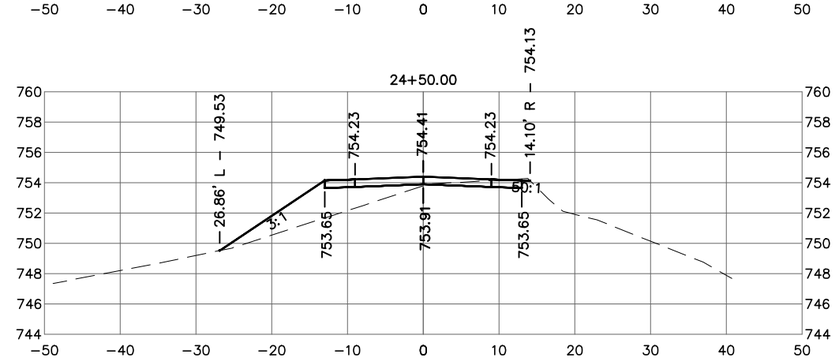

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Project Description:

GRADING CROSS SECTIONS

BOX CAR ACCESS
IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

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Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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Sheet No:
C11.04
IIW Project No: 13091

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VERTICAL SCALE IN FEET
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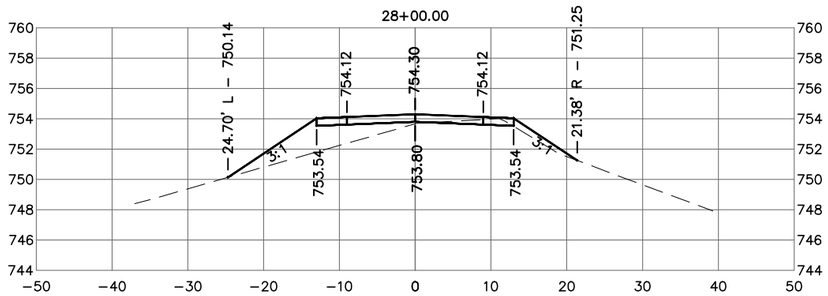
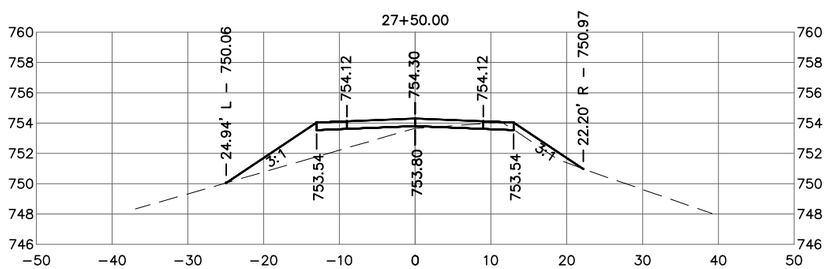
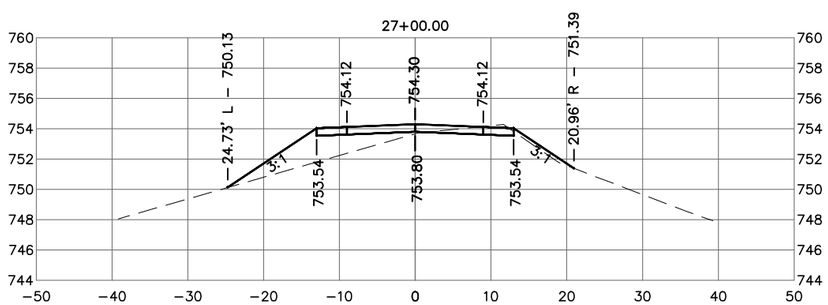
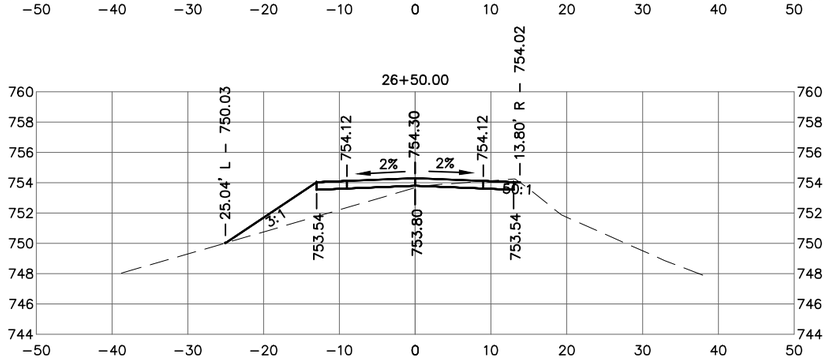
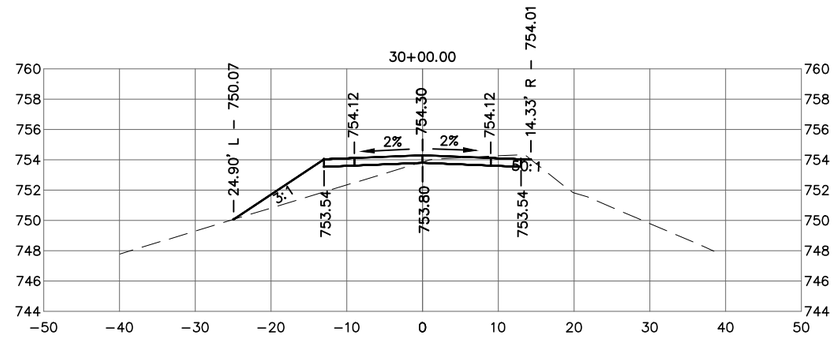
DRAWING MAY HAVE BEEN REDUCED

