### GENERAL NOTES

- The design fill height for this box is 5 ft. the precast box culvert sections shall conform to the requirements of ASTM C 1577.
- Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert and exceed clear spacing of 10 ft. Drain holes shall not intercept the joints between the segments, and shall conform to the requirements of Article 503.11 of the Standard Specification.
- The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
- Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
- Precast concrete box culverts and box culvert end sections shall be back filled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.

### CONSTRUCTION

- Contractor shall not scale dimensions from the contract plans for construction purposes. Scales shown are for information only
- No concrete cutting shall be permitted until the cutting limits have been outlined by the contractor and approved by the engineer
- 3. No construction joints except those shown on the plans shall be allowed unless approved by the engineer.
- It shall be the contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.
- Temporary soil retention systems, sheeting, bracing or cofferdams shall be constructed at the locations shown on the plans and/or as required for the excavation to protect the adjacent areas from settling or failing into the excavated areas.
- The boring logs represent point information. Presentation of this information in no way implies that subsurface conditions are the same at locations other than the exact location of the boring.
- During construction, OSHA requires that a minimum of thirteen (13) feet working clearance must be maintained between the booms, arms or other parts that can be raised on the equipment by the contractor and Comed's existing electric transmission lines. Under no circumstances, should truck beds be raised directly underneath

# CAST-IN-PLACE CONCRETE

All Exposed Concrete Edges shall have a ¾" x 45° chamfer except where shown otherwise Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.

#### REINFORCEMENT BARS

- Including epoxy-coated reinforcement bars, shall conform to the requirements of AASHTO M-31 (ASTM A706),
- 2. Reinforcement bars designated "(E)" shall be epoxy coated.
- Reinforcement bar bending details shall be in accordance with the latest "Manual of Standard Practice for Detailing Reinforced Concrete Structures", ACI 315.
- Reinforcement bar bending dimensions are out to out

## TOTAL BILL OF MATERIAL

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
20700220	220 Porous Granular Embankment		1,061
50200100	00100 Structure Excavation		2,890
54003000	54003000 Concrete Box Culverts		31.9
50800205	Reinforcement Bars, Epoxy Coated	POUND	2,320
51500100	Name Plates	EACH	1
52200015	Permanent Sheet Piling	SQ. FT.	736
52200020	Temporary Soil Retention System	SQ. FT.	1,764
54010805	Precast Concrete Box Culverts 8'x5'	F00T	412.0
54011005	Precast Concrete Box Culverts 10'x5'	F00T	206.0
59100100	Geocomposite Wall Drain	SQ. YD.	766.8
59300100	Controlled Low-Strength Material	CU. YD.	300
X0900064	Membrane Waterproofing For Buried Concrete Structures	SQ. YD.	766.8

## INDEX OF SHEETS

CUL-1 General Plan and Elevation CUL-2 Gneral Notes and Total Bill of Material CUL-3 Stage Construction 1

CUL-4 Stage Construction 2
CUL-5 Typical Sections
CUL-6 Culvert Assembly Sheet
CUL-7 End Sections
CUL-8 End Section Details
CUL-9 Soil Boring 1
CUL-10 Soil Boring 2

CUL-10 Soil Boring 2

## LIST OF ABBREVIATIONS

PConst. E.F. E.F. jt. max. no. PGL req'd. spec. std.	Baseline Centerline Constant Each Face Existing Front Face Joint Maximum Number Profile Grade Line Required Section Specification Standard Typical	B.F. CI. CUL O elev. F. I.F. Iong. min. O.F. prte. spa. sta. struct.	Back Face Clearance Culvert Diameter Elevation Flow Line Inside Face Iongitudinal Minimum Outside Face Proposed Route Spaces Station
typ.	rypicai	struct.	Structure

# LEGEND

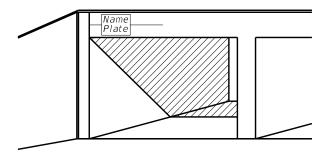
-FO — Existing Fiber Optic — A — Existing Aerial Line - T — Existing Telephone Line — 

Existing Storm Sewer

STATION 105+02 BUILT 202\_ BY STATE OF ILLINOIS LOADING HL-93 STRUCTURE NO. 022-8300

> NAME PLATE See Std. 515001

> > SCALE:



## FOR MULTI-SPAN CULVERTS

(Unless otherwise noted on the plans, name plates are not required for structures less than 20' in length)

Bowman 311 S. Wacker Drive, Suit Chicago, Illnois 60606 312-814-0360

USER NAME = atiemann	DESIGNED -	KJH	REVISED -
	DRAWN -	AHT	REVISED -
PLOT SCALE = 20:0.0000 ':" / in.	CHECKED -	AJN	REVISED -
PLOT DATE = 3/10/2021	DATE -	3/11/2021	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

_	GENERAL NOTES AND TOTAL BILL OF MATERIAL CULVERT - STRUCTURE NO. 022-8300					
	SHEET CUL-2	OF CUL-10 SHEETS	STA.	TO STA.		

SECTION COUNTY 344 2020-196-T DUPAGE 122 57 CONTRACT NO. 62M69