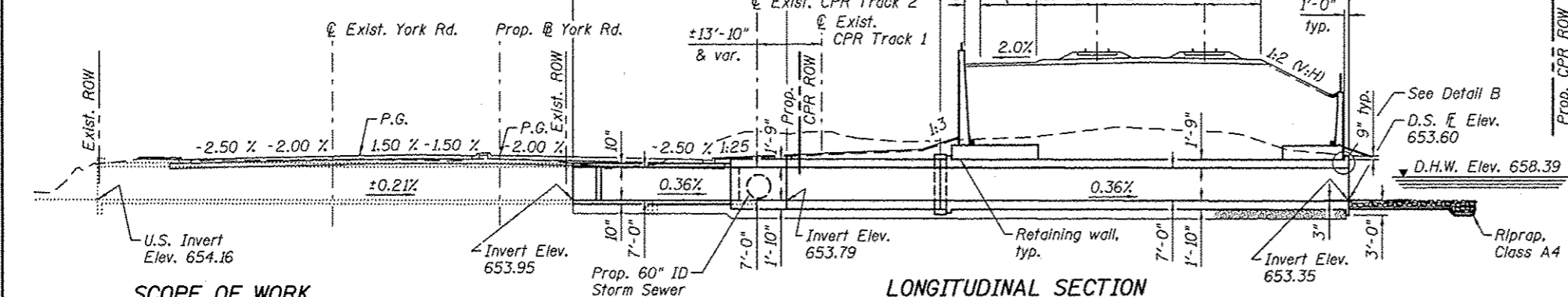


Bench Mark: TBM 10 - Fnd. brass IDOT monument at south side of west headwall of Bensenville Ditch culvert crossing York Rd, approx. 1,200 feet north of IL 19; Elev. 662.75.
 All elevations are NAVD 88.
 Existing Structure: twin 7'H x 10' W x 102' long RC box culvert under York Rd; ±8'H x ±23.5'W x ±22.5' long RC junction chamber; single cell 8'H x 12'W x 60' long RC box culvert under CPR.
 Traffic at York Rd to be maintained utilizing stage construction.
 Precast alternate not allowed.
 No salvage.