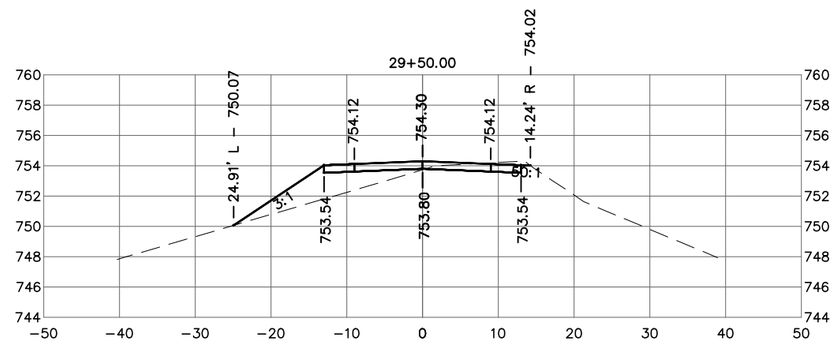


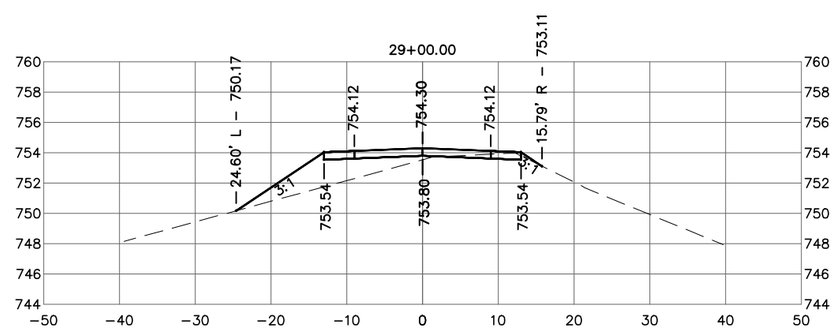


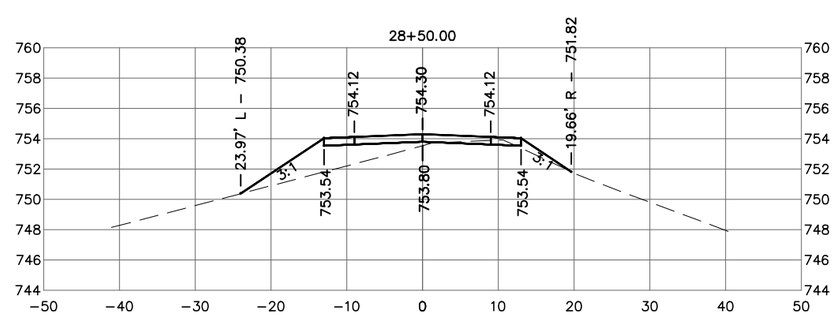












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Project Description:

GRADING
CROSS SECTIONS
BOX CAR ACCESS
IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTON - 2015

P:\13\091\13091\01\DRAWINGS\CIVIL\13091 ZZ-11 XS BOXCAR.DWG 2/9/2015 1:13 PM JERI M. VONDERA

Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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Sheet No:
C11.05
IIW Project No: 13091

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VERTICAL SCALE IN FEET
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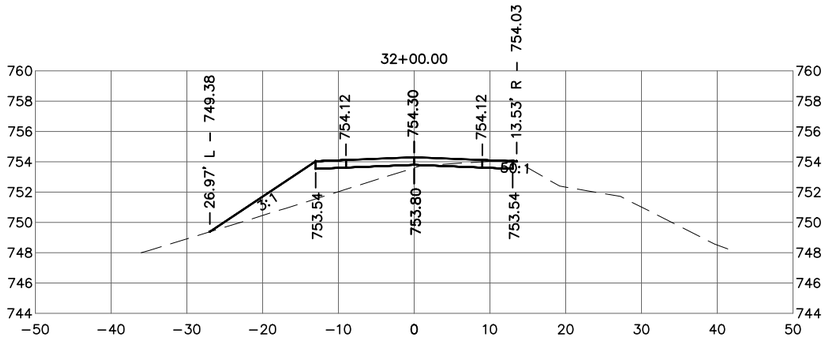