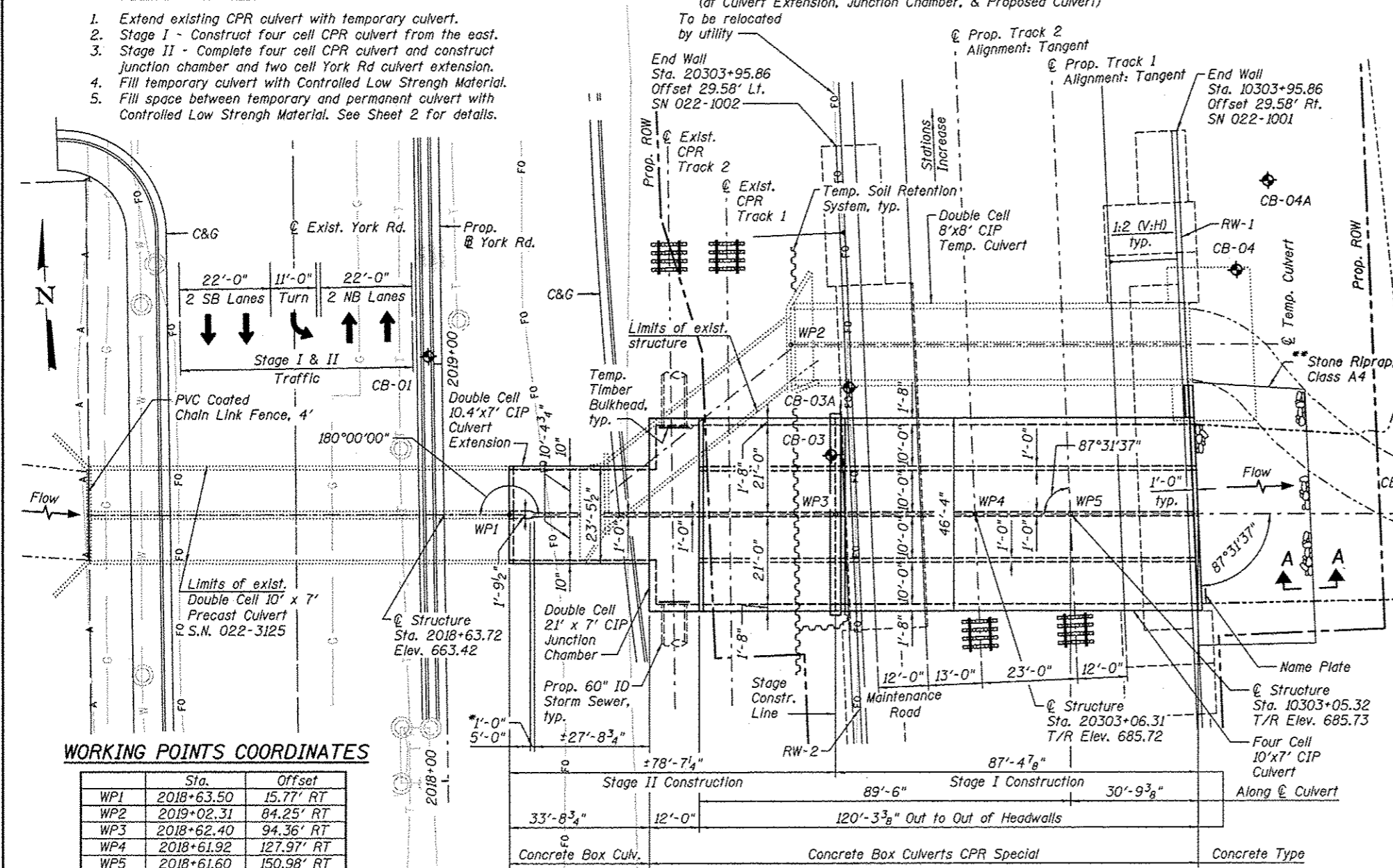


SCOPE OF WORK

1. Extend existing CPR culvert with temporary culvert.
2. Stage I - Construct four cell CPR culvert from the east.
3. Stage II - Complete four cell CPR culvert and construct junction chamber and two cell York Rd culvert extension.
4. Fill temporary culvert with Controlled Low Strength Material.
5. Fill space between temporary and permanent culvert with Controlled Low Strength Material. See Sheet 2 for details.

LONGITUDINAL SECTION

(at Culvert Extension, Junction Chamber, & Proposed Culvert)



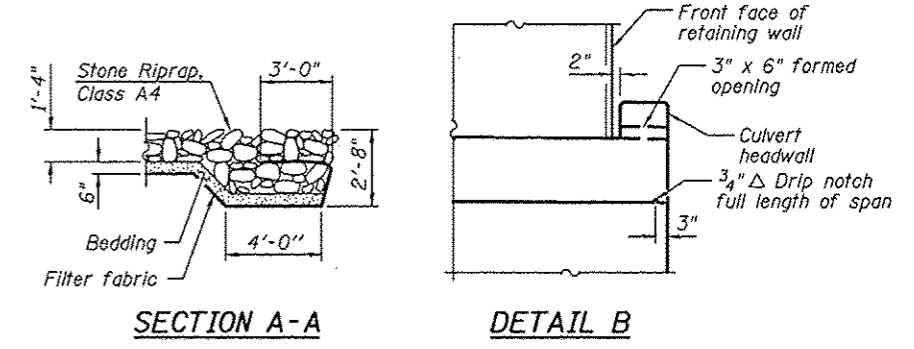
WORKING POINTS COORDINATES

	Sta.	Offset
WP1	2018+63.50	15.77' RT
WP2	2019+02.31	84.25' RT
WP3	2018+62.40	94.36' RT
WP4	2018+61.92	127.97' RT
WP5	2018+61.60	150.98' RT

PLAN

* center wall thickness transition

** See Railroad Erosion Control Plans



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	651.16	650.35

LOADING E100

(Four Cell Culvert)

LOADING HS20-44

Allow 50 psf for future wearing surface. (Culvert Extension & Junction Chamber)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.089g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.152g
 Soil Site Class = D

DESIGN SPECIFICATIONS

2010 AREMA Manual for Railway Engineering
 2006 Canadian Pacific Railway Requirements for Design of Steel and Concrete Bridges
 2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi (Culvert Extension)
 f'_c = 4,500 psi (Junction Chamber & Four Cell Culvert)
 f_y = 60,000 psi (Reinforcement)

APPROVED
 For Structural Adequacy Only
[Signature]
 Engineer of Bridges & Structures



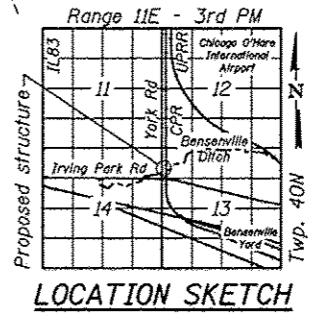
BY: *[Signature]* DATE: 11-02-2012
 HDR ENGINEERING, INC.
 SHTS. 190-199
 LICENSE EXPIRES 11-30-2014

INDEX OF SHEETS

1. General Plan
2. General Data
3. Removal Details
4. Double Cell Box Culvert Extension Details
5. Double Cell Box Culvert Extension Details
6. Junction Chamber Details
7. Junction Chamber Details
8. 4 Cell Box Culvert Details
9. 4 Cell Box Culvert Details
10. 4 Cell Box Culvert Details
11. Soil Boring Logs
12. Soil Boring Logs
13. Soil Boring Logs

GENERAL PLAN

YORK RD. & CPR OVER BENSENVILLE DITCH PUBLIC WATERS
 F.A.P. 345A - SEC. 32VB
 DU PAGE COUNTY
 STATION 2018+63.72
 STRUCTURE NO. 022-3125



LOCATION SKETCH

c:\pwworking\omac\d0464045\0223125-60842-001-CPL.DGN jmlgus

12/3/2012 4:38:02 PM



USER NAME = jmlgus	DESIGNED = DLO	REVISED =
FILE NAME = 0223125-60842-001-CPL.DGN	CHECKED = LJC	REVISED =
PLOT SCALE = NONE	DRAWN = RMA	REVISED =
PLOT DATE = 12/3/2012	CHECKED = LGP	REVISED =

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
 STRUCTURE NO. 022-3125

SHEET NO. 1 OF 13 SHEETS

F.A.P. RTE. 345A	SECTION 32VB	COUNTY DU PAGE	TOTAL SHEETS 388	SHEET NO. 190
CONTRACT NO. GOW01			ILLINOIS FED. AID PROJECT	