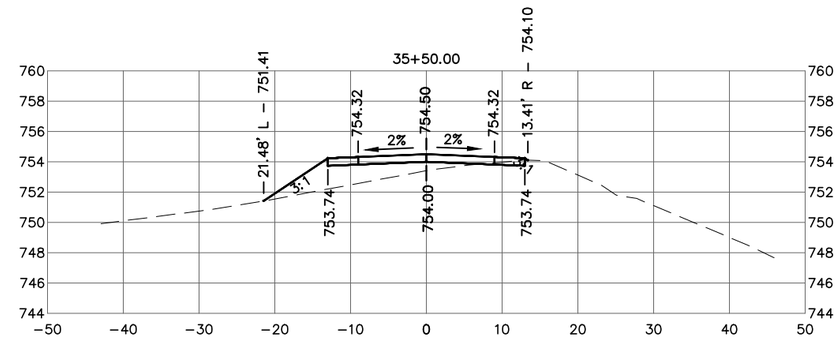

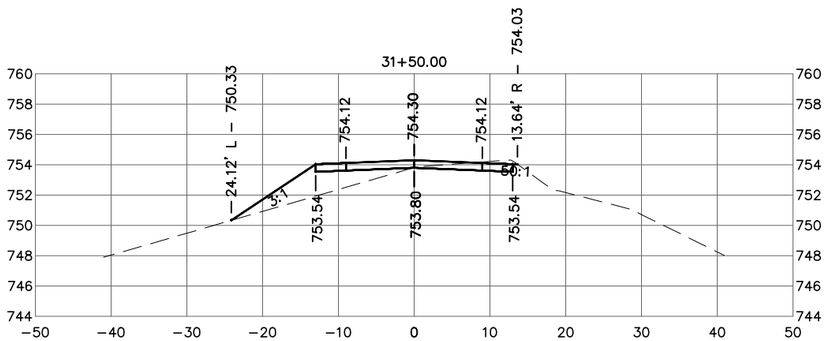

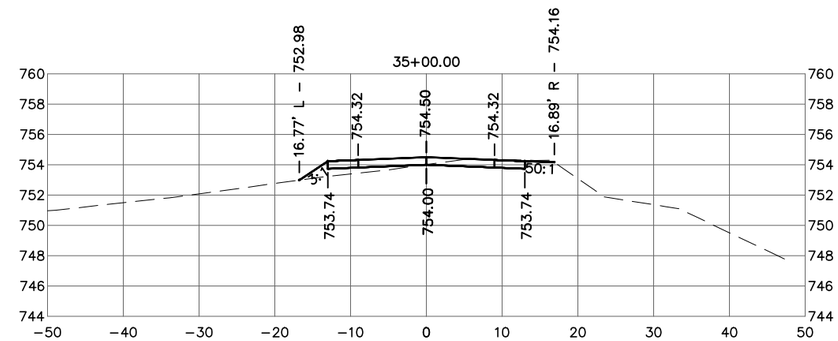

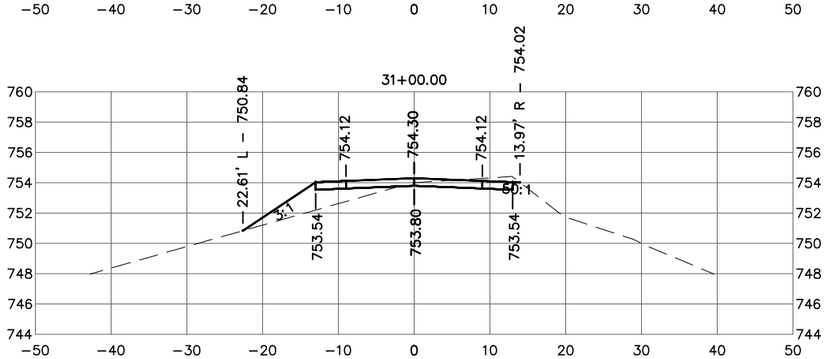

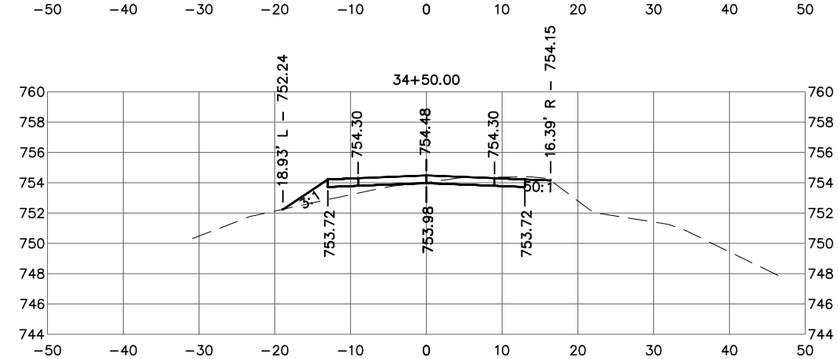

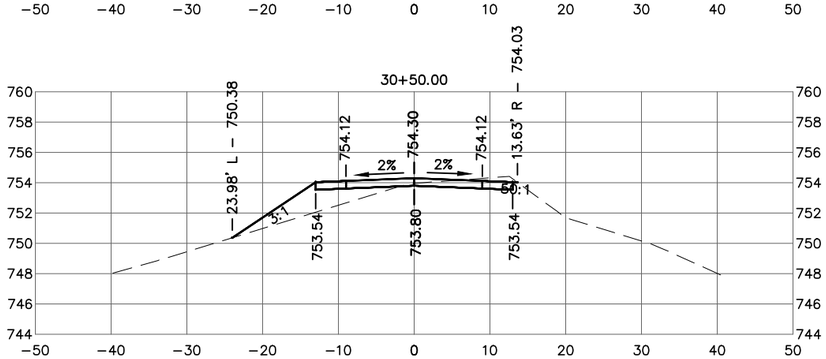

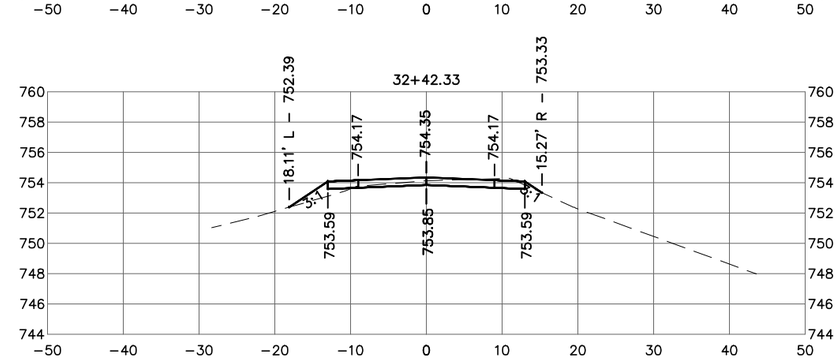

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Project Description:

GRADING
CROSS SECTIONS
BOX CAR ACCESS
IOWA DEPT. OF NATURAL RESOURCES
BOX CAR
ACCESS ROADWAY RECONSTRUCTION - 2015

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Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

Rev	Description	Date	By
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Sheet No:
C11.06
IIW Project No: 13091

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VERTICAL SCALE IN FEET
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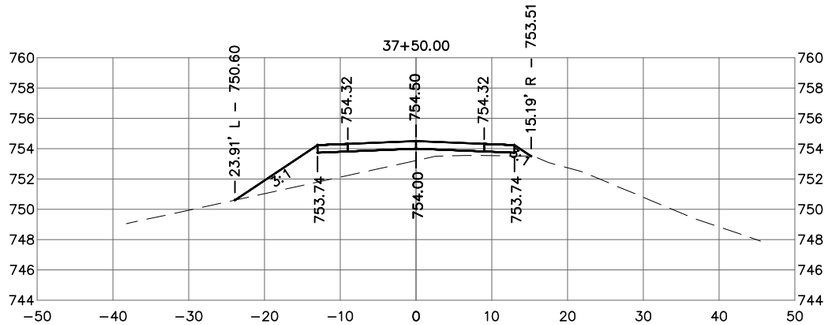

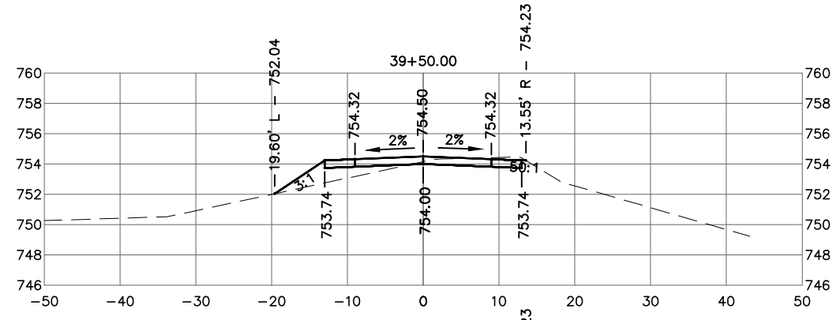

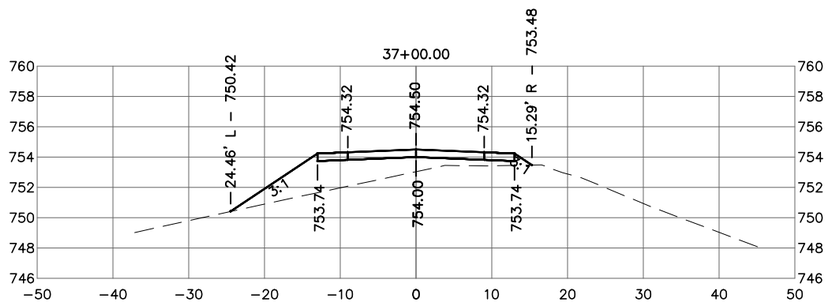

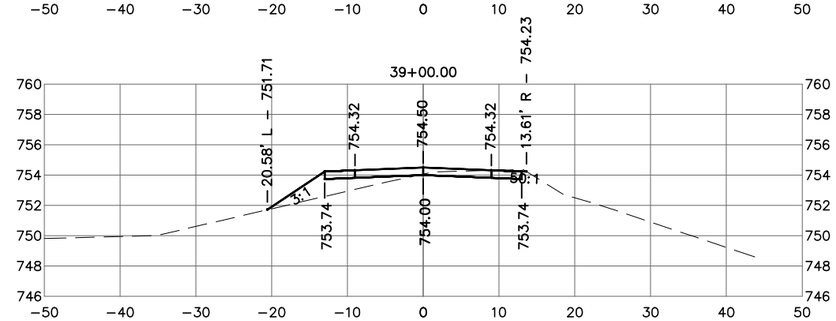

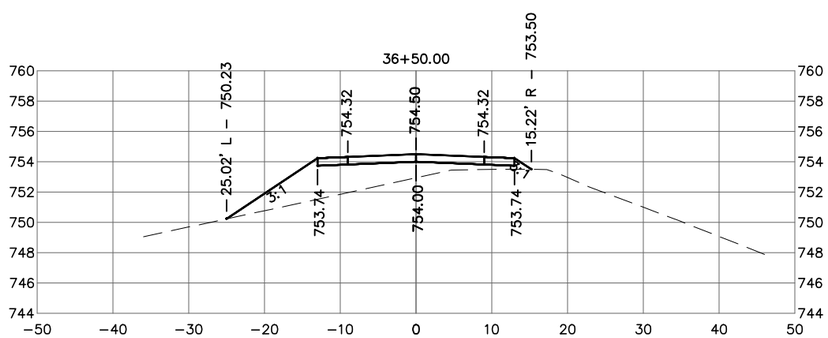

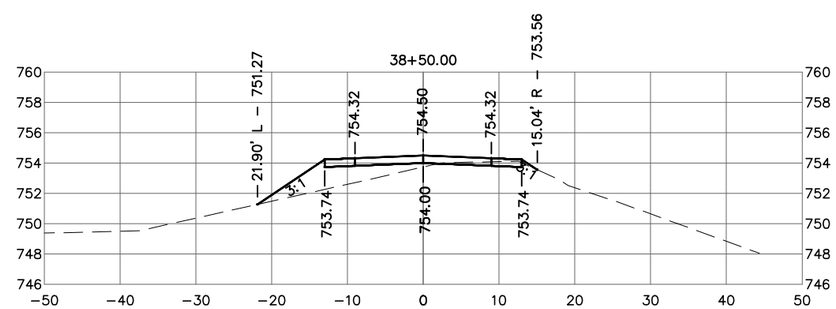

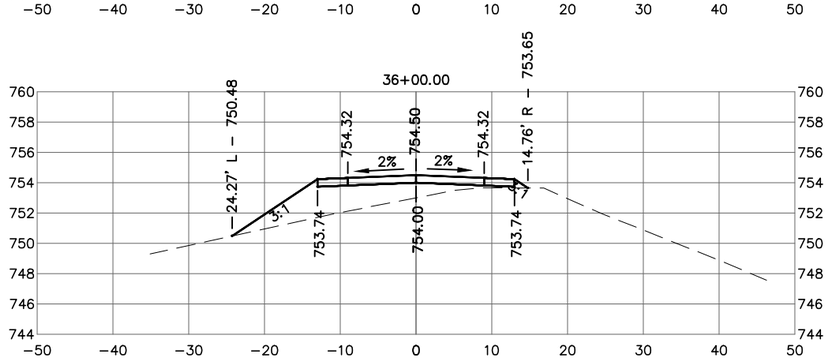

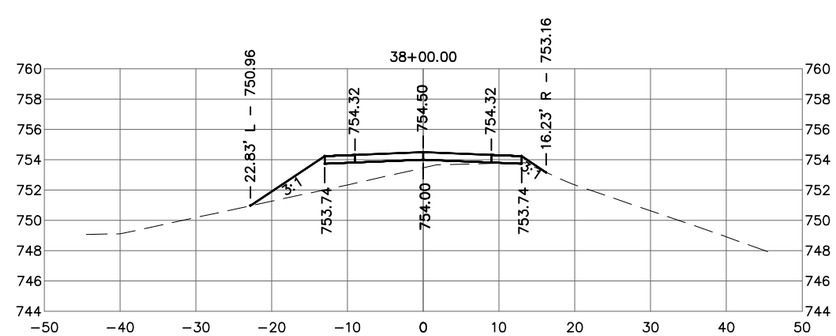

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Drawing Issue Information
Project Mgr: GTB
Issued For Bidding: .
Drawn By: .
Issued For Construction: .

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Sheet No:
C11.07
IIW Project No: 13091

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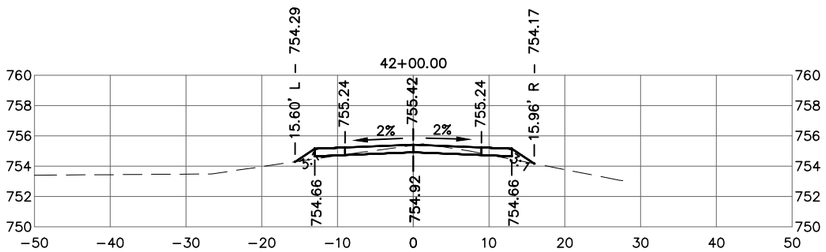

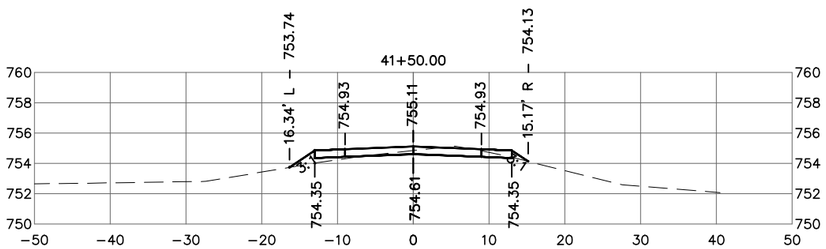

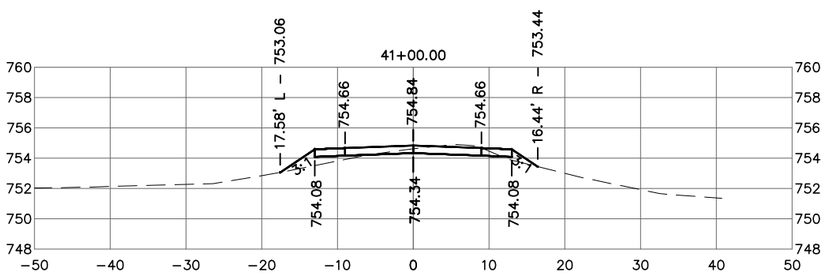

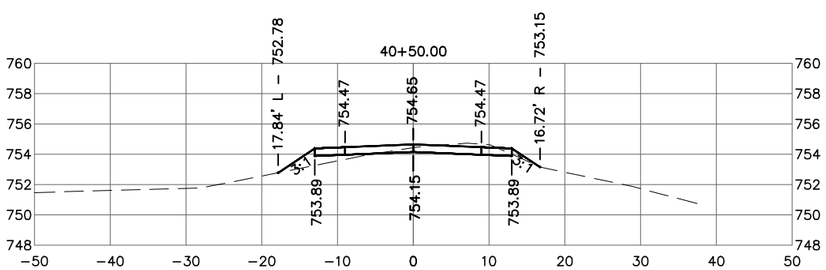

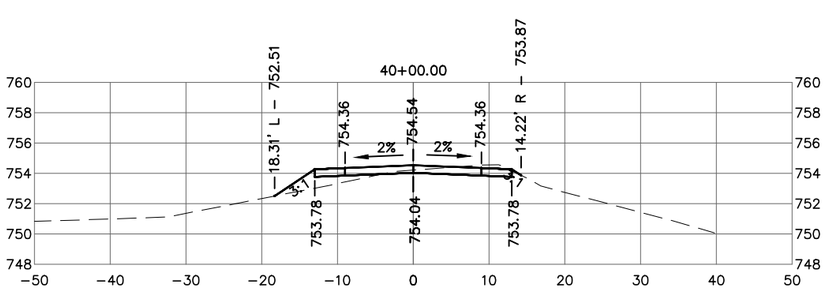

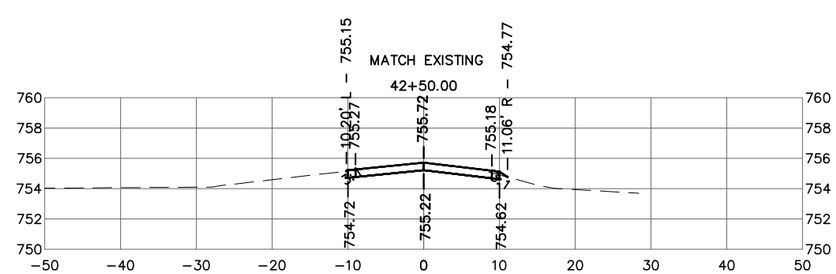

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IIW Project No: 13091